

B.C.A SEMESTER - IV

(B.C.A -403)

ELECTRONIC COMMERCE

(E-COMMERCE)

(NEW SYLLABUS MATERIAL)

INSB BCA & PGDCA
COLLEGE, IDAR

CREATED BY:

Mr.SMIT TRIVEDI
ASST.PROF B.C.A,M.C.A

Unit 4:

Topics: TECHNOLOGY IN E-COMMERCE

- ✓ NETWORKING-CONCEPT
- ✓ MEANING AND FEATURES
- ✓ CLASSIFICATION OF NETWORKS :
 LAN , WAN
- ✓ INTERNET
- ✓ INTRANET AND EXTRANET (CONCEPT, MEANING AND BENEFITS)
- ✓ VIRTUAL PRIVATE NETWORKS(VPNs)-overview

RECENT TRENDS IN E-COMMERCE :

- ✓ M-COMMERCE-INTRODUCTION ,
- ✓ GROWTH AND FUTURE ,
- ✓ ADVANTAGES AND LIMITATIONS
- ✓ INTRODUCTION AND MANAGEMNET OF E-ENTERPRISES
- ✓ ETHICAL ISSUES IN E-COMMERCE.

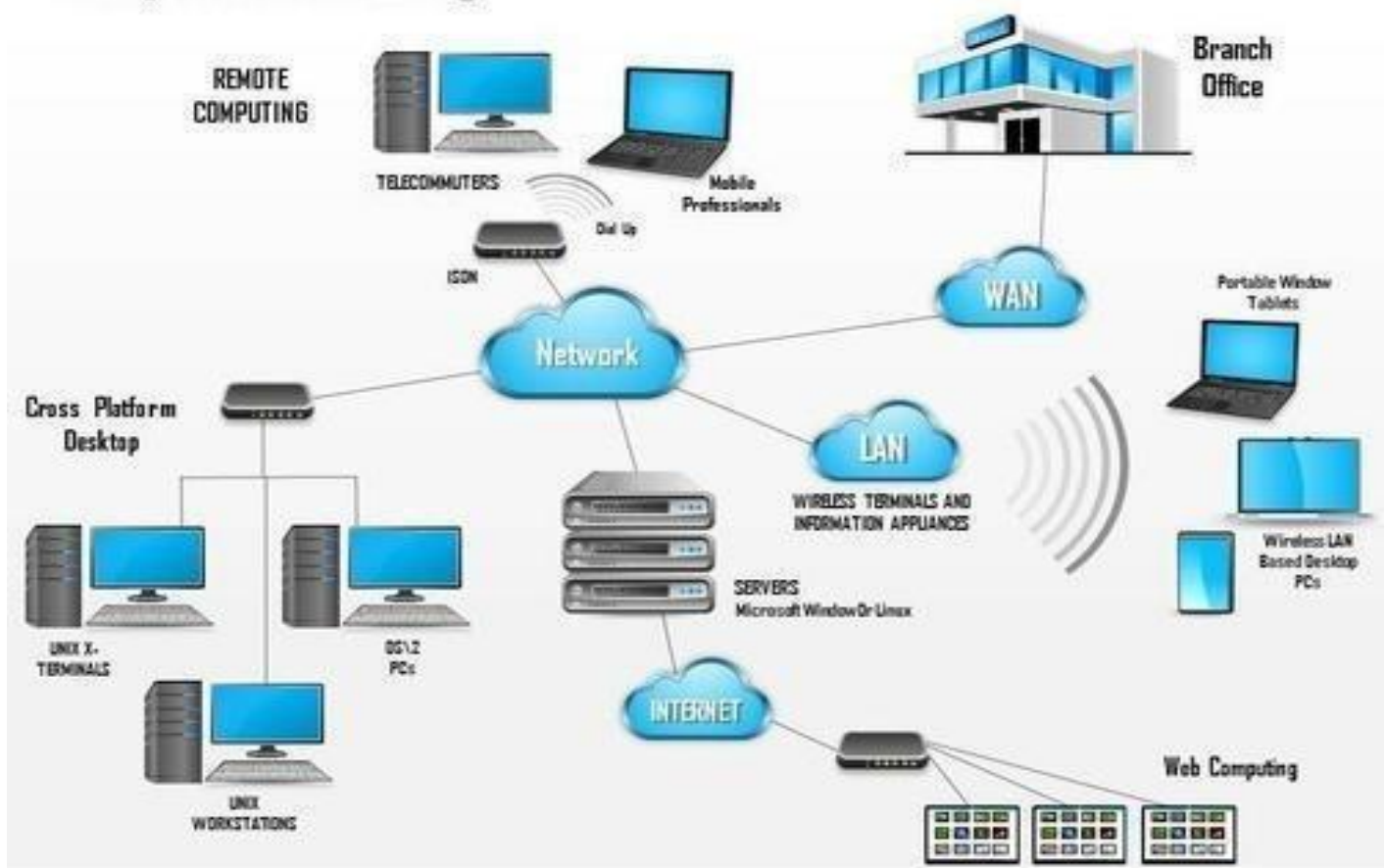
TOPIC : TECHNOLOGY IN E-COMMERCE

Topic-1 : Explain Networking and its concept in detail.

- Network is communication between two or more device with the wire or wireless for the purpose of transfer data or resources .
- A network is made up of two or more computers that are connected to share resources like printers and CDs, exchange files or allow electronic communications .
- The computers on a network may be linked through Cables, telephone lines, radio waves, Satellites or infrared light beams.
- Computer network is a method for communication between different computers.
- Computer Network is a group of computers which are connected with each other in order to share information and resource like voice, sounds , graphics , pictures , videos , text of data.

Figure :

Computer Networking



➤ Some concepts of the Networking which are given below :

(1) **Data or Message** : Data means information .

(2) **Data transfer or Data Communication** : Data transfer means passing the data from Destination to host.(one computer to other computer) .

(3) **Sender** : Sender means who is sending the data message.

(4) **Receiver** : Receiver means who receives the data message .

(5) **Transmission Media** : Transmission media means the path which allows data to pass from sender to receiver or vice versa.

(6) **Protocol** : Protocol means set of rules which is followed in the transmission of the data.

(7) **Data Representation** : Data Representation means which type of the data is into the network for destination to host. Different form data's of represent are Text, Number, Images, Audio, video etc.

(8) **Signal** : Electric or electromagnetic encoding of data.

(9) **Signaling** : Propagation of signals across a communication

Topic-2 : Explain Networking meaning and features in detail.

Meaning : "A computer network is a group of devices connected with each other through a transmission medium such as wires, cables etc. These devices can be computers, printers, scanners, Fax machines etc."

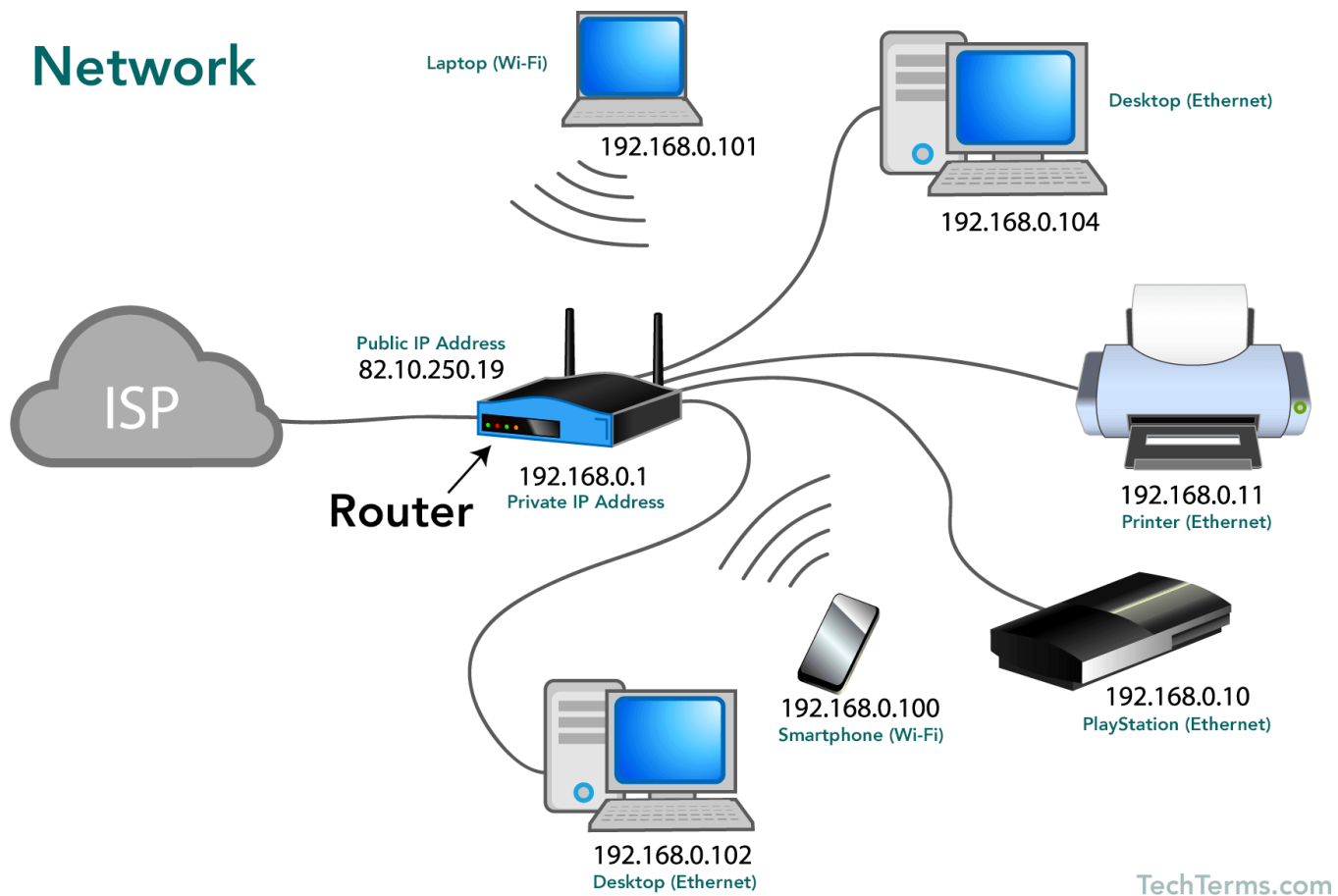
→ The purpose of having computer network is to send and receive data stored in other devices over the network. These devices are often referred as nodes.

Definition:

A computer network is defined as the interconnection of two or more computers. It is done to enable the computers to communicate and share available resources.

