



Monitoring Dell EMC Isilon

Beta Version

Dell EMC: Isilon PowerPack version 100

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Introduction

Overview

This manual describes how to monitor Dell EMC Isilon storage arrays in the ScienceLogic platform.

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What is Dell EMC Isilon?

Dell EMC Isilon is a clustered, scale-out Network Attached Storage (NAS) array. The *Dell EMC: Isilon* PowerPack uses the Isilon API to discover the array and collect health, configuration, performance, and capacity information.

Prerequisites

Before performing the tasks in this manual, you must have already properly installed and configured the Dell EMC Isilon storage devices that you want to monitor with the ScienceLogic platform.

You should also take note of the SNMP community string used by the Dell EMC Isilon storage devices you want to monitor.

What Does the Dell EMC: Isilon PowerPack Monitor?

To monitor Dell EMC Isilon storage devices with the ScienceLogic platform, you must install the *Dell EMC: IsilonPowerPack*. This PowerPack lets you discover, model, and collect data about Isilon storage devices.

The Dell EMC: Isilon PowerPack includes:

- An example credential you can use as a template to create a SOAP/XML credential to connect to the Isilon storage devices you want to monitor
- Dynamic Applications to discover, model, and monitor performance metrics and collect configuration data for Isilon storage devices
- Device Classes for each of the Isilon storage devices that the ScienceLogic platform monitors
- Event Policies and corresponding alerts that are triggered when Isilon storage devices meet certain status criteria

Installing the PowerPack

Before completing the steps in this manual, you must import and install version 103 of the *Dell EMC Isilon* PowerPack.

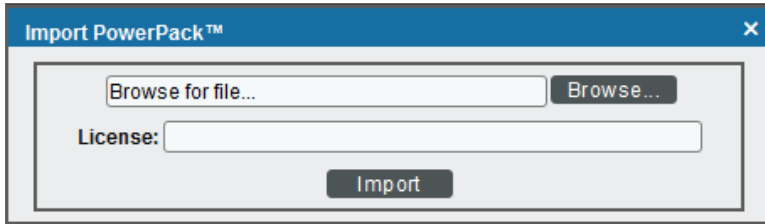
NOTE: To install version 103 of the PowerPack, your ScienceLogic system must be upgraded to the 8.2.0 or later release.

To download and install a 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.)

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*.

Configuring Dell EMC Isilon for Monitoring

Overview

The following sections describe how to configure the ScienceLogic platform to monitor Dell EMC Isilon storage devices:

- [Creating a SOAP/XML Credential for Dell EMC Isilon](#)
- [Configuring Traps with Dell EMC Isilon](#)

Creating a SOAP/XML Credential for Dell EMC Isilon

To configure the ScienceLogic platform to monitor Dell EMC Isilon storage devices, you must first create a credential that allows the Dynamic Applications in the PowerPack to communicate with your XtremIO storage devices. The *Dell EMC: Isilon* PowerPack includes an example SOAP/XML credential that you can edit for your own use.

To configure the SOAP/XML credential to access Dell EMC Isilon devices:

1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **Dell EMC Isilon Example - SOAP/XML** credential, and then click its wrench icon (🔧). The **Edit SOAP/XML Credential** modal page appears.

The screenshot shows the 'Edit SOAP/XML Credential #81' modal page. It has a blue header with 'New' and 'Reset' buttons. The main content is organized into four panels: 'Basic Settings', 'Soap Options', 'Proxy Settings', and 'CURL Options'. The 'Basic Settings' panel contains fields for Profile Name, Content Encoding, Method, HTTP Version, URL, HTTP Auth User, HTTP Auth Password, and Timeout (seconds). The 'Soap Options' panel has an Embedded Password [%P] field and four Embed Value [%1] through [%4] fields. The 'Proxy Settings' panel has fields for Hostname/IP, Port, User, and Password. The 'CURL Options' panel has a list of options and a large empty text area. At the bottom, there are 'Save' and 'Save As' buttons.

3. Update the values in the following fields:

Basic Settings

- **Profile Name**. Type a name for the credential.
- **Content Encoding**. Select *text/xml*.
- **Method**. Select POST.
- **HTTP Version**. Select HTTP/1.1.
- **URL**. Type the device IP address or the host name for your XtremIO devices.
- **HTTP Auth User**. Type the Isilon administrator username.
- **HTTP Auth Password**. Type the Isilon administrator password.
- **Timeout (seconds)**. Type "2".

Proxy Settings

- **Hostname/IP**. Leave this field blank.
- **Port**. Type "0".
- **User**. Leave this field blank.

CURL Options

- **CURL Options**. Do not make any selections in this field.

