INTERNET AND SERVICES

Introduction:

By the turn of the century, information, including access to the Internet, will be the basis for personal, economic, and political advancement. The popular name for the Internet is the information superhighway. Whether you want to find the latest financial news, browse through library catalogs, exchange information with colleagues, or join in a lively political debate, the Internet is the tool that will take you beyond telephones, faxes, and isolated computers to a burgeoning networked information frontier. The Internet supplements the traditional tools you use to gather information, Data Graphics, News and correspond with other people. Used skillfully, the Internet shrinks the world and brings information, expertise, and knowledge on nearly every subject imaginable straight to your computer.

What is the Internet ?

The Internet links are computer networks all over the world so that users can share resources and communicate with each other. Some computers, have direct access to all the facilities on the Internet such as the universities. And other computers, eg privately-owned ones, have indirect links through a commercial service provider, who offers some or all of the Internet facilities. In order to be connected to Internet, you must go through service suppliers. Many options are offered with monthly rates. Depending on the option chosen, access time may vary. The Internet is what we call a metanetwork, that is, a network of networks that spans the globe. It's impossible to give an exact count of the number of networks or users that comprise the Internet, but it is easily in the thousands and millions respectively. The Internet employs a set of standardized protocols which allow for the sharing of resources among different kinds of computers that communicate with each other on the network. These standards, sometimes referred to as the Internet Protocol Suite, are the rules that developers adhere to when creating new functions for the Internet. The Internet is also what we call a distributed system; there is no central archives. Technically, no one runs the Internet. Rather, the Internet is made up of thousands of smaller networks. The Internet thrives and develops as its many users find new ways to create, display and retrieve the information that constitutes the Internet.

History & Development of the Internet:

In its infancy, the Internet was originally conceived by the Department of Defense as a way to protect government communications systems in the event of a military strike. The original network, dubbed ARPANet (for the Advanced Research Projects Agency that developed it) evolved into a communications channel among contractors, military personnel, and university researchers who were contributing to ARPA projects. The network employed a set of standard protocols to create an effective way for these people to communicate and share data with each other. ARPAnet's popularity continued to spread among researchers, and in the 1980's the National Science Foundation, whose NSFNet, linked several high speed computers, took charge of the what had come to be known as the Internet. By the late 1980's, thousands of cooperating networks were participating in the Internet. In 1991, the U.S. High Performance Computing Act established the NREN (National Research & Education Network). NREN's goal was to develop and maintain high-speed networks for research and education, and to investigate commercial uses for the Internet. The rest, as they say, is history in the making. The Internet has been improved through the developments of such services as Gopher and the World Wide Web. Even though the Internet is predominantly thought of as a research oriented network, it continues to grow as an informational, creative, and commercial resource every day and all over the world.

Web browser

A web browser is a software application for retrieving, presenting, and traversing information resources on the World Wide Web. An information resource is identified by a Uniform Resource Identifier (URI) and may be a web page, image, video, or other piece of content. Hyperlinks present in resources enable users easily to navigate their browsers to related resources. A web browser can also be defined as an application software or program designed to enable users to access, retrieve and view documents and other resources on the Internet.

Although browsers are primarily intended to access the World Wide Web, they can also be used to access information provided by web servers in private networks or files in file systems. The major web browsers are Firefox, Google Chrome, Internet Explorer, Opera, and Safari.

Requirement for internet Connection

- ➢ A legal account with our local Internet service provider
- ➢ A computer (80486 or above) with the required software to access Internet.
  - Intel 80486 or higher processer, windows 95/98, 16 MB RAM 70 MB of disk space (minimum)
  - CDROM drive, color monitor, sound card and speaker(preferred)
- ➢ A modem (14.4 kbps or above) and a telephone connection.

ISDN

Integrated Services Digital Network (ISDN) is a set of communications standards for simultaneous digital transmission of voice, video, data, and other network services over the traditional circuits of the public switched telephone network. It was first defined in 1988 in the CCITT red book. Prior to ISDN, the telephone system was viewed as a way to transport voice, with some special services available for data. The key feature of ISDN is that it integrates speech and data on the same lines, adding features that were not available in the classic telephone system. There are several kinds of access interfaces to ISDN defined as Basic Rate Interface (BRI), Primary Rate Interface (PRI) and Broadband ISDN(B-ISDN).

ISDN is a circuit-switched telephone network system, which also provides access to packet switched networks, designed to allow digital transmission of voice and data over ordinary telephone copper wires, resulting in potentially better voice quality than an analog phone can provide. It offers circuit-switched connections (for either voice or data), and packet-switched connections (for data), in increments of 64 kilobit/s. A major market application for ISDN in some countries is Internet access, where ISDN typically provides a maximum of 128 kbit/s in both upstream and downstream directions. Channel bonding can achieve a greater data rate; typically the ISDN B-channels of 3 or 4 BRIs (6 to 8 64 kbit/s channels) are bonded.

ISDN should not be mistaken for its use with a specific protocol, such as Q.931 whereby ISDN is employed as the network, data-link and physical layers in the context of the OSI model. In a broad sense ISDN can be considered a suite of digital services existing on layers 1, 2, and 3 of the OSI model. ISDN is designed to provide access to voice and data services simultaneously.

However, common use reduced ISDN to be limited to Q.931 and related protocols, which are a set of protocols for establishing and breaking circuit switched connections, and for advanced calling features for the user. They were introduced in 1986.

INTERNET SERVICES

> **FTP :**
>> File Transfer Protocol (FTP) is a standard network protocol used to transfer files from one host to another host over a TCP-based network, such as the Internet. It is often used to upload web pages and other documents from a private development machine to a public web-hosting server. FTP is built on a client-server architecture and uses separate control and data connections between the client and the server.

> **TELNET :**
>> Telnet is a service on the Internet which enables on Internet host to become the terminal of remote computer. It is also called emulation protocol as once the connection between the host and computer and the remote computer is established, the host computer's commands are executed on the remote computers and the results are displayed on the host computer. The following command opens telnet session: ➤ Telnet 192.168.202.46 which is the IP address of the remote machine.

> Chatting:

> Email:

> E-fax:

Term	Meaning
Web	Web is the term given to describe a second generation of the World Wide Web that is focused on the ability for people to collaborate and share information online.
Upload	To transmit data from a computer to a bulletin board service, mainframe, ornetwork.
Download	receive data to a local system from a remote system.
URL	Uniform Resource Locator . Address of a resource on the Internet. The resource can be any type of file stored on a server, such as a Web page, a text file, a graphics file, or an application program.
Domain Name	A **domain name** is an identification string that defines a realm of administrative autonomy, authority, or control on the Internet.
Host name	A name is a label that is used to distinguish one thing from another. A person's name, for instance, comprises a set of alphabetic characters that allows a person to be individually addressed. Computers are also named to differentiate one machine from another and to allow for such activities as network communication.
FTP	File Transfer Protocol
HTTP	Hyper Text Transfer Protocol
web site	a set of related web pages containing content (media) such as text, [[image], video, audio, etc
web page	a web page is a document that's created in html that shows up on the internet when you type in or go to the web page's address.
DNS	Short for *Domain Name System* (or *Service* or *Server*), an Internet service that translates *domain names* into IP addresses. Because domain names are alphabetic, they're easier to remember. The Internet however, is really based on IP addresses. Every time you use a domain name, therefore, a DNS service must translate the name into the corresponding IP address. For example, the domain name *www.example.com* might translate to *198.105.232.4*. The DNS system is, in fact, its own network. If one DNS server doesn't know how to translate a particular domain name, it asks another one, and so on, until the correct IP address is returned.