

# **VMware vSphere 6 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.

# Contents

<b>Chapter 1: Overview.....</b>	<b>4</b>
<b>Chapter 2: Dell EMC PowerEdge systems—Compatibility matrix.....</b>	<b>5</b>
<b>Chapter 3: Dell EMC PowerEdge systems—SD card compatibility matrix.....</b>	<b>9</b>
<b>Chapter 4: PowerEdge systems—RAID controller compatibility matrix.....</b>	<b>11</b>
<b>Chapter 5: Dell EMC PowerEdge systems — VMware vCenter Server compatibility matrix.....</b>	<b>16</b>
<b>Chapter 6: Devices supported for PCIe Pass-Through .....</b>	<b>17</b>
<b>Chapter 7: Getting help.....</b>	<b>19</b>
Contacting Dell EMC.....	19
Related information for virtualization solutions.....	19
Documentation resources.....	21
Downloading the drivers and firmware.....	23
Documentation feedback.....	23

# Overview

This document provides information about Dell EMC-supported PowerEdge systems compatible with VMware ESXi 6.x.

# Dell EMC PowerEdge systems—Compatibility matrix

The following table describes about the PowerEdge servers with the supported processors.

**Table 1. Dell EMC 14<sup>th</sup> generation PowerEdge servers—compatibility matrix**

14 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R940	Intel Xeon Skylake SP (81xx,61xx,51xx) series	X	X	X	✓	✓	✓	✓
R740, R740xd, R640	Intel Xeon Skylake SP (81xx,61xx,51xx,41xx,31xx) series	X	X	X	✓	✓	✓	✓
R540, R440	Intel Xeon Skylake SP (61xx,51xx,41xx,31xx) series	X	X	X	✓	✓	✓	✓
FC640, M640, M640 for VRTX	Intel Xeon Skylake SP (81xx,61xx,51xx,41xx,31xx) series	X	X	X	✓	✓	✓	✓
T640	Intel Xeon Skylake SP (81xx,61xx,51xx,41xx,31xx) series	X	X	X	✓	✓	✓	✓
T440	Intel Xeon Skylake SP (51xx,41xx,31xx) series	X	X	X	✓	✓	✓	✓

**Table 2. 13<sup>th</sup> generation PowerEdge servers—compatibility matrix**

13 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R930	Intel Xeon E7-88xx/48xx v3 series	✓	✓	✓	✓	✓	✓	✗
	Intel Xeon E7-88xx/48xx v4 series	X	✓	✓	✓	✓	✓	✗
R830	Intel Xeon E5-46xx v4 series	X	X	✓	✓	✓	✓	✗
R730, R730xd, R630	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	✗
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	✗
R530, R430	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	✗
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	✗
R530xd	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	✗
R330	Intel Xeon E3-1200 v6 series	X	X	X	✓	✓	✓	✗
	Intel Xeon E3-1200 v5 series	X	✓ *	✓	✓	✓	✓	✗

**Table 2. 13<sup>th</sup> generation PowerEdge servers—compatibility matrix (continued)**

13 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R230	Intel Xeon E3-1200 v6 series	X	X	✓	✓	✓	X	X
	Intel Xeon E3-1200 v5 series	X	✓ *	✓	✓	✓	X	X
FC830, M830, M830 for VRTX	Intel Xeon E5-46xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-46xx v4 series	X	✓	✓	✓	✓	✓	X
FC630, M630, M630 for VRTX	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	X
FC430	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	X
T630	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	X
T430	Intel Xeon E5-26xx v3 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v4 series	X	✓	✓	✓	✓	✓	X
T330	Intel Xeon E3-1200 v6 series	X	X	X	✓	✓	✓	X
	Intel Xeon E3-1200 v5 series	X	✓ *	✓	✓	✓	✓	X
T130	Intel Xeon E3-1200 v6 series	X	X	X	✓	✓	X	X
	Intel Xeon E3-1200 v5 series	X	✓ *	✓	✓	✓	X	X

**Table 3. 12<sup>th</sup> generation PowerEdge servers—compatibility matrix**

12 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R920	Intel Xeon E7-88xx/48xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-46xx v2 series	✓	✓	✓	✓	✓	✓	X
R820	Intel Xeon E5-46xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx v2 series	✓	✓	✓	✓	✓	✓	X
R720, R720xd, R620	Intel Xeon E5-26xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-24xx v2 series	✓	✓	✓	✓	✓	✓	X

