

**Dell Server Management Pack Suite Version 5.1.1 For
CPS
Installation Guide**



Notes, Cautions, and Warnings



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



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.

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Overview

This guide provides information on software prerequisites and requirements to install and uninstall the Dell Server Management Pack Suite version 5.1.1 for CPS with Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, and Microsoft System Center 2012 Operations Manager.

The integration of the Dell Server Management Pack Suite version 5.1.1 for CPS with Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, or Microsoft System Center 2012 Operations Manager, allows you to manage, monitor, and ensure the availability of your Dell devices.

 **CAUTION:** Perform the procedures in this document only if you have proper knowledge and experience in using Microsoft Windows operating system and the Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, and Microsoft System Center 2012 Operations Manager, to avoid data corruption and/or data loss.

 **NOTE:** The term OpsMgr in this document is used to refer Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, and Microsoft System Center 2012 Operations Manager, unless otherwise specified.

The Management Pack Suite Installer, Installation Guide, and Readme files are packaged in a self-extracting executable **Dell_Server_Management_Pack_Suite_v5.1.1_A00.exe** file.

Read the Management Pack's readme file, which contains the latest information about software and management server requirements, in addition to information about known issues.

Monitoring Features Supported By Dell Server Management Pack Suite

The following table lists the monitoring features supported by this version of Dell Server Management Pack suite.

Table 1. Features Supported by Dell Server Management Pack Suite

Feature	Description	Required Management Packs
Feature Monitoring	Importing, upgrading, and removing Server, DRAC, Chassis Monitoring, and Chassis Modular Server Correlation features.	<ul style="list-style-type: none"> • Dell Base Hardware Library • Dell Feature Monitoring
Server In-band Monitoring	In-band monitoring and inventory of the Dell PowerEdge and PowerVault servers.	<ul style="list-style-type: none"> • Dell Base Hardware Library • Dell Server Model • Dell Server Operations Library • Dell Server View • Dell Windows Server (Scalable Edition) • Dell Windows Server (Detailed Edition) • Dell Windows Server Overrides (Informational Alerts On)

Feature	Description	Required Management Packs
Server Out-of-band Monitoring	Out-of-band monitoring and inventory of PowerEdge and PowerVault servers.	<ul style="list-style-type: none"> • Dell Base Hardware Library • Dell Server Model • Dell Server Operations Library • Dell Server View • Dell Common Operations Library • Dell Server (Out-Of-Band) • Dell Server (Out-Of-Band) Detailed Monitoring On - Overrides
DRAC Monitoring	Monitoring and inventory of your DRAC devices.	<ul style="list-style-type: none"> • Dell Base Hardware Library • Dell Common Operations Library • Dell DRAC Model • Dell DRAC View • Dell DRAC Operations Library • Dell DRAC (OM07) • Dell DRAC (OM12)
Chassis Monitoring	Monitoring and inventory of your Dell CMC devices.	<ul style="list-style-type: none"> • Dell Base Hardware Library • Dell Common Operations Library • Dell CMC Model • Dell CMC View • Dell CMC Operations Library • Dell CMC (OM07) • Dell CMC (OM12)
Chassis Modular Server Correlation	Monitoring and inventory of the Dell servers within a chassis.	<ul style="list-style-type: none"> • Dell Chassis Blade Correlation • Dell CMC (OM07) • Dell CMC (OM12) • Dell Server Model • Dell Windows Server (Scalable Edition)

Prerequisites

To install the Dell Server Management Pack Suite version 5.1.1 on a management server, make sure that you have the following available:

- Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, or Microsoft System Center 2012 Operations Manager.
- Microsoft .NET version 3.5 or later.
- 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.

Supported Dell Devices

The following table lists the Dell devices that are supported for the Dell Server Management Pack Suite.

Table 2. Supported Dell Devices

Devices	Generation	Features
Dell PowerEdge	9G, 10G, 11G	<ul style="list-style-type: none"> • Server In-band Monitoring • Chassis Blade Correlation
	12G, C6220, and C6220 II	<ul style="list-style-type: none"> • Server In-band Monitoring • Server Out-Of-Band Monitoring • Chassis Blade Correlation
Dell PowerVault	9G, 10G, 11G	<ul style="list-style-type: none"> • Server In-band Monitoring • Chassis Blade Correlation
	12G	<ul style="list-style-type: none"> • Server In-band Monitoring • Server Out-Of-Band Monitoring • Chassis Blade Correlation
Dell Remote Access Controller	DRAC 5, iDRAC 6, iDRAC 7	DRAC Monitoring
Dell Chassis Management Controller	CMC — M1000e Chassis and VRTX Chassis	<ul style="list-style-type: none"> • Chassis Monitoring • Chassis Blade Correlation

Supported Firmware Versions

The following table lists the supported firmware versions for DRAC, iDRAC, CMC, and DRAC/MC devices.

