

The Internet Unplugged!

What is WiFi

- “Wireless Fidelity”, also known as 802.11a, 802.11b, 802.11g, and the latest 802.11n
- Connect to a computer network without cables, usually for accessing an Internet connection
- A “transmitter” (wireless router, access point) transmits within an average 300 foot range (90 meters)
- The zone around a “transmitter” is called a HOT SPOT
- PC with WiFi “receivers” near a HOT SPOT can connect to the Internet at high speed with no cables
- The fastest growing trend in Internet computing
- Most popular among business travelers, but, even leisure travelers are using it on the road!
- A decision-factor in choosing hotels, convention locations, cruise lines, resorts, even some airlines...
- Consider offering “free” or “fee” hotspot to visitors or those nearby (ie. www.boingo.com or do-it-yourself)

What’s with the numbers and letters?

- 802.11 is the geek-speak code for this particular wireless protocol
- 802.11**A** 802.11**B** 802.11**G** 802.11**N** represent the various “versions”. Curiously, B was released to the general public BEFORE A!
 - 802.11**a** – primarily used by businesses. Speeds up to 54 megabits per second. Uses the 5.8 gigahertz frequency range. Has a shorter range than B, G or N. Doesn’t “go through walls” well, so it is often considered more secure. All others are on the 2.4 gigahertz frequency so A is less often “seen” by hackers, and is less affected by interference from microwave ovens and cordless phones. NOT compatible with B, G, or N, but many A devices are “multi-band” for compatibility.
 - 802.11**b** – the oldest and most common version. Speeds are limited to a maximum of 11 megabits per second. Uses the 2.4 gigahertz frequency range – the same as most cordless phones and microwave ovens. This means it is OFTEN affected by interference and lost signals. Since B is the oldest version, it is considered less secure as it does not have newly developed security standards. **B, G, and N are mutually compatible.**
 - 802.11**g** – quickly becoming the most common version. Speeds up to 54 megabits per second standard, with some brands offering up to 108 mbps. Has a greater range and more “power” than A or B. Goes through walls well. Uses the 2.4 gigahertz frequency range – the same as most cordless phones and microwave ovens, however G contains technology that limits interference. **B, G, and N are mutually compatible.**
 - 802.11**n** – the newest version, not yet standard. Only available in “pre-release” models. Includes considerable enhancements related to security, speed, and range.

WiFi – Security. Is it secure? Yes...

- If you are using the latest 802.11g or 802.11a
- If you have enabled WEP – Wireless Encryption Protocol, which allows you to require a password
- If you have enabled WPA – Wireless Protected Access, does not require a password is difficult to hack
- If you are running a firewall - this is critical even WITHOUT WiFi!
- If you run Windows Update regularly!

Bluetooth – not WiFi! This is wireless for DEVICES (mice, keyboard, printers, cell phones, headsets/PDA’s), but NOT for connecting to the Internet. For short distances (30 feet). It is pre-installed on some PDA’s.

What is Wi-Max?

- Similar to Wi-Fi (and compatible), broadcast range can cover entire cities
- Networks of Wi-Max can cover vast distances, already in several major cities in the US, Europe and Asia

