

Sun StorageTek™ 6140 Array

Advanced data protection for
cost-conscious enterprises



Highlights

- Start small and grow—A storage module common to the entire StorageTek™ Modular family permits online, pay-as-you-grow scalability, protecting investments over time
- Non-disruptive flexibility—Increase productivity by easily and dynamically scaling with the application
- Complete system availability—High-availability design and a broad set of enterprise-level data protection software provides continuous access to data
- Simplify management and configuration—The Sun StorageTek™ Common Array Manager software provides a browser-based, application-oriented management console that works across the entire product family
- With a mix of Fibre Channel and SATA drives, users can easily design a tiered storage environment



The Sun StorageTek™ 6140 array, a StorageTek™ Modular Line storage system, is ideal as primary storage for business-critical applications and as a data protection solution. It is an affordable entry point into a family of products that grows with businesses in capacity, availability, performance, and connectivity, so users can manage data with confidence.

Flexible configurations—start small, grow

The array, which supports up to 112 disks, is upgradeable and compatible across its product family. The StorageTek Modular Line shares a common building block for capacity increases, data-in-place migration, and mixing SATA and Fibre Channel drives within a storage module. Users choose from four Gb/s Fibre Channel ports and two or four gigabytes of cache.

Simplify management and configuration

SMI-S-compliant Sun StorageTek Common Array Manager software is the array's browser-based, application-oriented management console. Users provision by application for precise, predictable, and repeatable results through the use of predefined or custom Application Profiles. Accessible from anywhere, its easy, browser-based management console requires only a secure Internet connection.

Complete system availability

High-availability architecture is the key: The array's redundant design includes switched technology with point-to-point connections. Controller firmware upgrades, capacity and volumes additions, RAID and segment size migration, changing volume characteristics all may be done on the fly, optimizing protection and minimizing risk.

Software for business continuity

Optional software solutions extend data protection and support continuous access. Sun StorageTek™ Data Replicator software enables synchronous and asynchronous replication to remote sites. Sun StorageTek™ Data Snapshot software helps conserve costly disk space with real-time protection of critical volumes. Sun StorageTek™ Volume Copy software helps create independent copies of production volumes quickly.

StorageTek 6140 Array Specifications

StorageTek 6140 Array	6140—2 GB cache	6140—4 GB cache
Controller card	Dual Fibre Channel RAID controller cards	
Cache size (with ECC protection)	Two GB data cache	Four GB data cache
Host ports	Four (SFPs)	Eight (SFPs)
Host interfaces/link speeds	Switched FC or FC-AL / 4 Gb/s, 2 Gb/s, 4 Gb/s	
Other interfaces	(2) 4 Gb/s or 2 Gb/s FC expansion ports (switched loop) (2) 6-pin Mini-DIN to 9 pin serial ports (4) RJ45 10/100 Base-T network connectors	
RAID level	0, 1, 3, 5, and 1+0	
Cache battery backup	Up to 72 hours	
Integrated data services/ premium features (optional)	<ul style="list-style-type: none"> • Sun StorageTek Data Snapshot (supports four snapshots per volume, 512 per array) • Sun StorageTek Data Volume Copy (supports eight active copies per volume, 512 per array) • Sun StorageTek Data Replicator Software (supports up to 32 replicated volumes) • Sun StorageTek Storage Domain: 4, 8, 16, 64 (6140-2 GB cache supports up to 16 only) 	
Dynamic capacity expansion	5 to 64 drives 365 GB to 32 TB	5 to 112 drives 365 GB to 56 TB
Expansion tray (FC-SBOD)	Up to three expansion trays	Up to six expansion trays
Dynamic reconfiguration	Volume expansion, RAID migration, capacity expansion, segment size migration, volume/ virtual disk reconfiguration, controller firmware upgrades	
Drive depopulation	Scales from five to 16 hard disk drives per tray	
Volume	Up to 1,024	Up to 1,024
Global hot spares	Up to 15	Up to 15
Maximum array capacity	32 TB	56 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	73 GB 15,000-rpm 4 Gb/s 146 GB 15,000-rpm 4 Gb/s 146 GB 10,000-rpm 2 Gb/s 300 GB 10,000-rpm 2 Gb/s	1,168 GB per tray (3 RU) 2,336 GB per tray (3 RU) 2,336 GB per tray (3 RU) 4,800 GB per tray (3 RU)
SATA-II drives	500 GB 7,200-rpm 3 Gb/s	8,000 GB per tray (3 RU)

Supported software:

- 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 Environment)
- Solaris™ Volume Manager (embedded in Solaris 9 Operating Environment)
- Symantec™ NetBackup (NBU)
- Symantec™ Volume Manager with DMP (VxVM)
- Symantec™ File System (VxFS)
- Symantec™ Storage Foundation

Learn More

For additional information on this product, go to:
sun.com/storagetek/disk_systems/midrange/6140/

Management software support:

Sun StorageTek Common Array Manager (CAM) software (included)

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 6140 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 OSs

Warranty

Duration:	Three (3) years
Phone Support:	8 AM-8 PM, Mon-Fri
On-Site Service:	Next Business Day, 8 AM-5 PM, Mon-Fri
On-Site Response Time:	Next Business Day, Local Business Hours

Service upgrade	Spectrum™ available
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Dimensions

Height x width x depth	12.95cm (5.1 in.) x 44.70cm (17.6 in.) x 57.15cm (22.5 in.)
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Weight (maximum)	40 kg (88 lb.)
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Power Requirements

AC power (CU)	4.4 A max. operating @100 V AC (90–136 V AC range), 50/60 Hz 1.9 A max. operating @240 V AC (198–264 V AC range), 50/60 Hz
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Environment

Operating temperature	10° 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	10 G, 11 ms half-sine
Vibration	Random vibration to specified power spectral density
Heat output	427 watts (1,459 BTUs/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