

UTILITY INFORMATION SYSTEMS



Utility Information Systems (UIS) is a system integrator and consultant to the energy and utilities industry. Our solutions range from automation and control, network monitoring, metering, communication and protection systems at the station to business intelligence, asset management, process management, enterprise planning, analytics and visualization tools at the enterprise. We combine hardware, software and development capabilities with local system engineering, consultancy, project management and support services resulting in end-to-end systems that solve problems.

The UIS approach combines best-of-breed technologies with world-class engineering to implement and integrate solutions into existing infrastructures. We are the only company that has the cross-vendor experience to address utility issues using today's electrical networks. Our mission is to "add and enhance" instead of "rip and replace." The result is an effective, economical and environmentally responsible solution to improve the efficiency, reliability and safety of power delivery. We deliver the benefits of tomorrow's **smart grid – TODAY!**

Global Experience

UIS delivers world-class energy automation, engineering and consulting services from offices located in three geographical operating centers:

- North America based in Toronto, Canada
- Asia Pacific based out of Perth in Western Australia
- Middle East and North Africa (MENA) based in Dubai, UAE

These offices engage customers with local experts to solve business problems with the benefit of the knowledge and experience gained from our international project base. Our solutions combine expert consultancy with technology in order to address the customer's business pain using the most cost-effective combination of global resources.

Solutions

UIS has been providing Energy Automation Solutions for over ten years and more than 100 projects. The solutions range from consulting to system integration and have provided utilities with the tools to effectively manage energy resources and infrastructure. The collective experience of our global resources is brought together in our *Intelligent Electricity Network* (IEN) practice to address utility challenges by leveraging global industry knowledge along with deep IT competence. UIS' Intelligent Electricity Network practice goes well beyond conventional energy automation solutions to deliver a new dimension of analytical and decision making capability.

The Intelligent Electricity Network

Much of today's power grid is based on technology over 100 years old. Deregulation, increased customer expectation, aging assets, increased load, expected return on capital and departing expertise have placed unprecedented pressures on today's utilities to improve the grid. The development of intelligent devices has offered new ways to improve the performance of the power network but the solutions typically offered require large capital investments, long lead times, wide-scale downtime and the replacement of much of today's infrastructure.

This does not have to be the case! The benefits of an intelligent power network are achievable today – with today's infrastructure. The key is to knowing what information is available and how to access it. That is where UIS can help. We have been designing, installing and integrating systems from the major vendors for over ten years. In fact, many times we are asked to subcontract on a project due to our expertise at the station level.

UIS have brought this collective experience and knowledge together into our smart grid practice called The Intelligent Electricity Network. Our goal is to leverage today's field and office data provided through existing systems. We have the expertise to extract the required data, add non-intrusive sensors to fill the gap (if necessary) and bring the information to a common platform that can be used to deliver advanced intelligence to the right person at the right time. We combine the real-time data with other enterprise data sources and add advanced analytics to provide actionable intelligence that helps utilities operate the networks, manage assets, monitor processes, manage inventory/supply chain, control budgets, create work orders and increase customer satisfaction.

An important consideration in the implementation of a smarter grid is how to handle the large volume of new information that the technology generates. The large amount of data has to be transferred to actionable information which takes into account



business objectives and existing technology. As part of the UIS IEN solution, we have developed Intel-E-Grid - an advanced analytics platform based on a service-oriented architecture (SOA). Intel-E-Grid makes it possible to integrate the new information with existing systems and provides a flexible and scalable solution.

Energy Automation

UIS provides solutions and services for automation of the electricity infrastructure. As a system integrator and consultant, UIS covers all elements of energy automation from plant adaptation works through to the supply of complete SCADA/EMS/DMS systems. UIS performs all engineering and project management tasks in-house using "best-of-breed" vendor products.

UIS Energy Automation solutions and services consist of:

- Network Management Systems (SCADA/EMS/DMS/OMS)
- Plant and Substation Automation (SCS, DCS, RTU, HMI, IED)
- Telecommunication (Fiber Optic, PLC and Wireless)

Network Management Systems

UIS provides system integration, project management, architecture and design, and commissioning of complete network management solutions to govern a company's operating infrastructure. This includes supervisory control and data acquisition (SCADA), generation management systems (GMS), energy or distribution management systems (EMS/DMS) and outage management systems (OMS).

Plant and Substation Automation

These solutions include local automation schemes for a single transmission substation or a section of the distribution network covering primary and secondary sites. They vary from basic mini/large remote terminal units (RTUs), feeder automation, centralized substation control systems (SCS) to distributed control systems (DCS) and substation automation (SA) schemes. Automation schemes that share data and commands at a high speed include auto-sectionalizing, interlocking, distributed protection and network automation. UIS also provide all necessary services to design and convert manual or conventional sites, substations, and secondary distribution switches, to SCADA-ready sites.

Telecommunication

The Telecommunication services typically relate to a large network area and normally involve a mix of communication media, such as fiber optic, power line carrier and other wired or wireless networks (e.g. Wifi, WiMax, UHF, VHF, microwave, etc.). UIS has the unique capability to design, implement and integrate communication backbones to meet the real-time needs of both operational and non-operational data.

Services

Utility Information Systems provides a wide range of services that supplement our core offerings. These include:

- **Consulting** - Aligning strategy with IT, business case justification, change management, process restructuring and optimization, industry specific expertise, business requirement analysis, information modeling
- **Project Management** - Local contracting plan, project control system, safety, logistics
- **Capability Assessment** - Defining smart grid business objectives, performing a site survey, evaluating the subsystems and their capabilities, benchmarking and providing road map towards a smarter grid
- **Engineering** - Feasibility study support, front end engineering design (FEED support), detailed engineering & design, vendor interface / FAT services, as-built, field engineering
- **Procurement** - Vendor prequalification, RFQ package preparation, commercial evaluation, purchase order placement, vendor inspection, transportation, import & custom handling, alternative sources of supply
- **Testing & Commissioning** - pre-commissioning, installation acceptance test, site acceptance test, commissioning support
- **Maintenance** - annual maintenance, warranty

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