



FLEXLINE™ 600 SERIES

STORAGE SYSTEMS

Key benefits

Lower storage costs

Greatly reduce the time and effort it typically takes to manage online storage. Policy-based storage administration frees IT staff to focus on revenue-generating and customer-facing activities.

Increase availability

Gain optimum data availability with inherent enterprise-class reliability — enabled by the FlexLine 600 Series storage systems' integrated controller architecture, advanced RAID protection, intelligent error handling and background media monitoring.

Enhance data protection

Feel confident that as the business grows, data will be well protected. The FlexLine 600 Series storage systems' reliability and ultra-high throughput performance will help protect data within critical backup windows.

Achieve cost-effective and intelligent online archiving

Make fixed-content data more accessible by storing it online with FlexLine 600 Series storage systems. Faster access allows archived data to be used more in day-to-day operations, increasing its value to the business.



FlexLine™ 600 Series storage systems

StorageTek's FlexLine™ 600 Series storage systems offer enterprise-class features on a new, capacity-centric, cost-effective platform. Based on Serial ATA technology, these disk systems are an ideal choice for disk-to-disk-to-tape backup, fixed-content storage and distribution, data replication and general secondary disk storage.

When coupled with a tiered approach to storage, FlexLine 600 Series storage systems play an important role in achieving the benefits of enterprise information lifecycle management. You gain the flexibility to balance storage costs with the value and performance requirements of different types of data.

Powerful features

Enterprise-class reliability

FlexLine 600 Series storage systems are built to deliver enterprise-class reliability, availability and serviceability throughout the storage hierarchy. System errors are logged and analyzed based on predefined rules, and proactive measures are taken when error thresholds are met.

Non-disruptive maintenance, including upgrades, will help keep the system in production. Should a problem arise, hot-pluggable components allow corrective action without bringing the system down.



Simplified and efficient storage management

FlexLine 600 Series storage systems' policy-based management allows classification of data to reduce the time normally required to manage online storage. Through the FlexLine Web-based interface, tasks such as setup, tuning and configuring that would consume valuable time today, will only take seconds to perform.

In addition, FlexLine 600 Series storage systems provide the ability to over-subscribe and manage capacity at the system level. This means less frequent purchase of storage capacity and greatly increases the utilization of this online solution.

In the future, the system's Web-based interface will be CIM-compliant. This will allow the system to work in concert with third-party CIM-compliant management software to simplify integration in multi-vendor storage networks.

Superior performance

FlexLine 600 Series storage systems use an intelligent, integrated chip design that greatly enhances the reliability, performance and functionality of the storage system. This integrated architecture is designed specifically for data protection and fixed-content storage. It offers significant improvements over conventional modular architectures that have been applied to SATA disk storage.

FlexLine 600 Series storage systems controllers achieve high write-through performance by:

- Bringing together all performance-critical storage operations into an efficient, integrated design
- Eliminating data path, command processing and memory access bottlenecks

Product offerings

FlexLine 600 Series storage systems include the FlexLine™ FLX640 dual path, 2 Gb storage system, the higher-performance FlexLine™ FLX680 quad path, 2 Gb storage system and the FlexLine™ FLC600 capacity-centric disk array.

The FLX640 disk controller is the entry-level offering in the FlexLine 600 Series portfolio. It delivers solid data protection performance. The FlexLine FLX680 disk controller meets the needs of larger, more performance-intensive data protection environments.

The FLC600 disk array scales in increments of 500 gigabytes (two drives on one blade) for granular system growth, with a low-capacity entry point of three terabytes. In addition to economical scalability, FlexLine 600 Series storage systems offer high-density arrays, storing. They store up to 58 terabytes in 24u of rack space.

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Applications

Disk-to-disk-to-tape backup — Use cost-effective disk technology to relieve pressure on backup windows, improve reliability of backups, reduce administrative overhead and enable faster recovery in the event of an unplanned outage. Complement the capabilities of StorageTek® tape drives and libraries.

Fixed-content storage and distribution — Improve access to fixed-content data. Overcome the limitations of current archive solutions, such as optical disk and legacy tape, by changing the conventional media price to performance paradigm. Replace optical disk or older tape solutions to reduce costs and enable faster retrieval of e-mail, video images, security surveillance images and other rich-media content.

Data replication — Cost-effectively keep more data online to provide business continuity and rapid recovery capabilities. Enhance recovery point objectives by employing FlexLine 600 Series storage systems as the replication target at your disaster recovery site. Replicate more information assets, heightening business continuity protection.

The FlexLine family

StorageTek's FlexLine family of online storage systems delivers genuine options for flexible storage architectures. FlexLine online storage systems span virtual storage systems, high-performance access-centric systems and cost-effective capacity-centric systems.

While encompassing a broad product spectrum, FlexLine online storage systems provide operational flexibility across the network — a basic premise behind information lifecycle management. This flexibility supports a tiered storage approach designed to store the right data in the right place at the right time — and at the right cost.

