

WiFi: Wireless Internet for Mac & PCs – Part 1.  
By Frank, *Your Computer Tutor*

WiFi technology enables you to have computers connected to the internet any where in, and around your house. In almost every metropolitan area of the world, you can enter a hotel or coffee shop and retrieve your email, conduct business, or connect to your favorite news site with your WiFi-enabled laptop.

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 that reads the broadcasted SSID's network name.

The computer's wireless adapter translates data into a radio signal and transmits it outward by using an antenna. A wireless router receives the signal and decodes it, then sends the information to the Internet using hardwired Ethernet connection.

The process also works in reverse, with the router receiving information from the Internet, translating it into a radio signal and sending it to the computer's wireless adapter.

The region covered by the Access Point is called a hotspot. Hotspots can range from a single room to many square miles of overlapping hotspots provided by companies as Ricochet Networks.

However, the strength of WiFi signal relies on the nearness of the equipment to each other.

WiFi also allows home printer sharing connectivity in peer-to-peer computer networking, or connect directly with another computer on the othe side of the world for gaming and music sharing applications. Other applications include telephonic and video eye-to-eye communications as *Skype* and Micro\$oft's *NetMeeting*.

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.

Happy Computing!!

