

VMware vSphere 7.x on Dell EMC PowerEdge Servers

Getting Started Guide

Notes, cautions, and warnings

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

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

 **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

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Getting started with VMware vSphere

This document helps you in setting up your Dell EMC PowerEdge server and configuring VMware vSphere.

NOTE: If you had ordered VMware ESXi with your Dell EMC PowerEdge server, it is preinstalled on your server. The ESXi installer media is required for reinstallation. The Boot Optimized Storage Solution (BOSS) card is the preferred non-HDD or SSD device for VMware ESXi 7.0 installation. The Dell Internal Dual SD Module (IDSDM) install is no longer recommended due to write endurance issues with the SD flash media. For more information, see the [Storage Requirements for ESXi 7.0 Installation or Upgrade](#) section on the [VMware ESXi Installation and Setup Guide](#) or see [VMware Knowledge Base article 2145210](#).

Topics:

- [Important information](#)
- [Downloading Dell EMC customized ESXi images](#)
- [Configuring ESXi on Dell EMC PowerEdge server](#)

Important information

- Your Dell EMC customized VMware ESXi 7.0 A00 image must be installed as a new installation or deployment.
- Dell EMC recommends you to follow the VMware recommendations published in [VMware Knowledge Base article 78487](#) and [Dell Knowledge Base article SLN320957](#).
- After upgrading to 7.0.x, downgrading to 6.7.x or 6.5.x is not possible.

For all the Dell EMC PowerEdge servers with factory-installed VMware ESXi operating system:

- Dell EMC PowerEdge yx4x and yx5x server's username is `root` and password is your Service Tag of your system followed by the character '!'.

NOTE: To locate the Service Tag of your system, see [Locating Service Tag of your system..](#)

- Dell EMC PowerEdge yx3x servers do not have password for the username `root`.

For the Dell EMC PowerEdge servers with a factory-installed VMware ESXi operating system on a BOSS-S1 device:

- The VMFS datastore is not enabled by default on Dell EMC PowerEdge yx4x and yx5x servers. Use the BOSS-S1 device as an operating system boot device and vSphere ESXi logging device. See [VMware Knowledge Base article 2145210](#).

Before deploying the system, it is recommended that you see the *VMware vSphere 7.0 on Dell EMC PowerEdge Server Release Notes* at www.dell.com/virtualizationsolutions.

Downloading Dell EMC customized ESXi images

Dell EMC has migrated the latest revision of the Dell customized ESXi images with customized drivers to VMware's website. This change aligns with industry-standard practices and brings the Dell EMC-customized image to the same location as that of our competitors. For customers who manage heterogeneous fleets, this simplifies the procurement of software images as they will all be housed in one location. Please go to your my.vmware.com license portal or click on [My VMware Downloads](#). Older versions of these images can be downloaded from www.dell.com/support.

For information about Dell EMC's customization of VMware ESXi images and its advantages, see [Dell's Customization of VMware ESXi and Its Advantages](#).

NOTE: Your Dell EMC customized VMware ESXi 7.0 A00 image must be installed as a new installation or deployment. See [VMware Knowledge Base article 78487](#) and [Dell Knowledge Base article SLN320957](#)

Download Dell EMC customized ESXi image and Dell EMC Addon from Dell EMC support site

 **NOTE:** 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 EMC Product ID, or Model** box, and then click the right arrow button.

 **NOTE:** If you do not have the Service Tag, select **Detect PC** to allow the system to automatically detect your Service Tag, or click **Browse all products**, and then navigate to your product.

3. Click **Drivers & Downloads**.

The drivers that are applicable to your system are displayed.

4. In the **Operating System** list, select the appropriate VMware version.
5. In the **Category** list, select **Enterprise Solutions**.

The latest Dell EMC VMware ESXi customized images are displayed.

