**What is Internet?**

The internet in simple terms is a network of the interlinked computer networking worldwide, which is accessible to the general public. These interconnected computers work by transmitting data through a special type of packet switching which is known as the IP or the internet protocol.Internet is such a huge network of several different interlinked networks relating to the business, government, academic, and even smaller domestic networks, therefore internet is known as the network of all the other networks. These networks enable the internet to be used for various important functions which include the several means of communications like the file transfer, the online chat and even the sharing of the documents and web sites on the WWW, or the World Wide Web.

It is always mistaken said that the internet and the World Wide Web are both the same terms, or are synonymous. Actually there is a very significant difference between the two which has to be clear to understand both the terms. The internet and World Wide Web are both the networks yet; the internet is the network of the several different computers which are connected through the linkage of the accessories like the copper wires, the fiber optics and even the latest wireless connections. However, the World Wide Web consists of the interlinked collection of the information and documents which are taken as the resource by the general public. These are then linked by the website URLs and the hyperlinks. Therefore World Wide Web is one of the services offered by the whole complicated and huge network of the internet.

**Regulatory Bodies of Internet**

**1. IANA (Internet Assigned Numbers Authority)**

IANA is one of the primary governing bodies for Internet networking. IANA oversees three key aspects of the Internet: top-level domains (TLDs), IP address allocation and port number assignments. IANA is a part of ICANN.

**2. ICANN (Internet Corporation for Assigned Names and Numbers)**

Created in 1988, the Internet Corporation for Assigned Names and Numbers (ICANN) is a not-for-profit, public benefit corporation that helps to keep the Internet secure, stable and interoperable. It serves as the authority on domain names and on a series of Internet-related tasks.

The duties of ICANN are broad and variable. They include the regulation of larger scale issues involving the general structure and design of the Internet, something that is important to keeping the system working smoothly and efficiently, and involvement in the regulation of seemingly smaller details, such as issues with specific domain names as well as specific registrars.

**1.TCP/IP**

TCP/IP (Transmission Control Protocol/Internet Protocol) is the basic communication language or protocol of the Internet. It can also be used as a communications protocol in a private network (either an intranet or an extranet).

TCP (Transmission Control Protocol) divides a message or file into smaller packets that are transmitted over the Internet and reassembles the packets into the original message in the destination. IP (Internet Protocol) handles the address part of each packet so that it gets to the right destination. Each gateway computer on the network checks this address to see where to forward the message. Even though some packets from the same message are routed differently than others, they'll be reassembled at the destination.

TCP/IP uses the client/server model of communication in which a computer user (a client) requests and is provided a service (such as sending a Web page) by another computer (a server) in the network. TCP/IP communication is primarily point-to-point, meaning each communication is from one point (or host computer) in the network to another point or host computer.

**2. HTTP**

Hypertext Transfer Protocol - provides a standard for Web browsers and servers to communicate. HTTP is a technical specification of a network protocol that software (browsers, server side software) must implement while communicating.HTTP is an application layer network protocol built on top of TCP. HTTP clients (such as Web browsers) and servers communicate via HTTP request and response messages. HTTP utilizes TCP port 80 by default.

**3.Telnet**

Telnet is a protocol that allows you to connect to remote computers (called hosts) over a TCP/IP network (such as the Internet). Using telnet client software on your computer, you can make a connection to a telnet server (i.e., the remote host). Once telnet client establishes a connection to the remote host, your client becomes a virtual terminal, allowing you to communicate with the remote host from your computer. In most cases, you'll need to log into the remote host, which requires that you have an account on that system. Occasionally, you can log in as guest or public without having an account.

**4. Gopher**

Gopher was an Internet application in which hierarchically-organized text files could be brought from servers to view on the computer. Gopher was developed in 1991 and first used at the University of Minnesota and named after its mascot. Gopher is a menu-driven interface that allows a user to browse for text information served off of various Gopher servers. After 1996, most Gopher servers were either converted to the World Wide Web or taken offline. Below is a listing of some popular gopher tools used.

**Veronica** was a gopher tool developed in November 1992, by a team at the University of Nevada at Reno and allowed a user to search gopher servers.**Jughead** is a version of Veronica that was developed at the University of Utah and searches only one gopher server at a time.

Although the root directory for Gopher is sometimes still accessible at the University of Minnesota or elsewhere and despite some efforts to revive Gopher, virtually all Gopher servers are no longer active. It seems likely that almost all of the original Gopher content has been made accessible on the World Wide Web.

