Dell OpenManage<sup>™</sup> Software

# **Quick Installation Guide**

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### Notes and Notices

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

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

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The Quick Installation Guide is available on the Dell PowerEdge Installation and Server Management CD, the Dell Systems Management Consoles CD, and the Dell PowerEdge Documentation CD in English, French, German, Spanish, Japanese, and Simplified Chinese.

#### Maximizing the Value of Your Dell™ PowerEdge™ System

Use the supplied CDs to quickly get your system up and running. You will get consistent, reliable results and ensure trouble-free operation. The CDs provide:

- Streamlined operating system installation Reduces the time required for the installation of Microsoft<sup>®</sup> Windows<sup>®</sup>, Red Hat<sup>®</sup> Enterprise Linux, and SUSE<sup>®</sup> Linux Enterprise Server operating systems by guiding you through an easy-to-follow step-by-step process.
- Setup and configuration Provides the necessary tools for setting up and configuring PowerEdge systems and software. The tools permit automatic discovery and configuration of Dell-provided RAID controllers and network adapters.
- Utilities, drivers, and diagnostics Allows you to view and create Dell software driver and diagnostic diskettes.

- Systems Management Installs Dell OpenManage<sup>™</sup> software applications to help ensure maximum reliability and availability of your systems. These applications provide the tools needed to remotely monitor, diagnose, and update your systems.
- Documentation Allows quick access to available system, systems management software, RAID controller, and peripheral documents in supported languages.
- **NOTE:** To view documentation on systems that are running Red Hat Enterprise Linux or SUSE Linux Enterprise Server operating systems, you must launch **index.htm** from within the appropriate language directory.

# Verifying the Dell OpenManage Systems Management Software Kit Contents

The systems management software kit includes, but is not limited to, the following components:

- The Dell PowerEdge Installation and Server Management CD is a bootable CD that provides the tools you need to configure your system and install your operating system. This CD contains the latest systems management software products, including Dell OpenManage Server Administrator and its associated storage management and remote access services.
- The *Dell Systems Management Consoles* CD contains all the latest Dell systems management console products, including Dell OpenManage IT Assistant.
- The *Dell PowerEdge Service and Diagnostic Utilities* CD provides the tools you need to configure your system and delivers the latest diagnostics and Dell-optimized drivers for your system.

- The *Dell PowerEdge Server Update Utility* CDs are included only with the subscription service kit and provide newer versions of software for your system through the Dell OpenManage Server Update Utility (SUU) and Dell Update Packages (DUP). SUU is delivered on separate CDs for Microsoft Windows and Linux.
- The *Dell PowerEdge Documentation* CD helps you stay current with documentation for systems, systems management software products, peripherals, and RAID controllers.

Most of these CDs also contain **readme** files, which provide the latest product information.

Compare the contents of your system accessories box with the packing slip or invoice enclosed with your system. If any components are missing or damaged, call Dell within 30 days of the invoice date for a free replacement. For more information, see "Obtaining Technical Assistance."

### Systems Management Software Overview

Dell OpenManage systems management software is a suite of application programs for PowerEdge and Dell<sup>™</sup>PowerVault<sup>™</sup> systems. This software allows you to manage your system with proactive monitoring, notification, and remote access.

**NOTE:** Diagnostics is no longer available through Server Administrator. To run diagnostics on your system, install Dell PowerEdge Diagnostics from your *Dell PowerEdge Service and Diagnostic Utilities* CD or download and install Dell PowerEdge Diagnostics from the Dell Support website at **support.dell.com**. Dell PowerEdge Diagnostics is a stand-alone application that can be run without installing Server Administrator.

Each system that you plan to manage with Dell OpenManage software products is called a *managed system*. *Managed system* applications include Server Administrator and remote access controller (RAC) software.

A management station can be used to remotely manage one or more *managed* systems from a central location.

**NOTE:** Dell OpenManage Array Manager Console (for management station) is available under Windows only if previous Dell OpenManage management station software (with Array Manager Console installed) is detected. It is only available for upgrade.

Figure 1-1 illustrates the relationship between a management station and its managed systems. Figure 1-1 also shows the operating systems and the Dell OpenManage software products that may be installed on the managed systems.

