

3ZERO2 TV: An end-to-end MERP solution

This paper describes the solution that has permitted 3ZERO2 TV to count with a system based on Etere MERP able to capture, manage and distribute all media involved in the management of its broadcasting services under a workflow-based framework.

For more information, please refer to the attachment.



3ZERO2 TV Company logo

The long and firmly established prestige of ETERE as the only company able to provide the best solutions at lowest costs has lead 3ZERO2 TV to rely upon Etere for the deployment of a digital and IT-based playout system cemented on Etere MERP technologies.

The Challenge

This paper describes the solution that has permitted 3ZERO2 TV to count with a system based on Etere MERP able to capture, manage and distribute all media involved in the management of its broadcasting services under a workflow-based framework. A special focus will be made on the provided IT-Based Playout Solution since its innovative approach has supported 3ZERO TV to build a multichannel, integrated, automated and IT-based playout system which is highly reliable, tight integrated, cost efficient and easy to maintain. The primary challenge of the project consisted in creating a comprehensive system able to manage, under an integrated file-based framework, all the activities of 3ZERO2 from Ingest to Playout, Indexing and Metadata Insertion to Scheduling and Archiving to Content Delivery.

Solution

Deploying an ETERE solution has been a smooth process from the configuration of all the equipment to the implementation of accurate workflows for a reliable management of media content.

Remarkable Features

- Quick and fully digital technologies for ingest related operations
- Integrated and highly effective Quality Controls for accurate content consistency
- Automatic generation of multi-format and multipurpose proxy files
- Streamlined long-term archive of digitized content on either the near-line or deep archive
- Effective post-production integration to create trailers and others clips
- Complete visibility and control of archive content through a multi-access web interface

A new technology for media management

Etere MERP has placed 3ZERO TV at the technological forefront of broadcasting and content production. ETERE is the best compromise between quality and cost for the implementation of end-to-end broadcast systems. Thanks to Etere MERP the customer has got latest workflowbased and modular technologies for the creation and control of its multimedia archiving and management.

Reliable and cost efficient

Etere MERP solution has provided 3ZERO2 TV with a reliable and cost efficient distributed solution ready to manage its fully digital and tapeless archive. Entitled users are now allowed to access media and metadata whenever they wish and wherever they are. Even remote users are able to create playlists, change assets and take decisions in real-time.

Versatile archive integration

The new system has seamlessly integrated the spread structure of the station. The archive can be consulted and also managed remotely from any location by authorized users who will access the fully digital and tapeless archive to perform real-time operations including media management, content delivery and system monitoring.

Etere has permitted 3ZERO2 TV to effectively manage its robust content archive based on Etere MERP which combines powerful servers with an easy to use graphical user interface.

Online Storage

DIGITALLY END-TO-END

The streamlined workflow of 3ZERO2 TV starts with the ingestion. Content capture relies on a distributed set of dedicated Etere MTX engines which provide.

- Fully digital ingest
- Wide range of compression schemas and wrappers
- Production of static and dynamic graphic overlays
- Embedded aspect ratio conversions

FULLY IT-BASED

Etere MTX is the IT-based solution for ingesting, storing and transmitting contents with the maximum of flexibility and cost efficiency. Etere MTX combines the flexibility, power, reliability and efficiency of Etere software with Matrox's professional video technology.

AUTOMATIC CONTROLS

The implementation of a customizable Etere CMS process provides fast and accurate capabilities for a simultaneous QC examination of digital content stored in the archive.

FILE-BASED OPERATIONS

The file-based QC (quality control) of archived content is performed automatically via workflow by Etere CMS. This module ensures detecting and logging audio/video issues (e.g. freeze frames, black frames, scene changes, audio loss) according to their quality.

MULTI PURPOSE

Etere CMS has streamlined operational efficiency of QC across the entire content life cycle, either prior (e.g. playout, repurpose, archiving) or after (e.g. encoding, ingest, editing, transcoding, archiving) a media operation.

