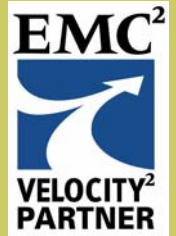


# Did You Know!



Interesting Articles and Facts regarding Storage.



## EMC and Cisco:

**Offering the MDS 9000 line of multi-protocol storage switches.**

**Cisco 9000 is the first SAN switch to offer:**

- routing capabilities through **Inter-VSAN Routing**
- **Quality of Service**
- both Fibre Channel over IP (**FCIP**) **Write Acceleration** and **Compression**
- support intermixing of open systems protocols (FC, **iSCSI**, FCIP) and **FICON** (Fiber Connector) with **FICON CUP** (Control Unit Port) **management** on the same switch

### Helping you get the most from your IT investments.

The combination of EMC storage technologies and the Cisco MDS family of SAN directors and switches helps customers safely manage their information at every point in the information lifecycle. With options that enable high-speed Fibre Channel connectivity and intelligent IP storage networking, EMC and Cisco offer the flexibility customers need to get the most out of their IT investments.

Cisco's trio of IP products were designed to expand Fibre Channel SANs to additional servers and applications within data centers and departments over local, metro and wide area networks. The IP Storage Services Module supports both iSCSI for host connectivity and FCIP (Fibre Channel over IP) for long distance SAN connectivity.

The MDS 9000 series features 1.44T bit/sec Fibre Channel capability. It supports up to 256 ports per switch and up to 768 ports per rack

### Hardware Overview

•**Cisco MDS 9216** multilayer fabric switches contain one fixed integrated supervisor module with 16 Fibre Channel ports and an expansion slot which can support up to 32 additional ports (for a total of 48 ports).

•**Cisco MDS 9509** multilayer directors contain two slots for supervisor modules and 7 slots for switching or services modules providing up to 224 ports (32 ports x 7 slots).

•**Cisco MDS 9506** multilayer directors contain two slots for supervisor modules and 4 slots for switching or services modules providing up to 128 ports (32 ports x 4 slots).

•**Cisco MDS 9140** multilayer switches contains 40 ports (8 full rate ports, 32 host-optimized ports)

•**Cisco MDS 9120** multilayer switches contains 20 ports (4 full rate ports, 16 host-optimized ports)

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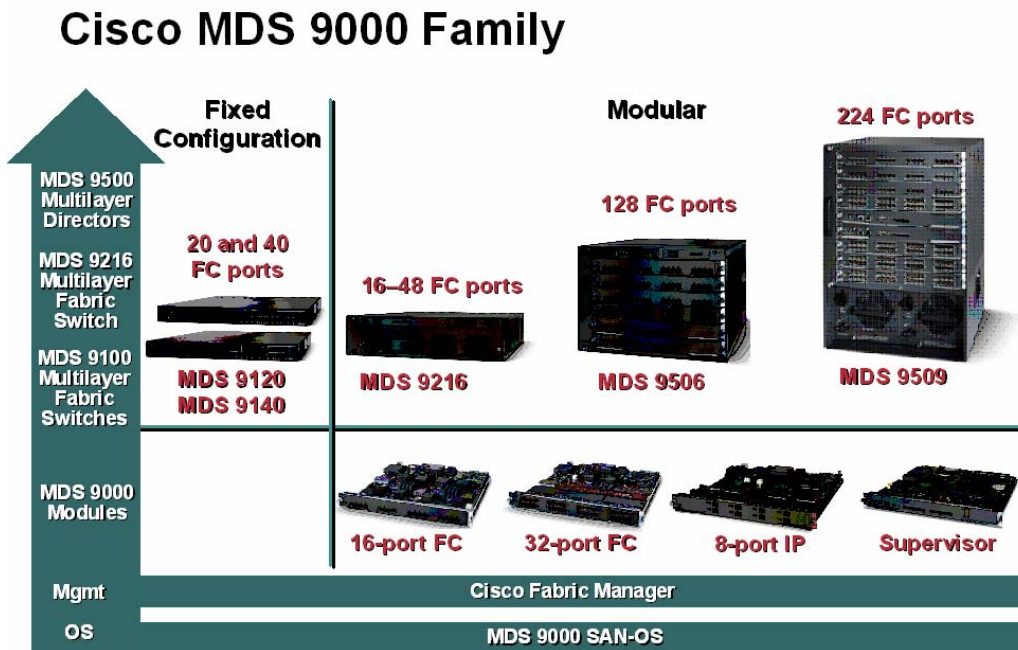
Experis Technology Group, Inc is a professional services firm that focuses exclusively on enterprise infrastructure solutions. We provide high available computing, storage, network systems and enterprise management software. We are dedicated to helping our customers design and deliver key infrastructure solutions that protect and propel their business forward.

Contact us at (240) 223-0607 x 109 or at "sales@experis.com"

## Cisco MDS 9000 Series Multilayer Switches:

### Comprehensive SAN Switching Solution for Robust Security

Recognizing the need for airtight security in storage networks, the Cisco MDS 9000 Family Switching Modules employ intelligent packet inspection at the port level. ACLs can be applied at each port for hardware enforcement of Zones, VSANs, and QoS. This functionality, in conjunction with management access and control plane security, makes the Cisco MDS 9000 Family the most secure platform of its kind.



### Gold Medal: NETWORKING EQUIPMENT

Cisco Systems Inc.'s MDS 9509 has raised the bar for director-class switches. The MDS 9509 is playing a leading role in bringing intelligence to the storage fabric with virtual storage area networks (VSANs), security, advanced traffic management and unified SAN management. In addition, the Cisco MDS 9509 provides multiprotocol integration and an open platform for embedding intelligent storage services such as network-hosted virtualization.

