

Thriving in Today's Changing Landscape

Solutions for Municipal & Cooperative Utilities

INTRODUCTION

The utility industry is in the midst of a shift in how energy is generated, delivered and used. At the same time, municipal and cooperative utilities are facing the challenges of aging distribution infrastructure, rising consumer expectations and the advent of new technologies like the Internet of Things (IoT) and distributed energy models–all while maintaining high service reliability at the lowest cost.

As the leader in this space, Itron understands these challenges and delivers innovative solutions designed to help municipal and cooperative utilities transform their business processes, increase reliability and enhance services to consumers. We have developed a portfolio of smart networks, software, services, meters and sensors that help you better manage energy and water for the people you serve today, while giving you the flexibility to grow tomorrow.

Itron solutions can help you operate energy, water and city systems that:

- » Are safe, proven, reliable and resilient.
- » Bounce back quickly after natural disasters.
- » Anticipate problems before they occur.
- » Deliver enhanced, more personalized services at a lower cost.
- » Leverage existing investments as much as possible.
- » Provide actionable insights for asset & operational management.
- » Ensure resources are efficiently and effectively managed.
- » Produce tangible, performance-based business outcomes within flexible commercial models.
- » Help you build safer, smarter and more engaged communities.

Our solutions and services are designed to work together so you can open new possibilities for your business, your infrastructure and the communities you serve. Our proven commitment to utilities and cities provides the right foundation to help you grow.

SMART NETWORKS

Itron networks are designed to help address your unique business and operational needs, while providing a solid foundation to grow at your pace. Flexible, interoperable, secure and cost-effective, our solutions allow you to introduce advanced functionality all at once or one step at a time. With the right multi-purpose network in place, follow-on applications require little or no additional infrastructure, minimizing capital costs for subsequent deployments, feature enhancements or capacity increases. Itron offers superior control over distribution assets and a better way to communicate with devices through edge computing capabilities. This breakthrough combination of assured connectivity and edge awareness gives your operations team the advantage of accessing and acting on critical operational insights before they become major problems. This translates to greater operational efficiency, increased ROI and proactive customer and member service.

Support Multiple Commodities and Multiple Use Cases on One Network

Maximize the return on your technology investments with a multiapplication network platform. Unlike proprietary, single-purpose networks, Itron solutions are designed to create a unified, active network to support many smart utility and smart city applications and communication protocols simultaneously. This proven approach makes it easy to quickly address operational challenges with room to grow as these needs change.

Seamlessly Migrate from AMR to AMI and Beyond

Thinking about taking the next step from basic automated metering? We have multiple options designed to support your individual business cases and transition you from AMR to AMI. Whether you're considering AMI for electricity, water, gas, smart cities – or even a combination – Itron's network solutions are a flexible and cost-effective option that leverage as much of your existing metering investments as possible.

Not ready to upgrade to a network? Consider a simple Itron Mobile package as an incremental step towards a full two-way solution. Use the latest smartphone and tablet technology to streamline meter data collection, save money and increase meter reading safety and accuracy.

Simplify AMI Network Management

Rethink traditional AMI network management and day-to-day operations with Itron. Our network capabilities unlock a variety of options for utilities to host and manage their own networks – or leave that to us. Add as many or as few outcomes as you'd like to achieve your business objectives.

City of Roseville



Itron is implementing an Advanced Metering Infrastructure (AMI) solution along with more than 100,000 smart electricity and water meters equipped with distributed intelligence and advanced communication capabilities at the City of Roseville. Their integrated utility services department is also taking advantage of Itron's outcomes and managed services. These groups deliver the back-office IT infrastructure along with cloud-based Software-as-a-Service (SaaS) applications, including meter data management and analytics, to streamline their project resource requirements and accelerate time to value. The utility is deploying Itron's network solution to enhance electric system monitoring, offer new rate options and services to customers, and support water conservation goals.



SMARTER COMMUNITIES

Powering the World's Smartest Communities

As the global leader in IoT-connected devices for utilities and cities, we understand the challenges impacting communities today. In fact, we've been an active partner in helping cities and communities around the world become increasingly connected and capture the benefits from a broad range of connected devices, sensors and applications. To keep pace with this evolving landscape and meet the needs of tomorrow's smart cities, it's imperative to build on the right foundation. A standards-based IoT network provides the ideal foundation to implement technologies that make communities safer, more efficient and more engaging for all.

Smart Streetlighting

Did you know that adding controls can help you save up to 30% in streetlight energy consumption every year? And that's just the beginning. Smart streetlights can also serve as a citywide network canopy to support AMI and a host of IoT applications like traffic monitoring, acoustic detection and radiation detection. Combining smart streetlights with smart meters also greatly improves network speed, redundancy and overall performance.

