

# Easily modernize your gas system.

And help conserve precious natural resources along the way.



With demand for natural gas on the rise and 2.1 million miles<sup>1</sup> of aging distribution infrastructure needing to be replaced, utilities are looking to the internet of things (IoT) to evolve the industry. But there are challenges. If you're heavily invested in existing infrastructure, you've had to put off upgrades, and you may not have enough IT staff with the expertise to support intelligent systems.

Despite the challenges, IoT promises near real-time data and newfound visibility that can transform operations. Best of all, intelligent solutions let you pay as you go. Focus on problem areas first, and upgrade your services as you need them. Verizon Grid Wide Utility Solutions: Intelligent Gas makes it easy to get started, providing a fully managed, scalable, secure, hosted, cloud-based platform-as-a-service model. It's a cost-effective, efficient way to modernize your gas system with smart metering, meter data management, and distribution monitoring and control.

## How it works

Intelligent Gas makes it easier to manage and remotely monitor your system, so you won't need to send workers into the field to deal with every problem.

You can conserve resources and identify anomalies that help pinpoint issues with high usage, tampering, flow and pressure, which also helps improve meter reading safety.

Intelligent Gas lets you see what's happening across your gas system. So you can react quickly and get on top of issues before they become problems. This can help save time, money, manpower and precious natural resources. You can help customers stay better informed. And you can also plan preventative maintenance.

With the Intelligent Gas solution, 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. Then data moves across the Verizon 4G LTE wireless network on the Verizon Private IP wide area network to the Grid Wide: Intelligent Gas application, which is fully managed in the Verizon Cloud.

Because it's a platform as a service, you won't have to reengineer your entire network to improve services. We have integrated technologies and options such as a managed, hosted cloud-based application, reliable 4G LTE and Private IP network communications, and a commercially proven IoT platform.

## Grid Wide: Intelligent Gas smart metering helps you with:

- **Meter reading and control (for obtaining billing and operational meter data).**
- **Pinpointing system anomalies, events and failures and receiving isolation notifications in near real time (lowering revenue loss and increasing customer satisfaction).**
- **Receiving actionable insights and data in industry-standard formats (including consumption monitoring and quality-of-supply information).**
- **Conservation of precious natural resources.**
- **Compatibility with existing infrastructure.**

## 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.

**Intelligent Gas helps you:**

- Conserve natural resources.
- Control costs and lower expenditures.
- Lessen the burden on IT staff.
- Improve grid-wide visibility.
- Increase operational efficiencies.
- Provide actionable insights.

**Meter Data Management**

Billing data collected from a meter has to be validated and verified to remove anomalies and to account for standard customer-usage patterns. Our optional Meter Data Management (MDM) service comes preintegrated with our Grid Wide: Intelligent Gas smart metering solution to deliver a complete meter-to-cash platform.

Intelligent Gas MDM offers you:

- On-time and accurate billing data.
- Supply and demand balancing.
- Data storage and integration.

**Distribution Monitoring and Control**

Having near real-time information and other key gas-supply data empowers you to quickly make adjustments to changing conditions. Our Distribution Monitoring and Control (DM&C) solution gives you a clearer view into your operations, offering invaluable information from gas system assets like switches and sensors.

Intelligent Gas DM&C offers you:

- Monitoring and control.
- Asset management.

**Integrated Reporting and Data Analytics**

How many times have you encountered customer service problems from high- usage anomalies, pressure or flow that you weren't aware of and would not have known about if not for a customer phone call?

With dashboards, integrated reporting, data analytics event alerts and notifications, you can increase your insight into your gas system, helping you to improve efficiency and customer service.

Intelligent Gas Integrated Reporting and Data Analytics can help you with:

- Smarter operations.
- Asset management.
- Predictive maintenance.
- Enhanced meter reading safety.
- Conservation efforts.

**Security Infrastructure Services**

The adoption of smart-grid digital technology delivers many cost-saving and conservation benefits, and with them cyber threats. Our Security Infrastructure Services can help you identify and mitigate risks to your infrastructure and devices, enhancing the overall safety of the grid.

Verizon Security Infrastructure Services provide:

- 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.

**Specify who receives notifications when anomalies are detected, and view system alerts on a map.**

**Simplified deployment**

We deliver Intelligent Gas as a fully managed service, which is hosted on Verizon Cloud. By integrating all of the technologies you need for successfully modernizing your gas system, we've saved you the complexities and cost of building your own solution. No upfront capital investments in software, platforms, networks or



communications equipment like routers, firewalls and servers. No time or cost spent staffing and training an IT or operational technology team.

**Better results**

For the first time, you get actual data on what's happening system-wide. Intelligent Gas collects data, securely transmits it, gives you actionable insights and helps you make near real-time business decisions using that data. The solution includes preconfigured data and analytics dashboards to help you manage and report on usage anomalies.

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

**Simplify the modernization of your gas distribution system with the Verizon IoT Gateway.**

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

**Low capital investment**

Intelligent Gas also includes 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.

**Why Verizon**

When it comes to modernizing your gas system, the network matters. We offer America’s largest, most reliable 4G LTE network. Our network was rated number one in overall network performance for the sixth consecutive testing period among the four national wireless companies in the United States by RootMetrics in its National RootScore® Report.<sup>2</sup> In fact, 98% of the Fortune 500 rely on our services and technologies.<sup>3</sup> More businesses choose Verizon than any other wireless carrier.<sup>4</sup>

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 Gas, please contact your Verizon Wireless business specialist.

---

 [VerizonEnterprise.com/gridwide](https://VerizonEnterprise.com/gridwide)

1 *At a Glance*, American Gas Association. <https://www.aga.org/at-a-glance>

2 Rankings based on the RootMetrics® U.S. National RootScore Report: 1H 2016. 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](http://www.rootmetrics.com) for more details.

3 Verizon internal research.

4 Results based on an independent research study of 7,414 business locations using corporate-liable wireless service. Telephone interviews were conducted between 2Q2015 and 1Q2016 with the employee most knowledgeable of telecommunications service.