

Dell™ PowerVault™ MD1000 Systems

Support Matrix

Latest Update

April 2010

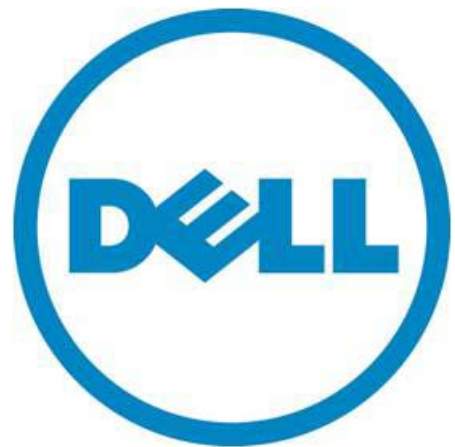



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Dell™ PowerVault™ MD1000 Systems Support Matrix

This document provides information on supported software and hardware for Dell PowerVault MD1000 Systems.

The PowerVault MD1000 supported software and hardware are directly tied to the RAID controller to which it is attached. If a PERC 5/E or PERC 6/E is supported in a server, then the PowerVault MD1000 is supported on that server.


 **NOTE:** For the latest driver and firmware releases, see the Downloads section at support.dell.com.


Supported RAID Controllers


PERC 5/E Adapter

Table 1 PERC 5/E Minimum Revision Requirements for PowerVault MD1000 Systems (SAS/SATA)

| Component | Minimum Revision | Notes |
|---|------------------|----------|
| Firmware | 5.2.1-0066 | Firmware |
| Microsoft® Windows® 2003 Server and Windows Server 2008 | 2.14.0.32 | Driver |
| Microsoft Windows Server® 2003 x64 | 2.14.0.64 | Driver |
| Red Hat® Enterprise Linux® version 3 (x86) | 00.00.03.16-1 | Driver |
| Red Hat Enterprise Linux version 4 (x86 and x86-64) | 00.00.03.16-1 | Driver |
| Red Hat Enterprise Linux version 5 (x86 and x86-64) | 00.00.03.16-1 | Driver |
| SUSE® Linux Enterprise Server 9 (x86-64) | 00.00.03.16-1 | Driver |
| SUSE Linux Enterprise Server 10 (x86-64) | 00.00.03.16-1 | Driver |

 **NOTE:** The MD1000 is not supported on SAS 5/E.

 **NOTE:** The MD1000 is not supported as a boot device.

 **NOTE:** Refer to Supported OS section below for additional support added after initial release.

Supported Operating Systems

If a PERC 5/E or PERC 6/E is supported in a server then the PowerVault MD1000 is supported on that server.

To determine the latest supported operating system perform the following two steps:

- 1) Reference www.dell.com/perc to verify controller support within a platform.
- 2) Using the info from step one, reference www.dell.com/ossupport to see the latest supported Operating Systems for that platform.

Supported Management Software

Table 3. Minimum Supported Management Software for PowerVault MD1000 Systems

| Software | Minimum OMSA Revision | Notes |
|------------------|-----------------------|-------|
| Dell OpenManage™ | 5.3 | |

The minimum supported OMSA version for MD1000 is 5.3. Refer to your server's specific documentation for minimum supported OMSA level.

Supported Hard Drives

Table 4. below contains the latest supported Hard Drives at the time of this document publication.


 **NOTE:** If no minimum firmware level is displayed, then the drive has shipped with the required minimum firmware level for support


