Dell EMC Server Management Pack Suite Version 7.0 for Microsoft System Center Operations Manager Installation Guide

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Notes, cautions, and warnings

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

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

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

2017 - 07

Rev. A00

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Overview

This guide provides information to install, configure, and use Dell EMC Server Management Pack Suite version 7.0 for Microsoft System Center Operations Manager.

The integration of Dell EMC Server Management Pack Suite version 7.0 with Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, or Microsoft System Center Operations Manager 2007 R2 environment allows 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, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, and Microsoft System Center Operations Manager 2007 R2.

The Management Pack Suite Installer, Installation Guide, and Release Notes files are packaged in a self-extracting executable Dell_EMC_Server_Management_Pack_Suite_v7.0_Axx.exe (where xx is the Dell EMC Server Management Pack Suite version 7.0 release number) file. You can download the executable from **dell.com/support**. Before installing this version of Dell EMC Server Management Pack Suite for Microsoft System Center Operations Manager, 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 is also posted to the Systems Management documentation page at **dell.com/OMConnectionsEnterpriseSystemsManagement**.

Terms used in this document

Table 1. Terms used in this document

Term	Refers to
OpsMgr	Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, and Microsoft System Center Operations Manager 2007 R2, unless otherwise specified.
OpsMgr 2016	Microsoft System Center 2016 Operations Manager, unless otherwise specified.
OpsMgr 2012	Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, and Microsoft System Center 2012 Operations Manager, unless otherwise specified.
Dell Remote Access Controller (DRAC)	DRAC of Dell servers, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified.
Integrated Dell Remote Access Controllers (iDRAC)	iDRAC of Dell servers, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified.
Chassis	Chassis Management Controller (CMC), unless otherwise specified.
Servers	PowerEdge servers, PowerVault monolithic and modular servers, supported Rack Workstations, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified.

Term	Refers to
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.
Servers (iSM)	PowerEdge servers and Precision Rack Workstations discovered using the SCOM agent through iSM.
Servers and Rack Workstation monitoring	PowerEdge servers, PowerVault monolithic and modular servers, supported Rack Workstations, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified. This is a license-free feature.
Servers and Rack Workstation monitoring (Licensed)	PowerEdge servers, PowerVault monolithic and modular servers, supported Rack Workstations, Dell branded OEM servers, and Dell OEM Ready servers, unless otherwise specified. This is a license based feature.

Monitoring Features supported by Dell EMC Server Management Pack Suite

Table 2. Dell EMC Server Management Pack Suite Features

Feature	Description
Servers and Rack Workstations Monitoring	Monitoring and inventory of PowerEdge servers, PowerVault storage servers, Dell OEM Ready servers, and supported Dell Precision Racks. This is a license-free feature.
Servers and Rack Workstations Monitoring (Licensed)	Monitoring and inventory of PowerEdge servers, PowerVault storage servers, supported Dell Precision Racks, Dell branded OEM servers, and Dell OEM Ready servers through iDRAC or iSM as supported. This is a licensed feature.
DRAC Monitoring	Monitoring and inventory of iDRAC devices.
Chassis Monitoring	Monitoring and inventory of CMC devices, and OEM Ready chassis.
Chassis Modular Server Correlation	Correlation of Dell servers within a chassis, and OEM Ready chassis discovered using either the Server and Rack Workstation Monitoring or Server and Rack Workstation Monitoring (Licensed) feature.

