IBM System Networking SAN24B-5 switch

Flexible, easy-to-use, entry-level SAN switch for private cloud storage

Highlights

- Gain flexibility, simplicity and enterprise-class functionality in a 24-port, 1U form factor entry-level switch

- Scale from 12 to 24 ports using Ports on Demand (PoD) capabilities

- Leverage Fabric Vision technology[1] and IBM® Network Advisor[2] dashboards to simplify administration, increase uptime and reduce costs

- Maximize resiliency with nondisruptive software upgrades and redundant power supply option

- Simplify deployment with the EZSwitchSetup wizard and support high-performance fabrics by using ClearLink Diagnostic Ports (D_Ports)

The IBM System Networking SAN24B-5 switch features both Gen 5 Fibre Channel and Fabric Vision technologies—providing outstanding price to performance value in an entry-level switch. SAN24B-5 gives organizations the flexibility, simplicity and enterprise-class functionality they need to unleash the full potential of high-density server virtualization, cloud architectures and next-generation storage. The switch is configurable in 12 or 24 ports and supports 2, 4, 8 or 16 Gbps speeds in an efficiently designed 1U form factor. It comes with a single power supply and integrated fans. A second optional power supply provides additional redundancy for increased resiliency.

SAN24B-5 provides a critical building block for today's highly virtualized, private cloud storage environments. It can simplify server virtualization and virtual desktop infrastructure management while meeting the high-throughput demands of solid-state disks. SAN24B-5 supports multi-tenancy in cloud environments through quality-of-service (QoS) and fabric-based zoning features. It can also help minimize downtime in mission-critical environments by delivering high reliability, availability and serviceability.

Enterprise-class features in an entry-level switch

SAN24B-5 features advanced monitoring, diagnostics, reliability, availability, serviceability and redundancy capabilities in an entry-level switch to maximize availability, optimize performance and simplify

administration. Its enterprise-class features include critical diagnostic and monitoring capabilities, non-intrusive and non-disruptive monitoring on every port, forward error correction, additional buffers, real-time bandwidth consumption by hosts and applications on inter-switch links (ISLs), and a second optional power supply.

Flexible, simple and easy-to-use industry-leading technology

SAN24B-5 delivers industry-leading Gen 5 Fibre Channel technology within a flexible, simple and easy-to-use solution. The base configuration includes 12 activated ports, with up to 24 ports on demand. In addition to providing best-in-class scalability, SAN24B-5 is easy to deploy with the EZSwitchSetup wizard and the ClearLink diagnostics (D_Ports) feature, which can help streamline setup.

SAN24B-5 can 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 Mode via the IBM Network Advisor[2] or a command-line interface.

Fabric operating system and management software

The Fabric Operating System (FOS), which is included with each SAN24B-5, contains all the functions necessary to operate a base system. The Gen 5 Fibre Channel base systems require FOS v7.0.1 or later, which allows organizations to take advantage of the advanced functions delivered through Fabric Vision technology.[1]

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

Entry-level SAN switch for private cloud storage

To enable advanced capabilities, several optional licenses are available, including: ISL Trunking, Extended Fabrics, 12-port SW Upgrade, Fabric Vision and the Enterprise Bundle.[3]

IBM Network Advisor software,[2] which is the base management software for SAN24B-5, simplifies Gen 5 Fibre Channel management and helps users proactively diagnose and resolve issues to maximize uptime, increase operational efficiency and reduce costs. IBM Network Advisor v12.0 or later is required for managing cloud environments.

Simplified management and robust network analytics

SAN24B-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 SAN24B-5 with Fabric Vision[4] include:

- Simplified monitoring:
  - Deploy 15 years of storage area network (SAN) best practices in one click to simplify performance monitoring with pre-defined, threshold-based rules, actions and policies
  - Instantly identify latency and congestion issues in the fabric through increased instrumentation and granularity
  - Gain comprehensive visibility into network health and performance using browser-accessible dashboards with drill-down capabilities

- Dramatically reduced costs:
  - Help eliminate the need for expensive third-party tools through built-in monitoring and diagnostics
  - Use automated testing and diagnostic tools to validate the health, reliability and performance of the network prior to deployment
  - Leverage specialized tools for pre-testing and validating IT infrastructure to accelerate deployment, simplify support and reduce operational costs
- Increased availability:
  - Avoid a high percentage of common network problems with proactive monitoring and advanced diagnostic tools that address problems before they impact operations
  - Identify hot spots and network problems before they impact application performance through intuitive reporting and trend analysis
  - Minimize downtime and accelerate troubleshooting with live monitoring, integrated diagnostics and point-in-time playback

Outstanding price and performance for growing SAN workloads

SAN24B-5 offers low-cost access to industry-leading Gen 5 Fibre Channel technology while providing "pay-as-you-grow" scalability to meet the needs of evolving storage environments. It also provides a low total cost of ownership (TCO) due to its 12-port base configuration, easy administration, 1U footprint and low energy consumption.

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.

The IBM System Networking SAN24B-5 SAN switch is designed to provide outstanding price and performance, combining flexibility, simplicity and enterprise-class functionality in a 24-port, 1U form factor entry-level switch.

IBM System Networking SAN24B-5 at a glance

Product number	2498-X24
Hot-swap components	Power supplies, fan modules, small form-factor pluggables (SFPs)
Warranty	One-year; customer-replaceable unit (CRU) and on-site, 9×5 next-business-day response; warranty service upgrades are available
Optional features	Please refer to the SAN24B-5 Redbooks Product Guide to review most current optional features
Size	43.8 cm (17.24 in.) W x 4.3 cm (1.7 in.) D x 44.3 cm (17.44 in.) H
Weight	7.82 kg (17.25 lb) with one power supply, without transceivers

For more information

To learn more about the IBM System Networking SAN24B-5 switch, contact your IBM representative or IBM Business Partner, or visit: **ibm.com**/systems/storage/san/b-type/san24b-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

[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 datasheet.

[3] The Enterprise Bundle includes one license for each of the following: ISL Trunking, Fabric Watch, Advanced Performance Monitor, Adaptive Networking, Server Application Optimization and Fabric Vision.

[4] For more information, please refer to the SAN24B-5 Redbooks Product Guide.

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