

BLE TAG

Use Cases Across Personal, Business & Specialised Applications

Affordable, infrastructure-free location awareness — powered by Bluetooth Low Energy — applied across ten everyday and business scenarios. Each use case outlines the challenge, how BLE tagging solves it, and the resulting benefit to the user.

1. Personal Item Tracking (Keys, Wallets, Bags)
2. Pet Tracking
3. Bicycle & Two-Wheeler Security
4. Business Asset Management
5. Warehouse & Logistics Tracking
6. Retail Loss Prevention
7. Elderly & Child Monitoring
8. Tool & Equipment Tracking (Field Teams)
9. Event & Attendee Tracking
10. Healthcare Equipment Tracking

1. Personal Item Tracking (Keys, Wallets, Bags)

CHALLENGE

Everyday items like keys, wallets, and bags are frequently misplaced at home, work, or in public spaces, leading to lost time and, occasionally, permanent loss.

BLE TAG SOLUTION

- A small BLE tag attached to the item pairs with the owner's smartphone app
- App shows last-known location and triggers an audible alert to help locate nearby items
- Crowd-sourced network of other app users helps locate items lost farther away

BENEFIT

Gives everyday peace of mind, reducing time spent searching for misplaced items and lowering the risk of permanent loss.

2. Pet Tracking

CHALLENGE

Pets can wander off or escape from homes and yards, and traditional collar tags provide no way to locate a lost animal in real time.

BLE TAG SOLUTION

- Lightweight BLE tag attaches to a pet's collar without adding bulk or weight
- Real-time proximity alerts notify the owner if the pet moves beyond a set range
- Community-based location sharing helps locate pets that wander further from home

BENEFIT

Improves the chances of quickly recovering a lost pet while giving owners continuous reassurance of their pet's whereabouts.

3. Bicycle & Two-Wheeler Security

CHALLENGE

Bicycles and small two-wheelers are common theft targets, and their compact size makes bulkier GPS trackers impractical or easily spotted by thieves.

BLE TAG SOLUTION

- Discreetly placed BLE tag hidden within the frame or under the seat
- Motion-triggered alerts notify the owner if the bicycle is moved without authorisation
- Location history assists in recovery efforts in coordination with local authorities

BENEFIT

Provides an affordable theft deterrent and recovery aid without the cost or bulk of cellular-based tracking systems.

4. Business Asset Management

CHALLENGE

Businesses managing laptops, tools, or portable equipment across offices or job sites often lose track of who has which asset and where it currently is.

BLE TAG SOLUTION

- BLE tags attached to each asset register location within office or facility BLE gateways
- Centralised dashboard shows real-time location of all tagged assets across a site
- Automated alerts flag assets that leave designated zones without authorisation

BENEFIT

Reduces asset loss and misplacement, cuts time spent searching for equipment, and improves accountability across teams.

5. Warehouse & Logistics Tracking

CHALLENGE

Tracking individual pallets, crates, or containers within large warehouses or distribution centres using manual scanning is slow and prone to error.

BLE TAG SOLUTION

- BLE tags on pallets/crates communicate with fixed gateways placed throughout the facility
- Real-time indoor positioning shows exact location within the warehouse layout
- Automated inventory counts reduce reliance on manual stock-checks

BENEFIT

Speeds up inventory operations, reduces misplaced stock, and improves overall warehouse throughput without costly infrastructure upgrades.

6. Retail Loss Prevention

CHALLENGE

Retailers face shrinkage from misplaced or stolen high-value merchandise, especially in large stores where staff cannot visually monitor every item.

BLE TAG SOLUTION

- BLE tags attached to high-value items trigger alerts if moved outside designated store zones
- Integration with store BLE gateways supports real-time monitoring at exits
- Historical movement data helps identify patterns linked to shrinkage

BENEFIT

Helps reduce inventory shrinkage and supports faster identification of at-risk merchandise categories or store zones.

7. Elderly & Child Monitoring

CHALLENGE

Families with elderly relatives or young children often worry about them wandering off or becoming lost, especially in crowded or unfamiliar places.

BLE TAG SOLUTION

- Small, wearable BLE tag attached to clothing, a wristband, or a bag
- Caregiver's smartphone app receives alerts if the wearer moves beyond a defined safe zone
- Location history helps caregivers quickly retrace the wearer's recent movements

BENEFIT

Offers families an affordable layer of safety and reassurance without the cost or complexity of a dedicated GPS device.

8. Tool & Equipment Tracking (Field Teams)

CHALLENGE

Field service and construction teams frequently lose or misplace small tools and equipment across job sites, leading to replacement costs and project delays.

BLE TAG SOLUTION

- BLE tags attached to individual tools sync with a technician's mobile app
- End-of-day scan confirms all tagged tools are accounted for before leaving site
- Alerts trigger if tagged equipment is left behind at a job site

BENEFIT

Cuts tool replacement costs and reduces project delays caused by missing equipment at job sites.

9. Event & Attendee Tracking

CHALLENGE

Large events, conferences, or campuses need a simple way to monitor attendee flow, manage crowd density, and quickly locate lost individuals such as children in family zones.

BLE TAG SOLUTION

- BLE wristbands or badges assigned to attendees on entry
- Gateways placed around the venue provide real-time zone-level location data
- Organisers can quickly locate a specific attendee or badge if needed

BENEFIT

Improves event safety and crowd management while giving organisers real-time visibility without expensive dedicated tracking infrastructure.

10. Healthcare Equipment Tracking

CHALLENGE

Hospitals often struggle to locate shared mobile equipment like wheelchairs, infusion pumps, or monitors, leading to delays in patient care and unnecessary equipment purchases.

BLE TAG SOLUTION

- BLE tags attached to mobile equipment communicate with gateways placed across hospital floors
- Staff use a mobile app to instantly locate the nearest available tagged equipment
- Utilisation data helps hospitals right-size equipment purchases based on actual demand

BENEFIT

Reduces time spent searching for shared equipment, improves patient care response times, and helps optimise capital equipment spending.