Ulteig We listen. We solve.®

SYSTEM INTEGRATION & SCADA
MAKE AN INVESTMENT IN INFRASTRUCTURE FOR A GREATER PEACE OF MIND

As an owner or operator within the power, renewable or water utility markets, it is important to have a reliable plant controller, Supervisory Control and Data Acquisition (SCADA) system and communication network in place. The system should be versatile, providing customized data, monitoring and control measures that can effectively inform its users to resolve incidents and non-compliant events, and even predict failures.

Ulteig's team of System Integration professionals offers an extensive set of vendor-agnostic SCADA and networking design and system integration services, providing sleek and modern accessibility to the data and controls that influence critical business decisions. These services can be part of an upfront collaborative effort on a greenfield site or added to an existing site. With over 20 years of combined experience, our responsive experts will collaborate with clients to deliver a customized solution that meets their specific needs.

WHAT IS SYSTEM INTEGRATION?

The ability to incorporate data and control sub-system equipment from multiple vendors and bring them together into a single unified system that meets the owner's operational and regulatory needs.
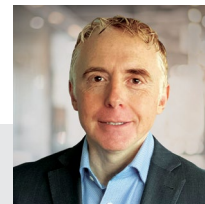
NEED A NEW OR UPGRADED SCADA SYSTEM?

Contact the experts at Ulteig to evaluate your project requirements.

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SCADA DESIGN & INTEGRATION

With the continued growth of technology, there is no one size fits all. Each system, client and problem possess unique opportunities to optimize the use of new technology. Ulteig will work with you to design a SCADA system that meets your operational and regulatory needs. Our on-site services also ensure you are never without expert support during commissioning or during planned outages.

Services may include: RTU Programming, Custom HMI Display Development, Owner's Engineer Commissioning, Systems Audit, Proactive/Preventative Maintenance, Plant Optimization and NERC CIP Compliance.

NETWORK DESIGN & INTEGRATION

Ulteig has network needs covered - whether it be expanding the client's network to new devices or solving existing network CIP and operational headaches. From basic network configuration and SSL VPNs for remote access, to full NERC/CIP documentation packages and security implementations, we provide expert solutions.

PROCESS CONTROL FOR WATER & WASTEWATER

Ulteig staff brings professionalism and foresight from our direct involvement with the evolving water and wastewater plants and processes across North America. Although each of the treatment, collection and distribution systems are demand based, there are defined opportunities for process optimization which is accomplished through a strong understanding of process. Solutions include but are not limited to Ulteig Virtual Instrumentation (UVI), real-time performance curves, wastewater collection & CSO real-time control (RTC) strategies and advanced neural network (ANN) application for filter performance optimization.

PLANT CONTROL FOR PV & BESS

When it comes to renewable power generation, our team has the most in-depth knowledge of how to control and integrate utility scale solar, wind and energy storage sites with the North American Grid. We have been on the forefront of the renewables industry and worked with many of the early adopters in battery storage. Our clients include some of the largest producers of renewable power in the world. We bring to the table the various scenarios of how battery coupled storage can be used within a PV plant or how a stand-alone battery site can operate inclusive of all the life safety systems. Our methods are fully compliant to North American Electric Reliability Corporation Critical Infrastructure Protection (NERC CIP) requirements and are leading in innovative design to ensure the integrity and resilience of the ever-changing grid is maintained.

ALARM MANAGEMENT STRATEGY & INTEGRATION

It is important to define what events should or should not warrant notification. By not setting an alarm, one could easily miss a critical opportunity to address a potentially serious problem. Conversely, clients may get inundated or desensitized by nuisance alarms if they decide to monitor every aspect of their operation or assign the same priority value to each of these alerts. Ulteig works closely with clients to determine what system conditions should trigger an alarm. We can work with your existing system to deliver a customized alarm scheme that fits the needs of a project and aligns with industry standards.

SYSTEM EVENT ALERTS

An effective SCADA system should be configured to deploy text or email alerts whenever a significant event takes place. Ulteig has expertise in building custom email or text alert systems. We develop innovative solutions to suit the unique needs of a client's system, creating situational awareness and helping them rest easy at night.

DESIGN, TENDER & CONTRACT ADMINISTRATION FOR WATER & WASTEWATER

With design documents completed and sealed by our professional engineers, our team prepares the tender package with client's front end and other required sections from the client's legal and procurement departments. When the full tender package is complete, we distribute it to the approved list of contractors or facilitate posting on public bid sites. During the tendering period, we lead the site meetings and prepare addendums as required. After the closing date, we review submitted bid packages and, upon thorough review, compose a memo outlining contractor recommendations. Upon contract award we administer the construction contract on behalf of the client, which includes hosting a construction kick-off meeting and performing site inspection services. We review shop drawings for such equipment and provide feedback and approvals. Upon installation completion, we update contractor markup drawings and return them to the region as-built set.

HISTORICAL DATA COLLECTION & CUSTOM REPORTING

Access to historical data allows clients to review events leading up to faults and major system events, track equipment and site conditions over time and provide the necessary infrastructure to perform a load forecasting analysis and many other reports. Ulteig works with clients to deliver a fully integrated information system containing centralized time-series and event-based data to optimize facility operations and reporting. Our team of experts is ready to provide clarity on the many data points that the system records. We can build a system to review events leading up to faults and set up forecasting, accounting and neural networks.

ADDITIONAL SERVICES

- Custom Coding
- Trending Display Configurations
- Data Analytics, Management and Integration
- Synchrophasors
- Post-project Support

ABOUT ULTEIG

Ulteig is a purpose-driven consulting engineering leader committed to creating and solving for a sustainable future. Ulteig's employee-owners are technical experts who are transforming our world's critical infrastructure through collaborative and innovative solutions across the Lifeline Sectors® of power, renewables, transportation and water. Leveraging our expertise for over 75 years, Ulteig operates throughout North America and serves a wide range of public and private clients.
LEARN MORE AT **ULTEIG.COM**