MONNIT®

SMART
SOLUTIONS


# Smart Monitoring Systems for Property Management

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*How facilities and property managers can implement reliable, low-cost, monitoring solutions for smarter, safer, and more efficient operations.*

## Introduction

Property managers often have long and hectic days. Whether managing an apartment complex, corporate facility, hotel, or residential property, there are constantly new issues to resolve. Most of the day these managers are reacting to problems that arise, not leaving a lot of time to perform routine maintenance on functioning equipment. This is where Monnit wireless sensors can help!

There are hundreds of different situations and pieces of equipment property managers interact with on a daily basis. Every property is different, no one solution is going to work across the board. Monnit wireless sensors are completely customizable, organizations can set up a solution tailored to fit their exact needs. Some of the more common sensors used are water detection, temperature, activity/accelerometer, motion, open/closed, and light detection. Now property managers will receive alerts on any internet enabled device should a specific threshold be met. Respond to incidents faster and monitor all of your properties around the clock, 24/7.

## The Internet of Things (IoT):

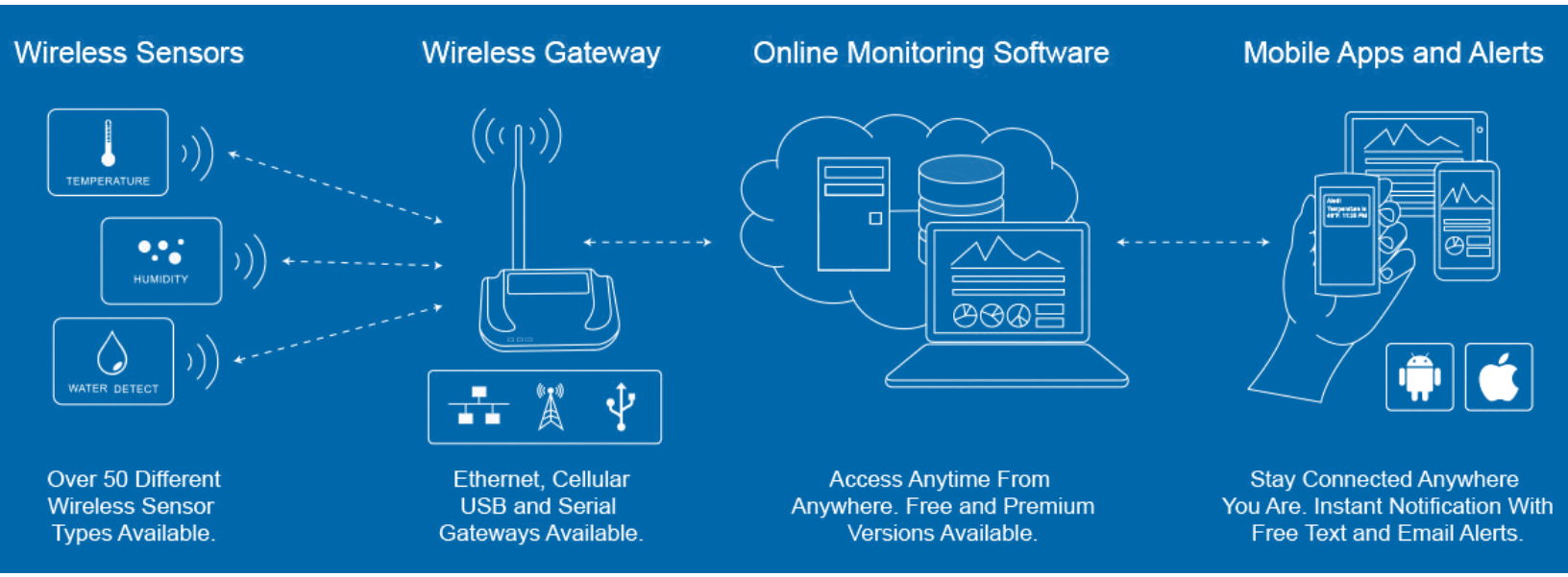
The network of physical objects (“things”) embedded with sensors, software, electronics, and network connectivity, which enables them to collect and exchange data.

