SUCCESS STORY

Finansbank

EXECUTIVE SUMMARY

Challenge

Improve connectivity between data center rooms to increase application availability and reduce costs.

Solution

- Brocade DCX 8510 Backbones with UltraScale Inter-Chassis Link (ICL) connectivity
- Brocade Network Advisor for unified management of SAN fabrics
- Brocade Professional Services for expert assistance and rapid migration

Results

- Increased network performance and application availability
- Dramatically reduced cabling and associated costs with mesh architecture
- Simplified management and added visibility across all SAN fabrics

Building a Flexible Foundation for Growth

Award-winning products and services, combined with a commitment to service quality, have helped Finansbank grow steadily and consistently. Owned by the National Bank of Greece with headquarters in Istanbul, Finansbank operates more than 650 branches and manages more than 75 billion TL in assets.

Finansbank offers a broad spectrum of services for consumers, small and medium-sized businesses, and corporate banking. An early adopter of technology, it added telephone and Internet banking services in 2000. In the last few years, Finansbank has added dozens of online solutions, and customers continue to embrace these new services, which increases the volume of banking transactions. As a result, new banking applications and steadily growing transaction volumes were straining the bank's legacy SAN resources.

Inflexibility Limited Growth

Core banking, Internet banking, mobile banking, credit card transactions, Oracle databases, data analysis, and dozens of other applications all require access to storage resources. Finansbank's storage already had reached three and a half petabytes, and keeping pace with growth was becoming challenging. Until recently, the bank's open-system SANs were built as redundant networks in three separate rooms.

Connecting the three rooms demanded extensive cabling. Frequently, cabling issues affected ISL throughput, which negatively affected application performance. Scaling the SAN to increase capacity created complexity, and changing the legacy infrastructure to accommodate new workloads was also difficult. If the storage team had to move or add a device, they might need to physically move ports and re-cable devices, which significantly increased management cycles and costs.

"We would not be able to efficiently support the bank's growth with this kind of SAN architecture," said Banu Kocyigit Sahin, Ibtech-Inf Storage Systems for Finansbank. "As we looked forward, we developed a strategy to increase SAN flexibility, simplify management, and deliver the level of service that Finansbank customers expect. We turned to Brocade for the solution."

Scaling Out With a Powerful Brocade Mesh Solution

The Brocade team performed a SAN Health® infrastructure assessment to help Finansbank develop its SAN strategy. The SAN Health assessment provided a comprehensive analysis of existing networked storage infrastructures—evaluating performance, security, operational effectiveness, scalability, and management practices. It also identifies areas of potential exposure and provides expert recommendations for meeting current and long-term data management requirements.

Certainly, the SAN links required upgrading, but based on its assessment, Brocade suggested a new approach to the SAN architecture that would give the bank the capacity it needed with more simplicity and flexibility to properly address growth requirements.

The new architecture is built on Brocade® DCX® 8510 Backbones with Gen 5 Fibre Channel and optical UltraScale Inter-Chassis Link (ICL) connectivity. These reliable, high-availability backbones are designed for mission-critical storage, 16 Gbps performance, and unmatched simplicity. Finansbank deployed Brocade DCX 8510-8 Backbones in every data center location, each with four vertical blade slots that will provide up to 256 16 Gbps Fibre Channel ports. These backbones are connected with ICLs in a highly scalable mesh topology, and the high-density chassis topology reduces inter-switch cabling by 75 percent and frees up to 33 percent more ports for server and storage. This maximizes overall port density in the lowest amount of rack space. The UltraScale ICL design also provides up to 2 Tbps of bandwidth between switches—a huge improvement over the previous ISL connectivity approach. In addition to gaining industry-leading performance, Finansbank was able to reduce power consumption, cooling requirements, and space requirements in each data center.

"Brocade Network Advisor simplified SAN fabric management," said Mustafa Buyukalpelli, Ibtech-Inf Storage and Application Infrastructure for Finansbank. "We can easily manage fabrics, switches, and ports as groups and see performance and health indicators right on the dashboard. No matter how much our SAN grows, the time needed for management and monitoring won't."

Professional Services Accelerate Implementation

Brocade Professional Services also helped Finansbank simplify its migration to the new SAN architecture by providing Brocade SAN Infrastructure Services and decreasing the bank's technical team's learning curve when implementing new products. These services included assistance with implementing the Brocade DCX 8510 Backbones in all three locations and training the Finansbank team members on the new equipment. The meticulous preparation paid off as Finansbank migrated 900 ports and all critical applications to live production systems in less than four months.

