

Name: Lana AL-deaiji

ID: 431201365

LAB1



No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.3.11	192.168.3.11	HTTP	487	HEAD /filestreamingservice/files/dee7eae7-9590-4350-b0f1-243d313351177P1=1770911792&P2=404&P3=2&P4=tgng8y2b0w53x5...
2	0.000000	192.168.3.11	192.168.3.11	HTTP	684	HTTP/1.1 200 OK
3	0.000000	192.168.3.11	192.168.3.11	HTTP	458	GET /filestreamingservice/files/dee7eae7-9590-4350-b0f1-243d313351177P1=1770911792&P2=404&P3=2&P4=tgng8y2b0w53x5...
4	0.000000	192.168.3.11	192.168.3.11	HTTP	453	HTTP/1.1 200 OK (application/x-chrome-extension)
5	0.000000	192.168.3.11	192.168.3.11	HTTP	411	HEAD /filestreamingservice/files/88ab58c8-363a-4ed8-a142-6f84754f39607P1=1770911794&P2=404&P3=2&P4=dIO=3FPz1TVJaJw...
6	0.000000	192.168.3.11	192.168.3.11	HTTP	665	HTTP/1.1 200 OK
7	0.000000	192.168.3.11	192.168.3.11	HTTP	486	GET /filestreamingservice/files/88ab58c8-363a-4ed8-a142-6f84754f39607P1=1770911794&P2=404&P3=2&P4=dIO=3FPz1TVJaJw...
8	0.000000	192.168.3.11	192.168.3.11	HTTP	799	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
9	0.000000	192.168.3.11	192.168.3.11	HTTP	493	GET /filestreamingservice/files/88ab58c8-363a-4ed8-a142-6f84754f39607P1=1770911794&P2=404&P3=2&P4=dIO=3FPz1TVJaJw...
10	0.000000	192.168.3.11	192.168.3.11	HTTP	393	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
11	0.000000	192.168.3.11	192.168.3.11	HTTP	494	GET /filestreamingservice/files/88ab58c8-363a-4ed8-a142-6f84754f39607P1=1770911794&P2=404&P3=2&P4=dIO=3FPz1TVJaJw...
12	0.000000	192.168.3.11	192.168.3.11	HTTP	635	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
13	0.000000	192.168.3.11	192.168.3.11	HTTP	288	GET /MFewTzBNMEswSTA3BgUrDgMCGGUABQ50otx%2Fh0Zt1%2Bz8SiPI7wEWVxD1QQUTiJUIBiV5uNu5g%2F6%2BkS7QYXjkCEA77f1R%2B3w%2F2x8pVrV2lte6A%3D HTTP/1.1
14	0.000000	192.168.3.11	192.168.3.11	OCSP	784	Response
15	0.000000	192.168.3.11	192.168.3.11	HTTP	234	HEAD /pr/492350f6-3a01-4f97-b9c8-c7c6ddf67d60/Office/Data/v64_16_0.19628.20166.cab HTTP/1.1
16	0.000000	192.168.3.11	192.168.3.11	HTTP	864	HTTP/1.1 200 OK
17	0.000000	192.168.3.11	192.168.3.11	HTTP	234	HEAD /pr/492350f6-3a01-4f97-b9c8-c7c6ddf67d60/Office/Data/v64_16_0.19628.20166.cab HTTP/1.1
18	0.000000	192.168.3.11	192.168.3.11	HTTP	864	HTTP/1.1 200 OK
19	0.000000	192.168.3.11	192.168.3.11	HTTP	234	HEAD /pr/492350f6-3a01-4f97-b9c8-c7c6ddf67d60/Office/Data/v64_16_0.19628.20166.cab HTTP/1.1
20	0.000000	192.168.3.11	192.168.3.11	HTTP	864	HTTP/1.1 200 OK
21	0.000000	192.168.3.11	192.168.3.11	HTTP	276	HEAD /pr/492350f6-3a01-4f97-b9c8-c7c6ddf67d60/Office/Data/v64_16_0.19628.20166.cab HTTP/1.1
22	0.000000	192.168.3.11	192.168.3.11	HTTP	864	HTTP/1.1 200 OK

> Frame 100: Packet, 407 bytes on wire (3256 bits), 407 bytes captured (3256 bits) on interface \Device\NPF\_{4C38FF40-9BCA-41D5-8594-BDF07F6293D8}, id 0

