FlexNAS™

Pure NAS Storage

The PrimeArray solution for <u>massive data storage</u>

Use the FlexNAS for automatic remote office backup to the central system. FlexNAS is great for server or workstation backup, video capture, Sarbannes-Oxley compliance (i.e. email retention) or any general data backup. A single system holds from 320GB up to 16.0TB of data or disc images (240GB to 14.0TB in RAID 5).

Key Features

- Higher performance for large and demanding storage needs
- Intel Core2 Duo processor - Long Life Cycle and Low Power
- Web browser based administration interface
- Active Directory Compatible
- High performance, dual 10/100/1000 gigabit NIC
- ISCSI Target Support
- Raid 0, 1, 5, 6 and 10
- Global hot spare
- Hot Expansion and Hot-Swappable drives
- Robust backup capabilities
- Snapshot enables quick state capture
- Comes with SecondCopy for backing up workstations
- Mirror, backup or distribute to other FlexNAS units.
- SATA hard drives
- Redundant hot-swappable power supplies
- Real time virus checking
- UPS Support
- Rack and tower configuration

General File Storage

Keep all data for a project, department or topic together. Emails, PowerPoint files, graphics, CAD drawings are examples of general file data. For project centric businesses (Architecture, Engineering, Design, etc.), many firms like to use the FlexNAS to migrate completed projects to read-only DVD images, where they still are available for reference over the network, but also burn a physical DVD for offsite storage. While others use the data storage capability to backup other servers and workstations so they can be quickly restored if necessary.

RAID 0, 1, 5, 6 and 10 Capability

The FlexNAS comes with the ability to configure its hard drive storage as RAID 0, 1, 5, 6 or 10. RAID 0 enables the maximum use of hard disk space. RAID 1 mirrors one hard drive disk to another. RAID 5 is for systems with three or more disk drives. The data is spread across all the drives in the RAID array such that the loss of any drive will not result in the loss of data or up time. RAID 6 extends RAID 5 by adding an additional parity block. With RAID 10 the drives are striped for performance and all striped drives are duplicated for fault tolerance.

To learn more, call 1-800-433-5133
or visit www.primearray.com

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Hot Spare / Hot Swap / Hot Capacity

In the unlikely event of a disk drive failure, the hot-spare will automatically be swapped into the RAID array replacing the defective drive. The system will automatically rebuild the RAID array on the new drive. This all happens without user intervention. You can also increase the capacity of a RAID group or repace a defective drive with hot swappable drives and hot capacity expansion - without shutting down or restarting the FlexNAS.

Reliability and Management

The FlexNAS provides a number of advanced storage features for the protection and management of online data. These include:

- Advanced bad sector recovery and re-mapping
- Ability to safely mount/unmount volumes on line
- Manual and scheduled disk-scanning on selected hard disks or RAID groups
- Device log provides detailed information (disk sector, error on read or write) on disk I/O
- Support S.M.A.R.T. hard disk monitoring

Data Protection

Snapshot

Snapshots are point-in-time copies of the file-system. When creating a snapshot, the file-system is momentarily frozen and a record of all changes is created. Several terabytes of data ban be backed up in less than a second. Files are not modified during snapshot creation so data integrity is maintained.

Tape Backup

FlexNAS includes local tape backup/restore software that supports full/incremental backups of selected folders, flexible backup schedules and original/alternative restoration. It also features comprehensive backup/restore progress information and detailed summary logs. Tape backup has the option to include ACL security setting when backing up and restoring data.

SmartSync Remote Data Synchronization

The FlexNAS includes built-in synchronization support for server-to-server mirroring, distribution, and tapeless back-up. The SmartSync Backup improves backup speed by only transferring the modified data blocks, instead of whole files. At the same time, it always builds full backups online and keeps them online, making it easy for data restoration.

Anti-Virus

The FlexNAS supports integrated virus protection. Virus scanning can be configured to occur in real-time, or at scheduled intervals. Updated virus pattern files can be automatically downloaded and installed if FlexNAS has Internet access.

Why a PrimeArray FlexNAS system?

Whenever someone in your organization has a need to park additional data or files, that's an opportunity for FlexNAS. It is the ideal solution for storing large amounts of less frequently used data that still needs to be online and accessible. It is an economical way to quickly add large amounts of storage capacity that can be accessed by anyone on the network.

Use FlexNAS for:

- Server or workstation backup (i.e tapeless back-up)
- Massive data storage (i.e. video capture)
- Sarbannes-Oxley compliance (i.e. email retention)
- Remote offices (FlexNAS systems in remote offices automatically backup to central system)
- Combining PrimeArray's CD/DVD Servers with FlexNAS

Models

The following are a few possible configurations. Call us at 1-800-433-5133 for your customized solution.

