

Tracking-Monitoring at an Airport



Vehicle and Equipment Monitoring at an Airport

At an airport, a tracking system delivers real-time location information about vehicles, equipment or any things and helps to improve operational productivity.

AT A GLANCE

- real-time indoor & outdoor localization
- central location overview on a digital map
- geo-based alarm trigger
- analysis reports based on historical data

PROBLEM DEFINITION

An airport is filled with thousands of passengers, staff members, vehicles, and pieces of equipment. Since there is a lot happening on the tarmac and in the airport building, it is essential for airport operators to know exactly where each are, if and when they move, and how they are being used. Using the built-in GPS component, vehicles like baggage loaders can only be localized on the tarmac, but not inside the airport building. The chances of losing track of vital processes are increased, leading the airport management to lose time and money in resolving emerging issues.

SOLUTION

A tracking solution provides precise location data of valuable motorized and non-motorized assets such as ground support equipment (e.g. fuel trucks, loaders, passenger steps, busses), security vehicles, cleaning machines and baggage carts. This enables knowing the location of the assets at all times and in all conditions. The tracking solution works both indoors and outdoors and constitutes a crucial part of managing safe and efficient operations, achieving the most effective utilization of airport equipment. Operators can be alarmed if speed, idle, or location violations occur, can get reports based upon the assets' historical activities, review utilization, and identify underutilized assets. It can be checked at any time whether the vehicles are still on schedule and countermeasures can be initiated in due time in the event of expected delays.

PP-BIT Platform



Sensors
Bluetooth Low Energy (BLE) beacons & LoRa



Hardware
Indoor Positioning Locator Nodes



Software Tools
Indoor Navigation, Analytics, Tracking
Mobile App & Browser Portal

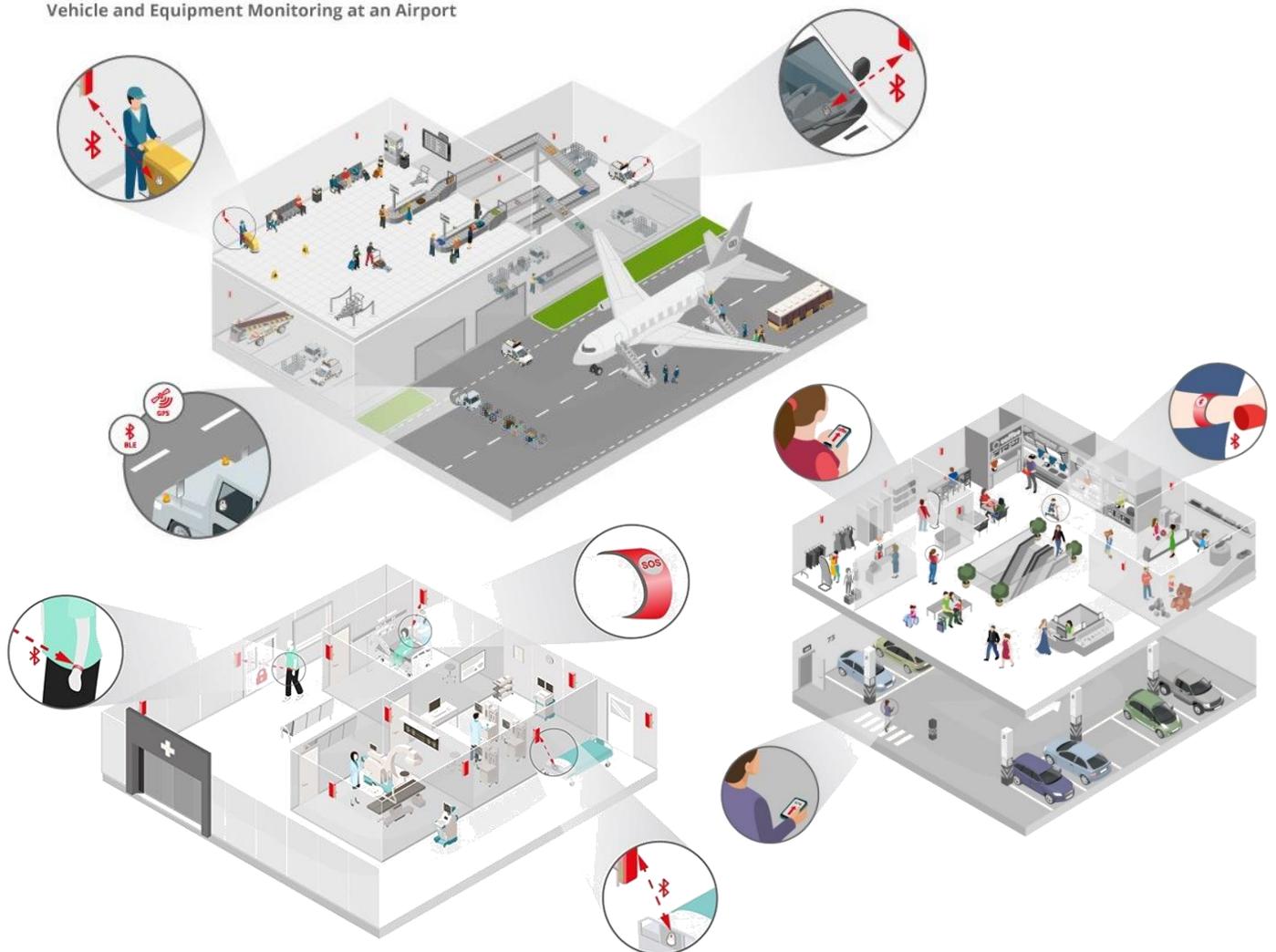
Demo Kit are available call us for arrangement

Indoor Positioning, Tracking and Indoor Navigation



TECHNICAL IMPLEMENTATION

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Outdoors, the location of the motorized assets is obtained via Global Positioning System (GPS) data using the GPS unit installed in the vehicles. As soon as they are inside a building, however, positioning is realized using Bluetooth Low Energy (BLE) beacons and PP-BIT Locator Nodes. Installed Locator Nodes throughout the concerned areas actively scan these beacons to track their location. Once vehicle location, direction and speed are determined from the GPS/BLE components, the information is transmitted to the PP-BIT Platform, where the data is analyzed and displayed via customizable dashboards. Rules can be configured to alert operators about certain conditions based upon location, speed, or idling.