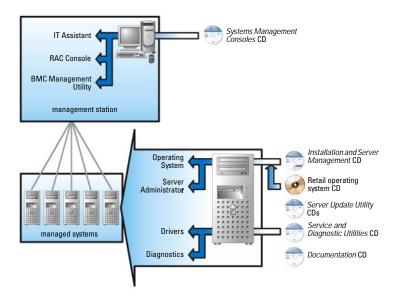


Figure 1-1. Example of a Management Station and Managed Systems

#### Table 1-1 describes the Dell OpenManage products.

Function	Software Product	CD	Description
Server setup and operating system installation	Server Assistant	Installation and Server Management	<ul> <li>A utility that provides:</li> <li>Step-by-step system configuration including RAID controllers and network interfaces</li> <li>Installation support for Windows, Red Hat Enterprise Linux, and SUSE Linux Enterprise Server operating systems</li> <li>Dell-optimized device drivers for PowerEdge systems</li> </ul>

### Table 1-1.Dell OpenManage Systems ManagementSoftware Applications

Function	Software Product	CD	Description
Local system management, including RAID configuration and management	Server Administrator	Installation and Server Management	A management solution for PowerEdge systems that provides a consolidated and consistent way to monitor, configure, and manage individual Dell systems. Server Administrator provides the following features: • Security management • A command line interface (CLI) • Extensive logging • Ability to review and report the configuration and status of a host-based RAID subsystem

Function	Software Product	CD	Description
Local system management, including RAID configuration and management (continued)			<ul> <li>Rapid access to detailed fault and performance information that is reported in the user interface</li> <li>Allows local administration and support for remote administration of the local system</li> <li>Enhanced features for configuring a system's locally attached RAID and non-RAID disk storage</li> <li>Storage management information in an integrated graphical view</li> <li>Status of local and remote storage attached to a monitored system</li> <li>Support for SAS, SCSI, SATA, and ATA, but not for Fibre Channel</li> </ul>

Function	Software Product	CD	Description
Local and remote systems management	Remote access controller (DRAC 5, DRAC 4, DRAC III, DRAC III/XT, DRAC/MC,E RA, ERA/O, and ERA/MC)	Installation and Server Management	<ul> <li>These hardware and software solutions perform the following functions:</li> <li>Provide alert messages for system problems, enable remote system management, and reduce the need for the system administrator to go to a system</li> <li>Help improve the overall availability of Dell systems</li> <li>Provide remote access to an inoperable system, allowing you to obtain complete control of the local console</li> <li>Remote administration of monitored systems, including</li> </ul>

BIOS setup, shutdown, start up,

and RAC security

Function	Software Product	CD	Description
Local and remote systems management (continued)			<ul> <li>Ability to perform controller and enclosure functions for all supported RAID and non-RAID controllers and enclosures from a single graphical interface or CLI, without the use of the controller BIOS utilities</li> <li>Ability to protect your data by configuring data redundancy, assigning hot spares, or rebuilding failed drives</li> </ul>

Function	Software Product	CD	Description
Status and reporting	IT Assistant	Systems Management Consoles	<ul> <li>A systems management console program, usually installed on one management station to collect information and provide a view of all managed systems. IT Assistant performs the following functions: <ul> <li>Fault monitoring with notification through e-mail or console alerting to keep administrators informed of events reported from disk, memory, voltage, fan, and thermal conditions</li> <li>Inventory and asset reporting including service tag number, cost of ownership information, and specifics of the BIOS, microprocessors, and memory</li> </ul> </li> </ul>

Function	Software Product	CD	Description
Status and reporting (continued)			<ul> <li>In-context launch of device-specific tools such as Server Administrator, Remote Access console, Dell PowerConnect<sup>™</sup> switch console, and Digital KVM console</li> </ul>
Remote management	Remote Access Controller Utility	Systems Management Consoles	<ul> <li>This software solution performs the following functions:</li> <li>Helps improve the overall availability of Dell systems</li> <li>Provides remote access to an inoperable system, allowing you to obtain complete control of the local console</li> <li>Remote administration of monitored systems, including BIOS setup, shutdown, start up, and RAC security</li> </ul>

Function	Software Product	CD	Description
Remote management (continued)	BMC Management Utility	Systems Management Consoles	A utility that provides remote management and configuration of systems equipped with a baseboard management controller (BMC) using the IPMI protocol.
Management of Dell-specific Microsoft Active Directory <sup>®</sup> objects		Systems Management Consoles	Provides an extension snap-in to the Microsoft Active Directory. This allows you to manage Dell-specific Active Directory objects. The Dell-specific schema class definitions and their installation are also included on the CD. You can use this option when the Dell-specific schema classes have been added to the Active Directory schema.

