

# Dell EMC Storage Enclosure Support 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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# Introduction

When you use an enclosure for server expansion, and connect the enclosure to servers or other enclosures, it is known as a storage enclosure. This document provides information about supported software, firmware, and hardware for Dell EMC Storage when used as a storage enclosure.

**NOTE:** This Support Matrix contains the latest compatibility and interoperability information. This document supersedes all other documentation information.

# Dell EMC Storage enclosure rules

This section provides information about the rules to be followed for the Dell EMC Storage enclosures.

**Table 1. Dell EMC Storage enclosure rules**

Components	Dell EMC Storage MD1280
Maximum number of servers:	✓
<ul style="list-style-type: none"> <li>• 1 Windows server</li> <li>• 1 Linux server</li> </ul>	
Maximum SAS cable length	4 m
Maximum number of I/O cards per server	2
Maximum supported JBODs per I/O Card	2
Minimum drive count	28
Maximum supported SSD count	28
Recommended Linux Multipath Policy. (On Linux systems, Device Mapper Multipath is required with multipath configurations.)	Failover
Recommended Windows failover policy. (On Windows systems MPIO is required with multipath configurations.)	Failover-only

## After point of sale

This section provides rule details when adding drives to Dell EMC Storage enclosures after purchase.

You can add drives ordered after point of sale as customer kits in increments of 14.

The rules are as follows:

- Each row with drives installed must be filled entirely (14 drives).
- Top and Bottom drawers must have rows filled evenly, within a count of 1.
  - Top Drawer with 1 row filled and bottom drawer with 1 row filled (minimum configuration).
  - Top Drawer with 2 rows filled and bottom drawer with 1 row filled.
  - Top Drawer with 2 rows filled and bottom drawer with 2 rows filled.
- All spinning drives in the same row must have the same rotational speed.
- An individual row can have spinning drives with a different rotational speed than another row.
- Spinning drives and SSDs can be mixed within a row.
- Drive capacities can be mixed within a row of 14 drives for both spinning drives and SSDs.

## Management tools statement

In supported server direct attach environments, the Dell EMC Storage MD1280 is managed by management software tools in the Operating Systems. The Dell EMC Storage MD1280 is not integrated with Dell EMC OpenManage or the Dell EMC Remote Access Controller (iDRAC) and may require changes to customer systems management methods. Refer to the Dell EMC Storage MD1280 Deployment Guide for further information regarding Storage Enclosure Management Software.

# Supported enclosure firmware

This section provides information about supported storage enclosure firmware.

Dell EMC Storage enclosures have two Enclosure Management Modules (EMMs). You must have both EMMs at the same firmware level and upgrade each EMM individually. EMMs do not automatically synchronize firmware versions.

**Table 2. Storage enclosure firmware**

<b>Enclosure model</b>	<b>Firmware version</b>
Dell EMC Storage MD1280	3.4

# Supported operating systems

This section provides information about supported Operating Systems (OS) for Dell EMC Storage enclosures.

If the OS supports clustering then the Dell EMC Storage enclosure also supports clustering.

**Table 3. Supported OS**

Operating system	SAS host server	Notes
<b>Windows</b>		
Windows Server 2012 R2 Standard Server and Core	✓	Ensure you apply the latest OS updates.
Windows Server 2012 R2 Datacenter Server and Core	✓	Ensure you apply the latest OS updates.
<b>Linux</b>		
Red Hat Enterprise Linux 7.0	✓	Ensure you apply the latest OS updates.
Red Hat Enterprise Linux 6.5	✓	Ensure you apply the latest OS updates.



## Supported SAS host I/O adapters

This section describes about the supported SAS host I/O adapters.

The following host I/O adapters are supported with the Dell EMC storage enclosures:

- LSI 9207-8e SAS host I/O adapters (for Dell EMC PowerEdge 12th and 13th generation servers)

### **NOTE:**

- For downloading the supported host I/O adapters drivers and firmware, see [Dell.com/support](https://www.dell.com/support).
- For downloading the supported RAID drivers and firmware, see the LSI support website.

