

Microsoft®
Windows Server® 2008 R2 for
Dell™ PowerEdge™ Systems

Installing Microsoft Windows Server 2008 R2



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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Introduction

This document provides information on:

- "Completing Setup of the Preinstalled Microsoft Windows Server 2008 R2 Operating System" on page 3
- "Pre-Installation Requirements" on page 5
- "Installing Microsoft Windows Server 2008 R2 Using the Dell Systems Management Tools and Documentation Media" on page 6
- "Installing Microsoft Windows Server 2008 R2 Using Unified Server Configurator (USC)" on page 9
- "Installing Microsoft Windows Server 2008 R2 Using the Operating System Media" on page 12
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Completing Setup of the Preinstalled Microsoft Windows Server 2008 R2 Operating System

This section provides the necessary procedures for completing the set up of your operating system with the Microsoft® Windows Server® 2008 R2 operating system that is preinstalled on your system.



NOTE: Before you begin, see the documentation that shipped with the operating system for important product information.

To set up your Windows Server 2008 R2 operating system:

- 1** Connect the keyboard, monitor, mouse, network cable, power cord, and other peripherals to your system.
- 2** Turn on your system.
The **Set Up Windows** screen is displayed.
- 3** Select your **Country or Region**, **Time and Currency**, and **Keyboard** layout and click **Next**.

- 4 Select the **I accept the license terms** option and click **Start** to start the installation in the **Please read the license terms** window, if you have read the license agreements and accept the terms.



NOTE: Before using your system, read the software license agreements that are included with each program that you ordered.



NOTE: You cannot proceed with the installation if you do not choose the **I accept the license terms** option.

- 5 The system prompts you to change the administrator password before logging in for the first time. Click **OK** and enter the administrator password.
- 6 Click the right arrow. The **Password Change Confirmation** screen is displayed. Click **OK**.



NOTE: The password must conform to the password complexity rules. For more information about password complexity rules, see your operating system documentation.

The operating system installation continues.



NOTE: This procedure may take several minutes to complete.

The **Initial Configuration Tasks** window is displayed, followed by the **Server Manager** window.

The Windows Server 2008 R2 operating system is installed on your system.

For additional information to complete the installation, see the documentation included with your software or see the Microsoft Support website at support.microsoft.com.



NOTE: The Dell factory-installed Windows operating system is pre-activated and does not require any additional activation steps if you reinstall the operating system using your Dell reinstallation media.



NOTE: It is recommended that you download and install patches, hotfixes, and service packs from the Microsoft Support website at support.microsoft.com.

Installing Microsoft Windows Server 2008 R2

You can use one of the following methods to install Microsoft Windows Server 2008 R2:

- "Installing Microsoft Windows Server 2008 R2 Using the Dell Systems Management Tools and Documentation Media" on page 6
- "Installing Microsoft Windows Server 2008 R2 Using Unified Server Configurator (USC)" on page 9
- "Installing Microsoft Windows Server 2008 R2 Using the Operating System Media" on page 12



CAUTION: The following installation procedure erases all data on your hard drive. It is recommended that you take a backup of all important data before you begin installation.



NOTE: If you purchased a Dell™ system without an operating system, it is strongly recommended that you use the supported version of the *Dell Systems Management Tools and Documentation* media to guide you through the operating system installation.



NOTE: If you use the *Operating System* media to install the operating system, you must install the latest device drivers located either on the *Dell Systems Management Tools and Documentation* media or the Dell Support website at support.dell.com/support/downloads.

To determine the devices that are installed on your system, boot your system from the *Dell Systems Management Tools and Documentation* media and select **View Hardware** in the **System Software Manager** window. The devices installed on your system are listed on your screen.

Pre-Installation Requirements


Before you install the operating system:


- Read any additional documentation shipped with your operating system media.
- Ensure that your system has the latest BIOS, firmware, and drivers required for installation. If required, download the latest BIOS, firmware, and driver updates from the Dell Support website at support.dell.com or use the Dell Server Update Utility available on the *Dell Systems Management Tools and Documentation* media.
- Create a device driver media (diskette, USB drive, CD, or DVD).



NOTE: This is applicable only when you use the Operating System media to install Microsoft Windows Server 2008 R2.


Installing Microsoft Windows Server 2008 R2 Using the Dell Systems Management Tools and Documentation Media

 **NOTE:** Dell OpenManage™ versions 6.1 and later enable the deployment of Microsoft Windows Server 2008 R2. Full application and updated driver support are planned for version 6.2 and later.

 **NOTE:** The *Dell Systems Management Tools and Documentation* media supports the following languages: English, Spanish, French, German, Simplified Chinese, Traditional Chinese, Japanese, and Korean. For other languages, see "Installing Microsoft Windows Server 2008 R2 Using the Operating System Media" on page 12.

