

Dell Printer Management Pack Version 6.1 for Microsoft System Center Operations Manager

User's Guide

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.

Copyright © 2009 - 2017 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

| | |
|--|-----------|
| 1 Overview..... | 4 |
| Terms used in this document..... | 4 |
| What is new in this release..... | 4 |
| Key features of Dell Printer Management Pack..... | 4 |
| About Dell Printer Management Pack..... | 5 |
| 2 Dell Printer Management Pack operations..... | 6 |
| Discovery and grouping..... | 6 |
| Discovering a Dell Printer..... | 6 |
| Discovering Network Devices..... | 6 |
| Monitoring | 6 |
| Health status indicators..... | 6 |
| Alerts Views | 7 |
| Diagram Views..... | 8 |
| State Views..... | 9 |
| Tasks | 9 |
| Launching Printer console..... | 9 |
| Customizing Dell Printer Management Pack..... | 10 |
| Unit Monitors..... | 10 |
| Object discoveries..... | 10 |
| Customizing alert rules..... | 10 |
| 3 Troubleshooting..... | 11 |
| Issues and resolutions..... | 11 |
| 4 Related documentation and resources..... | 13 |
| Microsoft guidelines for performance and scalability for OpsMgr..... | 13 |
| Contacting Dell..... | 13 |
| Accessing documents from the Dell EMC support site..... | 13 |

Overview

This document describes the activities that you can perform with the Dell Printer Management Pack version 6.1.

The integration of Dell Printer Management Pack version 6.1 with Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, or Microsoft System Center Operations Manager 2007 R2 allows you to manage and monitor the availability of Dell printers.

CAUTION: To avoid data corruption, data loss, or both; perform the procedures in this document only if you have proper knowledge and experience in using Microsoft Windows operating system and Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, and Microsoft System Center Operations Manager 2007 R2.

The Installation Guide, and Release Notes files are packaged in a self-extracting executable `Dell_Printer_Management_Pack_v6.1_Axx.exe` (where xx is the Dell Printer Management Pack version 6.0 release number) file. You can download the executable file from dell.com/support.

Read the management pack's release notes, containing the latest information about software and management server requirements, in addition to information about known issues. The release notes is also posted to the Systems Management documentation page at dell.com/support/home.

Topics:

- [Terms used in this document](#)
- [What is new in this release](#)
- [Key features of Dell Printer Management Pack](#)
- [About Dell Printer Management Pack](#)

Terms used in this document

The following term is used throughout this document. Ensure to substitute the actual term wherever appropriate.

OpsMgr — This term refers to Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, Microsoft System Center 2012 Operations Manager, and Microsoft System Center Operations Manager 2007 R2, unless otherwise specified.

What is new in this release

- Support for System Center 2016 Operations Manager.
- Support for latest Dell printers. For information on supported printers, refer *Dell Printer Management Pack Version 6.1 for Microsoft System Center Operations Manager Release Notes*.
- Support for latest firmware.

Key features of Dell Printer Management Pack

The following table lists the key features and functionality of the Dell Printer Management Pack.

Table 1. Features and functionality

| Feature | Functionality |
|------------|---|
| Discovery | Supports discovery of Dell printers in a network. |
| Inventory | Performs inventory of the supported Dell printers. |
| Monitoring | Supports health monitoring of Dell printers in a network. |

| Feature | Functionality |
|-----------------------------------|--|
| Launching Printer Console | Launches the printer console from the OpsMgr console. |
| Display alerts from Dell printers | Displays the Simple Network Management Protocol (SNMP) based alerts for the monitored Dell printer in the Alerts Views of the OpsMgr console. |

About Dell Printer Management Pack

The following table describes the printer management packs and their dependencies with each other:

Table 2. Management pack functionality and dependencies

| Supported OpsMgr Version | Management Pack | Description | Dependency |
|---|---|--|--|
| OpsMgr 2016 | Dell Printer (SCOM 2012) MP — Dell.Printer.OM12.mp | Management pack for instrumenting supported Dell printers. | None |
| OpsMgr 2012 R2, OpsMgr 2012 SP1 and OpsMgr 2012 | Dell Printer (SCOM 2012) MP — Dell.Printer.OM12.mp | Management pack for instrumenting supported Dell printers. | Dell Base Hardware Library 4.0 — Dell.Connections.HardwareLibrary.mp |
| OpsMgr 2007 R2 | Dell Printer (SCOM 2007 R2) MP — Dell.NetworkDevice.Printer.mp | Management pack for instrumenting supported Dell printers. | Dell Base Hardware Library 4.0 — Dell.Connections.HardwareLibrary.mp |

Dell Printer Management Pack operations

This chapter provides information on the various operations that you can perform on OpsMgr using Dell Printer Management Pack.