Supported OpsMgr versions for Monitoring Features

Table 3. Supported OpsMgr versions for Monitoring Features

Monitoring Features	OpsMgr	
	2016/2012 R2/ 2012 SP1/ 2012	2007 R2
Servers and Rack Workstations Monitoring	✅	✅
Servers and Rack Workstations Monitoring (Licensed)	✅	❌
DRAC	✅	✅

Monitoring Features	OpsMgr	
	2016/2012 R2/ 2012 SP1/ 2012	2007 R2
Chassis		
Scalable	✅	✅
Detailed	✅	❌
Chassis Modular Server Correlation		
Chassis Modular Server Correlation	✅	✅
Chassis Shared Storage Component Correlation with Dell Modular Servers	✅	❌

Supported Dell hardware devices for the OpsMgr versions

Table 4. Supported Dell hardware devices for the OpsMgr versions

Dell Hardware Device	OpsMgr 2016/2012 R2/ 2012 SP1/ 2012	OpsMgr 2007 R2
PowerEdge M1000e	✅	✅
PowerEdge VRTX	✅	Supported only for: · Chassis Monitoring Feature – Scalable · Chassis Modular Server Correlation Monitoring Feature
PowerEdge FX2	✅	❌

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Installing Dell EMC Server Management Pack Suite

The topics in this section describe how to install, upgrade, and uninstall the Dell EMC Server Management Pack Suite.

Pre-requisites

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

- Install one of the following versions of OpsMgr:

  – 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

  – 2012 SP1—On systems running OpsMgr 2012 SP1, download, and apply the **Update Rollup 2 for OpsMgr 2012 SP1** provided in the Microsoft knowledge base article KB2826664. For more information, see **support.microsoft.com/kb/2802159**.

  – 2012

  – 2007 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 Installer

1. Download the **Dell_EMC_Server_Management_Pack_Suite_v7.0_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_Suite.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 \7.0**.

   The following are automatically imported into OpsMgr after the installation of Dell EMC Server Management Pack Suite:

- Server and Rack Workstation Monitoring feature
- Server and Rack Workstation Monitoring (Licensed) feature, if all the prerequisites are met
- Dell Feature Management Pack. The Feature Management Dashboard is displayed under **Monitoring → Dell** on the OpsMgr console. See the individual monitoring sections for importing the monitoring features.

> NOTE: The Server and Rack Workstation Monitoring (Licensed) feature requires the installer to run on all the management servers that are used to monitor the Dell servers. The installer registers the Dell Device Helper Utility (COM + application) on the management server. The default location of the Dell Device Helper Utility is C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Library.

> NOTE: The installer also extracts the management packs. To extract the management packs, run the installer on a system with the Windows client operating system.

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

Installing Dell EMC Server Management Pack Suite on multiple management servers

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

1. Run the **Dell_EMC_Server_Management_Pack_Suite.exe** on all the required management servers that are part of the resource pools used for the following monitoring features:
   a. Server and Rack Workstation Monitoring (Licensed)
   b. Chassis Detailed Monitoring
   c. Slot discovery in Chassis Scalable Monitoring

   > NOTE: Make sure that you have the Dell Device Helper utility installed, as workflows of Server and Rack Workstation Monitoring (Licensed) and Chassis Detailed monitoring features requires the Dell Device Helper utility.

2. Import the Management Packs using the **Feature Management Dashboard** or import the Management Packs using the OpsMgr Import Management Pack wizard on any of the management servers. OpsMgr automatically distributes the management packs to all the management servers.

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

   > NOTE: Trap destination is automatically configured for the Dell devices discovered and monitored through 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 Suite Version 7.0 for Microsoft System Center Operations Manager User's Guide.*

Upgrading Dell EMC Server Management Pack Suite from previous versions

You can upgrade to Dell EMC Server Management Pack Suite version 7.0 using the installer.

Upgrading from Dell Server Management Pack Suite version 6.3

The installer detects the features installed from Dell Server Management Pack Suite version 6.3, and automatically upgrades the Feature Management Pack to version 7.0.

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

Upgrading from version 6.2 and prior versions

Upgrade from the Dell Server Management Pack Suite version 6.2 or earlier versions to version 7.0 are not supported.

Upgrading from previous Operations Manager

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

Upgrading from OpsMgr 2012 R2 to OpsMgr 2016

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

Upgrading from OpsMgr 2012 SP1 to OpsMgr 2012 R2

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

Upgrading from OpsMgr 2012 to OpsMgr 2012 SP1

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

Upgrading from OpsMgr 2007 R2 to OpsMgr 2012

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

> NOTE: To make sure that the feature management workflows are functioning at an optimal level, restart the root management server after upgrading to OpsMgr 2012.

