

From Analog to Smart Security: UMSC's CCTV & Emergency Alert System Upgrade

University Malaya Specialist Center Hospital

Milesight Partner
Camart Sdn Bhd

Location
Kuala Lumpur,
Malaysia

Industry Segment
Health Care

Related Products

- AI 180° Panoramic Mini Dome Network Camera
- AI 360° Panoramic Fisheye Network Camera
- AI Vandal-proof Mini Dome Network Camera
- WS101 LoRaWAN® Smart Button
- UG63 Mini LoRaWAN® Gateway

Background

The University Malaya Specialist Centre (UMSC), established in 1998, is a premier specialist hospital located in Kuala Lumpur, Malaysia. Over the years, UMSC has upgraded its surveillance system several times; however, the improvements were limited to analog technology. In 2024, the UMSC aimed to modernize its outdated CCTV and panic button systems with a comprehensive digital upgrade. The goal was clear: enhance hospital security, improve emergency response efficiency, and create a safer environment for patients and staff.



Challenge

The hospital required a fully revamped surveillance and panic button system that could:



Deliver the same or better security coverage with **fewer cameras**.



Support intelligent analytics to build a smarter security system and **reduce reliance on manual monitoring**.



Capture **high-resolution footage** detailed enough to identify medication inside a storage rack.

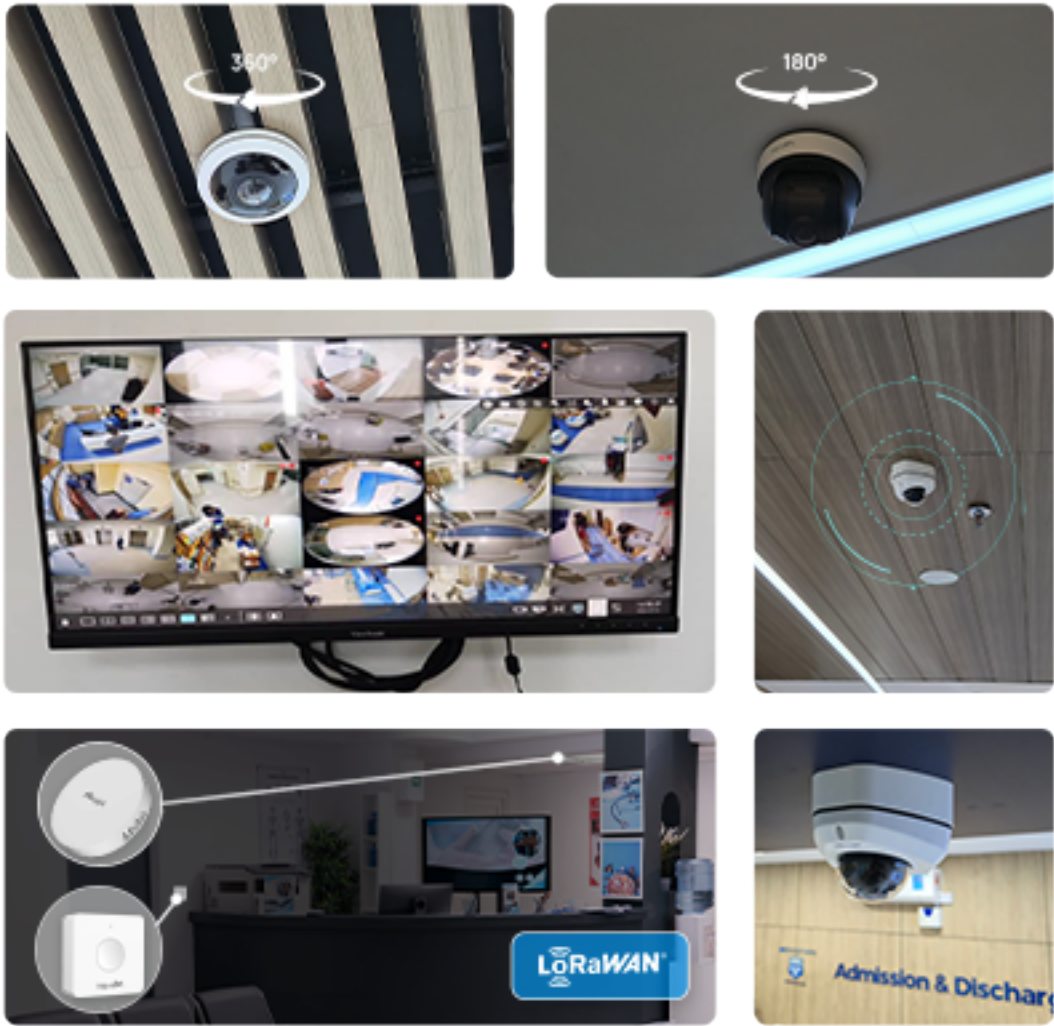


Include a **wireless panic button system** that is scalable and easy to deploy.

Solution

To address these needs, Milesight products were selected for their advanced capabilities and flexibility:

- ✓ **Panoramic & Fisheye Cameras to Save Money & Time & Labor:** By leveraging the ultra-wide view of Milesight Panoramic and Fisheye cameras, UMSC reduced camera count from 32 to 24 – a 25% reduction – while maintaining full area coverage. This not only saved on hardware but also minimized installation time and cabling effort.
- ✓ **Sharp Image Quality for High-Security Zones:** Cameras installed in medicine storage areas were selected for their high-resolution capabilities, ensuring the contents of medication racks are clearly visible, supporting better monitoring and inventory control.
- ✓ **AI-powered Analytics for Actionable Data Collection:** Milesight's AI camera series features on-edge AI Video Content Analysis (VCA), including people counting, heat map, line crossing, and advanced motion detection. These features not only enhanced proactive threat detection, helping security personnel to identify abnormal activity, but also allow the hospital to gather real-time data for optimizing visitor flow and improving space planning.
- ✓ **Wireless Emergency System Powered by LoRaWAN:** To modernize the emergency alert system, Milesight WS101 Smart Buttons were strategically installed in high-traffic and high-risk zones including toilets, staircases, nurse counters, and finance areas. These buttons, integrated with the Milesight UG63 LoRaWAN Gateway, allow long-range, low-power, and stable wireless communication, significantly reducing deployment complexity and cost.



Results

The implementation of Milesight's solution brought measurable improvements in security performance, cost efficiency, and operational intelligence:

- **25% Fewer Cameras**, with full area coverage maintained.
- **13% Reduction in Total Installation Costs**, due to lower camera count, less cabling, and wireless panic button deployment.
- **Data-Driven Operational Insights**, like heatmaps and people counting provide real-time data for smarter lobby layout, visitor flow management, and staffing optimization.
- **Wireless Emergency Alert System**, easily expandable and cost-efficient, ensuring critical zones are monitored without heavy wiring requirements.