



## Wireless Sensors Use Case: Server Rooms

### The Problem:



Server rooms and data centers are full of expensive computers and networking equipment that are designed to operate within a given temperature range. The electronics also need to be kept away from water. Monnit was contacted by the manager of a large corporation's internal data center, that had an issue with a plumbing leak over the weekend. While their existing system monitored for temperatures and humidity, they had no existing water detection system in place.

The previous weekend, a toilet leak outside of the data center caused water to cover the floor which leaked into the server room. The water caused an electrical short which took down several server stacks and damaged a handful of servers.

### The Solution:



Monnit provides a reliable remote monitoring solution that includes wireless water detection sensors as well as a variety of other useful sensors. The company deployed wireless water sensors throughout the server room to detect any water. Monnit wireless gateways support up to 100 wireless sensors each, so the company also decided to extend their wireless sensor network by deploying temperature sensors in their HVAC ducts to more closely monitor their environmental control system.

The sensor data is sent wirelessly to a MonnitLink™ gateway located in the center of the server room. The gateway sends the information to iMonnit™, the online sensor monitoring system. The wireless water sensors detect immediate presence of water, and the temperature sensors were set to check temperatures every half hour. Notifications were setup to alert the IT staff if water is detected or if the temperature fluctuates too much.

## Wireless Sensors Used

Wireless sensor used:	How it was used:
Water sensors	To detect immediate presence of water around server stacks.
Temperature sensors	To check the temperature output of the environmental control system.

## The Result (Cost Savings)



Before implementing Monnit wireless sensors this company had no current water detection system for their server room. The toilet leak caused over \$35,000 in damage. For an initial investment ~\$1,400 they deployed a Monnit remote monitoring solution consisting of an Ethernet gateway, 20 water detection sensors and 5 temperature sensors.

Since installing the system, temperature sensors detected an incident where the environmental control system was not providing adequate cooling to one side of the server room. Monnit temperature sensors detected the issue early in the failure, allowing them to repair system before any damage resulted.

Using Monnit's comprehensive monitoring solution this company is now able to:

- Prevent costly damage to their servers due to plumbing and water leaks.
- Ensure that their environmental control system is functioning properly.

*“We would have never anticipated that an overflowing toilet, could take down our server room. It’s just not one of those things that seems possible. Prior to using Monnit, we had no way to detect anything other than temperatures of our servers. Now we are able to detect numerous conditions that could cause problems and I’m finally able to sleep stress free, knowing the system will alert me the instance anything is wrong.”*

It doesn't matter where in the world you are or what time it might be, deploying a Monnit wireless sensor and monitoring solution connects you from anywhere, 24/7 so you'll know immediately when a problem starts.