> Ethernet II, Src: Intel\_4b:20:8a (18:26:49:4b:20:8a), Dst: HuaweiTechno\_77:c7:88 (08:31:8b:77:c7:88)

> Internet Protocol Version 4, Src: 192.168.3.11, Dst: 192.168.3.11

> Transmission Control Protocol, Src Port: 8528, Dst Port: 80, Seq: 1, Ack: 1, Len: 353

> Hypertext Transfer Protocol

0000 08 31 8b 77 c7 88 18 26 49 4b 20 8a 08 00 45 00 1 w... & IK ... E

0010 01 89 8f be 40 00 80 06 00 00 c0 a8 03 00 5f 65 ... @... .. e

0020 72 2a 21 50 00 50 34 23 73 31 92 54 1e 75 50 18 r\*IP Pw s1 T uP

0030 1f ff 96 be 00 00 48 45 41 44 20 2f 66 69 6c 65 ... HE AD /file

0040 73 74 72 65 61 6d 69 66 67 73 65 72 76 69 63 65 streamin gservice

0050 2f 66 69 6c 65 73 2f 64 65 65 37 65 61 65 66 2d /files/d ee7eae7

0060 39 35 39 30 2d 34 33 35 30 2d 62 30 66 31 2d 32 9590-4350-b0f1-2

0070 34 33 64 33 31 33 35 31 31 37 3f 50 31 3d 31 43d313351177P1=

0080 37 37 30 39 31 31 37 39 32 26 50 32 3d 34 30 34 770911792&P2=404

0090 26 50 33 3d 32 26 50 34 3d 34 67 6e 67 38 79 32 8P3=2&P4=tgng8y2

00a0 4d 62 6f 77 53 33 70 53 65 77 48 6c 45 6a 52 57 Pbo53x5 ewIEIRw

00b0 41 49 76 25 32 62 76 63 38 6c 5a 64 51 77 7a 51 A1%2bvc 812QwzQ

00c0 37 6e 58 66 38 57 30 31 68 45 4d 67 65 58 54 6a 7nxF801 hENgeXTJ

00d0 67 45 36 46 41 39 69 73 58 42 76 49 65 42 6e 00 gteFA9is XBiebnk

00e0 75 78 58 61 6d 38 62 64 70 78 48 69 4a 42 32 32 usPamdbd pxn1B82

00f0 66 44 51 25 33 64 25 33 64 20 48 54 54 50 2f 31 fDQ3dX3 d HTTP/1

0100 2e 31 0d 0a 43 6f 6e 66 65 63 74 69 6f 6e 3a 20 .1- Conn ection:

0110 4b 65 65 70 2d 41 6c 69 76 65 0d 0a 41 63 63 65 Keep-Ali ve-Acce

0120 70 74 3a 20 2a 2f 2a 0d 0a 41 63 63 65 70 74 2d pt: /\*- Acce

0130 45 6e 63 6f 64 69 6e 67 3a 20 69 64 65 6e 74 69 Encoding : identi

0140 74 79 00 0a 55 73 65 72 2d 41 67 65 6e 74 3a 20 ty-User-Agent:

0150 4d 69 63 72 6f 73 6f 66 74 20 42 49 54 53 2f 37 Microsoft-BITS/7

0160 2e 38 0d 0a 48 6f 73 74 3a 20 6d 73 65 64 67 65 .8 Host : msedge

0170 2e 62 2e 74 6c 75 2e 6d 6c 2e 64 65 6c 69 76 65 .b.tlu.d l.delive

0180 72 79 2e 6d 70 2d 6d 69 63 72 6f 73 6f 66 74 2e ry.mp.mi crossoft.