The Printer Management Pack enables the following operations to manage Dell printers:

- Discovers and groups Dell printers.
- Displays attribute information of Dell printers.
- Provides health status of Dell printers through periodic polling.
- Launches the printer console.
- Processes SNMP traps, and provides knowledge base articles for printer traps.

Topics:

- [Discovery and grouping](#)
- [Monitoring](#)
- [Tasks](#)
- [Customizing Dell Printer Management Pack](#)

Discovery and grouping

Discovering a Dell Printer

Dell printers are classified as network devices. To discover Dell printers, ensure that the devices appear under **Administration > Network Management > Network Devices** in the OpsMgr console.

Discovering Network Devices

To discover network devices in OpsMgr.

- For OpsMgr 2016, see technet.microsoft.com/en-us/system-center-docs/om/manage/how-to-discover-network-devices-in-operations-manager
- For OpsMgr 2012 R2, OpsMgr 2012 SP1, and OpsMgr 2012, see technet.microsoft.com/en-us/library/hh278846.aspx.
- For OpsMgr 2007 R2, see technet.microsoft.com/en-us/library/cc950509.aspx.


Monitoring





The Dell Printer Management Pack enables you to monitor the discovered Dell printers. The health status indicators help you to monitor the health of your Dell printers in the network.

Health status indicators

The following table lists the icons that indicate the health status of the discovered Dell printers on the OpsMgr console.

Table 3. Health status indicators

| Icon | Severity Level |
|---|---|
|  | Normal/OK — The component is working as expected. |

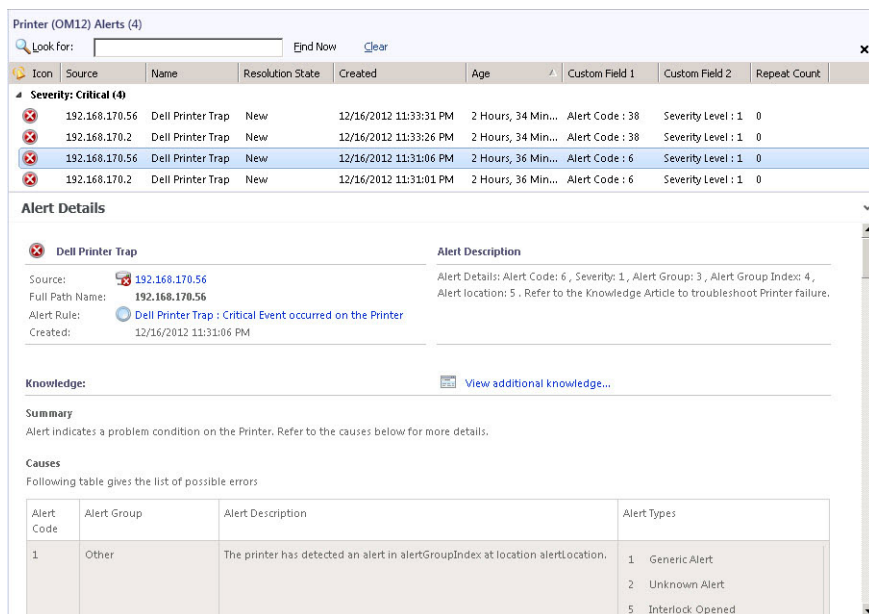
| Icon | Severity Level |
|---|---|
|  | Warning/Noncritical — A probe or other monitoring device has detected a reading for the component that is above or below the acceptable level. The component may still be functioning, but it could fail. The component may also be functioning in an impaired state. |
|  | 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 specific component is not monitored. |
|  | The service is unavailable. |

Views

You can monitor the Dell printers using the following views:





- **Alerts Views**
- **Diagram Views**
- **State Views**

Alerts Views






Printer (OM12) Alerts (4)

Look for: End Now Clear

| Icon | Source | Name | Resolution State | Created | Age | Custom Field 1 | Custom Field 2 | Repeat Count |
|---|----------------|-------------------|------------------|------------------------|--------------------|-----------------|--------------------|--------------|
|  | 192.168.170.56 | Dell Printer Trap | New | 12/16/2012 11:33:31 PM | 2 Hours, 34 Min... | Alert Code : 38 | Severity Level : 1 | 0 |
|  | 192.168.170.2 | Dell Printer Trap | New | 12/16/2012 11:33:26 PM | 2 Hours, 34 Min... | Alert Code : 38 | Severity Level : 1 | 0 |
|  | 192.168.170.56 | Dell Printer Trap | New | 12/16/2012 11:31:06 PM | 2 Hours, 36 Min... | Alert Code : 6 | Severity Level : 1 | 0 |
|  | 192.168.170.2 | Dell Printer Trap | New | 12/16/2012 11:31:01 PM | 2 Hours, 36 Min... | Alert Code : 6 | Severity Level : 1 | 0 |

