

**Dell Server Management Pack Suite Version 5.0.1 For
Microsoft System Center Operations Manager And
System Center Essentials
User's 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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Introduction


This document describes the activities that you can perform with Dell Server Management Pack Suite version 5.0.1 for the Microsoft System Center Operations Manager 2007 R2, Microsoft System Center 2012 Operations Manager, and System Center Essentials 2010. This environment allows you to manage, monitor, and also ensure that the Dell devices are available.

 **CAUTION:** Perform the procedures in this document only if you have proper knowledge and experience in using the Windows operating system and System Center Operations Manager 2007 R2, System Center 2012 Operations Manager, and System Center Essentials 2010, to avoid data corruption and/or data loss.

 **NOTE:** Read the Server Management Pack Suite's readme file, which contain the latest information about software and management server requirements, in addition to information about known issues. The readme file is posted to the Systems Management documentation page on support.dell.com/manuals. The readme file is also packaged in the self-extracting executable **Dell_Server_Management_Pack_Suite_v5.0.1_A00.exe** file.


 **NOTE:** All references to OpsMgr in this document are applicable to System Center Operations Manager 2007 R2, System Center 2012 Operations Manager, and System Center Essentials (SCE) 2010, unless otherwise specified.

 **NOTE:** The term Dell Remote Access Controller (DRAC) devices in this document is is used to refer to DRAC5, iDRAC6, and iDRAC7, unless otherwise specified.

 **NOTE:** The term Chassis devices in this document is used to refer to both DRAC/ Modular Chassis (DRAC/MC) and Chassis Management Controller (CMC), unless otherwise specified.

What Is New In Dell Server Management Pack Suite

Table 1. New Features and Functionalities

New Feature	Functionality
System Center 2012 Operations Manager	Support for System Center 2012 Operations Manager.
12th Generation support	Provides support for 12th Generation Dell PowerEdge systems.
Out-of-band Discovery and Monitoring of systems	Supports out-of-band discovery and monitoring of 12th generation PowerEdge systems (systems without any operating system or systems running Windows, Linux, or ESXi operating system). For information on the supported operating systems, see <i>OpenManage Software Support Matrix</i> at support.dell.com/manuals .
Warranty information	Provides the warranty information for a discovered Dell system.  NOTE: An active Internet connection is required for this feature.
Dell OpenManage Power Center	Launches Dell OpenManage Power Center console using OpsMgr.

New Feature	Functionality
Dell License Manager	Launches Dell License Manager console.
Alert retention	Retain alerts while upgrading to the latest version of OpsMgr.
Feature Monitoring	Allows to import, upgrade, and remove all the Management Packs and their dependencies that are required by a particular Monitoring Feature.
Installer	Enables easy integration of the Dell Server Management Pack Suite within the OpsMgr environment.
New console launch tasks	Launches Remote Desktop for iDRAC 7. Launches Dell OpenManage Server Administrator for iDRAC 7. Launches the Dell License Manager . Launches the Dell Connections License Manager .
Trap destination configuration for DRAC devices	Automatically configure the Trap destinations for DRAC7 devices.
Chassis Blade Correlation for Out-of-band Discovered and Monitored systems	Discovers the correlation between the CMC Chassis and the Out-of-band discovered and monitored systems.

Key Features Of Dell Server Management Pack Suite

This version of Dell Server Management Pack Suite provides the following features for managing the Dell systems that run on Windows operating systems and also the out-of-band Dell devices:

Table 2. Features and Functionalities

Feature	Functionality
Discovery and monitoring of iDRAC vFlash Cards	Supports in-band discovery and monitoring of iDRAC vFlash card and iDRAC network interface.
Event Monitoring	Supports: <ul style="list-style-type: none"> • Events from OpenManage Server Administrator versions 6.2 - 7.0. • Platform Event Traps (PET) for DRAC devices. • SNMP Traps from DRAC devices. • SNMP Traps from Chassis devices.
Discovery and monitoring of server network interface cards	Supports: <ul style="list-style-type: none"> • In-band discovery and monitoring of physical and teamed network interfaces for Broadcom and Intel network interface cards (NICs). • Enriched properties and attributes of NICs on systems running Server Administrator versions 6.2.0.1 - 7.0 is displayed. • Linkup and linkdown alerts in Network Interfaces Alerts view. • Correlation of physical and teamed network interfaces for Server Administrator versions


Feature	Functionality
In-band Discovery and Monitoring - Dell Systems	<p data-bbox="906 260 1374 310">6.2.0.1 - 7.0 in the Dell Modular Systems and Dell Monolithic Systems Diagram Views.</p> <p data-bbox="828 338 1334 443">Supports in-band discovery and monitoring of Dell PowerEdge and PowerVault monolithic and modular systems running the supported Windows operating system.</p>
Out-of-Band Discovery and Monitoring - Chassis Management	<p data-bbox="828 464 922 489">Supports:</p> <ul data-bbox="868 512 1394 653" style="list-style-type: none"> <li data-bbox="868 512 1394 562">• Out-of-band discovery and monitoring of Dell CMC and DRAC/MC devices. <li data-bbox="868 569 1394 619">• Supports discovery of server modules and chassis slot summary for CMC and DRAC/MC chassis. <li data-bbox="868 625 1342 653">• SNMP Traps for CMC and DRAC/MC devices.
Out-of-Band Discovery and Monitoring - Dell Remote Access Controllers (DRAC)	<p data-bbox="828 684 922 709">Supports:</p> <ul data-bbox="868 732 1299 821" style="list-style-type: none"> <li data-bbox="868 732 1299 783">• Out-of-band discovery and monitoring of supported DRAC devices. <li data-bbox="868 789 1235 816">• SNMP and PET for DRAC devices.
Chassis Blade Correlation	<p data-bbox="828 848 1382 903">Supports correlation of Dell Servers with Server Modules of CMC and DRAC/MC chassis.</p>
Performance Monitoring	<p data-bbox="828 919 922 945">Supports:</p> <ul data-bbox="868 968 1342 1100" style="list-style-type: none"> <li data-bbox="868 968 1326 1018">• Power and temperature statistics using Performance and Power Monitoring Views. <li data-bbox="868 1024 1342 1100">• Performance graphs for physical and teamed network interfaces for Server Administrator version 6.2.0.1 - 7.0.
Advanced Monitoring	<p data-bbox="828 1129 922 1155">Supports:</p> <ul data-bbox="868 1178 1390 1289" style="list-style-type: none"> <li data-bbox="868 1178 1362 1228">• Flexibility in choosing the level of monitoring Dell systems based on the scalability requirements. <li data-bbox="868 1234 1390 1289">• Detailed monitoring using Server Administrator by enabling Informational Alerts.
Launching Task	<p data-bbox="828 1318 927 1344">Launches:</p> <ul data-bbox="868 1367 1382 1709" style="list-style-type: none"> <li data-bbox="868 1367 1382 1394">• Dell OpenManage Server Administrator console. <li data-bbox="868 1400 1187 1428">• Dell Remote Access console. <li data-bbox="868 1434 1082 1461">• Dell CMC console. <li data-bbox="868 1467 1358 1495">• Dell Modular Chassis Remote Access console. <li data-bbox="868 1501 1150 1528">• Remote Desktop console. <li data-bbox="868 1535 1294 1562">• Dell OpenMange Power Center console. <li data-bbox="868 1568 1382 1596">• Dell Connections License Manager web console. <li data-bbox="868 1602 1299 1629">• The Dell Warranty Information webpage. <li data-bbox="868 1635 1054 1663">• iDRAC console. <li data-bbox="868 1669 1203 1696">• Dell License Manager console. <p data-bbox="828 1730 1139 1753">For more information, see Tasks.</p>



Feature	Functionality
Out-of-band Discovery and Monitoring of Servers	Supports: <ul style="list-style-type: none"> • Out-of-band discovery and monitoring of 12th Generation of Dell PowerEdge systems. • SNMP Traps for out-of-band systems.

About Dell Server Management Pack Suite

The following table lists this version's management packs and utilities, and their dependencies with each other:

Table 3. Management Pack Functionality and Dependencies

Management Pack or Utility	Description	Dependency
Dell Base Hardware Library	Management Pack for defining the Dell Hardware Group and Dell folder in the Monitoring pane of the OpsMgr console.	None
Dell Windows Server (Scalable Edition)	Management Pack for monitoring supported PowerEdge and PowerVault up to component groups level.	Dell Base Hardware Library MP Dell Server Model MP Dell Server Operations Library MP Dell Server View MP
Dell Windows Server (Detailed Edition)	Management Pack for instrumenting supported PowerEdge and PowerVault up to component level.  NOTE: Use this MP when you are monitoring less than 300 nodes through Dell Server (In-band) Monitoring and 30 nodes through Dell Server (out-of-band) Monitoring.	Dell Base Hardware Library MP Dell Server Model MP Dell Server Operations Library MP Dell Server View MP Dell Windows Server (Scalable Edition) MP
Dell Windows Server Overrides (Informational Alerts On)	Utility to enable monitoring of information alerts from Dell OpenManage System Administrator.	Dell Base Hardware Library MP Dell Server Model MP Dell Server Operations Library MP Dell Server View MP Dell Windows Server (Scalable Edition) MP
Dell CMC (SCOM 2007/SCE 2010) Dell CMC (SC12 OM) MP	Management Pack for discovering and monitoring CMC and DRAC/MC Chassis.	Dell Base Hardware Library MP Dell CMC Model MP Dell CMC Operations Library MP Dell CMC View MP Dell Common Operations Library MP
Dell DRAC (SCOM 2007/SCE 2010) MP Dell DRAC (SC12 OM) MP	Management Pack for discovering and monitoring Dell Remote Access Cards - DRAC 5, iDRAC Modular and iDRAC Monolithic.	Dell Base Hardware Library MP Dell DRAC Model MP Dell DRAC View MP Dell DRAC Operations Library MP

Management Pack or Utility	Description	Dependency
Chassis Blade Correlation Utility	<p>Management Pack for correlating Dell Modular systems with CMC and DRAC/MC slots.</p> <p>This utility is supported only on OpsMgr 2007 R2 and OpsMgr 2012 only.</p> <p> NOTE: For correlation feature to work, you must configure Run As Accounts and enable CMC Slot Discovery and/or DRAC/MC Slot Discovery. For more information, see the "Chassis Blade Correlation Requirements" section of the <i>Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide</i> at support.dell.com/manuals.</p>	<p>Dell Common Operations Library MP</p> <p>Dell Base Hardware Library MP</p> <p>Dell Windows Server (Scalable Edition) MP</p> <p>Dell Server Model MP</p> <p>Dell CMC (SCOM 2007/SCE 2010) MP or Dell CMC (SC12 OM) MP</p>
Dell Server (Out Of Band) Management Pack	<p>Management Pack for discovering and monitoring Dell PowerEdge systems up to component groups level.</p>	<p>Dell Base Hardware Library MP</p> <p>Dell Server Model MP</p> <p>Dell Server Operations Library MP</p> <p>Dell Server View MP</p> <p>Dell Common Operations Library MP</p> <p>Microsoft System Center Out-of-Band Library (MPB)</p> <p> NOTE: For information on installing the Microsoft SMASH Library file (MPB), see "Installing the Out-Of-Band Monitoring Template" section of the <i>Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide</i> at support.dell.com/manuals.</p>
Dell Server (Out Of Band) Detailed Monitoring On - Overrides MP	<p>Management Pack for discovering and monitoring Dell PowerEdge systems up to component level.</p>	<p>Dell Base Hardware Library MP</p> <p>Dell Server (Out Of Band) MP</p>
Dell Monitoring Feature MP	<p>Management Pack for discovering, monitoring, and upgrading available Dell Server Management Pack Suite features in OpsMgr.</p>	<p>Dell Base Hardware Library MP</p>

Comparison Of Scalable Edition And Detailed Edition Features

The following table helps you understand the environment in which you can use Scalable Edition and Detailed Edition of Dell Windows Server and Dell Server (Out-Of-Band) management pack.