**Table 3. 12<sup>th</sup> generation PowerEdge servers—compatibility matrix (continued)**

12 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R520, R420	Intel Xeon E5-24xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-24xx v2 series	✓	✓	✓	✓	✓	✓	X
R320	Intel Xeon E5-24xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-14xx v2 series	✓	✓	✓	✓	✓	✓	X
R220	Intel Xeon E3-1200-v3 series	✓	✓	✓	✓	✓	✓	X
M820, M820 for VRTX	Intel Xeon E5-46xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-46xx series	✓	✓	✓	✓	✓	✓	X
M620, M620 for VRTX	Intel Xeon E5-26xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx series	✓	✓	✓	✓	✓	✓	X
M520, M520 for VRTX, M420	Intel Xeon E5-24xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-24xx series	✓	✓	✓	✓	✓	✓	X
T620	Intel Xeon E5-26xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-26xx series	✓	✓	✓	✓	✓	✓	X
T420, T320	Intel Xeon E5-24xx v2 series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E5-24xx series	✓	✓	✓	✓	✓	✓	X

**Table 4. 11<sup>th</sup> generation PowerEdge servers—compatibility matrix**

11 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
R910	Intel Xeon E7-88xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-48xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 75xx series	✓	✓	✓	✓	✓	✓	X
R815, R715	AMD Opteron 63xx,62xx,61xx series	✓	✓	✓	✓	✓	✓	X
R810	Intel Xeon E7-88xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-48xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-28xx series	✓	✓	✓	✓	✓	✓	X

**Table 4. 11<sup>th</sup> generation PowerEdge servers—compatibility matrix (continued)**

11 <sup>th</sup> generation PowerEdge servers	Processor series	Supported releases				Boot device		
		ESXi 6.0	ESXi 6.0 U1	ESXi 6.0 U2	ESXi 6.0 U3	Hard drive	Flash (SD) card	BOSS S1
	Intel Xeon 75xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 65xx series	✓	✓	✓	✓	✓	✓	X
R710, R610	Intel Xeon 56xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 55xx series	✓	✓	✓	✓	✓	✓	X
R515, R415	AMD Opteron 43xx,42xx,41xx series	✓	✓	✓	✓	✓	X	X
M915	AMD Opteron 63xx,62xx,61xx series	✓	✓	✓	✓	✓	✓	X
M910	Intel Xeon E7-88xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-48xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon E7-28xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 75xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 65xx Series	✓	✓	✓	✓	✓	✓	X
M710HD, M710, M610, M610x	Intel Xeon 56xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 55xx series	✓	✓	✓	✓	✓	✓	X
T710, T610	Intel Xeon 56xx series	✓	✓	✓	✓	✓	✓	X
	Intel Xeon 55xx series	✓	✓	✓	✓	✓	✓	X

\*\*\*For Skylake based platforms R330, R230, T330 or T130, use the builds located under the Enterprise Solutions category by filtering the applicable operating system on the Dell EMC support site.

\*Use the builds located under the Enterprise Solutions category by filtering the applicable operating system on the Dell EMC support site.

# Dell EMC PowerEdge systems—SD card compatibility matrix

**Table 5. Dell EMC 14<sup>th</sup> generation PowerEdge servers—compatibility matrix**

14 <sup>th</sup> generation PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN *
R940, R740, R740xd, R640, R540, R440, FC640, M640, M640 for VRTX, T640, T440	Intel C621	Dell EMC	16 GB SD card	R7YTT
		Dell EMC	32 GB SD card	0PD22
		Dell EMC	64 GB SD card	7XDNW

**Table 6. 13<sup>th</sup> generation PowerEdge servers—compatibility matrix**

13 <sup>th</sup> generation PowerEdge servers	I/O Controller	Manufacturer	Specification	DPN *
R930, R830, M830, M830 for VRTX, M630, M630 for VRTX, FC830, FC630, FC430	Intel C610	Kingston	8 GB SD card	GR6JR
		Kingston	16 GB SD card	37D9D
		Dell	8 GB SD card	W1T9G
		Dell	16 GB SD card	7GH0Y
		Dell	16 GB SD card	H1H8M
		Dell	32 GB SD card	XVP8P
		Dell	64 GB SD card	1X6VF
R730xd, R730, R630, T630	Intel C610	Kingston	8 GB SD card	9F5K9
		Kingston	8 GB SD card	GR6JR
		Kingston	16 GB SD card	G9917
		Kingston	16 GB SD card	37D9D
		Dell	8 GB SD card	W1T9G
		Dell	16 GB SD card	7GH0Y
		Dell	16 GB SD card	H1H8M
		Dell	32 GB SD Card	XVP8P
R530, R430, T430	Intel C610	Kingston	8 GB SD card	GR6JR
		Kingston	16 GB SD card	37D9D
		Dell	8 GB SD card	W1T9G
		Dell	16 GB SD card	7GH0Y
		Dell	16 GB SD card	H1H8M

