

Sun StorageTek™ 6540 Array

Ideal for Commercial Applications and High-performance Environments



Highlights

- High-availability architecture and non-disruptive upgrades help users meet stringent reliability requirements
- Data protection software enables replication, snapshot, and volume copy
- Powerful dual controllers and end-to-end four-gigabit-per-second design stand up to the most rigorous computing demands
- Sun StorageTek™ Common Array Manager software provides a browser-based, application-oriented management console that works with all Sun StorageTek Modular family storage systems
- Automated configuration uses predefined Application Profiles to enable precise, predictable, and repeatable results
- A common storage module used across the StorageTek Modular family enables users to pay as they grow and protect IT investments



The Sun StorageTek™ 6540 array, a part of the StorageTek™ Modular family, is designed to handle large data sets in applications such as OLTP, HPTC, and databases. It delivers market-leading performance for primary storage and is a cost-effective business continuity solution. Like all systems in the StorageTek Modular family, the array is designed to deliver investment protection and exceptional data protection while applications evolve. The Modular family is also distinguished by high availability, extensive interoperability, easy manageability, and flexible scalability.

Boost protection with high-availability architecture

High reliability is a prerequisite for high availability, and the Sun StorageTek 6540 array's design permits non-disruptive capacity additions and the ability to change volume characteristics on the fly to optimize protection and minimize risk.

Simplify management and configuration

Centralized, comprehensive management enables users to minimize deployment time and costs. The SMI-S compliant Sun StorageTek Common Array Manager software is the array's browser-based, application-oriented management interface. Accessible from anywhere with the use of a secure Internet connection, the easy-to-use GUI provides at-your-fingertips control through 15

predefined profiles or custom profiles. The Sun StorageTek Common Array Manager software includes built-in performance tracking and automated diagnostics so users may focus on precise, predictable, and repeatable results.

Expand capacity with online, data-in-place functionality

The Sun StorageTek 6540 array, which supports up to 224 disks, is upgradeable and compatible with other members of the Modular portfolio. A storage module provides a building block for the entire portfolio and allows pay-as-you-grow capacity increases. With the ability to mix SATA and Fibre Channel drives, users can design a tiered storage environment with centralized management and integrated data services for business continuity.

StorageTek 6540 Array Specifications

StorageTek 6540 Array

Controller card	Dual Fibre Channel RAID controller								
Cache size (with ECC protection)	Four GB, eight GB, or 16 GB dedicated data cache								
Host interfaces/link speeds	Eight four-GB direct, arbitrated loop, or switched attach ports								
Other interfaces	Eight four Gb/s FC expansion ports Four 10/100 Base-T Ethernet ports Two nine-pin RS-232 serial ports								
RAID level	0, 1, 3, 5, and 1+0								
Cache battery backup	Up to seven days (depending on cache size)								
Integrated data services/ premium features (optional)	<ul style="list-style-type: none"> • Sun StorageTek™ Data Snapshot (optional) (support four snaps per volume, 1,024 per array) • Sun StorageTek™ Data Volume Copy (optional) (support eight active copies per volume, 1,024 per array) • Sun StorageTek™ Data Replicator (optional) (support 64 replicated volumes) • Sun StorageTek™ Storage Domain (4, 8, 16, or 64) 								
Dynamic capacity expansion	Five to 224 drives 365 GB to 112 TB								
Expansion tray	Up to 14 CSMII expansion trays								
Dynamic reconfiguration	Volume expansion, RAID migration, capacity expansion, segment size migration, volume and virtual disk reconfiguration, controller firmware upgrades								
Drive depopulation	Scales from five to 16 hard disk drives per tray								
Volume	Up to 2,048								
Global hot spares	Up to 15								
Maximum array capacity	112 TB								
Disk drives									
Form factor	3.5 in., low-profile								
Interface	Dual-ported Fibre Channel								
Supported drives/system per tray capacity (raw, unformatted)									
Fibre Channel drives	<table border="0"> <tr> <td>73 GB 15,000-rpm 4 Gb/s</td> <td>1,168 GB per tray (three RU)</td> </tr> <tr> <td>146 GB 15,000-rpm 4 Gb/s</td> <td>2,336 GB per tray (three RU)</td> </tr> <tr> <td>146 GB 10,000-rpm 2 Gb/s</td> <td>2,336 GB per tray (three RU)</td> </tr> <tr> <td>300 GB 10,000-rpm 2 Gb/s</td> <td>4,800 GB per tray (three RU)</td> </tr> </table>	73 GB 15,000-rpm 4 Gb/s	1,168 GB per tray (three RU)	146 GB 15,000-rpm 4 Gb/s	2,336 GB per tray (three RU)	146 GB 10,000-rpm 2 Gb/s	2,336 GB per tray (three RU)	300 GB 10,000-rpm 2 Gb/s	4,800 GB per tray (three RU)
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SATA-II drives	500 GB 7,200-rpm 3 Gb/s 8,000 GB per tray (three RU)								
Supported software:									
<ul style="list-style-type: none"> • Sun StorageTek™ QFS Software • Sun StorageTek™ SAM-FS Software • Sun™ Cluster Software • Sun StorageTek™ Enterprise Backup Software (EBS) • Solstice™ DiskSuite 4.2.1 (in conjunction with Solaris 8 Operating System) • Solaris™ Volume Manager (embedded in Solaris 9 Operating System) • Symantec NetBackup (NBU) • Symantec Volume Manager with DMP (VxVM) • Symantec File System (VxFS) • Symantec Storage Foundation 									
Management software support:									
Sun StorageTek Common Array Manager (included)									
SANtricity Storage Manager v9.16 (optional)									