6. Click **Download**.

Download Dell EMC customized ESXi image from VMware site


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

 **NOTE:** You should be registered with my.vmware.com to be able to download drivers and firmware.

1. Go to my.vmware.com and login with your account credentials.
2. Select **View & Download products > All Products** and then click the **View Download Components** link of **VMware vSphere**.
3. Select the image version from the **Select Version** list.
4. Click **Custom ISOs**.
5. Expand the **OEM Customized Installer CDs** option and then click **Go to Downloads** for the image that you want to download.

Downloading Dell EMC add-on package from VMware site

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

 **NOTE:** To download the drivers and firmware, you must be the registered user in my.vmware.com.

To download an add-on package, do the following:

1. Go to my.vmware.com and log in with your account credentials.
2. Select **View & Download products > All Products** and then click **View Download Components** link of **VMware vSphere**.
3. Select the image version from the **Select Version** list.
4. Click **Custom Addons**.
5. Select the appropriate add-on package and then click **Go to Downloads** to download the package.

Configuring ESXi on Dell EMC PowerEdge server

1. Set up your Dell EMC PowerEdge server.
For more information, see the *Getting Started Guide* and the *Rack Installation Instructions* that are shipped with your server.
2. Turn on the server.
The ESXi console loads.
3. Press F2 when the ESXi console is displayed to configure the software.
Configuring the software includes changing the root password and setting a static IP address.

 **NOTE:** By default, the server obtains an IP address using the Dynamic Host Configuration Protocol (DHCP).

4. Select **Configure Password** from the main menu to change the root password.
The root password manages the server on a one-to-one basis.
5. Select **Configure Management Network > IP Configuration > Set static IP address and network configuration** to configure a static IP address.

 **NOTE:** Record the host IP address.

If you purchased the ESXi hypervisor-based vSphere Standard, Enterprise, Enterprise Plus, Essentials Plus software, or Acceleration kits from Dell EMC, you must have received the Partner Activation Code certificate with the server. To use the ESXi software and receive subscription services, follow the instructions in your Partner Activation Code certificate that is included with the server.

 **NOTE:** By using the VMware software, you are agreeing to the VMware End User License Agreement (EULA) at vmware.com/downloads/eula. For more information about license keys and VMware software licensing configuration, see the VMware documentation at vmware.com/support/pubs.

Getting help

Topics:

- [Contacting Dell EMC](#)
- [Related information for virtualization solutions](#)
- [Documentation resources](#)
- [Identifying the series of your Dell EMC PowerEdge servers](#)
- [Download drivers and firmware](#)
- [Documentation feedback](#)
- [Locating Service Tag of your system](#)

Contacting Dell EMC

Dell EMC 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 EMC for sales, technical assistance, or customer service issues, see 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.

Related information for virtualization solutions

Table 1. Related information for virtualization solutions

If you need information about	See
Dell EMC VMware documentation	www.dell.com/virtualizationsolutions
OpenManage documentation	www.dell.com/openmanagemanuals
PowerEdge documentation	www.dell.com/poweredgemanuals
Basic configuration information for running ESXi on a Dell EMC PowerEdge server	Getting Started Guide at www.dell.com/virtualizationsolutions
<ul style="list-style-type: none"> • Information about downloading, installing, and configuring ESXi • Supported hardware configurations for running ESXi on a Dell EMC PowerEdge server 	Installation Instructions and Important Information Guide at www.dell.com/virtualizationsolutions
PowerEdge servers and compatibility with vMotion	VMware ESXi vMotion Support on Dell EMC PowerEdge Servers Compatibility Matrix at www.dell.com/virtualizationsolutions
PowerEdge and PowerVault compatibility information for running ESXi	VMware vSphere on Dell EMC PowerEdge Servers Compatibility Matrix at www.dell.com/virtualizationsolutions
Known issues and resolutions	VMware vSphere 7.0 on Dell EMC PowerEdge Server Release Notes at www.dell.com/virtualizationsolutions
ESXi ISO image customization information	VMware ESXi on Dell EMC PowerEdge Systems Image Customization Information at www.dell.com/virtualizationsolutions
UEFI Boot order management utility in VMware ESXi 7.0	www.dell.com/support/article/en-us/sln321019
Dell EMC Add-on for VMware vSphere 7.0	www.dell.com/support/article/en-us/sln320956

