

sensewhere SDK

sensewhere Software Development Kit (SDK) for mobile platforms is a pure software positioning solution that delivers accurate indoor and hyper local positioning using Automatic Crowd Source technology.

- Unparalleled power and accuracy delivered by sensewhere's licence fee free software allows customers to earn up to a 25% Net Economic Interest in the database.
- The solution does not require any additional hardware installation as it uses existing beacons such as Wi-Fi and Bluetooth.
- sensewhere seamlessly integrates existing positioning technology that includes GPS, Wi-Fi, Bluetooth and sensors.
- Uses sensewhere's patented technology to create dynamic database of electromagnetic sources (such as Wi-Fi and Bluetooth).
- SDK is self-correcting and auto-maintaining.

Software Advantages

- **Unparalleled indoor accuracy:** at least 100% better than the best competitor in the category
- **Better positioning coverage and availability** than any competitors in the market using proprietary Automatic Crowdsourcing technology
- **Multiple positioning modes** such as normal (Online), low power and offline mode giving flexibility to use for accuracy and power demanding applications
- **Ultra low power consumption** using offline positioning mode
- **SDK for multiple platforms** with flexibility to integrate either at the Kernel layer or at the application layer

Database features

General

Dynamic, near real time update

Continual cross-referencing

Configurable positioning update rate

- Latitude
- Longitude
- Horizontal Positioning Error estimate
- Altitude
- Floor number
- Type of Position Module

Beacon Data

- MAC address
- Signal Strength
- Latitude & Longitude
- Height
- IMEI
- Source (Wi-Fi, BT, Sensor, GNSS)
- Accuracy
- Quality
- Maturity

Target Platforms

Android, Linux, webOS

Comparison

sensewhere vs. Android

Better Accuracy

Westfield Stratford Shopping Centre



Average accuracy in Metres

sensewhere **7.77m** vs. Android **135.18m**

178% Difference

Better Power Consumption

Android KitKat (4.4.4)	Pos. rate: 3sec (mA)	Pos. rate: 5sec (mA)	Pos. rate: 10sec (mA)	Pos. rate: 30sec (mA)	Pos. rate: 60sec (mA)
Android	171	159	137	103	90
sensewhere	59	59	62	59	58
Difference %	97%	92%	75%	54%	43%

Modes

Online

Configurable positioning mode:

- Wi-Fi only
- Hybrid
- Sensors On/Off
- Bluetooth (BLE)

Database Maturity Index (DBM) status indicator for various modes

WAP Scan data buffer mode for offline scan data collection with manual server uploads

Debug mode for data logging

Offline

Positioning capability offline

Dynamic WAP DB tiles downloads

WAP DB tiles attributes such as Maturity Index

Local WAP DB access

Offline position computation using WAP DB tiles

Available Offline reference data buffering for data management

Benefits

100% more accurate than Android

Ultra low power

Online and Offline modes

Opt-in / Opt-out

Dynamic Database

Low upload data size 2MB per month

Client side code 700KB

Licence Free