**Table 6. 13<sup>th</sup> generation PowerEdge servers—compatibility matrix (continued)**

<b>13<sup>th</sup> generation PowerEdge servers</b>	<b>I/O Controller</b>	<b>Manufacturer</b>	<b>Specification</b>	<b>DPN *</b>
R330, T330	Intel C236	Dell	32 GB SD card	XVP8P
		Dell	64 GB SD card	1X6VF
		Kingston	8 GB SD card	GR6JR
		Kingston	16 GB SD card	37D9D
		Dell	8 GB SD card	W1T9G
		Dell	16 GB SD card	7GH0Y
		Dell	16 GB SD card	H1H8M
		Dell	32 GB SD card	XVP8P
		Dell	64 GB SD card	1X6VF

**Table 7. 12<sup>th</sup> generation PowerEdge servers—compatibility matrix**

<b>12<sup>th</sup> generation PowerEdge servers</b>	<b>I/O Controller</b>	<b>Manufacturer</b>	<b>Specification</b>	<b>DPN *</b>
R920, R820, R720, R720xd, R620, R520, R420, R320, M820, M820 for VRTX, M620, M620 for VRTX, M520, M520 for VRTX, M420, T620, T420, T320	Intel C600	Kingston	8 GB SD card	9F5K9
		Kingston	8 GB SD card	GR6JR
		Dell	16 GB SD card	H1H8M
		Dell	32 GB SD card	XVP8P
		Dell	64 GB SD card	1X6VF

**Table 8. 11<sup>th</sup> generation PowerEdge servers—compatibility matrix**

<b>11<sup>th</sup> generation PowerEdge servers</b>	<b>I/O Controller</b>	<b>Manufacturer</b>	<b>Specification</b>	<b>DPN *</b>
R910, R810, M910	Intel ICH-10	Kingston	8 GB SD card	9F5K9
		Kingston	8 GB SD card	GR6JR
R710, R610, M710, M710HD, M610, M610x, T710, T610	Intel ICH-9	Kingston	8 GB SD card	9F5K9
		Kingston	8 GB SD card	GR6JR
R815, R715, M915	AMD SP5 100	Kingston	8 GB SD card	9F5K9
		Kingston	8 GB SD card	GR6JR

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

# PowerEdge systems—RAID controller compatibility matrix

**Table 9. 14<sup>th</sup> generation PowerEdge systems—PERC10 controllers compatibility matrix**

PowerEdge systems	R940	R740xd	R740	R640	R540	R440	M640	M640 for VRTX	FC640	T640	T440
PERC H840 adapter	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y
PERC H740P adapter	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y

**Table 10. 14<sup>th</sup> generation PowerEdge systems—PERC9 controllers compatibility matrix**

PowerEdge systems	R940	R740xd	R740	R640	R540	R440	M640	M640 for VRTX	FC640	T640	T440
PERC H730P adapter	N	Y	Y	Y	Y	Y	N	N	N	Y	Y
PERC H730P mini monolithic	N	Y	Y	Y	N	N	N	N	N	N	N
PERC H730P mini blades	N	N	N	N	N	N	Y	Y	Y	N	N
PERC H730 adapter	N	N	N	N	N	N	N	N	N	N	N
PERC H730 mini monolithic	N	N	N	N	N	N	N	N	N	N	N
PERC H730 mini blades	N	N	N	N	N	N	N	N	N	N	N
PERC H330 adapter	Y	Y	Y	N	Y	Y	N	N	N	Y	Y
PERC H330 mini monolithic	N	Y	Y	Y	N	N	N	N	N	N	N
PERC H330 mini blades	N	N	N	N	N	N	Y	Y	Y	N	N
PERC H830 adapter	N	N	N	N	N	N	N	N	N	N	N
PERC HBA330 adapter	Y	Y	Y	N	Y	Y	N	N	N	Y	Y
PERC HBA330 Mini-Mono	N	Y	Y	Y	N	N	N	N	N	N	N
12 Gbps SAS HBA adapter	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y
FD33xS-PERC	N	N	N	N	N	N	N	N	Y	N	N
FD33xD-PERC	N	N	N	N	N	N	N	N	Y	N	N
Shared PERC8	N	N	N	N	N	N	N	Y	N	N	N
Shared PERC8 External	N	N	N	N	N	N	N	Y	N	N	N

