Monitoring Hitachi Data Systems: VSP

Hitachi Data Systems: VSP PowerPack version 104

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Chapter 1

Introduction

Overview

This manual describes how to monitor Hitachi Virtual Storage Platform (VSP) storage arrays and their associated component devices with SL1 using the Dynamic Applications in the "Hitachi Data Systems: VSP" PowerPack.

The following sections provide an overview of Hitachi VSP and the "Hitachi Data Systems: VSP" PowerPack:

This chapter covers the following topics:

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What Does the Hitachi Data Systems: VSP PowerPack Monitor?

To monitor Hitachi VSP systems using SL1, you must install the "Hitachi Data Systems: VSP" PowerPack. This PowerPack enables you to discover, model, and collect data about Hitachi VSP storage arrays and their component devices.

The "Hitachi Data Systems: VSP" PowerPack includes:

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

Installing the Hitachi Data Systems: VSP PowerPack

Before completing the steps in this manual, you must import and install the latest version of the "Hitachi Data Systems: VSP" PowerPack.

1. Go to the **PowerPack Manager** page (System > Manage > PowerPacks).
2. Click the **[Actions]** button, then select *Install PowerPack*. The **Imported PowerPacks** modal page appears.
3. Use the search filter in the ***PowerPack Name*** column heading to locate the PowerPack you want to install. To do so, enter text to match, including special characters, and the **Imported PowerPacks** modal page displays only PowerPacks that have a matching name.
4. Click the lightning-bolt icon () for the PowerPack that you want to install.
5. The **Install PowerPack** modal page appears. To install the PowerPack, click **[Install]**.
6. The PowerPack now appears in the **PowerPack Manager** page. The contents of the PowerPack are automatically installed in your SL1 System.

Chapter 2

Configuration and Discovery

Overview

The following sections describe how to configure and discover Hitachi Virtual Storage Platform (VSP) systems for monitoring by SL1 using the "Hitachi Data Systems: VSP" PowerPack:

This chapter covers the following topics:

Prerequisites for Monitoring Hitachi VSP Systems

Before you can monitor Hitachi VSP storage arrays using the "Hitachi Data Systems: VSP" PowerPack, you must have the following information about an Hitachi SMI-S Provider that has already been properly installed and configured:

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

The SMI-S Provider will act as the root device during discovery by SL1.

Creating a Credential for Hitachi VSP Systems

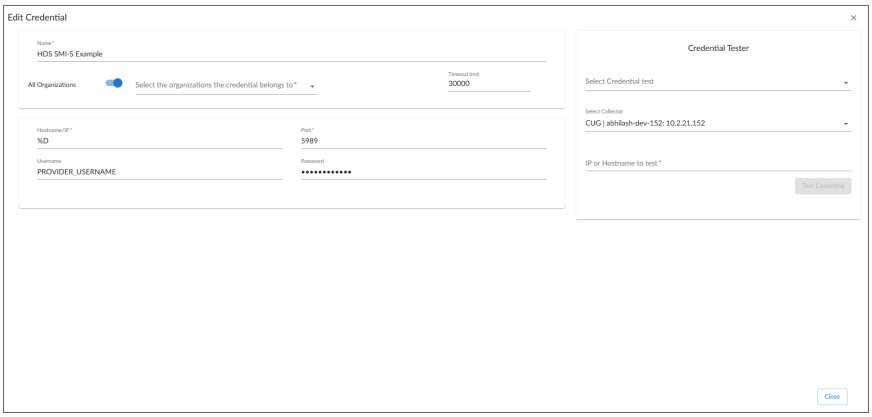
To configure SL1 to monitor a Hitachi VSP system, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the "Hitachi Data Systems: VSP" PowerPack to communicate with your Hitachi

VSP system.

The PowerPack includes an example Basic/Snippet credential that you can edit and save for your own use.

To create a Basic/Snippet credential:

1. Go to the **Credentials** page (Manage > Credentials).
2. Locate the "HDS SMI-S Example" credential, then click its **[Actions]** icon (⋮) and select *Duplicate* from the drop-down field. The "HDS SMI-S Example copy" credential appears.
3. Click the **[Action]** icon (⋮) for the "HDS SMI-S Example copy" credential, then select *Edit*. The **Edit Credential** page appears.



