

Alliance Atlantis Goes Tapeless With MassStore Asset Management

The broadcast industry has witnessed the rapid emergence of multichannel broadcasting as a new standard. With the proliferation of specialty channels as well as consolidation of playout within fewer broadcast facilities, a new challenge faces the modern broadcast operation. Broadcasters must find innovative means not only to unite their multichannel playout systems within a centralized environment, but also to simplify and streamline the management of their burgeoning media assets and archives.

When one of Canada's most dynamic television broadcasters developed its strategy for the launch of seven new commercial digital channels – national networks available across Canada – the company sought a comprehensive system capable of managing the complete post-creation content cycle, including server ingest, disk-based server storage, database entry and cataloging, data tape archiving, program retrieval, and playback. Toronto-based Alliance Atlantis Broadcasting selected the MassStore™ nearline, archiving, and asset management solution from Masstech Group to connect the pieces of the puzzle in a cost-effective, customized interface geared specifically toward large-scale broadcast operations.

For the launch of BBC Kids, BBC Canada, National Geographic Channel, Discovery Health, Showcase Action, and Showcase Diva, Alliance Atlantis constructed a new control room on the eighth floor of its main offices at 121 Bloor Street East in Toronto. The seventh channel, the Independent Film Channel, would be run along with five other commercial channels (Showcase, Life Network, History Television, HGTV Canada, and Food Network Canada), already operating from the company's existing playout system within a control room located on the facility's ground floor. Alliance Atlantis integrated the MassStore system into its control room expansion to manage the storage, cataloging, and access to the thousands of hours of programming required for each new 24-hour broadcast channel.

Available as an end-to-end hardware and software solution intended for professional broadcast environments, MassStore is capable of providing from 1,000 to more than 100,000 hours of nonlinear audio and video storage with a direct interface through industry-standard VDCP, VACP, and NDCP protocols to popular automation systems, video servers, and tape-based library systems of virtually any generation. Seamless, reliable, and instant access to all available content is ensured by MassStore's robust Oracle 9i Web-enabled content database, a versatile asset database with the flexibility to accommodate the future growth of a progressive broadcast operation.

Streamlining the Storage and Retrieval Workflow

MassStore manages the storage of all programming, commercials, channel IDs, and bumper menu frames for Alliance Atlantis' new channels. Because many of these new channel offerings have a high number of repeats during the week, the broadcast centre receives most programming via tape and a few by satellite. Programs are ingested into a storage area network (SAN) based video server for immediate playout, as well as archived to the facility's digital tape archive system.

“In the design and construction of our new control room, we eliminated direct playout from our automated tape libraries,” says Harvey Rogers, senior vice president of engineering and operations for Alliance Atlantis Broadcasting. “All of our programming content is stored in digital tape format within our Sony PetaSite archive library. Prior to playout, that content is transferred to a Pinnacle Media Stream server system, which also stores and manages our commercials, interstitials, and station IDs. MassStore provides the highly compatible asset management solution we required for efficient coordination of all the product going in and out of the archive library.”

Within the control room’s fully automated environment, an Encoda automation system addresses all critical playout functions on a day-to-day basis. Encoding of programming into the SAN is managed by the automation system. The Encoda Paradigm traffic system sends down a playlist, which dictates program storage. MassStore performs periodic scans for new material on the SAN and places it into an intermediary RAID cache and into the archive library, where it resides on DTF-2 data tapes.

The automation system then scans the playlist for the day, identifies the missing programming, and proceeds to locate the source that holds the required material. MassStore’s database reveals where the appropriate programming is stored so that it may be recalled. If material is in the archive system, MassStore then requests that the PetaSite library load the necessary data tape and then transfers the material back to the SAN, enabling the automation system to load all programs needed for the playlists. The same process may be deployed for manual transfer request of product not included on the playlists.

Alliance Atlantis stores 400 hours of material on the SAN, which is equivalent to three days of the broadcast program schedule, with an additional 200 hours stored on a smaller standalone Pinnacle Media Stream server, which serves as a redundant back-up server. A day and a half of programming is available on the back-up server in the event of a failure on the SAN.

In addition to the Sony PetaSite, Pinnacle storage system, Encoda automation and traffic solutions, and the MassStore system, Alliance Atlantis has also integrated Sony master controls switchers, ingest and emergency playback VTRs, a Barco large screen projection system for monitoring systems, along with smaller LCD screens as secondary monitoring systems. Alliance Atlantis’ new control room is an SDI digital facility, wired to carry high definition distribution once the necessary components are upgraded.

Going Forward

The next step for Alliance Atlantis, as the company moves further into the tapeless environment, will be to use a gigabit Ethernet based local area network (via fiber or UTP) to link all of the facility’s servers, NLEs and encoding stations on the various floors of the building. This will allow staff to encode material and then transfer the files between different server types, while automatically performing the necessary format transcoding. Currently, the control room operations rely on tape-source ingest processes, so incoming feeds from satellite are brought to tape storage and then digitized again for playout from the Pinnacle server. Completion of the transition to a tapeless environment, planned for late 2003, will eliminate the need to move programming around on video tape. Instead, the product will remain in the digital stream, ingested into the Pinnacle servers, and then available to other servers throughout the facility.

“MassStore represents a new concept in asset management, implementing a foundation of broad, descriptive metadata to provide our broadcast operations, and all of Alliance Atlantis’ media

divisions, with the means to leverage the company's extensive content archives in a wider variety of applications," adds Rogers. "With improved equipment efficiencies and consolidation of control room operations under fewer staff, we've also found that MassStore adds to our bottom line."

HARVEY L. ROGERS

Harvey Rogers has been the Senior Vice-President of Broadcast Operations & Engineering at Alliance Atlantis Communications, owners of twelve national program channels for the last nine years. Prior to joining Alliance Atlantis, Mr. Rogers was with YTV as Director of Technical Development, and was a key player in the operational start-up of the technical plant and office facilities. Mr. Rogers pioneered the use of satellite to cable head and compression technology in Canada. Most recently Mr. Rogers has been pioneering the use of state of the art technology using a full Master Control Automation/Servers in a television station situation. In February 1998 Alliance Broadcasting received a Gemini award for "Outstanding Technical Achievement" in this area under Mr. Rogers' leadership. Mr. Rogers is currently a Canadian Governor of the Society of Motion Picture and Television Engineers (SMPTE), and the Past Chair of the Canadian Satellite Users' Association (CSUA), He is also a member of various committees of CDTV and is an active member of the technical committee and serves on various jury panels of the Canadian Academy of Cinema and Television.

Mr. Rogers was the winner of the "Citation For Outstanding Service" award from the SMPTE that was presented October 13, 1994 at the 136th International Conference in Los Angeles. He was inducted into the Canadian Association of Broadcasters' Quarter Century Club on February 28, 2002 and into the CCTA Cable Pioneer's Club on March 4, 2002. Most recently Mr. Rogers was awarded the CSUA "Outstanding Service Award" that was presented February 17, 2003 at the Canadian Digital Summit.

