

Oracle Cloud Infrastructure Provider

The Oracle Cloud Infrastructure provider is used to interact with the many resources supported by the Oracle Cloud Infrastructure (<https://cloud.oracle.com/cloud-infrastructure>). The provider needs to be configured with credentials for the Oracle Cloud Infrastructure account.

Use the navigation to the left to read about the available resources.

Example Usage

```
# Configure the Oracle Cloud Infrastructure provider with an API Key
provider "oci" {
  tenancy_ocid = "${var.tenancy_ocid}"
  user_ocid = "${var.user_ocid}"
  fingerprint = "${var.fingerprint}"
  private_key_path = "${var.private_key_path}"
  region = "${var.region}"
}

# Get a list of Availability Domains
data "oci_identity_availability_domains" "ads" {
  compartment_id = "${var.tenancy_ocid}"
}

# Output the result
output "show-ads" {
  value = "${data.oci_identity_availability_domains.ads.availability_domains}"
}
```

Authentication

The OCI provider supports API Key based authentication and Instance Principal based authentication.

API Key based authentication

Calls to OCI using API Key authentication requires that you provide the following credentials:

- `tenancy_ocid` - OCID of your tenancy. To get the value, see Required Keys and OCIDs #Tenancy's OCID (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).
- `user_ocid` - OCID of the user calling the API. To get the value, see Required Keys and OCIDs #User's OCID (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).
- `private_key` - The contents of the private key file, required if `private_key_path` is not defined, takes precedence over `private_key_path` if both are defined. For details on how to create and configure keys see Required Keys and OCIDs #How to Upload the Public Key (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#three>).

- `private_key_path` - The path (including filename) of the private key stored on your computer, required if `private_key` is not defined. For details on how to create and configure keys see Required Keys and OCIDs #How to Upload the Public Key (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#three>).
- `private_key_password` - (Optional) Passphrase used for the key, if it is encrypted.
- `fingerprint` - Fingerprint for the key pair being used. To get the value, see Required Keys and OCIDs #How to Get the Key's Fingerprint (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#four>).
- `region` - An Oracle Cloud Infrastructure region. See Regions and Availability Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>).

Environment variables

It is common to export the above values as environment variables, or source them in different bash profiles when executing Terraform commands. Below are OS specific examples for configuring these environment values.

If you primarily work in a single compartment, consider exporting the compartment OCID as well. The tenancy OCID is also the OCID of the root compartment, and can be used where any compartment id is required.

*nix

If your Terraform configurations are limited to a single compartment or user, then using this `bash_profile` option be sufficient. For more complex environments you may want to maintain multiple sets of environment variables. See the compute single instance example (<https://github.com/oracle/terraform-provider-oci/tree/master/examples/compute/instance>) for more info.

In your `~/.bash_profile` set these variables:

```
export TF_VAR_tenancy_ocid=<value>
export TF_VAR_compartment_ocid=<value>
export TF_VAR_user_ocid=<value>
export TF_VAR_fingerprint=<value>
export TF_VAR_private_key_path=<value>
```

Once you've set these values open a new terminal or source your profile changes: `$ source ~/.bash_profile`

Windows

Configuring for Windows usage is largely the same, with one notable exception: you can use PuttyGen to create the public and private key as shown above, however, you will need to convert them from PPK format to PEM format.

```
setx TF_VAR_tenancy_ocid <value>
setx TF_VAR_compartment_ocid <value>
setx TF_VAR_user_ocid <value>
setx TF_VAR_fingerprint <value>
setx TF_VAR_private_key_path <value>
```

The variables won't be set for the current session, exit the terminal and reopen.

Using the SDK and CLI Configuration File

It is possible to define the required provider values in the same `~/.oci/config` file that the SDKs and CLI support. For details on setting up this configuration see SDK and CLI Configuration File (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/sdkconfig.htm>).

Note: only the `[default]` profile is supported, and the parameter names are slightly different. Provider block from terraform config can be completely removed if all API Key based authentication required values are provided as environment variables, in a `*.tfvars` file or `~/.oci/config`. When using empty provider block, `private_key_password` if required should to be set in `~/.oci/config`.

Instance Principal Authentication

Instance Principal authentication allows you to run Terraform from an OCI Instance within your Tenancy. To enable Instance Principal authentication, set the `auth` attribute to "InstancePrincipal" in the provider definition as below:

```
# Configure the Oracle Cloud Infrastructure provider to use Instance Principal based authentication
provider "oci" {
  auth = "InstancePrincipal"
  region = "${var.region}"
}
```

Note: this configuration will only work when run from an OCI instance. For more information on using Instance Principals, see this document (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/callingservicesfrominstances.htm>).

Testing

Credentials must be provided via the environment variables as shown above in order to run acceptance tests.

Configuring Automatic Retries

While applying, refreshing, or destroying a plan, Terraform may encounter some intermittent OCI errors (such as 429 or 500 errors) that could succeed on retry. By default, the Terraform OCI provider will automatically retry such operations for up to 10 minutes. The following fields can be specified in the provider block to further configure the retry behavior:

- `disable_auto_retries` - Disable automatic retries for retrieable errors.
- `retry_duration_seconds` - The minimum duration (in seconds) to retry a resource operation in response to HTTP 429 and HTTP 500 errors. The actual retry duration may be slightly longer due to jittering of retry operations. This value is ignored if the `disable_auto_retries` field is set to true.

Concurrency Control using Retry Backoff and Jitter

To alleviate contention between parallel operations against OCI services; the Terraform OCI provider schedules retry attempts using quadratic backoff and full jitter. Quadratic backoff increases the maximum interval between subsequent retry attempts, while full jitter randomly selects a retry interval within the backoff range.

For example, the wait time between the 1st and 2nd retry attempts is chosen randomly between 1 and 8 seconds. The wait time between the 2nd and 3rd retry attempts is chosen randomly between 1 and 18 seconds. Regardless of the number of retry attempts, the retry interval time is capped after the 12th attempt at 288 seconds.

Note that the `retry_duration_seconds` field only affects retry duration in response to HTTP 429 and 500 errors; as these errors are more likely to result in success after a long retry duration. Other HTTP errors (such as 400, 401, 403, 404, and 409) are unlikely to succeed on retry. The `retry_duration_seconds` field does not affect the retry behavior for such errors.

Data Source: oci_audit_configuration

This data source provides details about a specific Configuration resource in Oracle Cloud Infrastructure Audit service.

Get the configuration

Example Usage

```
data "oci_audit_configuration" "test_configuration" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) ID of the root compartment (tenancy)

Attributes Reference

The following attributes are exported:

- `retention_period_days` - The retention period setting, specified in days. The minimum is 90, the maximum 365.
Example: 90

Data Source: oci_audit_events

This data source provides the list of Audit Events in Oracle Cloud Infrastructure Audit service.

Returns all the audit events processed for the specified compartment within the specified time range.

Example Usage

```
data "oci_audit_events" "test_audit_events" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  end_time = "${var.audit_event_end_time}"  
  start_time = "${var.audit_event_start_time}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `end_time` - (Required) Returns events that were processed before this end date and time, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format.

For example, a start value of `2017-01-01T00:00:00Z` and an end value of `2017-01-02T00:00:00Z` will retrieve a list of all events processed on January 1, 2017. Similarly, a start value of `2017-01-01T00:00:00Z` and an end value of `2017-02-01T00:00:00Z` will result in a list of all events processed between January 1, 2017 and January 31, 2017. You can specify a value with granularity to the minute. Seconds (and milliseconds, if included) must be set to `0`.

- `start_time` - (Required) Returns events that were processed at or after this start date and time, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format.

For example, a start value of `2017-01-15T11:30:00Z` will retrieve a list of all events processed since 30 minutes after the 11th hour of January 15, 2017, in Coordinated Universal Time (UTC). You can specify a value with granularity to the minute. Seconds (and milliseconds, if included) must be set to `0`.

Attributes Reference

The following attributes are exported:

- `audit_events` - The list of audit_events.

AuditEvent Reference

The following attributes are exported:

- `cloud_events_version` - The version of the CloudEvents specification. The structure of the envelope follows the CloudEvents (<https://github.com/cloudevents/spec>) industry standard format hosted by the Cloud Native Computing Foundation (CNCF) (<https://www.cncf.io/>).

Audit uses version 0.1 specification of the CloudEvents event envelope.

Example: 0.1

- `content_type` - The content type of the data contained in `data`. Example: `application/json`
- `data` -
 - `additional_details` - A container object for attributes unique to the resource emitting the event.

Example:

```
{
  "imageId": "ocid1.image.oc1.phx.<unique_ID>",
  "shape": "VM.Standard1.1",
  "type": "CustomerVmi"
}
```

- `availability_domain` - The availability domain where the resource resides.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment of the resource emitting the event.
- `compartment_name` - The name of the compartment. This value is the friendly name associated with `compartmentId`. This value can change, but the service logs the value that appeared at the time of the audit event. Example: `CompartmentA`
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `event_grouping_id` - This value links multiple audit events that are part of the same API operation. For example, a long running API operations that emit an event at the start and the end of an operation would use the same value in this field for both events.
- `event_name` - Name of the API operation that generated this event. Example: `GetInstance`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `identity` -
 - `auth_type` - The type of authentication used. Example: `natv`
 - `caller_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the caller. The caller that made a request on behalf of the principal.

- `caller_name` - The name of the user or service. This value is the friendly name associated with `callerId`.
- `console_session_id` - This value identifies any Console session associated with this request.
- `credentials` - The credential ID of the user. This value is extracted from the HTTP 'Authorization' request header. It consists of the `tenantId`, `userId`, and user fingerprint, all delimited by a slash (/).
- `ip_address` - The IP address of the source of the request. Example: `172.24.80.88`
- `principal_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the principal.
- `principal_name` - The name of the user or service. This value is the friendly name associated with `principalId`. Example: `ExampleName`
- `tenant_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the tenant.
- `user_agent` - The user agent of the client that made the request. Example: `Jersey/2.23 (URLConnection 1.8.0_212)`

○ `request` -

- `action` - The HTTP method of the request. Example: `GET`
- `headers` - The HTTP header fields and values in the request.

Example:

```

{
  "opc-principal": [
    "{\\"tenantId\\":\\"ocid1.tenancy.oc1.<unique_ID>\",\\"subjectId\\":\\"ocid1.user.oc1.<unique_ID>\",\\"claims\\":[{\\"key\\":\\"ptype\\",\\"value\\":\\"natv\\",\\"issuer\\":\\"authService.oracle.com\\"},{\\"key\\":\\"h_host\\",\\"value\\":\\"iaas.r2.oracleiaas.com\\"},{\\"key\\":\\"h_opc-request-id\\",\\"value\\":\\"<unique_ID>\",\\"issuer\\":\\"h\\"},{\\"key\\":\\"ptype\\",\\"value\\":\\"user\\",\\"issuer\\":\\"authService.oracle.com\\"},{\\"key\\":\\"h_date\\",\\"value\\":\\"Wed, 18 Sep 2019 00:10:58 UTC\\",\\"issuer\\":\\"h\\"},{\\"key\\":\\"h_accept\\",\\"value\\":\\"application/json\\",\\"issuer\\":\\"h\\"},{\\"key\\":\\"authorization\\",\\"value\\":\\"Signature headers=\\\\"date (request-target) host accept opc-request-id\\\\"\\",keyId=\\\\"ocid1.tenancy.oc1.<unique_ID>/ocid1.user.oc1.<unique_ID>/8c:b4:5f:18:e7:ec:db:08:b8:fa:d2:2a:7d:11:76:ac\\\\"\\",algorithm=\\\\"rsa-pss-sha256\\\\"\\",signature=\\\\"<unique_ID>\\\\"\\",version=\\\\"1\\\\"\\",\\"issuer\\":\\"h\\"},{\\"key\\":\\"h_(request-target)\\",\\"value\\":\\"get /20160918/instances/ocid1.instance.oc1.phx.<unique_ID>\",\\"issuer\\":\\"h\\"}]}"
  ],
  "Accept": [
    "application/json"
  ],
  "X-Oracle-Auth-Client-CN": [
    "splat-proxy-se-02302.node.ad2.r2"
  ],
  "X-Forwarded-Host": [
    "compute-api.svc.ad1.r2"
  ],
  "Connection": [
    "close"
  ],
  "User-Agent": [
    "Jersey/2.23 (URLConnection 1.8.0_212)"
  ],
  "X-Forwarded-For": [
    "172.24.80.88"
  ],
  "X-Real-IP": [
    "172.24.80.88"
  ],
  "oci-original-url": [
    "https://iaas.r2.oracleiaas.com/20160918/instances/ocid1.instance.oc1.phx.<unique_ID>"
  ],
  "opc-request-id": [
    "<unique_ID>"
  ],
  "Date": [
    "Wed, 18 Sep 2019 00:10:58 UTC"
  ]
}

```

- id - The opc-request-id of the request.
 - parameters - The parameters supplied by the caller during this operation.
 - path - The full path of the API request. Example: /20160918/instances/ocid1.instance.oc1.phx.<unique_ID>
- resource_id - An OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) or some other ID for the resource emitting the event.

- `resource_name` - The name of the resource emitting the event.
- `response` -
 - `headers` - The headers of the response.

Example:

```
{
  "ETag": [
    "<unique_ID>"
  ],
  "Connection": [
    "close"
  ],
  "Content-Length": [
    "1828"
  ],
  "opc-request-id": [
    "<unique_ID>"
  ],
  "Date": [
    "Wed, 18 Sep 2019 00:10:59 GMT"
  ],
  "Content-Type": [
    "application/json"
  ]
}
```

- `message` - A friendly description of what happened during the operation. Use this for troubleshooting.
- `payload` - This value is included for backward compatibility with the Audit version 1 schema, where it contained metadata of interest from the response payload.

Example:

```
{
  "resourceName": "my_instance",
  "id": "ocid1.instance.oc1.phx.<unique_ID>"
}
```

- `response_time` - The time of the response to the audited request, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2019-09-18T00:10:59.278Z
- `status` - The status code of the response. Example: 200
- `state_change` -
 - `current` - Provides the current state of fields that may have changed during an operation. To determine how the current operation changed a resource, compare the information in this attribute to `previous`.

- `previous` - Provides the previous state of fields that may have changed during an operation. To determine how the current operation changed a resource, compare the information in this attribute to `current`.

- `event_id` - The GUID of the event.
- `event_time` - The time the event occurred, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2019-09-18T00:10:59.252Z
- `event_type` - The type of event that happened.

The service that produces the event can also add, remove, or change the meaning of a field. A service implementing these type changes would publish a new version of an `eventType` and revise the `eventTypeVersion` field.

Example: `com.oraclecloud.ComputeApi.GetInstance`

- `event_type_version` - The version of the event type. This version applies to the payload of the event, not the envelope. Use `cloudEventsVersion` to determine the version of the envelope. Example: 2.0
- `source` - The source of the event. Example: `ComputeApi`

Data Source: oci_autoscaling_auto_scaling_configuration

This data source provides details about a specific Auto Scaling Configuration resource in Oracle Cloud Infrastructure Auto Scaling service.

Gets information about the specified autoscaling configuration.

Example Usage

```
data "oci_autoscaling_auto_scaling_configuration" "test_auto_scaling_configuration" {  
    #Required  
    auto_scaling_configuration_id = "${oci_autoscaling_auto_scaling_configuration.test_auto_scaling_conf  
uration.id}"  
}
```

Argument Reference

The following arguments are supported:

- `auto_scaling_configuration_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the autoscaling configuration.

Attributes Reference

The following attributes are exported:

- `auto_scaling_resources` -
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the resource that is managed by the autoscaling configuration.
 - `type` - The type of resource.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the autoscaling configuration.
- `cool_down_in_seconds` - The minimum period of time to wait between scaling actions. The cooldown period gives the system time to stabilize before rescaling. The minimum value is 300 seconds, which is also the default.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the autoscaling configuration.
- **is_enabled** - Whether the autoscaling configuration is enabled.
- **policies** - Autoscaling policy definitions for the autoscaling configuration. An autoscaling policy defines the criteria that trigger autoscaling actions and the actions to take.

Each autoscaling configuration can have one autoscaling policy.

- **capacity** - The capacity requirements of the autoscaling policy.
 - **initial** - The initial number of instances to launch in the instance pool immediately after autoscaling is enabled. After autoscaling retrieves performance metrics, the number of instances is automatically adjusted from this initial number to a number that is based on the limits that you set.
 - **max** - The maximum number of instances the instance pool is allowed to increase to (scale out).
 - **min** - The minimum number of instances the instance pool is allowed to decrease to (scale in).
 - **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - **id** - The ID of the autoscaling policy that is assigned after creation.
 - **policy_type** - The type of autoscaling policy.
 - **rules** -
 - **action** -
 - **type** - The type of action to take.
 - **value** - To scale out (increase the number of instances), provide a positive value. To scale in (decrease the number of instances), provide a negative value.
 - **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - **id** - ID of the condition that is assigned after creation.
 - **metric** -
 - **metric_type** -
 - **threshold** -
 - **operator** - The comparison operator to use. Options are greater than (GT), greater than or equal to (GTE), less than (LT), and less than or equal to (LTE).
 - **value** -
 - **time_created** - The date and time the autoscaling configuration was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- **time_created** - The date and time the AutoScalingConfiguration was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_autoscaling_auto_scaling_configurations

This data source provides the list of Auto Scaling Configurations in Oracle Cloud Infrastructure Auto Scaling service.

Lists autoscaling configurations in the specified compartment.

Example Usage

```
data "oci_autoscaling_auto_scaling_configurations" "test_auto_scaling_configurations" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.auto_scaling_configuration_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric that you are searching for. Use `tenancyId` to search in the root compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.

Attributes Reference

The following attributes are exported:

- `auto_scaling_configurations` - The list of `auto_scaling_configurations`.

AutoScalingConfiguration Reference

The following attributes are exported:

- `auto_scaling_resources` -
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the resource that is managed by the autoscaling configuration.
 - `type` - The type of resource.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the autoscaling configuration.
- `cool_down_in_seconds` - The minimum period of time to wait between scaling actions. The cooldown period gives

the system time to stabilize before rescaling. The minimum value is 300 seconds, which is also the default.

- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the autoscaling configuration.
- **is_enabled** - Whether the autoscaling configuration is enabled.
- **policies** - AutoScaling policy definitions for the autoscaling configuration. An autoscaling policy defines the criteria that trigger autoscaling actions and the actions to take.
- **time_created** - The date and time the AutoScalingConfiguration was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_budget_alert_rule

This data source provides details about a specific Alert Rule resource in Oracle Cloud Infrastructure Budget service.

Gets an Alert Rule for a specified Budget.

Example Usage

```
data "oci_budget_alert_rule" "test_alert_rule" {  
  #Required  
  alert_rule_id = "${oci_budget_alert_rule.test_alert_rule.id}"  
  budget_id = "${oci_budget_budget.test_budget.id}"  
}
```

Argument Reference

The following arguments are supported:

- `alert_rule_id` - (Required) The unique Alert Rule OCID
- `budget_id` - (Required) The unique Budget OCID

Attributes Reference

The following attributes are exported:

- `budget_id` - The OCID of the budget
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the alert rule.
- `display_name` - The name of the alert rule.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the alert rule
- `message` - Custom message that will be sent when alert is triggered
- `recipients` - Delimited list of email addresses to receive the alert when it triggers. Delimiter character can be comma, space, TAB, or semicolon.
- `state` - The current state of the alert rule.

- `threshold` - The threshold for triggering the alert. If `thresholdType` is `PERCENTAGE`, the maximum value is 10000.
- `threshold_type` - The type of threshold.
- `time_created` - Time when budget was created
- `time_updated` - Time when budget was updated
- `type` - The type of alert. Valid values are `ACTUAL` (the alert will trigger based on actual usage) or `FORECAST` (the alert will trigger based on predicted usage).
- `version` - Version of the alert rule. Starts from 1 and increments by 1.

Data Source: oci_budget_alert_rules

This data source provides the list of Alert Rules in Oracle Cloud Infrastructure Budget service.

Returns a list of Alert Rules for a specified Budget.

Example Usage

```
data "oci_budget_alert_rules" "test_alert_rules" {  
  #Required  
  budget_id = "${oci_budget_budget.test_budget.id}"  
  
  #Optional  
  display_name = "${var.alert_rule_display_name}"  
  state = "${var.alert_rule_state}"  
}
```

Argument Reference

The following arguments are supported:

- `budget_id` - (Required) The unique Budget OCID
- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Example: `My new resource`
- `state` - (Optional) The current state of the resource to filter by.

Attributes Reference

The following attributes are exported:

- `alert_rules` - The list of alert_rules.

AlertRule Reference

The following attributes are exported:

- `budget_id` - The OCID of the budget
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the alert rule.
- `display_name` - The name of the alert rule.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the alert rule
- `message` - Custom message that will be sent when alert is triggered
- `recipients` - Delimited list of email addresses to receive the alert when it triggers. Delimiter character can be comma, space, TAB, or semicolon.
- `state` - The current state of the alert rule.
- `threshold` - The threshold for triggering the alert. If `thresholdType` is PERCENTAGE, the maximum value is 10000.
- `threshold_type` - The type of threshold.
- `time_created` - Time when budget was created
- `time_updated` - Time when budget was updated
- `type` - The type of alert. Valid values are ACTUAL (the alert will trigger based on actual usage) or FORECAST (the alert will trigger based on predicted usage).
- `version` - Version of the alert rule. Starts from 1 and increments by 1.

Data Source: oci_budget_budget

This data source provides details about a specific Budget resource in Oracle Cloud Infrastructure Budget service.

Gets a Budget by identifier

Example Usage

```
data "oci_budget_budget" "test_budget" {  
  #Required  
  budget_id = "${oci_budget_budget.test_budget.id}"  
}
```

Argument Reference

The following arguments are supported:

- `budget_id` - (Required) The unique Budget OCID

Attributes Reference

The following attributes are exported:

- `actual_spend` - The actual spend in currency for the current budget cycle
- `alert_rule_count` - Total number of alert rules in the budget
- `amount` - The amount of the budget expressed in the currency of the customer's rate card.
- `compartment_id` - The OCID of the tenancy
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the budget.
- `display_name` - The display name of the budget.
- `forecasted_spend` - The forecasted spend in currency by the end of the current budget cycle
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the budget
- `reset_period` - The reset period for the budget.

- `state` - The current state of the budget.
- `target_compartment_id` - This is DEPRECATED. For backwards compatability, the property will be populated when `targetType` is "COMPARTMENT" AND `targets` contains EXACT ONE target compartment `ocid`. For all other scenarios, this property will be left empty.
- `target_type` - The type of target on which the budget is applied.
- `targets` - The list of targets on which the budget is applied. If `targetType` is "COMPARTMENT", `targets` contains list of compartment OCIDs. If `targetType` is "TAG", `targets` contains list of tag identifiers in the form of "{tagNamespace}.{tagKey}.{tagValue}".
- `time_created` - Time that budget was created
- `time_spend_computed` - The time that the budget spend was last computed
- `time_updated` - Time that budget was updated
- `version` - Version of the budget. Starts from 1 and increments by 1.

Data Source: oci_budget_budgets

This data source provides the list of Budgets in Oracle Cloud Infrastructure Budget service.

Gets a list of Budgets in a compartment.

By default, ListBudgets returns budgets of 'COMPARTMENT' target type and the budget records with only ONE target compartment OCID.

To list ALL budgets, set the targetType query parameter to ALL. Example: 'targetType=ALL'

Additional targetTypes would be available in future releases. Clients should ignore new targetType or upgrade to latest version of client SDK to handle new targetType.

Example Usage

```
data "oci_budget_budgets" "test_budgets" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  display_name = "${var.budget_display_name}"  
  state = "${var.budget_state}"  
  target_type = "${var.budget_target_type}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The ID of the compartment in which to list resources.
- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Example: `My new resource`
- `state` - (Optional) The current state of the resource to filter by.
- `target_type` - (Optional) The type of target to filter by.
 - ALL - List all budgets
 - COMPARTMENT - List all budgets with targetType == "COMPARTMENT"
 - TAG - List all budgets with targetType == "TAG"

Attributes Reference

The following attributes are exported:

- `budgets` - The list of budgets.

Budget Reference

The following attributes are exported:

- `actual_spend` - The actual spend in currency for the current budget cycle
- `alert_rule_count` - Total number of alert rules in the budget
- `amount` - The amount of the budget expressed in the currency of the customer's rate card.
- `compartment_id` - The OCID of the compartment
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the budget.
- `display_name` - The display name of the budget.
- `forecasted_spend` - The forecasted spend in currency by the end of the current budget cycle
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the budget
- `reset_period` - The reset period for the budget.
- `state` - The current state of the budget.
- `target_compartment_id` - This is DEPRECATED. For backwards compatability, the property will be populated when `targetType` is "COMPARTMENT" AND `targets` contains EXACT ONE target compartment ocid. For all other scenarios, this property will be left empty.
- `target_type` - The type of target on which the budget is applied.
- `targets` - The list of targets on which the budget is applied. If `targetType` is "COMPARTMENT", `targets` contains list of compartment OCIDs. If `targetType` is "TAG", `targets` contains list of tag identifiers in the form of `"{tagNamespace}.{tagKey}.{tagValue}"`.
- `time_created` - Time that budget was created
- `time_spend_computed` - The time that the budget spend was last computed
- `time_updated` - Time that budget was updated
- `version` - Version of the budget. Starts from 1 and increments by 1.

Data Source: oci_containerengine_cluster_kube_config

This data source provides details about a specific Cluster Kube Config resource in Oracle Cloud Infrastructure Container Engine service.

Create the Kubeconfig YAML for a cluster.

Example Usage

```
data "oci_containerengine_cluster_kube_config" "test_cluster_kube_config" {  
  #Required  
  cluster_id = "${oci_containerengine_cluster.test_cluster.id}"  
  
  #Optional  
  expiration = "${var.cluster_kube_config_expiration}"  
  token_version = "${var.cluster_kube_config_token_version}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_id` - (Required) The OCID of the cluster.
- `expiration` - (Optional) The desired expiration, in seconds, to use for the kubeconfig token. Important Note, expiration field is only honored for token version 1.0.0
- `token_version` - (Optional) The version of the kubeconfig token. Supported values 1.0.0 and 2.0.0

Attributes Reference

The following attributes are exported:

- `content` - content of the Kubeconfig YAML for the cluster.

Data Source: oci_containerengine_cluster_option

This data source provides details about a specific Cluster Option resource in Oracle Cloud Infrastructure Container Engine service.

Get options available for clusters.

Example Usage

```
data "oci_containerengine_cluster_option" "test_cluster_option" {  
  #Required  
  cluster_option_id = "${oci_containerengine_cluster_option.test_cluster_option.id}"  
}
```

Argument Reference

The following arguments are supported:

- cluster_option_id - (Required) The id of the option set to retrieve. Only "all" is supported.

Attributes Reference

The following attributes are exported:

- kubernetes_versions - Available Kubernetes versions.

Data Source: oci_containerengine_clusters

This data source provides the list of Clusters in Oracle Cloud Infrastructure Container Engine service.

List all the cluster objects in a compartment.

Example Usage

```
data "oci_containerengine_clusters" "test_clusters" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  name = "${var.cluster_name}"  
  state = "${var.cluster_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `name` - (Optional) The name to filter on.
- `state` - (Optional) A cluster lifecycle state to filter on. Can have multiple parameters of this name.

Attributes Reference

The following attributes are exported:

- `clusters` - The list of clusters.

Cluster Reference

The following attributes are exported:

- `available_kubernetes_upgrades` - Available Kubernetes versions to which the clusters masters may be upgraded.
- `compartment_id` - The OCID of the compartment in which the cluster exists.
- `endpoints` - Endpoints served up by the cluster masters.
 - `kubernetes` - The Kubernetes API server endpoint.
- `id` - The OCID of the cluster.
- `kms_key_id` - The OCID of the KMS key to be used as the master encryption key for Kubernetes secret encryption.

- `kubernetes_version` - The version of Kubernetes running on the cluster masters.
- `lifecycle_details` - Details about the state of the cluster masters.
- `metadata` - Metadata about the cluster.
 - `created_by_user_id` - The user who created the cluster.
 - `created_by_work_request_id` - The OCID of the work request which created the cluster.
 - `deleted_by_user_id` - The user who deleted the cluster.
 - `deleted_by_work_request_id` - The OCID of the work request which deleted the cluster.
 - `time_created` - The time the cluster was created.
 - `time_deleted` - The time the cluster was deleted.
 - `time_updated` - The time the cluster was updated.
 - `updated_by_user_id` - The user who updated the cluster.
 - `updated_by_work_request_id` - The OCID of the work request which updated the cluster.
- `name` - The name of the cluster.
- `options` - Optional attributes for the cluster.
 - `add_ons` - Configurable cluster add-ons
 - `is_kubernetes_dashboard_enabled` - Whether or not to enable the Kubernetes Dashboard add-on.
 - `is_tiller_enabled` - Whether or not to enable the Tiller add-on.
 - `kubernetes_network_config` - Network configuration for Kubernetes.
 - `Pods_cidr` - The CIDR block for Kubernetes pods.
 - `services_cidr` - The CIDR block for Kubernetes services.
 - `service_lb_subnet_ids` - The OCIDs of the subnets used for Kubernetes services load balancers.
- `state` - The state of the cluster masters.
- `vcn_id` - The OCID of the virtual cloud network (VCN) in which the cluster exists.

Data Source: oci_containerengine_node_pool

This data source provides details about a specific Node Pool resource in Oracle Cloud Infrastructure Container Engine service.

Get the details of a node pool.

Example Usage

```
data "oci_containerengine_node_pool" "test_node_pool" {  
  #Required  
  node_pool_id = "${oci_containerengine_node_pool.test_node_pool.id}"  
}
```

Argument Reference

The following arguments are supported:

- `node_pool_id` - (Required) The OCID of the node pool.

Attributes Reference

The following attributes are exported:

- `cluster_id` - The OCID of the cluster to which this node pool is attached.
- `compartment_id` - The OCID of the compartment in which the node pool exists.
- `id` - The OCID of the node pool.
- `initial_node_labels` - A list of key/value pairs to add to nodes after they join the Kubernetes cluster.
 - `key` - The key of the pair.
 - `value` - The value of the pair.
- `kubernetes_version` - The version of Kubernetes running on the nodes in the node pool.
- `name` - The name of the node pool.
- `node_config_details` - The configuration of nodes in the node pool.
 - `placement_configs` - The placement configurations for the node pool. Provide one placement configuration for each availability domain in which you intend to launch a node.

To use the node pool with a regional subnet, provide a placement configuration for each availability domain, and include the regional subnet in each placement configuration.

- `availability_domain` - The availability domain in which to place nodes. Example: `Uocm:PHX-AD-1`

- `subnet_id` - The OCID of the subnet in which to place nodes.
- `size` - The number of nodes in the node pool.
- `node_image_id` - The OCID of the image running on the nodes in the node pool.
- `node_image_name` - The name of the image running on the nodes in the node pool.
- `node_metadata` - A list of key/value pairs to add to each underlying Oracle Cloud Infrastructure instance in the node pool.
- `node_shape` - The name of the node shape of the nodes in the node pool.
- `nodes` - The nodes in the node pool.
 - `availability_domain` - The name of the availability domain in which this node is placed.
 - `error` - An error that may be associated with the node.
 - `code` - A short error code that defines the upstream error, meant for programmatic parsing. See API Errors (<https://docs.cloud.oracle.com/iaas/Content/API/References/apierrors.htm>).
 - `message` - A human-readable error string of the upstream error.
 - `status` - The status of the HTTP response encountered in the upstream error.
 - `id` - The OCID of the compute instance backing this node.
 - `lifecycle_details` - Details about the state of the node.
 - `name` - The name of the node.
 - `node_pool_id` - The OCID of the node pool to which this node belongs.
 - `public_ip` - The public IP address of this node.
 - `state` - The state of the node.
 - `subnet_id` - The OCID of the subnet in which this node is placed.
- `quantity_per_subnet` - The number of nodes in each subnet.
- `ssh_public_key` - The SSH public key on each node in the node pool.
- `subnet_ids` - The OCIDs of the subnets in which to place nodes for this node pool.

Data Source: oci_containerengine_node_pool_option

This data source provides details about a specific Node Pool Option resource in Oracle Cloud Infrastructure Container Engine service.

Get options available for node pools.

Example Usage

```
data "oci_containerengine_node_pool_option" "test_node_pool_option" {  
  #Required  
  node_pool_option_id = "${oci_containerengine_node_pool_option.test_node_pool_option.id}"  
}
```

Argument Reference

The following arguments are supported:

- `node_pool_option_id` - (Required) The id of the option set to retrieve. Use "all" get all options, or use a cluster ID to get options specific to the provided cluster.

Attributes Reference

The following attributes are exported:

- `images` - Available image names.
- `kubernetes_versions` - Available Kubernetes versions.
- `shapes` - Available shapes for nodes.

Data Source: oci_containerengine_node_pools

This data source provides the list of Node Pools in Oracle Cloud Infrastructure Container Engine service.

List all the node pools in a compartment, and optionally filter by cluster.

Example Usage

```
data "oci_containerengine_node_pools" "test_node_pools" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  cluster_id = "${oci_containerengine_cluster.test_cluster.id}"  
  name = "${var.node_pool_name}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_id` - (Optional) The OCID of the cluster.
- `compartment_id` - (Required) The OCID of the compartment.
- `name` - (Optional) The name to filter on.

Attributes Reference

The following attributes are exported:

- `node_pools` - The list of node_pools.

NodePool Reference

The following attributes are exported:

- `cluster_id` - The OCID of the cluster to which this node pool is attached.
- `compartment_id` - The OCID of the compartment in which the node pool exists.
- `id` - The OCID of the node pool.
- `initial_node_labels` - A list of key/value pairs to add to nodes after they join the Kubernetes cluster.
 - `key` - The key of the pair.
 - `value` - The value of the pair.

- `kubernetes_version` - The version of Kubernetes running on the nodes in the node pool.
- `name` - The name of the node pool.
- `node_config_details` - The configuration of nodes in the node pool.
 - `placement_configs` - The placement configurations for the node pool. Provide one placement configuration for each availability domain in which you intend to launch a node.

To use the node pool with a regional subnet, provide a placement configuration for each availability domain, and include the regional subnet in each placement configuration.

- `availability_domain` - The availability domain in which to place nodes. Example: `Uocm:PHX-AD-1`
 - `subnet_id` - The OCID of the subnet in which to place nodes.
- `size` - The number of nodes in the node pool.
- `node_image_id` - The OCID of the image running on the nodes in the node pool.
- `node_image_name` - The name of the image running on the nodes in the node pool.
- `node_metadata` - A list of key/value pairs to add to each underlying Oracle Cloud Infrastructure instance in the node pool.
- `node_shape` - The name of the node shape of the nodes in the node pool.
- `nodes` - The nodes in the node pool.
 - `availability_domain` - The name of the availability domain in which this node is placed.
 - `error` - An error that may be associated with the node.
 - `code` - A short error code that defines the upstream error, meant for programmatic parsing. See API Errors (<https://docs.cloud.oracle.com/iaas/Content/API/References/apierrors.htm>).
 - `message` - A human-readable error string of the upstream error.
 - `status` - The status of the HTTP response encountered in the upstream error.
 - `id` - The OCID of the compute instance backing this node.
 - `lifecycle_details` - Details about the state of the node.
 - `name` - The name of the node.
 - `node_pool_id` - The OCID of the node pool to which this node belongs.
 - `public_ip` - The public IP address of this node.
 - `state` - The state of the node.
 - `subnet_id` - The OCID of the subnet in which this node is placed.
- `quantity_per_subnet` - The number of nodes in each subnet.
- `ssh_public_key` - The SSH public key on each node in the node pool.
- `subnet_ids` - The OCIDs of the subnets in which to place nodes for this node pool.

Data Source: oci_containerengine_work_request_errors

This data source provides the list of Work Request Errors in Oracle Cloud Infrastructure Container Engine service.

Get the errors of a work request.

Example Usage

```
data "oci_containerengine_work_request_errors" "test_work_request_errors" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  work_request_id = "${oci_containerengine_work_request.test_work_request.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `work_request_id` - (Required) The OCID of the work request.

Attributes Reference

The following attributes are exported:

- `work_request_errors` - The list of work_request_errors.

WorkRequestError Reference

The following attributes are exported:

- `code` - A short error code that defines the error, meant for programmatic parsing. See API Errors (<https://docs.cloud.oracle.com/iaas/Content/API/References/apierrors.htm>).
- `message` - A human-readable error string.
- `timestamp` - The date and time the error occurred.

Data Source:

oci_containerengine_work_request_log_entries

This data source provides the list of Work Request Log Entries in Oracle Cloud Infrastructure Container Engine service.

Get the logs of a work request.

Example Usage

```
data "oci_containerengine_work_request_log_entries" "test_work_request_log_entries" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  work_request_id = "${oci_containerengine_work_request.test_work_request.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `work_request_id` - (Required) The OCID of the work request.

Attributes Reference

The following attributes are exported:

- `work_request_log_entries` - The list of `work_request_log_entries`.

WorkRequestLogEntry Reference

The following attributes are exported:

- `message` - The description of an action that occurred.
- `timestamp` - The date and time the log entry occurred.

Data Source: oci_containerengine_work_requests

This data source provides the list of Work Requests in Oracle Cloud Infrastructure Container Engine service.

List all work requests in a compartment.

Example Usage

```
data "oci_containerengine_work_requests" "test_work_requests" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  cluster_id = "${oci_containerengine_cluster.test_cluster.id}"  
  resource_id = "${oci_containerengine_resource.test_resource.id}"  
  resource_type = "${var.work_request_resource_type}"  
  status = "${var.work_request_status}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_id` - (Optional) The OCID of the cluster.
- `compartment_id` - (Required) The OCID of the compartment.
- `resource_id` - (Optional) The OCID of the resource associated with a work request
- `resource_type` - (Optional) Type of the resource associated with a work request
- `status` - (Optional) A work request status to filter on. Can have multiple parameters of this name.

Attributes Reference

The following attributes are exported:

- `work_requests` - The list of work_requests.

WorkRequest Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment in which the work request exists.
- `id` - The OCID of the work request.
- `operation_type` - The type of work the work request is doing.

- `resources` - The resources this work request affects.
 - `action_type` - The way in which this resource was affected by the work tracked by the work request.
 - `entity_type` - The resource type the work request affects.
 - `entity_uri` - The URI path on which the user can issue a GET request to access the resource metadata.
 - `identifier` - The OCID of the resource the work request affects.
- `status` - The current status of the work request.
- `time_accepted` - The time the work request was accepted.
- `time_finished` - The time the work request was finished.
- `time_started` - The time the work request was started.

Data Source: oci_core_app_catalog_listing

This data source provides details about a specific App Catalog Listing resource in Oracle Cloud Infrastructure Core service.

Gets the specified listing.

Example Usage

```
data "oci_core_app_catalog_listing" "test_app_catalog_listing" {  
  #Required  
  listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
}
```

Argument Reference

The following arguments are supported:

- `listing_id` - (Required) The OCID of the listing.

Attributes Reference

The following attributes are exported:

- `contact_url` - Listing's contact URL.
- `description` - Description of the listing.
- `display_name` - The display name of the listing.
- `listing_id` - the region free ocid of the listing resource.
- `publisher_logo_url` - Publisher's logo URL.
- `publisher_name` - The name of the publisher who published this listing.
- `summary` - The short summary for the listing.
- `time_published` - Date and time the listing was published, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Data Source:

oci_core_app_catalog_listing_resource_version

This data source provides details about a specific App Catalog Listing Resource Version resource in Oracle Cloud Infrastructure Core service.

Gets the specified listing resource version.

Example Usage

```
data "oci_core_app_catalog_listing_resource_version" "test_app_catalog_listing_resource_version" {  
  #Required  
  listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
  resource_version = "${var.app_catalog_listing_resource_version_resource_version}"  
}
```

Argument Reference

The following arguments are supported:

- `listing_id` - (Required) The OCID of the listing.
- `resource_version` - (Required) Listing Resource Version.

Attributes Reference

The following attributes are exported:

- `accessible_ports` - List of accessible ports for instances launched with this listing resource version.
- `allowed_actions` - Allowed actions for the listing resource.
- `available_regions` - List of regions that this listing resource version is available.

For information about Regions, see [Regions](#)

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>).

Example: `["us-ashburn-1", "us-phoenix-1"]`

- `compatible_shapes` - Array of shapes compatible with this resource.

You may enumerate all available shapes by calling `ListShapes`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

Example: `["VM.Standard1.1", "VM.Standard1.2"]`

- `listing_id` - The OCID of the listing this resource version belongs to.
- `listing_resource_id` - OCID of the listing resource.

- `listing_resource_version` - Resource Version.
- `time_published` - Date and time the listing resource version was published, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Data Source:

oci_core_app_catalog_listing_resource_versions

This data source provides the list of App Catalog Listing Resource Versions in Oracle Cloud Infrastructure Core service.

Gets all resource versions for a particular listing.

Example Usage

```
data "oci_core_app_catalog_listing_resource_versions" "test_app_catalog_listing_resource_versions" {  
  #Required  
  listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
}
```

Argument Reference

The following arguments are supported:

- `listing_id` - (Required) The OCID of the listing.

Attributes Reference

The following attributes are exported:

- `app_catalog_listing_resource_versions` - The list of `app_catalog_listing_resource_versions`.

AppCatalogListingResourceVersion Reference

The following attributes are exported:

- `accessible_ports` - List of accessible ports for instances launched with this listing resource version.
- `allowed_actions` - Allowed actions for the listing resource.
- `available_regions` - List of regions that this listing resource version is available.

For information about Regions, see [Regions](#)

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>).

Example: ["us-ashburn-1", "us-phoenix-1"]

- `compatible_shapes` - Array of shapes compatible with this resource.

You may enumerate all available shapes by calling `ListShapes`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

Example: ["VM.Standard1.1", "VM.Standard1.2"]

- `listing_id` - The OCID of the listing this resource version belongs to.
- `listing_resource_id` - OCID of the listing resource.
- `listing_resource_version` - Resource Version.
- `time_published` - Date and time the listing resource version was published, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Data Source: oci_core_app_catalog_listings

This data source provides the list of App Catalog Listings in Oracle Cloud Infrastructure Core service.

Lists the published listings.

Example Usage

```
data "oci_core_app_catalog_listings" "test_app_catalog_listings" {  
  
  #Optional  
  display_name = "${var.app_catalog_listing_display_name}"  
  publisher_name = "${var.app_catalog_listing_publisher_name}"  
  publisher_type = "${var.app_catalog_listing_publisher_type}"  
}
```

Argument Reference

The following arguments are supported:

- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `publisher_name` - (Optional) A filter to return only the publisher that matches the given publisher name exactly.
- `publisher_type` - (Optional) A filter to return only publishers that match the given publisher type exactly. Valid types are OCI, ORACLE, TRUSTED, STANDARD.

Attributes Reference

The following attributes are exported:

- `app_catalog_listings` - The list of app_catalog_listings.

AppCatalogListing Reference

The following attributes are exported:

- `contact_url` - Listing's contact URL.
- `description` - Description of the listing.
- `display_name` - The display name of the listing.
- `listing_id` - the region free ocid of the listing resource.
- `publisher_logo_url` - Publisher's logo URL.
- `publisher_name` - The name of the publisher who published this listing.

- `summary` - The short summary for the listing.
- `time_published` - Date and time the listing was published, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Data Source: oci_core_app_catalog_subscriptions

This data source provides the list of App Catalog Subscriptions in Oracle Cloud Infrastructure Core service.

Lists subscriptions for a compartment.

Example Usage

```
data "oci_core_app_catalog_subscriptions" "test_app_catalog_subscriptions" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `listing_id` - (Optional) A filter to return only the listings that matches the given listing id.

Attributes Reference

The following attributes are exported:

- `app_catalog_subscriptions` - The list of `app_catalog_subscriptions`.

AppCatalogSubscription Reference

The following attributes are exported:

- `compartment_id` - The compartmentID of the subscription.
- `display_name` - The display name of the listing.
- `listing_id` - The ocid of the listing resource.
- `listing_resource_id` - Listing resource id.
- `listing_resource_version` - Listing resource version.
- `publisher_name` - Name of the publisher who published this listing.
- `summary` - The short summary to the listing.

- `time_created` - Date and time at which the subscription was created, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Data Source: oci_core_boot_volume_attachments

This data source provides the list of Boot Volume Attachments in Oracle Cloud Infrastructure Core service.

Lists the boot volume attachments in the specified compartment. You can filter the list by specifying an instance OCID, boot volume OCID, or both.

Example Usage

```
data "oci_core_boot_volume_attachments" "test_boot_volume_attachments" {  
  #Required  
  availability_domain = "${var.boot_volume_attachment_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  boot_volume_id = "${oci_core_boot_volume.test_boot_volume.id}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
}
```

For more detailed implementation refer the instance example (<https://github.com/oracle/terraform-provider-oci/tree/master/examples/compute/instance>)

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availability domain. Example: Uocm:PHX-AD-1
- `boot_volume_id` - (Optional) The OCID of the boot volume.
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_id` - (Optional) The OCID of the instance.

Attributes Reference

The following attributes are exported:

- `boot_volume_attachments` - The list of boot_volume_attachments.

BootVolumeAttachment Reference

The following attributes are exported:

- `availability_domain` - The availability domain of an instance. Example: Uocm:PHX-AD-1

- `boot_volume_id` - The OCID of the boot volume.
- `compartment_id` - The OCID of the compartment.
- `display_name` - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information. Example: `My boot volume`
- `id` - The OCID of the boot volume attachment.
- `instance_id` - The OCID of the instance the boot volume is attached to.
- `is_pv_encryption_in_transit_enabled` - Whether in-transit encryption for the boot volume's paravirtualized attachment is enabled or not.
- `state` - The current state of the boot volume attachment.
- `time_created` - The date and time the boot volume was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_boot_volume_backup

This data source provides details about a specific Boot Volume Backup resource in Oracle Cloud Infrastructure Core service.

Gets information for the specified boot volume backup.

Example Usage

```
data "oci_core_boot_volume_backup" "test_boot_volume_backup" {  
  #Required  
  boot_volume_backup_id = "${oci_core_boot_volume_backup.test_boot_volume_backup.id}"  
}
```

Argument Reference

The following arguments are supported:

- `boot_volume_backup_id` - (Required) The OCID of the boot volume backup.

Attributes Reference

The following attributes are exported:

- `boot_volume_id` - The OCID of the boot volume.
- `compartment_id` - The OCID of the compartment that contains the boot volume backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the boot volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `expiration_time` - The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the boot volume backup.
- `image_id` - The image OCID used to create the boot volume the backup is taken from.

- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the boot volume backup. For more information about the Key Management service and encryption keys, see Overview of Key Management (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Concepts/keyoverview.htm>) and Using Keys (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Tasks/usingkeys.htm>).
- `size_in_gbs` - The size of the boot volume, in GBs.
- `source_type` - Specifies whether the backup was created manually, or via scheduled backup policy.
- `state` - The current state of a boot volume backup.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the boot volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.
- `time_request_received` - The date and time the request to create the boot volume backup was received. Format defined by RFC3339.
- `type` - The type of a volume backup. Supported values are 'FULL' or 'INCREMENTAL'.
- `unique_size_in_gbs` - The size used by the backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the boot volume and whether the backup is full or incremental.

Data Source: oci_core_boot_volume_backups

This data source provides the list of Boot Volume Backups in Oracle Cloud Infrastructure Core service.

Lists the boot volume backups in the specified compartment. You can filter the results by boot volume.

Example Usage

```
data "oci_core_boot_volume_backups" "test_boot_volume_backups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  boot_volume_id = "${oci_core_boot_volume.test_boot_volume.id}"  
  display_name = "${var.boot_volume_backup_display_name}"  
  state = "${var.boot_volume_backup_state}"  
}
```

Argument Reference

The following arguments are supported:

- `boot_volume_id` - (Optional) The OCID of the boot volume.
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `boot_volume_backups` - The list of `boot_volume_backups`.

BootVolumeBackup Reference

The following attributes are exported:

- `boot_volume_id` - The OCID of the boot volume.
- `compartment_id` - The OCID of the compartment that contains the boot volume backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- **display_name** - A user-friendly name for the boot volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- **expiration_time** - The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **id** - The OCID of the boot volume backup.
- **image_id** - The image OCID used to create the boot volume the backup is taken from.
- **kms_key_id** - The OCID of the KMS key which is the master encryption key for the boot volume backup. For more information about the Key Management service and encryption keys, see Overview of Key Management (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Concepts/keyoverview.htm>) and Using Keys (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Tasks/usingkeys.htm>).
- **size_in_gbs** - The size of the boot volume, in GBs.
- **source_type** - Specifies whether the backup was created manually, or via scheduled backup policy.
- **state** - The current state of a boot volume backup.
- **system_tags** - System tags for this resource. Each key is predefined and scoped to a namespace. Example: {"foo-namespace.bar-key": "value"}
- **time_created** - The date and time the boot volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.
- **time_request_received** - The date and time the request to create the boot volume backup was received. Format defined by RFC3339.
- **type** - The type of a volume backup. Supported values are 'FULL' or 'INCREMENTAL'.
- **unique_size_in_gbs** - The size used by the backup, in GBs. It is typically smaller than **size_in_gbs**, depending on the space consumed on the boot volume and whether the backup is full or incremental.

Data Source: oci_core_boot_volume

This data source provides details about a specific Boot Volume resource in Oracle Cloud Infrastructure Core service.

Gets information for the specified boot volume.

Example Usage

```
data "oci_core_boot_volume" "test_boot_volume" {  
  #Required  
  boot_volume_id = "${oci_core_boot_volume.test_boot_volume.id}"  
}
```

Argument Reference

The following arguments are supported:

- `boot_volume_id` - (Required) The OCID of the boot volume.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the boot volume. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the boot volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The boot volume's Oracle ID (OCID).
- `image_id` - The image OCID used to create the boot volume.
- `is_hydrated` - Specifies whether the boot volume's data has finished copying from the source boot volume or boot volume backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the boot volume.

- `size_in_gbs` - The size of the boot volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use `size_in_gbs`.
- `source_details` - The boot volume source, either an existing boot volume in the same availability domain or a boot volume backup. If null, this means that the boot volume was created from an image.
 - `id` - The OCID of the boot volume or boot volume backup.
 - `type` - The type can be one of these values: `bootVolume`, `bootVolumeBackup`
- `state` - The current state of a boot volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the boot volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Data Source: oci_core_boot_volumes

This data source provides the list of Boot Volumes in Oracle Cloud Infrastructure Core service.

Lists the boot volumes in the specified compartment and availability domain.

Example Usage

```
data "oci_core_boot_volumes" "test_boot_volumes" {  
  #Required  
  availability_domain = "${var.boot_volume_availability_domain}"  
  compartment_id     = "${var.compartment_id}"  
  
  #Optional  
  volume_group_id = "${oci_core_volume_group.test_volume_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `volume_group_id` - (Optional) The OCID of the volume group.

Attributes Reference

The following attributes are exported:

- `boot_volumes` - The list of boot_volumes.

BootVolume Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the boot volume. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the boot volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential

information.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The boot volume's Oracle ID (OCID).
- `image_id` - The image OCID used to create the boot volume.
- `is_hydrated` - Specifies whether the boot volume's data has finished copying from the source boot volume or boot volume backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the boot volume.
- `size_in_gbs` - The size of the boot volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use `size_in_gbs`.
- `source_details` - The boot volume source, either an existing boot volume in the same availability domain or a boot volume backup. If null, this means that the boot volume was created from an image.
 - `id` - The OCID of the boot volume or boot volume backup.
 - `type` - The type can be one of these values: `bootVolume`, `bootVolumeBackup`
- `state` - The current state of a boot volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the boot volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Data Source: oci_core_cluster_network

This data source provides details about a specific Cluster Network resource in Oracle Cloud Infrastructure Core service.

Gets the specified cluster network

Example Usage

```
data "oci_core_cluster_network" "test_cluster_network" {  
  #Required  
  cluster_network_id = "${oci_core_cluster_network.test_cluster_network.id}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_network_id` - (Required) The OCID of the cluster network.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cluster network.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name. Does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the cluster network.
- `instance_pools` - the instance pools in the cluster network.
 - `compartment_id` - The OCID of the compartment containing the instance pool.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - `display_name` - The user-friendly name. Does not have to be unique.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance pool.
- `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
- `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
 - `port` - The port value used for the backends.
 - `state` - The status of the interaction between the instance pool and the load balancer.
 - `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the display name of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
- `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `size` - The number of instances that should be in the instance pool.
- `state` - The current state of the instance pool.
- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `placement_configuration` - the placement data for the instance pools in the cluster network
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `state` - The current state of the cluster network.
- `time_created` - The date and time the resource was created, in the format defined by RFC3339. Example: `2016-08-`

25T21:10:29.600Z

- `time_updated` - The date and time the resource was updated, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_cluster_network_instances

This data source provides the list of Cluster Network Instances in Oracle Cloud Infrastructure Core service.

List the instances in the specified cluster network.

Example Usage

```
data "oci_core_cluster_network_instances" "test_cluster_network_instances" {  
  #Required  
  cluster_network_id = "${oci_core_cluster_network.test_cluster_network.id}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.cluster_network_instance_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_network_id` - (Required) The OCID of the cluster network.
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.

Attributes Reference

The following attributes are exported:

- `instances` - The list of instances.

ClusterNetworkInstance Reference

The following attributes are exported:

- `availability_domain` - The availability domain the instance is running in.
- `compartment_id` - The OCID of the compartment that contains the instance.
- `display_name` - The user-friendly name. Does not have to be unique.
- `fault_domain` - The name of the Fault Domain the instance is running in.
- `id` - The OCID of the instance.

- `instance_configuration_id` - The OCID of the instance configuration used to create the instance.
- `load_balancer_backends` - The load balancer backends that are configured for the instance pool instance.
 - `backend_health_status` - The health of the backend as observed by the load balancer.
 - `backend_name` - The name of the backend in the backend set.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
- `region` - The region that contains the availability domain the instance is running in.
- `shape` - The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes`
 (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- `state` - The current state of the instance pool instance.
- `time_created` - The date and time the instance pool instance was created, in the format defined by RFC3339.
 Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_cluster_networks

This data source provides the list of Cluster Networks in Oracle Cloud Infrastructure Core service.

Lists the cluster networks in the specified compartment.

Example Usage

```
data "oci_core_cluster_networks" "test_cluster_networks" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.cluster_network_display_name}"  
  state = "${var.cluster_network_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `cluster_networks` - The list of cluster_networks.

ClusterNetwork Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cluster network.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name. Does not have to be unique.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the cluster network.
- `instance_pools` - the instance pools in the cluster network.
 - `compartment_id` - The OCID of the compartment containing the instance pool.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - `display_name` - The user-friendly name. Does not have to be unique.
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - `id` - The OCID of the instance pool.
 - `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
 - `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
 - `port` - The port value used for the backends.
 - `state` - The status of the interaction between the instance pool and the load balancer.
 - `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the display name of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
 - `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
 - `size` - The number of instances that should be in the instance pool.
 - `state` - The current state of the instance pool.

- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `placement_configuration` - the placement data for the instance pools in the cluster network
 - `availability_domain` - The availability domain to place instances. Example: Uocm:PHX-AD-1
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `state` - The current state of the cluster network.
- `time_created` - The date and time the resource was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_updated` - The date and time the resource was updated, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_console_histories

This data source provides the list of Console Histories in Oracle Cloud Infrastructure Core service.

Lists the console history metadata for the specified compartment or instance.

Example Usage

```
data "oci_core_console_histories" "test_console_histories" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.console_history_availability_domain}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
  state = "${var.console_history_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_id` - (Optional) The OCID of the instance.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `console_histories` - The list of console_histories.

ConsoleHistory Reference

The following attributes are exported:

- `availability_domain` - The availability domain of an instance. Example: Uocm:PHX-AD-1
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Operations.CostCenter": "42"}`

- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My console history metadata`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the console history metadata object.
- `instance_id` - The OCID of the instance this console history was fetched from.
- `state` - The current state of the console history.
- `time_created` - The date and time the history was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_console_history_data

This data source provides details about a specific Console History Content resource in Oracle Cloud Infrastructure Core service.

Gets the actual console history data (not the metadata). See `CaptureConsoleHistory` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ConsoleHistory/CaptureConsoleHistory>) for details about using the console history operations.

Example Usage

```
data "oci_core_console_history_data" "test_console_history_data" {  
  #Required  
  console_history_id = "${oci_core_console_history.test_console_history.id}"  
  
  #Optional  
  length = "${var.console_history_content_length}"  
  offset = "${var.console_history_content_offset}"  
}
```

Argument Reference

The following arguments are supported:

- `console_history_id` - (Required) The OCID of the console history.
- `length` - (Optional) Length of the snapshot data to retrieve. Cannot be less than 10240.
- `offset` - (Optional) Offset of the snapshot data to retrieve.

Attributes Reference

The following attributes are exported:

- `data` - The console history data.

Data Source: oci_core_cpes

This data source provides the list of Cpes in Oracle Cloud Infrastructure Core service.

Lists the customer-premises equipment objects (CPEs) in the specified compartment.

Example Usage

```
data "oci_core_cpes" "test_cpes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- `cpes` - The list of cpes.

Cpe Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the CPE.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The CPE's Oracle ID (OCID).

- `ip_address` - The public IP address of the on-premises router.
- `time_created` - The date and time the CPE was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_cross_connect_group

This data source provides details about a specific Cross Connect Group resource in Oracle Cloud Infrastructure Core service.

Gets the specified cross-connect group's information.

Example Usage

```
data "oci_core_cross_connect_group" "test_cross_connect_group" {  
  #Required  
  cross_connect_group_id = "${oci_core_cross_connect_group.test_cross_connect_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `cross_connect_group_id` - (Required) The OCID of the cross-connect group.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect group uses.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of a user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect group's Oracle ID (OCID).
- `state` - The cross-connect group's current state.
- `time_created` - The date and time the cross-connect group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_cross_connect_groups

This data source provides the list of Cross Connect Groups in Oracle Cloud Infrastructure Core service.

Lists the cross-connect groups in the specified compartment.

Example Usage

```
data "oci_core_cross_connect_groups" "test_cross_connect_groups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.cross_connect_group_display_name}"  
  state = "${var.cross_connect_group_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

Attributes Reference

The following attributes are exported:

- `cross_connect_groups` - The list of cross_connect_groups.

CrossConnectGroup Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect group uses.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`

- `display_name` - The display name of a user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect group's Oracle ID (OCID).
- `state` - The cross-connect group's current state.
- `time_created` - The date and time the cross-connect group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_cross_connect

This data source provides details about a specific Cross Connect resource in Oracle Cloud Infrastructure Core service.

Gets the specified cross-connect's information.

Example Usage

```
data "oci_core_cross_connect" "test_cross_connect" {  
  #Required  
  cross_connect_id = "${oci_core_cross_connect.test_cross_connect.id}"  
}
```

Argument Reference

The following arguments are supported:

- `cross_connect_id` - (Required) The OCID of the cross-connect.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `cross_connect_group_id` - The OCID of the cross-connect group this cross-connect belongs to (if any).
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect uses.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect's Oracle ID (OCID).
- `location_name` - The name of the FastConnect location where this cross-connect is installed.
- `port_name` - A string identifying the meet-me room port for this cross-connect.

- `port_speed_shape_name` - The port speed for this cross-connect. Example: 10 Gbps
- `state` - The cross-connect's current state.
- `time_created` - The date and time the cross-connect was created, in the format defined by RFC3339. Example:
2016-08-25T21:10:29.600Z

Data Source: oci_core_cross_connect_locations

This data source provides the list of Cross Connect Locations in Oracle Cloud Infrastructure Core service.

Lists the available FastConnect locations for cross-connect installation. You need this information so you can specify your desired location when you create a cross-connect.

Example Usage

```
data "oci_core_cross_connect_locations" "test_cross_connect_locations" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- `cross_connect_locations` - The list of `cross_connect_locations`.

CrossConnectLocation Reference

The following attributes are exported:

- `description` - A description of the location.
- `name` - The name of the location. Example: CyrusOne, Chandler, AZ

Data Source: oci_core_cross_connect_port_speed_shapes

This data source provides the list of Cross Connect Port Speed Shapes in Oracle Cloud Infrastructure Core service.

Lists the available port speeds for cross-connects. You need this information so you can specify your desired port speed (that is, shape) when you create a cross-connect.

Example Usage

```
data "oci_core_cross_connect_port_speed_shapes" "test_cross_connect_port_speed_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- `cross_connect_port_speed_shapes` - The list of cross_connect_port_speed_shapes.

CrossConnectPortSpeedShape Reference

The following attributes are exported:

- `name` - The name of the port speed shape. Example: 10 Gbps
- `port_speed_in_gbps` - The port speed in Gbps. Example: 10

Data Source: oci_core_cross_connects

This data source provides the list of Cross Connects in Oracle Cloud Infrastructure Core service.

Lists the cross-connects in the specified compartment. You can filter the list by specifying the OCID of a cross-connect group.

Example Usage

```
data "oci_core_cross_connects" "test_cross_connects" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  cross_connect_group_id = "${oci_core_cross_connect_group.test_cross_connect_group.id}"  
  display_name = "${var.cross_connect_display_name}"  
  state = "${var.cross_connect_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cross_connect_group_id` - (Optional) The OCID of the cross-connect group.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

Attributes Reference

The following attributes are exported:

- `cross_connects` - The list of cross_connects.

CrossConnect Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `cross_connect_group_id` - The OCID of the cross-connect group this cross-connect belongs to (if any).
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect

uses.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect's Oracle ID (OCID).
- `location_name` - The name of the FastConnect location where this cross-connect is installed.
- `port_name` - A string identifying the meet-me room port for this cross-connect.
- `port_speed_shape_name` - The port speed for this cross-connect. Example: `10 Gbps`
- `state` - The cross-connect's current state.
- `time_created` - The date and time the cross-connect was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_cross_connect_status

This data source provides details about a specific Cross Connect Status resource in Oracle Cloud Infrastructure Core service.

Gets the status of the specified cross-connect.

Example Usage

```
data "oci_core_cross_connect_status" "test_cross_connect_status" {  
  #Required  
  cross_connect_id = "${oci_core_cross_connect.test_cross_connect.id}"  
}
```

Argument Reference

The following arguments are supported:

- `cross_connect_id` - (Required) The OCID of the cross-connect.

Attributes Reference

The following attributes are exported:

- `cross_connect_id` - The OCID of the cross-connect.
- `interface_state` - Whether Oracle's side of the interface is up or down.
- `light_level_ind_bm` - The light level of the cross-connect (in dBm). Example: 14.0
- `light_level_indicator` - Status indicator corresponding to the light level.
 - **NO_LIGHT**: No measurable light
 - **LOW_WARN**: There's measurable light but it's too low
 - **HIGH_WARN**: Light level is too high
 - **BAD**: There's measurable light but the signal-to-noise ratio is bad
 - **GOOD**: Good light level

Data Source: oci_core_dedicated_vm_host

This data source provides details about a specific Dedicated Vm Host resource in Oracle Cloud Infrastructure Core service.

Gets information about the specified dedicated virtual machine host.

Example Usage

```
data "oci_core_dedicated_vm_host" "test_dedicated_vm_host" {  
  #Required  
  dedicated_vm_host_id = "${oci_core_dedicated_vm_host.test_dedicated_vm_host.id}"  
}
```

Argument Reference

The following arguments are supported:

- `dedicated_vm_host_id` - (Required) The OCID of the dedicated VM host.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain the dedicated virtual machine host is running in. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the dedicated virtual machine host.
- `dedicated_vm_host_shape` - The dedicated virtual machine host shape. The shape determines the number of CPUs and other resources available for VMs.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My Dedicated Vm Host`
- `fault_domain` - The fault domain for the dedicated virtual machine host's assigned instances. For more information, see Fault Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm#fault>).

If you do not specify the fault domain, the system selects one for you. To change the fault domain for a dedicated virtual machine host, delete it, and then create a new dedicated virtual machine host in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` operation in the Identity and Access Management Service API (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/>).

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the dedicated VM host.
- `remaining_ocpus` - The current available OCPUs of the dedicated VM host.
- `state` - The current state of the dedicated VM host.
- `time_created` - The date and time the dedicated VM host was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `total_ocpus` - The current total OCPUs of the dedicated VM host.

Data Source:

oci_core_dedicated_vm_host_instance_shapes

This data source provides the list of Dedicated Vm Host Instance Shapes in Oracle Cloud Infrastructure Core service.

Lists the shapes that can be used to launch a virtual machine instance on a dedicated virtual machine host within the specified compartment. You can filter the list by compatibility with a specific dedicated virtual machine host shape.

Example Usage

```
data "oci_core_dedicated_vm_host_instance_shapes" "test_dedicated_vm_host_instance_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.dedicated_vm_host_instance_shape_availability_domain}"  
  dedicated_vm_host_shape = "${var.dedicated_vm_host_instance_shape_dedicated_vm_host_shape}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `dedicated_vm_host_shape` - (Optional) Dedicated VM host shape name

Attributes Reference

The following attributes are exported:

- `dedicated_vm_host_instance_shapes` - The list of `dedicated_vm_host_instance_shapes`.

DedicatedVmHostInstanceShape Reference

The following attributes are exported:

- `availability_domain` - The shape's availability domain.
- `instance_shape_name` - The name of the virtual machine instance shapes that can be launched on a dedicated VM host.

Data Source: oci_core_dedicated_vm_host_shapes

This data source provides the list of Dedicated Vm Host Shapes in Oracle Cloud Infrastructure Core service.

Lists the shapes that can be used to launch a dedicated virtual machine host within the specified compartment.

Example Usage

```
data "oci_core_dedicated_vm_host_shapes" "test_dedicated_vm_host_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.dedicated_vm_host_shape_availability_domain}"  
  instance_shape_name = "${var.dedicated_vm_host_shape_instance_shape_name}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_shape_name` - (Optional) The name for the instance's shape.

Attributes Reference

The following attributes are exported:

- `dedicated_vm_host_shapes` - The list of `dedicated_vm_host_shapes`.

DedicatedVmHostShape Reference

The following attributes are exported:

- `availability_domain` - The shape's availability domain.
- `dedicated_vm_host_shape` - The name of the dedicated vm host shape. You can enumerate all available shapes by calling `ListDedicatedVmHostShapes`
(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/dedicatedVmHostShapes>).

Data Source: oci_core_dedicated_vm_hosts

This data source provides the list of Dedicated Vm Hosts in Oracle Cloud Infrastructure Core service.

Returns the list of dedicated virtual machine hosts that match the specified criteria in the specified compartment.

You can limit the list by specifying a dedicated virtual machine host display name. The list will include all the identically-named dedicated virtual machine hosts in the compartment.

Example Usage

```
data "oci_core_dedicated_vm_hosts" "test_dedicated_vm_hosts" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.dedicated_vm_host_availability_domain}"  
  display_name = "${var.dedicated_vm_host_display_name}"  
  instance_shape_name = "${var.dedicated_vm_host_instance_shape_name}"  
  state = "${var.dedicated_vm_host_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `instance_shape_name` - (Optional) The name for the instance's shape.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state.

Attributes Reference

The following attributes are exported:

- `dedicated_vm_hosts` - The list of `dedicated_vm_hosts`.

DedicatedVmHost Reference

The following attributes are exported:

- `availability_domain` - The availability domain the dedicated virtual machine host is running in. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the dedicated virtual machine host.
- `dedicated_vm_host_shape` - The dedicated virtual machine host shape. The shape determines the number of CPUs and other resources available for VMs.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My Dedicated Vm Host`
- `fault_domain` - The fault domain for the dedicated virtual machine host's assigned instances. For more information, see Fault Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm#fault>).

If you do not specify the fault domain, the system selects one for you. To change the fault domain for a dedicated virtual machine host, delete it, and then create a new dedicated virtual machine host in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` operation in the Identity and Access Management Service API (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/>).

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the dedicated VM host.
- `remaining_ocpus` - The current available OCPUs of the dedicated VM host.
- `state` - The current state of the dedicated VM host.
- `time_created` - The date and time the dedicated VM host was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `total_ocpus` - The current total OCPUs of the dedicated VM host.

Data Source: oci_core_dedicated_vm_hosts_instances

This data source provides the list of Dedicated Vm Hosts Instances in Oracle Cloud Infrastructure Core service.

Returns the list of instances on the dedicated virtual machine hosts that match the specified criteria.

Example Usage

```
data "oci_core_dedicated_vm_hosts_instances" "test_dedicated_vm_hosts_instances" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  dedicated_vm_host_id = "${oci_core_dedicated_vm_host.test_dedicated_vm_host.id}"  
  
  #Optional  
  availability_domain = "${var.dedicated_vm_hosts_instance_availability_domain}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `dedicated_vm_host_id` - (Required) The OCID of the dedicated VM host.

Attributes Reference

The following attributes are exported:

- `dedicated_vm_host_instances` - The list of `dedicated_vm_host_instances`.

DedicatedVmHostsInstance Reference

The following attributes are exported:

- `availability_domain` - The availability domain the virtual machine instance is running in. Example: Uocm:PHX-AD-1
- `compartment_id` - The OCID of the compartment that contains the virtual machine instance.
- `instance_id` - The OCID of the virtual machine instance.
- `shape` - The shape of the VM instance.
- `time_created` - The date and time the virtual machine instance was created, in the format defined by RFC3339.

Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_dhcp_options

This data source provides the list of Dhcp Options in Oracle Cloud Infrastructure Core service.

Lists the sets of DHCP options in the specified VCN and specified compartment. The response includes the default set of options that automatically comes with each VCN, plus any other sets you've created.

Example Usage

```
data "oci_core_dhcp_options" "test_dhcp_options" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.dhcp_options_display_name}"  
  state = "${var.dhcp_options_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `options` - The list of options.

DhcpOptions Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the set of DHCP options.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **id** - Oracle ID (OCID) for the set of DHCP options.
- **options** - The collection of individual DHCP options.
 - **custom_dns_servers** - If you set `serverType` to `CustomDnsServer`, specify the IP address of at least one DNS server of your choice (three maximum).
 - **search_domain_names** - A single search domain name according to RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>). During a DNS query, the OS will append this search domain name to the value being queried.

If you don't want to use a search domain name, omit this option from the set of DHCP options. Do not include this option with an empty list of search domain names, or with an empty string as the value for any search domain name.

- **server_type** -
 - **VcnLocal**: Reserved for future use.
 - **VcnLocalPlusInternet**: Also referred to as "Internet and VCN Resolver". Instances can resolve internet hostnames (no internet gateway is required), and can resolve hostnames of instances in the VCN. This is the default value in the default set of DHCP options in the VCN. For the Internet and VCN Resolver to work across the VCN, there must also be a DNS label set for the VCN, a DNS label set for each subnet, and a hostname for each instance. The Internet and VCN Resolver also enables reverse DNS lookup, which lets you determine the hostname corresponding to the private IP address. For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).
 - **CustomDnsServer**: Instances use a DNS server of your choice (three maximum).
- **type** - The specific DHCP option. Either `DomainNameServer` (for `DhcpDnsOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpDnsOption/>)) or `SearchDomain` (for `DhcpSearchDomainOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpSearchDomainOption/>)).
- **state** - The current state of the set of DHCP options.
- **time_created** - Date and time the set of DHCP options was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- **vcn_id** - The OCID of the VCN the set of DHCP options belongs to.

Data Source: oci_core_drg_attachments

This data source provides the list of Drg Attachments in Oracle Cloud Infrastructure Core service.

Lists the `DrgAttachment` objects for the specified compartment. You can filter the results by VCN or DRG.

Example Usage

```
data "oci_core_drg_attachments" "test_drg_attachments" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  drg_id = "${oci_core_drg.test_drg.id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `drg_id` - (Optional) The OCID of the DRG.
- `vcn_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `drg_attachments` - The list of `drg_attachments`.

DrgAttachment Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the DRG attachment.
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG.
- `id` - The DRG attachment's Oracle ID (OCID).

- `route_table_id` - The OCID of the route table the DRG attachment is using.

For information about why you would associate a route table with a DRG attachment, see:

- Transit Routing: Access to Multiple VCNs in Same Region
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>)
- Transit Routing: Private Access to Oracle Services
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>)
- `state` - The DRG attachment's current state.
- `time_created` - The date and time the DRG attachment was created, in the format defined by RFC3339. Example:
2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN.

Data Source: oci_core_drgs

This data source provides the list of Drgs in Oracle Cloud Infrastructure Core service.

Lists the DRGs in the specified compartment.

Example Usage

```
data "oci_core_drgs" "test_drgs" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- `drgs` - The list of drgs.

Drg Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the DRG.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The DRG's Oracle ID (OCID).

- `state` - The DRG's current state.
- `time_created` - The date and time the DRG was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_fast_connect_provider_service

This data source provides details about a specific Fast Connect Provider Service resource in Oracle Cloud Infrastructure Core service.

Gets the specified provider service. For more information, see [FastConnect Overview](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Example Usage

```
data "oci_core_fast_connect_provider_service" "test_fast_connect_provider_service" {  
  #Required  
  provider_service_id = "${data.oci_core_fast_connect_provider_services.test_fast_connect_provider_services.fast_connect_provider_services.0.id}"  
}
```

Argument Reference

The following arguments are supported:

- `provider_service_id` - (Required) The OCID of the provider service.

Attributes Reference

The following attributes are exported:

- `bandwith_shape_management` - Who is responsible for managing the virtual circuit bandwidth.
- `customer_asn_management` - Who is responsible for managing the ASN information for the network at the other end of the connection from Oracle.
- `description` - The location of the provider's website or portal. This portal is where you can get information about the provider service, create a virtual circuit connection from the provider to Oracle Cloud Infrastructure, and retrieve your provider service key for that virtual circuit connection. Example: <https://example.com>
- `id` - The OCID of the service offered by the provider.
- `private_peering_bgp_management` - Who is responsible for managing the private peering BGP information.
- `provider_name` - The name of the provider.
- `provider_service_key_management` - Who is responsible for managing the provider service key.
- `provider_service_name` - The name of the service offered by the provider.
- `public_peering_bgp_management` - Who is responsible for managing the public peering BGP information.
- `required_total_cross_connects` - Total number of cross-connect or cross-connect groups required for the virtual circuit.

- `supported_virtual_circuit_types` - An array of virtual circuit types supported by this service.
- `type` - Provider service type.

Data Source: oci_core_fast_connect_provider_service_key

This data source provides details about a specific Fast Connect Provider Service Key resource in Oracle Cloud Infrastructure Core service.

Gets the specified provider service key's information. Use this operation to validate a provider service key. An invalid key returns a 404 error.

Example Usage

```
data "oci_core_fast_connect_provider_service_key" "test_fast_connect_provider_service_key" {  
  #Required  
  provider_service_id = "${data.oci_core_fast_connect_provider_services.test_fast_connect_provider_services.fast_connect_provi  
der_services.0.id}"  
  provider_service_key_name = "${var.fast_connect_provider_service_key_provider_service_key_name}"  
}
```

Argument Reference

The following arguments are supported:

- `provider_service_id` - (Required) The OCID of the provider service.
- `provider_service_key_name` - (Required) The provider service key that the provider gives you when you set up a virtual circuit connection from the provider to Oracle Cloud Infrastructure. You can set up that connection and get your provider service key at the provider's website or portal. For the portal location, see the `description` attribute of the `FastConnectProviderService` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/>).

Attributes Reference

The following attributes are exported:

- `bandwidth_shape_name` - The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see `ListFastConnectProviderServiceVirtualCircuitBandwidthShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes>).
Example: 10 Gbps
- `name` - The service key that the provider gives you when you set up a virtual circuit connection from the provider to Oracle Cloud Infrastructure. Use this value as the `providerServiceKeyName` query parameter for `GetFastConnectProviderServiceKey` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderServiceKey/GetFastConnectProviderServiceKey>).
- `peering_location` - The provider's peering location.

Data Source: oci_core_fast_connect_provider_services

This data source provides the list of Fast Connect Provider Services in Oracle Cloud Infrastructure Core service.

Lists the service offerings from supported providers. You need this information so you can specify your desired provider and service offering when you create a virtual circuit.

For the compartment ID, provide the OCID of your tenancy (the root compartment).

For more information, see FastConnect Overview

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Example Usage

```
data "oci_core_fast_connect_provider_services" "test_fast_connect_provider_services" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- `fast_connect_provider_services` - The list of fast_connect_provider_services.

FastConnectProviderService Reference

The following attributes are exported:

- `bandwith_shape_management` - Who is responsible for managing the virtual circuit bandwidth.
- `customer_asn_management` - Who is responsible for managing the ASN information for the network at the other end of the connection from Oracle.
- `description` - The location of the provider's website or portal. This portal is where you can get information about the provider service, create a virtual circuit connection from the provider to Oracle Cloud Infrastructure, and retrieve your provider service key for that virtual circuit connection. Example: <https://example.com>
- `id` - The OCID of the service offered by the provider.

- `private_peering_bgp_management` - Who is responsible for managing the private peering BGP information.
- `provider_name` - The name of the provider.
- `provider_service_key_management` - Who is responsible for managing the provider service key.
- `provider_service_name` - The name of the service offered by the provider.
- `public_peering_bgp_management` - Who is responsible for managing the public peering BGP information.
- `required_total_cross_connects` - Total number of cross-connect or cross-connect groups required for the virtual circuit.
- `supported_virtual_circuit_types` - An array of virtual circuit types supported by this service.
- `type` - Provider service type.

Data Source: oci_core_images

This data source provides the list of Images in Oracle Cloud Infrastructure Core service.

Lists the available images in the specified compartment, including both Oracle-provided images (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/images.htm>) and custom images (<https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/managingcustomimages.htm>) that have been created. The list of images returned is ordered to first show all Oracle-provided images, then all custom images.

The order of images returned may change when new images are released.

Example Usage

```
data "oci_core_images" "test_images" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.image_display_name}"  
  operating_system = "${var.image_operating_system}"  
  operating_system_version = "${var.image_operating_system_version}"  
  shape = "${var.image_shape}"  
  state = "${var.image_state}"  
  sort_by = "${var.image_sort_by}"  
  sort_order = "${var.image_sort_order}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `operating_system` - (Optional) The image's operating system. Example: `Oracle Linux`
- `operating_system_version` - (Optional) The image's operating system version. Example: `7.2`
- `shape` - (Optional) Shape name.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `sort_by` - (Optional) Sort the resources returned, by creation time or display name. Example `TIMECREATED` or `DISPLAYNAME`.
- `sort_order` - (Optional) The sort order to use, either ascending (`ASC`) or descending (`DESC`).

Attributes Reference

The following attributes are exported:

- `images` - The list of images.

Image Reference

The following attributes are exported:

- `agent_features` -
 - `is_monitoring_supported` - Whether the agent running on the instance can gather performance metrics and monitor the instance.
- `base_image_id` - The OCID of the image originally used to launch the instance.
- `compartment_id` - The OCID of the compartment containing the instance you want to use as the basis for the image.
- `create_image_allowed` - Whether instances launched with this image can be used to create new images. For example, you cannot create an image of an Oracle Database instance. Example: `true`
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the image. It does not have to be unique, and it's changeable. Avoid entering confidential information.

You cannot use an Oracle-provided image name as a custom image name.

Example: `My custom Oracle Linux image`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the image.
- `launch_mode` - Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `CUSTOM` - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.
- `launch_options` -
 - `boot_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block

Storage volumes on Oracle provided images.

- SCSI - Emulated SCSI disk.
- IDE - Emulated IDE disk.
- VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
- PARAVIRTUALIZED - Paravirtualized disk.
- `firmware` - Firmware used to boot VM. Select the option that matches your operating system.
 - BIOS - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
 - UEFI_64 - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
- `is_consistent_volume_naming_enabled` - Whether to enable consistent volume naming feature. Defaults to false.
- `is_pv_encryption_in_transit_enabled` - Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
- `network_type` - Emulation type for the physical network interface card (NIC).
 - E1000 - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - VFIO - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - PARAVIRTUALIZED - VM instances launch with paravirtualized devices using virtio drivers.
- `remote_data_volume_type` - Emulation type for volume.
 - ISCSI - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
- `operating_system` - The image's operating system. Example: Oracle Linux
- `operating_system_version` - The image's operating system version. Example: 7.2
- `size_in_mbs` - The boot volume size for an instance launched from this image, (1 MB = 1048576 bytes). Note this is not the same as the size of the image when it was exported or the actual size of the image. Example: 47694
- `state` -
- `time_created` - The date and time the image was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_instance_configuration

This data source provides details about a specific Instance Configuration resource in Oracle Cloud Infrastructure Core service.

Gets the specified instance configuration

Example Usage

```
data "oci_core_instance_configuration" "test_instance_configuration" {  
  #Required  
  instance_configuration_id = "${oci_core_instance_configuration.test_instance_configuration.id}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_configuration_id` - (Required) The OCID of the instance configuration.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the instance configuration.
- `deferred_fields` - Parameters that were not specified when the instance configuration was created, but that are required to launch an instance from the instance configuration. See the `LaunchInstanceConfiguration` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Instance/LaunchInstanceConfiguration>) operation.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the instance configuration.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the instance configuration.
- `instance_details` -
 - `block_volumes` -
 - `attach_details` -
 - `display_name` - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
 - `is_read_only` - Whether the attachment should be created in read-only mode.
 - `type` - The type of volume. The only supported values are "iscsi" and "paravirtualized".
 - `use_chap` - Whether to use CHAP authentication for the volume attachment. Defaults to false.
 - `create_details` -
 - `availability_domain` - The availability domain of the volume. Example: `Uocm:PHX-AD-1`
 - `backup_policy_id` - If provided, specifies the ID of the volume backup policy to assign to the newly created volume. If omitted, no policy will be assigned.
 - `compartment_id` - The OCID of the compartment that contains the volume.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - `size_in_gbs` - The size of the volume in GBs.
 - `source_details` - Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same availability domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.
 - `id` - The OCID of the volume backup.
 - `type` - The type can be one of these values: `volume`, `volumeBackup`
 - `volume_id` - The OCID of the volume.
 - `instance_type` - The type of instance details. Supported `instanceType` is `compute`
 - `launch_details` -
 - `availability_domain` - The availability domain of the instance. Example: `Uocm:PHX-AD-1`
 - `compartment_id` - The OCID of the compartment.
 - `create_vnic_details` - Details for the primary VNIC, which is automatically created and attached when the instance is launched.

- **assign_public_ip** - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **display_name** - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
- **hostname_label** - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **nsg_ids** - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- **private_ip** - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **skip_source_dest_check** - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **subnet_id** - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- **extended_metadata** - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

- **fault_domain** - A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/FaultDomain/ListFaultDomains>) operation in the Identity and Access Management Service API.

Example: `FAULT-DOMAIN-1`

- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **ipxe_script** - This is an advanced option.

When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: 169.254.0.2, and boot volume IQN: iqn.2015-02.oracle.boot.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see `Bring Your Own Image` (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- **metadata** - Custom metadata key/value pairs that you provide, such as the SSH public key required to connect to the instance.

A metadata service runs on every launched instance. The service is an HTTP endpoint listening on 169.254.169.254. You can use the service to:

- Provide information to Cloud-Init (<https://cloudinit.readthedocs.org/en/latest/>) to be used for various system initialization tasks.
- Get information about the instance, including the custom metadata that you provide when you launch the instance.

Providing Cloud-Init Metadata

You can use the following metadata key names to provide information to Cloud-Init:

"ssh_authorized_keys" - Provide one or more public SSH keys to be included in the `~/.ssh/authorized_keys` file for the default user on the instance. Use a newline character to separate multiple keys. The SSH keys must be in the format necessary for the `authorized_keys` file, as shown in the example below.

"user_data" - Provide your own base64-encoded data to be used by Cloud-Init to run custom scripts or provide custom Cloud-Init configuration. For information about how to take advantage of user data, see the `Cloud-Init Documentation` (<http://cloudinit.readthedocs.org/en/latest/topics/format.html>).

Note: Cloud-Init does not pull this data from the `http://169.254.169.254/opc/v1/instance/metadata/` path. When the instance launches and either of these keys are provided, the key values are formatted as OpenStack metadata and copied to the following locations, which are recognized by Cloud-Init:

`http://169.254.169.254/openstack/latest/meta_data.json` - This JSON blob contains, among other things, the SSH keys that you provided for **"ssh_authorized_keys"**.

`http://169.254.169.254/openstack/latest/user_data` - Contains the base64-decoded data that you provided for **"user_data"**.

Metadata Example

```
"metadata": { "quake_bot_level": "Severe", "ssh_authorized_keys": "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQACQZ06fccNTQfq+xubFlj5ZR3kt+uzspdH9tXL+IAejSM1NXM+CFZev7MlxfEjas06y80ZBZ7DUTQO0GxjPeD8NCOb1VorF8M4xuLwrmzRtkoZzU16umt4y1W
ryan.smith@company.com (mailto:ryan.smith@company.com) ssh-rsa
AAAAB3NzaC1yc2EAAAABJQAAQEAzJSatwEPoB3Jmr58IXrDGzLuDYkWAYg8AsLYlo6JzVKpjY1xednrcfEVQJm4T2DhVmdWhRwQ8DmayVZvBkLt+zs2LdoAJEVimKwXcJFD/7wtH8Lnk17Higlbbsb
rsa-key-20160227", "user_data": "SWYgeW91IGNhbiBzZWUgdGhpcywgZGhlbiBpdCB3b3JrZWQgbW5F5YmUuCG==" }
Getting Metadata on the Instance
```

To get information about your instance, connect to the instance using SSH and issue any of the following GET requests:

curl http://169.254.169.254/opc/v1/instance/ (http://169.254.169.254/opc/v1/instance/) curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/) curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/)

You'll get back a response that includes all the instance information; only the metadata information; or the metadata information for the specified key name, respectively.

- **shape** - The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- **source_details** - Details for creating an instance. Use this parameter to specify whether a boot volume or an image should be used to launch a new instance.
 - **boot_volume_id** - The OCID of the boot volume used to boot the instance.
 - **boot_volume_size_in_gbs** - The size of the boot volume in GBs. The minimum value is 50 GB and the maximum value is 16384 GB (16TB).
 - **image_id** - The OCID of the image used to boot the instance.
 - **source_type** - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.

○ **secondary_vnics** -

- **create_vnic_details** - Details for creating a new VNIC.
 - **assign_public_ip** - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **display_name** - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - **hostname_label** - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **nsg_ids** - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - **private_ip** - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **skip_source_dest_check** - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **subnet_id** - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **display_name** - A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed.
- **nic_index** - Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see `Virtual Network Interface Cards (VNICs)` (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

- **time_created** - The date and time the instance configuration was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_instance_configurations

This data source provides the list of Instance Configurations in Oracle Cloud Infrastructure Core service.

Lists the instance configurations in the specified compartment.

Example Usage

```
data "oci_core_instance_configurations" "test_instance_configurations" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- compartment_id - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

Attributes Reference

The following attributes are exported:

- instance_configurations - The list of instance_configurations.

InstanceConfiguration Reference

The following attributes are exported:

- compartment_id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the instance configuration.
- deferred_fields - Parameters that were not specified when the instance configuration was created, but that are required to launch an instance from the instance configuration. See the [LaunchInstanceConfiguration](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Instance/LaunchInstanceConfiguration) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Instance/LaunchInstanceConfiguration>) operation.
- defined_tags - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- display_name - A user-friendly name for the instance configuration.
- freeform_tags - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the instance configuration.
- instance_details -
 - block_volumes -
 - attach_details -
 - display_name - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
 - is_read_only - Whether the attachment should be created in read-only mode.
 - type - The type of volume. The only supported values are "iscsi" and "paravirtualized".
 - use_chap - Whether to use CHAP authentication for the volume attachment. Defaults to false.
 - create_details -
 - availability_domain - The availability domain of the volume. Example: Uocm:PHX-AD-1
 - backup_policy_id - If provided, specifies the ID of the volume backup policy to assign to the newly created volume. If omitted, no policy will be assigned.
 - compartment_id - The OCID of the compartment that contains the volume.
 - defined_tags - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
 - display_name - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - freeform_tags - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
 - size_in_gbs - The size of the volume in GBs.
 - source_details - Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same availability domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.
 - id - The OCID of the volume backup.
 - type - The type can be one of these values: volume , volumeBackup
 - volume_id - The OCID of the volume.
 - instance_type - The type of instance details. Supported instanceType is compute

o `launch_details` -

- `availability_domain` - The availability domain of the instance. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment.
- `create_vnic_details` - Details for the primary VNIC, which is automatically created and attached when the instance is launched.
 - `assign_public_ip` - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `display_name` - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - `hostname_label` - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `nsg_ids` - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - `private_ip` - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `skip_source_dest_check` - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `subnet_id` - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- `extended_metadata` - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

- `fault_domain` - A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/FaultDomain/ListFaultDomains>) operation in the Identity and Access Management Service API.

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ipxe_script` - This is an advanced option.

When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-02.oracle.boot`.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see `Bring Your Own Image` (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- `metadata` - Custom metadata key/value pairs that you provide, such as the SSH public key required to connect to the instance.

A metadata service runs on every launched instance. The service is an HTTP endpoint listening on `169.254.169.254`. You can use the service to:

- Provide information to Cloud-Init (<https://cloudinit.readthedocs.org/en/latest/>) to be used for various system initialization tasks.
- Get information about the instance, including the custom metadata that you provide when you launch the instance.

Providing Cloud-Init Metadata

You can use the following metadata key names to provide information to Cloud-Init:

"ssh_authorized_keys" - Provide one or more public SSH keys to be included in the `~/.ssh/authorized_keys` file for the default user on the instance. Use a newline character to separate multiple keys. The SSH keys must be in the format necessary for the `authorized_keys` file, as shown in the example below.

"user_data" - Provide your own base64-encoded data to be used by Cloud-Init to run custom scripts or provide custom Cloud-Init configuration. For information about how to take advantage of user data, see the `Cloud-Init Documentation` (<http://cloudinit.readthedocs.org/en/latest/topics/format.html>).

Note: Cloud-Init does not pull this data from the `http://169.254.169.254/opc/v1/instance/metadata/` path. When the instance launches and either of these keys are provided, the key values are formatted as OpenStack metadata and copied to the following locations, which are recognized by Cloud-Init:

`http://169.254.169.254/openstack/latest/meta_data.json` - This JSON blob contains, among other things, the SSH keys that you provided for **"ssh_authorized_keys"**.

`http://169.254.169.254/openstack/latest/user_data` - Contains the base64-decoded data that you provided for **"user_data"**.

Metadata Example

```
"metadata": { "quake_bot_level": "Severe", "ssh_authorized_keys": "ssh-rsa
```

```
AAAAB3NzaC1yc2EAAAADAQABAAQCAQCZ06fccNTQfq+xubFJl5ZR3kt+uzspdH9tXL+IAejSM1NXM+CFZev7MlxfEjas06y80ZBZ7DUTQO0GxjPeD8NCOB1VorF8M4xuLwrmzRtkoZzU16umt4y1W  
ryan.smith@company.com (mailto:ryan.smith@company.com) ssh-rsa
```

```
AAAAB3NzaC1yc2EAAAABJQAAAQEAzj5AtwEPoB3Jmr58IXrDGzLuDYkWAYg8AsLYlo6jZvKpjY1xednlcfEVQJm4T2DhVmdWhRrwQ8DmayVZvBkLt+zs2LdoAJEVimKwXcjFD/7wtH8Lnk17Higlbabbf  
rsa-key-20160227", "user_data": "SWYgeW91IGNhbiBzZWUgdGhpcywgZGhlbiBpdCB3b3JrZWQgbWF5YmUuUcG==" } Getting Metadata on the Instance
```

To get information about your instance, connect to the instance using SSH and issue any of the following GET requests:

```
curl http://169.254.169.254/opc/v1/instance/ (http://169.254.169.254/opc/v1/instance/) curl http://169.254.169.254/opc/v1/instance/metadata/  
(http://169.254.169.254/opc/v1/instance/metadata/) curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/)
```

You'll get back a response that includes all the instance information; only the metadata information; or the metadata information for the specified key name, respectively.

- **shape** - The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- **source_details** - Details for creating an instance. Use this parameter to specify whether a boot volume or an image should be used to launch a new instance.
 - **boot_volume_id** - The OCID of the boot volume used to boot the instance.
 - **boot_volume_size_in_gbs** - The size of the boot volume in GBs. The minimum value is 50 GB and the maximum value is 16384 GB (16TB).
 - **image_id** - The OCID of the image used to boot the instance.
 - **source_type** - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.

- **secondary_vnics** -

- **create_vnic_details** - Details for creating a new VNIC.
 - **assign_public_ip** - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **display_name** - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - **hostname_label** - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **nsg_ids** - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - **private_ip** - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **skip_source_dest_check** - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **subnet_id** - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **display_name** - A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed.
- **nic_index** - Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see `Virtual Network Interface Cards (VNICs)` (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

- **time_created** - The date and time the instance configuration was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_instance_console_connections

This data source provides the list of Instance Console Connections in Oracle Cloud Infrastructure Core service.

Lists the console connections for the specified compartment or instance.

For more information about console access, see [Accessing the Console](#)

(<https://docs.cloud.oracle.com/iaas/Content/Compute/References/serialconsole.htm>).

Example Usage

```
data "oci_core_instance_console_connections" "test_instance_console_connections" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  instance_id = "${oci_core_instance.test_instance.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_id` - (Optional) The OCID of the instance.

Attributes Reference

The following attributes are exported:

- `instance_console_connections` - The list of instance_console_connections.

InstanceConsoleConnection Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment to contain the console connection.
- `connection_string` - The SSH connection string for the console connection.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `fingerprint` - The SSH public key fingerprint for the console connection.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the console connection.
- `instance_id` - The OCID of the instance the console connection connects to.
- `state` - The current state of the console connection.
- `vnc_connection_string` - The SSH connection string for the SSH tunnel used to connect to the console connection over VNC.

Data Source: oci_core_instance_credentials

This data source provides details about a specific Instance Credential resource in Oracle Cloud Infrastructure Core service.

Gets the generated credentials for the instance. Only works for instances that require password to log in (E.g. Windows). For certain OS'es, users will be forced to change the initial credentials.

Example Usage

```
data "oci_core_instance_credentials" "test_instance_credential" {  
  #Required  
  instance_id = "${oci_core_instance.test_instance.id}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The OCID of the instance.

Attributes Reference

The following attributes are exported:

- `password` - The password for the username.
- `username` - The username.

Data Source: oci_core_instance_devices

This data source provides the list of Instance Devices in Oracle Cloud Infrastructure Core service.

Gets a list of all the devices for given instance. You can optionally filter results by device availability.

Example Usage

```
data "oci_core_instance_devices" "test_instance_devices" {  
  #Required  
  instance_id = "${oci_core_instance.test_instance.id}"  
  
  #Optional  
  is_available = "${var.instance_device_is_available}"  
  name = "${var.instance_device_name}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The OCID of the instance.
- `is_available` - (Optional) A filter to return only available devices or only used devices.
- `name` - (Optional) A filter to return only devices that match the given name exactly.

Attributes Reference

The following attributes are exported:

- `devices` - The list of devices.

InstanceDevice Reference

The following attributes are exported:

- `is_available` - The flag denoting whether device is available.
- `name` - The device name.

Data Source: oci_core_instance

This data source provides details about a specific Instance resource in Oracle Cloud Infrastructure Core service.

Gets information about the specified instance.

Example Usage

```
data "oci_core_instance" "test_instance" {  
  #Required  
  instance_id = "${oci_core_instance.test_instance.id}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_id` - (Required) The OCID of the instance.

Attributes Reference

The following attributes are exported:

- `agent_config` -
 - `is_monitoring_disabled` - Whether the agent running on the instance can gather performance metrics and monitor the instance.
- `availability_domain` - The availability domain the instance is running in. Example: `Uocm:PHX-AD-1`
- `boot_volume_id` - The OCID of the attached boot volume. If the `source_type` is `bootVolume`, this will be the same OCID as the `source_id`.
- `compartment_id` - The OCID of the compartment that contains the instance.
- `dedicated_vm_host_id` - The OCID of dedicated VM host.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- `extended_metadata` - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

If you don't need nested metadata values, it is strongly advised to avoid using this object and use the Metadata object instead.

Input in terraform is the same as metadata but allows nested metadata if you pass a valid JSON string as a value. See the example below.

- `fault_domain` - The name of the fault domain the instance is running in.

A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - The hostname for the instance VNIC's primary private IP.
- `id` - The OCID of the instance.
- `image` - Deprecated. Use `sourceDetails` instead.
- `ipxe_script` - When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-02.oracle.boot`.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see [Bring Your Own Image](https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- `launch_mode` - Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.

- CUSTOM - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.
- `launch_options` -
 - `boot_volume_type` - Emulation type for volume.
 - ISCSI - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
 - `firmware` - Firmware used to boot VM. Select the option that matches your operating system.
 - BIOS - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
 - UEFI_64 - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
 - `is_consistent_volume_naming_enabled` - Whether to enable consistent volume naming feature. Defaults to false.
 - `is_pv_encryption_in_transit_enabled` - Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
 - `network_type` - Emulation type for the physical network interface card (NIC).
 - E1000 - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - VFIO - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - PARAVIRTUALIZED - VM instances launch with paravirtualized devices using virtio drivers.
 - `remote_data_volume_type` - Emulation type for volume.
 - ISCSI - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
- `metadata` - Custom metadata that you provide.
- `private_ip` - The private IP address of instance VNIC. To set the private IP address, use the `private_ip` argument in `create_vnic_details`.
- `public_ip` - The public IP address of instance VNIC (if enabled).

- `region` - The region that contains the availability domain the instance is running in.

For the `us-phoenix-1` and `us-ashburn-1` regions, `phx` and `iad` are returned, respectively. For all other regions, the full region name is returned.

Examples: `phx`, `eu-frankfurt-1`

- `shape` - The shape of the instance. The shape determines the number of CPUs and the amount of memory allocated to the instance. You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).
- `source_details` - Details for creating an instance
 - `boot_volume_size_in_gbs` - The size of the boot volume in GBs. Minimum value is 50 GB and maximum value is 16384 GB (16TB).
 - `kms_key_id` - The OCID of the KMS key to be used as the master encryption key for the boot volume.
 - `source_id` - The OCID of an image or a boot volume to use, depending on the value of `source_type`.
 - `source_type` - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.
- `state` - The current state of the instance.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the instance was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `time_maintenance_reboot_due` - The date and time the instance is expected to be stopped / started, in the format defined by RFC3339. After that time if instance hasn't been rebooted, Oracle will reboot the instance within 24 hours of the due time. Regardless of how the instance was stopped, the flag will be reset to empty as soon as instance reaches Stopped state. Example: `2018-05-25T21:10:29.600Z`

Data Source: oci_core_instance_pool

This data source provides details about a specific Instance Pool resource in Oracle Cloud Infrastructure Core service.

Gets the specified instance pool

Example Usage

```
data "oci_core_instance_pool" "test_instance_pool" {  
  #Required  
  instance_pool_id = "${oci_core_instance_pool.test_instance_pool.id}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_pool_id` - (Required) The OCID of the instance pool.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the instance pool.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name. Does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance pool.
- `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
- `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.

- `port` - The port value used for the backends.
- `state` - The status of the interaction between the instance pool and the load balancer.
- `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the `displayName` of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
- `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The `displayName` of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `size` - The number of actual instances in the instance pool on the cloud. This attribute will be different when instance pool is used along with `autoScaling` Configuration.
- `state` - The current state of the instance pool.
- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_instance_pool_instances

This data source provides the list of Instance Pool Instances in Oracle Cloud Infrastructure Core service.

List the instances in the specified instance pool.

Example Usage

```
data "oci_core_instance_pool_instances" "test_instance_pool_instances" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  instance_pool_id = "${oci_core_instance_pool.test_instance_pool.id}"  
  
  #Optional  
  display_name = "${var.instance_pool_instance_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `instance_pool_id` - (Required) The OCID of the instance pool.

Attributes Reference

The following attributes are exported:

- `instances` - The list of instances.

InstancePoolInstance Reference

The following attributes are exported:

- `availability_domain` - The availability domain the instance is running in.
- `compartment_id` - The OCID of the compartment that contains the instance.
- `display_name` - The user-friendly name. Does not have to be unique.
- `fault_domain` - The name of the Fault Domain the instance is running in.
- `id` - The OCID of the instance.

- `instance_configuration_id` - The OCID of the instance configuration used to create the instance.
- `load_balancer_backends` - The load balancer backends that are configured for the instance pool instance.
 - `backend_health_status` - The health of the backend as observed by the load balancer.
 - `backend_name` - The name of the backend in the backend set.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
- `region` - The region that contains the availability domain the instance is running in.
- `shape` - The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes`
 (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- `state` - The current state of the instance pool instance.
- `time_created` - The date and time the instance pool instance was created, in the format defined by RFC3339.
 Example: 2016-08-25T21:10:29.600Z

Data Source:

oci_core_instance_pool_load_balancer_attachment

This data source provides details about a specific Instance Pool Load Balancer Attachment resource in Oracle Cloud Infrastructure Core service.

Gets information about a load balancer that is attached to the specified instance pool.

Example Usage

```
data "oci_core_instance_pool_load_balancer_attachment" "test_instance_pool_load_balancer_attachment" {  
  #Required  
  instance_pool_id = "${oci_core_instance_pool.test_instance_pool.id}"  
  instance_pool_load_balancer_attachment_id = "${oci_core_instance_pool_load_balancer_attachment.test_i  
nstance_pool_load_balancer_attachment.id}"  
}
```

Argument Reference

The following arguments are supported:

- `instance_pool_id` - (Required) The OCID of the instance pool.
- `instance_pool_load_balancer_attachment_id` - (Required) The OCID of the load balancer attachment.

Attributes Reference

The following attributes are exported:

- `backend_set_name` - The name of the backend set on the load balancer.
- `id` - The OCID of the load balancer attachment.
- `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
- `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
- `port` - The port value used for the backends.
- `state` - The status of the interaction between the instance pool and the load balancer.
- `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the displayName of one of the secondary VNICs on the instance configuration that is associated with the instance pool.

Data Source: oci_core_instance_pools

This data source provides the list of Instance Pools in Oracle Cloud Infrastructure Core service.

Lists the instance pools in the specified compartment.

Example Usage

```
data "oci_core_instance_pools" "test_instance_pools" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.instance_pool_display_name}"  
  state = "${var.instance_pool_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `instance_pools` - The list of instance_pools.

InstancePool Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the instance pool.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name. Does not have to be unique.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance pool.
- `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
- `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
 - `port` - The port value used for the backends.
 - `state` - The status of the interaction between the instance pool and the load balancer.
 - `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the displayName of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
- `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: Uocm:PHX-AD-1
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The displayName of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `size` - The number of actual instances in the instance pool on the cloud. This attribute will be different when instance pool is used along with autoScaling Configuration.
- `state` - The current state of the instance pool.
- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_instances

This data source provides the list of Instances in Oracle Cloud Infrastructure Core service.

Lists the instances in the specified compartment and the specified availability domain. You can filter the results by specifying an instance name (the list will include all the identically-named instances in the compartment).

Example Usage

```
data "oci_core_instances" "test_instances" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.instance_availability_domain}"  
  display_name = "${var.instance_display_name}"  
  state = "${var.instance_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `instances` - The list of instances.

Instance Reference

The following attributes are exported:

- `agent_config` -
 - `is_monitoring_disabled` - Whether the agent running on the instance can gather performance metrics and monitor the instance.

- `availability_domain` - The availability domain the instance is running in. Example: `Uocm:PHX-AD-1`
- `boot_volume_id` - The OCID of the attached boot volume. If the `source_type` is `bootVolume`, this will be the same OCID as the `source_id`.
- `compartment_id` - The OCID of the compartment that contains the instance.
- `dedicated_vm_host_id` - The OCID of dedicated VM host.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- `extended_metadata` - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

If you don't need nested metadata values, it is strongly advised to avoid using this object and use the Metadata object instead.

- `fault_domain` - The name of the fault domain the instance is running in.

A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance.
- `image` - Deprecated. Use `sourceDetails` instead.
- `ipxe_script` - When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-`

02.oracle.boot.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see [Bring Your Own Image \(https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm\)](https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- `launch_mode` - Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `CUSTOM` - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.
- `launch_options` -
 - `boot_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - `SCSI` - Emulated SCSI disk.
 - `IDE` - Emulated IDE disk.
 - `VFIO` - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - `PARAVIRTUALIZED` - Paravirtualized disk.
 - `firmware` - Firmware used to boot VM. Select the option that matches your operating system.
 - `BIOS` - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
 - `UEFI_64` - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
 - `is_consistent_volume_naming_enabled` - Whether to enable consistent volume naming feature. Defaults to false.
 - `is_pv_encryption_in_transit_enabled` - Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
 - `network_type` - Emulation type for the physical network interface card (NIC).
 - `E1000` - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - `VFIO` - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `remote_data_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block

Storage volumes on Oracle provided images.

- SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
- metadata - Custom metadata that you provide.
 - region - The region that contains the availability domain the instance is running in.

For the us-phoenix-1 and us-ashburn-1 regions, `phx` and `iad` are returned, respectively. For all other regions, the full region name is returned.

Examples: `phx`, `eu-frankfurt-1`

- shape - The shape of the instance. The shape determines the number of CPUs and the amount of memory allocated to the instance. You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).
- source_details - Details for creating an instance
 - boot_volume_size_in_gbs - The size of the boot volume in GBs. Minimum value is 50 GB and maximum value is 16384 GB (16TB). This should only be specified when `source_type` is `image`.
 - kms_key_id - The OCID of the KMS key to be used as the master encryption key for the boot volume.
 - source_id - The OCID of an image or a boot volume to use, depending on the value of `source_type`.
 - source_type - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.
- state - The current state of the instance.
- system_tags - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- time_created - The date and time the instance was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- time_maintenance_reboot_due - The date and time the instance is expected to be stopped / started, in the format defined by RFC3339. After that time if instance hasn't been rebooted, Oracle will reboot the instance within 24 hours of the due time. Regardless of how the instance was stopped, the flag will be reset to empty as soon as instance reaches Stopped state. Example: `2018-05-25T21:10:29.600Z`

Data Source: oci_core_internet_gateways

This data source provides the list of Internet Gateways in Oracle Cloud Infrastructure Core service.

Lists the internet gateways in the specified VCN and the specified compartment.

Example Usage

```
data "oci_core_internet_gateways" "test_internet_gateways" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.internet_gateway_display_name}"  
  state = "${var.internet_gateway_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `gateways` - The list of gateways.

InternetGateway Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the internet gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `enabled` - Whether the gateway is enabled. When the gateway is disabled, traffic is not routed to/from the Internet, regardless of route rules.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The internet gateway's Oracle ID (OCID).
- `state` - The internet gateway's current state.
- `time_created` - The date and time the internet gateway was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the internet gateway belongs to.

Data Source: oci_core_ipsec_config

This data source provides details about a specific IP Sec Connection Device Config resource in Oracle Cloud Infrastructure Core service.

Gets the configuration information for the specified IPSec connection. For each tunnel, the response includes the IP address of Oracle's VPN headend and the shared secret.

Example Usage

```
data "oci_core_ipsec_config" "test_ip_sec_connection_device_config" {  
  #Required  
  ipsec_id = "${oci_core_ipsec.test_ipsec.id}"  
}
```

Argument Reference

The following arguments are supported:

- `ipsec_id` - (Required) The OCID of the IPSec connection.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the IPSec connection.
- `id` - The IPSec connection's Oracle ID (OCID).
- `time_created` - The date and time the IPSec connection was created.
- `tunnels` - Two TunnelConfig (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/TunnelConfig/>) objects.
 - `ip_address` - The IP address of Oracle's VPN headend. Example: `129.146.17.50`
 - `shared_secret` - The shared secret of the IPSec tunnel. Example:
`EXAMPLEToUis6j1cp8GdVQxcmdfM00yXMLilZTbYCMDGu4V8o`
 - `time_created` - The date and time the IPSec connection was created, in the format defined by RFC3339.
Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_ipsec_connections

This data source provides the list of Ip Sec Connections in Oracle Cloud Infrastructure Core service.

Lists the IPSec connections for the specified compartment. You can filter the results by DRG or CPE.

Example Usage

```
data "oci_core_ipsec_connections" "test_ip_sec_connections" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  cpe_id = "${oci_core_cpe.test_cpe.id}"  
  drg_id = "${oci_core_drg.test_drg.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpe_id` - (Optional) The OCID of the CPE.
- `drg_id` - (Optional) The OCID of the DRG.

Attributes Reference

The following attributes are exported:

- `connections` - The list of connections.

IpSecConnection Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the IPSec connection.
- `cpe_id` - The OCID of the Cpe (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object.
- `cpe_local_identifier` - Your identifier for your CPE device. Can be either an IP address or a hostname (specifically, the fully qualified domain name (FQDN)). The type of identifier here must correspond to the value for `cpeLocalIdentifierType`.

If you don't provide a value when creating the IPSec connection, the `ipAddress` attribute for the Cpe (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object specified by `cpeId` is used as the `cpeLocalIdentifier`.

For information about why you'd provide this value, see [If Your CPE Is Behind a NAT Device](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat>).

Example IP address: 10.0.3.3

Example hostname: cpe.example.com

- `cpe_local_identifier_type` - The type of identifier for your CPE device. The value here must correspond to the value for `cpeLocalIdentifier`.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The IPSec connection's Oracle ID (OCID).
- `state` - The IPSec connection's current state.
- `static_routes` - Static routes to the CPE. The CIDR must not be a multicast address or class E address.

Used for routing a given IPSec tunnel's traffic only if the tunnel is using static routing. If you configure at least one tunnel to use static routing, then you must provide at least one valid static route. If you configure both tunnels to use BGP dynamic routing, you can provide an empty list for the static routes.

Example: 10.0.1.0/24

- `time_created` - The date and time the IPSec connection was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_ipsec_connection_tunnel

This data source provides details about a specific Ip Sec Connection Tunnel resource in Oracle Cloud Infrastructure Core service.

Gets the specified IPSec connection's specified tunnel basic information.

Example Usage

```
data "oci_core_ipsec_connection_tunnel" "test_ip_sec_connection_tunnel" {  
  #Required  
  ipsec_id = "${oci_core_ipsec.test_ipsec.id}"  
  tunnel_id = "${oci_core_tunnel.test_tunnel.id}"  
}
```

Argument Reference

The following arguments are supported:

- `ipsec_id` - (Required) The OCID of the IPSec connection.
- `tunnel_id` - (Required) The OCID of the IPSec connection's tunnel.

Attributes Reference

The following attributes are exported:

- `bgp_session_info` - Information needed to establish a BGP Session on an interface.
 - `bgp_state` - the state of the BGP.
 - `customer_bgp_asn` - This is the value of the remote Bgp ASN in asplain format, as a string. Example: 1587232876 (4 byte ASN) or 12345 (2 byte ASN)
 - `customer_interface_ip` - This is the IPv4 Address used in the BGP peering session for the non-Oracle router. Example: 10.0.0.2/31
 - `oracle_bgp_asn` - This is the value of the Oracle Bgp ASN in asplain format, as a string. Example: 1587232876 (4 byte ASN) or 12345 (2 byte ASN)
 - `oracle_interface_ip` - This is the IPv4 Address used in the BGP peering session for the Oracle router. Example: 10.0.0.1/31
- `compartment_id` - The OCID of the compartment containing the tunnel.
- `cpe_ip` - The IP address of Cpe headend. Example: 129.146.17.50
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- `id` - The tunnel's Oracle ID (OCID).
- `routing` - the routing strategy used for this tunnel, either static route or BGP dynamic routing
- `state` - The IPSec connection's tunnel's lifecycle state.
- `status` - The tunnel's current state.
- `time_created` - The date and time the IPSec connection tunnel was created, in the format defined by RFC3339.
Example: 2016-08-25T21:10:29.600Z
- `time_status_updated` - When the status of the tunnel last changed, in the format defined by RFC3339. Example:
2016-08-25T21:10:29.600Z
- `vpn_ip` - The IP address of Oracle's VPN headend. Example: 129.146.17.50

Data Source: oci_core_ipsec_connection_tunnels

This data source provides the list of Ip Sec Connection Tunnels in Oracle Cloud Infrastructure Core service.

Lists the tunnel information for the specified IPSec connection.

Example Usage

```
data "oci_core_ipsec_connection_tunnels" "test_ip_sec_connection_tunnels" {  
  #Required  
  ipsec_id = "${oci_core_ipsec.test_ipsec.id}"  
}
```

Argument Reference

The following arguments are supported:

- `ipsec_id` - (Required) The OCID of the IPSec connection.

Attributes Reference

The following attributes are exported:

- `ip_sec_connection_tunnels` - The list of `ip_sec_connection_tunnels`.

IpSecConnectionTunnel Reference

The following attributes are exported:

- `bgp_session_info` - Information for establishing the tunnel's BGP session.
 - `bgp_state` - The state of the BGP session.
 - `customer_bgp_asn` - If the tunnel's `routing` attribute is set to `BGP` (see `IpSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IpSecConnectionTunnel/>)), this ASN is required and used for the tunnel's BGP session. This is the ASN of the network on the CPE end of the BGP session. Can be a 2-byte or 4-byte ASN. Uses "asplain" format.

If the tunnel uses static routing, the `customerBgpAsn` must be null.

Example: 12345 (2-byte) or 1587232876 (4-byte)

- `customer_interface_ip` - The IP address for the CPE end of the inside tunnel interface.

If the tunnel's `routing` attribute is set to `BGP` (see `IpSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IpSecConnectionTunnel/>)), this IP address is required and used for the tunnel's BGP session.

If `routing` is instead set to `STATIC`, this IP address is optional. You can set this IP address so you can troubleshoot or monitor the tunnel.

The value must be a /30 or /31.

Example: 10.0.0.5/31

- `oracle_bgp_asn` - The Oracle BGP ASN.
- `oracle_interface_ip` - The IP address for the Oracle end of the inside tunnel interface.

If the tunnel's `routing` attribute is set to `BGP` (see `IPSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnectionTunnel/>)), this IP address is required and used for the tunnel's BGP session.

If `routing` is instead set to `STATIC`, this IP address is optional. You can set this IP address so you can troubleshoot or monitor the tunnel.

The value must be a /30 or /31.

Example: 10.0.0.4/31

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the tunnel.
- `cpe_ip` - The IP address of the CPE's VPN headend. Example: 192.0.2.157
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the tunnel.
- `routing` - The type of routing used for this tunnel (either BGP dynamic routing or static routing).
- `state` - The tunnel's lifecycle state.
- `status` - The status of the tunnel based on IPSec protocol characteristics.
- `time_created` - The date and time the IPSec connection tunnel was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_status_updated` - When the status of the tunnel last changed, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vpn_ip` - The IP address of Oracle's VPN headend. Example: 192.0.2.5

Data Source: oci_core_ipsec_status

This data source provides details about a specific Ip Sec Connection Device Status resource in Oracle Cloud Infrastructure Core service.

Gets the status of the specified IPSec connection (whether it's up or down).

Example Usage

```
data "oci_core_ipsec_status" "test_ip_sec_connection_device_status" {  
  #Required  
  ipsec_id = "${oci_core_ipsec.test_ipsec.id}"  
}
```

Argument Reference

The following arguments are supported:

- `ipsec_id` - (Required) The OCID of the IPSec connection.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the IPSec connection.
- `id` - The IPSec connection's Oracle ID (OCID).
- `time_created` - The date and time the IPSec connection was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `tunnels` - Two TunnelStatus (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/TunnelStatus/>) objects.
 - `ip_address` - The IP address of Oracle's VPN headend. Example: 129.146.17.50
 - `state` - The tunnel's current state.
 - `time_created` - The date and time the IPSec connection was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
 - `time_state_modified` - When the state of the tunnel last changed, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_letter_of_authority

This data source provides details about a specific Letter Of Authority resource in Oracle Cloud Infrastructure Core service.

Gets the Letter of Authority for the specified cross-connect.

Example Usage

```
data "oci_core_letter_of_authority" "test_letter_of_authority" {  
  #Required  
  cross_connect_id = "${oci_core_cross_connect.test_cross_connect.id}"  
}
```

Argument Reference

The following arguments are supported:

- `cross_connect_id` - (Required) The OCID of the cross-connect.

Attributes Reference

The following attributes are exported:

- `authorized_entity_name` - The name of the entity authorized by this Letter of Authority.
- `circuit_type` - The type of cross-connect fiber, termination, and optical specification.
- `cross_connect_id` - The OCID of the cross-connect.
- `facility_location` - The address of the FastConnect location.
- `port_name` - The meet-me room port for this cross-connect.
- `time_expires` - The date and time when the Letter of Authority expires, in the format defined by RFC3339.
- `time_issued` - The date and time the Letter of Authority was created, in the format defined by RFC3339. Example:
`2016-08-25T21:10:29.600Z`

Data Source: oci_core_local_peering_gateways

This data source provides the list of Local Peering Gateways in Oracle Cloud Infrastructure Core service.

Lists the local peering gateways (LPGs) for the specified VCN and compartment (the LPG's compartment).

Example Usage

```
data "oci_core_local_peering_gateways" "test_local_peering_gateways" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `local_peering_gateways` - The list of local_peering_gateways.

LocalPeeringGateway Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the LPG.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}

- `id` - The LPG's Oracle ID (OCID).
- `is_cross_tenancy_peering` - Whether the VCN at the other end of the peering is in a different tenancy. Example: `false`
- `peer_advertised_cidr` - The smallest aggregate CIDR that contains all the CIDR routes advertised by the VCN at the other end of the peering from this LPG. See `peerAdvertisedCidrDetails` for the individual CIDRs. The value is `null` if the LPG is not peered. Example: `192.168.0.0/16`, or if aggregated with `172.16.0.0/24` then `128.0.0.0/1`
- `peer_advertised_cidr_details` - The specific ranges of IP addresses available on or via the VCN at the other end of the peering from this LPG. The value is `null` if the LPG is not peered. You can use these as destination CIDRs for route rules to route a subnet's traffic to this LPG. Example: [`192.168.0.0/16`, `172.16.0.0/24`]
- `peering_status` - Whether the LPG is peered with another LPG. `NEW` means the LPG has not yet been peered. `PENDING` means the peering is being established. `REVOKED` means the LPG at the other end of the peering has been deleted.
- `peering_status_details` - Additional information regarding the peering status, if applicable.
- `route_table_id` - The OCID of the route table the LPG is using.

For information about why you would associate a route table with an LPG, see [Transit Routing: Access to Multiple VCNs in Same Region](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>).

- `state` - The LPG's current lifecycle state.
- `time_created` - The date and time the LPG was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the LPG belongs to.

Data Source: oci_core_nat_gateway

This data source provides details about a specific Nat Gateway resource in Oracle Cloud Infrastructure Core service.

Gets the specified NAT gateway's information.

Example Usage

```
data "oci_core_nat_gateway" "test_nat_gateway" {  
  #Required  
  nat_gateway_id = "${oci_core_nat_gateway.test_nat_gateway.id}"  
}
```

Argument Reference

The following arguments are supported:

- `nat_gateway_id` - (Required) The NAT gateway's OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `block_traffic` - Whether the NAT gateway blocks traffic through it. The default is `false`. Example: `true`
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment that contains the NAT gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the NAT gateway.
- `nat_ip` - The IP address associated with the NAT gateway.
- `state` - The NAT gateway's current state.
- `time_created` - The date and time the NAT gateway was created, in the format defined by RFC3339. Example: `2016-`

08-25T21:10:29.600Z

- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the NAT gateway belongs to.

Data Source: oci_core_nat_gateways

This data source provides the list of Nat Gateways in Oracle Cloud Infrastructure Core service.

Lists the NAT gateways in the specified compartment. You may optionally specify a VCN OCID to filter the results by VCN.

Example Usage

```
data "oci_core_nat_gateways" "test_nat_gateways" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.nat_gateway_display_name}"  
  state = "${var.nat_gateway_state}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.
- `vcn_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `nat_gateways` - The list of nat_gateways.

NatGateway Reference

The following attributes are exported:

- `block_traffic` - Whether the NAT gateway blocks traffic through it. The default is `false`. Example: `true`
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment that contains the NAT gateway.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the NAT gateway.
- `nat_ip` - The IP address associated with the NAT gateway.
- `state` - The NAT gateway's current state.
- `time_created` - The date and time the NAT gateway was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the NAT gateway belongs to.

Data Source: oci_core_network_security_group

This data source provides details about a specific Network Security Group resource in Oracle Cloud Infrastructure Core service.

Gets the specified network security group's information.

To list the VNICS in an NSG, see `ListNetworkSecurityGroupVnics`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroupVnic/ListNetworkSecurityGroupVnics>).

To list the security rules in an NSG, see `ListNetworkSecurityGroupSecurityRules`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/SecurityRule/ListNetworkSecurityGroupSecurityRules>).

Example Usage

```
data "oci_core_network_security_group" "test_network_security_group" {  
  #Required  
  network_security_group_id = "${oci_core_network_security_group.test_network_security_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `network_security_group_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment the network security group is in.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.

- `state` - The network security group's current state.
- `time_created` - The date and time the network security group was created, in the format defined by RFC3339.
Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group's VCN.

Data Source:

oci_core_network_security_group_security_rules

This data source provides the list of Network Security Group Security Rules in Oracle Cloud Infrastructure Core service.

Lists the security rules in the specified network security group.

Example Usage

```
data "oci_core_network_security_group_security_rules" "test_network_security_group_security_rules" {  
  #Required  
  network_security_group_id = "${oci_core_network_security_group.test_network_security_group.id}"  
  
  #Optional  
  direction = "${var.network_security_group_security_rule_direction}"  
}
```

Argument Reference

The following arguments are supported:

- **direction** - (Optional) Direction of the security rule. Set to `EGRESS` for rules that allow outbound IP packets, or `INGRESS` for rules that allow inbound IP packets.
- **network_security_group_id** - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.

Attributes Reference

The following attributes are exported:

- **security_rules** - The list of security_rules.

NetworkSecurityGroupSecurityRule Reference

The following attributes are exported:

- **description** - An optional description of your choice for the rule.
- **destination** - Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- An IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56` Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if

you're setting up a security rule for traffic destined for a particular `Service` through a service gateway. For example: `oci-phx-objectstorage` .

- The OCID of a `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.

- `destination_type` - Type of destination for the rule. Required if `direction = EGRESS` .

Allowed values:

- `CIDR_BLOCK` : If the rule's `destination` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK` : If the rule's `destination` is the `cidrBlock` value for a `Service` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular `Service` through a service gateway).
 - `NETWORK_SECURITY_GROUP` : If the rule's `destination` is the OCID of a `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `direction` - Direction of the security rule. Set to `EGRESS` for rules to allow outbound IP packets, or `INGRESS` for rules to allow inbound IP packets.
 - `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `id` - An Oracle-assigned identifier for the security rule. You specify this ID when you want to update or delete the rule. Example: `04ABEC`
- `is_valid` - Whether the rule is valid. The value is `True` when the rule is first created. If the rule's `source` or `destination` is a network security group, the value changes to `False` if that network security group is deleted.
- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `source` - Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- An IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56` Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a `Service` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security rule for traffic coming from a particular `Service` through a service gateway. For example: `oci-phx-objectstorage` .

- The OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.
- `source_type` - Type of source for the rule. Required if `direction = INGRESS`.
 - `CIDR_BLOCK` : If the rule's `source` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK` : If the rule's `source` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular Service through a service gateway).
 - `NETWORK_SECURITY_GROUP` : If the rule's `source` is the OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `stateless` - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `time_created` - The date and time the security rule was created. Format defined by RFC3339.
- `udp_options` - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.

Data Source: oci_core_network_security_groups

This data source provides the list of Network Security Groups in Oracle Cloud Infrastructure Core service.

Lists the network security groups in the specified compartment.

Example Usage

```
data "oci_core_network_security_groups" "test_network_security_groups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.network_security_group_display_name}"  
  state = "${var.network_security_group_state}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.
- `vcn_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `network_security_groups` - The list of network_security_groups.

NetworkSecurityGroup Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment the network security group is in.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.
- `state` - The network security group's current state.
- `time_created` - The date and time the network security group was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group's VCN.

Data Source: oci_core_network_security_group_vnics

This data source provides the list of Network Security Group Vnics in Oracle Cloud Infrastructure Core service.

Lists the VNICS in the specified network security group.

Example Usage

```
data "oci_core_network_security_group_vnics" "test_network_security_group_vnics" {  
  #Required  
  network_security_group_id = "${oci_core_network_security_group.test_network_security_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `network_security_group_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.

Attributes Reference

The following attributes are exported:

- `network_security_group_vnics` - The list of `network_security_group_vnics`.

NetworkSecurityGroupVnic Reference

The following attributes are exported:

- `resource_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the parent resource that the VNIC is attached to (for example, a Compute instance).
- `time_associated` - The date and time the VNIC was added to the network security group, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vnic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VNIC.

Data Source: oci_core_peer_region_for_remote_peerings

This data source provides the list of Peer Region For Remote Peerings in Oracle Cloud Infrastructure Core service.

Lists the regions that support remote VCN peering (which is peering across regions). For more information, see VCN Peering (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/VCNpeering.htm>).

Example Usage

```
data "oci_core_peer_region_for_remote_peerings" "test_peer_region_for_remote_peerings" {  
}
```

Argument Reference

The following arguments are supported:

Attributes Reference

The following attributes are exported:

- `peer_region_for_remote_peerings` - The list of `peer_region_for_remote_peerings`.

PeerRegionForRemotePeering Reference

The following attributes are exported:

- `name` - The region's name. Example: `us-phoenix-1`

Data Source: oci_core_private_ip

This data source provides details about a specific Private Ip resource in Oracle Cloud Infrastructure Core service.

Gets the specified private IP. You must specify the object's OCID. Alternatively, you can get the object by using `ListPrivateIps` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/ListPrivateIps>) with the private IP address (for example, 10.0.3.3) and subnet OCID.

Example Usage

```
data "oci_core_private_ip" "test_private_ip" {  
  #Required  
  private_ip_id = "${oci_core_private_ip.test_private_ip.id}"  
}
```

Argument Reference

The following arguments are supported:

- `private_ip_id` - (Required) The OCID of the private IP.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The private IP's availability domain. This attribute will be null if this is a *secondary* private IP assigned to a VNIC that is in a *regional* subnet. Example: Uocm:PHX-AD-1
- `compartment_id` - The OCID of the compartment containing the private IP.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, `bminstance-1` in FQDN `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `bminstance-1`

- `id` - The private IP's Oracle ID (OCID).
- `ip_address` - The private IP address of the `privateIp` object. The address is within the CIDR of the VNIC's subnet.
Example: `10.0.3.3`
- `is_primary` - Whether this private IP is the primary one on the VNIC. Primary private IPs are unassigned and deleted automatically when the VNIC is terminated. Example: `true`
- `subnet_id` - The OCID of the subnet the VNIC is in.
- `time_created` - The date and time the private IP was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vnic_id` - The OCID of the VNIC the private IP is assigned to. The VNIC and private IP must be in the same subnet.

Data Source: oci_core_private_ips

This data source provides the list of Private Ips in Oracle Cloud Infrastructure Core service.

Lists the PrivateIp (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/>) objects based on one of these filters:

- Subnet OCID.
- VNIC OCID.
- Both private IP address and subnet OCID: This lets you get a `privateIP` object based on its private IP address (for example, 10.0.3.3) and not its OCID. For comparison, `GetPrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/GetPrivateIp>) requires the OCID.

If you're listing all the private IPs associated with a given subnet or VNIC, the response includes both primary and secondary private IPs.

Example Usage

```
# Filter on Subnet OCID
data "oci_core_private_ips" "test_private_ips_by_subnet" {
  #Optional
  subnet_id = "${var.private_ip_subnet_id}"
}
```

```
# Filter on VNIC OCID
data "oci_core_private_ips" "test_private_ips_by_vnic" {
  #Optional
  vnic_id = "${oci_core_vnic.test_vnic.id}"
}
```

```
# Filter on private IP address and Subnet OCID
data "oci_core_private_ips" "test_private_ips_by_ip_address" {
  #Optional
  ip_address = "${var.private_ip_ip_address}"
  subnet_id = "${oci_core_subnet.test_subnet.id}"
}
```

Argument Reference

The following arguments are supported:

- `ip_address` - (Optional) An IP address. This could be either IPv4 or IPv6, depending on the resource. Example: 10.0.3.3
- `subnet_id` - (Optional) The OCID of the subnet.

- `vnic_id` - (Optional) The OCID of the VNIC.

Attributes Reference

The following attributes are exported:

- `private_ips` - The list of `private_ips`.

PrivateIp Reference

The following attributes are exported:

- `availability_domain` - The private IP's availability domain. This attribute will be null if this is a *secondary* private IP assigned to a VNIC that is in a *regional* subnet. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the private IP.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, `binstance-1` in FQDN `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `binstance-1`

- `id` - The private IP's Oracle ID (OCID).
- `ip_address` - The private IP address of the `privateIp` object. The address is within the CIDR of the VNIC's subnet. Example: `10.0.3.3`
- `is_primary` - Whether this private IP is the primary one on the VNIC. Primary private IPs are unassigned and deleted automatically when the VNIC is terminated. Example: `true`
- `subnet_id` - The OCID of the subnet the VNIC is in.
- `time_created` - The date and time the private IP was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vnic_id` - The OCID of the VNIC the private IP is assigned to. The VNIC and private IP must be in the same subnet.

Data Source: oci_core_public_ip

This data source provides details about a specific Public Ip resource in Oracle Cloud Infrastructure Core service.

Gets the specified public IP. You must specify the object's OCID.

Alternatively, you can get the object by using `GetPublicIpByIpAddress`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/GetPublicIpByIpAddress>) with the public IP address (for example, 129.146.2.1).

Or you can use `GetPublicIpByPrivateIpId`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/GetPublicIpByPrivateIpId>) with the OCID of the private IP that the public IP is assigned to.

Note: If you're fetching a reserved public IP that is in the process of being moved to a different private IP, the service returns the public IP object with `lifecycleState = ASSIGNING` and `assignedEntityId = OCID of the target private IP`.

Example Usage

Get a public ip by public ip id

```
data "oci_core_public_ip" "test_oci_core_public_ip_by_id" {
  id = "${var.test_public_ip_id}"
}
```

Get a public ip by private ip id

```
data "oci_core_public_ip" "test_oci_core_public_ip_by_private_ip_id" {
  private_ip_id = "${var.test_public_ip_private_ip_id}"
}
```

Get a public ip by public ip address

```
data "oci_core_public_ip" "test_oci_core_public_ip_by_ip" {
  ip_address = "${var.test_public_ip_ip_address}"
}
```

Argument Reference

The following arguments are supported:

Only one of the following values will be used. If multiple arguments are passed, the first non-empty value will be used based

on the order below.

- `id` - (Optional) The OCID of the public IP.
- `private_ip_id` - (Optional) Gets the public IP assigned to the specified private IP. You must specify the OCID of the private IP. If no public IP is assigned, a 404 is returned.
- `ip_address` - (Optional) Gets the public IP based on the public IP address (for example, 129.146.2.1).