**Table 4. Supported host I/O adapters**

LSI model	LSI Version	Driver	Driver firmware version
9207-8e	20.00.00.00 and later	Windows driver	2.069.1
		RHEL driver	18.00.00.00-1

## Supported Dell EMC servers

The following are the supported Dell EMC servers having maximum of two host I/O adapters for each server.

- Dell EMC PowerEdge R630
- Dell EMC PowerEdge R730
- Dell EMC PowerEdge R730XD
- Dell EMC PowerEdge R620
- Dell EMC PowerEdge R720
- Dell EMC PowerEdge R720XD

 **NOTE: The 14th generation of Dell EMC PowerEdge servers are not supported.**

## Supported physical disk drives

This section provides information about supported physical disks.

For information about latest available physical disk drive firmware, see the specific Dell EMC storage enclosure Drivers and Downloads section available at [Dell.com/support](http://Dell.com/support).

**Table 5. Supported physical disk drive models for the Dell EMC Storage MD1280**

Dell P/N	Form Factor	Model	Capacity	Speed	Sector	Vendor	Firmware	SED
8Y64H	2.5"	MZILS480HEGR0D3	480GB	SSD	512e	Samsung	DSL7	No
7FNRX	2.5"	MZILS960HEHP0D3	960GB	SSD	512e	Samsung	DSL7	No
086DD	2.5"	MZILS1T9HEJH0D3	1.92TB	SSD	512e	Samsung	DSL7	No
JR1HP	2.5"	MZILS3T8HMLH0D3	3.84TB	SSD	512e	Samsung	DSL7	No
D9NCK	2.5"	MZILT960HAHQ0D3	800GB	SSD	512e	Samsung	DWF8	No
DR0HX	2.5"	MZILT1T9HAJQ0D3	1.6TB	SSD	512e	Samsung	DWF8	No
5H9RV	2.5"	MZILT3T8HALS0D3	3.2TB	SSD	512e	Samsung	DWF8	No
R1ND2	2.5"	MZILT800HAHQ0D3	960GB	SSD	512e	Samsung	DSF8	No
F0V FY	2.5"	MZILT1T6HAJQ0D3	1.92TB	SSD	512e	Samsung	DSF8	No
X8F87	2.5"	MZILT3T2HALS0D3	3.84TB	SSD	512e	Samsung	DSF8	No
GM5R3	2.5"	PX04SMB040	400GB	SSD	512n	Toshiba	AM07	No
M91TJ	2.5"	PX04SMB080	800GB	SSD	512n	Toshiba	AM07	No
77K16	2.5"	PX04SMB160	1.6TB	SSD	512n	Toshiba	AM07	No
RVCY3	2.5"	PX04SHB080	800GB	SSD	512n	Toshiba	AM07	No
43PCJ	2.5"	PX05SVB048Y	480GB	SSD	512n	Toshiba	ASOE	No
503M7	2.5"	PX05SVB096Y	960GB	SSD	512n	Toshiba	ASOE	No
V0K7V	2.5"	PX05SVB192Y	1.92TB	SSD	512n	Toshiba	ASOE	No
3DDFT	2.5"	PX05SVB384Y	3.84TB	SSD	512n	Toshiba	ASOE	No
5VHHG	2.5"	PX05SMB040Y	400GB	SSD	512n	Toshiba	ASOE	No
CN3JH	2.5"	PX05SMB080Y	800GB	SSD	512n	Toshiba	ASOE	No
GVTYD	2.5"	PX05SMB160Y	1.6TB	SSD	512n	Toshiba	ASOE	No
3PR5C	2.5"	KPM5XVUG480G	480GB	SSD	512e	Toshiba	B018	No
WFGTH	2.5"	KPM5XVUG960G	960GB	SSD	512e	Toshiba	B018	No
2WVYG	2.5"	KPM5XVUG1T92	1.92TB	SSD	512e	Toshiba	B018	No
91W3V	2.5"	KPM5XVUG3T84	3.84TB	SSD	512e	Toshiba	B018	No
VH6FW	3.5"	HUS726020ALS210	2TB	7.2K	512e	HGST	KU27	No

