

Microsoft Windows Server 2022 for Dell PowerEdge Servers

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.

Contents

Chapter 1: Introduction.....	4
Chapter 2: Set up preinstalled Microsoft Windows Server 2022 operating system.....	5
Chapter 3: Installing or reinstalling Microsoft Windows Server 2022.....	6
Install Windows Server 2022 by using Dell Lifecycle Controller.....	6
Install Windows Server 2022 by using operating system media	7
Chapter 4: Drive partitioning.....	10
Master boot record scheme.....	10
GUID partition table scheme.....	10
Chapter 5: Resources and support.....	11
Operating system support matrix for Dell PowerEdge servers.....	11
Documentation and video resources.....	11
Identifying the series of your Dell PowerEdge servers.....	13
Download drivers and firmware.....	14
Chapter 6: Contacting Dell Technologies.....	15

Introduction

This document provides instructions to install Microsoft Windows Server 2022 operating system for Datacenter, Standard, and the Essentials edition.

-  **NOTE:** Microsoft Windows Server 2022 does not support the conversion from Windows Server Core to Server with Desktop Experience and conversely. For more information, see [Get Started with Windows Server 2022](#).
-  **NOTE:** Windows Server 2022 Essentials offering carries the Standard Image with few licensing restrictions. The deployment and post deployment environment will have information pertaining to Standard Offering.
-  **NOTE:** For Microsoft Windows Server 2022 installations it is highly recommended to configure the system in UEFI mode. For more information, see [Installing or reinstalling Microsoft Windows Server 2022](#).

Set up preinstalled Microsoft Windows Server 2022 operating system

This section provides instructions for completing the setup of the Microsoft Windows Server 2022 Operating System (OS) that is preinstalled on your system.

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

To set up Windows Server 2022 OS for Datacenter, Standard, and the Essentials edition:

1. Connect the keyboard, monitor, mouse, network cable, power cable, and other required peripherals to your system.
2. Turn on your system. The system should boot into the preinstalled OS.
3. Select the language in which you want to configure the preinstalled OS, and then click **Next**.

NOTE: This screen is not displayed for the Simplified or Traditional Chinese operating system.

4. Select country or region, app language, keyboard layout, and then click **Next**.
5. Read the license terms, and then click **Accept** if you agree to the license terms.

NOTE: If you do not accept the license agreement, you cannot proceed with OS installation.

6. Enter administrator password that you wish to set for the system, reenter to confirm the password, and then click **Finish**.

NOTE: The password must conform to the password complexity rules. For more information about password complexity rules, see [Password Policy](#).

7. In the **Select OS Partition Size** window, move the slider to set an appropriate OS partition size, and then click **Ok**. This allows you to choose the partition during the installation process.

The minimum partition size recommended for primary partitions is 40 GB.

8. Log in to the system after it reboots.
9. Type the administrator password, and then press Enter.

A message is displayed with information about the value added services that are provided with your system.

NOTE: Windows Server 2022 Essentials do not include the Essentials Experience role. Windows Server 2022 Essentials can be configured as a domain controller by installing the Active Directory Domain Services role from the Server Manager. See [Get Started with Windows Server 2022](#).

The preinstalled OS is successfully configured.

NOTE: After you log in to the system, you can use the **Server Manager Dashboard** to configure and manage different roles and features in the OS.

Installing or reinstalling Microsoft Windows Server 2022

Use one of the following methods to install the Microsoft Windows Server 2022 operating system:

- Install Windows Server 2022 by using Dell Lifecycle Controller
- Install Windows Server 2022 by using operating system media

Topics:

- [Install Windows Server 2022 by using Dell Lifecycle Controller](#)
- [Install Windows Server 2022 by using operating system media](#)

Install Windows Server 2022 by using Dell Lifecycle Controller

NOTE: Installing Microsoft Windows Server 2022 using operating system media is supported only in UEFI mode.

NOTE: Installation of Windows Server 2022 by using Dell Lifecycle Controller is supported on the yx4x* PowerEdge servers and later. To identify the range of server models, see [Identifying the series of your Dell PowerEdge servers](#).

