Mawlana Bhashani Science and Technology University

Lab-Report

Report No: 05

Course code: ICT-4202

Course title: Wireless and Mobile Communication Lab

Date of Performance: 18.09.2020

Date of Submission:25.09.2020

Submitted by

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4th year 2nd semester

Session: 2015-2016

Dept. of ICT

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Submitted To

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Experiment No: 05

Experiment Name: Comparative Analysis of Wired and Wireless data using Wireshark.

Objectives:

1. We have to find out the Wired data packages Using the Wireshark in order to compare with the wireless data packages.
2. Filter the packages
3. Find out the host, IP of the data packages
4. Create the Statistics for both of the data packages.
5. Finally compare the wired and wireless data packages simultaneously with the help of Wireshark.

Capturing Packets:

If we click any menu option, then it will show the available interfaces list. After clicking the menu, we need to start Capturing on interface that has IP address/Source/Host.

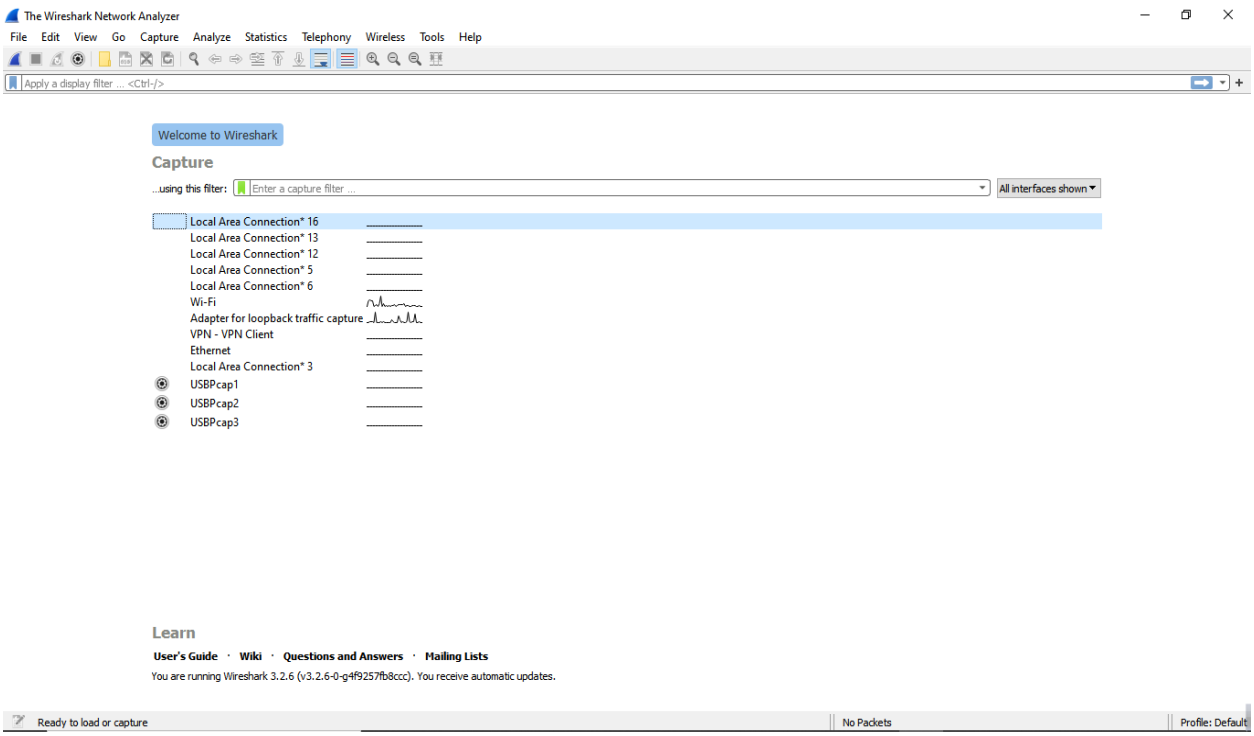

Fig: Wireshark Interface List

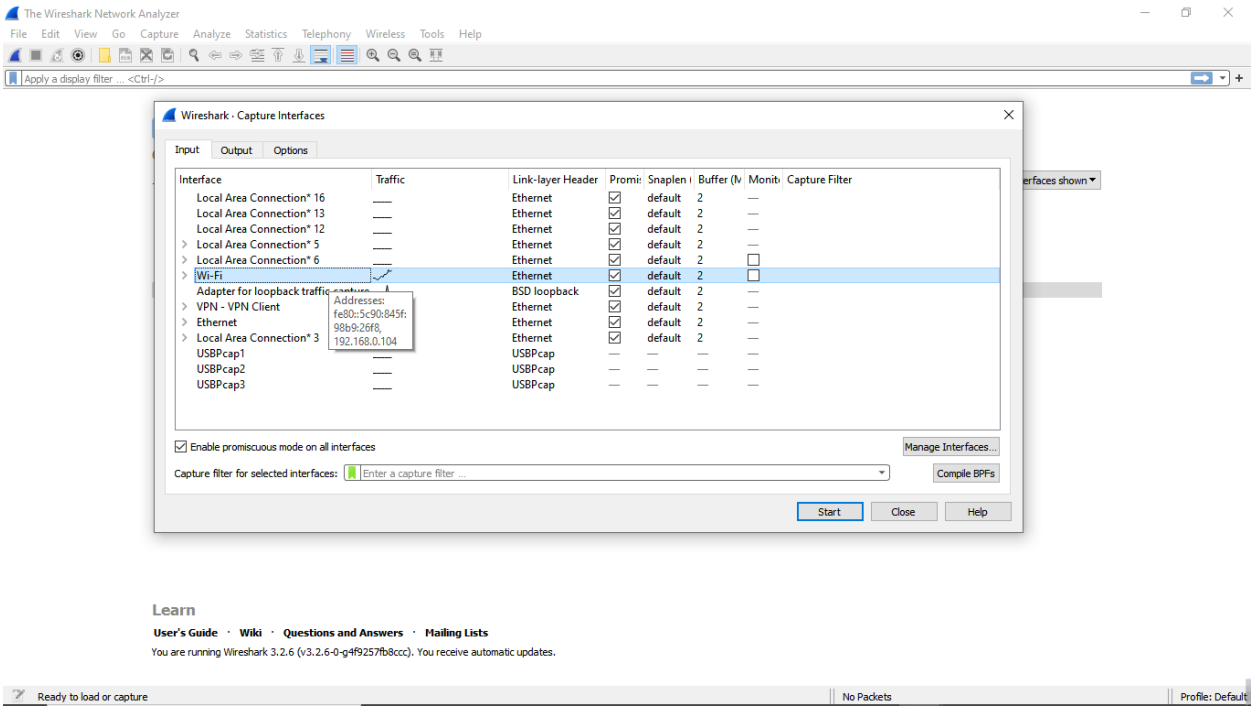

Fig: Start Capturing Interface that has for Wi-Fi

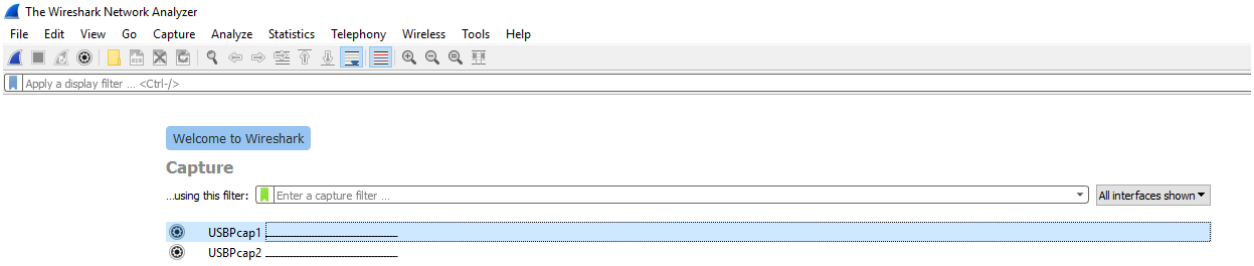

