

# Milesight

# iBox Kit

IAQ | CoWork | Smart Building



5G

AIoT

IoT

D2D

LoRaWAN



## Turning Data into Actionable Insight

Fast | Flexible | Futureproof

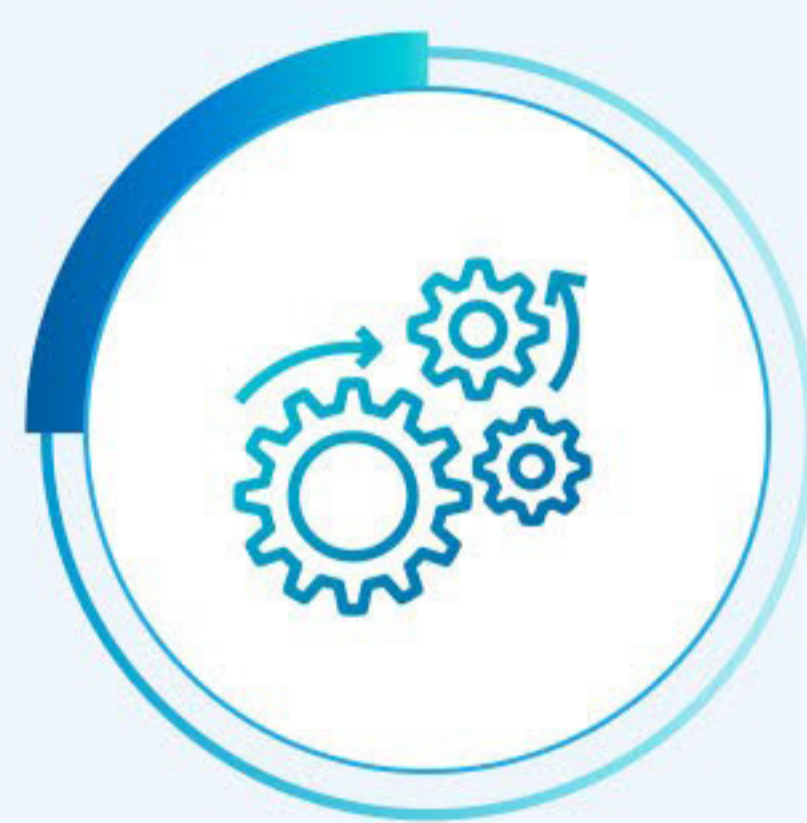
Milesight designs and develops iBox Kit that employs vertical integration IoT strategies into users' insights in the fields of IAQ, CoWork, and Smart Building. The kit will help users connect with the right place, at the right time, with the right data.

