Monitoring LayerX Appliances

LayerX Appliance Monitoring PowerPack Beta version 100

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Chapter 1

Introduction

Overview

This manual describes how to monitor LayerX appliances in SL1 using the *LayerX Appliance Monitoring* PowerPack.

The following sections provide an overview of LayerX appliances and the *LayerX Appliance Monitoring*PowerPack.

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What is LayerX?

LayerX is software that performs advanced data analytics across multiple IT domains and provides insight into application performance and the underlying network layers.

What Does the LayerX Appliance Monitoring PowerPack Monitor?

The *LayerX Appliance Monitoring* PowerPack enables you to discover, model, and collect data about LayerX appliances.

The LayerX Appliance Monitoring PowerPack includes the following features:

- Dynamic Applications that discover and monitor LayerX appliances
- Device Classes for each type of LayerX appliance monitored
- Device Templates for monitoring LayerX Arbitrator devices and LayerX Reporter devices
- Event Policies and corresponding alerts that are triggered when LayerX appliances meet certain status criteria
- A sample Credential for discovering LayerX appliances
- A Credential Test to validate credentials
- The REST: Discovery Initiation Dashboard, which is used to discovery LayerX appliances
- Run Book Actions and an Automation policies to create the device, test collection, check the Credential, and apply a Device Template

Installing the LayerX Appliance Monitoring PowerPack

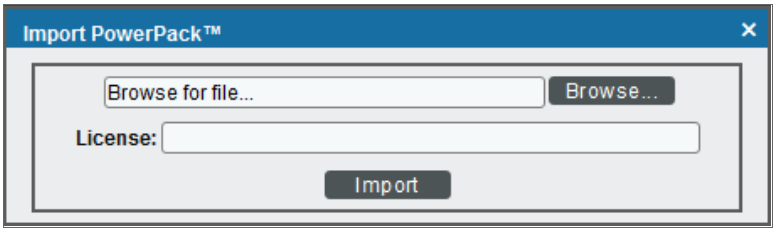
Before completing the steps in this manual, you must import and install the latest version of the *LayerX Appliance Monitoring* PowerPack.

TIP: By default, installing a new version of a PowerPack overwrites all content in that PowerPack that has already been installed on the target system. You can use the ***Enable Selective PowerPack Field Protection*** setting in the **Behavior Settings** page (System > Settings > Behavior) to prevent new PowerPacks from overwriting local changes for some commonly customized fields. (For more information, see the ***System Administration*** manual.)

To download and install a PowerPack:

1. Download the PowerPack from the ScienceLogic Customer Portal.
2. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
3. In the **PowerPack Manager** page, click the **[Actions]** button, then select *Import PowerPack*.

4. The **Import PowerPack** dialog box appears:



5. Click the **[Browse]** button and navigate to the PowerPack file.
6. When the **PowerPack Installer** modal page appears, click the **[Install]** button to install the PowerPack.

> **NOTE:** If you exit the **PowerPack Installer** modal page without installing the imported PowerPack, the imported PowerPack will not appear in the **PowerPack Manager** page. However, the imported PowerPack will appear in the **Imported PowerPacks** modal page. This page appears when you click the **[Actions]** menu and select *Install PowerPack*.

Chapter 2

Configuring LayerX Monitoring

Overview

The following sections describe how to configure and discover LayerX appliances for monitoring by SL1 using the *LayerX Appliance Monitoring* PowerPack:

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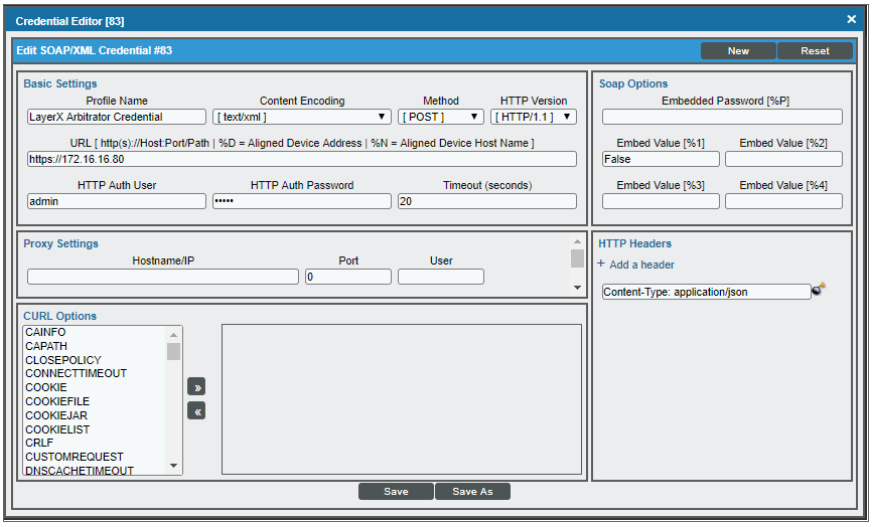
Creating a SOAP/XML Credential for LayerX Appliances

