The Museum of Broadcast Communications: Recasting radio and television content

Overview

■ *Challenge*

The Museum of Broadcast Communications was hampered by an out-of-date infrastructure, a vast collection of time-worn audio and video tape formats, and costly manual processes.

■ *Why Become an On Demand Business?*

The museum needed to respond rapidly to urgent media requests, quickly update evolving exhibits and attract more visitors, onsite and online.

■ *Solution*

With help from IBM, the museum created a digitized infrastructure – enabling it to convert its large library of analog audio and video tapes to digital format.

■ *Key Benefits*

• *68,725 visitors to the online Archive catalog in six months*
• *The ability to add 1,500-2,000 new hours of material yearly, per ingest station*
• *Easy and quick access to materials*

» **On Demand Business defined**
An enterprise whose business processes – integrated end-to-end across the company and with key partners, suppliers and customers – can respond with speed to any customer demand, market opportunity or external threat.

Preserving priceless content

Radio and television have forever altered how people communicate, learn and live. From local and national news, to soap operas, talk shows, sports, music, comedies and dramas, broadcast programs serve as living history, and continue to shape how we view the world past and present.

For years, the voices and images generated from radios and television sets were recorded on analog tape, making them vulnerable to the effects of age and highly susceptible to damage through use and deterioration over time. With digital technology, there is the opportunity to preserve media content for generations to come and make it widely available to more people, through more channels.

"By digitizing our collection, we have enabled visitors to access the museum's archives directly from our Web site, and can maintain and extend our visibility while waiting for our new facility to open."

– Raissa Allaire, vice president and chief of staff, The Museum of Broadcast Communications

On Demand Business Benefits

- The ability to gather, manage, preserve and distribute thousands of hours of content in real time.
- Faster, easier access to historic and contemporary radio and television broadcasts and other museum programs
- Response time is now measured in seconds, as opposed to days.
- The museum now has the potential to significantly increase its exposure – on- and offline. In six months, the MBC's Archive catalog welcomed 68,725 visitors.
- The flexibility to add 1500-2000 new hours of digital content per year, per ingest station, will help assure the availability of both historic and contemporary programs for years to come.
- An open, scalable, flexible and tightly integrated broadband platform that can accommodate both present and future requirements
- A hosted environment that affords a lower total cost of ownership

The Museum of Broadcast Communications (MBC) serves as a reservoir and safe haven for radio and television programs, some dating back to the 1930s. Founded in 1987, the Chicago-based institution (www.museum.tv) is one of only three broadcast museums in America and home to the Radio Hall of Fame. As a not-for-profit organization, the MBC constantly seeks ways to make the best use of its archives and programs – including exhibitions, hands-on experiences and student workshops – and reach out to more patrons. Over the years, this goal acquired a sense of urgency.

Transforming the business model

Plans to relocate from the Chicago Cultural Center to a 70,000-square-foot building nearby would force the MBC to operate without a physical presence until 2006, when the new facility will open. This situation compelled the museum to take a hard look at its current business model, as well as its processes, which were dated, expensive and time-consuming. They also limited exposure to the experience the museum offered.

For example, a visitor interested in watching a particular television broadcast would have to search the museum's database to find their selection, write down the tape's identification number on a request form and submit it to a front-desk employee. After assigning the visitor a viewing booth, the staff member would locate the tape and insert it into a VCR bank that fed signals to the viewing booths. If a visitor wanted to listen to an audio tape, an employee would find the item, hand the visitor the tape and an audio cassette player, and direct the individual to a viewing booth.

Requests for copies of tapes were another challenge, particularly when they came from broadcast companies. A staff member would have to copy a tape to the desired format (DVD, Beta, CD or 3/4"), package it, and dispatch it for delivery via regular postal services. The task took at least 24 hours – plus shipping time – making it impossible to accommodate same-day broadcasts without special provisions.

These processes were not only jeopardizing the museum's tape library, they were also limiting accessibility and draining time and resources. Something had to be done.

Creating a digital infrastructure . . . with IBM e-business Hosting Services

The MBC decided to digitize its infrastructure, including its collection of analog tapes. Doing so would enable the museum to protect and conserve this extensive library and accommodate virtually limitless additions. The process of retrieving and distributing content would be almost instantaneous – performed directly from users' desktops. Patrons would have immediate access to valuable programs, research files and more. Museum staff would be free to focus on their core skills, and provide more personalized services to patrons. Still, this would require converting thousands of hours of analog-based content to digital format, modernizing the museum's existing IT environment, and revamping its processes.

IBM's leadership in digital media made it a natural fit for the MBC's requirements. After calling on IBM Global Services, the museum set about creating an IBM Digital Media solution that would also incorporate IBM e-business Hosting Services. The work involved the implementation of two parallel digital media systems – one in-house, and one offsite to handle different resolutions of content – that allow the museum to easily extend its content to the Web and develop interactive exhibits. Tape conversion is handled in-house.

Logicalis, an IBM Business Partner, was brought on board to help design and implement an in-house encoding studio that captures and stores the museum's high-resolution content. IBM supplied the MBC with an IBM IntelliStation desktop computer running Windows® XP and equipped with MAudio Encoder cards.

Key Components

Software

- IBM DB2® Content Manager
- IBM Tivoli® Storage Manager
- IBM WebSphere® Application
  Server Advanced
- Stellent Ancept Media
  Server applications
- Telestream FlipFactory

Hardware

- IBM @server® xSeries® 335
  running Linux®
- IBM @server pSeries®
- IBM IntelliStation®
- IBM TotalStorage®

Services

IBM Global Services e-business
Hosting™ Services

IBM Business Partners

- Logicalis
- Ancept, Inc.
- Telestream

"If you visit our Web site and click on 'Search the Archives', at the touch of a button you can access the museum's archival content – you can view a comedy from the 1950s or listen to a radio drama, for example. It's pretty spectacular, and represents a new era for the museum. It also plays to the vision of the museum's new facility that we are opening in 2006. It's been incredible as far as enhancing access to our archives, boosting patron satisfaction and making our internal staff more efficient."

– Raissa Allaire

The studio also utilizes an IBM @**server** xSeries 335–the museum's staging server and the repository for temporarily storing content–running the Linux operating system. This enables the MBC to create digital scripts and transfer low-resolution content to an offsite digital media infrastructure at the IBM e-business Hosting Center in Secaucus, New Jersey. The hosting solution is built upon IBM server and storage technology, IBM DB2 Content Manager and IBM WebSphere Application Server. The MBC backs up its onsite infrastructure with IBM TotalStorage products. IBM Tivoli Storage Manager is responsible for hierarchical storage of the high-resolution digital content.

An automated, secure and immediate experience
Today, the museum's online visitors can view the MBC's digital content from their PC screens. (In six months, the museum's new online catalog attracted 68,725 visitors–far more than expected). Furthermore, requests for digital media files can now be fulfilled immediately via e-mail to media outlets and other institutions.

When the museum opens the doors to its new facility in 2006, patrons will be able to enjoy in-depth programs provided via displays and a media café, complemented by two floors of exhibitions and a research center. The IBM solution also allows the MBC to add 1,500-2,000 new hours of digital content each year–further enriching the museum experience.

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