Table 4. Supported Hard Drives for PowerVault MD1000 Systems

| Drive description | Model Number | Minimum Firmware Level |
|---|------------------|------------------------|
| Maxtor SAS 73 GB 10K RPM | ATLAS10K5_073SAS | BP05 |
| Maxtor SAS 146 GB 10K RPM | ATLAS10K5_147SAS | BP05 |
| Maxtor SAS 300 GB 10K RPM | ATLAS10K5_300SAS | BP05 |
| Maxtor SAS 36 GB 15K RPM | ATLAS15K2_036SAS | BP05 |
| Maxtor SAS 73 GB 15K RPM | ATLAS15K2_073SAS | BP05 |
| Maxtor SAS 146 GB 15K RPM | ATLAS15K2_147SAS | BP05 |
| Fujitsu (AL9LX) SAS 36 GB 15K RPM | MAX3036RC | D206 |
| Fujitsu (AL9LX) SAS 73 GB 15K RPM | MAX3073RC | D206 |
| Fujitsu (AL9LX) SAS 146 GB 15K RPM | MAX303147RC | D206 |
| Fujitsu (AL10LX) SAS 73 GB 15K RPM | MBA3073RC | |
| Fujitsu (AL10LX) SAS 146 GB 15K RPM | MBA3147RC | |
| Fujitsu (AL10LX) SAS 300 GB 15K RPM | MBA3300RC | |
| Hitachi (Ultrastar 15K147) SAS 36 GB 15K RPM | HUS151436VLS300 | A280 |
| Hitachi (Ultrastar 15K147) SAS 73 GB 15K RPM | HUS151473VLS300 | A280 |
| Hitachi (Ultrastar 15K147) SAS 146 GB 15K RPM | HUS151414VLS300 | A280 |
| Hitachi (Ultrastar 15K300) SAS 73 GB 15K RPM | HUS153073VLS300 | |
| Hitachi (Ultrastar 15K300) SAS 146 GB 15K RPM | HUS153014VLS300 | |
| Hitachi (Ultrastar 15K300) SAS 300 GB 15K RPM | HUS153030VLS300 | |
| Hitachi (Ultrastar 15K450) SAS 300 GB 15K RPM | HUS154530VLS300 | |
| Hitachi (Ultrastar 15K450) SAS 450 GB 15K RPM | HUS154545VLS300 | |
| Hitachi SAS 300GB 15K RPM | HUS156030VLS600 | |
| Hitachi SAS 450GB 15K RPM | HUS156045VLS600 | |
| Hitachi SAS 600GB 15K RPM | HUS156060VLS600 | |
| Seagate (15K.4) SAS 36 GB 15K RPM | ST336754SS | S410 |
| Seagate (15K.4) SAS 73 GB 15K RPM | ST373454SS | S410 |
| Seagate (15K.4) SAS 146 GB 15K RPM | ST3146854SS | S410 |
| Seagate (15K.5) SAS 73 GB 15K RPM | ST373455SS | |
| Seagate (15K.5) SAS 146 GB 15K RPM | ST3146855SS | |

| | | |
|--|-----------------|-------|
| Seagate (15K.5) SAS 300 GB 15K RPM | ST3300655SS | |
| Seagate (15K.6) SAS 146GB 15K RPM | ST3146356SS | |
| Seagate (15K.6) SAS 300GB 15K RPM | ST3300656SS | |
| Seagate (15K.6) SAS 450GB 15K RPM | ST3450856SS | |
| Seagate (Cheetah 15K.7) SAS 300GB 15K RPM | ST3300657SS | |
| Seagate (Cheetah 15K.7) SAS 450GB 15K RPM | ST3450857SS | |
| Seagate (Cheetah 15K.7) SAS 600GB 15K RPM | ST3600057SS | |
| Seagate (T10) SAS 73 GB 10K Performance | ST373355SS | |
| Seagate (T10) SAS 146 GB 10K Performance | ST3146755SS | |
| Seagate (T10) SAS 300 GB 10K Performance | ST3300555SS | |
| Seagate (TNS) SAS 400 GB 10K RPM | ST3400755SS | |
| Seagate (Cheetah NS 10K.2) SAS 600GB 10K RPM | ST3600002SS | |
| Hitachi (Ultrastar A7K1000) SATA 500 GB 7.2K RPM | HUA721050KLA330 | A74A |
| Hitachi (Ultrastar A7K1000) SATA 750 GB 7.2K RPM | HUA721075KLA330 | A74A |
| Hitachi (Ultrastar A7K1000) SATA 1 TB 7.2K RPM | HUA721010KLA330 | A74A |
| Hitachi (Ultrastar A7K2000) SATA 2TB 7.2K RPM | HUA722020ALA330 | |
| Hitachi (Deskstar 7K500) SATA 500 GB 7.2K RPM | HDS725050KLA360 | |
| Seagate (Barracuda ES.1) SATA 250 GB 7.2K RPM | ST3250620NS | 3.BKE |
| Seagate (Barracuda ES.1) SATA 500 GB 7.2K RPM | ST3500630NS | 3.BKE |
| Seagate (Barracuda ES.1) SATA 750 GB 7.2K RPM | ST3750640NS | 3.BKE |
| Seagate (Barracuda ES.2) SAS 500 GB 7.2K RPM | ST3500620SS | |
| Seagate (Barracuda ES.2) SAS 750 GB 7.2K RPM | ST3750630SS | |
| Seagate (Barracuda ES.2) SAS 1 TB 7.2K RPM | ST31000640SS | |
| Seagate (Barracuda ES.2) SATA 500 GB 7.2K RPM | ST3500320NS | |
| Seagate (Barracuda ES.2) SATA 750 GB 7.2K RPM | ST3750330NS | |
| Seagate (Barracuda ES.2) SATA 1 TB 7.2K RPM | ST31000340NS | |
| Seagate (Constellation ES) SAS 500GB 7.2K RPM | ST3500414SS | |
| Seagate (Constellation ES) SAS 1TB 7.2K RPM | ST31000424SS | |
| Seagate (Constellation ES) SAS 2TB 7.2K RPM | ST32000444SS | |
| Seagate (Constellation ES) SATA 500GB 7.2K RPM | ST3500514NS | |
| Seagate (Constellation ES) SATA 1TB 7.2K RPM | ST31000524NS | |

