

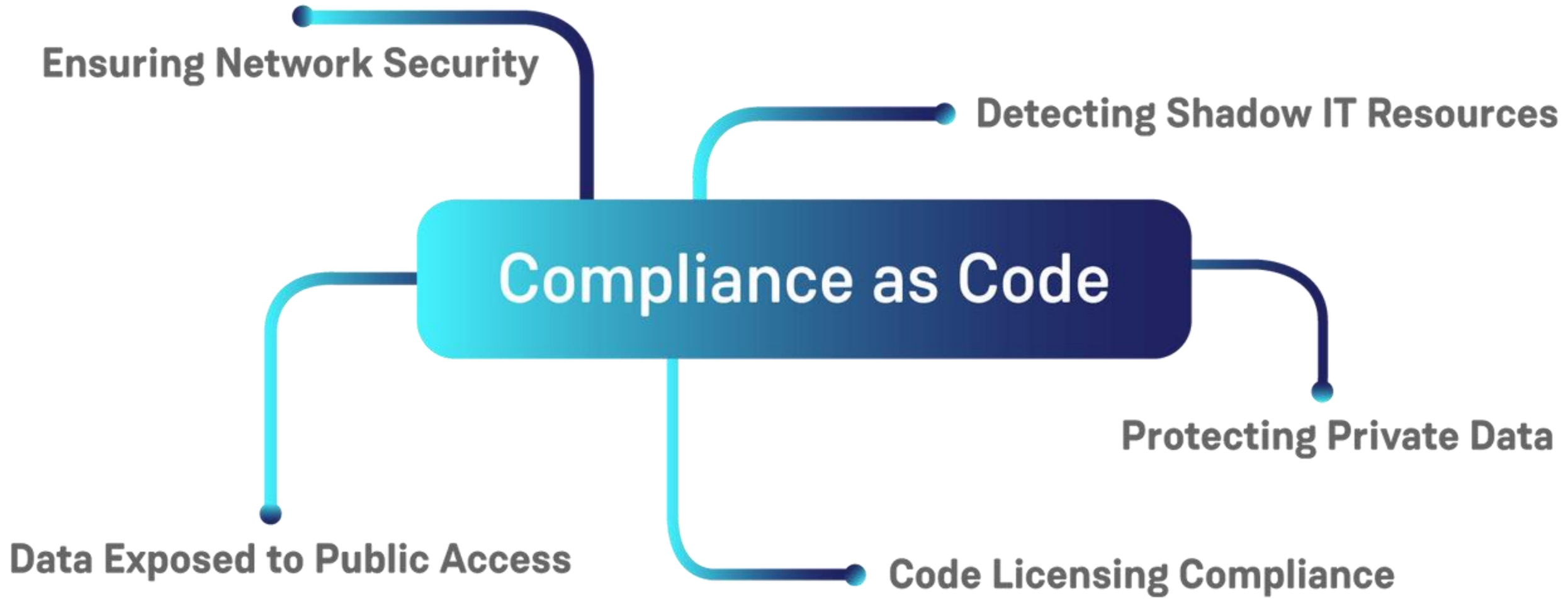
AWS Config & RDK

Assess, audit, and evaluate configurations of your resources

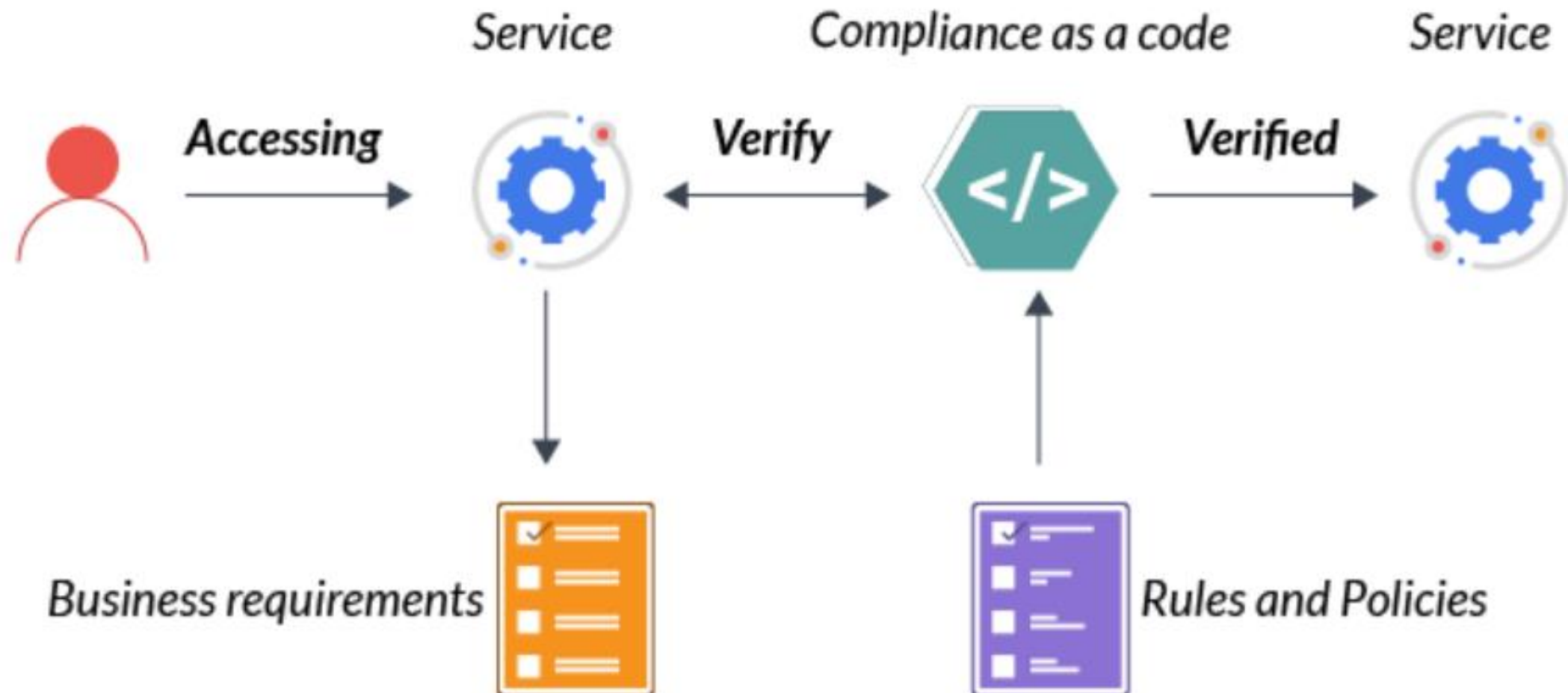
Rajesh Kumar

DevOps@RajeshKumar.xyz

www.RajeshKumar.xyz



Working of Compliance as a code



Use cases of Compliance as a code



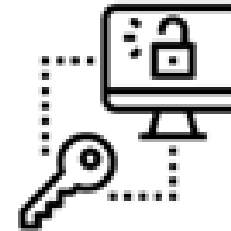
**Confidential
Data Protection**



**Detecting shadow
IT resources**



**Network
Security**



**Data Exposed to
Public Access**



**Code Licensing
Compliance**

AWS Config

Compliance as a Code

Create rules in AWS Config

Evaluate AWS resources

Enforce compliance

Compliance-as-Code using Config Rules



Use of AWS Config

Continually assess, monitor, and record resource configuration changes to simplify change management.



Audit and evaluate compliance of your resource configurations with your organization's policies on a continual basis.



Simplify operational troubleshooting by correlating configuration changes to particular events in your account.



AWS Config: Benefits

Continuous monitoring

With AWS Config, you are able to continuously monitor and record configuration changes of your AWS resources.

Change management

With AWS Config, you are able to track the relationships among resources and review resource dependencies prior to making changes.

Continuous assessment

AWS Config allows you to continuously audit and assess the overall compliance of your AWS resource configurations with your organization's policies and guidelines.

Operational troubleshooting

With AWS Config, you can capture a comprehensive history of your AWS resource configuration changes to simplify troubleshooting of your operational issues.

AWS Config: Use Cases

Streamline operational troubleshooting and change management

Discover resources that exist in your account or publish the configuration data of third-party resources into AWS Config, record their configurations, and capture any changes to quickly troubleshoot operational issues.

AWS Config: Use Cases

Deploy a compliance-as-code framework