DEEP & NEARLINE STORAGE

Ingested content is stored in the digital archive of 3ZERO2 TV which is managed by a flawlessly configured Etere HSM. Etere HSM is the best solution for improving the redundancy of valuable content stored on longterm tapes. Media is fast and intelligently moved when required.

ON-DEMAND AVAILABILITY

All multimedia contents are archived in LTO5 tapes (of 1.5 TB) using Etere HSM.

Etere HSM manages the following storage levels:

- Deep Archive (a robotic digital tape Library 3000StorageTek with a capacity of 200 online tapes)
- Nearline Storage (including its Nearline proxy storage for browsing)

AUTOMATED TASKS

Etere has provided 3ZERO2 TV with the best-of-breed in transcoding technology, an automatic generation of proxy files for cataloguing and browsing. An accurate transfer of content with the maximum of quality preservation and content availability is ensured.

ROBUST AND INTUITIVE

Etere MAM permits 3ZERO2 TV to index and enrich media content through a fast

and robust interface to browse and catalogue media with custom SMPTE metadata. The intuitive interface establishes a bridge between ingest and production departments, making it possible to browse proxy contents simultaneously over the network.

COMPREHENSIVE CAPABILITIES

The archive of 3ZERO2 TV has been extended to web thanks to Etere Web. The enterprise content management solution provided with a robust search engine and several Media Library features including:

- Searching/viewing/editing video assets
- Monitor current status of the archive (available tapes, files, space, etc.)
- Consult recorded transmission logs
- Make use of an extended set of EPG functions EtereWeb allows any user with internet to access the archive anytime and everywhere

REMOTE DELIVERY

The Tapeless Reception allows NLE and external users to delivery file-based contents. A post-upload workflow is automatically executed to perform any custom actions, for example:

- Generate a proxy file
- Move the uploaded file
- Perform a quality control
- Archive uploaded files
- Check files with antivirus

A fast content upload system permits NLE and external agencies to easily deliver contents to the station.

VIDEO LOGGING

The legal recording of transmitted content is performed by Etere Memory, which record the playout in Mpeg4/WMV format to provide video as-run logs for a post-broadcast analysis.

Etere Memory is the solution for legal recording of transmitted content, it provides added tag and search capabilities. Etere Memory saves recorded files on hard-disk in Mpeg4/WMV format and makes it available for post broadcast consulting either via desktop or web.

CENTRALIZED MONITORING

3ZERO2 TV has been provided with an Etere Monitoring Console for allowing supervisors to monitor the space across all storage devices, the status of all the devices installed in the system and the success of the workflows running in the station. This essential tool will help supervisors to have a global overview of the system and thus permit them to ensure the appropriate functioning of the system and all the elements which form it. All messages are automatically delivered as SNMP messages based on custom notification policies (content, IP address, validity, filters) which are collected and stored through locally installed agents to provide real-time info.

CONCLUSIONS

3ZERO2 TV has benefited from all the advantages derived from Etere MERP. Among present and future operational benefits the following can be mentioned:

- Flexibility, on meeting all requirements by proving a versatile media management system tightly integrated with all the metadata and equipment
- Scalability, to increase the capturing/playing channels without altering the workflow complexity, minimizing operational overheads overall costs
- Efficiency, achieved by reducing repetitive manual operations, allowing to define and include in advance in automatic preset workflows
- Reliability, derived from the use of streamlined, workflows provided with detailed logs for tracking the overall and individual functioning of the system
- Accuracy, on all phases, reducing the risk of mistakes when archiving data since all archived contents are continuously checked and monitored

- Integration, of non-linear editing systems to allow direct access to archive through a web interface empowered with the highest security standards
- Security, across all operations based on specific user permissions depending on the structure of the customer's Active Directory domain
- Usability, a sophisticated interface guarantees a smooth use and intuitive management of media content, from ingest to playout