### Benefits



Monitored and Managed

Enjoy the Flexibility IoT Brings to You



Automated and Always Connected

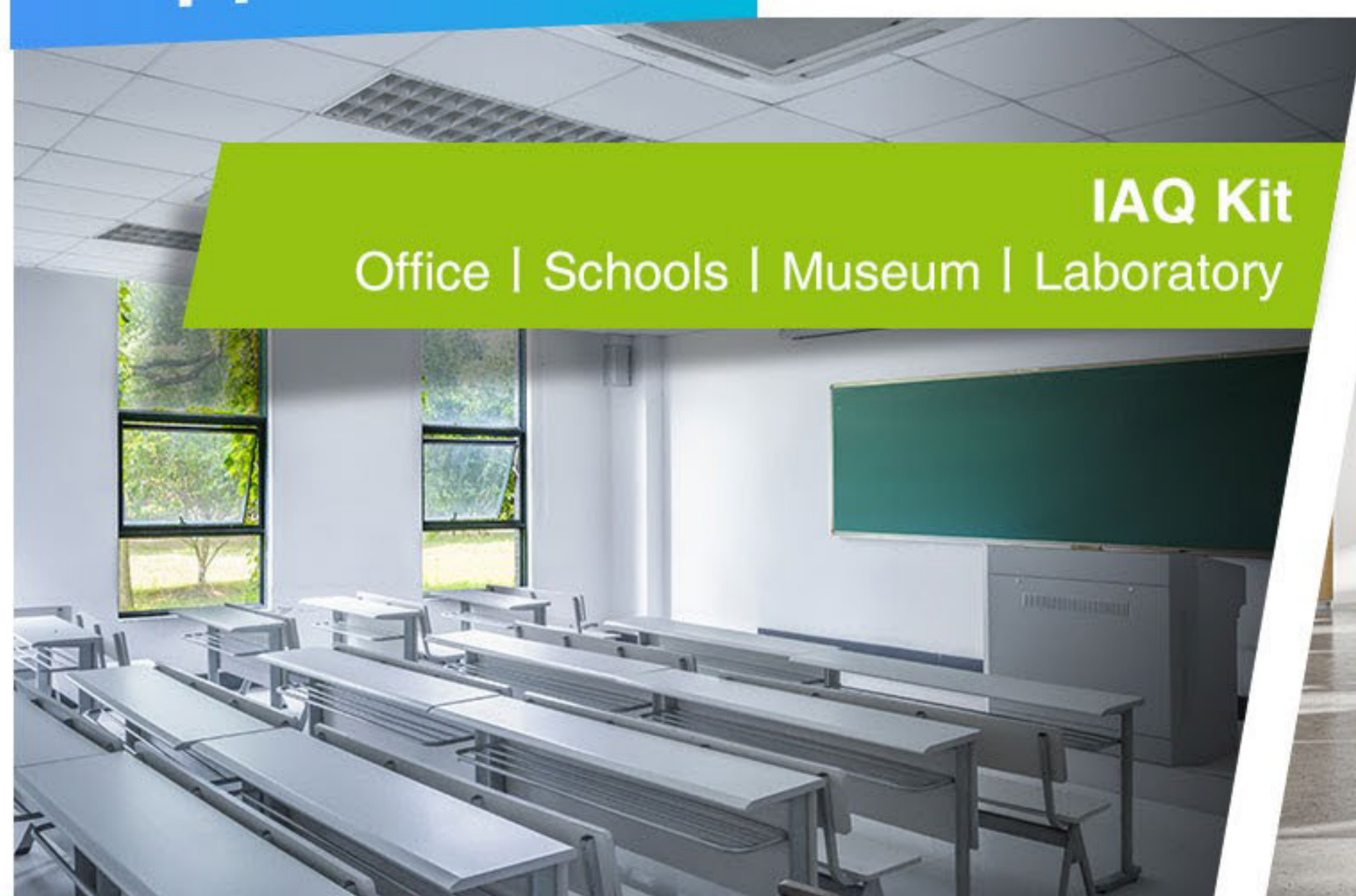
Everything IoT Gets Ready



Smarter and Seamless

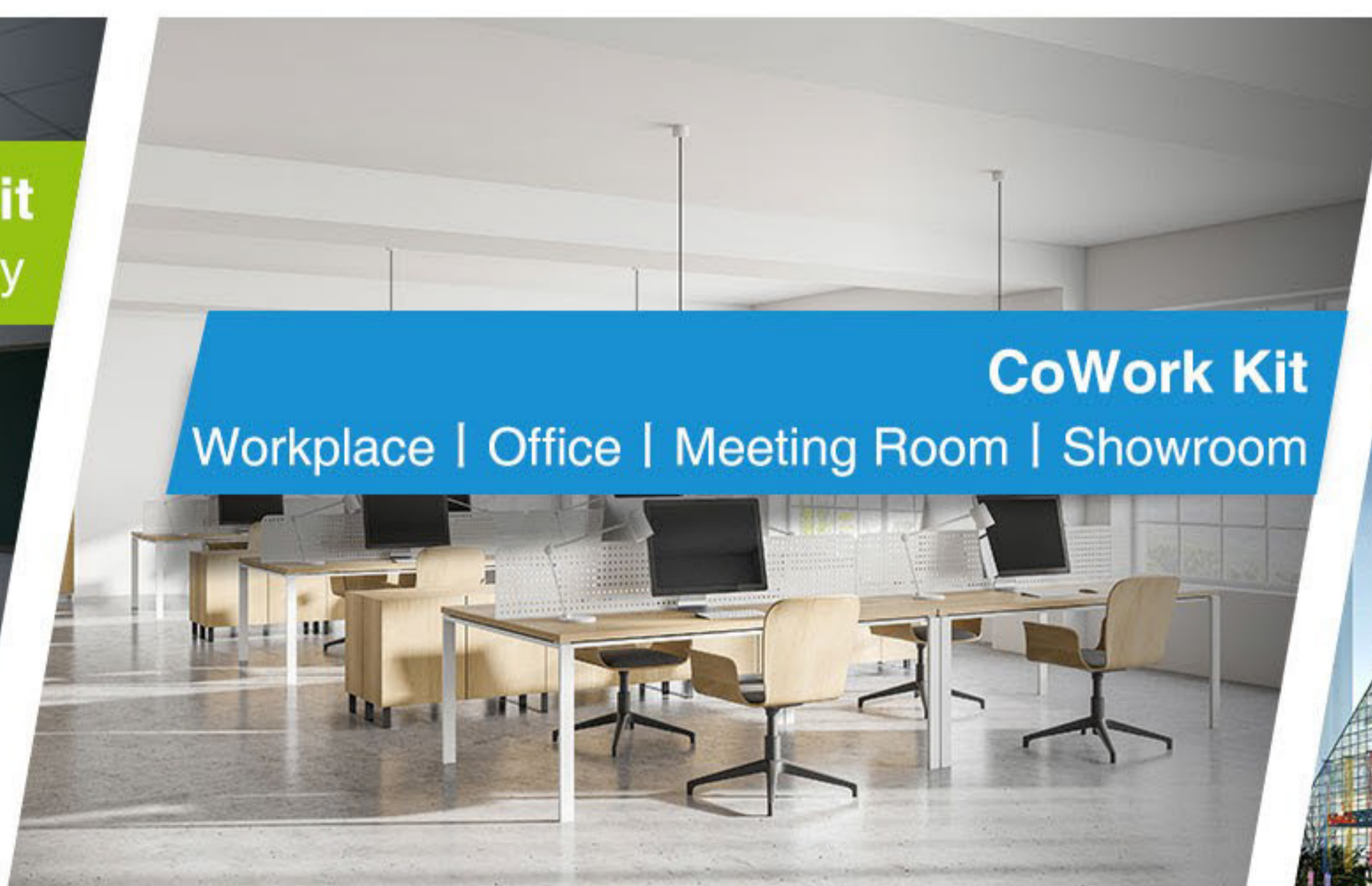
than You Ever Imagined

### Applications



IAQ Kit

Office | Schools | Museum | Laboratory



CoWork Kit

Workplace | Office | Meeting Room | Showroom



Smart Building Kit

Residential Building | Commercial Building  
| Retirement Home

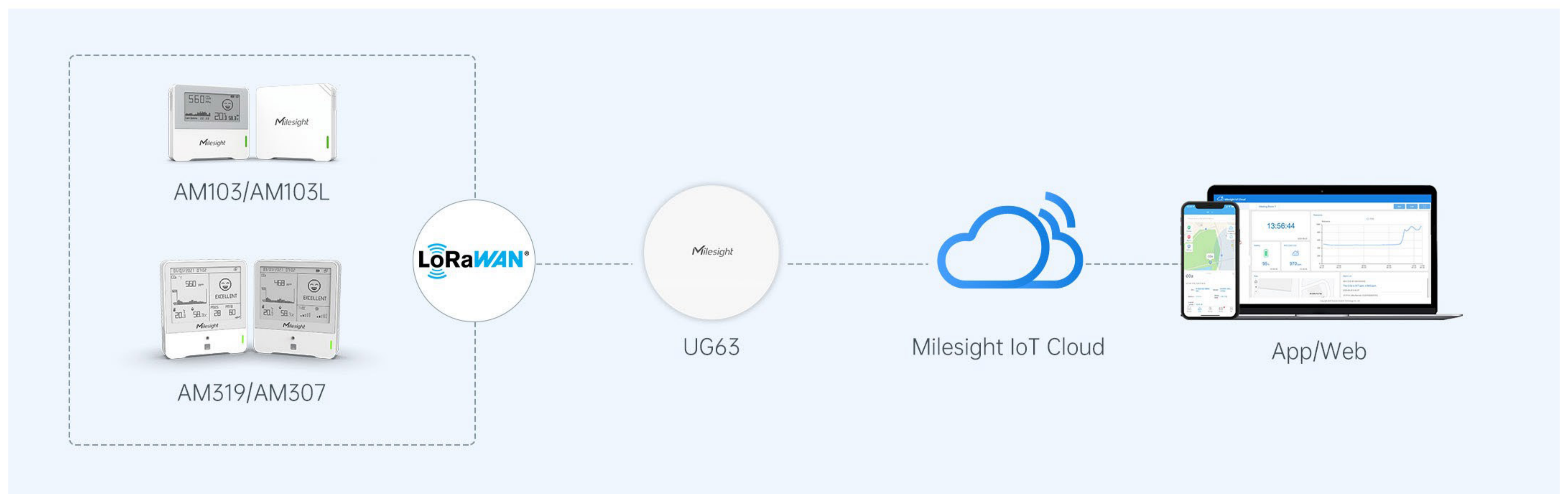
Milesight IoT

# iBox IAQ Kit

Indoor Air Quality Monitoring



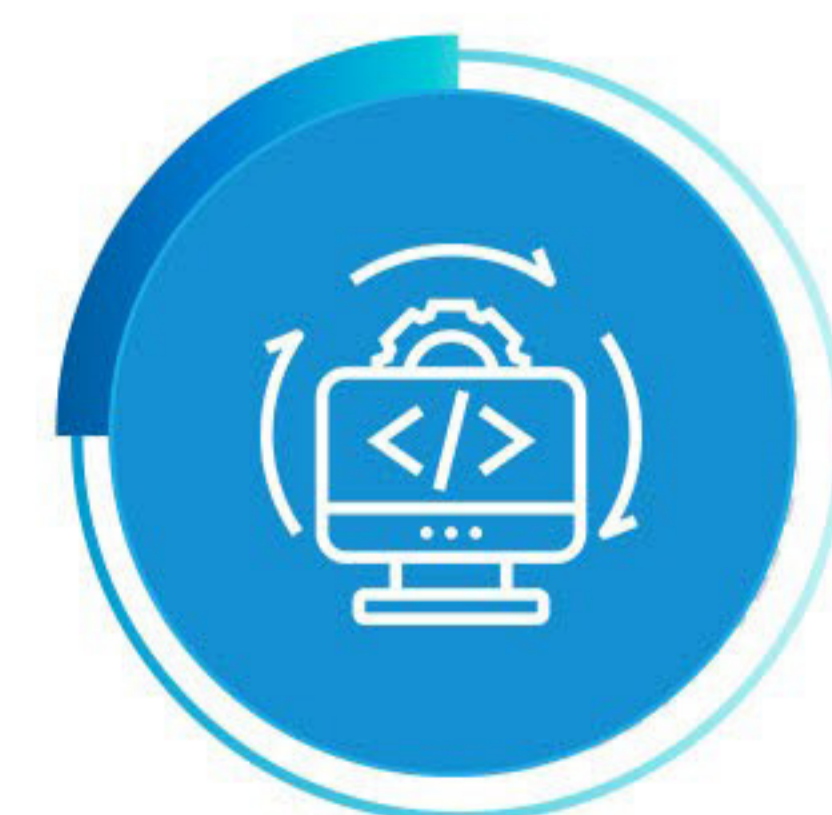
Milesight IAQ Kit will help users take action in an instant, take adjustment in time and take care by all efforts. With straightforward data directly shown on display and cloud platform, you can always stay informed and alert before it is too late. Through reports and analysis, you can catch the problems that you probably ignored otherwise and keep real-time monitoring of factors such as temperature and humidity, as well as air that is free of irritants, allergens, and unwelcome odors.



See Your Environment



Reinforce Your Health



Maintain Your Business Continuity

## Item

### 1 x AM103L IAQ Sensor



## Description

AM103L is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO<sub>2</sub> concentration and can transmit to network server using LoRaWAN® technology.

## Applications

- Monitor temperature, humidity and CO<sub>2</sub> levels
