



Highlights

- Gain great flexibility for diverse deployment strategies with the Gen 5 Fibre Channel switch, which delivers 16 Gbps performance with up to 48 ports in an energy-efficient, 1U form factor
 - Leverage Ports on Demand (PoD) capabilities to achieve fast, easy and cost-effective scaling from 24 to 48 ports in 12-port increments
 - Simplify management with Fabric Vision technology,¹ which helps reduce operational costs and optimize application performance
 - Maximize availability with nondisruptive software upgrades and redundant, hot-pluggable components
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IBM System Storage SAN48B-5

Designed to meet the demands of hyper-scale private or hybrid cloud storage environments

The IBM® System Storage® SAN48B-5 switch is designed to meet the demands of hyper-scale private or hybrid cloud storage environments by delivering Gen 5 Fibre Channel technology and capabilities with 16 Gbps performance that support highly virtualized environments. To enable greater flexibility and investment protection, SAN48B-5 is configurable in 24, 36 or 48 ports and supports 2, 4, 8, 10 or 16 Gbps speeds in an efficiently designed 1U package. This switch—now enhanced with enterprise connectivity options that add support for IBM FICON® connectivity—can provide a highly reliable infrastructure when used with fast, scalable IBM z Systems™ servers.

A building block for virtualized private or hybrid cloud storage

SAN48B-5 is designed to provide a critical building block for today's highly virtualized private or hybrid cloud storage environments. It can simplify server virtualization and virtual desktop infrastructure (VDI) management while meeting the high-throughput demands of enterprise data centers.

Enhanced technology that is flexible, simple and easy to use

Offering low-cost access to Gen 5 Fibre Channel technology while providing “pay-as-you-grow” scalability as well as reliability, availability and serviceability capabilities to meet the demanding requirements of an evolving storage environment, SAN48B-5 is designed to deliver Fabric



Vision technology,¹ which uses the hardware, Fabric Operating System (FOS) and integration with IBM Network Advisor² to provide advanced functions within a flexible, simple and easy-to-use solution.

SAN48B-5 can also be deployed as a full-fabric switch or as an Access Gateway, which simplifies fabric topologies and heterogeneous fabric connectivity (the default mode setting is a switch). Organizations can easily enable Access Gateway mode³ via IBM Network Advisor v11 or later or a command-line interface.

Fabric Operating System and management software

The FOS included with each SAN48B-5 includes all the functions necessary to operate a base system. The SAN48B-5 Gen 5 Fibre Channel base system requires FOS v7.0.1 or later to take advantage of the advanced functions delivered through Fabric Vision technology.

The Advanced Web Tools, Advanced Zoning, Virtual Fabrics, Full Fabric, Fabric Watch and Enhanced Group Management features are part of the base FOS and do not require a license. When using FOS v7.2 or later, organizations can also access additional base functions such as Server Application Optimization and Adaptive Networking.⁴

Advanced capabilities can be enabled with optional license activation features. Some of these licenses are: FICON with Control Unit Port (CUP) Activation, Inter-Switch Link (ISL) Trunking, Extended Fabrics, 12-port SW Upgrade, Integrated Routing, Integrated 10 Gbps Fibre Channel Activation and the Enterprise bundle.⁵

IBM Network Advisor software² supports SAN48B-5 Gen 5 Fibre Channel technology by providing end-to-end management of data center fabrics from storage ports on networked storage systems to host bus adapters attached to physical or virtualized servers. IBM Network Advisor v12.0 or later is necessary to support transitions to cloud environments.

Simplified management and robust network analytics

SAN48B-5 with Fabric Vision technology,¹ an extension of Gen 5 Fibre Channel, provides a breakthrough hardware and software solution that helps simplify monitoring, maximize network availability and dramatically reduce costs. Featuring innovative monitoring, management and diagnostic capabilities, Fabric Vision technology enables administrators to avoid problems before they impact operations, helping organizations meet service level agreements (SLAs). Some key advantages of SAN48B-5 with Fabric Vision³ include:

- Dramatically reduced costs
 - Helps eliminate the need for expensive third-party monitoring, diagnostics and test equipment through built-in flow monitoring, flow mirroring and traffic-generator tools
 - Pre-tests and validates the SAN infrastructure to accelerate deployments and simplify ongoing support
 - Automates the deployment of threshold-based rules and policies for proactive monitoring and management, reducing operational costs
- Maximum infrastructure uptime
 - Provides a customizable dashboard that displays the overall health of the storage area network (SAN), helping to pinpoint problems faster and enabling trend analysis
 - Features critical diagnostic and monitoring capabilities, helping to ensure early problem detection and recovery
 - Validates the health, reliability and performance of the network prior to deployment and for ongoing support, helping to reduce the risk of downtime

- Optimized application performance
 - Provides comprehensive visibility into flows in the fabric, including the ability to automatically learn (discover) flows and nondisruptively monitor flow performance
 - Instantly identifies congestion or abnormal levels of latency in the fabric and identifies exactly which devices and hosts are impacted by the bottleneck

Outstanding price/performance for growing SAN workloads

SAN48B-5 delivers outstanding price/performance for growing SAN workloads through a combination of enhanced throughput and an affordable switch form factor. Moreover, a 24-port base configuration, easy administration, 1U footprint and low energy consumption can help to reduce your total cost of ownership (TCO). Enterprise-class capabilities combined with a lower TCO can yield higher performance when compared to 10 GbE storage networking alternatives at a similar cost.



Gen 5 Fibre Channel switch features 16 Gbps performance and up to 48 ports in an energy-efficient, 1U form factor.

Why IBM?

To stay competitive in the global marketplace, employees need to have access to the right information at the right time to help them be effective, creative and highly innovative. For today's smarter planet, where organizations and networks are more instrumented, interconnected and intelligent than ever before, IBM provides flexible, scalable and open standards-based business-class and global enterprise-class storage networking solutions.

IBM System Storage SAN48B-5 at a glance

Product number	2498-F48
Hot-swap components	Power supplies, fan modules, small form-factor pluggables (SFPs)
Warranty	One-year; customer-replaceable unit (CRU); and onsite, next-business-day response; warranty service upgrades are available
Optional features	Please refer to the SAN48B-5 Redbooks Product Guide to review most current optional features
Size	43.8 cm (17.23 in.) W x 4.3 cm (1.7 in.) H x 44.3 cm (17.45 in.) D
Weight	9.16 kg (20.2 lb) (maximum ports fully populated)

For more information

To learn more about IBM System Storage SAN48B-5, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/systems/storage/san/b-type/san48b-5/

Additionally, IBM Global Financing can help you acquire the IT solutions that your business needs in the most cost-effective and strategic way possible. For credit-qualified clients we can customize an IT financing solution to suit your business requirements, enable effective cash management, and improve your total cost of ownership. IBM Global Financing is your smartest choice to fund critical IT investments and propel your business forward. For more information, visit: ibm.com/financing



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Actual available storage capacity may be reported for both uncompressed and compressed data and will vary and may be less than stated.

- ¹ For most current information, please refer to the [Fabric Vision technology solution brief](#).
- ² For more information, please refer to the [IBM Network Advisor data sheet](#).
- ³ Some fabric services do not apply or are unavailable when using Access Gateway mode.
- ⁴ For more information, please refer to the [SAN48B-5 Redbooks Product Guide](#)
- ⁵ The Enterprise bundle includes one license for each of the following: Extended Fabric, Advanced Performance Monitoring, Trunking Activation, Adaptive Networking, Server Application Optimization and Fabric Vision.



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