Table 4. Scalable Management Pack Versus Detailed Management Pack

Functionality	Scalable Edition	Detailed Edition
Component Hierarchy	Scalable MP displays details up to the component groups and the presence of iDRAC.	Detailed MP displays details up to component level. Detailed MP provides an additional level of information about Memory, Processors, Network Interfaces, Storage Controllers, Disks and Volumes, and so on. Additionally, BIOS information is also shown.
Reports	Only OpenManage Windows Event log report is available with this Management Pack.	BIOS configuration, Firmware and Driver version, and RAID configuration reports are available with this Management Pack.

Overview Of Dell Server Management Pack Functionality

The Dell Server Management Pack Suite for OpsMgr enables you to:

1. Discover and group Dell servers, Dell Remote Access Controllers (DRAC), Dell Chassis Management Controllers (CMC), and integrated DRAC (iDRAC).
For more information, see [Discovery and Grouping](#).
2. Monitor the discovered Dell systems and network devices.
For more information, see [Monitoring](#).
3. Perform various tasks on the discovered Dell systems and network devices.
For more information, see [Tasks](#).
4. View reports for discovered Dell systems.
For more information, see [Reports](#).

Discovery And Grouping

The Dell Server Management Pack Suite version 5.0.1 suite enables you to discover and group Dell Servers, Dell Remote Access Controllers (DRAC), Dell Chassis Management Controllers (CMC), and integrated DRAC (iDRAC).

The following table lists the details of the hardware discovery and grouping by the Dell Server Management Pack Suite.

Table 5. Dell Hardware Discovery and Grouping


Group	Monitoring Feature	Diagram View	Hardware Type
Dell Windows Servers	Dell Server In-band Monitoring	Dell Monolithic Servers Dell Modular Servers	Dell PowerEdge and PowerVault systems running OpenManage Server Administrator (version 6.2 and above).
Dell Servers	Dell Server Out-of-band Monitoring	Dell Monolithic Servers Dell Modular Servers	Dell PowerEdge Systems.
Dell CMC	Dell CMC Monitoring	Dell Chassis Management Controllers	CMC, DRAC/MC instances on the network, chassis slot summary and server modules for CMC and DRAC/MC.
Dell Remote Access Controllers	Dell DRAC Monitoring	Remote Access Controller	DRAC 5, iDRAC modular, and iDRAC monolithic instances.

 **NOTE:** Dell Remote Access Controller Monitoring feature does not support the discovery of *xx0x*iDRAC modular controllers. You can manage these devices using the Scalable Edition of Server (In-band) Monitoring feature.

Discovering A Dell System Using The Server (In-Band) Monitoring Feature

Dell Windows systems are discovered through the OpsMgr Agent Management infrastructure.

To discover Dell Windows systems, the Dell Windows systems must appear in the **Agent Managed** view under the **Administration** section of the OpsMgr console.


 **NOTE:** Dell Windows systems that do not have Dell OpenManage Server Administrator (OMSA) installed, or have OMSA earlier than version 6.2 are grouped as Dell Unmanaged.

To discover a Dell system using Dell Server (In-band) Monitoring Feature:


1. Log on to the management server as an OpsMgr administrator.
2. On the OpsMgr console, click **Administration**.
3. At the bottom of the navigation pane, click **Discovery Wizard**.
4. Run the **Discovery Wizard**, select **Windows computers** and follow the instructions on the screen.

For more information, see the OpsMgr documentation at technet.microsoft.com.

Discovering A Dell System Using the Server (Out-Of-Band) Monitoring Feature

 **NOTE:** Before discovering 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 the [Configuring Dell Connections License Manager URL](#).


To discover a Dell system using the Dell Server (Out-of-band) Monitoring feature:

1. Log on to OpsMgr 2012 as an administrator for the OpsMgr Management Group.
2. On the OpsMgr console, click **Authoring**.
3. At the bottom of the navigation pane, click **Add Monitoring Wizard**.
The **Add Monitoring Wizard** screen.
4. On the **Select Monitoring Type** screen, select **WS-Management and SMASH Device Discovery** and click **Next**.
 **NOTE:** The Microsoft SMASH Library file (MPB) file has to be installed. For information on installing the Microsoft SMASH Library file (MPB) file, see "Installing the Out-Of-Band Monitoring Template" section of the *Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager and System Center Essentials Installation Guide* at support.dell.com/manuals.
5. On the **General Properties** screen, in the **Name** field provide a name to identify the wizard.
6. Under **Management pack**, click **New**.
The **Create a Management Pack** screen appears.
7. Provide a name for the management pack in the **Name** field and click **Next**.
For information on creating a management pack, see the OpsMgr documentation at technet.microsoft.com.
8. Click **Create**.
The management pack you created is selected in the **Management pack** drop-down box.
9. Click **Next**.
10. On the **Specify the target** drop-down menu, select **All Management Servers Resource Pool** and click **Next**.
11. On the **Specify the account to be used to run discovery** screen, click **New** and create a *Simple Authentication* type Run As Account.
For more information on creating a Run As Account, see [Creating A Simple Authentication Run As Account](#).
12. Select the Run As Account you just created from the **Run As Account** drop-down menu and click **Next**.
13. Click **Add**.
14. On the **Add Devices** screen specify the iDRAC IP address of the systems you want to monitor using the Server (out-of-band) Monitoring feature. You can specify by:
 - Scanning the **IP Subnet** that you provided.
 - Scanning a specified **IP Range**.
 - Importing a text file containing the list of iDRAC IP addresses.
15. Click **Advanced Options**, select the **Skip CA Check** and **Skip CN Check** option and click **OK**.
16. Click **Scan for Devices** to search for 12th generations of Dell PowerEdge systems on your network.
The IP addresses are listed under **Available Devices**.
17. Click **Add** to add the list of IP addresses you want to monitor and click **OK**.
18. On the **Specify the devices you want to monitor** screen, click **Create**.
19. After the wizard has been completed, click **Close**.
The scanned Dell systems initially appear in **Monitoring** → **WS-Management and SMASH Monitoring** → **WS-Management Device State** screen, after the SMASH discovery which is automatically triggered is completed by

OpsMgr, the Dell systems appear in **Monitoring** → **WS-Management and SMASH Monitoring** → **SMASH Device State** screen.

Creating A Simple Authentication Run As Account

1. Log on to OpsMgr 2012 as an administrator for the OpsMgr Management Group.
2. On the OpsMgr console, click **Administration**.
3. Right-click **Accounts**, and then click **Create Run As Account**.
The **Create Run As Account Wizard** screen is displayed.
4. Click **Next**.
5. From the **Run As Account type** drop-down menu, select **Simple Authentication**.
6. Provide a display name and a brief description in the **Display Name** and **Description** text box and click **Next**.
7. On the **Credentials** screen provide the iDRAC login credentials for the systems you want to discover using the Server (out-of-band) Monitoring feature. Click **Next**.
8. Select the **Less secure** or **More secure** option as appropriate.
For more information, see the OpsMgr documentation at technet.microsoft.com/en-us/library/hh321655.aspx.


 **NOTE:** If the iDRAC login credentials for two devices are different, create a separate Run As Accounts for each of them.


9. Click **Create**.
10. After the **Run As Account** has been created click **Close**.

Discovering DRAC And Chassis Devices

To discover DRAC and Chassis devices:

1. Follow steps 1 and 2 in [Discovering A Dell System Using The Server \(In-Band\) Monitoring Feature](#).
2. Run the **Discovery Wizard**, select **Network devices** and follow the instructions on the screen.
For more information, see the OpsMgr documentation at technet.microsoft.com.

 **NOTE:** Select the **Run As accounts** created for discovering the DRAC and Chassis devices. For more information, see the "Configuring the Dell Chassis Management Controller Management Pack for Discovering Server Modules and Chassis Slot Summary" section of the *Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* on support.dell.com/manuals.

 **NOTE:** On the **Add a Device console** screen in OpsMgr 2012, type the IP address that you want to scan, select the appropriate Run As account from the SNMP V1 or V2 **Run As account** drop-down box.

Scalability Recommendation For OpsMgr 2012

When managing large number of network devices in a distributed setup, use dedicated resource pools of Management Servers for each device type, if the same Management Group is also used to manage agent-based devices:

1. Create a dedicated resource pool to manage each type of network device such as CMC and DRAC.
2. Add the Management Servers that manage a particular type of network-device to the corresponding resource pool.
3. Remove these Management Servers from **All Management Servers** resource pool.

Discoveries By Dell Server Management Pack Suite

The following tables lists the Dell servers, CMC, DRAC, and its components discovered by the Dell Server Management Pack Suite.

Discoveries By The Dell Server (In-Band) Monitoring Feature

Table 6. Dell Server (In-Band) Monitoring Feature Discoveries

Discovery	Description
Dell Server Detailed BIOS Discovery	Discovers BIOS objects for each Dell system (Detailed edition only).
Dell Server Discovery	Classifies your Dell system and populates the attributes (such as launch points for OpenManage Server Administrator, DRAC, Remote Access IP with IPMI capability, and so on).
Dell Server Hardware Components Discovery	Discovers hardware components at a group level (such as sensors, processor, memory, and power supply).
Dell OpenManage Software Services Discovery	Discovers the objects for OpenManage Server Administrator Windows services and the WMI.
Dell Server Detailed Memory Discovery	Discovers memory instances for your Dell system (Detailed edition only).
Dell Server Detailed Power Supply Discovery	Discovers power supply instances for your Dell system (Detailed edition only).
Dell Server Detailed Processor Discovery	Discovers processor instances for your Dell system (Detailed edition only).
Dell Server Detailed Storage Discovery	Discovers the complete storage hierarchy for your Dell system (Detailed edition only).
Dell Server Network Interface Discovery	Discovers the network interface group level of your Dell system.
Dell Windows Server Detailed Network Interfaces Discovery Module	Discovers the physical and teamed network interface instances of your Dell system (Detailed edition only).
Dell Windows Server Network Interfaces Group Discovery Module	Discovers the Network Interfaces Group.
Dell Unmanaged Server Group Discovery	Discovers Dell systems that are not being monitored either due to the absence of Dell instrumentation, or has a lower version of instrumentation than the required version.

