

22100011015

## Nursena Taşköprü

1. Paket yakalama işleminizin toplam süresi ne kadardır? Bu bilgiyi nasıl elde ettiniz? Ekran görüntüsü ile gösteriniz.

Dosyadaki time sütunundan toplam süreyi ölçebiliriz

Toplam süre yaklaşık 10.41 saniye oluyor.

| time          | Source                        | Destination    | Protocol | Length | Info  |
|---------------|-------------------------------|----------------|----------|--------|---|
| 297 6.82183   | 20.189.173.10                 | 192.168.52.35  | TCP      | 54     | 443 → 51729 [ACK] Seq=40 Ack=2255 Win=16387 Len=0               |
| 298 6.868409  | 192.168.52.35                 | 128.119.245.12 | TCP      | 54     | 51804 → 80 [ACK] Seq=2931 Ack=1438 Win=65280 Len=0              |
| 299 6.868409  | 192.168.52.35                 | 20.189.173.10  | TCP      | 54     | 51729 → 443 [ACK] Seq=2255 Ack=40 Win=255 Len=0                 |
| 300 6.868409  | 192.168.52.35                 | 13.107.21.239  | TCP      | 55     | 51719 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1                     |
| 301 6.908546  | 13.107.21.239                 | 192.168.52.35  | TCP      | 66     | 443 → 51719 [ACK] Seq=1 Ack=2 Win=16385 Len=0 SLE=1 SRE=2       |
| 302 7.496128  | 20.189.173.10                 | 192.168.52.35  | TLSv1.2  | 159    | Application Data  |
| 303 7.497146  | 192.168.52.35                 | 20.189.173.10  | TLSv1.2  | 89     | Application Data  |
| 304 7.502127  | 192.168.52.35                 | 20.189.173.10  | TLSv1.2  | 139    | Application Data  |
| 305 7.502174  | 192.168.52.35                 | 20.189.173.10  | TLSv1.2  | 1361   | Application Data  |
| 306 7.728034  | 192.168.52.35                 | 224.0.0.251    | MDNS     | 82     | Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question |
| 307 7.728277  | fe80::9057:87b:45ae::ff02::fb | ff02::fb       | MDNS     | 102    | Standard query 0x0000 PTR _googlecast._tcp.local, "QM" question |
| 308 7.735066  | 20.189.173.10                 | 192.168.52.35  | TCP      | 54     | 443 → 51729 [ACK] Seq=145 Ack=2375 Win=16386 Len=0              |
| 309 7.940083  | 20.189.173.10                 | 192.168.52.35  | TCP      | 54     | 443 → 51729 [ACK] Seq=145 Ack=3682 Win=16387 Len=0              |
| 310 8.455889  | 20.189.173.10                 | 192.168.52.35  | TLSv1.2  | 155    | Application Data  |
| 311 8.505454  | 192.168.52.35                 | 20.189.173.10  | TCP      | 54     | 51729 → 443 [ACK] Seq=3682 Ack=246 Win=254 Len=0                |
| 312 9.467854  | 192.168.52.35                 | 20.189.173.10  | TLSv1.2  | 139    | Application Data  |
| 313 9.467907  | 192.168.52.35                 | 20.189.173.10  | TLSv1.2  | 864    | Application Data  |
| 314 9.736354  | 20.189.173.10                 | 192.168.52.35  | TCP      | 54     | 443 → 51729 [ACK] Seq=246 Ack=4577 Win=16383 Len=0              |
| 315 10.417568 | 20.189.173.10                 | 192.168.52.35  | TLSv1.2  | 155    | Application Data  |

2. Paket yakalama işleminin gerçek başlangıç ve bitiş zamanını (günün tarihi ve işlem zamanı) ekran görüntüsü ile belirtiniz. Bu bilgiyi görebilmek için Wireshark programında hangi işlem yapılmalıdır?

Görebilmek için Görünüm> Zaman Görüntüleme Biçimi > Günün tarihi ve saati ayarı seçilmeli.

