

The Internet of Things (IoT) is becoming more and more ubiquitous in retail to deliver a comprehensive customer experience and efficiently manage products. However, retail store managers shouldn't miss out on opportunities to optimize theirretail facility operations using IoT innovations.

Store directors have a lot to track when it comes to serving customers and managing employees. And your to-do list can get even longer working to keep facilities running smoothly. So you need the IoT to streamline store management processes. You may have smart mirrors in the dressing rooms, smart shelves and racks in the aisles, and smart point-of-sale and beacon technologies, but you can also make your plumbing, HVAC system, and doors intelligent too.

Read on to learn how Monnit® can help you remotely monitor stores and predict maintenance 24/7.

Spoiler alert: The ROI is significant by avoiding water leak damage, optimizing HVAC system performance, and improving security. It's all easily managed using an online dashboard on a smartphone or computer. Plus, alerts via email, text, or call from a wide variety of fast-install IoT sensors and meters.

## **Challenges**

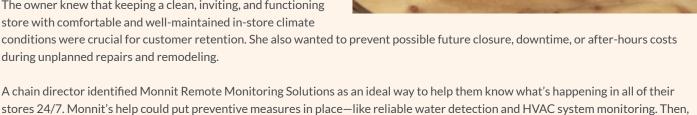
The owner of a small regional retail chain needed to manage store facility maintenance better. She wanted managers to predict when HVAC systems needed service to prevent malfunctions or even failure. Plumbing maintenance, temperature monitoring, and security were concerns as well-much of it centered on not knowing what went on at the stores after hours.

Recently, one of the stores had a plumbing leak late at night in a storage area that caused water damage to the inventory and facilities. There was no way for store managers to know about issues like this until they or their staff discovered them during business hours.

The owner knew that keeping a clean, inviting, and functioning store with comfortable and well-maintained in-store climate

they'd be able to fix issues long before they might turn into more significant problems.

conditions were crucial for customer retention. She also wanted to prevent possible future closure, downtime, or after-hours costs during unplanned repairs and remodeling.



## Solution

The store managers self-installed:

- Wireless Water Detection Sensors—Water Rope, Water Detect Plus, and Water Detection Puck—in each store to monitor water heaters, water pumps, and restrooms for leaks
- Wireless Temperature Sensors and a Thermostat to monitor sales floors, offices, dressing rooms, and restrooms
- Accelerometers, Differential Air Pressure Sensors, Vibration Meters, Temperature Sensors, and AC Current Meters on air circulation fans and central HVAC system units
- Open-Closed Sensors on store doors and Infrared Motion and Occupancy Detection Sensors near doorways and in restricted areas
- The iMonnit Sensor Management and Remote Monitoring Software on store manager smartphones and computers
- Gateways in each store to protect and communicate data sent from every Monnit Sensor and Meter

Sensors sent data wirelessly to gateways in the maintenance closet of each store. The gateway then sent aggregated sensor data to iMonnit. Using iMonnit, managers uploaded a graphic showing the store facility layout.

This allowed the managers to drag and drop sensor tags onto the design or map with live data. Then, they could see the performance of their store's plumbing, doors, and HVAC systems from an aerial view. Managers set up notifications to alert them if readings signified any potential issues, allowing them to respond immediately.



## Results

As bad luck would have it—within the first few months of using the Monnit Solution—another store experienced a plumbing leak in its water heater closet. Luckily, the Water Detection Puck Sensor alerted the manager of the leak, and he was able to turn the water off before it flowed into inventory and caused damage to his store's facilities. By monitoring their HVAC systems much more closely, store managers submit maintenance requests well in advance for service schedules.

Using Monnit's comprehensive monitoring solution, store management can:

- Prevent costly property damage due to plumbing and water heater leaks.
- Amp up after-hours security and track traffic throughout the stores.
- Be alerted if doors are not closed properly, preventing temperature fluctuations.
- Ensure their customers and employees are comfortable with efficient and cost-effective heating and cooling throughout their stores.

**ROI:** After only a couple of days using the solution with ALTA® by Monnit Sensors, the retailer optimized its store monitoring with preventive measures and reduced energy, operational, and capital costs.

# Ring Up Monnit Remote Monitoring to Keep Retail Running Strong





## Water Detection Sensors

An ALTA Wireless
Water Detection Puck
Sensor is ideal for
placement around
toilets, sinks, and water
heaters. An ALTA Wireless Water Rope Sensor
can be placedalong
walkways, walls, and
pipes to detect water
and help prevent
damage from a
plumbing leak.



## Temperature Sensors

Chart your HVAC systems' fluctuating environmental conditions. The ALTA Temperature Sensor measures various HVAC split and packaged, hybrid heat pump, and ductless mini-split heat pump systems with waterproof lead wires measuring up to 100 feet.



#### <u>Duct Temperature</u> Sensors

Monitor your HVAC system right in its ducts. ALTA Duct Temperature Sensors with 8-foot leads can be inserted between vents, near fans, and under small spaces while maintaining a sealed environment. Get reports and alerts wherever you work.



### AC Current Sensors

Analyze HVAC system power consumption and predict problems before they occur with ALTA AC Current Meters. Knowing current use by root mean square (RMS) average and amp hours helps you efficiently manage HVAC performance across your business.



#### Open / Closed Sensors

Maintain security across your stores by monitoring the status of doors and windows.
ALTA Wireless
Open-Closed Sensors use a switch and trigger magnet to detect status.
Be alerted right away when the status changes from your preset parameters in iMonnit.

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