Attributes Reference

The following attributes are exported:

- `assigned_entity_id` - The OCID of the entity the public IP is assigned to, or in the process of being assigned to.
- `assigned_entity_type` - The type of entity the public IP is assigned to, or in the process of being assigned to.
- `availability_domain` - The public IP's availability domain. This property is set only for ephemeral public IPs that are assigned to a private IP (that is, when the `scope` of the public IP is set to `AVAILABILITY_DOMAIN`). The value is the availability domain of the assigned private IP. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the public IP. For an ephemeral public IP, this is the compartment of its assigned entity (which can be a private IP or a regional entity such as a NAT gateway). For a reserved public IP that is currently assigned, its compartment can be different from the assigned private IP's.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The public IP's Oracle ID (OCID).
- `ip_address` - The public IP address of the `publicIp` object. Example: `129.146.2.1`
- `lifetime` - Defines when the public IP is deleted and released back to Oracle's public IP pool.
 - **EPHEMERAL** : The lifetime is tied to the lifetime of its assigned entity. An ephemeral public IP must always be assigned to an entity. If the assigned entity is a private IP, the ephemeral public IP is automatically deleted when the private IP is deleted, when the VNIC is terminated, or when the instance is terminated. If the assigned entity is a `NatGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>), the ephemeral public IP is automatically deleted when the NAT gateway is terminated.
 - **RESERVED** : You control the public IP's lifetime. You can delete a reserved public IP whenever you like. It does not need to be assigned to a private IP at all times.

For more information and comparison of the two types, see [Public IP Addresses](#)

(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

- `private_ip_id` - Deprecated. Use `assignedEntityId` instead.

The OCID of the private IP that the public IP is currently assigned to, or in the process of being assigned to.

Note: This is `null` if the public IP is not assigned to a private IP, or is in the process of being assigned to one.

- `scope` - Whether the public IP is regional or specific to a particular availability domain.
 - `REGION` : The public IP exists within a region and is assigned to a regional entity (such as a NatGateway (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>)), or can be assigned to a private IP in any availability domain in the region. Reserved public IPs and ephemeral public IPs assigned to a regional entity have `scope = REGION`.
 - `AVAILABILITY_DOMAIN` : The public IP exists within the availability domain of the entity it's assigned to, which is specified by the `availabilityDomain` property of the public IP object. Ephemeral public IPs that are assigned to private IPs have `scope = AVAILABILITY_DOMAIN`.
- `state` - The public IP's current state.
- `time_created` - The date and time the public IP was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_public_ips

This data source provides the list of Public Ips in Oracle Cloud Infrastructure Core service.

Lists the PublicIp (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/>) objects in the specified compartment. You can filter the list by using query parameters.

To list your reserved public IPs: * Set `scope = REGION` (required) * Leave the `availabilityDomain` parameter empty * Set `lifetime = RESERVED`

To list the ephemeral public IPs assigned to a regional entity such as a NAT gateway: * Set `scope = REGION` (required) * Leave the `availabilityDomain` parameter empty * Set `lifetime = EPHEMERAL`

To list the ephemeral public IPs assigned to private IPs: * Set `scope = AVAILABILITY_DOMAIN` (required) * Set the `availabilityDomain` parameter to the desired availability domain (required) * Set `lifetime = EPHEMERAL`

Note: An ephemeral public IP assigned to a private IP is always in the same availability domain and compartment as the private IP.

Example Usage

```
data "oci_core_public_ips" "test_public_ips" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  scope = "${var.public_ip_scope}"  
  
  #Optional  
  availability_domain = "${var.public_ip_availability_domain}"  
  lifetime = "${var.public_ip_lifetime}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `lifetime` - (Optional) A filter to return only public IPs that match given lifetime.
- `scope` - (Required) Whether the public IP is regional or specific to a particular availability domain.
 - `REGION`: The public IP exists within a region and is assigned to a regional entity (such as a `NatGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>)), or can be assigned to a private IP in any availability domain in the region. Reserved public IPs have `scope = REGION`, as do ephemeral public IPs assigned to a regional entity.
 - `AVAILABILITY_DOMAIN`: The public IP exists within the availability domain of the entity it's assigned to, which is specified by the `availabilityDomain` property of the public IP object. Ephemeral public IPs that are assigned

to private IPs have `scope = AVAILABILITY_DOMAIN`.

Attributes Reference

The following attributes are exported:

- `public_ips` - The list of `public_ips`.

PublicIp Reference

The following attributes are exported:

- `assigned_entity_id` - The OCID of the entity the public IP is assigned to, or in the process of being assigned to.
- `assigned_entity_type` - The type of entity the public IP is assigned to, or in the process of being assigned to.
- `availability_domain` - The public IP's availability domain. This property is set only for ephemeral public IPs that are assigned to a private IP (that is, when the `scope` of the public IP is set to `AVAILABILITY_DOMAIN`). The value is the availability domain of the assigned private IP. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the public IP. For an ephemeral public IP, this is the compartment of its assigned entity (which can be a private IP or a regional entity such as a NAT gateway). For a reserved public IP that is currently assigned, its compartment can be different from the assigned private IP's.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The public IP's Oracle ID (OCID).
- `ip_address` - The public IP address of the `publicIp` object. Example: `129.146.2.1`
- `lifetime` - Defines when the public IP is deleted and released back to Oracle's public IP pool.
 - **EPHEMERAL** : The lifetime is tied to the lifetime of its assigned entity. An ephemeral public IP must always be assigned to an entity. If the assigned entity is a private IP, the ephemeral public IP is automatically deleted when the private IP is deleted, when the VNIC is terminated, or when the instance is terminated. If the assigned entity is a `NatGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>), the ephemeral public IP is automatically deleted when the NAT gateway is terminated.
 - **RESERVED** : You control the public IP's lifetime. You can delete a reserved public IP whenever you like. It does not need to be assigned to a private IP at all times.

For more information and comparison of the two types, see [Public IP Addresses](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

- `private_ip_id` - Deprecated. Use `assignedEntityId` instead.

The OCID of the private IP that the public IP is currently assigned to, or in the process of being assigned to.

Note: This is `null` if the public IP is not assigned to a private IP, or is in the process of being assigned to one.

- `scope` - Whether the public IP is regional or specific to a particular availability domain.
 - `REGION` : The public IP exists within a region and is assigned to a regional entity (such as a `NatGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>)), or can be assigned to a private IP in any availability domain in the region. Reserved public IPs and ephemeral public IPs assigned to a regional entity have `scope = REGION`.
 - `AVAILABILITY_DOMAIN` : The public IP exists within the availability domain of the entity it's assigned to, which is specified by the `availabilityDomain` property of the public IP object. Ephemeral public IPs that are assigned to private IPs have `scope = AVAILABILITY_DOMAIN`.
- `state` - The public IP's current state.
- `time_created` - The date and time the public IP was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_remote_peering_connections

This data source provides the list of Remote Peering Connections in Oracle Cloud Infrastructure Core service.

Lists the remote peering connections (RPCs) for the specified DRG and compartment (the RPC's compartment).

Example Usage

```
data "oci_core_remote_peering_connections" "test_remote_peering_connections" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  drg_id = "${oci_core_drg.test_drg.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `drg_id` - (Optional) The OCID of the DRG.

Attributes Reference

The following attributes are exported:

- `remote_peering_connections` - The list of `remote_peering_connections`.

RemotePeeringConnection Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the RPC.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG that this RPC belongs to.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type,

or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `id` - The OCID of the RPC.
- `is_cross_tenancy_peering` - Whether the VCN at the other end of the peering is in a different tenancy. Example: `false`
- `peer_id` - If this RPC is peered, this value is the OCID of the other RPC.
- `peer_region_name` - If this RPC is peered, this value is the region that contains the other RPC. Example: `us-ashburn-1`
- `peer_tenancy_id` - If this RPC is peered, this value is the OCID of the other RPC's tenancy.
- `peering_status` - Whether the RPC is peered with another RPC. `NEW` means the RPC has not yet been peered. `PENDING` means the peering is being established. `REVOKED` means the RPC at the other end of the peering has been deleted.
- `state` - The RPC's current lifecycle state.
- `time_created` - The date and time the RPC was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_core_route_tables

This data source provides the list of Route Tables in Oracle Cloud Infrastructure Core service.

Lists the route tables in the specified VCN and specified compartment. The response includes the default route table that automatically comes with each VCN, plus any route tables you've created.

Example Usage

```
data "oci_core_route_tables" "test_route_tables" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.route_table_display_name}"  
  state = "${var.route_table_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `route_tables` - The list of route_tables.

RouteTable Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the route table.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Operations.CostCenter": "42"}`

- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The route table's Oracle ID (OCID).
- `route_rules` - The collection of rules for routing destination IPs to network devices.

- `cidr_block` - Deprecated. Instead use `destination` and `destinationType`. Requests that include both `cidrBlock` and `destination` will be rejected.

A destination IP address range in CIDR notation. Matching packets will be routed to the indicated network entity (the target).

Cannot be an IPv6 CIDR.

Example: `0.0.0.0/0`

- `destination` - Conceptually, this is the range of IP addresses used for matching when routing traffic. Required if you provide a `destinationType`.

Allowed values:

- IP address range in CIDR notation. Can be an IPv4 or IPv6 CIDR. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. If you set this to an IPv6 CIDR, the route rule's target can only be a DRG or internet gateway. Note that IPv6 addressing is currently supported only in the Government Cloud.
 - The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a route rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.

- `destination_type` - Type of destination for the rule. Required if you provide a `destination`.

- `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).

- `network_entity_id` - The OCID for the route rule's target. For information about the type of targets you can specify, see Route Tables (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm>).

- `state` - The route table's current state.
- `time_created` - The date and time the route table was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the route table list belongs to.

Data Source: oci_core_security_lists

This data source provides the list of Security Lists in Oracle Cloud Infrastructure Core service.

Lists the security lists in the specified VCN and compartment.

Example Usage

```
data "oci_core_security_lists" "test_security_lists" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.security_list_display_name}"  
  state = "${var.security_list_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `security_lists` - The list of security_lists.

SecurityList Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the security list.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `egress_security_rules` - Rules for allowing egress IP packets.
 - `destination` - Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- `destination_type` - Type of destination for the rule. The default is `CIDR_BLOCK`.

Allowed values:

- `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
- `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
- `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `stateless` - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.

- `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `udp_options` - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The security list's Oracle Cloud ID (OCID).
- `ingress_security_rules` - Rules for allowing ingress IP packets.
 - `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `source` - Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- IP address range in CIDR notation. For example: 192.168.1.0/24 or 2001:0db8:0123:45::/56 . Note that IPv6 addressing is currently supported only in the Government Cloud.
 - The cidrBlock value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic coming from a particular Service through a service gateway. For example: oci-phx-objectstorage .
- source_type - Type of source for the rule. The default is CIDR_BLOCK .
- CIDR_BLOCK : If the rule's source is an IP address range in CIDR notation.
 - SERVICE_CIDR_BLOCK : If the rule's source is the cidrBlock value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular Service through a service gateway).
- stateless - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if ingress traffic allows TCP destination port 80, there should be an egress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- tcp_options - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
- The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - min - The minimum port number. Must not be greater than the maximum port number.
 - source_port_range - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - min - The minimum port number. Must not be greater than the maximum port number.
- udp_options - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
- The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - min - The minimum port number. Must not be greater than the maximum port number.
 - source_port_range - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - min - The minimum port number. Must not be greater than the maximum port number.

- `state` - The security list's current state.
- `time_created` - The date and time the security list was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the security list belongs to.

Data Source: oci_core_service_gateways

This data source provides the list of Service Gateways in Oracle Cloud Infrastructure Core service.

Lists the service gateways in the specified compartment. You may optionally specify a VCN OCID to filter the results by VCN.

Example Usage

```
data "oci_core_service_gateways" "test_service_gateways" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  state = "${var.service_gateway_state}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `service_gateways` - The list of service_gateways.

ServiceGateway Reference

The following attributes are exported:

- `block_traffic` - Whether the service gateway blocks all traffic through it. The default is `false`. When this is `true`, traffic is not routed to any services, regardless of route rules. Example: `true`
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment that contains the service gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the service gateway.
- `route_table_id` - The OCID of the route table the service gateway is using. For information about why you would associate a route table with a service gateway, see Transit Routing: Private Access to Oracle Services (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>).
- `services` - List of the Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) objects enabled for this service gateway. The list can be empty. You can enable a particular `Service` by using `AttachServiceId` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/AttachServiceId>) or `UpdateServiceGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/UpdateServiceGateway>).
 - `service_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the service.
 - `service_name` - The name of the service.
- `state` - The service gateway's current state.
- `time_created` - The date and time the service gateway was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the service gateway belongs to.

Data Source: oci_core_services

This data source provides the list of Services in Oracle Cloud Infrastructure Core service.

Lists the available Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) objects that you can enable for a service gateway in this region.

Example Usage

```
data "oci_core_services" "test_services" {  
  }
```

Argument Reference

The following arguments are supported:

Attributes Reference

The following attributes are exported:

- `services` - The list of services.

Service Reference

The following attributes are exported:

- `cidr_block` - A string that represents the regional public IP address ranges for the Oracle service or services covered by this `Service` object. Also known as the `Service` object's *service CIDR label*.

When you set up a route rule to route traffic to the service gateway, use this value as the rule's destination. See [Route Table](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/>). Also, when you set up a security list rule to cover traffic with the service gateway, use the `cidrBlock` value as the rule's destination (for an egress rule) or the source (for an ingress rule). See [Security List](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/SecurityList/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/SecurityList/>).

Example: `oci-phx-objectstorage`

- `description` - Description of the Oracle service or services covered by this `Service` object. Example: `OCI PHX Object Storage`
- `id` - The `Service` object's OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `name` - Name of the `Service` object. This name can change and is not guaranteed to be unique. Example: `OCI PHX Object Storage`

Data Source: oci_core_shapes

This data source provides the list of Shapes in Oracle Cloud Infrastructure Core service.

Lists the shapes that can be used to launch an instance within the specified compartment. You can filter the list by compatibility with a specific image.

Example Usage

```
data "oci_core_shapes" "test_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.shape_availability_domain}"  
  image_id = "${oci_core_image.test_image.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `image_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of an image.

Attributes Reference

The following attributes are exported:

- `shapes` - The list of shapes.

Shape Reference

The following attributes are exported:

- `name` - The name of the shape. You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

Data Source: oci_core_subnet

This data source provides details about a specific Subnet resource in Oracle Cloud Infrastructure Core service.

Gets the specified subnet's information.

Example Usage

```
data "oci_core_subnet" "test_subnet" {  
  #Required  
  subnet_id = "${oci_core_subnet.test_subnet.id}"  
}
```

Argument Reference

The following arguments are supported:

- `subnet_id` - (Required) The OCID of the subnet.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The subnet's availability domain. This attribute will be null if this is a regional subnet instead of an AD-specific subnet. Oracle recommends creating regional subnets. Example: `Uocm:PHX-AD-1`
- `cidr_block` - The subnet's CIDR block. Example: `172.16.1.0/24`
- `compartment_id` - The OCID of the compartment containing the subnet.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `dhcp_options_id` - The OCID of the set of DHCP options that the subnet uses.
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter and is unique within the VCN. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not resolve hostnames of instances in this subnet.

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: subnet123

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The subnet's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's private IP address space. The subnet size is always /64. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123:1111::/64`
- `ipv6public_cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's public IP address space. The subnet size is always /64. The left 48 bits are inherited from the `ipv6PublicCidrBlock` of the Vcn (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vcn/>), and the remaining 16 bits are from the subnet's `ipv6CidrBlock`. Example: `2001:0db8:0123:1111::/64`
- `ipv6virtual_router_ip` - For an IPv6-enabled subnet, this is the IPv6 address of the virtual router. Example: `2001:0db8:0123:1111:89ab:cdef:1234:5678`
- `prohibit_public_ip_on_vnic` - Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the `assignPublicIp` flag in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>)). If `prohibitPublicIpOnVnic` is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet). Example: `true`
- `route_table_id` - The OCID of the route table that the subnet uses.
- `security_list_ids` - The OCIDs of the security list or lists that the subnet uses. Remember that security lists are associated *with the subnet*, but the rules are applied to the individual VNICs in the subnet.
- `state` - The subnet's current state.
- `subnet_domain_name` - The subnet's domain name, which consists of the subnet's DNS label, the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: subnet123.vcn1.oraclevcn.com

- `time_created` - The date and time the subnet was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the subnet is in.
- `virtual_router_ip` - The IP address of the virtual router. Example: `10.0.14.1`
- `virtual_router_mac` - The MAC address of the virtual router. Example: `00:00:17:B6:4D:DD`

Data Source: oci_core_subnets

This data source provides the list of Subnets in Oracle Cloud Infrastructure Core service.

Lists the subnets in the specified VCN and the specified compartment.

Example Usage

```
data "oci_core_subnets" "test_subnets" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.subnet_display_name}"  
  state = "${var.subnet_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `subnets` - The list of subnets.

Subnet Reference

The following attributes are exported:

- `availability_domain` - The subnet's availability domain. This attribute will be null if this is a regional subnet instead of an AD-specific subnet. Oracle recommends creating regional subnets. Example: `Uocm:PHX-AD-1`
- `cidr_block` - The subnet's CIDR block. Example: `172.16.1.0/24`

- `compartment_id` - The OCID of the compartment containing the subnet.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `dhcp_options_id` - The OCID of the set of DHCP options that the subnet uses.
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter and is unique within the VCN. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not resolve hostnames of instances in this subnet.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `subnet123`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The subnet's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's private IP address space. The subnet size is always /64. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123:1111::/64`
- `ipv6public_cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's public IP address space. The subnet size is always /64. The left 48 bits are inherited from the `ipv6PublicCidrBlock` of the Vcn (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vcn/>), and the remaining 16 bits are from the subnet's `ipv6CidrBlock`. Example: `2001:0db8:0123:1111::/64`
- `ipv6virtual_router_ip` - For an IPv6-enabled subnet, this is the IPv6 address of the virtual router. Example: `2001:0db8:0123:1111:89ab:cdef:1234:5678`
- `prohibit_public_ip_on_vnic` - Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the `assignPublicIp` flag in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>)). If `prohibitPublicIpOnVnic` is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet). Example: `true`
- `route_table_id` - The OCID of the route table that the subnet uses.
- `security_list_ids` - The OCIDs of the security list or lists that the subnet uses. Remember that security lists are associated *with the subnet*, but the rules are applied to the individual VNICs in the subnet.
- `state` - The subnet's current state.

- `subnet_domain_name` - The subnet's domain name, which consists of the subnet's DNS label, the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `subnet123.vcn1.oraclevcn.com`

- `time_created` - The date and time the subnet was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the subnet is in.
- `virtual_router_ip` - The IP address of the virtual router. Example: `10.0.14.1`
- `virtual_router_mac` - The MAC address of the virtual router. Example: `00:00:17:B6:4D:DD`

Data Source: oci_core_vcn

This data source provides details about a specific Vcn resource in Oracle Cloud Infrastructure Core service.

Gets the specified VCN's information.

Example Usage

```
data "oci_core_vcn" "test_vcn" {  
  #Required  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
}
```

Argument Reference

The following arguments are supported:

- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

Attributes Reference

The following attributes are exported:

- `cidr_block` - The CIDR IP address block of the VCN. Example: `172.16.0.0/16`
- `compartment_id` - The OCID of the compartment containing the VCN.
- `default_dhcp_options_id` - The OCID for the VCN's default set of DHCP options.
- `default_route_table_id` - The OCID for the VCN's default route table.
- `default_security_list_id` - The OCID for the VCN's default security list.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not work for this VCN.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The VCN's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's private IP address space. The VCN size is always /48. If you don't provide a value when creating the VCN, Oracle provides one and uses that *same* CIDR for the `ipv6PublicCidrBlock`. If you do provide a value, Oracle provides a *different* CIDR for the `ipv6PublicCidrBlock`. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123::/48`
- `ipv6public_cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's public IP address space. The VCN size is always /48. This CIDR is always provided by Oracle. If you don't provide a custom CIDR for the `ipv6CidrBlock` when creating the VCN, Oracle assigns that value and also uses it for `ipv6PublicCidrBlock`. Oracle uses addresses from this block for the `publicIpAddress` attribute of an `Ipv6` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Ipv6/>) that has internet access allowed. Example: `2001:0db8:0123::/48`
- `state` - The VCN's current state.
- `time_created` - The date and time the VCN was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_domain_name` - The VCN's domain name, which consists of the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1.oraclevcn.com`

Data Source: oci_core_vcns

This data source provides the list of Vcns in Oracle Cloud Infrastructure Core service.

Lists the virtual cloud networks (VCNs) in the specified compartment.

Supported Aliases

- `oci_core_virtual_networks`

Example Usage

```
data "oci_core_vcns" "test_vcns" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.vcn_display_name}"  
  state = "${var.vcn_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `virtual_networks` - The list of virtual_networks.

Vcn Reference

The following attributes are exported:

- `cidr_block` - The CIDR IP address block of the VCN. Example: `172.16.0.0/16`

- `compartment_id` - The OCID of the compartment containing the VCN.
- `default_dhcp_options_id` - The OCID for the VCN's default set of DHCP options.
- `default_route_table_id` - The OCID for the VCN's default route table.
- `default_security_list_id` - The OCID for the VCN's default security list.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not work for this VCN.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The VCN's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's private IP address space. The VCN size is always /48. If you don't provide a value when creating the VCN, Oracle provides one and uses that *same* CIDR for the `ipv6PublicCidrBlock`. If you do provide a value, Oracle provides a *different* CIDR for the `ipv6PublicCidrBlock`. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123::/48`
- `ipv6public_cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's public IP address space. The VCN size is always /48. This CIDR is always provided by Oracle. If you don't provide a custom CIDR for the `ipv6CidrBlock` when creating the VCN, Oracle assigns that value and also uses it for `ipv6PublicCidrBlock`. Oracle uses addresses from this block for the `publicIpAddress` attribute of an `Ipv6` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Ipv6/>) that has internet access allowed. Example: `2001:0db8:0123::/48`
- `state` - The VCN's current state.
- `time_created` - The date and time the VCN was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_domain_name` - The VCN's domain name, which consists of the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1.oraclevcn.com`

Data Source: oci_core_virtual_circuit_bandwidth_shapes

This data source provides the list of Virtual Circuit Bandwidth Shapes in Oracle Cloud Infrastructure Core service.

Gets the list of available virtual circuit bandwidth levels for a provider. You need this information so you can specify your desired bandwidth level (shape) when you create a virtual circuit.

For more information about virtual circuits, see [FastConnect Overview](#)

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Example Usage

```
data "oci_core_virtual_circuit_bandwidth_shapes" "test_virtual_circuit_bandwidth_shapes" {  
  #Required  
  provider_service_id = "${data.oci_core_fast_connect_provider_services.test_fast_connect_provider_serv  
ices.fast_connect_provider_services.0.id}"  
}
```

Argument Reference

The following arguments are supported:

- `provider_service_id` - (Required) The OCID of the provider service.

Attributes Reference

The following attributes are exported:

- `virtual_circuit_bandwidth_shapes` - The list of virtual_circuit_bandwidth_shapes.

VirtualCircuitBandwidthShape Reference

The following attributes are exported:

- `bandwidth_in_mbps` - The bandwidth in Mbps. Example: 10000
- `name` - The name of the bandwidth shape. Example: 10 Gbps

Data Source: oci_core_virtual_circuit

This data source provides details about a specific Virtual Circuit resource in Oracle Cloud Infrastructure Core service.

Gets the specified virtual circuit's information.

Example Usage

```
data "oci_core_virtual_circuit" "test_virtual_circuit" {  
  #Required  
  virtual_circuit_id = "${oci_core_virtual_circuit.test_virtual_circuit.id}"  
}
```

Argument Reference

The following arguments are supported:

- `virtual_circuit_id` - (Required) The OCID of the virtual circuit.

Attributes Reference

The following attributes are exported:

- `bandwidth_shape_name` - The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see [ListFastConnectProviderServiceVirtualCircuitBandwidthShapes](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes>).
Example: 10 Gbps
- `bgp_management` - Deprecated. Instead use the information in [FastConnectProviderService](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/>).
- `bgp_session_state` - The state of the BGP session associated with the virtual circuit.
- `compartment_id` - The OCID of the compartment containing the virtual circuit.
- `cross_connect_mappings` - An array of mappings, each containing properties for a cross-connect or cross-connect group that is associated with this virtual circuit.

- `bgp_md5auth_key` - The key for BGP MD5 authentication. Only applicable if your system requires MD5 authentication. If empty or not set (null), that means you don't use BGP MD5 authentication.
- `cross_connect_or_cross_connect_group_id` - The OCID of the cross-connect or cross-connect group for this mapping. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).
- `customer_bgp_peering_ip` - The BGP IPv4 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv4 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv4 address of the provider's edge router. Must use a /30 or /31 subnet mask.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.18/31

- `customer_bgp_peering_ipv6` - The BGP IPv6 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv6 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv6 address of the provider's edge router. Only subnet masks from /64 up to /127 are allowed.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::1/64

- `oracle_bgp_peering_ip` - The IPv4 address for Oracle's end of the BGP session. Must use a /30 or /31 subnet mask. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.19/31

- `oracle_bgp_peering_ipv6` - The IPv6 address for Oracle's end of the BGP session. Only subnet masks from /64 up to /127 are allowed. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::2/64

- `vlan` - The number of the specific VLAN (on the cross-connect or cross-connect group) that is assigned to this virtual circuit. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider). Example: 200
- `customer_bgp_asn` - The BGP ASN of the network at the other end of the BGP session from Oracle. If the session is between the customer's edge router and Oracle, the value is the customer's ASN. If the BGP session is between the provider's edge router and Oracle, the value is the provider's ASN.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `gateway_id` - The OCID of the customer's dynamic routing gateway (DRG) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Drg>) that this virtual circuit uses. Applicable only to private virtual circuits.
- `id` - The virtual circuit's Oracle ID (OCID).
- `oracle_bgp_asn` - The Oracle BGP ASN.
- `provider_service_id` - The OCID of the service offered by the provider (if the customer is connecting via a provider).
- `provider_service_key_name` - The service key name offered by the provider (if the customer is connecting via a provider).
- `provider_state` - The provider's state in relation to this virtual circuit (if the customer is connecting via a provider). ACTIVE means the provider has provisioned the virtual circuit from their end. INACTIVE means the provider has not yet provisioned the virtual circuit, or has de-provisioned it.
- `public_prefixes` - For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection. Each prefix must be /31 or less specific.
- `reference_comment` - Provider-supplied reference information about this virtual circuit (if the customer is connecting via a provider).
- `region` - The Oracle Cloud Infrastructure region where this virtual circuit is located.
- `service_type` - Provider service type.
- `state` - The virtual circuit's current state. For information about the different states, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).
- `time_created` - The date and time the virtual circuit was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

- type - Whether the virtual circuit supports private or public peering. For more information, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Data Source: oci_core_virtual_circuit_public_prefixes

This data source provides the list of Virtual Circuit Public Prefixes in Oracle Cloud Infrastructure Core service.

Lists the public IP prefixes and their details for the specified public virtual circuit.

Example Usage

```
data "oci_core_virtual_circuit_public_prefixes" "test_virtual_circuit_public_prefixes" {  
  #Required  
  virtual_circuit_id = "${oci_core_virtual_circuit.test_virtual_circuit.id}"  
  
  #Optional  
  verification_state = "${var.virtual_circuit_public_prefix_verification_state}"  
}
```

Argument Reference

The following arguments are supported:

- `verification_state` - (Optional) A filter to only return resources that match the given verification state. The state value is case-insensitive.
- `virtual_circuit_id` - (Required) The OCID of the virtual circuit.

Attributes Reference

The following attributes are exported:

- `virtual_circuit_public_prefixes` - The list of `virtual_circuit_public_prefixes`.

VirtualCircuitPublicPrefix Reference

The following attributes are exported:

- `cidr_block` - Public IP prefix (CIDR) that the customer specified.
- `verification_state` - Oracle must verify that the customer owns the public IP prefix before traffic for that prefix can flow across the virtual circuit. Verification can take a few business days. `IN_PROGRESS` means Oracle is verifying the prefix. `COMPLETED` means verification succeeded. `FAILED` means verification failed and traffic for this prefix will not flow across the connection.

Data Source: oci_core_virtual_circuits

This data source provides the list of Virtual Circuits in Oracle Cloud Infrastructure Core service.

Lists the virtual circuits in the specified compartment.

Example Usage

```
data "oci_core_virtual_circuits" "test_virtual_circuits" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.virtual_circuit_display_name}"  
  state = "${var.virtual_circuit_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to return only resources that match the specified lifecycle state. The value is case insensitive.

Attributes Reference

The following attributes are exported:

- `virtual_circuits` - The list of virtual_circuits.

VirtualCircuit Reference

The following attributes are exported:

- `bandwidth_shape_name` - The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see `ListFastConnectProviderServiceVirtualCircuitBandwidthShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes>).
Example: 10 Gbps
- `bgp_management` - Deprecated. Instead use the information in `FastConnectProviderService` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/>).
- `bgp_session_state` - The state of the BGP session associated with the virtual circuit.
- `compartment_id` - The OCID of the compartment containing the virtual circuit.
- `cross_connect_mappings` - An array of mappings, each containing properties for a cross-connect or cross-connect group that is associated with this virtual circuit.
 - `bgp_md5auth_key` - The key for BGP MD5 authentication. Only applicable if your system requires MD5 authentication. If empty or not set (null), that means you don't use BGP MD5 authentication.
 - `cross_connect_or_cross_connect_group_id` - The OCID of the cross-connect or cross-connect group for this mapping. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).

- `customer_bgp_peering_ip` - The BGP IPv4 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv4 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv4 address of the provider's edge router. Must use a /30 or /31 subnet mask.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.18/31

- `customer_bgp_peering_ipv6` - The BGP IPv6 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv6 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv6 address of the provider's edge router. Only subnet masks from /64 up to /127 are allowed.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::1/64

- `oracle_bgp_peering_ip` - The IPv4 address for Oracle's end of the BGP session. Must use a /30 or /31 subnet mask. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.19/31

- `oracle_bgp_peering_ipv6` - The IPv6 address for Oracle's end of the BGP session. Only subnet masks from /64 up to /127 are allowed. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::2/64

- `vlan` - The number of the specific VLAN (on the cross-connect or cross-connect group) that is assigned to this virtual circuit. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider). Example: 200

- `customer_bgp_asn` - The BGP ASN of the network at the other end of the BGP session from Oracle. If the session is between the customer's edge router and Oracle, the value is the customer's ASN. If the BGP session is between the provider's edge router and Oracle, the value is the provider's ASN.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `gateway_id` - The OCID of the customer's dynamic routing gateway (DRG) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Drg>) that this virtual circuit uses. Applicable only to private virtual circuits.
- `id` - The virtual circuit's Oracle ID (OCID).
- `oracle_bgp_asn` - The Oracle BGP ASN.
- `provider_service_id` - The OCID of the service offered by the provider (if the customer is connecting via a provider).
- `provider_service_key_name` - The service key name offered by the provider (if the customer is connecting via a provider).
- `provider_state` - The provider's state in relation to this virtual circuit (if the customer is connecting via a provider). ACTIVE means the provider has provisioned the virtual circuit from their end. INACTIVE means the provider has not yet provisioned the virtual circuit, or has de-provisioned it.

- `public_prefixes` - For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection. Each prefix must be /31 or less specific.
- `reference_comment` - Provider-supplied reference information about this virtual circuit (if the customer is connecting via a provider).
- `region` - The Oracle Cloud Infrastructure region where this virtual circuit is located.
- `service_type` - Provider service type.
- `state` - The virtual circuit's current state. For information about the different states, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).
- `time_created` - The date and time the virtual circuit was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `type` - Whether the virtual circuit supports private or public peering. For more information, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Data Source: oci_core_vnic_attachments

This data source provides the list of Vnic Attachments in Oracle Cloud Infrastructure Core service.

Lists the VNIC attachments in the specified compartment. A VNIC attachment resides in the same compartment as the attached instance. The list can be filtered by instance, VNIC, or availability domain.

Example Usage

```
data "oci_core_vnic_attachments" "test_vnic_attachments" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.vnic_attachment_availability_domain}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
  vnic_id = "${oci_core_vnic.test_vnic.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_id` - (Optional) The OCID of the instance.
- `vnic_id` - (Optional) The OCID of the VNIC.

Attributes Reference

The following attributes are exported:

- `vnic_attachments` - The list of `vnic_attachments`.

VnicAttachment Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the instance. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment the VNIC attachment is in, which is the same compartment the instance is in.

- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `id` - The OCID of the VNIC attachment.
- `instance_id` - The OCID of the instance.
- `nic_index` - Which physical network interface card (NIC) the VNIC uses. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see Virtual Network Interface Cards (VNICs) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).
- `state` - The current state of the VNIC attachment.
- `subnet_id` - The OCID of the VNIC's subnet.
- `time_created` - The date and time the VNIC attachment was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vlan_tag` - The Oracle-assigned VLAN tag of the attached VNIC. Available after the attachment process is complete. Example: 0
- `vnic_id` - The OCID of the VNIC. Available after the attachment process is complete.

Data Source: oci_core_vnic

This data source provides details about a specific Vnic resource in Oracle Cloud Infrastructure Core service.

Gets the information for the specified virtual network interface card (VNIC). You can get the VNIC OCID from the ListVnicAttachments (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/VnicAttachment/ListVnicAttachments>) operation.

Example Usage

```
data "oci_core_vnic" "test_vnic" {  
  #Required  
  vnic_id = "${oci_core_vnic.test_vnic.id}"  
}
```

Argument Reference

The following arguments are supported:

- `vnic_id` - (Required) The OCID of the VNIC.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The VNIC's availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the VNIC.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain name (FQDN) (for example, `binstance-1` in FQDN `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: bminstance-1

- `id` - The OCID of the VNIC.
- `is_primary` - Whether the VNIC is the primary VNIC (the VNIC that is automatically created and attached during instance launch).
- `mac_address` - The MAC address of the VNIC. Example: 00:00:17:B6:4D:DD
- `nsg_ids` - A list of the OCIDs of the network security groups that the VNIC belongs to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `private_ip_address` - The private IP address of the primary `privateIp` object on the VNIC. The address is within the CIDR of the VNIC's subnet. Example: 10.0.3.3
- `public_ip_address` - The public IP address of the VNIC, if one is assigned.
- `skip_source_dest_check` - Whether the source/destination check is disabled on the VNIC. Defaults to `false`, which means the check is performed. For information about why you would skip the source/destination check, see `Using a Private IP as a Route Target` (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm#privateip>). Example: `true`
- `state` - The current state of the VNIC.
- `subnet_id` - The OCID of the subnet the VNIC is in.
- `time_created` - The date and time the VNIC was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_core_volume_attachments

This data source provides the list of Volume Attachments in Oracle Cloud Infrastructure Core service.

Lists the volume attachments in the specified compartment. You can filter the list by specifying an instance OCID, volume OCID, or both.

Currently, the only supported volume attachment type are `IScsiVolumeAttachment`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IScsiVolumeAttachment/>) and

`ParavirtualizedVolumeAttachment`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ParavirtualizedVolumeAttachment/>).

Example Usage

```
data "oci_core_volume_attachments" "test_volume_attachments" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.volume_attachment_availability_domain}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
  volume_id = "${oci_core_volume.test_volume.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `instance_id` - (Optional) The OCID of the instance.
- `volume_id` - (Optional) The OCID of the volume.

Attributes Reference

The following attributes are exported:

- `volume_attachments` - The list of volume_attachments.

VolumeAttachment Reference

The following attributes are exported:

- `attachment_type` - The type of volume attachment.
- `availability_domain` - The availability domain of an instance. Example: `Uocm:PHX-AD-1`
- `chap_secret` - The Challenge-Handshake-Authentication-Protocol (CHAP) secret valid for the associated CHAP user name. (Also called the "CHAP password".) Example: `d6866c0d-298b-48ba-95af-309b4faux45e`
- `chap_username` - The volume's system-generated Challenge-Handshake-Authentication-Protocol (CHAP) user name. Example: `ocid1.volume.oc1.phx.abyhqljrgvttnlx73nmrwfaux7kcvzfs3s66izvxf2h4lgvyndsdsnoiwr5q`
- `compartment_id` - The OCID of the compartment.
- `device` - The device name.
- `display_name` - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information. Example: `My volume attachment`
- `id` - The OCID of the volume attachment.
- `instance_id` - The OCID of the instance the volume is attached to.
- `ipv4` - The volume's iSCSI IP address. Example: `169.254.0.2`
- `iqn` - The target volume's iSCSI Qualified Name in the format defined by RFC 3720. Example: `iqn.2015-12.us.oracle.com:456b0391-17b8-4122-bbf1-f85fc0bb97d9`
- `is_pv_encryption_in_transit_enabled` - Whether in-transit encryption for the data volume's paravirtualized attachment is enabled or not.
- `is_read_only` - Whether the attachment was created in read-only mode.
- `port` - The volume's iSCSI port. Example: `3260`
- `state` - The current state of the volume attachment.
- `time_created` - The date and time the volume was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `volume_id` - The OCID of the volume.

Data Source: oci_core_volume_backup_policies

This data source provides the list of Volume Backup Policies in Oracle Cloud Infrastructure Core service.

Lists all volume backup policies available to the caller.

Example Usage

```
data "oci_core_volume_backup_policies" "test_volume_backup_policies" {  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) The OCID of the compartment to list. If no compartment is specified, list the predefined (Gold, Silver, Bronze) backup policies.

Attributes Reference

The following attributes are exported:

- `volume_backup_policies` - The list of volume_backup_policies.

VolumeBackupPolicy Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the volume backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume backup policy. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume backup policy.

- `schedules` - The collection of schedules that this policy will apply.
 - `backup_type` - The type of backup to create.
 - `day_of_month` - The day of the month to schedule the backup
 - `day_of_week` - The day of the week to schedule the backup
 - `hour_of_day` - The hour of the day to schedule the backup
 - `month` - The month of the year to schedule the backup
 - `offset_seconds` - The number of seconds that the backup time should be shifted from the default interval boundaries specified by the period. Backup time = Frequency start time + Offset.
 - `offset_type` - Indicates how offset is defined. If value is `STRUCTURED`, then `hourOfDay`, `dayOfWeek`, `dayOfMonth`, and `month` fields are used and `offsetSeconds` will be ignored in requests and users should ignore its value from the responses. `hourOfDay` is applicable for periods `ONE_DAY`, `ONE_WEEK`, `ONE_MONTH` and `ONE_YEAR`. `dayOfWeek` is applicable for period `ONE_WEEK`. `dayOfMonth` is applicable for periods `ONE_MONTH` and `ONE_YEAR`. 'month' is applicable for period 'ONE_YEAR'. They will be ignored in the requests for inapplicable periods. If value is `NUMERIC_SECONDS`, then `offsetSeconds` will be used for both requests and responses and the structured fields will be ignored in the requests and users should ignore their values from the responses. For clients using older versions of Apis and not sending `offsetType` in their requests, the behaviour is just like `NUMERIC_SECONDS`.
 - `period` - How often the backup should occur.
 - `retention_seconds` - How long, in seconds, backups created by this schedule should be kept until being automatically deleted.
 - `time_zone` - Specifies what time zone is the schedule in
- `time_created` - The date and time the volume backup policy was created. Format defined by RFC3339.

Data Source:

oci_core_volume_backup_policy_assignments

This data source provides the list of Volume Backup Policy Assignments in Oracle Cloud Infrastructure Core service.

Gets the volume backup policy assignment for the specified asset. Note that the `assetId` query parameter is required, and that the returned list will contain at most one item (since any given asset can only have one policy assigned to it).

Example Usage

```
data "oci_core_volume_backup_policy_assignments" "test_volume_backup_policy_assignments" {  
  #Required  
  asset_id = "${oci_core_volume.test_volume.id}"  
}
```

Argument Reference

The following arguments are supported:

- `asset_id` - (Required) The OCID of an asset (e.g. a volume).

Attributes Reference

The following attributes are exported:

- `volume_backup_policy_assignments` - The list of `volume_backup_policy_assignments`.

VolumeBackupPolicyAssignment Reference

The following attributes are exported:

- `asset_id` - The OCID of the asset (e.g. a volume) to which the policy has been assigned.
- `id` - The OCID of the volume backup policy assignment.
- `policy_id` - The OCID of the volume backup policy that has been assigned to an asset.
- `time_created` - The date and time the volume backup policy assignment was created. Format defined by RFC3339.

Data Source: oci_core_volume_backups

This data source provides the list of Volume Backups in Oracle Cloud Infrastructure Core service.

Lists the volume backups in the specified compartment. You can filter the results by volume.

Example Usage

```
data "oci_core_volume_backups" "test_volume_backups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.volume_backup_display_name}"  
  source_volume_backup_id = "${oci_core_volume_backup.test_volume_backup.id}"  
  state = "${var.volume_backup_state}"  
  volume_id = "${oci_core_volume.test_volume.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `source_volume_backup_id` - (Optional) A filter to return only resources that originated from the given source volume backup.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `volume_id` - (Optional) The OCID of the volume.

Attributes Reference

The following attributes are exported:

- `volume_backups` - The list of volume_backups.

VolumeBackup Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the volume backup.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `expiration_time` - The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the volume backup. For more information about the Key Management service and encryption keys, see Overview of Key Management (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Concepts/keyoverview.htm>) and Using Keys (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Tasks/usingkeys.htm>).
- `size_in_gbs` - The size of the volume, in GBs.
- `size_in_mbs` - The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use `size_in_gbs`.
- `source_type` - Specifies whether the backup was created manually, or via scheduled backup policy.
- `source_volume_backup_id` - The OCID of the source volume backup.
- `state` - The current state of a volume backup.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.
- `time_request_received` - The date and time the request to create the volume backup was received. Format defined by RFC3339.
- `type` - The type of a volume backup. Supported values are 'FULL' or 'INCREMENTAL'.
- `unique_size_in_gbs` - The size used by the backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the volume and whether the backup is full or incremental.
- `unique_size_in_mbs` - The size used by the backup, in MBs. It is typically smaller than `size_in_mbs`, depending on the space consumed on the volume and whether the backup is full or incremental. This field is deprecated. Please use `unique_size_in_gbs`.
- `volume_id` - The OCID of the volume.

Data Source: oci_core_volume_group_backups

This data source provides the list of Volume Group Backups in Oracle Cloud Infrastructure Core service.

Lists the volume group backups in the specified compartment. You can filter the results by volume group. For more information, see Volume Groups (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm>).

Example Usage

```
data "oci_core_volume_group_backups" "test_volume_group_backups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.volume_group_backup_display_name}"  
  volume_group_id = "${oci_core_volume_group.test_volume_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `volume_group_id` - (Optional) The OCID of the volume group.

Attributes Reference

The following attributes are exported:

- `volume_group_backups` - The list of volume_group_backups.

VolumeGroupBackup Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the volume group backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume group backup. Does not have to be unique and it's changeable. Avoid entering confidential information.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume group backup.
- `size_in_gbs` - The aggregate size of the volume group backup, in GBs.
- `size_in_mbs` - The aggregate size of the volume group backup, in MBs.
- `state` - The current state of a volume group backup.
- `time_created` - The date and time the volume group backup was created. This is the time the actual point-in-time image of the volume group data was taken. Format defined by RFC3339.
- `time_request_received` - The date and time the request to create the volume group backup was received. Format defined by RFC3339.
- `type` - The type of backup.
- `unique_size_in_gbs` - The aggregate size used by the volume group backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the volume group and whether the volume backup is full or incremental.
- `unique_size_in_mbs` - The aggregate size used by the volume group backup, in MBs. It is typically smaller than `size_in_mbs`, depending on the space consumed on the volume group and whether the volume backup is full or incremental.
- `volume_backup_ids` - OCIDs for the volume backups in this volume group backup.
- `volume_group_id` - The OCID of the source volume group.

Data Source: oci_core_volume_groups

This data source provides the list of Volume Groups in Oracle Cloud Infrastructure Core service.

Lists the volume groups in the specified compartment and availability domain. For more information, see [Volume Groups](https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm) (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm>).

Example Usage

```
data "oci_core_volume_groups" "test_volume_groups" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.volume_group_availability_domain}"  
  display_name = "${var.volume_group_display_name}"  
  state = "${var.volume_group_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: Uocm:PHX-AD-1
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `volume_groups` - The list of volume_groups.

VolumeGroup Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the volume group.
- `compartment_id` - The OCID of the compartment that contains the volume group.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume group. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID for the volume group.
- `is_hydrated` - Specifies whether the newly created cloned volume group's data has finished copying from the source volume group or backup.
- `size_in_gbs` - The aggregate size of the volume group in GBs.
- `size_in_mbs` - The aggregate size of the volume group in MBs.
- `source_details` - The volume group source. The source is either another a list of volume IDs in the same availability domain, another volume group, or a volume group backup.
 - `type` - The type can be one of these values: `volumeGroupBackupId`, `volumeGroupId`, `volumeIds`
 - `volume_group_backup_id` - The OCID of the volume group backup to restore from, if the type is `volumeGroupBackup`
 - `volume_group_id` - The OCID of the volume group to clone from, if the type is `volumeGroup`
 - `volume_ids` - OCIDs for the volumes in this volume group, if the type is `volumeIds`
- `state` - The current state of a volume group.
- `time_created` - The date and time the volume group was created. Format defined by RFC3339.
- `volume_ids` - OCIDs for the volumes in this volume group.

Data Source: oci_core_volume

This data source provides details about a specific Volume resource in Oracle Cloud Infrastructure Core service.

Gets information for the specified volume.

Example Usage

```
data "oci_core_volume" "test_volume" {  
  #Required  
  volume_id = "${oci_core_volume.test_volume.id}"  
}
```

Argument Reference

The following arguments are supported:

- `volume_id` - (Required) The OCID of the volume.

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the volume. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume.
- `is_hydrated` - Specifies whether the cloned volume's data has finished copying from the source volume or backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the volume.
- `size_in_gbs` - The size of the volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. This field is deprecated. Use `sizeInGBs` instead.

- `source_details` - The volume source, either an existing volume in the same availability domain or a volume backup. If null, an empty volume is created.
 - `id` - The OCID of the volume or volume backup.
 - `type` - The type can be one of these values: `volume`, `volumeBackup`
- `state` - The current state of a volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Data Source: oci_core_volumes

This data source provides the list of Volumes in Oracle Cloud Infrastructure Core service.

Lists the volumes in the specified compartment and availability domain.

Example Usage

```
data "oci_core_volumes" "test_volumes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.volume_availability_domain}"  
  display_name = "${var.volume_display_name}"  
  state = "${var.volume_state}"  
  volume_group_id = "${oci_core_volume_group.test_volume_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `volume_group_id` - (Optional) The OCID of the volume group.

Attributes Reference

The following attributes are exported:

- `volumes` - The list of volumes.

Volume Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the volume. Example: `Uocm:PHX-AD-1`

- `compartment_id` - The OCID of the compartment that contains the volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume.
- `is_hydrated` - Specifies whether the cloned volume's data has finished copying from the source volume or backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the volume.
- `size_in_gbs` - The size of the volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. This field is deprecated. Use `size_in_gbs` instead.
- `source_details` - The volume source, either an existing volume in the same availability domain or a volume backup. If null, an empty volume is created.
 - `id` - The OCID of the volume or volume backup.
 - `type` - The type can be one of these values: `volume`, `volumeBackup`
- `state` - The current state of a volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Data Source:

oci_database_autonomous_container_database

This data source provides details about a specific Autonomous Container Database resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Autonomous Container Database.

Example Usage

```
data "oci_database_autonomous_container_database" "test_autonomous_container_database" {  
    #Required  
    autonomous_container_database_id = "${oci_database_autonomous_container_database.test_autonomous_cont  
ainer_database.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_container_database_id` - (Required) The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `autonomous_exadata_infrastructure_id` - The OCID of the Autonomous Exadata Infrastructure.
- `availability_domain` - The availability domain of the Autonomous Container Database.
- `backup_config` -
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-provided name for the Autonomous Container Database.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}

- `id` - The OCID of the Autonomous Container Database.
- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `next_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- `patch_model` - Database Patch model preference.
- `service_level_agreement_type` - The service level agreement type of the container database. The default is STANDARD.
- `state` - The current state of the Autonomous Container Database.
- `time_created` - The date and time the Autonomous was created.

Data Source:

oci_database_autonomous_container_databases

This data source provides the list of Autonomous Container Databases in Oracle Cloud Infrastructure Database service.

Gets a list of the Autonomous Container Databases in the specified compartment.

Example Usage

```
data "oci_database_autonomous_container_databases" "test_autonomous_container_databases" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  autonomous_exadata_infrastructure_id = "${oci_database_autonomous_exadata_infrastructure.test_autonom  
ous_exadata_infrastructure.id}"  
  availability_domain = "${var.autonomous_container_database_availability_domain}"  
  display_name = "${var.autonomous_container_database_display_name}"  
  state = "${var.autonomous_container_database_state}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_exadata_infrastructure_id` - (Optional) The Autonomous Exadata Infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `availability_domain` - (Optional) A filter to return only resources that match the given availability domain exactly.
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_container_databases` - The list of `autonomous_container_databases`.

AutonomousContainerDatabase Reference

The following attributes are exported:

- `autonomous_exadata_infrastructure_id` - The OCID of the Autonomous Exadata Infrastructure.
- `availability_domain` - The availability domain of the Autonomous Container Database.
- `backup_config` -
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-provided name for the Autonomous Container Database.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the Autonomous Container Database.
- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `lifecycle_details` - Additional information about the current `lifecycleState`.
- `next_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- `patch_model` - Database Patch model preference.
- `service_level_agreement_type` - The service level agreement type of the container database. The default is STANDARD.
- `state` - The current state of the Autonomous Container Database.
- `time_created` - The date and time the Autonomous was created.

Data Source:

oci_database_autonomous_database_backup

This data source provides details about a specific Autonomous Database Backup resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Autonomous Database backup.

Example Usage

```
data "oci_database_autonomous_database_backup" "test_autonomous_database_backup" {  
  #Required  
  autonomous_database_backup_id = "${oci_database_autonomous_database_backup.test_autonomous_database_b  
ackup.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_database_backup_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database backup.

Attributes Reference

The following attributes are exported:

- `autonomous_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database_size_in_tbs` - The size of the database in terabytes at the time the backup was taken.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup completed.

- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Data Source:

oci_database_autonomous_database_backups

This data source provides the list of Autonomous Database Backups in Oracle Cloud Infrastructure Database service.

Gets a list of Autonomous Database backups based on either the `autonomousDatabaseId` or `compartmentId` specified as a query parameter.

Example Usage

```
data "oci_database_autonomous_database_backups" "test_autonomous_database_backups" {  
  
  #Optional  
  autonomous_database_id = "${oci_database_autonomous_database.test_autonomous_database.id}"  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.autonomous_database_backup_display_name}"  
  state = "${var.autonomous_database_backup_state}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_database_id` - (Optional) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - (Optional) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_database_backups` - The list of `autonomous_database_backups`.

AutonomousDatabaseBackup Reference

The following attributes are exported:

- `autonomous_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database_size_in_tbs` - The size of the database in terabytes at the time the backup was taken.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Data Source: oci_database_autonomous_database

This data source provides details about a specific Autonomous Database resource in Oracle Cloud Infrastructure Database service.

Gets the details of the specified Autonomous Database.

Example Usage

```
data "oci_database_autonomous_database" "test_autonomous_database" {  
  #Required  
  autonomous_database_id = "${oci_database_autonomous_database.test_autonomous_database.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `autonomous_container_database_id` - The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Autonomous Database. The username for the Service Console is ADMIN. Use the password you entered when creating the Autonomous Database for the password value.
 - `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Database. For more information, please see Predefined Database Service Names for Autonomous Transaction Processing (<https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE>)
 - `dedicated` - The database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.

- `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting a lower level of performance, but supports more concurrent SQL statements.
- `connection_urls` -
 - `apex_url` - Oracle Application Express (APEX) URL.
 - `sql_dev_web_url` - Oracle SQL Developer Web URL.
- `cpu_core_count` - The number of CPU cores to be made available to the database.
- `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
- `db_name` - The database name.
- `db_version` - A valid Oracle Database version for Autonomous Database.
- `db_workload` - The Autonomous Database workload type. OLTP indicates an Autonomous Transaction Processing database and DW indicates an Autonomous Data Warehouse database.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Database. The name does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.
- `is_auto_scaling_enabled` - Indicates if auto scaling is enabled for the Autonomous Database CPU core count. Note that auto scaling is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only.
- `is_dedicated` - True if the database uses the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option.
- `is_free_tier` - Indicates if this is an Always Free resource. The default value is false. Note that Always Free Autonomous Databases have 1 CPU and 20GB memory. For Always Free databases, memory and CPU cannot be scaled.
- `is_preview` - Indicates if the Autonomous Database version is a preview version.
- `license_model` - The Oracle license model that applies to the Oracle Autonomous Database. The default for Autonomous Database using the [shared deployment] is BRING_YOUR_OWN_LICENSE. Note that when provisioning an Autonomous Database using the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option, this attribute must be null because the attribute is already set on Autonomous Exadata Infrastructure level.
- `lifecycle_details` - Information about the current lifecycle state.
- `service_console_url` - The URL of the Service Console for the Autonomous Database.
- `state` - The current state of the database.

- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `time_created` - The date and time the database was created.
- `time_deletion_of_free_autonomous_database` - The date and time the Always Free database will be automatically deleted because of inactivity. If the database is in the STOPPED state and without activity until this time, it will be deleted.
- `time_reclamation_of_free_autonomous_database` - The date and time the Always Free database will be stopped because of inactivity. If this time is reached without any database activity, the database will automatically be put into the STOPPED state.
- `used_data_storage_size_in_tbs` - The amount of storage that has been used, in terabytes.
- `whitelisted_ips` - The client IP access control list (ACL). This feature is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only. Only clients connecting from an IP address included in the ACL may access the Autonomous Database instance. This is an array of CIDR (Classless Inter-Domain Routing) notations for a subnet.

Data Source: oci_database_autonomous_databases

This data source provides the list of Autonomous Databases in Oracle Cloud Infrastructure Database service.

Gets a list of Autonomous Databases.

Example Usage

```
data "oci_database_autonomous_databases" "test_autonomous_databases" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  autonomous_container_database_id = "${oci_database_autonomous_container_database.test_autonomous_cont  
ainer_database.id}"  
  db_workload = "${var.autonomous_database_db_workload}"  
  display_name = "${var.autonomous_database_display_name}"  
  is_free_tier = "${var.autonomous_database_is_free_tier}"  
  state = "${var.autonomous_database_state}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_container_database_id` - (Optional) The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_workload` - (Optional) A filter to return only autonomous database resources that match the specified workload type.
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `is_free_tier` - (Optional) Filter on the value of the resource's 'isFreeTier' property. A value of `true` returns only Always Free resources. A value of `false` excludes Always Free resources from the returned results. Omitting this parameter returns both Always Free and paid resources.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_databases` - The list of autonomous_databases.

Autonomous Database Reference

The following attributes are exported:

- `autonomous_container_database_id` - The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Autonomous Database. The username for the Service Console is ADMIN. Use the password you entered when creating the Autonomous Database for the password value.
 - `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Database. For more information, please see Predefined Database Service Names for Autonomous Transaction Processing (<https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE>)
 - `dedicated` - The database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting in a lower level of performance, but supports more concurrent SQL statements.
- `connection_urls` -
 - `apex_url` - Oracle Application Express (APEX) URL.
 - `sql_dev_web_url` - Oracle SQL Developer Web URL.
- `cpu_core_count` - The number of CPU cores to be made available to the database.
- `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
- `db_name` - The database name.
- `db_version` - A valid Oracle Database version for Autonomous Database.
- `db_workload` - The Autonomous Database workload type. OLTP indicates an Autonomous Transaction Processing database and DW indicates an Autonomous Data Warehouse database.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Database. The name does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.
- `is_auto_scaling_enabled` - Indicates if auto scaling is enabled for the Autonomous Database CPU core count. Note that auto scaling is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only.
- `is_dedicated` - True if the database uses the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option.
- `is_free_tier` - Indicates if this is an Always Free resource. The default value is false. Note that Always Free Autonomous Databases have 1 CPU and 20GB memory. For Always Free databases, memory and CPU cannot be scaled.
- `is_preview` - Indicates if the Autonomous Database version is a preview version.
- `license_model` - The Oracle license model that applies to the Oracle Autonomous Database. The default for Autonomous Database using the [shared deployment] is `BRING_YOUR_OWN_LICENSE`. Note that when provisioning an Autonomous Database using the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option, this attribute must be null because the attribute is already set on Autonomous Exadata Infrastructure level.
- `lifecycle_details` - Information about the current lifecycle state.
- `service_console_url` - The URL of the Service Console for the Autonomous Database.
- `state` - The current state of the database.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `time_created` - The date and time the database was created.
- `time_deletion_of_free_autonomous_database` - The date and time the Always Free database will be automatically deleted because of inactivity. If the database is in the STOPPED state and without activity until this time, it will be deleted.
- `time_reclamation_of_free_autonomous_database` - The date and time the Always Free database will be stopped because of inactivity. If this time is reached without any database activity, the database will automatically be put into the STOPPED state.
- `used_data_storage_size_in_tbs` - The amount of storage that has been used, in terabytes.
- `whitelisted_ips` - The client IP access control list (ACL). This feature is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only. Only clients connecting from an IP address included in the ACL may access the Autonomous Database instance. This is an array of CIDR (Classless Inter-Domain Routing) notations for a subnet.

Data Source: oci_database_autonomous_database_wallet

This data source provides details about a specific Autonomous Database Wallet resource in Oracle Cloud Infrastructure Database service.

Creates and downloads a wallet for the specified Autonomous Database.

Example Usage

```
data "oci_database_autonomous_database_wallet" "test_autonomous_database_wallet" {  
  #Required  
  autonomous_database_id = "${oci_database_autonomous_database.test_autonomous_database.id}"  
  password = "${var.autonomous_database_wallet_password}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `password` - (Required) The password to encrypt the keys inside the wallet. The password must be at least 8 characters long and must include at least 1 letter and either 1 numeric character or 1 special character.
- `base64_encode_content` - (Optional) Encodes the downloaded zipped wallet in base64. It is recommended to set this to `true` to avoid corrupting the zip file in Terraform state. The default value is `false` to preserve backwards compatibility with Terraform v0.11 configurations.

Attributes Reference

The following attributes are exported:

- `content` - content of the downloaded zipped wallet for the Autonomous Database. If `base64_encode_content` is set to `true`, then this content will be base64 encoded. If passing the base64 encoded content to a `local_file` resource, please use the `content_base64` attribute of the `local_file` resource. See this example (https://github.com/terraform-providers/terraform-provider-oci/blob/master/examples/database/adb/autonomous_data_warehouse_wallet.tf) for more details.

Data Source:

oci_database_autonomous_data_warehouse_backup

This data source provides details about a specific Autonomous Data Warehouse Backup resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Autonomous Data Warehouse backup.

IMPORTANT: This data source is being **deprecated**, use `oci_database_autonomous_database_backup` instead.

Example Usage

```
data "oci_database_autonomous_data_warehouse_backup" "test_autonomous_data_warehouse_backup" {  
  #Required  
  autonomous_data_warehouse_backup_id = "${oci_database_autonomous_data_warehouse_backup.test_autonomou  
s_data_warehouse_backup.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_data_warehouse_backup_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse backup.

Attributes Reference

The following attributes are exported:

- `autonomous_data_warehouse_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup completed.

- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Data Source:

oci_database_autonomous_data_warehouse_backups

This data source provides the list of Autonomous Data Warehouse Backups in Oracle Cloud Infrastructure Database service.

Gets a list of Autonomous Data Warehouse backups based on either the `autonomousDataWarehouseId` or `compartmentId` specified as a query parameter.

IMPORTANT: This data source is being **deprecated**, use `oci_database_autonomous_database_backups` instead.

Example Usage

```
data "oci_database_autonomous_data_warehouse_backups" "test_autonomous_data_warehouse_backups" {  
  
  #Optional  
  autonomous_data_warehouse_id = "${oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse.id}"  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.autonomous_data_warehouse_backup_display_name}"  
  state = "${var.autonomous_data_warehouse_backup_state}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_data_warehouse_id` - (Optional) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - (Optional) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_data_warehouse_backups` - The list of `autonomous_data_warehouse_backups`.

AutonomousDataWarehouseBackup Reference

The following attributes are exported:

- `autonomous_data_warehouse_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Data Source: oci_database_autonomous_data_warehouse

This data source provides details about a specific Autonomous Data Warehouse resource in Oracle Cloud Infrastructure Database service.

Gets the details of the specified Autonomous Data Warehouse.

IMPORTANT: This data source is being **deprecated**, use `oci_database_autonomous_database` instead.

Example Usage

```
data "oci_database_autonomous_data_warehouse" "test_autonomous_data_warehouse" {  
  #Required  
  autonomous_data_warehouse_id = "${oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_data_warehouse_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Data Warehouse. The username for the Service Console is ADMIN. Use the password you entered when creating the Autonomous Data Warehouse for the password value.
 - `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Data Warehouse. For more information, please see Predefined Database Service Names for Autonomous Transaction Processing (<https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE>)
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting a lower level of performance, but supports more concurrent SQL statements.

- `cpu_core_count` - The number of CPU cores to be made available to the database.
- `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
- `db_name` - The database name.
- `db_version` - A valid Oracle Database version for Autonomous Data Warehouse.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Data Warehouse. The name does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
- `license_model` - The Oracle license model that applies to the Oracle Autonomous Data Warehouse. The default is `BRING_YOUR_OWN_LICENSE`.
- `lifecycle_details` - Information about the current lifecycle state.
- `service_console_url` - The URL of the Service Console for the Data Warehouse.
- `state` - The current state of the database.
- `time_created` - The date and time the database was created.

Data Source:

oci_database_autonomous_data_warehouses

This data source provides the list of Autonomous Data Warehouses in Oracle Cloud Infrastructure Database service.

Gets a list of Autonomous Data Warehouses.

IMPORTANT: This data source is being **deprecated**, use `oci_database_autonomous_databases` instead.

Example Usage

```
data "oci_database_autonomous_data_warehouses" "test_autonomous_data_warehouses" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.autonomous_data_warehouse_display_name}"  
  state = "${var.autonomous_data_warehouse_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_data_warehouses` - The list of `autonomous_data_warehouses`.

AutonomousDataWarehouse Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Data Warehouse. The username for the Service

Console is ADMIN. Use the password you entered when creating the Autonomous Data Warehouse for the password value.

- `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Data Warehouse. For more information, please see [Predefined Database Service Names for Autonomous Transaction Processing \(https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE\)](https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE)
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting a lower level of performance, but supports more concurrent SQL statements.
- `cpu_core_count` - The number of CPU cores to be made available to the database.
 - `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
 - `db_name` - The database name.
 - `db_version` - A valid Oracle Database version for Autonomous Data Warehouse.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm).
 - `display_name` - The user-friendly name for the Autonomous Data Warehouse. The name does not have to be unique.
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
 - `license_model` - The Oracle license model that applies to the Oracle Autonomous Data Warehouse. The default is `BRING_YOUR_OWN_LICENSE`.
 - `lifecycle_details` - Information about the current lifecycle state.
 - `service_console_url` - The URL of the Service Console for the Data Warehouse.
 - `state` - The current state of the database.
 - `time_created` - The date and time the database was created.

Data Source:

oci_database_autonomous_data_warehouse_wallet

This data source provides details about a specific Autonomous Data Warehouse Wallet resource in Oracle Cloud Infrastructure Database service.

IMPORTANT: This data source is being **deprecated**, use `oci_database_autonomous_database_wallet` instead.

Example Usage

```
data "oci_database_autonomous_data_warehouse_wallet" "test_autonomous_data_warehouse_wallet" {  
  #Required  
  autonomous_data_warehouse_id = "${oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse.id}"  
  password = "${var.autonomous_data_warehouse_wallet_password}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_data_warehouse_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `password` - (Required) The password to encrypt the keys inside the wallet. The password must be at least 8 characters long and must include at least 1 letter and either 1 numeric character or 1 special character.
- `base64_encode_content` - (Optional) Encodes the downloaded zipped wallet in base64. It is recommended to set this to `true` to avoid corrupting the zip file in Terraform state. The default value is `false` to preserve backwards compatibility with Terraform v0.11 configurations.

Attributes Reference

The following attributes are exported:

- `content` - content of the downloaded zipped wallet for the Autonomous Data Warehouse. If `base64_encode_content` is set to `true`, then this content will be base64 encoded. If passing the base64 encoded content to a `local_file` resource, please use the `content_base64` attribute of the `local_file` resource. See this example (https://github.com/terraform-providers/terraform-provider-oci/blob/master/examples/database/adb/autonomous_database_wallet.tf) for more details.

Data Source:

oci_database_autonomous_db_preview_versions

This data source provides the list of Autonomous Db Preview Versions in Oracle Cloud Infrastructure Database service.

Gets a list of supported Autonomous Database versions. Note that preview version software is only available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>).

Example Usage

```
data "oci_database_autonomous_db_preview_versions" "test_autonomous_db_preview_versions" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `autonomous_db_preview_versions` - The list of `autonomous_db_preview_versions`.

AutonomousDbPreviewVersion Reference

The following attributes are exported:

- `db_workload` - The Autonomous Database workload type. OLTP indicates an Autonomous Transaction Processing database and DW indicates an Autonomous Data Warehouse database.
- `details` - A URL that points to a detailed description of the preview version.
- `time_preview_begin` - The date and time when the preview version availability begins.
- `time_preview_end` - The date and time when the preview version availability ends.
- `version` - A valid Autonomous Database preview version.

Data Source:

oci_database_autonomous_exadata_infrastructure

This data source provides details about a specific Autonomous Exadata Infrastructure resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Autonomous Exadata Infrastructure.

Example Usage

```
data "oci_database_autonomous_exadata_infrastructure" "test_autonomous_exadata_infrastructure" {  
  #Required  
  autonomous_exadata_infrastructure_id = "${oci_database_autonomous_exadata_infrastructure.test_autonom  
ous_exadata_infrastructure.id}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_exadata_infrastructure_id` - (Required) The Autonomous Exadata Infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain that the Autonomous Exadata Infrastructure is located in.
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Exadata Infrastructure.
- `domain` - The domain name for the Autonomous Exadata Infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname` - The host name for the Autonomous Exadata Infrastructure node.
- `id` - The OCID of the Autonomous Exadata Infrastructure.

- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `license_model` - The Oracle license model that applies to all databases in the Autonomous Exadata Infrastructure. The default is `BRING_YOUR_OWN_LICENSE`.
- `lifecycle_details` - Additional information about the current lifecycle state of the Autonomous Exadata Infrastructure.
- `maintenance_window` -
 - `days_of_week` - Days during the week when maintenance should be performed.
 - `name` - Name of the day of the week.
 - `hours_of_day` - The window of hours during the day when maintenance should be performed. The window is a 4 hour slot. Valid values are
 - 0 - represents time slot 0:00 - 3:59 UTC - 4 - represents time slot 4:00 - 7:59 UTC - 8 - represents time slot 8:00 - 11:59 UTC - 12 - represents time slot 12:00 - 15:59 UTC - 16 - represents time slot 16:00 - 19:59 UTC - 20 - represents time slot 20:00 - 23:59 UTC
 - `months` - Months during the year when maintenance should be performed.
 - `name` - Name of the month of the year.
 - `preference` - The maintenance window scheduling preference.
 - `weeks_of_month` - Weeks during the month when maintenance should be performed. Weeks start on the 1st, 8th, 15th, and 22nd days of the month, and have a duration of 7 days. Weeks start and end based on calendar dates, not days of the week. For example, to allow maintenance during the 2nd week of the month (from the 8th day to the 14th day of the month), use the value 2. Maintenance cannot be scheduled for the fifth week of months that contain more than 28 days. Note that this parameter works in conjunction with the `daysOfWeek` and `hoursOfDay` parameters to allow you to specify specific days of the week and hours that maintenance will be performed.
- `next_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- `nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- `shape` - The shape of the Autonomous Exadata Infrastructure. The shape determines resources to allocate to the Autonomous Exadata Infrastructure (CPU cores, memory and storage).
- `state` - The current lifecycle state of the Autonomous Exadata Infrastructure.
- `subnet_id` - The OCID of the subnet the Autonomous Exadata Infrastructure is associated with.

Subnet Restrictions:

- For Autonomous Databases with Autonomous Exadata Infrastructure, do not use a subnet that overlaps with 192.168.128.0/20

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- `time_created` - The date and time the Autonomous Exadata Infrastructure was created.

Data Source:

oci_database_autonomous_exadata_infrastructure_shapes

This data source provides the list of Autonomous Exadata Infrastructure Shapes in Oracle Cloud Infrastructure Database service.

Gets a list of the shapes that can be used to launch a new Autonomous Exadata Infrastructure DB system. The shape determines resources to allocate to the DB system (CPU cores, memory and storage).

Example Usage

```
data "oci_database_autonomous_exadata_infrastructure_shapes" "test_autonomous_exadata_infrastructure_shapes" {  
  #Required  
  availability_domain = "${var.autonomous_exadata_infrastructure_shape_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the Availability Domain.
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `autonomous_exadata_infrastructure_shapes` - The list of `autonomous_exadata_infrastructure_shapes`.

AutonomousExadataInfrastructureShape Reference

The following attributes are exported:

- `available_core_count` - The maximum number of CPU cores that can be enabled on the Autonomous Exadata Infrastructure.
- `core_count_increment` - The increment in which core count can be increased or decreased.
- `maximum_node_count` - The maximum number of nodes available for the shape.
- `minimum_core_count` - The minimum number of CPU cores that can be enabled on the Autonomous Exadata Infrastructure.

- `minimum_node_count` - The minimum number of nodes available for the shape.
- `name` - The name of the shape used for the Autonomous Exadata Infrastructure.

Data Source:

oci_database_autonomous_exadata_infrastructures

This data source provides the list of Autonomous Exadata Infrastructures in Oracle Cloud Infrastructure Database service.

Gets a list of the Autonomous Exadata Infrastructures in the specified compartment.

Example Usage

```
data "oci_database_autonomous_exadata_infrastructures" "test_autonomous_exadata_infrastructures" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.autonomous_exadata_infrastructure_availability_domain}"  
  display_name = "${var.autonomous_exadata_infrastructure_display_name}"  
  state = "${var.autonomous_exadata_infrastructure_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) A filter to return only resources that match the given availability domain exactly.
- `compartment_id` - (Required) The compartment OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `autonomous_exadata_infrastructures` - The list of `autonomous_exadata_infrastructures`.

AutonomousExadataInfrastructure Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain that the Autonomous Exadata Infrastructure is located in.
- `compartment_id` - The OCID of the compartment.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Exadata Infrastructure.
- `domain` - The domain name for the Autonomous Exadata Infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname` - The host name for the Autonomous Exadata Infrastructure node.
- `id` - The OCID of the Autonomous Exadata Infrastructure.
- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `license_model` - The Oracle license model that applies to all databases in the Autonomous Exadata Infrastructure. The default is `BRING_YOUR_OWN_LICENSE`.
- `lifecycle_details` - Additional information about the current lifecycle state of the Autonomous Exadata Infrastructure.
- `maintenance_window` -
 - `days_of_week` - Days during the week when maintenance should be performed.
 - `name` - Name of the day of the week.
 - `hours_of_day` - The window of hours during the day when maintenance should be performed. The window is a 4 hour slot. Valid values are
 - 0 - represents time slot 0:00 - 3:59 UTC - 4 - represents time slot 4:00 - 7:59 UTC - 8 - represents time slot 8:00 - 11:59 UTC - 12 - represents time slot 12:00 - 15:59 UTC - 16 - represents time slot 16:00 - 19:59 UTC - 20 - represents time slot 20:00 - 23:59 UTC
 - `months` - Months during the year when maintenance should be performed.
 - `name` - Name of the month of the year.
 - `preference` - The maintenance window scheduling preference.
 - `weeks_of_month` - Weeks during the month when maintenance should be performed. Weeks start on the 1st, 8th, 15th, and 22nd days of the month, and have a duration of 7 days. Weeks start and end based on calendar dates, not days of the week. For example, to allow maintenance during the 2nd week of the month (from the 8th day to the 14th day of the month), use the value 2. Maintenance cannot be scheduled for the fifth week of months that contain more than 28 days. Note that this parameter works in conjunction with the `daysOfWeek` and `hoursOfDay` parameters to allow you to specify specific days of the week and hours that maintenance will be performed.
- `next_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- `nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).

- `shape` - The shape of the Autonomous Exadata Infrastructure. The shape determines resources to allocate to the Autonomous Exadata Infrastructure (CPU cores, memory and storage).
- `state` - The current lifecycle state of the Autonomous Exadata Infrastructure.
- `subnet_id` - The OCID of the subnet the Autonomous Exadata Infrastructure is associated with.

Subnet Restrictions:

- For Autonomous Databases with Autonomous Exadata Infrastructure, do not use a subnet that overlaps with 192.168.128.0/20

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- `time_created` - The date and time the Autonomous Exadata Infrastructure was created.

Data Source: oci_database_backup_destination

This data source provides details about a specific Backup Destination resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified backup destination.

Example Usage

```
data "oci_database_backup_destination" "test_backup_destination" {  
  #Required  
  backup_destination_id = "${oci_database_backup_destination.test_backup_destination.id}"  
}
```

Argument Reference

The following arguments are supported:

- `backup_destination_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.

Attributes Reference

The following attributes are exported:

- `associated_databases` - List of databases associated with the backup destination.
 - `db_name` - The display name of the database that is associated with the backup destination.
 - `id` - The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_string` - For a RECOVERY_APPLIANCE backup destination, the connection string for connecting to the Recovery Appliance.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-provided name of the backup destination.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup

destination.

- `lifecycle_details` - A descriptive text associated with the `lifecycleState`. Typically contains additional displayable text
- `local_mount_point_path` - The local directory path on each VM cluster node where the NFS server location is mounted. The local directory path and the NFS server location must each be the same across all of the VM cluster nodes. Ensure that the NFS mount is maintained continuously on all of the VM cluster nodes.
- `state` - The current lifecycle state of the backup destination.
- `time_created` - The date and time the backup destination was created.
- `type` - Type of the backup destination.
- `vpc_users` - For a `RECOVERY_APPLIANCE` backup destination, the Virtual Private Catalog (VPC) users that are used to access the Recovery Appliance.

Data Source: oci_database_backup_destinations

This data source provides the list of Backup Destinations in Oracle Cloud Infrastructure Database service.

Gets a list of backup destinations in the specified compartment.

Example Usage

```
data "oci_database_backup_destinations" "test_backup_destinations" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  type = "${var.backup_destination_type}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `type` - (Optional) A filter to return only resources that match the given type of the Backup Destination.

Attributes Reference

The following attributes are exported:

- `backup_destinations` - The list of backup_destinations.

BackupDestination Reference

The following attributes are exported:

- `associated_databases` - List of databases associated with the backup destination.
 - `db_name` - The display name of the database that is associated with the backup destination.
 - `id` - The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_string` - For a RECOVERY_APPLIANCE backup destination, the connection string for connecting to the Recovery Appliance.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

- `display_name` - The user-provided name of the backup destination.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.
- `lifecycle_details` - A descriptive text associated with the `lifecycleState`. Typically contains additional displayable text
- `local_mount_point_path` - The local directory path on each VM cluster node where the NFS server location is mounted. The local directory path and the NFS server location must each be the same across all of the VM cluster nodes. Ensure that the NFS mount is maintained continuously on all of the VM cluster nodes.
- `state` - The current lifecycle state of the backup destination.
- `time_created` - The date and time the backup destination was created.
- `type` - Type of the backup destination.
- `vpc_users` - For a `RECOVERY_APPLIANCE` backup destination, the Virtual Private Catalog (VPC) users that are used to access the Recovery Appliance.

Data Source: oci_database_backups

This data source provides the list of Backups in Oracle Cloud Infrastructure Database service.

Gets a list of backups based on the databaseId or compartmentId specified. Either one of the query parameters must be provided.

Example Usage

```
data "oci_database_backups" "test_backups" {  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  database_id = "${oci_database_database.test_database.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `database_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.

Attributes Reference

The following attributes are exported:

- `backups` - The list of backups.

Backup Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain where the database backup is stored.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database_edition` - The Oracle Database edition of the DB system from which the database backup was taken.
- `database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- `database_size_in_gbs` - The size of the database in gigabytes at the time the backup was taken.

- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup was completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Data Source: oci_database_database

This data source provides details about a specific Database resource in Oracle Cloud Infrastructure Database service.

Gets information about a specific database.

Example Usage

```
data "oci_database_database" "test_database" {  
  #Required  
  database_id = "${var.database_id}"  
}
```

Argument Reference

The following arguments are supported:

- `database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `character_set` - The character set for the database.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The Connection strings used to connect to the Oracle Database.
 - `all_connection_strings` - All connection strings to use to connect to the Database.
 - `cdb_default` - Host name based CDB Connection String.
 - `cdb_ip_default` - IP based CDB Connection String.
- `db_backup_config` -
 - `auto_backup_enabled` - If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - `auto_backup_window` - Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects `SLOT_TWO` from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example:
`SLOT_TWO`

- `backup_destination_details` - Backup destination details.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.
 - `type` - Type of the database backup destination.
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- `db_name` - The database name.
- `db_unique_name` - A system-generated name for the database to ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The unique name cannot be changed.
- `db_workload` - The database workload type.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- `lifecycle_details` - Additional information about the current `lifecycleState`.
- `ncharacter_set` - The national character set for the database.
- `pdb_name` - The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.
- `state` - The current state of the database.
- `time_created` - The date and time the database was created.

Data Source: oci_database_databases

This data source provides the list of Databases in Oracle Cloud Infrastructure Database service.

Gets a list of the databases in the specified database home.

Example Usage

```
data "oci_database_databases" "test_databases" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  db_home_id = "${oci_database_db_home.test_db_home.id}"  
  
  #Optional  
  db_name = "${var.database_db_name}"  
  state = "${var.database_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_home_id` - (Required) A database home OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_name` - (Optional) A filter to return only resources that match the entire database name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `databases` - The list of databases.

Database Reference

The following attributes are exported:

- `character_set` - The character set for the database.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

- `connection_strings` - The Connection strings used to connect to the Oracle Database.
 - `all_connection_strings` - All connection strings to use to connect to the Database.
 - `cdb_default` - Host name based CDB Connection String.
 - `cdb_ip_default` - IP based CDB Connection String.
- `db_backup_config` -
 - `auto_backup_enabled` - If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - `auto_backup_window` - Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects `SLOT_TWO` from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example:
`SLOT_TWO`
 - `backup_destination_details` - Backup destination details.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.
 - `type` - Type of the database backup destination.
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- `db_name` - The database name.
- `db_unique_name` - A system-generated name for the database to ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The unique name cannot be changed.
- `db_workload` - The database workload type.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `ncharacter_set` - The national character set for the database.
- `pdb_name` - The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be

same as database name.

- `state` - The current state of the database.
- `time_created` - The date and time the database was created.

Data Source: oci_database_data_guard_association

This data source provides details about a specific Data Guard Association resource in Oracle Cloud Infrastructure Database service.

Gets the specified Data Guard association's configuration information.

Example Usage

```
data "oci_database_data_guard_association" "test_data_guard_association" {  
  #Required  
  data_guard_association_id = "${oci_database_data_guard_association.test_data_guard_association.id}"  
  database_id = "${oci_database_database.test_database.id}"  
}
```

Argument Reference

The following arguments are supported:

- `data_guard_association_id` - (Required) The Data Guard association's OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `apply_lag` - The lag time between updates to the primary database and application of the redo data on the standby database, as computed by the reporting database. Example: 9 seconds
- `apply_rate` - The rate at which redo logs are synced between the associated databases. Example: 180 Mb per second
- `database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the reporting database.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Data Guard association.
- `lifecycle_details` - Additional information about the current lifecycleState, if available.
- `peer_data_guard_association_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the peer database's Data Guard association.
- `peer_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the

associated peer database.

- `peer_db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home containing the associated peer database.
- `peer_db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system containing the associated peer database.
- `peer_role` - The role of the peer database in this Data Guard association.
- `protection_mode` - The protection mode of this Data Guard association. For more information, see Oracle Data Guard Protection Modes (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-protection-modes.htm#SBYDB02000>) in the Oracle Data Guard documentation.
- `role` - The role of the reporting database in this Data Guard association.
- `state` - The current state of the Data Guard association.
- `time_created` - The date and time the Data Guard association was created.
- `transport_type` - The redo transport type used by this Data Guard association. For more information, see Redo Transport Services (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-redo-transport-services.htm#SBYDB00400>) in the Oracle Data Guard documentation.

Data Source: oci_database_data_guard_associations

This data source provides the list of Data Guard Associations in Oracle Cloud Infrastructure Database service.

Lists all Data Guard associations for the specified database.

Example Usage

```
data "oci_database_data_guard_associations" "test_data_guard_associations" {  
  #Required  
  database_id = "${oci_database_database.test_database.id}"  
}
```

Argument Reference

The following arguments are supported:

- `database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `data_guard_associations` - The list of data_guard_associations.

DataGuardAssociation Reference

The following attributes are exported:

- `apply_lag` - The lag time between updates to the primary database and application of the redo data on the standby database, as computed by the reporting database. Example: 9 seconds
- `apply_rate` - The rate at which redo logs are synced between the associated databases. Example: 180 Mb per second
- `database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the reporting database.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Data Guard association.
- `lifecycle_details` - Additional information about the current lifecycleState, if available.
- `peer_data_guard_association_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the peer database's Data Guard

association.

- `peer_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated peer database.
- `peer_db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home containing the associated peer database.
- `peer_db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system containing the associated peer database.
- `peer_role` - The role of the peer database in this Data Guard association.
- `protection_mode` - The protection mode of this Data Guard association. For more information, see Oracle Data Guard Protection Modes (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-protection-modes.htm#SBYDB02000>) in the Oracle Data Guard documentation.
- `role` - The role of the reporting database in this Data Guard association.
- `state` - The current state of the Data Guard association.
- `time_created` - The date and time the Data Guard association was created.
- `transport_type` - The redo transport type used by this Data Guard association. For more information, see Redo Transport Services (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-redo-transport-services.htm#SBYDB00400>) in the Oracle Data Guard documentation.

Data Source: oci_database_db_home

This data source provides details about a specific Db Home resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified database home.

Example Usage

```
data "oci_database_db_home" "test_db_home" {  
  #Required  
  db_home_id = "${var.db_home_id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_home_id` - (Required) The database home OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `db_version` - The Oracle Database version.
- `display_name` - The user-provided name for the database home. The name does not need to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- `last_patch_history_entry_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation is started.
- `state` - The current state of the database home.
- `time_created` - The date and time the database home was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

Data Source: oci_database_db_home_patches

This data source provides the list of Db Home Patches in Oracle Cloud Infrastructure Database service.

Lists patches applicable to the requested database home.

Example Usage

```
data "oci_database_db_home_patches" "test_db_home_patches" {  
  #Required  
  db_home_id = "${oci_database_db_home.test_db_home.id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_home_id` - (Required) The database home OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `patches` - The list of patches.

DbHomePatch Reference

The following attributes are exported:

- `available_actions` - Actions that can possibly be performed using this patch.
- `description` - The text describing this patch package.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch.
- `last_action` - Action that is currently being performed or was completed last.
- `lifecycle_details` - A descriptive text associated with the lifecycleState. Typically can contain additional displayable text.
- `state` - The current state of the patch as a result of lastAction.
- `time_released` - The date and time that the patch was released.
- `version` - The version of this patch package.

Data Source:

oci_database_db_home_patch_history_entries

This data source provides the list of Db Home Patch History Entries in Oracle Cloud Infrastructure Database service.

Gets history of the actions taken for patches for the specified database home.

Example Usage

```
data "oci_database_db_home_patch_history_entries" "test_db_home_patch_history_entries" {  
  #Required  
  db_home_id = "${oci_database_db_home.test_db_home.id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_home_id` - (Required) The database home OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `patch_history_entries` - The list of `patch_history_entries`.

DbHomePatchHistoryEntry Reference

The following attributes are exported:

- `action` - The action being performed or was completed.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch history entry.
- `lifecycle_details` - A descriptive text associated with the lifecycleState. Typically contains additional displayable text.
- `patch_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch.
- `state` - The current state of the action.
- `time_ended` - The date and time when the patch action completed.
- `time_started` - The date and time when the patch action started.

Data Source: oci_database_db_homes

This data source provides the list of Db Homes in Oracle Cloud Infrastructure Database service.

Gets a list of database homes in the specified DB system and compartment. A database home is a directory where Oracle Database software is installed.

Example Usage

```
data "oci_database_db_homes" "test_db_homes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
  
  #Optional  
  display_name = "${var.db_home_display_name}"  
  state = "${var.db_home_state}"  
  vm_cluster_id = "${oci_database_vm_cluster.test_vm_cluster.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_system_id` - (Applicable when `source=DB_BACKUP | NONE`) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>). If provided, filters the results to the set of database versions which are supported for the DB system.
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.
- `vm_cluster_id` - (Applicable when `source=VM_CLUSTER_NEW`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

Attributes Reference

The following attributes are exported:

- `db_homes` - The list of db_homes.

DbHome Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `db_version` - The Oracle Database version.
- `display_name` - The user-provided name for the database home. The name does not need to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- `last_patch_history_entry_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation is started.
- `state` - The current state of the database home.
- `time_created` - The date and time the database home was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

Data Source: oci_database_db_node

This data source provides details about a specific Db Node resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified database node.

Example Usage

```
data "oci_database_db_node" "test_db_node" {  
  #Required  
  db_node_id = "${var.db_node_id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_node_id` - (Required) The database node OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `backup_vnic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup VNIC.
- `db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `fault_domain` - The name of the Fault Domain the instance is contained in.
- `hostname` - The host name for the database node.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database node.
- `software_storage_size_in_gb` - The size (in GB) of the block storage volume allocation for the DB system. This attribute applies only for virtual machine DB systems.
- `state` - The current state of the database node.
- `time_created` - The date and time that the database node was created.
- `vnic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VNIC.

Data Source: oci_database_db_nodes

This data source provides the list of Db Nodes in Oracle Cloud Infrastructure Database service.

Gets a list of database nodes in the specified DB system and compartment. A database node is a server running database software.

Example Usage

```
data "oci_database_db_nodes" "test_db_nodes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
  
  #Optional  
  state = "${var.db_node_state}"  
  vm_cluster_id = "${oci_database_vm_cluster.test_vm_cluster.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_system_id` - (Optional) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>). If provided, filters the results to the set of database versions which are supported for the DB system.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.
- `vm_cluster_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

Attributes Reference

The following attributes are exported:

- `db_nodes` - The list of db_nodes.

DbNode Reference

The following attributes are exported:

- `backup_vnic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the

backup VNIC.

- `db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `fault_domain` - The name of the Fault Domain the instance is contained in.
- `hostname` - The host name for the database node.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database node.
- `software_storage_size_in_gb` - The size (in GB) of the block storage volume allocation for the DB system. This attribute applies only for virtual machine DB systems.
- `state` - The current state of the database node.
- `time_created` - The date and time that the database node was created.
- `vnic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VNIC.

Data Source: oci_database_db_system_patches

This data source provides the list of Db System Patches in Oracle Cloud Infrastructure Database service.

Lists the patches applicable to the requested DB system.

Example Usage

```
data "oci_database_db_system_patches" "test_db_system_patches" {  
  #Required  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_system_id` - (Required) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `patches` - The list of patches.

DbSystemPatch Reference

The following attributes are exported:

- `available_actions` - Actions that can possibly be performed using this patch.
- `description` - The text describing this patch package.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch.
- `last_action` - Action that is currently being performed or was completed last.
- `lifecycle_details` - A descriptive text associated with the lifecycleState. Typically can contain additional displayable text.
- `state` - The current state of the patch as a result of lastAction.
- `time_released` - The date and time that the patch was released.
- `version` - The version of this patch package.

Data Source:

oci_database_db_system_patch_history_entries

This data source provides the list of Db System Patch History Entries in Oracle Cloud Infrastructure Database service.

Gets the history of the patch actions performed on the specified DB system.

Example Usage

```
data "oci_database_db_system_patch_history_entries" "test_db_system_patch_history_entries" {  
  #Required  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_system_id` - (Required) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `patch_history_entries` - The list of `patch_history_entries`.

DbSystemPatchHistoryEntry Reference

The following attributes are exported:

- `action` - The action being performed or was completed.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch history entry.
- `lifecycle_details` - A descriptive text associated with the lifecycleState. Typically contains additional displayable text.
- `patch_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the patch.
- `state` - The current state of the action.
- `time_ended` - The date and time when the patch action completed.
- `time_started` - The date and time when the patch action started.

Data Source: oci_database_db_system_shapes

This data source provides the list of Db System Shapes in Oracle Cloud Infrastructure Database service.

Gets a list of the shapes that can be used to launch a new DB system. The shape determines resources to allocate to the DB system - CPU cores and memory for VM shapes; CPU cores, memory and storage for non-VM (or bare metal) shapes.

Example Usage

```
data "oci_database_db_system_shapes" "test_db_system_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.db_system_shape_availability_domain}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) The name of the Availability Domain.
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `db_system_shapes` - The list of db_system_shapes.

DbSystemShape Reference

The following attributes are exported:

- `available_core_count` - The maximum number of CPU cores that can be enabled on the DB system for this shape.
- `core_count_increment` - The discrete number by which the CPU core count for this shape can be increased or decreased.
- `maximum_node_count` - The maximum number of database nodes available for this shape.
- `minimum_core_count` - The minimum number of CPU cores that can be enabled on the DB system for this shape.
- `minimum_node_count` - The minimum number of database nodes available for this shape.

- `name` - The name of the shape used for the DB system.
- `shape` - Deprecated. Use `name` instead of `shape` .
- `shape_family` - The family of the shape used for the DB system.

Data Source: oci_database_db_systems

This data source provides the list of Db Systems in Oracle Cloud Infrastructure Database service.

Gets a list of the DB systems in the specified compartment. You can specify a backupId to list only the DB systems that support creating a database using this backup in this compartment.

Example Usage

```
data "oci_database_db_systems" "test_db_systems" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.db_system_availability_domain}"  
  backup_id = "${oci_database_backup.test_backup.id}"  
  display_name = "${var.db_system_display_name}"  
  state = "${var.db_system_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) A filter to return only resources that match the given availability domain exactly.
- `backup_id` - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup. Specify a backupId to list only the DB systems or DB homes that support creating a database using this backup in this compartment.
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `db_systems` - The list of db_systems.

DbSystem Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain that the DB system is located in.
- `backup_network_nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that the backup network of this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>). Applicable only to Exadata DB systems.
- `backup_subnet_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup network subnet the DB system is associated with. Applicable only to Exadata DB systems.

Subnet Restriction: See the subnet restrictions information for `subnetId`.

- `cluster_name` - The cluster name for Exadata and 2-node RAC virtual machine DB systems. The cluster name must begin with an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpu_core_count` - The number of CPU cores enabled on the DB system.
- `data_storage_percentage` - The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Accepted values are 40 and 80. The default is 80 percent assigned to DATA storage. Not applicable for virtual machine DB systems.
- `data_storage_size_in_gb` - The data storage size, in gigabytes, that is currently available to the DB system. Applies only for virtual machine DB systems.
- `database_edition` - The Oracle Database edition that applies to all the databases on the DB system.
- `db_system_options` -
 - `storage_management` - The storage option used in DB system. You can specify either Automatic Storage Management (ASM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=OSTMG-GUID-BC612D35-5399-4A35-843E-CF76E3D3CDB5>) or Logical Volume Manager (LVM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=ADMIN-GUID-57C50259-9472-4ED0-8818-DB9ABA96EC8E>).
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `disk_redundancy` - The type of redundancy configured for the DB system. NORMAL is 2-way redundancy. HIGH is 3-way redundancy.
- `display_name` - The user-friendly name for the DB system. The name does not have to be unique.
- `domain` - The domain name for the DB system.
- `fault_domains` - List of the Fault Domains in which this DB system is provisioned.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname` - The hostname for the DB system.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `last_patch_history_entry_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation starts.
- `license_model` - The Oracle license model that applies to all the databases on the DB system. The default is `LICENSE_INCLUDED`.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `listener_port` - The port number configured for the listener on the DB system.
- `node_count` - The number of nodes in the DB system. For RAC DB systems, the value is greater than 1.
- `nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- `reco_storage_size_in_gb` - The RECO/REDO storage size, in gigabytes, that is currently allocated to the DB system. Applies only for virtual machine DB systems.
- `scan_dns_record_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DNS record for the SCAN IP addresses that are associated with the DB system.
- `scan_ip_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Single Client Access Name (SCAN) IP addresses associated with the DB system. SCAN IP addresses are typically used for load balancing and are not assigned to any interface. Oracle Clusterware directs the requests to the appropriate nodes in the cluster.

Note: For a single-node DB system, this list is empty.

- `shape` - The shape of the DB system. The shape determines resources to allocate to the DB system.
 - For virtual machine shapes, the number of CPU cores and memory
 - For bare metal and Exadata shapes, the number of CPU cores, storage, and memory
- `sparse_diskgroup` - True, if Sparse Diskgroup is configured for Exadata dbssystem, False, if Sparse diskgroup was not configured.
- `ssh_public_keys` - The public key portion of one or more key pairs used for SSH access to the DB system.
- `state` - The current state of the DB system.
- `subnet_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet the DB system is associated with.

Subnet Restrictions:

- For bare metal DB systems and for single node virtual machine DB systems, do not use a subnet that overlaps with 192.168.16.16/28.
- For Exadata and virtual machine 2-node RAC DB systems, do not use a subnet that overlaps with 192.168.128.0/20.

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- `time_created` - The date and time the DB system was created.
- `time_zone` - The time zone of the DB system. For details, see DB System Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).
- `version` - The Oracle Database version of the DB system.
- `vip_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the virtual IP (VIP) addresses associated with the DB system. The Cluster Ready Services (CRS) creates and maintains one VIP address for each node in the DB system to enable failover. If one node fails, the VIP is reassigned to another active node in the cluster.

Note: For a single-node DB system, this list is empty.

Data Source: oci_database_db_versions

This data source provides the list of Db Versions in Oracle Cloud Infrastructure Database service.

Gets a list of supported Oracle Database versions.

Example Usage

```
data "oci_database_db_versions" "test_db_versions" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
  db_system_shape = "${var.db_version_db_system_shape}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_system_id` - (Optional) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>). If provided, filters the results to the set of database versions which are supported for the DB system.
- `db_system_shape` - (Optional) If provided, filters the results to the set of database versions which are supported for the given shape.

Attributes Reference

The following attributes are exported:

- `db_versions` - The list of db_versions.

DbVersion Reference

The following attributes are exported:

- `is_latest_for_major_version` - True if this version of the Oracle Database software is the latest version for a release.
- `supports_pdb` - True if this version of the Oracle Database software supports pluggable databases.
- `version` - A valid Oracle Database version.

Data Source:

oci_database_exadata_infrastructure_download_config_file

This data source provides details about a specific Exadata Infrastructure Download Config File resource in Oracle Cloud Infrastructure Database service.

Downloads the configuration file for the specified Exadata infrastructure.

Example Usage

```
data "oci_database_exadata_infrastructure_download_config_file" "test_exadata_infrastructure_download_config_file" {  
  #Required  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
}
```

Argument Reference

The following arguments are supported:

- `base64_encode_content` - (Optional) Encodes the downloaded zipped config in base64. It is recommended to set this to `true` to avoid corrupting the zip file in Terraform state. The default value is `false`.
- `exadata_infrastructure_id` - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `content` - content of the downloaded config file for exadata infrastructure. If `base64_encode_content` is set to `true`, then this content will be base64 encoded.

Data Source: oci_database_exadata_infrastructure

This data source provides details about a specific Exadata Infrastructure resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Exadata infrastructure.

Example Usage

```
data "oci_database_exadata_infrastructure" "test_exadata_infrastructure" {  
  #Required  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
}
```

Argument Reference

The following arguments are supported:

- `exadata_infrastructure_id` - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `admin_network_cidr` - The CIDR block for the Exadata administration network.
- `cloud_control_plane_server1` - The IP address for the first control plane server.
- `cloud_control_plane_server2` - The IP address for the second control plane server.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `corporate_proxy` - The corporate network proxy for access to the control plane network.
- `cpus_enabled` - The number of enabled CPU cores.
- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Exadata infrastructure. The name does not need to be unique.
- `dns_server` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `gateway` - The gateway for the control plane network.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `infini_band_network_cidr` - The CIDR block for the Exadata InfiniBand interconnect.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `netmask` - The netmask for the control plane network.
- `ntp_server` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `state` - The current lifecycle state of the Exadata infrastructure.
- `time_created` - The date and time the Exadata infrastructure was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see [Exadata Infrastructure Time Zones](https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm) (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).

Data Source: oci_database_exadata_infrastructures

This data source provides the list of Exadata Infrastructures in Oracle Cloud Infrastructure Database service.

Gets a list of the Exadata infrastructure in the specified compartment.

Example Usage

```
data "oci_database_exadata_infrastructures" "test_exadata_infrastructures" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.exadata_infrastructure_display_name}"  
  state = "${var.exadata_infrastructure_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `exadata_infrastructures` - The list of exadata_infrastructures.

ExadataInfrastructure Reference

The following attributes are exported:

- `admin_network_cidr` - The CIDR block for the Exadata administration network.
- `cloud_control_plane_server1` - The IP address for the first control plane server.
- `cloud_control_plane_server2` - The IP address for the second control plane server.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

- `corporate_proxy` - The corporate network proxy for access to the control plane network.
- `cpus_enabled` - The number of enabled CPU cores.
- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Exadata infrastructure. The name does not need to be unique.
- `dns_server` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gateway` - The gateway for the control plane network.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `infini_band_network_cidr` - The CIDR block for the Exadata InfiniBand interconnect.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `netmask` - The netmask for the control plane network.
- `ntp_server` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `state` - The current lifecycle state of the Exadata infrastructure.
- `time_created` - The date and time the Exadata infrastructure was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see Exadata Infrastructure Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).

Data Source: oci_database_exadata_iorm_config

This data source provides details about a specific Exadata IORM Config resource in Oracle Cloud Infrastructure Database service.

Gets IORM Setting for the requested Exadata DB System. The default IORM Settings is pre-created in all the Exadata DB System.

Example Usage

```
data "oci_database_exadata_iorm_config" "test_exadata_iorm_config" {  
  #Required  
  db_system_id = "${oci_database_db_system.test_db_system.id}"  
}
```

Argument Reference

The following arguments are supported:

- `db_system_id` - (Required) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `db_plans` - Array of IORM Setting for all the database in this Exadata DB System
 - `db_name` - Database Name. For default DbPlan, the dbName will always be `default`
 - `flash_cache_limit` - Flash Cache limit, internally configured based on shares
 - `share` - Relative priority of a database
- `lifecycle_details` - Additional information about the current lifecycleState.
- `objective` - Value for the IORM objective Default is "Auto"
- `state` - The current config state of IORM settings for this Exadata System.

Data Source: oci_database_gi_versions

This data source provides the list of Gi Versions in Oracle Cloud Infrastructure Database service.

Gets a list of supported GI versions for VM Cluster.

Example Usage

```
data "oci_database_gi_versions" "test_gi_versions" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  shape = "${var.gi_version_shape}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `shape` - (Optional) If provided, filters the results for the given shape.

Attributes Reference

The following attributes are exported:

- `gi_versions` - The list of gi_versions.

GiVersion Reference

The following attributes are exported:

- `version` - A valid Oracle Grid Infrastructure (GI) software version.

Data Source: oci_database_maintenance_run

This data source provides details about a specific Maintenance Run resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified Maintenance Run.

Example Usage

```
data "oci_database_maintenance_run" "test_maintenance_run" {  
  #Required  
  maintenance_run_id = "${oci_database_maintenance_run.test_maintenance_run.id}"  
}
```

Argument Reference

The following arguments are supported:

- `maintenance_run_id` - (Required) The Maintenance Run OCID.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `description` - The text describing this Maintenance Run.
- `display_name` - The user-friendly name for the Maintenance Run.
- `id` - The OCID of the Maintenance Run.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `maintenance_subtype` - Maintenance sub-type.
- `maintenance_type` - Maintenance type.
- `state` - The current state of the Maintenance Run.
- `target_resource_id` - The ID of the target resource on which the Maintenance Run occurs.
- `target_resource_type` - The type of the target resource on which the Maintenance Run occurs.
- `time_ended` - The date and time the Maintenance Run was completed.
- `time_scheduled` - The date and time the Maintenance Run is scheduled for.
- `time_started` - The date and time the Maintenance Run starts.

Data Source: oci_database_maintenance_runs

This data source provides the list of Maintenance Runs in Oracle Cloud Infrastructure Database service.

Gets a list of the Maintenance Runs in the specified compartment.

Example Usage

```
data "oci_database_maintenance_runs" "test_maintenance_runs" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  availability_domain = "${var.maintenance_run_availability_domain}"  
  maintenance_type = "${var.maintenance_run_maintenance_type}"  
  state = "${var.maintenance_run_state}"  
  target_resource_id = "${oci_database_target_resource.test_target_resource.id}"  
  target_resource_type = "${var.maintenance_run_target_resource_type}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) A filter to return only resources that match the given availability domain exactly.
- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `maintenance_type` - (Optional) The maintenance type.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.
- `target_resource_id` - (Optional) The target resource ID.
- `target_resource_type` - (Optional) The type of the target resource.

Attributes Reference

The following attributes are exported:

- `maintenance_runs` - The list of maintenance_runs.

MaintenanceRun Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.

- `description` - The text describing this Maintenance Run.
- `display_name` - The user-friendly name for the Maintenance Run.
- `id` - The OCID of the Maintenance Run.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `maintenance_subtype` - Maintenance sub-type.
- `maintenance_type` - Maintenance type.
- `state` - The current state of the Maintenance Run.
- `target_resource_id` - The ID of the target resource on which the Maintenance Run occurs.
- `target_resource_type` - The type of the target resource on which the Maintenance Run occurs.
- `time_ended` - The date and time the Maintenance Run was completed.
- `time_scheduled` - The date and time the Maintenance Run is scheduled for.
- `time_started` - The date and time the Maintenance Run starts.

Data Source: oci_database_vm_cluster

This data source provides details about a specific Vm Cluster resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified VM cluster.

Example Usage

```
data "oci_database_vm_cluster" "test_vm_cluster" {  
  #Required  
  vm_cluster_id = "${oci_database_vm_cluster.test_vm_cluster.id}"  
}
```

Argument Reference

The following arguments are supported:

- `vm_cluster_id` - (Required) The VM cluster OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpus_enabled` - The number of enabled CPU cores.
- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the VM cluster. The name does not need to be unique.
- `exadata_infrastructure_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gi_version` - The Oracle Grid Infrastructure software version for the VM cluster.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

- `is_local_backup_enabled` - If true, database backup on local Exadata storage is configured for the VM cluster. If false, database backup on local Exadata storage is not available in the VM cluster.
- `is_sparse_diskgroup_enabled` - If true, sparse disk group is configured for the VM cluster. If false, sparse disk group is not created.
- `license_model` - The Oracle license model that applies to the VM cluster. The default is `LICENSE_INCLUDED`.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `ssh_public_keys` - The public key portion of one or more key pairs used for SSH access to the VM cluster.
- `state` - The current state of the VM cluster.
- `time_created` - The date and time that the VM cluster was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see [Exadata Infrastructure Time Zones \(https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm\)](https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm).
- `vm_cluster_network_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.

Data Source:

oci_database_vm_cluster_network_download_config_file

This data source provides details about a specific Vm Cluster Network Download Config File resource in Oracle Cloud Infrastructure Database service.

Downloads the configuration file for the specified VM Cluster Network.

Example Usage

```
data "oci_database_vm_cluster_network_download_config_file" "test_vm_cluster_network_download_config_file" {  
  #Required  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  vm_cluster_network_id = "${oci_database_vm_cluster_network.test_vm_cluster_network.id}"  
}
```

Argument Reference

The following arguments are supported:

- `base64_encode_content` - (Optional) Encodes the downloaded txt config in base64. It is recommended to set this to `true` to avoid corrupting the file in Terraform state. The default value is `false`.
- `exadata_infrastructure_id` - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `vm_cluster_network_id` - (Required) The VM cluster network OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- `content` - content of the downloaded config file for exadata infrastructure. If `base64_encode_content` is set to `true`, then this content will be base64 encoded.

Data Source: oci_database_vm_cluster_network

This data source provides details about a specific Vm Cluster Network resource in Oracle Cloud Infrastructure Database service.

Gets information about the specified VM cluster network.

Example Usage

```
data "oci_database_vm_cluster_network" "test_vm_cluster_network" {  
  #Required  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  vm_cluster_network_id = "${oci_database_vm_cluster_network.test_vm_cluster_network.id}"  
}
```

Argument Reference

The following arguments are supported:

- exadata_infrastructure_id - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- vm_cluster_network_id - (Required) The VM cluster network OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Attributes Reference

The following attributes are exported:

- compartment_id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- defined_tags - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- display_name - The user-friendly name for the VM cluster network. The name does not need to be unique.
- dns - The list of DNS server IP addresses. Maximum of 3 allowed.
- exadata_infrastructure_id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- freeform_tags - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster

network.

- `lifecycle_details` - Additional information about the current lifecycle state.
- `ntp` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `scans` - The SCAN details.
 - `hostname` - The SCAN hostname.
 - `ips` - The list of SCAN IP addresses. Three addresses should be provided.
 - `port` - The SCAN port. Default is 1521.
- `state` - The current state of the VM cluster network.
- `time_created` - The date and time when the VM cluster network was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated VM Cluster.
- `vm_networks` - Details of the client and backup networks.
 - `domain_name` - The network domain name.
 - `gateway` - The network gateway.
 - `netmask` - The network netmask.
 - `network_type` - The network type.
 - `nodes` - The list of node details.
 - `hostname` - The node host name.
 - `ip` - The node IP address.
 - `vip` - The node virtual IP (VIP) address.
 - `vip_hostname` - The node virtual IP (VIP) host name.
 - `vlan_id` - The network VLAN ID.

Data Source: oci_database_vm_cluster_networks

This data source provides the list of Vm Cluster Networks in Oracle Cloud Infrastructure Database service.

Gets a list of the VM cluster networks in the specified compartment.

Example Usage

```
data "oci_database_vm_cluster_networks" "test_vm_cluster_networks" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  
  #Optional  
  display_name = "${var.vm_cluster_network_display_name}"  
  state = "${var.vm_cluster_network_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `exadata_infrastructure_id` - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `vm_cluster_networks` - The list of `vm_cluster_networks`.

VmClusterNetwork Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

- `display_name` - The user-friendly name for the VM cluster network. The name does not need to be unique.
- `dns` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `exadata_infrastructure_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `ntp` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `scans` - The SCAN details.
 - `hostname` - The SCAN hostname.
 - `ips` - The list of SCAN IP addresses. Three addresses should be provided.
 - `port` - The SCAN port. Default is 1521.
- `state` - The current state of the VM cluster network.
- `time_created` - The date and time when the VM cluster network was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated VM Cluster.
- `vm_networks` - Details of the client and backup networks.
 - `domain_name` - The network domain name.
 - `gateway` - The network gateway.
 - `netmask` - The network netmask.
 - `network_type` - The network type.
 - `nodes` - The list of node details.
 - `hostname` - The node host name.
 - `ip` - The node IP address.
 - `vip` - The node virtual IP (VIP) address.
 - `vip_hostname` - The node virtual IP (VIP) host name.
 - `vlan_id` - The network VLAN ID.

Data Source:

oci_database_vm_cluster_recommended_network

This data source provides details about a specific Vm Cluster Recommended Network resource in Oracle Cloud Infrastructure Database service.

Generates a recommended VM cluster network configuration.

Example Usage

```
data "oci_database_vm_cluster_recommended_network" "test_vm_cluster_recommended_network" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.vm_cluster_recommended_network_display_name}"  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  networks {  
    #Required  
    cidr = "${var.vm_cluster_recommended_network_networks_cidr}"  
    domain = "${var.vm_cluster_recommended_network_networks_domain}"  
    gateway = "${var.vm_cluster_recommended_network_networks_gateway}"  
    netmask = "${var.vm_cluster_recommended_network_networks_netmask}"  
    network_type = "${var.vm_cluster_recommended_network_networks_network_type}"  
    prefix = "${var.vm_cluster_recommended_network_networks_prefix}"  
    vlan_id = "${oci_database_vlan.test_vlan.id}"  
  }  
  
  #Optional  
  defined_tags = "${map("${oci_identity_tag_namespace.tag-namespace1.name}.${oci_identity_tag.tag1.name}", "${var.vm_cluster_recommended_network_defined_tags_value})}"  
  dns = "${var.vm_cluster_recommended_network_dns}"  
  freeform_tags = "${var.vm_cluster_recommended_network_freeform_tags}"  
  ntp = "${var.vm_cluster_recommended_network_ntp}"  
}
```

Argument Reference

The following arguments are supported:

- **compartment_id** - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- **defined_tags** - (Optional) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **display_name** - (Required) The user-friendly name for the VM cluster network. The name does not need to be unique.
- **dns** - (Optional) The list of DNS server IP addresses. Maximum of 3 allowed.

- `exadata_infrastructure_id` - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `freeform_tags` - (Optional) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `networks` - (Required) List of parameters for generation of the client and backup networks.
 - `cidr` - (Required) The cidr for the network.
 - `domain` - (Required) The network domain name.
 - `gateway` - (Required) The network gateway.
 - `netmask` - (Required) The network netmask.
 - `network_type` - (Required) The network type.
 - `prefix` - (Required) The network domain name.
 - `vlan_id` - (Required) The network VLAN ID.
- `ntp` - (Optional) The list of NTP server IP addresses. Maximum of 3 allowed.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the VM cluster network. The name does not need to be unique.
- `dns` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ntp` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `scans` - The SCAN details.
 - `hostname` - The SCAN hostname.
 - `ips` - The list of SCAN IP addresses. Three addresses should be provided.
 - `port` - The SCAN port. Default is 1521.
- `vm_networks` - Details of the client and backup networks.
 - `domain_name` - The network domain name.

- gateway - The network gateway.
- netmask - The network netmask.
- network_type - The network type.
- nodes - The list of node details.
 - hostname - The node host name.
 - ip - The node IP address.
 - vip - The node virtual IP (VIP) address.
 - vip_hostname - The node virtual IP (VIP) host name.
- vlan_id - The network VLAN ID.

Data Source: oci_database_vm_clusters

This data source provides the list of Vm Clusters in Oracle Cloud Infrastructure Database service.

Gets a list of the VM clusters in the specified compartment.

Example Usage

```
data "oci_database_vm_clusters" "test_vm_clusters" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.vm_cluster_display_name}"  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  state = "${var.vm_cluster_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartment OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `display_name` - (Optional) A filter to return only resources that match the entire display name given. The match is not case sensitive.
- `exadata_infrastructure_id` - (Optional) If provided, filters the results for the given Exadata Infrastructure.
- `state` - (Optional) A filter to return only resources that match the given lifecycle state exactly.

Attributes Reference

The following attributes are exported:

- `vm_clusters` - The list of vm_clusters.

VmCluster Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpus_enabled` - The number of enabled CPU cores.

- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the VM cluster. The name does not need to be unique.
- `exadata_infrastructure_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gi_version` - The Oracle Grid Infrastructure software version for the VM cluster.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.
- `is_local_backup_enabled` - If true, database backup on local Exadata storage is configured for the VM cluster. If false, database backup on local Exadata storage is not available in the VM cluster.
- `is_sparse_diskgroup_enabled` - If true, sparse disk group is configured for the VM cluster. If false, sparse disk group is not created.
- `license_model` - The Oracle license model that applies to the VM cluster. The default is `LICENSE_INCLUDED`.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `ssh_public_keys` - The public key portion of one or more key pairs used for SSH access to the VM cluster.
- `state` - The current state of the VM cluster.
- `time_created` - The date and time that the VM cluster was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see Exadata Infrastructure Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).
- `vm_cluster_network_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.

Data Source: oci_dns_records

This data source provides the list of Records in Oracle Cloud Infrastructure Dns service.

Gets all records in the specified zone. The results are sorted by `domain` in alphabetical order by default. For more information about records, see Resource Record (RR) TYPEs (<https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml#dns-parameters-4>).

Example Usage

```
data "oci_dns_records" "test_records" {  
  #Required  
  zone_name_or_id = "${oci_dns_zone_name_or.test_zone_name_or.id}"  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  domain = "${var.record_domain}"  
  domain_contains = "${var.record_domain_contains}"  
  rtype = "${var.record_rtype}"  
  zone_version = "${var.record_zone_version}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) The OCID of the compartment the resource belongs to.
- `domain` - (Optional) Search by domain. Will match any record whose domain (case-insensitive) equals the provided value.
- `domain_contains` - (Optional) Search by domain. Will match any record whose domain (case-insensitive) contains the provided value.
- `rtype` - (Optional) Search by record type. Will match any record whose type (<https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml#dns-parameters-4>) (case-insensitive) equals the provided value.
- `sort_by` - (Optional) The field by which to sort records. Allowed values are: `domain|rtype|ttl`
- `sort_order` - The order to sort the resources. Allowed values are: `ASC|DESC`
- `zone_name_or_id` - (Required) The name or OCID of the target zone.
- `zone_version` - (Optional) The version of the zone for which data is requested.

Attributes Reference

The following attributes are exported:

- `records` - The list of records.

Record Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment the resource belongs to.
- `domain` - The fully qualified domain name where the record can be located.
- `is_protected` - A Boolean flag indicating whether or not parts of the record are unable to be explicitly managed.
- `rdata` - The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>)
- `record_hash` - A unique identifier for the record within its zone.
- `rrset_version` - The latest version of the record's zone in which its RRSet differs from the preceding version.
- `rtype` - The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs (<https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml#dns-parameters-4>).
- `ttl` - The Time To Live for the record, in seconds.
- `zone_name_or_id` - The name or OCID of the target zone.

Data Source: oci_dns_steering_policies

This data source provides the list of Steering Policies in Oracle Cloud Infrastructure Dns service.

Gets a list of all steering policies in the specified compartment.

Example Usage

```
data "oci_dns_steering_policies" "test_steering_policies" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.steering_policy_display_name}"  
  display_name_contains = "${var.steering_policy_display_name_contains}"  
  health_check_monitor_id = "${oci_health_checks_http_monitor.test_http_monitor.id}"  
  id = "${var.steering_policy_id}"  
  state = "${var.steering_policy_state}"  
  template = "${var.steering_policy_template}"  
  time_created_greater_than_or_equal_to = "${var.steering_policy_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.steering_policy_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment the resource belongs to.
- `display_name` - (Optional) The displayName of a resource.
- `display_name_contains` - (Optional) The partial displayName of a resource. Will match any resource whose name (case-insensitive) contains the provided value.
- `health_check_monitor_id` - (Optional) Search by health check monitor OCID. Will match any resource whose health check monitor ID matches the provided value.
- `id` - (Optional) The OCID of a resource.
- `state` - (Optional) The state of a resource.
- `template` - (Optional) Search by steering template type. Will match any resource whose template type matches the provided value.
- `time_created_greater_than_or_equal_to` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created on or after the indicated time.
- `time_created_less_than` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created before the indicated time.

Attributes Reference

The following attributes are exported:

- `steering_policies` - The list of steering policies.

SteeringPolicy Reference

The following attributes are exported:

- `answers` - The set of all answers that can potentially issue from the steering policy.
 - `is_disabled` - Set this property to `true` to indicate that the answer is administratively disabled, such as when the corresponding server is down for maintenance. An answer's `isDisabled` property can be referenced in `answerCondition` properties in rules using `answer.isDisabled`.
 - `name` - A user-friendly name for the answer, unique within the steering policy. An answer's `name` property can be referenced in `answerCondition` properties of rules using `answer.name`.
 - `pool` - The freeform name of a group of one or more records in which this record is included, such as "LAX data center". An answer's `pool` property can be referenced in `answerCondition` properties of rules using `answer.pool`.
 - `rdata` - The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
 - `rtype` - The canonical name for the record's type. Only A, AAAA, and CNAME are supported. For more information, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
- `compartment_id` - The OCID of the compartment containing the steering policy.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - A user-friendly name for the steering policy. Does not have to be unique and can be changed. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `health_check_monitor_id` - The OCID of the health check monitor providing health data about the answers of the steering policy. A steering policy answer with `rdata` matching a monitored endpoint will use the health data of that endpoint. A steering policy answer with `rdata` not matching any monitored endpoint will be assumed healthy.

Note: To use the Health Check monitoring feature in a steering policy, a monitor must be created using the Health Checks service first. For more information on how to create a monitor, please see Managing Health Checks (<https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm>).
- `id` - The OCID of the resource.

- **rules** - The series of rules that will be processed in sequence to reduce the pool of answers to a response for any given request.

The first rule receives a shuffled list of all answers, and every other rule receives the list of answers emitted by the one preceding it. The last rule populates the response.

- **cases** - An array of `caseConditions`. A rule may optionally include a sequence of cases defining alternate configurations for how it should behave during processing for any given DNS query. When a rule has no sequence of `cases`, it is always evaluated with the same configuration during processing. When a rule has an empty sequence of `cases`, it is always ignored during processing. When a rule has a non-empty sequence of `cases`, its behavior during processing is configured by the first matching `case` in the sequence. When a rule has no matching cases the rule is ignored. A rule case with no `caseCondition` always matches. A rule case with a `caseCondition` matches only when that expression evaluates to true for the given query.
 - **answer_data** - An array of `SteeringPolicyPriorityAnswerData` objects.
 - **answer_condition** - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - **should_keep** - Keeps the answer only if the value is `true`.
 - **value** - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between `0` and `255`.
 - **case_condition** - An expression that uses conditions at the time of a DNS query to indicate whether a case matches. Conditions may include the geographical location, IP subnet, or ASN the DNS query originated. **Example:** If you have an office that uses the subnet `192.0.2.0/24` you could use a `caseCondition` expression `query.client.subnet in ('192.0.2.0/24')` to define a case that matches queries from that office.
 - **count** - The number of answers allowed to remain after the limit rule has been processed, keeping only the first of the remaining answers in the list. Example: If the `count` property is set to `2` and four answers remain before the limit rule is processed, only the first two answers in the list will remain after the limit rule has been processed.
- **default_answer_data** - Defines a default set of answer conditions and values that are applied to an answer when `cases` is not defined for the rule, or a matching case does not have any matching `answerCondition`s in its `answerData`. `defaultAnswerData` is not applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed.
 - **answer_condition** - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - **should_keep** - Keeps the answer only if the value is `true`.
 - **value** - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between `0` and `255`.
- **default_count** - Defines a default count if `cases` is not defined for the rule or a matching case does not define `count`. `defaultCount` is **not** applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed. If no rules remain to be processed, the answer will be chosen from the remaining list of answers.
- **description** - A user-defined description of the rule's purpose or behavior.

- `rule_type` - The type of a rule determines its sorting/filtering behavior.
 - `FILTER` - Filters the list of answers based on their defined boolean data. Answers remain only if their `shouldKeep` value is `true`.
 - `HEALTH` - Removes answers from the list if their `rdata` matches a target in the health check monitor referenced by the steering policy and the target is reported down.
 - `WEIGHTED` - Uses a number between 0 and 255 to determine how often an answer will be served in relation to other answers. Answers with a higher weight will be served more frequently.
 - `PRIORITY` - Uses a defined rank value of answers to determine which answer to serve, moving those with the lowest values to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
 - `LIMIT` - Filters answers that are too far down the list. Parameter `defaultCount` specifies how many answers to keep. **Example:** If `defaultCount` has a value of 2 and there are five answers left, when the `LIMIT` rule is processed, only the first two answers will remain in the list.
- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `template` - A set of predefined rules based on the desired purpose of the steering policy. Each template utilizes Traffic Management's rules in a different order to produce the desired results when answering DNS queries.

Example: The `FAILOVER` template determines answers by filtering the policy's answers using the `FILTER` rule first, then the following rules in succession: `HEALTH`, `PRIORITY`, and `LIMIT`. This gives the domain dynamic failover capability.

It is **strongly recommended** to use a template other than `CUSTOM` when creating a steering policy.

All templates require the rule order to begin with an unconditional `FILTER` rule that keeps answers contingent upon `answer.isDisabled != true`, except for `CUSTOM`. A defined `HEALTH` rule must follow the `FILTER` rule if the policy references a `healthCheckMonitorId`. The last rule of a template must be a `LIMIT` rule. For more information about templates and code examples, see Traffic Management API Guide (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Concepts/trafficmanagementapi.htm>).

Template Types

- `FAILOVER` - Uses health check information on your endpoints to determine which DNS answers to serve. If an endpoint fails a health check, the answer for that endpoint will be removed from the list of available answers until the endpoint is detected as healthy.
- `LOAD_BALANCE` - Distributes web traffic to specified endpoints based on defined weights.
- `ROUTE_BY_GEO` - Answers DNS queries based on the query's geographic location. For a list of geographic locations to route by, see Traffic Management Geographic Locations (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Reference/trafficmanagementgeo.htm>).
- `ROUTE_BY_ASN` - Answers DNS queries based on the query's originating ASN.
- `ROUTE_BY_IP` - Answers DNS queries based on the query's IP address.
- `CUSTOM` - Allows a customized configuration of rules.
- `time_created` - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- `ttl` - The Time To Live (TTL) for responses from the steering policy, in seconds. If not specified during creation, a value of 30 seconds will be used.

Data Source: oci_dns_steering_policy_attachment

This data source provides details about a specific Steering Policy Attachment resource in Oracle Cloud Infrastructure Dns service.

Gets information about the specified steering policy attachment.

Example Usage

```
data "oci_dns_steering_policy_attachment" "test_steering_policy_attachment" {  
  #Required  
  steering_policy_attachment_id = "${oci_dns_steering_policy_attachment.test_steering_policy_attachment  
.id}"  
}
```

Argument Reference

The following arguments are supported:

- `steering_policy_attachment_id` - (Required) The OCID of the target steering policy attachment.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the steering policy attachment.
- `display_name` - A user-friendly name for the steering policy attachment. Does not have to be unique and can be changed. Avoid entering confidential information.
- `domain_name` - The attached domain within the attached zone.
- `id` - The OCID of the resource.
- `rtypes` - The record types covered by the attachment at the domain. The set of record types is determined by aggregating the record types from the answers defined in the steering policy.
- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `steering_policy_id` - The OCID of the attached steering policy.
- `time_created` - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- `zone_id` - The OCID of the attached zone.

Data Source: oci_dns_steering_policy_attachments

This data source provides the list of Steering Policy Attachments in Oracle Cloud Infrastructure Dns service.

Lists the steering policy attachments in the specified compartment.

Example Usage

```
data "oci_dns_steering_policy_attachments" "test_steering_policy_attachments" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.steering_policy_attachment_display_name}"  
  domain = "${var.steering_policy_attachment_domain}"  
  domain_contains = "${var.steering_policy_attachment_domain_contains}"  
  id = "${var.steering_policy_attachment_id}"  
  state = "${var.steering_policy_attachment_state}"  
  steering_policy_id = "${oci_dns_steering_policy.test_steering_policy.id}"  
  time_created_greater_than_or_equal_to = "${var.steering_policy_attachment_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.steering_policy_attachment_time_created_less_than}"  
  zone_id = "${oci_dns_zone.test_zone.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment the resource belongs to.
- `display_name` - (Optional) The displayName of a resource.
- `domain` - (Optional) Search by domain. Will match any record whose domain (case-insensitive) equals the provided value.
- `domain_contains` - (Optional) Search by domain. Will match any record whose domain (case-insensitive) contains the provided value.
- `id` - (Optional) The OCID of a resource.
- `state` - (Optional) The state of a resource.
- `steering_policy_id` - (Optional) Search by steering policy OCID. Will match any resource whose steering policy ID matches the provided value.
- `time_created_greater_than_or_equal_to` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created on or after the indicated time.
- `time_created_less_than` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created before the indicated time.

- `zone_id` - (Optional) Search by zone OCID. Will match any resource whose zone ID matches the provided value.

Attributes Reference

The following attributes are exported:

- `steering_policy_attachments` - The list of steering_policy_attachments.

SteeringPolicyAttachment Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the steering policy attachment.
- `display_name` - A user-friendly name for the steering policy attachment. Does not have to be unique and can be changed. Avoid entering confidential information.
- `domain_name` - The attached domain within the attached zone.
- `id` - The OCID of the resource.
- `rtypes` - The record types covered by the attachment at the domain. The set of record types is determined by aggregating the record types from the answers defined in the steering policy.
- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `steering_policy_id` - The OCID of the attached steering policy.
- `time_created` - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- `zone_id` - The OCID of the attached zone.

Data Source: oci_dns_steering_policy

This data source provides details about a specific Steering Policy resource in Oracle Cloud Infrastructure Dns service.

Gets information about the specified steering policy.

Example Usage

```
data "oci_dns_steering_policy" "test_steering_policy" {  
  #Required  
  steering_policy_id = "${oci_dns_steering_policy.test_steering_policy.id}"  
}
```

Argument Reference

The following arguments are supported:

- `steering_policy_id` - (Required) The OCID of the target steering policy.

Attributes Reference

The following attributes are exported:

- `answers` - The set of all answers that can potentially issue from the steering policy.
 - `is_disabled` - Set this property to `true` to indicate that the answer is administratively disabled, such as when the corresponding server is down for maintenance. An answer's `isDisabled` property can be referenced in `answerCondition` properties in rules using `answer.isDisabled`.
 - `name` - A user-friendly name for the answer, unique within the steering policy. An answer's `name` property can be referenced in `answerCondition` properties of rules using `answer.name`.
 - `pool` - The freeform name of a group of one or more records in which this record is included, such as "LAX data center". An answer's `pool` property can be referenced in `answerCondition` properties of rules using `answer.pool`.
 - `rdata` - The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
 - `rtype` - The canonical name for the record's type. Only A, AAAA, and CNAME are supported. For more information, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
- `compartment_id` - The OCID of the compartment containing the steering policy.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more

information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

- `display_name` - A user-friendly name for the steering policy. Does not have to be unique and can be changed. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `health_check_monitor_id` - The OCID of the health check monitor providing health data about the answers of the steering policy. A steering policy answer with `rdata` matching a monitored endpoint will use the health data of that endpoint. A steering policy answer with `rdata` not matching any monitored endpoint will be assumed healthy.

Note: To use the Health Check monitoring feature in a steering policy, a monitor must be created using the Health Checks service first. For more information on how to create a monitor, please see Managing Health Checks (<https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm>).

- `id` - The OCID of the resource.
- `rules` - The series of rules that will be processed in sequence to reduce the pool of answers to a response for any given request.

The first rule receives a shuffled list of all answers, and every other rule receives the list of answers emitted by the one preceding it. The last rule populates the response.

- `cases` - An array of `caseConditions`. A rule may optionally include a sequence of cases defining alternate configurations for how it should behave during processing for any given DNS query. When a rule has no sequence of `cases`, it is always evaluated with the same configuration during processing. When a rule has an empty sequence of `cases`, it is always ignored during processing. When a rule has a non-empty sequence of `cases`, its behavior during processing is configured by the first matching `case` in the sequence. When a rule has no matching cases the rule is ignored. A rule case with no `caseCondition` always matches. A rule case with a `caseCondition` matches only when that expression evaluates to true for the given query.
 - `answer_data` - An array of `SteeringPolicyPriorityAnswerData` objects.
 - `answer_condition` - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - `should_keep` - Keeps the answer only if the value is `true`.
 - `value` - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between `0` and `255`.
 - `case_condition` - An expression that uses conditions at the time of a DNS query to indicate whether a case matches. Conditions may include the geographical location, IP subnet, or ASN the DNS query originated. **Example:** If you have an office that uses the subnet `192.0.2.0/24` you could use a `caseCondition` expression `query.client.subnet in ('192.0.2.0/24')` to define a case that matches queries from that office.
 - `count` - The number of answers allowed to remain after the limit rule has been processed, keeping only the first of the remaining answers in the list. Example: If the `count` property is set to `2` and four answers remain before the limit rule is processed, only the first two answers in the list will remain after the limit rule has been processed.
- `default_answer_data` - Defines a default set of answer conditions and values that are applied to an answer

when `cases` is not defined for the rule, or a matching case does not have any matching `answerConditions` in its `answerData`. `defaultAnswerData` is not applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed.

- `answer_condition` - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
- `should_keep` - Keeps the answer only if the value is `true`.
- `value` - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between `0` and `255`.
- `default_count` - Defines a default count if `cases` is not defined for the rule or a matching case does not define `count`. `defaultCount` is **not** applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed. If no rules remain to be processed, the answer will be chosen from the remaining list of answers.
- `description` - A user-defined description of the rule's purpose or behavior.
- `rule_type` - The type of a rule determines its sorting/filtering behavior.
 - `FILTER` - Filters the list of answers based on their defined boolean data. Answers remain only if their `shouldKeep` value is `true`.
 - `HEALTH` - Removes answers from the list if their `rdata` matches a target in the health check monitor referenced by the steering policy and the target is reported down.
 - `WEIGHTED` - Uses a number between `0` and `255` to determine how often an answer will be served in relation to other answers. Answers with a higher weight will be served more frequently.
 - `PRIORITY` - Uses a defined rank value of answers to determine which answer to serve, moving those with the lowest values to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between `0` and `255`.
 - `LIMIT` - Filters answers that are too far down the list. Parameter `defaultCount` specifies how many answers to keep. **Example:** If `defaultCount` has a value of `2` and there are five answers left, when the `LIMIT` rule is processed, only the first two answers will remain in the list.
- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `template` - A set of predefined rules based on the desired purpose of the steering policy. Each template utilizes Traffic Management's rules in a different order to produce the desired results when answering DNS queries.

Example: The `FAILOVER` template determines answers by filtering the policy's answers using the `FILTER` rule first, then the following rules in succession: `HEALTH`, `PRIORITY`, and `LIMIT`. This gives the domain dynamic failover capability.

It is **strongly recommended** to use a template other than `CUSTOM` when creating a steering policy.

All templates require the rule order to begin with an unconditional `FILTER` rule that keeps answers contingent upon `answer.isDisabled != true`, except for `CUSTOM`. A defined `HEALTH` rule must follow the `FILTER` rule if the policy references a `healthCheckMonitorId`. The last rule of a template must be a `LIMIT` rule. For more information about templates and code examples, see Traffic Management API Guide (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Concepts/trafficmanagementapi.htm>).

Template Types

- **FAILOVER** - Uses health check information on your endpoints to determine which DNS answers to serve. If an endpoint fails a health check, the answer for that endpoint will be removed from the list of available answers until the endpoint is detected as healthy.
 - **LOAD_BALANCE** - Distributes web traffic to specified endpoints based on defined weights.
 - **ROUTE_BY_GEO** - Answers DNS queries based on the query's geographic location. For a list of geographic locations to route by, see Traffic Management Geographic Locations (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Reference/trafficmanagementgeo.htm>).
 - **ROUTE_BY_ASN** - Answers DNS queries based on the query's originating ASN.
 - **ROUTE_BY_IP** - Answers DNS queries based on the query's IP address.
 - **CUSTOM** - Allows a customized configuration of rules.
- **time_created** - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- **ttl** - The Time To Live (TTL) for responses from the steering policy, in seconds. If not specified during creation, a value of 30 seconds will be used.

Data Source: oci_dns_zones

This data source provides the list of Zones in Oracle Cloud Infrastructure Dns service.

Gets a list of all zones in the specified compartment. The collection can be filtered by name, time created, and zone type.

