Internet & Intranets

What is Internet ?

- It is a **Global network of computers,**

  (servers or clients).

  to **exchange information.**
- It is a **"network of networks"** that includes **millions** of private and public, business, and government networks (local or Global),

  linked by copper wires, wireless connections, and other technologies.

Hardware and Software of Internet:-

Variety of **hardware** and **software** are used *to* make **Internet functional**.

- **Modem**

    Device that enables computers to communicate through phone lines.

    When we start internet the **our modem communicates** to **modem of ISP**.

- The internet
  - A network of networks
  - The internet transmits data from one computer (called a host) to another

- Internet networks
  - Linked networks that work much the same way -- they pass data around in packets, each of which carries the addresses of its sender and receiver
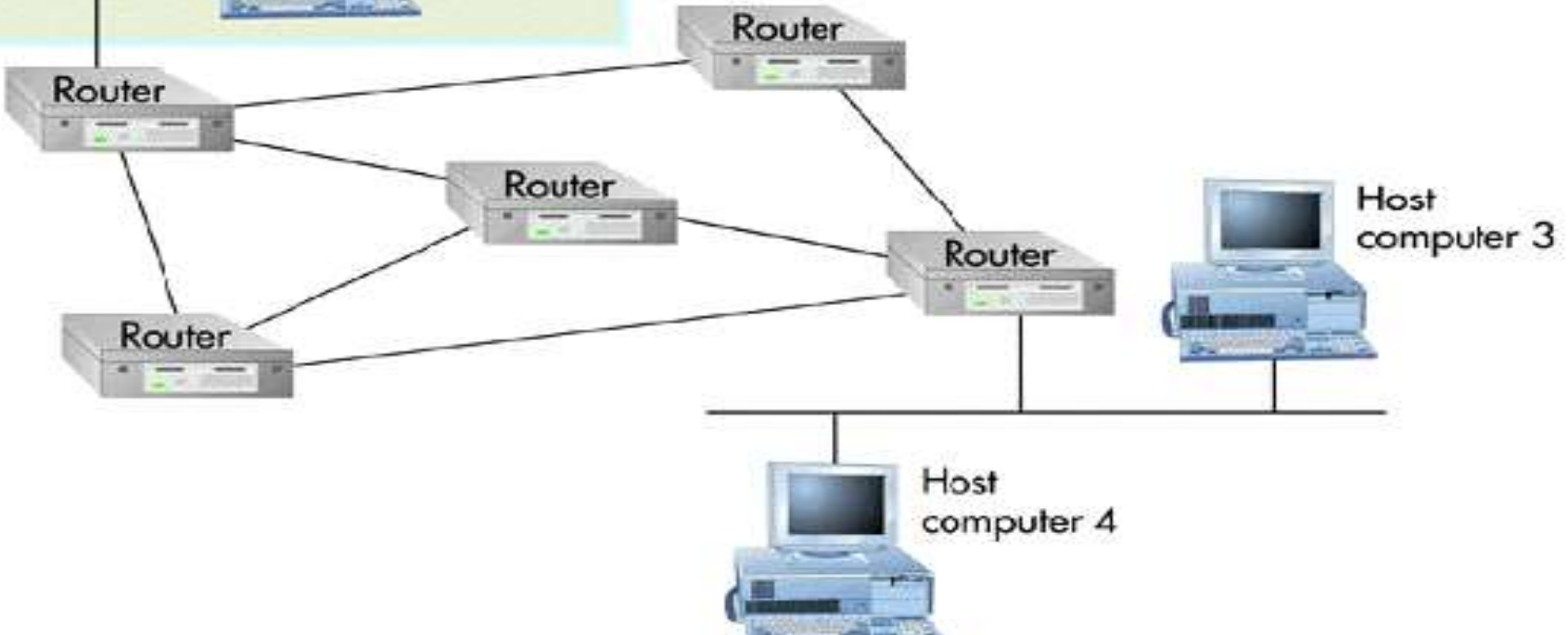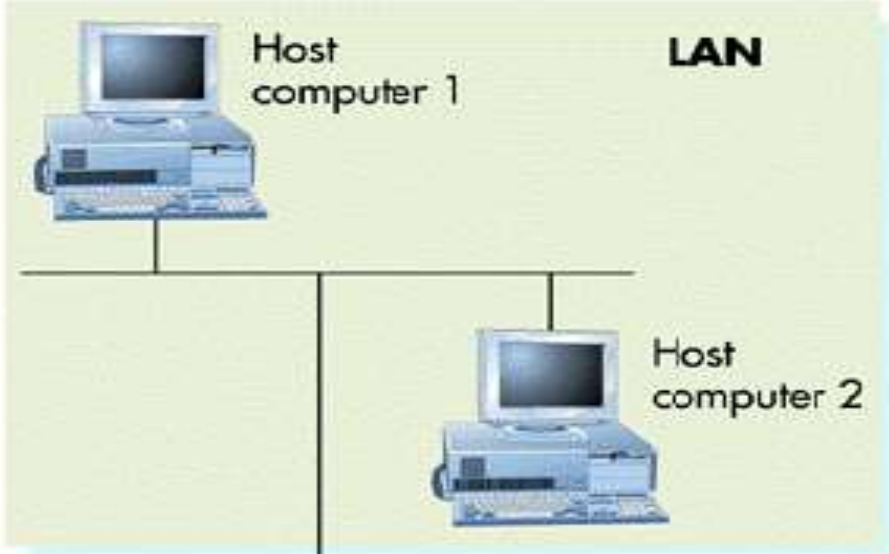
- A global network connecting millions of computers.
- As of 1999, the Internet has more than 200 million users worldwide, and that number is growing rapidly.
- More than 100 countries are linked into exchanges of data, news and opinions.

How the Internet Works:-

- Transport control protocol (TCP)
  - A protocol that operates at the transport layer and is used in combination with IP by most Internet applications

- Backbone
  - An Internet high-speed, long distance communications links (like a bus; wire that connects nodes)

- Uniform resource locator (URL)
  - An assigned address on the Internet for each computer
  - E.g., http://www.abc.in/

Access to the Internet:-

- LAN servers
  - Local servers can provide access to the Internet through normal connections (e.g., Ethernet)
- Serial line internet protocol (SLIP) and Point-to-point protocol (PPP)
  - Communications protocol software that transmits packets over telephone lines, allowing dial-up access to the Internet

Internet Services:-

- Download programs and files
- E-Mail
- Voice and Video Conferencing
- E-Commerce
- File Sharing
- Information browsing
- Chatting and many more…

Intranet:-

- An internal corporate network built using Internet and World Wide Web standards and products that allows employees of an organization to gain access to corporate information.

- A network based on TCP/IP protocols (an internet) belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization.

- An intranet's Web sites look and act just like any other Web sites, but the firewall surrounding an intranet fends(stop) off unauthorized access.

What is Intranet ?

- Internal company network that uses Internet standards (HTML, HTTP & TCP/IP protocols) & software.

- Accessed only by authorized persons, especially members or employees of the organization

Intranet Security:-

Two levels of Security required:

- Internal

  It can be imposed by Public Key Security & Encryption Key.

- External

  Through Firewall.

Intranet services:-

- Sharing of company policies/rules & regulations
- Access employee database
- Distribution of circulars/Office Orders
- Access product & customer data
- Sharing of information of common interest
- Launching of personal/departmental home pages
- Submission of reports