Hilton Head Public Service District Case Study

Hilton Head Public Service District is responsible for water production and wastewater management on Hilton Head Island, South Carolina. Serving more than 19,000 customers, Hilton Head PSD oversees over 130 lift stations that are crucial for effective wastewater transport and treatment.

Challenges:

Some of the lift stations were connected to a mix of different SCADA and monitoring solutions. Some sites had no SCADA.

- The combination of monitoring solutions added significant complexity for the operations team, increasing the risk of overlooking critical conditions and delaying alarm response time.
- Sites without SCADA systems required daily visits to ensure proper functioning and data logging, which placed a heavy burden on the team and hindered cost-efficient operations
- The lack of consistent collection of pump status and condition data made it difficult to plan preventive maintenance, leading to unexpected downtime.
- Connecting all sites to the central legacy on-premises SCADA system was not economically viable due to high costs of communication equipment and integration, and it would have limited operators' ability to access real-time data in the field due to security.

Solution:

To address these challenges, Hilton Head PSD implemented STREAMETRIC's cloud-SCADA solution on all lift stations and further remote sites.

- STREAMETRIC cellular RTUs were installed at each site, integrating with the existing control panels.
- Utility management can simply manage alarms and notifications, ensuring they are directed to the appropriate personnel and acknowledged promptly.
- All authorized employees can securely access a comprehensive list of all open and historical alarms, as well as live dashboards and trends, through both PC and mobile devices.

- The system consistently tracks pump runtimes, starts, and current (amps) in real-time, and it can send alerts if it detects abnormal behavior to prevent unplanned downtime.
- Operators can enter inspections and maintenance logs at any time during a site visit, ensuring that work is documented, and the impact can be tracked.

Implementation:

STREAMETRIC's technology was seamlessly integrated with Hilton Head PSD's existing infrastructure, ensuring minimal disruption to ongoing operations, following these key steps:

1. The project was conducted in 2 main phases. In the first phase, 50 sites were installed in collaboration with the STREAMETRIC team over the course of 2 weeks.
2. During these two weeks, the STREAMETRIC team also trained the Hilton Head electrical department.
3. Following the training, the Hilton Head Electrical department independently completed the installation of the remaining sites.

Outcomes:

The implementation of STREAMETRIC's monitoring solution resulted in significant improvements:

- STREAMETRIC's cloud-SCADA technology enabled Hilton Head to rapidly modernize the SCADA for all their remote sites, achieving this at a fraction of the cost compared to any alternative.
- The effective alarm management and user-friendly STREAMETRIC application significantly improved alarm response times and operational efficiency.
- Operator logs and continuous pump condition monitoring empower the utility to enhance predictive maintenance and identify potential issues before they lead to failure.

Customer Feedback:

Dave Disney, Hilton Head PSD's Project Engineer shared his experience with STREAMETRIC:

> *"STREAMETRIC's Solution has transformed our operations. We now monitor all 114 stations efficiently, allowing us to focus on proactive*

maintenance and strategic planning...STREAMETRIC has brought the ability for me to have what I need at the hundredth of the cost."

By adopting STREAMETRIC's real-time monitoring system, Hilton Head PSD improved the efficiency and reliability of its large-scale wastewater management services. This solution effectively addressed the challenges of managing a vast network of lift stations, enabling Hilton Head PSD to meet the needs of its community with greater ease, empowering for a smart tomorrow.