

# Geo-Location Visibility

#### Without the GPS

There is a better alternative to GPS for geo-location visibility of assets and people.

BLE-based Active RFID coupled with geo-location algorithm overcomes every weakness and challenge inherent with a GPS device.

The new technology is cost effective, does not require a SIM or data plan, and provides 2-3 years of battery life with high transmission frequency. The cost savings become exponential when high quantity of tracking devices is required. Our BLE-based Active RFID with patented protocol provides precise indoor and outdoor geo-location

visibility. The system allows you to view assets and people on the map of your facility or the world map.





## What is Geo-Location?

Geo-location is the identification of the real-world geographic location of a person or a device. For outdoor environments, historically geo-location tracking is carried out by a GPS device that uses Global Positioning System to track the device's movement and determine its location. GPS is designed for outdoor geo-location and will not yield reliable indoor visibility.

### **Power Challenges**

GPS devices typically have short battery life. This is due to the high-power dissipation of the GPS chip. It needs to wake up, search and connect with multiple satellites, and transmit its GPS coordinates. The battery drainage exacerbates with high frequency of transmission. A GPS device that has to transmit its location more than 10 times a day will have to be on an AC power, or its battery has to be charged on a daily or weekly basis.



#### **Communication Costs**

A GPS device requires a SIM card and a data plan to support the transmission. Depending on the frequency of the transmission and how much data it transmits, the costs of said data plan will vary.

Typically, a yearly cost of \$25 per device is standard, which can be significant in a high quantity tracking requirement.

#### **Hardware Costs**

A reliable GPS device with 3G/4G transmission capability is costly. Since devices with 2G transmission are being phased out and not being supported by many communication companies, 3G/4G is the only option going forward.

#### **Installation Costs**

If the GPS device needs to be connected to AC power or a vehicle's battery, there will have to be some installation which may become complicated since every vehicle type is unique.





## GPS vs. BLE Active RFID for Geo-Location Tracking

DESCRIPTION	GPS	Active RFID
Device Communication Costs	High	Zero
AC or Battery (Transmission Frequency of 5 minutes)	AC power or daily battery charge	2-3 years on two AA battery
Outdoor Geo-Location	Yes	Yes
Indoor Geo-Location	No	Yes
Hardware Costs	High	Low
Installation Challenges	High	Low



#### Summary

GPS is ideal only when you are tracking fleet that are traveling in the city or country. If the fleet, asset or people are within a large designated area (facility, yard or sites with a large sq. km. of land), then BLE-based Active RFID is the ideal technology to use. You will achieve both indoor and outdoor visibility with quick ROI and tremendous reduction of ownership cost and maintenance.





