Milesight

Make Sensing Matter

SMART BUILDING SOLUTION

OFFERS INFINITE POSSIBILITIES TO BUILDINGS

MILESIGHT

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A fast-growing high-tech company delivering smart IoT products and solutions

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01 WHO IS MILESIGHT

A fast-growing high-tech company delivering smart IoT products and solutions

ABOUT MILESIGHT IOT

Milesight is a fast-growing high-tech company delivering smart IoT and video surveillance products with a focus on IoT technologies, including Artificial Intelligence, 5G and LoRaWAN®, since 2011. With improved sensing capability and advanced IoT insights, we help customers worldwide optimize their business operation in a more efficient and sustainable way. In collaboration with a global network of distributors and system integrators, we are committed to building open ecosystems and accelerating IoT strategies to the next level.

AIoT
Solution Provider

600+
Employees

2000+
Distributors and System Integrator Partners

120+
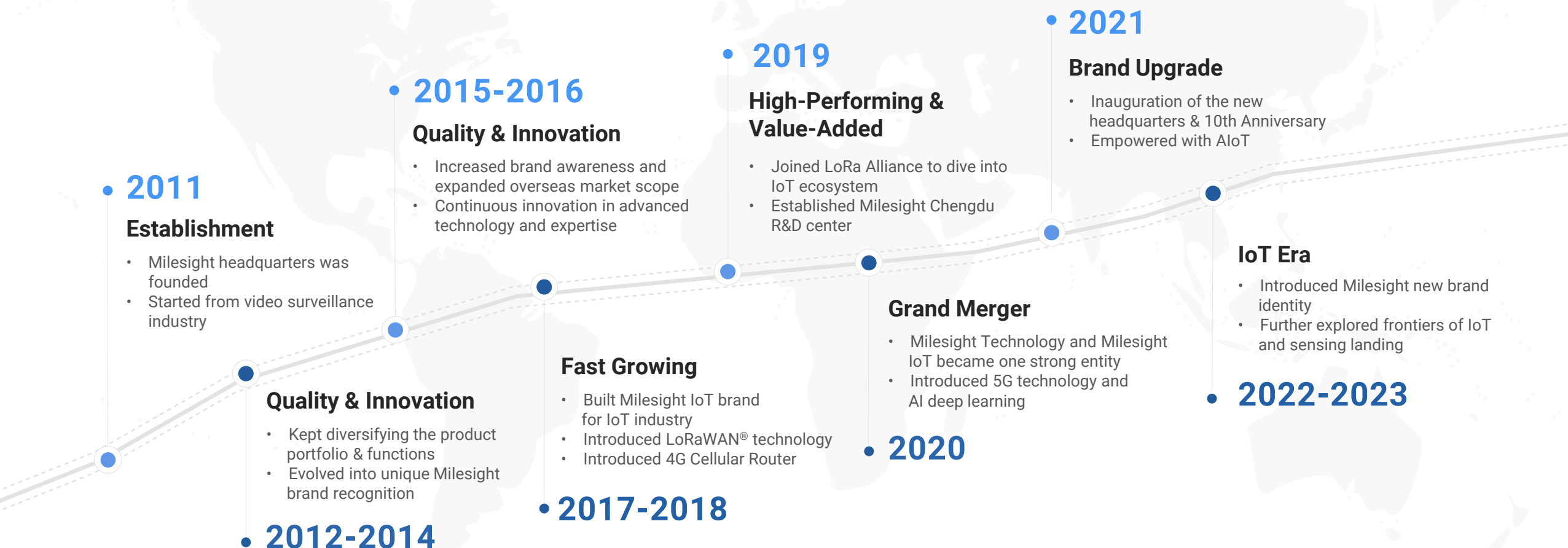Serves to 120+ Countries and Regions

50%+
Compound Annual Growth Rate

2
2 Product Lines: Video Surveillance and IoT

MILESIGHT MILESTONE

2011

Establishment

- Milesight headquarters was founded
- Started from video surveillance industry

2012-2014

Quality & Innovation

- Kept diversifying the product portfolio & functions
- Evolved into unique Milesight brand recognition

2015-2016

Quality & Innovation

- Increased brand awareness and expanded overseas market scope
- Continuous innovation in advanced technology and expertise

2017-2018

Fast Growing

- Built Milesight IoT brand for IoT industry
- Introduced LoRaWAN® technology
- Introduced 4G Cellular Router

2019

High-Performing & Value-Added

- Joined LoRa Alliance to dive into IoT ecosystem
- Established Milesight Chengdu R&D center

2020

Grand Merger

- Milesight Technology and Milesight IoT became one strong entity
- Introduced 5G technology and AI deep learning

2021

Brand Upgrade

- Inauguration of the new headquarters & 10th Anniversary
- Empowered with AIoT

2022-2023

IoT Era

- Introduced Milesight new brand identity
- Further explored frontiers of IoT and sensing landing

02 WHAT IS SMART BUILDING

A broad market that uses advanced technology and automation to optimize overall performance

CONVENTIONAL BUILDINGS ARE FACING VARIOUS PROBLEMS

A conventional building is a building that is constructed using traditional materials and methods of construction, without any smart building technologies or advanced features like automation, artificial intelligence, or IoT sensors.

⟩ Pain Point

1 **Lack of Energy Efficiency**

Designed without a focus on energy efficiency, which can result in higher energy costs.

2 **Limited Data Collection and Analysis**

Limit the collection and analysis of data related to building performance and occupant behavior. Without this data, building managers may be unable to identify opportunities for optimization and improvement.

3 **Lack of Automation**

Lack automation systems that can monitor and control building systems and operations.

4 **Limited Occupant Comfort**

Not provide optimal levels of occupant comfort, such as lighting, temperature, and indoor air quality, affecting productivity, wellbeing and overall comfort.

5 **Limited Flexibility**

Not be designed to accommodate changes in occupancy or use, making it difficult to adapt to changing needs.

# SMART BUILDINGS ARE WELCOMING A PROMISING FUTURE

A smart building requires advanced technology and automation to optimize its energy efficiency, sustainability, and overall performance, as well as improve the comfort, safety, and productivity of its occupants.

Rising standard of living and urbanization trends are fueling the demand for smart buildings. By leveraging IoT-enabled technologies, organizations can achieve newfound ways to improve their commercial spaces, making them more energy efficient and cost-effective, while improving the working environment.