To install Windows Server 2022 for Standard, Datacenter, and the Essentials edition by using the Lifecycle Controller:

1. Connect the keyboard, monitor, mouse, and other required peripherals to your system.
2. Turn on the system and the connected peripherals.
3. Press **F2** to enter the **BIOS Setup**, and click **System Security**.
4. Enable **TPM** by selecting **On** for the TPM Security.
5. Enable **Secure Boot** by selecting **Enabled** against the secure boot option.
6. When the Dell logo is displayed, press F10 to boot into the **Dell Lifecycle Controller**.
7. On the **Lifecycle Controller** page, click **OS Deployment**.
8. On the **OS Deployment** page, click **Deploy OS**.
The **Select Deployment path** page is displayed, which contains the following options:
 - **Configure RAID First** — Click to configure a RAID connected to the server.
NOTE: Configuring RAID is optional if an already connected virtual disk is present.
 - **Go Directly to OS Deployment** — Click to launch the operating system deployment wizard and start installing an operating system.
9. Select **Go Directly to OS Deployment**.
If RAID is not yet configured, select **Configure RAID First**, and configure the RAID.
10. Click **Next**.
The **Select an Operating System** page is displayed with a list of compatible operating systems.
11. From the **Available Operating Systems** list, select Windows Server 2022, and then click **Next**.
NOTE: If you select **Any Other Operating System** option, ensure that you have prepared the necessary drivers for your system. To download the latest drivers and system firmware for the required system, see www.dell.com/support. Search and Download the driver using the service tag or the model number.
12. Select **UEFI mode**, and click **Next** to go to operating system deployment.
13. On the **Select Installation Mode** page the following options are displayed:
 - **Unattended Installation**
 - **Manual Installation**

Select **Manual Installation**, and click **Next**.

14. Insert the Windows Server 2022 media if not attached to the system. The media can be attached through DVD drive or virtually mounted through the iDRAC.

NOTE: For information about using the Virtual Media function on iDRAC, see [Using the Virtual Media function on iDRAC](#) 6, 7, 8 and 9.

15. A summary of applied settings is displayed on the **Reboot the System** page. Click **Finish** to begin installation. If a Windows operating system is already installed on your system, the following message is displayed:

```
Press any key to boot from CD or DVD
```

Press any key to start the installation.

16. After the files are loaded, select the language in which you want to install the operating system.
17. Select the language, time and currency format, keyboard or input method, and then click **Next**.
18. Click **Install now**.
19. Select the required operating system, and then click **Next**.
20. Read the license agreement information. Select the **I accept the license terms** check box, if you agree to the license terms, and then click **Next**.

NOTE: If you do not accept the license agreement, you cannot proceed with operating system installation.

21. In the **Which type of installation do you want?** window, select **Custom: Install Windows only (advanced)**.
22. In the **Where do you want to install Windows?** window, select the unallocated space on which you want to install the operating system. To create a partition:
 - a. Click **New**.
 - b. In the **Size** box, enter or select the size of the partition in MB, and then click **Apply**.
The following message is displayed:

```
To ensure that all Windows features work correctly, Windows might create additional partition for system files
```

- c. Click **OK**.

NOTE: The recommended minimum partition size for the primary partition is 40 GB. If you are installing additional memory module on your system, you may require extra primary partition space to accommodate the page file and hibernation file. 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 require less disk space for the primary partition.

23. Select the newly created operating system partition, and then click **Next**.
The system reboots a few times during the operating system installation.
24. Enter administrator password that you want to set for the system, reenter to confirm the password, and then click **Finish**.
25. After the system reboots, press Ctrl+Alt+Delete to log in to the system.
26. Type the administrator password, and then press Enter.

NOTE: Windows Server 2022 Essentials do not include the Essentials Experience role. Windows Server 2022 Essentials can be configured as a domain controller by installing the Active Directory domain services role from Server Manager. For more information, see [Get Started with Windows Server 2022](#).

The operating system is successfully installed.

