IBM Storage Networking SAN48C-7

Deliver high-performance with a Fiber Channel switch offering 64 Gbps and 48 ports

Highlights

Enable more efficient storage network utilization with a VSAN setup

Access inter-VSAN routing (IVR) functions for Fiber Channel

Deploy a comprehensive solution for robust network security

Streamline compliance with intelligent licensing capabilities

The IBM Storage Networking SAN48C-7 switch brings the latest in high-performance, low-latency Fiber Channel Storage Area Network (SAN) technology to bear against common enterprise data storage challenges.

Powered by next-generation technology, the IBM Storage Networking SAN48C-7 switch offers high-speed Fiber Channel connectivity to all-flash arrays, high-performance hosts, and state-of-the-art analytics and telemetry capabilities—all built into its ASIC chipset. The solution allows you to seamlessly transition to non-volatile memory express FC (NVMe/FC) workloads without needing to upgrade any SAN hardware. This setup is ideal for enterprises that rapidly deploy cloud-scale applications with dense, virtualized servers as it provides the benefits of greater bandwidth, scale and consolidation.

Figure 1. IBM Storage Networking SAN48C-7 switch

Enable more efficient storage network utilization with a VSAN setup
VSANs offer efficient, secured SAN consolidation to create hardware-based, isolated environments with a single physical SAN fabric or switch, enabling better storage network utilization. Each VSAN can be zoned as a typical SAN and maintains its own fabric services for added scalability and resilience. These VSANs allow you to share the cost of SAN infrastructure among a greater number of users—all while helping to ensure complete segregation of traffic and retaining independent control of configurations on a VSAN-by-VSAN basis.

Access inter-VSAN routing (IVR) functions for Fiber Channel
In another step toward deploying efficient, cost-effective, consolidated storage networks, the IBM Storage Networking SAN48C-7 switch supports IVR, the IT industry's first routing function for Fiber Channel. IVR allows selective transfer of data between initiators and targets on different VSANs while maintaining isolation of control plane traffic within each individual VSAN. With IVR, data can pass between VSAN boundaries without breaking control plane isolation, thereby maintaining fabric stability and availability.

IVR is one of the feature enhancements requiring a license and eliminates the need for external routing appliances. This greatly increases routing scalability while improving line rate routing performance, simplifying management and eliminating the challenges associated with maintaining separate systems. Under the right circumstances, deploying IVR means lowering the total cost of SAN ownership.

Deploy a comprehensive solution for robust network security
- Smart Zoning enables provisioning of the hardware access control entries in the specified zone set
- Intelligent packet inspection at the port level assists in the application of ACLs for hardware enforcement of zones, VSANs and other port security features
- Switch-to-switch and host-to-switch authentication helps eliminate disruptions that could occur due to unauthorized devices connecting to large enterprise fabrics
- FC-SP ESP payload encryption supports encrypted data flowing through the switch
- Port security capabilities lock down the mapping of an entity to a switch port, reducing the likelihood of unauthorized devices connecting to switch ports
- VSAN-based access controls allow you to define roles with scopes limited to specific VSANs
- Digital certificates issued by a trusted third party serve as electronic passports to prove the identity of certificate owners

Streamline compliance with intelligent licensing capabilities
The IBM Storage Networking SAN48C-7 switch supports the Cisco Smart Licensing Using Policy (SLP) model. This licensing model makes it easier to buy, use and manage Cisco MDS software and port expansion licenses for this solution. The licenses come in digital form.

Product specifications

Feature	Description
Product compatibility	IBM SAN c-type switches and directors
Software compatibility	Cisco MDS 9000 NX-OS Release 9.3(1) or later
Fiber Channel ports	Fixed-switch form factor with 48 SFP + ports
Performance	Port speed: 8-, 16-, 32- and 64-Gbps autosensing with 64 Gbps of dedicated bandwidth per port Aggregate bandwidth of 3-Tbps end-to-end full duplex
Physical dimensions (H x W x D) and weight	1 Rack Unit (1RU) (1.72 x 17.299 x 18 in. [4.37 x 43.94 x 45.72 cm]) excluding Power Supply Unit (PSU) and fan-tray handles 21.8 lb. (9.9 kg)
Supported Cisco optics, media, and transmission distances	For detailed information about all supported transceivers, refer to Cisco MDS 9000 Family pluggable transceivers documentation.
Recycling parts	For safety reasons, IBM does not recommend the removal of its products' batteries. Please utilize the IBM Product Take Back Program.

Conclusion

The IBM Storage Networking SAN48C-7 switch offers next-generation, high-performance, low-latency Fiber Channel SAN technology to enterprises of all sizes.

Why IBM?

Innovative technology, open standards, excellent performance and a broad portfolio of tested storage software and hardware solutions—all backed by recognizable industry leadership—are just a few reasons to consider storage solutions from IBM®. IBM delivers some of the best storage products, technologies, services and solutions in the industry without the complexity of dealing with different hardware and software vendors.

For more information

To learn more about the IBM Storage Networking SAN48C-7 switch, contact your IBM representative or IBM Business Partner or visit ibm.com/products/san48c-7.

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