

# Application Solution

## Improving Environmental Control in Retail Stores

### The Never-Ending Profitability Challenge Facing Today's Retail Stores

In the past, the equipment and systems used to control the climate within a retail store were often overlooked or poorly managed. Not anymore... Tight margins and fierce competition, along with rising energy costs, have forced retailers to take a long and hard look at their aging controls systems.

Today's retailers are looking to eliminate inefficiencies, consolidate operations and maximize productivity. Retail facility managers are focused on maximizing operational efficiency and, as part of that, are challenged with how to transform their stores into a high performance retail environment complete with an improved indoor climate for customers and staff and an overall reduction in energy consumption.

### Customer Comfort is Key to Profitability

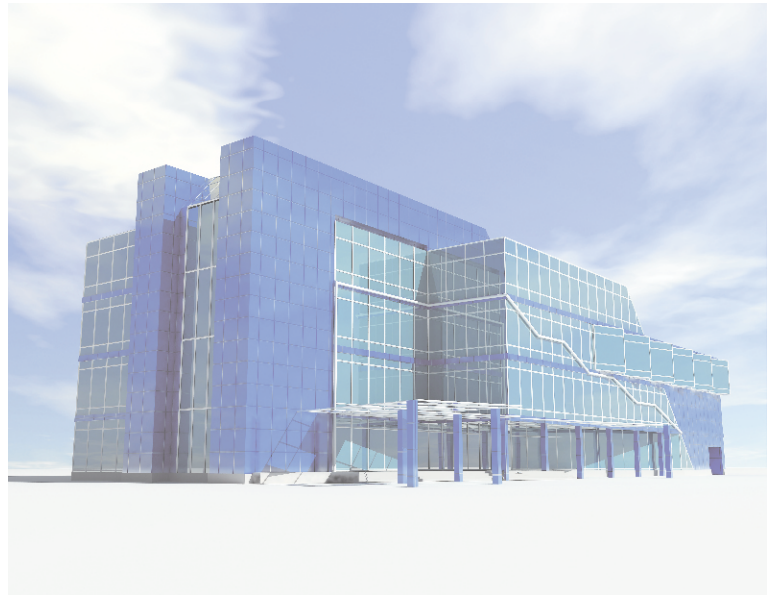
With so many choices available to shoppers, keeping them comfortable in your store is key to growing sales. The positive impact of great products, top-notch customer service and competitive pricing can easily be compromised by excessive heat and humidity in a retail environment.

Studies have shown that happy, comfortable customers will have a more pleasant shopping experience and that directly affects the likelihood that they will make a purchase, spend more time in your store and be more apt to return to the store in the future.

### Comfortable Heat and Humidity Levels - One is Often Sacrificed for the Other

Maintaining comfortable temperature and humidity levels in a store can be challenging. The HVAC equipment used in many retail stores uses temperature levels to control the humidity.

All too often this results in customers feeling cold in your store because you're providing too much air conditioning in an attempt to control the humidity level. Alternatively, you have the reverse situation where temperature levels are comfortable but the humidity level is too high, making customer's feel like they are bathing in a sauna.



### Solution

So how does a retailer effectively control a store's temperature and humidity levels and still reduce his overall facility operating costs? Spinwave wireless sensing solutions make it easier and more cost effective than ever to provide a high performance retail environment.

Information is Knowledge: As the old saying goes, "you can't control it if you can't measure it." Use Spinwave wireless mesh sensor networks as the first step in a comprehensive facility audit for your retail store. Increasing the use of sensors with the cost-effective Spinwave solution provides a means for you to establish a clear profile of energy usage by measuring, analyzing and document comfort parameters within your retail environment.

Gathering such knowledge on the operations and environment of retail stores, retail chains or individual outlets is extremely valuable, as it can be used to identify problems and spot trends within the overall operation of the business. Armed with this information you can begin to put plans in place to reduce energy costs and make sure your retail environment is kept at an optimum comfort level at all times.

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**Maintain Full Customer Comfort During the Retrofit Process:** Installing a Spinwave wireless mesh sensor network is a non-invasive process. It is virtually transparent to your customers and staff. There is no inconvenience to them and business operations are not disrupted during installation and commissioning of a Spinwave wireless mesh sensor network. It's business as usual!

**Wireless Is A "Must Have" For Fast Track Projects:** Just mount and go – no wires, conduit or electricians to add time, money and delays to your project. Installation and commissioning time is reduced from days to mere hours when you use Spinwave's wireless sensors.

**No Wires Means Greater Flexibility:** Sensor placement for optimal occupancy comfort is a reality with Spinwave wireless sensors. No longer do the constraints of the physical space dictate where you can place your sensors - you can now place your sensors in the best sensing location for your application.

Need to expand your system over time or perhaps it's ever-changing floor plans that must be accommodated? No problem - it's quick and easy to add or relocate sensors when using a Spinwave wireless sensor solution.

**Spot Problems Before They Become Big Ones:** With Spinwave wireless sensors and the proper control network installed, remote monitoring can provide the unexpected benefit of reducing maintenance costs by identifying problems before they develop into a major problem and require you to pay higher rates for emergency service calls.

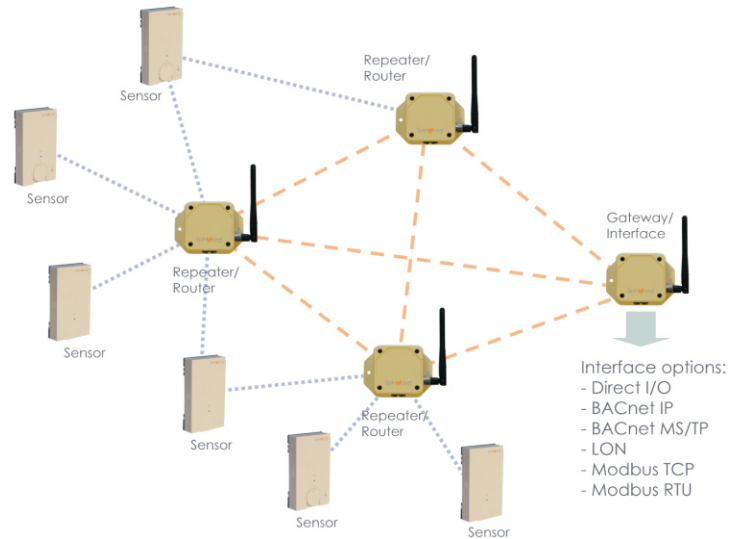
**Building Automation System Integration:** Temperature and humidity sensor data collected from within a retail store can be easily integrated with virtually any new or existing building automation system through Spinwave's wireless LON, BACnet, Modbus or direct I/O interfaces. Wireless sensor data can be configured to trip a system alarm, notifying store managers and other building personnel when out-of-range temperature or humidity levels occur.

## The Bottom Line

Spinwave's wireless mesh sensor networks are ideal for retail stores, chains and outlets - they are easy-to-install and provide a cost-effective way to increase control over your building's indoor climate resulting in energy savings as well as optimal indoor air quality and comfort for your customers and staff.

Spinwave wireless sensing solutions enable you to create and maintain a high performance, competitive retailing environment, complete with:

- Reduced energy and operating costs
- More comfortable environment
- More efficient building automation system
- More productive staff
- Happier customers who have a more positive shopping experience



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