



EASYREACH SOLUTIONS PVT LTD

BLE based Moving Asset Tracking

System Understanding and Deployment Requirements

V1.1





Introduction

The system is designed to track moving assets such as Forklifts inside a production plant. The system is comprised of three parts

1. BLE Tags
2. BLE Scanners
3. The software platform

BLE Tag Understanding & Deployment

BLE Tags are installed on the top of the forklift – usually on the car roof. Installing inside the car or below car should be avoided. This is to ensure that no external impediment is created in the way of the radio signal. One can use simple two-way tape to stick tag on the roof. The tag also comes with an arrangement of hook, which can be used to tie the tag safely on the forklift. Also, ensure that tag is not dangling, and it is firmly fit on the forklift.

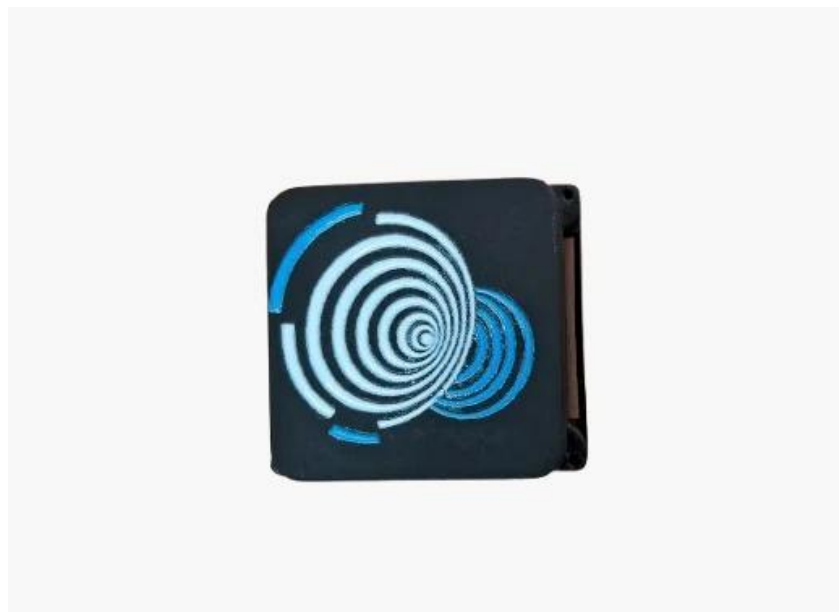


Figure 1: BLE Tag

BLE Scanner Understanding & Deployment

BLE Scanners are installed on locations of interest such as material loading area, material unloading area, entry / exit gates etc. Please note, these areas are registered on





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portal. BLE scanners should be installed approximately 10 to 12 feet from ground, either on the pillars or on the wall. It is important to ensure that the direct impedance to the radio should be avoided. The BLE scanners come with in build 4G, thus it is important that that 4G network visibility is available inside the premise. BLE scanners are powered on using 5V power adapter provided in the package. AC supply need to be available to plug in the power adapter nearby.