Table 3. Supported Firmware Versions For DRAC And CMC Devices

Dell Device	Firmware Versions Supported
iDRAC 7 Modular and Monolithic	1.31, 1.35, and 1.45
iDRAC 6 Modular	1.5, 1.6, 3.2, and 3.3
iDRAC 6 Monolithic	1.7 and 1.8
DRAC 5	1.5 and 1.6
CMC	4.1, 4.3, and 4.4
DRAC/MC	1.5 and 1.6

Management Server (MS) Requirements

Supported Operating Systems

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

- For OpsMgr 2012 R2, OpsMgr 2012 SP1 and OpsMgr 2012, see technet.microsoft.com/en-us/library/hh205990.aspx.


Server In-Band Monitoring Requirements

Software Requirements

The following table lists the software requirements in the Management Server for using the features of the suite.

Table 4. Pre-Requisites For Software

Software	Purpose
DRAC tools from Dell OpenManage Server Administrator (Server Administrator)	To discover Chassis Slot Summary and Server Modules for CMC and DRAC/MC Chassis.
Dell OpenManage Power Center	To launch Dell OpenManage Power Center console, install Dell OpenManage Power Center on the management server to monitor and manage power consumption, and temperature in the data center through the OpsMgr console. For more information, see <i>Dell OpenManage Power Center Installation Guide</i> at dell.com/support/manuals .
Baseboard Management Controller (BMC) Management Utility	To run the Remote Power Control tasks or the LED Identification Control tasks on Dell-managed systems.
Dell License Manager	To deploy licenses and collect reports from the managed server. To launch Dell License Manager console, install Dell License Manager on the managed server. For more information, see <i>Dell License Manager User's Guide</i> at dell.com/support/manuals .

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

Management Server Action Account

The following table lists the software requirements in the Management Server for using the features of the suite.

The Management Server Action Account needs the following additional privileges on Dell systems for the following features.

Table 5. Management Server Action Account Privileges

Feature	User Privilege
Dell Server In-band DRAC discovery and the corresponding DRAC console launch	Admin or Power user
Clear ESM log	Admin or Power user Alternatively, if the Management Server Action Account 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.

Server Out-Of-Band Monitoring Requirements

Installing The Out-Of-Band Monitoring Template

To install the out-of-band monitoring template:

1. Download the SMASH Library MPB file — **WS-ManagementAndSMASHDeviceDiscoveryTemplate.msi** from go.microsoft.com/fwlink/?LinkID=244308 to a temporary location.
2. Run the .msi to copy 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 Out-Of-Band SMASH Library MPB file.
8. Select the MPB file and click **Open**.
The **Import Management Packs** screen appears with the template displayed in the **Import List**.
9. Click **Install**.



NOTE: To discover a Dell system using the Server (Out-of-Band) monitoring feature, the Dell Connections License Server URL has to be configured and setup. For more information, see [Configuring Dell Connections License Manager URL](#).

Chassis Monitoring Requirements

- Enable RACADM on CMC devices, and CMC module on Dell PowerEdge VRTX devices for slot discovery and correlation to work. For more information, see *RACADM Command Line Reference Guide for iDRAC7 and CMC* available at dell.com/support/manuals.
- To discover Chassis Slot Summary for CMC and DRAC/MC, create **Run As Accounts** and associate it to the profiles — **Dell CMC Login Account** or **DRAC/MC Login Account** Run As Profiles. Also, enable the CMC and DRAC/MC Slot Discoveries from the operations console. For more information, see [Configuring The Dell Chassis Management Controller Feature For Correlating Server Modules With Chassis Slot Summary](#).

Configuring Dell 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 CMC, DRAC/MC, both or Dell PowerEdge VRTX. Also, use **Basic** or **Digest** Run As Account types for configuring the user credentials. Select the **More Secure** option in **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 the *Dell Server Management Pack Suite Version 5.1.1 For CPS User's Guide*.

 **NOTE:** Add the **Server Management Action** account to the OpsMgr administrator group.

2. Associate the created Run As Accounts with the **Dell CMC Login Account** and/or **Dell DRAC/MC Login Account** profiles 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.
- To enable slot summary discovery for DRAC/MC, override the enable property to **True** in **Dell DRAC/MC Slot Discovery**.