115 million

45million

2022   2026
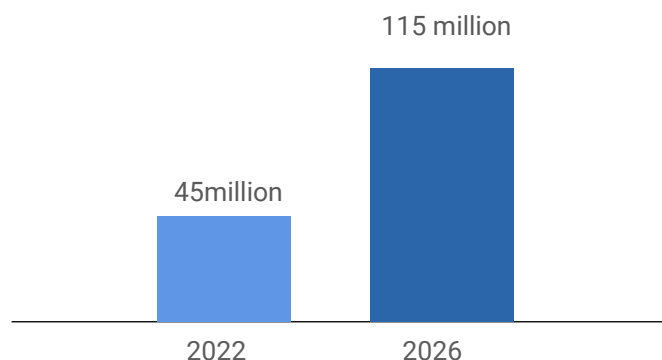
More than 115 million buildings will deploy smart technologies by 2026, up from 45 million in 2022. 90% of smart buildings will be non-residential in 2026.

---- Juniper Research

328.62 billion

80.62 billion

67.60 billion

2021   2022   2029
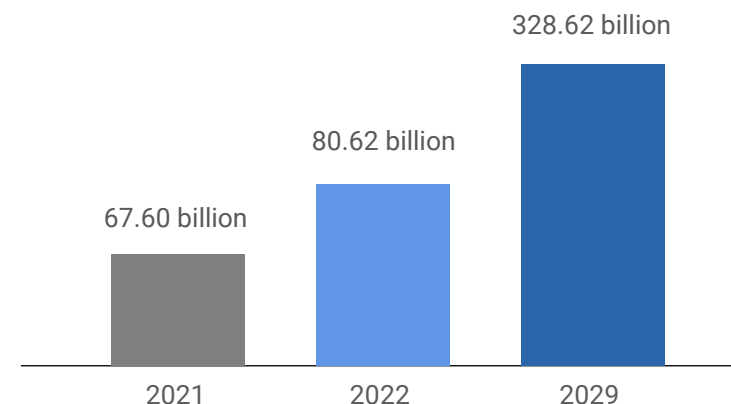
The global smart building market was valued at USD 67.60 billion in 2021. The market is projected to grow from USD 80.62 billion in 2022 to USD 328.62 billion by 2029, exhibiting a CAGR of 22.2% during the forecast period.

---- Fortune Business Insights

ENABLE EVERY ASPECTS TO ENERGIZE BUILDINGS

Milesight

HVAC System Control

- Detect Temperature, Humidity, and Air Quality
- Automatically Adjust the HVAC System
- Maintain a Comfortable and Healthy Indoor Environment
- Minimize Energy Consumption

Lighting System Control

- Control Lighting Based on Occupancy and Schedules
- Control Lighting Systems Remotely
- Reduce Energy Usage

Space Utilization

- Monitor Occupancy
- Identify Underutilized Spaces
- Track Usage Data
- Maximize Space Utilization

Security Monitoring

- Enhance Control Building Security Systems
- Access Control and Intrusion Detection
- Reduce the Risk of Theft and Unauthorized Access

ENABLE EVERY ASPECTS TO ENERGIZE BUILDINGS

Switching System Control

- Switch Electrical Devices
- Remotely Control Through a Mobile App
- Control Environment More Easily

Intelligent Meeting System

- Advanced Booking Systems
- Personalized Environmental Control
- Improve Meeting Productivity
- Enhance the Overall Meeting Experience

Access Control

- Only Allow Authorized Personnel to Enter
- Variety of Control Methods, Such as Key Cards, Biometric Authentication, or Mobile Apps.

Parking System

- Monitor Parking Usage and Availability
- Optimize Parking Resources and Reduce Congestion
- Usage and Occupancy Status Dashboard

ENABLE BUILDINGS NEW VALUE-ADDED CHARACTERS

Informatization

Fully present the overall structure of the Internet of Things, give full play to the basic characteristics of the openness of the Internet of Things

Humanization

That is to guarantee people's subjective initiative, pay attention to the coordination between people and the environment, so that users can control the living and working environment in the building anytime, anywhere and as they like.

Energy Saving

Through the Internet of Things technology, the intelligent and energy-saving effect of buildings can be effectively improved.

Intelligence

It is more intelligent as control objects

Visualization

All kinds of network sensors will all form a building "smart" in the form of a network structure The sensor network of the large control system, and then clearly presents its invisible state to the user through data visualization, allowing the user to have a more intuitive feeling about the state of the building.

Facilitation

Engineering construction is easier. The functions are more powerful and detailed, making life more comfortable and harmony between man and nature.

Highly Integrated

The Internet of Things is the development of the Internet computing model. Through the morphologicalization of the Internet of Things, subsystems such as lighting, HVAC, security, and communication network systems in smart buildings can be integrated into the same platform for unified management and monitoring, and mutual data sharing.
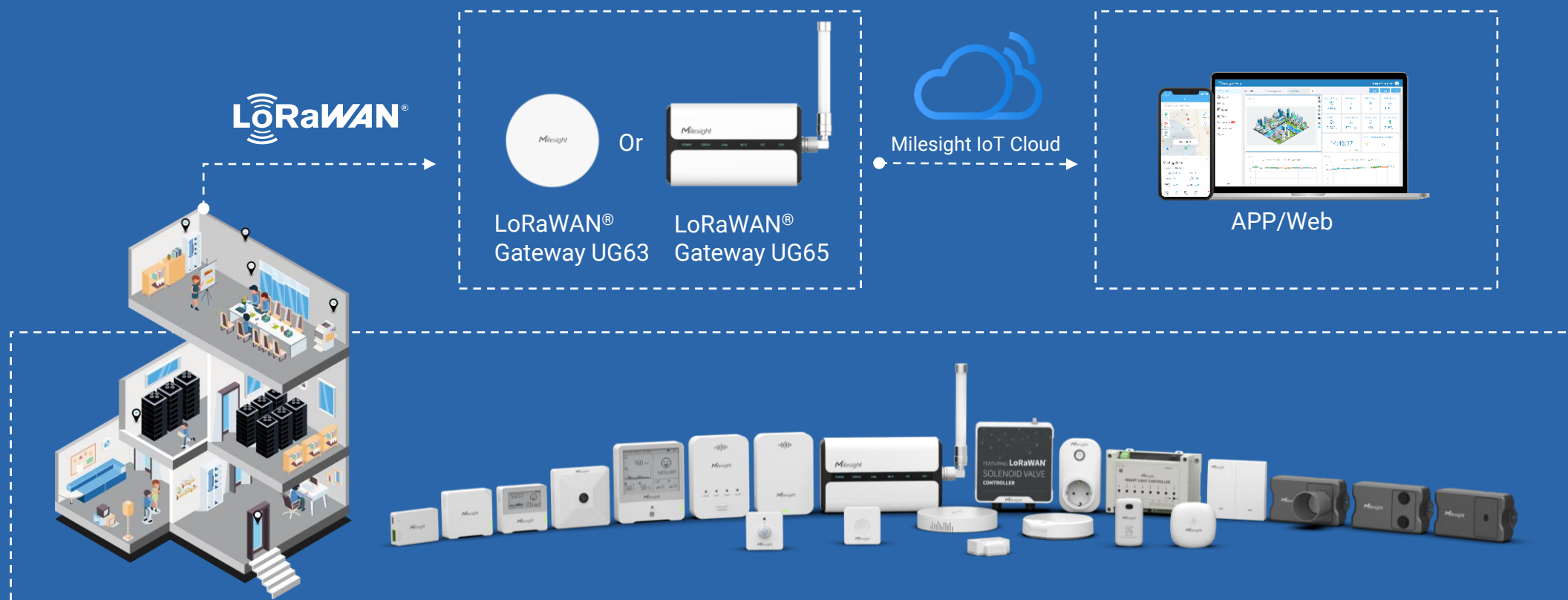
Milesight

