Dell EMC OpenManage Integration v7.1 for Microsoft System Center for Operations Manager (SCOM)

Installation Guide

Notes, cautions, and warnings

(i) | **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

Overview

This guide provides information to install, configure, and use the Dell EMC OpenManage Integration version 7.1 for Microsoft System Center Operations Manager (SCOM).

The integration of the Dell EMC OpenManage Integration for Microsoft system center version 7.1 with Microsoft System Center 2016 Operations Manager or Microsoft System Center 2012 R2 or Microsoft System Center 2012 SP1 Operations Manager environment enables you to manage, monitor, and ensure the availability of your Dell devices.

⚠ **CAUTION: To avoid data corruption, data loss, or both; perform the procedures in this document only if you have proper knowledge and experience in using Microsoft Windows operating system and Microsoft System Center 2016 Operations Manager and Microsoft System Center 2012 R2 Operations Manager.**

The **Dell EMC OMIMSSC**, an appliance-based solution packaged in a .vhd file, Installation guide, Release Notes are available in a .zip file.

The **Dell Sever Management Pack Suite 7.1 for Microsoft system Operations Manager**, Installation Guide, and the Release Notes files are packaged in a self-extracting executable; **Dell_EMC_Server_Management_Pack_Suite_v7.1_Axx.exe**—where xx is the Dell EMC Server Management Pack version 7.1 release number. You can download the executable from **Dell.com/support**. Before installing the Dell EMC OMIMSSC, download the latest documents from **Dell.com/omconnectionsEnterpriseSystemsManagement** or **Dell.com/openmanagemanuals**.

Read the Management Pack's release notes, which contain the latest information about software and management server requirements, in addition to information about known issues. The release notes are also posted to the **Systems Management documentation** page at **Dell.com/OMConnectionsEnterpriseSystemsManagement**.

Topics:

- Terms used in this document
- Monitoring features supported by DSMPS and OMIMSSC version 7.1 for Operations Manager
- Explaining Monitoring Features
- Introduction to Proxy MS
- Licensing for OMIMSSC

Terms used in this document

Table 1. Terms used in this document

Term	Refers to
Dell EMC Chassis	Dell EMC Chassis Management Controller/OpenManage Enterprise Modular (CMC/OME-M), unless otherwise specified.
OMIMSSC	Dell EMC OpenManage Integration version 7.1 for Microsoft System Center Operations Manager
DSMPS	Dell EMC Server Management Pack version 7.1 for Microsoft System Center Operations Manager
Dell Remote Access Controller (DRAC)	DRAC of Dell EMC PowerEdge Server, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified.

Term	Refers to
Integrated Dell Remote Access Controllers (iDRAC)	iDRAC of Dell EMC PowerEdge Server, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified.
iDRAC Service Module (iSM)	iDRAC Service Module is a lightweight software that runs on the Server and complements iDRAC with monitoring information from the OS. The Service Module does not expose any new interfaces of its own, rather it complements iDRAC with additional data that users can work with using iDRAC consoles. For more information about iSM and the supported platform, see *iDRAC Service Module Installation Guide* at Dell.com/support.
Operations Manager	Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, unless otherwise specified.
Operations Manager 2016	Microsoft System Center 2016 Operations Manager, unless otherwise specified.
Operations Manager 2012	Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, unless otherwise specified.
Proxy MS	Proxy Management Server that helps to monitor physical nodes.
Dell EMC PowerEdge Servers	PowerEdge monolithic servers, PowerEdge modular servers, PowerVault servers, supported Rack Workstations, Dell branded OEM servers, PowerEdge Storage Spaces Direct Ready nodes, and Dell OEM Ready servers, unless otherwise specified.
Dell EMC Servers and Rack Workstation monitoring	PowerEdge monolithic servers, PowerEdge modular servers, PowerVault servers, supported Rack Workstations, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified. This is a license-free feature.
Dell EMC Servers and Rack Workstation monitoring (Licensed)	PowerEdge monolithic servers, PowerEdge modular servers, PowerVault servers, supported Rack Workstations, Dell branded OEM servers, PowerEdge Storage Spaces Direct Ready nodes, and Dell OEM Ready servers, unless otherwise specified. This is a license based feature.

Monitoring features supported by DSMPS and OMIMSSC version 7.1 for Operations Manager

The Dell EMC Server Management Pack 7.1 for Microsoft System Center Operations Manager enables you to:

- Discover and classify the following Dell EMC devices:
    - Dell EMC PowerEdge Servers—Using license-free monitoring, and license-based monitoring using iSM.
    - Dell Remote Access Controllers
    - Supported Dell Precision Racks
    - Supported Dell EMC devices through OMSA or iSM based on your requirements.

The Dell EMC OpenManage Integration 7.1 for Microsoft System Center Operations Manager enables you to:

- Discover and classify the following Dell EMC devices:
    - Dell EMC PowerEdge Servers—Using license-based monitoring using iDRAC WS-MAN
    - Dell EMC Chassis—PowerEdge FX2/ FX2s, PowerEdge VRTX, PowerEdge M1000e, PowerEdge MX7000 Chassis, and Dell OEM Ready Chassis
    - Supports OpenManage Enterprise-Modular
    - Dell EMC Network Switches—M-Series, Z-Series, N-Series, and S-Series switches

- Supported Dell Precision Racks
- Supported Dell EMC devices through iDRAC using WS-MAN
- Dell EMC Chassis Modular Server Correlation
- View, analyze, and resolve alerts using Knowledge Base (KB) articles.
- Perform various tasks on the discovered Dell EMC devices.
- View reports for discovered Dell EMC devices.

Table 2. Dell EMC OMIMSSC and Dell EMC Server Management Pack supported Monitoring Features

Monitoring Features	Dell EMC OMIMSSC	Dell EMC Server Management Pack
Dell EMC Server and Rack Workstation Monitoring	❌	✅
Dell EMC Server and Rack Workstation Monitoring (Licensed)—iDRAC based	✅	❌
Dell EMC Server and Rack Workstation Monitoring (Licensed)—iSM based	❌	✅
DRAC Monitoring	❌	✅
Dell EMC Chassis Monitoring	✅	❌
Dell EMC Chassis Modular Server Correlation	✅	❌
Dell EMC Network Switch Monitoring	✅	❌

ⓘ NOTE: ❌ means that the respective feature is not available.

ⓘ NOTE: ✅ means that the respective feature is available.

Explaining Monitoring Features

Table 3. Monitoring features and their description

Feature	Description
Dell EMC Servers and Rack Workstations Monitoring	Monitoring and inventory of PowerEdge servers, PowerVault servers, Dell OEM Ready servers, and supported Dell Precision Racks. This is a license-free feature.
Dell EMC Servers and Rack Workstations Monitoring (Licensed)	Monitoring and inventory of PowerEdge servers, PowerVault servers, supported Dell Precision Racks, Dell branded OEM servers, PowerEdge Storage Spaces Direct Ready nodes, and Dell OEM Ready servers through iDRAC or iSM as supported. This is a licensed feature.
DRAC Monitoring	Monitoring and inventory of iDRAC devices.

Feature	Description
Dell EMC Chassis Monitoring	Monitoring and inventory of Chassis devices such as M1000e, FX2, VRTX, MX7000 and OEM Ready chassis.
Dell EMC Chassis Modular Server Correlation	Correlation of Dell modular servers which are discovered either using Server and Rack Workstation Monitoring feature or Server and Rack Workstation Monitoring (Licensed) feature with the slot or an OEM Ready chassis
Dell EMC Network Switch	Monitoring of Network Switches such as M-Series, Z-Series, N-Series, and S-Series switches.

Introduction to Proxy MS

Proxy MS is a virtual machine running on Windows Server Operating Systems that is introduced for Dell EMC OpenManage Integration for Microsoft System Center Operations Manager (version 7.1 and further) to offload the monitoring, performance metrics and SNMP Alerts work flows from the Management Server and thus helps in scaling the number of devices being monitored within a Management Group. The Management Server and Proxy MS are in the same domain. Discover the Proxy MS as an Agent Managed Windows computer in the Operations Manager console. For more details on how to use Proxy MS, see Adding Proxy MS to DellProxyMSGroup and Synchronizing Dell Proxy MS with OMIMSSC.

In Dell EMC Server Management Pack version 7.0, when a Management Group consisting of five Management Servers is used, a maximum of 600 devices can be monitored in the scalable mode. In Dell EMC OpenManage Integration for Microsoft System Center Operations Manager version 7.1 with the introduction of Proxy MS, you can scale up to 5000 devices under one Management Group. The supported number of nodes on each Proxy MS is 250. For more information, see Configuration planning for Management Server and Proxy MS with deployment scenarios for supported scalability.

(i) NOTE: The Proxy MS is supported only for Operation Manager 2016.

Licensing for OMIMSSC

License Information

The Dell EMC Server and Rack Workstation Monitoring (Licensed) feature in Dell EMC Server Management Pack Suite for Operations Manager is licensed. Information on the process for obtaining software licenses is as follows.

Licenses

Licenses must be purchased based on the desired number of nodes you want to monitor.

Purchasing Licenses

To leverage the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature functionalities, you must purchase licenses (based on the desired number of managed nodes) from Dell. The order confirmation and license is sent as an e-mail to the e-mail ID that you have specified in My Account — Dell. The purchased licenses are also downloadable from the Dell Digital Locker portal at http://www.dell.com/support/licensing. If you are unable to download your licenses, email Dell Customer Support by going to https://www.dell.com/support/incidents-online/in/en/inbsd1/ContactUs/Dynamic.

Checking License Usage

A Console requires a license to manage PowerEdge servers. To view the PowerEdge servers managed by Dell EMC Server and Rack Workstation Monitoring (Licensed) feature for Operations Manager: In Operations Manager, select **Monitoring** > **Dell EMC** > **Dell EMC Feature Management Dashboard**

The number of nodes consumed is displayed in the **Total Node Count** column.

Change from Dell Server Management Pack Suite Version 6.0 for Operations Manager

Until Dell Server Management Pack Suite Version 6.0 for Operations Manager; Dell Connections License Manager (DCLM) was required to manage licenses. For Dell Server Management Pack Suite Version 6.1 and later, you do not require DCLM.

There is no longer a license-count enforcement post DCLM being removed. You can continue to manage the PowerEdge servers using Server and Rack Workstation Monitoring (Licensed) feature for Operations Manager even after reaching or exceeding the limit of the number of licenses purchased from Dell. The **Checking License Usage** section presents the steps to help you determine the number of nodes being managed to ensure that you have the appropriate number of license entitlements from Dell Inc. Purchase additional licenses if the number of nodes you are managing exceeds the number of licenses you have purchased.

Licenses that you have purchased for Dell Server Management Pack Suite Version 6.0 for Operations Manager are still applicable to Dell Server Management Pack Suite Version 6.1 and later for Operations Manager. So, after a product upgrade, the earlier license is still valid and you can still manage servers per the permissible count mentioned in the previously purchased license.

License terms and conditions

The licenses are also governed by the same license terms as the product EULA. You can get the latest updated license terms at **dell.com/ learn/us/en/uscorp1/terms?s=corp**. For further queries, contact Dell Sales and Support.

OMIMSSC components

The following is the list of the OMIMSSC components and their names that have been used in this guide:

- The OMIMSSC for Operations Manager is a virtual machine hosted on a Hyper-V. It is based on CentOS and performs the following tasks:
  - Interacts with the Dell EMC devices and the supported protocols are:
    - Web Services-Management (WS-MAN)
    - Simple Network Management Protocol (SNMP)
    - RedFish
  - The OMIMSSC can be administered through the Dell EMC OMIMSSC Admin Portal.

System requirements for OMIMSSC

Account privileges

Requirements for the accounts used in OMIMSSC for Operations Manager.

The user must be a member of:

- Domain user group
- Local Administrator group on the Management server
- Operations Manager Admin group

Common system requirements for OMIMSSC

Before setting up the OMIMSSC, ensure that the following software prerequisites are met based on the listed OMIMSSC components:

- OMIMSSC:
  - Install the Windows Server operating system, and enable the Hyper-V role.
  - In a Management group, OMIMSSC supports the enrollment of one Management Group through the enrollment of any of the Operations Manager consoles within the group. Following are the hardware requirements based on the console you plan to enroll on an appliance:

Table 4. Hardware requirements

Components	Requirement
RAM	8 GB
Processor count	4

- Admin portal:

  Install any of the following supported browsers:
  - Internet Explorer 10 or later
  - Mozilla Firefox 30 or later
  - Google Chrome 23 or later
  - Microsoft Edge

Configuration planning for Management Server and Proxy MS with deployment scenarios for supported scalability

The Dell EMC devices can be discovered in the Operations Manager console and Dell EMC OMIMSSC console. One instance of Dell EMC OMIMSSC provides support to only one Management Group(MG) for discovery and monitoring of devices.

You can configure the Management Server and Proxy MS as per the deployment scenarios that is required for your environment.

Table 5. Deployment Scenario for Operations Manager 2012 R2

Monitoring Mode	Device Count	Number of Management Servers
Scalable	<=600	For 2000 network devices, see Sizing Guide for required number of Management Servers.
Detailed	<=120	For 2000 network devices, see Sizing Guide for required number of Management Servers.

ⓘ | NOTE: **For Operations Manager 2012 SP1, OMIMSSC is not supported.**

In a Management Group, for scalable mode you can configure five Management Servers where each Management Server can be connected to four Proxy MS and each Proxy MS can support 250 devices which indicate that under one Management Group, you can scale up to max 5000 nodes.

For detailed mode, each Management Server can be connected to two Proxy MS and each Proxy MS can support 30 devices.