You must configure the system to boot from the optical drive. To install the operating system using the *Dell Systems Management Tools and Documentation* media:

- 1 Connect the keyboard, monitor, mouse, and any additional peripherals to your system.
- 2 Turn on the system and the attached peripherals.
- 3 Insert the *Dell Systems Management Tools and Documentation* media into the optical drive.
- 4 Press <F2> when you are prompted to run the setup utility.
The **BIOS Settings** screen is displayed.
- 5 Using the arrow keys, scroll to the **Boot Sequence** field and press <Enter>.
- 6 Configure the CD ROM drive to be the first boot option and press <Esc> to exit the **BIOS Setting** screen.
The system now prepares to boot from the optical drive.
- 7 The *Dell Systems Management Tools and Documentation* media menu launches with several options. Select **Dell Systems Build and Update Utility**.
The system now boots from the selected option and the **Dell Systems Build and Update Utility** screen is displayed.

 **NOTE:** This may take several minutes depending on the speed of the drive.

- 8 In the **Single Server Solution** section, select the **Server OS Installation** option.

The **Select Operating System** screen is displayed with a list of compatible operating systems.

- 9 Choose **Microsoft Windows Server 2008 R2** and ensure that the **Create Utility Partition** option is checked if you want to create a utility partition.

Click **Continue**.



NOTE: If Microsoft Windows Server 2008 R2 is not listed, choose Microsoft Windows Server 2008 x64.

The **Configure or Skip RAID** screen is displayed. If Redundant Array of Independent Disks (RAID) has been configured, the screen displays the existing RAID configuration details.

- 10 Select **Skip Raid Configuration**. If RAID is not yet configured, configure it at this time and click **Continue**.

The **Installation Summary** screen is displayed, with the installation options that you have selected.

- 11 Click **Back** to change the installation options. If the options displayed are accurate, click **Continue**.

- 12 The **Server OS Installation** screen is displayed and the operating system installation begins.



CAUTION: The **Dell Systems Build and Update Utility** screen prompts you to remove the media after all the installation settings are finalized. Remove the *Dell Systems Management Tools and Documentation* media. The system reboots to local hard drives and then prompts for the Windows installation media. Do not boot directly to the optical drive at this stage.

- 13 Click **Finish** after you have inserted the Windows installation media in the optical drive.

- 14 The system may display messages during installation. Press **OK** to continue with installation.

 **CAUTION: All system partitions are erased along with all data on the local hard drives.**


- 15 In the **Install Windows** screen, select the appropriate option for **Language**, **Time and Currency Format**, and **Keyboard or Input Method**.
Click **Next** to continue.
- 16 In the **Operating System Install** screen, select the operating system you want to install. Click **Next**.
The **License Agreement** window is displayed. Read the information carefully. If you agree with all of the information, select **I accept the license terms** and then click **Next**.
- 17 In the **Which Type of Installation Do You Want** screen, click **Custom (advanced)**, if it is not selected already.
- 18 In the **Where do you want to install Windows** screen, specify the partition on which you want to install the operating system.

To create a partition and begin installation:

- a Click **New**.
- b Specify the size of the partition in MB, and click **Apply**.

A **Windows might create additional partition for system files** message is displayed.

Press **OK**.

 **NOTE:** The recommended partition size for the Primary partition is 40 GB. If you are installing additional memory on your system, you may require additional primary partition space to accommodate page file and hibernation. During installation, a recommended partition size is displayed on the screen based on the memory size of your system. Follow the instructions on the screen. If you select **Core** installation, you may require less hard disk space for the Primary partition.

- c Select the newly-created operating system partition and click **Next**.

- 19 The **Installing Windows** screen is displayed and the installation process begins.
- 20 After the operating system is installed the system reboots. You must set the administrator password before you can log in for the first time. In the **The user's password must be set before you login for the first time** screen, click **OK**.
- 21 In the **Administrator** screen, enter the password, confirm the password, and click the right-arrow.
The following message is displayed:
Your password has been changed.
Click **OK**.
- 22 When you log in for the first time, the **Preparing Your Desktop** window is displayed. The operating system installation is now complete.

Installing Microsoft Windows Server 2008 R2 Using Unified Server Configurator (USC)



NOTE: USC support is available only from the latest generation server onwards. Ensure that your server has this support.

To install Microsoft Windows Server 2008 R2 using USC:

- 1 Connect the keyboard, monitor, mouse, and any additional peripherals to your system.
- 2 Turn on the system and the attached peripherals.
- 3 Press <F10> in the POST to start the **System Services**.
The **Initializing UEFI. Please wait...** and the **Entering System Services...Starting Unified Server Configurator** messages are displayed.
- 4 In the **Unified Server Configurator** window, if you want to configure hardware, diagnostics, or set changes, click the appropriate option.
If no changes are required, press **OS Deployment**.