- Indicate CO<sub>2</sub> levels via traffic light
- Suitable for office or school indoor air quality monitoring

### 1 x AM103 IAQ Sensor



AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO<sub>2</sub> concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.

- Monitor temperature, humidity and CO<sub>2</sub> levels
- Indicate CO<sub>2</sub> levels via traffic light or emoticon on the E-ink screen
- Suitable for office or school indoor air quality monitoring

### 1 x AM307 IAQ Sensor



AM307 is a 7-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO<sub>2</sub> concentration, TVOC, pressure, light, motion, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.

- Monitor main pollutants in indoor environment
- Indicate polluted levels via traffic light or emoticon on the screen
- Suitable for office or school indoor ambience monitoring

### 1 x AM319 IAQ Sensor



AM319 is a 9-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO<sub>2</sub> concentration, TVOC, pressure, light, motion, PM2.5 & PM10, HCHO/O<sub>3</sub>, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.

- Monitor main pollutants in indoor environment
- Indicate polluted levels via traffic light or emoticon on the screen
- Suitable for office or school indoor ambience monitoring

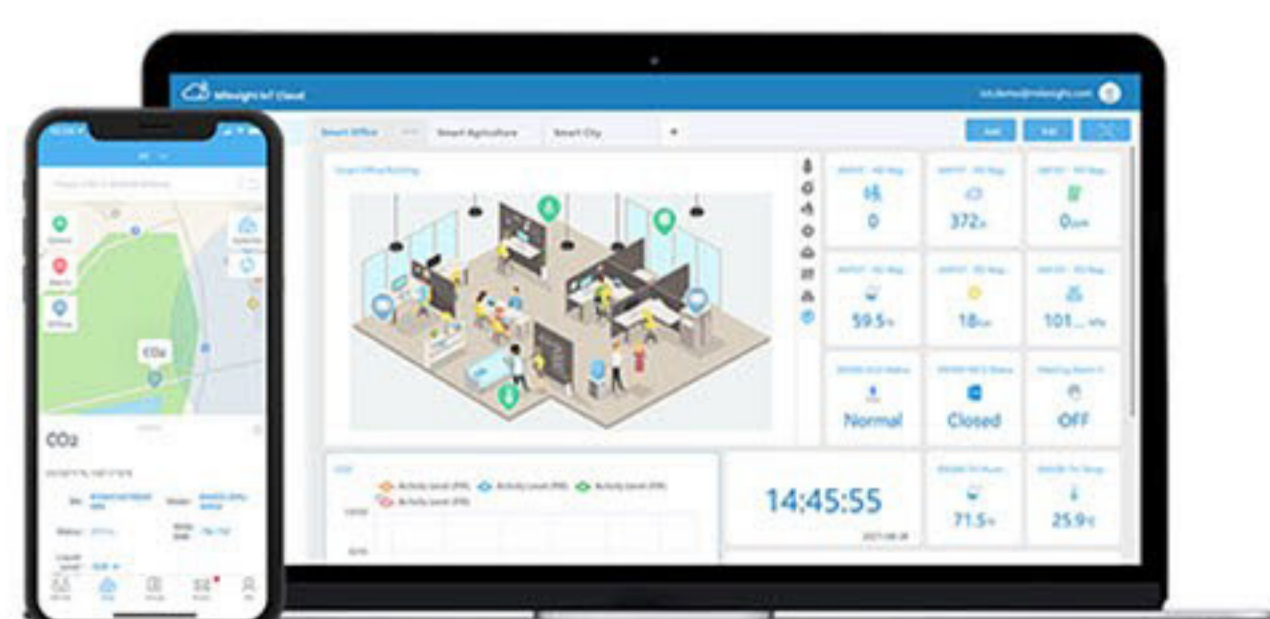
### 1 x UG63 Mini LoRaWAN® Gateway



UG63 Mini LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT cloud.