Table 6. Deployment Scenario for Operations Manager 2016

Scenario1: Devices discovery using Operations Manager (SMASH/Network Switch)
Dell EMC devices are discovered as SMASH devices or Network devices in the Operations Manager console. The inputs for SMASH devices are provided in the SMASH monitoring wizard and for network switches in the network device discovery wizard of the Operations Manager console.

Monitoring Mode	Devices Count	Proxy MS Configured	Number of Management Servers	Number of Proxy MS	Remarks
Scalable	<=600	No	For 2000 network devices, see Sizing Guide for required number of Management Servers.	NA	NA
		Yes	For 2000 network devices, see Sizing Guide for required number of Management Servers.	>=3	Each Proxy MS can monitor maximum of 250 devices in scalable mode. For configuration of Proxy MS, refer Table **Proxy MS Virtual Machine Configuration**.
Detailed	<=120	No	For 2000 network devices, see Sizing Guide for required number of Management Servers.	NA	NA
		Yes	For 2000 network devices, see Sizing Guide for required number of Management Servers.	>=4	Each Proxy MS can monitor maximum of 30 devices in detailed mode. For configuration of Proxy MS, refer Table **Proxy MS Virtual Machine Configuration**.

Scenario 2: Devices discovery using Dell EMC OMIMSSC (iDRAC, Chassis, Network Switch)
Dell EMC devices are discovered as iDRAC, Dell EMC Chassis, or Dell EMC Network switches in Dell EMC OMIMSSC console. The inputs are provided in the Dell EMC OMIMSSC console and during discovery, the IP address range is provided and appropriate credential profile is associated with the job.

Monitoring Mode	Devices Count	Proxy MS Configured	Number of Management Servers	Number of Proxy MS	Remarks
Scalable	600–5000	Yes	For 2000 network devices, see Sizing Guide	3–20	Each Proxy MS can monitor maximum of 250 devices in scalable mode. For

| | | | for required number of Management Servers. | | configuration of Proxy MS, refer Table **Proxy MS Virtual Machine Configuration**. |
| Detailed | 120–300 | Yes | For 2000 network devices, see Sizing Guide for required number of Management Servers. | 4–10 | Each Proxy MS can monitor maximum of 30 devices in detailed mode. For configuration of Proxy MS, refer Table **Proxy MS Virtual Machine Configuration**. |

Table 7. Proxy MS virtual machine Configuration

Components	Proxy MS Configuration
CPU Cores	8
RAM in GB	32

Mandatory Prerequisites:

1 Ensure that you do the following registry settings on each of the Proxy MS. Perform the below steps:

After extracting the **OMIMSSC_7.1.0.A00_SCOM.zip** file, perform the following steps:

a Copy **DellEMC-SCOM-Agent-Registry.reg** and **DellEMC-Proxy-MS-Configuration-Script.ps1** files from the unzipped location on each of the Proxy MS machine in the same directory.

b Run the **DellEMC-Proxy-MS-Configuration-Script.ps1** from the PowerShell command prompt (with administrator privileges).

> ⓘ NOTE:
> - The script stops the agent health services, takes a backup of current registry values in the same directory path.
> - The required Registry Key changes are implemented on the Proxy MS. Refer to the table below for registry configuration on Proxy MS
> - Microsoft Monitoring Agent Health Services are started.

- Registry Path: "HKLM\SYSTEM\CurrentControlSet\services\HealthService\Parameters"

Table 8. Proxy MS Registry Configuration

S.No.	Registry Configuration
1	Set the Persistence Version Store Maximum Registry Path to 131072.
2	Set the Maximum Global Pending Data Count Registry to 20408.
3	Set the State Queue Items Registry to 20480.
4	Set the Persistence checkpoint Depth Maximum Registry to 20971520.

> ⓘ NOTE: For more information about the registry key settings, see https://blogs.technet.microsoft.com/.

> △ CAUTION: Using Registry Editor incorrectly can cause serious problems that might require you to reinstall the operating system.

> ⓘ NOTE: The above sample script is provided to simplify configuration of the above required settings on the Proxy MS. Dell EMC does not officially support this script.

2 The Microsoft public hotfix https://support.microsoft.com/ must be applied on each of the Systems Center Operations Manager Servers and on every Proxy MS in the Scalability setup.

> ⓘ **NOTE: On the Proxy MS, locate SnmpModules.dll in C:\Program Files\Microsoft Monitoring Agent\Agent \SnmpModules.dll.**

Recommendations:

Here are few recommendations that are taken care of for Proxy MS:

1 You can check for number of devices that you want to monitor and create Proxy MS accordingly. Each Proxy MS can monitor maximum of 250 devices in scalable mode or 30 devices in detailed mode.

2 Maximum number of Proxy MSes that can be added to a Management server is less than or equal to four.

3 Symmetrically distribute the Proxy MSes across all the Management Servers in the resource pool.

4 Ensure not to overload Management Servers by adding more number of proxy MS. The safe limit for a Management Server is to monitor maximum of 1000 devices in scalable mode or 60 devices in detailed mode via Proxy MSes.

> ⓘ **NOTE: When you add Proxy MS in the Operations Manager group Dell ProxyMSGroup, perform synchronization to apply the required configuration changes in the Proxy MS agent. For more information, see Synchronizing Dell Proxy MS with OMIMSSC and adding ProxyMS to DellProxyMSGroup in Dell EMC OpenManage Integration for Microsoft system Center Version 7.1 Operations Manager User's Guide.**

4

Installing, configuring, and managing OMIMSSC

Topics:

Pre-requisites

To install the Dell EMC OMIMSSC, ensure that you have first installed the following pre-requisites:

- Install one of the following versions of Operations Manager:
  - 2016

    ⓘ **NOTE: On systems running Nano windows server operating system, apply the Update Rollup 1 for Microsoft System Center 2016 - Operations Manager agent package provided in the Microsoft knowledge base article KB3190029. For more information, see support.microsoft.com/kb/3190029.**

  - 2012 R2
- Local administration privileges on the management server where Dell EMC Server Management Pack Suite is installed.
- Enable the following Windows firewall rules:
  - Operations Manager SNMP Response
  - Operations Manager SNMP Trap Listener
  - Operations Manager Ping Response
- Windows PowerShell 3.0 or later if your system is running Windows Server 2012 R2 Operating System.

Downloading OMIMSSC from web

To download the OMIMSSC, perform the following steps:

1. Download the OMIMSSC file from the Dell support site.

    ⓘ **NOTE: If you are unable to download your license key(s), contact Dell Support by going to www.dell.com/support/ softwarecontacts to locate the regional Dell Support phone number for your product.**

2. Extract the VHD file and follow the steps mentioned in Setting up the OMIMSSC.

Setting up the OMIMSSC

Ensure that the following requirements are met on the Hyper-V where you are setting up OMIMSSC appliance:

- Virtual switch is configured and available.
- User credentials of the system on which Operations Manager is set up.

- FQDN of Operations Manager
- Allocate the memory for the Appliance VM based on the Operations Manager console you plan to enroll. For more information, see Common system requirements for OMIMSSC.

Deploying the Virtual Machine (VM)

For setting up the OMIMSSC, you need to deploy the virtual machine:

1   In **Hyper-V Manager**, from the **Actions** menu, select **New** and click **Virtual Machine Manager**
    The New Virtual Machine Wizard is displayed.
2   In **Before You Begin**, click **Next**.
3   In **Specify Name and Location**, provide a name for the virtual machine.
    If you want to store the VM in a different location, then select **Store the virtual machine in a different location**, click **Browse**, and traverse to the new location.
4   In **Specify Generation**, select **Generation 1**, and then click **Next**.
5   In **Assign Memory**, assign the memory capacity mentioned in the prerequisite.
6   In **Configure Networking** > **Connection**, select the network that you want to use, and then click **Next**.
7   In **Connect Virtual Hard Disk**, select **Use an existing virtual hard disk**, traverse to the location where the **OMIMSSC—v7.1 VHD** file is present, and select the file.
8   In **Summary**, confirm the details that you have provided and click **Finish**.
9   Set the **Number of virtual processors** count value to 4, since by default the processor count is set to 1.
    To set the processor count:
    a   Right-click Appliance, and select **Settings**.
    b   In **Settings**, select **Processor**, and set **Number of virtual processors** to 4.

Configuring and Verifying the OMIMSSC appliance Virtual Machine

To verify that the Appliance VM is configured appropriately, select and then right-click the **Appliance VM**, click **Settings**, and then perform the following tasks:

1   Check if the allocation of memory for the appliance is as per the requirement mentioned in the Common system requirements for OMIMSSC. Else provide the memory in **Startup RAM**, and click **Apply**.
2   Check if the processor count is as per the requirement mentioned in the Common system requirements for OMIMSSC. Else provide the number of processor counts in **Number of Virtual processors** count under **Processors**.
3   Check if the **Virtual hard disk** field under IDE Controller: **IDE Controller 0 > Hard Drive** the **Virtual hard disk** referring to the **OMIMSSC —v7.1** file else, click **Browse** and navigate to the location where the VHD file is unzipped and select the **OMIMSSC —v7.1** file and click **Apply**.
4   Check if **Network Adapter > Virtual Switch** is connected to a physical NIC card, else configure the NIC card, and select the appropriate NIC card from the **Virtual Switch** drop-down menu and click **Apply**.
5   From the **Hyper-V Manager** menu, right-click the Appliance VM and perform the following tasks:
    a   Click **Connect**, and then click **Start**.
        If the newly created virtual machine with the selected virtual hard disk of Appliance fails to boot with any kernel panic exception, edit the virtual machine settings, and enable the dynamic memory option for this virtual machine.

Log in as an Admin user

Perform the following tasks once OMIMSSC starts:

ⓘ | **NOTE:** It is recommended that you wait for five minutes before you log in as an Admin so that all services are initiated.

1   In **localhost login**: Type admin.

2   In **Enter new Admin password**: Type a password.

3   In **Please confirm new Admin password**: retype the password, and press **Enter** to continue.

      The **Black console** wizard is displayed.
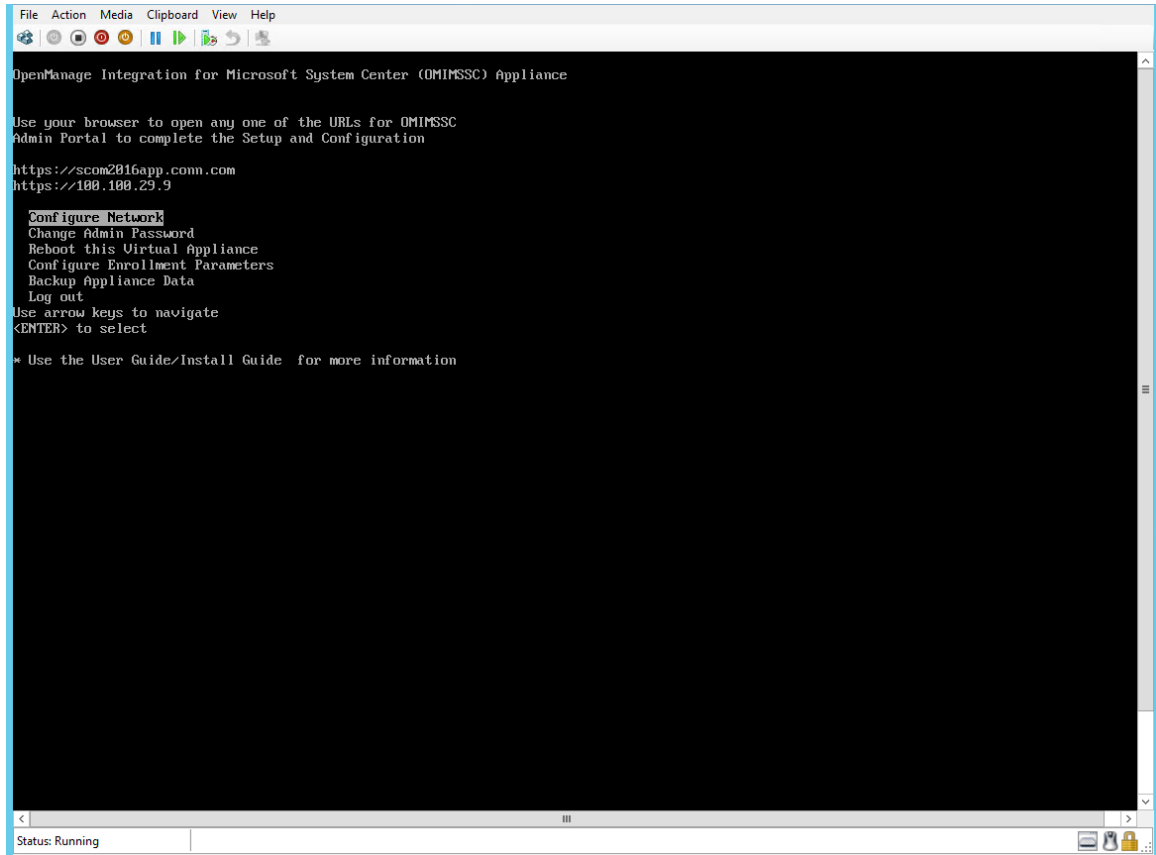
Figure 1. Black Console wizard

4   In **Appliance**, select **Configure Network**, press **Enter**, and perform the following substeps:

      a   Select **Edit a connection**, and press **Enter**.

      b   Select the **Ethernet** connection you want to edit and then select **Edit** and press **Enter**.

      c   Select **IPv4 CONFIGURATION** > **<Show>** and press **Enter**.

      d   In **DNS servers**, type the DNS IP address, and then press **OK**.

      e   Select **Back** and press **Enter**.

      f   Select **Set system hostname** and press **Enter**.

      g   In **Hostname**, type the FQDN of the host and then press **OK**. For example, Hostname.domain.com.

