# Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager And System Center Essentials

User's Guide

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DELL EMC

## Notes, cautions, and warnings

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

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

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

# Contents

# 1

# Introduction

This document describes the activities that you can perform with Dell Server Management Pack Suite version 5.1 for Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, Microsoft System Center Operations Manager 2007 R2, and Microsoft System Center Essentials (SCE) 2010.

The integration of Dell Server Management Pack Suite version 5.1 with System Center 2012 R2 Operations Manager, System Center 2012 SP1 Operations Manager, System Center 2012 Operations Manager, System Center Operations Manager 2007 R2, or System Center Essentials 2010 environment allows you to manage, monitor, and also ensure the availability of the Dell devices.

**CAUTION: Perform the procedures in this document only if you have proper knowledge and experience in using the Microsoft Windows operating system and System Center 2012 R2 Operations Manager, System Center 2012 SP1 Operations Manager, System Center 2012 Operations Manager, System Center Operations Manager 2007 R2, and System Center Essentials 2010, to avoid data corruption and/or data loss.**

**NOTE:** Read the Dell 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 **dell.com/support/manuals**. The readme file is also packaged in the self-extracting executable `Dell_Server_Management_Pack_Suite_v5.1_A00.exe` file.

**NOTE:** The term OpsMgr in this document is used to refer System Center 2012 R2 Operations Manager, System Center 2012 SP1 Operations Manager, System Center 2012 Operations Manager, System Center Operations Manager 2007 R2, and System Center Essentials 2010, unless otherwise specified.

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

**NOTE:** The term Dell Remote Access Controller (DRAC) devices in this document is used to refer to DRAC 5, DRAC 6, and iDRAC 7, unless otherwise specified.

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

**NOTE:** This document contains information on the prerequisites and supported software necessary for installing the Dell Server Management Pack Suite version 5.1. If you are installing this version of Dell Server Management Pack Suite version 5.1 after a long time after its release date, check to see if there is an updated version of this document at **dell.com/support/manuals**. For more information on accessing documents, see Accessing Documents From Dell Support Site.

**Topics:**



## What Is New In Dell Server Management Pack Suite

- Support for Microsoft System Center 2012 R2 Operations Manager, and Microsoft System Center 2012 SP1 Operations Manager
- Monitoring of Dell PowerEdge VRTX CMC
- Inband and Out-of-band monitoring of server nodes
- Chassis views for Dell PowerEdge M1000e, and Dell PowerEdge VRTX chassis (Alert, Diagram, and State Views)
- Support for EEMI event mode of Dell OpenManage Server Administrator
- Support for Windows Server 2012 R2 as management server operating system

- Support for latest firmware of iDRAC7, and CMC
- Support for new alerts from iDRAC7, CMC, and Dell OpenManage Server Administrator

# Key Features Of Dell Server Management Pack Suite

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

**Table 1. Features and Functionalities**

| Feature | Functionality |
|---|---|
| In-band Discovery and Monitoring - Dell Servers | Supports in-band discovery and monitoring of Dell PowerEdge and PowerVault monolithic and modular systems running the supported Windows operating system and Server Administrator. |
| Out-of-band Discovery and Monitoring of Servers | Supports:<br>● Out-of-band discovery and monitoring of Dell PowerEdge 12G systems.<br>● SNMP Traps for out-of-band systems. |
| Discovery and Monitoring - Chassis Management | Supports:<br>● Discovery and monitoring of Dell CMC and DRAC/MC devices.<br>● Supports discovery of server modules and chassis slot summary for CMC and DRAC/MC chassis.<br>● SNMP traps for CMC and DRAC/MC devices. |
| Discovery and Monitoring - Dell Remote Access Controllers (DRAC) | Supports:<br>● Discovery and monitoring of supported DRAC devices.<br>● SNMP and PET for DRAC devices. |
| Chassis Blade Correlation | Supports correlation of Dell servers with Server Modules of CMC and DRAC/MC chassis. |
| Discovery and monitoring of iDRAC vFlash Cards | Supports in-band discovery and monitoring of iDRAC vFlash card and iDRAC network interface. |
| Event Monitoring | Supports:<br>● Events from OpenManage Server Administrator versions 6.4 - 7.3.<br>● Platform Event Traps (PET) for DRAC devices.<br>● SNMP Traps from DRAC devices.<br>● SNMP Traps from Chassis devices. |
| Discovery and monitoring of server network interface cards | Supports:<br>● In-band discovery and monitoring of physical and teamed network interfaces for Broadcom and Intel network interface cards (NICs).<br>● Enriched properties and attributes of NICs on systems running Server Administrator versions 6.4 - 7.3 is displayed.<br>● Linkup and linkdown alerts in **Network Interfaces Alerts** view.<br>● Correlation of physical and teamed network interfaces for Server Administrator versions 6.4 - 7.3 in the **Dell Modular Systems** and **Dell Monolithic Systems** Diagram Views. |

**Table 1. Features and Functionalities (continued)**

| Feature | Functionality |
|---|---|
| Performance Monitoring | Supports:<br>• Power and temperature statistics using **Performance** and **Power Monitoring** Views.<br>• Performance graphs for physical and teamed network interfaces. |
| Flexible Monitoring | Supports:<br>• Flexibility in choosing the level of monitoring (Scalable/ Detailed ) Dell servers based on the scalability requirements.<br>• Detailed monitoring using Server Administrator by enabling Informational Alerts. |
| Launching Task | Launches:<br>• **Dell OpenManage Server Administrator** console.<br>• **Dell Remote Access** console.<br>• **Dell CMC** console.<br>• **Dell Modular Chassis Remote Access** console.<br>• **Remote Desktop** console.<br>• **Dell OpenMange Power Center** console.<br>• **Dell Connections License Manager** web console.<br>• The **Dell Warranty Information** webpage.<br>• **iDRAC** console.<br>• **Dell License Manager** console.<br>For more information, see Tasks. |

# About Dell Server Management Pack Suite

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

**Table 2. 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 Dell PowerEdge and PowerVault up to component groups level. | Dell Base Hardware Library MP<br>Dell Server Model MP<br>Dell Server Operations Library MP<br>Dell Server View MP |
| Dell Windows Server (Detailed Edition) | Management Pack for instrumenting supported Dell PowerEdge and PowerVault up to component level. | Dell Base Hardware Library MP<br>Dell Server Model MP<br>Dell Server Operations Library MP<br>Dell Server View MP<br>Dell Windows Server (Scalable Edition) MP |

**Table 2. Management Pack Functionality and Dependencies (continued)**

| Management Pack or Utility | Description | Dependency |
|---|---|---|
| Dell Windows Server Overrides (Informational Alerts On) | Management Pack to enable monitoring of informational alerts from Dell OpenManage System Administrator. | Dell Base Hardware Library MP<br>Dell Server Model MP<br>Dell Server Operations Library MP<br>Dell Server View MP<br>Dell Windows Server (Scalable Edition) MP |
| Dell CMC (OM07) MP<br>Dell CMC (OM12) MP | Management Pack for discovering and monitoring CMC, DRAC/MC and PowerEdge VRTX Chassis. | Dell Base Hardware Library MP<br>Dell CMC Model MP<br>Dell CMC Operations Library MP<br>Dell CMC View MP<br>Dell Common Operations Library MP |
| Dell DRAC (OM07) MP<br>Dell DRAC (OM12) MP | Management Pack for discovering and monitoring Dell Remote Access Cards - DRAC 5, iDRAC Modular and iDRAC Monolithic. | Dell Base Hardware Library MP<br>Dell DRAC Model MP<br>Dell DRAC View MP<br>Dell DRAC Operations Library MP<br>Dell Common Operations Library MP |
| Chassis Blade Correlation Management Pack | Management Pack for correlating Dell Modular systems with CMC and DRAC/MC slots.<br>This feature is supported only on OpsMgr 2007 R2 and OpsMgr 2012.<br>**NOTE:** For the 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 "Configuring Dell Chassis Management Controller Feature For Correlating Server Modules With Chassis Slot Summary" section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* at **dell.com/support/manuals**. | Dell Base Hardware Library MP<br>Dell Windows Server (Scalable Edition) MP<br>Dell Server Model MP<br>Dell CMC (OM07) MP or Dell CMC (OM12) MP |
| Dell Server (Out-Of-Band) Management Pack | Management Pack for discovering and monitoring Dell PowerEdge systems up to component groups level. | Dell Base Hardware Library MP<br>Dell Server Model MP<br>Dell Server Operations Library MP<br>Dell Server View MP<br>Dell Common Operations Library MP<br>Microsoft System Center Out-of-Band Library (MPB) |

