Internet Technologies

History of the Internet and World Wide Web

Kavindu Samarasinghe

B.Sc (Hons) in Computer Science (1st class), Graduate Dip in Software Engineering,

Certificate in Digital Marketing (APIDM)

What is the Internet?

The Internet is a global information network that 1 connects millions of computers It is growing exponentially and provides a unique information resource that is global, diverse, and current.

The Internet is a global system of interconnected computer networks that uses the Internet protocol suite (TCP/IP) to communicate between networks and devices.

History of the Internet : DARPANET

- Internet got its start in the USA more than 50 years ago as a government weapon in the Cold War.

- Scientists and researchers used it to communicate and share data with one another through what was known as DARPANET (Defense's Advanced Research Projects Agency Network)

History of Internet : Galactic network

In 1962,

- A scientist from M.I.T. and DARPA named **J.C.R. Licklider** proposed : a **"galactic network"** of **computers that could talk to one another.**

- Such a network would enable government leaders to communicate even if the Soviets destroyed the telephone system.

Computer A

Computer B

History of the Internet : Packet Switching

In 1965,

- Another M.I.T. scientist developed a way of sending information from one computer to another that he called **"packet switching."**

- Packet switching breaks data down into blocks, or packets, before sending it to its destination.
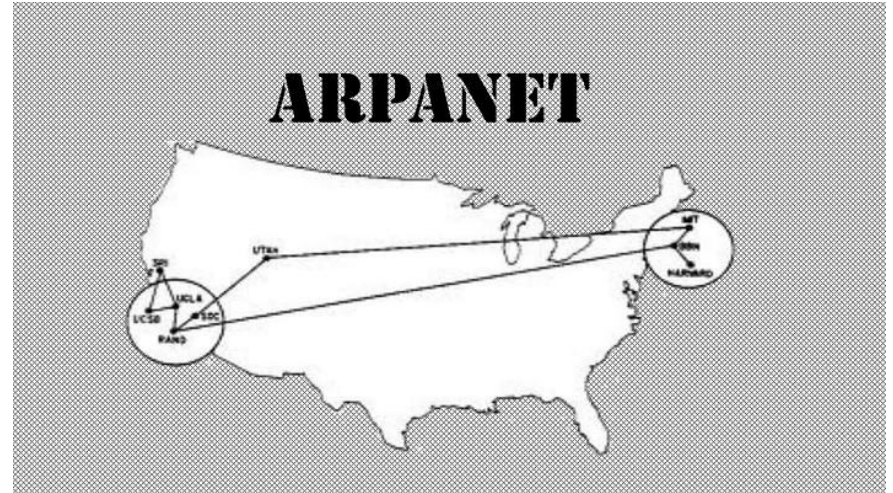
History of the Internet : ARPANET

- They called government computer network to **ARPANET.**

- **In 1969,** ARPANET delivered its first message: a "node-to-node" communication from one computer to another.

History of the Internet : ARPANET became strong

● By the end of 1969, just four computers were connected to the ARPANET, but the network grew steadily during the 1970s.

History of the Internet : TCP/IP

- By the end of the 1970s, a computer scientist named **Vinton Cerf** had begun to solve this problem by developing a way for all of the computers on all of the world's mini-networks to communicate with one another.

- He called his invention "**Transmission Control Protocol," or TCP.** (Later, he added an additional protocol, known as **"Internet Protocol."** The acronym we use to refer to these today is TCP/IP.) [**Internet protocol suite**]

History of the Internet : Internet into a worldwide network

- **Cerf's protocol transformed the Internet into a worldwide network.**

- Throughout the 1980s, researchers and scientists used it to send files and data from one computer to another.
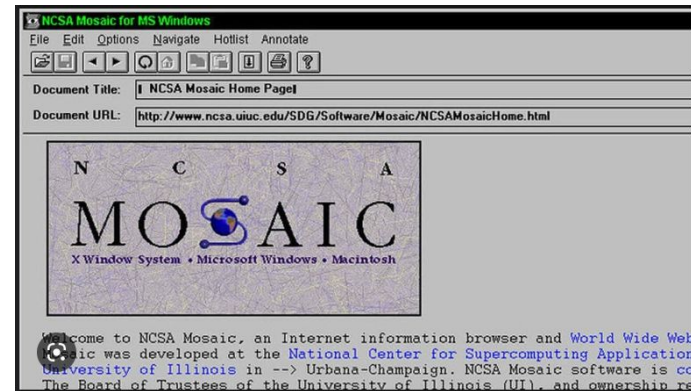
History of the Internet: WWW

- In 1991 the Internet changed again.

- **Tim Berners-Lee** introduced the **World Wide Web (Hypertext project).**

- A web of hypertext documents could be viewed by browsers. His proposal included the three main technologies (HTML, URL, and HTTP).

History of the Internet

- In 1992, a group of students and researchers developed a sophisticated browser that they called Mosaic. (It later became Netscape.)

- Mosaic offered a user-friendly way to search the Web: It allowed users to see words and pictures on the same page for the first time and to navigate using scrollbars and clickable links.

HTML, URL, HTTP

HTML = Hypertext Markup Language

URL = Uniform Resource Locator

HTTP = Hypertext Transfer Protocol

What is WWW?

- World Wide Web is **a collection of websites or web pages stored in web servers and connected to local computers through the internet.**

- These websites contain text pages, digital images, audios, videos, etc. Users can access the content of these sites from any part of the world over the internet using their devices such as computers, laptops, cell phones, etc.

- The WWW, along with internet, enables the retrieval and display of text and media to your device.

Iceberg