Codify your compliance requirements as AWS Config rules and author remediation actions, automating the assessment of your resource configurations across your organization.

AWS Config: Use Cases

Continually audit security monitoring and analysis

Evaluate resource configurations for potential vulnerabilities, and review your configuration history after potential incidents to examine your security posture.

AWS Config: Pricing

AWS Config

You pay \$0.003 per configuration item recorded in your AWS account per AWS Region. A configuration item is recorded whenever a resource undergoes a configuration change or a relationship change. The resource could be an AWS, third-party, or custom resource. A relationship defines how a resource is related to other resources within an AWS account.

AWS Config rules

You are charged based on the number of AWS Config rule evaluations recorded. A rule evaluation is recorded every time a resource is evaluated for compliance against an AWS Config rule. Rule evaluations can be run in detective mode and/or in proactive mode, if available.

AWS Config: Pricing

| AWS Config rules evaluations | Price |
|---|---|
| First 100,000 rule evaluations | \$0.001 per rule evaluation per region |
| Next 400,000 rule evaluations (100,001-500,000) | \$0.0008 per rule evaluation per region |
| 500,001 and more rule evaluations | \$0.0005 per rule evaluation per region |

With consolidated billing, AWS will measure the total number of AWS Config rules evaluations from all of your accounts to determine which pricing tier applies, giving you a lower overall price at the higher tiers.

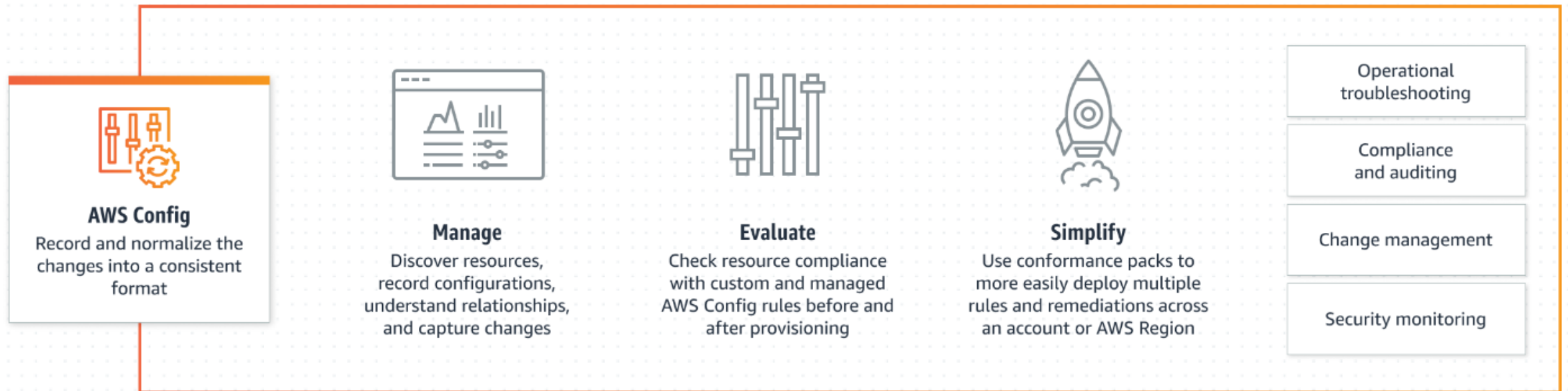
Conformance packs

You are charged per conformance pack evaluation in your AWS account per AWS Region based on the tier below. A conformance pack evaluation is defined as an evaluation of a resource by an AWS Config rule within the conformance pack. The following prices are effective as of September 14, 2022 and will be automatically reflected in your AWS bill.

