

WHAT IS CLAIMED IS

1. A system, comprising:
 - at least one computer-readable storage medium including a set of instructions for locating a wireless device having wireless fidelity (WiFi) capability; and
 - at least one processor in communication with the computer-readable storage medium, wherein when executing the set of instructions, the at least one processor is directed to:
 - obtain a positioning request from the wireless device, the wireless device being in communication with at least one WiFi network;
 - obtain WiFi data from the wireless device; and
 - determine a default location associated with the WiFi data as a location of the wireless device.
2. The system of claim 1, wherein the WiFi data is associated with at least one structure, and
 - the default location includes an entrance of the at least one structure.
3. The system of claim 2, wherein the at least one structure shields global positioning system (GPS) signals.
4. The system of claim 1, wherein the wireless device has global positioning system (GPS) capability, and
 - the at least one processor is further directed to:
 - obtain a trace of locations of the wireless device according to GPS signals associated with the wireless device, the trace including a breakpoint at where the at least one WiFi network is located; and
 - determine the default location based on the trace.
5. The system of claim 1, wherein to determine the default location associated with the WiFi data, the at least one processor is further directed to:

receive a WiFi fingerprint detected by the wireless device; and
determine at least one candidate WiFi fingerprint from a WiFi fingerprint library based on similarity between the WiFi fingerprint and reference WiFi fingerprints in the WiFi fingerprint library, each of the at least one candidate WiFi fingerprint being associated with at least one candidate default location and each candidate default location being associated with at least one candidate WiFi fingerprint.

6. The system of claim 5, wherein the WiFi fingerprint includes a combination of:

identity of at least one WiFi detected by the wireless device; and
signal strength of the at least one WiFi.

7. The system of claim 5, wherein to determine the default location associated with the WiFi data, the at least one processor is further directed to,
for a candidate default location of the at least one candidate default location,
identify one or more candidate WiFi fingerprints associated with the candidate default location;
for each of the one or more candidate WiFi fingerprint, determine a probability component contributed by the candidate WiFi fingerprint and associated with a probability that the candidate default location is the default location;
determine an overall probability value that the candidate default location is the default location based on the one or more probability components; and
determine the default location from the at least one candidate default location based on the at least one overall probability value.

8. The system of claim 5, wherein the at least one processor is further directed to:

for each of a plurality of wireless devices that appeared within a distance from the structure, collect a WiFi fingerprint detected by the wireless device; and

establish the WiFi fingerprint library based on the WiFi fingerprints collected from the plurality of wireless device.

9. A method for locating a wireless device having wireless fidelity (WiFi) capability, comprising:

obtaining a positioning request from the wireless device, the wireless device being in communication with at least one WiFi network;

obtaining WiFi data from the wireless device; and

determine a default location associated with the WiFi data as a location of the wireless device.

10. The method of claim 9, wherein the WiFi data is associated with at least one structure, and

the default location includes an entrance of the at least one structure.

11. The method of claim 10, wherein the at least one structure shields the global positioning system (GPS) signals.

12. The method of claim 9, wherein the wireless device has global positioning system (GPS) capability, and

the method further comprising:

obtaining a trace of locations of the wireless device according to GPS signals associated with the wireless device, the trace including a breakpoint at where the at least one WiFi network is located; and

determining the default location based on the trace.

13. The method of claim 9, wherein the determining of the default location associated with the WiFi data comprising:

receiving a WiFi fingerprint detected by the wireless device; and
determining at least one candidate WiFi fingerprint from a WiFi fingerprint library based on similarity between the WiFi fingerprint and reference WiFi fingerprints in the WiFi fingerprint library, each of the at least one candidate WiFi fingerprint being associated with at least one candidate default location and each candidate default location being associated with at least one candidate WiFi fingerprint.

14. The method of claim 13, wherein the WiFi fingerprint includes a combination of:

Identity of at least one WiFi detected by the wireless device; and
signal strength of the at least one WiFi.

15. The method of claim 13, wherein the determining of the default location associated with the WiFi data further comprising:

for a candidate default location of the at least one candidate default location,
identifying one or more candidate WiFi fingerprints associated with the candidate default location;

for each of one or more candidate WiFi fingerprint, determining a probability component contributed by the candidate WiFi fingerprint and associated with a probability that the candidate default location is the default location;

determining an overall probability value that the candidate default location is the default location based on the one or more probability components; and

determining the default location from the at least one candidate default location based on the at least one overall probability value.

16. The method of claim 13, further comprising:

for each of a plurality of wireless devices that appeared within a distance from the structure, collecting a WiFi fingerprint detected by the wireless device; and
establishing the WiFi fingerprint library based on the WiFi fingerprints

collected from the plurality of wireless device.

17. A non-transitory computer readable medium, comprising at least one set of instructions for locating a wireless device having wireless fidelity (WiFi) capability, wherein when executed by at least one processor of a computer server, the at least one set of instructions directs the at least one processor to perform acts of:

- obtaining a positioning request from the wireless device, the wireless device being in communication with at least one WiFi network;
- obtaining WiFi data from the wireless device; and
- determine a default location associated with the WiFi data as a location of the wireless device.

18. The non-transitory computer readable medium of claim 17, wherein the WiFi data is associated with at least one structure, and

- the default location includes an entrance of the at least one structure.

19. The non-transitory computer readable medium of claim 18, wherein the at least one structure shields the global positioning system (GPS) signals.

20. The non-transitory computer readable medium of claim 17, the at least one set of instructions further directs the at least one processor to perform acts of:

- obtaining a trace of locations of the wireless device according to GPS signals associated with the wireless device, the trace including a breakpoint at where the at least one WiFi network is located; and
- determining the default location based on the trace.