

pcaplab

221501029潘泓旭

221501029@smail.nju.edu.cn

1.ARP,TCP,DNS

8	2023-12-23 11:10:59.243326	2e:1f:93:f8:d1:46	Broadcast	ARP	56 Who has 172.24.0.1? Tell 172.24.95.114
9	2023-12-23 11:10:59.448132	52:e2:83:ab:da:b4	Broadcast	ARP	56 Who has 172.24.0.1? Tell 172.24.87.67
10	2023-12-23 11:10:59.906909	172.24.38.17	192.168.101.104	TCP	66 7574 → 7680 [SYN] Seq=0 Win=64240 Len=0 MSS
11	2023-12-23 11:10:59.907673	172.24.38.17	192.168.1.133	TCP	66 7575 → 7680 [SYN] Seq=0 Win=64240 Len=0 MSS
12	2023-12-23 11:10:59.949403	172.24.38.17	210.28.129.251	DNS	75 Standard query 0xe4c9 A api.codelifc.cc
13	2023-12-23 11:10:59.950625	210.28.129.251	172.24.38.17	DNS	186 Standard query response 0xe4c9 A api.codelifc.cc

2. 0.801927-0.641993=0.159934s

187	2023-12-23 11:11:13.641993	172.24.38.17	114.212.10.193	HTTP	758 POST /course/net23/pcaplab.py HTTP/1.1 (application/x-www-form-urlencoded)
195	2023-12-23 11:11:13.801927	114.212.10.193	172.24.38.17	HTTP	60 HTTP/1.1 200 OK (text/html)

3.我电脑的IP是172.24.38.17;Get报文的发送端口号是7596,Post报文的发送端口号是7618

> Frame 90: 548 bytes on wire (4384 bits), 548 bytes captured (4384 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}
> Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
> Internet Protocol Version 4, Src: 172.24.38.17, Dst: 114.212.10.193
> Transmission Control Protocol, Src Port: 7596, Dst Port: 8080, Seq: 1, Ack: 1, Len: 494
> Hypertext Transfer Protocol
[Community ID: 1:h+Sj7/Mu44iEtNBbINGka2Juf/c=]
> Frame 187: 758 bytes on wire (6064 bits), 758 bytes captured (6064 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}
> Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
> Internet Protocol Version 4, Src: 172.24.38.17, Dst: 114.212.10.193
> Transmission Control Protocol, Src Port: 7618, Dst Port: 8080, Seq: 1, Ack: 1, Len: 704
> Hypertext Transfer Protocol
> HTML Form URL Encoded: application/x-www-form-urlencoded
[Community ID: 1:bEOnacEj0akDhBLyy/h5qMXq0zo=]

