

Background

Lječilište Veli Lošinj, a renowned health resort on the Croatian island of Lošinj, launched a wide-ranging energy management and digitalization project aimed at improving operational efficiency, guest comfort, and environmental performance. The initiative, aligned with the ISO 50001 standard and funded through the Croatian National Recovery and Resilience Plan, included multiple layers: energy and water consumption monitoring through an AMR system, air quality monitoring, intelligent HVAC control, and flood detection.

The solution was deployed across seven buildings within the resort complex, each with varying functions and technical conditions. Within this broader framework, Milesight's LoRaWAN®-based IoT solutions played a key role in enabling real-time environmental monitoring and automation—enhancing control, visibility, and responsiveness in areas critical to health and wellness.



Challenges



Seamless Multi-Building Integration



Stable LoRaWAN® Connectivity

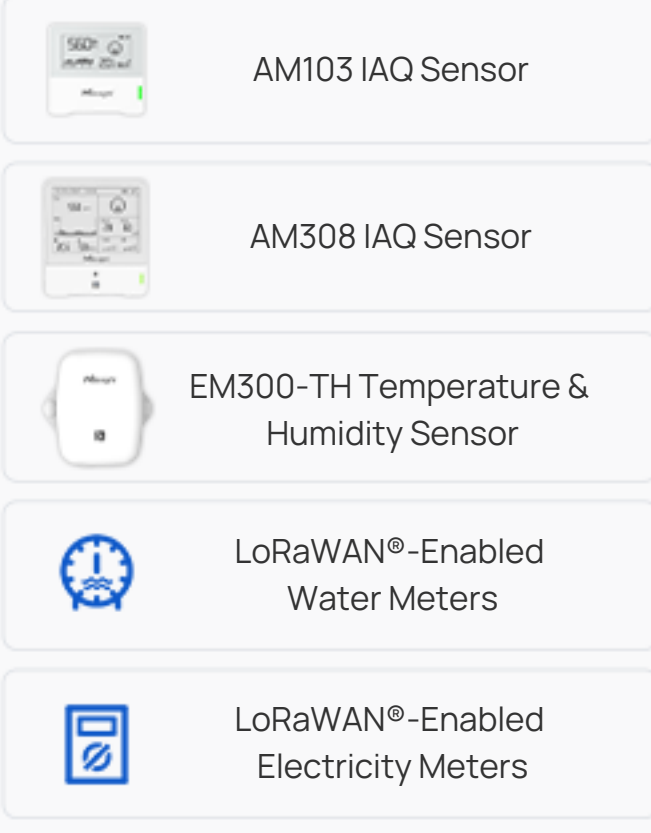
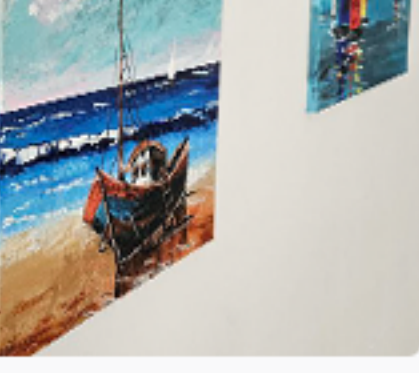
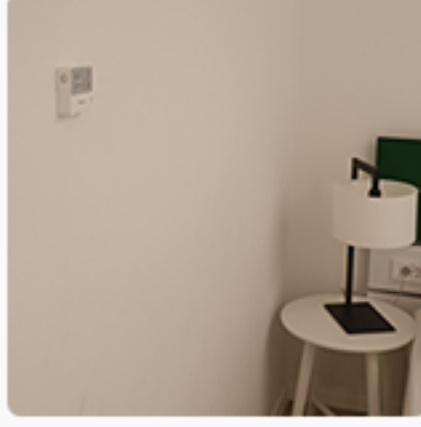


Precise Logic Programming within
BEAVER IoT

Solution

Smart Monitoring for Comfort and Operations

AM103 and AM308 IAQ sensors, EM300-TH temperature & humidity sensors, and LoRaWAN®-enabled water and electricity meters collect environmental and utility data throughout the resort. The data is transmitted via the UG67 gateway to the AMR Emasys Monitoring App, supporting daily comfort management and providing actionable insights for operational optimization.



