

Dell™ OpenManage™
Server Administrator

Installation Guide for VMware® ESXi 3.5



Notes and Cautions



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



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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Contents


1	Introduction	5
	Features	7
	Support Information	7
	Dell OpenManage Server Administrator 6.0.3 System Support for VMware ESXi 3.5	8
	Supported Operating Systems for Server Administrator on the Management Station	9
	Supported Browsers for Server Administrator on the Management Station	9
2	Installing Server Administrator Version 6.0.3	11
	Downloading Server Administrator Web Server	11
	Installing Server Administrator Web Server	12
	Enabling Server Administrator Services on the Managed System	13
	Enabling CIM OEM Providers with VMware Infrastructure Client	13
	Enabling CIM OEM Providers using VMware Infrastructure Remote CLI	14
	Launching Server Administrator Web Server	15
	Managing the Server Administrator Web Server	16
	Start, Stop, and Restart the Web Server	16
	Upgrading to Server Administrator Version 6.0.3	16

3	Troubleshooting	17
	Frequently Asked Questions	17
	Error Messages	18

Introduction

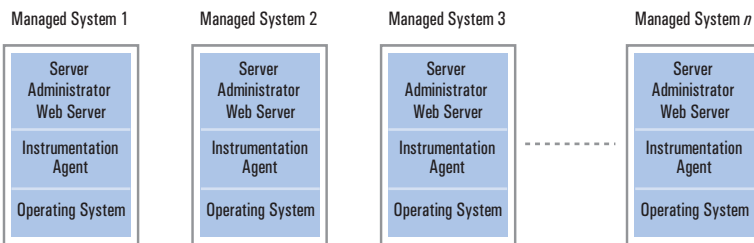
This guide contains information to help you install Dell™ OpenManage™ Server Administrator version 6.0.3. In version 6.0.3, you can use Server Administrator to manage a system with VMware® ESXi 3.5 update 4 virtualization software. VMware ESXi 3.5 update 4 is factory-installed on some Dell systems. For a list of these systems, see Table 1-1.

For information about the VMware ESXi 3.5 update 4 virtualization software, see the VMware support site at www.vmware.com/support.


 **NOTE:** All references to VMware ESXi 3.5 in this guide must be read as VMware ESXi 3.5 Update 4 and later.

In Dell OpenManage versions earlier than 6.0.3, the Server Administrator Web Server, the instrumentation agent, and the operating system are installed on every managed system to perform systems management tasks. See Figure 1-1. (A *managed system* is a system that allows itself to be discovered and polled for status.)

Figure 1-1. Server Administrator - Versions Earlier Than 6.0.3

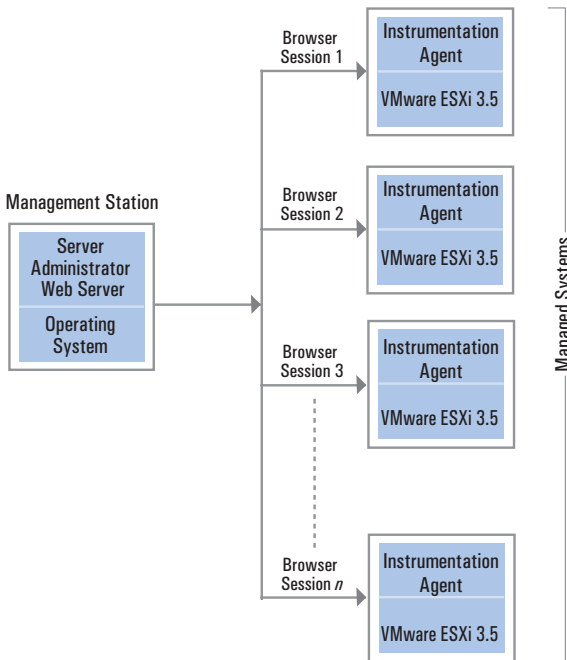


In Server Administrator version 6.0.3, you can install the Server Administrator Web Server on a management station and log on to a managed system pre-installed with VMware ESXi 3.5 and the instrumentation agent. See Figure 1-2. You can then access this system using a Web browser and perform systems management tasks.

