Dell EMC OpenManage HPE OMi Operations Connector Version 1.0

User's Guide

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Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your product.

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

WARNING: A WARNING indicates a potential for property damage, personal injury, or death.

Contents

1

Introduction

This guide provides information about using the Dell EMC OpenManage HPE OMi Operations Connector features such as activating event and topology policies, monitoring and viewing devices, and monitoring and viewing events using HPE Operations Manager i (OMi) console.

The Dell EMC OpenManage HPE OMi Operations Connector provides capabilities to integrate the Dell EMC OpenManage Essentials (OME) with HPE Operations Manager i (OMi). The Operations Connector for OME helps system and IT administrators to get a comprehensive view of the Dell EMC devices in a data center by collecting the systems management data about the events and topology from OME, and transferring it to OMi. It also supports web console launch of OME directly from the OMi environment to perform further troubleshooting, configuration, and management activities for the Dell EMC devices.

The Operations Connector for OME therefore enables you to create a connection between the OME environment for lifecycle management of the Dell EMC devices and business service management in OMi by providing the following:

- Near real-time synchronization of topology information from OME to OMi
- Near real-time synchronization of event information from OME to OMi

The Operations Connector for OME installer, installation guide, and release notes are packaged in the self-extracting executable **Dell_EMC_OpenManage_HPE_OMi_Operations_Connector_v1.0_ A00.exe** file. Before installing this version of Operations Connector for OME, download the latest documents from **Dell.com/omconnectionsEnterpriseSystemsManagement** or **Dell.com/openmanagemanuals**.

2

Key features

The key features of the Dell EMC OpenManage HPE OMi Operations Connector Version 1.0 are as described in the following table:

Table 1. Key features

Feature	Functionality
Topology collection and forwarding	The Operations Connector for OME collects the device topology from OME and makes it available to OMi. For more information, see Topology collection and forwarding on page 6.
Event collection and forwarding	The Operations Connector for OME collects the events and alerts from OME and make them available to OMi. For more information, see Event collection and forwarding on page 8.
Node count collection and forwarding	The Operations Connector for OME collects the total number of nodes collected from OME after each topology task scheduler cycle and makes it available to OMi. For more information, see Node count collection and forwarding on page 10.
Launching OME consoles for a specific node	The Operations Connector for OME enables you to launch the OME console from a node in the OMi console. This helps the admin to further troubleshoot and manage the supported Dell devices. For more information, see Launching OME console from a node on page 11.
Launching OME consoles for an event	The Operations Connector for OME enables you to launch the OME console from an event in the OMi console. This helps the admin to further troubleshoot and manage the supported Dell devices. For more information, see Launching OME console from an event on page 11.

3

Topology collection and forwarding

The Operations Connector for OME synchronizes the topology information from OME to OMi by performing the following steps:

1. The topology information is collected from OME using the REST API.
2. In Operations Connector for OME, the collected topology information by REST API is stored in an XML file.
3. The stored topology information is processed by the Topology Integration policy, and then forwarded to OMi.

OME topology structure is mapped to an equivalent structure in OMi. The scope of objects that are collected by the Operations Connector from OME and imported into OMi depends on the Dell EMC devices discovered and managed by the OME. You can view all the imported devices and their basic properties in the OMi console once the initial topology collection and forwarding process is complete.

NOTE: Deleting any node in OME does not synchronize in OMi immediately, rather it follows the usual aging cycle of OMi. Any change explicitly made in OMi on nodes or relationships does not affect the nodes in OME.

NOTE: If you do not want to monitor a specific node in OMi, then add the node to the exclusion filter in OME or remove the node from OME.

Topics:

Viewing Dell EMC devices

NOTE: Ensure that you create a custom view for the Dell EMC devices. For more information about how to create a custom view, see the Dell EMC OpenManage HPE OMi Operations Connector Installation Guide at **Dell.com/openmanagemanuals**

1. Launch the **HPE Operations Manager i** console.
2. Click **Workspaces** > **Operations Console** > **Event Perspective**.
3. In **VIEW EXPLORER**, select the custom view that you created.
   In the OMi console, you can view all the Dell EMC devices grouped under the OME.

Device attributes in HPE Operations Manager i console

The following are the device attributes collected from OME, for the Dell EMC devices in the OMi console:

- BiosAssetTag
- Display Label
- Monitored By
- Name
- NodeModel
- osDescription
- PrimaryDNSname
- PrimaryIPAddress
- SerialNumber

Mapping used in the topology integration

The following are the CI type in the OMi console corresponding to the device type in the OME console:

Table 2. OME device type—OMi CI type

OME Device Type	OMi CI Type
Others	Node
CMC	Chassis
Tape	Storage Array
EMC	Storage Array
MD Storage	Storage Array
EqualLogic Group	Storage Array
EqualLogic Member	Storage Array
Compellent	Storage Array
NAS Appliance	Storage Array
Dell Networking	Switch
FC Switch	Switch

4

Event collection and forwarding

The Operations Connector for OME synchronizes the event information from OME to OMi by performing the following steps:

1. The event information is collected from OME using the REST API.
2. In Operations Connector for OME, the collected events by REST API are stored in an XML file.
3. The stored event information is processed by the Event Integration policy, and then forwarded to OMi.