0190 63 6f 6d 0d 0a 0d 0a

No: 3500 - Time: 72.598367 - Source: 192.168.3.11 - Destination: 2.16.70.4 - Protocol: HTTP - Length: 298 - Info: G_DgMCGGUABQ50otx%2Fh0Zt1%2Bz8SiPI7wEWVxD1QQUTiJUIBiV5uNu5g%2F6%2BkS7QYXjkCEA77f1R%2B3w%2F2x8pVrV2lte6A%3D HTTP/1.1	
Show packet bytes Layout: Vertical (Stacked)	
Close Help	

No.	Time	Source	Destination	Protocol	Length	Info
16584	162.597366	199.232.82.172	192.168.3.11	HTTP	331	HTTP/1.1 206 Partial Content
16517	162.804912	199.232.82.172	192.168.3.11	HTTP	918	HTTP/1.1 206 Partial Content
16550	163.822152	199.232.82.172	192.168.3.11	HTTP	331	HTTP/1.1 206 Partial Content
16594	163.993058	199.232.82.172	192.168.3.11	HTTP	912	HTTP/1.1 206 Partial Content
16619	164.221884	199.232.82.172	192.168.3.11	HTTP	1173	HTTP/1.1 206 Partial Content
16632	164.420128	199.232.82.172	192.168.3.11	HTTP	918	HTTP/1.1 206 Partial Content
16660	164.648751	199.232.82.172	192.168.3.11	HTTP	1171	HTTP/1.1 206 Partial Content
1411	48.688983	95.181.114.42	192.168.3.11	HTTP	799	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
2008	49.896082	95.181.114.42	192.168.3.11	HTTP	393	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
2027	50.497891	95.181.114.42	192.168.3.11	HTTP	635	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
15392	148.538716	34.223.124.45	192.168.3.11	HTTP	593	HTTP/1.1 301 Moved Permanently (text/html)
2656	59.202927	2.16.70.4	192.168.3.11	OCSP	784	Response
3435	72.064980	2.16.70.4	192.168.3.11	OCSP	784	Response
3488	72.502332	2.16.70.4	192.168.3.11	OCSP	784	Response
3510	72.658866	2.16.70.4	192.168.3.11	OCSP	784	Response
3524	72.700251	2.16.70.4	192.168.3.11	OCSP	784	Response
3834	74.910172	2.16.70.4	192.168.3.11	OCSP	784	Response
3867	75.353743	2.16.70.4	192.168.3.11	OCSP	784	Response

Wireshark - Packet 3510 - شبكة Wi-Fi

> Internet Protocol Version 4, Src: 2.16.70.4, Dst: 192.168.3.11

> Transmission Control Protocol, Src Port: 80, Dst Port: 7787, Seq: 1, Ack: 245, Len: 726

▼ Hypertext Transfer Protocol

    ▼ HTTP/1.1 200 OK\r\n

        Response Version: HTTP/1.1

        Status Code: 200

        [Status Code Description: OK]

        Response Phrase: OK

        Content-Type: application/ocsp-response\r\n

    > Content-Length: 471\r\n

        Cache-Control: max-age=2545\r\n

        Expires: Sun, 08 Feb 2026 04:17:58 GMT\r\n

        Date: Sun, 08 Feb 2026 03:35:33 GMT\r\n

        Connection: keep-alive\r\n

        Akamai-GRN: 0.0c6d1402.1770521733.fbea57f6\r\n

        \r\n

        Request in frame: 35001

0000 18 26 49 4b 20 8a 08 31 8b 77 c7 88 81 00 00 00 <IK...1.W.....

0010 08 00 45 00 02 fe 58 7d 40 00 39 06 da b5 02 10 ..E...X} @ 9.....

0020 46 04 c0 a8 03 0b 00 50 1e 6b 44 01 c7 1e df 07 F.....P...kD.....

0030 a0 97 50 18 01 f5 c5 cd 00 00 48 54 54 50 2f 31 ..P.....HTTP/1

0040 2e 31 20 32 30 30 20 4f 4b 0d 0a 43 6f 6e 74 65 .1 200 O K...Conte

0050 6e 74 2d 54 79 70 65 3a 20 61 70 70 6c 69 63 61 nt-Type: applica

0060 74 69 6f 6e 2f 6f 63 73 70 2d 72 65 73 70 6f 6e tion/ocsp-respon

0070 73 65 0d 0a 43 6f 6e 74 65 6e 74 2d 4c 65 6e 67 se: Content-Leng

0080 74 68 3a 20 34 37 31 0d 0a 43 61 63 68 65 2d 43 th: 471...Cache-C

0090 6f 6e 74 72 6f 6c 3a 20 6d 61 78 2d 61 67 65 3d ontrol: max-age=

00a0 32 35 34 35 0d 0a 45 78 70 69 72 65 73 3a 20 53 2545.Expires:S

00b0 75 6e 2c 20 30 38 20 46 65 62 20 32 30 32 36 20 un, 08 Feb 2026

00c0 30 34 3a 31 37 3a 35 38 20 47 4d 54 0d 0a 44 61 04:17:58 GMT:Da

00d0 74 65 3a 20 53 75 6e 2c 20 30 38 20 46 65 62 20 te: Sun, 08 Feb

00e0 32 30 32 36 20 30 33 3a 33 35 3a 33 33 20 47 4d 2026 03: 35:33 GM

00f0 54 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e 3a 20 6b T...Conne ction: k

