



# Cisco MDS 9124 Multilayer Fabric Switch Compared to Leading Competing SAN Switches

At-A-Glance

Figure 1. Cisco MDS 9124 Multilayer Fabric Switch



“I was surprised when Cisco was really the lowest cost ... and the MDS 9124 provided me with more features.”

“Cisco made it very easy to install and configure my new SAN.”

“Another switch vendor didn’t provide us with what we needed. Cisco VSANs enabled us to consolidate SAN resources and saved us money.”

“Cisco made it easy to buy because the base switch had all the features we needed; the switch vendor would have required us to buy additional licenses.”

## What Is the Cisco MDS 9124 Multilayer Fabric Switch?

The Cisco® MDS 9124 is a 24-port Fibre Channel 4-Gbps full fabric switch that is cost effective, highly scalable, and easy to install, configure, and manage. It is ideal for small to medium-sized businesses (SMBs) and for SAN edge deployments.

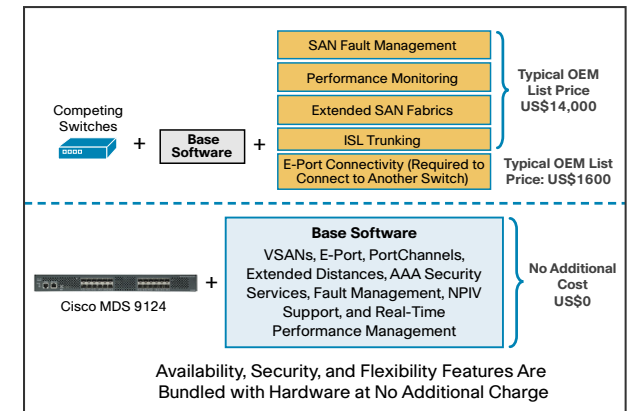
## Main Messages

- Cisco is the low-price leader in the entry-level fabric switch market.
- Cisco MDS 9124 fabric switch base units come standard with many innovative features that other switch vendors charge license fees to enable. Cisco MDS 9000 family integrated features include easy configuration and management wizard, switch-to-switch connections, extended distance, and secure management access.
- The Cisco MDS 9124 has high-availability features built in, such as an optional redundant power supply and the capability for nondisruptive software and firmware upgrades.
- Cisco’s SAN virtualization (VSAN) technology extends server virtualization to the SAN and storage. VSAN technology is an industry first, and Cisco is the only vendor to allow multiple logical fabrics to be built on one physical fabric, providing a cost-effective way to consolidate resources while providing high resiliency to potential fabric disruptions.
- The Cisco MDS 9124 is based on the same technology built into the market-leading Cisco director-class switches. Cisco fabric switches provide end users with a highly cost-effective SAN platform with the features that SMBs need, from their first SAN to a larger SAN as their needs grow.
- The Cisco MDS 9124 fabric switch has an easy-to-use quick configuration wizard for installing and configuring your SAN without the need to be a SAN expert.

The Cisco MDS 9124 is an entry-level SAN switch for the SMB market. The Cisco MDS 9124 offers outstanding features and capabilities, providing customers with

lower total cost of ownership (TCO) in comparison to competing solutions. Competitive switches in this space artificially lower their list price and require customers to purchase costly licenses to enable even the most basic features. Cisco, with years of expertise in the networking space, offers highly innovative features in its storage switching products to the SMB customer at no additional cost.

Figure 2. Feature and Affordability Comparison of Cisco MDS 9124 with Leading Competing SAN Switches



“FC SANs have traditionally been beyond the means of SMBs thanks to their high prices and complexity. Cisco’s new MDS 9124 breaks the mould as it delivers a wealth of features at a sensible price, streamlines installation and configuration and offers a flexible licensing scheme that allows small businesses not only to pay for the ports they need but also choose which ones they want to use.”

Source: ITPRO, Cisco MDS 9124 Fibre Channel Switch, at <http://www.itpro.co.uk/reviews/123016/cisco-mds-9124-fibre-channel-switch/page2.html>.