To configure SL1 to monitor LayerX appliances, you must first create a SOAP/XML credential. This credential allows the Dynamic Applications in the *LayerX Appliance Monitoring* PowerPack to connect with the LayerX appliance.

The PowerPack includes an example SOAP/XML credential that you can edit for your own use.

To configure the SOAP/XML credential:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **LayerX: Appliance Sample** credential, then click its wrench icon ( ). The **Edit SOAP/XML Credential** modal page appears:



3. Complete the following fields:
   - ***Profile Name***. Enter a name for the LayerX credential.
   - ***URL***. Enter the IP address of the LayerX appliance you want to monitor.
   - ***HTTP Auth User***. Enter the username for a user with access to the LayerX appliance.
   - ***Password***. Enter the password for the LayerX account username.
4. Click the **[Save As]** button.

Testing the LayerX Credential

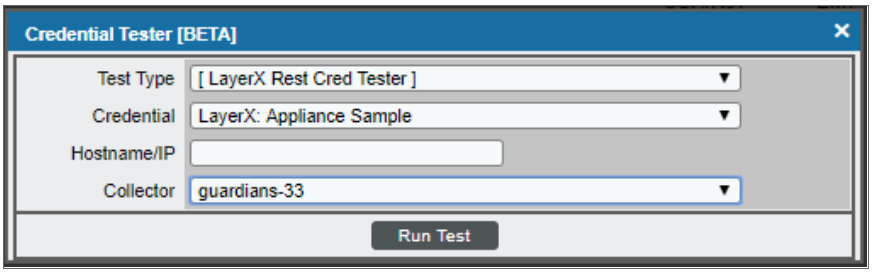
SL1 includes a Credential Test for LayerX. Credential Tests define a series of steps that SL1 can execute on demand to validate whether a credential works as expected.

The **LayerX Rest Cred Tester** can be used to test a SOAP/XML credential for monitoring LayerX using the Dynamic Applications in the *LayerX Appliance Monitoring* PowerPack. The LayerX Rest Cred Tester performs the following steps:

- ***Test Reachability***. Checks to see if the LayerX device is reachable using ICMP.
- ***Test Port Availability***. Checks to see if the appropriate port is open.
- ***Test Silo Rest Pack***. Attempts to collect data using the REST protocol collector using the given snippet argument.

To test the LayerX credential:

1. Go to the **Credential Test Management** page (System > Customize > Credential Tests).
2. Locate the **LayerX Rest Cred Tester** and click its lightning bolt icon ( ). The **Credential Tester** modal page appears:



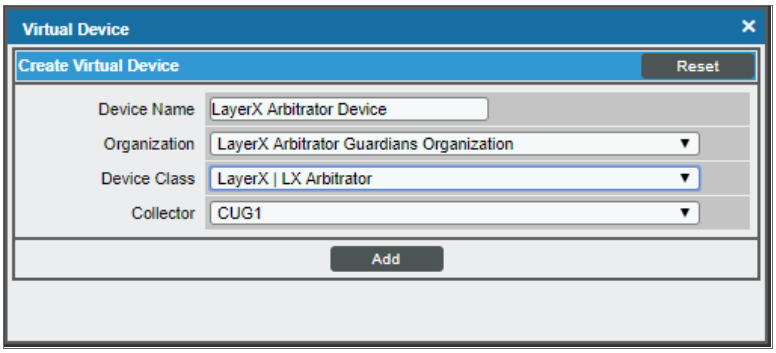
3. Supply values in the following fields:
   - ***Test Type***. This field is pre-populated with the credential test you selected.
   - ***Credential***. Select the credential to test. This drop-down list includes only credentials that you have access to that can be tested using the selected credential test.
   - ***Hostname/IP***. Leave this field blank.
   - ***Collector***. Select the All-In-One Appliance or Data Collector that will run the test.
4. Click the **[Run Test]** button. The **Test Credential** window appears, displaying a log entry for each step in the credential test. The steps performed are different for each credential test. The log entry for each step includes the following information:
   - ***Step***. The name of the step.
   - ***Description***. A description of the action performed during the step.
   - ***Log Message***. The result of the step for this credential test.
   - ***Status***. The result of this step indicates whether the credential or the network environment is configured correctly (Passed) or incorrectly (Failed).
   - ***Step Tip***. Mouse over the question mark icon ( ) to display the tip text. The tip text recommends what to do to change the credential or the network environment if the step has a status of "Failed".

