UNIT-4

The Transport Layer
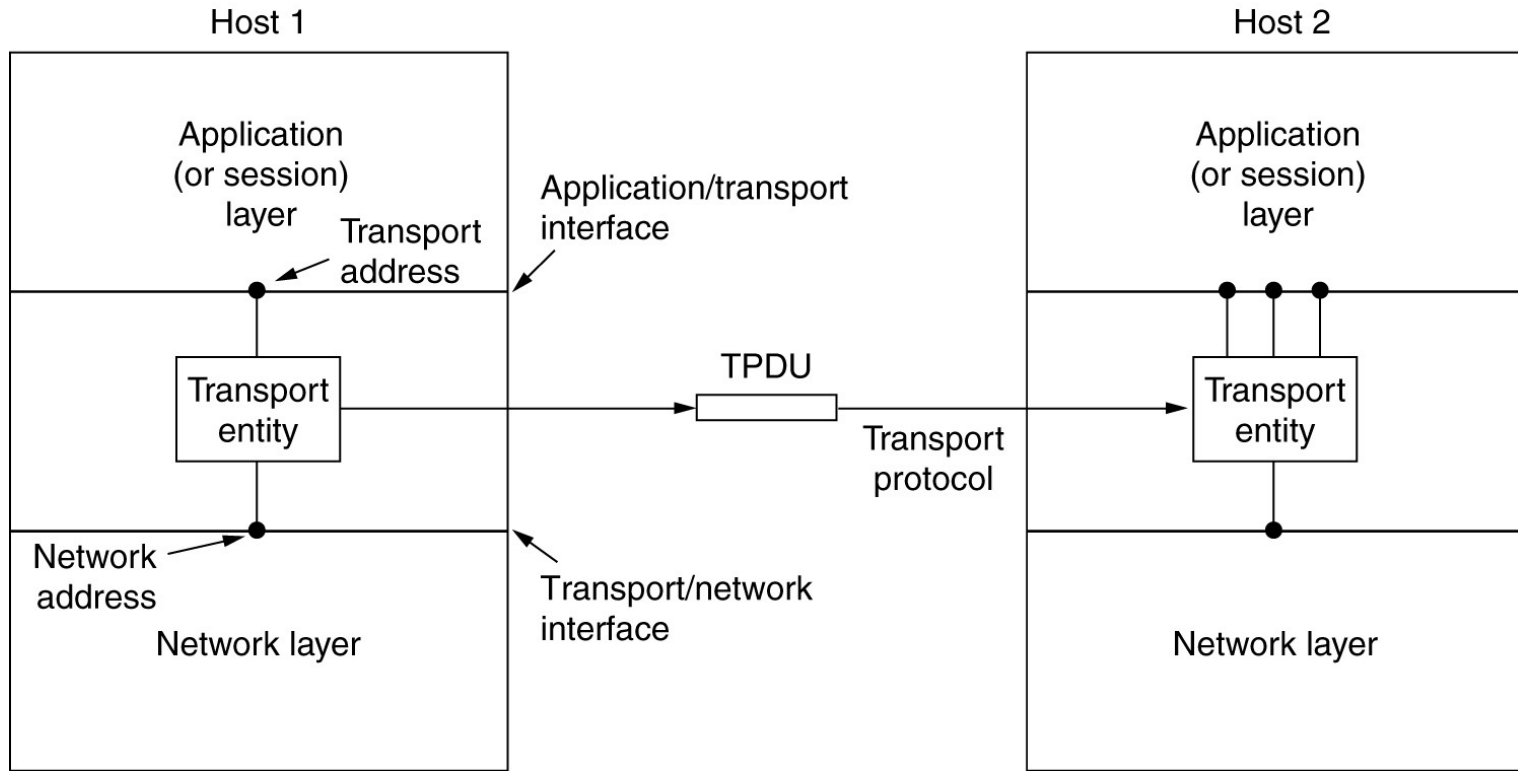
The Transport Service

- Services Provided to the Upper Layers

- Transport Service Primitives

- Berkeley Sockets

- An Example of Socket Programming:
  - An Internet File Server

Transport Layer

Its task is to provide reliable, cost effective data transport from the source machine to the destination machine for user , independently of the physical network or network currently in use.

Transport entity: The h/w or s/w that does this work in transport layer is called transport entity.

Services Provided to the Upper Layers

The network, transport, and application layers.

