

# Glossary

<b>10BASE-T</b>	IEEE 802.3 specification for 10 Mbps Ethernet over twisted pair wiring.
<b>100BASE-Tx</b>	IEEE 802.3 specification for 100 Mbps Ethernet over twisted pair wiring.
<b>802.11b</b>	IEEE specification for wireless networking at 11 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.5GHz.
<b>802.11g</b>	IEEE specification for wireless networking at 54 Mbps using direct-sequence spread-spectrum (DSSS) technology and operating in the unlicensed radio spectrum at 2.5GHz.
<b>802.11x</b>	<p>802.1x defines port-based, network access control used to provide authenticated network access and automated data encryption key management.</p> <p>The IEEE 802.1x draft standard offers an effective framework for authenticating and controlling user traffic to a protected network, as well as dynamically varying encryption keys. 802.1x uses a protocol called EAP (Extensible Authentication Protocol) and supports multiple authentication methods, such as token cards, Kerberos, one-time passwords, certificates, and public key authentication. For details on EAP specifically, refer to IETF's RFC 2284.</p>
<b>Access Control List (ACL)</b>	An ACL is a database that an Operating System uses to track each user's access rights to system objects (such as file directories and/or files).
<b>Ad-hoc Mode</b>	An 802.11 networking framework in which devices or stations communicate directly with each other, without the use of an access point (AP). Ad-hoc mode is also referred to as peer-to-peer mode or an Independent Basic Service Set (IBSS). Ad-hoc mode is useful for establishing a network where wireless infrastructure does not exist or where services are not required.
<b>ADSL</b>	<i>See Asymmetric Digital Subscriber Line</i>
<b>Asymmetric Digital Subscriber Line</b>	A technology for sending data over regular telephone lines. ADSL allows data rates up to 8 Mbps downstream and 640 Kbps upstream.

<b>Cat 5</b>	Category 5 unshielded twisted pair (UTP) cabling. An Ethernet network operating at 10 Mbits/second (10BASE-T) will often tolerate low quality cables, but at 100 Mbits/second (10BASE-Tx) the cable must be rated as Category 5, or Cat 5 or Cat V, by the Electronic Industry Association (EIA). This rating will be printed on the cable jacket. Cat 5 cable contains eight conductors, arranged in four twisted pairs, and terminated with an RJ45 type connector. In addition, there are restrictions on maximum cable length for both 10 and 100 Mbits/second networks.
<b>Denial of Service attack</b>	DoS. A hacker attack designed to prevent your computer or network from operating or communicating.
<b>DHCP</b>	<i>See</i> Dynamic Host Configuration Protocol.
<b>DMZ</b>	Specifying a Default DMZ Server allows you to set up a computer or server that is available to anyone on the Internet for services that you have not defined. There are security issues with doing this, so only do this if you are willing to risk open access
<b>DNS</b>	<i>See</i> Domain Name Server.
<b>Domain Name</b>	A descriptive name for an address or group of addresses on the Internet. Domain names are of the form of a registered entity name plus one of a number of predefined top level suffixes such as.com, .edu, .uk, and so on. For example, in the address mail.NETGEAR.com, mail is a server name and NETGEAR.com is the domain.
<b>Domain Name Server</b>	A Domain Name Server (DNS) resolves descriptive names of network resources (such as www.NETGEAR.com) to numeric IP addresses.
<b>DSLAM</b>	DSL Access Multiplexor. The piece of equipment at the telephone company central office that provides the ADSL signal.
<b>Dynamic Host Configuration Protocol</b>	DHCP. An Ethernet protocol specifying how a centralized DHCP server can assign network configuration information to multiple DHCP clients. The assigned information includes IP addresses, DNS addresses, and gateway (router) addresses.
<b>Gateway</b>	A local device, usually a router, that connects hosts on a local network to other networks.
<b>IP</b>	<i>See</i> Internet Protocol.

<b>IP Address</b>	A four-byte number uniquely defining each host on the Internet. Ranges of addresses are assigned by Internic, an organization formed for this purpose. Usually written in dotted-decimal notation with periods separating the bytes (for example, 134.177.244.57).
<b>IPSec</b>	Internet Protocol Security. IPSec is a series of guidelines for securing private information transmitted over public networks. IPSec is a VPN method providing a higher level of security than PPTP.
<b>ISP</b>	Internet service provider.
<b>Internet Protocol</b>	The main internetworking protocol used in the Internet. Used in conjunction with the Transfer Control Protocol (TCP) to form TCP/IP.
<b>LAN</b>	<i>See</i> local area network.
<b>local area network</b>	LAN. A communications network serving users within a limited area, such as one floor of a building. A LAN typically connects multiple personal computers and shared network devices such as storage and printers. Although many technologies exist to implement a LAN, Ethernet is the most common for connecting personal computers.
<b>MAC address</b>	Media Access Control address. A unique 48-bit hardware address assigned to every Ethernet node. Usually written in the form 01:23:45:67:89:ab.
<b>Mbps</b>	Megabits per second.
<b>MDI/MDIX</b>	In cable wiring, the concept of transmit and receive are from the perspective of the computer, which is wired as a Media Dependant Interface (MDI). In MDI wiring, a computer transmits on pins 1 and 2. At the hub, switch, router, or access point, the perspective is reversed, and the hub receives on pins 1 and 2. This wiring is referred to as Media Dependant Interface - Crossover (MDI-X).
<b>MSB</b>	<i>See</i> Most Significant Bit or Most Significant Byte.
<b>MTU</b>	<i>See</i> Maximum Transmission Unit.
<b>Maximum Transmit Unit</b>	The size in bytes of the largest packet that can be sent or received.
<b>Unit</b>	
<b>Most Significant Bit or Most Significant Byte</b>	The portion of a number, address, or field that is farthest left when written as a single number in conventional hexadecimal ordinary notation. The part of the number having the most value.
<b>NAT</b>	<i>See</i> Network Address Translation.