03

WHY MILESIGHT
SMART BUILDING SOLUTION

Integrated product profolio with latest technologies and great highlights to enable smart buildings

UPGRADE BUILDINGS TO BE SMART AT EASE

LoRaWAN®

LoRaWAN® Gateway UG63   LoRaWAN® Gateway UG65   Or

Milesight IoT Cloud

APP/Web

Milesight innovations that opens the way for people to store, use and share data from any IoT device. Everything is about obtaining information and automate different processes. It's a simple application, and offers reduced enterprise expenditure. Then, the building become smarter, not hassle.

VISUALIZE ENVIRONMENTS BY STATISTICS

Milesight

Better Environments Indoor Air Quality

> **Get real-time statistics by occupancy & people counting sensors Improve space utilization via accurate information**

> **Advantages**

- Flexible Deployment Options
- Multiple Data Acquisition
- Low Power Consumption with Long Service Life
- Secure Local Data Storage
- Wide Coverage & Deep Penetration
- Low Costs & Future Proof
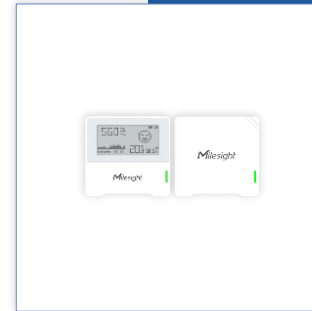
3 in 1 Indoor Air Quality Sesnor AM103/AM103L

- Light/Dark Display Mode
- Itsy-bitsy & Eye-Catching
- 2.13 Inch E-ink Screen (AM103)
- Vivid Emoticon Indication (AM103)
- Traffic Light Status Indicator
- Anti-theft Protection
- Battery Powered up to 4 Years

7 in 1 Indoor Air Quality Sesnor AM104/AM107

- Compact Sized & Delightfully Affordable
- 2.13 Inch E-ink Screen
- Visual and Intuitive Display
- Powered via USB Type-C
- Battery Powered around 1.5 Years

9 in 1 Indoor Air Qaulity Sensor AM307/AM308/AM319

- Palm Sized & All-round Capabilities
- 4.2 Inch E-ink Screen
- Light/Dark Display Mode
- Vivid Emoticon Indication
- Traffic Light Status Indicator & Buzzer
- Anti-theft Protection
- Powered via USB Type-C
- Battery Powered up to 3 Years

UNLOCK PEOPLE COUNTING POTENTIAL

Milesight

Smart Management **People Counting**

> **Get real-time statistics by people counting sensors to Improve space utilization via accurate data**

AI ToF People Counting Sensor VS133

- 3D ToF Technology & AI Algorithm
- 100% Anonymous Detection (Compliant with GDPR)
- 99.8% Ultra-high Accuracy
- Smart U-Turn Detection
- Bi-Directional People Counting
- A Million Local Storage Capacity
- Flexible PoE Version Optional

AI Workplace Occupancy Sensor VS121

- LoRaWAN® Wireless Deployment
- Up to 98% Accuracy
- 100% Anonymous Detection
- 78㎡ Large Detection Area
- 16 Custom Detection Regions
- Bi-Directional Line Crossing People Counting
- Milesight D2D Communication
- Highly-Mounted Version Optional

> **Advantages**

- Energy Saving
- Optimize Resource Allocation
- Improve Efficiecy and Management
- Master People Flow Accurately
- Realize Data-Driven Management

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UNLOCK SPACE UTILIZATION POTENTIAL

Milesight

Smart Management — Space Occupancy

> Get real-time occupancy status to Improve space utilization and highly-efficient operating

Advantages

- Energy Saving
- Maximum Space Utilization
- Optimize Resource Allocation
- Improve Management Efficiency

AI Workplace Occupancy Sensor VS121

- LoRaWAN® Wireless Deployment
- Up to 98% Accuracy
- 100% Anonymous Detection
- 78㎡ Large Detection Area
- Bi-Directional Line Crossing People Counting
- Optional High Ceiling Mount Version

Desk & Seat Occupancy Sensor VS340/VS341

- Thermopile and PIR Technology
- High Accuracy and Low Latency
- Adjustable Angle for Broader Application Scenarios
- Long Battery Life
- Easy Installation (3M Tape)

