Wi-Fi Access Point Survey Feature

Introduction

Cable companies are beginning to deploy Wi-Fi networks within their communities as a differentiating feature that enables data customers to connect in a wide variety of locations. This attractive add-on service helps to hold customers in the highly competitive telecommunications market.

Cable technical personnel must be able to verify that the company's Wi-Fi access points are properly broadcasting with adequate field strength and security. A variety of means are currently available for viewing local wireless access points, with the most typical being the wireless connection application on most notebook PCs. Techs do not always have access to a notebook PC, so the addition of a Wi-Fi option to their field analyzer is an attractive concept. The survey mode can also be used on data service installations to verify wireless accessibility throughout a customer's home, and to verify that the configured channel is not conflicting with a neighbor's access point.

Trilithic offers a Wi-Fi adaptor for the New DSP Family of meters. In addition to providing an alternate communications path for measurement data, unit configurations and internet sites, the new feature performs common Wi-Fi network verification tests:

- **SSID** – Broadcast name of the Wi-Fi
- **Channel** – Current Broadcast channel of the selected Wi-Fi network
- **Power** – Measured channel power level in dB of the selected Wi-Fi network

To access this feature, select the **Wi-Fi** icon from the **Utility** menu, as shown below.
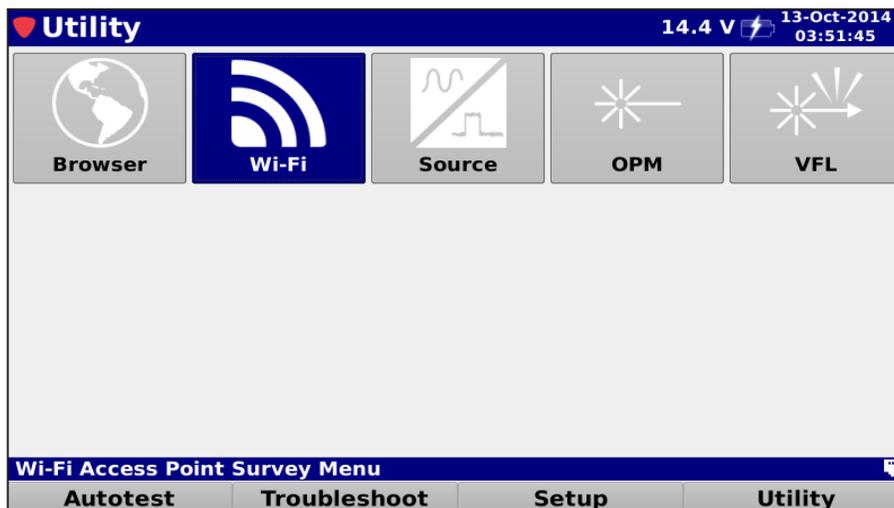
Using the Wi-Fi Survey

The **Wi-Fi Survey** screen will be displayed as shown here. This screen allows you to perform a survey of Wi-Fi access points in your area that are currently broadcasting their SSID.

Use the left/right arrow buttons scroll through all available Wi-Fi networks for more detailed information.

NOTE *If the meter is connected to a Wi-Fi access point through the Network Manager screen, the Wi-Fi Survey will only display the Wi-Fi frequencies that the meter is currently using.*

Display Type

Use the **Display** softkey to choose between the **List** or **Graph** displays. You can choose between 2.4 GHz and 6 GHz graphs.

List Display   *Graph Display*

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Sorting Access Point Information

Select the **Sort** softkey to sort the file list. Select from **Level**, **Security**, **Frequency**, or **Channel** sort types as shown in the image to the right.

Troubleshooting Wi-Fi Networks

Once you select the 2.5 GHz graph, the screen will show all the channels in a graph mode.

Note in the screen to the right that you have two channels that are overlapping on channel 11.

This can cause the Wi-Fi signal to degrade, giving slow throughput. The technician can change the channel of the Wi-Fi in the router so it will not interfere.
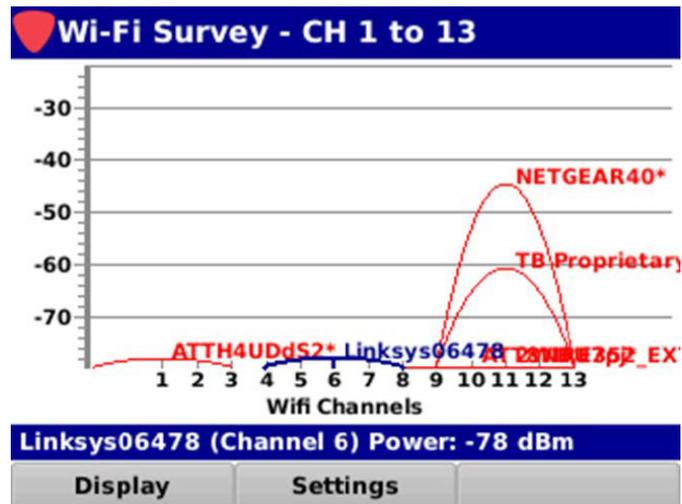
The screen shown here indicates the corresponding Wi-Fi changed from channel 11 to channel 6, after the router adjustment.
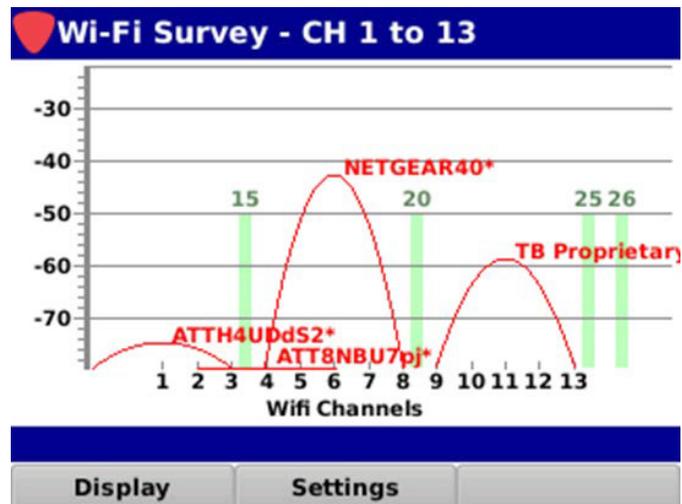
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Zigbee

Many cable and internet providers use Zigbee Wi-Fi channels 15, 20, 25, and 26 for security equipment.

Select the **Settings** softkey and select the **Toggle Zigbee Channels** button to turn those channels on.
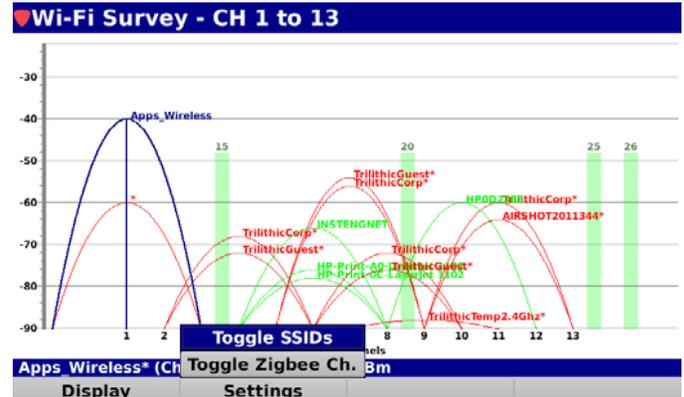
For Additional Help, Contact Trilithic Applications Engineering
1-800-344-2412 or 317-895-3600
support@trilithic.com *or* www.trilithic.com

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