Example Usage

```
data "oci_dns_zones" "test_zones" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  name = "${var.zone_name}"  
  name_contains = "${var.zone_name_contains}"  
  state = "${var.zone_state}"  
  time_created_greater_than_or_equal_to = "${var.zone_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.zone_time_created_less_than}"  
  zone_type = "${var.zone_zone_type}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment the resource belongs to.
- `name` - (Optional) A case-sensitive filter for zone names. Will match any zone with a name that equals the provided value.
- `name_contains` - (Optional) Search by zone name. Will match any zone whose name (case-insensitive) contains the provided value.
- `sort_by` - (Optional) The field by which to sort zones. Allowed values are: `name|zoneType|timeCreated`
- `sort_order` - The order to sort the resources. Allowed values are: `ASC|DESC`
- `state` - (Optional) The state of a resource.
- `time_created_greater_than_or_equal_to` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created on or after the indicated time.
- `time_created_less_than` - (Optional) An RFC 3339 (<https://www.ietf.org/rfc/rfc3339.txt>) timestamp that states all returned resources were created before the indicated time.
- `zone_type` - (Optional) Search by zone type, `PRIMARY` or `SECONDARY` . Will match any zone whose type equals the provided value.

Attributes Reference

The following attributes are exported:

- `zones` - The list of zones.

Zone Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the zone.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Operations.CostCenter": "42"}`

- `external_masters` - External master servers for the zone. `externalMasters` becomes a required parameter when the `zoneType` value is `SECONDARY`.
 - `address` - The server's IP address (IPv4 or IPv6).
 - `port` - The server's port. Port value must be a value of 53, otherwise omit the port value.
 - `tsig` - A TSIG key
 - `algorithm` - TSIG Algorithms are encoded as domain names, but most consist of only one non-empty label, which is not required to be explicitly absolute. Applicable algorithms include: `hmac-sha1`, `hmac-sha224`, `hmac-sha256`, `hmac-sha512`. For more information on these algorithms, see RFC 4635 (<https://tools.ietf.org/html/rfc4635#section-2>).
 - `name` - A domain name identifying the key for a given pair of hosts.
 - `secret` - A base64 string encoding the binary shared secret.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Department": "Finance"}`

- `id` - The OCID of the zone.
- `name` - The name of the zone.
- `nameservers` - The authoritative nameservers for the zone.
 - `hostname` - The hostname of the nameserver.
- `self` - The canonical absolute URL of the resource.
- `serial` - The current serial of the zone. As seen in the zone's SOA record.
- `state` - The current state of the zone resource.
- `time_created` - The date and time the resource was created in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Example: `2016-07-22T17:23:59:60Z`

- `version` - Version is the never-repeating, totally-orderable, version of the zone, from which the serial field of the zone's SOA record is derived.
- `zone_type` - The type of the zone. Must be either `PRIMARY` or `SECONDARY` .

Data Source: oci_email_sender

This data source provides details about a specific Sender resource in Oracle Cloud Infrastructure Email service.

Gets an approved sender for a given `senderId`.

Example Usage

```
data "oci_email_sender" "test_sender" {  
  #Required  
  sender_id = "${oci_email_sender.test_sender.id}"  
}
```

Argument Reference

The following arguments are supported:

- `sender_id` - (Required) The unique OCID of the sender.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID for the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `email_address` - The email address of the sender.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The unique OCID of the sender.
- `is_spf` - Value of the SPF field. For more information about SPF, please see SPF Authentication (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `state` - The current status of the approved sender.
- `time_created` - The date and time the approved sender was added in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Data Source: oci_email_senders

This data source provides the list of Senders in Oracle Cloud Infrastructure Email service.

Gets a collection of approved sender email addresses and sender IDs.

Example Usage

```
data "oci_email_senders" "test_senders" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  email_address = "${var.sender_email_address}"  
  state = "${var.sender_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID for the compartment.
- `email_address` - (Optional) The email address of the approved sender.
- `state` - (Optional) The current state of a sender.

Attributes Reference

The following attributes are exported:

- `senders` - The list of senders.

Sender Reference

The following attributes are exported:

- `compartment_id` - The OCID for the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `email_address` - The email address of the sender.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `id` - The unique OCID of the sender.
- `is_spf` - Value of the SPF field. For more information about SPF, please see [SPF Authentication](https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components) (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `state` - The current status of the approved sender.
- `time_created` - The date and time the approved sender was added in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Data Source: oci_email_suppression

This data source provides details about a specific Suppression resource in Oracle Cloud Infrastructure Email service.

Gets the details of a suppressed recipient email address for a given `suppressionId`. Each suppression is given a unique OCID.

Example Usage

```
data "oci_email_suppression" "test_suppression" {  
  #Required  
  suppression_id = "${oci_email_suppression.test_suppression.id}"  
}
```

Argument Reference

The following arguments are supported:

- `suppression_id` - (Required) The unique OCID of the suppression.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment to contain the suppression. Since suppressions are at the customer level, this must be the tenancy OCID.
- `email_address` - The email address of the suppression.
- `id` - The unique OCID of the suppression.
- `reason` - The reason that the email address was suppressed. For more information on the types of bounces, see Suppression List (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `time_created` - The date and time a recipient's email address was added to the suppression list, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Data Source: oci_email_suppressions

This data source provides the list of Suppressions in Oracle Cloud Infrastructure Email service.

Gets a list of suppressed recipient email addresses for a user. The `compartmentId` for suppressions must be a tenancy OCID. The returned list is sorted by creation time in descending order.

Example Usage

```
data "oci_email_suppressions" "test_suppressions" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  email_address = "${var.suppression_email_address}"  
  time_created_greater_than_or_equal_to = "${var.suppression_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.suppression_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID for the compartment.
- `email_address` - (Optional) The email address of the suppression.
- `time_created_greater_than_or_equal_to` - (Optional) Search for suppressions that were created within a specific date range, using this parameter to specify the earliest creation date for the returned list (inclusive). Specifying this parameter without the corresponding `timeCreatedLessThan` parameter will retrieve suppressions created from the given `timeCreatedGreaterThanOrEqualTo` to the current time, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Example: 2016-12-19T16:39:57.600Z

- `time_created_less_than` - (Optional) Search for suppressions that were created within a specific date range, using this parameter to specify the latest creation date for the returned list (exclusive). Specifying this parameter without the corresponding `timeCreatedGreaterThanOrEqualTo` parameter will retrieve all suppressions created before the specified end date, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Example: 2016-12-19T16:39:57.600Z

Attributes Reference

The following attributes are exported:

- `suppressions` - The list of suppressions.

Suppression Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment to contain the suppression. Since suppressions are at the customer level, this must be the tenancy OCID.
- `email_address` - The email address of the suppression.
- `id` - The unique OCID of the suppression.
- `reason` - The reason that the email address was suppressed. For more information on the types of bounces, see Suppression List (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `time_created` - The date and time a recipient's email address was added to the suppression list, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Data Source: oci_events_rule

This data source provides details about a specific Rule resource in Oracle Cloud Infrastructure Events service.

Retrieves a rule.

Example Usage

```
data "oci_events_rule" "test_rule" {  
  #Required  
  rule_id = "${oci_events_rule.test_rule.id}"  
}
```

Argument Reference

The following arguments are supported:

- `rule_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this rule.

Attributes Reference

The following attributes are exported:

- `actions` -
 - `actions` - A list of one or more Action objects.
 - `action_type` - The action to perform if the condition in the rule matches an event.
 - **ONS**: Send to an Oracle Notification Service topic.
 - **OSS**: Send to a stream from Oracle Streaming Service.
 - **FAAS**: Send to an Oracle Functions Service endpoint.
 - `description` - A string that describes the details of the action. It does not have to be unique, and you can change it. Avoid entering confidential information.
 - `function_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of a Function hosted by Oracle Functions Service.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the action.
 - `lifecycle_message` - A message generated by the Events service about the current state of this rule.
 - `state` - The current state of the rule.
 - `stream_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the stream to which messages are delivered.

- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic to which messages are delivered.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this rule belongs.
- `condition` - A filter that specifies the event that will trigger actions associated with this rule. A few important things to remember about filters:
 - Fields not mentioned in the condition are ignored. You can create a valid filter that matches all events with two curly brackets: `{}`

For more examples, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>).

* For a condition with fields to match an event, the event must contain all the field names listed in the condition. Field names must appear in the condition with the same nesting structure used in the event.

For a list of reference events, see [Services that Produce Events](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Reference/eventsproducers.htm>).

* Rules apply to events in the compartment in which you create them and any child compartments. This means that a condition specified by a rule only matches events emitted from resources in the compartment or any of its child compartments. * The condition is a string value in a JSON object, but numbers in conditions are converted from strings to numbers before they are evaluated for matches. This means that 100, 100.0 or 1.0e2 are all considered equal. * Boolean values are converted to numbers and then evaluated. This means true and True are considered equal, as are False and false. * Wildcard matching is supported with the asterisk (*) character.

For examples of wildcard matching, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>)

Example: `\ "eventType\": \ "com.oraclecloud.databaseservice.autonomous.database.backup.end\ "`

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `description` - A string that describes the details of the rule. It does not have to be unique, and you can change it. Avoid entering confidential information.
- `display_name` - A string that describes the rule. It does not have to be unique, and you can change it. Avoid entering confidential information. Example: `"This rule sends a notification upon completion of DbaaS backup."`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this rule.
- `is_enabled` - Whether or not this rule is currently enabled. Example: `true`
- `lifecycle_message` - A message generated by the Events service about the current state of this rule.
- `state` - The current state of the rule.

- `time_created` - The time this rule was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`

Data Source: oci_events_rules

This data source provides the list of Rules in Oracle Cloud Infrastructure Events service.

Lists rules for this compartment.

Example Usage

```
data "oci_events_rules" "test_rules" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.rule_display_name}"  
  state = "${var.rule_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this rule belongs.
- `display_name` - (Optional) A filter to return only rules with descriptions that match the `displayName` string in this parameter. Example: "This rule sends a notification upon completion of DbaaS backup."
- `state` - (Optional) A filter to return only rules that match the lifecycle state in this parameter. Example: `Creating`

Attributes Reference

The following attributes are exported:

- `rules` - The list of rules.

Rule Reference

The following attributes are exported:

- `actions` -
 - `actions` - A list of one or more Action objects.
 - `action_type` - The action to perform if the condition in the rule matches an event.
 - **ONS**: Send to an Oracle Notification Service topic.
 - **OSS**: Send to a stream from Oracle Streaming Service.

- **FAAS:** Send to an Oracle Functions Service endpoint.
- **description** - A string that describes the details of the action. It does not have to be unique, and you can change it. Avoid entering confidential information.
- **function_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of a Function hosted by Oracle Functions Service.
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the action.
- **lifecycle_message** - A message generated by the Events service about the current state of this rule.
- **state** - The current state of the rule.
- **stream_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the stream to which messages are delivered.
- **topic_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic to which messages are delivered.
- **compartment_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this rule belongs.
- **condition** - A filter that specifies the event that will trigger actions associated with this rule. A few important things to remember about filters:
 - Fields not mentioned in the condition are ignored. You can create a valid filter that matches all events with two curly brackets: {}

For more examples, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>).

* For a condition with fields to match an event, the event must contain all the field names listed in the condition. Field names must appear in the condition with the same nesting structure used in the event.

For a list of reference events, see [Services that Produce Events](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Reference/eventsproducers.htm>).

* Rules apply to events in the compartment in which you create them and any child compartments. This means that a condition specified by a rule only matches events emitted from resources in the compartment or any of its child compartments. * The condition is a string value in a JSON object, but numbers in conditions are converted from strings to numbers before they are evaluated for matches. This means that 100, 100.0 or 1.0e2 are all considered equal. * Boolean values are converted to numbers and then evaluated. This means true and True are considered equal, as are False and false. * Wildcard matching is supported with the asterisk (*) character.

For examples of wildcard matching, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>)

Example: `\ "eventType\": \ "com.oraclecloud.databaseservice.autonomous.database.backup.end\ "`

- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- **description** - A string that describes the details of the rule. It does not have to be unique, and you can change it. Avoid entering confidential information.

- `display_name` - A string that describes the rule. It does not have to be unique, and you can change it. Avoid entering confidential information. Example: "This rule sends a notification upon completion of DbaaS backup."
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this rule.
- `is_enabled` - Whether or not this rule is currently enabled. Example: `true`
- `lifecycle_message` - A message generated by the Events service about the current state of this rule.
- `state` - The current state of the rule.
- `time_created` - The time this rule was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2018-09-12T22:47:12.613Z

Data Source: oci_file_storage_export_sets

This data source provides the list of Export Sets in Oracle Cloud Infrastructure File Storage service.

Lists the export set resources in the specified compartment.

Example Usage

```
data "oci_file_storage_export_sets" "test_export_sets" {  
  #Required  
  availability_domain = "${var.export_set_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.export_set_display_name}"  
  id = "${var.export_set_id}"  
  state = "${var.export_set_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID of the compartment.
- `display_name` - (Optional) A user-friendly name. It does not have to be unique, and it is changeable. Example: `My resource`
- `id` - (Optional) Filter results by OCID. Must be an OCID of the correct type for the resource type.
- `state` - (Optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

Attributes Reference

The following attributes are exported:

- `export_sets` - The list of export_sets.

ExportSet Reference

The following attributes are exported:

- `availability_domain` - The availability domain the export set is in. May be unset as a blank or NULL value. Example: `Uocm:PHX-AD-1`

- `compartment_id` - The OCID of the compartment that contains the export set.
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My export set`
- `id` - The OCID of the export set.
- `max_fs_stat_bytes` - Controls the maximum `tbytes`, `fbytes`, and `abytes`, values reported by NFS FSSTAT calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tbytes` value reported by FSSTAT will be `maxFsStatBytes`. The value of `fbytes` and `abytes` will be `maxFsStatBytes` minus the metered size of the file system. If the metered size is larger than `maxFsStatBytes`, then `fbytes` and `abytes` will both be '0'.
- `max_fs_stat_files` - Controls the maximum `tfiles`, `ffiles`, and `afiles` values reported by NFS FSSTAT calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tfiles` value reported by FSSTAT will be `maxFsStatFiles`. The value of `ffiles` and `afiles` will be `maxFsStatFiles` minus the metered size of the file system. If the metered size is larger than `maxFsStatFiles`, then `ffiles` and `afiles` will both be '0'.
- `state` - The current state of the export set.
- `time_created` - The date and time the export set was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the virtual cloud network (VCN) the export set is in.

Data Source: oci_file_storage_exports

This data source provides the list of Exports in Oracle Cloud Infrastructure File Storage service.

Lists export resources by compartment, file system, or export set. You must specify an export set ID, a file system ID, and / or a compartment ID.

Example Usage

```
data "oci_file_storage_exports" "test_exports" {  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  export_set_id = "${oci_file_storage_export_set.test_export_set.id}"  
  file_system_id = "${oci_file_storage_file_system.test_file_system.id}"  
  id = "${var.export_id}"  
  state = "${var.export_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) The OCID of the compartment.
- `export_set_id` - (Optional) The OCID of the export set.
- `file_system_id` - (Optional) The OCID of the file system.
- `id` - (Optional) Filter results by OCID. Must be an OCID of the correct type for the resource type.
- `state` - (Optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

Attributes Reference

The following attributes are exported:

- `exports` - The list of exports.

Export Reference

The following attributes are exported:

- `export_options` - Policies that apply to NFS requests made through this export. `exportOptions` contains a sequential list of `ClientOptions`. Each `ClientOptions` item defines the export options that are applied to a specified set of clients.

For each NFS request, the first `ClientOptions` option in the list whose `source` attribute matches the source IP address of the request is applied.

If a client source IP address does not match the `source` property of any `ClientOptions` in the list, then the export will be invisible to that client. This export will not be returned by `MOUNTPROC_EXPORT` calls made by the client and any attempt to mount or access the file system through this export will result in an error.

Exports without defined `ClientOptions` are invisible to all clients.

If one export is invisible to a particular client, associated file systems may still be accessible through other exports on the same or different mount targets. To completely deny client access to a file system, be sure that the client source IP address is not included in any export for any mount target associated with the file system.

- `access` - Type of access to grant clients using the file system through this export. If unspecified defaults to `READ_ONLY`.
- `anonymous_gid` - GID value to remap to when squashing a client GID (see `identitySquash` for more details.) If unspecified defaults to `65534`.
- `anonymous_uid` - UID value to remap to when squashing a client UID (see `identitySquash` for more details.) If unspecified, defaults to `65534`.
- `identity_squash` - Used when clients accessing the file system through this export have their UID and GID remapped to 'anonymousUid' and 'anonymousGid'. If `ALL`, all users and groups are remapped; if `ROOT`, only the root user and group (UID/GID 0) are remapped; if `NONE`, no remapping is done. If unspecified, defaults to `ROOT`.
- `require_privileged_source_port` - If `true`, clients accessing the file system through this export must connect from a privileged source port. If unspecified, defaults to `true`.
- `source` - Clients these options should apply to. Must be a either single IPv4 address or single IPv4 CIDR block.

Note: Access will also be limited by any applicable VCN security rules and the ability to route IP packets to the mount target. Mount targets do not have Internet-routable IP addresses.

- `export_set_id` - The OCID of this export's export set.
- `file_system_id` - The OCID of this export's file system.
- `id` - The OCID of this export.
- `path` - Path used to access the associated file system.

Avoid entering confidential information.

Example: `/accounting`

- `state` - The current state of this export.
- `time_created` - The date and time the export was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_file_storage_file_systems

This data source provides the list of File Systems in Oracle Cloud Infrastructure File Storage service.

Lists the file system resources in the specified compartment.

Example Usage

```
data "oci_file_storage_file_systems" "test_file_systems" {  
  #Required  
  availability_domain = "${var.file_system_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.file_system_display_name}"  
  id = "${var.file_system_id}"  
  state = "${var.file_system_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID of the compartment.
- `display_name` - (Optional) A user-friendly name. It does not have to be unique, and it is changeable. Example: `My resource`
- `id` - (Optional) Filter results by OCID. Must be an OCID of the correct type for the resource type.
- `state` - (Optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

Attributes Reference

The following attributes are exported:

- `file_systems` - The list of file_systems.

FileSystem Reference

The following attributes are exported:

- `availability_domain` - The availability domain the file system is in. May be unset as a blank or NULL value. Example: `Uocm:PHX-AD-1`

- `compartment_id` - The OCID of the compartment that contains the file system.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My file system`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the file system.
- `kms_key_id` - The OCID of KMS key used to encrypt the encryption keys associated with this file system.
- `metered_bytes` - The number of bytes consumed by the file system, including any snapshots. This number reflects the metered size of the file system and is updated asynchronously with respect to updates to the file system.
- `state` - The current state of the file system.
- `time_created` - The date and time the file system was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_file_storage_mount_targets

This data source provides the list of Mount Targets in Oracle Cloud Infrastructure File Storage service.

Lists the mount target resources in the specified compartment.

Example Usage

```
data "oci_file_storage_mount_targets" "test_mount_targets" {  
  #Required  
  availability_domain = "${var.mount_target_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.mount_target_display_name}"  
  export_set_id = "${oci_file_storage_export_set.test_export_set.id}"  
  id = "${var.mount_target_id}"  
  state = "${var.mount_target_state}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availability domain. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) The OCID of the compartment.
- `display_name` - (Optional) A user-friendly name. It does not have to be unique, and it is changeable. Example: `My resource`
- `export_set_id` - (Optional) The OCID of the export set.
- `id` - (Optional) Filter results by OCID. Must be an OCID of the correct type for the resource type.
- `state` - (Optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

Attributes Reference

The following attributes are exported:

- `mount_targets` - The list of mount_targets.

MountTarget Reference

The following attributes are exported:

- `availability_domain` - The availability domain the mount target is in. May be unset as a blank or NULL value.

Example: Uocm:PHX-AD-1

- `compartment_id` - The OCID of the compartment that contains the mount target.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My mount target`
- `export_set_id` - The OCID of the associated export set. Controls what file systems will be exported through Network File System (NFS) protocol on this mount target.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the mount target.
- `lifecycle_details` - Additional information about the current 'lifecycleState'.
- `private_ip_ids` - The OCIDs of the private IP addresses associated with this mount target.
- `state` - The current state of the mount target.
- `subnet_id` - The OCID of the subnet the mount target is in.
- `time_created` - The date and time the mount target was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_file_storage_snapshot

This data source provides details about a specific Snapshot resource in Oracle Cloud Infrastructure File Storage service.

Gets the specified snapshot's information.

Example Usage

```
data "oci_file_storage_snapshot" "test_snapshot" {  
  #Required  
  snapshot_id = "${oci_file_storage_snapshot.test_snapshot.id}"  
}
```

Argument Reference

The following arguments are supported:

- `snapshot_id` - (Required) The OCID of the snapshot.

Attributes Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `file_system_id` - The OCID of the file system from which the snapshot was created.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the snapshot.
- `name` - Name of the snapshot. This value is immutable.

Avoid entering confidential information.

Example: Sunday

- `state` - The current state of the snapshot.
- `time_created` - The date and time the snapshot was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_file_storage_snapshots

This data source provides the list of Snapshots in Oracle Cloud Infrastructure File Storage service.

Lists snapshots of the specified file system.

Example Usage

```
data "oci_file_storage_snapshots" "test_snapshots" {  
  #Required  
  file_system_id = "${oci_file_storage_file_system.test_file_system.id}"  
  
  #Optional  
  id = "${var.snapshot_id}"  
  state = "${var.snapshot_state}"  
}
```

Argument Reference

The following arguments are supported:

- `file_system_id` - (Required) The OCID of the file system.
- `id` - (Optional) Filter results by OCID. Must be an OCID of the correct type for the resource type.
- `state` - (Optional) Filter results by the specified lifecycle state. Must be a valid state for the resource type.

Attributes Reference

The following attributes are exported:

- `snapshots` - The list of snapshots.

Snapshot Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `file_system_id` - The OCID of the file system from which the snapshot was created.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID of the snapshot.
- `name` - Name of the snapshot. This value is immutable.

Avoid entering confidential information.

Example: Sunday

- `state` - The current state of the snapshot.
- `time_created` - The date and time the snapshot was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_functions_application

This data source provides details about a specific Application resource in Oracle Cloud Infrastructure Functions service.

Retrieves an application.

Example Usage

```
data "oci_functions_application" "test_application" {  
  #Required  
  application_id = "${oci_functions_application.test_application.id}"  
}
```

Argument Reference

The following arguments are supported:

- `application_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this application.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the application.
- `config` - Application configuration for functions in this application (passed as environment variables). Can be overridden by function configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: `{"MY_FUNCTION_CONFIG": "ConfVal"}`

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of the application. The display name is unique within the compartment containing the application.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the application.

- `state` - The current state of the application.
- `subnet_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>)s of the subnets in which to run functions in the application.
- `time_created` - The time the application was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `time_updated` - The time the application was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`

Data Source: oci_functions_applications

This data source provides the list of Applications in Oracle Cloud Infrastructure Functions service.

Lists applications for a compartment.

Example Usage

```
data "oci_functions_applications" "test_applications" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.application_display_name}"  
  id = "${var.application_id}"  
  state = "${var.application_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this resource belongs.
- `display_name` - (Optional) A filter to return only applications with display names that match the display name string. Matching is exact.
- `id` - (Optional) A filter to return only applications with the specified OCID.
- `state` - (Optional) A filter to return only applications that match the lifecycle state in this parameter. Example: `Creating`

Attributes Reference

The following attributes are exported:

- `applications` - The list of applications.

Application Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the application.

- `config` - Application configuration for functions in this application (passed as environment variables). Can be overridden by function configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: `{"MY_FUNCTION_CONFIG": "ConfVal"}`

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of the application. The display name is unique within the compartment containing the application.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the application.
- `state` - The current state of the application.
- `subnet_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>)s of the subnets in which to run functions in the application.
- `time_created` - The time the application was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `time_updated` - The time the application was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`

Data Source: oci_functions_function

This data source provides details about a specific Function resource in Oracle Cloud Infrastructure Functions service.

Retrieves a function.

Example Usage

```
data "oci_functions_function" "test_function" {  
  #Required  
  function_id = "${oci_functions_function.test_function.id}"  
}
```

Argument Reference

The following arguments are supported:

- `function_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this function.

Attributes Reference

The following attributes are exported:

- `application_id` - The OCID of the application the function belongs to.
- `compartment_id` - The OCID of the compartment that contains the function.
- `config` - Function configuration. Overrides application configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: `{"MY_FUNCTION_CONFIG": "ConfVal"}`

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of the function. The display name is unique within the application containing the function.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the function.
- `image` - The qualified name of the Docker image to use in the function, including the image tag. The image should be in the Oracle Cloud Infrastructure Registry that is in the same region as the function itself. Example:
`phx.ocir.io/ten/functions/function:0.0.1`
- `image_digest` - The image digest for the version of the image that will be pulled when invoking this function. If no value is specified, the digest currently associated with the image in the Oracle Cloud Infrastructure Registry will be used. Example: `sha256:ca0eeb6fb05351dfc8759c20733c91def84cb8007aa89a5bf606bc8b315b9fc7`
- `invoke_endpoint` - The base https invoke URL to set on a client in order to invoke a function. This URL will never change over the lifetime of the function and can be cached.
- `memory_in_mbs` - Maximum usable memory for the function (MiB).
- `state` - The current state of the function.
- `time_created` - The time the function was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `time_updated` - The time the function was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `timeout_in_seconds` - Timeout for executions of the function. Value in seconds.

Data Source: oci_functions_functions

This data source provides the list of Functions in Oracle Cloud Infrastructure Functions service.

Lists functions for an application.

Example Usage

```
data "oci_functions_functions" "test_functions" {  
  #Required  
  application_id = "${oci_functions_application.test_application.id}"  
  
  #Optional  
  display_name = "${var.function_display_name}"  
  id = "${var.function_id}"  
  state = "${var.function_state}"  
}
```

Argument Reference

The following arguments are supported:

- `application_id` - (Required) The OCID
(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the application to which this function belongs.
- `display_name` - (Optional) A filter to return only functions with display names that match the display name string. Matching is exact.
- `id` - (Optional) A filter to return only functions with the specified OCID.
- `state` - (Optional) A filter to return only functions that match the lifecycle state in this parameter. Example:
Creating

Attributes Reference

The following attributes are exported:

- `functions` - The list of functions.

Function Reference

The following attributes are exported:

- `application_id` - The OCID of the application the function belongs to.
- `compartment_id` - The OCID of the compartment that contains the function.

- `config` - Function configuration. Overrides application configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: `{"MY_FUNCTION_CONFIG": "ConfVal"}`

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of the function. The display name is unique within the application containing the function.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the function.
- `image` - The qualified name of the Docker image to use in the function, including the image tag. The image should be in the Oracle Cloud Infrastructure Registry that is in the same region as the function itself. Example: `phx.ocir.io/ten/functions/function:0.0.1`
- `image_digest` - The image digest for the version of the image that will be pulled when invoking this function. If no value is specified, the digest currently associated with the image in the Oracle Cloud Infrastructure Registry will be used. Example: `sha256:ca0eeb6fb05351dfc8759c20733c91def84cb8007aa89a5bf606bc8b315b9fc7`
- `invoke_endpoint` - The base https invoke URL to set on a client in order to invoke a function. This URL will never change over the lifetime of the function and can be cached.
- `memory_in_mbs` - Maximum usable memory for the function (MiB).
- `state` - The current state of the function.
- `time_created` - The time the function was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `time_updated` - The time the function was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `timeout_in_seconds` - Timeout for executions of the function. Value in seconds.

Data Source: oci_health_checks_http_monitor

This data source provides details about a specific Http Monitor resource in Oracle Cloud Infrastructure Health Checks service.

Gets the configuration for the specified monitor.

Example Usage

```
data "oci_health_checks_http_monitor" "test_http_monitor" {  
  #Required  
  monitor_id = "${oci_health_checks_monitor.test_monitor.id}"  
}
```

Argument Reference

The following arguments are supported:

- `monitor_id` - (Required) The OCID of a monitor.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `headers` - A dictionary of HTTP request headers.

Note: Monitors and probes do not support the use of the `Authorization` HTTP header.

- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.

- `method` - The supported HTTP methods available for probes.
- `path` - The optional URL path to probe, including query parameters.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The supported protocols available for HTTP probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Data Source: oci_health_checks_http_monitors

This data source provides the list of Http Monitors in Oracle Cloud Infrastructure Health Checks service.

Gets a list of HTTP monitors.

Example Usage

```
data "oci_health_checks_http_monitors" "test_http_monitors" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.http_monitor_display_name}"  
  home_region = "${var.http_monitor_home_region}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) Filters results by compartment.
- `display_name` - (Optional) Filters results that exactly match the `displayName` field.
- `home_region` - (Optional) Filters results that match the `homeRegion` .

Attributes Reference

The following attributes are exported:

- `http_monitors` - The list of http_monitors.

HttpMonitor Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `headers` - A dictionary of HTTP request headers.

Note: Monitors and probes do not support the use of the `Authorization` HTTP header.

- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.
- `method` - The supported HTTP methods available for probes.
- `path` - The optional URL path to probe, including query parameters.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The supported protocols available for HTTP probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Data Source: oci_health_checks_http_probe_results

This data source provides the list of Http Probe Results in Oracle Cloud Infrastructure Health Checks service.

Gets the HTTP probe results for the specified probe or monitor, where the `probeConfigurationId` is the OCID of either a monitor or an on-demand probe.

Example Usage

```
data "oci_health_checks_http_probe_results" "test_http_probe_results" {  
  #Required  
  probe_configuration_id = "${oci_health_checks_probe_configuration.test_probe_configuration.id}"  
  
  #Optional  
  start_time_greater_than_or_equal_to = "${var.http_probe_result_start_time_greater_than_or_equal_to}"  
  start_time_less_than_or_equal_to = "${var.http_probe_result_start_time_less_than_or_equal_to}"  
  target = "${var.http_probe_result_target}"  
}
```

Argument Reference

The following arguments are supported:

- `probe_configuration_id` - (Required) The OCID of a monitor or on-demand probe.
- `start_time_greater_than_or_equal_to` - (Optional) Returns results with a `startTime` equal to or greater than the specified value.
- `start_time_less_than_or_equal_to` - (Optional) Returns results with a `startTime` equal to or less than the specified value.
- `target` - (Optional) Filters results that match the `target`.

Attributes Reference

The following attributes are exported:

- `http_probe_results` - The list of `http_probe_results`.

HttpProbeResult Reference

The following attributes are exported:

- `connect_end` - The time immediately after the vantage point finishes establishing the connection to the server to retrieve the resource.
- `connect_start` - The time immediately before the vantage point starts establishing the connection to the server to

retrieve the resource.

- `connection` -
 - `address` - The connection IP address.
 - `connect_duration` - Total connect duration, calculated using `connectEnd` minus `connectStart`.
 - `port` - The port.
 - `secure_connect_duration` - The duration to secure the connection. This value will be zero for insecure connections. Calculated using `connectEnd` minus `secureConnectionStart`.
- `dns` -
 - `addresses` - The addresses returned by DNS resolution.
 - `domain_lookup_duration` - Total DNS resolution duration, in milliseconds. Calculated using `domainLookupEnd` minus `domainLookupStart`.
- `domain_lookup_end` - The time immediately before the vantage point finishes the domain name lookup for the resource.
- `domain_lookup_start` - The time immediately before the vantage point starts the domain name lookup for the resource.
- `duration` - The total duration from start of request until response is fully consumed or the connection is closed.
- `encoded_body_size` - The size, in octets, of the payload body prior to removing any applied content-codings.
- `error_category` - The category of error if an error occurs executing the probe. The `errorMessage` field provides a message with the error details.
 - `NONE` - No error
 - `DNS` - DNS errors
 - `TRANSPORT` - Transport-related errors, for example a "TLS certificate expired" error.
 - `NETWORK` - Network-related errors, for example a "network unreachable" error.
 - `SYSTEM` - Internal system errors.
- `error_message` - The error information indicating why a probe execution failed.
- `fetch_start` - The time immediately before the vantage point starts to fetch the resource.
- `is_healthy` - True if the probe result is determined to be healthy based on probe type-specific criteria. For HTTP probes, a probe result is considered healthy if the HTTP response code is greater than or equal to 200 and less than 300.
- `is_timed_out` - True if the probe did not complete before the configured `timeoutInSeconds` value.
- `key` - A value identifying this specific probe result. The key is only unique within the results of its probe configuration. The key may be reused after 90 days.
- `probe_configuration_id` - The OCID of the monitor or on-demand probe responsible for creating this result.
- `protocol` - The supported protocols available for HTTP probes.
- `request_start` - The time immediately before the vantage point starts requesting the resource from the server.

- `response_end` - The time immediately after the vantage point receives the last byte of the response or immediately before the transport connection is closed, whichever comes first.
- `response_start` - The time immediately after the vantage point's HTTP parser receives the first byte of the response.
- `secure_connection_start` - The time immediately before the vantage point starts the handshake process to secure the current connection.
- `start_time` - The date and time the probe was executed, expressed in milliseconds since the POSIX epoch. This field is defined by the PerformanceResourceTiming interface of the W3C Resource Timing specification. For more information, see Resource Timing (<https://w3c.github.io/resource-timing/#sec-resource-timing>).
- `status_code` - The HTTP response status code.
- `target` - The target hostname or IP address of the probe.
- `vantage_point_name` - The name of the vantage point that executed the probe.

Data Source: oci_health_checks_ping_monitor

This data source provides details about a specific Ping Monitor resource in Oracle Cloud Infrastructure Health Checks service.

Gets the configuration for the specified ping monitor.

Example Usage

```
data "oci_health_checks_ping_monitor" "test_ping_monitor" {  
  #Required  
  monitor_id = "${oci_health_checks_monitor.test_monitor.id}"  
}
```

Argument Reference

The following arguments are supported:

- `monitor_id` - (Required) The OCID of a monitor.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The protocols for ping probes.

- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Data Source: oci_health_checks_ping_monitors

This data source provides the list of Ping Monitors in Oracle Cloud Infrastructure Health Checks service.

Gets a list of configured ping monitors.

Results are paginated based on `page` and `limit`. The `opc-next-page` header provides a URL for fetching the next page.

Example Usage

```
data "oci_health_checks_ping_monitors" "test_ping_monitors" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.ping_monitor_display_name}"  
  home_region = "${var.ping_monitor_home_region}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) Filters results by compartment.
- `display_name` - (Optional) Filters results that exactly match the `displayName` field.
- `home_region` - (Optional) Filters results that match the `homeRegion`.

Attributes Reference

The following attributes are exported:

- `ping_monitors` - The list of ping_monitors.

PingMonitor Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The protocols for ping probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Data Source: oci_health_checks_ping_probe_results

This data source provides the list of Ping Probe Results in Oracle Cloud Infrastructure Health Checks service.

Returns the results for the specified probe, where the `probeConfigurationId` is the OCID of either a monitor or an on-demand probe.

Results are paginated based on `page` and `limit`. The `opc-next-page` header provides a URL for fetching the next page. Use `sortOrder` to set the order of the results. If `sortOrder` is unspecified, results are sorted in ascending order by `startTime`.

Example Usage

```
data "oci_health_checks_ping_probe_results" "test_ping_probe_results" {  
  #Required  
  probe_configuration_id = "${oci_health_checks_probe_configuration.test_probe_configuration.id}"  
  
  #Optional  
  start_time_greater_than_or_equal_to = "${var.ping_probe_result_start_time_greater_than_or_equal_to}"  
  start_time_less_than_or_equal_to = "${var.ping_probe_result_start_time_less_than_or_equal_to}"  
  target = "${var.ping_probe_result_target}"  
}
```

Argument Reference

The following arguments are supported:

- `probe_configuration_id` - (Required) The OCID of a monitor or on-demand probe.
- `start_time_greater_than_or_equal_to` - (Optional) Returns results with a `startTime` equal to or greater than the specified value.
- `start_time_less_than_or_equal_to` - (Optional) Returns results with a `startTime` equal to or less than the specified value.
- `target` - (Optional) Filters results that match the `target`.

Attributes Reference

The following attributes are exported:

- `ping_probe_results` - The list of ping_probe_results.

PingProbeResult Reference

The following attributes are exported:

- `connection` -
 - `address` - The connection IP address.
 - `port` - The port.
- `dns` -
 - `addresses` - The addresses returned by DNS resolution.
 - `domain_lookup_duration` - Total DNS resolution duration, in milliseconds. Calculated using `domainLookupEnd` minus `domainLookupStart`.
- `domain_lookup_end` - The time immediately before the vantage point finishes the domain name lookup for the resource.
- `domain_lookup_start` - The time immediately before the vantage point starts the domain name lookup for the resource.
- `error_category` - The category of error if an error occurs executing the probe. The `errorMessage` field provides a message with the error details.
 - `NONE` - No error
 - `DNS` - DNS errors
 - `TRANSPORT` - Transport-related errors, for example a "TLS certificate expired" error.
 - `NETWORK` - Network-related errors, for example a "network unreachable" error.
 - `SYSTEM` - Internal system errors.
- `error_message` - The error information indicating why a probe execution failed.
- `icmp_code` - The ICMP code of the response message. This field is not used when the protocol is set to TCP. For more information on ICMP codes, see Internet Control Message Protocol (ICMP) Parameters (<https://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>).
- `is_healthy` - True if the probe result is determined to be healthy based on probe type-specific criteria. For HTTP probes, a probe result is considered healthy if the HTTP response code is greater than or equal to 200 and less than 300.
- `is_timed_out` - True if the probe did not complete before the configured `timeoutInSeconds` value.
- `key` - A value identifying this specific probe result. The key is only unique within the results of its probe configuration. The key may be reused after 90 days.
- `latency_in_ms` - The latency of the probe execution, in milliseconds.
- `probe_configuration_id` - The OCID of the monitor or on-demand probe responsible for creating this result.
- `protocol` - The protocols for ping probes.
- `start_time` - The date and time the probe was executed, expressed in milliseconds since the POSIX epoch. This field is defined by the PerformanceResourceTiming interface of the W3C Resource Timing specification. For more information, see Resource Timing (<https://w3c.github.io/resource-timing/#sec-resource-timing>).
- `target` - The target hostname or IP address of the probe.
- `vantage_point_name` - The name of the vantage point that executed the probe.

Data Source: oci_health_checks_vantage_points

This data source provides the list of Vantage Points in Oracle Cloud Infrastructure Health Checks service.

Gets information about all vantage points available to the user.

Example Usage

```
data "oci_health_checks_vantage_points" "test_vantage_points" {  
  
  #Optional  
  display_name = "${var.vantage_point_display_name}"  
  name = "${var.vantage_point_name}"  
}
```

Argument Reference

The following arguments are supported:

- `display_name` - (Optional) Filters results that exactly match the `displayName` field.
- `name` - (Optional) Filters results that exactly match the `name` field.

Attributes Reference

The following attributes are exported:

- `health_checks_vantage_points` - The list of `health_checks_vantage_points`.

VantagePoint Reference

The following attributes are exported:

- `display_name` - The display name for the vantage point. Display names are determined by the best information available and may change over time.
- `geo` -
 - `admin_div_code` - The ISO 3166-2 code for this location's first-level administrative division, either a US state or Canadian province. Only included for locations in the US or Canada. For a list of codes, see [Country Codes \(https://www.iso.org/obp/ui/#search\)](https://www.iso.org/obp/ui/#search).
 - `city_name` - Common English-language name for the city.
 - `country_code` - The ISO 3166-1 alpha-2 country code. For a list of codes, see [Country Codes \(https://www.iso.org/obp/ui/#search\)](https://www.iso.org/obp/ui/#search).
 - `country_name` - The common English-language name for the country.

- `geo_key` - An opaque identifier for the geographic location of the vantage point.
- `latitude` - Degrees north of the Equator.
- `longitude` - Degrees east of the prime meridian.
- `name` - The unique, permanent name for the vantage point.
- `provider_name` - The organization on whose infrastructure this vantage point resides. Provider names are not unique, as Oracle Cloud Infrastructure maintains many vantage points in each major provider.
- `routing` - An array of objects that describe how traffic to this vantage point is routed, including which prefixes and ASNs connect it to the internet.

The addresses are sorted from the most-specific to least-specific prefix (the smallest network to largest network). When a prefix has multiple origin ASNs (MOAS routing), they are sorted by weight (highest to lowest). Weight is determined by the total percentage of peers observing the prefix originating from an ASN. Only present if `fields` includes `routing`. The field will be null if the address's routing information is unknown.

- `as_label` - The registry label for `asn`, usually the name of the organization that owns the ASN. May be omitted or null.
- `asn` - The Autonomous System Number (ASN) identifying the organization responsible for routing packets to `prefix`.
- `prefix` - An IP prefix (CIDR syntax) that is less specific than `address`, through which `address` is routed.
- `weight` - An integer between 0 and 100 used to select between multiple origin ASNs when routing to `prefix`. Most prefixes have exactly one origin ASN, in which case `weight` will be 100.

Data Source: oci_identity_api_keys

This data source provides the list of Api Keys in Oracle Cloud Infrastructure Identity service.

Lists the API signing keys for the specified user. A user can have a maximum of three keys.

Every user has permission to use this API call for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability.

Example Usage

```
data "oci_identity_api_keys" "test_api_keys" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `api_keys` - The list of api_keys.

ApiKey Reference

The following attributes are exported:

- `fingerprint` - The key's fingerprint (e.g., 12:34:56:78:90:ab:cd:ef:12:34:56:78:90:ab:cd:ef).
- `id` - An Oracle-assigned identifier for the key, in this format: TENANCY_OCID/USER_OCID/KEY_FINGERPRINT.
- `inactive_status` - The detailed status of INACTIVE lifecycleState.
- `key_value` - The key's value.
- `state` - The API key's current state.
- `time_created` - Date and time the `ApiKey` object was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user the key belongs to.

Data Source: oci_identity_authentication_policy

This data source provides details about a specific Authentication Policy resource in Oracle Cloud Infrastructure Identity service.

Gets the authentication policy for the given tenancy. You must specify your tenant's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment).

Example Usage

```
data "oci_identity_authentication_policy" "test_authentication_policy" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.

Attributes Reference

The following attributes are exported:

- `compartment_id` - Compartment OCID.
- `password_policy` - Password policy.
 - `is_lowercase_characters_required` - At least one lower case character required.
 - `is_numeric_characters_required` - At least one numeric character required.
 - `is_special_characters_required` - At least one special character required.
 - `is_uppercase_characters_required` - At least one uppercase character required.
 - `is_username_containment_allowed` - User name is allowed to be part of the password.
 - `minimum_password_length` - Minimum password length required.

Data Source: oci_identity_auth_tokens

This data source provides the list of Auth Tokens in Oracle Cloud Infrastructure Identity service.

Lists the auth tokens for the specified user. The returned object contains the token's OCID, but not the token itself. The actual token is returned only upon creation.

Example Usage

```
data "oci_identity_auth_tokens" "test_auth_tokens" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `tokens` - The list of tokens.

AuthToken Reference

The following attributes are exported:

- `description` - The description you assign to the auth token. Does not have to be unique, and it's changeable.
- `id` - The OCID of the auth token.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The token's current state.
- `time_created` - Date and time the `AuthToken` object was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_expires` - Date and time when this auth token will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `token` - The auth token. The value is available only in the response for `CreateAuthToken`, and not for `ListAuthTokens` or `UpdateAuthToken`.

- `user_id` - The OCID of the user the auth token belongs to.

Data Source: oci_identity_availability_domain

This data source provides the details of a single Availability Domain in Oracle Cloud Infrastructure Identity service.

Example Usage

```
data "oci_identity_availability_domain" "test_compartment" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional (one or the other is required)  
  id = "${var.id}"  
  ad_number = "${var.ad_number}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the tenancy.
- `id` - (Optional) The OCID of the Availability Domain. Required if `ad_number` is not specified.
- `ad_number` - (Optional) The number of the Availability Domain. Required if `id` is not specified. This number corresponds to the integer in the Availability Domain `name` .

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy.
- `id` - The OCID of the Availability Domain.
- `ad_number` - The number of the Availability Domain. For example, the `ad_number` for `YXol:US-ASHBURN-AD-1` would be `"1"`
- `name` - The name of the Availability Domain.

Data Source: oci_identity_availability_domains

This data source provides the list of Availability Domains in Oracle Cloud Infrastructure Identity service.

Lists the availability domains in your tenancy. Specify the OCID of either the tenancy or another of your compartments as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID \(https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five\)](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five). Note that the order of the results returned can change if availability domains are added or removed; therefore, do not create a dependency on the list order.

Example Usage

```
data "oci_identity_availability_domains" "test_availability_domains" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `availability_domains` - The list of availability_domains.

AvailabilityDomain Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy.
- `id` - The OCID of the Availability Domain.
- `name` - The name of the Availability Domain.

Data Source: oci_identity_compartment

This data source provides details about a specific Compartment resource in Oracle Cloud Infrastructure Identity service.

Gets the specified compartment's information.

This operation does not return a list of all the resources inside the compartment. There is no single API operation that does that. Compartments can contain multiple types of resources (instances, block storage volumes, etc.). To find out what's in a compartment, you must call the "List" operation for each resource type and specify the compartment's OCID as a query parameter in the request. For example, call the ListInstances (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Instance/ListInstances>) operation in the Cloud Compute Service or the ListVolumes (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Volume/ListVolumes>) operation in Cloud Block Storage.

Example Usage

```
data "oci_identity_compartment" "test_compartment" {  
  #Required  
  id = "${var.compartment_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `id` - (Required) The OCID of the compartment.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the parent compartment containing the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the compartment. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the compartment.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.

- `is_accessible` - Indicates whether or not the compartment is accessible for the user making the request. Returns `true` when the user has INSPECT permissions directly on a resource in the compartment or indirectly (permissions can be on a resource in a subcompartment).
- `name` - The name you assign to the compartment during creation. The name must be unique across all compartments in the parent. Avoid entering confidential information.
- `state` - The compartment's current state.
- `time_created` - Date and time the compartment was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_compartments

This data source provides the list of Compartments in Oracle Cloud Infrastructure Identity service.

Lists the compartments in a specified compartment. The members of the list returned depends on the values set for several parameters.

With the exception of the tenancy (root compartment), the ListCompartments operation returns only the first-level child compartments in the parent compartment specified in `compartmentId`. The list does not include any subcompartments of the child compartments (grandchildren).

The parameter `accessLevel` specifies whether to return only those compartments for which the requestor has INSPECT permissions on at least one resource directly or indirectly (the resource can be in a subcompartment).

The parameter `compartmentIdInSubtree` applies only when you perform ListCompartments on the tenancy (root compartment). When set to true, the entire hierarchy of compartments can be returned. To get a full list of all compartments and subcompartments in the tenancy (root compartment), set the parameter `compartmentIdInSubtree` to true and `accessLevel` to ANY.

See [Where to Get the Tenancy's OCID and User's OCID](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five)

(<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_compartments" "test_compartments" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  access_level = "${var.compartment_access_level}"  
  compartment_id_in_subtree = "${var.compartment_compartment_id_in_subtree}"  
}
```

Argument Reference

The following arguments are supported:

- `access_level` - (Optional) Valid values are `ANY` and `ACCESSIBLE`. Default is `ANY`. Setting this to `ACCESSIBLE` returns only those compartments for which the user has INSPECT permissions directly or indirectly (permissions can be on a resource in a subcompartment). For the compartments on which the user indirectly has INSPECT permissions, a restricted set of fields is returned.

When set to `ANY` permissions are not checked.

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

- `compartment_id_in_subtree` - (Optional) Default is false. Can only be set to true when performing `ListCompartments` on the tenancy (root compartment). When set to true, the hierarchy of compartments is traversed and all compartments and subcompartments in the tenancy are returned depending on the the setting of `accessLevel`.

Attributes Reference

The following attributes are exported:

- `compartments` - The list of compartments.

Compartment Reference

The following attributes are exported:

- `compartment_id` - The OCID of the parent compartment containing the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the compartment. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the compartment.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `is_accessible` - Indicates whether or not the compartment is accessible for the user making the request. Returns true when the user has INSPECT permissions directly on a resource in the compartment or indirectly (permissions can be on a resource in a subcompartment).
- `name` - The name you assign to the compartment during creation. The name must be unique across all compartments in the parent. Avoid entering confidential information.
- `state` - The compartment's current state.
- `time_created` - Date and time the compartment was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_cost_tracking_tags

This data source provides the list of Cost Tracking Tags in Oracle Cloud Infrastructure Identity service.

Lists all the tags enabled for cost-tracking in the specified tenancy. For information about cost-tracking tags, see [Using Cost-tracking Tags \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#costs\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#costs).

Example Usage

```
data "oci_identity_cost_tracking_tags" "test_cost_tracking_tags" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `tags` - The list of tags.

CostTrackingTag Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the tag definition.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the tag.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`
- `id` - The OCID of the tag definition.

- `is_cost_tracking` - Indicates whether the tag is enabled for cost tracking.
- `is_retired` - Indicates whether the tag is retired. See Retiring Key Definitions and Namespace Definitions (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#Retiring>).
- `name` - The name assigned to the tag during creation. This is the tag key definition. The name must be unique within the tag namespace and cannot be changed.
- `state` - The tag's current state. After creating a tag, make sure its `lifecycleState` is `ACTIVE` before using it. After retiring a tag, make sure its `lifecycleState` is `INACTIVE` before using it. If you delete a tag, you cannot delete another tag until the deleted tag's `lifecycleState` changes from `DELETING` to `DELETED`.
- `tag_namespace_id` - The OCID of the namespace that contains the tag definition.
- `tag_namespace_name` - The name of the tag namespace that contains the tag definition.
- `time_created` - Date and time the tag was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `validator` - Additional validation rule for values specified for the tag definition.
 - `validator_type` - The primitive that any value set for this `definedTag` must be parseable as.
 - `values` - The list of allowed values for a `definedTag` value.

Data Source: oci_identity_customer_secret_keys

This data source provides the list of Customer Secret Keys in Oracle Cloud Infrastructure Identity service.

Lists the secret keys for the specified user. The returned object contains the secret key's OCID, but not the secret key itself. The actual secret key is returned only upon creation.

Example Usage

```
data "oci_identity_customer_secret_keys" "test_customer_secret_keys" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `customer_secret_keys` - The list of customer_secret_keys.

CustomerSecretKey Reference

The following attributes are exported:

- `display_name` - The display name you assign to the secret key. Does not have to be unique, and it's changeable.
- `id` - The OCID of the secret key.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The secret key's current state.
- `time_created` - Date and time the `CustomerSecretKey` object was created, in the format defined by RFC3339.
Example: 2016-08-25T21:10:29.600Z
- `time_expires` - Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user the password belongs to.

Data Source: oci_identity_dynamic_groups

This data source provides the list of Dynamic Groups in Oracle Cloud Infrastructure Identity service.

Lists the dynamic groups in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_dynamic_groups" "test_dynamic_groups" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `dynamic_groups` - The list of dynamic_groups.

DynamicGroup Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the group. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the group.

- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `matching_rule` - A rule string that defines which instance certificates will be matched. For syntax, see [Managing Dynamic Groups \(https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm).
- `name` - The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
- `state` - The group's current state.
- `time_created` - Date and time the group was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_fault_domains

This data source provides the list of Fault Domains in Oracle Cloud Infrastructure Identity service.

Lists the Fault Domains in your tenancy. Specify the OCID of either the tenancy or another of your compartments as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID](#) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_fault_domains" "test_fault_domains" {  
  #Required  
  availability_domain = "${var.fault_domain_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The name of the availabilityDomain.
- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `fault_domains` - The list of fault_domains.

FaultDomain Reference

The following attributes are exported:

- `availability_domain` - The name of the availabilityDomain where the Fault Domain belongs.
- `compartment_id` - The OCID of the compartment. Currently only tenancy (root) compartment can be provided.
- `id` - The OCID of the Fault Domain.
- `name` - The name of the Fault Domain.

Data Source: oci_identity_group

This data source provides details about a specific Group resource in Oracle Cloud Infrastructure Identity service.

Gets the specified group's information.

This operation does not return a list of all the users in the group. To do that, use `ListUserGroupMemberships` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/UserGroupMembership/ListUserGroupMemberships>) and provide the group's OCID as a query parameter in the request.

Example Usage

```
data "oci_identity_group" "test_group" {  
  #Required  
  group_id = "${oci_identity_group.test_group.id}"  
}
```

Argument Reference

The following arguments are supported:

- `group_id` - (Required) The OCID of the group.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the group. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the group.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `name` - The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
- `state` - The group's current state.

- `time_created` - Date and time the group was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_groups

This data source provides the list of Groups in Oracle Cloud Infrastructure Identity service.

Lists the groups in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_groups" "test_groups" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `groups` - The list of groups.

Group Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the group. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the group.

- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `name` - The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
- `state` - The group's current state.
- `time_created` - Date and time the group was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_identity_provider_groups

This data source provides the list of Identity Provider Groups in Oracle Cloud Infrastructure Identity service.

Lists the identity provider groups.

Example Usage

```
data "oci_identity_identity_provider_groups" "test_identity_provider_groups" {  
  #Required  
  identity_provider_id = "${oci_identity_identity_provider.test_identity_provider.id}"  
}
```

Argument Reference

The following arguments are supported:

- `identity_provider_id` - (Required) The OCID of the identity provider.

Attributes Reference

The following attributes are exported:

- `identity_provider_groups` - The list of `identity_provider_groups`.

IdentityProviderGroup Reference

The following attributes are exported:

- `display_name` - Display name of the group
- `external_identifier` - Identifier of the group in the identity provider
- `id` - The OCID of the `IdentityProviderGroup`.
- `identity_provider_id` - The OCID of the `IdentityProvider` this group belongs to.
- `time_created` - Date and time the `IdentityProviderGroup` was created, in the format defined by RFC3339.
Example: 2016-08-25T21:10:29.600Z
- `time_modified` - Date and time the `IdentityProviderGroup` was last modified, in the format defined by RFC3339.
Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_identity_providers

This data source provides the list of Identity Providers in Oracle Cloud Infrastructure Identity service.

Lists all the identity providers in your tenancy. You must specify the identity provider type (e.g., SAML2 for identity providers using the SAML2.0 protocol). You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_identity_providers" "test_identity_providers" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  protocol = "${var.identity_provider_protocol}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
- `protocol` - (Required) The protocol used for federation.

Attributes Reference

The following attributes are exported:

- `identity_providers` - The list of identity_providers.

IdentityProvider Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the `IdentityProvider`.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the `IdentityProvider` during creation. Does not have to be unique, and it's changeable.
- `freeform_attributes` - Extra name value pairs associated with this identity provider. Example: `{"clientId":`

```
"app_sf3kdjf3"}
```

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the `IdentityProvider`.
- `inactive_state` - The detailed status of `INACTIVE` lifecycleState.
- `metadata_url` - The URL for retrieving the identity provider's metadata, which contains information required for federating.
- `name` - The name you assign to the `IdentityProvider` during creation. The name must be unique across all `IdentityProvider` objects in the tenancy and cannot be changed. This is the name federated users see when choosing which identity provider to use when signing in to the Oracle Cloud Infrastructure Console.
- `product_type` - The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).

Allowed values are:

- ADFS
- IDCS

Example: IDCS

- `protocol` - The protocol used for federation. Allowed value: `SAML2`. Example: `SAML2`
- `redirect_url` - The URL to redirect federated users to for authentication with the identity provider.
- `signing_certificate` - The identity provider's signing certificate used by the IAM Service to validate the SAML2 token.
- `state` - The current state.
- `time_created` - Date and time the `IdentityProvider` was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_identity_idp_group_mappings

This data source provides the list of Idp Group Mappings in Oracle Cloud Infrastructure Identity service.

Lists the group mappings for the specified identity provider.

Example Usage

```
data "oci_identity_idp_group_mappings" "test_idp_group_mappings" {  
  #Required  
  identity_provider_id = "${oci_identity_identity_provider.test_identity_provider.id}"  
}
```

Argument Reference

The following arguments are supported:

- `identity_provider_id` - (Required) The OCID of the identity provider.

Attributes Reference

The following attributes are exported:

- `idp_group_mappings` - The list of `idp_group_mappings`.

IdpGroupMapping Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the `IdentityProvider`.
- `group_id` - The OCID of the IAM Service group that is mapped to the IdP group.
- `id` - The OCID of the `IdpGroupMapping`.
- `identity_provider_id` - The OCID of the `IdentityProvider` this mapping belongs to.
- `idp_group_name` - The name of the IdP group that is mapped to the IAM Service group.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The mapping's current state.
- `time_created` - Date and time the mapping was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_identity_policies

This data source provides the list of Policies in Oracle Cloud Infrastructure Identity service.

Lists the policies in the specified compartment (either the tenancy or another of your compartments). See [Where to Get the Tenancy's OCID and User's OCID \(https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five\)](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five).

To determine which policies apply to a particular group or compartment, you must view the individual statements inside all your policies. There isn't a way to automatically obtain that information via the API.

Example Usage

```
data "oci_identity_policies" "test_policies" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `policies` - The list of policies.

Policy Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the policy (either the tenancy or another compartment).
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the policy. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`

- `id` - The OCID of the policy.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `name` - The name you assign to the policy during creation. The name must be unique across all policies in the tenancy and cannot be changed.
- `state` - The policy's current state.
- `statements` - An array of one or more policy statements written in the policy language.
- `time_created` - Date and time the policy was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `version_date` - The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.

Data Source: oci_identity_regions

This data source provides the list of Regions in Oracle Cloud Infrastructure Identity service.

Lists all the regions offered by Oracle Cloud Infrastructure.

Example Usage

```
data "oci_identity_regions" "test_regions" {  
}
```

Argument Reference

The following arguments are supported:

Attributes Reference

The following attributes are exported:

- `regions` - The list of regions.

Region Reference

The following attributes are exported:

- `key` - The key of the region.

Allowed values are:

- PHX
- IAD
- FRA
- LHR
- YYZ
- NRT
- ICN

- `name` - The name of the region.

Allowed values are:

- us-phoenix-1

- us-ashburn-1
- eu-frankfurt-1
- uk-london-1
- ca-toronto-1
- ap-tokyo-1
- ap-seoul-1

Data Source: oci_identity_region_subscriptions

This data source provides the list of Region Subscriptions in Oracle Cloud Infrastructure Identity service.

Lists the region subscriptions for the specified tenancy.

Example Usage

```
data "oci_identity_region_subscriptions" "test_region_subscriptions" {  
  #Required  
  tenancy_id = "${oci_identity_tenancy.test_tenancy.id}"  
}
```

Argument Reference

The following arguments are supported:

- `tenancy_id` - (Required) The OCID of the tenancy.

Attributes Reference

The following attributes are exported:

- `region_subscriptions` - The list of region_subscriptions.

RegionSubscription Reference

The following attributes are exported:

- `is_home_region` - Indicates if the region is the home region or not.
- `region_key` - The region's key.

Allowed values are:

- PHX
- IAD
- FRA
- LHR
- YYZ
- NRT
- ICN

- `region_name` - The region's name.

Allowed values are:

- `us-phoenix-1`
 - `us-ashburn-1`
 - `eu-frankfurt-1`
 - `uk-london-1`
 - `ap-seoul-1`
 - `ap-tokyo-1`
 - `ca-toronto-1`
- `state` - The region subscription state.

Data Source: oci_identity_smtp_credentials

This data source provides the list of Smtplib Credentials in Oracle Cloud Infrastructure Identity service.

Lists the SMTP credentials for the specified user. The returned object contains the credential's OCID, the SMTP user name but not the SMTP password. The SMTP password is returned only upon creation.

Example Usage

```
data "oci_identity_smtp_credentials" "test_smtp_credentials" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `smtp_credentials` - The list of smtp_credentials.

SmtplibCredential Reference

The following attributes are exported:

- `description` - The description you assign to the SMTP credential. Does not have to be unique, and it's changeable.
- `id` - The OCID of the SMTP credential.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The credential's current state.
- `time_created` - Date and time the `SmtplibCredential` object was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_expires` - Date and time when this credential will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user the SMTP credential belongs to.
- `username` - The SMTP user name.

Data Source: oci_identity_swift_passwords

This data source provides the list of Swift Passwords in Oracle Cloud Infrastructure Identity service.

Deprecated. Use `ListAuthTokens`

(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/AuthToken/ListAuthTokens>) instead.

Lists the Swift passwords for the specified user. The returned object contains the password's OCID, but not the password itself. The actual password is returned only upon creation.

Example Usage

```
data "oci_identity_swift_passwords" "test_swift_passwords" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `passwords` - The list of passwords.

SwiftPassword Reference

The following attributes are exported:

- `description` - The description you assign to the Swift password. Does not have to be unique, and it's changeable.
- `expires_on` - Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `id` - The OCID of the Swift password.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `password` - The Swift password. The value is available only in the response for `CreateSwiftPassword`, and not for `ListSwiftPasswords` or `UpdateSwiftPassword`.
- `state` - The password's current state.

- `time_created` - Date and time the `SwiftPassword` object was created, in the format defined by RFC3339. Example:
`2016-08-25T21:10:29.600Z`
- `user_id` - The OCID of the user the password belongs to.

Data Source: oci_identity_tag_default

This data source provides details about a specific Tag Default resource in Oracle Cloud Infrastructure Identity service.

Retrieves the specified tag default.

Example Usage

```
data "oci_identity_tag_default" "test_tag_default" {  
  #Required  
  tag_default_id = "${oci_identity_tag_default.test_tag_default.id}"  
}
```

Argument Reference

The following arguments are supported:

- `tag_default_id` - (Required) The OCID of the tag default.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment. The tag default applies to all new resources that get created in the compartment. Resources that existed before the tag default was created are not tagged.
- `id` - The OCID of the tag default.
- `is_required` - If you specify that a value is required, a value is set during resource creation (either by the user creating the resource or another tag default). If no value is set, resource creation is blocked.
 - If the `isRequired` flag is set to "true", the value is set during resource creation.
 - If the `isRequired` flag is set to "false", the value you enter is set during resource creation.

Example: `false`

- `state` - The tag default's current state. After creating a `TagDefault`, make sure its `lifecycleState` is `ACTIVE` before using it.
- `tag_definition_id` - The OCID of the tag definition. The tag default will always assign a default value for this tag definition.
- `tag_definition_name` - The name used in the tag definition. This field is informational in the context of the tag default.
- `tag_namespace_id` - The OCID of the tag namespace that contains the tag definition.

- `time_created` - Date and time the `TagDefault` object was created, in the format defined by RFC3339. Example:
`2016-08-25T21:10:29.600Z`
- `value` - The default value for the tag definition. This will be applied to all new resources created in the compartment.

Data Source: oci_identity_tag_defaults

This data source provides the list of Tag Defaults in Oracle Cloud Infrastructure Identity service.

Lists the tag defaults for tag definitions in the specified compartment.

Example Usage

```
data "oci_identity_tag_defaults" "test_tag_defaults" {  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  id = "${var.tag_default_id}"  
  state = "${var.tag_default_state}"  
  tag_definition_id = "${oci_identity_tag_definition.test_tag_definition.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) The OCID of the compartment (remember that the tenancy is simply the root compartment).
- `id` - (Optional) A filter to only return resources that match the specified OCID exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `tag_definition_id` - (Optional) The OCID of the tag definition.

Attributes Reference

The following attributes are exported:

- `tag_defaults` - The list of tag_defaults.

TagDefault Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment. The tag default applies to all new resources that get created in the compartment. Resources that existed before the tag default was created are not tagged.
- `id` - The OCID of the tag default.

- `is_required` - If you specify that a value is required, a value is set during resource creation (either by the user creating the resource or another tag default). If no value is set, resource creation is blocked.
 - If the `isRequired` flag is set to "true", the value is set during resource creation.
 - If the `isRequired` flag is set to "false", the value you enter is set during resource creation.

Example: `false`

- `state` - The tag default's current state. After creating a `TagDefault`, make sure its `lifecycleState` is `ACTIVE` before using it.
- `tag_definition_id` - The OCID of the tag definition. The tag default will always assign a default value for this tag definition.
- `tag_definition_name` - The name used in the tag definition. This field is informational in the context of the tag default.
- `tag_namespace_id` - The OCID of the tag namespace that contains the tag definition.
- `time_created` - Date and time the `TagDefault` object was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `value` - The default value for the tag definition. This will be applied to all new resources created in the compartment.

Data Source: oci_identity_tag_namespaces

This data source provides the list of Tag Namespaces in Oracle Cloud Infrastructure Identity service.

Lists the tag namespaces in the specified compartment.

Example Usage

```
data "oci_identity_tag_namespaces" "test_tag_namespaces" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  include_subcompartments = "${var.tag_namespace_include_subcompartments}"  
  state = "${var.tag_namespace_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
- `include_subcompartments` - (Optional) An optional boolean parameter indicating whether to retrieve all tag namespaces in subcompartments. If this parameter is not specified, only the tag namespaces defined in the specified compartment are retrieved.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `tag_namespaces` - The list of tag namespaces.

TagNamespace Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the tag namespace.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`

- `description` - The description you assign to the tag namespace.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the tag namespace.
- `is_retired` - Whether the tag namespace is retired. For more information, see Retiring Key Definitions and Namespace Definitions (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#Retiring>).
- `name` - The name of the tag namespace. It must be unique across all tag namespaces in the tenancy and cannot be changed.
- `state` - The tagnamespace's current state. After creating a tagnamespace, make sure its `lifecycleState` is `ACTIVE` before using it. After retiring a tagnamespace, make sure its `lifecycleState` is `INACTIVE` before using it.
- `time_created` - Date and time the tag namespace was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_identity_tags

This data source provides the list of Tags in Oracle Cloud Infrastructure Identity service.

Lists the tag definitions in the specified tag namespace.

Example Usage

```
data "oci_identity_tags" "test_tags" {  
  #Required  
  tag_namespace_id = "${oci_identity_tag_namespace.test_tag_namespace.id}"  
  
  #Optional  
  state = "${var.tag_state}"  
}
```

Argument Reference

The following arguments are supported:

- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.
- `tag_namespace_id` - (Required) The OCID of the tag namespace.

Attributes Reference

The following attributes are exported:

- `tags` - The list of tags.

Tag Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the tag.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID of the tag definition.
- `is_cost_tracking` - Indicates whether the tag is enabled for cost tracking.
- `is_retired` - Indicates whether the tag is retired. See Retiring Key Definitions and Namespace Definitions (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#Retiring>).
- `name` - The name assigned to the tag during creation. This is the tag key definition. The name must be unique within the tag namespace and cannot be changed.
- `state` - The tag's current state. After creating a tag, make sure its `lifecycleState` is `ACTIVE` before using it. After retiring a tag, make sure its `lifecycleState` is `INACTIVE` before using it. If you delete a tag, you cannot delete another tag until the deleted tag's `lifecycleState` changes from `DELETING` to `DELETED`.
- `tag_namespace_id` - The OCID of the namespace that contains the tag definition.
- `time_created` - Date and time the tag was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `validator` - Additional validation rule for values specified for the tag definition.
 - `validator_type` - The primitive that any value set for this `definedTag` must be parseable as.
 - `values` - The list of allowed values for a `definedTag` value.

Data Source: oci_identity_tenancy

This data source provides details about a specific Tenancy resource in Oracle Cloud Infrastructure Identity service.

Get the specified tenancy's information.

Example Usage

```
data "oci_identity_tenancy" "test_tenancy" {  
  #Required  
  tenancy_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `tenancy_id` - (Required) The OCID of the tenancy.

Attributes Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the tenancy.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `home_region_key` - The region key for the tenancy's home region. For more information about regions, see Regions and Availability Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>).

Allowed values are:

- IAD
- PHX
- FRA
- LHR
- ICN

- YYZ

- NRT

- id - The OCID of the tenancy.
- name - The name of the tenancy.

Data Source: oci_identity_ui_password

This data source provides details about a specific Ui Password resource in Oracle Cloud Infrastructure Identity service.

Gets the specified user's console password information. The returned object contains the user's OCID, but not the password itself. The actual password is returned only when created or reset.

Example Usage

```
data "oci_identity_ui_password" "test_ui_password" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `state` - The password's current state.
- `time_created` - Date and time the password was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user.

Data Source: oci_identity_user_group_memberships

This data source provides the list of User Group Memberships in Oracle Cloud Infrastructure Identity service.

Lists the `UserGroupMembership` objects in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (see [Where to Get the Tenancy's OCID and User's OCID](#) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>)). You must also then filter the list in one of these ways:

- You can limit the results to just the memberships for a given user by specifying a `userId`.
- Similarly, you can limit the results to just the memberships for a given group by specifying a `groupId`.
- You can set both the `userId` and `groupId` to determine if the specified user is in the specified group. If the answer is no, the response is an empty list.
- Although `userId` and `groupId` are not individually required, you must set one of them.

Example Usage

```
data "oci_identity_user_group_memberships" "test_user_group_memberships" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  group_id = "${oci_identity_group.test_group.id}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
- `group_id` - (Optional) The OCID of the group.
- `user_id` - (Optional) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `memberships` - The list of memberships.

UserGroupMembership Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the user, group, and membership object.
- `group_id` - The OCID of the group.
- `id` - The OCID of the membership.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The membership's current state.
- `time_created` - Date and time the membership was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user.

Data Source: oci_identity_user

This data source provides details about a specific User resource in Oracle Cloud Infrastructure Identity service.

Gets the specified user's information.

Example Usage

```
data "oci_identity_user" "test_user" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

Attributes Reference

The following attributes are exported:

- `capabilities` - Properties indicating how the user is allowed to authenticate.
 - `can_use_api_keys` - Indicates if the user can use API keys.
 - `can_use_auth_tokens` - Indicates if the user can use SWIFT passwords / auth tokens.
 - `can_use_console_password` - Indicates if the user can log in to the console.
 - `can_use_customer_secret_keys` - Indicates if the user can use SigV4 symmetric keys.
 - `can_use_smtp_credentials` - Indicates if the user can use SMTP passwords.
- `compartment_id` - The OCID of the tenancy containing the user.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the user. Does not have to be unique, and it's changeable.
- `email` - The email address you assign to the user. The email address must be unique across all users in the tenancy.
- `external_identifier` - Identifier of the user in the identity provider
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}

- `id` - The OCID of the user.
- `identity_provider_id` - The OCID of the `IdentityProvider` this user belongs to.
- `inactive_state` - Returned only if the user's `lifecycleState` is `INACTIVE`. A 16-bit value showing the reason why the user is inactive:
 - bit 0: `SUSPENDED` (reserved for future use)
 - bit 1: `DISABLED` (reserved for future use)
 - bit 2: `BLOCKED` (the user has exceeded the maximum number of failed login attempts for the Console)
- `name` - The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.
- `state` - The user's current state.
- `time_created` - Date and time the user was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_identity_users

This data source provides the list of Users in Oracle Cloud Infrastructure Identity service.

Lists the users in your tenancy. You must specify your tenancy's OCID as the value for the compartment ID (remember that the tenancy is simply the root compartment). See [Where to Get the Tenancy's OCID and User's OCID](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five) (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm#five>).

Example Usage

```
data "oci_identity_users" "test_users" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  external_identifier = "${var.user_external_identifier}"  
  identity_provider_id = "${oci_identity_identity_provider.test_identity_provider.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment (remember that the tenancy is simply the root compartment).
- `external_identifier` - (Optional) The id of a user in the identity provider.
- `identity_provider_id` - (Optional) The id of the identity provider.

Attributes Reference

The following attributes are exported:

- `users` - The list of users.

User Reference

The following attributes are exported:

- `capabilities` - Properties indicating how the user is allowed to authenticate.
 - `can_use_api_keys` - Indicates if the user can use API keys.
 - `can_use_auth_tokens` - Indicates if the user can use SWIFT passwords / auth tokens.
 - `can_use_console_password` - Indicates if the user can log in to the console.

- `can_use_customer_secret_keys` - Indicates if the user can use SigV4 symmetric keys.
 - `can_use_smtp_credentials` - Indicates if the user can use SMTP passwords.
- `compartment_id` - The OCID of the tenancy containing the user.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the user. Does not have to be unique, and it's changeable.
- `email` - The email address you assign to the user. The email address must be unique across all users in the tenancy.
- `external_identifier` - Identifier of the user in the identity provider
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the user.
- `identity_provider_id` - The OCID of the `IdentityProvider` this user belongs to.
- `inactive_state` - Returned only if the user's `lifecycleState` is `INACTIVE`. A 16-bit value showing the reason why the user is inactive:
 - bit 0: `SUSPENDED` (reserved for future use)
 - bit 1: `DISABLED` (reserved for future use)
 - bit 2: `BLOCKED` (the user has exceeded the maximum number of failed login attempts for the Console)
- `name` - The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.
- `state` - The user's current state.
- `time_created` - Date and time the user was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_kms_decrypted_data

The `oci_kms_decrypted_data` data source provides details about a specific `DecryptedData`

Decrypts data using the given `DecryptDataDetails` resource.

Example Usage

```
data "oci_kms_decrypted_data" "test_decrypted_data" {  
  #Required  
  ciphertext = "${var.decrypted_data_ciphertext}"  
  crypto_endpoint = "${var.decrypted_data_crypto_endpoint}"  
  key_id = "${oci_kms_key.test_key.id}"  
  
  #Optional  
  associated_data = "${var.decrypted_data_associated_data}"  
}
```

Argument Reference

The following arguments are supported:

- `associated_data` - (Optional) Information that can be used to provide an encryption context for the encrypted data. The length of the string representation of the `associatedData` must be fewer than 4096 characters.
- `ciphertext` - (Required) The encrypted data to decrypt.
- `crypto_endpoint` - (Required) The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations. see Vault Crypto endpoint.
- `key_id` - (Required) The OCID of the key used to encrypt the ciphertext.

Attributes Reference

The following attributes are exported:

- `plaintext` - The decrypted data, in the form of a base64-encoded value.
- `plaintext_checksum` - Checksum of the decrypted data.

Data Source: oci_kms_encrypted_data

The `oci_kms_encrypted_data` data source provides details about a specific EncryptedData

Encrypts data using the given EncryptDataDetails resource. Plaintext included in the example request is a base64-encoded value of a UTF-8 string.

Example Usage

```
data "oci_kms_encrypted_data" "test_encrypted_data" {  
  #Required  
  crypto_endpoint = "${var.encrypted_data_crypto_endpoint}"  
  key_id = "${oci_kms_key.test_key.id}"  
  plaintext = "${var.encrypted_data_plaintext}"  
  
  #Optional  
  associated_data = "${var.encrypted_data_associated_data}"  
}
```

Argument Reference

The following arguments are supported:

- `associated_data` - (Optional) Information that can be used to provide an encryption context for the encrypted data. The length of the string representation of the associatedData must be fewer than 4096 characters.
- `crypto_endpoint` - (Required) The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations. see Vault Crypto endpoint.
- `key_id` - (Required) The OCID of the key to encrypt with.
- `plaintext` - (Required) The plaintext data to encrypt.

Attributes Reference

The following attributes are exported:

- `ciphertext` - The encrypted data.

Data Source: oci_kms_key

This data source provides details about a specific Key resource in Oracle Cloud Infrastructure Kms service.

Gets information about the specified key.

Example Usage

```
data "oci_kms_key" "test_key" {  
  #Required  
  key_id = "${oci_kms_key.test_key.id}"  
  management_endpoint = "${var.key_management_endpoint}"  
}
```

Argument Reference

The following arguments are supported:

- `key_id` - (Required) The OCID of the key.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key.
- `current_key_version` - The OCID of the KeyVersion resource used in cryptographic operations. During key rotation, service might be in a transitional state where this or a newer KeyVersion are used intermittently. The `currentKeyVersion` field is updated when the service is guaranteed to use the new KeyVersion for all subsequent encryption operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the key. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the key.
- `key_shape` -
 - `algorithm` - The algorithm used by a key's KeyVersions to encrypt or decrypt.

- `length` - The length of the key, expressed as an integer. Values of 16, 24, or 32 are supported.
- `state` - The key's current state. Example: `ENABLED`
- `time_created` - The date and time the key was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the key, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2019-04-03T21:10:29.600Z`
- `vault_id` - The OCID of the vault that contains this key.

Data Source: oci_kms_keys

This data source provides the list of Keys in Oracle Cloud Infrastructure Kms service.

Lists the keys in the specified vault and compartment.

Example Usage

```
data "oci_kms_keys" "test_keys" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  management_endpoint = "${var.key_management_endpoint}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.

Attributes Reference

The following attributes are exported:

- `keys` - The list of keys.

Key Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key.
- `current_key_version` - The OCID of the KeyVersion resource used in cryptographic operations. During key rotation, service might be in a transitional state where this or a newer KeyVersion are used intermittently. The `currentKeyVersion` field is updated when the service is guaranteed to use the new KeyVersion for all subsequent encryption operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the key. It does not have to be unique, and it is changeable. Avoid entering confidential information.

- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the key.
- `key_shape` -
 - `algorithm` - The algorithm used by a key's KeyVersions to encrypt or decrypt.
 - `length` - The length of the key, expressed as an integer. Values of 16, 24, or 32 are supported.
- `state` - The key's current state. Example: `ENABLED`
- `time_created` - The date and time the key was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the key, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2019-04-03T21:10:29.600Z`
- `vault_id` - The OCID of the vault that contains this key.

Data Source: oci_kms_key_version

This data source provides details about a specific Key Version resource in Oracle Cloud Infrastructure Kms service.

Gets information about the specified key version.

Example Usage

```
data "oci_kms_key_version" "test_key_version" {  
  #Required  
  key_id = "${oci_kms_key.test_key.id}"  
  key_version_id = "${oci_kms_key_version.test_key_version.id}"  
  management_endpoint = "${var.key_version_management_endpoint}"  
}
```

Argument Reference

The following arguments are supported:

- `key_id` - (Required) The OCID of the key.
- `key_version_id` - (Required) The OCID of the key version.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key version.
- `key_version_id` - The OCID of the key version.
- `key_id` - The OCID of the key associated with this key version.
- `time_created` - The date and time this key version was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: "2018-04-03T21:10:29.600Z"
- `vault_id` - The OCID of the vault that contains this key version.

Data Source: oci_kms_key_versions

This data source provides the list of Key Versions in Oracle Cloud Infrastructure Kms service.

Lists all key versions for the specified key.

Example Usage

```
data "oci_kms_key_versions" "test_key_versions" {  
  #Required  
  key_id = "${oci_kms_key.test_key.id}"  
  management_endpoint = "${var.key_version_management_endpoint}"  
}
```

Argument Reference

The following arguments are supported:

- `key_id` - (Required) The OCID of the key.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.

Attributes Reference

The following attributes are exported:

- `key_versions` - The list of key_versions.

KeyVersion Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key version.
- `key_version_id` - The OCID of the key version.
- `key_id` - The OCID of the key associated with this key version.
- `time_created` - The date and time this key version was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: "2018-04-03T21:10:29.600Z"
- `vault_id` - The OCID of the vault that contains this key version.

Data Source: oci_kms_vault

This data source provides details about a specific Vault resource in Oracle Cloud Infrastructure Kms service.

Gets the specified vault's configuration information.

Example Usage

```
data "oci_kms_vault" "test_vault" {  
  #Required  
  vault_id = "${oci_kms_vault.test_vault.id}"  
}
```

Argument Reference

The following arguments are supported:

- `vault_id` - (Required) The OCID of the vault.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains a particular vault.
- `crypto_endpoint` - The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the vault. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the vault.
- `management_endpoint` - The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations.
- `state` - The vault's current state. Example: `DELETED`
- `time_created` - The date and time this vault was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the vault, expressed in RFC 3339

(<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2018-04-03T21:10:29.600Z

- `vault_type` - The type of vault. Each type of vault stores the key with different degrees of isolation and has different options and pricing.

Data Source: oci_kms_vaults

This data source provides the list of Vaults in Oracle Cloud Infrastructure Kms service.

Lists the vaults in the specified compartment.

Example Usage

```
data "oci_kms_vaults" "test_vaults" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.

Attributes Reference

The following attributes are exported:

- `vaults` - The list of vaults.

Vault Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains a particular vault.
- `crypto_endpoint` - The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the vault. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the vault.
- `management_endpoint` - The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations.

- `state` - The vault's current state. Example: `DELETED`
- `time_created` - The date and time this vault was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the vault, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `vault_type` - The type of vault. Each type of vault stores the key with different degrees of isolation and has different options and pricing.

Data Source: oci_limits_limit_definitions

This data source provides the list of Limit Definitions in Oracle Cloud Infrastructure Limits service.

Includes a list of resource limits that are currently supported. If the 'areQuotasSupported' property is true, you can create quota policies on top of this limit at the compartment level.

Example Usage

```
data "oci_limits_limit_definitions" "test_limit_definitions" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  name = "${var.limit_definition_name}"  
  service_name = "${oci_limits_service.test_service.name}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the parent compartment (remember that the tenancy is simply the root compartment).
- `name` - (Optional) Optional field, filter for a specific resource limit.
- `service_name` - (Optional) The target service name.

Attributes Reference

The following attributes are exported:

- `limit_definitions` - The list of limit_definitions.

LimitDefinition Reference

The following attributes are exported:

- `are_quotas_supported` - If true, quota policies can be created on top of this resource limit.
- `description` - The limit description.
- `is_resource_availability_supported` - Reflects if the GetResourceAvailability API is supported for this limit or not. If not, the API will return an empty JSON response.
- `name` - The resource limit name. To be used for writing policies (in case of quotas) or other programmatic calls.

- `scope_type` - Reflects the scope of the resource limit: which can be Global (across all regions), regional or ad specific.
- `service_name` - The service name of the limit.

Data Source: oci_limits_limit_values

This data source provides the list of Limit Values in Oracle Cloud Infrastructure Limits service.

Includes a full list of resource limits belonging to a given service.

Example Usage

```
data "oci_limits_limit_values" "test_limit_values" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  service_name = "${oci_limits_service.test_service.name}"  
  
  #Optional  
  availability_domain = "${var.limit_value_availability_domain}"  
  name = "${var.limit_value_name}"  
  scope_type = "${var.limit_value_scope_type}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) Filter entries by availability domain. This implies that only AD-specific values will be returned.
- `compartment_id` - (Required) The OCID of the parent compartment (remember that the tenancy is simply the root compartment).
- `name` - (Optional) Optional field, can be used to see a specific resource limit value.
- `scope_type` - (Optional) Filter entries by scope type.
- `service_name` - (Required) The target service name

Attributes Reference

The following attributes are exported:

- `limit_values` - The list of limit_values.

LimitValue Reference

The following attributes are exported:

- `availability_domain` - If present, the returned value is only specific to this availability domain.

- `name` - The resource limit name. To be used for writing policies (in case of quotas) or other programmatic calls.
- `scope_type` - The scope type of the limit.
- `value` - The resource limit value.

Data Source: oci_limits_quota

This data source provides details about a specific Quota resource in Oracle Cloud Infrastructure Limits service.

Gets the quota for the OCID specified.

Example Usage

```
data "oci_limits_quota" "test_quota" {  
  #Required  
  quota_id = "${oci_limits_quota.test_quota.id}"  
}
```

Argument Reference

The following arguments are supported:

- `quota_id` - (Required) The OCID of the quota.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the resource this quota applies to.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the quota.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the quota.
- `name` - The name you assign to the quota during creation. The name must be unique across all quotas in the tenancy and cannot be changed.
- `state` - The quota's current state.
- `statements` - An array of one or more quota statements written in the declarative quota statement language.
- `time_created` - Date and time the quota was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Data Source: oci_limits_quotas

This data source provides the list of Quotas in Oracle Cloud Infrastructure Limits service.

Lists all quotas on resources from the given compartment

Example Usage

```
data "oci_limits_quotas" "test_quotas" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  name = "${var.quota_name}"  
  state = "${var.quota_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the parent compartment (remember that the tenancy is simply the root compartment).
- `name` - (Optional) name
- `state` - (Optional) Filters returned quotas based on whether the given state.

Attributes Reference

The following attributes are exported:

- `quotas` - The list of quotas.

Quota Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the resource this quota applies to.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the quota.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type,

or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `id` - The OCID of the quota.
- `name` - The name you assign to the quota during creation. The name must be unique across all quotas in the tenancy and cannot be changed.
- `state` - The quota's current state.
- `statements` - An array of one or more quota statements written in the declarative quota statement language.
- `time_created` - Date and time the quota was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_limits_resource_availability

This data source provides details about a specific Resource Availability resource in Oracle Cloud Infrastructure Limits service.

For a given compartmentId, resource limit name, and scope, returns the following: - the number of available resources associated with the given limit - the usage in the selected compartment for the given limit Note: not all resource limits support this API. If the value is not available, the API will return 404.

Example Usage

```
data "oci_limits_resource_availability" "test_resource_availability" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  limit_name = "${var.resource_availability_limit_name}"  
  service_name = "${oci_limits_service.test_service.name}"  
  
  #Optional  
  availability_domain = "${var.resource_availability_availability_domain}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Optional) This field is mandatory if the `scopeType` of the target resource limit is AD. Otherwise, this field should be omitted. If the above requirements are not met, the API will return a 400 - `InvalidParameter` response.
- `compartment_id` - (Required) The OCID of the compartment for which data is being fetched.
- `limit_name` - (Required) The limit name for which to fetch the data.
- `service_name` - (Required) The service name of the target quota.

Attributes Reference

The following attributes are exported:

- `available` - The count of available resources.
- `used` - The current usage in the given compartment.

Data Source: oci_limits_services

This data source provides the list of Services in Oracle Cloud Infrastructure Limits service.

Returns the list of supported services. This will include the programmatic service name, along with the friendly service name.

Example Usage

```
data "oci_limits_services" "test_services" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the parent compartment (remember that the tenancy is simply the root compartment).

Attributes Reference

The following attributes are exported:

- `services` - The list of services.

Service Reference

The following attributes are exported:

- `description` - The friendly service name.
- `name` - The service name. Use this when calling the other APIs.

Data Source: oci_load_balancer_backend_health

This data source provides details about a specific Backend Health resource in Oracle Cloud Infrastructure Load Balancer service.

Gets the current health status of the specified backend server.

Example Usage

```
data "oci_load_balancer_backend_health" "test_backend_health" {  
  #Required  
  backend_name = "${oci_load_balancer_backend.test_backend.name}"  
  backend_set_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `backend_name` - (Required) The IP address and port of the backend server to retrieve the health status for. Example: `10.0.0.3:8080`
- `backend_set_name` - (Required) The name of the backend set associated with the backend server to retrieve the health status for. Example: `example_backend_set`
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the backend server health status to be retrieved.

Attributes Reference

The following attributes are exported:

- `health_check_results` - A list of the most recent health check results returned for the specified backend server.
 - `health_check_status` - The result of the most recent health check.
 - `source_ip_address` - The IP address of the health check status report provider. This identifier helps you differentiate same-subnet load balancers that report health check status. Example: `10.0.0.7`
 - `subnet_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet hosting the load balancer that reported this health check status.
 - `timestamp` - The date and time the data was retrieved, in the format defined by RFC3339. Example: `2017-06-02T18:28:11+00:00`
- `status` - The general health status of the specified backend server as reported by the primary and standby load

balancers.

- **OK:** Both health checks returned OK .
- **WARNING:** One health check returned OK and one did not.
- **CRITICAL:** Neither health check returned OK .
- **UNKNOWN:** One or both health checks returned UNKNOWN , or the system was unable to retrieve metrics at this time.

Data Source: oci_load_balancer_backend_set_health

This data source provides details about a specific Backend Set Health resource in Oracle Cloud Infrastructure Load Balancer service.

Gets the health status for the specified backend set.

Example Usage

```
data "oci_load_balancer_backend_set_health" "test_backend_set_health" {  
  #Required  
  backend_set_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `backend_set_name` - (Required) The name of the backend set to retrieve the health status for. Example: `example_backend_set`
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the backend set health status to be retrieved.

Attributes Reference

The following attributes are exported:

- `critical_state_backend_names` - A list of backend servers that are currently in the `CRITICAL` health state. The list identifies each backend server by IP address and port. Example: `10.0.0.4:8080`
- `status` - Overall health status of the backend set.
 - **OK:** All backend servers in the backend set return a status of `OK`.
 - **WARNING:** Half or more of the backend set's backend servers return a status of `OK` and at least one backend server returns a status of `WARNING`, `CRITICAL`, or `UNKNOWN`.
 - **CRITICAL:** Fewer than half of the backend set's backend servers return a status of `OK`.
 - **UNKNOWN:** More than half of the backend set's backend servers return a status of `UNKNOWN`, the system was unable to retrieve metrics, or the backend set does not have a listener attached.
- `total_backend_count` - The total number of backend servers in this backend set. Example: `7`
- `unknown_state_backend_names` - A list of backend servers that are currently in the `UNKNOWN` health state. The list identifies each backend server by IP address and port. Example: `10.0.0.5:8080`

- `warning_state_backend_names` - A list of backend servers that are currently in the `WARNING` health state. The list identifies each backend server by IP address and port. Example: `10.0.0.3:8080`

Data Source: oci_load_balancer_backend_sets

This data source provides the list of Backend Sets in Oracle Cloud Infrastructure Load Balancer service.

Lists all backend sets associated with a given load balancer.

Supported Aliases

- `oci_load_balancer_backendsets`

Example Usage

```
data "oci_load_balancer_backend_sets" "test_backend_sets" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the backend sets to retrieve.

Attributes Reference

The following attributes are exported:

- `backendsets` - The list of backendsets.

BackendSet Reference

The following attributes are exported:

- `backend` -
 - `backup` - Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`

- `drain` - Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`
- `ip_address` - The IP address of the backend server. Example: `10.0.0.3`
- `name` - A read-only field showing the IP address and port that uniquely identify this backend server in the backend set. Example: `10.0.0.3:8080`
- `offline` - Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
- `port` - The communication port for the backend server. Example: `8080`
- `weight` - The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work \(https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm\)](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm). Example: `3`
- `health_checker` -
 - `interval_ms` - The interval between health checks, in milliseconds. The default is 30000 (30 seconds). Example: `30000`
 - `port` - The backend server port against which to run the health check. If the port is not specified, the load balancer uses the port information from the `Backend` object. Example: `8080`
 - `protocol` - The protocol the health check must use; either HTTP or TCP. Example: `HTTP`
 - `response_body_regex` - A regular expression for parsing the response body from the backend server. Example: `^(?!false).|\s)*$`
 - `retries` - The number of retries to attempt before a backend server is considered "unhealthy". This number also applies when recovering a server to the "healthy" state. Defaults to 3. Example: `3`
 - `return_code` - The status code a healthy backend server should return. If you configure the health check policy to use the HTTP protocol, you can use common HTTP status codes such as "200". Example: `200`
 - `timeout_in_millis` - The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period. Defaults to 3000 (3 seconds). Example: `3000`
 - `url_path` - The path against which to run the health check. Example: `/healthcheck`
- `lb_cookie_session_persistence_configuration` -
 - `cookie_name` - The name of the cookie inserted by the load balancer. If this field is not configured, the cookie name defaults to "X-Oracle-BMC-LBS-Route". Example: `example_cookie`

Notes:

- Ensure that the cookie name used at the backend application servers is different from the cookie name used at the load balancer. To minimize the chance of name collision, Oracle recommends that you use a prefix such as "X-Oracle-OCI-" for this field.
- If a backend server and the load balancer both insert cookies with the same name, the client or browser behavior can vary depending on the domain and path values associated with the cookie. If the name, domain, and path values of the `Set-cookie` generated by a backend server and the `Set-cookie` generated by the load balancer are all the same, the client or browser treats them as one cookie and

returns only one of the cookie values in subsequent requests. If both `Set-cookie` names are the same, but the domain and path names are different, the client or browser treats them as two different cookies.

- `disable_fallback` - Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`. Example: `false`
- `domain` - The domain in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a `Domain` attribute with the specified value.

This attribute has no default value. If you do not specify a value, the load balancer does not insert the `Domain` attribute into the `Set-cookie` header.

Notes:

- RFC 6265 - HTTP State Management Mechanism (<https://www.ietf.org/rfc/rfc6265.txt>) describes client and browser behavior when the `Domain` attribute is present or not present in the `Set-cookie` header.

If the value of the `Domain` attribute is `example.com` in the `Set-cookie` header, the client includes the same cookie in the `Cookie` header when making HTTP requests to `example.com`, `www.example.com`, and `www.abc.example.com`. If the `Domain` attribute is not present, the client returns the cookie only for the domain to which the original request was made. * Ensure that this attribute specifies the correct domain value. If the `Domain` attribute in the `Set-cookie` header does not include the domain to which the original request was made, the client or browser might reject the cookie. As specified in RFC 6265, the client accepts a cookie with the `Domain` attribute value `example.com` or `www.example.com` sent from `www.example.com`. It does not accept a cookie with the `Domain` attribute `abc.example.com` or `www.abc.example.com` sent from `www.example.com`.

Example: `example.com`

- `is_http_only` - Whether the `Set-cookie` header should contain the `HttpOnly` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `HttpOnly` attribute, which limits the scope of the cookie to HTTP requests. This attribute directs the client or browser to omit the cookie when providing access to cookies through non-HTTP APIs. For example, it restricts the cookie from JavaScript channels. Example: `true`
- `is_secure` - Whether the `Set-cookie` header should contain the `Secure` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `Secure` attribute, which directs the client or browser to send the cookie only using a secure protocol.

Note: If you set this field to `true`, you cannot associate the corresponding backend set with an HTTP listener.

Example: `true`

- `max_age_in_seconds` - The amount of time the cookie remains valid. The `Set-cookie` header inserted by the load balancer contains a `Max-Age` attribute with the specified value.

The specified value must be at least one second. There is no default value for this attribute. If you do not specify a value, the load balancer does not include the `Max-Age` attribute in the `Set-cookie` header. In most cases, the client or browser retains the cookie until the current session ends, as defined by the client.

Example: `3600`

- `path` - The path in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a `Path` attribute with the specified value.

Clients include the cookie in an HTTP request only if the path portion of the request-uri matches, or is a subdirectory of, the cookie's `Path` attribute.

The default value is `/` .

Example: `/example`

- `name` - A friendly name for the backend set. It must be unique and it cannot be changed.

Valid backend set names include only alphanumeric characters, dashes, and underscores. Backend set names cannot contain spaces. Avoid entering confidential information.

Example: `example_backend_set`

- `policy` - The load balancer policy for the backend set. To get a list of available policies, use the `ListPolicies` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerPolicy/ListPolicies>) operation.

Example: `LEAST_CONNECTIONS`

- `session_persistence_configuration` -

- `cookie_name` - The name of the cookie used to detect a session initiated by the backend server. Use '*' to specify that any cookie set by the backend causes the session to persist. Example: `example_cookie`
- `disable_fallback` - Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`. Example: `false`

- `ssl_configuration` -

- `certificate_name` - A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
- `verify_depth` - The maximum depth for peer certificate chain verification. Example: `3`
- `verify_peer_certificate` - Whether the load balancer listener should verify peer certificates. Defaults to `true`. Example: `true`

Data Source: oci_load_balancer_backends

This data source provides the list of Backends in Oracle Cloud Infrastructure Load Balancer service.

Lists the backend servers for a given load balancer and backend set.

Example Usage

```
data "oci_load_balancer_backends" "test_backends" {  
  #Required  
  backendset_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `backendset_name` - (Required) The name of the backend set associated with the backend servers. Example: `example_backend_set`
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the backend set and servers.

Attributes Reference

The following attributes are exported:

- `backends` - The list of backends.

Backend Reference

The following attributes are exported:

- `backup` - Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`

- `drain` - Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`

- `ip_address` - The IP address of the backend server. Example: `10.0.0.3`
- `name` - A read-only field showing the IP address and port that uniquely identify this backend server in the backend set. Example: `10.0.0.3:8080`
- `offline` - Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
- `port` - The communication port for the backend server. Example: `8080`
- `weight` - The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work \(https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm\)](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm). Example: `3`

Data Source: oci_load_balancer_certificates

This data source provides the list of Certificates in Oracle Cloud Infrastructure Load Balancer service.

Lists all SSL certificates bundles associated with a given load balancer.

Example Usage

```
data "oci_load_balancer_certificates" "test_certificates" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the certificate bundles to be listed.

Attributes Reference

The following attributes are exported:

- `certificates` - The list of certificates.

Certificate Reference

The following attributes are exported:

- `ca_certificate` - The Certificate Authority certificate, or any interim certificate, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----  
MIIECzCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix  
EzARBgNVBAGTCLNvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD  
VQQLEx5DbGFzcyAxIFB1YmtpYyBQcm1tYXJ5IENlcj..XRpb24gQXV0aG9y  
aXR5MRQwEgYDVQQDEwtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy  
...  
-----END CERTIFICATE-----
```

- `certificate_name` - A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
- `public_certificate` - The public certificate, in PEM format, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----
MIIC2jCCAkMCAG38MA0GCSqGSIb3DQEBBQUAMIGbMQswCQYDVQQGEwJKUDEOMAww
A1UECBMFVG9reW8xEDA0BgNVBACTB0NodW8ta3UxETAPBgNVBAoTCEZyYW5rNERE
MRgwFgYDVQQLEw9XZWJDZXJ0IFN1cHBvcnQxGDAWBgNVBAMTD0ZyYW5rNEREIFdI
YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmcmFuazRkZC5jb20wHhcNMTIw
...
-----END CERTIFICATE-----
```

Data Source: oci_load_balancer_health

This data source provides details about a specific Load Balancer Health resource in Oracle Cloud Infrastructure Load Balancer service.

Gets the health status for the specified load balancer.

Example Usage

```
data "oci_load_balancer_health" "test_load_balancer_health" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer to return health status for.

Attributes Reference

The following attributes are exported:

- `critical_state_backend_set_names` - A list of backend sets that are currently in the `CRITICAL` health state. The list identifies each backend set by the friendly name you assigned when you created it. Example:
`example_backend_set`
- `status` - The overall health status of the load balancer.
 - **OK:** All backend sets associated with the load balancer return a status of `OK` .
 - **WARNING:** At least one of the backend sets associated with the load balancer returns a status of `WARNING` , no backend sets return a status of `CRITICAL` , and the load balancer life cycle state is `ACTIVE` .
 - **CRITICAL:** One or more of the backend sets associated with the load balancer return a status of `CRITICAL` .
 - **UNKNOWN:** If any one of the following conditions is true:
 - The load balancer life cycle state is not `ACTIVE` .
 - No backend sets are defined for the load balancer.
 - More than half of the backend sets associated with the load balancer return a status of `UNKNOWN` , none of the backend sets return a status of `WARNING` or `CRITICAL` , and the load balancer life cycle state is `ACTIVE` .
 - The system could not retrieve metrics for any reason.

- `total_backend_set_count` - The total number of backend sets associated with this load balancer. Example: 4
- `unknown_state_backend_set_names` - A list of backend sets that are currently in the `UNKNOWN` health state. The list identifies each backend set by the friendly name you assigned when you created it. Example:
`example_backend_set2`
- `warning_state_backend_set_names` - A list of backend sets that are currently in the `WARNING` health state. The list identifies each backend set by the friendly name you assigned when you created it. Example:
`example_backend_set3`

Data Source: oci_load_balancer_hostnames

This data source provides the list of Hostnames in Oracle Cloud Infrastructure Load Balancer service.

Lists all hostname resources associated with the specified load balancer.

Example Usage

```
data "oci_load_balancer_hostnames" "test_hostnames" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the hostnames to retrieve.

Attributes Reference

The following attributes are exported:

- `hostnames` - The list of hostnames.

Hostname Reference

The following attributes are exported:

- `hostname` - A virtual hostname. For more information about virtual hostname string construction, see [Managing Request Routing](https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm#routing) (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm#routing>). Example: `app.example.com`
- `name` - A friendly name for the hostname resource. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_hostname_001`

Data Source: oci_load_balancer_listener_rules

This data source provides the list of Listener Rules in Oracle Cloud Infrastructure Load Balancer service.

Lists all of the rules from all of the rule sets associated with the specified listener. The response organizes the rules in the following order:

- Access control rules
- Allow method rules
- Request header rules
- Response header rules

Example Usage

```
data "oci_load_balancer_listener_rules" "test_listener_rules" {  
  #Required  
  listener_name = "${oci_load_balancer_listener.test_listener.name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `listener_name` - (Required) The name of the listener the rules are associated with.
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the listener.

Attributes Reference

The following attributes are exported:

- `listener_rules` - The list of listener_rules.

ListenerRule Reference

The following attributes are exported:

- `name` - The name of the rule set that the rule belongs to.
- `rule` - A rule object that applies to the listener.

- `action` - The action can be one of these values: `ADD_HTTP_REQUEST_HEADER`, `ADD_HTTP_RESPONSE_HEADER`, `ALLOW`, `CONTROL_ACCESS_USING_HTTP_METHODS`, `EXTEND_HTTP_REQUEST_HEADER_VALUE`, `EXTEND_HTTP_RESPONSE_HEADER_VALUE`, `REMOVE_HTTP_REQUEST_HEADER`, `REMOVE_HTTP_RESPONSE_HEADER`
- `allowed_methods` - The list of HTTP methods allowed for this listener.

By default, you can specify only the standard HTTP methods defined in the HTTP Method Registry (<http://www.iana.org/assignments/http-methods/http-methods.xhtml>). You can also see a list of supported standard HTTP methods in the Load Balancing service documentation at Managing Rule Sets (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Your backend application must be able to handle the methods specified in this list.

The list of HTTP methods is extensible. If you need to configure custom HTTP methods, contact My Oracle Support (<http://support.oracle.com/>) to remove the restriction for your tenancy.

Example: `["GET", "PUT", "POST", "PROPFIND"]`

- `conditions` -
 - `attribute_name` - The `attribute_name` can be one of these values: `SOURCE_IP_ADDRESS`, `SOURCE_VCN_ID`, `SOURCE_VCN_IP_ADDRESS`
 - `attribute_value` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the originating VCN that an incoming packet must match.

You can use this condition in conjunction with `SourceVcnIpAddressCondition`.

NOTE: If you define this condition for a rule without a `SourceVcnIpAddressCondition`, this condition matches all incoming traffic in the specified VCN.

- `description` - A brief description of the access control rule. Avoid entering confidential information.
example: `192.168.0.0/16 and 2001:db8::/32 are trusted clients. Whitelist them.`
- `header` - A header name that conforms to RFC 7230. Example: `example_header_name`
- `prefix` - A string to prepend to the header value. The resulting header value must still conform to RFC 7230. Example: `example_prefix_value`
- `status_code` - The HTTP status code to return when the requested HTTP method is not in the list of allowed methods. The associated status line returned with the code is mapped from the standard HTTP specification. The default value is `405 (Method Not Allowed)`. Example: `403`
- `suffix` - A string to append to the header value. The resulting header value must still conform to RFC 7230. Example: `example_suffix_value`
- `value` - A header value that conforms to RFC 7230. Example: `example_value`

Data Source: oci_load_balancer_load_balancers

This data source provides the list of Load Balancers in Oracle Cloud Infrastructure Load Balancer service.

Lists all load balancers in the specified compartment.

Supported Aliases

- `oci_load_balancers`

Example Usage

```
data "oci_load_balancer_load_balancers" "test_load_balancers" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  detail = "${var.load_balancer_detail}"  
  display_name = "${var.load_balancer_display_name}"  
  state = "${var.load_balancer_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancers to list.
- `detail` - (Optional) The level of detail to return for each result. Can be `full` or `simple`. Example: `full`
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly. Example: `example_load_balancer`
- `state` - (Optional) A filter to return only resources that match the given lifecycle state. Example: `SUCCEEDED`

Attributes Reference

The following attributes are exported:

- `load_balancers` - The list of load_balancers.

LoadBalancer Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancer.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Example: `example_load_balancer`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer.
- `ip_address_details` - An array of IP addresses.

- `ip_address` - An IP address. Example: `192.168.0.3`

- `is_public` - Whether the IP address is public or private.

- If "true", the IP address is public and accessible from the internet.

- If "false", the IP address is private and accessible only from within the associated VCN.

- `ip_addresses` - An array of IP addresses. Deprecated: use `ip_address_details` instead.
- `is_private` - Whether the load balancer has a VCN-local (private) IP address.

If "true", the service assigns a private IP address to the load balancer.

If "false", the service assigns a public IP address to the load balancer.

A public load balancer is accessible from the internet, depending on your VCN's security list rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm>). For more information about public and private load balancers, see How Load Balancing Works (<https://docs.cloud.oracle.com/iaas/Content/Balance/Concepts/balanceoverview.htm#how-load-balancing-works>).

Example: `true`

- `network_security_group_ids` - An array of NSG OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) associated with the load balancer.

During the load balancer's creation, the service adds the new load balancer to the specified NSGs.

The benefits of associating the load balancer with NSGs include:

- NSGs define network security rules to govern ingress and egress traffic for the load balancer.
 - The network security rules of other resources can reference the NSGs associated with the load balancer to ensure access.

Example: `["ocid1.nsg.oc1.phx.unique_ID"]`

- **shape** - A template that determines the total pre-provisioned bandwidth (ingress plus egress). To get a list of available shapes, use the ListShapes (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerShape/ListShapes>) operation. Example: 100Mbps
- **state** - The current state of the load balancer.
- **subnet_ids** - An array of subnet OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- **system_tags** - System tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). System tags can be viewed by users, but can only be created by the system. Example: {"orcl-cloud.free-tier-retained": "true"}
- **time_created** - The date and time the load balancer was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Data Source: oci_load_balancer_path_route_sets

This data source provides the list of Path Route Sets in Oracle Cloud Infrastructure Load Balancer service.

Lists all path route sets associated with the specified load balancer.

Example Usage

```
data "oci_load_balancer_path_route_sets" "test_path_route_sets" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the path route sets to retrieve.

Attributes Reference

The following attributes are exported:

- `path_route_sets` - The list of path_route_sets.

PathRouteSet Reference

The following attributes are exported:

- `name` - The unique name for this set of path route rules. Avoid entering confidential information. Example: `example_path_route_set`
- `path_routes` - The set of path route rules.
 - `backend_set_name` - The name of the target backend set for requests where the incoming URI matches the specified path. Example: `example_backend_set`
 - `path` - The path string to match against the incoming URI path.
 - Path strings are case-insensitive.
 - Asterisk (*) wildcards are not supported.
 - Regular expressions are not supported.

Example: /example/video/123

- **path_match_type** - The type of matching to apply to incoming URIs.
 - **match_type** - Specifies how the load balancing service compares a PathRoute (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/requests/PathRoute>) object's `path` string against the incoming URI.
 - **EXACT_MATCH** - Looks for a `path` string that exactly matches the incoming URI path.
 - **FORCE_LONGEST_PREFIX_MATCH** - Looks for the `path` string with the best, longest match of the beginning portion of the incoming URI path.
 - **PREFIX_MATCH** - Looks for a `path` string that matches the beginning portion of the incoming URI path.
 - **SUFFIX_MATCH** - Looks for a `path` string that matches the ending portion of the incoming URI path.

For a full description of how the system handles `matchType` in a path route set containing multiple rules, see Managing Request Routing (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm>).

Data Source: oci_load_balancer_policies

This data source provides the list of Load Balancer Policies in Oracle Cloud Infrastructure Load Balancer service.

Lists the available load balancer policies.

Example Usage

```
data "oci_load_balancer_policies" "test_load_balancer_policies" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancer policies to list.

Attributes Reference

The following attributes are exported:

- `policies` - The list of policies.

LoadBalancerPolicy Reference

The following attributes are exported:

- `name` - The name of a load balancing policy. Example: 'LEAST_CONNECTIONS'

Data Source: oci_load_balancer_protocols

This data source provides the list of Load Balancer Protocols in Oracle Cloud Infrastructure Load Balancer service.

Lists all supported traffic protocols.

Example Usage

```
data "oci_load_balancer_protocols" "test_load_balancer_protocols" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancer protocols to list.

Attributes Reference

The following attributes are exported:

- `protocols` - The list of protocols.

LoadBalancerProtocol Reference

The following attributes are exported:

- `name` - The name of a protocol. Example: 'HTTP'

Data Source: oci_load_balancer_rule_set

This data source provides details about a specific Rule Set resource in Oracle Cloud Infrastructure Load Balancer service.

Gets the specified set of rules.

Example Usage

```
data "oci_load_balancer_rule_set" "test_rule_set" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  name = "${var.rule_set_name}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the specified load balancer.
- `name` - (Required) The name of the rule set to retrieve. Example: `example_rule_set`

Attributes Reference

The following attributes are exported:

- `items` - An array of rules that compose the rule set.
 - `action` - The action can be one of these values: `ADD_HTTP_REQUEST_HEADER`, `ADD_HTTP_RESPONSE_HEADER`, `ALLOW`, `CONTROL_ACCESS_USING_HTTP_METHODS`, `EXTEND_HTTP_REQUEST_HEADER_VALUE`, `EXTEND_HTTP_RESPONSE_HEADER_VALUE`, `REMOVE_HTTP_REQUEST_HEADER`, `REMOVE_HTTP_RESPONSE_HEADER`
 - `allowed_methods` - The list of HTTP methods allowed for this listener.

By default, you can specify only the standard HTTP methods defined in the HTTP Method Registry (<http://www.iana.org/assignments/http-methods/http-methods.xhtml>). You can also see a list of supported standard HTTP methods in the Load Balancing service documentation at Managing Rule Sets (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Your backend application must be able to handle the methods specified in this list.

The list of HTTP methods is extensible. If you need to configure custom HTTP methods, contact My Oracle Support (<http://support.oracle.com/>) to remove the restriction for your tenancy.

Example: `["GET", "PUT", "POST", "PROPFIND"]`

- `conditions` -

- `attribute_name` - (Required) (Updatable) The `attribute_name` can be one of these values:
`SOURCE_IP_ADDRESS` , `SOURCE_VCN_ID` , `SOURCE_VCN_IP_ADDRESS`
- `attribute_value` - (Required) (Updatable) depends on `attribute_name` :
 - when `attribute_name` = `SOURCE_IP_ADDRESS` | IPv4 or IPv6 address range to which the source IP address of incoming packet would be matched against
 - when `attribute_name` = `SOURCE_VCN_IP_ADDRESS` | IPv4 address range to which the original client IP address (in customer VCN) of incoming packet would be matched against
 - when `attribute_name` = `SOURCE_VCN_ID` | OCID of the customer VCN to which the service gateway embedded VCN ID of incoming packet would be matched against
- `description` - A brief description of the access control rule. Avoid entering confidential information.
 example: 192.168.0.0/16 and 2001:db8::/32 are trusted clients. Whitelist them.
- `header` - A header name that conforms to RFC 7230. Example: `example_header_name`
- `prefix` - A string to prepend to the header value. The resulting header value must still conform to RFC 7230.
 Example: `example_prefix_value`
- `status_code` - The HTTP status code to return when the requested HTTP method is not in the list of allowed methods. The associated status line returned with the code is mapped from the standard HTTP specification. The default value is 405 (Method Not Allowed). Example: 403
- `suffix` - A string to append to the header value. The resulting header value must still conform to RFC 7230.
 Example: `example_suffix_value`
- `value` - A header value that conforms to RFC 7230. Example: `example_value`
- `name` - The name for this set of rules. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_rule_set`

Data Source: oci_load_balancer_rule_sets

This data source provides the list of Rule Sets in Oracle Cloud Infrastructure Load Balancer service.

Lists all rule sets associated with the specified load balancer.

Example Usage

```
data "oci_load_balancer_rule_sets" "test_rule_sets" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the specified load balancer.

Attributes Reference

The following attributes are exported:

- `rule_sets` - The list of rule_sets.

RuleSet Reference

The following attributes are exported:

- `items` - An array of rules that compose the rule set.
 - `action` - The action can be one of these values: `ADD_HTTP_REQUEST_HEADER`, `ADD_HTTP_RESPONSE_HEADER`, `ALLOW`, `CONTROL_ACCESS_USING_HTTP_METHODS`, `EXTEND_HTTP_REQUEST_HEADER_VALUE`, `EXTEND_HTTP_RESPONSE_HEADER_VALUE`, `REMOVE_HTTP_REQUEST_HEADER`, `REMOVE_HTTP_RESPONSE_HEADER`
 - `allowed_methods` - The list of HTTP methods allowed for this listener.

By default, you can specify only the standard HTTP methods defined in the HTTP Method Registry (<http://www.iana.org/assignments/http-methods/http-methods.xhtml>). You can also see a list of supported standard HTTP methods in the Load Balancing service documentation at Managing Rule Sets (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Your backend application must be able to handle the methods specified in this list.

The list of HTTP methods is extensible. If you need to configure custom HTTP methods, contact My Oracle Support (<http://support.oracle.com/>) to remove the restriction for your tenancy.

Example: ["GET", "PUT", "POST", "PROPFIND"]

- conditions -

- attribute_name - (Required) (Updatable) The attribute_name can be one of these values:
SOURCE_IP_ADDRESS , SOURCE_VCN_ID , SOURCE_VCN_IP_ADDRESS
- attribute_value - (Required) (Updatable) Depends on attribute_name :
 - when attribute_name = SOURCE_IP_ADDRESS | IPv4 or IPv6 address range to which the source IP address of incoming packet would be matched against
 - when attribute_name = SOURCE_VCN_IP_ADDRESS | IPv4 address range to which the original client IP address (in customer VCN) of incoming packet would be matched against
 - when attribute_name = SOURCE_VCN_ID | OCID of the customer VCN to which the service gateway embedded VCN ID of incoming packet would be matched against

- description - A brief description of the access control rule. Avoid entering confidential information.

example: 192.168.0.0/16 and 2001:db8::/32 are trusted clients. Whitelist them.

- header - A header name that conforms to RFC 7230. Example: example_header_name

- prefix - A string to prepend to the header value. The resulting header value must still conform to RFC 7230.
Example: example_prefix_value

- status_code - The HTTP status code to return when the requested HTTP method is not in the list of allowed methods. The associated status line returned with the code is mapped from the standard HTTP specification. The default value is 405 (Method Not Allowed). Example: 403

- suffix - A string to append to the header value. The resulting header value must still conform to RFC 7230.
Example: example_suffix_value

- value - A header value that conforms to RFC 7230. Example: example_value

- name - The name for this set of rules. It must be unique and it cannot be changed. Avoid entering confidential information. Example: example_rule_set

Data Source: oci_load_balancer_shapes

This data source provides the list of Load Balancer Shapes in Oracle Cloud Infrastructure Load Balancer service.

Lists the valid load balancer shapes.

Example Usage

```
data "oci_load_balancer_shapes" "test_load_balancer_shapes" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancer shapes to list.

Attributes Reference

The following attributes are exported:

- `shapes` - The list of shapes.

LoadBalancerShape Reference

The following attributes are exported:

- `name` - The name of the shape. Example: 100Mbps

Data Source: oci_monitoring_alarm_history_collection

This data source provides details about a specific Alarm History Collection resource in Oracle Cloud Infrastructure Monitoring service.

Get the history of the specified alarm. For important limits information, see [Limits on Monitoring](https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits) (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

This call is subject to a Monitoring limit that applies to the total number of requests across all alarm operations. Monitoring might throttle this call to reject an otherwise valid request when the total rate of alarm operations exceeds 10 requests, or transactions, per second (TPS) for a given tenancy.

Example Usage

```
data "oci_monitoring_alarm_history_collection" "test_alarm_history_collection" {  
  #Required  
  alarm_id = "${oci_monitoring_alarm.test_alarm.id}"  
  
  #Optional  
  alarm_historytype = "${var.alarm_history_collection_alarm_historytype}"  
  timestamp_greater_than_or_equal_to = "${var.alarm_history_collection_timestamp_greater_than_or_equal_to}"  
  timestamp_less_than = "${var.alarm_history_collection_timestamp_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `alarm_historytype` - (Optional) The type of history entries to retrieve. State history (STATE_HISTORY) or state transition history (STATE_TRANSITION_HISTORY). If not specified, entries of both types are retrieved. Example: STATE_HISTORY
- `alarm_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of an alarm.
- `timestamp_greater_than_or_equal_to` - (Optional) A filter to return only alarm history entries with timestamps occurring on or after the specified date and time. Format defined by RFC3339. Example: 2019-01-01T01:00:00.789Z
- `timestamp_less_than` - (Optional) A filter to return only alarm history entries with timestamps occurring before the specified date and time. Format defined by RFC3339. Example: 2019-01-02T01:00:00.789Z

Attributes Reference

The following attributes are exported:

- `alarm_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the alarm for

which to retrieve history.

- `entries` - The set of history entries retrieved for the alarm.
 - `summary` - Description for this alarm history entry. Avoid entering confidential information.

Example 1 - alarm state history entry: `The alarm state is FIRING`

Example 2 - alarm state transition history entry: `State transitioned from OK to Firing`
 - `timestamp` - Timestamp for this alarm history entry. Format defined by RFC3339. Example: `2019-02-01T01:02:29.600Z`
 - `timestamp_triggered` - Timestamp for the transition of the alarm state. For example, the time when the alarm transitioned from OK to Firing. Available for state transition entries only. Note: A three-minute lag for this value accounts for any late-arriving metrics. Example: `2019-02-01T0:59:00.789Z`
- `is_enabled` - Whether the alarm is enabled. Example: `true`

Data Source: oci_monitoring_alarm

This data source provides details about a specific Alarm resource in Oracle Cloud Infrastructure Monitoring service.

Gets the specified alarm. For important limits information, see Limits on Monitoring (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

This call is subject to a Monitoring limit that applies to the total number of requests across all alarm operations. Monitoring might throttle this call to reject an otherwise valid request when the total rate of alarm operations exceeds 10 requests, or transactions, per second (TPS) for a given tenancy.

Example Usage

```
data "oci_monitoring_alarm" "test_alarm" {  
  #Required  
  alarm_id = "${oci_monitoring_alarm.test_alarm.id}"  
}
```

Argument Reference

The following arguments are supported:

- `alarm_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of an alarm.

Attributes Reference

The following attributes are exported:

- `body` - The human-readable content of the notification delivered. Oracle recommends providing guidance to operators for resolving the alarm condition. Consider adding links to standard runbook practices. Avoid entering confidential information. Example: High CPU usage alert. Follow runbook instructions for resolution.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the alarm.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"Operations.CostCenter": "42"}`
- `destinations` - A list of destinations to which the notifications for this alarm will be delivered. Each destination is represented by an OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) related to the supported destination service. For example, a destination using the Notifications service is represented by a topic OCID. Supported destination services: Notifications Service. Limit: One destination per supported destination service.
- `display_name` - A user-friendly name for the alarm. It does not have to be unique, and it's changeable. Avoid entering confidential information.

This name is sent as the title for notifications related to this alarm.

Example: High CPU Utilization

- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the alarm.
- `is_enabled` - Whether the alarm is enabled. Example: `true`
- `metric_compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the metric being evaluated by the alarm.
- `metric_compartment_id_in_subtree` - When true, the alarm evaluates metrics from all compartments and subcompartments. The parameter can only be set to true when `metricCompartmentId` is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, the alarm evaluates metrics from only the compartment specified in `metricCompartmentId`. Default is false. Example: `true`
- `namespace` - The source service or application emitting the metric that is evaluated by the alarm. Example: `oci_computeagent`
- `pending_duration` - The period of time that the condition defined in the alarm must persist before the alarm state changes from "OK" to "FIRING". For example, a value of 5 minutes means that the alarm must persist in breaching the condition for five minutes before the alarm updates its state to "FIRING".

The duration is specified as a string in ISO 8601 format (`PT10M` for ten minutes or `PT1H` for one hour). Minimum: `PT1M`. Maximum: `PT1H`. Default: `PT1M`.

Under the default value of `PT1M`, the first evaluation that breaches the alarm updates the state to "FIRING".

The alarm updates its status to "OK" when the breaching condition has been clear for the most recent minute.

Example: `PT5M`

- `query` - The Monitoring Query Language (MQL) expression to evaluate for the alarm. The Alarms feature of the Monitoring service interprets results for each returned time series as Boolean values, where zero represents false and a non-zero value represents true. A true value means that the trigger rule condition has been met. The query must specify a metric, statistic, interval, and trigger rule (threshold or absence). Supported values for interval: `1m` - `60m` (also `1h`). You can optionally specify dimensions and grouping functions. Supported grouping functions: `grouping()`, `groupBy()`. For details about Monitoring Query Language (MQL), see Monitoring Query Language (MQL) Reference (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm>). For available dimensions, review the metric definition for the supported service. See Supported Services (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices>).

Example of threshold alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.groupBy(availabilityDomain).percentile(0.9) > 85
```

Example of absence alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.absent()
```

-
- `repeat_notification_duration` - The frequency at which notifications are re-submitted, if the alarm keeps firing without interruption. Format defined by ISO 8601. For example, `PT4H` indicates four hours. Minimum: `PT1M`. Maximum: `P30D`.

Default value: null (notifications are not re-submitted).

Example: `PT2H`

- `resolution` - The time between calculated aggregation windows for the alarm. Supported value: `1m`
- `resource_group` - Resource group specified as a filter for metric data retrieved by the alarm. A resource group is a custom string that can be used as a filter. Only one resource group can be applied per metric. A valid `resourceGroup` value starts with an alphabetical character and includes only alphanumeric characters, periods (`.`), underscores (`_`), hyphens (`-`), and dollar signs (`$`). Avoid entering confidential information. Example: `frontend-fleet`
- `severity` - The perceived type of response required when the alarm is in the "FIRING" state. Example: `CRITICAL`
- `state` - The current lifecycle state of the alarm. Example: `DELETED`
- `suppression` - The configuration details for suppressing an alarm.

- `description` - Human-readable reason for suppressing alarm notifications. It does not have to be unique, and it's changeable. Avoid entering confidential information.

Oracle recommends including tracking information for the event or associated work, such as a ticket number.

Example: `Planned outage due to change IT-1234.`

- `time_suppress_from` - The start date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: `2019-02-01T01:02:29.600Z`
- `time_suppress_until` - The end date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: `2019-02-01T02:02:29.600Z`
- `time_created` - The date and time the alarm was created. Format defined by RFC3339. Example: `2019-02-01T01:02:29.600Z`
- `time_updated` - The date and time the alarm was last updated. Format defined by RFC3339. Example: `2019-02-03T01:02:29.600Z`

Data Source: oci_monitoring_alarms

This data source provides the list of Alarms in Oracle Cloud Infrastructure Monitoring service.

Lists the alarms for the specified compartment. For important limits information, see [Limits on Monitoring](https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits) (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

This call is subject to a Monitoring limit that applies to the total number of requests across all alarm operations. Monitoring might throttle this call to reject an otherwise valid request when the total rate of alarm operations exceeds 10 requests, or transactions, per second (TPS) for a given tenancy.

Example Usage

```
data "oci_monitoring_alarms" "test_alarms" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  compartment_id_in_subtree = "${var.alarm_compartment_id_in_subtree}"  
  display_name = "${var.alarm_display_name}"  
  state = "${var.alarm_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric that you are searching for. Use `tenancyId` to search in the root compartment. Example: `ocid1.compartment.oc1..exampleuniqueID`
- `compartment_id_in_subtree` - (Optional) When true, returns resources from all compartments and subcompartments. The parameter can only be set to true when `compartmentId` is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, returns resources from only the compartment specified in `compartmentId`. Default is false.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly. Use this filter to list an alarm by name. Alternatively, when you know the alarm OCID, use the `GetAlarm` operation.
- `state` - (Optional) A filter to return only alarms that match the given lifecycle state exactly. When not specified, only alarms in the ACTIVE lifecycle state are listed.

Attributes Reference

The following attributes are exported:

- `alarms` - The list of alarms.

Alarm Reference

The following attributes are exported:

- `body` - The human-readable content of the notification delivered. Oracle recommends providing guidance to operators for resolving the alarm condition. Consider adding links to standard runbook practices. Avoid entering confidential information. Example: High CPU usage alert. Follow runbook instructions for resolution.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the alarm.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"Operations.CostCenter": "42"}`
- `destinations` - A list of destinations to which the notifications for this alarm will be delivered. Each destination is represented by an OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) related to the supported destination service. For example, a destination using the Notifications service is represented by a topic OCID. Supported destination services: Notifications Service. Limit: One destination per supported destination service.
- `display_name` - A user-friendly name for the alarm. It does not have to be unique, and it's changeable. Avoid entering confidential information.

This name is sent as the title for notifications related to this alarm.

Example: High CPU Utilization

- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the alarm.
- `is_enabled` - Whether the alarm is enabled. Example: `true`
- `metric_compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the metric being evaluated by the alarm.
- `metric_compartment_id_in_subtree` - When true, the alarm evaluates metrics from all compartments and subcompartments. The parameter can only be set to true when `metricCompartmentId` is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, the alarm evaluates metrics from only the compartment specified in `metricCompartmentId`. Default is false. Example: `true`
- `namespace` - The source service or application emitting the metric that is evaluated by the alarm. Example: `oci_computeagent`
- `pending_duration` - The period of time that the condition defined in the alarm must persist before the alarm state changes from "OK" to "FIRING". For example, a value of 5 minutes means that the alarm must persist in breaching the condition for five minutes before the alarm updates its state to "FIRING".

The duration is specified as a string in ISO 8601 format (`PT10M` for ten minutes or `PT1H` for one hour). Minimum: `PT1M`. Maximum: `PT1H`. Default: `PT1M`.

Under the default value of PT1M, the first evaluation that breaches the alarm updates the state to "FIRING".

The alarm updates its status to "OK" when the breaching condition has been clear for the most recent minute.

Example: PT5M

- **query** - The Monitoring Query Language (MQL) expression to evaluate for the alarm. The Alarms feature of the Monitoring service interprets results for each returned time series as Boolean values, where zero represents false and a non-zero value represents true. A true value means that the trigger rule condition has been met. The query must specify a metric, statistic, interval, and trigger rule (threshold or absence). Supported values for interval: 1m - 60m (also 1h). You can optionally specify dimensions and grouping functions. Supported grouping functions: `grouping()` , `groupBy()` . For details about Monitoring Query Language (MQL), see Monitoring Query Language (MQL) Reference (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm>). For available dimensions, review the metric definition for the supported service. See Supported Services (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices>).

Example of threshold alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.groupBy(availabilityDomain).percentile(0.9) > 85
```

Example of absence alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.absent()
```

- **repeat_notification_duration** - The frequency at which notifications are re-submitted, if the alarm keeps firing without interruption. Format defined by ISO 8601. For example, PT4H indicates four hours. Minimum: PT1M. Maximum: P30D.

Default value: null (notifications are not re-submitted).

Example: PT2H

- **resolution** - The time between calculated aggregation windows for the alarm. Supported value: 1m
- **resource_group** - Resource group specified as a filter for metric data retrieved by the alarm. A resource group is a custom string that can be used as a filter. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: frontend-fleet
- **severity** - The perceived type of response required when the alarm is in the "FIRING" state. Example: CRITICAL
- **state** - The current lifecycle state of the alarm. Example: DELETED
- **suppression** - The configuration details for suppressing an alarm.
 - **description** - Human-readable reason for suppressing alarm notifications. It does not have to be unique, and it's changeable. Avoid entering confidential information.

Oracle recommends including tracking information for the event or associated work, such as a ticket number.

Example: Planned outage due to change IT-1234.

- **time_suppress_from** - The start date and time for the suppression to take place, inclusive. Format defined by

RFC3339. Example: 2019-02-01T01:02:29.600Z

- `time_suppress_until` - The end date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T02:02:29.600Z

- `time_created` - The date and time the alarm was created. Format defined by RFC3339. Example: 2019-02-01T01:02:29.600Z
- `time_updated` - The date and time the alarm was last updated. Format defined by RFC3339. Example: 2019-02-03T01:02:29.600Z

Data Source: oci_monitoring_alarm_statuses

This data source provides the list of Alarm Statuses in Oracle Cloud Infrastructure Monitoring service.

List the status of each alarm in the specified compartment. For important limits information, see Limits on Monitoring (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

This call is subject to a Monitoring limit that applies to the total number of requests across all alarm operations. Monitoring might throttle this call to reject an otherwise valid request when the total rate of alarm operations exceeds 10 requests, or transactions, per second (TPS) for a given tenancy.

Example Usage

```
data "oci_monitoring_alarm_statuses" "test_alarm_statuses" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  compartment_id_in_subtree = "${var.alarm_status_compartment_id_in_subtree}"  
  display_name = "${var.alarm_status_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric that you are searching for. Use `tenancyId` to search in the root compartment. Example: `ocid1.compartment.oc1..exampleuniqueID`
- `compartment_id_in_subtree` - (Optional) When true, returns resources from all compartments and subcompartments. The parameter can only be set to true when `compartmentId` is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, returns resources from only the compartment specified in `compartmentId`. Default is false.
- `display_name` - (Optional) A filter to return only resources that match the given display name exactly. Use this filter to list an alarm by name. Alternatively, when you know the alarm OCID, use the `GetAlarm` operation.

Attributes Reference

The following attributes are exported:

- `alarm_statuses` - The list of `alarm_statuses`.

AlarmStatus Reference

The following attributes are exported:

- `display_name` - The configured name of the alarm. Example: High CPU Utilization
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the alarm.
- `severity` - The configured severity of the alarm. Example: CRITICAL
- `status` - The status of this alarm. Example: FIRING
- `suppression` - The configuration details for suppressing an alarm.
 - `description` - Human-readable reason for suppressing alarm notifications. It does not have to be unique, and it's changeable. Avoid entering confidential information.

Oracle recommends including tracking information for the event or associated work, such as a ticket number.

Example: Planned outage due to change IT-1234.

- `time_suppress_from` - The start date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T01:02:29.600Z
 - `time_suppress_until` - The end date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T02:02:29.600Z
- `timestamp_triggered` - Timestamp for the transition of the alarm state. For example, the time when the alarm transitioned from OK to Firing. Example: 2019-02-01T01:02:29.600Z

Data Source: oci_monitoring_metric_data

This data source provides the list of Metric Data in Oracle Cloud Infrastructure Monitoring service.

Returns aggregated data that match the criteria specified in the request. Compartment OCID required. For information on metric queries, see Building Metric Queries

(<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Tasks/buildingqueries.htm>). For important limits information, see Limits on Monitoring (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

Transactions Per Second (TPS) per-tenancy limit for this operation: 10.

Example Usage

```
data "oci_monitoring_metric_data" "test_metric_data" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  namespace = "${var.metric_data_namespace}"  
  query = "${var.metric_data_query}"  
  
  #Optional  
  compartment_id_in_subtree = "${var.metric_data_compartment_id_in_subtree}"  
  end_time = "${var.metric_data_end_time}"  
  resolution = "${var.metric_data_resolution}"  
  resource_group = "${var.metric_data_resource_group}"  
  start_time = "${var.metric_data_start_time}"  
}
```

Argument Reference

The following arguments are supported:

- **compartment_id** - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric that you are searching for. Use tenancyId to search in the root compartment. Example: ocid1.compartment.oc1..exampleuniqueID
- **compartment_id_in_subtree** - (Optional) When true, returns resources from all compartments and subcompartments. The parameter can only be set to true when compartmentId is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, returns resources from only the compartment specified in compartmentId. Default is false.
- **end_time** - (Optional) The end of the time range to use when searching for metric data points. Format is defined by RFC3339. The response excludes metric data points for the endTime. Default value: the timestamp representing when the call was sent. Example: 2019-02-01T02:02:29.600Z
- **namespace** - (Required) The source service or application to use when searching for metric data points to aggregate. Example: oci_computeagent

- **query** - (Required) The Monitoring Query Language (MQL) expression to use when searching for metric data points to aggregate. The query must specify a metric, statistic, and interval. Supported values for interval: 1m - 60m (also 1h). You can optionally specify dimensions and grouping functions. Supported grouping functions: `grouping()` , `groupBy()` .

Construct your query to avoid exceeding limits on returned data. See [MetricData Reference](https://docs.cloud.oracle.com/iaas/api/#/en/monitoring/20180401/MetricData) (<https://docs.cloud.oracle.com/iaas/api/#/en/monitoring/20180401/MetricData>).

For details about Monitoring Query Language (MQL), see [Monitoring Query Language \(MQL\) Reference](https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm) (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm>). For available dimensions, review the metric definition for the supported service. See [Supported Services](https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices) (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices>).

Example: `CpuUtilization[1m].sum()`

- **resolution** - (Optional) The time between calculated aggregation windows. Use with the query interval to vary the frequency at which aggregated data points are returned. For example, use a query interval of 5 minutes with a resolution of 1 minute to retrieve five-minute aggregations at a one-minute frequency. The resolution must be equal or less than the interval in the query. The default resolution is 1m (one minute). Supported values: 1m - 60m (also 1h). Example: 5m
- **resource_group** - (Optional) Resource group that you want to use as a filter. The specified resource group must exist in the definition of the posted metric. Only one resource group can be applied per metric. A valid `resourceGroup` value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: `frontend-fleet`
- **start_time** - (Optional) The beginning of the time range to use when searching for metric data points. Format is defined by RFC3339. The response includes metric data points for the `startTime`. Default value: the timestamp 3 hours before the call was sent. Example: `2019-02-01T01:02:29.600Z`

Attributes Reference

The following attributes are exported:

- **metric_data** - The list of `metric_data`.

MetricData Reference

The following attributes are exported:

- **aggregated_datapoints** - The list of timestamp-value pairs returned for the specified request. Metric values are rolled up to the start time specified in the request. For important limits information related to data points, see [MetricData Reference](#) at the top of this page.
 - **timestamp** - The date and time associated with the value of this data point. Format defined by RFC3339. Example: `2019-02-01T01:02:29.600Z`
 - **value** - Numeric value of the metric. Example: `10.4`
- **compartment_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources from which the aggregated data was returned.

- **dimensions** - Qualifiers provided in the definition of the returned metric. Available dimensions vary by metric namespace. Each dimension takes the form of a key-value pair. Example: `"resourceId": "ocid1.instance.region1.phx.exampleuniqueID"`
- **metadata** - The references provided in a metric definition to indicate extra information about the metric. Example: `"unit": "bytes"`
- **name** - The name of the metric. Example: `CpuUtilization`
- **namespace** - The reference provided in a metric definition to indicate the source service or application that emitted the metric. Example: `oci_computeagent`
- **resolution** - The time between calculated aggregation windows. Use with the query interval to vary the frequency at which aggregated data points are returned. For example, use a query interval of 5 minutes with a resolution of 1 minute to retrieve five-minute aggregations at a one-minute frequency. The resolution must be equal or less than the interval in the query. The default resolution is 1m (one minute). Supported values: 1m - 60m (also 1h). Example: 5m
- **resource_group** - Resource group provided with the posted metric. A resource group is a custom string that can be used as a filter. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: `frontend-fleet`

Data Source: oci_monitoring_metrics

This data source provides the list of Metrics in Oracle Cloud Infrastructure Monitoring service.

Returns metric definitions that match the criteria specified in the request. Compartment OCID required. For information about metrics, see Metrics Overview

(<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#MetricsOverview>). For important limits information, see Limits on Monitoring

(<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

Transactions Per Second (TPS) per-tenancy limit for this operation: 10.

Example Usage

```
data "oci_monitoring_metrics" "test_metrics" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  compartment_id_in_subtree = "${var.metric_compartment_id_in_subtree}"  
  dimension_filters = "${var.metric_dimension_filters}"  
  group_by = "${var.metric_group_by}"  
  name = "${var.metric_name}"  
  namespace = "${var.metric_namespace}"  
  resource_group = "${var.metric_resource_group}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric that you are searching for. Use tenancyId to search in the root compartment. Example: `ocid1.compartment.oc1..exampleuniqueID`
- `compartment_id_in_subtree` - (Optional) When true, returns resources from all compartments and subcompartments. The parameter can only be set to true when compartmentId is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, returns resources from only the compartment specified in compartmentId. Default is false.
- `dimension_filters` - (Optional) Qualifiers that you want to use when searching for metric definitions. Available dimensions vary by metric namespace. Each dimension takes the form of a key-value pair. Example: `{ "resourceId": "<instance_OCID>" }`
- `group_by` - (Optional) Group metrics by these fields in the response. For example, to list all metric namespaces available in a compartment, groupBy the "namespace" field. Supported fields: namespace, name, resourceGroup.

