University of Cyprus
Department of Electrical and Computer Engineering

Αναφορά ΗΜΥ316

Πανεπιστήμιο Κύπρου

Τμήμα Ηλεκτρολόγων Μηχανικών και Μηχανικών Υπολογιστών

Assignment 1 (Due 03/02/2022)

Ονόμα και Ταυτότητα :

Εντουίνα Κάρουλλα 1042364

Ομάδα : 7

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Exercise 1:

1. Name of networking card :	Intel(R) Wireless-AC 9560
2. Connection Speed :	26.35Mbps
3. MAC address in Hexadecimal :	84-5C-F3-87-6A-90
4. Manufacture of the networking card :	Intel Corporation
5. Protocols that the card is using :	Wi-Fi 5 (802.11ac)
6. Interrupt method it uses (IRQ):	0XFFFFFFE8 (-24) 0XFFFFFFE8 (-25)

Exercise 2:

1.Computer's hostname.	Device
2.Logon Domain of computer.	edwin
3. IP address of computer.	10.148.9.208
4. Class computer's IP belongs to .	Class A
5. MAC address.	84-5C-F3-87-6A-90
6. Subnet Mask .	255.255.224.0
7. IP address of default gateway .	10.148.0.1
8. DNS domain name	pfSense
9. IP address of DNS server	10.148.0.1

10. IP address of DHCP server and length of lease period 10.148.0.1 30h

11.The number of the following that were sent / received from your computer:

•IP packets	Sent	5815163	Received	15154286
•ICMP messages	Sent	5297	Received	1537
•TCP segments	Sent	1067662	Received	1760060
•UDP datasets	Sent	4245624	Received	13680304

Exercise 3:

1. IP of http://www.eng.ucy.ac.cy/cpitris/courses/ECE370/ 194.42.10.238

2. Protocols used for visiting this site TCP HTTP

3. OSI model level for each protocol

TCP : Transport Layer HTTP : Application Layer

4. Why there are so many connections for this site?

First of all we must establish a connection .Because we have a TCP protocol, when we request to access the website, we send a SYN signal that is then followed by some ACK signals. This is the reason we see so many connections and also to get to the final server of the site we must go through some other routers first so we also connect to them as well.

5. How can we identify which TCP packets a particular HTTP packet is associated with?

We can see that the Acknowledgement Number of the HTTP is the same as Sequence Number in TCP.

6. a) i. Type of web server that hosts the page Microsoft-IIS/6.0

ii. Title and the corresponding HTML tag of the page you visited

The page cannot be found

<TITLE>The page cannot be found</TITLE>

iii. Where in the browser window, this title appears

It doesn't show on the page but it should have been in the Chrome tab

b) What is the syntax of the filter that is displayed in the analysis filter window?

tcp.stream eq 11

c) i. How many packets with TCP protocol and how many with HTTP protocol are displayed in the main window? 6 TCP packets & 2 HTTP packets

ii. What is the purpose of TCP and what is HTTP?

TCP is a protocol that enables application programs and computing devices to exchange messages over a network. It is designed to send packets across the internet and ensure the successful delivery of data and messages over networks.

HTTP is an application layer protocol designed to transfer information between networked devices and runs on top of other layers of the network protocol stack . HTTP is used to load web pages using hypertext links.

7. How long did it take to load the page based on Wireshark? (Time from first to last package downloaded. t=0.074307000 sec

Exercise 4:

5. Syntax of the filter :

frame.number in {4,6,8,10,15,17,19,20,22,24,26,28,29,31,32,40,34} or rtp.setup-frame in {4,6,8,10,15,17,19,20,22,24,26,28,29,31,32,40,34}

6.

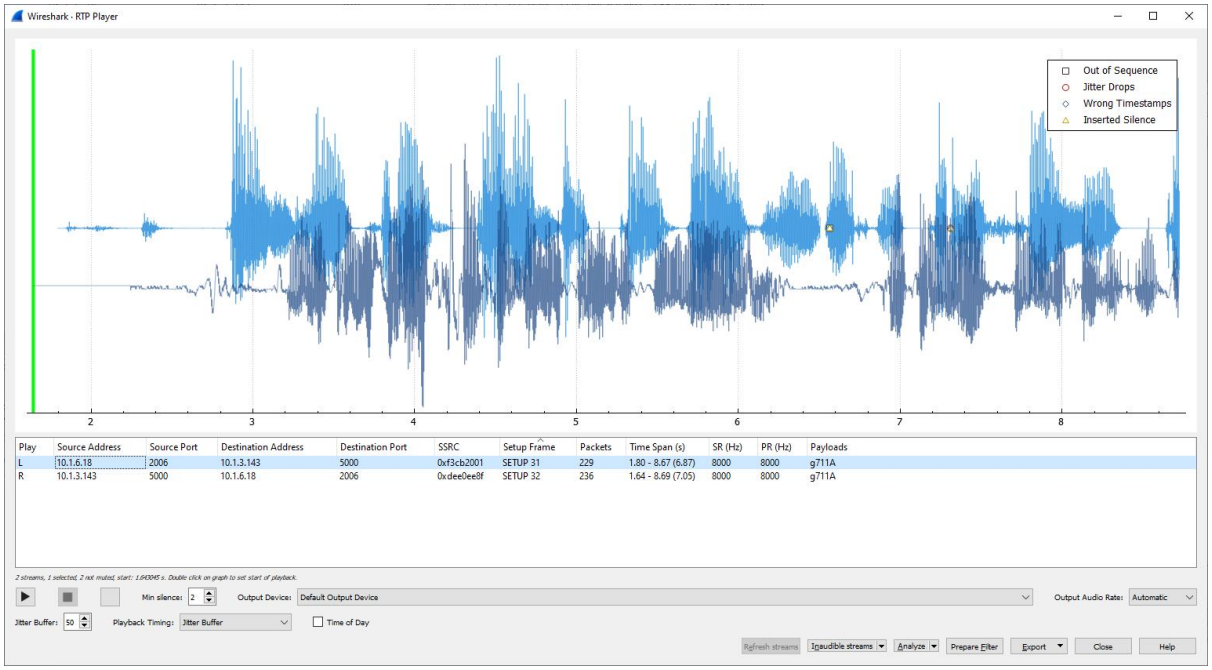

Figure 1:RTP Player of sample