İlki başlangıç ikincisi bitiş

| No. | Time                       | Source                 | Destination    |
|-----|----------------------------|------------------------|----------------|
| 297 | 2025-02-23 01:31:21,315424 | 20.189.173.10          | 192.168.52.35  |
| 298 | 2025-02-23 01:31:21,362001 | 192.168.52.35          | 128.119.245.12 |
| 299 | 2025-02-23 01:31:21,362001 | 192.168.52.35          | 20.189.173.10  |
| 300 | 2025-02-23 01:31:21,362001 | 192.168.52.35          | 13.107.21.239  |
| 301 | 2025-02-23 01:31:21,402138 | 13.107.21.239          | 192.168.52.35  |
| 302 | 2025-02-23 01:31:21,989720 | 20.189.173.10          | 192.168.52.35  |
| 303 | 2025-02-23 01:31:21,990738 | 192.168.52.35          | 20.189.173.10  |
| 304 | 2025-02-23 01:31:21,995719 | 192.168.52.35          | 20.189.173.10  |
| 305 | 2025-02-23 01:31:21,995766 | 192.168.52.35          | 20.189.173.10  |
| 306 | 2025-02-23 01:31:22,221626 | 192.168.52.35          | 224.0.0.251    |
| 307 | 2025-02-23 01:31:22,221869 | fe80::9057:87b:45ae... | ff02::fb       |
| 308 | 2025-02-23 01:31:22,228658 | 20.189.173.10          | 192.168.52.35  |
| 309 | 2025-02-23 01:31:22,433675 | 20.189.173.10          | 192.168.52.35  |
| 310 | 2025-02-23 01:31:22,949481 | 20.189.173.10          | 192.168.52.35  |
| 311 | 2025-02-23 01:31:22,999046 | 192.168.52.35          | 20.189.173.10  |
| 312 | 2025-02-23 01:31:23,961446 | 192.168.52.35          | 20.189.173.10  |
| 313 | 2025-02-23 01:31:23,961499 | 192.168.52.35          | 20.189.173.10  |
| 314 | 2025-02-23 01:31:24,229946 | 20.189.173.10          | 192.168.52.35  |
| 315 | 2025-02-23 01:31:24,911160 | 20.189.173.10          | 192.168.52.35  |

| No. | Time                       | Source        | Destination   | Protocol | Length | Info   |
|-----|----------------------------|---------------|---------------|----------|--------|--|
| 1   | 2025-02-23 01:31:14,493592 | 192.168.52.35 | 20.42.73.30   | TLSv1.2  | 212    | Client Key Exchange, Change Cipher Spec, Encrypted Handshake |
| 2   | 2025-02-23 01:31:14,575702 | 0.42.73.30    | 192.168.52.35 | TLSv1.2  | 174    | Change Cipher Spec, Encrypted Handshake Message, Application |
| 3   | 2025-02-23 01:31:14,580334 | 92.168.52.35  | 20.42.73.30   | TLSv1.2  | 141    | Application Data   |
| 4   | 2025-02-23 01:31:14,580395 | 92.168.52.35  | 20.42.73.30   | TCP      | 1393   | 51801 → 443 [ACK] Seq=246 Ack=121 Win=255 Len=1339 [TCP PDU  |
| 5   | 2025-02-23 01:31:14,580395 | 92.168.52.35  | 20.42.73.30   | TLSv1.2  | 248    | Application Data   |
| 6   | 2025-02-23 01:31:14,580487 | 92.168.52.35  | 20.42.73.30   | TLSv1.2  | 92     | Application Data   |
| 7   | 2025-02-23 01:31:14,580550 | 92.168.52.35  | 20.42.73.30   | TCP      | 1393   | 51801 → 443 [ACK] Seq=1817 Ack=121 Win=255 Len=1339 [TCP PDU |
| 8   | 2025-02-23 01:31:14,580550 | 92.168.52.35  | 20.42.73.30   | TCP      | 1393   | 51801 → 443 [ACK] Seq=3156 Ack=121 Win=255 Len=1339 [TCP PDU |
| 9   | 2025-02-23 01:31:14,580550 | 92.168.52.35  | 20.42.73.30   | TCP      | 1393   | 51801 → 443 [ACK] Seq=4495 Ack=121 Win=255 Len=1339 [TCP PDU |
| 10  | 2025-02-23 01:31:14,580550 | 92.168.52.35  | 20.42.73.30   | TLSv1.2  | 1232   | Application Data   |
| 11  | 2025-02-23 01:31:14,881397 | 0.42.73.30    | 192.168.52.35 | TLSv1.2  | 92     | Application Data   |
| 12  | 2025-02-23 01:31:14,881468 | 0.42.73.30    | 192.168.52.35 | TCP      | 54     | 443 → 51801 [ACK] Seq=159 Ack=1817 Win=16387 Len=0           |
| 13  | 2025-02-23 01:31:14,881481 | 0.42.73.30    | 192.168.52.35 | TCP      | 54     | 443 → 51801 [ACK] Seq=159 Ack=3156 Win=16387 Len=0           |
| 14  | 2025-02-23 01:31:14,881490 | 0.42.73.30    | 192.168.52.35 | TCP      | 54     | 443 → 51801 [ACK] Seq=159 Ack=4495 Win=16387 Len=0           |
| 15  | 2025-02-23 01:31:14,881498 | 0.42.73.30    | 192.168.52.35 | TCP      | 54     | 443 → 51801 [ACK] Seq=159 Ack=5834 Win=16387 Len=0           |

