CASE HISTORY
SMART ENTERPRISE ENERGY MANAGEMENT FOR RETAILERS

PROJECT

A large telecommunications and wireless provider with multiple retail locations throughout North America wanted to improve their operational efficiencies, gain better management and control of their energy usage, manage outdated technology and have the ability to access enterprise-wide setpoint changes. This, coupled with a corporate commitment to cut their carbon footprint in half by 2020, required the client to standardize their energy management system. In addition to reducing kWh, the client insisted on implementing standardization and monitoring across its portfolio and engaging in smart building management practices corporate wide.

GOALS

Decrease energy costs and usage

Lower operating and maintenance costs

Effectively monitor and control various systems from a single, centralized system

Log operating data for existing enterprise reporting tools and do it in a timelier fashion

Develop standardized approach that can be replicated across the enterprise of stores

PAIN POINTS

The client was working with three disparate, legacy EMS of varying ages that were in place and already operating with HVAC, lighting and Indoor Air Quality (IAQ) systems, they had no access to global setpoints or enterprise level views, there was no enterprise management and central control, or the ability to script 100s of database changes quickly.

STRATEGY

Lynxspring and Facility Solutions Group (FSG), a Lynxspring Technology Solutions Partner, worked together to develop a strategy which addressed the clients vast number of stores and would provide a more efficient and effective process to connect, automate, integrate and improve visibility and access to the data within their operational assets (HVAC, lighting, etc.); be readily replicated across the enterprise of stores using normalization/benchmarking; effectively monitor and control the various systems from a single, centralized system; identify a software platform and hardware that would take the existing systems and consolidate them under one User Interface (UI) for monitoring and support, and allow for multiple applications and easy integration with Clarity™, FSG's analytics platform and full-service state-of-the-art remote monitoring center. In addition, a set of metrics and matrices were developed to ensure FSG was meeting the requirements to maximize efficiencies at all the retail stores (current and future) and to realize the full potential of an enterprise-wide solution.

LYNXSPRING®

About Lynxspring

Embracing open software and hardware platforms, Lynxspring develops, manufactures and distributes edge-to-enterprise solutions and IoT technology, to create more intelligent buildings, better energy management, equipment control and specialty machine-to-machine applications. Lynxspring technologies and solutions are simplifying connectivity, integration, interoperability, and data access and analysis from the edge to the enterprise. For more information about Lynxspring, visit www.lynxspring.com.

About Facility Solutions Group

Facility Solutions Group (FSG) is one of the nation's largest single-source providers of lighting and electrical products, electrical services, electrical construction, energy management solutions and signage. Established in 1982 and headquartered in Austin, Texas, FSG is supported by 23 operating locations across the United States. FSG conducts business in all 50 states, Canada and Puerto Rico.

The company's products and services enable customers to build, maintain, expand or upgrade their facility infrastructures, in scenarios ranging from new construction to remodels to ongoing operations. Our clients include large property owners and managers, commercial business, retail chains, general contractors, property developers, healthcare, financial, hospitality, educational, government entities, ESCO's, industrial, high-end residential and individual consumers. For more information about FSG, visit www.fsgi.com.

SOLUTION

With the strategy in place and to meet the clients' goals, a solution was designed utilizing Lynxspring technology and technical support consisting of the JENEsys® PC3000 Controller powered by the Niagara Framework® with a custom retail application, wireless thermostats and a Zigbee to BACnet gateway.

FSG customized a prioritized event-handling process to address EMS alarms and notifications, and as a result, now monitors the site-level EMS alarms for the client. The technology allows FSG to continuously monitor 84 points of data hourly, across all locations for the client and routinely test mechanical equipment remotely to assist vendors in planning preventative maintenance repairs. One such example is, FSG performs cooling tests to help identify underperforming HVAC units before they break down.

OUTCOME

With the successful initial deployment and integration in the client's retail stores, this telecommunications provider has been able to exceed its carbon intensity goal four years ahead of target, reporting a 54% reduction in the first quarter of 2016. In addition to meeting its carbon goal, the client reports an average reduction of 1,092,662 kWh per year and lower maintenance and operating costs.

WHAT'S NEXT

With 322 systems installed in stores, the project is on track to move that number to over 500 by the end of 2018. Furthermore, Lynxspring's recently released JENEsys® Edge™ 534, a new IoT, programmable controller that combines the Niagara Framework® with Lynxspring's Onyxx® platform, will be deployed in all new installations going forward.

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