**Table 2. Management Pack Functionality and Dependencies (continued)**

| Management Pack or Utility | Description | Dependency |
|---|---|---|
| | | **NOTE:** For information on installing the Microsoft SMASH Library file (MPB), see "Installing the Out-Of-Band Monitoring Template" section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* at **dell.com/support/manuals**. |
| Dell Server (Out-Of-Band) Detailed Monitoring On - Overrides MP | Management Pack for discovering and monitoring Dell PowerEdge systems up to component level. | Dell Base Hardware Library MP<br>Dell Server (Out-Of-Band) MP |
| Dell Feature Monitoring MP | Management Pack for discovering, monitoring, and upgrading available Dell Server Management Pack Suite features in OpsMgr. | Dell Base Hardware Library MP |

# 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 3. Scalable Management Pack Versus Detailed Management Pack**

| Features | Scalable Edition | Detailed Edition |
|---|---|---|
| Server (In-band) Monitoring | • Component hierarchy — Scalable MP monitors and displays details up to the component groups and the presence of iDRAC.<br>• Reports — Only OpenManage Windows Event log report is available with this Management Pack. | • Detailed MP monitors and displays details up to component level. Detailed MP provides an additional level of information about memory, processors, network interfaces, storage controllers, disks, and volumes. Additionally, BIOS information is also shown.<br>• BIOS configuration, firmware and driver version, and RAID configuration reports are available with this Management Pack. |
| Server (Out-of-band) Monitoring | • Inventory up to individual components.<br>• Health monitoring only at server and component group level. | • Inventory and health monitoring of individual components.<br>• View metrics for power, temperature, and network interface cards. |

# 2

# Overview Of Dell Server Management Pack Functionality

**About this task**

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

- Discover and classify Dell systems — Dell servers, Dell Remote Access Controllers (DRAC), Dell Chassis Management Controllers (CMC), PowerEdge VRTX, and integrated DRAC (iDRAC). For more information, see Discovery And Grouping.
- Monitor the discovered Dell systems. For more information, see Monitoring.
- Perform various tasks on the discovered Dell systems. For more information, see Tasks.
- View reports for discovered Dell systems. For more information, see Reports.

# 3

# Discovery And Grouping

The Dell Server Management Pack Suite version 5.1 suite enables you to discover and classify Dell Servers, Dell Remote Access Controllers (DRAC), Dell Chassis Management Controllers (CMC), PowerEdge VRTX and integrated DRAC (iDRAC).

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

**Table 4. Dell Hardware Discovery and Grouping**

| Group | Monitoring Feature | Diagram View | Hardware Type |
|---|---|---|---|
| Dell Windows Servers | Dell Server In-band Monitoring | Dell Monolithic Servers<br>Dell Modular Servers | Dell PowerEdge and PowerVault systems running OpenManage Server Administrator (version 6.4 and above). |
| Dell Servers | Dell Server Out-of-band Monitoring | Dell Monolithic Servers<br>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 PowerEdge M1000e | Dell CMC Monitoring | Dell PowerEdge M1000e | Dell PowerEdge M1000e |
| Dell PowerEdge VRTX | Dell CMC Monitoring | Dell PowerEdge VRTX | Dell PowerEdge VRTX |
| Dell Remote Access Controllers | Dell DRAC Monitoring | Remote Access Controller | DRAC 5, iDRAC modular, and iDRAC monolithic instances.<br>**NOTE:** DRAC 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. |

## Topics:

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

**About this task**

Dell servers are discovered through the OpsMgr Agent Management infrastructure.

The Dell server should be discovered in the **Agent Managed** view under the **Administration** section of the OpsMgr console.

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

**Steps**

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**.
5. Enable the **Server (In-Band) Monitoring** feature by importing the Dell Server Management Pack through Feature Management Dashboard.

**Next steps**

**NOTE:** Dell servers that do not have Dell OpenManage Server Administrator (OMSA) installed, or have OMSA earlier than version 6.4 are grouped as Dell Unmanaged.

# Discovering A Dell Server Using The Server (Out-Of-Band) Monitoring Feature

**About this task**

**NOTE:** The Microsoft SMASH Library (MPB) file has to be installed. For information on installing the Microsoft SMASH Library (MPB) file, see the"Installing the Out-Of-Band Monitoring Template" section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager and System Center Essentials Installation Guide* at **dell.com/support/manuals**.

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

**Steps**

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 appears.
4. On the **Select Monitoring Type** screen, select **WS-Management and SMASH Device Discovery** and click **Next**.
5. On the **General Properties** screen, in the **Name** field provide a name for 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 a resource pool for monitoring out-of-band devices and click **Next**.

11. On the **Specify the account to be used to run discovery** screen, click **New** and create a Simple Authentication Run As Account.

    For more information on creating a Simple Authentication type Run As Account, see Creating A Simple Authentication Run As Account.
12. Select the Run As Account you 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 the iDRAC IP address of the systems 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 Dell PowerEdge 12G 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. Click **Close**.
    The scanned Dell servers initially appear in **Monitoring** > **WS-Management and SMASH Monitoring** > **WS-Management Device State** screen. After the automatically triggered SMASH discovery is completed by the OpsMgr, the Dell servers appear in **Monitoring** > **WS-Management and SMASH Monitoring** > **SMASH Device State** screen.
20. Enable the Server (Out-of-band) Monitoring feature through Feature Management Dashboard.

**Next steps**

**NOTE:** Before discovering a Dell server 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.

# Creating A Simple Authentication Run As Account

**Steps**

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 in the **Display Name** text box.
7. Provide a brief description in the **Description** text box and click **Next.**
8. 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.**
9. 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 are different for each of the systems, create a separate Run As Account for each of them.
10. Click **Create.**
11. After the **Run As Account** has been created, click **Close.**

## Associating Run As Account For Monitoring A Dell Server Using The Server (Out-Of-Band) Monitoring Feature

### About this task

For monitoring the Dell server, the Run As account used to discover it needs to be associated with the Dell server in the SMASH Device Monitoring Profile. The Management Pack performs the association automatically. But in some cases, you have to do the association manually.

To manually associate the Run As Account in the SMASH Device Monitoring Profile:

### Steps

1. Launch OpsMgr 2012, and click **Administration**.
2. In the **Administration** pane, browse to **Run As Configuration** > **Profiles.**
3. From the list of available profiles, right-click **SMASH Device Monitoring Profile** and click **Properties**.
   The **Introduction** screen is displayed.
4. Click **Next**.
   The **Specify the Run As profile's general properties** screen is displayed.
5. Click **Next**.
   The **Run As Accounts** screen is displayed.
6. Click **Add**.
   The **Add a Run As Account** screen is displayed.
7. Select the run as account used to discover the Dell server from the **Run As account** drop-down list.

   **NOTE:** If you are using multiple Run As Accounts to discover devices, associate each device with its associated Run As Account.

8. Click **A selected class, group, or object** and add the association for the server in the SMASH Monitoring Profile.
   - Click **Select** > **Class** option, use **Dell server** as the selection.
   - Click **Select** > **Group** option, use the group containing the Dell server objects as the selection.
   - Click **Select** > **Object** option, use the individual Dell server object as the selection.
9. Click **OK**.
10. Click **Save** and **Close**.

### Next steps

**NOTE:** If the Run As Account association is not done, the alert **Dell OM: Server and its component health computation failed** is displayed under **Monitoring** > **Alerts View** > **Server Alerts** on the console.

# Discovering Chassis Devices

The Chassis devices should be discovered in the **Agent Managed** view under the **Administration** section of the OpsMgr console.

### About this task

To discover Chassis devices:

### Steps

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 **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 Chassis devices. For more information, see the "Configuring Dell Chassis Management Controller Feature For Correlating Server Modules With Chassis Slot Summary"

section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* at **dell.com/support/manuals**.

5. 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.
6. Enable the Chassis Monitoring feature through Feature Management Dashboard.

# Discovering DRAC Devices

The DRAC devices must be discovered in the **Agent Managed** view under the **Administration** section of the OpsMgr console.

**About this task**

To discover DRAC devices:

**Steps**

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 **Network devices** and follow the instructions on the screen.
   For more information, see the OpsMgr documentation at **technet.microsoft.com**.
5. 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.
6. Enable the DRAC Monitoring feature through Feature Management Dashboard.

## Scalability Recommendation For OpsMgr 2012

**About this task**

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.

**Steps**

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, Dell PowerEdge VRTX and its components discovered by the Dell Server Management Pack Suite.

