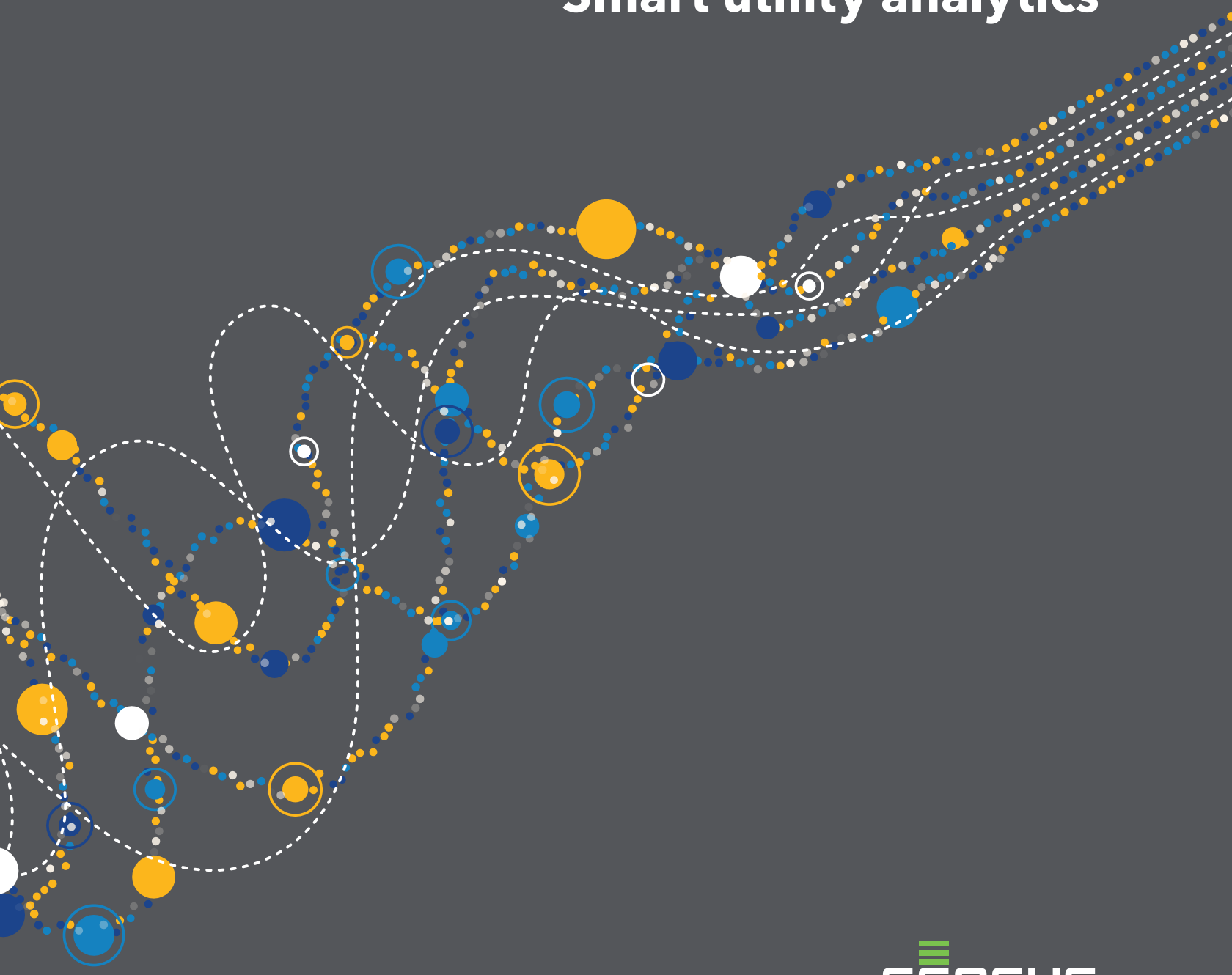
Nothing's out of reach.