Alert Details

 **Dell Printer Trap**

Source:  192.168.170.56
Full Path Name: 192.168.170.56
Alert Rule:  Dell Printer Trap - Critical Event occurred on the Printer
Created: 12/16/2012 11:31:06 PM

Alert Description: Alert Details: Alert Code: 6, Severity: 1, Alert Group: 3, Alert Group Index: 4, Alert location: 5. Refer to the Knowledge Article to troubleshoot Printer failure.

Knowledge: [View additional knowledge...](#)

Summary
Alert indicates a problem condition on the Printer. Refer to the causes below for more details.

Causes
Following table gives the list of possible errors

| Alert Code | Alert Group | Alert Description | Alert Types |
|------------|-------------|---|--|
| 1 | Other | The printer has detected an alert in alertGroupIndex at location alertlocation. | 1 Generic Alert 2 Unknown Alert 5 Interlock Opened |

Figure 1. Alerts Views

To view the alerts for the printers you are monitoring:

1. In the OpsMgr console, click **Monitoring**.
2. In the **Monitoring** pane, navigate to the **Dell** folder and click the folder to display the different views.
3. Click **Alerts Views** > **Printer (OM07) Alerts** or **Printer (OM12) Alerts**.
The OpsMgr console displays the alerts for all the Dell printers that you are monitoring in the printer alerts pane.
4. Select an alert to view the details in the **Alert Details** pane.

Diagram Views

The **Diagram Views** displays a hierarchical and graphical representation of all Dell printers on your network that OpsMgr manages. The **Diagram Views** offers the following:

- **Complete Diagram View**
- **Printer (OM07) Diagram**
- **Printer (OM12) Diagram**

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

Complete Diagram View

The **Complete Diagram View** offers a graphical representation of all Dell devices that OpsMgr manages, and allows you to expand and verify the status of individual devices and their components in the diagram. You can view details for Dell printers with the **Complete Diagram** view.

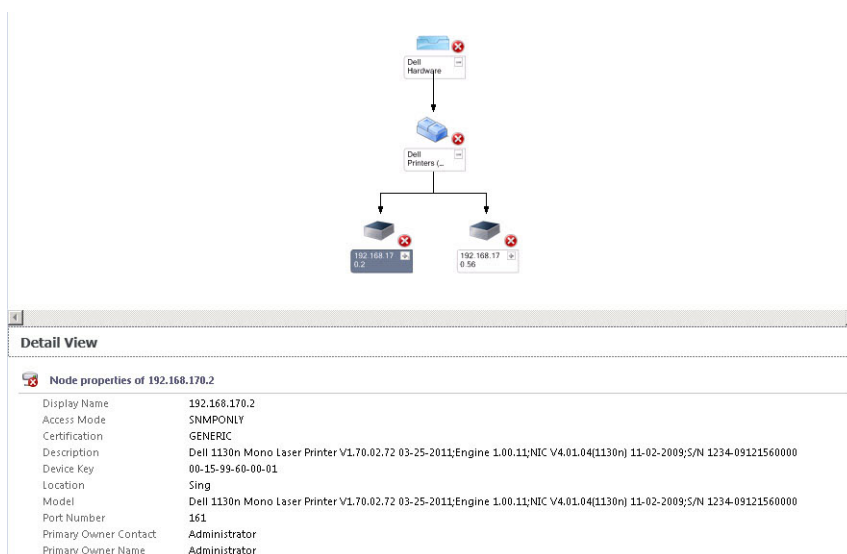


Figure 2. Complete Diagram View

To access the **Complete Diagram View**:

1. In the OpsMgr console, click **Monitoring**.
2. In the **Monitoring** pane, navigate to the **Dell** folder and click the folder to display the different views.
3. Click **Diagram Views > Complete Diagram View**.
4. Select a component in the diagram to view the details in the **Detail View** pane.

Printer (OM07) Diagram or Printer (OM12) Diagram View

The **Dell Printer (OM07) Diagram** or **Dell Printer (OM12) Diagram** view offers a graphical representation of all Dell printers that OpsMgr manages. You can expand and verify the status of individual printers in the diagram. The root node for this view is the **Dell Printer (OM07)** or **Dell Printer (OM12)** group.

