

TRAFFIC ON NETWORK N SPEED OF CONNECTION

Type of application	Number of users
Burst traffic <ul style="list-style-type: none"> • Internet Browsing • Email • Telnet 	50 staff = 50 x 56 kbps 2800 kbps or 2.8 mbps 50 staff only 10 access 560 kbps or 512 kbps
Constant Traffic <ul style="list-style-type: none"> • Streaming • Audio/Video streaming 	Monthly \$\$ diff 2.8 mbps & 512 kbps Connection to the internet

Busy traffic

Internet browsing: surfing through the web pages,
 Downloading a web page for example if yahoo main page is opened it is roughly around 100 kilo bytes of download so if a customer is on 2 GB download plan can download around 25,000 web pages with text n high quality pictures.

Music files can be around 3-7 mb so say customer is on 2 GB plan they can download 500-600 sound tracks.

Emails occupy relatively are lesser down loads a plain text email can be any where btwn 2kb to 10 kb if there are any music or picture attachments it might take up more downloads

So if u have to break up 20 GB downloads into music, email n web pages
 5000 emails roughly 25MB,
 10,000 WebPages (990 MB)
 200 songs 1 gigabyte (1024 mb)

Telnet:

Telnet is networking UNIX systems- here it means using internet on UNIX based operating systems. (our operating system is Windows XP)

Emails, web pages n music is considered burst traffic as the downloads vary they r not constant. eg: email may range from 2 kb to 1 mb depending on the attachments.

Constant Traffic:

Streaming data transfer is in standard size.
 Example: video conferencing – data is transferred 384 kilo bytes per second.

Number of users.

As number cars on the road increase the street traffic Number of users on a network affects the speed of the internet. More users lesser speeds

Example if 50 ppl are on a network are working with a speed of 56 kbps they would download 2800 kilo bytes per second, say it there were 10 ppl working they would download 560 kilo bytes per second. So if the network runs with a faster speed say 512 kps then the download time will come down by roughly 10 times

Network devices:

Network devices are used to connect/plug the computer to an external or internal network, such as hubs, routers, print servers etc...

Hubs relative simple network devices used to connect the computers with in a room, floor or building.

Routers can be simple to very complex routing devices generally used to connect computers in WAN or computers at different demographic areas.

Routers can be compared to post offices, say if u send a mail to London from Sydney, it goes to post office in Sydney and then from there the mail is sent to London post office depending upon the earliest and fastest available mail transportation method. The routing of the mail between the main cities is determined by the post offices, in the same way the router determines the route for transferring data on a network depending on the traffic (number of computers) and speed of the networks.

In the ADSL scenario the network devices would be the modem, Ethernet cable, USB cable, inline Filter, RJ45 and a manual.

Modulator-demodulator in short Modem, converts the analog signals that are transferred on telephone wires into digital signals than can be understood by computer. Modem sent by people telecom is pre-configured so no configuration set up is required.

Ethernet cable (blue wire @ the back of computer) is to transfer data frm modem to computer. USB cable serves the same propose. USB cable supports higher speeds than Ethernet cable.

Inline filter: inline filter with one socket separates the voice calls frm internet data calls allowing the user to use home phone and internet same time.

RJ45 is the port which is like the phone socket - the click n plug in type (not the 3 prong one's as the old telephones used to have).

Manual- paper manual showing which cable to connect where.

IP Addresses

IP address – Internet Protocol address, which is like a name for the computer on the network

Static IP address: allows connecting to a computer from remote area. Enables accessing the computer from other places. The connection between the server and the computer is determined during set up.

Dynamic IP address: the computer has no constant name so it cannot be accessed from remote areas. Each time the computer connect to the network a new IP address (name) is assigned for the connection.