Application:

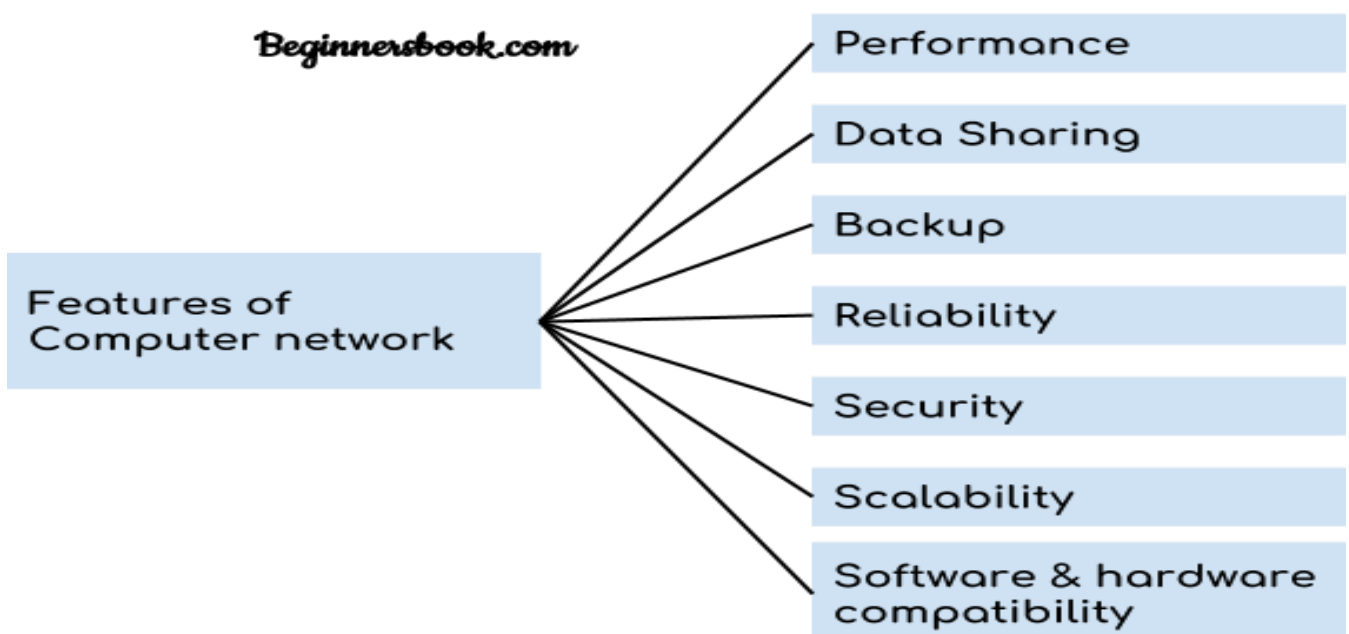
- ✓ Sharing of resources such as printers
- ✓ Sharing of expensive software's and database
- ✓ Communication from one computer to another computer
- ✓ Exchange of data and information among users via network
- ✓ Sharing of information over geographically wide areas.

Figure:

Explain Networking features in detail.



Beginnersbook.com



A computer network has following features:**(1) Performance:**

→ Performance of a computer network is measured in terms of response time. The response time of sending and receiving data from one node (computer in a computer network are often referred as node) to another should be minimal.

(2) Data Sharing:

→ One of the reason why we use a computer network is to share the data between different systems connected with each other through a transmission media.

(3) Backup:

→ A computer network must have a central server that keeps the backup of all the data that is to be shared over a network so that in case of a failure it should be able to recover the data faster.

(4) Software and hardware compatibility:

→ A computer network must not limit all the computers in a computer network to use same software and hardware, instead it should allow the better compatibility between the different software and hardware configuration.

(5) Reliability:

→ There should not be any failure in the network or if it occurs the recovery from a failure should be fast.

(6) Security:

→ A computer network should be secure so that the data transmitting over a network should be safe from unauthorized access. Also, the sent data should be received as it is at the receiving node, which means there should not be any loss of data during transmission.

(7) Scalability:

→ A computer network should be scalable which means it should always allow to add new

computers (or nodes) to the already existing computer network. For example, a company runs 100 computers over a computer network for their 100 employees, lets say they hire another 100 employees and want to add new 100 computers to the already existing LAN then in that case the local area computer network should allow this.

Topic-3 : Explain classification of Networks LAN and WAN in detail.

➔: WHAT ARE THE TYPES OF NETWORKS ?

- ➔ (1) Local Area Networks (LAN)
- (2) Metropolitan Area Networks (MAN)
- (3) Wide Area Networks (WAN)

(1) Local Area Networks (LAN)

- ✓ Computer Network which is dedicated to share information and resources among several Personal computer is known as Local Area Network (LAN).
- ✓ Networks used to interconnect computers in a single room, rooms within a building or buildings on one site are called Local Area Network (LAN).
- ✓ LAN can be used to connect two or more computers located within a mile and connected With each other through cables.
- ✓ LAN transmits data with a speed of several megabits per second (106 bits per second) .
- ✓ LAN is computer network covering a small area.
- ✓ The transmission medium is normally coaxial cables.
- ✓ LAN links computers ,i.e. software and hardware , in the same area for the purpose of sharing information.
- ✓ People working in LAN get more capabilities in data processing, work processing and Other information exchange compared to stand-alone computers.

Figure 1 :

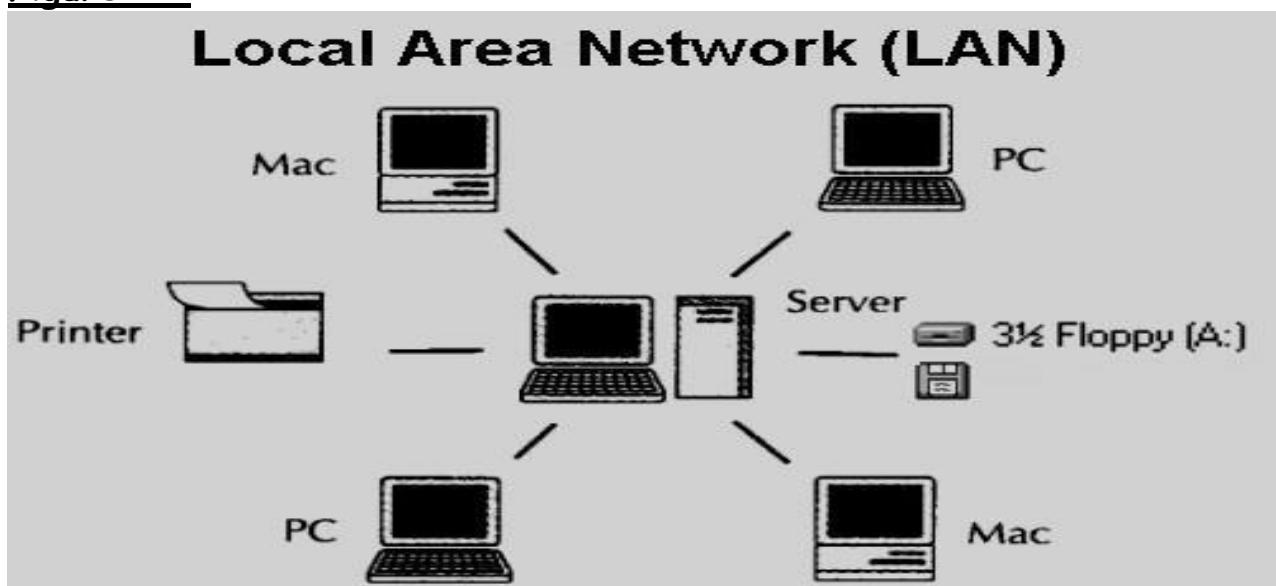


Figure 2 :

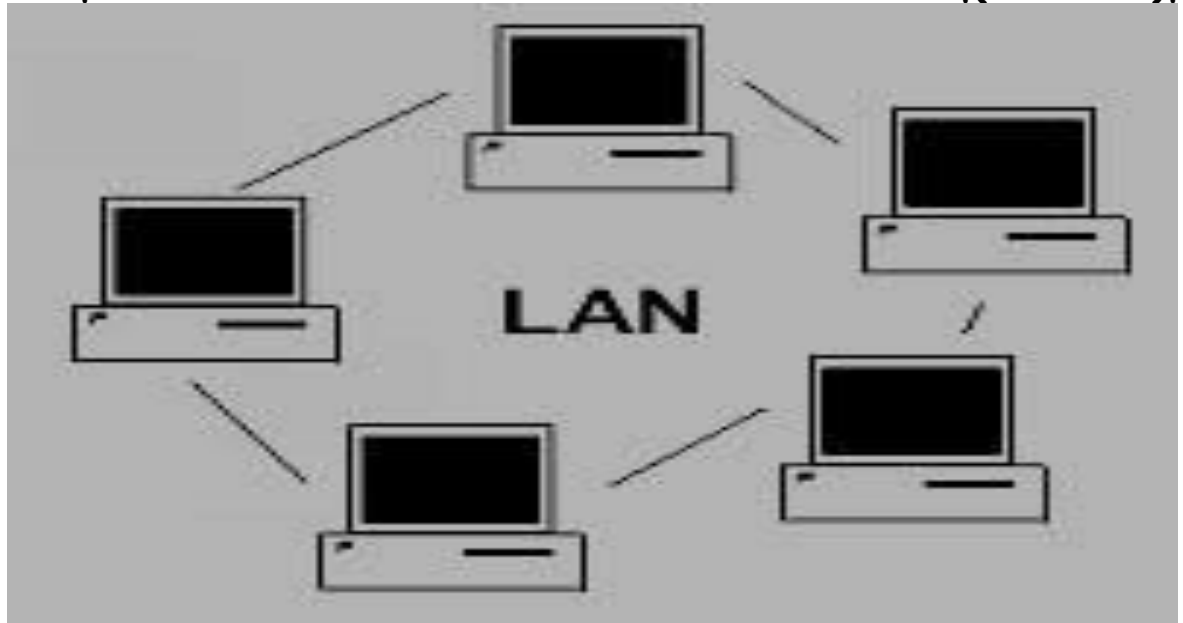
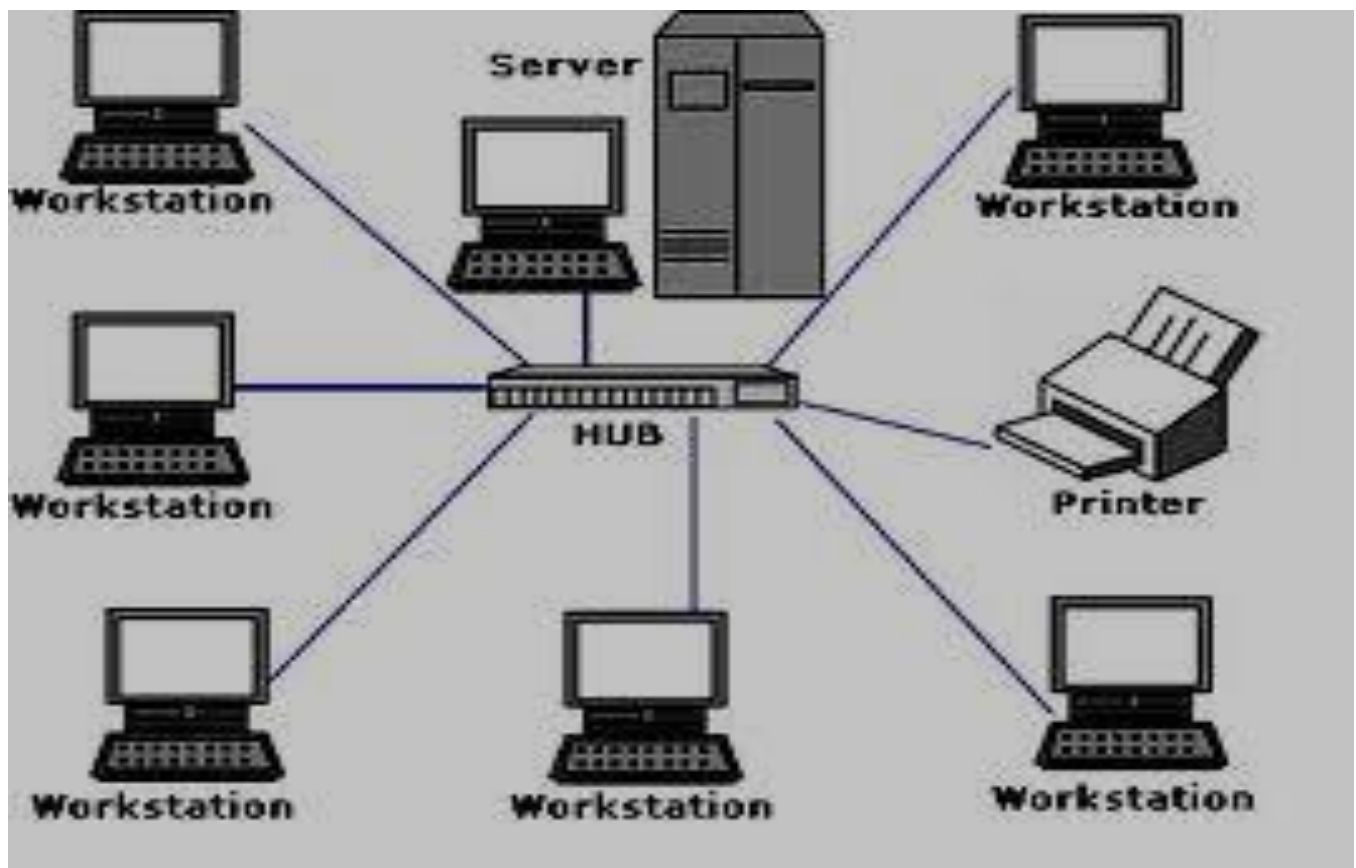


