

# CNT Assignment 3C

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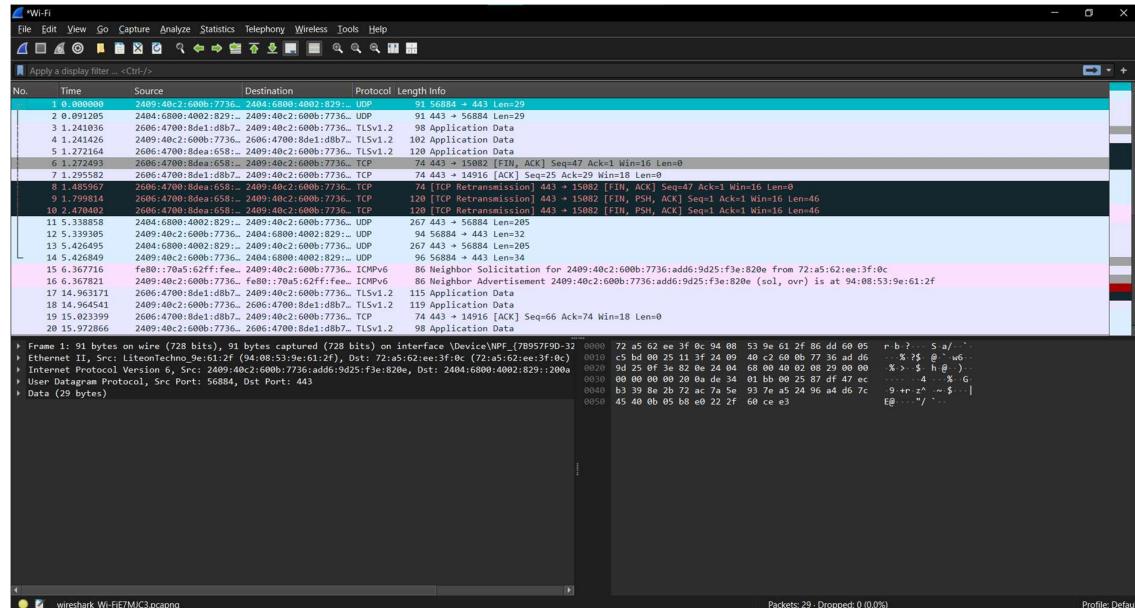
Class: TY CSAI - A

Roll Number: 57

Batch: 3

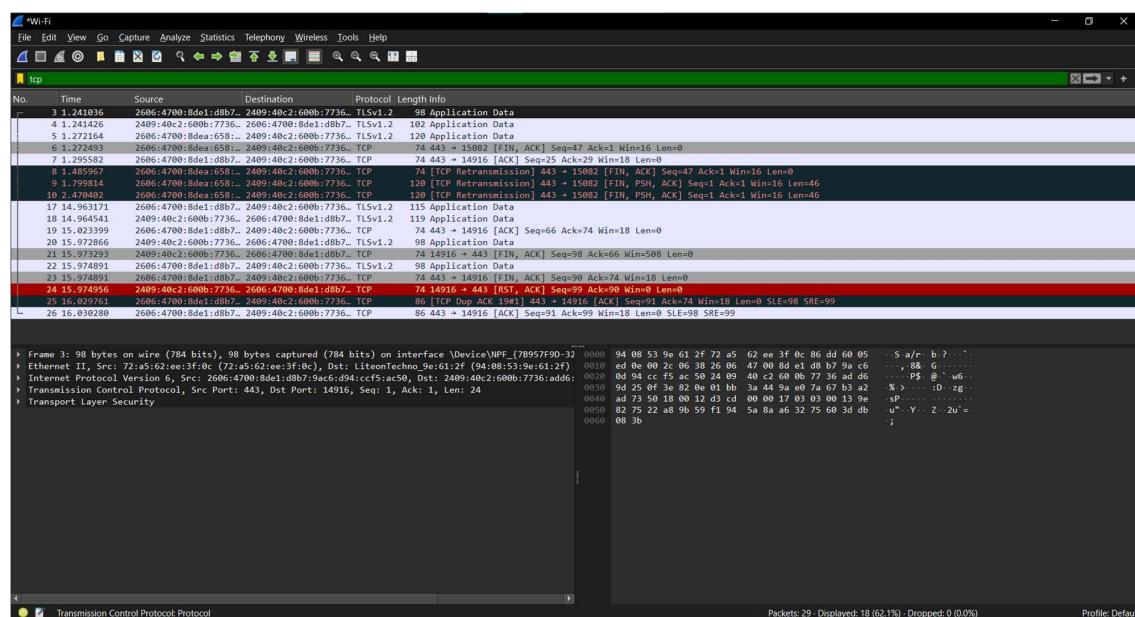
**Assignment:** Understanding protocol stack of Intranet: Analyze packet formats of Ethernet, IP, TCP and UDP captured through Wireshark for wired networks