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

**Table 5. Dell Server (In-Band) Monitoring Feature Discoveries**

| Discovery | Description |
|---|---|
| **Dell Server Discovery** | Classifies your Dell servers and populates the attributes. |
| **Dell Server Network Interface Discovery** | Discovers the network interface at group level of your Dell server. |

### Table 5. Dell Server (In-Band) Monitoring Feature Discoveries (continued)

| Discovery | Description |
|---|---|
| **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. |
| **Dell Server Detailed BIOS Discovery** | Discovers BIOS objects for each Dell server (Detailed edition only). |
| **Dell Server Detailed Memory Discovery** | Discovers memory instances for your Dell server (Detailed edition only). |
| **Dell Server Detailed Power Supply Discovery** | Discovers power supply instances for your Dell server (Detailed edition only). |
| **Dell Server Detailed Processor Discovery** | Discovers processor instances for your Dell server (Detailed edition only). |
| **Dell Server Detailed Storage Discovery** | Discovers the complete storage hierarchy for your Dell server (Detailed edition only). |
| **Dell Windows Server Detailed Network Interfaces Discovery Module** | Discovers the physical and teamed network interface instances of your Dell server (Detailed edition only). |
| **Dell Windows Server Network Interfaces Group Discovery Module** | Discovers the Network Interfaces Group. |
| **Dell Unmanaged Server Group Discovery** | Discovers Dell servers 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 6. Dell Server (Out-of-Band) Monitoring Feature Discoveries

| Discovery Object | Description |
|---|---|
| **Dell Server Discovery** | Classifies your Dell server and populates the basic attributes and components. |
| **Dell Device Helper Discovery** | Discovers the **DellDeviceHelper** as an object. |

## Discoveries By The DRAC Monitoring Feature

### Table 7. DRAC Monitoring Feature Discoveries

| Discovery Object | Description |
|---|---|
| **DRAC 5 or iDRAC Discovery** | Discovers all supported Dell Remote Access 5 Controllers and Integrated Remote Access Controllers. |
| **Dell Integrated Remote Access Modular Discovery** | Discovers the Chassis Name and Chassis Service Tag of Dell Integrated Remote Access Controllers for Modular systems. |
| **iDRAC 6 Modular Discovery** | Discovers the iDRAC 6 (Modular) group. |

### Table 7. DRAC Monitoring Feature Discoveries (continued)

| Discovery Object | Description |
|---|---|
| **iDRAC 6 Monolithic Discovery** | Discovers the iDRAC 6 (Monolithic) group. |
| **iDRAC 7 Modular Discovery** | Discovers the iDRAC 7 (Modular) group. |
| **iDRAC 7 Monolithic Discovery** | Discovers the iDRAC 7 (Monolithic) group. |
| **Dell Remote Access Group Discovery** | Discovers the Dell Remote Access group and populates iDRAC. |
| **Dell Remote Access 5 Group Discovery** | Discovers the Dell Remote Access 5 group with Dell Remote Access 5 Controllers. |
| **Dell Integrated Remote Access Monolithic Group Discovery** | Discovers the Dell Integrated Remote Access Monolithic group and iDRAC (Monolithic). |
| **Dell Integrated Remote Access Modular Group Discovery** | Discovers and populates the iDRAC (Modular) group. |

## Discoveries By The Dell Chassis Monitoring Feature

### Table 8. Dell Chassis Monitoring Feature Discoveries

| Discovery Object | Description |
|---|---|
| **Dell CMC Discovery** | Discovers all supported Dell CMCs, PowerEdge VRTX, and PowerEdge M1000e. |
| **Dell CMC Slot Discovery** | Discovers slots on the CMC device. |
| **Dell DRAC/MC Discovery** | Discovers all supported Dell DRAC/MCs. |
| **Dell DRAC/MC Slot Discovery** | Discovers slots and chassis slot summary. |

## Discoveries By The Chassis Blade Correlation Feature

### Table 9. 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 Feature Management Pack

### Table 10. Dell Feature Management Pack Discoveries

| Discovery Object | Description |
|---|---|
| **Dell Registry Discovery** | Sets the principal name of the management server in the registry. |

**Table 10. Dell Feature Management Pack Discoveries (continued)**

| Discovery Object | Description |
|---|---|
| **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, and tasks from 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 set the **Override Setting** to **True** or **False**.
- **Interval in Seconds**— The frequency (in seconds) with which the Dell Server Management Pack discovers the component instance and attributes of your Dell server. The default value for this attribute is 24 hours (one day).

# 4

# Monitoring

This version of Dell Server Management Pack Suite enables you to monitor the discovered Dell servers 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 Monitor Traps and Trap-Based Unit Monitors" section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager And System Center Essentials Installation Guide* at **dell.com/support/manuals**.

Monitoring includes:

- Process events raised by Dell OpenManage Server Administrator (Server Administrator) agents running on servers and displays 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.

### Topics:



## Severity Level Indicators

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

**Table 11. 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 Views
- Diagram Views
- State Views
- Performance and Power Monitoring Views

## Alerts Views

This view is available for managing hardware and storage events from Dell systems, Dell servers, 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 servers discovered by the Server (in-band) monitoring feature.
  **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 Dell PowerEdge and PowerVault systems.
- SNMP traps sent by DRAC and Chassis devices.
- Platform Event Traps (PET) for Dell servers.

## Viewing Alerts On The OpsMgr Console

**About this task**

To view alerts on the OpsMgr console:

**Steps**

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 are displayed.
   - **PET Traps Alerts** — platform event traps from discovered Dell servers 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 servers, and SNMP traps for PowerEdge 12G servers with iDRAC 7 are displayed, if discovered using Server (Out-of-Band) monitoring feature.
   - **Dell M1000e Chassis Alerts**— SNMP traps from the discovered Dell PowerEdge M1000e Chassis device are displayed.
   - **Dell VRTX Chassis Alerts**— SNMP traps from the discovered Dell PowerEdge VRTX Chassis device 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.

## Diagram Views

The **Diagram Views** offers a hierarchical and graphical representation of all Dell servers on your network.

# Viewing Diagrams On The OpsMgr Console

**About this task**

To view the diagrams on the OpsMgr console:

**Steps**

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
   - Chassis Management Controllers Group
   - Remote Access Controllers Group
   - Dell Chassis Diagram Views
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 **Modular Systems Diagram** and **Monolithic Servers 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)

## 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.

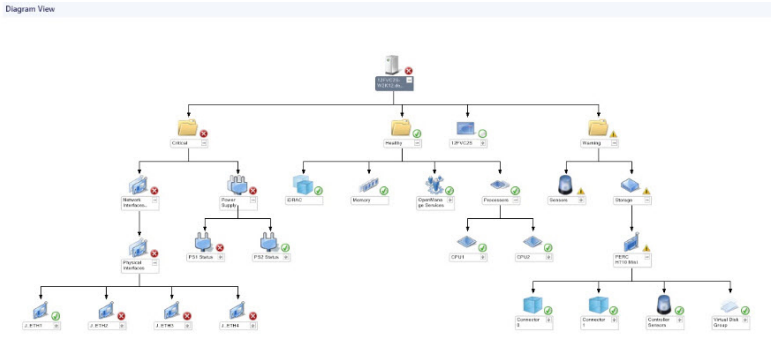


**Figure 1. Dell Server Instance Diagram - Detailed Management Pack**

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 such as 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 will be removed from management in the next discovery cycle.

**NOTE:** Through the Server Out-of-band monitoring feature, the physical network interfaces are 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

### About this task

To enable the **Enable Correlation** attribute:

### Steps

1. Launch the OpsMgr console.
2. From the navigation pane, click **Authoring**.
3. In the **Authoring** tab, click **Management Pack Objects** > **Object Discoveries**.
4. Click **Scope** at the top of the screen.
   The **Scope Management Pack Objects** screen is displayed.
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 is displayed.
8. Select **Enable Correlation** and set the **Override Value** to **True** and click **OK**.

### Next steps

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 server 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.

