

Dell EMC PowerVault MD12XX 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 an enclosure is used for server expansion and is connected to servers, RAID array expansions or other enclosures, it is referred to as a storage enclosure. This document provides information about supported software, firmware, and hardware for Dell Storage MD1200 or MD1220 when used as a storage enclosure.

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

Topics:

- [Changes in version A08](#)

Changes in version A08

- Added the Dell Shared PERC 8 controller to the list of supported controllers

Dell EMC storage enclosure rules

This section contains consideration rules for the Dell EMC Storage enclosures.

Table 1. Dell EMC Storage Enclosure Rules

Components	Dell EMC Storage MD1200	Dell EMC Storage MD1220
Maximum number of servers	2	2
Maximum SAS cable length (mini SAS)	4 m	4 m
Maximum number of Dell EMC Storage enclosures in a chain	4	4
Maximum number of drives in a storage enclosure	12	24
Maximum number of enclosures for MD34XX/MD38XX RBOD*	15	7

Maximum of 192 drives are supported with premium feature key activation. For a system without premium features activation, the physical disk drive limit is 120.

Supported storage enclosure firmware

When using MD1200/MD1220 Storage enclosures, Dell EMC recommends two Enclosure Management Modules (EMMs) when in a JBOD environment directly connected to a server using a PERC controller. When connected to a RBOD MD3 array or daisy-chained to another MD1200/MD1220, a dual-EMM configuration is required.

Both EMMs must be running the same firmware versions. EMMs do not automatically synchronize firmware versions, you must update each EMM individually.

Table 2. Storage Enclosure Management Module Firmware Release History

Firmware Version	Release Date	Fixes and Enhancements
1.06, A01	4-Feb-16	• Optimize communication between EMMs • Improve two wire interface handling • Modify SES Page 07 h response to correct oversize page request boundary case.
1.05, A00	14-Apr-14	DUP packaging change
1.01, A00	21-Feb-13	• Initial release • Earliest required firmware version

Supported controllers

The following controllers are supported with the Dell EMC MD12XX storage enclosures:

- Dell EMC PERC H800 (for 11th generation of Dell EMC PowerEdge servers)
- Dell EMC PERC H810 (for 12th generation of Dell EMC PowerEdge servers)
- Dell EMC 6 Gbps SAS HBA (for 12th generation of Dell EMC PowerEdge servers)
- Dell Shared PERC 8 (for 12th and 13th generation of Dell EMC PowerEdge VRTX servers)

Supported HBA drivers and firmware can be obtained from the Dell EMC Support website: <https://www.dell.com/support/>

To determine if the preceding controllers are supported for specific host servers, go to the Dell EMC PowerEdge RAID Controller website: <https://www.dell.com/support/article/us/en/04/sln292279/list-of-poweredge-raid-controller-perc-types-for-dell-emc-systems>

i NOTE: If you are migrating to a 13th generation server from a 12th generation server with MD1200/MD1220 JBOD enclosures and PERC H810 controllers, you have support for controller and JBOD data migration. However, you do not have support for Dell EMC's 13G systems and storage management applications. Configuration and management of the H810 controller in 13G servers must rely on the preboot utility Ctrl-R and the PERC CLI utility. The PERC H810 is not available at Point-of-Sale for 13th generation servers. The PERC H800 has reached end-of-life and is no longer available for purchase.

Supported Dell EMC RBODs

Table 3. Supported Dell EMC RBODs

Model	Maximum enclosures	Enclosure
Dell EMC Storage MD3400	15 (192 drives)	MD1200
Dell EMC Storage MD3800i	15 (192 drives)	MD1200
Dell EMC Storage MD3800f	15 (192 drives)	MD1200
Dell EMC Storage MD3420	7 (192 drives)	MD1220
Dell EMC Storage MD3820i	7 (192 drives)	MD1220
Dell EMC Storage MD3820f	7 (192 drives)	MD1220

Supported physical disk drives

Refer to the specific Dell EMC storage enclosure Drivers and Downloads section on support.dell.com for the latest available physical disk firmware.

NOTE:

- Drives with 12 GBps interface speed down-train to 6 GBps when installed in the enclosure. The following are not supported on MD1200/MD1220 enclosures:
- 4Kn sector size
- Encrypted SSD drives (SED-SSD)
- Dell EMC recommends that RAID 10 must not be used with 8 TB drives or larger because of extended rebuild or reconstruct time requirements when dealing with larger drives. RAID 6 is recommended for these very large capacity drives.