Figure 3 :



Major Characteristics of LAN

- Every computer has the potential to communicate with any other computer on the network.
- High degree of interconnection between computers.
- Inexpensive medium of data transmission.
- High data transmission rate.

Advantages of LAN

- (1) The reliability of network is high because the failure of one computer in the network does not affect the functioning for other computers.
- (2) Addition of new computer to network is easy.
- (3) High rate of data transmission is possible.
- (4) Peripheral devices like magnetic disk and printer can be shared by other computers.

Disdvantages of LAN

- (1) If the communication line fails, the entire network system breaks down.

(2) Metropolitan Area Networks (MAN)

- ✓ Computer Network that usually spread across a campus or a city is known as Metropolitan Area Network (MAN).
- ✓ MAN connecting a campus or a city mostly use wireless communications or Fiber Optical Connection.
- ✓ Example :- A university has a MAN that joins together many of their affiliated college's LAN located in different cities.
- ✓ Communication in MAN between different LANs is done using microwave, radio or infrared communication.
- ✓ This kind of network is not mostly used but it has its own importance for some government bodies and organizations on larger scale. MAN , metropolitan area network falls in middle of LAN and WAN.
- ✓ Metropolitan Area Network (MAN) covers larger geographic areas, such as cities. Often used by local libraries and government agencies to connect to citizens and private industries.
- ✓ MAN is optimized for a larger geographical area than a LAN, ranging from several blocks Of building to entire cities. MAN can also depend on communications channels of moderate to high data rates.
- ✓ MAN might be owned and operated by a single organization, but it usually will be used by Many individuals and organizations.
- ✓ MAN might also be owned and operated as public utilities. They will often provide means For internetworking of local networks.
- ✓ Metropolitan area networks can span up to 50km, devices used are modem and wire/cable.

Figure 1 :

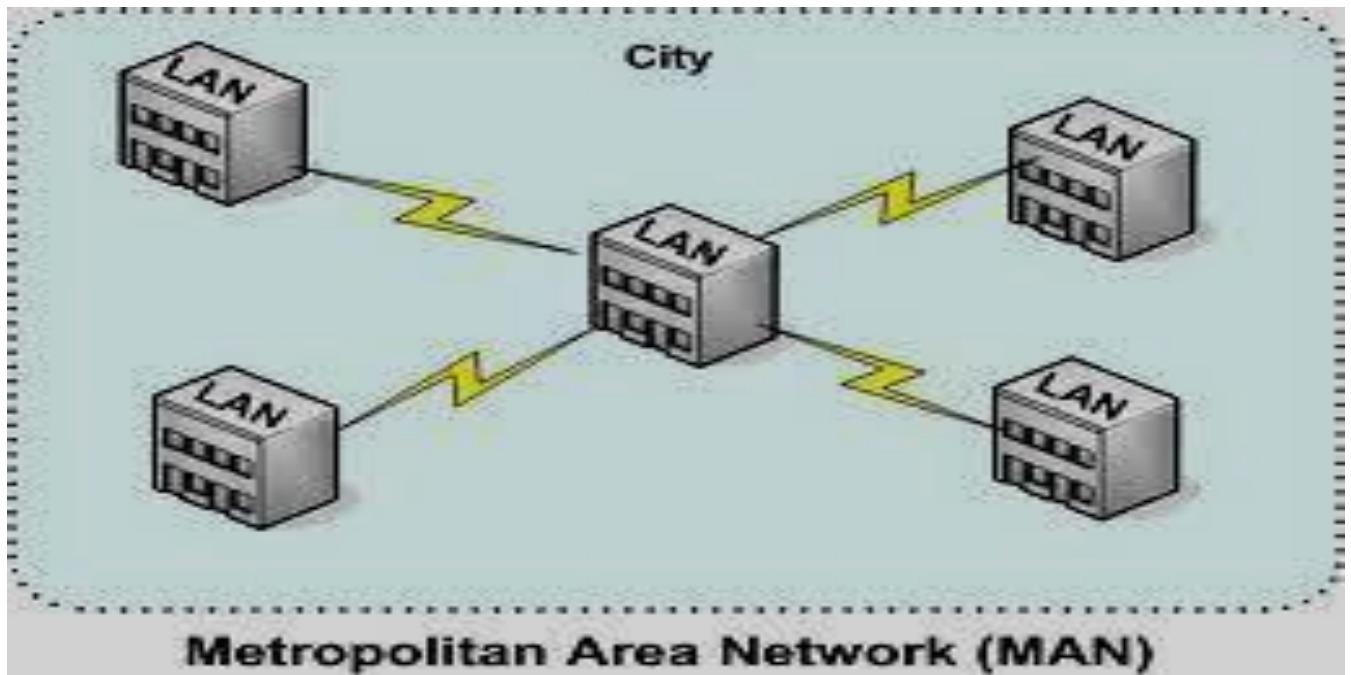


Figure 2 :