Discoveries By The Dell Server (Out-of-Band) Monitoring Feature

Table 7. Dell Server (Out-of-Band) Monitoring Feature Discoveries

Discovery Object	Description
Dell Server Discovery	Classifies your Dell system and populates the basic attributes.
Dell Registry Discovery	Sets the principal name of the Management Server in the registry.
Dell Device Helper Discovery	Discovers the DellDeviceHelper.dll as an object.

Discoveries By The DRAC Monitoring Feature

Table 8. DRAC Monitoring Feature Discoveries

Discovery Object	Description
Dell Integrated Remote Access Modular Group Discovery	Discovers and populates the iDRAC (Modular) group.
Dell Remote Access Group Discovery	Discovers the Dell Remote Access Group and populates iDRAC.
Dell Integrated Remote Access Monolithic Group Discovery	Discovers the Dell Integrated Remote Access Monolithic Group and iDRAC (Monolithic).
Dell Remote Access 5 Group Discovery	Discovers the Dell Remote Access 5 Group with Dell Remote Access 5 Controllers.
Dell Integrated Remote Access Modular Discovery	Discovers the Chassis Name and Chassis Service Tag of Dell Integrated Remote Access Controllers for Modular systems.
DRAC 5 or iDRAC Discovery	Discovers all supported Dell Remote Access 5 Controllers and Integrated Remote Access Controllers.

Discoveries By The Dell Chassis Monitoring Feature

Table 9. Dell Chassis Monitoring Feature Discoveries

Discovery Object	Description
Dell CMC Discovery	Discovers all supported Dell CMCs.
Dell CMC Slot Discovery	Discovers all supported Dell CMC server modules and chassis slot summary.
Dell DRAC/MC Discovery	Discovers all supported Dell DRAC/MCs.
Dell DRAC/MC Slot Discovery	Discovers all supported Dell DRAC/MC server modules and chassis slot summary.

Discoveries By The Chassis Blade Correlation Feature

Table 10. Chassis Blade Correlation Feature Discoveries

Discovery Object	Description
Dell CMC Chassis to Modular Server Correlation Discovery	Discovers the correlation between the CMC chassis and the Dell modular systems.
Dell DRAC/MC Chassis to Modular Server Correlation Discovery	Discovers the correlation between DRAC/MC chassis and Dell modular systems.

Discoveries By The Dell Common Operations Library Management Pack

Table 11. Dell Common Operations Library Management Pack Discoveries

Discovery Object	Description
Dell Registry Discovery	Sets the principal name of the Management Server in the registry.
Dell License Configuration Discovery	Configures the Dell Connections License Manager web server url.
Dell Feature Management Host Discovery	Picks the host server to run the Feature Management Dashboard among the set of Management Servers.
Dell Registry based Dell Management Suite Discovery	Checks the registry for the installed Server Management Pack Suite and creates a base object.

Customizing Object Discoveries


Object discoveries are used to find objects on a network that need to be monitored.

You can customize the Server Management Pack Suite discovery parameters, using the following override options:

- **Enabled:** Allows you to enable or disable discoveries. You can choose the **Override Setting** to be **True** or **False** to enable or disable discoveries.
- **Interval in Seconds:** The frequency (in seconds) with which the Server Monitoring Feature discovers the component instance and attributes of your Dell system. The default value for this attribute is 24 hours (one day).

Monitoring

This version of Dell Server Management Pack Suite enables you to monitor the discovered Dell systems and network devices. The [Severity Level Indicators](#) help you to monitor the health of your Dell devices on the network.

 **NOTE:** To receive alerts on systems running OpsMgr 2012 see the "Configuring OpsMgr 2012 to Enable Monitoring Traps and Trap Based Unit Monitors" section of the *Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* at support.dell.com/manuals.

Monitoring includes:






- Process events raised by Dell OpenManage Server Administrator (Server Administrator) agents running on Dell Modular and Monolithic systems and display the alerts on the OpsMgr console.
- Monitor Health of Dell Modular and Monolithic systems and their components, chassis, and DRAC devices, both at regular intervals and on occurrence of events.
- Process SNMP trap and knowledge base for Dell Servers (discovered through the Server Out-of-band Monitoring feature), CMC, DRAC/MC, and Dell Remote Access Controllers.

As the system components monitored through Server (In-band) Monitoring feature and Server (Out-of-band) are not exactly the same, it is possible that the overall server health that is shown through In-band (OMSA) and Out-of-band (iDRAC) methods could be different. Drill-down to the specific component status when you observe such discrepancies to resolve specific problem conditions in the system component to bring the overall health of the server to **OK** state.

Severity Level Indicators

The following table lists the icons that indicate the severity levels of the discovered Dell devices on the OpsMgr console.

Table 12. Severity Level Indicators

Icon	Severity Level
	Normal/OK — The component is working as expected.
	Warning/Noncritical — A probe or other monitoring device has detected a reading for the component that is above or below the acceptable level. The component may still be functioning, but it could fail. The component may also be functioning in an impaired state.
	Critical/Failure/Error — The component has either failed or failure is imminent. The component requires immediate attention and may need to be replaced. Data loss may have occurred.
	The health status is not applicable for the specific component.
	The service is unavailable.

Views

Dell Server Management Pack Suite provides the following types of views for Monitoring, under the **Dell** folder on the OpsMgr console:

- [Alerts View](#)
- [Diagram View](#)
- [State View](#)
- [Performance and Power Monitoring Views](#)

Alerts View

This view is available for managing hardware and storage events from Dell systems, Dell chassis, network interfaces, and DRAC devices. The following alerts and traps are displayed by the Server Management Pack Suite:

- Alerts for events received from Server Administrator for Dell PowerEdge and Dell PowerVault systems.
 - **NOTE:** Informational alerts are turned off by default, to enable informational alerts run the **Set Informational Alerts On (Server In-band)** task for Dell Server (In-band) Monitoring on the **Feature Management Dashboard**. For more information, see [Feature Management Tasks](#).
- Link up or Link down alerts for events received from Broadcom and Intel network interface cards for PowerEdge systems.
- SNMP traps sent by DRAC and Chassis devices.
- Platform Event Traps (PET) for Dell systems.

Viewing Alerts On The OpsMgr Console

To view alerts on the OpsMgr console:

1. Launch the OpsMgr console and click **Monitoring**.
2. Click **Dell** → **Alerts Views**.

The following individual **Alerts Views** are displayed:

- **CMC Alerts** — SNMP traps from the discovered Chassis devices are displayed.
 - **Network Interface Alerts** — Link up and Link down alerts from the discovered NICs are displayed.
 - **DRAC/MC Alerts** — events and SNMP traps from the discovered DRAC/MC devices and SNMP traps (for NICs) for 12th generation PowerEdge servers with iDRAC 7 are displayed.
 - **PET Traps Alerts** — platform event traps from discovered Dell systems are displayed.
 - **Remote Access Alerts** — SNMP traps from DRAC 5, iDRAC 6, and iDRAC 7 devices are displayed.
 - **Server Alerts** — Server Administrator alerts from Dell systems, Link up and Link down alerts from the NICs on Dell systems, and SNMP traps for 12th generation PowerEdge servers with iDRAC 7 are displayed.
3. Select any of the **Alerts Views**.

On the right pane of each of the individual **Alerts Views**, alerts that meet the criteria you specify, such as alert severity, resolution state, or alerts that are assigned to you is displayed.
 4. Select an alert to view the details in the **Alert Details** pane.

When you select an alert listed in any of the **Alerts Views**, the associated tasks appear in the **Tasks** pane. For more information on the tasks, see [Tasks](#).

■ **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.

Diagram Views

The **Diagram Views** offers a hierarchical and graphical representation of all Dell systems, Dell chassis devices, and DRAC devices that the Server Management Pack Suite manages. Icons for the various components modeled by the Server Management Pack Suite is displayed in the Diagram view.

Viewing Diagrams On The OpsMgr Console

To view the diagrams on the OpsMgr console:

1. Launch the OpsMgr console and click **Monitoring** → **Dell** → **Diagram Views**.
2. In the **Monitoring** pane on the left side, navigate to the Dell folder for the following views:
 - [Complete Diagram View](#)
 - [Modular Systems Diagram](#)
 - [Monolithic Servers Diagram](#)
 - [Remote Access Controllers Group](#)
3. Select any of the **Diagram Views**.
On the right pane the hierarchical and graphical representation of the selected Dell device is displayed.
4. Select a component in the diagram to view its details in the **Detail View** pane.

Complete Diagram View

The **Complete Diagram View** offers a graphical representation of all Dell devices that OpsMgr monitors. You can expand and verify the status of individual devices and their components in the diagram. You can view details for:

- Modular and Monolithic systems
- Chassis Management Controllers and DRAC/MC devices
- Remote Access Controllers
- Dell Unmanaged Servers

Modular And Monolithic Systems

The **Monolithic Servers Diagram** and **Modular System Diagram** views offer the following details:

- Network interfaces
 - Physical and teamed network interfaces (Server In-band Monitoring only)
 - Physical interfaces (Server Out-of-band Monitoring only)
- Memory
- Power supply (monolithic systems only)
- Sensors
- Processors
- Dell OpenManage Software services (Server In-band Monitoring only)
- Storage controller
- BIOS object (inventory only)
- iDRAC (inventory only)
 - iDRAC NIC (Server Out-of-band Monitoring only)



NOTE: You can launch device or component specific tasks from the **Tasks** pane of the OpsMgr console. For more information, see [Tasks](#).

Modular Systems Diagram

The **Dell Modular Systems Diagram View** offers a graphical representation of all Dell modular systems and allows you to expand and verify the status of individual devices and their components in the diagram.

Monolithic Servers Diagram

The **Dell Monolithic Systems Diagram View** offers a graphical representation of all Dell monolithic systems and allows you to expand and verify the status of individual devices and their components in the diagram.

Dell Server Instance Diagram

Select a Dell system, from the **Dell Modular System** or **Dell Monolithic System** diagram views, to view the diagram specific to that particular system.