## Capturing Packets

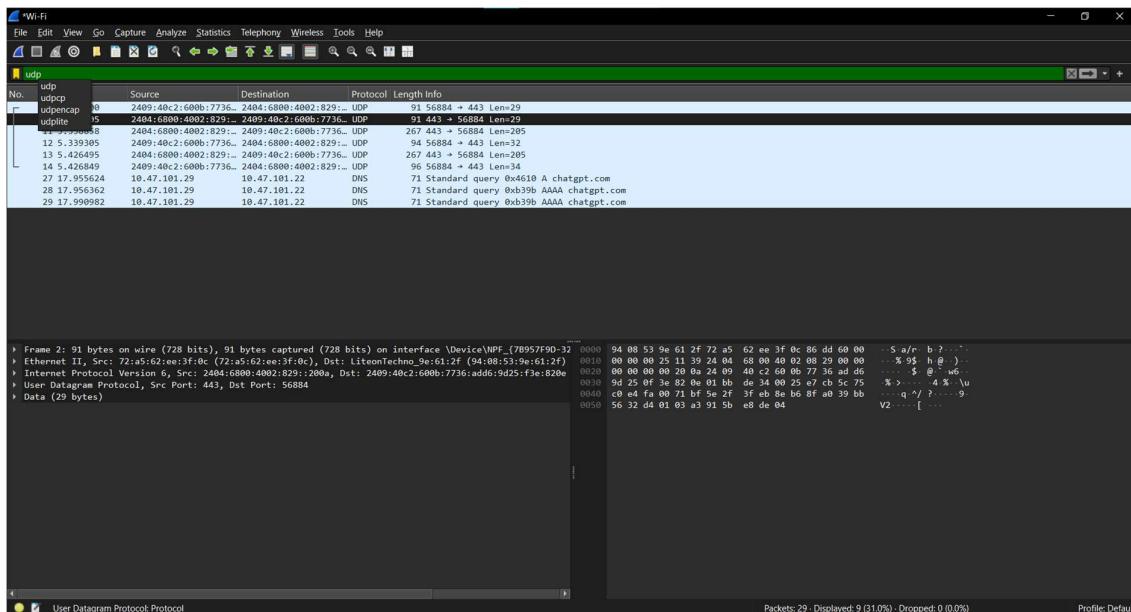


## Filtering Packets

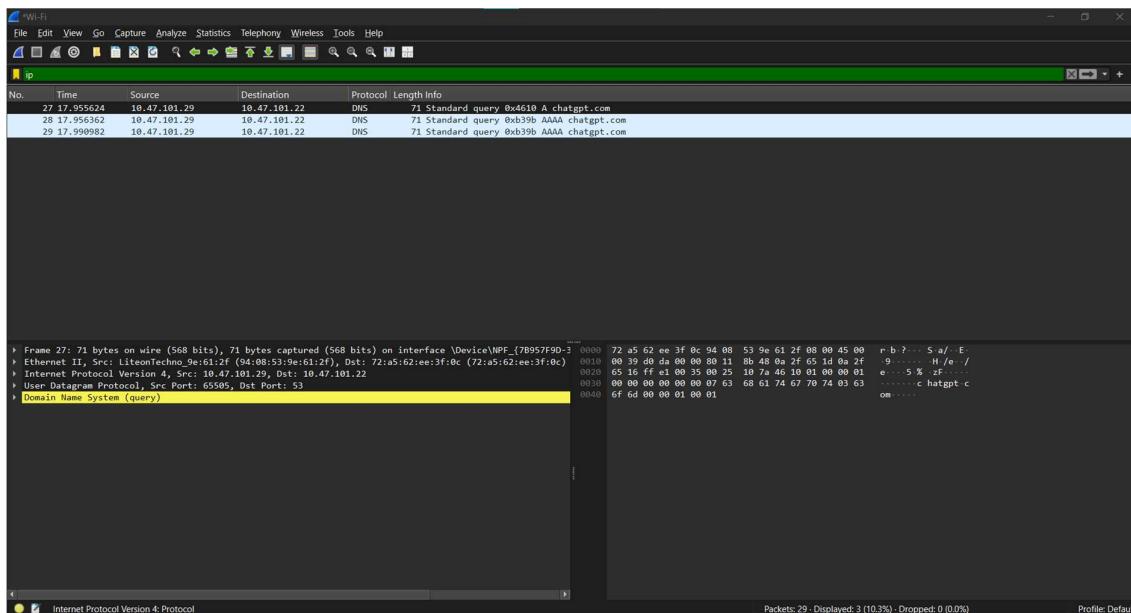
tcp



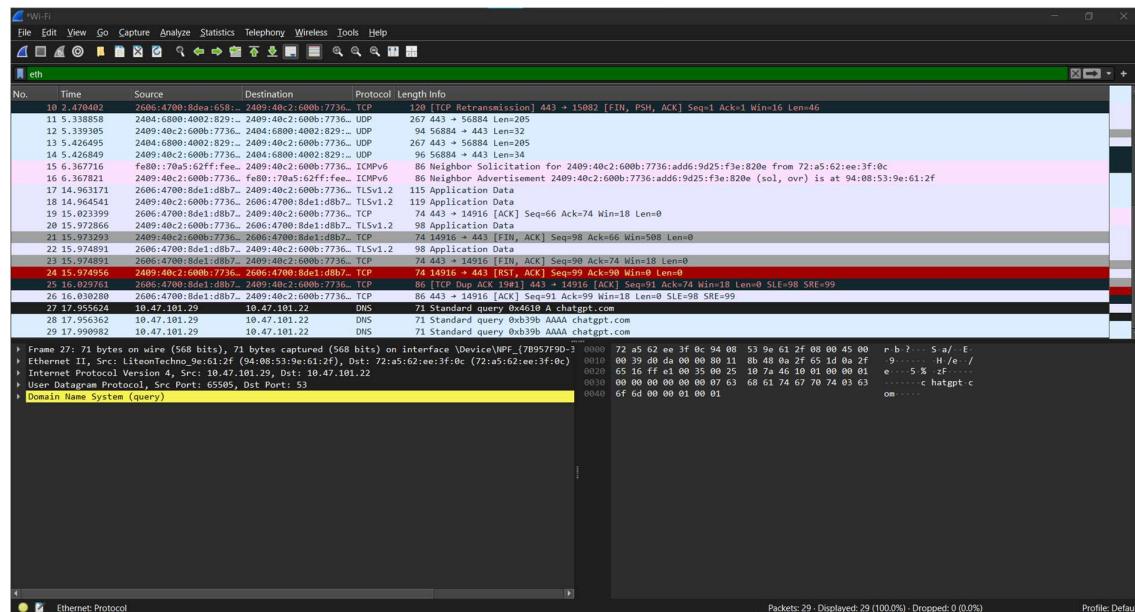
## udp



## ip

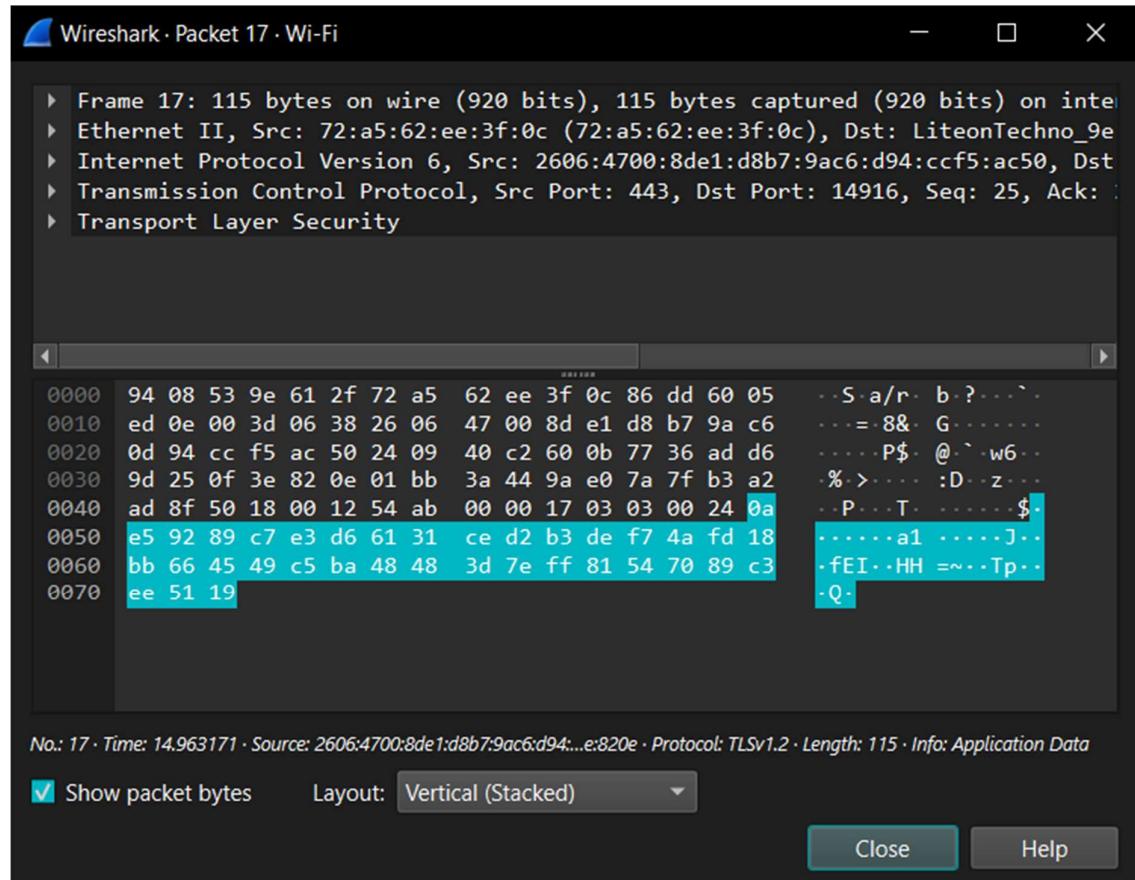


eth

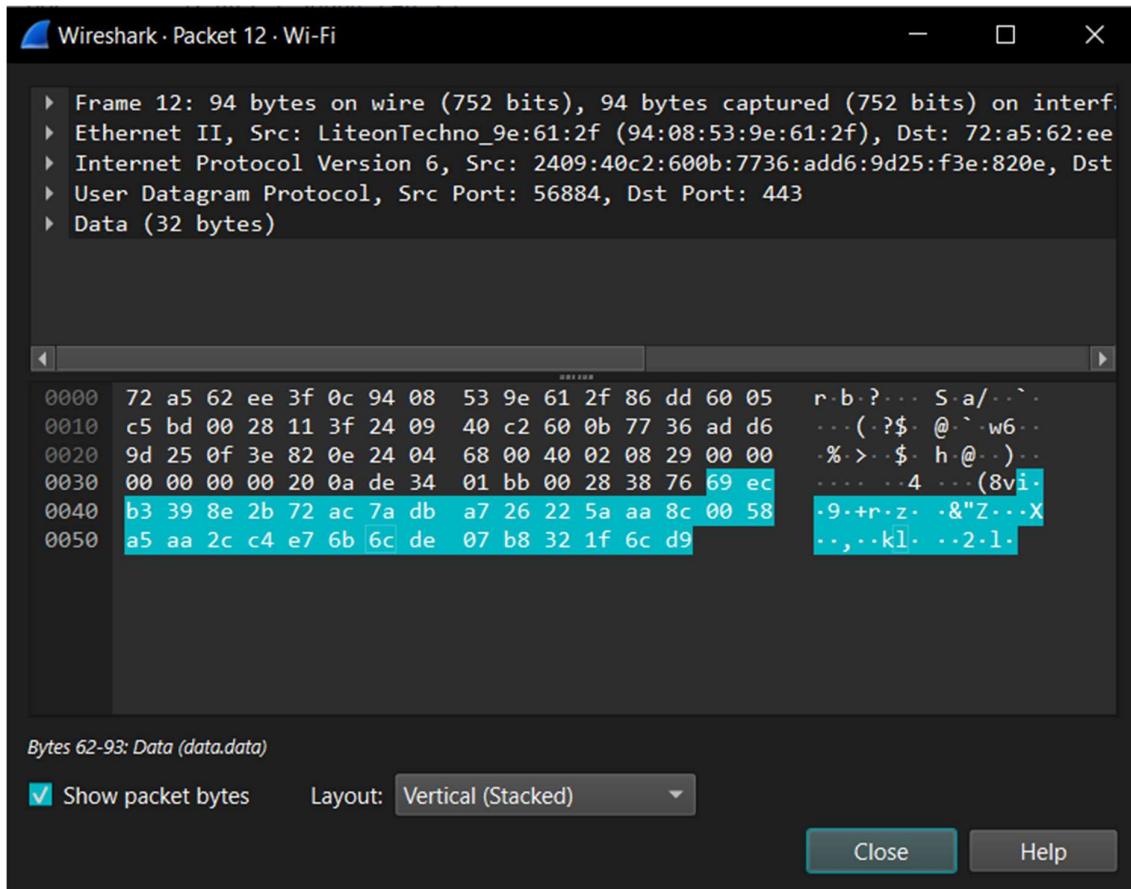


## Analyzing Packet Formats

tcp



udp



### Packet Dissections

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	