5. **WAIS**

WAIS is one of the original search facilities developed to index and search a web site. WAIS was developed by "Thinking Machines Inc." in 1988 for indexing and searching document indexes. It employs client/server architecture. A WAIS search will return the titles for documents best matching the search.Indexing a site will create databases (or sources) by indexing the documents.Due to advancement of WWW and dominance of powerful search engines, very few WAIS servers are in operation; mostly in universities.

**WWW**

The term WWW refers to the World Wide Web or simply the Web. The World Wide Web consists of all the public Web sites connected to the Internet worldwide, including the client devices (such as computers and cell phones) that access Web content. The WWW is just one of many applications of the Internet and computer networks.

The World Web is based on these technologies:

* HTML - Hypertext Markup Language
* HTTP - Hypertext Transfer Protocol
* Web servers and Web browsers

Researcher Tim Berners-Lee led the development of the original World Wide Web in the late 1980s and early 1990s. He helped build prototypes of the above Web technologies and coined the term "WWW." Web sites and Web browsing exploded in popularity during the mid-1990s.

**HTML**  
HTML (HypertextMarkup Language) is a computer language devised to allow website creation. These websites can then be viewed by anyone else connected to the Internet. Hypertext is the method by which it allows to move around on the web; by clicking on special text called hyperlinks which bring us to the next page/within same page. Markup means what HTML tags do to the text inside them. They mark it as a certain type of text (italicized, bold text).

For example <Font size=5> This Is HTML </Font> It means that the text between the tags will be of size 5.

**Domain Name**

A domain name locates an organization/computers or other entity on the Internet. For example, the domain name[www.facebook.com](http://www.facebook.com)locates an Internet address (IP address) for "facebook.com". The "com" part of the domain name reflects the purpose of the organization or entity (in this example, "commercial") and is called the top-level domain name. The "facebook" part of the domain name defines the organization or entity and together with the top-level is called the second-level domain name. The second-level domain is mapped to the IP address of that site, which is located in the DNS server. Top Level Domain Is assigned by IANA. Some of the Top level Domain is com, edu, org, info etc.

Country Code Top Level Domain (CCTLD) is also part of domain name, which are placed to the right of Top Level Domain; for example in [www.download.com.np](http://www.download.com.np).np is CCTLD for Nepal. CCTLD is also assigned by ICANN.

**Search Engine**

Search engine is web based software whose primary function is gathering and retrieving information available on the Internet. Search engines are essentially massive databases that cover the Internet. Most search engines consists of three parts: one program called crawler (spider or bot), which crawls through the Internet gathering information; a database, which stores the gathered information; and a search tool, with which users search through the database by typing in keywords describing the information desired (usually at a Web site dedicated to the search engine). Example Google, yahoo, bing etc.

**What is a Web Browser?**

Browser, short for web browser, is a software application used to enable computers users to locate and access web pages. Browsers translates the basic HTML (Hypertext Mark Up Language) code that allows us to see images, text videos and listen to audios on websites, along with hyperlinks that let us travel to different web pages. The browser gets in contact with the web server and requests for information. The web server receives the information and displays it on the computer.There are different browsers for various things you do on the internet. There's a text based browser. There are several types of browsers but the one thing they have in common is that they carry out the same function; they transfer hypertext. Here are some familiar common web browsers:

Mozilla FireFox, Google Chrome, Microsoft Internet Explorer, Apple Safari etc.

# Web Pages:

A web page is a screen of information sent to a requesting user and presented through a browser.

# Internet Addressing:

Addresses provide information on how to locate something, e.g., what route to take from here to there. Internet addressing is an identification scheme for a particular machine on a network.

## IP Address:

An **Internet Protocol address** (IP address) is a numerical label assigned to each device (e.g., computer, printer) participating in a [computer network](http://en.wikipedia.org/wiki/Computer_network) that uses the [Internet Protocol](http://en.wikipedia.org/wiki/Internet_Protocol) for communication. It is also referred as **IP numbers** and **Internet addresses.** The designers of the Internet Protocol defined an IP address as a [32-bit](http://en.wikipedia.org/wiki/32-bit) numberand this system, known as [Internet Protocol Version 4](http://en.wikipedia.org/wiki/IPv4) (IPv4), is still in use today. However, due to the enormous growth of the [Internet](http://en.wikipedia.org/wiki/Internet) and the predicted[depletion of available addresses](http://en.wikipedia.org/wiki/IPv4_address_exhaustion), a new version of IP ([IPv6](http://en.wikipedia.org/wiki/IPv6)), using 128 bits for the address, was developed in 1995.