



CASE STUDY

**Atrium Professional Plaza
Protects Critical HVAC Infrastructure
with Roomsys Water Leak Detection System**

Overview

Atrium Professional Plaza is a high-use, two-story medical center located in Miami, Florida. With dozens of healthcare professionals and patients visiting daily, the building experiences continuous restroom usage and high water demand. However, repeated incidents involving clogged or neglected toilets in private suites led to frequent leaks, some of which damaged HVAC equipment located between the floors. This resulted in costly emergency repairs and disruptions to the facility.

Looking for a proactive solution to detect leaks early and prevent HVAC damage, building management turned to Roomsys for a scalable water leak detection system that would protect infrastructure, reduce costs, and minimize service disruptions in this essential medical facility.

⚠ Challenges

Frequent toilet-related flooding

Due to heavy public use and patient inattention, restrooms were frequently overflushed or clogged. These incidents often occurred at night or went unnoticed for hours, so overflows that caused recurring water damage were often the case.



HVAC vulnerability to water

The building's HVAC system is housed in the space between the first and second floors. Even minor water leaks from above risked dripping directly into the HVAC components, leading to system failures and emergency repairs costing up to \$5,000 each.



Lack of leak visibility

Without a monitoring system, maintenance staff relied on visual inspections or tenant complaints. Leaks often went undetected until damage had already occurred, increasing repair costs and downtime.



High maintenance and repair costs

With repeated water incidents impacting critical infrastructure, Atrium's maintenance expenses surged. Emergency HVAC repairs, ceiling remediation, and unplanned service outages placed an increasing burden on the building's operating budget.



Solution

Roomsys deployed a tailored leak detection system designed to provide complete visibility into high-risk areas and stop leaks before they escalate.

Targeted sensor deployment:

- Restrooms on both floors
- Janitorial closets
- Ceilings directly above HVAC units
- Plumbing access points and high-risk zones

Real-time alerts and remote management

The Roomsys dashboard and mobile app provide instant leak notifications and device health monitoring. This helps to respond immediately, minimizing water damage and system downtime.

LoRaWAN® wireless communication

Long-range, low-power LoRaWAN® connectivity ensured reliable sensor communication across both floors, eliminating the need for wiring or invasive construction.

Cost-efficient, low-maintenance

Wireless installation required no renovations, and all sensors are battery-powered with a lifespan of up to five years, providing long-term performance with minimal maintenance.

⚠ Technology highlights

Cora CS1010 Spot Leak Sensors

Compact and precise, these sensors detect even the smallest water accumulation under toilets, sinks, and valves. They are ideal for confined areas requiring pinpoint accuracy.

TEKTELIC Rope Sensors

Equipped with a 6-foot rope, these sensors detect water at any point along the line, perfect for large or hidden areas such as ceiling voids, HVAC zones, and janitorial closets.

LoRaWAN® Connectivity

Low-power, long-range communication provides uninterrupted monitoring throughout the building. The wireless architecture supports scalable deployment without complex installation.

ROOMSYS Cloud Platform

The Roomsys platform offers centralized monitoring, mobile alerts, device diagnostics, and historical reporting, all accessible remotely via web and mobile interface.

Results

Roomsys provided the Atrium team with a reliable and cost-effective way to stay ahead of leaks and infrastructure damage.



Zero HVAC water damage since installation

No HVAC systems have been damaged by water since the Roomsys system was activated.



Faster response, reduced downtime

Leaks are now identified in real time. This allows staff to act within minutes instead of hours, reducing downtime for patients and providers.



Avoided costly HVAC repair events

Atrium has prevented several major HVAC damage events, each of which would have cost thousands in emergency repairs and disrupted operations.



Preserved patient experience and staff safety

Early leak detection prevents restroom flooding and hazardous conditions, supporting a clean and safe environment for healthcare delivery.

Ready to protect your building?

The Roomsys water leak detection system has helped Atrium Professional Plaza eliminate avoidable HVAC damage, reduce repair costs, and create a safer, more resilient facility. With smart, wireless sensors and centralized monitoring, the building's management now has full control over water-related risks without disrupting operations.

Contact Roomsys today to learn how our water leak detection systems can protect your infrastructure and reduce risk, no matter your building type.