Function	Software Product	CD	Description
Driver identification and installation	System software extraction utility	Service and Diagnostic Utilities	Provides device drivers and utilities to update your system.
Software updates	Server Update Utility and Dell Update Packages	Server Update Utility <b>NOTE:</b> Shipped only with the subscription service kit	Provides newer versions of software for your system through the Server Update Utility and Dell Update Packages.

### Installing Your Operating System Using Server Assistant

Perform the following steps to determine if an operating system has been installed on your system:

- 1 Ensure that the keyboard, mouse, and monitor are connected to your system, and turn on your system.
- 2 Read and accept the software license agreement to continue.

If a message appears and states that bootable drives do not exist or that an operating system was not found, then an operating system has not been installed on your system. Have your operating system CD available and continue with the next steps.

If an operating system has been preinstalled on your system, it is not necessary to continue with this process. Locate the operating system's *Installation Instructions* document that was provided with your system and follow those instructions to complete the installation process.

Perform the following steps to install an operating system on your system:

Insert the Dell PowerEdge Installation and Server Management CD 1 and restart your system.

The following options are available during system boot:

- Server Assistant Boots through the CD.
- Server Assistant with CD media check Checks if the CD is created correctly and for validity of content.
- Skip CD boot Boot to hard drive Boots from the hard drive and verifies if an operating system is installed on your system. If an operating system is not installed on your system, boots through the CD.



- **NOTE:** If you do not select an option within 10 seconds, the system automatically boots through the CD.
- Select Server Setup on the Server Assistant main page. 2
- 3 Follow the step-by-step instructions to configure your hardware and to install your operating system.

For additional information about installing RAID, see Getting Started With RAID on the documentation CD.

**NOTE:** When you use Server Assistant to install a supported operating system, Server Assistant automatically copies the relevant systems management software installation files onto the hard drive and places Install Server Administrator and Delete Server Administrator Installation Files icons on the desktop.

NOTE: You can use the Install Server Administrator icon to install Server Administrator without the installation CD. On systems running Windows, clicking this icon brings up the standard installation interface. On systems running Red Hat Enterprise Linux or SUSE Linux Enterprise Server, clicking this icon runs the Server Administrator custom installation script. If you do not want to install Server Administrator, you can remove the installation files by clicking the Delete Server Administrator Installation Files icon. After you confirm that you want to continue, all Server Administrator files, including the icons, are removed.



**NOTE:** When installing the Windows operating system, some hardware configurations with more than 4 GB of physical memory installed require additional steps after the operating system installation to fully utilize all installed memory. For more information on Physical Address Extension (PAE), see:

- www.microsoft.com/windows2000/en/advanced/help/ PAE\_checklist.htm
- www.microsoft.com/resources/documentation/windowsserv/2003/ enterprise/proddocs/en-us/paex86\_2.asp
- www.support.microsoft.com/default.aspx?scid=kb;en-us;283037

#### Installing Systems Management Software on a Managed System

The setup program provides both a **Typical Setup** option and a **Custom Setup** option. The **Typical Setup** option (recommended) automatically installs all of the detected software components that are necessary to manage your system. The **Custom Setup** option enables you to select which software components you want to install. The procedure in this document is based on the **Typical Setup** option. See the *Dell OpenManage Installation and Security User's Guide* for information about **Custom Setup**.

**NOTICE:** Dell OpenManage Array Manager is no longer supported. If you are upgrading a system (installed with Dell OpenManage version 4.3 or later) with Array Manager installed, Array Manager will be removed during the upgrade process. You can use the Server Administrator Storage Management Service instead.



**NOTE:** See the Installation and Security User's Guide for custom installation and other details. Management station and managed system software can be installed in the same or in different directories. You can select the directory for installation.