Cubicle Occupancy Sensor VS330

- Dual Technology, Maximal Possibility
- Industry-leading Accuracy exceeding 99.5%
- Compliant with GDPR & 100% Anonymous Detection
- Real-time Update & Ultra-low Power Consumption
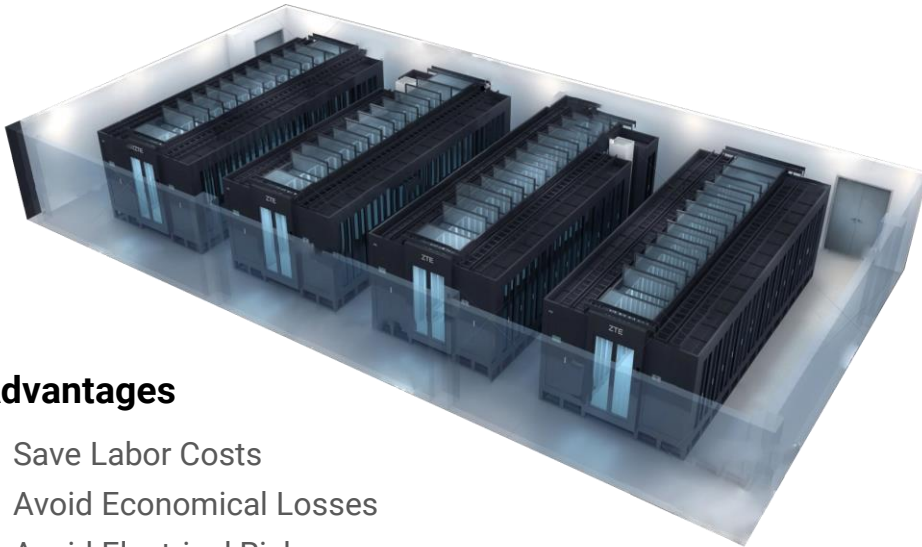- Artful Design & Flexible Applications

PIR & Light Sensor WS202

- PIR Presence Detection
- Brightness Measurement
- LoRaWAN® Wireless
- Easy Configuration (via NFC)

DISPEL THE WATER LEAKAGE CONCERNS

Milesight

| **Better Environments** | **Leakage Monitoring** |

> **Improve building environment monitoring to avoid potential leakage risks and damage**

> **Advantages**

- Save Labor Costs
- Avoid Economical Losses
- Avoid Electrical Risks
- Realize Data-Driven Management
- Improve Vital Areas' Security Level

Zone Water Leak Detector EM300-ZLD

- Rope Type Water Leak Detection
- Robust IP67 Waterproof
- Wireless LoRaWAN® Deployment
- 5/10 Years Battery Life
- Easy Configuration via NFC

Spot Water Leak Detector EM300-SLD

- Probe Type Water Leak Detection
- Robust IP67 Waterproof
- Wireless LoRaWAN® Deployment
- 5/10 Years Battery Life
- Easy Configuration via NFC

Mini Leak Detection Sensor WS303

- Immediate Warning Locally and Remotely
- Unique Milesight D2D Communication
- Up to 5 Years Battery with One Coin Cell Battery
- Robust IP67 Waterproof Protection

ENERGIZE OPTIMAL SWITCH SYSTEM

Milesight

Energy Efficiency | Switch Control

⊙ **Guarantee Security in A High Level Allow for Timely Response for any emergencyation**

Learn More ➤

⊙ **Advantages**

- Improve automation level
- Enhance Energy saving
- Get great utilization efficiency

Smart Light Controller WS558

- Control up to 8 Lighting Circuits
- Remote & Time-Based ON/OFF
- Power Consumption Measurement
- Milesight D2D Communication

Smart Wall Switch WS50X

- emote & Time-Based ON/OFF
- Power Consumption Measurement
- Milesight D2D Communication
- Easy Configuration (via NFC)

PIR & Light Sensor WS202

- PIR Presence Detection
- Brightness Measurement
- LoRaWAN® Wireless
- Easy Configuration (via NFC)

Smart Portable Socket WS523

- Remote ON/OFF
- Power Consumption Measurement
- Time-Based ON/OFF
- Overload Protection

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SMARTER AND EASIER DISTANCE-BASED ENVIRONMENTAL SENSING

Intelligent Management | Trashbin and Parking Management
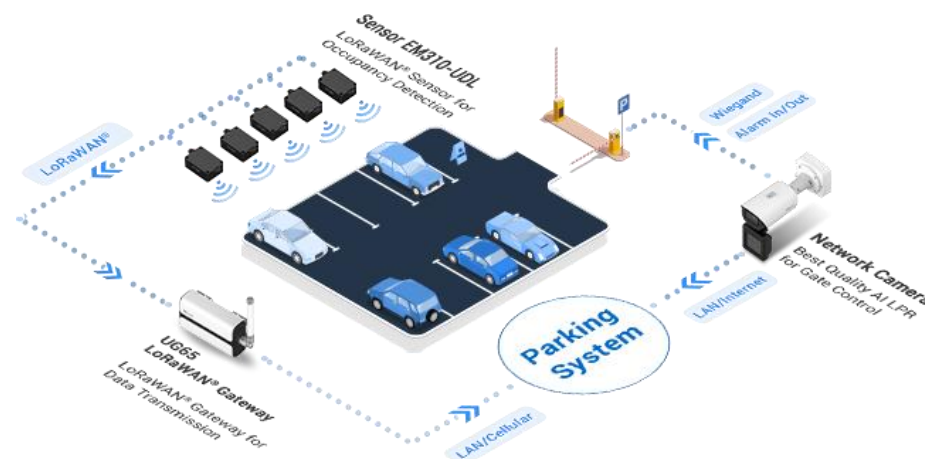
01 Smart Trashbin

Get Optimal Environment Condition
Improve efficiency to get Data-Driven Management

Advantages

- Optimize Waste Collection Routes
- Reduce Operation and Labor Costs
- Eliminate Overflowing Trash Bins
- Improve Hygiene in Public

02 Smart Parking

Advantages

- Reduce Traffic Congestion
- Increase Parking Availability
- Improve Efficiency of Space Utilization
- Optimize Experience for Drivers and Operators

SMARTER AND EASIER DISTANCE-BASED ENVIRONMENTAL SENSING

> EM400-TLD ToF Laser Distance Sensor / EM400-UDL Ultrasonic Distance Sensor

- Built-in Three Sensors: Ultrasonic, Temp, and 3-Axis Accelerometer
- Multiple Probes for Different Scenarios
- Low Power Consumption with over 10-Year Battery Life
- IP67 Enclosure & Outstanding Calibration

Preferable for Both Small & Large Trashbins

> EM400-MUD Multifunctional Ultrasonic Distance Sensor

- Built-in Three Sensors: Ultrasonic, Temp, and 3-Axis Accelerometer
- Pre-Set Modes for Trash bin, Parking Lot, and Standard
- Low Power Consumption with over 10-Year Battery Life
- IP67 Enclosure & Outstanding Calibration

