



## Five Ways to Level-Up your Utility's Game Using the Power of Real-Time Water Intelligence

*How advanced analytics will drive competitive advantage for service providers.*

America's utilities are facing unprecedented challenges: just [one in six](#) service providers say they're ready to meet their customers' long-term water needs, and only [one-fifth](#) are able to fully cover the cost of existing services from current fees and water rate revenues.

With an [additional \\$625 billion](#) in new investments needed over the next 20 years to maintain America's aging water infrastructure, three-quarters of utilities are now [planning water rate increases](#). That, in turn, is straining relationships with both commercial and residential customers who are themselves struggling with inflation and economic turbulence.

Digital technologies offer a path forward, enabling utilities to do more with less, unlock new efficiencies, and work more productively to deliver reliable and cost-effective water services for everyone.

But while 55% of utility executives say digitization is a top priority, fewer than [one-fifth of utilities](#) are currently prioritizing investments in digital solutions. For many utilities, unlocking the full potential of next-generation technologies like AI and advanced analytics remains a challenge.

*Fewer than one fifth of utilities are investing in digital solutions.*

At Metron, we've been working for decades to bring the latest smart metering solutions and digital technologies to utilities of all sizes. We've identified five key areas where smart technologies and advanced analytics can drive immediate value for utilities and their customers—without requiring service providers to upskill existing teams, dedicate scarce resources to new projects, or make costly infrastructure investments.

## 5 Key Value-Drivers for Utilities

Many utilities are already transitioning from old-school analog meters, which need to be read manually by work crews, toward smart sensors that digitally track and report water flow. The best smart monitoring systems operate around the clock, delivering minute-by-minute water data to provide detailed visibility into how and where water is being consumed.

Combined with advanced analytics, that data enables utilities to gain powerful new insights across their operations—and to drive new value for customers, too. At Metron, we call this water intelligence, and it's a powerful driver of competitive advantage for utilities of all sizes.

Let's dig into the key benefits that smart monitoring and water intelligence can unlock for modern utility companies.

### 1. Identify leaks with pinpoint precision

For many utilities, the most immediate and powerful benefit of water intelligence is the ability to proactively monitor the health of their water infrastructure—without needing to manually inspect each and every pipe or fixture.

With advanced analytics powered by precise, minute-by-minute water flow data, it's possible to identify leaks almost instantly. Instead of sending work crews from location to location checking for problems, utilities can detect leaks by tracking the unique data signatures that reveal anything from a broken water main to a leaky faucet or stuck toilet in a customer's home. That means work crews can be sent directly to where they're most needed—with all the information they need to rapidly fix leaks and move on to other tasks.

Granular real-time data also means far fewer false positives. Some smart monitoring solutions use daily or hourly water-flow data, enabling them to identify a possible leak but also leading to many legitimate water uses—such as an extra irrigation cycle, or even a customer taking an unusually long shower—being flagged as possible leaks, forcing work crews to manually check a long list of possible incidents. With Metron's minute-by-minute water intelligence, such errors are a thing of the past: problems can be detected, diagnosed, and validated from a computer, with no need to send teams into the field to manually check infrastructure. Combined with accurate intelligence about leak location, that allows work crews to operate far more efficiently—and drives up to a 90% reduction in total work order volume.



### 2. Improve customer relationships

Managing customer relationships and fielding complaints or inquiries is a big part of every utility company's daily workflow. Water intelligence can dramatically streamline that process, reducing friction for both customers and utility employees.

First, water intelligence gives customers access to their own usage data in less than 24 hours: no need to wait around for a monthly or quarterly bill before seeing how much water is being consumed. That alone can significantly reduce customer inquiries, since customers can self-serve much of the information they need about their water consumption. It also means fewer complaints, since there are no nasty surprises. If a customer is using more water than they expected, they get notified fast—and can turn off their sprinkler system or take other measures to cut usage before getting a plus-sized bill.

Second, water intelligence offers complete transparency. Customers are rightly suspicious when they get big bills that unexpectedly state they've used large amounts of water, and it's common for homeowners to insist there must be some problem with their meter. With water intelligence, customers can see for themselves where every drop of water went, and exactly when it was used. That enables utility companies to build trust by explaining clearly to customers why their bills worked out the way they did, and what steps they can use in future to take control of their water bills.

Third, granular water intelligence lets utilities proactively alert customers about potential leaks, and offer concrete guidance about how to locate and fix the leak. Advanced analytics can automatically identify a leaky tap, a stuck toilet, or a badly programmed sprinkler system, giving customers clear answers about how to fix their leaks. The result: quicker repairs by homeowners, less water going to waste, and far better relationships between utilities and customers.

### 3. Stop unauthorized usage in its tracks

Sometimes, water utilities need to turn off a property's water supply—whether it's because a property is standing vacant, or because a long series of bills have gone unpaid. But what happens if water use continues, such as when a resident clips the lock on their meter, or if people unexpectedly occupy a building the owner thought was empty?

