



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): | OXFFFFFFE8 (-24) OXFFFFFFE8 (-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.ece.ucy.ac.cy/courses/ECE213/> 194.42.14.97

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

ECE213 UCY [home]

<title>ECE213 UCY [home]</title>

iii. Where in the browser window, this title appears

It shows in the Chrome tab

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

tcp.stream eq 21

c) i. How many packets with TCP protocol and how many with HTTP protocol are displayed in the main window? 42 TCP packets & 5 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.
 $t=0.127284000$ seconds

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.

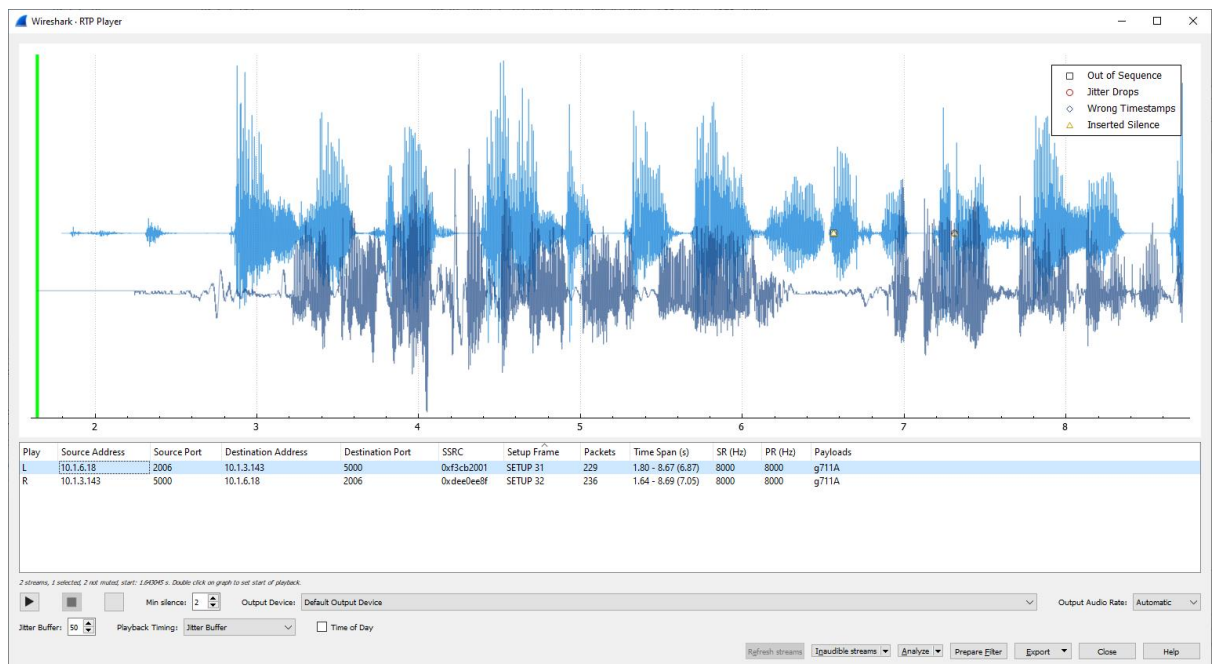


Figure 1:RTP Player of sample