

7,000+ IoT Sensors Enable Real-Time Food Safety Monitoring in Supermarkets

Ensures Optimal Temperature Control and Reduces Food Waste



Milesight Partner Sensor Network Services GmbH, m2m Germany GmbH	Location Austria	Applications Temperature & Humidity Monitoring	Devices Deployed EM300-TH*6000+ EM500-PT100*1000+
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Background

A leading supermarket chain in Austria operates over 1,000 branches nationwide, managing a wide range of refrigerated and heated food areas. To ensure optimal storage conditions and prevent food damage, the retailer implemented a centralized temperature monitoring solution across all stores, supported by Sensor Network Services.



Challenges

<p>Lack of Centralized Monitoring at Scale</p> <p>Managing consistent temperature monitoring across more than 1,000 supermarket branches without a unified system.</p>	<p>Manual and Fragmented Processes</p> <p>Reliance on on-site checks delayed issue detection and increased labor workload.</p>	<p>Food Safety and Waste Risks</p> <p>Temperature deviations in cooling islands and heating counters risked food damage and product loss.</p>	<p>Limited Real-Time Alerting Capability</p> <p>Without instant alarms, equipment failures could not be addressed before food spoilage occurred.</p>
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Solution

By combining a scalable IoT sensor network with a centralized SaaS platform, the solution delivered full visibility across all stores, real-time alerts for proactive maintenance, and secure, compliant data management—significantly reducing food safety risks and easing operational workload.

- EM300-TH Temperature and Humidity Sensor** - Over 6,000 sensors were deployed across refrigerated units to monitor chilled and frozen food temperatures from +10°C to -18°C, enabling fast, wireless installation and ensuring stable storage conditions in full compliance with food safety standards.
- EM500-PT100 Platinum Temperature Sensor** - More than 1,000 high-precision temperature sensors were installed in heating counters for hot food products, featuring a hidden external probe for accurate temperature monitoring without contact with food or grease, enabling early detection of anomalies and timely corrective actions.
- Self-Developed IoT Platform (SaaS)** - A centralized platform enabling unified monitoring, real-time alarms forwarded to the customer's existing alarm system, and secure data storage hosted in Austria.



Results

7,000+ Sensors Deployed at Scale Enabled unified temperature monitoring and management across the entire supermarket chain.	Immediate Alerts to Prevent Food Waste Automatic status and alarm notifications enabled rapid response to broken cooling or heating devices, preventing food damage.
Reduced Manual Effort and Near-Zero Maintenance Wireless sensors with simple installation eliminated cabling work and minimized ongoing maintenance needs.	Consistent Food Quality Across All Stores Continuous monitoring of cooling islands and heating counters ensured perfect conditions for food products at all times.

Discover More about Milesight Products

<p>TS60x Temperature and Humidity Sensor</p>	<p>EM300-TH Temperature and Humidity Sensor</p>	<p>EM320-TH Temperature and Humidity Sensor</p>	<p>EM500-PT100 Platinum Temperature Sensor</p>
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Why Choose Milesight



“We're very happy with the Milesight solution. The sensors are easy to install, completely wireless, and quick to set up. Monitoring our cooling islands and heating counters has helped us keep the right conditions for our food products with almost no maintenance. Whenever there's an issue with a cooling or heating device, we're notified immediately, which allows us to react quickly and avoid food loss. Since using Milesight, we no longer worry about food waste caused by equipment failures.”

Partner

<p>About Sensor Network Services GmbH</p> <p>Sensor Network Services GmbH (SENS) is an Austrian IoT company offering innovative solutions in the fields of healthcare, retail, industry, and smart energy. SENS provides solutions—from sensors to artificial intelligence—from a single source. SENS is an official network provider and offers connectivity in the Austrian SENS LoRaWAN for IoT applications, as well as planning, rollout, and management of private networks. In cooperation with CANCOM Austria AG, SENS offers innovative 360 degrees solutions ranging from smart meter operation to AI-supported smart city applications, thus providing end-to-end digitization solutions for your IoT solution.</p>	
	<p>About m2m Germany GmbH</p> <p>m2m Germany enables digital innovation through modern wireless technologies. We combine technology, expertise, and services to deliver future-ready IoT solutions – from consulting and hardware supply to system integration. Our solutions ensure efficient IoT projects, maximum availability, and long-term sustainability.</p>