NOTE: See the installation readme file on the Installation and Server Management CD for a list of currently supported systems. The installation readme file, readme ins.txt, is located in the srvadmin/docs/readme directory on the CD.



**NOTE:** If a 4.2 or earlier version (>=3.0) of systems management software is installed on your system, you cannot directly upgrade to version 5.1. To preserve your settings, you must upgrade to version 4.3, and then you can upgrade to version 5.1 for the latest software updates. Version 4.3 is available on the Dell support site at support.dell.com.

NOTE: Install the SNMP agent on your managed system using your operating system medium before installing the managed system software.



**NOTE:** To avoid booting to Server Assistant, remove the *Installation* and Server Management CD if you restart your system.

#### Installing Managed System Software for Supported Microsoft Windows Operating Systems

- Log on with administrator privileges to the system running a supported Windows operating system where you want to install the managed system components.
- 2 Verify that your system has a supported browser installed.
- **3** If you have a RAID controller installed on your system and you plan to install the storage management function, ensure that the device drivers for each RAID controller are also installed.

You can find device drivers on the *Service and Diagnostic Utilities* CD. You can verify the device driver under Windows by right-clicking **My Computer**, selecting **Manage**, and then clicking **Device Manager**. **4** Insert the *Installation and Server Management* CD into the CD drive.

The setup program should start automatically. If it does not, click the **Start** button, click **Run**, and then type x:\srvadmin\windows\setup.exe (where x is the drive letter of your CD drive). The setup program starts the prerequisite checker utility.

- **5** Review the results of the prerequisite checks performed and resolve any conditions that are listed.
- 6 Click the Install, Modify, Repair, or Remove Server Administrator button.
- 7 Click Next on the Welcome screen.
- 8 Accept the License Agreement and click Next.
- 9 Select Typical and click Next.
- **10** Click **Install** to proceed through the installation process. The setup program automatically installs all of the managed system software for your hardware configuration.
- **11** When the installation is complete, click **Finish** and restart your system if prompted before using the software.

#### Installing Managed System Software for Supported Red Hat Enterprise Linux Operating Systems or SUSE Linux Enterprise Server Operating Systems

- 1 Log on as root to the system running a supported Red Hat Enterprise Linux or SUSE Linux Enterprise Server operating system where you want to install the managed system components.
- **2** Insert the *Installation and Server Management* CD into the CD drive.
- **3** If necessary, mount the CD to a desired location using the **mount** command or a similar command.

4 Navigate to the srvadmin/linux/supportscripts directory from the mounted location and execute the **srvadmin-install.sh** script as follows:

```
sh srvadmin-install.sh --express
```

or

```
sh srvadmin-install.sh -x
```

The script will install the typical software suite for your system configuration.



- **NOTE:** You can log the output of the RPM installation by adding 2>&1 | tee -a /var/log/srvadmin.logto the above shell script execution. The resulting command would besh srvadmin-install.sh 2>&1|tee -a /var/log/srvadmin.log
- 5 Start the services with the sh srvadmin-services sh start command

#### Using Dell OpenManage on VMware ESX Server Software

Dell OpenManage installation with VMware ESX Server software requires special steps. These steps vary depending on the Dell OpenManage version and ESX Server version; and only a limited number of combinations are supported. See the VMware *Systems Compatibility Guide* and the VMware *ESX Server Deployment Guide* located in the Resource Center at www.dell.com/vmware for details. Instructions for installing supported versions of Dell OpenManage can be found in the *ESX Server Deployment Guide*.

#### Installing Systems Management Software on a Management Station

The typical installation installs IT Assistant and the RAC console. If you would like to install only one of them or install other features such as the BMC Management Utility, then see the custom installation sections of the *Dell OpenManage Installation* and *Security User's Guide*.



**NOTE:** Management station and managed system software can be installed in the same or in different directories. You can select the directory for installation.



NOTE: Management station applications run only on systems running Windows XP Professional, Windows 2000 Professional (SP4), the Windows Server™ 2003 family (including Small Business Server [SBS] and R2), Windows Storage Server 2003 R2, and the Windows 2000 Server family (including SBS), and can manage systems running supported Windows, Red Hat Enterprise Linux, and SUSE Linux Enterprise Server operating systems. However, IT Assistant is not supported on Windows Server 2003 SBS or Windows 2000 Server SBS operating systems.