Model	Enclosure	No. Hard Drives	Hard Drive Size	Total Storage	Storage Under RAID 5
FlexNAS 5000 XR/XL	Tower / Rack	4	160 gb	640 gb	480 gb
FlexNAS 6000 XR/XL	Tower / Rack	4	320 gb	1.3 tb	960 gb
FlexNAS 7000 XR/XL	Tower / Rack	4	500 gb	2.0 tb	1.5 tb
FlexNAS 7800 XR/XL	Tower / Rack	4	1 tb	4.0 tb	3.0 tb
FlexNAS 8300 XR/XL	Rack	8	320 gb	2.56 tb	2.24 tb
FlexNAS 8500 XR/XL	Rack	8	500 gb	4.0 tb	3.5 tb
FlexNAS 8900 XR/XL	Rack	8	1 tb	8.0 tb	6.0 tb
FlexNAS 8920 XR/XL	Rack	8	2 tb	16.0 tb	14.0 tb

Options
* Dual Power Supply (8 drive systems only)

Enclosures

FlexNAS XR

Configuration	Dimensions (HxWxD)	Power Supply 115/230v AC		Shipping Weight
4 Drive Tower	17.5" x 7.5" x 18.0"	Single 400W		35 to 45 pounds
4 Drive 4U Rack	7.0" x 19.0" x 19.0"	Single 400W		50 to 80 pounds
8 Drive Tower	19.0" x 7.0" x 19.0"	Single 400W	Dual 330W	35 to 45 pounds
8 Drive 4U Rack	7.0" x 19.0" x 19.0"	Single 400W	Dual 330W	50 to 80 pounds

FlexNAS XL

Configuration	Dimensions (HxWxD)	Power Supply 115/230v AC		Shipping Weight
4 Drive 1U Rack	1.75" x 17.5" x 28"	Single 250W	Dual 250W	45 to 55 pounds
8 Drive 2U Rack	3.5" x 17.5" x 28"	Dual 350W		60 to 75 pounds

Bundled software
NAStart - For quick setup, remote discovery and system configuration backup/restore

Pricing
The PrimeArray ServStation is competitively priced and delivers great value. As every system is configured to meet the customer's requirements, the price varies depending on the configuration. Please contact us to receive a prompt price quote.

Warranty and Support
1 year parts and labor
Free downloadable firmware upgrades
Telephone and email technical support
Extended warranty and service plans available

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Specifications

Storage

Hard Drives:	Up to 8 SATA hard drives – 16 TB total capacity
Hard Drive Sizes:	160gb, 250gb, 500gb, 1tb or 2tb SATA drives
Optical Drives:	0 or 1 DVD ROM or DVD-R/RW Blu-Ray ROM or RW

RAID Capability

RAID Level 0, 1, 5, 6 and 10

Dual Network Interface

Dual 10/100/1000Mbps Ethernet interfaces that can be configured in any of four methods:

- Stand Alone
- Fault Tolerance
- Load Balancing
- Link Aggregation

Network Operating Systems

Windows 95/98/ME/XP/NT/2000/2003/2007/Vista/7
UNIX/Linux

Network Protocols

TCP/IP, ISCSI Target
HTTP, CIFS/SMB, NFS v3, FTP
BOOTP, RARP, DHCP, DNS; WINS; SMTP, SNMP; NTP; SSL

System Administration

- LCD Console Display
- Performs shutdowns, restarts, and resets
- Remote software updates
- Monitors all on-going and scheduled tasks.
- Status monitoring options including email alerts, audible alarms, LCD console messages, event logging and more.
- Environmental monitoring for CPU/System temperture, voltage and CPU fan status.
- Supports UPS with smart signaling

Security

- Microsoft Active Directory and Unix NIS
- File/folder share-level security
- User/group permissions
- Supports access control lists
- SSL 128 bit encryption

SmartSync Disaster Recovery

- Easy to use and configure via web interface
- Provides scheduled or manual synchronization between NAS servers
- Instant access to synchronized data
- Synchronization points can be any volumes or folders
- Only transfers the differences in updated files, providing efficient network utilization
- Optional compressed data link
- SSL data encryption
- Administrator can view the synchronization process and interrupt a task at any time
- Security information (ACL) can also be synchronized
- Provides bandwidth control for each synchronization task

Language Support

- Web Pages: English, "Traditional Chinese", "Simple Chinese", Japanese, Hebrew and Arabic.
- Unicode Code-pages: English, Western European, Arabic and Hebrew, CJK DBCS

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About PrimeArray

Based in Burington, Massachusetts, PrimeArray Systems, Inc. has long been the leader in developing and manufacturing cost effective network storage devices (CD/DVD Servers and Towers, and Network Attach Storage devices). Reliable and simple to use, PrimeArray's family of storage products have proven themselves in a multitude of applications across the globe for large and small corporate and government organizations.

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