MOKO SMART

MOKO SMART

Company Overview

Your Trusted IoT Devices Partner

Updated in Sep 2025

Web: www.mokosmart.com

Email: info@mokosmart.com

MOKO TECHNOLOGY LIMITED

Contents

We Are

Original IoT Devices ODM & OEM Manufacturer

MOKO Technology Ltd. is a leading manufacturer and provider of ODM, OEM, and IoT devices in China. Founded in 2006, with rich experience and expertise, the company's extensive experience and refined expertise have helped customers worldwide optimize their business operation in a more efficient and sustainable way.

Since 2013, MOKO has further solidified its position through the establishment of the R&D Center and the launch of its dedicated IoT brand - MOKO SMART. Focusing on cutting-edge IoT technology, MOKO SMART offers a comprehensive range of products incorporating Bluetooth Low Energy, LoRaWAN, Wi-Fi, RFID, GPS, LTE, UWB, and other wireless technologies. This emphasizes MOKO's commitment to innovation and diversity in wireless products, paving the way for a more connected future.

2006
- Founded in Shenzhen, China

2009
- Expanded PCB&PCBA business line, started the OEM service

2012
- Set up MOKO factory

2013
- Established the R&D center

2017
- Focused on IoT(BLE, LoRaWAN, Wi-Fi, etc.)
- SIG Member
- Certified by ISO9001
- Awarded as the China Mainland National High-tech Enterprise

2019
- Certificated by UL
- Self-developed ERP system
- Certificated by TUV

2022
- LoRaWAN alliance member
- Launched the high-accuracy AoA products

2023
- omlox community member
- Launched the UWB Tag
- Authorized MFi manufacturer

2024
- Launched MOKO IoT DM system
- Created partner ecosystem
- Launched MOKO online store

We Are

We Do

IoT Hardware Consulting Services

White-label Product

ODM and JDM Solution

One Stop Manufacturer

Connectivity

Bluetooth · LoRa · Wi Fi · UWB · GPS · RFID

CAT.M/CAT.1bis/CAT.1/CAT.4

NB-IoT · GSM

Membership

Bluetooth

LoRa Alliance

omlox member

10+ yrs Manufacturing Experience

500+ Employees

200+ IoT Products

100+ Countries and Regions Reached

13000+m² Factory

5,000,000+ Annual Capacity

Our Key Advantages

* Expert R&D Team

Skilled engineers, many from global top 10 EMS companies, drive innovation and provide professional DFM & FMEA support.

* Traceable Production with ERP & MES

Our self-developed ERP and advanced MES system enable end-to-end traceability, allowing tracking of batch information and production details for every key component.

* Efficient In-House Factory

Specializing in high-mix, low-volume production with no MOQ restrictions, ensuring flexibility and swift response to diverse customer demands.

* Comprehensive Component Procurement

Access 3000+ manufacturer brands with one-stop procurement and AI-powered alternative suggestions for cost-efficient, risk-free supply.

* Intelligent & Controlled Manufacturing Environment

From Class 1,000 cleanrooms to ESD, temperature & humidity control, we ensure stable, reliable production at every stage.

* Rigorous Quality Assurance

Every product undergoes rigorous reliability testing and R&D validation to guarantee durability, performance, and a flawless user experience.

Factory Advantages

(In-House Manufacturing Strengths)

* **6 Fully Automated SMT Lines** for high-precision SMD assembly
* **3 DIP Lines** for efficient through-hole assembly
* **5 Assembly Lines** for final product integration and testing
* **Customizable Packaging Solutions** tailored to customer requirements
* **100% QA & QC** ensuring product reliability
* **High-Volume Production Capacity** to scale with customer growth

Add-on / Premium Services

Customize & Scale

Personalize with laser-printed logos, MAC addresses, custom labeling, packaging, and shell colors.

Technical Support & Development

Firmware customization, parameter logging, user-friendly apps, and free SDKs.

Easy Setup

Firmware flashing & parameter setup for easy deployment.

Reliability & Compliance

Global certifications ensuring reliability & standards.

OUR PRODUCT AND FACTORY ARE CERTIFICATED BY >>

MOKO SMART

Bluetooth Beacon

A Bluetooth Beacon is a small, battery-powered radio transmitter built on Bluetooth Low Energy (BLE) technology. Functioning akin to a lighthouse, it intermittently emits low-power Bluetooth signals detectable by nearby BLE scanners like mobile devices or gateways. MOKO SMART provides a wide selection of Bluetooth Beacon products, customized with different designs and features to meet various application requirements.

Support Compatibility

iBeacon · Eddystone · Quuppa · cisco SPACES · Wirepas · 核芯物联 COREAIDT

Features

Diverse Beacon Options:

- Available in a wide range of Beacon shapes, including options like badges, wristbands, key fobs, and helmet tags etc.
- Available in flexible installation methods, such as lanyard, adhesive pasting, screwing, or magnetic attachment etc.

Design for Reliability:

- Rigorous reliability test
- High-level protection (IP67/IP68/IK08/IP69K)
- Adapt to various temperature
- Meet diverse environments in special industries including medical, industrial, and cold chain

Integrated IoT Sensor:

- Incorporating a variety of IoT sensors, including motion, temperature, humidity, magnetic, IR, PIR, ToF range, water leakage, barometric pressure sensor etc.
- Embedded with NFC and LF/HF/UHF RFID
- Embedded with a buzzer, LED, or vibration to achieve various alarm applications

High-quality Product Performance:

- Outstanding RF performance, supports BLE long-range feature up to 1312 feet.
- Ultra-low power design for 10+ years battery life
- Achieves high-precision BLE AoA positioning (0.5 meter accuracy)

MOKO SMART

Bluetooth Beacon

Asset Tag

> Pallet and forklift RTLS tracking
> Medical equipment tracking
> Asset theft protection
> Inventory management
> Fleet management

Applications

Warehouse & Logistics

Retail & Entertainment

Transport

Healthcare

M1
Coin Tag

- Coin-size (ϕ26mm & 5.4g)
- Replaceable battery
- Built-in motion sensor
- Flexible tracking mode
- Affordable 1 USD Tag

M2
Asset Tag

- IP67 waterproof
- Long-life and replaceable battery
- Flexible tracking mode
- BLE Long Range feature
- Temperature monitoring and door sensors (optional)

M4
Lite Tag

- Exquisite size (36mm x 23mm x 5mm)
- Replaceable battery
- Flexible tracking mode
- Intelligent power management
- Cost-effective

M1P
LED Tag

- Coin-size (ϕ 30*8mm)
- Replaceable battery
- Prominent LED indicator
- Built-in motion sensor
- Bluetooth long range feature
- Optional buzzer

M3
Brick Tag

- IP67 waterproof
- Brick size
- High impact resistance
- Large capacity (8000mAh) battery for 10+ years life

M4 Pro
Waterproof Tag

- IP67 waterproof
- Replaceable battery
- Built-in motion sensor
- Flexible tracking mode
- Intelligent power management

Asset Tag

M4PB
Asset Button Tag

- P67 waterproof
- Replaceable battery
- Compact size
- Programmable button

M7
Anti-Tamper Tag

- Buzzer notification
- IP67 waterproof
- Physical tamper-proof button
- Prominent maintenance button

N2
SoftFoam Asset Tag

- Lightweight and slim design
- Cost-effective solution
- Supports BLE 5.0
- IP67 waterproof
- Tear the adhesive to wake up

M5
High-Temp Resistance Tag

- Up to 100°C resistant
- IP68/IP69K waterproof
- IK07 shock resistance
- Temperature monitoring

M8/M9 Series
Rugged Asset Tag

- IP68 waterproof
- Compact size
- IK06 shock resistance
- Long lifespan
- Difference in built-in battery: M8-600mAh / M9-1000mAh

UT1
Ultra-thin Paper Tag

- Flexible and ultra-thin design
- Zinc-based environmentally friendly battery
- Support for BLE5.1
- Supports NFC and NFC wake up (optional)
- Tear the adhesive to wake up

M6
Industrial Tag

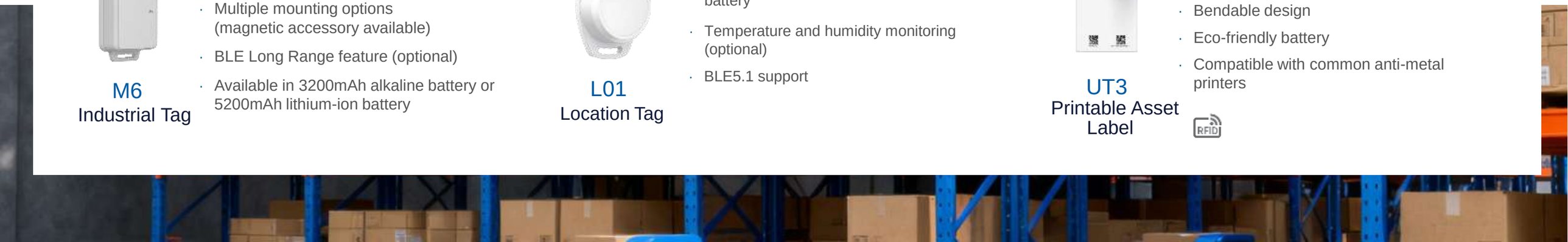
- IP67 waterproof
- Built-in motion sensor
- Multiple mounting options (magnetic accessory available)
- BLE Long Range feature (optional)
- Available in 3200mAh alkaline battery or 5200mAh lithium-ion battery

L01
Location Tag

- IP67 waterproof
- High capacity - 2400mAh rechargeable battery
- Temperature and humidity monitoring (optional)
- BLE5.1 support

UT3
Printable Asset Label

- 1.2mm ultra-thin design
- RFID Activation
- Bendable design
- Eco-friendly battery
- Compatible with common anti-metal printers



Bluetooth Beacon

Personnel Tag & Emergency Button

> Attendance management
> Geo-fence and access control
> Real-time positioning
> Staff duress alarms
> Workflow optimization
> Patient care
> Workplace utilization

Applications

Healthcare
Hotel
Construction
School

MOKO SMART

H1
Keychain

- Replaceable battery
- Built-in motion sensor
- One click SOS button

H3
Card

- Credit card size
- IP66 waterproof
- Built-in motion sensor for fall detection
- 5 years long-life

H5 Pro
RFID Badge

- IP66 waterproof
- Built-in RFID for access control
- Rubber button for emergency call
- RFID/NFC (optional)

H5PD
Dual Panic Button

- Dual programmable buttons
- IP66 waterproof
- Replaceable battery
- Supports RFID
- Supports alarm feedback
- Supports silent alerting

Personnel Tag & Emergency Button

- Convenient magnetic charging method
- Supports RFID or NFC
- Equipped with buzzer, motor, and LED reminder

B5
Rechargeable Badge

- Compact and portable, easy to carry
- Button available for emergency situations
- Replaceable battery to extend the lifespan
- Buzzer notification
- RFID / NFC (optional)

H8
Identification Tag
(Rechargeable version is available)