System-specific diagrams illustrate and indicate the status of the following components:

- Network interfaces
 - Physical and teamed network interfaces (Server In-band Monitoring only)
 - Physical interfaces (Server Out-of-band Monitoring only)
- Memory
- Power supply (monolithic systems only)
- Sensors
- Processors
- Dell OpenManage software services (Server In-band Monitoring only)
- Storage controller
- BIOS object (inventory only)
- iDRAC (inventory only)
 - iDRAC NIC (Server Out-of-band Monitoring only)

The memory, processors, and power supply components are displayed in detail by the Detailed edition of the Server monitoring feature.

Storage Controller Component Hierarchy

Expand the **Storage** component in any Dell System instance diagram view, to view the status and health of components like physical disks, connectors, virtual disks, controllers, sensors, enclosures, and so on.

Network Interfaces Component Hierarchy

The Network Interfaces group is created *only* when an Intel or Broadcom network interface card is present and enabled on the Dell Windows Server. Network interfaces are grouped under **Physical Interfaces** and **Teamed Interfaces**. If you disable a network interface, it is removed from management in the next discovery cycle.



NOTE: Through the Server Out-of-band monitoring feature, the physical network interfaces is displayed under the **Network Interface Card** group and the iDRAC 7 network interface is displayed under the **iDRAC** object

A reference relationship is created between a Teamed network interface and its associated Physical network interfaces. You can view the reference relationship *only* when you enable the **Enable Correlation** attribute of **Dell Windows Server Physical and Teamed Relationship Discovery**. For more information, see [Enabling Correlation](#).

Enabling Correlation

To enable the **Enable Correlation** attribute:

1. Launch OpsMgr console.
2. From the navigation pane, click **Authoring**.
3. In the **Authoring** tab, click **Management Pack Objects** → **Object Discoveries**.
4. Click **Change Scope** at the top of the screen.

The **Scope Management Pack Objects** screen appears.

5. Select the **View all targets** option and type `Dell` in the **Look for:** field.
6. Select **Teamed Network Interface instance (Basic)** and **Teamed Network Interface instance (Enriched)** options and click **OK**.
7. Right-click **Dell Windows Server Physical and Teamed Relationship Discovery Rule** → **Overrides** → **Override the Object Discovery** → **For all objects of class: Teamed Network Interface instance (Enriched)**.
The **Override Properties** page appears.
8. Select **Enable Correlation** and set the **Override Value** to **True** and click **OK**.

The status roll-up of network interfaces on the diagram view is displayed only up to the **Network Interfaces** group level. For example, if the remaining components of the Dell system are normal and only one or more of the network interfaces are critical or noncritical, then the normal icon is displayed by the Dell system, and the critical or warning icon is displayed by the **Network Interfaces** group.

Enabling Network Interfaces Group To Dell Server Health Roll Up

For the status roll-up to be displayed at the server level, you must enable the **Network Interfaces Group to Dell Server Health Roll up** dependency monitor.

To enable the monitor:

1. Launch OpsMgr console.
2. From the navigation pane, click **Authoring**.
3. Click **Monitors** and on the left pane and select the **Network Interfaces Group monitor**.
4. Click **Entity Health** → **Availability**.
5. Right-click **Network Interfaces Group to Dell Server Health Roll up** and select **Overrides** → **Enable the Monitor** from the menu options.


Chassis Management Controllers Group


The **Chassis Management Controllers Group** diagram view offers a graphical representation of all Dell CMC, DRAC/MC devices, and their inventory. For Chassis discovery, see [Discovering DRAC And Chassis Devices](#). Chassis are discovered under modular chassis.

For discovered CMC and DRAC/MC chassis, you can view the occupied and free slot summary in the Chassis Slots Summary.

Slot names modified on CMC and DRAC/MC chassis are reflected in the diagram view.

The correlation of Dell servers with the server modules of CMC and DRAC/MC chassis is displayed in the **Chassis Management Controllers Group** diagram. The Dell system is visible under the slot in the diagram.

 **CAUTION: The Chassis Blade Correlation monitoring feature discovers the correlation between the Dell CMCs or DRAC/MCs discovered by the Chassis monitoring feature and the Dell modular systems discovered by the Server (in-band and out-of-band) monitoring feature. To discover the correlation, the feature queries the Root Management Server (RMS). When you are monitoring a large number of chassis and modular systems, the number of queries to the RMS increases and this results in high CPU utilization on the management server that manages the CMCs or DRAC/MCs. The CPU utilization comes down after the correlation is complete. This behavior occurs in every discovery cycle set in Dell CMC Chassis to Modular Server Correlation Discovery or the Dell DRAC/MC Chassis to Modular Server Correlation Discovery.**

 **NOTE:** Create **RunAsAccount** for CMC and DRAC/MC slots discovery with simple, basic, or digest authentication only. For more information, see "Configuring the Dell Chassis Management Controller Management Pack for Discovering Server Modules and Chassis Slot Summary" section of the *Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager and System Center Essentials Installation Guide* at support.dell.com/manuals.



NOTE: The iDRAC firmware of the modular systems should be compatible with the CMC firmware, failing which, the Service Tag is displayed as **Not Available** and the Chassis Blade Correlation may not be possible.

Remote Access Controllers Group

The **Remote Access Controllers Group** diagram **view** offers a graphical representation of all DRAC 5, iDRAC 6, and iDRAC 7 (modular and monolithic) devices. Select a component in the diagram to view its details in the **Detail View** pane.

State Views

This view is available for managing Dell systems, Dell CMC and DRAC/MC, and Dell Remote Access devices. In the OpsMgr console, click **Dell** → **State Views**, the status of each Dell device managed by OpsMgr on your network is displayed.

Select the device group for which you want to see the State view. For example, click **Servers** to view the status of your Dell Monolithic and Modular systems. You can view the status for the following groups:


- CMC
- Managed servers (In-Band)
- Managed servers (Out-Of-Band)
- Unmanaged servers (Out-Of-Band)
- DRAC 5
- DRAC/MC
- iDRAC 6 Modular
- iDRAC 6 Monolithic
- iDRAC 7 Modular
- iDRAC 7 Monolithic


The health of a component is derived by reviewing the unresolved alerts associated with the component. [Severity Level Indicators](#) explains the various state components that the Server Management Pack Suite uses with their corresponding severity levels.


Performance And Power Monitoring Views

To view the performance and power monitoring on the OpsMgr console:

1. Launch the OpsMgr Console and click **Monitoring**.
2. In the **Monitoring** pane, click **Dell** → **Performance and Power Monitoring for the following views:**
 - **Ambient Temperature (Centigrade)**
 - **Amperage (Amps)**
 - **Energy Consumption (kWh)**
 - **Peak Amperage (Amps)**
 - **Peak Power (Watts)**
 - **Physical Network Interface**
 - **Power Consumption (Watts)**
 - **Power Consumption (BTU/hr)**
 - **Teamed Network Interface**
 - **Dell Performance View**

 **NOTE:** Power Monitoring is applicable only for Dell Systems with Power Monitoring capability for a particular attribute. It is enabled only when the detailed edition of Server In-band Monitoring feature is present.

 **NOTE:** Teamed and Physical network interface instances are disabled by default and will appear only when detailed edition of the Server Monitoring In-band feature is installed and is present.

 **NOTE:** Dell Performance View is available only through the Server Out-of-band Monitoring feature. All performance metrics rules are disabled by default for Server Out-of-band Monitoring feature.

3. Select the counters from the individual performance views and select the time range for which the values are required.

The data collected is represented in a graphical format for each system.

A unit monitor, monitors the performance counter over two successive cycles to check if it exceeds a threshold value. When the condition is breached, the server changes state and generates an alert. This unit monitor is disabled by default. You can override (enable and modify) the threshold values from the **Authoring** pane of the OpsMgr console. For Server In-band Monitoring feature it is under **Monitors for Dell Windows Server objects** and for Server (Out-of-band) Monitoring feature it is under **Monitors for Dell Server objects**.

For more information on performance information collection, see [Performance Collection Rules](#).

Unit Monitors

Unit monitors assess the various conditions that can occur in monitored objects. The result of this assessment determines the health state of a target and the alerts that are generated.

The unit monitors are:

- **Event Monitor** — triggered by the event that the Dell instrumentation logs in the Windows event log, indicating the health of the corresponding object.
- **Unit Monitor** — triggered by a periodic poll configured as IntervalSeconds.

The following tables illustrates the various Dell monitors and the applicable parameters for your Dell devices.

Dell Unit Monitors For Server (In-Band) Monitoring Feature

Monitors to assess various conditions that can occur in Server (In-band) monitored objects.

Table 13. Dell Unit Monitors For Server (In-band) Monitoring Feature

Groups	Unit Monitor
Memory	
Dell Server Memory Status	Event and Periodic
Dell Server Memory Redundancy Status	Event and Periodic
Memory Unit Instance	
Detailed Memory Event Monitor	Event
Detailed Memory Unit Monitor	Periodic
OpenManage Software Services	
DSM Connection Service Availability Status	Windows Service
DSM Data Manager Availability Status	Windows Service
DSM Event Manager Availability Status	Windows Service

Groups	Unit Monitor
DSM Shared Service Availability Status	Windows Service
DSM Storage Service Availability Status	Windows Service
WMI Service Availability Status	Windows Service
Power Supplies	
Dell Server Power Supplies Status	Event and Periodic
Power Supplies Unit Instance	
Detailed Power Supply	Event and Periodic
Processors	
Dell Server Processors Status	Event and Periodic
Processor Unit Instance	
Detailed Processor	Event and Periodic
Sensors	
Dell Server Battery Status	Event and Periodic
Dell Server Current Status	Event and Periodic
Dell Server Fans Status	Event and Periodic
Dell Server Intrusion Sensor Status	Event and Periodic
Dell Server Temperature Sensor Status	Event and Periodic
Dell Server Voltage Sensor Status	Event and Periodic
Storage Controller	
Storage Controller Status	Event and Periodic
Storage Controller Connector Instance	
Controller Connector Event Monitor	Event
Controller Connector Unit Monitor	Periodic
Storage Controller EMM Instance	
Enclosure EMM Event Monitor	Event
Enclosure EMM Unit Monitor	Periodic
Storage Controller Enclosure Instance	
Controller Enclosure Event Monitor	Event
Controller Enclosure Unit Monitor	Periodic
Storage Controller Physical Disk Instance	
Controller Physical Disk Event Monitor	Event
Controller Physical Disk Unit Monitor	Periodic
Enclosure Physical Disk Event Monitor	Event
Enclosure Physical Disk Unit Monitor	Periodic
Storage Controller Power Supply Instance	
Enclosure Power Supply Event Monitor	Event
Enclosure Power Supply Unit Monitor	Periodic