0100 65 65 70 2d 61 6c 69 76 65 0d 0a 41 6b 61 6d 61 eep-aliv e...Akama

0110 69 2d 47 52 4e 3a 20 30 2e 30 63 36 64 31 34 30 i-GRN: 0 .0c6d140

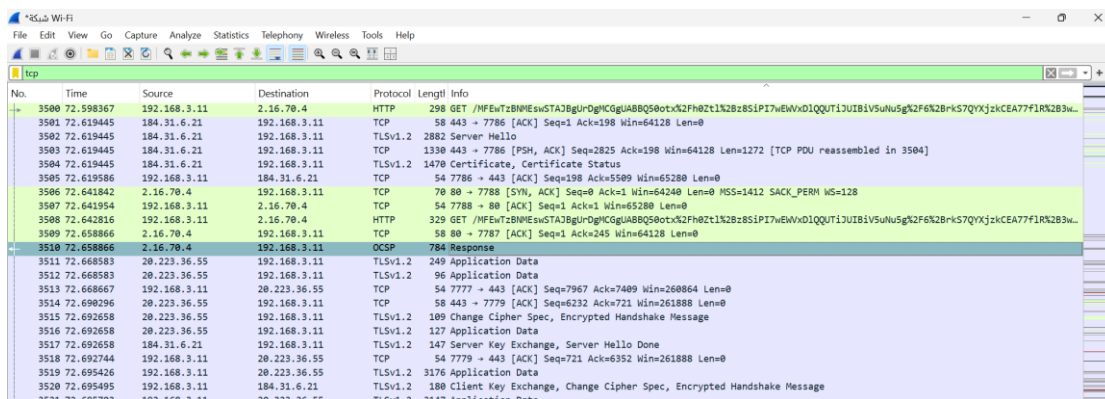
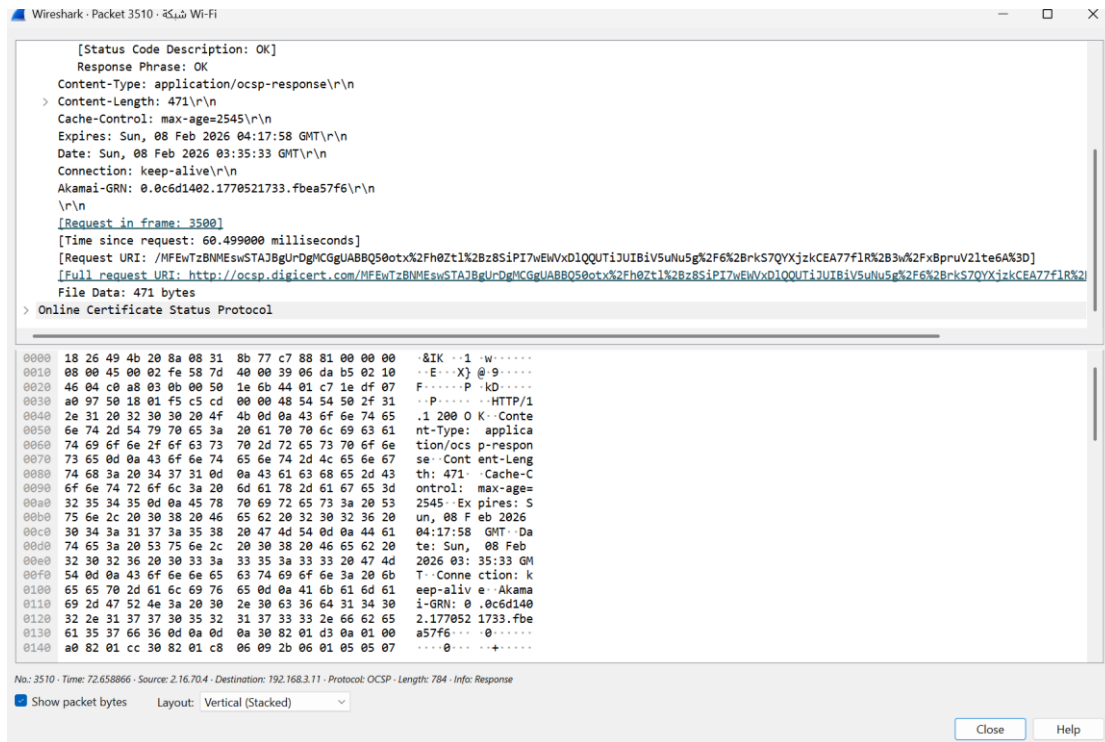
0120 32 2e 31 37 37 30 35 32 31 37 33 33 2e 66 62 65 2.177052 1733.fbe

