

Transforming Monolitic's Building Into a More Efficient Office with People Sensing Driven IoT Solutions

Location: Barcelona, Spain

partner
Monolitic

Location
Barcelona, Spain

Devices Deployed
VS351, VS133, VS121, WS202, AM103, AM307, AM319, WS301, WS303

Applications
Smart Building

Background

The growing need to transform buildings into smart environments is emerging as a key solution for optimizing resource management in businesses. IoT technologies enable real-time data collection, facilitating decision-making and transforming the way buildings operate.

Our partner, Monolitic, transformed its office building into a smart, modern office building that significantly optimizes productivity and occupant comfort. By immersing themselves in a smart building environment, Monolitic not only enjoys the efficiency gains of advanced management, but can better share insights and provide help to customers in Spain.

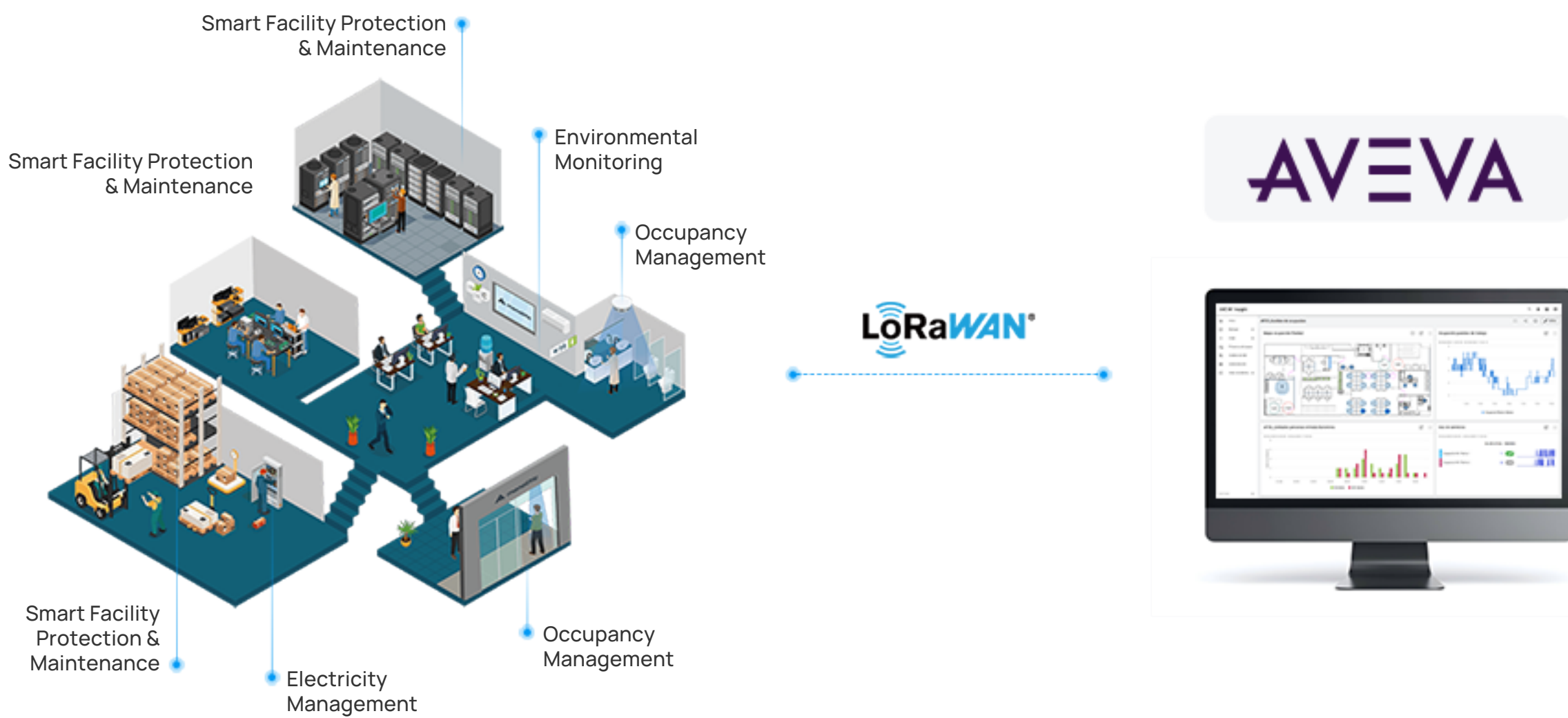


Challenges

Monolitic's Building Lab was born from the need to optimize facility management by implementing IoT devices capable of capturing data to improve decision-making.

