



**Itron**

# OpenWay®

Smart Metering, Smart Grid, One Network





## A Network for Today and Tomorrow

Today's smart metering and smart grid network must provide a technology platform to connect people to their energy usage. It must solve key business challenges for the utility and support a more sustainable and energy-efficient future.

The network must function like an enterprise IT network: secure, reliable and standards-based, with the ability to easily add new devices and applications without costly and time-consuming integration work.

The network must be flexible by providing multiple communications options to meet specific utility requirements and provide the ability to evolve from smart metering to the broader smart grid as business needs change.

The network must combine seamlessly with other elements – such as meter data management, analytic software, services, as well as third-part devices and applications to form a highly-integrated, end-to-end solution.

That's the network for today and tomorrow. That's OpenWay.

### Flexibility for the Future

Itron's OpenWay smart grid network offers multiple IP-based communications options and features an advanced IPv6 architecture developed jointly by Itron and Cisco, the global leader in network technology. This enables OpenWay to support multiple smart grid applications with "plug-and-play" capability over an interoperable, secure, enterprise-class network.

Itron's OpenWay network connects utilities with their customers and grid assets using RF mesh, cellular or power line carrier (PLC), including support for the Netcity standard – based on localized needs, protocols and standards.

The OpenWay communication network is managed under Itron's unified data collection and management platform, streamlining the meter-to-cash business process, and making data readily available for other grid and consumer applications regardless of communication method.

Itron embeds Cisco's network management, QoS capabilities and a standards-based network security model, to support multi-application functionality with one solution. This provides reduced cost of ownership, simplification of deployment, reduced technical risk and access to a growing ecosystem of global smart grid technology partners.

The OpenWay network provides meter data collection, network operations, asset monitoring and control capabilities that, when combined with Itron Analytics and other third-party devices and applications, provides a broad suite of smart grid applications to utilities, energy service providers and customers. Itron also bundles OpenWay with its managed services portfolio to simplify deployment, making it easy to get started and optimize ownership costs.

**Proven at Scale**

More than 15 million OpenWay smart meters and network devices are installed and operating in the field on five continents. OpenWay is the technology of choice for several leading utilities in North America who have successfully deployed multi-million point OpenWay networks to automate data collection and improve grid reliability and efficiency; empower consumers to save energy and to support introduction of new clean energy programs and services.

**A Complete Solution**

Several leading utilities have deployed OpenWay alongside Itron Enterprise Edition Meter Data Management (IEE MDM), Itron's industry-leading meter data management tool, as well as Itron Analytics software applications to form a complete data collection, data management and application solution for their smart metering and smart grid initiatives. Deploying a complete solution provides well-defined points of interoperability between systems, greatly simplifying and reducing integration costs and difficulties.



**REAL SOLUTIONS FOR CRITICAL BUSINESS CHALLENGES**

**Meter-to-Cash**

With its proven ability to collect both register and interval data reliably and from millions of meters, and perform on-demand reads, OpenWay provides utilities with a powerful tool to transform meter reading, billing operations and customer service, while eliminating vehicle trips to the field and reducing carbon emissions. Two-way communication to every meter, combined with the integrated remote service switch, makes OpenWay a proven network to provide pre-payment services to expand customer choices and accelerate the billing cycle and cash flow, while its tampering and diversion detection functionality reduces non-technical losses.

