

How Cisco Migrated to a SAN Environment in Small European Data Center

Cisco Multilayer Director Switch improves manageability, speeds deployment, and reduces costs in smaller data center.

BUSINESS BENEFITS

- Easier access to stored data
- Ability to add storage easily and quickly
- Lower total cost of ownership (TCO)
- Faster reaction to business changes
- Advanced troubleshooting
- Total storage device “visibility”

“We are seeing cost and time savings from consolidating all disparate SAN islands into one virtual SAN.”

– Marcus Chambers, Cisco Systems Storage Sales

The Cisco Systems® IT Amsterdam data center hosts much of Cisco® IT production, sales, and business applications, and many Web development environments for Europe, the Middle East, and Africa (EMEA). This represents a raw data capacity of more than 60 terabytes—and it’s growing. Most of this storage, until recently, was direct attached storage (DAS), a limited architecture with significant problems, including storage underutilization, high equipment costs, and limited storage management capabilities.

To overcome these challenges, a Cisco hosting team initiated the migration toward a storage model based on storage area networks (SANs) rather than DAS. However, the storage demands of Cisco soon reached the physical limitations of the SAN islands model, which were required because of the small size of SAN switches at the time.

This limited model nearly exhausted the available data center floor space and switch interconnections used up much of the port capacity on the individual Fibre Channel switches.

The Cisco IT changeover team realized that the new SANs would be as severely limited as the previous DAS systems unless the team took action to solve the problems. In early 2003, the team began migrating from individual SAN islands based on smaller Fibre Channel switches to a single shared SAN service based on the larger Cisco MDS 9509 Multilayer Director switch. The Cisco MDS 9509 has the industry’s highest port density. It also supports virtual SANs (VSANs) on a single switch, allowing separate SANs within a single shared storage pool, and offers enhanced features that help to greatly reduce complexity and increase operational efficiency.

The benefits were immediately apparent, and included:

- Reduced risks through the use of VSANs, which help protect the storage network environment
- Expansion of storage subsystems based on the high port density of the Cisco MDS 9509 switch and the possibility of aggregated uplinks
- Increased productivity through more efficient execution of daily storage management tasks
- Provided a single network management view for all storage subsystems, including the backup library and all connected application hosts

Case Study: http://www.cisco.com/en/US/about/ciscoitwork/case_studies/storage_networking_dl1.html.

FOR MORE INFORMATION

To read the entire case study or for additional Cisco IT case studies on a variety of business solutions, visit Cisco on Cisco: Inside Cisco IT www.cisco.com/go/ciscoit

NOTE

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