IBM

Highlights

- Gain "pay-as-you-grow" scalability in a high-density switch supporting up to ninety-six 16 Gbps Fibre Channel ports in a compact, two rack-unit (2RU) form factor
- Provide autosensing Fibre Channel ports, delivering up to 16 Gbps of high-speed, dedicated bandwidth for each port
- Boost availability with In-Service Software Upgrades (ISSU) enabling the switch to be upgraded without impacting network traffic

Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM System Storage

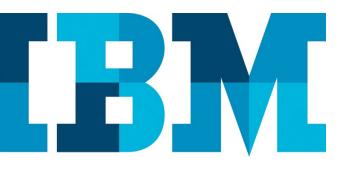
Powerful, compact switch that combines high performance, reliability and cost effectiveness

Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM® System Storage® is the latest generation of the highly powerful, dense and reliable Cisco MDS Series switches. It combines high performance with outstanding flexibility and cost effectiveness. This robust, compact 2RU switch scales from 48 to 96 line-rate 16 Gbps Fibre Channel ports.

Cisco MDS 9396S is excellent for:

- A standalone storage area network (SAN) in large departmental storage environments
- A middle-of-the-row or top-of-the-rack switch in medium-sized redundant fabrics
- · An edge switch in enterprise data center core-edge topologies

MDS 9396S, powered by Cisco NX-OS Software and Cisco Data Center Network Manager (DCNM) software, delivers advanced storage networking features and functions, combined with ease of management and compatibility with the entire Cisco MDS 9000 Family portfolio for reliable end-to-end connectivity.



High performance and flexibility at a low cost

MDS 9396S provides up to 96 autosensing Fibre Channel ports, capable of speeds of 2, 4, 8 and 16 Gbps—resulting in 16 Gbps of dedicated bandwidth for each port. The switch comes with 48 enabled ports, and it can be scaled up by adding one or more 12-port MDS 9396S On-Demand Port Activation licenses.

MDS 9396S scales from 48 to 96 high-performance Fibre Channel ports in a 2RU form factor. It offers more buffer-to-buffer credits than previous-generation fabric switches. In addition, it supports 32 virtual SANs (VSANs), making it an excellent choice for standalone small and midsized business Fibre Channel networks.

High-availability platform for mission-critical deployments

In environments in which downtime is intolerable, MDS 9396S offers ISSUs. With this feature, Cisco NX-OS Software can be upgraded while the Fibre Channel ports carry traffic. MDS 9396S includes dual-redundant, hot-swappable power supplies and fan trays, PortChannels for Inter-Switch Link (ISL) resiliency, and F-port channeling for resiliency on uplinks from an MDS 9396S operating in N-Port Virtualization (NPV) mode. New hardware-based slow-port detection and recovery capabilities provide enhanced performance and monitoring.



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Simplified storage management with sophisticated diagnostics

MDS 9396S offers built-in storage network management and SAN plug-and-play capabilities. All features are available through a command-line interface (CLI) or Cisco DCNM for SAN Advanced Edition, a centralized management tool. DCNM task-based wizards simplify management of single or multiple switches and fabrics. For virtual infrastructure, it manages the entire path: from the virtual machine and switch to the physical storage.

MDS 9396S also supports Power On Auto Provisioning (POAP) to automate software image upgrades and configuration file installation on newly deployed switches. In addition, it provides intelligent diagnostics, protocol decoding, network analysis tools and the Cisco Call Home feature for added reliability, faster problem resolution and reduced service costs.

Intelligent network services and advanced traffic management

MDS 9396S uses VSAN technology for hardware-enforced, isolated environments within a physical fabric. It offers access control lists (ACLs) for hardware-based, intelligent frame processing. Advanced traffic management features, such as fabric-wide quality of service (QoS) and Inter-VSAN Routing (IVR), are included in the optional Cisco MDS 9300 Family Enterprise Package. (The Cisco MDS 9300 Family Enterprise and DCNM Package Bundle includes both the Cisco MDS 9300 Family Enterprise Package and Cisco DCNM for SAN Advanced Edition for Cisco MDS 9300 Series.)

Comprehensive network security framework

An extensive set of innovative and powerful security features and functions is available with the optional Cisco MDS 9300 Enterprise Package. It offers fabricwide, per-VSAN role-based authentication, authorization and accounting (AAA) services using Remote Authentication Dial-In User Service (RADIUS), Lightweight Directory Access Protocol (LDAP), Microsoft Active Directory (AD) and Terminal Access Controller Access-Control System (TACACS+)—as well as other security-related features and functions.¹

| Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM System Storage | |
|---|--|
| Model | 9711-S96 |
| Hot-swappable components | Power supplies, fan modules, small form-factor pluggable |
| Warranty | One-year, customer-replaceable unit (CRU); 24×7 same-day maintenance service options are available |
| Dimensions | 864 mm (3.40 in) H x 443 mm (17.42 in) W x 566 mm (22.28 in.) D, 2RU; rack-mountable in standard 19-inch Electronic Industries Alliance [EIA] rack |
| Weight | Fully configured chassis: 17.8 kg (39.24 lb) |
| Airflow | Back to front (toward ports) |
| Ports | 96 ports of 16-Gbps Fibre Channel |
| Link speeds | 2, 4, 8 and 16 Gbps, with 16 Gbps of dedicated bandwidth for each port |
| Optional features | MDS 9300 Enterprise Package (FC 7310), MDS 9300 Enterpise+DCNM Bundle License (FC 7320), MDS 9300 DCNM Advanced Edition (FC 7311) and MDS 9396S 12-port On-Demand activation (FC 7312) |



Why IBM?

IBM offers a vast portfolio of hardware, software and services that can help organizations of all sizes address their IT infrastructure requirements in a comprehensive and integrated way. With IBM, organizations can create a more flexible, robust and resilient infrastructure to support critical business operations.

For more information

To learn more about Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM System Storage, please contact your IBM representative or IBM Business Partner, or visit: ibm.com/systems/storage/san/ctype/9396S/

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¹ Please refer to the Cisco MDS 9396S 16G Multilayer Fabric Switch for IBM System Storage Redbooks Product Guide for additional information.



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