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
MFC6G	2.5"	MZILS400HEGR0D3	400GB	SSD	Samsung	No	DWL7
HF06W	2.5"	MZILS800HEHP0D3	800GB	SSD	Samsung	No	DWL7
W5PP5	2.5"	MZILS1T6HEJH0D3	1.6TB	SSD	Samsung	No	DWL7
8RC8K	2.5"	MZILS3T2HMLH0D3	3.2TB	SSD	Samsung	No	DWL7
8Y64H	2.5"	MZILS480HEGR0D3	480GB	SSD	Samsung	No	DSL7
7FNRX	2.5"	MZILS960HEHP0D3	960GB	SSD	Samsung	No	DSL7
086DD	2.5"	MZILS1T9HEJH0D3	1.92TB	SSD	Samsung	No	DSL7
JR1HP	2.5"	MZILS3T8HMLH0D3	3.84TB	SSD	Samsung	No	DSL7
D9NCK	2.5"	MZILT960HAHQ0D3	800GB	SSD	Samsung	No	DWF8
DR0HX	2.5"	MZILT1T9HAJQ0D3	1.6TB	SSD	Samsung	No	DWF8
5H9RV	2.5"	MZILT3T8HALS0D3	3.2TB	SSD	Samsung	No	DWF8
R1ND2	2.5"	MZILT800HAHQ0D3	960GB	SSD	Samsung	No	DSF8
F0V FY	2.5"	MZILT1T6HAJQ0D3	1.92TB	SSD	Samsung	No	DSF8
X8F87	2.5"	MZILT3T2HALS0D3	3.84TB	SSD	Samsung	No	DSF8
X1MCH	2.5"	LB150S	149 GB	SSD	Pliant (SanDisk)	No	D012
6R5R8	2.5"	LB206M	200 GB	SSD	Pliant (SanDisk)	No	D339
8C38W	2.5"	LB406M	400 GB	SSD	Pliant (SanDisk)	No	D339
DPF1J	2.5"	LB806M	800 GB	SSD	Pliant (SanDisk)	No	D339
D3K4J	2.5"	LB406R	400 GB	SSD	Pliant (SanDisk)	No	D339
5Y05N	2.5"	LB806R	800 GB	SSD	Pliant (SanDisk)	No	D339
F06P1	2.5"	LB1606R	1.6 TB	SSD	Pliant (SanDisk)	No	D339
TPWNJ	2.5"	LB206S	200 GB	SSD	Pliant (SanDisk)	No	D339
8NW1H	2.5"	LB406S	400 GB	SSD	Pliant (SanDisk)	No	D339

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
2XR0K	2.5"	LT0200MO	200 GB	SSD	SanDisk	No	D416
C06VX	2.5"	LT0400MO	400 GB	SSD	SanDisk	No	D416
989R8	2.5"	LT0800MO	800 GB	SSD	SanDisk	No	D416
JDTGX	2.5"	LT1600MO	1.6 TB	SSD	SanDisk	No	D416
J19XM	2.5"	LT0800RO	800 GB	SSD	SanDisk	No	D416
2M61G	2.5"	LT1600RO	1.6 TB	SSD	SanDisk	No	D416
M7KYX	2.5"	LT0200WM	200 GB	SSD	SanDisk	No	D416
T2TPF	2.5"	LT0400WM	400 GB	SSD	SanDisk	No	D416
FHFNJ	2.5"	LT0800WM	800 GB	SSD	SanDisk	No	D416
MFC6G	2.5"	MZILS400HEGR0D3	400 GB	SSD	Samsung	No	DWL7
HF06W	2.5"	MZILS800HEHP0D3	800 GB	SSD	Samsung	No	DWL7
W5PP5	2.5"	MZILS1T6HEJH0D3	1.6 TB	SSD	Samsung	No	DWL7
8RC8K	2.5"	MZILS3T2HMLH0D3	3.2 TB	SSD	Samsung	No	DWL7
8Y64H	2.5"	MZILS480HEGR0D3	480 GB	SSD	Samsung	No	DSL7
7FNRX	2.5"	MZILS960HEHP0D3	960 GB	SSD	Samsung	No	DSL7
086DD	2.5"	MZILS1T9HEJH0D3	1.92 TB	SSD	Samsung	No	DSL7
JR1HP	2.5"	MZILS3T8HMLH0D3	3.84 TB	SSD	Samsung	No	DSL7
R1ND2	2.5"	MZILT960HAHQ0D3	960 GB	SSD	Samsung	No	DSF4
F0V FY	2.5"	MZILT1T9HAJQ0D3	1.92 TB	SSD	Samsung	No	DSF4
X8F87	2.5"	MZILT3T8HALS0D3	3.84 TB	SSD	Samsung	No	DSF4
D9NCK	2.5"	MZILT800HAHQ0D3	800 GB	SSD	Samsung	No	DSF4
DR0HX	2.5"	MZILT1T6HAJQ0D3	1.6 TB	SSD	Samsung	No	DSF4
5H9RV	2.5"	MZILT3T2HALS0D3	3.2 TB	SSD	Samsung	No	DSF4
6K55X	2.5"	MK2001GRZB	200 GB	SSD	Toshiba	No	A008
R2PJ7	2.5"	MK4001GRZB	400 GB	SSD	Toshiba	No	A008
K41XJ	2.5"	PX02SMF020	200 GB	SSD	Toshiba	No	A3B3
HKK8C	2.5"	PX02SMF040	400 GB	SSD	Toshiba	No	A3B3
TC2MH	2.5"	PX02SMF080	800 GB	SSD	Toshiba	No	A3B3
G4V45	2.5"	PX02SMB160	1.6 TB	SSD	Toshiba	No	A3B3
CV6W8	2.5"	PX02SSF020	200 GB	SSD	Toshiba	No	A4B3
2H9WV	2.5"	PX02SSF040	400 GB	SSD	Toshiba	No	A4B3
PG19T	2.5"	PX02SSB080	800 GB	SSD	Toshiba	No	A4B3
N9PTK	2.5"	PX03SNF080	800 GB	SSD	Toshiba	No	A5B3
0MXR2	2.5"	PX03SNB160	1.6 TB	SSD	Toshiba	No	A5B3
GM5R3	2.5"	PX04SMB040	400 GB	SSD	Toshiba	No	AM07
M91TJ	2.5"	PX04SMB080	800 GB	SSD	Toshiba	No	AM07
77K16	2.5"	PX04SMB160	1.6 TB	SSD	Toshiba	No	AM07