You can view all the events associated with respective device. This also provides you an overview of active events that needs to be resolved.

The following are the event status in the OMi console corresponding to the event status in OME:

Table 3. Event status in OME and OMi

Status in OME	Status in OMi
Not Acknowledged	Open
Acknowledged	Closed

Topics:

Events mapping in OME and OMi

The following are the health status of events in the OMi console corresponding to the health status of events in OME:

Table 4. Events mapping in OME and OMi

Events in OME	Events in OMi
 Figure 1. Normal event icon	 Figure 2. Normal event icon
 Figure 3. Information event icon	 Figure 4. Information event icon
 Figure 5. Warning event icon	 Figure 6. Warning event icon
 Figure 7. Critical event icon	 Figure 8. Critical event icon

Table 4. Events mapping in OME and OMi (continued)

Events in OME	Events in OMi
 **Figure 9. Unknown event icon**	 **Figure 10. Unknown event icon**

Viewing device events

1. Launch the **HPE Operations Manager i** console.
2. Click **Workspace** > **Event perspective**.
3. In **VIEW EXPLORER**, select the custom view that you created.
   The devices monitored by the Operations Connector for OME are listed.
4. Click on the device.
   Events associated with the selected device are listed in the **EVENT BROWSER** window.

5

Node count collection and forwarding

After every topology collection and forwarding cycle, Operations Connector for OME counts the number of nodes that were collected from OME and forwarded to OMi. This node count information is then forwarded by the Operations Connector for OME as an informational event to OMi, and can be viewed in **Event Perspective** in the OMi console.

NOTE: Ensure that the node count policy is activated.

Topics:

Viewing node count events

To view the node count information, perform the following steps:

1. Launch the **HPE Operations Manager i** console.
2. Click **Workspace** > **Event perspective**.
3. To view the node count message, select the Operations Connector node under **View Explorer**.
4. To view more information about the node count events, right-click the node count event and click **Properties**.
   The **Event Details** window displays the basic information such as Application, Object, PolicyName, and so on.

6

Launching OME console from OMi

The Operations Connector for OME enables you to launch the OpenManage Essentials (OME) console from a node and an event. By launching the OME console, you can perform troubleshooting, configuration, and management activities for the Dell EMC devices.

To launch the OME console, you must configure the OME URL tool in OMi. For more information, see the Configuring the OME URL tool in HPE OMi console section in the *Dell EMC OpenManage HPE OMi Operations Connector Installation Guide* at **Dell.com/openmanagemanuals**.

Topics:

Launching OME console from a node

To launch OME console for a selected node in OMi, perform the following steps:

1. Launch the **HPE Operations Manager i** console.
2. Click **Workspaces** > **Event Perspective**.
3. In **Browse Views**, search for the view created.
4. Right-click the node, and then select **Launch Tool**.
5. Select the OME console launch tool, click **Next**, and then click **Run**.
   The OME console is successfully launched.

Launching OME console from an event

To launch OME console for a selected node in OMi, perform the following steps:

1. Launch the **HPE Operations Manager i** console.
2. Click **Workspaces** > **Event Perspective**.
3. Right-click the event, and select **Launch** > **Tools**.
4. Select the OME console launch tool, click **Next**, and then click **Run**.
   The OME console is successfully launched.

7

Configuration

Configuring the Operations connector for OME involves:

- Configuring the Topology and Event integration using the Operations Connector Task Schedulers. For more information, see Dell EMC OpenManage HPE OMi Operations Connector Task Schedulers on page 12.
- Activating the Operations Connector policies. For more information, see Dell EMC OpenManage HPE OMi Operations Connector policies on page 12.

For detailed information about installing and configuring the Operations connector for OME, see the Dell EMC OpenManage HPE OMi Operations Connector Installation Guide at **Dell.com/openmanagemanuals.**

Topics:

Dell EMC OpenManage HPE OMi Operations Connector Task Schedulers

Following are the two task schedulers available for Operations Connector for OME:

- Dell EMC Topology Scheduler—collects the topology information from OME.
- Dell EMC Event Scheduler—collects the event information from OME.

You must run the task schedulers so that the systems management data is successfully collected from OME. For information about configuring the task scheduler parameters, see the Dell EMC OpenManage HPE OMi Operations Connector Installation Guide at **Dell.com/openmanagemanuals**.

Dell EMC OpenManage HPE OMi Operations Connector policies

Following are the policies available for Operations Connector for OME:

- Topology Integration policy—synchronizes the device information from OME to OMi.
- Event Integration policy—synchronizes the event information from OME to OMi.
- Node Count Information policy—provides the count of nodes collected by the Operations connector for OME.