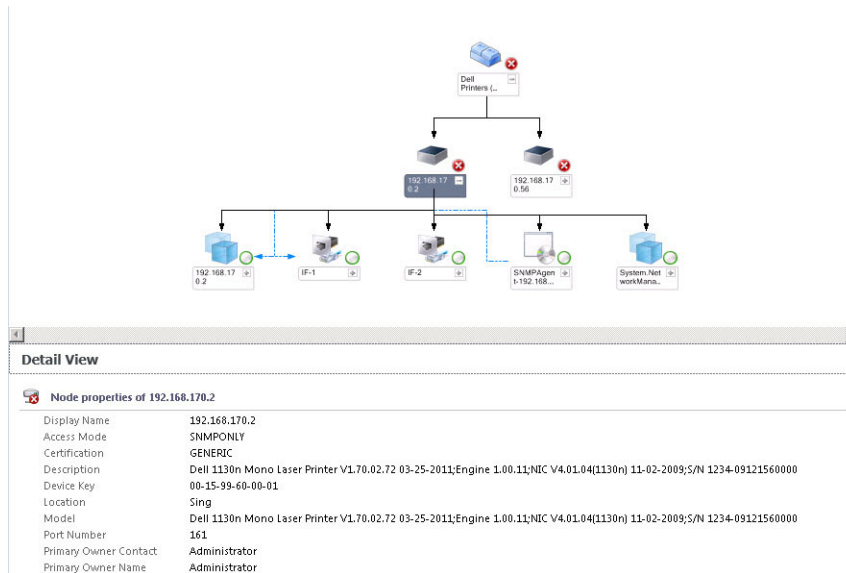


Figure 3. Printer (OM07) Diagram or Printer (OM12) Diagram View

To access the **Printer (OM07) Diagram** or **Printer (OM12) Diagram** view:

1. In the OpsMgr, click **Monitoring**.
2. In the **Monitoring** pane, navigate to the **Dell** folder and click the folder to display the different views.
3. Click **Diagram Views > Printer (OM07) Diagram** or **Printer (OM12) Diagram** view.
4. Select a component in the diagram to view its details in the **Detail View** pane.

State Views

The **State Views** displays the status of each Dell printer managed by OpsMgr on your network. The Dell Printer Management Pack provides a list of severity level indicators to help you monitor the health of the Dell printers on the network.

To access the **State Views**:

1. In the OpsMgr console, click **Monitoring**.
2. In the **Monitoring** pane, navigate to the **Dell** folder and click the folder to display the different views.
3. Click **State Views > Printer (OM07) State** or **Printer (OM12) State** view.
The OpsMgr console displays the status of all the Dell printers that you are monitoring on the right pane.
4. Select a printer to view the details in the **Detail View** pane.

Tasks

Tasks are available in the **Actions** or **Tasks** pane of the OpsMgr console. When you select a printer or a component in any of the **State Views**, **Diagram Views**, or **Alerts Views**, the relevant tasks appear in the **Actions** or **Tasks** pane.

Launching Printer console

1. In the OpsMgr console, navigate to **Diagram Views**.
2. Expand the **Diagram Views** and select the desired Dell printer.
3. In the **Actions** or **Tasks** pane:
 - a) For OpsMgr 2007 R2, click **SNMP Network Device Tasks > Launch Printer Console**.
 - b) For OpsMgr 2012 and OpsMgr 2016, click **Node Tasks > Launch Printer Console**.


Customizing Dell Printer Management Pack

The Dell Printer Management Pack allows you to customize discovery, monitoring, and alert rules of your Dell printers. You can customize the following components:

- **Monitors** — Assess various conditions that can occur in monitored objects. The result of this assessment determines the health state of a target and the alerts that are generated.
- **Object Discoveries** — Finds objects on a network that requires monitoring.
- **Rules** — Collects data, such as events generated by managed objects.


Unit Monitors

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

- **Enabled** — Allows you to enable or disable monitors. You can set the **Override** setting to **True** or **False**.
 **NOTE: The default setting is True.**
- **Interval In Seconds** — The frequency (in seconds) with which the management pack polls the Dell Printers to check the health of a component. The default value for this attribute is 21600 seconds (6 hours).

Object discoveries

You can customize the Dell Printer Management Pack discovery parameters, using the following overrides:

- **Enabled** — Allows you to enable or disable. You can set the **Override Setting** to **True** or **False**.
 **NOTE: The default setting is True.**
- **Interval in Seconds** — Specifies the frequency (in seconds) with which the Dell Printer Management Pack discovers the component instance and attributes of your Dell printer. The default value for this attribute is 86400 seconds (24 hours).

