StorageTek®

MCDATA SPHEREON 3232 FABRIC SWITCH

Key benefits

Grow as needed
Scalable 32-port switch architecture and McDATA's exclusive Flexport technology provide a solid growth path and connectivity-on-demand.

Integrate seamlessly
Auto-sensing one- or two-gigabit per second throughput, a range of port counts and forward/backward compatibility across the McDATA switch portfolio means easy upgrades and a protected investment.

Leverage resources
Robust networking capabilities allow storage and server resources to be leveraged cost-effectively, improving asset utilization and reducing capital expenditures.

Jumpstart productivity
Extensive education and training options help you get up to speed quickly and stay there.

Manage simply
Advanced online diagnostics remove day-to-day management headaches. Software is offered for any size SAN environment, from small to very large.

Increase availability
Hot-swappable components keep systems online, HotCAT firmware load and activation allow upgrades to happen with no disruption or downtime.

Boost profitability
StorageTek helps you cut costs, unleash trapped profits and improve margins with a SAN infrastructure that's built for efficiency and able to grow as needed.

McDATA Spheron 3232 fabric switch

What will your enterprise look like in a few years? At StorageTek®, we don't have a crystal ball, but we do have the next best thing. The McDATA Sphereon 3232 fabric switch from StorageTek offers up to 32 ports — the highest non-blocking port count in the industry — plus total configuration freedom so you can start small and add more ports as needed. You build a SAN that can grow non-disruptively, while protecting your investment in systems, software, training and data. Whether you're building a large department-size SAN or consolidating multiple SAN fabrics into an enterprise-wide network, the Sphereon 3232 fabric switch provides the kind of freedom that an unpredictable world requires.

Go configure
The Sphereon 3232 fabric switch provides powerful 2-gigabit-per-second non-blocking connections, Fibre Channel performance, redundant hot-pluggable components, transparent upgrades and knowledgeable technical support. It's perfect for small or medium-sized enterprises that want to cost-effectively meet connectivity, management and availability needs with switches rather than higher cost directors. It's the cornerstone of any flexible SAN that needs to operate flawlessly and evolve over time.

Capacity on demand
The Sphereon 3232 fabric switch is offered in a 16-port Flexport (expandable) version and a fully populated 32-port version. Exclusive Flexport technology provides connectivity-on-demand, so new ports can be added with no business disruption. Simply pay for the ports you need today, then order and install an expansion kit down the road to gain access to reserve capacity as needed. Expansion happens within your current SAN infrastructure, so you can "pay as you grow," expand without limit and get the benefits of a large-switch SAN without the up-front capital expense.

Flexible by design
Larger departments and applications are well served by the long-distance, ready-to-grow characteristics of the Sphereon 3232 fabric switch. Large port count improves configuration flexibility while creating a more efficient — and cost-effective — throughput fabric with fewer inter-switch links (ISLs). Its OPENtrunking Accelerator allows multiple ISLs to be combined into a single trunk for cost-effective port consolidation. And like all McDATA switches, the Sphereon 3232 fabric switch is built on the Extendable Open Network (EON), so its forward and backward compatible with all other McDATA switches across every class of fabric connectivity. Your investment is protected, your SAN can evolve as needed without roadblocks, without jeopardizing your investment in data.

Best-in-class availability

McDATA designed the Sphereon 3232 fabric switch to reduce the severe costs and impacts of downtime. Exclusive Hot Code Activation Technology (HotCAT) allows non-disruptive microcode loading and activation. Redundant hot-pluggable power and cooling components provide uninterrupted operation and help avoid unplanned downtime. Online diagnostics, advanced error detection and powerful fault isolation mean faster, easier maintenance and repairs. And with call-home notification capabilities in the EFC Manager tool and SANavigator software, you're notified immediately if there's ever a problem.

The sustainable business

With long-distance connectivity of up to 120 kilometers per port, the Sphereon 3232 fabric switch is ideal for larger, switch-based fabrics or for department/workgroup fabrics that tie into a Director-based SAN backbone. It plays an integral role in disaster recovery and remote backup architectures, providing the necessary memory and optical signal strength for 1-gigabit-per-second performance up to 120 kilometers, and 2-gigabit-per-second performance up to 60 kilometers. (Note that distances beyond 20 kilometers require optical repeaters for signal integrity). Coupled with other StorageTek disk and tape offerings, the Sphereon 3232 fabric switch forms the basis of a sustainable end-to-end SAN infrastructure that keeps your data flowing and your business running.