            ⓘ | **NOTE:** You can change the IP address of Appliance by selecting Device configuration option. Do not change the host name of Appliance after this point.

      h   Select **Quit** and then press **Enter**.

5   From Appliance, note the Admin portal URL.

Downloading the Dell EMC Configuration Management Pack

You can perform the console enrollment once the configuration management pack is downloaded and imported in the Operations Manager. The Management packs perform the following actions:

- NFS client enablement.
- Remote Powershell enablement.
- Adding WinRM rule to firewall.
- Enabling WinRM client and server authentication.

These action are performed on the Management server where Operations Manager is configured.

To download the configuration Management Pack, perform the following steps:

- Log in to the Dell EMC OMIMSSC Admin portal as the default admin by providing password in the password field.
- On the left pane, select **Download** and under Dell EMC OMIMSSC Configuration Management pack, click **Download Configuration MP**.
- Download the configuration management pack.

To install the management pack:

- Launch the Operations Manager console.
- On the left pane, select **Administration** > **Management Packs** > **Installed Management Packs** .
- Run the Tasks **Import Management Packs**. Import Management Packs wizard is displayed.
- Select **Add** and click **Add from disk** from the drop-down menu and go to the folder where the management pack is downloaded.
- Select the downloaded file and Click **Open**.
- Select the file **Dell.EMC.OMIMSSC.Configuration.mp** and click **Install** and then **Close**.

    ⓘ **NOTE: Informational event with event ID 71 is generated in the Windows Event Viewer under Windows Logs > Application > Operations Manager. This event contains the details of the prerequisites which get configured on the Management servers.**

Enrolling of Operations Manager console

Before enrollment, ensure you have completed the pre-requisites. For more details see Downloading Dell EMC Configuration Management Pack.
To enroll an Operations Manager console with Dell EMC OMIMSSC, perform the following steps:

1   Open a browser, and provide Appliance URL or enter the Appliance IP address to launch the Dell EMC OMIMSSC Admin portal page.
     The Admin portal login page is displayed.
2   Login to the Admin portal as a default admin by providing the password in password field.
3   Click **Settings** > **Console Enrollment**, and then click **Enroll**.
     The **Enroll a Console** page is displayed.
4   In the **Name** field, provide a name for the console.
5   In the **Description** field, provide a description of the console.
6   In the **Server FQDN** field, provide the FQDN of any management server within the management group of the Operations Manager console.
7   Select the Windows credential profile created from the **Credentials** drop-down menu.
8   (Optional) Click **Create New** to create a Windows type credential profile to access the Operations Manager console. For information on creating a credential profile, see *Dell EMC OpenManage Integration Version 7.1 for Microsoft System Center for Operations Manager User's Guide*.

9   To verify the connection between the Appliance and the Operations Manager, click **Test Connection**.

"Test connection passed" message is displayed on successful test connection.

10   Click **Enroll** to complete the enrollment process.

The console is listed in the **Console Enrollment** page on successful enrollment. If there are multiple Operations Manager consoles within the Management Group, then this process will enroll all the consoles within the Management Group.

ⓘ **NOTE: If a Management Server has been added to or deleted from the management group, perform Sync with MSSC from the Operations Manager console to view the updated information in the Console Enrollment page of the Dell EMC OMIMSSC Admin Portal. For more details, see Synchronizing Dell EMC devices with enrolled Operations Manager in** *Dell EMC OpenManage Integration version 7.1 for Microsoft System Center for Operations Manager (SCOM) User's Guide.*

Adding Proxy MS to DellProxyMSGroup and Synchronizing Dell Proxy MS with OMIMSSC

During enrollment, a group that is named **DellProxyMSGroup** is created. Proxy management servers that are discovered in Operations Manager as an Agent Managed Windows computer, are required to be added to the group **DellProxyMSGroup** into the Operations Manager, and perform synchronization of Proxy MS with OMIMSSC.

ⓘ **NOTE: Ensure that you install Operations Manager Agents on all Proxy MS before performing the below steps.**

To add the **DellProxyMSGroup**, perform the following steps:

1   Discover the ProxyMS virtual machine as an Agent Managed Windows computer in Operations Manager. For more information, see the Operations Manager documentation at technet.microsoft.com.

2   After enrollment in OMIMSSC admin portal, log in into the OMIMSSC console.

3   Select **Authoring** > **Groups**. Select the **DellProxyMSGroup** from the group list.

4   Right click **DellProxyMSGroup** and select **Properties** from the drop-down list.

5   Select **Explicit Members** tab and click **Add/Remove Objects**. The **Create Group Wizard-Object Selection** wizard is displayed.

6   Select **Windows Computer** form the drop-down menu of **Search for** list, to be a part of this group and click **Search**.

7   All the Windows computer that is discovered in the Operations Manager is displayed in **Available items**.

8   Select the Proxy MSs and click **Add**, and then click **OK** in the properties wizard.

ⓘ **NOTE: After adding the Proxy MS to DellProxyMSGroup, you need to disable the iSM discovery that is run on proxy agent and to suppress the event ID 33333 from getting regenerated.**

1   Select **Authoring** > **Management Pack Objects** > **Object Discoveries**.

2   In the **Look for** field, search for **iSM**.

3   Select **Discovered type: Dell Sever** > **Dell Sever Discovery**.

4   Right click **Dell Sever Discovery** and select **Overrides** > **Override the Object Discovery** > **For a Group**.

5   The **Select Object** wizard is displayed.

6   Select the **DellProxyMSGroup** and Click **OK**, that will deactivate the iSM discovery on Proxy MS.

·   In the **Monitoring** pane, select **Dell EMC OpenManage Integration Views** > **OpenManage Integration Dashboard**.

·   Log in to the Dell EMC OMIMSSC in the Operations Manager.

·   Click **Monitoring** and select any of the devices, and then click **Synchronize with MSSC**.

·   Before triggering the device discovery, ensure that the Sync task is completed and look for **Process to retrieve all Management Server Completed** message in generic logs. For more information, see Viewing Jobs.

Launching Dell EMC OMIMSSC from Operations Manager

To launch Dell EMC OMIMSSC from Operations Manager:

In the Operations Manager console, click **Monitoring** > **Dell EMC** > **Dell EMC OpenManage Integration Views** > **OpenManage Integration Dashboard.**

The Dell EMC OMIMSSC login page is displayed.
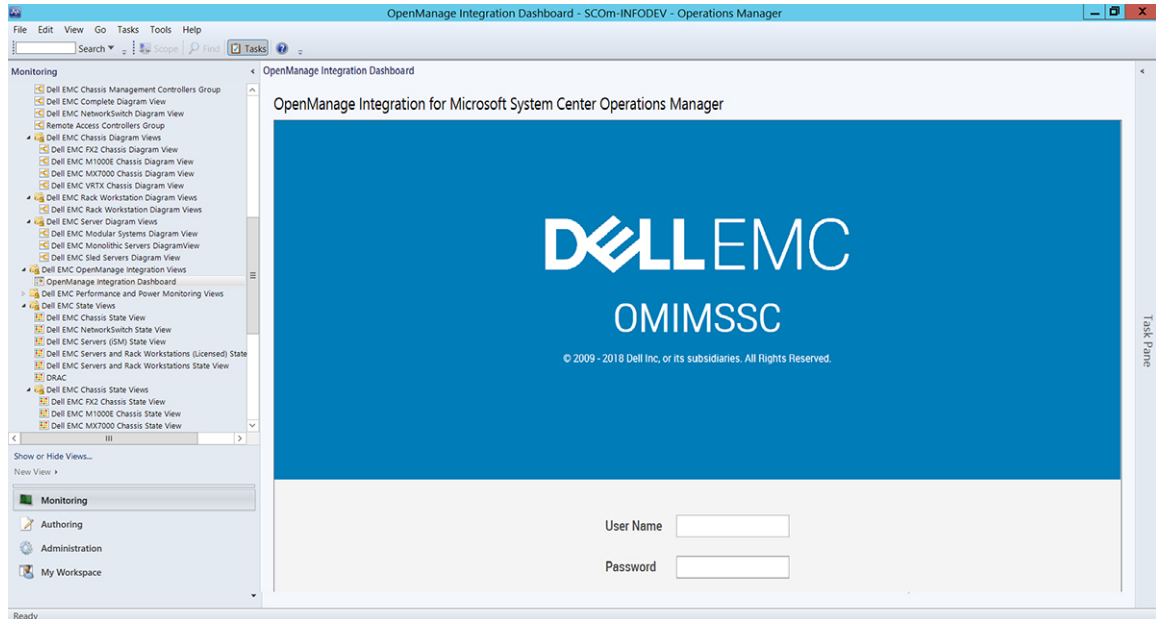
Figure 2. OMIMSSC Login page

ⓘ **NOTE:** While launching the OMIMSSC, you have to check the IE configurations under internet options. Select the zone to trusted sites in security settings and change the advanced settings by unchecking the option Do not save encrypted pages to disks under internet options.

ⓘ **NOTE:** When there is a change in Appliance IP, go to Authoring > Monitors. In the look for field, search for Appliance > Management Sever > Dell EMC SDK Override Appliance IP and change the override value to a new IP under Dell EMC Appliance IP. Save the overrides to Management Pack Dell EMC SDK Appliance IP override.

5

Managing OMIMSSC and its components

Topics:

Viewing OMIMSSC details

To view the OMIMSSC details:

1   Launch the Dell EMC OMIMSSC admin portal from a browser.
2   Log in to the Dell EMC OMIMSSC admin portal by using the same credentials that were used while logging in to Dell EMC OMIMSSC in Operations Manager and click **Appliance Details**. The IP address and host name of the Appliance is displayed.

Dell EMC OMIMSSC user management

1   Launch the Dell EMC OMIMSSC admin portal from a browser.
2   Log in to the admin portal by using the same credentials that were used while logging in to Appliance and click **OMIMSSC User Management**.
    Details of users logged in to Operations Manager is displayed.

Viewing or refreshing enrolled consoles

To view all the enrolled Operations Manager consoles with Dell EMC OMIMSSC:

1   In admin portal, click **Settings**, and then click **Console Enrolment**.
    All the enrolled consoles are displayed.
2   To view the latest list of enrolled consoles, click **Refresh**.

Modifying Operations Manager account

By using this option, you can change the passwords of Operations Manager account in Dell EMC OMIMSSC.
You can modify the Operations Manager administrator credentials from the Dell EMC OMIMSSC Admin Portal.

- For Operations Manager account, modify the credentials in active directory, before modifying the account in Dell EMC OMIMSSC.

Modifying credentials used for the enrolled consoles in Dell EMC OMIMSSC Admin portal

To modify the credentials used for the enrolled consoles in Dell EMC OMIMSSC Admin portal:

1   In the Dell EMC OMIMSSC Admin Portal, click **Settings**, and then click **Console Enrollment**.
    The enrolled consoles are displayed.
2   Select a console to edit, and click **Edit**.
3   Provide the new details and, click **Finish** to save the changes.

De-enrolling the Operations Manager console

To de-enroll the Operations Manager console, perform the following steps:

1   Open a browser, and provide the Appliance URL or enter the Appliance IP address to launch the Dell EMC OMIMSSC admin portal page.
    The **Dell EMC OMIMSSC** Admin portal login page is displayed.
2   Log In to the Admin portal as a default **admin** and provide the password in the password field.
3   On the left hand pane, expand **Settings** and click **Console Enrollment**.
    All the enrolled consoles are displayed.
4   Select the console to be de-enrolled and click **De-enroll** to remove the registration of the console with the Appliance. If there are multiple Operations Manager consoles within the Management Group, then this process will de-enroll all the consoles within the Management Group from the Appliance.

    All the Dell Management Packs and Dell EMC devices monitored using the appliance will be removed from the Operations Manager console once the de-enrollment is completed.

    ⓘ **NOTE: To see the progress and details of the de-enrollment initiated, you need to login into the Dell EMC OMIMSSC admin portal and view the appliance logs. Select Jobs and Logs Center and click History.**

    ⓘ **NOTE: The changes that are applied to the configuration management pack where the Operations Manager is configured are not reverted. For more information on the applied changes, see Downloading the Dell EMC Configuration Management Pack**

    ⓘ **NOTE: If the Operations Manager console is not reachable when the de-enrollment is initiated, a message is displayed that recommends you to bring the console online before performing this action. If you want to proceed with de-enrollment, the cleanup needs to be carried out in the enrolled Operations Manager console explicitly by the user. For more information, see Manual cleanup steps for Operations Manager console that is unreachable during de-enrollment.**

Removing Dell EMC OMIMSSC appliance Virtual Machine (VM)

Before removing the OMIMSSC appliance VM, ensure that you have performed de-enrollment of the enrolled consoles.
To remove OMIMSSC Appliance VM:

1   In **Windows Server**, in **Hyper-V Manager**, right-click the Appliance VM and click **Turn Off**.
2   Right-click the Appliance VM and then click **Delete**.

Viewing jobs

You can view all jobs created in Dell EMC OMIMSSC along with their status information.
To view the jobs:

1   In Dell EMC OMIMSSC console, click **Jobs and Log Center**.

2   To view a specific category of jobs, such as **Running**, **Scheduled**, **History**, or **Generic**, click the respective tab.

Expand the job to view all the servers included in the job. Expand further to view the log messages for that job.

> ⓘ NOTE: **All the job-related generic log messages are listed under the Generic tab and not under the Running or History tab.**

3   (Optional) apply filters to view different category of jobs. You can also view its status in **Status** column.