- 5** In the **Operating System Deployment** window, click **Deploy OS**.
The **Configure or Skip RAID** window is displayed. If **Redundant Array of Independent Disks (RAID)** has been configured, the window displays the existing RAID configuration details.
- 6** Select **Go directly to OS Deployment**.
If RAID is not yet configured, configure it at this time. Click **Next**.
The **Select Operating System** window is displayed with a list of compatible operating systems.
- 7** Choose **Microsoft Windows Server 2008 R2** and click **Next**.
- 8** In the **Insert OS Media** window, insert the *Windows Server 2008 R2* media and click **Next**.
- 9** In the **Reboot the System** screen, follow the instructions on the screen and click **Finish**.
If a Windows operating system is installed on your system, the following message is displayed: **Press any key to boot from the CD/DVD ...Press any key to begin the installation.**
- 10** In the **Install Windows** screen, select the appropriate option for **Language, Time and Currency Format, and Keyboard or Input Method**.
Click **Next** to continue.
- 11** In the **Windows Server 2008 R2** screen, click **Install Now**.
- 12** In the **Operating System Install** screen, select the operating system you want to install and click **Next**.
The **Please read the license terms** window is displayed. Read the information carefully. If you agree with all of the information, select **I accept the license terms** and then click **Next**.
- 13** In the **Which Type of Installation Do You Want** screen, select **Custom (advanced)**, if it is not selected already.

- 14 In the **Where do you want to install Windows** screen, specify the partition on which you want to install the operating system.

To create a partition and begin installation:

- a Click **New**.
- b Specify the size of the partition in MB, and click **Apply**.

A **Windows might create additional partition for system files** message is displayed.

Press **OK**.



NOTE: The recommended partition size for the Primary partition is 40 GB. If you are installing additional memory on your system, you may require additional primary partition space to accommodate page file and hibernation. During installation, a recommended partition size is displayed on the screen based on the memory size of your system. Follow the instructions on the screen. If you select Core installation, you may require less hard disk space for the Primary partition.

- c Select the newly-created operating system partition and click **Next**.

The **Installing Windows** screen is displayed and the installation process begins.

After the operating system is installed the system reboots. You must set the administrator password before you can log in for the first time.

- 15 Click **OK** in the **The user's password must be set before you login for the first time** screen.
- 16 In the **Administrator** screen, enter the password, confirm the password, and click the right-arrow.

The following message is displayed:

Your password has been changed.

Click **OK**.

- 17 When you log in for the first time, the **Preparing Your Desktop** window is displayed. The operating system installation is now complete.

Installing Microsoft Windows Server 2008 R2 Using the Operating System Media

Before you install Microsoft Windows Server 2008 using the Operating System media, you must create a device driver media, download the DRAC diskette image, and create a USB drive driver disk.

Creating a Device Driver Media

Use one of the methods described in the following sections to create a device driver media:

Downloading Drivers From the Dell Systems Management Tools and Documentation Media

- 1 Insert the *Dell Systems Management Tools and Documentation* media into a system.
- 2 The **Welcome to Dell Service and Diagnostic Utilities** screen is displayed. Select your server model and operating system (Microsoft Windows Server 2008 R2).
- 3 Click **Continue**.
- 4 From the list of drivers displayed, select the driver that you require. Select the self-extracting zip file and click **Run**.

Copy the driver to a diskette drive, CD, DVD, or USB drive. Repeat this step for all the drivers that you require.

- 5 During the operating system installation described in "Installing Microsoft Windows Server 2008 R2 Using the Operating System Media" on page 12, use the media that you created with the **Load Driver** option to load mass storage drivers.

Downloading Drivers From the Dell Support Site

- 1 Go to support.dell.com.
- 2 Click **Drivers and Downloads**.
- 3 In the **Choose by Service Tag** field, click **Enter a Tag**.

- 4 Enter the service tag of the system on which you want to install Windows Server 2008 R2 and click **Go**.
Alternatively, click **Select Model**, and navigate to the specific model.
- 5 Select the **System Type**, **Operating System**, **Driver Language**, **Category**, and **Importance** from the drop-down list.
- 6 The drivers that are applicable to your selection are displayed. From the available list, download the drivers that you require to a diskette drive, USB drive, CD, or DVD.
- 7 During the operating system installation described in "Installing Microsoft Windows Server 2008 R2 Using the Operating System Media" on page 12, use the media that you created with the **Load Driver** option to load mass storage drivers.

Using the DRAC Diskette Image

Install the Dell mass storage drivers using Dell Remote Access Controller (DRAC) 4, DRAC 5 or iDRAC diskette images located on the Dell Support website at support.dell.com. For more information on setting up the virtual diskette drive media, see the DRAC/iDRAC documentation that shipped along with your system.