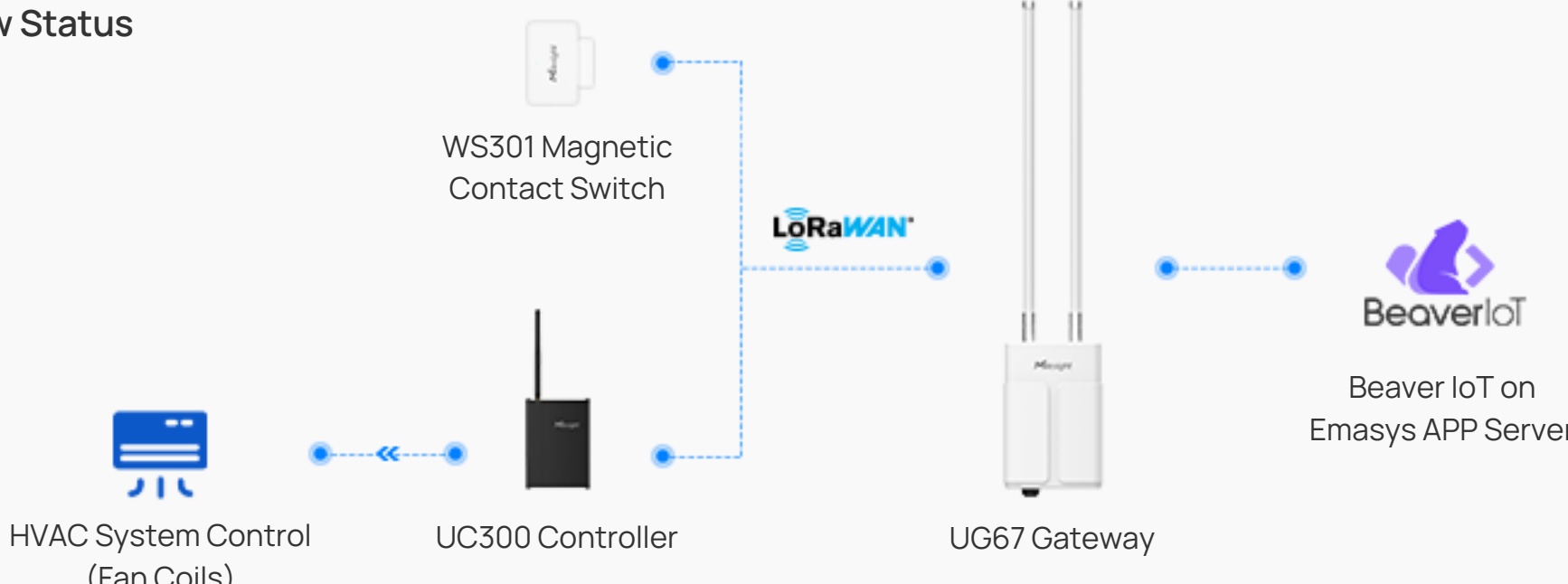
Real-Time Leak Detection

The WS303 Mini Leak Detection Sensor monitors water leaks and transmits real-time alerts via the UG67 gateway to the Beaver IoT platform. This enables immediate response and predictive maintenance to minimize downtime and prevent damage.



Smart HVAC Control Based on Window Status

The WS301 Magnetic Contact Switch detects whether windows in guest rooms are open or closed. This information is sent via the UG67 LoRaWAN gateway to the Beaver IoT platform (hosted on the Emasys APP server). Once received, the platform analyzes the data then sends commands to the UC300 Controller and adjusts the HVAC system accordingly. This automated setup ensures real-time HVAC control based on actual room conditions, reducing energy waste and enhancing both system efficiency and guest comfort.



Results

Enhanced Comfort

Ensures stable indoor air quality to improve patient and guest satisfaction.

Smarter Energy Use

Automates HVAC control to cut energy waste and reduce manual operations.

Proactive Risk Control

Identifies water leaks early to prevent disruptions and costly repairs.

Centralized Monitoring

Enables remote monitoring to streamline maintenance and reduce site visits.

Discover More about Milesight Product



Why Choose Milesight



"Firstly, as a Milesight partner, we had direct access to their full range of LoRaWAN solutions, technical support and very competitive pricing. For this project, Milesight was able to offer a complete and compatible solution for HVAC management—from magnetic window sensors to programmable IoT controllers and a reliable gateway infrastructure.

Additionally, all devices were integrated with the BEAVER IoT platform, which runs on our own infrastructure. This setup ensures full control over data privacy and security, while the open-source nature of BEAVER IoT allows us to tailor the system to specific project requirements—whether by making functional adjustments or expanding capabilities based on client needs."

— EMASYS d.o.o.



Milesight Partner

About Emasys d.o.o.

Emasys d.o.o. specializes in smart energy and water management systems, enabling businesses to improve operational efficiency.

Relevant Party

About Veli Lošinj Health Resort

The newly refurbished Veli Lošinj Health Resort specializes in the treatment of respiratory and dermatological conditions.

