



NVT Phybridge Helps Government Border Agency Deploy Over 8,000 IP Cameras

A Government Agency was relying on an outdated analog surveillance system and wanted to modernize to a comprehensive IP solution. The massive surveillance upgrade would take place across 360 customs offices and border crossing locations to improve risk identification and reduce the response time to threats. The Agency was also looking to improve efficiency by automating most of the processing of imports and exports coming in and out of the country to help increase economic growth and foreign trade.

The Government Agency determined that over 8,000 existing analog cameras needed to be modernized to IP but was uncertain how to proceed. The immense scale of the project presented critical challenges:

- High costs associated with ripping-and-replacing the existing Coax infrastructure, as well as the physical space required to install new IDF closets to support IP cameras in all areas of the facilities
- The estimated time of 4 years to deploy the new surveillance system across the 360 locations
- Loss of revenue and safety concerns caused by disruption to import and export operations on a massive scale across the country

Modern LAN Innovation

Unsatisfied with the traditional approach to network design, the Government Agency delayed the project while they searched for an alternative. A new system integrator was hired to find a solution that would overcome the organization's digital transformation barriers. The SI introduced the Government Agency to NVT Phybridge and [Modern LAN design principles](#) to help overcome the infrastructure challenges. NVT Phybridge recommended the Ethernet over Coax [CLEER switch solution](#) and arranged a free no-obligation proof of concept to prove the solution in the customer's environment. After a few simple setup steps, the CLEER24 managed switch, with [SmartPathPoE technology](#), transformed the existing and

reliable Coax infrastructure into a power-packed IP/PoE backbone, capable of supporting the new IP cameras with up to 6,000ft (1,830m) reach – that’s 18 times farther than standard Ethernet switches. The CLEER24’s repeatable, predictable and scalable deployment methodology would ensure that upgrading the 360 sites would be simple and fast.

The Government Agency was impressed with the solution and was confident that the CLEER24 switch innovation would allow them to achieve a simple, secure and cost-effective upgrade to IP surveillance. The customer was completely satisfied as they leveraged Modern LAN principles to achieve incredible results.

Create A Secure and Robust Local Area Network

The Agency established a secure and robust Power over Ethernet backbone for its new IP surveillance system by leveraging the existing and reliable Coax-based infrastructure. The CLEER24 switch innovation allowed the customer to maintain a physically separate and cyber-secure point-to-point IP network for surveillance, ensuring zero disruption and risk to the core network.

Use New Long-Reach Poe Innovations to Maximize ROI

By leveraging the existing surveillance infrastructure and avoiding an extensive infrastructure overhaul, the Agency reduced its infrastructure costs by over \$3 million and accelerated the deployment time by 80%.

Modernize to IP Using an Environmentally Responsible Framework

By avoiding the traditional rip-and-replace upgrade model, the Agency prevented over 60 tons of e-waste during its digital transformation. The Agency also avoided installing a single IDF closet thanks to CLEER24’s long reach capabilities; reducing the organization’s ongoing energy consumption.

The Agency’s new IP surveillance system, now consisting of over 8,000 new IP cameras, delivers high-resolution viewing and recording capabilities; providing officials with better recognition and identification of potential safety threats at over 360 key customs and border crossing locations. The Agency was also able to leverage new business intelligence and technology to implement a new automated customs process. The integration of QR readers within the import and export locations has allowed the Agency to:

- Reduce the average time spent by an individual at a border crossing location by 50%
- Reduce the amount of paperwork required during the import/export process
- Eliminate personnel interaction; further increasing safety and labor cost savings

A Better Return on Investment

The Government Agency took a pro-active approach to find new and better ways to support its modernization objectives in a financially and socially responsible manner. By applying Modern LAN principles and NVT Phybridge PoE technology, the Agency achieved incredible results:

- Reduced infrastructure costs by over \$3 million, reallocating the savings to more IP applications to improve the project's ROI
- Eliminated risk and disruption of import and export operations
- Reduced the project's impact on the environment; avoiding over 60 tons of e-waste
- Accelerated the deployment by 80%
- Built a cyber-secure and robust PoE platform for its enhanced IP surveillance system

[Click here](#) to view a video of this case study.