Creating the LayerX Virtual Device (MUD Systems Only)

If you are on a Military Unique Deployment (MUD) system, the Run Book Action will not create your device for you. Instead, you must create a ***virtual device*** that represents the LayerX appliance. A virtual device is a user-defined container that represents a device or service that cannot be discovered by SL1. You can use the virtual device to store information gathered by policies or Dynamic Applications. If you are not on a MUD system, you can go directly to the *Discovering LayerX Appliances* section.

To create a virtual device that represents your LayerX appliance:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click **[Actions]** and select *Create Virtual Device* from the menu. The **Virtual Device** modal page appears.
3. Enter values in the following fields:



   - ***Device Name***. Enter a name for the device.
   - ***Organization***. Select the organization for this device. The organization you associate with the device limits the users that will be able to view and edit the device. Typically, only members of the organization will be able to view and edit the device.
   - ***Device Class***. Select *LayerX | LX Arbitrator* or *Layer X| LX Reporter* depending on the LayerX appliance you are discovering.
   - ***Collector***. Select the collector group that will monitor the device.

4. Click **[Add]** to create the virtual device.

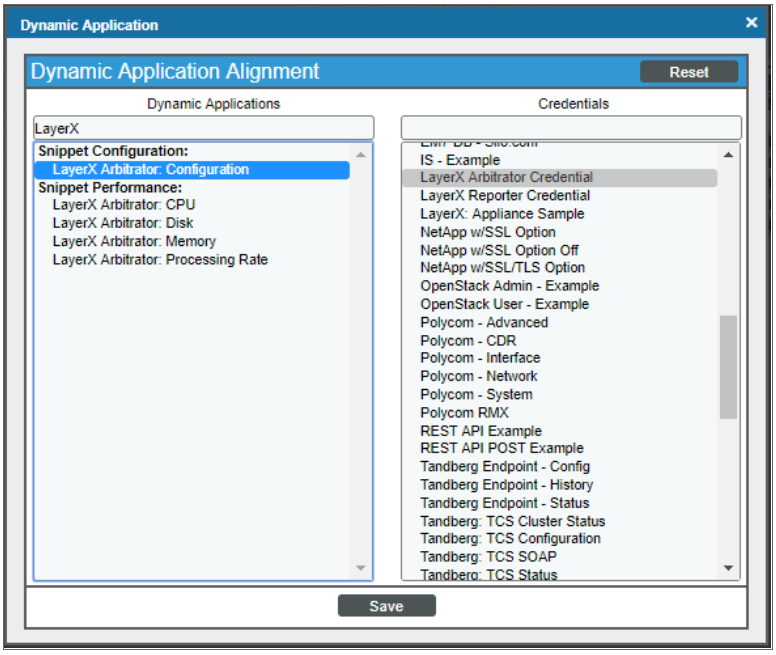
Manually Aligning LayerX Dynamic Applications (MUD Systems Only)

In you are on a Military Unique Deployment (MUD) system, you must manually align the LayerX Dynamic Applications to the LayerX virtual device. If you are on a non-MUD system, you can go directly to the *Discovering LayerX Appliances* section.

To manually align the LayerX Dynamic Applications:

1. Go to the **Device Manager** page (Registry > Devices > Device Manager).
2. Click the wrench icon ( ) for your LayerX virtual device.
3. In the ***Device Administration*** panel, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
4. Click the **[Actions]** button and select *Add Dynamic Application* from the menu.

5. In the **Dynamic Application Alignment** modal:



- In the ***Dynamic Applications*** field, select a Dynamic Application to align. Depending on the type of LayerX appliance, align Dynamic Applications according to the tables below.

