



# Dell PowerVault NX3500 Unified Storage Solution

You can consolidate block and file data affordably with the Dell™ PowerVault™ NX3500. By expanding the PowerVault MD platform to include NAS capability, the PowerVault NX3500 lets you cut complexity, manage your data more easily, and expand capacity as needed.

## High performance NAS for the PowerVault MD platform

The PowerVault NX3500 works with PowerVault MD32x0i and MD36x0i storage arrays to help provide affordable unified storage with iSCSI, CIFS and NFS access to block and file data. If you need to manage an ever-increasing amount of unstructured (file) data, this easy-to-use solution is ideal. The PowerVault NX3500 can give you more flexibility than traditional unified storage because it has no architectural limits to file-system size. You can scale a single share to the full capacity of your PowerVault MD deployment.

The PowerVault NX3500 incorporates the high performance, highly optimized Dell Fluid File System and offers affordable data protection features. When combined with a PowerVault MD iSCSI array, it gives you the flexibility and cost of ownership advantages of unified storage.

## Pay-as-you-grow scalability

There's an avalanche of unstructured data headed your way. File intensive user shares, rich content and virtual environments demand ever-increasing amounts of storage. But now you can avoid the costs and headaches of continually adding—and having to manage—more file storage systems.

## A flexible and practical alternative to Windows file servers

Managing multiple file servers and namespaces can consume your resources. The PowerVault NX3500 lets you consolidate so you can store more data and manage it more easily. It uses Dell Fluid File System to optimize file-access performance and hardware utilization, and eliminates the capacity constraints typical of file systems.

The PowerVault NX3500 features an easy, wizard-based NAS configuration utility for initial setup. A web-based user interface, NAS Manager, conveniently enables you to configure NAS storage, create and modify volumes and

shares, and monitor performance. The PowerVault NX3500 NAS Manager also lets you set up alerts, snapshots and replication, and supports NDMP backup.

## Dell Fluid File System

Dell Fluid File System is a distributed file system that presents a storage pool as a single file system with a single IP address to the client(s). It uses cache efficiently to provide fast, highly reliable reads and writes and optimizes file access performance and hardware utilization. Dell Scalable File System also incorporates volume management, cluster management for transparent fail-over, and non-disruptive scalability.

## Affordable data protection

The PowerVault NX3500 also includes user-restorable snapshots and replication. You can use these built-in features to protect both new and existing file shares.

## Highly available hardware

With its dual active-active file controllers and backup power supply, the PowerVault NX3500 gives you data protection and excellent performance with no single point of failure.

Easy-to-use, flexible  
and affordable unified  
storage for PowerVault  
MD deployments.

Features	Dell™ PowerVault™ NX3500
Protocol support	Server: CIFS (SMB 1), NFS v3, NDMP V4, SNMP Client: NTP, iSCSI, DNS, Active Directory, LDAP, NIS (Network Information Service)
Storage arrays supported	Dell PowerVault MD3200i series (MD3200i, MD3220i) Dell PowerVault MD3600i series (MD3600i, MD3620i)
Expansion capability	Scale up to 192 drives with MD iSCSI arrays and expansion enclosures. Refer to PowerVault MD storage array specifications for expansion support.
Storage controllers	Dual controllers operate in an active-active environment mirroring each other's cache. Each controller contains 12GB memory protected by the PowerVault NX3500 backup power supply.
Management	Dell PowerVault NAS Manager graphical user interface, CLI interface
Front-end NAS connectivity	Two 1Gb IP ports per controller for front-end CIFS/NFS connectivity
Backend storage array connectivity	Two 1Gb IP ports per controller for back-end iSCSI connectivity
Snapshot capability	Redirect-on-write snapshots
Replication capability	Asynchronous 1-to-1, Many-to-1 replication for disaster recovery
Power	AC power supply (per controller power supply): Wattage: 400 W Voltage: 100–240 VAC, 50/60 Hz Heat dissipation 1666 BTU/hr maximum Maximum inrush current under typical line conditions and over the entire system ambient operating range, the inrush current may reach 25 A per power supply for 10 ms or less. Backup Power Supply: Wattage: 500 W (output) Voltage: 120V or 230V models
Physical (each controller)	Height: 4.29 cm (1.69 in), Width: 43.4 cm (17.09 in) Depth: 61.26 cm (24.12 in) Weight: 15 kg (33.02 lbs)
Physical (backup power supply, 120 V and 230 V Models)	Height: 4.2 cm (1.65 in.) Width: 43.4 cm (17.09 in.) Depth: 72.3 cm (28.46) Weight: 30.0 kg (66.1 lb)
Environmental	<b>Temperature</b> Operating 10° to 35°C (50° to 95°F) with a maximum temperature gradation of 10°C per hour NOTE: For altitudes above 2950 feet, the maximum operating temperature is derated 1°F/550 ft. Storage -40° to 65°C (-40° to 149°F) with a maximum temperature gradation of 20°C per hour <b>Relative humidity</b> Operating 8% to 85% (noncondensing) with a maximum humidity gradation of 10% per hour Storage 5% to 95% (noncondensing) <b>Maximum vibration</b> Operating 0.25 G at 3–200 Hz for 15 min Storage 0.5 G at 3–200 Hz for 15 min

## PowerVault NX3500 and DSFS Technical Specifications:

Attribute	Max Value (2-node)
Max system and share size	389 TB usable (RAID 6 plus global hot spare)
Max file size	4 TB
Max files	~32 billion
Number of directories	~34 billion
Max NAS volumes	512
Max snapshots per volume	512
Max snapshots per NX3500 system	10,000
Cache size per NX3500 system with 2 quad-core CPUs	24 GB (12 GB per controller)
File name length	255 bytes
Max NFS mounts	1024
Max CIFS shares	1024
Max CIFS client concurrent connections	400 (200 per controller)
Max local users per NX3500 system	300
Max Quota rules per NX3500 system (user quotas)	65,536
Max quota rules per volume	256
Max block level replication policies	256
Max directory depth	1,024

Simplify your storage at [Dell.com/NX3500](http://Dell.com/NX3500)