0130 61 35 37 66 36 0d 0a 0d 0a 30 82 01 03 0a 01 00 a57f6...0.....

0140 a0 82 01 cc 30 82 01 c8 06 09 2b 06 01 05 05 07 ...0...+.....

No: 3510 - Time: 72.658866 - Source: 2.16.70.4 - Destination: 192.168.3.11 - Protocol: OCSP - Length: 784 - Info: Response

☒ Show packet bytes    Layout: Vertical (Stacked)



Wireshark - Packet 3490 - شبكة Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

tcpstream eq 116

No.	Time	Source	Destination	Protocol	Length	Info
3499	72.590880	192.168.3.11	2.16.70.4	TCP	54	7787 → 80 [ACK] Seq=1 Ack=1 Win=65280 Len=0
3525	72.713143	192.168.3.11	2.16.70.4	TCP	54	7787 → 80 [ACK] Seq=245 Ack=727 Win=64768 Len=0
13898	133.840953	192.168.3.11	2.16.70.4	TCP	54	7787 → 80 [RST ACK] Seq=245 Ack=727 Win=0 Len=0
3490	72.539255	192.168.3.11	2.16.70.4	TCP	66	7787 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=256 SACK_PERM
3509	72.658866	2.16.70.4	192.168.3.11	TCP	58	80 → 7787 [ACK] Seq=1 Ack=245 Win=64128 Len=0
3498	72.597969	2.16.70.4	192.168.3.11	TCP	70	80 → 7787 [SYN, ACK] Seq=0 Ack=1 Win=64240 Len=0 MSS=1412 SACK_PERM WS=128
3500	72.598367	192.168.3.11	2.16.70.4	HTTP	298	GET /MFewTzBNMEswSTA3BgrDg/KCGuAB8Q50otx%2Fh0zt1%28z85IP17wEwVxD1QQUTiJUIB1vSuNu5g%2F6%2Bk57QYXj2kCEA77F1R%2B3w%2Fk8p...
3510	72.658866	2.16.70.4	192.168.3.11	OCSP	784	Response

> Frame 3500: Packet, 298 bytes on wire (2384 bits), 298 bytes captured (2384 bits) on interface 0000 08 31 8b 77 c7 88 18 26 49 4b 20 8a 08 00 45 00 - 1 w... & IK ... E

> Ethernet II, Src: Intel\_4b:20:8a (18:26:49:4b:20:8a), Dst: HuaweiTechno\_77:c7:88 (08:31:8b:77:c7:88) 0010 01 1c 5d 3c 40 00 00 06 00 00 c0 a8 03 0b 02 10 - 4]80... ..

> Internet Protocol Version 4, Src: 192.168.3.11, Dst: 2.16.70.4 0020 46 04 1e 6b 00 50 df 07 9f a3 44 01 c7 1e 50 18 - F...k P... ..D...P...

> Transmission Control Protocol, Src Port: 7787, Dst Port: 80, Seq: 1, Ack: 1, Len: 244 0030 00 ff 0c d6 00 00 47 45 54 20 2f 4d 46 45 77 54 - .....GE T /MFewT

> Hypertext Transfer Protocol 0040 7a 42 4e 4d 45 73 77 53 54 41 4a 42 67 55 72 44 - zBNMEsw STA3BgrD

> GET /MFewTzBNMEswSTA3BgrDg/KCGuAB8Q50otx%2Fh0zt1%28z85IP17wEwVxD1QQUTiJUIB1vSuNu5g%2F6%2Bk57QYXj2kCEA77F1R%2B3w%2Fk8p... 0050 67 4d 43 47 67 55 41 42 42 51 35 30 6f 7a 78 25 - g/KCGuAB BQ80otx%2Fh0zt1%28z85IP1