"We're very happy with the Brocade Professional Services team," said Buyukalpelli. "They are highly responsive and generous in sharing their knowledge and proficiency with our team. They streamlined our migration and made it a much easier and enjoyable experience."

Flexibility Saves Time and Increases Agility

Thanks to the new mesh architecture and ICL connectivity, the SAN team can place or move any device in any room through logical connections, without needing to physically move a device to accommodate changing workloads.

The SAN team can connect to any host and any device in the fabric and manage it, gaining the agility to handle rapidly changing workloads and connect to the bank's range of IBM, HP, and EMC storage hosts and servers. As a bonus, the bank also significantly reduced cabling and associated costs.

Port Efficiency Increases Scalability

The Brocade DCX 8510 Backbones, with up to 32 UltraScale ICL ports, optimized port usage for Finansbank. Each UltraScale ICL port combines four 16 Gbps links, providing up to 64 Gbps of throughput within a single cable. This maximizes load balancing and availability while freeing up to a third of the ports for server and storage connections.

"It's like having xtra blades for host connectivity in the same chassis," said Buyukalpelli. "The Brocade DCX Backbones with ICLs reduced port waste for ISLs and took our scalability to a new level."

Easily Handle Rapidly Changing Workloads

With a SAN built for future, Finansbank has migrated most of its applications to 16 Gbps connectivity. In the rare case of an application not being able to leverage

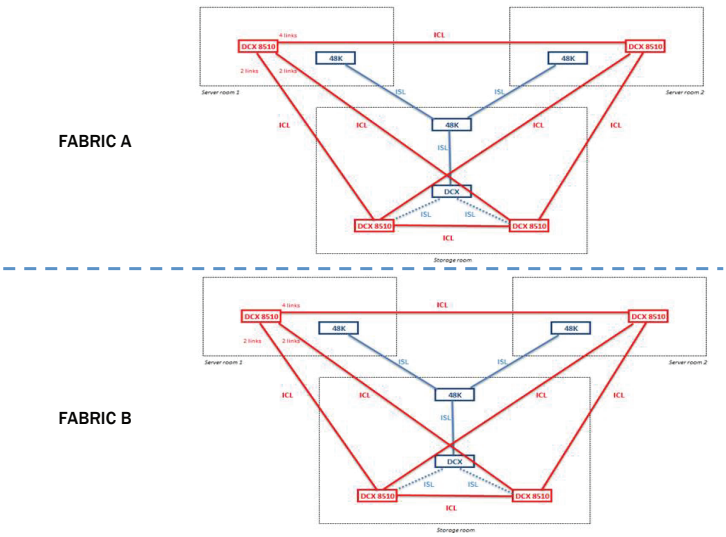

Figure 1: New Mesh Architecture (in Red) with Brocade DCX 8510 Backbones and ICL Connectivity

WHY BROCADE

"With Brocade, the bank gained the capabilities it needs today and the ability to respond to future needs within the same chassis. It's exactly the flexible foundation that we were looking for."

—Banu Kocyigit Sahin, Ibtech-Inf Storage Systems

those speeds, or if a storage system introduces latency, the Brocade DCX 8510 Backbones and ICL connectivity can help compensate to deliver a better user experience than was possible n the past. The new architecture enabled Finansbank to deliver better services by eliminating problems related to cabling, latencies, and throughput issues. With the Brocade DCX 8510 Backbones in place, they can easily scale to keep pace with growth.

New Levels of Insight Minimize Time and Cost

"Monitoring and auditing capabilities are important to us," said Sahin. "Brocade Network Advisor gives us critical visibility into our entire SAN infrastructure. In addition to our three data center SANs, we have added three more SAN fabrics in other locations to Brocade Network Advisor. Now we can see everything, everywhere, all in one place, minimizing administration time and cost."

A Cost-Effective Growth Path

Finansbank expects to continue its history of solid growth, and now it can tap the extra capacity that is built into its new SAN infrastructure well into the future.

"With Brocade, the bank gained the capabilities it needs today and the ability to respond to future needs within the same chassis," said Sahin. "It's exactly the flexible foundation that we were looking for."

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