Dell recommends that you install hotfixes and security updates from Microsoft on your system by using Windows update, or by downloading the latest updates on installing the operating system. For more information, see [Update Windows 10](#).

Install Windows Server 2022 by using operating system media

The Windows Server 2022 operating system media are available as the following:

- Recovery DVD that comes along with the Server
- Recovery image that can be downloaded from the Dell Digital Locker

To download the image from the [Dell Digital Locker](#) perform the following steps:

1. Go to **Dell Digital Locker**. Click **My Account**.
2. Sign in your **Dell My Account** using your email address that was used at the time of purchase or that was used to assign you to your software licenses.
3. Click **Products** or the **Order history**.
4. Click **Product name** if going through Products tab. Else click the order number if going through **Order history**.
5. When the product details are available. Select the **Available downloads**.
6. You can view the ISO image available for download. Post download this can be used as OS media for deployments.

i **NOTE:** Ensure that you have the Microsoft Windows Server 2022 operating system media available.

i **NOTE:** Installing Microsoft Windows Server 2022 using operating system media is supported only in UEFI mode.

To install Windows Server 2022 for Standard, Datacenter, and the Essentials edition by using the operating system media:

1. Connect a keyboard, monitor, mouse, and other required peripherals to your system.
2. Turn on your system and the connected peripherals.
3. Press F2 to go to the **System Setup** page.
4. On the **System Setup** page, click **System BIOS**, and then click **Boot Settings**.
5. Enable **TPM** by selecting **On** for the TPM Security.
6. Enable **Secure Boot** by selecting **Enabled** against the secure boot option.
7. Ensure that **UEFI** is selected as the Boot Mode.
8. Click **UEFI Boot Settings**, and then click **UEFI Boot Sequence**.
9. In the **Change Order** window, ensure that **Virtual Optical Drive: Virtual CD** is moved to the top of the list, and then click **OK**.
10. Click **Back**.
11. Click **Finish**, and then click **Yes**.
The updates are saved.
12. Click **Finish** to exit the **System Setup** page, and then click **Yes** to reboot the system.
13. Insert the Windows Server 2022 media if not attached to the system. The media can be attached through DVD drive or virtually mounted through the iDRAC.

i **NOTE:** For information about using the Virtual Media function on iDRAC, see [Using the Virtual Media function on iDRAC](#) 6, 7, 8 and 9.

When the system starts to read the media, the following message is displayed:

```
Loading files
```

i **NOTE:** If a Windows operating system is already installed on your system, the following message is displayed:

```
Press any key to boot from the CD/DVD
```

Press any key to start the installation.

14. After the files are loaded, select the language in which you want to install the operating system.

i **NOTE:** This screen is not displayed for the Simplified or Traditional Chinese operating system.

15. Select the language, time and currency format, keyboard or input method, and then click **Next**.

16. Click **Install now**.

17. Select the required operating system, and then click **Next**.

18. Read the license agreement information. Select the **I accept the license terms** check box if you agree to the license terms, and then click **Next**.

i **NOTE:** If you do not accept the license agreement, you cannot proceed with operating system installation.

19. In the **Which type of installation do you want?** window, select **Custom: Install Windows only (advanced)**.

20. In the **Where do you want to install Windows?** window, select the unallocated space where you want to install the operating system. To create a partition:

- a. Click **New**.
- b. In the **Size** box, enter or select the size of the partition in MB, and then click **Apply**.
The following message is displayed:

```
To ensure that all Windows features work correctly, Windows might create additional partition for system files
```

- c. Click **OK**.

i **NOTE:** The recommended minimum partition size of the primary partition is 40 GB. If you are installing additional memory module on your system, you may require extra primary partition space to accommodate the page file and the hibernation file. 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 disk space for the primary partition. For information about drive partitioning, see [Drive partitioning](#).

21. Select the newly created operating system partition, and then click **Next**.

The system reboots a few times during the operating system installation.

22. Enter administrator password that you want to set for the system, and reenter to confirm the password, and then click **Finish**.

