

A smart water system puts you in control.

Solution brief

Grid Wide: Intelligent Water keeps you modernization ready.

Transforming an aging water system into a connected and intelligent system is an enormous task. Many utilities are heavily invested in existing infrastructure, and may also lack the expertise to connect and manage thousands of Internet of Things (IoT)-connected endpoints.

Still, upgrading is well worth it. Intelligent water systems provide near real-time data and enable remote monitoring, management and control, from the source through the distribution network. That means you can:

- Improve conservation
- Increase efficiency
- Improve quality of supply
- Reduce nonrevenue water
- Improve customer service

Verizon offers an end-to-end solution that makes it easy to get started. Grid Wide Utility Solutions: Intelligent Water is a fully scalable, secure, managed, hosted, cloud-based software platform as a service. It offers utility companies a cost-effective, efficient, easy on-ramp to intelligent water-system modernization through smart metering and distribution monitoring and control. With Grid Wide: Intelligent Water, you're ready to start managing your system smarter, by making faster, better-informed decisions.

How it works

Grid Wide: Intelligent Water is based upon a distributed, intelligent software platform that has an integrated security framework to provide strong digital identity for users, systems and devices. It also delivers both application- and network-level security services. The secure policy-based management and control capabilities allow you to efficiently and cost-effectively provision, configure, monitor, manage, control and read utility distribution network devices remotely, as well as create, deploy and manage policies. These are then dynamically assigned and deployed to targeted smart meters or IoT gateways for local policy enforcement.

Data is transmitted via point-to-multipoint topology over a variety of open and proprietary wireless protocols from smart meters and sensors to the IoT gateways or electric meters. It then moves across the Verizon 4G LTE wireless network on the Verizon Private IP wide area network to the Grid Wide: Intelligent Water application, which is fully managed in the Verizon Cloud. Insights from the data can help you better manage:

- Quality of supply
- Leaks and anomalies
- Water consumption
- Water system infrastructure
- Distribution network assets
- Workforce and operations

Grid Wide: Intelligent Water solutions



Water Smart Metering

Verizon has simplified smart metering by integrating all of the essential hardware, software, open and proprietary protocols, and 4G LTE components into a single, cloud-based IoT platform-as-a-service solution.

Verizon Grid Wide: Water Smart Metering provides:

- **Meter reading and control**
Obtain billing and operational meter data; manage service connects and disconnects
- **Leak detection and isolation notifications**
Accurately pinpoint leaks in near real time, lower nonrevenue water and increase overall customer satisfaction
- **Actionable insights**
Access scheduled and on-demand data in industry-standard formats, monitor consumption and quality-of-water-supply information, and detect events and failures in near real time



Distribution Monitoring and Control

Near real-time data empowers you to quickly make adjustments and better manage resources in changing conditions. Our Distribution Monitoring and Control (DM&C) solution gives you a clearer view into your operations, offering invaluable information from water system assets like switches and sensors.

Verizon Grid Wide: DM&C offers you:

- **Remote monitoring and control**
Collect and use near real-time operational data to improve service reliability and quality of supply, while driving proactive maintenance versus reactive repair
- **Leak detection, location and isolation**
Quickly identify issues to decrease the duration and the number of customers affected
- **Asset management**
Monitor equipment and other assets to keep them running optimally, extend asset life span and upgrade based upon service versus time



Integrated Reporting and Data Analytics

Instant SMS and email alert notifications can be sent to specified users when defined events and conditions occur within the network. In addition, an intuitive service event monitor can be used to accurately visualize and pinpoint utility supply events and conditions within the distribution networks. These advanced features can be integrated with your field operations and communications systems to provide near real-time utility-supply event and conditions information to network operations staff and field crews.

Verizon Grid Wide: Integrated Reporting and Data Analytics provides:

- **Dashboards**
Near real-time actionable information to gain insights into water supply conditions to improve management
- **Event notification and reporting**
Detect leaks, backflow events and no-flow events to protect water supply quality, lower nonrevenue water and enable conservation and sustainability



Security Infrastructure Services

Our Security Infrastructure Services helps utilities identify and mitigate risks to your infrastructure and devices.

Verizon Security Infrastructure Services provides:

- Public Key Infrastructure (PKI) and Pre-Shared Key (PSK) service
- Solutions to provision and manage digital identity of managed devices
- Digital signing and authenticity services



Simplified deployment

Grid Wide: Intelligent Water is a fully managed as-a-service model, hosted on the Verizon Cloud. By integrating all of the technologies you need for successful water systems modernization, we've saved you the complexities and cost of building your own solution. Low capital investments in software, platforms, networks or communications equipment like routers, firewalls and servers. No time spent staffing and training an IT/OT team.



Better results

For the first time, you get actual data on what's happening system-wide. Grid Wide: Intelligent Water collects data, securely transmits it, provides actionable insights and enables you to make better-informed decisions. The solution includes preconfigured data and analytics dashboards to manage usage anomalies, detect leaks and tampering, and reduce water loss.

With better data, you can keep customers informed, improve customer service and dispatch field workers for preventative maintenance. Plus you can use Grid Wide data for future growth planning, and for developing water management programs to further improve service and lower costs.



Low capital investment

Grid Wide: Intelligent Water also offers predictable pricing per meter per month—not the capital expenditure you might expect. You can implement smart meters as part of your normal swap-out plan.

Or you can ramp up faster, depending on your budget. The service-based model means you can begin modernizing problem areas right away on a pay-as-you-go basis, rather than putting off all updates until larger capital budgets are approved. Verizon has built and manages this solution for you, so you don't have to invest in development and management.

Simplify your water system modernization with the Verizon IoT Gateway.

The Verizon IoT Gateway is an intelligent device that is fully integrated with the Grid Wide platform, helping water utilities connect, manage, optimize and control distribution network devices. The gateway supports open standards and technologies, with open interfaces providing support for proprietary water-meter-reading protocols, helping with scalability and avoiding proprietary technology lock-in.

Why Verizon

When it comes to modernizing your water system, the network matters. We offer America's largest and most reliable 4G LTE network. Our network was rated #1 in overall network performance in the U.S. 12 times in a row by RootMetrics.¹



Ninety-seven percent of the Fortune 500 rely on our services and technologies.² More businesses choose Verizon than any other wireless carrier.

More coverage, fast speeds and reliable connections. So you can connect what's important, with help from a trusted partner. Verizon.

Learn more:

To learn more about Grid Wide: Intelligent Water, please contact your Verizon Wireless business specialist or visit verizon.com/wireless



¹ Rankings based on the RootMetrics® U.S. National RootScore Report: 1H 2019. Tested with best commercially available smartphones on four national mobile networks across all available network types. Your experiences may vary. The RootMetrics award is not an endorsement of Verizon. Visit www.rootmetrics.com for more details.

² Internal Verizon research.