Customizing alert rules

You can customize the alert rules by setting override parameters for the rules.

To customize the rules:

1. In the OpsMgr console, click **Authoring**.
2. In the **Authoring** pane, navigate to **Management Pack Objects**, and click **Rules**.
3. In the **Rules** pane, expand the Dell printer instance and select a rule.
4. Right-click the rule and select **Overrides**.
5. Select **Disable the Rule** and any of the sub options to disable the rule.
Or
Select **Override the Rule** and any of the sub options to set the override parameters for the rule.
You can also change the severity setting for the rule.
6. Click **OK** to apply the override parameter to your rule or click **Cancel** to cancel the changes.

Troubleshooting

Issues and resolutions

The following table lists the known issues and resolutions.

Table 4. Known issues and resolutions

| Issue | Resolution |
|--|--|
| Dell alerts are not sorted chronologically. | <p>Check the registry on the managed system that has this problem. The sorting flags in the left overview definition may have been set to false. In some instances, when you import a management pack with changes already done to the sorting flags, the sorting flags may not get updated in the registry of the managed system. If you delete these settings for the view in the registry, they are recreated from the new management pack when you navigate to that view again. You can also edit the sorting flags in the registry for the view.</p> <p>Registry edit:</p> <p>HKEY_CURRENT_USER\Software\Microsoft\Microsoft Operations Manager\3.0\Console\% GUID.ViewTitle%AlertsView\Age</p> <p>To enable sorting of alerts, ensure that the keys IsSortable and IsSorted are set to 1.</p> |
| Under certain conditions, alerts related to Handle Count Threshold and Private Bytes Threshold are displayed on the OpsMgr console of the management server. | Microsoft KB968760 available at support.microsoft.com resolves this issue. |
| Under certain conditions, an error message is displayed on the OpsMgr console of the management server with the Event ID – 623 and Event Source – Health Service ESE Store . | Microsoft KB975057 available at support.microsoft.com resolves this issue. |
| The OpsMgr 2007 R2 console may crash on certain operating systems. | Microsoft KB951327 and KB951526 available at support.microsoft.com resolves this issue. |
| <p>You may experience one or more of the following situations:</p> <ul style="list-style-type: none"> · The web console does not open. · The My Workspace page does not display. · Performance and Power Monitoring views do not display. · Health Service may not start up on the system. | Microsoft KB954049 available at support.microsoft.com resolves this issue. |
| The reports do not appear as expected in the Reporting space of the Administration console. | Microsoft KB954643 available at support.microsoft.com resolves this issue. |
| The OpsMgr console intermittently displays the following error message - Health service Host Process encountered a problem and needed to close as a result of this Health Service crash. You may notice unexpected behavior in the discovery and monitoring of Dell devices. | Microsoft KB951526 available at support.microsoft.com resolves this issue. |
| OpsMgr 2007 R2 cannot receive SNMP trap data when you use a Microsoft Windows Server 2008-based computer or a Microsoft | Microsoft KB958936 available at support.microsoft.com resolves this issue. |

| Issue | Resolution |
|---|--|
| Windows Vista-based computer as a proxy agent for SNMP devices. | |
| Tables in Alert KB are shown without borders. | Right-click an alert and select Properties in the Alerts pane to view the tables with borders in the Alert Properties window. |

Related documentation and resources

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

Topics:

- [Microsoft guidelines for performance and scalability for OpsMgr](#)
- [Contacting Dell](#)
- [Accessing documents from the Dell EMC support site](#)

Microsoft guidelines for performance and scalability for OpsMgr

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

NOTE: For improved performance, make sure that the Autogrow Option is enabled in the Operations Manager Database for improved performance.

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

Accessing documents from the Dell EMC support site

You can access the required documents in one of the following ways:

- Using the following links:
 - For Dell EMC Enterprise Systems Management, Dell EMC Remote Enterprise Systems Management, and Dell EMC Virtualization Solutions documents — www.dell.com/esmmanuals
 - For Dell EMC OpenManage documents — www.dell.com/openmanagemanuals
 - For iDRAC documents — www.dell.com/idracmanuals
 - For Dell EMC OpenManage Connections Enterprise Systems Management documents — www.dell.com/OMConnectionsEnterpriseSystemsManagement
 - For Dell EMC Serviceability Tools documents — <https://www.dell.com/serviceabilitytools>
- From the Dell EMC Support site:
 1. Go to <https://www.dell.com/support>.
 2. Click **Browse all products**.
 3. From **All products** page, click **Software**, and then click the required link from the following:
 - **Analytics**
 - **Client Systems Management**

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

4. To view a document, click the required product and then click the required version.

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