Fig: Start Capturing Interface that has for Ethernet

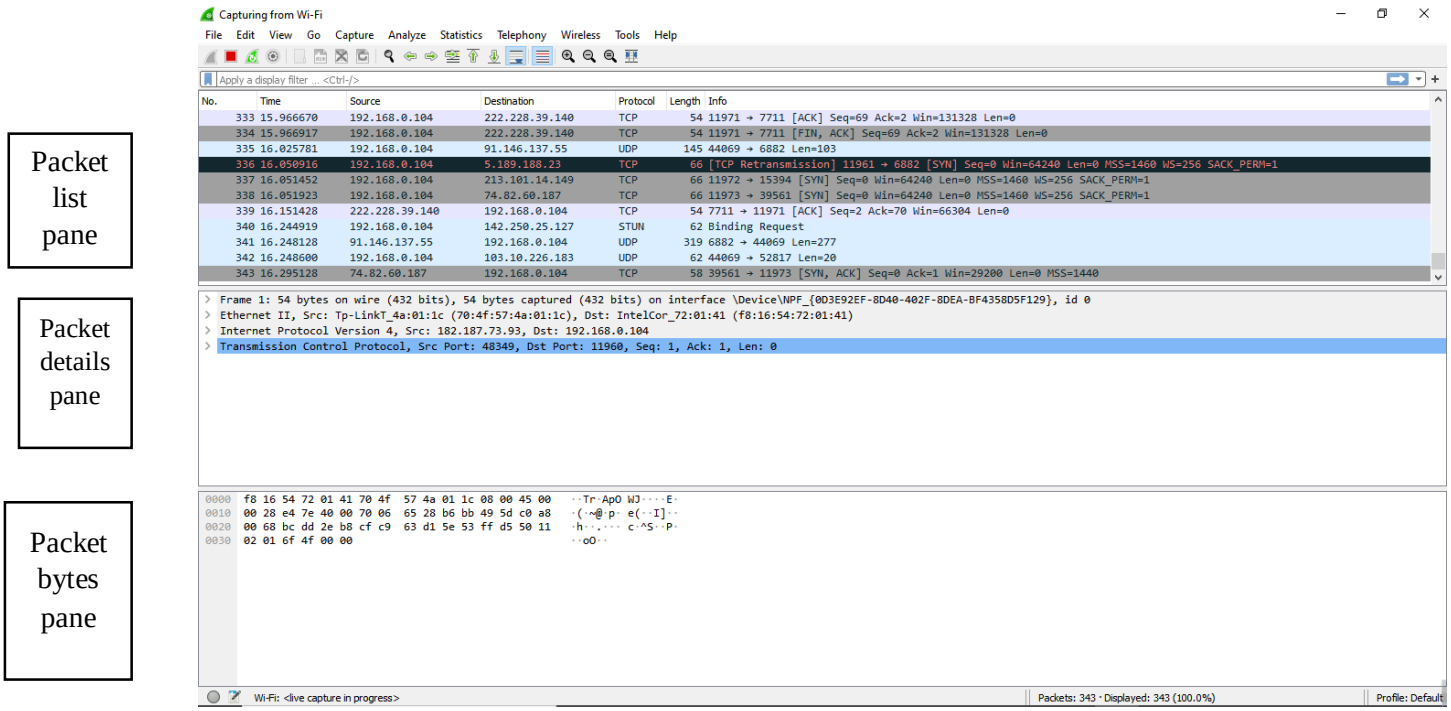

Fig: A sample packet capture window for Wireless Data Pack

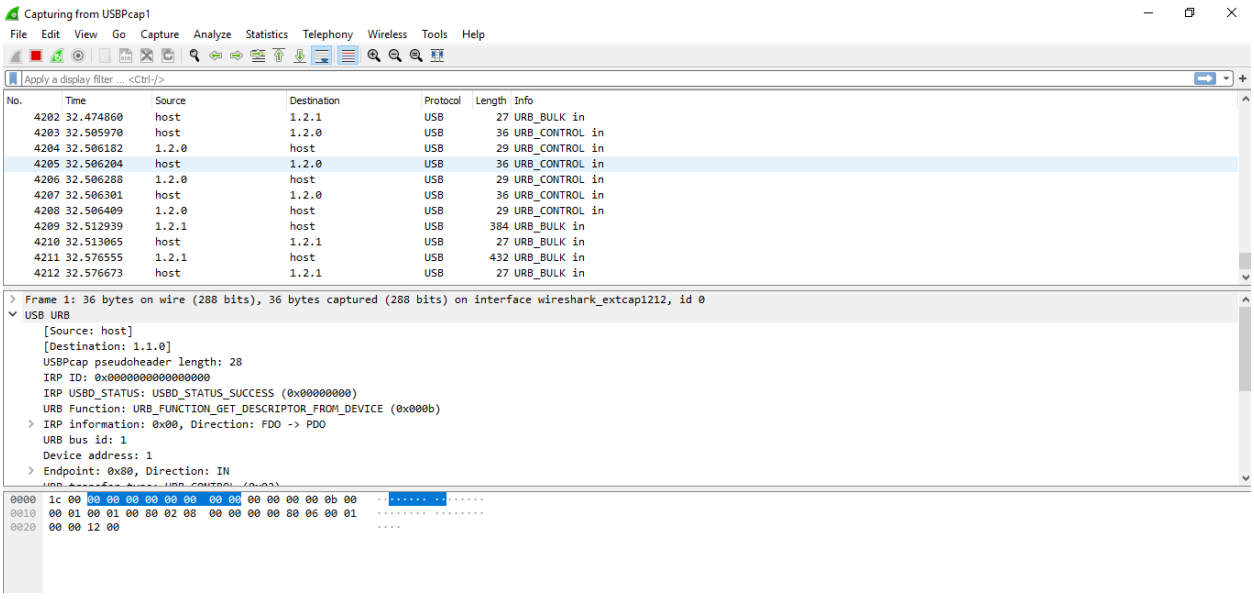

Fig: A sample packet capture window for Wired Data Pack

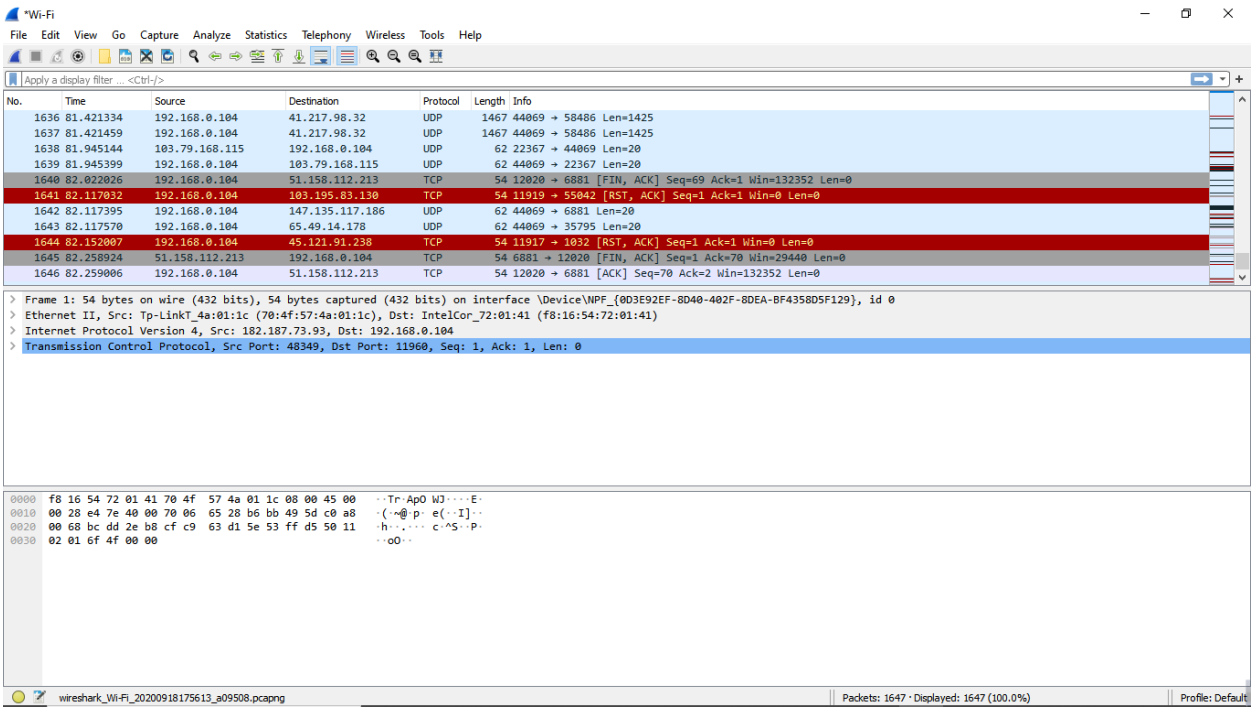

Fig: Stopping Capture for Wi-Fi (Wireless)

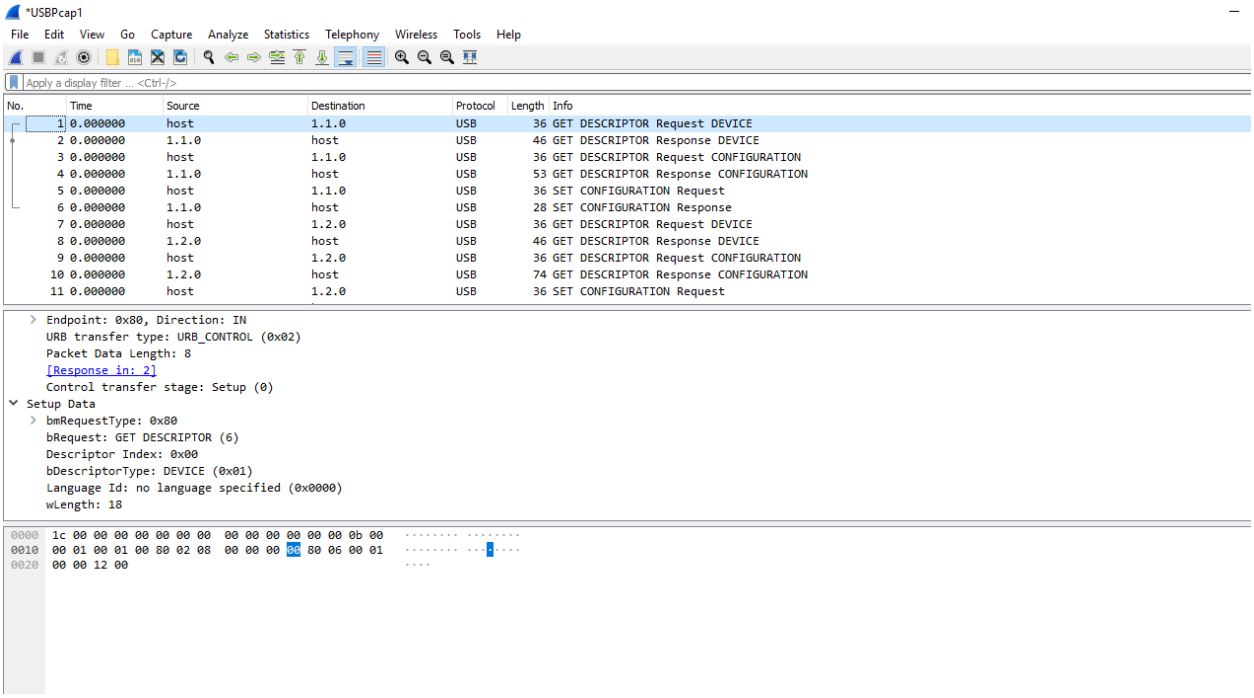

Fig: Stopping Capture for Wi-Fi (Wired)

Filtering:

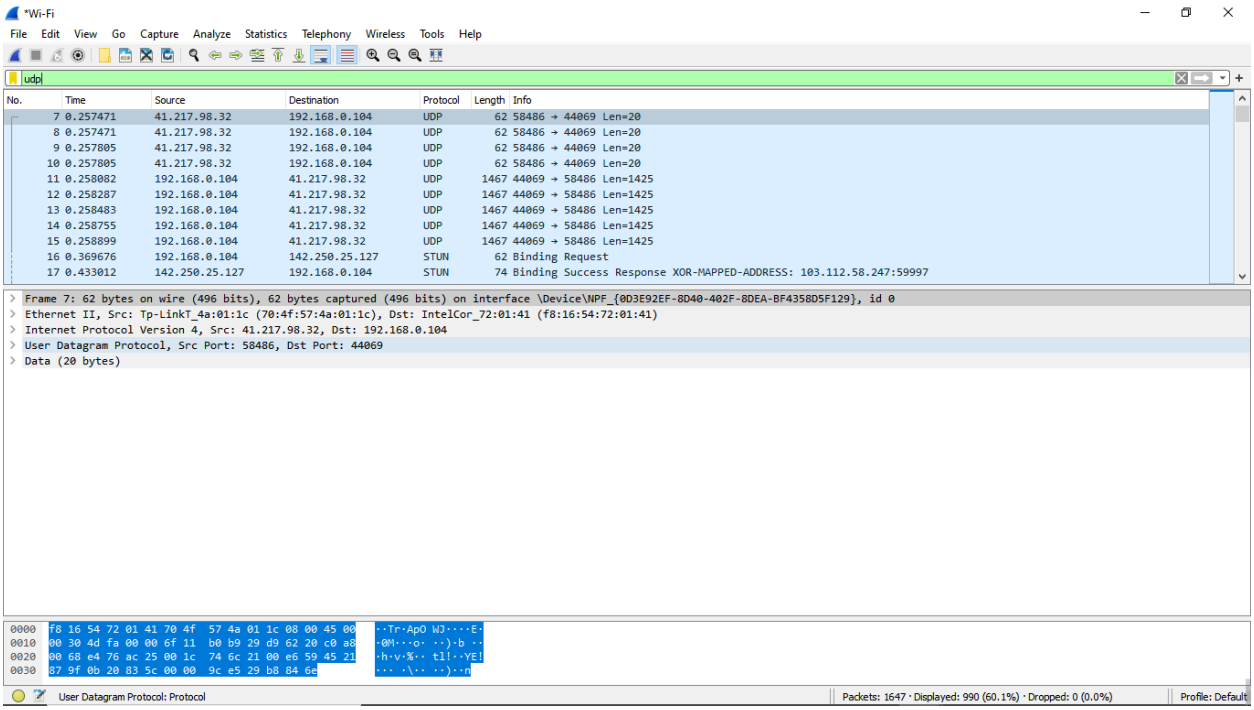

Figure 05-A: Filter by Protocol Wireless Data Packages

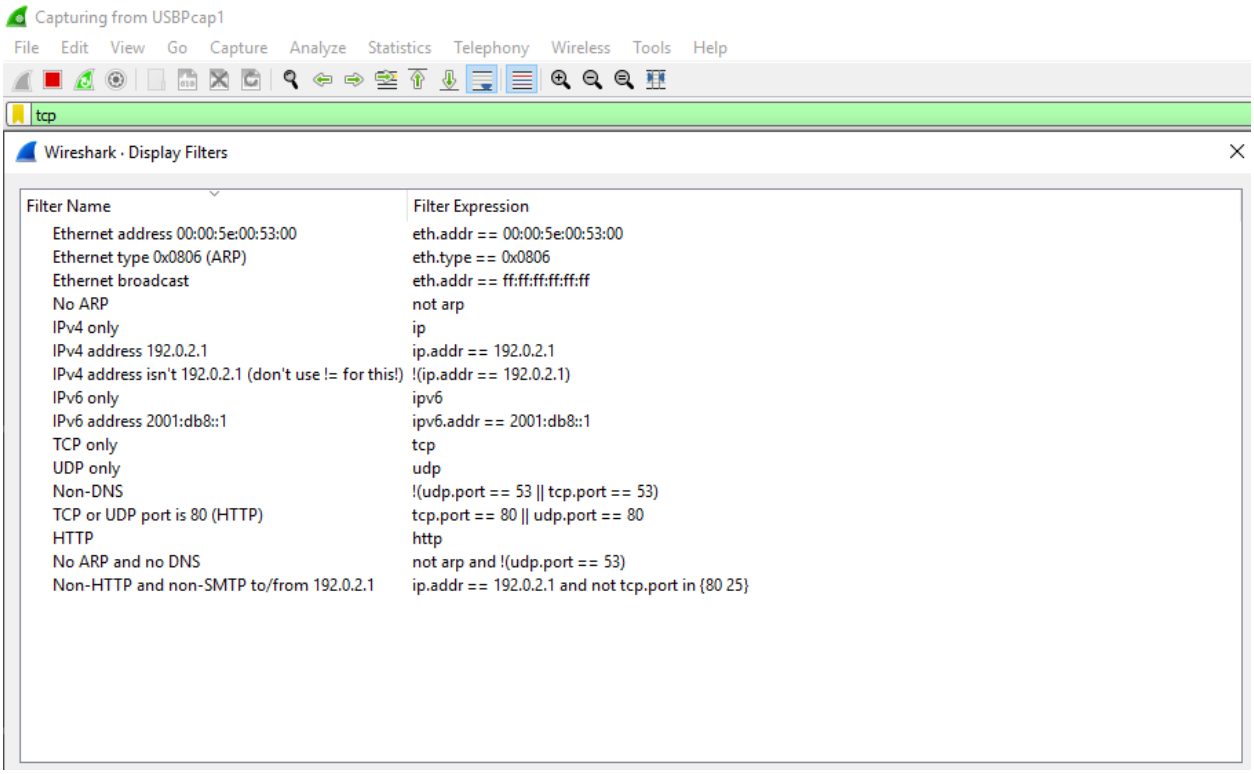

Fig: Filter by Protocol Wired Data Packages