- Collect data from LoRaWAN® sensors
- Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet

### 1 Year (Pro1) Milesight IoT Cloud



Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.

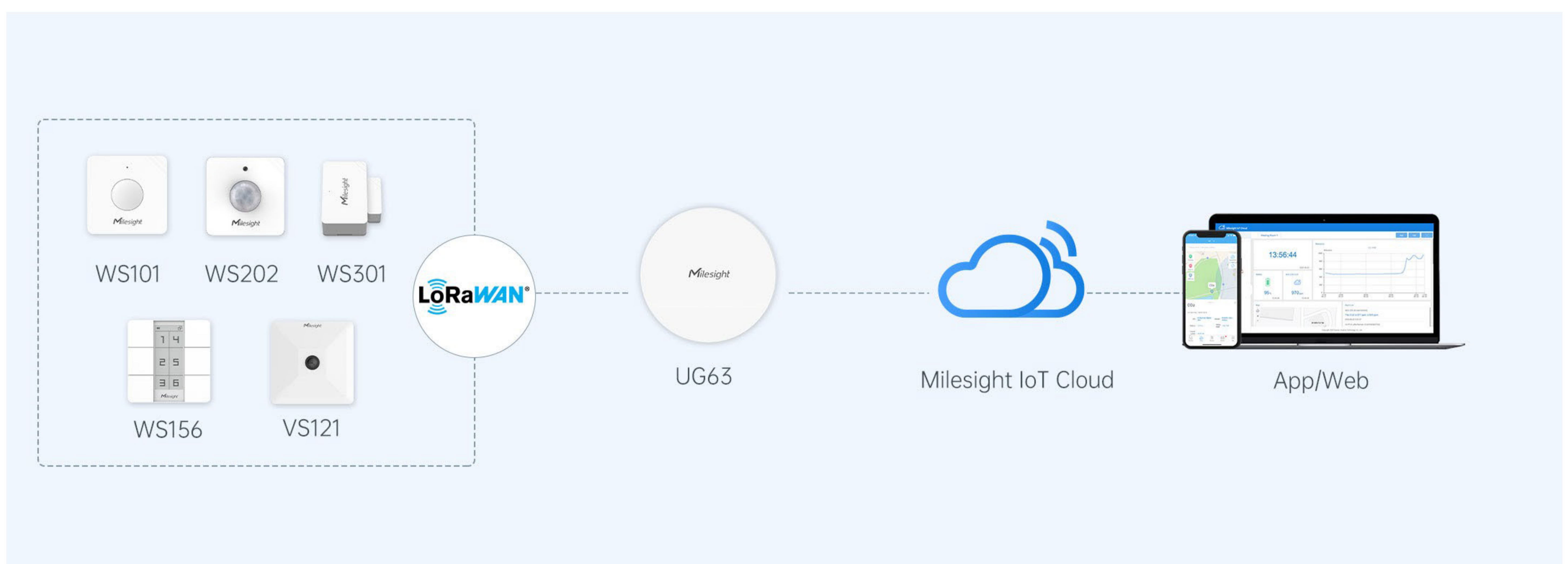
- Drag & drop dashboard to display data
- Real-time alarm notifications
- Exportable historical data and generate reports
- Custom trigger conditions & actions to enable collaborative interaction among end-devices
- Android & iOS versions available

# iBox CoWork Kit

Improve Efficiency in Digital Workplace



The CoWork Kit allows you to quickly switch your scenarios in 6 different modes such as from “working” to “have a break.” With automated control of the curtain, light, window, door or personal computer, you can truly enjoy the highly efficient and intelligent smart environment. This one-size-fits-all solution is out of the question to improve office resources efficiency through LoRa D2D protocol which enables communication within just 1 second. It allows you to check visualized data and help to maintain control over these dynamic and scalable cloud computing environments for your workplace at finger clicks.



Collaboration between  
Devices within 1 second



Automated Scenario  
Switch and Always Connected



Develop Device-to-Cloud  
Connectivity

## Item

### 1 x WS101 Smart Button



## Description

WS101 smart button sensor supports different alerts depending on various press actions and can be used in emergency alarm system, remote control or other remote push button applications.

## Applications

- Easy to be carried out by the seniors and the disabled or to be installed anywhere
- Remote control like lights or curtains in Smart Office

### 1 x WS202 PIR & Light Sensor



WS202 sensor detects the movement based on passive infrared technology and also equips with light sensor which can link PIR detection so as to control the lights to turn on/off automatically when people are coming or leaving.

- Meeting room or occupancy detection
- Asset protection
- Intelligent light control

### 1 x WS301 Magnetic Contact Switch



WS301 sensor uses a magnet to detect the open/close status of door/window or something has been moved. It's wire-free and can be easily mounted on the doors, panes, cabinets, etc.

- Entry/fire door monitoring
- Asset protection in the cabinets or boxes
- Suitable for offices, homes or factories applications

### 1 x WS156 Smart Scene Panel



WS156 has 6 buttons to define 6 scenes and each scene can consist of multiple device controls. Besides, it equips a programmable E-ink screen which can customize the display content depending on scenarios.

- Remote control or alarms
- Suit for offices, hotels or schools

### 1 x VS121 AI Workplace Sensor



VS121 counts people based on AI technology and can monitor the occupancy and utilization in workplaces.