Using Repair option in the Installer

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_Suite.exe** file from the extracted location.
   The welcome screen for Dell EMC Server Management Pack Suite 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 Dell EMC Server Management Pack Suite

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

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Removing Dell EMC Server Management Pack Suite using the Installer

To remove Dell EMC Server Management Pack Suite using the installer:

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

   The welcome screen for Dell EMC Server Management Suite 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 Suite is removed.

   > **NOTE:**
   > - While uninstalling, the following message is displayed: `The following applications should be closed before continuing the installation: COM Surrogate` as the COM surrogate process is running the **DellDeviceHelper.DLL** in the background which should be closed. Select the **Automatically close applications and attempt to restart them after the setup is complete** option. Click **OK** to proceed with the uninstallation.
   > - Uninstallation of Dell EMC Server Management Pack Suite does not remove the Management Packs imported in the OpsMgr. To remove the Management Packs from the OpsMgr, see **technet.microsoft.com/en-us/library/cc974489.aspx**.

Uninstalling the Dell EMC Server Management Pack Suite using Windows Control Panel

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

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

Configuring OpsMgr to monitor Traps and Trap-Based Unit Monitors

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

1. Launch OpsMgr, 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 OpsMgr, 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 OpsMgr 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 OpsMgr at technet.microsoft.com.

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

Installing Monitoring Features

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

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

Importing Management Packs into OpsMgr

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

1. Launch the OpsMgr console.
2. From the navigation pane, click **Administration.**
3. Expand **Administration**, right-click **Management Packs**, and select **Import Management Packs.**
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 Suite**.

   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\7.0**.
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.**

Feature Management Dashboard

The **Feature Management Dashboard** provides facilities for the configuration of Dell EMC Server Management Pack Suite monitoring features to monitor the various Dell devices— Sleds, Dell Precision Racks, Dell Remote Access Controllers (DRAC), PowerEdge FX2, PowerEdge VRTX, PowerEdge M1000e, integrated DRAC (iDRAC), and Dell OEM servers.

- Server and Rack Workstation Monitoring Feature
- Server and Rack Workstation Monitoring (Licensed) Feature
- DRAC Monitoring Feature
- Chassis Monitoring Feature
- Chassis Modular Server Correlation Feature

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

Importing Monitoring Features using Feature Management Dashboard

Feature Management Dashboard allows you to view the available Dell EMC Server Management Pack Suite monitoring 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 OpsMgr 2012), the management server where the Dell EMC Server Management Pack Suite is installed first is selected to host all feature management activities.

To import the monitoring features:

1. Launch the OpsMgr console.
2. From the **Navigation** pane, click **Monitoring.**
3. Expand **Monitoring** → **Dell** → **Feature Management Dashboard.**
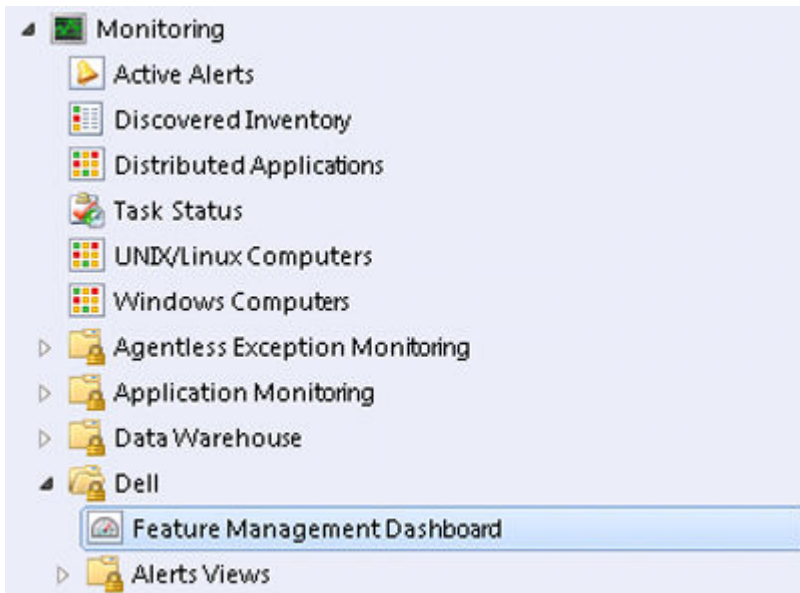
Figure 1. Monitoring pane