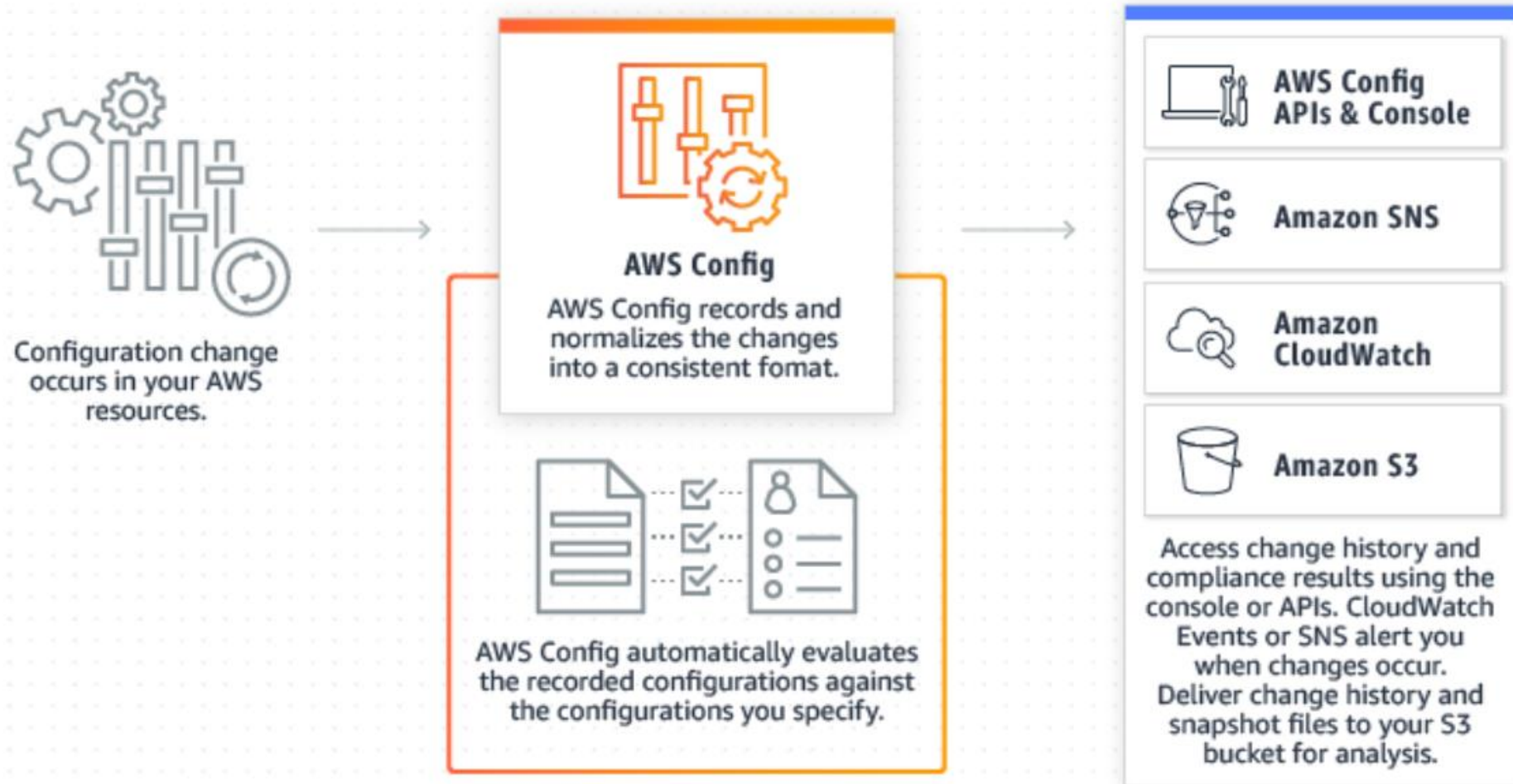
| Conformance pack evaluations | Price |
|---|---|
| First 100,000 conformance pack evaluations | \$0.001 per conformance pack evaluation per Region |
| Next 400,000 conformance pack evaluations (100,001-500,000) | \$0.0008 per conformance pack evaluation per Region |
| 500,001 and more conformance pack evaluations | \$0.0005 per conformance pack evaluation per Region |

AWS Config: How it works

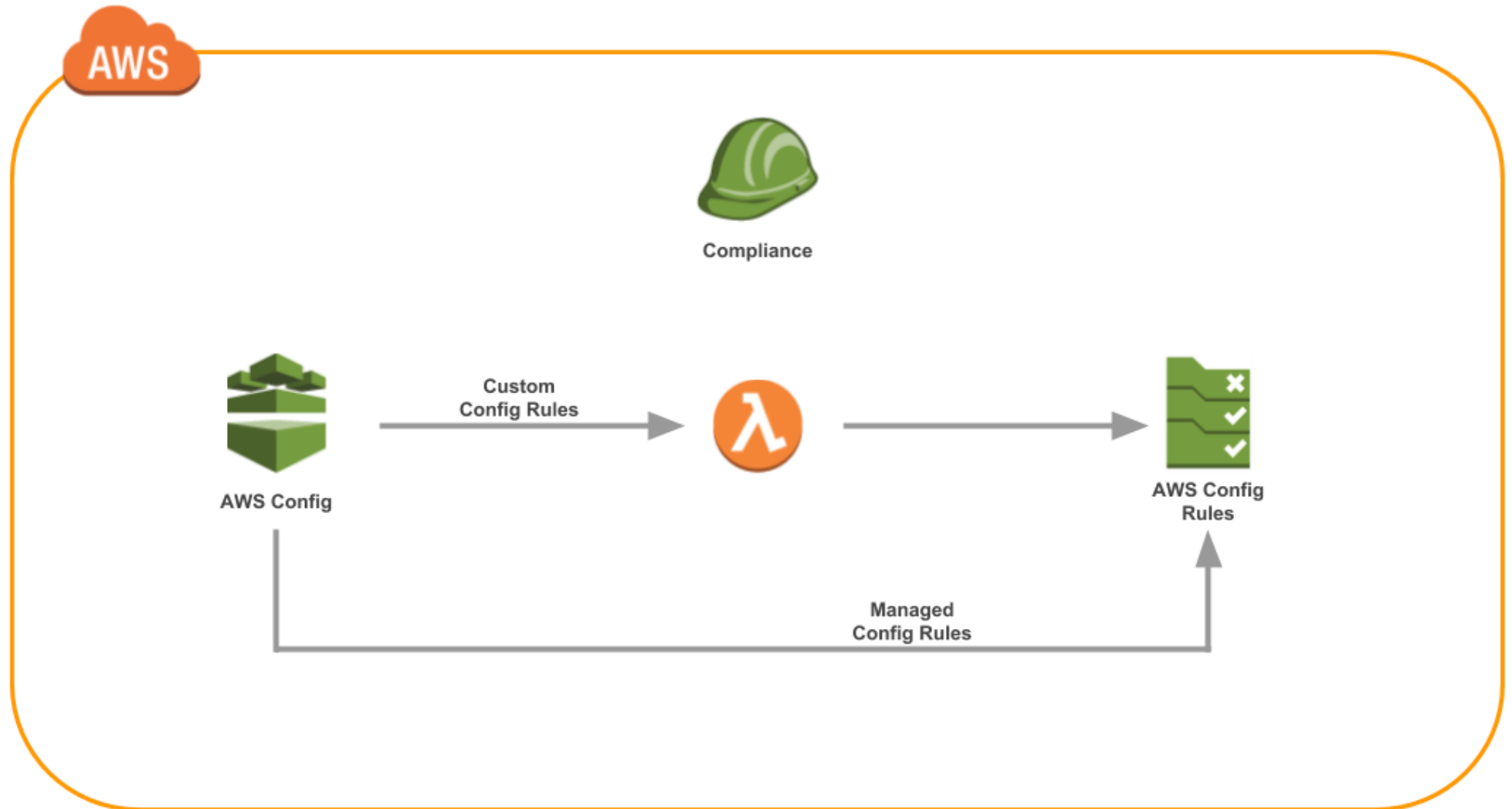
AWS Config continually assesses, audits, and evaluates the configurations and relationships of your resources on AWS, on premises, and on other clouds.