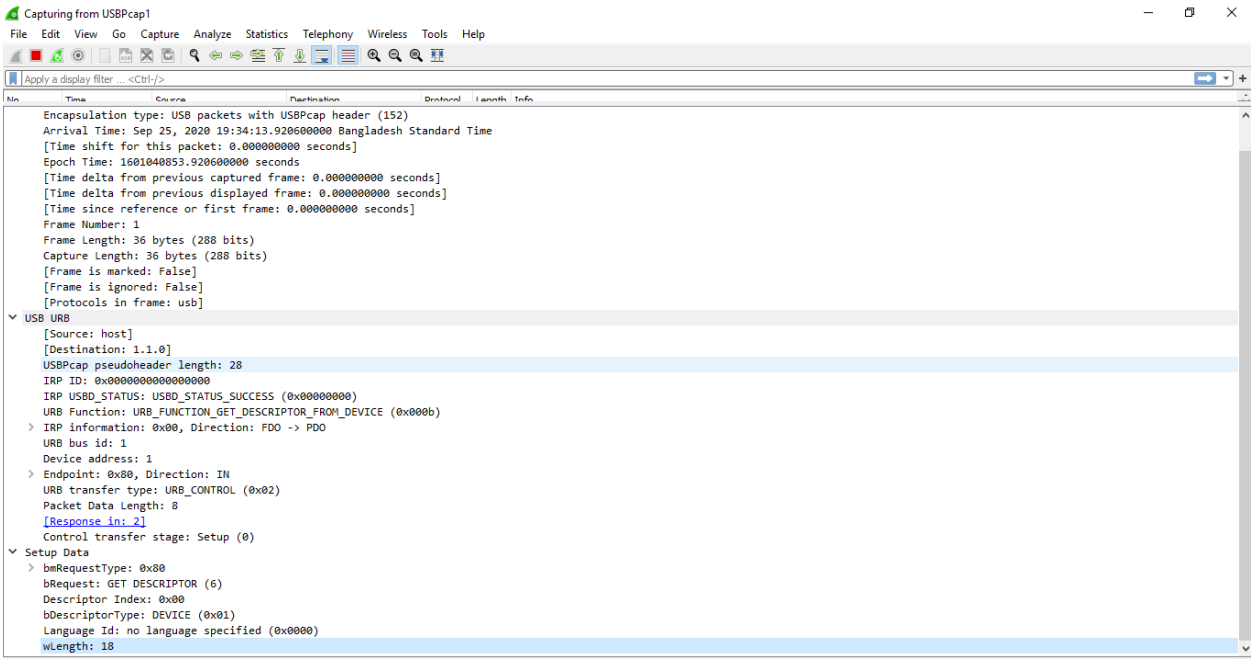

Fig: Packet Details Pane for Wired Data Packages.

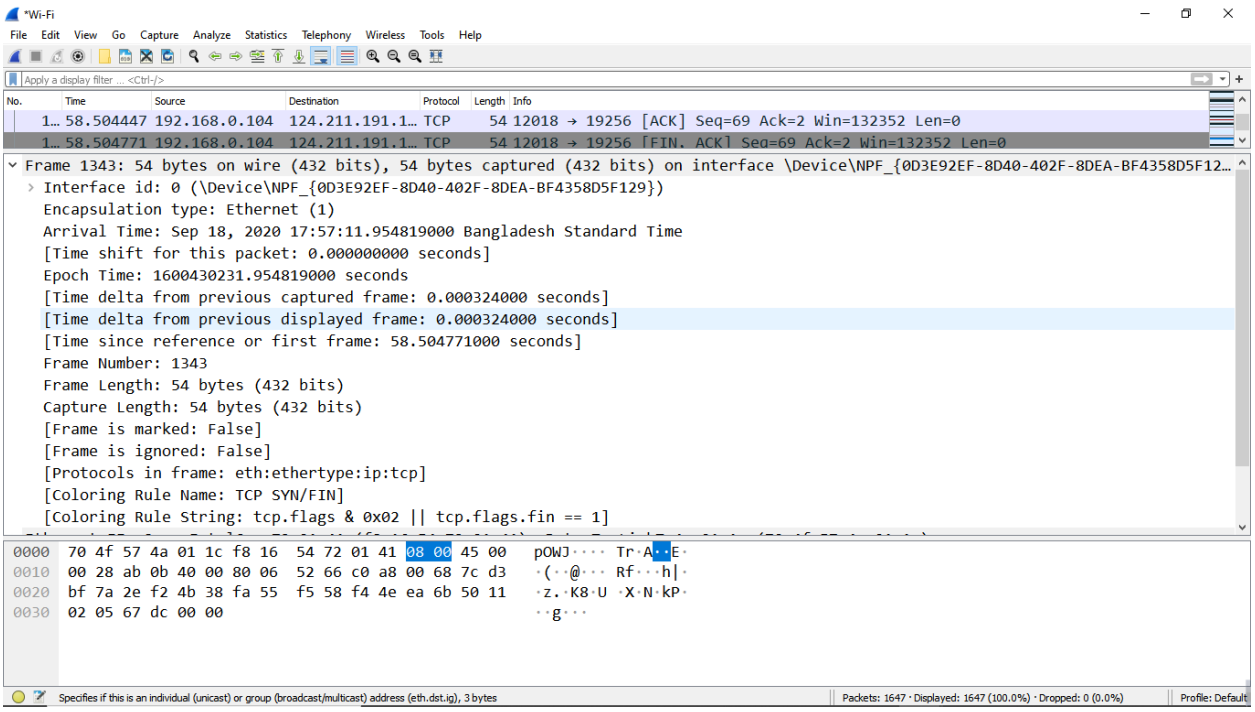

Fig: Packet Details Pane for Wireless Data Packages.

