INTERNET AND E-MAIL

DEFINATION:
The Internet is a worldwide network, connecting millions of computer users. It is an interconnection of PC"s throughout the world, through ordinary telecommunication lines and modems. Internet is the base in which the web is build.

OR

Internet is a system of computer devices (modes) which are connected by communication circuits i.e. telephone lines and cables to permit files transactions of data processing needs of a community or organization. It is interfacing of different independent networks into a single entity, hence the concept of global village. It can also be referred as international global network.

The internet provides an extremely fast and inexpensive way to communicate and transact business over huge distances hence leading to the development of electronic commerce (E. Commerce) and electronic mail (e-mail)

The other names for the Internet are:
- a) The Net
- b) The information superhighway
- c) Cyberspace.

NETWORK
This is a series of interconnected elements that forms an overall structure or system.
Networking is the act of connecting various clients together to enhance sharing of resources between them i.e. printers, scanners. etc.

ADVANTAGES OF A NETWORK
   i.   Sharing of resources like – printers, scanner etc.
   ii.   Sharing of information
   iii.   Avoiding sneaker net –copying of files using diskettes from one computer to another.
   iv.   Working –even if away from office.

CLASSIFICATION OF NETWORKS
1. LAN (Local Area Network) formed whenever clients are connected within a small geographical area i.e. within the same building or up to a radius of 10m – 5km.
2. MAN (Metropolitan Area Network) formed whenever clients are connected within a medium seized area i.e. entire city within a radius of 10km.
3. W.A.N (Wide Area Network) this cover huge areas covering different countries and continents. The internet falls under this category

REQUIREMENTS OF INTERNET CONNECTION
1. Computer terminal i.e. a functioning computer with a monitor, keyboard, mouse and a system unit.
2. Telephone line; to allow flow of data (data passes through telephone lines)
3. A transmission interface converter i.e. a modem (modulator and demodulator) used to convert analogue signals into digital signals and vice versa.
4. I.S.P (Internet Service Provider) this provides the service over the internet i.e. Africa online, mitsuminet, nairobinet, jambonet etc.

5. Communication software; these are programmes that provide a simple and easy way of accessing information anywhere in the world using the internet i.e. internet explorer, netscape etc.
6. Username – Every time you get connected, you require a name to identify yourself in the internet. This is done when the user registers with the Internet service provider.
7. Password – This is needed for security purpose. You need to enter a user name and a password when you want to access the Internet. This ensures that you are the only one who can access your Internet account.

NB: Access to the Internet is achieved using a computer that has a modem connected to a telephone line and an ISP. Using this hardware a programmed called netscape navigator is used to act as the interface between the user and the net.

TYPES OF MODEMS.
1. **Internal Modem** – This is located inside the system unit and is connected through expansion slots.
2. **External Modem** – This is located outside the system unit connected in between the telephone and the computer system.

INTERNET SOFTWARE
BROWSERS: These are programs that provide access to information anywhere in the world. They translate the codes to display WebPages in browser windows, they help in:-
1. Loading and viewing web pages and documents.
2. Printing documents
3. Keeping a list of useful documents
4. Navigation though the web easily
5. Giving access to use of e-mail
6. Searching for websites.

TYPES OF BROWSERS.
1. Line mode browsers (**LMB**) this works when one is online e.g. www.
2. Netscape explorer this hosts the ones that work offline.

FACILITIES OFFERED BY THE INTERNET
a) Electronic mail (E-mail) - You can exchange electronic mail to people around the world, including friends, customers and even people you meet on the Internet. Electronic mail is faster than ordinary mail, easy to manage, inexpensive and saves paper.
b) Information – You can review newspapers, magazines, academic papers and much more governments; colleges, universities, company and individuals all offer free information on the Internet.
c) Programs – Thousands of programs are available on the Internet. These programs include word processors, games and much more. You can look for the latest software over the Internet, e.g. you can get the latest Anti-virus software available and in addition, retrieve a free trial issue.
d) Entertainment – The Internet also lets you review current movies and hear television themes songs.
e) Discussion Groups (Chat groups) – You can join discussion groups on the Internet to meet people around the world with similar interests. There are many discussion groups on various topics.

f) Online Shopping – You can order goods and services on the Internet without leaving your desk. For example you can view a catalogue of a certain clothes shop over the Internet and fill in an online order form.

g) Newsgroups – These are discussions on a range of topics from recreational activities to scientific research.