| | | |
|---|-------------------|------|
| Seagate (Constellation ES) SATA 2TB 7.2K RPM | ST32000544NS | |
| Western Digital (WD2500JS) SATA 250 GB 7.2K RPM | WD2500JS-75NCB3 | 2E04 |
| Western Digital (WD2500YS) SATA 250 GB 7.2K RPM | WD2500YS-18SHB2 | 6C05 |
| Western Digital (RE) SATA 500GB 7.2K RPM | WD5000YS-18MPB1 | 2E0A |
| Western Digital (RE1) SATA 500 GB 7.2K RPM | WD500YS-18MPB12 | |
| Western Digital (RE2) SATA 500 GB 7.2K RPM | WD5001ABYS-18YNA0 | |
| Western Digital (GP250RE2) SATA 1 TB 5.4K RPM | WD1000FYPS-18ZKB0 | |
| Western Digital (XL320RE) SATA 500 GB 7.2K RPM | WD5002ABYS-18B1B0 | |
| Western Digital (XL333RE) SATA 750GB 7.2K RPM | WD7502ABYS-18A6B0 | |
| Western Digital (XL333RE) SATA 1TB 7.2K RPM | WD1002FBYS-18A6B0 | |
| Western Digital (EP500M) SATA 2TB 5.4K RPM | WD2002FYPS-18U1B0 | |

Supported Hardware Configurations

 **NOTE:** The following MD1000 hardware configurations are supported only on Dell-qualified hardware.

There is a limit of two RAID controllers (PERC 5/E and/or PERC 6/E) per PowerEdge server. There is a limit of three MD1000 enclosures per controller port. Therefore, the maximum number of supported enclosures is 12.

$$- [(2 \text{ controllers}) \times (2 \text{ ports}) \times (3 \text{ enclosures})] = 12 \text{ enclosures}$$

Supported Hardware Configuration shows typical hardware configurations for the PowerVault MD1000 enclosure.

Max Configuration on a Single PERC 5/E or PERC 6/E Controller (both ports connected) shows the maximum configuration in a single PERC 5/E or PERC 6/E controller (three enclosures per port in unified mode) with both ports connected.

Figure 1. Supported Hardware Configuration

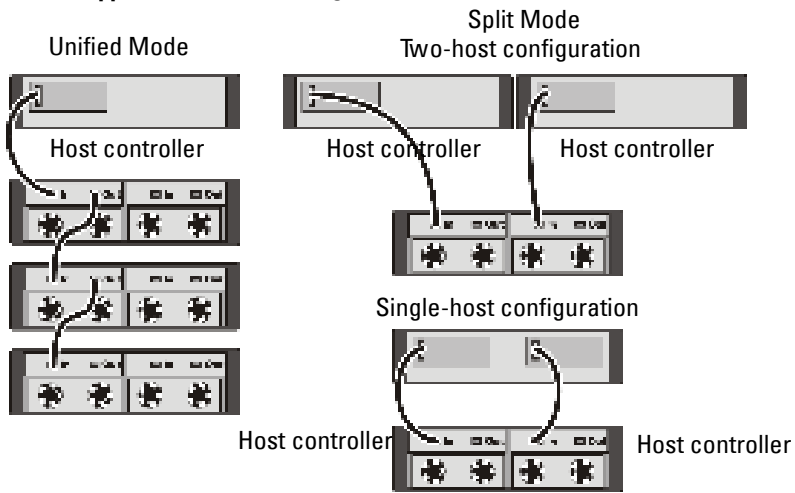
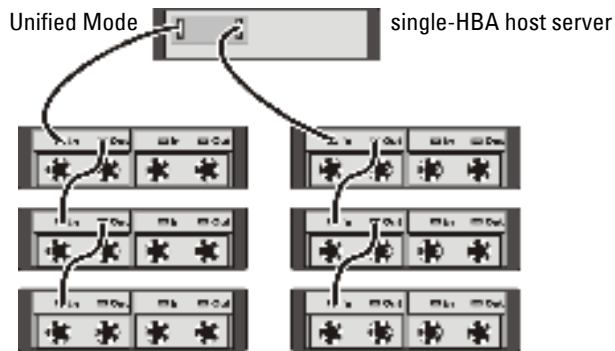