Example - group by namespace: ["namespace"]

- **name** - (Optional) The metric name to use when searching for metric definitions. Example: `CpuUtilization`
- **namespace** - (Optional) The source service or application to use when searching for metric definitions. Example: `oci_computeagent`
- **resource_group** - (Optional) Resource group that you want to use as a filter. The specified resource group must exist in the definition of the posted metric. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: `frontend-fleet`

Attributes Reference

The following attributes are exported:

- **metrics** - The list of metrics.

Metric Reference

The following attributes are exported:

- **compartment_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the resources monitored by the metric.
- **dimensions** - Qualifiers provided in a metric definition. Available dimensions vary by metric namespace. Each dimension takes the form of a key-value pair. Example: `"resourceId": "ocid1.instance.region1.phx.exampleuniqueID"`
- **name** - The name of the metric. Example: `CpuUtilization`
- **namespace** - The source service or application emitting the metric. Example: `oci_computeagent`
- **resource_group** - Resource group provided with the posted metric. A resource group is a custom string that can be used as a filter. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: `frontend-fleet`

Data Source: oci_objectstorage_bucket

This data source provides details about a specific Bucket resource in Oracle Cloud Infrastructure Object Storage service.

Gets the current representation of the given bucket in the given Object Storage namespace.

Example Usage

```
data "oci_objectstorage_bucket" "test_bucket" {  
  #Required  
  name = "${var.bucket_name}"  
  namespace = "${var.bucket_namespace}"  
}
```

Argument Reference

The following arguments are supported:

- `name` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The Object Storage namespace used for the request.

Attributes Reference

The following attributes are exported:

- `access_type` - The type of public access enabled on this bucket. A bucket is set to `NoPublicAccess` by default, which only allows an authenticated caller to access the bucket and its contents. When `ObjectRead` is enabled on the bucket, public access is allowed for the `GetObject`, `HeadObject`, and `ListObjects` operations. When `ObjectReadWithoutList` is enabled on the bucket, public access is allowed for the `GetObject` and `HeadObject` operations.
- `approximate_count` - The approximate number of objects in the bucket. Count statistics are reported periodically. You will see a lag between what is displayed and the actual object count.
- `approximate_size` - The approximate total size in bytes of all objects in the bucket. Size statistics are reported periodically. You will see a lag between what is displayed and the actual size of the bucket.
- `compartment_id` - The compartment ID in which the bucket is authorized.
- `created_by` - The OCID of the user who created the bucket.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `etag` - The entity tag (ETag) for the bucket.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - The OCID of a KMS key id used to call KMS to generate data key or decrypt the encrypted data key.
- `metadata` - Arbitrary string keys and values for user-defined metadata.
- `name` - The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - The Object Storage namespace in which the bucket lives.
- `object_events_enabled` - A property that determines whether events will be generated for operations on objects in this bucket. This is false by default.
- `object_lifecycle_policy_etag` - The entity tag (ETag) for the live object lifecycle policy on the bucket.
- `storage_tier` - The storage tier type assigned to the bucket. A bucket is set to 'Standard' tier by default, which means objects uploaded or copied to the bucket will be in the standard storage tier. When the 'Archive' tier type is set explicitly for a bucket, objects uploaded or copied to the bucket will be stored in archive storage. The 'storageTier' property is immutable after bucket is created.
- `time_created` - The date and time the bucket was created, as described in RFC 2616 (<https://tools.ietf.org/rfc/rfc2616>), section 14.29.

Data Source: oci_objectstorage_bucket_summaries

This data source provides the list of Buckets in Oracle Cloud Infrastructure Object Storage service.

Gets a list of all BucketSummary items in a compartment. A BucketSummary contains only summary fields for the bucket and does not contain fields like the user-defined metadata.

To use this and other API operations, you must be authorized in an IAM policy. If you are not authorized, talk to an administrator. If you are an administrator who needs to write policies to give users access, see [Getting Started with Policies \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policygetstarted.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policygetstarted.htm).

Example Usage

```
data "oci_objectstorage_bucket_summaries" "test_buckets" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  namespace = "${var.bucket_namespace}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The ID of the compartment in which to list buckets.
- `namespace` - (Required) The Object Storage namespace used for the request.

Attributes Reference

The following attributes are exported:

- `bucket_summaries` - The list of bucket_summaries.

Bucket Reference

The following attributes are exported:

- `access_type` - The type of public access enabled on this bucket. A bucket is set to `NoPublicAccess` by default, which only allows an authenticated caller to access the bucket and its contents. When `ObjectRead` is enabled on the bucket, public access is allowed for the `GetObject`, `HeadObject`, and `ListObjects` operations. When `ObjectReadWithoutList` is enabled on the bucket, public access is allowed for the `GetObject` and `HeadObject` operations.
- `approximate_count` - The approximate number of objects in the bucket. Count statistics are reported periodically. You will see a lag between what is displayed and the actual object count.

- `approximate_size` - The approximate total size in bytes of all objects in the bucket. Size statistics are reported periodically. You will see a lag between what is displayed and the actual size of the bucket.
- `compartment_id` - The compartment ID in which the bucket is authorized.
- `created_by` - The OCID of the user who created the bucket.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `etag` - The entity tag (ETag) for the bucket.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - The OCID of a KMS key id used to call KMS to generate data key or decrypt the encrypted data key.
- `metadata` - Arbitrary string keys and values for user-defined metadata.
- `name` - The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - The Object Storage namespace in which the bucket lives.
- `object_events_enabled` - A property that determines whether events will be generated for operations on objects in this bucket. This is false by default.
- `object_lifecycle_policy_etag` - The entity tag (ETag) for the live object lifecycle policy on the bucket.
- `storage_tier` - The storage tier type assigned to the bucket. A bucket is set to 'Standard' tier by default, which means objects uploaded or copied to the bucket will be in the standard storage tier. When the 'Archive' tier type is set explicitly for a bucket, objects uploaded or copied to the bucket will be stored in archive storage. The 'storageTier' property is immutable after bucket is created.
- `time_created` - The date and time the bucket was created, as described in RFC 2616 (<https://tools.ietf.org/rfc/rfc2616>), section 14.29.

Data Source: oci_objectstorage_namespace

This data source provides details about a specific Namespace resource in Oracle Cloud Infrastructure Object Storage service.

Each Oracle Cloud Infrastructure tenant is assigned one unique and uneditable Object Storage namespace. The namespace is a system-generated string assigned during account creation. For some older tenancies, the namespace string may be the tenancy name in all lower-case letters. You cannot edit a namespace.

GetNamespace returns the name of the Object Storage namespace for the user making the request. If an optional compartmentId query parameter is provided, GetNamespace returns the namespace name of the corresponding tenancy, provided the user has access to it.

Example Usage

```
data "oci_objectstorage_namespace" "test_namespace" {  
  
    #Optional  
    compartment_id = "${var.compartment_id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) This is an optional field representing the tenancy OCID or the compartment OCID within the tenancy whose Object Storage namespace name has to be retrieved.

Attributes Reference

The following attributes are exported:

- `namespace` - (Computed) The name of the user's namespace.

Data Source: oci_objectstorage_object_head

This data source provides details about metadata of a specific Object resource in Oracle Cloud Infrastructure Object Storage service.

Gets the metadata of an object.

Example Usage

```
data "oci_objectstorage_object_head" "test_object_head" {  
  #Required  
  bucket = "${var.object_bucket}"  
  namespace = "${var.object_namespace}"  
  object = "${var.object_object}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The top-level namespace used for the request.
- `object` - (Required) The name of the object. Avoid entering confidential information. Example: `test/object1.log`

Attributes Reference

The following attributes are exported:

- `metadata` - The metadata of the object
- `content_type` - The content-type of the object
- `content_length` - The content-length of the object
- `etag` - The etag of the object

Data Source: oci_objectstorage_object

This data source provides details about a specific Object resource in Oracle Cloud Infrastructure Object Storage service.

Gets the metadata and body of an object.

Example Usage

```
data "oci_objectstorage_object" "test_object" {  
  #Required  
  bucket = "${var.object_bucket}"  
  namespace = "${var.object_namespace}"  
  object = "${var.object_object}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The Object Storage namespace used for the request.
- `object` - (Required) The name of the object. Avoid entering confidential information. Example: `test/object1.log`
- `content_length_limit` - (Optional) The limit of the content length of the object body to download from the object store. The default is 1Mb.
- `base64_encode_content` - (Optional) Encodes the downloaded content in base64. It is recommended to set this to `true` for binary content to avoid corrupting the zip file in Terraform state. The default value is `false` to preserve backwards compatibility with Terraform v0.11 configurations. If passing the base64 encoded content to a `local_file` resource, please use the `content_base64` attribute of the `local_file` resource.

Attributes Reference

The following attributes are exported:

- `bucket` - The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `content` - The object to upload to the object store.
- `content_encoding` - The content encoding of the object.
- `content_language` - The content language of the object.
- `content_length` - The content length of the body.
- `content_md5` - The base-64 encoded MD5 hash of the body.

- `content_type` - The content type of the object. Defaults to 'application/octet-stream' if not overridden during the `PutObject` call.
- `metadata` - Optional user-defined metadata key and value. Note: Metadata keys are case-insensitive and all returned keys will be lower case.
- `namespace` - The top-level namespace used for the request.
- `object` - The name of the object. Avoid entering confidential information. Example: `test/object1.log`

Data Source: oci_objectstorage_object_lifecycle_policy

This data source provides details about a specific Object Lifecycle Policy resource in Oracle Cloud Infrastructure Object Storage service.

Gets the object lifecycle policy for the bucket.

Example Usage

```
data "oci_objectstorage_object_lifecycle_policy" "test_object_lifecycle_policy" {  
  #Required  
  bucket = "${var.object_lifecycle_policy_bucket}"  
  namespace = "${var.object_lifecycle_policy_namespace}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The Object Storage namespace used for the request.

Attributes Reference

The following attributes are exported:

- `rules` - The live lifecycle policy on the bucket.

For an example of this value, see the `PutObjectLifecyclePolicy` API documentation

(<https://docs.cloud.oracle.com/iaas/api/#/en/objectstorage/20160918/ObjectLifecyclePolicy/PutObjectLifecyclePolicy>).

- `action` - The action of the object lifecycle policy rule. Rules using the action 'ARCHIVE' move objects into the Archive Storage tier (<https://docs.cloud.oracle.com/iaas/Content/Archive/Concepts/archivestorageoverview.htm>). Rules using the action 'DELETE' permanently delete objects from buckets. 'ARCHIVE' and 'DELETE' are the only two supported actions at this time.
- `is_enabled` - A boolean that determines whether this rule is currently enabled.
- `name` - The name of the lifecycle rule to be applied.
- `object_name_filter` - A filter limiting object names that the rule will apply to.
 - `exclusion_patterns` - An array of glob patterns to match the object names to exclude. An empty array is ignored. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

\ Escapes the following character

- Matches any string of characters. ? Matches any single character . [...] Matches a group of characters. A group of characters can be: A set of characters, for example: [Zafg9@]. This matches any character in the brackets. A range of characters, for example: [a-z]. This matches any character in the range. [a-f] is equivalent to [abcdef]. For character ranges only the CHARACTER-CHARACTER pattern is supported. [ab-yz] is not valid [a-mn-z] is not valid Character ranges can not start with ^ or : To include a '-' in the range, make it the first or last character.
- inclusion_patterns - An array of glob patterns to match the object names to include. An empty array includes all objects in the bucket. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

\ Escapes the following character

- Matches any string of characters. ? Matches any single character . [...] Matches a group of characters. A group of characters can be: A set of characters, for example: [Zafg9@]. This matches any character in the brackets. A range of characters, for example: [a-z]. This matches any character in the range. [a-f] is equivalent to [abcdef]. For character ranges only the CHARACTER-CHARACTER pattern is supported. [ab-yz] is not valid [a-mn-z] is not valid Character ranges can not start with ^ or : To include a '-' in the range, make it the first or last character.
- inclusion_prefixes - An array of object name prefixes that the rule will apply to. An empty array means to include all objects.
- time_amount - Specifies the age of objects to apply the rule to. The timeAmount is interpreted in units defined by the timeUnit parameter, and is calculated in relation to each object's Last-Modified time.
- time_unit - The unit that should be used to interpret timeAmount. Days are defined as starting and ending at midnight UTC. Years are defined as 365.2425 days long and likewise round up to the next midnight UTC.
- time_created - The date and time the object lifecycle policy was created, as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.

Data Source: oci_objectstorage_objects

This data source provides the list of Objects in Oracle Cloud Infrastructure Object Storage service.

Lists the objects in a bucket.

To use this and other API operations, you must be authorized in an IAM policy. If you are not authorized, talk to an administrator. If you are an administrator who needs to write policies to give users access, see [Getting Started with Policies](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policygetstarted.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policygetstarted.htm>).

Example Usage

```
data "oci_objectstorage_objects" "test_objects" {  
  #Required  
  bucket = "${var.object_bucket}"  
  namespace = "${var.object_namespace}"  
  
  #Optional  
  delimiter = "${var.object_delimiter}"  
  end = "${var.object_end}"  
  prefix = "${var.object_prefix}"  
  start = "${var.object_start}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `delimiter` - (Optional) When this parameter is set, only objects whose names do not contain the delimiter character (after an optionally specified prefix) are returned in the objects key of the response body. Scanned objects whose names contain the delimiter have the part of their name up to the first occurrence of the delimiter (including the optional prefix) returned as a set of prefixes. Note that only `'/'` is a supported delimiter character at this time.
- `end` - (Optional) Object names returned by a list query must be strictly less than this parameter.
- `namespace` - (Required) The Object Storage namespace used for the request.
- `prefix` - (Optional) The string to use for matching against the start of object names in a list query.
- `start` - (Optional) Object names returned by a list query must be greater or equal to this parameter.

Attributes Reference

The following attributes are exported:

- `list_objects` - The list of `list_objects`.

Object Reference

The following attributes are exported:

- `bucket` - The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `content` - The object to upload to the object store.
- `content_encoding` - The content encoding of the object.
- `content_language` - The content language of the object.
- `content_length` - The content length of the body.
- `content_md5` - The base-64 encoded MD5 hash of the body.
- `content_type` - The content type of the object. Defaults to 'application/octet-stream' if not overridden during the `PutObject` call.
- `metadata` - Optional user-defined metadata key and value. Note: Metadata keys are case-insensitive and all returned keys will be lower case.
- `namespace` - The top-level namespace used for the request.
- `object` - The name of the object. Avoid entering confidential information. Example: `test/object1.log`

Data Source: oci_objectstorage_preauthrequest

This data source provides details about a specific Preauthenticated Request resource in Oracle Cloud Infrastructure Object Storage service.

Gets the pre-authenticated request for the bucket.

Example Usage

```
data "oci_objectstorage_preauthrequest" "test_preauthenticated_request" {  
  #Required  
  bucket = "${var.preauthenticated_request_bucket}"  
  namespace = "${var.preauthenticated_request_namespace}"  
  par_id = "${oci_objectstorage_preauthrequest.test_par.id}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The Object Storage namespace used for the request.
- `par_id` - (Required) The unique identifier for the pre-authenticated request. This can be used to manage operations against the pre-authenticated request, such as GET or DELETE.

Attributes Reference

The following attributes are exported:

- `access_type` - The operation that can be performed on this resource.
- `access_uri` - The URI to embed in the URL when using the pre-authenticated request.
- `bucket` - The name of the bucket. Example: `my-new-bucket1`
- `id` - The unique identifier to use when directly addressing the pre-authenticated request.
- `name` - The user-provided name of the pre-authenticated request.
- `namespace` - The Object Storage namespace used for the request.
- `object` - The name of the object that is being granted access to by the pre-authenticated request. Avoid entering confidential information. The object name can be null and if so, the pre-authenticated request grants access to the entire bucket.
- `time_created` - The date when the pre-authenticated request was created as per specification RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>).

- `time_expires` - The expiration date for the pre-authenticated request as per RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>). After this date the pre-authenticated request will no longer be valid.

Data Source: oci_objectstorage_preauthrequests

This data source provides the list of Preauthenticated Requests in Oracle Cloud Infrastructure Object Storage service.

Lists pre-authenticated requests for the bucket.

Example Usage

```
data "oci_objectstorage_preauthrequests" "test_preauthenticated_requests" {  
  #Required  
  bucket = "${var.preauthenticated_request_bucket}"  
  namespace = "${var.preauthenticated_request_namespace}"  
  
  #Optional  
  object_name_prefix = "${var.preauthenticated_request_object_name_prefix}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `namespace` - (Required) The Object Storage namespace used for the request.
- `object_name_prefix` - (Optional) User-specified object name prefixes can be used to query and return a list of pre-authenticated requests.

Attributes Reference

The following attributes are exported:

- `preauthenticated_requests` - The list of preauthenticated_requests.

PreauthenticatedRequest Reference

The following attributes are exported:

- `access_type` - The operation that can be performed on this resource.
- `access_uri` - The URI to embed in the URL when using the pre-authenticated request.
- `bucket` - The name of the bucket. Example: `my-new-bucket1`
- `id` - The unique identifier to use when directly addressing the pre-authenticated request.
- `name` - The user-provided name of the pre-authenticated request.

- `namespace` - The Object Storage namespace used for the request.
- `object` - The name of the object that is being granted access to by the pre-authenticated request. Avoid entering confidential information. The object name can be null and if so, the pre-authenticated request grants access to the entire bucket.
- `time_created` - The date when the pre-authenticated request was created as per specification RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>).
- `time_expires` - The expiration date for the pre-authenticated request as per RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>). After this date the pre-authenticated request will no longer be valid.

Data Source: oci_oci_instance

This data source provides details about a specific OCI Instance resource in Oracle Cloud Infrastructure OCI service.

Gets an OCIInstance by identifier

Example Usage

```
data "oci_oci_instance" "test_oci_instance" {  
  #Required  
  oci_instance_id = "${oci_oci_instance.test_oci_instance.id}"  
}
```

Argument Reference

The following arguments are supported:

- `oci_instance_id` - (Required) unique OCIInstance identifier

Attributes Reference

The following attributes are exported:

- `admin_email` - Admin Email for Notification
- `compartment_id` - Compartment Identifier
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - OCIInstance description, can be updated
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `guid` - Unique GUID identifier that is immutable on creation
- `id` - Unique identifier that is immutable on creation
- `idcs_tenancy` - IDCS Tenancy Identifier
- `name` - OCIInstance Name
- `object_storage_namespace` - Object Storage Namespace of tenancy
- `service` - SERVICE data. Example: `{"service": {"IDCS": "value"}}`
- `state` - The current state of the file system.
- `state_message` - An message describing the current state in more detail. For example, can be used to provide

actionable information for a resource in Failed state.

- `tenancy_id` - Tenancy Identifier
- `tenancy_name` - Tenancy Name
- `time_created` - The time the the OcelInstance was created. An RFC3339 formatted datetime string
- `time_updated` - The time the OcelInstance was updated. An RFC3339 formatted datetime string

Data Source: oci_oce_oce_instances

This data source provides the list of Oce Instances in Oracle Cloud Infrastructure Oce service.

Returns a list of OcelInstances.

Example Usage

```
data "oci_oce_oce_instances" "test_oce_instances" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.oce_instance_display_name}"  
  state = "${var.oce_instance_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The ID of the compartment in which to list resources.
- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Example: `My new resource`
- `state` - (Optional) Filter results on lifecycleState.

Attributes Reference

The following attributes are exported:

- `oce_instances` - The list of oce_instances.

OceInstance Reference

The following attributes are exported:

- `admin_email` - Admin Email for Notification
- `compartment_id` - Compartment Identifier
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - OcelInstance description, can be updated

- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `guid` - Unique GUID identifier that is immutable on creation
- `id` - Unique identifier that is immutable on creation
- `idcs_tenancy` - IDCS Tenancy Identifier
- `name` - OcelInstance Name
- `object_storage_namespace` - Object Storage Namespace of tenancy
- `service` - SERVICE data. Example: `{"service": {"IDCS": "value"}}`
- `state` - The current state of the file system.
- `state_message` - An message describing the current state in more detail. For example, can be used to provide actionable information for a resource in Failed state.
- `tenancy_id` - Tenancy Identifier
- `tenancy_name` - Tenancy Name
- `time_created` - The time the the OcelInstance was created. An RFC3339 formatted datetime string
- `time_updated` - The time the OcelInstance was updated. An RFC3339 formatted datetime string

Data Source: oci_oda_oda_instance

This data source provides details about a specific Oda Instance resource in Oracle Cloud Infrastructure Oda service.

Gets the specified Digital Assistant instance.

Example Usage

```
data "oci_oda_oda_instance" "test_oda_instance" {  
  #Required  
  oda_instance_id = "${oci_oda_oda_instance.test_oda_instance.id}"  
}
```

Argument Reference

The following arguments are supported:

- `oda_instance_id` - (Required) Unique Digital Assistant instance identifier.

Attributes Reference

The following attributes are exported:

- `compartment_id` - Identifier of the compartment that the instance belongs to.
- `connector_url` - URL for the connector's endpoint.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - Description of the Digital Assistant instance.
- `display_name` - User-defined name for the Digital Assistant instance. Avoid entering confidential information. You can change this value.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - Unique immutable identifier that was assigned when the instance was created.
- `lifecycle_sub_state` - The current sub-state of the Digital Assistant instance.
- `shape_name` - Shape or size of the instance.
- `state` - The current state of the Digital Assistant instance.
- `state_message` - A message that describes the current state in more detail. For example, actionable information about an instance that's in the `FAILED` state.

- `time_created` - When the Digital Assistant instance was created. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `time_updated` - When the Digital Assistance instance was last updated. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `web_app_url` - URL for the Digital Assistant web application that's associated with the instance.

Data Source: oci_oda_oda_instances

This data source provides the list of Oda Instances in Oracle Cloud Infrastructure Oda service.

Returns a page of Digital Assistant instances that belong to the specified compartment.

If the `opc-next-page` header appears in the response, then there are more items to retrieve. To get the next page in the subsequent GET request, include the header's value as the `page` query parameter.

Example Usage

```
data "oci_oda_oda_instances" "test_oda_instances" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.oda_instance_display_name}"  
  state = "${var.oda_instance_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) List the Digital Assistant instances that belong to this compartment.
- `display_name` - (Optional) List only the information for the Digital Assistant instance with this user-friendly name. These names don't have to be unique and may change. Example: `My new resource`
- `state` - (Optional) List only the Digital Assistant instances that are in this lifecycle state.

Attributes Reference

The following attributes are exported:

- `oda_instances` - The list of oda_instances.

OdaInstance Reference

The following attributes are exported:

- `compartment_id` - Identifier of the compartment that the instance belongs to.
- `connector_url` - URL for the connector's endpoint.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`

- `description` - Description of the Digital Assistant instance.
- `display_name` - User-defined name for the Digital Assistant instance. Avoid entering confidential information. You can change this value.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - Unique immutable identifier that was assigned when the instance was created.
- `lifecycle_sub_state` - The current sub-state of the Digital Assistant instance.
- `shape_name` - Shape or size of the instance.
- `state` - The current state of the Digital Assistant instance.
- `state_message` - A message that describes the current state in more detail. For example, actionable information about an instance that's in the `FAILED` state.
- `time_created` - When the Digital Assistant instance was created. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `time_updated` - When the Digital Assistance instance was last updated. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `web_app_url` - URL for the Digital Assistant web application that's associated with the instance.

Data Source: oci_ons_notification_topic

This data source provides details about a specific Notification Topic resource in Oracle Cloud Infrastructure Ons service.

Gets the specified topic's configuration information.

Example Usage

```
data "oci_ons_notification_topic" "test_notification_topic" {  
  #Required  
  topic_id = "${oci_ons_notification_topic.test_notification_topic.id}"  
}
```

Argument Reference

The following arguments are supported:

- `topic_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic to retrieve.

Transactions Per Minute (TPM) per-tenancy limit for this operation: 120.

Attributes Reference

The following attributes are exported:

- `api_endpoint` - The endpoint for managing topic subscriptions or publishing messages to the topic.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the topic.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the topic.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - The name of the topic.
- `state` - The lifecycle state of the topic.

- `time_created` - The time the topic was created.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic.

Data Source: oci_ons_notification_topics

This data source provides the list of Notification Topics in Oracle Cloud Infrastructure Ons service.

Lists topics in the specified compartment.

Transactions Per Minute (TPM) per-tenancy limit for this operation: 120.

Example Usage

```
data "oci_ons_notification_topics" "test_notification_topics" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  id = "${var.notification_topic_id}"  
  name = "${var.notification_topic_name}"  
  state = "${var.notification_topic_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `id` - (Optional) A filter to only return resources that match the given id exactly.
- `name` - (Optional) A filter to only return resources that match the given name exactly.
- `state` - (Optional) Filter returned list by specified lifecycle state. This parameter is case-insensitive.

Attributes Reference

The following attributes are exported:

- `notification_topics` - The list of notification_topics.

NotificationTopic Reference

The following attributes are exported:

- `api_endpoint` - The endpoint for managing topic subscriptions or publishing messages to the topic.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the topic.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the topic.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - The name of the topic.
- `state` - The lifecycle state of the topic.
- `time_created` - The time the topic was created.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic.

Data Source: oci_ons_subscription

This data source provides details about a specific Subscription resource in Oracle Cloud Infrastructure Ons service.

Gets the specified subscription's configuration information.

Transactions Per Minute (TPM) per-tenancy limit for this operation: 60.

Example Usage

```
data "oci_ons_subscription" "test_subscription" {  
  #Required  
  subscription_id = "${oci_ons_subscription.test_subscription.id}"  
}
```

Argument Reference

The following arguments are supported:

- `subscription_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subscription to retrieve.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the subscription.
- `created_time` - The time when this suscription was created.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `delivery_policy` - The delivery policy of the subscription. Stored as a JSON string.
- `endpoint` - A locator that corresponds to the subscription protocol. For example, an email address for a subscription that uses the `EMAIL` protocol, or a URL for a subscription that uses an HTTP-based protocol.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subscription.

- `protocol` - The protocol used for the subscription. For information about subscription protocols, see [To create a subscription](https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub) (<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub>).
- `state` - The lifecycle state of the subscription. The status of a new subscription is `PENDING`; when confirmed, the subscription status changes to `ACTIVE`.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated topic.

Data Source: oci_ons_subscriptions

This data source provides the list of Subscriptions in Oracle Cloud Infrastructure Ons service.

Lists the subscriptions in the specified compartment or topic.

Transactions Per Minute (TPM) per-tenancy limit for this operation: 60.

Example Usage

```
data "oci_ons_subscriptions" "test_subscriptions" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  topic_id = "${oci_ons_notification_topic.test_notification_topic.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `topic_id` - (Optional) Return all subscriptions that are subscribed to the given topic OCID. Either this query parameter or the `compartmentId` query parameter must be set.

Attributes Reference

The following attributes are exported:

- `subscriptions` - The list of subscriptions.

Subscription Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the subscription.
- `created_time` - The time when this suscription was created.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`

- `delivery_policy` -
 - `backoff_retry_policy` -
 - `max_retry_duration` - The maximum retry duration in milliseconds.
 - `policy_type` - The type of delivery policy. Default value: EXPONENTIAL.
- `endpoint` - A locator that corresponds to the subscription protocol. For example, an email address for a subscription that uses the EMAIL protocol, or a URL for a subscription that uses an HTTP-based protocol. Avoid entering confidential information.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subscription.
- `protocol` - The protocol used for the subscription. For information about subscription protocols, see To create a subscription (<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub>).
- `state` - The lifecycle state of the subscription. The status of a new subscription is PENDING; when confirmed, the subscription status changes to ACTIVE.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated topic.

Data Source: oci_streaming_stream_archiver

This data source provides details about a specific Stream Archiver resource in Oracle Cloud Infrastructure Streaming service.

Returns the current state of the stream archiver.

Example Usage

```
data "oci_streaming_stream_archiver" "test_stream_archiver" {  
  #Required  
  stream_id = "${oci_streaming_stream.test_stream.id}"  
}
```

Argument Reference

The following arguments are supported:

- `stream_id` - (Required) The OCID of the stream.

Attributes Reference

The following attributes are exported:

- `batch_rollover_size_in_mbs` - The batch rollover size in megabytes.
- `batch_rollover_time_in_seconds` - The rollover time in seconds.
- `bucket` - The name of the bucket.
- `error` - If an operation failed this property contained the last error occurred.
 - `code` - A short error code that defines the error, meant for programmatic parsing.
 - `message` - A human-readable error string.
- `start_position` - The start message.
- `state` - The state of the stream archiver.
- `time_created` - Time when the resource was created.
- `use_existing_bucket` - The flag to create a new bucket or use existing one.

Data Source: oci_streaming_stream

This data source provides details about a specific Stream resource in Oracle Cloud Infrastructure Streaming service.

Gets detailed information about a stream, including the number of partitions.

Example Usage

```
data "oci_streaming_stream" "test_stream" {  
  #Required  
  stream_id = "${oci_streaming_stream.test_stream.id}"  
}
```

Argument Reference

The following arguments are supported:

- `stream_id` - (Required) The OCID of the stream to retrieve.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the stream.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: ``{"Operations": {"CostCenter": "42"}}`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair that is applied with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the stream.
- `lifecycle_state_details` - Any additional details about the current state of the stream.
- `messages_endpoint` - The endpoint to use when creating the StreamClient to consume or publish messages in the stream.
- `name` - The name of the stream. Avoid entering confidential information. Example: `TelemetryEvents`
- `partitions` - The number of partitions in the stream.
- `retention_in_hours` - The retention period of the stream, in hours. This property is read-only.
- `state` - The current state of the stream.

- `time_created` - The date and time the stream was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: 2018-04-20T00:00:07.405Z

Data Source: oci_streaming_streams

This data source provides the list of Streams in Oracle Cloud Infrastructure Streaming service.

Lists the streams.

Example Usage

```
data "oci_streaming_streams" "test_streams" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  id = "${var.stream_id}"  
  name = "${var.stream_name}"  
  state = "${var.stream_state}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `id` - (Optional) A filter to return only resources that match the given ID exactly.
- `name` - (Optional) A filter to return only resources that match the given name exactly.
- `state` - (Optional) A filter to only return resources that match the given lifecycle state. The state value is case-insensitive.

Attributes Reference

The following attributes are exported:

- `streams` - The list of streams.

Stream Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the stream.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: ``{"Operations": {"CostCenter": "42"}}`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair that is applied with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the stream.
- `lifecycle_state_details` - Any additional details about the current state of the stream.
- `messages_endpoint` - The endpoint to use when creating the StreamClient to consume or publish messages in the stream.
- `name` - The name of the stream. Avoid entering confidential information. Example: `TelemetryEvents`
- `partitions` - The number of partitions in the stream.
- `retention_in_hours` - The retention period of the stream, in hours. This property is read-only.
- `state` - The current state of the stream.
- `time_created` - The date and time the stream was created, expressed in in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2018-04-20T00:00:07.405Z`

Data Source: oci_waas_address_list

This data source provides details about a specific Address List resource in Oracle Cloud Infrastructure Waas service.

Gets the details of an address list.

Example Usage

```
data "oci_waas_address_list" "test_address_list" {  
  #Required  
  address_list_id = "${oci_waas_address_list.test_address_list.id}"  
}
```

Argument Reference

The following arguments are supported:

- `address_list_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list. This number is generated when the address list is added to the compartment.

Attributes Reference

The following attributes are exported:

- `address_count` - The total number of unique IP addresses in the address list.
- `addresses` - The list of IP addresses or CIDR notations.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the address list.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list.
- `state` - The current lifecycle state of the address list.
- `time_created` - The date and time the address list was created, expressed in RFC 3339 timestamp format.

Data Source: oci_waas_address_lists

This data source provides the list of Address Lists in Oracle Cloud Infrastructure Waas service.

Gets a list of address lists that can be used in a WAAS policy.

Example Usage

```
data "oci_waas_address_lists" "test_address_lists" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  ids = "${var.address_list_ids}"  
  names = "${var.address_list_names}"  
  states = "${var.address_list_states}"  
  time_created_greater_than_or_equal_to = "${var.address_list_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.address_list_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment. This number is generated when the compartment is created.
- `ids` - (Optional) Filter address lists using a list of address lists OCIDs.
- `names` - (Optional) Filter address lists using a list of names.
- `states` - (Optional) Filter address lists using a list of lifecycle states.
- `time_created_greater_than_or_equal_to` - (Optional) A filter that matches address lists created on or after the specified date-time.
- `time_created_less_than` - (Optional) A filter that matches address lists created before the specified date-time.

Attributes Reference

The following attributes are exported:

- `address_lists` - The list of address_lists.

AddressList Reference

The following attributes are exported:

- `address_count` - The total number of unique IP addresses in the address list.
- `addresses` - The list of IP addresses or CIDR notations.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the address list.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list.
- `state` - The current lifecycle state of the address list.
- `time_created` - The date and time the address list was created, expressed in RFC 3339 timestamp format.

Data Source: oci_waas_certificate

This data source provides details about a specific Certificate resource in Oracle Cloud Infrastructure Waas service.

Gets the details of an SSL certificate.

Example Usage

```
data "oci_waas_certificate" "test_certificate" {  
  #Required  
  certificate_id = "${oci_waas_certificate.test_certificate.id}"  
}
```

Argument Reference

The following arguments are supported:

- `certificate_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate used in the WAAS policy. This number is generated when the certificate is added to the policy.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the SSL certificate.
- `extensions` - Additional attributes associated with users or public keys for managing relationships between Certificate Authorities.
 - `is_critical` - The critical flag of the extension. Critical extensions must be processed, non-critical extensions can be ignored.
 - `name` - The certificate extension name.
 - `value` - The certificate extension value.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate.
- `issued_by` -
- `issuer_name` -
 - `common_name` - The Certificate Authority (CA) name.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.
 - `state_province` - The province where the organization is located.
- `public_key_info` -
 - `algorithm` - The algorithm identifier and parameters for the public key.
 - `exponent` - The private key exponent.
 - `key_size` - The number of bits in a key used by a cryptographic algorithm.
- `serial_number` - A unique, positive integer assigned by the Certificate Authority (CA). The issuer name and serial number identify a unique certificate.
- `signature_algorithm` - The identifier for the cryptographic algorithm used by the Certificate Authority (CA) to sign this certificate.
- `state` - The current lifecycle state of the SSL certificate.
- `subject_name` -
 - `common_name` - The fully qualified domain name used for DNS lookups of the server.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.
 - `state_province` - The province where the organization is located.
- `time_created` - The date and time the certificate was created, expressed in RFC 3339 timestamp format.
- `time_not_valid_after` - The date and time the certificate will expire, expressed in RFC 3339 timestamp format.
- `time_not_valid_before` - The date and time the certificate will become valid, expressed in RFC 3339 timestamp format.
- `version` - The version of the encoded certificate.

Data Source: oci_waas_certificates

This data source provides the list of Certificates in Oracle Cloud Infrastructure Waas service.

Gets a list of SSL certificates that can be used in a WAAS policy.

Example Usage

```
data "oci_waas_certificates" "test_certificates" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_names = "${var.certificate_display_names}"  
  ids = "${var.certificate_ids}"  
  states = "${var.certificate_states}"  
  time_created_greater_than_or_equal_to = "${var.certificate_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.certificate_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment. This number is generated when the compartment is created.
- `display_names` - (Optional) Filter certificates using a list of display names.
- `ids` - (Optional) Filter certificates using a list of certificates OCIDs.
- `states` - (Optional) Filter certificates using a list of lifecycle states.
- `time_created_greater_than_or_equal_to` - (Optional) A filter that matches certificates created on or after the specified date-time.
- `time_created_less_than` - (Optional) A filter that matches certificates created before the specified date-time.

Attributes Reference

The following attributes are exported:

- `certificates` - The list of certificates.

Certificate Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the SSL certificate.
- `extensions` - Additional attributes associated with users or public keys for managing relationships between Certificate Authorities.
 - `is_critical` - The critical flag of the extension. Critical extensions must be processed, non-critical extensions can be ignored.
 - `name` - The certificate extension name.
 - `value` - The certificate extension value.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate.
- `issued_by` -
- `issuer_name` -
 - `common_name` - The Certificate Authority (CA) name.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.
 - `state_province` - The province where the organization is located.
- `public_key_info` -
 - `algorithm` - The algorithm identifier and parameters for the public key.
 - `exponent` - The private key exponent.
 - `key_size` - The number of bits in a key used by a cryptographic algorithm.
- `serial_number` - A unique, positive integer assigned by the Certificate Authority (CA). The issuer name and serial number identify a unique certificate.
- `signature_algorithm` - The identifier for the cryptographic algorithm used by the Certificate Authority (CA) to sign this certificate.

- `state` - The current lifecycle state of the SSL certificate.
- `subject_name` -
 - `common_name` - The fully qualified domain name used for DNS lookups of the server.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.
 - `state_province` - The province where the organization is located.
- `time_created` - The date and time the certificate was created, expressed in RFC 3339 timestamp format.
- `time_not_valid_after` - The date and time the certificate will expire, expressed in RFC 3339 timestamp format.
- `time_not_valid_before` - The date and time the certificate will become valid, expressed in RFC 3339 timestamp format.
- `version` - The version of the encoded certificate.

Data Source: oci_waas_custom_protection_rule

This data source provides details about a specific Custom Protection Rule resource in Oracle Cloud Infrastructure Waas service.

Gets the details of a Custom Protection rule.

Example Usage

```
data "oci_waas_custom_protection_rule" "test_custom_protection_rule" {  
  #Required  
  custom_protection_rule_id = "${oci_waas_custom_protection_rule.test_custom_protection_rule.id}"  
}
```

Argument Reference

The following arguments are supported:

- `custom_protection_rule_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule. This number is generated when the Custom Protection rule is added to the compartment.

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the Custom Protection rule.
- `display_name` - The user-friendly name of the Custom Protection rule.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `mod_security_rule_ids` - The list of the ModSecurity rule IDs that apply to this protection rule. For more information about ModSecurity's open source WAF rules, see [Mod Security's documentation](#)

(<https://www.modsecurity.org/CRS/Documentation/index.html>).

- **state** - The current lifecycle state of the Custom Protection rule.
- **template** - The template text of the Custom Protection rule. The syntax is based on ModSecurity Rule Language. Additionally it needs to include two variables / placeholders which will be replaced during publishing.
 - **{{mode}}** - rule action, defined by user in UI, like OFF, DETECT or BLOCK.
 - **{{id_1}}** - unique rule ID which identifies a SecRule, generated by the system. Multiple IDs can be used by increasing the number of the variable for every SecRule defined in the template.

Example usage: SecRule REQUEST_COOKIES "regex matching SQL injection - part 1/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 1/2.', \ id: {{id_1}}, \ ctl:ruleEngine={{mode}}, \ deny" SecRule REQUEST_COOKIES "regex matching SQL injection - part 2/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 2/2.', \ id: {{id_2}}, \ ctl:ruleEngine={{mode}}, \ deny" The example contains two SecRules each having distinct regex expression to match Cookie header value during second input analysis phase. The disruptive deny action takes effect only when {{mode}} is set to BLOCK. The message is logged either when {{mode}} is set to DETECT or BLOCK.

For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/making.html>).

- **time_created** - The date and time the protection rule was created, expressed in RFC 3339 timestamp format.

Data Source: oci_waas_custom_protection_rules

This data source provides the list of Custom Protection Rules in Oracle Cloud Infrastructure Waas service.

Gets a list of Custom Protection rules.

Example Usage

```
data "oci_waas_custom_protection_rules" "test_custom_protection_rules" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_names = "${var.custom_protection_rule_display_names}"  
  ids = "${var.custom_protection_rule_ids}"  
  states = "${var.custom_protection_rule_states}"  
  time_created_greater_than_or_equal_to = "${var.custom_protection_rule_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.custom_protection_rule_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment. This number is generated when the compartment is created.
- `display_names` - (Optional) Filter Custom Protection rules using a list of display names.
- `ids` - (Optional) Filter Custom Protection rules using a list of Custom Protection rules OCIDs.
- `states` - (Optional) Filter Custom Protection rules using a list of lifecycle states.
- `time_created_greater_than_or_equal_to` - (Optional) A filter that matches Custom Protection rules created on or after the specified date-time.
- `time_created_less_than` - (Optional) A filter that matches Custom Protection rules created before the specified date-time.

Attributes Reference

The following attributes are exported:

- `custom_protection_rules` - The list of custom_protection_rules.

CustomProtectionRule Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the Custom Protection rule.
- `display_name` - The user-friendly name of the Custom Protection rule.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `mod_security_rule_ids` - The list of the ModSecurity rule IDs that apply to this protection rule. For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/index.html>).
- `state` - The current lifecycle state of the Custom Protection rule.
- `template` - The template text of the Custom Protection rule. The syntax is based on ModSecurity Rule Language. Additionally it needs to include two variables / placeholders which will be replaced during publishing.
 - `{{mode}}` - rule action, defined by user in UI, like `OFF`, `DETECT` or `BLOCK`.
 - `{{id_1}}` - unique rule ID which identifies a `SecRule`, generated by the system. Multiple IDs can be used by increasing the number of the variable for every `SecRule` defined in the template.

Example usage: `SecRule REQUEST_COOKIES "regex matching SQL injection - part 1/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 1/2.', \ id: {{id_1}}, \ ctl:ruleEngine={{mode}}, \ deny" SecRule REQUEST_COOKIES "regex matching SQL injection - part 2/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 2/2.', \ id: {{id_2}}, \ ctl:ruleEngine={{mode}}, \ deny"` The example contains two `SecRules` each having distinct regex expression to match Cookie header value during second input analysis phase. The disruptive `deny` action takes effect only when `{{mode}}` is set to `BLOCK`. The message is logged either when `{{mode}}` is set to `DETECT` or `BLOCK`.

For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/making.html>).

- `time_created` - The date and time the protection rule was created, expressed in RFC 3339 timestamp format.

Data Source: oci_waas_edge_subnets

This data source provides the list of Edge Subnets in Oracle Cloud Infrastructure Waas service.

Return the list of the tenant's edge node subnets. Use these CIDR blocks to restrict incoming traffic to your origin. These subnets are owned by Oracle Cloud Infrastructure and forward traffic to customer origins. They are not associated with specific regions or compartments.

Example Usage

```
data "oci_waas_edge_subnets" "test_edge_subnets" {  
}
```

Argument Reference

The following arguments are supported:

Attributes Reference

The following attributes are exported:

- `edge_subnets` - The list of `edge_subnets`.

EdgeSubnet Reference

The following attributes are exported:

- `cidr` - An edge node subnet. This can include /24 or /8 addresses.
- `region` - The name of the region containing the indicated subnet.
- `time_modified` - The date and time the last change was made to the indicated edge node subnet, expressed in RFC 3339 timestamp format.

Data Source: oci_waas_waas_policies

This data source provides the list of Waas Policies in Oracle Cloud Infrastructure Waas service.

Gets a list of WAAS policies.

Example Usage

```
data "oci_waas_waas_policies" "test_waas_policies" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_names = "${var.waas_policy_display_names}"  
  ids = "${var.waas_policy_ids}"  
  states = "${var.waas_policy_states}"  
  time_created_greater_than_or_equal_to = "${var.waas_policy_time_created_greater_than_or_equal_to}"  
  time_created_less_than = "${var.waas_policy_time_created_less_than}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment. This number is generated when the compartment is created.
- `display_names` - (Optional) Filter policies using a list of display names.
- `ids` - (Optional) Filter policies using a list of policy OCIDs.
- `states` - (Optional) Filter policies using a list of lifecycle states.
- `time_created_greater_than_or_equal_to` - (Optional) A filter that matches policies created on or after the specified date and time.
- `time_created_less_than` - (Optional) A filter that matches policies created before the specified date-time.

Attributes Reference

The following attributes are exported:

- `waas_policies` - The list of waas_policies.

WaasPolicy Reference

The following attributes are exported:

- `additional_domains` - An array of additional domains for this web application.
- `cname` - The CNAME record to add to your DNS configuration to route traffic for the domain, and all additional domains, through the WAF.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the WAAS policy. The name can be changed and does not need to be unique.
- `domain` - The web application domain that the WAAS policy protects.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy.
- `origin_groups` - The map of origin groups and their keys used to associate origins to the wafConfig.
 - `origins` - The list of objects containing origin references and additional properties.
- `origins` - A map of host servers (origins) and their keys for the web application. Origin keys are used to associate origins to specific protection rules. The key should be a user-friendly name for the host. **Examples:** `primary` or `secondary`.
 - `custom_headers` - A list of HTTP headers to forward to your origin.
 - `name` - The name of the header.
 - `value` - The value of the header.
 - `http_port` - The HTTP port on the origin that the web application listens on. If unspecified, defaults to `80`.
 - `https_port` - The HTTPS port on the origin that the web application listens on. If unspecified, defaults to `443`.
 - `uri` - The URI of the origin. Does not support paths. Port numbers should be specified in the `httpPort` and `httpsPort` fields.
- `policy_config` -
 - `certificate_id` - The OCID of the SSL certificate to use if HTTPS is supported.
 - `cipher_group` - The cipher group
 - **DEFAULT:** Cipher group supports TLS 1.0, TLS 1.1, TLS 1.2, TLS 1.3 protocols. It has the following ciphers enabled: `ECDHE-RSA-AES128-GCM-SHA256:ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-AES256-GCM-SHA384:DHE-RSA-AES128-GCM-SHA256:DHE-DSS-AES128-GCM-SHA256:KEDH+AESGCM:ECDHE-RSA-AES128-SHA256:ECDHE-ECDSA-AES128-SHA256:ECDHE-RSA-AES128-SHA:ECDHE-ECDSA-AES128-SHA:ECDHE-RSA-AES256-SHA384:ECDHE-ECDSA-AES256-SHA384:ECDHE-RSA-AES256-SHA:ECDHE-ECDSA-AES256-SHA:DHE-RSA-AES128-SHA256:DHE-RSA-AES128-SHA:DHE-DSS-AES128-SHA256:DHE-RSA-AES256-SHA256:DHE-DSS-AES256-SHA:DHE-RSA-AES256-SHA:AES128-GCM-`

SHA256: AES256-GCM-SHA384: AES128-SHA256: AES256-SHA256: AES128-SHA: AES256-SHA: AES: CAMELLIA: !DES-CBC3-SHA: !aNULL: !eNULL: !EXPORT: !DES: !RC4: !MD5: !PSK: !aECDH: !EDH-DSS-DES-CBC3-SHA: !EDH-RSA-DES-CBC3-SHA: !KRB5-DES-CBC3-SHA

- `client_address_header` - The HTTP header used to pass the client IP address from the CDN if `isBehindCdn` is enabled. This feature consumes the header and its value as the true client IP address. It does not create the header. Using trusted chains (for example `X-Client-Ip: 11.1.1.1, 13.3.3.3`), the last IP address in the list will be used as true client IP address. In case of multiple headers with the same name, the first one will be used. If the header is not present it will use the connecting IP address as the true client IP address. It's assumed that CDN sets the correct client IP address and prevents spoofing.
 - `X_FORWARDED_FOR`: Corresponds to `X-Forwarded-For` header name.
 - `X_CLIENT_IP`: Corresponds to `X-Client-Ip` header name.
 - `X_REAL_IP`: Corresponds to `X-Real-Ip` header name.
 - `CLIENT_IP`: Corresponds to `Client-Ip` header name.
 - `TRUE_CLIENT_IP`: Corresponds to `True-Client-Ip` header name.
- `is_behind_cdn` - Enable or disable the use of CDN. It allows to specify true client IP address if clients do not connect directly to us.
- `is_cache_control_respected` - Enable or disable automatic content caching based on the response `cache-control` header. This feature enables the origin to act as a proxy cache. Caching policies are usually defined using `cache-control` header. For example `cache-control: max-age=120` means that the returned resource is valid for 120 seconds. Caching rules will overwrite this setting.
- `is_https_enabled` - Enable or disable HTTPS support. If true, a `certificateId` is required. If unspecified, defaults to `false`.
- `is_https_forced` - Force HTTP to HTTPS redirection. If unspecified, defaults to `false`.
- `is_origin_compression_enabled` - Enable or disable GZIP compression of origin responses. If enabled, the header `Accept-Encoding: gzip` is sent to origin, otherwise - empty `Accept-Encoding:` header is used.
- `is_response_buffering_enabled` - Enable or disable buffering of responses from the origin. Buffering improves overall stability in case of network issues, but slightly increases Time To First Byte.
- `tls_protocols` - A list of allowed TLS protocols. Only applicable when HTTPS support is enabled. It affects client's connection to the edge nodes. The most secure TLS version will be chosen.
 - `TLS_V1`: corresponds to TLS 1.0 specification.
 - `TLS_V1_1`: corresponds to TLS 1.1 specification.
 - `TLS_V1_2`: corresponds to TLS 1.2 specification.
 - `TLS_V1_3`: corresponds to TLS 1.3 specification.

Enabled TLS protocols must go in a row. For example if `TLS_v1_1` and `TLS_V1_3` are enabled, `TLS_V1_2` must be enabled too.

- `state` - The current lifecycle state of the WAAS policy.
- `time_created` - The date and time the policy was created, expressed in RFC 3339 timestamp format.

- waf_config -

- access_rules - The access rules applied to the Web Application Firewall. Used for defining custom access policies with the combination of `ALLOW`, `DETECT`, and `BLOCK` rules, based on different criteria.
 - action - The action to take when the access criteria are met for a rule. If unspecified, defaults to `ALLOW`.
 - **ALLOW**: Takes no action, just logs the request.
 - **DETECT**: Takes no action, but creates an alert for the request.
 - **BLOCK**: Blocks the request by returning specified response code or showing error page.
 - **BYPASS**: Bypasses some or all challenges.
 - **REDIRECT**: Redirects the request to the specified URL.

Regardless of action, no further rules are processed once the rule is matched.

- block_action - The method used to block requests if `action` is set to `BLOCK` and the access criteria are met. If unspecified, defaults to `SET_RESPONSE_CODE`.
- block_error_page_code - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access rules'.
- block_error_page_description - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access blocked by website owner. Please contact support.'
- block_error_page_message - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access to the website is blocked.'
- block_response_code - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE`, and the access criteria are met. If unspecified, defaults to 403.
- bypass_challenges - The list of challenges to bypass when `action` is set to `BYPASS`. If unspecified or empty, all challenges are bypassed.
 - **JS_CHALLENGE**: Bypasses JavaScript Challenge.
 - **DEVICE_FINGERPRINT_CHALLENGE**: Bypasses Device Fingerprint Challenge.
 - **HUMAN_INTERACTION_CHALLENGE**: Bypasses Human Interaction Challenge.
 - **CAPTCHA**: Bypasses CAPTCHA Challenge.
- criteria - The list of access rule criteria.
 - condition - The criteria the access rule uses to determine if action should be taken on a request.
 - **URL_IS**: Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_IS_NOT**: Matches if the concatenation of request URL path and query is not identical to the contents of the `value` field.

- **URL_STARTS_WITH:** Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
- **URL_PART_ENDS_WITH:** Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
- **URL_PART_CONTAINS:** Matches if the concatenation of request URL path and query contains the contents of the `value` field.
- **URL_REGEX:** Matches if the request is described by the regular expression in the `value` field.
- **IP_IS:** Matches if the request originates from an IP address in the `value` field.
- **IP_IS_NOT:** Matches if the request does not originate from an IP address in the `value` field.
- **HTTP_HEADER_CONTAINS:** The HTTP_HEADER_CONTAINS criteria is defined using a compound value separated by a colon: a header field name and a header field value.
`host:test.example.com` is an example of a criteria value where `host` is the header field name and `test.example.com` is the header field value. A request matches when the header field name is a case insensitive match and the header field value is a case insensitive, substring match. *Example:* With a criteria value of `host:test.example.com`, where `host` is the name of the field and `test.example.com` is the value of the host field, a request with the header values, `Host: www.test.example.com` will match, where as a request with header values of `host: www.example.com` or `host: test.sub.example.com` will not match.
- **IP_IN_LIST:** Matches if the request originates from one of IP addresses contained in the referenced address list. The `value` in this case is OCID of the address list.
- **IP_NOT_IN_LIST:** Matches if the request does not originate from any IP address contained in the referenced address list. The `value` field in this case is OCID of the address list.
- **HTTP_METHOD_IS:** Matches if the request method corresponds to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH
- **HTTP_METHOD_IS_NOT:** Matches if the request method does not correspond to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH
- **COUNTRY_IS:** Matches if the request originates from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
- **COUNTRY_IS_NOT:** Matches if the request does not originate from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
- **USER_AGENT_IS:** Matches if the requesting user agent is identical to the contents of the `value` field. Example: `Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0`
- **USER_AGENT_IS_NOT:** Matches if the requesting user agent is not identical to the contents of the `value` field. Example: `Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0`

■ `value` - The criteria value.

- **name** - The unique name of the access rule.
- **redirect_response_code** - The response status code to return when **action** is set to **REDIRECT**.
 - **MOVED_PERMANENTLY**: Used for designating the permanent movement of a page (numerical code - 301).
 - **FOUND**: Used for designating the temporary movement of a page (numerical code - 302).
- **redirect_url** - The target to which the request should be redirected, represented as a URI reference.
- **address_rate_limiting** - The IP address rate limiting settings used to limit the number of requests from an address.
 - **allowed_rate_per_address** - The number of allowed requests per second from one IP address. If unspecified, defaults to 1.
 - **block_response_code** - The response status code returned when a request is blocked. If unspecified, defaults to 503.
 - **is_enabled** - Enables or disables the address rate limiting Web Application Firewall feature.
 - **max_delayed_count_per_address** - The maximum number of requests allowed to be queued before subsequent requests are dropped. If unspecified, defaults to 10.
- **caching_rules** - A list of caching rules applied to the web application.
 - **action** - The action to take on matched caching rules.
 - **CACHE**: Allow to set caching rule, which would be cached.
 - **BYPASS_CACHE**: Allow to set caching rule, which would never be cached. e.g. all requests would be passed directly to origin for those file types.
 - **caching_duration** - The caching duration (applies only to **CACHE** action) specified in ISO 8601 extended format. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - **client_caching_duration** - The client caching duration (applies only to **CACHE** action) specified in ISO 8601 extended format, in case client caching enabled. It sets Cache-Control header max-age time, i.e. the local browser cache expire time. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - **criteria** - The array of the rule criteria with condition and value.
 - **condition** - The condition of the caching rule criteria.
 - **URL_IS**: Matches if the concatenation of request URL path and query is identical to the contents of the **value** field.
 - **URL_STARTS_WITH**: Matches if the concatenation of request URL path and query starts with the contents of the **value** field.
 - **URL_PART_ENDS_WITH**: Matches if the concatenation of request URL path and query ends with the contents of the **value** field.
 - **URL_PART_CONTAINS**: Matches if the concatenation of request URL path and query contains the contents of the **value** field.

URL must start with /

URL can't contain restricted double slashes //

URL can't contain restricted ' & ? symbols

- `value` - The value of the caching rule criteria.
- `is_client_caching_enabled` - Enables or disables the client caching. Browsers use the Cache-Control header value for caching content locally, in the browser. This setting will control the addition of a Cache-Control header to responses. It overrides existing Cache-Control headers.
- `key` - The unique key for the caching rule.
- `name` - The name of the caching rule.
- `captchas` - A list of CAPTCHA challenge settings. These are used to challenge requests with a CAPTCHA to block bots.
 - `failure_message` - The text to show when incorrect CAPTCHA text is entered. If unspecified, defaults to `The CAPTCHA was incorrect. Try again.`
 - `footer_text` - The text to show in the footer when showing a CAPTCHA challenge. If unspecified, defaults to `'Enter the letters and numbers as they are shown in the image above.'`
 - `header_text` - The text to show in the header when showing a CAPTCHA challenge. If unspecified, defaults to `'We have detected an increased number of attempts to access this website. To help us keep this site secure, please let us know that you are not a robot by entering the text from the image below.'`
 - `session_expiration_in_seconds` - The amount of time before the CAPTCHA expires, in seconds. If unspecified, defaults to `300`.
 - `submit_label` - The text to show on the label of the CAPTCHA challenge submit button. If unspecified, defaults to `Yes, I am human.`
 - `title` - The title used when displaying a CAPTCHA challenge. If unspecified, defaults to `Are you human?`
 - `url` - The unique URL path at which to show the CAPTCHA challenge.
- `custom_protection_rules` - A list of the custom protection rule OCIDs and their actions.
 - `action` - The action to take when the Custom Protection rule is triggered.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `device_fingerprint_challenge` - The device fingerprint challenge settings. Used to detect unique devices based on the device fingerprint information collected in order to block bots.
 - `action` - The action to take on requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.

- `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
- `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
- `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
- `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
- `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
- `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`
- `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human.`
- `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - The number of failed requests allowed before taking action. If unspecified, defaults to `10`.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to `60`.
- `is_enabled` - Enables or disables the device fingerprint challenge Web Application Firewall feature.
- `max_address_count` - The maximum number of IP addresses permitted with the same device fingerprint. If unspecified, defaults to `20`.
- `max_address_count_expiration_in_seconds` - The number of seconds before the maximum addresses count resets. If unspecified, defaults to `60`.
- `human_interaction_challenge` - The human interaction challenge settings. Used to look for natural human interactions such as mouse movements, time on site, and page scrolling to identify bots.
 - `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.

- `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
 - `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
 - `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`
 - `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human.`
 - `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - The number of failed requests before taking action. If unspecified, defaults to `10`.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to `60`.
- `interaction_threshold` - The number of interactions required to pass the challenge. If unspecified, defaults to `3`.
- `is_enabled` - Enables or disables the human interaction challenge Web Application Firewall feature.
- `recording_period_in_seconds` - The number of seconds to record the interactions from the user. If unspecified, defaults to `15`.
- `set_http_header` - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the `action` is set to `DETECT`.
 - `name` - The name of the header.

- `value` - The value of the header.
- `js_challenge` - The JavaScript challenge settings. Used to challenge requests with a JavaScript challenge and take the action if a browser has no JavaScript support in order to block bots.
 - `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges from the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
 - `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
 - `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`
 - `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human.`
 - `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
 - `failure_threshold` - The number of failed requests before taking action. If unspecified, defaults to `10`.
 - `is_enabled` - Enables or disables the JavaScript challenge Web Application Firewall feature.
 - `set_http_header` - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the `action` is set to `DETECT`.
 - `name` - The name of the header.

- `value` - The value of the header.
- `origin` - The key in the map of origins referencing the origin used for the Web Application Firewall. The origin must already be included in `Origins`. Required when creating the `WafConfig` resource, but not on update.
- `origin_groups` - The list of origin group references that provide support for additional origin servers. A list of combined unique origin servers from `origin` and `originGroups` will be used.
- `protection_settings` - The settings to apply to protection rules.
 - `allowed_http_methods` - The list of allowed HTTP methods. If unspecified, default to `[OPTIONS, GET, HEAD, POST]`. This setting only applies if a corresponding protection rule is enabled, such as the "Restrict HTTP Request Methods" rule (key: 911100).
 - `block_action` - If `action` is set to `BLOCK`, this specifies how the traffic is blocked when detected as malicious by a protection rule. If unspecified, defaults to `SET_RESPONSE_CODE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `'Access to the website is blocked.'`
 - `block_response_code` - The response code returned when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403`.
 - `is_response_inspected` - Inspects the response body of origin responses. Can be used to detect leakage of sensitive data. If unspecified, defaults to `false`.

Note: Only origin responses with a Content-Type matching a value in `mediaTypes` will be inspected.

- `max_argument_count` - The maximum number of arguments allowed to be passed to your application before an action is taken. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `255`. This setting only applies if a corresponding protection rule is enabled, such as the "Number of Arguments Limits" rule (key: 960335). Example: If `maxArgumentCount` to `2` for the Max Number of Arguments protection rule (key: 960335), the following requests would be blocked: `GET /myapp/path?query=one&query=two&query=three` `POST /myapp/path` with Body `{"argument1": "one", "argument2": "two", "argument3": "three"}`
- `max_name_length_per_argument` - The maximum length allowed for each argument name, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `400`. This setting only applies if a corresponding protection rule is enabled, such as the "Values Limits" rule (key: 960208).
- `max_response_size_in_ki_b` - The maximum response size to be fully inspected, in binary kilobytes (KiB). Anything over this limit will be partially inspected. If unspecified, defaults to `1024`.
- `max_total_name_length_of_arguments` - The maximum length allowed for the sum of the argument

name and value, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to 64000 . This setting only applies if a corresponding protection rule is enabled, such as the "Total Arguments Limits" rule (key: 960341).

- `media_types` - The list of media types to allow for inspection, if `isResponseInspected` is enabled. Only responses with MIME types in this list will be inspected. If unspecified, defaults to `["text/html", "text/plain", "text/xml"]`.

Supported MIME types include:

- `text/html`
 - `text/plain`
 - `text/asp`
 - `text/css`
 - `text/x-script`
 - `application/json`
 - `text/webviewhtml`
 - `text/x-java-source`
 - `application/x-javascript`
 - `application/javascript`
 - `application/ecmascript`
 - `text/javascript`
 - `text/ecmascript`
 - `text/x-script.perl`
 - `text/x-script.python`
 - `application/plain`
 - `application/xml`
 - `text/xml`
- `recommendations_period_in_days` - The length of time to analyze traffic traffic, in days. After the analysis period, `WafRecommendations` will be populated. If unspecified, defaults to 10 .

Use `GET /waasPolicies/{waasPolicyId}/wafRecommendations` to view WAF recommendations.

- `whitelists` - A list of IP addresses that bypass the Web Application Firewall.

- `addresses` - A set of IP addresses or CIDR notations to include in the whitelist.
- `name` - The unique name of the whitelist.

Data Source: oci_waas_waas_policy

This data source provides details about a specific Waas Policy resource in Oracle Cloud Infrastructure Waas service.

Gets the details of a WAAS policy.

Example Usage

```
data "oci_waas_waas_policy" "test_waas_policy" {  
  #Required  
  waas_policy_id = "${oci_waas_waas_policy.test_waas_policy.id}"  
}
```

Argument Reference

The following arguments are supported:

- `waas_policy_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy.

Attributes Reference

The following attributes are exported:

- `additional_domains` - An array of additional domains for this web application.
- `cname` - The CNAME record to add to your DNS configuration to route traffic for the domain, and all additional domains, through the WAF.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the WAAS policy. The name can be changed and does not need to be unique.
- `domain` - The web application domain that the WAAS policy protects.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy.

- **origin_groups** - The map of origin groups and their keys used to associate origins to the wafConfig.
 - **origins** - The list of objects containing origin references and additional properties.
- **origins** - A map of host servers (origins) and their keys for the web application. Origin keys are used to associate origins to specific protection rules. The key should be a user-friendly name for the host. **Examples:** `primary` or `secondary`.
 - **custom_headers** - A list of HTTP headers to forward to your origin.
 - **name** - The name of the header.
 - **value** - The value of the header.
 - **http_port** - The HTTP port on the origin that the web application listens on. If unspecified, defaults to `80`.
 - **https_port** - The HTTPS port on the origin that the web application listens on. If unspecified, defaults to `443`.
 - **uri** - The URI of the origin. Does not support paths. Port numbers should be specified in the `httpPort` and `httpsPort` fields.
- **policy_config** -
 - **certificate_id** - The OCID of the SSL certificate to use if HTTPS is supported.
 - **cipher_group** - The cipher group
 - **DEFAULT:** Cipher group supports TLS 1.0, TLS 1.1, TLS 1.2, TLS 1.3 protocols. It has the following ciphers enabled: `ECDHE-RSA-AES128-GCM-SHA256:ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-AES256-GCM-SHA384:DHE-RSA-AES128-GCM-SHA256:DHE-DSS-AES128-GCM-SHA256:kEDH+AESGCM:ECDHE-RSA-AES128-SHA256:ECDHE-ECDSA-AES128-SHA256:ECDHE-RSA-AES128-SHA:ECDHE-ECDSA-AES128-SHA:ECDHE-RSA-AES256-SHA384:ECDHE-ECDSA-AES256-SHA384:ECDHE-RSA-AES256-SHA:ECDHE-ECDSA-AES256-SHA:DHE-RSA-AES128-SHA256:DHE-RSA-AES128-SHA:DHE-DSS-AES128-SHA256:DHE-RSA-AES256-SHA256:DHE-DSS-AES256-SHA:DHE-RSA-AES256-SHA:AES128-GCM-SHA256:AES256-GCM-SHA384:AES128-SHA256:AES256-SHA256:AES128-SHA:AES256-SHA:AES:CAMELLIA:!DES-CBC3-SHA:!aNULL:!eNULL:!EXPORT:!DES:!RC4:!MD5:!PSK:!aECDH:!EDH-DSS-DES-CBC3-SHA:!EDH-RSA-DES-CBC3-SHA:!KRB5-DES-CBC3-SHA`
 - **client_address_header** - The HTTP header used to pass the client IP address from the CDN if `isBehindCdn` is enabled. This feature consumes the header and its value as the true client IP address. It does not create the header. Using trusted chains (for example `X-Client-Ip: 11.1.1.1, 13.3.3.3`), the last IP address in the list will be used as true client IP address. In case of multiple headers with the same name, the first one will be used. If the header is not present it will use the connecting IP address as the true client IP address. It's assumed that CDN sets the correct client IP address and prevents spoofing.
 - **X_FORWARDED_FOR:** Corresponds to `X-Forwarded-For` header name.
 - **X_CLIENT_IP:** Corresponds to `X-Client-Ip` header name.
 - **X_REAL_IP:** Corresponds to `X-Real-Ip` header name.
 - **CLIENT_IP:** Corresponds to `Client-Ip` header name.
 - **TRUE_CLIENT_IP:** Corresponds to `True-Client-Ip` header name.
 - **is_behind_cdn** - Enable or disable the use of CDN. It allows to specify true client IP address if clients do not connect directly to us.
 - **is_cache_control_respected** - Enable or disable automatic content caching based on the response `cache-control` header. This feature enables the origin to act as a proxy cache. Caching policies are usually defined

using `cache-control` header. For example `cache-control: max-age=120` means that the returned resource is valid for 120 seconds. Caching rules will overwrite this setting.

- `is_https_enabled` - Enable or disable HTTPS support. If true, a `certificateId` is required. If unspecified, defaults to `false`.
- `is_https_forced` - Force HTTP to HTTPS redirection. If unspecified, defaults to `false`.
- `is_origin_compression_enabled` - Enable or disable GZIP compression of origin responses. If enabled, the header `Accept-Encoding: gzip` is sent to origin, otherwise - empty `Accept-Encoding:` header is used.
- `is_response_buffering_enabled` - Enable or disable buffering of responses from the origin. Buffering improves overall stability in case of network issues, but slightly increases Time To First Byte.
- `tls_protocols` - A list of allowed TLS protocols. Only applicable when HTTPS support is enabled. It affects client's connection to the edge nodes. The most secure TLS version will be chosen.
 - `TLS_V1`: corresponds to TLS 1.0 specification.
 - `TLS_V1_1`: corresponds to TLS 1.1 specification.
 - `TLS_V1_2`: corresponds to TLS 1.2 specification.
 - `TLS_V1_3`: corresponds to TLS 1.3 specification.

Enabled TLS protocols must go in a row. For example if `TLS_v1_1` and `TLS_V1_3` are enabled, `TLS_V1_2` must be enabled too.

- `state` - The current lifecycle state of the WAAS policy.
- `time_created` - The date and time the policy was created, expressed in RFC 3339 timestamp format.
- `waf_config` -
 - `access_rules` - The access rules applied to the Web Application Firewall. Used for defining custom access policies with the combination of `ALLOW`, `DETECT`, and `BLOCK` rules, based on different criteria.
 - `action` - The action to take when the access criteria are met for a rule. If unspecified, defaults to `ALLOW`.
 - **ALLOW**: Takes no action, just logs the request.
 - **DETECT**: Takes no action, but creates an alert for the request.
 - **BLOCK**: Blocks the request by returning specified response code or showing error page.
 - **BYPASS**: Bypasses some or all challenges.
 - **REDIRECT**: Redirects the request to the specified URL.

Regardless of action, no further rules are processed once the rule is matched.

- `block_action` - The method used to block requests if `action` is set to `BLOCK` and the access criteria are met. If unspecified, defaults to `SET_RESPONSE_CODE`.
- `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access rules'.

- **block_error_page_description** - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access blocked by website owner. Please contact support.'
- **block_error_page_message** - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access to the website is blocked.'
- **block_response_code** - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE`, and the access criteria are met. If unspecified, defaults to 403.
- **bypass_challenges** - The list of challenges to bypass when `action` is set to `BYPASS`. If unspecified or empty, all challenges are bypassed.
 - **JS_CHALLENGE**: Bypasses JavaScript Challenge.
 - **DEVICE_FINGERPRINT_CHALLENGE**: Bypasses Device Fingerprint Challenge.
 - **HUMAN_INTERACTION_CHALLENGE**: Bypasses Human Interaction Challenge.
 - **CAPTCHA**: Bypasses CAPTCHA Challenge.
- **criteria** - The list of access rule criteria.
 - **condition** - The criteria the access rule uses to determine if action should be taken on a request.
 - **URL_IS**: Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_IS_NOT**: Matches if the concatenation of request URL path and query is not identical to the contents of the `value` field.
 - **URL_STARTS_WITH**: Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
 - **URL_PART_ENDS_WITH**: Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
 - **URL_PART_CONTAINS**: Matches if the concatenation of request URL path and query contains the contents of the `value` field.
 - **URL_REGEX**: Matches if the request is described by the regular expression in the `value` field.
 - **IP_IS**: Matches if the request originates from an IP address in the `value` field.
 - **IP_IS_NOT**: Matches if the request does not originate from an IP address in the `value` field.
 - **HTTP_HEADER_CONTAINS**: The **HTTP_HEADER_CONTAINS** criteria is defined using a compound value separated by a colon: a header field name and a header field value.
`host:test.example.com` is an example of a criteria value where `host` is the header field name and `test.example.com` is the header field value. A request matches when the header field name is a case insensitive match and the header field value is a case insensitive, substring match. *Example:* With a criteria value of `host:test.example.com`, where `host` is the name of the field and `test.example.com` is the value of the host field, a request with the header values, `Host: www.test.example.com` will match, where as a request with header values of `host: www.example.com` or `host: test.sub.example.com` will not match.

- **IP_IN_LIST:** Matches if the request originates from one of IP addresses contained in the referenced address list. The `value` in this case is OCID of the address list.
 - **IP_NOT_IN_LIST:** Matches if the request does not originate from any IP address contained in the referenced address list. The `value` field in this case is OCID of the address list.
 - **HTTP_METHOD_IS:** Matches if the request method corresponds to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH
 - **HTTP_METHOD_IS_NOT:** Matches if the request method does not correspond to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH
 - **COUNTRY_IS:** Matches if the request originates from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
 - **COUNTRY_IS_NOT:** Matches if the request does not originate from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
 - **USER_AGENT_IS:** Matches if the requesting user agent is identical to the contents of the `value` field. Example: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0
 - **USER_AGENT_IS_NOT:** Matches if the requesting user agent is not identical to the contents of the `value` field. Example: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0
- `value` - The criteria value.
 - `name` - The unique name of the access rule.
 - `redirect_response_code` - The response status code to return when `action` is set to REDIRECT .
 - **MOVED_PERMANENTLY:** Used for designating the permanent movement of a page (numerical code - 301).
 - **FOUND:** Used for designating the temporary movement of a page (numerical code - 302).
 - `redirect_url` - The target to which the request should be redirected, represented as a URI reference.
- `address_rate_limiting` - The IP address rate limiting settings used to limit the number of requests from an address.
 - `allowed_rate_per_address` - The number of allowed requests per second from one IP address. If unspecified, defaults to 1 .
 - `block_response_code` - The response status code returned when a request is blocked. If unspecified, defaults to 503 .
 - `is_enabled` - Enables or disables the address rate limiting Web Application Firewall feature.
 - `max_delayed_count_per_address` - The maximum number of requests allowed to be queued before subsequent requests are dropped. If unspecified, defaults to 10 .

- `cache_rules` - A list of caching rules applied to the web application.
 - `action` - The action to take on matched caching rules.
 - **CACHE:** Allow to set caching rule, which would be cached.
 - **BYPASS_CACHE:** Allow to set caching rule, which would never be cached. e.g. all requests would be passed directly to origin for those file types.
 - `cache_duration` - The caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - `client_cache_duration` - The client caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format, in case client caching enabled. It sets Cache-Control header max-age time, i.e. the local browser cache expire time. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - `criteria` - The array of the rule criteria with condition and value.
 - `condition` - The condition of the caching rule criteria.
 - **URL_IS:** Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_STARTS_WITH:** Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
 - **URL_PART_ENDS_WITH:** Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
 - **URL_PART_CONTAINS:** Matches if the concatenation of request URL path and query contains the contents of the `value` field.
- URL must start with /
- URL can't contain restricted double slashes //
- URL can't contain restricted ' & ? symbols
- `value` - The value of the caching rule criteria.
 - `is_client_cache_enabled` - Enables or disables the client caching. Browsers use the Cache-Control header value for caching content locally, in the browser. This setting will control the addition of a Cache-Control header to responses. It overrides existing Cache-Control headers.
 - `key` - The unique key for the caching rule.
 - `name` - The name of the caching rule.
- `captchas` - A list of CAPTCHA challenge settings. These are used to challenge requests with a CAPTCHA to block bots.
 - `failure_message` - The text to show when incorrect CAPTCHA text is entered. If unspecified, defaults to `The CAPTCHA was incorrect. Try again.`
 - `footer_text` - The text to show in the footer when showing a CAPTCHA challenge. If unspecified, defaults to `'Enter the letters and numbers as they are shown in the image above.'`

- `header_text` - The text to show in the header when showing a CAPTCHA challenge. If unspecified, defaults to 'We have detected an increased number of attempts to access this website. To help us keep this site secure, please let us know that you are not a robot by entering the text from the image below.'
 - `session_expiration_in_seconds` - The amount of time before the CAPTCHA expires, in seconds. If unspecified, defaults to 300.
 - `submit_label` - The text to show on the label of the CAPTCHA challenge submit button. If unspecified, defaults to Yes, I am human.
 - `title` - The title used when displaying a CAPTCHA challenge. If unspecified, defaults to Are you human?
 - `url` - The unique URL path at which to show the CAPTCHA challenge.
- `custom_protection_rules` - A list of the custom protection rule OCIDs and their actions.
 - `action` - The action to take when the Custom Protection rule is triggered.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `device_fingerprint_challenge` - The device fingerprint challenge settings. Used to detect unique devices based on the device fingerprint information collected in order to block bots.
 - `action` - The action to take on requests from detected bots. If unspecified, defaults to DETECT.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to 60.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to BLOCK. If unspecified, defaults to SHOW_ERROR_PAGE.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to BLOCK, `blockAction` is set to SHOW_ERROR_PAGE and the request is blocked. If unspecified, defaults to 403.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to BLOCK, `blockAction` is set to SHOW_ERROR_PAGE, and the request is blocked. If unspecified, defaults to Access blocked by website owner. Please contact support.
 - `block_error_page_message` - The message to show on the error page when `action` is set to BLOCK, `blockAction` is set to SHOW_ERROR_PAGE, and the request is blocked. If unspecified, defaults to Access to the website is blocked.
 - `block_response_code` - The response status code to return when `action` is set to BLOCK, `blockAction` is set to SET_RESPONSE_CODE or SHOW_ERROR_PAGE, and the request is blocked. If unspecified, defaults to 403.
 - `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to BLOCK, `blockAction` is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, default to Enter the letters and numbers as they are shown in image above.
 - `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to BLOCK, `blockAction` is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this

webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.

- `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human`.
- `captcha_title` - The title used when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - The number of failed requests allowed before taking action. If unspecified, defaults to `10`.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to `60`.
- `is_enabled` - Enables or disables the device fingerprint challenge Web Application Firewall feature.
- `max_address_count` - The maximum number of IP addresses permitted with the same device fingerprint. If unspecified, defaults to `20`.
- `max_address_count_expiration_in_seconds` - The number of seconds before the maximum addresses count resets. If unspecified, defaults to `60`.
- `human_interaction_challenge` - The human interaction challenge settings. Used to look for natural human interactions such as mouse movements, time on site, and page scrolling to identify bots.
 - `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support`.
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked`.
 - `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified,

default to Enter the letters and numbers as they are shown in image above.

- `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.
- `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Yes, I am human.
- `captcha_title` - The title used when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Are you human?
- `failure_threshold` - The number of failed requests before taking action. If unspecified, defaults to 10.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to 60.
- `interaction_threshold` - The number of interactions required to pass the challenge. If unspecified, defaults to 3.
- `is_enabled` - Enables or disables the human interaction challenge Web Application Firewall feature.
- `recording_period_in_seconds` - The number of seconds to record the interactions from the user. If unspecified, defaults to 15.
- `set_http_header` - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the action is set to `DETECT`.
 - `name` - The name of the header.
 - `value` - The value of the header.
- `js_challenge` - The JavaScript challenge settings. Used to challenge requests with a JavaScript challenge and take the action if a browser has no JavaScript support in order to block bots.
 - `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges from the same IP address. If unspecified, defaults to 60.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if action is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when action is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to 403.
 - `block_error_page_description` - The description text to show on the error page when action is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to Access blocked by website owner. Please contact support.
 - `block_error_page_message` - The message to show on the error page when action is set to

BLOCK, blockAction is set to SHOW_ERROR_PAGE, and the request is blocked. If unspecified, defaults to Access to the website is blocked.

- block_response_code - The response status code to return when action is set to BLOCK, blockAction is set to SET_RESPONSE_CODE or SHOW_ERROR_PAGE, and the request is blocked. If unspecified, defaults to 403.
- captcha_footer - The text to show in the footer when showing a CAPTCHA challenge when action is set to BLOCK, blockAction is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, default to Enter the letters and numbers as they are shown in image above.
- captcha_header - The text to show in the header when showing a CAPTCHA challenge when action is set to BLOCK, blockAction is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.
- captcha_submit_label - The text to show on the label of the CAPTCHA challenge submit button when action is set to BLOCK, blockAction is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, defaults to Yes, I am human.
- captcha_title - The title used when showing a CAPTCHA challenge when action is set to BLOCK, blockAction is set to SHOW_CAPTCHA, and the request is blocked. If unspecified, defaults to Are you human?
- failure_threshold - The number of failed requests before taking action. If unspecified, defaults to 10.
- is_enabled - Enables or disables the JavaScript challenge Web Application Firewall feature.
- set_http_header - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the action is set to DETECT.
 - name - The name of the header.
 - value - The value of the header.
- origin - The key in the map of origins referencing the origin used for the Web Application Firewall. The origin must already be included in Origins. Required when creating the WafConfig resource, but not on update.
- origin_groups - The list of origin group references that provide support for additional origin servers. A list of combined unique origin servers from origin and originGroups will be used.
- protection_settings - The settings to apply to protection rules.
 - allowed_http_methods - The list of allowed HTTP methods. If unspecified, default to [OPTIONS, GET, HEAD, POST]. This setting only applies if a corresponding protection rule is enabled, such as the "Restrict HTTP Request Methods" rule (key: 911100).
 - block_action - If action is set to BLOCK, this specifies how the traffic is blocked when detected as malicious by a protection rule. If unspecified, defaults to SET_RESPONSE_CODE.
 - block_error_page_code - The error code to show on the error page when action is set to BLOCK, blockAction is set to SHOW_ERROR_PAGE, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to 403.
 - block_error_page_description - The description text to show on the error page when action is set to

BLOCK , blockAction is set to SHOW_ERROR_PAGE , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to Access blocked by website owner. Please contact support.

- block_error_page_message - The message to show on the error page when action is set to BLOCK , blockAction is set to SHOW_ERROR_PAGE , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to 'Access to the website is blocked.'
- block_response_code - The response code returned when action is set to BLOCK , blockAction is set to SET_RESPONSE_CODE , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to 403 .
- is_response_inspected - Inspects the response body of origin responses. Can be used to detect leakage of sensitive data. If unspecified, defaults to false .

Note: Only origin responses with a Content-Type matching a value in mediaTypes will be inspected.

- max_argument_count - The maximum number of arguments allowed to be passed to your application before an action is taken. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to 255 . This setting only applies if a corresponding protection rule is enabled, such as the "Number of Arguments Limits" rule (key: 960335). Example: If maxArgumentCount to 2 for the Max Number of Arguments protection rule (key: 960335), the following requests would be blocked: GET /myapp/path?query=one&query=two&query=three POST /myapp/path with Body {"argument1": "one", "argument2": "two", "argument3": "three"}
- max_name_length_per_argument - The maximum length allowed for each argument name, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to 400 . This setting only applies if a corresponding protection rule is enabled, such as the "Values Limits" rule (key: 960208).
- max_response_size_in_ki_b - The maximum response size to be fully inspected, in binary kilobytes (KiB). Anything over this limit will be partially inspected. If unspecified, defaults to 1024 .
- max_total_name_length_of_arguments - The maximum length allowed for the sum of the argument name and value, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to 64000 . This setting only applies if a corresponding protection rule is enabled, such as the "Total Arguments Limits" rule (key: 960341).
- media_types - The list of media types to allow for inspection, if isResponseInspected is enabled. Only responses with MIME types in this list will be inspected. If unspecified, defaults to ["text/html", "text/plain", "text/xml"] .

Supported MIME types include:

- text/html
- text/plain
- text/asp
- text/css
- text/x-script
- application/json
- text/webviewhtml

- text/x-java-source
 - application/x-javascript
 - application/javascript
 - application/ecmascript
 - text/javascript
 - text/ecmascript
 - text/x-script.perl
 - text/x-script.phyton
 - application/plain
 - application/xml
 - text/xml
- `recommendations_period_in_days` - The length of time to analyze traffic traffic, in days. After the analysis period, `WafRecommendations` will be populated. If unspecified, defaults to 10 .

Use `GET /waasPolicies/{waasPolicyId}/wafRecommendations` to view WAF recommendations.

- `whitelists` - A list of IP addresses that bypass the Web Application Firewall.
 - `addresses` - A set of IP addresses or CIDR notations to include in the whitelist.
 - `name` - The unique name of the whitelist.

Terraform Provider Best Practices

Following are recommended best practices for writing configurations for the Oracle Cloud Infrastructure Terraform provider.

Referencing Images

When launching Compute instances, your Terraform configuration should use the same image every time you execute a Terraform Apply command.

To ensure this, specify the image OCID directly, rather than locating it using the `oci_core_image` data source. This is because the `oci_core_image` data source calls into the ListImages API, whose return values can change over time as new images are periodically added and older ones deleted. For a list of Oracle-Provided images and their OCIDs, see Oracle-Provided Images (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/images.htm>). For more information, see the write up in this issue: Results of `oci_core_images` will change over time for Oracle-provided images (<https://github.com/oracle/terraform-provider-oci/issues/352>).

We recommend the following pattern for specifying an image for a given region:

```
variable "image_id" {
  type = "map"
  default = {
    // See https://docs.cloud.oracle.com/iaas/images/
    // Oracle-provided image "Oracle-Linux-7.5-2018.10.16-0"
    us-phoenix-1 = "ocid1.image.oc1.phx.aaaaaaaaaojq42sokaoh42l76wsyhn3k2beuntrh5maj3gmgmzeyr55zzrwwa"
    us-ashburn-1 = "ocid1.image.oc1.iad.aaaaaaaageeenzyuxgia726xur4ztaoxbxyjlxogdhreu3ngfj2gji3bayda"
    eu-frankfurt-1 = "ocid1.image.oc1.eu-frankfurt-1.aaaaaaaaitzn6tdyjer7jl34h2ujz74jwy5nkbukbh55ekp6oyzwrtfa4zma"
    uk-london-1 = "ocid1.image.oc1.uk-london-1.aaaaaaa32voyikkkzfxyo4xbdmadc2dmvorfxgdxhpnk6dw64fa3l4jh7wa"
  }
}
```

A Compute instance can use this in the following way:

```
resource "oci_core_instance" "TFInstance" {
  image = "${var.image_id[var.region]}"
  ...
}
```

Availability Domains

With respect to Availability Domains, we caution against the common pattern of iterating over the results of the `oci_identity_availability_domains` data source, as shown here:

```
// Get all availability domains for the region
data "oci_identity_availability_domains" "ads" {
  compartment_id = "${var.tenancy_ocid}"
}

// Then either use it to get a single AD name based on the index:
resource "oci_core_instance" "nat" {
  availability_domain = "${lookup(data.oci_identity_availability_domains.ads.availability_domains[var.nat_instance_ad], "name")}"
  ...
}

// Or iterate through all the ADs:
resource "oci_core_subnet" "nat" {
  count = "${length(data.oci_identity_availability_domains.ads.availability_domains)}"
  availability_domain = "${lookup(data.oci_identity_availability_domains.ad.availability_domains[count.index], "name")}"
  ...
}
```

The recommendation is to explicitly list the Availability Domain names for the regions in your configuration. To do so, use a variable that you have defined as follows:

```
variable "ad_list" {
  type = "list"
}
```

You can then use the variable as shown here:

```
// Index:
resource "oci_core_instance" "nat" {
  availability_domain = "${var.ad_list[var.nat_instance_ad_index]}"
  ...
}

// Or iterate through all the ADs:
resource "oci_core_subnet" "nat" {
  count = "${length(var.ad_list)}"
  availability_domain = "${var.ad_list[count.index]}"
  ...
}
```

You can then set the `ad_list` variable directly by using the availability domain names for your tenant and region, as shown here:

```
variable "ad_list" {
  type = "list"
  default = ["kIdk:PHX-AD-1", "kIdk:PHX-AD-2", "kIdk:PHX-AD-3"]
}
```

The advantage of using this method is that it gives you control over your availability domain usage and prevents unexpected changes over time. However, this approach is problematic when configurations are shared between tenancies and regions, since availability domain names are tenancy and region-specific.

A convenient alternative is to instead set the `ad_list` value by using the `oci_identity_availability_domains` data source. You should do this in the configuration, then pass them into the resources or modules. This effectively centralizes the list of ADs, making it is easy to switch to an explicit list later, should that become necessary.

```
data "oci_identity_availability_domains" "ad" {
  compartment_id = "${var.tenancy_ocid}"
}

data "template_file" "ad_names" {
  count = "${length(data.oci_identity_availability_domains.ad.availability_domains)}"
  template = "${lookup(data.oci_identity_availability_domains.ad.availability_domains[count.index], "name")}"
}

module "ssm_network" {
  ad_list = "${data.template_file.ad_names.*.rendered}"
  ...
}
```

OCI Terraform Provider Boot volume reuse and troubleshooting

This guide details the following scenarios:

1. Preserving boot volume when performing instance scaling
2. Boot volume troubleshooting and repair

To read more about boot volumes, see [Boot Volumes](#)

(<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/bootvolumes.htm>)

Preserve boot volume with instance scaling

You may want to upscale / downscale instances (change instance shape) while using the same boot volume. When you terminate your instance, you can keep the associated boot volume and use it to launch a new instance using a different instance type or shape.

To achieve this, you need to detach the boot volume from the running instance. This can be performed by either terminating the instance while preserving the boot volume or by stopping the instance and detaching the boot volume,

All terraform resources of type `oci_core_instance` have the parameter `preserve_boot_volume` set as true by default. This parameter ensures that upon termination of the instance, the attached boot volume is not terminated.

```
resource "oci_core_instance" "TFInstance" {
  ...
  state = "STOPPED"           // set this state to stop the instance
  preserve_boot_volume = true
}

output "bootVolumeFromInstance" {
  value = ["${oci_core_instance.TFInstance.boot_volume_id}"]
}
```

Once the boot volume is detached, the OCID of the boot volume can be referred as the source of the new instance, as illustrated below

```
resource "oci_core_instance" "TFScaleInstance" {
  ...
  source_details {
    source_type = "bootVolume"

    // reference the original boot volume id here
    source_id   = "ocid1.bootvolume.oc1.phx.aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa"
  }
}
```

OCI Terraform Provider boot volume troubleshooting and repair

If you think a boot volume issue is causing a compute instance problem, you can stop the instance and detach the boot volume. Then you can attach it to another instance as a data volume to troubleshoot it. After resolving the issue, you can then reattach it to the original instance or use it to launch a new instance.

Once the boot volume has been detached, the OCID of the boot volume can be referred as the block volume parameter for another instance.

[illegible]

Once you have resolved the issue, detach this volume from the second instance and attach it as a boot volume to the original instance.

[illegible]

OCI Terraform Provider Deprecation Guide

This guide covers the list of resources and data sources that have been marked deprecated and their respective suggested replacements, if any.

Resources and Data Sources marked for deprecation will be warned during Terraform `plan` and `apply` operations.

Resources on path to deprecation may stop working in future, use the respective guide, if available, on how to migrate using the new replacements.

Deprecated Resources and Data Sources

Resources that have a migration path have deprecation guides available on how to rename and migrate them to their new replacements.

Data Sources do not have deprecation guide as one should be able to directly replace them in their Terraform configuration and refresh the state.

Legend: How to use deprecation table below:

Column	Details
Version	Provider version in which said resource or data source was marked deprecated
Type	Type of the deprecated resource or data source
Old Deprecated Resource Name	Deprecated resource or data source name
New Resource Name	New resource or data source name that will provide the same functionality
Migration?	If migration is possible to the new resource through Terraform <code>state import</code>
Guide	Link to deprecation guide on how to rename and migrate to new resource, if applicable

IMPORTANT: Before executing any deprecation guide, please ensure that you have backed up your Terraform state file to avoid any **data loss**.

Version	Type	Old Deprecated Resource Name	New Resource Name	Migration?	Guide
3.18	Resource	oci_autonomous_data_warehouse	oci_autonomous_database	Yes	Link (/docs/providers/oci/r/database_autonomous_data_warehouse.html#depr guide)
3.18	Data Source	oci_autonomous_data_warehouse	oci_autonomous_database	N/A	N/A
3.18	Data Source	oci_autonomous_data_warehouses	oci_autonomous_databases	N/A	N/A
3.18	Resource	oci_autonomous_data_warehouse_backup	oci_autonomous_database_backup	Yes	Link (/docs/providers/oci/r/database_autonomous_data_warehouse_backup.html#c guide)
3.18	Data Source	oci_autonomous_data_warehouse_backup	oci_autonomous_database_backup	N/A	N/A
3.18	Data Source	oci_autonomous_data_warehouse_backups	oci_autonomous_database_backups	N/A	N/A
2.1.12	Resource	oci_swift_password	oci_identity_auth_token	No	N/A
2.1.12	Data Source	oci_swift_passwords	oci_identity_auth_tokens	N/A	N/A

Deprecated Fields

Deprecation notices including for fields can be found in any of the previously released CHANGELOG (<https://github.com/terraform-providers/terraform-provider-oci/blob/master/CHANGELOG.md>).
Deprecated fields will be shown as deprecated during Terraform `plan` and `apply` operations.

Deprecation Message Examples

- Resource - The 'oci_autonomous_data_warehouse' resource has been deprecated. Please use 'oci_autonomous_database' instead.
- Fields - The 'size_in_mbs' field has been deprecated. Please use 'size_in_gbs' instead.

FAQ for the Oracle Cloud Infrastructure Terraform provider

Q: What is Oracle Cloud Infrastructure?

<https://cloud.oracle.com/infrastructure/architecture> (<https://cloud.oracle.com/infrastructure/architecture>)

Q: What is Terraform?

Terraform is an orchestration engine and language that enables you to safely and predictably create, change, and improve production infrastructure. It is an open source tool that codifies APIs into declarative configuration files that can be shared amongst team members, treated as code, edited, reviewed, and versioned.

Q: What is a Terraform provider?

Terraform is agnostic to the underlying cloud platform, it implements this with the provider model. Providers are pieces of software that act as an interface between the Cloud provider and the Terraform engine. There is a list of additional providers here - <https://www.terraform.io/docs/providers/> (<https://www.terraform.io/docs/providers/>).

Q: Can I use Terraform to manage my infrastructure in multiple clouds?

Yes, Terraform supports configurations that can span multiple clouds and can allow you to manage infrastructure and resources in those clouds.

Q: What can I do with Terraform I can't do with the APIs?

Terraform allows you to define infrastructure configurations and then have those configurations implemented/created by Terraform automatically. In this respect, you could compare Terraform to similar solutions like OpenStack Heat, AWS CloudFormation, and others. <http://blog.scottlowe.org/2015/11/25/intro-to-terraform/> (<http://blog.scottlowe.org/2015/11/25/intro-to-terraform/>)

Q: Can I use Terraform to manage both Oracle Public Cloud and Oracle Cloud Infrastructure?

Yes. The Oracle Public Cloud Terraform provider is located here - <https://github.com/terraform-providers/terraform-provider-opc> (<https://github.com/terraform-providers/terraform-provider-opc>). See - <http://darylscorner.com/2016/11/using-terraform-across-multiple-cloud-providers/> (<http://darylscorner.com/2016/11/using-terraform-across-multiple-cloud-providers/>) for examples of Terraform multi-cloud configurations.

Q: What happens if I change infrastructure I'm managing with Terraform outside of Terraform?

The change you made outside of Terraform will be overwritten the next time you apply the configuration unless you add the `ignore_changes` parameter to the resource in the configuration file.

Q: How do I get help?

First, see if your question is already answered by the troubleshooting guide
(<https://www.terraform.io/docs/providers/oci/guides/troubleshooting.html>)

You can also file an issue against the project

<https://github.com/terraform-providers/terraform-provider-oci/issues> (<https://github.com/terraform-providers/terraform-provider-oci/issues>)

or meet us in the OCI forums <https://community.oracle.com/community/oracle-cloud/cloud-infrastructure/>
(<https://community.oracle.com/community/oracle-cloud/cloud-infrastructure/>)

Data Sources Filtering

Data sources that return lists of resources support filtering semantics. To employ a filter include this block in your data source definition:

```
filter {
  name = ""
  values = [""]
}
```

The `name` value corresponds to the qualified property name to filter with and the `values` lists can contain one or more values filter with.

Nested properties and map elements can be addressed by qualifying the property name with parent property name. Example `r1` will give all the instances which have `source_type` image. Example `r2` will give all the instances which contain a defined tag with value "42" for key `CostCenter` in the namespace `Operations`

```
data "oci_core_instances" "r1" {
  ...
  filter {
    name = "source_details.source_type"
    values = ["image"]
  }
}

data "oci_core_instances" "r2" {
  ...
  filter {
    name = "defined_tags.Operations.CostCenter"
    values = ["42"]
  }
}
```

Multiple `values` work as an **OR** type filter. In the shape example below, the resulting data source would contain both VM shapes *Standard 1.1* and *Standard 1.2*:

```
data "oci_core_shape" "t" {
  ...
  filter {
    name = "name"
    values = ["VM.Standard1.1", "VM.Standard1.2"]
  }
}
```

Multiple filters blocks can be composed to form **AND** type comparisons. The example below will return a data source containing *running instances* in the *first AD* of a region:

```
data "oci_core_instances" "s" {  
  ...  
  filter {  
    name = "availability_domain"  
    values = ["\\w*-AD-1"]  
    regex = true  
  }  
  
  filter {  
    name = "state"  
    values = ["RUNNING"]  
  }  
}
```

As shown above, filters can also employ regular expressions. By setting `regex = true`, each item in the `values` list will be treated as a regular expression. Note that backslashes in strings for regular expression special characters need to be escaped with another slash, shown above as the first `\` before `w` in `"\\w*-AD-1"`.

Limitations

Drilling into lists of structured objects is not currently supported. If these properties are targeted no results will be returned from the datasource.

Managing Default Virtual Cloud Network Resources

When you create an `oci_core_vcn` ([/docs/providers/oci/r/core_vcn.html](/docs/providers/oci/r/core_vcn.html)) resource, it will also create the following associated resources by default.

- `oci_core_security_list` ([/docs/providers/oci/r/core_security_list.html](/docs/providers/oci/r/core_security_list.html))
- `oci_core_dhcp_options` ([/docs/providers/oci/r/core_dhcp_options.html](/docs/providers/oci/r/core_dhcp_options.html))
- `oci_core_route_table` ([/docs/providers/oci/r/core_route_table.html](/docs/providers/oci/r/core_route_table.html))

These default resources will be implicitly created even if they are not specified in the Terraform configuration. Their OCIDs are returned by the following attributes under the `oci_core_vcn` resource:

- `default_security_list_id`
- `default_dhcp_options_id`
- `default_route_table_id`

Default resources must be configured in Terraform using a separate resource type. Here are the mappings between the resource and the new resource type to use for configuring default resources: - `oci_core_security_list` => `oci_core_default_security_list` - `oci_core_dhcp_options` => `oci_core_default_dhcp_options` - `oci_core_route_table` => `oci_core_default_route_table`

Default resources types are configured in the same way as their non-default counterparts. The only difference is specifying the ID of the default resource using the `manage_default_resource_id` argument.

Consequently, the `compartment_id` and `vcn_id` are no longer necessary for default resources.

Example Usage

Modifying a VCN's default DHCP options

```

resource "oci_core_vcn" "vcn1" {
  cidr_block = "10.0.0.0/16"
  dns_label = "vcn1"
  compartment_id = "${var.compartment_ocid}"
  display_name = "vcn1"
}

resource "oci_core_default_dhcp_options" "default-dhcp-options" {
  manage_default_resource_id = "${oci_core_vcn.vcn1.default_dhcp_options_id}"

  // required
  options {
    type = "DomainNameServer"
    server_type = "VcnLocalPlusInternet"
  }

  // optional
  options {
    type = "SearchDomain"
    search_domain_names = [ "abc.com" ]
  }
}

```

Limitations

Default resources can only be removed when the associated `oci_core_vcn` resource is removed. When attempting a targeted removal of a default resource, the resource will be removed from the Terraform state file but the resource may still exist in OCI with empty settings.

Examples of targeted removal include:

- Removing a default resource from a Terraform configuration that was previously applied
- Running a `terraform destroy -target=<default resource>` command
- Changing the `manage_default_resource_id` for a default resource that was previously applied

Using the Object Store for Terraform State Files

You can store Terraform state files (<https://www.terraform.io/docs/state/index.html>) in the Oracle Cloud Infrastructure Object Storage. Doing so requires that you configure a backend using one of the Terraform backend types.

Terraform supports various backend types to allow flexibility in how state files are loaded into Terraform. (For more information, see [Terraform Backend Types \(https://www.terraform.io/docs/backends/types/index.html\)](https://www.terraform.io/docs/backends/types/index.html).) For our purposes, we address two of these approaches:

- Using an HTTP remote state backend
- Using an S3-compatible remote state backend

Using an HTTP Backend

Using the HTTP backend type (<https://www.terraform.io/docs/backends/types/http.html>) allows you to store state using a simple REST client. With the HTTP backend type, you can easily fetch, update, and purge state using the HTTP GET, POST, and DELETE methods.

To configure the HTTP backend to store your Oracle Cloud Infrastructure Terraform state files, do the following:

Create a Pre-Authenticated Request

Creating a pre-authenticated request in Oracle Object Storage enables accessing a bucket or object in the Oracle Cloud Infrastructure without needing to provide credentials. To do so, you must create a pre-authenticated request that has read/write permissions to the object store where you intend to save the Terraform state file. You can do so in any of three ways: by using the Console UI, by using the command line interface (CLI), or by using the REST APIs.

Note

A state file must exist in the bucket before you create the pre-authenticated request. This file can be an existing state file, or an empty file for the initial state.

For guidance, see [Using Pre-Authenticated Requests \(https://docs.cloud.oracle.com/iaas/Content/Object/Tasks/usingpreauthenticatedrequests.htm\)](https://docs.cloud.oracle.com/iaas/Content/Object/Tasks/usingpreauthenticatedrequests.htm).

Upload Existing State

If you have an existing state file, you can upload it using Curl to make an HTTP Put request to the object store URL, as shown here:

```
curl -X PUT -H "Content-Type: text/plain" --data-binary "@path/to/local/tfstate" http://<prefix>/<my-access-uri>
```

Configure HTTP as a Terraform Backend

The HTTP backend type (<https://www.terraform.io/docs/backends/types/http.html>) stores state using a simple REST client and allows you to easily fetch, update, and purge state using the HTTP GET, POST, and DELETE methods.

The access URI for addressing Oracle Cloud Infrastructure Terraform configurations must be of the form: <https://objectstorage.us-phoenix-1.oraclecloud.com/my-access-uri> (<https://objectstorage.us-phoenix-1.oraclecloud.com/my-access-uri>) (where region and access URI are specific to you).

For more example configuration and state files that reference code, and a summary of configuration variables, see [Standard Backends: HTTP](https://www.terraform.io/docs/backends/types/http.html) (<https://www.terraform.io/docs/backends/types/http.html>).

Following is an example Terraform configuration. The region in the URL can be something other than the Phoenix region.

```
terraform {
  backend "http" {
    address = "https://objectstorage.us-phoenix-1.oraclecloud.com/<my-access-uri>" update_method = "PUT"
  }
}
```

Reinitialize Terraform

Finally, you must reinitialize Terraform and then run the apply command, as shown following.

```
terraform init
terraform apply
```

After completing these steps, you are able to use Oracle Cloud Infrastructure as the backend for storing Terraform state files.

Using an S3-Compatible Backend

Configuring the S3-compatible backend requires that the account be enabled with S3 authentication keys, which are set on a per-user basis.

1. In the Console, open the navigation menu, then, under Governance and Administration, navigate to Identity, then Users. Under User Details, click Amazon S3 Compatibility API Keys. For more guidance, see [Working with Amazon S3 Compatibility API Keys](https://docs.cloud.oracle.com/Content/Identity/Tasks/managingcredentials.htm#s3) (<https://docs.cloud.oracle.com/Content/Identity/Tasks/managingcredentials.htm#s3>).
2. Set the location for the credentials file. The default location is `~/.aws/credentials`. You can set an alternate location by using the S3 backend `shared_credentials_file` option.

Warning

Never set the `access_key` and the `secret_key` attributes in the same Terraform backend configuration, since this creates a security risk.

3. Configure the `[default]` entry in the credentials file with the appropriate object storage credentials. The file can contain any number of credential profiles. If you provide a different profile name, you must also update the backend `profile` option in your Terraform configuration file.

Following is an example of Object Storage credentials:

```
[default]
aws_access_key_id=ocid1.credential.oc1..aaaaaaaasbmhehdme folvqwtbdjgwf sxjsgxgipdbph7odn2brgurgsyztca
aws_secret_access_key=mSTdaWhlbWj3ty4JZXlm0NUZV52xImWjayJLJ60H9A=
```

Where `aws_access_key_id` and `aws_secret_access_key` are user-specific values provided from the Console. The key values provided in the example are not valid and provided as examples only.

4. Set the object storage endpoint value in the following format: `https://{namespace}.compat.objectstorage.{region}.oraclecloud.com`

Following is a full example of an Object Storage backend configuration:

```
terraform {
  backend "s3" {
    bucket   = "terraform-state"
    key      = "terraform.tfstate"
    region   = "us-phoenix-1"
    endpoint = "https://acme.compat.objectstorage.us-phoenix-1.oraclecloud.com"

    skip_region_validation      = true
    skip_credentials_validation = true
    skip_requesting_account_id  = true
    skip_get_ec2_platforms     = true
    skip_metadata_api_check     = true
    force_path_style            = true
  }
}
```

The S3 backend configuration can also be used for the `terraform_remote_state` data source to enable sharing state across Terraform projects.

Once you have configured the backend, you must run `terraform init` to finish the setup. If you already have an existing `terraform.tfstate` file, then Terraform prompts you to confirm that the current state file is the one to upload to the remote state.

For More Information

- Using Pre-Authenticated Requests (<https://docs.cloud.oracle.com/iaas/Content/Object/Tasks/usingpreauthenticatedrequests.htm>)
- State Files (<https://www.terraform.io/docs/state/index.html>)
- Terraform Backend Types (<https://www.terraform.io/docs/backends/types/index.html>)

Tagging OCI Resources

When you have many resources (for example, instances, VCNs, load balancers, and block volumes) across multiple compartments in your tenancy, it can become difficult to track resources used for specific purposes, or to aggregate them, report on them, or take bulk actions on them. Tagging allows you to define keys and values and associate them with resources. You can then use the tags to help you organize and list resources based on your business needs. See [Tagging Overview \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#overview\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#overview) to familiarize yourself with concept of tagging and features available.

Managing Tags and Tag Namespaces

- See [tag_namespaces \(/docs/providers/oci/r/identity_tag_namespace.html\)](/docs/providers/oci/r/identity_tag_namespace.html) for guidance on managing lifecycle of tag namespaces.
- See [tags \(/docs/providers/oci/d/identity_tag_namespaces.html\)](/docs/providers/oci/d/identity_tag_namespaces.html) for guidance on managing lifecycle of tags.

How To Manage Tags on OCI Resources

- **Freeform tags:** Freeform tags are simple key value map
- **Defined tags:** Defined tags provide a key/value map and are organized by combining the tag namespaces with tag keys using dot notation. For example, a tag namespace called `HumanResources` could have a key named `CostCenter`. You then associate the namespace and key `HumanResource.CostCenter` and then assign the desired tag, as shown in the following example.

Examples:

Example 1:

```
//Hand curated way
resource "oci_core_instance" "t" {
  .
  .
  .

  freeform_tags = {
    Environment = "Prod"
    Department = "Ops"
  }
  defined_tags = {
    HumanResources.CostCenter = "42"
    Operations.Project = "Beta"
    HumanResources.Environment = "Production"
  }
}
```

Example 2:

```
//Using Locals(available in terraform 0.10.3 or later) & interpolation

locals {
  //Put all common tags here
  common_tags = "${map(
    "${oci_identity_tag_namespace.tag_namespace1.name}.${oci_identity_tag.tag1.name}"
    , "value",
    "HumanResources.Environment", "Production",
    "Operations.Project", "Beta"
  )}"
}

resource "oci_core_instance" t {
  .
  .
  .

  freeform_tags = "${map("key${count.index}", "value${count.index}",
    "domain", "${lookup(data.oci_identity_availability_domains.ADs.availability_domains[var.AD - 1], "
name")})}"
  )}"

  defined_tags = "${merge(
    local.common_tags,
    map(
      "${oci_identity_tag_namespace.tag_namespace1.name}.${oci_identity_tag.tag2.name}", "awesome-tag-example"
    )
  )}"
}
```

Upgrading to Terraform v0.12

With the release of Terraform v0.12, Oracle Cloud Infrastructure providers will need to be upgraded and some existing configurations may need to be updated as well.

Upgrading the Terraform Oracle Cloud Infrastructure Provider

Terraform Oracle Cloud Infrastructure provider versions 3.26.0 and below are not compatible with Terraform v0.12.

Terraform Oracle Cloud Infrastructure provider version 3.27.0 is the earliest version that supports Terraform v0.12.

Note: All Terraform Oracle Cloud Infrastructure provider versions will remain compatible with Terraform v0.11 and v0.10.

The simplest way to begin using the latest v0.12-compatible provider from the Hashicorp Provider registry is to place an explicit version requirement in your provider configuration block, as shown here:

```
provider "oci" {  
  version      = ">= 3.27.0"  
  region       = "${var.region}"  
  tenancy_ocid = "${var.tenancy_ocid}"  
  user_ocid    = "${var.user_ocid}"  
  fingerprint  = "${var.fingerprint}"  
  private_key_path = "${var.private_key_path}"  
}
```

For guidance using additional version configuration options, see Provider Versions (<https://www.terraform.io/docs/configuration/providers.html#provider-versions>).

Upgrading Terraform configurations

Some users may find that no changes are needed to run existing Terraform configurations with v0.12.

For configurations that do need to be upgraded, see Upgrading Terraform configuration (<https://www.terraform.io/upgrade-guides/0-12.html#upgrading-terraform-configuration>).

Upgrading configurations while preserving v0.11 compatibility

As recommended in Upgrading Terraform configuration (<https://www.terraform.io/upgrade-guides/0-12.html#upgrading-terraform-configuration>), the simplest way to upgrade your configurations is to use the `terraform 0.12upgrade` command.

However, using the `terraform 0.12upgrade` command to upgrade your configurations will render them incompatible with Terraform v0.11 and earlier.

It may be possible to manually upgrade configurations to work with v0.12 while preserving compatibility with v0.11. Not all possible configurations can be made compatible with both v0.11 and v0.12. This method should only be used as a best-effort to preserve compatibility with v0.11.

Prior to making configuration changes, it is strongly recommended that configuration and state files are backed up using version control or other preferred mechanism.

The following describes cases where it is possible to convert existing v0.11 usage to be compatible with both v0.11 and v0.12.

Attributes vs. Blocks

In v0.11, it was possible to treat attributes and nested blocks interchangeably. Note how the attribute `metadata` and the nested block `source_details` are both assigned using only braces.

```
// v0.11 compatible representation
resource "oci_core_instance" "my_instance" {
  metadata {
    ssh_authorized_keys = "${var.ssh_public_key}"
  }

  source_details {
    source_type = "image"
    source_id   = "${var.instance_image_ocid[var.region]}"
    kms_key_id  = "${oci_kms_key.test_key.id}"
  }
}
```

In v0.12, attributes need to be assigned using the `=` operator while blocks need to be assigned using only braces. Note how the attribute `metadata` is now assigned with `=`. This usage is still compatible with v0.11.

```
// v0.12 and v0.11 compatible representation
resource "oci_core_instance" "my_instance" {
  metadata = {
    ssh_authorized_keys = "${var.ssh_public_key}"
  }

  source_details {
    source_type = "image"
    source_id   = "${var.instance_image_ocid[var.region]}"
    kms_key_id  = "${oci_kms_key.test_key.id}"
  }
}
```

Nested blocks with multiple elements

In v0.11, it was possible to wrap lists of nested blocks inside `[]` like this example.

```
// v0.11 compatible representation
resource "oci_core_virtual_circuit" "virtual_circuit_public" {
  public_prefixes = [
    {
      cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block}"
    },
    {
      cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block2}"
    },
    {
      cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block3}"
    },
  ]

  ...
}
```

In v0.12, it is required to specify each nested block individually without wrapping it in `[]`. This usage is still compatible with v0.11.

```
// v0.11 compatible representation
resource "oci_core_virtual_circuit" "virtual_circuit_public" {
  public_prefixes {
    cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block}"
  }
  public_prefixes {
    cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block2}"
  }
  public_prefixes {
    cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block3}"
  }

  ...
}
```

Quotes around attribute names

In v0.11, it was possible to put quotation marks `"` around attribute names. Note how the `min` and `max` attributes have quotation marks around them.

```
// v0.11 compatible representation
resource "oci_core_security_list" "bastion" {
  egress_security_rules {
    destination = "${var.vcn_cidr}"
    protocol    = "${local.tcp_protocol}"

    tcp_options {
      "min" = 22
      "max" = 22
    }
  }

  ...
}
```

In v0.12, quotation marks " around attribute names are no longer allowed.

```
// v0.11 and v0.12 compatible representation
resource "oci_core_security_list" "bastion" {
  egress_security_rules {
    destination = "${var.vcn_cidr}"
    protocol    = "${local.tcp_protocol}"

    tcp_options {
      min = 22
      max = 22
    }
  }

  ...
}
```

Variable names starting with non-alphabetical characters

In v0.11, it was possible to specify variable names that begin with non-alphabetical characters.

```
// v0.11 compatible representation
variable "2TB" {
  default = "2048"
}
```

In v0.12, variable names must begin with alphabetical characters.

```
// v0.11 and v0.12 compatible representation
variable "Size2TB" {
  default = "2048"
}
```

Computing list index values

In v0.11, division operations often resulted in integer values that could be used as a valid index in a list.

```
// v0.11 compatible representation
instance_id      = "${oci_core_instance.TFInstance.*.id[count.index / var.NumParavirtualizedVolumesPerInstance]}"
```

In v0.12, division operations can result in floating point values that may no longer be valid. To avoid this situation, use the `floor` interpolation to convert floating point values to an index.

```
// v0.11 and v0.12 compatible representation
instance_id      = "${oci_core_instance.TFInstance.*.id[floor(count.index / var.NumParavirtualizedVolumesPerInstance)]}"
```


Troubleshooting

When troubleshooting or getting support for the OCI Terraform Provider, it is often useful to first check the status of the OCI services and to collect verbose logging.

Checking OCI service status and outages

To check on the latest status and whether there are any outages in OCI, see [OCI Status \(https://ocistatus.oraclecloud.com/\)](https://ocistatus.oraclecloud.com/)

Verbose logging for OCI Terraform Provider

To get verbose console output when the provider is running, precede your Terraform command with the `TF_LOG` and `OCI_GO_SDK_DEBUG` flags:

```
TF_LOG=DEBUG OCI_GO_SDK_DEBUG=v terraform plan
```

The `tf_log` (<https://www.terraform.io/docs/internals/debugging.html>) level and `OCI_GO_SDK_DEBUG` flags can also be set as environment variables.

Common Issues

Not Authenticated Error when configuring Terraform

If the Terraform CLI gives an error message like:

```
* oci_core_vcn.resource1: Service error:NotAuthenticated. The required information to complete authentication was not provided or was incorrect.. http status code: 401
```

- Verify you have properly set `user_ocid`, `tenancy_ocid`, `fingerprint` and `private_key_path`
- Verify your `private_key_path` is pointing to your private key and not the corresponding public key
- Verify you have added the corresponding public key to the user account you have specified with `user_ocid`
- Verify the public/private key pairs you are using are of the correct format
 - see: Required Keys (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm>) for details on the correct format and how to generate keys
- Verify the user account is part of a group with the appropriate permissions to perform the actions in the plan you are executing
- Verify your Tenancy has been subscribed to the Region you are targeting in your plan

Error message after upgrading OCI Terraform Provider

If the Terraform CLI gives an error message like:

```
Error asking for user input: 1 error(s) occurred:
```

```
* provider.oci: dial unix /var/folders/6r/8fk5dmbj4_z3sl0mc_y_fhjw0000gn/T/plugin811254328|netrpc: connect: no such file or directory
```

You are likely using a version of the OCI Terraform Provider that is not compatible with the Terraform binary you have installed. For OCI Provider versions v3.x.x and above, a minimum Terraform version of v.0.10.1 is required.

Dial tcp i/o timeout when connecting via proxy

If the Terraform CLI gives an error message like:

```
* provider.oci: ... dial tcp 134.70.16.0:443: i/o timeout
```

Then you may not have properly configured your proxy settings. The OCI terraform provider does support `http_proxy`, `https_proxy` and `no_proxy` variables where the inclusion or exclusion lists can be defined as follows:

```
export http_proxy=http://www.your-proxy.com:80/  
export https_proxy=http://www.your-proxy.com:80/  
export no_proxy=localhost,127.0.0.1
```

Errors about service limits

While using Terraform, you may encounter errors indicating that you have reached or exceeded the service limits for a resource.

To understand more about your OCI service limits and how to request a limit increase, see [Service Limits](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm>)

Timeout errors when waiting for a state change

If the Terraform CLI gives an error message like:

```
* oci_database_backup.mydb: timeout while waiting for state to become 'ACTIVE' (last state: 'CREATING', timeout: 15m0s)
```

Then the OCI service is indicating that the resource has not yet reached the expected state after polling for some time.

You may need to increase the operation timeout for your resource to continue polling for longer. See [Operation Timeouts](https://www.terraform.io/docs/configuration/resources.html#operation-timeouts) (<https://www.terraform.io/docs/configuration/resources.html#operation-timeouts>) for details on how to do this.

Terraform OCI Provider Version 2

All Oracle Bare Metal Cloud (OBMC) technologies and services have been renamed to Oracle Cloud Infrastructure (OCI).

The V2.0.0 release (<https://github.com/terraform-providers/terraform-provider-oci/releases/tag/v2.0.0>) will require you to make changes to your configuration files and state file.

You can still use previous versions of the provider without modifying the configuration files and state file.

Migration tool

As part of the release on September 13th, a migration tool will be supplied that will help you update your terraform plans and state files to work with the new version of the provider. The latest version can be found on the V2.0.2 release page (<https://github.com/terraform-providers/terraform-provider-oci/releases/tag/2.0.2>) in the oci-tool.zip file. If you would like to review the source and potentially build your own migration tool, the files can be found here (<https://github.com/terraform-providers/terraform-provider-oci/tree/v2.2.0/tools/oci-tool>). A readme on using the tool is also in that directory.

The changes in this release affect all our current Terraform Provider users. You will be able to run this tool against a plan directory and it will: - Transform all the "baremetal" references in .tf and .tfstate files to the new "oci" provider name. - Detect and modify provider blocks that do not specify a region to explicitly use "us-phoenix-1".

Alternatively, you can make the changes manually.

Provider Name Change

The provider name changes from "baremetal" to "oci". You need to update your Terraform configuration files.

```
Provider "oci" {
  region = "us-ashburn-1"
  tenancy_ocid = "${var.tenancy_ocid}"
  user_ocid = "${var.user_ocid}"
  fingerprint = "${var.fingerprint}"
  private_key_path = "${var.private_key_path}"
}
```

The provider binary filename also changes, from "terraform-provider-baremetal" to "terraform-provider-oci".

Installing the Updated Provider

Use the following guidance to install the updated provider on a Linux or Windows computer.

On *nix

Copy the unpacked provider into the following directory: `~/.terraform.d/plugins/`

Your `~/.terraformrc` file specifies the path to the baremetal provider (only required for v.9.x). For example:

```
providers {
  baremetal = "~/.terraform.d/plugins/terraform-provider-baremetal"
}
```

Change the path in your `./terraformrc` file to:

```
providers {
  oci = "~/.terraform.d/plugins/terraform-provider-oci_v2.0.0"
}
```

Alternatively you can reference both providers at the same time:

```
providers {
  baremetal = "~/.terraform.d/plugins/terraform-provider-baremetal"
  oci = "~/.terraform.d/plugins/terraform-provider-oci_v2.0.0"
}
```

On Windows

Copy the unpacked provider into the following directory:

`%APPDATA%/terraform.d/plugins/`

Your `%APPDATA%/terraform.rc` file specifies the path to the baremetal provider (only required for v.9.x). For example:

```
providers {
  baremetal = "%appdata%/terraform.d/plugins/terraform-provider-baremetal"
}
```

Change the path in your `./terraformrc` file to:

```
providers {
  oci = "%appdata%/terraform.d/plugins/terraform-provider-oci"
}
```

Resource and Datasource Names

Resource and datasource names that use a "baremetal" prefix will now use "oci". For example, resource "baremetal_core_instance" changes to resource "oci_core_instance".

Code example:

```
image = "${lookup(data.baremetal_core_images.OLImageOCID.images[0], "id")}"
```

changes to

```
image = "${lookup(data.oci_core_images.OLImageOCID.images[0], "id")}"
```

Making the Changes

The changes to the provider and the resource names will need to be made to both the configuration files, the state file, and the backup state file.

Once the changes have been made, run terraform plan and verify that there will be no new changes to your infrastructure on the next apply.

Specifying a Region is Mandatory

In addition to the name change, the region parameter in the provider is a required parameter. In previous releases, the region defaulted to "us-phoenix-1" if no region was specified. This region parameter is used to determine service endpoints.

```
provider "oci" {  
    region = "us-ashburn-1"  
    tenancy_ocid = "${var.tenancy_ocid}"  
    user_ocid = "${var.user_ocid}"  
    fingerprint = "${var.fingerprint}"  
    private_key_path = "${var.private_key_path}"  
}
```

Building the Code from Source

If you want to build the new code from source you will have to make sure that the root directory of the project is "terraform-provider-oci" instead of "terraform-provider-baremetal"

Terraform OCI Provider Version 3

New Installation

To use the latest OCI Terraform Provider, version 3, run `terraform init` on the directory that contains the configuration referencing the configuration block, `provider "oci" {`.

Note: If you have previously configured this environment to run v1 or v2 OCI Provider versions, you will need to employ the steps that follow.

Upgrading from v2

The simplest way to begin using the latest provider from the Hashicorp Provider registry is to place an explicit version requirement in your OCI Provider configuration block, as shown here:

```
provider "oci" {  
  version      = ">= 3.0.0"  
  region       = "${var.region}"  
  tenancy_ocid = "${var.tenancy_ocid}"  
  user_ocid    = "${var.user_ocid}"  
  fingerprint  = "${var.fingerprint}"  
  private_key_path = "${var.private_key_path}"  
}
```

For guidance using additional version configuration options, see Provider Versions (<https://www.terraform.io/docs/configuration/providers.html#provider-versions>).

Note: This approach leaves the previous provider configuration unchanged, and is the better approach if you need the environment to remain compatible with previous versions.

To completely update a previously configured environment, remove the old provider from every location where it was added. While this is typically the `plugins` folder of the user's home directory (`~/.terraform.d/plugins`), it can also be found in the `plugins` folder of any Terraform configuration directory, for example,

```
.../my-plan-folder/.terraform/plugins/darwin_amd64/
```

Upgrading from v1

Upgrading OCI Provider from v1 to v3 requires the same environment reconfiguration that is shown for the v2 upgrade. However, you must also change all of the plan and statefile references from `bmc` to `oci`. For detailed instructions, see the Version 2 Upgrade Guide (<https://www.terraform.io/docs/providers/oci/guides/version-2-upgrade.html>)

oci_audit_configuration

This resource provides the Configuration resource in Oracle Cloud Infrastructure Audit service.

Example Usage

```
resource "oci_audit_configuration" "test_configuration" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  retention_period_days = "${var.configuration_retention_period_days}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) ID of the root compartment (tenancy)
- `retention_period_days` - (Required) (Updatable) The retention period setting, specified in days. The minimum is 90, the maximum 365. Example: 90

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `retention_period_days` - The retention period setting, specified in days. The minimum is 90, the maximum 365. Example: 90

Import

Import is not supported for this resource.

oci_autoscaling_auto_scaling_configuration

This resource provides the Auto Scaling Configuration resource in Oracle Cloud Infrastructure Auto Scaling service.

Creates an autoscaling configuration.

Example Usage

```

resource "oci_autoscaling_auto_scaling_configuration" "test_auto_scaling_configuration" {
  #Required
  auto_scaling_resources {
    #Required
    id = "${var.auto_scaling_configuration_auto_scaling_resources_id}"
    type = "${var.auto_scaling_configuration_auto_scaling_resources_type}"
  }
  compartment_id = "${var.compartment_id}"
  policies {
    #Required
    capacity {
      #Required
      initial = "${var.auto_scaling_configuration_policies_capacity_initial}"
      max = "${var.auto_scaling_configuration_policies_capacity_max}"
      min = "${var.auto_scaling_configuration_policies_capacity_min}"
    }
    policy_type = "${var.auto_scaling_configuration_policies_policy_type}"
    rules {
      #Required
      action {
        #Required
        type = "${var.auto_scaling_configuration_policies_rules_action_type}"
        value = "${var.auto_scaling_configuration_policies_rules_action_value}"
      }
      display_name = "${var.auto_scaling_configuration_policies_rules_display_name}"
      metric {
        #Required
        metric_type = "${var.auto_scaling_configuration_policies_rules_metric_metric_type}"
        threshold {
          #Required
          operator = "${var.auto_scaling_configuration_policies_rules_metric_threshold_operator}"
          value = "${var.auto_scaling_configuration_policies_rules_metric_threshold_value}"
        }
      }
    }
  }
  #Optional
  display_name = "${var.auto_scaling_configuration_policies_display_name}"
}

#Optional
cool_down_in_seconds = "${var.auto_scaling_configuration_cool_down_in_seconds}"
defined_tags = {"Operations.CostCenter"= "42"}
display_name = "${var.auto_scaling_configuration_display_name}"
freeform_tags = {"Department"= "Finance"}
is_enabled = "${var.auto_scaling_configuration_is_enabled}"
}

```

Argument Reference

The following arguments are supported:

- `auto_scaling_resources` - (Required)
 - `id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the

resource that is managed by the autoscaling configuration.

- `type` - (Required) The type of resource.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the autoscaling configuration.
- `cool_down_in_seconds` - (Optional) (Updatable) The minimum period of time to wait between scaling actions. The cooldown period gives the system time to stabilize before rescaling. The minimum value is 300 seconds, which is also the default.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `is_enabled` - (Optional) (Updatable) Whether the autoscaling configuration is enabled.
- `policies` - (Required) Autoscaling policy definitions for the autoscaling configuration. An autoscaling policy defines the criteria that trigger autoscaling actions and the actions to take.

Each autoscaling configuration can have one autoscaling policy.

- `capacity` - (Required) The capacity requirements of the autoscaling policy.
 - `initial` - (Required) The initial number of instances to launch in the instance pool immediately after autoscaling is enabled. After autoscaling retrieves performance metrics, the number of instances is automatically adjusted from this initial number to a number that is based on the limits that you set.
 - `max` - (Required) The maximum number of instances the instance pool is allowed to increase to (scale out).
 - `min` - (Required) The minimum number of instances the instance pool is allowed to decrease to (scale in).
- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `policy_type` - (Required) The type of autoscaling policy.
- `rules` - (Required)
 - `action` - (Required)
 - `type` - (Required) The type of action to take.
 - `value` - (Required) To scale out (increase the number of instances), provide a positive value. To scale in (decrease the number of instances), provide a negative value.
 - `display_name` - (Required) A user-friendly name. Does not have to be unique. Avoid entering confidential information. This value is not changeable through Terraform.

- `metric` - (Required)
 - `metric_type` - (Required)
 - `threshold` - (Required)
 - `operator` - (Required) The comparison operator to use. Options are greater than (`GT`), greater than or equal to (`GTE`), less than (`LT`), and less than or equal to (`LTE`).
 - `value` - (Required)

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `auto_scaling_resources` -
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the resource that is managed by the autoscaling configuration.
 - `type` - The type of resource.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the autoscaling configuration.
- `cool_down_in_seconds` - The minimum period of time to wait between scaling actions. The cooldown period gives the system time to stabilize before rescaling. The minimum value is 300 seconds, which is also the default.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the autoscaling configuration.
- `is_enabled` - Whether the autoscaling configuration is enabled.
- `policies` - Autoscaling policy definitions for the autoscaling configuration. An autoscaling policy defines the criteria that trigger autoscaling actions and the actions to take.

Each autoscaling configuration can have one autoscaling policy.

- `capacity` - The capacity requirements of the autoscaling policy.
 - `initial` - The initial number of instances to launch in the instance pool immediately after autoscaling is enabled. After autoscaling retrieves performance metrics, the number of instances is automatically adjusted from this initial number to a number that is based on the limits that you set.

- `max` - The maximum number of instances the instance pool is allowed to increase to (scale out).
 - `min` - The minimum number of instances the instance pool is allowed to decrease to (scale in).
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `id` - The ID of the autoscaling policy that is assigned after creation.
- `policy_type` - The type of autoscaling policy.
- `rules` -
 - `action` -
 - `type` - The type of action to take.
 - `value` - To scale out (increase the number of instances), provide a positive value. To scale in (decrease the number of instances), provide a negative value.
 - `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - `id` - ID of the condition that is assigned after creation.
 - `metric` -
 - `metric_type` -
 - `threshold` -
 - `operator` - The comparison operator to use. Options are greater than (`GT`), greater than or equal to (`GTE`), less than (`LT`), and less than or equal to (`LTE`).
 - `value` -
- `time_created` - The date and time the autoscaling configuration was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `time_created` - The date and time the AutoScalingConfiguration was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

AutoScalingConfigurations can be imported using the `id`, e.g.

```
$ terraform import oci_autoscaling_auto_scaling_configuration.test_auto_scaling_configuration "id"
```

oci_budget_alert_rule

This resource provides the Alert Rule resource in Oracle Cloud Infrastructure Budget service.

Creates a new Alert Rule.

Example Usage

```
resource "oci_budget_alert_rule" "test_alert_rule" {  
  #Required  
  budget_id = "${oci_budget_budget.test_budget.id}"  
  recipients = "${var.alert_rule_recipients}"  
  threshold = "${var.alert_rule_threshold}"  
  threshold_type = "${var.alert_rule_threshold_type}"  
  type = "${var.alert_rule_type}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  description = "${var.alert_rule_description}"  
  display_name = "${var.alert_rule_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  message = "${var.alert_rule_message}"  
}
```

Argument Reference

The following arguments are supported:

- `budget_id` - (Required) The unique Budget OCID
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - (Optional) (Updatable) The description of the alert rule.
- `display_name` - (Optional) (Updatable) The name of the alert rule.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `message` - (Optional) (Updatable) The message to be sent to the recipients when alert rule is triggered.
- `recipients` - (Required) (Updatable) The audience that will received the alert when it triggers.
- `threshold` - (Required) (Updatable) The threshold for triggering the alert expressed as a whole number or decimal value. If thresholdType is ABSOLUTE, threshold can have at most 12 digits before the decimal point and up to 2 digits

after the decimal point. If thresholdType is PERCENTAGE, the maximum value is 10000 and can have up to 2 digits after the decimal point.

