Monitoring Dell EMC VMAX and PowerMax with Unisphere API

Dell EMC: VMAX and PowerMax Unisphere API PowerPack version 203

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Chapter 1

Introduction

Overview

This manual describes how to monitor Dell EMC VMAX and PowerMax systems in SL1 using the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack.

The following sections provide an overview of the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack:

This chapter covers the following topics:

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What Does theDell EMC: VMAX and PowerMax Unisphere API PowerPack Monitor?

To monitor Dell EMC VMAX and PowerMax storage systems using SL1, you must install the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack, which enables you to discover, model, and collect data about VMAX and PowerMax storage arrays and their components using the Unisphere REST API.

NOTE: For information about the *EMC: VMAX* PowerPack, which uses a Dell EMC SMI-S Provider to monitor VMAX systems, see the ***Monitoring Dell EMC VMAX*** manual.

The *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack includes:

- An example Credential you can use to create SOAP/XML credentials to connect to your Dell EMC VMAX or PowerMax system
- Dynamic Applications to discover and monitor your VMAX or PowerMax system
- Device Classes for each type of device in your VMAX or PowerMax system monitored by SL1
- Event Policies and corresponding alerts that are triggered when devices in your VMAX or PowerMax system meet particular criteria

Installing the Dell EMC: VMAX and PowerMax Unisphere API PowerPack

Before completing the steps in this manual, you must import and install the latest version of the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack.

TIP: By default, installing a new version of a PowerPack overwrites all content from a previous version of 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 section on *Global Settings*.

IMPORTANT: Ensure that you are running version 12.1.2 or later of SL1 before installing this PowerPack. For details on upgrading SL1, see the relevant *SL1 Platform Release Notes*.

To download and install the PowerPack:

1. Search for and download the PowerPack from the **PowerPacks** page (Product Downloads > PowerPacks & SyncPacks) at the ScienceLogic Support Site.
2. In SL1, go to the **PowerPacks** page (System > Manage > PowerPacks).
3. Click the **[Actions]** button and choose *Import PowerPack*. The **Import PowerPack** dialog box appears.
4. Click **[Browse]** and navigate to the PowerPack file from step 1.
5. Select the PowerPack file and click **[Import]**. The **PowerPack Installer** modal displays a list of the PowerPack contents.
6. Click **[Install]**. The PowerPack is added to the **PowerPacks** page.

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

Chapter 2

Configuration and Discovery

Overview

The following sections describe how to configure and discover Dell EMC VMAX and PowerMax systems for monitoring by SL1 using the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack:

This chapter covers the following topics:

Prerequisites for Monitoring Dell EMC VMAX and PowerMax Systems

Before you can monitor Dell EMC VMAX and PowerMax systems using the *Dell EMC: VMAX and PowerMax Unisphere API* PowerPack, you must have the following information about the Unisphere API that has already been properly configured:

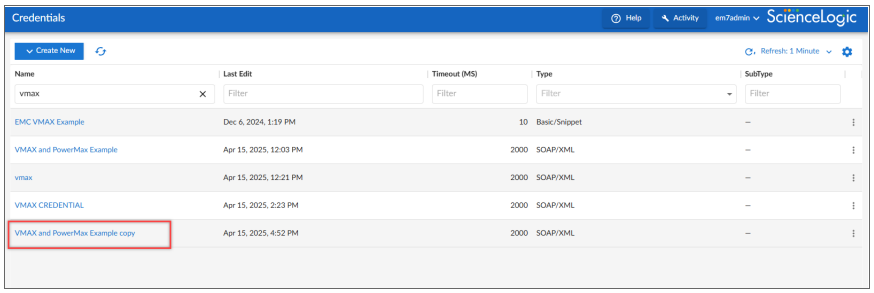
- Username and password for a user with access to the Unisphere REST API
- IP address and port for the Unisphere
- PowerMax API version 8.4 or 9.2