2409:40c2:600b:7736:add6:9d25:f3e:820e	2404:6800:4002:829::200a	UDP	91	56884 → 443 Len=29

Frame 1: 91 bytes on wire (728 bits), 91 bytes captured (728 bits) on interface  
\Device\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c  
(72:a5:62:ee:3f:0c)

Internet Protocol Version 6, Src: 2409:40c2:600b:7736:add6:9d25:f3e:820e, Dst:  
2404:6800:4002:829::200a

User Datagram Protocol, Src Port: 56884, Dst Port: 443

Data (29 bytes)

0000 47 ec b3 39 8e 2b 72 ac 7a 5e 93 7e a5 24 96 a4 G..9.+r.z^.~.\$..

0010 d6 7c 45 40 0b 05 b8 e0 22 2f 60 ce e3 .|E@...."/..

No.	Time	Source	Destination	Protocol	Length	Info
2	0.091205	2404:6800:4002:829::200a	2409:40c2:600b:7736:addr:9d25:f3e:820e			

Frame 2: 91 bytes on wire (728 bits), 91 bytes captured (728 bits) on interface  
\Device\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c), Dst: LiteonTechno\_9e:61:2f  
(94:08:53:9e:61:2f)

Internet Protocol Version 6, Src: 2404:6800:4002:829::200a, Dst:  
2409:40c2:600b:7736:addr:9d25:f3e:820e

User Datagram Protocol, Src Port: 443, Dst Port: 56884

Data (29 bytes)

0000 5c 75 c0 e4 fa 00 71 bf 5e 2f 3f eb 8e b6 8f a0 \u....q.^/?.....

0010 39 bb 56 32 d4 01 03 a3 91 5b e8 de 04 9.V2....[...]