- threshold_type - (Required) (Updatable) The type of threshold.
- type - (Required) (Updatable) Type of alert. Valid values are ACTUAL (the alert will trigger based on actual usage) or FORECAST (the alert will trigger based on predicted usage).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- budget_id - The OCID of the budget
- defined_tags - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- description - The description of the alert rule.
- display_name - The name of the alert rule.
- freeform_tags - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- id - The OCID of the alert rule
- message - Custom message that will be sent when alert is triggered
- recipients - Delimited list of email addresses to receive the alert when it triggers. Delimiter character can be comma, space, TAB, or semicolon.
- state - The current state of the alert rule.
- threshold - The threshold for triggering the alert. If thresholdType is PERCENTAGE, the maximum value is 10000.
- threshold_type - The type of threshold.
- time_created - Time when budget was created
- time_updated - Time when budget was updated
- type - The type of alert. Valid values are ACTUAL (the alert will trigger based on actual usage) or FORECAST (the alert will trigger based on predicted usage).
- version - Version of the alert rule. Starts from 1 and increments by 1.

Import

Import is not supported for this resource.

oci_budget_budget

This resource provides the Budget resource in Oracle Cloud Infrastructure Budget service.

Creates a new Budget.

Example Usage

```
resource "oci_budget_budget" "test_budget" {  
  #Required  
  amount = "${var.budget_amount}"  
  compartment_id = "${var.tenancy_ocid}"  
  reset_period = "${var.budget_reset_period}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  description = "${var.budget_description}"  
  display_name = "${var.budget_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  target_compartment_id = "${oci_identity_compartment.test_compartment.id}"  
  target_type = "${var.budget_target_type}"  
  targets = "${var.budget_targets}"  
}
```

Argument Reference

The following arguments are supported:

- **amount** - (Required) (Updatable) The amount of the budget expressed as a whole number in the currency of the customer's rate card.
- **compartment_id** - (Required) The OCID of the tenancy
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- **description** - (Optional) (Updatable) The description of the budget.
- **display_name** - (Optional) (Updatable) The displayName of the budget.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **reset_period** - (Required) (Updatable) The reset period for the budget.
- **target_compartment_id** - (Optional) This is DEPRECTAED. Set the target compartment id in targets instead.

- `target_type` - (Optional) The type of target on which the budget is applied.
- `targets` - (Optional) The list of targets on which the budget is applied. If `targetType` is "COMPARTMENT", `targets` contains list of compartment OCIDs. If `targetType` is "TAG", `targets` contains list of tag identifiers in the form of "{tagNamespace}.{tagKey}.{tagValue}". Currently, the array should contain EXACT ONE item.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `actual_spend` - The actual spend in currency for the current budget cycle
- `alert_rule_count` - Total number of alert rules in the budget
- `amount` - The amount of the budget expressed in the currency of the customer's rate card.
- `compartment_id` - The OCID of the tenancy
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `description` - The description of the budget.
- `display_name` - The display name of the budget.
- `forecasted_spend` - The forecasted spend in currency by the end of the current budget cycle
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID of the budget
- `reset_period` - The reset period for the budget.
- `state` - The current state of the budget.
- `target_compartment_id` - This is DEPRECATED. For backwards compatibility, the property will be populated when `targetType` is "COMPARTMENT" AND `targets` contains EXACT ONE target compartment ocid. For all other scenarios, this property will be left empty.
- `target_type` - The type of target on which the budget is applied.
- `targets` - The list of targets on which the budget is applied. If `targetType` is "COMPARTMENT", `targets` contains list of compartment OCIDs. If `targetType` is "TAG", `targets` contains list of tag identifiers in the form of "{tagNamespace}.{tagKey}.{tagValue}".
- `time_created` - Time that budget was created
- `time_spend_computed` - The time that the budget spend was last computed

- `time_updated` - Time that budget was updated
- `version` - Version of the budget. Starts from 1 and increments by 1.

Import

Budgets can be imported using the `id`, e.g.

```
$ terraform import oci_budget_budget.test_budget "id"
```

oci_containerengine_cluster

This resource provides the Cluster resource in Oracle Cloud Infrastructure Container Engine service.

Create a new cluster.

Example Usage

```
resource "oci_containerengine_cluster" "test_cluster" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  kubernetes_version = "${var.cluster_kubernetes_version}"  
  name = "${var.cluster_name}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  kms_key_id = "${oci_kms_key.test_key.id}"  
  options {  
  
    #Optional  
    add_ons {  
  
      #Optional  
      is_kubernetes_dashboard_enabled = "${var.cluster_options_add_ons_is_kubernetes_dashboard_enabled}"  
      is_tiller_enabled = "${var.cluster_options_add_ons_is_tiller_enabled}"  
    }  
    kubernetes_network_config {  
  
      #Optional  
      pods_cidr = "${var.cluster_options_kubernetes_network_config_pods_cidr}"  
      services_cidr = "${var.cluster_options_kubernetes_network_config_services_cidr}"  
    }  
    service_lb_subnet_ids = "${var.cluster_options_service_lb_subnet_ids}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment in which to create the cluster.
- `kms_key_id` - (Optional) The OCID of the KMS key to be used as the master encryption key for Kubernetes secret encryption. When used, `kubernetesVersion` must be at least `v1.13.0`.
- `kubernetes_version` - (Required) (Updatable) The version of Kubernetes to install into the cluster masters.
- `name` - (Required) (Updatable) The name of the cluster. Avoid entering confidential information.
- `options` - (Optional) Optional attributes for the cluster.

- `add_ons` - (Optional) Configurable cluster add-ons
 - `is_kubernetes_dashboard_enabled` - (Optional) Whether or not to enable the Kubernetes Dashboard add-on.
 - `is_tiller_enabled` - (Optional) Whether or not to enable the Tiller add-on.
- `kubernetes_network_config` - (Optional) Network configuration for Kubernetes.
 - `pods_cidr` - (Optional) The CIDR block for Kubernetes pods.
 - `services_cidr` - (Optional) The CIDR block for Kubernetes services.
- `service_lb_subnet_ids` - (Optional) The OCIDs of the subnets used for Kubernetes services load balancers.
- `vcn_id` - (Required) The OCID of the virtual cloud network (VCN) in which to create the cluster.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `available_kubernetes_upgrades` - Available Kubernetes versions to which the clusters masters may be upgraded.
- `compartment_id` - The OCID of the compartment in which the cluster exists.
- `endpoints` - Endpoints served up by the cluster masters.
 - `kubernetes` - The Kubernetes API server endpoint.
- `id` - The OCID of the cluster.
- `kms_key_id` - The OCID of the KMS key to be used as the master encryption key for Kubernetes secret encryption.
- `kubernetes_version` - The version of Kubernetes running on the cluster masters.
- `lifecycle_details` - Details about the state of the cluster masters.
- `metadata` - Metadata about the cluster.
 - `created_by_user_id` - The user who created the cluster.
 - `created_by_work_request_id` - The OCID of the work request which created the cluster.
 - `deleted_by_user_id` - The user who deleted the cluster.
 - `deleted_by_work_request_id` - The OCID of the work request which deleted the cluster.
 - `time_created` - The time the cluster was created.
 - `time_deleted` - The time the cluster was deleted.
 - `time_updated` - The time the cluster was updated.
 - `updated_by_user_id` - The user who updated the cluster.
 - `updated_by_work_request_id` - The OCID of the work request which updated the cluster.
- `name` - The name of the cluster.

- `options` - Optional attributes for the cluster.
 - `add_ons` - Configurable cluster add-ons
 - `is_kubernetes_dashboard_enabled` - Whether or not to enable the Kubernetes Dashboard add-on.
 - `is_tiller_enabled` - Whether or not to enable the Tiller add-on.
 - `kubernetes_network_config` - Network configuration for Kubernetes.
 - `Pods_cidr` - The CIDR block for Kubernetes pods.
 - `services_cidr` - The CIDR block for Kubernetes services.
 - `service_lb_subnet_ids` - The OCIDs of the subnets used for Kubernetes services load balancers.
- `state` - The state of the cluster masters.
- `vcn_id` - The OCID of the virtual cloud network (VCN) in which the cluster exists.

Import

Clusters can be imported using the `id`, e.g.

```
$ terraform import oci_containerengine_cluster.test_cluster "id"
```

oci_containerengine_node_pool

This resource provides the Node Pool resource in Oracle Cloud Infrastructure Container Engine service.

Create a new node pool.

Example Usage

```
resource "oci_containerengine_node_pool" "test_node_pool" {  
  #Required  
  cluster_id = "${oci_containerengine_cluster.test_cluster.id}"  
  compartment_id = "${var.compartment_id}"  
  kubernetes_version = "${var.node_pool_kubernetes_version}"  
  name = "${var.node_pool_name}"  
  node_shape = "${var.node_pool_node_shape}"  
  subnet_ids = "${var.node_pool_subnet_ids}"  
  
  #Optional  
  initial_node_labels {  
    #Optional  
    key = "${var.node_pool_initial_node_labels_key}"  
    value = "${var.node_pool_initial_node_labels_value}"  
  }  
  node_image_name = "${oci_core_image.test_image.name}"  
  node_metadata = "${var.node_pool_node_metadata}"  
  quantity_per_subnet = "${var.node_pool_quantity_per_subnet}"  
  ssh_public_key = "${var.node_pool_ssh_public_key}"  
}
```

Argument Reference

The following arguments are supported:

- `cluster_id` - (Required) The OCID of the cluster to which this node pool is attached.
- `compartment_id` - (Required) The OCID of the compartment in which the node pool exists.
- `initial_node_labels` - (Optional) (Updatable) A list of key/value pairs to add to nodes after they join the Kubernetes cluster.
 - `key` - (Optional) (Updatable) The key of the pair.
 - `value` - (Optional) (Updatable) The value of the pair.
- `kubernetes_version` - (Required) (Updatable) The version of Kubernetes to install on the nodes in the node pool.
- `name` - (Required) (Updatable) The name of the node pool. Avoid entering confidential information.
- `node_config_details` - (Optional) (Updatable) The configuration of nodes in the node pool. Exactly one of the `subnetIds` or `nodeConfigDetails` properties must be specified.

- `placement_configs` - (Required) (Updatable) The placement configurations for the node pool. Provide one placement configuration for each availability domain in which you intend to launch a node.

To use the node pool with a regional subnet, provide a placement configuration for each availability domain, and include the regional subnet in each placement configuration.

- `availability_domain` - (Required) (Updatable) The availability domain in which to place nodes. Example:
`Uocm:PHX-AD-1`

- `subnet_id` - (Required) (Updatable) The OCID of the subnet in which to place nodes.

- `size` - (Required) (Updatable) The number of nodes that should be in the node pool.

- `node_image_id` - (Optional) The OCID of the image running on the nodes in the node pool. Cannot be used when `node_image_name` is specified.
- `node_image_name` - (Optional) The name of the image running on the nodes in the node pool. Cannot be used when `node_image_id` is specified.
- `node_metadata` - (Optional) A list of key/value pairs to add to each underlying Oracle Cloud Infrastructure instance in the node pool.
- `node_shape` - (Required) The name of the node shape of the nodes in the node pool.
- `quantity_per_subnet` - (Optional) (Updatable) Optional, default to 1. The number of nodes to create in each subnet specified in `subnetIds` property. When used, `subnetIds` is required. This property is deprecated, use `nodeConfigDetails` instead.
- `ssh_public_key` - (Optional) The SSH public key to add to each node in the node pool.
- `subnet_ids` - (Optional) (Updatable) The OCIDs of the subnets in which to place nodes for this node pool. When used, `quantityPerSubnet` can be provided. This property is deprecated, use `nodeConfigDetails`. Exactly one of the `subnetIds` or `nodeConfigDetails` properties must be specified.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `cluster_id` - The OCID of the cluster to which this node pool is attached.
- `compartment_id` - The OCID of the compartment in which the node pool exists.
- `id` - The OCID of the node pool.
- `initial_node_labels` - A list of key/value pairs to add to nodes after they join the Kubernetes cluster.
 - `key` - The key of the pair.
 - `value` - The value of the pair.
- `kubernetes_version` - The version of Kubernetes running on the nodes in the node pool.
- `name` - The name of the node pool.

- `node_config_details` - The configuration of nodes in the node pool.
 - `placement_configs` - The placement configurations for the node pool. Provide one placement configuration for each availability domain in which you intend to launch a node.

To use the node pool with a regional subnet, provide a placement configuration for each availability domain, and include the regional subnet in each placement configuration.

 - `availability_domain` - The availability domain in which to place nodes. Example: `Uocm:PHX-AD-1`
 - `subnet_id` - The OCID of the subnet in which to place nodes.
 - `size` - The number of nodes in the node pool.
- `node_image_id` - The OCID of the image running on the nodes in the node pool.
- `node_image_name` - The name of the image running on the nodes in the node pool.
- `node_metadata` - A list of key/value pairs to add to each underlying Oracle Cloud Infrastructure instance in the node pool.
- `node_shape` - The name of the node shape of the nodes in the node pool.
- `nodes` - The nodes in the node pool.
 - `availability_domain` - The name of the availability domain in which this node is placed.
 - `error` - An error that may be associated with the node.
 - `code` - A short error code that defines the upstream error, meant for programmatic parsing. See API Errors (<https://docs.cloud.oracle.com/iaas/Content/API/References/apierrors.htm>).
 - `message` - A human-readable error string of the upstream error.
 - `status` - The status of the HTTP response encountered in the upstream error.
 - `id` - The OCID of the compute instance backing this node.
 - `lifecycle_details` - Details about the state of the node.
 - `name` - The name of the node.
 - `node_pool_id` - The OCID of the node pool to which this node belongs.
 - `public_ip` - The public IP address of this node.
 - `state` - The state of the node.
 - `subnet_id` - The OCID of the subnet in which this node is placed.
- `quantity_per_subnet` - The number of nodes in each subnet.
- `ssh_public_key` - The SSH public key on each node in the node pool.
- `subnet_ids` - The OCIDs of the subnets in which to place nodes for this node pool.

Import

NodePools can be imported using the `id`, e.g.


```
$ terraform import oci_containerengine_node_pool.test_node_pool "id"
```

oci_core_app_catalog_listing_resource_version_agreement

The `oci_core_app_catalog_listing_resource_version_agreement` resource creates `AppCatalogListingResourceVersionAgreement` for a particular resource version of a listing.

Example Usage

```
resource "oci_core_app_catalog_listing_resource_version_agreement" "test_app_catalog_listing_resource_version_agreement" {  
    #Required  
    listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
    listing_resource_version = "${var.app_catalog_listing_resource_version_agreement_listing_resource_version}"  
}
```

Argument Reference

The following arguments are supported:

- `listing_id` - (Required) The OCID of the listing.
- `listing_resource_version` - (Required) Listing Resource Version.

Attributes Reference

The following attributes are exported:

- `eula_link` - EULA link
- `listing_id` - The OCID of the listing associated with these agreements.
- `listing_resource_version` - Listing resource version associated with these agreements.
- `oracle_terms_of_use_link` - Oracle TOU link
- `signature` - A generated signature for this agreement retrieval operation which should be used in the create subscription call.
- `time_retrieved` - Date and time the agreements were retrieved, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

oci_core_app_catalog_subscription

This resource provides the App Catalog Subscription resource in Oracle Cloud Infrastructure Core service.

Create a subscription for listing resource version for a compartment. It will take some time to propagate to all regions.

Example Usage

```
resource "oci_core_app_catalog_subscription" "test_app_catalog_subscription" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  eula_link = "${var.app_catalog_subscription_eula_link}"  
  listing_id = "${data.oci_core_app_catalog_listing.test_listing.id}"  
  listing_resource_version = "${var.app_catalog_subscription_listing_resource_version}"  
  oracle_terms_of_use_link = "${var.app_catalog_subscription_oracle_terms_of_use_link}"  
  signature = "${var.app_catalog_subscription_signature}"  
  time_retrieved = "${var.app_catalog_subscription_time_retrieved}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The compartmentID for the subscription.
- `eula_link` - (Required) EULA link
- `listing_id` - (Required) The OCID of the listing.
- `listing_resource_version` - (Required) Listing resource version.
- `oracle_terms_of_use_link` - (Required) Oracle TOU link
- `signature` - (Required) A generated signature for this listing resource version retrieved the agreements API.
- `time_retrieved` - (Required) Date and time the agreements were retrieved, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The compartmentID of the subscription.
- `display_name` - The display name of the listing.

- `listing_id` - The ocid of the listing resource.
- `listing_resource_id` - Listing resource id.
- `listing_resource_version` - Listing resource version.
- `publisher_name` - Name of the publisher who published this listing.
- `summary` - The short summary to the listing.
- `time_created` - Date and time at which the subscription was created, in RFC3339 format. Example: 2018-03-20T12:32:53.532Z

Import

AppCatalogSubscriptions can be imported using the `id` , e.g.

```
$ terraform import oci_core_app_catalog_subscription.test_app_catalog_subscription "compartmentId/{compartmentId}/listingId/{listingId}/listingResourceVersion/{listingResourceVersion}"
```

oci_core_boot_volume_backup

This resource provides the Boot Volume Backup resource in Oracle Cloud Infrastructure Core service.

Creates a new boot volume backup of the specified boot volume. For general information about boot volume backups, see Overview of Boot Volume Backups (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/bootvolumebackups.htm>)

When the request is received, the backup object is in a REQUEST_RECEIVED state. When the data is imaged, it goes into a CREATING state. After the backup is fully uploaded to the cloud, it goes into an AVAILABLE state.

Example Usage

```
resource "oci_core_boot_volume_backup" "test_boot_volume_backup" {  
  #Required  
  boot_volume_id = "${oci_core_boot_volume.test_boot_volume.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.boot_volume_backup_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  type = "${var.boot_volume_backup_type}"  
}
```

Argument Reference

The following arguments are supported:

- `boot_volume_id` - (Required) The OCID of the boot volume that needs to be backed up.
- `compartment_id` - (Optional) (Updatable) The OCID of the compartment that contains the boot volume backup.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the boot volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `type` - (Optional) The type of backup to create. If omitted, defaults to incremental.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `boot_volume_id` - The OCID of the boot volume.
- `compartment_id` - The OCID of the compartment that contains the boot volume backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the boot volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `expiration_time` - The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the boot volume backup.
- `image_id` - The image OCID used to create the boot volume the backup is taken from.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the boot volume backup. For more information about the Key Management service and encryption keys, see Overview of Key Management (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Concepts/keyoverview.htm>) and Using Keys (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Tasks/usingkeys.htm>).
- `size_in_gbs` - The size of the boot volume, in GBs.
- `source_type` - Specifies whether the backup was created manually, or via scheduled backup policy.
- `state` - The current state of a boot volume backup.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the boot volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.
- `time_request_received` - The date and time the request to create the boot volume backup was received. Format defined by RFC3339.
- `type` - The type of a volume backup. Supported values are 'FULL' or 'INCREMENTAL'.
- `unique_size_in_gbs` - The size used by the backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the boot volume and whether the backup is full or incremental.

Import

BootVolumeBackups can be imported using the `id`, e.g.

```
$ terraform import oci_core_boot_volume_backup.test_boot_volume_backup "id"
```

oci_core_boot_volume

This resource provides the Boot Volume resource in Oracle Cloud Infrastructure Core service.

Creates a new boot volume in the specified compartment from an existing boot volume or a boot volume backup. For general information about boot volumes, see [Boot Volumes](https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/bootvolumes.htm) (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/bootvolumes.htm>). You may optionally specify a *display name* for the volume, which is simply a friendly name or description. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_boot_volume" "test_boot_volume" {
  #Required
  availability_domain = "${var.boot_volume_availability_domain}"
  compartment_id = "${var.compartment_id}"
  source_details {
    #Required
    id = "${var.boot_volume_source_details_id}"
    type = "${var.boot_volume_source_details_type}"
  }

  #Optional
  backup_policy_id = "${data.oci_core_volume_backup_policies.test_volume_backup_policies.volume_backup_policies.0.id}"
  defined_tags = {"Operations.CostCenter" = "42"}
  display_name = "${var.boot_volume_display_name}"
  freeform_tags = {"Department" = "Finance"}
  kms_key_id = "${oci_kms_key.test_key.id}"
  size_in_gbs = "${var.boot_volume_size_in_gbs}"
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain of the boot volume. Example: `Uocm:PHX-AD-1`
- `backup_policy_id` - (Optional) If provided, specifies the ID of the boot volume backup policy to assign to the newly created boot volume. If omitted, no policy will be assigned.
- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains the boot volume.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - (Optional) (Updatable) The OCID of the KMS key to be used as the master encryption key for the boot volume.
- `size_in_gbs` - (Optional) (Updatable) The size of the volume in GBs.
- `source_details` - (Required) Specifies the boot volume source details for a new boot volume. The volume source is either another boot volume in the same availability domain or a boot volume backup. This is a mandatory field for a boot volume.
 - `id` - (Required) The OCID of the boot volume or boot volume backup.
 - `type` - (Required) The type can be one of these values: `bootVolume` , `bootVolumeBackup`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the boot volume. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the boot volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The boot volume's Oracle ID (OCID).
- `image_id` - The image OCID used to create the boot volume.
- `is_hydrated` - Specifies whether the boot volume's data has finished copying from the source boot volume or boot volume backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the boot volume.
- `size_in_gbs` - The size of the boot volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use `size_in_gbs`.

- `source_details` - The boot volume source, either an existing boot volume in the same availability domain or a boot volume backup. If null, this means that the boot volume was created from an image.
 - `id` - The OCID of the boot volume or boot volume backup.
 - `type` - The type can be one of these values: `bootVolume` , `bootVolumeBackup`
- `state` - The current state of a boot volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the boot volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Import

BootVolumes can be imported using the `id` , e.g.

```
$ terraform import oci_core_boot_volume.test_boot_volume "id"
```

oci_core_cluster_network

This resource provides the Cluster Network resource in Oracle Cloud Infrastructure Core service.

Create a cluster network.

Example Usage

```
resource "oci_core_cluster_network" "test_cluster_network" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  instance_pools {  
    #Required  
    instance_configuration_id = "${oci_core_instance_configuration.test_instance_configuration.id}"  
    size = "${var.cluster_network_instance_pools_size}"  
  
    #Optional  
    defined_tags = {"Operations.CostCenter"= "42"}  
    display_name = "${var.cluster_network_instance_pools_display_name}"  
    freeform_tags = {"Department"= "Finance"}  
  }  
  placement_configuration {  
    #Required  
    availability_domain = "${var.cluster_network_placement_configuration_availability_domain}"  
    primary_subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
    #Optional  
    secondary_vnic_subnets {  
      #Required  
      subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
      #Optional  
      display_name = "${var.cluster_network_placement_configuration_secondary_vnic_subnets_display_name}"  
    }  
  }  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.cluster_network_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment containing the cluster network.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```

- **display_name** - (Optional) (Updatable) The user-friendly name. Does not have to be unique.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **instance_pools** - (Required) the data to create the instance pools in the cluster network.
 - **compartment_id** - (Optional) (Updatable) The OCID of the compartment containing the instance pool.
 - **defined_tags** - (Optional) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - **display_name** - (Optional) The user-friendly name. Does not have to be unique.
 - **freeform_tags** - (Optional) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - **instance_configuration_id** - (Required) The OCID of the instance configuration associated to the instance pool.
 - **size** - (Required) The number of instances that should be in the instance pool.
- **placement_configuration** - (Required) the placement data for the instance pools in the cluster network
 - **availability_domain** - (Required) The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - **primary_subnet_id** - (Required) The OCID of the primary subnet to place instances.
 - **secondary_vnic_subnets** - (Optional) The set of secondary VNIC data for instances in the pool.
 - **display_name** - (Optional) The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - **subnet_id** - (Required) The subnet OCID for the secondary vnic

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **compartment_id** - The OCID of the compartment containing the cluster netowrk.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`

- `display_name` - The user-friendly name. Does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the cluster network.
- `instance_pools` - the instance pools in the cluster network.
 - `compartment_id` - The OCID of the compartment containing the instance pool.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - `display_name` - The user-friendly name. Does not have to be unique.
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - `id` - The OCID of the instance pool.
 - `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
 - `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
 - `port` - The port value used for the backends.
 - `state` - The status of the interaction between the instance pool and the load balancer.
 - `vnic_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the display name of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
 - `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
 - `size` - The number of instances that should be in the instance pool.

- `state` - The current state of the instance pool.
- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `placement_configuration` - the placement data for the instance pools in the cluster network
 - `availability_domain` - The availability domain to place instances. Example: Uocm:PHX-AD-1
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The display name of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `state` - The current state of the cluster network.
- `time_created` - The date and time the resource was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_updated` - The date and time the resource was updated, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

ClusterNetworks can be imported using the `id`, e.g.

```
$ terraform import oci_core_cluster_network.test_cluster_network "id"
```

oci_core_console_history

This resource provides the Console History resource in Oracle Cloud Infrastructure Core service.

Captures the most recent serial console data (up to a megabyte) for the specified instance.

The `CaptureConsoleHistory` operation works with the other console history operations as described below.

1. Use `CaptureConsoleHistory` to request the capture of up to a megabyte of the most recent console history. This call returns a `ConsoleHistory` object. The object will have a state of `REQUESTED`.
2. Wait for the capture operation to succeed by polling `GetConsoleHistory` with the identifier of the console history metadata. The state of the `ConsoleHistory` object will go from `REQUESTED` to `GETTING-HISTORY` and then `SUCCEEDED` (or `FAILED`).
3. Use `GetConsoleHistoryContent` to get the actual console history data (not the metadata).
4. Optionally, use `DeleteConsoleHistory` to delete the console history metadata and the console history data.

Example Usage

```
resource "oci_core_console_history" "test_console_history" {  
  #Required  
  instance_id = "${oci_core_instance.test_instance.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.console_history_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `instance_id` - (Required) The OCID of the instance to get the console history from.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of an instance. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My console history metadata`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the console history metadata object.
- `instance_id` - The OCID of the instance this console history was fetched from.
- `state` - The current state of the console history.
- `time_created` - The date and time the history was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

ConsoleHistories can be imported using the `id`, e.g.

```
$ terraform import oci_core_console_history.test_console_history "id"
```


oci_core_cpe

This resource provides the Cpe resource in Oracle Cloud Infrastructure Core service.

Creates a new virtual customer-premises equipment (CPE) object in the specified compartment. For more information, see IPSec VPNs (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPsec.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the CPE to reside. Notice that the CPE doesn't have to be in the same compartment as the IPSec connection or other Networking Service components. If you're not sure which compartment to use, put the CPE in the same compartment as the DRG. For more information about compartments and access control, see Overview of the IAM Service (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must provide the public IP address of your on-premises router. See [Configuring Your On-Premises Router for an IPSec VPN](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/configuringCPE.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/configuringCPE.htm>).

You may optionally specify a *display name* for the CPE, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_cpe" "test_cpe" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  ip_address = "${var.cpe_ip_address}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.cpe_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the CPE.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `ip_address` - (Required) The public IP address of the on-premises router. Example: 143.19.23.16

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the CPE.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The CPE's Oracle ID (OCID).
- `ip_address` - The public IP address of the on-premises router.
- `time_created` - The date and time the CPE was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

Cpes can be imported using the `id`, e.g.

```
$ terraform import oci_core_cpe.test_cpe "id"
```

oci_core_cross_connect_group

This resource provides the Cross Connect Group resource in Oracle Cloud Infrastructure Core service.

Creates a new cross-connect group to use with Oracle Cloud Infrastructure FastConnect. For more information, see [FastConnect Overview \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm).

For the purposes of access control, you must provide the OCID of the compartment where you want the cross-connect group to reside. If you're not sure which compartment to use, put the cross-connect group in the same compartment with your VCN. For more information about compartments and access control, see [Overview of the IAM Service \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm). For information about OCIDs, see [Resource Identifiers \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm).

You may optionally specify a *display name* for the cross-connect group. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_cross_connect_group" "test_cross_connect_group" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  customer_reference_name = "${var.cross_connect_group_customer_reference_name}"  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.cross_connect_group_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the cross-connect group.
- `customer_reference_name` - (Optional) (Updatable) A reference name or identifier for the physical fiber connection that this cross-connect group uses.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`

"Finance"}

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect group uses.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of a user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect group's Oracle ID (OCID).
- `state` - The cross-connect group's current state.
- `time_created` - The date and time the cross-connect group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

CrossConnectGroups can be imported using the `id`, e.g.

```
$ terraform import oci_core_cross_connect_group.test_cross_connect_group "id"
```

oci_core_cross_connect

This resource provides the Cross Connect resource in Oracle Cloud Infrastructure Core service.

Creates a new cross-connect. Oracle recommends you create each cross-connect in a CrossConnectGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CrossConnectGroup>) so you can use link aggregation with the connection.

After creating the `CrossConnect` object, you need to go the FastConnect location and request to have the physical cable installed. For more information, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the cross-connect to reside. If you're not sure which compartment to use, put the cross-connect in the same compartment with your VCN. For more information about compartments and access control, see Overview of the IAM Service (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the cross-connect. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_cross_connect" "test_cross_connect" {
  #Required
  compartment_id = "${var.compartment_id}"
  location_name = "${var.cross_connect_location_name}"
  port_speed_shape_name = "${var.cross_connect_port_speed_shape_name}"

  #Optional
  cross_connect_group_id = "${oci_core_cross_connect_group.test_cross_connect_group.id}"
  customer_reference_name = "${var.cross_connect_customer_reference_name}"
  defined_tags = {"Operations.CostCenter" = "42"}
  display_name = "${var.cross_connect_display_name}"
  far_cross_connect_or_cross_connect_group_id = "${oci_core_cross_connect_group.test_cross_connect_group.id}"
  freeform_tags = {"Department" = "Finance"}
  near_cross_connect_or_cross_connect_group_id = "${oci_core_cross_connect_group.test_cross_connect_group.id}"
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the cross-connect.
- `cross_connect_group_id` - (Optional) The OCID of the cross-connect group to put this cross-connect in.
- `customer_reference_name` - (Optional) (Updatable) A reference name or identifier for the physical fiber connection that this cross-connect uses.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`

- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `far_cross_connect_or_cross_connect_group_id` - (Optional) If you already have an existing cross-connect or cross-connect group at this FastConnect location, and you want this new cross-connect to be on a different router (for the purposes of redundancy), provide the OCID of that existing cross-connect or cross-connect group.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `is_active` - (Optional) (Updatable) Set to true to activate the cross-connect. You activate it after the physical cabling is complete, and you've confirmed the cross-connect's light levels are good and your side of the interface is up. Activation indicates to Oracle that the physical connection is ready.
- `location_name` - (Required) The name of the FastConnect location where this cross-connect will be installed. To get a list of the available locations, see `ListCrossConnectLocations` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CrossConnectLocation/ListCrossConnectLocations>). Example: `CyrusOne, Chandler, AZ`
- `near_cross_connect_or_cross_connect_group_id` - (Optional) If you already have an existing cross-connect or cross-connect group at this FastConnect location, and you want this new cross-connect to be on the same router, provide the OCID of that existing cross-connect or cross-connect group.
- `port_speed_shape_name` - (Required) The port speed for this cross-connect. To get a list of the available port speeds, see `ListCrossConnectPortSpeedShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CrossConnectPortSpeedShape/ListCrossconnectPortSpeedShapes>). Example: `10 Gbps`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the cross-connect group.
- `cross_connect_group_id` - The OCID of the cross-connect group this cross-connect belongs to (if any).
- `customer_reference_name` - A reference name or identifier for the physical fiber connection that this cross-connect uses.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The cross-connect's Oracle ID (OCID).
- `location_name` - The name of the FastConnect location where this cross-connect is installed.

- `port_name` - A string identifying the meet-me room port for this cross-connect.
- `port_speed_shape_name` - The port speed for this cross-connect. Example: 10 Gbps
- `state` - The cross-connect's current state.
- `time_created` - The date and time the cross-connect was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

CrossConnects can be imported using the `id`, e.g.

```
$ terraform import oci_core_cross_connect.test_cross_connect "id"
```

oci_core_dedicated_vm_host

This resource provides the Dedicated Vm Host resource in Oracle Cloud Infrastructure Core service.

Creates a new dedicated virtual machine host in the specified compartment and the specified availability domain. Dedicated virtual machine hosts enable you to run your Compute virtual machine (VM) instances on dedicated servers that are a single tenant and not shared with other customers. For more information, see Dedicated Virtual Machine Hosts (<https://docs.cloud.oracle.com/iaas/Content/Compute/Concepts/dedicatedvmhosts.htm>).

Example Usage

```
resource "oci_core_dedicated_vm_host" "test_dedicated_vm_host" {  
  #Required  
  availability_domain = "${var.dedicated_vm_host_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  dedicated_vm_host_shape = "${var.dedicated_vm_host_dedicated_vm_host_shape}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.dedicated_vm_host_display_name}"  
  fault_domain = "${var.dedicated_vm_host_fault_domain}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain of the dedicated virtual machine host. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) (Updatable) The OCID of the compartment.
- `dedicated_vm_host_shape` - (Required) The dedicated virtual machine host shape. The shape determines the number of CPUs and other resources available for VM instances launched on the dedicated virtual machine host.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My dedicated VM host`
- `fault_domain` - (Optional) The fault domain for the dedicated virtual machine host's assigned instances. For more information, see Fault Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm#fault>). If you do not specify the fault domain, the system selects one for you. To change the fault domain for a dedicated virtual machine host, delete it and create a new dedicated virtual machine host in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` operation in the Identity and Access Management Service API (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/>).

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain the dedicated virtual machine host is running in. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the dedicated virtual machine host.
- `dedicated_vm_host_shape` - The dedicated virtual machine host shape. The shape determines the number of CPUs and other resources available for VMs.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My Dedicated Vm Host`
- `fault_domain` - The fault domain for the dedicated virtual machine host's assigned instances. For more information, see [Fault Domains](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm#fault) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm#fault>).

If you do not specify the fault domain, the system selects one for you. To change the fault domain for a dedicated virtual machine host, delete it, and then create a new dedicated virtual machine host in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` operation in the Identity and Access Management Service API (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/>).

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the dedicated VM host.
- `remaining_ocpus` - The current available OCPUs of the dedicated VM host.
- `state` - The current state of the dedicated VM host.

- `time_created` - The date and time the dedicated VM host was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `total_ocpus` - The current total OCPUs of the dedicated VM host.

Import

DedicatedVmHosts can be imported using the `id`, e.g.

```
$ terraform import oci_core_dedicated_vm_host.test_dedicated_vm_host "id"
```

oci_core_dhcp_options

This resource provides the Dhcp Options resource in Oracle Cloud Infrastructure Core service.

Creates a new set of DHCP options for the specified VCN. For more information, see [DhcpOptions](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpOptions/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpOptions/>).

For the purposes of access control, you must provide the OCID of the compartment where you want the set of DHCP options to reside. Notice that the set of options doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the set of DHCP options in the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the set of DHCP options, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

For more information on configuring a VCN's default DHCP options, see [Managing Default VCN Resources](/docs/providers/oci/guides/managing_default_resources.html) ([/docs/providers/oci/guides/managing_default_resources.html](/docs/providers/oci/guides/managing_default_resources.html))

Example Usage

VCN Local with Internet

```
resource "oci_core_dhcp_options" "test_dhcp_options" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  options {  
    type = "DomainNameServer"  
    server_type = "VcnLocalPlusInternet"  
  }  
  
  options {  
    type = "SearchDomain"  
    search_domain_names = [ "test.com" ]  
  }  
  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.dhcp_options_display_name}"  
}
```

Custom DNS Server

```
resource "oci_core_dhcp_options" "test_dhcp_options" {
  #Required
  compartment_id = "${var.compartment_id}"
  options {
    type = "DomainNameServer"
    server_type = "CustomDnsServer"
    custom_dns_servers = [ "192.168.0.2", "192.168.0.11", "192.168.0.19" ]
  }

  options {
    type = "SearchDomain"
    search_domain_names = [ "test.com" ]
  }

  vcn_id = "${oci_core_vcn.test_vcn.id}"

  #Optional
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.dhcp_options_display_name}"
  freeform_tags = {"Department"= "Finance"}
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the set of DHCP options.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `options` - (Required) (Updatable) A set of DHCP options.
 - `custom_dns_servers` - (Applicable when type=DomainNameServer) (Updatable) If you set `serverType` to `CustomDnsServer`, specify the IP address of at least one DNS server of your choice (three maximum).
 - `search_domain_names` - (Required when type=SearchDomain) (Updatable) A single search domain name according to RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>). During a DNS query, the OS will append this search domain name to the value being queried.

If you don't want to use a search domain name, omit this option from the set of DHCP options. Do not include this option with an empty list of search domain names, or with an empty string as the value for any search domain name.

- `server_type` - (Required when `type=DomainNameServer`) (Updatable)
 - **VcnLocal**: Reserved for future use.
 - **VcnLocalPlusInternet**: Also referred to as "Internet and VCN Resolver". Instances can resolve internet hostnames (no internet gateway is required), and can resolve hostnames of instances in the VCN. This is the default value in the default set of DHCP options in the VCN. For the Internet and VCN Resolver to work across the VCN, there must also be a DNS label set for the VCN, a DNS label set for each subnet, and a hostname for each instance. The Internet and VCN Resolver also enables reverse DNS lookup, which lets you determine the hostname corresponding to the private IP address. For more information, see [DNS in Your Virtual Cloud Network \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm).
 - **CustomDnsServer**: Instances use a DNS server of your choice (three maximum).
- `type` - (Required) (Updatable) The specific DHCP option. Either `DomainNameServer` (for `DhcpDnsOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpDnsOption/>)) or `SearchDomain` (for `DhcpSearchDomainOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpSearchDomainOption/>)).
- `vcn_id` - (Required) The OCID of the VCN the set of DHCP options belongs to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the set of DHCP options.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`
- `id` - Oracle ID (OCID) for the set of DHCP options.
- `options` - The collection of individual DHCP options.
 - `custom_dns_servers` - If you set `serverType` to `CustomDnsServer`, specify the IP address of at least one DNS server of your choice (three maximum).
 - `search_domain_names` - A single search domain name according to RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>). During a DNS query, the OS will append this search domain name to the value being queried.

If you don't want to use a search domain name, omit this option from the set of DHCP options. Do not include

this option with an empty list of search domain names, or with an empty string as the value for any search domain name.

- `server_type` -
 - **VcnLocal**: Reserved for future use.
 - **VcnLocalPlusInternet**: Also referred to as "Internet and VCN Resolver". Instances can resolve internet hostnames (no internet gateway is required), and can resolve hostnames of instances in the VCN. This is the default value in the default set of DHCP options in the VCN. For the Internet and VCN Resolver to work across the VCN, there must also be a DNS label set for the VCN, a DNS label set for each subnet, and a hostname for each instance. The Internet and VCN Resolver also enables reverse DNS lookup, which lets you determine the hostname corresponding to the private IP address. For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).
 - **CustomDnsServer**: Instances use a DNS server of your choice (three maximum).
- `type` - The specific DHCP option. Either `DomainNameServer` (for `DhcpDnsOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpDnsOption/>)) or `SearchDomain` (for `DhcpSearchDomainOption` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/DhcpSearchDomainOption/>)).
- `state` - The current state of the set of DHCP options.
- `time_created` - Date and time the set of DHCP options was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the set of DHCP options belongs to.

Import

DhcpOptions can be imported using the `id`, e.g.

```
$ terraform import oci_core_dhcp_options.test_dhcp_options "id"
```

oci_core_drg_attachment

This resource provides the Drg Attachment resource in Oracle Cloud Infrastructure Core service.

Attaches the specified DRG to the specified VCN. A VCN can be attached to only one DRG at a time, and vice versa. The response includes a `DrgAttachment` object with its own OCID. For more information about DRGs, see [Dynamic Routing Gateways \(DRGs\) \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDRGs.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDRGs.htm).

You may optionally specify a *display name* for the attachment, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

For the purposes of access control, the DRG attachment is automatically placed into the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm).

Example Usage

```
resource "oci_core_drg_attachment" "test_drg_attachment" {  
  #Required  
  drg_id = "${oci_core_drg.test_drg.id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  display_name = "${var.drg_attachment_display_name}"  
  route_table_id = "${oci_core_route_table.test_route_table.id}"  
}
```

Argument Reference

The following arguments are supported:

- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `drg_id` - (Required) The OCID of the DRG.
- `route_table_id` - (Optional) (Updatable) The OCID of the route table the DRG attachment will use.

If you don't specify a route table here, the DRG attachment is created without an associated route table. The Networking service does NOT automatically associate the attached VCN's default route table with the DRG attachment.

For information about why you would associate a route table with a DRG attachment, see:

- Transit Routing: Access to Multiple VCNs in Same Region
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>)
 - Transit Routing: Private Access to Oracle Services
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>)
- `vcn_id` - (Required) The OCID of the VCN.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the DRG attachment.
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG.
- `id` - The DRG attachment's Oracle ID (OCID).
- `route_table_id` - The OCID of the route table the DRG attachment is using.

For information about why you would associate a route table with a DRG attachment, see:

- Transit Routing: Access to Multiple VCNs in Same Region
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>)
- Transit Routing: Private Access to Oracle Services
(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>)
- `state` - The DRG attachment's current state.
- `time_created` - The date and time the DRG attachment was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN.

Import

DrgAttachments can be imported using the `id`, e.g.

```
$ terraform import oci_core_drg_attachment.test_drg_attachment "id"
```


oci_core_drg

This resource provides the Drg resource in Oracle Cloud Infrastructure Core service.

Creates a new dynamic routing gateway (DRG) in the specified compartment. For more information, see [Dynamic Routing Gateways \(DRGs\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDRGs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDRGs.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the DRG to reside. Notice that the DRG doesn't have to be in the same compartment as the VCN, the DRG attachment, or other Networking Service components. If you're not sure which compartment to use, put the DRG in the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the DRG, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_drg" "test_drg" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.drg_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the DRG.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the

resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the DRG.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The DRG's Oracle ID (OCID).
- `state` - The DRG's current state.
- `time_created` - The date and time the DRG was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

Drgs can be imported using the `id`, e.g.

```
$ terraform import oci_core_drg.test_drg "id"
```

oci_core_image

This resource provides the Image resource in Oracle Cloud Infrastructure Core service.

Creates a boot disk image for the specified instance or imports an exported image from the Oracle Cloud Infrastructure Object Storage service.

When creating a new image, you must provide the OCID of the instance you want to use as the basis for the image, and the OCID of the compartment containing that instance. For more information about images, see [Managing Custom Images](https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/managingcustomimages.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/managingcustomimages.htm>).

When importing an exported image from Object Storage, you specify the source information in `ImageSourceDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/latest/requests/ImageSourceDetails>).

When importing an image based on the namespace, bucket name, and object name, use `ImageSourceViaObjectStorageTupleDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/latest/requests/ImageSourceViaObjectStorageTupleDetails>).

When importing an image based on the Object Storage URL, use `ImageSourceViaObjectStorageUriDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/latest/requests/ImageSourceViaObjectStorageUriDetails>). See [Object Storage URLs](https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/imageimportexport.htm#URLs) (<https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/imageimportexport.htm#URLs>) and [Using Pre-Authenticated Requests](https://docs.cloud.oracle.com/iaas/Content/Object/Tasks/usingpreauthenticatedrequests.htm) (<https://docs.cloud.oracle.com/iaas/Content/Object/Tasks/usingpreauthenticatedrequests.htm>) for constructing URLs for image import/export.

For more information about importing exported images, see [Image Import/Export](https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/imageimportexport.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/Tasks/imageimportexport.htm>).

You may optionally specify a *display name* for the image, which is simply a friendly name or description. It does not have to be unique, and you can change it. See [UpdateImage](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Image/UpdateImage) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Image/UpdateImage>). Avoid entering confidential information.

Example Usage

Create image from instance in tenancy

```
resource "oci_core_image" "test_image" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.image_display_name}"  
  launch_mode = "${var.image_launch_mode}"  
  freeform_tags = {"Department" = "Finance"}  
}
```

Create image from exported image via direct access to object store

```
resource "oci_core_image" "test_image" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.image_display_name}"  
  launch_mode = "${var.image_launch_mode}"  
  
  image_source_details {  
    source_type = "objectStorageTuple"  
    bucket_name = "${var.bucket_name}"  
    namespace_name = "${var.namespace}"  
    object_name = "${var.object_name}" # exported image name  
  
    #Optional  
    source_image_type = "${var.source_image_type}"  
  }  
}
```

Create image from exported image at publicly accessible uri

```
resource "oci_core_image" "test_image" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  display_name = "${var.image_display_name}"  
  launch_mode = "${var.image_launch_mode}"  
  
  image_source_details {  
    source_type = "objectStorageUri"  
    source_uri = "${var.source_uri}"  
  
    #Optional  
    source_image_type = "${var.source_image_type}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment you want the image to be created in.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`

- `display_name` - (Optional) (Updatable) A user-friendly name for the image. It does not have to be unique, and it's changeable. Avoid entering confidential information.

You cannot use an Oracle-provided image name as a custom image name.

Example: My Oracle Linux image

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `image_source_details` - (Optional) Details for creating an image through import
 - `bucket_name` - (Required when `source_type=objectStorageTuple`) The Object Storage bucket for the image.
 - `namespace_name` - (Required when `source_type=objectStorageTuple`) The Object Storage namespace for the image.
 - `object_name` - (Required when `source_type=objectStorageTuple`) The Object Storage name for the image.
 - `source_image_type` - (Optional) The format of the image to be imported. Only monolithic images are supported. This attribute is not used for exported Oracle images with the Oracle Cloud Infrastructure image format. Allowed values are:
 - `QCOW2`
 - `VMDK`
 - `source_type` - (Required) The source type for the image. Use `objectStorageTuple` when specifying the namespace, bucket name, and object name. Use `objectStorageUri` when specifying the Object Storage URL.
 - `source_uri` - (Required when `source_type=objectStorageUri`) The Object Storage URL for the image.
- `instance_id` - (Optional) The OCID of the instance you want to use as the basis for the image.
- `launch_mode` - (Optional) Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with paravirtualized boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `CUSTOM` - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `agent_features` -
 - `is_monitoring_supported` - Whether the agent running on the instance can gather performance metrics and monitor the instance.
- `base_image_id` - The OCID of the image originally used to launch the instance.
- `compartment_id` - The OCID of the compartment containing the instance you want to use as the basis for the image.
- `create_image_allowed` - Whether instances launched with this image can be used to create new images. For example, you cannot create an image of an Oracle Database instance. Example: `true`
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the image. It does not have to be unique, and it's changeable. Avoid entering confidential information.

You cannot use an Oracle-provided image name as a custom image name.

Example: `My custom Oracle Linux image`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the image.
- `launch_mode` - Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `CUSTOM` - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.
- `launch_options` -
 - `boot_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - `SCSI` - Emulated SCSI disk.
 - `IDE` - Emulated IDE disk.
 - `VFIO` - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - `PARAVIRTUALIZED` - Paravirtualized disk.
 - `firmware` - Firmware used to boot VM. Select the option that matches your operating system.

- BIOS - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
- UEFI_64 - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
- `is_consistent_volume_naming_enabled` - Whether to enable consistent volume naming feature. Defaults to false.
- `is_pv_encryption_in_transit_enabled` - Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
- `network_type` - Emulation type for the physical network interface card (NIC).
 - E1000 - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - VFIO - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - PARAVIRTUALIZED - VM instances launch with paravirtualized devices using virtio drivers.
- `remote_data_volume_type` - Emulation type for volume.
 - ISCSI - ISCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
- `operating_system` - The image's operating system. Example: Oracle Linux
- `operating_system_version` - The image's operating system version. Example: 7.2
- `size_in_mbs` - The boot volume size for an instance launched from this image, (1 MB = 1048576 bytes). Note this is not the same as the size of the image when it was exported or the actual size of the image. Example: 47694
- `state` - The current state of the image.
- `time_created` - The date and time the image was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

Images can be imported using the `id`, e.g.

```
$ terraform import oci_core_image.test_image "id"
```

oci_core_instance_configuration

This resource provides the Instance Configuration resource in Oracle Cloud Infrastructure Core service.

Creates an instance configuration. An instance configuration is a template that defines the settings to use when creating Compute instances.

Example Usage

```
resource "oci_core_instance_configuration" "test_instance_configuration" {
  #Required
  compartment_id = "${var.compartment_id}"

  #Optional
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.instance_configuration_display_name}"
  freeform_tags = {"Department"= "Finance"}
  instance_details {
    #Required
    instance_type = "${var.instance_configuration_instance_details_instance_type}"

    #Optional
    block_volumes {

      #Optional
      attach_details {
        #Required
        type = "${var.instance_configuration_instance_details_block_volumes_attach_details_type}"

        #Optional
        display_name = "${var.instance_configuration_instance_details_block_volumes_attach_details_display_name}"
        is_read_only = "${var.instance_configuration_instance_details_block_volumes_attach_details_is_read_only}"
        use_chap = "${var.instance_configuration_instance_details_block_volumes_attach_details_use_chap}"
      }
      create_details {

        #Optional
        availability_domain = "${var.instance_configuration_instance_details_block_volumes_create_details_availability_domain}"
        backup_policy_id = "${data.oci_core_volume_backup_policies.test_volume_backup_policies.volume_backup_policies.0.id}"
        compartment_id = "${var.compartment_id}"
        defined_tags = {"Operations.CostCenter"= "42"}
        display_name = "${var.instance_configuration_instance_details_block_volumes_create_details_display_name}"
        freeform_tags = {"Department"= "Finance"}
        size_in_gbs = "${var.instance_configuration_instance_details_block_volumes_create_details_size_in_gbs}"
        source_details {
          #Required
          type = "${var.instance_configuration_instance_details_block_volumes_create_details_source_details_type}"

          #Optional
          id = "${var.instance_configuration_instance_details_block_volumes_create_details_source_details_id}"
        }
      }
      volume_id = "${oci_core_volume.test_volume.id}"
    }
  }
  launch_details {

    #Optional
    availability_domain = "${var.instance_configuration_instance_details_launch_details_availability_domain}"
    compartment_id = "${var.compartment_id}"
    create_vnic_details {

      #Optional
      assign_public_ip = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_assign_public_ip}"
      display_name = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_display_name}"
      hostname_label = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_hostname_label}"
      nsrg_ids = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_nsrg_ids}"
      private_ip = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_private_ip}"
      skip_source_dest_check = "${var.instance_configuration_instance_details_launch_details_create_vnic_details_skip_source_dest_check}"
      subnet_id = "${oci_core_subnet.test_subnet.id}"
    }
    defined_tags = {"Operations.CostCenter"= "42"}
    display_name = "${var.instance_configuration_instance_details_launch_details_display_name}"
    extended_metadata = "${var.instance_configuration_instance_details_launch_details_extended_metadata}"
    fault_domain = "${var.instance_configuration_instance_details_launch_details_fault_domain}"
    freeform_tags = {"Department"= "Finance"}
    ipxe_script = "${var.instance_configuration_instance_details_launch_details_ipxe_script}"
    metadata = "${var.instance_configuration_instance_details_launch_details_metadata}"
    shape = "${var.instance_configuration_instance_details_launch_details_shape}"
    source_details {
      #Required
      source_type = "${var.instance_configuration_instance_details_launch_details_source_details_source_type}"

      #Optional
      boot_volume_id = "${oci_core_boot_volume.test_boot_volume.id}"
      boot_volume_size_in_gbs = "${var.instance_configuration_instance_details_launch_details_source_details_boot_volume_size_in_gbs}"
      image_id = "${oci_core_image.test_image.id}"
    }
  }
  secondary_vnics {

    #Optional
    create_vnic_details {
```



```

create_vnic_details = {

    #Optional
    assign_public_ip = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_assign_public_ip}"
    display_name = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_display_name}"
    hostname_label = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_hostname_label}"
    nsg_ids = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_nsg_ids}"
    private_ip = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_private_ip}"
    skip_source_dest_check = "${var.instance_configuration_instance_details_secondary_vnics_create_vnic_details_skip_source_dest_check}"
    subnet_id = "${oci_core_subnet.test_subnet.id}"
}
display_name = "${var.instance_configuration_instance_details_secondary_vnics_display_name}"
nic_index = "${var.instance_configuration_instance_details_secondary_vnics_nic_index}"
}
instance_id = "${oci_core_instance.test_instance.id}"
source = "${var.instance_configuration_source}"
}

```

Argument Reference

The following arguments are supported:

- **compartment_id** - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the instance configuration.
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **display_name** - (Optional) (Updatable) A user-friendly name for the instance configuration. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **instance_details** - (Required when source=NONE)
 - **block_volumes** - (Optional)
 - **attach_details** - (Optional)
 - **display_name** - (Applicable when instance_type=compute) A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
 - **is_read_only** - (Applicable when instance_type=compute) Whether the attachment should be created in read-only mode.
 - **type** - (Required) The type of volume. The only supported values are "iscsi" and "paravirtualized".
 - **use_chap** - (Applicable when type=iscsi) Whether to use CHAP authentication for the volume attachment. Defaults to false.
 - **create_details** - (Optional)
 - **availability_domain** - (Optional) The availability domain of the volume. Example: `Uocm:PHX-AD-1`
 - **backup_policy_id** - (Optional) If provided, specifies the ID of the volume backup policy to assign to the newly created volume. If omitted, no policy will be assigned.
 - **compartment_id** - (Optional) The OCID of the compartment that contains the volume.
 - **defined_tags** - (Optional) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - **display_name** - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
 - **freeform_tags** - (Optional) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - **size_in_gbs** - (Optional) The size of the volume in GBs.
 - **source_details** - (Optional) Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same availability domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.
 - **id** - (Optional) The OCID of the volume backup.
 - **type** - (Required) The type can be one of these values: `volume`, `volumeBackup`
 - **volume_id** - (Optional) The OCID of the volume.
 - **instance_type** - (Required) The type of instance details. Supported instanceType is compute
 - **launch_details** - (Optional)
 - **availability_domain** - (Optional) The availability domain of the instance. Example: `Uocm:PHX-AD-1`
 - **compartment_id** - (Optional) The OCID of the compartment.
 - **create_vnic_details** - (Optional) Details for the primary VNIC, which is automatically created and attached when the instance is launched.
 - **assign_public_ip** - (Optional) Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **display_name** - (Optional) A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - **hostname_label** - (Optional) The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **nsg_ids** - (Optional) A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see [NetworkSecurityGroup](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).

- **source_details** - (Optional) Details for creating an instance. Use this parameter to specify whether a boot volume or an image should be used to launch a new instance.

- `boot_volume_id` - (Applicable when `source_type=bootVolume`) The OCID of the boot volume used to boot the instance.
 - `boot_volume_size_in_gbs` - (Applicable when `source_type=image`) The size of the boot volume in GBs. The minimum value is 50 GB and the maximum value is 16384 GB (16TB).
 - `image_id` - (Applicable when `source_type=image`) The OCID of the image used to boot the instance.
 - `source_type` - (Required) The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.
- `secondary_vnics` - (Optional)
 - `create_vnic_details` - (Optional) Details for creating a new VNIC.
 - `assign_public_ip` - (Optional) Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `display_name` - (Optional) A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - `hostname_label` - (Optional) The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `nsg_ids` - (Optional) A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - `private_ip` - (Optional) A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `skip_source_dest_check` - (Optional) Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `subnet_id` - (Optional) The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - `display_name` - (Optional) A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed.
 - `nic_index` - (Optional) Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see `Virtual Network Interface Cards (VNICs)` (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).
 - `instance_id` - (Required when `source=INSTANCE`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the instance to use to create the instance configuration.
 - `source` - (Optional) The source of the instance configuration. An instance configuration defines the settings to use when creating Compute instances, including details such as the base image, shape, and metadata. You can also specify the associated resources for the instance, such as block volume attachments and network configuration.

The following values are supported:

- `NONE` : Creates an instance configuration using the list of settings that you specify.
- `INSTANCE` : Creates an instance configuration using an existing instance as a template. The instance configuration uses the same settings as the instance.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the instance configuration.
- `deferred_fields` - Parameters that were not specified when the instance configuration was created, but that are required to launch an instance from the instance configuration. See the `LaunchInstanceConfiguration` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Instance/LaunchInstanceConfiguration>) operation.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the instance configuration.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the instance configuration.
- `instance_details` -
 - `block_volumes` -
 - `attach_details` -
 - `display_name` - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
 - `is_read_only` - Whether the attachment should be created in read-only mode.
 - `type` - The type of volume. The only supported values are "iscsi" and "paravirtualized".
 - `use_chap` - Whether to use CHAP authentication for the volume attachment. Defaults to false.
 - `create_details` -
 - `availability_domain` - The availability domain of the volume. Example: `Uocm:PHX-AD-1`
 - `backup_policy_id` - If provided, specifies the ID of the volume backup policy to assign to the newly created volume. If omitted, no policy will be assigned.
 - `compartment_id` - The OCID of the compartment that contains the volume.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see `Resource Tags` (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`

- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **size_in_gbs** - The size of the volume in GBs.
- **source_details** - Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same availability domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.
 - **id** - The OCID of the volume backup.
 - **type** - The type can be one of these values: `volume`, `volumeBackup`
- **volume_id** - The OCID of the volume.

o **instance_type** - The type of instance details. Supported `instanceType` is `compute`

o **launch_details** -

- **availability_domain** - The availability domain of the instance. Example: `Uocm:PHX-AD-1`
- **compartment_id** - The OCID of the compartment.
- **create_vnic_details** - Details for the primary VNIC, which is automatically created and attached when the instance is launched.
 - **assign_public_ip** - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **display_name** - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - **hostname_label** - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **nsg_ids** - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see [NetworkSecurityGroup](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - **private_ip** - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **skip_source_dest_check** - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **subnet_id** - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- **extended_metadata** - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

- **fault_domain** - A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/FaultDomain/ListFaultDomains>) operation in the Identity and Access Management Service API.

Example: `FAULT-DOMAIN-1`

- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **ipxe_script** - This is an advanced option.

When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-02.oracle.boot`.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see [Bring Your Own Image](https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- **metadata** - Custom metadata key/value pairs that you provide, such as the SSH public key required to connect to the instance.

A metadata service runs on every launched instance. The service is an HTTP endpoint listening on `169.254.169.254`. You can use the service to:

- Provide information to Cloud-Init (<https://cloudinit.readthedocs.org/en/latest/>) to be used for various system initialization tasks.
- Get information about the instance, including the custom metadata that you provide when you launch the instance.

Providing Cloud-Init Metadata

You can use the following metadata key names to provide information to Cloud-Init:

"ssh_authorized_keys" - Provide one or more public SSH keys to be included in the `~/.ssh/authorized_keys` file for the default user on the instance. Use a newline character to separate multiple keys. The SSH keys must be in the format necessary for the `authorized_keys` file, as shown in the example below.

"user_data" - Provide your own base64-encoded data to be used by Cloud-Init to run custom scripts or provide custom Cloud-Init configuration. For information about how to take advantage of user data, see the Cloud-Init Documentation (<http://cloudinit.readthedocs.org/en/latest/topics/format.html>).

Note: Cloud-Init does not pull this data from the `http://169.254.169.254/opc/v1/instance/metadata/` path. When the instance launches and either of these keys are provided, the key values are formatted as OpenStack metadata and copied to the following locations, which are recognized by Cloud-Init:

`http://169.254.169.254/openstack/latest/meta_data.json` - This JSON blob contains, among other things, the SSH keys that you provided for **"ssh_authorized_keys"**.

`http://169.254.169.254/openstack/latest/user_data` - Contains the base64-decoded data that you provided for **"user_data"**.

Metadata Example

```
"metadata" : { "quake_bot_level" : "Severe", "ssh_authorized_keys" : "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQCAQCZ06fccNTQfq+xubFlj5ZR3kt+uzspdH9tXL+IAejSM1NXM+CFZev7MlxfEjas06y80ZBZ7DUTQO0GxjPeD8NCOb1VorF8M4xuLwrmzRtkoZzU16umt4y1W
ryan.smith@company.com (mailto:ryan.smith@company.com) ssh-rsa
AAAAB3NzaC1yc2EAAAABJQAAAQEAzJSatwEPoB3Jmr58IXrDGzLuDYkWAYg8AsLYlo6JZvKpjY1xednlcfEVQJm4T2DhVmdWhRrwQ8DmayVZvBkLt+zs2LdoAJEVimKwXcjFD/7wtH8Lnk17Higlbbsb
rsa-key-20160227", "user_data" : "SWYgeW91IGNhbiBzZWUgdGhpcywdGhlbiBpdCB3b3JrZWQgbWF5YmUuUg==" } Getting Metadata on the Instance
```

To get information about your instance, connect to the instance using SSH and issue any of the following GET requests:

```
curl http://169.254.169.254/opc/v1/instance/ (http://169.254.169.254/opc/v1/instance/) curl http://169.254.169.254/opc/v1/instance/metadata/
(http://169.254.169.254/opc/v1/instance/metadata/) curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/)
```

You'll get back a response that includes all the instance information; only the metadata information; or the metadata information for the specified key name, respectively.

- **shape** - The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- **source_details** - Details for creating an instance. Use this parameter to specify whether a boot volume or an image should be used to launch a new instance.

- **boot_volume_id** - The OCID of the boot volume used to boot the instance.
- **boot_volume_size_in_gbs** - The size of the boot volume in GBs. The minimum value is 50 GB and the maximum value is 16384 GB (16TB).
- **image_id** - The OCID of the image used to boot the instance.
- **source_type** - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.

- **secondary_vnics** -

- **create_vnic_details** - Details for creating a new VNIC.
 - **assign_public_ip** - Whether the VNIC should be assigned a public IP address. See the `assignPublicIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **display_name** - A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
 - **hostname_label** - The hostname for the VNIC's primary private IP. See the `hostnameLabel` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **nsg_ids** - A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see `NetworkSecurityGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
 - **private_ip** - A private IP address of your choice to assign to the VNIC. See the `privateIp` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **skip_source_dest_check** - Whether the source/destination check is disabled on the VNIC. See the `skipSourceDestCheck` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
 - **subnet_id** - The OCID of the subnet to create the VNIC in. See the `subnetId` attribute of `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>) for more information.
- **display_name** - A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed.
- **nic_index** - Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see `Virtual Network Interface Cards (VNICs)` (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

- **time_created** - The date and time the instance configuration was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

InstanceConfigurations can be imported using the `id`, e.g.

```
$ terraform import oci_core_instance_configuration.test_instance_configuration "id"
```

oci_core_instance_console_connection

This resource provides the Instance Console Connection resource in Oracle Cloud Infrastructure Core service.

Creates a new console connection to the specified instance. Once the console connection has been created and is available, you connect to the console using SSH.

For more information about console access, see [Accessing the Console](https://docs.cloud.oracle.com/iaas/Content/Compute/References/serialconsole.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/serialconsole.htm>).

Example Usage

```
resource "oci_core_instance_console_connection" "test_instance_console_connection" {  
  #Required  
  instance_id = "${oci_core_instance.test_instance.id}"  
  public_key = "${var.instance_console_connection_public_key}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- **defined_tags** - (Optional) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **freeform_tags** - (Optional) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **instance_id** - (Required) The OCID of the instance to create the console connection to.
- **public_key** - (Required) The SSH public key used to authenticate the console connection.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment to contain the console connection.
- `connection_string` - The SSH connection string for the console connection.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `fingerprint` - The SSH public key fingerprint for the console connection.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the console connection.
- `instance_id` - The OCID of the instance the console connection connects to.
- `state` - The current state of the console connection.
- `vnc_connection_string` - The SSH connection string for the SSH tunnel used to connect to the console connection over VNC.

Import

InstanceConsoleConnections can be imported using the `id`, e.g.

```
$ terraform import oci_core_instance_console_connection.test_instance_console_connection "id"
```

oci_core_instance

This resource provides the Instance resource in Oracle Cloud Infrastructure Core service.

Creates a new instance in the specified compartment and the specified availability domain. For general information about instances, see Overview of the Compute Service (<https://docs.cloud.oracle.com/iaas/Content/Compute/Concepts/computeoverview.htm>).

For information about access control and compartments, see Overview of the IAM Service (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

For information about availability domains, see Regions and Availability Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>). To get a list of availability domains, use the `ListAvailabilityDomains` operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure resources, including instances, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console.

To launch an instance using an image or a boot volume use the `sourceDetails` parameter in `LaunchInstanceDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/LaunchInstanceDetails>).

When you launch an instance, it is automatically attached to a virtual network interface card (VNIC), called the *primary VNIC*. The VNIC has a private IP address from the subnet's CIDR. You can either assign a private IP address of your choice or let Oracle automatically assign one. You can choose whether the instance has a public IP address. To retrieve the addresses, use the `ListVnicAttachments` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/VnicAttachment/ListVnicAttachments>) operation to get the VNIC ID for the instance, and then call `GetVnic` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vnic/GetVnic>) with the VNIC ID.

You can later add secondary VNICs to an instance. For more information, see Virtual Network Interface Cards (VNICs) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

Example Usage

```

resource "oci_core_instance" "test_instance" {
  #Required
  availability_domain = "${var.instance_availability_domain}"
  compartment_id = "${var.compartment_id}"
  shape = "${var.instance_shape}"

  #Optional
  agent_config {

    #Optional
    is_monitoring_disabled = "${var.instance_agent_config_is_monitoring_disabled}"
  }
  create_vnic_details {
    #Required
    subnet_id = "${oci_core_subnet.test_subnet.id}"

    #Optional
    assign_public_ip = "${var.instance_create_vnic_details_assign_public_ip}"
    defined_tags = {"Operations.CostCenter"= "42"}
    display_name = "${var.instance_create_vnic_details_display_name}"
    freeform_tags = {"Department"= "Finance"}
    hostname_label = "${var.instance_create_vnic_details_hostname_label}"
    nsg_ids = "${var.instance_create_vnic_details_nsg_ids}"
    private_ip = "${var.instance_create_vnic_details_private_ip}"
    skip_source_dest_check = "${var.instance_create_vnic_details_skip_source_dest_check}"
  }
  dedicated_vm_host_id = "${oci_core_dedicated_vm_host.test_dedicated_vm_host.id}"
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.instance_display_name}"
  extended_metadata = {
    some_string = "stringA"
    nested_object = {"some_string\": \"stringB\", \"object\": {\"some_string\": \"stringC\"}}"}
  }
  fault_domain = "${var.instance_fault_domain}"
  freeform_tags = {"Department"= "Finance"}
  hostname_label = "${var.instance_hostname_label}"
  ipxe_script = "${var.instance_ipxe_script}"
  is_pv_encryption_in_transit_enabled = "${var.instance_is_pv_encryption_in_transit_enabled}"
  launch_options {

    #Optional
    boot_volume_type = "${var.instance_launch_options_boot_volume_type}"
    firmware = "${var.instance_launch_options_firmware}"
    is_consistent_volume_naming_enabled = "${var.instance_launch_options_is_consistent_volume_naming_enabled}"
    is_pv_encryption_in_transit_enabled = "${var.instance_launch_options_is_pv_encryption_in_transit_enabled}"
    network_type = "${var.instance_launch_options_network_type}"
    remote_data_volume_type = "${var.instance_launch_options_remote_data_volume_type}"
  }
  metadata = {
    ssh_authorized_keys = "${var.ssh_public_key}"
    user_data = "${base64encode(file(var.custom_bootstrap_file_name))}"
  }
  source_details {
    #Required
    source_id = "${oci_core_image.test_image.id}"
    source_type = "image"

    #Optional
    boot_volume_size_in_gbs = "${var.instance_source_details_boot_volume_size_in_gbs}"
    kms_key_id = "${oci_kms_key.test_key.id}"
  }
  preserve_boot_volume = false
}

```

Argument Reference

The following arguments are supported:

- agent_config - (Optional) (Updatable)
 - is_monitoring_disabled - (Optional) (Updatable) Whether the agent running on the instance can gather performance metrics and monitor the instance. Default value is false.
- availability_domain - (Required) The availability domain of the instance. Example: Uocm:PHX-AD-1
- compartment_id - (Required) (Updatable) The OCID of the compartment.
- create_vnic_details - (Optional) (Updatable) Details for the primary VNIC, which is automatically created and attached when the instance is launched.
 - assign_public_ip - (Optional) Whether the VNIC should be assigned a public IP address. Defaults to true. If left blank or set to true and `prohibitPublicIpOnVnic` = true, an error is returned.

Note: This public IP address is associated with the primary private IP on the VNIC. For more information, see [IP Addresses](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPaddresses.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPaddresses.htm>).

Note: There's a limit to the number of public IPs (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/>) a VNIC or instance can have. If you try to create a secondary VNIC with an assigned public IP for an instance that has already reached its public IP limit, an error is returned. For information about the public IP limits, see [Public IP Addresses](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

Example: false

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - (Optional) (Updatable) The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain name (FQDN) (for example, `binstance-1` in FQDN `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>). The value appears in the `Vnic` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vnic/>) object and also the `PrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/>) object returned by `ListPrivateIps` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/ListPrivateIps>) and `GetPrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/GetPrivateIp>).

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

When launching an instance, use this `hostnameLabel` instead of the deprecated `hostnameLabel` in `LaunchInstanceDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/requests/LaunchInstanceDetails>). If you provide both, the values must match.

Example: `binstance-1`

- `nsg_ids` - (Optional) (Updatable) A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see [NetworkSecurityGroup](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `private_ip` - (Optional) A private IP address of your choice to assign to the VNIC. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet. This is the VNIC's *primary* private IP address. The value appears in the `Vnic` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vnic/>) object and also the `PrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/>) object returned by `ListPrivateIps` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/ListPrivateIps>) and `GetPrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/GetPrivateIp>). Example: `10.0.3.3`
- `skip_source_dest_check` - (Optional) (Updatable) Whether the source/destination check is disabled on the VNIC. Defaults to `false`, which means the check is performed. For information about why you would skip the source/destination check, see [Using a Private IP as a Route Target](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm#privateip) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm#privateip>). Example: `true`
- `subnet_id` - (Required) The OCID of the subnet to create the VNIC in. When launching an instance, use this `subnetId` instead of the deprecated `subnetId` in `LaunchInstanceDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/requests/LaunchInstanceDetails>). At least one of them is required; if you provide both, the values must match.

- `dedicated_vm_host_id` - (Optional) The OCID of dedicated VM host.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- `extended_metadata` - (Optional) (Updatable) Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

Input in terraform is the same as metadata but allows nested metadata if you pass a valid JSON string as a value. See the example above.

- `fault_domain` - (Optional) A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

To get a list of fault domains, use the `ListFaultDomains` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/FaultDomain/ListFaultDomains>) operation in the Identity and Access Management Service API.

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - (Optional) Deprecated. Instead use `hostnameLabel` in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>). If you provide both, the values must match.
- `image` - (Optional) Deprecated. Use `sourceDetails` with `InstanceSourceViaImageDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/latest/requests/InstanceSourceViaImageDetails>) source type instead. If you specify values for both, the values must match.
- `ipxe_script` - (Optional) This is an advanced option.

When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-02.oracle.boot`.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see [Bring Your Own Image](https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- `is_pv_encryption_in_transit_enabled` - (Optional) Whether to enable in-transit encryption for the data volume's paravirtualized attachment. The default value is `false`.
- `launch_options` - (Optional)
 - `boot_volume_type` - (Optional) Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.

- SCSI - Emulated SCSI disk.
- IDE - Emulated IDE disk.
- VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
- PARAVIRTUALIZED - Paravirtualized disk.
- `firmware` - (Optional) Firmware used to boot VM. Select the option that matches your operating system.
 - BIOS - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
 - UEFI_64 - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
- `is_consistent_volume_naming_enabled` - (Optional) Whether to enable consistent volume naming feature. Defaults to false.
- `is_pv_encryption_in_transit_enabled` - (Optional) Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
- `network_type` - (Optional) Emulation type for the physical network interface card (NIC).
 - E1000 - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - VFIO - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - PARAVIRTUALIZED - VM instances launch with paravirtualized devices using virtio drivers.
- `remote_data_volume_type` - (Optional) Emulation type for volume.
 - ISCSI - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - SCSI - Emulated SCSI disk.
 - IDE - Emulated IDE disk.
 - VFIO - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - PARAVIRTUALIZED - Paravirtualized disk.
- `metadata` - (Optional) (Updatable) Custom metadata key/value pairs that you provide, such as the SSH public key required to connect to the instance.

A metadata service runs on every launched instance. The service is an HTTP endpoint listening on 169.254.169.254. You can use the service to:

- Provide information to Cloud-Init (<https://cloudinit.readthedocs.org/en/latest/>) to be used for various system initialization tasks.
- Get information about the instance, including the custom metadata that you provide when you launch the instance.

Providing Cloud-Init Metadata

You can use the following metadata key names to provide information to Cloud-Init:

"ssh_authorized_keys" - Provide one or more public SSH keys to be included in the `~/.ssh/authorized_keys` file for the default user on the instance. Use a newline character to separate multiple keys. The SSH keys must be in the format necessary for the `authorized_keys` file, as shown in the example below.

"user_data" - Provide your own base64-encoded data to be used by Cloud-Init to run custom scripts or provide custom Cloud-Init configuration. For information about how to take advantage of user data, see the Cloud-Init Documentation (<http://cloudinit.readthedocs.org/en/latest/topics/format.html>).

Note: Cloud-Init does not pull this data from the `http://169.254.169.254/opc/v1/instance/metadata/` path. When the instance launches and either of these keys are provided, the key values are formatted as OpenStack metadata and copied to the following locations, which are recognized by Cloud-Init:

`http://169.254.169.254/openstack/latest/meta_data.json` - This JSON blob contains, among other things, the SSH keys that you provided for **"ssh_authorized_keys"**.

`http://169.254.169.254/openstack/latest/user_data` - Contains the base64-decoded data that you provided for **"user_data"**.

Metadata Example

```
"metadata" : { "quake_bot_level" : "Severe", "ssh_authorized_keys" : "ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQCAQCZ06fccNTQfq+xubFJ5ZR3kt+uzspdH9tXL+IAejSM1NXM+CFZev7MlxfEjas06y80ZBZ7DUTQO0GxjPeD8NCOb1VorF8M4xuLwrnzRtkoZzU16umt4y1W0Q4ifdp3lii
ryan.smith@company.com (mailto:ryan.smith@company.com) ssh-rsa
AAAAB3NzaC1yc2EAAAABJQAAQEAzJSatwEPoB3Jmr58IXrDGzLuDYkWAYg8AsLYlo6jZvKpjY1xednlcfEVQJm4T2DhVmdWhRrwQ8DmayVZvBkLt+zs2LdoAJEVimKwXcJFD/7wtH8Lnk17HiglbbsNXsemjDY0f
rsa-key-20160227", "user_data" : "SWYgeW91IGNhbiBzZWUgdGhpcywgZGhlbiBpdCB3b3JrZWQgbWF5YmUuCG==" } Getting Metadata on the Instance
```

To get information about your instance, connect to the instance using SSH and issue any of the following GET requests:

```
curl http://169.254.169.254/opc/v1/instance/ (http://169.254.169.254/opc/v1/instance/) curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/)
curl http://169.254.169.254/opc/v1/instance/metadata/ (http://169.254.169.254/opc/v1/instance/metadata/)
```

You'll get back a response that includes all the instance information; only the metadata information; or the metadata information for the specified key name, respectively.

Note: Both the 'user_data' and 'ssh_authorized_keys' fields cannot be changed after an instance has launched. Any request which updates, removes, or adds either of these fields will be rejected. You must provide the same values for 'user_data' and 'ssh_authorized_keys' that already exist on the instance.

- `preserve_boot_volume` - (Optional) Specifies whether to delete or preserve the boot volume when terminating an instance. The default value is false. Note: This value only applies to destroy operations initiated by Terraform.
- `shape` - (Required) The shape of an instance. The shape determines the number of CPUs, amount of memory, and other resources allocated to the instance.

You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).

- `source_details` - (Optional) Details for creating an instance. Use this parameter to specify whether a boot volume or an image should be used to launch a new instance.
 - `boot_volume_size_in_gbs` - (Applicable when `source_type=image`) The size of the boot volume in GBs. Minimum value is 50 GB and maximum value is 16384 GB (16TB).
 - `kms_key_id` - (Applicable when `source_type=image`) The OCID of the KMS key to be used as the master encryption key for the boot volume.
 - `source_id` - (Required) The OCID of an image or a boot volume to use, depending on the value of `source_type`.
 - `source_type` - (Required) The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.

- `state` - (Optional) (Updatable) The target state for the instance. Could be set to `RUNNING` or `STOPPED`.
- `subnet_id` - (Optional) Deprecated. Instead use `subnetId` in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>). At least one of them is required; if you provide both, the values must match.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `agent_config` -
 - `is_monitoring_disabled` - Whether the agent running on the instance can gather performance metrics and monitor the instance.
- `availability_domain` - The availability domain the instance is running in. Example: `Uocm:PHX-AD-1`
- `boot_volume_id` - The OCID of the attached boot volume. If the `source_type` is `bootVolume`, this will be the same OCID as the `source_id`.
- `compartment_id` - The OCID of the compartment that contains the instance.
- `dedicated_vm_host_id` - The OCID of dedicated VM host.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information. Example: `My bare metal instance`
- `extended_metadata` - Additional metadata key/value pairs that you provide. They serve the same purpose and functionality as fields in the 'metadata' object.

They are distinguished from 'metadata' fields in that these can be nested JSON objects (whereas 'metadata' fields are string/string maps only).

Input in terraform is the same as metadata but allows nested metadata if you pass a valid JSON string as a value. See the example below.

- `fault_domain` - The name of the fault domain the instance is running in.

A fault domain is a grouping of hardware and infrastructure within an availability domain. Each availability domain contains three fault domains. Fault domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or Compute hardware maintenance that affects one fault domain does not affect instances in other fault domains.

If you do not specify the fault domain, the system selects one for you. To change the fault domain for an instance, terminate it and launch a new instance in the preferred fault domain.

Example: `FAULT-DOMAIN-1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance.
- `image` - Deprecated. Use `sourceDetails` instead.
- `ipxe_script` - When a bare metal or virtual machine instance boots, the iPXE firmware that runs on the instance is configured to run an iPXE script to continue the boot process.

If you want more control over the boot process, you can provide your own custom iPXE script that will run when the instance boots; however, you should be aware that the same iPXE script will run every time an instance boots; not only after the initial `LaunchInstance` call.

The default iPXE script connects to the instance's local boot volume over iSCSI and performs a network boot. If you use a custom iPXE script and want to network-boot from the instance's local boot volume over iSCSI the same way as the default iPXE script, you should use the following iSCSI IP address: `169.254.0.2`, and boot volume IQN: `iqn.2015-02.oracle.boot`.

For more information about the Bring Your Own Image feature of Oracle Cloud Infrastructure, see [Bring Your Own Image](https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm) (<https://docs.cloud.oracle.com/iaas/Content/Compute/References/bringyourownimage.htm>).

For more information about iPXE, see <http://ipxe.org> (<http://ipxe.org>).

- `launch_mode` - Specifies the configuration mode for launching virtual machine (VM) instances. The configuration modes are:
 - `NATIVE` - VM instances launch with iSCSI boot and VFIO devices. The default value for Oracle-provided images.
 - `EMULATED` - VM instances launch with emulated devices, such as the E1000 network driver and emulated SCSI disk controller.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
 - `CUSTOM` - VM instances launch with custom configuration settings specified in the `LaunchOptions` parameter.
- `launch_options` -
 - `boot_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - `SCSI` - Emulated SCSI disk.
 - `IDE` - Emulated IDE disk.
 - `VFIO` - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - `PARAVIRTUALIZED` - Paravirtualized disk.
 - `firmware` - Firmware used to boot VM. Select the option that matches your operating system.
 - `BIOS` - Boot VM using BIOS style firmware. This is compatible with both 32 bit and 64 bit operating systems that boot using MBR style bootloaders.
 - `UEFI_64` - Boot VM using UEFI style firmware compatible with 64 bit operating systems. This is the default for Oracle provided images.
 - `is_consistent_volume_naming_enabled` - Whether to enable consistent volume naming feature. Defaults to false.

- `is_pv_encryption_in_transit_enabled` - Whether to enable in-transit encryption for the boot volume's paravirtualized attachment. The default value is false.
- `network_type` - Emulation type for the physical network interface card (NIC).
 - `E1000` - Emulated Gigabit ethernet controller. Compatible with Linux e1000 network driver.
 - `VFIO` - Direct attached Virtual Function network controller. This is the networking type when you launch an instance using hardware-assisted (SR-IOV) networking.
 - `PARAVIRTUALIZED` - VM instances launch with paravirtualized devices using virtio drivers.
- `remote_data_volume_type` - Emulation type for volume.
 - `ISCSI` - iSCSI attached block storage device. This is the default for Boot Volumes and Remote Block Storage volumes on Oracle provided images.
 - `SCSI` - Emulated SCSI disk.
 - `IDE` - Emulated IDE disk.
 - `VFIO` - Direct attached Virtual Function storage. This is the default option for Local data volumes on Oracle provided images.
 - `PARAVIRTUALIZED` - Paravirtualized disk.
- `metadata` - Custom metadata that you provide.
- `preserve_boot_volume` - Specifies whether to delete or preserve the boot volume when terminating an instance. The default value is false. Note: This value only applies to destroy operations initiated by Terraform.
- `private_ip` - The private IP address of instance VNIC. To set the private IP address, use the `private_ip` argument in `create_vnic_details`.
- `public_ip` - The public IP address of instance VNIC (if enabled).
- `region` - The region that contains the availability domain the instance is running in.

For the us-phoenix-1 and us-ashburn-1 regions, `phx` and `iad` are returned, respectively. For all other regions, the full region name is returned.

Examples: `phx`, `eu-frankfurt-1`

- `shape` - The shape of the instance. The shape determines the number of CPUs and the amount of memory allocated to the instance. You can enumerate all available shapes by calling `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Shape/ListShapes>).
- `source_details` - Details for creating an instance
 - `boot_volume_size_in_gbs` - The size of the boot volume in GBs. Minimum value is 50 GB and maximum value is 16384 GB (16TB).
 - `kms_key_id` - The OCID of the KMS key to be used as the master encryption key for the boot volume.
 - `source_id` - The OCID of an image or a boot volume to use, depending on the value of `source_type`.
 - `source_type` - The source type for the instance. Use `image` when specifying the image OCID. Use `bootVolume` when specifying the boot volume OCID.
- `state` - The current state of the instance.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the instance was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `time_maintenance_reboot_due` - The date and time the instance is expected to be stopped / started, in the format defined by RFC3339. After that time if instance hasn't been rebooted, Oracle will reboot the instance within 24 hours of the due time. Regardless of how the instance was stopped, the flag will be reset to empty as soon as instance reaches Stopped state. Example: `2018-05-25T21:10:29.600Z`

Import

Instances can be imported using the `id`, e.g.

```
$ terraform import oci_core_instance.test_instance "id"
```

oci_core_instance_pool

This resource provides the Instance Pool resource in Oracle Cloud Infrastructure Core service.

Create an instance pool.

Example Usage

```
resource "oci_core_instance_pool" "test_instance_pool" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  instance_configuration_id = "${oci_core_instance_configuration.test_instance_configuration.id}"  
  placement_configurations {  
    #Required  
    availability_domain = "${var.instance_pool_placement_configurations_availability_domain}"  
    primary_subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
    #Optional  
    secondary_vnic_subnets {  
      #Required  
      subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
      #Optional  
      display_name = "${var.instance_pool_placement_configurations_secondary_vnic_subnets_display_name}"  
    }  
  }  
  size = "${var.instance_pool_size}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.instance_pool_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  load_balancers {  
    #Required  
    backend_set_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
    load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
    port = "${var.instance_pool_load_balancers_port}"  
    vnic_selection = "${var.instance_pool_load_balancers_vnic_selection}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment containing the instance pool
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```

- **display_name** - (Optional) (Updatable) A user-friendly name for the instance pool. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **instance_configuration_id** - (Required) (Updatable) The OCID of the instance configuration associated with the instance pool.
- **load_balancers** - (Optional) The load balancers to attach to the instance pool.
 - **backend_set_name** - (Required) The name of the backend set on the load balancer to add instances to.
 - **load_balancer_id** - (Required) The OCID of the load balancer to attach to the instance pool.
 - **port** - (Required) The port value to use when creating the backend set.
 - **vnic_selection** - (Required) Indicates which VNIC on each instance in the pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the displayName of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
- **placement_configurations** - (Required) (Updatable) The placement configurations for the instance pool. Provide one placement configuration for each availability domain.

To use the instance pool with a regional subnet, provide a placement configuration for each availability domain, and include the regional subnet in each placement configuration.

- **availability_domain** - (Required) (Updatable) The availability domain to place instances. Example: Uocm:PHX-AD-1
- **primary_subnet_id** - (Required) (Updatable) The OCID of the primary subnet to place instances.
- **secondary_vnic_subnets** - (Optional) (Updatable) The set of secondary VNIC data for instances in the pool.
 - **display_name** - (Optional) (Updatable) The displayName of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - **subnet_id** - (Required) (Updatable) The subnet OCID for the secondary vnic
- **size** - (Required) (Updatable) The number of instances that should be in the instance pool. Modifying this value will override the size of the instance pool. If the instance pool is linked with autoscaling configuration, autoscaling configuration could resize the instance pool at a later point. The instance pool's actual size may differ from the configured size if it is associated with an autoscaling configuration. For the actual size of the instance pool, refer to the **actual_size** attribute.
- **state** - (Optional) (Updatable) The target state for the instance pool. Could be set to RUNNING or STOPPED.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the instance pool.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name. Does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the instance pool.
- `instance_configuration_id` - The OCID of the instance configuration associated with the instance pool.
- `load_balancers` - The load balancers attached to the instance pool.
 - `backend_set_name` - The name of the backend set on the load balancer.
 - `id` - The OCID of the load balancer attachment.
 - `instance_pool_id` - The OCID of the instance pool of the load balancer attachment.
 - `load_balancer_id` - The OCID of the load balancer attached to the instance pool.
 - `port` - The port value used for the backends.
 - `state` - The status of the interaction between the instance pool and the load balancer.
 - `vnics_selection` - Indicates which VNIC on each instance in the instance pool should be used to associate with the load balancer. Possible values are "PrimaryVnic" or the displayName of one of the secondary VNICs on the instance configuration that is associated with the instance pool.
- `placement_configurations` - The placement configurations for the instance pool.
 - `availability_domain` - The availability domain to place instances. Example: `Uocm:PHX-AD-1`
 - `primary_subnet_id` - The OCID of the primary subnet to place instances.
 - `secondary_vnic_subnets` - The set of secondary VNIC data for instances in the pool.
 - `display_name` - The displayName of the vnic. This is also use to match against the Instance Configuration defined secondary vnic.
 - `subnet_id` - The subnet OCID for the secondary vnic
- `size` - The number of instances that should be in the instance pool.
- `actual_size` - The number of actual instances in the instance pool on the cloud. This attribute will be different when instance pool is used along with autoScaling Configuration.
- `state` - The current state of the instance pool.
- `time_created` - The date and time the instance pool was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

InstancePools can be imported using the `id`, e.g.

```
$ terraform import oci_core_instance_pool.test_instance_pool "id"
```

oci_core_internet_gateway

This resource provides the Internet Gateway resource in Oracle Cloud Infrastructure Core service.

Creates a new internet gateway for the specified VCN. For more information, see [Access to the Internet](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIGs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIGs.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the Internet Gateway to reside. Notice that the internet gateway doesn't have to be in the same compartment as the VCN or other Networking Service components. If you're not sure which compartment to use, put the Internet Gateway in the same compartment with the VCN. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the internet gateway, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

For traffic to flow between a subnet and an internet gateway, you must create a route rule accordingly in the subnet's route table (for example, 0.0.0.0/0 > internet gateway). See [UpdateRouteTable](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/UpdateRouteTable) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/UpdateRouteTable>).

You must specify whether the internet gateway is enabled when you create it. If it's disabled, that means no traffic will flow to/from the internet even if there's a route rule that enables that traffic. You can later use [UpdateInternetGateway](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/InternetGateway/UpdateInternetGateway) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/InternetGateway/UpdateInternetGateway>) to easily disable/enable the gateway without changing the route rule.

Example Usage

```
resource "oci_core_internet_gateway" "test_internet_gateway" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  enabled = "${var.internet_gateway_enabled}"  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.internet_gateway_display_name}"  
  enabled = "${var.internet_gateway_enabled}"  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the internet gateway.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#)

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```

- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `enabled` - (Optional) (Updatable) Whether the gateway is enabled upon creation.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `vcn_id` - (Required) The OCID of the VCN the internet gateway is attached to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the internet gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `enabled` - Whether the gateway is enabled. When the gateway is disabled, traffic is not routed to/from the Internet, regardless of route rules.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The internet gateway's Oracle ID (OCID).
- `state` - The internet gateway's current state.
- `time_created` - The date and time the internet gateway was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the internet gateway belongs to.

Import

InternetGateways can be imported using the `id`, e.g.

```
$ terraform import oci_core_internet_gateway.test_internet_gateway "id"
```

oci_core_ipsec_connection_tunnel_management

This resource provides the Ip Sec Connection Tunnel Management resource in Oracle Cloud Infrastructure Core service.

Updates the specified tunnel. This operation lets you change tunnel attributes such as the routing type (BGP dynamic routing or static routing). Here are some important notes:

- * If you change the tunnel's routing type or BGP session configuration, the tunnel will go down while it's reprovisioned.
- * If you want to switch the tunnel's `routing` from `STATIC` to `BGP`, make sure the tunnel's BGP session configuration attributes have been set ([bgpSessionConfig](#/en/iaas/20160918/datatypes/BgpSessionInfo)).
- * If you want to switch the tunnel's `routing` from `BGP` to `STATIC`, make sure the [IPSecConnection](#/en/iaas/20160918/IPSecConnection/) already has at least one valid CIDR static route.

**** IMPORTANT **** Destroying the `oci_core_ipsec_connection_tunnel_management` leaves the resource in its existing state. It will not destroy the tunnel and it will not return the tunnel to its default values.

Example Usage

```
"oci_core_ipsec_connection_tunnel_management" "test_ip_sec_connection_tunnel" {
  #Required
  ipsec_id = "${oci_core_ipsec.test_ipsec.id}"
  tunnel_id = "${oci_core_tunnel.test_tunnel.id}"
  routing = "${var.ip_sec_connection_tunnel_management_routing}"
  #Optional
  bgp_session_info {
    #Optional
    customer_bgp_asn = "${var.ip_sec_connection_tunnel_management_bgp_session_info_customer_bgp_asn}"
    customer_interface_ip = "${var.ip_sec_connection_tunnel_management_bgp_session_info_customer_interface_ip}"
    oracle_interface_ip = "${var.ip_sec_connection_tunnel_management_bgp_session_info_oracle_interface_ip}"
  }
  display_name = "${var.ip_sec_connection_tunnel_management_display_name}"
  shared_secret = "${var.ip_sec_connection_tunnel_management_shared_secret}"
}
```

Argument Reference

The following arguments are supported:

- `ipsec_id` - (Required) The OCID of the IPSec connection.
- `tunnel_id` - (Required) The OCID of the IPSec connection's tunnel.
- `routing` - (Required) The type of routing to use for this tunnel (either BGP dynamic routing or static routing).
- `bgp_session_info` - (Optional) Information for establishing a BGP session for the IPSec tunnel. Required if the tunnel uses BGP dynamic routing.

If the tunnel instead uses static routing, you may optionally provide this object and set an IP address for one or both ends of the IPSec tunnel for the purposes of troubleshooting or monitoring the tunnel.

- `customer_bgp_asn` - (Optional) If the tunnel's `routing` attribute is set to `BGP` (see `IPSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnectionTunnel/>)), this ASN is required and used for the tunnel's BGP session. This is the ASN of the network on the CPE end of the BGP session. Can be a 2-byte or 4-byte ASN. Uses "asplain" format.

If the tunnel's `routing` attribute is set to `STATIC`, the `customerBgpAsn` must be null.

Example: 12345 (2-byte) or 1587232876 (4-byte)

- `customer_interface_ip` - (Optional) The IP address for the CPE end of the inside tunnel interface.

If the tunnel's `routing` attribute is set to `BGP` (see `IPSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnectionTunnel/>)), this IP address is required and used for the tunnel's BGP session.

If `routing` is instead set to `STATIC`, this IP address is optional. You can set this IP address to troubleshoot or monitor the tunnel.

The value must be a /30 or /31.

Example: `10.0.0.5/31`

- `oracle_interface_ip` - (Optional) The IP address for the Oracle end of the inside tunnel interface.

If the tunnel's `routing` attribute is set to `BGP` (see `IPSecConnectionTunnel` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnectionTunnel/>)), this IP address is required and used for the tunnel's BGP session.

If `routing` is instead set to `STATIC`, this IP address is optional. You can set this IP address to troubleshoot or monitor the tunnel.

The value must be a /30 or /31.

Example: `10.0.0.4/31`

- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `shared_secret` - (Optional) The shared secret (pre-shared key) to use for the IPSec tunnel. If you don't provide a value, Oracle generates a value for you. You can specify your own shared secret later if you like with `UpdateIPSecConnectionTunnelSharedSecret` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnectionTunnelSharedSecret/UpdateIPSecConnectionTunnelSharedSecret>).

Example: `EXAMPLEToUis6j1c.p8G.dVQxcmdfM00yXMLi.1ZTbYCMDGu4V8o`

Attributes Reference

The following attributes are exported:

- `bgp_session_info` - Information needed to establish a BGP Session on an interface.
 - `bgp_state` - the state of the BGP.
 - `customer_bgp_asn` - This is the value of the remote Bgp ASN in asplain format, as a string. Example: 1587232876 (4 byte ASN) or 12345 (2 byte ASN)
 - `customer_interface_ip` - This is the IPv4 Address used in the BGP peering session for the non-Oracle router. Example: 10.0.0.2/31
 - `oracle_bgp_asn` - This is the value of the Oracle Bgp ASN in asplain format, as a string. Example: 1587232876 (4 byte ASN) or 12345 (2 byte ASN)
 - `oracle_interface_ip` - This is the IPv4 Address used in the BGP peering session for the Oracle router. Example: 10.0.0.1/31
- `compartment_id` - The OCID of the compartment containing the tunnel.
- `cpe_ip` - The IP address of Cpe headend. Example: 129.146.17.50
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `id` - The tunnel's Oracle ID (OCID).
- `routing` - the routing strategy used for this tunnel, either static route or BGP dynamic routing
- `state` - The IPSec connection's tunnel's lifecycle state.
- `status` - The tunnel's current state.
- `time_created` - The date and time the IPSec connection tunnel was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_status_updated` - When the status of the tunnel last changed, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vpn_ip` - The IP address of Oracle's VPN headend. Example: 129.146.17.50

oci_core_ipsec

This resource provides the Ip Sec Connection resource in Oracle Cloud Infrastructure Core service.

Creates a new IPSec connection between the specified DRG and CPE. For more information, see [IPSec VPNs \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPsec.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPsec.htm).

If you configure at least one tunnel to use static routing, then in the request you must provide at least one valid static route (you're allowed a maximum of 10). For example: 10.0.0.0/16. If you configure both tunnels to use BGP dynamic routing, you can provide an empty list for the static routes. For more information, see the important note in [IPSecConnection \(https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnection/\)](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnection).

For the purposes of access control, you must provide the OCID of the compartment where you want the IPSec connection to reside. Notice that the IPSec connection doesn't have to be in the same compartment as the DRG, CPE, or other Networking Service components. If you're not sure which compartment to use, put the IPSec connection in the same compartment as the DRG. For more information about compartments and access control, see [Overview of the IAM Service \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm). For information about OCIDs, see [Resource Identifiers \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm).

You may optionally specify a *display name* for the IPSec connection, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_ipsec" "test_ip_sec_connection" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  cpe_id = "${oci_core_cpe.test_cpe.id}"  
  drg_id = "${oci_core_drg.test_drg.id}"  
  static_routes = "${var.ip_sec_connection_static_routes}"  
  
  #Optional  
  cpe_local_identifier = "${var.ip_sec_connection_cpe_local_identifier}"  
  cpe_local_identifier_type = "${var.ip_sec_connection_cpe_local_identifier_type}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.ip_sec_connection_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the IPSec connection.
- `cpe_id` - (Required) The OCID of the Cpe (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object.

- `cpe_local_identifier` - (Optional) (Updatable) Your identifier for your CPE device. Can be either an IP address or a hostname (specifically, the fully qualified domain name (FQDN)). The type of identifier you provide here must correspond to the value for `cpeLocalIdentifierType`.

If you don't provide a value, the `ipAddress` attribute for the Cpe

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object specified by `cpeId` is used as the `cpeLocalIdentifier`.

For information about why you'd provide this value, see [If Your CPE Is Behind a NAT Device](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat)

(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat>).

Example IP address: 10.0.3.3

Example hostname: cpe.example.com

- `cpe_local_identifier_type` - (Optional) (Updatable) The type of identifier for your CPE device. The value you provide here must correspond to the value for `cpeLocalIdentifier`.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - (Required) The OCID of the DRG.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `static_routes` - (Required) (Updatable) Static routes to the CPE. A static route's CIDR must not be a multicast address or class E address.

Used for routing a given IPSec tunnel's traffic only if the tunnel is using static routing. If you configure at least one tunnel to use static routing, then you must provide at least one valid static route. If you configure both tunnels to use BGP dynamic routing, you can provide an empty list for the static routes. For more information, see the important note in [IPSecConnection](https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnection/) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/IPSecConnection/>).

Example: 10.0.1.0/24

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the IPSec connection.
- `cpe_id` - The OCID of the Cpe (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object.

- `cpe_local_identifier` - Your identifier for your CPE device. Can be either an IP address or a hostname (specifically, the fully qualified domain name (FQDN)). The type of identifier here must correspond to the value for `cpeLocalIdentifierType`.

If you don't provide a value when creating the IPSec connection, the `ipAddress` attribute for the Cpe (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Cpe/>) object specified by `cpeId` is used as the `cpeLocalIdentifier`.

For information about why you'd provide this value, see [If Your CPE Is Behind a NAT Device](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/overviewIPsec.htm#nat>).

Example IP address: `10.0.3.3`

Example hostname: `cpe.example.com`

- `cpe_local_identifier_type` - The type of identifier for your CPE device. The value here must correspond to the value for `cpeLocalIdentifier`.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The IPSec connection's Oracle ID (OCID).
- `state` - The IPSec connection's current state.
- `static_routes` - Static routes to the CPE. The CIDR must not be a multicast address or class E address.

Used for routing a given IPSec tunnel's traffic only if the tunnel is using static routing. If you configure at least one tunnel to use static routing, then you must provide at least one valid static route. If you configure both tunnels to use BGP dynamic routing, you can provide an empty list for the static routes.

Example: `10.0.1.0/24`

- `time_created` - The date and time the IPSec connection was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

IpSecConnections can be imported using the `id`, e.g.

```
$ terraform import oci_core_ipsec.test_ip_sec_connection "id"
```

oci_core_local_peering_gateway

This resource provides the Local Peering Gateway resource in Oracle Cloud Infrastructure Core service.

Creates a new local peering gateway (LPG) for the specified VCN.

Example Usage

```
resource "oci_core_local_peering_gateway" "test_local_peering_gateway" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.local_peering_gateway_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  peer_id = "${oci_core_local_peering_gateway.test_local_peering_gateway2.id}"  
  route_table_id = "${oci_core_route_table.test_route_table.id}"  
}
```

Argument Reference

- Specifying a `peer_id` creates a connection to the specified LPG ID.
- If the specified `peer_id` is also a resource in the terraform config you will have to do a `terraform refresh` after the `terraform apply` in order to get the latest connection information on that resource.
- To disconnect the peering connection at least one of the LPG resources in the connection will have to be destroyed, however in terraform we recommend that when one LPG is destroyed the peer should also be destroyed. If one of them is not destroyed it will have a `REVOKED` `peering_status`. If another LPG resource tries to connect to this LPG resource it will get a `400 Error: The Local Peering Gateway with ID X has already been connected`. To solve this you will have to run `terraform taint oci_core_local_peering_gateway.test_local_peering_gateway` on that resource or target delete it `terraform destroy -target="oci_core_local_peering_gateway.test_local_peering_gateway"`.

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment containing the local peering gateway (LPG).
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no

predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `peer_id` - (Optional) The OCID of the LPG you want to peer with. Specifying a `peer_id` connects this local peering gateway (LPG) to another one in the same region. This operation must be called by the VCN administrator who is designated as the *requestor* in the peering relationship. The *acceptor* must implement an Identity and Access Management (IAM) policy that gives the requestor permission to connect to LPGs in the acceptor's compartment. Without that permission, this operation will fail. For more information, see VCN Peering (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/VCNpeering.htm>).
- `route_table_id` - (Optional) (Updatable) The OCID of the route table the LPG will use.

If you don't specify a route table here, the LPG is created without an associated route table. The Networking service does NOT automatically associate the attached VCN's default route table with the LPG.

For information about why you would associate a route table with an LPG, see Transit Routing: Access to Multiple VCNs in Same Region (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>).

- `vcn_id` - (Required) The OCID of the VCN the LPG belongs to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the LPG.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The LPG's Oracle ID (OCID).
- `is_cross_tenancy_peering` - Whether the VCN at the other end of the peering is in a different tenancy. Example: `false`
- `peer_advertised_cidr` - The smallest aggregate CIDR that contains all the CIDR routes advertised by the VCN at the other end of the peering from this LPG. See `peerAdvertisedCidrDetails` for the individual CIDRs. The value is `null` if the LPG is not peered. Example: `192.168.0.0/16`, or if aggregated with `172.16.0.0/24` then `128.0.0.0/1`
- `peer_advertised_cidr_details` - The specific ranges of IP addresses available on or via the VCN at the other end of the peering from this LPG. The value is `null` if the LPG is not peered. You can use these as destination CIDRs for route

rules to route a subnet's traffic to this LPG. Example: [192.168.0.0/16 , 172.16.0.0/24]

- `peering_status` - Whether the LPG is peered with another LPG. `NEW` means the LPG has not yet been peered. `PENDING` means the peering is being established. `REVOKED` means the LPG at the other end of the peering has been deleted.
- `peering_status_details` - Additional information regarding the peering status, if applicable.
- `route_table_id` - The OCID of the route table the LPG is using.

For information about why you would associate a route table with an LPG, see Transit Routing: Access to Multiple VCNs in Same Region (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitrouting.htm>).

- `state` - The LPG's current lifecycle state.
- `time_created` - The date and time the LPG was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the LPG belongs to.

Import

LocalPeeringGateways can be imported using the `id` , e.g.

```
$ terraform import oci_core_local_peering_gateway.test_local_peering_gateway "id"
```

oci_core_nat_gateway

This resource provides the Nat Gateway resource in Oracle Cloud Infrastructure Core service.

Creates a new NAT gateway for the specified VCN. You must also set up a route rule with the NAT gateway as the rule's target. See Route Table (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/>).

Example Usage

```
resource "oci_core_nat_gateway" "test_nat_gateway" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  block_traffic = "${var.nat_gateway_block_traffic}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.nat_gateway_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `block_traffic` - (Optional) (Updatable) Whether the NAT gateway blocks traffic through it. The default is `false`.
Example: `true`
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to contain the NAT gateway.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the gateway belongs to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `block_traffic` - Whether the NAT gateway blocks traffic through it. The default is `false`. Example: `true`
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment that contains the NAT gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the NAT gateway.
- `nat_ip` - The IP address associated with the NAT gateway.
- `state` - The NAT gateway's current state.
- `time_created` - The date and time the NAT gateway was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the NAT gateway belongs to.

Import

NatGateways can be imported using the `id`, e.g.

```
$ terraform import oci_core_nat_gateway.test_nat_gateway "id"
```

oci_core_network_security_group

This resource provides the Network Security Group resource in Oracle Cloud Infrastructure Core service.

Creates a new network security group for the specified VCN.

Example Usage

```
resource "oci_core_network_security_group" "test_network_security_group" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.network_security_group_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to contain the network security group.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the network security group. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN to create the network security group in.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment the network security group is in.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.
- `state` - The network security group's current state.
- `time_created` - The date and time the network security group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group's VCN.

Import

NetworkSecurityGroups can be imported using the `id`, e.g.

```
$ terraform import oci_core_network_security_group.test_network_security_group "id"
```


oci_core_network_security_group_security_rule

This resource provides the Network Security Group Security Rule resource in Oracle Cloud Infrastructure Core service.

Adds a security rule to the specified network security group.

Example Usage

```

resource "oci_core_network_security_group_security_rule" "test_network_security_group_security_rule" {
  #Required
  network_security_group_id = "${oci_core_network_security_group.test_network_security_group.id}"
  direction = "${var.network_security_group_security_rule_direction}"
  protocol = "${var.network_security_group_security_rule_protocol}"

  #Optional
  description = "${var.network_security_group_security_rule_description}"
  destination = "${var.network_security_group_security_rule_destination}"
  destination_type = "${var.network_security_group_security_rule_destination_type}"
  icmp_options {
    #Required
    type = "${var.network_security_group_security_rule_icmp_options_type}"

    #Optional
    code = "${var.network_security_group_security_rule_icmp_options_code}"
  }
  source = "${var.network_security_group_security_rule_source}"
  source_type = "${var.network_security_group_security_rule_source_type}"
  stateless = "${var.network_security_group_security_rule_stateless}"
  tcp_options {
    #Optional
    destination_port_range {
      #Required
      max = "${var.network_security_group_security_rule_tcp_options_destination_port_range_max}"
      min = "${var.network_security_group_security_rule_tcp_options_destination_port_range_min}"
    }
    source_port_range {
      #Required
      max = "${var.network_security_group_security_rule_tcp_options_source_port_range_max}"
      min = "${var.network_security_group_security_rule_tcp_options_source_port_range_min}"
    }
  }
  udp_options {
    #Optional
    destination_port_range {
      #Required
      max = "${var.network_security_group_security_rule_udp_options_destination_port_range_max}"
      min = "${var.network_security_group_security_rule_udp_options_destination_port_range_min}"
    }
    source_port_range {
      #Required
      max = "${var.network_security_group_security_rule_udp_options_source_port_range_max}"
      min = "${var.network_security_group_security_rule_udp_options_source_port_range_min}"
    }
  }
}

```

Argument Reference

The following arguments are supported:

- `network_security_group_id` - (Required) The OCID

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.

- **description** - (Optional) An optional description of your choice for the rule.
- **destination** - (Optional) Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- An IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`
 - The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
 - The OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.
- **destination_type** - (Optional) Type of destination for the rule. Required if `direction = EGRESS`.

Allowed values:

- `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
 - `NETWORK_SECURITY_GROUP`: If the rule's `destination` is the OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- **direction** - (Required) Direction of the security rule. Set to `EGRESS` for rules to allow outbound IP packets, or `INGRESS` for rules to allow inbound IP packets.
 - **icmp_options** - (Optional) Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each.

- * **code** - (Optional) The ICMP code (optional).
- * **type** - (Required) The ICMP type.

- **protocol** - (Required) The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- **source** - (Optional) Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- An IP address range in CIDR notation. For example: 192.168.1.0/24 or 2001:0db8:0123:45::/56
 - The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security rule for traffic coming from a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
 - The OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.
- `source_type` - (Optional) Type of source for the rule. Required if `direction = INGRESS`.
 - `CIDR_BLOCK`: If the rule's `source` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `source` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular Service through a service gateway).
 - `NETWORK_SECURITY_GROUP`: If the rule's `source` is the OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `stateless` - (Optional) A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - (Optional) Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - (Optional) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Required) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Required) The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - (Optional) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Required) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Required) The minimum port number. Must not be greater than the maximum port number.
- `udp_options` - (Optional) Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - (Optional) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Required) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Required) The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - (Optional) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.

- `max` - (Required) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
- `min` - (Required) The minimum port number. Must not be greater than the maximum port number.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `network_security_group_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security group.
- `description` - An optional description of your choice for the rule.
- `destination` - Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- An IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- The OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.
- `destination_type` - Type of destination for the rule. Required if `direction = EGRESS`.

Allowed values:

- `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
- `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
- `NETWORK_SECURITY_GROUP`: If the rule's `destination` is the OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `direction` - Direction of the security rule. Set to `EGRESS` for rules to allow outbound IP packets, or `INGRESS` for rules to allow inbound IP packets.
- `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `id` - An Oracle-assigned identifier for the security rule. You specify this ID when you want to update or delete the rule.
- `is_valid` - Whether the rule is valid. The value is `True` when the rule is first created. If the rule's `source` or `destination` is a network security group, the value changes to `False` if that network security group is deleted.
- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `source` - Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- An IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security rule for traffic coming from a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- The OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>) in the same VCN. The value can be the NSG that the rule belongs to if the rule's intent is to control traffic between VNICs in the same NSG.
- `source_type` - Type of source for the rule. Required if `direction = INGRESS`.
 - `CIDR_BLOCK` : If the rule's `source` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK` : If the rule's `source` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular Service through a service gateway).
 - `NETWORK_SECURITY_GROUP` : If the rule's `source` is the OCID of a NetworkSecurityGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `stateless` - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to `false`, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to

indicate a single port. Defaults to all ports if not specified.

- `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `time_created` - The date and time the security rule was created. Format defined by RFC3339.
 - `udp_options` - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.

Import

Import is not supported for this resource.

oci_core_private_ip

This resource provides the Private Ip resource in Oracle Cloud Infrastructure Core service.

Creates a secondary private IP for the specified VNIC. For more information about secondary private IPs, see [IP Addresses \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPaddresses.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPaddresses.htm).

Example Usage

```
resource "oci_core_private_ip" "test_private_ip" {  
  #Required  
  vnic_id = "${oci_core_vnic.test_vnic.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.private_ip_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
  hostname_label = "${var.private_ip_hostname_label}"  
  ip_address = "${var.private_ip_ip_address}"  
}
```

Argument Reference

The following arguments are supported:

- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example:
`{"Operations.CostCenter": "42"}`
- **display_name** - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`
- **hostname_label** - (Optional) (Updatable) The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, `bminstance-1` in FQDN `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see [DNS in Your Virtual Cloud Network \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm).

Example: `bminstance-1`

- `ip_address` - (Optional) A private IP address of your choice. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet. Example: `10.0.3.3`
- `vnic_id` - (Required) (Updatable) The OCID of the VNIC to assign the private IP to. The VNIC and private IP must be in the same subnet.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The private IP's availability domain. This attribute will be null if this is a *secondary* private IP assigned to a VNIC that is in a *regional* subnet. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the private IP.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - The hostname for the private IP. Used for DNS. The value is the hostname portion of the private IP's fully qualified domain name (FQDN) (for example, `binstance-1` in FQDN `binstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `binstance-1`

- `id` - The private IP's Oracle ID (OCID).
- `ip_address` - The private IP address of the `privateIp` object. The address is within the CIDR of the VNIC's subnet. Example: `10.0.3.3`
- `is_primary` - Whether this private IP is the primary one on the VNIC. Primary private IPs are unassigned and deleted automatically when the VNIC is terminated. Example: `true`
- `subnet_id` - The OCID of the subnet the VNIC is in.
- `time_created` - The date and time the private IP was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vnic_id` - The OCID of the VNIC the private IP is assigned to. The VNIC and private IP must be in the same subnet.

Import

PrivateIps can be imported using the `id`, e.g.

```
$ terraform import oci_core_private_ip.test_private_ip "id"
```

oci_core_public_ip

This resource provides the Public Ip resource in Oracle Cloud Infrastructure Core service.

Creates a public IP. Use the `lifetime` property to specify whether it's an ephemeral or reserved public IP. For information about limits on how many you can create, see [Public IP Addresses](#)

(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

- **For an ephemeral public IP assigned to a private IP:** You must also specify a `privateIpId` with the OCID of the primary private IP you want to assign the public IP to. The public IP is created in the same availability domain as the private IP. An ephemeral public IP must always be assigned to a private IP, and only to the *primary* private IP on a VNIC, not a secondary private IP. Exception: If you create a NatGateway (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>), Oracle automatically assigns the NAT gateway a regional ephemeral public IP that you cannot remove.
- **For a reserved public IP:** You may also optionally assign the public IP to a private IP by specifying `privateIpId`. Or you can later assign the public IP with `UpdatePublicIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/UpdatePublicIp>).

Note: When assigning a public IP to a private IP, the private IP must not already have a public IP with `lifecycleState = ASSIGNING` or `ASSIGNED`. If it does, an error is returned.

Also, for reserved public IPs, the optional assignment part of this operation is asynchronous. Poll the public IP's `lifecycleState` to determine if the assignment succeeded.

Example Usage

```
resource "oci_core_public_ip" "test_public_ip" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  lifetime       = "${var.public_ip_lifetime}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.public_ip_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
  private_ip_id = "${oci_core_private_ip.test_private_ip.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the public IP. For ephemeral public IPs, you must set this to the private IP's compartment OCID.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```

- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `lifetime` - (Required) Defines when the public IP is deleted and released back to the Oracle Cloud Infrastructure public IP pool. For more information, see Public IP Addresses (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).
- `private_ip_id` - (Optional) (Updatable) The OCID of the private IP to assign the public IP to.

Required for an ephemeral public IP because it must always be assigned to a private IP (specifically a *primary* private IP).

Optional for a reserved public IP. If you don't provide it, the public IP is created but not assigned to a private IP. You can later assign the public IP with `UpdatePublicIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/UpdatePublicIp>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `assigned_entity_id` - The OCID of the entity the public IP is assigned to, or in the process of being assigned to.
- `assigned_entity_type` - The type of entity the public IP is assigned to, or in the process of being assigned to.
- `availability_domain` - The public IP's availability domain. This property is set only for ephemeral public IPs that are assigned to a private IP (that is, when the `scope` of the public IP is set to `AVAILABILITY_DOMAIN`). The value is the availability domain of the assigned private IP. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment containing the public IP. For an ephemeral public IP, this is the compartment of its assigned entity (which can be a private IP or a regional entity such as a NAT gateway). For a reserved public IP that is currently assigned, its compartment can be different from the assigned private IP's.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The public IP's Oracle ID (OCID).
- `ip_address` - The public IP address of the `publicIp` object. Example: `129.146.2.1`
- `lifetime` - Defines when the public IP is deleted and released back to Oracle's public IP pool.
 - **EPHEMERAL** : The lifetime is tied to the lifetime of its assigned entity. An ephemeral public IP must always be assigned to an entity. If the assigned entity is a private IP, the ephemeral public IP is automatically deleted when the private IP is deleted, when the VNIC is terminated, or when the instance is terminated. If the assigned entity is a NatGateway (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>), the ephemeral public IP is automatically deleted when the NAT gateway is terminated.
 - **RESERVED** : You control the public IP's lifetime. You can delete a reserved public IP whenever you like. It does not need to be assigned to a private IP at all times.

For more information and comparison of the two types, see [Public IP Addresses](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

- `private_ip_id` - Deprecated. Use `assignedEntityId` instead.

The OCID of the private IP that the public IP is currently assigned to, or in the process of being assigned to.

Note: This is `null` if the public IP is not assigned to a private IP, or is in the process of being assigned to one.

- `scope` - Whether the public IP is regional or specific to a particular availability domain.
 - **REGION** : The public IP exists within a region and is assigned to a regional entity (such as a NatGateway (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NatGateway/>)), or can be assigned to a private IP in any availability domain in the region. Reserved public IPs and ephemeral public IPs assigned to a regional entity have `scope = REGION`.
 - **AVAILABILITY_DOMAIN** : The public IP exists within the availability domain of the entity it's assigned to, which is specified by the `availabilityDomain` property of the public IP object. Ephemeral public IPs that are assigned to private IPs have `scope = AVAILABILITY_DOMAIN`.
- `state` - The public IP's current state.
- `time_created` - The date and time the public IP was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

PublicIps can be imported using the `id`, e.g.

```
$ terraform import oci_core_public_ip.test_public_ip "id"
```

oci_core_remote_peering_connection

This resource provides the Remote Peering Connection resource in Oracle Cloud Infrastructure Core service.

Creates a new remote peering connection (RPC) for the specified DRG.

Example Usage

```
resource "oci_core_remote_peering_connection" "test_remote_peering_connection" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  drg_id = "${oci_core_drg.test_drg.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.remote_peering_connection_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  peer_id = "${oci_core_remote_peering_connection.test_remote_peering_connection2.id}"  
  peer_region_name = "${var.remote_peering_connection_peer_region_name}"  
}
```

Argument Reference

- Specifying a `peer_id` and a `peer_region_name` creates a connection to the specified RPC ID. Both `peer_id` and `peer_region_name` are required for the connection to succeed.
- If the specified `peer_id` is also a resource in the terraform config you will have to do a `terraform refresh` after the `terraform apply` in order to get the latest connection information on that resource.
- To disconnect the peering connection at least one of the RPC resources in the connection will have to be destroyed, however in terraform we recommend that when one RPC is destroyed the peer should also be destroyed. If one of them is not destroyed it will have a `REVOKED` `peering_status`. If another RPC resource tries to connect to this RPC resource the `peering_status` on the requestor will be `INVALID`. To solve this you will have to run `terraform taint oci_core_remote_peering_connection.test_remote_peering_connection` on the acceptor resource or target delete it `terraform destroy -target="oci_core_remote_peering_connection.test_remote_peering_connection"`.

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the RPC.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- `drg_id` - (Required) The OCID of the DRG the RPC belongs to.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `peer_id` - (Optional) The OCID of the RPC you want to peer with.
- `peer_region_name` - (Optional) The name of the region that contains the RPC you want to peer with. Example: `us-ashburn-1`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the RPC.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `drg_id` - The OCID of the DRG that this RPC belongs to.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the RPC.
- `is_cross_tenancy_peering` - Whether the VCN at the other end of the peering is in a different tenancy. Example: `false`
- `peer_id` - If this RPC is peered, this value is the OCID of the other RPC.
- `peer_region_name` - If this RPC is peered, this value is the region that contains the other RPC. Example: `us-ashburn-1`
- `peer_tenancy_id` - If this RPC is peered, this value is the OCID of the other RPC's tenancy.
- `peering_status` - Whether the RPC is peered with another RPC. `NEW` means the RPC has not yet been peered. `PENDING` means the peering is being established. `REVOKED` means the RPC at the other end of the peering has been deleted.
- `state` - The RPC's current lifecycle state.
- `time_created` - The date and time the RPC was created, in the format defined by RFC3339. Example: `2016-08-`

Import

RemotePeeringConnections can be imported using the `id`, e.g.

```
$ terraform import oci_core_remote_peering_connection.test_remote_peering_connection "id"
```


oci_core_route_table_attachment

This resource provides the ability to associate a route table for a subnet in Oracle Cloud Infrastructure Core service.

Attaches the specified `route_table` to the specified `subnet`.

Example Usage

```
resource "oci_core_route_table_attachment" "test_route_table_attachment" {  
  #Required  
  subnet_id = "${oci_core_subnet.test_subnet.id}"  
  route_table_id = "${oci_core_route_table.test_route_table.id}"  
}
```

Argument Reference

The following arguments are supported:

- `subnet_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet.
- `route_table_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the route table.

Attributes Reference

The following attributes are exported:

- `subnet_id` - (Required) The OCID of the subnet.
- `route_table_id` - (Required) The OCID of the route table.

Import

Route Table Attachment can be imported using the `id`, e.g.

```
$ terraform import oci_core_route_table_attachment.test_route_table_attachment "{subnetId}/{routeTableId}"
```

oci_core_route_table

This resource provides the Route Table resource in Oracle Cloud Infrastructure Core service.

Creates a new route table for the specified VCN. In the request you must also include at least one route rule for the new route table. For information on the number of rules you can have in a route table, see [Service Limits](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm>). For general information about route tables in your VCN and the types of targets you can use in route rules, see [Route Tables](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the route table to reside. Notice that the route table doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the route table in the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the route table, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

For more information on configuring a VCN's default route table, see [Managing Default VCN Resources](/docs/providers/oci/guides/managing_default_resources.html) ([/docs/providers/oci/guides/managing_default_resources.html](/docs/providers/oci/guides/managing_default_resources.html))

Example Usage

```
resource "oci_core_route_table" "test_route_table" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.route_table_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  route_rules {  
    #Required  
    network_entity_id = "${oci_core_internet_gateway.test_internet_gateway.id}"  
  
    #Optional  
    cidr_block = "${var.route_table_route_rules_cidr_block}"  
    destination = "${var.route_table_route_rules_destination}"  
    destination_type = "${var.route_table_route_rules_destination_type}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the route table.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `route_rules` - (Optional) (Updatable) The collection of rules used for routing destination IPs to network devices.

- `cidr_block` - (Optional) (Updatable) Deprecated. Instead use `destination` and `destinationType`. Requests that include both `cidrBlock` and `destination` will be rejected.

A destination IP address range in CIDR notation. Matching packets will be routed to the indicated network entity (the target).

Cannot be an IPv6 CIDR.

Example: `0.0.0.0/0`

- `destination` - (Optional) (Updatable) Conceptually, this is the range of IP addresses used for matching when routing traffic. Required if you provide a `destinationType`.

Allowed values:

- IP address range in CIDR notation. Can be an IPv4 or IPv6 CIDR. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. If you set this to an IPv6 CIDR, the route rule's target can only be a DRG or internet gateway. Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a route rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- `destination_type` - (Optional) (Updatable) Type of destination for the rule. Required if you provide a `destination`.
 - `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
- `network_entity_id` - (Required) (Updatable) The OCID for the route rule's target. For information about the type of targets you can specify, see Route Tables (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm>).

- `vcn_id` - (Required) The OCID of the VCN the route table belongs to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the route table.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The route table's Oracle ID (OCID).
- `route_rules` - The collection of rules for routing destination IPs to network devices.
 - `cidr_block` - Deprecated. Instead use `destination` and `destinationType`. Requests that include both `cidrBlock` and `destination` will be rejected.

A destination IP address range in CIDR notation. Matching packets will be routed to the indicated network entity (the target).

Cannot be an IPv6 CIDR.

Example: `0.0.0.0/0`

- `destination` - Conceptually, this is the range of IP addresses used for matching when routing traffic. Required if you provide a `destinationType`.

Allowed values:

- IP address range in CIDR notation. Can be an IPv4 or IPv6 CIDR. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. If you set this to an IPv6 CIDR, the route rule's target can only be a DRG or internet gateway. Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a route rule for traffic destined for a particular `Service` through a service gateway. For example: `oci-phx-objectstorage`.
- `destination_type` - Type of destination for the rule. Required if you provide a `destination`.
 - `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a

particular Service through a service gateway).

- `network_entity_id` - The OCID for the route rule's target. For information about the type of targets you can specify, see Route Tables

(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm>).

- `state` - The route table's current state.
- `time_created` - The date and time the route table was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the route table list belongs to.

Import

RouteTables can be imported using the `id`, e.g.

```
$ terraform import oci_core_route_table.test_route_table "id"
```

oci_core_security_list

This resource provides the Security List resource in Oracle Cloud Infrastructure Core service.

Creates a new security list for the specified VCN. For more information about security lists, see [Security Lists](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm>). For information on the number of rules you can have in a security list, see [Service Limits](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the security list to reside. Notice that the security list doesn't have to be in the same compartment as the VCN, subnets, or other Networking Service components. If you're not sure which compartment to use, put the security list in the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the security list, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

For more information on configuring a VCN's default security list, see [Managing Default VCN Resources](/docs/providers/oci/guides/managing_default_resources.html) ([/docs/providers/oci/guides/managing_default_resources.html](/docs/providers/oci/guides/managing_default_resources.html))

Example Usage

```
resource "oci_core_security_list" "test_security_list" {
  #Required
  compartment_id = "${var.compartment_id}"
  vcn_id = "${oci_core_vcn.test_vcn.id}"

  #Optional
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.security_list_display_name}"
  egress_security_rules {
    #Required
    destination = "${var.security_list_egress_security_rules_destination}"
    protocol = "${var.security_list_egress_security_rules_protocol}"

    #Optional
    destination_type = "${var.security_list_egress_security_rules_destination_type}"
    icmp_options {
      #Required
      type = "${var.security_list_egress_security_rules_icmp_options_type}"

      #Optional
      code = "${var.security_list_egress_security_rules_icmp_options_code}"
    }
  }
  stateless = "${var.security_list_egress_security_rules_stateless}"
  tcp_options {
    #Optional
    max = "${var.security_list_egress_security_rules_tcp_options_destination_port_range_max}"
    min = "${var.security_list_egress_security_rules_tcp_options_destination_port_range_min}"
    source_port_range {
```

```

        #Required
        max = "${var.security_list_egress_security_rules_tcp_options_source_port_range_max}"
        min = "${var.security_list_egress_security_rules_tcp_options_source_port_range_min}"
    }
}
udp_options {

    #Optional
    max = "${var.security_list_egress_security_rules_udp_options_destination_port_range_max}"
    min = "${var.security_list_egress_security_rules_udp_options_destination_port_range_min}"
    source_port_range {
        #Required
        max = "${var.security_list_egress_security_rules_udp_options_source_port_range_max}"
        min = "${var.security_list_egress_security_rules_udp_options_source_port_range_min}"
    }
}
}
freeform_tags = {"Department"= "Finance"}
ingress_security_rules {
    #Required
    protocol = "${var.security_list_ingress_security_rules_protocol}"
    source = "${var.security_list_ingress_security_rules_source}"

    #Optional
    icmp_options {
        #Required
        type = "${var.security_list_ingress_security_rules_icmp_options_type}"

        #Optional
        code = "${var.security_list_ingress_security_rules_icmp_options_code}"
    }
    source_type = "${var.security_list_ingress_security_rules_source_type}"
    stateless = "${var.security_list_ingress_security_rules_stateless}"
    tcp_options {

        #Optional
        max = "${var.security_list_ingress_security_rules_tcp_options_destination_port_range_max}"
        min = "${var.security_list_ingress_security_rules_tcp_options_destination_port_range_min}"
        source_port_range {
            #Required
            max = "${var.security_list_ingress_security_rules_tcp_options_source_port_range_max}"
            min = "${var.security_list_ingress_security_rules_tcp_options_source_port_range_min}"
        }
    }
}
udp_options {

    #Optional
    max = "${var.security_list_ingress_security_rules_udp_options_destination_port_range_max}"
    min = "${var.security_list_ingress_security_rules_udp_options_destination_port_range_min}"
    source_port_range {
        #Required
        max = "${var.security_list_ingress_security_rules_udp_options_source_port_range_max}"
        min = "${var.security_list_ingress_security_rules_udp_options_source_port_range_min}"
    }
}
}
}

```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the security list.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `egress_security_rules` - (Optional) (Updatable) Rules for allowing egress IP packets.
 - `destination` - (Required) (Updatable) Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic destined for a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- `destination_type` - (Optional) (Updatable) Type of destination for the rule. The default is `CIDR_BLOCK`.

Allowed values:

- `CIDR_BLOCK`: If the rule's `destination` is an IP address range in CIDR notation.
- `SERVICE_CIDR_BLOCK`: If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
- `icmp_options` - (Optional) (Updatable) Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - (Optional) (Updatable) The ICMP code (optional). * `type` - (Required) (Updatable) The ICMP type.

- `protocol` - (Required) (Updatable) The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").

- `stateless` - (Optional) (Updatable) A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - (Optional) (Updatable) Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - (Optional) (Updatable) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Optional) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Optional) (Updatable) The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - (Optional) (Updatable) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Required) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Required) (Updatable) The minimum port number. Must not be greater than the maximum port number.
- `udp_options` - (Optional) (Updatable) Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - `destination_port_range` - (Optional) (Updatable) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Optional) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Optional) (Updatable) The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - (Optional) (Updatable) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - (Required) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - (Required) (Updatable) The minimum port number. Must not be greater than the maximum port number.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ingress_security_rules` - (Optional) (Updatable) Rules for allowing ingress IP packets.
 - `icmp_options` - (Optional) (Updatable) Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:

- ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
- ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each.

- * code - (Optional) (Updatable) The ICMP code (optional).
- * type - (Required) (Updatable) The ICMP type.

- protocol - (Required) (Updatable) The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- source - (Required) (Updatable) Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic coming from a particular Service through a service gateway. For example: `oci-phx-objectstorage`.
- source_type - (Optional) (Updatable) Type of source for the rule. The default is `CIDR_BLOCK`.
 - `CIDR_BLOCK`: If the rule's `source` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `source` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular Service through a service gateway).
- stateless - (Optional) (Updatable) A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if ingress traffic allows TCP destination port 80, there should be an egress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- tcp_options - (Optional) (Updatable) Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - destination_port_range - (Optional) (Updatable) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - (Optional) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - min - (Optional) (Updatable) The minimum port number. Must not be greater than the maximum port number.
 - source_port_range - (Optional) (Updatable) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - max - (Required) (Updatable) The maximum port number. Must not be lower than the minimum port

number. To specify a single port number, set both the min and max to the same value.

- **min** - (Required) (Updatable) The minimum port number. Must not be greater than the maximum port number.
- **udp_options** - (Optional) (Updatable) Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
- **destination_port_range** - (Optional) (Updatable) An inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - **max** - (Optional) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - **min** - (Optional) (Updatable) The minimum port number. Must not be greater than the maximum port number.
- **source_port_range** - (Optional) (Updatable) An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - **max** - (Required) (Updatable) The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - **min** - (Required) (Updatable) The minimum port number. Must not be greater than the maximum port number.
- **vcn_id** - (Required) The OCID of the VCN the security list belongs to.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **compartment_id** - The OCID of the compartment containing the security list.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- **display_name** - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **egress_security_rules** - Rules for allowing egress IP packets.
 - **destination** - Conceptually, this is the range of IP addresses that a packet originating from the instance can go to.

Allowed values:

- IP address range in CIDR notation. For example: 192.168.1.0/24 or 2001:0db8:0123:45::/56 Note that IPv6 addressing is currently supported only in the Government Cloud.
- The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic destined for a particular Service through a service

gateway. For example: `oci-phx-objectstorage` .

- `destination_type` - Type of destination for the rule. The default is `CIDR_BLOCK` .

Allowed values:

- `CIDR_BLOCK` : If the rule's `destination` is an IP address range in CIDR notation.
- `SERVICE_CIDR_BLOCK` : If the rule's `destination` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic destined for a particular Service through a service gateway).
- `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:

- ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
- ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `stateless` - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if egress traffic allows TCP destination port 80, there should be an ingress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `udp_options` - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.

- `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The security list's Oracle Cloud ID (OCID).
- `ingress_security_rules` - Rules for allowing ingress IP packets.
 - `icmp_options` - Optional and valid only for ICMP and ICMPv6. Use to specify a particular ICMP type and code as defined in:
 - ICMP Parameters (<http://www.iana.org/assignments/icmp-parameters/icmp-parameters.xhtml>)
 - ICMPv6 Parameters (<https://www.iana.org/assignments/icmpv6-parameters/icmpv6-parameters.xhtml>)

If you specify ICMP or ICMPv6 as the protocol but omit this object, then all ICMP types and codes are allowed. If you do provide this object, the type is required and the code is optional. To enable MTU negotiation for ingress internet traffic via IPv4, make sure to allow type 3 ("Destination Unreachable") code 4 ("Fragmentation Needed and Don't Fragment was Set"). If you need to specify multiple codes for a single type, create a separate security list rule for each. * `code` - The ICMP code (optional). * `type` - The ICMP type.