SOAP Options

- **Embedded Password [%P]**. Leave this field blank.
- **Embed Value [%1]**. Type "True" to enable verification of the storage array's self-signed certificate. Since the certificate is self-signed, you will need to determine if you trust the certificate and, if so, add it to a file. Append the applicable XMS root certificates to the file located at `/var/lib/em7/content/silo_rest/root_cert/xms_root_ca.crt` for any XMS being monitored. Type "False" or leave this field blank to disable SSL verification. This field is not case-sensitive.
- **Embed Value [%2]**. Leave this field blank.
- **Embed Value [%3]**. Leave this field blank.
- **Embed Value [%4]**. Leave this field blank.

HTTP Headers

- **HTTP Headers**. Do not make any selections in this field.

4. Click the **[Save As]** button.

Configuring Traps with Dell EMC Isilon

If you are using SNMP traps with Dell EMC Isilon, use the IP address of the Message Collector, Data Collector, or All-In-One Appliance responsible for monitoring the system as the destination IP.

For more information, see the Dell EMC Isilon documentation.

Discovering Dell EMC Isilon Arrays

Overview

The following sections describe the steps required to discover Dell EMC Isilon storage devices in the ScienceLogic platform:

- [Discovering Dell EMC Isilon Component Devices](#)
- [Verifying Discovery and Dynamic Application Alignment](#)
- [Viewing Dell EMC Isilon Component Devices](#)

Discovering Dell EMC Isilon Component Devices

To model and monitor your Dell EMC Isilon storage devices, you must run a discovery session to discover the Isilon Management Server (XMS) device and Isilon clusters that the ScienceLogic platform will use as the root devices for monitoring the applications.

After the discovery session completes, the Dynamic Applications in the *Dell EMC: IsilonPowerPack* automatically align to the XMS device, and then the PowerPack discovers, models, and monitors the remaining Isilon storage devices.

To discover the Isilon arrays that you want to monitor, perform the following steps:

1. Go to the **Discovery Control Panel** page (System > Manage > Discovery).

2. On the **Discovery Control Panel**, click the **[Create]** button. The **Discovery Session Editor** page appears.

The screenshot shows the 'Discovery Session Editor | Editing Session [2]' window. It is divided into three main sections:

- Identification Information:** Name: XtremIO, Description: Dell EMC: XtremIO XMS.
- IP and Credentials:**
 - IP Address/Hostname Discovery List:** 10.64.140.16
 - SNMP Credentials:** [SNMP Public V2]
 - Other Credentials:** [XtremIO TEST SOAP]
- Detection and Scanning:**
 - Initial Scan Level:** [5. Deep discovery]
 - Scan Throttle:** [System Default (recommended)]
 - Port Scan All IPs:** [System Default (recommended)]
 - Port Scan Timeout:** [System Default (recommended)]
 - Detection Method & Port:** [TCP: 443 - https]
 - Interface Inventory Timeout (ms):** 600000
 - Maximum Allowed Interfaces:** 10000
 - Bypass Interface Inventory:**
- Basic Settings:**
 - Discover Non-SNMP:**
 - Model Devices:**
 - DHCP:**
 - Duplication Protection:**
 - Collection Server PID:** [knt_aio_dev_10_2_5_85]
 - Organization:** [System]
 - Add Devices to Device Group(s):** [None Servers]
 - Apply Device Template:** [Choose a Template]

Buttons at the bottom include 'Save', 'Save As', and 'Log All'.

3. Supply values in the following fields:
 - **IP Address/Hostname Discovery List.** Enter the IP address or hostname for the XtremIO storage device or devices that you want to discover.
 - **SNMP Credentials.** Select the SNMP credential that you are using for XtremIO.
 - **Other Credentials.** Select the Basic/Snippet or SOAP/XML credential that you created for your XtremIO storage devices.
 - **Initial Scan Level.** Select *5. Deep Discovery*.
 - **Detection Method & Port:** Select *TCP: 443 - https*.
 - **Discover Non-SNMP.** Select this checkbox.
 - **Model Devices.** Select this checkbox.
 - **Duplication Protection.** 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 the **[Save]** button to save the discovery session and then close the **Discovery Session Editor** window.
6. The discovery session you created appears at the top of the **Discovery Control Panel** page. Click its lightning-bolt icon (⚡) to run the discovery session.

- The **Discovery Session** window appears. After the devices are discovered, click the device icon (🖨️) to view the **Device Properties** page for each device.

Verifying Discovery and Dynamic Application Alignment

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

- After discovery has completed, click the device icon for the XMS device (🖨️). From the **Device Properties** page for the XMS device, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
- All applicable Dynamic Applications for the XMS device are automatically aligned 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.