### 3. Toplam yakalanan paket sayısı kaçtır?

315 paket yakalanmış

|               |               |         |      |   |
|---------------|---------------|---------|------|---|
| 192.168.52.35 | 20.42.73.30   | TLSv1.2 | 1232 | Application Data  |
| 192.168.52.35 | 192.168.52.35 | TLSv1.2 | 92   | Application Data  |
| 192.168.52.35 | 192.168.52.35 | TCP     | 54   | 443 → 51801 [ACK] Seq=159 Ack=1817 Win=16387 Len=0                            |
| 192.168.52.35 | 192.168.52.35 | TCP     | 54   | 443 → 51801 [ACK] Seq=159 Ack=3156 Win=16387 Len=0                            |
| 192.168.52.35 | 192.168.52.35 | TCP     | 54   | 443 → 51801 [ACK] Seq=159 Ack=4495 Win=16387 Len=0                            |
| 192.168.52.35 | 192.168.52.35 | TCP     | 54   | 443 → 51801 [ACK] Seq=159 Ack=5834 Win=16387 Len=0                            |
| 192.168.52.35 | 20.42.73.30   | TCP     | 54   | 51801 → 443 [ACK] Seq=7012 Ack=159 Win=255 Len=0                              |
| 192.168.52.35 | 192.168.52.35 | TCP     | 54   | 443 → 51801 [ACK] Seq=159 Ack=7012 Win=16382 Len=0                            |
| 192.168.52.35 | 20.42.65.94   | TCP     | 1393 | 51774 → 443 [ACK] Seq=1 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 21]    |
| 192.168.52.35 | 20.42.65.94   | TCP     | 1393 | 51774 → 443 [ACK] Seq=1340 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 21] |

