OVER-THE-AIR (OTA) OPTIMIZATION

Upgrading the electric meters of a major North American utility company required Honeywell's technological innovation and expertise.

Case Study

Honeywell

OVERVIEW

Without replacing its existing metering infrastructure, a prominent North American utility company wanted to upfit its electric meters with enhanced network compatibility and functionality. With these characteristics in mind, coupled with the desire to improve performance, process and communication across operations, the utility company needed to transition from its drive-by EnergyAxis (EA_LAN) network to the latest EnergyAxis IPV6 SynergyNet (SN) AMI network. Unsure of how to move forward, they contacted Honeywell for a solution.

BACKGROUND

Honeywell evaluated the situation and quickly realized that the utility's mix of meters primarily consisted of REXUniversal (REXU) residential meters with EA_LAN network programming. REXU meters are fully compatible with both flavors of EnergyAxis (EA) AMI Network, EA_LAN and SN, and are equipped with firmware that is fully upgradeable over the air. This allows for automated data collection and advanced capabilities on any Honeywell AMI network.

Because the utility did not have an AMI network system in place, however, their operations were limited to the drive-by version of the EA_LAN network. Even though their meters were fully EnergyAxis AMI-compatible, they had to dispatch personnel for manual meter reads. And as they began to scale, the utility realized it was a timely, costly and unsustainable method of monitoring a meter's data collection, performance and connection.

To eliminate cumbersome operability in favor of cutting-edge capabilities, take advantage of REXU's full potential and help migrate the meters to a fully autonomous IPV6 SN AMI network, Honeywell recommended the provisioning of the REXU meters onto Connexo NetSense – the Meter Data Collection (MDC) system. Connexo NetSense is a web-based head-end system that offers utilities simple deployment and full remote metering operations with visibility into network activity and health to protect against outages. It also integrates data, workflows and business processes for the greatest possible coverage across a utility.

NEXT-GEN COMMUNICATION

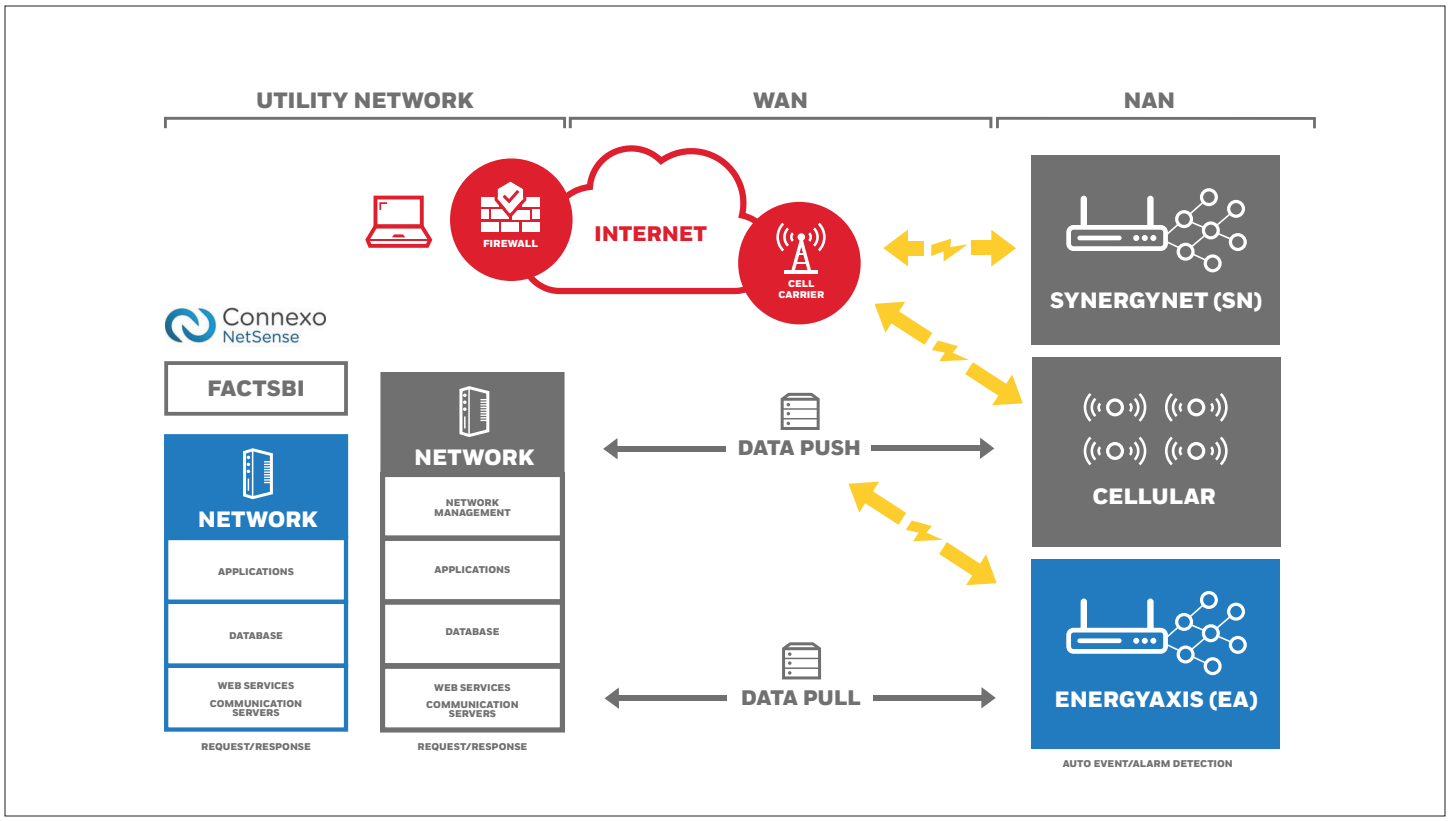
In addition to NetSense, Honeywell introduced the Next-Generation Gatekeeper (NGGK) as a migration strategy to move from legacy EA_LAN to IPV6 SN networks. This device is the intelligent interface to the Connexo NetSense head-end and supports EA_LAN or SynergyNet IPV6. It also supports electric, water and gas endpoints, as well as smart grid sensing and control devices.

For this utility, through the Connexo Netsense platform and via the NGGK, Honeywell engineers are now able to push specially developed firmware completely over the air to targeted sets of REXU meters and make them SN-compatible. Once single-function devices, the Next-Generation Gatekeeper is a dual-acting device that speaks to both EA_LAN and SN networks and makes the electric meters' transition to SN possible.

It is important to note that OTA upgrades and metering communications will evolve over the life of the network; Honeywell's AMI solution will allow for that evolution while ensuring endpoint network functionality remains intact.

THE RESULTS

Moving to SN enabled the REXU meters to perform optimally. Made possible because of the dual-network NGGK, the new network significantly enhanced the connectivity and operability of the electric REXU meters with remote monitoring and control, daily reads and accurate data collection. Because of the ability to read and monitor meters remotely, connecting the meters to the cloud through Connexo NetSense all but removed the utility company's need for manual reads and truck rolls in favor of making a sustainable impact.



THE HONEYWELL WAY

Honeywell delivered a comprehensive, high-performing solution with complete visibility and connection to a major utility company with a residential metering challenge. In addition to extensive operational benefits, protecting existing metering infrastructure rather than replacing each meter saved the company from substantial capital costs. From the start of this project to the finish, Honeywell approached the situation with a strong commitment to innovation and achieved success for the company and its customers.

For more information
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