 **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.

Chassis Blade Correlation Monitoring Requirements

Chassis Blade Correlation In Distributed OpsMgr Environment

 **NOTE:** Enable CMC slot discovery and/or DRAC/MC slot discovery for the correlation feature to work.

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 the **Management Server Properties** dialog box, click the **Security** tab.
6. Select the **Allow this server to act as a proxy and discover managed objects on other computers** option.
7. Click **OK**.






Managed System Requirements


Server In-Band Monitoring Requirements

To enable Server (In-band) Monitoring, install supported Server Administrator version (including the Server Administrator Storage Management Service) on a managed node.

The following table lists the supported Server Administrator versions on the managed system and the corresponding features.

Table 6. Server In-Band Monitoring Requirements

Feature	Version 7.3.4
Discovery, inventory, and monitoring of Dell servers running the Windows operating system	
Basic network interface attributes	
Enriched network interface attributes	
Monitoring iDRAC	
View the Express Service code	

 **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.

DRAC Monitoring Requirements Using Server In-Band Feature

- Install Server Administrator (including the Server Administrator Storage Management Service) to enable in-band troubleshooting tasks. To launch Server Administrator and enable Remote Desktop feature on systems with iDRAC 7 make sure that:
 - Server Administrator is installed on the iDRAC 7 host system
 - The hostname of the iDRAC 7 host is resolved from the management system
 - Server Administrator port is set to the default port, that is, 1311
 - Remote desktop is enabled on the iDRAC 7 host system

Installing, And Uninstalling Dell Server Management Pack Suite

Installing The Dell Server Management Pack Suite


To install and enable the various monitoring features supported by Dell Server Management Pack Suite:

1. Run the Dell Server Management Pack Suite installer to extract the management packs.
For more information, see [Installing The Dell Server Management Pack Suite Using The Installer](#).
2. Enable the supported monitoring features using the Feature Management Dashboard.
For more information, see [Importing Monitoring Features Using Dell Feature Management Dashboard](#).

Before Installing The Dell Server Management Pack Suite On OpsMgr 2012

For systems running OpsMgr, ensure that the **SNMP Monitoring Account** profile has an association for **All targeted objects** with a default *Community* Run As Account. For more information, see [Configuring OpsMgr To Monitor Traps And Trap-Based Unit Monitors](#).


Installing The Dell Server Management Pack Suite Using The Installer

 **NOTE:** Install Windows PowerShell 2.0 on all the management servers.

1. Download the **Dell_Server_Management_Pack_Suite_v5.1.1_Axx.exe** (where *xx* is the Dell Server Management Pack release number).
2. Run the **.exe** file and specify a path to extract the contents of the self-extractable zip file.
3. Launch the **Dell_Server_Management_Pack_Suite_x64.msi** file from the extracted location.

The welcome screen for Dell Server Management Suite Pack 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 required) to change the default installation folder and click **Next**.
The **Enter License Credentials** screen is displayed.
7. (Optional) Select the **Configure License Credentials** check box for enabling the licensed features.


 **NOTE:** Licensed Monitoring features require domain user credentials for retrieving licenses from Dell Connection License Manager. Provide the domain user credentials in this window. Since, monitoring features may cache license data in the **Program Files** folder, make sure that the domain user has local administration rights on the management server where Dell Server Management Pack Suite is getting installed. The user credentials are used for configuring the Dell Helper Utility and not cached or stored anywhere by the Server Management Pack Suite.


8. Type the user credentials and click **Next**.
9. Click **Install**.

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


The Management packs are extracted to the location where **Dell Server Management Pack Suite** is installed. The default location is **C:\Program Files\Dell Management Packs\Server Mgmt Suite\5.1.1**.

- The Dell Feature Management Pack is automatically imported after the installation of Dell Server Management Pack Suite. The **Feature Management Dashboard** is shown under **Monitoring** → **Dell** on the OpsMgr console. The dashboard will be populated with the available monitoring features after some time. Refer to the individual monitoring sections for importing the monitoring features.
- The Server In-band monitoring feature is also automatically imported after the installation of Dell Server Management Pack Suite.

 **NOTE:** The Server Out-of-band requires the installer to run on all the management servers that are used to monitor the Server Out-of-band devices. The installer registers the Dell Device Helper Utility (COM object) on the management server. The default location is **C:\Program Files\Dell Management Packs\Server Mgmt Suite\5.1.1\Library**.