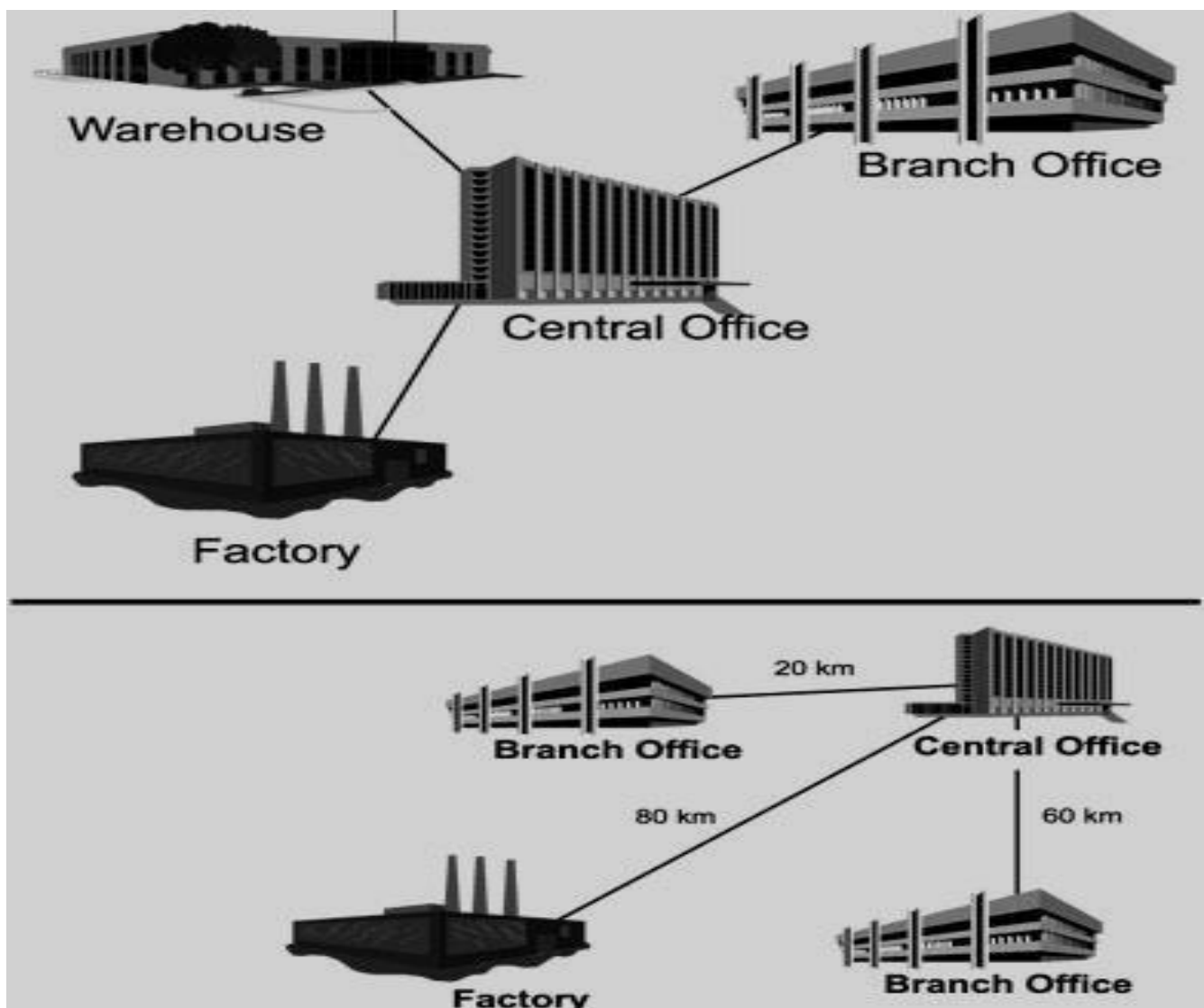
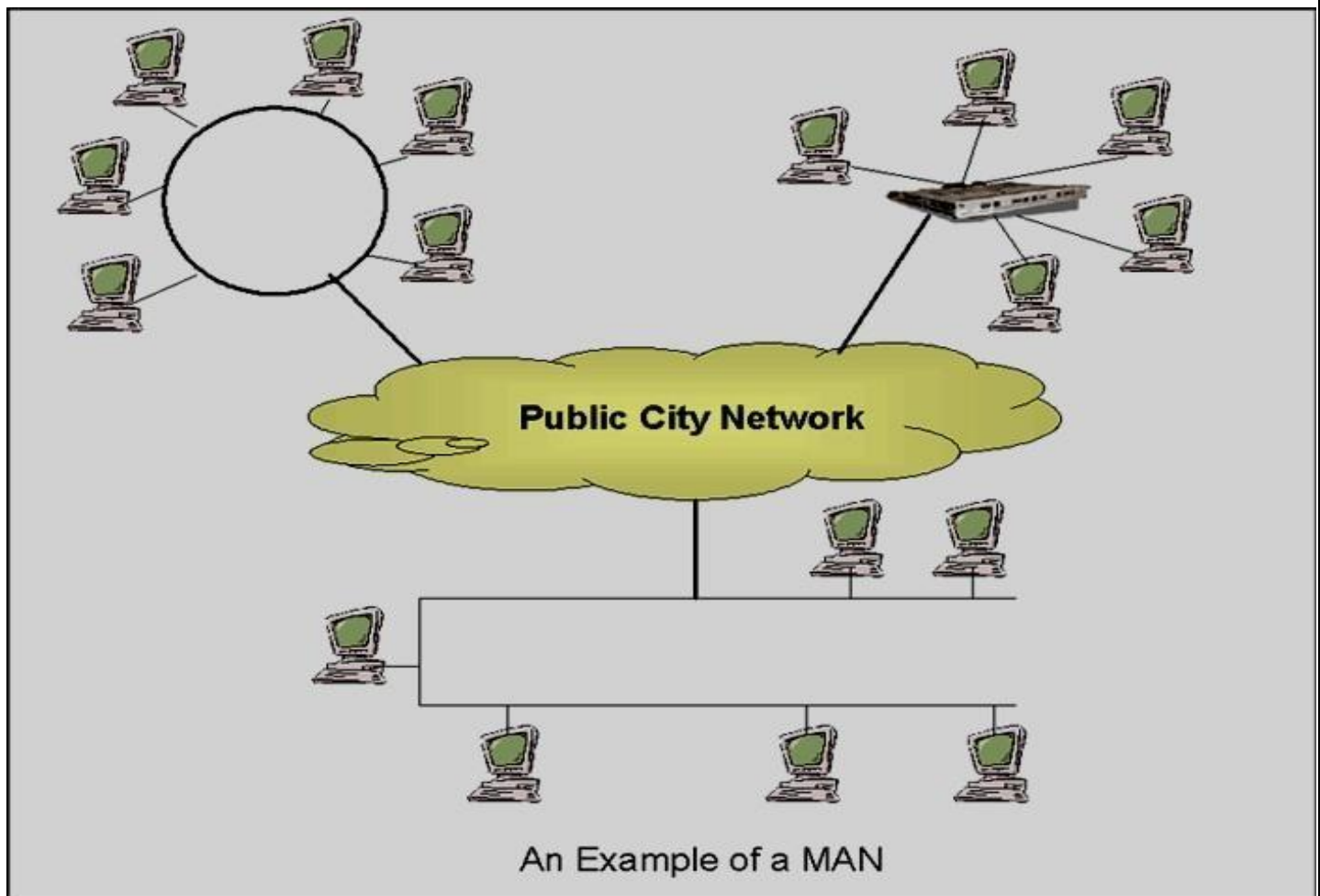


Figure 3 :

(3) Wide Area Networks (WAN)

- ✓ Wide Area Network (WAN) covers a wide geographic area like state or country.
- ✓ Communication in a WAN is done by telephone lines, satellite dishes and radio waves to distance a large geographic area.
- ✓ Wide Area Network (WAN) is used for a computer network spanning a regional , national Or global area.
- ✓ For Example , a large company the headquarters might be at Delhi and regional branches At Bombay, Madras , Bangalore and Calcutta. Here regional centers are connected to Headquarters through WAN.
- ✓ The distance between computers connected to WAN is larger.
- ✓ Therefore the transmission medium used are normally telephone lines, microwaves and satellite links.

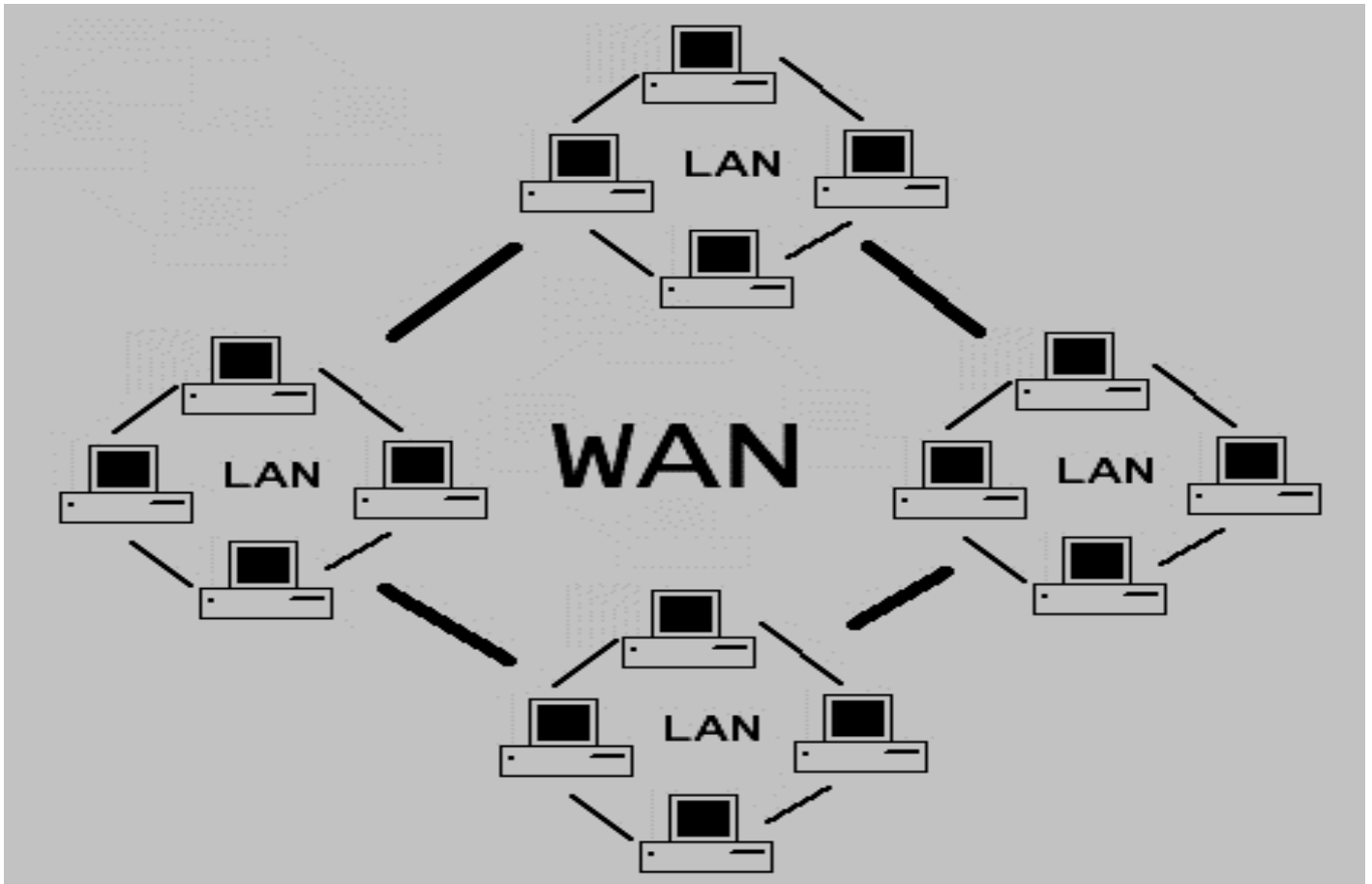
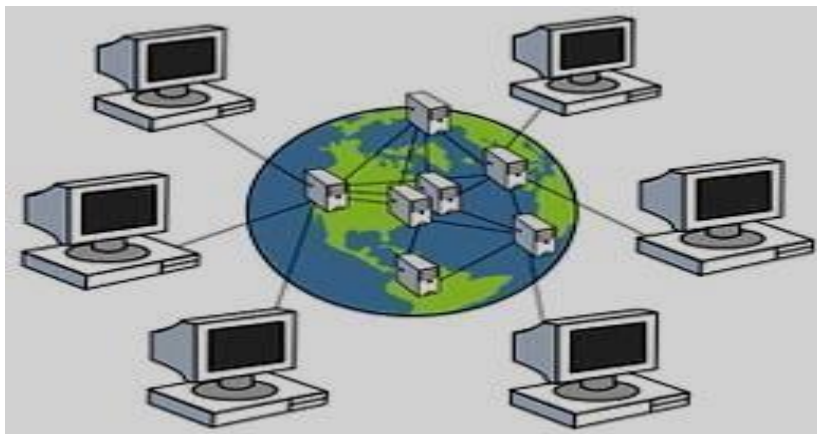
EXAMPLES OF WAN

(1) Ethernet :

