Mawlana Bhashani Science and Technology University

Lab-Report

Report No: 04

Course code: ICT-4202

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Experiment No: 04 **Experiment Name: Protocol Analysis with Wireshark**

Objectives:

- Capture live packet data from a network interface.
- Display packets with very detailed protocol information.
- Filter packets on many criteria.
- Search for packets on many criteria.
- Colorize packet display based on filters.
- Create various statistics.

Packet Capturing:

By clicking Capture menu the process of capturing will be started. It will show the available interfaces list. Then, we need to start Capturing on interface that has IP address

The packet capture will display the details of each packet as they were transmitted over the wireless LAN.

Capturing can be stopped by clicking on Stop the running capture button on the main toolbar.

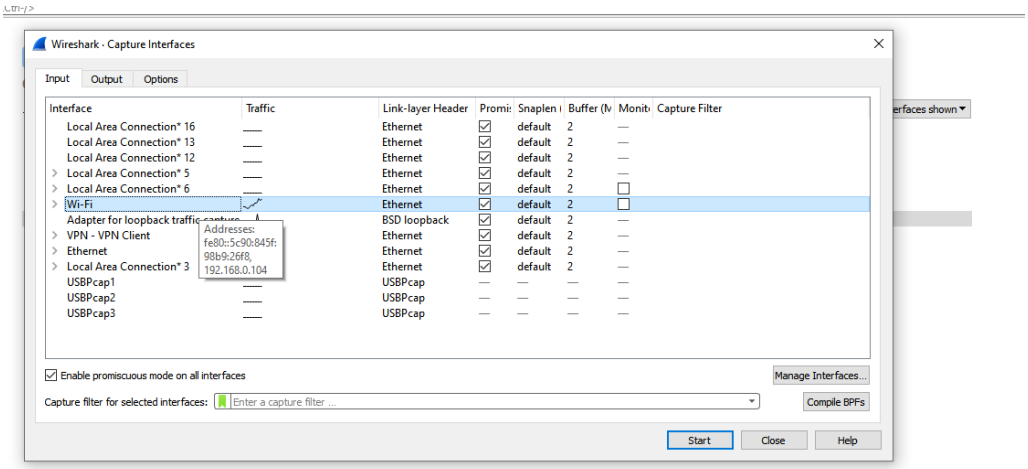

Figure 01: Start Capturing Interface that has IP address

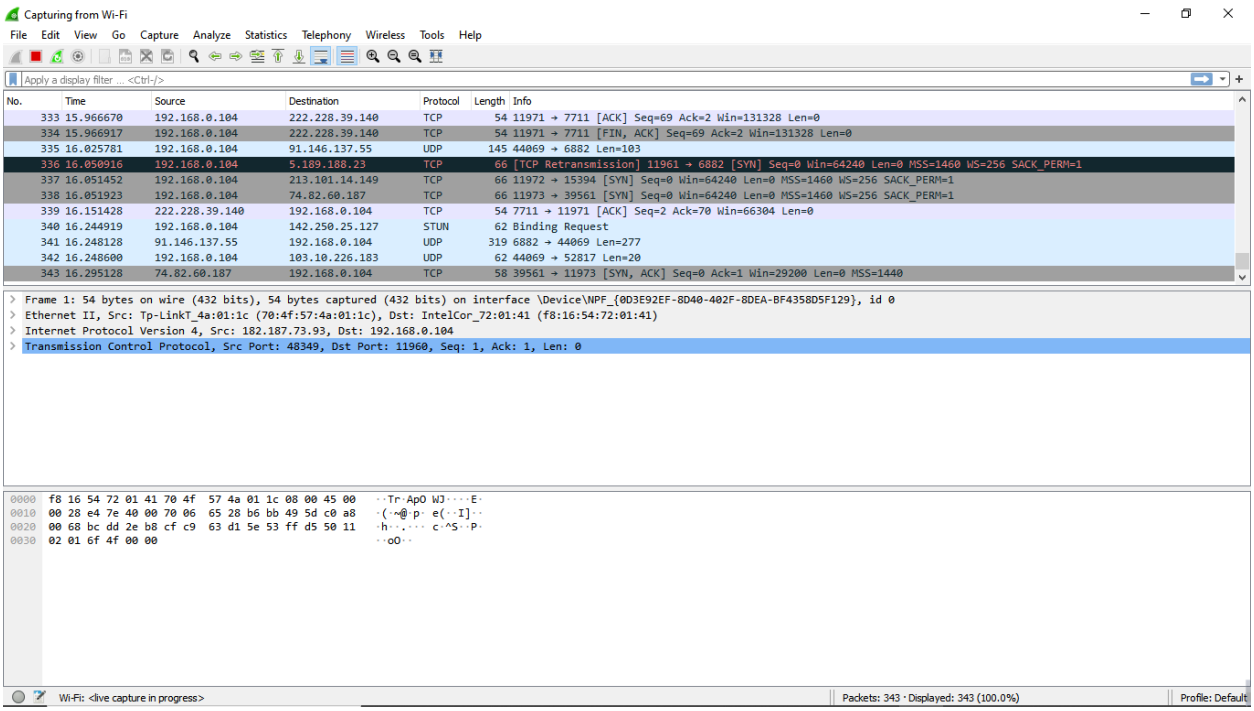

Figure 02: A sample packet capture window

Filtering:

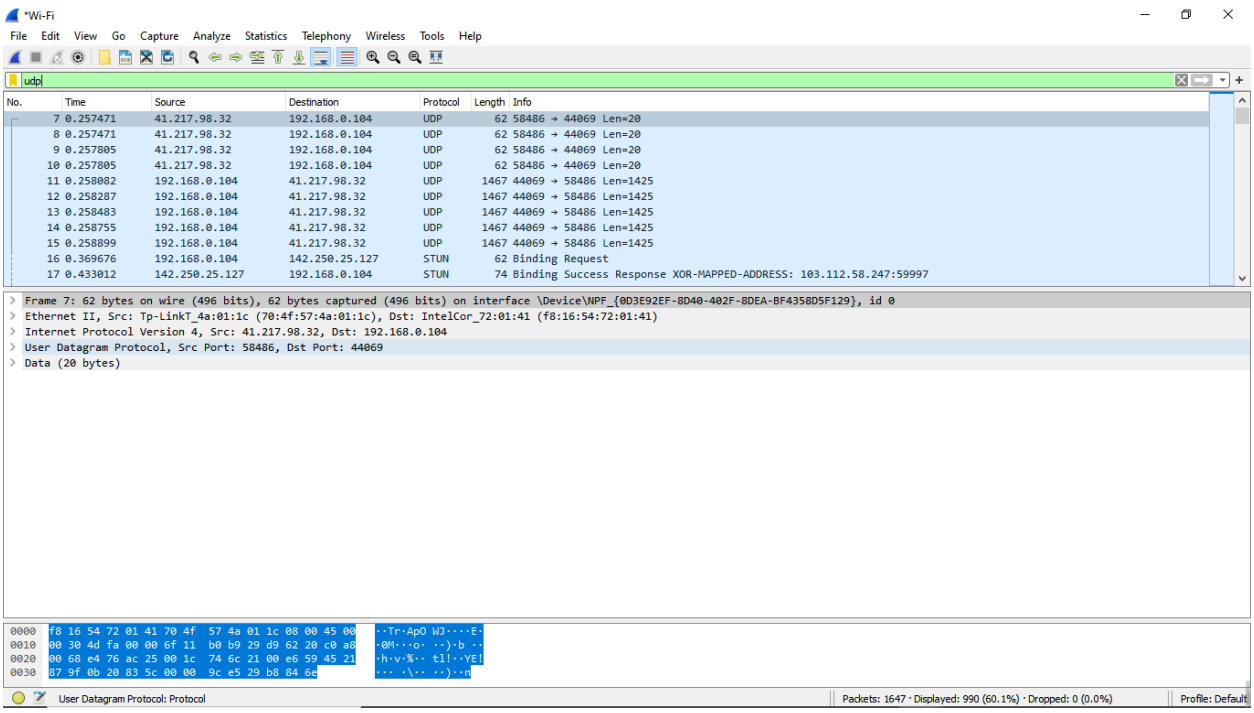

Figure 03: Filter by Protocol

A source filter can be applied to restrict the packet view in wireshark to only those packets that have source IP as mentioned in the filter.