Groups	Unit Monitor
Storage Controller Sensors	
Controller Sensor Event Unit Monitor	Event
Controller Sensor Unit Monitor	Periodic
Storage Controller Virtual Disk Group	Event and Periodic
Storage Controller Virtual Disk Instance	Event and Periodic
Controller Virtual Disk Event Monitor	Event
Controller Virtual Disk Unit Monitor	Periodic
Storage Enclosure Physical Disk Group	Event and Periodic
Storage Enclosure Sensors	
Enclosure Fan Event Unit Monitor	Event
Enclosure Fan Unit Monitor	Periodic
Enclosure Temperature Event Monitor	Event
Enclosure Temperature Unit Monitor	Periodic
Network Interfaces Group (Basic)	
Global Network Interfaces (Basic) Connection Status	Event and Periodic
Network Interfaces Group (Enriched)	
Global Enriched Network Interfaces Status	Event and Periodic
Global Network Interfaces (Basic) Connection Status	Event and Periodic
Physical Network Interface Instance (Basic)	
Connection Status	Event and Periodic
Physical Network Interface Instance (Enriched)	
Administrative Status	Event and Periodic
Connection Status	Event and Periodic
Link Status	Event and Periodic
Operational Status	Event and Periodic
Teamed Network Interface Instance (Basic)	
Teamed Network Interface (Basic) Availability Status	Event and Periodic
Teamed Network Interface Instance (Enriched)	
Teamed Network Interface Instance (Enriched) Administrative Status	Event and Periodic
Teamed Network Interface Instance (Enriched) Connection Status	Event and Periodic
Teamed Network Interface Instance (Enriched) Link Status	Event and Periodic
Teamed Network Interface Instance (Enriched) Operational Status	Event and Periodic

Groups	Unit Monitor
Teamed Network Interface Instance (Enriched) Redundancy Status	Event and Periodic
iDRAC	
Dell Server iDRAC Network Interface Monitor	Periodic

Dell Unit Monitors For Server (Out-of-Band) Monitoring Feature

Monitors to assess various conditions that can occur in Server (Out-of-band) monitored objects.

Table 14. Dell Unit Monitors For Server (Out-of-Band) Monitoring

Groups	Unit Monitor
Dell Battery Sensor Group	
Dell Server Battery Group Sensor Health	Periodic
Dell Battery Sensor	
Dell Server Battery Sensor Health	Periodic
Dell Current Sensor	
Dell Server Current Sensor Health	Periodic
Dell Fan Sensor	
Dell Server Fan Sensor Health	Periodic
Dell Fan Sensor Group	
Dell Server Fan Group Sensor Health	Periodic
Dell Intrusion Sensor	
Dell Server Intrusion Sensor Health	Periodic
Dell Modular Blade Server With Operating System	
Dell Server Run AS Account Association	Periodic
Dell Server Unit Monitor	Periodic
Dell Modular Blade Server Without Operating System	
Dell Server Run AS Account Association	Periodic
Dell Server Unit Monitor	Periodic
Dell Monolithic Server With Operation System	
Dell Server Run AS Account Association	Periodic
Dell Server Unit Monitor	Periodic
Dell Monolithic Server Without Operation System	
Dell Server Run AS Account Association	Periodic
Dell Server Unit Monitor	Periodic
Dell Network Interfaces Group	
Dell Server Network Interface Group	Periodic
Dell Physical Network Interface	

Groups	Unit Monitor
Dell Server Network Interface Unit	Periodic
Dell Server	
Dell Server Run AS Account Association	Periodic
Dell Server Unit Monitor	Periodic
Dell Server Memory	
Dell Server Memory Unit	Periodic
Dell Server Memory Group	
Dell Server Memory Group	Periodic
Dell Server Power Supply	
Dell Server Power Supply Unit	Periodic
Dell Server Power Supply Group	
Dell Server Power Supply Group	Periodic
Dell Server Processor	
Dell Server CPU	Periodic
Dell Server Processor Group	
Dell Server Processor Group	Periodic
Dell Storage Controller	
Dell Server Storage Controller	Periodic
Dell Server Controller Battery	
Dell Server Controller Battery Unit	Periodic
Dell Server Connector Enclosure	
Dell Server Connector Enclosure	Periodic
Dell Storage Controller Enclosure EMM	
Dell Server Enclosure EMM	Periodic
Dell Storage Controller Enclosure Fan Sensor	
Dell Server Enclosure Fan Sensor	Periodic
Dell Storage Controller Enclosure Physical Disk	
Dell Server Enclosure External Physical Disk	Periodic
Dell Storage Controller Enclosure Power Supply	
Dell Server Enclosure Power Supply	Periodic
Dell Storage Controller Enclosure Temperature Sensor	
Dell Server Temperature Sensor	Periodic
Dell Storage Controller Internal Physical Disk	
Dell Server Internal Physical Disk Unit	Periodic
Dell Storage Controller Physical Disk	
Dell Server Controller Direct Attached Physical Disk	Periodic
Dell Storage Group	

Groups	Unit Monitor
Dell Server Storage	Periodic
Dell Storage Virtual Disk	
Dell Server Controller Virtual Disk Unit	Periodic
Dell Temperature Sensor	
Dell Server Temperature Sensor Health	Periodic
Dell Temperature Sensor Group	
Dell Server Temperature Sensor Group Health	Periodic
Dell Voltage Sensor	
Dell Server Voltage Sensor Health	Periodic
Dell Voltage Sensor Group	
Dell Server Sensors Voltage Group	Periodic

Dell Unit Monitors For Chassis Monitoring Feature

Monitors to assess various conditions that can occur in Chassis monitored objects.


Table 15. Dell Unit Monitors For Chassis Monitoring Feature

Groups	Unit Monitor
Dell CMC	
Dell CMC Status	Event and Periodic
DRAC/MC	
Dell DRAC/MC Status	Event and Periodic


Dell Unit Monitors For DRAC Monitoring Feature

Monitors to assess various conditions that can occur in DRAC monitored objects.

Table 16. Dell Unit Monitors For DRAC Monitoring Feature

Groups	Unit Monitor
Dell Remote Access Controller 5	
Dell Remote Access Status	Event and Periodic
 NOTE: DRAC 5 and iDRAC 6 share the same unit monitor.	
iDRAC6 Modular	
Dell Remote Access Status	Event and Periodic
iDRAC6 Monolithic	
Dell Remote Access Status	Event and Periodic
iDRAC7 Modular	
Dell Remote Access Status	Event and Periodic
Controller Global Status	Event and Periodic

Groups	Unit Monitor
Controller Global Storage Status	Event and Periodic
iDRAC7 Monolithic	
Dell Remote Access Status	Event and Periodic
Controller Global Status	Event and Periodic
Controller Global Storage Status	Event and Periodic

 **NOTE:** For iDRAC 7 modular and iDRAC 7 monolithic devices, the Dell RAC periodic-based and Dell RAC triggered-based unit monitors are disabled.

Customizing Unit Monitors

You can customize the following parameters of the Dell Server Management Pack Suite unit monitors by using overrides:

- **Enabled** — Allows you to enable or disable Monitors. You can choose the **Override Setting** to be **True** or **False** to enable or disable monitors.
- **Interval in Seconds** — The frequency (in seconds) with which the Server Management Pack Suite polls the Dell device to check the health of a component.

Rules

The following section lists the rules specific to the Dell Server Management Pack Suite.

Dell Systems Event Processing Rules

The Dell Server Management Pack Suite processes rules from Server Administrator, Server Administrator Storage Management events, DRAC, and Chassis traps.

Server Administrator

All informational, warning, and critical events for Server Administrator have a corresponding event processing rule.

Each of these rules are processed based on the following criteria:

- Source Name = "Server Administrator"
- Event ID = Actual event ID of the Server Administrator instrumentation event
- Severity = Severity of the actual event
- Data Provider = Windows system event log

Storage Management

All informational, warning, and critical events for the Server Administrator Storage Management Service have a corresponding event processing rule.

Each of these rules are processed based on the following criteria:

- Source Name = "Server Administrator"
- Event ID = Actual event ID of the Server Administrator Storage Management Service event
- Severity = Severity of the actual event

- Data Provider = Windows system event log

DRAC, CMC, Or DRAC/MC

All informational, warning, and critical SNMP traps for the DRAC, CMC, and DRAC/MC devices have a corresponding SNMP trap rule.

Each of these rules are processed based on the following criteria:

- Source Name = "DRAC/CMC/DRAC/MC name or ip"
- OID = Actual trap ID of the DRAC /CMC/DRAC/MC SNMP trap event
- Severity = Severity of the actual event
- Data Provider = SNMP trap

Dell Servers

All informational, warning, and critical SNMP traps for Dell Servers discovered using Server (Out-of-band) Monitoring feature, have a corresponding SNMP trap rule.

Each of these rules are processed based on the following criteria:

- Source Name = "Dell Server ip"
- OID = Actual trap ID of the trap event
- Data Provider = SNMP trap event provider

Performance Collection Rules

In the OpsMgr console, click **Monitoring** → **Dell** → **Performance and Power Monitoring Views** to view the performance information that is collected from Dell systems. By default this feature is disabled, to enable the feature, see [Enabling Performance Collection Rules](#).

The performance collection rules collect information on the following parameters:

- **Ambient Temperature (Centigrade)**
- **Amperage (Amps)**
- **Energy Consumption (kWh)**
- **Peak Amperage (Amps)**
- **Peak Power (Watts)**
- **Physical Network Interface**
- **Power Consumption (Watts)**
- **Power Consumption (BTU/hr)**
- **Teamed Network Interface**
- **Dell Performance View**

Enabling Performance Collection Rules


To enable this feature:

1. Launch OpsMgr console and click **Authoring**.
2. Select **Rules**.
3. Right-click the rule you want to enable.

For example, to collect information on Network Interface of all Dell systems, perform step 4 to step 5 for the rules listed below:


- Total Transmitted Packets
 - Received Bytes
 - Total Received Packets
 - Transmitted Bytes
4. Select **Overrides** → **Override the Rule** → **For all objects of class**.
 5. Select **Override** and provide **Override value** as **True**.
 6. Click **Apply**.

Alternatively, when the Detailed edition of Server Management Feature is imported, these disabled Performance (excluding Network Performance) collection rules are enabled by default.

 **NOTE:** Network Statistics are defined in Detailed edition of Server Monitoring Feature only and are disabled by default. Enable network statistics by following the above steps.

Tasks

Tasks are available in the **Tasks** pane of the OpsMgr console. When you select a device or a component in any of the Dell diagram views, the relevant tasks appear in the **Tasks** pane.


 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.







You can run all the tasks from the **Diagram Views**, **State Views**, or **Alert Views**.



