

Bil 452 – Ödev 4 (UDP)
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1-)

No.	Time	Source	Destination	Protocol	Length	Info
413	5.181504198	192.168.43.49	192.168.43.1	DNS	76	Standard query 0xb7da A ortam.etu.edu.tr
439	5.254794143	192.168.43.1	192.168.43.49	DNS	169	Standard query response 0x3847 A www.google-analytics.l.google.com A 172.217.169.110
440	5.254741025	192.168.43.1	192.168.43.49	DNS	92	Standard query response 0xb7da A ortam.etu.edu.tr A 193.140.198.140
448	5.266786464	192.168.43.49	172.217.169.110	QUIC	1392	Client Hello, PKN: 1, CID: 14177834573230035081
449	5.267180334	192.168.43.49	172.217.169.110	QUIC	301	Payload (Encrypted), PKN: 2, CID: 14177834573230035081
451	5.282462931	192.168.43.49	172.217.169.131	QUIC	1392	Client Hello, PKN: 1, CID: 9046486227917973296
452	5.283237720	192.168.43.49	192.168.43.1	DNS	87	Standard query 0xe1c7 A googleads.g.doubleclick.net
453	5.283476081	192.168.43.49	192.168.43.1	DNS	90	Standard query 0x147f A ytiimg-edge-static.l.google.com
454	5.283619340	192.168.43.49	192.168.43.1	DNS	125	Standard query 0xae1 A p2-j12ff7yuda0hu-pq5m4eb0b6h7yk2o-if-v6exp3-v4.metric.gstatic.com
455	5.283773501	192.168.43.49	192.168.43.1	DNS	92	Standard query 0x8307 A r4---sn-4g5e6nzz.googlevideo.com
456	5.284004137	192.168.43.49	192.168.43.1	DNS	81	Standard query 0x5207 A yttstatic.l.google.com
457	5.284306655	192.168.43.49	192.168.43.1	DNS	95	Standard query 0xd20c A static-doubleclick-net.l.google.com
470	5.310669340	192.168.43.49	172.217.169.131	QUIC	396	Payload (Encrypted), PKN: 4, CID: 16290184886453480484
500	5.368005979	192.168.43.1	192.168.43.49	DNS	129	Standard query response 0xe1c7 A googleads.g.doubleclick.net CNAME pagead46.l.doubleclick.net A 172.217.169.98
507	5.368834075	192.168.43.1	192.168.43.49	DNS	97	Standard query response 0x5207 A yttstatic.l.google.com A 216.58.209.14
508	5.369309244	192.168.43.1	192.168.43.49	DNS	186	Standard query response 0x147f A ytiimg-edge-static.l.google.com A 216.58.209.22 A 172.217.169.118 A 216.58.206.214 A 216.58.206.18
509	5.369426406	192.168.43.1	192.168.43.49	DNS	137	Standard query response 0x8307 A r4---sn-4g5e6nzz.googlevideo.com CNAME r4.sn-4g5e6nzz.googlevideo.com A 74.125.173.201
510	5.369755078	192.168.43.1	192.168.43.49	DNS	111	Standard query response 0xd20c A static-doubleclick-net.l.google.com A 216.58.206.166
511	5.370264314	192.168.43.49	192.168.43.1	DNS	83	Standard query 0x77a9 A youtube-ui.l.google.com
512	5.375381285	192.168.43.49	172.217.169.98	QUIC	1392	Client Hello, PKN: 1, CID: 6080171357602498364
520	5.402501121	192.168.43.49	172.217.169.131	QUIC	135	Payload (Encrypted), PKN: 5, CID: 16290184886453480484
521	5.416391886	172.217.169.131	192.168.43.49	QUIC	1392	Payload (Encrypted), PKN: 5

Frame 413: 76 bytes on wire (608 bits), 76 bytes captured (608 bits) on interface 0
Ethernet II, Src: IntelCor_00:0b:ad (00:f6:77:00:0b:ad), Dst: SamsungE_7f:e5:5b (d0:22:be:7f:e5:5b)
Internet Protocol Version 4, Src: 192.168.43.49, Dst: 192.168.43.1
User Datagram Protocol, Src Port: 54631, Dst Port: 53
Source Port: 54631
Destination Port: 53
Length: 42
Checksum: 0x6c22 [unverified]
[Checksum Status: Unverified]
[Stream index: 10]
Domain Name System (query)
0000 10 22 be 7f e5 5b 00 f6 77 00 0b ad 00 00 45 00w[...E
0010 00 3e cf 93 40 00 40 11 94 28 c0 a8 2b 31 c0 a8 >..0.0. (...+1
0020 2b 01 d5 67 00 35 00 2a 6c 22 b7 da 01 00 00 01 ..g.5."1"....
0030 00 00 00 00 00 00 05 0f 72 74 61 65 03 65 74 75o rtam,eti
0040 03 65 64 75 82 74 72 00 00 01 00 01u.

