

# **IBM System Storage Product Guide**



#### The future of your business is already here

IBM System Storage™ solutions are built with the success of your business in mind. End-to-end storage ingenuity and unmatched expertise from IBM help you reduce costs, risks and complexity while improving efficiencies and the responsiveness of your infrastructure and people.

#### Go green for the planet—and your bottom line

Saving energy means saving money. Get a green "thumbs up" when you implement IBM System Storage solutions to drive down runaway costs in power, cooling and space. Regardless of the size of your business, IBM offers energy-efficient strategies and savings for a sustainable enterprise.

Power up your savings by powering down storage inefficiencies

- Prepackaged storage kits and advanced systems virtualization from IBM facilitate easier ways for you to reduce costs, lower energy consumption and dramatically improve storage utilization—without affecting performance.
- Automated tiered storage management and exceptional data mobility let you better match applications and investments to the value of stored data—saving both time and money.

## Easy come, easy grow with a nimble, responsive IT infrastructure

Being responsive to changing business needs is often easier said than done. IBM System Storage helps you unlock business resiliency and stay ahead of everyday challenges, with easy-to-use, affordable storage offerings that flexibly manage growth, complexity and risk.

Effectively manage your data with the strength and simplicity of IBM System Storage

- Simplified storage platforms from IBM use graphical interfaces and integrated systems to effortlessly manage both physical and virtual resources across a heterogeneous environment—for easier management of your growing business.
- IBM System Storage platforms allow you to dynamically and reliably scale storage with pervasive infrastructure flexibility to keep you in control of data growth and costs.
- Protecting data is vital to operating efficiently under normal business conditions—and rapidly recovering during emergencies. System Storage helps you reduce risk with rocksolid data protection tools and high availability across the enterprise, especially when you need it most.

# Broaden your business horizons with innovation that matters

Imagine breakthrough innovations that allow you to run your organization not only faster, but better, helping to attract new customers and gain competitive advantages. System Storage solutions help you stay consistently out front so that you can make strategic decisions on how to use advancements in technology to broaden your business and gain a better return on investment.

Transform your business through innovation that matters

- Delineated along a clear technical roadmap to help ensure smooth upgrades and transitions, IBM storage platforms are designed to meet even the most stringent data storage requirements, regardless of changes in future technology.
- The long-term binary compatibilities of System Storage platforms foster longevity of the equipment, applications and skills that support your organization, even as new systems are introduced.

### Entry SAN switches for easy-to-use SMB solutions

IBM System Storage SAN24B-4 Express (2498-B24, 249824E)  Provides high-performance, scalable and simple-to-use fabric switching with 8, 16 or 24 ports operating at 8, 4, 2 or 1 Gigabits per second (depending on which optical transceiver is used) for servers running Microsoft® Windows®, AIX®, UNIX®, and Linux® operating systems, server clustering, infrastructure simplification and business continuity solutions. The SAN24B-4 Express includes EZSwitchSetup wizard, which is an embedded setup tool designed to guide novice users through switch setup, often in less than five minutes.

IBM TotalStorage® SAN16B-2 (2005-B16) IBM TotalStorage SAN16B-2 Express Model (200516B)

 Provides high-performance, scalable and simple-to-use fabric switching with 8, 12 or 16 ports operating at 1, 2 and 4 Gigabits per second (Gbps) fabric for servers running Microsoft Windows, AIX, UNIX, Linux, and IBM OS/400® operating systems, server clustering, infrastructure simplification and business continuity solutions. The SAN16B-2 includes EZSwitchSetup wizard, which is an embedded setup tool designed to guide novice users through switch setup, often in less than five minutes.

Cisco® MDS 9124 **Express for IBM System Storage** (2053-424, 241724C)  Provides high-performance, scalable and simple-to-use fabric switching with 8, 16 or 24 ports operating at 1, 2 and 4 Gbps for servers running Microsoft Windows, UNIX, Linux, NetWare and OS/400 operating systems, server clustering, infrastructure simplification and business continuity solutions. The switch includes replaceable power supply, Virtual SAN, Cisco Fabric Manager and redundant power supply feature designed to simplify setup and ongoing maintenance for Cisco MDS 9000 users.