- IP67 waterproof
- Soft tactile button
- Built-in motion sensor
- Single-use anti-removal strap
- Anti-bacterial surface (optional)

W3 Pro
SmartGuard Wristband

- Connected worker
- IP67 waterproof
- Built-in motion sensor for worker safety
- Replaceable battery
- RFID/NFC (optional)

H7
Helmet Tag

- Lightweight button
- Replaceable battery
- Ultra-low power design, achieving a 3.5-year lifespan
- Equipped with a circular LED effect for noticeable user reminders

B3
Emergency Button

- IP67 waterproof
- Replaceable battery
- Built-in motion sensor for fall detection
- RFID / NFC (optional)
- Wristband or lanyard (optional)

W6
Wristband Tag

- Connected worker
- IP67 waterproof
- Rubber button for emergency call
- Built-in motion sensor for worker safety

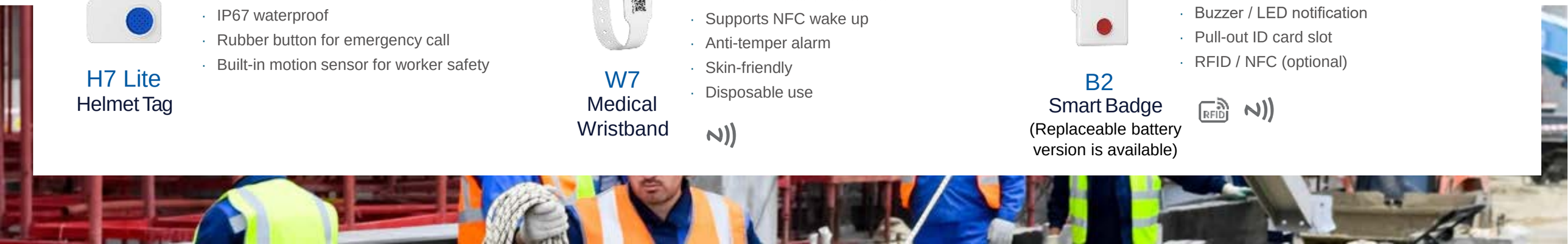
H7 Lite
Helmet Tag

- IP67 waterproof
- Flexible and cost-effective
- Supports NFC wake up
- Anti-temper alarm
- Skin-friendly
- Disposable use

W7
Medical Wristband

- Staff duress and panic button
- Built-in motion sensor for staff safety
- Buzzer / LED notification
- Pull-out ID card slot
- RFID / NFC (optional)

B2
Smart Badge
(Replaceable battery version is available)



Bluetooth Beacon

Location Beacon

> Indoor navigation
> Point of interest information
> Proximity marketing
> Patient flow optimization
> Parking space detection

Applications

Retail & Entertainment

Warehouse

Parking Lot

Venue

H2
Navigator

- Long-life and replaceable battery
- Flexible tracking mode
- Ultra-long broadcast range

L01A
Location Anchor

- IP67 waterproof
- 8+ years long-life replaceable battery (2400mAh)
- Low-light energy harvesting (optional)
- Bracket accessory for easy mounting
- Temperature and humidity monitoring (optional)
- Multiple mounting options (magnetic accessory available)

L03
Anchor Pro

- IP67 waterproof
- BLE long range feature
- Ultra-long lifetime (10400mAh battery / 10+ years)
- Temperature monitoring (optional)

L04
Navigation Anchor

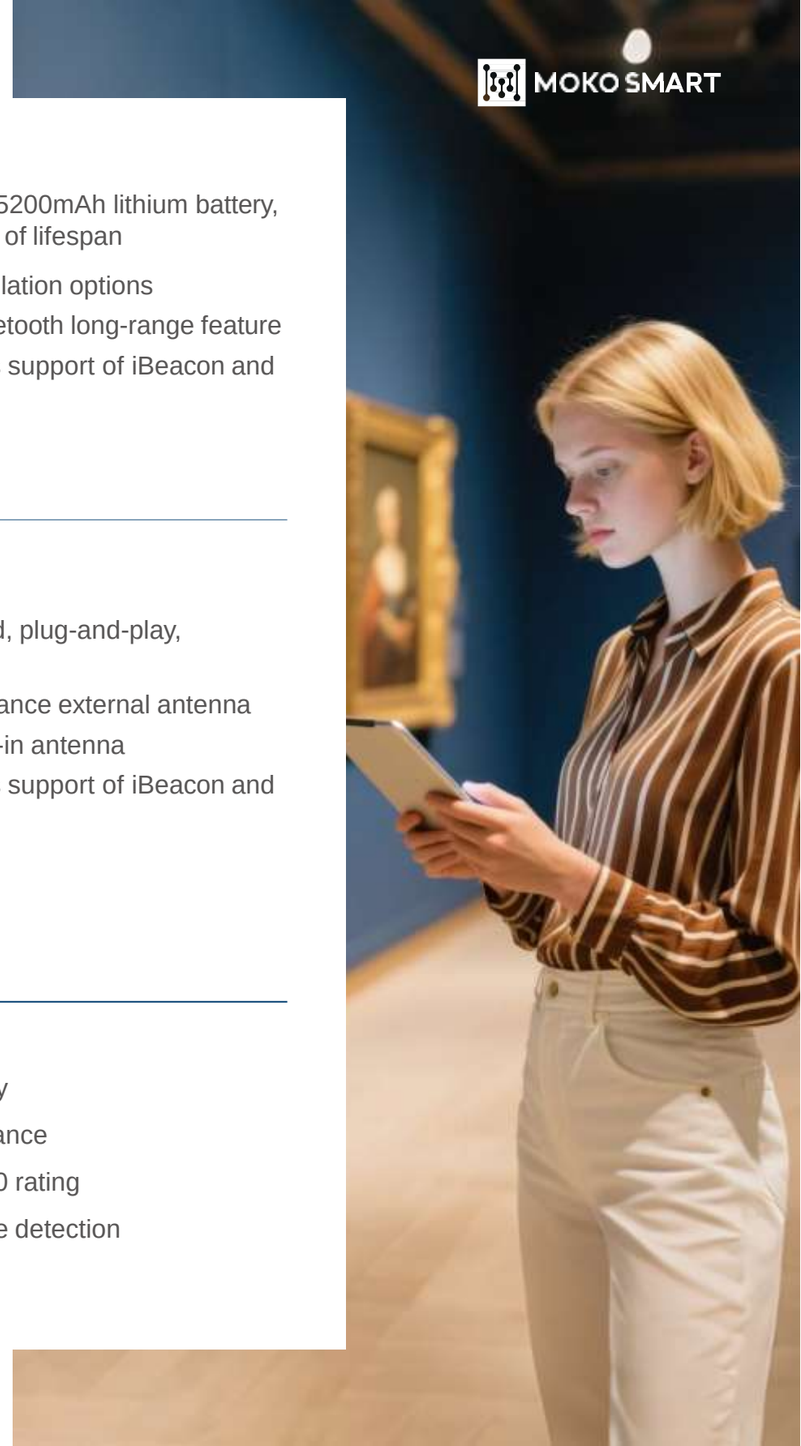
- Replaceable 5200mAh lithium battery, with 10 years of lifespan
- Flexible installation options
- Supports Bluetooth long-range feature
- Simultaneous support of iBeacon and Eddystone

L05
USB Beacon

- USB-powered, plug-and-play, battery-free
- High-performance external antenna
- Optional built-in antenna
- Simultaneous support of iBeacon and Eddystone

R1
Road Stud

- High durability
- Impact resistance
- IP68 and IK10 rating
- Parking space detection



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Bluetooth Beacon

Sensor Tag

> Temperature & humidity monitoring
> Workspace/storage condition monitoring
> Room occupancy detection
> Workplace utilization
> Smart lighting
> Inventory level monitoring
> Tamper alarm
> Workflow optimization

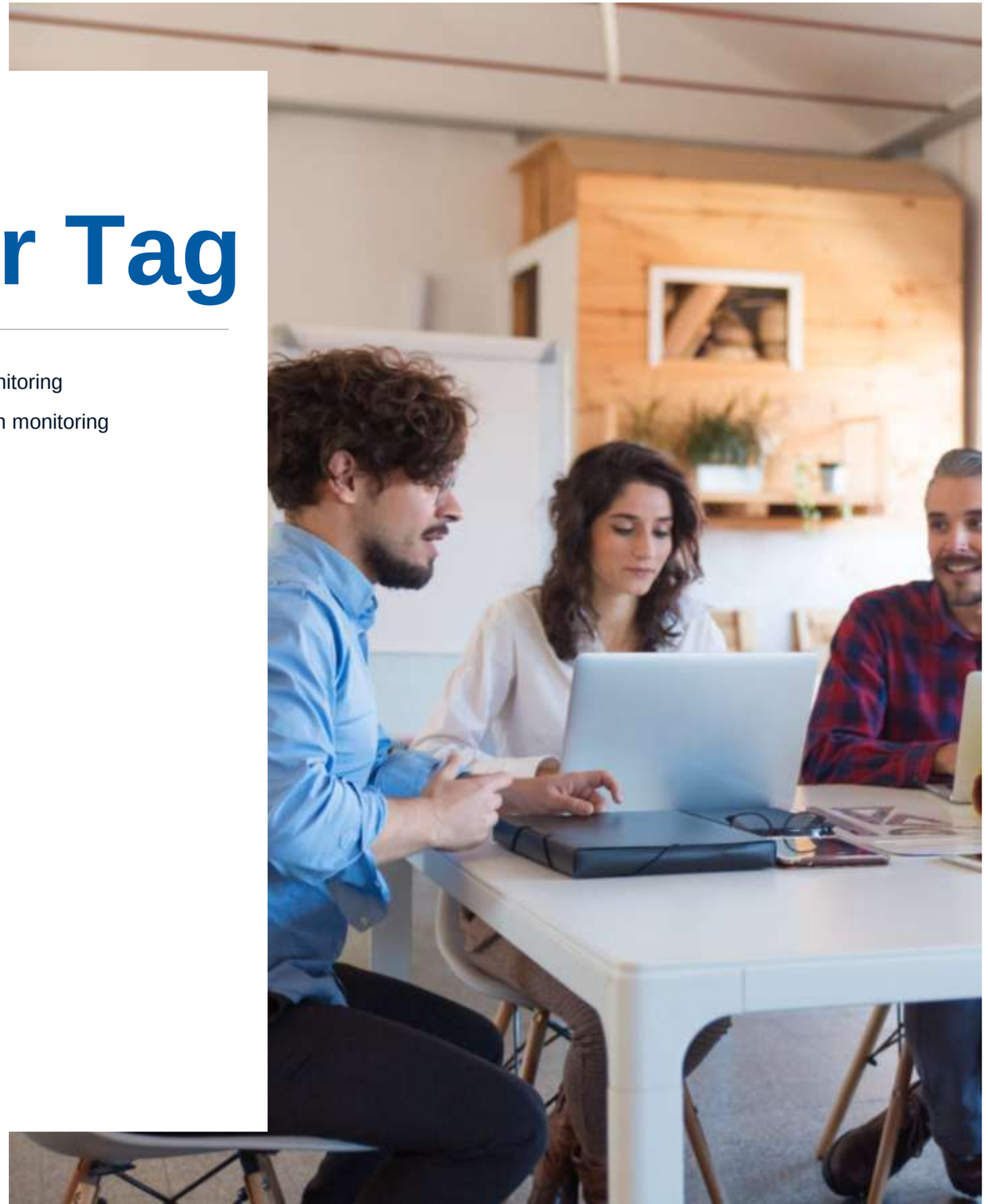
Applications

Transport

Warehouse

Smart Offices

Healthcare



S01P
PIR Presence

- Human presence detection
- Large capacity (5200mAh) replaceable battery for 5+ years life
- With 120°horizontal and 60°vertical detection angle
- Flexible mounting methods
- Hall sensor for door detection (optional)