Preferable for Trashbins and Parking System

> Smart Fill Level Monitoring Sensor WS201

- Compact Design Suitable for Diver Boxes
- Accurate Fill Level Monitoring with ToF Technology
- Up to 2 Years Battery with One Coin Cell Battery
- Wireless Deployment and Easy Maintenance

Preferable for fill level monitoring

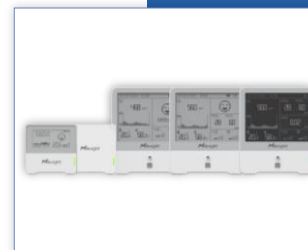# INTELLIGENTIZE HVAC SYSTEM BY COLLABORATION

Milesight

Energy Efficiency HVAC System

❯ **Collaborate with HVAC system to make Building Environments Be in the Most Comfortable Level**
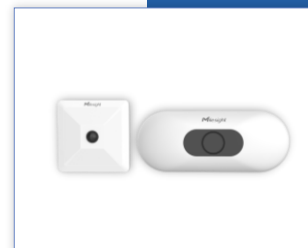
❯ **Advantages**

- Energy Saving
- Optimize Environment Conditions
- Realize Intelligent Control
- Optimize Management Efficiency

Indoor Air Quality Sensors AM103/AM103L/AM307/AM308/AM309

- Max. 9 Integrated Sensors into 1
- Flexible E-ink Screen Available
- Vivid Emoticon Indication
- Low Power Consumption with Long Battery Life
-

Occupancy & People Counting Sensors VS121/VS133

- Advanced AI and ToF Technologies
- Up to 99.8% Ultra-High Accuracy
- 100% Anonymous Detection (Compliant with GDPR)
- Smart U-Turn Detection
- Great Compatibility with Third-Party Platforms

IoT Controller UC100

- Modbus RS485 to LoRaWAN® Converter
- Data Collection Up to 16 Registers
- Local & ReCmote Easy Configuration
- Milesight D2D Controller & Agent

Semi-Industrial LoRaWAN® Gateway UG56

- Industrial-Grade Design
- Listen Before Talk & Gateway Fleet
- Free Embedded Network Server
- Multiple Backhaul Connectivities
- Global LoRaWAN® Frequency Plans

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EMBRACE SECURITY IN A SMARTER WAY

Security Management Security Monitoring

> **Guarantee Security in A High Level Allow for Timely Response for any emergency**

Gas Detector GS101

- Event Trigger
- Built-in Self-Test Function
- Ultra Safe Gas Alarm Threshold
- 800 Records Historical Data Storing Capacity
- Up to 5-Year-Long Life Expectancy
- LoRaWAN® Based

Magnetic Contact Switch WS301

- 100% Wire-Free
- Simple Installation
- 4~7 Years Battery Life
- Easy Configuration (Via NFC)

Zone Water Leak Detector EM300-SLD

- Probe & Rope Type
- Robust IP67 Waterproof
- 5/10 Years Battery Life
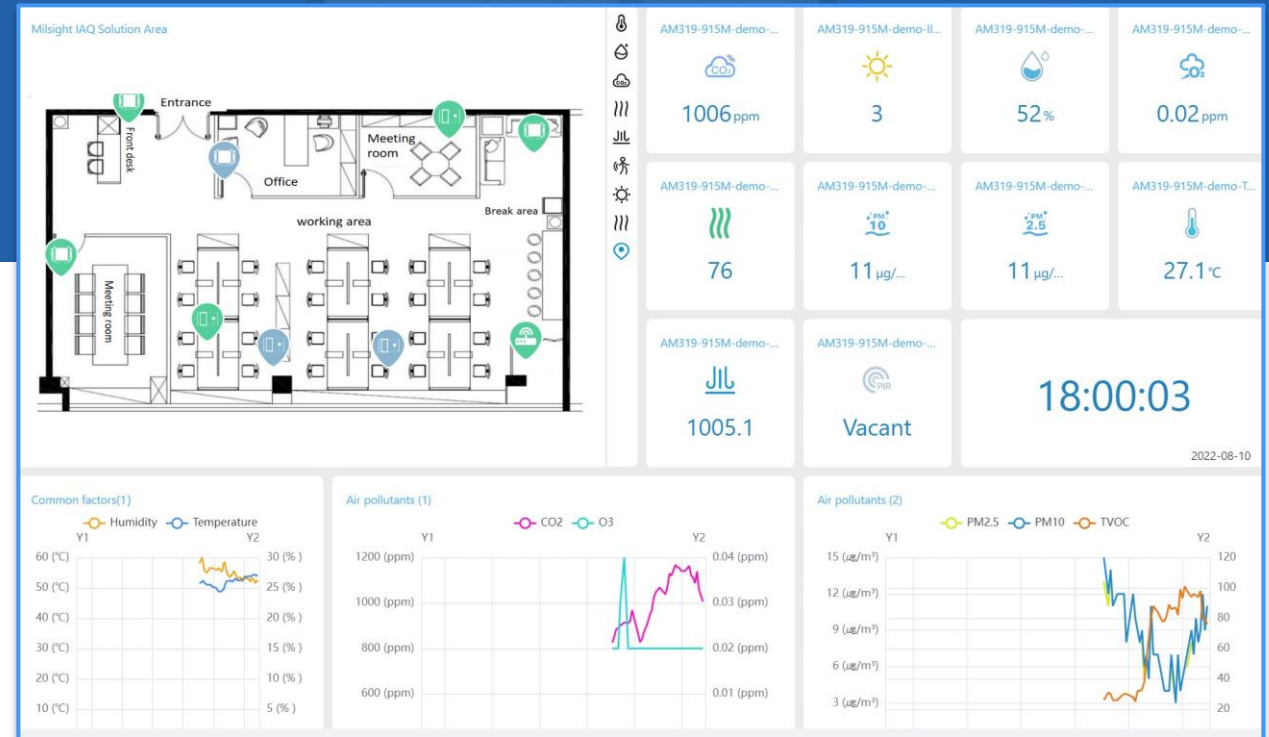- NFC for Configuring

Smart Button WS101

- Probe & Rope Type
- IP67 Waterproof
- 5/10 Years Battery Life
- NFC for Configuring

> **Advantages**

- Improve Security Level
- Low Power Consumption
- Allow Timely Response

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MILESIGHT IOT CLOUD

> **Build up a PoC within A Day**

> **Centralized Management in One**

TRUELY BENEFIT FROM SMART BUILDING SOLUTION

⊗ Energy Saving

Through the solution, the intelligent and energy-saving effect of buildings can be effectively improved. The facilities especially the lights and HVAC system can be optimized to bring efficient performance.