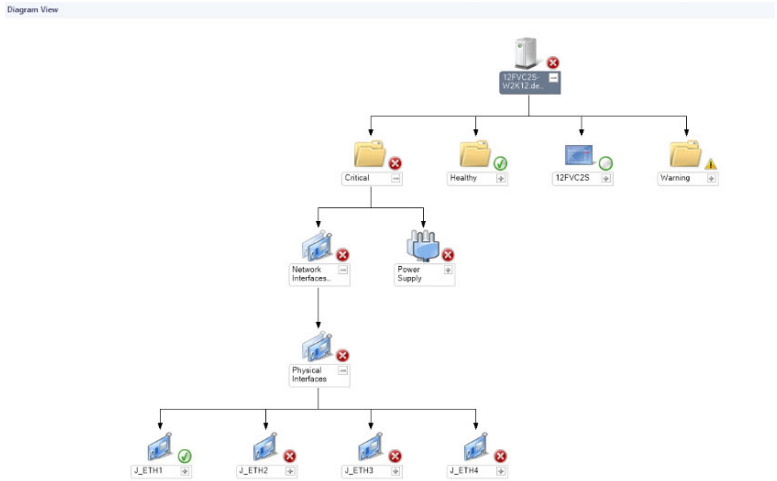


**Figure 2. Network Interfaces Diagram View**

## Enabling Network Interfaces Group To Dell Server Health Roll Up

### About this task

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:

### Steps

1. Launch the OpsMgr console.
2. From the navigation pane, click **Authoring**.
3. Click **Monitors** 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, Dell PowerEdge M1000e and Dell PowerEdge VRTX, and their inventory. For Chassis discovery, see Discovering Chassis Devices.

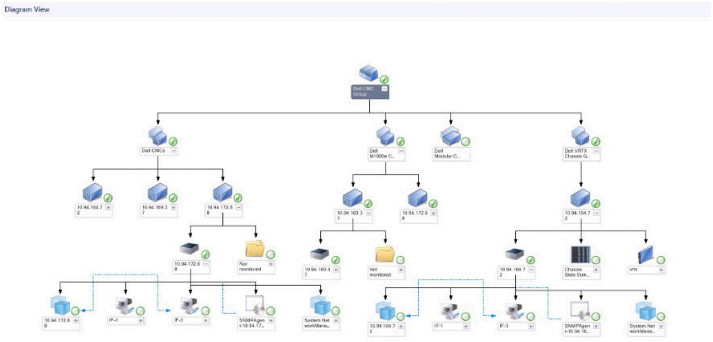

**Figure 3. Chassis Management Controllers Group Diagram**

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 are displayed in the **Chassis Management Controllers Group** diagram. The Dell system is visible under the slot in the diagram.

**NOTE:** Create **Run As Account** for CMC and DRAC/MC slots discovery with simple, basic, or digest authentication only. For more information, see "Configuring the Dell Chassis Management Controller Feature For Correlating Server Modules With Chassis Slot Summary" section of the *Dell Server Management Pack Suite Version 5.1 For Microsoft System Center Operations Manager and System Center Essentials Installation Guide* at **dell.com/support/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.

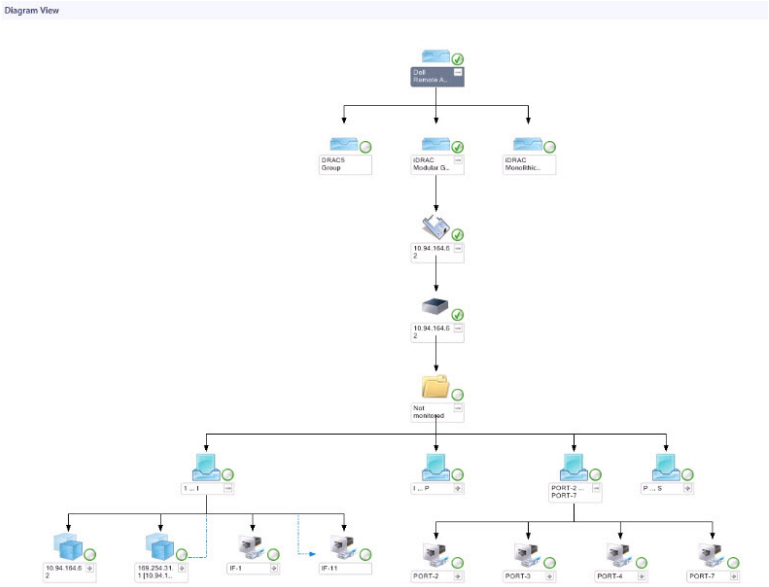

**Figure 4. Remote Access Controllers Group Diagram**

## Dell Chassis Diagram Views

The Dell Chassis diagram view offers a graphical representation of Dell PowerEdge M1000e chassis, and Dell PowerEdge VRTX chassis 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 servers, 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 monolithic and modular systems. You can view the status for the following groups:

- CMC
- DRAC/MC
- DRAC 5
- iDRAC 6 Modular
- iDRAC 6 Monolithic
- iDRAC 7 Modular
- iDRAC 7 Monolithic
- Managed servers (In-Band)
- Managed servers (Out-Of-Band)
- Unmanaged servers (Out-Of-Band)
- Dell Chassis State Views
  - Dell PowerEdge M1000e Chassis State View
  - Dell PowerEdge VRTX Chassis State View

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

**About this task**

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

**Steps**

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 servers 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 In-band Monitoring feature is installed and is present.

**NOTE:** Dell Performance and Power Monitoring View is available only through the Server Out-of-band Monitoring feature. All performance metric 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.

**Next steps**

A unit monitor monitors the performance counter over two successive cycles to check if it exceeds a threshold value. When the threshold value is exceeded, 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. Unit monitor is available under **Monitors for Dell Windows Server objects** for Server In-band Monitoring feature, and is available under **Monitors for Dell Server objects** for Server (Out-of-band) Monitoring feature.

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.

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.
- **Periodic Monitor** — triggered by a periodic poll configured as Interval Seconds.

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 — Scalable Edition

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

**Table 12. Dell Unit Monitors For Server (In-band) Monitoring Feature — Scalable Edition**

| Object | | Unit Monitor |
|---|---|---|
| **Memory** | | |
| | Dell Server Memory Status | Event and Periodic |
| | Dell Server Memory Redundancy Status | Event and Periodic |
| **OpenManage Software Services** | | |
| | Dell Server Management (DSM) Connection Service Availability Status | Periodic |
| | DSM Data Manager Availability Status | Periodic |
| | DSM Event Manager Availability Status | Periodic |
| | DSM Shared Service Availability Status | Periodic |
| | DSM Storage Service Availability Status | Periodic |
| | Windows Management Instrumentation (WMI) Service Availability Status | Periodic |
| **Power Supplies** | | |

**Table 12. Dell Unit Monitors For Server (In-band) Monitoring Feature — Scalable Edition (continued)**

| Object | | Unit Monitor |
|---|---|---|
| | Dell Server Power Supplies Status | Event and Periodic |
| **Processors** | | |
| | Dell Server Processors Status | 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 |
| **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 |
| **iDRAC** | | |
| | Dell Server iDRAC Network Interface Monitor | Periodic |

# Dell Unit Monitors For Server (In-Band) Monitoring Feature — Detailed Edition

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

**Table 13. Dell Unit Monitors For Server (In-band) Monitoring Feature — Detailed Edition**

| Object | | Unit Monitor |
|---|---|---|
| **Memory Unit Instance** | | |
| | Detailed Memory Event Monitor | Event and Periodic |
| | Detailed Memory Unit Monitor | Event and Periodic |
| **Power Supplies Unit Instance** | | |

**Table 13. Dell Unit Monitors For Server (In-band) Monitoring Feature — Detailed Edition (continued)**

| Object | | Unit Monitor |
|---|---|---|
| | Detailed Power Supply | Event and Periodic |
| **Processor Unit Instance** | | |
| | Detailed Processor | Event and Periodic |
| **Storage Controller Connector Instance** | | |
| | Controller Connector Event Monitor | Event and Periodic |
| | Controller Connector Unit Monitor | Event and Periodic |
| **Storage Controller EMM Instance** | | |
| | Enclosure EMM Event Monitor | Event and Periodic |
| | Enclosure EMM Unit Monitor | Event and Periodic |
| **Storage Controller Enclosure Instance** | | |
| | Controller Enclosure Event Monitor | Event and Periodic |
| | Controller Enclosure Unit Monitor | Event and Periodic |
| **Storage Controller Physical Disk Instance** | | |
| | Controller Physical Disk Event Monitor | Event and Periodic |
| | Controller Physical Disk Unit Monitor | Event and Periodic |
| | Enclosure Physical Disk Event Monitor | Event and Periodic |
| | Enclosure Physical Disk Unit Monitor | Event and Periodic |
| **Storage Controller Power Supply Instance** | | |
| | Enclosure Power Supply Event Monitor | Event and Periodic |
| | Enclosure Power Supply Unit Monitor | Event and Periodic |
| **Storage Controller Sensors** | | |
| | Controller Sensor Event Unit Monitor | Event and Periodic |
| | Controller Sensor Unit Monitor | Event and 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** | | |