**NOTE:** Only the RAC console and the BMC Management Utility are supported for Red Hat Enterprise Linux operating systems and SUSE Linux Enterprise Server operating systems.

#### Installing Management Station Software on Microsoft Windows Operating Systems



**NOTE:** IT Assistant is not a supported feature for the 64-bit versions of both Windows Server 2003 Standard and Windows Server 2003 Enterprise Editions.



**NOTE:** IT Assistant installation is not supported on systems with systems management software prior to version 4.3. If version 4.2 or an earlier version (>=3.0) of the systems management software is installed on your system, you cannot directly upgrade to version 5.1. To preserve your settings, you must upgrade to version 4.3, and then you can upgrade to version 5.1 for the latest software updates. Version 4.3 is available on the Dell support site at **support.dell.com**.

**NOTE:** A fresh installation of IT Assistant 8.0 prompts you to install Microsoft SQL Server 2005 Express Edition in the absence of a supported database on your system. SQL Server 2005 Express Edition can be installed using your *Systems Management Consoles* CD before installing the management station software. However, IT Assistant works with Microsoft SQL Server 2000 Desktop Engine (MSDE 2000) or SQL Server 2000, if it is already installed on your system. If you are upgrading from IT Assistant 7.x to 8.0, you can use the existing MSDE 2000 or SQL Server 2000. To install applications onto the management station, perform the following steps:

- 1 Log on with administrator privileges to the system where you want to install the management station applications.
- 2 Insert the Systems Management Consoles CD into the CD drive.

The setup program should start automatically. If it does not, click the **Start** button, click **Run**, and then type x:\windows\setup.exe (where x is the drive letter of your CD drive). The setup program starts the prerequisite checker utility.

- **3** Review the results of the prerequisite checks performed and resolve any conditions that are listed.
- 4 Click the Install, Modify, Repair, or Remove Management Station button.

The Welcome screen is displayed.

5 Click Next.

The License Agreement screen is displayed.

- 6 Select I Accept and click Next. The Setup Type screen is displayed.
- Select Typical and click Next. The Ready To Install screen is displayed.
- 8 Click Install to accept the selected features and begin installation.

The Installing Dell OpenManage Management Station screen appears. Messages appear, stating the status and progress of the software components being installed.

When the selected components are installed, the **Install Wizard Completed** dialog box appears.

9 Click Finish to exit the Dell OpenManage Management Station installation.

#### Installing Management Station Software for Supported Red Hat Enterprise Linux Operating Systems or SUSE Linux Enterprise Server Operating Systems

The BMC Management Utility and the RAC components of the management station suite of software can be used on a management station running the supported Red Hat Enterprise Linux or the SUSE Linux Enterprise Server operating system.

To install the BMC Management Utility onto the management station, perform the following steps to launch the installation program:

- 1 Log on as root to the system where you want to install the management station components.
- 2 If necessary, mount the *Dell Systems Management Consoles* CD to a desired location using the **mount** command or a similar command.

- **3** Navigate to the **linux/bmc** directory from the mounted location and install the BMC software using the rpm commands specific to the operating system:
  - For systems running Red Hat Enterprise Linux, use: rpm -Uvh osabmcutil\*-RHEL-\*.rpm.
  - For systems running SUSE Linux Enterprise Server, use: rpm -Uvh osabmcutil\*-SUSE-\*.rpm.

To install the RAC Management Station component, perform the following steps to launch the installation program:

- **1** Log on as root to the system where you want to install the management station components.
- 2 If necessary, mount the *Dell Systems Management Consoles* CD to a desired location using the **mount** command or a similar command.
- 3 Navigate to the linux/rac directory from the mounted location and execute the rpm -ivh \*.rpm command.

### **Updating Drivers and Utilities**

The Service and Diagnostic Utilities CD contains device drivers and utilities that you can use to update your system. You must copy the drivers and utilities to either a diskette or to your system's hard drive to use them.

For the latest product updates, such as drivers and Dell OpenManage applications, go to the Dell Support website at **support.dell.com**.

