Chapter 10



Communication ChannelsThe transmission media on which data, instructions, or information travel, in either analog or digital form, depending on the type of communications channel. Two examples of communications channels are cable television lines and telephone linesTransmission MediaMaterials or substances that are capable of carrying one or more signals on a communications channelIM (instant messaging)real time internet communication serviceP2P (peer to peer network)Type of peer-topeer network on which users connect directly to each other's hard disks and exchange files over the Internet. Also called a file sharing networkGPS (global positioning service) Navigation system that consists of one or more earth-based receivers that accept and analyze signals sent by satellites in order to determine the receiver's geographic locationWISP (Wireless internet service provider)type of internet service provider that provides wireless internet access to computers with wireless modems or access devices or to internet enabled mobile devicesATM(asynchromous transfer mode)Service that carries voice, data, video, and multimedia at extremely high speeds. Telephone networks, the Internet, and other networks with large amounts of traffic use ATM. ATM is short for Asynchronous Transfer ModePIM (personal Information Manager)application software that includes features to help users oganize personal informationWAp (Wireless Application Protocol)Communication protocol that allows wireless mobile devices such as smart phones and PDAs to access the Internet and its servicesT1The most popular T-carrier line, which is used by many Internet access providers to connect to the Internet backbone and often is used by businesses to connect to the InternetT- carrierAny of several types of long-distance digital telephone lines that carry multiple signals over a single communications line

by using multiplexing. T-carrier lines provide very fast data transfer ratesLAN (Local Area Network) Network that connects computers and devices in a limited geographical area such as a home, school computer laboratory, office building, or closely positioned group of buildings. LANs often are used to share resources such as printers, large hard disks, and programsMAN (Metroppolitan Area Network) High-speed network that connects local area networks in a metropolitan area such as a city or town and handles the bulk of communications activity across that regionWAN (Wide Area Network)Type of network that covers a large geographic area, such as a city, a country, or the world, using a communications channel that combines many types of media such as telephone lines, cables, and radio wavesWLAN (Wireless LAN)Type of LAN that uses no physical wiresVAN (Value Added Network)Third-party business that provides networking services such as secure data and information transfer, e-mail, and management reportsDedicated LineType of always-on connection that is established between two communications devices Bus Network Type of network that consists of a single central cable, called a bus, to which all computers and other devices connect. Data, instructions, and information travel in both directions on a bus networkRing NetworkType of network in which a cable forms a closed loop, or ring, with all computers and devices arranged along the ring. Data transmitted on a ring network travels from device to device around the entire ring, in one directionToken Ring NetworkType of network technology that controls access to a network by requiring that devices on the network share or pass a special agent, called a token. Only one token exists per network, and only the device with the token can transmit data over the netwStar NetworkType of network in which all of the computers and devices,

or nodes, on the network connect to a central device, thus forming a star. The central device that provides a common connection point for nodes on the network is called the hub. All data that transfers from one node to another passes through the hub. TCP/IP (Transmission Control Protocol/ Internet Protocol) Network technology that manages data transmission by dividing it up into packets. Internet transmissions commonly use TCP/IP. TCP/IP is short for Transmission Control Protocol/Internet ProtocolWiFi (distance possible) The more widely implemented of the various 802. 11 standards for wireless LANs. ISDN (Integrated Services Digital Network) Technology that provides higher-speed Internet connections using regular copper telephone lines. Also called Integrated Services Digital NetworkTwisted--Pair CableOne or more twisted-pair wires that have been bundled together. Twisted-pair cable is one of the more commonly used transmission media for network cabling and telephone systemsNoiseElectrical disturbance that can degrade communicationsHot SpotArea with the capability of wireless Internet connectivityBroadcast RadioType of wireless transmission medium that distributes radio signals through the air over long distances such as between cities, regions, and countries and short distances such as within an office or homeBluetooth (broadcast radio signal) Wireless communication standard that uses shortrange radio waves to transmit data between two Bluetooth devicesWiFi (Wireles home Network) The more widely implemented of the various 802. 11 standards for wireless LANs. MicrowaveRadio waves that can provide a highspeed signal transmissionInternet TelephonyUse of the Internet, instead of the public switched telephone network, to connect a calling party and one or more called parties. Also called Voice over IP (VoIP)3G Network (cellular radio technology)uses cellular radio technology to provide users with high-speed internet connections, as long as they are within the networks rangeGPS (Global Positioning System) is a navigation system that consists of one or more earth-based recievers that accept and analyze signals sent by satellites in order to determine the reciever's geographic location. Computer Voice Mailcomputer converts voice mail from analog to digitalNodeeach computer or device on a network is called aDedicated Serverperform a specific task and can be placed with other dedicated servers to perform multiple tasksPrint Servermanages printers and print jobsClient/ Server NetworkType of network in which one or more computers act as a server and the other computers on the network request services from the serverPeer-to-peer NetworkSimple, inexpensive network in which each computer, or peer, has equal responsibilities and capabilities on the network, shares resources with the other computers on the network, and stores files on its own storage devicesAnalog/ digitalvhs vs dvdIntranetInternal network that uses Internet technologiesEthernetType of network technology that allows nodes to contend for access to a network. If two computers on the network attempt to send data at the same time, a collision occurs, and the computers must attempt to send their messages again. Etherne802. 11 (WiFi or Wireless Fidelity)(WiFi) and wireless ethernet is a series of network standards that specifies how two wireless devices sommunicate over the air with each otherRFID (radio frequency identification)A technology that uses radio signals to communicate with a tag placed in an object, an animal, or a person. WAP (Wireless Application Protocol)Communication protocol that allows wireless mobile devices such as smart phones and PDAs to access the Internet and its servicesTelephone Network - analog or digital? is the

worldwide telephone system that handles voice oriented telephone calls almost all are digital technologyModem- wireless modemType of communications device that either converts a computer's digital signals into analog signals so the signals can be transmitted over standard telephone lines or converts the analog signals back into digital signals that a computer can process Also called a dial-up modemPhone Line Networkeasy to install and inexpensive netowrk that uses existing telephone lines int the homeDial-up ModemTemporary connection that uses one or more analog telephone lines for communicationsBroadbandtype of media that transmits multiple signals simultaneously ONCHAPTER 10 SPECIFICALLY FOR YOUFOR ONLY\$13. 90/PAGEOrder NowTags:

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