



NexStor™ 4000F

2Gbit Fibre Channel JBOD Storage System

FEATURES AND BENEFITS

Performance

- 2Gbit (200 MB/s) Fibre Channel host and drive interface
- Up to 800 MB/s in a quad loop mode
- Supports the Industry's fastest and largest disk drives

Scalability

- Expand up to 32TB in a single 63-inch data center cabinet
- Support twelve 1" disk drives in a 2U rackmount system
- Multi-host connectivity with four Fibre Channel ports
- Grow on-line capacity or spindle speed with 18, 36, 73, and 146GB Fibre Channel disk drives (10,000 and 15,000 RPM)
- Single, dual, or quad loop configurations
- Direct-connect or SAN attachment as JBOD system or RAID capacity expansion module

Availability

- Field-upgrade path from JBOD to RAID for active/active 2Gbit RAID controller support
- Redundant, hot-swap cooling fans, disk drives, and load sharing power supplies to ensure data protection
- Redundant disk I/O cards with built-in port bypass circuitry
- Redundant internal Fibre Channel loops for multiple paths to dual ported drives
- Cableless design for increased reliability and hot-swappability
- Global monitoring through SCSI Enclosure Services (SES) and optional StorView™ storage management software



Flexible Data Storage

Designed to be the most flexible 2Gbit Fibre Channel data storage system available on the market, the NexStor 4000F provides performance, scalability, and the ability to upgrade to RAID within the same 2U, 12-bay technology.

The NexStor 4000F is the foundation of nStor's entire Fibre Channel product lines. With dual power supplies, redundant cooling fans, and embedded loop resiliency circuits on the disk I/O cards, the NexStor 4000F has complete enclosure redundancy. Four optical transceivers leading to four independent connections provides the NexStor 4000F with high-speed data throughput over 2Gbit Fibre Channel links. Each unit is backward compatible to 1Gbit for existing SAN installations and pre-installed host bus adapters, allowing you to move to 2Gbit Fibre Channel at your convenience. The NexStor 4000F is perfect for environments that have expanding data storage requirements and can be upgraded to RAID or utilized as an expansion drive shelf behind another nStor Fibre Channel RAID system.

Growing in modular 2U (3.5-inch) increments, the NexStor 4000F provides trouble-free expansion to scale up to 32TB in a standard 63-inch data center cabinet, perfect for maintaining massive amounts of disk to disk storage. Simply add one or two RAID controller upgrade kits to the rear of the NexStor 4000F and it is easily converted into a high-availability storage solution, conveniently maintaining its investment value without losing any additional data center cabinet space.

Keep your data on-line, grow your storage in modular increments, and have fault notification through nStor's StorView™ storage management software. Maximize your storage possibilities with the NexStor 4000F as nStor continues toward our goal to 'Simplify Storage Solutions' for customers.

SIMPLIFYING STORAGE SOLUTIONS



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NexStor 4000F

Technical System Specifications

Host Interface	2Gbit (200 MB/s) Fibre Channel, SFP (Small Form Factor Pluggable) connectors with LC optical transceivers
System Architecture	1 or 2 Gbit Fibre Channel support
Fibre Loop Configuration	Quad, dual, or single loop connectivity
Hot-Swap Components	Hard drives, power supplies, cooling fans, and disk I/O cards with Loop Resiliency Circuits (LRCs)
Redundant Components	Hard drives, power supplies, cooling fans, and disk I/O cards with Loop Resiliency Circuits (LRCs)
Error Notification (SES/SEI)	Audible alarm, status LEDs, in-band SES, and network messaging
SES Compliance	Yes

RAID Solution Upgrade Part Numbers

RAID System	Description	Part Numbers for Upgrade
NexStor 4110F	1Gbit, single controller, FC-AL host connections, 128MB cache, single processor	NSR-CTRL-41FUPG
NexStor 4120F	1Gbit, dual controller, FC-AL host connections, 256MB cache, single processor per controller	NSR-CTRL-41FUPG and NSR-CTRL-41F
NexStor 4210F	2Gbit, single controller, FC-AL host connections, 512MB cache, single processor	NSR-CTRL-42FUPG
NexStor 4220F	2Gbit, dual controller, FC-AL host connections, 1GB cache, single processor per controller	NSR-CTRL-42FUPG and NSR-CTRL-42F
NexStor 4310F	2Gbit, single controller, Fabric or FC-AL host connections, 512MB cache, single processor	NSR-CTRL-43FUPG
NexStor 4320F	2Gbit, dual controller, Fabric or FC-AL host connections, 1GB cache, single processor per controller	NSR-CTRL-43FUPG and NSR-CTRL-43F
NexStor 4510F	2Gbit, single controller, Fabric or FC-AL host connections, 1GB cache, two processors	NSR-CTRL-45FUPG
NexStor 4520F	2Gbit, dual controller, Fabric or FC-AL host connections, 2GB cache, two processors per controller	NSR-CTRL-45FUPG and NSR-CTRL-45F

*StorView Global Manager is recommended for the NexStor 4300F and 4500F series.

Power Requirements for the nStor 4000F Series Storage Solutions

Input Voltage	85 – 240 VAC (auto-sensing, load balancing)
Input Frequency	50 – 60Hz
Maximum Input Current	3 Amperes at 110v, 1.5 Amperes at 220v
Power Supply Rating	Redundant 350 watt (425 watt peak) hot-swappable power supply units with Power Factor Correction (PFC)
Maximum BTUs per Hour	1,194 BTUs per system
Power Source	2 US standard independent power cords

Certification Compliance

Emissions	FCC Part 15 Class A, CISPR 22, EN55022-A, BSMI, VCCI, C-TICK, NOM
Agency Certification	CAN/CSA C22.22 #60950-00, UL 60950 3rd Edition, CB IEC 60950 Edition 3, NOM
CE Compliance	89/336/EEC EMC Directive, EN 55024

Physical Characteristics

	Rackmount	Deskside Tower
Width	17.65" (44.8 cm)	8.0" (20.3 cm)
Length	20.25" (51.4 cm)	21.5" (54.6 cm)
Height	3.47" (8.1 cm)	20.0" (50.8 cm)
Weight	39 lbs. (17.7 kg)	48.5 lbs.(22 kg)

Storage Management

StorView Local Manager for local in-band GUI configuration only
StorView Global Manager (optional) for local and remote in-band GUI management and alert notification
VT-100 Command Line Interface for local out of band CLI configuration only



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