|   |      |                         |                         |                         |
|---|------|-------------------------|-------------------------|-------------------------|
| ts), 508 bytes captured (4064 bits) on interface \Device\NPF_{4E4E1000-0000-0000-0000-0000-0000-0000-0000-0000} | 0000 | 36 93 4b 54 fe 29 b4 8c | 9d 50 07 ef 08 00 45 00 | 6 KT ) . P . . E        |
| ef (b4:8c:9d:50:07:ef), Dst: 36:93:4b:54:fe:29 (36:93:4b:54:fe:29)  | 0010 | 01 ee f0 e7 40 00 80 06 | 9d d2 c0 a8 34 23 80 77 | . . . @ . . . 4# w      |
| 192.168.52.35, Dst: 128.119.245.12  | 0020 | f5 0c ca 5c 00 50 98 2d | e9 2b ab 2a 4b 7c 50 18 | . . . \ P . . + *K P.   |
| Port: 51804, Dst Port: 80, Seq: 1, Ack: 1, Len: 454   | 0030 | 00 ff 33 04 00 00 47 45 | 54 20 2f 66 61 76 69 63 | . . . 3 . . GE T /favic |
|   | 0040 | 6f 6e 2e 69 63 6f 20 48 | 54 54 50 2f 31 2e 31 0d | on.ico H TTP/1.1.       |
|   | 0050 | 0a 48 6f 73 74 3a 20 67 | 61 69 61 2e 63 73 2e 75 | . Host: g aia.cs.u      |
|   | 0060 | 6d 61 73 73 2e 65 64 75 | 0d 0a 43 6f 6e 6e 65 63 | mass.edu . Connec       |
|   | 0070 | 74 69 6f 6e 3a 20 6b 65 | 65 70 2d 61 6c 69 76 65 | tion: ke ep-alive       |
|   | 0080 | 0d 0a 55 73 65 72 2d 41 | 67 65 6e 74 3a 20 4d 6f | . User-A gent: Mo       |
|   | 0090 | 7a 69 6c 6c 61 2f 35 2e | 30 20 28 57 69 6e 64 6f | zilla/5. 0 (Windo       |
|   | 00a0 | 77 73 20 4e 54 20 31 30 | 2e 30 3b 20 57 69 6e 36 | ws NT 10 .0; Win6       |
|   | 00b0 | 34 3b 20 78 36 34 29 20 | 41 70 70 6c 65 57 65 62 | 4; x64) AppleWeb        |
|   | 00c0 | 4b 69 74 2f 35 33 37 2e | 33 36 20 28 4b 48 54 4d | Kit/537. 36 (KHTM       |
|   | 00d0 | 4c 2c 20 6c 69 6b 65 20 | 47 65 63 6b 6f 29 20 43 | L, like Gecko) C        |
|   | 00e0 | 68 72 6f 6d 65 2f 31 33 | 33 2e 30 2e 30 2e 30 20 | hrome/13 3.0.0.0        |
|   | 00f0 | 53 61 66 61 72 69 2f 35 | 33 37 2e 33 36 20 45 64 | Safari/5 37.36 Ed       |
|   | 0100 | 67 2f 31 33 33 2e 30 2e | 30 2e 30 0d 0a 41 63 63 | g/133.0. 0.0.-Acc       |
|   | 0110 | 65 70 74 3a 20 69 6d 61 | 67 65 2f 61 76 69 66 2c | ept: ima ge/avif,       |
|   | 0120 | 69 6d 61 67 65 2f 77 65 | 62 70 2c 69 6d 61 67 65 | image/we bp,image       |
|   | 0130 | 2f 61 70 6e 67 2c 69 6d | 61 67 65 2f 73 76 67 2b | /apng,image/svg+        |
|   | 0140 | 78 6d 6c 2c 69 6d 61 67 | 65 2f 2a 2c 2a 2f 2a 30 | xm1,image er"/;         |
|   | 0150 | 71 3d 30 2e 38 0d 0a 52 | 65 66 65 72 65 72 3a 20 | q=0.8 .R efere          |

Paketler: 315

4. 1 ve 3. sorularda elde ettiğiniz bilgilere göre trafik hızınızı (paket/ms) hesaplayınız.

ms olması için  $10.41 \text{ sn} * 1000 \text{ deriz} = 10410 \text{ ms}$

paket sayısı = 315

trafik hızı =  $315 / 10410 \text{ ms} = 0,0302593659942363 \text{ paket/ms}$

5. Yakalanan paketlerden 3 farklı protokole ait paketlerin paket no, protokol ve bilgi kısımlarını yazınız.

Sadece istenen sütunlar gözüksün diye seçim sonra arama kısmından protokolleri aradım

TCP

| tcp |          |   |
|-----|----------|---|
| No. | Protocol | Info  |
| 1   | TLSv1.2  | Client Key Exchange, Change Cipher Spec, Encrypted Handshake Message            |
| 2   | TLSv1.2  | Change Cipher Spec, Encrypted Handshake Message, Application Data               |
| 3   | TLSv1.2  | Application Data  |
| 4   | TCP      | 51801 → 443 [ACK] Seq=246 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 5]   |
| 5   | TLSv1.2  | Application Data  |
| 6   | TLSv1.2  | Application Data  |
| 7   | TCP      | 51801 → 443 [ACK] Seq=1817 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10] |
| 8   | TCP      | 51801 → 443 [ACK] Seq=3156 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10] |
| 9   | TCP      | 51801 → 443 [ACK] Seq=4495 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10] |

