



Anaptyx WiFi FAQ's

2193 Commonwealth Avenue
Suite 223
Brighton, MA, 02135
T 617.319.8868

info@anaptyx.com

www.anaptyx.com

What Is Wireless Fidelity (Wi-Fi)?

If you have a computer network in your home or office, there are several different ways to connect the computers on your network together. Most people are familiar with wired networks where physical wires are run under the street or across street poles, through building structures, and from the wall to your PC. Wi-Fi (wireless fidelity) is the wireless way to handle networking. It is also known as 802.11 networking and wireless networking. The big advantage of Wi-Fi is its simplicity. You can connect computers anywhere in your home or office without the need for wires.

Wi-Fi Benefits for Myself & The Community?

- **Work** - Work from in your home or outside. Use video conference applications to conduct effective meetings with an unlimited number of people around the world. See the people your talking to and allow the see your presentation step-by-step.
- **Communicate** - Use VoIP applications or products such as Skype or Vonage to make low cost phone calls anywhere in the world. Send a live video feed of your child playing soccer outside to the grandparents who live in another city or country.
- **Relax** - Download your favorite music, video, or movie. Play a virtual video game with your friend who lives across the country.
- **Security** - You can hook up wireless security cameras around your complex to be accessed in real time, wirelessly, through the network and provide yourself/your residents with peace of mind.

How does Wi-Fi work?

If you want to understand wireless networking at its simplest level, think about a pair of \$5 walkie-talkies that you might purchase at Wal-Mart. These are small radios that can transmit and receive radio signals. When you talk into a Walkie-Talkie, your voice is picked up by a microphone, encoded onto a radio frequency and transmitted with the antenna. Another walkie-talkie can receive the transmission with its antenna, decode your voice from the radio signal and drive a speaker.

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This is very much the same way the relationship between your computer or wireless device and our access points works.

What type of equipment do I need to receive the wireless network?

An 802.11a/b/g wireless networking card for most laptops/desktops and many handheld devices can be purchased for under \$40 from most major electronics retailers or directly from the manufacturer.

How is this better than any other high speed Internet service?

Most DSL and Cable Modem Internet services are location fixed and are more expensive because they bring hundreds of feet of cabling and individual lines to each individual subscriber or apartment. Because we use business/industrial quality lines with a higher user capacity, we are able to service your entire complex more effectively and at a much lower cost than your DSL or Cable provider. Usually we can provide this service for at least 60% less than your Cable or DSL provider.

Additionally, there is no need for entry into your apartment because there is no equipment or wiring to install given the wireless nature of our network. In the long run, all of these benefits add up. Over the course of a year the electricity savings from not having to run a Cable/DSL modem and router in each unit will save an average apartment complex roughly \$3,000 per year. This electricity savings also translates into a significant reduction on environmental emissions, reducing the average complexes Carbon (CO₂) emissions by nearly 8 tons, not to mention all of the non-biodegradable trash and wiring we avoid by running a wireless network.

Is Wi-Fi Secure?

Customers are exposed to no more risk than that experienced with your Cable or DSL provider. The services provided by the ISP should not increase security threats to customers' equipment and information on their laptops and PDAs. This Internet access service is similar in concept to the thousands of other service providers worldwide. Customers should enable personal firewall software or features on their device. Windows XP has these options within the operating system but personal firewall software is also available separately for this and other operating systems.

Wireless security is important, and our Wi-Fi wireless networks use WPAT, a sophisticated encryption technology that protects data flowing

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between our access points. This technology is much more secure than the unsecured wireless routers your Cable or DSL provider supplies you with, and rivals the security of a typical wired network.

How do Wi-Fi and WiMAX relate?

Wi-Fi and WiMAX will coexist and become increasingly complementary technologies for their respective applications. Wi-Fi technology was designed and optimized for Local Area Networks (LAN), whereas WiMAX was designed and optimized for Metropolitan Area Networks (MAN). WiMAX typically is not thought of as a replacement for Wi-Fi. Rather, WiMAX complements Wi-Fi by extending its reach and providing a "Wi-Fi like" user experience on a larger geographical scale. In the 2006-2008 timeframe, it is expected that both 802.16 and 802.11 will be available in end user devices from laptops to PDAs, as both will deliver wireless connectivity directly to the end user - at home, in the office and on the move.

Can I use any wireless card/component, or is it better to stay with a single manufacturer?

Yes; if the component is Wi-Fi CERTIFIED for use on a standard 802.11 network, you can mix and match wireless LAN products produced by different manufacturers. The Wi-Fi Alliance tests all products independently before they receive Wi-Fi Certification to ensure they are interoperable with all other Wi-Fi CERTIFIED products of the same frequency band and features, regardless of manufacturer.

How do I hook up a network using computers with different operating systems?