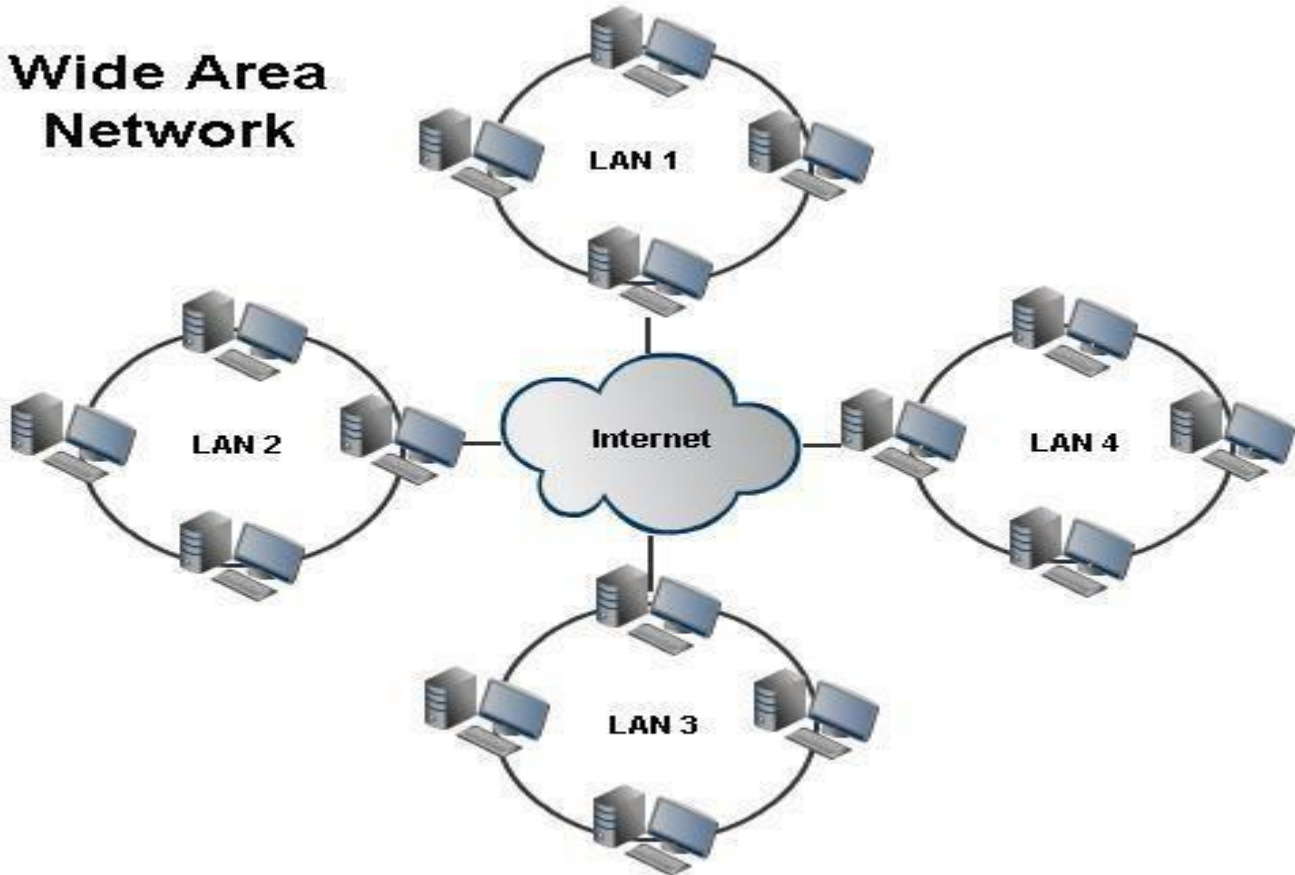
- ✓ Ethernet developed by Xerox Corporation is a famous example of WAN .
- ✓ This network uses coaxial cables for data transmission .Special integrated circuit chips called controllers are used to connect equipment to the cable.

(2) Arpanet :

- ✓ The Arpanet is another example of WAN . It was developed at Advanced Research Projects Agency (ARPA) of U.S. Department .
- ✓ This Network connects more than 40 universities and institutions throughout USA and Europe.

Figure 1 :**Figure 2 :****Figure 3 :**

Wide Area Network



***** CHARACTERISTICS OF WAN *****

(1) Communication Facility :

- ✓ For a big company spanning over different parts of the country the employees can save long distance phone calls and it overcomes the time lag in overseas communications.
- ✓ Computer conferencing is another use of WAN where users Communicate with each other through their computer system.

(2) Remote Data Entry :

- ✓ Remote data entry is possible in WAN. It means sitting at any location you can Enter data, update data and query other information of any computer attached to the WAN but located in other cities.
- ✓ For Example , suppose you are sitting at Madras and want to see some data of a computer located at Delhi, you can do it through WAN.

(3) Centralized Information :

- ✓ In modern computerized environment you will find that big organizations go for centralized data storage .
- ✓ This means if the organization is spread over many cities. They keep their important business data in a single place.
- ✓ As the data are generated at different sites, WAN permits collection of this data

from different sites and save at a single site.

***** DIFFERENCE BETWEEN LAN AND WAN *****

- (1) LAN is restricted to limited geographical area of few kilometers, but WAN covers great distance and operate nationwide or even world wide.
- (2) Cost of data transmission in LAN is less because the transmission medium is owned by A single organization. In case of WAN the cost of data transmission is very high because the transmission medium used are hired, either telephone lines or satellite links.
- (3) The speed of data transmission is much higher in LAN than in WAN. The transmission Speed in LAN varies from 0.1 to 100 megabits per second. In case of WAN the speed Ranges from 1800 to 9600 bits per second(bps).
- (4) Few data transmission errors occur in LAN compared to WAN . It is because in LAN The distance covered is negligible.

Topic-4 : Explain Internet in detail.

- ✓ Internet is a largest network spread across the world linking together thousands of individual Networks of universities, educational and research institutions , military and government agency.
- ✓ Internet is worldwide network of computer networks that use the TCP/IP (Transmission Control protocol/ Internet Protocol) network protocols for data transmission and exchange.
- ✓ Internet is a network of networks.
- ✓ Internet is not owned by anyone, but is governed by collective efforts of every organization Whose network is connected with internet.
- ✓ Internet offers many services like World Wide Web (WWW) e-mail , discussion group, chat , File sharing , instant messenger , role-playing games, information retrieval and e-commerce.

Figure :



- ✓ Internet originally developed in 1969 for the U.S Department of Defense with the goal of developing network architecture for military command and control that could survive in nuclear war.
- ✓ The research for internet was funded from Advance Research Project Agency (ARPA), Which allowed researcher to experiment with different methods for computer communicates with each other .
- ✓ As a result of research they had develop the network which was known as Advance Research Project Agency Network (ARPANET),
- ✓ ARPANET use packet switched networks to transfer information between different Networks.
- ✓ ARPANET primarily used by researchers and scientist to communicate with each other.
- ✓ During the 1980 networks like MILNET (Military Networks) , BITNET (Because it's time networks), CSNET (Computer science Networks) and many more were developed to surf Different communities and Organization.
- ✓ In 1986, the National Science Foundation (NSF) developed network of different users of ARPANET which was know as National Science Foundation Network (NSFNET).
- ✓ Today's internet is nothing but interconnection of all this networks.

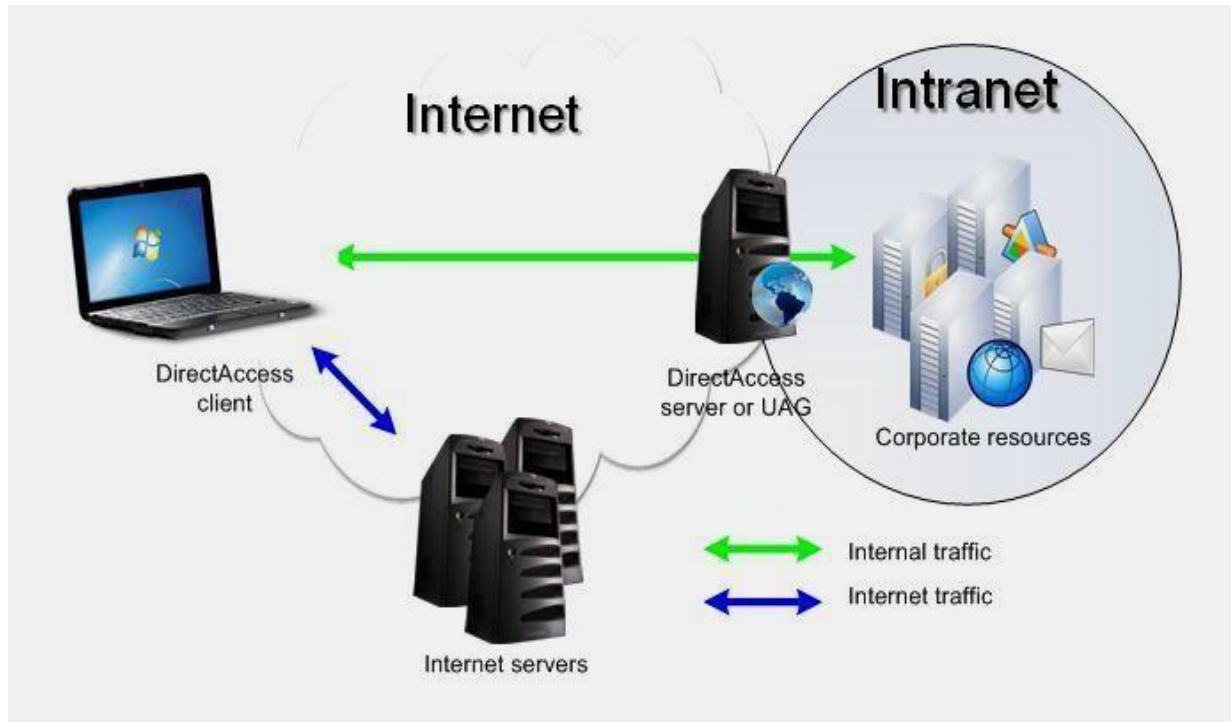
Topic-5 : Explain Intranet in detail with concept , meaning and benefits.

- ✓ Intranet is a privately maintained computer network that can be accessed only by authorized persons and employees of the organization that owns it.
- ✓ Intranet web site provides various services to the employees of the organization .
- ✓ Intranet is a network that is used by a single organization, such as a corporation or school, and is only accessible by authorized users. The purpose of intranet is to share information.
- ✓ Intranet use the same web server technology , Communication protocol and HTML Hypertext links as the internet.
- ✓ It's provides a standard way of distributing organization's internal information to employees
- ✓ in local and remote offices.
- ✓ Intranet are used to deliver tools and application such as sophisticated corporate directories, Sales and CRM (Customer Relationship Management Tools) , project Management etc to advance productivity.
- ✓ When some part of an intranet is made accessible to customer , business partner, supplier or other outside the company , then that part become Extranet.

Advantages :-

- (1) Intranet can help employee to quickly find and view information and application relevant to their roles and responsibilities.
- (2) It can help organizations to make more information available to employee on a PULL basis rather that being randomly PUSH via email.
- (3) It is powerful tool for communicating with in an organization.

Figure:



Topic-6 : Explain Extranet in detail with concept , meaning and benefits.

- ✓ Extranet extends an intranet by providing various levels of accessibility to authorized members of the public.
- ✓ For example , A corporation may extend their intranet to provide access to specific information, such as their ordering system, to registered customers.
- ✓ The largest and most widely accessed network is the internet , a world wide network of Computers that is not controlled by any one organization.
- ✓ The internet has had an undeniable impact on modern society because it allows users world Wide to communicate in a matter of seconds.
- ✓ Extranet is a part of organization 's intranet that is made accessible to customer , business Partner , supplier or other outside the company.
- ✓ Extranet provides limited access to its intranet.
- ✓ It can provide access to research , current inventories and internal database , virtually any Information that is private and not published for everyone.
- ✓ Extranet uses the public internet as its transmission system, but requires passwords to gain entrance.
- ✓ It has also been describes as a "state of mind " in which the internet is perceived as a way to Do business with other companies as well as to sell products to customer.
- ✓ Extranet use the same web server technology, communication protocols and HTML hypertext links as the internet.
- ✓ Security and privacy can be implemented in extranet using firewall , server management , Digital certificates, encryption and Virtual private Networks (VPN).