4.

```

No.      Time      Source      Destination      Protocol Length Info
1 2023-12-23 11:10:58.711452 172.24.38.17 13.89.178.27 TLSv1.2 137 Application Data
Frame 1: 137 bytes on wire (1096 bits), 137 bytes captured (1096 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 1, Ack: 1, Len: 83
Transport Layer Security
[Community ID: 1:pio8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
2 2023-12-23 11:10:58.711499 172.24.38.17 13.89.178.27 TLSv1.2 865 Application Data
Frame 2: 865 bytes on wire (6920 bits), 865 bytes captured (6920 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 84, Ack: 1, Len: 811
Transport Layer Security
[Community ID: 1:pio8PJ8o23h0Y9nowK5w3gow90Y=]
TRANSMISSION RTE Data
No.      Time      Source      Destination      Protocol Length Info
3 2023-12-23 11:10:58.897040 172.24.38.17 23.33.184.246 TCP 55 7364 → 443 [ACK] Seq=1 Ack=1 Win=513
Len=1 [TCP segment of a reassembled PDU]
Frame 3: 55 bytes on wire (440 bits), 55 bytes captured (440 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 23.33.184.246
Transmission Control Protocol, Src Port: 7364, Dst Port: 443, Seq: 1, Ack: 1, Len: 1
[Community ID: 1:E9RE8mDIQyPaJQRNRDyKEJDUH9w=]
TRANSMISSION RTE Data
No.      Time      Source      Destination      Protocol Length Info
4 2023-12-23 11:10:58.962506 172.24.38.17 23.33.184.246 TCP 66 443 → 7364 [ACK] Seq=1 Ack=2 Win=501
Len=0 SLE=1 SRE=2
Frame 4: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 23.33.184.246, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7364, Seq: 1, Ack: 2, Len: 0
[Community ID: 1:E9RE8mDIQyPaJQRNRDyKEJDUH9w=]
No.      Time      Source      Destination      Protocol Length Info
5 2023-12-23 11:10:59.015682 13.89.178.27 172.24.38.17 TCP 60 443 → 7554 [ACK] Seq=1 Ack=895 Win=16385
Len=0
Frame 5: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 13.89.178.27, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7554, Seq: 1, Ack: 895, Len: 0
[Community ID: 1:pio8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
6 2023-12-23 11:10:59.017748 13.89.178.27 172.24.38.17 TLSv1.2 153 Application Data
Frame 6: 153 bytes on wire (1224 bits), 153 bytes captured (1224 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 13.89.178.27, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7554, Seq: 1, Ack: 895, Len: 99
Transport Layer Security
[Community ID: 1:pio8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
7 2023-12-23 11:10:59.067528 172.24.38.17 13.89.178.27 TCP 54 7554 → 443 [ACK] Seq=895 Ack=100 Win=514
Len=0
Frame 7: 54 bytes on wire (432 bits), 54 bytes captured (432 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 895, Ack: 100, Len: 0
[Community ID: 1:pio8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
8 2023-12-23 11:10:59.243326 2e:1f:93:f8:d1:46 Broadcast ARP 56 Who has 172.24.0.1? Tell 172.24.95.114
Frame 8: 56 bytes on wire (448 bits), 56 bytes captured (448 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: 2e:1f:93:f8:d1:46 (2e:1f:93:f8:d1:46), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
Address Resolution Protocol (request)
No.      Time      Source      Destination      Protocol Length Info
9 2023-12-23 11:10:59.448132 52:e2:83:ab:da:b4 Broadcast ARP 56 Who has 172.24.0.1? Tell 172.24.87.67
Frame 9: 56 bytes on wire (448 bits), 56 bytes captured (448 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: 52:e2:83:ab:da:b4 (52:e2:83:ab:da:b4), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
Address Resolution Protocol (request)
No.      Time      Source      Destination      Protocol Length Info
10 2023-12-23 11:10:59.906909 172.24.38.17 192.168.101.104 TCP 66 7574 → 7680 [SYN] Seq=0 Win=64240 Len=0
MSS=1460 WS=256 SACK_PERM
Frame 10: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 192.168.101.104
Transmission Control Protocol, Src Port: 7574, Dst Port: 7680, Seq: 0, Len: 0
[Community ID: 1:71G6s/hAUsXIX7zG2N5Quj01T000=]
No.      Time      Source      Destination      Protocol Length Info
11 2023-12-23 11:10:59.907673 172.24.38.17 192.168.1.133 TCP 66 7575 → 7680 [SYN] Seq=0 Win=64240 Len=0
MSS=1460 WS=256 SACK_PERM
Frame 11: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 192.168.1.133
Transmission Control Protocol, Src Port: 7575, Dst Port: 7680, Seq: 0, Len: 0