Align the following Dynamic Applications to a **LayerX Reporter** appliance:

Dynamic Application	Credential Type
LayerX Reporter: Configuration	Snippet Configuration
LayerX Reporter: CPU	Snippet Performance
LayerX Reporter: Memory	Snippet Performance
LayerX: Service Status	Snippet Configuration
REST: Performance Metrics Monitor	Snippet Performance

Align the following Dynamic Applications to a **LayerX Arbitrator** appliance:

Dynamic Application	Credential Type
LayerX Arbitrator: Configuration	Snippet Configuration
LayerX Arbitrator: CPU	Snippet Performance
LayerX Arbitrator: Disk	Snippet Performance
LayerX Arbitrator: Memory	Snippet Performance
LayerX Arbitrator: Processing Rate	Snippet Performance

Dynamic Application	Credential Type
LayerX: Service Status	Snippet Configuration
REST: Performance Metrics Monitor	Snippet Performance

- In the ***Credentials*** field, select the credential you created for your LayerX appliance.

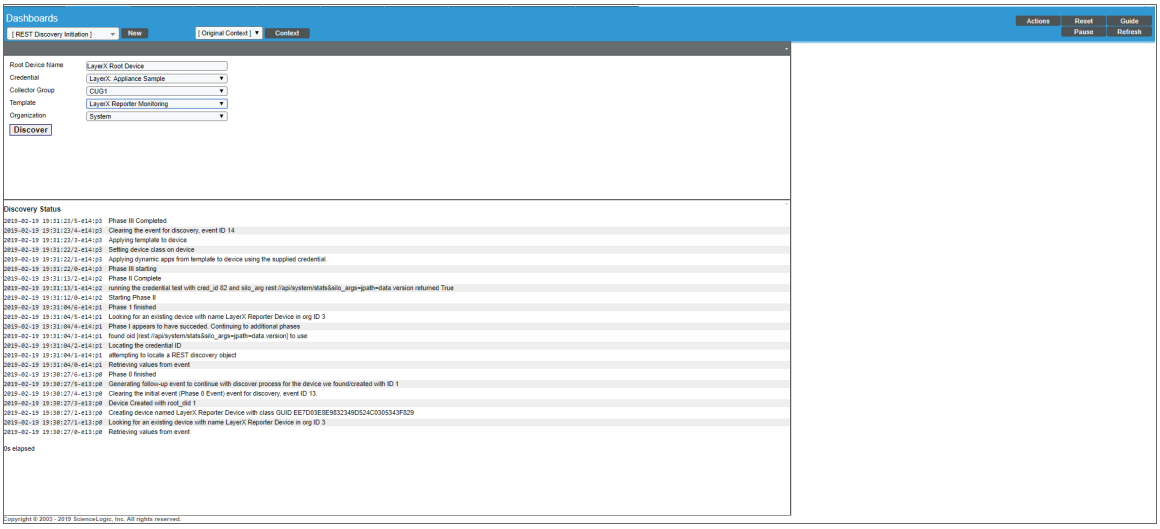
6. Click **[Save]** to align the Dynamic Application with the LayerX virtual device.

Discovering LayerX Appliances (Non-MUD Systems)

Because the *LayerX Appliance Monitoring* PowerPack is a REST-based PowerPack, you can use the **REST Discovery Initiation** dashboard to discover LayerX appliances.

To create a discovery session with the dashboard:

1. Click the **Dashboards tab**. In the drop-down field in the upper-left corner of the page, select *REST Discovery Initiation*.
2. On the **REST Discovery Initiation** dashboard page:



- In the ***Root Device Name*** field, type a name for the LayerX root device.
- In the ***Credential*** field, select the SOAP/XML credential that you created.
- In the ***Collector Group*** field, select the collector group.
- In the ***Template*** field, select the appropriate LayerX device template.
- In the ***Organization*** field, select your organization.

NOTE: In the device template, if a credential is set for the Dynamic Application, it will be used. If a credential is not set for the Dynamic Application, the credential selected in the dashboard will be used. In most cases, the template will have Dynamic Applications with no credentials set.

4. Click the **[Discover]** button. The progress of the discovery session will be displayed in the **Discovery Status** pane.

NOTE: The LayerX Appliance Monitoring PowerPack has two device templates, one for Arbitrator and one for Reporter devices. If you need to discover both types of devices, you will need to run the **REST Discovery Initiation** once for each device type.