S02R
ToF Range Sensor

- Time-of-Flight ranging
- IP67 waterproof
- Replaceable battery
- 3 meters maximum range
- 10mm magnetic mounting resolution level

MOKO SMART

Sensor Tag

- IPX4 waterproof
- Tamper alarm
- Equipped with hall effect sensor
- 8+ years long-life replaceable battery (2600mAh)

S03D
Door Sensor

- -20℃ ~ +60℃ temperature range
- High sensitivity with ±0.3℃ accuracy
- IPX4 waterproof
- 5+ years life replaceable battery (1200mAh)
- 60,000 T&H data log

H4 Pro
Temperature & Humidity

- Temperature/humidity/door detection/ barometric pressure options
- -20℃ ~ +60℃ temperature range
- High sensitivity with ±0.5℃ temperature accuracy
- IP67 waterproof
- Long life and replaceable battery

L02S
Multiple Sensor

- IP67 waterproof
- Exquisite size
- Replaceable battery
- High sensitivity with ±0.5℃
- 50,000+ temperature data log

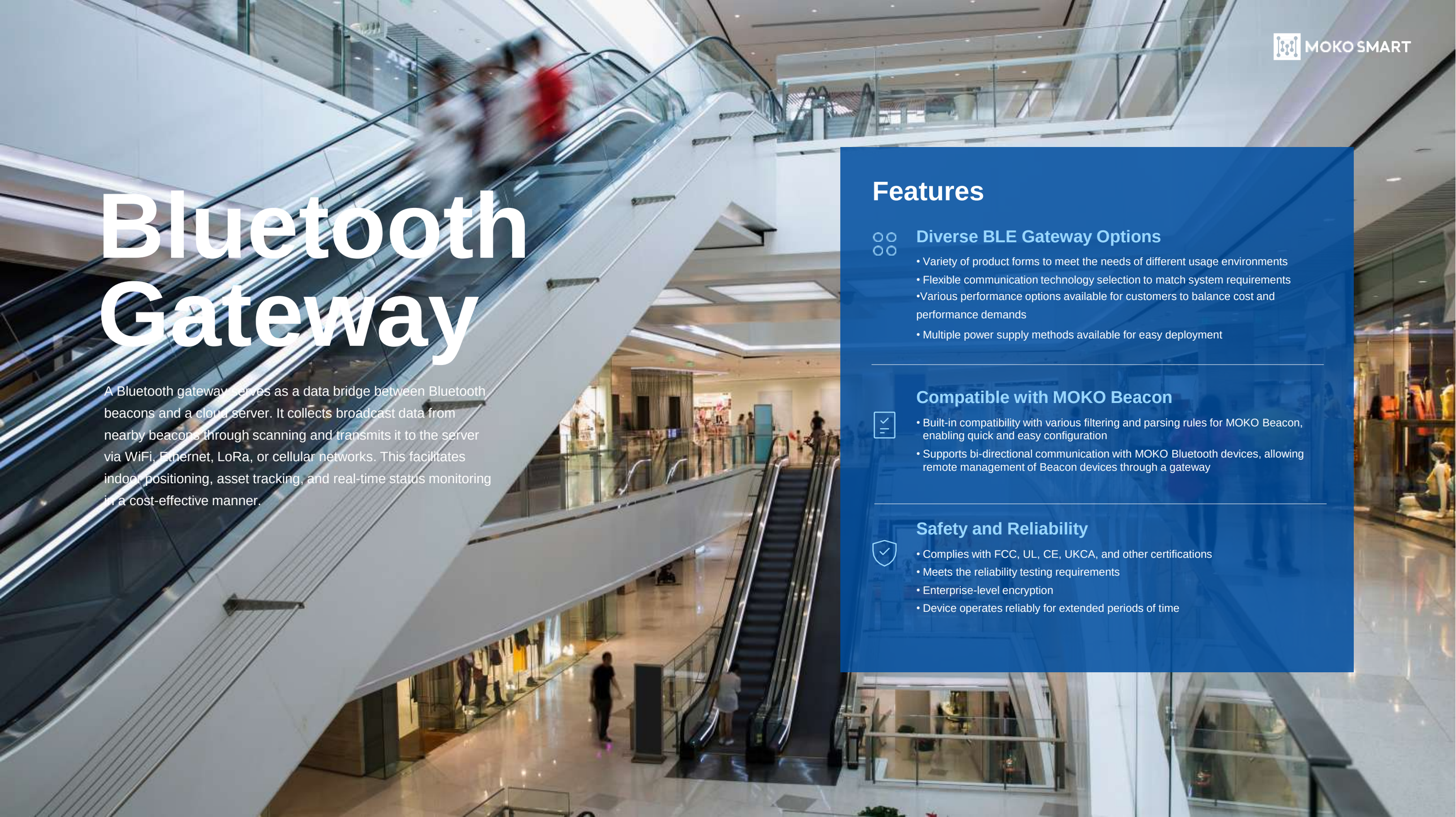
M4 Pro
Temperature Logger

- IP67 waterproof
- Battery replaceable
- NTC/PT100 temperature probe
- Customizable probe sensor

S04TP
Temperature Probe

- Cost-effective
- 60,000+ temperature data log
- IP67 waterproof
- Cold-chain application
- Tear the adhesive to wake up

S05T
Temperature Logger



MOKO SMART

Bluetooth Gateway

A Bluetooth gateway serves as a data bridge between Bluetooth beacons and a cloud server. It collects broadcast data from nearby beacons through scanning and transmits it to the server via WiFi, Ethernet, LoRa, or cellular networks. This facilitates indoor positioning, asset tracking, and real-time status monitoring in a cost-effective manner.

Features

Diverse BLE Gateway Options

- Variety of product forms to meet the needs of different usage environments
- Flexible communication technology selection to match system requirements
- Various performance options available for customers to balance cost and performance demands
- Multiple power supply methods available for easy deployment

Compatible with MOKO Beacon

- Built-in compatibility with various filtering and parsing rules for MOKO Beacon, enabling quick and easy configuration
- Supports bi-directional communication with MOKO Bluetooth devices, allowing remote management of Beacon devices through a gateway

Safety and Reliability

- Complies with FCC, UL, CE, UKCA, and other certifications
- Meets the reliability testing requirements
- Enterprise-level encryption
- Device operates reliably for extended periods of time

Bluetooth Gateway

Bluetooth to Wi-Fi

MK105
EU/FR Plug Gateway

- Easy deployment
- Available in standard European and French plugs
- CE certified

MK110 Plus Series
US Plug Mini Gateway

- Available in multiple performance versions
- Controllable remote output switch
- FCC&UL certified

MK107 Series
US/UK/EU/FR Plug Gateway

- Dual-frequency option available
- Available in standard UK, US, European, and French plugs
- FCC&UL&CE&UKCA certified

MKGW-mini Series
US/UK/EU/AU Plug Mini Gateway

- Equipped with three interchangeable AC plugs
- Supports both AC and USB power supply
- ETL/FCC/CE/UKCA/RCM certified

Bluetooth Gateway

Bluetooth to Wi-Fi/ Ethernet

MOKO SMART

MKGW1-BW Pro

Indoor PoE Gateway

- Experience the advanced performance of Bluetooth 5.0 features – 1M/2M PHY and Coded PHY (long range)
- Connect the Internet via Wi-Fi or Ethernet and access the Server via MQTT, HTTP, TCP or UDP protocols
- A simple and user-friendly Web GUI helps you configure the gateway easily and quickly

MKGW3

Indoor PoE Gateway

- IEEE 802.3 af standard PoE input and output supported
- WPA2-Enterprise WIFI security mode supported, including PEAP/TTLS/TLS EAP methods
- Enhanced wireless performance
- Compatible with MOKO Beacon for quick filtering and interpretation of MOKO beacon devices, with support for downstream communication

MKGW7

USB Gateway

- Ultra small size
- Powered by standard type-A port
- USB & Wi-Fi dual mode, support manage locally or upload to the cloud
- Locally decode iBeacon, Eddystone (UID/URL/TLM) and all MOKO beacon raw data

Bluetooth Gateway

Bluetooth to LoRaWAN

LW003 Ultra

Solar Charging Bluetooth Bridge

- Robust metal shell, strong anti-interference ability
- High-conversion solar panels, powering self-sufficiency
- Instant alarm report, ensuring prompt awareness
- Optional external fiberglass high-gain antenna

Three power supply options

LW003

Indoor Bluetooth Bridge

- Built-in temperature and humidity sensor for monitoring environmental condition
- Built-in rechargeable 4200mAh battery
- Multiple scanning modes

LW003 Pro

Outdoor Bluetooth Bridge

- IP67 waterproof
- Superior wireless performance
- Low battery reminder
- Support temperature and humidity monitoring
- **Available in battery replaceable and rechargeable versions**

Bluetooth Gateway

Bluetooth to Cellular

MKGW4

Outdoor Cellular Gateway

- Wide voltage range of 8-52V for the main power supply, equipped with a 3000mAh lithium battery backup
- Global NB-IOT LTE-M, and CAT.1 network connectivity
- Outdoor GPS and indoor LBS fusion positioning technology, supporting both regular and movement-based positioning
- Multiple BLE scanning modes, including real-time scanning and periodic scanning
- Offline data buffering to ensure data integrity, with automatic uploading when the network is available