**Table 11. 13<sup>th</sup> generation PowerEdge systems—PERC9 controllers compatibility matrix**

PowerEdge systems	R930	R830	R920	R730	R730xd	R630	R530	R530xd
PERC H730P adapter	Y	Y	Y	Y	N	Y	Y	Y
PERC H730P mini monolithic	N	N	N	Y	Y	Y	Y	Y
PERC H730P mini blades	N	N	N	N	N	N	N	N
PERC H730 adapter	N	Y	N	N	N	Y	Y	Y

**Table 11. 13<sup>th</sup> generation PowerEdge systems—PERC9 controllers compatibility matrix (continued)**

PowerEdge systems	R930	R830	R920	R730	R730xd	R630	R530	R530xd
PERC H730 mini monolithic	N	N	N	Y	Y	Y	Y	Y
PERC H730 mini blades	N	N	N	N	N	N	N	N
PERC H330 adapter	Y	Y	N	N	N	Y	Y	Y
PERC H330 mini monolithic	N	N	N	Y	Y	Y	Y	Y
PERC H330 mini blades	N	N	N	N	N	N	N	N
PERC H830 adapter	Y	Y	N	Y	Y	Y	Y	Y
PERC HBA330 adapter	Y	Y	N	N	N	N	Y	Y
PERC HBA330 Mini-Mono	N	N	N	Y	Y	Y	Y	N
12 Gbps SAS HBA adapter	Y	Y	N	Y	Y	Y	Y	Y
FD33xS-PERC	N	N	N	N	N	N	N	N
FD33xD-PERC	N	N	N	N	N	N	N	N
Shared PERC8	N	N	N	N	N	N	N	N
Shared PERC8 External	N	N	N	N	N	N	N	N

**Table 12. 13<sup>th</sup> generation PowerEdge systems—PERC9 controllers compatibility matrix**

PowerEdge systems	R430	R330	R230	M830	M830 for VRTX	M630	M630 for VRTX
PERC H730P adapter	Y	N	N	N	N	N	N
PERC H730P mini monolithic	Y	N	N	N	N	N	N
PERC H730P mini blades	N	N	N	Y	Y	Y	Y
PERC H730 adapter	Y	Y	Y	N	N	N	N
PERC H730 mini monolithic	Y	N	N	N	N	N	N
PERC H730 mini blades	N	N	N	Y	Y	Y	Y
PERC H330 adapter	Y	Y	Y	N	N	N	N
PERC H330 mini monolithic	Y	N	N	N	N	N	N
PERC H330 mini blades	N	N	N	Y	Y	Y	Y
PERC H830 adapter	Y	Y	Y	N	N	N	N
PERC HBA330 adapter	N	Y	Y	N	N	N	N
PERC HBA330 Mini-Mono	Y	N	N	N	N	N	N
12 Gbps SAS HBA adapter	Y	Y	Y	N	N	N	N
FD33xS-PERC	N	N	N	N	N	N	N
FD33xD-PERC	N	N	N	N	N	N	N
Shared PERC8	N	N	N	N	Y	N	Y
Shared PERC8 External	N	N	N	N	Y	N	Y

**Table 13. 13<sup>th</sup> generation PowerEdge systems—PERC9 controllers compatibility matrix**

<b>PowerEdge systems</b>	<b>T630</b>	<b>T430</b>	<b>T330</b>	<b>T130</b>	<b>FC830</b>	<b>FC630</b>	<b>FC430</b>
PERC H730P adapter	Y	Y	N	N	N	N	N
PERC H730P mini monolithic	N	N	N	N	N	N	N
PERC H730P mini blades	N	N	N	N	Y	Y	N
PERC H730 adapter	Y	Y	Y	Y	N	N	N
PERC H730 mini monolithic	N	N	N	N	N	N	N
PERC H730 mini blades	N	N	N	N	Y	Y	N
PERC H330 adapter	Y	Y	Y	Y	N	N	N
PERC H330 mini monolithic	N	N	N	N	N	N	N
PERC H330 mini blades	N	N	N	N	Y	Y	N
PERC H830 adapter	Y	Y	Y	Y	N	N	N
PERC HBA330 adapter	Y	Y	Y	Y	N	N	N
PERC HBA330 Mini-Mono	N	N	N	N	N	N	N
12 Gbps SAS HBA adapter	Y	Y	Y	Y	N	N	N
FD33xS-PERC	N	N	N	N	Y	Y	Y
FD33xD-PERC	N	N	N	N	Y	Y	Y
Shared PERC8	N	N	N	N	N	N	N
Shared PERC8 External	N	N	N	N	N	N	N