On the **Feature Management Dashboard** pane you can view the list of 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 2. Feature Management Dashboard

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

Figure 3. Dell 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**.

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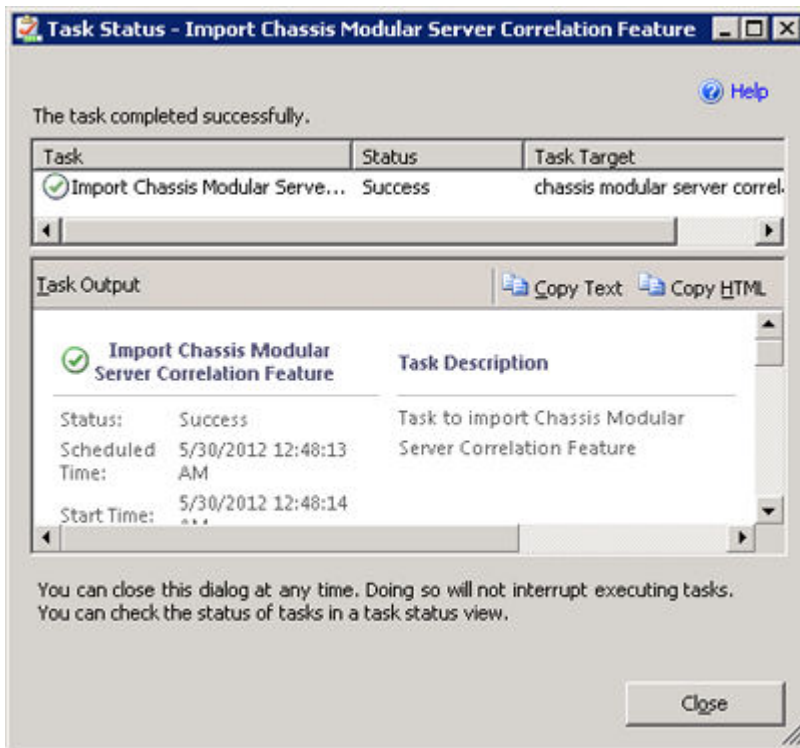
Figure 4. Task Status

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 Feature Management Dashboard.

Upgrading Monitoring Features using Feature Management Dashboard

1. Launch the OpsMgr console.
2. Click **Monitoring**.
3. Click **Dell → Feature Management Dashboard**.
4. Select the monitoring feature you want to upgrade.
5. Under the **Tasks** pane, expand **Dell 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 Feature Management Dashboard Task Fails.

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

   During the process of upgrading, all overrides; customization to discovery, monitors, and rules from previous versions of Dell Server Management Pack Suite are carried over to the Dell EMC Server Management Pack Suite version 7.0.

Table 5. Customizing Monitoring Features using Feature Management Dashboard—Scalable vs Detailed

Features	Scalable	Detailed
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,

Features	Scalable	Detailed
		storage controllers, disks, and volumes. BIOS information is also shown.
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.
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.
Chassis Modular Server Correlation	Correlate Modular servers with Chassis— view inventory and health from chassis up to components inside the Modular server.	Not Applicable.

Removing Monitoring Features using Dell Feature Management Dashboard

To remove the monitoring features, use the **Dell Feature Management Dashboard**. Before removing any of the monitoring features, close or resolve all open alerts. While removing a monitoring feature, the **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 OpsMgr, click **Monitoring**.
2. In the **Monitoring** pane, browse to **Dell → Feature Management Dashboard.**

   The **Feature Management Dashboard** pane displays the list of monitoring features present in the OpsMgr.
3. Select the monitoring feature you want to remove.
4. Under the **Tasks** pane, expand **Dell Monitoring Feature Tasks**.