Two power supply options

Built-in battery

USB plug

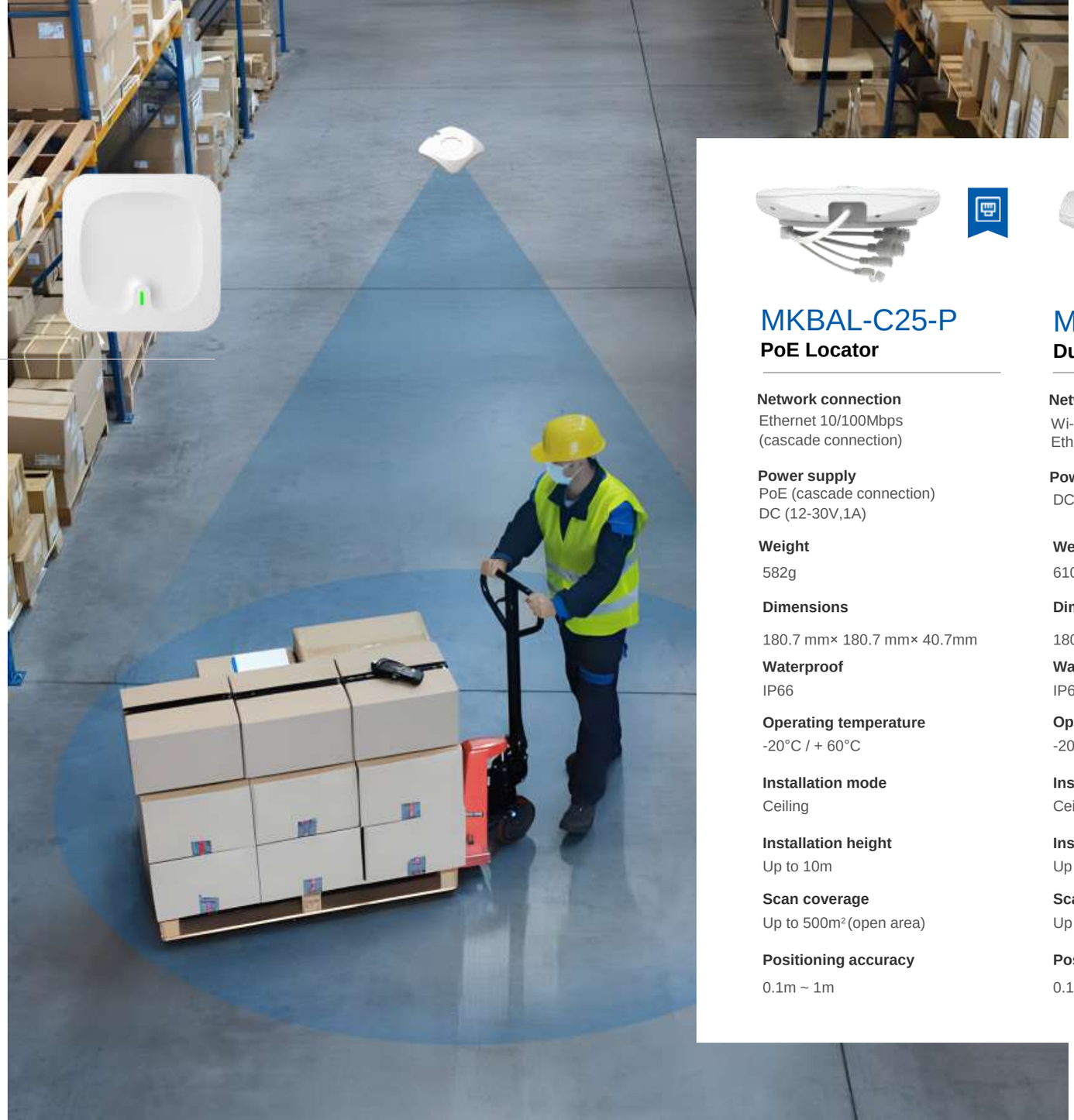
Bluetooth AoA Locator

Achieving Sub-meter Accuracy
RTLS Solution

MOKO SMART introduces a high-precision positioning Locator based on Bluetooth AoA (Angle of Arrival) technology, achieving sub-meter accuracy. Connected with the MOKO SMART AoA Tag (Personnel/Asset tag), it enables high-precision RTLS applications across various scenarios, including public safety, intelligent supervision, industrial factories, logistics, warehouse, retails, exhibition venues, and more. The MOKO SMART Bluetooth AoA Locator configures the locator via the CCS tool and utilizes a powerful CLE positioning algorithm engine, providing an open API interface for easy and rapid integration of location data into your application platform.

Key Features

- IP66 waterproof
- High accuracy positioning
- Strong Anti-Interference
- Wide coverage area
- Cascade Connection
- Flexible integration with multiple APIs



MOKO SMART

MKBAL-C25-P
PoE Locator

Network connection
Ethernet 10/100Mbps
(cascade connection)

Power supply
PoE (cascade connection)
DC (12-30V,1A)

Weight
582g

Dimensions
180.7 mm× 180.7 mm× 40.7mm

Waterproof
IP66

Operating temperature
-20°C / + 60°C

Installation mode
Ceiling

Installation height
Up to 10m

Scan coverage
Up to 500m² (open area)

Positioning accuracy
0.1m ~ 1m

MKBAL-C30-L
Dual-band Wi-Fi Locator

Network connection
Wi-Fi (2.4G + 5G frequency band) |
Ethernet 10/100Mbps

Power supply
DC (12 - 30V, 1A)

Weight
610g

Dimensions
180.7 mm× 180.7 mm× 40.7mm

Waterproof
IP66

Operating temperature
-20°C / + 60°C

Installation mode
Ceiling

Installation height
Up to 10m

Scan coverage
Up to 500m² (open area)

Positioning accuracy
0.1m ~ 1m

MOKO SMART

LoRaWAN Node & Gateway

Based on LoRa® technology, MOKO SMART introduces a range of LoRaWAN gateways and nodes, tailored to your IoT applications across diverse industry verticals. Partnering with MOKO SMART allows you to swiftly gain market entry, foster end-user engagement, and propel your business growth.

LoRaWAN Node

Experience the versatility of MOKO SMART's LoRaWAN nodes, tailored to various applications for enhanced efficiency: asset management and positioning; personnel safety; energy management; smart office management; condition monitoring and much more.

- Various specifications and pricing options to cater to diverse customer needs
- Compatible with MOKO Beacon, features GNSS positioning for indoor and outdoor hybrid scenarios
- Reliable and durable product with strong power performance for extended lifespan
- Outstanding wireless RF performance for long-distance communication requirements

LoRaWAN Gateway

MOKO SMART offers different channel standard LoRaWAN®-based gateway designed for seamless indoor deployment. These gateways stand out due to their easy installation process, which allows for quick and hassle-free setup in a variety of environments. Its versatile application extends to smart scenarios, factories, industrial parks, smart office spaces and more.

- Suitable for both indoor and outdoor scenarios
- Cost-effective and easily compatible with MOKO LoRaWAN nodes for rapid PoC deployment
- Stable and reliable, supporting various frequency bands
- Compatible with multiple mainstream Network Server (NS) providers

MOKO SMART

LoRaWAN Node

GPS Tracker

> Forklift management
> Asset tracking
> Livestock tracking
> Logistics park vehicle monitoring

Applications

Industrial Park | Construction | Transport | Pasture

- Max 5-year lifespan under typical usage
- Supports anti-demolition alarm function
- Supports various working modes such as standby mode, timing mode, periodic mode, motion mode
- Equipped with multiple and highly accurate positioning technologies

LW001-BG Pro
GPS Tracker

(Rechargeable version is available)

Two power supply options

Built-in battery

USB plug

- Built-in LR1110 for GNSS and Wi-Fi positioning
- Supports magnetic installation for quick setup
- Compact size, suitable for small-sized devices
- High durability and impact resistance

LW008-MTP
Mini GPS Tracker

- Support cloud auxiliary operation (downlink for position, man down detection and alarm function)
- Multiple working mode to balance power consumption
- Cost-effective

LW011
Mini Tracker

- Sleek bar-shaped design, suitable for container installations
- IP67 waterproof rating
- Supports anti-tampering alarm
- Typical lifespan of 5 years

LW012
Container Tracker

- Ultra-thin design, suitable for small spaces
- Tear off the sticker film to power on
- Self-adhesive backing sticker, easy installation
- Supports local data storage

LW015
Smart Label

LoRaWAN Node

Panic Button & Smart Badge

> Emergency alert > Personnel safety

Applications

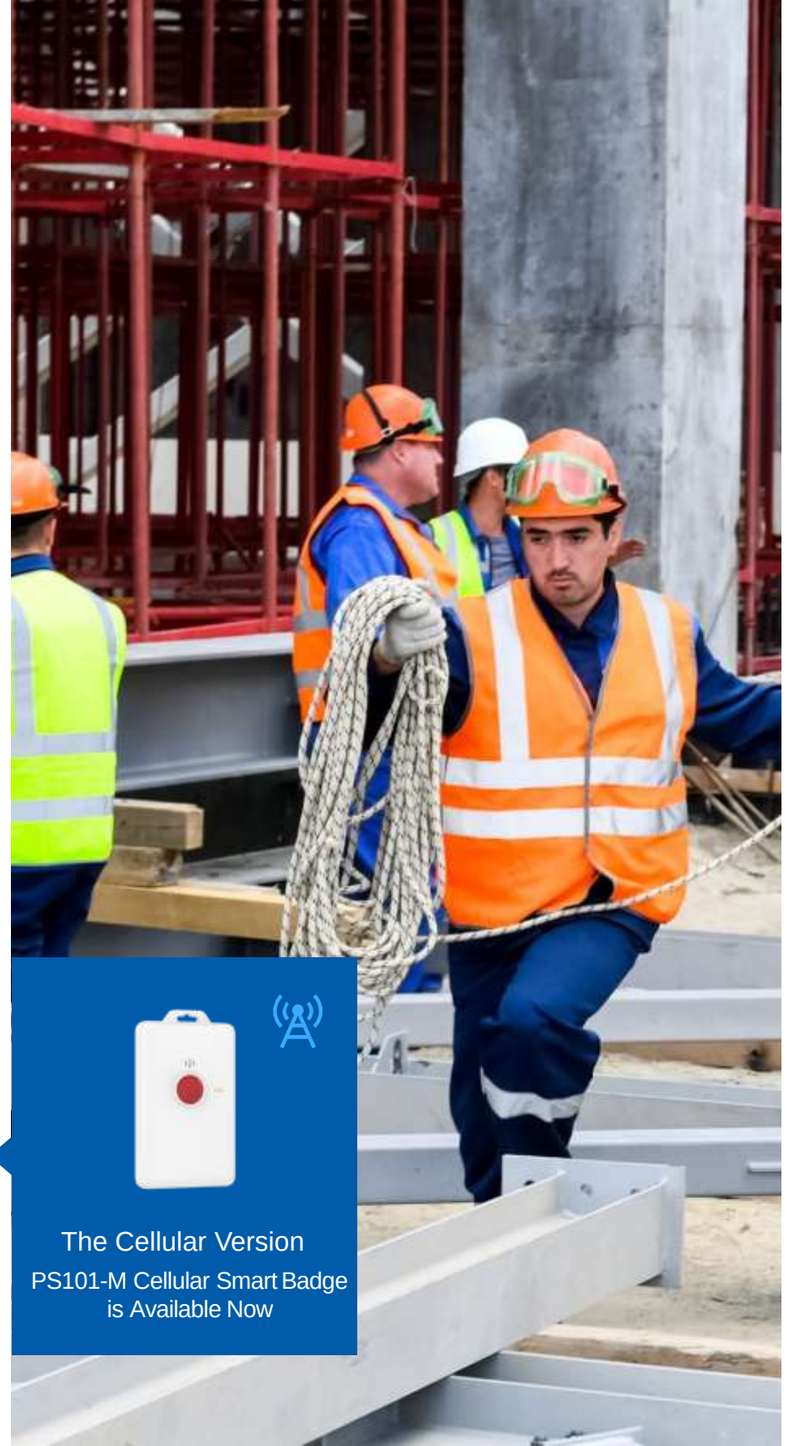
Construction Hotel Smart Offices Healthcare