Installing Dell EMC Server Management Pack suite for Operations Manager

The topics in this section describe how to install, upgrade, and uninstall the Dell EMC Management Pack suite version 7.1 for Operations Manager (SCOM).

Topics:

Pre-requisites

To install the Dell EMC Server Management Pack suite for Operations Manager on a management server, ensure that you have first installed the following pre-requisites:

- Install one of the following versions of Operations Manager:
  - 2016

    (i) **NOTE: On systems running Nano windows server operating system, apply the Update Rollup 1 for Microsoft System Center 2016 - Operations Manager agent package provided in the Microsoft knowledge base article KB3190029. For more information, see support.microsoft.com/kb/3190029.**

  - 2012 R2
- Microsoft .NET version 3.5 SP1
- Local administration privileges on the management server where Dell EMC Server Management Pack Suite is installed.
- Enable the following Windows firewall rules:
  - Operations Manager SNMP Response
  - Operations Manager SNMP Trap Listener
  - Operations Manager Ping Response
- Windows PowerShell 3.0 or later if your system is running Windows Server 2008 R2 Operating System.

Installing Dell EMC Server Management Pack suite using .exe file

1. Download the **Dell_EMC_Server_Management_Pack_v7.1_Axx.exe**—where *xx* is the Dell EMC Server Management Pack release number from **Dell.com/support**.
2. To extract the contents of the self-extractable .zip file, run the **.exe** file.

3   Launch the **Dell_EMC_Server_Management_Pack.exe** file from the extracted location.

The **Dell EMC Server Management Pack Suite** welcome screen is displayed.

4   Click **Next**.

The license agreement is displayed.

5   To continue the installation, accept the license terms after reading them, and click **Next**.

6   Click **Change** (if necessary) to change the default location of the installation folder and click **Next**.

7   Click **Install**.

8   Click **Finish** on the **Install Shield Wizard Completed** screen.

By default, the management packs are installed in the location; **C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.1**.

The following monitoring features are automatically imported into Operations Manager after the installation of Dell EMC Server Management Pack:

- Dell EMC Server and Rack Workstation Monitoring feature
- Dell EMC Server and Rack Workstation Monitoring (Licensed) feature — (only iSM based), if all the prerequisites are met.
- Dell EMC Feature Management Pack The Dell EMC Feature Management Dashboard is displayed under **Monitoring** > **Dell EMC** on the Operations Manager console. See the individual monitoring sections for importing the monitoring features.

ⓘ **NOTE: The Dell EMC Server and Rack Workstation Monitoring (Licensed) feature requires the installer to run on all the management servers that are used to monitor the Dell EMC PowerEdge Servers.**

A log file containing the installation information is generated after the installation of Dell EMC Server Management Pack. The log file is available in the folder where **Dell_EMC_Server_Management_Pack.exe** is extracted.

Installing Dell EMC Server Management Pack on multiple management servers

To install Dell EMC Server Management Pack on multiple management servers:

1   Import the Management Packs using the **Dell EMC Feature Management Dashboard** or import the Management Packs using the Operations Manager Import Management Pack wizard on any of the management servers. Operations Manager automatically distributes the management packs to all the management servers.

2   To receive traps, add the management server used for discovering the Dell EMC Device to the Dell device's trap destination list.

ⓘ **NOTE: Trap destination is automatically configured for the Dell EMC devices discovered and monitored through Dell EMC Server and Rack Workstation Monitoring (Licensed) feature.**

To be able to receive SNMP alerts from devices discovered through the iDRAC access via the Host OS feature, you must install SNMP services on the Managed Node and set the Management Server IP address as the trap destination in the `SNMP Services`. For more information, see monitoring iDRAC access via Host OS in the *Dell EMC Server Management Pack Version 7.1 for Microsoft System Center Operations Manager User's Guide*.

Upgrading from previous versions of Dell EMC Server Management Pack Suite

If you are using Dell EMC Server Management Pack version 7.0, you can either upgrade to Dell EMC OpenManage Integration for Microsoft System Center Operations Manager version 7.1 or Dell EMC Server Management Pack Suite version 7.1 using the installer.

Upgrading from Dell EMC Server Management Pack Suite version 7.0 to Dell EMC Server Management Pack Suite version 7.1

The installer detects the features that are installed from Dell EMC Server Management Pack Suite version 7.0, and automatically upgrades the Dell EMC Management Packs to version 7.1.

ⓘ **NOTE: The installer may display a message prompting a restart after the upgrade is completed, ignore this message as restart is not required.**

ⓘ **NOTE: Refer to Table 2. Dell EMC OMIMSSC and Dell EMC Server Management Pack supported Monitoring Features to know the supported features that can be upgraded in this approach.**

ⓘ **NOTE: The alerts generated for Dell EMC PowerEdge Servers, Rack Workstations, and Dell EMC Chassis will be acknowledged.**

ⓘ **NOTE: Low performance metrics will be retained after the upgrade.**

Upgrading from previous version of Dell EMC Server Management Pack Suite to Dell EMC OMIMSSC version 7.1

While upgrading to the Dell EMC OMIMSSC version 7.1 from Dell EMC Server Management Pack Suite version 7.0, perform the following steps:

1 Set up the OMIMSSC appliance by deploying the .vhd file onto a virtual machine on a Hyper-V.

2 Perform enrollment of the Operations Manager in the OMIMSSC. Wait for few minutes until the management packs are upgraded.

    ⓘ **NOTE: To plan the number of Proxy MS that are required, see** Introduction to Proxy MS.

    ⓘ **NOTE: The supported number of devices on a Proxy MS is 250. For more information, see** Configuration planning for Management Server and Proxy MS with deployment scenarios for supported scalability.

3 Launch the **Dell EMC OpenManage Integration Dashboard** and perform **Synchronize with MSSC** from the respective device view to synchronize the devices that are discovered in the Operations Manager console. For example, to synchronize the SMASH devices that are discovered in Operations Manager, go to the **Server View** in the **Dell EMC OpenManage Integration Dashboard** and click on the **Synchronize with MSSC** button. A **Synchronize with MSSC** operation also synchronizes the Proxy MS details that are added to the DellProxyMSGroup. For more information, see Adding Proxy MS to DellProxyMSGroup and Synchronizing Dell Proxy MS with OMIMSSC and **Synchronizing Dell EMC devices with enrolled Operations Manager** in Dell EMC OpenManage Integration Version 7.1 for Microsoft System Center for Operations Manager(SCOM) User's Guide.

    △ **CAUTION: Ensure to add the required number of Proxy MSes when you want to scale to large number of devices.**

ⓘ **NOTE: Ensure that the Dell CMC login Account profile has been associated with the Run As Account for Dell Modular Chassis.**

ⓘ **NOTE: Performance metrics that are generated from Dell EMC Servers and Rack Workstation Monitoring feature that is discovered through the WSMAN protocol in the 7.0 views are not retained.**

Upgrading from version 6.3 and prior versions

Upgrade from the Dell EMC Server Management Pack Suite version 6.3 or earlier versions to version 7.1 are not supported.

Upgrading from Operations Manager 2012 R2 to Operations Manager 2016

Upgrading to Operations Manager 2016 does not affect the existing Dell EMC Server Management Pack Suite features and functionalities. For information about upgrading from Operations Manager 2012 R2 to Operations Manager 2016, see **Technet.microsoft.com/en-us/system-center-docs/om/deploy/upgrading-to-system-center-2016-operations-manager**.

Upgrading from previous Operations Manager

You can upgrade to Operations Manager from previous versions as per Microsoft guidelines. Refer to Microsoft System Center documentation for the supported upgrade scenarios.

Upgrading from Operations Manager 2012 SP1 to Operations Manager 2012 R2

Upgrading to Operations Manager 2012 R2 does not affect the existing Dell EMC Server Management Pack Suite features and functionalities. For information about upgrading from Operations Manager 2012 SP1 to Operations Manager 2012 R2, see **technet.microsoft.com/en-us/library/dn249707.aspx**.

Upgrading from Operations Manager 2012 to Operations Manager 2012 SP1

Upgrading to Operations Manager 2012 SP1 does not affect the existing Dell EMC Server Management Pack Suite features and functionalities. For information about upgrading from Operations Manager 2012 to Operations Manager 2012 SP1, see **technet.microsoft.com/en-us/library/jj899854.aspx**.

Upgrading from Operations Manager 2007 R2 to Operations Manager 2012

For details on how to upgrade from Operations Manager 2007 R2 to Operations Manager 2012, see **technet.microsoft.com/en-us/library/hh476934.aspx**.

> (i) | **NOTE: To make sure that the feature management workflows are functioning at an optimal level, restart the root management server after upgrading to Operations Manager 2012.**

Using Repair option in the Dell EMC Server Management Pack suite

The **Repair** option, allows you to repair any installation errors that may have occurred while installing the Dell EMC Server Management Pack suite.

1   Run the **Dell_EMC_Server_Management_Pack.exe** file from the extracted location.
    The **Welcome** screen for Dell EMC Server Management Pack is displayed.
2   Click **Next**.

The **Program Maintenance** screen is displayed.

3   Select **Repair**, and click **Next**.

The **Ready to Repair the Program** screen is displayed.

4   Click **Install**.

A progress screen displays the progress of the installation. Once the installation is completed, the **Installation Completed Successfully** screen is displayed.

5   Click **Finish**.

ⓘ **NOTE: The Repair option is not available through Add/Remove Programs from the Control Panel.**

Uninstalling the Dell EMC Server Management Packs

You can uninstall the Dell EMC Server Management Pack from the Windows Control Panel or using the **Remove** option in the Dell EMC Server Management Pack .exe file.

You can remove the Dell EMC Management packs when you have enrolled the Operations Manager console into the appliance by performing de-enrollment. For more information, see De-enrolling the Operations Manager console.

Removing Dell EMC Server Management Pack using .exe file

To remove Dell EMC Server Management Pack using .exe file:

1   Run the **Dell_EMC_Server_Management_Pack.exe** file from the extracted location.

The **Welcome** screen for Dell EMC Server Management Pack is displayed.

2   Click **Next**.

3   Select **Remove**, and click **Next**.

The **Remove the Program** screen is displayed.

4   Click **Remove**.

The Dell EMC Server Management Pack is removed.

ⓘ **NOTE: Uninstallation of Dell EMC Server Management Pack removes the Management Packs that are imported in the Operations Manager. To remove the Management Packs from the Operations Manager, see Technet.microsoft.com/en-us/ library/cc974489.aspx.**

Uninstalling Dell EMC Server Management Pack using Windows Control Panel

To uninstall the Dell EMC Server Management Pack using Windows Control Panel:

1   Click **Start** > **Control Panel** > **Uninstall a program.**
2   Right-click **Dell EMC Server Management Pack,** and click **Uninstall**.
3   To complete the uninstallation process, follow the instructions on the screen.

Configuring Operations Manager to monitor Traps and Trap-Based Unit Monitors

To monitor traps, and trap-based unit monitors in Operations Manager 2012 or Operations Manager 2016:

1   Launch Operations Manager, and click **Administration**.
2   In the **Administration** pane, browse to **Run As Configuration→ Profiles.**
3   From the list of available profiles, right-click **SNMP Monitoring Account** and click **Properties**.
     The **Introduction** screen is displayed.
4   Click **Next**.
     The **Specify the Run As profile's general properties** screen is displayed.
5   Click **Next**.
     The **Run As Accounts** screen is displayed.
6   Click **Add**.
     The **Add a Run As Account** screen is displayed.
7   Select the community string from the **Run As account** drop-down list to discover the devices.

   > ⓘ **NOTE:** Create a Community String Run As Account if none is present. For more information, see Creating Run As Account for SNMP monitoring.

   > ⓘ **NOTE:** If you are using multiple Run As Accounts to discover devices, associate each device with its associated Run As Account. For more information, see Associating multiple Run As Accounts.

8   Click **OK**.
9   After the wizard is complete, click **Close**.

Creating Run As Account for SNMP monitoring

1   Launch Operations Manager, and click **Administration**.
2   In the **Administration** pane, browse to **Run As Configuration** > **Accounts**.
3   Right-click **Accounts** and click **Create Run As Account**.
     The **Introduction** screen is displayed.

   > ⓘ **NOTE:** For more information on Run As Account for Network Monitoring, see the Microsoft TechNet site at technet.microsoft.com/en-us/library/hh212920.aspx.

4   Click **Next**.
     The **General Properties** screen is displayed.
5   Select **Community String** from the **Run As Account type:** drop-down list.
6   Type the community string name in the **Display name:** text box and click **Next**.
7   Provide the correct community string in the **Community string** text box and click **Next**.
     The **Distribution Security** screen is displayed.
8   Select the **Less secure - I want the credentials to be distributed automatically to all managed computers** option, and click **Create**.
9   After the wizard is complete, click **Close**.

Associating Multiple Run As Accounts

1   Follow step 1 to step 6 under Configuring Operations Manager to monitor Traps and Trap-Based Unit Monitors.
2   On the **Add a Run As Account** screen, select the **A selected class, group, or object** option.

3   Click **Select** > **Class**.

    The **Class Search** screen is displayed.

        ⓘ **NOTE: You can also associate the community string Run As Account with Object and Group. For more information, see the Microsoft documentation for Operations Manager at technet.microsoft.com.**

4   In the **Filter by (optional)** text box enter the class name. Depending on the type of device, type **Dell EMC Server**, **Dell CMC/OME-M**, or **Dell EMC DRAC/MC**.