   📝 **NOTE: In System Center Operations Manager 2007 R2, the Tasks pane is referred to as Actions pane.**
5. Click **Remove Feature** to remove the monitoring feature.

   For example, to remove **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** Feature Management Dashboard task fails**.**
8. Click **Close** after the task is complete.

📝 **NOTE: Performing Remove Monitoring Feature task in 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.**

4

Server and Rack Workstation Monitoring feature

Server 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 Monolithic servers
- PowerVault storage 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 on the supported OMSA versions, see *Dell EMC Server Management Pack Suite Version 7.0 for Microsoft System Center Operations Manager Release Notes.*

The Dell EMC Server Management Pack Suite installer automatically imports the Server and Rack Workstation monitoring scalable feature into the OpsMgr.

Management Packs

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

Table 6. Servers and Rack Workstations Monitoring Feature and their Management Packs

Feature	Default Location of Management Packs	Management Packs

Servers and Rack Workstations Monitoring	**Library** C:\Program Files\Dell Management Packs\Server Mgmt Suite \7.0\Library
	
	Scalable and Detailed Management Packs C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Server Monitoring
		Library
		• Dell.Connections.HardwareLibrary.mp
		• Dell.OperationsLibrary.Server.mp
		
		Scalable Feature
		• For 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 System Center Operations Manager (SCOM) agent to discover Dell devices.

Management Server (MS) requirements

Supported Operating Systems

Following lists the operating systems supported by OpsMgr for the management server:

- For OpsMgr 2016, see **technet.microsoft.com/en-us/library/dn997301%28v=sc.16%29.aspx**
- OpsMgr 2012 R2, OpsMgr 2012 SP1 and OpsMgr 2012, see **technet.microsoft.com/en-us/library/hh205990.aspx**.
- For OpsMgr 2007 R2, see **technet.microsoft.com/en-us/library/bb309428(en-us).aspx**.

Software requirements

Table 7. Prerequisites for Software

Software	Purpose
(Optional) DRAC tools from OpenManage Server Administrator (Server Administrator)	To inventory and monitor Dell server's 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 center using the OpsMgr 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 8. 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 Suite is installed, the Server and Rack Workstation Monitoring feature is auto-imported into OpsMgr 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 **Feature Management Dashboard**.
Server and Rack Workstations Monitoring feature is a license-free feature.

> **NOTE:** In the Event log, ignore the errors pertaining to reimporting of existing management packs under the error logs. These errors occur when 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 Feature Management Dashboard.

Table 9. Feature Management tasks

Tasks	Description
Import Server and Rack Workstation Monitoring Detailed Feature	Imports the detailed feature of Server and Rack Workstation Monitoring.
Import Server and Rack Workstation Monitoring Scalable Feature	Imports the scalable feature of Server and Rack Workstation Monitoring.
Enable Agent Proxying	This task enables the agent proxy.
Set as Preferred Monitoring Method	This task enables the Server and Rack Workstation Monitoring feature as the preferred monitoring method for your Server and Rack Workstations, when the Server and Rack Workstations in the setup are monitored through both; Server and Rack Workstations Monitoring feature and Server and Rack Workstations Monitoring (Licensed) feature. For more information, see **Feature Management Tasks** in the *Dell EMC Server Management Pack Suite Version 7.0 for Microsoft System Center Operations Manager User's Guide*.
Set to Scalable Feature	If the Detailed feature is running on the system, the **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.

Tasks	Description
Set to Detailed Feature	If the Scalable feature is running on the system, the **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 Server and Rack Workstations Scalable monitoring is in use.
Set Informational Alerts Off	Informational alerts are turned off when the Server and Rack Workstations Scalable monitoring is in use.
Refresh Dashboard	Updates the **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.
Remove Monitoring Feature	Removes the Server and Rack Workstations Monitoring feature.

