



## Scrubs' Digital Editing Producers Turn to 5200 Stackable Switch for Reliability

### Challenge

To move the online and offline editing of NBC's Scrubs from DAS to SAN

### Solution

An Apple storage environment featuring Apple's Xserve RAID, Xsan, Mac OS X, and the SANbox® 5200 Stackable Fibre Channel Switch.

### Result

Editing time shortened from six days to three days - a productivity increase of 50%.

NBC's Emmy-nominated Scrubs faces non-stop deadlines producing 22 episodes of the popular sitcom each season. Having an award-winning team of editors is essential, but so is providing these professionals with today's fastest and most reliable networking technology to support the editing and production demands of the show.

For the first two seasons of Scrubs, editors worked on an Avid system connected to direct-attached storage (DAS) through ethernet - the problem with that solution was that multiple users couldn't access the same media.

The challenge for producers Randall Winston and Ramy Katrib at Digital Film Tree, the post-editing house that provides support for Scrubs and other television and movie industry clients, was to set up a flawless network to link workstations. Using Apple's Xserve RAID and Xsan, the SAN file system for Mac OS X, the producers deployed the first-ever all-Apple SAN editing solution without using a third party.

"Before we put in the SAN environment to work on Scrubs, they were using Ethernet to copy files. You can imagine how inefficient it was, because there would be four copies of everything they needed," commented Zed Saeed, senior

post production consultant at Digital Film Tree, and co-author of the book Final Cut Pro® 4 Bible.

"The rate at which things are changing is mind-bending," said Scrubs editor Rick Blue. "If the cost of drives keeps coming down, then pretty quickly editors will be able to work with online quality from beginning to end. That would take several terabytes of storage, but that's the way things are going."

### Architecting an All-Apple Storage Solution

After a little research, the choice for directing traffic in the new SAN environment became obvious: the SANbox 5200 stackable switch by QLogic®, which offers the perfect solution for both scalability and reliability.

"Because desktop video is getting so much cheaper and applications like Final Cut Pro are becoming very affordable, you tend to get five or six workstations. These multiple workstations are now linked together through the SANbox 5200 switch, allowing all users to work simultaneously on the same project," Saeed explained.

Prior to selecting QLogic to begin compatibility testing, Katrib said he contacted Brocade and Vixel - two vendors he respects - but was told that digital editing was not one of their primary niches.

"Our testing proved that the QLogic switch was robust and reliable. In fact, our QLogic switch has never given us any problems. It's been one of the most positive components in the whole mix."

Ramy Katrib, Digital Film Tree





## Editing on the Run

Scrubs superstar editors John Michel and Rick Blue both commute from the East Coast where their families reside. So, one of the highlights of the new SAN was their ability to edit offline while winging their way across the country or staying at home avoiding the LA freeways.

And keep in mind that the workload on Scrubs editors is huge. A 20-minute episode's dailies average between 70 Gbytes and 100 Gbytes of data per show.

### The Scrubs SAN consists of:

- 3 G5 Dual Processor Macs (Edit Bays)
- 2 17-inch G4 PowerBooks
- 2 Xserve RAID's with 3.2 terabytes of storage media
- 2 Xserve Servers
- 1 16-port SANbox 5200 Stackable Switch
- 1 Xsan for Mac OS X
- Final Cut Pro 4

In addition to the 5200 being the ideal switch for supporting work on Scrubs, four different editors adding ports will be quite easy. The 5200 offers low-cost entry with an 8-port configuration, allowing users to upgrade in software-keyed increments. As ports and additional switches are added, the ability is there to scale to 64 ports without losing a single port to inter-switch links, thanks to each 5200's four-pack of blazing 10Gb ISLs.

"They said they weren't aware of this marketplace," observed Katrib. "On the other hand, QLogic had a real initiative to work in the motion picture industry. I'm always looking for companies that are aware and trying to do something special, like QLogic."

"When we knew that Xsan was on the horizon, I began inquiring as to what would be the standard switch that we would use," commented Katrib, referring to the Apple product that hit the storage market in mid-January. "Apple pointed me to QLogic and I called their systems engineer, Chris Coleman."

The release of Xsan made it possible to design an all-Apple storage solution for production that is in effect an enterprise-class storage networking environment. This infrastructure allows multiple computers to concurrently access terabytes of storage from Xserve RAID over high-speed Fibre Channel.

Katrib gave Digital Film Tree's top engineers Zed Saeed and Kader Sazer the assignment of testing for compatibility and reliability. Scrubs editors and producers are quite clear that there is no margin for error - the SANbox 5200 and its reputation for superior failover and high availability alleviated any concerns.

## New Technology Drives Productivity Gains

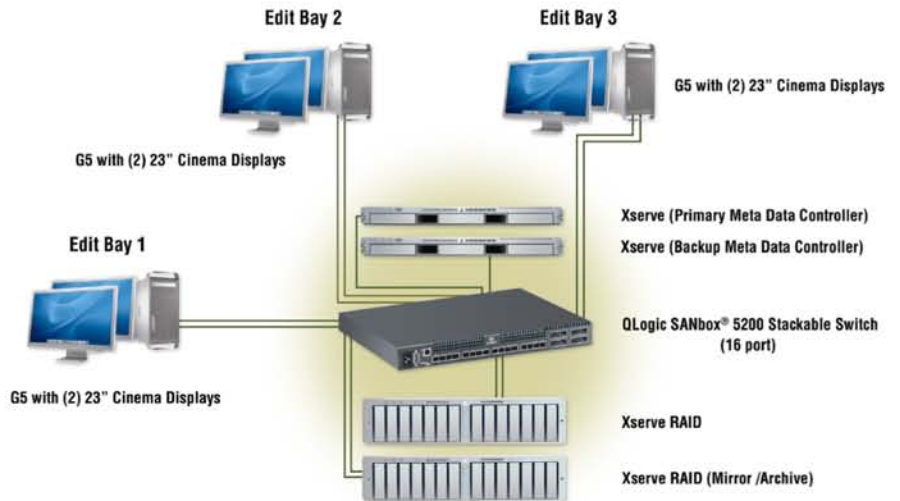
Using the new editing process, Scrubs has reduced its editing days from six days down to three days - a dramatic 50% return on investment. This feat is accomplished by assembling the show with editors working simultaneously in real time, digitizing after the director's cut, and then simply tracking subsequent changes.

Katrib is confident that he speaks for the entire production crew at Scrubs when he heaps kudos on QLogic. "QLogic has been engaged with this project in a real way," he observed. "There's a difference with a company saying they are interested in solving problems, and actually doing something about it. The switch has been quietly working. That's all we want."

Compared to the previous Ethernet infrastructure, the new SAN has accelerated the speed at which editing can be performed, while streamlining the post-production ecosystem in an immediate and tangible way for all editors involved.

"From our perspective, storage area networks represent the holy grail for post-production," Saeed concluded. "It's efficient, it's fast and it's dependable. These are the three key elements needed in a SAN."

And now thanks to the new SAN, the process of meeting Scrubs producers' demands for perfection and speed is never in jeopardy.



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