DNS

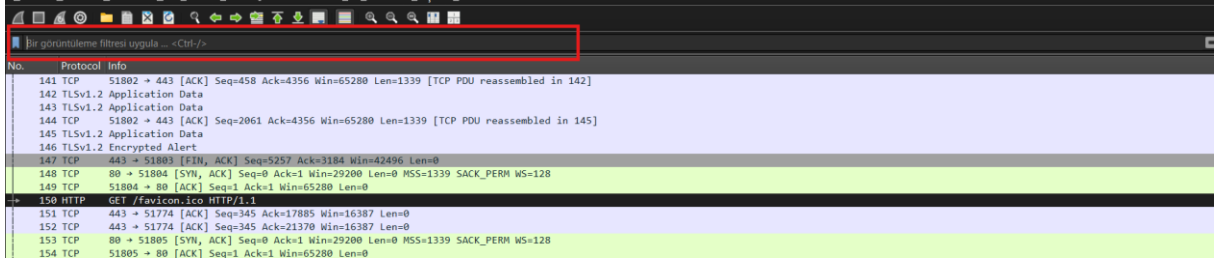
| dns |          |   |
|-----|----------|---|
| No. | Protocol | Info  |
| 40  | DNS      | Standard query 0xa4a3 A v20.events.data.microsoft.com   |
| 46  | DNS      | Standard query 0xa4a3 A v20.events.data.microsoft.com   |
| 47  | DNS      | Standard query response 0xa4a3 A v20.events.data.microsoft.com CNAME win-global-asimov-leafs-events-data.trafficmanager.net CNAME onedcolprdeus23.eastus.cloudapp.azure.com A 20.42.65.94 |
| 49  | DNS      | Standard query 0xcb09 A suggest.yandex.com.tr   |
| 50  | DNS      | Standard query 0x2e3f HTTPS suggest.yandex.com.tr   |
| 51  | DNS      | Standard query response 0xcb09 A suggest.yandex.com.tr CNAME suggest.yandex.net A 213.180.204.63  |
| 76  | DNS      | Standard query 0xfb94 A gaia.cs.umass.edu   |
| 77  | DNS      | Standard query 0x93ba HTTPS gaia.cs.umass.edu   |
| 78  | DNS      | Standard query response 0xfb94 A gaia.cs.umass.edu A 128.119.245.12   |

HTTP

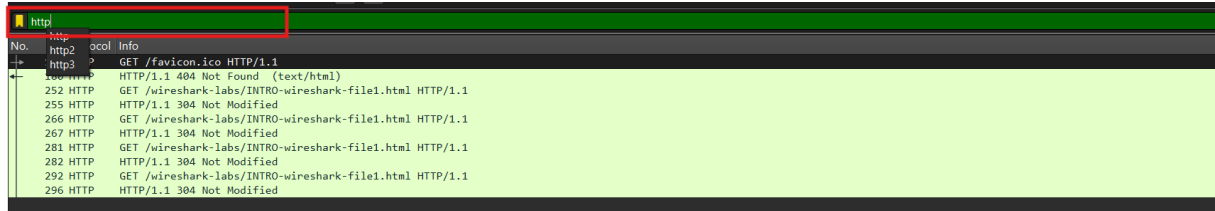
| http |          |   |
|------|----------|---|
| No.  | Protocol | Info  |
| 180  | HTTP     | GET /favicon.ico HTTP/1.1                               |
| 186  | HTTP     | HTTP/1.1 404 Not Found (text/html)                      |
| 252  | HTTP     | GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1 |
| 255  | HTTP     | HTTP/1.1 304 Not Modified                               |
| 266  | HTTP     | GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1 |
| 267  | HTTP     | HTTP/1.1 304 Not Modified                               |
| 281  | HTTP     | GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1 |
| 282  | HTTP     | HTTP/1.1 304 Not Modified                               |
| 292  | HTTP     | GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1 |
| 296  | HTTP     | HTTP/1.1 304 Not Modified                               |

6. HTTP protokolüne ait paket bilgilerini görüntülemek için hangi ifade ile filtreleme yapılmıştır? İlgili filtrelemeyi yaparak ekran görüntüsü ile gösteriniz

Aşağıdaki kısma http yazarak filtrelenmesini sağlayabiliriz.