**Table 13. Dell Unit Monitors For Server (In-band) Monitoring Feature — Detailed Edition (continued)**

| Object | | Unit Monitor |
|---|---|---|
| | Enclosure Fan Event Unit Monitor | Event and Periodic |
| | Enclosure Fan Unit Monitor | Event and Periodic |
| | Enclosure Temperature Event Monitor | Event and Periodic |
| | Enclosure Temperature Unit Monitor | 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 |
| | Teamed Network Interface Instance (Enriched) Redundancy Status | Event and 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**

| Object | | Unit Monitor |
|---|---|---|
| **Dell Server** | | |
| | Dell Server Run As Account Association | Periodic |
| | Dell Server Unit Monitor | Periodic |

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

| Object | | Unit Monitor |
|---|---|---|
| **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 Battery Sensor** | | |
| | Dell Server Battery Sensor Health | Periodic |
| **Dell Battery Sensor Group** | | |
| | Dell Server Battery Group 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** | | |

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

| Object | | Unit Monitor |
|---|---|---|
| | 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 Operating System** | | |
| | Dell Server Run As Account Association | Periodic |
| | Dell Server Unit Monitor | Periodic |
| **Dell Monolithic Server Without Operating 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** | | |
| | Dell Server Network Interface Unit | Periodic |
| **Dell Server Connector Enclosure** | | |
| | Dell Server Connector Enclosure | Periodic |
| **Dell Storage Controller Enclosure EMM D** | | |
| | 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 |

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

| Object | | Unit Monitor |
|---|---|---|
| **Dell Storage Controller Physical Disk** | | |
| | Dell Server Controller Direct Attached Physical Disk | Periodic |
| **Dell Storage Group** | | |
| | 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

| Object | | 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

| Object | | Unit Monitor |
|---|---|---|
| **iDRAC6 Modular** | | |
| | Dell Remote Access Status | Event and Periodic |

**Table 16. Dell Unit Monitors for DRAC Monitoring Feature (continued)**

| Object | | Unit Monitor |
|---|---|---|
| **iDRAC6 Monolithic** | | |
| | Dell Remote Access Status | Event and Periodic |
| **iDRAC7 Modular**<br>**NOTE:** For iDRAC7 modular and monolithic servers, the Dell RAC periodic-based and Dell RAC triggered-based unit monitors are disabled. | | |
| | Dell Remote Access Status | Event and Periodic |
| | Controller Global Status | Event and Periodic |
| | 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 |
| **iDRAC8 Modular**<br>**NOTE:** For iDRAC8 modular and monolithic servers, the Dell RAC periodic-based and Dell RAC triggered-based unit monitors are disabled. | | |
| | Dell Remote Access Status | Event and Periodic |
| | Controller Global Status | Event and Periodic |
| | Controller Global Storage Status | Event and Periodic |
| **iDRAC8 Monolithic** | | |
| | Dell Remote Access Status | Event and Periodic |
| | Controller Global Status | Event and Periodic |
| | Controller Global Storage Status | Event and Periodic |

## Customizing Unit Monitors

You can customize the parameters of the Dell Server Management Pack Suite, using the following overrides:

- **Enabled** — Allows you to enable or disable Monitors. You can set the **Override Setting** to **True** or **False**.
- **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
- 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
- Data Provider = Windows system event log

# DRAC And Chassis Devices

All informational, warning, and critical SNMP traps for the DRAC and Chassis 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
- Data Provider = SNMP trap

**NOTE:** Informational alerts are turned off by default. Import informational alerts on MP to get these.

# 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 servers. By default this feature is disabled, to enable the feature, see Enabling Performance Collection Rules.

The performance collection rules collects information on the following parameters:

- **Ambient Temperature (Centigrade)**
- **Amperage (Amps)**
- **Dell Performance View**

- **Energy Consumption (kWh)**
- **Peak Amperage (Amps)**
- **Peak Power (Watts)**
- **Physical Network Interface**
- **Power Consumption (BTU/hr)**
- **Power Consumption (Watts)**
- **Teamed Network Interface**

**NOTE:** When the Detailed edition of Server Management Feature is imported, the 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. To enable the feature, see Enabling Performance Collection Rules.

## Enabling Performance Collection Rules

### About this task

To enable this feature:

### Steps

1. Launch OpsMgr console and click **Authoring.**
2. Click **Rules** and search for performance collection 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**.

# 5

# Tasks

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

**NOTE:** In System Center Operations Manager 2007 R2 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**.

**Topics:**



# Task Summary

## Performing Dell Tasks Using Dell Server (In-band)

Following table provides a summary of the Dell tasks that you can perform using Dell Server (In-band):

**Table 17. Dell Tasks Using Dell Server (In-band)**

| Task | Description |
|---|---|
| Launch Dell OpenManage Server Administrator | Launches the Dell OpenManage Server Administrator.<br>**NOTE:** Launching OpenManage Server Administrator is possible, only if Dell OpenManage Server Administrator is installed on the managed node. |
| Launch Dell OpenManage Power Center | Launches the Dell OpenManage Power Center console on the Management Server. |
| Launch InBand Dell Remote Access Console | Launches the DRAC console for the in-band discovered DRAC. |
| Launch Dell License Manager On 32 bit Management Server | Launches the Dell license manager on management systems running 32-bit operating system. |
| Launch Dell License Manager On 64 bit Management Server | Launches the Dell license manager on management systems running 64-bit operating system. |
| 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 Remote Desktop | Launches the remote desktop for the selected system. |
| Check Power Status | Checks the overall power status of the system. |

**Table 17. Dell Tasks Using Dell Server (In-band) (continued)**

| Task | Description |
|---|---|
| Force Power Off | Turns off the system power without shutting down the operating system. |
| 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 for 255 seconds on the selected system. |
| Turn LED Identification Off | Turns off the identify LED on the selected system. |
| Get Warranty Information | Retrieves the warranty information for the selected system.<br>**NOTE:** An active Internet connection is required to retrieve the warranty information. |
| Launch Remote Desktop Monolithic Server | Launches remote desktop for the selected system.<br>**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.<br>**NOTE:** Launching OpenManage Power Center is possible only if Windows or Linux operating system and OpenManage Server Administrator is installed and Dell OpenManage Power Center is installed on the managed node. |
| Get Warranty Information | Retrieves the warranty information for the selected system.<br>**NOTE:** An active Internet connection is required to retrieve the warranty information. |
| Launch Dell Modular Chassis Remote Access Console | Launches the DRAC/MC console. |

# Performing Dell Tasks Using Dell Server (Out-Of-Band)

Following table provides a summary of the Dell tasks that you can perform using Dell Server (Out-of-band):

**Table 18. Dell Tasks Using Dell Server (Out-of-band)**

| Task | Description |
|---|---|
| Launch Dell OpenManage Server Administrator Monolithic Server | Launches the Dell OpenManage Server Administrator.<br>**NOTE:** Launching OpenManage Server Administrator is possible only if a Windows or Linux operating system and |

**Table 18. Dell Tasks Using Dell Server (Out-of-band) (continued)**

| Task | Description |
|---|---|
| | Dell OpenManage Server Administrator is installed in the managed node. |
| Launch Dell Remote Access Console | Launches the iDRAC console for the out-of-band discovered servers. |
| Launch Dell License Manager | Launches the Dell License Manager on the management system.<br>**NOTE:** Launching Dell License Manager is possible only if a Windows or Linux operating system is installed and Dell License Manager is also installed. |
| Launch Remote Desktop Monolithic Server | Launches remote desktop for the selected system.<br>**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.<br>**NOTE:** Launching OpenManage Power Center is possible only if Windows or Linux operating system and OpenManage Server Administrator is installed and Dell OpenManage Power Center is installed on the managed node. |
| Get Warranty Information | Retrieves the warranty information for the selected system.<br>**NOTE:** An active Internet connection is required to retrieve the warranty information. |

# Performing Dell Tasks Using The DRAC

Following table provides a summary of the Dell tasks that you can perform using the DRAC:

**Table 19. Dell Tasks Using The DRAC**

| Task | Description |
|---|---|
| Launch Dell Remote Access Console | Launches the DRAC console for the discovered DRAC. |
| Launch Dell License Manager | Launches the Dell License manager on the management system. |
| Launch Remote Desktop | Launches the remote desktop for the selected system.<br>**NOTE:** This feature is available only on systems with iDRAC 7. |
| Launch Dell OpenManage Server Administrator | Launches the Dell OpenManage Server Administrator.<br>**NOTE:** This feature is available only on systems with iDRAC 7. |

# Performing Dell Tasks Using The Dell Chassis

Following table provides a summary of the Dell tasks that you can perform using the Dell chassis:

### Table 20. Dell Tasks Using The Dell Chassis

| Task | Description |
|---|---|
| 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:** Ignore the errors pertaining to reimporting of existing management packs under the error logs in the Event log. These errors occur when Feature Management Dashboard reimports all the dependent MPs that are already imported while importing a Monitoring Feature.

