

# [Chapter 6](https://assignbuster.com/chapter-6-2/)

True(T/F) The internet is essential because it's flexible, shares resources, allows geographic dispersement of employees, and links businesses with customers and suppliers. Network NeutralityConcept that ISPs must allow computers equal access to content and applications regardless of the source or nature of the contentFalse(T/F)ISPs want net neutrality because it allows them to charge different prices to individuals based on internet usageTrue(T/F) Computers don't work in isolation, data exchange provides advantages, data exchange can take place over great distancesComputer networkA system that connects computers and other devices via communications media so that data and information can be transmitted among themFalse(T/F) Voice and data communications are becoming slower and more expensiveBandwidthRefers to the transmission capacity of a network; it is stated in bits per secondBroadbandRefers to network transmission capacities ranging from approximately 1 million bits per second to 20 megabits with fiber to home. True(T/F) In a computer network, connected computers: work together, are interdependent, and exchange data with each otherPAN LAN MAN WANThe four types of networks from smallest to largest are \_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_. (Acronyms)Personal area networkPAN is the acronym for \_\_\_\_\_. Local area networkLAN is the acronym for \_\_\_\_\_. Metropolitan area networkMAN is the acronym for \_\_\_\_\_. Wide area networkWAN is the acronym for \_\_\_\_\_\_. WANThe internet is a \_\_\_\_\_ network (acronym)Local area networkConnects two or more devices in a limited geographical region so that every device on the network can communicate with each otherNetwork interface cardEvery device on a LAN has one of these which allows that device to physically connect to the LAN's communication mediumTrue(T/F) LANs often have a file server or network server that contains various software and data for the networkWANTypically contains multiple LANsWAN\_\_\_\_\_ are provided by common carriers like a telephone companiesTrue(T/F) WANs have a large capacity and typically combine multiple channels (fiber-optic, microwave, satellite)True(T/F) The internet is a WANRoutersWANs contain \_\_\_\_\_\_ which are communication processors that route messages from a LAN to the internet, across several connected LANs, or across a WANEnterprise networkConsists of multiple LANs and WANs that are interconnectedBackbone networkHigh-speed central networks to which multiple smaller networks connectMANA large computer network usually spanning a city (acronym)PAN (Personal area network)A very small computer network within 10 meters of a person's space (acronym)Analog signalsContinuous waves that transmit information by altering the characteristics of the wavesDigital signalsDiscrete pulses that are either on or off, representing a series of bits (0s and 1s)ModemsConvert digital signals to analog signals and analog signals to digital signalsModulationConverting digital signals to analog signalsDemodulationConverting analog signals to digital signalsDial-upMust convert digital signals into analog, transmission speeds up to 56kbps i. e. SLOWCableProvider operates over a coaxial cable, transmission speeds between 1 and 6 mbps for downloads and 128-768 for uploadsDownloadingWhich is faster downloading or uploadingDSL (digital subscriber line)Provider operates on the same lines as telephones and dial-up modems, always available internetCableUses physical wires or cables to transmit data and informationTwisted-pair wiringThe prevalent form of communication wiring; strands of copper wiring twisted in pairsTwisted-pair wiringInexpensive to purchase, widely available and easy to work with are advantages of \_\_\_\_\_. Twisted-pair wiringSlow for transmitting data, subject to interference from other electrical sources, easily tapped by others are disadvantages of \_\_\_\_\_\_\_Coaxial CableConsists of insulated copper wiresCoaxial CableMuch less susceptible to electrical interference, and can carry more data are advantages of \_\_\_\_\_. Coaxial CableMore expensive, more difficult to work with, and somewhat inflexible are disadvantages of \_\_\_\_\_. Fiber-optic cablesConsist of thousands of very thin filaments of glass fibers that transmit information via light pulses generated by lasersFiber-optic cablesTypically used as the backbone for a networkFiber-optic cablesSignificantly smaller and lighter than other mediums, can transmit more data, and provides greater security for data are advantages of \_\_\_\_\_. Digital subscriber lineA high-speed digital transmission technology using existing analog telephone linesAsynchronous Transfer modeData transmission technology that uses packet switching and allows for almost unlimited bandwidth on demandSynchronous Optical NetworkAn interface standard for transporting digital signals over fiber optic lines that allows users to integrate transmissions from multiple vendorsT-carrier systemsHigh-powered digital transmission system that defines circuits that operate at different rates, all of which are multiples of the basic 64 kbps user to transport a single voice callProtocolThe set of rules or procedures governing transmission across a networkEthernetA common LAN protocolTransmission control protocol/Internet protocol(TCP/IP) is a file transfer protocol that can send large files across sometimes unreliable networks (Internet) with assurance that the data will arrive uncorrupted; 3 basic functionsPacketsOne of the TCP/IP functions; managing the movement of \_\_\_\_\_ between computers by establishing a connection between the computersSequencesOne of the TCP/IP functions; \_\_\_\_ the transfer of packetsAcknowledgesOne of the TCP/IP functions; \_\_\_\_\_ the packets that have been transferredInternet protocolResponsible for disassembling, delivering, and reassembling the data during transmissionApplication Transport Internet Network interfaceThe four layers of TCP/IP are 1.)