Sonuç



7. HTTP paketlerinin gönderilip alınması adımları arasında dinlenen ağda başka paket alışverişi olmuş mudur? Ekran görüntüsü ile gösteriniz.

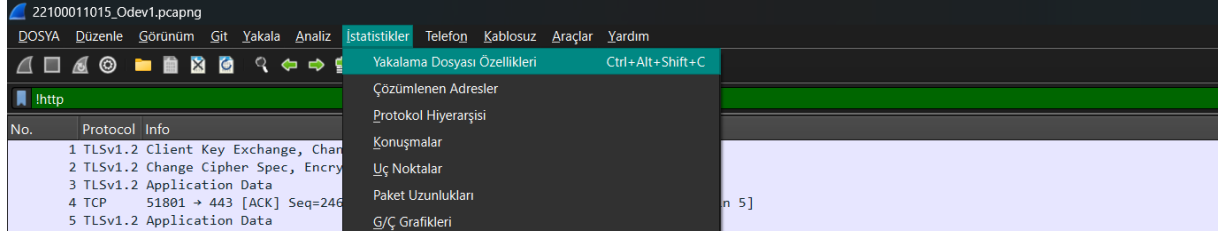
Olmuş. 150 nolu ve 180 nolu paketler arasında http dışı paket alışverişi olmuş

|     |         |   |
|-----|---------|---|
| 148 | TCP     | 51804 → 80 [ACK] Seq=1 Ack=1 Win=65280 Len=0                                |
| 149 | TCP     | 51804 → 80 [ACK] Seq=1 Ack=1 Win=65280 Len=0                                |
| 150 | HTTP    | GET /favicon.ico HTTP/1.1   |
| 151 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=17885 Win=16387 Len=0                         |
| 152 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=21370 Win=16387 Len=0                         |
| 153 | TCP     | 80 → 51805 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1339 SACK_PERM WS=128 |
| 154 | TCP     | 51805 → 80 [ACK] Seq=1 Ack=1 Win=65280 Len=0                                |
| 155 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=28429 Win=16387 Len=0                         |
| 156 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=33253 Win=16387 Len=0                         |
| 157 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=34592 Win=16387 Len=0                         |
| 158 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=37270 Win=16387 Len=0                         |
| 159 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=39948 Win=16387 Len=0                         |
| 160 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=42073 Win=16387 Len=0                         |
| 161 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=44751 Win=16387 Len=0                         |
| 162 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=46898 Win=16387 Len=0                         |
| 163 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=49576 Win=16387 Len=0                         |
| 164 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=52254 Win=16387 Len=0                         |
| 165 | TCP     | 443 → 51774 [ACK] Seq=345 Ack=57202 Win=16373 Len=0                         |
| 166 | TCP     | [TCP Window Update] 443 → 51774 [ACK] Seq=345 Ack=57202 Win=16387 Len=0     |
| 167 | TLSv1.2 | Application Data  |
| 168 | TLSv1.2 | Application Data, Application Data, Application Data                        |
| 169 | TCP     | 51774 → 443 [ACK] Seq=70655 Ack=1046 Win=255 Len=0                          |
| 170 | TCP     | 443 → 51774 [ACK] Seq=1046 Ack=62026 Win=16387 Len=0                        |
| 171 | TCP     | 443 → 51774 [ACK] Seq=1046 Ack=63365 Win=16387 Len=0                        |
| 172 | TCP     | 443 → 51774 [ACK] Seq=1046 Ack=66043 Win=16387 Len=0                        |
| 173 | TCP     | 443 → 51774 [ACK] Seq=1046 Ack=68721 Win=16387 Len=0                        |
| 174 | TCP     | 443 → 51774 [ACK] Seq=1046 Ack=70655 Win=16387 Len=0                        |
| 175 | TLSv1.2 | Application Data  |
| 176 | TCP     | 443 → 51802 [ACK] Seq=4394 Ack=3400 Win=4195072 Len=0                       |
| 177 | TCP     | 51802 → 443 [ACK] Seq=4722 Ack=4394 Win=65280 Len=0                         |
| 178 | TCP     | 443 → 51802 [ACK] Seq=4394 Ack=4722 Win=4193536 Len=0                       |
| 179 | TCP     | 80 → 51804 [ACK] Seq=1 Ack=455 Win=30336 Len=0                              |
| 180 | HTTP    | HTTP/1.1 404 Not Found (text/html)  |
| 181 | TLSv1.2 | Application Data  |