 **NOTE:** The installer can also be used to extract the management packs. To extract the management packs, run the installer on a Windows client operating system.

A log file containing information of installation is generated after the installation of Dell Server Management Pack Suite. The default location is **C:\Program Files\Dell Management Packs\Server Management Pack\5.1.1**

 **NOTE:** During the installation, the installer creates the Dell Connections License Manager domain groups in the Windows Server Active Directory. If the domain groups are not automatically created during installation, then manually create them. For more information, see [Connections License Manager Domain Groups](#).

Importing The Dell Server Management Packs Into OpsMgr

The installer automatically installs the Dell Server Management Packs into the OpsMgr. If the installer fails to install the management packs then, you must import the management packs to OpsMgr using the OpsMgr Import Management Pack wizard.

To import the Dell Server 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 Server Management Pack Suite**.

If you had chosen to install in the default directory, then the Dell Server Management Packs are available under **C:\Program Files\Dell Management Packs\5.1.1**.


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**.

Using The Repair Option In The Installer

This feature repairs any installation errors that may have occurred while installing the Dell Server Management Pack Suite.


1. Launch the **Dell_Server_Management_Pack_Suite_x64.msi** file from the extracted location.
The welcome screen for Dell Server Management Suite 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. (Optional) Select **Configure License Credentials** for enabling licensed features.
5. Type the user credentials and click **Next**.
The **Ready to Repair the Program** screen is displayed.
6. Click **Install**.
The **Installation Completed Successfully** screen is displayed.
7. Click **Finish**.

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

Using The Modify Option In The Installer

The **Modify** option in the installer, modifies the Dell Server Management Pack features that are installed.

 **NOTE:** The **Modify** option is not available on systems running the 32-bit operating system.

1. Launch the **Dell_Server_Management_Pack_Suite_x64.msi** file from the extracted location.
The welcome screen for Dell Server Management Suite Pack is displayed.
2. Click **Next**.
The **Program Maintenance** screen is displayed.
3. Select **Modify** and click **Next**.
The **Enter License Credentials** screen is displayed.
4. Select the **Configure License Credentials** check box (if required) for enabling licensed features.
5. Type the user credentials and click **Next**.
The **Ready to Modify the Program** screen is displayed.
6. Click **Install**.
The **Installation Completed Successfully** screen is displayed.
7. Click **Finish**.

Importing Monitoring Features Using Dell Feature Management Dashboard

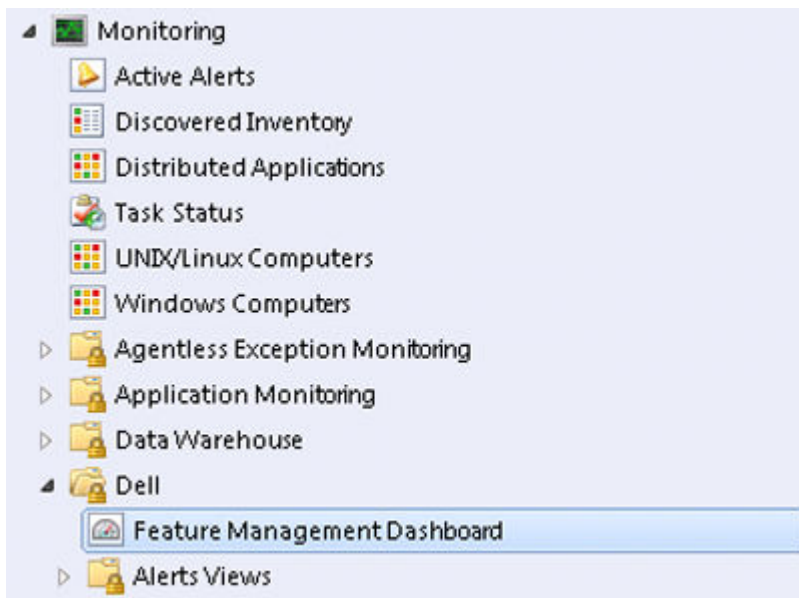
Dell Feature Management Dashboard allows you to view the available Dell Server Management Pack Suite's Monitoring features and enable them automatically for importing, upgrading, and removing the management packs that are required by a particular feature.

In a distributed setup, Dell Feature Monitoring MP identifies one management server from the list of management servers to host all feature management activities such as discoveries, alerts, and tasks.

To import the monitoring features

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

- Expand **Monitoring** → **Dell** → **Feature Management Dashboard**.



