



Appendix H: Getting to Know Your Ingredients — A Wireless Glossary

Several of these definitions were adapted from <http://www.webopedia.com> and <http://www.about.com>.

- **Dynamic Host Configuration Protocol (DHCP)** — DHCP allows one device (a server, a router, an access point or any other computer with the right software installed) to provide IP addresses on demand to other devices on the network. DHCP can save you a lot of time and energy because you don't have to manually assign an IP address to each new computer on your network.
- **Firewall** — A firewall is a system designed to prevent unauthorized access to or from a private network. A firewall can be a hardware device, a piece of software or a combination of both.
- **Hotspot** — A wireless access point or area for connecting to the Internet
 - **Hotspot Providers** — A company that can offer wireless tech support, supply the equipment, help with the marketing, and provide a Web-based management console that can be used to monitor and control a hotspot.
- **IP Address** — An IP address is the logical address of a network adapter, and it uniquely identifies each computer on a network. An IP address can be private; for use on a local, internal network or it can be public for use on the Internet. IP addresses can be determined statically (assigned to a computer by a system administrator) or dynamically (assigned by another device on the network). Each IP address consists of four numbers (known as octets) separated by periods. Each of these four numbers ranges from 1 to 255. For example, 192.168.1.1 is a commonly used private IP address.
- **Internet Service Provider (ISP)** — The organization, often a cable company or phone company, that provides and maintains your Internet connection.
- **Network Segment** — A segment is a specially configured subset of a larger network. The boundaries of a network segment are established by devices such as routers, switches, gateways and firewalls.
- **Port** — 1) On computer and telecommunication devices, a *port* (noun) is generally a specific place for being physically connected to some other device, usually with a socket and plug of some kind. 2) A port is a number (usually determined by conventions or standards) that software programs use to establish a temporary connection with each other over a network. It's the way a client program specifies a particular server program on a computer in a network.



- **Router** — A router is a device (or, in some cases, software on a computer) that determines the most efficient way to move network traffic on to its final destination. A router usually sits on the edge of an organization's local network and acts as the gateway between that local network and the Internet.
- **Secure Set Identifier (SSID)** — All access points have an SSID, which is the name that the access point broadcasts. A laptop with a wireless adapter can detect the SSID and displays it to the laptop user. The user can then double-click the SSID to connect to the access point. This is important when there are multiple access points in the area.
- **Switch** — A switch is a hardware device that lets multiple computers on the same network segment communicate with one another by forwarding network traffic to the right computer. Switches usually have 12, 16 or 24 ports, and each computer connects to one of these ports with an Ethernet cable.
- **Virtual Local Area Network (VLAN)** — A group of host systems that have a common set of requirements. They communicate as if attached to the same wire, regardless of their physical location. A VLAN allows for end stations to be grouped together even if they are not located in the same LAN. VLAN reconfiguration can be done through software instead of physically relocating devices.
- **Wireless Access Point** — The center of a wireless network that acts like the hub or switch of your wired network, though it also has many of the features of a standard router. On one side it connects to the Internet, usually through a standard Ethernet cable, and on the other side it broadcasts a wireless signal.
- **Wireless Adapters** — Come in a dozen different shapes and sizes, but they all serve the same purpose of allowing a computer to connect to an access point or a wireless router. Wireless adapters are built into most laptops these days, but if your computer doesn't have one, you can buy a small one that plugs into your USB port for \$30 or \$40.
- **Wireless Devices** — Computers and gadgets that use the access point in order to hook into your network and Internet connection.
- **Wireless Gateways** — Appliances that add functionality to your wireless network. In particular, they allow for more advanced types of authentication, reporting and bandwidth control. Some gateways sometimes come with wireless built in, but usually you have to purchase the access point separately and attach it to the gateway.
- **Wireless Networks** — Similar to wired networks, but instead of using cables, wireless networks communicate using radio frequency signals. Wireless equipment can be used to create a small network with a radius of roughly 300 feet or a large network that enables communication over long distances.
- **Wireless Network Adapter** — A specific piece of hardware that connects a computer to a WLAN. Wireless adapters come in all shapes and sizes. Some adapters are built into the computer. Others need to be purchased separately and then plugged into the USB port or PC Card port.
- **Wireless Routers** — Combine the features of an access point and the features of a cable modem or DSL modem. You're generally very limited as to where you can place a wireless router, since it needs to be near your cable or DSL connection.