- Compact and portable design
- Suitable for various indoor and outdoor applications
- Easy charging
- Built-in motor and LED indicator

LW004
Panic Button

- Convenient magnetic charging method
- Prominent alarm button with clear speaker sound
- IP67 waterproof for enhanced durability
- Multiple positioning technologies for accurate tracking

LW006
Smart Badge



The Cellular Version

PS101-M Cellular Smart Badge is Available Now

MOKO SMART

- Credit card size
- Convenient magnetic charging method
- Built-in buzzer and motion sensor
- Multiple positioning technologies for indoor and outdoor applications

LW010
Card Tracker

- IP67 waterproof for enhanced durability
- Supports multiple forms to trigger alarms
- Low battery reminder
- Supports beacon mode

LW013
Smart Button

- Up to 5km communication range
- Multiple technologies, enhanced positioning
- Dual programmable alerts, anti-accidental touch
- Soft material, comfortable wearing
- Multiple working modes for various applications
- IP67 waterproof, durable shell

LW014
Wearable Button

LoRaWAN Node

Sensor

> Energy management
> Occupancy detection
> Parking lot management
> Environmental monitoring

Applications

Shopping Mall | Smart offices

Parking Lot | Restroom

LW005
Meter Plug

- Easy to use and deploy
- Accurate measurement of active power consumption
- High precision power measurement with accuracy up to ±0.5%
- Supports for load detection and overload protection

LW007
PIR Sensor

- Occupancy or motion detection
- Door/Window status detection
- Highly sensitive temperature and humidity sensor
- Maximum 5-year lifetime under typical scenario

LW009-SM Pro
Surface Mounting Parking Sensor

- IP68 waterproof
- Support BLE scan
- Microwave radar & geomagnetic detection
- High detection precision
- 5 years lifespan

LW016
Data Logger

- Reserved external sensor interface
- Custom delayed sampling function
- Supports abnormal data prompts
- Available in chargeable and replaceable battery options

LoRaWAN Gateway

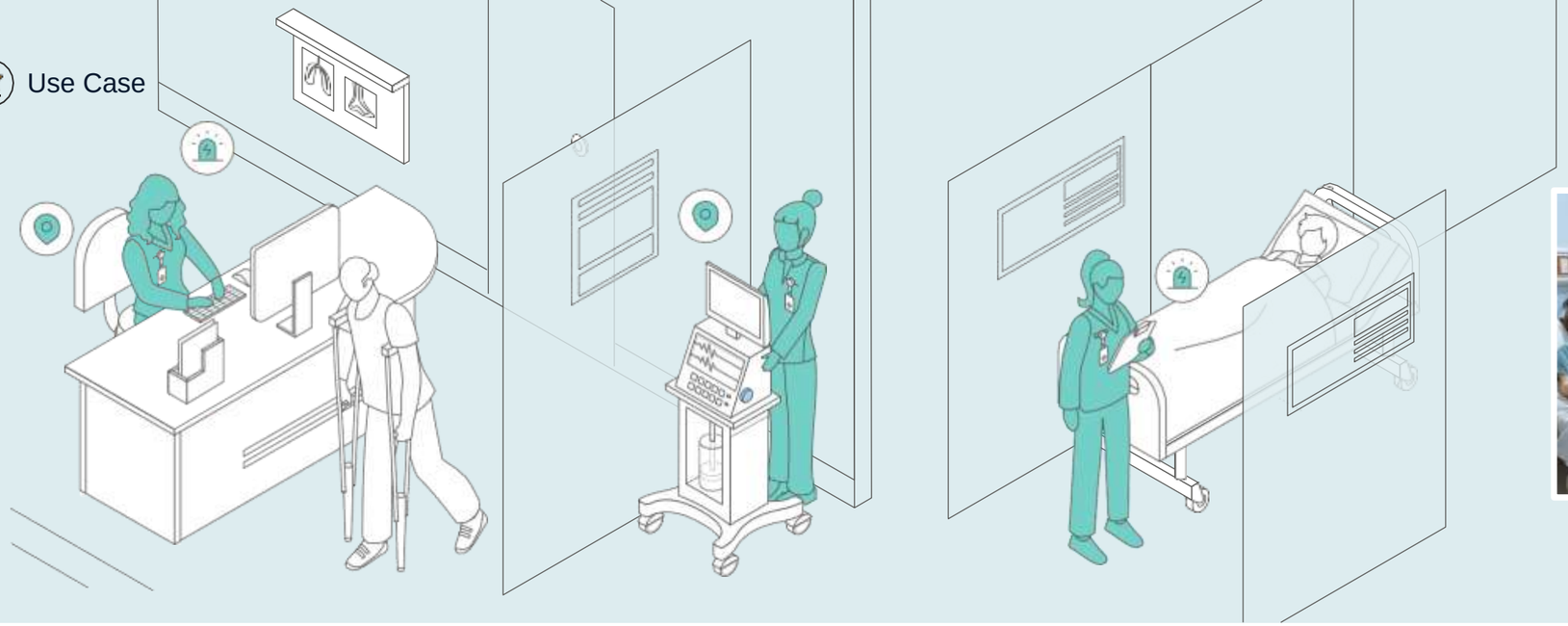
MKGW2-LW
Indoor Gateway

- Supports WiFi AP hotspot access gateway
- WEB interface for convenient configuration and status viewing
- One-click reset function
- Download log function for troubleshooting

MKGW6-LW
Single Channel LoRa Gateway

- Cost-effective
- LoRaWAN full-frequency band coverage
- Plug-in design for easy installation
- External antenna for enhanced communication performance

Use Case



Healthcare

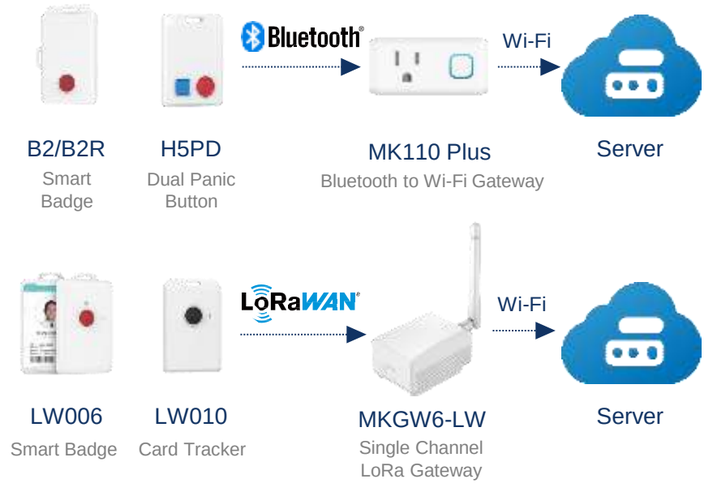
Challenge

Workplace violence against healthcare workers has emerged as a severe global issue within healthcare systems. In current healthcare environments, staff members are confronted with increasingly risks regarding to violence and emergencies in their workplaces. Relying solely on phone calls or even just shouting to get assistance have proved to be an unreliable method during urgent situations.

Solution

To address such potential threats faced by healthcare staff, we introduce an IoT-based staff duress solution. Equipping every employee with a smart badge enables real-time monitoring of their locations. When facing an urgent emergency, simply pressing the button on the badge can trigger the alert. Such alert, along with the relevant location information, will be soon transmitted to the cloud within minutes via a gateway. Managers will receive such information to provide corresponding assistance as soon as possible. Empowering employees with such real-time security responses provides them with peace of mind, enabling better focus on patient care.

Staff Protection / Staff Duress



Use Case

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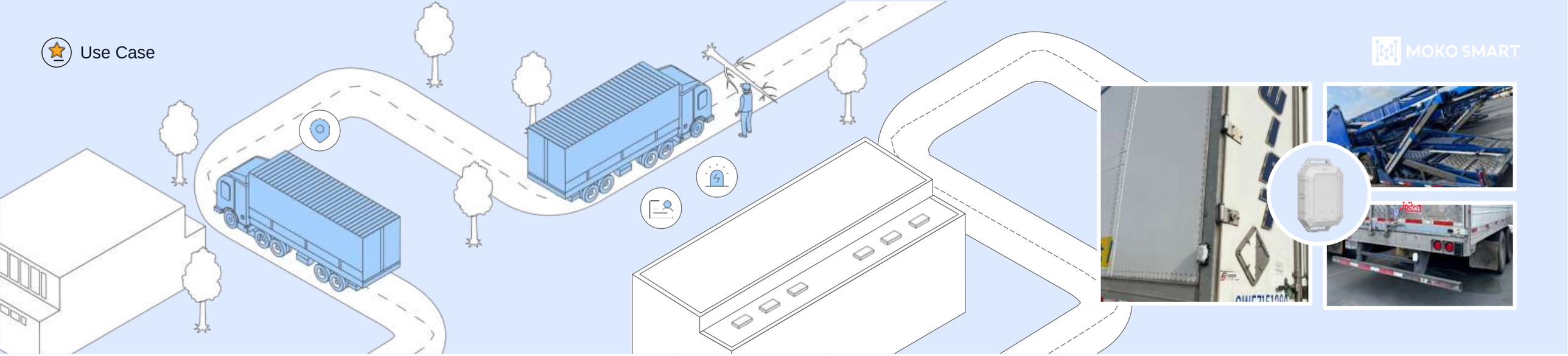


Transport

Challenge

In the transport industry, fleet operators often encounter various challenges that are not easy to manage. One crucial point is the driver safety. This sector often involves the long-distance transportation of goods within limited time, possibly leading to fatigue driving or unexpected traffic accidents. In the event of such accidents, the effectiveness of rescue efforts depends largely on the promptness of the response.

Another significant concern is vehicle tracking, an indispensable aspect directly impacting the efficiency and safety of logistics operations. This issue becomes particularly evident within vast industrial parks, where the unique complexities of such areas pose significant challenge to real-time vehicle tracking systems. These complexities mainly include scale, signal interference, and cost constraints.

Solution

IoT technologies step in the sector because of the constant monitoring capabilities and seamless connections. To enhance driver safety, we install a panic button near the dashboard on each vehicle, ensuring easy accessibility for drivers. Once facing accidents, drivers could press the button immediately to send an alert to a gateway, which then conveys the signal to the server via cellular to ask for help. This rapid response mechanism significantly reduces the time taken to provide assistance, thereby enhancing the overall safety of drivers on the road.

