



TO PROTECT AND SERVE

The Water Department of Washington, Missouri, supplies fresh water to 7,000 residents and recently completed a three-year project to upgrade its software and SCADA controls. Systems integration and implementation services from Catalyst have the City of Washington up to date and prepared for the future.

Kevin Quaethem, Water/Wastewater Superintendent for the city of Washington, Missouri, doesn't leave anything to chance. And for good reason: He's in charge of the fresh water supply and storage for the city and literally holds the health, happiness and safety of local residents in the palm of his hand – he can control all systems with his smartphone.

Thanks to new SCADA (Supervisory Control And Data Acquisition) systems and mobile management apps, Quaethem has access to real-time water department information through his smartphone on pumping volumes, freshwater reserves and overall system productivity. Not only that, he can also make adjustments in output and supply via his smartphone, turning equipment on and off as necessary.

“We're a small town and just a few of us are responsible for the entire system,” said Quaethem. “We rely on our remote access and automation tools to keep us all connected and informed about our water system performance and availability.”

Washington's water system consists of nine deep wells with the capability of producing six million gallons of water per day. The total system consists of one booster pump station, three elevated storage tanks maintaining 2.5 million gallons of stored water and over 103 miles of cast iron, ductile iron and PVC distribution lines.

Quaethem has been with the city of Washington for over 15 years and has served as the water/wastewater superintendent for the past five years. When the city decided to upgrade the 20-year-old SCADA systems, interviews and bidding began, and Catalyst was selected.



“This was a large, complex and expensive project, and we can't say enough good things about our experience with the Catalyst team and their work. They are a great group to work with, they have exceptional technicians, and they accomplished everything they promised.”

– Kevin Quaethem,
Water/Wastewater Superintendent,
City of Washington, Mo.

What to Look for in a SCADA Systems Integrator

1. A deep and broad resource pool of engineering consultants with extensive experience.
2. Highly accessible and responsive service – team players.
3. Proven ability to partner with customers and get results.





"The expertise and the fair fees were the primary reasons we chose Catalyst for our SCADA upgrade project. But the big bonuses were the project management and communication skills they brought to the project. They didn't miss a thing."

- Kevin Quaethem, City of Washington, Mo.



Upgrading Accessibility and Reliability

The water system in Washington experiences normal Midwest seasonal variations in water chemistry and water demands. Tracking these changes by the second is essential for risk management and efficiency.

Quaethem and his colleagues put together a case and a plan for upgrading the SCADA system to the latest technology. Here are some of the benefits they outlined:

- Reduced risks associated with water supply underfeed or overfeed
- Compliance with environmental regulations
- Increased water and energy savings

The project started with a joint effort on assessment and research involving Quaethem and the Catalyst team. The systems were studied and evaluated. Usage patterns were analyzed and future needs were anticipated.



"Catalyst came in with a comprehensive plan that included new PLC's (Programmable Logic Controllers), mechanical controls and management software," said Quaethem. "The scope was large, but we also knew we were only getting what we needed."

Catalyst was thorough and careful about making sure that every component was essential to the upgrade. They explained everything."

Not only were new PLC's and controls installed by Catalyst, but new cables and wireless communication equipment were replaced as well. And any subcontractors that were needed were managed by Catalyst so schedules and quality were checked and double-checked.

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