



SNS COLLEGE OF TECHNOLOGY
Coimbatore-35
An Autonomous Institution



Accredited by NBA – AICTE and Accredited by NAAC – UGC with
'A+' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University,
Chennai

19ECT301-COMMUNICATION NETWORKS
III YEAR/ V SEMESTER

UNIT 3- TRANSPORT LAYER & APPLICATION
LAYER

TOPIC 2 –ELEMENTS OF TRANSPORT PROTOCOL



INTRODUCTION



To establish a reliable service between two machines on a network, transport protocols are implemented

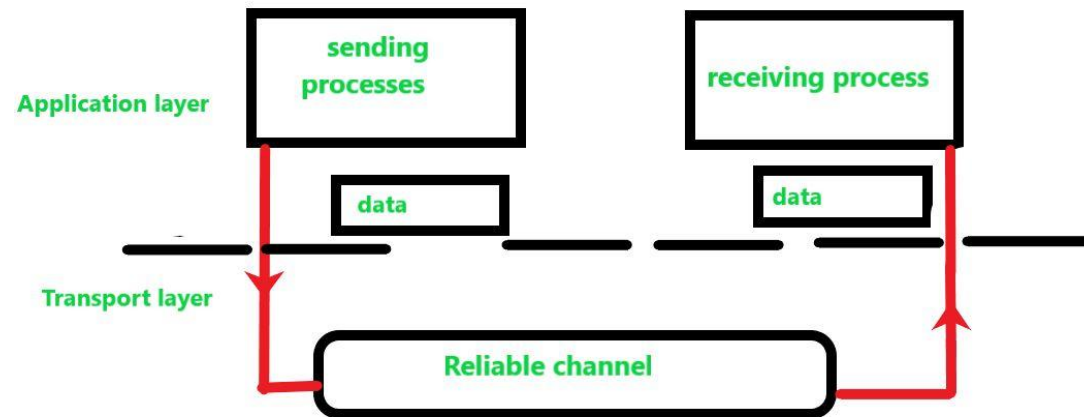


Image Source: https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.geeksforgeeks.org%2Fprinciple-of-reliable-data-transfer-protocol%2F&psig=AOvVaw0C7s7QheIQlGgYCHQLM5qw&ust=1666918500614000&source=images&cd=vfe&ved=0CA0QjRxqFwoTCOiD3ruZ__oCFQAAAAAdAAAAABAE



ELEMENTS OF TRANSPORT PROTOCOL



- Types of Service. The transport layer also determines the type of service provided to the users from the session layer

- Error Control.

- Flow Control.



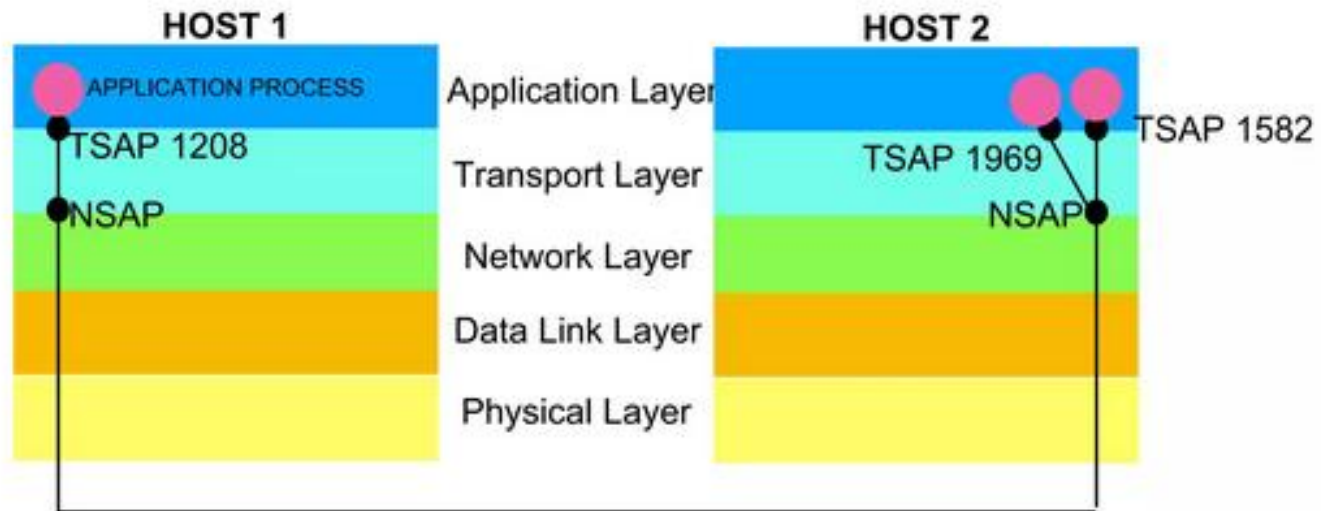
ELEMENTS OF TRANSPORT PROTOCOL



- Connection Establishment/Release
- Multiplexing/De multiplexing.
- Fragmentation and re-assembly.
- Addressing



ADDRESSING



To access a specific service , we have to mention a specific Port Address.

