

Networking Strand Vocabulary

Intro to Networking

client - a networked computer on a server-based LAN or a client-server LAN
computer network - Individual computers that are connected together
computer program - a series of instructions telling the computer what to do
groupware - a special type of network software which allows users to work on the same document simultaneously
local area network (LAN) - connects individual microcomputers together to form a computer network
logging in - the process of users identifying themselves to the server in order to access the computer network
mainframe computer - the first computers developed back in the late 1940's. These were very large computers which could fill an entire room and weigh several tons
microcomputer - a small and inexpensive computer that can sit on a desktop
minicomputer - a smaller and less expensive computer developed in the early 1960's
port - a connection device on a computer which allows it to connect to another device
time sharing – the process used by a minicomputer to give a fraction of a second of its attention to a computer user and then move on to help the next computer user

Types and Topologies

bus - a computer network that has one starting point and one ending point
channel access methods - ways of sharing across multipoint topologies
packets - smaller blocks of data for transmitting across the network.
peer-to-peer – a LAN that is made up of microcomputers, all of which function as equals
point-to-point – a network topology that requires each device to be directly connected to all other devices on the network
ring – a topology that is a circle with no end points
server-based LAN - is computer network in which one special computer controls the network
star – a topology that has a central controlling unit to which all devices are attached
terminator – a device at each end of the cable on a bus topology to stop the signal
token - a special packet that is passed from one computer to the next
topology - the physical layout of the computer network

Hardware/Software

analog - a continuous mode of delivery
are used to perform a specific task.
binary digit (bit) – smallest unit of measure in the computer's memory; can be either on or off
bus - the internal pathways in a computer along which data moves
byte – unit of 8 bits
cable plant - the cables and networking hardware that make up a computer network
digital signal – a signal that is made up of short impulses of off and on

Hardware – The physical parts of the computers.

LAN manager – the person responsible for running and maintaining a server-based LAN

Media Access Control Address (MAC Address) - a unique number which is burned into the NIC when it is manufactured

megahertz (MHz) - one million hertz; unit of measure for the speed of a computer

network interface card (NIC card) - the connection hardware between network devices and the network cabling

Software - computer programs or instructions that

Transmission Media

attenuation - the loss of power of a data signal across a cable

bandwidth - the amount of data that can be sent across a network cable

coaxial cable – copper cable that has a single copper wire at the center and is surrounded by a layer of insulation

electromagnetic interference (EMI) – an interruption in an electrical signal caused when a motor or another source of intense electrical activity interferes with a signal.

fiber optic cable – a cable that sends a light impulse down a very thin cylinder of glass

frequency - an electronics term used to indicate how quickly something is happening

infrared computer networks – wireless networks that transmit by infrared (light wave) signals

interference – an interruption in signal that occurs when one signal intrudes or “bleeds over” onto another signal.

megabit - one million bits

near end crosstalk (NEXT) - an interruption in an electrical signal caused by a stronger transmitting signal that bleeds over onto a weaker receiving signal

Radio computer networks – wireless networks that transmit signals in a fashion similar to standard radio signals

radio frequency interference (RFI) - an interruption in an electrical signal caused by a broadcast signal from a nearby radio or television

RJ45 - modular connectors for twisted pair cables that have eight wires

twisted pair cable – copper cable that consists of two wires that are twisted around each other