Transport services

a) Connection oriented
b) Connectionless

• Same like network layer .Difference is transport code work at user machine and network code on the routers.
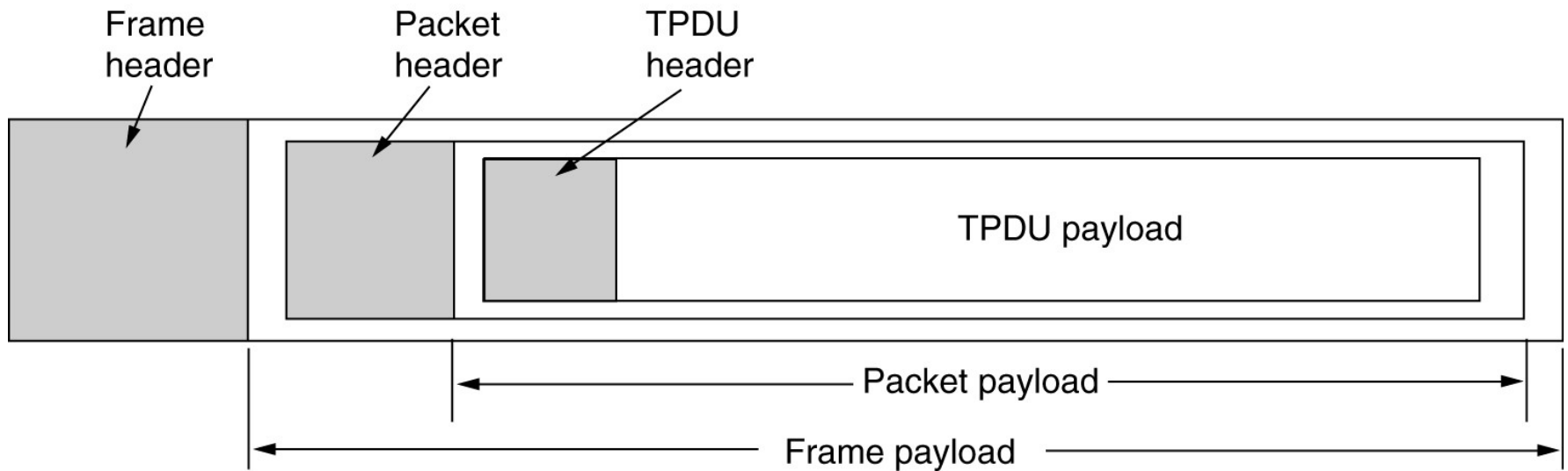
Transport Service Primitives

It allows application program to establish ,use ,and then release connection which is sufficient for many application.

Transport Service Primitives

| Primitive	Packet sent	Meaning
LISTEN	(none)	Block until some process tries to connect
CONNECT	CONNECTION REQ.	Actively attempt to establish a connection
SEND	DATA	Send information
RECEIVE	(none)	Block until a DATA packet arrives
DISCONNECT	DISCONNECTION REQ.	This side wants to release the connection

The primitives for a simple transport service.

Transport Service Primitives (2)

The nesting of TPDUs, packets, and frames.

Transport Service Primitives (3)
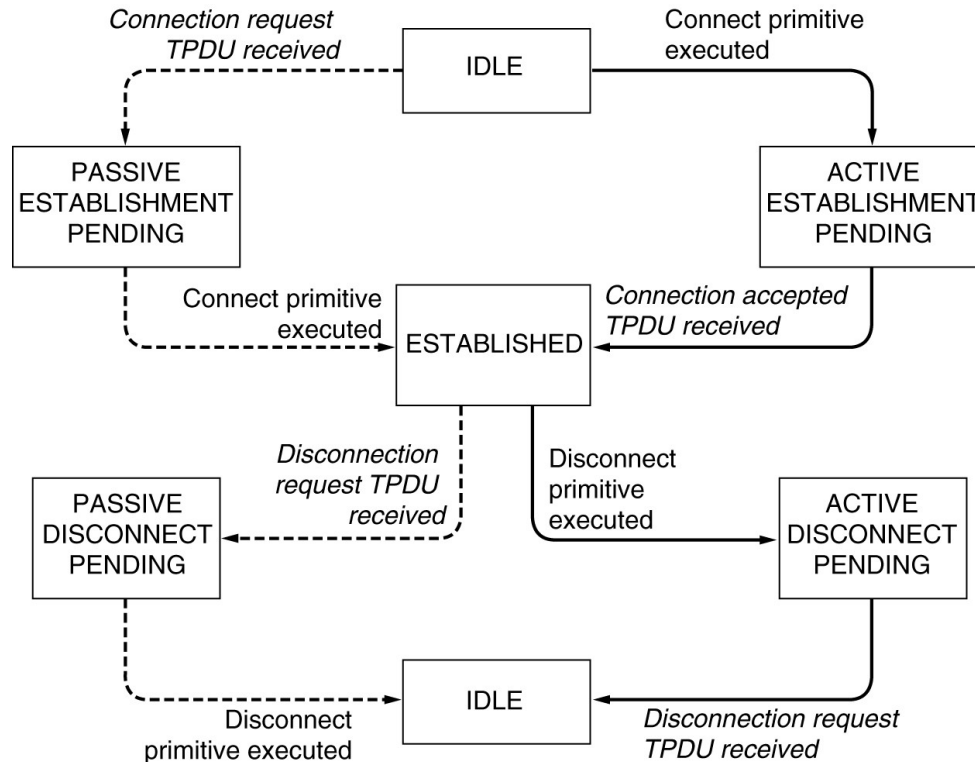
A state diagram for a simple connection management scheme. Transitions labeled in italics are caused by packet arrivals. The solid lines show the client's state sequence. The dashed lines show the server's state sequence.

Thank you