

## Video Edition Case Study: Adventist Media Productions, USA



**Adventist Media Productions (AMP)** is the electronic media production unit of the Seventh-day Adventist Church in North America and is responsible for producing radio and television programming for five different "ministries" of the Church: It Is Written, Voice of Prophecy, Breath of Life, Faith For Today and La Voz de la Esperanza. In addition, AMP produces programming for the Hope Channel, Adventist Communication Network and many other organizations.

Adventist Media Productions is known for top quality production of video programming, radio programming, music recordings, mixing and mastering and satellite transmission. The organization produces and is the home of the well known "Family Reunion" music video/DVD series.

AMP is very active internationally. It originates live television programming feeds from Africa, Europe, the Philippines, South America, India, Korea, Jamaica, Romania, New Guinea and North America. It is also the technical operations center for four different satellite television channels - Hope North America, Esperanza North America, Hope Europe and Hope International.

### The Challenge

Over the years, Adventist Media Productions expanded its digital video archive capacity by adding new servers and RAID storage. Eventually this situation became unmanageable. There was no easy way to back up the servers and, as their content grew, the cost of adding ever more network storage became excessive. Also, there also was no easy way to provide any form of disaster recovery. Going forward AMP needed a flexible system that was easy for their editors to use, that could accommodate their existing material and archive their new material in a central location.

The challenge was to find a cost effective solution to first back up and duplicate their existing archive material and then to provide an expandable solution to their steadily increasing archiving needs. The solution was to be located in AMP's Simi Valley, California facility. It had to be easily managed by AMP staff and had to be compatible with their AVID and Final Cut Pro systems.

## Solution Provider: Newcast

Newcast Inc is the US subsidiary of a leading European provider of professional media solutions which was established more than 35 years ago. The company, headquartered in Los Angeles, designs and installs complete systems for the production, post-production, and broadcast of video, voice, and data.

## Solution Key Components

- Video Edition, XenData Archive Series software running on an IBM X-Series server.
- Qualstar TLS-88132 robotic tape library with two fibre channel LTO-4 tape drives

## Solution in Detail

AMP selected a digital video archiving system that was sized appropriately for their initial needs, but one that is capable of being expanded as their archive requirements grow. The system comprises an IBM X-Series Windows 2003 server that runs the XenData software and a Qualstar 132 slot LTO-4 tape library that can be expanded to 264 slots. Each LTO-4 tape cartridge has a 800 GB capacity which means that the current 132 slot library holds 105 TB of video files. However the capacity of the existing archive system is not limited to 105 TB, as the solution will manage an unlimited number of LTO tapes held 'on the shelf'.



The IBM X-Series server is equipped with six SATA 500 GB disk disks and 2 GB of RAM. Two of the disk drives are arranged as a mirrored pair for the operating system and the XenData application. The remaining four are configured as a RAID 5 array providing 1.3TB of cache disk managed by the XenData archive software.

The Qualstar tape library has two high performance IBM LTO-4 tape drives that each provide sustained real world video file transfers of 65-80+ MB/sec. The tape drives are connected via fibre channel interfaces directly to the IBM server.

The archive appears on the AMP network as a standard network share, accessible via Windows and Mac clients. Video files are archived to LTO tape by writing to the archive network share where they are cached to disk before being written to LTO. After being archived to LTO tape, the files appear as though they are on the RAID cache allowing for easy retrieval. When a network request to retrieve a file is made, the software loads the required tape cartridge, and transfers the file over the network.



The system allows LTO tapes to be exported from the library and held on the shelf. The exported tapes continue to be managed by the system, providing an inexpensive archive for infrequently accessed material. If the archive system receives a request to restore a file which is no longer in the robotics tape library, a request for the barcode labelled cartridge is issued to the operator via an email or an on-screen message. This makes it easy to import any required tape cartridges back into the tape library.

Following installation of the system, AMP's immediate need was to create a backup and replica of all the video files on their servers. The archive system was configured to do this by creating a folder on the archive network share for each server. All files transferred to these folders

were archived to duplicated LTO tapes. Steadily working through their servers, AMP was able to archive the contents of each server to LTO tapes in the Qualstar library. In total they backed up 28TB of video content spread across numerous servers. One set of the LTO tapes was exported from the library for safe storage at their East Coast facility in Silver Spring, Maryland.

After completion of the initial backup of the existing servers, the archive system was configured for on-going daily archiving of new material. Content is simply transferred to the appropriate folder on the archive network share and, based on administrator defined rules, copied immediately to LTO-4 tape. AMP archives video content from multiple sources and is able to use standard Microsoft security policies to control access to the archive.

## The Future

AMP next plans to expand the archiving operations to include:

- Finished output work from their four Final Cut Pro and two AVID workstations
- Repository for RAW footage from Camera P2 cards

They are also going to add related data to the archive including play lists, scripts, EDLs and individual project budget and planning related documents.

### In Summary: Challenge Met

The archive system fulfilled every one of Adventist Media Productions' requirements. They were able to get their data backed up and replicated for disaster recovery purposes and then have an archive system going forward that centralizes their storage. The system allows multiple users to access and use the archive in a secure manner from a variety of applications with minimal training. Furthermore, the AMP archive solution is expandable for future growth.

For more information, visit [www.xendata.com](http://www.xendata.com) or call us:

XenData USA:	+1 925 465 4300
XenData UK:	+44 1223 370114
XenData Germany:	+49 89 99216 422