No.	Time	Source	Destination	Protocol	Length	Info
11	5.338858	2404:6800:4002:829::200a	2409:40c2:600b:7736:addr:9d25:f3e:820e			

Frame 11: 267 bytes on wire (2136 bits), 267 bytes captured (2136 bits) on interface  
\Device\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c), Dst: LiteonTechno\_9e:61:2f  
(94:08:53:9e:61:2f)

Internet Protocol Version 6, Src: 2404:6800:4002:829::200a, Dst:  
2409:40c2:600b:7736:addr:9d25:f3e:820e

User Datagram Protocol, Src Port: 443, Dst Port: 56884

Data (205 bytes)

```

0000 4b 75 c0 e4 98 06 d7 e5 e3 00 eb dd 1c 0a 7d  Ku...........}
0010 cb 01 41 ef 51 20 96 cc 2c b9 65 56 01 ff 53 97 ..A.Q .,.eV..S.
0020 ba 37 b3 bc fe eb ca f3 83 b8 fd 45 03 aa 7e 40 .7.....E..~@
0030 5a 70 35 0d 2c 5f 05 63 c5 86 2b fe a0 71 89 63 Zp5.,_.c..+..q.c
0040 c6 0e 07 19 a0 12 a2 28 92 82 59 91 b7 08 6a 3e .....(..Y...j>
0050 1e 9d d8 5f 69 6c 8e da 49 1c bd 4c 4e 57 e9 c4 ..._il..l..LNW..
0060 4e 04 79 0c 98 40 4c dc 32 38 67 26 84 b7 34 3b N.y..@L.28g&..4;
0070 35 e5 60 be 5d 63 4f d3 d8 a5 91 8b 36 6c 65 df 5.`.]cO.....6le.
0080 0d cb 82 d5 72 52 25 56 14 ec b9 1c 85 20 99 19 ....rR%V..... .
0090 f8 85 b3 e3 72 60 2c 2d b5 86 e8 5b 41 41 ca 30 ....r`,-...[AA.0
00a0 6b 74 cd 31 cf 13 aa e0 17 55 5d 6d 76 1e 76 62 kt.1.....U]mv.vb
00b0 27 53 6d ae 95 f0 aa f7 71 05 5b 94 b3 b3 98 84 'Sm.....q.[.....
00c0 8b 2b 98 ad 86 8c 71 65 9c 8c d4 37 b2 .+....qe...7.

```

No.	Time	Source	Destination	Protocol	Length	Info
12	5.339305	2409:40c2:600b:7736:add6:9d25:f3e:820e	2404:6800:4002:829::200a			
UDP	94	56884 → 443		Len=32		

Frame 12: 94 bytes on wire (752 bits), 94 bytes captured (752 bits) on interface \\Device\\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c)

Internet Protocol Version 6, Src: 2409:40c2:600b:7736:add6:9d25:f3e:820e, Dst: 2404:6800:4002:829::200a

User Datagram Protocol, Src Port: 56884, Dst Port: 443

Data (32 bytes)

```

0000 69 ec b3 39 8e 2b 72 ac 7a db a7 26 22 5a aa 8c i..9.+r.z..&"Z..
0010 00 58 a5 aa 2c c4 e7 6b 6c de 07 b8 32 1f 6c d9 .X.,..kl...2.l.

```

No.	Time	Source	Destination	Protocol	Length	Info
-----	------	--------	-------------	----------	--------	------

13 5.426495 2404:6800:4002:829::200a 2409:40c2:600b:7736:add6:9d25:f3e:820e  
UDP 267 443 → 56884 Len=205

Frame 13: 267 bytes on wire (2136 bits), 267 bytes captured (2136 bits) on interface  
\Device\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c), Dst: LiteonTechno\_9e:61:2f  
(94:08:53:9e:61:2f)

Internet Protocol Version 6, Src: 2404:6800:4002:829::200a, Dst:  
2409:40c2:600b:7736:add6:9d25:f3e:820e