Learn More

For additional information on this product, go to:
sun.com/storagetek/disk_systems/midrange/6540/

Operating system support

- Solaris™ Operating System 8, 9, 10, and x64
- Microsoft Windows 2000 Server and Advanced Server (SP4)
- Microsoft Windows 2003 Server Standard, Enterprise, and Web editions
- HP-UX 11.11 and 11.23
- IBM AIX 5.2, 5.3
- Red Hat Linux AS/ES/WS Enterprise Edition 3.0/4.0
- SUSE LINUX LES 8 and 9
- Netware 6 SP5, Netware 6.5 SP3
- SGI IRIX 6.5.28
- VMWare ESX 3.0

The Sun StorageTek 6540 array is fully supported with major host operating systems and multipath drivers. For details, please refer to Sun StorageTek Interop Tool at: <https://extranet.stortek.com/interop/interop>

Host connectivity

Host/HBA/FC switches	https://extranet.stortek.com/interop/interop
Multipath driver	Sun Traffic Manager for the Solaris OS Veritas DMP as well as native driver for other OS

Warranty

Duration	Three (3) years
Phone support	8 a.m.-8 p.m., Mon-Fri
On-site service	Next business day, 8 a.m.-5 p.m., Mon-Fri
On-site response time	Next business day, local business hours

Service upgrade	Spectrum™ service upgrades are available
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Dimensions

Height x width x depth	17.5cm (6.9 in.) x 48.3cm (19.0 in.) x 65.1cm (25.6 in.)
Weight (maximum)	36.5 kg (80.5 lb.)

Power requirements

AC power (CU)	3.0 A max. operating @ 100 V AC (90–136 V AC range), 50/60 Hz 1.5 A max. operating @ 220 V AC (198–264 V AC range), 50/60 Hz
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Environment

Operating temperature	10° C to 40° C (50° to 104° F)
Relative humidity	20–80 percent noncondensing
Altitude	100 ft. (30.5m) below sea level to 9,840 ft. (3,000m)
Shock	25 G, 3.75 ms triangular
Vibration	Random vibration to specified power spectral density
Heat output	235 watts (804 BTU/hr.)

Regulations

Safety and emissions	IEC 60950, EN 60950, UL/CSA 60950, FCC Part 15 (47CFR15B), CISPR 22 (EN55022—RF Radiated and Conducted Emissions), IEC 61000-3-2, IEC 61000-3-3
Immunity	CISPR 24 (EN55024), IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-11