## The Internet of Things and Property Management

The ability to connect buildings, appliances, and other systems to the internet through wireless sensors is the core concept of the Internet of Things. Monnit provides over 50 different types of sensors and is the most reliable and cost-effective solution to monitor any situation. Our goal is to make managing properties and buildings simpler and more efficient by providing a way to gain deeper insights into daily operations. Instead of physically being on-site to check on various problem areas, Monnit wireless sensors do that automatically, 24/7. In addition to around-the-clock coverage, sensors and gateways are easily incorporated into existing infrastructure. There is no additional work associated with installing a remote monitoring system, simply place the sensor where you want it and data begins recording as soon as it has been linked to the gateway. Complete systems can be set up in around 15 minutes and don't require advanced technical abilities to implement. You are good to go if you know how to work a computer and connect to the internet!

The Internet of Things does not have to be complicated, Monnit wireless sensors are designed for ease of use. Take a look at all of the sensor options on our website: [www.monnit.com](http://www.monnit.com)

## How the Monnit Solution Works




## The Monnit Solution

Monnit products consist of wireless sensors, gateways, and software to offer a complete remote monitoring solution. Wireless sensors are used to monitor various environmental aspects of a business and are able to integrate with existing equipment, such as coolers, appliances, equipment, etc. to record data in real time. Wireless gateways act as a communication bridge between wireless sensors and the iMonnit online monitoring software, which allows users to view sensor information anytime through a computer, tablet or smart-phone. The iMonnit software can also alert send alerts to any internet enabled device via email, text message, and/or voice call should conditions fall out of safe thresholds.

Monnit's wireless sensor network can be expanded from a single local area to a multi-site network with sensors anywhere in the world, as long as the sensors are connected to a Monnit gateway. The gateway will then transmit the data to iMonnit (cloud-based software) which allows users to configure, monitor, and manage all of their locations from one network.

Monnit has over 50 different wireless sensor types, all have unique characteristics depending on their application and solution provided. Monnit also offers different gateway communication options. These include cellular, ethernet, USB and serial MODBUS, providing a variety of ways to connect your devices to iMonnit secure cloud software. In addition to viewing all data in iMonnit, users can also opt for Monnit MINE which pushes all of the sensor data recorded to any other software application written in C# or Java. If Monnit's current offerings are not exactly what is needed, our engineering team is happy to invent a completely custom solution specifically tailored to any need.

## Features and Benefits

- Easy to setup and use
- Reliable, proven technology
- Low cost
- Low power/long life
- Exceptional wireless range
- 50+ sensor types
- Scalable / Expandable (100 sensors per gateway)
- Global RF frequencies
- Cloud-based monitoring software
- Provides alerts by text message, email, or phone call
- Accessible 24/7 from anywhere
- Custom sensors available upon request

## Monnit: The Cost-Efficient Solution

Monnit wireless sensors provide value to property managers in a couple of different ways. To start, Monnit's products and software is not expensive. Sensors start at only $49 and go up from there depending on the type of battery used and required housing. There are multiple tiers of software available and there is even a free option to use. However, you can gain access to iMonnit Premier for only $39.00/year. That is only $3.25/month! iMonnit Premier comes with all of the features associated with the larger enterprise software applications but is designed for smaller companies.

Gateways begin at $99 and have multiple connectivity options depending on your property's infrastructure. Cellular gateways are perfect for more remote locations where there is not easily accessible Wi-Fi. Data plans are required, but most sensors send less than 1 MB of data a month with a 1-hour heartbeat. This means an environment is constantly being monitored, but data is documented in iMonnit every hour. For example, a temperature sensor will always be checking the temperature around it, but only send a notification should conditions go above or below the custom set threshold. Every hour (or set "heartbeat") the sensor will record the ambient temperature in iMonnit for documentation purposes. The data pushed to iMonnit's secure cloud network is an extremely small packet. Should your office happen to be on site and have internet, ethernet gateways are a perfect option. These will not require data plans as all the information gathered is sent to iMonnit via local Wi-Fi. All of Monnit's sensors, gateways, and software options are plug and play. Simply plug in the device (or insert batteries) to turn the device on and start recording data.

