Sun StorEdge™ T3 Enterprise Array

High availability, scalable RAID storage.

Sun microsystems

High availability

Features such as redundant, hot-swappable components, cached write data stored automatically to disk in case of power failure, and dual host connections for alternative fail-over data paths help keep your business up and running.

High performance

Full-fibre RAID controller with 1-GB cache enables you to scale performance for virtually any application. In addition, storage management and configuration are kept separate from data traffic for maximum performance.

Open

Open system connectivity means support for heterogeneous environments, including Windows NT, Windows 2000, Linux, IBM-AIX, HP-UX, and Solaris™ Operating Environment hosts.

Secure

LUN slicing and LUN masking functionality provide security for up to 16 separated LUNs.

Comprehensive support

Proactive services, responsive support, and technical expertise are provided in more than 170 countries through Sun's service organization.

The Sun StorEdge™ T3 enterprise array offers a highly reliable, available, flexible, and scalable approach to reducing the cost of network storage computing. Its mirrored 1-GB cache, fibre-channel RAID, hot-swap redundant controllers offer unparalleled levels of performance, availability, and resiliency. Full redundancy helps ensure that no single failure inhibits data availability. Four different drive choices allow this array to be cost-effectively configured to deliver exceptional performance for transactive- or transfer-intensive application workloads. The Sun StorEdge T3 enterprise array delivers outstanding three-way scalability. As capacity is expanded, performance is increased in a linear and predictable manner while availability and data paths, and redundant hot-swap components remain constant as more cache, data paths, and hot-swap redundancy components are added. Granular LUN control is combined with security masking to further increase the exceptional flexibility and configurability of this modular storage array subsystem.

Sun StorEdge Complete Storage Solutions--providing you with comprehensive hardware, software, and services to solve your business challenges enterprise-wide.

Sun StorEdge™ T3 Enterprise Array Specifications

Standard Interfaces

Drives	Dual-ported FC-SCA-2 (3.5-in. drives)/Nine per enclosure
Back panel	Native LC fibre-channel connection
	RJ45 10/100 Base-T network connector
	RJ45 RS-232 connector
	Loop cards DB-9 connector
	Power connector CEE 22-V (latching, U.S. only)
	Power cables Two NEMA 5-15P

Maximum Total Capacity

36 GB (10K or 15K RPM)	2.6 TB max cabinet (72 drives)
	82.9 TB max tested system (32 cabinets)
73 GB (10K RPM)	5.2 TB max cabinet (72 drives)
	169.1 TB max tested system (32 cabinets)
181 GB (7200 RPM)	13.0 TB max cabinet (72 drives)
	417.0 TB max tested system (32 cabinets)

Hardware

Supported hardware	Sun Fire™ 280R, 3800, 4800, 4810, 6800, V480, V880, 12K, and 15K servers
	Sun Enterprise™ 220R, 250, 420R, 450, 3X00-6X00, and 10000 servers
	Ultra™ 60, 80 workstations
	Netra™ t 1120/1125, 1400/1405, 20 servers
	Intel Pentium III or higher (Microsoft Windows NT, Windows 2000, Linux)
	HP 9000 N- or L-Class
	IBM RS/6000

Host Connectivity

Supported host bus adapters	Sun-1 Gb PCI (single and dual) and 1 Gb cPCI (dual) fabric adapter (optical)
	Sun-2 Gb PCI (single and dual) fabric
	Sun-SBus FC-AL adapter (optical GBIC)
	Microsoft-Emulex L8000F1-N1 (Windows environment)
	HP A5158A* (HP-UX environment)
	IBM FC#6227* (IBM-AIX environment)
	Linux-QLogic QLA2200F/66* (Linux environment)

Note: All non-Sun host bus adapters supported by third-party vendor.

Software

Operating environment per enclosure	Solaris™ Operating Environments 2.6, 7, 8, 9
	Microsoft Windows NT 4.0 (SP6 and SP6A)
	Microsoft Windows 2000 Advanced Server (SP2)
	Red Hat Linux 7.2
	IBM AIX 4.3.3, 5.1L
	HP-UX 11.0
Supported software	Sun StorEdge™ Configuration Service software (included)
	Storage Automated Diagnostic Environment (included)
	Sun StorEdge™ Component Manager software (optional)
	Sun StorEdge™ Management Console software (optional)
	Sun StorEdge™ Enterprise Storage Manager software
	Sun™ Cluster 3.0 software
	VERITAS Volume Manager software (Tier 2 license optional)

Storage Network Interconnect

Fibre-channel loop topology connectivity
Fabric point-to-point (p2p) topology connectivity

Controller Card

One RAID controller card/tray	RAID level 0, 1+0, 5
	Up to 16 LUNs per unit
	LUN masking/slicing
	Network Time Protocol (NTP) support

Controller Card (continued)

One RAID controller card/tray	Persistent Group Reservation (PGR) support
	Configurable hot spare
	Single host FC-AL interface
	Two FC-AL drive loops
	Dual speed network connection
	RS-232 serial service port
	1 GB data cache
	Hardware pipelined XOR

Field Replaceable Units*

Drives	Front
Power/cooling units	Rear
Loop cards	Rear
Controller card	Rear

All FRUs are hot-swappable and have FRU IDs

Preconfigured Storage

RAID 5

Environment (per enclosure)

Input power	450 W maximum
Input current	5 A maximum
AC power	100-240 VAC @ 47-63 Hz single phase
Heat output	1540 BTU/hr, maximum
Operating	5° C to 35° C (41° F to 95° F)
Altitude	-305 m (-1000 ft.) to +3048 m (+10,000 ft.)
Shock	4.0 g for maximum duration of 11 ms (half-sinewave)
Vibration	5 to 500 Hz @ 0.25 g sinusoidal
Nonoperating	-20° C to 60° C (-4° F to 149° F)
Altitude	-305 m (-1000 ft.) to +12,192 m (+40,000 ft.)
Shock	10.0 g for maximum duration of 11 ms (half-sinewave)
Vibration	5 to 500 Hz @ 1.0 g sinusoidal

Power and Cooling

Power/cooling units	Two per enclosure
	Integrated backup battery power for cache destage
	Auto-ranging power supplies
	Dual line cords and redundant fans

Regulations

Meets or exceeds the following requirements:

RFI/EMI	FCC Class A
Safety	UL/CSA, CE, Y2K compliant, FC-AL standards

Dimensions and Weight

Height	27.94cm (11 in.) 7U
Width	44.45 cm (17.5 in.)
Depth	46.99 cm (18.5 in.)
Weight	60.3 kg (134 lb. maximum, with half-height drives)

Upgrades

Sun StorEdge hardware and competitive trade-ins are available.

Warranty/Service

Two-year	Sun two-year warranty with Same Business Day,* on-site parts delivery, four business hours*, on-site hardware service response, local extended business hours coverage, 24 x 7 phone support.
	average response times.
	Sun StorEdge ArrayStart℠ installation and configuration program (optional)
Service upgrades	SunSpectrum℠ service upgrades are available.

For additional information on this product go to *www.sun.com/storage/t3es*