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
63GYR	2.5"	PX04SMB320	3.2 TB	SSD	Toshiba	No	AM07
N5Y85	2.5"	PX04SVB048	480 GB	SSD	Toshiba	No	AM07
YYC10	2.5"	PX04SVB096	960 GB	SSD	Toshiba	No	AM07
4XC39	2.5"	PX04SVB192	1.92 TB	SSD	Toshiba	No	AM07
GYMY9	2.5"	PX04SVB384	3.84 TB	SSD	Toshiba	No	AM07
06VJ7	2.5"	PX04SRB048	480 GB	SSD	Toshiba	No	AM07
4KG4X	2.5"	PX04SRB096	960 GB	SSD	Toshiba	No	AM07
R87FK	2.5"	PX04SRB192	1.92 TB	SSD	Toshiba	No	AM07
M09K5	2.5"	PX04SRB384	3.84 TB	SSD	Toshiba	No	AM07
HPNDJ	2.5"	PX04SHB020	200 GB	SSD	Toshiba	No	AM07
YT53C	2.5"	PX04SHB040	400 GB	SSD	Toshiba	No	AM07
RVCY3	2.5"	PX04SHB080	800 GB	SSD	Toshiba	No	AM07
Y9VX5	2.5"	PX04SHB160	1.6 TB	SSD	Toshiba	No	AM07
43PCJ	2.5"	PX05SVB048Y	480 GB	SSD	Toshiba	No	AS0C
503M7	2.5"	PX05SVB096Y	960 GB	SSD	Toshiba	No	AS0C
V0K7V	2.5"	PX05SVB192Y	1.92 TB	SSD	Toshiba	No	AS0C
3DDFT	2.5"	PX05SVB384Y	3.84 TB	SSD	Toshiba	No	AS0C
JG XK2	2.5"	PX05SRB048Y	480 GB	SSD	Toshiba	No	AS0C
MW GK7	2.5"	PX05SRB096Y	960 GB	SSD	Toshiba	No	AS0C
0FYFW	2.5"	PX05SRB192Y	1.92 TB	SSD	Toshiba	No	AS0C
XCRDV	2.5"	PX05SRB384Y	3.84 TB	SSD	Toshiba	No	AS0C
5VHHG	2.5"	PX05SMB040Y	400 GB	SSD	Toshiba	No	AS0C
CN3JH	2.5"	PX05SMB080Y	800 GB	SSD	Toshiba	No	AS0C
GVTYD	2.5"	PX05SMB160Y	1.6 TB	SSD	Toshiba	No	AS0C
R1YFC	2.5"	PX05SMB320Y	3.2 TB	SSD	Toshiba	No	AS0C
X143K	2.5"	MBD2147RC	146 GB	10 K	Fujitsu	No	D80A
U706K	2.5"	MBD2300RC	300 GB	10 K	Fujitsu	No	D80A
R727K	2.5"	MBE2073RC	73 GB	15 K	Fujitsu	No	D906
W328K	2.5"	MBE2147RC	146 GB	15 K	Fujitsu	No	D906
T6TWN	2.5"	HUC101212CSS600	1.2 TB	10 K	HGST	No	U5E2
K9VCF	2.5"	HUC101830CSS204	300 GB	10 K	HGST	No	FJ34
10DR3	2.5"	HUC101860CSS204	600 GB	10 K	HGST	No	FJ34
87GNY	2.5"	HUC101812CSS204	1.2 TB	10 K	HGST	No	FJ34
RF9T8	2.5"	HUC101818CS4204	1.8 TB	10 K	HGST	No	FK23
VTHDD	2.5"	HUC101818CS4204	1.8 TB	10 K	HGST	No	FK23
RDKH0	2.5"	HUC101830CSS204	300 GB	10 K	HGST	No	FJ34
P6GJX	2.5"	HUC101860CSS204	600 GB	10 K	HGST	No	FJ34