Creating a SOAP/XML Credential for Dell EMC VMAX and PowerMax Systems

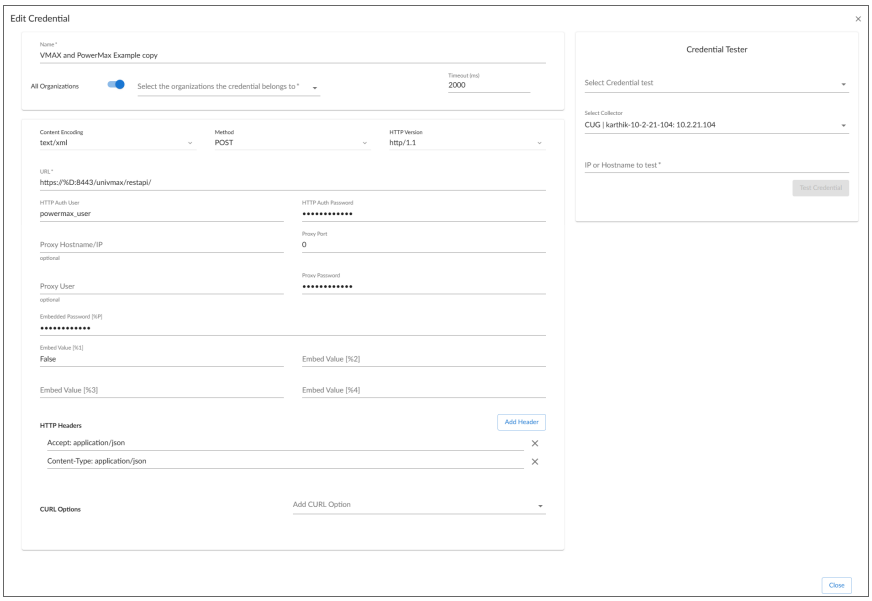
To configure SL1 to monitor Dell EMC VMAX and PowerMax storage systems, you must first create a SOAP/XML credential. This credential allows the Dynamic Applications in the "Dell EMC: VMAX and PowerMax Unisphere API" PowerPack to use the Unisphere REST API. An example SOAP/XML credential that you can edit for your own use is included in the PowerPack.

To create a SOAP/XML credential to access the Unisphere REST API:

1. Go to the **Credential Management** page (Manage > Credentials).
2. Locate the **VMAX and PowerMax Example** credential, then click its **[Actions]** icon (⋮). Select *Duplicate* from the dropdown field. The ***VMAX and PowerMax Example copy*** credential appears.



3. Click the **[Action]** icon (⋮) for the ***VMAX and PowerMax Example copy*** credential. Select *Edit* and the **Edit Credential** page appears.



4. Enter values in the following fields:

- ***Name***. Type a new name for the credential.
- ***All Organizations***. Toggle on (blue) to align the credential to all organizations, or toggle off (gray) and then select one or more specific organizations from the ***Select the organizations the credential belongs to*** drop-down field to align the credential with those specific organizations.
- ***Timeout***.
- ***URL***. Type the URL for the Dell EMC VMAX account controller.
- ***HTTP Auth User***. Type the username of an Dell EMC VMAX user account that is assigned the "Applications and Dashboard Viewer" role in the Dell EMC VMAX portal.
- ***HTTP Auth Password***. Type the Dell EMC VMAX user account password.
- ***Embed Value [%2]***. Type the PowerMax version you are using. Version 8.4 or 9.2 are acceptable.

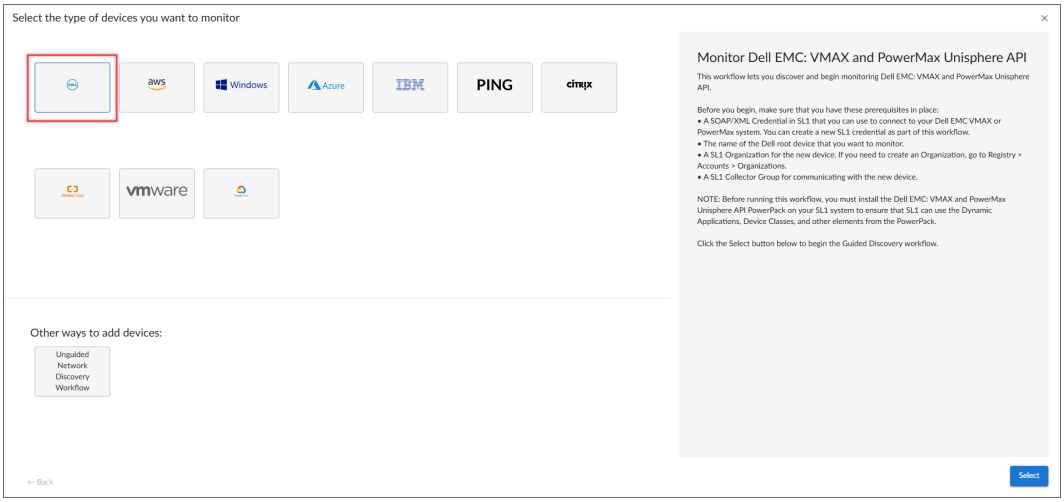
NOTE: The ***HTTP Headers*** that are included in the example are required to receive a response from the Unisphere REST API. Do not delete or edit them.