Task Summary

A summary of the Dell Tasks that you can perform using the Server Management Pack Suite are explained in the following table:

Table 17. Dell Tasks Using The Server Management Pack For OpsMgr

Dell Task	Description
Dell Modular and Monolithic System Tasks (In-band)	
Clear ESM Logs	Backs up the content of the Embedded System Management (ESM) log and clears the ESM log file for a selected system.
Launch Dell OpenManage Server Administrator	Launches the Dell OpenManage Server Administrator.  NOTE: Launching OpenManage Server Administrator is possible only if Dell OpenManage Server Administrator is installed in the managed node.
Launch Remote Desktop	Launches remote desktop for the selected system.
Check Power Status	Checks the overall power status of the system.
Force Power Off	Turns off the system power without shutting down the operating system.
Launch InBand Dell Remote Access Console	Launches the DRAC console for the in-band discovered DRAC.
Power Cycle	Turns off the power, and after a delay, turns it on again.
Power Off Gracefully	Shuts down the operating system first, then turns off the system power.
Power On	Turns on the system power. This option is available only if the system is off.
Power Reset	Turns off the system power and turns it on again.
Turn LED Identification On	Turns on the Identify LED on the selected system for 255 seconds.
Turn LED Identification Off	Turns off the Identify LED on the selected system.

Dell Task	Description
Launch Dell OpenManage Power Center	Launches the Dell OpenManage Power Center console on the Management Server.
Launch Dell License Manager On X32 bit Management Server	Launches the Dell License manager on management systems running 32-bit operating system.
Launch Dell License Manager On X64 bit Management Server	Launches the Dell License manager on management systems running 64-bit operating system.
Get Warranty Information	Retrieves the warranty information for the selected system.  NOTE: An active Internet connection is required to retrieve the warranty information.
Dell Modular and Monolithic System Tasks (Out-of-band)	
Get Warranty Information	Retrieves the warranty information for the selected system.  NOTE: An active Internet connection is required to retrieve the warranty information.
Launch Dell OpenManage Server Administrator (Monolithic Server)	Launches the Dell OpenManage Server Administrator.  NOTE: Launching OpenManage Server Administrator is possible only if a Windows or Linux operating system and Dell OpenManage Server Administrator is installed in the managed node.
Launch Remote Desktop (Monolithic Server)	Launches remote desktop for the selected system.  NOTE: Launching remote desktop is possible only if Windows operating system is installed and remote desktop is enabled manually in the managed node.
Launch Dell OpenManage Power Center	Launches the Dell OpenManage Power Center console for the selected system.  NOTE: Launching OpenManage Power Center is possible only if Windows or Linux operating system and OpenManage Server Administrator is installed in the managed node.
Launch Dell Remote Access Console	Launches the iDRAC console for the out-of-band discovered iDRAC devices.
Launch Dell License Manager	Launches the Dell License Manager on the management system.  NOTE: Launching Dell License Manager is possible only if a Windows or Linux operating system is installed and Dell License Manager is installed in the managed node.
DRAC Tasks	
Launch Dell Remote Access Console	Launches the DRAC console for the discovered DRAC.

Dell Task	Description
Launch Dell License Manager	Launches the Dell License manager on management system.
Launch Remote Desktop	Launches remote desktop for the selected system.  NOTE: This feature is available only on systems with iDRAC 7.
Launch Dell OpenManage Server Administrator	Launches the Dell OpenManage Server Administrator.  NOTE: This feature is available only on systems with iDRAC 7.
Dell Chassis Tasks	
Launch Dell CMC Console	Launches the CMC console.
Launch Dell Modular Chassis Remote Access Console	Launches the DRAC/MC console.

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:** In the OpsMgr even log, ignore the error logs that state that the management packs being imported are already imported and cannot be re-imported. These errors occur when Feature Management Dashboard re-imports all the dependent MPs that were already imported in OpsMgr 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 18. Feature Management Tasks

Tasks	Description
Server (Out-of-band) Monitoring	
 NOTE: Supported only on 12th generation of PowerEdge servers running OpsMgr 2012.	
Configure License Server	Configures the Dell Connections License Manager. For more information, see Configuring Dell Connections License Manager URL .
 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	Launches the Dell Connections License Manager console. For more information, see <i>Dell Connections License Manager User's Guide</i> at support.dell.com/manuals .
 NOTE: While configuring the Dell Connections License Manager, the License Manager task is enabled only after the configuration of the LicenseWebUIURL is complete. For more information, see Configuring Dell Connections License Manager URL .	

Tasks	Description
 NOTE: The Configure License Server and Launch Connections License Manger are common tasks for all the Monitoring features on Feature Management Dashboard.	
Set Server (Out-of-band) Monitoring as Preferred Monitoring Method	If the Dell servers in the setup are monitored through both the Server (In-band) Monitoring feature and Server (Out-of-band) Monitoring feature, this task enables the Server (Out-of-band) Monitoring feature as the monitoring method for your Dell server.
Import Server (Out-of-band) Scalable Feature	If the Monitoring feature is not installed, the Scalable edition of Server (Out-of-band) Monitoring Feature is imported.
Import Server (Out-of-band) Detailed Feature	If the Monitoring feature is not installed, then the Detailed edition of Server (Out-of-band) Monitoring Feature is imported.
Set to Server (Out-of-band) Scalable Feature	If the Detailed edition of Server (Out-of-band) Monitoring Feature is running on the system, the Feature Management Dashboard switches from Server (Out-of-band) Detailed Feature to Server (Out-of-band) Scalable Feature.
Set to Server (Out-of-band) Detailed Feature	If the Scalable edition of Server (Out-of-band) Monitoring Feature is running on the system, the Feature Management Dashboard switches from Server (Out-of-band) Scalable Feature to Server (Out-of-band) Detailed 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	If the Monitoring feature is not installed, the Detailed edition of Server (In-band) Monitoring Feature is imported. If upgrading from previous versions of Dell Server Management Pack Suite, the Detailed edition of Server (In-band) Monitoring feature is imported.
Import Server (In-band) Scalable Feature	If the Monitoring feature is not installed, the Scalable edition of Server (In-band) Monitoring Feature is imported. If upgrading from previous versions of Dell Server Management Pack Suite, the Scalable edition of Server (In-band) Monitoring Feature is imported.
Set Server (In-band) Monitoring as Preferred Monitoring Method	If the Dell servers in the setup are monitored through both the Server In-band Monitoring feature and Server Out-of-band Monitoring feature, this task enables the Server (In-band) Monitoring feature as the monitoring method for your Dell server.
Set to Server (In-band) Scalable Feature	If the Detailed edition of Server (In-band) Monitoring Feature is running on the system, the Feature

Tasks	Description
Set to Server (In-band) Detailed Feature	Management Dashboard switches from Server (In-band) Detailed Feature to Server (In-band) Scalable Feature.
Set Informational Alerts On (Server In-band)	If the Scalable edition of Server (In-band) Monitoring Feature is running on the system, the Feature Management Dashboard switches from Server (In-band) Scalable Feature to Server (In-band) Detailed Feature.
Set Informational Alerts Off (Server In-band)	Information Alerts are turned on when the Server (In-band) Scalable Monitoring is in use.
Remove Server (In-band) Feature	Information Alerts are turned off when the Server (In-band) Scalable Monitoring is in use.
DRAC Monitoring	Removes the Server (In-band) Monitoring feature.
Import DRAC Monitoring Feature	If the Monitoring feature is not installed, then the DRAC Monitoring feature is imported.
Upgrade DRAC Monitoring Feature	If upgrading from previous versions of Dell Server Management Pack Suite, the DRAC Monitoring feature of the current version Dell Server Management Pack is imported.
Remove DRAC Monitoring Feature	Removes the DRAC Monitoring feature.
Chassis Monitoring	
Import Chassis Monitoring Feature	If the Monitoring feature is not installed, then the Chassis Monitoring feature is imported.
Upgrade Chassis Monitoring Feature	If upgrading from previous versions of Dell Server Management Pack Suite, the Chassis Monitoring feature of the current version Dell Server Management Pack is imported.
Remove Chassis Monitoring Feature	Removes the Chassis Monitoring feature.
Chassis Modular Server Correlation	
Import Chassis Modular Server Correlation Feature	If the Monitoring feature is not installed, then the Chassis Modular Server Correlation feature is imported.
Upgrade Chassis Modular Server Correlation Feature	If upgrading from previous versions of Dell Server Management Pack Suite, the Chassis Modular Server Correlation feature of Dell Server Management Pack is imported.
Remove Chassis Modular Server Correlation Feature	Removes the Chassis Blade Correlation Monitoring feature.

Dell Modular and Monolithic Systems Tasks (In-band)


Clear ESM Logs

The Server Administrator Embedded Server Management (ESM) log, also referred to as the hardware log, maintains a list of all system events generated by the hardware, such as error-correcting code (ECC), system reset and boot, and probe threshold changes. You can refer to this log when hardware errors appear or when the system is not functioning properly.

To run the **Clear ESM Logs** task:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Clear ESM Logs**.

The **Run Tasks** window appears.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.


4. Click **Run** to clear the ESM logs of the device that you selected.

When you run the **Clear ESM Logs** task, on the task execution screen only the result of the task initiating is displayed. For example, the task execution screen may show a success result even if the ESM logs are not cleared. This means that the **Clear ESM Logs** task initiation was successful.

Launch Dell OpenManage Server Administrator

To launch Server Administrator:


1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch Server Administrator**.

 **NOTE:** Server Management Pack Suite Tasks launch the Remote Console in Internet Explorer.

Launch Remote Desktop

To launch remote desktop:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch Remote Desktop**.

 **NOTE:** Launching remote desktop is possible only if remote desktop is enabled manually in the managed node.


Launch InBand Dell Remote Access Console

To launch InBand Dell Remote Access Console:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch InBand Dell Remote Access Console**.

Check Power Status

You can check the power status and allow power control tasks through the IPMI shell.


 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To check the power status of a system:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Check Power Status**.

Power Cycle

You can use this task to turn off the power to the Dell system, and after a delay, turn it on again.


 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To run the power cycle:

1. In the OpsMgr console, navigate to a **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Power Cycle**.

Force Power Off

You can use this task to power off the system without shutting down the operating system.


 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To power off the system:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Force Power Off**.

Power Off Gracefully

You can use this task to shut down the operating system and power off the system.


 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To power off the system gracefully:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Power Off Gracefully**.

Power On

You can use this task to power on the server. This option is available even if the system power is off.

 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To power on a system:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Power On**.

Power Reset

You can use this task to power off and then power on the system.

 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To reset the power of the system:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Power Reset**.

Turn LED Identification Off

You can use this task to turn off the LED identification on the selected system.

 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To turn off LED identification:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Turn LED Identification Off**.

Turn LED Identification On

You can use this task to turn on the LED identification on the selected system.