Most Wi-Fi networks will work with a wide range of Windows operating systems including Windows 95, Windows 98, Windows Me, Windows NT, Windows 2000, Windows XP and Windows CE. Wi-Fi systems will also work with Apple Macintosh, Linux, and other operating systems. Check the data sheets and manufacturer specifications. However, so long as your devices are all certified to run on a standard, 802.11 Wi-Fi network there should be no problem.

How do I add Wi-Fi to my desktop computer? (How to get connected?)

You can use either an external adapter like a USB Wi-Fi adapter or an internal Wi-Fi card. An external USB radio plugs into your desktop

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computer's USB jack. To use an internal solution, you need to open the case of your desktop computer and insert a Wi-Fi card in the PCI slot.

Can I use my Playstation, Nintendo Wii or XBox on an Anaptyx WiFi network?

Certainly. We do not restrict access to computers alone. Any gaming systems with a wireless adapter can access our network. However, in some locations our networks may be setup in a manner that will not allow you to connect with these systems. If you are having trouble connecting your gaming system just shoot us an e-mail at support@anaptyx.com and we will get in touch with you immediately and grant your system access to the network.

Can I use Wi-Fi with my Apple Macintosh?

Yes. You have two options. Most newer Macintosh Power PCs, G3s and G4s have a slot for an Apple AirPort Wi-Fi module. If you didn't order it when you bought your Apple computer, you can still buy the module and put it in yourself - installation is very simple. If you have an older Mac laptop with a PC Card slot, you can choose from among several different manufacturers who make Apple-compliant PC Card radios.

USB adapters for Apple are also available. Once you have the correct PC Card radio or Apple AirPort installed and running you should be able to connect to our network without a problem.

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TERMINOLOGY

(In case you want to learn a bunch of big wireless words!)

802.11b/a/g/n (see Wi-Fi)

Access Point - also known as a "wireless access point" or WAP, this is a Wi-Fi network device which connects Wi-Fi enabled computers and PDA's to traditional ethernet networks; a WAP typically has a range of 300 feet, but can be used in conjunction with other WAP's to extend the range of a Wi-Fi network.

Bandwidth - the amount of data which can be transferred in a given period of time; Internet connection speeds are rated in "bits per second" and vary by connection type:

- **Dial-up modem access is usually rated at 56Kbps (or slower)**
- **ISDN at 128Kbps**
- **Cable or DSL access can be 256Kbps to 3Mbps**
- **Our network can provide up to 10Mbps.**

Broadband - broadband is a generic term for high-speed Internet access; in general, to be considered broadband an Internet connection must be rated at least twice the speed of the fastest traditional modem connection speed.

Hotspot - an area serviced by a wireless access point; a hotspot is an area where users with Wi-Fi network devices can connect to a WLAN; City hotspots, also known as "nodes", are used to provide network, Internet, and VPN access to subscribers.

Hotzone - a large geographic area seamlessly serviced by a group of hotspot access points; seamless hotzones can span across city blocks, neighborhoods, or the entire city.

ISP - Internet service provider; company which provides a connection to the Internet at a home or business.

LAN - local area network; a network generally consists of a group computers and network-enabled devices (such as printers, copiers, network appliances, etc.) which are connected to one another via network interface cards (NICs) and network cable; devices on a network are able to share data with one another; a local area network is a private network which may or may not be connected to the Internet or a

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WAN; a LAN is typically confined to a single physical location (an office, for instance).

Node (see hotspot)

PC Card - also known as PCMCIA; a form factor designed specifically for laptop and notebook computers; portable computers often come equipped with a "PC card slot"; in order for a laptop to connect to a Wi-Fi network, it will generally need a PC card wireless network adapter.

PDA - personal digital assistant; PDA's are handheld computers, the most common of which run either the Palm OS or Microsoft Windows CE; most mid-level and above PDA's are capable of connecting to a Wi-Fi network.

SSID - service set identifier; this is the name of the Wi-Fi network, as configured on a WAP.

WAP (see access point)

WAN - wide area network; a WAN generally consists of a group of LAN's which are interconnected and able to share data with one another; an Internet connection grants access to your ISP's WAN.

WEP - wired equivalent privacy; this is a method of encrypting a wireless network connection to provide a level of security for the transmission of data.

Wi-Fi - "Wireless Fidelity"; an international standard for wireless networking, Wi-Fi is a radio-based networking technology; often using the same frequencies as standard cordless phones, Wi-Fi is an evolving technology with a range of networking standards:

802.11a - this standard, not widely adopted, is also a high speed wireless standard similar to 802.11g; however, 802.11a equipment does not work with 802.11b or g devices

802.11b - this is the original Wi-Fi standard, and the most common and affordable one to date; it has a transmission rate of 11Mbps (far faster than most broadband Internet connections).

802.11g - a more recent standard, 802.11g allows transmission rates of up to 54Mbps, and is backward compatible with 802.11b, meaning network devices for the "g" standard can function on a "b" network.