<b>Netmask</b>	A number that explains which part of an IP address comprises the network address and which part is the host address on that network. It can be expressed in dotted-decimal notation or as a number appended to the IP address. For example, a 28-bit mask starting from the MSB can be shown as 255.255.255.192 or as /28 appended to the IP address.
<b>Network Address Translation</b>	A technique by which several hosts share a single IP address for access to the Internet.
<b>packet</b>	A block of information sent over a network. A packet typically contains a source and destination network address, some protocol and length information, a block of data, and a checksum.
<b>PPP</b>	<i>See</i> Point-to-Point Protocol.
<b>PPPoA</b>	<i>See</i> PPP over ATM
<b>PPPoE</b>	<i>See</i> PPP over Ethernet
<b>PPP over ATM</b>	PPPoA. PPP over ATM is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
<b>PPP over Ethernet</b>	PPPoE. PPP over Ethernet is a protocol for connecting remote hosts to the Internet over an always-on connection by simulating a dial-up connection.
<b>PPTP</b>	Point-to-Point Tunneling Protocol. A method for establishing a virtual private network (VPN) by embedding Microsoft's network protocol into Internet packets.
<b>PSTN</b>	Public Switched Telephone Network.
<b>Point-to-Point Protocol</b>	PPP. A protocol allowing a computer using TCP/IP to connect directly to the Internet.
<b>RADIUS</b>	Short for Remote Authentication Dial-In User Service, RADIUS is an authentication system. Using RADIUS, you must enter your user name and password before gaining access to a network. This information is passed to a RADIUS server, which checks that the information is correct, and then authorizes access. Though not an official standard, the RADIUS specification is maintained by a working group of the IETF.
<b>RFC</b>	Request For Comment. Refers to documents published by the Internet Engineering Task Force (IETF) proposing standard protocols and procedures for the Internet. RFCs can be found at <a href="http://www.ietf.org">www.ietf.org</a> .
<b>RIP</b>	<i>See</i> Routing Information Protocol.

<b>router</b>	A device that forwards data between networks. An IP router forwards data based on IP source and destination addresses.
<b>Routing Information Protocol</b>	A protocol in which routers periodically exchange information with one another so that they can determine minimum distance paths between sources and destinations.
<b>SSID</b>	<p>A Service Set Identification is a thirty-two character (maximum) alphanumeric key identifying a wireless local area network. For the wireless devices in a network to communicate with each other, all devices must be configured with the same SSID.</p> <p>This is typically the configuration parameter for a wireless computer card. It corresponds to the ESSID in the wireless Access Point and to the wireless network name. <i>See also</i> Wireless Network Name and ESSID</p>
<b>subnet mask</b>	<i>See</i> netmask.
<b>Universal Plug and Play</b>	UPnP. A networking architecture that provides compatibility among networking technology. UPnP compliant routers provide broadband users at home and small businesses with a seamless way to participate in online games, video conferencing and other peer-to-peer services.
<b>UTP</b>	Unshielded twisted pair. The cable used by 10BASE-T and 100BASE-Tx Ethernet networks.
<b>VCI</b>	Virtual Channel Identifier. Together with the VPI, defines a Virtual Channel through an ATM network. Used by ATM switching equipment to route data through the network.
<b>VPI</b>	Virtual Path Identifier. Together with the VCI, defines a Virtual Channel through an ATM network. Used by ATM switching equipment to route data through the network.
<b>WAN</b>	<i>See</i> wide area network.
<b>WEP</b>	Wired Equivalent Privacy. WEP is a data encryption protocol for 802.11b wireless networks. All wireless nodes and access points on the network are configured with a 64-bit or 128-bit Shared Key for data encryption.
<b>wide area network</b>	WAN. A long distance link used to extend or connect remotely located local area networks. The Internet is a large WAN.
<b>Wi-Fi</b>	<i>See</i> 802.11b. A trade name for the 802.11b wireless networking standard, given by the Wireless Ethernet Compatibility Alliance (WECA, <a href="http://www.wi-fi.net">see http://www.wi-fi.net</a> ), an industry standard group promoting interoperability among 802.11b devices.

**Windows Internet Naming Service**

WINS. Windows Internet Naming Service is a server process for resolving Windows-based computer names to IP addresses. If a remote network contains a WINS server, your Windows PCs can gather information from that WINS server about its local hosts. This allows your PCs to browse that remote network using Network Neighborhood.

**WINS**

*See* Windows Internet Naming Service.

**WPA**

Wi-Fi Protected Access (WPA) is a specification of standards-based, interoperable security enhancements that increase the level of data protection and access control for existing and future wireless LAN systems.