Server and Rack Workstation Monitoring (Licensed) Feature

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 systems
- Dell Precision Racks
- Dell branded OEM servers
- Dell OEM Ready servers

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

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

This is a licensed feature.

For more information about monitoring servers through iDRAC using WS-MAN or Host OS, see the section Server and Rack Workstation Monitoring (Licensed) Feature in the *Dell EMC Server Management Pack Suite Version 7.0 for Microsoft System Center Operations Manager User's Guide.*

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

Dell EMC Server Management Pack Suite installer automatically imports the Server and Rack Workstation Monitoring (Licensed) feature if the prerequisites are met.

Management Packs

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

Table 10. Server and Rack Workstations Monitoring (Licensed) feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs

Server and Rack Workstation Monitoring (Licensed)	**Library** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Library **Scalable and Detailed Management Packs** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Server Monitoring	**Library**
		 • Dell.Connections.HardwareLibrary.mp
		 • Dell.OperationsLibrary.Common.mp
		
		 Scalable Feature
		 • For Servers or Rack Workstations discovered through iSM:
		
		    – Dell.ManagedServer.iSM.mp
		    – Dell.ManagedServer.Model.mp
		    – Dell.View.Server.mp

Feature	Default Location of Management Packs	Required Management Packs
		• For Servers or Rack Workstations discovered through iDRAC: – Dell.Model.Server.mp – Dell.OperationsLibrary.Server.mp – Dell.Server.OOB.mp – Dell.View.Server.mp **Detailed Feature** • For Servers or Rack Workstations discovered through iSM: – Dell.ManagedServer.iSM.Detailed.mp and all scalable management packs. • For Servers or Rack Workstations discovered through iDRAC: – Dell.Server.OOB.DetailedMonitoringOn.mp and all scalable management packs.

Configuration prerequisites

- Ensure that iSM is installed.

  - WMI feature is enabled for discovering devices through iSM using 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 11. Prerequisites for software

Software	Purpose
(Required) OpsMgr 2012 or later	Server and Rack Workstation Monitoring (Licensed) feature is available only on management servers running OpsMgr 2012 or later. **NOTE: If you are using OpsMgr 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	Server and Rack Workstation Monitoring (Licensed) feature requires SMASH library MPB from Microsoft to discover Dell servers. For more information, see Installing the WS-Management and SMASH Device Template.

Software	Purpose
(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 OpsMgr 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 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 using 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 using 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 7.0 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 Server and Rack Workstation Monitoring (Licensed) feature tasks available on the **Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the Server and Rack Workstation Monitoring (Licensed) feature.

NOTE:
Ensure that Microsoft SMASH Library (MPB) is installed before discovering a Dell 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 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 Feature Management Dashboard.

Table 12. Feature Management tasks

Tasks	Description
Import Scalable Feature	Imports the scalable feature of Server and Rack Workstation Monitoring (Licensed) feature.
Import Detailed Feature	Imports the detailed feature of Server and Rack Workstation Monitoring (Licensed) feature.
Enable Agent Proxying	Enables agent proxying for the Dell 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 **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 **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 Server and Rack Workstation Monitoring (Licensed) feature as the preferred monitoring method for your Dell Servers and Rack Workstations, when these devices are monitored through both, the Server and Rack Workstation Monitoring feature and Server and Rack Workstation Monitoring (Licensed) feature. For more information, see **Feature Management Tasks** in the *Dell EMC Server Management Pack Suite Version 7.0 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 monitoring. For more information, see the Associate Run As-Account task.
Remove Monitoring Feature (Licensed)	Removes the Server and Rack Workstation Monitoring (Licensed) feature.
Refresh Dashboard	Updates the **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.

DRAC Monitoring Feature

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 Suite management packs are successfully imported, the required management packs listed should appear in the **Administration** pane of the OpsMgr console. For more information, see Importing Management Packs into OpsMgr.