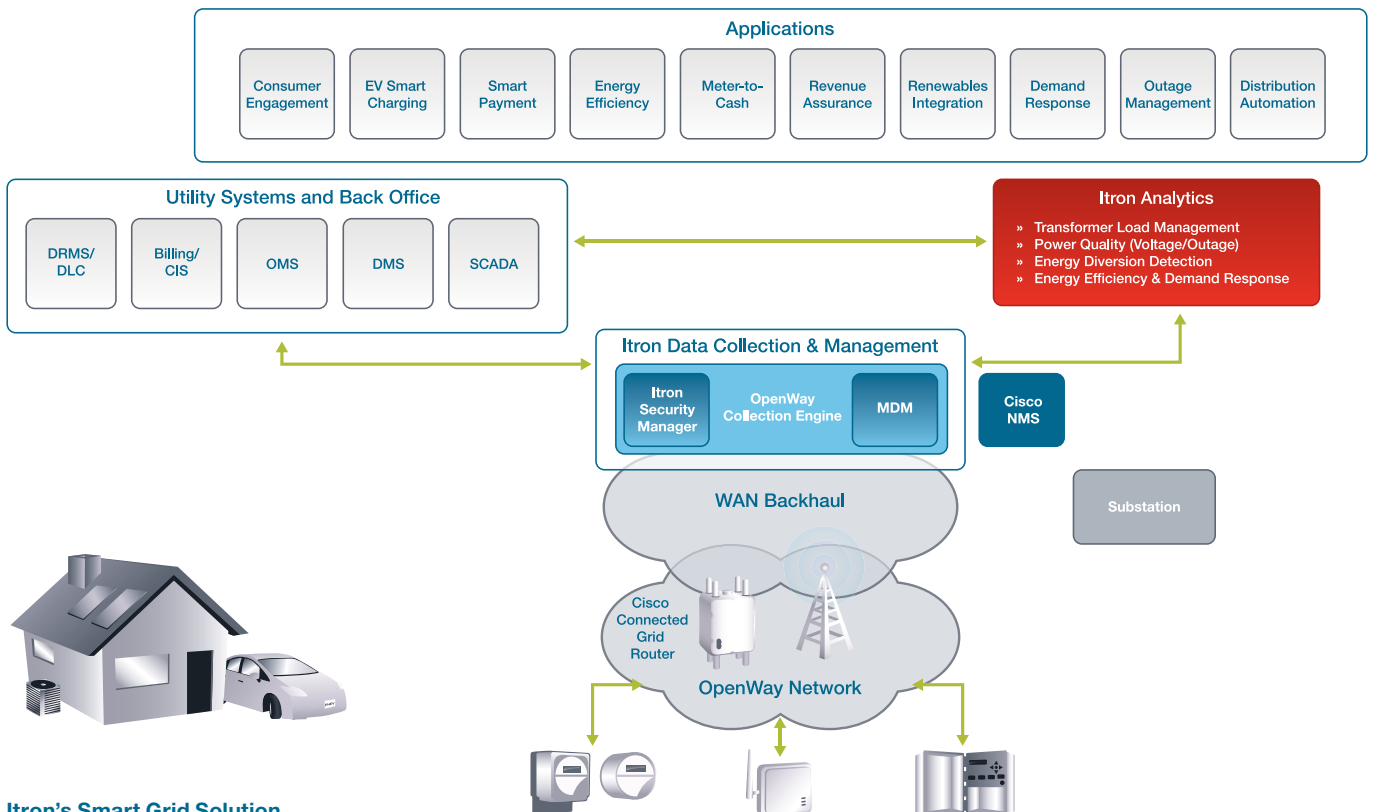
**Consumer Engagement, Demand Response and Energy Efficiency**

The OpenWay network, along with its built-in ability to communicate with energy management devices in the home, provides the connectivity and source of data to help businesses and consumers reduce energy consumption and increase energy efficiency. Whether the requirement is demand response and implementation of dynamic rates to manage peak load, or energy efficiency programs to help people reduce energy use and costs, the OpenWay network empowers consumers to use less.

**Grid Efficiency**

OpenWay's ability to collect interval data and monitor voltage levels from large numbers of meters and endpoints in near real time enables utilities to improve grid efficiency and reduce technical loss through more precise voltage regulation and implement condition-based maintenance and asset management programs. And OpenWay's multi-application architecture enables utilities to utilize the same network infrastructure for distribution automation applications such as Volt/VAR optimization, fault isolation, detection and restoration and intelligent switching.

**SOLUTION ARCHITECTURE**





### Reliability and Outage Management

OpenWay's robust grid-sensing capabilities and low-latency network performance provide a powerful new stream of data and expanded grid awareness that enables utilities to operate their distribution systems more reliably and efficiently. OpenWay meters provide positive outage notification signals when a power outage occurs and restoration verification when power is restored, enabling utilities to detect and understand the scope of the outage sooner, increase the speed of restoration and communicate with customers more effectively to improve outage response.

### Clean Energy Integration

With multi-application architecture and robust monitoring capabilities, the OpenWay network enables utilities to integrate more distributed and renewable energy resources onto the grid.

The network can be used both for solar asset monitoring and management, as well as to support grid stabilization practices. OpenWay also enables a fully AMI-integrated smart charging solution for electric vehicles that includes utility control capabilities to mitigate the localized impact of electric vehicle adoption on the distribution system.

### Harnessing Big Data

Timely and actionable data comprise the heart of the smart grid—so much so that the breadth of data generated by the smart grid necessitates a reimagining of data management tools. Big data creates real, measurable value. Itron's IEE MDM provides the industry's leading meter data management solution, tightly integrated with the OpenWay network, to manage the huge volumes of data that smart grid networks generate. We also provide Itron Analytics, a suite of analytic software applications that create value from that data by analyzing outage and voltage data to identify reliability problems, to monitor transformer loading, and identify energy diversion in theft to target field investigations more precisely.

### A Global Solution Partner

At Itron, we understand that the utility business is complex and evolving. Smart grid development has underscored the need for deep industry expertise and comprehensive solutions. Today, the power grid discussion is much broader. It must address the whole energy delivery system and business model, not just its component pieces. Itron's smart grid solution delivers real, quantifiable benefits—today and into the future. Our successes at numerous utilities, big and small, have validated the case for smart grid investment. As the single-source provider of end-to-end business solutions, we save you time and resources, while reducing your overall risk.



Itron is a global technology company. We build solutions that help utilities measure, monitor and manage energy and water. Our broad product portfolio includes electricity, gas, water and thermal energy measurement and control technology; communications systems; software; and professional services. With thousands of employees supporting nearly 8,000 utilities in more than 100 countries, Itron empowers utilities to responsibly and efficiently manage energy and water resources.

Join us in creating a more resourceful world; start here: [www.itron.com](http://www.itron.com)

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