Smart Portable Socket
WS523

Indoor LoRaWAN® Gateway
UG65

Milesight IoT Cloud

AI Workplace Occupancy Sensor
VS121

LoRaWAN® Wall Switch
WS50x

PIR & Light Sensor
WS202

Smart Light Controller
WS558

Mini LoRaWAN® Gateway
UG63

⊗ Visulization

Various sensors form a smart network structure in the buildings, presenting the invisible state via visible data. And the large control system allows users to have a more intuitive feeling about the state of the building.

TRUELY BENEFIT FROM SMART BUILDING SOLUTION

Faciliation

The sensing technologies like LoRaWAN, Milesight D2D, AI and ToF enable the building management and functionality realization becoming easy. The sensing nodes, technologies and solutions faciliate the processes and make them become easier.
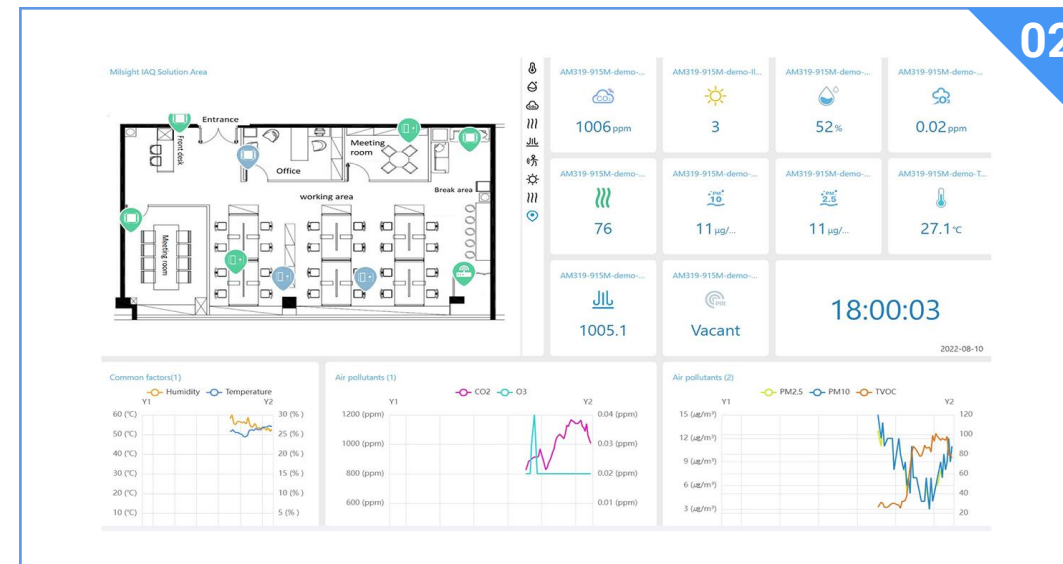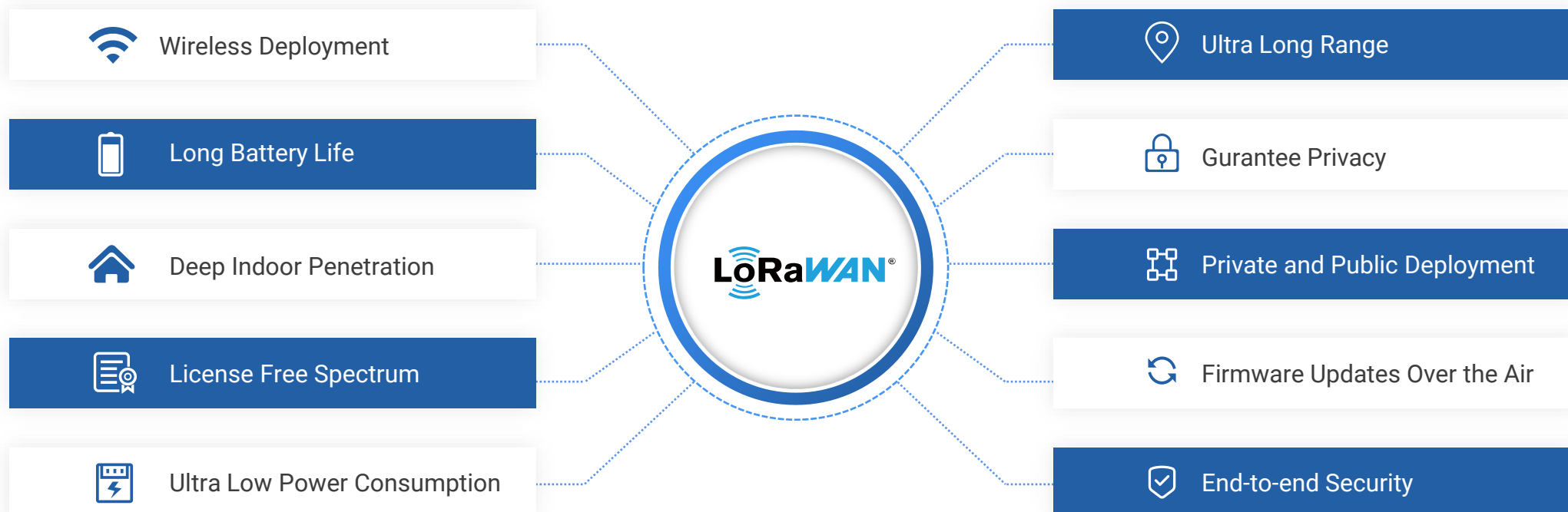
Highly Integrated

Through the central platform, the subsystems such as lighting, HVAC, security, and communication network systems in smart buildings can be integrated into the same platform for unified management and monitoring, and mutual data sharing.

