

Major Retail Chain Streamlines CCTV Cabling with MuxLab

A major US retail chain is successfully streamlining its CCTV cabling system thanks to MuxLab's passive CCTV cabling solution. The project involves migrating from a pure analog CCTV system to an advanced IP-based system. The system includes fixed analog cameras that are connected to IP camera encoders located at intermediate distribution frames (IDF) throughout the store. At each IDF, the camera video feeds are digitized and transmitted to LAN switches and routers in the main distribution frame (MDF).

Each store has two (2) to five (5) IDF racks that are populated with the appropriate CCTV, power and cabling hardware. Each IDF contains a relay rack with IP camera encoders that stream video from up to 200 cameras back to the MDF. The MuxLab CCTV cabling components are installed between the CCTV cameras and the IP encoders to support power and video over Cat5. Each IDF rack contains the following components: MuxLab Passive CCTV Hubs (500130), IP camera encoders, 16-channel 24VAC power supplies, video distribution hub, LAN switch and power strips.

The customer chose MuxLab's passive CCTV cabling solution because it of several key benefits:

1. **Minimum points of failure.** The MuxLab cabling solution requires a CCTV Power-Thru Balun (500024) at each camera and a Passive CCTV Hub (500130) at the IDF for every sixteen (16) cameras.
2. **Ease of installation.** The baluns have built-in cable leads. The 500024 and 500130 adhere to the EIA 568 wiring standard thereby making cable preparation and termination straightforward.
3. **Performance.** The specification called for transmitting video from each camera and 24VAC remote power up to each camera over the same Cat5 cable. By supporting remote power over three (3) twisted pairs, the MuxLab solution had a built-in buffer to easily support the required maximum distance of 300 ft.
4. **Hybrid solution.** MuxLab's solution works in conjunction with third party equipment thereby allowing the customer to select the optimum IP encoders and power supplies for the system.
5. **Migration.** Ability to migrate eventually to a fully IP-based system.

For more information, contact MuxLab at videoease@muxlab.com.