**Table 14. 12<sup>th</sup> generation PowerEdge systems—PERC8 controllers compatibility matrix**

<b>PowerEdge systems</b>	<b>R920</b>	<b>R820</b>	<b>R720XD</b>	<b>R720</b>	<b>R620</b>	<b>R520</b>	<b>R420</b>
PERC H710P adapter	N	Y	Y	Y	Y	N	N
PERC H710P mini monolithic	N	N	Y	Y	Y	Y	N
PERC H710P mini blades	N	N	N	N	N	N	N
PERC H710 adapter	N	Y	N	N	Y	N	N
PERC H710 mini monolithic	N	N	Y	Y	Y	Y	Y
PERC H710 mini blades	N	N	N	N	N	N	N
PERC H310 adapter	N	Y	N	N	Y	Y	Y
PERC H310 mini monolithic	N	N	Y	Y	Y	N	N
PERC H310 mini blades	N	N	N	N	N	N	N
PERC H810	Y	Y	Y	Y	Y	Y	Y
6 Gbps SAS adapter	N	Y	Y	Y	Y	Y	Y
Shared PERC8	N	N	N	N	N	N	N
Shared PERC8 External	N	N	N	N	N	N	N

**Table 15. 12<sup>th</sup> generation PowerEdge systems—PERC8 controllers compatibility matrix**

PowerEdge systems	R320	R220	M820	M820 for VRTX	M620	M620 for VRTX
PERC H710P adapter	N	N	N	N	N	N
PERC H710P mini monolithic	N	N	N	N	N	N
PERC H710P mini blades	N	N	Y	Y	Y	Y
PERC H710 adapter	N	N	N	N	N	N
PERC H710 mini monolithic	Y	N	N	N	N	N
PERC H710 mini blades	N	N	Y	Y	Y	Y
PERC H310 adapter	Y	Y	N	N	N	N
PERC H310 mini monolithic	N	Y	N	N	N	N
PERC H310 mini blades	N	N	Y	Y	Y	Y
PERC H810	Y	N	N	N	N	N
6 Gbps SAS adapter	Y	N	N	N	N	N
Shared PERC8	N	N	N	Y	N	Y
Shared PERC8 External	N	N	N	Y	N	Y

**Table 16. 12<sup>th</sup> generation PowerEdge systems—PERC8 controllers compatibility matrix**

PowerEdge systems	M520	M520 for VRTX	M420	T620	T420	T320
PERC H710P adapter	N	N	N	Y	Y	Y
PERC H710P mini monolithic	N	N	N	N	N	N
PERC H710P mini blades	Y	Y	Y	N	N	N
PERC H710 adapter	N	N	N	Y	Y	Y
PERC H710 mini monolithic	N	N	N	N	N	N
PERC H710 mini blades	Y	Y	Y	N	N	N
PERC H310 adapter	N	N	N	Y	Y	Y
PERC H310 mini monolithic	N	N	N	N	N	N
PERC H310 mini blades	Y	Y	Y	N	N	N
PERC H810	N	N	N	Y	Y	Y
6 Gbps SAS adapter	N	N	N	Y	Y	Y
Shared PERC8	N	Y	N	N	N	N
Shared PERC8 External	N	Y	N	N	N	N

**Table 17. 11<sup>th</sup> generation PowerEdge systems—PERC7 controllers compatibility matrix**

PowerEdge systems	R910	R815	R810	R715	R710	R610	R515	R415
PERC H700 adapter	N	N	N	N	N	N	N	N
PERC H700 integrated	Y	Y	Y	Y	Y	Y	Y	Y
PERC H700 modular 512GB NV	N	N	N	N	N	N	N	N
PERC H800	Y	Y	Y	Y	Y	Y	Y	Y
6 Gbps SAS adapter	Y	Y	Y	Y	Y	Y	Y	Y

**Table 18. 11<sup>th</sup> generation PowerEdge systems—PERC7 controllers compatibility matrix**

<b>PowerEdge systems</b>	<b>M910</b>	<b>M710HD</b>	<b>M710HD</b>	<b>M610x</b>	<b>M610</b>	<b>T710</b>	<b>T610</b>
PERC H700 adapter	N	N	N	N	N	N	N
PERC H700 integrated	N	N	N	N	N	Y	Y
PERC H700 modular 512GB NV	Y	Y	Y	Y	Y	N	N
PERC H800	N	N	N	N	N	Y	Y
6 Gbps SAS adapter	N	N	N	N	N	Y	Y

**Legend**

Y- Supported

N- Not supported

## Dell EMC PowerEdge systems — VMware vCenter Server compatibility matrix

VMware vCenter Server is supported on a limited set of Microsoft Windows operating systems. For more information about supported operating systems, see [vmware.com/support/pubs](http://vmware.com/support/pubs).

