

Voom's New HD News Channel

August 29, 2004

CHALLENGE

VOOM satellite television service, a division of Rainbow DBS, is a comprehensive provider of high definition programming, offering over 35 HD channels to consumers across the continental United States. One of Voom's programming requirements was HDNews: a 24/7 news, weather and sports channel in High Definition. HDNews offers late-breaking stories, current headlines, compelling and visually stunning features, national and regional weather, plus sports news and highlights – exclusively in High Definition.

The HDNews facility is located in Woodbury, NY, housed in a studio originally built for standard definition production. To meet the needs of high definition, the SD operation was stripped out and a new HD facility was built from the ground up. Operations include a newsroom, satellite ingest, edit suites, graphics, studio, master control and eight ENG packages, all operating in native 1080i. The HDNews' format is a fast paced 12-minute news wheel requiring a new approach to the workflow with focus on efficiency and minimum staffing. Innovative design, careful selection of equipment and some custom solutions were necessary to allow HDNews to completely automate the production and master control processes.

Voom selected Diversified Systems to provide all of the engineering design, equipment procurement, integration, installation and documentation.

RESOLUTION

The first challenge of HDNews was the timeline: the project began in September 2003, yet needed to be fully operational by the start of 2004. Diversified Systems' Senior Engineer Phil Bernal managed all engineering aspects of the project and Senior Project Manager TJ Beardsmore managed the budget and timeline. Installation began immediately and progressed in parallel with the design, customization and integration of technologies from several vendors.

DESIGN TEAM

Phil Bernal
Project Engineer

TJ Beardsmore
Project Manager

EQUIPMENT LISTS

NEWSROOM

ENPS newsroom computer system
1 Beyond Pro HD editors

ENG

Panasonic DVCPPro HD100

PRODUCTION CONTROL

Thomson Grass Valley Kalypso HD Switcher,
2 M/E
Vertigo Media custom control software
VizRt graphics systems
PixelPower Clarity graphics systems
Panasonic RealTime Graphics Processor
AV-CGP500

STUDIO

Panasonic HD cameras
Vinten robotics

AUDIO

Sony DMX-R100 audio mixer, 5.1 surround

MASTER CONTROL

Grass Valley XP Media Platforms
Leitch Opus HD Master Control Switcher
Leitch 96 x 72 Integrator HD router
AccuWeather weather graphics system

The design team focused on integrating technologies to support a highly automated operation capable of delivering up-to-the minute information with minimum intervention from the staff. HDNews produces a live segment once per hour, recorded to server and rotated throughout the hour. A method was needed to update the graphics information including sports scores, financial data and news headlines data so it was always current and up to date – even if the underlying program was being replayed. The technical infrastructure, however, needed to have the flexibility to handle live shots and news bulletins without making the automated systems go haywire. This became a formidable technical hurdle and a groundbreaking engineering challenge in HD.

Vertigo XMedia was brought in on the project to develop a customized, template-based interface between the newsroom system, graphics systems and playout servers.

A solution was developed to embed data cues within the vertical interval of the live and recorded video program. These cues triggered the Vertigo system to query respective databases for updated information, feed the updated information to the graphics systems and insert these into the program stream. ENPS was chosen as the newsroom system, and became the primary user interface for most of the production elements. Graphics for broadcast are created through a very effective use of templates that connect the Vertigo system, PixelPower, VizRt and Panasonic graphics systems. Both production and master control HD content is ingested, managed and played out on a Grass Valley Managed Area Network. 1 Beyond editing systems are connected directly to a SAN from LSI Logic, providing editors with instant access to video resources. Weather information is automatically updated throughout the hour and fed from the



AccuWeather system. The full-band program stream is multiplexed and transported via fiber to Cablevision's uplink facility in Bethpage, NY, using equipment from Ipitec and Evertz.

Voom HD News went on air as planned in January to an enthusiastic response from its viewers and is enjoying an expanding viewership as the HD consumer market continues to grow.

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