

# FlashNAS™ Unified Storage

# FN-1600 Series

**High Speed NAS Supports CIFS & NFS and Petabyte of Data**

**Large Shared NAS Storage Pool Supports “Big Data,” Snapshots & De-duplication**

### FlashNAS Unified Storage

FlashNAS Unified Storage is an affordable, feature-rich NAS that supports a single large virtual storage pool of CIFS & NFS volumes for Windows, Linux, Unix and MAC OS clients. It serves as 1U “gateway” to FlashDisk external RAID storage, or as a “appliance” using built-in EcoStore RAID. FlashNAS supports volumes to 256 TB and enables flexible and easy deployment of FlashDisk array capacity to multiple servers and thousands of users over your existing LAN infrastructure. FlashNAS Unified Storage serves files to any Windows, Unix and Mac OS X systems without added client hardware, software or rebooting.



FlashNAS Unified Storage gateways support FlashDisk storage and the appliances support EcoStore storage shared by all users for CIFS and NFS volumes. No Client Access Licenses (CALs) needed.

### Up to a Petabyte of Data - Plus Snapshots, Speed, De-duplication and Intuitive GUI

The FlashNAS Unified Storage FN-1600 scales to over 1 PB using two fully loaded FlashDisk VX-3400 disk arrays for primary and secondary storage. FlashNAS can create frequent, scheduled snapshot backups to protect data and provide rapid data restores using Windows Volume Shadow Copy Services (VSS). Powered by Windows Storage Server 2008 R2, FlashNAS is optimized for file I/O and is 30% faster than a standard Windows Server. FlashNAS Unified Storage provides seamless access to CIFS & NFS files, and to iSCSI SAN volumes.

FlashNAS Unified Storage offers built in data de-duplication featuring Single Instance Storage (SIS) that typically saves 35% of available storage capacity by eliminating duplicate files—linking them to a single file instead of storing multiple copies. FlashNAS Unified Storage supports 64 point-in-time snapshots per volume, folder based quotas, native support for Windows, Linux and UNIX environments and seamless file sharing across multiple operating systems. The FlashNAS Unified Storage system is configured and operated using an intuitive, web-based GUI that simplifies storage management.



FlashNAS Unified Storage rear shown with eight Ethernet and two Fibre Channel ports.

### Economical

Priced to compete with any quality NAS, FlashNAS Unified Storage is a great value because it’s designed for use in environments where storage and servers are important to the enterprise. It supports thousands of active users - without Client Access Licenses (CALs) - for big savings. The entire integrated solution of FlashNAS and FlashDisk storage and accessories are supported under a single warranty and service contract. The standard warranty includes 24x7 call center support and next day on-site service. Four hour response service is also an option.

## FlashNAS Unified Storage FN-1600

### High Performance

- Up to 2 Intel Xeon 5600 CPUs, 12 cores
- Up to 192 GB memory
- Over 1 PB of storage; 256 TB volumes
- 30% faster than Windows Servers
- De-duplication saves 35% storage
- Shallow 20” depth - superior cooling
- Rackmount slides included

### Compatibility

- CIFS/SMB and iSCSI; NFS option
- Supports approved anti-virus software
- 1 Gbps Ethernet; 10 GbE option

### Management and Support

- Easy and intuitive GUI
- Ethernet, SNMP, TELNET
- On-site installation
- 24x7 service available