To achieve real-time tracking, we equip one LoRa tracker to each vehicle. Integrating GPS technology, these trackers could give a precise positioning of every vehicle within the fleet. Via a LoRa gateway, acting as a bridge between the trackers and the server, such location information could be transmitted to the server via either Wi-Fi or Ethernet. In this way, managers have uninterrupted access to real-time location updates, allowing them to monitor transportation progress of each vehicle at any given time.

Driver Safety & Identification

H8/H8C
Identification Tag

B3
Emergency Button

MKGW4
Bluetooth to CellularGateway

Server

Vehicle Tracking

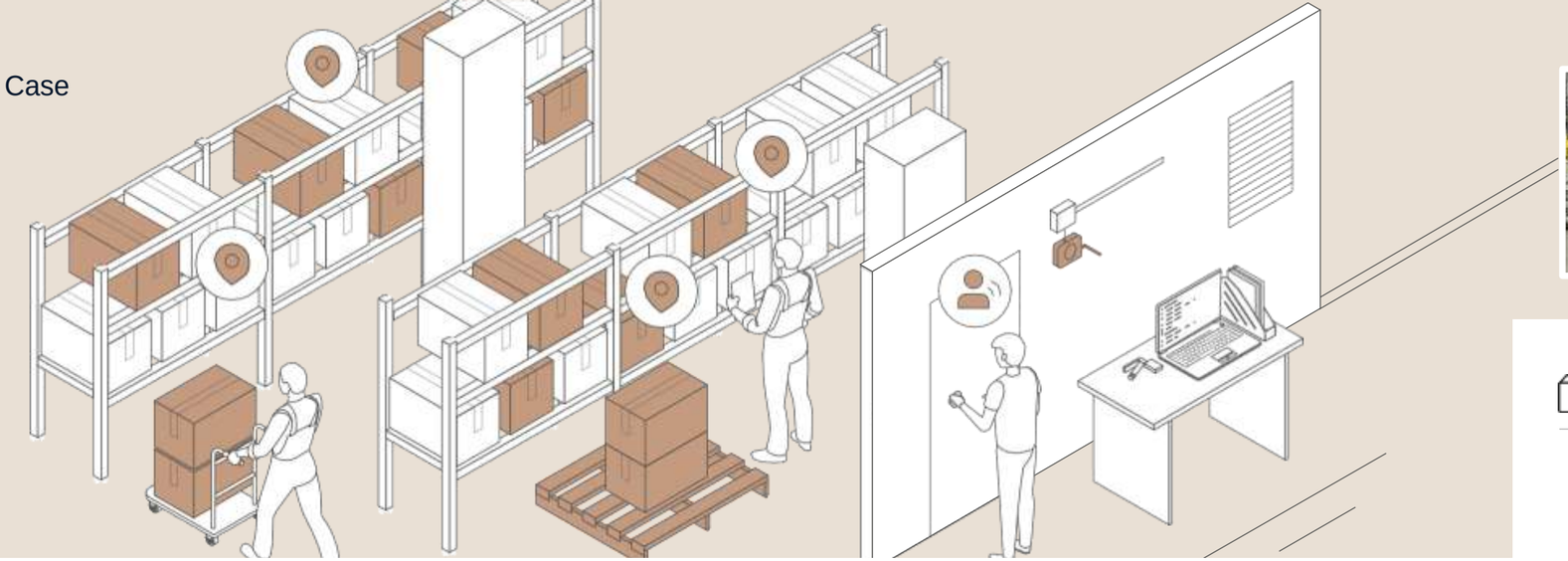
LW001-BG Pro
GPS Tracker

LW008-MTP
Mini GPS Tracker

MKGW2-LW
LoRaWAN Gateway

Server

Use Case



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Warehouse & Logistics

Challenge

Warehouse and logistics frequently face huge number of cargoes and constantly shifting personnel. As warehousing operations expand in scale, traditional manually tracking the movements of goods demands a substantial investment of time and human resources, as each item's entry, exit, and location changes need to be recorded. This tedious approach is not only inefficient, but also highly susceptible to human errors. A simple oversight might result in misplaced goods, causing inaccurate inventory records.

Regarding to the safety of warehouse facilities, access control also plays a vital role. Personnel registration methods make sense in smaller warehouses, when these warehouses expand larger, manual methods fall short. With numerous entries and exit points, as well as a large number of personnel moving in and out, manual methods offer limited visibilities. Managers cannot have real-time information about who is entering or exiting specific areas, making it difficult to detect unauthorized access or suspicious behavior promptly.

Solution

Introducing the IoT warehousing solution, which helps manage cargo and personnel efficiently. Attach a small BLE asset tracking tag to a cargo box ensures a relatively precise and real-time location view of these assets. The BLE gateway acts as a crucial intermediary, receiving these signals and then transmitting the location information of every individual box to the central management system. This seamless flow of data ensures locating specific cargoes quickly and easily, reducing the time spent on manual searches and minimizing the risk of misplacement.

Equipping each worker with a BLE badge plays a crucial role in access control. By strategically placing BLE gateways throughout the warehouse, a virtual geofence will be established to prevent unauthorized access to restricted areas. This is of paramount importance for protecting valuable cargoes from potential theft, or accidental damage.

Asset Tracking

M9
Rugged Asset Tag

UT3
Printable Asset Label

M1P
LED Tag

M4
Lite Tag

Server

MKGW3
Indoor PoE Gateway

Access Control

H5 Pro
RFID Badge

B2/B2R
Smart Badge

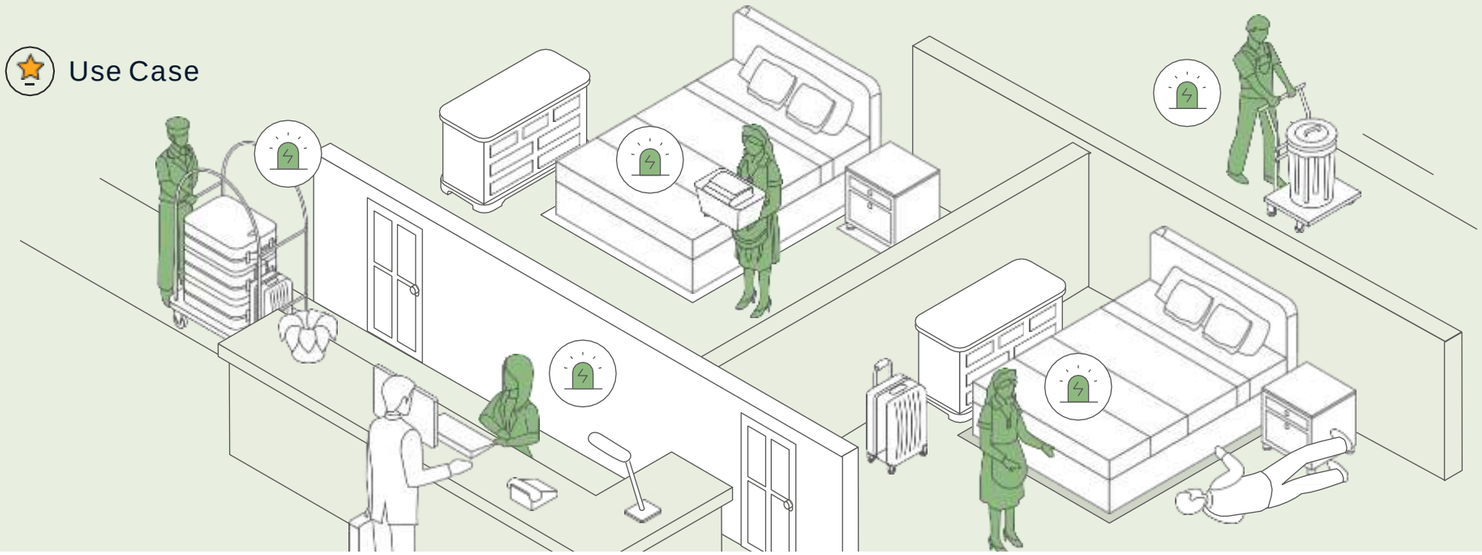
B5
Rechargeable Badge

Server

MKGW3
Indoor PoE Gateway

Use Case

MOKO SMART



Personnel Safety

Challenge

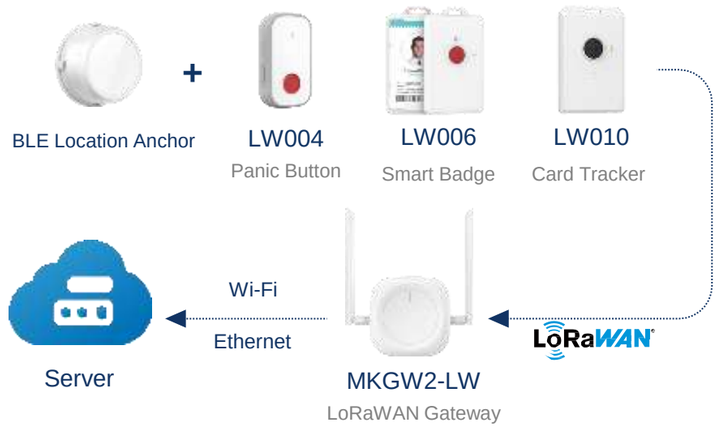
Personnel safety remains the top priority across all industries. Take hotel industry as an example, employees often face physical hazards in their daily work routines. These include accidental slips or falls which can occur due to wet floors, and potential customer harassments, ranging from verbal abuse to more severe forms of misconduct.

Traditionally, when encountering an emergency, hotel personnel rely on interphones to notify their colleagues or supervisors. However, this method has several limitations. Interphones have limited range, especially in large hotels with multiple floors and extensive facilities. In addition, during chaotic situations, it can be difficult to clearly communicate the situation and location of the emergency through voice messages, leading to delays in response times and potentially exacerbating the situation.