On the **Feature Management Dashboard** pane you can view the list of features installed, the version currently in use, the version you can upgrade to, the level of monitoring, total licenses, and licenses in use.

Feature Management Dashboard

Feature Management State (5)

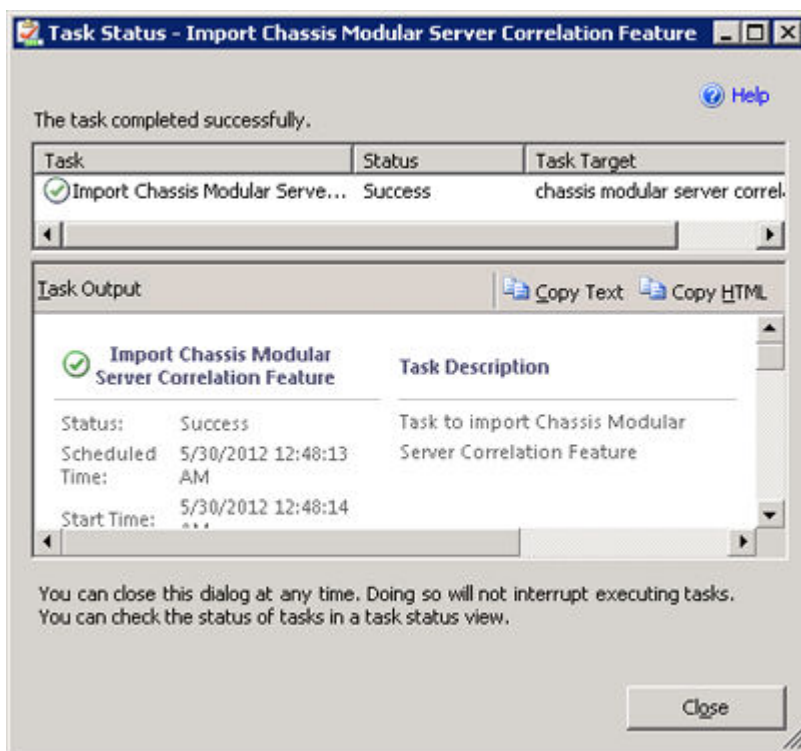
Feature Name	Description	Monitoring Level	In Use Version	Available Version	Total Node Lic...	License In Use	Current License...
Chassis Modular Server Correlati...	Perform correlat...	Not Installed	Not Installed	5.1.1	Not Applicable	Not Applicable	Not Applicable
Chassis Monitoring	Monitor Dell ch...	Not Installed	Not Installed	5.1.1	Not Applicable	Not Applicable	Not Applicable
DRAC Monitoring	Monitor Dell re...	Not Installed	Not Installed	5.1.1	Not Applicable	Not Applicable	Not Applicable
Server (In-band) Monitoring	Monitor Dell Po...	Detailed Feature	5.1.1	5.1.1	Not Applicable	Not Applicable	Not Applicable
Server (Out-of-band) Monitoring	Monitor Dell Po...	Not Installed	Not Installed	5.1.1	Not Available	Not Available	Not Available

- Select the Monitoring feature you want to install.
For more information, see [Monitoring Features Supported By Dell Management Pack Suite](#).
- Under the **Tasks** pane, expand **Dell Monitoring Feature Tasks**.




- Click a task to import/upgrade a feature.
For more information, see [Feature Management Tasks](#).
- On the **Run Task** screen, make sure that the **Use the predefined Run As Account** option is selected.
- Click **Run**.

- After the task has successfully completed, click **Close**.



- 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**.

Feature Management Tasks

The following table lists the tasks available on the **Feature Management Dashboard**. Some tasks listed below appear only after you have imported a particular Monitoring feature.






-  **NOTE:** Ignore the errors pertaining to reimporting of existing management packs under the error logs in the Event log. These errors occur when Feature Management Dashboard reimports all the dependent MPs 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 7. Feature Management Tasks

Tasks	Description
Server (Out-of-band) Monitoring	
Configure License Server	Configures the Dell Connections License Manager. For more information, see Configuring Dell Connections License Manager URL .