- `protocol` - The transport protocol. Specify either `all` or an IPv4 protocol number as defined in Protocol Numbers (<http://www.iana.org/assignments/protocol-numbers/protocol-numbers.xhtml>). Options are supported only for ICMP ("1"), TCP ("6"), UDP ("17"), and ICMPv6 ("58").
- `source` - Conceptually, this is the range of IP addresses that a packet coming into the instance can come from.

Allowed values:

- IP address range in CIDR notation. For example: `192.168.1.0/24` or `2001:0db8:0123:45::/56`. Note that IPv6 addressing is currently supported only in the Government Cloud.
 - The `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>), if you're setting up a security list rule for traffic coming from a particular `Service` through a service gateway. For example: `oci-phx-objectstorage`.
- `source_type` - Type of source for the rule. The default is `CIDR_BLOCK`.
 - `CIDR_BLOCK`: If the rule's `source` is an IP address range in CIDR notation.
 - `SERVICE_CIDR_BLOCK`: If the rule's `source` is the `cidrBlock` value for a Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) (the rule is for traffic coming from a particular `Service` through a service gateway).

- `stateless` - A stateless rule allows traffic in one direction. Remember to add a corresponding stateless rule in the other direction if you need to support bidirectional traffic. For example, if ingress traffic allows TCP destination port 80, there should be an egress rule to allow TCP source port 80. Defaults to false, which means the rule is stateful and a corresponding rule is not necessary for bidirectional traffic.
- `tcp_options` - Optional and valid only for TCP. Use to specify particular destination ports for TCP rules. If you specify TCP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `udp_options` - Optional and valid only for UDP. Use to specify particular destination ports for UDP rules. If you specify UDP as the protocol but omit this object, then all destination ports are allowed.
 - The following 2 attributes specify an inclusive range of allowed destination ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
 - `source_port_range` - An inclusive range of allowed source ports. Use the same number for the min and max to indicate a single port. Defaults to all ports if not specified.
 - `max` - The maximum port number. Must not be lower than the minimum port number. To specify a single port number, set both the min and max to the same value.
 - `min` - The minimum port number. Must not be greater than the maximum port number.
- `state` - The security list's current state.
- `time_created` - The date and time the security list was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID of the VCN the security list belongs to.

Import

SecurityLists can be imported using the `id`, e.g.

```
$ terraform import oci_core_security_list.test_security_list "id"
```

oci_core_service_gateway

This resource provides the Service Gateway resource in Oracle Cloud Infrastructure Core service.

Creates a new service gateway in the specified compartment.

For the purposes of access control, you must provide the OCID of the compartment where you want the service gateway to reside. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the service gateway, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_service_gateway" "test_service_gateway" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  services {  
    #Required  
    service_id = "${data.oci_core_services.test_services.services.0.id}"  
  }  
  vcn_id = "${oci_core_vcn.test_vcn.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.service_gateway_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  route_table_id = "${oci_core_route_table.test_route_table.id}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to contain the service gateway.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no

predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `route_table_id` - (Optional) (Updatable) The OCID of the route table the service gateway will use.

If you don't specify a route table here, the service gateway is created without an associated route table. The Networking service does NOT automatically associate the attached VCN's default route table with the service gateway.

For information about why you would associate a route table with a service gateway, see Transit Routing: Private Access to Oracle Services

(<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>).

- `services` - (Required) (Updatable) List of the OCIDs of the Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) objects to enable for the service gateway. This list can be empty if you don't want to enable any Service objects when you create the gateway. You can enable a Service object later by using either `AttachServiceId` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/AttachServiceId>) or `UpdateServiceGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/UpdateServiceGateway>).

For each enabled Service, make sure there's a route rule with the Service object's `cidrBlock` as the rule's destination and the service gateway as the rule's target. See Route Table

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/RouteTable/>).

- `service_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>).
- `vcn_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `block_traffic` - Whether the service gateway blocks all traffic through it. The default is `false`. When this is `true`, traffic is not routed to any services, regardless of route rules. Example: `true`
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment that contains the service gateway.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type,

or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the service gateway.
- `route_table_id` - The OCID of the route table the service gateway is using. For information about why you would associate a route table with a service gateway, see Transit Routing: Private Access to Oracle Services (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/transitroutingoracleservices.htm>).
- `services` - List of the Service (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Service/>) objects enabled for this service gateway. The list can be empty. You can enable a particular `Service` by using `AttachServiceId` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/AttachServiceId>) or `UpdateServiceGateway` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/ServiceGateway/UpdateServiceGateway>).
 - `service_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the service.
 - `service_name` - The name of the service.
- `state` - The service gateway's current state.
- `time_created` - The date and time the service gateway was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `vcn_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VCN the service gateway belongs to.

Import

ServiceGateways can be imported using the `id`, e.g.

```
$ terraform import oci_core_service_gateway.test_service_gateway "id"
```

oci_core_subnet

This resource provides the Subnet resource in Oracle Cloud Infrastructure Core service.

Creates a new subnet in the specified VCN. You can't change the size of the subnet after creation, so it's important to think about the size of subnets you need before creating them. For more information, see [VCNs and Subnets \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVCNs.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVCNs.htm). For information on the number of subnets you can have in a VCN, see [Service Limits \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/servicelimits.htm).

For the purposes of access control, you must provide the OCID of the compartment where you want the subnet to reside. Notice that the subnet doesn't have to be in the same compartment as the VCN, route tables, or other Networking Service components. If you're not sure which compartment to use, put the subnet in the same compartment as the VCN. For more information about compartments and access control, see [Overview of the IAM Service \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm). For information about OCIDs, see [Resource Identifiers \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm).

You may optionally associate a route table with the subnet. If you don't, the subnet will use the VCN's default route table. For more information about route tables, see [Route Tables \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm).

You may optionally associate a security list with the subnet. If you don't, the subnet will use the VCN's default security list. For more information about security lists, see [Security Lists \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm).

You may optionally associate a set of DHCP options with the subnet. If you don't, the subnet will use the VCN's default set. For more information about DHCP options, see [DHCP Options \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDHCP.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingDHCP.htm).

You may optionally specify a *display name* for the subnet, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

You can also add a DNS label for the subnet, which is required if you want the Internet and VCN Resolver to resolve hostnames for instances in the subnet. For more information, see [DNS in Your Virtual Cloud Network \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm).

Example Usage

```
resource "oci_core_subnet" "test_subnet" {
  #Required
  cidr_block = "${var.subnet_cidr_block}"
  compartment_id = "${var.compartment_id}"
  vcn_id = "${oci_core_vcn.test_vcn.id}"

  #Optional
  availability_domain = "${var.subnet_availability_domain}"
  defined_tags = {"Operations.CostCenter"= "42"}
  dhcp_options_id = "${oci_core_dhcp_options.test_dhcp_options.id}"
  display_name = "${var.subnet_display_name}"
  dns_label = "${var.subnet_dns_label}"
  freeform_tags = {"Department"= "Finance"}
  ipv6cidr_block = "${var.subnet_ipv6cidr_block}"
  prohibit_public_ip_on_vnic = "${var.subnet_prohibit_public_ip_on_vnic}"
  route_table_id = "${oci_core_route_table.test_route_table.id}"
  security_list_ids = "${var.subnet_security_list_ids}"
}
```

Argument Reference

The following arguments are supported:

- **availability_domain** - (Optional) Controls whether the subnet is regional or specific to an availability domain. Oracle recommends creating regional subnets because they're more flexible and make it easier to implement failover across availability domains. Originally, AD-specific subnets were the only kind available to use.

To create a regional subnet, omit this attribute. Then any resources later created in this subnet (such as a Compute instance) can be created in any availability domain in the region.

To instead create an AD-specific subnet, set this attribute to the availability domain you want this subnet to be in. Then any resources later created in this subnet can only be created in that availability domain.

Example: Uocm:PHX-AD-1

- **cidr_block** - (Required) The CIDR IP address range of the subnet. Example: 172.16.1.0/24
- **compartment_id** - (Required) (Updatable) The OCID of the compartment to contain the subnet.
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- **dhcp_options_id** - (Optional) (Updatable) The OCID of the set of DHCP options the subnet will use. If you don't provide a value, the subnet uses the VCN's default set of DHCP options.
- **display_name** - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- **dns_label** - (Optional) A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, bminstance-1.subnet123.vcn1.oraclevcn.com). Must be an alphanumeric string that begins with a letter and is unique within

the VCN. The value cannot be changed.

This value must be set if you want to use the Internet and VCN Resolver to resolve the hostnames of instances in the subnet. It can only be set if the VCN itself was created with a DNS label.

For more information, see DNS in Your Virtual Cloud Network
(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `subnet123`

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ipv6cidr_block` - (Optional) IPv6 is currently supported only in the Government Cloud. Use this to enable IPv6 addressing for this subnet. The VCN must be enabled for IPv6. You can't change this subnet characteristic later. All subnets are /64 in size. The subnet portion of the IPv6 address is the fourth hexet from the left (1111 in the following example).

For important details about IPv6 addressing in a VCN, see IPv6 Addresses
(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/ipv6.htm>).

Example: `2001:0db8:0123:1111::/64`

- `prohibit_public_ip_on_vnic` - (Optional) Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the `assignPublicIp` flag in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails>)). If `prohibitPublicIpOnVnic` is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet).

For IPv6, if `prohibitPublicIpOnVnic` is set to `true`, internet access is not allowed for any IPv6s assigned to VNICs in the subnet.

Example: `true`

- `route_table_id` - (Optional) (Updatable) The OCID of the route table the subnet will use. If you don't provide a value, the subnet uses the VCN's default route table.
- `security_list_ids` - (Optional) (Updatable) The OCIDs of the security list or lists the subnet will use. If you don't provide a value, the subnet uses the VCN's default security list. Remember that security lists are associated *with the subnet*, but the rules are applied to the individual VNICs in the subnet.
- `vcn_id` - (Required) The OCID of the VCN to contain the subnet.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The subnet's availability domain. This attribute will be null if this is a regional subnet instead of an AD-specific subnet. Oracle recommends creating regional subnets. Example: `Uocm:PHX-AD-1`

- `cidr_block` - The subnet's CIDR block. Example: `172.16.1.0/24`
- `compartment_id` - The OCID of the compartment containing the subnet.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `dhcp_options_id` - The OCID of the set of DHCP options that the subnet uses.
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the subnet, used in conjunction with the VNIC's hostname and VCN's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter and is unique within the VCN. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not resolve hostnames of instances in this subnet.

For more information, see DNS in Your Virtual Cloud Network (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `subnet123`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The subnet's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's private IP address space. The subnet size is always /64. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123:1111::/64`
- `ipv6public_cidr_block` - For an IPv6-enabled subnet, this is the IPv6 CIDR block for the subnet's public IP address space. The subnet size is always /64. The left 48 bits are inherited from the `ipv6PublicCidrBlock` of the Vcn (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vcn/>), and the remaining 16 bits are from the subnet's `ipv6CidrBlock`. Example: `2001:0db8:0123:1111::/64`
- `ipv6virtual_router_ip` - For an IPv6-enabled subnet, this is the IPv6 address of the virtual router. Example: `2001:0db8:0123:1111:89ab:cdef:1234:5678`
- `prohibit_public_ip_on_vnic` - Whether VNICs within this subnet can have public IP addresses. Defaults to false, which means VNICs created in this subnet will automatically be assigned public IP addresses unless specified otherwise during instance launch or VNIC creation (with the `assignPublicIp` flag in `CreateVnicDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/CreateVnicDetails/>)). If `prohibitPublicIpOnVnic` is set to true, VNICs created in this subnet cannot have public IP addresses (that is, it's a private subnet). Example: `true`
- `route_table_id` - The OCID of the route table that the subnet uses.
- `security_list_ids` - The OCIDs of the security list or lists that the subnet uses. Remember that security lists are associated *with the subnet*, but the rules are applied to the individual VNICs in the subnet.

- `state` - The subnet's current state.
- `subnet_domain_name` - The subnet's domain name, which consists of the subnet's DNS label, the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `subnet123.vcn1.oraclevcn.com`

- `time_created` - The date and time the subnet was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the VCN the subnet is in.
- `virtual_router_ip` - The IP address of the virtual router. Example: `10.0.14.1`
- `virtual_router_mac` - The MAC address of the virtual router. Example: `00:00:17:B6:4D:DD`

Import

Subnets can be imported using the `id`, e.g.

```
$ terraform import oci_core_subnet.test_subnet "id"
```

oci_core_vcn

This resource provides the Vcn resource in Oracle Cloud Infrastructure Core service.

The VCN automatically comes with a default route table, default security list, and default set of DHCP options. For managing these resources, see [Managing Default VCN Resources \(/docs/providers/oci/guides/managing_default_resources.html\)](/docs/providers/oci/guides/managing_default_resources.html)

Creates a new Virtual Cloud Network (VCN). For more information, see [VCNs and Subnets \(https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVCNs.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVCNs.htm).

For the VCN you must specify a single, contiguous IPv4 CIDR block. Oracle recommends using one of the private IP address ranges specified in RFC 1918 (<https://tools.ietf.org/html/rfc1918>) (10.0.0.0/8, 172.16/12, and 192.168/16). Example: 172.16.0.0/16. The CIDR block can range from /16 to /30, and it must not overlap with your on-premises network. You can't change the size of the VCN after creation.

For the purposes of access control, you must provide the OCID of the compartment where you want the VCN to reside. Consult an Oracle Cloud Infrastructure administrator in your organization if you're not sure which compartment to use. Notice that the VCN doesn't have to be in the same compartment as the subnets or other Networking Service components. For more information about compartments and access control, see [Overview of the IAM Service \(https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm). For information about OCIDs, see [Resource Identifiers \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm).

You may optionally specify a *display name* for the VCN, otherwise a default is provided. It does not have to be unique, and you can change it. Avoid entering confidential information.

You can also add a DNS label for the VCN, which is required if you want the instances to use the Interent and VCN Resolver option for DNS in the VCN. For more information, see [DNS in Your Virtual Cloud Network \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm).

The VCN automatically comes with a default route table, default security list, and default set of DHCP options. The OCID for each is returned in the response. You can't delete these default objects, but you can change their contents (that is, change the route rules, security list rules, and so on).

The VCN and subnets you create are not accessible until you attach an internet gateway or set up an IPSec VPN or FastConnect. For more information, see [Overview of the Networking Service \(https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/overview.htm\)](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/overview.htm).

Supported Aliases

- `oci_core_virtual_network`

Example Usage

```
resource "oci_core_vcn" "test_vcn" {
  #Required
  cidr_block = "${var.vcn_cidr_block}"
  compartment_id = "${var.compartment_id}"

  #Optional
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.vcn_display_name}"
  dns_label = "${var.vcn_dns_label}"
  freeform_tags = {"Department"= "Finance"}
  ipv6cidr_block = "${var.vcn_ipv6cidr_block}"
  is_ipv6enabled = "${var.vcn_is_ipv6enabled}"
}
```

Argument Reference

The following arguments are supported:

- `cidr_block` - (Required) The CIDR IP address block of the VCN. Example: `172.16.0.0/16`
- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the VCN.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - (Optional) A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `bminstance-1.subnet123.vcn1.oraclevcn.com`). Not required to be unique, but it's a best practice to set unique DNS labels for VCNs in your tenancy. Must be an alphanumeric string that begins with a letter. The value cannot be changed.

You must set this value if you want instances to be able to use hostnames to resolve other instances in the VCN. Otherwise the Internet and VCN Resolver will not work.

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1`

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ipv6cidr_block` - (Optional) IPv6 is currently supported only in the Government Cloud. If you enable IPv6 for the VCN (see `isIpv6Enabled`), you may optionally provide an IPv6 /48 CIDR block from the supported ranges (see IPv6 Addresses (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/ipv6.htm>)). The addresses in this block will

be considered private and cannot be accessed from the internet. The documentation refers to this as a *custom CIDR* for the VCN.

If you don't provide a custom CIDR for the VCN, Oracle assigns the VCN's IPv6 /48 CIDR block.

Regardless of whether you or Oracle assigns the `ipv6CidrBlock`, Oracle *also* assigns the VCN an IPv6 CIDR block for the VCN's public IP address space (see the `ipv6PublicCidrBlock` of the `Vcn` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vcn/>) object). If you do not assign a custom CIDR, Oracle uses the *same* Oracle-assigned CIDR for both the private IP address space (`ipv6CidrBlock` in the `Vcn` object) and the public IP addresses space (`ipv6PublicCidrBlock` in the `Vcn` object). This means that a given VNIC might use the same IPv6 IP address for both private and public (internet) communication. You control whether an IPv6 address can be used for internet communication by using the `isInternetAccessAllowed` attribute in the `Ipv6` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Ipv6/>) object.

For important details about IPv6 addressing in a VCN, see IPv6 Addresses (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/ipv6.htm>).

Example: `2001:0db8:0123::/48`

- `is_ipv6enabled` - (Optional) IPv6 is currently supported only in the Government Cloud. Whether IPv6 is enabled for the VCN. Default is `false`. You cannot change this later. For important details about IPv6 addressing in a VCN, see IPv6 Addresses (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/ipv6.htm>). Example: `true`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `cidr_block` - The CIDR IP address block of the VCN. Example: `172.16.0.0/16`
- `compartment_id` - The OCID of the compartment containing the VCN.
- `default_dhcp_options_id` - The OCID for the VCN's default set of DHCP options.
- `default_route_table_id` - The OCID for the VCN's default route table.
- `default_security_list_id` - The OCID for the VCN's default security list.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `dns_label` - A DNS label for the VCN, used in conjunction with the VNIC's hostname and subnet's DNS label to form a fully qualified domain name (FQDN) for each VNIC within this subnet (for example, `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be an alphanumeric string that begins with a letter. The value cannot be changed.

The absence of this parameter means the Internet and VCN Resolver will not work for this VCN.

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1`

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The VCN's Oracle ID (OCID).
- `ipv6cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's private IP address space. The VCN size is always /48. If you don't provide a value when creating the VCN, Oracle provides one and uses that *same* CIDR for the `ipv6PublicCidrBlock`. If you do provide a value, Oracle provides a *different* CIDR for the `ipv6PublicCidrBlock`. Note that IPv6 addressing is currently supported only in the Government Cloud. Example: `2001:0db8:0123::/48`
- `ipv6public_cidr_block` - For an IPv6-enabled VCN, this is the IPv6 CIDR block for the VCN's public IP address space. The VCN size is always /48. This CIDR is always provided by Oracle. If you don't provide a custom CIDR for the `ipv6CidrBlock` when creating the VCN, Oracle assigns that value and also uses it for `ipv6PublicCidrBlock`. Oracle uses addresses from this block for the `publicIpAddress` attribute of an `Ipv6` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Ipv6/>) that has internet access allowed. Example: `2001:0db8:0123::/48`
- `state` - The VCN's current state.
- `time_created` - The date and time the VCN was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vcn_domain_name` - The VCN's domain name, which consists of the VCN's DNS label, and the `oraclevcn.com` domain.

For more information, see [DNS in Your Virtual Cloud Network](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `vcn1.oraclevcn.com`

Import

Vcns can be imported using the `id`, e.g.

```
$ terraform import oci_core_vcn.test_vcn "id"
```

oci_core_virtual_circuit

This resource provides the Virtual Circuit resource in Oracle Cloud Infrastructure Core service.

Creates a new virtual circuit to use with Oracle Cloud Infrastructure FastConnect. For more information, see [FastConnect Overview](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the virtual circuit to reside. If you're not sure which compartment to use, put the virtual circuit in the same compartment with the DRG it's using. For more information about compartments and access control, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You may optionally specify a *display name* for the virtual circuit. It does not have to be unique, and you can change it. Avoid entering confidential information.

Important: When creating a virtual circuit, you specify a DRG for the traffic to flow through. Make sure you attach the DRG to your VCN and confirm the VCN's routing sends traffic to the DRG. Otherwise traffic will not flow. For more information, see [Route Tables](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm>).

Example Usage

```
resource "oci_core_virtual_circuit" "test_virtual_circuit" {
  #Required
  compartment_id = "${var.compartment_id}"
  type = "${var.virtual_circuit_type}"

  #Optional
  bandwidth_shape_name = "${var.virtual_circuit_bandwidth_shape_name}"
  cross_connect_mappings {

    #Optional
    bgp_md5auth_key = "${var.virtual_circuit_cross_connect_mappings_bgp_md5auth_key}"
    cross_connect_or_cross_connect_group_id = "${oci_core_cross_connect_or_cross_connect_group.test_cross_connect_or_cross_c
connect_group.id}"
    customer_bgp_peering_ip = "${var.virtual_circuit_cross_connect_mappings_customer_bgp_peering_ip}"
    customer_bgp_peering_ipv6 = "${var.virtual_circuit_cross_connect_mappings_customer_bgp_peering_ipv6}"
    oracle_bgp_peering_ip = "${var.virtual_circuit_cross_connect_mappings_oracle_bgp_peering_ip}"
    oracle_bgp_peering_ipv6 = "${var.virtual_circuit_cross_connect_mappings_oracle_bgp_peering_ipv6}"
    vlan = "${var.virtual_circuit_cross_connect_mappings_vlan}"
  }
  customer_bgp_asn = "${var.virtual_circuit_customer_bgp_asn}"
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.virtual_circuit_display_name}"
  freeform_tags = {"Department"= "Finance"}
  gateway_id = "${oci_core_gateway.test_gateway.id}"
  provider_service_id = "${data.oci_core_fast_connect_provider_services.test_fast_connect_provider_services.fast_connect_provi
der_services.0.id}"
  provider_service_key_name = "${var.virtual_circuit_provider_service_key_name}"
  public_prefixes {
    #Required
    cidr_block = "${var.virtual_circuit_public_prefixes_cidr_block}"
  }
  region = "${var.virtual_circuit_region}"
}
```

Argument Reference

The following arguments are supported:

- `bandwidth_shape_name` - (Optional) (Updatable) The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see [ListFastConnectProviderServiceVirtualCircuitBandwidthShapes](#)

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes>).

Example: 10 Gbps

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to contain the virtual circuit.
- `cross_connect_mappings` - (Optional) (Updatable) Create a `CrossConnectMapping` for each cross-connect or cross-connect group this virtual circuit will run on.
 - `bgp_md5auth_key` - (Optional) (Updatable) The key for BGP MD5 authentication. Only applicable if your system requires MD5 authentication. If empty or not set (null), that means you don't use BGP MD5 authentication.
 - `cross_connect_or_cross_connect_group_id` - (Optional) (Updatable) The OCID of the cross-connect or cross-connect group for this mapping. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).
 - `customer_bgp_peering_ip` - (Optional) (Updatable) The BGP IPv4 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv4 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv4 address of the provider's edge router. Must use a /30 or /31 subnet mask.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.18/31

- `customer_bgp_peering_ipv6` - (Optional) (Updatable) IPv6 is currently supported only in the Government Cloud. The BGP IPv6 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv6 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv6 address of the provider's edge router. Only subnet masks from /64 up to /127 are allowed.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::1/64

- `oracle_bgp_peering_ip` - (Optional) (Updatable) The IPv4 address for Oracle's end of the BGP session. Must use a /30 or /31 subnet mask. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.19/31

- `oracle_bgp_peering_ipv6` - (Optional) (Updatable) IPv6 is currently supported only in the Government Cloud. The IPv6 address for Oracle's end of the BGP session. Only subnet masks from /64 up to /127 are allowed. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::2/64

- `vlan` - (Optional) (Updatable) The number of the specific VLAN (on the cross-connect or cross-connect group) that is assigned to this virtual circuit. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider). Example: 200
- `customer_bgp_asn` - (Optional) (Updatable) Your BGP ASN (either public or private). Provide this value only if there's a BGP session that goes from your edge router to Oracle. Otherwise, leave this empty or null.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: {"Department": "Finance"}
- **gateway_id** - (Optional) (Updatable) For private virtual circuits only. The OCID of the dynamic routing gateway (DRG) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Drg>) that this virtual circuit uses.
- **provider_service_id** - (Optional) The OCID of the service offered by the provider (if you're connecting via a provider). To get a list of the available service offerings, see `ListFastConnectProviderServices` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderServices>).
- **provider_service_key_name** - (Optional) (Updatable) The service key name offered by the provider (if the customer is connecting via a provider).
- **public_prefixes** - (Optional) (Updatable) For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection.
 - **cidr_block** - (Required) (Updatable) An individual public IP prefix (CIDR) to add to the public virtual circuit. Must be /31 or less specific.
- **region** - (Optional) The Oracle Cloud Infrastructure region where this virtual circuit is located. Example: `phx`
- **type** - (Required) The type of IP addresses used in this virtual circuit. PRIVATE means RFC 1918 (<https://tools.ietf.org/html/rfc1918>) addresses (10.0.0.0/8, 172.16/12, and 192.168/16).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **bandwidth_shape_name** - The provisioned data rate of the connection. To get a list of the available bandwidth levels (that is, shapes), see `ListFastConnectProviderServiceVirtualCircuitBandwidthShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/ListFastConnectProviderVirtualCircuitBandwidthShapes>).
Example: `10 Gbps`
- **bgp_management** - Deprecated. Instead use the information in `FastConnectProviderService` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/FastConnectProviderService/>).
- **bgp_session_state** - The state of the BGP session associated with the virtual circuit.
- **compartment_id** - The OCID of the compartment containing the virtual circuit.
- **cross_connect_mappings** - An array of mappings, each containing properties for a cross-connect or cross-connect group that is associated with this virtual circuit.
 - **bgp_md5auth_key** - The key for BGP MD5 authentication. Only applicable if your system requires MD5 authentication. If empty or not set (null), that means you don't use BGP MD5 authentication.
 - **cross_connect_or_cross_connect_group_id** - The OCID of the cross-connect or cross-connect group for this mapping. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider).
 - **customer_bgp_peering_ip** - The BGP IPv4 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv4 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv4 address of the provider's edge router. Must use a /30 or /31 subnet mask.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: `10.0.0.18/31`
 - **customer_bgp_peering_ipv6** - The BGP IPv6 address for the router on the other end of the BGP session from Oracle. Specified by the owner of that router. If the session goes from Oracle to a customer, this is the BGP IPv6 address of the customer's edge router. If the session goes from Oracle to a provider, this is the BGP IPv6 address of the provider's edge router. Only subnet masks from /64 up to /127 are allowed.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::1/64

- `oracle_bgp_peering_ip` - The IPv4 address for Oracle's end of the BGP session. Must use a /30 or /31 subnet mask. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv4 addresses.

Example: 10.0.0.19/31

- `oracle_bgp_peering_ipv6` - The IPv6 address for Oracle's end of the BGP session. Only subnet masks from /64 up to /127 are allowed. If the session goes from Oracle to a customer's edge router, the customer specifies this information. If the session goes from Oracle to a provider's edge router, the provider specifies this.

There's one exception: for a public virtual circuit, Oracle specifies the BGP IPv6 addresses.

Note that IPv6 addressing is currently supported only in the Government Cloud.

Example: 2001:db8::2/64

- `vlan` - The number of the specific VLAN (on the cross-connect or cross-connect group) that is assigned to this virtual circuit. Specified by the owner of the cross-connect or cross-connect group (the customer if the customer is colocated with Oracle, or the provider if the customer is connecting via provider). Example: 200
- `customer_bgp_asn` - The BGP ASN of the network at the other end of the BGP session from Oracle. If the session is between the customer's edge router and Oracle, the value is the customer's ASN. If the BGP session is between the provider's edge router and Oracle, the value is the provider's ASN.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gateway_id` - The OCID of the customer's dynamic routing gateway (DRG) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Drg>) that this virtual circuit uses. Applicable only to private virtual circuits.
- `id` - The virtual circuit's Oracle ID (OCID).
- `oracle_bgp_asn` - The Oracle BGP ASN.
- `provider_service_id` - The OCID of the service offered by the provider (if the customer is connecting via a provider).
- `provider_service_key_name` - The service key name offered by the provider (if the customer is connecting via a provider).
- `provider_state` - The provider's state in relation to this virtual circuit (if the customer is connecting via a provider). ACTIVE means the provider has provisioned the virtual circuit from their end. INACTIVE means the provider has not yet provisioned the virtual circuit, or has de-provisioned it.
- `public_prefixes` - For a public virtual circuit. The public IP prefixes (CIDRs) the customer wants to advertise across the connection. Each prefix must be /31 or less specific.
- `reference_comment` - Provider-supplied reference information about this virtual circuit (if the customer is connecting via a provider).
- `region` - The Oracle Cloud Infrastructure region where this virtual circuit is located.
- `service_type` - Provider service type.
- `state` - The virtual circuit's current state. For information about the different states, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).
- `time_created` - The date and time the virtual circuit was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

- `type` - Whether the virtual circuit supports private or public peering. For more information, see FastConnect Overview (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/fastconnect.htm>).

Import

VirtualCircuits can be imported using the `id`, e.g.

```
$ terraform import oci_core_virtual_circuit.test_virtual_circuit "id"
```

oci_core_vnic_attachment

This resource provides the Vnic Attachment resource in Oracle Cloud Infrastructure Core service.

Creates a secondary VNIC and attaches it to the specified instance. For more information about secondary VNICs, see Virtual Network Interface Cards (VNICs) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

Example Usage

```
resource "oci_core_vnic_attachment" "test_vnic_attachment" {  
  #Required  
  create_vnic_details {  
    #Required  
    subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
    #Optional  
    assign_public_ip = "${var.vnic_attachment_create_vnic_details_assign_public_ip}"  
    defined_tags = "${var.vnic_attachment_create_vnic_details_defined_tags}"  
    display_name = "${var.vnic_attachment_create_vnic_details_display_name}"  
    freeform_tags = "${var.vnic_attachment_create_vnic_details_freeform_tags}"  
    hostname_label = "${var.vnic_attachment_create_vnic_details_hostname_label}"  
    nsg_ids = "${var.vnic_attachment_create_vnic_details_nsg_ids}"  
    private_ip = "${var.vnic_attachment_create_vnic_details_private_ip}"  
    skip_source_dest_check = "${var.vnic_attachment_create_vnic_details_skip_source_dest_check}"  
  }  
  instance_id = "${oci_core_instance.test_instance.id}"  
  
  #Optional  
  display_name = "${var.vnic_attachment_display_name}"  
  nic_index = "${var.vnic_attachment_nic_index}"  
}
```

Argument Reference

The following arguments are supported:

- `create_vnic_details` - (Required) (Updatable) Details for creating a new VNIC.
 - `assign_public_ip` - (Optional) Whether the VNIC should be assigned a public IP address. Defaults to whether the subnet is public or private. If not set and the VNIC is being created in a private subnet (that is, where `prohibitPublicIpOnVnic = true` in the Subnet (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Subnet>)), then no public IP address is assigned. If not set and the subnet is public (`prohibitPublicIpOnVnic = false`), then a public IP address is assigned. If set to true and `prohibitPublicIpOnVnic = true`, an error is returned.

Note: This public IP address is associated with the primary private IP on the VNIC. For more information, see IP Addresses (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingIPaddresses.htm>).

Note: There's a limit to the number of public IPs

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PublicIp/>) a VNIC or instance can have. If you try to create a secondary VNIC with an assigned public IP for an instance that has already reached its public IP limit, an error is returned. For information about the public IP limits, see [Public IP Addresses](#) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingpublicIPs.htm>).

Example: `false`

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the VNIC. Does not have to be unique. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname_label` - (Optional) (Updatable) The hostname for the VNIC's primary private IP. Used for DNS. The value is the hostname portion of the primary private IP's fully qualified domain name (FQDN) (for example, `bminstance-1` in FQDN `bminstance-1.subnet123.vcn1.oraclevcn.com`). Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>). The value appears in the `Vnic` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vnic/>) object and also the `PrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/>) object returned by `ListPrivateIps` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/ListPrivateIps>) and `GetPrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/GetPrivateIp>).

For more information, see [DNS in Your Virtual Cloud Network](#)

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

When launching an instance, use this `hostnameLabel` instead of the deprecated `hostnameLabel` in `LaunchInstanceDetails`

(<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/requests/LaunchInstanceDetails>). If you provide both, the values must match.

Example: `bminstance-1`

- `nsg_ids` - (Optional) (Updatable) A list of the OCIDs of the network security groups (NSGs) to add the VNIC to. For more information about NSGs, see [NetworkSecurityGroup](#) (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/NetworkSecurityGroup/>).
- `private_ip` - (Optional) A private IP address of your choice to assign to the VNIC. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet. This is the VNIC's *primary* private IP address. The value appears in the `Vnic` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/Vnic/>) object and also the `PrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/>) object returned by `ListPrivateIps` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/ListPrivateIps>) and `GetPrivateIp` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/PrivateIp/GetPrivateIp>). Example: `10.0.3.3`

- `skip_source_dest_check` - (Optional) (Updatable) Whether the source/destination check is disabled on the VNIC. Defaults to `false`, which means the check is performed. For information about why you would skip the source/destination check, see [Using a Private IP as a Route Target](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm#privateip) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingroutetables.htm#privateip>). Example: `true`
- `subnet_id` - (Required) The OCID of the subnet to create the VNIC in. When launching an instance, use this `subnetId` instead of the deprecated `subnetId` in `LaunchInstanceDetails` (<https://docs.cloud.oracle.com/iaas/api/#/en/iaas/20160918/requests/LaunchInstanceDetails>). At least one of them is required; if you provide both, the values must match.
- `display_name` - (Optional) A user-friendly name for the attachment. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
- `instance_id` - (Required) The OCID of the instance.
- `nic_index` - (Optional) Which physical network interface card (NIC) the VNIC will use. Defaults to 0. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see [Virtual Network Interface Cards \(VNICs\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the instance. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment the VNIC attachment is in, which is the same compartment the instance is in.
- `display_name` - A user-friendly name. Does not have to be unique. Avoid entering confidential information.
- `id` - The OCID of the VNIC attachment.
- `instance_id` - The OCID of the instance.
- `nic_index` - Which physical network interface card (NIC) the VNIC uses. Certain bare metal instance shapes have two active physical NICs (0 and 1). If you add a secondary VNIC to one of these instances, you can specify which NIC the VNIC will use. For more information, see [Virtual Network Interface Cards \(VNICs\)](https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Tasks/managingVNICs.htm>).
- `state` - The current state of the VNIC attachment.
- `subnet_id` - The OCID of the VNIC's subnet.
- `time_created` - The date and time the VNIC attachment was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `vlan_tag` - The Oracle-assigned VLAN tag of the attached VNIC. Available after the attachment process is complete. Example: `0`

- `vnic_id` - The OCID of the VNIC. Available after the attachment process is complete.

Import

VnicAttachments can be imported using the `id`, e.g.

```
$ terraform import oci_core_vnic_attachment.test_vnic_attachment "id"
```

oci_core_volume_attachment

This resource provides the Volume Attachment resource in Oracle Cloud Infrastructure Core service.

Attaches the specified storage volume to the specified instance.

Example Usage

```
resource "oci_core_volume_attachment" "test_volume_attachment" {  
  #Required  
  attachment_type = "${var.volume_attachment_attachment_type}"  
  instance_id = "${oci_core_instance.test_instance.id}"  
  volume_id = "${oci_core_volume.test_volume.id}"  
  
  #Optional  
  device = "${var.volume_attachment_device}"  
  display_name = "${var.volume_attachment_display_name}"  
  is_pv_encryption_in_transit_enabled = "${var.volume_attachment_is_pv_encryption_in_transit_enabled}"  
  is_read_only = "${var.volume_attachment_is_read_only}"  
  use_chap = "${var.volume_attachment_use_chap}"  
}
```

Argument Reference

The following arguments are supported:

- `attachment_type` - (Required) The type of volume. The only supported value are "iscsi" and "paravirtualized".
- `device` - (Optional) The device name.
- `display_name` - (Optional) A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information.
- `instance_id` - (Required) The OCID of the instance.
- `is_pv_encryption_in_transit_enabled` - (Applicable when `attachment_type=paravirtualized`) Whether to enable in-transit encryption for the data volume's paravirtualized attachment. The default value is false.
- `is_read_only` - (Optional) Whether the attachment was created in read-only mode.
- `use_chap` - (Applicable when `attachment_type=iscsi`) Whether to use CHAP authentication for the volume attachment. Defaults to false.
- `volume_id` - (Required) The OCID of the volume.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `attachment_type` - The type of volume attachment.
- `availability_domain` - The availability domain of an instance. Example: `Uocm:PHX-AD-1`
- `chap_secret` - The Challenge-Handshake-Authentication-Protocol (CHAP) secret valid for the associated CHAP user name. (Also called the "CHAP password".) Example: `d6866c0d-298b-48ba-95af-309b4faux45e`
- `chap_username` - The volume's system-generated Challenge-Handshake-Authentication-Protocol (CHAP) user name. Example: `ocid1.volume.oc1.phx.abyhqljrgvttnlx73nmrwfaux7kcvzfs3s66izvxf2h4lgvyndsdsnoiwr5q`
- `compartment_id` - The OCID of the compartment.
- `device` - The device name.
- `display_name` - A user-friendly name. Does not have to be unique, and it cannot be changed. Avoid entering confidential information. Example: `My volume attachment`
- `id` - The OCID of the volume attachment.
- `instance_id` - The OCID of the instance the volume is attached to.
- `ipv4` - The volume's iSCSI IP address. Example: `169.254.0.2`
- `iqn` - The target volume's iSCSI Qualified Name in the format defined by RFC 3720. Example: `iqn.2015-12.us.oracle.com:456b0391-17b8-4122-bbf1-f85fc0bb97d9`
- `is_pv_encryption_in_transit_enabled` - Whether in-transit encryption for the data volume's paravirtualized attachment is enabled or not.
- `is_read_only` - Whether the attachment was created in read-only mode.
- `port` - The volume's iSCSI port. Example: `3260`
- `state` - The current state of the volume attachment.
- `time_created` - The date and time the volume was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `volume_id` - The OCID of the volume.

Import

VolumeAttachments can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_attachment.test_volume_attachment "id"
```

oci_core_volume_backup

This resource provides the Volume Backup resource in Oracle Cloud Infrastructure Core service.

Creates a new backup of the specified volume. For general information about volume backups, see [Overview of Block Volume Service Backups \(https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/blockvolumebackups.htm\)](https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/blockvolumebackups.htm)

When the request is received, the backup object is in a REQUEST_RECEIVED state. When the data is imaged, it goes into a CREATING state. After the backup is fully uploaded to the cloud, it goes into an AVAILABLE state.

Example Usage

```
resource "oci_core_volume_backup" "test_volume_backup" {  
  #Required  
  volume_id = "${oci_core_volume.test_volume.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.volume_backup_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  type = "${var.volume_backup_type}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) (Updatable) The OCID of the compartment that contains the volume backup.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`
- `type` - (Optional) The type of backup to create. If omitted, defaults to INCREMENTAL.
- `volume_id` - (Required) The OCID of the volume that needs to be backed up.
- `source_details` - (Optional) Details of the volume backup source in the cloud.
 - `kms_key_id` - The OCID of the KMS key in the destination region which will be the master encryption key for the copied volume backup.

- `region` - The region of the volume backup source.
- `volume_backup_id` - The OCID of the source volume backup.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the volume backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `expiration_time` - The date and time the volume backup will expire and be automatically deleted. Format defined by RFC3339. This parameter will always be present for backups that were created automatically by a scheduled-backup policy. For manually created backups, it will be absent, signifying that there is no expiration time and the backup will last forever until manually deleted.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the volume backup. For more information about the Key Management service and encryption keys, see Overview of Key Management (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Concepts/keyoverview.htm>) and Using Keys (<https://docs.cloud.oracle.com/iaas/Content/KeyManagement/Tasks/usingkeys.htm>).
- `size_in_gbs` - The size of the volume, in GBs.
- `size_in_mbs` - The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Please use `size_in_gbs`.
- `source_type` - Specifies whether the backup was created manually, or via scheduled backup policy.
- `source_volume_backup_id` - The OCID of the source volume backup.
- `state` - The current state of a volume backup.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the volume backup was created. This is the time the actual point-in-time image of the volume data was taken. Format defined by RFC3339.

- `time_request_received` - The date and time the request to create the volume backup was received. Format defined by RFC3339.
- `type` - The type of a volume backup. Supported values are 'FULL' or 'INCREMENTAL'.
- `unique_size_in_gbs` - The size used by the backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the volume and whether the backup is full or incremental.
- `unique_size_in_mbs` - The size used by the backup, in MBs. It is typically smaller than `size_in_mbs`, depending on the space consumed on the volume and whether the backup is full or incremental. This field is deprecated. Please use `unique_size_in_gbs`.
- `volume_id` - The OCID of the volume.

Import

VolumeBackups can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_backup.test_volume_backup "id"
```


oci_core_volume_backup_policy_assignment

This resource provides the Volume Backup Policy Assignment resource in Oracle Cloud Infrastructure Core service.

Assigns a policy to the specified asset, such as a volume. Note that a given asset can only have one policy assigned to it; if this method is called for an asset that previously has a different policy assigned, the prior assignment will be silently deleted.

Example Usage

```
resource "oci_core_volume_backup_policy_assignment" "test_volume_backup_policy_assignment" {  
  #Required  
  asset_id = "${oci_core_volume.test_volume.id}"  
  policy_id = "${oci_core_volume_backup_policy.test_volume_backup_policy.id}"  
}
```

Argument Reference

The following arguments are supported:

- `asset_id` - (Required) The OCID of the asset (e.g. a volume) to which to assign the policy.
- `policy_id` - (Required) The OCID of the volume backup policy to assign to an asset.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `asset_id` - The OCID of the asset (e.g. a volume) to which the policy has been assigned.
- `id` - The OCID of the volume backup policy assignment.
- `policy_id` - The OCID of the volume backup policy that has been assigned to an asset.
- `time_created` - The date and time the volume backup policy assignment was created. Format defined by RFC3339.

Import

VolumeBackupPolicyAssignments can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_backup_policy_assignment.test_volume_backup_policy_assignment "id"
```

oci_core_volume_backup_policy

This resource provides the Volume Backup Policy resource in Oracle Cloud Infrastructure Core service.

Creates a new backup policy for the caller.

Example Usage

```
resource "oci_core_volume_backup_policy" "test_volume_backup_policy" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.volume_backup_policy_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  schedules {  
    #Required  
    backup_type = "${var.volume_backup_policy_schedules_backup_type}"  
    period = "${var.volume_backup_policy_schedules_period}"  
    retention_seconds = "${var.volume_backup_policy_schedules_retention_seconds}"  
  
    #Optional  
    day_of_month = "${var.volume_backup_policy_schedules_day_of_month}"  
    day_of_week = "${var.volume_backup_policy_schedules_day_of_week}"  
    hour_of_day = "${var.volume_backup_policy_schedules_hour_of_day}"  
    month = "${var.volume_backup_policy_schedules_month}"  
    offset_seconds = "${var.volume_backup_policy_schedules_offset_seconds}"  
    offset_type = "${var.volume_backup_policy_schedules_offset_type}"  
    time_zone = "${var.volume_backup_policy_schedules_time_zone}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment that contains the backup policy.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the volume backup policy. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}

- **schedules** - (Optional) (Updatable) The collection of schedules that this policy will apply.
 - **backup_type** - (Required) (Updatable) The type of backup to create.
 - **day_of_month** - (Optional) (Updatable) The day of the month to schedule the backup
 - **day_of_week** - (Optional) (Updatable) The day of the week to schedule the backup
 - **hour_of_day** - (Optional) (Updatable) The hour of the day to schedule the backup
 - **month** - (Optional) (Updatable) The month of the year to schedule the backup
 - **offset_seconds** - (Optional) (Updatable) The number of seconds that the backup time should be shifted from the default interval boundaries specified by the period. Backup time = Frequency start time + Offset.
 - **offset_type** - (Optional) (Updatable) Indicates how offset is defined. If value is `STRUCTURED`, then `hourOfDay`, `dayOfWeek`, `dayOfMonth`, and `month` fields are used and `offsetSeconds` will be ignored in requests and users should ignore its value from the responses. `hourOfDay` is applicable for periods `ONE_DAY`, `ONE_WEEK`, `ONE_MONTH` and `ONE_YEAR`. `dayOfWeek` is applicable for period `ONE_WEEK`. `dayOfMonth` is applicable for periods `ONE_MONTH` and `ONE_YEAR`. 'month' is applicable for period 'ONE_YEAR'. They will be ignored in the requests for inapplicable periods. If value is `NUMERIC_SECONDS`, then `offsetSeconds` will be used for both requests and responses and the structured fields will be ignored in the requests and users should ignore their values from the responses. For clients using older versions of Apis and not sending `offsetType` in their requests, the behaviour is just like `NUMERIC_SECONDS`.
 - **period** - (Required) (Updatable) How often the backup should occur.
 - **retention_seconds** - (Required) (Updatable) How long, in seconds, backups created by this schedule should be kept until being automatically deleted.
 - **time_zone** - (Optional) (Updatable) Specifies what time zone is the schedule in

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **compartment_id** - The OCID of the compartment that contains the volume backup.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **display_name** - A user-friendly name for the volume backup policy. Does not have to be unique and it's changeable. Avoid entering confidential information.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

- `id` - The OCID of the volume backup policy.
- `schedules` - The collection of schedules that this policy will apply.
 - `backup_type` - The type of backup to create.
 - `day_of_month` - The day of the month to schedule the backup
 - `day_of_week` - The day of the week to schedule the backup
 - `hour_of_day` - The hour of the day to schedule the backup
 - `month` - The month of the year to schedule the backup
 - `offset_seconds` - The number of seconds that the backup time should be shifted from the default interval boundaries specified by the period. Backup time = Frequency start time + Offset.
 - `offset_type` - Indicates how offset is defined. If value is `STRUCTURED`, then `hourOfDay`, `dayOfWeek`, `dayOfMonth`, and `month` fields are used and `offsetSeconds` will be ignored in requests and users should ignore its value from the responses. `hourOfDay` is applicable for periods `ONE_DAY`, `ONE_WEEK`, `ONE_MONTH` and `ONE_YEAR`. `dayOfWeek` is applicable for period `ONE_WEEK`. `dayOfMonth` is applicable for periods `ONE_MONTH` and `ONE_YEAR`. 'month' is applicable for period 'ONE_YEAR'. They will be ignored in the requests for inapplicable periods. If value is `NUMERIC_SECONDS`, then `offsetSeconds` will be used for both requests and responses and the structured fields will be ignored in the requests and users should ignore their values from the responses. For clients using older versions of Apis and not sending `offsetType` in their requests, the behaviour is just like `NUMERIC_SECONDS`.
 - `period` - How often the backup should occur.
 - `retention_seconds` - How long, in seconds, backups created by this schedule should be kept until being automatically deleted.
 - `time_zone` - Specifies what time zone is the schedule in
- `time_created` - The date and time the volume backup policy was created. Format defined by RFC3339.

Import

VolumeBackupPolicies can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_backup_policy.test_volume_backup_policy "id"
```

oci_core_volume_group_backup

This resource provides the Volume Group Backup resource in Oracle Cloud Infrastructure Core service.

Creates a new backup volume group of the specified volume group. For more information, see [Volume Groups](https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm) (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm>).

Example Usage

```
resource "oci_core_volume_group_backup" "test_volume_group_backup" {  
  #Required  
  volume_group_id = "${oci_core_volume_group.test_volume_group.id}"  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.volume_group_backup_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  type = "${var.volume_group_backup_type}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) (Updatable) The OCID of the compartment that will contain the volume group backup. This parameter is optional, by default backup will be created in the same compartment and source volume group.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the volume group backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `type` - (Optional) The type of backup to create. If omitted, defaults to incremental.
 - Allowed values are :
 - FULL
 - INCREMENTAL
- `volume_group_id` - (Required) The OCID of the volume group that needs to be backed up.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the volume group backup.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume group backup. Does not have to be unique and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume group backup.
- `size_in_gbs` - The aggregate size of the volume group backup, in GBs.
- `size_in_mbs` - The aggregate size of the volume group backup, in MBs.
- `state` - The current state of a volume group backup.
- `time_created` - The date and time the volume group backup was created. This is the time the actual point-in-time image of the volume group data was taken. Format defined by RFC3339.
- `time_request_received` - The date and time the request to create the volume group backup was received. Format defined by RFC3339.
- `type` - The type of backup.
- `unique_size_in_gbs` - The aggregate size used by the volume group backup, in GBs. It is typically smaller than `size_in_gbs`, depending on the space consumed on the volume group and whether the volume backup is full or incremental.
- `unique_size_in_mbs` - The aggregate size used by the volume group backup, in MBs. It is typically smaller than `size_in_mbs`, depending on the space consumed on the volume group and whether the volume backup is full or incremental.
- `volume_backup_ids` - OCIDs for the volume backups in this volume group backup.
- `volume_group_id` - The OCID of the source volume group.

Import

VolumeGroupBackups can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_group_backup.test_volume_group_backup "id"
```

oci_core_volume_group

This resource provides the Volume Group resource in Oracle Cloud Infrastructure Core service.

Creates a new volume group in the specified compartment. A volume group is a collection of volumes and may be created from a list of volumes, cloning an existing volume group, or by restoring a volume group backup. A volume group can contain up to 64 volumes. You may optionally specify a *display name* for the volume group, which is simply a friendly name or description. It does not have to be unique, and you can change it. Avoid entering confidential information.

For more information, see Volume Groups (<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/volumegroups.htm>).

Note: If the volume group is created from another volume group or from a volume group backup, a copy of the volumes from the source is made in your compartment. However, this is not automatically deleted by Terraform when this volume group is deleted. To track these volumes, you can import them into the terraform statefile and run terraform destroy. Alternatively, you can also use another interface like CLI, SDK, or Console to remove them manually.

Example Usage

```
resource "oci_core_volume_group" "test_volume_group" {
  #Required
  availability_domain = "${var.volume_group_availability_domain}"
  compartment_id = "${var.compartment_id}"
  source_details {
    #Required
    type = "volumeIds"
    volume_ids = ["${var.volume_group_source_id}"]
  }

  #Optional
  defined_tags = {"Operations.CostCenter"= "42"}
  display_name = "${var.volume_group_display_name}"
  freeform_tags = {"Department"= "Finance"}
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain of the volume group.
- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains the volume group.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the volume group. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `source_details` - (Required) Specifies the volume group source details for a new volume group. The volume source is either another a list of volume ids in the same availability domain, another volume group or a volume group backup.
 - `type` - (Required) The type can be one of these values: `volumeGroupBackupId`, `volumeGroupId`, `volumeIds`
 - `volume_group_backup_id` - (Required when `type=volumeGroupBackupId`) The OCID of the volume group backup to restore from.
 - `volume_group_id` - (Required when `type=volumeGroupId`) The OCID of the volume group to clone from.
 - `volume_ids` - (Required when `type=volumeIds`) OCIDs for the volumes in this volume group.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the volume group.
- `compartment_id` - The OCID of the compartment that contains the volume group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name for the volume group. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID for the volume group.
- `is_hydrated` - Specifies whether the newly created cloned volume group's data has finished copying from the source volume group or backup.
- `size_in_gbs` - The aggregate size of the volume group in GBs.
- `size_in_mbs` - The aggregate size of the volume group in MBs.
- `source_details` - The volume group source. The source is either another a list of volume IDs in the same availability domain, another volume group, or a volume group backup.
 - `type` - The type can be one of these values: `volumeGroupBackupId`, `volumeGroupId`, `volumeIds`
 - `volume_group_backup_id` - The OCID of the volume group backup to restore from.

- `volume_group_id` - The OCID of the volume group to clone from.
- `volume_ids` - OCIDs for the volumes in this volume group.
- `state` - The current state of a volume group.
- `time_created` - The date and time the volume group was created. Format defined by RFC3339.
- `volume_ids` - OCIDs for the volumes in this volume group.

Import

VolumeGroups can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume_group.test_volume_group "id"
```

oci_core_volume

This resource provides the Volume resource in Oracle Cloud Infrastructure Core service.

Creates a new volume in the specified compartment. Volumes can be created in sizes ranging from 50 GB (51200 MB) to 32 TB (33554432 MB), in 1 GB (1024 MB) increments. By default, volumes are 1 TB (1048576 MB). For general information about block volumes, see [Overview of Block Volume Service](#)

(<https://docs.cloud.oracle.com/iaas/Content/Block/Concepts/overview.htm>).

A volume and instance can be in separate compartments but must be in the same availability domain. For information about access control and compartments, see [Overview of the IAM Service](#)

(<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>). For information about availability domains, see [Regions and Availability Domains](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>). To get a list of availability domains, use the `ListAvailabilityDomains` operation in the Identity and Access Management Service API.

You may optionally specify a *display name* for the volume, which is simply a friendly name or description. It does not have to be unique, and you can change it. Avoid entering confidential information.

Example Usage

```
resource "oci_core_volume" "test_volume" {
  #Required
  availability_domain = "${var.volume_availability_domain}"
  compartment_id     = "${var.compartment_id}"

  #Optional
  backup_policy_id = "${data.oci_core_volume_backup_policies.test_volume_backup_policies.volume_backup_policies.0.id}"
  defined_tags    = {"Operations.CostCenter"= "42"}
  display_name    = "${var.volume_display_name}"
  freeform_tags   = {"Department"= "Finance"}
  kms_key_id      = "${oci_kms_key.test_key.id}"
  size_in_gbs     = "${var.volume_size_in_gbs}"
  size_in_mbs     = "${var.volume_size_in_mbs}"
  source_details {
    #Required
    id = "${var.volume_source_details_id}"
    type = "${var.volume_source_details_type}"
  }
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain of the volume. Example: `Uocm:PHX-AD-1`
- `backup_policy_id` - (Optional) If provided, specifies the ID of the volume backup policy to assign to the newly

created volume. If omitted, no policy will be assigned.

- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains the volume.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - (Optional) (Updatable) The OCID of the KMS key to be used as the master encryption key for the volume.
- `size_in_gbs` - (Optional) (Updatable) The size of the volume in GBs.
- `size_in_mbs` - (Optional) The size of the volume in MBs. The value must be a multiple of 1024. This field is deprecated. Use `size_in_gbs` instead.
- `source_details` - (Optional) Specifies the volume source details for a new Block volume. The volume source is either another Block volume in the same availability domain or a Block volume backup. This is an optional field. If not specified or set to null, the new Block volume will be empty. When specified, the new Block volume will contain data from the source volume or backup.
 - `id` - (Required) The OCID of the volume or volume backup.
 - `type` - (Required) The type can be one of these values: `volume`, `volumeBackup`
- `volume_backup_id` - (Optional) The OCID of the volume backup from which the data should be restored on the newly created volume. This field is deprecated. Use the `source_details` field instead to specify the backup for the volume.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain of the volume. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the volume.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. Does not have to be unique, and it's changeable. Avoid entering confidential information.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the volume.
- `is_hydrated` - Specifies whether the cloned volume's data has finished copying from the source volume or backup.
- `kms_key_id` - The OCID of the KMS key which is the master encryption key for the volume.
- `size_in_gbs` - The size of the volume in GBs.
- `size_in_mbs` - The size of the volume in MBs. This field is deprecated. Use `size_in_gbs` instead.
- `source_details` - The volume source, either an existing volume in the same availability domain or a volume backup. If null, an empty volume is created.
 - `id` - The OCID of the volume or volume backup.
 - `type` - The type can be one of these values: `volume`, `volumeBackup`
- `state` - The current state of a volume.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. Example: `{"foo-namespace.bar-key": "value"}`
- `time_created` - The date and time the volume was created. Format defined by RFC3339.
- `volume_group_id` - The OCID of the source volume group.

Import

Volumes can be imported using the `id`, e.g.

```
$ terraform import oci_core_volume.test_volume "id"
```

oci_database_autonomous_container_database

This resource provides the Autonomous Container Database resource in Oracle Cloud Infrastructure Database service.

Create a new Autonomous Container Database in the specified Autonomous Exadata Infrastructure.

Example Usage

```
resource "oci_database_autonomous_container_database" "test_autonomous_container_database" {  
  #Required  
  autonomous_exadata_infrastructure_id = "${oci_database_autonomous_exadata_infrastructure.test_autonom  
ous_exadata_infrastructure.id}"  
  display_name = "${var.autonomous_container_database_display_name}"  
  patch_model = "${var.autonomous_container_database_patch_model}"  
  
  #Optional  
  backup_config {  
  
    #Optional  
    recovery_window_in_days = "${var.autonomous_container_database_backup_config_recovery_window_in_d  
ays}"  
  }  
  compartment_id = "${var.compartment_id}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  service_level_agreement_type = "${var.autonomous_container_database_service_level_agreement_type}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_exadata_infrastructure_id` - (Required) The OCID of the Autonomous Exadata Infrastructure.
- `backup_config` - (Optional) (Updatable)
 - `recovery_window_in_days` - (Optional) (Updatable) Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `compartment_id` - (Optional) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the Autonomous Container Database.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - (Required) (Updatable) The display name for the Autonomous Container Database.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `patch_model` - (Required) (Updatable) Database Patch model preference.
- `service_level_agreement_type` - (Optional) The service level agreement type of the Autonomous Container Database. The default is STANDARD. For a Mission Critical Container Database, the specified Autonomous Exadata Infrastructure must be associated with a remote Autonomous Exadata Infrastructure.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `autonomous_exadata_infrastructure_id` - The OCID of the Autonomous Exadata Infrastructure.
- `availability_domain` - The availability domain of the Autonomous Container Database.
- `backup_config` -
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-provided name for the Autonomous Container Database.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the Autonomous Container Database.
- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `next_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- `patch_model` - Database Patch model preference.
- `service_level_agreement_type` - The service level agreement type of the container database. The default is STANDARD.

- `state` - The current state of the Autonomous Container Database.
- `time_created` - The date and time the Autonomous was created.

Import

AutonomousContainerDatabases can be imported using the `id`, e.g.

```
$ terraform import oci_database_autonomous_container_database.test_autonomous_container_database "id"
```


oci_database_autonomous_database_backup

This resource provides the Autonomous Database Backup resource in Oracle Cloud Infrastructure Database service.

Creates a new Autonomous Database backup for the specified database based on the provided request parameters.

Example Usage

```
resource "oci_database_autonomous_database_backup" "test_autonomous_database_backup" {  
  #Required  
  autonomous_database_id = "${oci_database_autonomous_database.test_autonomous_database.id}"  
  display_name = "${var.autonomous_database_backup_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_database_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database backup.
- `display_name` - (Required) The user-friendly name for the backup. The name does not have to be unique.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `autonomous_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database_size_in_tbs` - The size of the database in terabytes at the time the backup was taken.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.

- `time_ended` - The date and time the backup completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Import

`AutonomousDatabaseBackups` can be imported using the `id`, e.g.

```
$ terraform import oci_database_autonomous_database_backup.test_autonomous_database_backup "id"
```

oci_database_autonomous_database

This resource provides the Autonomous Database resource in Oracle Cloud Infrastructure Database service.

Creates a new Autonomous Database. Note: `whitelisted_ips` cannot be used during creation.

Example Usage

```
resource "oci_database_autonomous_database" "test_autonomous_database" {  
  #Required  
  admin_password = "${var.autonomous_database_admin_password}"  
  compartment_id = "${var.compartment_id}"  
  cpu_core_count = "${var.autonomous_database_cpu_core_count}"  
  data_storage_size_in_tbs = "${var.autonomous_database_data_storage_size_in_tbs}"  
  db_name = "${var.autonomous_database_db_name}"  
  
  #Optional  
  autonomous_container_database_id = "${oci_database_autonomous_container_database.test_autonomous_container_database.id}"  
  clone_type = "${var.autonomous_database_clone_type}"  
  db_workload = "${var.autonomous_database_db_workload}"  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.autonomous_database_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
  is_auto_scaling_enabled = "${var.autonomous_database_is_auto_scaling_enabled}"  
  is_dedicated = "${var.autonomous_database_is_dedicated}"  
  is_free_tier = "${var.autonomous_database_is_free_tier}"  
  is_preview_version_with_service_terms_accepted = "${var.autonomous_database_is_preview_version_with_service_terms_accepted}"  
  license_model = "${var.autonomous_database_license_model}"  
  source = "${var.autonomous_database_source}"  
  source_id = "${oci_database_source.test_source.id}"  
}
```

Argument Reference

The following arguments are supported:

- `admin_password` - (Required) (Updatable) The password must be between 12 and 30 characters long, and must contain at least 1 uppercase, 1 lowercase, and 1 numeric character. It cannot contain the double quote symbol (") or the username "admin", regardless of casing.
- `autonomous_container_database_id` - (Optional) The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `clone_type` - (Required when `source=DATABASE`) The clone type when cloning an Autonomous Database using a source . Supported values:
 - `FULL` - This option creates a new database that includes all source database data.
 - `METADATA` - This option creates a new database that includes the source database schema and select metadata,

but not the source database data.

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment of the autonomous database.
- `cpu_core_count` - (Required) (Updatable) The number of CPU Cores to be made available to the database. This input is ignored for Always Free resources.
- `data_storage_size_in_tbs` - (Required) (Updatable) The size, in terabytes, of the data volume that will be created and attached to the database. This storage can later be scaled up if needed. This input is ignored for Always Free resources.
- `db_name` - (Required) The database name. The name must begin with an alphabetic character and can contain a maximum of 14 alphanumeric characters. Special characters are not permitted. The database name must be unique in the tenancy.
- `db_workload` - (Optional) The autonomous database workload type. OLTP indicates an Autonomous Transaction Processing database and DW indicates an Autonomous Data Warehouse. The default is OLTP.
 - OLTP - For Autonomous Database workload type.
 - DW - For Autonomous Data Warehouse workload type.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - (Optional) (Updatable) The user-friendly name for the Autonomous Database. The name does not have to be unique.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `is_auto_scaling_enabled` - (Optional) (Updatable) Indicates if auto scaling is enabled for the Autonomous Database CPU core count. The default value is false. Note that auto scaling is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only.
- `is_dedicated` - (Optional) True if the database uses the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbdoverview.htm>) option.
- `is_free_tier` - (Optional) (Updatable) Indicates if this is an Always Free resource. The default value is false. Note that Always Free Autonomous Databases have 1 CPU and 20GB memory. For Always Free databases, memory and CPU cannot be scaled.
- `is_preview_version_with_service_terms_accepted` - (Optional) If set to true, indicates that an Autonomous Database preview version is being provisioned, and that the preview version's terms of service have been accepted. Note that preview version software is only available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>).
- `license_model` - (Optional) (Updatable) The Oracle license model that applies to the Oracle Autonomous Database. The default for Autonomous Database using the [shared deployment] is BRING_YOUR_OWN_LICENSE. Note that when provisioning an Autonomous Database using the dedicated deployment

(<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbdoverview.htm>) option, this attribute must be null because the attribute is already set on Autonomous Exadata Infrastructure level.

- `source` - (Optional) The source of the database: Use NONE for creating a new Autonomous Database. Use DATABASE for creating a new Autonomous Database by cloning an existing Autonomous Database.
- `source_id` - (Required when `source=DATABASE`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the source Autonomous Database that you will clone to create a new Autonomous Database.
- `whitelisted_ips` - (Optional) (Updatable) The client IP access control list (ACL). Only clients connecting from an IP address included in the ACL may access the Autonomous Database instance. This is an array of CIDR (Classless Inter-Domain Routing) notations for a subnet.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `autonomous_container_database_id` - The Autonomous Container Database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Autonomous Database. The username for the Service Console is ADMIN. Use the password you entered when creating the Autonomous Database for the password value.
 - `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Database. For more information, please see Predefined Database Service Names for Autonomous Transaction Processing (<https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE>)
 - `dedicated` - The database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting a lower level of performance, but supports more concurrent SQL statements.
- `connection_urls` -
 - `apex_url` - Oracle Application Express (APEX) URL.
 - `sql_dev_web_url` - Oracle SQL Developer Web URL.
- `cpu_core_count` - The number of CPU cores to be made available to the database.

- `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
- `db_name` - The database name.
- `db_version` - A valid Oracle Database version for Autonomous Database.
- `db_workload` - The Autonomous Database workload type. OLTP indicates an Autonomous Transaction Processing database and DW indicates an Autonomous Data Warehouse database.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Database. The name does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Database.
- `is_auto_scaling_enabled` - Indicates if auto scaling is enabled for the Autonomous Database CPU core count. Note that auto scaling is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only.
- `is_dedicated` - True if the database uses the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option.
- `is_free_tier` - Indicates if this is an Always Free resource. The default value is false. Note that Always Free Autonomous Databases have 1 CPU and 20GB memory. For Always Free databases, memory and CPU cannot be scaled.
- `is_preview` - Indicates if the Autonomous Database version is a preview version.
- `license_model` - The Oracle license model that applies to the Oracle Autonomous Database. The default for Autonomous Database using the [shared deployment] is BRING_YOUR_OWN_LICENSE. Note that when provisioning an Autonomous Database using the dedicated deployment (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adbddoverview.htm>) option, this attribute must be null because the attribute is already set on Autonomous Exadata Infrastructure level.
- `lifecycle_details` - Information about the current lifecycle state.
- `service_console_url` - The URL of the Service Console for the Autonomous Database.
- `state` - The current state of the database.
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `time_created` - The date and time the database was created.
- `time_deletion_of_free_autonomous_database` - The date and time the Always Free database will be automatically deleted because of inactivity. If the database is in the STOPPED state and without activity until this time, it will be deleted.
- `time_reclamation_of_free_autonomous_database` - The date and time the Always Free database will be stopped

because of inactivity. If this time is reached without any database activity, the database will automatically be put into the STOPPED state.

- `used_data_storage_size_in_tbs` - The amount of storage that has been used, in terabytes.
- `whitelisted_ips` - The client IP access control list (ACL). This feature is available for serverless deployments (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/adboverview.htm#AEI>) only. Only clients connecting from an IP address included in the ACL may access the Autonomous Database instance. This is an array of CIDR (Classless Inter-Domain Routing) notations for a subnet.

Import

AutonomousDatabases can be imported using the `id`, e.g.

```
$ terraform import oci_database_autonomous_database.test_autonomous_database "id"
```

oci_database_autonomous_data_warehouse_backup

This resource provides the Autonomous Data Warehouse Backup resource in Oracle Cloud Infrastructure Database service.

Creates a new Autonomous Data Warehouse backup for the specified database based on the provided request parameters.

IMPORTANT: This resource is being **deprecated**, use `oci_database_autonomous_database_backup` instead. Refer to the Deprecation Guide below on how to rename and migrate existing resources.

Example Usage

```
resource "oci_database_autonomous_data_warehouse_backup" "test_autonomous_data_warehouse_backup" {  
  #Required  
  autonomous_data_warehouse_id = "${oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse.id}"  
  display_name = "${var.autonomous_data_warehouse_backup_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `autonomous_data_warehouse_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse backup.
- `display_name` - (Required) The user-friendly name for the backup. The name does not have to be unique.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `autonomous_data_warehouse_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse backup.
- `is_automatic` - Indicates whether the backup is user-initiated or automatic.

- `lifecycle_details` - Additional information about the current lifecycle state.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Import

`AutonomousDataWarehouseBackups` can be imported using the `id` , e.g.

```
$ terraform import oci_database_autonomous_data_warehouse_backup.test_autonomous_data_warehouse_backup "id"
```

Deprecation Guide

To rename existing `oci_database_autonomous_data_warehouse_backup` resource in your Terraform configuration and state to the new type `oci_database_autonomous_database_backup` , follow the steps below.

1. Using Terraform, move the existing resource in the state with the following command:

```
$ terraform state mv oci_database_autonomous_data_warehouse_backup.test_autonomous_data_warehouse_backup oci_database_autonomous_database_backup.test_autonomous_data_warehouse_backup
```

Note: Terraform will automatically backup your state file, alternatively you may use `-backup=PATH` to override where the backup is written.

2. Update the name of resource `oci_database_autonomous_data_warehouse_backup` to the new name `oci_database_autonomous_database_backup` in your Terraform configuration. Do not make any more changes to Terraform configuration at this point other than the resource rename.
3. Run a Terraform `plan` to ensure that there are no issues post the state migration.
4. Use Terraform `refresh` or `apply` command to update the local state before making any further configuration changes or updates to the resource. This step ensures that any fields that are marked `Computed` and/or `ForceNew` do not cause Terraform errors because of missing entries in local state when updating Terraform configuration.

oci_database_autonomous_data_warehouse

This resource provides the Autonomous Data Warehouse resource in Oracle Cloud Infrastructure Database service.

Creates a new Autonomous Data Warehouse.

IMPORTANT: This resource is being **deprecated**, use `oci_database_autonomous_database` with `db_workload=DW` to provision Autonomous Data Warehouse. Refer to the Deprecation Guide below on how to rename and migrate existing resources.

Example Usage

```
resource "oci_database_autonomous_data_warehouse" "test_autonomous_data_warehouse" {  
  #Required  
  admin_password = "${var.autonomous_data_warehouse_admin_password}"  
  compartment_id = "${var.compartment_id}"  
  cpu_core_count = "${var.autonomous_data_warehouse_cpu_core_count}"  
  data_storage_size_in_tbs = "${var.autonomous_data_warehouse_data_storage_size_in_tbs}"  
  db_name = "${var.autonomous_data_warehouse_db_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.autonomous_data_warehouse_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  license_model = "${var.autonomous_data_warehouse_license_model}"  
}
```

Argument Reference

The following arguments are supported:

- `admin_password` - (Required) (Updatable) The password must be between 12 and 30 characters long, and must contain at least 1 uppercase, 1 lowercase, and 1 numeric character. It cannot contain the double quote symbol (") or the username "admin", regardless of casing.
- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment of the Autonomous Data Warehouse.
- `cpu_core_count` - (Required) (Updatable) The number of CPU Cores to be made available to the database.
- `data_storage_size_in_tbs` - (Required) (Updatable) Size, in terabytes, of the data volume that will be created and attached to the database. This storage can later be scaled up if needed.
- `db_name` - (Required) The database name. The name must begin with an alphabetic character and can contain a maximum of 14 alphanumeric characters. Special characters are not permitted. The database name must be unique in the tenancy.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

- `display_name` - (Optional) (Updatable) The user-friendly name for the Autonomous Data Warehouse. The name does not have to be unique.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `license_model` - (Optional) The Oracle license model that applies to the Oracle Autonomous Data Warehouse. The default is `BRING_YOUR_OWN_LICENSE`.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_strings` - The connection string used to connect to the Data Warehouse. The username for the Service Console is ADMIN. Use the password you entered when creating the Autonomous Data Warehouse for the password value.
 - `all_connection_strings` - Returns all connection strings that can be used to connect to the Autonomous Data Warehouse. For more information, please see Predefined Database Service Names for Autonomous Transaction Processing (<https://docs.oracle.com/en/cloud/paas/atp-cloud/atpug/connect-predefined.html#GUID-9747539B-FD46-44F1-8FF8-F5AC650F15BE>)
 - `high` - The High database service provides the highest level of resources to each SQL statement resulting in the highest performance, but supports the fewest number of concurrent SQL statements.
 - `low` - The Low database service provides the least level of resources to each SQL statement, but supports the most number of concurrent SQL statements.
 - `medium` - The Medium database service provides a lower level of resources to each SQL statement potentially resulting a lower level of performance, but supports more concurrent SQL statements.
- `cpu_core_count` - The number of CPU cores to be made available to the database.
- `data_storage_size_in_tbs` - The quantity of data in the database, in terabytes.
- `db_name` - The database name.
- `db_version` - A valid Oracle Database version for Autonomous Data Warehouse.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Data Warehouse. The name does not have to be unique.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type,

or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Autonomous Data Warehouse.
- `license_model` - The Oracle license model that applies to the Oracle Autonomous Data Warehouse. The default is `BRING_YOUR_OWN_LICENSE`.
- `lifecycle_details` - Information about the current lifecycle state.
- `service_console_url` - The URL of the Service Console for the Data Warehouse.
- `state` - The current state of the database.
- `time_created` - The date and time the database was created.

Import

`AutonomousDataWarehouses` can be imported using the `id`, e.g.

```
$ terraform import oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse "id"
```

Deprecation Guide

To rename existing `oci_database_autonomous_data_warehouse` resource in your Terraform configuration and state to the new type `oci_database_autonomous_database`, follow the steps below.

1. Using Terraform, move the existing resource in the state with the following command:

```
$ terraform state mv oci_database_autonomous_data_warehouse.test_autonomous_data_warehouse oci_database_autonomous_database.test_autonomous_data_warehouse
```

Note: Terraform will automatically backup your state file, alternatively you may use `-backup=PATH` to override where the backup is written.

2. Update the name of resource `oci_database_autonomous_data_warehouse` to the new name `oci_database_autonomous_database` in your Terraform configuration. Do not make any more changes to Terraform configuration at this point other than the resource rename.
3. Run a Terraform `plan` to ensure that there are no issues post the state migration.
4. Use Terraform `refresh` or `apply` command to update the local state before making any further configuration changes to the resource. This step ensures that any fields that are marked `Computed` and/or `ForceNew` do not cause Terraform errors because of missing entries in local state when updating Terraform configuration.

oci_database_autonomous_exadata_infrastructure

This resource provides the Autonomous Exadata Infrastructure resource in Oracle Cloud Infrastructure Database service.

Launches a new Autonomous Exadata Infrastructure in the specified compartment and availability domain.

Example Usage

```
resource "oci_database_autonomous_exadata_infrastructure" "test_autonomous_exadata_infrastructure" {  
  #Required  
  availability_domain = "${var.autonomous_exadata_infrastructure_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  shape = "${var.autonomous_exadata_infrastructure_shape}"  
  subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.autonomous_exadata_infrastructure_display_name}"  
  domain = "${var.autonomous_exadata_infrastructure_domain}"  
  freeform_tags = {"Department" = "Finance"}  
  license_model = "${var.autonomous_exadata_infrastructure_license_model}"  
  maintenance_window_details {  
    #Required  
    preference = "${var.autonomous_exadata_infrastructure_maintenance_window_details_preference}"  
  
    #Optional  
    days_of_week {  
      #Required  
      name = "${var.autonomous_exadata_infrastructure_maintenance_window_details_days_of_week_name}"  
    }  
    hours_of_day = "${var.autonomous_exadata_infrastructure_maintenance_window_details_hours_of_day}"  
    months {  
      #Required  
      name = "${var.autonomous_exadata_infrastructure_maintenance_window_details_months_name}"  
    }  
    weeks_of_month = "${var.autonomous_exadata_infrastructure_maintenance_window_details_weeks_of_mon  
th}"  
  }  
  nsg_ids = "${var.autonomous_exadata_infrastructure_nsg_ids}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain where the Autonomous Exadata Infrastructure is located.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment the Autonomous Exadata Infrastructure belongs in.

- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **display_name** - (Optional) (Updatable) The user-friendly name for the Autonomous Exadata Infrastructure. It does not have to be unique.
- **domain** - (Optional) A domain name used for the Autonomous Exadata Infrastructure. If the Oracle-provided Internet and VCN Resolver is enabled for the specified subnet, the domain name for the subnet is used (don't provide one). Otherwise, provide a valid DNS domain name. Hyphens (-) are not permitted.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **license_model** - (Optional) The Oracle license model that applies to all the databases in the Autonomous Exadata Infrastructure. The default is BRING_YOUR_OWN_LICENSE.
- **maintenance_window_details** - (Optional) (Updatable)
 - **days_of_week** - (Optional) (Updatable) Days during the week when maintenance should be performed.
 - **name** - (Required) (Updatable) Name of the day of the week.
 - **hours_of_day** - (Optional) (Updatable) The window of hours during the day when maintenance should be performed. The window is a 4 hour slot. Valid values are
 - 0 - represents time slot 0:00 - 3:59 UTC - 4 - represents time slot 4:00 - 7:59 UTC - 8 - represents time slot 8:00 - 11:59 UTC - 12 - represents time slot 12:00 - 15:59 UTC - 16 - represents time slot 16:00 - 19:59 UTC - 20 - represents time slot 20:00 - 23:59 UTC
 - **months** - (Optional) (Updatable) Months during the year when maintenance should be performed.
 - **name** - (Required) (Updatable) Name of the month of the year.
 - **preference** - (Required) (Updatable) The maintenance window scheduling preference.
 - **weeks_of_month** - (Optional) (Updatable) Weeks during the month when maintenance should be performed. Weeks start on the 1st, 8th, 15th, and 22nd days of the month, and have a duration of 7 days. Weeks start and end based on calendar dates, not days of the week. For example, to allow maintenance during the 2nd week of the month (from the 8th day to the 14th day of the month), use the value 2. Maintenance cannot be scheduled for the fifth week of months that contain more than 28 days. Note that this parameter works in conjunction with the daysOfWeek and hoursOfDay parameters to allow you to specify specific days of the week and hours that maintenance will be performed.
- **nsg_ids** - (Optional) (Updatable) A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- **shape** - (Required) The shape of the Autonomous Exadata Infrastructure. The shape determines resources allocated to the Autonomous Exadata Infrastructure (CPU cores, memory and storage). To get a list of shapes, use the ListDbSystemShapes operation.

- `subnet_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet the Autonomous Exadata Infrastructure is associated with.

Subnet Restrictions:

- For Autonomous Exadata Infrastructures, do not use a subnet that overlaps with 192.168.128.0/20

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain that the Autonomous Exadata Infrastructure is located in.
- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Autonomous Exadata Infrastructure.
- `domain` - The domain name for the Autonomous Exadata Infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname` - The host name for the Autonomous Exadata Infrastructure node.
- `id` - The OCID of the Autonomous Exadata Infrastructure.
- `last_maintenance_run_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last maintenance run.
- `license_model` - The Oracle license model that applies to all databases in the Autonomous Exadata Infrastructure. The default is BRING_YOUR_OWN_LICENSE.
- `lifecycle_details` - Additional information about the current lifecycle state of the Autonomous Exadata Infrastructure.
- `maintenance_window` -
 - `days_of_week` - Days during the week when maintenance should be performed.
 - `name` - Name of the day of the week.
 - `hours_of_day` - The window of hours during the day when maintenance should be performed. The window is a 4 hour slot. Valid values are

- 0 - represents time slot 0:00 - 3:59 UTC - 4 - represents time slot 4:00 - 7:59 UTC - 8 - represents time slot 8:00 - 11:59 UTC - 12 - represents time slot 12:00 - 15:59 UTC - 16 - represents time slot 16:00 - 19:59 UTC - 20 - represents time slot 20:00 - 23:59 UTC
- months - Months during the year when maintenance should be performed.
 - name - Name of the month of the year.
- preference - The maintenance window scheduling preference.
- weeks_of_month - Weeks during the month when maintenance should be performed. Weeks start on the 1st, 8th, 15th, and 22nd days of the month, and have a duration of 7 days. Weeks start and end based on calendar dates, not days of the week. For example, to allow maintenance during the 2nd week of the month (from the 8th day to the 14th day of the month), use the value 2. Maintenance cannot be scheduled for the fifth week of months that contain more than 28 days. Note that this parameter works in conjunction with the daysOfWeek and hoursOfDay parameters to allow you to specify specific days of the week and hours that maintenance will be performed.
- next_maintenance_run_id - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the next maintenance run.
- nsg_ids - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- shape - The shape of the Autonomous Exadata Infrastructure. The shape determines resources to allocate to the Autonomous Exadata Infrastructure (CPU cores, memory and storage).
- state - The current lifecycle state of the Autonomous Exadata Infrastructure.
- subnet_id - The OCID of the subnet the Autonomous Exadata Infrastructure is associated with.

Subnet Restrictions:

- For Autonomous Databases with Autonomous Exadata Infrastructure, do not use a subnet that overlaps with 192.168.128.0/20

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- time_created - The date and time the Autonomous Exadata Infrastructure was created.

Import

AutonomousExadataInfrastructures can be imported using the `id`, e.g.

```
$ terraform import oci_database_autonomous_exadata_infrastructure.test_autonomous_exadata_infrastructure "id"
```


oci_database_backup_destination

This resource provides the Backup Destination resource in Oracle Cloud Infrastructure Database service.

Creates a backup destination.

Example Usage

```
resource "oci_database_backup_destination" "test_backup_destination" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.backup_destination_display_name}"  
  type = "${var.backup_destination_type}"  
  
  #Optional  
  connection_string = "${var.backup_destination_connection_string}"  
  defined_tags = "${var.backup_destination_defined_tags}"  
  freeform_tags = {"Department"= "Finance"}  
  local_mount_point_path = "${var.backup_destination_local_mount_point_path}"  
  vpc_users = "${var.backup_destination_vpc_users}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_string` - (Required when type=RECOVERY_APPLIANCE) (Updatable) The connection string for connecting to the Recovery Appliance.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - (Required) The user-provided name of the backup destination.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `local_mount_point_path` - (Required when type=NFS) (Updatable) The local directory path on each VM cluster node where the NFS server location is mounted. The local directory path and the NFS server location must each be the same across all of the VM cluster nodes. Ensure that the NFS mount is maintained continuously on all of the VM cluster nodes.
- `type` - (Required) Type of the backup destination.

- `vpc_users` - (Required when type=RECOVERY_APPLIANCE) (Updatable) The Virtual Private Catalog (VPC) users that are used to access the Recovery Appliance.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `associated_databases` - List of databases associated with the backup destination.
 - `db_name` - The display name of the database that is associated with the backup destination.
 - `id` - The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `connection_string` - For a RECOVERY_APPLIANCE backup destination, the connection string for connecting to the Recovery Appliance.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-provided name of the backup destination.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.
- `lifecycle_details` - A descriptive text associated with the lifecycleState. Typically contains additional displayable text
- `local_mount_point_path` - The local directory path on each VM cluster node where the NFS server location is mounted. The local directory path and the NFS server location must each be the same across all of the VM cluster nodes. Ensure that the NFS mount is maintained continuously on all of the VM cluster nodes.
- `state` - The current lifecycle state of the backup destination.
- `time_created` - The date and time the backup destination was created.
- `type` - Type of the backup destination.
- `vpc_users` - For a RECOVERY_APPLIANCE backup destination, the Virtual Private Catalog (VPC) users that are used to access the Recovery Appliance.

Import

BackupDestinations can be imported using the `id`, e.g.

```
$ terraform import oci_database_backup_destination.test_backup_destination "id"
```

oci_database_backup

This resource provides the Backup resource in Oracle Cloud Infrastructure Database service.

Creates a new backup in the specified database based on the request parameters you provide. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.

Example Usage

```
resource "oci_database_backup" "test_backup" {  
  #Required  
  database_id = "${oci_database_database.test_database.id}"  
  display_name = "${var.backup_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `database_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- `display_name` - (Required) The user-friendly name for the backup. The name does not have to be unique.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain where the database backup is stored.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database_edition` - The Oracle Database edition of the DB system from which the database backup was taken.
- `database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- `database_size_in_gbs` - The size of the database in gigabytes at the time the backup was taken.
- `display_name` - The user-friendly name for the backup. The name does not have to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup.

- `lifecycle_details` - Additional information about the current `lifecycleState`.
- `state` - The current state of the backup.
- `time_ended` - The date and time the backup was completed.
- `time_started` - The date and time the backup started.
- `type` - The type of backup.

Import

Backups can be imported using the `id`, e.g.

```
$ terraform import oci_database_backup.test_backup "id"
```

oci_database_data_guard_association

This resource provides the Data Guard Association resource in Oracle Cloud Infrastructure Database service.

Creates a new Data Guard association. A Data Guard association represents the replication relationship between the specified database and a peer database. For more information, see [Using Oracle Data Guard](https://docs.cloud.oracle.com/iaas/Content/Database/Tasks/usingdataguard.htm) (<https://docs.cloud.oracle.com/iaas/Content/Database/Tasks/usingdataguard.htm>).

All Oracle Cloud Infrastructure resources, including Data Guard associations, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console. For more information, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Example Usage

```
resource "oci_database_data_guard_association" "test_data_guard_association" {  
  #Required  
  creation_type = "${var.data_guard_association_creation_type}"  
  database_admin_password = "${var.data_guard_association_database_admin_password}"  
  database_id = "${oci_database_database.test_database.id}"  
  protection_mode = "${var.data_guard_association_protection_mode}"  
  transport_type = "${var.data_guard_association_transport_type}"  
  
  #Optional  
  availability_domain = "${var.data_guard_association_availability_domain}"  
  backup_network_nsg_ids = "${var.data_guard_association_backup_network_nsg_ids}"  
  display_name = "${var.data_guard_association_display_name}"  
  hostname = "${var.data_guard_association_hostname}"  
  nsg_ids = "${var.data_guard_association_nsg_ids}"  
  peer_db_system_id = "${oci_database_db_system.test_db_system.id}"  
  subnet_id = "${oci_core_subnet.test_subnet.id}"  
}
```

Argument Reference

The following arguments are supported:

- availability_domain** - (Applicable when `creation_type=NewDbSystem`) The name of the availability domain that the standby database DB system will be located in. For example- "Uocm:PHX-AD-1".
- backup_network_nsg_ids** - (Applicable when `creation_type=NewDbSystem`) A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that the backup network of this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see [Security Rules](https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm) (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>). Applicable only to Exadata DB systems.
- creation_type** - (Required) Specifies whether to create the peer database in an existing DB system or in a new DB system. `ExistingDbSystem` is not supported for creating Data Guard associations for virtual machine DB system.

databases.

- `database_admin_password` - (Required) A strong password for the `SYS`, `SYSTEM`, and `PDB Admin` users to apply during standby creation.

The password must contain no fewer than nine characters and include:

- At least two uppercase characters.
- At least two lowercase characters.
- At least two numeric characters.
- At least two special characters. Valid special characters include "_", "#", and "-" only.

The password MUST be the same as the primary admin password.

- `database_id` - (Required) The database OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `delete_standby_db_home_on_delete` - (Required) (Updatable) if set to `true` the destroy operation will destroy the standby `dbHome/dbSystem` that is referenced in the Data Guard Association. The Data Guard Association gets destroyed when standby `dbHome/dbSystem` is terminated. Only `true` is supported at this time. If you change an argument that is used during the delete operation you must run `terraform apply` first so that that the change in the value is registered in the statefile before running `terraform destroy`. `terraform destroy` only looks at what is currently on the statefile and ignores the terraform configuration files.
- `display_name` - (Applicable when `creation_type=NewDbSystem`) The user-friendly name of the DB system that will contain the the standby database. The display name does not have to be unique.
- `hostname` - (Applicable when `creation_type=NewDbSystem`) The hostname for the DB node.
- `nsg_ids` - (Applicable when `creation_type=NewDbSystem`) A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- `peer_db_system_id` - (Applicable when `creation_type=ExistingDbSystem`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system in which to create the standby database. You must supply this value if `creationType` is `ExistingDbSystem`.
- `protection_mode` - (Required) The protection mode to set up between the primary and standby databases. For more information, see Oracle Data Guard Protection Modes (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-protection-modes.htm#SBYDB02000>) in the Oracle Data Guard documentation.

IMPORTANT - The only protection mode currently supported by the Database service is `MAXIMUM_PERFORMANCE`.

- `subnet_id` - (Applicable when `creation_type=NewDbSystem`) The OCID of the subnet the DB system is associated with. **Subnet Restrictions:**
 - For 1- and 2-node RAC DB systems, do not use a subnet that overlaps with 192.168.16.16/28

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- `transport_type` - (Required) The redo transport type to use for this Data Guard association. Valid values depend on the specified `protectionMode`:
 - `MAXIMUM_AVAILABILITY` - SYNC or FASTSYNC
 - `MAXIMUM_PERFORMANCE` - ASYNC
 - `MAXIMUM_PROTECTION` - SYNC

For more information, see Redo Transport Services (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-redo-transport-services.htm#SBYDB00400>) in the Oracle Data Guard documentation.

IMPORTANT - The only transport type currently supported by the Database service is ASYNC.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `apply_lag` - The lag time between updates to the primary database and application of the redo data on the standby database, as computed by the reporting database. Example: 9 seconds
- `apply_rate` - The rate at which redo logs are synced between the associated databases. Example: 180 Mb per second
- `database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the reporting database.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Data Guard association.
- `lifecycle_details` - Additional information about the current `lifecycleState`, if available.
- `peer_data_guard_association_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the peer database's Data Guard association.
- `peer_database_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated peer database.
- `peer_db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home containing the associated peer database.
- `peer_db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system containing the associated peer database.
- `peer_role` - The role of the peer database in this Data Guard association.
- `protection_mode` - The protection mode of this Data Guard association. For more information, see Oracle Data Guard Protection Modes (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-protection-modes.htm#SBYDB02000>) in the Oracle Data Guard documentation.
- `role` - The role of the reporting database in this Data Guard association.

- `state` - The current state of the Data Guard association.
- `time_created` - The date and time the Data Guard association was created.
- `transport_type` - The redo transport type used by this Data Guard association. For more information, see Redo Transport Services (<http://docs.oracle.com/database/122/SBYDB/oracle-data-guard-redo-transport-services.htm#SBYDB00400>) in the Oracle Data Guard documentation.

Import

Import is not supported for this resource.

oci_database_db_home

This resource provides the Db Home resource in Oracle Cloud Infrastructure Database service.

Creates a new database home in the specified DB system based on the request parameters you provide.

The creation of an `oci_database_db_system` requires that it be created with exactly one `oci_database_db_home`. Therefore the first db home will have to be a property of the db system resource and any further db homes to be added to the db system will have to be added as first class resources using "oci_database_db_home".

Example Usage

```
resource "oci_database_db_home" "test_db_home" {
  #Required
  database {
    #Required
    admin_password = "${var.db_home_database_admin_password}"

    #Optional
    backup_id = "${oci_database_backup.test_backup.id}"
    backup_tde_password = "${var.db_home_database_backup_tde_password}"
    character_set = "${var.db_home_database_character_set}"
    db_backup_config {
      #Optional
      auto_backup_enabled = "${var.db_home_database_db_backup_config_auto_backup_enabled}"
      auto_backup_window = "${var.db_home_database_db_backup_config_auto_backup_window}"
      backup_destination_details {
        #Optional
        id = "${var.db_home_database_db_backup_config_backup_destination_details_id}"
        type = "${var.db_home_database_db_backup_config_backup_destination_details_type}"
      }
      recovery_window_in_days = "${var.db_home_database_db_backup_config_recovery_window_in_days}"
    }
    db_name = "${var.db_home_database_db_name}"
    db_workload = "${var.db_home_database_db_workload}"
    defined_tags = "${var.db_home_database_defined_tags}"
    freeform_tags = "${var.db_home_database_freeform_tags}"
    ncharacter_set = "${var.db_home_database_ncharacter_set}"
    pdb_name = "${var.db_home_database_pdb_name}"
  }

  #Optional
  db_system_id = "${oci_database_db_system.test_db_system.id}"
  db_version {
  }
  display_name = "${var.db_home_display_name}"
  source = "${var.db_home_source}"
  vm_cluster_id = "${oci_database_vm_cluster.test_vm_cluster.id}"
}
```

Argument Reference

The following arguments are supported:

- database - (Required) (Updatable)
 - admin_password - (Required) A strong password for SYS, SYSTEM, PDB Admin and TDE Wallet. The password must be at least nine characters and contain at least two uppercase, two lowercase, two numbers, and two special characters. The special characters must be `_`, `#`, or `-`.
 - backup_id - (Required when source=DB_BACKUP) The backup OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
 - backup_tde_password - (Required when source=DB_BACKUP) The password to open the TDE wallet.
 - character_set - (Applicable when source=NONE | VM_CLUSTER_NEW) The character set for the database. The default is AL32UTF8. Allowed values are:

AL32UTF8, AR8ADOS710, AR8ADOS720, AR8APTEC715, AR8ARABICMACS, AR8ASMO8X, AR8ISO8859P6, AR8MSWIN1256, AR8MUSSAD768, AR8NAFITHA711, AR8NAFITHA721, AR8SAKHR706, AR8SAKHR707, AZ8ISO8859P9E, BG8MSWIN, BG8PC437S, BLT8CP921, BLT8ISO8859P13, BLT8MSWIN1257, BLT8PC775, BN8BSCII, CDN8PC863, CEL8ISO8859P14, CL8ISO8859P5, CL8ISOIR111, CL8KOI8R, CL8KOI8U, CL8MACCYRILLICS, CL8MSWIN1251, EE8ISO8859P2, EE8MACCES, EE8MACCROATIANS, EE8MSWIN1250, EE8PC852, EL8DEC, EL8ISO8859P7, EL8MACGREEKS, EL8MSWIN1253, EL8PC437S, EL8PC851, EL8PC869, ET8MSWIN923, HU8ABMOD, HU8CW12, IN8ISCII, IS8PC861, IW8ISO8859P8, IW8MACHEBREWS, IW8MSWIN1255, IW8PC1507, JA16EUC, JA16EUCTILDE, JA16SJIS, JA16SJISTILDE, JA16VMS, KO16KSC5601, KO16KSCCS, KO16MSWIN949, LA8ISO6937, LA8PASSPORT, LT8MSWIN921, LT8PC772, LT8PC774, LV8PC1117, LV8PC8LR, LV8RST104090, N8PC865, NE8ISO8859P10, NEE8ISO8859P4, RU8BESTA, RU8PC855, RU8PC866, SE8ISO8859P3, TH8MACTHAIS, TH8TISASCII, TR8DEC, TR8MACTURKISHS, TR8MSWIN1254, TR8PC857, US7ASCII, US8PC437, UTF8, VN8MSWIN1258, VN8VN3, WE8DEC, WE8DG, WE8ISO8859P1, WE8ISO8859P15, WE8ISO8859P9, WE8MACROMAN8S, WE8MSWIN1252, WE8NCR4970, WE8NEXTSTEP, WE8PC850, WE8PC858, WE8PC860, WE8ROMAN8, ZHS16CGB231280, ZHS16GBK, ZHT16BIG5, ZHT16CCDC, ZHT16DBT, ZHT16HKSCS, ZHT16MSWIN950, ZHT32EUC, ZHT32SOPS, ZHT32TRIS
 - db_backup_config - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable)
 - auto_backup_enabled - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - auto_backup_window - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects SLOT_TWO from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example: SLOT_TWO
 - backup_destination_details - (Applicable when source=VM_CLUSTER_NEW) (Updatable) Backup destination details.
 - id - (Applicable when source=VM_CLUSTER_NEW) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.

- `type` - (Required when `source=VM_CLUSTER_NEW`) Type of the database backup destination.
Supported values: `NFS`.
- `recovery_window_in_days` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) (Updatable) Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- `db_name` - (Required when `source=NONE | VM_CLUSTER_NEW`) The display name of the database to be created from the backup. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted.
- `db_workload` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) The database workload type.
- `defined_tags` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `freeform_tags` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `ncharacter_set` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) The national character set for the database. The default is `AL16UTF16`. Allowed values are: `AL16UTF16` or `UTF8`.
- `pdb_name` - (Applicable when `source=NONE | VM_CLUSTER_NEW`) The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.
- `db_system_id` - (Required when `source=DB_BACKUP | NONE`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `db_version` - (Required when `source=NONE | VM_CLUSTER_NEW`) A valid Oracle Database version. To get a list of supported versions, use the `ListDbVersions` (<https://docs.cloud.oracle.com/iaas/api/#/en/database/20160918/DbVersionSummary/ListDbVersions>) operation.
- `display_name` - (Optional) The user-provided name of the database home.
- `source` - (Optional) The source of database: `NONE` for creating a new database. `DB_BACKUP` for creating a new database by restoring from a database backup. `VM_CLUSTER_NEW` for creating a database for VM Cluster.
- `vm_cluster_id` - (Required when `source=VM_CLUSTER_NEW`) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `database`
 - `character_set` - The character set for the database.
 - `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
 - `connection_strings` - The Connection strings used to connect to the Oracle Database.
 - `all_connection_strings` - All connection strings to use to connect to the Database.
 - `cdb_default` - Host name based CDB Connection String.
 - `cdb_ip_default` - IP based CDB Connection String.
 - `db_backup_config` -
 - `auto_backup_enabled` - If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - `auto_backup_window` - Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects `SLOT_TWO` from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example: `SLOT_TWO`
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
 - `db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
 - `db_name` - The database name.
 - `db_unique_name` - A system-generated name for the database to ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The unique name cannot be changed.
 - `db_workload` - The database workload type.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.

- `last_backup_timestamp` - The date and time when the latest database backup was created.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `ncharacter_set` - The national character set for the database.
- `pdb_name` - The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.
- `state` - The current state of the database.
- `time_created` - The date and time the database was created.
- `db_system_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `db_version` - The Oracle Database version.
- `display_name` - The user-provided name for the database home. The name does not need to be unique.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- `last_patch_history_entry_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation is started.
- `state` - The current state of the database home.
- `time_created` - The date and time the database home was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.

Import

DbHomes can be imported using the `id` , e.g.

```
$ terraform import oci_database_db_home.test_db_home "id"
```

Import is only supported for source=NONE

`database.0.admin_password` is not returned by the service for security reasons. To avoid a force new of the `db_home` on the next apply you can manually modify the statefile to add the field or you can add the following to the resource:

```
lifecycle {
  ignore_changes = ["database.0.admin_password"]
}
```

oci_database_db_system

This resource provides the Db System resource in Oracle Cloud Infrastructure Database service.

Launches a new DB system in the specified compartment and availability domain. The Oracle Database edition that you specify applies to all the databases on that DB system. The selected edition cannot be changed.

An initial database is created on the DB system based on the request parameters you provide and some default options. For more information, see Default Options for the Initial Database

(<https://docs.cloud.oracle.com/iaas/Content/Database/Tasks/launchingDB.htm#DefaultOptionsfortheInitialDatabase>).

Example Usage

```
resource "oci_database_db_system" "test_db_system" {
  #Required
  availability_domain = "${var.db_system_availability_domain}"
  compartment_id = "${var.compartment_id}"
  database_edition = "${var.db_system_database_edition}"
  db_home {
    #Required
    database {
      #Required
      admin_password = "${var.db_system_db_home_database_admin_password}"

      #Optional
      backup_id = "${oci_database_backup.test_backup.id}"
      backup_tde_password = "${var.db_system_db_home_database_backup_tde_password}"
      character_set = "${var.db_system_db_home_database_character_set}"
      db_backup_config {

        #Optional
        auto_backup_enabled = "${var.db_system_db_home_database_db_backup_config_auto_backup_enabled}"

        auto_backup_window = "${var.db_system_db_home_database_db_backup_config_auto_backup_window}"

        backup_destination_details {

          #Optional
          id = "${var.db_system_db_home_database_db_backup_config_backup_destination_details_id}"

          type = "${var.db_system_db_home_database_db_backup_config_backup_destination_details_type}"
        }

        recovery_window_in_days = "${var.db_system_db_home_database_db_backup_config_recovery_window_in_days}"
      }
      db_name = "${var.db_system_db_home_database_db_name}"
      db_workload = "${var.db_system_db_home_database_db_workload}"
      defined_tags = "${var.db_system_db_home_database_defined_tags}"
      freeform_tags = "${var.db_system_db_home_database_freeform_tags}"
      ncharacter_set = "${var.db_system_db_home_database_ncharacter_set}"
      pdb_name = "${var.db_system_db_home_database_pdb_name}"
    }
  }
}
```

```

#Optional
db_version = "${var.db_system_db_home_db_version}"
display_name = "${var.db_system_db_home_display_name}"
}
hostname = "${var.db_system_hostname}"
shape = "${var.db_system_shape}"
ssh_public_keys = "${var.db_system_ssh_public_keys}"
subnet_id = "${oci_core_subnet.test_subnet.id}"

#Optional
backup_network_nsg_ids = "${var.db_system_backup_network_nsg_ids}"
backup_subnet_id = "${oci_core_subnet.test_subnet.id}"
cluster_name = "${var.db_system_cluster_name}"
cpu_core_count = "${var.db_system_cpu_core_count}"
data_storage_percentage = "${var.db_system_data_storage_percentage}"
data_storage_size_in_gb = "${var.db_system_data_storage_size_in_gb}"
db_system_options {

    #Optional
    storage_management = "${var.db_system_db_system_options_storage_management}"
}
defined_tags = {"Operations.CostCenter"= "42"}
disk_redundancy = "${var.db_system_disk_redundancy}"
display_name = "${var.db_system_display_name}"
domain = "${var.db_system_domain}"
fault_domains = "${var.db_system_fault_domains}"
freeform_tags = {"Department"= "Finance"}
license_model = "${var.db_system_license_model}"
node_count = "${var.db_system_node_count}"
nsg_ids = "${var.db_system_nsg_ids}"
source = "${var.db_system_source}"
sparse_diskgroup = "${var.db_system_sparse_diskgroup}"
time_zone = "${var.db_system_time_zone}"
}

```

Argument Reference

The following arguments are supported:

- **availability_domain** - (Required) The availability domain where the DB system is located.
- **backup_network_nsg_ids** - (Optional) (Updatable) A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that the backup network of this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>). Applicable only to Exadata DB systems.
- **backup_subnet_id** - (Optional) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup network subnet the DB system is associated with. Applicable only to Exadata DB systems.

Subnet Restrictions: See the subnet restrictions information for **subnetId**.

- `cluster_name` - (Optional) The cluster name for Exadata and 2-node RAC virtual machine DB systems. The cluster name must begin with an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment the DB system belongs in.
- `cpu_core_count` - (Optional) (Updatable) The number of CPU cores to enable for a bare metal or Exadata DB system. The service ignores this value when a VM shape is specified. The valid values depend on the specified shape:
 - BM.DenseIO1.36 - Specify a multiple of 2, from 2 to 36.
 - BM.DenseIO2.52 - Specify a multiple of 2, from 2 to 52.
 - Exadata.Base48 - Specify a multiple of 2, from 0 to 48.
 - Exadata.Quarter1.84 - Specify a multiple of 2, from 22 to 84.
 - Exadata.Half1.168 - Specify a multiple of 4, from 44 to 168.
 - Exadata.Full1.336 - Specify a multiple of 8, from 88 to 336.
 - Exadata.Quarter2.92 - Specify a multiple of 2, from 0 to 92.
 - Exadata.Half2.184 - Specify a multiple of 4, from 0 to 184.
 - Exadata.Full2.368 - Specify a multiple of 8, from 0 to 368.

This parameter is not used for virtual machine DB systems because virtual machine DB systems have a set number of cores for each shape. For information about the number of cores for a virtual machine DB system shape, see Virtual Machine DB Systems (<https://docs.cloud.oracle.com/iaas/Content/Database/Concepts/overview.htm#virtualmachine>)

- `data_storage_percentage` - (Optional) The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Specify 80 or 40. The default is 80 percent assigned to DATA storage. Not applicable for virtual machine DB systems.
- `data_storage_size_in_gb` - (Optional) (Updatable) Size (in GB) of the initial data volume that will be created and attached to a virtual machine DB system. You can scale up storage after provisioning, as needed. Note that the total storage size attached will be more than the amount you specify to allow for REDO/RECO space and software volume.
- `database_edition` - (Required) The Oracle Database Edition that applies to all the databases on the DB system. Exadata DB systems and 2-node RAC DB systems require `ENTERPRISE_EDITION_EXTREME_PERFORMANCE`.
- `db_home` - (Required) (Updatable)
 - `database` - (Required) (Updatable)
 - `admin_password` - (Required) A strong password for SYS, SYSTEM, PDB Admin and TDE Wallet. The password must be at least nine characters and contain at least two uppercase, two lowercase, two numbers, and two special characters. The special characters must be `_`, `#`, or `-`.
 - `backup_id` - (Required when `source=DB_BACKUP`) The backup OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
 - `backup_tde_password` - (Required when `source=DB_BACKUP`) The password to open the TDE wallet.

- **character_set** - (Applicable when source=NONE | VM_CLUSTER_NEW) The character set for the database. The default is AL32UTF8. Allowed values are:

AL32UTF8, AR8ADOS710, AR8ADOS720, AR8APTEC715, AR8ARABICMACS, AR8ASMO8X, AR8ISO8859P6, AR8MSWIN1256, AR8MUSSAD768, AR8NAFITHA711, AR8NAFITHA721, AR8SAKHR706, AR8SAKHR707, AZ8ISO8859P9E, BG8MSWIN, BG8PC437S, BLT8CP921, BLT8ISO8859P13, BLT8MSWIN1257, BLT8PC775, BN8BSCII, CDN8PC863, CEL8ISO8859P14, CL8ISO8859P5, CL8ISOIR111, CL8KOI8R, CL8KOI8U, CL8MACCYRILLICS, CL8MSWIN1251, EE8ISO8859P2, EE8MACCES, EE8MACCROATIANS, EE8MSWIN1250, EE8PC852, EL8DEC, EL8ISO8859P7, EL8MACGREEKS, EL8MSWIN1253, EL8PC437S, EL8PC851, EL8PC869, ET8MSWIN923, HU8ABMOD, HU8CWI2, IN8SCII, IS8PC861, IW8ISO8859P8, IW8MACHEBREWS, IW8MSWIN1255, IW8PC1507, JA16EUC, JA16EUCTILDE, JA16SJIS, JA16SJISTILDE, JA16VMS, KO16KSC5601, KO16KSCCS, KO16MSWIN949, LA8ISO6937, LA8PASSPORT, LT8MSWIN921, LT8PC772, LT8PC774, LV8PC1117, LV8PC8LR, LV8RST104090, N8PC865, NE8ISO8859P10, NEE8ISO8859P4, RU8BESTA, RU8PC855, RU8PC866, SE8ISO8859P3, TH8MACTHAIS, TH8TISASCII, TR8DEC, TR8MACTURKISHS, TR8MSWIN1254, TR8PC857, US7ASCII, US8PC437, UTF8, VN8MSWIN1258, VN8VN3, WE8DEC, WE8DG, WE8ISO8859P1, WE8ISO8859P15, WE8ISO8859P9, WE8MACROMAN8S, WE8MSWIN1252, WE8NCR4970, WE8NEXTSTEP, WE8PC850, WE8PC858, WE8PC860, WE8ROMAN8, ZHS16CGB231280, ZHS16GBK, ZHT16BIG5, ZHT16CCDC, ZHT16DBT, ZHT16HKSCS, ZHT16MSWIN950, ZHT32EUC, ZHT32SOPS, ZHT32TRIS

- **db_backup_config** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable)
 - **auto_backup_enabled** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - **auto_backup_window** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects SLOT_TWO from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example: SLOT_TWO
 - **backup_destination_details** - (Applicable when source=VM_CLUSTER_NEW) (Updatable) Backup destination details.
 - **id** - (Applicable when source=VM_CLUSTER_NEW) The (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup destination.
 - **type** - (Required when source=VM_CLUSTER_NEW) Type of the database backup destination. Supported values: NFS .
 - **recovery_window_in_days** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
- **db_name** - (Required when source=NONE | VM_CLUSTER_NEW) The display name of the database to be created from the backup. It must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted.

- **db_workload** - (Applicable when source=NONE | VM_CLUSTER_NEW) The database workload type.
- **defined_tags** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **freeform_tags** - (Applicable when source=NONE | VM_CLUSTER_NEW) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:


```
{ "Department": "Finance" }
```
- **ncharacter_set** - (Applicable when source=NONE | VM_CLUSTER_NEW) The national character set for the database. The default is AL16UTF16. Allowed values are: AL16UTF16 or UTF8.
- **pdb_name** - (Applicable when source=NONE | VM_CLUSTER_NEW) The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.
- **db_version** - (Required when source=NONE) A valid Oracle Database version. To get a list of supported versions, use the ListDbVersions (<https://docs.cloud.oracle.com/iaas/api/#/en/database/20160918/DbVersionSummary/ListDbVersions>) operation.
- **display_name** - (Optional) The user-provided name of the database home.
- **db_system_options** - (Optional)
 - **storage_management** - (Optional) The storage option used in DB system. You can specify either Automatic Storage Management (ASM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=OSTMG-GUID-BC612D35-5399-4A35-843E-CF76E3D3CDB5>) or Logical Volume Manager (LVM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=ADMIN-GUID-57C50259-9472-4ED0-8818-DB9ABA96EC8E>).
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **disk_redundancy** - (Optional) The type of redundancy configured for the DB system. Normal is 2-way redundancy, recommended for test and development systems. High is 3-way redundancy, recommended for production systems.
- **display_name** - (Optional) The user-friendly name for the DB system. The name does not have to be unique.
- **domain** - (Optional) A domain name used for the DB system. If the Oracle-provided Internet and VCN Resolver is enabled for the specified subnet, the domain name for the subnet is used (do not provide one). Otherwise, provide a valid DNS domain name. Hyphens (-) are not permitted.
- **fault_domains** - (Optional) A Fault Domain is a grouping of hardware and infrastructure within an availability domain. Fault Domains let you distribute your instances so that they are not on the same physical hardware within a single availability domain. A hardware failure or maintenance that affects one Fault Domain does not affect DB systems in other Fault Domains.

If you do not specify the Fault Domain, the system selects one for you. To change the Fault Domain for a DB system, terminate it and launch a new DB system in the preferred Fault Domain.

If the node count is greater than 1, you can specify which Fault Domains these nodes will be distributed into. The system assigns your nodes automatically to the Fault Domains you specify so that no Fault Domain contains more than one node.

To get a list of Fault Domains, use the ListFaultDomains

(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/FaultDomain/ListFaultDomains>) operation in the Identity and Access Management Service API.

Example: FAULT-DOMAIN-1

- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **hostname** - (Required) The hostname for the DB system. The hostname must begin with an alphabetic character, and can contain alphanumeric characters and hyphens (-). The maximum length of the hostname is 16 characters for bare metal and virtual machine DB systems, and 12 characters for Exadata DB systems.

The maximum length of the combined hostname and domain is 63 characters.

Note: The hostname must be unique within the subnet. If it is not unique, the DB system will fail to provision.

- **license_model** - (Optional) The Oracle license model that applies to all the databases on the DB system. The default is LICENSE_INCLUDED. Allowed values are: LICENSE_INCLUDED, BRING_YOUR_OWN_LICENSE.
- **node_count** - (Optional) The number of nodes to launch for a 2-node RAC virtual machine DB system.
- **nsg_ids** - (Optional) (Updatable) A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- **shape** - (Required) The shape of the DB system. The shape determines resources allocated to the DB system.
 - For virtual machine shapes, the number of CPU cores and memory
 - For bare metal and Exadata shapes, the number of CPU cores, memory, and storage

To get a list of shapes, use the ListDbSystemShapes

(<https://docs.cloud.oracle.com/iaas/api/#/en/database/20160918/DbSystemShapeSummary/ListDbSystemShapes>) operation.

- **source** - (Optional) The source of the database: NONE for creating a new database. DB_BACKUP for creating a new database by restoring from a backup. The default is NONE.
- **sparse_diskgroup** - (Optional) If true, Sparse Diskgroup is configured for Exadata dbssystem. If False, Sparse diskgroup is not configured.
- **ssh_public_keys** - (Required) (Updatable) The public key portion of the key pair to use for SSH access to the DB system. Multiple public keys can be provided. The length of the combined keys cannot exceed 40,000 characters.

- `subnet_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet the DB system is associated with.

Subnet Restrictions:

- For bare metal DB systems and for single node virtual machine DB systems, do not use a subnet that overlaps with 192.168.16.16/28.
- For Exadata and virtual machine 2-node RAC DB systems, do not use a subnet that overlaps with 192.168.128.0/20.

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and the backup subnet.

- `time_zone` - (Optional) The time zone to use for the DB system. For details, see DB System Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The name of the availability domain that the DB system is located in.
- `backup_network_nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that the backup network of this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>). Applicable only to Exadata DB systems.
- `backup_subnet_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the backup network subnet the DB system is associated with. Applicable only to Exadata DB systems.

Subnet Restriction: See the subnet restrictions information for `subnetId`.

- `cluster_name` - The cluster name for Exadata and 2-node RAC virtual machine DB systems. The cluster name must begin with an alphabetic character, and may contain hyphens (-). Underscores (_) are not permitted. The cluster name can be no longer than 11 characters and is not case sensitive.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpu_core_count` - The number of CPU cores enabled on the DB system.
- `data_storage_percentage` - The percentage assigned to DATA storage (user data and database files). The remaining percentage is assigned to RECO storage (database redo logs, archive logs, and recovery manager backups). Accepted values are 40 and 80. The default is 80 percent assigned to DATA storage. Not applicable for virtual machine DB systems.
- `data_storage_size_in_gb` - The data storage size, in gigabytes, that is currently available to the DB system. Applies

only for virtual machine DB systems.

- `database_edition` - The Oracle Database edition that applies to all the databases on the DB system.
- `db_system_options` -
 - `storage_management` - The storage option used in DB system. You can specify either Automatic Storage Management (ASM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=OSTMG-GUID-BC612D35-5399-4A35-843E-CF76E3D3CDB5>) or Logical Volume Manager (LVM) (<https://www.oracle.com/pls/topic/lookup?ctx=en/database/oracle/oracle-database/19&id=ADMIN-GUID-57C50259-9472-4ED0-8818-DB9ABA96EC8E>).
- `db_home` -
 - `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
 - `database`
 - `character_set` - The character set for the database.
 - `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
 - `connection_strings` - The Connection strings used to connect to the Oracle Database.
 - `all_connection_strings` - All connection strings to use to connect to the Database.
 - `cdb_default` - Host name based CDB Connection String.
 - `cdb_ip_default` - IP based CDB Connection String.
 - `db_backup_config` -
 - `auto_backup_enabled` - If set to true, configures automatic backups. If you previously used RMAN or dbcli to configure backups and then you switch to using the Console or the API for backups, a new backup configuration is created and associated with your database. This means that you can no longer rely on your previously configured unmanaged backups to work.
 - `auto_backup_window` - Time window selected for initiating automatic backup for the database system. There are twelve available two-hour time windows. If no option is selected, a start time between 12:00 AM to 7:00 AM in the region of the database is automatically chosen. For example, if the user selects `SLOT_TWO` from the enum list, the automatic backup job will start in between 2:00 AM (inclusive) to 4:00 AM (exclusive). Example: `SLOT_TWO`
 - `recovery_window_in_days` - Number of days between the current and the earliest point of recoverability covered by automatic backups. This value applies to automatic backups only. After a new automatic backup has been created, Oracle removes old automatic backups that are created before the window. When the value is updated, it is applied to all existing automatic backups.
 - `db_home_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
 - `db_name` - The database name.
 - `db_unique_name` - A system-generated name for the database to ensure uniqueness within an Oracle Data Guard group (a primary database and its standby databases). The unique name cannot be changed.
 - `db_workload` - The database workload type.

- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:


```
{"Operations.CostCenter": "42"}
```
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:


```
{"Department": "Finance"}
```
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database.
- **last_backup_timestamp** - The date and time when the latest database backup was created.
- **lifecycle_details** - Additional information about the current lifecycleState.
- **ncharacter_set** - The national character set for the database.
- **pdb_name** - The name of the pluggable database. The name must begin with an alphabetic character and can contain a maximum of eight alphanumeric characters. Special characters are not permitted. Pluggable database should not be same as database name.
- **state** - The current state of the database.
- **time_created** - The date and time the database was created.
- **db_system_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- **db_version** - The Oracle Database version.
- **display_name** - The user-provided name for the database home. The name does not need to be unique.
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the database home.
- **last_patch_history_entry_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation is started.
- **state** - The current state of the database home.
- **time_created** - The date and time the database home was created.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **disk_redundancy** - The type of redundancy configured for the DB system. NORMAL is 2-way redundancy. HIGH is 3-way redundancy.
- **display_name** - The user-friendly name for the DB system. The name does not have to be unique.
- **domain** - The domain name for the DB system.
- **fault_domains** - List of the Fault Domains in which this DB system is provisioned.

- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `hostname` - The hostname for the DB system.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DB system.
- `last_patch_history_entry_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the last patch history. This value is updated as soon as a patch operation starts.
- `license_model` - The Oracle license model that applies to all the databases on the DB system. The default is `LICENSE_INCLUDED`.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `listener_port` - The port number configured for the listener on the DB system.
- `node_count` - The number of nodes in the DB system. For RAC DB systems, the value is greater than 1.
- `nsg_ids` - A list of the OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the network security groups (NSGs) that this DB system belongs to. Setting this to an empty array after the list is created removes the resource from all NSGs. For more information about NSGs, see Security Rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securityrules.htm>).
- `reco_storage_size_in_gb` - The RECO/REDO storage size, in gigabytes, that is currently allocated to the DB system. Applies only for virtual machine DB systems.
- `scan_dns_record_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the DNS record for the SCAN IP addresses that are associated with the DB system.
- `scan_ip_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Single Client Access Name (SCAN) IP addresses associated with the DB system. SCAN IP addresses are typically used for load balancing and are not assigned to any interface. Oracle Clusterware directs the requests to the appropriate nodes in the cluster.

Note: For a single-node DB system, this list is empty.

- `shape` - The shape of the DB system. The shape determines resources to allocate to the DB system.
 - For virtual machine shapes, the number of CPU cores and memory
 - For bare metal and Exadata shapes, the number of CPU cores, storage, and memory
- `sparse_diskgroup` - True, if Sparse Diskgroup is configured for Exadata dbsystem, False, if Sparse diskgroup was not configured.
- `ssh_public_keys` - The public key portion of one or more key pairs used for SSH access to the DB system.
- `state` - The current state of the DB system.
- `subnet_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subnet the DB system is associated with.

Subnet Restrictions:

- For bare metal DB systems and for single node virtual machine DB systems, do not use a subnet that overlaps with 192.168.16.16/28.
- For Exadata and virtual machine 2-node RAC DB systems, do not use a subnet that overlaps with 192.168.128.0/20.

These subnets are used by the Oracle Clusterware private interconnect on the database instance. Specifying an overlapping subnet will cause the private interconnect to malfunction. This restriction applies to both the client subnet and backup subnet.

- `time_created` - The date and time the DB system was created.
- `time_zone` - The time zone of the DB system. For details, see [DB System Time Zones \(https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm\)](https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm).
- `version` - The Oracle Database version of the DB system.
- `vip_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the virtual IP (VIP) addresses associated with the DB system. The Cluster Ready Services (CRS) creates and maintains one VIP address for each node in the DB system to enable failover. If one node fails, the VIP is reassigned to another active node in the cluster.

Note: For a single-node DB system, this list is empty.

Import

DBSystems can be imported using the `id`, e.g.

```
$ terraform import oci_database_db_system.test_db_system "id"
```

Import is only supported for `source=NONE`

`db_home.0.database.0.admin_password` is not returned by the service for security reasons. To avoid a force new of the `db_home` on the next apply you can manually modify the statefile to add the field or you can add the following to the resource:

```
lifecycle {
  ignore_changes = ["db_home.0.database.0.admin_password"]
}
```

You may also need to add `hostname` to the `ignore_changes` list if you see a diff on a subsequent apply

oci_database_exadata_infrastructure

This resource provides the Exadata Infrastructure resource in Oracle Cloud Infrastructure Database service.

Create Exadata infrastructure.

Example Usage

```
resource "oci_database_exadata_infrastructure" "test_exadata_infrastructure" {  
  #Required  
  admin_network_cidr = "${var.exadata_infrastructure_admin_network_cidr}"  
  cloud_control_plane_server1 = "${var.exadata_infrastructure_cloud_control_plane_server1}"  
  cloud_control_plane_server2 = "${var.exadata_infrastructure_cloud_control_plane_server2}"  
  compartment_id = "${var.compartment_id}"  
  corporate_proxy = "${var.exadata_infrastructure_corporate_proxy}"  
  display_name = "${var.exadata_infrastructure_display_name}"  
  dns_server = "${var.exadata_infrastructure_dns_server}"  
  gateway = "${var.exadata_infrastructure_gateway}"  
  infini_band_network_cidr = "${var.exadata_infrastructure_infini_band_network_cidr}"  
  netmask = "${var.exadata_infrastructure_netmask}"  
  ntp_server = "${var.exadata_infrastructure_ntp_server}"  
  shape = "${var.exadata_infrastructure_shape}"  
  time_zone = "${var.exadata_infrastructure_time_zone}"  
  
  #Optional  
  activation_file = "${var.exadata_infrastructure_activation_file}"  
  defined_tags = "${var.exadata_infrastructure_defined_tags}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `activation_file` - (Optional) The activation zip file. If provided in config, exadata infrastructure will be activated after creation. Updates are not allowed on activated exadata infrastructure.
- `admin_network_cidr` - (Required) (Updatable) The CIDR block for the Exadata administration network.
- `cloud_control_plane_server1` - (Required) (Updatable) The IP address for the first control plane server.
- `cloud_control_plane_server2` - (Required) (Updatable) The IP address for the second control plane server.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `corporate_proxy` - (Required) (Updatable) The corporate network proxy for access to the control plane network.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

- `display_name` - (Required) The user-friendly name for the Exadata infrastructure. The name does not need to be unique.
- `dns_server` - (Required) (Updatable) The list of DNS server IP addresses. Maximum of 3 allowed.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gateway` - (Required) (Updatable) The gateway for the control plane network.
- `infini_band_network_cidr` - (Required) (Updatable) The CIDR block for the Exadata InfiniBand interconnect.
- `netmask` - (Required) (Updatable) The netmask for the control plane network.
- `ntp_server` - (Required) (Updatable) The list of NTP server IP addresses. Maximum of 3 allowed.
- `shape` - (Required) The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `time_zone` - (Required) (Updatable) The time zone of the Exadata infrastructure. For details, see Exadata Infrastructure Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `admin_network_cidr` - The CIDR block for the Exadata administration network.
- `cloud_control_plane_server1` - The IP address for the first control plane server.
- `cloud_control_plane_server2` - The IP address for the second control plane server.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `corporate_proxy` - The corporate network proxy for access to the control plane network.
- `cpus_enabled` - The number of enabled CPU cores.
- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the Exadata infrastructure. The name does not need to be unique.
- `dns_server` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}}

- `gateway` - The gateway for the control plane network.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `infini_band_network_cidr` - The CIDR block for the Exadata InfiniBand interconnect.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `netmask` - The netmask for the control plane network.
- `ntp_server` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `state` - The current lifecycle state of the Exadata infrastructure.
- `time_created` - The date and time the Exadata infrastructure was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see [Exadata Infrastructure Time Zones \(https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm\)](https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm).

Import

ExadataInfrastructures can be imported using the `id`, e.g.

```
$ terraform import oci_database_exadata_infrastructure.test_exadata_infrastructure "id"
```

oci_database_exadata_iorm_config

This resource provides the Exadata IORM Config resource in Oracle Cloud Infrastructure Database service.

Example Usage

```
resource "oci_database_exadata_iorm_config" "test_exadata_iorm_config" {  
  #Required  
  db_system_id = "${var.db_system_id}  
  db_plans = "${var.db_plans.id}"  
  
  #Optional  
  objective = "AUTO"  
}
```

Argument Reference

The following arguments are supported:

- `db_system_id` - (Required) The DB system OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `db_plans` - (Required) Array of IORM Setting for all the database in this Exadata DB System
 - `db_name` - (Required) Database Name. For default DbPlan, the dbName will always be `default`
 - `flash_cache_limit` - Flash Cache limit, internally configured based on shares
 - `share` - (Required) Relative priority of a database
- `objective` - (Optional) Value for the IORM objective Default is "Auto"

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `db_plans` - Array of IORM Setting for all the database in this Exadata DB System
 - `db_name` - Database Name. For default DbPlan, the dbName will always be `default`
 - `flash_cache_limit` - Flash Cache limit, internally configured based on shares
 - `share` - Relative priority of a database
- `lifecycle_details` - Additional information about the current lifecycleState.
- `objective` - Value for the IORM objective Default is "Auto"

- `state` - The current config state of IORM settings for this Exadata System.

Import

Import is not supported for this resource.

oci_database_maintenance_run

This resource provides the Maintenance Run resource in Oracle Cloud Infrastructure Database service.

Updates the properties of a Maintenance Run, such as the state of a Maintenance Run.

Example Usage

```
resource "oci_database_maintenance_run" "test_maintenance_run" {  
  #Required  
  maintenance_run_id = "${oci_database_maintenance_run.test_maintenance_run.id}"  
  
  #Optional  
  is_enabled = "${var.maintenance_run_is_enabled}"  
}
```

Argument Reference

The following arguments are supported:

- `is_enabled` - (Optional) (Updatable) If set to false, skips the Maintenance Run.
- `maintenance_run_id` - (Required) The Maintenance Run OCID.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `description` - The text describing this Maintenance Run.
- `display_name` - The user-friendly name for the Maintenance Run.
- `id` - The OCID of the Maintenance Run.
- `lifecycle_details` - Additional information about the current lifecycleState.
- `maintenance_subtype` - Maintenance sub-type.
- `maintenance_type` - Maintenance type.
- `state` - The current state of the Maintenance Run.
- `target_resource_id` - The ID of the target resource on which the Maintenance Run occurs.
- `target_resource_type` - The type of the target resource on which the Maintenance Run occurs.

- `time_ended` - The date and time the Maintenance Run was completed.
- `time_scheduled` - The date and time the Maintenance Run is scheduled for.
- `time_started` - The date and time the Maintenance Run starts.

Import

MaintenanceRuns can be imported using the `id`, e.g.

```
$ terraform import oci_database_maintenance_run.test_maintenance_run "id"
```


oci_database_vm_cluster

This resource provides the Vm Cluster resource in Oracle Cloud Infrastructure Database service.

Creates a VM cluster.

Example Usage

```
resource "oci_database_vm_cluster" "test_vm_cluster" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  cpu_core_count = "${var.vm_cluster_cpu_core_count}"  
  display_name = "${var.vm_cluster_display_name}"  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  gi_version = "${var.vm_cluster_gi_version}"  
  ssh_public_keys = "${var.vm_cluster_ssh_public_keys}"  
  vm_cluster_network_id = "${oci_database_vm_cluster_network.test_vm_cluster_network.id}"  
  
  #Optional  
  defined_tags = "${var.vm_cluster_defined_tags}"  
  freeform_tags = {"Department"= "Finance"}  
  is_local_backup_enabled = "${var.vm_cluster_is_local_backup_enabled}"  
  is_sparse_diskgroup_enabled = "${var.vm_cluster_is_sparse_diskgroup_enabled}"  
  license_model = "${var.vm_cluster_license_model}"  
  time_zone = "${var.vm_cluster_time_zone}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpu_core_count` - (Required) (Updatable) The number of CPU cores to enable for the VM cluster.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - (Required) The user-friendly name for the VM cluster. The name does not need to be unique.
- `exadata_infrastructure_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `gi_version` - (Required) The Oracle Grid Infrastructure software version for the VM cluster.
- `is_local_backup_enabled` - (Optional) If true, database backup on local Exadata storage is configured for the VM cluster. If false, database backup on local Exadata storage is not available in the VM cluster.
- `is_sparse_diskgroup_enabled` - (Optional) If true, the sparse disk group is configured for the VM cluster. If false, the sparse disk group is not created.
- `license_model` - (Optional) (Updatable) The Oracle license model that applies to the VM cluster. The default is `BRING_YOUR_OWN_LICENSE`.
- `ssh_public_keys` - (Required) (Updatable) The public key portion of one or more key pairs used for SSH access to the VM cluster.
- `time_zone` - (Optional) The time zone to use for the VM cluster. For details, see DB System Time Zones (<https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm>).
- `vm_cluster_network_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `cpus_enabled` - The number of enabled CPU cores.
- `data_storage_size_in_tbs` - Size, in terabytes, of the DATA disk group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the VM cluster. The name does not need to be unique.
- `exadata_infrastructure_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `gi_version` - The Oracle Grid Infrastructure software version for the VM cluster.
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster.
- `is_local_backup_enabled` - If true, database backup on local Exadata storage is configured for the VM cluster. If false, database backup on local Exadata storage is not available in the VM cluster.
- `is_sparse_diskgroup_enabled` - If true, sparse disk group is configured for the VM cluster. If false, sparse disk

group is not created.

- `license_model` - The Oracle license model that applies to the VM cluster. The default is `LICENSE_INCLUDED`.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `shape` - The shape of the Exadata infrastructure. The shape determines the amount of CPU, storage, and memory resources allocated to the instance.
- `ssh_public_keys` - The public key portion of one or more key pairs used for SSH access to the VM cluster.
- `state` - The current state of the VM cluster.
- `time_created` - The date and time that the VM cluster was created.
- `time_zone` - The time zone of the Exadata infrastructure. For details, see [Exadata Infrastructure Time Zones \(https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm\)](https://docs.cloud.oracle.com/iaas/Content/Database/References/timezones.htm).
- `vm_cluster_network_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.

Import

Import is not supported for this resource.

oci_database_vm_cluster_network

This resource provides the Vm Cluster Network resource in Oracle Cloud Infrastructure Database service.

Creates the VM cluster network.

Example Usage

```
resource "oci_database_vm_cluster_network" "test_vm_cluster_network" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.vm_cluster_network_display_name}"  
  exadata_infrastructure_id = "${oci_database_exadata_infrastructure.test_exadata_infrastructure.id}"  
  scans {  
    #Required  
    hostname = "${var.vm_cluster_network_scans_hostname}"  
    ips = "${var.vm_cluster_network_scans_ips}"  
    port = "${var.vm_cluster_network_scans_port}"  
  }  
  vm_networks {  
    #Required  
    domain_name = "${var.vm_cluster_network_vm_networks_domain_name}"  
    gateway = "${var.vm_cluster_network_vm_networks_gateway}"  
    netmask = "${var.vm_cluster_network_vm_networks_netmask}"  
    network_type = "${var.vm_cluster_network_vm_networks_network_type}"  
    nodes {  
      #Required  
      hostname = "${var.vm_cluster_network_vm_networks_nodes_hostname}"  
      ip = "${var.vm_cluster_network_vm_networks_nodes_ip}"  
  
      #Optional  
      vip = "${var.vm_cluster_network_vm_networks_nodes_vip}"  
      vip_hostname = "${var.vm_cluster_network_vm_networks_nodes_vip_hostname}"  
    }  
    vlan_id = "${var.vm_cluster_network_vm_networks_vlan_id}"  
  }  
  
  #Optional  
  defined_tags = "${var.vm_cluster_network_defined_tags}"  
  dns = "${var.vm_cluster_network_dns}"  
  freeform_tags = {"Department" = "Finance"}  
  ntp = "${var.vm_cluster_network_ntp}"  
  validate_vm_cluster_network = "${var.vm_cluster_network_validate_vm_cluster_network}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.

- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **display_name** - (Required) The user-friendly name for the VM cluster network. The name does not need to be unique.
- **dns** - (Optional) (Updatable) The list of DNS server IP addresses. Maximum of 3 allowed.
- **exadata_infrastructure_id** - (Required) The Exadata infrastructure OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **ntp** - (Optional) (Updatable) The list of NTP server IP addresses. Maximum of 3 allowed.
- **scans** - (Required) (Updatable) The SCAN details.
 - **hostname** - (Required) (Updatable) The SCAN hostname.
 - **ips** - (Required) (Updatable) The list of SCAN IP addresses. Three addresses should be provided.
 - **port** - (Required) (Updatable) The SCAN port. Default is 1521.
- **vm_networks** - (Required) (Updatable) Details of the client and backup networks.
 - **domain_name** - (Required) (Updatable) The network domain name.
 - **gateway** - (Required) (Updatable) The network gateway.
 - **netmask** - (Required) (Updatable) The network netmask.
 - **network_type** - (Required) (Updatable) The network type.
 - **nodes** - (Required) (Updatable) The list of node details.
 - **hostname** - (Required) (Updatable) The node host name.
 - **ip** - (Required) (Updatable) The node IP address.
 - **vip** - (Optional) (Updatable) The node virtual IP (VIP) address.
 - **vip_hostname** - (Optional) (Updatable) The node virtual IP (VIP) host name.
 - **vlan_id** - (Required) (Updatable) The network VLAN ID.
- **validate_vm_cluster_network** - A boolean flag indicating whether or not to validate VM cluster network after creation. Updates are not allowed on validated exadata VM cluster network.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- `display_name` - The user-friendly name for the VM cluster network. The name does not need to be unique.
- `dns` - The list of DNS server IP addresses. Maximum of 3 allowed.
- `exadata_infrastructure_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Exadata infrastructure.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the VM cluster network.
- `lifecycle_details` - Additional information about the current lifecycle state.
- `ntp` - The list of NTP server IP addresses. Maximum of 3 allowed.
- `scans` - The SCAN details.
 - `hostname` - The SCAN hostname.
 - `ips` - The list of SCAN IP addresses. Three addresses should be provided.
 - `port` - The SCAN port. Default is 1521.
- `state` - The current state of the VM cluster network.
- `time_created` - The date and time when the VM cluster network was created.
- `vm_cluster_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated VM Cluster.
- `vm_networks` - Details of the client and backup networks.
 - `domain_name` - The network domain name.
 - `gateway` - The network gateway.
 - `netmask` - The network netmask.
 - `network_type` - The network type.
 - `nodes` - The list of node details.
 - `hostname` - The node host name.
 - `ip` - The node IP address.
 - `vip` - The node virtual IP (VIP) address.
 - `vip_hostname` - The node virtual IP (VIP) host name.
 - `vlan_id` - The network VLAN ID.

