

# MAJOR NEW YORK NETWORK MASTER CONTROL

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**AZZURRO**

## Scope of Work

- Build self-contained HD master control playout area with tie lines to receive live feeds and send programming to release area before transmission
- Configure server group for redundancy, a fail-safe mechanism, and to target different geographic areas
  - ◇ Install secondary server system for back-up
- Support multichannel audio for stereo and surround sound with embedded digital audio
- Facilitate program and repeat monitoring
- Develop systems to monitor levels along the signal path, switching, stereo and surround sound
- Commission automation system to control master control switcher, zone switchers, branding and servers



## The Challenge

- Design and build a redundant HD Master Control Playout to support numerous network feeds originating from a major East Coast Network's facility with an embedded audio infrastructure.

## The Project

A major NY network awarded Azzurro Systems Integration the contract to fabricate a heavily redundant HD Master Control Playout to support the many network feeds originating from its Manhattan headquarters. Azzurro designed and built a self-contained area with its own rack room adjacent to the control room with tie lines to receive live feeds and send programming to the release area before transmission.

Responding to the Network's critical need to stay on air, Azzurro designed a Harris Nexio server configuration comprised of six channels. The first two channels run identical programming in the event one channel fails. The third channel, run by a DNF controller, allows the manual loading and sequencing of clips should an automation failure occur. The fourth, fifth and sixth channels target different geographic areas and are switched in downstream using Harris Panacea switchers with clean switch technology for glitch free operation.

## The Technology

- Harris Nexio Servers
- DNF Controller
- Harris Panacea Switchers
- Harris Opus Mater Control Switcher
- Harris Logomotions
- EEG Closed Captioning Encoders
- Evertz 2x1 Switcher
- Evertz VIP16A multi-viewers
- NEC LCD5220-AV 52" Displays
- Harris TVM-900 HD/SD-SDI Audio/Video Signal Analyzer
- Genelec 8030s and 8040s
- Studio Comm 76 Surround Monitoring System

This allows the room to feed three other zones with targeted advertising in addition to the primary feed eliminating the need for additional playout rooms. The main unit is backed up with a secondary server comprised of the same six channels. Harris ADC automation manages the assets to assure that the same content resides on both the main and secondary server storage; each server has independent storage.

The server channels are sent to a Harris Opus Master Control switcher along with router feeds from the core and emergency playback VTR's. Select channels are sent to a Harris Panacea emergency bypass switcher that circumvents the master control switcher and the downstream processing to support additional redundancy in case of device failure.

Two Harris Logomotions, one for the visible bug, and one for the Network's branding system were installed for downstream processing. Signals pass through EEG closed captioning encoders before being sent to an Evertz 2x1 switcher, while the second input of the 2x1 switcher is fed from the output of the emergency bypass switcher.

The output of the Evertz 2x1 switcher is then sent to the release area for transmission. The HD signal is also distributed to a SD down converter and to the Panacea zone switchers, which are also fed to the release area for transmission.

Azzurro utilized its extensive experience and industry knowledge to build a cost-effective, next-generation HD Master Control Playout with an embedded audio infrastructure to support multichannel audio for stereo and surround sound.

For program and repeat monitoring, Azzurro installed three Evertz VIP16A multi-viewers that feed three NEC LCD5220-AV 52" displays. Multiple Harris TVM-900 and DK Audio PTO660M are used for level monitoring along different points of the signal path. Genelec 8030's and 8040's, which are fed from a Studio Comm Model 76 for switching and level control, are used for stereo and surround monitoring.

Control of the Harris Opus Master Control Switcher, the zone switchers, the branding and the servers are all run by the Harris ADC Automation system.

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