WHY MILESIGHT SMART BUILDING SOLUTION
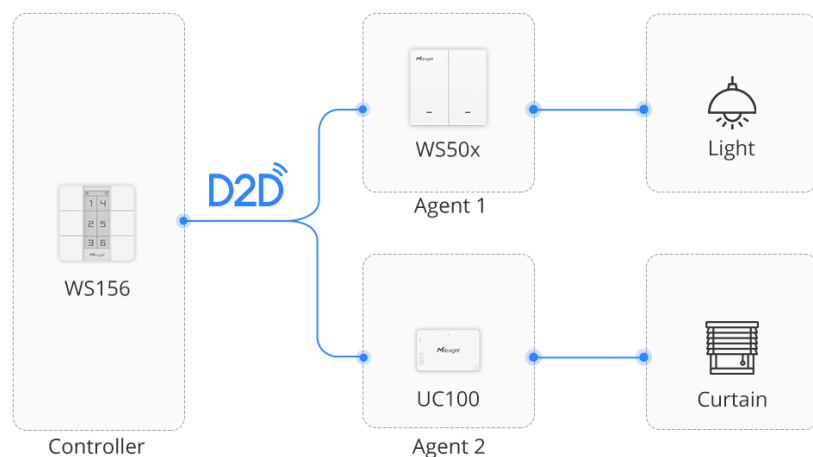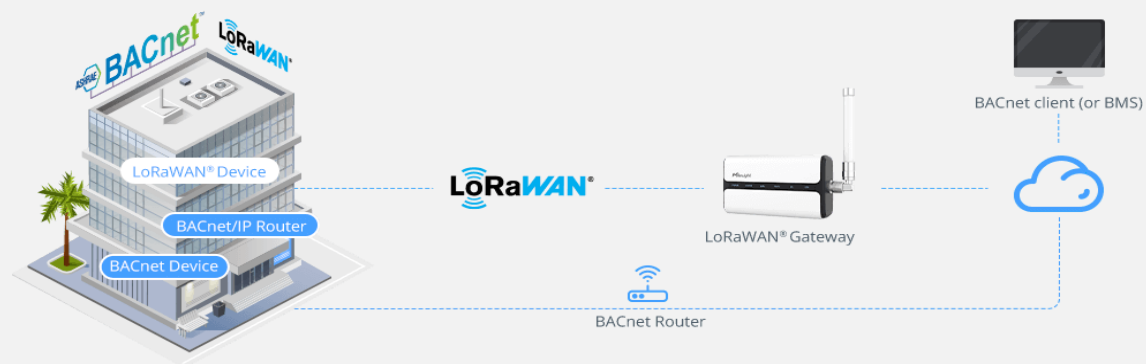
Advanced Technologies and Highlights

⊘ Milesight D2D Communication

- Low latency (less than 1 second in the same room)
- Low power for battery operation of both sides
- Long range and as secure as LoRaWAN®
- No useless beaconing and difficult synchronization
- Initial feature which coexisted with LoRaWAN®
- No additional hardware and LoRaWAN® gateways are
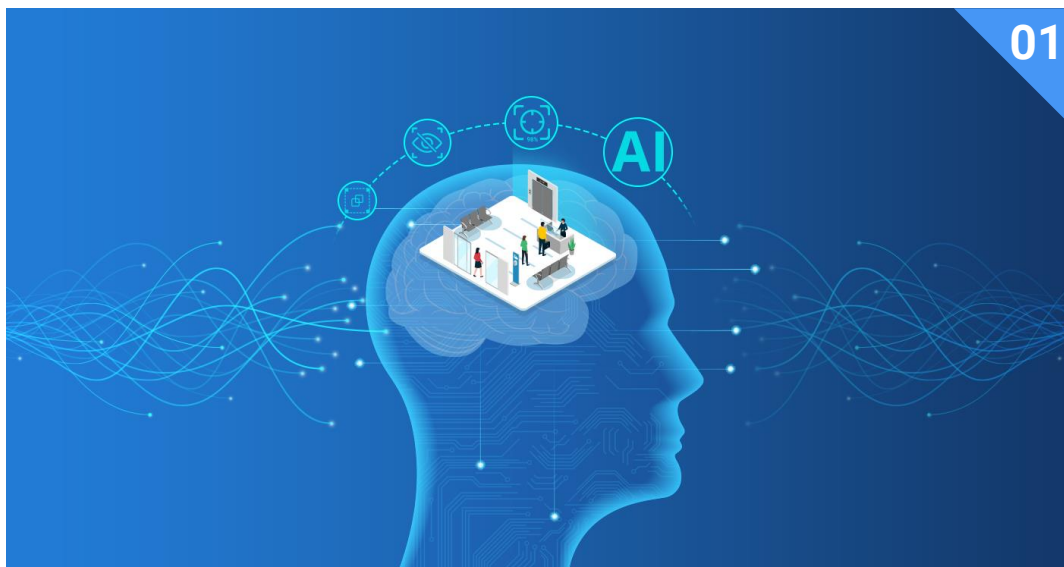- needed, leading to cost saving

⊘ BACnet

With support for BACnet/IP, real-time data can be seamlessly integrated into existing Building Management System (BMS).

WHY MILESIGHT SMART BUILDING SOLUTION
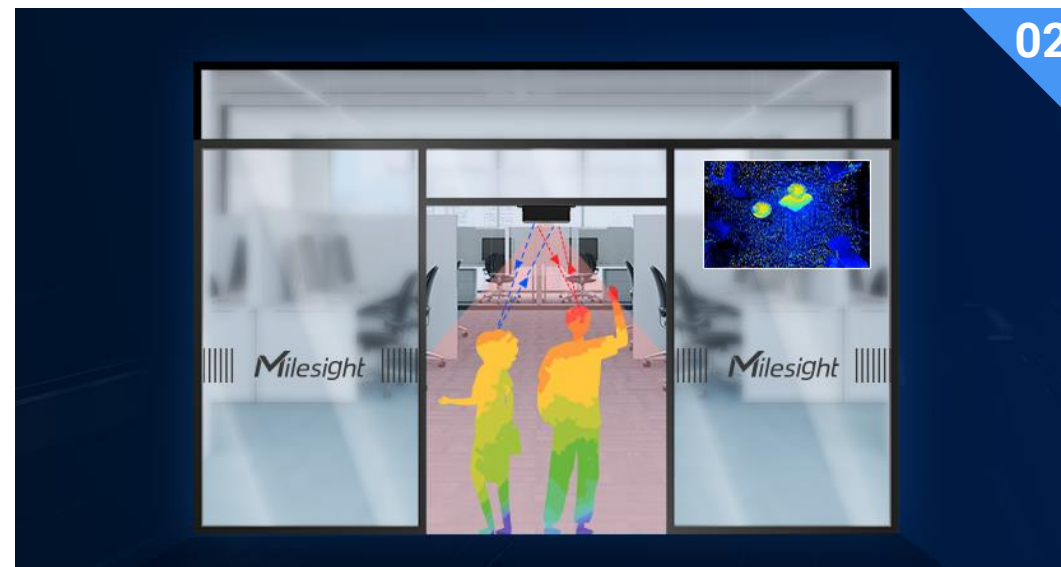
Advanced Technologies and Highlights

