

Dell EMC Server PRO Management Pack Version 5.0 for Microsoft System Center Virtual Machine Manager

Installation 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.

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Overview

This guide provides information on software pre-requisites and requirements to install and uninstall Dell EMC Server Performance and Resource Optimization Management Pack (PRO Pack) version 5.0. Dell EMC PRO Pack is a tool to monitor the Dell systems and take remedial action when an inefficient system is identified.

The Dell EMC PRO Pack version 5.0 integrates with the following:

- 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
- Microsoft System Center 2016 Virtual Machine Manager
- Microsoft System Center 2012 R2 Virtual Machine Manager
- Microsoft System Center 2012 SP1 Virtual Machine Manager
- Microsoft System Center 2012 Virtual Machine Manager

This integration enables you to proactively manage virtual environments and ensure high availability of your Dell systems.

To implement Dell EMC PRO Pack, see the User's Guide at Dell.com/support/manuals.

NOTE: All reference to Operations Manager in this document is applicable to Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, and Microsoft System Center 2012 Operations Manager unless otherwise specified.

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 all supported versions of Operations Manager and Virtual Machine Manager.

The Management Packs, Installation Guide, and the Release Notes files are packaged in a self-extracting executable `Dell EMC PROPack_v5.0_A00.exe` file. You can download the executable from Dell.com/support.

Read the Management Pack's release notes, which contain the latest information about software and management server requirements, in addition to information about known issues. The release note is also posted to the **Systems Management documentation** page at Dell.com/support/manuals.

Topics:

- [Minimum requirements](#)
- [Supported Operating Systems](#)
- [Installing Operations Manager and VMM Agents](#)
- [Integrating Operations Manager with VMM](#)
- [Importing Dell EMC PRO Pack](#)
- [Planning the Environment for PRO Tips](#)
- [Configuring PRO Tips](#)
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- [Upgrading from Previous Management Packs](#)
- [Uninstalling Dell EMC PRO Pack](#)
- [Security Considerations](#)

Minimum requirements

To install and implement the Dell EMC PRO Pack version 5.0, make sure that the minimum execution environment exists on the following components:

- Management station:

- Installation of Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, or Microsoft System Center 2012 Operations Manager on supported hardware and operating system
- Installation of Microsoft System Center 2016 Virtual Machine Manager, Microsoft System Center 2012 R2 Virtual Machine Manager (VMM), Microsoft System Center 2012 SP1 Virtual Machine Manager (VMM) or Microsoft System Center 2012 Virtual Machine Manager (VMM) on supported hardware and operating system
- Integration of System Center Operations Manager, and System Center Virtual Machine Manager
- Install VMM Admin Console on management systems in which Operations Manager is integrated with VMM for Performance and Resource Optimization (PRO)
- Managed system:
 - Microsoft Hyper-V hosts on any Dell PowerEdge systems ranging from 10th generation to 14th generation—both inclusive
 - OpenManage Server Administrator—including the OpenManage Server Administrator Storage Management Service
 - Install OpenManage Server Administrator 7.2, or later versions.
 - Minimum supported version of OpenManage Server Administrator is 7.2.
- Live Migration:
 - Windows Server 2016, VMM 2012 with Windows Server 2012 SP1, Windows Server 2012 R2, Windows Server 2008 R2, Hyper-V Server 2008 R2, or Hyper-V Windows Server 2012

You can download the latest version of OpenManage Server Administrator from **Dell.com/support**.

NOTE: For the list of supported operating systems for Operations Manager and VMM, see the **Microsoft TechNet Library** at [Technet.microsoft.com/hi-in/library/default\(en-us\).aspx](http://technet.microsoft.com/hi-in/library/default(en-us).aspx).

Supported Operating Systems

For information on the supported operating systems for Dell EMC Pro Pack version 5.0 see the Dell EMC PRO Pack release notes. The release notes, `DellMPv50_PROPack_Readme.txt`, is packaged in the self-extracting executable file `Dell EMC PROPack_v5.0_A00.exe`.

Installing Operations Manager and VMM Agents

When you use the setup to monitor the infrastructure, Operations Manager agents installed on the managed hosts enable data transfer between the managed system and management stations. Agents of both VMM and Operations Manager are manually or automatically installed during the discovery process on all Hyper-V hosts.

Integrating Operations Manager with VMM

For the setup to support Dell EMC PRO Pack, Operations Manager must be integrated with VMM. For more information, see the Microsoft TechNet Library at **Technet.microsoft.com**.