> Request Method: GET 0060 32 46 68 30 5a 74 6c 25 32 42 7a 38 53 69 50 49 - 2Fh0zt1%28z85IP1

> Request URI: /MFewTzBNMEswSTA3BgrDg/KCGuAB8Q50otx%2Fh0zt1%28z85IP17wEwVxD1QQUTiJUIB1vSuNu5g%2F6%2Bk57QYXj2kCEA77F1R%2B3w%2Fk8p... 0070 37 77 45 57 56 78 44 6c 51 51 55 54 69 4a 55 49 - 7wEwVxD1 QQUTiJUI

> Connection: Keep-Alive\r\n 0080 42 69 56 35 75 4e 75 35 67 25 32 46 36 25 32 42 - B1vSuNu5 g%2F6%2B

> Accept: \*/\*\r\n 0090 72 6b 53 37 51 59 58 6a 7a 6b 43 45 41 37 37 66 - rK57QYXj 2kCEA77F

> User-Agent: Microsoft-CryptoAPI/10.0\r\n 00a0 6c 52 25 32 42 33 77 25 32 46 78 42 70 72 75 56 - 1R%2B3w%2Fk8pUv

> Host: ocs.digicert.com\r\n 00b0 32 6c 74 65 36 41 25 33 44 20 48 54 54 50 2f 31 - Z1te6AK3 D HTTP/1

> [Response in frame: 3510] 00c0 2a 31 0d 0a 43 6f 6a 6a 65 63 74 69 6f 6a 3a 20 - .1 Connection:

> [Full request URI: http://ocs.digicert.com/MFewTzBNMEswSTA3BgrDg/KCGuAB8Q50otx%2Fh0zt1%28z85IP17wEwVxD1QQUTiJUIB1vSuNu5g%2F6%2Bk57QYXj2kCEA77F1R%2B3w%2Fk8p... 00d0 4b 65 65 70 2d 41 6c 69 76 65 0d 0a 41 63 63 65 - Keep-Alive Acc

> 00e0 70 74 3a 20 2a 2f 2a 0d 0a 55 73 65 72 2d 41 67 - pt: /\*. User-Ag

> 00f0 65 6e 74 3a 20 4d 69 63 72 6f 73 6f 66 74 2d 43 - ent: Mic rosoft-C

> 0100 72 79 70 74 6f 41 50 49 2f 31 30 2a 30 0d 0a 48 - cryptoAPI /10.0 H

> 0110 6f 73 74 3a 20 6f 63 73 70 2e 64 69 67 69 63 65 - ost: ocs p.digice

> 0120 72 74 2e 63 6f 6d 0d 0a 0d 0a - rt.com...

Wireshark - Packet 3490 - شبكة Wi-Fi

> Frame 3490: Packet, 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF\_{4C38FF40-98CA-41D5-8594-BDF07F6293D8}, id 0

> Ethernet II, Src: Intel\_4b:20:8a (18:26:49:4b:20:8a), Dst: HuaweiTechno\_77:c7:88 (08:31:8b:77:c7:88)

> Internet Protocol Version 4, Src: 192.168.3.11, Dst: 2.16.70.4

> Transmission Control Protocol, Src Port: 7787, Dst Port: 80, Seq: 0, Len: 0

0000 08 31 8b 77 c7 88 18 26 49 4b 20 8a 08 00 45 00 - 1 w... & IK ... E

0010 00 34 5d 38 40 00 00 06 00 00 c0 a8 03 0b 02 10 - 4]80... ..

0020 46 04 1e 6b 00 50 df 07 9f a2 00 00 00 00 02 10 - F...k P... ..D...P...

0030 ff ff 0e ee 00 00 02 04 05 b4 01 03 03 08 01 01 - ..... ..

0040 04 02 ..

