

VMware vSphere 7.x on Dell EMC PowerEdge Servers

Compatibility Matrix

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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Overview

This document provides information about Dell EMC-supported PowerEdge servers compatible with VMware ESXi 7.x.

Dell EMC PowerEdge servers—Compatibility matrix

The following table lists the supported processors for Dell EMC PowerEdge servers.

i **NOTE:** The PowerEdge servers are represented using the generic naming convention. To identify the range of server models, see [Identifying the series of your Dell EMC PowerEdge servers](#).

Table 1. Dell EMC yx5x PowerEdge servers—compatibility matrix

yx5x PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 7.0	ESXi 7.0 U1	ESXi 7.0 U2	ESXi 7.0 U3	Hard drive	Flash (SD) card	BOSS
T150	Intel Xeon (E-23xx) series	X	X	X	✓	✓	X	✓
R350,R250,T350	Intel Xeon (E-23xx) series	X	X	X	✓	✓	✓	✓
R750, R750xs, R750xa, R650, R650xs, MX750c, C6520	Intel Xeon SP(83xx,63xx,53xx,43xx) series	X	X	✓	✓	✓	✓	✓
R450, R550, T550	Intel Xeon SP(63xx,53xx,43xx) series	X	X	✓	✓	✓	✓	✓
XR11, XR12	Intel Xeon SP(83xx,63xx,53xx,43xx) series	X	X	✓	✓	✓	X	✓
C6525	AMD EPYC 7xx2 series	✓	✓	✓	✓	✓	✓	✓
	AMD EPYC 7xx3 series	X	✓	✓	✓	✓	✓	✓
R7525	AMD EPYC 7xx2 series	✓	✓	✓	✓	✓	✓	✓
	AMD EPYC 7xx3 series	X	✓	✓	✓	✓	✓	✓
R7515	AMD EPYC 7xx2 series	✓	✓	✓	✓	✓	✓	✓
	AMD EPYC 7xx3 series	X	✓	✓	✓	✓	✓	✓
R6525	AMD EPYC 7xx2 series	✓	✓	✓	✓	✓	✓	✓
	AMD EPYC 7xx3 series	X	✓	✓	✓	✓	✓	✓
R6515	AMD EPYC 7xx2 series	✓	✓	✓	✓	✓	✓	✓
	AMD EPYC 7xx3 series	X	✓	✓	✓	✓	✓	✓

Table 2. Dell EMC yx4x PowerEdge servers—compatibility matrix

yx4x PowerEdge servers	Processor series	Supported release				Boot device		
		ESXi 7.0	ESXi 7.0 U1	ESXi 7.0 U2	ESXi 7.0 U3	Hard drive	Flash (SD) card	BOSS
MX840c, MX740c	Intel Xeon SP (81xx, 61xx, 51xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (82xx, 62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
R940, R940xa, R840	Intel Xeon SP (81xx, 61xx, 51xx) series	✓	✓	✓	✓	✓	✓	✓
R940, R940xa, R840	Intel Xeon SP (82xx, 62xx, 52xx) series	✓	✓	✓	✓	✓	✓	✓
R7425, R7415, R6415	AMD EPYC 7XX1 series	✓	✓	✓	✓	✓	✓	✓
R740, R740xd, R640	Intel Xeon SP (81xx, 61xx, 51xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (82xx, 62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
R740xd2	Intel Xeon SP (61xx, 51xx, 41xx, 31xx)	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
R540, R440	Intel Xeon SP (61xx, 51xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
FC640, M640, M640 for VRTX	Intel Xeon SP (81xx, 61xx, 51xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (82xx, 62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
T640	Intel Xeon SP (81xx, 61xx, 51xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (82xx, 62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓

Table 2. Dell EMC yx4x PowerEdge servers—compatibility matrix (continued)

yx4x PowerEdge servers	Processor series	Supported release				Boot device		
		ESXi 7.0	ESXi 7.0 U1	ESXi 7.0 U2	ESXi 7.0 U3	Hard drive	Flash (SD) card	BOSS
T440	Intel Xeon SP (51xx, 61xx, 41xx, 31xx) series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon SP (62xx, 52xx, 42xx, 32xx) series	✓	✓	✓	✓	✓	✓	✓
R340, R240	Intel Xeon E-2100 Series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon E-2200 Series	✓	✓	✓	✓	✓	✓	✓
T340	Intel Xeon E-2100 Series	✓	✓	✓	✓	✓	✓	✓
	Intel Xeon E-2200 Series	✓	✓	✓	✓	✓	✓	✓
T140	Intel Xeon E-2100 Series	✓	✓	✓	✓	✓	X	✓
	Intel Xeon E-2200 Series	✓	✓	✓	✓	✓	X	✓

Table 3. yx3x PowerEdge servers—compatibility matrix

yx3x PowerEdge servers	Processor series	Supported release			ESXi 7.0 U3	Boot device		
		ESXi 7.0	ESXi 7.0 U1	ESXi 7.0 U2		Hard drive	Flash (SD) card	BOSS
R930	Intel Xeon E7-88xx/ 48xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-88xx/ 48xx v4 series	✓	✓	✓	✓	✓	✓	X
R830	Intel Xeon E5-46xx v4 series	✓	✓	✓	✓	✓	✓	X
R730, R730xd, R630	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	✓	✓	✓	✓	✓	✓	X
R430, R530	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	✓	✓	✓	✓	✓	✓	X
FC830, M830, M830 for VRTX	Intel Xeon E5-46xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-46xx v4 series	✓	✓	✓	✓	✓	✓	X
FC630, FC430, M630, M630 for VRTX	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	✓	✓	✓	✓	✓	✓	X
T630	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	✓	✓	✓	✓	✓	✓	X

Dell EMC PowerEdge servers—SD card compatibility matrix

The following table lists the supported SD card for Dell EMC PowerEdge servers.