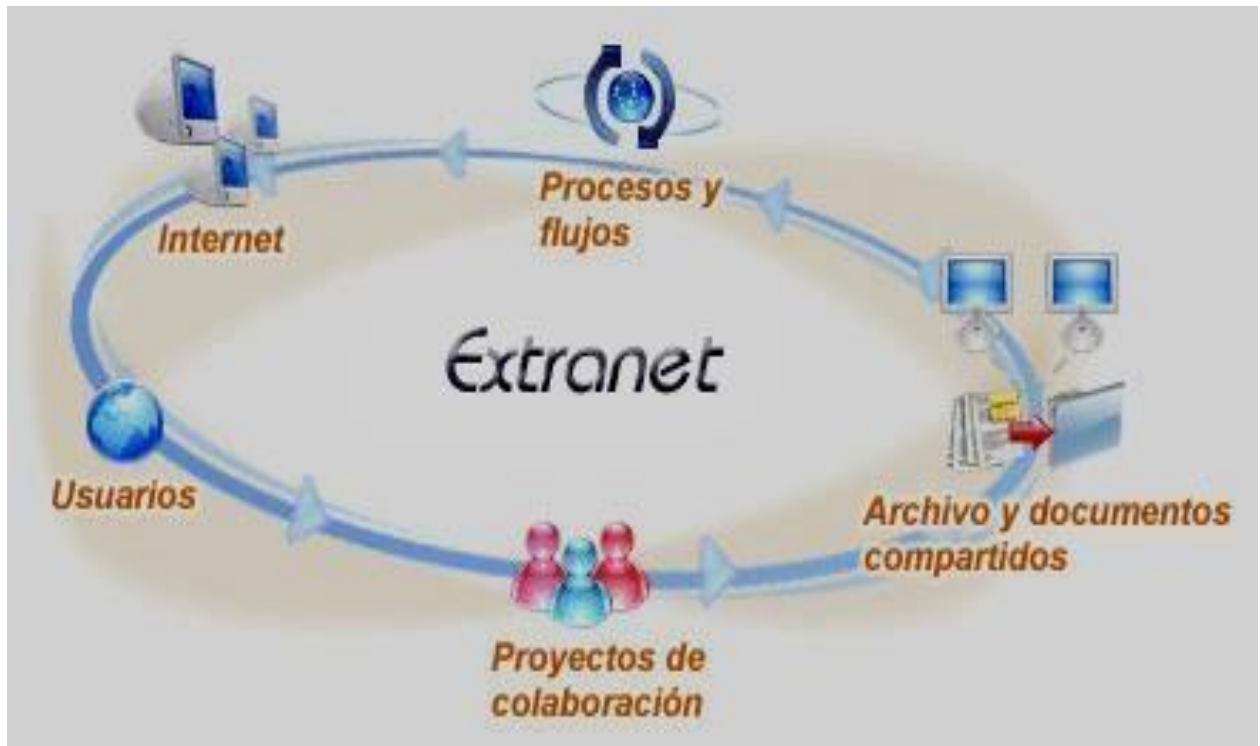
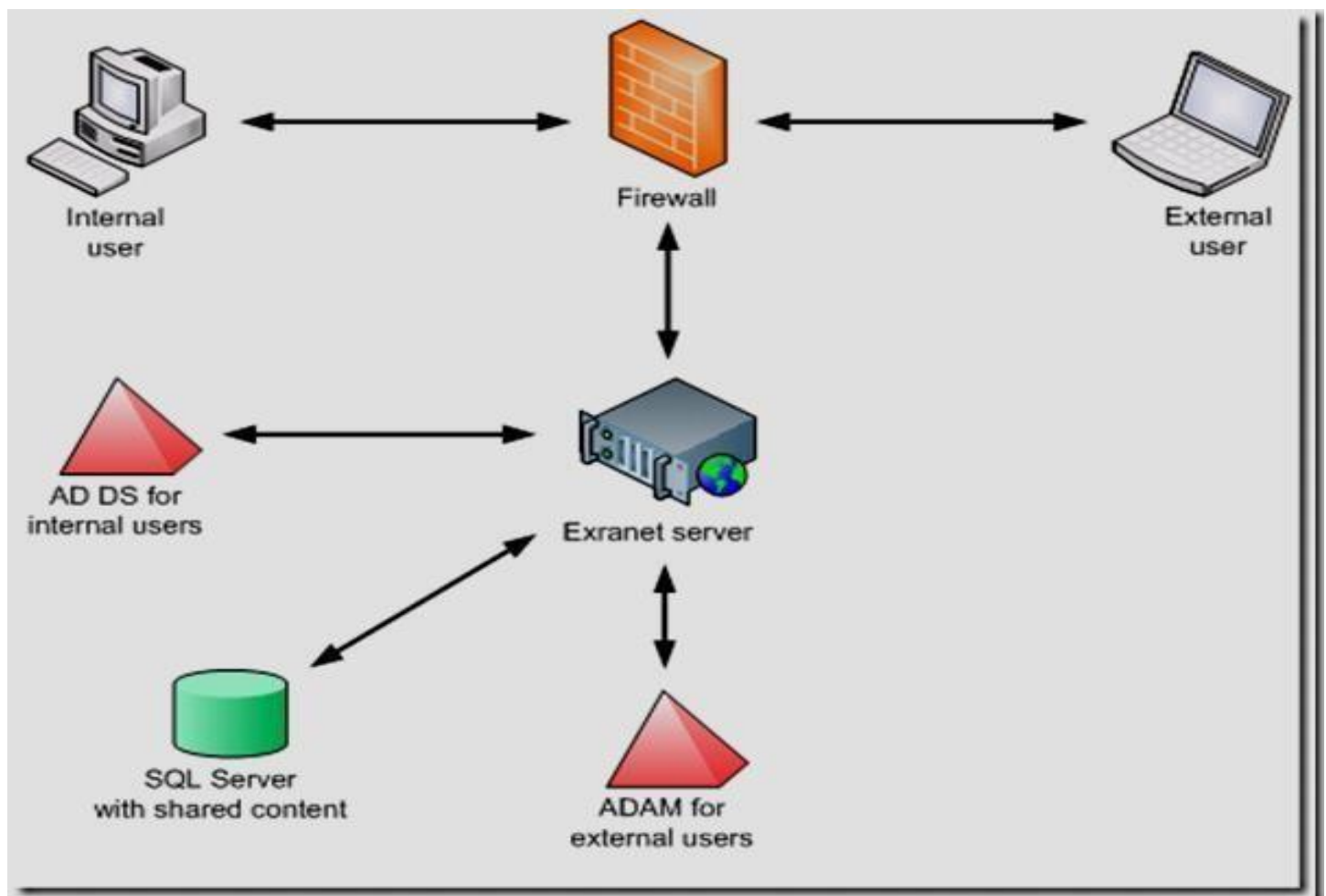
Figure 1:

Figure 2:



Benefits of Extranet

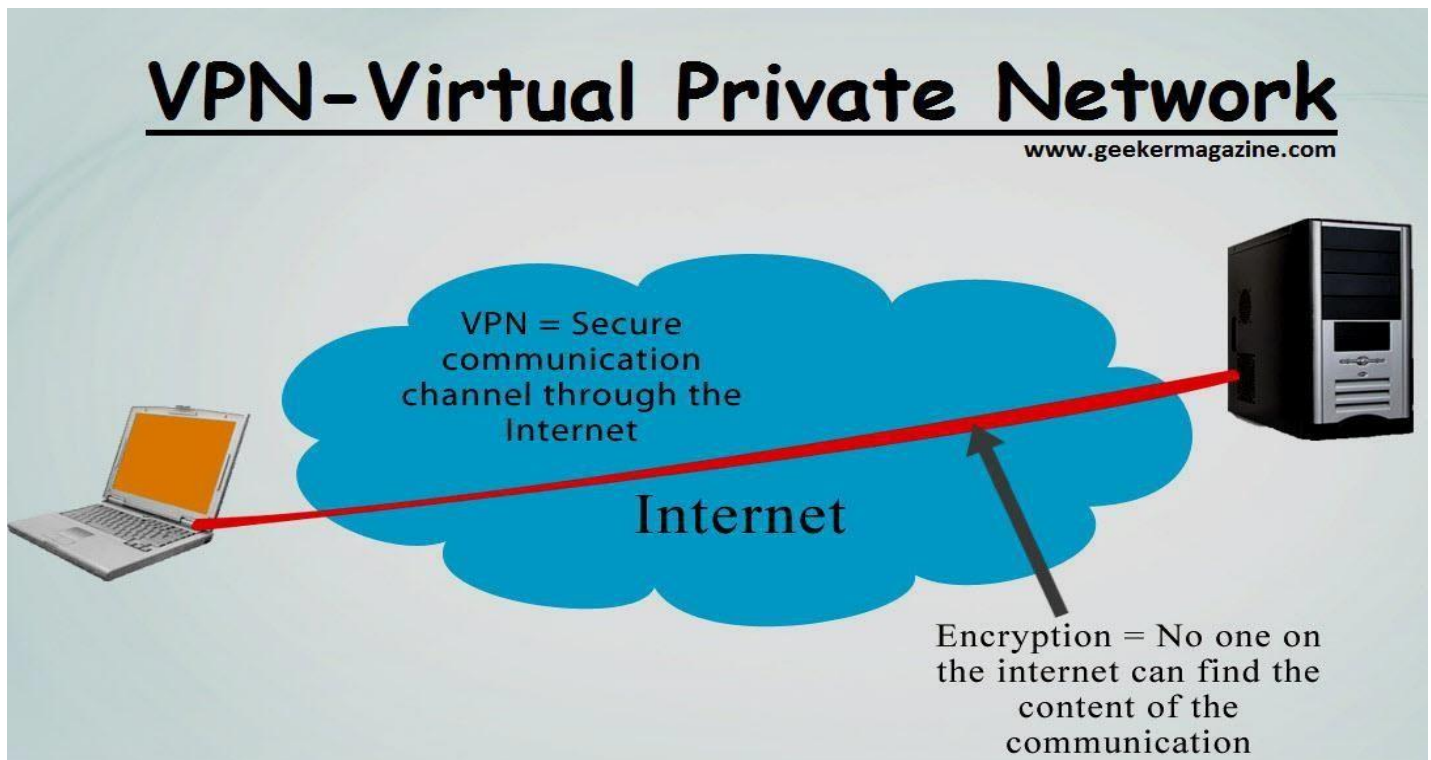
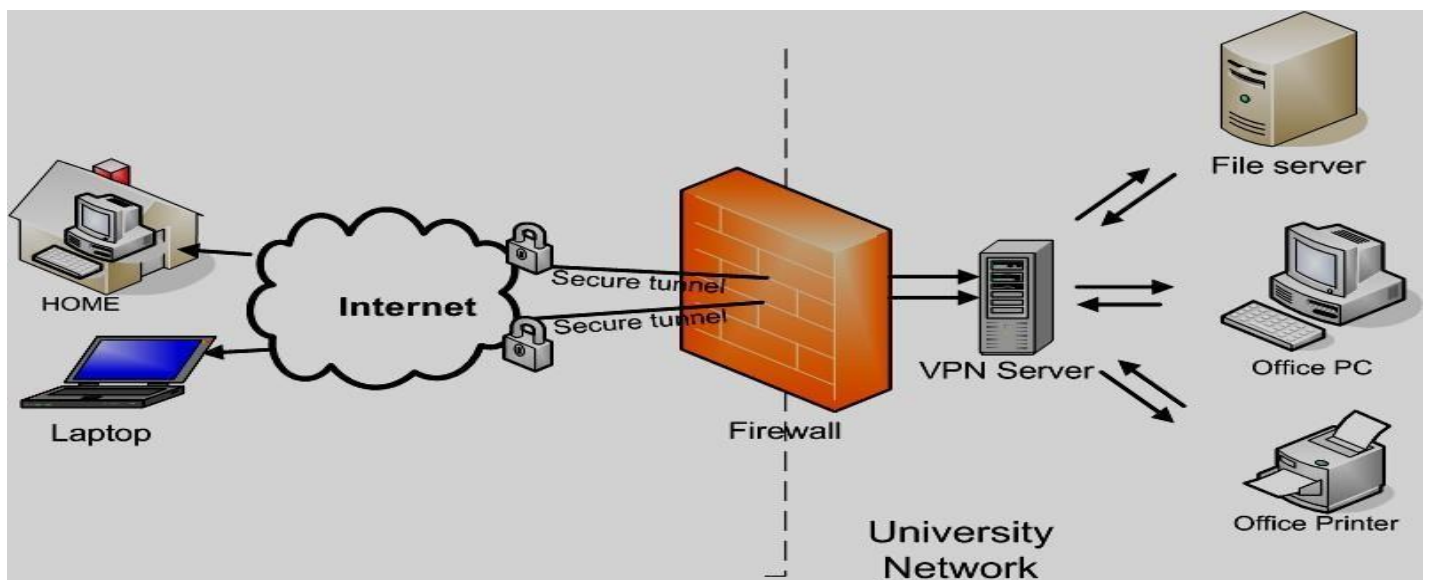
- Improved quality.
- lower travel costs.
- lower administrative & other overhead costs.
- reduction in paperwork.
- delivery of accurate information on time.
- improved customer service.
- better communication.
- overall improvement in business effectiveness.