Wireshark - Packet 3490 - شبكة Wi-Fi

> Transmission Control Protocol, Src Port: 7787, Dst Port: 80, Seq: 0, Len: 0

Source Port: 7787

Destination Port: 80

[Stream index: 116]

[Stream Packet Number: 1]

> [Conversation completeness: Complete, WITH\_DATA (47)]

[TCP Segment Len: 0]

Sequence Number: 0 (relative sequence number)

Sequence Number (raw): 3741818786

[Next Sequence Number: 1 (relative sequence number)]

Acknowledgment Number: 0

Acknowledgment number (raw): 0

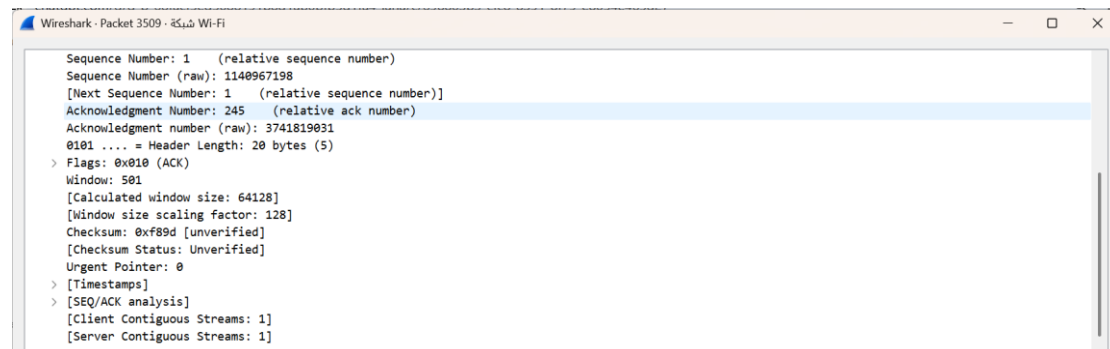
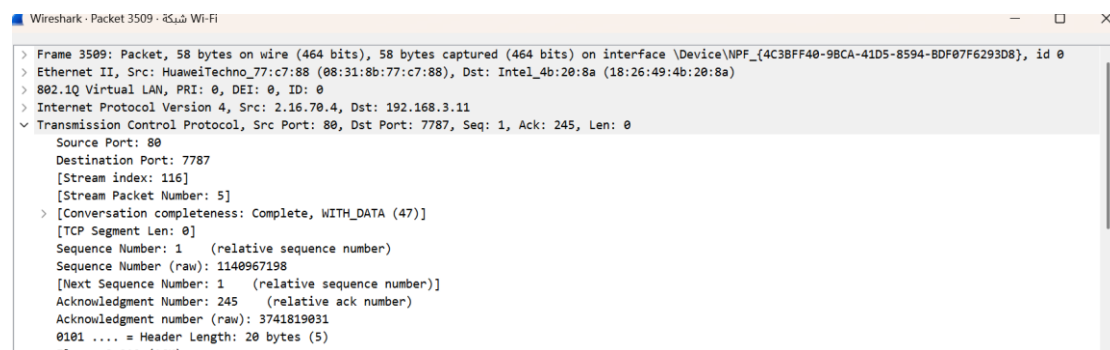
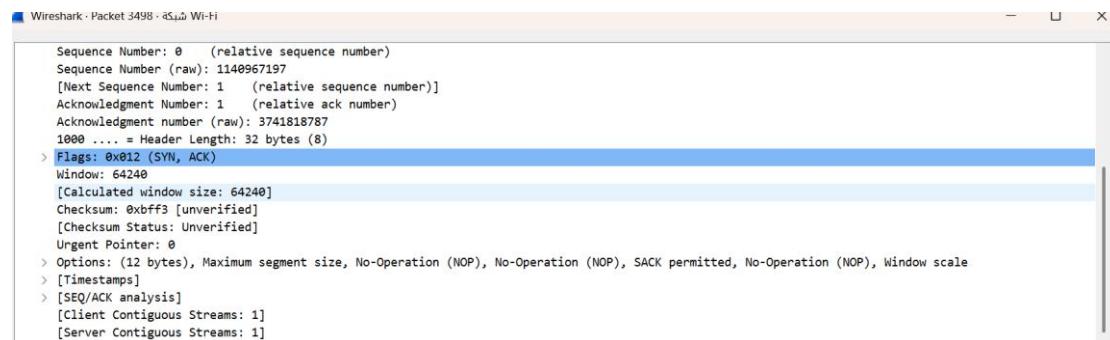
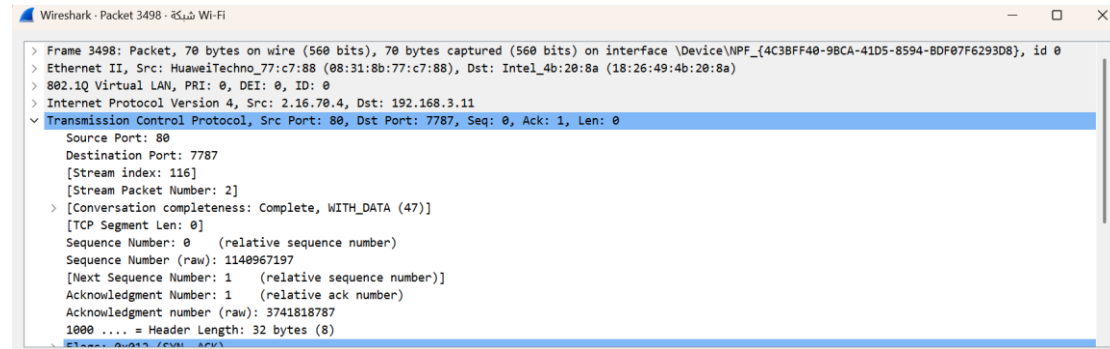
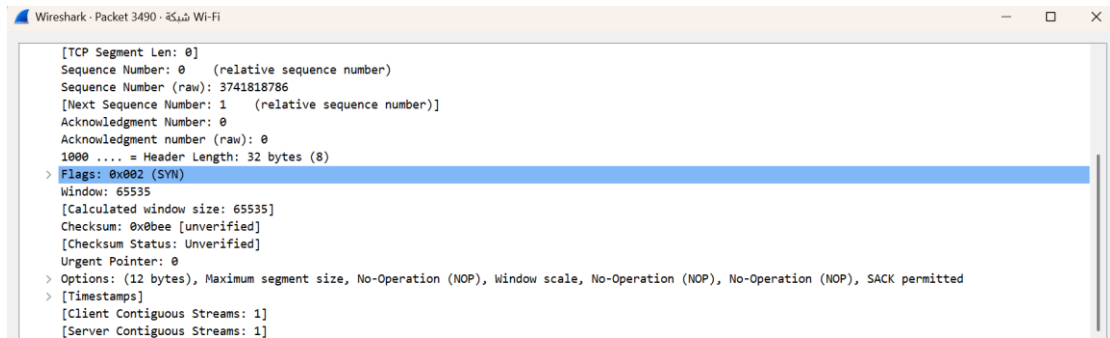
1000 .... = Header Length: 32 bytes (8)

