

IBM System Storage Product Guide



Today, information has become the lifeline for business sustainability and competitive advantage. Companies of all sizes—companies like yours—are searching for practical ways to create business value—to get their arms around information, correlate insights and to confidently predict outcomes and take action.

For CIOs, the information era poses unique challenges: how to cost-effectively store, archive and retrieve a virtual explosion of new information, how to protect and secure that information, meet compliance requirements and make that information accessible for business insight, where and when it's needed.

Without a dynamic information infrastructure, you may be facing higher operational costs and greater exposure to business risks.

IBM offers Information Infrastructure solutions to help you efficiently manage information growth, support compliance, reduce storage and archiving costs and enable continuous access to information in support of business requirements.

Learn more about IBM Information Infrastructure, including the full range of data storage solutions and companion software and services offerings at: ibm.com/information_infrastructure.

What's New?

IBM has invested billions of dollars to enhance System Storage™ products and services to better meet the information infrastructure needs of businesses like yours. This Product Guide features several new products:

- IBM System Storage TS7650 ProtecTIER® Data Deduplication Appliance
- IBM XIV® Storage System IBM System Storage
- SAN Volume Controller Entry Edition

- IBM System Storage N6060 series
- IBM Self-encrypting Storage and Key Management Solution (TKLM + LTO bundle)
- IBM Virtual Tape for Mainframe (VTFM)

The following products featured in this guide have been significantly enhanced:

- IBM System Storage DS8000® R4.2 Disk System with new options for drive-level disk encryption, Solid State storage, and 1 TB SATA drives
- IBM System Storage DS3000 Express
- IBM Comprehensive Data Protection Solution (TSM Fastback bundle)

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.

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

IBM System Storage (SAN40B-4 2498-B40, 249840E)

- 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 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.

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. The optional FICON Accelerator feature is available on the Fibre Channel Routing Blade to support mainframe Global Mirror (formerly XRC) and remote tape applications over extended distances. A 10 Gbps FC switch blade is available to support high-speed 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).

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

- High-availability enterprise SAN director for Intel® processor-based servers, IBM System i® systems, System p® servers and System z® mainframes. Scalable from 12 to 192 1, 2, 4, 8 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, 8 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, 8 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 SAN04B-R includes two 4, 2 and 1 Gbps Fibre Channel ports and two 50 Megabits per second Ethernet ports. A Performance Enhancement upgrade is available to activate all 16 Fibre Channel ports and increase the speed of the two Ethernet ports to 1 Gbps each. FCIP Tunnelling Service for SAN extension of IP WAN infrastructure features is included. The optional FICON Accelerator feature is available to support mainframe Global Mirror (formerly XRC) and remote tape applications over extended distances. Fibre Channel Routing is standard to support connection to multiple fabrics.

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, 8 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 Global Services for System Storage and Storage Networking

Data Storage Services from IBM can help you achieve business objectives by creating cost-effective data storage solutions that address the requirements of key business applications. These solutions can support multiple platforms and product vendors, helping to provide enhanced protection for critical business data, increased asset utilization, availability and reliability levels with reduced management costs.

IBM Global Services, as the leading data storage services provider, brings best practices from its thousands of customer engagements to work with your employees to integrate new solutions and technology with your business and IT needs. IBM offers a comprehensive portfolio of data storage services including:

- Assess**
 - Analysis of enterprise information needs and environment
 - Defined enterprise-wide storage strategies
 - Quantified business benefits
- Plan**
 - Backup/restore and business continuity planning
 - Performance and capacity planning
 - Enterprise security architecture
 - Storage migration and consolidation
- Design**
 - Networked storage architecture design
 - SAN configuration and integration services
 - Proof of concept, validation and certification
- Implement**
 - Implementation, testing and migration services
 - Education and training
 - Installation, relocation, cabling and site preparation
- Run**
 - Business and application recovery services
 - Systems monitoring and management
 - Managed Storage Services

IBM Global Services has a track record in offering services for open and mainframe storage, data migration, installation and support services for IBM and non-IBM environments. Some examples are:

- IBM Storage Strategy Assessment assists with the vision and strategy, assessment, architecture and conceptual designs to help customers optimize their storage infrastructure to new architectures.
- IBM Planning Services for 3494 Automated Tape Library and Virtual Tape Server can help improve tape storage management and gain control of an often expanding library of tapes.
- IBM Operational Support Services for Tivoli Storage Manager assists customers in the planning and implementation of storage management software.
- IBM Managed Storage Services offer scalable, cost-effective storage capacity, management and backup/restore services on a usage basis.

More information about IBM storage services can be found at ibm.com/services/storage.

IBM Global Financing

Financing that supports throughout the technology life cycle

IBM Global Financing can help you accelerate your acquisitions of the latest technology and services, and help make your IT and information infrastructure projects more affordable by providing competitive, customized financing of your storage, server, PC, software and services investments. In addition, IBM Global Financing can also enable you to reduce technology obsolescence risk and handle planning for disposal and replacement of your IT hardware assets. With single-source, customized, competitive financing of the entire life cycle of your IT equipment, it is easier to manage both the up-front investment and the ongoing operating costs.

From acquisition through daily use, buyback and disposal, our end-to-end offerings form the foundation of a cohesive technology management strategy, improve asset management and increase your flexibility in small and large IT projects.

Offerings, rates, terms and availability may vary by country. Contact your local IBM representative or visit the Web at ibm.com/financing

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Somers, NY 10589

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