

Bank Maximizes Storage Performance with Room to Grow

Customer Case Study



Bank of Zhengzhou deploys Cisco® MDS systems to support growth and disaster recovery strategy.

EXECUTIVE SUMMARY

Customer Name:

Bank of Zhengzhou

Location: Zhengzhou, China

Employees: 2900

Business Challenge:

- Maximize SAN performance to realize all benefits of new storage systems
- Gain scalability to meet future demands
- Simplify management

Network Solution:

- Cisco MDS 9710 Multilayer Director
- Cisco MDS 9222i Multiservice Modular Switch
- Cisco 9148 Multilayer Fabric Switch

Business Results:

- Gained ability to consolidate more devices on one switch to maintain management simplicity
- Easily meet bandwidth requirements and support future increases
- Enabled robust disaster recovery deployment
- Significantly reduced operating costs through simplified management

Business Challenge

The Bank of Zhengzhou is the second-largest bank in China's Henan province, with six major locations and 97 small branches throughout the province. It offers personal deposit and loan services, small-enterprise financial services, credit cards, corporate banking, investment banking, and a large treasury business, which includes wealth management for corporate clients. The bank relies on a broad range of applications, including core banking, preprocessing, UnionPay credit transactions, and Internet banking, all of which operate over its SAN infrastructure. Not only is the bank's business growing, but also are its storage requirements. Bank of Zhengzhou recently deployed new storage systems to upgrade and increase its storage capabilities to 200 terabytes (TB). However, the legacy SAN switches had reached their performance limits and could not be expanded further.

"We needed new SAN switches that would enable us to maximize the performance of our new storage systems," said Mr. Xuezhou Huang, director of the Operations Center at Bank of Zhengzhou. "At the same time, we needed a more scalable switching environment that would allow us to continue adding ports and support a growing number of SAN devices in the future."

After evaluating competitive SAN switching solutions, Bank of Zhengzhou chose Cisco MDS 9710 Multilayer Directors and Cisco MDS 9100 Series Multilayer Fabric Switches.

Network Solution

Bank of Zhengzhou's upgraded storage environment is based on dual SAN fabrics, which span a production data center and provide SAN extension to a disaster recovery site, as shown in Figure 1.

In the production data center, Cisco MDS 9710 Multilayer Directors function at the SAN core of each SAN fabric. They provide direct Fibre Channel connectivity to IBM



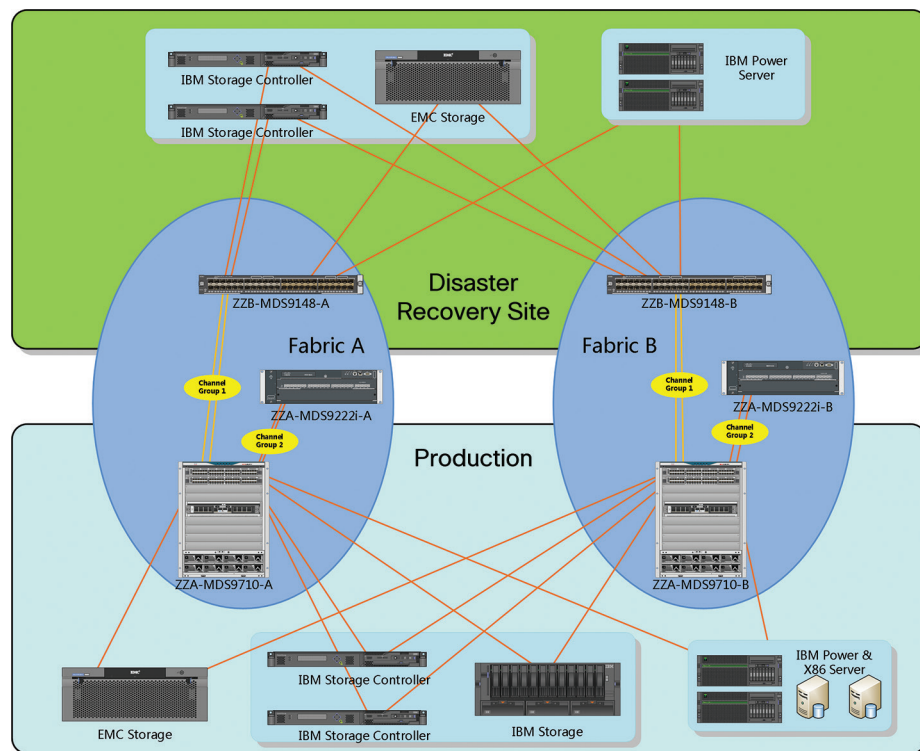
“The Cisco MDS 9710 gives us the high port density and powerful switching backplane we need to maximize storage performance, help ensure disaster recovery, and enable future flexibility. The high port density allows us to consolidate numerous servers and storage systems into one switch. It enables us to avoid implementing interswitch links to achieve the same goal.”