Cisco has championed VSANs as one way to consolidate SAN islands onto a single physical SAN, while still partitioning them as completely separate logical entities. VSANs provide all the security and fabric services of traditional SANs, yet give organizations the flexibility to easily move and isolate resources from one VSAN to another, which can simplify management.

In addition to VSANs, the Cisco MDS 9509 provides an open platform for hosting storage services such as network-based virtualization and replication. The switch supports all the major security standards including RADIUS authentication, Simple Network Management Protocol Version 3, Secure Shell Protocol, Secure File Transfer Protocol and FC Security Protocol, as well as hardware-enforced zoning, LUN zoning, read-only zones and ACLs.

In storage, things don't always go as planned. To help isolate and solve problems, the Cisco MDS 9509 has an impressive number of diagnostic features such as Switch Port Analyzer and Cisco Fabric Analyzer, which allow a user to remotely and non-disruptively diagnose fabric events. These tools significantly decrease the time to install, reconfigure and maintain a storage network. Other helpful debugging tools such as FC Ping, FC Trace Route and an extensive set of debug commands further help analyze and fix network problems.

Other nice-to-have bells and whistles include full redundancy of all major components, up to 224 2Gb/s and 1Gb/s auto-sensing FC ports and ties to other leading storage company products via an open API.

## Meeting Regulatory Standards

Achieve compliance. Minimize legal risk. Reduce costs. EMC's compliance and enterprise content management solutions help you build the information infrastructure you need to meet current and future compliance demands easily and cost efficiently.

**Financial Services—SEC Rule 17a-4**

**Healthcare—HIPAA**

**Life Sciences—21 CFR Part 11**

**Government—DoD 5015.2**

**EMC Compliance Archiving and Retrieval Solutions:** Centralize online documents and records management, and automate regulatory compliance with compliance archiving and retrieval solutions from EMC, Documentum (a division of EMC), and Mobius Management Systems, Inc.

EMC solutions capture, store, and rapidly retrieve content from any source, in any format—at a lower overall cost than paper, tape, optical, or film-based alternatives.

**EMC E-Mail Archiving Solutions:** Meet compliance challenges and increase efficiencies with a customized archiving solution. These solutions integrate the e-mail archiving functionality of LEGATO Software (a division of EMC) and KVS, Inc. applications with EMC's comprehensive lineup of tiered storage platforms to meet your specific cost and compliance objectives.

You can now :

- **Accelerate upgrades and migration** for Microsoft Exchange and Lotus Notes by archiving e-mail in advance.
- **Improve system performance**—despite ongoing growth in e-mail volume.
- **Increase end-user productivity** by reducing the amount of time spent managing e-mail.
- **Emulate industry best practices** for e-mail management.
- **Deploy complete e-mail records management** with assured authenticity and simplified accessibility to archived records.

## What's the value of corporate information?

Consider Sarbanes-Oxley, which regulates the way public companies manage their financial information. Any private company with the thought of going public must be compliance with Sarbanes-Oxley as well. "There are more than 15,000 regulations alone in the U.S. at the federal, state, and local levels, and about 20,000 regulations around the world that govern the use of information," Sanford says. "They touch about any organization you can think of, public, private, nonprofit, all are affected by regulations outside of the control of the organization."

Business risk, the fear of regulatory violations and potential fines all speak to the need for compliance. "In many cases, the regulations are new and the companies just don't have the capabilities in place to meet them," says Mark Lewis, chief technology officer at EMC. "Many fail to have a centralized information structure that allows for the implementation of information management policies in the first place." Bottom line: it's a whole new world out there for companies that rely on information, particularly as it translates to "all digital." For many organizations, that means there's no "hard copy" to back up some information, e-mail comes to mind, making compliance and authenticity even more difficult. "We're almost all electronic," says Morreale of North Bronx Healthcare Network. "It's of the problem because we can't touch the data that's been stored in the clinical information system, can't touch, can't delete, can't purge." At the same time, Morreale recognizes that some of the data has outlived its regulatory value. He needs a tool that will let him discard the outdated data while keeping the rest. EMC delivers the solutions Morreale needs.

## Compliance Update

**Act Now:** Learn how your organization can simplify regulatory compliance, minimize legal risks and reduce costs. All according to your precise business and budgetary needs. Come to our free compliance seminar to learn how. Coming in July. For more information call 240-223-0607 x 109.



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## Did You Know...

**Did you know...** The MDS 9000 family is the first SAN switch to offer routing capabilities through **Inter-VSAN Routing**, which allows servers in different virtual SANs (VSANs) to share common storage resources (disk and tape) located either locally or remotely, while maintaining the security, scalability and availability benefits of VSANs

**Did you know...** The MDS 9000 family is the first SAN switch to offer both Fibre Channel over IP (FCIP) **Write Acceleration** and **Compression**, which reduces write input/output (I/O) latency and increases bandwidth utilization during FCIP transactions. These enhancements will improve business continuity/disaster recovery by allowing customers to extend their FCIP connections over longer distances while reducing application response times.

**Did you know...** The MDS 9000 family is the First SAN switch to offer **Quality of Service (QoS)**, which allows Cisco MDS 9000 SANs to differentiate and prioritize storage traffic dynamically based on the specific requirements of the data.

**Did you know...** The MDS 9000 family is the first SAN switch to be able to support intermixing of open systems protocols (Fibre Channel, iSCSI, FCIP) and **FICON** (Fiber Connector) with **FICON CUP** (Control Unit Port) **management** on the same switch through VSANs. Being able to integrate mainframe systems using the Cisco MDS 9000 protects the customer's investment in these legacy devices, which are still widely available in enterprise data centers.