

The Industry Standard in IT Infrastructure Monitoring

Purpose

This document is intended to give an overview of how to generate and interpret the SLA (Service-Level Agreement) reporting functionality within Nagios® XI™. This report is very useful if you have SLA's to maintain within you organization, especially if you have separate SLA's by hosts, hostgroups and servicegroups.

Target Audience

This document is intended for use by Nagios XI Administrators that need to be able to generate specialized SLA reports based on hosts, hostgroups and servicegroups being monitored within the Nagios XI system.

Accessing SLA Reports And The Default Report

The SLA reporting functionality can be found by selecting the **Reports** link at the top of the Nagios XI interface, and selecting **SLA Report** from the left hand menu.

The screenshot shows the Nagios XI interface with the 'Reports' menu item highlighted. The 'SLA Report' page is displayed, showing a target of 95.000% and a report period from 2016-11-09 11:44:38 to 2016-11-10 11:44:38. The 'Host Data' table shows an average uptime of 100.000% with a 'PASSED' status. The 'Service Data' table shows an average uptime of 90.146% with a 'FAILED' status.

Host	Uptime	SLA Status
All hosts averaged. Show details		
Average	100.000%	PASSED

Host	Service	Uptime	SLA Status
All services averaged. Show details			
Average		90.146%	FAILED

The initial report generated is based on the previous 24 hours, contains an overview of all hosts and services, and is based on a SLA target of 95% up-time. Initially you are only shown a combined average of all host and service up-time. These are displayed in separate boxes, one for all hosts and one for all services.

Selecting the **Show Details** link within either box will display a full overview of each host and service, and whether the SLA target was met. You may select **Hide details** to shrink back to a single window for combined hosts and services.

Service Data - SLA Target: 95%

Host	Service	Uptime	SLA Status
All services averaged Show details			
Average		90.146%	FAILED

SLA Report

SLA Target: **95.000%**

Report covers from: **2016-11-09 11:32:00** to **2016-11-10 11:32:00**

[Hide details](#)

Host Data - SLA Target: 95%

Host	Uptime	SLA Status
10.25.14.52	100.000%	PASSED
localhost	100.000%	PASSED
Average	100.000%	PASSED

[Hide details](#)

Service Data - SLA Target: 95%

Host	Service	Uptime	SLA Status
10.25.14.52	CPU Usage	100.000%	PASSED
	Drive C: Disk Usage	12.766%	FAILED
	Memory Usage	100.000%	PASSED
	Uptime	100.000%	PASSED
	Windows Update Status	0.000%	FAILED
localhost	Current Load	100.000%	PASSED
	Current Users	100.000%	PASSED
	HTTP	100.000%	PASSED
	PING	100.000%	PASSED
	Root Partition	100.000%	PASSED
	SSH	100.000%	PASSED
	Service Status - crond	100.000%	PASSED
	Service Status - httpd	100.000%	PASSED
	Service Status - mysqld	100.000%	PASSED
	Service Status - ndo2db	100.000%	PASSED
	Service Status - npcd	100.000%	PASSED
	Service Status - ntpd	100.000%	PASSED
	Swap Usage	100.000%	PASSED
	Total Processes	100.000%	PASSED
Average		90.146%	FAILED

Generating A Custom Report

Generating a custom SLA report is extremely straight-forward and is very similar to other reports in the Nagios XI interface.

Time Periods contain information that is relative to:

Last 24 Hours

From this second going backwards in time for 24 hours only

Today

From 12:00 AM today until the second this report was run

Yesterday

The prior day from 12:00 AM until 11:59:59 PM

This Week

From 12:00 AM Sunday until the second this report was run

This Month

From 12:00 AM on the first day of the current month until the second this report was run

This Quarter

From 12:00 AM on the first day of the current quarter until the second this report was run

Quarters are three month periods as per:

January 1st – March 31st

April 1st – June 30th

July 1st – September 30th

October 1st – December 31st

This Year

From 12:00 AM on the first day of the current year until the second this report was run

Last Week

The prior week from 12:00 AM Sunday until 11:59:59 PM Friday

Last Month

The prior month from 12:00 AM on the first day until 11:59:59 PM on the last day

Last Quarter

The prior quarter from 12:00 AM on the first day of the quarter until 11:59:59 PM the last day of the quarter

Last Year

The prior year from 12:00 AM on the first day of the year until 11:59:59 PM on the last day of the year

Custom

You can define your own date and time ranges

Custom date ranges will be calculated based on 12:00 AM of the first day until 11:59:59 PM of the last day selected

however you can specify the time as well using the 24 hour format hour:minute:second like 08:30:00

Note:

Host and service downtimes are respected and do not negatively effect SLA reports other than shortening the effective time period for calculations

SLA reporting is calculated based on five 9's ideals of being accurate to 1000th of a percent or 100.000%

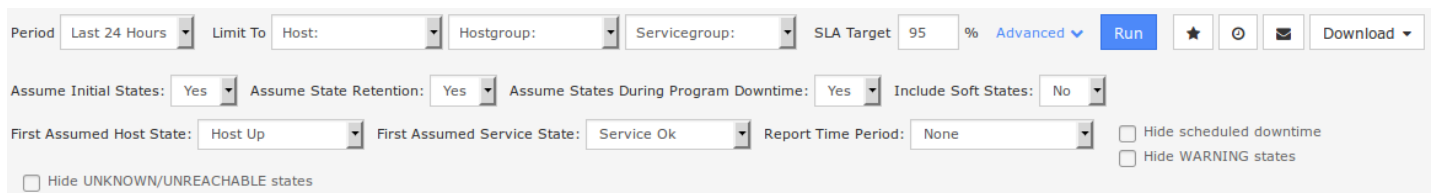
To begin generating a SLA report, start by selecting your required time period from the **Period** drop down. If a custom period is desired, choose *Custom* at the bottom, and enter the date range required. The default, if not changed, is *Last 24 Hours*.