4. Enter values in the following fields:
   - ***Name***. Enter a new name for the credential. This field is required.
   - ***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***. Enter the time, in milliseconds, after which SL1 will stop trying to communicate with the Hitachi VSP device. The default value is *30000*. This field is required.
   - ***Hostname/IP***. Enter the Hitachi VSP url. The default is http://%D.
   - ***Port***. Keep the default. The default value is "5989".
   - ***Username***. Enter the username associated with the Hitachi VSP administrator account.
   - ***Password***. Enter the password associated with the Hitachi VSP administrator account.
5. Click **[Save & Close]**.

Creating a Credential for the Hitachi Data Systems: VSP Systems in the SL1 Classic User Interface

To configure SL1 to monitor Hitachi VSP systems, you must first create a Basic/Snippet credential. This credential allows the Dynamic Applications in the "Hitachi Data Systems: VSP" PowerPack to connect with an Hitachi SMI-S Provider. An example Basic/Snippet credential that you can edit for your own use is included in the "Hitachi Data Systems: VSP" PowerPack.

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

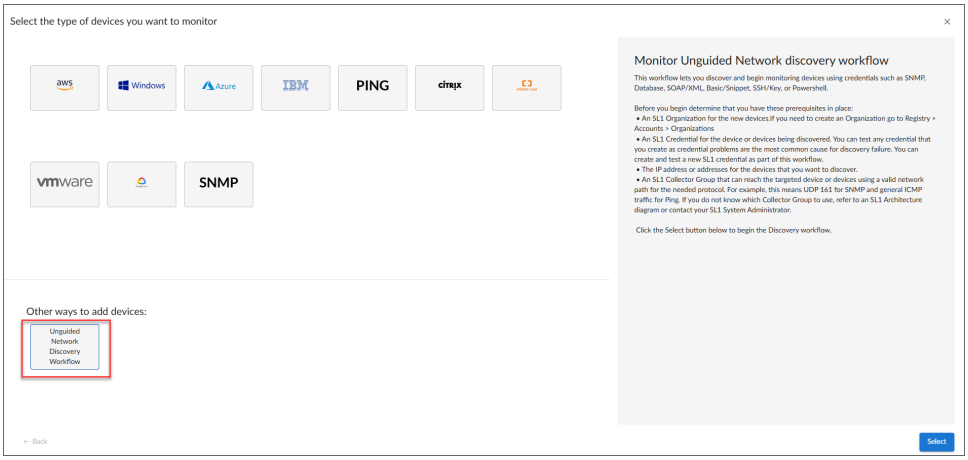
1. Go to the **Credential Management** page (System > Manage > Credentials).
2. Locate the **HDS SMI-S Example** credential, then click its wrench icon (). The **Edit Basic/Snippet Credential** modal page appears.
3. Enter values in the following fields:
    - ***Credential Name***. Enter a new name for the Hitachi VSP credential.
    - ***Hostname/IP***. Enter "%D".
    - ***Port***. Enter "5989" for an HTTPS connection.
    - ***Timeout***. Enter "30000".
    - ***Username***. Enter the username for a user with access to the SMI-S Provider.
    - ***Password***. Enter the password for the SMI-S Provider account username.
4. Click the **[Save As]** button.
5. When the confirmation message appears, click **[OK]**.

Discovering Hitachi VSP Devices

To monitor your Hitachi VSP system, you must run a discovery session to discover the server on which Hitachi VSP is installed.

To create and run a discovery session that will discover an Hitachi VSP appliance:

1. Go to the **Devices** page () or the **Discovery Sessions** page (Devices > Discovery Sessions) and click the **[Add Devices]** button.
2. Click the **[Unguided Network Discovery Workflow]** button. Additional information about that requirements for discovery appears in the **General Information** pane to the right.