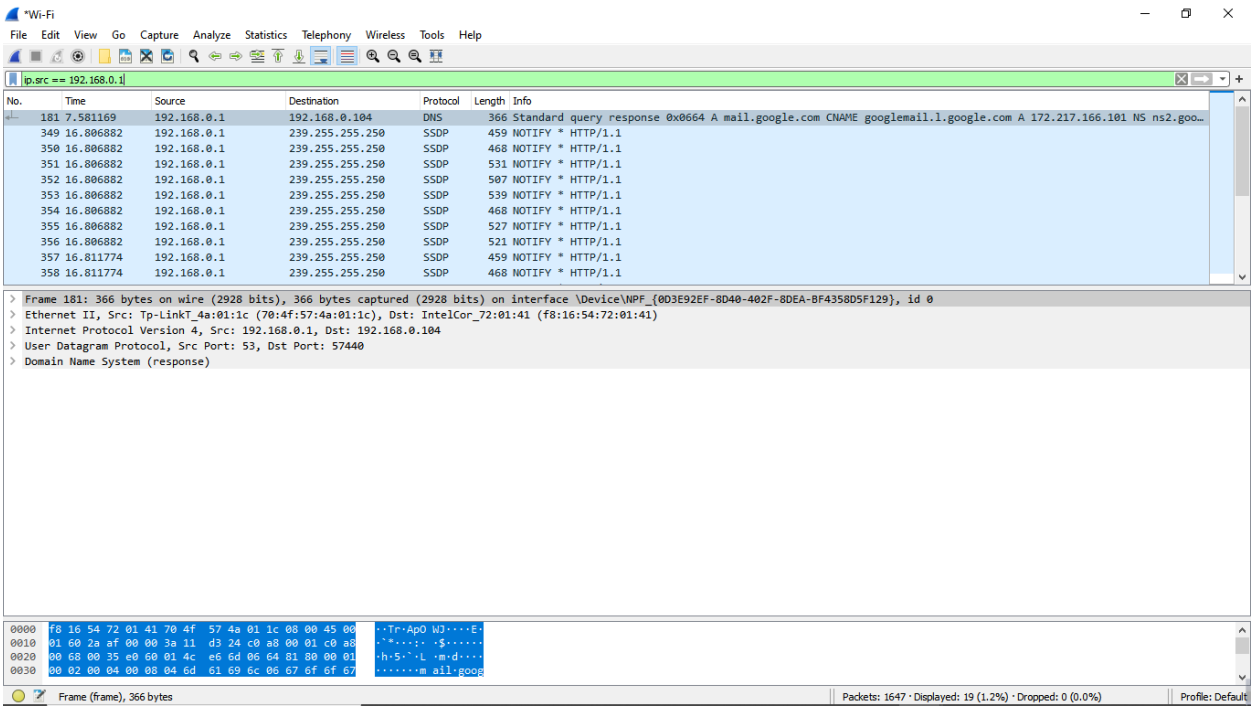

Figure 04: Source IP filter

- **Packets and protocols can be analyzed after capture**
- **Individual fields in protocols can be easily seen**
- **Graphs and flow diagrams can be helpful in analysis**

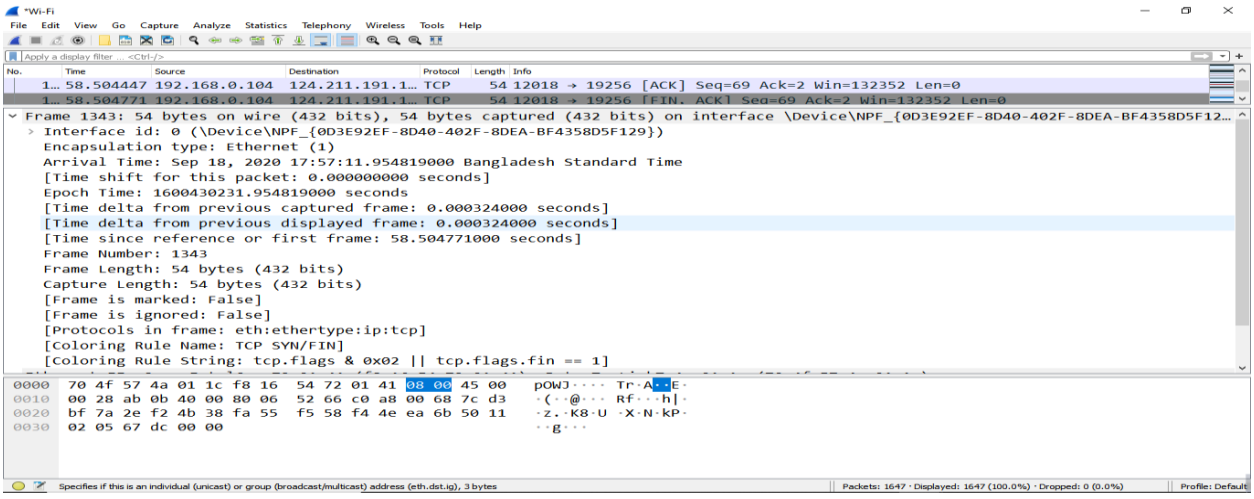

Figure 05: Packet Details Pane(Frame segment)

