

Week 1 & 2

Topic: HOW THE INTERNET WORKS

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On the internet, data and information are transferred world wide through the servers and clients (which are computers) connected to the internet.

The computers which are responsible for management of resources i.e program and data on a network, by providing a centralized storage area, is called a SERVER. The computer which has an access to the contents of the storage area on the server is CLIENT. On the internet, a client which can access file and services on a number of servers called a Host computer. Your computer is a Host computer.

The inner structure of the internet resembles a transportation system. In the transportation system, the maximum load of traffic is concentrated on the highways, which are linked to the major cities. Similarly, on the internet, there are certain main communication lines which carry the maximum load of traffic. These lines are collectively called the INTERNET BACKBONE.

The internet is a packet oriented network. It means that the data you transfer is divided into packets.

So what happens when you transfer data across the internet various networks?

The networks are linked by special computer, called ROUTERS. A router checks where your packet data goes and decides in which direction to send it. Of course, not every router is linked with every other router, they just decide on the direction your data takes. The internet knows where your data is going, as every destination has an address called an Internet Protocol (IP) address. The data transferred with IP is divided into packets. This is handled by another protocol, the transmission control protocol (TCP).

The internet is an addressing system used to send data and information to a fixed or specific destination, just like the postal system. An IP address i.e. internet protocol address has it own unique identification attached to a computer or a device connected to the internet. The IP address has a group of number and is separated by a period (.). The number varies between 0 and 255. For instance the number 153, 25. 15,10 are an IP address. Generally, the first part of the IP address identifies the network and the last portion identifies a specific computer.

It is difficult to remember and use this all numeric IP address. Hence, the internet favours the use of text name that represents one or more IP addresses.

The text version on IP is the domain name. The component of the domain name are separated by periods just like an IP address.

Every domain name contains a Top Level Domain (TLD) abbreviation that identifies the type of organization which is associated with the domain. Dot com (.com) is the name sometimes used to

described an organization that has TLD of com. The domain name system is a system on the internet that stores the domain names and their corresponding IP address. Each time you specify a domain name, an internet server called the DNS server translates the domain name into its associated IP address, so data can be routed to the correct computer.

WEB PAGE

Web page is an electronic document on the World Wide Web. A web page consists of a HTML file in a particular directory on a particular machine (and in thus identification by a URL) a vast amount of information is provided by these web pages. The information may include graphics, sounds, or even movies. Usually, a web page contains links to other pages as well

WEBSITE

A website is a collection of web pages. Most websites have a home page as their starting point, which frequently has a table of contents for the site. Users need a web browser and a connection to access a website.

HOME PAGE

Home page is the first page retrieved when accessing a website. It serves as a table of contents for the rest of pages on the site and offers links to other websites. For example, a company's welcome page typically includes the company logo, a brief description and links to the additional document available on that site.

UNIFORM RESOURCE LOCATOR

The uniform resource locator is the address that defines the router to a file on the web. URLs are typed into the browser to access web pages for example <https://www.teststreams.com> Retrieved home page for passnownow website. The http is the web protocol and www.teststreams.com is the domain name.

HYPERLINKS

Web pages contain highlighted text or image, called hyperlinks, that connect to other pages on the web. A hyperlink allows you to easily move through vast amount of information y jumping from one web page to another. You can select a hyperlink to jump to a web page located on the same computer or on a computer across the city, country or world. You can easily identify a text hyperlink in a web page because it appears underlined and in color.

WEB SERVER

A web server is a computer on the internet that stores web pages. A web page is available for other people to view, when it is stored in the we server.

WEB BROWSER

A web browser is a software program that allows you to access and view web pages. The web browser software is built on the hyperlinks, which allows users to point and click with a mouse in order to jump from one document to another in whatever order they desire.

TYPES OF BROWSER

In January 1993, the first browser, Viola and Midas were released for the X window system (UNIX). At the same time, a Macintosh browser was released called ALPHA version.

In February 1993, the first popular graphical World Wide Web browser was NCSA Mosaic. It was released for all common platforms (UNIX, Windows and Macintosh) in September 1993.

Marc Andersen, the mastermind of Mosaic, founded his own company, Mosaic Communication Corp., now known as Netscape and released a browser, the Netscape Navigator 1.0. He soon controlled 70 percent of the browser market. Microsoft saw this gigantic success and soon released a browser called MS Internet Explorer, for free, now new version of both browsers support most HTML.

TYPES OF WEB BROWSER

1. **MICROSOFT INTERNET EXPLORER:** Microsoft Internet Explorer is the most widely used by people around the world. It was developed by Microsoft in 1995 as a supportive package to the Microsoft Windows operating system.
2. **MOZILLA FIREFOX:** Mozilla Firefox is the second browser after the Internet Explorer. It can be used on many different operating systems including Windows, Macintosh, OS/2 and UNIX. It supports tabbed browsing that allows user to open multiple sites in a single window.
3. **OPERA:** Opera is a web browser that was developed by Opera Software in 1996. It is a well known browser that is mainly used in activated mobile phone and smart phones. It is used with many operating systems like Linux, MAC OS and MS Windows.
4. **NETSCAPE NAVIGATOR:** Netscape Navigator was developed by Netscape Communication Corporation and was very popular in the 1990s. It was compatible with almost every operating system.

Topic: BENEFITS OF THE INTERNET

BENEFITS OF THE INTERNET

The benefits of the internet are as follows:

1. **INFORMATION:** The internet gives you access to information on any subjects of your interest. This makes the internet a valuable research tool. Most sources such as news paper and magazines have websites and a number of them only exist online.
2. **RESEARCH:** You can make use of the internet search facilities to research just about any topic you can think of. This information can help you with a school project, or a presentation at work. You can search for the data you need, or go to specific research sites.
2. **E-MAIL (electronic mail):** Electronic mails enable us to exchange message with people around the world, including friends, family members, colleagues, customers and even people you meet on the internet. E-mail is an exciting feature of the internet as we can send and receive message over long distances. It is also fast, easy and inexpensive.
3. **ENTERTAINMENT:** The internet offer many different forms of entertainment, such as radio and television broadcast, video and music. You can find picture from the latest film, watch live interview of your favorite celebrities and listen to music before it is available in stores.
4. **PROGRAM:** You can find thousands of programs that can be used on your computer, such as word processors, drawing programs, games and accounting programs.
5. **ONLINE SHOPPING:** You can order for products on the internet, while sitting at home. You can purchase items such as books, flowers, music, CDs, pizzas, stock and used cars.
6. **CHATTING:** Chat features allow you to exchange typed message with another person on the internet. The message you send will instantly appear on the other person's computer. You can chat with a person or a group at the same time.
7. **BANKING:** You can use the internet to find financial sites that enables you to do your banking and investing online. Banking online is much more convenient and much less time consuming than doing it in person. Online banking is extremely secure because all modern browsers support robust security protocol which ensures that your financial data remains safe.
8. **E-LEARNING:** E-learning is a training or education program by electronic means. E-learning involves the use of computer or an electronic device (GSM handset) to provide training on educational technology as a tool for learning . Distant education can be done by e-learning.
9. **JOB SEARCH:** Internet makes life easy for both employers and job seekers as there are plenty of job sites which connects employers and job seekers.