NOTE: You can install drivers using the DRAC diskette image only if your system has DRAC installed and configured.

Creating USB Drive Driver Disk to Auto Load All Drivers

Create `$WinPEdriver$` directly on the root directory of your USB device.

Copy all drivers to that directory leaving them in the directory structure downloaded from support.dell.com. There should be one subdirectory for each driver as indicated in the example below:

- `$WinPEdriver$\R183486`
- `$WinPEdriver$\R165632`
- `$WinPEdriver$\R173856`

To install the Microsoft Windows Server 2008 R2 operating system:



NOTE: It is recommended that you use the *Dell Systems Management Tools and Documentation* media as it includes the latest drivers and hot fixes for your Dell system.

- 1 Connect a keyboard, monitor, mouse, and any additional peripherals to your system.
- 2 Turn on your system and any attached peripherals.
Several BIOS screens appear during startup, but do not require any user intervention.
- 3 Insert the Microsoft Windows Server 2008 R2 media into the DVD drive.



NOTE: If a Windows operating system *is* installed on your system, the following message is displayed: *Press any key to boot from the CD/DVD ...*
Press any key to begin the installation.

- 4 The following message is displayed:
`windows is Loading Files`
After the files are loaded, the **Install Windows** wizard is displayed.
- 5 In the **Install Windows** screen, select the appropriate **Language**, **Time & Currency**, and **Keyboard** values. Click **Next**.
- 6 In the **Windows Server 2008 R2** screen, click **Install Now**.
- 7 In the **Select the operating system you want to install** screen, select the operating system from the available list and click **Next**.
The **Please read the license terms** window is displayed.
- 8 Read the information carefully. If you agree with all of the information, select **I accept the license terms** and then click **Next**.
- 9 In the **Which type of installation do you want** screen, select **Custom (advanced)** for a new operating system installation.

- 10 In the **Where do you want to install Windows** screen, specify the partition on which you want to install the operating system.



NOTE: If the storage controller driver is not installed on your system, you cannot create the hard-drive partitions. You may need to provide mass storage drivers during installation. Download the required driver file to a driver diskette, CD, DVD, or USB drive in the root directory of the media. For more information, see "Installing Microsoft Windows Server 2008 R2 Using the Dell Systems Management Tools and Documentation Media" on page 6. To provide the driver during setup, click Load Driver. You can browse to locate the driver or use Setup to search the media.

To create a partition and begin installation:

- a Click **New**.
- b Specify the size of the partition in MB, and click **Apply**.

A **Windows might create additional partition for system files** message is displayed. Press **OK**.



NOTE: The recommended partition size for the **Primary** partition is 40 GB. If you are installing additional memory on your system, you may require additional primary partition space to accommodate page file and hibernation. During installation, a recommended partition size is displayed on the screen based on the memory size of your system. Follow the instructions on the screen. If you select **Core installation**, you may require less hard disk space for the **Primary** partition.

- c Select the newly-created operating system partition and click **Next**.

The **Installing Windows** screen is displayed and displays the progress of the installation.



NOTE: The installation procedure takes some time to complete.

- 11 After the operating system is installed the system reboots. You must set the administrator password before you can log in for the first time. In the **The user's password must be set before you login for the first time** screen, click **OK**.
- 12 In the **Administrator** screen, enter the password, confirm the password, and click the right-arrow.

The following message is displayed:

Your password has been changed.

Click **OK**.

- 13 When you log in for the first time, the **Preparing Your Desktop** window is displayed. The operating system installation is now complete.

Initial Configuration Tasks and Server Manager

After you log in, the **Initial Configuration Tasks** screen is displayed. You can perform various tasks to provide system information, update the system, and customize the system.

After you close the **Initial Configuration Tasks** window, the **Server Manager** screen is displayed. Use the Server Manager to:

- View or manage **Roles**
- View **Features**
- Perform **Diagnostics**
- View or modify **Configuration**
- View or manage **Storage**

For more information, see the Microsoft Support website at support.microsoft.com.



NOTE: The **Initial Configuration Tasks** window and the **Server Manager** appear each time you log in to the system unless you select the **Do not show this window again** option.

Important Information

For detailed information on Service Pack changes and enhancements, see Introduction to Windows Server 2008 R2 on the Microsoft website at microsoft.com/windowsserver2008.

For additional important information on Windows Server 2008 R2, see *Microsoft Windows Server 2008 R2 Important Information* located on the documentation website at dell.com/ostechsheets.

Getting Help

If, at any time, you do not understand a procedure described in this document or if your system does not perform as expected, Dell provides a number of tools to help you.

For more information about these help tools, see the "Getting Help" section in your Hardware Owner's Manual.

Additionally, technical information is available from the Dell Support website at support.dell.com.