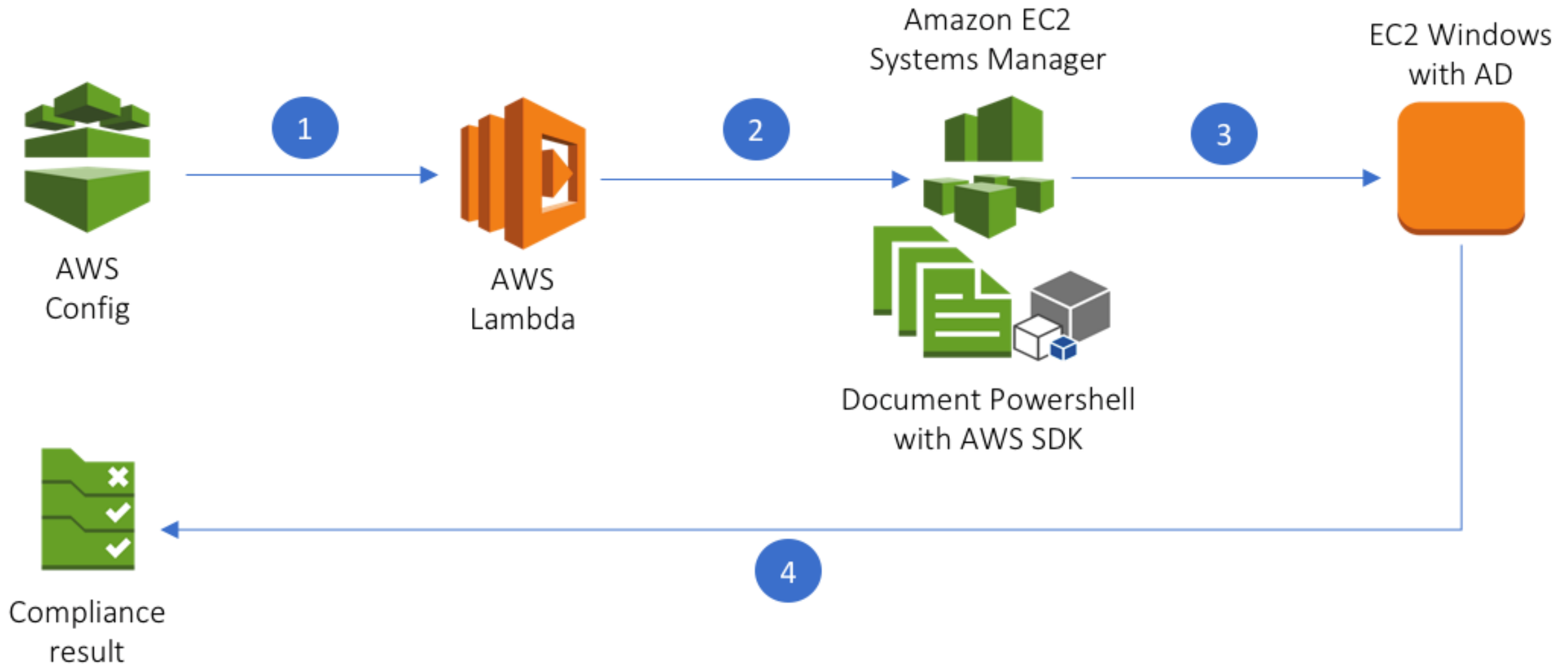
AWS Config: How it works



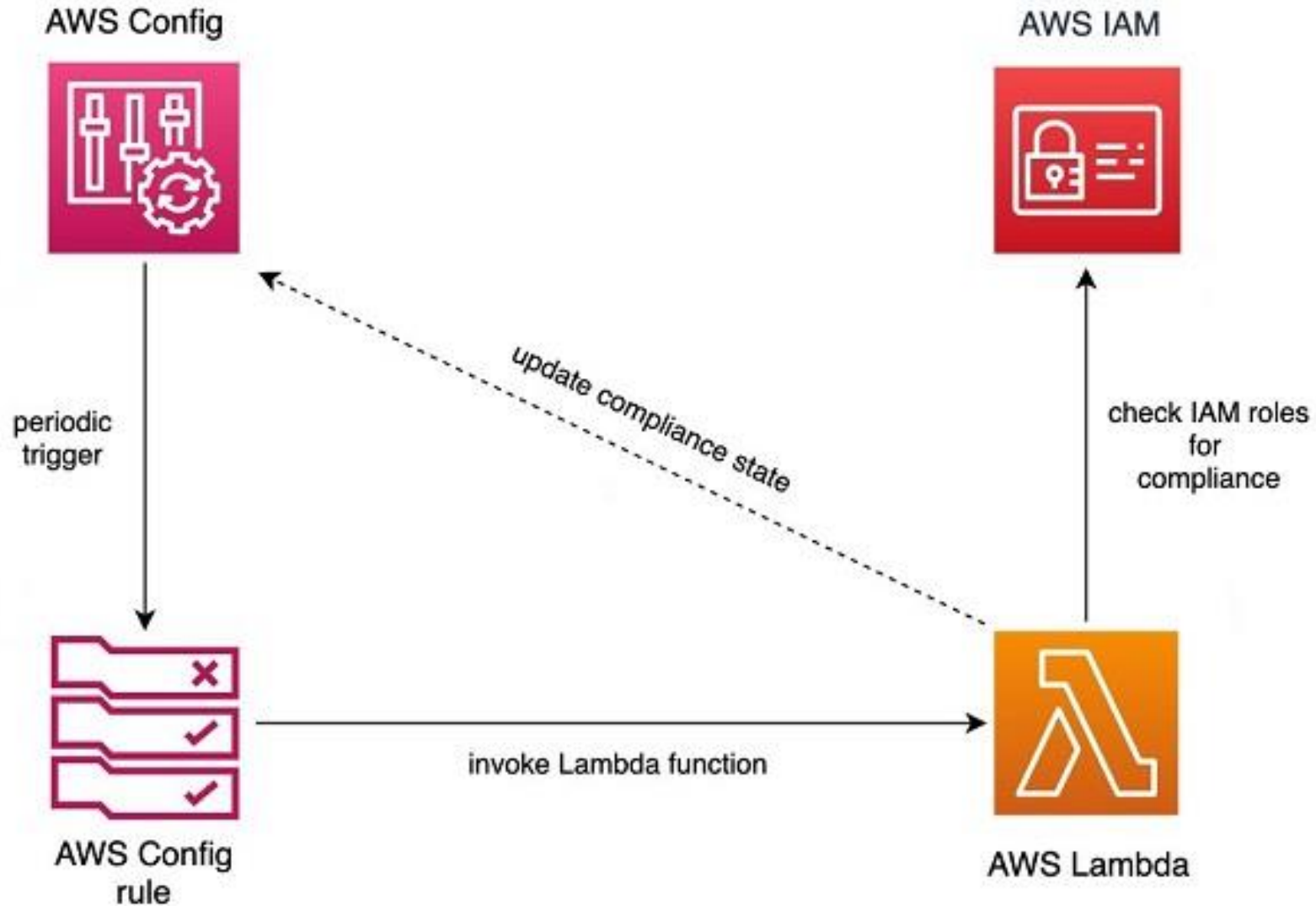