```

图 1: Post报文

```

No.      Time      Source      Destination      Protocol Length Info
1 2023-12-23 11:10:58.711452 172.24.38.17 13.89.178.27 TLSv1.2 137 Application Data
Frame 1: 137 bytes on wire (1096 bits), 137 bytes captured (1096 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 1, Ack: 1, Len: 83
Transport Layer Security
[Community ID: 1:p1o8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
2 2023-12-23 11:10:58.711499 172.24.38.17 13.89.178.27 TLSv1.2 865 Application Data
Frame 2: 865 bytes on wire (6920 bits), 865 bytes captured (6920 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 84, Ack: 1, Len: 811
Transport Layer Security
[Community ID: 1:p1o8PJ8o23h0Y9nowK5w3gow90Y=]
TRANSMISSION RTE Data
No.      Time      Source      Destination      Protocol Length Info
3 2023-12-23 11:10:58.897040 172.24.38.17 23.33.184.246 TCP 55 7364 → 443 [ACK] Seq=1 Ack=1 Win=513
Len=1 [TCP segment of a reassembled PDU]
Frame 3: 55 bytes on wire (440 bits), 55 bytes captured (440 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 23.33.184.246
Transmission Control Protocol, Src Port: 7364, Dst Port: 443, Seq: 1, Ack: 1, Len: 1
[Community ID: 1:E9RE8mDIQyPaJQRNRDyKEJDUH9w=]
TRANSMISSION RTE Data
No.      Time      Source      Destination      Protocol Length Info
4 2023-12-23 11:10:58.962506 172.24.38.17 23.33.184.246 TCP 66 443 → 7364 [ACK] Seq=1 Ack=2 Win=501
Len=0 SLE=1 SRE=2
Frame 4: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 23.33.184.246, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7364, Seq: 1, Ack: 2, Len: 0
[Community ID: 1:E9RE8mDIQyPaJQRNRDyKEJDUH9w=]
No.      Time      Source      Destination      Protocol Length Info
5 2023-12-23 11:10:59.015682 13.89.178.27 172.24.38.17 TCP 60 443 → 7554 [ACK] Seq=1 Ack=895 Win=16385
Len=0
Frame 5: 60 bytes on wire (480 bits), 60 bytes captured (480 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 13.89.178.27, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7554, Seq: 1, Ack: 895, Len: 0
[Community ID: 1:p1o8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
6 2023-12-23 11:10:59.017748 13.89.178.27 172.24.38.17 TLSv1.2 153 Application Data
Frame 6: 153 bytes on wire (1224 bits), 153 bytes captured (1224 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f), Dst: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3)
Internet Protocol Version 4, Src: 13.89.178.27, Dst: 172.24.38.17
Transmission Control Protocol, Src Port: 443, Dst Port: 7554, Seq: 1, Ack: 895, Len: 99
Transport Layer Security
[Community ID: 1:p1o8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
7 2023-12-23 11:10:59.067528 172.24.38.17 13.89.178.27 TCP 54 7554 → 443 [ACK] Seq=895 Ack=100 Win=514
Len=0
Frame 7: 54 bytes on wire (432 bits), 54 bytes captured (432 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 13.89.178.27
Transmission Control Protocol, Src Port: 7554, Dst Port: 443, Seq: 895, Ack: 100, Len: 0
[Community ID: 1:p1o8PJ8o23h0Y9nowK5w3gow90Y=]
No.      Time      Source      Destination      Protocol Length Info
8 2023-12-23 11:10:59.243326 2e:1f:93:f8:d1:46 Broadcast ARP 56 Who has 172.24.0.1? Tell 172.24.95.114
Frame 8: 56 bytes on wire (448 bits), 56 bytes captured (448 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: 2e:1f:93:f8:d1:46 (2e:1f:93:f8:d1:46), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
Address Resolution Protocol (request)
No.      Time      Source      Destination      Protocol Length Info
9 2023-12-23 11:10:59.448132 52:e2:83:ab:da:b4 Broadcast ARP 56 Who has 172.24.0.1? Tell 172.24.87.67
Frame 9: 56 bytes on wire (448 bits), 56 bytes captured (448 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: 52:e2:83:ab:da:b4 (52:e2:83:ab:da:b4), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
Address Resolution Protocol (request)
No.      Time      Source      Destination      Protocol Length Info
10 2023-12-23 11:10:59.906909 172.24.38.17 192.168.101.104 TCP 66 7574 → 7680 [SYN] Seq=0 Win=64240 Len=0
MSS=1460 WS=256 SACK_PERM
Frame 10: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 192.168.101.104
Transmission Control Protocol, Src Port: 7574, Dst Port: 7680, Seq: 0, Len: 0
[Community ID: 1:71G6s/hAUsXIX7zG2N5Quj01T000=]
No.      Time      Source      Destination      Protocol Length Info
11 2023-12-23 11:10:59.907673 172.24.38.17 192.168.1.133 TCP 66 7575 → 7680 [SYN] Seq=0 Win=64240 Len=0
MSS=1460 WS=256 SACK_PERM
Frame 11: 66 bytes on wire (528 bits), 66 bytes captured (528 bits) on interface \Device\NPF_{B556E8DB-875B-45ED-B4D4-00832D7BC113}, id 0
Ethernet II, Src: AzureWaveTec_50:59:c3 (b4:8c:9d:50:59:c3), Dst: HuaweiTechno_1b:24:9f (10:51:72:1b:24:9f)
Internet Protocol Version 4, Src: 172.24.38.17, Dst: 192.168.1.133
Transmission Control Protocol, Src Port: 7575, Dst Port: 7680, Seq: 0, Len: 0

```

图 2: OK报文