NOTE: The PowerEdge servers are represented using the generic naming convention. To identify the range of server models, see [Identifying the series of your Dell EMC PowerEdge servers](#).

Table 4. Dell EMC yx5x PowerEdge servers—SD card compatibility matrix

yx5x PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN*
C6525, R7525, R7515, R6525, R6515	USB 3.0 Controller	Dell EMC	16 GB SD card	FH2KP PKN2D
		Dell EMC	32 GB SD card	G4VKH KNJMC
		Dell EMC	64 GB SD card	6R6N4 HN59Y
R750, R750xa, R750xs, R650, R650xs, MX750c, C6520, R450, R550, T550, R350, R250, T350	Intel Lewisburg	Dell EMC	16 GB SD card	FH2KP XDPJH PKN2D
		Dell EMC	32 GB SD card	HWK63 G4VKH KNJMC
		Dell EMC	64 GB SD card	V5JGM 6R6N4 HN59Y

Table 5. Dell EMC yx4x PowerEdge servers—SD card compatibility matrix

yx4x PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN*
R940, R940xa, R840, R740, R740xd, R640, R540, R440, FC640, M640, T640, T440, MX840c, MX740c, R740xd2, M640 for VRTX	Intel C621	Dell EMC	16 GB SD card	PKN2D R7YTT FH2KP
		Dell EMC	32 GB SD card	KNJMC OPD22 G4VKH
		Dell EMC	64 GB SD card	HN59Y 7XDNW 6R6N4

Table 5. Dell EMC yx4x PowerEdge servers—SD card compatibility matrix (continued)

yx4x PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN *
R7425, R7415, R6415	USB 3.0 Controller	Dell EMC	16 GB SD card	PKN2D R7YTT FH2KP
		Dell EMC	32 GB SD card	KNJMC OPD22 G4VKH
		Dell EMC	64 GB SD card	HN59Y 7XDNW 6R6N4
R340, R240, T340	Intel C246	Dell EMC	16 GB SD card	PKN2D R7YTT FH2KP
		Dell EMC	32 GB SD card	KNJMC OPD22 G4VKH
		Dell EMC	64 GB SD card	HN59Y 7XDNW 6R6N4

Table 6. yx3x PowerEdge servers—SD card compatibility matrix

yx3x PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN *
R930, R830, R730xd, R730, R630, R430, R530, M830, M630, FC830, FC630, T630, M830 for VRTX, M630 for VRTX, FC430	Intel C610	Dell EMC	8 GB SD card	W1T9G
		Dell EMC	16 GB SD card	7GH0Y GX886
		Dell EMC	16 GB SD card	H1H8M GX886
		Dell EMC	32 GB SD card	XVP8P X5MJ8
		Dell EMC	64 GB SD card	1X6VF 0M36C

*Dell EMC Part Number (DPN) is an alphanumeric code on the barcode of your SD card.

Dell EMC PowerEdge servers—supported I/O controller devices

For information about the VMware I/O hardware compatibility and the supported I/O controller devices with respect to ESXi version, see [VMware Compatibility Guide](#).

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](#)

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 7. 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	<i>VMware ESXi vMotion Support on Dell EMC PowerEdge Servers Compatibility Matrix</i> at www.dell.com/virtualizationsolutions
PowerEdge and PowerVault compatibility information for running ESXi	<i>VMware vSphere on Dell EMC PowerEdge Servers Compatibility Matrix</i> at www.dell.com/virtualizationsolutions
Known issues and resolutions	<i>VMware vSphere 7.0 on Dell EMC PowerEdge Server Release Notes</i> at www.dell.com/virtualizationsolutions
ESXi ISO image customization information	<i>VMware ESXi on Dell EMC PowerEdge Systems Image Customization Information</i> at www.dell.com/virtualizationsolutions
UEFI Boot order management utility in VMware ESXi 7.0	www.dell.com/support/article/en-us/sln321019

Table 7. Related information for virtualization solutions (continued)

If you need information about	See
Dell EMC Add-on for VMware vSphere 7.0	www.dell.com/support/article/en-us/sln320956
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 8. 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=YnVxtkAkYTI
Downloading Dell EMC customized ESXi image from VMware website	www.youtube.com/watch?v=TnWyuyxuk5k

Table 8. Virtualization videos for Dell EMC PowerEdge servers (continued)

Video title	Links
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
OS Deployment (VMware ESXi)—Installing on BOSS S1 device	www.youtube.com/watch?v=TB1loXpFFME
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 9. 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	www.dell.com/support/drivers

Table 9. Additional documentation resources for your server (continued)

Task	Document	Location
	Download drivers and firmware topic in this document.	
Managing your server	For information about server management software offered by Dell EMC, see the Dell EMC <i>Systems Management Overview Guide</i> .	www.dell.com/openmanagemanuals
	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	www.dell.com/openmanagemanuals

Table 9. Additional documentation resources for your server (continued)

Task	Document	Location
	monitor server components, see the Dell EMC Event and Error Messages Reference Guide.	
Troubleshooting your system	For information about identifying and troubleshooting the PowerEdge server issues, see the <i>PowerEdge Servers Troubleshooting Guide</i> .	www.dell.com/poweredgemanuals

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 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 10. 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 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.