# User Datagram Protocol

- The User Datagram Protocol (UDP) is simplest Transport Layer communication protocol available of the TCP/IP protocol suite. It involves minimum amount of communication mechanism. UDP is said to be an unreliable transport protocol but it uses IP services which provides best effort delivery mechanism.

- In UDP, the receiver does not generate an acknowledgement of packet received and in turn, the sender does not wait for any acknowledgement of packet sent. This shortcoming makes this protocol unreliable as well as easier on processing.

UDP Header

▶ UDP header is as simple as its function.

0	16	31
Source port		Destination port
Length		UDP checksum
Data		

Format of the UDP datagram
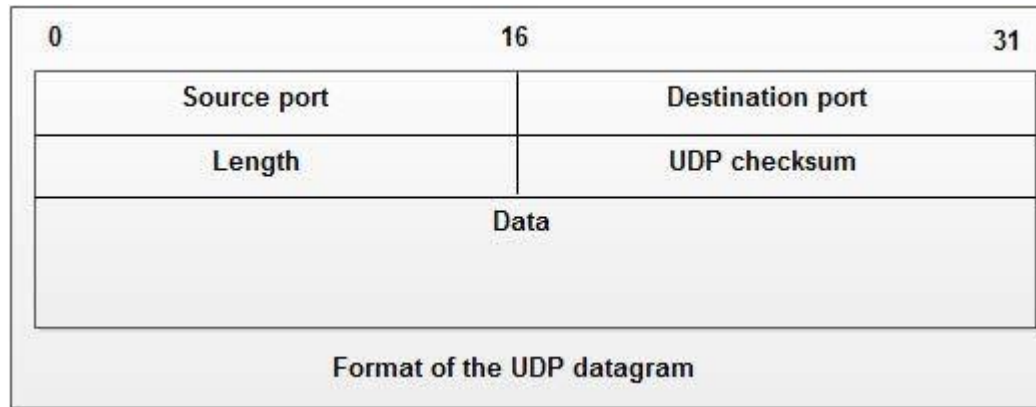
UDP header contains four main parameters:

▶ **Source port-** This is the port number of the application that is originating the user data

▶ **Destination port –** this is the port number pertaining to the destination application and uses 16 bit port number

▶ **Length (of UDP header + data)** – it describes the total length of the UDP datagram

▶ **Checksum –** it is used for intergrity checking and is optional

UDP application

Here are few applications where UDP is used to transmit data:

- Domain Name Services
- Simple Network Management Protocol
- Trivial File Transfer Protocol
- Routing Information Protocol
- Kerberos