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
9XNF6	2.5"	HUC101812CSS204	1.2 TB	10 K	HGST	No	FJ34
5VNKK	2.5"	HUC101830CSS200	300 GB	10 K	HGST	No	FU29
6DWVP	2.5"	HUC101860CSS200	600 GB	10 K	HGST	No	FU29
0KV02	2.5"	HUC101812CSS200	1.2 TB	10 K	HGST	No	FU29
851GV	2.5"	HUC156030CSS204	300 GB	15 K	HGST	No	EJ24
4J5P1	2.5"	HUC156060CSS204	600 GB	15 K	HGST	No	EJ24
0N0T4	2.5"	HUC156030CSS204	300 GB	15 K	HGST	No	EJ24
TRCN6	2.5"	HUC156060CSS204	600 GB	15 K	HGST	No	EJ24
1P08J	2.5"	HUC156030CSS200	300 GB	15 K	HGST	No	EU29
5PNGD	2.5"	HUC156060CSS200	600 GB	15 K	HGST	No	EU29
T855K	2.5"	HUC103014CSS600	146 GB	10 K	Hitachi	No	J516
U709K	2.5"	HUC103030CSS600	300 GB	10 K	Hitachi	No	J516
YJ0GR	2.5"	HUC106030CSS600	300 GB	10 K	Hitachi	No	A440
8WP8W	2.5"	HUC106060CSS600	600 GB	10 K	Hitachi	No	A440
CXF82	2.5"	HUC109030CSS600	300 GB	10 K	Hitachi	No	N440
G76RF	2.5"	HUC109060CSS600	600 GB	10 K	Hitachi	No	N440
H5WGN	2.5"	HUC109090CSS600	900 GB	10 K	Hitachi	No	N440
R730K	2.5"	HUC151473CSS600	73 GB	15 K	Hitachi	No	K774
W330K	2.5"	HUC151414CSS600	146 GB	15 K	Hitachi	No	K774
745GC	2.5"	ST9300605SS	300 GB	10 K	Seagate	No	CS0C
R72NV	2.5"	ST9600205SS	600 GB	10 K	Seagate	No	CS0C
8JRN4	2.5"	ST9900805SS	900 GB	10 K	Seagate	No	CS0C
XRRVX	2.5"	ST9900605SS	900 GB	10 K	Seagate	Yes	CSFB
7T0DW	2.5"	ST9600204SS	600 GB	10 K	Seagate	No	FM0C
8MP93	2.5"	ST9600104SS	600 GB	10 K	Seagate	Yes	FMF5
X160K	2.5"	ST9146803SS	146 GB	10 K	Seagate	No	FS66
T871K	2.5"	ST9300603SS	300 GB	10 K	Seagate	No	FS66
148J7	2.5"	ST9300503SS	300 GB	10 K	Seagate	Yes	FSF9
PGHJG	2.5"	ST300MM0006	300 GB	10 K	Seagate	No	LS0C
7YX58	2.5"	ST600MM0006	600 GB	10 K	Seagate	No	LS0C
2RR9T	2.5"	ST900MM0006	900 GB	10 K	Seagate	No	LS0C
TNX32	2.5"	ST900MM0036	900 GB	10 K	Seagate	Yes	LSF7
3P3DF	2.5"	ST900MM0007	900 GB	10 K	Seagate	No	IS06
RMCP3	2.5"	ST1200MM0007	1.2 TB	10 K	Seagate	No	IS06
4RYFR	2.5"	ST1200MM0027	1.2 TB	10 K	Seagate	Yes	ISF5
W345K	2.5"	ST973452SS	73 GB	15 K	Seagate	No	HT66
X162K	2.5"	ST9146852SS	146 GB	15 K	Seagate	No	HT66

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
89TH4	2.5"	ST9146752SS	146 GB	15 K	Seagate	Yes	HTF6
YJ2KH	2.5"	ST300MM0088	300 GB	15 K	Seagate	No	TT31
R95FV	2.5"	ST600MM0088	600 GB	15 K	Seagate	No	TT31
WXPCX	2.5"	ST1200MM0088	1.2 TB	15 K	Seagate	No	TT31
NCT9F	2.5"	ST300MP0026	300 GB	15 K	Seagate	No	KT37
FPW68	2.5"	ST600MP0036	600 GB	15 K	Seagate	No	KT37
XTH17	2.5"	ST900MP0026	900 GB	15 K	Seagate	No	KT37
N9WXC	2.5"	ST900MP0126	900 GB	15 K	Seagate	Yes	KSC6
RT8MY	2.5"	DL900MP0136	900 GB	15 K	Seagate	No	KT55
V2KWT	2.5"	ST1200MM0108	1.2 TB	10 K	Seagate	Yes	TSC9
43N12	2.5"	ST1800MM0018	1.8 TB	10 K	Seagate	No	TS27
WHR0G	2.5"	ST1800MM0078	1.8 TB	10 K	Seagate	Yes	TSE1
VJ7CD	2.5"	ST1800MM0168	1.8 TB	10 K	Seagate	No	2S24
2M5JK	2.5"	ST300MM0078	300 GB	10 K	Seagate	No	BS04
D1F14	2.5"	ST600MM0238	600 GB	10 K	Seagate	No	BS04
FR6W6	2.5"	ST1200MM0198	1.2 TB	10 K	Seagate	No	UT71
RVDCJ	2.5"	ST1800MM0198	1.8 TB	10 K	Seagate	No	2T51
JY57X	2.5"	DL1800MM0159	1.8 TB	10 K	Seagate	No	ST51
XXTRP	2.5"	ST600MM0069	600 GB	10 K	Seagate	No	ST31
G2G54	2.5"	ST1200MM0099	1.2 TB	10 K	Seagate	No	ST31
DMP3R	2.5"	ST1200MM0069	1.2 TB	10 K	Seagate	Yes	SSC1
7FJW4	2.5"	ST300MP0005	300 GB	15 K	Seagate	No	VT33
4HGTJ	2.5"	ST600MP0005	600 GB	15 K	Seagate	No	VT33
4X0XG	2.5"	ST600MP0025	600 GB	15 K	Seagate	Yes	VSC6
61XPF	2.5"	ST9146853SS	146 GB	15 K	Seagate	No	YS0D
H8DVC	2.5"	ST9300653SS	300 GB	15 K	Seagate	No	YS0D
81N2C	2.5"	ST9300453SS	300 GB	15 K	Seagate	Yes	YSFD
55RMX	2.5"	ST91000640SS	1 TB	7.2 K	Seagate	No	AS0D
9W5WV	2.5"	ST9500620SS	500 GB	7.2 K	Seagate	No	AS0D
XKGH0	2.5"	ST91000642SS	1 TB	7.2 K	Seagate	Yes	ASFE
R734K	2.5"	ST9500430SS	500 GB	7.2 K	Seagate	No	DS67
NV0G9	2.5"	ST9500431SS	500 GB	7.2 K	Seagate	Yes	DSF4
XY986	2.5"	ST2000NX0273	2 TB	7.2 K	Seagate	No	NS29
56M6W	2.5"	ST1000NX0453	1 TB	7.2 K	Seagate	No	NS02
FVX7C	2.5"	ST2000NX0433	2 TB	7.2 K	Seagate	No	NS02
Y6W8N	2.5"	ST2000NX0453	2 TB	7.2 K	Seagate	Yes	NSF1
D4N7V	2.5"	ST1000NX0473	1 TB	7.2 K	Seagate	No	NT31

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
TMVN7	2.5"	ST2000NX0463	2 TB	7.2 K	Seagate	No	NT31
740Y7	2.5"	MBF2300RC	300 GB	10 K	Toshiba	No	DA0B
5R6CX	2.5"	MBF2600RC	600 GB	10 K	Toshiba	No	DA0B
MTV7G	2.5"	AL13SEB300	300 GB	10 K	Toshiba	No	DE11
5TFDD	2.5"	AL13SEB600	600 GB	10 K	Toshiba	No	DE11
RC34W	2.5"	AL13SEB900	900 GB	10 K	Toshiba	No	DE11
GP3FR	2.5"	AL14SEB18EQ	1.8 TB	10 K	Toshiba	No	DN03
2TRM4	2.5"	AL14SEB18EQY	1.8 TB	10 K	Toshiba	No	EB02
3NkW7	2.5"	AL14SEB030N	300 GB	10 K	Toshiba	No	DM06
453KG	2.5"	AL14SEB060N	600 GB	10 K	Toshiba	No	DM06
N9VVV	2.5"	AL14SEB090N	900 GB	10 K	Toshiba	No	DM06
89D42	2.5"	AL14SEB120N	1.2 TB	10 K	Toshiba	No	DM06
KT5V6	2.5"	AL14SEB030N	300 GB	10 K	Toshiba	No	DH01
GTYCR	2.5"	AL14SEB060N	600 GB	10 K	Toshiba	No	DH01
R0MWH	2.5"	AL14SEB120N	1.2 TB	10 K	Toshiba	No	DH01
FF02R	2.5"	AL14SEB030NY	300 GB	10 K	Toshiba	No	EA04
G3MWJ	2.5"	AL14SEB060NY	600 GB	10 K	Toshiba	No	EA04
3K30N	2.5"	AL14SEB120NY	1.2 TB	10 K	Toshiba	No	EA04
6DFD8	2.5"	MK1401GRRB	146 GB	15 K	Toshiba	No	DB08
NWH7V	2.5"	MK3001GRRB	300 GB	15 K	Toshiba	No	DB08
4GN49	2.5"	AL13SXB300N	300 GB	15 K	Toshiba	No	DF0B
990FD	2.5"	AL13SXB600N	600 GB	15 K	Toshiba	No	DF0B
0RVDT	2.5"	AL13SXB30EN	300 GB	15 K	Toshiba	No	DK05
DYDW0	2.5"	AL13SXB60EN	600 GB	15 K	Toshiba	No	DK05
YFKXK	2.5"	AL13SXB30ENY	300 GB	15 K	Toshiba	No	EC02
GK6JN	2.5"	AL13SXB60ENY	600 GB	15 K	Toshiba	No	EC02
377CF	2.5"	AL14SXB30ENY	300 GB	15 K	Toshiba	No	EE05
1W7HC	2.5"	AL14SXB60ENY	600 GB	15 K	Toshiba	No	EE05
YKT0W	2.5"	AL14SXB90ENY	900 GB	15 K	Toshiba	No	EE05
GWFRY	2.5"	AL15SEB030NY	300 GB	10 K	Toshiba	No	EF03
4WX8Y	2.5"	AL15SEB060NY	600 GB	10 K	Toshiba	No	EF03
01M0D	2.5"	AL15SEB120NY	1.2 TB	10 K	Toshiba	No	EF03
0WRRF	2.5"	AL15SEB18EQY	1.8 TB	10 K	Toshiba	No	EF03
X79H3	2.5"	WD3000BKHG	300 GB	10 K	Western Digital	No	D1VD
C5R62	2.5"	WD6000BKHG	600 GB	10 K	Western Digital	No	D1VD
CWHNN	2.5"	WD3001BKHG	300 GB	10 K	Western Digital	No	D1S6
96G91	2.5"	WD6001BKHG	600 GB	10 K	Western Digital	No	D1S6