3. Click **[Select]**. The three-step wizard appears starting with the **[Step 1 Basic Information]** tab.
4. Complete the following fields:

- ***Discovery Session Name***. Type a unique name for this discovery session. This name is displayed in the list of discovery sessions on the **[Discovery Sessions]** tab.
- ***Description***.Optional. Type a short description of the discovery session. You can use the text in this description to search for the discovery session on the **[Discovery Sessions]** tab.
- ***Select the organization to add discovered devices to***. Select the name of the organization to which you want to add the discovered devices.

5. Click **[Next]**. The **[Step 2 Credential Selection]** tab of the wizard appears.
6. On the **[Credential Selection]** tab, locate and select the Basic/Snippet credential you created for Hitachi VSP appliances.
7. Click **[Next]**. The **[Step 3 Discovery Session Details]** tab of the wizard appears.
8. Complete the following fields:
    - ***List of IP/Hostnames***. Type the IP address for the Hitachi VSP appliance.
    - ***Which collector will discover these devices?***. Required. Select an existing collector to monitor the discovered devices.
    - ***Run after save***. Toggle on (blue) to run this discovery session as soon as you save the session.
    - ***Advanced options***. Click the down arrow (⌄) to complete the following fields:
        - ***Discover Non-SNMP***. Toggle on (blue) to enable this setting.
        - ***Model Devices***. Toggle on (blue) to enable this setting.
        - ***Select Device Template***. If you configured an Hitachi VSP device template, select it here. Otherwise, leave the default selection.
9. If you enabled the ***Run after save*** option, click the**[Save and Run]** button. The discovery session will run and the **Discovery Logs** page will display any relevant log messages. If the discovery session locates and adds any devices, the **Discovery Logs** page will include a link to the **Device Investigator** page for the discovered device.
10. If you did not enable the ***Run after save*** option, click the **[Save and Close]** button. The **Discovery Sessions** page (Devices > Discovery Sessions) will display the new discovery session.

Discovering Hitachi VSP Devices in the SL1 Classic User Interface

To model and monitor your Hitachi VSP system, you must first run a discovery session to discover the Hitachi SMI-S Provider. SL1 will use the Hitachi SMI-S Provider as the root device for monitoring the VSP 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 "HDS: VSP Array Discovery" Dynamic Application to the SMI-S Provider pingable device. When you do so, SL1 will discover, model, and monitor the remaining component devices in your VSP system.

To discover the Hitachi VSP system that you want to monitor, perform the following steps:

1. Go to the **Discovery Control Panel** page (System > Manage > Classic Discovery or System > Manage > Discovery in the classic user interface).
2. In the **Discovery Control Panel**, click the **[Create]** button.

3. The **Discovery Session Editor** page appears. On this page, define values in the following fields:
    - ***IP Address Discovery List***. Enter the IP address for the SMI-S Provider.
    - ***Other Credentials***. Select the Basic/Snippet credential you created for the 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 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.
7. The **Discovery Session** window appears. When the SMI-S Provider is discovered, click its device icon ( ) to view the **Device Properties** page for the SMI-S Provider.
8. From the **Device Properties** page for the SMI-S Provider, click the **[Collections]** tab. The **Dynamic Application Collections** page appears.
9. Click the **[Actions]** button and then select *Add Dynamic Application* from the menu. The **Dynamic Application Alignment** page appears.
10. In the ***Dynamic Applications*** field, select *HDS: VSP Array Discovery*.
11. In the ***Credentials*** field, select the Basic/Snippet credential you configured for the SMI-S Provider.
12. Click the **[Save]** button.
13. The "HDS: VSP Array Discovery" Dynamic Application appears on the **Dynamic Application Collections** page and begins auto-aligning the other Dynamic Applications in the "Hitachi Data Systems: VSP" PowerPack to the SMI-S Provider and discovering the other component devices in the VSP system.

> **NOTE:** It might take several minutes after manually aligning the discovery Dynamic Application for SL1 to discover and model the remaining component devices in the VSP system.

Viewing Hitachi VSP Devices

When SL1 discovers your Hitachi VSP system, SL1 will create component devices that represent each component in your VSP system.

In addition to the **Device Manager** page, you can view the VSP 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 reloads the page and makes 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 VSP 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** as new component devices are discovered. SL1 also updates each map with the latest status and event information. To view the map for your VSP 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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