### FlashNAS FN-1600 Unified Storage Specifications

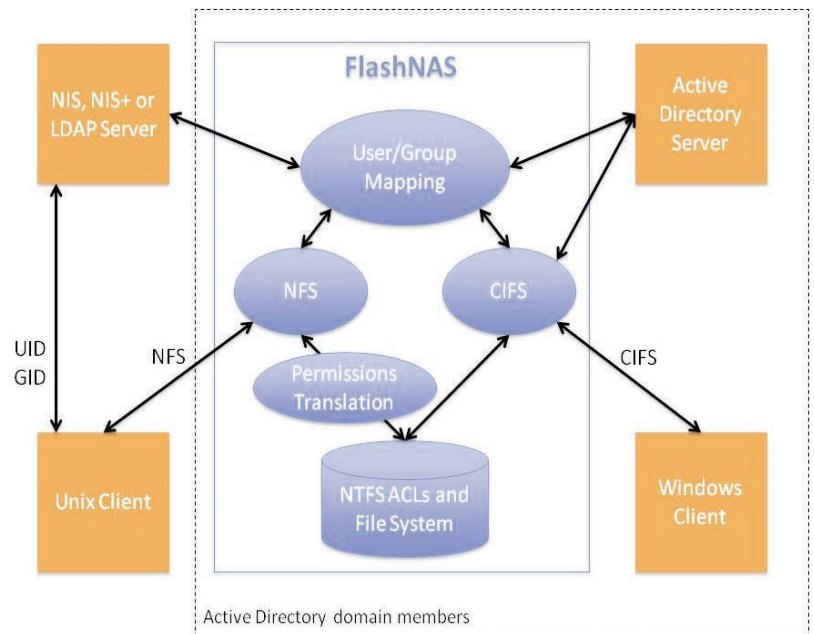
Dimensions	19" x 20" x 1.75"
Processor	Single/Dual Intel Xeon 5600 up to 12 cores
Chassis	NEBS-3 compliant; designed to MIL-STD-810G
Maximum Memory	192 GB (DDR3) ECC
PCIe Expansion Slots	2 full PCIe Gen2 x8 slots
2.5" SAS/SATA Disk Bays	2 locking hot-swap disks in shock isolated cage
Supported Disks	HDD to 1.2 TB; SSD to 1.6 TB
Power Supplies	450W/650W AC auto-ranging or 450W DC -48V
AC Power	Dual 110-240VAC, 50-60 Hz, 5-10A
Cooling	8 redundant, hot-swap, temperature-driven fans
Front Panel	Removable with dust filter
Standard Ports	4 GbE, 3 USB, 1 VGA, 1 RS-232
Weight	24 pounds loaded
Operating Temp.	0° to 40° C
Non-Operating Temp.	-20° to -60° C
Altitude	0 - 10,000 feet
Humidity	5% to 95% (38° C) non-condensing

[www.winsys.com](http://www.winsys.com)

<p><b>Included functionality:</b> Shadow Copy Service</p> <p>Storage Manager</p> <p>Backup</p>	<p>Restores deleted or corrupted files within minutes using Shadow Copy of shared folders. Stores up to 64 point-in-time copies per volume and provides the ability to recover previous versions of files.</p> <p>Optimize storage resources by setting quotas at volume, directory, and user levels. Also provides a File Filtering Service to enhance security and optimization of data. Storage usage reports are created to monitor resources.</p> <p>Supports standard Windows Server backup agents to participate seamlessly in enterprise backup strategies.</p>
<p><b>Unified Storage Options</b> Gateway Storage</p> <p>Appliance Storage CA ARCserve Replication CA ARCserve Replication HA</p>	<p>FlashDisk external RAID series. Provides capacity to over 1 PB with two disk arrays, uses 2.5" and 3.5" disk drives.</p> <p>EcoStore 4U JBOD enclosures that utilize FlashNAS internal PCIe RAID controller. Provides data protection to remote FlashNAS Unified Storage.</p> <p>Provides manual, scheduled and automatic failover to remote a FlashNAS Unified Storage.</p>

Because it's based on Windows Storage Server, FlashNAS can participate seamlessly in one or more Active Directory domains. For Unix-based NFS users, FlashNAS makes this process equally transparent. Unix NFS requests include User Identifiers (UIDs) and Group Identifiers (GIDs), which are mapped to a corresponding Windows-based network user; file access is then performed in the context of the mapped user to ensure access rules are enforced. Access may be provided to both local users and domain users.

In addition to one-to-one mapping between Windows and Unix user and group accounts, FlashNAS can map multiple Unix users to a single Windows user, or multiple Windows users to a single Unix user.



**FlashNAS Unified Storage authentication and mapping.**



**FlashNAS Unified Storage gateways use 3U FlashDisk RAID disk arrays as high capacity, high performance external storage expandable to over 1 PB with two disk arrays.**



**FlashNAS Unified Storage appliances include internal PCIe RAID controllers with very economical EcoStore 4U storage.**



[winsys.com](http://winsys.com)

**WINCHESTERSYSTEMS®**

Purpose-Built Storage

101 Billerica Ave., Bldg. 5, Billerica, MA 01862  
800-325-3700 · 781-265-0200 · fax: 781-265-0201