Table 1. Related information for virtualization solutions (continued)

If you need information about	See
Dell EMC ESXi 7.0 Quick Boot compatibility guide	www.dell.com/support/article/en-us/sln320746
VMware vSphere Life Cycle Manager vLCM and Dell EMC integration	downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers3_en-us.pdf
PVRDMA Deployment and Configuration of QLogic CNA devices in VMware ESXi	downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper6_en-us.pdf
Self-Encrypting Drives in Dell EMC PowerEdge servers with VMware vSphere	downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper7_en-us.pdf
NVMe Hot-Plug on Dell EMC PowerEdge servers running VMware vSphere or vSAN	downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper9_en-us.pdf
Upgrading to Dell EMC vSphere and vSAN version 7.0	downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers8_en-us.pdf

Technical support resources

- vmware.com/support
- www.dell.com/support/home
- Dell.com/services

Discussion forums

- Communities.vmware.com/community/vmtn
- Dell Virtualization
- Wikis, Forums, Blogs, and Videos
- Dell Community

Knowledge base

- kb.vmware.com/kb

 **NOTE:** For more information that is related to the VMware ESXi installation on Dell EMC PowerEdge servers, go to [Dell Virtualization](#).



Virtualization videos for Dell EMC PowerEdge servers

All the supported virtualization videos for Dell EMC PowerEdge servers are available in the [Supported Operating Systems for Dell PowerEdge servers](#) playlist.

Table 2. Virtualization videos for Dell EMC PowerEdge servers

Video title	Links
Downloading the Dell EMC customized ESXi image from support site	www.youtube.com/watch?v=YnVxtkAkYTl
Downloading Dell EMC customized ESXi image from VMware website	www.youtube.com/watch?v=TnWyuyxuk5k
Operating system Deployment (VMware ESXi)—Installing Using CD/DVD	www.youtube.com/watch?v=-EbufUS86zA
Enabling and Configuring Fault Resilient Memory on Dell EMC PowerEdge servers	www.youtube.com/watch?v=retSh-XIsK0

Table 2. Virtualization videos for Dell EMC PowerEdge servers (continued)

Video title	Links
OS Deployment (VMware ESXi)—Installing on BOSS S1 device	www.youtube.com/watch?v=TB1oXpFFME
OS Deployment (VMware ESXi)—Installing on IDSDM	www.youtube.com/watch?v=EC-Xntg5mgw
To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx3x PowerEdge servers  NOTE: This video is applicable to VMware ESXi 6.5.x and later.	www.youtube.com/watch?v=LI9qIF9qV9I
To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx4x PowerEdge servers  NOTE: This video is applicable to VMware ESXi 6.5.x and later.	www.youtube.com/watch?v=ZZB_XyV0enY

Documentation resources

This section provides information about the documentation resources for your server.

Table 3. Additional documentation resources for your server

Task	Document	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 Guide</i> that is shipped with your server.	www.dell.com/poweredgemanuals
	For information about turning on the server and the technical specifications of your server, see the <i>Getting Started Guide</i> that is shipped with your server.	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 Configuration Tool User's Guide</i> .	www.dell.com/idracmanuals
	For information about installing the operating system, see operating system documentation.	www.dell.com/operatingsystemmanuals
	For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the <i>iDRAC RACADM CLI Guide</i> .	www.dell.com/idracmanuals
	For information about updating drivers and firmware, see Download drivers and firmware topic in this document.	www.dell.com/support/drivers
Managing your server	For information about server management software offered by Dell EMC, see the Dell EMC	www.dell.com/openmanagemanuals

