

## Create a Better Guest Experience by Optimizing Energy Operations

The hospitality industry's customer experience (CX) can be complex as it seeks to serve customers through food services, lodging, travel, entertainment and events, and recreation. However, there are common elements across every hospitality business that contribute to an ideal CX. One common and critical element is energy optimization.

Managing energy consumption and performance for optimal guest comfort directly affects a hospitality CX—especially for hotels and resorts. Of course, energy savings is always a welcome guest as long as they maintain the careful balance between customer satisfaction, conservation, and cost justification.

Heating, ventilation, and air conditioning (HVAC) monitoring using Internet of Things (IoT) technologies is key to improving energy use, predictive maintenance, and cost savings for hospitality businesses. Read how Monnit® can help you remotely monitor hospitality facility operations 24/7.

*Spoiler alert: The ROI is significant by avoiding HVAC downtime and optimizing facility management. 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

Facility management for a popular luxury hotel and resort chain needed to improve how they maintained HVAC systems across their properties. Recently, the company was unprepared at one of its hotels where a boiler pump failed and caused heating problems in many of its guest rooms. It took too long to resolve the maintenance issue, resulting in numerous guest complaints plus costly comped amenities and discounted reservations.

The resort management wanted to prevent maintenance problems of any kind from damaging the chain's reputation for a high-quality CX. They wanted to take better care of their facility assets, minimize any downtime—especially during peak seasons—and reduce repair and replacement costs for critical equipment such as HVAC systems.



After some research, facility managers identified Monnit Remote Monitoring Solutions as the best way to put preventive measures in place and fix facility issues long before there could be any significant equipment and systems failure.

## Solution

For a test, facility managers self-installed the following at one of its resorts:

- Temperature Sensors throughout buildings to monitor HVAC system performance, boiler pumps and output pipes, guest rooms, lobbies, conference rooms, hallways, ballrooms, restaurants, and restrooms
- Accelerometers, Differential Air Pressure Sensors, Vibration Meters, Duct Temperature Sensors, Air Quality Sensors, and AC Current Meters on air circulation fans, boiler pumps, and other parts of its central HVAC systems in every building
- Wireless Water Detection Sensors—Water Rope, Water Detect Plus, Water Detect, and Water Detection Puck—throughout the buildings to monitor laundry rooms, water heaters, water pumps, boilers, and restrooms for leaks
- The iMonnit Sensor Management and Remote Monitoring Software on resort facility staff smartphones and computers
- Gateways in each building to protect and communicate data sent from every Monnit Sensor and Meter

Sensors sent data wirelessly to gateways in the maintenance closets and boiler rooms of each building. The gateways then sent aggregated sensor data to iMonnit. Using iMonnit, facility maintenance managers uploaded a map showing the building layout of the monitored areas and floors.

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 building plumbing and HVAC systems from an aerial view. Managers set up notifications to alert them if sensor readings signified any potential issues such as excessive boiler pump vibration, rising HVAC duct temperatures, and diminished fan airflow, allowing them to respond immediately.

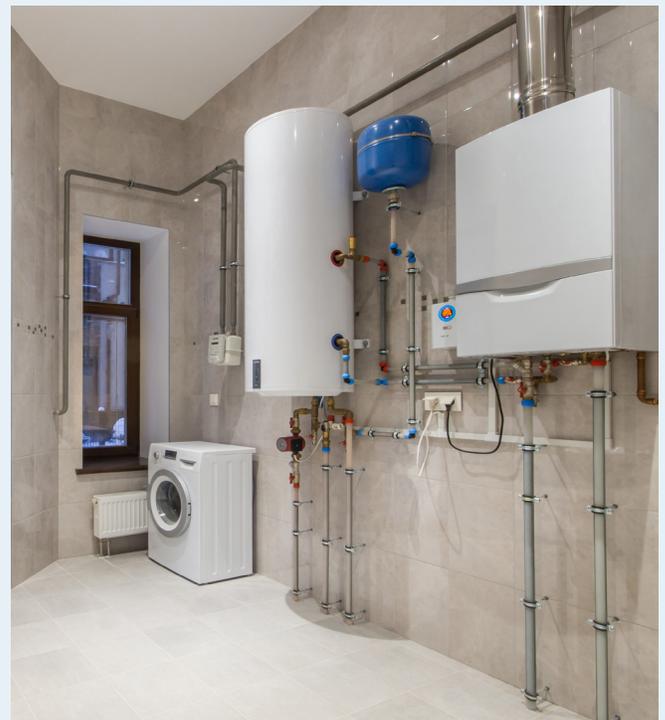
## Results

Monnit Remote Monitoring Solutions are easy to install and are a fraction of what comparable systems cost. With ALTA<sup>®</sup> by Monnit Sensors, Gateways, and Software providing 24/7 data analysis, resort managers can now take the right action when needed to keep facility operations running smoothly.

Soon after installing the system, resort maintenance managers caught several instances where boilers were not outputting the proper temperatures. They made repairs before failures occurred, saving the resort both time and money and preserving a high-quality CX.