Table 13. DRAC monitoring feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
DRAC Monitoring	**Library** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Library **Management Packs** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Remote Access Monitoring	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp **Management Packs** • Dell.DRAC.OM07.mp—OpsMgr 2007 R2 • Dell.DRAC.OM12.mp—OpsMgr 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 14. 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 **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 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 Feature Management Dashboard.

Table 15. Feature Management tasks

Tasks	Description
Import DRAC Monitoring Feature	Enables the DRAC monitoring feature into the OpsMgr.
Upgrade DRAC Monitoring Feature	Upgrades to the latest version of the DRAC monitoring feature.
Refresh Dashboard	Updates the **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.
Remove DRAC Monitoring Feature	Removes the DRAC monitoring feature from the OpsMgr.

Chassis Monitoring Feature

The chassis monitoring feature supports discovery and monitoring of Chassis Management Controller (CMC) on PowerEdge FX2/FX2s chassis, PowerEdge VRTX chassis, PowerEdge M1000e chassis, and Dell OEM Ready chassis using SNMP or WS-MAN protocol.

Chassis monitoring feature also supports Detailed monitoring of individual chassis components in the supported OpsMgr.

Management Packs

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

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

Table 16. Required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
Chassis Monitoring	**Library** C:\Program Files\Dell Management Packs\Server Mgmt Suite \7.0\Library **Scalable and Detailed Management Packs** C:\Program Files\Dell Management Packs\Server Mgmt Suite \7.0\Chassis Monitoring	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp **Scalable Feature** • Dell.CMC.OM07.mp—OpsMgr 2007 R2 • Dell.CMC.OM12.mp—OpsMgr 2012 or later • Dell.Model.Server.mp • Dell.OperationsLibrary.CMC.mp • Dell.View.CMC.mp **Detailed Feature** • Dell.Chassis.Detailed.mp and all scalable management pack

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.

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; enable RACADM utility. RACADM utility is now required only to monitor the health of 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 CMC; 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 OpsMgr 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 CMCs, and associate it to the profiles — **Dell CMC Login Account** Run As Profiles.

> ✎ **NOTE:**
>
> - If you are using AD domain credentials for CMC, then, enter the credentials in the following format: `username@domainname.com`

Configuring Chassis Management Controller feature for correlating Server Modules with Chassis Slot summary

To configure CMC 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 module 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 on creating a **Run As Account** of type Simple Authentication, see the "Creating A Simple Authentication Run As Account" section of *Dell EMC Server Management Pack Suite Version 7.0 for Microsoft System Center Operations Manager User's Guide* at **dell.com/OMConnectionsEnterpriseSystemsManagement**.

   > ✎ **NOTE: Add the Server Management Action account to the OpsMgr 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, 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 Chassis monitoring tasks available on the **Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the 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 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 Feature Management Dashboard.**

Table 17. Feature Management tasks

Tasks	Description
Import Chassis Monitoring Scalable Feature	Imports the chassis monitoring scalable feature.
Import Chassis Monitoring Detailed Feature	Imports the chassis monitoring detailed feature.

Tasks	Description
Set to Chassis Scalable Feature	If the Detailed feature is running on the system, the **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 Chassis Detailed Feature	If the scalable feature is running on the system, the **Feature Management Dashboard** switches from the scalable feature to the detailed feature.
Remove Chassis Monitoring Feature	Removes the chassis monitoring feature (both scalable and detailed features).
Refresh Node Count	Updates the node count.
Refresh Dashboard	Updates the **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.**

Chassis Modular Server Correlation Feature

Chassis Modular Server Correlation feature supports:

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

   > **NOTE: CMC slot discovery is disabled by default. Hence, enable CMC slot discovery for the correlation feature to work.**

- Correlation of Chassis Shared Storage components with Dell servers.

