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 up to 24 ports using ports-on-demand capabilities

- Simplify management with Fabric Vision technology, which helps reduce operational costs and optimize application performance

- Maximize resiliency with nondisruptive software upgrades and redundant power supply

- Help boost performance with dynamic fabric provisioning, critical monitoring and advanced diagnostics, including ClearLink diagnostic technology (D_Ports)

- Leverage dual functionality as either a full-fabric SAN switch or an N_Port ID virtualization (NPIV) gateway

The IBM® System Networking SAN24B-5 switch is designed to provide outstanding price to performance value, combining flexibility, simplicity, Gen 5 Fibre Channel technology and enterprise-class functionality in an entry-level switch. SAN24B-5 is configurable in 12 or 24 ports and supports 2, 4, 8 or 16 Gbps speeds in an efficiently designed 1U form factor. The base unit includes one (249824G/2498-X24) or two (2498-F24) integrated power supplies and fans. A second 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. 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 nondisruptive 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 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 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.

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.

To enable advanced capabilities, several optional licenses are available, including: Advanced Performance Monitor, Fabric Watch, ISL Trunking, Extended Fabrics, 12-port Activation, Fabric Vision and the Enterprise Bundle.[1] For FOS v7.1 or earlier, optional licenses are also available for Server Application Optimization and Adaptive Networking.

Entry-level SAN switch for private cloud storage

Network Advisor software, which is the base management software for SAN24B-5, provides end-to-end support for managing Gen 5 Fibre Channel networks—from storage ports on networked storage systems to host bus adapters attached to physical or virtualized servers. Network Advisor v12.0 or later is required for managing cloud environments.

Simplified management and robust network analytics

SAN24B-5 with Fabric Vision technology, an extension of Gen 5 Fibre Channel, delivers breakthrough technologies that can dramatically simplify SAN deployment and management, drive down costs, and offer outstanding visibility and insight across the storage network. Some key advantages of SAN24B-5 with Fabric Vision include:[1]

- 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 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 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.

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 numbers	• 2498-F24 (AAS) • 2498-X24 (Xccellerator) • 249824G (HVEC)
Hot-swap components	Power supplies, fan modules, small form-factor pluggables (SFPs)
Warranty	One-year; customer-replaceable unit (CRU) and onsite; 9×5 next-business-day response, warranty service upgrades are available
Optional features	SFPs; fiber optic cables; upgraded power supplies; Adaptive Networking,* Advanced Performance Monitor, Fabric Watch, ISL Trunking, Extended Fabrics, Server Application Optimization,* 12-port Activation, Fabric Vision and the Enterprise Bundle†
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 9.16 kg (20.2 lb) with two power supplies, 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/networking/switches/san/b-type/san24b-5

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* Server Application Optimization and Adaptive Networking come standard with FOS v7.2 or later.

† 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.

[1] For more information, please refer to the SAN24B-5 Redbook Product Guide

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