| | |
|---|---|
| **Invention Title:** | Dynamic Orientation of Antennas on Public Wi-Fi Hotspot APs based on Traffic Patterns |
| **Invention Summary:** | Wi-Fi AP uses information from the GPS to determine resource allocation and physical orientation. |
| **Invention Description:** | In situations where there are APs along highways or in busy neighborhoods, Wi-Fi Access Point resources can be more efficiently utilized depending on the traffic patterns in the vicinity. This 'traffic pattern' can be gathered via GPS to determine the number of users and in which direction. From that information, the AP decide how to physically orient its antennas to beam form in a way that the users receive a better quality signal.<br>This GPS information can also be used to determine how many, if any, antennas to turn on or off. If there are many vehicles passing by, then maybe keep all antennas on, during late night low traffic times, maybe turn off most antennas. |
| **Invention Commercial Value/Customers:** | When driving by on highways and when stuck in traffic, users connecting to the APs can receive better signal if the antenna beam forms in a manner that the received signal is high. Also, during 'off hours' when there is no traffic passing by- the AP knows this through GPS information- the AP can power down some of its antennas, thus saving power. |
| **Invention Differences:** | There is no known solution today that uses GPS information to determine allocation of Wi-Fi resources and orientation of antennas. |