



WiFi SURVEY

PROFESSIONAL SERVICES

Outdoor Wireless Site Survey

Code: PS-SV-OUT-01

Overview

Outdoor wireless networks are much harder to design for, so performing a survey is so important. Our outdoor survey engineers have the capacity to cover large outdoor areas and design to any size network.

City and community wireless deployments using existing Wi-Fi technologies, Mesh Networks and Point to Point (PTP) link connection are becoming the norm these days. Outdoor networks bring their own set of requirements and problems to the deployment table. The user now has to deal with buildings, trees, varied terrains, light poles, telephone poles, etc.

To make it worse, weather, line of sight between the transmitter and the receiver, free space losses for such deployments play a major role in the performance.

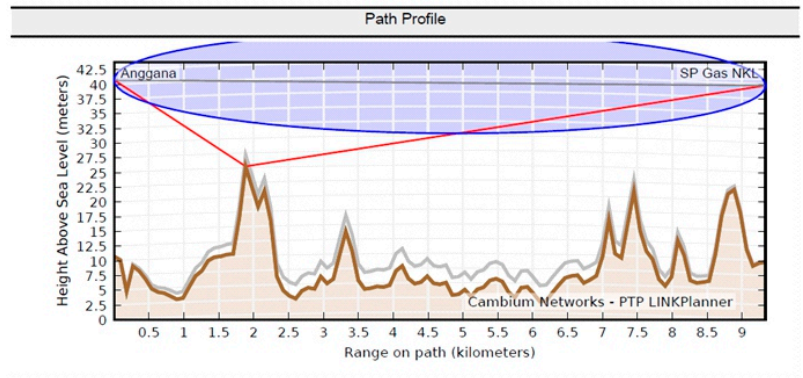
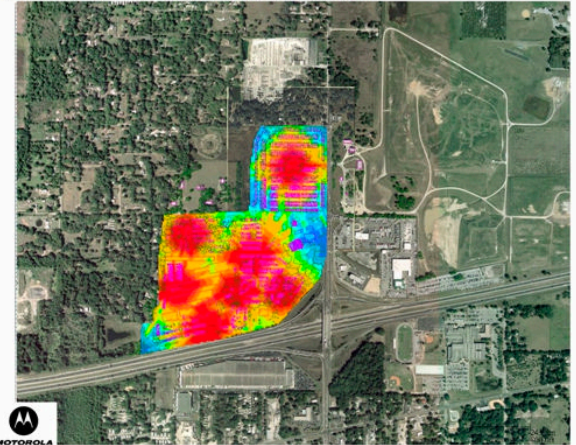
There are several types of outdoor wireless surveys :

- ▶ Point to Point,
- ▶ Point to Multi Point,
- ▶ Mesh and WLAN.

Each type of survey requires a particular skill set and equipment and a complete understanding of how WiFi performs in an outdoor environment.

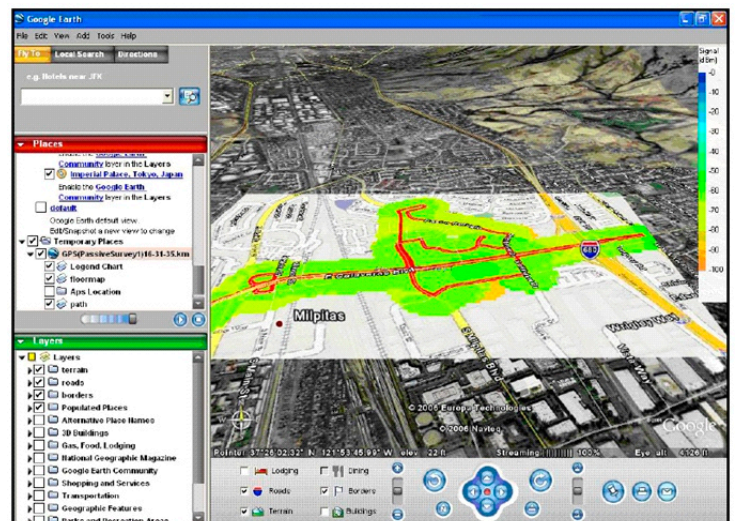
We have the experience of installing large outdoor point to point, point to multi point and mesh networks which have provided us invaluable experience for designing and surveying for the outdoor environment.