AWS Config: How it works



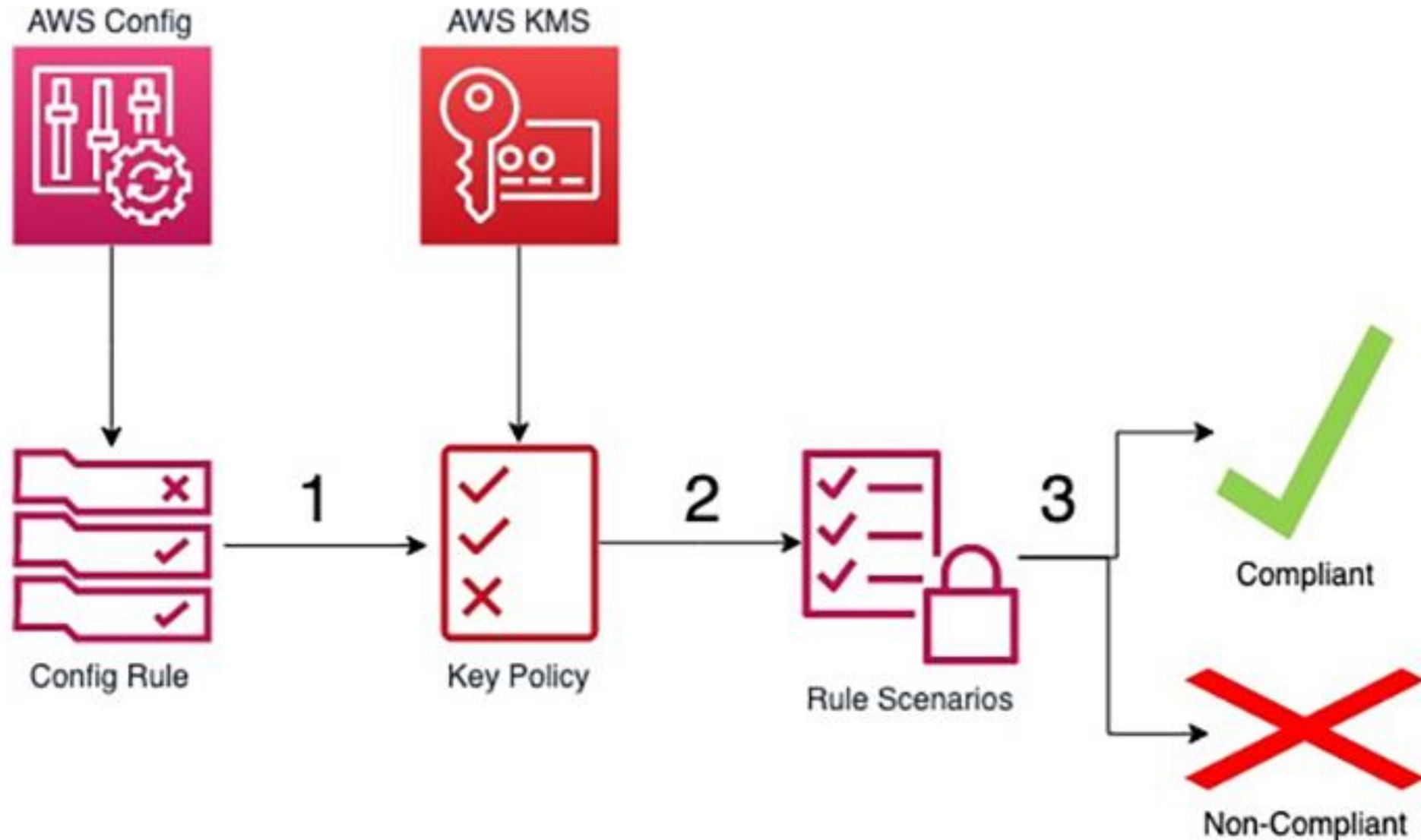
AWS Config: How it works



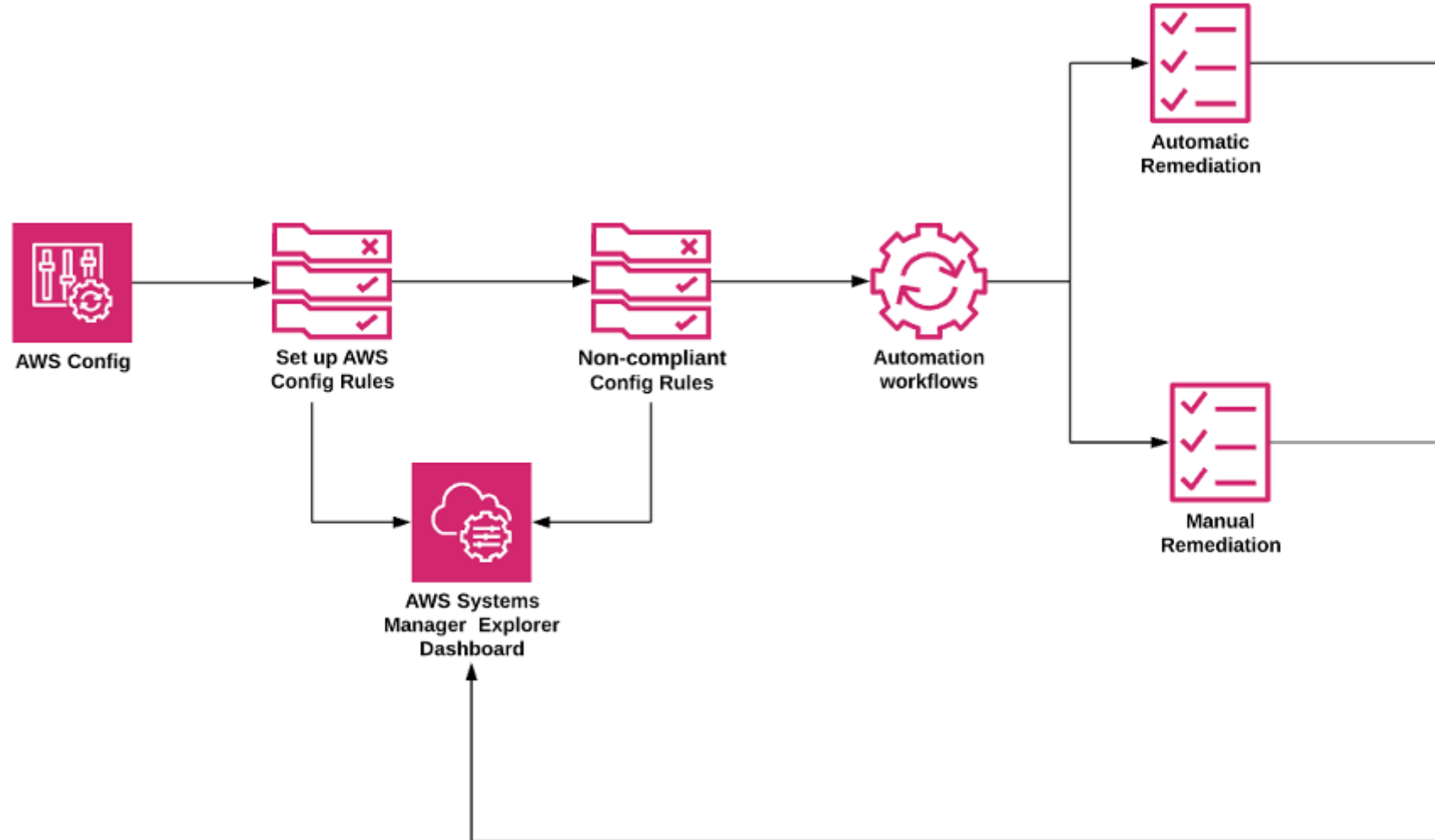
