

StorNext & Scalar Series

CGNTV Cuts Production Time in Half and Automates Archiving with Quantum Solutions

CGNTV, an international broadcasting company that specializes in missionary education, cut its production time in half with Quantum solutions. With Quantum's StorNext workflow-optimized storage managing the entire production process, CGNTV increased its performance, streamlined collaborative workflow, and automated archiving.

Christian Global Network Television (CGNTV) is a broadcasting network established in 2000 by Onnuri Community Church, a Protestant institution headquartered in Seoul, Korea. CGNTV began as an Internet-only broadcasting operation but expanded to include satellite-based transmission in early 2005. Today, CGNTV supports a multilanguage Korean channel, as well as separate channels in the United States, Japan, and China, broadcasting 24 hours a day in each of the regions it serves. The organization has also expanded into new media, providing its own mobile broadcasting service and programs targeted for specific audiences. Currently, CGNTV has more than 60,000 separate programs and hundreds of thousands of hours of content.

GENERAL-PURPOSE NAS UNABLE TO MEET BROADCASTING DEMANDS

CGNTV develops programs in each of its supported regions and shares content across geographies, reusing content in different forms, formats, and resolutions. To support its production model, the CGNTV staff places a premium on a collaborative workflow in which both new and existing content is readily available to its team of editors for creating new programming.

Several years ago, CGNTV made the transition from traditional videotape to a digital file-based tapeless workflow. In the initial configuration, the IT department used network-attached storage (NAS) filers as the active work-in-process area where content was staged, edited, and transcoded for transmission. Older content that was not actively being worked on was moved to digital tape stored in a Quantum Scalar® i6000 tape library, using a media asset manager (MAM) to create the archive and bring content back into the work-in-process area for reuse.

This first-generation system was much more efficient than videotape, but it still had limitations. Using Ethernet with a NAS filer for storage and collaboration limited performance—especially when several teams were working on projects at the same time. Slowdowns, dropped frames, and workflow interruptions were common. It was also difficult to scale system performance, and archiving functionality was limited. Moving content and assets to and from the tape library was a manual process that could not be done simultaneously with many of the production operations, and using the MAM as the interface to the media repository did not provide complete information on the library or the media that held the content. These issues made it difficult for the production team to keep up with its 24x7 multinational broadcasting schedule. CGNTV realized this problem would only get worse when the organization moved to higher-resolution formats in the future and expanded its geographical reach.

STORNEXT BOOSTS PERFORMANCE AND STREAMLINES WORKFLOW

The IT team decided to switch to a state-of-the-art workflow-optimized storage solution using a storage area network (SAN) powered by Quantum StorNext®, the industry's most widely used open-systems storage solution for media and entertainment applications. The new solution included a StorNext shared file system, which provides high-speed multiuser and multistream collaboration, and StorNext Storage Manager, which manages content and assets across different tiers of storage associated with various workflow stages, from ingest to archive. Because CGNTV already had a Scalar i6000 tape library, the company was able to upgrade to an archive-enabled library (AEL), StorNext AEL6000, by adding StorNext Storage Manager software directly to its existing hardware.



"Quantum's StorNext platform provides high performance and stability, as well as scalability. The system ensures the integrity of the data stored on high-capacity media, and it reduces management tasks. We feel that this is the optimum solution for us."

Sangwook Lee,
Archive Team Leader, CGNTV

SOLUTION OVERVIEW

- Quantum StorNext 5
- Quantum StorNext Storage Manager
- Quantum StorNext AEL6000

KEY BENEFITS

- File-based workflow streamlines collaboration and reduces production times by 50%.
- Workflow-optimized storage increases performance and provides easier scalability than NAS.
- The StorNext high-speed solution allows editors to work across different platforms and applications with Fibre Channel throughput.
- StorNext Storage Manager automatically moves media files between disk and digital LTO tape to simplify archiving and make existing content directly available for reuse.
- The StorNext AEL library provides capacity-on-demand scalability to keep TCO low and support growth.

CASE STUDY

The new solution provided an active work-in-process area with high-performance SAN-attached disk that has enabled the production team to work at line-speed Fibre Channel rates. These rates are much faster than the NAS filer with lower latency rates, eliminating bottlenecks and dropped frames. The workflow-optimized, high-speed solution also allows parallel workflows—multiple users and multiple streams can work simultaneously with no bandwidth issues. In addition, it provides greater headroom to allow CGNTV to produce higher-resolution work in the future as file sizes increase. As more of CGNTV's content migrates to higher-resolution formats, CGNTV will be ready, from ingest through archive.