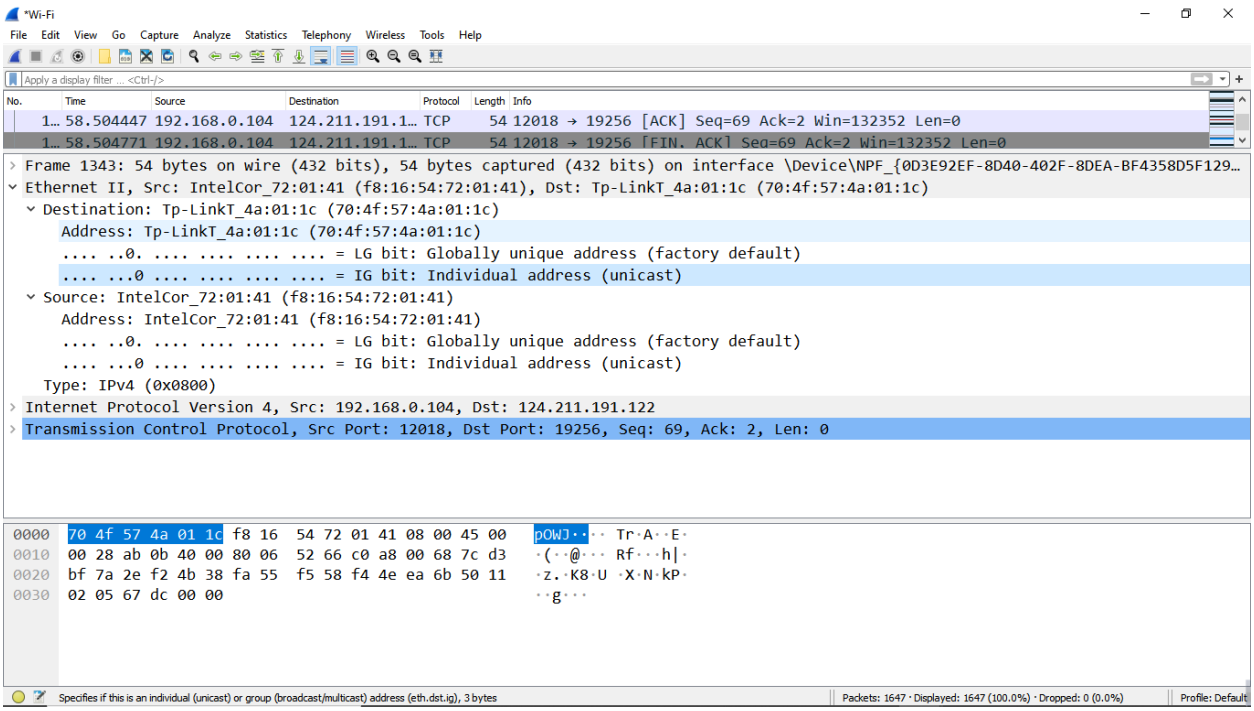

Figure 06: Packet Details Pane (Ethernet Segment)