 **NOTE:** A *management station* can be any Microsoft® Windows®-based computer (laptop, desktop, or server) used to remotely manage one or more managed systems from a central location.

On VMware ESXi 3.5, the Server Administrator instrumentation agent consists of the Instrumentation Service, Remote Access Service, and Storage Management Service. These Server Administrator services are disabled by default on the managed system. You must enable these Server Administrator services before using the Server Administrator Web Server. For information on enabling the Server Administrator services on the managed system, see "Enabling Server Administrator Services on the Managed System".

Figure 1-2. Server Administrator - Version 6.0.3



Features

- **Ease of installation**

You can install Server Administrator Web Server on any computer (laptop, desktop, or server) with a supported operating system using a simple and straight-forward GUI (Graphical User Interface). For the list of supported operating systems, see "Supported Operating Systems for Server Administrator on the Management Station".

- **Elimination of Server Administrator Web Server installation on every managed system**

From a single system, you can use multiple instances of Server Administrator Web Server to log on to various systems pre-installed with VMware ESXi 3.5. You can then access and monitor the managed system on those systems. This eliminates the need to install Server Administrator Web Server on every Dell system that has VMware ESXi 3.5 installed.

- **Remote management capabilities**

Server Administrator 6.0.3 offers remote management capabilities. You need not have physical access to the system to perform system management tasks on that system. You can log on to any computer and remotely monitor the managed system.

- **Greater disk space and memory on the managed system**

Server Administrator Web Server is installed on a separate system and not on the managed system thus resulting in considerable savings on the disk space and memory of the managed system.

Support Information

This section lists:

- Dell OpenManage Server Administrator 6.0.3 System Support for VMware ESXi 3.5
- Supported Operating Systems for Server Administrator on the Management Station
- Supported Browsers for Server Administrator on the Management Station

For information about hardware system requirements, see your system's *Getting Started With Your System* guide.

Also, see the *VMware ESXi Dell Deployment Guide* for information on Dell-supported ESXi configurations. This guide is available on the Dell Support site at support.dell.com.

Dell OpenManage Server Administrator 6.0.3 System Support for VMware ESXi 3.5

Table 1-1 lists the Dell PowerEdge™ systems that support Server Administrator 6.0.3 on VMware ESXi 3.5. However, you can install Server Administrator Web Server 6.0.3 on any system.

Table 1-1. Dell OpenManage Server Administrator 6.0.3 Systems Support for VMware ESXi 3.5

Dell System	ESXi 3.5 HDD Support	ESXi 3.5 Flash Support	
		Internal Support	
		Internal SD Card	Internal USB
Dell PowerEdge 1950 III	X	NA	X
Dell PowerEdge 2900 III	X	NA	X
Dell PowerEdge 2950 III	X	NA	X
Dell PowerEdge M600	X	NA	NA
Dell PowerEdge M605	X	NA	NA
Dell PowerEdge M805	X	X	NA
Dell PowerEdge M905	X	X	NA
Dell PowerEdge R805	X	X	NA
Dell PowerEdge R900	X	NA	X
Dell PowerEdge R905	X	X	NA
Dell PowerEdge R610	X	X	NA
Dell PowerEdge R710	X	X	NA
Dell PowerEdge T710	X	X	NA
Dell PowerEdge M610	X	X	NA
Dell PowerEdge M710	X	X	NA

NA indicates *Not Applicable*

Supported Operating Systems for Server Administrator on the Management Station

- Microsoft Windows Server[®] 2008 Standard, and Enterprise (32-bit x86) Gold Editions
- Microsoft Windows XP Professional with SP2 (32-bit x86)
- Microsoft Windows Vista[®] Business and Enterprise Gold Editions (32-bit x86)
- Microsoft Windows Server 2003 Standard and Enterprise (32-bit x86) Editions with SP2

Supported Browsers for Server Administrator on the Management Station

Table 1-2 lists the browsers supported for Server Administrator 6.0.3.

