Cisco Multi-Platform DECT 6800 Site Survey

DECT (Digital Enhanced Cordless Telecommunications) is a standard for wireless, mobile voice Services. Originally, from Europe, DECT has been adopted worldwide. In deploying, any type of digital enhanced cordless telecommunications (DECT) system will require a review of the area of coverage and the environment. Each installation site is different even if it is one of a group of retail or restaurant locations built with the same plan. Create a site map to identify the best location to mount the base station. The site map must identify the radio frequency (RF) attenuation materials and RF interference sources.

The site survey tool helps to identify the actual coverage received as Radio Signal Strength Indication (RSSI). One base station can provide an indoor coverage radius of less than 50 meters (164 feet) depending on the site map and the attenuation characteristics of the materials in the line of sight. The DECT base station must be placed in the center of the active work area in the building with a line of sight to all the coverage area.

## Site Survey Tool

Preparing for the survey:

1. Power on the DBS-210 or DBS-110 base station and wait until the LED on the top of the base station lights green.
2. Power on the 6823 or 6825 handsets. Ensure that the battery is fully charged before entering the site survey.
3. Put the handset into Site Survey mode by following these steps. Press Menu button, press (dial) *47*, the handset will scan the network to find the base station(s), press select button to select a base station from the list.

   If more than one base station is listed, find the desired station with its MAC or IP address. The handset displays the signal strength from the base station.

IP Search Screen

4. Move around the building to confirm the coverage area of this base station the handset automatically updates the signal strength to the base station. The strength is shown as a green check mark, orange triangle, or red circle. The update may take a few seconds to synchronize with the base stations. If there is no connection, the base station won't appear in the list.
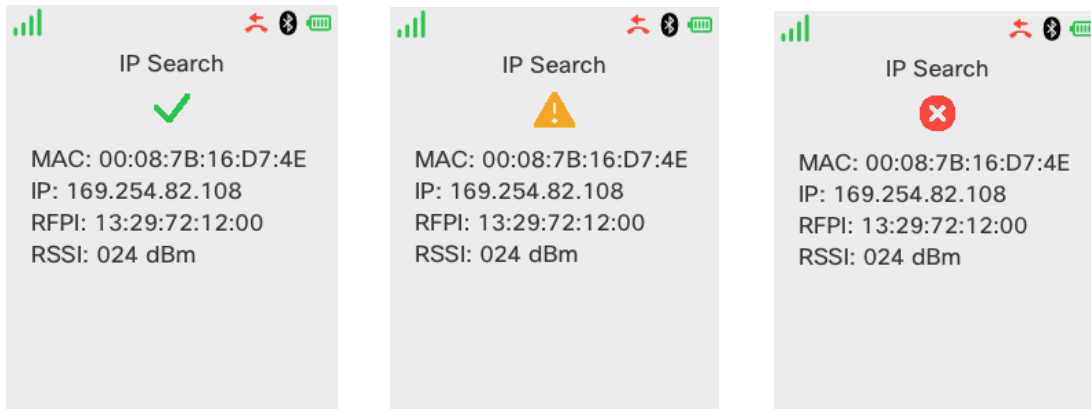
IP Search screen with Good, Weak, and Poor

The following describes the items listed in the IP search screen.

ID	Description	Purpose
MAC	MAC of the base station	If multiple base stations are available, this identifies the base station.
IP	IP address of the base station	If multiple base stations are available, this identifies the base station.
RFPI	Radio Fixed Part Identity	Identifies the RFPI of the base station.
RSSI	Received Signal Strength Indicator	Identifies the received signal strength in decibel-milliwatt.

The following describes the RSSI value.

RSSI Value	Indication of Quality
Greater.than.-50.dBm	Excellent
-50.dBm.up.to.-70.dBm	Very Good
-70.dBm.up.to.-80.dBm	Minimum required for a good call
Less.than.-80.dBm	Poor

In the area of minimum quality RSSI, Cisco recommends that you add more base station or move the existing base station to improve the coverage in the desired area.