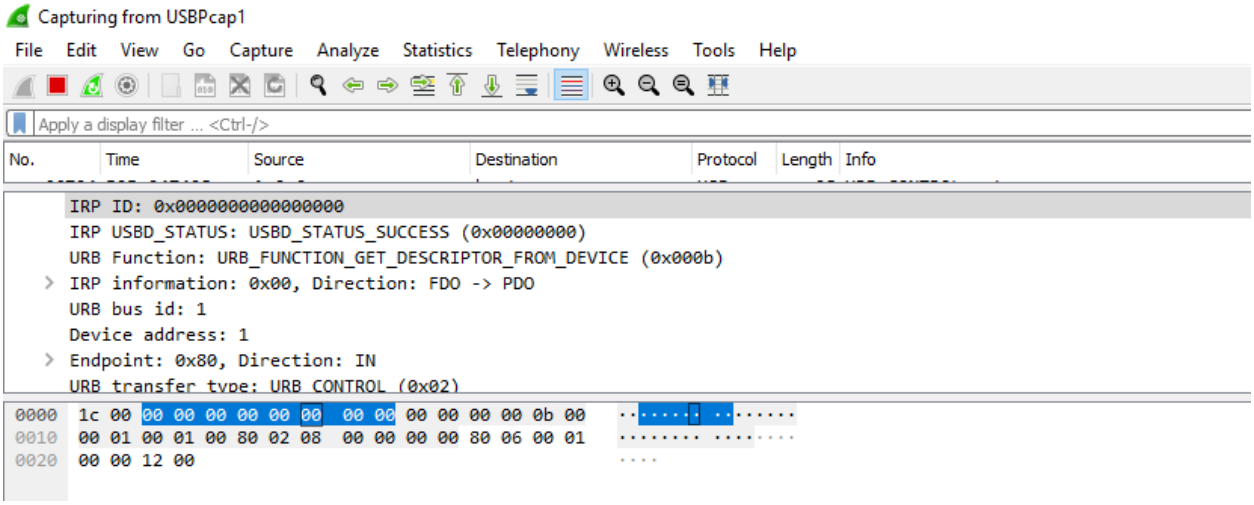

Fig: Packet Byte Pane for Wireless(Ethernet)

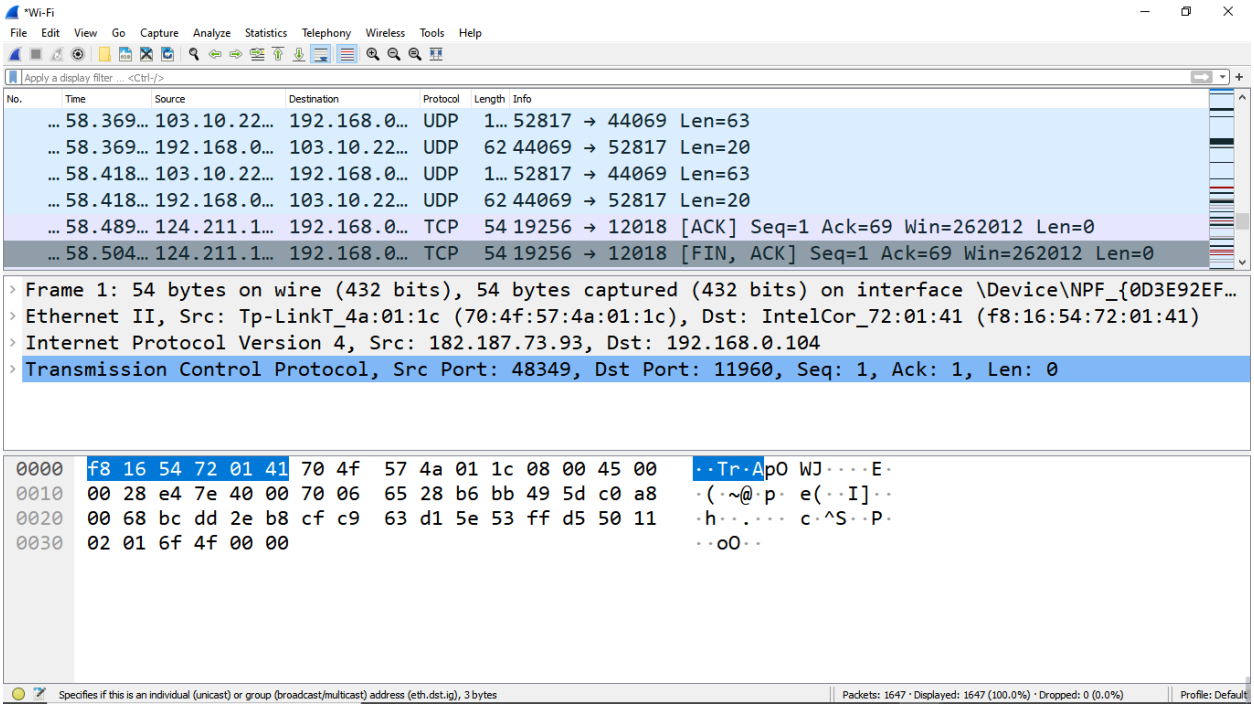

Fig: Packet Byte Pane (Wi-Fi)

