

Government Polytechnic Kotabagh
Topic - Leased line (computer network)

A leased line is a dedicated fixed bandwidth symmetric data connection. Leased lines are dedicated means - that along the route of your leased line the bandwidth you need has been reserved solely for your use. Unlike consumer internet connections the bandwidth available does not fall at peak times, when other customers of the same ISP try to use their connection at a same time.

Leased lines are symmetric means they can upload data at the same ~~time~~ fast speed at which can download data. It has some advantages like -

- access their work PC's desktops from home
- send large files
- upload sizable files to your websites
- backup data using online services
- host websites on a server at your office
- use VoIP telephony

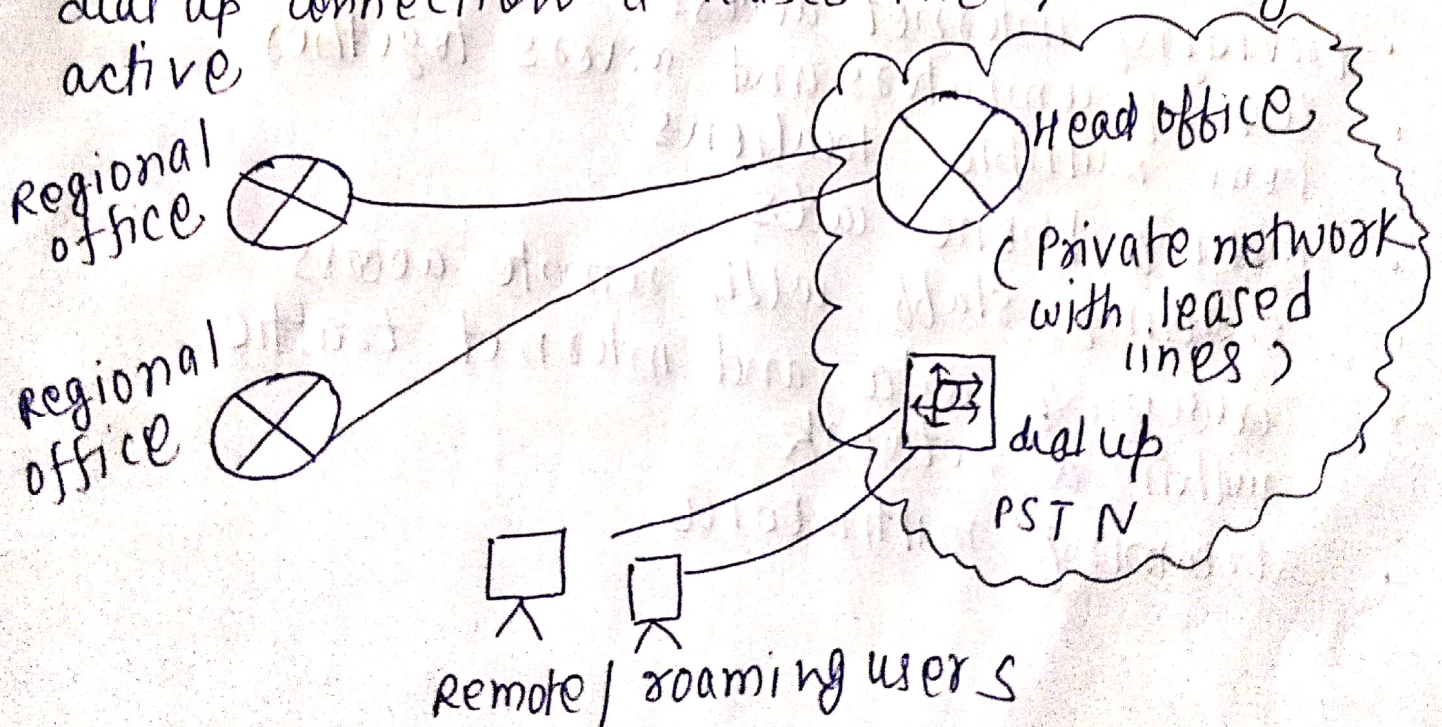
Advantages of a dedicated connection (compared to ADSL)

- faster download speeds are usually available
- faster upload speeds
- better reliability
- better support

Disadvantages of a dedicated connection (compared to ADSL)

- cost - Leased line cost have fallen, but leased lines are still a lot more expensive than ADSL connections
- longer wait - leased lines may take about three months to install rather than two weeks
- physical installation - leased lines are more complex than installing ADSL. ADSL can be provided a pre existing circuit (your phone line) but a leased line will require a new circuit.

Typically leased lines are used by businesses to connect geographically distant offices unlike dial up connection a leased line is always active



note - leased lines are used to build up the private networks, private telephone networks (PBX)

or access the internet or a partner network (extranet)

Availability in India

In India leased lines are available at speeds of 64 kbit/s, 128 kbit/s, 256 kbit/s, 512 kbit/s, 1 mbit/s, 2 mbit/s, 8 mbit/s, 1000 mbit/s T1 (1.544 mbit/s) or E1 (2.048 mbit/s) and upto 622 mbit/s

* customers would be connected either through OFC, telephone lines ADSL, or through wifi.

customers would have to manage their own network termination equipment namely the channel service unit and data service unit.

uses of leased lines

- providing internet access
- linking computers and servers together from multiple locations
- making phone calls
- enabling staff with remote access
- carrying data and internet traffic within a network
- streaming multimedia

leased lines are used for business purpose

leased lines are always active

T1 channel - transmission speed - 1.544 mbit/s

E1 standard - 2.048 mbit/sec

download speed and upload speed faster

great reliability

