



Monitoring Dell EMC VMAX

EMC: VMAX PowerPack version 101

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Chapter

1

Introduction

Overview

This manual describes how to monitor Dell EMC VMAX devices in SL1 using the *EMC: VMAX PowerPack*.

IMPORTANT: The "EMC: VMAX" PowerPack uses an older VMAX protocol. For newer VMAX releases, see the "[Dell EMC: VMAX and PowerMax Unisphere API PowerPack](#)".

This chapter covers the following topics:

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Overview of the EMC: VMAX PowerPack

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

The EMC: VMAX PowerPack includes:

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

The EMC: VMAX PowerPack is installed by default in SL1.

Installing the EMC: VMAX PowerPack

Before completing the steps in this manual, you must import and install the latest version of the EMC: VMAX 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 **System Administration** manual.)

IMPORTANT: The minimum required MySQL version is 5.6.0.

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 systems for monitoring by SL1 using the *EMC: VMAX PowerPack*:

This chapter covers the following topics:

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Prerequisites for Monitoring Dell EMC VMAX


Before you can monitor Dell EMC VMAX systems using the *EMC: VMAX PowerPack*, you must have the following information about an EMC SMI-S Provider that has already been properly installed and configured:

- Username and password for a user with access to the SMI-S Provider
- IP address and port for the SMI-S Provider

Creating a Credential for Dell EMC VMAX

To configure SL1 to monitor Dell EMC VMAX storage systems, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the *EMC: VMAX PowerPack* to connect with a VMAX SMI-S Provider. An example Basic/Snippet credential that you can edit for your own use is included in the *EMC: VMAX PowerPack*.

To create a Basic/Snippet credential to access a VMAX SMI-S Provider:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **EMC VMAX Example** credential, then click its wrench icon (). The **Edit Basic/Snippet Credential** modal page appears.
3. Enter values in the following fields:
 - **Credential Name**. Enter a new name for the Dell EMC VMAX credential.
 - **Hostname/IP**. Enter "%D".
 - **Port**. Enter "5988" for an HTTP connection or "5989" for an HTTPS connection.
 - **Timeout**. Enter "10".
 - **Username**. Enter the username for a user with access to the VMAX SMI-S Provider.
 - **Password**. Enter the password for the user you specified in the **Username** field.
4. Click the **[Save As]** button.
5. When the confirmation message appears, click **[OK]**.



Discovering Dell EMC VMAX Devices

To model and monitor your Dell EMC VMAX system, you must run a discovery session to discover the SMI-S Provider that SL1 will use as the root device for monitoring the VMAX system.

The discovery session will discover the SMI-S Provider as a pingable device using [the Basic/Snippet credential that you created](#). You must then manually align the "EMC: VMAX Array Discovery" and "EMC: VMAX Statistics Cache" Dynamic Applications to the SMI-S Provider root device to enable SL1 to discover, model, and monitor the remaining component devices in your VMAX system.

To discover your VMAX storage system in SL1:


1. Go to the **Discovery Control Panel** page (System > Manage > Classic Discovery).
2. In the **Discovery Control Panel** page, click the **[Create]** button.
3. The **Discovery Session Editor** page appears. In the **Discovery Session Editor** page, define values in the following fields:
 - **IP Address Discovery List**. Enter the IP address for the VMAX SMI-S Provider.
 - **Other Credentials**. Select the Basic/Snippet credential you created for the VMAX SMI-S Provider.
 - **Discover Non-SNMP**. Select this checkbox.
 - **Model Devices**. Select this checkbox.
4. Optionally, you can enter values in the other fields on this page. For more information about the other fields on this page, see the [Discovery & Credentials](#) manual.
5. Click **[Save]** to save the discovery session and then close the **Discovery Session Editor** window.

6. The discovery session you created will display at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon () to run the discovery session.
7. The **Discovery Session** window will appear. When the root device is discovered, click its device icon (). The **Device Properties** page appears.
8. Click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
9. Click **[Action]** and then select *Add Dynamic Application* from the menu. The **Dynamic Application Alignment** page appears.
10. In the **Dynamic Applications** field, select *EMC: VMAX Array Discovery*.
11. In the **Credentials** field, select the Basic/Snippet credential you configured for the VMAX SMI-S Provider.
12. Click **[Save]**. A few minutes after aligning the Dynamic Application, SL1 will discover and model your VMAX system and automatically align other Dynamic Applications to the devices in the system.
13. Repeat steps 8-12 to manually align the "EMC: VMAX Statistics Cache" Dynamic Application to the SMI-S Provider.

Viewing Dell EMC VMAX Devices

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

In addition to the **Device Manager** page, you can view the VMAX 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 (Registry > 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 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 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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