Rich IoT Partner Ecosystem

Access ltron's diverse ecosystem of partners and solutions for smart energy, water and cities. With more than 125 partners in our ecosystem, we're ready to help you address virtually any smart utility and smart city challenge. Our portfolio of applications includes solutions for methane detection, water quality, traffic sensors, smart parking, EV charging and more.

75% of power in the US touches Itron technology

GRID MANAGEMENT: A UNIFIED SOLUTION FOR SYSTEMWIDE AUTOMATION & CONTROL

Itron's grid management solution provides you with a unified platform to effectively manage critical grid assets across your distribution network. Our open and standards-based multiapplication architecture enables utilities to connect a vast array of distribution automation devices, demand response devices and software solutions such as SCADA, ADMS, DRMS and more. All systems work together seamlessly to improve efficiencies, enhance system resilience and enable new services. Through this holistic smart grid solution, we to help utilities accelerate storm response, ease renewables integration, and optimize grid operations and service reliability.

- » Improve Reliability & Resilience: Enabling distribution automation use cases for medium and low voltage networks south of the substation.
- » Optimize Grid Operations: Integrate high fidelity data from meters and line sensors to reduce losses, balance load and manage voltage from the substation down to the customer.
- » Accelerate Storm Response: Combine automation devices with real-time analysis of last gasp and restoration alerts, fault and current data to immediately detect faults and reroute power around affected areas.

Optimize Grid Operations with Distributed Energy Management

Faced with reduced public revenue and tighter budgets, you are always evaluating new ways to provide electric service to your consumers at the lowest possible cost. You can cut peak energy demand by creatively deploying demand response (DR) programs, such as direct load control or dynamic pricing.

With the increased proliferation of distributed energy resources (DER), you face new opportunities and challenges with maintaining power quality, balancing supply and demand, and ensuring adequate distribution capacity. Now is the time to start planning for more renewable generation and other DERs.

From dynamic pricing and load control to integrating distributed energy resources, our Distributed Energy Management solutions help you operate more efficiently and effectively than ever.

Ensure Secure, Resilient and Reliable Connectivity with Distribution Automation

Improving the efficiency, reliability and resiliency of distribution networks remains a primary goal for your utility. Itron's next-generation hardware and software-based Distribution Automation (DA) solutions provide you with a single platform that connects multiple applications and many device types across a utility's distribution network. This approach allows utilities to leverage granular data from devices to optimize real-time grid operations while improving asset management and planning. We offer compelling, standardsbased DA solutions, leveraging our own and our partners' products. With Itron's sophisticated DA offerings, your networks can realize benefits from a broad range of devices and services, while integrating distributed energy resources and microgrids.

ADVANCED APPLICATIONS

Itron partners with you to understand your challenges and deliver value-based results (known as outcomes) through our broad portfolio of applications that leverage the power of devices and networks. We deliver maximum ROI, a cohesive and simplified customer experience and flexible innovation---allowing you to generate and realize value quickly. These outcomes include numerous advanced applications that provide business value to address your challenges—reliability, leak detection, power quality, revenue assurance, transformer loading, outage detection, connectivity mapping and much more—to lower costs and improve results on an accelerated timeframe. Through end-toend integrated solutions, the value of data is enhanced from measurement all the way to the edge where it is transformed into taking action. Here are a few of the powerful ways we can deliver positive outcomes for you:



City of Bismarck

The City of Bismarck Public Works is using Itron technology and analytics to detect and solve water consumption

issues. The city's public-private partnership with their electric and gas provider is enabling them to share the network infrastructure, detect leaks and usage anomalies, conserve water during summer months and peak usage, and has helped them reduce water loss by **17 percent**—all through the use of analytics.

Provide Customer Optionality with Smart Payment

Itron prepayment solutions help you simplify operations, cut costs, reduce delinquent account risks and improve cash flow. They also help consumers by giving them more choice and control over their energy and water usage and costs. When included as part of a smart metering implementation, prepayment adds value to the business case and increases your return on investment.

Keep the Lights On and Customers & Members Happy

With more frequent, powerful storms–and rising customer expectations–you have a renewed focus on improving grid reliability and improving restoration efforts. Itron's Reliability Analysis outcome empowers your operators to analyze outage data, graphically presented in the context of the distribution network. The results? Improved reliability, outage response and customer satisfaction. Additionally, the Outage Detection outcome interprets the influx of raw power outage and restoration alarms to deliver an accurate, continuous feed of information to you on the state of your distribution grid. Ongoing, precise updates enable crews to quickly and efficiently target their response during all phases of outage operations.

Don't have a full AMI deployment, but still need to have insight to outages? You can now enable improved reliability of power delivery via our Outage Analysis service. Using strategically placed bellwether meters, effective and quality outage detection notifications are provided for an entire coverage area, without the need for a full AMI infrastructure or grid-connected meter at every endpoint. This delivers improved and more rapid outage visibility, lower costs, higher availability, proactive communication, quicker implementation, scalability and modularity—all utilizing a pay-forperformance model based on speed, accuracy and reliability of notifications.