CUSTOMER SUCCESS

Smart utility analytics



SENSUS
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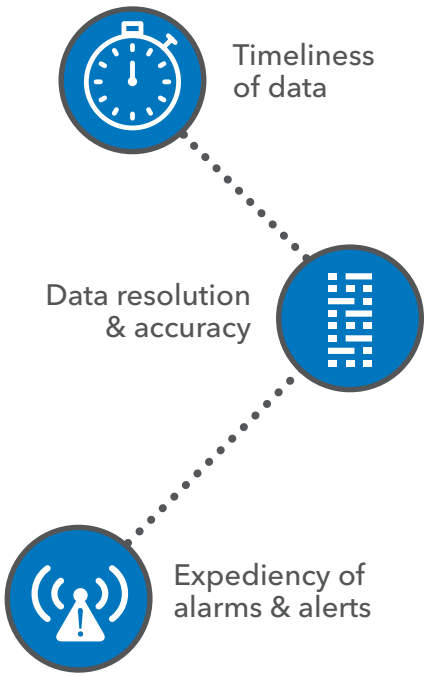
Top benefits of an analytics solution for smart utilities



"Big data" is a buzzword used across almost every industry to describe the massive amount of digital information collected in order to discover business or customer patterns, trends and connections. But data for data's sake doesn't provide much significance to the collector. Value is created by real-time processing and sorting of this information to deliver actionable insights.

As technology continues to transform the way essential resources are delivered, monitored and billed, utilities are growing increasingly smarter. Data collection from smart meters and sensors, transmitted across a smart communication network, provides an incredible opportunity to optimize operations, improve the customer experience and grow revenue. But the same "data dilemma" exists as in other industries: this smart data must be sorted for relevance and application—or all that technology-generated potential goes to waste.

Analytics software enables smart

Aggregating, sorting and dispensing utility data to generate actionable insights is the purpose of analytics software. According to Ryan Roberts, software product manager at Sensus, "As communication network technology provides the capacity to deliver real-time, two-way data, utilities can implement analytics software to harness the power of all this information, creating smart value that goes well beyond customer usage."

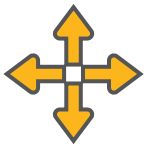
Because most utilities don't have a data scientist or statistician to analyze the incoming data, an analytics software solution should provide actionable data without the utility needing experts on staff—or the associated expenses. Analytics software provides value across the utility, from the meter shop to billing to customer service. According to Roberts, the top benefits fall into three main categories: data timeliness, resolution and accuracy of data, and alarm/alert expediency. "With an analytics solution in place, granular data is immediately available to make well-informed, timely decisions," Roberts says. "Plus, if something is going wrong, that information shows up on the customer's cellphone right away—not a day later."

Whether they're using gas, water or electricity, utility customers want to know usage data by the hour in order to have the ability to assess efficiencies, be notified of problems and plan for future needs. The entire business benefits, as meaningful data drives expansion planning, rate analysis and customer engagement. Plus, utilities can identify vulnerabilities in infrastructure or distribution design, implementing improvements before break-fix situations occur. "Some utilities have a single customer that generates 80% of their revenue," explains Roberts, "so it's imperative to see even slight pattern shifts. The smallest changes equate to a lot of money."

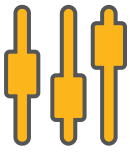
Five key factors to consider when choosing utility analytics software:

Flexibility

Interoperability



Scalability



Customization

Simplicity

Until about 15 years ago, obtaining utility data could be, well, dodgy. Whether due to human mistakes, mechanical errors or network insufficiencies, data corrections had to be made to ensure the data was usable. Typically, this entailed a meter data management (MDM) system. But today a network, especially a point-to-multipoint communication network, brings in much more accurate data. "Because coverage is better and the data is more accurate and timely, data management has to be more refined as well," says Roberts. When combined with the right network, analytics software significantly reduces operations costs. "A utility only needed MDM to fill information gaps when their network is not reliable and robust."

A key example is legacy VEE (Validation, Estimation and Editing). According to Roberts, "A utility can invest $1 million to $2 million each year to sustain a VEE that covers gaps in inaccuracy. Or it could spend the same amount of money on improved infrastructure and get 99.5% accurate reads. It's kind of a no-brainer."

