

# DELL<sup>TM</sup> POWERSVULT<sup>TM</sup> MD3000i



iSCSI SAN that simplifies data management and delivers enterprise data protection capabilities at a fraction of the cost of traditional storage consolidation solutions.

## **CONSOLIDATION WITHOUT COMPLEXITY**

Now small and medium-sized organizations can harness the storage consolidation and data management capabilities of a SAN, easily and cost effectively. The PowerVault MD3000i is an iSCSI SAN that helps simplify data management and delivers enterprise data protection capabilities at a fraction of the cost of traditional storage consolidation solutions. Dell's new PowerVault MD3000i networked storage array leverages the modularity and availability of the PowerVault series of disk arrays to deliver an IP network storage solution that can consolidate storage on up to 16 hosts.

## **FLEXIBLE AND VERSATILE**

The PowerVault MD3000i system's modular expandability provides you with pay-as-you-grow flexibility. The storage array can house up to 15 3.5-inch SAS or SATA disk drives, and you can add capacity using up to two PowerVault MD1000 expansion enclosures, for a total of 45 disk drives. The PowerVault MD3000i array is available in two models:

**Standard model** provides a lower-cost entry point. This model consists of a single controller with two 1GB/s Ethernet ports, for connecting up to two hosts directly, or up to 16 hosts when configured with an Ethernet switch.

**High availability** model has four 1GB/s Ethernet ports and features dual active/active controllers that mirror each other's cache. In the event of a controller failure, the LUNs owned by the failed controller are transferred to the surviving controller and operations continue.

## **DUAL DRIVE FUNCTIONALITY**

The PowerVault MD Family enables organizations to mix SAS and SATA drives in a single enclosure delivering additional flexibility to optimize drive speed and capacity while maximizing storage spend and footprint.

**SAS for Performance** — SAS disk drives deliver the speed, performance and reliability to satisfy mainstream and demanding server applications such as e-mail or database applications that store active and frequently changing information.

**SATA for Capacity** — SATA disk drives easily handle large volumes of data at an excellent cost-per-Gigabyte. SATA drives are ideal support for digital images, file archiving, audio/video storage, or back-up and restoration tasks.

## **SIMPLE YET POWERFUL STORAGE MANAGEMENT**

The PowerVault MD3000i delivers a seamless suite of intuitive, intelligent storage management software capabilities. The Modular Disk Storage Manager offers automated set-up features that optimizes for performance and availability. The Recovery Guru tool diagnoses system problems and helps to determine an appropriate recovery procedure. Optional snapshot and virtual disk copy features are designed to enhance data protection.

## **DELL<sup>TM</sup> POWEREDGE<sup>TM</sup> SERVER COMMONALITY**

The PowerVault MD family uses the same 3.5-inch disk drive as PowerEdge servers, so you only need to stock and order a single type of spare drive. Dell PowerVault storage arrays are designed and engineered to pair perfectly with Dell PowerEdge servers — LEDs, displays, and other operational functions are common to both PowerEdge and PowerVault products. This commonality in a complete solution enhances usability and can make support and service easier.

FEATURES	DESCRIPTION
<b>Drives and Capacity</b>	
<b>Hard Disk Drives</b>	Up to fifteen (15) 3.5-inch SAS or SATA hot-pluggable hard disk drives
<b>Drive Performance and Capacities</b>	15,000 RPM SAS drives available in 73GB, 146GB, 300GB or 450GB 10,000 RPM SAS drives available in 300GB or 400GB 7,200 RPM SATA II drives available in 250GB, 500GB, 750GB or 1TB
<b>Minimum Capacity Per Enclosure</b>	1.1TB using fifteen (15) 73GB 15K SAS disk drives
<b>Maximum Capacity Per Enclosure</b>	15TB using fifteen (15) 1TB 7.2K SATA disk drives
<b>Maximum Capacity Per Array</b>	45TB using forty-five (45) 1TB 7.2K SATA disk drive with 3 enclosures
<b>Host Connectivity</b>	
<b>Standard Model</b>	Supports up to 2 hosts directly connected or up to 16 hosts when configured with an Ethernet switch
<b>High Availability Model</b>	Supports up to 4 hosts directly connected or up to 16 hosts when configured with Ethernet switch
<b>Storage Controllers and RAID Levels</b>	
<b>Storage Controllers</b>	<b>Standard Model:</b> Single controller with 512MB of battery-backed up cache <b>High Availability Model:</b> Dual active/active controllers with a total of 1GB mirrored, battery-backed up cache <i>Battery-backed up cache provides up to 72 hours of data protection</i>
<b>RAID Levels</b>	Support for RAID levels 0, 1, 5, 10 Up to 30 physical disks per group Up to 256 virtual disks
<b>Array Management and Optional Premium Software</b>	
<b>Array Management</b>	Modular Disk Storage Manager, Java-based task-oriented user interface Multi-path software provides failover management of redundant data paths between the host server and storage array
<b>Optional Premium Software Features</b>	<b>Virtual disk snapshots</b> (optional): up to four snapshots per virtual disk and 128 snapshots per system <b>Virtual disk copy</b> (optional): up to eight simultaneous virtual disk copies and a total of 255 per system
<b>Back-Panel Connectors (per controller)</b>	
<b>Host Connectivity</b>	Two RJ-45 1GB Ethernet
<b>Expansion Connectivity</b>	One x4 3GB SAS (SFF 8470)
<b>Remote Management</b>	One RJ-45 10/100MB Ethernet
<b>Service Management</b>	One PS/2 Serial
<b>LED Indicators</b>	
<b>Front Panel</b>	1 Two-color LED indicator for system status, 1 single-color LED indicator for power, 1 LED unused in this system
<b>Hard Drive Carrier</b>	1 single-color activity LED, 1 two-color LED status indicator per drive
<b>Storage Controller</b>	1 two-color LED status indicator per SAS IN/OUT port (total 3 on dual-port option, 2 on single-port option), 1 one-color battery fault, LED for battery-backed cache, 1 one-color cache activity LED, 2 one-color controller fault and controller power LEDs, 2 one-color, LEDs for Ethernet link and speed
<b>Power Supply/ Cooling Fan Module</b>	3 LED status indicators for power supply status, power/supply/fan fault and AC status
<b>Power Supplies (per supply)</b>	
<b>Wattage</b>	478W (Maximum continuous); 550W (peak)
<b>Maximum Heat Dissipation</b>	1430 BTU/hour (maximum)
<b>Input Voltage Range</b>	100-240V rated (actual 90-26V)
<b>Frequency Range</b>	47-63Hz
<b>Maximum Input Current at Rated Power</b>	7.93A at 90V; 3.96A at 180V
<b>Available Hard Drive Power (per slot)</b>	
<b>Supported Continuous Consumption</b>	Up to 1.3A +12V; Up to 1.5A at +5V
<b>Physical</b>	
<b>Height x Width x Depth</b>	13.11 cm (5.16 inches) x 44.63 cm (17.57 inches) x 48.01cm (18.90 inches)
<b>Weight</b>	35.37 km (78 lbs) (maximum configuration)
<b>Environmental</b>	
<b>Temperature</b>	Operating: 10° to 35°C (50° to 95°F), Storage : -40° to 65°C (-40° to 149°F)
<b>Relative Humidity</b>	Operating: 20% to 80% (non-condensing), Storage: 5% to 95% (non-condensing)
<b>Altitude</b>	Operating: -15 to 3048 m (-50 to 10,000 ft), Storage: -15 to 10,668 m (-50 to 35,000 ft)

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