Import

Import is not supported for this resource.

oci_dns_record

This resource provides the Record resource in Oracle Cloud Infrastructure Dns service.

Replaces records in the specified zone with the records specified in the request body. If a specified record does not exist, it will be created. If the record exists, then it will be updated to represent the record in the body of the request. If a record in the zone does not exist in the request body, the record will be removed from the zone.

Example Usage

```
resource "oci_dns_record" "test_record" {  
  #Required  
  zone_name_or_id = "${oci_dns_zone_name_or.test_zone_name_or.id}"  
  domain = "${var.record_items_domain}"  
  rtype = "${var.record_items_rtype}"  
  
  #Optional  
  compartment_id = "${var.compartment_id}"  
  rdata = "${var.record_items_rdata}"  
  ttl = "${var.record_items_ttl}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Optional) (Updatable) The OCID of the compartment the resource belongs to. If supplied, it must match the Zone's compartment ocid.
- `domain` - (Required) The fully qualified domain name where the record can be located.
- `rdata` - (Optional) (Updatable) The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>)
- `rtype` - (Required) The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs (<https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml#dns-parameters-4>).
- `ttl` - (Optional) (Updatable) The Time To Live for the record, in seconds.
- `zone_name_or_id` - (Required) The name or OCID of the target zone.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment the resource belongs to.
- `domain` - The fully qualified domain name where the record can be located.
- `is_protected` - A Boolean flag indicating whether or not parts of the record are unable to be explicitly managed.
- `rdata` - The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see Supported DNS Resource Record Types (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>)
- `record_hash` - A unique identifier for the record within its zone.
- `rrset_version` - The latest version of the record's zone in which its RRSet differs from the preceding version.
- `rtype` - The canonical name for the record's type, such as A or CNAME. For more information, see Resource Record (RR) TYPEs (<https://www.iana.org/assignments/dns-parameters/dns-parameters.xhtml#dns-parameters-4>).
- `ttl` - The Time To Live for the record, in seconds.
- `zone_name_or_id` - The name or OCID of the target zone.

Import

Import is not supported for this resource.

oci_dns_steering_policy_attachment

This resource provides the Steering Policy Attachment resource in Oracle Cloud Infrastructure Dns service.

Creates a new attachment between a steering policy and a domain, giving the policy permission to answer queries for the specified domain. A steering policy must be attached to a domain for the policy to answer DNS queries for that domain.

For the purposes of access control, the attachment is automatically placed into the same compartment as the domain's zone.

Example Usage

```
resource "oci_dns_steering_policy_attachment" "test_steering_policy_attachment" {  
  #Required  
  domain_name = "${var.steering_policy_attachment_domain_name}"  
  steering_policy_id = "${oci_dns_steering_policy.test_steering_policy.id}"  
  zone_id = "${oci_dns_zone.test_zone.id}"  
  
  #Optional  
  display_name = "${var.steering_policy_attachment_display_name}"  
}
```

Argument Reference

The following arguments are supported:

- `display_name` - (Optional) (Updatable) A user-friendly name for the steering policy attachment. Does not have to be unique and can be changed. Avoid entering confidential information.
- `domain_name` - (Required) The attached domain within the attached zone.
- `steering_policy_id` - (Required) The OCID of the attached steering policy.
- `zone_id` - (Required) The OCID of the attached zone.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the steering policy attachment.
- `display_name` - A user-friendly name for the steering policy attachment. Does not have to be unique and can be changed. Avoid entering confidential information.
- `domain_name` - The attached domain within the attached zone.

- `id` - The OCID of the resource.
- `rtypes` - The record types covered by the attachment at the domain. The set of record types is determined by aggregating the record types from the answers defined in the steering policy.
- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `steering_policy_id` - The OCID of the attached steering policy.
- `time_created` - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- `zone_id` - The OCID of the attached zone.

Import

SteeringPolicyAttachments can be imported using the `id`, e.g.

```
$ terraform import oci_dns_steering_policy_attachment.test_steering_policy_attachment "id"
```

oci_dns_steering_policy

This resource provides the Steering Policy resource in Oracle Cloud Infrastructure Dns service.

Creates a new steering policy in the specified compartment. For more information on creating policies with templates, see Traffic Management API Guide

(<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Concepts/trafficmanagementapi.htm>).

Example Usage

```

resource "oci_dns_steering_policy" "test_steering_policy" {
  #Required
  compartment_id = "${var.compartment_id}"
  display_name = "${var.steering_policy_display_name}"
  template = "${var.steering_policy_template}"

  #Optional
  answers {
    #Required
    name = "${var.steering_policy_answers_name}"
    rdata = "${var.steering_policy_answers_rdata}"
    rtype = "${var.steering_policy_answers_rtype}"

    #Optional
    is_disabled = "${var.steering_policy_answers_is_disabled}"
    pool = "${var.steering_policy_answers_pool}"
  }
  defined_tags = "${var.steering_policy_defined_tags}"
  freeform_tags = "${var.steering_policy_freeform_tags}"
  health_check_monitor_id = "${oci_health_checks_http_monitor.test_http_monitor.id}"
  rules {
    #Required
    rule_type = "${var.steering_policy_rules_rule_type}"

    #Optional
    cases {

      #Optional
      answer_data {

        #Optional
        answer_condition = "${var.steering_policy_rules_cases_answer_data_answer_condition}"
        should_keep = "${var.steering_policy_rules_cases_answer_data_should_keep}"
        value = "${var.steering_policy_rules_cases_answer_data_value}"
      }
      case_condition = "${var.steering_policy_rules_cases_case_condition}"
      count = "${var.steering_policy_rules_cases_count}"
    }
  }
  default_answer_data {

    #Optional
    answer_condition = "${var.steering_policy_rules_default_answer_data_answer_condition}"
    should_keep = "${var.steering_policy_rules_default_answer_data_should_keep}"
    value = "${var.steering_policy_rules_default_answer_data_value}"
  }
  default_count = "${var.steering_policy_rules_default_count}"
  description = "${var.steering_policy_rules_description}"
}
ttl = "${var.steering_policy_ttl}"
}

```

Argument Reference

If a change to the Steering Policy will result in the destruction and recreation of the resource, the Steering Policy will be temporarily removed from all attached domains while it is being updated. Since this could cause a temporary outage we

recommend that you create DNS records at the affected domains with default values. Those records will be used to resolve DNS queries for the affected domains while the Steering Policy is offline.

The following arguments are supported:

- **answers** - (Optional) The set of all answers that can potentially issue from the steering policy.
 - **is_disabled** - (Optional) Set this property to `true` to indicate that the answer is administratively disabled, such as when the corresponding server is down for maintenance. An answer's `isDisabled` property can be referenced in `answerCondition` properties in rules using `answer.isDisabled`.
 - **name** - (Required) A user-friendly name for the answer, unique within the steering policy. An answer's `name` property can be referenced in `answerCondition` properties of rules using `answer.name`.
 - **pool** - (Optional) The freeform name of a group of one or more records in which this record is included, such as "LAX data center". An answer's `pool` property can be referenced in `answerCondition` properties of rules using `answer.pool`.
 - **rdata** - (Required) The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see [Supported DNS Resource Record Types](https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm) (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
 - **rtype** - (Required) The canonical name for the record's type. Only A, AAAA, and CNAME are supported. For more information, see [Supported DNS Resource Record Types](https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm) (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
- **compartment_id** - (Required) (Updatable) The OCID of the compartment containing the steering policy.
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **display_name** - (Required) (Updatable) A user-friendly name for the steering policy. Does not have to be unique and can be changed. Avoid entering confidential information.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **health_check_monitor_id** - (Optional) (Updatable) The OCID of the health check monitor providing health data about the answers of the steering policy. A steering policy answer with `rdata` matching a monitored endpoint will use the health data of that endpoint. A steering policy answer with `rdata` not matching any monitored endpoint will be assumed healthy.

Note: To use the Health Check monitoring feature in a steering policy, a monitor must be created using the Health Checks service first. For more information on how to create a monitor, please see [Managing Health Checks](https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm) (<https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm>).

- **rules** - (Optional) The series of rules that will be processed in sequence to reduce the pool of answers to a response for any given request.

The first rule receives a shuffled list of all answers, and every other rule receives the list of answers emitted by the one preceding it. The last rule populates the response.

- **cases** - (Optional) An array of `caseConditions`. A rule may optionally include a sequence of cases defining

alternate configurations for how it should behave during processing for any given DNS query. When a rule has no sequence of `cases`, it is always evaluated with the same configuration during processing. When a rule has an empty sequence of `cases`, it is always ignored during processing. When a rule has a non-empty sequence of `cases`, its behavior during processing is configured by the first matching `case` in the sequence. When a rule has no matching cases the rule is ignored. A rule case with no `caseCondition` always matches. A rule case with a `caseCondition` matches only when that expression evaluates to true for the given query.

- `answer_data` - (Applicable when `rule_type`=FILTER | PRIORITY | WEIGHTED) An array of `SteeringPolicyPriorityAnswerData` objects.
 - `answer_condition` - (Applicable when `rule_type`=FILTER | PRIORITY | WEIGHTED) An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - `should_keep` - (Applicable when `rule_type`=FILTER) Keeps the answer only if the value is `true`.
 - `value` - (Required when `rule_type`=PRIORITY | WEIGHTED) The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
- `case_condition` - (Applicable when `rule_type`=FILTER | HEALTH | LIMIT | PRIORITY | WEIGHTED) An expression that uses conditions at the time of a DNS query to indicate whether a case matches. Conditions may include the geographical location, IP subnet, or ASN the DNS query originated. **Example:** If you have an office that uses the subnet 192.0.2.0/24 you could use a `caseCondition` expression `query.client.subnet in ('192.0.2.0/24')` to define a case that matches queries from that office.
- `count` - (Required when `rule_type`=LIMIT) The number of answers allowed to remain after the limit rule has been processed, keeping only the first of the remaining answers in the list. Example: If the `count` property is set to 2 and four answers remain before the limit rule is processed, only the first two answers in the list will remain after the limit rule has been processed.
- `default_answer_data` - (Applicable when `rule_type`=FILTER | PRIORITY | WEIGHTED) Defines a default set of answer conditions and values that are applied to an answer when `cases` is not defined for the rule, or a matching case does not have any matching `answerCondition`s in its `answerData`. `defaultAnswerData` is not applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed.
 - `answer_condition` - (Applicable when `rule_type`=FILTER | PRIORITY | WEIGHTED) An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - `should_keep` - (Applicable when `rule_type`=FILTER) Keeps the answer only if the value is `true`.
 - `value` - (Required when `rule_type`=PRIORITY | WEIGHTED) The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
- `default_count` - (Applicable when `rule_type`=LIMIT) Defines a default count if `cases` is not defined for the rule or a matching case does not define `count`. `defaultCount` is **not** applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed. If no rules remain to be processed, the answer will be chosen from the remaining list of answers.
- `description` - (Optional) A user-defined description of the rule's purpose or behavior.
- `rule_type` - (Required) The type of a rule determines its sorting/filtering behavior.

- **FILTER** - Filters the list of answers based on their defined boolean data. Answers remain only if their `shouldKeep` value is `true`.
- **HEALTH** - Removes answers from the list if their `rdata` matches a target in the health check monitor referenced by the steering policy and the target is reported down.
- **WEIGHTED** - Uses a number between 0 and 255 to determine how often an answer will be served in relation to other answers. Answers with a higher weight will be served more frequently.
- **PRIORITY** - Uses a defined rank value of answers to determine which answer to serve, moving those with the lowest values to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
- **LIMIT** - Filters answers that are too far down the list. Parameter `defaultCount` specifies how many answers to keep. **Example:** If `defaultCount` has a value of 2 and there are five answers left, when the **LIMIT** rule is processed, only the first two answers will remain in the list.
- **template** - (Required) (Updatable) A set of predefined rules based on the desired purpose of the steering policy. Each template utilizes Traffic Management's rules in a different order to produce the desired results when answering DNS queries.

Example: The **FAILOVER** template determines answers by filtering the policy's answers using the **FILTER** rule first, then the following rules in succession: **HEALTH**, **PRIORITY**, and **LIMIT**. This gives the domain dynamic failover capability.

It is **strongly recommended** to use a template other than **CUSTOM** when creating a steering policy.

All templates require the rule order to begin with an unconditional **FILTER** rule that keeps answers contingent upon `answer.isDisabled != true`, except for **CUSTOM**. A defined **HEALTH** rule must follow the **FILTER** rule if the policy references a `healthCheckMonitorId`. The last rule of a template must be a **LIMIT** rule. For more information about templates and code examples, see Traffic Management API Guide (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Concepts/trafficmanagementapi.htm>).

Template Types

- **FAILOVER** - Uses health check information on your endpoints to determine which DNS answers to serve. If an endpoint fails a health check, the answer for that endpoint will be removed from the list of available answers until the endpoint is detected as healthy.
- **LOAD_BALANCE** - Distributes web traffic to specified endpoints based on defined weights.
- **ROUTE_BY_GEO** - Answers DNS queries based on the query's geographic location. For a list of geographic locations to route by, see Traffic Management Geographic Locations (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Reference/trafficmanagementgeo.htm>).
- **ROUTE_BY_ASN** - Answers DNS queries based on the query's originating ASN.
- **ROUTE_BY_IP** - Answers DNS queries based on the query's IP address.
- **CUSTOM** - Allows a customized configuration of rules.
- **tTl** - (Optional) (Updatable) The Time To Live (TTL) for responses from the steering policy, in seconds. If not specified during creation, a value of 30 seconds will be used.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **answers** - The set of all answers that can potentially issue from the steering policy.
 - **is_disabled** - Set this property to `true` to indicate that the answer is administratively disabled, such as when the corresponding server is down for maintenance. An answer's `isDisabled` property can be referenced in `answerCondition` properties in rules using `answer.isDisabled`.
 - **name** - A user-friendly name for the answer, unique within the steering policy. An answer's `name` property can be referenced in `answerCondition` properties of rules using `answer.name`.
 - **pool** - The freeform name of a group of one or more records in which this record is included, such as "LAX data center". An answer's `pool` property can be referenced in `answerCondition` properties of rules using `answer.pool`.
 - **rdata** - The record's data, as whitespace-delimited tokens in type-specific presentation format. All RDATA is normalized and the returned presentation of your RDATA may differ from its initial input. For more information about RDATA, see [Supported DNS Resource Record Types](https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm) (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
 - **rtype** - The canonical name for the record's type. Only A, AAAA, and CNAME are supported. For more information, see [Supported DNS Resource Record Types](https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm) (<https://docs.cloud.oracle.com/iaas/Content/DNS/Reference/supporteddnsresource.htm>).
- **compartment_id** - The OCID of the compartment containing the steering policy.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **display_name** - A user-friendly name for the steering policy. Does not have to be unique and can be changed. Avoid entering confidential information.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- **health_check_monitor_id** - The OCID of the health check monitor providing health data about the answers of the steering policy. A steering policy answer with `rdata` matching a monitored endpoint will use the health data of that endpoint. A steering policy answer with `rdata` not matching any monitored endpoint will be assumed healthy.

Note: To use the Health Check monitoring feature in a steering policy, a monitor must be created using the Health Checks service first. For more information on how to create a monitor, please see [Managing Health Checks](https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm) (<https://docs.cloud.oracle.com/iaas/Content/HealthChecks/Tasks/managinghealthchecks.htm>).
- **id** - The OCID of the resource.
- **rules** - The series of rules that will be processed in sequence to reduce the pool of answers to a response for any given request.

The first rule receives a shuffled list of all answers, and every other rule receives the list of answers emitted by the one preceding it. The last rule populates the response.

- `cases` - An array of `caseConditions`. A rule may optionally include a sequence of cases defining alternate configurations for how it should behave during processing for any given DNS query. When a rule has no sequence of `cases`, it is always evaluated with the same configuration during processing. When a rule has an empty sequence of `cases`, it is always ignored during processing. When a rule has a non-empty sequence of `cases`, its behavior during processing is configured by the first matching `case` in the sequence. When a rule has no matching cases the rule is ignored. A rule case with no `caseCondition` always matches. A rule case with a `caseCondition` matches only when that expression evaluates to true for the given query.
 - `answer_data` - An array of `SteeringPolicyPriorityAnswerData` objects.
 - `answer_condition` - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - `should_keep` - Keeps the answer only if the value is `true`.
 - `value` - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
 - `case_condition` - An expression that uses conditions at the time of a DNS query to indicate whether a case matches. Conditions may include the geographical location, IP subnet, or ASN the DNS query originated. **Example:** If you have an office that uses the subnet `192.0.2.0/24` you could use a `caseCondition` expression `query.client.subnet in ('192.0.2.0/24')` to define a case that matches queries from that office.
 - `count` - The number of answers allowed to remain after the limit rule has been processed, keeping only the first of the remaining answers in the list. Example: If the `count` property is set to 2 and four answers remain before the limit rule is processed, only the first two answers in the list will remain after the limit rule has been processed.
- `default_answer_data` - Defines a default set of answer conditions and values that are applied to an answer when `cases` is not defined for the rule, or a matching case does not have any matching `answerConditions` in its `answerData`. `defaultAnswerData` is not applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed.
 - `answer_condition` - An expression that is used to select a set of answers that match a condition. For example, answers with matching pool properties.
 - `should_keep` - Keeps the answer only if the value is `true`.
 - `value` - The rank assigned to the set of answers that match the expression in `answerCondition`. Answers with the lowest values move to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
- `default_count` - Defines a default count if `cases` is not defined for the rule or a matching case does not define `count`. `defaultCount` is **not** applied if `cases` is defined and there are no matching cases. In this scenario, the next rule will be processed. If no rules remain to be processed, the answer will be chosen from the remaining list of answers.
- `description` - A user-defined description of the rule's purpose or behavior.
- `rule_type` - The type of a rule determines its sorting/filtering behavior.
 - `FILTER` - Filters the list of answers based on their defined boolean data. Answers remain only if their `shouldKeep` value is `true`.
 - `HEALTH` - Removes answers from the list if their `rdata` matches a target in the health check monitor

referenced by the steering policy and the target is reported down.

- **WEIGHTED** - Uses a number between 0 and 255 to determine how often an answer will be served in relation to other answers. Answers with a higher weight will be served more frequently.
- **PRIORITY** - Uses a defined rank value of answers to determine which answer to serve, moving those with the lowest values to the beginning of the list without changing the relative order of those with the same value. Answers can be given a value between 0 and 255.
- **LIMIT** - Filters answers that are too far down the list. Parameter `defaultCount` specifies how many answers to keep. **Example:** If `defaultCount` has a value of 2 and there are five answers left, when the **LIMIT** rule is processed, only the first two answers will remain in the list.

- `self` - The canonical absolute URL of the resource.
- `state` - The current state of the resource.
- `template` - A set of predefined rules based on the desired purpose of the steering policy. Each template utilizes Traffic Management's rules in a different order to produce the desired results when answering DNS queries.

Example: The **FAILOVER** template determines answers by filtering the policy's answers using the **FILTER** rule first, then the following rules in succession: **HEALTH**, **PRIORITY**, and **LIMIT**. This gives the domain dynamic failover capability.

It is **strongly recommended** to use a template other than **CUSTOM** when creating a steering policy.

All templates require the rule order to begin with an unconditional **FILTER** rule that keeps answers contingent upon `answer.isDisabled != true`, except for **CUSTOM**. A defined **HEALTH** rule must follow the **FILTER** rule if the policy references a `healthCheckMonitorId`. The last rule of a template must be a **LIMIT** rule. For more information about templates and code examples, see Traffic Management API Guide (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Concepts/trafficmanagementapi.htm>).

Template Types

- **FAILOVER** - Uses health check information on your endpoints to determine which DNS answers to serve. If an endpoint fails a health check, the answer for that endpoint will be removed from the list of available answers until the endpoint is detected as healthy.
 - **LOAD_BALANCE** - Distributes web traffic to specified endpoints based on defined weights.
 - **ROUTE_BY_GEO** - Answers DNS queries based on the query's geographic location. For a list of geographic locations to route by, see Traffic Management Geographic Locations (<https://docs.cloud.oracle.com/iaas/Content/TrafficManagement/Reference/trafficmanagementgeo.htm>).
 - **ROUTE_BY_ASN** - Answers DNS queries based on the query's originating ASN.
 - **ROUTE_BY_IP** - Answers DNS queries based on the query's IP address.
 - **CUSTOM** - Allows a customized configuration of rules.
- `time_created` - The date and time the resource was created, expressed in RFC 3339 timestamp format.

Example: 2016-07-22T17:23:59:60Z

- `ttl` - The Time To Live (TTL) for responses from the steering policy, in seconds. If not specified during creation, a value of 30 seconds will be used.

Import

SteeringPolicies can be imported using the `id` , e.g.

```
$ terraform import oci_dns_steering_policy.test_steering_policy "id"
```

oci_dns_zone

This resource provides the Zone resource in Oracle Cloud Infrastructure Dns service.

Creates a new zone in the specified compartment.

Example Usage

```
resource "oci_dns_zone" "test_zone" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  name = "${var.zone_name}"  
  zone_type = "${var.zone_zone_type}"  
  
  #Optional  
  defined_tags = "${var.zone_defined_tags}"  
  external_masters {  
    #Required  
    address = "${var.zone_external_masters_address}"  
  
    #Optional  
    port = "${var.zone_external_masters_port}"  
    tsig {  
      #Required  
      algorithm = "${var.zone_external_masters_tsig_algorithm}"  
      name = "${var.zone_external_masters_tsig_name}"  
      secret = "${var.zone_external_masters_tsig_secret}"  
    }  
  }  
  freeform_tags = "${var.zone_freeform_tags}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment the resource belongs to.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Operations.CostCenter": "42"}`

- `external_masters` - (Optional) (Updatable) External master servers for the zone. `externalMasters` becomes a required parameter when the `zoneType` value is `SECONDARY`.
 - `address` - (Required) (Updatable) The server's IP address (IPv4 or IPv6).
 - `port` - (Optional) (Updatable) The server's port. Port value must be a value of 53, otherwise omit the port value.

- `tsig` - (Optional) (Updatable)
 - `algorithm` - (Required) (Updatable) TSIG Algorithms are encoded as domain names, but most consist of only one non-empty label, which is not required to be explicitly absolute. Applicable algorithms include: `hmac-sha1`, `hmac-sha224`, `hmac-sha256`, `hmac-sha512`. For more information on these algorithms, see RFC 4635 (<https://tools.ietf.org/html/rfc4635#section-2>).
 - `name` - (Required) (Updatable) A domain name identifying the key for a given pair of hosts.
 - `secret` - (Required) (Updatable) A base64 string encoding the binary shared secret.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: `{"Department": "Finance"}`

- `name` - (Required) The name of the zone.
- `zone_type` - (Required) The type of the zone. Must be either `PRIMARY` or `SECONDARY`.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the zone.
 - `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
- Example:** `{"Operations.CostCenter": "42"}`
- `external_masters` - External master servers for the zone. `externalMasters` becomes a required parameter when the `zoneType` value is `SECONDARY`.
 - `address` - The server's IP address (IPv4 or IPv6).
 - `port` - The server's port. Port value must be a value of 53, otherwise omit the port value.
 - `tsig` - A TSIG key
 - `algorithm` - TSIG Algorithms are encoded as domain names, but most consist of only one non-empty label, which is not required to be explicitly absolute. Applicable algorithms include: `hmac-sha1`, `hmac-sha224`, `hmac-sha256`, `hmac-sha512`. For more information on these algorithms, see RFC 4635 (<https://tools.ietf.org/html/rfc4635#section-2>).
 - `name` - A domain name identifying the key for a given pair of hosts.
 - `secret` - A base64 string encoding the binary shared secret.
 - `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Department": "Finance"}

- `id` - The OCID of the zone.
- `name` - The name of the zone.
- `nameservers` - The authoritative nameservers for the zone.
 - `hostname` - The hostname of the nameserver.
- `self` - The canonical absolute URL of the resource.
- `serial` - The current serial of the zone. As seen in the zone's SOA record.
- `state` - The current state of the zone resource.
- `time_created` - The date and time the resource was created in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Example: 2016-07-22T17:23:59:60Z

- `version` - Version is the never-repeating, totally-orderable, version of the zone, from which the serial field of the zone's SOA record is derived.
- `zone_type` - The type of the zone. Must be either `PRIMARY` or `SECONDARY`.

Import

Zones can be imported using the `id`, e.g.

```
$ terraform import oci_dns_zone.test_zone "id"
```

oci_email_sender

This resource provides the Sender resource in Oracle Cloud Infrastructure Email service.

Creates a sender for a tenancy in a given compartment.

Example Usage

```
resource "oci_email_sender" "test_sender" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  email_address = "${var.sender_email_address}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains the sender.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `email_address` - (Required) The email address of the sender.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID for the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).

Example: {"Operations.CostCenter": "42"}

- `email_address` - The email address of the sender.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The unique OCID of the sender.
- `is_spf` - Value of the SPF field. For more information about SPF, please see SPF Authentication (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `state` - The current status of the approved sender.
- `time_created` - The date and time the approved sender was added in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Import

Senders can be imported using the `id`, e.g.

```
$ terraform import oci_email_sender.test_sender "id"
```

oci_email_suppression

This resource provides the Suppression resource in Oracle Cloud Infrastructure Email service.

Adds recipient email addresses to the suppression list for a tenancy. Addresses added to the suppression list via the API are denoted as "MANUAL" in the `reason` field. *Note:* All email addresses added to the suppression list are normalized to include only lowercase letters.

Example Usage

```
resource "oci_email_suppression" "test_suppression" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  email_address = "${var.suppression_email_address}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment to contain the suppression. Since suppressions are at the customer level, this must be the tenancy OCID.
- `email_address` - (Required) The recipient email address of the suppression.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment to contain the suppression. Since suppressions are at the customer level, this must be the tenancy OCID.
- `email_address` - The email address of the suppression.
- `id` - The unique OCID of the suppression.
- `reason` - The reason that the email address was suppressed. For more information on the types of bounces, see Suppression List (<https://docs.cloud.oracle.com/iaas/Content/Email/Concepts/overview.htm#components>).
- `time_created` - The date and time a recipient's email address was added to the suppression list, in "YYYY-MM-ddThh:mmZ" format with a Z offset, as defined by RFC 3339.

Import

Suppressions can be imported using the `id`, e.g.

```
$ terraform import oci_email_suppression.test_suppression "id"
```

oci_events_rule

This resource provides the Rule resource in Oracle Cloud Infrastructure Events service.

Creates a new rule.

Example Usage

```
resource "oci_events_rule" "test_rule" {  
  #Required  
  actions {  
    #Required  
    actions {  
      #Required  
      action_type = "${var.rule_actions_actions_action_type}"  
      is_enabled = "${var.rule_actions_actions_is_enabled}"  
  
      #Optional  
      description = "${var.rule_actions_actions_description}"  
      function_id = "${oci_functions_function.test_function.id}"  
      stream_id = "${oci_streaming_stream.test_stream.id}"  
      topic_id = "${oci_ons_notification_topic.test_topic.id}"  
    }  
  }  
  compartment_id = "${var.compartment_id}"  
  condition = "${var.rule_condition}"  
  display_name = "${var.rule_display_name}"  
  is_enabled = "${var.rule_is_enabled}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  description = "${var.rule_description}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- **actions** - (Required) (Updatable)
 - **actions** - (Required) (Updatable) A list of one or more ActionDetails objects.
 - **action_type** - (Required) (Updatable) The action to perform if the condition in the rule matches an event.
 - **ONS**: Send to an Oracle Notification Service topic.
 - **OSS**: Send to a stream from Oracle Streaming Service.
 - **FAAS**: Send to an Oracle Functions Service endpoint.
 - **description** - (Optional) (Updatable) A string that describes the details of the action. It does not have to be unique, and you can change it. Avoid entering confidential information.

- `function_id` - (Applicable when `action_type=FAAS`) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of a Function hosted by Oracle Functions Service.
- `is_enabled` - (Required) (Updatable) Whether or not this action is currently enabled. Example: `true`
- `stream_id` - (Required when `action_type=OSS`) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the stream to which messages are delivered.
- `topic_id` - (Applicable when `action_type=ONS`) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic to which messages are delivered.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this rule belongs.
- `condition` - (Required) (Updatable) A filter that specifies the event that will trigger actions associated with this rule. A few important things to remember about filters:
 - Fields not mentioned in the condition are ignored. You can create a valid filter that matches all events with two curly brackets: `{ }`

For more examples, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>).

* For a condition with fields to match an event, the event must contain all the field names listed in the condition. Field names must appear in the condition with the same nesting structure used in the event.

For a list of reference events, see [Services that Produce Events](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Reference/eventsproducers.htm>).

* Rules apply to events in the compartment in which you create them and any child compartments. This means that a condition specified by a rule only matches events emitted from resources in the compartment or any of its child compartments. * The condition is a string value in a JSON object, but numbers in conditions are converted from strings to numbers before they are evaluated for matches. This means that 100, 100.0 or 1.0e2 are all considered equal. * Boolean values are converted to numbers and then evaluated. This means `true` and `True` are considered equal, as are `False` and `false`. * Wildcard matching is supported with the asterisk (*) character.

For examples of wildcard matching, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>)

Example: `\ "eventType\": \ "com.oraclecloud.databaseservice.autonomous.database.backup.end\ "`

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{ "Operations.CostCenter": "42" }`
- `description` - (Optional) (Updatable) A string that describes the details of the rule. It does not have to be unique, and you can change it. Avoid entering confidential information.
- `display_name` - (Required) (Updatable) A string that describes the rule. It does not have to be unique, and you can change it. Avoid entering confidential information.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `is_enabled` - (Required) (Updatable) Whether or not this rule is currently enabled. Example: `true`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `actions` -
 - `actions` - A list of one or more Action objects.
 - `action_type` - The action to perform if the condition in the rule matches an event.
 - **ONS**: Send to an Oracle Notification Service topic.
 - **OSS**: Send to a stream from Oracle Streaming Service.
 - **FAAS**: Send to an Oracle Functions Service endpoint.
 - `description` - A string that describes the details of the action. It does not have to be unique, and you can change it. Avoid entering confidential information.
 - `function_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of a Function hosted by Oracle Functions Service.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the action.
 - `lifecycle_message` - A message generated by the Events service about the current state of this rule.
 - `state` - The current state of the rule.
 - `stream_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the stream to which messages are delivered.
 - `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic to which messages are delivered.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to which this rule belongs.
- `condition` - A filter that specifies the event that will trigger actions associated with this rule. A few important things to remember about filters:
 - Fields not mentioned in the condition are ignored. You can create a valid filter that matches all events with two curly brackets: `{ }`

For more examples, see Matching Events with Filters

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>).

* For a condition with fields to match an event, the event must contain all the field names listed in the condition. Field

names must appear in the condition with the same nesting structure used in the event.

For a list of reference events, see [Services that Produce Events](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Reference/eventsproducers.htm>).

* Rules apply to events in the compartment in which you create them and any child compartments. This means that a condition specified by a rule only matches events emitted from resources in the compartment or any of its child compartments. * The condition is a string value in a JSON object, but numbers in conditions are converted from strings to numbers before they are evaluated for matches. This means that 100, 100.0 or 1.0e2 are all considered equal. * Boolean values are converted to numbers and then evaluated. This means true and True are considered equal, as are False and false. * Wildcard matching is supported with the asterisk (*) character.

For examples of wildcard matching, see [Matching Events with Filters](#)

(<https://docs.cloud.oracle.com/iaas/Content/Events/Concepts/filterevents.htm>)

Example: `\ "eventType\: \ "com.oraclecloud.databaseservice.autonomous.database.backup.end\ "`

- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{ "Operations.CostCenter": "42" }`
- **description** - A string that describes the details of the rule. It does not have to be unique, and you can change it. Avoid entering confidential information.
- **display_name** - A string that describes the rule. It does not have to be unique, and you can change it. Avoid entering confidential information. Example: `"This rule sends a notification upon completion of DbaaS backup."`
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{ "Department": "Finance" }`
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this rule.
- **is_enabled** - Whether or not this rule is currently enabled. Example: `true`
- **lifecycle_message** - A message generated by the Events service about the current state of this rule.
- **state** - The current state of the rule.
- **time_created** - The time this rule was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`

Import

Rules can be imported using the `id`, e.g.

```
$ terraform import oci_events_rule.test_rule "id"
```

oci_file_storage_export

This resource provides the Export resource in Oracle Cloud Infrastructure File Storage service.

Creates a new export in the specified export set, path, and file system.

Example Usage

```
resource "oci_file_storage_export" "test_export" {  
  #Required  
  export_set_id = "${oci_file_storage_export_set.test_export_set.id}"  
  file_system_id = "${oci_file_storage_file_system.test_file_system.id}"  
  path = "${var.export_path}"  
  
  #Optional  
  export_options {  
    #Required  
    source = "${var.export_export_options_source}"  
  
    #Optional  
    access = "${var.export_export_options_access}"  
    anonymous_gid = "${var.export_export_options_anonymous_gid}"  
    anonymous_uid = "${var.export_export_options_anonymous_uid}"  
    identity_squash = "${var.export_export_options_identity_squash}"  
    require_privileged_source_port = "${var.export_export_options_require_privileged_source_port}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `export_options` - (Optional) (Updatable) Export options for the new export. If left unspecified, defaults to:

`[]`

Note: Mount targets do not have Internet-routable IP addresses. Therefore they will not be reachable from the Internet, even if an associated `ClientOptions` item has a source of `0.0.0.0/0`.

If set to the empty array then the export will not be visible to any clients.

The export's `exportOptions` can be changed after creation using the `UpdateExport` operation.

- `access` - (Optional) (Updatable) Type of access to grant clients using the file system through this export. If unspecified defaults to `READ_ONLY`.
- `anonymous_gid` - (Optional) (Updatable) GID value to remap to when squashing a client GID (see `identitySquash` for more details.) If unspecified defaults to `65534`.
- `anonymous_uid` - (Optional) (Updatable) UID value to remap to when squashing a client UID (see `identitySquash` for more details.) If unspecified, defaults to `65534`.

- `identity_squash` - (Optional) (Updatable) Used when clients accessing the file system through this export have their UID and GID remapped to 'anonymousUid' and 'anonymousGid'. If `ALL`, all users and groups are remapped; if `ROOT`, only the root user and group (UID/GID 0) are remapped; if `NONE`, no remapping is done. If unspecified, defaults to `ROOT`.
- `require_privileged_source_port` - (Optional) (Updatable) If `true`, clients accessing the file system through this export must connect from a privileged source port. If unspecified, defaults to `true`.
- `source` - (Required) (Updatable) Clients these options should apply to. Must be a either single IPv4 address or single IPv4 CIDR block.

Note: Access will also be limited by any applicable VCN security rules and the ability to route IP packets to the mount target. Mount targets do not have Internet-routable IP addresses.

- `export_set_id` - (Required) The OCID of this export's export set.
- `file_system_id` - (Required) The OCID of this export's file system.
- `path` - (Required) Path used to access the associated file system.

Avoid entering confidential information.

Example: `/mediafiles`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `export_options` - Policies that apply to NFS requests made through this export. `exportOptions` contains a sequential list of `ClientOptions`. Each `ClientOptions` item defines the export options that are applied to a specified set of clients.

For each NFS request, the first `ClientOptions` option in the list whose `source` attribute matches the source IP address of the request is applied.

If a client source IP address does not match the `source` property of any `ClientOptions` in the list, then the export will be invisible to that client. This export will not be returned by `MOUNTPROC_EXPORT` calls made by the client and any attempt to mount or access the file system through this export will result in an error.

Exports without defined `ClientOptions` are invisible to all clients.

If one export is invisible to a particular client, associated file systems may still be accessible through other exports on the same or different mount targets. To completely deny client access to a file system, be sure that the client source IP address is not included in any export for any mount target associated with the file system.

- `access` - Type of access to grant clients using the file system through this export. If unspecified defaults to `READ_ONLY`.
- `anonymous_gid` - GID value to remap to when squashing a client GID (see `identitySquash` for more details.) If unspecified defaults to `65534`.

- `anonymous_uid` - UID value to remap to when squashing a client UID (see `identitySquash` for more details.) If unspecified, defaults to `65534`.
- `identity_squash` - Used when clients accessing the file system through this export have their UID and GID remapped to 'anonymousUid' and 'anonymousGid'. If `ALL`, all users and groups are remapped; if `ROOT`, only the root user and group (UID/GID 0) are remapped; if `NONE`, no remapping is done. If unspecified, defaults to `ROOT`.
- `require_privileged_source_port` - If `true`, clients accessing the file system through this export must connect from a privileged source port. If unspecified, defaults to `true`.
- `source` - Clients these options should apply to. Must be a either single IPv4 address or single IPv4 CIDR block.

Note: Access will also be limited by any applicable VCN security rules and the ability to route IP packets to the mount target. Mount targets do not have Internet-routable IP addresses.

- `export_set_id` - The OCID of this export's export set.
- `file_system_id` - The OCID of this export's file system.
- `id` - The OCID of this export.
- `path` - Path used to access the associated file system.

Avoid entering confidential information.

Example: `/accounting`

- `state` - The current state of this export.
- `time_created` - The date and time the export was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Import

Exports can be imported using the `id`, e.g.

```
$ terraform import oci_file_storage_export.test_export "id"
```

oci_file_storage_export_set

This resource provides the Export Set resource in Oracle Cloud Infrastructure File Storage service.

The export set resource can neither be directly created, nor destroyed.

An export set is created by the service automatically when a mount target is created. When a mount target is deleted, the export set associated with it is also deleted automatically.

However, export sets expose a few attributes that can be updated.

Hence we provide this resource for managing the already created export set from within Terraform. Only one export set resource should be created per mount target.

Example Usage

```
resource "oci_file_storage_export_set" "test_export_set" {  
  #Required  
  mount_target_id = "${oci_file_storage_mount_target.test_mount_target.id}"  
  
  #Optional  
  display_name = "${var.export_set_name}"  
  max_fs_stat_bytes = 23843202333  
  max_fs_stat_files = 223442  
}
```

Argument Reference

The following arguments are supported:

- `mount_target_id` - (Required) (Updatable) The OCID of the mount target that the export set is associated with
- `display_name` - (Optional) (Updatable) A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My export set`
- `max_fs_stat_bytes` - (Optional) (Updatable) Controls the maximum `tbytes`, `fbytes`, and `abytes` values reported by `NFS FSSTAT` calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tbytes` value reported by `FSSTAT` will be `maxFsStatBytes`. The value of `fbytes` and `abytes` will be `maxFsStatBytes` minus the metered size of the file system. If the metered size is larger than `maxFsStatBytes`, then `fbytes` and `abytes` will both be '0'.
- `max_fs_stat_files` - (Optional) (Updatable) Controls the maximum `tfiles`, `ffiles`, and `afiles` values reported by `NFS FSSTAT` calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tfiles` value reported by `FSSTAT` will be `maxFsStatFiles`. The value of `ffiles` and `afiles` will be `maxFsStatFiles` minus the metered size of the file system. If the metered size is larger than `maxFsStatFiles`, then `ffiles` and `afiles` will both be '0'.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain the export set is in. May be unset as a blank or NULL value. Example: `Uocm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the export set.
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My export set`
- `id` - The OCID of the export set.
- `max_fs_stat_bytes` - Controls the maximum `tbytes`, `fbytes`, and `abytes`, values reported by NFS FSSTAT calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tbytes` value reported by FSSTAT will be `maxFsStatBytes`. The value of `fbytes` and `abytes` will be `maxFsStatBytes` minus the metered size of the file system. If the metered size is larger than `maxFsStatBytes`, then `fbytes` and `abytes` will both be '0'.
- `max_fs_stat_files` - Controls the maximum `tfiles`, `ffiles`, and `afiles` values reported by NFS FSSTAT calls through any associated mount targets. This is an advanced feature. For most applications, use the default value. The `tfiles` value reported by FSSTAT will be `maxFsStatFiles`. The value of `ffiles` and `afiles` will be `maxFsStatFiles` minus the metered size of the file system. If the metered size is larger than `maxFsStatFiles`, then `ffiles` and `afiles` will both be '0'.
- `state` - The current state of the export set.
- `time_created` - The date and time the export set was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`
- `vcn_id` - The OCID of the virtual cloud network (VCN) the export set is in.

Import

ExportSets can be imported using the `id`, e.g.

```
$ terraform import oci_file_storage_export_set.test_export_set "id"
```

oci_file_storage_file_system

This resource provides the File System resource in Oracle Cloud Infrastructure File Storage service.

Creates a new file system in the specified compartment and availability domain. Instances can mount file systems in another availability domain, but doing so might increase latency when compared to mounting instances in the same availability domain.

After you create a file system, you can associate it with a mount target. Instances can then mount the file system by connecting to the mount target's IP address. You can associate a file system with more than one mount target at a time.

For information about access control and compartments, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

For information about availability domains, see [Regions and Availability Domains](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>). To get a list of availability domains, use the `ListAvailabilityDomains` operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure resources, including file systems, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type or by viewing the resource in the Console.

Example Usage

```
resource "oci_file_storage_file_system" "test_file_system" {  
  #Required  
  availability_domain = "${var.file_system_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.file_system_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
  kms_key_id = "${oci_kms_key.test_key.id}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain to create the file system in. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) (Updatable) The OCID of the compartment to create the file system in.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`

- `display_name` - (Optional) (Updatable) A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My file system`
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - (Optional) (Updatable) The OCID of KMS key used to encrypt the encryption keys associated with this file system. May be unset as a blank or deleted from the configuration to remove the KMS key.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `availability_domain` - The availability domain the file system is in. May be unset as a blank or NULL value. Example: `Ucm:PHX-AD-1`
- `compartment_id` - The OCID of the compartment that contains the file system.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My file system`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the file system.
- `kms_key_id` - The OCID of KMS key used to encrypt the encryption keys associated with this file system.
- `metered_bytes` - The number of bytes consumed by the file system, including any snapshots. This number reflects the metered size of the file system and is updated asynchronously with respect to updates to the file system.
- `state` - The current state of the file system.
- `time_created` - The date and time the file system was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Import

FileSystems can be imported using the `id` , e.g.

```
$ terraform import oci_file_storage_file_system.test_file_system "id"
```

oci_file_storage_mount_target

This resource provides the Mount Target resource in Oracle Cloud Infrastructure File Storage service.

Creates a new mount target in the specified compartment and subnet. You can associate a file system with a mount target only when they exist in the same availability domain. Instances can connect to mount targets in another availability domain, but you might see higher latency than with instances in the same availability domain as the mount target.

Mount targets have one or more private IP addresses that you can provide as the host portion of remote target parameters in client mount commands. These private IP addresses are listed in the `privateIps` property of the mount target and are highly available. Mount targets also consume additional IP addresses in their subnet. Do not use /30 or smaller subnets for mount target creation because they do not have sufficient available IP addresses. Allow at least three IP addresses for each mount target.

For information about access control and compartments, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

For information about availability domains, see [Regions and Availability Domains](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>). To get a list of availability domains, use the `ListAvailabilityDomains` operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure Services resources, including mount targets, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console.

Example Usage

```
resource "oci_file_storage_mount_target" "test_mount_target" {  
  #Required  
  availability_domain = "${var.mount_target_availability_domain}"  
  compartment_id = "${var.compartment_id}"  
  subnet_id = "${oci_core_subnet.test_subnet.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  display_name = "${var.mount_target_display_name}"  
  freeform_tags = {"Department" = "Finance"}  
  hostname_label = "${var.mount_target_hostname_label}"  
  ip_address = "${var.mount_target_ip_address}"  
}
```

Argument Reference

The following arguments are supported:

- `availability_domain` - (Required) The availability domain in which to create the mount target. Example: `Uocm:PHX-AD-1`
- `compartment_id` - (Required) (Updatable) The OCID of the compartment in which to create the mount target.

- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **display_name** - (Optional) (Updatable) A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My mount target`
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **hostname_label** - (Optional) The hostname for the mount target's IP address, used for DNS resolution. The value is the hostname portion of the private IP address's fully qualified domain name (FQDN). For example, `files-1` in the FQDN `files-1.subnet123.vcn1.oraclevcn.com`. Must be unique across all VNICs in the subnet and comply with RFC 952 (<https://tools.ietf.org/html/rfc952>) and RFC 1123 (<https://tools.ietf.org/html/rfc1123>).

For more information, see DNS in Your Virtual Cloud Network

(<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/dns.htm>).

Example: `files-1`

- **ip_address** - (Optional) A private IP address of your choice. Must be an available IP address within the subnet's CIDR. If you don't specify a value, Oracle automatically assigns a private IP address from the subnet. Example: `10.0.3.3`
- **subnet_id** - (Required) The OCID of the subnet in which to create the mount target.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **availability_domain** - The availability domain the mount target is in. May be unset as a blank or NULL value. Example: `Uocm:PHX-AD-1`
- **compartment_id** - The OCID of the compartment that contains the mount target.
- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- **display_name** - A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `My mount target`
- **export_set_id** - The OCID of the associated export set. Controls what file systems will be exported through Network File System (NFS) protocol on this mount target.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

"Finance"}

- `id` - The OCID of the mount target.
- `lifecycle_details` - Additional information about the current 'lifecycleState'.
- `private_ip_ids` - The OCIDs of the private IP addresses associated with this mount target.
- `state` - The current state of the mount target.
- `subnet_id` - The OCID of the subnet the mount target is in.
- `time_created` - The date and time the mount target was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: 2016-08-25T21:10:29.600Z

Import

MountTargets can be imported using the `id`, e.g.

```
$ terraform import oci_file_storage_mount_target.test_mount_target "id"
```

oci_file_storage_snapshot

This resource provides the Snapshot resource in Oracle Cloud Infrastructure File Storage service.

Creates a new snapshot of the specified file system. You can access the snapshot at `.snapshot/<name>`.

Example Usage

```
resource "oci_file_storage_snapshot" "test_snapshot" {  
  #Required  
  file_system_id = "${oci_file_storage_file_system.test_file_system.id}"  
  name = "${var.snapshot_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `file_system_id` - (Required) The OCID of the file system to take a snapshot of.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) Name of the snapshot. This value is immutable. It must also be unique with respect to all other non-DELETED snapshots on the associated file system.

Avoid entering confidential information.

Example: Sunday

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `file_system_id` - The OCID of the file system from which the snapshot was created.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the snapshot.
- `name` - Name of the snapshot. This value is immutable.

Avoid entering confidential information.

Example: Sunday

- `state` - The current state of the snapshot.
- `time_created` - The date and time the snapshot was created, expressed in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2016-08-25T21:10:29.600Z`

Import

Snapshots can be imported using the `id`, e.g.

```
$ terraform import oci_file_storage_snapshot.test_snapshot "id"
```

oci_functions_application

This resource provides the Application resource in Oracle Cloud Infrastructure Functions service.

Creates a new application.

Example Usage

```
resource "oci_functions_application" "test_application" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.application_display_name}"  
  subnet_ids = "${var.application_subnet_ids}"  
  
  #Optional  
  config = "${var.application_config}"  
  defined_tags = {"Operations.CostCenter" = "42"}  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment to create the application within.
- `config` - (Optional) (Updatable) Application configuration. These values are passed on to the function as environment variables, functions may override application configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: {"MY_FUNCTION_CONFIG": "ConfVal"}

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - (Required) The display name of the application. The display name must be unique within the compartment containing the application. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `subnet_ids` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>)s of the subnets in which to run functions in the application.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the application.
- `config` - Application configuration for functions in this application (passed as environment variables). Can be overridden by function configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: `{"MY_FUNCTION_CONFIG": "ConfVal"}`

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The display name of the application. The display name is unique within the compartment containing the application.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the application.
- `state` - The current state of the application.
- `subnet_ids` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>)s of the subnets in which to run functions in the application.
- `time_created` - The time the application was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`
- `time_updated` - The time the application was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-09-12T22:47:12.613Z`

Import

Applications can be imported using the `id`, e.g.

```
$ terraform import oci_functions_application.test_application "id"
```

oci_functions_function

This resource provides the Function resource in Oracle Cloud Infrastructure Functions service.

Creates a new function.

NOTE: Terraform will take 40 minutes after destroying a function due to a known service issue. Refer here (<https://docs.cloud.oracle.com/iaas/Content/Functions/Tasks/functionsdeleting.htm>)

Example Usage

```
resource "oci_functions_function" "test_function" {  
  #Required  
  application_id = "${oci_functions_application.test_application.id}"  
  display_name = "${var.function_display_name}"  
  image = "${var.function_image}"  
  memory_in_mbs = "${var.function_memory_in_mbs}"  
  
  #Optional  
  config = "${var.function_config}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  image_digest = "${var.function_image_digest}"  
  timeout_in_seconds = "${var.function_timeout_in_seconds}"  
}
```

Argument Reference

The following arguments are supported:

- `application_id` - (Required) The OCID of the application this function belongs to.
- `config` - (Optional) (Updatable) Function configuration. These values are passed on to the function as environment variables, this overrides application configuration values. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: {"MY_FUNCTION_CONFIG": "ConfVal"}

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - (Required) The display name of the function. The display name must be unique within the application containing the function. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- **image** - (Required) (Updatable) The qualified name of the Docker image to use in the function, including the image tag. The image should be in the Oracle Cloud Infrastructure Registry that is in the same region as the function itself. Example: `phx.ocir.io/ten/functions/function:0.0.1`
- **image_digest** - (Optional) (Updatable) The image digest for the version of the image that will be pulled when invoking this function. If no value is specified, the digest currently associated with the image in the Oracle Cloud Infrastructure Registry will be used. Example: `sha256:ca0eeb6fb05351dfc8759c20733c91def84cb8007aa89a5bf606bc8b315b9fc7`
- **memory_in_mbs** - (Required) (Updatable) Maximum usable memory for the function (MiB).
- **timeout_in_seconds** - (Optional) (Updatable) Timeout for executions of the function. Value in seconds.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **application_id** - The OCID of the application the function belongs to.
- **compartment_id** - The OCID of the compartment that contains the function.
- **config** - Function configuration. Overrides application configuration. Keys must be ASCII strings consisting solely of letters, digits, and the '_' (underscore) character, and must not begin with a digit. Values should be limited to printable unicode characters. Example: {"MY_FUNCTION_CONFIG": "ConfVal"}

The maximum size for all configuration keys and values is limited to 4KB. This is measured as the sum of octets necessary to represent each key and value in UTF-8.

- **defined_tags** - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- **display_name** - The display name of the function. The display name is unique within the application containing the function.
- **freeform_tags** - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the function.
- **image** - The qualified name of the Docker image to use in the function, including the image tag. The image should be in the Oracle Cloud Infrastructure Registry that is in the same region as the function itself. Example: `phx.ocir.io/ten/functions/function:0.0.1`
- **image_digest** - The image digest for the version of the image that will be pulled when invoking this function. If no value is specified, the digest currently associated with the image in the Oracle Cloud Infrastructure Registry will be used. Example: `sha256:ca0eeb6fb05351dfc8759c20733c91def84cb8007aa89a5bf606bc8b315b9fc7`

- `invoke_endpoint` - The base https invoke URL to set on a client in order to invoke a function. This URL will never change over the lifetime of the function and can be cached.
- `memory_in_mbs` - Maximum usable memory for the function (MiB).
- `state` - The current state of the function.
- `time_created` - The time the function was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2018-09-12T22:47:12.613Z
- `time_updated` - The time the function was updated, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2018-09-12T22:47:12.613Z
- `timeout_in_seconds` - Timeout for executions of the function. Value in seconds.

Import

Functions can be imported using the `id`, e.g.

```
$ terraform import oci_functions_function.test_function "id"
```

oci_functions_invoke_function

This resource provides the Invoke Function resource in Oracle Cloud Infrastructure Functions service.

Invokes a function

Example Usage

```
resource "oci_functions_invoke_function" "test_invoke_function" {  
  #Required  
  function_id = "${oci_functions_function.test_function.id}"  
  
  #Optional  
  invoke_function_body = "${var.invoke_function_invoke_function_body}"  
  fn_intent = "${var.invoke_function_fn_intent}"  
  fn_invoke_type = "${var.invoke_function_fn_invoke_type}"  
  base64_encode_content = false  
}
```

Argument Reference

The following arguments are supported:

- `base64_encode_content` - (Optional) Encodes the response returned, if any, in base64. It is recommended to set this to `true` to avoid corrupting the returned response, if any, in Terraform state. The default value is `false`.
- `invoke_function_body` - (Optional) The body of the function invocation. Note: The maximum size of the request is limited. This limit is currently 6MB and the endpoint will not accept requests that are bigger than this limit. Cannot be defined if `input_body_source_path` or `invoke_function_body_base64_encoded` is defined.
- `fn_intent` - (Optional) An optional intent header that indicates to the FDK the way the event should be interpreted. E.g. 'httprequest', 'cloudevent'.
- `fn_invoke_type` - (Optional) Indicates whether the functions platform should execute the request directly and return the result ('sync') or whether the platform should enqueue the request for later processing and acknowledge that it has been processed ('detached').
- `function_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of this function.
- `invoke_function_body_base64_encoded` - (Optional) The Base64 encoded body of the function invocation. Base64 encoded input avoids corruption in Terraform state. Cannot be defined if `invoke_function_body` or `input_body_source_path` is defined. Note: The maximum size of the request is limited. This limit is currently 6MB and the endpoint will not accept requests that are bigger than this limit.
- `input_body_source_path` - (Optional) An absolute path to a file on the local system that contains the input to be provided to the function. Cannot be defined if `invoke_function_body` or `invoke_function_body_base64_encoded` is defined. Note: The maximum size of the request is limited. This limit is currently 6MB and the endpoint will not accept requests that are bigger than this limit.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `content` - Content of the response string, if any. If `base64_encode_content` is set to `true`, then this content will be base64 encoded.

Import

Import is not supported for this resource.

oci_health_checks_http_monitor

This resource provides the Http Monitor resource in Oracle Cloud Infrastructure Health Checks service.

Creates an HTTP monitor. Vantage points will be automatically selected if not specified, and probes will be initiated from each vantage point to each of the targets at the frequency specified by `intervalInSeconds`.

Example Usage

```
resource "oci_health_checks_http_monitor" "test_http_monitor" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.http_monitor_display_name}"  
  interval_in_seconds = "${var.http_monitor_interval_in_seconds}"  
  protocol = "${var.http_monitor_protocol}"  
  targets = "${var.http_monitor_targets}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  headers = "${var.http_monitor_headers}"  
  is_enabled = "${var.http_monitor_is_enabled}"  
  method = "${var.http_monitor_method}"  
  path = "${var.http_monitor_path}"  
  port = "${var.http_monitor_port}"  
  timeout_in_seconds = "${var.http_monitor_timeout_in_seconds}"  
  vantage_point_names = "${var.http_monitor_vantage_point_names}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Required) (Updatable) A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `headers` - (Optional) (Updatable) A dictionary of HTTP request headers.

Note: Monitors and probes do not support the use of the `Authorization` HTTP header.

- `interval_in_seconds` - (Required) (Updatable) The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - (Optional) (Updatable) Enables or disables the monitor. Set to 'true' to launch monitoring.
- `method` - (Optional) (Updatable) The supported HTTP methods available for probes.
- `path` - (Optional) (Updatable) The optional URL path to probe, including query parameters.
- `port` - (Optional) (Updatable) The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - (Required) (Updatable) The supported protocols available for HTTP probes.
- `targets` - (Required) (Updatable) A list of targets (hostnames or IP addresses) of the probe.
- `timeout_in_seconds` - (Optional) (Updatable) The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - (Optional) (Updatable) A list of names of vantage points from which to execute the probe.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `headers` - A dictionary of HTTP request headers.

Note: Monitors and probes do not support the use of the `Authorization` HTTP header.
- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.
- `method` - The supported HTTP methods available for probes.
- `path` - The optional URL path to probe, including query parameters.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.

- `protocol` - The supported protocols available for HTTP probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Import

HttpMonitors can be imported using the `id`, e.g.

```
$ terraform import oci_health_checks_http_monitor.test_http_monitor "id"
```

oci_health_checks_http_probe

This resource provides the Http Probe resource in Oracle Cloud Infrastructure Health Checks service.

Creates an on-demand HTTP probe. The location response header contains the URL for fetching the probe results.

Note: On-demand probe configurations are not saved.

Example Usage

```
resource "oci_health_checks_http_probe" "test_http_probe" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  protocol = "${var.http_probe_protocol}"  
  targets = "${var.http_probe_targets}"  
  
  #Optional  
  headers = "${var.http_probe_headers}"  
  method = "${var.http_probe_method}"  
  path = "${var.http_probe_path}"  
  port = "${var.http_probe_port}"  
  timeout_in_seconds = "${var.http_probe_timeout_in_seconds}"  
  vantage_point_names = "${var.http_probe_vantage_point_names}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `headers` - (Optional) A dictionary of HTTP request headers.

Note: Monitors and probes do not support the use of the `Authorization` HTTP header.

- `method` - (Optional) The supported HTTP methods available for probes.
- `path` - (Optional) The optional URL path to probe, including query parameters.
- `port` - (Optional) The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - (Required) The supported protocols available for HTTP probes.
- `targets` - (Required) A list of targets (hostnames or IP addresses) of the probe.
- `timeout_in_seconds` - (Optional) The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - (Optional) A list of names of vantage points from which to execute the probe.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `headers` - A dictionary of HTTP request headers.
Note: Monitors and probes do not support the use of the `Authorization` HTTP header.
- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `method` - The supported HTTP methods available for probes.
- `path` - The optional URL path to probe, including query parameters.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The supported protocols available for HTTP probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Import

HttpProbes can be imported using the `id`, e.g.

```
$ terraform import oci_health_checks_http_probe.test_http_probe "id"
```


oci_health_checks_ping_monitor

This resource provides the Ping Monitor resource in Oracle Cloud Infrastructure Health Checks service.

Creates a ping monitor. Vantage points will be automatically selected if not specified, and probes will be initiated from each vantage point to each of the targets at the frequency specified by `intervalInSeconds`.

Example Usage

```
resource "oci_health_checks_ping_monitor" "test_ping_monitor" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.ping_monitor_display_name}"  
  interval_in_seconds = "${var.ping_monitor_interval_in_seconds}"  
  protocol = "${var.ping_monitor_protocol}"  
  targets = "${var.ping_monitor_targets}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  is_enabled = "${var.ping_monitor_is_enabled}"  
  port = "${var.ping_monitor_port}"  
  timeout_in_seconds = "${var.ping_monitor_timeout_in_seconds}"  
  vantage_point_names = "${var.ping_monitor_vantage_point_names}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Required) (Updatable) A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `interval_in_seconds` - (Required) (Updatable) The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - (Optional) (Updatable) Enables or disables the monitor. Set to 'true' to launch monitoring.
- `port` - (Optional) (Updatable) The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.

- `protocol` - (Required) (Updatable) The protocols for ping probes.
- `targets` - (Required) (Updatable) A list of targets (hostnames or IP addresses) of the probe.
- `timeout_in_seconds` - (Optional) (Updatable) The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - (Optional) (Updatable) A list of names of vantage points from which to execute the probe.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly and mutable name suitable for display in a user interface.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `interval_in_seconds` - The monitor interval in seconds. Valid values: 10, 30, and 60.
- `is_enabled` - Enables or disables the monitor. Set to 'true' to launch monitoring.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The protocols for ping probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Import

PingMonitors can be imported using the `id` , e.g.

```
$ terraform import oci_health_checks_ping_monitor.test_ping_monitor "id"
```

oci_health_checks_ping_probe

This resource provides the Ping Probe resource in Oracle Cloud Infrastructure Health Checks service.

Creates an on-demand ping probe. The location response header contains the URL for fetching probe results.

Note: The on-demand probe configuration is not saved.

Example Usage

```
resource "oci_health_checks_ping_probe" "test_ping_probe" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  protocol = "${var.ping_probe_protocol}"  
  targets = "${var.ping_probe_targets}"  
  
  #Optional  
  port = "${var.ping_probe_port}"  
  timeout_in_seconds = "${var.ping_probe_timeout_in_seconds}"  
  vantage_point_names = "${var.ping_probe_vantage_point_names}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `port` - (Optional) The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - (Required) The protocols for ping probes.
- `targets` - (Required) A list of targets (hostnames or IP addresses) of the probe.
- `timeout_in_seconds` - (Optional) The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - (Optional) A list of names of vantage points from which to execute the probe.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment.

- `home_region` - The region where updates must be made and where results must be fetched from.
- `id` - The OCID of the resource.
- `port` - The port on which to probe endpoints. If unspecified, probes will use the default port of their protocol.
- `protocol` - The protocols for ping probes.
- `results_url` - A URL for fetching the probe results.
- `targets` - A list of targets (hostnames or IP addresses) of the probe.
- `time_created` - The RFC 3339-formatted creation date and time of the probe.
- `timeout_in_seconds` - The probe timeout in seconds. Valid values: 10, 20, 30, and 60. The probe timeout must be less than or equal to `intervalInSeconds` for monitors.
- `vantage_point_names` - A list of names of vantage points from which to execute the probe.

Import

PingProbes can be imported using the `id`, e.g.

```
$ terraform import oci_health_checks_ping_probe.test_ping_probe "id"
```

oci_identity_api_key

This resource provides the Api Key resource in Oracle Cloud Infrastructure Identity service.

Uploads an API signing key for the specified user.

Every user has permission to use this operation to upload a key for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to upload a key for any user, including themselves.

Important: Even though you have permission to upload an API key, you might not yet have permission to do much else. If you try calling an operation unrelated to your own credential management (e.g., `ListUsers` , `LaunchInstance`) and receive an "unauthorized" error, check with an administrator to confirm which IAM Service group(s) you're in and what access you have. Also confirm you're working in the correct compartment.

Example Usage

```
resource "oci_identity_api_key" "test_api_key" {  
  #Required  
  key_value = "${var.api_key_key_value}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `key_value` - (Required) The public key. Must be an RSA key in PEM format.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `fingerprint` - The key's fingerprint (e.g., 12:34:56:78:90:ab:cd:ef:12:34:56:78:90:ab:cd:ef).
- `id` - An Oracle-assigned identifier for the key, in this format: TENANCY_OCID/USER_OCID/KEY_FINGERPRINT.
- `inactive_status` - The detailed status of INACTIVE lifecycleState.
- `key_value` - The key's value.
- `state` - The API key's current state.
- `time_created` - Date and time the `ApiKey` object was created, in the format defined by RFC3339. Example: 2016-

08-25T21:10:29.600Z

- `user_id` - The OCID of the user the key belongs to.

Import

Import is not supported for this resource.

oci_identity_authentication_policy

This resource provides the Authentication Policy resource in Oracle Cloud Infrastructure Identity service.

Updates authentication policy for the specified tenancy

Example Usage

```
resource "oci_identity_authentication_policy" "test_authentication_policy" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  
  #Optional  
  password_policy {  
  
    #Optional  
    is_lowercase_characters_required = "${var.authentication_policy_password_policy_is_lowercase_characters_required}"  
    is_numeric_characters_required = "${var.authentication_policy_password_policy_is_numeric_characters_required}"  
    is_special_characters_required = "${var.authentication_policy_password_policy_is_special_characters_required}"  
    is_uppercase_characters_required = "${var.authentication_policy_password_policy_is_uppercase_characters_required}"  
    is_username_containment_allowed = "${var.authentication_policy_password_policy_is_username_containment_allowed}"  
    minimum_password_length = "${var.authentication_policy_password_policy_minimum_password_length}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment.
- `password_policy` - (Optional) (Updatable) Password policy.
 - `is_lowercase_characters_required` - (Optional) (Updatable) At least one lower case character required.
 - `is_numeric_characters_required` - (Optional) (Updatable) At least one numeric character required.
 - `is_special_characters_required` - (Optional) (Updatable) At least one special character required.
 - `is_uppercase_characters_required` - (Optional) (Updatable) At least one uppercase character required.
 - `is_username_containment_allowed` - (Optional) (Updatable) User name is allowed to be part of the password.
 - `minimum_password_length` - (Optional) (Updatable) Minimum password length required.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - Compartment OCID.
- `password_policy` - Password policy.
 - `is_lowercase_characters_required` - At least one lower case character required.
 - `is_numeric_characters_required` - At least one numeric character required.
 - `is_special_characters_required` - At least one special character required.
 - `is_uppercase_characters_required` - At least one uppercase character required.
 - `is_username_containment_allowed` - User name is allowed to be part of the password.
 - `minimum_password_length` - Minimum password length required.

Import

AuthenticationPolicies can be imported using the `id`, e.g.

```
$ terraform import oci_identity_authentication_policy.test_authentication_policy "authenticationPolicies/{compartmentId}"
```

oci_identity_auth_token

This resource provides the Auth Token resource in Oracle Cloud Infrastructure Identity service.

Creates a new auth token for the specified user. For information about what auth tokens are for, see [Managing User Credentials](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm>).

You must specify a *description* for the auth token (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateAuthToken` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/AuthToken/UpdateAuthToken>).

Every user has permission to create an auth token for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to create an auth token for any user, including themselves.

Example Usage

```
resource "oci_identity_auth_token" "test_auth_token" {  
  #Required  
  description = "${var.auth_token_description}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `description` - (Required) (Updatable) The description you assign to the auth token during creation. Does not have to be unique, and it's changeable.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `description` - The description you assign to the auth token. Does not have to be unique, and it's changeable.
- `id` - The OCID of the auth token.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The token's current state.
- `time_created` - Date and time the `AuthToken` object was created, in the format defined by RFC3339. Example:

2016-08-25T21:10:29.600Z

- `time_expires` - Date and time when this auth token will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `token` - The auth token. The value is available only in the response for `CreateAuthToken` , and not for `ListAuthTokens` or `UpdateAuthToken` .
- `user_id` - The OCID of the user the auth token belongs to.

Import

Import is not supported for this resource.

oci_identity_compartment

This resource provides the Compartment resource in Oracle Cloud Infrastructure Identity service.

Creates a new compartment in the specified compartment.

Important: Unless `enable_delete` is explicitly set to true: * Terraform will not delete compartments on destroy, and * For backwards compatibility, an existing compartment with the same name will be automatically imported into the state. Properties of the existing compartment will be updated to what is defined in the new configuration. This can cause a problem if multiple Terraform configurations are using the same compartment, but, for example, specify a different compartment description.

Specify the parent compartment's OCID as the compartment ID in the request object. Remember that the tenancy is simply the root compartment. For information about OCIDs, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must also specify a *name* for the compartment, which must be unique across all compartments in your tenancy. You can use this name or the OCID when writing policies that apply to the compartment. For more information about policies, see How Policies Work (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm>).

You must also specify a *description* for the compartment (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateCompartment` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Compartment/UpdateCompartment>).

Example Usage

```
resource "oci_identity_compartment" "test_compartment" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  description = "${var.compartment_description}"  
  name = "${var.compartment_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the parent compartment containing the compartment.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the compartment during creation. Does not have

to be unique, and it's changeable.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) (Updatable) The name you assign to the compartment during creation. The name must be unique across all compartments in the parent compartment. Avoid entering confidential information.
- `enable_delete` - (Optional) Defaults to false. If omitted or set to false the provider will implicitly import the compartment if there is a name collision, and will not actually delete the compartment on destroy or removal of the resource declaration. If set to true, the provider will throw an error on a name collision with another compartment, and will attempt to delete the compartment on destroy or removal of the resource declaration.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the parent compartment containing the compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the compartment. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the compartment.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `is_accessible` - Indicates whether or not the compartment is accessible for the user making the request. Returns true when the user has INSPECT permissions directly on a resource in the compartment or indirectly (permissions can be on a resource in a subcompartment).
- `name` - The name you assign to the compartment during creation. The name must be unique across all compartments in the parent. Avoid entering confidential information.
- `state` - The compartment's current state.
- `time_created` - Date and time the compartment was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

Compartments can be imported using the `id`, e.g.

```
$ terraform import oci_identity_compartment.test_compartment "id"
```

oci_identity_customer_secret_key

This resource provides the Customer Secret Key resource in Oracle Cloud Infrastructure Identity service.

Creates a new secret key for the specified user. Secret keys are used for authentication with the Object Storage Service's Amazon S3 compatible API. For information, see [Managing User Credentials](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm>).

You must specify a *description* for the secret key (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateCustomerSecretKey` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/CustomerSecretKeySummary/UpdateCustomerSecretKey>).

Every user has permission to create a secret key for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to create a secret key for any user, including themselves.

Example Usage

```
resource "oci_identity_customer_secret_key" "test_customer_secret_key" {  
  #Required  
  display_name = "${var.customer_secret_key_display_name}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `display_name` - (Required) (Updatable) The name you assign to the secret key during creation. Does not have to be unique, and it's changeable.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `display_name` - The display name you assign to the secret key. Does not have to be unique, and it's changeable.
- `id` - The OCID of the secret key.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `key` - The secret key.

- `state` - The secret key's current state.
- `time_created` - Date and time the `CustomerSecretKey` object was created, in the format defined by RFC3339.
Example: `2016-08-25T21:10:29.600Z`
- `time_expires` - Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires. Example: `2016-08-25T21:10:29.600Z`
- `user_id` - The OCID of the user the password belongs to.

Import

Import is not supported for this resource.

oci_identity_dynamic_group

This resource provides the Dynamic Group resource in Oracle Cloud Infrastructure Identity service.

Creates a new dynamic group in your tenancy.

You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must also specify a *name* for the dynamic group, which must be unique across all dynamic groups in your tenancy, and cannot be changed. Note that this name has to be also unique across all groups in your tenancy. You can use this name or the OCID when writing policies that apply to the dynamic group. For more information about policies, see [How Policies Work](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm>).

You must also specify a *description* for the dynamic group (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateDynamicGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/DynamicGroup/UpdateDynamicGroup>).

Example Usage

```
resource "oci_identity_dynamic_group" "test_dynamic_group" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  description = "${var.dynamic_group_description}"  
  matching_rule = "${var.dynamic_group_matching_rule}"  
  name = "${var.dynamic_group_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the tenancy containing the group.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the group during creation. Does not have to be unique, and it's changeable.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `matching_rule` - (Required) (Updatable) The matching rule to dynamically match an instance certificate to this dynamic group. For rule syntax, see [Managing Dynamic Groups](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm>).
- `name` - (Required) The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the group. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the group.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `matching_rule` - A rule string that defines which instance certificates will be matched. For syntax, see [Managing Dynamic Groups](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingdynamicgroups.htm>).
- `name` - The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
- `state` - The group's current state.
- `time_created` - Date and time the group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

DynamicGroups can be imported using the `id`, e.g.

```
$ terraform import oci_identity_dynamic_group.test_dynamic_group "id"
```

oci_identity_group

This resource provides the Group resource in Oracle Cloud Infrastructure Identity service.

Creates a new group in your tenancy.

You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must also specify a *name* for the group, which must be unique across all groups in your tenancy and cannot be changed. You can use this name or the OCID when writing policies that apply to the group. For more information about policies, see [How Policies Work](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm>).

You must also specify a *description* for the group (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Group/UpdateGroup>). After creating the group, you need to put users in it and write policies for it. See `AddUserToGroup` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/UserGroupMembership/AddUserToGroup>) and `CreatePolicy` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Policy/CreatePolicy>).

Example Usage

```
resource "oci_identity_group" "test_group" {
  #Required
  compartment_id = "${var.tenancy_ocid}"
  description = "${var.group_description}"
  name = "${var.group_name}"

  #Optional
  defined_tags = {"Operations.CostCenter" = "42"}
  freeform_tags = {"Department" = "Finance"}
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the tenancy containing the group.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the group during creation. Does not have to be

unique, and it's changeable.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the group.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the group. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the group.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `name` - The name you assign to the group during creation. The name must be unique across all groups in the tenancy and cannot be changed.
- `state` - The group's current state.
- `time_created` - Date and time the group was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

Groups can be imported using the `id`, e.g.

```
$ terraform import oci_identity_group.test_group "id"
```

oci_identity_identity_provider

This resource provides the Identity Provider resource in Oracle Cloud Infrastructure Identity service.

Creates a new identity provider in your tenancy. For more information, see Identity Providers and Federation (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/federation.htm>).

You must specify your tenancy's OCID as the compartment ID in the request object. Remember that the tenancy is simply the root compartment. For information about OCIDs, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must also specify a *name* for the `IdentityProvider`, which must be unique across all `IdentityProvider` objects in your tenancy and cannot be changed.

You must also specify a *description* for the `IdentityProvider` (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateIdentityProvider` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/IdentityProvider/UpdateIdentityProvider>).

Example Usage

```
resource "oci_identity_identity_provider" "test_identity_provider" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  description = "${var.identity_provider_description}"  
  metadata = "${var.identity_provider_metadata}"  
  metadata_url = "${var.identity_provider_metadata_url}"  
  name = "${var.identity_provider_name}"  
  product_type = "${var.identity_provider_product_type}"  
  protocol = "${var.identity_provider_protocol}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_attributes = "${var.identity_provider_freeform_attributes}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of your tenancy.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the `IdentityProvider` during creation. Does not have to be unique, and it's changeable.

- `freeform_attributes` - (Optional) (Updatable) Extra name value pairs associated with this identity provider.
Example: `{"clientId": "app_sf3kdjf3"}`
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `metadata` - (Required) (Updatable) The XML that contains the information required for federating.
- `metadata_url` - (Required) (Updatable) The URL for retrieving the identity provider's metadata, which contains information required for federating.
- `name` - (Required) The name you assign to the `IdentityProvider` during creation. The name must be unique across all `IdentityProvider` objects in the tenancy and cannot be changed.
- `product_type` - (Required) The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS). Example: IDCS
- `protocol` - (Required) (Updatable) The protocol used for federation. Example: SAML2

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the `IdentityProvider`.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the `IdentityProvider` during creation. Does not have to be unique, and it's changeable.
- `freeform_attributes` - Extra name value pairs associated with this identity provider. Example: `{"clientId": "app_sf3kdjf3"}`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the `IdentityProvider`.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `metadata_url` - The URL for retrieving the identity provider's metadata, which contains information required for federating.
- `name` - The name you assign to the `IdentityProvider` during creation. The name must be unique across all `IdentityProvider` objects in the tenancy and cannot be changed. This is the name federated users see when

choosing which identity provider to use when signing in to the Oracle Cloud Infrastructure Console.

- `product_type` - The identity provider service or product. Supported identity providers are Oracle Identity Cloud Service (IDCS) and Microsoft Active Directory Federation Services (ADFS).

Allowed values are:

- ADFS
- IDCS

Example: IDCS

- `protocol` - The protocol used for federation. Allowed value: SAML2 . Example: SAML2
- `redirect_url` - The URL to redirect federated users to for authentication with the identity provider.
- `signing_certificate` - The identity provider's signing certificate used by the IAM Service to validate the SAML2 token.
- `state` - The current state.
- `time_created` - Date and time the `IdentityProvider` was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

IdentityProviders can be imported using the `id` , e.g.

```
$ terraform import oci_identity_identity_provider.test_identity_provider "id"
```


oci_identity_idp_group_mapping

This resource provides the Idp Group Mapping resource in Oracle Cloud Infrastructure Identity service.

Creates a single mapping between an IdP group and an IAM Service group
(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Group/>).

Example Usage

```
resource "oci_identity_idp_group_mapping" "test_idp_group_mapping" {  
  #Required  
  group_id = "${oci_identity_group.test_group.id}"  
  identity_provider_id = "${oci_identity_identity_provider.test_identity_provider.id}"  
  idp_group_name = "${var.idp_group_mapping_idp_group_name}"  
}
```

Argument Reference

The following arguments are supported:

- `group_id` - (Required) (Updatable) The OCID of the IAM Service group
(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Group/>) you want to map to the IdP group.
- `identity_provider_id` - (Required) The OCID of the identity provider.
- `idp_group_name` - (Required) (Updatable) The name of the IdP group you want to map.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the `IdentityProvider`.
- `group_id` - The OCID of the IAM Service group that is mapped to the IdP group.
- `id` - The OCID of the `IdpGroupMapping`.
- `identity_provider_id` - The OCID of the `IdentityProvider` this mapping belongs to.
- `idp_group_name` - The name of the IdP group that is mapped to the IAM Service group.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The mapping's current state.
- `time_created` - Date and time the mapping was created, in the format defined by RFC3339. Example: 2016-08-

Import

Import is not supported for this resource.

oci_identity_policy

This resource provides the Policy resource in Oracle Cloud Infrastructure Identity service.

Creates a new policy in the specified compartment (either the tenancy or another of your compartments). If you're new to policies, see [Getting Started with Policies](#)

(<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policygetstarted.htm>).

You must specify a *name* for the policy, which must be unique across all policies in your tenancy and cannot be changed.

You must also specify a *description* for the policy (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdatePolicy`

(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/Policy/UpdatePolicy>).

You must specify one or more policy statements in the statements array. For information about writing policies, see [How Policies Work](#) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm>) and [Common Policies](#) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/commonpolicies.htm>). New policies take effect typically within 10 seconds.

Example Usage

```
resource "oci_identity_policy" "test_policy" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  description = "${var.policy_description}"  
  name = "${var.policy_name}"  
  statements = "${var.policy_statements}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  version_date = "${var.policy_version_date}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment containing the policy (either the tenancy or another compartment).
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the policy during creation. Does not have to be unique, and it's changeable.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name you assign to the policy during creation. The name must be unique across all policies in the tenancy and cannot be changed.
- `statements` - (Required) (Updatable) An array of policy statements written in the policy language. See How Policies Work (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/policies.htm>) and Common Policies (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/commonpolicies.htm>).
- `version_date` - (Optional) (Updatable) The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the policy (either the tenancy or another compartment).
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the policy. Does not have to be unique, and it's changeable.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the policy.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `name` - The name you assign to the policy during creation. The name must be unique across all policies in the tenancy and cannot be changed.
- `state` - The policy's current state.
- `statements` - An array of one or more policy statements written in the policy language.
- `time_created` - Date and time the policy was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `version_date` - The version of the policy. If null or set to an empty string, when a request comes in for authorization, the policy will be evaluated according to the current behavior of the services at that moment. If set to a particular date (YYYY-MM-DD), the policy will be evaluated according to the behavior of the services on that date.

Import

Policies can be imported using the `id`, e.g.

```
$ terraform import oci_identity_policy.test_policy "id"
```

oci_identity_smtp_credential

This resource provides the Smtplib Credential resource in Oracle Cloud Infrastructure Identity service.

Creates a new SMTP credential for the specified user. An SMTP credential has an SMTP user name and an SMTP password. You must specify a *description* for the SMTP credential (although it can be an empty string). It does not have to be unique, and you can change it anytime with UpdateSmtplibCredential (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/SmtplibCredentialSummary/UpdateSmtplibCredential>).

Example Usage

```
resource "oci_identity_smtp_credential" "test_smtp_credential" {  
  #Required  
  description = "${var.smtp_credential_description}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `description` - (Required) (Updatable) The description you assign to the SMTP credentials during creation. Does not have to be unique, and it's changeable.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `description` - The description you assign to the SMTP credential. Does not have to be unique, and it's changeable.
- `id` - The OCID of the SMTP credential.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `password` - The SMTP password.
- `state` - The credential's current state.
- `time_created` - Date and time the `SmtplibCredential` object was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `time_expires` - Date and time when this credential will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z

- `user_id` - The OCID of the user the SMTP credential belongs to.
- `username` - The SMTP user name.

Import

Import is not supported for this resource.

oci_identity_swift_password

This resource provides the Swift Password resource in Oracle Cloud Infrastructure Identity service.

Deprecated. Use `CreateAuthToken`

(<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/AuthToken/CreateAuthToken>) instead.

Creates a new Swift password for the specified user. For information about what Swift passwords are for, see [Managing User Credentials](https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Tasks/managingcredentials.htm>).

You must specify a *description* for the Swift password (although it can be an empty string). It does not have to be unique, and you can change it anytime with `UpdateSwiftPassword` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/SwiftPassword/UpdateSwiftPassword>).

Every user has permission to create a Swift password for *their own user ID*. An administrator in your organization does not need to write a policy to give users this ability. To compare, administrators who have permission to the tenancy can use this operation to create a Swift password for any user, including themselves.

Example Usage

```
resource "oci_identity_swift_password" "test_swift_password" {  
  #Required  
  description = "${var.swift_password_description}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `description` - (Required) (Updatable) The description you assign to the Swift password during creation. Does not have to be unique, and it's changeable.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `description` - The description you assign to the Swift password. Does not have to be unique, and it's changeable.
- `expires_on` - Date and time when this password will expire, in the format defined by RFC3339. Null if it never expires. Example: 2016-08-25T21:10:29.600Z
- `id` - The OCID of the Swift password.

- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `password` - The Swift password. The value is available only in the response for `CreateSwiftPassword`, and not for `ListSwiftPasswords` or `UpdateSwiftPassword`.
- `state` - The password's current state.
- `time_created` - Date and time the `SwiftPassword` object was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `user_id` - The OCID of the user the password belongs to.

Import

Import is not supported for this resource.

oci_identity_tag_default

This resource provides the Tag Default resource in Oracle Cloud Infrastructure Identity service.

Creates a new tag default in the specified compartment for the specified tag definition.

If you specify that a value is required, a value is set during resource creation (either by the user creating the resource or another tag default). If no value is set, resource creation is blocked.

- If the `isRequired` flag is set to "true", the value is set during resource creation.
- If the `isRequired` flag is set to "false", the value you enter is set during resource creation.

Example Usage

```
resource "oci_identity_tag_default" "test_tag_default" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  tag_definition_id = "${oci_identity_tag_definition.test_tag_definition.id}"  
  value = "${var.tag_default_value}"  
  
  #Optional  
  is_required = "${var.tag_default_is_required}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment. The tag default will be applied to all new resources created in this compartment.
- `is_required` - (Optional) (Updatable) If you specify that a value is required, a value is set during resource creation (either by the user creating the resource or another tag default). If no value is set, resource creation is blocked.
 - If the `isRequired` flag is set to "true", the value is set during resource creation.
 - If the `isRequired` flag is set to "false", the value you enter is set during resource creation.

Example: `false`

- `tag_definition_id` - (Required) The OCID of the tag definition. The tag default will always assign a default value for this tag definition.
- `value` - (Required) (Updatable) The default value for the tag definition. This will be applied to all new resources created in the compartment.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment. The tag default applies to all new resources that get created in the compartment. Resources that existed before the tag default was created are not tagged.
- `id` - The OCID of the tag default.
- `is_required` - If you specify that a value is required, a value is set during resource creation (either by the user creating the resource or another tag default). If no value is set, resource creation is blocked.
 - If the `isRequired` flag is set to "true", the value is set during resource creation.
 - If the `isRequired` flag is set to "false", the value you enter is set during resource creation.

Example: `false`

- `state` - The tag default's current state. After creating a `TagDefault`, make sure its `lifecycleState` is `ACTIVE` before using it.
- `tag_definition_id` - The OCID of the tag definition. The tag default will always assign a default value for this tag definition.
- `tag_definition_name` - The name used in the tag definition. This field is informational in the context of the tag default.
- `tag_namespace_id` - The OCID of the tag namespace that contains the tag definition.
- `time_created` - Date and time the `TagDefault` object was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `value` - The default value for the tag definition. This will be applied to all new resources created in the compartment.

Import

TagDefaults can be imported using the `id`, e.g.

```
$ terraform import oci_identity_tag_default.test_tag_default "id"
```

oci_identity_tag

This resource provides the Tag resource in Oracle Cloud Infrastructure Identity service.

Creates a new tag in the specified tag namespace.

You must specify either the OCID or the name of the tag namespace that will contain this tag definition.

You must also specify a *name* for the tag, which must be unique across all tags in the tag namespace and cannot be changed. The name can contain any ASCII character except the space () or period (.) characters. Names are case insensitive. That means, for example, "myTag" and "mytag" are not allowed in the same namespace. If you specify a name that's already in use in the tag namespace, a 409 error is returned.

You must also specify a *description* for the tag. It does not have to be unique, and you can change it with `UpdateTag` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/latest/Tag/UpdateTag>).

If no 'validator' is set on this tag definition, then any (valid) value can be set for this definedTag.

If a 'validator' is set on this tag definition, then the only valid values that can be set for this definedTag those that pass the additional validation imposed by the set 'validator'.

Example Usage

```
resource "oci_identity_tag" "test_tag" {  
  #Required  
  description = "${var.tag_description}"  
  name = "${var.tag_name}"  
  tag_namespace_id = "${oci_identity_tag_namespace.test_tag_namespace.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  is_cost_tracking = "${var.tag_is_cost_tracking}"  
  validator {  
    #Required  
    validator_type = "${var.tag_validator_validator_type}"  
    values = "${var.tag_validator_values}"  
  }  
  is_retired = false  
}
```

Argument Reference

The following arguments are supported:

- defined_tags - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`

- `description` - (Required) (Updatable) The description you assign to the tag during creation.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `is_cost_tracking` - (Optional) (Updatable) Indicates whether the tag is enabled for cost tracking.
- `name` - (Required) The name you assign to the tag during creation. This is the tag key definition. The name must be unique within the tag namespace and cannot be changed.
- `tag_namespace_id` - (Required) The OCID of the tag namespace.
- `validator` - (Optional) (Updatable) Additional validation rule for values specified for the tag definition.

If no validator is defined for a tag definition, then any (valid) value will be accepted.

Remove the `validator` from config to update the tag to default.

- `validator_type` - (Required) (Updatable) The primitive that any value set for this `definedTag` must be parseable as. Only supported value is `ENUM`. Do not specify `validator` for default type.
- `values` - (Applicable when `validator_type=ENUM`) (Required) (Updatable) The list of allowed values for a `definedTag` value.
- `is_retired` - (Optional) (Updatable) Indicates whether the tag is retired. See Retiring Key Definitions and Namespace Definitions (<https://docs.us-phoenix-1.oraclecloud.com/Content/Identity/Concepts/taggingoverview.htm#Retiring>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the tag.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the tag definition.
- `is_cost_tracking` - Indicates whether the tag is enabled for cost tracking.
- `is_retired` - Indicates whether the tag is retired. See Retiring Key Definitions and Namespace Definitions (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#Retiring>).
- `name` - The name assigned to the tag during creation. This is the tag key definition. The name must be unique within

the tag namespace and cannot be changed.

- `state` - The tag's current state. After creating a tag, make sure its `lifecycleState` is `ACTIVE` before using it. After retiring a tag, make sure its `lifecycleState` is `INACTIVE` before using it. If you delete a tag, you cannot delete another tag until the deleted tag's `lifecycleState` changes from `DELETING` to `DELETED`.
- `tag_namespace_id` - The OCID of the namespace that contains the tag definition.
- `time_created` - Date and time the tag was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`
- `validator` - Additional validation rule for values specified for the tag definition.
 - `validator_type` - The primitive that any value set for this `definedTag` must be parseable as.
 - `values` - The list of allowed values for a `definedTag` value.

Import

Tags can be imported using the `tagNamespaceId` and `tagName`, e.g.

```
$ terraform import oci_identity_tag.test_tag "tagNamespaces/{tagNamespaceId}/tags/{tagName}"
```

oci_identity_tag_namespace

This resource provides the Tag Namespace resource in Oracle Cloud Infrastructure Identity service.

Creates a new tag namespace in the specified compartment.

You must specify the compartment ID in the request object (remember that the tenancy is simply the root compartment).

You must also specify a *name* for the namespace, which must be unique across all namespaces in your tenancy and cannot be changed. The name can contain any ASCII character except the space () or period (.). Names are case insensitive. That means, for example, "myNamespace" and "mynamespace" are not allowed in the same tenancy. Once you created a namespace, you cannot change the name. If you specify a name that's already in use in the tenancy, a 409 error is returned.

You must also specify a *description* for the namespace. It does not have to be unique, and you can change it with `UpdateTagNamespace` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/latest/TagNamespace/UpdateTagNamespace>).

Example Usage

```
resource "oci_identity_tag_namespace" "test_tag_namespace" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  description = "${var.tag_namespace_description}"  
  name = "${var.tag_namespace_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  is_retired = false  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the tenancy containing the tag namespace.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the tag namespace during creation.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name you assign to the tag namespace during creation. It must be unique across all tag

namespaces in the tenancy and cannot be changed.

- `is_retired` - (Optional) (Updatable) Whether the tag namespace is retired. For more information, see Retiring Key Definitions and Namespace Definitions (<https://docs.us-phoenix-1.oraclecloud.com/Content/Identity/Concepts/taggingoverview.htm#Retiring>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the tag namespace.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the tag namespace.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the tag namespace.
- `is_retired` - Whether the tag namespace is retired. For more information, see Retiring Key Definitions and Namespace Definitions (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/taggingoverview.htm#Retiring>).
- `name` - The name of the tag namespace. It must be unique across all tag namespaces in the tenancy and cannot be changed.
- `state` - The tagnamespace's current state. After creating a tagnamespace, make sure its `lifecycleState` is `ACTIVE` before using it. After retiring a tagnamespace, make sure its `lifecycleState` is `INACTIVE` before using it.
- `time_created` - Date and time the tag namespace was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

TagNamespaces can be imported using the `id`, e.g.

```
$ terraform import oci_identity_tag_namespace.test_tag_namespace "id"
```


oci_identity_ui_password

This resource provides the Ui Password resource in Oracle Cloud Infrastructure Identity service.

Creates a new Console one-time password for the specified user. For more information about user credentials, see User Credentials (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/usercredentials.htm>).

Use this operation after creating a new user, or if a user forgets their password. The new one-time password is returned to you in the response, and you must securely deliver it to the user. They'll be prompted to change this password the next time they sign in to the Console. If they don't change it within 7 days, the password will expire and you'll need to create a new one-time password for the user.

Note: The user's Console login is the unique name you specified when you created the user (see `CreateUser` (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/User/CreateUser>)).

Example Usage

```
resource "oci_identity_ui_password" "test_ui_password" {  
  #Required  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `inactive_status` - The detailed status of INACTIVE lifecycleState.
- `password` - The user's password for the Console.
- `state` - The password's current state.
- `time_created` - Date and time the password was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user.

Import

Import is not supported for this resource.

oci_identity_user

This resource provides the User Capabilities Management resource in Oracle Cloud Infrastructure Identity service.

Manages the capabilities of the specified user.

Important: Deleting the User Capabilities Management leaves the User resource in its existing state (rather than returning to its defaults)

Example Usage

```
resource "oci_identity_user_capabilities_management" "test_user_capabilities_management" {  
  #Required  
  user_id = "${oci_identity_user.user1.id}"  
  
  #Optional  
  can_use_api_keys           = "true"  
  can_use_auth_tokens        = "true"  
  can_use_console_password   = "false"  
  can_use_customer_secret_keys = "true"  
  can_use_smtp_credentials    = "true"  
}
```

Argument Reference

The following arguments are supported:

- `user_id` - (Required) The OCID of the user.
- `can_use_api_keys` - (Optional) (Updatable) Indicates if the user can use API keys.
- `can_use_auth_tokens` - (Optional) (Updatable) Indicates if the user can use SWIFT passwords / auth tokens.
- `can_use_console_password` - (Optional) (Updatable) Indicates if the user can log in to the console.
- `can_use_customer_secret_keys` - (Optional) (Updatable) Indicates if the user can use SigV4 symmetric keys.
- `can_use_smtp_credentials` - (Optional) (Updatable) Indicates if the user can use SMTP passwords.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `user_id` - The OCID of the user.
- `can_use_api_keys` - Indicates if the user can use API keys.

- `can_use_auth_tokens` - Indicates if the user can use SWIFT passwords / auth tokens.
- `can_use_console_password` - Indicates if the user can log in to the console.
- `can_use_customer_secret_keys` - Indicates if the user can use SigV4 symmetric keys.
- `can_use_smtp_credentials` - Indicates if the user can use SMTP passwords.

Import

Users can be imported using the `id`, e.g.

```
$ terraform import oci_identity_user_capabilities_management.test_user_capabilities_management "capabilities/{userId}"
```

oci_identity_user_group_membership

This resource provides the User Group Membership resource in Oracle Cloud Infrastructure Identity service.

Adds the specified user to the specified group and returns a `UserGroupMembership` object with its own OCID.

Example Usage

```
resource "oci_identity_user_group_membership" "test_user_group_membership" {  
  #Required  
  group_id = "${oci_identity_group.test_group.id}"  
  user_id = "${oci_identity_user.test_user.id}"  
}
```

Argument Reference

The following arguments are supported:

- `group_id` - (Required) The OCID of the group.
- `user_id` - (Required) The OCID of the user.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the tenancy containing the user, group, and membership object.
- `group_id` - The OCID of the group.
- `id` - The OCID of the membership.
- `inactive_state` - The detailed status of INACTIVE lifecycleState.
- `state` - The membership's current state.
- `time_created` - Date and time the membership was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z
- `user_id` - The OCID of the user.

Import

UserGroupMemberships can be imported using the `id`, e.g.

```
$ terraform import oci_identity_user_group_membership.test_user_group_membership "id"
```

oci_identity_user

This resource provides the User resource in Oracle Cloud Infrastructure Identity service.

Creates a new user in your tenancy. For conceptual information about users, your tenancy, and other IAM Service components, see Overview of the IAM Service (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

You must specify your tenancy's OCID as the compartment ID in the request object (remember that the tenancy is simply the root compartment). Notice that IAM resources (users, groups, compartments, and some policies) reside within the tenancy itself, unlike cloud resources such as compute instances, which typically reside within compartments inside the tenancy. For information about OCIDs, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

You must also specify a *name* for the user, which must be unique across all users in your tenancy and cannot be changed. Allowed characters: No spaces. Only letters, numerals, hyphens, periods, underscores, +, and @. If you specify a name that's already in use, you'll get a 409 error. This name will be the user's login to the Console. You might want to pick a name that your company's own identity system (e.g., Active Directory, LDAP, etc.) already uses. If you delete a user and then create a new user with the same name, they'll be considered different users because they have different OCIDs.

You must also specify a *description* for the user (although it can be an empty string). It does not have to be unique, and you can change it anytime with UpdateUser (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/User/UpdateUser>). You can use the field to provide the user's full name, a description, a nickname, or other information to generally identify the user. A new user has no permissions until you place the user in one or more groups (see AddUserToGroup (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/UserGroupMembership/AddUserToGroup>)). If the user needs to access the Console, you need to provide the user a password (see CreateOrResetUIPassword (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/UIPassword/CreateOrResetUIPassword>)). If the user needs to access the Oracle Cloud Infrastructure REST API, you need to upload a public API signing key for that user (see Required Keys and OCIDs (<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/apisigningkey.htm>) and also UploadApiKey (<https://docs.cloud.oracle.com/iaas/api/#/en/identity/20160918/ApiKey/UploadApiKey>)).

Important: Make sure to inform the new user which compartment(s) they have access to.

Example Usage

```
resource "oci_identity_user" "test_user" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  description = "${var.user_description}"  
  name = "${var.user_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  email = "${var.user_email}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the tenancy containing the user.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the user during creation. Does not have to be unique, and it's changeable.
- `email` - (Optional) (Updatable) The email you assign to the user. Has to be unique across the tenancy.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `capabilities` - Properties indicating how the user is allowed to authenticate.
 - `can_use_api_keys` - Indicates if the user can use API keys.
 - `can_use_auth_tokens` - Indicates if the user can use SWIFT passwords / auth tokens.
 - `can_use_console_password` - Indicates if the user can log in to the console.
 - `can_use_customer_secret_keys` - Indicates if the user can use SigV4 symmetric keys.
 - `can_use_smtp_credentials` - Indicates if the user can use SMTP passwords.
- `compartment_id` - The OCID of the tenancy containing the user.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the user. Does not have to be unique, and it's changeable.
- `email` - The email address you assign to the user. The email address must be unique across all users in the tenancy.
- `external_identifier` - Identifier of the user in the identity provider
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`

"Finance"}

- `id` - The OCID of the user.
- `identity_provider_id` - The OCID of the `IdentityProvider` this user belongs to.
- `inactive_state` - Returned only if the user's `lifecycleState` is `INACTIVE`. A 16-bit value showing the reason why the user is inactive:
 - bit 0: `SUSPENDED` (reserved for future use)
 - bit 1: `DISABLED` (reserved for future use)
 - bit 2: `BLOCKED` (the user has exceeded the maximum number of failed login attempts for the Console)
- `name` - The name you assign to the user during creation. This is the user's login for the Console. The name must be unique across all users in the tenancy and cannot be changed.
- `state` - The user's current state.
- `time_created` - Date and time the user was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

Users can be imported using the `id`, e.g.

```
$ terraform import oci_identity_user.test_user "id"
```

oci_kms_encrypted_data

This resource provides the Encrypted Data resource in Oracle Cloud Infrastructure Kms service.

Encrypts data using the given EncryptDataDetails resource. Plaintext included in the example request is a base64-encoded value of a UTF-8 string.

Example Usage

```
resource "oci_kms_encrypted_data" "test_encrypted_data" {  
  #Required  
  crypto_endpoint = "${var.encrypted_data_crypto_endpoint}"  
  key_id = "${oci_kms_key.test_key.id}"  
  plaintext = "${var.encrypted_data_plaintext}"  
  
  #Optional  
  associated_data = "${var.encrypted_data_associated_data}"  
  logging_context = "${var.encrypted_data_logging_context}"  
}
```

Argument Reference

The following arguments are supported:

- `associated_data` - (Optional) Information that can be used to provide an encryption context for the encrypted data. The length of the string representation of the associatedData must be fewer than 4096 characters.
- `crypto_endpoint` - (Required) The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations. see Vault Crypto endpoint.
- `key_id` - (Required) The OCID of the key to encrypt with.
- `logging_context` - (Optional) Information that can be used to provide context for audit logging. It is a map that contains any additional data the users may have and will be added to the audit logs (if audit logging is enabled)
- `plaintext` - (Required) The plaintext data to encrypt.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `ciphertext` - The encrypted data.

Import

Import is not supported for this resource.

oci_kms_generated_key

This resource provides the Generated Key resource in Oracle Cloud Infrastructure Kms service.

Generates a key that you can use to encrypt or decrypt data.

Example Usage

```
resource "oci_kms_generated_key" "test_generated_key" {  
  #Required  
  crypto_endpoint = "${var.generated_key_crypto_endpoint}"  
  include_plaintext_key = "${var.generated_key_include_plaintext_key}"  
  key_id = "${oci_kms_key.test_key.id}"  
  key_shape {  
    #Required  
    algorithm = "${var.generated_key_key_shape_algorithm}"  
    length = "${var.generated_key_key_shape_length}"  
  }  
  
  #Optional  
  associated_data = "${var.generated_key_associated_data}"  
  logging_context = "${var.generated_key_logging_context}"  
}
```

Argument Reference

The following arguments are supported:

- `associated_data` - (Optional) Information that can be used to provide an encryption context for the encrypted data. The length of the string representation of the associatedData must be fewer than 4096 characters.
- `crypto_endpoint` - (Required) The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations. see Vault Crypto endpoint.
- `include_plaintext_key` - (Required) If true, the generated key is also returned unencrypted.
- `key_id` - (Required) The OCID of the master encryption key to encrypt the generated data encryption key with.
- `key_shape` - (Required)
 - `algorithm` - (Required) The algorithm used by a key's KeyVersions to encrypt or decrypt.
 - `length` - (Required) The length of the key, expressed as an integer. Values of 16, 24, or 32 are supported.
- `logging_context` - (Optional) Information that can be used to provide context for audit logging. It is a map that contains any additional data the users may have and will be added to the audit logs (if audit logging is enabled)

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `ciphertext` - The encrypted generated data encryption key.
- `plaintext` - The plaintext generated data encryption key, a base64-encoded sequence of random bytes, which is included if the `GenerateDataEncryptionKey` request includes the `"includePlaintextKey"` parameter and sets its value to `'true'`.
- `plaintext_checksum` - The checksum of the plaintext generated data encryption key, which is included if the `GenerateDataEncryptionKey` request includes the `"includePlaintextKey"` parameter and sets its value to `'true'`.

Import

Import is not supported for this resource.

oci_kms_key

This resource provides the Key resource in Oracle Cloud Infrastructure Kms service.

Creates a new key.

Example Usage

```
resource "oci_kms_key" "test_key" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.key_display_name}"  
  key_shape {  
    #Required  
    algorithm = "${var.key_key_shape_algorithm}"  
    length = "${var.key_key_shape_length}"  
  }  
  management_endpoint = "${var.key_management_endpoint}"  
  
  #Optional  
  defined_tags = {"foo-namespace.bar-key"= "foo-value"}  
  freeform_tags = {"bar-key"= "value"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains this key.
- `defined_tags` - (Optional) (Updatable) Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: {"foo-namespace.bar-key": "foo-value"}
- `desired_state` - (Optional) (Updatable) Desired state of the key. Possible values : `ENABLED` or `DISABLED`
- `display_name` - (Required) (Updatable) A user-friendly name for the key. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: {"bar-key": "value"}
- `key_shape` - (Required)
 - `algorithm` - (Required) The algorithm used by a key's KeyVersions to encrypt or decrypt.
 - `length` - (Required) The length of the key, expressed as an integer. Values of 16, 24, or 32 are supported.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.
- `time_of_deletion` - (Optional) (Updatable) An optional property for the deletion time of the key, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: 2019-04-03T21:10:29.600Z

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key.
- `current_key_version` - The OCID of the KeyVersion resource used in cryptographic operations. During key rotation, service might be in a transitional state where this or a newer KeyVersion are used intermittently. The `currentKeyVersion` field is updated when the service is guaranteed to use the new KeyVersion for all subsequent encryption operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the key. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the key.
- `key_shape` -
 - `algorithm` - The algorithm used by a key's KeyVersions to encrypt or decrypt.
 - `length` - The length of the key, expressed as an integer. Values of 16, 24, or 32 are supported.
- `state` - The key's current state. Example: `ENABLED`
- `time_created` - The date and time the key was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the key, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2019-04-03T21:10:29.600Z`
- `vault_id` - The OCID of the vault that contains this key.

Import

Keys can be imported using the `id`, e.g.

```
$ terraform import oci_kms_key.test_key "managementEndpoint/{managementEndpoint}/keys/{keyId}"
```

oci_kms_key_version

This resource provides the Key Version resource in Oracle Cloud Infrastructure Kms service.

Generates new cryptographic material for a key. The key must be in an `ENABLED` state to be rotated.

Example Usage

```
resource "oci_kms_key_version" "test_key_version" {  
  #Required  
  key_id = "${oci_kms_key.test_key.id}"  
  management_endpoint = "${var.key_version_management_endpoint}"  
}
```

Argument Reference

The following arguments are supported:

- `key_id` - (Required) The OCID of the key.
- `management_endpoint` - (Required) The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations. See Vault Management endpoint.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains this key version.
- `id` - The OCID of the key version.
- `key_id` - The OCID of the key associated with this key version.
- `time_created` - The date and time this key version was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: "2018-04-03T21:10:29.600Z"
- `vault_id` - The OCID of the vault that contains this key version.

Import

KeyVersions can be imported using the `id` , e.g.


```
$ terraform import oci_kms_key_version.test_key_version "managementEndpoint/{managementEndpoint}/keys/{keyId}/keyVersions/{keyVersionId}"
```

oci_kms_vault

This resource provides the Vault resource in Oracle Cloud Infrastructure Kms service.

Creates a new vault. The type of vault you create determines key placement, pricing, and available options. Options include storage isolation, a dedicated service endpoint instead of a shared service endpoint for API calls, and a dedicated hardware security module (HSM) or a multitenant HSM.

Example Usage

```
resource "oci_kms_vault" "test_vault" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.vault_display_name}"  
  vault_type = "${var.vault_vault_type}"  
  
  #Optional  
  defined_tags = {"foo-namespace.bar-key"= "foo-value"}  
  freeform_tags = {"bar-key"= "value"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment where you want to create this vault.
- `defined_tags` - (Optional) (Updatable) Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - (Required) (Updatable) A user-friendly name for the vault. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - (Optional) (Updatable) Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `vault_type` - (Required) The type of vault to create. Each type of vault stores the key with different degrees of isolation and has different options and pricing.
- `time_of_deletion` - (Optional) (Updatable) An optional property for the deletion time of the vault, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2019-04-03T21:10:29.600Z`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains a particular vault.
- `crypto_endpoint` - The service endpoint to perform cryptographic operations against. Cryptographic operations include 'Encrypt,' 'Decrypt,' and 'GenerateDataEncryptionKey' operations.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "foo-value"}`
- `display_name` - A user-friendly name for the vault. It does not have to be unique, and it is changeable. Avoid entering confidential information.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type, or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - The OCID of the vault.
- `management_endpoint` - The service endpoint to perform management operations against. Management operations include 'Create,' 'Update,' 'List,' 'Get,' and 'Delete' operations.
- `state` - The vault's current state. Example: `DELETED`
- `time_created` - The date and time this vault was created, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `time_of_deletion` - An optional property for the deletion time of the vault, expressed in RFC 3339 (<https://tools.ietf.org/html/rfc3339>) timestamp format. Example: `2018-04-03T21:10:29.600Z`
- `vault_type` - The type of vault. Each type of vault stores the key with different degrees of isolation and has different options and pricing.

Import

Vaults can be imported using the `id`, e.g.

```
$ terraform import oci_kms_vault.test_vault "id"
```

oci_limits_quota

This resource provides the Quota resource in Oracle Cloud Infrastructure Limits service.

Creates a new quota with the details supplied.

Example Usage

```
resource "oci_limits_quota" "test_quota" {  
  #Required  
  compartment_id = "${var.tenancy_ocid}"  
  description = "${var.quota_description}"  
  name = "${var.quota_name}"  
  statements = "${var.quota_statements}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) The OCID of the compartment containing the resource this quota applies to.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - (Required) (Updatable) The description you assign to the quota.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name you assign to the quota during creation. The name must be unique across all quotas in the tenancy and cannot be changed.
- `statements` - (Required) (Updatable) An array of quota statements written in the declarative quota statement language.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment containing the resource this quota applies to.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description you assign to the quota.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the quota.
- `name` - The name you assign to the quota during creation. The name must be unique across all quotas in the tenancy and cannot be changed.
- `state` - The quota's current state.
- `statements` - An array of one or more quota statements written in the declarative quota statement language.
- `time_created` - Date and time the quota was created, in the format defined by RFC3339. Example: `2016-08-25T21:10:29.600Z`

Import

Quotas can be imported using the `id`, e.g.

```
$ terraform import oci_limits_quota.test_quota "id"
```

oci_load_balancer_backend

This resource provides the Backend resource in Oracle Cloud Infrastructure Load Balancer service.

Adds a backend server to a backend set.

Example Usage

```
resource "oci_load_balancer_backend" "test_backend" {  
  #Required  
  backendset_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
  ip_address = "${var.backend_ip_address}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  port = "${var.backend_port}"  
  
  #Optional  
  backup = "${var.backend_backup}"  
  drain = "${var.backend_drain}"  
  offline = "${var.backend_offline}"  
  weight = "${var.backend_weight}"  
}
```

Argument Reference

The following arguments are supported:

- `backendset_name` - (Required) The name of the backend set to add the backend server to. Example: `example_backend_set`
- `backup` - (Optional) (Updatable) Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`

- `drain` - (Optional) (Updatable) Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`
- `ip_address` - (Required) The IP address of the backend server. Example: `10.0.0.3`
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer associated with the backend set and servers.
- `offline` - (Optional) (Updatable) Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
- `port` - (Required) The communication port for the backend server. Example: `8080`

- `weight` - (Optional) (Updatable) The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work \(https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm\)](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm). Example: 3

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `backup` - Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`

- `drain` - Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`
- `ip_address` - The IP address of the backend server. Example: `10.0.0.3`
- `name` - A read-only field showing the IP address and port that uniquely identify this backend server in the backend set. Example: `10.0.0.3:8080`
- `offline` - Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
- `port` - The communication port for the backend server. Example: `8080`
- `weight` - The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work \(https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm\)](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm). Example: 3

Import

Backends can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_backend.test_backend "loadBalancers/{loadBalancerId}/backendSets/{backendSetName}/backends/{backendName}"
```

oci_load_balancer_backend_set

This resource provides the Backend Set resource in Oracle Cloud Infrastructure Load Balancer service.

Adds a backend set to a load balancer.

Supported Aliases

- `oci_load_balancer_backendset`

Example Usage

```

resource "oci_load_balancer_backend_set" "test_backend_set" {
  #Required
  health_checker {
    #Required
    protocol = "${var.backend_set_health_checker_protocol}"

    #Optional
    interval_ms = "${var.backend_set_health_checker_interval_ms}"
    port = "${var.backend_set_health_checker_port}"
    response_body_regex = "${var.backend_set_health_checker_response_body_regex}"
    retries = "${var.backend_set_health_checker_retries}"
    return_code = "${var.backend_set_health_checker_return_code}"
    timeout_in_millis = "${var.backend_set_health_checker_timeout_in_millis}"
    url_path = "${var.backend_set_health_checker_url_path}"
  }
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"
  name = "${var.backend_set_name}"
  policy = "${var.backend_set_policy}"

  #Optional
  lb_cookie_session_persistence_configuration {

    #Optional
    cookie_name = "${var.backend_set_lb_cookie_session_persistence_configuration_cookie_name}"
    disable_fallback = "${var.backend_set_lb_cookie_session_persistence_configuration_disable_fallbac
k}"
    domain = "${var.backend_set_lb_cookie_session_persistence_configuration_domain}"
    is_http_only = "${var.backend_set_lb_cookie_session_persistence_configuration_is_http_only}"
    is_secure = "${var.backend_set_lb_cookie_session_persistence_configuration_is_secure}"
    max_age_in_seconds = "${var.backend_set_lb_cookie_session_persistence_configuration_max_age_in_se
conds}"
    path = "${var.backend_set_lb_cookie_session_persistence_configuration_path}"
  }
  session_persistence_configuration {
    #Required
    cookie_name = "${var.backend_set_session_persistence_configuration_cookie_name}"

    #Optional
    disable_fallback = "${var.backend_set_session_persistence_configuration_disable_fallback}"
  }
  ssl_configuration {
    #Required
    certificate_name = "${oci_load_balancer_certificate.test_certificate.certificate_name}"

    #Optional
    verify_depth = "${var.backend_set_ssl_configuration_verify_depth}"
    verify_peer_certificate = "${var.backend_set_ssl_configuration_verify_peer_certificate}"
  }
}

```

Note: The `sessionPersistenceConfiguration` (application cookie stickiness) and `lbCookieSessionPersistenceConfiguration` (LB cookie stickiness) attributes are mutually exclusive. To avoid returning an error, configure only one of these two attributes per backend set.

Argument Reference

The following arguments are supported:

- **backend** - (Optional) (Updatable)
 - **backup** - (Optional) (Updatable) Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`
 - **drain** - (Optional) (Updatable) Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`
 - **ip_address** - (Required) (Updatable) The IP address of the backend server. Example: `10.0.0.3`
 - **offline** - (Optional) (Updatable) Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
 - **port** - (Required) (Updatable) The communication port for the backend server. Example: `8080`
 - **weight** - (Optional) (Updatable) The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm) (<https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm>). Example: `3`
- **health_checker** - (Required) (Updatable)
 - **interval_ms** - (Optional) (Updatable) The interval between health checks, in milliseconds. Example: `10000`
 - **port** - (Optional) (Updatable) The backend server port against which to run the health check. If the port is not specified, the load balancer uses the port information from the `Backend` object. Example: `8080`
 - **protocol** - (Required) (Updatable) The protocol the health check must use; either HTTP or TCP. Example: `HTTP`
 - **response_body_regex** - (Optional) (Updatable) A regular expression for parsing the response body from the backend server. Example: `^(?!false).|\s)*$`
 - **retries** - (Optional) (Updatable) The number of retries to attempt before a backend server is considered "unhealthy". This number also applies when recovering a server to the "healthy" state. Example: `3`
 - **return_code** - (Optional) (Updatable) The status code a healthy backend server should return. Example: `200`
 - **timeout_in_millis** - (Optional) (Updatable) The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period. Example: `3000`
 - **url_path** - (Optional) (Updatable) The path against which to run the health check. Example: `/healthcheck`
- **lb_cookie_session_persistence_configuration** - (Optional) (Updatable)
 - **cookie_name** - (Optional) (Updatable) The name of the cookie inserted by the load balancer. If this field is not configured, the cookie name defaults to "X-Oracle-BMC-LBS-Route". Example: `example_cookie`

Notes:

- Ensure that the cookie name used at the backend application servers is different from the cookie name used at the load balancer. To minimize the chance of name collision, Oracle recommends that you use a prefix such as "X-Oracle-OCI-" for this field.
 - If a backend server and the load balancer both insert cookies with the same name, the client or browser behavior can vary depending on the domain and path values associated with the cookie. If the name, domain, and path values of the `Set-cookie` generated by a backend server and the `Set-cookie` generated by the load balancer are all the same, the client or browser treats them as one cookie and returns only one of the cookie values in subsequent requests. If both `Set-cookie` names are the same, but the domain and path names are different, the client or browser treats them as two different cookies.
- `disable_fallback` - (Optional) (Updatable) Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`.
Example: `false`
 - `domain` - (Optional) (Updatable) The domain in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a domain attribute with the specified value.

This attribute has no default value. If you do not specify a value, the load balancer does not insert the domain attribute into the `Set-cookie` header.

Notes:

- RFC 6265 - HTTP State Management Mechanism (<https://www.ietf.org/rfc/rfc6265.txt>) describes client and browser behavior when the domain attribute is present or not present in the `Set-cookie` header.

If the value of the `Domain` attribute is `example.com` in the `Set-cookie` header, the client includes the same cookie in the `Cookie` header when making HTTP requests to `example.com`, `www.example.com`, and `www.abc.example.com`. If the `Domain` attribute is not present, the client returns the cookie only for the domain to which the original request was made. * Ensure that this attribute specifies the correct domain value. If the `Domain` attribute in the `Set-cookie` header does not include the domain to which the original request was made, the client or browser might reject the cookie. As specified in RFC 6265, the client accepts a cookie with the `Domain` attribute value `example.com` or `www.example.com` sent from `www.example.com`. It does not accept a cookie with the `Domain` attribute `abc.example.com` or `www.abc.example.com` sent from `www.example.com`.

Example: `example.com`

- `is_http_only` - (Optional) (Updatable) Whether the `Set-cookie` header should contain the `HttpOnly` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `HttpOnly` attribute, which limits the scope of the cookie to HTTP requests. This attribute directs the client or browser to omit the cookie when providing access to cookies through non-HTTP APIs. For example, it restricts the cookie from JavaScript channels. Example: `true`
- `is_secure` - (Optional) (Updatable) Whether the `Set-cookie` header should contain the `Secure` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `Secure` attribute, which directs the client or browser to send the cookie only using a secure protocol.

Note: If you set this field to `true`, you cannot associate the corresponding backend set with an HTTP listener.

Example: `true`

- `max_age_in_seconds` - (Optional) (Updatable) The amount of time the cookie remains valid. The `Set-cookie` header inserted by the load balancer contains a `Max-Age` attribute with the specified value.

The specified value must be at least one second. There is no default value for this attribute. If you do not specify a value, the load balancer does not include the `Max-Age` attribute in the `Set-cookie` header. In most cases, the client or browser retains the cookie until the current session ends, as defined by the client.

Example: 3600

- `path` - (Optional) (Updatable) The path in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a `Path` attribute with the specified value.

Clients include the cookie in an HTTP request only if the path portion of the request-uri matches, or is a subdirectory of, the cookie's `Path` attribute.

The default value is `/`.

Example: `/example`

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer on which to add a backend set.

- `name` - (Required) A friendly name for the backend set. It must be unique and it cannot be changed.

Valid backend set names include only alphanumeric characters, dashes, and underscores. Backend set names cannot contain spaces. Avoid entering confidential information.

Example: `example_backend_set`

- `policy` - (Required) (Updatable) The load balancer policy for the backend set. To get a list of available policies, use the `ListPolicies` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerPolicy/ListPolicies>) operation. Example: `LEAST_CONNECTIONS`

- `session_persistence_configuration` - (Optional) (Updatable)

- `cookie_name` - (Required) (Updatable) The name of the cookie used to detect a session initiated by the backend server. Use `'*'` to specify that any cookie set by the backend causes the session to persist. Example: `example_cookie`
- `disable_fallback` - (Optional) (Updatable) Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`. Example: `false`

- `ssl_configuration` - (Optional) (Updatable)

- `certificate_name` - (Required) (Updatable) A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
- `verify_depth` - (Optional) (Updatable) The maximum depth for peer certificate chain verification. Example: `3`
- `verify_peer_certificate` - (Optional) (Updatable) Whether the load balancer listener should verify peer certificates. Example: `true`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **backend** -
 - **backup** - Whether the load balancer should treat this server as a backup unit. If `true`, the load balancer forwards no ingress traffic to this backend server unless all other backend servers not marked as "backup" fail the health check policy.

Note: You cannot add a backend server marked as `backup` to a backend set that uses the IP Hash policy.

Example: `false`
 - **drain** - Whether the load balancer should drain this server. Servers marked "drain" receive no new incoming traffic. Example: `false`
 - **ip_address** - The IP address of the backend server. Example: `10.0.0.3`
 - **name** - A read-only field showing the IP address and port that uniquely identify this backend server in the backend set. Example: `10.0.0.3:8080`
 - **offline** - Whether the load balancer should treat this server as offline. Offline servers receive no incoming traffic. Example: `false`
 - **port** - The communication port for the backend server. Example: `8080`
 - **weight** - The load balancing policy weight assigned to the server. Backend servers with a higher weight receive a larger proportion of incoming traffic. For example, a server weighted '3' receives 3 times the number of new connections as a server weighted '1'. For more information on load balancing policies, see [How Load Balancing Policies Work \(https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm\)](https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/lbpolicies.htm). Example: `3`
- **health_checker** -
 - **interval_ms** - The interval between health checks, in milliseconds. The default is 30000 (30 seconds). Example: `30000`
 - **port** - The backend server port against which to run the health check. If the port is not specified, the load balancer uses the port information from the `Backend` object. Example: `8080`
 - **protocol** - The protocol the health check must use; either HTTP or TCP. Example: `HTTP`
 - **response_body_regex** - A regular expression for parsing the response body from the backend server. Example: `^(?!false).|\s)*$`
 - **retries** - The number of retries to attempt before a backend server is considered "unhealthy". This number also applies when recovering a server to the "healthy" state. Defaults to 3. Example: `3`
 - **return_code** - The status code a healthy backend server should return. If you configure the health check policy to use the HTTP protocol, you can use common HTTP status codes such as "200". Example: `200`
 - **timeout_in_millis** - The maximum time, in milliseconds, to wait for a reply to a health check. A health check is successful only if a reply returns within this timeout period. Defaults to 3000 (3 seconds). Example: `3000`
 - **url_path** - The path against which to run the health check. Example: `/healthcheck`
- **lb_cookie_session_persistence_configuration** -

- `cookie_name` - The name of the cookie inserted by the load balancer. If this field is not configured, the cookie name defaults to "X-Oracle-BMC-LBS-Route". Example: `example_cookie`

Notes:

- Ensure that the cookie name used at the backend application servers is different from the cookie name used at the load balancer. To minimize the chance of name collision, Oracle recommends that you use a prefix such as "X-Oracle-OCI-" for this field.
- If a backend server and the load balancer both insert cookies with the same name, the client or browser behavior can vary depending on the domain and path values associated with the cookie. If the name, domain, and path values of the `Set-cookie` generated by a backend server and the `Set-cookie` generated by the load balancer are all the same, the client or browser treats them as one cookie and returns only one of the cookie values in subsequent requests. If both `Set-cookie` names are the same, but the domain and path names are different, the client or browser treats them as two different cookies.
- `disable_fallback` - Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`. Example: `false`
- `domain` - The domain in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a domain attribute with the specified value.

This attribute has no default value. If you do not specify a value, the load balancer does not insert the domain attribute into the `Set-cookie` header.

Notes:

- RFC 6265 - HTTP State Management Mechanism (<https://www.ietf.org/rfc/rfc6265.txt>) describes client and browser behavior when the domain attribute is present or not present in the `Set-cookie` header.

If the value of the `Domain` attribute is `example.com` in the `Set-cookie` header, the client includes the same cookie in the `Cookie` header when making HTTP requests to `example.com`, `www.example.com`, and `www.abc.example.com`. If the `Domain` attribute is not present, the client returns the cookie only for the domain to which the original request was made. * Ensure that this attribute specifies the correct domain value. If the `Domain` attribute in the `Set-cookie` header does not include the domain to which the original request was made, the client or browser might reject the cookie. As specified in RFC 6265, the client accepts a cookie with the `Domain` attribute value `example.com` or `www.example.com` sent from `www.example.com`. It does not accept a cookie with the `Domain` attribute `abc.example.com` or `www.abc.example.com` sent from `www.example.com`.

Example: `example.com`

- `is_http_only` - Whether the `Set-cookie` header should contain the `HttpOnly` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `HttpOnly` attribute, which limits the scope of the cookie to HTTP requests. This attribute directs the client or browser to omit the cookie when providing access to cookies through non-HTTP APIs. For example, it restricts the cookie from JavaScript channels. Example: `true`
- `is_secure` - Whether the `Set-cookie` header should contain the `Secure` attribute. If `true`, the `Set-cookie` header inserted by the load balancer contains the `Secure` attribute, which directs the client or browser to send the cookie only using a secure protocol.

Note: If you set this field to `true`, you cannot associate the corresponding backend set with an HTTP listener.

Example: `true`

- `max_age_in_seconds` - The amount of time the cookie remains valid. The `Set-cookie` header inserted by the load balancer contains a `Max-Age` attribute with the specified value.

The specified value must be at least one second. There is no default value for this attribute. If you do not specify a value, the load balancer does not include the `Max-Age` attribute in the `Set-cookie` header. In most cases, the client or browser retains the cookie until the current session ends, as defined by the client.

Example: `3600`

- `path` - The path in which the cookie is valid. The `Set-cookie` header inserted by the load balancer contains a `Path` attribute with the specified value.

Clients include the cookie in an HTTP request only if the path portion of the request-uri matches, or is a subdirectory of, the cookie's `Path` attribute.

The default value is `/`.

Example: `/example`

- `name` - A friendly name for the backend set. It must be unique and it cannot be changed.

Valid backend set names include only alphanumeric characters, dashes, and underscores. Backend set names cannot contain spaces. Avoid entering confidential information.

Example: `example_backend_set`

- `policy` - The load balancer policy for the backend set. To get a list of available policies, use the `ListPolicies` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerPolicy/ListPolicies>) operation.

Example: `LEAST_CONNECTIONS`

- `session_persistence_configuration` -

- `cookie_name` - The name of the cookie used to detect a session initiated by the backend server. Use `*` to specify that any cookie set by the backend causes the session to persist. Example: `example_cookie`
- `disable_fallback` - Whether the load balancer is prevented from directing traffic from a persistent session client to a different backend server if the original server is unavailable. Defaults to `false`. Example: `false`

- `ssl_configuration` -

- `certificate_name` - A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
- `verify_depth` - The maximum depth for peer certificate chain verification. Example: `3`
- `verify_peer_certificate` - Whether the load balancer listener should verify peer certificates. Defaults to `true`. Example: `true`

Import

BackendSets can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_backend_set.test_backend_set "loadBalancers/{loadBalancerId}/backendSets/{backendSetName}"
```


oci_load_balancer_certificate

This resource provides the Certificate resource in Oracle Cloud Infrastructure Load Balancer service.

Creates an asynchronous request to add an SSL certificate bundle.

Set the terraform flag `lifecycle { create_before_destroy = true }` in your certificate to facilitate rotating certificates. A certificate cannot be deleted if it is attached to another resource (a listener or a backend set for example). Because `certificate_name` in the listener is an updatable parameter, terraform will attempt to recreate the certificate first and then update the listener but the certificate cannot be deleted while it is attached to a listener so it will fail. Setting the flag makes it so that when a certificate is recreated, the new certificate will be created first before the old one gets deleted. Whenever you change any values on a certificate that causes it to be recreated the `certificate_name` MUST also change. Otherwise you will get an error saying that a certificate with that name already exists.

Example Usage

```
resource "oci_load_balancer_certificate" "test_certificate" {  
  #Required  
  certificate_name = "${var.certificate_certificate_name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  
  #Optional  
  ca_certificate = "${var.certificate_ca_certificate}"  
  passphrase = "${var.certificate_passphrase}"  
  private_key = "${var.certificate_private_key}"  
  public_certificate = "${var.certificate_public_certificate}"  
  
  lifecycle {  
    create_before_destroy = true  
  }  
}
```

Argument Reference

The following arguments are supported:

- `ca_certificate` - (Optional) The Certificate Authority certificate, or any interim certificate, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----  
MIIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix  
EzARBgNVBAGTClnvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD  
VQQLEx5DbGFzcyAxIFB1Ym9ycyBQcm9tYXN0ZXQYDQYDZDAsBgNVBAMT  
aXR5MRQwEgYDVQDEWtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy  
...  
-----END CERTIFICATE-----
```

- **certificate_name** - (Required) A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example:
example_certificate_bundle
- **load_balancer_id** - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer on which to add the certificate bundle.
- **passphrase** - (Optional) A passphrase for encrypted private keys. This is needed only if you created your certificate with a passphrase.
- **private_key** - (Optional) The SSL private key for your certificate, in PEM format.

Example:

```
-----BEGIN RSA PRIVATE KEY-----
j0101v2ftXmsawM90tnXwc6xh0AT1gDBC9S8DKeca..JZNUgYYwNS0dP2UK
tmyN+XqVcAKw4HqVmChXy5b5msu8eIq3uc2NqNVtR..2ksSLukP8pxXcHyb
+sEwvM4uf8qbnHAqwnOnP9+KV9vds6BaH1eRA4CHz..n+NVZlZBsTxTlS16
/Umr7wJzVrMqK5sDiSu4WuaaBdqMGfL5hLsTjcBFD..Da2iyQmSKuVD4LIz
...
-----END RSA PRIVATE KEY-----
```

- **public_certificate** - (Optional) The public certificate, in PEM format, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----
MIIC2jCCAKMCAg38MA0GCSqGSIb3DQEBBQUAMIGbM..QswCQYDVQQGEwJKU
A1UECBMFVG9reW8xEDA0BgNVBACTB0NodW8ta3UxE..TAPBgNVBAoTCEZyY
MRgwFgYDVQQLew9XZWJDZXJ0IFN1cHBvcnQxGDAWB..gNVBAMTD0ZyYW5rN
YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmc..mFuazRkZC5jb20wH
...
-----END CERTIFICATE-----
```

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **ca_certificate** - The Certificate Authority certificate, or any interim certificate, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----
MIIEczCCA1ugAwIBAgIBADANBgkqhkiG9w0BAQQFAD..AkGA1UEBhMCR0Ix
EzARBgNVBAGTClnvbWUtU3RhdGUxFDASBgNVBAoTC0..0EgTHRkMTcwNQYD
VQQLEx5DbGFzcyAxIFB1YmtpYyBQcm1tYXJ5IENlc..XRpb24gQXV0aG9y
aXR5MRQwEgYDVQQDEWtCZXN0IENBIEx0ZDAeFw0wMD..TUwMTZaFw0wMTAy
...
-----END CERTIFICATE-----
```

- `certificate_name` - A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
- `public_certificate` - The public certificate, in PEM format, that you received from your SSL certificate provider.

Example:

```
-----BEGIN CERTIFICATE-----
MIIC2jCCAkMCAG38MA0GCSqGSIb3DQEBBQUAMIGbMQswCQYDVQQGEwJKUDEOMAwG
A1UECBMVG9reW8xEDA0BgNVBACtB0NodW8ta3UxETAPBgNVBAoTCEZyYW5rNERE
MRgwFgYDVQQLEx9XZWJDZXJ0IFN1cHBvcnQxGDAWBgNVBAMTD0ZyYW5rNEREIFdI
YiBDQTEjMCEGCSqGSIb3DQEJARYUc3VwcG9ydEBmcmFuazRkZC5jb20wHhcNMTIw
...
-----END CERTIFICATE-----
```

Import

Certificates can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_certificate.test_certificate "loadBalancers/{loadBalancerId}/certifi
cates/{certificateName}"
```

oci_load_balancer_hostname

This resource provides the Hostname resource in Oracle Cloud Infrastructure Load Balancer service.

Adds a hostname resource to the specified load balancer. For more information, see Managing Request Routing (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm>).

Example Usage

```
resource "oci_load_balancer_hostname" "test_hostname" {  
  #Required  
  hostname = "${var.hostname_hostname}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  name = "${var.hostname_name}"  
}
```

Argument Reference

The following arguments are supported:

- `hostname` - (Required) (Updatable) A virtual hostname. For more information about virtual hostname string construction, see Managing Request Routing (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm#routing>). Example: `app.example.com`
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer to add the hostname to.
- `name` - (Required) A friendly name for the hostname resource. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_hostname_001`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `hostname` - A virtual hostname. For more information about virtual hostname string construction, see Managing Request Routing (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm#routing>). Example: `app.example.com`
- `name` - A friendly name for the hostname resource. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_hostname_001`

Import

Hostnames can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_hostname.test_hostname "loadBalancers/{loadBalancerId}/hostnames/{name}"
```

oci_load_balancer_listener

This resource provides the Listener resource in Oracle Cloud Infrastructure Load Balancer service.

Adds a listener to a load balancer.