For more information about Dell EMC PowerEdge systems compatibility with supported operating systems, see [Dell.com/ossupport](http://Dell.com/ossupport).

## Devices supported for PCIe Pass-Through

**Table 19. Devices supported for Pass-Through**

Server model with BIOS version	Controller model	Firmware version	Guest operating system (OS)	Guest OS Driver name	Driver version used
FC630 (2.0.2)	BCM 57810s	7.12.0	SLES 12 SP1	bnx2x	1.78.19-0
R730 (2.0.2)	Intel X540 Adapter	17.5.10	MS 2012 R2 DC	ixi63x64.sys	3.4.47.2
R730 (2.0.2)	Emulex OneConnect OCe14102-UX-D 2-port PCIe 10GbE CNA	02.00.01	MS 2012 R2 DC	Ocnd64.sys	10.0.430.570
R730 (2.0.2)	Intel X540 Adapter	17.5.10	RHEL 7.2	i40e	1.3.21-k
R730 (2.0.2)	Emulex OneConnect OCe14102-UX-D 2-port PCIe 10GbE CNA	02.00.01	RHEL 7.2	be2net	10.6.0.3r
R730 (2.0.2)	Intel X540 Adapter	17.5.10	SLES 12 SP1	ixgbe	4.0.1-k
R730 (2.0.2)	Emulex OneConnect OCe14102-UX-D 2-port PCIe 10GbE CAN	02.00.01	SLES 12 SP1	be2net	10.6.0.2
M630 for VRTX (2.1.7)	QLE2662 Dual Port FC16 HBA	03.10.07	MS 2012 R2 DC	ql2300i.sys	9.1.11.3
M630 for VRTX (2.1.7)	QLE2662 Dual Port FC16 HBA	03.10.07	RHEL 7.2	qla3xxx	V2.03.00-k5
M630 for VRTX (2.1.7)	QLE2662 Dual Port FC16 HBA	03.10.07	SLES 12 SP1	qla2xxx	8.07.00.18-k

- Legends
  - MS – Microsoft Windows
  - SLES – SUSE Linux Enterprise Server
  - SP – Service Pack
  - RHEL – Red Hat Enterprise Linux

## Devices supported for NVMe PCIe Pass-Through

- Dell Express Flash NVMe XS1715 400 GB PCIe SSD Controller
- Dell Express Flash NVMe XS1715 800 GB PCIe SSD Controller
- Dell Express Flash NVMe XS1715 1.6 TB PCIe SSD Controller
- Dell Express Flash NVMe SM1715 3.2 TB PCIe SSD Controller
- Dell Express Flash NVMe SM1715 3.2 TB PCIe SSD Adapter by Samsung
- Dell Express Flash NVMe SM1715 800 GB PCIe SSD Controller
- Dell Express Flash NVMe SM1715 1.6 TB PCIe SSD Controller

- Dell Express Flash NVMe SM1715 1.6 TB PCIe SSD Adapter by Samsung
- Dell Express Flash NVMe PM1725 800 GB PCIe SSD Controller
- Dell Express Flash NVMe PM1725 1.6 TB PCIe SSD Controller
- Dell Express Flash NVMe PM1725 3.2 TB PCIe SSD Controller
- Dell Express Flash NVMe PM1725 1.6 TB PCIe SSD Adapter by Samsung
- Dell Express Flash NVMe PM1725 3.2 TB PCIe SSD Adapter by Samsung
- Dell Express Flash NVMe PM1725 6.4TB PCIe SSD Adapter by Samsung

\*For more information about known issue with configuring NVMe PCIe Pass-through devices, refer the workaround in *VMware vSphere 6 on Dell EMC PowerEdge system Release Notes* at **Dell.com/support/home**.

# Getting help

## Topics:

- Contacting Dell EMC
- Related information for virtualization solutions
- Documentation resources
- Downloading the drivers and firmware
- Documentation feedback

## Contacting Dell EMC

Dell EMC provides several online and telephone based support and service options. If you do not have an active internet connection, you can find contact information about your purchase invoice, packing slip, bill, or Dell EMC product catalog. Availability varies by country and product, and some services may not be available in your area.

