Computer Networks

UDP

Need of UDP

1.) If application needs 1 request / 1 reply
DNS
BOOTP / DHCP
NTP
NNP
Quote of the day

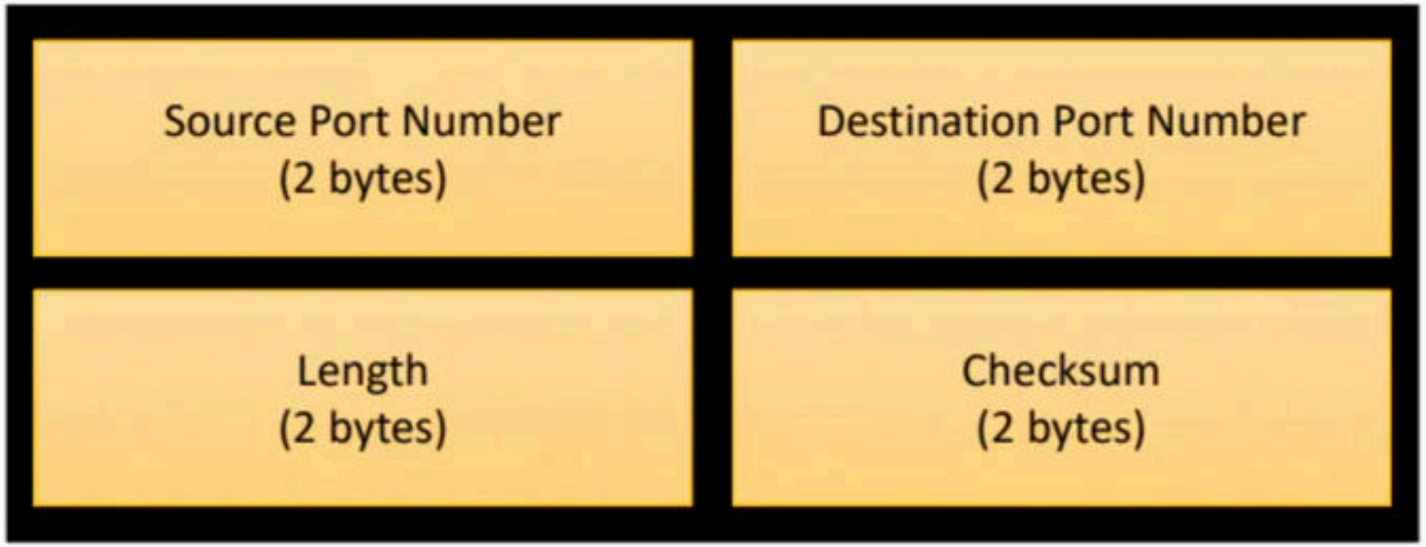
2.)Broadcasting / Multicasting

3.)In applications that need speed rather than reliability

UDP is short for User Datagram Protocol.

It is a connectionless protocol.
It is a stateless protocol.
It is an unreliable protocol.
It is a fast protocol.
UDP does not guarantee in order delivery.

UDP Header



1. Source Port-

Source Port is a 16 bit field.
It identifies the port of the sending application.

2. Destination Port-

Destination Port is a 16 bit field.
It identifies the port of the receiving application.

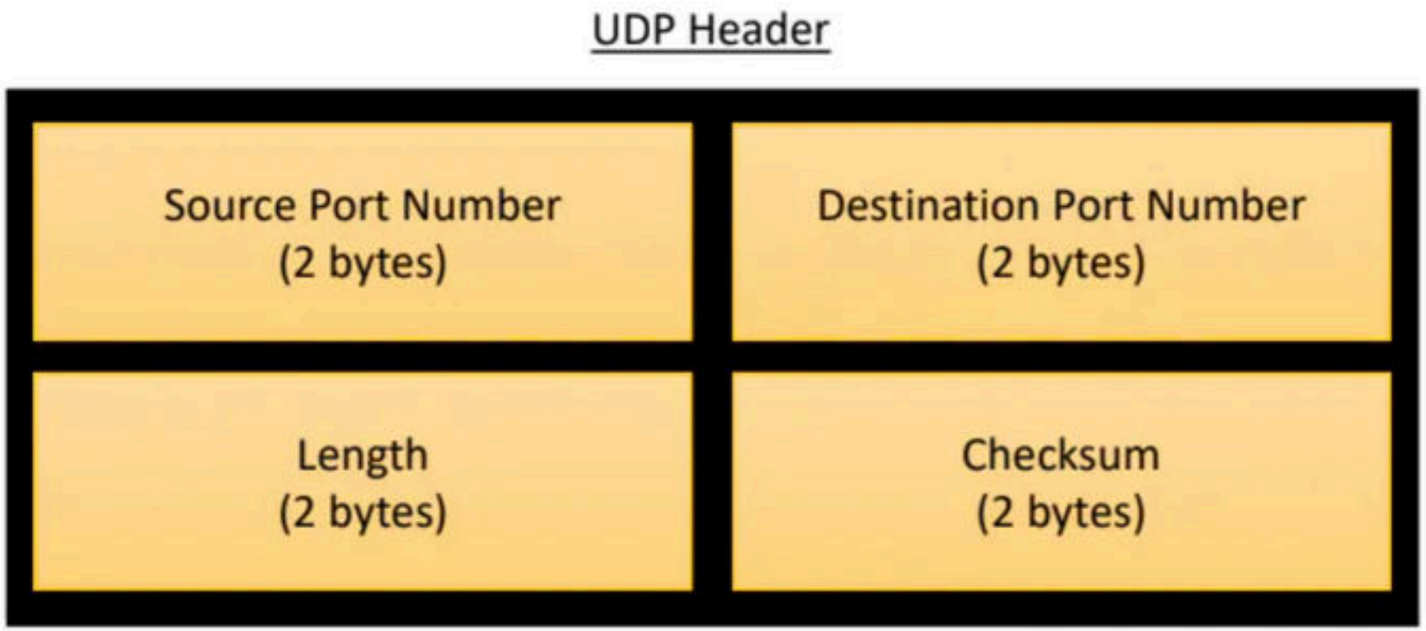
3. Length-

Length is a 16 bit field.
It identifies the combined length of UDP Header and Encapsulated data.

Length = Length of UDP Header + Length of encapsulated data

4. Checksum-

Checksum is a 16 bit field used for error control.
It is calculated on UDP Header, encapsulated data and IP pseudo header.
Checksum calculation is not mandatory in UDP.



Application layer can do the following tasks through UDP-
1.Trace Route
2.Record Route
3.Time stamp

UDP acts like a messenger between the application layer and the IP datagram.