



NIKKEI

STORAGE AREA NETWORK

NIKKEI Logically Consolidates Brocade SANs for Greater Efficiency and Security

EXECUTIVE SUMMARY

Technology Challenge:

Reduce IT costs and complexity by logically consolidating multiple SANs and enhancing reliable disaster recovery operations

Solution:

A Logical SAN (LSAN) built with four Brocade® Multiprotocol Routers and several Brocade SAN switches

Benefits:

- Simplified storage management and reduced costs through logical consolidation of SANs
- Individual SANs optimized for specific needs and interconnected for greater efficiency
- More effective utilization of storage resources across the enterprise
- Simplified and more cost-effective disaster recovery services
- Existing IT infrastructure and resources leveraged for greater value

Globally, companies rely on the availability of information to conduct their business, but for Nihon Keizai Shimbun, Inc. (NIKKEI), information *is* its business. Founded in 1876, the venerable firm publishes five market-leading newspapers that are the primary sources of business information for Japan's top executives and decision-makers. In addition, NIKKEI provides both current and historical information online through three online media services and two database services.

With its profitability dependent on online and print content, NIKKEI's seven Japanese offices and 35 offices worldwide must archive massive amounts of data indefinitely to ensure that subscribers and staff can quickly access information. To manage its rapidly accumulating trove of data, the firm initially turned to Storage Area Network (SAN) solutions from Brocade in 2003.

NIKKEI's three core business divisions each built a Fibre Channel SAN at the Tokyo data center, complete with separate primary and backup storage systems. Powered by Brocade switches, the SANs immediately accelerated data storage and effectively utilized storage devices to reduce expenses. Each division has

tailored its SAN according to its particular needs, ensuring proper configuration and sufficient storage capacity.

THE NEED FOR GREATER EFFICIENCY

NIKKEI, however, soon discovered that separating its storage infrastructure came with a price. Each SAN was an island, requiring its own IT staff, budget, and storage devices. This resulted in duplicated management tasks and hardware expenditures. The firm realized that consolidating its SANs would streamline administration, enhance IT productivity, and minimize future investments in storage hardware. To reap greater efficiencies and reduce its expenses, NIKKEI decided to integrate the primary and backup storage systems into a unified architecture.

At the same time, the company was seeking ways to further protect its mission-critical data by implementing a disaster recovery site in Osaka, Japan. However, it wanted to avoid the cost and complexity of separately linking each SAN island to this facility. It believed a single, enterprise-wide connection would be much more economical and practical.

BROCADE

Although NIKKEI at first considered redesigning its storage systems into a single SAN fabric, it realized that strategy would be costly, time-consuming, and potentially disruptive to its daily storage activities. Somehow, it needed to logically consolidate its three SAN fabrics without revamping the solutions, replacing hardware, or disrupting services.

“Like many companies moving towards storage consolidation, we knew that integrating our SANs would trim costs and support profitability,” explains Kazuyuki Kinoshita, System Manager, Information Technology Bureau of Nikkei. “Our dilemma was how to do so affordably and without dismantling, discarding, or disturbing what we already had in place.”

BRIDGING THE STORAGE DIVIDE

NIKKEI found its solution when it learned about the innovative Brocade Multiprotocol Router. With its advanced routing capabilities, the platform uniquely enables data sharing across separate SANs, both locally and over distance. As a result, it enables organizations to build Logical SANs (LSANs) by interconnecting SAN fabrics without physically merging them. The device offers 8 or 16 ports with each providing 1 or 2 Gbit/sec Fibre Channel connectivity or a Gigabit Ethernet link.

In 2005, with support from Brocade reseller IJ Technology, NIKKEI deployed two Multiprotocol Routers at its data center, with one providing redundancy to help ensure continuous availability. The solutions consolidate the three SAN fabrics

of the firm’s backup systems into an LSAN without rewiring or reconfiguring existing devices. The Multiprotocol Routers use Fibre Channel links to connect the three primary storage systems with a Brocade switch that supports the backup solutions.

NIKKEI plans to use the Multiprotocol Routers to consolidate the fabrics of the primary storage solutions, logically merging the SAN fabrics across its entire storage infrastructure. The firm also anticipates deploying two additional Multiprotocol Routers at the Osaka disaster recovery site 300 miles from Tokyo. Because the Multiprotocol Routers support long-distance connectivity between facilities, NIKKEI is considering linking the sites over its Wide Area Network (WAN) using the Multiprotocol Routers’ FCIP Tunneling Service, which supports Fibre Channel Inter-Switch Links (ISLs) across IP networks.

“Our deployment of the Multiprotocol Routers was the first in Japan, but the installation went smoothly,” says Kazuyuki Kinoshita. “And like our other Brocade platforms, the Multiprotocol Routers perform flawlessly.”

CONSOLIDATING FOR PROFIT

Although the deployment is still underway, NIKKEI is already reaping the benefits of consolidating its SANs with the Multiprotocol Routers. The firm has reduced the management burden for its backup systems—lowering operating costs while protecting existing IT investments. The firm has also gained an important measure of

security because its backup systems remain discrete—simplifying fault isolation to avoid additional risk and complexity.

Now that it centralizes backup storage on a virtual fabric, NIKKEI has enhanced device utilization, further driving down expenses. Moreover, the firm’s three business groups still operate their own fabrics, with the flexibility of optimizing their SANs to meet their respective storage needs.

In addition, NIKKEI now has the means to effectively link its LSAN across hundreds of miles to its disaster recovery site. The firm plans to leverage its WAN while ensuring simplified management and cost-effective utilization of local storage systems. It will be able to keep both sites isolated, with each infrastructure operating independently for greater security.

“Thanks to Brocade, we’re optimizing the value of shared storage throughout our enterprise while reducing our capital and operating costs,” concludes Kazuyuki Kinoshita. “We’ll better utilize our storage assets, lower management overhead, and boost staff productivity. Without redesigning our storage environment, we’re building a more efficient and secure storage foundation with which we can better serve our subscribers. We expect an extraordinary return on investment from our Multiprotocol Routers, again exemplifying why Brocade is such a trusted partner.”

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