Southern Maryland Electric Cooperative

Itron operates Southern Maryland Electric Cooperative's (SMECO)

CoolSentry outsourced demand response program, deploying more than 45,000 load control devices for residential and small commercial customers and enrolling 16 megawatts of large commercial and industrial load for a total of **60 megawatts** of available capacity. SMECO is able to reduce its exposure to generation and transmission capacity charges in the wholesale market.

Know Your Voltage Like Never Before

The Voltage Analysis outcome precisely monitors voltage at every delivery point in the system, and then presents that data and the analysis of it within the context of your distribution network.

Simplified Network Management

Itron's Managed Services team provides the people, tools and processes to deploy Itron solutions, so you can innovate and focus on your operations. A fully supported managed services (software-as-a-service or cloud-based) model allows your resources to focus on the critical issues that drive business while we keep technology solutions current and optimize and efficiently maintain performance. Through our collaboration with Microsoft® Azure, we can define and deliver value-driven outcomes for you.





Philadelphia Gas

Philadelphia Gas Works (PGW) is the largest municipally owned gas utility in the country, managing a system of

over 6,000 miles of gas mains and service pipes delivering 78 billion cubic feet of safe, reliable natural gas to 500,000 customers each year. Using Itron technology, PGW detected 3,400 incidents of theft in one year totaling **\$3.2 million**.

Improve Your Financial Operations with Revenue Assurance

Energy theft costs utilities and consumers nearly \$100 billion per year worldwide. Timely and accurate detection of energy and water theft makes it safer for everybody while recovery of lost revenue flows straight to your bottom line. The Itron Revenue Assurance outcome will help you identify where theft is occurring and also generate the field investigation work orders for you.

METERING & METER DATA MANAGEMENT

Itron offers a variety of electricity, gas and water meters to help ensure accurate collection of consumption data. In addition, we provide the industry's leading meter data management (MDM) solution.

Electricity Meters

Rather than simply inserting a network communication card into a standard meter, Itron's smart electricity meters calculate usage within the meter itself, allowing you to leverage time-based rates, demand response, home networking and many other smart grid applications. Itron's most advanced meters leverage distributed intelligence, adaptive communication capabilities and peer-to-peer networking and applications on the meter to enhance data analytics and application performance.

Gas Meters

Itron's Intelis Gas Meter incorporates transformational technology that changes the value proposition for gas customers from metering and automation to one that extends intelligence to the edge of the network. This capability moves the gas distribution network from a one-way gas delivery mechanism to an interactive energy network that can deliver gas more safely and efficiently.

Water Meters

Itron's Intelis Water Meter serves as a foundation for a wide range of smart water solutions. Combining last-end ultrasonic measurement technology, Intelis is the latest solid-state solution that utilizes edge intelligence to track flow usage patterns at the meter level, setting a new standard in intelligent water metering. With no moving parts, Intelis allows for protection against unplanned maintenance costs and provides accurate measurement over the entire product lifecycle, while maximizing the value of existing smart water investments.

Meter Data Management

Itron Enterprise Edition[™] (IEE) MDM is the industry-leading MDM solution that is in production at 91 energy companies and manages data from more than 39 million meters across six continents— with nearly all of them using IEE MDM to manage and apply interval data. IEE MDM is a highly-scalable data management solution that provides a central repository or "system of record" to ensure all data remains secure, audited and easily accessible across your enterprise. With the addition of Itron services, we'll manage all aspects of your data collection system using a SaaS model, including MDM and analytic applications, with a simplified, subscription-based pricing structure.

39+ million meters globally are managed by Itron Enterprise Edition Meter Data Management



WHY ITRON

Itron offers a range of solutions that help you optimize the grid and better connect with your customers and members.

- » Build a reliable, secure and connected future with a smart network that supports a multitude of services and a wide variety of affordable, flexible devices built to work for decades.
- » Better serve customers and members with easy and engaging solutions.
- » Drive down costs by streamlining operations and minimizing manual processes.
- » Discover new service and revenue opportunities like network sharing, smart city applications, consumer services and more.

- » Exercise choice via a diverse offering of devices, components and connectivity—all based on open standards and all aimed at creating a future of opportunity for utilities and cities.
- » Trust the industry leader known for delivering proven technology and solutions coupled with a strong commitment to utility and city relationships.

LET'S CONTINUE THE CONVERSATION

Itron remains committed to our long-term utility & city partnerships. Visit www.itron.com/muni-coop or contact your Itron Sales or Distributor Representative to learn more about how we're helping municipals and cooperative achieve real results quickly.



Join us in creating a more **resourceful world**. To learn more visit **itron.com**

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