Development Tools Assignment

Module 2 – Network Performance Measurement Tools

1) Install Wireshark, take capture on WiFi interface

1. Identify the beacon frame using filter.

2. Apply filters to view specific packet.

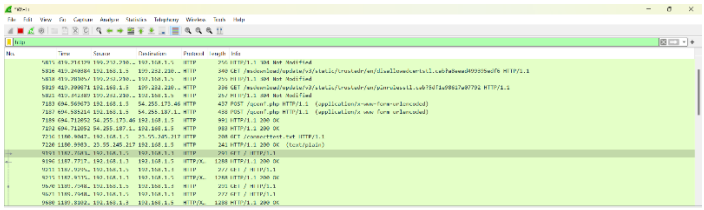
3. Decrypt the wireshark pcap using passphrase, to view the encrytped packets.

4. Point out ethernet and 802.11 frames.

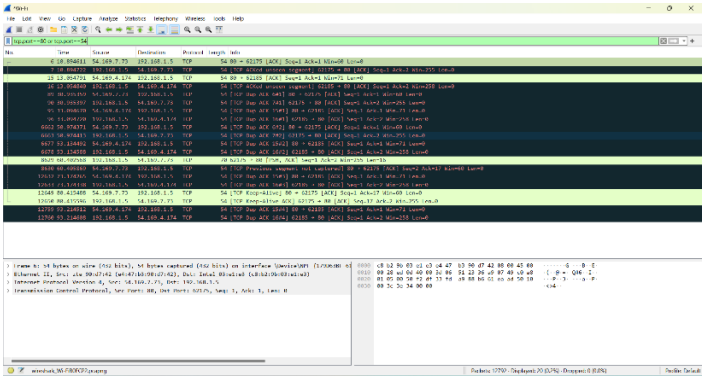
Solution:

Step 2: Apply filters to view specific packet

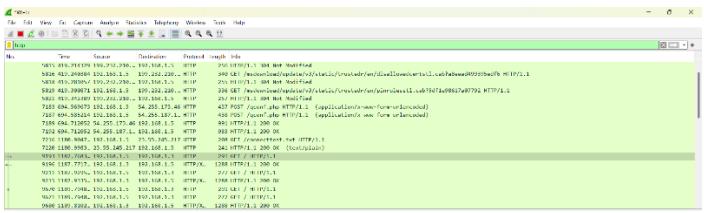
http:

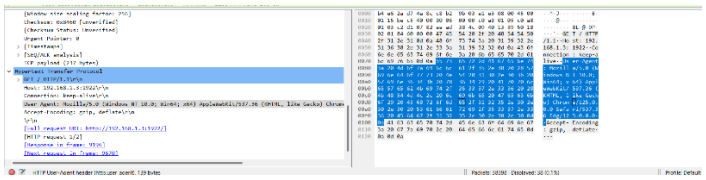


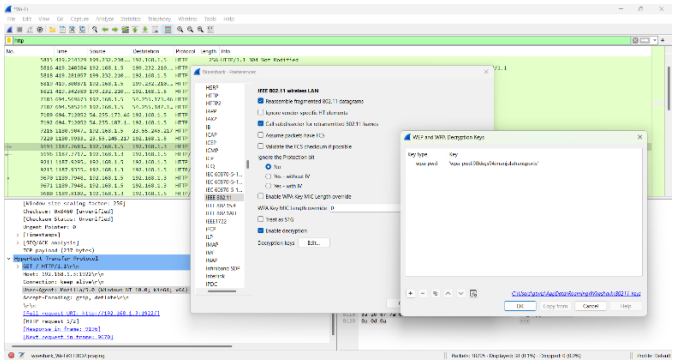
tcp with specific port numbers:



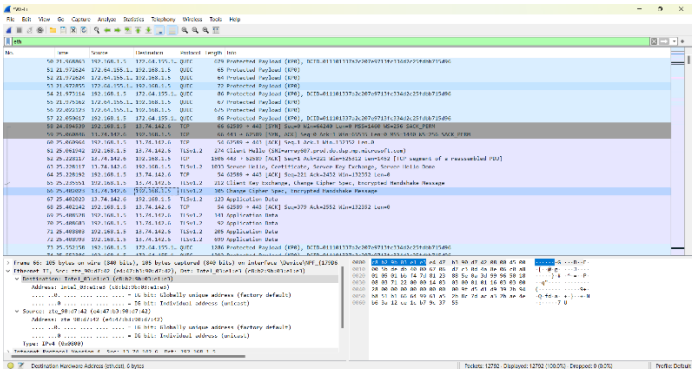
Step 3: Decrypt the wireshark pcap using passphrase, to view the encrytped packets







Step 4: Point out ethernet and 802.11 frames

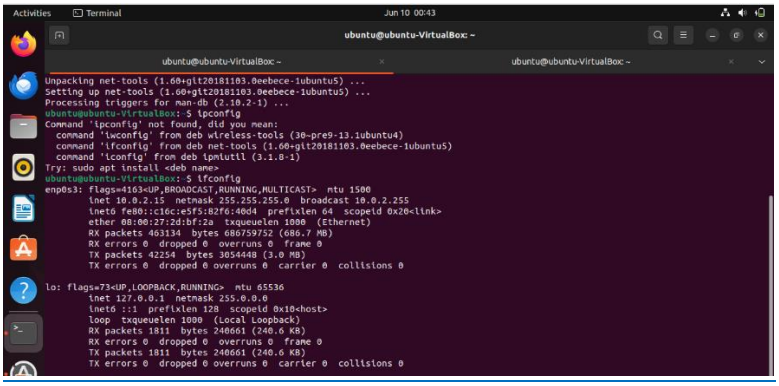


2) Install Iperf on client and server device

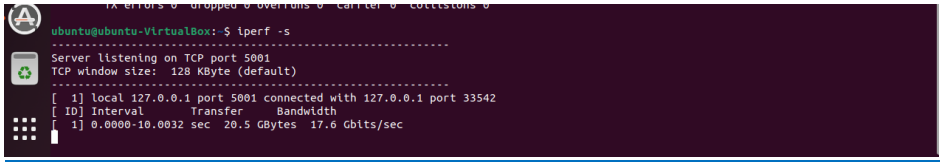
1. Run TCP traffic

Solution:

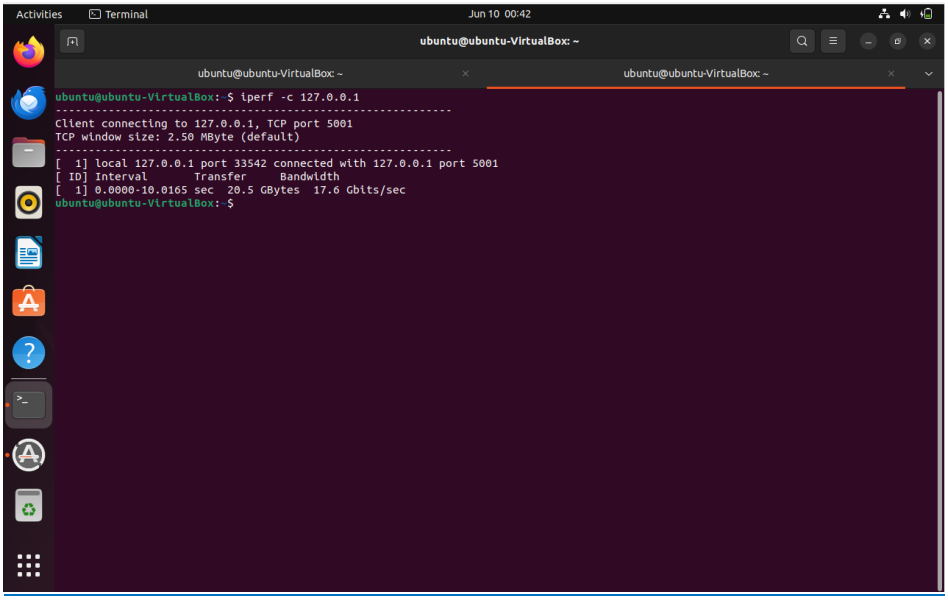
Installing the necessary net-tools and determining the IP of the PC