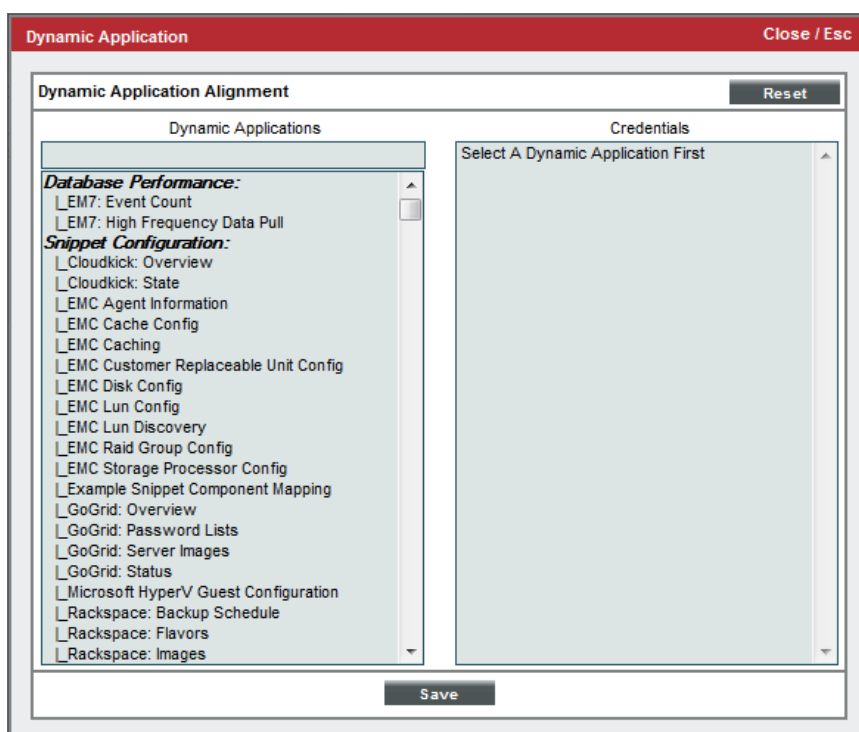
Dynamic Application™ Collections		Expand	Actions	Reset	Guide
Dynamic Application	ID	Poll Frequency	Type	Credential	
+ Dell EMC: XtremIO Cluster Discovery	1381	5 mins	Snippet Configuration	XtremIO TEST SOAP	<input type="checkbox"/>
+ Dell EMC: XtremIO XMS Config	1380	5 mins	Snippet Configuration	XtremIO TEST SOAP	<input checked="" type="checkbox"/>

You should see the following Dynamic Applications aligned to the XMS device:

Dynamic Application	Credential Type
Dell EMC: XtremIO Cluster Discovery	SOAP/XML
Dell EMC: XtremIO XMS Config	SOAP/XML

If the listed Dynamic Applications have not been automatically aligned during discovery, you can align them manually. To do so, perform the following steps:

1. Click the **[Action]** button and then select *Add Dynamic Application*. The **Dynamic Application Alignment** page appears:

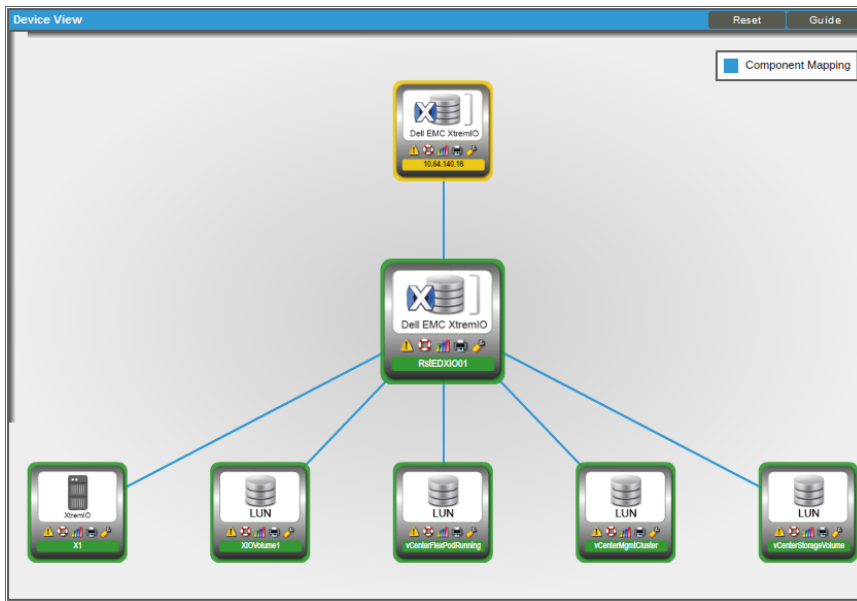


2. In the **Dynamic Applications** field, select the Dynamic Application you want to align.
3. In the **Credentials** field, select the credential specified in the table.
4. Click the **[Save]** button.
5. Repeat steps 1-4 for the other unaligned Dynamic Applications.