Table 1-2. Supported Browsers

Operating System	Windows 2003 Server SP2	Windows XP	Windows Server 2008	Windows Vista
Browser	Microsoft Internet Explorer [®] 7.0	Internet Explorer 7.0	Internet Explorer 7.0	Internet Explorer 7.0
	Internet Explorer 6.0 SP2	(for Windows XP 32-bit only)	Firefox 3.0*	Firefox 3.0*
	Firefox [®] 3.0*		Firefox 2.0**	Firefox 2.0**
	Firefox 2.0**	Internet Explorer 6.0 SP2 (for Windows XP 32-bit only)		
		Firefox 3.0*		
		Firefox 2.0**		

* Firefox 3 - 3.0.1 (Mozilla/5.0 (Windows; U; Windows NT[®] 5.1; en-US; rv:1.9.0.1) Gecko/2008070208 Firefox)

** Firefox 2 - 2.0.0.16

Installing Server Administrator Version 6.0.3

Server Administrator Web Server 6.0.3 is available on the Dell™ Support site at support.dell.com as a zipped file (in a self-extracting.exe format) that you can download to your system.

Downloading Server Administrator Web Server

- 1 Go to the Dell Support site at support.dell.com.
- 2 Click **I'm looking for drivers and downloads**.
- 3 In the **Drivers and Downloads** page, perform either of the following steps:
 - Click **Select Model** under the **Choose a Model** section. Proceed to step 5.
 - Click **Enter a Tag** under the **Choose by Service Tag** section.
- 4 Enter the service tag of your Dell PowerEdge™ system in the **Enter a service tag** field and click **Go**. Proceed to step 9.
- 5 From the **Select Your Product Model** menu, select **Servers, Storage, Networking**.
- 6 From the **Select Your Product Line** menu, select **PowerEdge Server**.
- 7 From the **Select Your Product Model** list, select your PowerEdge system, and click **Confirm**.
- 8 From the **Operating System** and **Driver Language** drop-down menus, select the appropriate operating system and language for your system.
- 9 From the **Category** drop-down menu, select **Systems Management**.
- 10 From the table of results displayed, click **OpenManage Server Administrator Web Services** in the **File Title(s)** column.
- 11 Click **Download Now** to save the executable on your system.

Double-click the .exe file to extract the contents. The file contains the following structure:

- `<root>` - Contains the **SysMgmt.msi** installer.
- **docs** - Contains all the documentation for Server Administrator 6.0.3. The documentation comprises:
 - *Dell OpenManage Server Administrator Installation Guide for VMware ESXi 3.5*
 - *Dell OpenManage Server Administrator User's Guide*
 - *Dell OpenManage Server Administrator Storage Management User's Guide*
 - *Dell OpenManage Messages Reference Guide*
- **Readme** - Contains the Readme files which provide the latest product information.

Installing Server Administrator Web Server

- 1 Run **SysMgmt.msi** from the root directory.
- 2 In the **Dell OpenManage Server Administrator** welcome dialog, click **Next**.
- 3 In the **DELL SOFTWARE LICENSE AGREEMENT** dialog, click **I accept the terms in the license agreement**, and click **Next**.
- 4 In the **Custom Setup** dialog, click **Change** to choose the directory in which to install Server Administrator. By default, Server Administrator is installed in the `<systems_drive>\Program Files\Dell\SysMgt` directory. Click **Next**.
- 5 In the **Ready to Install the Program** dialog, click **Install** to begin the installation. You can view the installation progress on the status bar.
- 6 Click **Finish** to complete the installation.

The installer creates a Server Administrator shortcut icon on your desktop.