User Datagram Protocol, Src Port: 443, Dst Port: 56884

Data (205 bytes)

```
0000 4d 75 c0 e4 0e b6 d2 84 b5 0c 8e 17 50 8a cd 48 Mu.....P..H
0010 8d ab 46 28 99 55 81 31 11 1a b1 b9 41 19 c9 f2 ..F(.U.1...A...
0020 1a fe 65 51 16 b8 fb 96 75 d4 e1 78 32 06 76 79 ..eQ....u..x2.vy
0030 46 0e 86 82 cb 77 41 de ac 52 3e 26 19 fc 35 7d F....wA..R>&..5}
0040 d7 3d 09 f5 6e d3 bb d3 8b dd a4 ae b6 27 01 a3 .=..n.....'..
0050 b0 ad 5e d5 02 f4 d0 46 ca 97 28 c0 57 69 a7 4b ..^....F..(.Wi.K
0060 49 ac 35 48 da 4a 44 a6 78 74 f9 f4 06 e1 08 1c I.5H.JD.xt.....
0070 98 93 f9 76 87 2f cf 9f 93 97 e4 0a 39 07 13 17 ...v./.....9...
0080 46 5f 39 1b 96 33 02 cf 09 0f 80 e6 fa ed a5 f0 F_9..3.....
0090 ce 1f 78 14 cc 4e e3 d6 56 2d a0 16 c2 33 ab 05 ..x..N..V-...3..
00a0 a3 ba e3 31 58 7d 08 1e 4b 38 89 61 30 3f fe c7 ...1X}..K8.a0?..
00b0 54 3a a5 1b 8f 05 12 09 e3 34 df b5 12 a1 c3 45 T:.....4....E
00c0 90 fb a2 eb 7d 5a f8 2e d6 7d 63 c4 6d ....}Z...}c.m
```

No.	Time	Source	Destination	Protocol	Length	Info
14	5.426849	2409:40c2:600b:7736:add6:9d25:f3e:820e	2404:6800:4002:829::200a	UDP	96	56884 → 443 Len=34

Frame 14: 96 bytes on wire (768 bits), 96 bytes captured (768 bits) on interface \\Device\\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c)

Internet Protocol Version 6, Src: 2409:40c2:600b:7736:add6:9d25:f3e:820e, Dst: 2404:6800:4002:829::200a

User Datagram Protocol, Src Port: 56884, Dst Port: 443

Data (34 bytes)

0000 45 ec b3 39 8e 2b 72 ac 7a 58 96 01 42 97 12 50 E..9.+r.zX..B..P

0010 45 ea 3e 6d 3e a6 63 ad 19 11 3e 7f 05 7c 8f 98 E.>m>.c...>..|..

0020 43 28 C(

No.	Time	Source	Destination	Protocol	Length	Info
27	17.955624	10.47.101.29 0x4610 A chatgpt.com	10.47.101.22	DNS	71	Standard query

Frame 27: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface \\Device\\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c (72:a5:62:ee:3f:0c)

Internet Protocol Version 4, Src: 10.47.101.29, Dst: 10.47.101.22

User Datagram Protocol, Src Port: 65505, Dst Port: 53

Domain Name System (query)

No.	Time	Source	Destination	Protocol	Length	Info
28	17.956362	10.47.101.29 0xb39b AAAA chatgpt.com	10.47.101.22	DNS	71	Standard query

Frame 28: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface \\Device\\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c  
(72:a5:62:ee:3f:0c)

Internet Protocol Version 4, Src: 10.47.101.29, Dst: 10.47.101.22

User Datagram Protocol, Src Port: 65480, Dst Port: 53

Domain Name System (query)

No.	Time	Source	Destination	Protocol	Length	Info
29	17.990982	10.47.101.29 0xb39b	10.47.101.22 AAAA	DNS	71	Standard query chatgpt.com

Frame 29: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface  
\Device\NPF\_{7B957F9D-32FE-4212-B458-7212A477B379}, id 0

Ethernet II, Src: LiteonTechno\_9e:61:2f (94:08:53:9e:61:2f), Dst: 72:a5:62:ee:3f:0c  
(72:a5:62:ee:3f:0c)

Internet Protocol Version 4, Src: 10.47.101.29, Dst: 10.47.101.22

User Datagram Protocol, Src Port: 65480, Dst Port: 53

Domain Name System (query)