The main challenge was to obtain an accurate, real-time view of the space's status, with the goal of creating more efficient, sustainable, and safe environments tailored to the specific needs of each location. Added to this was the need to facilitate access to information through tools like Grafana, allowing for quick visualization of occupancy status, operating devices, and potential incidents.

Solutions



In today's dynamic work environments, optimizing facility management, occupancy comfort, safety, predictive maintenance, people caring, space utilization and ensuring efficient resource allocation is crucial. From meeting rooms to production rooms, from entry to corner, Monolitic armed to their teeth with IoT solutions.

Optimized Space Management and Efficiency in Meeting Rooms

In the meeting rooms, Monolitic deployed Milesight Mini AI Thermopile People Counter VS351 in the ceiling of the entrance, having a better understanding of overall usage of meeting rooms and hopefully allocating suitable schedules of meeting room usage.

For wire-free installation, Monolitic adopted the battery version, which leverages both thermopile and radar technologies. Enjoy a completely wireless setup, eliminating extensive wiring or infrastructure modifications.

In the entrance door, Monolitic had Milesight AI ToF People Counting Sensor VS133, gaining real-time footfall data to have insights on overall flows in buildings. Also, with historical data and reports, the footfall data can provide solid base to adjust HVAC systems schedules or lightning systems and many more controls related to people, providing a building with sensing.



*Learn more about VS351 from Pablo Cajal Martinez, Field Application Engineer Monolitic

In open space in working area, occupancy data can have great helps in offering useful insights on hotdesking. By deploying Milesight AI Workplace Occupancy Sensor V121, accurate data can be obtained and showcased in centralized platform, clearer views on usage across time.

Up to 16 customized regions can be set for precise detection. Every region is independent. They are able to detect and trigger alarms individually, which satisfies specific application demands to truly accomplish customization. Moreover, the schedule can be set for more flexible and tailored performance.

In high traffic but low-capacity environment such as public bathrooms, it is crucial to update presence status for better flow management and higher facility efficiency. Milesight PIR & Light Sensor WS202 is ideal in this situation with minimum cost and easy deployment. WS202 utilizes a powerful combination of PIR detection and brightness measurement, allowing it to determine an indoor area's occupancy or vacancy status effortlessly. Also, WS202 allows users to define a custom threshold, enabling it to determine whether a space should be classified as bright or dark.



