

## Municipal Utility Leverages Advanced Remote Monitoring

### CLIENT

#### East Richland County, South Carolina

Jack Morin, Assistant Supervisor

### SCADA, Without the Cost?

Jack Morin operates 16 lift stations for East Richland County in South Carolina. That means he has a great deal of data from his pumps to collect and act upon, regulations to meet, man-hours to allocate, maintenance to schedule and perform and, possibly most importantly, a budget that constrains him in his duties.

Morin isn't alone in his plight—water utility managers and operators all across North America are facing the same challenges and budget shortfalls.

Like many small- to mid-sized utility districts, East Richland County has leveraged technology to aid in the operation of its lift stations. But the affordable alarm dialer it employed wasn't delivering significant value beyond notifying operators of high wet well events.

While a SCADA system could deliver the functionality and benefits East Richland County needed, it was considered a budget-buster and was ruled out due to its high cost. Morin needed to find a solution that offered the benefits of SCADA, without the SCADA costs.

### Beating the Budget Buster (SCADA)

Morin discovered a remote monitoring solution that would meet his needs: Aquavx. With on-going costs at little more than a traditional phone line, Aquavx provided Morin with the following features:

- **Qualitative information.** The most critical, "intelligent" information is delivered – ranging from current system status and analytics, to historical reports and trending capabilities. Operators receive only the data they need, when they need it.
- **Alarm notification.** When an alarm event occurs, the station reports into a datacenter and operators are alerted via e-mail, text message or phone call from the remote servers. For lift stations, notification of high wet-well alarms can prevent spills and costly EPA fines.
- **Report generation.** Automated reports are customized for the utility's unique information requirements. Aggregation of the data can make it easier to perform regulatory filings and reports, as well as aid with planning for the future needs of the system.
- **Remote data access.** With remote data access and control capabilities using a Web interface, the same information gathered from physical site visits can be achieved through SCADA from behind a desk on a computer.

The benefits experienced by East Richland County include:

- **Empowered problem solving.** The intelligence of Aquavx through intelligent data delivery enables operators to anticipate problems or adequately troubleshoot before sending maintenance personnel to the site – leading to streamlined operations. Morin: "With Aquavx I apply the historical inflow reports to the station, diagnose the problem, and see that after it rains there's a spike. I can tell a lot about my entire system—I can see where and when the problems exist. That helps me learn how to solve them."
- **Economy of manpower.** Remote monitoring helps the utility avoid regularly sending people to the field for manual checks and data collection. Personnel can focus on visiting equipment that needs attention, while leaving alone the sites that are operating normally. Morin: "With



Aquavx, we have so much more than the simple alarm-dialers we were using. Now, right at our fingertips, we have information we can use to streamline our pump operations before sending someone to the site."

- **Simplicity.** The simplicity of the advanced remote monitoring infrastructure reduces ongoing system maintenance of the monitoring system to near zero, increases the likelihood that it's going to work as intended, and avoids the significant costs of software customization and maintenance required with traditional SCADA. "One of the reasons we selected this advanced remote monitoring system was the user interface in the on-site hardware."
- **Affordability.** Designed to be up and running quickly and easy to use, Aquavx requires far less capital expenditure because it eliminates the need for costly radio networks, polling servers, custom screen development and expensive customized hardware. Morin: "The benefits we're getting from advanced remote monitoring at about the same monthly cost as phone line easily make up for any upfront expenditures."

### Saving Money without Sacrificing Functionality

At the heart of advanced remote monitoring for water utilities is the methodology known as Software as a Service (SaaS), delivering technology over the Internet and integrating IT with existing systems. The solution avoids investments in expensive communications networks associated with traditional SCADA.

East Richland County's advanced remote monitoring software is hosted remotely on Aquavx's servers. As a result, there is no software to install, the utility's assets are only as far away as the nearest Internet connection, and the utility always has access to the latest software version and benefits from enhancements made to the service with no additional cost.

Pricing is based on the number of units, with access available to anyone at no additional charge. This is an additional cost-savings over SCADA, where each person or machine accessing the system must have a software license. And finally, the Aquavx hardware systems at the pumps are elegantly simple—they are easy to access, use and upgrade.



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East Richland County

### Our commitment to you...

We are confident that you will be satisfied with Aquavx. If not satisfied, you may return it within a 30 day period at no cost to you.