Tasks	Description
	 NOTE: Perform this task before importing the Server (Out-of-band) Monitoring feature, as the Dell servers are discovered only after the Dell Connections License Server is configured.
Launch Dell Connections License Manager	<p>Launches the Dell Connections License Manager console. For more information, see <i>Dell Connections License Manager User's Guide</i> at dell.com/support/manuals.</p>  NOTE: While configuring the Dell Connections License Manager, the License Manager task is enabled only after the configuration of the LicenseWebUI URL is completed. For more information, see Configuring Dell Connections License Manager URL .  NOTE: The Configure License Server and Launch Connections License Manger are common tasks for all the Monitoring features on Feature Management Dashboard.
Import Server (Out-of-band) Scalable Feature	Enables the Scalable edition of Server (Out-of-band) Monitoring feature.
Import Server (Out-of-band) Detailed Feature	Enables the Detailed edition of Server (Out-of-band) Monitoring feature.
Set to Server (Out-of-band) Scalable Feature	<p>If the Detailed feature is running on the system, the Feature Management Dashboard switches from the Detailed Feature to the Scalable Feature.</p> <p>On upgrading from the previous version, run this task to use the latest version for this monitoring feature.</p>
Set to Server (Out-of-band) Detailed Feature	<p>If the Scalable feature is running on the system, the Feature Management Dashboard switches from the Scalable Feature to the Detailed Feature.</p> <p>On upgrading from the previous version, run this task to use the latest version for this monitoring feature.</p>
Set Server (Out-of-band) Monitoring as Preferred Monitoring Method	This task enables the Out-of-band Monitoring feature as the preferred monitoring method for your Dell server, when the Dell servers in the setup are monitored through both, In-band Monitoring feature, and Out-of-band Monitoring feature.
Remove Server (Out-of-band) Feature	Removes the Server (Out-of-band) Monitoring feature.
Server (In-band) Monitoring	
Import Server (In-band) Detailed Feature	Enables the Detailed edition of Server (In-band) Monitoring feature.
Import Server (In-band) Scalable Feature	Enables the Scalable edition of Server (In-band) Monitoring feature.

Tasks	Description
Set Server (In-band) Monitoring as Preferred Monitoring Method	This task enables the In-band Monitoring feature as the preferred monitoring method for your Dell server, when the Dell servers in the setup are monitored through both, In-band Monitoring feature and Out-of-band Monitoring feature.
Set to Server (In-band) 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 Server (In-band) Detailed Feature	If the Scalable feature is running on the system, the 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.
Set Informational Alerts On (Server In-band)	Informational alerts are turned on when the Server (In-band) Scalable Monitoring is in use.
Set Informational Alerts Off (Server In-band)	Informational alerts are turned off when the Server (In-band) Scalable Monitoring is in use.
Remove Server (In-band) Feature	Removes the Server (In-band) Monitoring feature.
DRAC Monitoring	
Import DRAC Monitoring Feature	Enables the DRAC monitoring feature.
Upgrade DRAC Monitoring Feature	Upgrades to the latest version of the DRAC monitoring feature.
Remove DRAC Monitoring Feature	Removes the DRAC monitoring feature.
Chassis Monitoring	
Import Chassis Monitoring Feature	Enables the chassis monitoring feature.
Upgrade Chassis Monitoring Feature	Upgrades to the latest version of the chassis monitoring feature.
Remove Chassis Monitoring Feature	Removes the chassis monitoring feature.
Chassis Modular Server Correlation	
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 monitoring feature.



Post-Installation Tasks For The Dell Server Management Pack Suite

Perform the following post-installation tasks after you import the management packs:


1. Configure CMC Monitoring feature for discovering Chassis Slots Summary and Server Modules.
For more information, see [Configuring the Dell Chassis Management Controller Feature For Correlating Server Modules With Chassis Slot Summary](#).
2. Configure Dell Server Management Pack Suite to get licenses from Dell Connections License Manager to enable Server (Out-of-band) Monitoring feature.
For more information, see [Configuring Dell Connections License Manager URL](#).

Configuring OpsMgr To Monitor Traps And Trap-Based Unit Monitors

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


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 to discover the devices from the **Run As account** drop-down list.
 -  **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 account credentials 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 2012 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**.


Configuring Dell Connections License Manager URL

Perform this task before importing the Server (Out-of-band) Monitoring feature, as Dell Servers are discovered only after the Dell Connections License Server is configured.

 **NOTE:** If you have already imported the Server (Out-of-band) Monitoring feature, the Dell servers are discovered only in the next discovery cycle and an alert is generated in the Feature Management Dashboard prompting you to configure the Dell Connections License Manager URL. For more information, see [Feature Management Alerts](#).

 **NOTE:** If the management server has been restarted, the discovered Dell servers will appear only after the next discovery cycle.