To contact Dell EMC for sales, technical assistance, or customer service issues:

1. Go to [Dell.com/support](http://Dell.com/support).
2. Select your country from the drop-down menu on the lower right corner of the page.
3. For customized support:
  - a. Enter your system Service Tag in the **Enter your Service Tag** field.
  - b. Click **Submit**.  
The support page that lists the various support categories is displayed.
4. For general support:
  - a. Select your product category.
  - b. Select your product segment.
  - c. Select your product.  
The support page that lists the various support categories is displayed.
5. For contact details of Dell EMC Global Technical Support:
  - a. Click **Global Technical Support**.
  - b. The **Contact Technical Support** page is displayed with details to call, chat, or email the Dell EMC Global Technical Support team.

## Related information for virtualization solutions

**Table 20. Related information for virtualization solutions**

If you need information about	See
Dell EMC VMware documentation	<a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
OpenManage documentation	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
PowerEdge documentation	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>
Basic configuration information for running ESXi on a Dell EMC PowerEdge server	Getting Started Guide at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
<ul style="list-style-type: none"> <li>• Information about downloading, installing, and configuring ESXi</li> <li>• Supported hardware configurations for running ESXi on a Dell EMC PowerEdge server</li> </ul>	Installation Instructions and Important Information Guide at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
PowerEdge servers and compatibility with vMotion	<i>VMware ESXi vMotion Support on Dell EMC PowerEdge Servers Compatibility Matrix</i> at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>

**Table 20. Related information for virtualization solutions (continued)**

If you need information about	See
PowerEdge and PowerVault compatibility information for running ESXi	VMware vSphere on Dell EMC PowerEdge Servers Compatibility Matrix at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
Known issues and resolutions	VMware vSphere 6 on Dell EMC PowerEdge Server Release Notes at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
ESXi ISO image customization information	VMware ESXi on Dell EMC PowerEdge Systems Image Customization Information at <a href="http://www.dell.com/virtualizationsolutions">www.dell.com/virtualizationsolutions</a>
UEFI Boot order management utility in VMware ESXi 7.0	<a href="http://www.dell.com/support/article/en-us/sln321019">www.dell.com/support/article/en-us/sln321019</a>
Dell EMC Add-on for VMware vSphere 7.0	<a href="http://www.dell.com/support/article/en-us/sln320956">www.dell.com/support/article/en-us/sln320956</a>
Dell EMC ESXi 7.0 Quick Boot compatibility guide	<a href="http://www.dell.com/support/article/en-us/sln320746">www.dell.com/support/article/en-us/sln320746</a>
VMware vSphere Life Cycle Manager vLCM and Dell EMC integration	<a href="http://downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers3_en-us.pdf">downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers3_en-us.pdf</a>
PVRDMA Deployment and Configuration of QLogic CNA devices in VMware ESXi	<a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper6_en_us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper6_en_us.pdf</a>
Self-Encrypting Drives in Dell EMC PowerEdge servers with VMware vSphere	<a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper7_en_us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper7_en_us.pdf</a>
NVMe Hot-Plug on Dell EMC PowerEdge servers running VMware vSphere or vSAN	<a href="http://downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper9_en_us.pdf">downloads.dell.com/manuals/common/vmware_esxi_6x_7x_whitepaper9_en_us.pdf</a>
Upgrading to Dell EMC vSphere and vSAN version 7.0	<a href="http://downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers8_en-us.pdf">downloads.dell.com/manuals/all-products/esuprt_software_int/esuprt_software_virtualization_solutions/vmware-esxi-7x_white-papers8_en-us.pdf</a>

## Technical support resources

- [vmware.com/support](http://vmware.com/support)
- [www.dell.com/support/home](http://www.dell.com/support/home)
- [Dell.com/services](http://Dell.com/services)

## Discussion forums

- [Communities.vmware.com/community/vmtn](http://Communities.vmware.com/community/vmtn)
- [Dell Virtualization](#)
- [Wikis, Forums, Blogs, and Videos](#)
- [Dell Community](#)

## Knowledge base

- [kb.vmware.com/kb](http://kb.vmware.com/kb)