 **NOTE:** To enable Advanced Power Control, install BMU in the default path. If BMU was not installed in the default path, create a new task. For more information, see [Creating Advanced Power Control And LED Identification Tasks](#).

To turn on LED identification:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Turn LED Identification On**

Get Warranty Information

You can use this task to see the warranty status of the selected system.

To get warranty information:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Get Warranty Information** .

Launch Dell OpenManage Power Center

You can use this task to launch the OpenManage Power Center console.

To launch Dell OpenManage Power Center:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch Dell OpenManage Power Center** .

Launch Dell License Manager On X32 Bit Management Server

You can use this task to launch the Dell License Manager on management server running 32-bit operating system. Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC licenses.



NOTE: If the Dell License Manager has not been installed in the default path create a new task to launch Dell License Manager. For more information, see [Creating A Launch License Manager Task](#).

To launch Dell License Manager:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch Dell License Manager on X32 bit Management Server**.

Launch Dell License Manager On X64 Bit Management Server

You can use this task to launch the Dell License Manager on management systems running 64-bit operating system. Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC licenses.



NOTE: If the Dell License Manager has not been installed in the default path create a new task to launch Dell License Manager. For more information, see [Creating A Launch License Manager Task](#).

To launch Dell License Manager:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.

3. In the **Tasks** pane, select **Dell Windows Server Tasks** → **Launch Dell License Manager on X64 bit Management Server**.

Dell Modular and Monolithic Systems Tasks (Out-Of-Band)


Get Warranty Information

You can use this task to see the warranty status of the selected system.

To get warranty information:


1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Server Tasks** → **Get Warranty Information**.

Launch Dell OpenManage Server Administrator (Monolithic Server)


 **NOTE:** Launching OpenManage Server Administrator is possible only if Windows or Linux operating system and OpenManage Server Administrator is installed in the managed node.

To launch Server Administrator from the OpsMgr console on Monolithic Servers:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Server Tasks** → **Launch Dell OpenManage Server Administrator (Monolithic Server)**.

 **NOTE:** Server Management Pack Suite Tasks launch the Remote Console in Internet Explorer.


Launch Remote Desktop (Monolithic Server)

 **NOTE:** Launching remote desktop is possible only if the Windows operating system is installed and remote desktop is enabled manually in the managed node.

To launch Remote Desktop from the OpsMgr console:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Server Tasks** → **Launch Remote Desktop (Monolithic Server)**.

Launch Dell OpenManage Power Center

 **NOTE:** Launching OpenManage Power Center is possible only if Windows or Linux operating system and OpenManage Server Administrator is installed in the managed node.

You can use this task to launch the OpenManage Power Center console.

To Launch Dell OpenManage Power Center:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Server Tasks** → **Launch Dell OpenManage Power Center**.

Launch Dell Remote Access Console

To launch Dell Remote Access Console:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Task** pane, select **Dell Server Tasks** → **Launch Dell Remote Access Console**.

Launch Dell License Manager

You can use this task to launch the Dell License Manager on management systems. Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC licenses.



NOTE: If the Dell License Manager has not been installed in the default path create a new task to launch Dell License Manager. For more information, see [Creating A Launch License Manager Task](#).

To launch Dell License Manager:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Task** pane, select **Dell Windows Server Tasks** → **Launch Dell License Manager**.

Dell Remote Access Controller (DRAC) Tasks

Launch Dell Remote Access Console

You can use this task to launch the Dell Remote Access Console, if the DRAC is installed on your Dell system.

To launch Dell Modular Chassis Remote Access console:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired DRAC/iDRAC device in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. *On systems running System Center Operations Manager 2007.*
In the **Actions** pane, select **SNMP Network Device Tasks** → **Launch Dell Remote Access Console**.
On systems running System Center 2012 Operations Manager.
In the **Tasks** pane, select **Dell Remote Access Controller Tasks** → **Launch Dell DRAC Console**.

Launch Dell License Manager

You can use this task to launch the Dell License Manager on management systems. Dell License Manager is a one-to-many license deployment and reporting tool for Dell iDRAC licenses.




NOTE: If the Dell License Manager has not been installed in the default path, create a new task to launch Dell License Manager. For more information, see [Creating A Launch License Manager Task](#).

To launch Dell License Manager:


1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Remote Access Controller Tasks** → **Launch Dell License Manager**.

Launch Dell OpenManage Server Administrator


 **NOTE:** The Dell OpenManage Server Administrator feature is available only on systems with iDRAC 7.


To launch Dell OpenManage Server Administrator:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. In the **Tasks** pane, select **Dell Remote Access Controller Tasks** → **Launch Dell OpenManage Server Administrator**.
4. *On systems running System Center Operations Manager 2007.*
In the **Actions** pane, select **SNMP Network Device Tasks** → **Launch Dell OpenManage Server Administrator**.
On systems running System Center 2012 Operations Manager.
In the **Tasks** pane, select **Dell Remote Access Controller Tasks** → **Launch Dell OpenManage Server Administrator**.

 **NOTE:** Server Management Pack Suite Tasks launches the Remote Console in Internet Explorer.

Launch Remote Desktop

 **NOTE:** The remote desktop feature is available only on systems with iDRAC 7.

 **NOTE:** Launching remote desktop is possible only if remote desktop is enabled manually in the managed node.

To launch remote desktop:

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the desired Dell system in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. *On systems running System Center Operations Manager 2007.*
In the **Actions** pane, select **SNMP Network Device Tasks** → **Launch Dell OpenManage Server Administrator**.
On systems running System Center 2012 Operations Manager.
In the **Tasks** pane, select **Dell Remote Access Controller Tasks** → **Launch Dell OpenManage Server Administrator**.

Dell Chassis Tasks

Launch Dell CMC Console

You can use this task to launch the CMC console.

1. In the OpsMgr console, navigate to the Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the CMC device in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. *On systems running System Center Operations Manager 2007.*
In the **Actions** pane, select **SNMP Network Device Tasks** → **Launch Dell CMC Console**.
On systems running System Center 2012 Operations Manager.
In the **Tasks** pane, select **Dell CMC Tasks** → **Launch Dell CMC Console**.




Launch Dell Modular Chassis Remote Access Console

You can use this task to launch the DRAC/MC console.

1. In the OpsMgr console, navigate to the Dell **Diagram Views**, **State Views**, or **Alert Views**.
2. Select the DRAC/MC device in any of the **Diagram Views** or **State Views** or an alert in the **Alerts Views**.
3. *On systems running System Center Operations Manager 2007.*
In the **Actions** pane, select **SNMP Network Device Tasks** → **Launch Dell Modular Chassis Remote Access Console**.
On systems running System Center 2012 Operations Manager.
In the **Tasks** pane, select **Dell DRAC/MC Tasks** → **Launch Dell Modular Chassis Remote Access Console**.


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 support.dell.com/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 support.dell.com/manuals.
 3. Launch 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. Run the **Configure License Server** task.
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 enter 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 enter 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.

Reports

The reporting feature allows you to create reports for Dell OpenManage Windows Event Log, Dell Server BIOS, Firmware, and RAID configuration.


 **NOTE:** Dell Server BIOS, Firmware, and RAID Configuration Reports are only available in the Detailed Edition of Server (In-band) Management Pack.

Accessing Reports

To access the reporting:

1. Click **Reporting** in your OpsMgr console.
2. Expand **Reporting** → **Application Monitoring** in the navigation pane.
3. Click on **Dell Windows Server (Scalable Edition)** for the Windows Event Log and click on **Dell Windows Server (Detail Edition)** for BIOS, Firmware and Driver Versions, and RAID reports.

You can also access Reporting from the diagram view by clicking on the server instance. The option for **Dell Reports** is located in the **Tasks** pane under the Dell System instance reports along with the default Microsoft reports.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the **Tasks** pane is referred to as **Actions** pane.

Generating OpenManage Windows Event Log Report


To create a report for OpenManage Windows Event Logs:

1. On the OpsMgr console click **Reporting**.
2. Expand **Reporting** → **Application Monitoring** in the navigation pane.
3. Click **Dell Windows Server (Scalable Edition)**.
4. Click **OpenManage Windows Event Log** then click **Open** in the **Tasks** pane.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.


5. Select a time period for which you want the report generated.
6. Click on **Add Object**.
7. Search for `Dell Server` and click **Add**.
You will find the object in the **Selected object** pane.
8. Choose the **Severity** of the events whose report you want to generate.
9. Click **Run**.
The **OpenManage Windows Event Log** report is generated.

Generating BIOS Configuration Report

 **NOTE:** You can create BMC reports only if BMU is installed on the Management Server.

To create a report for the BIOS configuration:

1. On the OpsMgr console click **Reporting**.
2. Expand **Reporting** → **Application Monitoring** in the navigation pane.
3. Click **Dell Windows Server (Detail Edition)**.
4. Click **BIOS Configuration**, then click **Open** in the **Tasks** pane.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.


5. Select a time period for which you want the report generated.
6. Click on **Add Object**.
7. Search for `Dell Server` and click **Add**.
You will find the object in the **Selected object** pane.
8. Choose the required **Properties**.
9. Click **Run**.

The **BIOS Configuration** report is generated.

Generating Firmware And Driver Versions Report

To create a report for Firmware and Driver Versions:

1. On the OpsMgr console click **Reporting**.
2. Expand **Reporting** → **Application Monitoring** in the navigation pane.
3. Click **Dell Windows Server (Detail Edition)**.
4. Click on **Firmware and Driver Versions**, then click **Open** on the **Task** pane.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.


5. Select a time period for which you want the report generated.
6. Click on **Add Object**.
7. Search for `Dell Server` and click **Add**.
You will find the object in the **Selected object** pane.
8. Click **Run**.

The **Firmware and Driver Versions** report is generated.

Generating RAID Configuration Report

To create a report for RAID Configuration:

1. On the OpsMgr console click **Reporting**.
2. Expand **Reporting** → **Application Monitoring** in the navigation pane.
3. Click **Dell Windows Server (Detail Edition)**.
4. Click on **RAID Configuration**, then click **Open** on the **Task** pane.

 **NOTE:** In System Center Operations Manager 2007 or System Center Essentials 2010 the Tasks pane is referred to as Actions pane.

5. Select a time period for which you want the report generated.
6. Click on **Add Object**.
7. Search for `Dell Server` and click **Add**.
You will find the object in the **Selected object** pane.
8. Choose the required **Properties**.
9. Click **Run**.
The **RAID Configuration** report is generated.


Related Documentation And Resources

This chapter gives the details of documents and references to help you work with Dell Server Management Pack Suite.

Microsoft Guidelines For Performance And Scalability For Operations Manager

For optimal performance, deploy device-specific Server Management Pack Suite on different management servers.

For information on Microsoft's recommendations for scalability, see the Microsoft website at technet.microsoft.com.