The StorNext platform is an open-systems shared file system with a large technology partner ecosystem—allowing all of CGNTV's existing applications and platforms, including the legacy MAM software, to access content in a collaborative workflow. StorNext also makes it easy to scale the system's capacity and performance, allowing disk resources to be added as needed—all managed by StorNext.

BETTER ARCHIVE FUNCTIONALITY IMPROVES ASSET AVAILABILITY

The Quantum solution archives content and assets more efficiently to the tape library. StorNext Storage Manager automatically moves media files from the high-speed, disk-based work-in-process area to the StorNext AEL6000 tape library, using powerful Storage Manager policies set by the CGNTV team. With Storage Manager, all of the file content is viewed through a single, unified file system interface. Files stored on tape are also visible from within the applications.

To work on content stored on tape, the editor selects the file directly from the application, and the system automatically moves it back into the production area. This simplified operation cuts production time for creating new programs in half.

The digital tape-based archive is designed to support future growth and keep assets safe over the long term. The library scales easily using a capacity-on-demand model that allows users to add more tape capacity as needed, keeping the initial capital investment to a minimum and providing a low total cost of ownership (TCO). The StorNext AEL library automatically monitors the tapes and drives and proactively warns the team if error rates increase, which allows assets to be moved to new media before any content is compromised. The system can even be set up to automatically migrate files when error rates reach certain thresholds. Finally, StorNext Storage Manager monitors the library and sends the diagnostic information to system administrators, providing insights into library operations that were not available in the old system and reducing administration overhead.

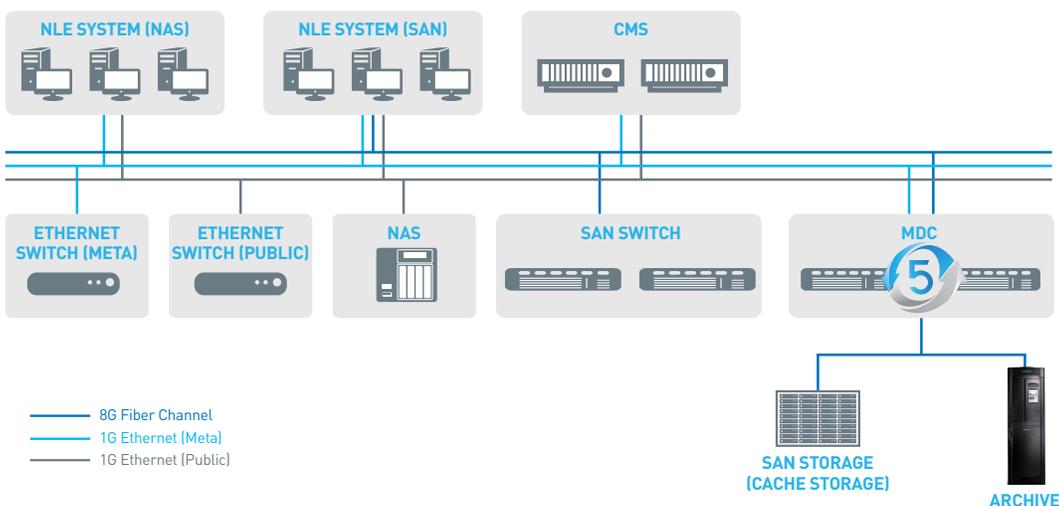
"CGNTV developed an enterprise-wide management system to manage all of its network-based media content and deployed Quantum StorNext as a key part of the solution," says Sangwook Lee, CGNTV archive team leader. "This allowed us to safely archive all of the video content that required long-term storage and to easily access it for reuse. Quantum's StorNext platform provides high performance and stability, as well as scalability. The system ensures the integrity of the data stored on high-capacity media, and it reduces management tasks. We feel that this is the optimum solution for us."

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ABOUT CGNTV

Christian Global Network Television (CGNTV) is a broadcasting network that specializes in missionary education established by Onnuri Community Church, a Protestant institution with headquarters in Seoul, Korea. CGNTV was established to provide educational content in Korea and for Korean missionaries abroad, to support the church's international leadership team, to promote creating and sustaining a clean physical environment, and to help the church expand its evangelical mission across the globe. CGNTV provides program content to 174 countries across the globe, 24 hours a day through its traditional broadcast outlets in Korea, the United States, Japan, and China, and through its mobile broadcasting service.



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