

WiFi: Wireless Internet for Mac & PCs – Part 2.
By Frank, *Your Computer Tutor*

WiFi technology enables you to have computers connected to the internet any where in, and around your house. As discussed before, by definition, Wi-Fi means a computer users' ability to access another computer through the air, wirelessly! A wireless network uses radio waves, just like cell phones, televisions and radios do. In fact, communication across a wireless network is just like a two-way radio.

A typical Wi-Fi setup contains one or more Access Points (APs) and one or more client computers: PC laptops, iBooks, desktop iMacs or PC towers. The most common "AP" is called a wireless router – its hardwired-connected to a Broadband DSL or Cable modem. The Access Point "broadcasts" its SSID (Service Set Identifier, "Network name") to a wireless transceiver device installed in a PC or Mac computer to go on the internet, share files and a printer.

But there are so many different W-Fi devices, how do you know what product is the best for you? First of all, you need to know that all wireless devices are created equal! What I mean is, they all have to pass a basic criteria, the IEEE 802.11x standard: developed by the Institute of Electrical and Electronics Engineers Standards Committee, plus they all have to meet FCC, Federal Communications Standards, too!.

Now, you'll have to do your own research by looking on the product's box to determine the range that best suits your needs. For example, a Belkin USB device brags of Maximum Range Outdoors of 1,312 Feet (400 Meters) and a Maximum Range Indoors of 328 Feet (100 Meters) – cut those figures in half and you'll be realizing the reasonable expectations of that, or any WiFi product. Note: USB wireless devices work in both laptop and desktop/towers.

Wireless routers have to meet the IEEE 802.11x standard, as mentioned above. Again, you'll have to do your own research by looking on the router's box: Maximum Range: xx feet, cut that figures in half. Now, **MAKE SURE THAT THE ROUTER YOU ARE BUYING HAS REMOVABLE ANTENNAE**. If you router has removable antennae, you can buy stronger antennae – some antennae (Hawking brand) will transmit up to a mile!! If you made the mistake of buying a router without removable antennae, you can buy salvation by acquiring a wireless repeater.

Wireless repeaters are devices that tune into the router to repeat and boost the wireless signal. The placement of a repeater between the covered and uncovered areas should provide connectivity throughout your entire space. The wireless repeater fills holes in coverage, enabling seamless roaming, sorta. Note: the wireless signal is not omni-direction (circular), it's usually elliptical (like the infinity sign). Sometimes you can be in the same room with a wireless router and not get a good signal.

WiFi system components cost in the range of \$100 per computer, plus the price of a wireless router, another \$100, and the cost of your Broadband DSL or Cable modem services, like Qwest, ATT, Verizon or Comcast: \$30-\$60 per month - Note: as an incentive, both AOL & MSN's Hotmail are free when you use broadband - so you almost break-even by using WiFi-broadband.

Finally, don't rely on a salesperson's advice to setup your wireless. They can only provide you with generic information or knowledge. Each application is different and is greatly affected by "your" living environment of wood, steel and stone – microwave ovens and wireless home phones affect the wireless signal as well. Check the specifications on the product's box and **MAKE SURE YOU CAN TAKE THE PRODUCT BACK** if it doesn't suit your needs.

Happy WiFi Computing!!

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