5   Click **Search**.

6   Under **Available items**, select the class you want to add.

7   Click **OK**.

8   On the **Add Run As account** screen, click **OK**.

9   Repeat step 2 to step 8 for each type of class you want to manage.

10 Click **Save**.

11 After the wizard is complete, click **Close**.

Dell EMC Feature Management Dashboard

The topics in this section describe how to install, upgrade, and remove the monitoring features using the **Dell EMC Feature Management Dashboard**.

You can import monitoring features into Operations Manager either by using the **Dell EMC Feature Management Dashboard** or importing the Monitoring Feature management packs using Operations Manager **Import Management Packs** wizard. You can use **Dell EMC Feature Management Dashboard** for advanced fine-tuning of monitoring features. For more information, see **Dell EMC Monitoring Feature Tasks** under the respective monitoring features.

Topics:

- Dell EMC Feature Management Dashboard
- Importing Management Packs into Operations Manager

Dell EMC Feature Management Dashboard

The **Dell EMC Feature Management Dashboard** provides facilities for the configuration of monitoring features using either Dell EMC Server Management Pack or Dell EMC OMIMSSC appliance to monitor the various Dell EMC devices—Dell EMC PowerEdge Servers, PowerEdge Storage Spaces Direct Ready nodes, Dell EMC Precision Racks, Dell Remote Access Controllers (DRAC), Dell EMC Network Switches, Dell EMC OEM servers and Dell EMC Chassis including PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000E, PowerEdge MX7000,.

- Dell EMC Server and Rack Workstation Monitoring feature
- Dell EMC Server and Rack Workstation Monitoring (Licensed) feature
- DRAC Monitoring feature
- Dell EMC Chassis Monitoring feature
- Dell EMC Chassis Modular Server Correlation feature
- Dell EMC Network Switch Monitoring feature

You can import, upgrade, and remove the monitoring features using the **Dell EMC Feature Management Dashboard**.

Importing Monitoring Features using Dell EMC Feature Management Dashboard

Dell EMC Feature Management Dashboard allows you to view the available Dell EMC Server Management Pack monitoring features and Dell EMC OMIMSSC appliance features and configure them automatically for importing, upgrading, and removing the management packs required by a particular feature.

In a distributed setup (including distributed resource pool in Operations Manager 2012), the management server where the Dell EMC Server Management Pack is installed first is selected to host all feature management activities.

To import the monitoring features:

1 Launch the Operations Manager console.
2 From the **Navigation** pane, click **Monitoring.**

3   Expand **Monitoring** > **Dell EMC** > **Dell EMC Feature Management Dashboard**.
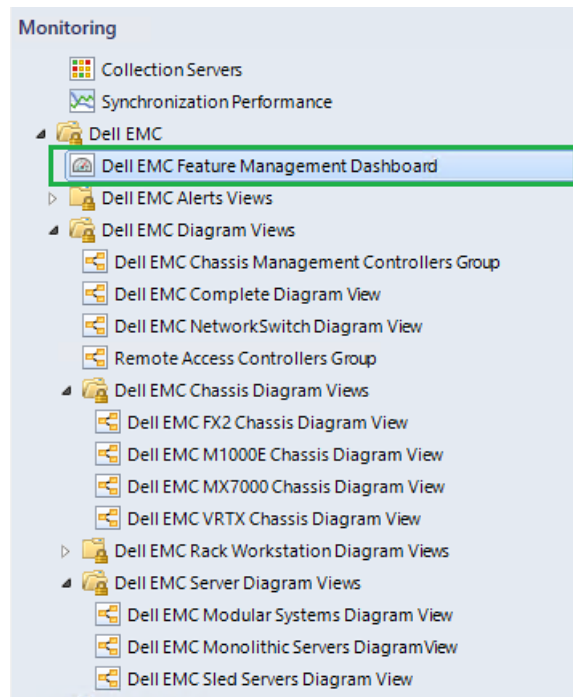
Figure 3. Monitoring pane

On the **Dell EMC Feature Management Dashboard** pane, you can view the list of Dell EMC monitoring features installed, the version currently in use, the version you can upgrade to, the level of monitoring, total node count, and required licenses.
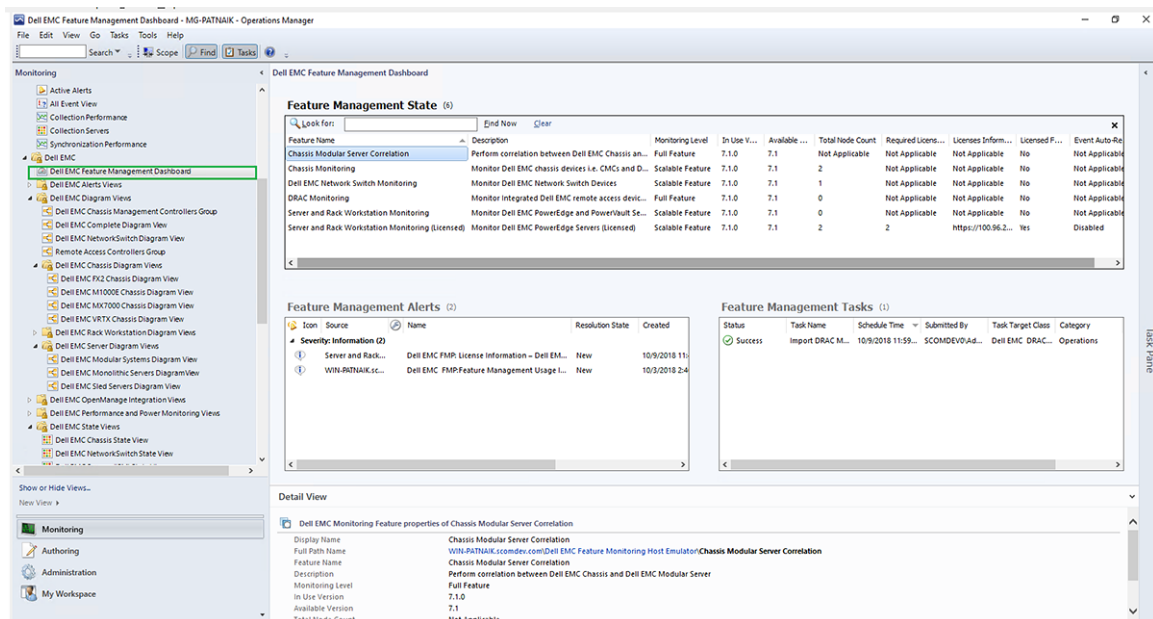
Figure 4. Dell EMC Feature Management Dashboard

4   Select the monitoring feature you want to install.
5   Under the **Tasks** pane, expand **Dell EMC Monitoring Feature Tasks**.

Figure 5. Dell EMC Monitoring Feature Tasks

6   Click the task to import a feature.

7   On the **Run Task** screen, make sure that the **Use the predefined Run As Account** option is selected.

8   Click **Run**.

9   After the task has completed successfully, click **Close**.
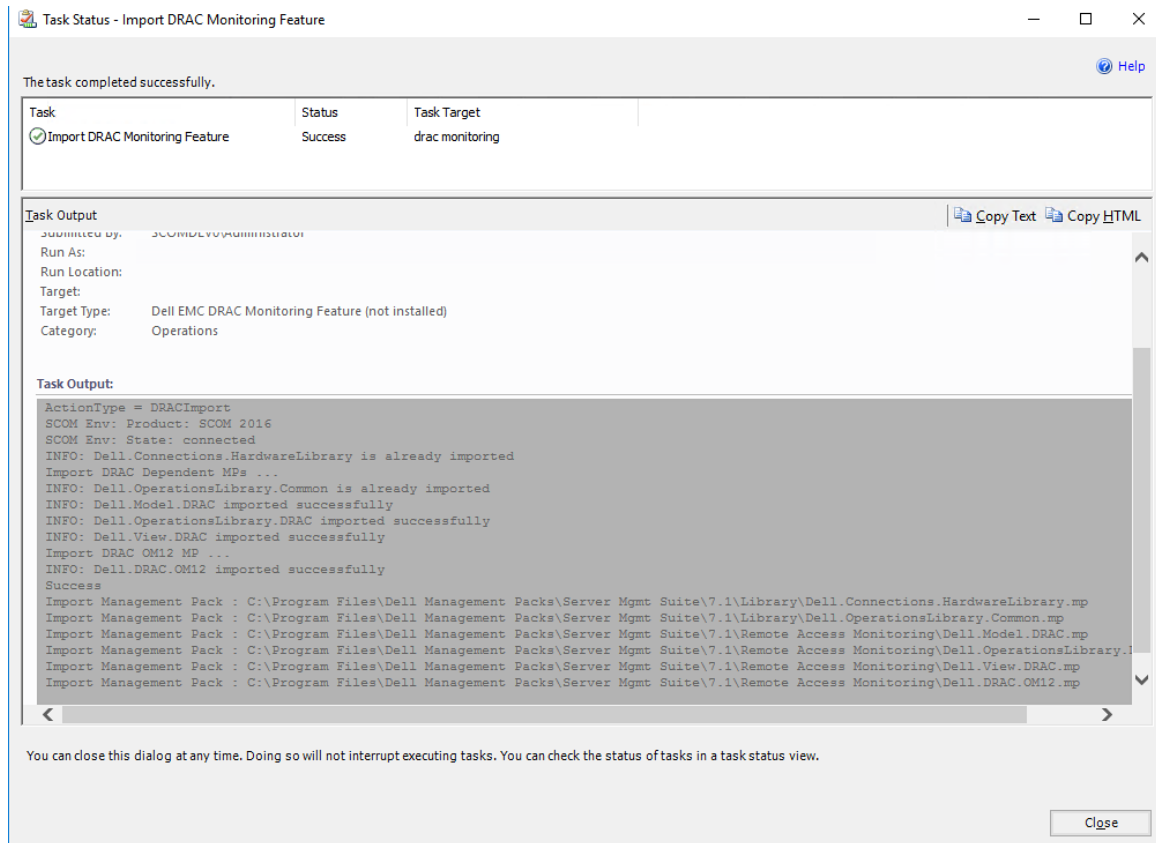
Figure 6. Task Status

10 Repeat step 4 to step 9 for each monitoring feature you want to enable.

> ⓘ NOTE: **Wait for a task to complete before launching another task using the Dell EMC Feature Management Dashboard.**

Upgrading Dell EMC Monitoring Features using Dell EMC Feature Management Dashboard

1   Launch the Operations Manager console.

2   Click **Monitoring**.

3   Click **Dell EMC** > **Dell EMC Feature Management Dashboard**.

4   Select the monitoring feature you want to upgrade.

5   Under the **Tasks** pane, expand **Dell EMC Monitoring Feature Tasks**.

6   Click the upgrade task you want to perform.

7   On the **Run Task** upgrade screen, select **Use the predefined Run As Account** option.

8   Click **Run**.

> ⚠ CAUTION: If there are any dependencies or associations that has to be overridden, which results in data loss, the task fails with the appropriate message. To proceed with the task, click Override and set the AutoResolve Warnings/Errors override to True. For more information, see Dell EMC Feature Management Dashboard task fails.

9   After the task is complete, click **Close.**

During the process of upgrading, all overrides; any customization to discovery, unit monitors, and rules from previous versions of Dell Server Management Pack Suite are carried over to the Dell EMC Server Management Pack version 7.1.

Table 9. Customizing Dell EMC Monitoring Features using Dell EMC Feature Management Dashboard—Scalable vs Detailed

Features	Scalable	Detailed
Dell EMC Server and Rack Workstation Monitoring	Inventory and health monitoring at server and component group level.	Detailed inventory and monitoring of the following components: memory, processors, sensors, network interfaces, storage controllers, disks, and volumes. BIOS information is also shown.
Dell EMC Server and Rack Workstation Monitoring (Licensed)	• Inventory up to individual components. • Health monitoring at server, Rack Workstation, and, component group level.	• Inventory and health monitoring of individual components. • View metrics for power, temperature, network interface cards processor, memory, Computer Usage per Second (CUPS), the PCIeSSD wear level, and IO performance metrics.
Dell EMC Chassis Monitoring	• Chassis inventory • Chassis slots summary • Health monitoring of chassis	Inventory and health monitoring of individual chassis components.
DRAC Monitoring	• iDRAC inventory • iDRAC health monitoring	Not Applicable.
Dell EMC Chassis Modular Server Correlation	Correlate Modular servers with Chassis— view inventory and health from chassis up to components inside the Modular server.	Not Applicable.
Dell EMC Network Switch Monitroing	• network switch inventory • Health monitoring of network switches	Inventory and health monitoring of individual network switch components.

Removing Dell EMC Monitoring Features using Dell EMC Feature Management Dashboard

To remove the monitoring features, use the **Dell EMC Feature Management Dashboard**. Before removing any of the monitoring features, close or resolve all open alerts. While removing a monitoring feature, the **Dell EMC Feature Management Dashboard** exports all override references as backup in the installation folder, but custom group information and override instance level information cannot be reused in the future.

To remove the monitoring features:

1   Launch the Operations Manager, click **Monitoring**.

2   In the **Monitoring** pane, browse to **Dell EMC** > **Dell EMC Feature Management Dashboard.**

The **Dell EMC Feature Management Dashboard** pane displays the list of monitoring features present in the Operations Manager.

3   Select the monitoring feature you want to remove.

4   Under the **Tasks** pane, expand **Dell EMC Monitoring Feature Tasks**.

5   Click **Remove Feature** to remove the monitoring feature.

For example, to remove **Dell EMC Servers and Rack Workstations Monitoring** feature, click **Remove Monitoring Feature** under the **Tasks** pane.

6   On the **Run Task—Remove Feature** screen, select the **Use the predefined Run As Account** option.

7   Click **Run**.

> ⚠ **CAUTION: If there are any dependencies or associations that have to be overridden, which result in data loss, the task fails with the appropriate message. To proceed with the task, click Override and set the AutoResolve Warnings/Errors override to True. For more information, see** Dell EMC Feature Management Dashboard task fails.