SAP - Service Access Point

TSAP- Transport SAP

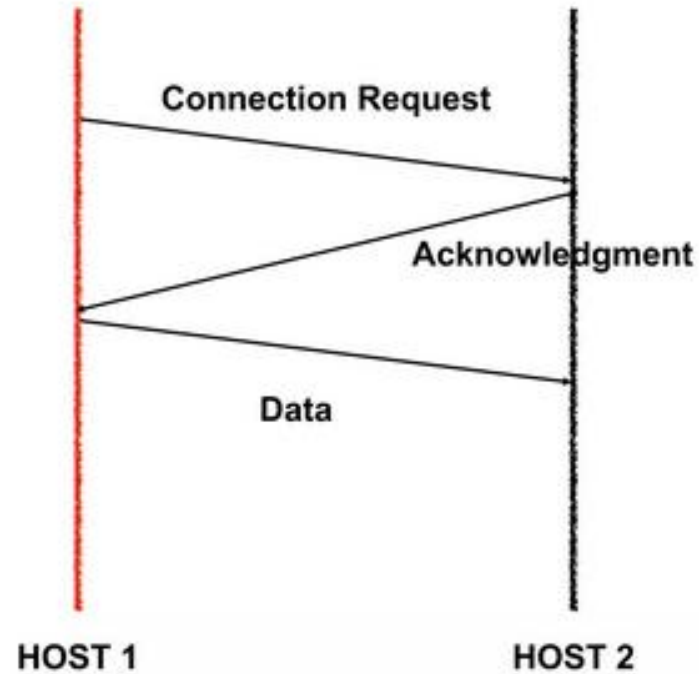
NSAP - Network SAP



CONNECTION ESTABLISHMENT



Connection is being established by 3 way handshake





CONNECTION RELEASE



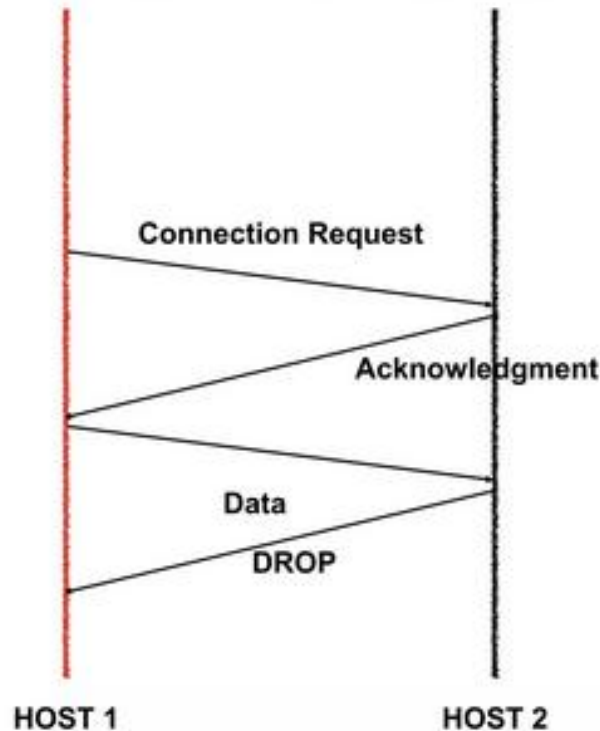
- Disconnection connection between two users.
- Asymmetric Release
- Symmetric Release



ASYMMETRIC RELEASE



ASYMMETRIC RELEASE

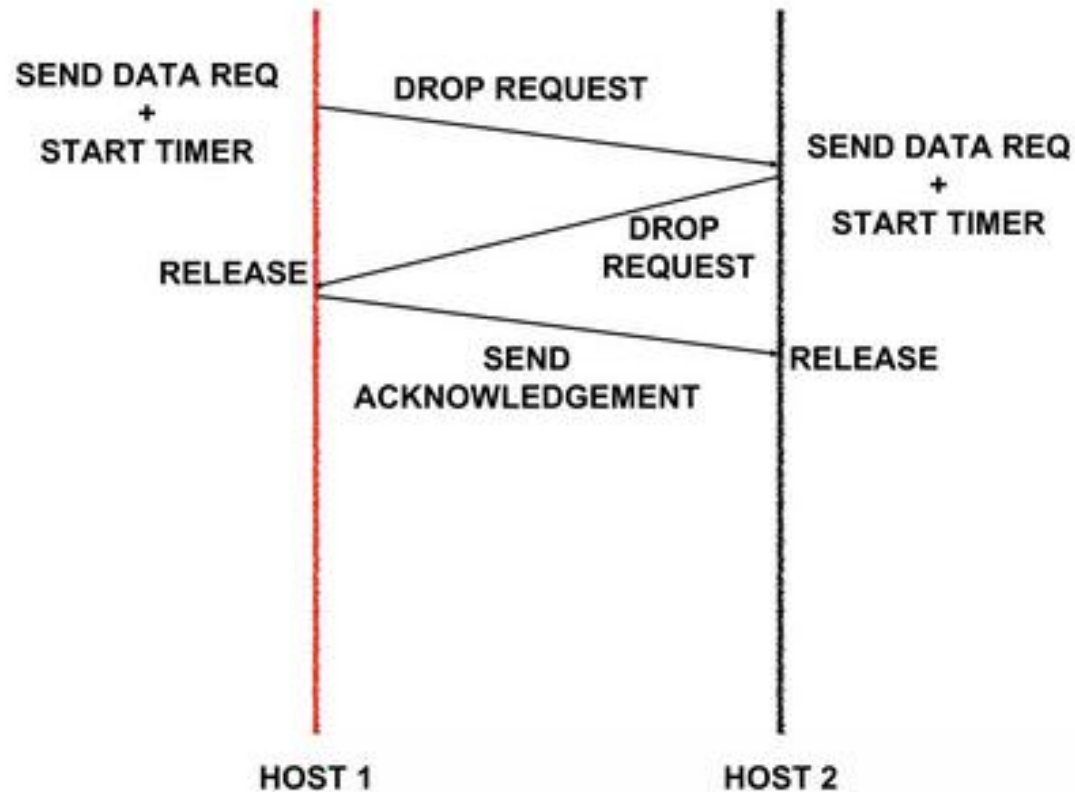




SYMMETRIC RELEASE



SYMMETRIC RELEASE

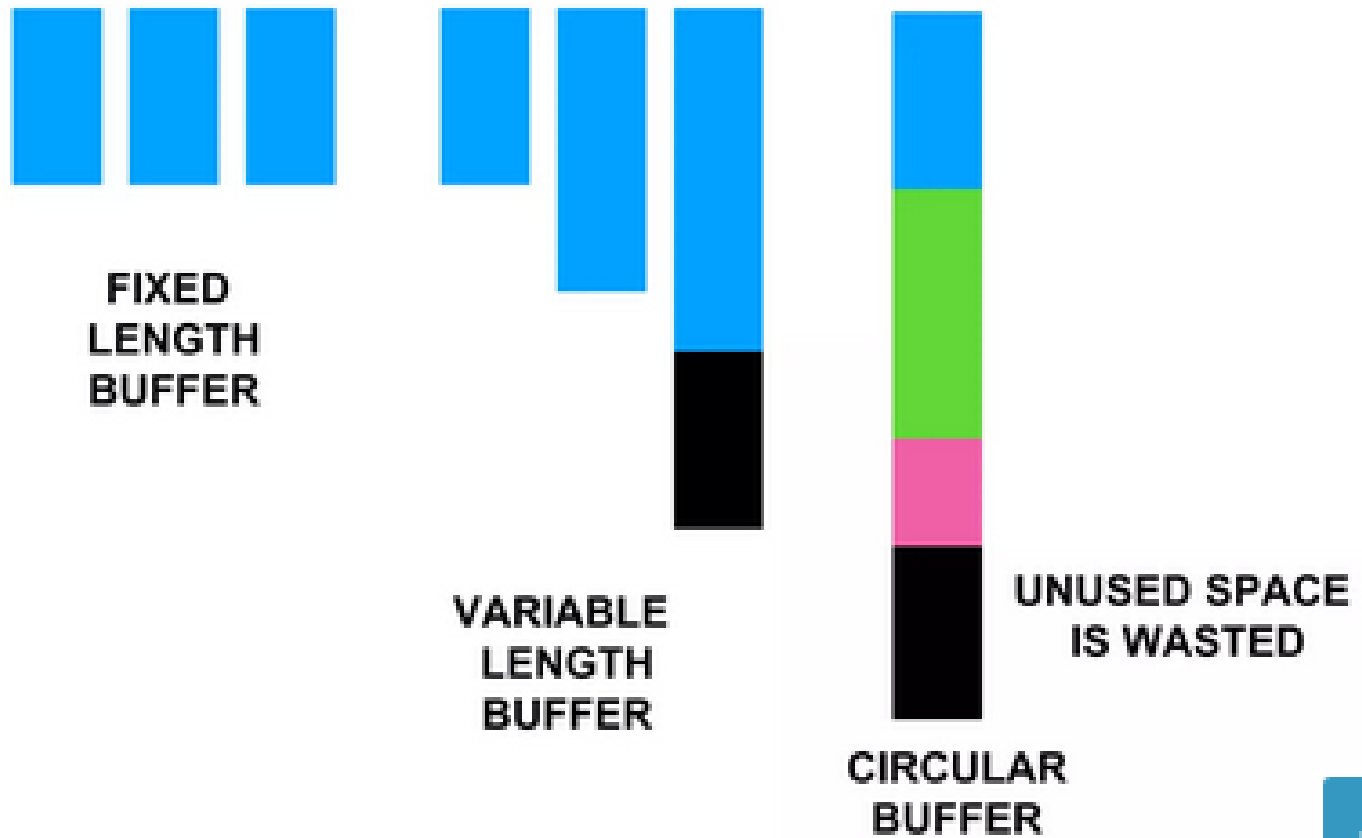




FLOW CONTROL



- To control buffer, Transport Layer manages buffer.

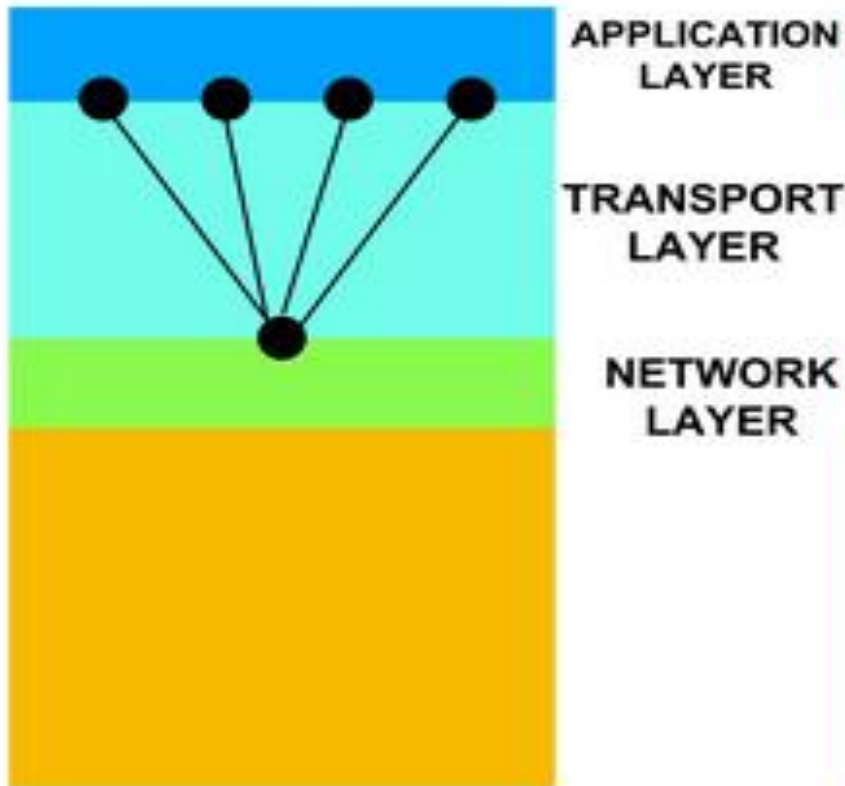




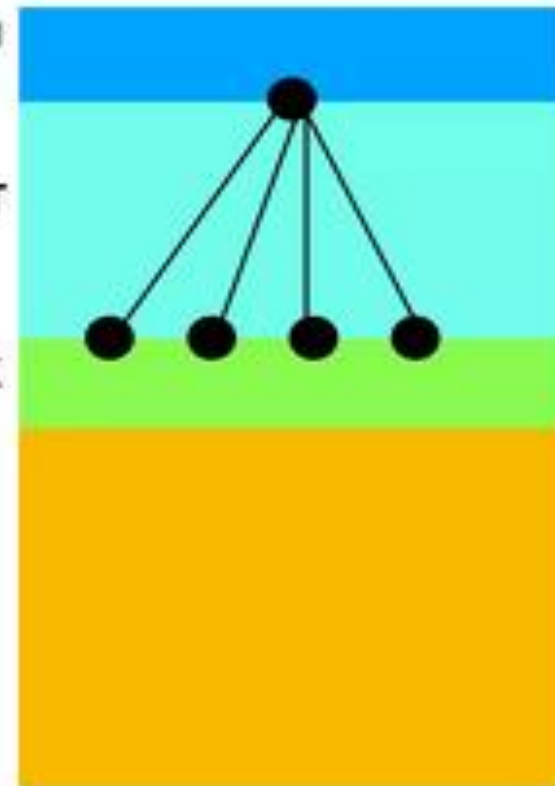
MULTIPLEXING



UPWARD MULTIPLEXING



DOWNWARD MULTIPLEXING





THANK YOU