Using Monnit's comprehensive monitoring solution, the resort chain is now able to:

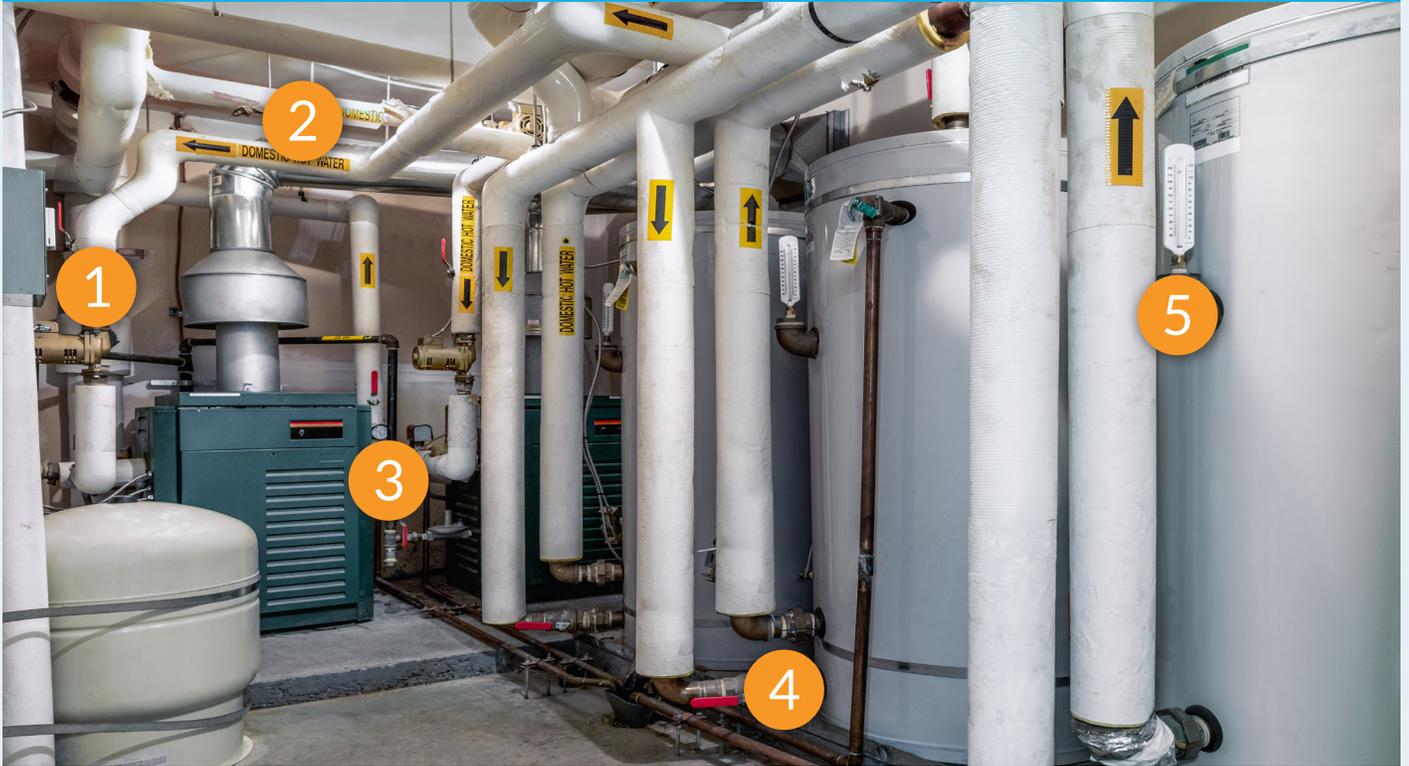
- Prevent downtime and costly damage due to malfunctioning boilers and related HVAC equipment.
- Ensure their guests are comfortable with efficient and cost-effective heating and cooling throughout the resorts.
- Remotely monitor plumbing, boilers, and water heaters in hotels and other buildings for leaks.



Chain management decided to deploy Monnit Solutions in their other resorts because the test resort minimized HVAC system downtime, reduced maintenance costs, and improved equipment reliability and productivity. The Monnit Solution's data helps augment maintenance crews performing routine checks of resort HVAC systems. Maintenance staff can easily identify inefficient filters, blocked heat ducts, and HVAC leaks, preventing unexpected and expensive repairs.

**ROI:** After only a month of using the Monnit Solution, the hospitality chain optimized its hotel and resort building monitoring with the preventive fix before failure measures and reduced energy, operational, and capital costs.

## Monnit Remote Monitoring Helps Increase Customer Comfort and Satisfaction



1

### Temperature Sensors

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

2

### Duct Temperature 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.

3

### AC Current Meters

Analyze HVAC system power consumption and predict problems before they occur with our ALTA AC Current Meters. Knowing current use by root mean square (RMS) average and amp hours helps you manage boiler pump power draw too.

4

### Vibration Meters

Detect the slightest disturbances in vibration, speed, duration, and frequency for all three axes with ALTA Vibration Meters. Fix HVAC issues long before they become boiler kettling, fan rattling, or motor rumbling. Lower energy costs and extend boiler and system life.

5

### Water Detection Sensors

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

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