



Wireless Site Survey Information

The purpose of the site survey process is to identify the characteristics of the environment, which is required for the wireless network design process. The outcome of the survey determines the number and location of APs, as well as the antenna types needed for full coverage of the area served by the wireless network.

In cases where the number of devices in a single coverage zone approaches or exceeds the capacity of an AP, it is possible to place a second unit in the same zone. By using a different frequency range or operating channel, each AP can communicate with its group of devices without interference from any other group. This technique can also provide fault tolerance and improved response time in environments where devices frequently transfer large volumes of critical data over the network.

The site survey process should generate the following types of information:

- Facility map or floor plan.
- Radio transmission constraints:
 - Physical.
 - Electromagnetic.
- Potential locations for APs:
 - Primary.
 - Backup.
- Type of antenna for each potential AP location:
 - Omnidirectional.
 - Directional.
- Electrical power source(s) at each potential AP location:
 - Dedicated circuit.
 - Power over Ethernet (PoE).
 - Uninterruptible power supply (UPS) backup.
- Pathways and cabling required to link APs to:
 - Each other.
 - A wired network.