Secomea's remote access supports an exemplary environmental record at Springfield's water-treatment plants

The challenge

When systems fail or water flows increase unexpectedly at a waste-water treatment plant, the consequences can be severe: untreated water can enter the local river system. The sooner an engineer can respond to an alarm call from any of the facilities on the network, the better.

This is the challenge facing the Environmental Services team responsible for the City of Springfield's publicly owned treatment works in the Missouri Ozarks. The team runs a tightly controlled operation. With just 60 personnel, it serves a population of 160,000, operates two treatment plants, and manages a network of manned and unmanned facilities that collectively handle 40 million gallons of waste water a day.

All water-treatment plants operate within the tight regulatory environment of their National Pollutant Discharge Elimination System (NPDES) permit. Springfield has a good record. Both its treatment plants are National Association of Clean Water Agencies (NACWA) Platinum Award winners for zero NPDES permit violations. The treated water they discharge into Little Sac River and Wilson's Creek has no negative impact on water quality.

Maintaining Springfield's platinum-award standard isn't easy. The system has to be monitored 24/7 and many of its facilities are distant and unmanned. To manage the system remotely requires support from the City's IT Network, and introduces security issues. Could there be a better and more efficient way to connect?

The solution

Springfield found the technology it needed in Secomea. Secomea's SiteManager makes remote technical operations independent of network set-up or configuration. It puts every member of the Operations team in direct contact with every site on the network at any time of day. Operations Supervisors can monitor and instantly respond to alarm callouts and high-flow events. They can keep facilities working safely and efficiently without any drive-to-facility delays.

SiteManager enables Control Systems staff to troubleshoot from anywhere. And if they're already working at a remote facility without network connectivity, they can securely connect to the facility's control gear using a cellular Wi-Fi device.

With support from Secomea, Springfield continues to avoid permit violations by responding faster to alarms. The Operations Supervisor can make immediate changes to the SCADA system before driving to the facility to undertake any physical changes. Remote fixes also save the cost of call-ins and make better use of staff, especially when they're already out on calls or away for training.

The system is secure too. Supervisors say who has access to the system, and when. That simplifies the process of implementing new equipment because third-party providers can have limited access during the installation and set-up phase – and not beyond. The ability to make minor set-up corrections remotely also cuts the cost of new installations.

As Karyn Highfill, Control Systems Specialist at Springfield, says: "Secomea has saved us time and money, and brought peace of mind by giving selected staff a secure way to remotely connect to our system during critical times such as high-flow events, emergencies, and out-of-town instances. Both our facilities are NACWA Platinum Award recipients for zero NPDES permit violations. Secomea has helped by allowing quick responses to events that might otherwise allow a violation to occur."

She adds: "Staffing is at a minimum for our Control Systems and Operations groups. The Secomea system allows us to maintain this staffing and still have a comfort level in situations where someone is out of the office to keep the entire SCADA system operational and prevent safety or operational issues."