Computer science

The internet began when and why1969, US department of defense, was originally text only. 1990's media became available

To connect to the internet, you need: an access device (computer with a modem), means of connection (phone line, internet hook up, etc), and and internet service provider

BandwidthExpressed how much data can be sent through a communications channel in a given amount of time

BasebandSlow type of signal that only allows for one signal to be transmitted at a time

Broadbandhigh-speed connections

uploaddownloading information from local to remote computer

downloadingdownloading data from remote to local computer

narrowbandlow speed but inexpensive modem, ie. phone lines or dial up

telephone modemscan be either internal or external

DSL lineexpensive, is always on, high speed, less than 4. 5 miles from phone company to work

T1 linevery expensive, generally used by large organizations.

cable modemTV cable system with internet connection, company usually supplies a cable modem, is always on, 100 mbps

Satellite Dishtransmits data between satellite dish and satellite orbiting the earth, connection is always on,

Wi-Fiwireless fidelity, transmits data wirelessly for up to 54 mbps

ISPinternet service provider, local regional or national organization that provides access to the internet for free

Wireless Internet Service ProviderWISP, Sprint, AT&T, verison, etc. enables wireless-equipped laptops and tablets and smartphone users to access internet

InternetOne huge network that connects a lot of smaller networks

client`Computer requesting data or services

server/Host computer is the central computer that gives out information upon request

Point of Presence (POP)a collection of modems and other equipment in a local area, local gateway access to ISP network

Internet exchange pointa routing computer at the point on the internet where several connections come together, run by private companies, allows different ISP's to change internet traffic

Internet Backbonehigh-speed and high-capacity data transmission lines usually fiber optic, uses the newest technology (sprint, AT&T verison etc.)

Internet 2cooperative University/business education and research project, takes old lines and adds new " toll lanes" to internet to speed things up

Handshaking and Authenticationconnecting to your ISP's POP, handshaking: fastest speed of transmission established, authentication: User ID and password

Protocolsthe set of rules a computer follows to electronically transmit data

packetsfixed length blocks of data transmission; transmissions are broken up into packets and reassembled at destination

IP AddressInternet Protocol address: unique address that connects devices to the internet

Dynamic IP VS Static IPAddress changes each time with use, versus not changing at all

Web versus internetweb is multimedia based and the internet is what supports the web

web sites unique address consists of: protocol (https://), domain name (barnsandnoble. com), directory name/file path (/sellback), file name and extension (home. htm)

Web portalyahoo, google, bing, ie a gateway website

individual search enginescompile their own searchable data bases on the web

subject directoriesallow you to search information by selecting a list of categories or topics

Meta search enginesallows you to search several site engines at once

Specialized search engineshelps locate specialized subject matter such as info on movies or health or jobs (think WebMD)

wikia piece of software that can be downloaded and used to make a website for free that can be corrected or added to by anyone

tagsDo-it-yourself labels that people can put on anything found on the Internet, from articles to photos to videos, that help them to find their favorite sites again and to link them

DigitalComputers; communicating with 1 and 0s

Analoghumans operate in an analog, uses wave variation. sound light and temperature are analog

Modemsthey convert analog data into digital data that computers can then use

Wide area networkWAN; communications network that covers a large geographical area (long distance phone calls)

Metropolitan Area NetworkMAN; used to communicate in a city or suburb (cellphone users)

Local Area networkLAN; connects computers or devices to one another in a close range of each other (ie one office space or building). The organization that has the LAN owns it. (home area network)

clientsrequest data

Serverssupply data

Peer to peerall computers on the network are equal and communicate directly with one another with out needing a server

intranetsfunctions as internet but for one company to use and access internally

Extranetssimilar to intranets but used by external sources (such as suppliers)

VPN virtual private networkuse a public network (usually the Internet) plus intranets and extranets to connect an organization's various sites) but on a private basis, via encryption and authentication

nodeany device attached to the network

starall nodes are connected through a central network switch

ringall nodes are connected into a continuous loop

BusAll nodes are connected to a single wire or cable

TreeA bus or network of star networks

Meshmessage sent to the destination can take any shorted, easiest route to teach its destination

Twisted-pair wireused for dial up connections; two strands of insulated copper wire twisted around eachother (slow

coaxial cableinsulated copper wire wrapped in a metal shield, used for cable TV and cable internet services

fiber-optic cabletransmits pulses of light, not electricity, lower error rate, more expensive, more durable, very fast

Electromagnetic Spectrumradiation is the basis of all telecommunications signals, wired and wireless

Radio Frequency spectrumpart of the electromagnetic spectrum that carries most communications signals

Narrow Bandused for regular telephone communication

Satellite HeightsGeo- earth orbit

Meo- medium earth orbit

Leo - low earth orbit

virusesprogram that hides in a file program or disk that cause unexpected effects

wormsprogram that repeatedly copies itself onto the computer

trojan horsesbad programs that disguise themselves to be useful to infultrate computer information

rootkitallows access to personal information, such as the study of keystrokes

Zombies and Botsgives access to remotely control computer

point and shoot cameraautomatically adjusts settings for you

single lens camerauses a reflecting mirror to reflect incomping light into crisper photos

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