Rappahannock Electric Cooperative Future-Proofs Their Network with a Secure, User-Friendly and Modern SCADA

Survalent.

Rappahannock Electric Cooperative Leverages Ease of Implementation with SurvalentONE SCADA

The Rappahannock Electric Cooperative (REC) is a member-owned utility based in Virginia. Founded in 1980 as the result of a consolidation of two cooperatives, REC today finds itself serving thousands of member-owners spread across Northern and Central Virginia, from rural towns and communities to small suburban hubs.

Responsible for over 170,000 residential, commercial, and industrial member-owners and over 17,000 miles of power lines, REC found itself heavily restricted by an obsolete SCADA system procured by the cooperative in the early 1980s that:

- Could not be updated or adapted to meet the needs of the cooperative or its member base.
- Offered cumbersome and incomplete reporting options. Previously, there were a lot of gaps in the data, and engineers struggled to create required reports.
- Failed to meet REC's security standards. This was especially concerning to the cooperative — even more so in an age of growing cyber and network security threats.
- Lacked effective system support, often forcing the cooperative to seek solutions from their internal IT team in lieu of approaching the vendor for assistance.

It was time for a change.

Future-proofing the Utility with a Modern and Robust SCADA System

To address these concerns, REC decided to move further into distribution automation and implement a modern SCADA system; the utility needed a highly functional, secure, and robust system that could keep up with the needs of the utility and better position it for future needs and demands.

When determining their path forward, REC opted to build their network model, graphics, and a new database, rather than convert data from their existing SCADA. This hands-on approach would improve data completeness and allow them to know their system inside and out.

Among the primary considerations for the new SCADA was user-friendliness, strong customer support, a well-established system with a large customer base, and the ability to easily build and administer the system. Proven security as well as easy and accurate reporting were also key selection criteria for REC.

After investigating Survalent's capabilities, witnessing product demos, attending the Survalent Global User Conference, and gaining valuable insight from Survalent customers, the utility determined that SurvalentONE SCADA best met all these requirements.

"When we spoke with existing Survalent customers, we consistently heard how easy it was to build and use, and how their end users really liked it. That was a big factor for us as we were coming from such a difficult system," said Mark Ponton, REC's Supervisor of SCADA, Load Management and Telecommunications

Making the Switch to SurvalentONE SCADA

The process of replacing an existing SCADA system with another is often complex, with extra steps taken to avoid disruption of operations within the utility, as well as service to its customers. Survalent has completed 260 successful SCADA conversions and so has a proven process to minimize the risk of disruption.

To kickstart the process after selecting SurvalentONE SCADA, REC hired a SCADA and Communication Engineer to begin building the database and configuring the graphics alongside their existing SCADA System Administrator. The two were given a lenient schedule so that they could take the time to learn the system and get it up and running.

While the cooperative's new SCADA engineer came with a strong technical background, his experience with SCADA was limited — though that proved to be no obstacle. Owing to the intuitive nature of the system, the team was able to begin the process of building data points and creating a new accurate database from scratch using the detailed user manuals provided and the utility's onsite test lab.

The team at REC had access to the direct support of a dedicated product manager from Survalent as well as assistance with commissioning and optimization. Additionally, the team underwent an onsite Level 1 course, which further built upon the knowledge they had gained during the initial learning process.

Thanks to the assistance provided by Survalent and the skill of their engineers and administrators, REC was able to do their first commissioning within six months, and get the system and database up and running in its entirety within ten months. This included approximately 15,000 data points and the successful configuration of nearly 100 substations across the utility's large network.

Planning for the Future

Having successfully executed the conversion to SurvalentONE SCADA, REC plans to continue its expansion into distribution automation with Command Sequencing and Protection Settings Manager.

REC is also currently in the process of testing Remote Alarm Annunciation so that relay technicians can be notified for specific alarms, further streamlining their processes and maximizing efficiency.

"We're overall very happy with the system and where we can go with it. We now have security and enhanced SCADA functionality that we can build on to take us into the future."

Better Software.
Better Decisions.

With Survalent, you can control your critical network operations with confidence. We're the most trusted provider of advanced distribution management systems (ADMS) and substation automation for electric, water/wastewater, oil & gas, renewable energy, and transit utilities across the globe.

Over 700 utilities in 40 countries rely on the SurvalentONE platform to effectively operate, monitor, analyze, restore, and optimize operations. By supporting critical utility operations with a fully integrated solution, our customers have significantly improved operational efficiencies, customer satisfaction and network reliability. Our comprehensive substation automation solution, Survalent StationCentral, delivers advanced control and monitoring for enhanced network performance and protection.

Our unwavering commitment to excellence and to our customers has been the key to our success for over 60 years.

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