AWS Config: How it works



AWS Config: How it works



AWS Config: How it works



AWS Config

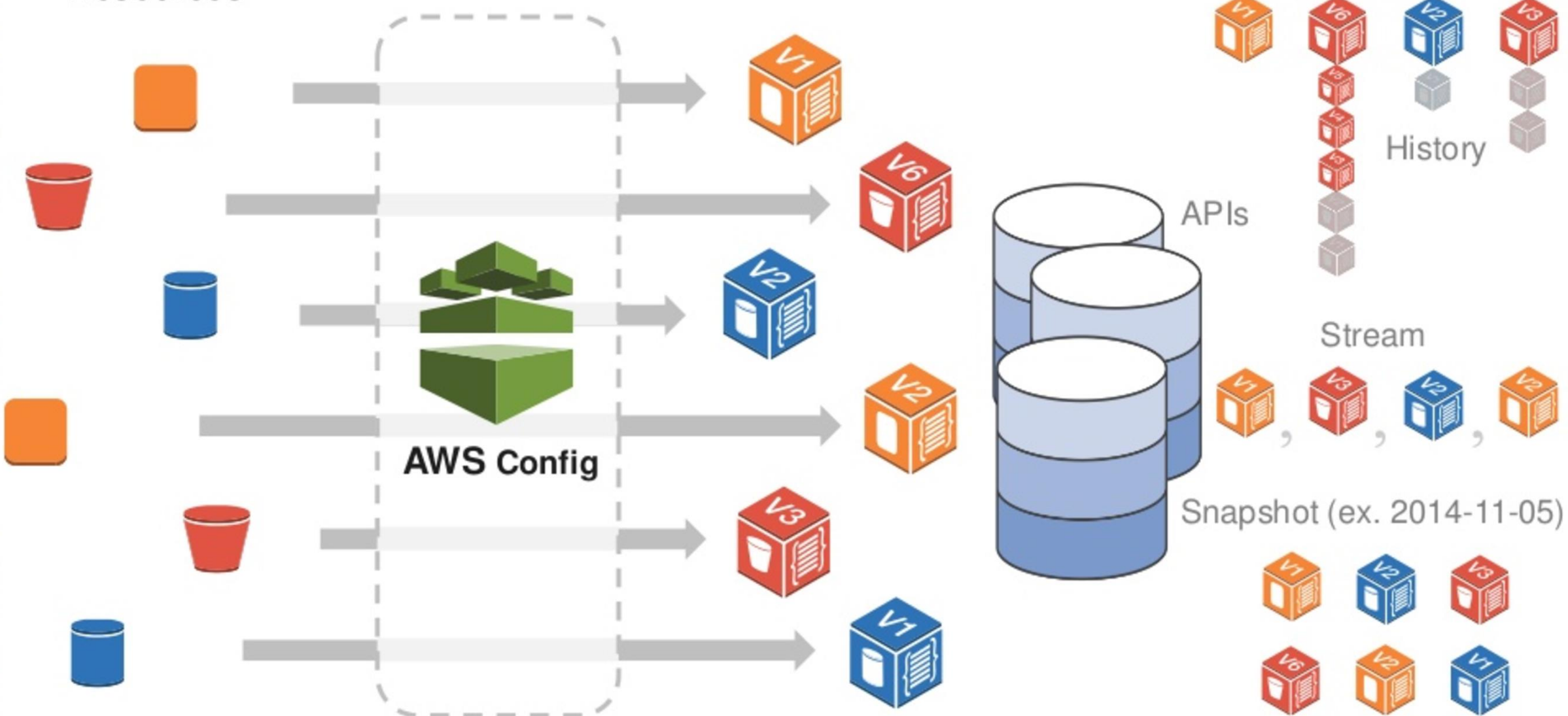