Next, make a single selection for **Limit To** either a specific host, hostgroup, or servicegroup. As you might expect, this will limit the report to only hosts and services within that selection. Multiple selections cannot be made to further refine the report at this time. If no limitations are made, the report defaults to all hosts and services being calculated.

Finally, enter an **SLA Target** percentage. This may be a whole number such as 95 or a more specific percentage up to and including the 1000th placeholder, such as 99.999. Do not include the % sign, as that is already assumed. The default if nothing is modified is a 95% up-time target. Upon completion, select the **Update** button to generate your report.

Advanced Options

There are more advanced options available by clicking the **Advanced** link next to the Run button.



The screenshot shows the 'Advanced Options' form for generating an SLA report. It includes several dropdown menus and checkboxes. The 'Period' is set to 'Last 24 Hours'. The 'Limit To' section has 'Host:', 'Hostgroup:', and 'Servicegroup:' dropdowns. The 'SLA Target' is set to '95 %'. There are buttons for 'Run', a star icon, a refresh icon, an email icon, and a 'Download' dropdown. Below these are settings for 'Assume Initial States' (Yes), 'Assume State Retention' (Yes), 'Assume States During Program Downtime' (Yes), and 'Include Soft States' (No). There are also dropdowns for 'First Assumed Host State' (Host Up) and 'First Assumed Service State' (Service Ok), and a 'Report Time Period' dropdown (None). Checkboxes for 'Hide scheduled downtime' and 'Hide WARNING states' are present, along with a checkbox for 'Hide UNKNOWN/UNREACHABLE states'.

Assume Initial States

If Nagios XI cannot determine the initial state of the object when the report period begins it will use the **First Assumed Host State** and **First Assumed Service State** settings.

Assume State Retention

If Nagios XI was restarted at any time during the reporting period, this option will assume the state of the object before the restart was retained until Nagios XI was restarted again.

Assume States During Program Downtime

If Nagios XI was shutdown during the reporting period, this option will assume the state of the object before the shutdown occurred.

Include Soft States

A **SOFT** state is what an object enters into before the `max_check_attempts` directive of that object has been reached. Once the `max_check_attempts` directive of the object is reached the object enters into a **HARD** state (and then notifications can occur).

The default for this option is **No**, only **HARD** states will be included in the report.

If you want **SOFT** states to be included you will need to set this to **Yes**.

Assumed Host State and First Assumed Service State

The choices here are related to the **Assume Initial States** setting described above.

Report Time Period

You can limit the report to a Nagios XI time period that has been defined in Core Configuration Manager (CCM).

Hide Scheduled Downtime

Any objects that were in scheduled downtime during the reporting period will not be included in the report if this option is checked.

Hide WARNING states

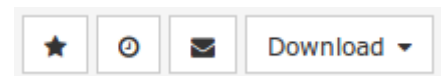
Any objects that were in a WARNING state during the reporting period will not be included in the report if this option is checked.

Hide UNKNOWN/UNREACHABLE states

Any objects that were in a UNKNOWN or UNREACHABLE state during the reporting period will not be included in the report if this option is checked.

Report Output Options

These options allow you to save, schedule, email and download a report.



Add

Clicking the **Add** button will allow you to save the report under the **My Reports** section. When you click the button you will be presented with the following screen:

Add to My Reports

Use this function to save reports that you frequently access to your 'My Reports' menu.

Report Title:

The name you want to use for this report.

Do not show this report in the my reports menu section.

Populate the fields as required and click **Save Report** when done.



Schedule

Clicking the **Schedule** button will allow you to schedule the report to run at specific times and email selected recipients. When you click the button you will be presented with the following options:

Report Name

A name required for the report

Schedule

Define when you would like this report to run

Attachments

Select the type(s) of attachments you want the report to included in the email as

Recipients

Provide a list (comma-separated) of email addresses this report should be sent to

Subject

The subject of the email being sent

Message

The message body of the email being sent

Schedule New Report

Use this form to create a new scheduled report that is sent to one or more recipients you define.

Report Name:
The name you want to use for this report.

Schedule: Frequency: Time: : Weekday:
Specify the schedule you want this report to be emailed.

Attachments: PDF
 JPG
Select the types of attachment(s) you want in the report.

Recipients:
Comma-separated list of email addresses this report should be sent to.

Subject:
The subject that should be used for the report email.

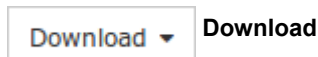
Message:
A custom message to be added to the report email.
 Do not show this report in the my reports menu section.

Populate the fields as required and click **Save** when done.



Email

Clicking the **Email** button will allow you to send the report now email selected recipients. The options available are identical to the **Schedule** options listed above.



Download

The Download button can be used to save the report as a PDF or JPG.

Final Thoughts

For any support related questions about SLA reports in Nagios XI, or for anything else please visit the Nagios Support Forums at:

<https://support.nagios.com/forum/>