Evaluating analytics software

When it comes to choosing from utility analytics software on the market today, there are five key factors to consider among vendors.

1. Flexibility: Utilities must be able to determine software functions to meet their unique needs by offering prescriptive and custom reports to view various data relationships based on areas, meters and more.

2. Interoperability: This is the ability to collect and process data from systems and sensors outside of meters. A perfect example is the implementation of stormwater sensors on dams to assess lake-level data.

3. Scalability: The solution should have the capacity to grow with utility complexity, customer increase, area expansion, etc., as well as scale with feature advancements and smart city applications.

4. Customization: The ideal solution offers just the right fit for the customer's requirements. The utility should be able to purchase just what the customer needs, no more.

5. Simplicity: Is the solution usable right out of the box? An analytics software solution should be user-friendly, easy to install and deployable with minimal expense.

"A city can have meters and sensors on everything and get data from all of them. But if that data is not being aggregated in a relevant way, it is not actionable. Actionable data is the key to a smart city. And analytics is the key to actionable data."

RYAN ROBERTS
Software product manager
Sensus

Making the case for analytics software

Municipalities and utilities need an analytics solution to optimize their incoming data. But how can a case be built to convince key stakeholders? "Simply put, it's a matter of looking back and then looking forward to present the facts," says Roberts. "When you assess issues that have already occurred, you can evaluate the ROI of having the right data, formatted the right way. The financial, safety and customer service impacts can be clearly presented based on what could have been."

Usage can be segregated by service, by user and by consumption. So when looking ahead to future decisions, utilities can customize reports for the necessary data to justify rate changes or tiered billing. The customer service team can have all the aggregated data at their fingertips, so when calls come in, they can point directly to a day–and hour–and immediately remedy the concern. The reports also provide the ability to be proactive with customers, which markedly improves customer satisfaction.

"Most communities are now crying out for smart city applications, and analytics software is the backbone for the success of smart," says Roberts. "A city can have meters and sensors on everything and get data from all of them. But if that data is not being aggregated in a relevant way, it is not actionable. Actionable data is the key to a smart city. And analytics is the key to actionable data." Because the right analytics solution can sort and report on data from across utilities and break down the typical silos, every aspect of a community's infrastructure can work together for a truly smart city.

Data trends for every utility

Big data is here to stay. And utilities must take advantage of the information that comes from processing their data in relevant ways. Customers–utilities and end-users–want to better manage their resources. So moving actionable data into their hands aligns with our current technology culture and consumer expectations. And it simply creates a better customer experience at all levels.

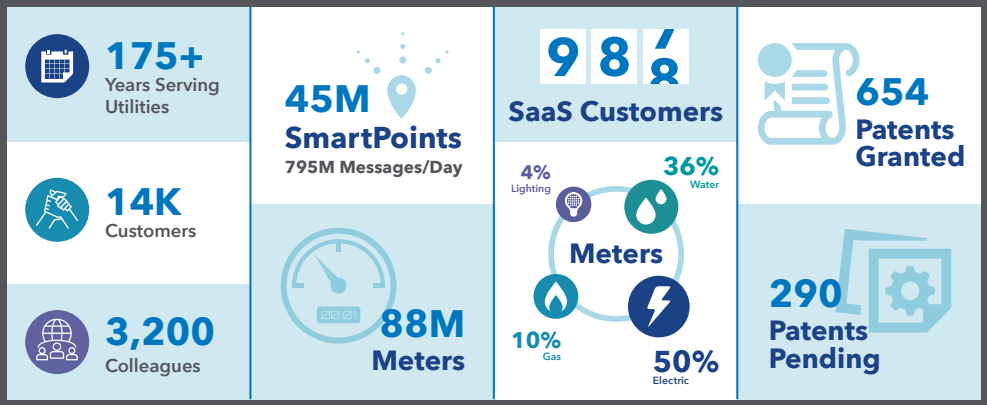
The other issue that is growing rapidly across utilities is compliance. "Government regulations are changing, and compliance is becoming mandatory," explains Roberts. "Utilities have to know their data in order to remain in line with federal and state directives."