4 adet alan vardır bunlar: Source Port, Destination Port, Length, Checksum

2-)

Her biri 2 byte büyüklüğündedir.

3-)

4 alanımız var toplam 8 bytelik veri eder. DNS headeri 34 byte veri içermekte 8 byte da UDP'de bulunan veri toplam 42 byte. Bu UDP katmanının taşıdığı veridir.

4-) $2^{16} - 1 = 65535 - 8 = 65527$

5-) $2^{16} - 1 = 65535$

6-)

No.	Time	Source	Destination	Protocol	Length	Info
413	5.254704143	192.168.43.1	192.168.43.1	DNS	76	Standard query 0xb7da A ortam.etu.edu.tr
439	5.254704143	192.168.43.1	192.168.43.49	DNS	169	Standard query response 0x3047 A www.google-analytics.l.google.com A 172.217.169.110
440	5.254741625	192.168.43.1	192.168.43.49	DNS	92	Standard query response 0xb7da A ortam.etu.edu.tr A 193.140.108.140
448	5.266780464	192.168.43.49	172.217.169.110	QUIC	1392	Client Hello, PKN: 1, CID: 14177834573230835081
449	5.267180334	192.168.43.49	172.217.169.110	QUIC	301	Payload (Encrypted), PKN: 2, CID: 14177834573230835081
451	5.282462931	192.168.43.49	172.217.169.131	QUIC	1392	Client Hello, PKN: 1, CID: 9046486227917973296
452	5.283237720	192.168.43.49	192.168.43.1	DNS	87	Standard query 0xe1c7 A googleads.g.doubleclick.net
453	5.283476881	192.168.43.49	192.168.43.1	DNS	90	Standard query 0x147f A ytmimg-edge-static.l.google.com
454	5.283619340	192.168.43.49	192.168.43.1	DNS	125	Standard query 0xeaee A p2-1j2ff7yuda8hu-pq5m4eb6b6h7yk2o-if-v6exp3-v4.metric.gstatic.com
455	5.283773501	192.168.43.49	192.168.43.1	DNS	92	Standard query 0xe1c7 A ystatic.l.google.com
456	5.284094137	192.168.43.49	192.168.43.1	DNS	81	Standard query 0x52b7 A ystatic.l.google.com
457	5.284306655	192.168.43.49	192.168.43.1	DNS	95	Standard query 0xd28c A static-doubleclick-net.l.google.com
476	5.310669340	192.168.43.49	172.217.169.131	QUIC	396	Payload (Encrypted), PKN: 4, CID: 16290184886453480484
506	5.368895970	192.168.43.1	192.168.43.49	DNS	128	Standard query response 0xe1c7 A googleads.g.doubleclick.net CNAME pagead46.l.doubleclick.net A 172.217.169.98
507	5.368834075	192.168.43.1	192.168.43.49	DNS	97	Standard query response 0x52b7 A ystatic.l.google.com A 216.58.209.14
508	5.369309244	192.168.43.1	192.168.43.49	DNS	186	Standard query response 0x147f A ytmimg-edge-static.l.google.com A 216.58.209.22 A 172.217.169.118 A 216.58.206.214 A 216.58.206.18
509	5.369426406	192.168.43.1	192.168.43.49	DNS	137	Standard query response 0x8387 A r4---sn-4g5e6nzz.googlevideo.com CNAME r4.sn-4g5e6nzz.googlevideo.com A 74.125.173.201
510	5.369759078	192.168.43.1	192.168.43.49	DNS	111	Standard query response 0xd28c A static-doubleclick-net.l.google.com A 216.58.206.166
511	5.370264314	192.168.43.49	192.168.43.1	DNS	83	Standard query 0x77a9 A youtube-ui.l.google.com
512	5.375381285	192.168.43.49	172.217.169.98	QUIC	1392	Client Hello, PKN: 1, CID: 6080171357602498364
520	5.402501121	192.168.43.49	172.217.169.131	QUIC	135	Payload (Encrypted), PKN: 5, CID: 16290184886453480484
521	5.416391866	172.217.169.131	192.168.43.49	QUIC	1392	Payload (Encrypted), PKN: 5