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
4X1DR	2.5"	WD9001BKHG	900 GB	10 K	Western Digital	No	D1S6
F9KW8	2.5"	WD3002BKTG	300 GB	10 K	Western Digital	No	D1P3
V1TX2	2.5"	WD6002BKTG	600 GB	10 K	Western Digital	No	D1P3
99NCV	2.5"	WD9002BKTG	900 GB	10 K	Western Digital	No	D1P3
WTJVV	3.5"	HUS724020ALS640	2 TB	7.2 K	HGST	No	W350
MY58D	3.5"	HUS724030ALS640	3 TB	7.2 K	HGST	No	W350
7J9RN	3.5"	HUS724040ALS640	4 TB	7.2 K	HGST	No	W350
XP99D	3.5"	HUS726020ALS214	2 TB	7.2 K	HGST	No	KJ03
TX8WW	3.5"	HUS726040ALS214	4 TB	7.2 K	HGST	No	KJ03
VH6FW	3.5"	HUS726020ALS210	2 TB	7.2 K	HGST	No	KU27
X4FKY	3.5"	HUS726040ALS210	4 TB	7.2 K	HGST	No	KU27
PYM8J	3.5"	HUS726060AL5214	6 TB	7.2 K	HGST	No	KK34
43V7V	3.5"	HUH728080AL5204	8 TB	7.2 K	HGST	No	GK23
KRDKK	3.5"	HUH721008AL5200	8 TB	7.2 K	HGST	No	LS14
07FPR	3.5"	HUH721010AL5200	10 TB	7.2 K	HGST	No	LS14
X150K	3.5"	HUS156030VLS600	300 GB	15 K*	Hitachi	No	E820
T857K	3.5"	HUS156045VLS600	450 GB	15 K*	Hitachi	No	E820
W348K	3.5"	HUS156060VLS600	600 GB	15 K*	Hitachi	No	E820
VYRKH	3.5"	HUS723020ALS640	2 TB	7.2 K	Hitachi	No	M440
CWJ92	3.5"	HUS723030ALS640	3 TB	7.2 K	Hitachi	No	M440
R752K	3.5"	ST3600002SS	600 GB	10 K*	Seagate	No	ER66
M525M	3.5"	ST3300657SS	300 GB	15 K*	Seagate	No	ES68
H995N	3.5"	ST3450857SS	450 GB	15 K*	Seagate	No	ES68
J762N	3.5"	ST3600057SS	600 GB	15 K*	Seagate	No	ES68
D32VD	3.5"	ST3450757SS	450 GB	15 K*	Seagate	Yes	ESF7
5XTFH	3.5"	ST3600957SS	600 GB	15 K*	Seagate	Yes	ESF7
U717K	3.5"	ST3500414SS	500 GB	7.2 K	Seagate	No	KS6B
U738K	3.5"	ST31000424SS	1 TB	7.2 K	Seagate	No	KS6B
R755K	3.5"	ST32000444SS	2 TB	7.2 K	Seagate	No	KS6B
X164K	3.5"	ST31000425SS	1 TB	7.2 K	Seagate	Yes	KSF4
W350K	3.5"	ST32000445SS	2 TB	7.2 K	Seagate	Yes	KSF4
6VNCJ	3.5"	ST500NM0001	500 GB	7.2 K	Seagate	No	PS0B
740YX	3.5"	ST1000NM0001	1 TB	7.2 K	Seagate	No	PS0B
67TMT	3.5"	ST2000NM0001	2 TB	7.2 K	Seagate	No	PS0B
02DK1	3.5"	ST2000NM0041	2 TB	7.2 K	Seagate	Yes	PSF9
1D9NN	3.5"	ST32000645SS	2 TB	7.2 K	Seagate	No	RS17
91K8T	3.5"	ST33000650SS	3 TB	7.2 K	Seagate	No	RS17

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
698PM	3.5"	ST33000652SS	3 TB	7.2 K	Seagate	Yes	RSFF
FNW88	3.5"	ST1000NM0023	1 TB	7.2 K	Seagate	No	GS15
1P7DP	3.5"	ST2000NM0023	2 TB	7.2 K	Seagate	No	GS15
55H49	3.5"	ST3000NM0023	3 TB	7.2 K	Seagate	No	GS15
529FG	3.5"	ST4000NM0023	4 TB	7.2 K	Seagate	No	GS15
6P85J	3.5"	ST4000NM0063	4 TB	7.2 K	Seagate	Yes	GSFB
NWCCG	3.5"	ST6000NM0034	6 TB	7.2 K	Seagate	No	MS2E
PRNR6	3.5"	ST6000NM0034	6 TB	7.2 K	Seagate	No	MS85
GWD7D	3.5"	ST1000NM0005	1 TB	7.2 K	Seagate	No	MS06
R7FKF	3.5"	ST2000NM0005	2 TB	7.2 K	Seagate	No	MS06
XWM1W	3.5"	ST4000NM0005	4 TB	7.2 K	Seagate	No	MS06
DGNTV	3.5"	ST1000NM0045	1 TB	7.2 K	Seagate	No	DS04
K7VW5	3.5"	ST2000NM0045	2 TB	7.2 K	Seagate	No	DS04
YXG4K	3.5"	ST4000NM0025	4 TB	7.2 K	Seagate	No	DS04
RHVWG	3.5"	ST6000NM0095	6 TB	7.2 K	Seagate	No	DS23
FCHXF	3.5"	ST4000NM0135	4 TB	7.2 K	Seagate	Yes	DSF2
H0R8N	3.5"	ST1000NM0085	1 TB	7.2 K	Seagate	No	DT31
7RCGV	3.5"	ST2000NM0155	2 TB	7.2 K	Seagate	No	DT31
5JH5X	3.5"	ST4000NM0295	4 TB	7.2 K	Seagate	No	DT31
GKWHP	3.5"	ST8000NM0075	8 TB	7.2 K	Seagate	No	PS26
PDFHC	3.5"	ST8000NM0135	8 TB	7.2 K	Seagate	Yes	PSE4
M40TH	3.5"	ST8000NM0185	8 TB	7.2 K	Seagate	No	PT51
YF87J	3.5"	ST10000NM0256	10 TB	7.2 K	Seagate	No	TT54
GPP3G	3.5"	MG03SCA100	1 TB	7.2 K	Toshiba	No	DG09
829T8	3.5"	MG03SCA200	2 TB	7.2 K	Toshiba	No	DG09
14X4H	3.5"	MG03SCA300	3 TB	7.2 K	Toshiba	No	DG09
12GY Y	3.5"	MG03SCA400	4 TB	7.2 K	Toshiba	No	DG09
7KXJR	3.5"	MK1001TRKB	1 TB	7.2 K*	Toshiba	No	DCAD
WDC07	3.5"	MK2001TRKB	2 TB	7.2 K*	Toshiba	No	DCAD
GDM8H	3.5"	MG04SCA20EN	2 TB	7.2 K	Toshiba	No	DS07
0F9W8	3.5"	MG04SCA40EN	4 TB	7.2 K	Toshiba	No	DS07
3PRF0	3.5"	MG04SCA60EE	6 TB	7.2 K	Toshiba	No	DR07
HHX14	3.5"	MG04SCA20ENY	2 TB	7.2 K	Toshiba	No	EG03
1MVT T	3.5"	MG04SCA40ENY	4 TB	7.2 K	Toshiba	No	EG03
M7D8Y	3.5"	MG04SCA20EN	2 TB	7.2 K	Toshiba	No	DJ01
HNX0W	3.5"	MG04SCA40EN	4 TB	7.2 K	Toshiba	No	DJ01
0V8G9	3.5"	WD1000FYYG	1 TB	7.2 K	Western Digital	No	D1BH

Table 4. Supported Physical disk drive Models for Dell EMC PowerVault MD1200/MD1220 (continued)

Dell P/N	Form Factor	Model	Capacity	Speed	Vendor	SED	Firmware
YY34F	3.5"	WD2000FYYG	2 TB	7.2 K	Western Digital	No	D1BH
440RW	3.5"	WD1001FYYG	1 TB	7.2 K	Western Digital	No	D1R7
37MGT	3.5"	WD2001FYYG	2 TB	7.2 K	Western Digital	No	D1R7
DPTW9	3.5"	WD3001FYYG	3 TB	7.2 K	Western Digital	No	D1R7
202V7	3.5"	WD4001FYYG	4 TB	7.2 K	Western Digital	No	D1R7

Supported cabling configurations

NOTE: Only 0.6 m, 2 m, and 4 m mini-SAS cables are supported.

There are a large number of storage topologies, because servers are capable of hosting multiple PCIe Dell EMC SAS 6 Gbps HBAs and the MD12XX have multiple SAS ports with the ability to daisy-chain the JBODs. Dell EMC has not tested and validated all the combinations. Here are some storage configurations that are supported by Dell EMC.

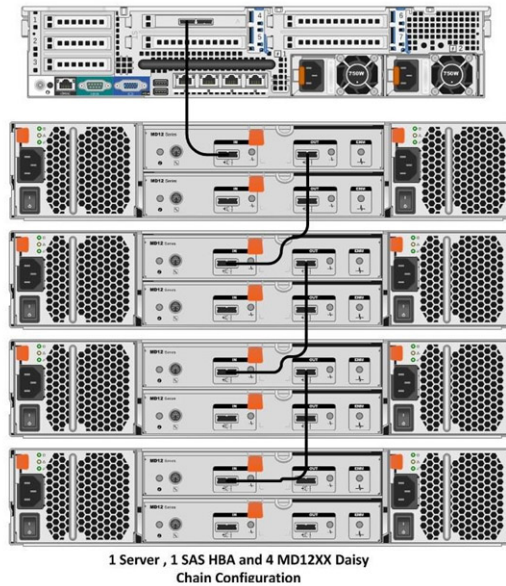


Figure 1. Standalone Server and MD12XX in Daisy chain configuration

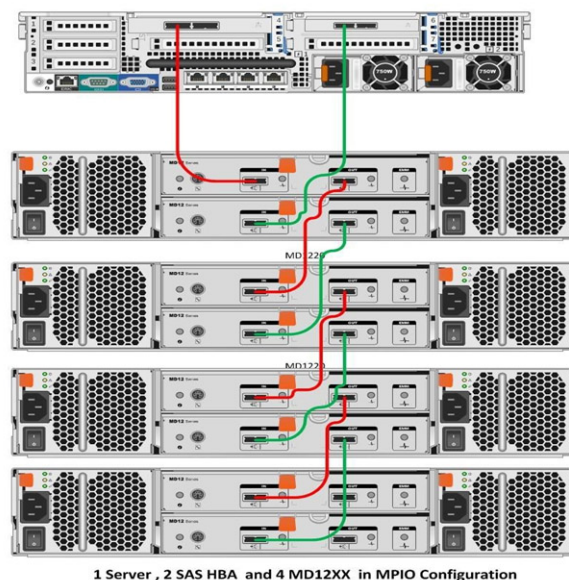


Figure 2. Standalone Server with MPIO configuration

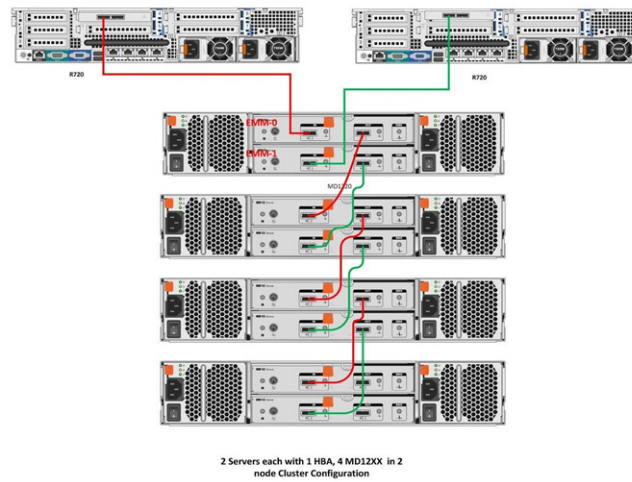


Figure 3. 2 Servers each with 1 HBA in failover cluster configuration with 4 JBODs Daisy chained

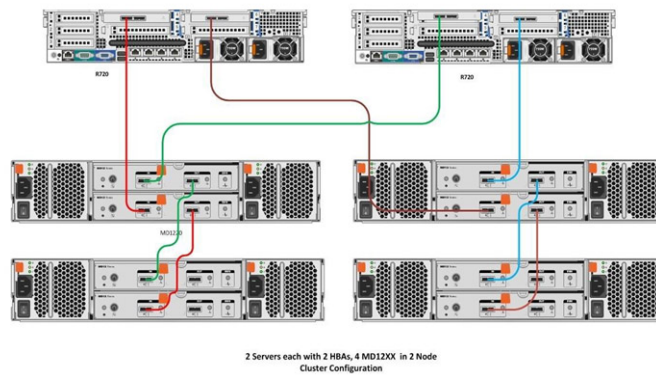


Figure 4. 2 Servers, each with 2 HBAs in failover cluster configuration with 4 JBODs

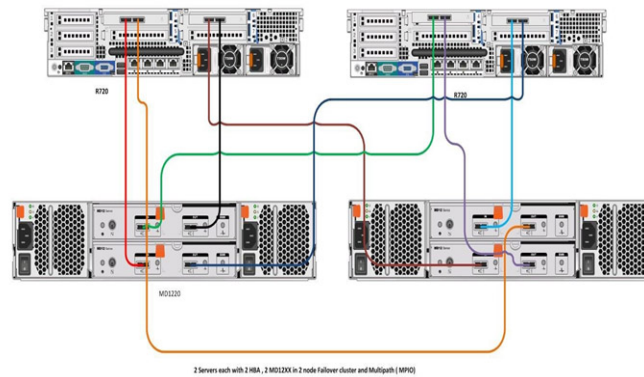


Figure 5. 2 Servers each with 2 HBAs in failover cluster configuration with 2 JBODs and MP