



Accuware Wi-Fi Location Monitor

WiFi Location Monitor is a real-time locating system (RTLS) designed for tracking active Wi-Fi-enabled devices inside buildings or throughout a campus.

Features

- Provides location of active Wi-Fi devices moving throughout monitored venue
- No app required running on devices
- Tracks movement of iPhones, iPads, Android, BlackBerry, Windows Mobile, Symbian and Wi-Fi tags
- Daily log of devices tracked
- Daily Heatmap
- Real-time aggregate analytics
- Dashboard for site management
- Average accuracy 3 meters / 10 feet

How it works

- Nodes detect active Wi-Fi devices and periodically upload a list of MAC addresses and signal strengths.
- The server estimates devices' locations from this data.
- Applications query the server to obtain devices' locations.

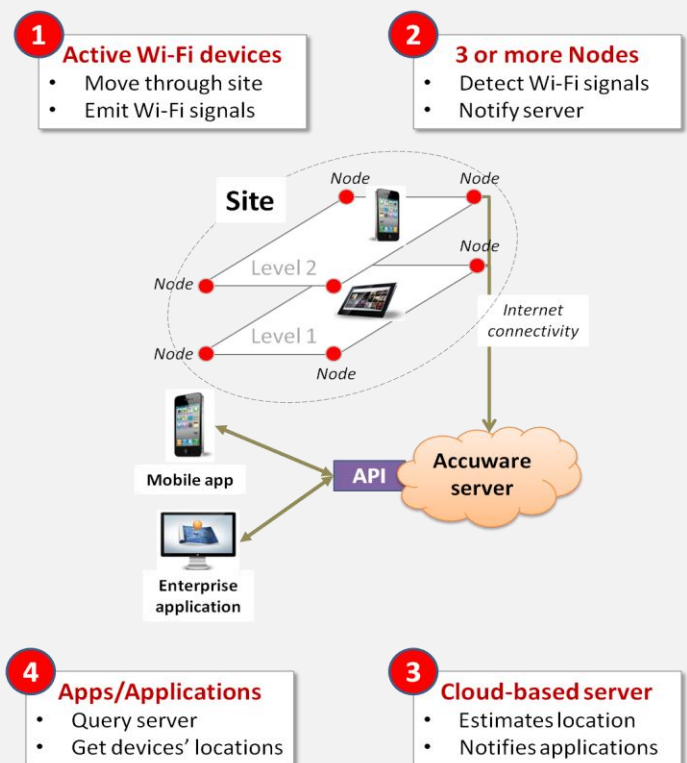
Getting started

1. Estimate number of nodes required to provide desired coverage and accuracy
2. Plug each node into a regular power outlet
3. Connect gateway nodes to the internet through a network router. Nodes form a "mesh network", communicating with server through the gateways
4. Log into Accuware's administrative online dashboard
 - a. Define the various levels of your venue
 - b. Upload floor plans or maps for every level
 - c. Mark the placement of each node on the floor plans

And you are done. No software to install.

Components

- **Nodes** (hardware) deployed at the site
- Cloud-based **server**
- **API** for integration
- Online **dashboard**



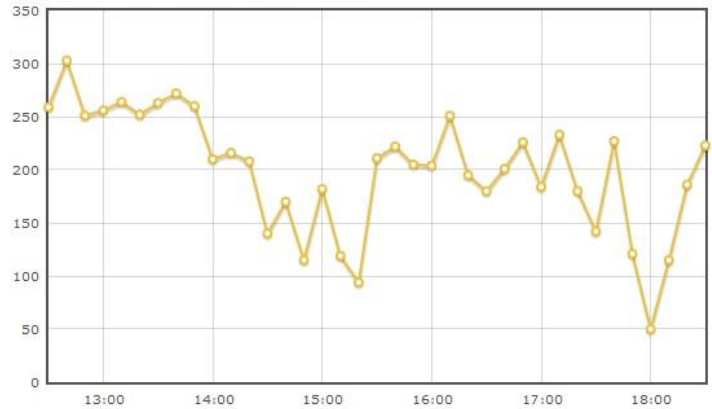


Functional Features

Analytics

- Samples visitor traffic in real-time and historically
- Counts unique Wi-Fi MAC addresses nearby
- Detects first-time and repeat visitors
- Dashboard displays daily/weekly/monthly charts
- Minimal site configuration requires a single node
- A chart may display data from multiple nodes

Unique Visitors - Last Six Hours

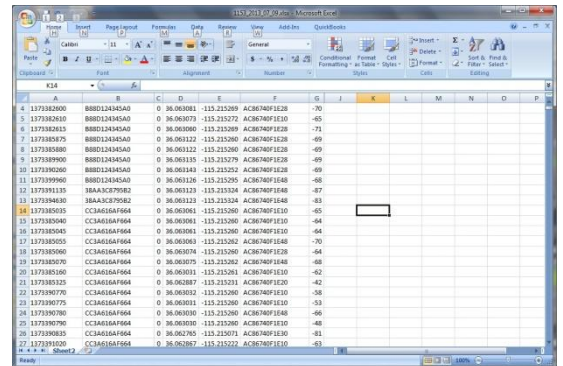


Heatmaps

- Dashboard displays density of WiFi devices detected
- Darker colors denote higher density
- Lighter colors indicate lower density
- Devices must actively emit Wi-Fi signals
- Display shows density in real-time
- Historical heat maps show varying density over time

Daily CSV log

- Collects time-stamped list of devices detected
- Universal comma-separated-value (CSV) format
- Rows include timestamp, MAC address, RSS, latitude, longitude and ID of node detecting a device
- Downloaded daily to enable data analysis



Sampling a crowd using their MAC addresses

When sampling a "population" (e.g. a crowd of visitors) using their devices' MAC addresses, note that...

- Only a percentage of the crowd is detected: those whose devices scan for Wi-Fi signals
- Venues offering free WiFi entice visitors to connect their devices, so they can be counted
- The percentage of detected devices is usually representative of behavior by the whole group
- MAC addresses are "randomized" by the device's OS (iOS or Android), so privacy is not compromised



License

Two options:

1. By subscription to a public cloud-based service
2. Standalone installation

Pricing

Annual fee based on the number of nodes used.

Contact us or see our current Price List.



Nodes

Order from Accuware.

Data Sheet

- [OM2P Data Sheet](#)

Wi-Fi tags

- They are designed to use with Accuware WiFi Location Monitor
- Can be carried by people or attached to assets
- Button on **Compact** tags can be programmed to issue alerts





Most common FAQs

Devices can be tracked by WiFi Location Monitor only when...

- Electric power is available at the monitored site
- Internet connectivity is available at the site when used with cloud-based server
- Devices have their Wi-Fi interfaces turned on
- Devices actively emit Wi-Fi signals

Scan Rate

- Every 5 seconds
- Set by Accuware

Versus

Location Frequency

- Devices are detected only when they emit Wi-Fi signals

Can we use the existing Wi-Fi infrastructure to locate?

Unfortunately no. WiFi Location Monitor was designed to operate with Open-Mesh hardware. Porting the system to use a different Wi-Fi infrastructure, though theoretically possible, is not recommended because of cost.

Alternatively, depending on your requirements, these Accuware products may meet your needs:

- [Indoor Navigation](#) for positioning and wayfinding in a venue
- [Wearabouts](#) for tracking people and assets indoors