Decimal değeri: 17
Hexadecimal değeri: 11

7-)

Request:

No.	Time	Source	Destination	Protocol	Length	Info
413	5.181504198	192.168.43.49	192.168.43.1	DNS	76	Standard query 0xb7da A ortam.etu.edu.tr
439	5.254704143	192.168.43.1	192.168.43.49	DNS	169	Standard query response 0x3047 A www.google-analytics.l.google.com A 172.217.169.110
440	5.254741625	192.168.43.1	192.168.43.49	DNS	92	Standard query response 0xb7da A ortam.etu.edu.tr A 193.140.108.140
448	5.266780464	192.168.43.49	172.217.169.110	QUIC	1392	Client Hello, PKN: 1, CID: 14177834573230835081
449	5.267180334	192.168.43.49	172.217.169.110	QUIC	301	Payload (Encrypted), PKN: 2, CID: 14177834573230835081
451	5.282462931	192.168.43.49	172.217.169.131	QUIC	1392	Client Hello, PKN: 1, CID: 9046486227917973296
452	5.283237720	192.168.43.49	192.168.43.1	DNS	87	Standard query 0xe1c7 A googleads.g.doubleclick.net
453	5.283476881	192.168.43.49	192.168.43.1	DNS	90	Standard query 0x147f A ytmimg-edge-static.l.google.com
454	5.283619340	192.168.43.49	192.168.43.1	DNS	125	Standard query 0xeaee A p2-1j2ff7yuda8hu-pq5m4eb6b6h7yk2o-if-v6exp3-v4.metric.gstatic.com
455	5.283773501	192.168.43.49	192.168.43.1	DNS	92	Standard query 0xe1c7 A ystatic.l.google.com
456	5.284094137	192.168.43.49	192.168.43.1	DNS	81	Standard query 0x52b7 A ystatic.l.google.com
457	5.284306655	192.168.43.49	192.168.43.1	DNS	95	Standard query 0xd28c A static-doubleclick-net.l.google.com
476	5.310669340	192.168.43.49	172.217.169.131	QUIC	396	Payload (Encrypted), PKN: 4, CID: 16290184886453480484
506	5.368895970	192.168.43.1	192.168.43.49	DNS	128	Standard query response 0xe1c7 A googleads.g.doubleclick.net CNAME pagead46.l.doubleclick.net A 172.217.169.98
507	5.368834075	192.168.43.1	192.168.43.49	DNS	97	Standard query response 0x52b7 A ystatic.l.google.com A 216.58.209.14
508	5.369309244	192.168.43.1	192.168.43.49	DNS	186	Standard query response 0x147f A ytmimg-edge-static.l.google.com A 216.58.209.22 A 172.217.169.118 A 216.58.206.214 A 216.58.206.18
509	5.369426406	192.168.43.1	192.168.43.49	DNS	137	Standard query response 0x8387 A r4---sn-4g5e6nzz.googlevideo.com CNAME r4.sn-4g5e6nzz.googlevideo.com A 74.125.173.201
510	5.369759078	192.168.43.1	192.168.43.49	DNS	111	Standard query response 0xd28c A static-doubleclick-net.l.google.com A 216.58.206.166
511	5.370264314	192.168.43.49	192.168.43.1	DNS	83	Standard query 0x77a9 A youtube-ui.l.google.com
512	5.375381285	192.168.43.49	172.217.169.98	QUIC	1392	Client Hello, PKN: 1, CID: 6080171357602498364
520	5.402501121	192.168.43.49	172.217.169.131	QUIC	135	Payload (Encrypted), PKN: 5, CID: 16290184886453480484
521	5.416391866	172.217.169.131	192.168.43.49	QUIC	1392	Payload (Encrypted), PKN: 5

Frame 413: 76 bytes on wire (608 bits), 76 bytes captured (608 bits) on interface 0

Ethernet II, Src: IntelCor_60:5b:ad (60:f6:77:60:5b:ad), Dst: SamsungE_7f:e5:5b (d8:22:be:7f:e5:5b)

Internet Protocol Version 4, Src: 192.168.43.49, Dst: 192.168.43.1

User Datagram Protocol, Src Port: 54631, Dst Port: 53

Source Port: 54631

Destination Port: 53

Length: 42

Checksum: 0x6c22 [unverified]

[Checksum Status: Unverified]

[Stream index: 16]

Domain Name System (query)

Response:

No.	Time	Source	Destination	Protocol	Length	Info
413	5.181504198	192.168.43.49	192.168.43.1	DNS	76	Standard query 0xb7da A ortam.etu.edu.tr
439	5.254704143	192.168.43.1	192.168.43.49	DNS	169	Standard query response 0x3047 A www.google-analytics.l.google.com A 172.217.169.110
440	5.254741625	192.168.43.1	192.168.43.49	DNS	92	Standard query response 0xb7da A ortam.etu.edu.tr A 193.140.108.140
448	5.266780464	192.168.43.49	172.217.169.110	QUIC	1392	Client Hello, PKN: 1, CID: 14177834573230835081
449	5.267180334	192.168.43.49	172.217.169.110	QUIC	301	Payload (Encrypted), PKN: 2, CID: 14177834573230835081
451	5.282462931	192.168.43.49	172.217.169.131	QUIC	1392	Client Hello, PKN: 1, CID: 9046486227917973296
452	5.283237720	192.168.43.49	192.168.43.1	DNS	87	Standard query 0xe1c7 A googleads.g.doubleclick.net
453	5.283476881	192.168.43.49	192.168.43.1	DNS	90	Standard query 0x147f A ytmimg-edge-static.l.google.com
454	5.283619340	192.168.43.49	192.168.43.1	DNS	125	Standard query 0xeaee A p2-1j2ff7yuda8hu-pq5m4eb6b6h7yk2o-if-v6exp3-v4.metric.gstatic.com
455	5.283773501	192.168.43.49	192.168.43.1	DNS	92	Standard query 0x8387 A r4---sn-4g5e6nzz.googlevideo.com
456	5.284094137	192.168.43.49	192.168.43.1	DNS	81	Standard query 0x52b7 A ystatic.l.google.com
457	5.284306655	192.168.43.49	192.168.43.1	DNS	95	Standard query 0xd28c A static-doubleclick-net.l.google.com
476	5.310669340	192.168.43.49	172.217.169.131	QUIC	396	Payload (Encrypted), PKN: 4, CID: 16290184886453480484
506	5.368895970	192.168.43.1	192.168.43.49	DNS	128	Standard query response 0xe1c7 A googleads.g.doubleclick.net CNAME pagead46.l.doubleclick.net A 172.217.169.98
507	5.368834075	192.168.43.1	192.168.43.49	DNS	97	Standard query response 0x52b7 A ystatic.l.google.com A 216.58.209.14
508	5.369309244	192.168.43.1	192.168.43.49	DNS	186	Standard query response 0x147f A ytmimg-edge-static.l.google.com A 216.58.209.22 A 172.217.169.118 A 216.58.206.214 A 216.58.206.18
509	5.369426406	192.168.43.1	192.168.43.49	DNS	137	Standard query response 0x8387 A r4---sn-4g5e6nzz.googlevideo.com CNAME r4.sn-4g5e6nzz.googlevideo.com A 74.125.173.201
510	5.369759078	192.168.43.1	192.168.43.1	DNS	111	Standard query response 0xd28c A static-doubleclick-net.l.google.com A 216.58.206.166
511	5.370264314	192.168.43.49	192.168.43.1	DNS	83	Standard query 0x77a9 A youtube-ui.l.google.com
512	5.375381285	192.168.43.49	172.217.169.98	QUIC	1392	Client Hello, PKN: 1, CID: 6080171357602498364
520	5.402501121	192.168.43.49	172.217.169.131	QUIC	135	Payload (Encrypted), PKN: 5, CID: 16290184886453480484
521	5.416391866	172.217.169.131	192.168.43.49	QUIC	1392	Payload (Encrypted), PKN: 5

Frame 448: 92 bytes on wire (736 bits), 92 bytes captured (736 bits) on interface 0

Ethernet II, Src: SamsungE_7f:e5:5b (d8:22:be:7f:e5:5b), Dst: IntelCor_60:5b:ad (60:f6:77:60:5b:ad)

Internet Protocol Version 4, Src: 192.168.43.1, Dst: 192.168.43.49

User Datagram Protocol, Src Port: 53, Dst Port: 54631

Source Port: 53

Destination Port: 54631

Length: 58

Checksum: 0xc514 [unverified]

[Checksum Status: Unverified]

[Stream index: 16]

Domain Name System (response)

Request ve response incelendiğinde görülmektedir ki request atıldığında kullanılan source ve destination adresleri ve portları response atıldığında tam tersi olmaktadır sebebi ise veri akışının yanı sıra trafiğin ters yönde olmasıdır.