INTERNET ADDRESSES

In order to access internet, one needs an address. They are contained in each packet to identify landing zones and destination domain name serve maps, each domain name to a corresponding address. A domain name may have 3 or 4 parts referred to as levels e.g. Structure of Domain name.

a)www.gatewayonline@gmail.com(Email address)

b)www. gatewayonline.co.uk (website)
4   3   2   1

The top level (1) refers to the country (U.K.)
The second level (2) refers to the type of organization (co)
The third level (3) refers to the name of the organization (gateway online)
The fourth level (4) refers to the name of the server (www)-(world wide web)
b)www.lifeinred.com
        1   2   3
The first level (1) refers to the server type (www)
The second level (2) refers to the name of the organization (lifeinred)
The third level (3) refers to the type of organization (com)

FACTORS DETERMINING INTERNET SPEED
1. BAUDRATE
The speed at which a modem can process data is measured in baudrates. Which is approximately the number of bites per second being the most commonly used. You can only turn your modem at same speed as the one at the other end and the faster your modem the less time you have to wait for your information to come down the line and the lower telephone bills.

2. DATA COMPRESSION
This involves compression of larger files into small file. Small files may even flow longer as extra data must be added to identify the type of compression.

SEARCH ENGINES
These are programs that help find information on the web. They catalogue information on the Internet and give the user interface to enter search criteria. They have got the ability to classifying various types of information i.e. through indexing. Search engines accomplish task of cataloging information by using a program called we spinners within themselves that move across web servers looking for new websites hence cataloging information.

CONVERSION TERMINOLOGIES ON THE WEB
a)   Teleconfressing – refers to holding meetings over the web in a remote sense. There is no physical contacts with people who are holding the meeting.
b)   A web server – This is the computer that controls and contains information of other clients in a network.

59

c) Gopher – is a program that helps in information retrieval over the net.
d) Internet chart – program for chatting refers to an electronic chart of the Internet.
e) Home page – A page that is displayed early time one opens a browser, also refers to the first page of a website which contains hyperlinks.
f) Web site – a collection of web pages (files & folders) stored in a web server linked together.
g) Web Page – An Internet document designed using hypertext.
h) Web browser – Programs that assist in exploring the web program that provides a simple and easy way or access any information worldwide.
i) Hyperlinks – This allows interconnection between web pages.
j) Bookmarks – refers to a list of interesting pages, sometimes referred to as favourites.

THE EXPLORER SCREEN
This contains the tool bar buttons:-
  a) Back – move back to the pages visited previously or click the arrow to drop down the list of visited pages.
  b) Forward – forwards again after have been back
  c) Stops – stop downloading current pages
  d) Refresh – re-load page – use this if the page fails to load properly.
  e) Home – go to home page.
  f) Search – run on line searching explorer bar.
  g) Favourites – opens favourites list in explorer bar
  h) History – stores all visited sites
  i) Mail – run mail/news software to read mail or send message
  j) Print – print the current page
  k) Edit – edit (make changes) to your document

NB: The list records your visits (records pages visited recently) but keeps the list for a limited time for a permanent link to a page add it to favourites.

CONTROL BARS
This is the main page display area. There are number of control bars almost all of which can be turned on and off. They include;
a) The explorer bar – It can be opened to display the history (page visited recently favourite or an outline search.
b) The menu bar – it gives access to all commands but the most common used ones can be reached through the toolbar.
c) Address bar – it shows the address of the page.
d) The radio bar – it lets you link to an internet radio, broadcast for music, news sports etc.

ELECTRONIC MAIL (E-MAIL)
This refers to a means of communication between registered users on the internet by enabling sending correspondences and documents between each other. E-mail communication has provided an easy and inexpensive way of communication between people who may be miles away from each other.

ADVANTAGES OF E-MAIL
1. Fast delivery of information i.e. within minutes
2. Very cheap to use i.e. charges are low

3. Incoming mail can be easily returned to the sender or forwarded to other people.

3. Documents, pictures and other files can be attached to messages and easily detected and viewed at the other end.

5. Copies of the same document can be sent to various people at the same time easily.

DISADVANTAGES OF E-MAIL

1. Few people check e-mail messages regularly.

2. The slightest error in the address is enough to prevent delivery and event when you go everything right there is always a chance of failure in one of the links between you and the recipient.

NB: Usually though not always, you will get a message back to let you know that your message has not been sent.

WEB-MAIL

A web-mail is much the same as E-mail but with one different. Normal e-mail needs to be online the entire time while you are sending and receiving e-mails while web-mail need to be online only while you are sending and receiving messages. They can be read of written, moved or deleted offline.

But with e-mail, your messages are stored online and you must be online the whole time you are dealing with your mail thus it is costly since you have to be online.

The advantages of web-mail over e-mail is that you can handle your mail from anywhere as long as you can get into the internet somehow. This may be through a terminal in a library from a friend or colleague desktop or through your temporary account at your work place.

TRAFFIC JAMS

Data passes through many different servers and phone links and other communication links. When one is connected to a site on the internet, on the way its speed will depend upon the speed of the slowest part of connection.

A fast modem working telephone line and good service provider will only ensure that there is no hold upon along the nearest line.