Smart Water Solution Delivers Cost Savings And Improved Efficiency For Multi-Service Utilities

Master Meter and Silver Spring Networks bring proven technology to multi-application networks.

City Utilities of Springfield, MO, a multi-service utility delivering electricity, natural gas, and water services to more than 106,000 customers, needed a way to provide timely data about consumption and efficiency to customers across its three different service offerings. While existing technology offered visibility into gas and electricity consumption for the utility and its customers, the options for managing water usage were limited.

City Utilities selected Silver Spring Networks, a leading platform and solutions provider for smart grid and smart energy networks, to deploy a smart grid triple play: an advanced metering infrastructure (AMI) that would help the utility improve operational efficiencies across all three of its service offerings while empowering City Utilities' residential and commercial customers to make better energy and water usage decisions.

"City Utilities was looking for a single, overall solution that would allow them to manage all services," said Josh Roper, VP of product management and advanced metering for Silver Spring Networks. "They didn't want to deploy multiple networks. As they change the way they read meters and access that usage data, they didn't want to have to continue to read water meters manually."

Solution

Silver Spring Networks already offered a state-of-the-art consumer portal that allowed utilities' customers to track and manage gas and electricity usage. To extend the functionality from gas and electric metering to water metering, Silver Spring partnered with Master Meter to create technology that would give customers the all-in-one solution they were looking for.

"We had identified Master Meter as a leading meter manufacturer, and their metering solutions impressed us from a hardware and technology perspective," said Helen Park, director of strategic alliances for Silver Spring Networks. "They had deep experience running AMI and AMR [automatic meter reading] water-only networks, and they were looking to partner with a company with a strong networking customer base, so the partnership was a natural fit."

The partnership incorporates Master Meter's proven advanced water metering products with Silver Spring's existing multi-application network, creating a comprehensive solution that allows utilities to easily track and bill their customers through a single reliable, secure network. Master Meter's products are easily retrofitted to almost any existing water meter, resulting in a simple, fast, and wireless installation process with no programming or special tools required by the installer.

For the new smart water solution, Silver Spring embedded its communication

protocol into Master Meter's Interpreter Universal AMR register, an all-digital LCD encoder register that replaces the original basic manual read register on almost any meter and allows wireless connection with water meters in the field.

The partnership connects end users in near real-time with data previously only available to utility managers, allowing customers to track usage history and accurately predict monthly expenses. Both residential and commercial customers will be able to download an app to monitor up-to-date usage and costs throughout the month instead of waiting to review their usage information after the fact.

Data from the Master Meter Interpreter register travels over Silver Spring's IPv6 capable network, a powerful smart-grid system that delivers speeds up to 1.2 Mbps while maintaining ubiquitous coverage and reliability. The network is secure from end-to-end, going beyond basic data encryption to provide

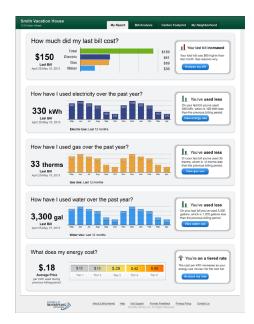tamper protection and device and user authentication.

Result

Utilities that serve water customers in addition to electric and gas customers now have a single fully integrated solution for conveying usage information back to the consumer.

The partnership between Master Meter and Silver Spring Networks consolidates AMI infrastructure, eliminates redundant networks, and improves overall operational efficiency. And while the partnership itself is new, customers appreciate that the technology behind it is well-proven, reliable, and stable on both the register side and the network side.

"Our partnership with Silver Spring provides a smart water solution that combines all the best attributes available in AMI today," said Tim Schwartz, product manager for Master Meter. "The pairing of Silver Spring's fast, secure AMI infrastructure with Master Meter's patented universal under-the-glass interpreter technology results in a flexible, dependable AMI solution."

The new smart water solution delivers cost savings for utilities by providing rich data that allows them to manage usage trends, quickly identify and respond to leaks that waste both water and money, and proactively manage water to achieve operational savings.

"Including Master Meter's advanced water metering with Silver Spring's multi-application networking platform helps us to improve service reliability, increase efficiency, and reduce operational costs across our three different services," said Scott Miller, general manager, City Utilities. "Managing water, gas, and electric meters within a single network allows City Utilities to give our customers better insight into their energy and water usage so that they can in turn manage their own costs." ■

About Master Meter

Based in Mansfield, TX, Master Meter, Inc. is a primary manufacturer of precise measurement and advanced meter infrastructure (AMI) technology designed to help the water utility industry run more efficiently. Master Meter is dedicated to creating efficient and effective solutions that improve utility performance through smart product innovations. Our completely integrated measure/collect/manage solution allows water utilities to better serve customers, capture more revenue, and proactively combat resource loss from leaks, theft, and meter malfunction. Our continued expansion of alliances and technology partnerships with companies such as a GE, Itron, Aclara, and Landis+Gyr, reflect Master Meter's solid position among other top-tier industry leaders. For more information, visit www.mastermeter.com.

About Silver Spring Networks

Silver Spring Networks is a leading networking platform and solutions provider for smart energy networks. Silver Spring's pioneering IPv6 networking platform, with over 19 million Silver Spring enabled devices delivered, is connecting utilities to homes and business throughout the world with the goal of achieving greater energy efficiency for the planet. Silver Spring's innovative solutions enable utilities to gain operational efficiencies, improve grid reliability, and empower consumers to monitor and manage energy consumption. Silver Spring Networks' customers include major utilities around the globe such as Baltimore Gas & Electric, CitiPower & Powercor, Commonwealth Edison, CPS Energy, Florida Power & Light, Jemena Electricity Networks Limited, Pacific Gas & Electric, Pepco Holdings, Progress Energy, and Singapore Power, among others. To learn more, please visit www.silverspringnet.com.