```
No.
       Time
                          Source
                                               Destination
                                                                    Protocol Length Flags
                                                                                               Destination Port Source Port Info
     4 10:45:20.336335
                          10.5.148.200
                                               130.253.3.39
                                                                    DNS
                                                                             71
                                                                                              53
                                                                                                               51116
                                                                                                                           Standard
query 0x8e50 A www.mit.edu
Frame 4: 71 bytes on wire (568 bits), 71 bytes captured (568 bits) on interface \Device\NPF_{3F3DB8EB-1AC0-401B-8543-3316F86ED445}, id 0
   Section number: 1
   Interface id: 0 (\Device\NPF_{3F3DB8EB-1AC0-401B-8543-3316F86ED445})
       Interface name: \Device\NPF_{3F3DB8EB-1AC0-401B-8543-3316F86ED445}
       Interface description: Wi-Fi
   Encapsulation type: Ethernet (1)
   Arrival Time: Oct 7, 2022 10:45:20.336335000 Mountain Daylight Time
   [Time shift for this packet: 0.000000000 seconds]
   Epoch Time: 1665161120.336335000 seconds
   [Time delta from previous captured frame: 1.701068000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
   [Time since reference or first frame: 1.781161000 seconds]
   Frame Number: 4
   Frame Length: 71 bytes (568 bits)
   Capture Length: 71 bytes (568 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
   [Protocols in frame: eth:ethertype:ip:udp:dns]
    [Coloring Rule Name: UDP]
    [Coloring Rule String: udp]
Ethernet II, Src: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59), Dst: All-HSRP-routers_00 (00:00:0c:07:ac:00)
   Destination: All-HSRP-routers_00 (00:00:0c:07:ac:00)
       Address: All-HSRP-routers_00 (00:00:0c:07:ac:00)
       .... ..0. .... = LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Source: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59)
       Address: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59)
       ......0. .... = LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.5.148.200, Dst: 130.253.3.39
   0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
   Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
       0000 00.. = Differentiated Services Codepoint: Default (0)
       .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
   Total Length: 57
   Identification: 0x68b0 (26800)
   000. .... = Flags: 0x0
       0... = Reserved bit: Not set
       .0.. .... = Don't fragment: Not set
       ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
   Time to Live: 128
   Protocol: UDP (17)
   Header Checksum: 0xad12 [correct]
   [Header checksum status: Good]
   [Calculated Checksum: 0xad12]
   Source Address: 10.5.148.200
   Destination Address: 130.253.3.39
User Datagram Protocol, Src Port: 51116, Dst Port: 53
   Source Port: 51116
   Destination Port: 53
   Length: 37
   Checksum: 0x31d5 [correct]
       [Calculated Checksum: 0x31d5]
   [Checksum Status: Good]
    [Stream index: 0]
    [Timestamps]
       [Time since first frame: 0.000000000 seconds]
       [Time since previous frame: 0.000000000 seconds]
   UDP payload (29 bytes)
Domain Name System (query)
   Transaction ID: 0x8e50
   Flags: 0x0100 Standard query
       0... = Response: Message is a query
       .000 0... = Opcode: Standard query (0)
       .... ..0. .... = Truncated: Message is not truncated
       .... ...1 .... = Recursion desired: Do query recursively
       .... .0.. .... = Z: reserved (0)
       .... .... ...0 .... = Non-authenticated data: Unacceptable
   Ouestions: 1
   Answer RRs: 0
```

```
Authority RRs: 0
   Additional RRs: 0
   Queries
       www.mit.edu: type A, class IN
           Name: www.mit.edu
           [Name Length: 11]
           [Label Count: 3]
           Type: A (Host Address) (1)
           Class: IN (0x0001)
   [Response In: 6]
0000 00 00 0c 07 ac 00 9c b6 d0 ea 43 59 08 00 45 00
                                                       .....CY..E.
0010
     00 39 68 b0 00 00 80 11 ad 12 0a 05 94 c8 82 fd
                                                       .9h.....
                                                       .'...5.%1..P....
0020 03 27 c7 ac 00 35 00 25 31 d5 8e 50 01 00 00 01
0030 00 00 00 00 00 00 03 77 77 77 03 6d 69 74 03 65
                                                       .....www.mit.e
0040 64 75 00 00 01 00 01
                                                       \mathsf{du}\ldots\ldots
```