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

### Table 21. Feature Management Tasks

| Tasks | | Description |
|---|---|---|
| **Server (Out-of-band) Monitoring** | | |
| | **Configure License Server** | Configures the Dell Connections License Manager. For more information, see Configuring Dell Connections License Manager URL.<br>**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 *Dell Connections License Manager User's Guide* at **dell.com/support/manuals**.<br>**NOTE:** While configuring the Dell Connections License Manager, the License Manager task is enabled only after the configuration of the LicenseWebUI URL is completed. For more information, see Configuring Dell Connections License Manager URL.<br>**NOTE:** The **Configure License Server** and **Launch Connections License Manger** are common tasks for all the Monitoring features on Feature Management Dashboard. |
| | **Import Server (Out-of-band) Scalable Feature** | Enables the Scalable edition of Server (Out-of-band) Monitoring feature. |
| | **Import Server (Out-of-band) Detailed Feature** | Enables the Detailed edition of Server (Out-of-band) Monitoring feature. |
| | **Set to Server (Out-of-band) Scalable Feature** | If the Detailed feature is running on the system, the Feature Management Dashboard switches from the Detailed Feature to the Scalable Feature. |

**Table 21. Feature Management Tasks (continued)**

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

**Table 21. Feature Management Tasks (continued)**

| Tasks | | Description |
|---|---|---|
| | **Upgrade Chassis Monitoring Feature** | Upgrades to the latest version of the chassis monitoring feature. |
| | **Remove Chassis Monitoring Feature** | Removes the chassis monitoring feature. |
| **Chassis Modular Server Correlation** | | |
| | **Import Chassis Modular Server Correlation Feature** | Enables the chassis modular server correlation feature. |
| | **Upgrade Chassis Modular Server Correlation Feature** | Upgrades to the latest version of the chassis modular server correlation feature. |
| | **Remove Chassis Modular Server Correlation Feature** | Removes the chassis modular server correlation monitoring feature. |

# Dell Modular and Monolithic Systems Tasks (In-band)

## Clear ESM Logs

### About this task

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:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts 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 is displayed.
   **NOTE:** In System Center Operations Manager 2007 R2 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.

### Example

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

### About this task

To launch Server Administrator:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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:** The Dell Server Management Pack Suite tasks launch the remote console in the Internet Explorer.

# Launch Remote Desktop

**About this task**

To launch remote desktop:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 the remote desktop is enabled manually in the managed node.

# Launch InBand Dell Remote Access Console

**About this task**

To launch InBand Dell Remote Access Console:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

**About this task**

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

**NOTE:** To enable Advanced Power Control, install BMU (Baseboard Management Controller Management Utility) in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To check the power status of a system:

**Steps**

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

**About this task**

The **Power Cycle** task allows you to turn off the Dell system and turn it on again after a delay.

**NOTE:** To enable **Advanced Power Control**, install BMU in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To run the power cycle:

**Steps**

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

### About this task

The **Force Power Off** task allows you to turn off the system without shutting down the operating system.

**NOTE:** To enable **Advanced Power Control**, install BMU in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To power off the system:

### Steps

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

### About this task

The **Power Off Gracefully** task allows you 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 is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To power off the system gracefully:

### Steps

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

### About this task

The **Power On** task allows you 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 is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To power on a system:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

### About this task

The **Power Reset** task allows you to power off and then power on the system.

**NOTE:** To enable **Advanced Power Control**, install BMU in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To reset the power of the system:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 On

**About this task**

The **Turn LED Identification On** task allows you to turn on the LED identification on the selected system.

**NOTE:** To enable **Advanced Power Control**, install BMU in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To turn on LED identification:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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.**

# Turn LED Identification Off

**About this task**

The **Turn LED Identification Off** task allows you to to turn off the LED identification on the selected system.

**NOTE:** To enable **Advanced Power Control**, install BMU in the default path. If BMU is not installed in the default path, create a new console task. For more information on creating a new console task, see Creating Advanced Power Control And LED Identification Tasks.

To turn off LED identification:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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**.

# Get Warranty Information

**About this task**

The **Get Warranty Information** task allows you to view the warranty status of the selected system.

To get warranty information:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

### About this task

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

The **Launch Dell OpenManage Power Center** task allows you to launch the OpenManage Power Center console.

To launch Dell OpenManage Power Center:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 License Manager On 32–Bit Management Server

### About this task

The **Launch Dell License Manager On 32–Bit Management Server** task allows you to launch the Dell License Manager on a 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:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 32 bit Management Server.**

# Launch Dell License Manager On 64-Bit Management Server

### About this task

The **Launch Dell License Manager On 64-Bit Management Server** task allows you 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:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 64 bit Management Server.**

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

## Get Warranty Information

**About this task**

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

To get warranty information:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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)

**About this task**

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

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

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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:** The Dell Server Management Pack Suite tasks launch the remote console in the Internet Explorer.

## Launch Remote Desktop (Monolithic Server)

**About this task**

**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:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

**About this task**

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

To launch Dell OpenManage Power Center:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 Remote Access Console

### About this task

To launch Dell Remote Access Console:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

### About this task

The **Launch Dell License Manager** task allows you 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:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

### About this task

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:

### Steps

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts 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 R2* :

   In the **Actions** pane, select **SNMP Network Device Tasks** > **Launch Dell Remote Access Console.**

   *On systems running OpsMgr 2012* :

   In the **Tasks** pane, select **Dell Remote Access Controller Tasks** > **Launch Dell DRAC Console.**

# Launch Dell License Manager

**About this task**

The **Launch Dell License Manager** task allows you 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:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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

**About this task**

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

To launch Dell OpenManage Server Administrator:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 R2* :

   In the **Actions** pane, select **SNMP Network Device Tasks** > **Launch Dell OpenManage Server Administrator.**

   *On systems running OpsMgr 2012* :

   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

**About this task**

**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:

**Steps**

1. In the OpsMgr console, navigate to a Dell **Diagram Views**, **State Views**, or **Alerts Views**.
2. Select the desired Dell server 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 R2* :

   In the **Actions** pane, select **SNMP Network Device Tasks** > **Launch Dell OpenManage Server Administrator.**

   *On systems running OpsMgr 2012* :

   In the **Tasks** pane, select **Dell Remote Access Controller Tasks** > **Launch Dell OpenManage Server Administrator.**

# Dell Chassis Tasks

## Launch Dell CMC Console

**About this task**

You can use this task to launch the CMC console.

**Steps**

1. In the OpsMgr console, navigate to the Dell **Diagram Views**, **State Views**, or **Alerts 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 R2* :

   In the **Actions** pane, select **SNMP Network Device Tasks** > **Launch Dell CMC Console**.

   *On systems running OpsMgr 2012* :

   In the **Tasks** pane, select **Dell CMC Tasks** > **Launch Dell CMC Console**.

## Launch Dell Modular Chassis Remote Access Console

**About this task**

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

**Steps**

1. In the OpsMgr console, navigate to the Dell **Diagram Views**, **State Views**, or **Alerts 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 R2* :

   In the **Actions** pane, select **SNMP Network Device Tasks** > **Launch Dell Modular Chassis Remote Access Console**.

   *On systems running OpsMgr 2012* :

   In the **Tasks** pane, select **Dell DRAC/MC Tasks** > **Launch Dell Modular Chassis Remote Access Console**.

# Configuring Dell Connections License Manager URL

**About this task**

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.

**Steps**

1. Install the Dell Connections License Manager. For more information, see *Dell Connections License Manager Version 1.0 Installation Guide* at **dell.com/support/manuals**.
2. Obtain licenses for the monitoring feature. For more information, see the "Managing Connections License Manager" section in the *Dell Connections License Manager Version 1.0 User's Guide* at **dell.com/support/manuals**.
3. Launch the OpsMgr 2012 console.
4. From the navigation pane, click **Monitoring.**

5. Expand **Monitoring** > **Dell** > **Feature Management Dashboard.**
6. Select **Server (Out-of-band) Monitoring** feature.
7. From the **Dell Monitoring Feature Tasks** pane, select **Configure License Server**.
   The **Run Task - Configure License Server** screen is displayed.
8. Click **Override**.
   The **Override Task Parameters** screen is displayed.
9. In the **LicenseWebServiceURL** parameter, under the **New Value** column type the license web service URL (the license webservice URL uses the default port as 8543) in the following format **http://<*License Server IP*>: <*port number*>/**.

