Video Edition Case Study: KATV - Little Rock, Arkansas, USA

KATV is owned and operated by a group company Allbritton that operates ABC-affiliated stations in seven markets: Washington, DC (WJLA); Birmingham, AL (WBMA/WCFT/WJSU); Harrisburg, PA (WHTM); Little Rock, AR (KATV); Tulsa, OK (KTUL); Lynchburg, VA (WSET); and Charleston, SC (WCIV). In addition, Allbritton owns and operates a 24-hour cable news channel in Washington, DC, NewsChannel 8 and publishes The Politico.

KATV has been archiving clips for 50 years and has over 20,000 hours in their video tape library that contains footage from ABC going back to the 1950's. In addition there are many hours of content relating to President and Hilary Clinton that are frequently accessed

The Challenge

KATV was archiving news content to in-house networked attached storage (NAS) and wanted to improve the level of data protection as the NAS provided only a single incidence of each video file in a single location, Furthermore, each time they ran out of storage space expanding the NAS put a strain on their budget. They archive between 20 and 30 GB per day of news content at each station.

Solution Provider: Video Technics

Video Technics, supplies the global broadcast industry with workflow solutions built around the company's IT-based media servers. Video Technics' Apella™ and NewsFlow™ products streamline the entire production process, and feature inherent proxy editing, embedded ingest/playout tools, and digital asset management. The NewsFlow solution features fully integrated video archive management via XenData video archive software and Qualstar video archive systems.

Solution Key Components

- Video Technics' NewsFlow™ solution for news (via ENPS) and master control (via Sundance)
- Apella LCS Media Servers, including proxy browser, database cluster, 6.0 TB of RAID-protected NAS, a media exchange Server (VTMX) for satellite and Pathfire content.
- Qualstar BQ20 video archive system with an IBM based archive server and 20 LTO-4 cartridge robotics tape library.
- XenData Archive Series software, Video Edition

Solution in Detail

KATV uses a Video Technics NewsFlow solution for news (via ENPS) and master control (via Sundance) that includes four Apella LCS Media Servers for playout and ingest, a VT Proxy Browser embedded in AP ENPS, a VT Database Cluster with instant failover capability. Near-line content is stored on a 6.0 TB NAS, while a VT Media Exchange Server (VTMX) is used to transfer satellite feeds and Pathfire content over the network. Content creation is performed using the VT News Edit Plug-In on multiple Final Cut Pro workstations. The solution has a total of eight VT Studio Pro NLEs and four NewsFlow Field Editor notebooks. The video archive system comprises an IBM based archive server from Qualstar, which has 2TB of RAID as a cache drive for the Qualstar robotics tape library. The library holds 20 LTO-4 tapes each capable of storing over 70 hours of DV25 content. Inside the library are two IBM

LTO-4 tape drives for concurrent reads and writes to the archive. Running on the archive server is video archive management software from XenData.

The XenData software makes all of the archived video files appear within a single standard Windows logical drive which means that NewsFlow can write to and read from the archive as though it were a standard shared disk-based logical drive.

The XenData archive software is fully integrated with the Video Technics NewsFlow so that clips can be archived and restored directly from the Video Technics proxy editor screens. This allows the KATV news staff access to a very large archive from their desk. KATV produces 4 news shows a day with approximately 24 minutes of DV 25 content in each show. In total KATV archives around 400 clips per week that have been aired or are historically newsworthy. The news team wanted to retain raw footage as well as finished programs and so their archiving needs were exceeding their current hard disk drive solution. Adding the LTO tape archive system gives KATV 1400 hours of content accessible on line and unlimited content on the shelf. Each tape can hold approximately 71 hours of DV25 content so content on the shelf occupies far less space than their current video tape library. KATV decided to replicate their archived content for disaster recovery purposes. A duplicate LTO tape is created automatically by the XenData software. The system is set up to update the duplicate LTO-4 tape at midnight every evening. The duplicate tapes are then exported out of the robotics tape library for safe storage and fresh blank tapes added. The current configuration will allow KATV to have 2 years of content near-line and older content exported to the shelf. The XenData software manages the content on the shelf as well as in the library, making retrieval of deep archived content simple to do.

The Future

KATV will expand their archive library from 20 slots to 44 slots in the near future, giving them even more content available near-line. They plan to refine their workflow and optimize the system by retaining archived content that is frequently accessed on the disk cache of the system in addition to storing it on LTO tape. They also plan to use the Qualstar / XenData systems independently from the Video Technics NewsFlow archive to protect content stored on their NAS RAID including commercials and raw footage that hasn't yet been processed. The video archive system will also be used to archive and protect raw footage from their Firestore camera disk drives. Adding a remote LTO-4 tape drive to the system will allow KATV to locate the exported archive on a bookshelf in the news room and provide the News team access to deep archived content simply by inserting a bar-coded tape cartridge for the shelf.

The Qualstar robotic library at KATV is field expandable from 20 to 44 LTO-4 tapes.