Wireless Networking: (wire-less [wīr'lĭs]) – A type of local-area network that uses high-frequency radio waves rather than wires to communicate between nodes.

While the Internet burgeons with new exciting technology offering agents more methods to be productive, we are all confronted with the challenge of how to extend the “on-line” experience beyond the wires. Thanks to the advent of wireless networking, we can now take our Internet tools on the road.

There are a few options though, so let’s take a look at them:

First there is what is called “Wireless LAN IEEE 802.11b/g (Wi-Fi)” which essentially extends a local network wirelessly (much like you may have in your home or office) through hardware you would purchase from a store. Then there is what is called GPRS/EDGE, which is service obtained through cellular carriers utilizing hardware that fits into your computer.

Let me elaborate though, Wireless LANs are completely different than GPRS/EDGE service even though they are designed and used for similar purposes.

Wireless LAN IEEE 802.11b/g (Wi-Fi):

Wireless LANs (WLANs) promise "anytime, anywhere" connectivity within the enterprise as well as access to the Internet and corporate intranets and extend home networks wirelessly. They provide a convenient way for workers to stay connected to business applications and remain productive, even while they are mobile throughout a building or campus. The two most fundamental issues for public access to WLAN are availability of access points and security. An *access point* a.k.a. “**Hot Spot**” (device similar to the picture with the two antennas) is a WLAN receiver that can accept a signal from a WLAN card equipped device such as a laptop PC. A wireless local area network (WLAN), or wireless data system, is a mobile communications system implemented as an extension to or as an alternative for a wired LAN. WLANs transmit and receive data over the air utilizing radio frequency signals from the “**Hot Spots**” without relying on a wired connection. These “**Hot Spots**” typically reside at business locations frequented by business people and areas in which business travel is conducted. Therefore, coffee shops, airports, and train stations are all viable candidates. As a matter of fact, you may already have one setup in your home or office, as the equipment is available at most stores, and quite simple to setup.

Cellular (a.k.a. GPRS/EDGE)

As the wireless experience has become more mobile, carriers like Verizon and T-Mobile offer cards that you can put in your laptop computers that virtually allow you to access the internet at slower speeds than WiFi (some of these cards also offer WiFi access in addition). This is allowed through a technology that offers similar capabilities as a WLAN.

Unlike the traditional cellular networks, which are optimized for voice communications, GPRS/EDGE networks were designed with data in mind, allowing high speeds for many mobile data applications such as Internet browsing, e-mail access and more. The advantage that GPRS/EDGE has over WLAN is that, once GPRS/EDGE networks have been ubiquitously deployed, service mobility will be automatically available as support for roaming is built into the service design. At speeds reaching up to 2 Mbps, GPRS/EDGE networks are also not as fast as WLAN.

What's best for me?

So, you say… Now that I know all about this wireless stuff, which one is the best for me?? Let's review a few scenarios which might help you determine which fits you situation best.

If you have a WLAN card or the capability built into your laptop (which by the way, most laptop manufactures offer as a standard component these days). More often than not, you will be able to connect to an open "**Hot Spot**" at most locations you visit utilizing your laptop, whether it be a listing appointment or an open house, Starbucks, or the airport, or even your office printers in order to print a contract. You are able to connect to these open "**Hot Spots**", simply because most folks leave them open for use, or because you are within a public "**Hot Spot**" area such as a Starbucks or the airport, which offers the access to their customers (sometimes at a fee). However, you can purchase a WLAN access point these days and a wireless network card for your computer (if your computer does not already have one) for less than $100.00.

Nevertheless, with WiFi there is likelihood that you may <u>not</u> always be able to get a connection, especially if you are roaming around the city in your car. So, if you need more consistent access and can deal with a little bit slower network speeds, then purchasing the cellular wireless data service from a carrier such as Verizon or T-Mobile may be the way to go for you. This service ranges from $50.00 to over $80.00 per month depending which service, speed, and plan you choose and requires an additional hardware cost of upward to $200.00+ for the network card (similar to the two pictured).

Some differences:

GPRS/EDGE:

- GPRS/EDGE typically runs about 2 Mbps (about 1/5 the speed of the Wireless LAN).
- GPRS/EDGE lets you connect from (mostly) anywhere the cellular carrier has coverage.
- GPRS/EDGE does not extend you local area network in your home or office.
- GPRS/EDGE is a service from a cellular provider with a monthly fee

Wi-Fi

- Wi-Fi runs at about 11Mbps and faster.
- Wi-Fi connects from specific "Hot Spots" that are within short proximity to your computer, usually to extend local area networks (like to connect to your printer at the office, or share your cable modem at home).

- Wi-Fi runs on an unlicensed radio spectrum, therefore the hardware is readily available and can be implemented at a low cost with usually no recurring fees.

So, the bottom line is that if you need to be connected virtually anywhere you go; you probably will need a service from a cellular carrier. If you are happy just being connected in places that offer **"Hot Spots"**, then WiFi is for you.

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