**NOTE:** You can run the *Service and Diagnostic Utilities* CD only on systems running Windows. To extract drivers for systems that are running Red Hat Enterprise Linux or SUSE Linux Enterprise Server operating systems, you must use the *Service and Diagnostic Utilities* CD on a system running Windows and then copy or share the selected files to the final destination system.

1 Insert the *Service and Diagnostic Utilities* CD into the CD drive on a system running Windows.

The setup program should start automatically. If it does not, click the **Start** button, click **Run**, and then type x:\setup.exe (where x is the drive letter of your CD drive).

- 2 Select the system, and from the Select Drivers/Utilities Set, select the file set that you want to update, and then click Continue.
- **3** From the **Drivers and Utilities Page**, select the utility or driver file that you want to update by clicking the link for the device name.

The system prompts you for a location in which to save the file. Files are delivered in compressed format. Firmware files normally require diskettes for the extraction.

4 Decompress the file.

See the *Dell OpenManage Server Administrator Compatibility Guide* for additional information about drivers and Dell OpenManage application versions.

The *Dell PowerEdge* Server *Update Utility* CDs ship only with the Subscription Kit and provides newer versions of software for your system through the Server Update Utility (SUU) and Dell Update Packages (DUP). SUU is delivered on separate CDs for Microsoft Windows and Linux

- Insert the Server Update Utility CD into the CD drive on a 1 system running either the Windows, Red Hat Enterprise Linux or SUSE Linux Enterprise Server Operating System.
- 2 The Server Update Utility should start automatically. If it does not, click the Start button, click Run, type cmd, and press Enter. When the command prompt appears, change directory to the root of the CD drive. Type suu -g (for graphical mode) or suu -h (to display help options).



**NOTE:** On Red Hat Enterprise Linux or SUSE Linux Enterprise Server operating system, the -q (graphical mode) option can only be used from the X Window system.

- **3** If the GUI initialization fails, you need to install the latest version of OpenIPMI driver. Type suu -g -installIPMI to install the latest version of OpenIPMIdriver.
  - **NOTE:** The Server Administrator Instrumentation Service of Server Administrator requires a minimum version of the OpenIPMI device driver in order to provide IPMI-based information and functionality. The minimum version required is defined based on the operating system. See the *Installation and Security User's Guide* for more information.
- 4 To view a repository comparison on the GUI, click on your server's host name displayed in the tree to the left. SUU compares what is on your server with the versions of components available in its Repository. For every component on your server that is current with the version in the SUU repository, SUU reports a green checkmark icon. For any component on your server that is outdated and can be updated using SUU, a yellow warning icon displays. If updatable components are found, an Update button is enabled in the upper right corner of the screen.

- 5 Click Update to apply all of the Updates that are listed for your server. You cannot selectively apply updates. SUU presents a dialog box asking for confirmation that you want to update the listed components. Click Yes to continue.
- 6 The Update Success window appears, confirming successful update for SUU and DUP, and may prompt you to reboot your system to complete the update.

Dell Update Packages:

When you click **Update** in SUU, SUU will determine which Dell Update Packages are applicable to your system and install them automatically.

See the *Dell OpenManage Server Update Utility User's Guide* for additional information.

### **Security Patches and Hotfixes**

It is strongly recommended that you download and install the latest security patches, hotfixes, and service or support packs for your operating system immediately after installation. Downloads for your operating system are available at www.microsoft.com, www.redhat.com, or www.novell.com.

### **Obtaining Technical Assistance**

Before contacting Dell for technical assistance, see the Dell Support website at **support.dell.com**. If you need additional technical support, see "Getting Help" in your system's *Hardware Owner's Manual* for country- or region-specific information about contacting Dell by using telephone, fax, and Internet services.

Antes de entrar em contato com a Dell para obter assistência técnica, consulte o site de suporte na Web: **support.dell.com**. Você precisará do número da sua etiqueta de serviço para identificação de seu equipamento. Caso necessite de suporte técnico adicional, é fornecida assistência técnica para hardware ao proprietário original do equipamento. Esse serviço está disponível de segunda a sexta-feira, das 7 às 19:00h, em português. Telefone: 0800-90-3355.

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