 **NOTE:** Make sure that the Autogrow Option is enabled in Operations Manager Data Warehouse and/or Database for improved performance.


Other Documents You May Need

Besides this *User's Guide*, you may need to refer to the following guides available on the Dell Support website at support.dell.com/manuals. On the Manuals page, click **Software** → **Systems Management**. Click the appropriate product link on the right-side to access the documents.

- *Dell Integrated Remote Access Controller User's Guide*
- *Dell Chassis Management Controller User's Guide*
- *Dell OpenManage Installation and Security User's Guide*
- *Dell OpenManage Software Quick Installation Guide*
- *Dell OpenManage Server Administrator Compatibility Guide*
- *Dell OpenManage Server Administrator CIM Reference Guide*
- *Dell OpenManage Server Administrator Messages Reference Guide*
- *Dell OpenManage Server Administrator Command Line Interface User's Guide*
- *Dell OpenManage Baseboard Management Controller Utilities User's Guide*
- *Dell Remote Access Controller 5 User's Guide*
- *Dell Remote Access Controller Racadm User's Guide*
- *Dell Life Cycle Controller User's Guide*
- *Dell Remote Access Controller/ Modular Chassis User's Guide*
- The *Glossary* provides information about the terms used in this document.

The *Dell Systems Management Tools and Documentation DVD* contains a readme file for Server Administrator and additional readme files for other systems management software applications found on the DVD.

Contacting Dell

 **NOTE:** If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Visit **support.dell.com**.
2. Select your support category.
3. If you are not a U.S. customer, select your country code at the bottom of the **support.dell.com** page, or select **All** to see more choices.
4. Select the appropriate service or support link based on your need.

Appendix A- Issues And Resolutions

Issues And Resolutions

The following table lists the known issues, resolutions, and where the issues are applicable to.

Table 19. Issues And Resolutions

Issue	Resolution	Applicable To
In the Diagram view for Dell network devices, the basic attributes are not displayed for the Dell DRAC and Chassis objects.	To resolve this issue, you can view the detailed set of attributes by clicking on the objects in the State View.	Dell Remote Access Monitoring Feature, Dell CMC Monitoring Feature
Licensing configuration alerts are not automatically resolved.	To resolve this issue, on the OpsMgr console right-click on the licensing configuration alert and click Close .	Dell Server Management Pack Suite
Server Modules and Chassis Slot Summary Information are not visible under CMC or DRAC/MC	<ul style="list-style-type: none"> • Make sure that OMSA or DRAC Tools are installed on the management server managing the CMC or DRAC/MC. • Make sure that you have configured the RunAsAccounts for CMC or DRAC/MC devices and associated them with "Dell CMC Login Account" or "Dell DRAC/MC Login Account". • Make sure that Dell CMC Slot Discovery and Dell DRAC/MC Slot Discovery rules are enabled from the Authoring Pane of the OpsMgr console. 	Dell Chassis Monitoring Feature
Errors while running the Repair option on Dell Server Management Pack version 5.0.1 from the Add/Remove Programs or Uninstall or change a program window.	Use the Repair option in the installer. For more information, see "Using the Repair Option in the Installer" section of the <i>Dell Server Management Pack Suite Version 5.0.1 For Microsoft System Center Operations Manager and System Center Essentials Installation Guide</i> .	Dell Server Management Pack Suite
Dell Servers that are discovered through the Dell Server (Out-of-band) Monitoring feature are listed even after the Dell Server (Out-of-band) license has been deleted.	To resolve this issue, <ol style="list-style-type: none"> 1. Click Start → Run. 2. Enter the command <code>DcomCnfg</code> to open the DCOM Configuration window. 3. Expand Component Services → Computers → My Computer → COM+ Applications → Dell Device Helper. 	Dell Server Management Pack Suite

Issue	Resolution	Applicable To
	<ol style="list-style-type: none"> 4. Right-click Dell Device Helper and click Shut down. 5. Right-click Dell Device Helper and click Start. 	
If there is a delayed response while discovering a CMC/DRAC MC devices then the latest information from the device is not updated, the Script Timeout Error is generated or the Log files in the Temp folder are not cleared.	Increase the Script Timeout value on the Override Properties screen for the CMC or DRAC/MC devices which are experiencing a delayed response. For more information on Overrides , see the OpsMgr documentation at technet.microsoft.com .	Dell Chassis Monitoring Feature
Feature management Host Server health service has gone down	<p>In a distributed setup (including distributed resource pool in OpsMgr 2012), Dell Feature Monitoring MP identifies one management server amongst 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/health service cannot be brought up, plan decommissioning the management server to remove stale objects . For more information, see technet.microsoft.com/en-us/library/hh456439.aspx.</p> <p>The Dell Feature Management Pack will switch to a new Feature Management Host Server and host the features there in the subsequent discovery cycle.</p>	Dell Server Management Pack Suite

Known Limitations

Table 20. Known Limitations

Limitation	Applicable to
Dell MP, Power Control, and LED tasks use only the default credentials. When you create a new task in the Authoring pane and view it, you can see the username and the password you specified. The credentials are not hidden when you view the task.	Dell Server Management Pack Suite
While using health explorer, some unit monitors in Server Management Pack Suite (under Sensors and OpenManage Services instances) may show green status though the sub-instance does not exist. This is because unit monitors cannot have an <i>Unavailable</i> state when the target class is present and the unit monitor has been executed.	Dell Server Management Pack Suite

Limitation	Applicable to
Intrusion unit monitor status under sensors is only for chassis and does not include health of bezel intrusion.	Dell Server Management Pack Suite
Any overrides (Discovery/Monitors/Rule) done on iDRAC class of Dell.OutOfBand.DRAC.mp in Dell Server Management Pack Suite version 4.1 will be transferred to only iDRAC 6 Monolithic class in version 5.0.1. Recreate the overrides for iDRAC6 Modular class manually.	Dell Server Management Pack Suite

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 21. 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 5.0.1 was not found or the Dell Device Helper Utility is corrupted. A version higher than 5.0.1 of Dell Device Helper Utility was found. A version lower than 5.0.1 of Dell Device Helper Utility was found.	Run the Dell Server Management Pack Suite version 5.0.1 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 feature are insufficient or not available.	Critical	No licenses 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.

Alert Text	Alert State	Cause	Resolution
	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.	<p>Make sure that the Dell Connections License Server is configured correctly. For more information, see <i>Dell Connections License Manager Version 1.0 User's Guide</i> at support.dell.com \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>


Appendix B - Enabling External Program Tasks

For Tasks provided by the Dell Server Management Pack Suite that launch external programs have to be installed in the default location. Create new tasks to launch the application if the program is not installed in the default location.

Creating Advanced Power Control And LED Identification Tasks

Advanced power control and LED identification tasks use the default BMC credentials and install path (C:\Program Files\Dell\SysMgt\bmc).

If your systems deviate from the default BMC credentials and install path, install BMU 2.0 or later on the management server and create new console tasks.

 **CAUTION:** The below steps require you to create a task and set the password in plaintext. If BMC is not installed on management server, the OpsMgr Console may display an error with the entire command in a dialog box, and reveals the password. If you export the created override management pack containing this task to a disk, you can open the exported management pack in a common text editor or OpsMgr Authoring Console and view the password in plain text. Create a new task only if absolutely required and consider the security aspects before you proceed.

To create a new task:

1. Launch OpsMgr console and click **Authoring**.
2. In the **Authoring** pane, right-click **Tasks** under **Management Pack Objects**, and select **Create new task**.
3. In the **Task Type** screen, select **Command line** under **Console Tasks**.
4. Select the destination management pack and click **Next**.
5. Type **Task name**, **Description**, and select **Dell Windows Server** as the **Task Target** and click **Next**.
The **Command Line** screen appears .
6. Type the path of the application **ipmitool.exe** (the path where BMU was installed on the management server) in the **Application** field.
For example, C:\Program Files\Dell\SysMgt\bmc\ipmitool.exe (default BMU Path may differ based on your operating system language). For the two LED identification tasks, the application path is C:\Program Files\Dell\SysMgt\bmc\ipmish.exe (default BMU Path may differ based on your operating system language).
7. For power control tasks, in the **Parameters** field, type the command line parameters in the following format:
 - Type `-I lan -H` and then choose the **Remote Access IP with IPMI capability** from the drop-down menu.
 - Type `-U <username> -P <password> -k <kgkey> <IPMI Task String>`
 - Replace `<IPMI Task String>` with one of the following options:
 - * `power status` (for **Check Power Status** task)
 - * `power on` (for **Power On** task)
 - * `power soft` (for **Power Off Gracefully** task)
 - * `power off` (for **Force Power Off** task)

- * power cycle (for **Power Cycle** task)
- * power reset (for **Power Reset** task)
- * identify on (for **LED Identification On** task)
- * identify off (for **LED Identification Off** task)

Example:

```
-I lan -H $Target/Property[Type="Dell.WindowsServer.Server"]/RemoteAccessIP$
-U root -P <password> -k <kgkey> power status
```

8. For LED on or off tasks, type the command line parameters in following format:
 - Type `-ip` and choose the **Remote Access IP with IPMI capability** from drop-down menu.
 - Type `-u <username> -p <password> -k <kgkey> <IPMI task string>`.
9. Click **Create** to create the task and repeat this procedure for each new BMC task.

Creating A Launch License Manager Task

Launch License Manager Task uses the default Dell License Manager(DLM) install path (`%PROGRAMFILES(X86)%\Dell\SysMgtLicenseManager\Dell.DlmUI.exe` or `%PROGRAMFILES%\Dell\SysMgtLicenseManager\Dell.DlmUI.exe`), that cannot be modified.

If your systems deviate from this, install DLM on the management server and create new console tasks in the **Authoring** pane targeted on **DLM for Dell Server**.

To create a new task:

1. Launch OpsMgr console and click **Authoring**.
2. In the **Authoring** pane, right-click **Tasks** under **Management Pack Objects**, and select **Create new task**.
3. In the **Task Type** screen, select **Command line** under **Console Tasks**.
4. Select the destination management pack and click **Next**.
5. Type **Task name**, **Description**, and set the **Task Target** with one of the following:
 - Dell Windows Server (for Dell Server In-band Monitoring)
 - Dell Server (for Dell Server Out-of-band Monitoring)
 - Dell iDRAC7 (for DRAC Monitoring)
6. Click **Next**.
The **Command Line** screen appears .
7. Type the path of the application `Dell.DlmUI.exe` (the path where DLM was installed on the management server) in the **Application** field.
For example, `C:\Program Files\Dell\SysMgt\LicenseManager\Dell.DlmUI.exe` (default DLM Path may differ based on your operating system language).
8. Click **Create** to create the task and repeat this procedure for each new DLM task.