**i** **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 21. Virtualization videos for Dell EMC PowerEdge servers**

Video title	Links
Downloading the Dell EMC customized ESXi image from support site	<a href="http://www.youtube.com/watch?v=YnVxtkAkYTI">www.youtube.com/watch?v=YnVxtkAkYTI</a>
Downloading Dell EMC customized ESXi image from VMware website	<a href="http://www.youtube.com/watch?v=TnWyuyxuk5k">www.youtube.com/watch?v=TnWyuyxuk5k</a>
Operating system Deployment (VMware ESXi)—Installing Using CD/DVD	<a href="http://www.youtube.com/watch?v=-EbufUS86zA">www.youtube.com/watch?v=-EbufUS86zA</a>
Enabling and Configuring Fault Resilient Memory on Dell EMC PowerEdge servers	<a href="http://www.youtube.com/watch?v=retSh-XlsKO">www.youtube.com/watch?v=retSh-XlsKO</a>
OS Deployment (VMware ESXi)—Installing on BOSS S1 device	<a href="http://www.youtube.com/watch?v=TB1loXpFFME">www.youtube.com/watch?v=TB1loXpFFME</a>
OS Deployment (VMware ESXi)—Installing on IDSDM	<a href="http://www.youtube.com/watch?v=EC-Xntg5mgw">www.youtube.com/watch?v=EC-Xntg5mgw</a>
To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx3x PowerEdge servers	<a href="http://www.youtube.com/watch?v=Ll9qlF9qV9I">www.youtube.com/watch?v=Ll9qlF9qV9I</a>
<b>(i) NOTE: This video is applicable to VMware ESXi 6.5.x and later.</b>	
To enable UEFI Secure Boot on VMware ESXi for Dell EMC's yx4x PowerEdge servers	<a href="http://www.youtube.com/watch?v=ZZB_XyV0enY">www.youtube.com/watch?v=ZZB_XyV0enY</a>
<b>(i) NOTE: This video is applicable to VMware ESXi 6.5.x and later.</b>	

## Documentation resources

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

**Table 22. 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.	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>
	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.	<a href="https://www.dell.com/poweredgemanuals">https://www.dell.com/poweredgemanuals</a>
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> .	<a href="https://www.dell.com/idracmanuals">https://www.dell.com/idracmanuals</a>
	For information about installing the operating system, see operating system documentation.	<a href="https://www.dell.com/operatingsystemmanuals">https://www.dell.com/operatingsystemmanuals</a>
	For information about understanding Remote Access Controller Admin (RACADM) subcommands and supported RACADM interfaces, see the <i>iDRAC RACADM CLI Guide</i> .	<a href="https://www.dell.com/idracmanuals">https://www.dell.com/idracmanuals</a>
	For information about updating drivers and firmware, see	<a href="http://www.dell.com/support/drivers">www.dell.com/support/drivers</a>

**Table 22. 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> .	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
	For information about setting up, using, and troubleshooting OpenManage, see the Dell EMC <i>OpenManage Server Administrator User's Guide</i> .	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
	For information about installing, using, and troubleshooting Dell EMC OpenManage Essentials, go to <a href="http://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a> > <i>OpenManage Essentials User's Guide</i> .	<a href="https://www.dell.com/openmanagemanuals">https://www.dell.com/openmanagemanuals</a>
	For information about installing and using Dell SupportAssist, see the Dell EMC <i>SupportAssist Enterprise User's Guide</i> .	<a href="https://www.dell.com/serviceabilitytools">https://www.dell.com/serviceabilitytools</a>
	For understanding the features of Dell EMC Lifecycle Controller (LC), see the <i>Lifecycle Controller User's Guide</i> .	<a href="https://www.dell.com/idracmanuals">https://www.dell.com/idracmanuals</a>
	For information about partner programs enterprise systems management, see the <i>OpenManage Connections Enterprise Systems Management</i> documents.	<a href="https://www.dell.com/esmmanuals">https://www.dell.com/esmmanuals</a>
	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> .	<a href="https://www.dell.com/esmmanuals">https://www.dell.com/esmmanuals</a>
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.	<a href="http://www.dell.com/storagecontrollermanuals">www.dell.com/storagecontrollermanuals</a>
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	<a href="https://www.dell.com/openmanagemanuals">www.dell.com/openmanagemanuals</a>

**Table 22. Additional documentation resources for your server (continued)**

Task	Document	Location
	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> .	<a href="https://www.dell.com/poweredge manuals">https://www.dell.com/poweredge manuals</a>
Configuring Dell PowerEdge VRTX shared storage for VMware vSphere environment	For information on configuring Dell PowerEdge VRTX shared storage for VMware vSphere environment, see Dell EMC White papers.	<a href="#">Configuring Dell PowerEdge VRTX shared storage for VMware vSphere Environment</a>

## Downloading the drivers and firmware

Dell EMC recommends 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 [Dell.com/support/drivers](https://www.dell.com/support/drivers).
2. Under the **Drivers & Downloads** section, type the Service Tag of your system in the **Enter a Service Tag** box, and then click **Submit**.  
 **NOTE:** If you do not have the Service Tag, select Detect PC to allow the system to automatically detect your Service Tag, or under General support, navigate to your product.
3. Click **Drivers & Downloads**.  
The drivers that are applicable to your selection are displayed.
4. Download the drivers to a USB drive, CD, or DVD.

## 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.