

Don Bosco Institute of Technology
Department of Electronics and Telecommunications
Engineering

Class: Sem VI

Subject Code: ECL 602

Subject Name: Computer Communication Network Laboratory

Experiment No. 4

Aim: Perform live packet capture and analyze the contents of an IP datagram using Wireshark.

Learning Objectives:

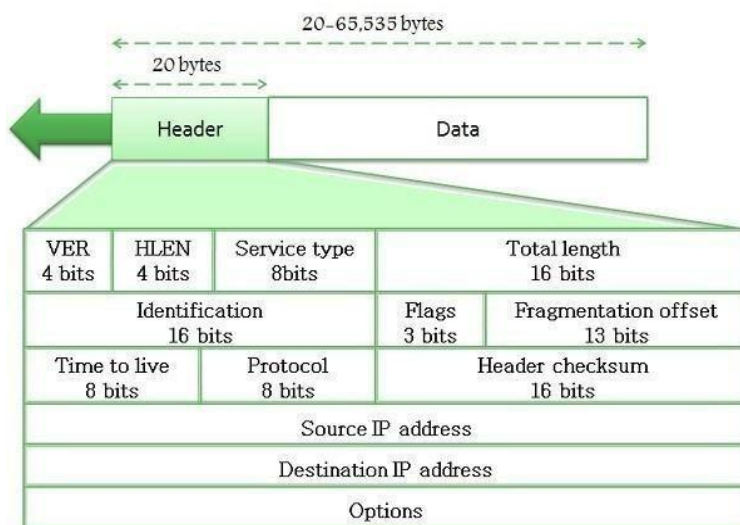
- To make the students aware of packet capturing tool.
- To enable them to analyze the contents of IP datagram.

Learning Outcomes:

After successful completion of the experiment students will be able to:

- Use wireshark as a network protocol analyzer.
- Analyze the contents of IP datagram.

IPv4 Datagram Format



Steps:

1. Start wireshark and select the interface to begin packet capture.
2. Stop the packet capturing process after few seconds.
3. Inspect the packet capture window and explore the various protocols.
4. Observe the Network layer protocol used and analyze its contents with respect to its header format.

Observations:

- Take a screen shot of the IPv4 datagram, write and interpret the contents of each field in tabular form.

Sr. No.	IP Header Fields	Explanation of bits
1	Version (4 Bits)	
2	Internet Header Length (IHL)(4 Bits)	
3	Type of Service (8 Bits)	
4	Total Length (16 Bits)	
5	Identification (16 Bits)	
6	Flags	
7	Fragment offset	
8	TTL	
9	Protocol	
10	Checksum (16 Bits)	
11	Source IP Address	
12	Destination IP Address	
13	Options	

Conclusion: