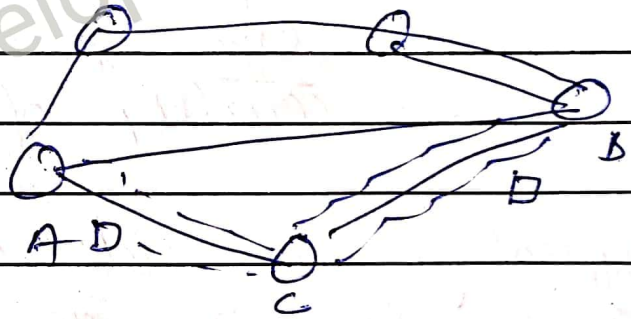
Connection oriented & connection less

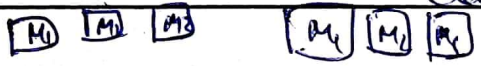
Layers can offer two types of services to its upper layer:
connection oriented, connectionless

1) Connection oriented service: -
* connection is first established
* connection is used
* connection is released.

Application
Presentation
Session
Transport
Network
Data
Physical

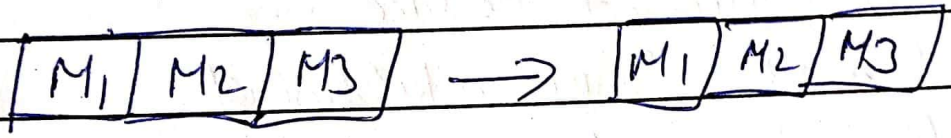


→ Connection oriented data send.



eg!- Telephone System:
1) User dial the no and wait for answer (connection is being established)
2) User communication (connection is used)
3) User Hang up (connection is released.

Connection acts like a tube, in which sender pushes the msg from one end and receiver takes them out at other end, i.e order of the Msg are preserved.



When Connection is established, the sender and receiver may conduct nagociation on the parameters used i.e.

1) Size of the Msg
2) Quality of service

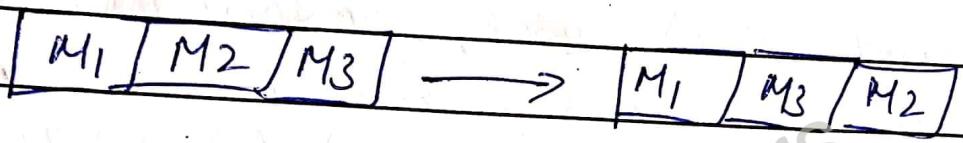
Typically one side makes the proposal other side can accept it, reject it make counter proposal

Notes by :- jpwebdevelopers

Connectionless Service

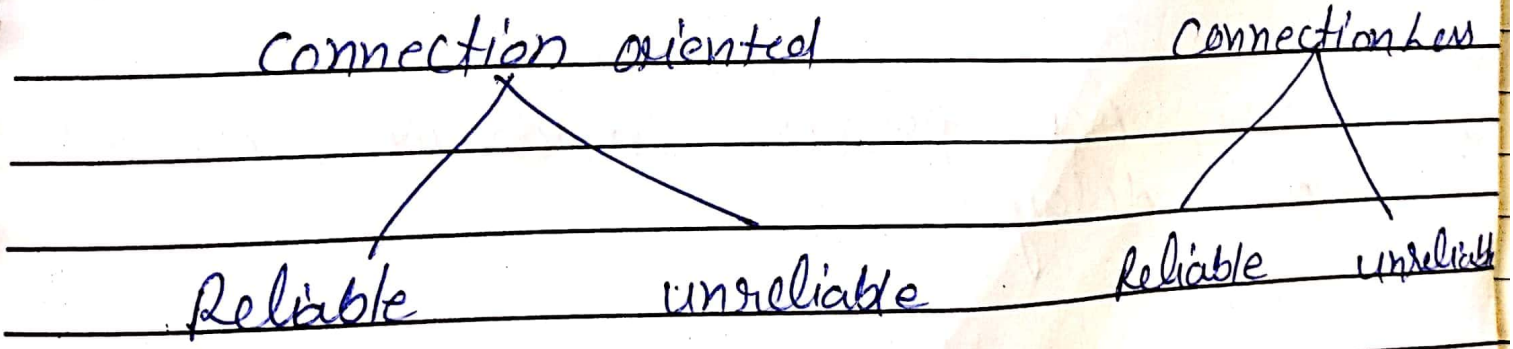
* In connectionless service no prior connection is established before sending a message
eg:- Postal system.

* The order of the message may no be preserved.



* Each message will carry full destination address, each message will be route through the path independent of each other.

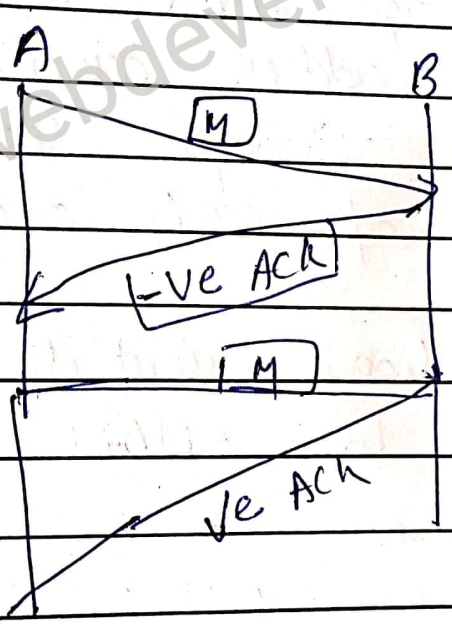
* Both connection oriented and Connectionless services can be either Reliable or unreliable.



* Reliable Service :-

* It will never loose data. Usually reliable services uses Acknowledgment to confirm whether messages are delivered or not.

* If the receiver receives the message it sends the ACK, otherwise it will send -ve ACK. when -ve ACK is received message is retransmitted.



* The ACK process introduce overhead and delay.

Unreliable service:-

It may loose data, as it does not use ACK machanism.

Example of each service

* Connection-oriented Reliable services

It is appropriate in file transfer. The owner of the file want to be sure that all the bits arrived correctly in same order in which they were set it and data should not be lost.

* Connection oriented unreliable Services.

* It is appropriate in digitalized voice system or Video Conference.

* It is preferable for telephone User to hear a bit noise at the time then experiencing delay

waiting for acknowledgement.

* Connectionless Unreliable service

* It is appropriate in sending electronic Junk mail.
* In electronic junk mail sender probably does not want to go to the trouble of setting up and tearing down the connection and 100% reliable delivery is also not essential

It is also called Datagram service

* Connectionless Reliable

This is appropriate in Registered mail. In this service establishing a connection might not be required but data should not be Loss once message are sent.