Data Rate, IEEE 802.11n (5GHz), Grid Simulation



Benefits of Outdoor Wireless Site Survey

RF signals are very unpredictable. If an access point is placed in an open environment without obstacles, the signals usually maintain an omni-directional pattern. However, when obstacles and walls are introduced, the RF signals are disrupted and access point coverage varies based on location.



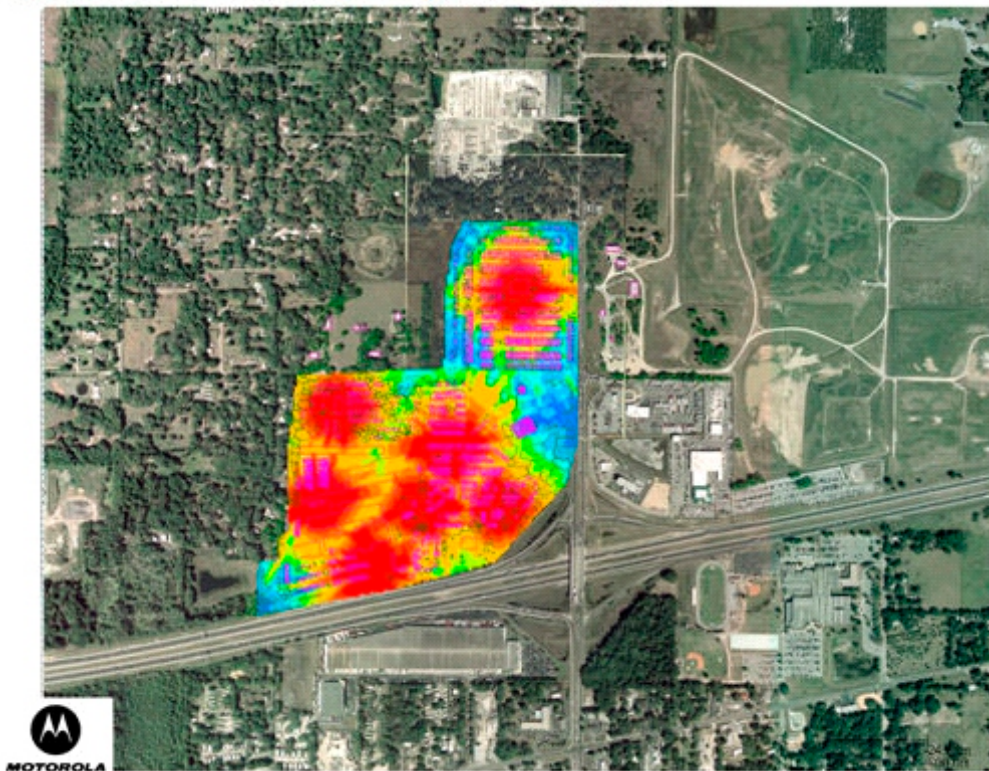
Site surveys determine signal coverage, throughput requirements, interfering sources, dead spots, potential roaming behavior, etc. and helps determine:

- ▶ How many access points are needed for the best wireless coverage
- ▶ Where to deploy access points
- ▶ How to configure each access point to ensure optimal coverage for all end users

Without site surveys it is difficult to determine the capital investment needed to deploy the wireless network in a timely and cost efficient manner.

Outdoor Wireless Site Survey documentation includes:

- ▶ Detailed information on the data gathered from the survey.
- ▶ Photographs the location of all wireless equipment.
- ▶ Maps of the WiFi RF coverage.
- ▶ Details of obstacles, earth contour, RF interference, etc.
- ▶ WiFi Equipment list.



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