

ThruLink™ Integrates Country-wide Surveillance System

Panama national CCTV system



Background

The Panama City surveillance project is part of a national safety system created by Presidential edict, following the government’s assertion that in order to improve the country’s economy, it needed a comprehensive public safety system.

The Challenge

The project required a high-quality, full-frame-rate CCTV system that would function country-wide. To establish the network connections, it was decided to utilise the public telecommunications channels. This meant that the system needed to work across multiple network platforms (MPLS, ADSL and Ethernet) spread throughout the country, and incorporate hundreds of nodes, which were already supporting high volumes of voice and data traffic. In addition, the integrator needed to be able to perform network maintenance and troubleshooting using their standard resources.

The Solution

The chief design consultant and the integrator decided that the best possible solution to optimize video compression and quality would employ Constrained Variable Bit Rate (CVBR). CVBR would ensure uniform usage of the network bandwidth, and allow the network load to be estimated at peak times.

Because the selected IP-CCTV system uses UPnP protocol to detect video monitoring and recording devices on the network, it was necessary to create VLANS (Virtual Local Area Networks) and VPNs (Virtual Private Networks) to encapsulate all of the system’s components’ data traffic inside their own separate virtual network. This allowed system diagnostics and troubleshooting to be performed without interference from external elements.

To establish the the VLANS and VPNs, standard capacity ThruLinks were installed at each node point, with high capacity ThruLinks at the control centres, allowing the traffic to be encrypted and encapsulated, making the video streams virtually invisible to the network.

Outcome

The completed solution allows the CCTV system to operate country-wide over the telecomms network and for network maintenance to be carried out without interference.

Using ThruLink, VLANs were established across the WAN, simulating LAN characteristics. Effectively, ThruLink has the system operating as if it were located inside one facility instead of being spread throughout the country. The result, arguably, is the best video quality of any national IP video system.

With ThruLink’s straightforward installation, deployment was swift and uncomplicated. The National Police authority is extremely satisfied with the video quality; their ability to control cameras through the system’s mapping GUI (Graphical User Interface) tool, and its virtual matrix features.

Benefits

End User

- ✓ CCTV system that operates country-wide without proprietary channels or leased lines
- ✓ Video remains secure over a public network
- ✓ No licence costs or contract term
- ✓ Low maintenance costs

Installer

- ✓ Straightforward, rapid deployment
- ✓ Hardened field units
- ✓ No requirement for specialist IT knowledge
- ✓ Simple ongoing maintenance (secure, remote access capability)



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