Enabling Server Administrator Services on the Managed System

The Server Administrator Web Server manages a VMware ESXi 3.5 system by communicating with the Server Administrator services on the VMware ESXi 3.5 system via the Server Administrator Common Interface Model (CIM) provider. The Server Administrator CIM provider is an OEM provider on the VMware ESXi 3.5 system. CIM OEM providers are disabled by default on VMware ESXi 3.5. It is essential that you enable CIM OEM providers on the VMware ESXi 3.5 system after installing the Server Administrator Web Server in order to manage the system with Server Administrator.

Enabling CIM OEM Providers with VMware Infrastructure Client

To enable CIM OEM providers using the VMware Infrastructure (VI) Client, you need to have the VI Client tool installed. You can download and install the tool from http://<ip_address> where *<ip_address>* is the IP address of the VMware ESXi 3.5 system.

To enable CIM OEM providers on the VMware ESXi 3.5 system using VI Client:

- 1 Log in to the VMware ESXi 3.5 system with the VI Client.
- 2 Select the **Configuration** tab.
- 3 Under the **Software** section on the left side, click **Advanced Settings**.
- 4 In the **Advanced Settings** dialog box, click **Misc** on the left pane.
- 5 Change the value of the **Enable OEM Providers** field (**Misc.CimOemProvidersEnabled**) to **1**.
- 6 Click **OK**.
- 7 For the change to be effective without restarting, use the **Restart Management Agents** operation in the Direct Console User Interface (DCUI) on the local console of the VMware ESXi 3.5 system.
- 8 Restart your system for the change to take effect. The system can be rebooted from the **Summary** tab in the VI Client.

Enabling CIM OEM Providers using VMware Infrastructure Remote CLI

To enable CIM OEM providers using the VI Remote CLI, you need to have the VI Remote CLI tool installed. You can download and install the tool from the VMware website at <http://www.vmware.com/go/remotecli/>.

To enable CIM OEM providers using the VI Remote CLI on Windows:

- 1 Open a command prompt.
- 2 Navigate to the directory where the Remote CLIs are installed. The default location is `C:\Program Files\VMware\VMware VI Remote CLI\bin`.
- 3 Execute the following command:

```
vicfg-advcfg.pl --server <ip_address> --username  
<user_name> --password <password> --set 1  
Misc.CimOemProvidersEnabled
```



NOTE: If you do not specify a user name and password, you are prompted.

- 4 For the change to be effective without restarting, use the **Restart Management Agents** operation in the Direct Console User Interface (DCUI) on the local console of the VMware ESXi 3.5 system.
- 5 Restart the VMware ESXi 3.5 system for the change to take effect.

For more information about using VI Client and VI Remote CLI, see the VMware support site at www.vmware.com/support.

Launching Server Administrator Web Server

You can launch Server Administrator Web Server from the **Start** menu:

- 1 On the **Start** menu, click **Start > Programs > Dell OpenManage Applications > Server Administrator**.

You can also launch Server Administrator Web Server from the desktop shortcut icon that is created after you install the Server Administrator Web Server.

- 2 In the **Managed System Login** page:

- Type the IP address or Fully Qualified Domain Name (FQDN) of the system on which VMware ESXi 3.5 is running in the **Hostname/IP address** field. This is the managed system - the system that you can monitor, configure, and manage.

You can launch several instances of Server Administrator Web Server concurrently, one instance for each managed system you want to monitor.

- Type the user name that you use to log on to your operating system in the **Username** field.
- Type the password you use to log on to your operating system in the **Password** field.
- Select the **Ignore certificate warnings** check box and click **OK**.



NOTE: It is recommended that you use this option only in intranet environments.

To ensure system security, it is strongly recommended that you import a root certificate or certificate chain from a Certification Authority (CA). See the *Dell OpenManage Server Administrator User's Guide* or the VMware documentation for details.

The **Health** page on which you can monitor the health of the managed system is displayed. Click **Help** for information about individual components.

For detailed information on using Server Administrator, see the *Dell OpenManage Server Administrator User's Guide* in the **docs** directory or on the Dell Support site at support.dell.com.

