Network Protocol

As the in-building navigational system will be a web system, or app system which will require network access, the program necessitates the usage of an internet network with the appropriate usage of two main networks. These networks are: 1) Bluetooth and 2) Wi-Fi. For Bluetooth, the main function for its usage by devices for the proper function of the navigational system is to connect and communicate with the BLE (Bluetooth Low Energy) Beacons. Communication with these beacons allow the user’s location to be triangulated and communicated in their position on the navigational map. They also help by communicating the distance between the user and each respective beacon for more help in navigation. For Wi-Fi, the network can be used to help in positioning and navigation using Wi-Fi network scanning. Unfortunately, due to the limitations put on the hardware by the manufacturer, only Android phones may use this feature.