4. Click **[Save & Close]** to update your credential.

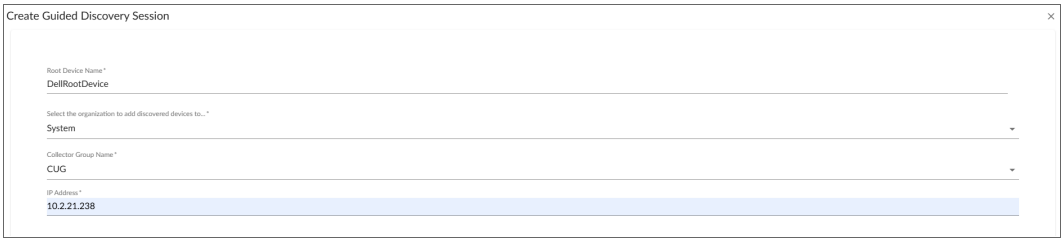
Discovering Dell EMC VMAX and PowerMax Systems Using Guided Discovery

To discover Dell EMC VMAX devices using the guided discovery workflow:

1. Go to the **Devices** page ( ) or the **Discovery Session** page (Devices > Discovery Sessions) and click the **[Add Devices]** button. The **Guided Discovery Workflow**page appears.
2. Click on the Dell EMC VMAX button. Additional information about the requirements for discovery appears in the General Information pane to the right.



3. On the **Credential Selection** page of the guided discovery process, select the *VMAX PowerMax credential* radio button that you configured and then click **[Next]**. The **Root Device Details** page appears.



4. Complete the following fields:
   - ***Root Device Name***. Type the name of the cluster you want to monitor. Ensure you provide a unique cluster name to help identify the specific cluster being monitored, especially if you have multiple clusters. ScienceLogic does not recommend that you use the default name provided by the guided discovery.
   - ***Select the organization to add discovered devices***. Select the name of the organization to which you want to add the discovered device.
   - ***Collector Group Name***. Collector Group Name. Select an existing collector group to communicate with the discovered device.
5. Click **[Next]**. SL1 creates the Dell EMC VMAX root device with the appropriate Device Class assigned to is and aligns the relevant Dynamic Applications. The **Final Summary** page appears.

6. Click **[Close]**.

NOTE: The results of a guided discovery do not display on the **Discovery Sessions** page (Devices > Discovery Sessions).

IMPORTANT: The guided discovery process can only be executed once for a specific device IP. If you run the guided discovery a second time for the same device IP, you will receive an error.

IMPORTANT: In some cases, you might have to remove the headers as they might prevent discovery. For more information, see the following Knowledge Base article https://support.sciencelogic.com/s/article/16579.

Viewing Dell EMC VMAX and PowerMax Devices

After discovering your Dell EMC VMAX or PowerMax system, SL1 will create component devices that represent each component in your system.

In addition to the **Device Manager** page, you can view the VMAX or PowerMax system and all associated component devices in the following places in the user interface:

- The **Device View** modal page (click the bar-graph icon []for a device, then click the **Topology** tab) displays a map of the selected device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device:
- The **Device Components** page (Devices > Device Components) displays a list of all root devices and component devices discovered by SL1 in an indented view, so you can easily view the hierarchy and relationships between child devices, parent devices, and root devices. To view the component devices associated with your VMAX or PowerMax system, find the root device and click its plus icon (+):
- The **Device Component Map** page (Classic Maps > Device Maps > Components) allows you to view devices by root node and view the relationships between root nodes, parent components, and child components in a map. This makes it easy to visualize and manage root nodes and their components. SL1 automatically updates the **Device Component Map** page as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for your VMAX or PowerMax system, go to the **Device Component Map** page and select the map from the list in the left NavBar. To learn more about the **Device Component Map** page, see the ***Views*** manual.

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