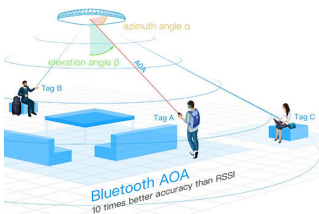# Asset Tracking

Incorporated Real Time Locating System (RTLS) technology, our Asset Tracking solution automatically identifies and tracks the real-time location of objects or people. With targeted tracking, items equipped with tags and utilizing wireless transmission technologies such as Bluetooth AOA and ultra-wideband (UWB), our system provides accurate and reliable location tracking services in various scenarios.
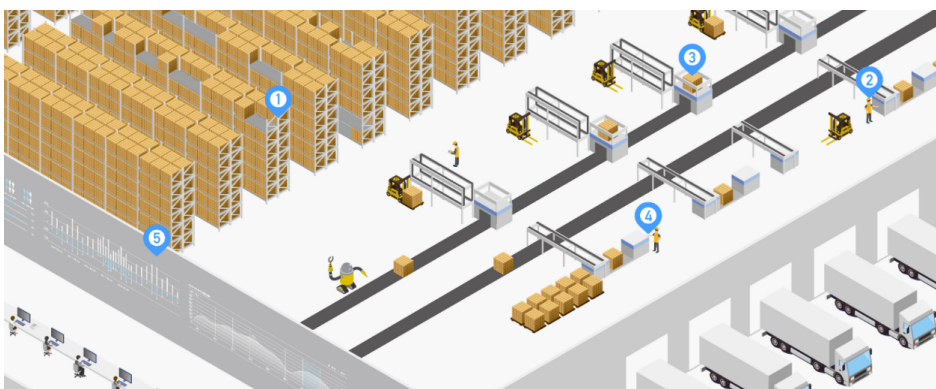
Locating Technology

Asset Tracking uses the Angle of Arrival (AOA) positioning algorithm to improve the 5-meter accuracy of traditional low-precision Bluetooth by ten times, reaches 0.1-0.5 meter average accuracy.

Bluetooth AOA
10 times better accuracy than RSSI

Protocol	Bluetooth AOA Anchor BT5.1, Tag BT4.0+	Bluetooth RSSI Anchor BT4.0+, Tag BT4.0+	UWB Anchor UWB, Tag UWB
Typical accuracy	0.1 ~ 0.5 m	5 ~ 10 m	0.1 ~ 0.3 m
Refresh rate	High	Low	Medium
Compatibility	Various tags such as mobile phones, bracelets, watches, Beacon, etc.	Additional special tags for return channels such as LoRa are required	UWB Tag
Tag power consumption	Low	High	High
Anchor cost	General	Low	High
Tag cost	Low	High	High
Downlink broadcast capability	Yes	Yes	No
IoT anchor capabilities	Yes	No	No

System Configuration

1 AoA Anchors

The AoA anchors not only provide high-precision positioning services, but also serve as a Bluetooth IoT gateway, allowing seamless access to all kinds of Bluetooth IoT sensor data.

2 Personnel Tags
3 Asset Tags
4 Personnel Tags

BT positioning tags are located by anchors. Different types of positioning tags are used to locate people, vehicles, and devices.

5 Locating and value-added SWs

Warehouse
Locate pallets, forklifts, personnel, improve inbound/outbound efficiency

Production line
Locate materials, carts, tools, WIP, personnel, secure production continuity

Chemical
Locate equipment and personnel, monitor risk control area, improve safety management

Health care
Locate medical equipment, patients, support medical and nursing resource scheduling