Mr. Xuezhou Huang
Director of Operations Center



SAN Volume Controllers (SVCs), IBM XIV cloud storage systems, EMC Symmetrix DMX4 flash storage systems, and a combination of IBM Power Systems and Inspur x86 servers.

Figure 1: Bank of Zhengzhou’s SAN with SAN Extension.



The Cisco MDS 9710 is designed to meet the most demanding performance requirements while reducing TCO. The bank gained ultra high-density 16-Gbps Fibre Channel connectivity, enabling it to scale as needed with outstanding investment protection. Up to 24-terabits-per-second (Tbps) switching capacity delivers high performance and scalability. With redundancy on all major components and the ability to perform nondisruptive software upgrades, the Cisco MDS 9710 delivers high availability to help ensure that banking applications are always up and running.

Each Cisco MDS 9710 also connects to a Cisco MDS 9222i Multiservice Modular Switch and a Cisco MDS 9148 Multilayer Fabric Switch. Bank of Zhengzhou uses the Cisco MDS 9222i Multiservice Modular Switch as a testing switch. It delivers state-of-the-art multiprotocol and distributed fabric services with up to 66 high-density Fibre Channel ports. The bank uses Cisco MDS 9148 Multilayer Fabric Switches as high-performance SAN extensions for disaster recovery, delivering replicated traffic to the disaster recovery site over optical links. The Cisco MDS 9148 systems connect to IBM SAN Volume Controllers, EMC Symmetrix VMAXe storage arrays, and IBM Power Systems servers. The switches deliver enterprise-class availability for the SAN extension with virtualization features optimized for the bank’s virtualized server environment.



PRODUCT LIST

- Cisco MDS 9710 Multilayer Director
- Cisco MDS 9222i Multiservice Modular Switch
- Cisco 9148 Multilayer Fabric Switch

Business Results

“The Cisco MDS 9710 gives us the high port density and powerful switching backplane we need to maximize storage performance, help ensure disaster recovery, and enable future flexibility,” said Mr. Huang. “The high port density allows us to consolidate numerous servers and storage systems into one switch. It enables us to avoid implementing interswitch links to achieve the same goal.”

The bank also appreciates the switches’ high performance. The operations team can deploy 8-Gbps today and increase to 16-Gbps capacities where they are required. Mr. Huang also expects the switches to easily support future bandwidth increases and faster line cards when they emerge.

“Our team was already familiar with the Cisco MDS switches,” said Mr. Huang. “The Cisco MDS switches we already had require very little management, and our team is highly familiar with them. Ease of management significantly reduces operations costs and requires very few staff to deliver optimal performance and reliability.”

With the new SAN switches in place, Bank of Zhengzhou is able to easily handle rapid SAN growth, deploy solid disaster recovery infrastructure, and manage everything with little extra effort.

For More Information

To find out more about Cisco Multilayer Director Switches, visit www.cisco.com/en/US/products/ps5990/index.html.

For more information about Bank of Zhengzhou, visit www.zzbank.cn.

This customer story is based on information provided by Bank of Zhengzhou and describes how that particular organization benefits from the deployment of Cisco products. Many factors may have contributed to the results and benefits described; Cisco does not guarantee comparable results elsewhere.

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