

OWWA Fall Automation Workshop Report: Internet of Things, Big Data, and SCADA Modernization Programs

BY GRAHAM NASBY AND SHAWN XIONG, OWWA AUTOMATION COMMITTEE

Now in its third year of operation, the OWWA Automation Committee hosted its second annual Fall Automation workshop on November 3, 2016 in Vaughan, Ontario. Held at the Tocsana Banquet and Conference Centre, the event attracted 95 operations and SCADA professionals from across the province, with many making the trip from Barrie, Belleville, Niagara Region, and many points in between. There was also a broad representation from municipalities, consultants, system integrators, and product vendors.

At the workshop, attendees heard speakers on a variety of automation topics, participated in a panel session, and networked with fellow operations and SCADA professionals. A light breakfast and buffet lunch were also provided. This year's theme was "Operational Intelligence: Beyond SCADA" and the organizing committee had worked hard to develop a technical program to match.

The day kicked off with a keynote presentation by Arlen Nipper from Cirrus Link Solutions. Arlen gave a spirited talk about how the rapidly developing Internet of Things (IoT) movement is opening up new

possibilities in terms of how data within SCADA systems can be collected and used. Part of Arlen's talk was a case study about how the freely available MQTT protocol, one of several IoT protocols, can be used to implement IoT applications. After going over some of the technical details of implementing IoT into SCADA systems, the keynote finished with a discussion about how having data more readily available – thanks to IoT integration – can be a major asset to both operators and utility managers for making operational decisions.

The keynote was then followed by several case study presentations about how new and upgraded SCADA systems have been helping water utilities more effectively operate, both locally and from around the world.

Jason Little from Peel Region spoke about benefits already being realized from their multi-year SCADA modernization program with focus on standardization, operational intelligence, and energy optimization; James Taylor from Rockwell Automation gave a talk about optimizing chemicals inventory management at the City of Windsor's main water plant by integrating information from a SCADA system's OT layer to a corporate

SAP system's IT layer; and Gary Wong from OSIsoft spoke about how SCADA data is being leveraged in Vancouver and Halifax to track and manage water loss rates. The case study part of the day wrapped up with Don Bai from Cole Engineering who gave a survey presentation about several SCADA upgrade projects taking place at California water plants. Interestingly, the California water projects focused on using new SCADA technology to maximize overall water efficiency, as the area is in the midst of a severe five-year drought.

The highlight of the day was a moderated panel discussion between four well-known SCADA and operations managers in Southern Ontario. On the panel were Claudio Cuffolo from Peel Region, Kevin Nyman from City of Toronto, Richard Walker from York Region, and Chandra Baker from Halton Region. The two-hour panel discussion was broken into five sub-segments covering a variety of topics, with moderators asking questions to the panelists. The panel format with the moderator meant that discussion was lively, and workshop attendees had the chance to hear the different perspectives from multiple leaders in our sector.



Summa Engineering LIMITED

A Total Solutions Company:

- Systems Integration
- Programming Services
- Control Panel Manufacturing
- CSA Approved Panel Shop
- OEM
- Bulk Potable Dispensing Water System
- SCADA Maintenance
- Technology Solutions

Website: **SummaEng.com**



Introducing Matthew Eades, General Manager, Ontario



Kerry Rudd, President & CEO is pleased to announce the appointment of **Matthew Eades, C.Eng., MICE** as General Manager of our Ontario operations. A Civil Engineer, Matt brings experience in design and construction of water and wastewater projects. With his consulting, engineering, and project management experience, he is an excellent addition to the Associated team. Previous General Manager of our Ontario operation, **Herb Kuehne, MBA, P.Eng.** will continue in his role as Senior Vice President, Civil Infrastructure for the Associated Engineering group of companies.



www.ae.ca





Reliability is a beautiful thing.



When you're the leading manufacturer and principal supplier of engineered concrete pressure pipe systems in Canada and the U.S., you learn a few things. With more than 25 million metres of pipe in service today, owners, engineers and stakeholders have trusted Forterra for over 90 years. And that's a beautiful thing.



forterrabp.com

Are Your Projects Being Negatively Impacted By Locate Equipment Inaccuracy And Equipment Downtime?

Are You Tired of Working With Inferior Equipment With a High Repair Rate and Less Than Timely Product Support?

If you answered "Yes" to one or both of these statements, then you need to give us a call today to find out how to get the best Locate Equipment, Training, and Service in the industry ... supported by TUE for Life!



Call Us Today at **905 634 0669** for a Free Assessment



www.tueinc.ca

RADIODETECTION

Topics covered by the panel discussion included how individual water utilities were leveraging SCADA data, how to financially justify SCADA investments using a return on investment model, how to ensure SCADA technology is providing the data needed by the regulator, and how to effectively manage SCADA projects to ensure they reflect the dual needs from both operations and management. The panel discussion also included a final session when workshop attendees had the chance to ask the panelists questions.

The OWWA Automation Committee would like to thank the large number of service providers who helped make this year's Automation Workshop possible. Special thanks to go Rockwell Automation, Cole Engineering, CIMA+, AECOM, Summa Engineering, Lexas Electrical, OSISOFT and Eramosa for their assistance with putting on our 2016 Fall Automation Workshop.

The 2017 Fall Automation Workshop will be taking place in early November 2017. The theme for 2017 is "Emerging Technologies," which was chosen based on suggestions made by attendees of the 2016 workshop. More information can be found on the OWWA Automation Committee webpage: www.owwa.ca/committees/automation-committee/

Graham Nasby, P.Eng., PMP, CAP is the Water SCADA & Security Specialist at Guelph Water Services, and was the workshop's panel discussion moderator. Contact: graham.nasby@guelph.ca

Shawn Xiong, P.Eng., PMP, is a Partner and Project Manager with ETO Engineering, and was the program chair for the 2016 automation workshop. Contact: shawn.xiong@eto-engineering.ca

BIRKSCO

Aqualoader Bulk Water & Septage Receiving Stations

HOTBOX



FEBCO

Kupferle Sampling Stations and Automatic Flushers
Hot Box Enclosures • Febco Backflow Preventers

www.birkSCO.com 905-691-0981 sales@birkSCO.com

519 442 2086 | www.lotowater.com

Lotowater

TECHNICAL SERVICES INC.

Water Well Rehabilitation Specialists
Innovative Testing & Well Infrastructure Studies
Technical Support for Geoscientists and Engineers