23. After the system reboots, press Ctrl+Alt+Delete to log in to the system.

24. Type the administrator password, and then press Enter.

i **NOTE:** Windows Server 2022 Essentials do not include the Essentials Experience role. Windows Server 2022 Essentials can be configured as a domain controller by installing the Active Directory Domain Services role from **Server Manager**. See [Installation options for Windows Server 2022](#).

The operating system is successfully installed.

i **NOTE:** After you log in to the system, you can use the **Server Manager Dashboard** to configure and manage different roles and features in the operating system.

Dell recommends that you install hotfixes and security updates from Microsoft on your system by using Windows update, or by downloading the latest updates on installing the operating system. For more information, see [Update Windows 10](#).

Drive partitioning

Drive partitioning enables you to divide a hard drive disk space into multiple Virtual Drives (VDs). Each VD is called a partition. There are two types of partition schemes:

- Master Boot Record scheme
- GUID Partition Table scheme

The main considerations for selecting between the partition schemes are:

- Hard drive disk space
- Operating system version
- Software installed or to be installed in the operating system

Topics:

- [Master boot record scheme](#)
- [GUID partition table scheme](#)

Master boot record scheme

Most of the operating systems use the Master Boot Record (MBR) legacy partition scheme. The total data storage space of a computer hard drive is divided into a maximum of four primary partitions.

The MBR partition scheme is used across older versions of the Microsoft operating systems. MBR partitioning scheme supports a volume size lesser than 2 TB.

For more information about partitions and volumes, see the Partitions and Volumes section at www.technet.microsoft.com.

GUID partition table scheme

GUID Partition Table (GPT) scheme is a new standard for the layout of the partition table on a hard drive. It is part of the extensible firmware interface (EFI) standard, which is a replacement for the system BIOS.

i **NOTE:** It is recommended that you use the GPT partition scheme as it is more flexible, supports larger hard drive sizes, and has some features and recovery mechanisms that are not available in the MBR partition scheme.

For more information about partitions and volumes, see the Partitions and Volumes section at www.technet.microsoft.com. For information about GPT, see the Windows and GPT FAQ section at www.microsoft.com.

Resources and support

Topics:

- [Operating system support matrix for Dell PowerEdge servers](#)
- [Documentation and video resources](#)
- [Identifying the series of your Dell PowerEdge servers](#)
- [Download drivers and firmware](#)

Operating system support matrix for Dell PowerEdge servers

Windows Server operating system can be installed only on selected Dell PowerEdge servers. For the list of Dell PowerEdge servers and supported operating systems, see Microsoft Server operating systems supported on specific PowerEdge models at Dell.com/ossupport.

Documentation and video resources

Table 1. Additional documentation and video resources for your server

Task	Description	Location
Setting up your server	For information about installing the server into a rack, see the Rack documentation included with your rack solution or the <i>Getting Started</i> document that is shipped with your server.	https://www.dell.com/poweredgemanuals
	For information about turning on the server and the technical specifications of your server, see the <i>Getting Started</i> document that is shipped with your server.	https://www.dell.com/poweredgemanuals
Configuring your server	For information about the iDRAC features, configuring and logging in to iDRAC, and managing your server remotely, see the <i>Integrated Dell Remote Access Controller User's Guide</i> .	https://www.dell.com/idracmanuals
	For information about installing the operating system, see the operating system documentation.	https://www.dell.com/operatingsystemmanuals
	For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the <i>RACADM Command Line Reference Guide for iDRAC</i> .	https://www.dell.com/idracmanuals

Table 1. Additional documentation and video resources for your server (continued)

