ANALYZING AND RESOLVING Wi-Fi PROBLEMS

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EXECUTIVE SUMMARY

To analyze and resolve Wi-Fi problems, you can install free software utility programs for your "Windows.." or Mac "OS X" computer.

TOPICS

- Free Wi-Fi software for your computer

- Received Signal Strength Indication (RSSI)

- Selecting the right Wi-Fi channel

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER

- To download and install the free "Acrylic WiFi Home" analysis program for a "Windows.." computer,
use a Web browser to go to
https://www.acrylicwifi.com/descargas-versiones-gratuitas-programas-software-herramientas-wifi/descargar-escaner-wifi-gratis-para-windows/

- The "Tarlogic" company is located in Spain.

- If and when your Web browser displays a "Translate" button, click on it to convert the Spanish text in the Web page into English.
  If this does not happen, click on "EN" in the upper-right corner to convert the content of the page to English.

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER (continued)

- Scroll or page down.
- Then click on the "Try it for free" button.

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER (continued)

- To download and install the free "NetSpot Free Edition" for a Windows.. or macOS computer, use a Web browser to go to https://www.netspotapp.com/netspotpro.html Then scroll or page-down to get to the free edition of "Netspot Free Edition".

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER (continued)

- To get a more complete picture of your Wi-Fi environment in a "Windows.." computer, you can use both the free "Acrylic WiFi Home" program AND the free "NetSpot for Windows" program.

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER (continued)

- "Acrylic WiFi Home" shows you all the 802.11 modes (a, b, g, n, and/or ac) and maximum speed that a Wireless Access Point is capable of running at while the "NetSpot for Windows" program shows you the exact 802.11 mode that a Wirelss Access Point is running at a particular point in time.

FREE Wi-Fi SOFTWARE FOR YOUR COMPUTER (continued)

- All software programs for analyzing your Wi-Fi environment use up a lot of RAM and CPU cycles so expect your computer to slow down when any of these programs are running.

RECEIVED SIGNAL STRENGTH INDICATION (RSSI)

- Measured by your Wi-Fi network adapter

- Unit-less value defined by the designer of a Wi-Fi network adapter

- No direct relationship to milliwatts (mW) or decibels per milliwatt (dBm)

- If the RSSI of your device is lower than that of your neighbor's wireless routers then your wireless router or wireless extender is probably malfunctioning, especially radio signals decline by the square of the distance.

RECEIVED SIGNAL STRENGTH INDICATION (RSSI) (continued)

- Both "Acrylic Wi-Fi Free" and "NetSpot for Windows" show you the RSSI of all Wi-Fi signals that are detected by your Wi-Fi adapter

RECEIVED SIGNAL STRENGTH INDICATION (RSSI) (continued)

- See https://en.wikipedia.org/wiki/Received_signal_strength_indication

CHOOSING THE RIGHT Wi-Fi CHANNEL

- See http://www.extremetech.com/computing/179344-how-to-boost-your-wifi-speed-by-choosing-the-right-channel

CHOOSING THE RIGHT Wi-Fi CHANNEL (continued)

- See also https://en.wikipedia.org/wiki/List_of_WLAN_channels