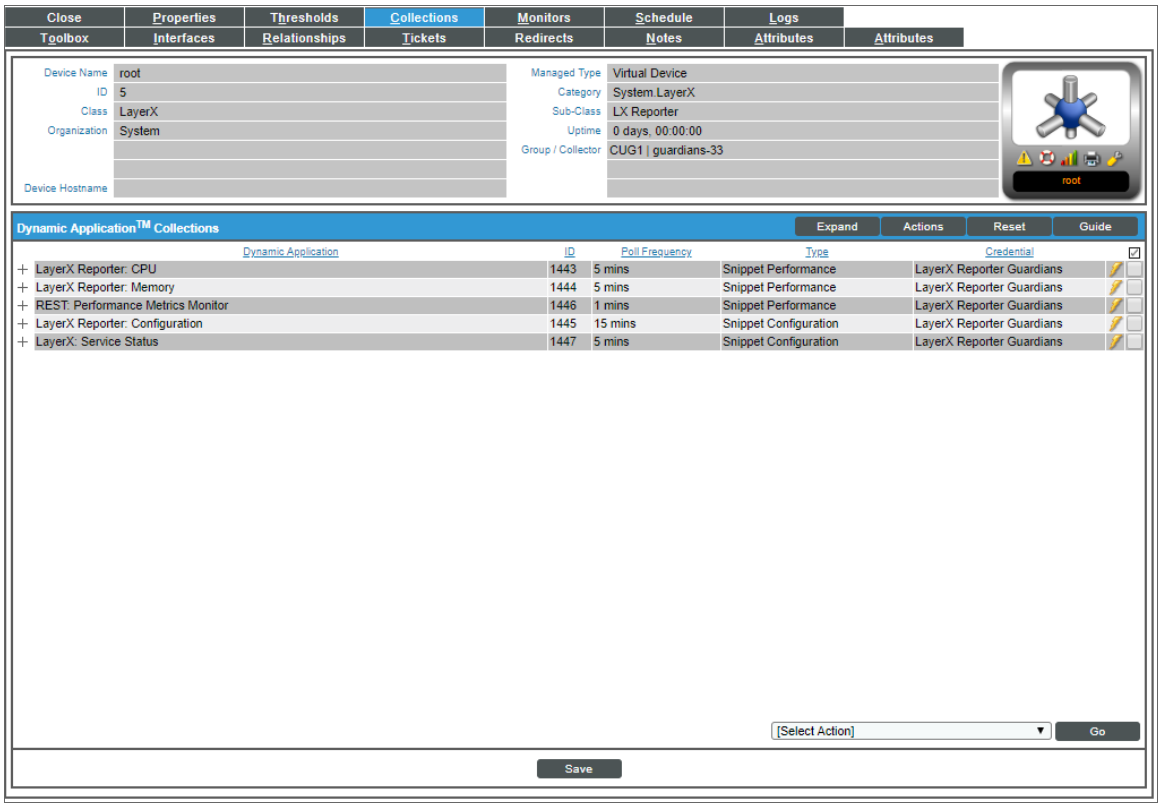
After the discovery session has completed, find the device ID in the logs in the **Discovery Status** pane. Then go to the **Device Manager** page (Registry > Devices > Device Manager) and search for the device ID. When you have located the device, click on its edit icon ( ) or its graph ( ) icon to view details about the device.

Verifying Discovery and Dynamic Application Alignment

To verify that SL1 has automatically aligned the correct Dynamic Applications during discovery:

1. After the discovery session has completed, go to the **Device Manager** (Registry > Devices > Device Manager) page and find the device you discovered in the **REST Discovery Initiation** dashboard. You can find the device ID in the logs in the **Discovery Status** pane when your discovery session is complete. When you have located the device in the **Device Manager**, click on its edit icon ( ).
2. In the **Device Properties** page, click the **[Collections]** tab.
3. All applicable Dynamic Applications for the LayerX appliance are automatically aligned during discovery. The Dynamic Applications aligned depend on the device template you selected during discovery.

NOTE: It can take several minutes after the discovery session has completed for Dynamic Applications to appear in the **Dynamic Application Collections** page.



You should see the following Dynamic Applications aligned to the LayerX Reporter appliance:

Dynamic Application	Credential Type
LayerX Reporter: Configuration	Snippet Configuration
LayerX Reporter: CPU	Snippet Performance
LayerX Reporter: Memory	Snippet Performance
LayerX: Service Status	Snippet Configuration
REST: Performance Metrics Monitor	Snippet Performance

You should see the following Dynamic Applications aligned to the LayerX Arbitrator appliance:

Dynamic Application	Credential Type
LayerX Arbitrator: Configuration	Snippet Configuration
LayerX Arbitrator: CPU	Snippet Performance
LayerX Arbitrator: Disk	Snippet Performance
LayerX Arbitrator: Memory	Snippet Performance

Dynamic Application	Credential Type
LayerX Arbitrator: Processing Rate	Snippet Performance
LayerX: Service Status	Snippet Configuration
REST: Performance Metrics Monitor	Snippet Performance

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