



# AMI Essentials

**Deploy and unlock value-based outcomes, and establish a foundation**

## **A COMPREHENSIVE SOLUTION FOR ELECTRIC AND COMBO UTILITIES IN NORTH AMERICA**

When you look at consumer demand trends, the emergence of renewables, adoption of EV charging, extreme weather conditions, focus on carbon emissions and population growth, it becomes imperative that aging infrastructure is addressed as you position your utility to meet growing energy demands and customer expectations. Grid modernization begins with Advanced Metering Infrastructure (AMI) and smart meters as the key foundational elements. With a robust and reliable AMI system, you can unlock advanced capabilities, realize operational value and transform your business to face these challenges head on.

For municipalities and cooperatives that provide utility service to tightly knit communities, an AMI deployment doesn't have to be a multi-year, functionally overwhelming and organizationally staggering experience. AMI Essentials is Itron's standard AMI solution offering tailored to better serve municipal, cooperative

and similar-sized utilities in North America. The solution enables automated data collection, full two-way device communications, remote connection and disconnection of service, and visibility to alerts and events including outage and restoration that occur in the field. With AMI Essentials and the transformation it brings, you can reap benefits by:

- » Improving billing accuracy,
- » Enhancing customer service and
- » Increasing operational efficiency.

**Electric and combo utilities**

Serving customers with **<100,000 endpoints**



## SOLUTION ELEMENTS

Itron AMI Essentials is a fully integrated, end-to-end AMI solution that includes the Gen<sup>TM</sup>5 network communications platform, smart meters (electric, gas and water endpoints), hosted software and deployment services—each of which are described in more detail below.

### Reliable Network Communications Platform

The AMI Essentials solution is built on Itron's self-forming, self-healing Gen5 RF-mesh network platform, which is specifically designed to support AMI, smart cities and Industrial Internet of Things (IIoT) use cases. High-performing, simple-to-install and providing broad range capabilities, this platform includes field access points that route network traffic from the RF mesh to the back office and relays that extend RF coverage throughout the field area network. The solution includes Itron's proven network design that offers built-in redundancy to ensure the network can perform in excess of 99% read rates.

### Smart Meters & Endpoints

Itron's solid-state electricity meters offer unparalleled digital accuracy and reliability as well as advanced AMI functionality to support your business needs today and tomorrow—all in a cost-effective package. You can choose between Itron's proven and

industry-leading CENTRON<sup>®</sup> smart meter platform or Itron's cutting-edge Gen5 Riva meters, which support distributed intelligence, Itron's innovative edge computing platform. Both smart meter options come "Gen5-network ready"—once energized, they automatically find and securely register to the network.

For gas and water solutions, the Gen5 500-series battery-powered ERT<sup>®</sup> modules leverage Itron's long history of ERT module design and can be read under the same multi-purpose Gen5 IIoT network that the smart electric meters utilize. With new features for Gen5 network operation, such as on-demand read from the back office and extended data storage, Itron's Gen5 500-series ERTs offer additional value while continuing to offer the reliability, accuracy, battery life, security and intrinsic safety that you have come to expect from Itron.



Itron's electric meters are assembled in the USA and come with a three-year warranty covering both the meter and communication module.



Itron's Gas and Water ERTs are made in the USA, backed by industry-leading warranties and designed for a twenty-year asset life.



### Command and Control from the Back Office

The UtilityIQ® head-end system is a suite of software applications designed to fully manage the AMI solution. The head end supports electricity, gas and water devices and has everything needed to manage the network, read schedules, events, endpoint configurations, administration and reporting. Furthermore, it comes pre-configured and optimized to focus on the three most essential use cases—meter-to-cash, remote service disconnect/reconnect and outage notification.

Itron's Global Managed Services team provides and maintains the solution's software applications via a simple cloud-based Software as a Service (SaaS) subscription. With a 99.5% guaranteed uptime, the hosted applications allow your operations personnel to securely access the system in order to run day-to-day operations. A SaaS deployment ensures a fast, efficient and low-risk path to the benefits of AMI, allowing you to focus on managing business operations rather than complex IT systems.

### Deployment Services

Itron's experienced Global Delivery Services teams provide the necessary services needed to manage the deployment of the AMI Essentials solution. These services include program management, network design, network deployment support, business and technical consulting, solution design and architecture, application setup and configuration, MultiSpeak integration support, system acceptance testing, performance validation and application training. These deployment services are provided according to a standard project timeline consisting of four months of pre-field training and back-office deployment and, depending on scale, four-to-eight months of field deployment.



### Enterprise-Class Security

This new era of smart metering promises many exciting benefits, but it comes with the imperatives of increased security and privacy protections. Advanced service networks require advanced protection to ensure the availability, integrity and confidentiality of your data. Through industry standard encryption, FIPS-certified X.509-based Public Key Infrastructure, automated key rotation and cryptographically signed firmware, Itron's AMI Essentials solution secures data transmission at all layers to keep your devices, network and customer data safe from hackers, malware and other threats.



## THE VALUE OF AMI ESSENTIALS

Itron's AMI Essentials Gen5 solution allows you to deploy AMI now and tackle the most critical, high-value business cases. This includes automated meter data collection multiple times a day, remote connection and disconnection of service for move-in/move-out and credit/non-payment purposes, and power outage awareness through outage and restoration alerts sent from the devices. As your business drivers expand and evolve, Itron's AMI solution is built to grow with your ever-evolving needs and demands. Areas for growth include grid management, smart cities, streetlights, EV charging, distribution automation, demand response and distributed intelligence. In conclusion, AMI Essentials is a proven, standards-based, multi-application Gen5 solution that is optimal for utilities with fewer than

100,000 metering endpoints. The AMI Essentials solution offers everything you need to quickly begin benefitting from the efficiencies and operational cost-savings of AMI-based utility services, while also laying the groundwork to support emerging industry needs and future use cases.

For more information, contact your Itron Sales Representative or local Channel Partner.

To learn more visit [itron.com](https://www.itron.com)

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