In addition to Monnit hardware and software being affordable, our products offer value with regard to the items they monitor. Damages caused by water leaks or malfunctioning HVAC systems can be very costly to repair, especially if the problem is not noticed right away. There are hundreds of sensor and gateway combinations that can be assembled for under $500 depending on your company's needs. This small initial investment could end up saving your property tens of thousands of dollars in avoidable damage. Receive alerts to any internet enabled device should conditions go outside a safe threshold, allowing for a timely response from maintenance staff members or emergency services.

## Property Water Damage

Every year, there is significant damage to homes and businesses caused by water. Some of this damage happens through unavoidable weather or natural disasters, but water damage is much more likely to occur through leaking pipes and older plumbing systems. 10% of homes in the U.S have leaks that waste 90 gallons of water or more a year. A leaky faucet dripping at a rate of 1 drip per second can waste more than 3,000 gallons in a year. Even a shower leaking at 10 drips per minute can waste more than 500 gallons of water a year. A tiny 1/8-inch crack in a pipe can release up to 250 gallons of water a day. There is a high potential for extreme damage to occur should a water leak go undetected for any period of time. Costs associated with repairing water damage are tens of thousands of dollars, not to mention the time spent performing repairs and the irreplaceable damage to valuable items and property.

Source: https://www.epa.gov/watersense/fix-leak-week

### Water Detection Sensors

Water leaks come from faulty plumbing, old appliances, or mother nature. No matter how large the leak is, water can seep into a buildings infrastructure causing damage and mold. Monnit water detection sensors allow users to be notified immediately of water presence and take care of an issue before costly deterioration occurs.

### Temperature Sensors for Frozen Pipes

Maintaining an optimal temperature around your plumbing is essential to preventing water lines from freezing and breaking. Monnit wireless temperature sensors can help you maintain a proper environment for your plumbing system. Receive alerts when the temperature around your pipes falls below ideal levels and detect water leaks early, before severe water damage happens.

## Property Surveillance

One of the biggest concerns for any property manager is unauthorized access or intrusion from vandalism, theft, or perhaps even the elements. Monnit wireless sensors are particularly useful for more remote properties which are not monitored by personnel 24/7. Users can set up a couple of sensors (below) to support any existing security systems in place.

### Infrared Motion Sensors

Monnit wireless motion sensors use an infrared sensing technology to accurately detect movements made by people/animals within a 16.4 ft (5 m) range. Set them up around garbage cans or dumpsters to keep an eye out for pesky racoons or other scavengers. Infrared motion sensors are also perfect for walkways or entrances to track the coming and goings of residents or employees.

### Open/Closed Sensors

Monnit wireless open/closed sensors provide insights on the status of doors, windows, cabinets, etc. Users can know if a building or area is being accessed when it shouldn't be, and if a door/window is opened or has been left open.

### Light Meter Sensors

Monnit wireless light meters measure the intensity of light in lux (luminescence/unit area), from 0 – 1000 lux (indoor range). These sensors are perfect for light sensitive applications like museum or art galleries, but can also be used to monitor light output in parking lots, garages, walkways, etc. User customization allow users to set the frequency of readings and the ability to set thresholds for notifications and alerts via SMS text, email or voice call.

## Property Equipment and Environment

Heating and cooling systems are not the only pieces of equipment that can be monitored with IoT technology when it comes to property management. Any equipment with moving parts has the ability to be continuously monitored for performance and system functionality with the help of Monnit wireless sensors. The information collected by these sensors can be gathered and shared with property managers and technicians, allowing them to track and control equipment in real-time.