Figure 2: BLE Scanner



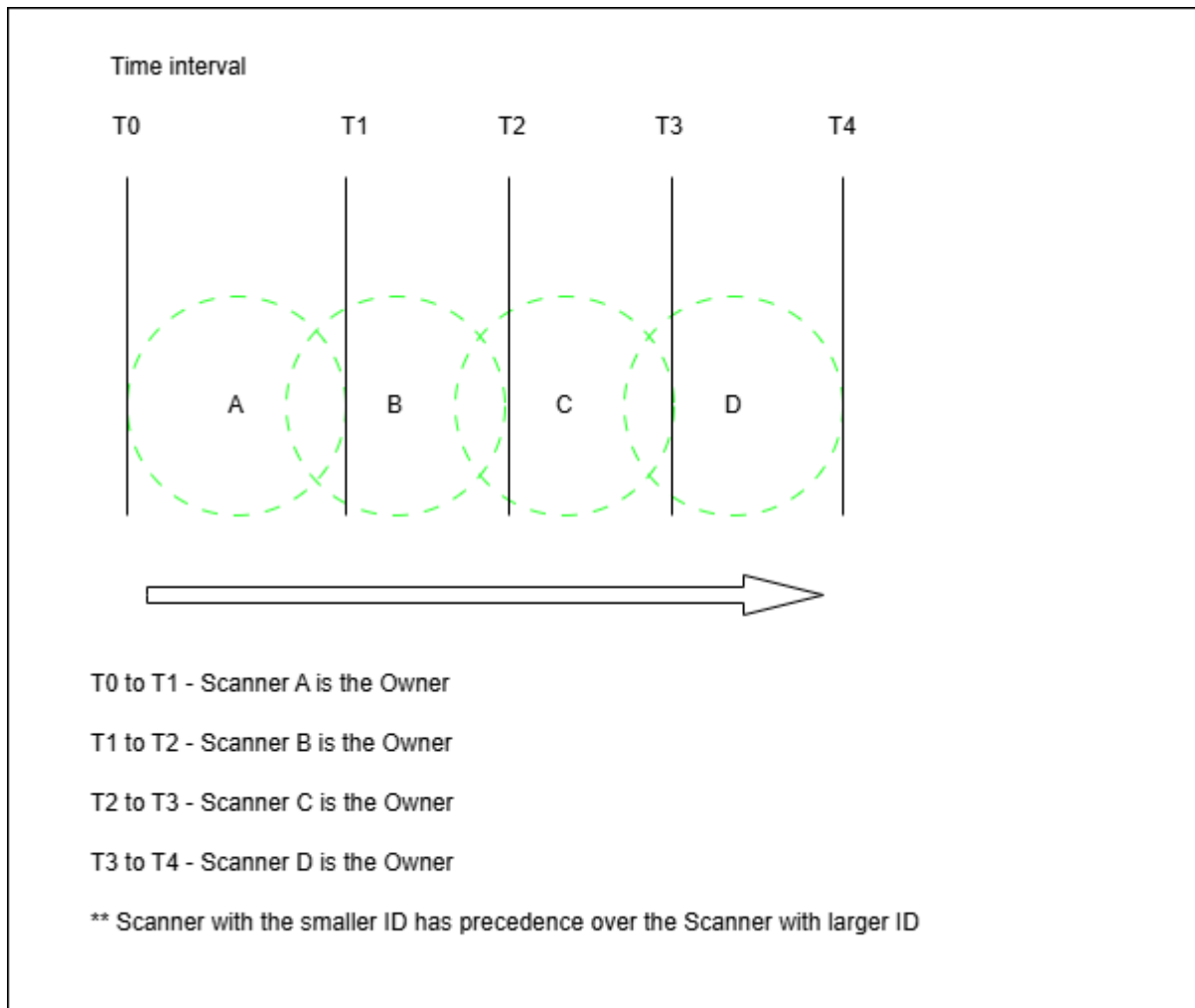


Deployment Architecture



Scanner Priority





Software Platform

The software platform is hosted on cloud.

1. Configure Locations
2. Configure Asset
3. Create BLE Scanners and associate them with the location
 - a. Note mac address provided on the back sticker
4. Create BLE Devices and associate them with the asset
 - a. Note mac address provided on the back sticker
5. Observe reports
 - a. Time spent by Forklift at each location
 - b. Time taken by Forklift to move from one location to another
 - c. Missing asset





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- Dashboard
- Location Dashboard
- User
- Location
- Assets List
- Assets
- Rule
- Apply Rule
- BLE**
- Report

Add new BLE

Scanner

Device

Name

Enter Name

Mac Address

Enter mac id

Location

Select Location

Area

Select Area

Save

BLE List

Search

NAME	MAC	SCANNER/DEVICE	TYPE	DATE	Action
Devie	123456	BLE	BLE	11/02/2025	✓ ✗
Devie Name	BC5729123EB361	BLE	BLE	11/02/2025	✓ ✗
Devie Name	CS572913EB99	BLE	BLE	11/02/2025	✓ ✗
Devie Name	VS572913EB99	GPS	GPS	11/02/2025	✓ ✗
Test	12:26:25	GPS	GPS	11/02/2025	✓ ✗
Devie Name	VS572913EB99	GPS	GPS	12/02/2025	✓ ✗
Mouse	19:15:16	GPS	GPS	13/02/2025	✓ ✗
Mobile	63:65:45	BLE	BLE	13/02/2025	✓ ✗
Desktop	54689	BLE-Scanner	BLE-Scanner	13/02/2025	✓ ✗
Charger	1245678	BLE-Scanner	BLE-Scanner	14/02/2025	✓ ✗

Previous 1 2 3 Next

Figure 3: Create BLE - Scanner and Device

NAME	Asset Identifier	BLE	Campus Name	Created	Action
ER-Beacon-24L0NPKF	BC572913EB36	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L01	24L01	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L02	ER-Beacon-24L02	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L03	ER-Beacon-24L03	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L04	ER-Beacon-24L04	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L05	ER-Beacon-24L05	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L06	ER-Beacon-24L06	BLE	Mumbai Office	10/12/2024	✓ ✗
ER-Beacon-24L07	ER-Beacon-24L07	BLE	Mumbai Office	10/12/2024	✓ ✗

Figure 4: Asset List





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Assets List | EasyReach

localhost:4200/asset-list

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Assets List

Update BLE

Device Name: ER-Beacon-24L01

Asset Identifier: 24L01

Campus: Pune Office

Cancel Update

Device Name	Asset Identifier	BLE	Campus	Created	Action
ER-Beacon-24L05	ER-Beacon-24L05	BLE	Mumbai Office	10/12/2024	Edit Delete
ER-Beacon-24L06	ER-Beacon-24L06	BLE	Mumbai Office	10/12/2024	Edit Delete
ER-Beacon-24L07	ER-Beacon-24L07	BLE	Mumbai Office	10/12/2024	Edit Delete

Figure 5: Asset Mapping

