Port of Alexandria Leverages NVT Phybridge CLEER Technology to Prevent 15 Tons of E-Waste While Modernizing to IP Surveillance

The Port of Alexandria is the main port in Egypt, handling approximately 55% of the country's international trade. The port is located in the city of Alexandria, the second-largest city in Egypt, where the Nile River meets the Mediterranean Sea. The port was relying on an outdated analog CCTV surveillance system that could no longer meet the growing demands of the organization and decided to modernize to a new IP surveillance solution.

The organization encountered several challenges as they planned the digital transformation. The new IP security cameras would need to be deployed in several zones across the massive port that spans more than 22 km2. Discussions were held around ripping out the existing coax-based infrastructure and installing Ethernet and fiber-optic cabling throughout the facility. However, the organization was hesitant to apply this strategy due to extremely high infrastructure costs and long deployment times. Additionally, this strategy would severely disrupt the daily operations of the port, which moves more than 17 million tons of cargo annually. Unsatisfied with the traditional approach to network design, the Port of Alexandria searched for an alternative solution.

Modern LAN Innovation

The Technical Research Department of Egypt discovered NVT Phybridge and their award-winning IP over Coax solutions. The agency recommended the solution to the Port of Alexandria, who engaged with a digital transformation specialist from NVT Phybridge. The organization was impressed with the solution but was unsure if it would work in their environment, given the immense scale of the project.

NVT Phybridge helped the customer schedule a no-obligation proof-of-concept to test the solution. After a few simple setup steps, the enterprise-grade CLEER24 PoE switch, with SmartPathPoE technology, transformed the existing Coax-based infrastructure into a robust and secure IP backbone for the new IP

cameras. The CLEER24 solution allowed the customer to extend data and power over Coax with up to 6,000ft (1,830m) reach; 18 times farther than standard PoE switches.

The Port of Alexandria was impressed with the solution and was confident that Modern LAN design would allow them to achieve a simple, secure, and cost-effective upgrade to IP. The customer was completely satisfied, as they leveraged Modern LAN principles to achieve incredible results.

Create a secure and robust local area network – The Port of Alexandria established a secure and robust Power over Ethernet backbone for their new IP system by leveraging their existing and reliable Coax-based infrastructure. The CLEER24's patented SmartPathPoE™ technology 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 coax-based infrastructure and avoiding an extensive infrastructure overhaul, the customer significantly reduced their costs and accelerated the deployment.

Modernize to IP using an environmentally responsible framework – by avoiding the traditional rip-and-replace upgrade model, the Port of Alexandria prevented over 15 tons of e-waste during their digital transformation.

Improved Return on Investment
The CLEER24 solution helped simplify the customer's IP modernization project while establishing a robust and cyber secure network to support the IP cameras. The organization took a proactive approach to find new and better ways to support their digital transformation objectives in a financially and socially responsible manner. NVT Phybridge helped the customer change the conversation around traditional LAN design; leveraging Modern LAN Principles and PoE innovations to:

- Significantly reduce project costs and deployment times, having avoided extensive infrastructure changes and construction work across the facility
- Deploy more than 350 new IP cameras in 9 locations across the 22 km$_2$ port thanks to the CLEER24's repeatable, predictable and scalable deployment methodology
- Modernize surveillance capabilities across the facility without installing any additional IDF closets
- Eliminate disruption during the deployment
- Prevent over 15 tons of cabling e-waste

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