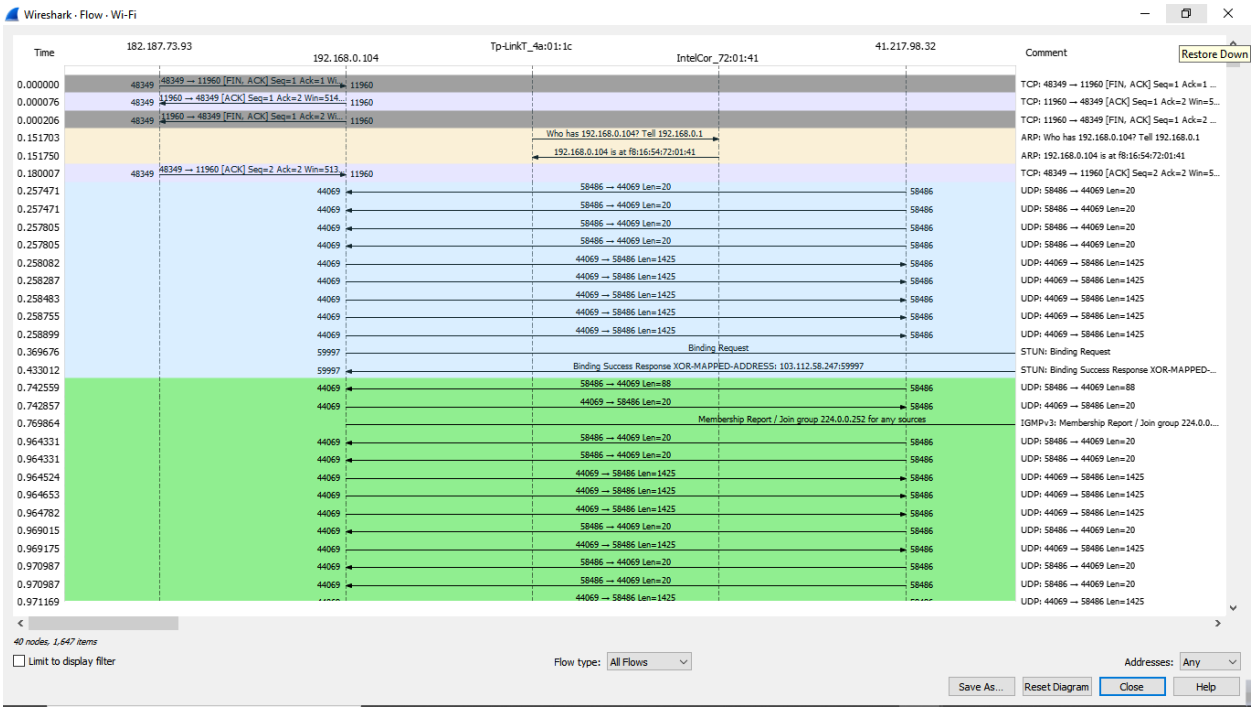

Fig: Statistics- Flow Graph -All Flows for Wi-Fi

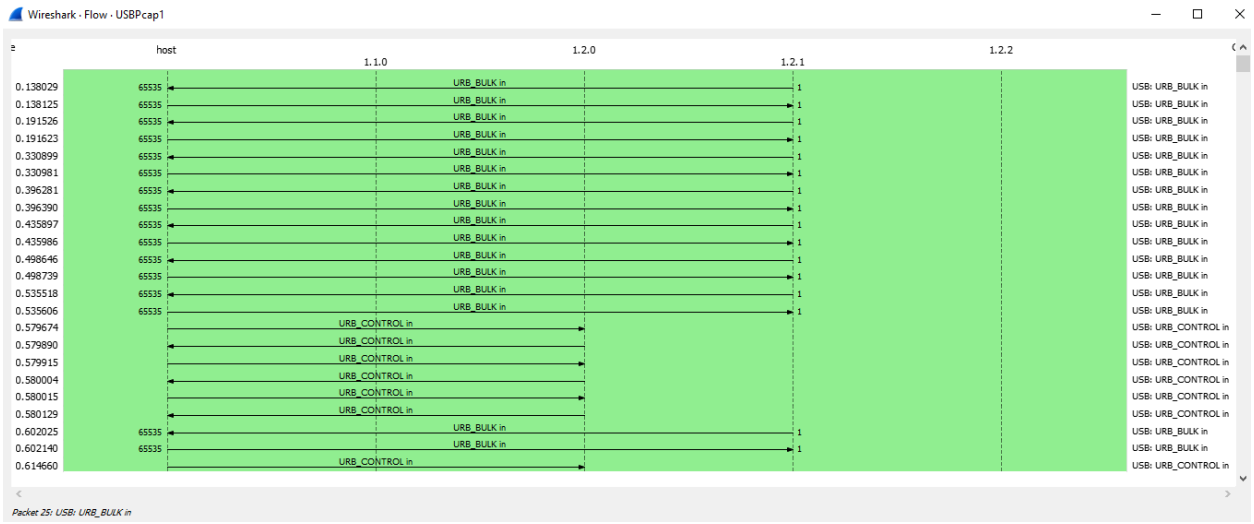

Fig: Statistics- Flow Graph -All Flows for Wi-Fi

Conclusion:

In the experiment stated above, wired network is much more efficient than wireless network. Because Wired data packages transfer rate are very much smoother than Wireless. The results were quite satisfactory.