Management made simple

McDATA'S SANavigator software, EFC Manager and SANpilot management tool provide a range of options for small to very large fabrics. These products reduce management risk, simplify day-to-day management tasks and allow you to make the most of limited storage resources.

Ready, set, evolve

McDATA switches allow your SAN infrastructure to adapt as needed. And StorageTek provides storage systems, software, solutions, professional services and training to meet literally any storage requirement, today or tomorrow. It's the ideal combination for ever-evolving enterprises with ever-changing IT challenges. To learn more, visit StorageTek at www.storagetek.com.

MCDATA SPHEREON

3232

FABRIC SWITCH

McDATA Sphereon 3232 fabric switch specifications

Performance

Port speed	1.0625–2.125 Gb/sec, full duplex
Buffer credits	60/port
Aggregate throughput	128 Gb/sec
Latency	<2 microsecond average
Distance support	75 miles (120 km) @ 1 Gb/sec,
	37 miles (60 km) @ 2 Gb/sec

Capacity

Ports per chassis	32 GL ports

Availability

High-availability features	HotCAT online, non-disruptive firmware upgrades
	Hot-plug, redundant power and cooling
	Hot-plug small form factor (SFP) transceivers
	Online, non-disruptive firmware load and activation
	Online diagnostics
	Fault isolation tools for network-wide activity
Serviceability	Hot-plug power and cooling modules
	Hot-plug optics
	HotCAT firmware upgrade
	Call home, e-mail (with McData software)
	Maintenance port (DSUB)
	Thermal Protection
	Unit, port, and FRU beaconing
	System error LED
	FRU failed LED

Compatibility

Fibre Channel protocols	FC-PH Rev 4.3, FC-PH-2, FC-PH-3, FC-GS-2, FC-FLA, FC-FG, FC-SW-2
SNMP	Fibre Alliance MIB
	Fibre channel fabric element MIB
	TCP-IP MIB II
TCP-IP MIB groups	System, Interface, Address Translation, IP, ICMP, TCP, UDP, SNMP
Fibre Channel classes of service	Class 2, 3, F
Media types	Hot plug, industry standard LC Small Form Factor (SFP)
Supported optical media types/ distances	Short-wave: 1,640 ft (500 m) Long-wave: 6.2 miles (10 km) With repeaters: approximately 60 miles (120 km)
Access	In-band Ethernet (10/100 Mbps)

Management

Management options	Embedded SANpilot fabric management; McDATA software; SNMP; Open Systems Management Server (OSMS)
Fabric services	Simple name server; in order delivery (Class 2,3); management server (optional); broadcast name server zoning
Diagnostics	Power on self test (POST); Online port, internal & external loopback; Online system health

Mechanical

Height	2.63 in (6.68 cm)
Depth	26.25 in (66.68 cm)
Width	17.5 in (44.45 cm)
Unit height	1.5u*
Weight	26 lb (11.76 kg)
Cabling	9/125 micron single-mode, 6.2 miles (10 km)
	50/125 micron multimode, 1,640 ft (500 m)
	62.5/125 micron multimode, 1,148 ft (300 m)
Installation options	Rack mountable, 19 in EIA rack Stackable tabletop

Environmental

Temperature	
Temperature (operating)	+40° to +104° F (+4° to +40° C)
Temperature (non-operating)	+40° to +125° F (+4° to +52° C)
Relative humidity	8%–80%
Altitude	
Altitude (operating)	10,000 ft (3,048 m)
Altitude (non-operating)	40,000 ft (12,192 m)

Power

Operating voltage	100–230 VAC
Amps	2
Heat output	706 BTU/hr

Regulatory compliance

Certification	UL, CSA, CE Mark, VCI Class A, FCC part 15 Class

*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), a $2 billion worldwide company with headquarters in Louisville, CO, has been delivering a broad range of storage management solutions designed for IT professionals for over 30 years. StorageTek offers solutions that are easy to manage, integrate well with existing infrastructures and allow universal access to data across servers, media types and storage networks. StorageTek's practical and safe storage solutions for tape automation, disk storage systems and storage integration, coupled with a global services network, provide IT professionals with confidence and know-how to manage their entire storage management ecosystem today and in the future.

StorageTek products are available through a worldwide network. For more information, visit www.storagetek.com, or call 1.800.275.4785 or 01.303.673.2800.

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