\_\_\_\_\_\_, 2.)\_\_\_\_\_\_\_=> provides communication ability, 3.)\_\_\_\_\_\_\_ => addressing and routing, 4.)\_\_\_\_\_\_=> sends to/from the networkHypertext transfer protocol (HTTP)Defines how messages are formulated and how they are interpreted by the receiverPacket switchingTransmission technology that breaks-up blocks of data into packetsClient/server computingLinks 2 or more computers in an arrangement in which some machines (servers) provide computing services for user PC's (clients)Peer-to-peer processingA type of Client/server distributed processing where each computer acts as both a client and a server ex: Napster There are 3 typesFirst type\_\_\_\_\_\_ Peer-to-peer processing accesses unused CPU power among networked computersSecond type\_\_\_\_\_\_ Peer-to-peer processing is real time person to person collaborationThird type\_\_\_\_\_\_\_ Peer-to-peer processing is open source free peer to peer file-sharingNetwork TopologyRefers to the geometric arrangement of the actual physical organization of the computers and other network devices in a networkBusAll devices are connected to a central cable called a \_\_\_\_; \_\_\_\_ networks are relatively inexpensive and easy to install for small networks (SAME word for both blanks)StarAll devices are connected to a central device called a hub. \_\_\_\_\_ networks are relatively easy to install and manage but bottlenecks can occur because all the data must pass through the hubRingAll devices are connected to one another in the shape of a closed loop, so that each device is connected directly to two other devices. \_\_\_\_\_ topologies are relatively expensive, difficult to install, but they offer high bandwidth and can span large distancesHybridsGroups of star-configured workstations are connected to a linear bus backbone cable, combining the characteristics of the bus and star topologiesWirelessDevices are connected by a receiver/transmitter to a special network interface card that transmits signals between a computer and server, all within an acceptable transmission rangeInternetA global WAN that connects approximately 1 million organizational computer networks in more than 200 countries on all continents and plays a role in the daily routine of almost 2 billion peopleIntranetA restricted network that relies on Internet technologies to provide an Internet-like environment within the company for information sharing, communications, collaboration, web-publishing, and the support of the business processExtranetAn extension of an intranet that is only available to authorized outsiders such as customers, partners, and suppliers; kind of public/privateVirtual Private Network (VPN)Companies can establish direct private network links among themselves or create private, secure Internet access, in effect a " private tunnel" within the InternetVPN\_\_\_\_ are important because with security on the rise, keeping electronic records safe is an area of concern for many businessesInternet service provider (ISP)A company that offers internet connection for a feeNetwork Access points (NAPs)Exchange points for Internet traffic; Determine how traffic is routed, internet backboneNetwork Access points (NAPs)Internet Kiosks, Dial-up, DSL, Cable Modem, Satellite, Wireless, FIber to the home; are all examples of \_\_\_\_Internet Protocol (IP) addressAssigned address assigned to every computer that distinguishes it from all other computers; IPv4 = 4 part 32 bits, IPv6 = 128 bits used due to increasing # of devicesDomain NameConsists of multiple parts separated by dots which are read from right to leftTop-level domainThe right most part of an Internet name; ex: . com, . gov, . eduName of the CompanyThe main portion/ middle of the Internet nameWorld wide webA system of universally accepted standards for storing, retrieving, formatting, and displaying information via a client/server architecture; not the same thing as the internetHome pageA text and graphical screen display that usually welcomes the user and explains the organization that has established the pageUniform resource locatorThe set of letters that represent a resource on the web that points to the address of a specific resource on the webDiscoveryAllows users to browse and search data sources in all topic areas on the Web. Search enginesAre computer programs that are used to search for specific information by keywords and then report the results; The largest are Google, Yahoo, Bing, BaiduMetasearch enginesThese search several search engines at once and integrate the findings of the various search engines to answer queries posted by the userPortalA web-based personalized gateway to information and knowledge that provides relevant information from different IT systems and the Internet using advanced search and indexing techniquesCommercial (public) portalsOffer content for diverse communities and are most popular portals on the InternetAffinity portalsSupport communities such as a hobby group or political partyMobile portalsAre portals accessible from mobile devicesCorporate portalsPortals that offer a personalized single point of access through a web browserIndustrywide portalsPortals that support entire industries ONCHAPTER 6 SPECIFICALLY FOR YOUFOR ONLY$13. 90/PAGEOrder Now