Figure 2. Max Configuration on a Single PERC 5/E or PERC 6/E Controller (both ports connected)



The PERC 6/E adapter can detect and use redundant paths to drives contained in an MD1000 enclosure. With redundant paths, if one path fails, another path can be used to communicate between the controller and the hard drive.

NOTE: Redundant Path connectivity is not supported on PERC 5/E

Figure 3. Redundant Path with 1 Enclosure

Supported Configuration/Setup Unsupported Configuration/Setup

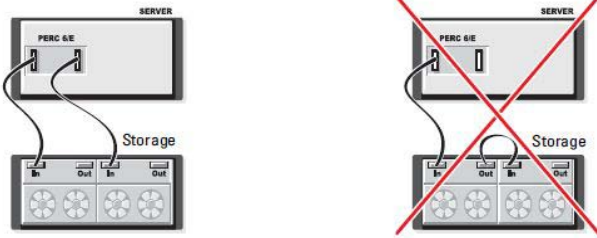


Figure 4. Redundant Path with 2 Enclosures

Supported Configuration/Setup Unsupported Configuration/Setup

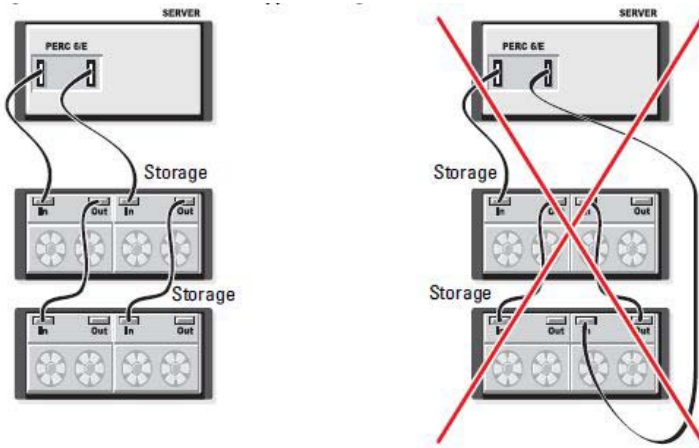
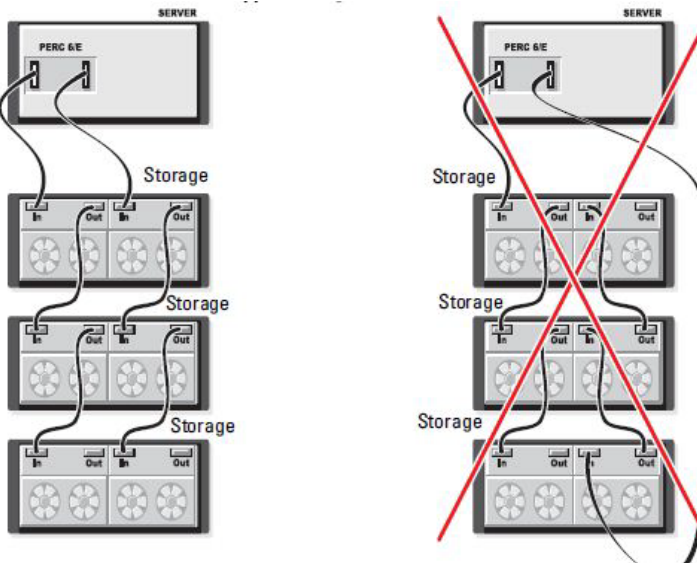


Figure 5. Redundant Path with 3 Enclosures

Supported Configuration/Setup Unsupported Configuration/Setup



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