Managing the Server Administrator Web Server

Server Administrator version 6.0.3 enables you to configure and manage the Web Server from your management station. Server Administrator Web Server allows you to run concurrent sessions of Server Administrator from your system, thus facilitating remote management of multiple systems.

Using Server Administrator version 6.0.3, you can:

- Configure your Web Server preferences
- Start, stop, and restart the Web Server
- Generate or import X.509 certificates from a Certificate Authority (CA)

To configure the Web Server preferences, click **Manage Web Server** in the **Login** page. You must log in with administrator privileges to access the Web Server preferences.

For details on managing Server Administrator Web Server, see the *Dell OpenManage Server Administrator User's Guide* in the **docs** directory or on the Dell Support site at support.dell.com.

Start, Stop, and Restart the Web Server

- 1 Click **Start**→**Settings**→**Control Panel**→**Administrative Tools**→**Services**.
- 2 In the **Services** window, right-click **DSM SA Connection Service**, and click **Start** to start the Web Server, **Stop** to stop the Web Server, and **Restart** to restart the Web Server.

Upgrading to Server Administrator Version 6.0.3

You cannot upgrade from earlier versions of Server Administrator to Server Administrator version 6.0.3. You have to uninstall the earlier version and then install version 6.0.3.

Uninstalling earlier versions of Server Administrator results in loss of local management capability. That is, after uninstalling earlier versions and installing version 6.0.3, you can no longer use your system as the managed system and perform system management tasks on that system. You can perform system management tasks only on remote systems that have VMware ESXi 3.5 installed.

Troubleshooting

This section provides answers to certain frequently asked questions and also lists error messages that you may encounter when using Dell™ OpenManage™ Server Administrator version 6.0.3.

Frequently Asked Questions

How do I upgrade earlier versions of Server Administrator to Server Administrator version 6.0.3?

You cannot upgrade to Server Administrator version 6.0.3. You have to uninstall the earlier version and then install version 6.0.3.

Uninstalling earlier versions of Server Administrator results in loss of local management capability.

I get a "Login Error" when I start Server Administrator Web Server.

You may not have enabled Server Administrator services on the managed system after installing Server Administrator Web Server. Follow the steps in "Enabling Server Administrator Services on the Managed System" to enable Server Administrator services. These services are disabled by default.

What ports do Dell OpenManage systems management applications use?

The default port used by Server Administrator is 1311. The default ports used by Dell OpenManage IT Assistant are 2606 (for the connection service) and 2607 (for the network monitoring service). These ports are configurable.

How many concurrent sessions of Server Administrator Web Server can I run from my system?

You can run a maximum of thirty concurrent sessions of Server Administrator Web Server. That is, you can access and perform systems management tasks on thirty managed systems at the same time.

Error Messages

Table 3-1 lists the error messages that you may encounter when installing or logging into Server Administrator Web Server and the actions you can perform to resolve them.

Table 3-1. Error Messages

Error Message	Cause	Action
Could not resolve host	Server Administrator Web Server could not validate the hostname you entered while logging on to the managed system.	Ensure that you enter a valid IP address or Fully Qualified Domain Name (FQDN) in the Hostname/IP address field.
Invalid or untrusted certificate	The certificate installed on the managed node is either invalid or not trusted by the Server Administrator Web Server.	You can perform any of the following actions: <ul style="list-style-type: none">• Select the Ignore Certificate Warning check box on the Managed System login page.• Install a trusted certificate on the managed system. For details on creating, importing, or reusing a Web certificate, see the <i>Dell OpenManage Server Administrator User's Guide</i> in the docs directory or on the Dell Support site at support.dell.com.• Use the certutil.exe utility to include the certificate on the managed system under the Trusted Certificates list. See your operating system documentation on accessing this utility.
Connection error	A connection error may occur if the managed system you are trying to log on to is unreachable or the WS-MAN server on the managed system is not running.	Ensure that the managed system and the WS-MAN server on the managed system is running.