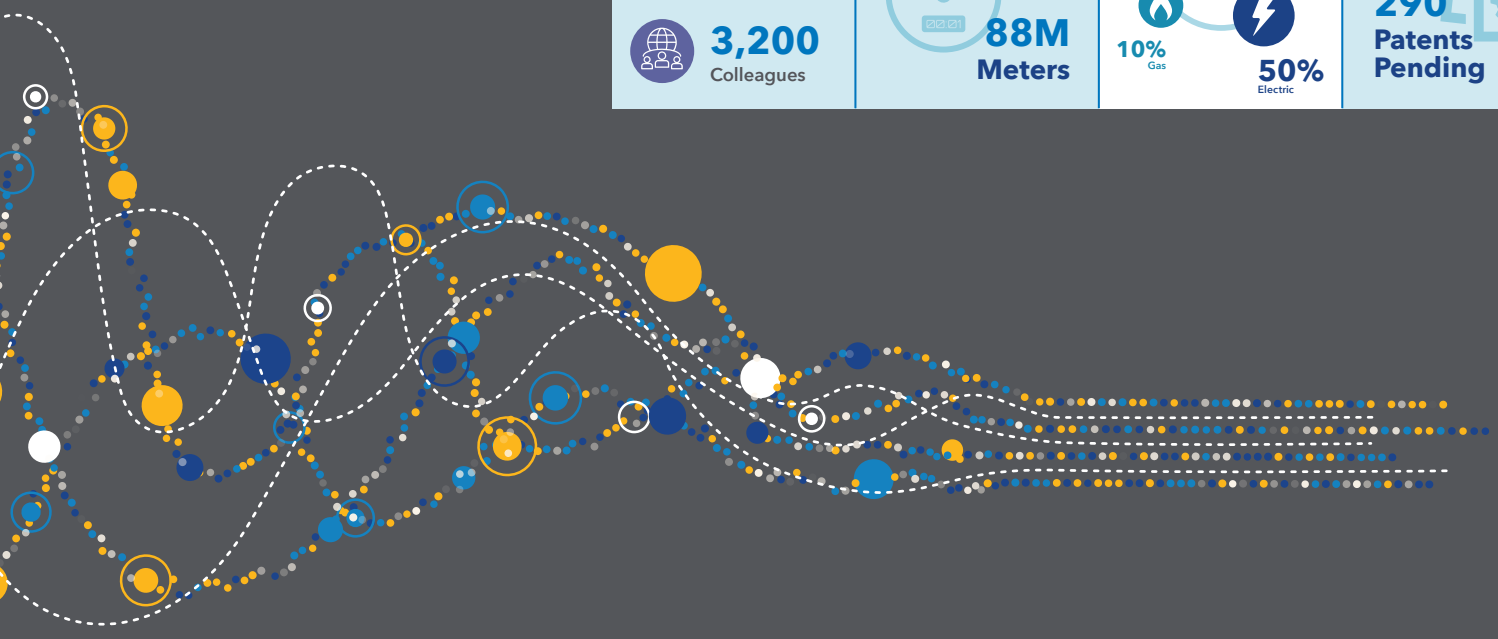
Finally, whether it involves the grid, water or gas, disaster preparation and planning is on the forefront of every municipality. Using data from a municipality's smart utility network, an analytics software solution is the ideal foundation for better asset utilization when crisis strikes–and for everyday efficiency and customer service.

About Sensus

Sensus, a Xylem brand, helps a wide range of public service providers–from utilities to cities to industrial complexes and campuses–do more with their infrastructure to improve quality of life in their communities. We enable our customers to reach farther through the application of technology and data-driven insights that deliver efficiency and responsiveness. We partner with them to anticipate and respond to evolving business needs with innovation in sensing and communications technologies, data analytics and services. Learn more at sensus.com and follow us on Facebook, LinkedIn and Twitter through @sensusglobal.

Sensus by the numbers





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