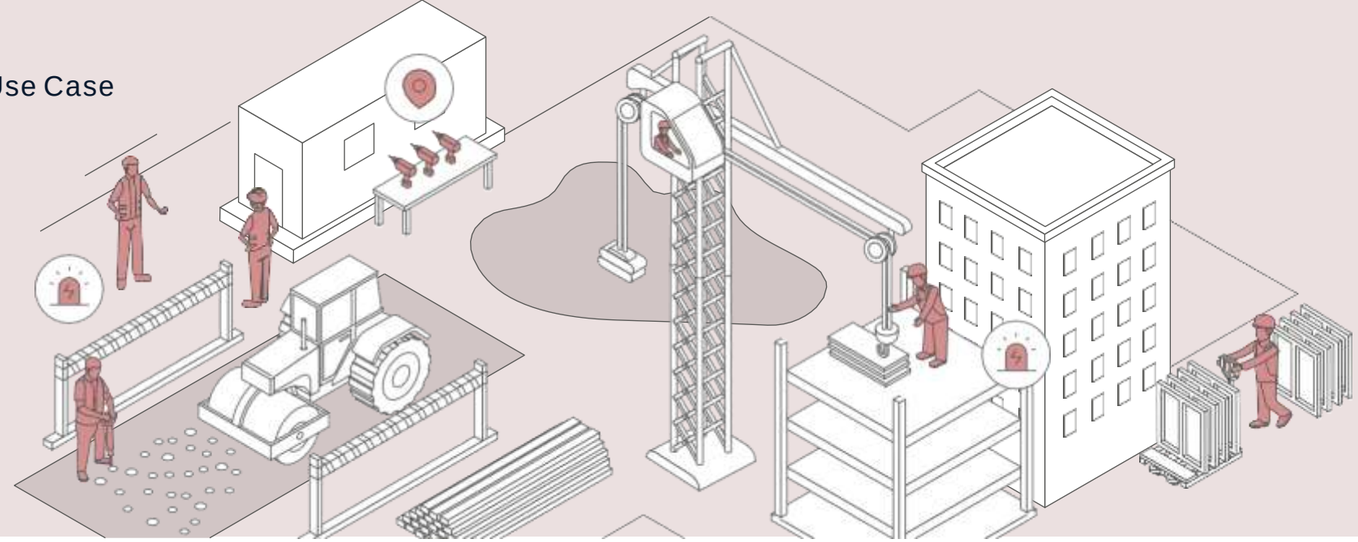
Solution

IoT solutions have revolutionized the approach to enhance safety measures by offering a range of tailored features such as real-time monitoring, panic buttons, and emergency alerts. To ensure the safety of staff members both indoors and outdoors, each employee will be provided with a smart badge. Thanks to the embedded GPS technology, the badge enables supervisors to track the precise outdoor locations of their staff in real-time. Regarding to indoor monitoring precision, BLE location anchors are installed in each room of the hotel. These anchors work with smart badges to achieve room-level precision.

When encountering an emergency situation, simply pressing the button on the badge can trigger an alert immediately, which will be transmitted to a nearby gateway. The gateway then swiftly conveys the alert to the central server, notifying supervisors and relevant security personnel within minutes. By integrating these advanced IoT capabilities, supervisors can significantly enhance their ability to protect their workforces and mitigate risks on workplace to a great extent.



Use Case



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Construction

Challenge

As is known to all, construction sites inherently carry higher risks, due to bustling workers and complex machinery. Numerous dangers, ranging from falls, struck-by-object incidents, to equipment-related accidents, happen on construction sites. The vast expanse of the site coupled with various noises, making the timely and efficient communication with these workers difficult. This will lead to delays during emergencies and hinder the overall coordination of construction operations.

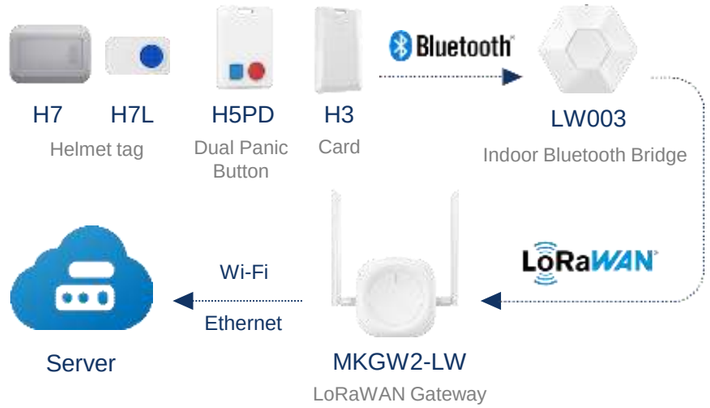
Another point is the tracking of the small tools like electric drills. These tools are usually used by different workers and will be dispersed in various places, facing risks being lost. Within a large-scale industrial construction site, the absence of a comprehensive tool management system will pose a potential danger to the effectiveness of working progresses.

Solution

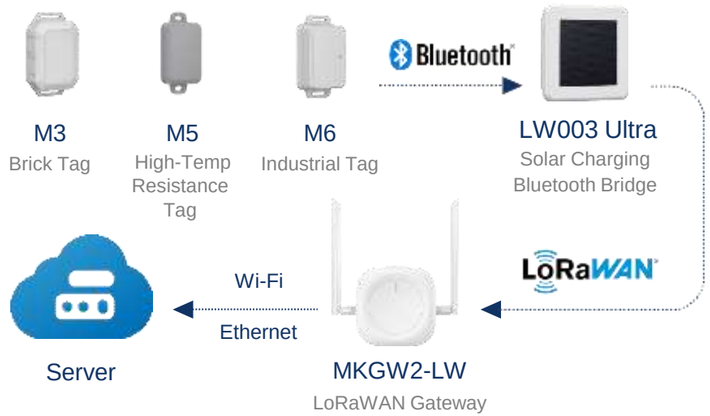
By integrating smart sensors and devices, IoT enables real-time monitoring, efficient resource management, and enhanced safety. To optimize worker safety monitoring, we strategically attach one BLE helmet tag to every helmet to monitor the locations of workers. Its integrated 3-axis accelerometer will detect when the worker falls and trigger an abnormal alert signal. This signal is then transmitted through strategically placed gateways to a software platform. Then, managers could notify the nearby workers to give an instant assistance.

For tool management, we place small BLE tool trackers on each tools requiring tracking. Through the IoT network, managers could gain a clear view of the whereabouts of these necessary tools in real-time. Such visibility enables them to reduce the time wasted searching for misplaced tools and prevent loss to a great extent. The integration of IoT technologies represents a significant step forward in enhancing the overall productivity and safety of construction site operations.

Worker Safety



Tool & Equipment Tracking



Use Case

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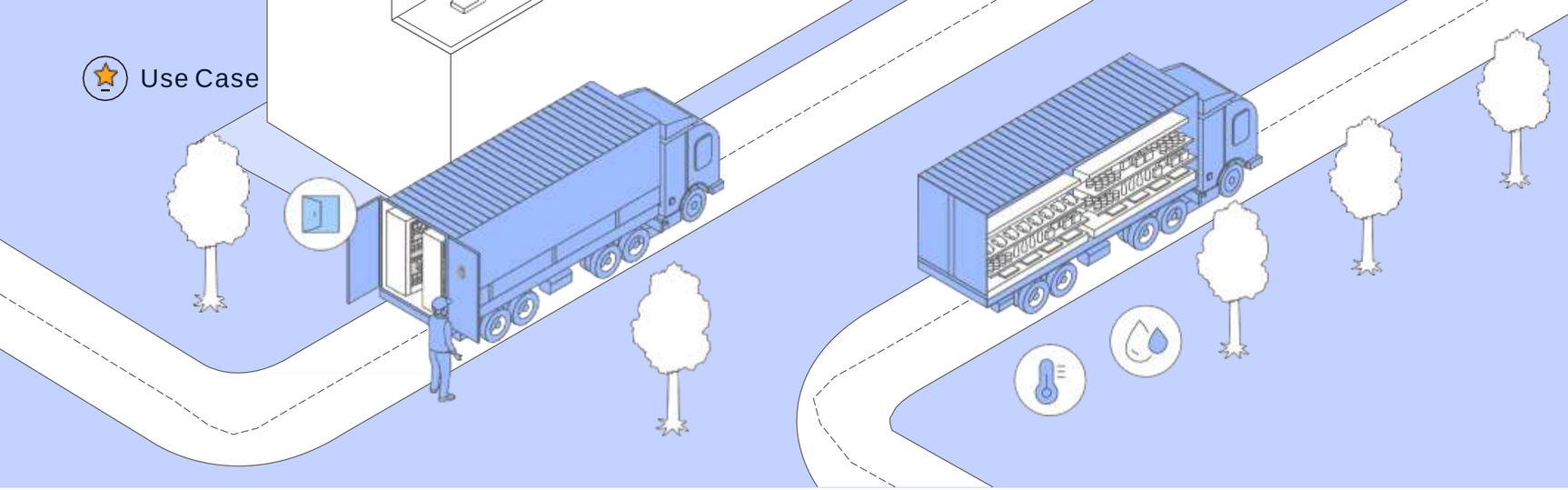


Cold Chain Monitoring

Challenge

Goods safety is vital in transportation, particularly with cold chain logistics market experiencing significant growth. The growth is fueled by the rising demands for perishable foods and temperature-sensitive products like drugs. To guarantee product quality and shelf life, ensuring optimal conditions on the way plays a vital role. In this context, the careful monitoring of temperature cannot be ignored, as even minor fluctuations will accelerate spoilage.

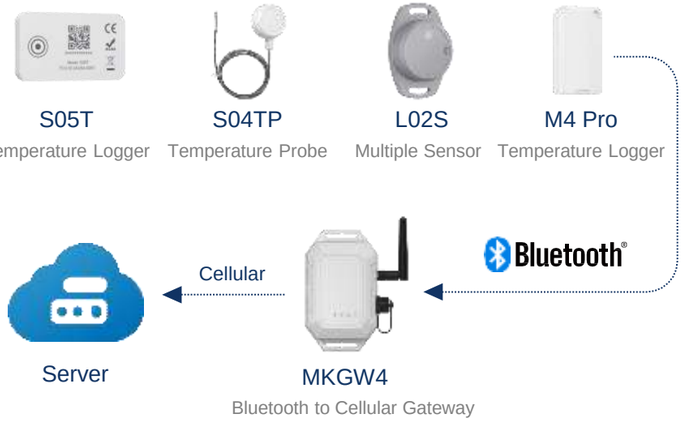
Traditional methods often fail to track the temperature constantly, as they typically rely on periodic manual checks. This lack of constant oversight means that temperature deviations may go undetected for extended periods, allowing products to deteriorate before taking corrective actions.

Solution

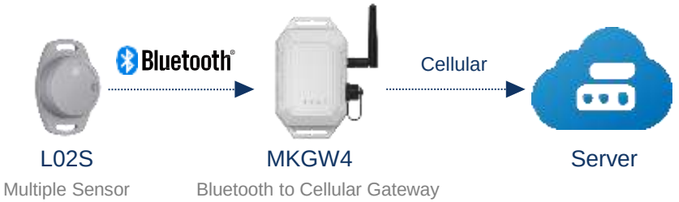
To preserve the freshness of products, temperature sensors are set up within the truck cargo compartments to accurately measure the temperature. Via cellular gateway, the communication bridge between sensors and central monitoring system, these sensors will report the temperature data at set intervals. With constant temperature data sheet, managers will stay informed about the real-time temperatures and any fluctuations inside the cargo hold.

To add an extra layer of protection, we also attach door sensors to detect the status of the compartment. Any unauthorized door openings will trigger an immediate alert to the system, notifying managers about potential temperature control issues. Such dual-monitoring approach combines temperature and door status sensors, ensuring a higher level of product safety though the entire transportation process.