1. Install the Dell Connections License Manager. For more information, see *Dell Connections License Manager Version 1.0 Installation Guide* at dell.com/support/manuals.
2. Obtain licenses for the monitoring feature. For more information, see the "Managing Connections License Manager" section in the *Dell Connections License Manager Version 1.0 User's Guide* at dell.com/support/manuals.
3. Launch the OpsMgr 2012 console.
4. From the navigation pane, click **Monitoring**.
5. Expand **Monitoring** → **Dell** → **Feature Management Dashboard**.
6. Select **Server (Out-of-band) Monitoring** feature.
7. From the **Dell Monitoring Feature Tasks** pane, select **Configure License Server**.
The **Run Task - Configure License Server** screen is displayed.
8. Click **Override**.
The **Override Task Parameters** screen is displayed.


9. In the **LicenseWebServiceURL** parameter, under the **New Value** column type the license web service URL (the license webservice URL uses the default port as 8543) in the following format **http://<License Server IP>: <port number>/**.
For example: `http://10.56.123.255:8543/`.
 10. In the **LicenseWebUIURL** parameter, under the **New Value** column type the license web UI URL (the license web UI URL uses the default port as 8544) in the following format **http://<License Server IP>: <port number>/**.
For example: `http://10.56.123.255:8544/`.
 11. Click **Override**.
The **Run Task - Configure License Server** screen is displayed.
 12. Click **Run**.
The **Task Status - Configure License Server** screen is displayed. The **Configure License Server** task takes several minutes to complete.
-  **NOTE:** Wait for the task to complete (view the state update change in the dashboard) before launching another task through the Feature Management Dashboard.


Uninstalling The Dell Server Management Pack Suite

Removing Monitoring Features Using Dell Feature Management Dashboard

It is recommended to use the Dell Feature Management Dashboard to remove the management packs. 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 using the Dell Feature Management Dashboard:

1. Launch 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**.
5. Click **Remove Feature** to remove the monitoring feature.
For example, to remove **Server (In-band) Monitoring** feature, click **Remove Server (In-band) 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 will fail 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:** Removing any of the features may affect the scope of some user roles.


Uninstalling The Dell Server Management Pack Suite

To uninstall the Dell Server Management Pack Suite:

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

Or double-click the installer, select **Remove**, and follow the instructions on the screen.

 **NOTE:** While uninstalling, a message `The following applications should be closed before continuing the installation: COM Surrogate is displayed as the COM Surrogate process is running the DellDeviceHelper.DLL in the background and it needs to 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.`

 **NOTE:** Uninstallation of Dell Server Management Pack suite will not remove the Dell Management Packs imported in the OpsMgr. Use Feature Management Dashboard to remove the monitoring features and then uninstall the Feature Management Dashboard manually.

Access Privileges

The OpsMgr internally handles the access privileges for different operations. These can be set up using the **User Roles** option under **Administration** → **Security** feature on the OpsMgr console. The profile of your role determines what actions you can perform.

For more information on security considerations, see the documentation for Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 Operations Manager, or Microsoft System Center 2012 SP1 Operations Manager, Online Help at technet.microsoft.com.

Troubleshooting

The following chapter provides information for troubleshooting installation related errors.

Feature Management Dashboard Does Not Populate

The Feature Management Dashboard runs on all the management servers in a distributed environment to discover a Feature Management Host Server.

- If you have manually imported the Feature Monitoring MP without running the installer on the management server, the Feature Management Dashboard will not be populated. For more information, see [Installing The Dell Server Management Pack Suite Using The Installer](#).
- Depending on the timing of discovery on each of the management servers, the dashboard may get populated in duration varying from a few minutes to maximum of a day's cycle. To populate the dashboard within 40 minutes, decrease the frequency of the Dell Feature Management Host Discovery to a minimum of 15 minutes and Dell Registry based Server Management Suite Discovery to a minimum of 10 minutes. It is recommended to revert the overrides made to the Discoveries once the Feature Management Dashboard is populated.

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 will fail with the appropriate message.

 **CAUTION: Overriding task parameters will results 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**.
The **Feature Management Dashboard** pane displays the list of management pack 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**.
The **Override Task Parameters** screen is 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

The following alerts are generated in the Feature Management Alerts on the dashboard, if the Dell Device Helper Utility or the Dell Connections License Manager server is not correctly installed, or the license server has insufficient licenses for monitoring Dell servers through the Dell Server (Out-of-band) Monitoring feature.

