

Network Appliance™ FAS200 Series Enterprise Fabric-Attached Storage Specifications

Product Highlights

Operating System	Network Appliance Data ONTAP™ 6.5 software
Standard Software Features	Integrated automatic RAID manager, Snapshot™, Fast Boot, telnet, e-mail alerts, NIS, DNS, SNMP, FilerView®, NDMP
Network Protocol Support	NFS V2/V3/V4 over UDP or TCP, PCNFSD V1/V2 for (PC) NFS client authentication, Microsoft® CIFS, VLD, HTTP 1.0, HTTP 1.1 Virtual Hosts
SAN Protocol Support	Fibre Channel Protocol (FCP) for SCSI; fabric-attached and direct-attached; iSCSI
Licensed Software Products	SnapManager® for Microsoft Exchange 5.5, SnapManager for Microsoft Exchange 2000, SnapManager for Lotus Domino, SnapManager for Microsoft SQL Server, SnapMirror®, SnapVault™, SnapRestore®, SnapDrive™, SnapLock™, MultiStore™, Virtual File Manager™, DataFabric® Manager, SecureAdmin™, ApplianceWatch™ for HP Openview and Tivoli
Hardware Features	3U integrated filer and disk storage available in 19" rack-mount or tower configurations, redundant hot-plug power supplies and cooling, 2 integrated full-duplex 10/100/1000 ports, 2 integrated FC* adapters, CompactFlash, and diagnostic LEDs/OPS panel
Default/Min./Max. RAID Group Sizes	Default: 6 data + 1 parity/min.: 1 data + 1 parity/max.: 13 data + 1 parity
Disk Drive Capacities Supported (FC)	36/72/144GB

System Specifications	FAS250	FAS270	FAS270c
Max. Raw Capacity	1TB	4TB	4TB
Max. Number of Disk Drives	14	42	42
Volumes and RAID Groups (min./max.)			
Min. of 1 RAID Group per Volume	1/7	1/21	1/21
Max. Volume Size	1TB	4TB	4TB
ECC Memory	512MB	1GB	2GB
Nonvolatile Memory	64MB	128MB	256MB
Integrated I/O			
Ethernet 10/100/1000 Copper	2	2	4
Copper FC Adapter	1 Tape	1 Storage	2 Storage
Optical FC Adapter (host-attach SAN/ TapeSAN)	N/A	1	2
Clustered Failover-Capable	N/A	No	Yes
Cabinet Configuration	No	Yes	Yes

Storage Subsystem Environmental Specifications

AC Power/Max. Current	100 to 120 VAC/4 A; 200 to 240 VAC/2 A
Thermal Rating	1,195 Btu/hr (fully loaded shelf)
Dimensions (height/width/depth)	3 EIA U (5.25", 13.3 cm)/19" EIA rack-compliant (17.6", 44.7 cm)/20" (50.8 cm)
Weight (max.)	78.8 lb (35.8 kg), fully loaded
Operating Temperature & Relative Humidity	10°C to 40°C (50°F to 104°F); 20% to 80% relative humidity, noncondensing
Nonoperating Temperature & Relative Humidity	-40°C to 65°C (-40°F to 149°F); 8% to 95% relative humidity, noncondensing
Operating Acoustic Noise	<60 dBa @ 1m at 20°C
Min. Service Clearances	9" (23 cm), front; 30" (76.2 cm), rear; 3" (7.6cm), rear for cable radius

HARDWARE

Network Appliance hardware gives you the industry's most flexible, reliable, and scalable storage solutions, with easy administration and built-in redundancy for maximum data availability and protection.

Storage Subsystem

Disk Drive Storage System	DiskShelf14mk2-based – 14 low-profile slots for FC disk drives
Disk Drive Storage Interface	Fibre Channel-Arbitrated Loop
Power Supply/Cooling Fans	Dual, redundant, hot-pluggable, integrated power supply/fan assemblies (220V/110V)

NetApp Systems Cabinet

Includes 2 Sets of Dual 16A, Zero U Power Distribution Units (PDU)	Max. configs—accommodates 1 FAS270 with 2 shelves to a max. of 9U with available space for other NetApp approved equipment
AC Power	200 to 240 VAC
Current	32A total—2 redundant sets of dual 16A cables with NEMA L6-20 or IEC 309-16 connectors
Dimensions (height/width/depth)	78.75" (200 cm)/23.6" (60 cm)/35.4" (90 cm)
Min. Clearances	48" (122 cm) front and rear
Weight (empty)	125 kg (275 lb)

Regulations

File Safety	EN 60950:2000, CE, UL60950-2000, CSA 60950-00, TUV-GS, CB IEC 60950 Ed. 3 (all national deviations), EN60825-1:1994+A11
Disk Shelf Safety	UL/C-UL; CE
Emissions	FCC Class A, EN 55022:1998, EN 61000-3-2, EN 61000-3-3, CE, BSMI, AS/NZ 3548, VCCI
Immunity	EN 55024:1998

FAS200 Series Enterprise Storage System Supported Backup Methods

Disk-Based Backup	SnapVault, SnapMirror
Host-Based Backup	NDMP/NFS/CIFS/FCP/iSCSI
GbE-Based Backup	Quantum ATL GbE Libraries, Spectra Logic GbE Libraries Visit http://www.netapp.com/osn/info/config_gbe.html for current supported libraries
FAS270/FAS270c Direct-Attached Tape Drive Support (optical)	Exabyte Mammoth – 2, IBM 3590B & 3590E, IBM ULT3580-TDI (LTO), IBM (LTO, LTO2) Sony GY 8240 (DTF2), STK 9840, 9840B, 9940,9940B Exabyte Mammoth II Visit http://www.netapp.com/solutions/data_protection_devices.html for current supported drives
FAS250 TapeSAN Support (copper)	Spectra Logic 2K Copper Interface Spectra Logic 10K Copper Interface with copper GBIC (HSSDC) Spectra Logic 12K, 20K, 64K G1 FQIP with copper GBIC (HSSDC) StorageTek L20, L40, L80 with copper GBIC (HSSDC)
TapeSAN Support (optical)	Visit http://www.netapp.com/osn/info/config.html for current supported libraries

FAS270/c FC Switch Support—SAN and TapeSAN

Vendor	Model	Support	Minimum Firmware Level SAN	Minimum Firmware Level TapeSAN**
Brocade	Silkworm 2400/2800	TapeSAN	N/A	2.2.2a
Brocade	Silkworm 3200/3800	Host connection for SAN/TapeSAN	3.1	3.0.2c
Brocade	Silkworm 3900/12000	Host connection for SAN/TapeSAN	4.1	4.0.0c
McData	ES-3016/ES-3032	Host connection for SAN/TapeSAN	2.0	2.00.00.33
McData	Sphereon 4500	Host connection for SAN	5.1	N/A
Cisco	MDS-9216, -9509	Host connection for SAN	1.1	N/A

*FC = Fibre Channel, ** Visit <http://www.netapp.com/osn/info/config.html> for updated TapeSAN solution support.



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