8   Click **Close** after the task is complete.

> ⓘ **NOTE: Performing Remove Monitoring Feature task in Dell EMC Feature Management Dashboard may fail if there are overrides referenced to custom group, or instances. In such a case, ensure to remove the overrides that are associated to custom group, or instances.**

Importing Management Packs into Operations Manager

To import the management packs, use the Operations Manager Import Management Pack wizard.

1   Launch the Operations Manager console.

2   From the navigation pane, click **Administration.**

3   Click **Management Packs**, and select **Import Management Packs** from the **Administration Overview**.

4   On the **Select Management Packs** screen, click **Add** > **Add from disk**.

5   Type the location details or navigate to the location where you have installed the **Dell EMC Server Management Pack**.

If you had chosen to install in the default directory, then the Management Packs are available under, **C:\Program Files\Server Mgmt Suite\Dell Management Packs\7.1**.

6   Select the management pack you want to import and click **Open**.

The **Import Management Packs** screen appears with the Management Packs displayed in the **Import List**.

7   Click **Install.**

Dell EMC Server Management pack suite version 7.1 supported Monitoring features

The topics in this section describe the monitoring features that are supported by DSMPS version 7.1 for Operations Manager.

Topics:

- Dell EMC Servers and Rack Workstation monitoring feature
- DRAC Monitoring Feature for Operations Manager

Dell EMC Servers and Rack Workstation monitoring feature

Dell EMC Servers and Rack Workstation Monitoring feature supports the discovery and monitoring of the following devices that are installed with the supported Windows OS, using the OpenManage Server Administrator (OMSA):

- PowerEdge Modular and Dell EMC PowerEdge Monolithic servers
- PowerVault servers
- Dell OEM Ready servers
- Dell Precision Racks

Inventory and monitoring of these devices could be done through the server's OpenManage Server Administrator (OMSA) which is a license-free monitoring feature.

For information about the supported OMSA versions, see *Dell EMC OpenManage Integration version 7.1 for Microsoft System Center for Operations Manager (SCOM) Release Notes.*

The Dell EMC Server Management Pack suite automatically imports the Dell EMC Servers and Rack Workstation monitoring scalable feature into Operations Manager.

Management Packs

After the Dell EMC Server Management Pack Suite management packs are imported successfully and after you enroll the Operations Manager console with the OMIMSSC, the required management packs are imported and should appear in the **Administration** pane of the Operations Manager console. For more information, see Importing Management packs into Operations Manager

Table 10. Dell EMC Servers and Rack Workstations Monitoring and their Management Packs

Feature	Default Location of Management Packs	Management Packs
Dell EMC Servers and Rack Workstations Monitoring	**Library** %PROGRAMFILES%\Dell Management Packs\Server Mgmt\7.1\Library	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Server.mp

Feature	Default Location of Management Packs	Management Packs
	Scalable and Detailed Management Packs **%PROGRAMFILES%\Dell Management Packs\Server Mgmt\7.1\Server Monitoring**	**Scalable Feature** • For Dell EMC Servers or Rack Workstations discovered using OMSA – Dell.Model.Server.mp – Dell.WindowsServer.Scalable.mp – Dell.View.Server.mp – (Optional) Dell.WindowsServer.InformationAlertsOn.mp ⓘ **NOTE: Import Dell.WindowsServer.InformationAlertsOn.mp only if you want to receive Informational Alerts.** **Detailed Feature** • Dell.WindowsServer.Detailed.mp and all scalable management pack

Configuration prerequisite

Connectivity to Dell EMC OpenMange Integration 7.1 for Microsoft System Center Operations Manager (SCOM) agent to discover Dell EMC devices.

Management Server (MS) requirements

Supported Operating Systems

Following lists the operating systems supported by Operations Manager for the management server:

• For Operations Manager 2016, see **technet.microsoft.com/en-us/library/dn997301%28v=sc.16%29.aspx**

• For Operations Manager 2012 R2, Operations Manager 2012 SP1 and Operations Manager 2012, see **technet.microsoft.com/en-us/library/hh205990.aspx**.

Software requirements

Table 11. Prerequisites for Software

Software	Purpose
(Optional) DRAC tools from OpenManage Server Administrator (Server Administrator)	To inventory and monitor Dell EMC Server and Rack Workstation's iDRAC and its NIC.
(Optional) Dell License Manager (for iDRAC7 or later systems only)	To launch **Dell License Manager** console, deploy licenses and collect reports; install Dell License Manager on the management server. For more information, see *Dell License Manager User's Guide* at **dell.com/support/home**.
(Optional) OpenManage Power Center	To launch **Dell OpenManage Power Center** console. To monitor and manage power consumption, and temperature in the data

Software	Purpose
	center using the Operations Manager console, install OpenManage Power Center on the management server. For more information, see *Dell OpenManage Power Center Installation Guide* at **dell.com/support/home**.
(Optional) Baseboard Management Controller (BMC) Management Utility	To run the Remote Power Control tasks or the LED Identification Control tasks on Dell managed systems.

> ⓘ **NOTE: Access DRAC tools, OpenManage Server Administrator (Server Administrator), BMC Management Utility, and Dell License Manager from** *Dell Systems Management Tools and Documentation* **media, or download it from dell.com/support.**

Management Server Action Account (MSAA)

Table 12. MSAA privileges

Feature	User Privilege
DRAC discovery and corresponding DRAC console launch	Admin or Power user.
Clear ESM log	Admin or Power user. Alternatively, if the MSAA has normal user privileges, operators can, instead of selecting **Use the predefined Run as Account**, enter task credentials with Power User (or higher) privileges to run the **Clear ESM Logs** task.

Managed System requirements

Install any supported Server Administrator versions (including the Server Administrator Storage Management Service) on the managed system.

> ⓘ **NOTE: If you want to upgrade or uninstall Server Administrator on the managed system, the Alerts View of the managed system may display the following error: `Script or Executable failed to run`. If the managed system is not a management server, then switch the system to the Maintenance Mode until the upgrade or uninstall completes. If the managed system is the management server, you may manually close the alerts after the upgrade or uninstall is complete.**

> ⓘ **NOTE: On systems using Server Administrator 7.2 DRAC tools, it is recommended to upgrade to Server Administrator 7.4 DRAC tools or later.**

> ⓘ **NOTE: For more information on the supported operating systems for the managed system, see** *OpenManage Server Administrator Installation Guide* **at dell.com/support/home.**

Feature Management tasks

Once the Dell EMC Server Management Pack is installed, the Dell EMC Server and Rack Workstation Monitoring feature is auto-imported into Operations Manager and its related tasks are available in the Feature Management tasks section. The following table lists the Server and Rack Workstations Monitoring feature tasks available on the **Dell EMC Feature Management Dashboard**.

Dell EMC Server and Rack Workstations Monitoring feature is a license-free feature.

(i) **NOTE:** In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.

(i) **NOTE:** Wait for a task to complete (view the state update change in the dashboard) before launching another task using the Dell EMC Feature Management Dashboard.

Table 13. Feature Management tasks

Tasks	Description
Enable Agent Proxying	This task enables the agent proxy.
Set as Preferred Monitoring Method	This task enables the Dell EMC Server and Rack Workstation Monitoring feature as the preferred monitoring method for your Dell EMC Server and Rack Workstations, when the Server and Rack Workstations in the setup are monitored through both; Dell EMC Server and Rack Workstations Monitoring feature and Dell EMC Server and Rack Workstations Monitoring (Licensed) feature. For more information, see **Feature Management Tasks** in the *Dell EMC OpenManage Integration Version 7.1 for Microsoft System Center Operations Manager User's Guide.*
Set to Scalable Feature	If the Detailed feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the Detailed to the Scalable feature. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set to Detailed Feature	If the Scalable feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the Scalable to the Detailed feature. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set Informational Alerts On	Informational alerts are turned on when the Dell EMC Server and Rack Workstations Scalable monitoring is in use.
Set Informational Alerts Off	Informational alerts are turned off when the Dell EMC Server and Rack Workstations Scalable monitoring is in use.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. (i) **NOTE:** The Refresh dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.
Refresh Node Count	Updates the node count of servers monitored using this feature.
Remove Monitoring Feature	Removes the Dell EMC Server and Rack Workstations Monitoring feature.

DRAC Monitoring Feature for Operations Manager

DRAC monitoring feature supports discovery, and monitoring for the various generations of iDRAC—iDRAC6, iDRAC7, and iDRAC8 systems using SNMP.

Management Packs

After the Dell EMC Server Management Pack management packs are successfully imported, the required management packs listed should appear in the **Administration** pane of the Operations Manager console. For more information, see Importing Management Packs into Operations Manager

Table 14. DRAC monitoring feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
DRAC Monitoring	**Library** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Library **Management Packs** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Remote Access Monitoring	**Library** · Dell.Connections.HardwareLibrary.mp · Dell.OperationsLibrary.Common.mp **Management Packs** · Dell.DRAC.OM12.mp—Operations Manager 2012 or later · Dell.Model.DRAC.mp · Dell.OperationsLibrary.DRAC.mp · Dell.View.DRAC.mp

Configuration prerequisite

Enable SNMP ports on firewall for SNMP functionality.

Management Server (MS) requirements (Optional)

Table 15. Optional software requirements

Software	Purpose
Dell License Manager (for iDRAC7 systems only)	To deploy licenses and collect reports from the management server. To launch **Dell License Manager** console, install Dell License Manager on the management server. For more information, see *Dell License Manager User's Guide* at **dell.com/support/home**.
Dell OpenManage Power Center	To launch **Power Center** console, install **Dell OpenManage Power Center** on the management server. For more information, see *Dell OpenManage Power Center Installation Guide* at **dell.com/support/home**.

DRAC monitoring requirement

To monitor the health of DRAC devices, associate the community string **Run As account** with the **SNMP Monitoring Account** with the target as **Dell Remote Access Controller** class or respective DRAC object (if you have different Run As accounts for different DRAC devices).

Feature Management tasks

The following table lists the DRAC monitoring tasks available in the **Dell EMC Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the DRAC monitoring feature.

ⓘ **NOTE:** In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.

ⓘ **NOTE:** Wait for a task to complete (view the state update change in the dashboard) before launching another task using the Dell EMC Feature Management Dashboard.

Table 16. Feature Management tasks

Tasks	Description
Import DRAC Monitoring Feature	Enables the DRAC monitoring feature into the OpsMgr.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. ⓘ **NOTE: The Refresh Dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.**
Refresh Node Count	Updates the node count.

9

Dell EMC OMIMSSC version 7.1 supported monitoring features

The topics in this section describe the monitoring features that are supported by OMIMSSC version 7.1 for Operations Manager.

Topics:

- Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature
- Dell EMC Chassis Monitoring feature
- Dell EMC Chassis Modular Server Correlation Feature
- Dell EMC Network Switch monitoring feature

Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature

Dell EMC Server and Rack Workstation Monitoring (Licensed) feature provides detailed or scalable inventory, based on your method of discovery, and monitoring of the following devices:

- 12th, 13th, and 14th generation of PowerEdge servers
- PowerVault servers
- Dell Precision Racks
- Dell branded OEM servers
- Dell OEM Ready servers
- PowerEdge Storage Spaces Direct Ready nodes

Inventory and monitoring of these devices could be done through iDRAC or iDRAC Service Module (iSM) installed on the managed Dell EMC Server or Rack Workstation through one of the following methods based on your monitoring preference:

- iDRAC–WS-MAN
- iDRAC access via Host OS
- iSM–WMI

This is a licensed feature.

For more information about monitoring servers through iDRAC–WS-MAN or Host OS, see the section Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature in the *Dell EMC OpenManage Integration Version 7.1 for Microsoft System Center for Operations Manager User's Guide.*

For the list of Supported Platforms for iSM, see the *iDRAC Service Module Installation Guide* at **Dell.com/manuals**.

Management Packs

Table 17. Dell EMC Server and Rack Workstations Monitoring (Licensed) feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs

Dell EMC Server and Rack Workstation Monitoring (Licensed)	**Library**
	
	%PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Library
	Monitored Management Packs
	
	C%PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Server Monitoring
		Library
		
		· Dell.Connections.HardwareLibrary.mp
		· Dell.OperationsLibrary.Common.mp
		
		Monitored Management Packs
		
		· For Dell EMC Servers or Rack Workstations discovered through iSM–WMI:
		  – Dell.ManagedServer.iSM.mp
		  – Dell.ManagedServer.Model.mp
		  – Dell.View.Server.mp
		· For Dell EMC Servers or Rack Workstations discovered through iDRAC–WS-MAN:
		  – Dell.Model.Server.mp
		  – Dell.OperationsLibrary.Server.mp
		  – Dell.Server.OOB.mp
		  – Dell.View.Server.mp
		· Dell.Model.Server.mp
		· Dell.Server.SDK.mp
		· Dell.Server.SDKServer.mp
		· Dell.View.Server.mp

Configuration prerequisites

- Ensure that iSM is installed.