Real-time data and alerts allow for quicker response times and the ability to implement preventive maintenance to help avoid costly problems. There are a number of different sensors that can be used for this application depending on the type of equipment being monitored. Below are a couple of sensors that can be used in a variety of ways. Contact our team directly to discuss any specific equipment, or if there are any general questions relating to proper application and installation.

### A/C Current Sensor

Monnit wireless A/C current meters measure the RMS current of an alternating current (A/C) system using a current transformer (CT) that wraps around the “hot” wire of a two wire (hot, common, ground/optional) power system. The sensor reports Minimum RMS current, maximum RMS current, average RMS current, and amp hours to the iMonnit system. The iMonnit system is capable of generating watt hour or kilowatt hour readings as well. Perfect for monitoring apartment or floor power consumption, HVAC systems, boiler rooms, etc.

### Accelerometers

Monnit accelerometer sensors are useful in property management because their primary use is to help predict mechanical failure. If a motor experiences increased vibration levels, it is a good indicator that bearings are worn and the motor is close to failure. Usually engineers are able to respond in time to a malfunctioning machine before it completely breaks, ultimately saving time and money. Ideal for HVAC systems, boiler rooms, elevators, or any other piece of equipment with moving parts.

### Pressure Sensors

Monnit wireless pressure meters measure pressure from a 5-volt pressure transducer then relays the measurement to iMonnit secure cloud software. Can be connected to a pressurized gas, liquid or vapor supply line to ensure uninterrupted service. Receive notifications to any internet enabled device should the pressure get too high or low.

### Carbon Monoxide


Imminent danger of CO poisoning is a growing concern in the care for elderly, child and immuno-compromised individuals. Monnit’s wireless carbon monoxide sensors provide a very affordable, simple-to-setup, feature rich solution that helps meet the growing demand of legislative and public concerns regarding the monitoring of gas leaks and emissions. Customization allows users to set the frequency of readings and the ability to set customized alerts via SMS text or email when the sensor detects CO levels outside of defined safe levels.

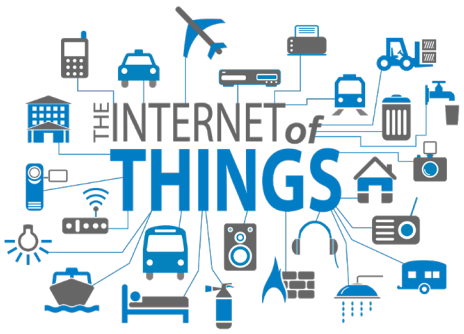
**“They say you never know when disaster will strike. Well, now we do! Monnit’s remote monitoring system is such a valuable tool when it comes to protecting our buildings and everything in them.”**

**Leroy R., Property Management**

## About Monnit

Monnit bridges the gap between industry and technology through the Internet of Things, empowering businesses with easy-to-use, low-cost remote monitoring solutions. Monnit solutions can be used to remotely monitor a variety of “Things” (i.e. temperature, motion, humidity, energy use, etc.), alerting you by text, email, and/or phone call when user-defined conditions are met. Our goal is to save you as much time, money, and stress as possible, by preventing issues with inventory, infrastructure, and more.

As a Global Top 50 innovation leader in The Internet of Things (IoT), Monnit’s technology has significantly expanded the frontier of both what and how “things” can be connected, monitored and controlled. It is almost impossible to identify an asset, process or solution, from SMB to Enterprise, indoors or outside, commercial to industrial, that cannot be uplifted by one of Monnit’s 50+ reliable, affordable, tiny, powerful, wireless monitoring solutions.




For more information about our products or to place an order, please contact our sales department at 801-561-5555.

Visit us on the web at www.monnit.com

MONNIT®

Monnit Corporation
3400 South West Temple
Salt Lake City, UT 84115
801-561-5555
www.monnit.com



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