   For example: `http://10.56.123.255:8543/.`
10. In the **LicenseWebUIURL** parameter, under the **New Value** column type the license web UI URL (the license web UI URL uses the default port as 8544) in the following format **http://<*License Server IP*>: <*port number*>/**.

    For example: `http://10.56.123.255:8544/.`
11. Click **Override**.
    The **Run Task - Configure License Server** screen is displayed.
12. Click **Run**.
    The **Task Status - Configure License Server** screen is displayed. The **Configure License Server** task takes several minutes to complete.

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

# 6

# 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.

**Topics:**



## Accessing Reports

### About this task

To access the reporting:

### Steps

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.

### Next steps

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 R2 or System Center Essentials 2010, the **Tasks** pane is referred to as **Actions** pane.

## Generating OpenManage Windows Event Log Report

### About this task

To create a report for OpenManage Windows Event Logs:

### Steps

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 R2 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 **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.

# Generate BIOS configuration report on the Operations Manager

**About this task**

To create a report for the BIOS configuration:

**Steps**

1. On the Operations Manager console, click **Reporting**.
2. Click **Dell Windows Server (Detail Edition).**
3. Click **BIOS Configuration**, then click **Open** in the **Tasks** pane.
4. Select a time period for which you want the report generated.
5. Click **Add Object**.
6. Search for objects of class `Dell Windows Server` and click **Add**.
   You will find the object in the **Selected object** pane.
7. Choose the required **Properties.**
8. Click **Run.**
   The **BIOS Configuration** report is generated.

# Generating Firmware And Driver Versions Report

**About this task**

To create a report for firmware and driver versions:

**Steps**

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 **Firmware and Driver Versions**, then click **Open** on the **Task** pane.

   **NOTE:** In System Center Operations Manager 2007 R2 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 **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

**About this task**

To create a report for RAID configuration:

**Steps**

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 **RAID Configuration**, then click **Open** on the **Task** pane.

   **NOTE:** In System Center Operations Manager 2007 R2 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 **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.

# 7

# Related Documentation And Resources

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

**Topics:**



## 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 at **dell.com/support/manuals**.

- *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 Server Administartor 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*
- *Dell Chassis Management Controller Version 1.0 for Dell PowerEdge VRTX*
- 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.

## Accessing Documents From Dell Support Site

To access the documents from Dell Support site:

1. Go to **dell.com/support/manuals**.
2. In the **Tell us about your Dell system** section, under **No**, select **Choose from a list of all Dell products** and click **Continue**.
3. In the **Select your product type** section, click **Software and Security**.

4. In the **Choose your Dell Software** section, click the required link from the following:
   - **Client System Management**
   - **Enterprise System Management**
   - **Remote Enterprise System Management**
   - **Serviceability Tools**
5. To view the document, click the required product version.

**NOTE:** You can also directly access the documents using the following links:

- For Enterprise System Management documents — **dell.com/openmanagemanuals**
- For Remote Enterprise System Management documents — **dell.com/esmmanuals**
- For Serviceability Tools documents — **dell.com/serviceabilitytools**
- For Client System Management documents — **dell.com/OMConnectionsClient**
- For OpenManage Connections Enterprise systems management documents — **dell.com/OMConnectionsEnterpriseSystemsManagement**
- For OpenManage Connections Client systems management documents — **dell.com/OMConnectionsClient**

# 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 **dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down menu at the top of page.
4. Select the appropriate service or support link based on your need.

# 8

# Appendix A- Issues And Resolutions

**Topics:**



## Issues And Resolutions

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

**Table 22. Issues And Resolutions (continued)**

| Issue | Resolution | Applicable To |
|---|---|---|
| Discovery through iSM–WMI fails when a managed node is running Windows Server 2008 R2 and the Management server is running **Operations Manager** 2012 R2. | Ensure that you have installed Windows Management Framework version 4.0.<br>On the management server, apply the Microsoft Security update for Update Rollup 7 (or later) for System Center 2012 R2 Operations Manager. For more information, see `Support.microsoft.com`.<br>You can install the following updates from `Catalog.update.microsoft.com`. Ensure that you install these updates in the order that is listed below:<br>1. Update Rollup for Microsoft System Center 2012 R2 - Operations Manager Server.<br>2. Update Rollup for Microsoft System Center 2012 R2 - Operations Manager Console.<br>Discover the server running Windows Server 2008 R2 operating system. | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature<br>This issue pertains to discovery through iSM using WMI only. |
| **Set as the Preferred Monitoring Method** task fails to remove the duplicate objects in either or both of the following scenarios:<br>• Correlation of the Dell EMC Modular servers with chassis slots<br>• Monitoring Dell EMC FM servers | To remove the duplicate objects, perform the following steps:<br>1. Go to the **Dell EMC Feature Management Dashboard**, select the **Dell EMC Chassis Modular Server Correlation** feature, and then click **Remove Chassis Modular Server Correlation Feature** from the **Dell Monitoring Feature Tasks** menu in the right pane. Reimport the **Dell EMC Chassis Modular Server Correlation**. You cannot use the **Set as Preferred Monitoring Method** task functions to remove the duplicate objects.<br>2. If the task is still failing, then perform the following steps: | Dell EMC Chassis Modular Server Correlation Feature |

**Table 22. Issues And Resolutions (continued)**

| Issue | Resolution | Applicable To |
|---|---|---|
| | a. Disable the **Dell EMC Chassis to the Modular Blade Server Correlation Discovery** object discovery.<br>b. Disable the object discovery corresponding to the method used for discovering the modular servers. For example: If the duplicate object is discovered through OMSA, then go to **Authoring** > **Object Discoveries** and then search for `Dell Server Discovery`; which is targeted at the `Windows Computer` and disable the **Discovery** attribute for that object.<br>**NOTE:** In case the duplicate object has been created for Dell EMC servers, then disable the following object discoveries for FM servers:<br>• `Dell EMC FM Server Agent-based Discovery`<br>• `Dell EMC FM Server Agent-free Discovery`<br>• `Dell EMC FM Server iSM Discovery`<br>3. Run the following command from the **Operations Manager Shell**:<br>`Remove-SCOMDisabledClassInstance`<br>**NOTE:** This step may take up to 48 hours to complete. | |
| The **Agent proxy not enabled** alerts are displayed in the **Active Alerts** list for the Dell EMC PowerEdge Servers that are discovered through iSM. | To resolve this issue, perform the following steps:<br>1. Go to the Dell EMC Feature Management Dashboard, and click Dell EMC Server and Rack Workstation Monitoring (Licensed).<br>2. In the right pane, under **Dell Monitoring Feature Tasks**, click **Enable Agent Proxying**.<br>The **Run Task - Enable Agent Proxying** window is displayed.<br>3. Click **Override**, and then click the field under New Value for the **AutoResolve Warnings/Errors** parameter and set the value as **True**.<br>4. Now click Override and then click **Run**.<br>5. Close the task status window.<br>Clear the existing alerts from the active alerts list. These alerts will no longer be displayed for future discoveries. | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature |

**Table 22. Issues And Resolutions (continued)**

| Issue | Resolution | Applicable To |
|---|---|---|
| In the **Dell EMC Diagram View** for Dell network devices, the basic attributes are not displayed for the Dell DRAC and Dell EMC chassis objects. | To resolve this issue, you can view the detailed set of attributes by clicking the objects in the **State View**. | Dell EMC Chassis Monitoring Feature |
| Server Modules and Chassis Slot Summary Information are not visible under CMC/OME-M. | • Ensure that OpenManage Server Administrator (OMSA) or DRAC tools are installed on the management server managing the CMC.<br>• Ensure that you have configured the **Run As Account** for CMC devices and associated them with "Dell CMC Login Account."<br>• Ensure that **Dell CMC Slot Discovery** and rules are enabled from the **Authoring Pane** of the Operations Manager console. | Dell EMC Chassis Monitoring Feature |
| Errors while running the **Repair** option in Dell EMC Server Management Pack Suite 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 *Dell EMC OpenManage Integration version 7.2 for Microsoft System Center for Operations Manager Installation Guide.* | Dell EMC Server Management Pack Suite |
| If there is a delayed response while discovering a chassis, 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/OME-M device which is experiencing a delayed response. For more information about **Overrides**, see the Operations Manager documentation at `Technet.microsoft.com`. | Dell EMC Chassis Monitoring Feature |
| Feature management host server health service is nonfunctional. | If the selected management server has stopped functioning, the executed Feature Management task fails. In such an instance, where the selected management server is corrupt or the health service cannot be obtained, decommission the management server to remove stale objects. For more information, see `Technet.microsoft.com/en-us/library/hh456439.aspx`.<br>Select a management server from the remaining management servers, and override the FMPHostFQDN of Feature Management host Discovery. | Dell EMC Server Management Pack Suite |
| **Dell OM: Server and its component health computation failed** Alert is displayed under **Monitoring** > **Dell EMC Alerts Views** > **Dell EMC Server Alerts** on the console. | Manually associate the Run As Account for monitoring Dell server. For more information, see Associating a Run As Account for monitoring a Dell EMC PowerEdge Server using the Dell EMC Server and Rack Workstation Monitoring (Licensed) feature. | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature |
| When there are multiple Operations Manager consoles in a Management | • If the user wants to use the same **device credential profile** | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature |

**Table 22. Issues And Resolutions (continued)**

| Issue | Resolution | Applicable To |
|---|---|---|
| group, the **device credential profiles** and **jobs** that are created from the **Dell EMC OpenManage Integration Dashboard** when launched from one Operations Manager console are not visible from the **Dell EMC OpenManage Integration Dashboard** when launched from an alternative Operations Manager console within the Management group. | created, then launch the **Dell EMC OpenManage Integration Dashboard** from the Operations Manager console where it was created initially.<br>• New device credential profile can be created from **Dell EMC OpenManage Integration Dashboard** that is launched from an alternative Operations Manager console can be used for discovery of devices.<br>• If the user wants to view the **scheduled jobs** or the **job history**, then launch the **Dell EMC OpenManage Integration Dashboard** from the Operations Manager console where it was created initially.<br>**NOTE:** Ensure that the device credential profile names and jobs names are unique. | Dell EMC Chassis Monitoring Feature<br>Dell EMC Network Switch Monitoring Feature<br>This issue pertains to the usage of the same device credential profile, and jobs in the **Dell EMC OpenManage Integration Dashboard** across multiple Operations Manager consoles within a management group. |
| In Operations Manager 2012 R2, the import of **Dell EMC OpenManage Integration Dashboard View** Management pack fails. | To import the Management pack, user has to perform the following steps:<br>1. Install update rollup 13 for Operations Manager 2012 R2. For more information, see https://support.microsoft.com/en-in/help/4016125/update-rollup-13-for-system-center-2012-r2-operations-manager and follow the steps that are given in the link.<br>2. After updating, download and import the management pack under **OMIMSSC Configuration Management Pack** from the OMIMSSC Admin portal and import into the Operations Manager. For more information, see **Download the Configuration Management Pack** in *Dell EMC OpenManage Integration version 7.2 for Microsoft System Center for Operations Manager Installation Guide*.<br>3. Perform the enrollment of the Operations Manager console from the OMIMSSC Admin portal after importing the Configuration Management pack. For more information about enrollment, see **Enrolling of Operations Manager console** in *Dell EMC OpenManage Integration version 7.2 for Microsoft System Center for Operations Manager Installation Guide*. | Operations Manager 2012 R2 |
| Post upgrade from Dell EMC Server Management Pack Suite version 7.0 | Post upgrade, to view the performance metrics for servers discovered in detailed | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature |

**Table 22. Issues And Resolutions (continued)**

| Issue | Resolution | Applicable To |
|---|---|---|
| to Dell EMC OMIMSSC version 7.1 to Dell EMC OMIMSSC version 7.2, the performance metrics for servers that are discovered using licensed method and for chassis are not seen. | mode from the Dell EMC OpenManage Integration Dashboard, enable the Metrics option in Configuration page. | Dell EMC Chassis Monitoring Feature |
| When you enroll the Dell EMC OMIMSSC appliance in the Operations Manager or if there is any change in OMIMSSC appliance IP, you may face difficulties to launch the **Dell EMC OpenManage Integration Dashboard** in the Operations Manager console. | To update the Appliance IP in Unit monitors:<br>1. Log in into the Operations Manager console.<br>2. Click **Authoring** on the lower left of the pane.<br>3. Select **Authoring** > **Management Pack Objects** > **Monitors**.<br>4. In the **Look for** field, search for **Dell EMC SDK Override Appliance IP** under **Management Sever**.<br>5. Right-click **Dell EMC SDK Override Appliance IP**, and select **Override** > **Override the Monitor** > **For all objects of class**.<br>6. Select **Dell EMC Appliance IP** under parameter name. Update the **Override value**, and click **OK**.<br>**NOTE:** Ensure that you do not select any other override parameters. | Dell EMC OMIMSSC |
| When you de-enroll the SCOM Management group from the OMIMSSC appliance and enroll a new SCOM Management group within the same OMIMSSC appliance, you try to reuse the same job name or credential profile name as used earlier. You see an error that the credential profile or the job exists. | • Ensure not to use same job name and same credential profile as used earlier. | Dell EMC OpenManage Integration Dashboard |
| When the monitoring level is changed using Dell EMC Feature Management Dashboard task pane and **Sync with MSSC** is performed from the **Dell EMC OpenManage Integration Dashboard**, then the monitoring level is affected in the consecutive discovery cycle but not immediately. | Wait for the monitoring level to be changed and reflected after next discovery cycle.<br>or<br>change the discovery mode from the **Dell EMC OpenManage Integration Dashboard** directly, and then the device discovery jobs get scheduled immediately. | Dell EMC Server and Rack Workstation Monitoring (Licensed) Feature<br>Dell EMC Chassis Monitoring Feature<br>Dell EMC Network Switch Monitoring Feature |
| In the SCOM console, the overall status of fan group shows critical for **Dell EMC VRTX Chassis** in the **Dell EMC VRTX Chassis Diagram View** . However, the detailed diagram view shows only healthy fans but not the unhealthy fans. | Launch the CMC **Product URL** from the inventory of the CMC devices. | Dell EMC Chassis Monitoring Feature |
| Post the OMIMSSC appliance reboot, when the discovered Dell devices are deleted from the **Dell** | Reboot the OMIMSSC appliance from the terminal console of the virtual machine. | OMIMSSC appliance |

### Table 22. Issues And Resolutions

| Issue | Resolution | Applicable To |
|---|---|---|
| **EMC OpenManage Integration Dashboard** and rediscovered, the discovery job fails. | | |

# Known Limitations

### Table 23. 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 *Unavailable* state when the target class is present and the unit monitor has been executed. | Dell Server Management Pack Suite |
| 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 5.1. Recreate the overrides for iDRAC6 Modular class manually. | Dell Server Management Pack Suite |
| In OpsMgr 2012 R2, chassis modular server correlation may not correlate the Dell servers with the chassis, and may not list the Dell Servers under their respective chassis slot. | Chassis Modular Server Correlation Feature |

# 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 24. Feature Management Alerts

| Alert Text | Alert State | Cause | Resolution |
|---|---|---|---|
| Dell FMP: Dell Device Helper Utility is either not present or incompatible with Dell Server (out-of-band) Management Pack. | Critical | The Dell Device Helper Utility version 5.1 was not found or the Dell Device Helper Utility is corrupted.<br>A version higher than 5.1 of Dell Device Helper Utility was found. | Run the Dell Server Management Pack Suite version 5.1 installer on the management server. |

**Table 24. Feature Management Alerts (continued)**

| Alert Text | Alert State | Cause | Resolution |
|---|---|---|---|
| | | A version lower than 5.1 of Dell Device Helper Utility was found. | |
| 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.<br>Check if the Dell Connections License Server is accessible. |
| Dell FMP: Dell Licenses for a feature are insufficient or not available. | Critical | Licenses are not present on the Dell Connections License Server.<br>License usage for a monitoring feature has exceeded the monitoring capacity. | Purchase additional licenses and import them into the Dell Connections License Server. |
| | Warning | License usage for a monitoring feature is approaching the total monitoring capacity. | Purchase additional licenses and import them into the Dell Connections License Server. |
| | Critical | Unable to process licenses for a monitoring feature. | Make sure that the Dell Connections License Server is configured correctly. For more information, see *Dell Connections License Manager Version 1.0 User's Guide* at **dell.com\support\manuals**.<br>Check if the Dell Connections License Server is accessible.<br>Check the access privileges for getting the license from the Dell Connections License Server. |

# 9

# 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.

**Topics:**



## Creating Advanced Power Control And LED Identification Tasks

**About this task**

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 the 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:

**Steps**

1. Launch the 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 is displayed.
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`. 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

**About this task**

Launch License Manager Task uses the default Dell License Manager(DLM) install path (`%PROGRAMFILES(X86)%\Dell\SysMgt\LicenseManager\Dell.DlmUI.exe` or `%PROGRAMFILES%\Dell\SysMgt\LicenseManager\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:

**Steps**

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 is displayed.
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.