> Flags: 0x002 (SYN)

Window: 65535

[Calculated window size: 65535]

Checksum: 0x0bee [unverified]





The image shows a Wireshark packet capture of a network session. The top pane displays a list of captured packets, primarily TCP segments. The bottom pane provides a detailed view of a selected packet (No. 13898), which is a TCP Reset (RST) packet. The details include:

- Source Port: 7787
- Destination Port: 80
- Stream Index: 116
- Conversation completeness: Complete, WITH\_DATA (47)
- TCP Segment Len: 0
- Sequence Number: 245 (relative sequence number)
- Sequence Number (raw): 3741819031
- Next Sequence Number: 245 (relative sequence number)
- Acknowledgment Number: 727 (relative ack number)
- Acknowledgment Number (raw): 1140967924
- 0101 ..... = Header Length: 20 bytes (5)
- Flags: 0x014 (RST, ACK)
- Window: 0
- [Calculated window size: 0]
- Window size scaling factor: 256
- Checksum: 0x0be2 [unverified]
- Checksum Status: Unverified

The packet bytes pane shows the raw data of the packet, including the RST and ACK flags.

	TCP or UDP	Reasons
Reliability and Connection Establishment	TCP	TCP is connection-oriented 3-way handshake and provides reliable delivery using acknowledgments and retransmissions.
Data Integrity and Ordering	TCP	TCP uses sequence numbers and acknowledgments to ensure in-order delivery and detect missing data. UDP does not guarantee order or delivery.

## Task 2: Identify the use Cases and Performance of TCP and UDP.

	TCP	UDP
Use cases	websites (HTTP/HTTPS), email, downloading/uploading files.	video calls, online games, live streaming, DNS.
Performance	bit slower because it checks and re-sends packets, but it's reliable.	Faster because it doesn't check/re-send, but it can <b>lose packets</b> .