Ayrıca paket kısmına !http yazarak da http olmayan paketleri görebiliriz görebiliriz

| No. | Protocol | Info   |
|-----|----------|--|
| 1   | TLSv1.2  | Client Key Exchange, Change Cipher Spec, Encrypted Handshake Message                                     |
| 2   | TLSv1.2  | Change Cipher Spec, Encrypted Handshake Message, Application Data  |
| 3   | TLSv1.2  | Application Data   |
| 4   | TCP      | 51801 → 443 [ACK] Seq=246 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 5]                            |
| 5   | TLSv1.2  | Application Data   |
| 6   | TLSv1.2  | Application Data   |
| 7   | TCP      | 51801 → 443 [ACK] Seq=1817 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10]                          |
| 8   | TCP      | 51801 → 443 [ACK] Seq=3156 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10]                          |
| 9   | TCP      | 51801 → 443 [ACK] Seq=4495 Ack=121 Win=255 Len=1339 [TCP PDU reassembled in 10]                          |
| 10  | TLSv1.2  | Application Data   |
| 11  | TLSv1.2  | Application Data   |
| 12  | TCP      | 443 → 51801 [ACK] Seq=159 Ack=1817 Win=16387 Len=0   |
| 13  | TCP      | 443 → 51801 [ACK] Seq=159 Ack=3156 Win=16387 Len=0   |
| 14  | TCP      | 443 → 51801 [ACK] Seq=159 Ack=4495 Win=16387 Len=0   |
| 15  | TCP      | 443 → 51801 [ACK] Seq=159 Ack=5834 Win=16387 Len=0   |
| 16  | TCP      | 51801 → 443 [ACK] Seq=7012 Ack=159 Win=255 Len=0   |
| 17  | TCP      | 443 → 51801 [ACK] Seq=159 Ack=7012 Win=16382 Len=0   |
| 18  | TCP      | 51774 → 443 [ACK] Seq=1 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 21]                               |
| 19  | TCP      | 51774 → 443 [ACK] Seq=1340 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 21]                            |
| 20  | TCP      | 51774 → 443 [ACK] Seq=2679 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 21]                            |
| 21  | TLSv1.2  | Application Data   |
| 22  | TCP      | 51774 → 443 [ACK] Seq=4836 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                            |
| 23  | TCP      | 51774 → 443 [ACK] Seq=6175 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                            |
| 24  | TCP      | 51774 → 443 [ACK] Seq=7514 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                            |
| 25  | TCP      | 51774 → 443 [ACK] Seq=8853 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                            |
| 26  | TCP      | 51774 → 443 [ACK] Seq=10192 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                           |
| 27  | TCP      | 51774 → 443 [ACK] Seq=11531 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                           |
| 28  | TCP      | 51774 → 443 [ACK] Seq=12870 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29]                           |
| 29  | TLSv1.2  | Application Data   |
| 30  | TCP      | 51613 → 443 [ACK] Seq=1 Ack=1 Win=253 Len=1  |
| 31  | TCP      | 443 → 51613 [ACK] Seq=1 Ack=2 Win=16385 Len=0 SLE=1 SRE=2  |
| 32  | TCP      | 443 → 51774 [ACK] Seq=1 Ack=4836 Win=16387 Len=0   |
| 33  | TCP      | 443 → 51774 [ACK] Seq=1 Ack=7514 Win=16387 Len=0   |
| 34  | TCP      | [TCP Retransmission] 51774 → 443 [PSH, ACK] Seq=13833 Ack=1 Win=253 Len=1339 [TCP PDU reassembled in 29] |
| 35  | TLSv1.2  | Application Data   |
| 36  | TLSv1.2  | Application Data   |

Ek Olarak:



Kısımından sorduğunuz birkaç soru dahil çoğu bilgiye ulaşabiliriz