Example Usage

```
resource "oci_load_balancer_listener" "test_listener" {  
  #Required  
  default_backend_set_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  name = "${var.listener_name}"  
  port = "${var.listener_port}"  
  protocol = "${var.listener_protocol}"  
  
  #Optional  
  connection_configuration {  
    #Required  
    idle_timeout_in_seconds = "${var.listener_connection_configuration_idle_timeout_in_seconds}"  
  }  
  hostname_names = ["${oci_load_balancer_hostname.test_hostname.name}"]  
  path_route_set_name = "${oci_load_balancer_path_route_set.test_path_route_set.name}"  
  rule_set_names = ["${oci_load_balancer_rule_set.test_rule_set.name}"]  
  ssl_configuration {  
    #Required  
    certificate_name = "${oci_load_balancer_certificate.test_certificate.name}"  
  
    #Optional  
    verify_depth = "${var.listener_ssl_configuration_verify_depth}"  
    verify_peer_certificate = "${var.listener_ssl_configuration_verify_peer_certificate}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- `connection_configuration` - (Optional) (Updatable)
 - `idle_timeout_in_seconds` - (Required) (Updatable) The maximum idle time, in seconds, allowed between two successive receive or two successive send operations between the client and backend servers. A send operation does not reset the timer for receive operations. A receive operation does not reset the timer for send operations.

For more information, see Connection Configuration

(<https://docs.cloud.oracle.com/iaas/Content/Balance/Reference/connectionreuse.htm#ConnectionConfiguration>).

Example: 1200

- `default_backend_set_name` - (Required) (Updatable) The name of the associated backend set. Example: `example_backend_set`

- `hostname_names` - (Optional) (Updatable) An array of hostname resource names.
- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer on which to add a listener.
- `name` - (Required) A friendly name for the listener. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_listener`
- `path_route_set_name` - (Optional) (Updatable) The name of the set of path-based routing rules, `PathRouteSet` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/PathRouteSet/>), applied to this listener's traffic. Example: `example_path_route_set`
- `port` - (Required) (Updatable) The communication port for the listener. Example: `80`
- `protocol` - (Required) (Updatable) The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `ListProtocols` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerProtocol/ListProtocols>) operation. Example: `HTTP`
- `rule_set_names` - (Optional) (Updatable) The names of the rule sets (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/RuleSet/>) to apply to the listener. Example: `["example_rule_set"]`
- `ssl_configuration` - (Optional) (Updatable)
 - `certificate_name` - (Required) (Updatable) A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
 - `verify_depth` - (Optional) (Updatable) The maximum depth for peer certificate chain verification. Example: `3`
 - `verify_peer_certificate` - (Optional) (Updatable) Whether the load balancer listener should verify peer certificates. Example: `true`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `connection_configuration` -
 - `idle_timeout_in_seconds` - The maximum idle time, in seconds, allowed between two successive receive or two successive send operations between the client and backend servers. A send operation does not reset the timer for receive operations. A receive operation does not reset the timer for send operations. The default values are: * 300 seconds for TCP * 60 seconds for HTTP and WebSocket protocols. Note: The protocol is set at the listener. Modify this parameter if the client or backend server stops transmitting data for more than the default time. Some examples include: * The client sends a database query to the backend server and the database takes over 300 seconds to execute. Therefore, the backend server does not transmit any data within 300 seconds. * The client uploads data using the HTTP protocol. During the upload, the backend does not transmit any data to

the client for more than 60 seconds. * The client downloads data using the HTTP protocol. After the initial request, it stops transmitting data to the backend server for more than 60 seconds. * The client starts transmitting data after establishing a WebSocket connection, but the backend server does not transmit data for more than 60 seconds. * The backend server starts transmitting data after establishing a WebSocket connection, but the client does not transmit data for more than 60 seconds. The maximum value is 7200 seconds. Contact My Oracle Support to file a service request if you want to increase this limit for your tenancy. For more information, see Service Limits (<https://docs.us-phoenix-1.oraclecloud.com/Content/General/Concepts/servicelimits.htm>). Example: 1200

- `default_backend_set_name` - The name of the associated backend set. Example: `example_backend_set`
- `hostname_names` - An array of hostname resource names.
- `load_balancer_id` - The OCID (<https://docs.us-phoenix-1.oraclecloud.com/Content/General/Concepts/identifiers.htm>) of the load balancer on which to add a listener.
- `name` - A friendly name for the listener. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `My listener`
- `path_route_set_name` - The name of the set of path-based routing rules, `PathRouteSet` (<https://docs.us-phoenix-1.oraclecloud.com/api/#/en/loadbalancer/20170115/PathRouteSet/>), applied to this listener's traffic. Example: `path-route-set-001`
- `port` - The communication port for the listener. Example: `80`
- `protocol` - The protocol on which the listener accepts connection requests. To get a list of valid protocols, use the `ListProtocols` (<https://docs.us-phoenix-1.oraclecloud.com/api/#/en/loadbalancer/20170115/LoadBalancerProtocol/ListProtocols>) operation. Example: `HTTP`
- `ssl_configuration` -
 - `certificate_name` - A friendly name for the certificate bundle. It must be unique and it cannot be changed. Valid certificate bundle names include only alphanumeric characters, dashes, and underscores. Certificate bundle names cannot contain spaces. Avoid entering confidential information. Example: `example_certificate_bundle`
 - `verify_depth` - The maximum depth for peer certificate chain verification. Example: `3`
 - `verify_peer_certificate` - Whether the load balancer listener should verify peer certificates. Example: `true`

Import

Listeners can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_listener.test_listener "loadBalancers/{loadBalancerId}/listeners/{listenerName}"
```


oci_load_balancer_load_balancer

This resource provides the Load Balancer resource in Oracle Cloud Infrastructure Load Balancer service.

Creates a new load balancer in the specified compartment. For general information about load balancers, see Overview of the Load Balancing Service (<https://docs.cloud.oracle.com/iaas/Content/Balance/Concepts/balanceoverview.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the load balancer to reside. Notice that the load balancer doesn't have to be in the same compartment as the VCN or backend set. If you're not sure which compartment to use, put the load balancer in the same compartment as the VCN. For information about access control and compartments, see Overview of the IAM Service (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

You must specify a display name for the load balancer. It does not have to be unique, and you can change it.

For information about Availability Domains, see Regions and Availability Domains (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/regions.htm>). To get a list of Availability Domains, use the `ListAvailabilityDomains` operation in the Identity and Access Management Service API.

All Oracle Cloud Infrastructure resources, including load balancers, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console. For more information, see Resource Identifiers (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

When you create a load balancer, the system assigns an IP address. To get the IP address, use the `GetLoadBalancer` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancer/GetLoadBalancer>) operation.

Supported Aliases

- `oci_load_balancer`

Example Usage

```
resource "oci_load_balancer_load_balancer" "test_load_balancer" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.load_balancer_display_name}"  
  shape = "${var.load_balancer_shape}"  
  subnet_ids = "${var.load_balancer_subnet_ids}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  ip_mode = "${var.load_balancer_ip_mode}"  
  is_private = "${var.load_balancer_is_private}"  
  network_security_group_ids = "${var.load_balancer_network_security_group_ids}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment in which to create the load balancer.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```
- `display_name` - (Required) (Updatable) A user-friendly name. It does not have to be unique, and it is changeable. Avoid entering confidential information. Example: `example_load_balancer`
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Department": "Finance"}
```
- `ip_mode` - (Optional) IPv6 is currently supported only in the Government Cloud. Whether the load balancer has an IPv4 or IPv6 IP address.

If "IPv4", the service assigns an IPv4 address and the load balancer supports IPv4 traffic.

If "IPv6", the service assigns an IPv6 address and the load balancer supports IPv6 traffic.

Example: `"ipMode":"IPv6"`

- `is_private` - (Optional) Whether the load balancer has a VCN-local (private) IP address.

If "true", the service assigns a private IP address to the load balancer.

If "false", the service assigns a public IP address to the load balancer.

A public load balancer is accessible from the internet, depending on your VCN's security list rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm>). For more information about public and private load balancers, see How Load Balancing Works

(<https://docs.cloud.oracle.com/iaas/Content/Balance/Concepts/balanceoverview.htm#how-load-balancing-works>).

Example: `true`

- `network_security_group_ids` - (Optional) (Updatable) An array of NSG OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) associated with this load balancer.

During the load balancer's creation, the service adds the new load balancer to the specified NSGs.

The benefits of using NSGs with the load balancer include:

- NSGs define network security rules to govern ingress and egress traffic for the load balancer.
- The network security rules of other resources can reference the NSGs associated with the load balancer to ensure access.

Example: `["ocid1.nsg.oc1.phx.unique_ID"]`

- `shape` - (Required) A template that determines the total pre-provisioned bandwidth (ingress plus egress). To get a list of available shapes, use the ListShapes (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerShape/ListShapes>) operation.
Example: 100Mbps
- `subnet_ids` - (Required) An array of subnet OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the load balancer.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>).
Example: `{"Operations.CostCenter": "42"}`
- `display_name` - A user-friendly name. It does not have to be unique, and it is changeable. Example: `example_load_balancer`
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer.
- `ip_address_details` - An array of IP addresses.
 - `ip_address` - An IP address. Example: 192.168.0.3
 - `is_public` - Whether the IP address is public or private.

If "true", the IP address is public and accessible from the internet.

If "false", the IP address is private and accessible only from within the associated VCN.
- `ip_addresses` - An array of IP addresses. Deprecated: use `ip_address_details` instead
- `is_private` - Whether the load balancer has a VCN-local (private) IP address.

If "true", the service assigns a private IP address to the load balancer.

If "false", the service assigns a public IP address to the load balancer.

A public load balancer is accessible from the internet, depending on your VCN's security list rules (<https://docs.cloud.oracle.com/iaas/Content/Network/Concepts/securitylists.htm>). For more information about public and private load balancers, see How Load Balancing Works (<https://docs.cloud.oracle.com/iaas/Content/Balance/Concepts/balanceoverview.htm#how-load-balancing-works>).

Example: true

- `network_security_group_ids` - An array of NSG OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) associated with the load balancer.

During the load balancer's creation, the service adds the new load balancer to the specified NSGs.

The benefits of associating the load balancer with NSGs include:

- NSGs define network security rules to govern ingress and egress traffic for the load balancer.
- The network security rules of other resources can reference the NSGs associated with the load balancer to ensure access.

Example: ["ocid1.nsg.oc1.phx.unique_ID"]

- `shape` - A template that determines the total pre-provisioned bandwidth (ingress plus egress). To get a list of available shapes, use the `ListShapes` (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/LoadBalancerShape/ListShapes>) operation.

Example: 100Mbps

- `state` - The current state of the load balancer.
- `subnet_ids` - An array of subnet OCIDs (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).
- `system_tags` - System tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). System tags can be viewed by users, but can only be created by the system. Example: {"orcl-cloud.free-tier-retained": "true"}
- `time_created` - The date and time the load balancer was created, in the format defined by RFC3339. Example: 2016-08-25T21:10:29.600Z

Import

LoadBalancers can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_load_balancer.test_load_balancer "id"
```

oci_load_balancer_path_route_set

This resource provides the Path Route Set resource in Oracle Cloud Infrastructure Load Balancer service.

Adds a path route set to a load balancer. For more information, see [Managing Request Routing](https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm) (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm>).

Example Usage

```
resource "oci_load_balancer_path_route_set" "test_path_route_set" {  
  #Required  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  name = "${var.path_route_set_name}"  
  path_routes {  
    #Required  
    backend_set_name = "${oci_load_balancer_backend_set.test_backend_set.name}"  
    path = "${var.path_route_set_path_routes_path}"  
    path_match_type {  
      #Required  
      match_type = "${var.path_route_set_path_routes_path_match_type_match_type}"  
    }  
  }  
}
```

Argument Reference

The following arguments are supported:

- `load_balancer_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the load balancer to add the path route set to.
- `name` - (Required) The name for this set of path route rules. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_path_route_set`
- `path_routes` - (Required) (Updatable) The set of path route rules.
 - `backend_set_name` - (Required) (Updatable) The name of the target backend set for requests where the incoming URI matches the specified path. Example: `example_backend_set`
 - `path` - (Required) (Updatable) The path string to match against the incoming URI path.
 - Path strings are case-insensitive.
 - Asterisk (*) wildcards are not supported.
 - Regular expressions are not supported.

Example: `/example/video/123`

- `path_match_type` - (Required) (Updatable) The type of matching to apply to incoming URIs.

- **match_type** - (Required) (Updatable) Specifies how the load balancing service compares a PathRoute (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/requests/PathRoute>) object's `path` string against the incoming URI.
 - **EXACT_MATCH** - Looks for a `path` string that exactly matches the incoming URI path.
 - **FORCE_LONGEST_PREFIX_MATCH** - Looks for the `path` string with the best, longest match of the beginning portion of the incoming URI path.
 - **PREFIX_MATCH** - Looks for a `path` string that matches the beginning portion of the incoming URI path.
 - **SUFFIX_MATCH** - Looks for a `path` string that matches the ending portion of the incoming URI path.

For a full description of how the system handles `matchType` in a path route set containing multiple rules, see [Managing Request Routing](https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm) (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **name** - The unique name for this set of path route rules. Avoid entering confidential information. Example: `example_path_route_set`
 - **path_routes** - The set of path route rules.
 - **backend_set_name** - The name of the target backend set for requests where the incoming URI matches the specified path. Example: `example_backend_set`
 - **path** - The path string to match against the incoming URI path.
 - Path strings are case-insensitive.
 - Asterisk (*) wildcards are not supported.
 - Regular expressions are not supported.
- Example: `/example/video/123`
- **path_match_type** - The type of matching to apply to incoming URIs.
 - **match_type** - Specifies how the load balancing service compares a PathRoute (<https://docs.cloud.oracle.com/iaas/api/#/en/loadbalancer/20170115/requests/PathRoute>) object's `path` string against the incoming URI.
 - **EXACT_MATCH** - Looks for a `path` string that exactly matches the incoming URI path.
 - **FORCE_LONGEST_PREFIX_MATCH** - Looks for the `path` string with the best, longest match of the beginning portion of the incoming URI path.
 - **PREFIX_MATCH** - Looks for a `path` string that matches the beginning portion of the incoming URI

path.

- **SUFFIX_MATCH** - Looks for a `path` string that matches the ending portion of the incoming URI path.

For a full description of how the system handles `matchType` in a path route set containing multiple rules, see Managing Request Routing

(<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrequest.htm>).

Import

PathRouteSets can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_path_route_set.test_path_route_set "loadBalancers/{loadBalancerId}/pathRouteSets/{pathRouteSetName}"
```

oci_load_balancer_rule_set

This resource provides the Rule Set resource in Oracle Cloud Infrastructure Load Balancer service.

Creates a new rule set associated with the specified load balancer. For more information, see [Managing Rule Sets](https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm) (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Example Usage

```
resource "oci_load_balancer_rule_set" "test_rule_set" {  
  #Required  
  items {  
    #Required  
    action = "${var.rule_set_items_action}"  
  
    #Optional  
    allowed_methods = "${var.rule_set_items_allowed_methods}"  
    conditions {  
      #Required  
      attribute_name = "${var.rule_set_items_conditions_attribute_name}"  
      attribute_value = "${var.rule_set_items_conditions_attribute_value}"  
    }  
    description = "${var.rule_set_items_description}"  
    header = "${var.rule_set_items_header}"  
    prefix = "${var.rule_set_items_prefix}"  
    status_code = "${var.rule_set_items_status_code}"  
    suffix = "${var.rule_set_items_suffix}"  
    value = "${var.rule_set_items_value}"  
  }  
  load_balancer_id = "${oci_load_balancer_load_balancer.test_load_balancer.id}"  
  name = "${var.rule_set_name}"  
}
```

Argument Reference

The following arguments are supported:

- **items** - (Required) (Updatable) An array of rules that compose the rule set.
 - **action** - (Required) (Updatable) The action can be one of these values: `ADD_HTTP_REQUEST_HEADER`, `ADD_HTTP_RESPONSE_HEADER`, `ALLOW`, `CONTROL_ACCESS_USING_HTTP_METHODS`, `EXTEND_HTTP_REQUEST_HEADER_VALUE`, `EXTEND_HTTP_RESPONSE_HEADER_VALUE`, `REMOVE_HTTP_REQUEST_HEADER`, `REMOVE_HTTP_RESPONSE_HEADER`
 - **allowed_methods** - (Required when `action=CONTROL_ACCESS_USING_HTTP_METHODS`) (Updatable) The list of HTTP methods allowed for this listener.

By default, you can specify only the standard HTTP methods defined in the [HTTP Method Registry](http://www.iana.org/assignments/http-methods/http-methods.xhtml) (<http://www.iana.org/assignments/http-methods/http-methods.xhtml>). You can also see a list of supported standard HTTP methods in the Load Balancing service documentation at [Managing Rule Sets](#)

(<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Your backend application must be able to handle the methods specified in this list.

The list of HTTP methods is extensible. If you need to configure custom HTTP methods, contact My Oracle Support (<http://support.oracle.com/>) to remove the restriction for your tenancy.

Example: ["GET", "PUT", "POST", "PROPFIND"]

- conditions - (Required when action=ALLOW) (Updatable)
 - attribute_name - (Required) (Updatable) The attribute_name can be one of these values:
SOURCE_IP_ADDRESS , SOURCE_VCN_ID , SOURCE_VCN_IP_ADDRESS
 - attribute_value - (Required) (Updatable) Depends on attribute_name :
 - when attribute_name = SOURCE_IP_ADDRESS | IPv4 or IPv6 address range to which the source IP address of incoming packet would be matched against
 - when attribute_name = SOURCE_VCN_IP_ADDRESS | IPv4 address range to which the original client IP address (in customer VCN) of incoming packet would be matched against
 - when attribute_name = SOURCE_VCN_ID | OCID of the customer VCN to which the service gateway embedded VCN ID of incoming packet would be matched against
- description - (Applicable when action=ALLOW) (Updatable) A brief description of the access control rule. Avoid entering confidential information.

example: 192.168.0.0/16 and 2001:db8::/32 are trusted clients. Whitelist them.

- header - (Required when action=ADD_HTTP_REQUEST_HEADER | ADD_HTTP_RESPONSE_HEADER | EXTEND_HTTP_REQUEST_HEADER_VALUE | EXTEND_HTTP_RESPONSE_HEADER_VALUE | REMOVE_HTTP_REQUEST_HEADER | REMOVE_HTTP_RESPONSE_HEADER) (Updatable) A header name that conforms to RFC 7230. Example: example_header_name
- prefix - (Applicable when action=EXTEND_HTTP_REQUEST_HEADER_VALUE | EXTEND_HTTP_RESPONSE_HEADER_VALUE) (Updatable) A string to prepend to the header value. The resulting header value must still conform to RFC 7230. Example: example_prefix_value
- status_code - (Applicable when action=CONTROL_ACCESS_USING_HTTP_METHODS) (Updatable) The HTTP status code to return when the requested HTTP method is not in the list of allowed methods. The associated status line returned with the code is mapped from the standard HTTP specification. The default value is 405 (Method Not Allowed) . Example: 403
- suffix - (Applicable when action=EXTEND_HTTP_REQUEST_HEADER_VALUE | EXTEND_HTTP_RESPONSE_HEADER_VALUE) (Updatable) A string to append to the header value. The resulting header value must still conform to RFC 7230. Example: example_suffix_value
- value - (Required when action=ADD_HTTP_REQUEST_HEADER | ADD_HTTP_RESPONSE_HEADER) (Updatable) A header value that conforms to RFC 7230. Example: example_value

- load_balancer_id - (Required) The OCID

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the specified load balancer.

- name - (Required) The name for this set of rules. It must be unique and it cannot be changed. Avoid entering confidential information. Example: example_rule_set

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `items` - An array of rules that compose the rule set.
 - `action` - The action can be one of these values: `ADD_HTTP_REQUEST_HEADER`, `ADD_HTTP_RESPONSE_HEADER`, `ALLOW`, `CONTROL_ACCESS_USING_HTTP_METHODS`, `EXTEND_HTTP_REQUEST_HEADER_VALUE`, `EXTEND_HTTP_RESPONSE_HEADER_VALUE`, `REMOVE_HTTP_REQUEST_HEADER`, `REMOVE_HTTP_RESPONSE_HEADER`
 - `allowed_methods` - The list of HTTP methods allowed for this listener.

By default, you can specify only the standard HTTP methods defined in the HTTP Method Registry (<http://www.iana.org/assignments/http-methods/http-methods.xhtml>). You can also see a list of supported standard HTTP methods in the Load Balancing service documentation at Managing Rule Sets (<https://docs.cloud.oracle.com/iaas/Content/Balance/Tasks/managingrulesets.htm>).

Your backend application must be able to handle the methods specified in this list.

The list of HTTP methods is extensible. If you need to configure custom HTTP methods, contact My Oracle Support (<http://support.oracle.com/>) to remove the restriction for your tenancy.

Example: `["GET", "PUT", "POST", "PROPFIND"]`

- `conditions` -
 - `attribute_name` - (Required) (Updatable) The `attribute_name` can be one of these values:
`SOURCE_IP_ADDRESS`, `SOURCE_VCN_ID`, `SOURCE_VCN_IP_ADDRESS`
 - `attribute_value` - (Required) (Updatable) Depends on `attribute_name`:
 - when `attribute_name` = `SOURCE_IP_ADDRESS` | IPv4 or IPv6 address range to which the source IP address of incoming packet would be matched against
 - when `attribute_name` = `SOURCE_VCN_IP_ADDRESS` | IPv4 address range to which the original client IP address (in customer VCN) of incoming packet would be matched against
 - when `attribute_name` = `SOURCE_VCN_ID` | OCID of the customer VCN to which the service gateway embedded VCN ID of incoming packet would be matched against
- `description` - A brief description of the access control rule. Avoid entering confidential information.

example: `192.168.0.0/16 and 2001:db8::/32 are trusted clients. Whitelist them.`
- `header` - A header name that conforms to RFC 7230. Example: `example_header_name`
- `prefix` - A string to prepend to the header value. The resulting header value must still conform to RFC 7230.
Example: `example_prefix_value`
- `status_code` - The HTTP status code to return when the requested HTTP method is not in the list of allowed methods. The associated status line returned with the code is mapped from the standard HTTP specification. The default value is `405 (Method Not Allowed)`. Example: `403`

- `suffix` - A string to append to the header value. The resulting header value must still conform to RFC 7230.

Example: `example_suffix_value`

- `value` - A header value that conforms to RFC 7230. Example: `example_value`

- `name` - The name for this set of rules. It must be unique and it cannot be changed. Avoid entering confidential information. Example: `example_rule_set`

Import

RuleSets can be imported using the `id`, e.g.

```
$ terraform import oci_load_balancer_rule_set.test_rule_set "loadBalancers/{loadBalancerId}/ruleSets/{ruleSetName}"
```

oci_monitoring_alarm

This resource provides the Alarm resource in Oracle Cloud Infrastructure Monitoring service.

Creates a new alarm in the specified compartment. For important limits information, see Limits on Monitoring (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#Limits>).

This call is subject to a Monitoring limit that applies to the total number of requests across all alarm operations. Monitoring might throttle this call to reject an otherwise valid request when the total rate of alarm operations exceeds 10 requests, or transactions, per second (TPS) for a given tenancy.

Example Usage

```
resource "oci_monitoring_alarm" "test_alarm" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  destinations = ["${oci_ons_notification_topic.test_notification_topic.id}"]  
  display_name = "${var.alarm_display_name}"  
  is_enabled = "${var.alarm_is_enabled}"  
  metric_compartment_id = "${var.alarm_metric_compartment_id}"  
  namespace = "${var.alarm_namespace}"  
  query = "${var.alarm_query}"  
  severity = "${var.alarm_severity}"  
  
  #Optional  
  body = "${var.alarm_body}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  metric_compartment_id_in_subtree = "${var.alarm_metric_compartment_id_in_subtree}"  
  pending_duration = "${var.alarm_pending_duration}"  
  repeat_notification_duration = "${var.alarm_repeat_notification_duration}"  
  resolution = "${var.alarm_resolution}"  
  resource_group = "${var.alarm_resource_group}"  
  suppression {  
    #Required  
    time_suppress_from = "${var.alarm_suppression_time_suppress_from}"  
    time_suppress_until = "${var.alarm_suppression_time_suppress_until}"  
  
    #Optional  
    description = "${var.alarm_suppression_description}"  
  }  
}
```

Argument Reference

The following arguments are supported:

- body - (Optional) (Updatable) The human-readable content of the notification delivered. Oracle recommends providing guidance to operators for resolving the alarm condition. Consider adding links to standard runbook practices. Avoid entering confidential information. Example: High CPU usage alert. Follow runbook

instructions for resolution.

- **compartment_id** - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the alarm.
- **defined_tags** - (Optional) (Updatable) Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"Operations.CostCenter": "42"}`
- **destinations** - (Required) (Updatable) A list of destinations to which the notifications for this alarm will be delivered. Each destination is represented by an OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) related to the supported destination service. For example, a destination using the Notifications service is represented by a topic OCID. Supported destination services: Notifications Service. Limit: One destination per supported destination service.
- **display_name** - (Required) (Updatable) A user-friendly name for the alarm. It does not have to be unique, and it's changeable. Avoid entering confidential information.

This name is sent as the title for notifications related to this alarm.

Example: High CPU Utilization

- **freeform_tags** - (Optional) (Updatable) Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"Department": "Finance"}`
- **is_enabled** - (Required) (Updatable) Whether the alarm is enabled. Example: `true`
- **metric_compartment_id** - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the metric being evaluated by the alarm.
- **metric_compartment_id_in_subtree** - (Optional) (Updatable) When true, the alarm evaluates metrics from all compartments and subcompartments. The parameter can only be set to true when `metricCompartmentId` is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, the alarm evaluates metrics from only the compartment specified in `metricCompartmentId`. Default is false. Example: `true`
- **namespace** - (Required) (Updatable) The source service or application emitting the metric that is evaluated by the alarm. Example: `oci_computeagent`
- **pending_duration** - (Optional) (Updatable) The period of time that the condition defined in the alarm must persist before the alarm state changes from "OK" to "FIRING". For example, a value of 5 minutes means that the alarm must persist in breaching the condition for five minutes before the alarm updates its state to "FIRING".

The duration is specified as a string in ISO 8601 format (`PT10M` for ten minutes or `PT1H` for one hour). Minimum: `PT1M`. Maximum: `PT1H`. Default: `PT1M`.

Under the default value of `PT1M`, the first evaluation that breaches the alarm updates the state to "FIRING".

The alarm updates its status to "OK" when the breaching condition has been clear for the most recent minute.

Example: `PT5M`

- **query** - (Required) (Updatable) The Monitoring Query Language (MQL) expression to evaluate for the alarm. The Alarms feature of the Monitoring service interprets results for each returned time series as Boolean values, where zero represents false and a non-zero value represents true. A true value means that the trigger rule condition has been

met. The query must specify a metric, statistic, interval, and trigger rule (threshold or absence). Supported values for interval: 1m - 60m (also 1h). You can optionally specify dimensions and grouping functions. Supported grouping functions: `grouping()` , `groupBy()` . For details about Monitoring Query Language (MQL), see Monitoring Query Language (MQL) Reference (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm>). For available dimensions, review the metric definition for the supported service. See Supported Services (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices>).

Example of threshold alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.groupBy(availabilityDomain).percentile(0.9) > 85
```

Example of absence alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.absent()
```

- **repeat_notification_duration** - (Optional) (Updatable) The frequency at which notifications are re-submitted, if the alarm keeps firing without interruption. Format defined by ISO 8601. For example, PT4H indicates four hours. Minimum: PT1M. Maximum: P30D.

Default value: null (notifications are not re-submitted).

Example: PT2H

- **resolution** - (Optional) (Updatable) The time between calculated aggregation windows for the alarm. Supported value: 1m
- **resource_group** - (Optional) (Updatable) Resource group that you want to use as a filter. The alarm retrieves metric data associated with the specified resource group only. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: frontend-fleet
- **severity** - (Required) (Updatable) The perceived type of response required when the alarm is in the "FIRING" state. Example: CRITICAL
- **suppression** - (Optional) (Updatable) The configuration details for suppressing an alarm.
 - **description** - (Optional) (Updatable) Human-readable reason for suppressing alarm notifications. It does not have to be unique, and it's changeable. Avoid entering confidential information.

Oracle recommends including tracking information for the event or associated work, such as a ticket number.

Example: Planned outage due to change IT-1234.
 - **time_suppress_from** - (Required) (Updatable) The start date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T01:02:29.600Z
 - **time_suppress_until** - (Required) (Updatable) The end date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T02:02:29.600Z

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- **body** - The human-readable content of the notification delivered. Oracle recommends providing guidance to operators for resolving the alarm condition. Consider adding links to standard runbook practices. Avoid entering confidential information. Example: High CPU usage alert. Follow runbook instructions for resolution.
- **compartment_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the alarm.
- **defined_tags** - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example:
`{"Operations.CostCenter": "42"}`
- **destinations** - A list of destinations to which the notifications for this alarm will be delivered. Each destination is represented by an OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) related to the supported destination service. For example, a destination using the Notifications service is represented by a topic OCID. Supported destination services: Notifications Service. Limit: One destination per supported destination service.
- **display_name** - A user-friendly name for the alarm. It does not have to be unique, and it's changeable. Avoid entering confidential information.

This name is sent as the title for notifications related to this alarm.

Example: High CPU Utilization

- **freeform_tags** - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"Department": "Finance"}`
- **id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the alarm.
- **is_enabled** - Whether the alarm is enabled. Example: `true`
- **metric_compartment_id** - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment containing the metric being evaluated by the alarm.
- **metric_compartment_id_in_subtree** - When true, the alarm evaluates metrics from all compartments and subcompartments. The parameter can only be set to true when metricCompartmentId is the tenancy OCID (the tenancy is the root compartment). A true value requires the user to have tenancy-level permissions. If this requirement is not met, then the call is rejected. When false, the alarm evaluates metrics from only the compartment specified in metricCompartmentId. Default is false. Example: `true`
- **namespace** - The source service or application emitting the metric that is evaluated by the alarm. Example: `oci_computeagent`
- **pending_duration** - The period of time that the condition defined in the alarm must persist before the alarm state changes from "OK" to "FIRING". For example, a value of 5 minutes means that the alarm must persist in breaching the condition for five minutes before the alarm updates its state to "FIRING".

The duration is specified as a string in ISO 8601 format (`PT10M` for ten minutes or `PT1H` for one hour). Minimum: `PT1M`. Maximum: `PT1H`. Default: `PT1M`.

Under the default value of `PT1M`, the first evaluation that breaches the alarm updates the state to "FIRING".

The alarm updates its status to "OK" when the breaching condition has been clear for the most recent minute.

Example: PT5M

- **query** - The Monitoring Query Language (MQL) expression to evaluate for the alarm. The Alarms feature of the Monitoring service interprets results for each returned time series as Boolean values, where zero represents false and a non-zero value represents true. A true value means that the trigger rule condition has been met. The query must specify a metric, statistic, interval, and trigger rule (threshold or absence). Supported values for interval: 1m - 60m (also 1h). You can optionally specify dimensions and grouping functions. Supported grouping functions: `grouping()` , `groupBy()` . For details about Monitoring Query Language (MQL), see Monitoring Query Language (MQL) Reference (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Reference/mql.htm>). For available dimensions, review the metric definition for the supported service. See Supported Services (<https://docs.cloud.oracle.com/iaas/Content/Monitoring/Concepts/monitoringoverview.htm#SupportedServices>).

Example of threshold alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.groupBy(availabilityDomain).percentile(0.9) > 85
```

Example of absence alarm:

```
CpuUtilization[1m]{availabilityDomain="cumS:PHX-AD-1"}.absent()
```

- **repeat_notification_duration** - The frequency at which notifications are re-submitted, if the alarm keeps firing without interruption. Format defined by ISO 8601. For example, PT4H indicates four hours. Minimum: PT1M. Maximum: P30D.

Default value: null (notifications are not re-submitted).

Example: PT2H

- **resolution** - The time between calculated aggregation windows for the alarm. Supported value: 1m
- **resource_group** - Resource group specified as a filter for metric data retrieved by the alarm. A resource group is a custom string that can be used as a filter. Only one resource group can be applied per metric. A valid resourceGroup value starts with an alphabetical character and includes only alphanumeric characters, periods (.), underscores (_), hyphens (-), and dollar signs (\$). Avoid entering confidential information. Example: frontend-fleet
- **severity** - The perceived type of response required when the alarm is in the "FIRING" state. Example: CRITICAL
- **state** - The current lifecycle state of the alarm. Example: DELETED
- **suppression** - The configuration details for suppressing an alarm.
 - **description** - Human-readable reason for suppressing alarm notifications. It does not have to be unique, and it's changeable. Avoid entering confidential information.

Oracle recommends including tracking information for the event or associated work, such as a ticket number.

Example: Planned outage due to change IT-1234.

- **time_suppress_from** - The start date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: 2019-02-01T01:02:29.600Z

- `time_suppress_until` - The end date and time for the suppression to take place, inclusive. Format defined by RFC3339. Example: `2019-02-01T02:02:29.600Z`
- `time_created` - The date and time the alarm was created. Format defined by RFC3339. Example: `2019-02-01T01:02:29.600Z`
- `time_updated` - The date and time the alarm was last updated. Format defined by RFC3339. Example: `2019-02-03T01:02:29.600Z`

Import

Alarms can be imported using the `id`, e.g.

```
$ terraform import oci_monitoring_alarm.test_alarm "id"
```

oci_objectstorage_bucket

This resource provides the Bucket resource in Oracle Cloud Infrastructure Object Storage service.

Creates a bucket in the given namespace with a bucket name and optional user-defined metadata. Avoid entering confidential information in bucket names.

Example Usage

```
resource "oci_objectstorage_bucket" "test_bucket" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  name = "${var.bucket_name}"  
  namespace = "${var.bucket_namespace}"  
  
  #Optional  
  access_type = "${var.bucket_access_type}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
  kms_key_id = "${oci_kms_key.test_key.id}"  
  metadata = "${var.bucket_metadata}"  
  object_events_enabled = "${var.bucket_object_events_enabled}"  
  storage_tier = "${var.bucket_storage_tier}"  
}
```

Argument Reference

The following arguments are supported:

- `access_type` - (Optional) (Updatable) The type of public access enabled on this bucket. A bucket is set to `NoPublicAccess` by default, which only allows an authenticated caller to access the bucket and its contents. When `ObjectRead` is enabled on the bucket, public access is allowed for the `GetObject`, `HeadObject`, and `ListObjects` operations. When `ObjectReadWithoutList` is enabled on the bucket, public access is allowed for the `GetObject` and `HeadObject` operations.
- `compartment_id` - (Required) (Updatable) The ID of the compartment in which to create the bucket.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:

```
{"Operations.CostCenter": "42"}
```
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - (Optional) (Updatable) The OCID of a KMS key id used to call KMS to generate the data key or decrypt the encrypted data key.

- `metadata` - (Optional) (Updatable) Arbitrary string, up to 4KB, of keys and values for user-defined metadata.
- `name` - (Required) The name of the bucket. Valid characters are uppercase or lowercase letters, numbers, and dashes. Bucket names must be unique within an Object Storage namespace. Avoid entering confidential information. example: Example: my-new-bucket1
- `namespace` - (Required) The Object Storage namespace used for the request.
- `object_events_enabled` - (Optional) (Updatable) A property that determines whether events will be generated for operations on objects in this bucket. This is false by default.
- `storage_tier` - (Optional) The type of storage tier of this bucket. A bucket is set to 'Standard' tier by default, which means the bucket will be put in the standard storage tier. When 'Archive' tier type is set explicitly, the bucket is put in the Archive Storage tier. The 'storageTier' property is immutable after bucket is created.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `access_type` - The type of public access enabled on this bucket. A bucket is set to `NoPublicAccess` by default, which only allows an authenticated caller to access the bucket and its contents. When `ObjectRead` is enabled on the bucket, public access is allowed for the `GetObject`, `HeadObject`, and `ListObjects` operations. When `ObjectReadWithoutList` is enabled on the bucket, public access is allowed for the `GetObject` and `HeadObject` operations.
- `approximate_count` - The approximate number of objects in the bucket. Count statistics are reported periodically. You will see a lag between what is displayed and the actual object count.
- `approximate_size` - The approximate total size in bytes of all objects in the bucket. Size statistics are reported periodically. You will see a lag between what is displayed and the actual size of the bucket.
- `compartment_id` - The compartment ID in which the bucket is authorized.
- `created_by` - The OCID of the user who created the bucket.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `etag` - The entity tag (ETag) for the bucket.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `kms_key_id` - The OCID of a KMS key id used to call KMS to generate data key or decrypt the encrypted data key.
- `metadata` - Arbitrary string keys and values for user-defined metadata.
- `name` - The name of the bucket. Avoid entering confidential information. Example: my-new-bucket1

- `namespace` - The Object Storage namespace in which the bucket lives.
- `object_events_enabled` - A property that determines whether events will be generated for operations on objects in this bucket. This is false by default.
- `object_lifecycle_policy_etag` - The entity tag (ETag) for the live object lifecycle policy on the bucket.
- `storage_tier` - The storage tier type assigned to the bucket. A bucket is set to 'Standard' tier by default, which means objects uploaded or copied to the bucket will be in the standard storage tier. When the 'Archive' tier type is set explicitly for a bucket, objects uploaded or copied to the bucket will be stored in archive storage. The 'storageTier' property is immutable after bucket is created.
- `time_created` - The date and time the bucket was created, as described in RFC 2616 (<https://tools.ietf.org/rfc/rfc2616>), section 14.29.

Import

Buckets can be imported using the `id`, e.g.

```
$ terraform import oci_objectstorage_bucket.test_bucket "n/{namespaceName}/b/{bucketName}"
```

oci_objectstorage_object

This resource provides the Object resource in Oracle Cloud Infrastructure Object Storage service.

Creates a new object or overwrites an existing one. See [Special Instructions for Object Storage PUT](https://docs.cloud.oracle.com/iaas/Content/API/Concepts/signingrequests.htm#ObjectStoragePut)

(<https://docs.cloud.oracle.com/iaas/Content/API/Concepts/signingrequests.htm#ObjectStoragePut>) for request signature requirements.

Example Usage

```
resource "oci_objectstorage_object" "test_object" {  
  #Required  
  bucket = "${var.object_bucket}"  
  content = "${var.object_content}"  
  namespace = "${var.object_namespace}"  
  object = "${var.object_object}"  
  
  #Optional  
  content_encoding = "${var.object_content_encoding}"  
  content_language = "${var.object_content_language}"  
  content_type = "${var.object_content_type}"  
  metadata = "${var.object_metadata}"  
}
```

Argument Reference

The following arguments are supported:

- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `content_encoding` - (Optional) The content encoding of the object.
- `content_language` - (Optional) The content language of the object.
- `content_type` - (Optional) The content type of the object. Defaults to 'application/octet-stream' if not overridden during the PutObject call.
- `content` - (Required) The object to upload to the object store. Cannot be defined if `source` or `source_uri_details` is defined.
- `metadata` - (Optional) Optional user-defined metadata key and value. Note: All specified keys must be in lower case.
- `namespace` - (Required) The Object Storage namespace used for the request.
- `object` - (Required) (Updatable) The name of the object. Avoid entering confidential information. Example: `test/object1.log`
- `source` - (Optional) An absolute path to a file on the local system. Cannot be defined if `content` or `source_uri_details` is defined.
- `source_uri_details` - (Optional) Details of the source URI of the object in the cloud. Cannot be defined if `content`

or `source` is defined. Note: To enable object copy, you must authorize the service to manage objects on your behalf.

- `region` - (Required) The region of the source object.
- `namespace` - (Required) The top-level namespace of the source object.
- `bucket` - (Required) The name of the bucket for the source object.
- `object` - (Required) The name of the source object.
- `source_object_if_match_etag` - (Optional) The entity tag to match the source object.
- `destination_object_if_match_etag` - (Optional) The entity tag to match the target object.
- `destination_object_if_none_match_etag` - (Optional) The entity tag to not match the target object.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `bucket` - The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `content` - The object to upload to the object store.
- `content_encoding` - The content encoding of the object.
- `content_language` - The content language of the object.
- `content_length` - The content length of the body.
- `content_md5` - The base-64 encoded MD5 hash of the body.
- `content_type` - The content type of the object. Defaults to 'application/octet-stream' if not overridden during the `PutObject` call.
- `metadata` - Optional user-defined metadata key and value. Note: Metadata keys are case-insensitive and all returned keys will be lower case.
- `namespace` - The top-level namespace used for the request.
- `object` - The name of the object. Avoid entering confidential information. Example: `test/object1.log`
- `source` - An absolute path to a file on the local system to upload to the object store.
- `source_uri_details` - Details of the source URI of the object in the cloud.
 - `region` - The region of the source object.
 - `namespace` - The top-level namespace of the source object.
 - `bucket` - The name of the bucket for the source object.
 - `object` - The name of the source object.

Import

Objects can be imported using the `id` , e.g.

```
$ terraform import oci_objectstorage_object.test_object "n/{namespaceName}/b/{bucketName}/o/{objectName}"
```

oci_objectstorage_object_lifecycle_policy

This resource provides the Object Lifecycle Policy resource in Oracle Cloud Infrastructure Object Storage service.

Creates or replaces the object lifecycle policy for the bucket.

Example Usage

```
resource "oci_objectstorage_object_lifecycle_policy" "test_object_lifecycle_policy" {  
  #Required  
  bucket = "${var.object_lifecycle_policy_bucket}"  
  namespace = "${var.object_lifecycle_policy_namespace}"  
  
  #Optional  
  rules {  
    #Required  
    action = "${var.object_lifecycle_policy_rules_action}"  
    is_enabled = "${var.object_lifecycle_policy_rules_is_enabled}"  
    name = "${var.object_lifecycle_policy_rules_name}"  
    time_amount = "${var.object_lifecycle_policy_rules_time_amount}"  
    time_unit = "${var.object_lifecycle_policy_rules_time_unit}"  
  
    #Optional  
    object_name_filter {  
      #Optional  
      exclusion_patterns = "${var.object_lifecycle_policy_rules_object_name_filter_exclusion_patterns}"  
      inclusion_patterns = "${var.object_lifecycle_policy_rules_object_name_filter_inclusion_patterns}"  
      inclusion_prefixes = "${var.object_lifecycle_policy_rules_object_name_filter_inclusion_prefixes}"  
    }  
  }  
}
```

Argument Reference

The following arguments are supported:

- **bucket** - (Required) The name of the bucket. Avoid entering confidential information. Example: my-new-bucket1
- **namespace** - (Required) The Object Storage namespace used for the request.
- **rules** - (Optional) (Updatable) The bucket's set of lifecycle policy rules.
 - **action** - (Required) (Updatable) The action of the object lifecycle policy rule. Rules using the action 'ARCHIVE' move objects into the Archive Storage tier (<https://docs.cloud.oracle.com/iaas/Content/Archive/Concepts/archivestorageoverview.htm>). Rules using the action 'DELETE' permanently delete objects from buckets. 'ARCHIVE' and 'DELETE' are the only two supported actions at this time.

- `is_enabled` - (Required) (Updatable) A boolean that determines whether this rule is currently enabled.
- `name` - (Required) (Updatable) The name of the lifecycle rule to be applied.
- `object_name_filter` - (Optional) (Updatable) A filter limiting object names that the rule will apply to.
 - `exclusion_patterns` - (Optional) (Updatable) An array of glob patterns to match the object names to exclude. An empty array is ignored. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

`\` Escapes the following character

- Matches any string of characters. `?` Matches any single character. `[...]` Matches a group of characters. A group of characters can be: A set of characters, for example: `[Zafg9@]`. This matches any character in the brackets. A range of characters, for example: `[a-z]`. This matches any character in the range. `[a-f]` is equivalent to `[abcdef]`. For character ranges only the CHARACTER-CHARACTER pattern is supported. `[ab-yz]` is not valid `[a-mn-z]` is not valid Character ranges can not start with `^` or `:` To include a `'` in the range, make it the first or last character.
- `inclusion_patterns` - (Optional) (Updatable) An array of glob patterns to match the object names to include. An empty array includes all objects in the bucket. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

`\` Escapes the following character

- Matches any string of characters. `?` Matches any single character. `[...]` Matches a group of characters. A group of characters can be: A set of characters, for example: `[Zafg9@]`. This matches any character in the brackets. A range of characters, for example: `[a-z]`. This matches any character in the range. `[a-f]` is equivalent to `[abcdef]`. For character ranges only the CHARACTER-CHARACTER pattern is supported. `[ab-yz]` is not valid `[a-mn-z]` is not valid Character ranges can not start with `^` or `:` To include a `'` in the range, make it the first or last character.
- `inclusion_prefixes` - (Optional) (Updatable) An array of object name prefixes that the rule will apply to. An empty array means to include all objects.
- `time_amount` - (Required) (Updatable) Specifies the age of objects to apply the rule to. The `timeAmount` is interpreted in units defined by the `timeUnit` parameter, and is calculated in relation to each object's Last-Modified time.
- `time_unit` - (Required) (Updatable) The unit that should be used to interpret `timeAmount`. Days are defined as starting and ending at midnight UTC. Years are defined as 365.2425 days long and likewise round up to the next midnight UTC.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `rules` - The live lifecycle policy on the bucket.

For an example of this value, see the `PutObjectLifecyclePolicy` API documentation

(<https://docs.cloud.oracle.com/iaas/api/#/en/objectstorage/20160918/ObjectLifecyclePolicy/PutObjectLifecyclePolicy>).

- `action` - The action of the object lifecycle policy rule. Rules using the action 'ARCHIVE' move objects into the Archive Storage tier (<https://docs.cloud.oracle.com/iaas/Content/Archive/Concepts/archivestorageoverview.htm>). Rules using the action 'DELETE' permanently delete objects from buckets. 'ARCHIVE' and 'DELETE' are the only two supported actions at this time.
- `is_enabled` - A boolean that determines whether this rule is currently enabled.
- `name` - The name of the lifecycle rule to be applied.
- `object_name_filter` - A filter limiting object names that the rule will apply to.
- `exclusion_patterns` - An array of glob patterns to match the object names to exclude. An empty array is ignored. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

`\` Escapes the following character

- Matches any string of characters. `?` Matches any single character. `[...]` Matches a group of characters. A group of characters can be: A set of characters, for example: `[Zafg9@]`. This matches any character in the brackets. A range of characters, for example: `[a-z]`. This matches any character in the range. `[a-f]` is equivalent to `[abcdef]`. For character ranges only the CHARACTER-CHARACTER pattern is supported. `[ab-yz]` is not valid `[a-mn-z]` is not valid Character ranges can not start with `^` or `:` To include a '-' in the range, make it the first or last character.
- `inclusion_patterns` - An array of glob patterns to match the object names to include. An empty array includes all objects in the bucket. Exclusion patterns take precedence over inclusion patterns. A Glob pattern is a sequence of characters to match text. Any character that appears in the pattern, other than the special pattern characters described below, matches itself. Glob patterns must be between 1 and 1024 characters.

The special pattern characters have the following meanings:

`\` Escapes the following character

- Matches any string of characters. `?` Matches any single character. `[...]` Matches a group of characters. A group of characters can be: A set of characters, for example: `[Zafg9@]`. This matches any character in the brackets. A range of characters, for example: `[a-z]`. This matches any character in the range. `[a-f]` is equivalent to `[abcdef]`. For character ranges only the CHARACTER-CHARACTER pattern is supported. `[ab-yz]` is not valid `[a-mn-z]` is not valid Character ranges can not start with `^` or `:` To include a '-' in the range, make it the first or last character.
- `inclusion_prefixes` - An array of object name prefixes that the rule will apply to. An empty array means to include all objects.

- `time_amount` - Specifies the age of objects to apply the rule to. The `timeAmount` is interpreted in units defined by the `timeUnit` parameter, and is calculated in relation to each object's Last-Modified time.
- `time_unit` - The unit that should be used to interpret `timeAmount`. Days are defined as starting and ending at midnight UTC. Years are defined as 365.2425 days long and likewise round up to the next midnight UTC.
- `time_created` - The date and time the object lifecycle policy was created, as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.

Import

`ObjectLifecyclePolicies` can be imported using the `id`, e.g.

```
$ terraform import oci_objectstorage_object_lifecycle_policy.test_object_lifecycle_policy "n/{namespaceName}/b/{bucketName}/l"
```

oci_objectstorage_preauthrequest

This resource provides the Preauthenticated Request resource in Oracle Cloud Infrastructure Object Storage service.

Creates a pre-authenticated request specific to the bucket.

Example Usage

```
resource "oci_objectstorage_preauthrequest" "test_preauthenticated_request" {  
  #Required  
  access_type = "${var.preauthenticated_request_access_type}"  
  bucket = "${var.preauthenticated_request_bucket}"  
  name = "${var.preauthenticated_request_name}"  
  namespace = "${var.preauthenticated_request_namespace}"  
  time_expires = "${var.preauthenticated_request_time_expires}"  
  
  #Optional  
  object = "${var.preauthenticated_request_object}"  
}
```

Argument Reference

The following arguments are supported:

- `access_type` - (Required) The operation that can be performed on this resource. Allowed Values: `ObjectRead` , `ObjectWrite` , `ObjectReadWrite` , or `AnyObjectWrite`
- `bucket` - (Required) The name of the bucket. Avoid entering confidential information. Example: `my-new-bucket1`
- `name` - (Required) A user-specified name for the pre-authenticated request. Names can be helpful in managing pre-authenticated requests.
- `namespace` - (Required) The Object Storage namespace used for the request.
- `object` - (Optional) The name of the object that is being granted access to by the pre-authenticated request. Avoid entering confidential information. The object name can be null and if so, the pre-authenticated request grants access to the entire bucket.
- `time_expires` - (Required) The expiration date for the pre-authenticated request as per RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>). After this date the pre-authenticated request will no longer be valid.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `access_type` - The operation that can be performed on this resource.
- `access_uri` - The URI to embed in the URL
`https://objectstorage.${var.region}.oraclecloud.com{var.access_uri}` when using the pre-authenticated request.
- `bucket` - The name of the bucket. Example: `my-new-bucket1`
- `id` - The unique identifier to use when directly addressing the pre-authenticated request.
- `name` - The user-provided name of the pre-authenticated request.
- `namespace` - The top-level namespace used for the request.
- `object` - The name of the object that is being granted access to by the pre-authenticated request. Avoid entering confidential information. The object name can be null and if so, the pre-authenticated request grants access to the entire bucket.
- `par_id` - The unique identifier for the pre-authenticated request. This can be used to manage operations against the pre-authenticated request, such as GET or DELETE.
- `time_created` - The date when the pre-authenticated request was created as per specification RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>).
- `time_expires` - The expiration date for the pre-authenticated request as per RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>). After this date the pre-authenticated request will no longer be valid.

Import

PreauthenticatedRequests can be imported using the `id` , e.g.

```
$ terraform import oci_objectstorage_preauthrequest.test_preauthenticated_request "n/{namespaceName}/b/{bucketName}/p/{parId}"
```

oci_oci_instance

This resource provides the Oci Instance resource in Oracle Cloud Infrastructure Oci service.

Creates a new OciInstance.

Example Usage

```
resource "oci_oci_instance" "test_oci_instance" {  
  #Required  
  admin_email = "${var.oci_instance_admin_email}"  
  compartment_id = "${var.compartment_id}"  
  idcs_access_token = "${var.oci_instance_idcs_access_token}"  
  name = "${var.oci_instance_name}"  
  object_storage_namespace = "${var.oci_instance_object_storage_namespace}"  
  tenancy_id = "${oci_identity_tenancy.test_tenancy.id}"  
  tenancy_name = "${oci_identity_tenancy.test_tenancy.name}"  
  
  #Optional  
  defined_tags = {"foo-namespace.bar-key"= "value"}  
  description = "${var.oci_instance_description}"  
  freeform_tags = {"bar-key"= "value"}  
}
```

Argument Reference

The following arguments are supported:

- `admin_email` - (Required) Admin Email for Notification
- `compartment_id` - (Required) (Updatable) Compartment Identifier
- `defined_tags` - (Optional) (Updatable) Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - (Optional) (Updatable) OciInstance description
- `freeform_tags` - (Optional) (Updatable) Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `idcs_access_token` - (Required) Identity Cloud Service access token identifying a stripe and service administrator user. **Note:** The `idcs_access_token` is stored in the Terraform state file.
- `name` - (Required) OciInstance Name
- `object_storage_namespace` - (Required) Object Storage Namespace of Tenancy
- `tenancy_id` - (Required) Tenancy Identifier
- `tenancy_name` - (Required) Tenancy Name

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the

resource with the new property values

Attributes Reference

The following attributes are exported:

- `admin_email` - Admin Email for Notification
- `compartment_id` - Compartment Identifier
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - OcelInstance description, can be updated
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `guid` - Unique GUID identifier that is immutable on creation
- `id` - Unique identifier that is immutable on creation
- `idcs_tenancy` - IDCS Tenancy Identifier
- `name` - OcelInstance Name
- `object_storage_namespace` - Object Storage Namespace of tenancy
- `service` - SERVICE data. Example: `{"service": {"IDCS": "value"}}`
- `state` - The current state of the file system.
- `state_message` - An message describing the current state in more detail. For example, can be used to provide actionable information for a resource in Failed state.
- `tenancy_id` - Tenancy Identifier
- `tenancy_name` - Tenancy Name
- `time_created` - The time the the OcelInstance was created. An RFC3339 formatted datetime string
- `time_updated` - The time the OcelInstance was updated. An RFC3339 formatted datetime string

Import

OcelInstances can be imported using the `id`, e.g.

```
$ terraform import oci_oke_instance.test_oke_instance "id"
```

oci_oda_oda_instance

This resource provides the Oda Instance resource in Oracle Cloud Infrastructure Oda service.

Starts an asynchronous job to create a Digital Assistant instance.

To monitor the status of the job, take the `opc-work-request-id` response header value and use it to call `GET /workRequests/{workRequestID}`.

Example Usage

```
resource "oci_oda_oda_instance" "test_oda_instance" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  shape_name = "DEVELOPMENT"  
  
  #Optional  
  defined_tags = {"foo-namespace.bar-key"= "value"}  
  description = "${var.oda_instance_description}"  
  display_name = "${var.oda_instance_display_name}"  
  freeform_tags = {"bar-key"= "value"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) Identifier of the compartment.
- `defined_tags` - (Optional) (Updatable) Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - (Optional) (Updatable) Description of the Digital Assistant instance.
- `display_name` - (Optional) (Updatable) User-friendly name for the instance. Avoid entering confidential information. You can change this value anytime.
- `freeform_tags` - (Optional) (Updatable) Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `shape_name` - (Required) Shape or size of the instance.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - Identifier of the compartment that the instance belongs to.
- `connector_url` - URL for the connector's endpoint.
- `defined_tags` - Usage of predefined tag keys. These predefined keys are scoped to namespaces. Example: `{"foo-namespace.bar-key": "value"}`
- `description` - Description of the Digital Assistant instance.
- `display_name` - User-defined name for the Digital Assistant instance. Avoid entering confidential information. You can change this value.
- `freeform_tags` - Simple key-value pair that is applied without any predefined name, type or scope. Exists for cross-compatibility only. Example: `{"bar-key": "value"}`
- `id` - Unique immutable identifier that was assigned when the instance was created.
- `lifecycle_sub_state` - The current sub-state of the Digital Assistant instance.
- `shape_name` - Shape or size of the instance.
- `state` - The current state of the Digital Assistant instance.
- `state_message` - A message that describes the current state in more detail. For example, actionable information about an instance that's in the `FAILED` state.
- `time_created` - When the Digital Assistant instance was created. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `time_updated` - When the Digital Assistance instance was last updated. A date-time string as described in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>), section 14.29.
- `web_app_url` - URL for the Digital Assistant web application that's associated with the instance.

Import

`OdaInstances` can be imported using the `id`, e.g.

```
$ terraform import oci_oda_oda_instance.test_oda_instance "id"
```

oci_ons_notification_topic

This resource provides the Notification Topic resource in Oracle Cloud Infrastructure Ons service.

Creates a topic in the specified compartment. For general information about topics, see [Managing Topics and Subscriptions](https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm) (<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm>).

For the purposes of access control, you must provide the OCID of the compartment where you want the topic to reside. For information about access control and compartments, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

You must specify a display name for the topic.

All Oracle Cloud Infrastructure resources, including topics, get an Oracle-assigned, unique ID called an Oracle Cloud Identifier (OCID). When you create a resource, you can find its OCID in the response. You can also retrieve a resource's OCID by using a List API operation on that resource type, or by viewing the resource in the Console. For more information, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Transactions Per Minute (TPM) per-tenancy limit for this operation: 60.

Example Usage

```
resource "oci_ons_notification_topic" "test_notification_topic" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  name = "${var.notification_topic_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  description = "${var.notification_topic_description}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment to create the topic in.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `description` - (Optional) (Updatable) The description of the topic being created. Avoid entering confidential information.

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - (Required) The name of the topic being created. The topic name must be unique across the tenancy. Avoid entering confidential information.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `api_endpoint` - The endpoint for managing topic subscriptions or publishing messages to the topic.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the topic.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the topic.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `name` - The name of the topic.
- `state` - The lifecycle state of the topic.
- `time_created` - The time the topic was created.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic.

Import

NotificationTopics can be imported using the `id`, e.g.

```
$ terraform import oci_ons_notification_topic.test_notification_topic "id"
```

oci_ons_subscription

This resource provides the Subscription resource in Oracle Cloud Infrastructure Ons service.

Creates a subscription for the specified topic and sends a subscription confirmation URL to the endpoint. The subscription remains in "Pending" status until it has been confirmed. For information about confirming subscriptions, see [To confirm a subscription](#)

(<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#confirmSub>).

Transactions Per Minute (TPM) per-tenancy limit for this operation: 60.

Example Usage

```
resource "oci_ons_subscription" "test_subscription" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  endpoint = "${var.subscription_endpoint}"  
  protocol = "${var.subscription_protocol}"  
  topic_id = "${oci_ons_notification_topic.test_notification_topic.id}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter" = "42"}  
  freeform_tags = {"Department" = "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the subscription.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `endpoint` - (Required) A locator that corresponds to the subscription protocol. For example, an email address for a subscription that uses the `EMAIL` protocol, or a URL for a subscription that uses an HTTP-based protocol. HTTP-based protocols use URL endpoints that begin with `"http:"` or `"https:"`. A URL cannot exceed 512 characters. Avoid entering confidential information.

For protocol-specific endpoint formats and steps to get or create endpoints, see [To create a subscription](#) (<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub>).

- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department":`

"Finance"}

- `protocol` - (Required) The protocol used for the subscription.

Allowed values:

- `CUSTOM_HTTPS`
- `EMAIL`
- `HTTPS` (deprecated; for PagerDuty endpoints, use `PAGERDUTY`)
- `PAGERDUTY`
- `SLACK`

For information about subscription protocols, see [To create a subscription](#)

(<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub>).

- `topic_id` - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the topic for the subscription.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment for the subscription.
- `created_time` - The time when this suscription was created.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `delivery_policy` - The delivery policy of the subscription. Stored as a JSON string.
- `endpoint` - A locator that corresponds to the subscription protocol. For example, an email address for a subscription that uses the `EMAIL` protocol, or a URL for a subscription that uses an HTTP-based protocol.
- `etag` - For optimistic concurrency control. See `if-match`.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags](#) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the subscription.
- `protocol` - The protocol used for the subscription. For information about subscription protocols, see [To create a subscription](#) (<https://docs.cloud.oracle.com/iaas/Content/Notification/Tasks/managingtopicsandsubscriptions.htm#createSub>).

- `state` - The lifecycle state of the subscription. The status of a new subscription is PENDING; when confirmed, the subscription status changes to ACTIVE.
- `topic_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the associated topic.

Import

Import is not supported for this resource.

oci_streaming_stream_archiver

This resource provides the Stream Archiver resource in Oracle Cloud Infrastructure Streaming service.

Starts the provisioning of a new stream archiver. To track the progress of the provisioning, you can periodically call `GetArchiver` (<https://docs.cloud.oracle.com/iaas/api/#/en/streaming/20180418/Stream/GetArchiver>). In the response, the `lifecycleState` parameter of the Stream (<https://docs.cloud.oracle.com/iaas/api/#/en/streaming/20180418/Archiver>) object tells you its current state.

Example Usage

```
resource "oci_streaming_stream_archiver" "test_stream_archiver" {  
  #Required  
  batch_rollover_size_in_mbs = "${var.stream_archiver_batch_rollover_size_in_mbs}"  
  batch_rollover_time_in_seconds = "${var.stream_archiver_batch_rollover_time_in_seconds}"  
  bucket = "${var.stream_archiver_bucket}"  
  start_position = "${var.stream_archiver_start_position}"  
  stream_id = "${oci_streaming_stream.test_stream.id}"  
  use_existing_bucket = "${var.stream_archiver_use_existing_bucket}"  
  
  #Optional  
  state = "stopped"  
}
```

Argument Reference

The following arguments are supported:

- `batch_rollover_size_in_mbs` - (Required) (Updatable) The batch rollover size in megabytes.
- `batch_rollover_time_in_seconds` - (Required) (Updatable) The rollover time in seconds.
- `bucket` - (Required) (Updatable) The name of the bucket.
- `start_position` - (Required) (Updatable) The start message.
- `stream_id` - (Required) The OCID of the stream.
- `use_existing_bucket` - (Required) (Updatable) The flag to create a new bucket or use existing one.
- `state` - (Optional) (Updatable) The target state for the instance pool. Could be set to `RUNNING` or `STOPPED`.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `batch_rollover_size_in_mbs` - The batch rollover size in megabytes.
- `batch_rollover_time_in_seconds` - The rollover time in seconds.
- `bucket` - The name of the bucket.
- `error` - If an operation failed this property contained the last error occurred.
 - `code` - A short error code that defines the error, meant for programmatic parsing.
 - `message` - A human-readable error string.
- `start_position` - The start message.
- `state` - The state of the stream archiver.
- `time_created` - Time when the resource was created.
- `use_existing_bucket` - The flag to create a new bucket or use existing one.

Import

StreamArchiver can be imported using the `id`, e.g.

```
$ terraform import oci_streaming_stream_archiver.test_stream_archiver "streams/{streamId}/archiver"
```


oci_streaming_stream

This resource provides the Stream resource in Oracle Cloud Infrastructure Streaming service.

Starts the provisioning of a new stream. To track the progress of the provisioning, you can periodically call `GetStream` (<https://docs.cloud.oracle.com/iaas/api/#/en/streaming/20180418/Stream/GetStream>). In the response, the `lifecycleState` parameter of the Stream (<https://docs.cloud.oracle.com/iaas/api/#/en/streaming/20180418/Stream/>) object tells you its current state.

Example Usage

```
resource "oci_streaming_stream" "test_stream" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  name = "${var.stream_name}"  
  partitions = "${var.stream_partitions}"  
  
  #Optional  
  defined_tags = "${var.stream_defined_tags}"  
  freeform_tags = {"Department" = "Finance"}  
  retention_in_hours = "${var.stream_retention_in_hours}"  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID of the compartment that contains the stream.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair that is applied with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Department": "Finance"}`
- `name` - (Required) The name of the stream. Avoid entering confidential information. Example: `TelemetryEvents`
- `partitions` - (Required) The number of partitions in the stream.
- `retention_in_hours` - (Optional) The retention period of the stream, in hours. Accepted values are between 24 and 168 (7 days). If not specified, the stream will have a retention period of 24 hours.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID of the compartment that contains the stream.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: ``{"Operations": {"CostCenter": "42"}}``
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair that is applied with no predefined name, type, or namespace. Exists for cross-compatibility only. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID of the stream.
- `lifecycle_state_details` - Any additional details about the current state of the stream.
- `messages_endpoint` - The endpoint to use when creating the StreamClient to consume or publish messages in the stream.
- `name` - The name of the stream. Avoid entering confidential information. Example: `TelemetryEvents`
- `partitions` - The number of partitions in the stream.
- `retention_in_hours` - The retention period of the stream, in hours. This property is read-only.
- `state` - The current state of the stream.
- `time_created` - The date and time the stream was created, expressed in in RFC 3339 (<https://tools.ietf.org/rfc/rfc3339>) timestamp format. Example: `2018-04-20T00:00:07.405Z`

Import

Streams can be imported using the `id`, e.g.

```
$ terraform import oci_streaming_stream.test_stream "id"
```

oci_waas_address_list

This resource provides the Address List resource in Oracle Cloud Infrastructure Waas service.

Creates an address list in set compartment and allows it to be used in a WAAS policy. For more information, see [WAF Settings \(https://docs.cloud.oracle.com/iaas/Content/WAF/Tasks/wafsettings.htm\)](https://docs.cloud.oracle.com/iaas/Content/WAF/Tasks/wafsettings.htm).

Example Usage

```
resource "oci_waas_address_list" "test_address_list" {  
  #Required  
  addresses = "${var.address_list_addresses}"  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.address_list_display_name}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `addresses` - (Required) (Updatable) A list of IP addresses or CIDR notations.
- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment in which to create the address list.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Required) (Updatable) A unique user-friendly name for the address list.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see [Resource Tags \(https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm\)](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm). Example: `{"Department": "Finance"}`

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `address_count` - The total number of unique IP addresses in the address list.
- `addresses` - The list of IP addresses or CIDR notations.
- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the address list.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the address list.
- `state` - The current lifecycle state of the address list.
- `time_created` - The date and time the address list was created, expressed in RFC 3339 timestamp format.

Import

AddressLists can be imported using the `id`, e.g.

```
$ terraform import oci_waas_address_list.test_address_list "id"
```

oci_waas_certificate

This resource provides the Certificate resource in Oracle Cloud Infrastructure Waas service.

Allows an SSL certificate to be added to a WAAS policy. The Web Application Firewall terminates SSL connections to inspect requests in runtime, and then re-encrypts requests before sending them to the origin for fulfillment.

For more information, see WAF Settings (<https://docs.cloud.oracle.com/iaas/Content/WAF/Tasks/wafsettings.htm>).

Example Usage

```
resource "oci_waas_certificate" "test_certificate" {  
  #Required  
  certificate_data = "${var.certificate_certificate_data}"  
  compartment_id = "${var.compartment_id}"  
  private_key_data = "${var.certificate_private_key_data}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.certificate_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  is_trust_verification_disabled = "${var.certificate_is_trust_verification_disabled}"  
}
```

Argument Reference

The following arguments are supported:

- `certificate_data` - (Required) The data of the SSL certificate.

Note: Many SSL certificate providers require an intermediate certificate chain to ensure a trusted status. If your SSL certificate requires an intermediate certificate chain, please append the intermediate certificate key in the `certificateData` field after the leaf certificate issued by the SSL certificate provider. If you are unsure if your certificate requires an intermediate certificate chain, see your certificate provider's documentation.

The example below shows an intermediate certificate appended to a leaf certificate.

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment in which to create the SSL certificate.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:
`{"Operations.CostCenter": "42"}`
- `display_name` - (Optional) (Updatable) A user-friendly name for the SSL certificate. The name can be changed and does not need to be unique.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no

predefined name, type, or namespace. For more information, see Resource Tags

(<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}

- `is_trust_verification_disabled` - (Optional) Set to `true` if the SSL certificate is self-signed.
- `private_key_data` - (Required) The private key of the SSL certificate.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Operations.CostCenter": "42"}
- `display_name` - The user-friendly name of the SSL certificate.
- `extensions` - Additional attributes associated with users or public keys for managing relationships between Certificate Authorities.
 - `is_critical` - The critical flag of the extension. Critical extensions must be processed, non-critical extensions can be ignored.
 - `name` - The certificate extension name.
 - `value` - The certificate extension value.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: {"Department": "Finance"}
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the SSL certificate.
- `issued_by` -
- `issuer_name` -
 - `common_name` - The Certificate Authority (CA) name.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.

- `state_province` - The province where the organization is located.
- `public_key_info` -
 - `algorithm` - The algorithm identifier and parameters for the public key.
 - `exponent` - The private key exponent.
 - `key_size` - The number of bits in a key used by a cryptographic algorithm.
- `serial_number` - A unique, positive integer assigned by the Certificate Authority (CA). The issuer name and serial number identify a unique certificate.
- `signature_algorithm` - The identifier for the cryptographic algorithm used by the Certificate Authority (CA) to sign this certificate.
- `state` - The current lifecycle state of the SSL certificate.
- `subject_name` -
 - `common_name` - The fully qualified domain name used for DNS lookups of the server.
 - `country` - ISO 3166-1 alpha-2 code of the country where the organization is located. For a list of codes, see ISO's website (<https://www.iso.org/obp/ui/#search/code/>).
 - `email_address` - The email address of the server's administrator.
 - `locality` - The city in which the organization is located.
 - `organization` - The organization name.
 - `organizational_unit` - The field to differentiate between divisions within an organization.
 - `state_province` - The province where the organization is located.
- `time_created` - The date and time the certificate was created, expressed in RFC 3339 timestamp format.
- `time_not_valid_after` - The date and time the certificate will expire, expressed in RFC 3339 timestamp format.
- `time_not_valid_before` - The date and time the certificate will become valid, expressed in RFC 3339 timestamp format.
- `version` - The version of the encoded certificate.

Import

Import is not supported for this resource.

oci_waas_custom_protection_rule

This resource provides the Custom Protection Rule resource in Oracle Cloud Infrastructure Waas service.

Creates a new Custom Protection rule in the specified compartment.

Example Usage

```
resource "oci_waas_custom_protection_rule" "test_custom_protection_rule" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  display_name = "${var.custom_protection_rule_display_name}"  
  template = "${var.custom_protection_rule_template}"  
  
  #Optional  
  defined_tags = {"Operations.CostCenter"= "42"}  
  description = "${var.custom_protection_rule_description}"  
  freeform_tags = {"Department"= "Finance"}  
}
```

Argument Reference

The following arguments are supported:

- `compartment_id` - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment in which to create the Custom Protection rule.
- `defined_tags` - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - (Optional) (Updatable) A description for the Custom Protection rule.
- `display_name` - (Required) (Updatable) A user-friendly name for the Custom Protection rule.
- `freeform_tags` - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `template` - (Required) (Updatable) The template text of the Custom Protection rule. The syntax is based on ModSecurity Rule Language. Additionally it needs to include two variables / placeholders which will be replaced during publishing.
 - `{{mode}}` - rule action, defined by user in UI, like `OFF`, `DETECT` or `BLOCK`.
 - `{{id_1}}` - unique rule ID which identifies a `SecRule`, generated by the system. Multiple IDs can be used by

increasing the number of the variable for every `SecRule` defined in the template.

Example usage: `SecRule REQUEST_COOKIES "regex matching SQL injection - part 1/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 1/2.', \ id: {{id_1}}, \ ctl:ruleEngine={{mode}}, \ deny"` `SecRule REQUEST_COOKIES "regex matching SQL injection - part 2/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 2/2.', \ id: {{id_2}}, \ ctl:ruleEngine={{mode}}, \ deny"` The example contains two `SecRules` each having distinct regex expression to match Cookie header value during second input analysis phase. The disruptive `deny` action takes effect only when `{{mode}}` is set to `BLOCK`. The message is logged either when `{{mode}}` is set to `DETECT` or `BLOCK`.

For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/making.html>).

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `description` - The description of the Custom Protection rule.
- `display_name` - The user-friendly name of the Custom Protection rule.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `mod_security_rule_ids` - The list of the ModSecurity rule IDs that apply to this protection rule. For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/index.html>).
- `state` - The current lifecycle state of the Custom Protection rule.
- `template` - The template text of the Custom Protection rule. The syntax is based on ModSecurity Rule Language. Additionally it needs to include two variables / placeholders which will be replaced during publishing.
 - `{{mode}}` - rule action, defined by user in UI, like `OFF`, `DETECT` or `BLOCK`.
 - `{{id_1}}` - unique rule ID which identifies a `SecRule`, generated by the system. Multiple IDs can be used by increasing the number of the variable for every `SecRule` defined in the template.

Example usage: `SecRule REQUEST_COOKIES "regex matching SQL injection - part 1/2" \ "phase:2, \`

msg:'Detects chained SQL injection attempts 1/2.', \ id: {{id_1}}, \ ctl:ruleEngine={{mode}}, \ deny" SecRule REQUEST_COOKIES "regex matching SQL injection - part 2/2" \ "phase:2, \ msg:'Detects chained SQL injection attempts 2/2.', \ id: {{id_2}}, \ ctl:ruleEngine={{mode}}, \ deny" The example contains two SecRules each having distinct regex expression to match Cookie header value during second input analysis phase. The disruptive deny action takes effect only when {{mode}} is set to BLOCK. The message is logged either when {{mode}} is set to DETECT or BLOCK.

For more information about ModSecurity's open source WAF rules, see Mod Security's documentation (<https://www.modsecurity.org/CRS/Documentation/making.html>).

- `time_created` - The date and time the protection rule was created, expressed in RFC 3339 timestamp format.

Import

CustomProtectionRules can be imported using the `id`, e.g.

```
$ terraform import oci_waas_custom_protection_rule.test_custom_protection_rule "id"
```

oci_waas_purge_cache

This resource provides the Purge Cache resource in Oracle Cloud Infrastructure Waas service.

Accepts a list of resources that will get its cache purged. If resources property is not passed, then the entire cache for Web Application will be purged.

Example Usage

```
resource "oci_waas_purge_cache" "test_purge_cache" {  
  #Required  
  waas_policy_id = "${oci_waas_waas_policy.test_waas_policy.id}"  
  
  #Optional  
  resources = "${var.purge_cache_resources}"  
}
```

Argument Reference

The following arguments are supported:

- **resources** - (Optional) A resource to purge, identified by either a hostless absolute path starting with a single slash (e.g., `/path/to/resource`) or by a relative path in which the first component will be interpreted as a domain protected by this policy (e.g., `example.com/path/to/resource`).
- **waas_policy_id** - (Required) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

Import

Import is not supported for this resource.

oci_waas_waas_policy

This resource provides the Waas Policy resource in Oracle Cloud Infrastructure Waas service.

Creates a new Web Application Acceleration and Security (WAAS) policy in the specified compartment. A WAAS policy must be established before creating Web Application Firewall (WAF) rules. To use WAF rules, your web application's origin servers must defined in the `WaasPolicy` schema.

A domain name must be specified when creating a WAAS policy. The domain name should be different from the origins specified in your `WaasPolicy` . Once domain name is entered and stored, it is unchangeable.

Use the record data returned in the `cname` field of the `WaasPolicy` object to create a CNAME record in your DNS configuration that will direct your domain's traffic through the WAF.

For the purposes of access control, you must provide the OCID of the compartment where you want the service to reside. For information about access control and compartments, see [Overview of the IAM Service](https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm) (<https://docs.cloud.oracle.com/iaas/Content/Identity/Concepts/overview.htm>).

You must specify a display name and domain for the WAAS policy. The display name does not have to be unique and can be changed. The domain name should be different from every origin specified in `WaasPolicy` .

All Oracle Cloud Infrastructure resources, including WAAS policies, receive a unique, Oracle-assigned ID called an Oracle Cloud Identifier (OCID). When a resource is created, you can find its OCID in the response. You can also retrieve a resource's OCID by using a list API operation for that resource type, or by viewing the resource in the Console. For more information, see [Resource Identifiers](https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm) (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>).

Note: After sending the POST request, the new object's state will temporarily be `CREATING` . Ensure that the resource's state has changed to `ACTIVE` before use.

Example Usage

```
resource "oci_waas_waas_policy" "test_waas_policy" {  
  #Required  
  compartment_id = "${var.compartment_id}"  
  domain = "${var.waas_policy_domain}"  
  
  #Optional  
  additional_domains = "${var.waas_policy_additional_domains}"  
  defined_tags = {"Operations.CostCenter"= "42"}  
  display_name = "${var.waas_policy_display_name}"  
  freeform_tags = {"Department"= "Finance"}  
  origin_groups {  
  
    #Optional  
    origins = "${var.waas_policy_origin_groups_origins}"  
  }  
  origins {  
    #Required  
    uri = "${var.waas_policy_origins_uri}"  
  
    #Optional  
    custom_headers {  
      #Required
```

```

        name = "${var.waas_policy_origins_custom_headers_name}"
        value = "${var.waas_policy_origins_custom_headers_value}"
    }
    http_port = "${var.waas_policy_origins_http_port}"
    https_port = "${var.waas_policy_origins_https_port}"
}
policy_config {

    #Optional
    certificate_id = "${oci_waas_certificate.test_certificate.id}"
    cipher_group = "${var.waas_policy_policy_config_cipher_group}"
    client_address_header = "${var.waas_policy_policy_config_client_address_header}"
    is_behind_cdn = "${var.waas_policy_policy_config_is_behind_cdn}"
    is_cache_control_respected = "${var.waas_policy_policy_config_is_cache_control_respected}"
    is_https_enabled = "${var.waas_policy_policy_config_is_https_enabled}"
    is_https_forced = "${var.waas_policy_policy_config_is_https_forced}"
    is_origin_compression_enabled = "${var.waas_policy_policy_config_is_origin_compression_enabled}"
    is_response_buffering_enabled = "${var.waas_policy_policy_config_is_response_buffering_enabled}"
    tls_protocols = "${var.waas_policy_policy_config_tls_protocols}"
}
waf_config {

    #Optional
    access_rules {
        #Required
        action = "${var.waas_policy_waf_config_access_rules_action}"
        criteria {
            #Required
            condition = "${var.waas_policy_waf_config_access_rules_criteria_condition}"
            value = "${var.waas_policy_waf_config_access_rules_criteria_value}"
        }
        name = "${var.waas_policy_waf_config_access_rules_name}"

        #Optional
        block_action = "${var.waas_policy_waf_config_access_rules_block_action}"
        block_error_page_code = "${var.waas_policy_waf_config_access_rules_block_error_page_code}"
        block_error_page_description = "${var.waas_policy_waf_config_access_rules_block_error_page_de
scription}"
        block_error_page_message = "${var.waas_policy_waf_config_access_rules_block_error_page_messag
e}"

        block_response_code = "${var.waas_policy_waf_config_access_rules_block_response_code}"
        bypass_challenges = "${var.waas_policy_waf_config_access_rules_bypass_challenges}"
        redirect_response_code = "${var.waas_policy_waf_config_access_rules_redirect_response_code}"
        redirect_url = "${var.waas_policy_waf_config_access_rules_redirect_url}"
    }
    address_rate_limiting {
        #Required
        is_enabled = "${var.waas_policy_waf_config_address_rate_limiting_is_enabled}"

        #Optional
        allowed_rate_per_address = "${var.waas_policy_waf_config_address_rate_limiting_allowed_rate_p
er_address}"
        block_response_code = "${var.waas_policy_waf_config_address_rate_limiting_block_response_code
}"
        max_delayed_count_per_address = "${var.waas_policy_waf_config_address_rate_limiting_max_delay
ed_count_per_address}"
    }
    caching_rules {
        #Required

```

```

    action = "${var.waas_policy_waf_config_caching_rules_action}"
    criteria {
        #Required
        condition = "${var.waas_policy_waf_config_caching_rules_criteria_condition}"
        value = "${var.waas_policy_waf_config_caching_rules_criteria_value}"
    }
    name = "${var.waas_policy_waf_config_caching_rules_name}"

    #Optional
    caching_duration = "${var.waas_policy_waf_config_caching_rules_caching_duration}"
    client_caching_duration = "${var.waas_policy_waf_config_caching_rules_client_caching_duration}"
}
    is_client_caching_enabled = "${var.waas_policy_waf_config_caching_rules_is_client_caching_enabled}"
    key = "${var.waas_policy_waf_config_caching_rules_key}"
}
    captchas {
        #Required
        failure_message = "${var.waas_policy_waf_config_captchas_failure_message}"
        session_expiration_in_seconds = "${var.waas_policy_waf_config_captchas_session_expiration_in_seconds}"
        submit_label = "${var.waas_policy_waf_config_captchas_submit_label}"
        title = "${var.waas_policy_waf_config_captchas_title}"
        url = "${var.waas_policy_waf_config_captchas_url}"

        #Optional
        footer_text = "${var.waas_policy_waf_config_captchas_footer_text}"
        header_text = "${var.waas_policy_waf_config_captchas_header_text}"
    }
    custom_protection_rules {

        #Optional
        action = "${var.waas_policy_waf_config_custom_protection_rules_action}"
        id = "${var.waas_policy_waf_config_custom_protection_rules_id}"
    }
    device_fingerprint_challenge {
        #Required
        is_enabled = "${var.waas_policy_waf_config_device_fingerprint_challenge_is_enabled}"

        #Optional
        action = "${var.waas_policy_waf_config_device_fingerprint_challenge_action}"
        action_expiration_in_seconds = "${var.waas_policy_waf_config_device_fingerprint_challenge_action_expiration_in_seconds}"
        challenge_settings {

            #Optional
            block_action = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_block_action}"
            block_error_page_code = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_block_error_page_code}"
            block_error_page_description = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_block_error_page_description}"
            block_error_page_message = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_block_error_page_message}"
            block_response_code = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_block_response_code}"
            captcha_footer = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_captcha_footer}"
            captcha_header = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_settings_captcha_header}"

```

```

        captcha_submit_label = "${var.waas_policy_waf_config_device_fingerprint_challenge_challen
ge_settings_captcha_submit_label}"
        captcha_title = "${var.waas_policy_waf_config_device_fingerprint_challenge_challenge_sett
ings_captcha_title}"
    }
    failure_threshold = "${var.waas_policy_waf_config_device_fingerprint_challenge_failure_thresh
old}"
    failure_threshold_expiration_in_seconds = "${var.waas_policy_waf_config_device_fingerprint_ch
allenge_failure_threshold_expiration_in_seconds}"
    max_address_count = "${var.waas_policy_waf_config_device_fingerprint_challenge_max_address_co
unt}"
    max_address_count_expiration_in_seconds = "${var.waas_policy_waf_config_device_fingerprint_ch
allenge_max_address_count_expiration_in_seconds}"
}
human_interaction_challenge {
    #Required
    is_enabled = "${var.waas_policy_waf_config_human_interaction_challenge_is_enabled}"

    #Optional
    action = "${var.waas_policy_waf_config_human_interaction_challenge_action}"
    action_expiration_in_seconds = "${var.waas_policy_waf_config_human_interaction_challenge_acti
on_expiration_in_seconds}"
    challenge_settings {

        #Optional
        block_action = "${var.waas_policy_waf_config_human_interaction_challenge_challenge_settin
gs_block_action}"
        block_error_page_code = "${var.waas_policy_waf_config_human_interaction_challenge_challen
ge_settings_block_error_page_code}"
        block_error_page_description = "${var.waas_policy_waf_config_human_interaction_challenge_
challenge_settings_block_error_page_description}"
        block_error_page_message = "${var.waas_policy_waf_config_human_interaction_challenge_chal
lenge_settings_block_error_page_message}"
        block_response_code = "${var.waas_policy_waf_config_human_interaction_challenge_challenge
_settings_block_response_code}"
        captcha_footer = "${var.waas_policy_waf_config_human_interaction_challenge_challenge_sett
ings_captcha_footer}"
        captcha_header = "${var.waas_policy_waf_config_human_interaction_challenge_challenge_sett
ings_captcha_header}"
        captcha_submit_label = "${var.waas_policy_waf_config_human_interaction_challenge_challeng
e_settings_captcha_submit_label}"
        captcha_title = "${var.waas_policy_waf_config_human_interaction_challenge_challenge_setti
ngs_captcha_title}"
    }
    failure_threshold = "${var.waas_policy_waf_config_human_interaction_challenge_failure_thresho
ld}"
    failure_threshold_expiration_in_seconds = "${var.waas_policy_waf_config_human_interaction_cha
llenge_failure_threshold_expiration_in_seconds}"
    interaction_threshold = "${var.waas_policy_waf_config_human_interaction_challenge_interaction
_threshold}"
    recording_period_in_seconds = "${var.waas_policy_waf_config_human_interaction_challenge_recor
ding_period_in_seconds}"
    set_http_header {
        #Required
        name = "${var.waas_policy_waf_config_human_interaction_challenge_set_http_header_name}"
        value = "${var.waas_policy_waf_config_human_interaction_challenge_set_http_header_value}"
    }
}
js_challenge {

```

```

#Required
is_enabled = "${var.waas_policy_waf_config_js_challenge_is_enabled}"

#Optional
action = "${var.waas_policy_waf_config_js_challenge_action}"
action_expiration_in_seconds = "${var.waas_policy_waf_config_js_challenge_action_expiration_i
n_seconds}"
challenge_settings {

    #Optional
    block_action = "${var.waas_policy_waf_config_js_challenge_challenge_settings_block_action
}"
    block_error_page_code = "${var.waas_policy_waf_config_js_challenge_challenge_settings_blo
ck_error_page_code}"
    block_error_page_description = "${var.waas_policy_waf_config_js_challenge_challenge_setti
ngs_block_error_page_description}"
    block_error_page_message = "${var.waas_policy_waf_config_js_challenge_challenge_settings_
block_error_page_message}"
    block_response_code = "${var.waas_policy_waf_config_js_challenge_challenge_settings_block
_response_code}"
    captcha_footer = "${var.waas_policy_waf_config_js_challenge_challenge_settings_captcha_fo
oter}"
    captcha_header = "${var.waas_policy_waf_config_js_challenge_challenge_settings_captcha_he
ader}"
    captcha_submit_label = "${var.waas_policy_waf_config_js_challenge_challenge_settings_capt
cha_submit_label}"
    captcha_title = "${var.waas_policy_waf_config_js_challenge_challenge_settings_captcha_tit
le}"
}
failure_threshold = "${var.waas_policy_waf_config_js_challenge_failure_threshold}"
set_http_header {
    #Required
    name = "${var.waas_policy_waf_config_js_challenge_set_http_header_name}"
    value = "${var.waas_policy_waf_config_js_challenge_set_http_header_value}"
}
}
origin = "${var.waas_policy_waf_config_origin}"
origin_groups = "${var.waas_policy_waf_config_origin_groups}"
protection_settings {

    #Optional
    allowed_http_methods = "${var.waas_policy_waf_config_protection_settings_allowed_http_methods
}"
    block_action = "${var.waas_policy_waf_config_protection_settings_block_action}"
    block_error_page_code = "${var.waas_policy_waf_config_protection_settings_block_error_page_co
de}"
    block_error_page_description = "${var.waas_policy_waf_config_protection_settings_block_error_
page_description}"
    block_error_page_message = "${var.waas_policy_waf_config_protection_settings_block_error_page
_message}"
    block_response_code = "${var.waas_policy_waf_config_protection_settings_block_response_code}"
    is_response_inspected = "${var.waas_policy_waf_config_protection_settings_is_response_inspect
ed}"
    max_argument_count = "${var.waas_policy_waf_config_protection_settings_max_argument_count}"
    max_name_length_per_argument = "${var.waas_policy_waf_config_protection_settings_max_name_len
gth_per_argument}"
    max_response_size_in_ki_b = "${var.waas_policy_waf_config_protection_settings_max_response_si
ze_in_ki_b}"
    max_total_name_length_of_arguments = "${var.waas_policy_waf_config_protection_settings_max_to
tal name length of arguments}"

```



```

        media_types = "${var.waas_policy_waf_config_protection_settings_media_types}"
        recommendations_period_in_days = "${var.waas_policy_waf_config_protection_settings_recommendations_period_in_days}"
    }
    whitelists {
        #Required
        addresses = "${var.waas_policy_waf_config_whitelists_addresses}"
        name = "${var.waas_policy_waf_config_whitelists_name}"
    }
}
}

```

Argument Reference

The following arguments are supported:

- **additional_domains** - (Optional) (Updatable) An array of additional domains for the specified web application.
- **compartment_id** - (Required) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the compartment in which to create the WAAS policy.
- **defined_tags** - (Optional) (Updatable) Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example:


```

{"Operations.CostCenter": "42"}

```
- **display_name** - (Optional) (Updatable) A user-friendly name for the WAAS policy. The name can be changed and does not need to be unique.
- **domain** - (Required) The web application domain that the WAAS policy protects.
- **freeform_tags** - (Optional) (Updatable) Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- **origin_groups** - (Optional) (Updatable) The map of origin groups and their keys used to associate origins to the wafConfig.
 - **origins** - (Optional) (Updatable) The list of objects containing origin references and additional properties.
- **origins** - (Optional) (Updatable) A map of host to origin for the web application. The key should be a customer friendly name for the host, ex. primary, secondary, etc.
 - **custom_headers** - (Optional) (Updatable) A list of HTTP headers to forward to your origin.
 - **name** - (Required) (Updatable) The name of the header.
 - **value** - (Required) (Updatable) The value of the header.
 - **http_port** - (Optional) (Updatable) The HTTP port on the origin that the web application listens on. If unspecified, defaults to 80 .
 - **https_port** - (Optional) (Updatable) The HTTPS port on the origin that the web application listens on. If unspecified, defaults to 443 .

- `uri` - (Required) (Updatable) The URI of the origin. Does not support paths. Port numbers should be specified in the `httpPort` and `httpsPort` fields.
- `policy_config` - (Optional) (Updatable)
 - `certificate_id` - (Optional) (Updatable) The OCID of the SSL certificate to use if HTTPS is supported.
 - `cipher_group` - (Optional) (Updatable) The cipher group
 - **DEFAULT:** Cipher group supports TLS 1.0, TLS 1.1, TLS 1.2, TLS 1.3 protocols. It has the following ciphers enabled: ECDHE-RSA-AES128-GCM-SHA256: ECDHE-ECDSA-AES128-GCM-SHA256: ECDHE-RSA-AES256-GCM-SHA384: ECDHE-ECDSA-AES256-GCM-SHA384: DHE-RSA-AES128-GCM-SHA256: DHE-DSS-AES128-GCM-SHA256: kEDH+AESGCM: ECDHE-RSA-AES128-SHA256: ECDHE-ECDSA-AES128-SHA256: ECDHE-RSA-AES128-SHA: ECDHE-ECDSA-AES128-SHA: ECDHE-RSA-AES256-SHA384: ECDHE-ECDSA-AES256-SHA384: ECDHE-RSA-AES256-SHA: ECDHE-ECDSA-AES256-SHA: DHE-RSA-AES128-SHA256: DHE-RSA-AES128-SHA: DHE-DSS-AES128-SHA256: DHE-RSA-AES256-SHA256: DHE-DSS-AES256-SHA: DHE-RSA-AES256-SHA: AES128-GCM-SHA256: AES256-GCM-SHA384: AES128-SHA256: AES256-SHA256: AES128-SHA: AES256-SHA: AES: CAMELLIA: !DES-CBC3-SHA: !aNULL: !eNULL: !EXPORT: !DES: !RC4: !MD5: !PSK: !aECDH: !EDH-DSS-DES-CBC3-SHA: !EDH-RSA-DES-CBC3-SHA: !KRB5-DES-CBC3-SHA
 - `client_address_header` - (Optional) (Updatable) The HTTP header used to pass the client IP address from the CDN if `isBehindCdn` is enabled. This feature consumes the header and its value as the true client IP address. It does not create the header. Using trusted chains (for example `X-Client-Ip: 11.1.1.1, 13.3.3.3`), the last IP address in the list will be used as true client IP address. In case of multiple headers with the same name, the first one will be used. If the header is not present it will use the connecting IP address as the true client IP address. It's assumed that CDN sets the correct client IP address and prevents spoofing.
 - **X_FORWARDED_FOR:** Corresponds to `X-Forwarded-For` header name.
 - **X_CLIENT_IP:** Corresponds to `X-Client-Ip` header name.
 - **X_REAL_IP:** Corresponds to `X-Real-Ip` header name.
 - **CLIENT_IP:** Corresponds to `Client-Ip` header name.
 - **TRUE_CLIENT_IP:** Corresponds to `True-Client-Ip` header name.
 - `is_behind_cdn` - (Optional) (Updatable) Enable or disable the use of CDN. It allows to specify true client IP address if clients do not connect directly to us.
 - `is_cache_control_respected` - (Optional) (Updatable) Enable or disable automatic content caching based on the response `cache-control` header. This feature enables the origin to act as a proxy cache. Caching policies are usually defined using `cache-control` header. For example `cache-control: max-age=120` means that the returned resource is valid for 120 seconds. Caching rules will overwrite this setting.
 - `is_https_enabled` - (Optional) (Updatable) Enable or disable HTTPS support. If true, a `certificateId` is required. If unspecified, defaults to `false`.
 - `is_https_forced` - (Optional) (Updatable) Force HTTP to HTTPS redirection. If unspecified, defaults to `false`.
 - `is_origin_compression_enabled` - (Optional) (Updatable) Enable or disable GZIP compression of origin responses. If enabled, the header `Accept-Encoding: gzip` is sent to origin, otherwise - empty `Accept-Encoding:` header is used.
 - `is_response_buffering_enabled` - (Optional) (Updatable) Enable or disable buffering of responses from the origin. Buffering improves overall stability in case of network issues, but slightly increases Time To First Byte.

- `tls_protocols` - (Optional) (Updatable) A list of allowed TLS protocols. Only applicable when HTTPS support is enabled. It affects client's connection to the edge nodes. The most secure TLS version will be chosen.
 - `TLS_V1`: corresponds to TLS 1.0 specification.
 - `TLS_V1_1`: corresponds to TLS 1.1 specification.
 - `TLS_V1_2`: corresponds to TLS 1.2 specification.
 - `TLS_V1_3`: corresponds to TLS 1.3 specification.

Enabled TLS protocols must go in a row. For example if `TLS_v1_1` and `TLS_V1_3` are enabled, `TLS_V1_2` must be enabled too.

- `waf_config` - (Optional) (Updatable)

- `access_rules` - (Optional) (Updatable) The access rules applied to the Web Application Firewall. Access rules allow custom content access policies to be defined and `ALLOW`, `DETECT`, or `BLOCK` actions to be taken on a request when specified criteria are met.

- `action` - (Required) (Updatable) The action to take when the access criteria are met for a rule. If unspecified, defaults to `ALLOW`.
 - **ALLOW**: Takes no action, just logs the request.
 - **DETECT**: Takes no action, but creates an alert for the request.
 - **BLOCK**: Blocks the request by returning specified response code or showing error page.
 - **BYPASS**: Bypasses some or all challenges.
 - **REDIRECT**: Redirects the request to the specified URL.

Regardless of action, no further rules are processed once the rule is matched.

- `block_action` - (Optional) (Updatable) The method used to block requests if `action` is set to `BLOCK` and the access criteria are met. If unspecified, defaults to `SET_RESPONSE_CODE`.
- `block_error_page_code` - (Optional) (Updatable) The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access rules'.
- `block_error_page_description` - (Optional) (Updatable) The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access blocked by website owner. Please contact support.'
- `block_error_page_message` - (Optional) (Updatable) The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the access criteria are met. If unspecified, defaults to 'Access to the website is blocked.'
- `block_response_code` - (Optional) (Updatable) The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE`, and the access criteria are met. If unspecified, defaults to `403`.
- `bypass_challenges` - (Optional) (Updatable) The list of challenges to bypass when `action` is set to `BYPASS`. If unspecified or empty, all challenges are bypassed.

- **JS_CHALLENGE:** Bypasses JavaScript Challenge.
- **DEVICE_FINGERPRINT_CHALLENGE:** Bypasses Device Fingerprint Challenge.
- **HUMAN_INTERACTION_CHALLENGE:** Bypasses Human Interaction Challenge.
- **CAPTCHA:** Bypasses CAPTCHA Challenge.
- **criteria** - (Required) (Updatable) The list of access rule criteria.
 - **condition** - (Required) (Updatable) The criteria the access rule uses to determine if action should be taken on a request.
 - **URL_IS:** Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_IS_NOT:** Matches if the concatenation of request URL path and query is not identical to the contents of the `value` field.
 - **URL_STARTS_WITH:** Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
 - **URL_PART_ENDS_WITH:** Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
 - **URL_PART_CONTAINS:** Matches if the concatenation of request URL path and query contains the contents of the `value` field.
 - **URL_REGEX:** Matches if the request is described by the regular expression in the `value` field.
 - **IP_IS:** Matches if the request originates from an IP address in the `value` field.
 - **IP_IS_NOT:** Matches if the request does not originate from an IP address in the `value` field.
 - **HTTP_HEADER_CONTAINS:** The HTTP_HEADER_CONTAINS criteria is defined using a compound value separated by a colon: a header field name and a header field value.
`host:test.example.com` is an example of a criteria value where `host` is the header field name and `test.example.com` is the header field value. A request matches when the header field name is a case insensitive match and the header field value is a case insensitive, substring match. *Example:* With a criteria value of `host:test.example.com`, where `host` is the name of the field and `test.example.com` is the value of the host field, a request with the header values, `Host: www.test.example.com` will match, where as a request with header values of `host: www.example.com` or `host: test.sub.example.com` will not match.
 - **IP_IN_LIST:** Matches if the request originates from one of IP addresses contained in the referenced address list. The `value` in this case is OCID of the address list.
 - **IP_NOT_IN_LIST:** Matches if the request does not originate from any IP address contained in the referenced address list. The `value` field in this case is OCID of the address list.
 - **HTTP_METHOD_IS:** Matches if the request method corresponds to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH
 - **HTTP_METHOD_IS_NOT:** Matches if the request method does not correspond to the `value` field. The list of available methods: GET , HEAD , POST , PUT , DELETE , CONNECT , OPTIONS , TRACE , PATCH

- **COUNTRY_IS:** Matches if the request originates from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
 - **COUNTRY_IS_NOT:** Matches if the request does not originate from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
 - **USER_AGENT_IS:** Matches if the requesting user agent is identical to the contents of the `value` field. Example: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0
 - **USER_AGENT_IS_NOT:** Matches if the requesting user agent is not identical to the contents of the `value` field. Example: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0
- `value` - (Required) (Updatable) The criteria value.
- `name` - (Required) (Updatable) The unique name of the access rule.
- `redirect_response_code` - (Optional) (Updatable) The response status code to return when `action` is set to `REDIRECT`.
 - **MOVED_PERMANENTLY:** Used for designating the permanent movement of a page (numerical code - 301).
 - **FOUND:** Used for designating the temporary movement of a page (numerical code - 302).
- `redirect_url` - (Optional) (Updatable) The target to which the request should be redirected, represented as a URI reference.
- `address_rate_limiting` - (Optional) (Updatable) The settings used to limit the number of requests from an IP address.
 - `allowed_rate_per_address` - (Optional) (Updatable) The number of allowed requests per second from one IP address. If unspecified, defaults to `1`.
 - `block_response_code` - (Optional) (Updatable) The response status code returned when a request is blocked. If unspecified, defaults to `503`.
 - `is_enabled` - (Required) (Updatable) Enables or disables the address rate limiting Web Application Firewall feature.
 - `max_delayed_count_per_address` - (Optional) (Updatable) The maximum number of requests allowed to be queued before subsequent requests are dropped. If unspecified, defaults to `10`.
- `caching_rules` - (Optional) (Updatable) A list of caching rules applied to the web application.
 - `action` - (Required) (Updatable) The action to take on matched caching rules.
 - **CACHE:** Allow to set caching rule, which would be cached.
 - **BYPASS_CACHE:** Allow to set caching rule, which would never be cached. e.g. all requests would be passed directly to origin for those file types.
 - `caching_duration` - (Optional) (Updatable) The caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format. Supported units: seconds, minutes, hours, days, weeks, months. Max value -

99. Mixing of multiple units is not supported.

- **client_caching_duration** - (Optional) (Updatable) The client caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format, in case client caching enabled. It sets Cache-Control header max-age time, i.e. the local browser cache expire time. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
- **criteria** - (Required) (Updatable) The array of the rule criteria with condition and value.
 - **condition** - (Required) (Updatable) The condition of the caching rule criteria.
 - **URL_IS**: Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_STARTS_WITH**: Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
 - **URL_PART_ENDS_WITH**: Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
 - **URL_PART_CONTAINS**: Matches if the concatenation of request URL path and query contains the contents of the `value` field.

URL must start with /

URL can't contain restricted double slashes //

URL can't contain restricted ' & ? symbols

- **value** - (Required) (Updatable) The value of the caching rule criteria.
 - **is_client_caching_enabled** - (Optional) (Updatable) Enables or disables the client caching. Browsers use the Cache-Control header value for caching content locally, in the browser. This setting will control the addition of a Cache-Control header to responses. It overrides existing Cache-Control headers.
 - **key** - (Optional) (Updatable) The unique key for the caching rule.
 - **name** - (Required) (Updatable) The name of the caching rule.
- **captchas** - (Optional) (Updatable) A list of CAPTCHA challenge settings. CAPTCHAs challenge requests to ensure a human is attempting to reach the specified URL and not a bot.
 - **failure_message** - (Required) (Updatable) The text to show when incorrect CAPTCHA text is entered. If unspecified, defaults to `The CAPTCHA was incorrect. Try again.`
 - **footer_text** - (Optional) (Updatable) The text to show in the footer when showing a CAPTCHA challenge. If unspecified, defaults to `'Enter the letters and numbers as they are shown in the image above.'`
 - **header_text** - (Optional) (Updatable) The text to show in the header when showing a CAPTCHA challenge. If unspecified, defaults to `'We have detected an increased number of attempts to access this website. To help us keep this site secure, please let us know that you are not a robot by entering the text from the image below.'`
 - **session_expiration_in_seconds** - (Required) (Updatable) The amount of time before the CAPTCHA expires, in seconds. If unspecified, defaults to `300`.
 - **submit_label** - (Required) (Updatable) The text to show on the label of the CAPTCHA challenge submit

button. If unspecified, defaults to `Yes, I am human`.

- `title` - (Required) (Updatable) The title used when displaying a CAPTCHA challenge. If unspecified, defaults to `Are you human?`
- `url` - (Required) (Updatable) The unique URL path at which to show the CAPTCHA challenge.
- `custom_protection_rules` - (Optional) (Updatable) A list of the custom protection rule OCIDs and their actions.
 - `action` - (Optional) (Updatable) The action to take when the Custom Protection rule is triggered.
 - `id` - (Optional) (Updatable) The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `device_fingerprint_challenge` - (Optional) (Updatable) The device fingerprint challenge settings. Blocks bots based on unique device fingerprint information.
 - `action` - (Optional) (Updatable) The action to take on requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - (Optional) (Updatable) The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` - (Optional) (Updatable)
 - `block_action` - (Optional) (Updatable) The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - (Optional) (Updatable) The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - (Optional) (Updatable) The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - (Optional) (Updatable) The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
 - `block_response_code` - (Optional) (Updatable) The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - (Optional) (Updatable) The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
 - `captcha_header` - (Optional) (Updatable) The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`

- `captcha_submit_label` - (Optional) (Updatable) The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human`.
- `captcha_title` - (Optional) (Updatable) The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - (Optional) (Updatable) The number of failed requests allowed before taking action. If unspecified, defaults to `10`.
- `failure_threshold_expiration_in_seconds` - (Optional) (Updatable) The number of seconds before the failure threshold resets. If unspecified, defaults to `60`.
- `is_enabled` - (Required) (Updatable) Enables or disables the device fingerprint challenge Web Application Firewall feature.
- `max_address_count` - (Optional) (Updatable) The maximum number of IP addresses permitted with the same device fingerprint. If unspecified, defaults to `20`.
- `max_address_count_expiration_in_seconds` - (Optional) (Updatable) The number of seconds before the maximum addresses count resets. If unspecified, defaults to `60`.
- `human_interaction_challenge` - (Optional) (Updatable) The human interaction challenge settings. Detects natural human interactions such as mouse movements, time on site, and page scrolling to identify bots.
 - `action` - (Optional) (Updatable) The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - (Optional) (Updatable) The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` - (Optional) (Updatable)
 - `block_action` - (Optional) (Updatable) The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - (Optional) (Updatable) The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - (Optional) (Updatable) The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - (Optional) (Updatable) The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
 - `block_response_code` - (Optional) (Updatable) The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - (Optional) (Updatable) The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is

blocked. If unspecified, default to Enter the letters and numbers as they are shown in image above .

- `captcha_header` - (Optional) (Updatable) The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.
- `captcha_submit_label` - (Optional) (Updatable) The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Yes, I am human.
- `captcha_title` - (Optional) (Updatable) The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Are you human?
- `failure_threshold` - (Optional) (Updatable) The number of failed requests before taking action. If unspecified, defaults to 10 .
- `failure_threshold_expiration_in_seconds` - (Optional) (Updatable) The number of seconds before the failure threshold resets. If unspecified, defaults to 60 .
- `interaction_threshold` - (Optional) (Updatable) The number of interactions required to pass the challenge. If unspecified, defaults to 3 .
- `is_enabled` - (Required) (Updatable) Enables or disables the human interaction challenge Web Application Firewall feature.
- `recording_period_in_seconds` - (Optional) (Updatable) The number of seconds to record the interactions from the user. If unspecified, defaults to 15 .
- `set_http_header` - (Optional) (Updatable) Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the `action` is set to `DETECT` .
 - `name` - (Required) (Updatable) The name of the header.
 - `value` - (Required) (Updatable) The value of the header.
- `js_challenge` - (Optional) (Updatable) The JavaScript challenge settings. Blocks bots by challenging requests from browsers that have no JavaScript support.
 - `action` - (Optional) (Updatable) The action to take against requests from detected bots. If unspecified, defaults to `DETECT` .
 - `action_expiration_in_seconds` - (Optional) (Updatable) The number of seconds between challenges from the same IP address. If unspecified, defaults to 60 .
 - `challenge_settings` - (Optional) (Updatable)
 - `block_action` - (Optional) (Updatable) The method used to block requests that fail the challenge, if `action` is set to `BLOCK` . If unspecified, defaults to `SHOW_ERROR_PAGE` .
 - `block_error_page_code` - (Optional) (Updatable) The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to 403 .

- `block_error_page_description` - (Optional) (Updatable) The description text to show on the error page when action is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to Access blocked by website owner. Please contact support.
- `block_error_page_message` - (Optional) (Updatable) The message to show on the error page when action is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to Access to the website is blocked.
- `block_response_code` - (Optional) (Updatable) The response status code to return when action is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to 403.
- `captcha_footer` - (Optional) (Updatable) The text to show in the footer when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to Enter the letters and numbers as they are shown in image above.
- `captcha_header` - (Optional) (Updatable) The text to show in the header when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.
- `captcha_submit_label` - (Optional) (Updatable) The text to show on the label of the CAPTCHA challenge submit button when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Yes, I am human.
- `captcha_title` - (Optional) (Updatable) The title used when showing a CAPTCHA challenge when action is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Are you human?
- `failure_threshold` - (Optional) (Updatable) The number of failed requests before taking action. If unspecified, defaults to 10.
- `is_enabled` - (Required) (Updatable) Enables or disables the JavaScript challenge Web Application Firewall feature.
- `set_http_header` - (Optional) (Updatable) Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the action is set to `DETECT`.
 - `name` - (Required) (Updatable) The name of the header.
 - `value` - (Required) (Updatable) The value of the header.
- `origin` - (Optional) (Updatable) The key in the map of origins referencing the origin used for the Web Application Firewall. The origin must already be included in `Origins`. Required when creating the `WafConfig` resource, but is not required upon updating the configuration.
- `origin_groups` - (Optional) (Updatable) The list of origin group references that provide support for additional origin servers. A list of combined unique origin servers from `origin` and `originGroups` will be used.
- `protection_settings` - (Optional) (Updatable) The settings applied to protection rules.
 - `allowed_http_methods` - (Optional) (Updatable) The list of allowed HTTP methods. If unspecified, default

to [OPTIONS, GET, HEAD, POST] . This setting only applies if a corresponding protection rule is enabled, such as the "Restrict HTTP Request Methods" rule (key: 911100).

- `block_action` - (Optional) (Updatable) If `action` is set to `BLOCK` , this specifies how the traffic is blocked when detected as malicious by a protection rule. If unspecified, defaults to `SET_RESPONSE_CODE` .
- `block_error_page_code` - (Optional) (Updatable) The error code to show on the error page when `action` is set to `BLOCK` , `blockAction` is set to `SHOW_ERROR_PAGE` , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403` .
- `block_error_page_description` - (Optional) (Updatable) The description text to show on the error page when `action` is set to `BLOCK` , `blockAction` is set to `SHOW_ERROR_PAGE` , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
- `block_error_page_message` - (Optional) (Updatable) The message to show on the error page when `action` is set to `BLOCK` , `blockAction` is set to `SHOW_ERROR_PAGE` , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `'Access to the website is blocked.'`
- `block_response_code` - (Optional) (Updatable) The response code returned when `action` is set to `BLOCK` , `blockAction` is set to `SET_RESPONSE_CODE` , and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403` .
- `is_response_inspected` - (Optional) (Updatable) Inspects the response body of origin responses. Can be used to detect leakage of sensitive data. If unspecified, defaults to `false` .

Note: Only origin responses with a Content-Type matching a value in `mediaTypes` will be inspected.

- `max_argument_count` - (Optional) (Updatable) The maximum number of arguments allowed to be passed to your application before an action is taken. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `255` . This setting only applies if a corresponding protection rule is enabled, such as the "Number of Arguments Limits" rule (key: 960335). Example: If `maxArgumentCount` to `2` for the Max Number of Arguments protection rule (key: 960335), the following requests would be blocked: `GET /myapp/path?query=one&query=two&query=three` `POST /myapp/path` with Body `{"argument1":"one", "argument2":"two", "argument3":"three"}`
- `max_name_length_per_argument` - (Optional) (Updatable) The maximum length allowed for each argument name, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `400` . This setting only applies if a corresponding protection rule is enabled, such as the "Values Limits" rule (key: 960208).
- `max_response_size_in_kib` - (Optional) (Updatable) The maximum response size to be fully inspected, in binary kilobytes (KiB). Anything over this limit will be partially inspected. If unspecified, defaults to `1024` .
- `max_total_name_length_of_arguments` - (Optional) (Updatable) The maximum length allowed for the sum of the argument name and value, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `64000` . This setting only applies if a corresponding protection rule is enabled, such as the "Total Arguments Limits" rule (key: 960341).
- `media_types` - (Optional) (Updatable) The list of media types to allow for inspection, if `isResponseInspected` is enabled. Only responses with MIME types in this list will be inspected. If unspecified, defaults to `["text/html", "text/plain", "text/xml"]` .

Supported MIME types include:

- text/html
 - text/plain
 - text/asp
 - text/css
 - text/x-script
 - application/json
 - text/webviewhtml
 - text/x-java-source
 - application/x-javascript
 - application/javascript
 - application/ecmascript
 - text/javascript
 - text/ecmascript
 - text/x-script.perl
 - text/x-script.phyton
 - application/plain
 - application/xml
 - text/xml
- `recommendations_period_in_days` - (Optional) (Updatable) The length of time to analyze traffic traffic, in days. After the analysis period, `WafRecommendations` will be populated. If unspecified, defaults to `10`.
- Use `GET /waasPolicies/{waasPolicyId}/wafRecommendations` to view WAF recommendations.
- `whitelists` - (Optional) (Updatable) A list of IP addresses that bypass the Web Application Firewall.
 - `addresses` - (Required) (Updatable) A set of IP addresses or CIDR notations to include in the whitelist.
 - `name` - (Required) (Updatable) The unique name of the whitelist.

**** IMPORTANT **** Any change to a property that does not support update will force the destruction and recreation of the resource with the new property values

Attributes Reference

The following attributes are exported:

- `additional_domains` - An array of additional domains for this web application.
- `cname` - The CNAME record to add to your DNS configuration to route traffic for the domain, and all additional domains, through the WAF.

- `compartment_id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy's compartment.
- `defined_tags` - Defined tags for this resource. Each key is predefined and scoped to a namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Operations.CostCenter": "42"}`
- `display_name` - The user-friendly name of the WAAS policy. The name can be changed and does not need to be unique.
- `domain` - The web application domain that the WAAS policy protects.
- `freeform_tags` - Free-form tags for this resource. Each tag is a simple key-value pair with no predefined name, type, or namespace. For more information, see Resource Tags (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/resourcetags.htm>). Example: `{"Department": "Finance"}`
- `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the WAAS policy.
- `origin_groups` - The map of origin groups and their keys used to associate origins to the wafConfig.
 - `origins` - The list of objects containing origin references and additional properties.
- `origins` - A map of host servers (origins) and their keys for the web application. Origin keys are used to associate origins to specific protection rules. The key should be a user-friendly name for the host. **Examples:** `primary` or `secondary`.
 - `custom_headers` - A list of HTTP headers to forward to your origin.
 - `name` - The name of the header.
 - `value` - The value of the header.
 - `http_port` - The HTTP port on the origin that the web application listens on. If unspecified, defaults to `80`.
 - `https_port` - The HTTPS port on the origin that the web application listens on. If unspecified, defaults to `443`.
 - `uri` - The URI of the origin. Does not support paths. Port numbers should be specified in the `httpPort` and `httpsPort` fields.
- `policy_config` -
 - `certificate_id` - The OCID of the SSL certificate to use if HTTPS is supported.
 - `cipher_group` - The cipher group
 - **DEFAULT:** Cipher group supports TLS 1.0, TLS 1.1, TLS 1.2, TLS 1.3 protocols. It has the following ciphers enabled: `ECDHE-RSA-AES128-GCM-SHA256:ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-AES256-GCM-SHA384:DHE-RSA-AES128-GCM-SHA256:DHE-DSS-AES128-GCM-SHA256:kEDH+AESGCM:ECDHE-RSA-AES128-SHA256:ECDHE-ECDSA-AES128-SHA256:ECDHE-RSA-AES128-SHA:ECDHE-ECDSA-AES128-SHA:ECDHE-RSA-AES256-SHA384:ECDHE-ECDSA-AES256-SHA384:ECDHE-RSA-AES256-SHA:ECDHE-ECDSA-AES256-SHA:DHE-RSA-AES128-SHA256:DHE-RSA-AES128-SHA:DHE-DSS-AES128-SHA256:DHE-RSA-AES256-SHA256:DHE-DSS-AES256-SHA:DHE-RSA-AES256-SHA:AES128-GCM-SHA256:AES256-GCM-SHA384:AES128-SHA256:AES256-SHA256:AES128-SHA:AES256-SHA:AES:CAMELLIA:!DES-CBC3-SHA:!aNULL:!eNULL:!EXPORT:!DES:!RC4:!MD5:!PSK:!aECDH:!EDH-DSS-DES-CBC3-SHA:!EDH-RSA-DES-CBC3-SHA:!KRB5-DES-CBC3-SHA`
 - `client_address_header` - The HTTP header used to pass the client IP address from the CDN if `isBehindCdn` is enabled. This feature consumes the header and its value as the true client IP address. It does not create the

header. Using trusted chains (for example `X-Client-Ip: 11.1.1.1, 13.3.3.3`), the last IP address in the list will be used as true client IP address. In case of multiple headers with the same name, the first one will be used. If the header is not present it will use the connecting IP address as the true client IP address. It's assumed that CDN sets the correct client IP address and prevents spoofing.

- **X_FORWARDED_FOR**: Corresponds to `X-Forwarded-For` header name.
 - **X_CLIENT_IP**: Corresponds to `X-Client-Ip` header name.
 - **X_REAL_IP**: Corresponds to `X-Real-Ip` header name.
 - **CLIENT_IP**: Corresponds to `Client-Ip` header name.
 - **TRUE_CLIENT_IP**: Corresponds to `True-Client-Ip` header name.
- **is_behind_cdn** - Enable or disable the use of CDN. It allows to specify true client IP address if clients do not connect directly to us.
 - **is_cache_control_respected** - Enable or disable automatic content caching based on the response `cache-control` header. This feature enables the origin to act as a proxy cache. Caching policies are usually defined using `cache-control` header. For example `cache-control: max-age=120` means that the returned resource is valid for 120 seconds. Caching rules will overwrite this setting.
 - **is_https_enabled** - Enable or disable HTTPS support. If true, a `certificateId` is required. If unspecified, defaults to `false`.
 - **is_https_forced** - Force HTTP to HTTPS redirection. If unspecified, defaults to `false`.
 - **is_origin_compression_enabled** - Enable or disable GZIP compression of origin responses. If enabled, the header `Accept-Encoding: gzip` is sent to origin, otherwise - empty `Accept-Encoding:` header is used.
 - **is_response_buffering_enabled** - Enable or disable buffering of responses from the origin. Buffering improves overall stability in case of network issues, but slightly increases Time To First Byte.
 - **tls_protocols** - A list of allowed TLS protocols. Only applicable when HTTPS support is enabled. It affects client's connection to the edge nodes. The most secure TLS version will be chosen.
 - **TLS_V1**: corresponds to TLS 1.0 specification.
 - **TLS_V1_1**: corresponds to TLS 1.1 specification.
 - **TLS_V1_2**: corresponds to TLS 1.2 specification.
 - **TLS_V1_3**: corresponds to TLS 1.3 specification.

Enabled TLS protocols must go in a row. For example if `TLS_v1_1` and `TLS_V1_3` are enabled, `TLS_V1_2` must be enabled too.

- **state** - The current lifecycle state of the WAAS policy.
- **time_created** - The date and time the policy was created, expressed in RFC 3339 timestamp format.
- **waf_config** -
 - **access_rules** - The access rules applied to the Web Application Firewall. Used for defining custom access policies with the combination of `ALLOW`, `DETECT`, and `BLOCK` rules, based on different criteria.
 - **action** - The action to take when the access criteria are met for a rule. If unspecified, defaults to `ALLOW`.

- **ALLOW:** Takes no action, just logs the request.
- **DETECT:** Takes no action, but creates an alert for the request.
- **BLOCK:** Blocks the request by returning specified response code or showing error page.
- **BYPASS:** Bypasses some or all challenges.
- **REDIRECT:** Redirects the request to the specified URL.

Regardless of action, no further rules are processed once the rule is matched.

- **block_action** - The method used to block requests if **action** is set to **BLOCK** and the access criteria are met. If unspecified, defaults to **SET_RESPONSE_CODE**.
- **block_error_page_code** - The error code to show on the error page when **action** is set to **BLOCK**, **blockAction** is set to **SHOW_ERROR_PAGE**, and the access criteria are met. If unspecified, defaults to 'Access rules'.
- **block_error_page_description** - The description text to show on the error page when **action** is set to **BLOCK**, **blockAction** is set to **SHOW_ERROR_PAGE**, and the access criteria are met. If unspecified, defaults to 'Access blocked by website owner. Please contact support.'
- **block_error_page_message** - The message to show on the error page when **action** is set to **BLOCK**, **blockAction** is set to **SHOW_ERROR_PAGE**, and the access criteria are met. If unspecified, defaults to 'Access to the website is blocked.'
- **block_response_code** - The response status code to return when **action** is set to **BLOCK**, **blockAction** is set to **SET_RESPONSE_CODE**, and the access criteria are met. If unspecified, defaults to 403.
- **bypass_challenges** - The list of challenges to bypass when **action** is set to **BYPASS**. If unspecified or empty, all challenges are bypassed.
 - **JS_CHALLENGE:** Bypasses JavaScript Challenge.
 - **DEVICE_FINGERPRINT_CHALLENGE:** Bypasses Device Fingerprint Challenge.
 - **HUMAN_INTERACTION_CHALLENGE:** Bypasses Human Interaction Challenge.
 - **CAPTCHA:** Bypasses CAPTCHA Challenge.
- **criteria** - The list of access rule criteria.
 - **condition** - The criteria the access rule uses to determine if action should be taken on a request.
 - **URL_IS:** Matches if the concatenation of request URL path and query is identical to the contents of the **value** field.
 - **URL_IS_NOT:** Matches if the concatenation of request URL path and query is not identical to the contents of the **value** field.
 - **URL_STARTS_WITH:** Matches if the concatenation of request URL path and query starts with the contents of the **value** field.
 - **URL_PART_ENDS_WITH:** Matches if the concatenation of request URL path and query ends with the contents of the **value** field.

- **URL_PART_CONTAINS:** Matches if the concatenation of request URL path and query contains the contents of the `value` field.
- **URL_REGEX:** Matches if the request is described by the regular expression in the `value` field.
- **IP_IS:** Matches if the request originates from an IP address in the `value` field.
- **IP_IS_NOT:** Matches if the request does not originate from an IP address in the `value` field.
- **HTTP_HEADER_CONTAINS:** The HTTP_HEADER_CONTAINS criteria is defined using a compound value separated by a colon: a header field name and a header field value.
`host:test.example.com` is an example of a criteria value where `host` is the header field name and `test.example.com` is the header field value. A request matches when the header field name is a case insensitive match and the header field value is a case insensitive, substring match. *Example:* With a criteria value of `host:test.example.com`, where `host` is the name of the field and `test.example.com` is the value of the host field, a request with the header values, `Host: www.test.example.com` will match, where as a request with header values of `host: www.example.com` or `host: test.sub.example.com` will not match.
- **IP_IN_LIST:** Matches if the request originates from one of IP addresses contained in the referenced address list. The `value` in this case is OCID of the address list.
- **IP_NOT_IN_LIST:** Matches if the request does not originate from any IP address contained in the referenced address list. The `value` field in this case is OCID of the address list.
- **HTTP_METHOD_IS:** Matches if the request method corresponds to the `value` field. The list of available methods: `GET`, `HEAD`, `POST`, `PUT`, `DELETE`, `CONNECT`, `OPTIONS`, `TRACE`, `PATCH`
- **HTTP_METHOD_IS_NOT:** Matches if the request method does not correspond to the `value` field. The list of available methods: `GET`, `HEAD`, `POST`, `PUT`, `DELETE`, `CONNECT`, `OPTIONS`, `TRACE`, `PATCH`
- **COUNTRY_IS:** Matches if the request originates from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
- **COUNTRY_IS_NOT:** Matches if the request does not originate from a country in the `value` field. Country codes are in ISO 3166-1 alpha-2 format. For a list of codes, see (<https://www.iso.org/obp/ui/#search/code/>).
- **USER_AGENT_IS:** Matches if the requesting user agent is identical to the contents of the `value` field. Example: `Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0`
- **USER_AGENT_IS_NOT:** Matches if the requesting user agent is not identical to the contents of the `value` field. Example: `Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:35.0) Gecko/20100101 Firefox/35.0`

- `value` - The criteria value.
- `name` - The unique name of the access rule.
- `redirect_response_code` - The response status code to return when `action` is set to `REDIRECT`.
- **MOVED_PERMANENTLY:** Used for designating the permanent movement of a page (numerical code -

301).

- **FOUND:** Used for designating the temporary movement of a page (numerical code - 302).
- `redirect_url` - The target to which the request should be redirected, represented as a URI reference.
- `address_rate_limiting` - The IP address rate limiting settings used to limit the number of requests from an address.
 - `allowed_rate_per_address` - The number of allowed requests per second from one IP address. If unspecified, defaults to 1 .
 - `block_response_code` - The response status code returned when a request is blocked. If unspecified, defaults to 503 .
 - `is_enabled` - Enables or disables the address rate limiting Web Application Firewall feature.
 - `max_delayed_count_per_address` - The maximum number of requests allowed to be queued before subsequent requests are dropped. If unspecified, defaults to 10 .
- `caching_rules` - A list of caching rules applied to the web application.
 - `action` - The action to take on matched caching rules.
 - **CACHE:** Allow to set caching rule, which would be cached.
 - **BYPASS_CACHE:** Allow to set caching rule, which would never be cached. e.g. all requests would be passed directly to origin for those file types.
 - `caching_duration` - The caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - `client_caching_duration` - The client caching duration (applies only to `CACHE` action) specified in ISO 8601 extended format, in case client caching enabled. It sets Cache-Control header max-age time, i.e. the local browser cache expire time. Supported units: seconds, minutes, hours, days, weeks, months. Max value - 99. Mixing of multiple units is not supported.
 - `criteria` - The array of the rule criteria with condition and value.
 - `condition` - The condition of the caching rule criteria.
 - **URL_IS:** Matches if the concatenation of request URL path and query is identical to the contents of the `value` field.
 - **URL_STARTS_WITH:** Matches if the concatenation of request URL path and query starts with the contents of the `value` field.
 - **URL_PART_ENDS_WITH:** Matches if the concatenation of request URL path and query ends with the contents of the `value` field.
 - **URL_PART_CONTAINS:** Matches if the concatenation of request URL path and query contains the contents of the `value` field.

URL must start with /

URL can't contain restricted double slashes //

URL can't contain restricted ' & ? symbols

- `value` - The value of the caching rule criteria.
- `is_client_caching_enabled` - Enables or disables the client caching. Browsers use the Cache-Control header value for caching content locally, in the browser. This setting will control the addition of a Cache-Control header to responses. It overrides existing Cache-Control headers.
- `key` - The unique key for the caching rule.
- `name` - The name of the caching rule.
- `captchas` - A list of CAPTCHA challenge settings. These are used to challenge requests with a CAPTCHA to block bots.
 - `failure_message` - The text to show when incorrect CAPTCHA text is entered. If unspecified, defaults to `The CAPTCHA was incorrect. Try again.`
 - `footer_text` - The text to show in the footer when showing a CAPTCHA challenge. If unspecified, defaults to `'Enter the letters and numbers as they are shown in the image above.'`
 - `header_text` - The text to show in the header when showing a CAPTCHA challenge. If unspecified, defaults to `'We have detected an increased number of attempts to access this website. To help us keep this site secure, please let us know that you are not a robot by entering the text from the image below.'`
 - `session_expiration_in_seconds` - The amount of time before the CAPTCHA expires, in seconds. If unspecified, defaults to `300`.
 - `submit_label` - The text to show on the label of the CAPTCHA challenge submit button. If unspecified, defaults to `Yes, I am human.`
 - `title` - The title used when displaying a CAPTCHA challenge. If unspecified, defaults to `Are you human?`
 - `url` - The unique URL path at which to show the CAPTCHA challenge.
- `custom_protection_rules` - A list of the custom protection rule OCIDs and their actions.
 - `action` - The action to take when the Custom Protection rule is triggered.
 - `id` - The OCID (<https://docs.cloud.oracle.com/iaas/Content/General/Concepts/identifiers.htm>) of the Custom Protection rule.
- `device_fingerprint_challenge` - The device fingerprint challenge settings. Used to detect unique devices based on the device fingerprint information collected in order to block bots.
 - `action` - The action to take on requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to `60`.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.

- `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to Access blocked by website owner. Please contact support.
- `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to Access to the website is blocked.
- `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to 403.
- `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to Enter the letters and numbers as they are shown in image above.
- `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.
- `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Yes, I am human.
- `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to Are you human?
- `failure_threshold` - The number of failed requests allowed before taking action. If unspecified, defaults to 10.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to 60.
- `is_enabled` - Enables or disables the device fingerprint challenge Web Application Firewall feature.
- `max_address_count` - The maximum number of IP addresses permitted with the same device fingerprint. If unspecified, defaults to 20.
- `max_address_count_expiration_in_seconds` - The number of seconds before the maximum addresses count resets. If unspecified, defaults to 60.
- `human_interaction_challenge` - The human interaction challenge settings. Used to look for natural human interactions such as mouse movements, time on site, and page scrolling to identify bots.
 - `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
 - `action_expiration_in_seconds` - The number of seconds between challenges for the same IP address. If unspecified, defaults to 60.
 - `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.

- `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
- `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
- `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
- `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
- `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
- `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`
- `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human.`
- `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - The number of failed requests before taking action. If unspecified, defaults to `10`.
- `failure_threshold_expiration_in_seconds` - The number of seconds before the failure threshold resets. If unspecified, defaults to `60`.
- `interaction_threshold` - The number of interactions required to pass the challenge. If unspecified, defaults to `3`.
- `is_enabled` - Enables or disables the human interaction challenge Web Application Firewall feature.
- `recording_period_in_seconds` - The number of seconds to record the interactions from the user. If unspecified, defaults to `15`.
- `set_http_header` - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the `action` is set to `DETECT`.
 - `name` - The name of the header.
 - `value` - The value of the header.
- `js_challenge` - The JavaScript challenge settings. Used to challenge requests with a JavaScript challenge and take the action if a browser has no JavaScript support in order to block bots.

- `action` - The action to take against requests from detected bots. If unspecified, defaults to `DETECT`.
- `action_expiration_in_seconds` - The number of seconds between challenges from the same IP address. If unspecified, defaults to `60`.
- `challenge_settings` -
 - `block_action` - The method used to block requests that fail the challenge, if `action` is set to `BLOCK`. If unspecified, defaults to `SHOW_ERROR_PAGE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE` and the request is blocked. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `Access to the website is blocked.`
 - `block_response_code` - The response status code to return when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE` or `SHOW_ERROR_PAGE`, and the request is blocked. If unspecified, defaults to `403`.
 - `captcha_footer` - The text to show in the footer when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, default to `Enter the letters and numbers as they are shown in image above.`
 - `captcha_header` - The text to show in the header when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `We have detected an increased number of attempts to access this webapp. To help us keep this webapp secure, please let us know that you are not a robot by entering the text from captcha below.`
 - `captcha_submit_label` - The text to show on the label of the CAPTCHA challenge submit button when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Yes, I am human.`
 - `captcha_title` - The title used when showing a CAPTCHA challenge when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_CAPTCHA`, and the request is blocked. If unspecified, defaults to `Are you human?`
- `failure_threshold` - The number of failed requests before taking action. If unspecified, defaults to `10`.
- `is_enabled` - Enables or disables the JavaScript challenge Web Application Firewall feature.
- `set_http_header` - Adds an additional HTTP header to requests that fail the challenge before being passed to the origin. Only applicable when the `action` is set to `DETECT`.
 - `name` - The name of the header.
 - `value` - The value of the header.
- `origin` - The key in the map of origins referencing the origin used for the Web Application Firewall. The origin must already be included in `Origins`. Required when creating the `WafConfig` resource, but not on update.

- `origin_groups` - The list of origin group references that provide support for additional origin servers. A list of combined unique origin servers from `origin` and `originGroups` will be used.
- `protection_settings` - The settings to apply to protection rules.
 - `allowed_http_methods` - The list of allowed HTTP methods. If unspecified, default to `[OPTIONS, GET, HEAD, POST]`. This setting only applies if a corresponding protection rule is enabled, such as the "Restrict HTTP Request Methods" rule (key: 911100).
 - `block_action` - If `action` is set to `BLOCK`, this specifies how the traffic is blocked when detected as malicious by a protection rule. If unspecified, defaults to `SET_RESPONSE_CODE`.
 - `block_error_page_code` - The error code to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403`.
 - `block_error_page_description` - The description text to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `Access blocked by website owner. Please contact support.`
 - `block_error_page_message` - The message to show on the error page when `action` is set to `BLOCK`, `blockAction` is set to `SHOW_ERROR_PAGE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `'Access to the website is blocked.'`
 - `block_response_code` - The response code returned when `action` is set to `BLOCK`, `blockAction` is set to `SET_RESPONSE_CODE`, and the traffic is detected as malicious by a protection rule. If unspecified, defaults to `403`.
 - `is_response_inspected` - Inspects the response body of origin responses. Can be used to detect leakage of sensitive data. If unspecified, defaults to `false`.

Note: Only origin responses with a Content-Type matching a value in `mediaTypes` will be inspected.

- `max_argument_count` - The maximum number of arguments allowed to be passed to your application before an action is taken. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `255`. This setting only applies if a corresponding protection rule is enabled, such as the "Number of Arguments Limits" rule (key: 960335). Example: If `maxArgumentCount` to `2` for the Max Number of Arguments protection rule (key: 960335), the following requests would be blocked: `GET /myapp/path?query=one&query=two&query=three` `POST /myapp/path` with Body `{"argument1":"one","argument2":"two","argument3":"three"}`
- `max_name_length_per_argument` - The maximum length allowed for each argument name, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `400`. This setting only applies if a corresponding protection rule is enabled, such as the "Values Limits" rule (key: 960208).
- `max_response_size_in_kib` - The maximum response size to be fully inspected, in binary kilobytes (KiB). Anything over this limit will be partially inspected. If unspecified, defaults to `1024`.
- `max_total_name_length_of_arguments` - The maximum length allowed for the sum of the argument name and value, in characters. Arguments are query parameters or body parameters in a PUT or POST request. If unspecified, defaults to `64000`. This setting only applies if a corresponding protection rule is enabled, such as the "Total Arguments Limits" rule (key: 960341).

- `media_types` - The list of media types to allow for inspection, if `isResponseInspected` is enabled. Only responses with MIME types in this list will be inspected. If unspecified, defaults to `["text/html", "text/plain", "text/xml"]`.

Supported MIME types include:

- `text/html`
 - `text/plain`
 - `text/asp`
 - `text/css`
 - `text/x-script`
 - `application/json`
 - `text/webviewhtml`
 - `text/x-java-source`
 - `application/x-javascript`
 - `application/javascript`
 - `application/ecmascript`
 - `text/javascript`
 - `text/ecmascript`
 - `text/x-script.perl`
 - `text/x-script.phyton`
 - `application/plain`
 - `application/xml`
 - `text/xml`
- `recommendations_period_in_days` - The length of time to analyze traffic traffic, in days. After the analysis period, `WafRecommendations` will be populated. If unspecified, defaults to `10`.
- Use `GET /waasPolicies/{waasPolicyId}/wafRecommendations` to view WAF recommendations.
- `whitelists` - A list of IP addresses that bypass the Web Application Firewall.
 - `addresses` - A set of IP addresses or CIDR notations to include in the whitelist.
 - `name` - The unique name of the whitelist.

Import

WaaS Policies can be imported using the `id`, e.g.

```
$ terraform import oci_waas_waas_policy.test_waas_policy "id"
```