Changing Resources

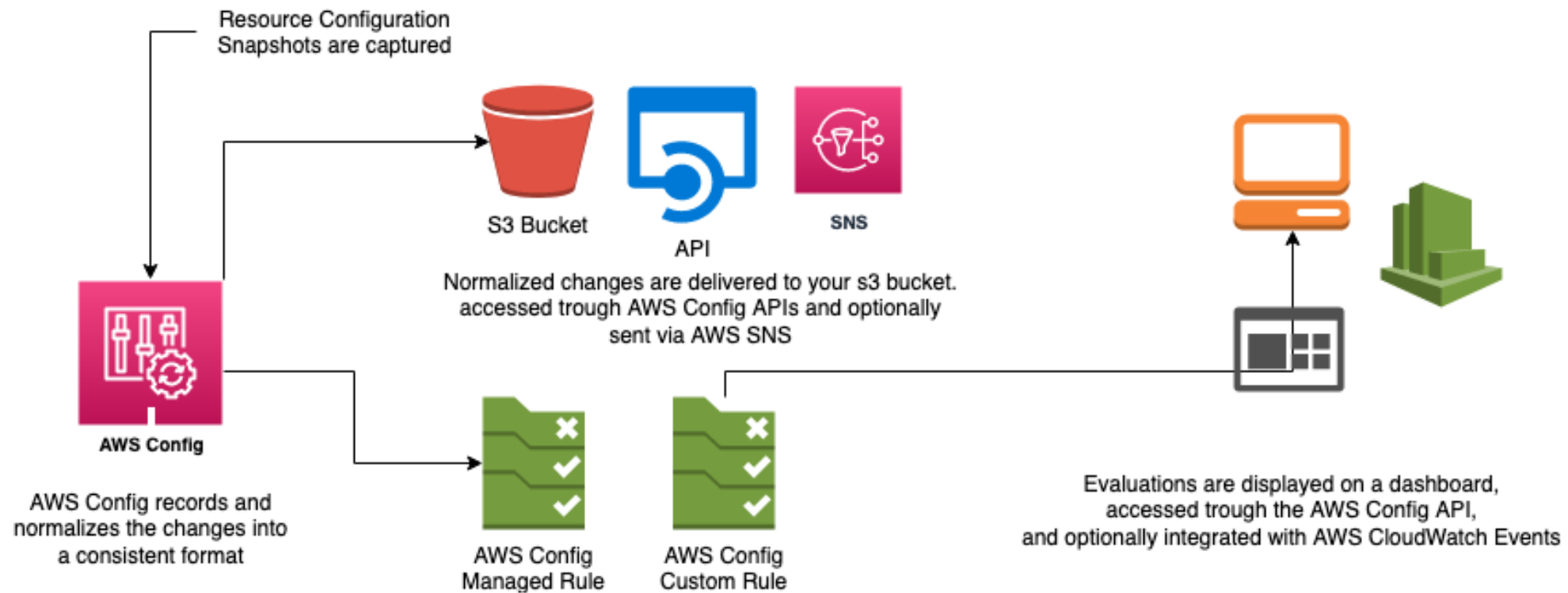
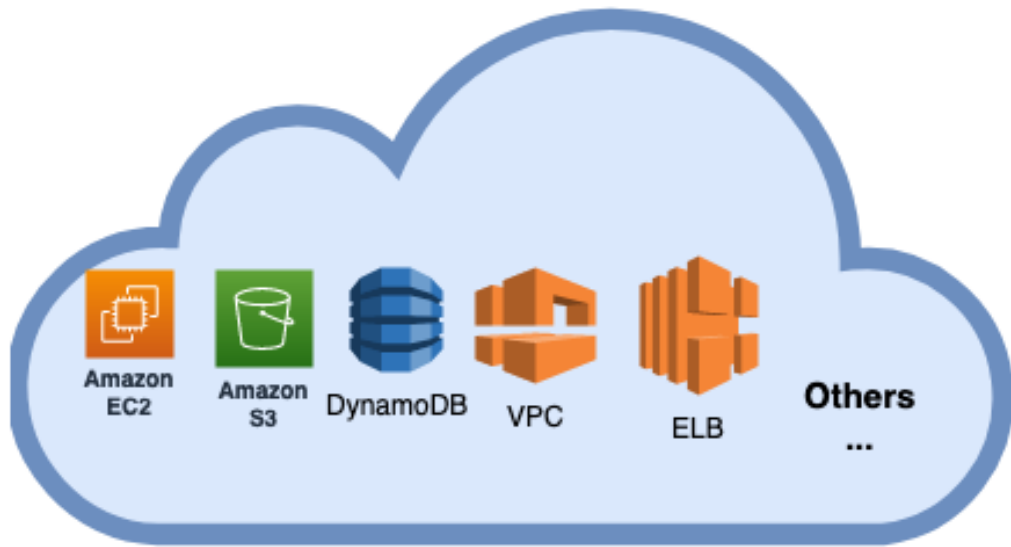
Record