#### Midrange SAN switches for scalable SMB and enterprise solutions

(2498-B40, 249840E)

IBM System Storage SAN40B-4 Provides high-performance, scalable and simple-to-use fabric switching with 24, 32 or 40 ports operating at 8, 4, 2 or 1 Gigabits per second (depending on which optical transceiver is used) for servers running Microsoft Windows, AIX, UNIX, Linux, OS/400 and z/OS® operating systems, Many advanced functions are available to facilitate operation in medium and large networks.

IBM System Storage SAN32B-3 (2005-B5K, 20055KB)

• Provides high-performance, scalable and simple-to-use fabric switching with 16, 24 or 32 ports operating at 1, 2 and 4 Gbps for servers running Microsoft Windows, UNIX, Linux, OS/400 and z/OS operating systems, server clustering, infrastructure simplification and business continuity solutions. The SAN32B-2 and SAN32B-3 include dual replaceable power supplies, Advanced Zoning, Fabric Watch and Web Tools.

IBM System Storage SAN80B-4 (2498-B80)

• Provides high-performance, scalable and simple-to-use fabric switching with 48, 64 or 80 ports operating at 8, 4, 2 or 1 Gigabits per second (depending on which optical transceiver is used) for servers running Microsoft Windows, AIX, UNIX, Linux, OS/400 and z/OS operating systems. Many advanced functions are available to facilitate operation in medium and large networks.

IBM TotalStorage SAN64B-2 (2005-B64)

 Provides high-performance, scalable and simple-to-use fabric switching with 32, 48 or 64 port operating at 1, 2 and 4 Gbps fabric for servers running Microsoft Windows, UNIX, Linux, NetWare, OS/400 and IBM z/OS operating systems.

Cisco MDS 9134 for **IBM System Storage** (2054-434, -S34)

- Designed to address the needs of medium-sized businesses and large enterprises.
- Model 434 provides high-performance, scalable and simple-to-use fabric switching with 24 or 32 ports operating at 1, 2 and 4 Gbps for servers running Microsoft Windows, UNIX, Linux, NetWare, OS/400 and z/OS operating systems, server clustering, infrastructure simplification and business continuity solutions.
- Model S34 provides stacked switch bundle with 48, 56 or 64 port switch fabric with two 10 Gbps Inter Switch Links (ISLs).

## Enterprise SAN directors for high availability and scalability enterprise solutions

IBM System Storage SAN768B (2499 - 384)

 Premier fabric backbone for data network consolidation in large enterprise data centers. Provides high performance and high availability data networking with new industry-leading 8 Gbps Fibre Channel (FC) technology. It is also the first member of the IBM System Storage b-type family designed to exploit Brocade®'s new Data Center Fabric architecture. The SAN768B introduces Inter-Chassis Links (ICLs) to connect two systems to form a 768-port fabric. With 16 to 384 ports per system, it includes all capabilities of SAN256B (including the Fibre Channel Routing Blade and the 10 Gbps FC Blade) plus adds Adaptive Networking to enable Quality of Service (QoS) management and Integrated Routing to enable interconnect of heterogeneous SAN fabrics.

### Enterprise SAN directors for high availability and scalability enterprise solutions

#### IBM TotalStorage SAN256B (2109-M48)

 High-performance, high-density and high-availability SAN director designed to be the foundation for large enterprise-class infrastructure simplification and business continuity solutions. The SAN256B director provides from 16 to 384 ports and contains two control processors for high-availability, supporting one to eight blades. Two different types of switch blades are available; one capable of supporting 4, 2 and 1 Gbps link speeds and the other type capable of supporting 8, 4 and 2 Gbps link speeds. Switch blades contain 16, 32 or 48 ports, Each port can support either Fibre Channel or FICON® links. A Fibre Channel Routing blade is available to enable routing between heterogeneous SAN fabrics and distance extension between sites using FCIP. A 10 Gbps FC switch blade is available to support highspeed Inter-Switch Links (ISLs), and an iSCSI blade is available to enable low-cost connectivity to servers via Ethernet. Standard features including Advanced Inter-Switch Link (ISL) Trunking, Web Tools, Advanced Zoning, Fabric Watch, Performance Monitoring and Fabric Access Layer (API).

