Banking Leader Improves Group-Wide Data Management and Availability

Customer Case Study

Cisco Services helps Crédit Agricole deploy MDS Multilayer Directors to support data center consolidation

EXECUTIVE SUMMARY

Customer Name: Crédit Agricole

Industry: Financial services

Location: France

Number of Employees: 150,000

Challenge

- Consolidate data center resources
- Reduce administration
- Enhance network availability

Solution

- Cisco MDS 9000 Series Multilayer Directors
- Cisco Plan, Validate, Build, and Day Two Services
- Cisco Capital financing

Results

- Achieved 100 percent network availability
- Reduced number of management interfaces to just one
- Increased data-handling capacity fourfold, with no additional servers

Challenge

The Crédit Agricole Group is the retail banking market leader in France and one of the largest financial institutions in Europe. It is committed to improving efficiency and data security, which is why it has been undergoing a consolidation program since 2005. The first element of the consolidation was to merge the physical hosting and facilities management functions of its French subsidiaries into a single entity, called Silca. The second element was to give another division, Crédit Agricole Technologies, responsibility for handling the IT requirements of the banking group's regional branch offices.

These steps were followed by a plan to consolidate a number of Crédit Agricole European data centers into just three facilities. Two of these data centers were to be primary centers housed in Chartres, 60 miles from Paris, connected via a synchronous optical network. The third center was planned as a backup facility in Clermont-Ferrand, 200 miles away and connected via an IP network. These data centers were to be virtualized to allow allocation of retail banking-related services on demand to companies within Crédit Agricole Group. The primary objective of this infrastructure was to improve availability and boost services while maintaining costs at their former levels.

The new data centers were to host a number of critical applications on two SANs, one based on IBM Fiber Connection (FICON) for mainframe-based services, and one for open computer systems. The task for Crédit Agricole was to find the best way of controlling the SANs, with the necessary level of flexibility, security, and ease of management.

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Nicolas Storez
Storage and Backup Services Manager, Silca
Crédit Agricole

Solution

In 2010, Silca and Crédit Agricole Technologies issued a joint request for information that led to the short-listing of two SAN controllers, including the Cisco® MDS 9513 Series Multilayer Director. This was followed by a two-month proof-of-concept, during which those technologies were validated by the mainframe and open storage teams. Crédit Agricole evaluated technical characteristics and compatibility, and validated Fiber Channel over IP performance. An important measure was the flexibility of the equipment in creating virtual SAN (VSAN) fabrics using independent infrastructures.

The Cisco MDS 9513 was ultimately selected because of its ease of administration, virtualization capacity (16 times that of the competing platform), and LAN/SAN convergence capabilities. "The Cisco MDS is naturally virtual," says Nicolas Storez, storage and backup services manager at Silca. "It can be divided into 128 virtual SANs, which is much more than any other such product on the market."

At Chartres, some 70 Cisco MDS 9513 Directors connect servers or main hosts, with 40 being managed by Silca and the remainder by Crédit Agricole Technologies. The Silca machines, which total 5500 interconnection ports (of which 4000 are in use), serve internal Crédit Agricole business units while the others, with 2500 ports, handle data from regional offices.

Security is achieved through secure communications interoperability protocol encryption, which allows data to pass safely over public telecommunications networks. The MDS platform also delivers signal compression and acceleration functions. For SAN management, Silca uses a Cisco Prime™ Data Center Network Manager with a number of custom-built tools.

A user-friendly GUI offers a global view along with a single point of management, with extra functionality available through the command-line interface. The ease of management extends to patches and updates, since the MDS uses Cisco In-Service Software Upgrade technology for software changes.

Cisco Services played a critical role in the deployment, working alongside EMC, chosen by Crédit Agricole as systems integrator for the project. Over a period of three months, Cisco Services provided Plan, Validate and Build consulting resources and helped reduce the risks of implementation by taking on tasks such as:

- Reviewing the detailed low-level design specification drawn up by EMC
- Reviewing SAN product configurations to insure alignment with Cisco best practice
- Supporting the testing of the open and FICON SANs

Cisco Services also provided Day Two support for a secure, easy first migration from the older infrastructure. As part of the testing phase, the Cisco Services team impressed Crédit Agricole with its dedication to solving known problems with the least possible effect on the business, particularly given the complexity of the environment. "Globally, the technical choice was in favor of Cisco, on top of which had to be added their willingness to manage this project in total partnership with Silca," says Storez. "I pay tribute to the global support we were offered by Cisco, leading to the final success of the deployment."

Finally, Cisco Capital worked alongside the Crédit Agricole leasing arm, Etica, to help reduce the upfront cost of the equipment by increasing its net present value.

Results

The whole data center infrastructure is now tied together to form a private cloud from which VSANs can be allocated to Crédit Agricole operating bodies on an as-needed basis. The new Cisco MDS-supported data center infrastructure has allowed Silca alone to increase the volume of data that it handles from 800 to 4000 terabytes, without significantly increasing its 1000-strong server park.

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Flexibility has also increased, since the SAN infrastructure allows Crédit Agricole a combination of active-active and active-passive configurations for application disaster recovery purposes. A further benefit from a disaster recovery perspective is that the whole infrastructure can now be virtually segmented to form a dual fabric upon which everything is replicated, so if one VSAN goes down, operations experiences zero effect.

Network availability has improved over the already high levels that Crédit Agricole enjoyed previously, with 100 percent uptime over the three years since the implementation of the new data center infrastructure. This improvement has been achieved along with a marked improvement in management, since the number of tools needed for SAN administration dropped to just one.

Next Steps

Crédit Agricole is now considering a LAN-SAN convergence project, taking advantage of the Fibre Channel over Ethernet capabilities of Cisco technology.

For More Information

To learn more about the Cisco architectures and solutions featured in this case study, please go to:

www.cisco.com/go/mds
www.cisco.com/go/services
www.cisco.com/go/capital

Product List

Data Center Solutions

- Cisco MDS 9513 Series Multilayer Director

Management

- Cisco Prime Data Center Network Manager

Cisco Services

- Plan
- Validate
- Build
- Day Two Support

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