Table 5. Operations Connector for OME policies

Policy	Description
Dell EMC OpenManage HPE OMi Operations Connector—Topology Integration	Integrates the devices detected in OME into Run-time Service Model (RTSM).
Dell EMC OpenManage HPE OMi Operations Connector—Event Integration	Sends the event information available in OME to OMi.
Dell EMC OpenManage HPE OMi Operations Connector—Node Count Information	Sends an event with node count information of the collected nodes from OME.

8

Troubleshooting

This section lists the problems that you may encounter while using the Operations Connector for OME and their workaround.

When you upgrade your system from OME versions 2.2 to 2.3, a few CI collections are displayed twice with different names in the OMi console

If the topology synchronization is already done in OMi by using the OME 2.2, and later when you upgrade to OME 2.3, few CI collections are displayed twice with different names after the topology synchronization cycle. You must delete the obsolete CI collection manually.

The following table lists the CI collections which are displayed twice after the upgrade in the OMi console:

Table 6. Device type—CI collections while using OME 2.2 and 2.3

Device type	CI collections while using OME 2.2	CI collections while using OME 2.3
Network switches	Dell Networking Switches	Dell EMC Networking Switches
Compellent Arrays	Dell Compellent Arrays	Dell EMC Compellent Arrays
EqualLogic Groups	Dell EqualLogic Groups	Dell EMC EqualLogic Groups
NAS Appliances	Dell NAS Appliances	Dell EMC NAS Appliances

To resolve this issue, perform the following steps:

1. Launch the HPE Operations Manager i console.
2. Click **Administrator** > **RTSM Administration** > **Modeling** > **Modeling Studio** > **Resources**.
3. In **Resource Type**, select **Models**.
4. Delete the obsolete CI collections displayed.

   For example, after the upgrade, for the network switches, you can delete the obsolete CI collection **Dell Networking Switches**.

If your time zone is behind UTC by 4:00 hours, the timestamp for the time created field is displayed incorrectly

If your time zone is behind UTC by 4:00 hours, a difference of 1:00 hour is shown between the timestamps for the Dell EMC events in the OMi console and the Dell EMC events in the OME console. To resolve this issue, perform the following steps:

1. Double-click the **Dell EMC OpenManage HPE OMi Operations Connector — Event Integration** policy.

   The **Policy Editor** window is displayed.
2. Click the **Defaults** tab, and then click **Event Attributes**.
3. In the **Time Created** field, modify the default value **<$DATA:/event/Time>** to **<$DATA:/event/Time> -3**.
4. Click **Save**.
5. Right-click the **Dell EMC OpenManage HPE OMi Operations Connector — Event Integration** policy and then click **Activate**.

   The Event Integration policy is activated.

After the policy is activated, the events forwarded to the OMi console display the correct time stamp.

The devices, events, and node count information are not displayed in the OMi console

To resolve this issue, perform the following steps:

1. Ensure that you have activated the following Operations Connector for OME policies:
   - Topology Integration policy
   - Event Integration policy
   - Node Count Information policy
2. Run the task scheduler.

Unable to launch the OME console by using OMi

Ensure that the OME URL provided is in the format—`https://<OME IP address or OME FQDN>:<OME Port Number>`.

For more information about creating the OME URL tool in the OMi console, see the Configuring the OME URL tool in HPE OMi console section in the *Dell EMC OpenManage HPE OMi Operations Connector Installation Guide* available at **Dell.com/openmanagemanuals**.

9

Licensing for Dell EMC OpenManage HPE OMi Operations Connector

The OpenManage HPE OMi Operations Connector is a licensed product and implements an honor-based licensing structure. Licenses must be purchased based on the number of devices you need to monitor. For information about licenses, contact the Dell EMC Sales representative.

10

Accessing support content from the Dell EMC support site

Access supporting content related to an array of systems management tools using direct links, going to the Dell EMC support site, or using a search engine.

- Direct links:
  - For Dell EMC Enterprise Systems Management and Dell EMC Remote Enterprise Systems Management—https://www.dell.com/esmmanuals
  - For Dell EMC Virtualization Solutions—https://www.dell.com/SoftwareManuals
  - For Dell EMC OpenManage—https://www.dell.com/openmanagemanuals
  - For iDRAC—https://www.dell.com/idracmanuals
  - For Dell EMC OpenManage Connections Enterprise Systems Management—https://www.dell.com/OMConnectionsEnterpriseSystemsManagement
  - For Dell EMC Serviceability Tools—https://www.dell.com/serviceabilitytools
- Dell EMC support site:
  1. Go to https://www.dell.com/support.
  2. Click **Browse all products**.
  3. From the **All products** page, click **Software**, and then click the required link.
  4. Click the required product and then click the required version.

Using search engines, type the name and version of the document in the search box.