Importing Dell EMC PRO Pack

About this task

NOTE: For alerts and PRO Tips, make sure that VMM discovers the managed objects and displays them in the **State View**.

Dell EMC PRO Pack version 5.0 is provided as a `.mp` file.

To import Dell EMC PRO Pack:

Steps

1. Download the `Dell EMC PROPack_v5.0_A00.exe` file from **Dell.com/support** to a removable media or a local repository.
2. Extract the contents of the file to a folder on the system.

3. Launch the Operations Manager console.
4. On the **Administration** tab, right-click **Management Packs** and click **Import Management Packs**. The **Select Management Pack to import** window is displayed.
5. Click **Add > Add from disk**.
6. Browse the location where you extracted the `Dell_EMCPROPack_v5.0_A00.exe` file and select **Dell.Connections.hyperv.PROPack.mp** and **Dell.Connections.hyperv.PROPackExt.mp** file.
7. Click **Open**. The **Import Management Packs** window is displayed.

NOTE: When you manually install a management pack, Operations Manager displays a generic warning as a part of the security process. For more information, see the **Microsoft TechNet Library**. Click **Close** to close the security warning message.
8. Click **Install**. A confirmation dialog box is displayed.
9. Click **Yes**.

Next steps

Once the import of the Dell EMC PRO pack is completed, proceed to the planning step, to enable PRO Monitors relevant for your environment. For more information, see [Planning the Environment for PRO Tips](#).

Planning the Environment for PRO Tips

You can plan for enabling the PRO Monitors that are relevant for the environment. By default, all the PRO Monitors are disabled in the Dell EMC PRO Pack. For the list of alerts and the recovery actions, see the *Alerts and Recovery Actions* section in the *Dell EMC Server PRO Management Pack Version 5.0 For Microsoft System Center Virtual Machine Manager User's Guide*. Select the alerts that you want to enable. Using Operations Manager Authoring Console (or) Authoring Pane in the Operations Manager console, create an override for the management packs that enables the relevant PRO Monitors.

About this task

Steps for enabling the PRO Monitors are as follows:

Steps

1. Launch the Operations Manager console.
2. From the navigation pane, click **Authoring**.
3. In the **Authoring** tab, select **Management Pack Objects > Monitors**.
4. Click **Change Scope** at the top of the screen. The **Scope Management Pack Objects** screen is displayed.
5. Select **View all targets** and in **Look for** enter `Dell PRO`.
6. Select **Dell PROPack Class for Discovery**, and click **OK**.
7. Expand **Entity Health > Availability**.
8. From the listed monitors, right-click the monitors you want to enable, and select **enable > Overrides > Override the Monitors > For all objects of class: Dell PROPack Class for Discovery**. The **Override Properties** page is displayed.
9. Select **Enabled** and set **Override Value** to **True** and click **OK**. To view the Dell PRO Monitored Servers Health updates, the next cycle of the Dell PRO Monitored Servers discovery and monitoring must be completed.

Configuring PRO Tips

The Dell systems and virtual infrastructure are monitored for both Critical and Warning alerts.

- A **Warning** alert is generated when the reading of a component is above or below the acceptable level. For example, the component may be functioning, but it may be functioning in an impaired state.
- A **Critical** alert is generated when a component has either failed or failure is imminent.

Enabling PRO Tips

About this task

To enable PRO Tips for both **Warning** and **Critical** alerts and automatically implement PRO Tips:

Steps

1. Launch the VMM console.
2. Click **Settings > System Center Settings**.
3. Right-click **Operations Manager Settings** and click **Settings**.
The **Operations Manager Settings** window is displayed, as shown in the following figure.

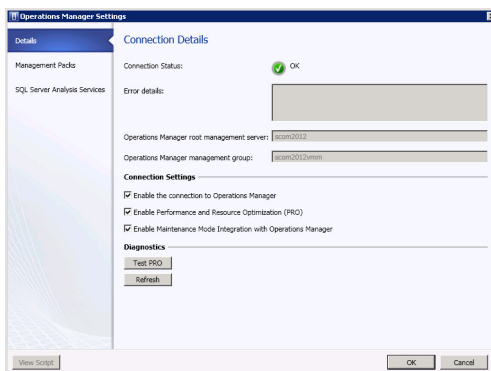


Figure 1. Configuring PRO Tips Properties

4. Make sure that the **Enable Performance and Resource Optimization (PRO)** check box is selected.
5. Click **OK** to save your settings.