Table 3. Additional documentation resources for your server (continued)

Task	Document	Location
	<i>Systems Management Overview Guide.</i>	
	For information about setting up, using, and troubleshooting OpenManage, see the Dell EMC <i>OpenManage Server Administrator User's Guide</i> .	www.dell.com/openmanagemanuals
	For information about installing, using, and troubleshooting Dell EMC OpenManage Essentials, go to www.dell.com/openmanagemanuals > <i>OpenManage Essentials User's Guide</i> .	www.dell.com/openmanagemanuals
	For information about installing and using Dell SupportAssist, see the Dell EMC <i>SupportAssist Enterprise User's Guide</i> .	https://www.dell.com/serviceabilitytools
	For understanding the features of Dell EMC Lifecycle Controller (LC), see the <i>Lifecycle Controller User's Guide</i> .	www.dell.com/idracmanuals
	For information about partner programs enterprise systems management, see the <i>OpenManage Connections Enterprise Systems Management</i> documents.	www.dell.com/esmmanuals
	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 EMC Chassis Management Controller (CMC), see the <i>Chassis Management Controller User's Guide</i> .	www.dell.com/esmmanuals
Working with the Dell EMC PowerEdge RAID controllers	For information about understanding the features of the Dell EMC PowerEdge RAID controllers (PERC) and deploying the PERC cards, see the Storage controller documentation.	www.dell.com/storagecontrollermanuals
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 Dell EMC Event and Error Messages Reference Guide.	www.dell.com/openmanagemanuals
Troubleshooting your system	For information about identifying and troubleshooting the PowerEdge server issues, see the	www.dell.com/poweredgemanuals

Table 3. Additional documentation resources for your server (continued)

Task	Document	Location
	<i>PowerEdge Servers Troubleshooting Guide.</i>	

Identifying the series of your Dell EMC PowerEdge servers

The PowerEdge series of servers from Dell EMC 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 4. PowerEdge servers naming convention and examples

YX3X servers	YX4X systems	YX4XX systems	YX5XX
PowerEdge M630	PowerEdge M640	PowerEdge R6415	PowerEdge R6515
PowerEdge M830	PowerEdge R440	PowerEdge R7415	PowerEdge R7515
PowerEdge T130	PowerEdge R540	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 EMC 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.

Download Dell EMC customized ESXi image and Dell EMC Addon from Dell EMC support site


 **NOTE:** 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 EMC Product ID, or Model** box, and then click the right arrow button.

 **NOTE:** If you do not have the Service Tag, select **Detect PC** to allow the system to automatically detect your Service Tag, or click **Browse all products**, and then navigate to your product.

3. Click **Drivers & Downloads**.
The drivers that are applicable to your system are displayed.
4. In the **Operating System** list, select the appropriate VMware version.
5. In the **Category** list, select **Enterprise Solutions**.
The latest Dell EMC VMware ESXi customized images are displayed.
6. Click **Download**.

Download Dell EMC customized ESXi image from VMware site

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

 **NOTE:** You should be registered with my.vmware.com to be able to download drivers and firmware.

1. Go to my.vmware.com and login with your account credentials.
2. Select **View & Download products > All Products** and then click the **View Download Components** link of **VMware vSphere**.
3. Select the image version from the **Select Version** list.
4. Click **Custom ISOs**.
5. Expand the **OEM Customized Installer CDs** option and then click **Go to Downloads** for the image that you want to download.

Documentation feedback

You can rate the documentation or write your feedback on any of our Dell EMC documentation pages and click **Send Feedback** to send your feedback.

Locating Service Tag of your system

Your system is identified by a unique Express Service Code and Service Tag number. The Express Service Code and Service Tag are found on the front or back of the system by pulling out the information tag. Alternatively, the information may be on a sticker on the chassis of the system. This information is used by Dell EMC to route support calls to the appropriate personnel.