- Meeting room or sitting room occupancy monitoring
- Line crossing counting

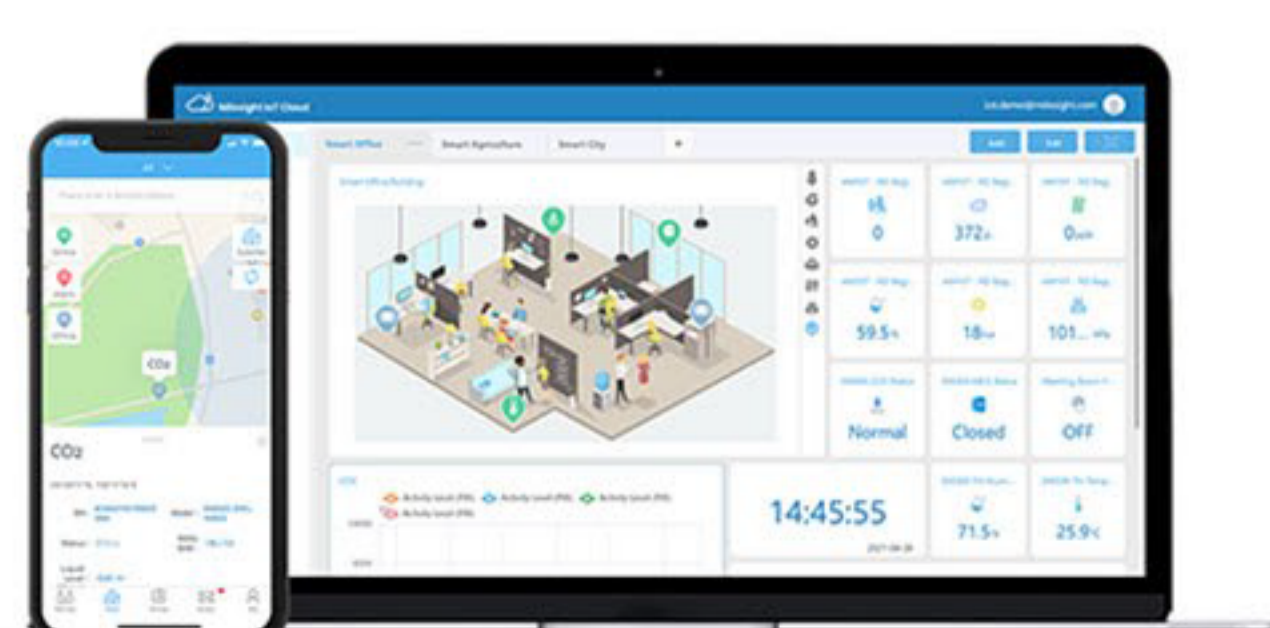
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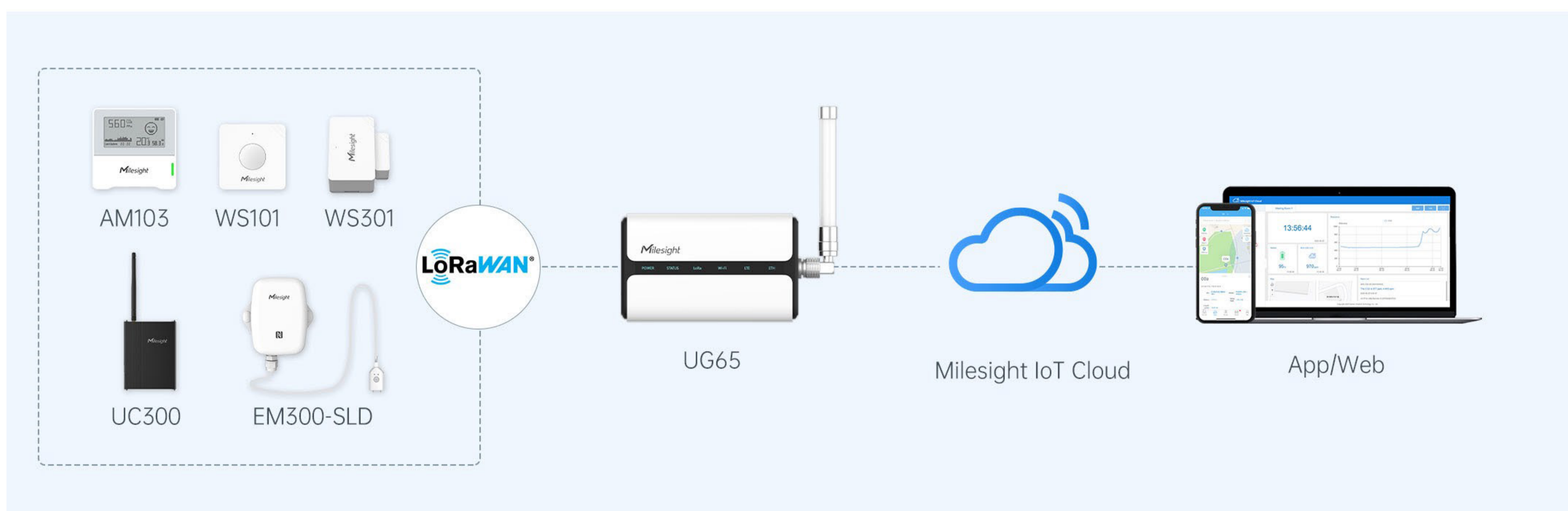
- Drag & drop dashboard to display data
- Real-time alarm notifications
- Exportable historical data and generate reports
- Custom trigger conditions & actions to enable collaborative interaction among end-devices
- Android & iOS versions available

