

BASIC NETWORK TERMS

A **network address** serves as a unique identifier for a computer on a network. (2 types - IP address and MAC address)

A **network adapter** interfaces a computer to a network. The term "adapter" was popularized originally by [Ethernet](#) add-in cards for PCs.

Bandwidth in computer networking refers to the data rate supported by a network connection or interface. One most commonly expresses bandwidth in terms of [bits per second \(bps\)](#).

bps (bits per second) Network performance has traditionally been measured in units of bits per second (bps).

CAT5 is the 5th generation of twisted pair Ethernet cabling and the most popular of all twisted pair cables in use today.

DHCP (Dynamic Host Configuration Protocol) allows a computer to join an IP-based network without having a pre-configured IP address.

The **DNS (Domain Name Service)** translates Internet domain and host names to [IP addresses](#).

The term **Denial of Service (DoS)** refers to a form of attacking computer systems over a network.

A **network firewall** protects a computer network from unauthorized access.

FTP (File Transfer Protocol) allows one to transfer files between computers on the Internet. Technically, FTP is a simple network protocol based on IP, but many also use the term "FTP" to refer to this type of file sharing service.

In computer networking, a **hop** represents one portion of the path between source and destination.

HTTP (hypertext transfer protocol) is an application layer network protocol built on top of TCP. HTTP allows Web browsers and Web servers to communicate.

A **hub** is a small, simple, inexpensive network device that joins multiple computers together.

The term **Internet** today refers to the global network of public computers running [Internet Protocol](#)

Intranet is the generic term for a collection of private computer networks within an organization.

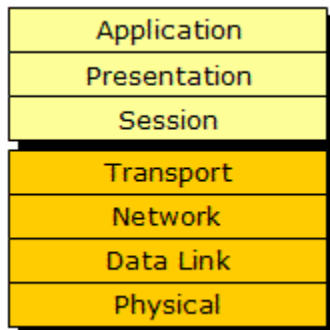
An **IP address** is the logical address of a network adapter. The IP address uniquely identifies computers on a network. (example: 215.123.34.45)

A **local area network (LAN)** supplies networking capability to a group of computers in close proximity to each other such as in an office building, a school, or a home.

MAC (Media Access Control) technology provides unique identification and access control for computers on an [Internet Protocol \(IP\)](#) network. (example: 48-3F-0A-91-00-BC)

NIC (Network Interface Card) provides a hardware interface between a computer and a network. The term NIC most commonly refers to [network adapter](#) hardware in the form factor of an add-in card.

The **OSI model** defines internetworking in terms of a vertical stack of seven layers.



A **packet** is one unit of binary data capable of being routed through a computer network.

Ping is the name of a standard network utility packaged with popular network operating systems. The utility can be used to determine if a remote device (such as Web or game server) can be reached on the network and, if so, roughly how fast the current connection is.

A **port number** represents an endpoint or "channel" for network communications. Port numbers allow different applications on the same computer to utilize network resources without interfering with each other.

A network **protocol** defines a "language" of rules and conventions for communication between network devices.

Routers are physical devices that join multiple wired or wireless networks together.

Transmission Control Protocol (TCP) and [Internet Protocol \(IP\)](#) are two distinct network protocols, technically speaking. TCP and IP are so commonly used together, however, that **TCP/IP** has become standard terminology to refer to either or both of the protocols.

UDP (User Datagram Protocol) is a lightweight transport built on top of IP.