   > **NOTE: Imports Chassis detailed monitoring for the correlation of chassis shared components with Dell servers.**

Management Packs

After the Dell EMC Server Management Pack Suite management packs are successfully imported, the required management packs should appear in the **Administration** pane of the OpsMgr console. For more information, see <u>Importing Management Packs into OpsMgr.</u>

Table 18. Chassis Modular Server Correlation monitoring feature and required Management Packs

Feature	Default Location of Management Packs	Required Management Packs
Chassis Modular Server Correlation	**Library** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\Library **Management Pack** C:\Program Files\Dell Management Packs\Server Mgmt Suite\7.0\ChassisModularServerCorrelation	**Library** • Dell.Connections.HardwareLibrary.mp • Dell.OperationsLibrary.Common.mp **Management Pack** • Dell.ChassisModularServer.Correlation.mp

Management Server (MS) requirements

Chassis Modular Server Correlation monitoring requirements

Chassis Blade correlation in distributed OpsMgr environment

In a distributed OpsMgr 2007 R2 environment, enable server proxy on the management server where you discover and monitor the CMC.

To enable the proxy agent:

1. In the OpsMgr 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 Chassis Modular Server Correlation feature tasks available on the **Feature Management Dashboard**. Some tasks listed in the Feature Management tasks table appear only after you have imported the 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 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 Feature Management Dashboard.**

Table 19. Feature Management tasks

Tasks	Description
Import Chassis Modular Server Correlation Feature	Enables the chassis modular server correlation feature.
Upgrade Chassis Modular Server Correlation Feature	Upgrades to the latest version of the chassis modular server correlation feature.
Remove Chassis Modular Server Correlation Feature	Removes the chassis modular server correlation feature.
Refresh Dashboard	Updates the **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.**

Troubleshooting

The following chapter provides information for troubleshooting installation related errors.

Feature Management Dashboard does not populate

In a distributed setup, the management server where the Dell EMC Server Management Pack Suite 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 Suite is installed first populates the **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 **Feature Management Dashboard** does not populate.

To populate the **Feature Management Dashboard**:

1. In the OpsMgr 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.

> NOTE: To schedule the feature management workflows in OpsMgr 2007 R2 clustered environment; override the FmpHostFqdn value to the cluster's FQDN.

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 OpsMgr 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 OpsMgr 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 20. Feature Management alerts

Alert Text	Alert State	Cause	Resolution
Dell FMP: Dell Device Helper Utility is either not present or incompatible with the Dell 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 7.0 installer on the management server. Use the **Repair** option in the installer. For more information, see Using the Repair option in the Installer.

Health Service of the Feature Management Host Server is nonfunctional

In a distributed setup, the management server where the Dell EMC Server Management Pack Suite 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 **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 **Feature Management Dashboard**:

1. In the OpsMgr 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 OpsMgr console.
4. From the navigation pane, click **Administration**.
5. Expand **Administration**, right-click **Management Packs**, and select **Import Management Packs**.
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.**

Associate Run As Account task — 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 in one of the following ways:

- Using the following links:

  - For all Dell EMC Enterprise Systems Management documents — **Dell.com/SoftwareSecurityManuals**
  - For Dell EMC OpenManage documents — **Dell.com/OpenManageManuals**
  - For Dell EMC Remote Enterprise Systems Management documents — **Dell.com/esmmanuals**
  - For iDRAC and Dell EMC Lifecycle Controller documents — **Dell.com/idracmanuals**
  - For Dell EMC OpenManage Connections Enterprise Systems Management documents — **Dell.com/OMConnectionsEnterpriseSystemsManagement**
  - For Dell EMC Serviceability Tools documents — **Dell.com/ServiceabilityTools**
  - For Client Command Suite Systems Management documents — **Dell.com/DellClientCommandSuiteManuals**
- From the Dell EMC Support site:

  a. Go to **Dell.com/Support/Home**.

  b. Under **Select a product** section, click **Software & Security**.

  c. In the **Software & Security** group box, click the required link from the following:

    - **Enterprise Systems Management**
    - **Remote Enterprise Systems Management**
    - **Serviceability Tools**
    - **Dell Client Command Suite**
    - **Connections Client Systems Management**

  d. To view a document, click the required product version.
- Using search engines:

  - Type the name and version of the document in the search box.