



CASE STUDY

CNBC

QLogic Switches Give CNBC an Edge with Improved Production

Problem

Improve workflow processes and employee productivity.

Solution

A primary and backup storage area network (SAN), each with a QLogic® 9000 Fibre Channel Switch, two Apple® Xserve® servers, and an 18TB Apple Xsan® file system; both SANs are connected via Fibre Channel to an Apple Xserve server that provides the mirroring function between the two SANs; 10 Apple Mac® Pro workstations.

Results

The new high-performance SAN has vastly improved television production time; CNBC artists are no longer constrained by low systems as they do their work, resulting in a 20 percent increase in their productivity.



CNBC, the cable network of NBC Universal Cable, reaches more than 300 million viewers in the United States and abroad each day with a lineup of fast-paced business and financial news programs such as Morning Call, Squawk Box, and Mad Money.

To compete with other networks, CNBC makes programming compelling by providing a daily stream of animation, illustrations, and designs that vividly explain the business world to viewers. But until recently, an outdated storage system created bottlenecks that slowed down this part of the production by forcing the production staff to wait hours for servers to finish their work.

Presentation is the key to owning market share in the television industry, and the CNBC production department makes demanding use of the storage environment to generate those compelling images. Several high-performance applications are used by staff, including Autodesk® Maya® 3D modeling and animation software, Zaxwerks® 3D Invigorator graphics, and Adobe® After Effects® software for motion graphics and visual effects. CNBC artists also use 10 Apple Mac Pro workstations.

Each production staff member used a Mac Pro workstation with local storage and a 4TB Apple Xsan file server for shared files. But the storage system was slow and lacked sufficient throughput to handle all production workflow. “The slowness hurt employee productivity as our production staff waited for their projects to be completed,” said Rich Tallmadge, CNBC’s graphics engineer. “We needed to accomplish much more in less time. The storage system was the bottleneck.”

QLogic switches selected to provide high bandwidth for SAN

To provide high-speed storage, accessible to all production employees, Tallmadge decided to adopt a SAN architecture. To ensure continued data availability, he elected to build two SANs—one as the primary storage environment and another mirrored version to be used in case of a failure in the primary system.



To support their high-end production applications, the staff needed the SAN to be very fast. Tallmadge chose QLogic 9000 Fibre Channel Switches and two Apple Xsan file systems with 18 terabytes of storage for each SAN. The high bandwidth of the QLogic switches allows CNBC graphic artists to move the huge files efficiently through the production process. The Xsan file systems connected the artists directly to the high-speed Fibre Channel network.

The cost of the QLogic switch factored into the selection process, according to Tallmadge. “At a third of the cost of director-class switches but with all the power we need, the QLogic 9000 made our decision easy,” he said.

QLogic and its partners form an experienced team

“QLogic’s reputation in networked storage, the high performance assured by its switches, and its industry relationships made it an easy choice,” Tallmadge said. “QLogic understands our business and what we wanted to accomplish. Plus, QLogic works closely with Apple and is a partner of TekServe, the Apple deployment specialist that works with us. With the three teams working together, it really simplified the project.”

Installation by QLogic partner TekServe was nondisruptive. “TekServe has worked with us before and knew our operation, so the deployment moved along as planned,” Tallmadge reported.

QLogic switches include tools for SAN management

According to Tallmadge, management of the SAN requires little staff time. The QLogic Enterprise Fabric Suite 2007™ management tools provide SAN-wide control, including setup, configuration, zoning, fabric management, fabric monitoring, and SAN performance monitoring. Enterprise Fabric Suite 2007 can manage an unlimited number of switches and fabrics from a single console.

“As CNBC competes in the world of business news programming, the speed of production process is essential. QLogic switches have helped us dramatically increase workflow.”

— Rich Tallmadge
Graphics Engineer, CNBC

Because of the large capacity of the SAN, all files are kept in a shared, central location for quick access. "The SAN makes it easy to see all versions of the work, and the staff can immediately tell which version is most recent," Tallmadge explained. "Before we installed the SAN, there were different versions of files on various Macs and had trouble keeping track of revisions."

QLogic switches help increase employee productivity

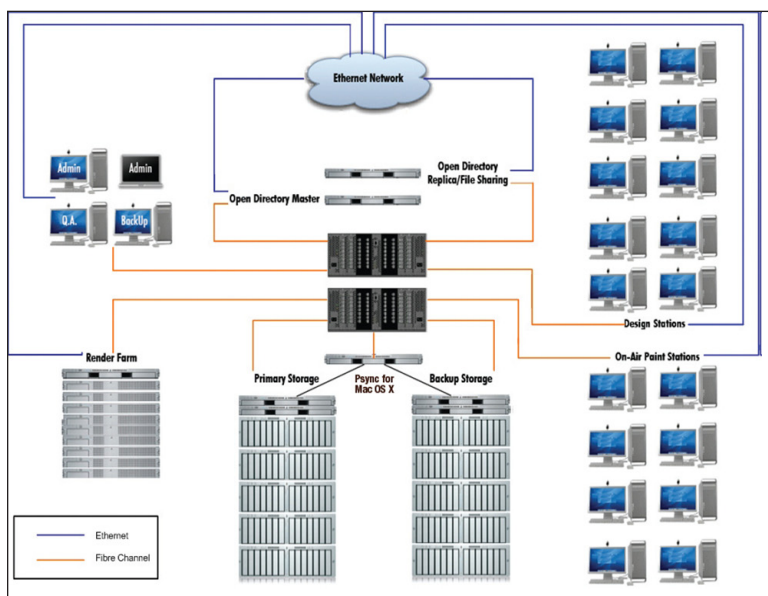
With the primary SAN in place, CNBC production staff have seen a 20 percent improvement in productivity. "With this SAN, our staff can complete their timesensitive work without long delays," Tallmadge said. "It helped streamline our workflow and has given us the ability to produce more content in less time."

CNBC gains competitive edge with QLogic switches

The QLogic switches give CNBC the flexibility to accommodate future needs. With capacity for up to 128 nonblocking ports in a single chassis, the QLogic switches have plenty of room for growth. Any mix of 4Gbps and 10Gbps Fibre Channel blades can be used to connect servers and workstations.

The modular design of the QLogic switch can reduce storage costs and offer cost-effective scalability by allowing other less expensive blade options, such as QLogic iSCSI Intelligent Storage Router I/O blades, for applications that require less bandwidth than high-definition graphics software. "We wanted something that would allow for future scalability and the QLogic 9000 gives us that option," Tallmadge commented.

With the QLogic switches, the network can significantly improve its competitive position. "The QLogic switches have allowed our production department to increase its output substantially by eliminating the time spent waiting for the old systems," Tallmadge said.



QLogic 9000 switches provide immediate access to storage from multiple workstations

As seen in this illustration, a QLogic 9000 Fibre Channel switch forms the backbone of a primary and secondary SAN within the CNBC production department. Fibre Channel connections between the Apple Xserve servers, the Xsan file systems, and the 10 Mac Pro workstations provide high-performance storage access to boost staff productivity.



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