

Axis Communications protects town water supply. St. Cloud augments water treatment plant safety and security with Axis network cameras.



Organization:
City of St. Cloud

Location:
St. Cloud, Florida, USA

Industry segment:
Utilities/Government

Application:
Plant security and
safety

Axis partners:
SiteSecure, Inc.,
Genetec

Mission

When the City of St. Cloud, Florida, embarked on construction of a new water treatment plant, the plans included an analog security system to fortify the facility against intruders and help the resource-strapped Environmental Services Department manage operations more efficiently. Consultants showed town officials how a network surveillance system could eliminate costly infrastructure required by the initial proposal and deliver a more robust and future-proof solution.

Solution

The engineers and integrators at SiteSecure, Inc. of Sanford, Florida, an Axis channel partner, recommended an array of high-resolution Axis fixed and pan/tilt/zoom (PTZ) network cameras connected to a fiber optic ring network running along the facility's perimeter. An intuitive Omnicast video management system from Genetec, an Axis Application Development Partner, would make it easy for water treatment staff to operate the surveillance system with minimal training.

Result

St. Cloud deployed Axis network cameras at its new water treatment plant, area wastewater facility and water re-pump station. Officials have noted a vast improvement in image quality compared to existing analog cameras used elsewhere in town. Also, being network-based enables faster retrieval and forwarding of archived video to the police, insurance company or town administrators as needed. Because they are part of a sophisticated alarm system linked to access control and equipment sensors, the Axis cameras automatically respond to alarm triggers and notify plant personnel of certain events.

"Axis network cameras give us the clarity we need to remotely zoom in on a level sensor gauge to verify the status of a storage tank, confirm a valve position or confirm the operation of certain plant equipment – all without requiring additional staffing."

Bud Peck, CAD/GIS analyst for the City of St. Cloud.

Guarding the water supply

Located just a short drive from Orlando, the small city of St. Cloud has undergone a number of major changes in recent years, including renovations and new construction of potable water and wastewater treatment plants. With so many capital improvement projects revitalizing the community, St. Cloud needed an affordable way to boost water safety and security without additional manpower.

After reviewing the town's vulnerability assessment and specifications for a proposed analog surveillance system, SiteSecure suggested a more cost-effective approach. Rather than installing dozens of analog cameras, each requiring a dedicated fiber transceiver and fiber optic cable, the integrator recommended connecting five AXIS 233D Network Dome Cameras and 16 AXIS 221 Network Cameras to a perimeter-managed fiber optic network in a self-healing ring architecture.

"This saved the town quite a bit of money on infrastructure alone," explains Craig Bowman of SiteSecure. "Plus the solution gave far greater coverage, reliability, and failover than the proposed analog DVR-based solution." According to Bowman, the analog architecture didn't provide much fault-tolerance for fiber cuts or equipment failure, nor did the analog recording system provide the necessary image resolution, frame rate or recording redundancy.

Town officials were so pleased with the robustness and image clarity of the Axis network cameras, they chose to incorporate the new technology into the construction plans of two other Environmental Services sites. The integrator installed eight AXIS 233D and 16 AXIS 221 in a similar configuration for the Southside Wastewater Treatment Facility, and two AXIS 233D and two high-resolution, 2-megapixel AXIS 223M Network Cameras at the Northeast Water Repump Station.

Superior forensics and operational value

With no regular security department, the task of protecting St. Cloud's citizens and infrastructure has fallen to Environmental Services. "We don't have a huge staff to monitor cameras and fix things when they break," says Bud Peck, CAD/GIS analyst for the City of St. Cloud's Information Technology Department. "So the network video solution works for us."

According to Peck, Axis network cameras were easy to tie into the town's existing network and proved more reliable than legacy analog equipment used elsewhere in town. "Having the cameras on the network makes retrieval a lot faster," shares Peck. "Plus the image quality doesn't deteriorate when forwarded like it does when we have to make copies of our analog video."

Because of their strategic placement, the Axis network cameras also contribute to facility safety and adherence to federal and state environmental regulations. Remote monitoring allows the town to quickly dispatch first responders to an emergency event. Plus, video captured for forensic evidence can also assist the town in reinforcing standard operating procedures at each site.

Migrating to town-wide network surveillance

SiteSecure is also helping St. Cloud extend the life of its legacy analog systems while reaping the benefits of network surveillance. To date, the integrator has replaced one of the DVRs at City Hall with two AXIS 243Q Video Encoders, enabling the analog cameras to transmit feeds over the network. As funds become available, the town plans to replace DVRs at the marina, lakefront park, senior center and police station with Axis video encoders. And as analog cameras fail, St. Cloud expects to replace them with even more robust Axis network cameras.

