ABSTRACT for the 2017 ISA WWAC Symposium

How to Decide Whether to Upgrade or Replace Your SCADA System

Mike Stoup, PE[1]*, Eric Brown [2]

[1]McKim & Creed, Inc., 1365 Hamlet Avenue, Clearwater, FL 33756
(*Email: mstoup@mckimcreed.com and Phone: 727.245.0326 ext 1617)

SUBMISSION TYPE

30 minute presentation

KEYWORDS

SCADA, upgrade, replace, migration plan, functionality

ABSTRACT

Technology moves fast, and keeping up with it can be frustrating and expensive. Plant SCADA systems, which are built on advancing technology, typically become outdated within 10 years of installation. As technology advances and SCADA systems become obsolete and unsupported, utilities struggle with how to stay current, and how to determine if—in the long run—it's better to upgrade or replace your system.

The decisions required to successfully upgrade or replace a SCADA system can be complicated and overwhelming. Costs, downtime, training and support are key criteria to be considered, and play heavily into the decision process. In addition, there are myriad other questions to be answered, such as should you stay with the current vendor and upgrade to their new system, or change vendors and systems? Is it best to use the same vendor for PLC hardware and HMI software, or should you pick two different vendors? What functionality do you need, and will an upgrade meet those requirements? How will an upgrade or replacement increase your visibility, improve your control and heighten your security?

Attendees will learn the importance of formulating a good engineering approach that will help utilities objectively analyze their existing system, examine whether a new system can accommodate their needs and wants, and define budgets, schedules and a suitable migration path. We will discuss the advantages and disadvantages of a multi-phase migration plan that can span two or three years, and how to ensure the hardware and software platform will not become outdated before the conversion is complete.

Deciding where, when and how to spend funding will make the difference between a simple replacement with little added functionality, and a system improved through a well-designed solution. In this presentation, we will review the elements that should be considered to help utilities make those determinations.

ABOUT THE AUTHORS

Mike *Stoup* *as instrumentation and controls group manager at McKim & Creed, Mike oversees a department of 12 controls and SCADA engineers, designers, programmers and technical specialists. His career spans more than 22 years, and includes the design, implementation and management of SCADA systems and process instrumentation and controls projects in the industrial and municipal marketplace. Mike is a graduate of the University of South Florida with a degree in electrical engineering. Contact: mstoup@mckimcreed.com*

Eric Brown *is an instrumentation and controls specialist. In the more than 15 years he has been with McKim & Creed, he has built a reputation for excellence in designing, building and installing hardware for SCADA and I&C applications in the water and wastewater industries. He is a graduate of the University of South Florida with a degree in electrical engineering. Contact: ebrown@mckimcreed.com*