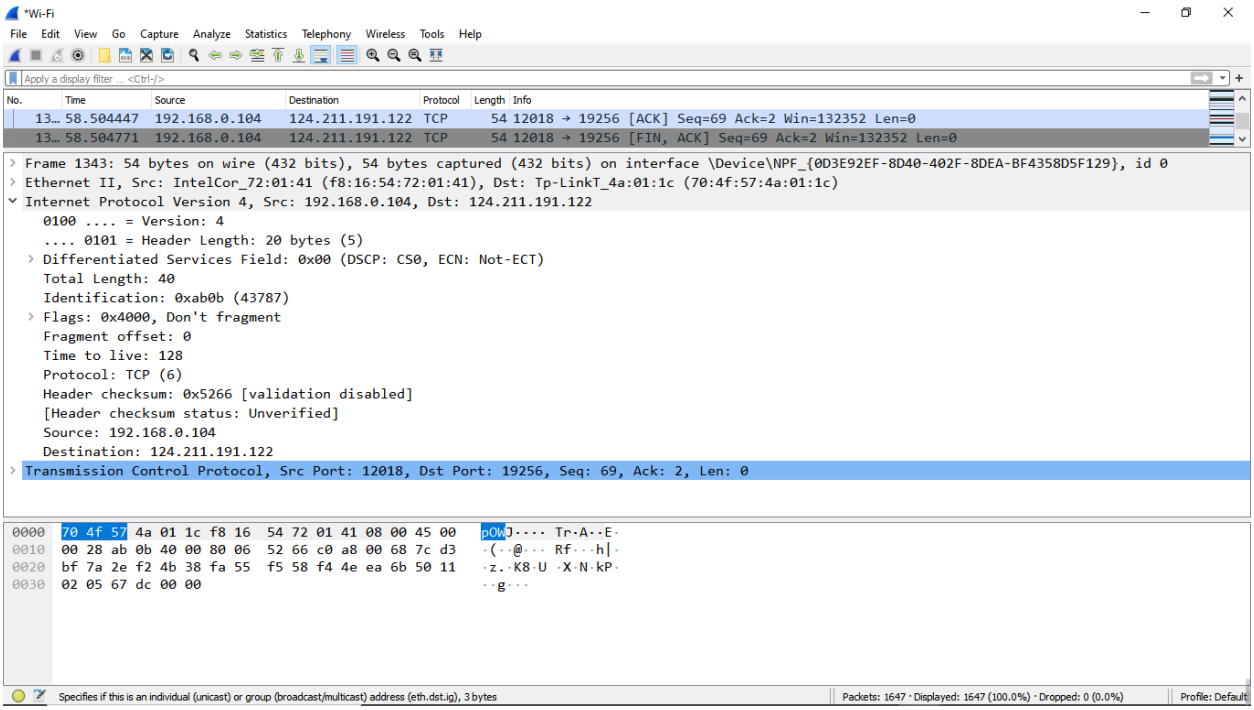

Figure 07: Packet Details Pane(IP segme

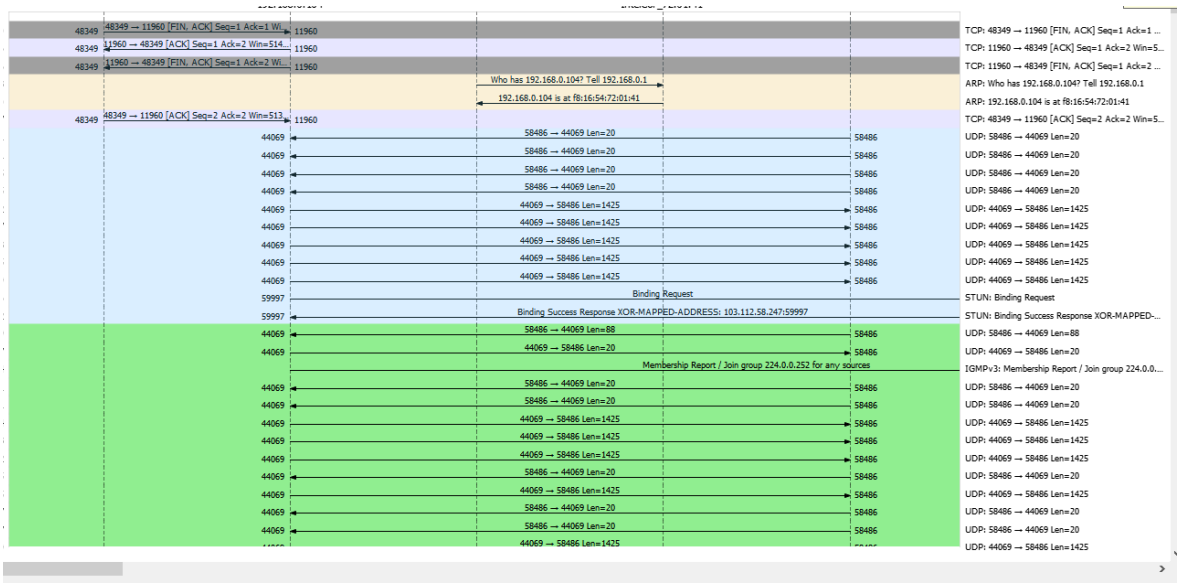

Figure 08: Statistics- Flow Graph(All Flows)

Conclusion:

we can easily Capture live packet data from a network interface using Wireshark. We have applied filter to monitor particular traffic. The TCP Stream Throughput graph have shown us the throughput from one TCP stream, in one direction, based on the selected packet.& also We've benefitted by learning some real world example.