# iBox Smart Building Kit

Automated Monitoring and Management



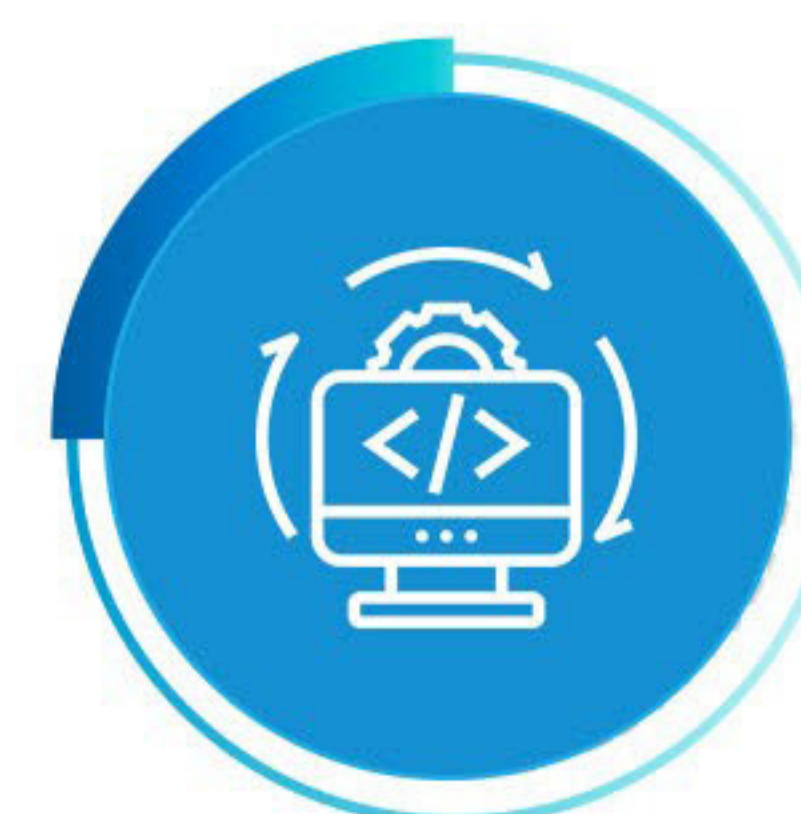
The Smart Building Kit provides product and services covered with comprehensive plans for your buildings. Monitoring and management of indoor air quality, water leakage, security are all based on IoT that holds a great potential of visibility and efficiency via a combination of data-driven processes. It only takes a few steps and time spending to prove your PoC with much benefits in return such as increase of transparency around your IoT data governance and management.



Achieved Wireless Communications



Driven by Real Needs and Requirements



Convert Your Idea with Digital Innovations

## Item

### 1 x WS101 Smart Button



## Description

WS101 smart button sensor supports different alerts depending on various press actions and can be used in emergency alarm system, remote control or other remote push button applications.

## Applications

- Easy to be carried out by the seniors and the disabled or to be installed anywhere
- Remote control like lights or curtains in Smart Office

### 1 x WS301 Magnetic Contact Switch



WS301 sensor uses a magnet to detect the open/close status of door/window or something has been moved. It's wire-free and can be easily mounted on the doors, panes, cabinets, etc.

- Entry/fire door monitoring
- Asset protection in the cabinets or boxes
- Suitable for offices, homes or factories applications

### 1 x AM103 IAQ Sensor



AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO<sub>2</sub> concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN<sup>®</sup> technology.

- Monitor temperature, humidity and CO<sub>2</sub> levels
- Indicate CO<sub>2</sub> levels via traffic light or emoticon on the E-ink screen
- Suitable for office or school indoor air quality monitoring

### 1 x EM300-SLD Leak Detection Sensor



EM300-SLD sensor can detect the presence of liquids by a small probe based on the conductive principle. Besides, EM300-SLD equips temperature and humidity sensors to monitor the indoor and outdoor environment.

- Pipe leak monitoring
- Basement flooding detection
- Machine room monitoring

### 1 x UC300 IoT Controller



UC300 IoT controller equips with multiple data interfaces including digital inputs, relay outputs, RS232, RS485, analog inputs and PT100 RTD input, which can convert legacy sensors to work with LoRaWAN<sup>®</sup> network and control devices.

- Acquire data from legacy sensors and send via LoRaWAN<sup>®</sup> networks
- Control the on/off status via relay outputs or RS485 Modbus commands

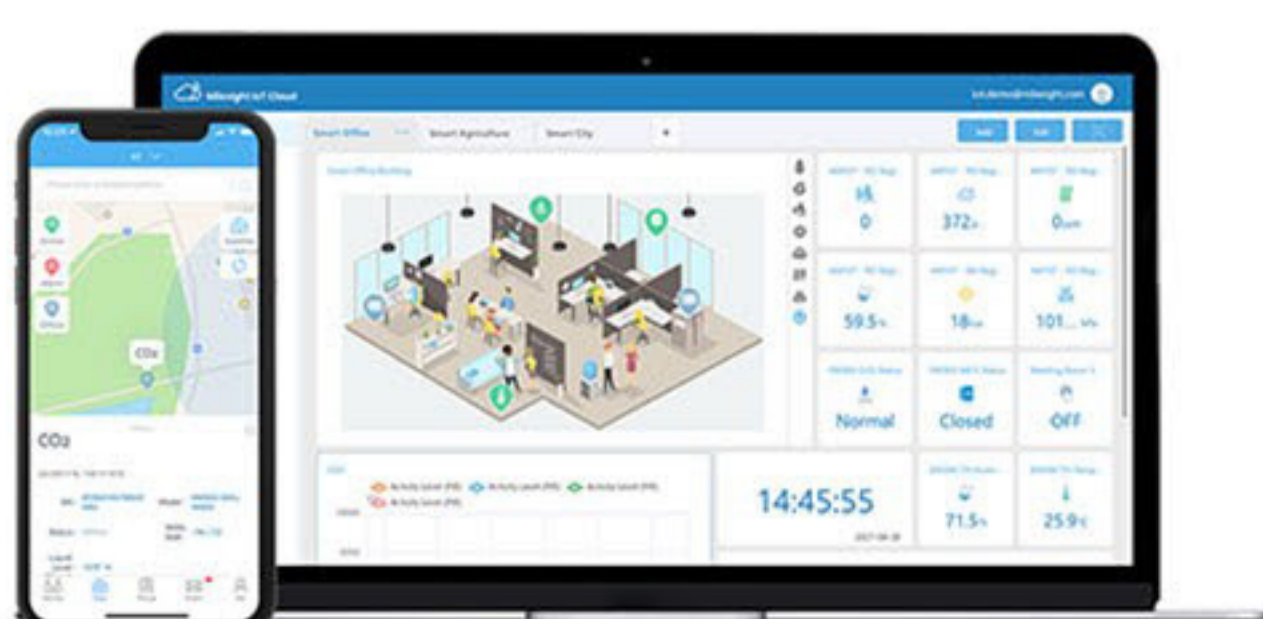
### 1 x UG65 Semi-Industrial LoRaWAN<sup>®</sup> Gateway



UG65 semi-industrial indoor LoRaWAN<sup>®</sup> gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT cloud.

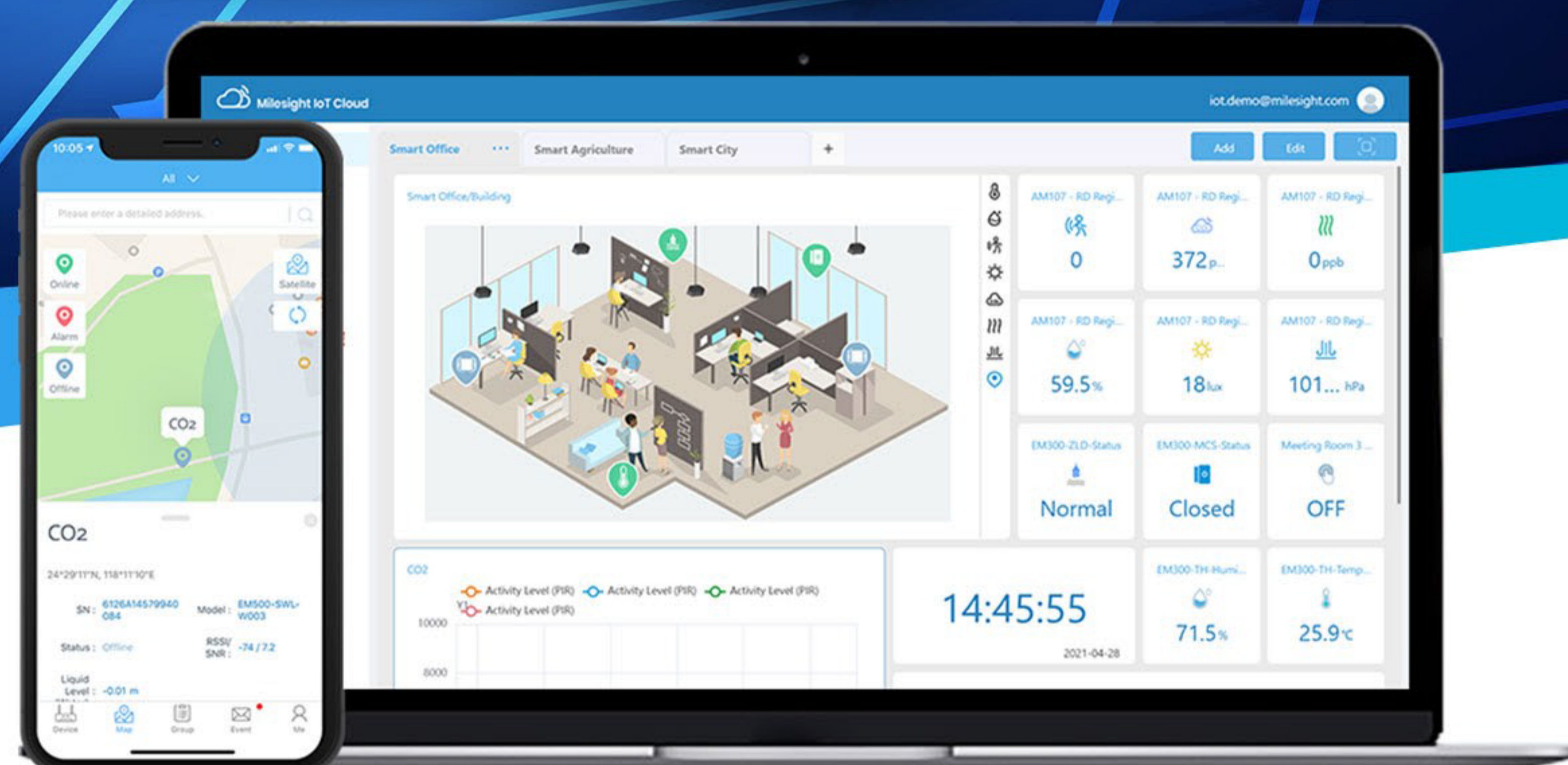
- Collect data from LoRaWAN<sup>®</sup> sensors
- Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet or Wi-Fi

### 1 Year (Pro1) Milesight IoT Cloud



Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN<sup>®</sup> gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.

- Drag & drop dashboard to display data
- Real-time alarm notifications
- Exportable historical data and generate reports
- Custom trigger conditions & actions to enable collaborative interaction among end-devices
- Android & iOS versions available



## Milesight IoT Cloud

Milesight IoT Cloud holds a great potential of visibility and efficiency via a combination of data-driven processes for you to leverage the power of IoT, from anywhere, anytime. By leveraging the IoT intelligence, Milesight IoT Cloud brings you the automated and always-responsive control of the indoor ambience. It is able to trigger a wider adoption of IoT intelligence and improve resources efficiency. You can truly enjoy the highly efficient and smart environment.



Analytics Visualization



Regular Report Generating



Real-Time Monitoring



Multiple Dashboard Creation & Sharing



Custom-Made Trigger



Scrutinized Security



Customized Dashboards



Multiple Intuitive Widgets



Drag & Drop



# iBox Kits Specification Overview

IAQ Sensor				
Model	AM319	AM307	AM103	AM103L
Hardware Interfaces				
Screen	4.2 Inch E-ink		2.13 Inch E-Ink	/
LED	1 × Traffic Light Status Indicator			
Buzzer	Support		/	
Configuration	NFC or USB Type-C Port	NFC or USB Type-C Port	NFC	NFC
Sensors				
Temperature	√	√	√	√
Humidity	√	√	√	√
CO <sub>2</sub>	√	√	√	√
PIR	√	√	/	/
Light	√	√	/	/
TVOC	√	√	/	/
Barometric Pressure	√	√	/	/
PM2.5 & PM10	√	/	/	/
HCHO/O <sub>3</sub>	Alternative	/	/	/
Physical Characteristics				
Power Supply	5V/1A by Type-C Port	4 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	2 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	2 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries
Battery Life	/	Up to 3 Years	Up to 3 Years	Up to 4 Years
Dimension	100.8 × 114 × 22 mm		68 × 65 × 20.5 mm	
Operating Temperature	-20 to +60 °C (E-Ink Screen: 0 to +40 °C)			
Ingress Protection	IP30			
Installation	Wall Mounting			