Temperature Monitoring

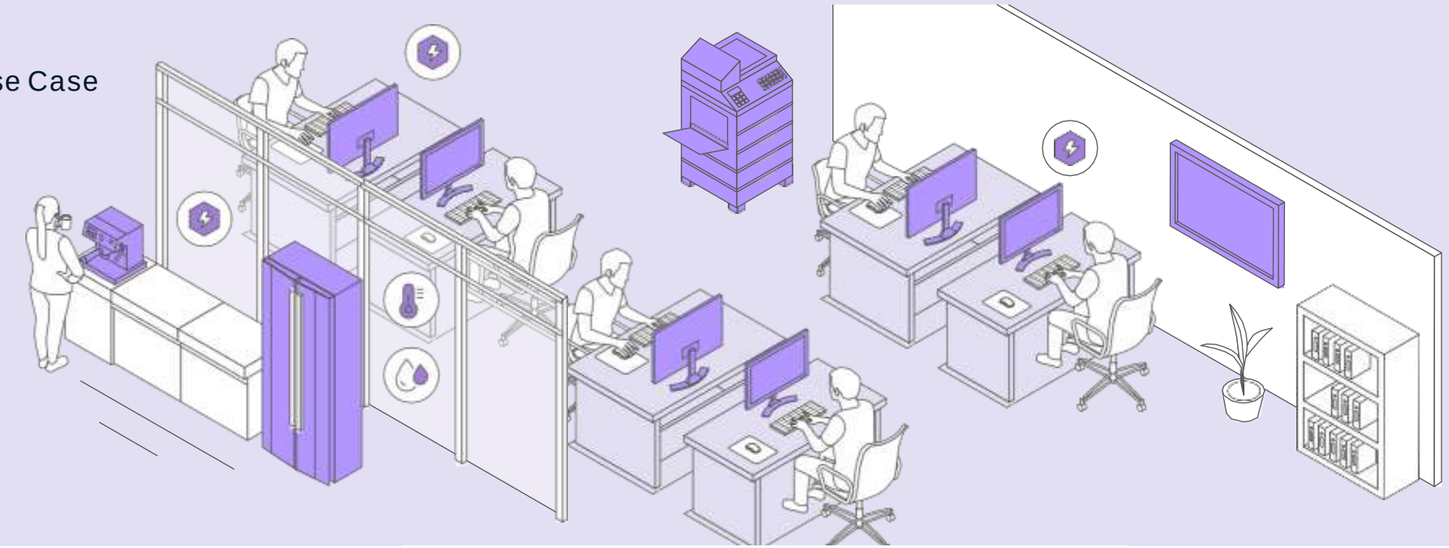


Door Status



Use Case

MOKO SMART



Facility

Challenge

In this era where facilities are becoming more intelligent, a critical need to adopt wider monitoring methods, including environment and energy aspects. The objectives would be operational efficiency increasing and costs decreasing. Traditional methods need manual measurement and recording processes, which could be labor-intensive and time-consuming. Such data collection ways often lead to delays during critical situations, making it difficult for facility managers to make timely and informed decisions for optimizing adjustments. Moreover, the potential errors of human recording will further affect the accuracy and reliability of the data.

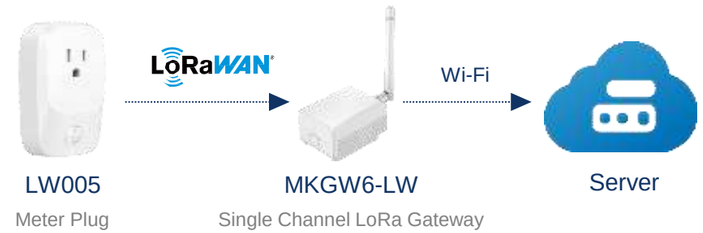
Solution

To address these challenges, we introduce IoT-based system to solve such problems. For environmental monitoring, we install BLE sensors with temperature and humidity measuring capabilities. These sensors are strategically placed throughout the facility to ensure accurate and continuous data collection. Via a gateway, such data will be transmitted to the server for further storage and analysis. This real-time data transmission enables instant access to up-to-dated environmental information, allowing facility managers to promptly detect any fluctuations and take actions to maintain optimal environment conditions.

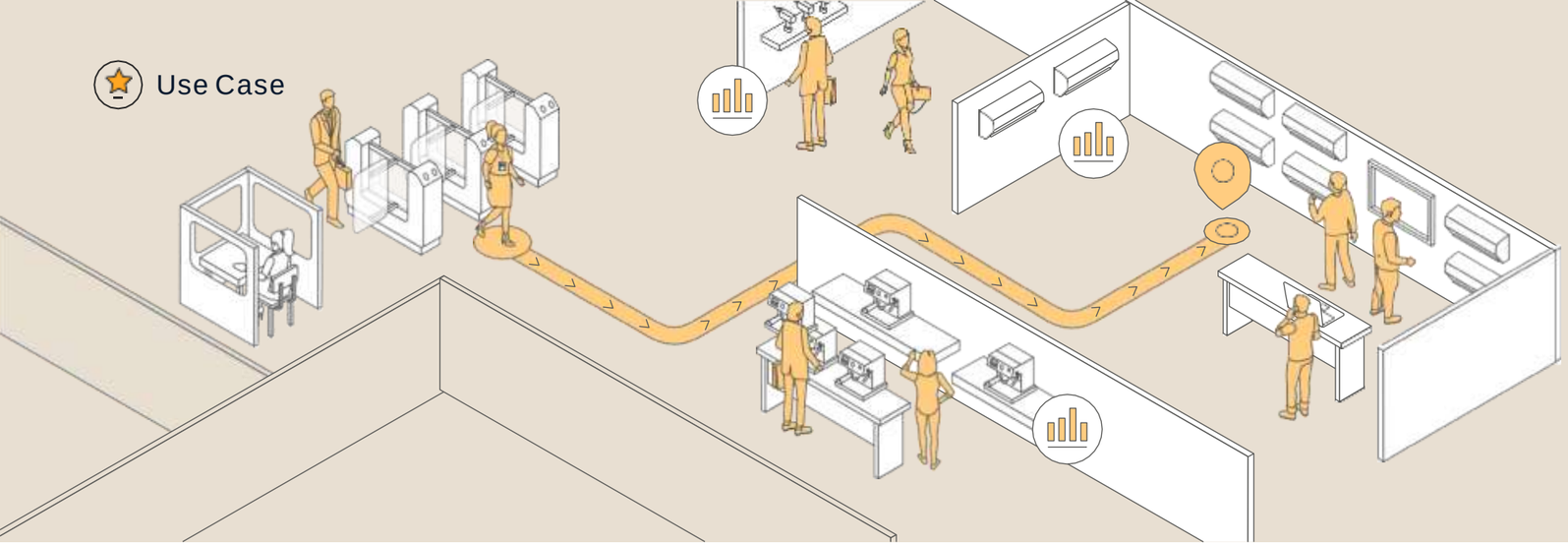
When it comes to energy monitoring, simply plug the smart meter plugs into electrical outlets achieves the aim to monitor energy consumption of connected appliances and equipment. The smart plugs leverages LoRaWAN technology to transmit energy consumption data to the gateway, which then conveys to the server. With such information, businesses could identify energy-efficient devices and optimize the energy consumption.

Environment Monitoring

Energy Management



Use Case



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Exhibition

Challenge

Trade exhibitions usually gather numerous visitors, making them ideal places for both customers and businesses to get potential cooperation and gather critical market insights. However, imagine walking through an unfamiliar exhibition hall - the complex layout can easily be overwhelming. In such situations, traditional physical signals may be deficient for a precise and fast route for the destination.

Also, the dynamic nature of exhibition booths poses a significant challenge to manually recording preferences from visitors. With hundreds of products on display, exhibitor usually struggles to identify which booths or models attract the most attention and which ones may be overlooked. Without tangible reference into consumer preferences and market trends, the business has more risks making uninformed inventory decisions.

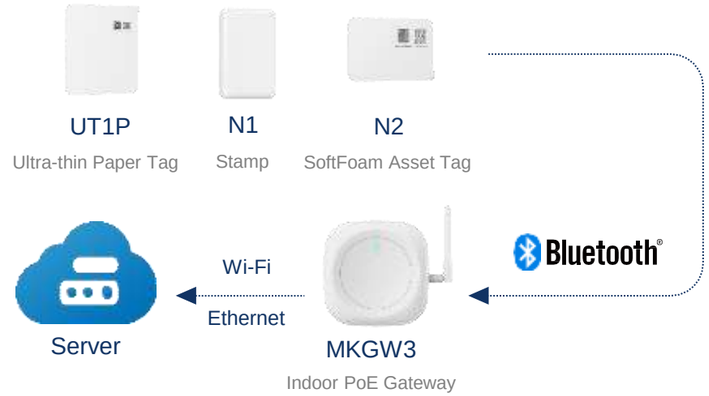
Solution

To mitigate these risks, the needs for a more reliable method to give indoor navigation and data collection in exhibitions have gradually emerged. The indoor navigation system works through Bluetooth signals exchanged between visitors' smart devices and fixed BLE anchors placed throughout the exhibition hall. These anchors determine approximate location and distance of these received signals. By distributing adequate beacons in the exhibition hall, these beacons are capable to monitor the real-time movements of users' positions. After integrating map of the whole exhibition hall, these systems can guide users to destinations, offering a fast and precise navigation experience.

To better get the preferences of potential clients, we stick an ultra-thin BLE tag to every exhibition badge, which is able to detect where they stop by and even the duration. The gateway automatically captures this data and securely transmits it to client's software platform. Transforming raw interaction data into actionable insights, such software enables business to identify the most popular booths or even styles based on visitor engagement metric collected.

Indoor Navigation

Flow Analysis



We Are Trusted By

At present, we have developed partnerships with over 100 globally renowned companies and successfully completed more than 200 projects.

We regard sustainable business relationships with our suppliers and customers, along with scalable systems, as the essential foundation for achieving mutual success. Our goal is to cultivate win-win collaborations that improve people's lives by enhancing convenience, efficiency, and comfort.

Scan to learn more about partner system

"It's always such a pleasure to work with MOKO. Your attention to details and help has been great. Thank you for all that."

Stephan Schwarze, from the USA

"The gateway you have is the best I have seen."

Vasile Tulcianu, from the USA

"The teamwork is awesome! I am never nervous working with your team – always confident that we will find a solution – even though the problem might not be on our end."

Luis Filipe, from the USA

"The LW001 was the best device for the requirements and we've bought lots of MOKO stuff in the past which we like so it seemed like a good way forward."

Ben Caster, from the UK

"I have worked within this space for many years and I can honestly tell you their products are great quality and service is great. If you have had any experience with other vendors, MOKO SMART is top of their game."

Marc Strydom, from South Africa

"By integrating MOKO SMART's BLE&LORAWAN device into the entire positioning system, it improves staff safety and operational efficiency. MOKO device provides new ideas for indoor positioning"

Matt, from Singapore

"Definitely, we caught some guy's trying to steal solar panels these nights. The movement trigger mechanism of the LW001-BG Pro is fantastic"

Heinrich, from Australia

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MOKO TECHNOLOGY LIMITED

Add: 4F,Building 2,Guanghui Technology Park,Minqing Rd,Longhua, Shenzhen 518109，Guangdong,China

Tel: 86 0755–23573370 **Email**: info@mokosmart.com

Web: www.mokosmart.com

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