Dell P/N	Form Factor	Model	Capacity	Speed	Sector	Vendor	Firmware	SED
X4FKY	3.5"	HUS726040ALS210	4TB	7.2K	512e	HGST	KU27	No
PYM8J	3.5"	HUS726060AL5214	6TB	7.2K	512e	HGST	KK34	No
X85RH	3.5"	HUS726060AL4214	6TB	7.2K	4Kn	HGST	KK34	No
43V7V	3.5"	HUH728080AL5204	8TB	7.2K	512e	HGST	GK23	No
KRDKK	3.5"	HUH721008AL5200	8TB	7.2K	512e	HGST	LS15	No
07FPR	3.5"	HUH721010AL5200	10TB	7.2K	512e	HGST	LS15	No
CDDMJ	3.5"	HUH721008AL4200	8TB	7.2K	4Kn	HGST	LS15	No
YG2KH	3.5"	HUH721010AL4200	10TB	7.2K	4Kn	HGST	LS15	No
THPV0	3.5"	HUH721212AL4200	12TB	7.2K	4Kn	HGST	NS01	No
NT1X2	3.5"	HUS726T4TALS200	4TB	7.2K	512n	HGST	PU01	No
XDN2G	3.5"	HUS726T6TAL5200	6TB	7.2K	512e	HGST	PS02	No
44YFV	3.5"	HUS728T8TAL5200	8TB	7.2K	512n	HGST	RS01	No
05WTN	3.5"	HUS728T8TAL4200	8TB	7.2K	4Kn	HGST	RS01	No
529FG	3.5"	ST4000NM0023	4TB	7.2K	512n	Seagate	GS15	No
NWCCG	3.5"	ST6000NM0034	6TB	7.2K	512e	Seagate	MS2E	No
PRNR6	3.5"	ST6000NM0034	6TB	7.2K	512e	Seagate	MS85	No
VRKN7	3.5"	ST6000NM0014	6TB	7.2K	4Kn	Seagate	MSA5	No
7RCGV	3.5"	ST2000NM0155	2TB	7.2K	512n	Seagate	DT31	No
5JH5X	3.5"	ST4000NM0295	4TB	7.2K	512n	Seagate	DT31	No
RHVWG	3.5"	ST6000NM0095	6TB	7.2K	512e	Seagate	DS23	No
R69WP	3.5"	ST6000NM0105	6TB	7.2K	4Kn	Seagate	DS43	No
GKWHP	3.5"	ST8000NM0075	8TB	7.2K	512e	Seagate	PS26	No
M40TH	3.5"	ST8000NM0185	8TB	7.2K	512e	Seagate	PT51	No
KNYW0	3.5"	ST8000NM0195	8TB	7.2K	4Kn	Seagate	PT71	No
PDFHC	3.5"	ST8000NM0135	8TB	7.2K	512e	Seagate	PSE4	Yes
YF87J	3.5"	ST10000NM0256	10TB	7.2K	512e	Seagate	TT54	No
HHX14	3.5"	MG04SCA20ENY	2TB	7.2K	512n	Toshiba	EG03	No
1MVTT	3.5"	MG04SCA40ENY	4TB	7.2K	512n	Toshiba	EG03	No
HNX0W	3.5"	MG04SCA40EN	4TB	7.2K	512n	Toshiba	DJ01	No
3PRF0	3.5"	MG04SCA60EE	6TB	7.2K	512e	Toshiba	DR07	No
71JD0	3.5"	MG04SCA60EA	6TB	7.2K	4Kn	Toshiba	DQ07	No