01

AI Algorithm

With Embedded AI algorithm, the people can be intelligently recoginized and counting, the deep learning algorithm and the nerual network structure brings great performance.
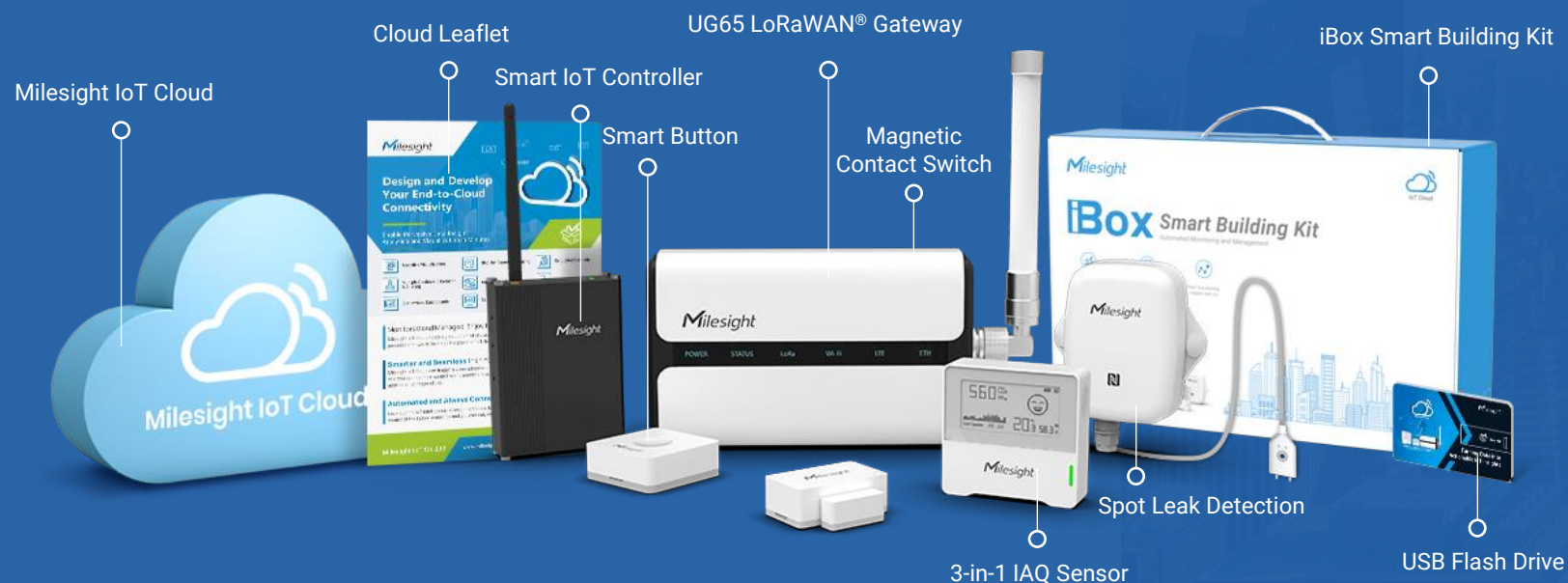

02

ToF Technology

The ToF (time-of-flight) principle is based on measuring the time it takes for a modulated near-infrared light to travel from a source to an object and back. By calculating phase difference, the sensor forms 3D depth information for accurate and anonymous people counting.

SMART BUILDING KIT

Milesight IoT Cloud

Cloud Leaflet

Smart IoT Controller

Smart Button

UG65 LoRaWAN® Gateway

Magnetic Contact Switch

iBox Smart Building Kit

Spot Leak Detection

3-in-1 IAQ Sensor

USB Flash Drive

Construct Intelligent Building PoC in ONE Kit

From hardware to software, Milesight Smart Building Solution offers an pervasive IoT connecitivity that can help enable data insight, analytics and visualization in minutes.

04 HOW MILESIGHT MADE IT

Worldwide success stories reveal how the solution truely satisfies customer needs for great performance

47,000 IAQ SENSORS CREATE SAFER CLASSROOMS IN CANADA

Public schools in Quebec, Canada

Background

To curb the spread of COVID-19 and protect students and faculties' safety, the Ministère de l'Éducation du Québec in Canada decides to adopt an IoT solution that is able to monitor temperature, humidity and the level of CO_2 in over 90,000 classrooms.

Highlights

- Safeguard of Back-to-School Plan: Deploy CO_2 sensors in 47,00 classrooms to automatically detect, collect data and indicate indoor air quality;
- Competitive Solution: Total 5 lots in the public tender, in which Milesight has become the winner of the two lots, i.e. more than half of the sensors are supplied by Milesight;

$250,000 HAVE BEEN SAVED FROM ENERGY-EFFICIENCY BUILDINGS WITH 4,400 MILESIGHT SENSORS

Background

For buildings, there's a large desire for the efficient operation and management.

Highlights

- **Wider Area Coverage**: Just 5 units of gateways are enough to support a high building with 19 floors;
- **Lower Power Consumption**: Battery health dropped 3% only within one year, no maintenance cost rose;
- **Wireless Deployment**: Installation is simple and does not require access to existing infrastructure making it ideal for both new and retrofit buildings;

TRASH & WATER LEAK MANAGEMENT FOR RESIDENTIAL BUILDINGS

Artisan Garden, Hong Kong, China

Background

Legacy residential building "Artisan Garden" in Hong Kong
"Artisan Garden" is the latest completed high-quality residential project that was jointly developed by the HK New World Development Company Limited(NWD) and HK Urban Renewal Authority in the Ma Tau Kok area, offering 294 units on 31 floors.

Highlights

- **Incredibly Efficiency:** No need for additional cabling and simple to implement to existing buildings and setups;
- **Smart Monitoring:** Customise data feeds to receive information at your pre-defined intervals;
- **Server-based Strategy:** Strategy in the Cloud simplifies daily operations and maintenance;
- **Timely Alerting System:** Action can be taken quickly when an incident occurs because of the Web and Mobile App monitoring