



Emergency Services



Location-based Services



Location Surveillance



E911 System Data Collection

October 2017

Global Leader in Wireless Location Solutions



Purpose

What are we doing and why

- Wireless data collection for emergency location system
 - Supporting FCC-mandated wireless location for indoor environments

Who will use the data

- For use by wireless carriers and Public Safety to locate:
 - E9-1-1 callers
 - First Responders

What will this data enable

- Use of in-building data will improve:
 - Indoor and floor level location accuracy
 - Response time for first responders

Who will benefit

- This call location system will benefit:
 - Building Occupants
 - Local Emergency Call Centers (Public Safety Answering Points (PSAPs))
 - First Responders – Law enforcement, fire, rescue, EMS
 - Other Federal, State and Local Public Safety Organizations, such as FEMA

Request For Building Management

- 5 to 10 minute walk per floor with an Android phone to:
 - Record the barometric pressure, used for floor level determination
 - Record publicly transmitted Wi-Fi access point data (MAC addresses and signal strengths)
- All captured data is publically transmitted
 - Over-the-top background application is for collection only
 - Absolutely no private or personal information is captured
 - No impact to building operations
- Process is transparent
 - Building owners or administrators are welcome to accompany collection staff
 - Captured data can be made accessible for review

Reference for Testing

- FCC Wireless E911 Location Accuracy Requirements
 - PS Docket No. 07-114
 - Fourth Report and Order, adopted January 29, 2015
 - https://apps.fcc.gov/edocs_public/attachmatch/FCC-15-9A1.pdf
- Summary Indoor Location Requirements for Wireless Carriers
 - Horizontal Location – 50 meters with 80% probability by 2021
 - Vertical Location – Accuracy to be recommended in Aug 2018, with compliance in Top 50 cities by 2023
- Public Safety
 - As accurate as possible when civic address is not known
 - Floor level vertical accuracy is generally known objective
- Solution supported by this data collection
 - Uses barometric pressure and 3D Wi-Fi for indoor and floor level determination