  - WMI feature is enabled for discovering devices through iSM–WMI.
  - iDRAC access via Host OS in enabled for discovering devices through iDRAC access via Host OS.
- Ensure that there is WS-MAN (WS-Management) connectivity to iDRAC
- Ensure that the SNMP ports on the firewall are enabled
- Ensure that the Dell Device Helper is installed
- Ensure that **MaxEnvelopeSizekb** value in WinRM setting is higher (for Windows Server 2008 R2 only)

Management Server (MS) requirements

Table 18. Prerequisites for software

Software	Purpose
(Required) Operations Manager 2012 or later	Dell EMC Server and Rack Workstation Monitoring (Licensed) feature is available only on management servers running Operations Manager 2012 or later. ⓘ **NOTE: If you are using Operations Manager 2016, then for systems running Nano server, apply the** *Update Rollup 1 for Microsoft System Center 2016 - Operations Manager* **agent package provided in the Microsoft knowledge base article KB3190029. For more information, see support.microsoft.com/kb/3190029.**
(Required) SMASH Library MPB from Microsoft	Dell EMC Server and Rack Workstation Monitoring (Licensed) feature requires SMASH library MPB from Microsoft to discover Dell EMC PowerEdge Servers. For more information, see Installing the WS-Management and SMASH Device Template.
(Optional) Dell License Manager (for iDRAC7 or later systems only)	Launches **Dell License Manager** console. To deploy licenses and collect reports; install Dell License Manager on the management server. For more information, see *Dell License Manager User's Guide* at **dell.com/support/home.**.
(Optional) OpenManage Power Center	Launches **Dell OpenManage Power Center** console. To monitor and manage power consumption, and temperature in the data center using the Operations Manager console, install OpenManage Power Center on the management server. For more information, see *OpenManage Power Center Installation Guide* at **dell.com/support/home**.

Managed System requirements

To discover and monitor managed systems, ensure that the following requirements are met:

- Required iSM version is installed on the Dell EMC device. Based on your monitoring requirements, the following features must be enabled through the iDRAC console:
  - Windows Management Instrumentation (WMI) feature to monitor through iSM–WMI.
  - iDRAC access via Host OS (Experimental feature) to monitor through iDRAC using host IP.
- iDRAC7 or later.

ⓘ **NOTE: If you are monitoring devices through iSM–WMI feature on systems running Microsoft Nano server, see the section Installing iDRAC Service Module on Nano operating system in the** *iDRAC Service Module version 2.4 Installation Guide* **at Dell.com/support.**

ⓘ **NOTE: If you are using iDRAC firmware version 2.40.40.40 or later, Transport Layer Security (TLS) versions 1.1 or later is enabled by default. Before installing Dell EMC Server Management Pack Suite version 7.1 for Microsoft System Center Configuration Manager, see** *Support.microsoft.com/en-us/kb/3140245* **for more information about TLS updates. Based on your web browser, you may have to enable support for TLS 1.1 or later. For more information about iDRAC, see** *Dell.com/idracmanuals***.**

Feature Management tasks

The following table lists the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature tasks available on the **Dell EMC Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature.

ⓘ **NOTE:**
> Ensure that Microsoft SMASH Library (MPB) is installed before discovering a Dell EMC Server using Server and Rack Workstation Monitoring (Licensed) feature to be able to use all the tasks listed in the Feature Management tasks table.
>
> **In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.**

ⓘ **NOTE: Wait for a task to complete (view the task's status in the dashboard) before launching another task while using the Dell EMC Management Dashboard.**

Table 19. Feature Management tasks

Tasks	Description
Enable Agent Proxying	Enables agent proxying for the Dell EMC PowerEdge Servers running the supported iSM version and also triggers discovery of these servers.
Set to Scalable Feature (Licensed)	If the detailed feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the detailed feature to the scalable feature for this monitoring method. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set to Detailed Feature (Licensed)	If the scalable feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the scalable feature to the detailed feature for this monitoring method. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set as Preferred Monitoring Method (Licensed)	Enables the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature as the preferred monitoring method for your Dell EMC Servers and Rack Workstations, when these devices are monitored through both, the Dell EMC Server and Rack Workstation Monitoring feature and Dell EMC Server and Rack Workstation Monitoring (Licensed) feature. For more information, see **Feature Management Tasks** in the *Dell EMC OpenManage Integration Version 7.1 for Microsoft System Center Operations Manager User's Guide*.
Enable Event Auto-Resolution	Enables the Event Auto-Resolution feature.
Disable Event Auto-Resolution	Disables the Event Auto-Resolution feature.
Associate Run-As Account	This task associates the Run As Account used for the SMASH discovery with all Dell Server objects, required for health

Tasks	Description
	monitoring. For more information, see the Associate Run As-Account task.
Remove Monitoring Feature (Licensed)	Removes the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. ⓘ NOTE: **The Refresh dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.**
Refresh Node Count	Updates the node count of servers monitored using this feature.

Dell EMC Chassis Monitoring feature

The Dell EMC chassis monitoring feature supports discovery and monitoring of Dell EMC Chassis Management Controller/OpenManage Enterprise Modular (CMC/OME-M) on PowerEdge MX7000, PowerEdge FX2/ FX2s chassis, PowerEdge VRTX chassis, PowerEdge M1000E chassis, and Dell OEM Ready chassis using:

- SNMP and/or WS-MAN protocol
- RedFish

Dell EMC Chassis monitoring feature also supports Detailed monitoring of individual chassis components in the supported Operations Manager.

Management Packs

The following table lists the required management packs for the Dell EMC chassis monitoring feature:

Table 20. Required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
Dell EMC Chassis Monitoring	**Library** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Library **Monitored Management Packs** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Chassis Monitoring	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp **Monitored Management Packs** • Dell.CMC.SDK.mp • Dell.Model.CMC.mp • Dell.CMC.Sync.mp • Dell.View.SDKCMC.mp

Configuration prerequisites

- Ensure that SNMP ports on firewall are enabled.
- Ensure that Dell Device Helper is installed.

- Ensure that there is WS-MAN (WS-Management) connectivity between the Management Server and the Managed Node.

Dell EMC Chassis Monitoring requirements

- For slot discovery and correlation to work; ensure that you have Dell Device Helper utility installed.
- To monitor Chassis controller, IO Module, IO Module Group, Power Supply, and Power Supply Group components.
- To monitor the health of Chassis devices, associate the community string **Run As account** with the **SNMP Monitoring Account** with the target as **Dell Modular Chassis** class or respective Chassis object (if you have different Run As accounts for different Chassis devices).
- To discover Chassis Slots and Chassis Slot Summary for Dell EMC Chassis Management Controller/OpenManage Enterprise Modular (CMC/OME-M); create **Run As Accounts** and associate it to the profiles — **Dell CMC Login Account** Run As Profiles. Also, enable the **CMC Slot Discovery** from the Operations Manager console. For more information, see Configuring Chassis Management Controller feature for Correlating Server Modules with Chassis Slot Summary.
- To perform Chassis Detailed monitoring; create **Run As Accounts** with WS-MAN credentials required for accessing the Dell EMC CMC/OME-Ms, and associate it to the profiles — **Dell CMC Login Account** Run As Profiles.

ⓘ **NOTE:**

- If you are using AD domain credentials for Dell EMC CMC/OME-M, then, enter the credentials in the following format: `username@domainname.com`

Configuring Dell EMC Chassis Management Controller/ OpenManage Enterprise Modular (CMC/OME-M) feature for correlating Server Modules with the Chassis Slot summary

To configure Dell EMC Chassis Management Controller/OpenManage Enterprise Modular (CMC/OME-M) feature for correlating server modules, create **Run As Accounts** and associate it to Run As Profiles to populate chassis slot summary.

1   Create a **Run As Account** of type Simple Authentication that has privileges to connect to the CMC/OME-M on the chassis. Also, use the **Basic** or **Digest** Run As Account types for configuring the user credentials.
2   Select the **More Secure** or **Less Secure** option in the **Run As Account** configuration, so that you can selectively distribute the configuration to specific management servers.

   For information about creating a **Run As Account** of type Simple Authentication, see the "Creating A Simple Authentication Run As Account" section of *Dell EMC OpenManage Integration version 7.1 for Microsoft System Center for Operations Manager User's Guide* at **Dell.com/OMConnectionsEnterpriseSystemsManagement**.

   ⓘ **NOTE: Add the Server Management Action account to the Operations Manager administrator group.**
3   Associate the created Run As Accounts with the **Dell CMC Login Account** profile and select the appropriate class, group, or object on which you can configure the profile.

   - To enable slot summary discovery for CMC/OME-M, override the enable property to **True** in **Dell CMC Slot Discovery**. It is disabled by default.

   ⓘ **NOTE: After the slot discovery, if you remove the link between Run As Account with Run As Profile, or disable the slot-discovery workflow, the discovered slots remain with old data.**

Feature Management tasks

The following table lists the Dell EMC Chassis monitoring tasks available on the **Dell EMC Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the Dell EMC Chassis monitoring feature.

ⓘ	**NOTE:** In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.
ⓘ	**NOTE:** Wait for a task to complete (view the state update change in the dashboard) before launching another task using the Dell EMC Feature Management Dashboard.

Table 21. Feature Management tasks

Tasks	Description
Set to Scalable Monitoring	If the Detailed feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the detailed feature to the scalable feature. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set to Detailed Monitoring	If the scalable feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the scalable feature to the detailed feature.
Refresh Node Count	Updates the node count.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. ⓘ **NOTE: The Refresh dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.**

Dell EMC Chassis Modular Server Correlation Feature

Chassis Modular Server Correlation feature supports:

- Correlation of discovered Modular Servers using the licensed or license-free monitoring feature with Chassis slots.

  ⓘ **NOTE: Dell EMC Chassis Management Controller/OpenManage Enterprise Modular (CMC/OME-M) slot discovery is disabled by default. Hence, enable CMC/OME-M slot discovery for the correlation feature to work.**

- Correlation of Chassis Shared Storage components with Dell EMC PowerEdge Servers.

  ⓘ **NOTE: Imports Dell EMC Chassis detailed monitoring for the correlation of chassis shared components with Dell EMC PowerEdge Servers.**

Management Packs

After the Dell EMC Server Management Pack management packs are successfully imported, the required management packs should appear in the **Administration** pane of the Operations Manager console. For more information, see Importing Management Packs into the Operations Manager.

Table 22. Dell EMC Chassis Modular Server Correlation monitoring feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
Dell EMC Chassis Modular Server Correlation	**Library**	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp

Feature	Default Location of Management Packs	Required Management Packs
	%PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Library **Management Pack** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite \7.1\ChassisModular ServerCorrelation	**Management Pack** • Dell.ChassisModularServer.Correlation.mp

Management Server (MS) requirements

Chassis Modular Server Correlation monitoring requirements

Chassis Blade correlation in distributed Operations Manager environment

To enable the proxy agent:

1 In the Operations Manager console, click **Administration**.
2 In the **Administration** pane, expand **Administration** > **Device Management** > **Management Servers.**
3 Select the management server where you have discovered the chassis devices.
4 Right-click and select **Properties**.
5 In **Management Server Properties**, click **Security**.
6 Select **Allow this server to act as a proxy and discover managed objects on other computers**.
7 Click **OK**.

Feature Management tasks

The following table lists the Dell EMC Chassis Modular Server Correlation feature tasks available on the **Dell EMC Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the Dell EMC Chassis Modular Server Correlation monitoring feature.

ⓘ NOTE: In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.

ⓘ NOTE: Wait for a task to complete (view the state update change in the dashboard) before launching another task using the Dell EMC Feature Management Dashboard.

Table 23. Feature Management tasks

Tasks	Description
Refresh Node Count	Update the node count.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. ⓘ NOTE: The Refresh dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.

Tasks	Description
Remove Chassis Modular Server Correlation Feature	Removes the Dell EMC Chassis modular server correlation feature
Upgrade Chassis Modular Server Correlation Feature	Upgrades to the latest version of the Dell EMC Chassis modular server correlation feature.

Dell EMC Network Switch monitoring feature

The Dell EMC Network Switch monitoring feature supports discovery and monitoring of the network switches including M-Series, Z-Series, N-Series, and S-Series switches. In the network switch monitoring feature, SNMP based communication is performed.

The Dell EMC Network Switch monitoring feature also supports detailed level of monitoring of individual switch components in the supported Operations Manager.

Management Packs

The following table lists the required management packs for the Dell EMC Network Switch monitoring feature:

Table 24. Required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
Dell EMC Network Switch Monitoring	**Library** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\Library **Monitored Management Packs** %PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1\NetworkSwitch Monitoring	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp **Monitored Management Packs** • Dell.NetworkSwitch.mp • Dell.View.NetworkSwitch.mp

Feature Management tasks

The following table lists the Dell EMC Network Switch monitoring tasks available on the **Dell EMC Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the network switch monitoring feature.

ⓘ **NOTE:** In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when Dell EMC Feature Management Dashboard reimports all the dependent management packs that are already imported while importing a monitoring feature.

ⓘ **NOTE:** Wait for a task to complete (view the state update change in the dashboard) before launching another task using the Dell EMC Feature Management Dashboard.

Table 25. Feature Management tasks

Tasks	Description
Refresh Node Count	Updates the node count.
Refresh Dashboard	Updates the **Dell EMC Feature Management Dashboard**. ⓘ NOTE: **The Refresh dashboard task may not update the dashboard immediately; it might take a few minutes to update the dashboard contents.**
Set to Scalable Monitoring	If the Detailed feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the detailed feature to the scalable feature. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.
Set to Detailed Monitoring	If the scalable feature is running on the system, the **Dell EMC Feature Management Dashboard** switches from the scalable feature to the detailed feature. On upgrading from the previous version, run this task to use the latest version for this monitoring feature.

Troubleshooting

The following chapter provides information for troubleshooting installation related errors.

Topics:

Connection lost between OMIMSSC appliance and Operations Manager console

When you restart the server in which OMIMSSC is installed, connectivity is lost between the OMIMSSC appliance and Operations Manager console. This is because the execution policy of the Operations Manager console for the user is not active. Log in to the Operations Manager console server using the Operations Manager console user account to make the execution policy active. However, after login, the connection is not restored until the following steps are completed.

