

# SCOTIA CAPITAL

## STORAGE AREA NETWORK

## Canadian Investment Leader Reduces Risk of Data Loss

### EXECUTIVE SUMMARY

#### Technology Challenge

Bolster reliability, throughput, backup, and data center growth

#### Solution

- Brocade® 48000 Directors
- Brocade Fabric Manager
- Brocade Supplemental Support

#### Benefits

- Facilitated data center growth to accommodate business requirements
- Reduced backup window by using fiber tape libraries
- Centralized SAN management, optimizing SAN performance and enabling IT staff to focus on improving business processes
- Increased system and data availability through a Brocade Supplemental Support contract

For Scotia Capital, timely access to accurate financial data isn't just a critical aspect of doing business, it's a 24x7 necessity. As the global investment banking and securities division of Scotiabank Group, Scotia Capital requires continuous access to networked financial data and applications to evaluate market trends and conduct trades for its multinational corporate, institutional, and private clients.

"Previously, replicating data across data centers used to take from 20 minutes to several hours, depending on the type of network link," recalls Hazem Hamouda, Scotia Capital's UNIX Infrastructure Manager. "Moreover, if a system failure or service interruption had occurred during a backup, there was a possibility we could lose the backup for that system, which was unacceptable, and we wanted to improve on all this."

To avoid that type of situation, Scotia Capital sought more Storage Area Network (SAN) capacity to support its fast-growing financial application. Although its Brocade-based dual-fabric SAN had performed reliably since its deployment in 2003, it was not built with the port capacity to meet the firm's rapid growth. Still, when seeking to upgrade its SAN, Scotia Capital immediately turned to Brocade.

#### BOOSTING AVAILABILITY WITH BROCADE

Implementing Brocade 48000 Directors and Brocade Fabric Manager software, Scotia Capital has bolstered its data availability and backup process. The Brocade 48000s provide industry-leading 4 Gbit/sec throughput and routing capabilities, enabling concurrent backups via high-speed fiber connections and fast restoration in case of emergency.

# BROCADE

In mid-2006, Hamouda and his staff began installing the directors and phasing out smaller SAN switches. Since then, Scotia Capital has deployed six 4 Gbit/sec Brocade 48000 Directors.

“The Brocade systems have played the main part of a total solution that improved our ability to protect and retrieve crucial information assets,” Hamouda explains.

“The Brocade 48000s’ automatic failover in case of a disaster or systems maintenance has provided high availability to SAN applications. The concurrent backups virtually eliminate the lag time between the start and finish of a backup and the chance that we can lose any backups.”

To further bolster availability, Scotia Capital also implemented Brocade Fabric Manager, a single-point SAN management platform designed for managing multiple Brocade directors, switches, and fabrics in real time. The solution has enabled IT staff to configure, modify, and troubleshoot SAN directors and devices from a central management application.

As a result, it has helped Hamouda and his staff to allocate more time to spend on other tasks. “We can quickly generate reports on our SAN and data from a central location instead of having to gather the information from multiple sites and systems,” Hamouda says.

### A HIGHLY SCALABLE INFRASTRUCTURE

The Brocade solution also has given Scotia Capital the scalable infrastructure to expand SAN and storage capacity to accommodate its applications and compliance requirements. Each Brocade 48000 scales non-disruptively from 32 to as many as 384 concurrently active full-duplex ports in a single domain. This enables IT staff to add thousands of new storage arrays, tape backup drives, and servers to support new financial applications that improve customer service and business applications.

In addition, Brocade Supplemental Support combined with Fabric Manager’s monitoring capabilities provides an invaluable safety net, enabling Hamouda and his staff to proactively manage the SAN. With Brocade Supplemental Support, Scotia Capital benefits from fast access to numerous Brocade technical support solutions, including 24×7 telephone support, quarterly support reviews, online self-help, and ongoing software updates.

“Brocade Supplemental Support helps us prevent outages and increase overall system uptime,” Hamouda notes. “In one case, Brocade staff proactively diagnosed a firmware issue caused by a scanning device and recommended a solution before an outage occurred. The availability of their systems and the professionalism of the Brocade Support staff enable our own support team to provide better service.”

For more information, visit [www.brocade.com](http://www.brocade.com).

### WHY BROCADE

- Recognized worldwide as the leader in data center SAN infrastructure with high-availability 4 Gbit/sec solutions
- Superior port scalability and manageability
- Proven performance and reliability of Brocade solutions, support, and services

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