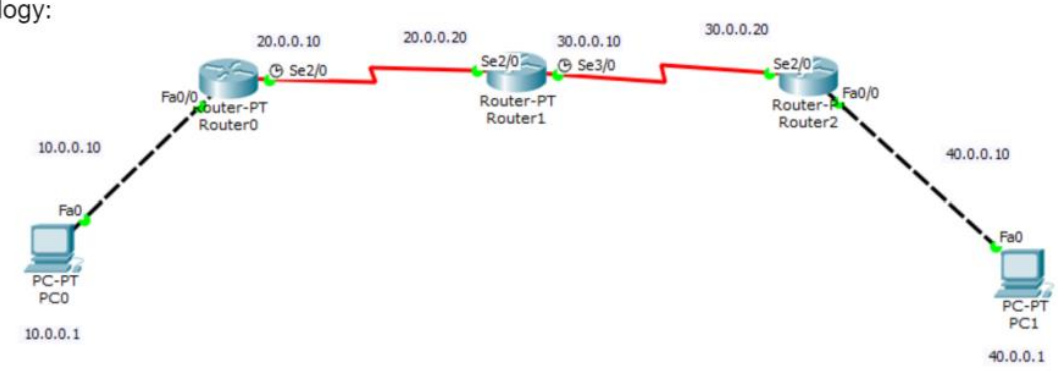
Experiment - 10

Aim: Demonstrate the TTL/ Life of a Packet

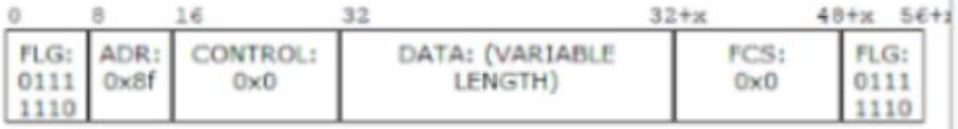
Topology:



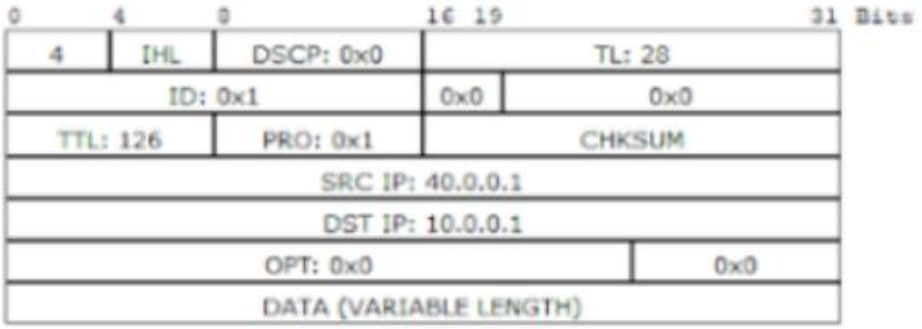
OSI Model | Inbound PDU Details | Outbound PDU Details

PDU Formats

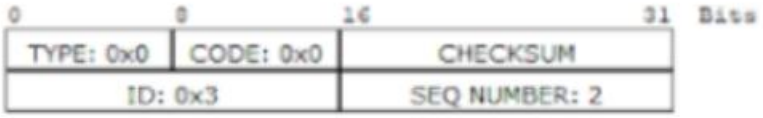
HDLC



IP



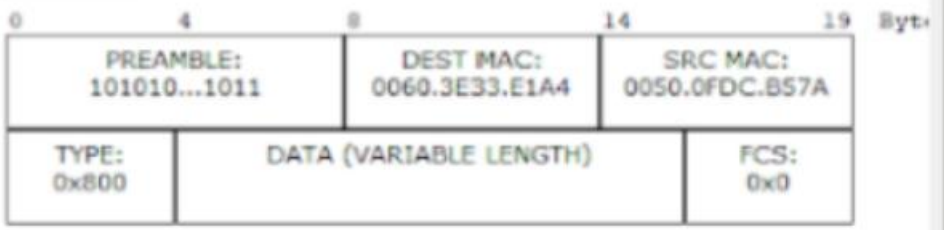
ICMP



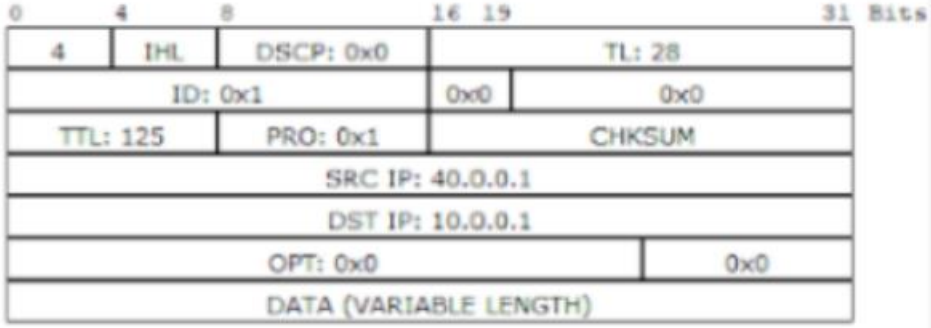
OSI Model | Inbound PDU Details | Outbound PDU Details

PDU Formats

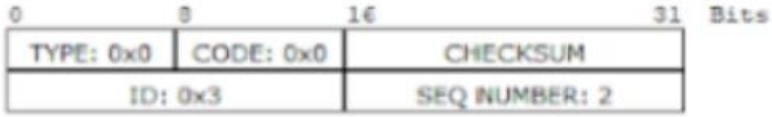
Ethernet II



IP



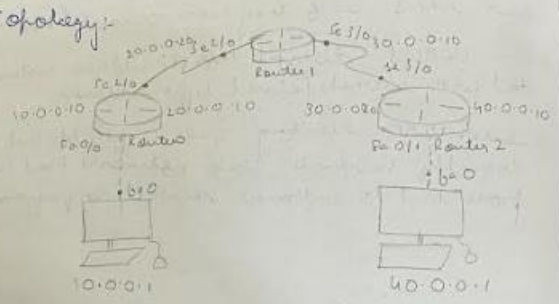
ICMP



10/8/23 Lab-10

Aim:- Demonstrate the TTL life of a packet

Topology:-

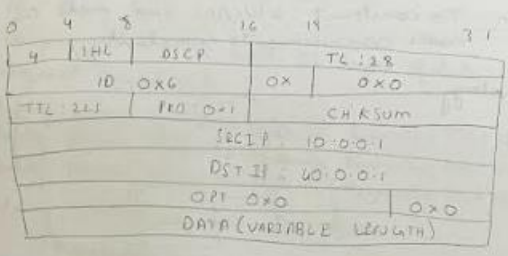


Procedure:-

→ Create a topology as shown above with 2PC's and 3 Routers.
→ Set the IP address and gateway for both PC's
→ Configure the routers either static / default routing way.
→ In simulation mode send a simple PDU from one PC to another.
→ Use capture button to capture every transfer.
→ Click on the PDU during every transfer to see the inbound & outbound PDU details.

Output :-

IP



Observation:-

→ The no. of hops the packet travel before being discarded as TTL

→ Datagrams TTL field is set by the sender and reduced by each router along the path to its destination.

→ The router reduces TTL value by one when forwarding the packets

→ When the TTL value is 0, the router discards and sends an ICMP message.

31/8/2023