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**Smart Zoning:** When the Smart Zoning feature is enabled, Cisco MDS 9000 Family fabrics provision the hardware access control entries specified by the zone set more efficiently, avoiding the superfluous entries that would allow servers (initiators) to talk to other servers, or allow storage devices (targets) to talk to other storage devices. This feature makes larger zones with multiple initiators and multiple targets feasible without excessive consumption of hardware resources. Thus, smart zones can correspond to applications, application clusters, hypervisor clusters, or other data center entities, saving the time that administrators previously spent creating many small zones, and enabling the automation of zoning tasks.

## Cisco MDS 9124: Delivering Compelling Value for SMB SAN Solutions

Cisco provides SMB customers with an entry-level SAN switch with enterprise-level capabilities at a list price that is the lowest in the industry. The Cisco MDS 9124 enables customers to easily grow into a large SAN as their organizations grow, at a lower cost than for comparable competitive switches. Virtual fabrics, E-ports, Inter-Switch Link (ISL) trunking, extended-distance support, and management and monitoring capabilities are provided at no additional cost on Cisco switches, whereas competing vendors charge as much as US\$15,000 list price for a customer to enable these features on their switches.

The Cisco Quick Configuration Wizard is an intuitive and simple GUI for setting up an entry-level SAN. For added security, the Cisco MDS 9124 allows the user to configure the switch through a serial terminal with an IP address and administrative password. The Cisco MDS 9124 is a Microsoft Simple SAN–certified product (<http://www.microsoftstoragepartners.com/SolutionShowcase/Detail.aspx?SolutionID=501>).

**Table 1. Cisco MDS 9124 vs. Comparable Competing SAN Switch: A Feature Comparison**

Feature	Comparable Competing Vendor Switch	Cisco MDS 9124
<b>Ports Per Chassis</b>	8, 16, and 24	8, 16, and 24
<b>Easy Deployment</b>	Yes	Yes (Cisco Quick Configuration Wizard easily configures and deploys the switch)
<b>Virtual Fabric Support</b>	No	Yes (Cisco VSANs extends server virtualization to SANs)
<b>Transparent Server Deployment and Mobility</b>	No	Yes (Cisco NPV and FlexAttach transparently accommodate server moves and deployments)
<b>Redundant Integrated Power Supplies</b>	No (1 power supply only—no redundancy)	Yes (optional integrated second power supply for high availability)
<b>Integrated DC Power Supplies</b>	No	Yes (NEBS-compliant DC power supplies and switch for service provider deployments)
<b>Capability to Connect Two Switches Together (E-Ports)</b>	Requires additional license purchase	Included with switch at no additional cost
<b>Extended-Distance Support</b>	Requires additional license purchase	Included with switch at no additional cost (provides support for business continuity solutions)
<b>Link Aggregation and Fault-Tolerant Trunking</b>	Requires additional license purchase	Included with switch at no additional cost (high-availability feature reduces disruption)
<b>Fabric Management and Monitoring</b>	Requires additional license purchase	Cisco Fabric Manager and Device Manager included with switch at no additional cost
<b>Microsoft Simple SAN Certified</b>	Yes	Yes

Consolidation of servers through server virtualization technologies such as VMware has increased the number of fabric logins needed on a SAN. With full N-Port ID Virtualization (NPV) support and Cisco N-Port Virtualization (NPV) technology, the Cisco MDS 9124 is designed with increased scalability built in. Using Cisco’s VSAN technology, the Cisco MDS 9124 is the only entry-level SAN switch with the capability to extend server virtualization. Cisco NPV and Cisco FlexAttach technologies on the Cisco MDS 9124 also enable transparent server deployments and movement without the need to reconfigure the SAN. Competing products do not have these capabilities.

Cisco has a focused data center technology strategy and identifies the Cisco MDS 9000 family storage platform as the foundation for Data Center 3.0. Cisco

continues to invest heavily in storage-focused products and to innovate to build best-in-class SAN switches. Cisco’s growth leadership in Fibre Channel storage, its strong OEM relationships in the partner community, and many accolades from enterprise customers speak for the success of the platform family.

The Cisco MDS 9124 Fibre Channel SAN switch offers SMBs compelling enterprise-class value at a low cost. This innovative solution is designed to be highly capable and easy to configure and manage. At a time when organizations are optimizing their budgets for the lowest TCO for infrastructure, value can be found in the Cisco MDS 9000 family fabric switch solutions.