Server side:



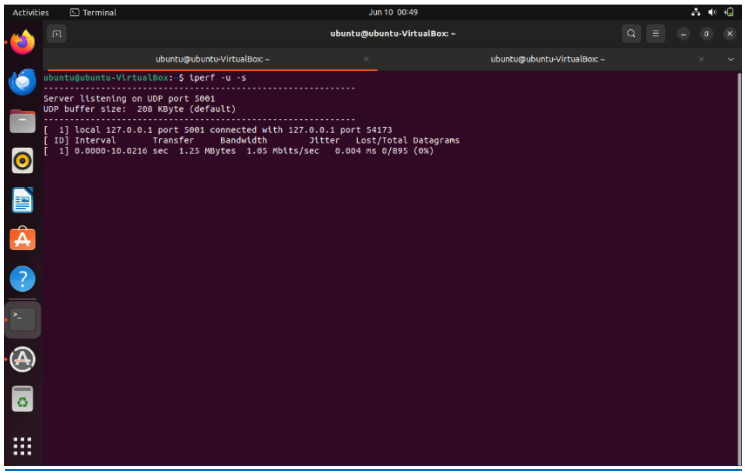
Client Side:



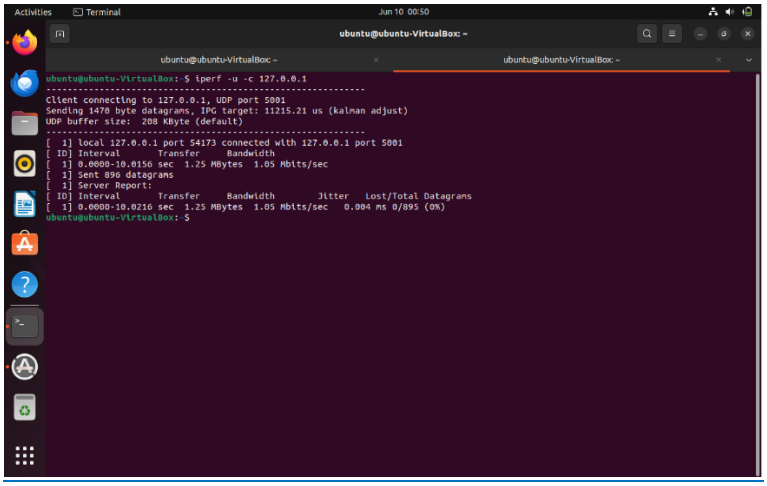
2. Run UDP traffic

Check for the bandwidth and drops reported in the results.

Server side:



Client Side:


Activities
Terminal
Jun 10 00:50
ubuntu@ubuntu-VirtualBox: ~
ubuntu@ubuntu-VirtualBox: ~
ubuntu@ubuntu-VirtualBox: ~
ubuntu@ubuntu-VirtualBox:~$ iperf -u -c 127.0.0.1
Client connecting to 127.0.0.1, UDP port 5001
Sending 1470 byte datagrams, IPG target: 11215.21 us (kalman adjust)
UDP buffer size: 208 KByte (default)
[1] local 127.0.0.1 port 54173 connected with 127.0.0.1 port 5001
[ID] Interval Transfer Bandwidth
[1] 0.0000-10.0156 sec 1.25 MBytes 1.05 Mbits/sec
[1] Sent 896 datagrams
[1] Server Report:
[ID] Interval Transfer Bandwidth Jitter Lost/Total Datagrams
[1] 0.0000-10.0216 sec 1.25 MBytes 1.05 Mbits/sec 0.004 ms 0/895 (0%)
ubuntu@ubuntu-VirtualBox:~$