Normalize

Store

Deliver





Getting started!

The screenshot shows the AWS Services search interface. At the top left, there is a 'Services' logo and a search bar containing the text 'Config'. Below the search bar, the text 'Search results for 'Config'' is displayed. On the left side, there is a sidebar with various categories: 'Services (11)', 'Features (57)', 'Resources' (with a 'New' badge), 'Blogs (1,222)', 'Documentation (83,321)', 'Knowledge Articles (30)', 'Tutorials (23)', 'Events (14)', and 'Marketplace (141)'. The main content area is titled 'Services' and contains a list of search results. The first result, 'Config', is highlighted with a red rectangular box. This result includes a red icon, the text 'Config' with a star, and the description 'Track Resource Inventory and Changes'. Below it are two other results: 'Managed Services' (IT operations management for AWS) and 'AWS AppConfig' (Use feature flags, operational flags, and other runtime configuration to make changes ...). To the right of the search results, there is a partial view of another page with text mentioning 'of AWS and non-AWS res' and 'status of the rules and th'.

Services

Search results for 'Config'

Services (11)

Features (57)

Resources **New**

Blogs (1,222)

Documentation (83,321)

Knowledge Articles (30)

Tutorials (23)

Events (14)

Marketplace (141)

Services

See all 11 results ▶

Config ☆

Track Resource Inventory and Changes

Managed Services ☆

IT operations management for AWS

AWS AppConfig ☆

Use feature flags, operational flags, and other runtime configuration to make changes ...

of AWS and non-AWS res
status of the rules and th
/S Region.

Getting started!

The screenshot shows the AWS Config console landing page. At the top, there is a navigation bar with the AWS logo, the word "Services", a search bar containing "Config", and utility icons for help, notifications, and a question mark. Below the navigation bar, the page is divided into several sections. The main section features the heading "Management Tools" and "AWS Config" in large, bold letters, followed by the sub-heading "Record and evaluate configurations of your AWS resources". A paragraph below explains that AWS Config provides a detailed view of resources, their configurations, and relationships over time. To the right of this main section is a "Get started" box with a description of the dashboard and a prominent orange "View dashboard" button. Below the main section is a "How it works" section with three icons representing different aspects of the service. On the right side, there is a "Pricing" section with a table listing pricing details for AWS Config, AWS Config rules, and AWS GovCloud (US).

Services

Management Tools

AWS Config

Record and evaluate configurations of your AWS resources

AWS Config provides a detailed view of the resources associated with your AWS account, including how they are configured, how they are related to one another, and how the configurations and their relationships have changed over time.

Get started

A summarized view of AWS and non-AWS resources and the compliance status of the rules and the resources in each AWS Region.

[View dashboard](#)

How it works

Icons illustrating the workflow: 1. Gear and server rack icon, 2. Wrench and gear icon, 3. AWS Config APIs & Console icon.

Pricing

| | |
|-------------------|---------------------------------|
| AWS Config | Pricing details |
| AWS Config rules | Pricing details |
| AWS GovCloud (US) | Pricing details |

Getting started!



Getting started!

<https://docs.aws.amazon.com/config/latest/developerguide/gs-console.html>

How to develop Rules?

Rule Type

Specify rule type

Add rules to define the desired configuration setting of your AWS resources. Customize any of the following rules to suit your needs, or create a custom rule. To create a custom rule, you must create an AWS Lambda function for the rule.

Select rule type

Add AWS managed rule

Customize any of the following rules to suit your needs.

Create custom Lambda rule

Create custom rules and add them to AWS Config. Associate each custom rule with an AWS Lambda function, which contains the logic that evaluates whether your AWS resources comply with the rule.

Create custom rule using Guard

Create custom rules using Guard Custom Policy that evaluates whether your AWS resources comply with the rule.

AWS Managed Rules (318)

Find Rules

< 1 2 3 4 5 6 7 ... 64 > ⚙️

Supported

AWS Config Rule Development Kit (RDK)

AWS Config released a Rule Development Kit (RDK) that greatly simplifies your **custom rule authoring experience**. The RDK is an open-source tool that helps you set up AWS Config, author rules, and then test them using a variety of AWS resource types. This allows you to focus on the development of the rule itself.

AWS Config Rules Repository

Managed by Community

- <https://github.com/awslabs/aws-config-rules>

Related Projects

- RDK (Rule Development Kit) - <https://github.com/awslabs/aws-config-rdk>
- RDKLib (Library to run rules at scale) - <https://github.com/awslabs/aws-config-rdklib>
- Config Rules Engine (Deploy and manage Rules at scale) - <https://github.com/awslabs/aws-config-engine-for-compliance-as-code>

Getting started with RDK

- <https://aws.amazon.com/blogs/mt/introducing-the-aws-config-rule-development-kit-rdk/>



Rajesh Kumar

DevOps@RajeshKumar.xyz

www.RajeshKumar.xyz