In many cases, unauthorized water consumption isn't noticed until the next monthly or quarterly meter reading, or even until a new bill arrives. Often, unauthorized usage goes unnoticed for 45 days or more, leading to substantial water consumption for which utilities will likely never be reimbursed—or substantial bills for owners or landlords on properties they had assumed were completely unoccupied.

With active water intelligence, such concerns are a thing of the past. Minute-by-minute smart monitoring means that unauthorized water usage can be flagged almost instantly, enabling meters to be properly secured and property owners to be promptly notified of unexpected water consumption. Because such problems can be identified and checked from a computer, many concerns can be resolved in seconds or minutes—with no need to send out overburdened work crews to knock on doors or double-check a meter reading.

*Property owners can be promptly notified of unexpected water consumption.*

#### 4. Manage conservation without driving up costs

Utilities are increasingly on the front lines as communities seek to conserve limited water resources—but upgrading infrastructure to reduce waste can be expensive and time-consuming.

With water intelligence, utilities can often meet their regulatory obligations and manage water conservation effectively without substantial infrastructure investments. When California recently began requiring separate zoned metering for indoor and outdoor water consumption, for instance, many utilities embarked on a costly and disruptive process of adding additional outdoor meters to thousands of residential and commercial properties in their networks.

With water intelligence, however, it's possible to accurately differentiate indoor and outdoor water usage based solely on detailed flow data from a single smart meter. That enables utilities to comply with state regulations simply by tweaking software settings—with no need to send work crews around to dig up customers' lawns and install additional outdoor meters for the properties they supply.



#### 5. Put an end to irrigation violations

Outdoor irrigation remains one of the biggest sources of water consumption, accounting for over one-third of all water usage in the United States. That's led many jurisdictions to implement mandatory limits on domestic and commercial irrigation—but at present, many utility customers still fail to comply with conservation rules. That can lead to substantial excess water use, making it virtually impossible for utilities to meet their conservation goals—and, in some cases, even leaving them open to regulatory action.

Water intelligence allows utilities to take control of the process by identifying irrigation events on a property-by-property basis. Armed with clear records about irrigation events, utility teams can then reach out to customers to clarify the rules, help customers program timers or schedule irrigation events appropriately, and take further action as needed. Excessive irrigation no longer flies under the radar—it can be detected and addressed rapidly to ensure that everyone plays by the rules.

The potential water savings can be significant. In one California city, for instance, only biweekly irrigation was permitted—but after enabling water intelligence, it became apparent that almost 80% of customers were breaking the rules, with many running their irrigation systems almost continuously. Using smart monitoring, the utility was able to begin systematically reaching out to customers and reducing improper irrigation, helping to rapidly reduce water consumption by over 12 million gallons per week.

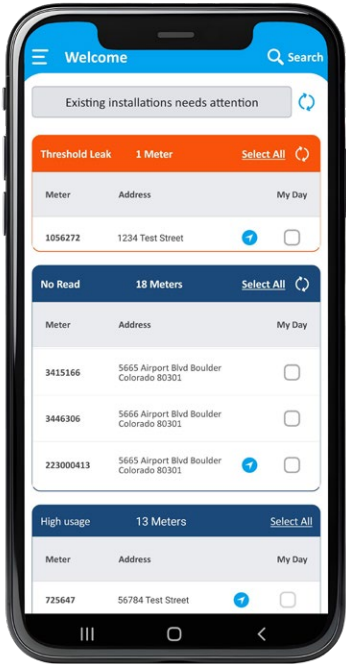
## Making Advanced Analytics Easy for Utilities

At Metron, we believe that water intelligence can be transformative for utilities of all sizes. But we also know that utilities are working at capacity, and that utility leaders often lack the time and resources to utilize smart sensors and advanced analytics to their full potential.

That’s why we’ve created [WaterMasters™](#), an affordable membership program that gives utilities access to Metron’s team of experts. A dedicated Metron analyst regularly reviews the utility’s water data, and provides customized alerts and actionable insights by phone or email—and also highlights opportunities to proactively unlock cost savings and new efficiencies.

We’ve also created [WaterScope Utility](#), an app which unlocks the power of water intelligence for work crews. Available for both iOS and Android devices, WaterScope Utility gives teams a powerful but intuitive toolkit, enabling them to monitor smart sensors, locate leaks, and add photos and notes to customer files while in the field. With full integration between WaterMasters and WaterScope, utilities can authorize their Metron analyst to proactively schedule work orders and push notifications to field teams, helping to ensure that crews rapidly respond to major leaks or other urgent issues.

The bottom line: for utilities, water intelligence has never been needed more—and activating the power of advanced analytics has never been easier. Get in touch with Metron and learn how your organization can use emerging digital technologies to boost productivity, improve customer relationships, and futureproof its operations.



WaterScope Utility app

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