StorageTek® — at your service

StorageTek is a pioneer in enterprise storage with a 30-year track record and a corporate culture that nurtures innovation. StorageTek — with its large portfolio of disk, tape and networking systems, services, knowledge and technical expertise — offers true freedom of choice in enterprise storage. Get the systems and technical resources you need to align storage strategy with your business needs — year after year.

To learn more

To learn more about FlexLine online storage systems and how they can help you make information lifecycle management a reality, contact your StorageTek representative or authorized StorageTek reseller.

FlexLine™ 600 Series storage systems specifications

Performance	FLX680 disk controller	FLX640 disk controller	FLC600 disk array
Maximum burst I/O rate	200,000 I/O/sec	100,000 I/O/sec	
Maximum sustained throughput	772 MB/sec	390 MB/sec	
Total cache size	4 GB	2 GB	
Connectivity			
Host interface	2 Gb/sec	2 Gb/sec	
Host connections	16 FC-AL direct attach or 4 FC-SW SAN attach	16 FC-AL direct attach or 2 FC-SW SAN attach	
Drive interface	2 Gb/sec	2 Gb/sec	
Drive connections	4 Fibre Channel	2 Fibre Channel	
Capacity			
Maximum number of drives	232 drives/116–500 GB blades	112 drives/56–500 GB blades	40 (20–500 GB Blades)
Compatible arrays	FLC600	FLC600	
Drive capacity	SATA: 250 GB; blade: 500 GB	SATA: 250 GB; blade: 500 GB	250 GB (7,200 rpm)
Maximum number of FLC600 arrays	5	2	
Drive connection			SATA
Drive interface			200 MB/sec per connection
Availability			
Redundant components	Storage controllers, Fibre Channel drive loops, cache memory, power supplies and cooling fans		N/A
Hot-swap components	500 GB blades, storage controllers, power supplies, cooling fans and battery backup		N/A
High-availability features	Automatic drive failure detection and rebuild using global hot spare drives, cache battery backup		N/A
RAID levels supported	0, 1, 5 and 1+0	0, 1, 5 and 1+0	
Compatibility			
Supported operating systems	Windows Server 2003, Solaris, AIX, Linux	Windows Server 2003, Solaris, AIX, Linux	
Management			
Storage management software	Web interface or CLI	Web Interface or CLI	
Standard features	Online storage management	Online storage management	
	Storage class manager	Storage class manager	
	Over subscription	Over subscription	
	Advanced fault management	Advanced fault management	
	Storage partitions (up to 255 hosts)	Storage partitions (up to 255 hosts)	
Mechanical			
Height	7.0 in (17.78cm)	7.0 in (17.78cm)	7.0 in (17.78cm)
Depth	35.0 in (88.9 cm)	35.0 in (88.9 cm)	35.0 in (88.9 cm)
Width	17.68 in (44.9 cm)	17.68 in (44.9 cm)	17.68 in (44.9 cm)
Unit height	4u* (includes housing for 16 blades)	4u* (includes housing for 16 blades)	4u* (includes housing for 20 blades)
Weight	150.0 lb (68 kg)	150.0 lb (68 kg)	150.0 lb (68 kg)
Environmental			
Temperature	+50° to +104° F (+10° to +40° C)	+50° to +104° F (+10° to +40° C)	+50° to +104° F (+10° to +40° C)
Relative humidity (non-condensing)			10% to 90%
Altitude			Maximum 8,000 ft (2,438.4 m) @ 104° F (40° C)
			Maximum 10,000 ft (3,048 m) @ 98.6° F (37° C)
Temperature gradient			20° C/hr
Heat dissipation	2,422 Btu/hr (dual line cord, combined operation to both)		N/A
Power			
International	240 V, 10 A, power connection as required	240 V, 10 A, power connection as required	
U.S. and Japan	120 V, 15 A, NEMA 5–15	120 V, 15 A, NEMA 5–15	
Input requirements			50 to 60 Hz, 100 to 240 VAC, single phase
Power factor			0.89 minimum
Regulatory compliance			
Electromagnetic compliance	FCC (47 CFR 15, Subpart B) Class A	FCC (47 CFR 15, Subpart B) Class A	FCC (47 CFR 15, Subpart B) Class A
	CE (EN55022 Class A)	CE (EN55022 Class A)	CE (EN55022 Class A)
	VCCI (CISPR 22) Class A	VCCI (CISPR 22) Class A	VCCI (CISPR 22) Class A
Safety	EN 60950	EN 60950	EN 60950

*Rack space is measured in height and expressed as a "u." One u is 1.75 in (4.45 cm) in height.



ABOUT STORAGETEK®

Storage Technology Corporation (NYSE: STK) is a \$2 billion global company that enables businesses, through its information lifecycle management strategy, to align the cost of storage with the value of information. The company's innovative storage solutions manage the complexity and growth of information, lower costs, improve efficiency and protect investments. For more information, visit www.storagetek.com, or call 1.800.275.4785 or 01.303.673.2800.

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