Topic-7: Explain Virtual Private Networks (VPNs) – overview in detail.

- ✓ Virtual Private Network (VPN) is a private communication network used within an organization to communication over a public network.
- ✓ VPN is widely used by enterprise to create wide area networks (WANs) that span large geographical areas, to provide connections to branch offices and to allow users to use company's LANs.
- ✓ VPN message traffic is carried on the internet using standard protocols.
- ✓ Many VPN client programs can be configured to required that all IP traffic must pass through the tunnel while the VPN is active , for better security.
- ✓ This means that while the VPN client is active, all access outside their employer's secure network must pass through the same firewall as would be the case while physically connected to the office Ethernet.
- ✓ Various types of security services like authentication, encryption , data integrity and non reduplication are offered by VPN to the organization's public network.

Advantages :-

- (1) Extend geographic connectivity.
- (2) Reduce transit time and transportation costs for remote user.
- (3) Simplify network topology.
- (4) Provide global networking opportunities.
- (5) Provide faster ROI (Return On Investment) than traditional carrier leased/owned WAN lines.
- (6) Show a good economy of the scale.

Figure 1:**Figure 2:**

Topic : RECENT TRENDS IN E-COMMERCE :

Topic-8 : Explain M-commerce Introduction in detail.

Mobile Commerce:

- ✓ Mobile Commerce is also known as M-Commerce.
- ✓ M-Commerce is the buying and selling of goods and services through wireless handheld devices.
- ✓ M-Commerce is the process of paying for services using a mobile phone or personal organizer

History

- ✓ Mobile Commerce Services were first delivered in 1997, when the first two mobile-phone enabled Coca Cola vending machines were installed in the Helsinki area in Finland.
- ✓ The M-Commerce server developed in late 1997 by Kevin Duffey at Logica.
- ✓ Since the launch of the iPhone, mobile Commerce has moved away from SMS systems and into actual applications.

Tuesday, March 12, 2013

Overview

- ✓ M-Commerce is the ability to conduct Commerce using a mobile device such as:
 1. Mobile Phone
 2. Personal Digital Assistant(PDA)
 3. Smart Phone

Mobile Commerce from the Customer's point of view

- ✓ The customer wants to access information, goods and services any time and in any place on his mobile device.
- ✓ He can use his mobile device to purchase tickets for events or public transport, pay for parking, download content and even order books and CDs.
- ✓ He should be offered appropriate payment methods.



Services and Applications

- ✓ Mobile ticketing
- ✓ Mobile Money Transfer
- ✓ Content purchase and delivery
- ✓ Information services
- ✓ Mobile banking
- ✓ Mobile Browsing
- ✓ Mobile Purchase
- ✓ Mobile marketing and advertising



Mobile Ticketing

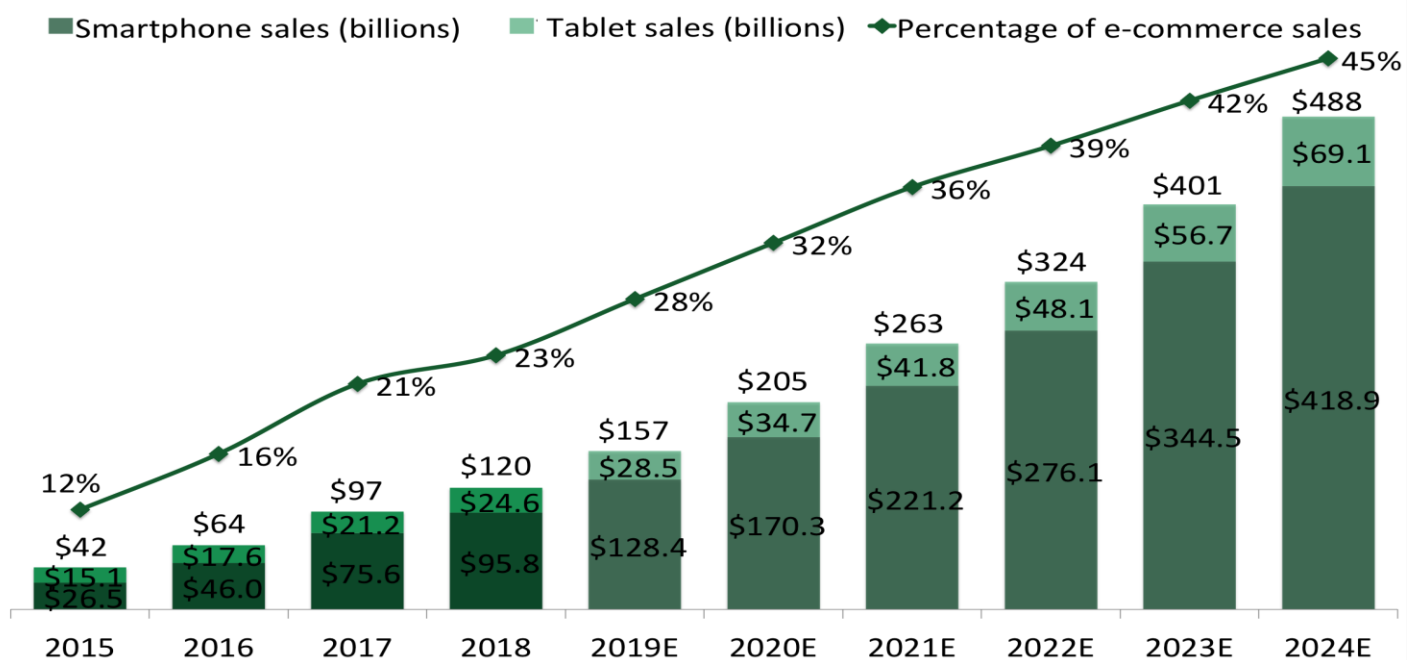
- ✓ Mobile Ticketing is the process where the customers can order, pay for, obtain and validate tickets from any location and at any time using Mobile phones .
- ✓ Tickets can be booked and cancelled on the mobile device with the help of simple application downloads.
- ✓ Delivery of tickets to mobile phones can be done in the form of a SMS or by a MMS.

Topic-9 : Explain growth and future of M-commerce in detail.

Growth of M-commerce

E-commerce has been on the rise massively in recent years, but it may not be the next true limit for shopping as m-commerce continues to become more popular.

FORECAST: US M-Commerce Volume



→ The future of mobile commerce but by looking at the present, how impressive the growth has been. For example, in 2017 mobile commerce reached \$700 billion in revenue in the USA alone.

→ This is more than 300% growth than the previous four years. How that exact figure looks in the coming years remains to be seen, but anyone not looking to take advantage of the growing mobile commerce market is certainly limiting their opportunity for success.

Future of M-commerce

To help you understand the potential of mobile commerce, here's a collection of insights and statistics that show the field is going to expand in the near future:

1. Mobile commerce will improve faster than non-mobile commerce in 2021.
2. In 2021, mobile commerce sales will account for more than half of total e-commerce sales.
3. Today, one-third of purchasing decisions is influenced by researching products on mobile devices.
4. More than half of retailers already have a mobile app. And over 50% of the rest is going to build one soon.
5. In mid-2019, mobile e-commerce spending in the United States reached a smashing \$41.2 billion.
6. The total number of US-based shoppers who make mobile purchases will reach 168.7 mln.
7. The volume of mobile commerce sales will more than double between 2017 and 2020, reaching \$336 billion this year.

Topic-10 : Explain advantages and limitations of M-commerce in detail.

→ Advantages



M-COMMERCE

Advantages

- Global Customer Base
- Easy Inventory Management
- Consumer Deals
- Time-Saving
- Large Order Processing Platform
- Easy To Use
- More Access To User Data

Disadvantages

- Smartphone Limitation
- Connectivity
- Need Faithful Shipment Company
- Security

(1) Global Customer Base

- If an individual has a mobile device and internet connection then they are the potential customer to any platform. Very conveniently as per their needs or requirements they can purchase any goods they want.
- Being in one part of the world you can choose, select and purchase any product from any place you want. Not only that you can even pre-order any product or thing for an event in advance. Helping both the buyer and the seller it helps them connect with each other very well.

(2) Easy Inventory Management

- You can manage and maintain your inventory levels regardless of how small it is. Saving all the product database you can easily know what product is available or not.

(3) Consumer Deals

- Since today a large part of the individuals uses mobile commerce as a medium for purchase. Business companies too had started using more mobiles than computers to reach a large number of users spreading various offers and discounts.

