

# Networking Tools and Wireshark

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## Part-2: Wireshark Analysis

Report For 22CS30027\_File1.txt file :

1) Screenshot :

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	127.0.0.1	127.0.0.1	UDP	61	42317 → 1308 Len=19
2	0.006140626	127.0.0.1	127.0.0.1	UDP	47	1308 → 42317 Len=5
3	0.006453769	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
4	0.006542459	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
5	0.006643765	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
6	0.006716449	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
7	0.006795539	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
8	0.006888608	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
9	0.006986095	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
10	0.007052565	127.0.0.1	127.0.0.1	UDP	48	1308 → 42317 Len=6

2) Protocol used is **UDP**

3) **Source and Destination IP Addresses and Ports:**

- **Source IP Address:** 127.0.0.1
- **Destination IP Address:** 127.0.0.1

If packet from server to client

- **Source Port:** 1308
- **Destination Port:** 42317

If packet from client to server

- **Source Port:** 42317
- **Destination Port:** 1308

4) What is the size (in bytes) of the FILENAME request sent by the client : **61 bytes** Packet / **19 bytes** Data

5) What is the size of the server's response for HELLO and the first word (*WORD1*) : **47 and 47 bytes** Packet / **5 and 5 bytes** Data **Respectively**

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## 6) UDP Payload of “22CS30027” packet is : 9 bytes

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	127.0.0.1	127.0.0.1	UDP	61	42317 → 1308 Len=19
2	0.006140626	127.0.0.1	127.0.0.1	UDP	47	1308 → 42317 Len=5
3	0.006453769	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
4	0.006542459	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
5	0.006643765	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
6	0.006716449	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
7	0.006795539	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
8	0.006888608	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
9	0.006986095	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
10	0.007052565	127.0.0.1	127.0.0.1	UDP	48	1308 → 42317 Len=6

  

Frame 4: 51 bytes on wire (408 bits), 51 bytes captured (408 bits)	0000	00 00 00 00 00 00 00 00 00 00 00 00 00 08 00 45 00	.....E
Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00	0010	00 25 ae e9 40 00 40 11 8d dc 7f 00 00 01 7f 00	%.@.@
Internet Protocol Version 4, Src: 127.0.0.1, Dst: 127.0.0.1	0020	00 01 05 1c a5 4d 00 11 fe 24 32 32 43 53 33 30	....M...\$22CS30
User Datagram Protocol, Src Port: 1308, Dst Port: 42317	0030	30 32 37	927
Source Port: 1308			
Destination Port: 42317			
Length: 17			
Checksum: 0xfe24 [unverified]			
[Checksum Status: Unverified]			
[Stream index: 0]			
[Stream Packet Number: 4]			
[Timestamps]			
UDP payload (9 bytes)			
Data (9 bytes)			
Data: 323243533330303237			
[Length: 9]			

## UDP Payload of “22CS30018” packet is : 9 bytes

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	127.0.0.1	127.0.0.1	UDP	61	42317 → 1308 Len=19
2	0.006140626	127.0.0.1	127.0.0.1	UDP	47	1308 → 42317 Len=5
3	0.006453769	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
4	0.006542459	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
5	0.006643765	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
6	0.006716449	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
7	0.006795539	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
8	0.006888608	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
9	0.006986095	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
10	0.007052565	127.0.0.1	127.0.0.1	UDP	48	1308 → 42317 Len=6

  

Frame 6: 51 bytes on wire (408 bits), 51 bytes captured (408 bits)	0000	00 00 00 00 00 00 00 00 00 00 00 00 00 08 00 45 00	.....E
Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00	0010	00 25 ae eb 40 00 40 11 8d da 7f 00 00 01 7f 00	%.@.@
Internet Protocol Version 4, Src: 127.0.0.1, Dst: 127.0.0.1	0020	00 01 05 1c a5 4d 00 11 fe 24 32 32 43 53 31 30	....M...\$22CS10
User Datagram Protocol, Src Port: 1308, Dst Port: 42317	0030	30 31 38	318
Source Port: 1308			
Destination Port: 42317			
Length: 17			
Checksum: 0xfe24 [unverified]			
[Checksum Status: Unverified]			
[Stream index: 0]			
[Stream Packet Number: 6]			
[Timestamps]			
UDP payload (9 bytes)			
Data (9 bytes)			
Data: 323243533130303138			
[Length: 9]			

## UDP Payload of “22CS30059” packet is : 9 bytes

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000000	127.0.0.1	127.0.0.1	UDP	61	42317 → 1308 Len=19
2	0.006140626	127.0.0.1	127.0.0.1	UDP	47	1308 → 42317 Len=5
3	0.006453769	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
4	0.006542459	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
5	0.006643765	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
6	0.006716449	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
7	0.006795539	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
8	0.006888608	127.0.0.1	127.0.0.1	UDP	51	1308 → 42317 Len=9
9	0.006986095	127.0.0.1	127.0.0.1	UDP	47	42317 → 1308 Len=5
10	0.007052565	127.0.0.1	127.0.0.1	UDP	48	1308 → 42317 Len=6

  

Frame 8: 51 bytes on wire (408 bits), 51 bytes captured (408 bits)	0000	00 00 00 00 00 00 00 00 00 00 00 00 00 08 00 45 00	.....E
Ethernet II, Src: 00:00:00:00:00:00 (00:00:00:00:00:00), Dst: 00:00:00:00:00:00	0010	00 25 ae ed 40 00 40 11 8d d8 7f 00 00 01 7f 00	%.@.@
Internet Protocol Version 4, Src: 127.0.0.1, Dst: 127.0.0.1	0020	00 01 05 1c a5 4d 00 11 fe 24 32 32 43 53 33 30	....M...\$22CS30
User Datagram Protocol, Src Port: 1308, Dst Port: 42317	0030	30 35 39	359
Source Port: 1308			
Destination Port: 42317			
Length: 17			
Checksum: 0xfe24 [unverified]			
[Checksum Status: Unverified]			
[Stream index: 0]			
[Stream Packet Number: 8]			
[Timestamps]			
UDP payload (9 bytes)			
Data (9 bytes)			
Data: 323243533330303539			
[Length: 9]			

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- 7) total time taken for the file transfer from start to finish = **0.007052565 sec**
- 8) average size of each packet during the communication : **49.7 bytes**
- average size of UDP payload package is : **7.7 bytes**