To set the PowerShell execution policy:

1   Set PowerShell execution policy for local system as **RemoteSigned** and for the Operations Manager console Account as **Unrestricted**. For information on policy settings, refer the following MSDN articles:

   - **PowerShell Execution policy**: technet.microsoft.com/en-us/library/hh847748.aspx
   - **PowerShell Group Policy**: technet.microsoft.com/library/jj149004

2   Once the execution policy is set, restart the Operations Manager console server.

Error message while accessing Dell EMC OMIMSSC admin portal through Mozilla Firefox browser

When accessing the Dell EMC OMIMSSC admin portal by using Mozilla Firefox browser, the following warning message: "Secure Connection Failed" is displayed.

As a workaround, delete the certificate created from a previous entry of the admin portal in the browser.

Failure to connect to OMIMSSC Appliance

After installing OMIMSSC for Operations Manager environment, on clicking the OMIMSSC appliance icon the following error is displayed: Connection to server failed.

As a workaround, do the following:

- Add the Appliance IP, and FQDN as a trusted site.
- Add the Appliance IP and FQDN in **Forward Lookup Zones** and **Reverse Lookup Zones** in DNS.
- Check if there are any error messages in **C:\ProgramData\VMMLogs\AdminConsole** file.

Test Connection fails between Dell EMC OMIMSSC appliance and Operation Manager console

If the usernames are same and passwords are different for the domain user account and the local user account, then test connectivity between the Operations Manager console and the appliance fails.

For example,

Domain user account: domain\user1, pwd1

Local user account: user1, Pwd2

When user tries to enroll with the above domain user account, test connectivity fails.

Workaround: As a workaround, use different usernames for the domain user and local user accounts or use a single user account as local user during the Operations Manager enrollment in appliance.

IP address not assigned to OMIMSSC appliance

After creating and starting the Appliance, the IP address is not assigned or displayed on the black console.

As a workaround, check if the virtual switch is mapped to a physical switch, configured correctly, and then connect to OMIMSSC Appliance.

Appliance discovery job stuck in progress state

The device discovery job that is triggered gets stuck in the running task list for more than 5 hours in the OMIMSSC Appliance.

As a workaround, create and run a new job for the device discovery with same set of IP addresses.

Unable to launch Dell EMC OMIMSSC in the Operations Manager Console

After enrollment, if the **Dell EMC OpenManage Integration Dashboard** is not loading in the Operations Manager or if there is any change in the OMIMSSC Appliance IP.

As a workaround, update the OMIMSSC appliance IP under Unit monitors:

1. Log in into the Operations Manager console.
2. Click **Authoring** on the lower left of the pane.
3. Select **Authoring** > **Management Pack Objects** > **Monitors**.
4. In the **Look for** field, search for **Dell EMC SDK Override Appliance IP** under **Management Sever**.
5. Right click **Dell EMC SDK Override Appliance IP** and select **Override** > **Override the Monitor** > **For all objects of class**.

The **Override properties** wizard is displayed.

6   Select **Dell EMC Appliance IP** under parameter name. Update the **Override value** and click **OK**.

> ⓘ NOTE: Ensure that you do not select any other override parameters.

Discovery and monitoring of the Dell EMC device fail after restarting the Dell EMC OMIMSSC

When OMIMSSC restarts, the connectivity between the Operations Manager and the OMIMSSC Appliance is lost. Once the Appliance is started, then all the discovery and monitoring of the Dell EMC device is restored after the next discovery and monitoring cycle respectively.

> ⓘ NOTE: The default discovery and the monitoring cycle is 24 hours.

If you want to start the discovery and monitoring of the Dell EMC device before the 24 hours cycle, you can change the override values.

To change the override values, do the following:

- Log in into the Dell EMC OMIMSSC.
- Select **Profiles and Configuration** > **Configuration**.
- Click **Edit** tab and select the device to edit the override value.
- In the discovery interval column, edit the override value and click **Apply**.
- The discovery is triggered again immediately after changing the override values.
- (Optional) you can view the applied changes by going to the **Jobs and Logs Center** > **Scheduled** jobs.

Event ID 33333: Data Access Layer rejected retry on SqlError

Warning event with the event id 33333 is generated on Management server when iSM Management Pack tries to discover Proxy Agents. To suppress this event, you need to disable the iSM discovery that is targeted on proxy agents.
To disable the iSM discovery that is run on proxy agent and to suppress the event ID 33333 from getting regenerated, perform the following steps:

1   Log in into the Operations Manager console.
2   On the lower left pane, select **Authoring** > **Management Pack Objects** > **Object Discoveries**.
3   In the **Look for** field, search for **iSM**.
4   Select **Discovered type: Dell Sever** > **Dell Sever Discovery**.
5   Right click **Dell Sever Discovery** and select **Overrides** > **Override the Object Discovery** > **For a Group**.
    The **Select Object** wizard is displayed.
6   Select the **DellProxyMSGroup** and Click **OK**.

Dell EMC Feature Management Dashboard does not populate

In a distributed setup, the management server where the Dell EMC Server Management Pack is installed first, is selected to host all feature management activities such as discoveries, alerts, and tasks. The management server on which the Dell EMC Server Management Pack is installed first populates the **Dell EMC Feature Management Dashboard**. However, if you have manually imported the Feature Monitoring management pack without running the installer on the management server, the Feature Management Pack host is not selected and hence, the **Dell EMC Feature Management Dashboard** does not populate.

To populate the **Dell EMC Feature Management Dashboard**:

1   In the Operations Manager console, click **Authoring**.

2   In **Authoring**, expand **Management Pack Objects**.

3   Click **Object Discoveries**.

4   In the **Look for:** field, search **Dell Feature Management Host Discovery**.

5   Right-click **Dell Feature Management Host Discovery** and select **Overrides** > **Override the Object Discovery** > **For all objects of class: Dell Feature Management Host Discovery**

6   To run the feature management activities, select **FmpHostFqdn** and set the override value to FQDN of the management server.

Feature Management Dashboard task fails

Performing upgrade task in **Feature Management Dashboard** can result in data loss; for example, if there are any dependencies or associations on the monitoring feature being modified, the upgrade task fails with the appropriate message.

⚠️ | **CAUTION: Overriding task parameters may result in management pack or operational data loss.**

1   Launch Operations Manager console and click **Monitoring**.

2   In the **Monitoring** pane, browse to **Dell** > **Feature Management Dashboard.**

Feature Management Dashboard displays the list of management packs present in Operations Manager and the management pack version to which you can upgrade.

3   Select the monitoring feature.

4   Under **Tasks**, expand **Dell Monitoring Feature Tasks**.

5   Click the upgrade monitoring task.

For example, to upgrade **Chassis Monitoring** feature, click **Upgrade Chassis Monitoring Feature** under **Dell Monitoring Feature Tasks**.

6   On the **Run Task — Upgrade Monitoring Feature** screen, click **Override**.

Override Task Parameters are displayed.

7   From the drop-down menu in the **New Value** column, change the value of **AutoResolve Warnings/Errors** to **True**.

8   Click **Override**.

9   Click **Run** to run the task.

Feature Management alerts

Table 26. Feature Management alerts

Alert Text	Alert State	Cause	Resolution
Dell FMP: Dell Device Helper Utility is either not present or incompatible with the Dell EMC Server and Rack Monitoring (Licensed) Management Pack.	Critical	The required Dell Device Helper Utility version was not found, or the Dell Device Helper Utility is corrupted. A version higher than the required Dell Device Helper Utility version was found. A version lower than the required Dell Device Helper Utility version was found.	Run the Dell EMC Server Management Pack Suite version 7.1 installer on the management server. Use the **Repair** option in the installer. For more information, see Using Repair option in the Dell EMC Server Management pack suite

Health Service of the Feature Management Host Server is nonfunctional

In a distributed setup, the management server where the Dell EMC Server Management Pack is installed first, is selected to host all feature management activities such as discoveries, alerts and tasks. If the selected management server has stopped functioning, the executed

Feature Management task fails, and **Dell EMC Feature Management Dashboard** is not populated. If such a selected management server is corrupt or health service is not obtained, decommission the management server to remove stale objects. For more information, see **technet.microsoft.com/en-us/library/hh456439.aspx**.

To populate the **Dell EMC Feature Management Dashboard**:

1 In the Operations Manager console, click **Authoring**.
2 In **Authoring**, expand **Management Pack Objects**.
3 Click **Object Discoveries**.
4 In the **Look for:** field, search **Dell Feature Management Host Discovery**.
5 Right-click **Dell Feature Management Host Discovery** and select **Overrides** > **Override the Object Discovery** > **For all objects of class: Dell Feature Management Host Discovery**.
6 Select **FmpHostFqdn** and set the override value to FQDN of the management server where the feature management activities have to run.

Appendix

Installing Web Services Management (WS-Man) and SMASH Device template

To install the WS-Man and SMASH Device template:

1. Download the SMASH Library MPB file—WS-ManagementAndSMASHDeviceDiscoveryTemplate.msi from **www.microsoft.com/en-in/download/confirmation.aspx?id=29266**to a temporary location.
2. Run the .msi to copy the SMASH Library MPB file to the user/default location.
3. Launch the Operations Manager console.
4. From the navigation pane, click **Administration**.
5. Expand **Administration**, click **Management Packs** and select **Import Management Packs** on the right pane.
6. Click **Add > Add from disk**.
7. Type the location details, or navigate to the location where you downloaded the Microsoft's SMASH Library MPB file.
8. Select the MPB file and click **Open**.

   The **Import Management Packs screen** is displayed with the template in the **Import List**.
9. Click **Install.**

Manual cleanup for the Operations Manager console that is unreachable during the de-enrollment

During de-enrollment, if the Operations Manager console is unreachable, and you forcefully de-enroll, then the installed management packs are not cleaned up from the unreachable console. To perform the complete cleanup for Operations Manager, perform the following steps:

1. Launch the Operations Manager console.
2. Select **Authoring** from the lower left pane.
3. Click **Groups** from the left **Authoring** pane to view the list of the groups.
4. Select the **DellProxyMSGroup** from the list of groups. Check for any explicit members added in the group and delete. Right click on the group and click **Delete**.

   The **DellProxyMSGroup** is deleted.
5. Select **Administration** from the lower left pane.
6. If you are using Operations Manager 2016, select **Administration** > **Management Packs** > **Installed Management Packs** from the left pane to view the list of the installed management packs and if you are using Operations Manager 2012R2, select **Administration** > **Management packs** to view the list of management packs.
7. Select the management packs in the following order (as applicable) and right click on each and select delete to delete the Management Pack from the console:
   - Dell EMC Chassis Modular Server Correlation Utility
   - Dell EMC Managed Server iSM Management Pack
   - Dell EMC Server OpenManage Integration Dashboard View
   - Dell EMC Windows Server (Scalable Edition)
   - Dell EMC Feature Management TaskRefresher
   - Dell EMC Feature Management Override

- Dell EMC Managed Server Model Library
- Dell EMC Group Creation
- Dell EMC Server Operations Library
- Dell EMC Feature Management
- Dell EMC Chassis CMC View
- Dell EMC Chassis CMC Model
- Dell EMC CMC Operations Library
- Dell EMC Server View
- Dell EMC SDK ApplianceIP Override
- Dell EMC Server Model
- Dell EMC Server View Library
- Dell EMC Server Model Library
- Dell EMC CMC Model
- Dell EMC AgentResource 0 Override
- Dell EMC NetworkSwitch View
- Dell EMC NetworkSwitch
- Dell EMC PerformanceThreshold Monitor Override
- Dell EMC Base Hardware Library
- Dell EMC Operations Library Common
- Dell EMC Appliance Information Management Pack
- Dell EMC Configuration Management Pack

All the Management packs and overrides are deleted.

8   Delete the **Dell Management pack** folder that is present in local drive by following the path **%PROGRAMFILES%\Dell Management Packs\Server Mgmt Suite\7.1**.

9   Delete the **Dell Server Management Pack Suites** Registry entry from the **Registry Editor** by performing the following:
   - Select **HKEY_LOCAL_MACHINE** > **SOFTWARE** > **Dell** > **Dell Server Management Pack Suites** and right click to delete the Registry entry.

Associate Run As Account task—Dell EMC Server and Rack Workstation Monitoring (Licensed) feature

Associate Run As Account task associates the Run As Account used for SMASH discovery with all Dell Server objects, required for health monitoring. This task is available as an option for performing object-level association.

⚠ **WARNING: Perform the Associate Run As Account task only if necessary. This task affects the configuration of all Dell Server objects. Dell Server Run As Account Association unit monitor automatically performs the object-level association.**

Accessing documents from the Dell EMC support site

You can access the required documents using the following links:

- For Dell EMC Enterprise Systems Management documents — www.dell.com/esmmanuals
- For Dell EMC OpenManage documents — www.dell.com/openmanagemanuals
- For Dell EMC Remote Enterprise Systems Management documents — www.dell.com/esmmanuals
- For iDRAC and Dell Lifecycle Controller documents — www.dell.com/idracmanuals
- For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/esmmanuals
- For Dell EMC Serviceability Tools documents — www.dell.com/serviceabilitytools
- a   Go to www.dell.com/support.

   b   Click **Browse all products**.

   c   From **All products** page, click **Software**, and then click the required link from the following:

   - **Analytics**
   - **Client Systems Management**
   - **Enterprise Applications**
   - **Enterprise Systems Management**
   - **Public Sector Solutions**
   - **Utilities**
   - **Mainframe**
   - **Serviceability Tools**
   - **Virtualization Solutions**
   - **Operating Systems**
   - **Support**

   d   To view a document, 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.