Testing the Setup using Scenarios

About this task

To confirm that the imported Dell EMC PRO Pack is fully functional, create the scenarios listed in the following table and check if the activities listed under Expected System Response column are carried out.

Scenario - The Ambient System Temperature exceeds its warning threshold value on a managed system.

CAUTION: Run this test on a server which does not run any Workloads.

Table 1. Your actions and Expected system response

Your Actions	Expected System Response
Using OpenManage Server Administrator, generate a temperature-alert warning on the managed system by configuring the Maximum Warning Threshold value to be lesser than the current System Board Ambient Temperature . For more information, see the <i>Dell OpenManage Server Administrator User's Guide</i> . CAUTION: Make sure to restore the temperature sensors to default value after the test is complete.	<ul style="list-style-type: none"> • The state of the server changes appropriately. In this case, it changes to Warning. • Dell EMC PRO Pack generates the corresponding alert in Operations Manager. • Operations Manager passes an alert associated with the PRO Tip to VMM. • PRO Tip is displayed in the VMM PRO Tip window. In this case it is a Warning.
Select the Implement option in the PRO Tip window.	Places the host in Restrict mode.
Verify that the host is placed in the Restrict mode and the PRO Tip has resolved the alert.	<ul style="list-style-type: none"> • After successful implementation of the PRO Tip, the status changes to Resolved and the PRO Tip entry moves out of the PRO Tip window. • Corresponding alert disappears in the Operations Manager Alert View.

Table 1. Your actions and Expected system response (continued)

Your Actions	Expected System Response
Select the Dismiss option instead of the Implement option in the PRO Tip window.	Dismisses the PRO Tip. No recovery task is performed. The corresponding PRO Tip entry moves out of the PRO Tip window.

Upgrading from Previous Management Packs

Upgrading from Dell PRO Pack Version 3.0 and 4.0 Version

You can upgrade from Dell PRO Pack version 3.0, and version 4.0 by importing the version 5.0 management pack. To import the Dell EMC PRO Pack version 5.0, follow the steps as given in [Importing Dell EMC PRO Pack](#).

Uninstalling Dell EMC PRO Pack

About this task

You can uninstall Dell EMC PRO Pack by deleting it in the Operations Manager console. When you delete the Dell EMC PRO Pack, all the settings and overrides associated with it are removed from Operations Manager.

 **NOTE:** Close all the PRO Tips before uninstalling the Dell EMC PRO Pack.

To uninstall the Dell EMC PRO Pack:

Steps

1. Launch the Operations Manager console.
2. Click **Administration > Management Packs**.
3. In the **Management Packs** pane, right-click **Dell EMC PRO-enabled Management Pack** and click **Delete**.

Security Considerations

Operations Console access privileges are handled internally by Operations Manager. This can be setup using the **User Roles** option under the **Administration > Security** feature on the Operations Manager console. The profile of the role assigned to you determines what actions you can perform and which objects you can manage. For more information on security considerations, see the documentation for Microsoft System Center 2016 Operations Manager, Microsoft System Center 2012 R2 Operations Manager, Microsoft System Center 2012 SP1 Operations Manager, or Microsoft System Center 2012 Operations Manager Online Help at technet.microsoft.com.

Accessing support content from the Dell EMC support site

Access supporting content related to an array of systems management tools using direct links, going to the Dell EMC support site, or using a search engine.

- Direct links:
 - For Dell EMC Enterprise Systems Management and Dell EMC Remote Enterprise Systems Management—<https://www.dell.com/esmmanuals>
 - For Dell EMC Virtualization Solutions—<https://www.dell.com/SoftwareManuals>
 - For Dell EMC OpenManage—<https://www.dell.com/openmanagemanuals>
 - For iDRAC—<https://www.dell.com/idracmanuals>
 - For Dell EMC OpenManage Connections Enterprise Systems Management—<https://www.dell.com/OMConnectionsEnterpriseSystemsManagement>
 - For Dell EMC Serviceability Tools—<https://www.dell.com/serviceabilitytools>
- Dell EMC support site:
 1. Go to <https://www.dell.com/support>.
 2. Click **Browse all products**.
 3. From the **All products** page, click **Software**, and then click the required link.
 4. 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.