Task	Description	Location
	For information about updating drivers and firmware, see the Download drivers and firmware section in this document.	www.dell.com/support/drivers
Managing your server	For information about server management software offered by Dell, see the <i>Dell OpenManage Systems Management Overview Guide</i> .	https://www.dell.com/openmanagemanuals
	For information about setting up, using, and troubleshooting OpenManage, see the <i>Dell OpenManage Server Administrator User's Guide</i> .	https://www.dell.com/openmanagemanuals
	For information about installing, using, and troubleshooting Dell OpenManage Essentials, see the <i>Dell OpenManage Essentials User's Guide</i> .	https://www.dell.com/openmanagemanuals
	For information about installing and using Dell System E-Support Tool (DSET), see the <i>Dell System E-Support Tool (DSET) User's Guide</i> .	https://www.dell.com/supportassist
	For understanding the features of Dell Lifecycle Controller (LCC), see the <i>Dell Lifecycle Controller User's Guide</i> .	https://www.dell.com/idracmanuals
	For information about partner programs enterprise systems management, see the <i>OpenManage Connections Enterprise Systems Management</i> documents	https://www.dell.com/OMConnectionsEnterpriseSystemsManagement
	For information about connections and client systems management, see the <i>OpenManage Connections Client Systems Management</i> documentation.	https://www.dell.com/omconnectionsclient
	For information about viewing inventory, performing configuration, and monitoring tasks, remotely turning on or off servers, and enabling alerts for events on servers and components using the Dell Chassis Management Controller (CMC), see the <i>CMC User's Guide</i> .	https://www.dell.com/cmmanuals
Working with the Dell PowerEdge RAID controllers	For information about understanding the features of the Dell PowerEdge RAID controllers (PERC) and deploying	www.dell.com/storagecontrollermanuals

Table 1. Additional documentation and video resources for your server (continued)

Task	Description	Location
	the PERC cards, see the Storage controller documentation.	
Understanding event and error messages	For information about checking the event and error messages generated by the system firmware and agents that monitor server components, see the <i>Dell Event and Error Messages Reference Guide</i> .	https://www.dell.com/openmanagemanuals

Identifying the series of your Dell PowerEdge servers

The PowerEdge series of servers from Dell are divided into different categories based on their configuration. They are referred to as YX2X, YX3X, YX4X, YX4XX, or YX5XX series of servers. The structure of the naming convention is described below. The letter Y denotes the character in the server model number. The character denotes the form factor of the server. The form factors are listed below:

- C- Cloud
- F- Flexible
- M or MX- Modular
- R- Rack
- T- Tower

The letter X denotes the numbers in the server model number. The number denotes multiple characteristics about the server. They are listed as follows:

- The first digit (X) denotes the value stream or class of the server.
 - 1-5—iDRAC basic
 - 6-9—iDRAC Express
- The second digit denotes the series of the server. It is retained in the server naming convention and does not replace the letter X.
 - 0—series 10
 - 1—series 11
 - 2—series 12
 - 3—series 13
 - 4—series 14
 - 5—series 15
- The last digit (X) always denotes the make of the processor as described below:
 - 0-Intel
 - 5-AMD

NOTE: For servers that use an AMD processor, the model number is made up of four digits instead of three. The third digit (X) denotes the number of processor sockets that the series of server supports.

- 1—one socket server
- 2—two socket server

Table 2. PowerEdge servers naming convention and examples

YX4X systems	YX5X systems	YX4XX systems	YX5XX
PowerEdge M640	PowerEdge R250	PowerEdge R6415	PowerEdge R6515
PowerEdge R440	PowerEdge R750	PowerEdge R7415	PowerEdge R7515
PowerEdge R540	PowerEdge T550	PowerEdge R7425	PowerEdge R6525

Download drivers and firmware

It is recommended that you download and install the latest BIOS, drivers, and systems management firmware on your system.

Ensure that you clear the web browser cache before downloading the drivers and firmware.

1. Go to www.dell.com/support/drivers.

2. In the **Drivers & Downloads** section, enter the Service Tag of your system in the **Enter a Dell Service Tag, Dell Product ID, or Model** text box, and then click the right arrow button.

 **NOTE:** If you do not have the Service Tag, click **Detect PC** to allow the system to automatically detect your Service Tag.

3. Click **Drivers & Downloads**.

A list of applicable downloads is displayed.

4. Download the drivers or firmware to a USB drive, CD, or DVD.

Contacting Dell Technologies

Dell Technologies provides several online and telephone-based support and service options. Availability varies by country, region, and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues, see <https://www.dell.com/contactdell>.

If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or the product catalog.