Viewing Dell EMC Isilon Component Devices

In addition to the **Device Manager** page (Registry > Devices > Device Manager), you can view the Dell EMC Isilon storage devices in the following places in the user interface:

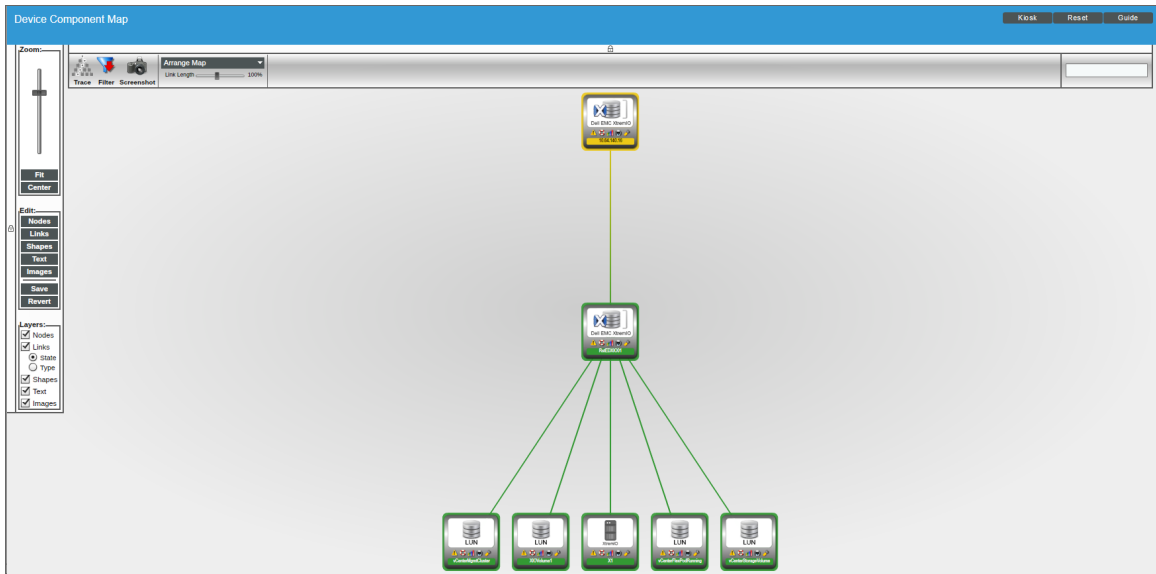
- The **Device View** modal page (click the bar-graph icon [📊] for a device, then click the **Topology** tab) displays a map of a particular device and all of the devices with which it has parent-child relationships. Double-clicking any of the devices listed reloads the page to make the selected device the primary device:



- The **Device Components** page (Registry > Devices > Device Components) displays a list of all root devices and component devices discovered by the ScienceLogic platform 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 Dell EMC XtremIO, find the XtremIO component device and click its plus icon (+):

Device Components Devices Found [5]										Actions	Reset	Guide
Device Name	IP Address	Device Category	Device Class Sub-class	DD	Organization	Current State	Collection Group	Collection State				
10.2.5.121	10.2.5.121	Pingable	Ping ICMP	1453	System	Healthy	CUG	User-Disabled				
10.5.100.5	10.5.100.5	Pingable	Ping ICMP	477	System	Healthy	CUG	Active				
10.64.140.16	10.64.140.16	Management	Dell EMC XtremIO XMS	2033	System	Minor	CUG	Active				
<div style="border: 1px solid #ccc; padding: 5px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> Device Name IP Address Device Category Device Class Sub-class DD Organization Current State Collection Group Collection State </div> <div style="margin-top: 5px;"> <p>1. RtEDX001</p> <ul style="list-style-type: none"> 1. VCenterFlexPodRunning 2. VCenterMgmtCluster 3. VCenterStorageVolume 4. X1 5. XIOVolume1 </div> </div>												
10.1.134.184	10.1.134.184	Pingable	Ping ICMP	2021	System	Healthy	CUG	Active				
lab-vcas5	10.0.13.10	Pingable	Ping ICMP	541	VBAN	Minor	CUG	Active				

- The **Component Map** page (Views > 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. The ScienceLogic platform automatically updates the **Component Map** as new component devices are discovered. The platform also updates each map with the latest status and event information. To view the map for an Dell EMC Isilon arrays, go to the **Component Map** page and select the map from the list in the left NavBar. To learn more about the **Component Map** page, see the **Views** manual.



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