

Cooling the Middle of the Store to Heat up Sales



Situation: Shrinking revenues from the middle of the store

For years, a major U.S. grocery chain had largely taken the middle of their stores for granted — and they were not alone. Throughout the supermarket industry, all the action took place on the perimeter of stores. The chain had encircled their stores with new shopper-friendly delis, cheese shops, wine boutiques, bakeries and coffee stands complementing produce, fresh fish and butcher shops, and tall corridors of refrigeration cases. The middle of their stores? That's where you'd find shelves full of the same cans, boxes and jars of the dependable brands and staples you'd find in any grocery store.

However, in recent years the [chain had noticed a distressing sales trend](#). As the size of the middle of the store shrank, so did overall store revenues. The major brands saw sales of their dependable products dropping as much as 2.8 percent per quarter. In a low-margin industry, the grocery chain realized that they had to bring the pizzazz and flair of the perimeter right up the middle of the store to drive traffic and boost sales.

Their solution was to break up the aisles of shelving by bringing in new, low-profile refrigerated units showcasing exciting refrigerated products and packaging from major brands.

But as the chain evaluated their stores, they saw a major problem. Bringing refrigeration units into the middle would be easy. Keeping them working properly and monitoring their performance would be hard.

Challenge: Keeping your cool without tearing up the store

Maintaining consistent temperatures in low-profile, open-top refrigeration units exposed to ambient air is a constant challenge. But there's no room for compromise: keeping temperatures in a narrow, controlled range is an essential step for retailers in

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maintaining food quality and safety. Doing so meant the store would have to hook up sensors to monitor and control the temperatures in these free-standing cases. But standard temperature sensors require wiring. That was the problem: there wasn't any. All the wiring in their stores was inside the store walls — nowhere near the center of the store.

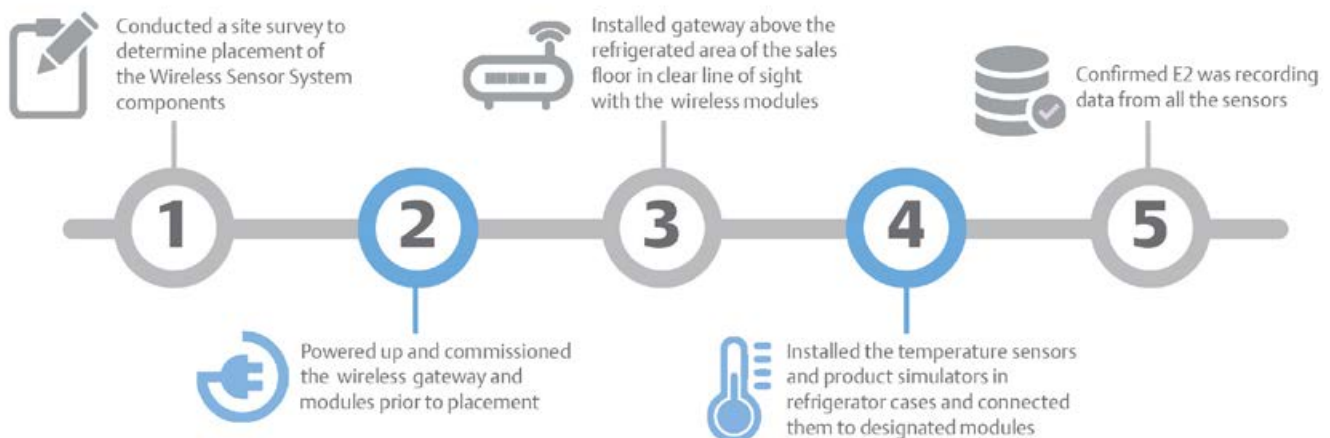
They had two options for wiring up the sensors. They could install poles to carry wiring from the ceiling down, a costly and unattractive prospect. Or they could shut down their aisles, rip up their floors, and run wires through the concrete, a slow, messy and expensive process. Construction for either of these solutions would cause disruptions to customers for days. To maintain food quality, it was a problem they would have to face.

Until Emerson Retail Solutions explained that they didn't need wires at all.

Solution: Cut the cord

Emerson's Wireless Sensor System allowed the chain to go wireless — and realize major time and cost savings.

With the Wireless Sensor System, the chain was able to connect temperature probes, product simulators and other refrigeration sensors in critical refrigeration equipment throughout the store, starting from the perimeter and extending to the new units in the middle. The all-wireless solution would allow them to collect





critical temperature and other key data quickly and continuously; data helps store managers monitor perishables, which can maximize shelf life, reduce shrinkage and ensure safety.

The probes, product simulators and other sensors are connected to a wireless module inside the cases. The module transmits refrigeration data to a remote wireless gateway overhead that converts the wireless signals into usable, real-time information, allowing for continuous monitoring and data to be used for supervisory controls.

Using patented energy-harvesting technology, the wireless module can transmit a signal across a substantial range using a minimal amount of energy. With a clear line of sight overhead, the signal is strong and reliable enough to reach up to a 100-foot radius, and can be extended through repeaters to span greater distances for reliable coverage throughout an entire store.

The quality of the wireless refrigeration data significantly helps the retailer maintain food safety and quality, which has become even more critical with recent changes to the Food Safety and Modernization Act.

Beyond helping the chain maintain its reputation for high-quality products, the Emerson Wireless Sensor System delivered major cost savings right from the start by eliminating costly network and power wiring. Oftentimes, an entire Emerson Wireless Sensor System can be installed storewide in just 3.5 hours, compared to the days of disruption spent installing hard wiring through ugly poles or torn-up concrete. The result? A

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potentially 70 percent savings in installation costs when retrofitting stores, and cutting construction costs on new retail stores by up to 15 percent by eliminating unnecessary wiring systems.

Once installed, the grocery chain also realized savings by avoiding fluctuating temperatures and the shrinkage they cause, as well as reducing energy costs with their highly energy-efficient wireless system.

The chain firmly believes maintaining food quality is their top priority. Their customers trust them to provide fresh, nutritious products consistently — day after day, year after year. Solutions such as the Emerson Wireless Sensor System allow chains to monitor refrigerated equipment in stores and continually ensure proper merchandise temperatures — even in the free-standing showcases located in the middle of their stores.