



Dell: Disk Storage Enclosures and Arrays

Disk enclosures that connect to a server or network

Overview

A disk storage enclosure contains multiple disk drives so that additional capacity can be added to a server whenever it is needed. Disk storage enclosures can be directly attached to a single server or server cluster. In the case of Fibre Channel, a disk storage array can be connected to multiple host servers configured in a SAN.

Dell offers three types of disk storage enclosures or arrays:

- » iSCSI: Uses an Interconnect Protocol (IP)/Ethernet network to enable a storage array to connect to up to multiple servers in a SAN
- » Fibre Channel: Enables the attachment of an external storage array to up to 256 servers
- » SCSI or SAS/SATA:: Enables the attachment of an external storage array to one or two servers

SCSI and SAS/SATA Disk Storage Enclosures

Dell PowerVault™ disk storage enclosures are used to expand capacity on a Dell PowerEdge™ server or Dell storage server. With a RAID card configured in the host server, the disk storage enclosure can be attached to one server in a joined-bus configuration or to two servers in a split-bus configuration.

Dell OpenManage™ software is used to configure and manage RAID protection on the enclosure. This software also reports the status and environmental conditions of various components within the chassis.

Dell offers the following SCSI and SAS/SATA storage enclosures:

- » PowerVault MD1120: 2U enclosure that supports 24 2.5 inch SAS or SATA II disk drives in a single enclosure
- » PowerVault MD1000: 3U 15-drive SAS and/or SATA II disk storage array

SAS Disk Storage Arrays

A Dell PowerVault™ disk storage array is predominantly used for shared storage between two clustered servers. Its redundant architecture includes dual active-active RAID controllers, mirrored cache, and I/O multi-pathing to achieve a high degree of data availability.

A disk array often provides more management capability than a simple storage enclosure. Optional data protection features include the ability to take periodic snapshots or Virtual Disk Copies (VDCs) of your critical data - if a file is accidentally altered it is easily recovered by reverting back in time to a previous, trouble-free state.

Dell offers the following SAS storage array:

- » PowerVault MD3000: 3U SAS with dual active/active controllers supporting up to 45 drives

iSCSI Disk Storage Array

An iSCSI disk storage array enables the connection of servers and storage using a readily available IP network infrastructure. An iSCSI array can be shared by multiple servers on a network, therefore providing a flexible alternative to direct attached storage and potentially a lower cost alternative to a Fibre Channel-based storage network.

Dell offers the following iSCSI storage array:

- » Dell AX4-5i/Dell AX4-5l: An easy to use iSCSI SAN with the scalability and functionality of advanced storage arrays.
- » The Dell EqualLogic PS5000 series: An intelligent, expandable, virtualized iSCSI SAN solution optimized for virtualized environments
- » Dell/EMC CX series combo arrays: Highly-scalable SANs that combine both Fibre Channel and iSCSI connections in a single advanced array.

For more information about Dell's Disk Storage Enclosures and Arrays, please contact your sales representative.



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