## CoWork Sensors

Model	WS101	WS202	WS301	WS156	VS121
<b>Sensors</b>					
Sensor Type	Push Button	Movement & Light Status	Magnetic Contact Switch	6 Scenes Controls	People Counting
LoRa D2D	√	√	√	√	√
Detection Range	/	120 ° H, 100 ° V, Max 8 m	15-20 mm Distance	/	190 ° H, 112° V, 3m Height
<b>Hardware Interfaces</b>					
Screen	/	/	/	2.9 Inch E-ink	/
LED	√	√	√	√	√
Buzzer	√	/	/	/	/
Reset Button	√	√	√	√	√
Tamper Button	/	/	√	/	/
Configuration	NFC	NFC	NFC	NFC	Wi-Fi (2.4 GHz)
<b>Physical Characteristics</b>					
Color	White	/	/	/	White
Power Supply	1 × 1650 mAh ER14335 Li-SOCl <sub>2</sub> Battery		1 × 1200 mAh ER14250 Li-SOCl <sub>2</sub> Battery	2 × 590 mAh CR2450 Lithium Coin Cell Batteries	5V/1A by Type-C
Battery Life	Over 3 Years	Over 4 Years	Over 5 Years	Over 3 Years	/
Dimension	50 × 50 × 18 mm	50 × 50 × 23.8 mm	Sensor: 50.5 × 31 × 18.5 mm Magnet: 30 × 13.5 × 10 mm	86 × 86 × 14 mm	85 × 85 × 20 mm
Operating Temperature	-30 to +60 °C	-30 to +60 °C	-20 to +60 °C	-10 to +50 °C (E-Ink Screen: 0 to +50 °C)	-5 to +55 °C
Ingress Protection	IP30	IP30	IP20	IP30	IP20
Installation	On Flat Surfaces with Screws or 3M Tapes				Ceiling Mount

## Smart Building Sensors

Model	WS101	WS301	AM103	EM300-SLD
Sensor Type	Push Button	Magnetic Contact Switch	Temperature, Humidity, CO <sub>2</sub>	Temperature, Humidity, Leak
LoRa D2D	√	√	/	/
Hardware Interfaces				
Screen	/	/	2.13 Inch E-ink	/
LED	√	√	√	√
Buzzer	√	/	/	/
Reset Button	√	√	√	√
Tamper Button	/	√	/	/
Configuration	NFC	NFC	NFC	NFC
Physical Characteristics				
Power Supply	1 × 1650 mAh ER14335 Li-SOCl <sub>2</sub> Battery	1 × 1200 mAh ER14250 Li-SOCl <sub>2</sub> Battery	2 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	1 × 4000 mAh ER18505 Li-SOCl <sub>2</sub> Battery
Battery Life	Over 3 Years	Over 5 Years	Over 3 Years	Over 10 Years
Dimension	50 × 50 × 18 mm	Sensor: 50.5 × 31 × 18.5 mm Magnet: 30 × 13.5 × 10 mm	68 × 65 × 20.5 mm	105.6 × 85.3 × 27 mm
Operating Temperature	-30 to +60 °C	-20°C to +60°C	-20 to +60 °C (E-Ink Screen: 0 to +40 °C)	30°C to +70°C
Ingress Protection	IP30	IP20	IP30	IP67
Installation	On Flat Surfaces with Screws or 3M Tapes			

## UC300 IoT Controller

LoRaWAN	
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Mode	OTAA/ABP Class C
Advanced Feature	LoRa D2D Controller, LoRa D2D Agent
Hardware Interfaces	
Data Interfaces	4 × Digital Inputs 2 × Relay Outputs 1 × RS232 (Transparent) 1 × RS485 (Modbus RTU) 2 × Analog Inputs (4-20 mA) 2 × Analog Inputs (0-10 V) 2 × PT100 RTD Inputs
Console Port	1 × Type-C
LED Indicators	1 × System, 1 × ACT
Reset Button	1 × RST
Physical Characteristics	
Power Supply	5-24 VDC
Operating Temperature	-20°C to +50°C
Ingress Protection	IP30
Dimension	93 × 70 × 22 mm
Installation	Desktop, Wall Mounting, DIN Rail Mounting

[Click here to get more specification details.](#)

## UG63 Mini LoRaWAN® Gateway

LoRaWAN	
Chip	SX1302
Antenna	2 × Internal Antennas
Channel	8 (Half/Full-Duplex)
LBT	Support
Package Forwarder	Semtech UDP PF, Basics Station, Chirpstack, etc.
Network Server	Support
Hardware Interfaces	
Ethernet Port	1 × 10/100/1000 Mbps (PoE PD)
Console Port	1 × Type-C
LED Indicators	1 × SYS, 1 × LoRa
Reset Button	1 × RST
Built-in	Watchdog, RTC, Timer
Physical Characteristics	
Power Supply	1. 1 × 802.3af Standard PoE Input 2. 5V by Type-C Port
Operating Temperature	-20°C to + 50°C
Ingress Protection	IP30
Dimension	Φ 115 × 21 mm
Installation	Desktop, Wall or Ceiling Mounting

## UG65 Semi-Industrial LoRaWAN® Gateway

LoRaWAN	
Chip	SX1302
Antenna	2 × Internal Antennas + 1 × 50 Ω N-Female External Connector
Channel	8 (Half/Full-Duplex)
Package Forwarder	Semtech UDP PF, Basics Station, Lorient, Chirpstack, etc.
Network Server	Support
Hardware Interfaces	
Ethernet Port	1 × 10/100/1000 Mbps (PoE PD)
Wi-Fi Interface	IEEE 802.11 b/g/n, 2.4 GHz, Support AP and Client Mode
Console Port	1 × Type-C
LED Indicators	1 × POWER, 1 × STATUS, 1 × LoRa, 1 × Wi-Fi, 1 × LTE, 1 × ETH
Reset Button	1 × RST
Built-in	Watchdog, RTC, Timer
Physical Characteristics	
Power Supply	1. DC Jack Connector for 9-24 VDC Power Supply 2. 1 × 802.3 af PoE Input
Operating Temperature	-40°C to +70°C
Ingress Protection	IP65
Dimension	180 x 110 x 56.5 mm
Installation	Desktop, Wall or Ceiling Mounting

[Click here to get more specification details.](#)

## Milesight IoT Cloud

Features	Free	Pro 1	Pro 2	Pro 3
<b>Manage Device</b>				
Manage numbers (gateways+sensors)	10	50	100	300
Check historical data and chart			√	
Export historical data and chart			√	
<b>Dashboard</b>				
Create dashboards	2		10	
Widgets per dashboard	20		50	
Add custom map and charts			√	
Share the dashboard			√	
Control device in dashboard			√	
<b>Trigger</b>				
Add trigger rules	20	100	200	600
Trigger execution times monthly	1,000	5,000	10,000	30,000
<b>Report</b>				
Generate daily/weekly/monthly report	/		√	
Send reports via Emails	/		√	
Check and export historical report	/		√	
<b>Event Notification</b>				
Record device status and threshold events			√	
Monthly Alarm Emails	100		1,000	
<b>Share and Transfer</b>				
Share devices to other accounts with different permissions	/		√	
Transfer devices to other accounts			√	

Contact Milesight sales if you need to upgrade the subscription in the kit.

