

## Solutions for broadcasters

*Helping broadcasters gain control of media assets and realise efficiencies*



### Highlights

- **Reduce management and administrative costs**
- **Preserve content from deterioration**
- **Reduce storage space**
- **Allow desktop access to content without having to retrieve and load tapes**
- **Facilitate the re-use of content and open up new revenue-generating opportunities**
- **Enable faster production to air times.**

### The changing broadcast environment

Broadcasters are facing unprecedented challenges today. Viewing and listening habits are changing as consumers are bombarded with choices, and the rising use of personal media devices is fragmenting the industry and putting pressure on revenue. Governments are also mandating the move to digital broadcasting while changes in the regulation of media outlet ownership are enabling greater competition.

The main driving force behind this changing environment is the digitisation of sounds, words and pictures, allowing companies to transmit and manipulate rich media assets in entirely new ways.

The transformation from analogue to digital production and the exploding demand for new ways to view rich content is driving media and entertainment companies to evaluate how they can more efficiently and strategically create, manage and distribute digital media.

### Why move from analogue to digital?

Television and radio broadcasters must confront many issues when trying to effectively leverage video assets. These include:

- *Managing islands of content and multiple proprietary file formats*
- *Minimal ability to scale as tape archives and content grow*
- *Difficulty finding specific video segments as tape archives grow*
- *Holding operational costs in line while increasing viewer options.*

Developing a strategy for moving from an analogue, non-integrated environment to a digital business infrastructure based on open standards technology can reap many benefits and provide options that were unworkable in older business models.

Longer term, moving to a fully integrated broadcast production environment also lowers overall technology costs by simplifying the environment and eliminating proprietary point solutions. It also improves resource management by sharing hardware and software across the enterprise and may allow headcount reduction through enhanced automation of the entire production process.

### **IBM Broadcast Music Solution**

With a rich history in the development of the digital media lifecycle, IBM is the leading provider of solutions to help broadcasters and other media and entertainment companies gain control of video assets.

Comprised of industry standard IBM hardware and software and incorporating solutions from leading broadcast specialists such as Ardendo, Brainwaves, Dalet, Etere, Front Porch Digital, Thomson and VectorBox, IBM Broadcasting solutions help companies start on the 'digital road' in affordable steps.

The Broadcast Music Channel solution allows television and radio broadcasters to affordably add popular viewer options. The basic configuration is a simple, starter solution featuring ingest, management and playout of music content.

The enhanced configuration adds options such as robotic tape storage for expanded content and Short Message Service (SMS) messaging for consumer voting on music choices.

#### **Basic configuration**

The basic configuration is based around IT video server technology which provides the ingest, playout, automation and rundown software. This allows companies to choose the level of automation they need – partial or 24-hour hands-free playout. This all-in-one playout solution offers many features for minimal upfront investment and operational costs. These include the ability to:

- *Manage live programming from multiple sources such as video tape recorder (VTR) and satellite downlinks*
- *Make changes to the schedule on the fly without interrupting broadcast*
- *Create and save playlists or import them from eXtensible Markup Language (XML) or a third-party scheduling system*
- *Reduce errors to a minimum with intuitive and fault-tolerant operation.*

The basic configuration is built on IBM off the shelf, standards-based @server products and TotalStorage for a complete, cost-effective digital broadcasting environment. IBM @server xSeries offer a wide range of affordable, yet high performance, Intel®-based servers, supporting both the Microsoft® Windows® and Linux® operating systems. Tested with an extensive portfolio of broadcasting applications, xSeries products offer high levels of availability.

For larger environments, IBM BladeCenter products offer up to 14 dual processor blades per 7U chassis. This lowers overall cost of ownership through reduced electricity, cooling and floor space needs, while allowing for pay-as-you-go scalability.

IBM FASTT Fibre Array Storage Technology offers high speed online storage, accessible by all applications and scaling from 18GB to 13TB. IBM Linear Tape Open provides additional, extremely cost-effective data storage for near line storage, back-up, archive and disaster recovery.

### **Enhanced configuration**

The enhanced configuration adds greater storage management and browse access as well as special features such as SMS for consumer music requests. In addition, it provides optional robotic storage capabilities to reduce tape handling costs. The solution:

- *Allows viewers to vote for songs by dialling a special telephone number*
- *Enables creation of music clips and on air graphics playlists as requests are processed according to chosen parameters*
- *Allows update of playouts via file transfer protocol (FTP)*
- *Reads the playlists and plays video events from an internal server*
- *Provides for redundant backup and automatic switch over if problems occur.*

### **IBM Broadcast Archive solution**

The IBM Broadcast Archive solution couples a shared storage infrastructure with leading broadcast applications to provide ingest, encoding, archiving and re-use of content. IBM IntelliStation workstations with Pinnacle Targacards running on xSeries products allow batch ingest from VTR and playout of content with an intuitive user interface.

The solution provides software-based video transcoding and advanced key-frame extraction. Content is archived into a shared storage archive based on IBM FAStT and Linear Tape-Open (LTO) products. Designed to support high speed workflows, the solution delivers central storage management capabilities and provides desktop editing functionality.

Based on open standards, the solution also provides improved system availability and efficiency.

Other benefits include:

- *Faster than realtime encoding while running on standard PCs*
- *Process of ingest, transcode, search, browse, edit, conform and copy-to-playout can be completed in less than one minute*
- *Cost reduction by automating many administrative tasks*
- *Highly scalable archive to hundreds or thousands of users*
- *Instant access to low resolution versions of video material using standard PCs*
- *User interface customised for high speed use in broadcast environments.*

### **IBM Broadcast Production solution**

The IBM Broadcast Production solution provides an all digital broadcast infrastructure with fully automated workflow across functions.

This comprehensive infrastructure and tool set leverages IT technologies in the production, and management of digital assets within the traditional broadcasting organisation.

The solution adds workflow automation capabilities and a state-of-the-art media asset management system. Features include advanced tapeless large scale media recording and management and on-air scheduled, automated playout.

The system can integrate with leading newsroom systems and provide simple to use video editing, titling and voiceover tools for fast editing.

The fully integrated production system also provides fast and efficient access to the central digital archive and enables significantly faster production to air times. Other benefits include:

- *Streamlined workflow and access to information*
- *A centralised repository for all media assets and metadata*
- *Eliminated cost of integrating systems with incompatible data models and of maintaining multiple instances of information*
- *Workspaces that organise and display only the information and tools needed*
- *User preferences based upon user profiles.*

The IBM Broadcast Production solution also enables organisations to take advantage of IBM on demand technology, leading to a broadcast infrastructure that shares hardware and software resources across the enterprise, hides complexity to permit better utilisation and incorporates IBM self-managing, self-healing technology.

IBM Broadcast solutions' media asset management functionality is provided by companies such as Ardeno and Dalet. Solutions can be integrated with most craft editors either on network storage or local storage and a range of video server vendors for ingest and playout, including Etere, VectorBox and Thomson.

#### **Solution components**

- *IBM TotalStorage FAS*o*T Storage Servers*
- *General Parallel File System (GPFS)*
- *IBM DB2 Content Manager*
- *Tivoli Storage Manager*
- *IBM @server systems*
- *IBM Ultrium Linear Tape Open.*

#### **Implementation services**

Implementation services for these solutions may be provided by IBM Global Services or by an approved IBM Business Partner.

#### **For more information**

To learn more about Solutions and Digital Media visit:

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