IBM TotalStorage SAN140M (2027-140)

- High-availability enterprise SAN director for Intel® processor-based servers. IBM System i™ systems. IBM System p<sup>™</sup> servers and IBM System z<sup>™</sup> servers. Provides 16 to 140 ports, scalable in 4-port increments; 1, 2 and 4 Gbps Fibre Channel and FICON switch for Windows, Linux, UNIX and z/OS servers
- Provides 10 Gbps backbone links for high-performance continuity solutions.

IBM TotalStorage SAN256M (2027-256)

 High-availability enterprise SAN director for Intel processor-based servers, System i systems, System p servers. IBM System x<sup>™</sup> servers and System z mainframes. Provides 64 to 256 ports, scalable in 32-port increments; 1, 2 and 4 Gbps Fibre Channel and FICON director with 10 Gbps backbone links for Windows, Linux, UNIX and z/OS servers. Includes Director FlexPar capability for up to four logical partitions with separate fabric services.

Cisco MDS 9506 for **IBM System Storage** (2054-E04)

- High-availability enterprise SAN director for Intel processor-based servers, System i systems, System p servers and System z mainframes. Scalable from 12 to 192 1, 2, 4 and 10 Gbps ports with one to four 4-, 12-, 24- and 48-port Fibre Channel modules for Windows, Linux, UNIX and z/OS servers.
- An 18/4 4 Gbps Fibre Channel/GbE port multiservice module enables high-performance, cost-effective SAN extension over IP for continuity solutions.

Cisco MDS 9509 for **IBM System Storage** (2054-E07)

- High-availability enterprise SAN director for Intel processor-based servers, System i systems, System p servers and System z mainframes. Scalable from 12 to 336 1, 2, 4 and 10 Gbps ports with one to seven 4-, 12-, 24- and 48-port Fibre Channel modules for Windows, Linux, UNIX and z/OS servers.
- An 18/4 4 Gbps Fibre Channel/GbE port multiservice module enables high-performance, cost-effective SAN extension over IP for continuity solutions.

Cisco MDS 9513 for **IBM System Storage** (2054-E11)

- High-availability enterprise SAN director for Intel processor-based servers, System i systems, System p servers and System z mainframes. Scalable from 12 to 528 1, 2, 4 and 10 Gbps ports with one to eleven 4-, 12-, 24- and 48-port Fibre Channel modules for Windows, Linux, UNIX and z/OS servers.
- An 18/4 4 Gbps Fibre Channel/GbE port multiservice module enables high-performance, cost-effective SAN extension over IP for continuity solutions.

### SAN routers to connect heterogeneous SAN fabrics and enable distance extension using Fibre Channel over IP

IBM System Storage SAN04B-R router (2005-R04)

• Provides SAN distance extension using FCIP over the Internet for IBM System x servers, System i systems, and System p server environments. The SANO4B-R includes two 4, 2 and 1 Gbps Fibre Channel ports and two 50 Megabits per second Ethernet ports, FCIP Tunnelling Service for SAN extension of IP WAN infrastructure features is included

IBM TotalStorage SAN18B-R SAN router (2005-R18)

 Provides multiprotocol SAN routing for IBM System x servers, System i systems, System p servers and System z mainframes. The SAN18B-R includes sixteen 4, 2 and 1 Gbps Fibre Channel or FICON ports and two Gigabit Ethernet ports, FC-FC Routing for SAN island consolidation and optional FCIP Tunnelling Service for SAN extension of IP WAN infrastructure features are included.

Cisco MDS 9222i for **IBM System Storage** (2054-E01)

- · Designed to address the needs of medium-sized businesses and large enterprises, the modular 18/4 (4 Gbps Fibre Channel/GbE) port multiservice SAN router enables high-performance, cost-effective SAN extension over IP for continuity solutions.
- Scalable from 18 to 66 1, 2, 4 and 10 Gbps ports with one 4-, 12-, 24- and 48-port Fibre Channel module for Windows, Linux, UNIX and z/OS servers.

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IBM Systems and Technology Group Route 100 Somers, NY 10589

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June 2008
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