

Lighting, Metering & Operational Intelligence

- Lower maintenance costs
- Consistent energy savings
- Global standardization
- Data-driven facilities management
- Better sustainability performance



BENEFITS

- High reliability of wireless mesh
- Unified platform for lighting, electrical, water, and refrigeration data
- Exceptional scalability
- Low cost per site deployment
- Strong support response and uptime
- Proven ability to integrate with and retrofit legacy systems
- Consistent delivery & visibility across departments
- Global design standards for energy-efficient, data-enabled warehouses

PROJECT SUMMARY

The Challenge

A global leader in wholesale retail sought a comprehensive solution to streamline several key operational challenges:

- 1. Aging and Fragmented Control Systems:** With multiple lighting controls, stand-alone water meters, and a patchwork of refrigeration and electrical sub-metering solutions, they faced high maintenance and replacement costs, limited visibility across sites, and no standardized reporting or analytics.
- 2. Need for Actionable Energy & Water Data:** Sustainability and operations teams needed energy insights across lighting, HVAC, and refrigeration, reliable water-use visibility for leak detection, and tools for enterprise-wide visibility and reporting. The solution had to scale across multiple locations for global deployment.
- 3. Rising Costs from Lighting Failures & Obsolete Systems:** Legacy controllers and early-generation LED drivers were failing, resulting in emergency replacements, inconsistent lighting schedules, and increased store disruption. They needed a secure, reliable, and easy-to-install system.

The Solution

The retailer partnered with Synapse to modernize lighting control, metering, and site visibility with a solution designed for the standards of energy-efficient, data-enabled warehouses, which included:

- **Wireless Lighting Controls at Scale:** A SimplySnap lighting control platform providing reliable wireless mesh networking, luminaire-level control with zoning and scheduling, photocell optimization, holiday and shutdown automation, and operational override logging.
- **Water Metering for Sustainability:** The world wide water-metering deployed by the retailer, includes a Synapse solution at 407 locations, featuring Synapse water metering nodes that join the Synapse mesh network, integration with AMR compatible water meters, one-minute interval readings, leak alerts via thresholds (per minute and per day), and a corporate water dashboard used daily by corporate, regional and warehouse teams, and integration with their Business Intelligence platform.
- **Electrical Monitoring:** For energy-efficient operations, the team delivered sub-metering for lighting, HVAC, and refrigeration, dashboards showing kW, power factor, load profiles, and monthly automated energy summaries.

The Results

The implementation of this solution transformed this national retailer's energy management operations with massive coverage across the portfolio: 481+ active Synapse-controlled locations, 758+ total facilities using water or electrical monitoring, and hundreds of legacy systems replaced.

- **Lighting Controls:** Reliable holiday shutdown schedules helped reduce energy consumption across hundreds of warehouses, as validated by monthly meter reports. Today, the majority of this retailer's North American warehouses operate on the Synapse platform.
- **Water Leak Prevention:** Immediate value produced from: Real-time alerts, daily and minute-by-minute thresholds, enterprise-wide visibility, faster leak response, and lower utility waste. Water metering has become one of the retailer's "most-used" dashboards.
- **Lower Maintenance Burden:** Wireless controls eliminated costly cable runs, enabled troubleshooting on long wired networks, and replaced unreliable legacy controllers. By using SimplySnap vendor-agnostic controls, the retailer can select multiple lighting vendors to help keep costs low.