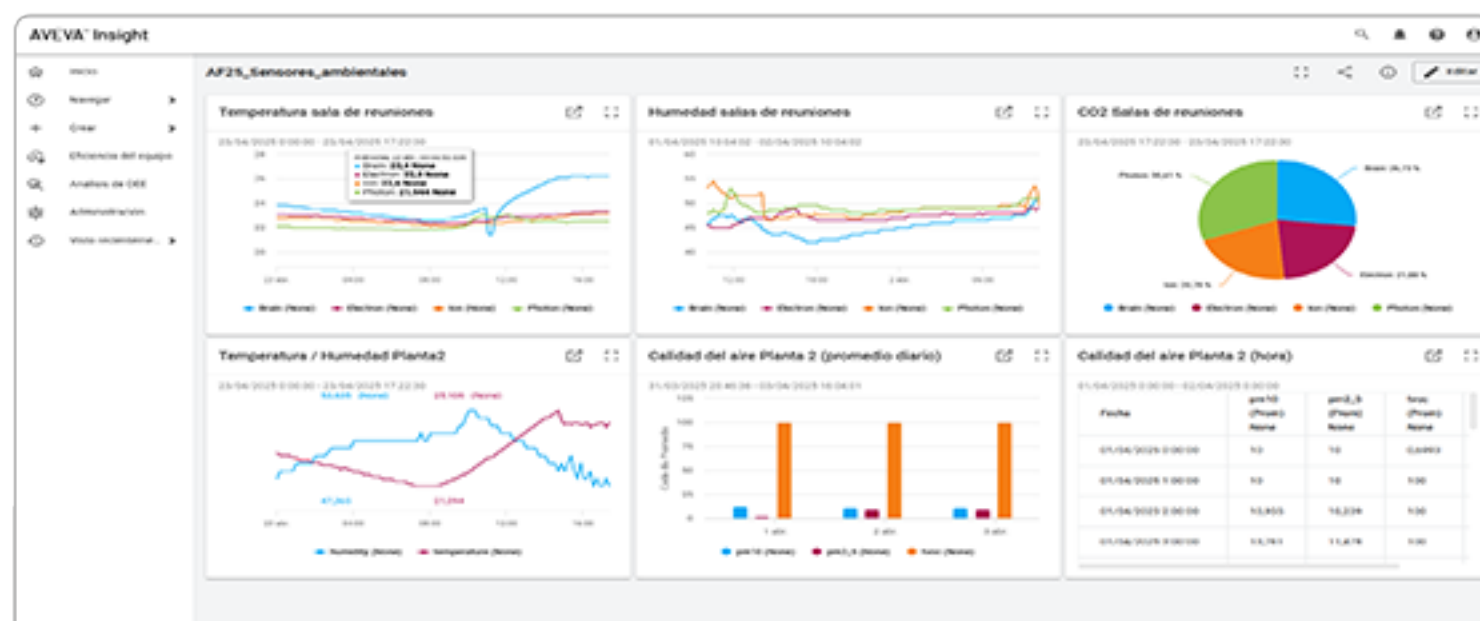
Better Indoor Air Quality and Occupancy Comfort

Indoor air quality impacts us all regardless of where we live. Get a comprehensive understanding of your indoor air quality and see how IAQ sensors could make a difference. Real-time and remote energy management is actionable by monitoring indoor air quality, such as temperature, humidity, CO₂, PM2.5 & PM10, TVOC and more from our IAQ sensors Monolitic had different IAQ sensors in various space, such as 8-in-1 Environmental Quality Sensor in office floor, temperature, humidity and CO₂ sensor in meeting rooms and 7-in-1 environmental quality sensor in meeting rooms.

In Demand Controlled Ventilation (DCV), IAQ sensors and IoT controllers are great helpers which are commonly used to measure the air composition in ventilation units to monitor and adjust the performance of HVAC systems and other indoor air quality management strategies.



Smart Facility Protection & Maintenance



Real-time data monitoring is a key advantage of leveraging IoT in facilities management. By capturing data from various sensors and devices, facility managers gain actionable insights into the status and performance of critical assets.

For example, in Monolitic's server room, the Milesight Mini Leak Detection Sensor WS303 and Milesight Magnetic Contact Switch WS301 are used to detect any anomalies or deviations from optimal conditions in real time, triggering automatic notification or maintenance. WS301 offers dependable security monitoring for doors and windows by detecting opening and closing events, effectively alerting against intrusion or unauthorized entry.

The mini water leak detection sensor that detects the presence of leaks and raises alarms locally and remotely. With low power consumption, it can operate for 5 years on a single battery.

Results

The smart building market is on the brink of remarkable growth, demonstrating a considerable market share and swift development. Milesight is prepared to enhance the profound values of smart buildings by concentrating on Facility Management, Energy Management, and Space Management.

Data-driven decision-making

Improvement in environmental comfort

Greater energy efficiency

Occupancy control

System scalability

Why Choose Milesight

"Innovation, technology, real-time data and more efficient space management thanks to Milesight's IoT technology."

In "The Building Lab of Monolitic" project, we implemented Milesight IoT sensors to monitor space occupancy, environmental quality and energy consumption in our offices. This solution allowed us to visualize in real time the status of our facilities, facilitating informed decision-making and improving operational efficiency. The collaboration with Milesight has been key to transforming our offices into an intelligent environment that is adaptable to current needs.



Milesight Partner

About Monolitic

Monolitic is a company with 40 years of experience in the Spanish industrial market, manufacturer and supplier of hardware solutions, electronic components and IoT solutions.

Our value proposition is based on quality, specialized technical support and the selection of leading partners in the sector. We accompany companies in their digital transformation, providing reliable and scalable solutions that boost their competitiveness.