(4) Time-Saving

- Instead of physically going to the store's users can easily select and purchase any product of any brand and place they want. Saving both the time and energy of the user.

(5) Large Order Processing Platform

- Rather than checking or buying only from a limited region of the place. Online m-commerce provides you a vast platform to buy and make transactions.
- Using m-commerce you will be updated with all the information related to your purchase. For example, when will it dispatch, what days it will take, tracking id, etc.

(6) Easy To Use

- It is the easiest purchase where without any disturbance you can search all the online sites and choose the best among the one.

(7) More Access To User Data

- Once a purchase is been done from a store user's information gets stored. Which can be used in the future by sending about the deals and offers to the users.
- By introducing them with the latest collections and offers you can easily attract them with your collection and deals.

Disadvantages of M-commerce

Along with providing many advantages to m-commerce it also carries some disadvantages with itself. Here's a list of the few disadvantages of m-commerce.

(1) Smartphone Limitation

→ No matter how useful it is without the use of smartphone user can never access and navigate the data properly.

(2) Connectivity

→ In order to use m-commerce, a user requires either the connectivity of WIFI or mobile data connections.

→ Without accessing the internet connections user will not be able to receive any data to purchase.

(3) Need Faithful Shipment Company

→ In the process of buying and selling one thing that links both the buyer and seller is the shipping company. You should tie-up with a good shipping company for delivering your products on time to the users.

(4) Security

→ To complete your transactions many times you choose the online payment option. Entering all the details of your bank and security codes.

→ Which sometimes can harm you, also syncing of data or connecting to unknown WIFI networks may appear risky by hacking or bypassing your information to others.

Topic-11 : Explain introduction and management of e-enterprises (Business) in detail.

→ In **E-enterprise, business** is conducted electronically. Buyers and sellers through Internet drive the market and Internet-based web systems.

→ Buying and selling is possible on Internet. Books, CDs, computer, white goods and many such goods are bought and sold on Internet.

→ E-business or Online business means business transactions that take place online with the help of the internet. The term e-business came into existence in the year 1996.

→ E-business is an abbreviation for electronic business. So the buyer and the seller don't meet personally.

→ E-business covers all Internet-based transactions with business partners, suppliers and customers. This includes commercial transactions (e-commerce), but also other online activity, such as the exchange of information

Definition of E-Business

- Electronic Business, shortly known as e-business, is the online presence of business.

It can also be defined as the business which is done with the help of internet or electronic data interchange i.e is known as E- business

Management of e-enterprises (Business)

→ E-business (electronic business) describes how we use technology to improve business processes. The term 'e-business' is often used interchangeably with "e-commerce", but online transactions are only one of the ways that e-business has transformed today's business processes and improved efficiency.

Important of E-business:-

→ E-business is not constrained by geographic barriers, and has opened up new markets and networks, developing a new way of marketing. Everyday business practices have become more efficient, as processes are streamlined, data is collated, and communication has become instantaneous.

E-business contain:-

A well-run business these days takes full advantage of e-business efficiency in every part of their business including:

- Sales and marketing.
- Supply of goods and services.
- Selling direct to consumers, manufacturers and suppliers.
- Monitoring and exchanging information.
- Auctioning surplus inventory.
- Collaborative product design.
- Managing internal processes such as human resources, financial and administration systems, and Customer relationships.

Figure



E-business performs offer a business:-

As innovation continues, it adds to the long list of ways that e-business practices can help a business. This will include:

- Administrative functions are more efficient.
- Customers can access catalogues and prices anytime.
- Ordering is faster and easier for the customer.
- Online research allow staff to access insights into the market and competitors.
- New distribution channels are opened up.
- There are more channels for creative collaboration.
- New international and regional markets are accessible.
- Financial management, stock control, and reporting to compliance bodies is easier online.
- Communication through email, Skype and social networks is instant, free, and ubiquitous.
- Staff communication through intranet is easier.
- Cloud based applications enable collaboration and project management.
- Customer and supplier networks are strengthened.

E-business terms

- Business to business (B2B)
- Business to consumer (B2C) (also known as eCommerce)
- Government to consumer (G2C)
- Government to business (G2B)
- Trading of goods or services online (eProcurement)
- Electronic retailing (eTailing).

Getting started with e-business

→ Today's, customers expect every business to have online channels where they can access information, contact the business and make purchases. Businesses without an online presence, be it via a website, social media account or even something as simple as email address, are missing out on the huge portion of today's market that do most of their business online.

When building your online presence, it's usually best to start with a website.

→ From there you can start building social media accounts, where you can share your company message across a network.

Topic-12 : Explain ethical issues in e-commerce in detail.

→ Nowadays, we can see almost all trading and business activities including banking can be done online. This trend give a lot of advantages both to consumers and business organizations.

→ However, the bad side about e-commerce also cannot be ignored. the bad side is about the ethical issue in e-commerce. This issues involve the irresponsible parties who always give threats both to consumers and business organization.

→ The below some ethical issues which surround the world of e-commerce.

(1) Web Spoofing

→ Web spoofing is an electronic deception relates to the Internet. It occurs when the attacker sets up a fake website which almost totally same with the original website in order to lure consumers to give their credit card number or other personal information.

→ For example is the attacker setup a site called *www.microsOft.com* using the number zero in place of the letter O, which many users sometimes type by mistake. Users might find themselves in a situation that they do not notice they are using a bogus web-site and give their credit card details or other information.

(2) Cyber-Squatting

→ Cyber-squatting is an activity which a person or firm register, purchase and uses the existing domain name belong to the well-known organization for the purpose of infringing its trademarks.

→ This type of person or firm, called **cyber-squatters** usually infringed the trademarks to extort the payment from original trademark's owner. The blackmail of payment occur when they offers the prices far greater than they had purchased the organization's domain name upon.

→ Some cyber-squatters put up critical remarks about the person or company which the domain is meant to represent (eg: www.walmartsucks.com), in an effort to encourage the subject to re-buy their domain from them. The following picture will worth explain the example of cyber-squatting.

(3) Privacy Attack

consumers are exposed to the unauthorized party.

→ Electronic commerce businesses buy information about individuals such as their personal details, shopping habits and web page visitation listings. This can be done with or without the individual's knowledge by using different computing technologies.

→ A large number of web sites, which require users to create a member name, also ask for personal details. These details are then often sold on to companies to aid in the marketing and selling of their products.

→ The personal information of consumers being transmit may be intercepted by anyone other than the person whom it is intended. Protecting the privacy of communication is a great challenge, due to the very nature of the online medium, an open network of digital telecommunications.

(4) Online Piracy

→ The online piracy can be defined as unauthorized copyright of electronic intellectual property such as e-books, music or videos.

→ This unethical activity occurs when the Internet users use the software and hardware technology in an illegal manner to transfer the electronic intellectual property over the Internet.

→ For example, some web-based applications such as www.napster.com have enabled large scale exploitation of music samples and audio formats. Software that is available for free of cost on the Internet allows the transfer of music and videos without the authorization of rights holders. Moreover, CD burners and portable MP3 players allow copyright violations to occur rather easily.

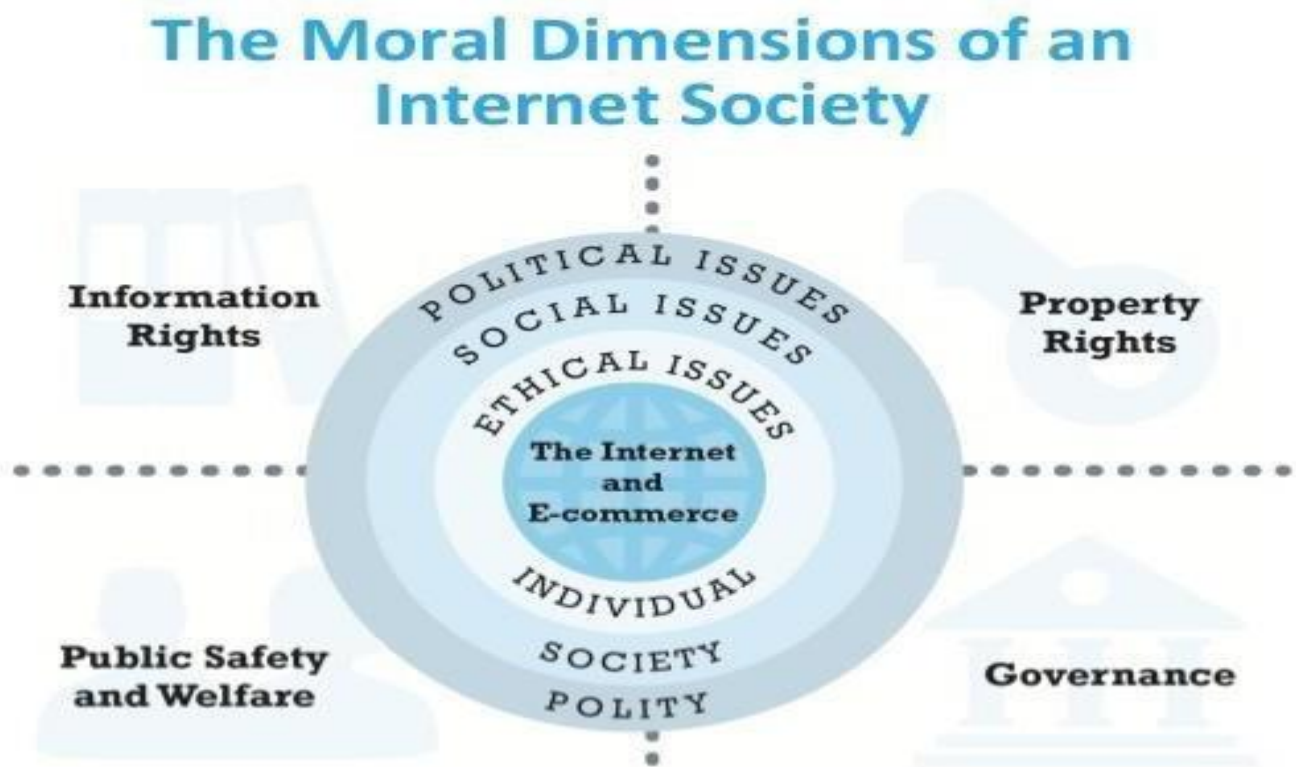
(5) Email Spamming

→ E-mail spamming, also known as unsolicited commercial e-mail (UCE) involves using e-mail to send or broadcast unwanted advertisement or correspondence over the Internet.

→ The individual who spam their e-mail usually called spammer. Many spammers broadcast their e-mail for the purpose of trying to get people's financial information such as credit card or account bank numbers in order to defraud them.

→**The example** of fraud using e-mail is spammers will lure consumers to enter their personal information on fake website using e-mail, forged to look like it is from authorized organization such as bank. The content of e-mail often directs the consumers to the fake website in order to lure them to fill their personal information such as credit card or bank account's details. This technique is called phishing. The following picture is an example of phishing e-mail.

Figure:



All the best to all Students for their future