Table 8. Feature Management Alerts

Alert Text	Alert State	Cause	Resolution
Dell FMP: Dell Device Helper Utility is either not present or incompatible with Dell Server (out-of-band) Management Pack.	Critical	The Dell Device Helper Utility version 5.1.1 was not found or the Dell Device Helper Utility is corrupted. A version higher than 5.1.1 of Dell Device Helper Utility was found. A version lower than 5.1.1 of Dell Device Helper Utility was found.	Run the Dell Server Management Pack Suite version 5.1.1 installer on the management server.
Dell FMP: Dell License Server is not configured properly.	Critical	The Dell Connections License Server is not configured.	Install and configure the Dell Connections License Server URL. For more information, see Configuring Dell Connections License Manager URL .
Dell FMP: Dell License Server is not reachable.	Critical	Unable to contact the Dell Connections License Server.	Make sure that the Dell Connections License Server URL is configured correctly. For more information, see Configuring Dell Connections License Manager URL . Check if the Dell Connections License Server is accessible.
Dell FMP: Dell Licenses for a feature are insufficient or not available.	Critical	Licenses are not present on the Dell Connections License Server. License usage for a monitoring feature has exceeded the monitoring capacity.	Purchase additional licenses and import them into the Dell Connections License Server.
	Warning	License usage for a monitoring feature is approaching the total monitoring capacity.	Purchase additional licenses and import them into the Dell Connections License Server.
	Critical	Unable to process licenses for a monitoring feature.	Make sure that the Dell Connections License Server is configured correctly. For more information, see <i>Dell Connections License</i>

Alert Text	Alert State	Cause	Resolution
			<p><i>Manager Version 1.0 User's Guide</i> at dell.com/support/manuals.</p> <p>Check if the Dell Connections License Server is accessible.</p> <p>Check the access privileges for getting the license from the Dell Connections License Server.</p>

Health Service Of The Feature Management Host Server Is Down

In a distributed setup (including distributed resource pool in OpsMgr 2012), Dell Feature Monitoring MP identifies one management server from the list of management servers to host all feature management activities such as discoveries, alerts, and tasks. If the selected management server has stopped functioning, the executed Feature Management tasks will fail. If such a selected management server is corrupt or health service cannot be obtained, decommission the management server to remove stale objects. For more information, see technet.microsoft.com/en-us/library/hh456439.aspx.


The Dell Feature Management Pack switches to a new Feature Management Host Server and hosts the features in the subsequent discovery cycle.

Creating Connections License Manager Domain Groups

The following groups are created in the Windows Server Active Directory during installation of Dell Server Management Pack Suite or Dell Connections License Manager:

- Dell Connections License Administrators
- Dell Connections License Operators
- Dell Connections License Users

If the preceding domain groups are not automatically created during installation, then manually create the groups. To create domains and add users to domains, see the Windows documentation from Microsoft at technet.microsoft.com.

 **NOTE:** After creating the required domain groups add your Management Server Machine Account as part of the **Dell Connections License Users** group and add the current user account to the **Dell Connections License Administrators** group.

Manually Configuring The User Credentials For Dell Device Helper Utility

The Dell Device Helper Utility requires user credentials to obtain licenses from the Dell Connections License Manager. If the installer fails to configure the user credentials for the Dell Device Helper Utility, then manually configure the user credentials.

To configure the user credentials for dell device helper utility:

1. Click **Start** → **Run**.
2. Type **DcomCnfg** to open the **DCOM Configuration** window.
3. Expand **Component Services** → **Computers** → **My Computer** → **COM+ Applications** → **Dell Device Helper**.

4. Right-click **Dell Device Helper** and click **Properties**.
5. In the **Dell Device Helper Properties** window, click the **Identity** tab.
6. Select **This user:** option and provide the user credentials.
7. Click **OK**.



NOTE: Add this user to the Dell Connections License Manager groups. For more information, see [Creating Connections License Manager Domain Groups](#).

Domain User Credentials

Dell Connections License Manager (DCLM) uses domain membership to determine the privileges for granting a license. Therefore, the Dell Device Helper COM+ application requires domain user credentials to obtain the licenses from DCLM.

The credentials are directly configured in the COM+ application, in the **Dell Device Helper Properties** → **This user:** window. The password is not stored in the Dell Server Management Pack Suite or COM+ application for later use.

Dell Connections License Statistics Are Not Updated In The Feature Management Dashboard

Workflow related to updating the Dell Connections License statistics run as part of the Management Server Action Account (MSAA). Add the MSAA to one of the following domain groups:

- Dell Connections License Administrators
- Dell Connections License Operators
- Dell Connections License Users

It is recommended to add the MSAA to the **Dell Connections License Users** group.