Standard

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No.
       Time
                          Source
                                               Destination
                                                                    Protocol Length Flags
                                                                                              Destination Port Source Port Info
     6 10:45:20.378774
                         130.253.3.39
                                               10.5.148.200
                                                                    DNS
                                                                             160
                                                                                              51116
query response 0x8e50 A www.mit.edu CNAME www.mit.edu.edgekey.net CNAME e9566.dscb.akamaiedge.net A 23.222.166.107
Frame 6: 160 bytes on wire (1280 bits), 160 bytes captured (1280 bits) on interface \Device\NPF_{3F3DB8EB-1ACO-401B-8543-3316F86ED445}, id
   Section number: 1
   Interface id: 0 (\Device\NPF_{3F3DB8EB-1AC0-401B-8543-3316F86ED445})
       Interface name: \Device\NPF_{3F3DB8EB-1AC0-401B-8543-3316F86ED445}
       Interface description: Wi-Fi
   Encapsulation type: Ethernet (1)
   Arrival Time: Oct 7, 2022 10:45:20.378774000 Mountain Daylight Time
   [Time shift for this packet: 0.000000000 seconds]
   Epoch Time: 1665161120.378774000 seconds
    [Time delta from previous captured frame: 0.007393000 seconds]
    [Time delta from previous displayed frame: 0.042439000 seconds]
    [Time since reference or first frame: 1.823600000 seconds]
   Frame Number: 6
   Frame Length: 160 bytes (1280 bits)
   Capture Length: 160 bytes (1280 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:udp:dns]
   [Coloring Rule Name: UDP]
    [Coloring Rule String: udp]
Ethernet II, Src: Cisco_1c:dc:fb (00:6c:bc:1c:dc:fb), Dst: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59)
   Destination: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59)
       Address: RivetNet_ea:43:59 (9c:b6:d0:ea:43:59)
       ......0. .... = LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Source: Cisco_1c:dc:fb (00:6c:bc:1c:dc:fb)
       Address: Cisco 1c:dc:fb (00:6c:bc:1c:dc:fb)
       .... .0. .... = LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 130.253.3.39, Dst: 10.5.148.200
   0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
   Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
       0000 00.. = Differentiated Services Codepoint: Default (0)
       .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
   Total Length: 146
   Identification: 0x4ab0 (19120)
   000. .... = Flags: 0x0
       0... = Reserved bit: Not set
       .0.. .... = Don't fragment: Not set
       ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
   Time to Live: 124
   Protocol: UDP (17)
   Header Checksum: 0xceb9 [correct]
   [Header checksum status: Good]
    [Calculated Checksum: 0xceb9]
   Source Address: 130.253.3.39
   Destination Address: 10.5.148.200
User Datagram Protocol, Src Port: 53, Dst Port: 51116
   Source Port: 53
   Destination Port: 51116
   Length: 126
   Checksum: 0x44c8 [correct]
       [Calculated Checksum: 0x44c8]
    [Checksum Status: Good]
    [Stream index: 0]
   [Timestamps]
       [Time since first frame: 0.042439000 seconds]
       [Time since previous frame: 0.042439000 seconds]
   UDP payload (118 bytes)
Domain Name System (response)
   Transaction ID: 0x8e50
   Flags: 0x8180 Standard query response, No error
       1... - Response: Message is a response
       .000 0... = Opcode: Standard query (0)
       .... .0.. .... = Authoritative: Server is not an authority for domain
       .... ..0. .... = Truncated: Message is not truncated
       .... ....1 ..... = Recursion desired: Do query recursively
       .... 1... = Recursion available: Server can do recursive queries
       .... = Z: reserved (0)
```

```
.... ...0. ... = Answer authenticated: Answer/authority portion was not authenticated by the server
       .... ....0 .... = Non-authenticated data: Unacceptable
       .... .... 0000 = Reply code: No error (0)
   Questions: 1
   Answer RRs: 3
   Authority RRs: 0
   Additional RRs: 0
   Queries
       www.mit.edu: type A, class IN
           Name: www.mit.edu
           [Name Length: 11]
           [Label Count: 3]
           Type: A (Host Address) (1)
           Class: IN (0x0001)
   Answers
       www.mit.edu: type CNAME, class IN, cname www.mit.edu.edgekey.net
           Name: www.mit.edu
           Type: CNAME (Canonical NAME for an alias) (5)
           Class: IN (0x0001)
           Time to live: 1475 (24 minutes, 35 seconds)
           Data length: 25
           CNAME: www.mit.edu.edgekey.net
       www.mit.edu.edgekey.net: type CNAME, class IN, cname e9566.dscb.akamaiedge.net
           Name: www.mit.edu.edgekey.net
           Type: CNAME (Canonical NAME for an alias) (5)
           Class: IN (0x0001)
           Time to live: 60 (1 minute)
           Data length: 24
           CNAME: e9566.dscb.akamaiedge.net
       e9566.dscb.akamaiedge.net: type A, class IN, addr 23.222.166.107
           Name: e9566.dscb.akamaiedge.net
           Type: A (Host Address) (1)
           Class: IN (0x0001)
           Time to live: 20 (20 seconds)
           Data length: 4
           Address: 23.222.166.107
   [Request In: 4]
    [Time: 0.042439000 seconds]
0000 9c b6 d0 ea 43 59 00 6c bc 1c dc fb 08 00 45 00
                                                       ....CY.1....E.
0010
     00 92 4a b0 00 00 7c 11 ce b9 82 fd 03 27 0a 05
                                                       ..J...|......'..
                                                       ...5...~D..P....
9929
     94 c8 00 35 c7 ac 00 7e 44 c8 8e 50 81 80 00 01
0030
     00 03 00 00 00 00 03 77 77 77 03 6d 69 74 03 65
                                                       .....www.mit.e
0040
     64 75 00 00 01 00 01 c0 0c 00 05 00 01 00 00 05
                                                       du....
     c3 00 19 03 77 77 77 03 6d 69 74 03 65 64 75 07
9959
                                                       ....www.mit.edu.
     65 64 67 65 6b 65 79 03 6e 65 74 00 c0 29 00 05
0060
                                                       edgekey.net..)..
0070
     00 01 00 00 00 3c 00 18 05 65 39 35 36 36 04 64
                                                       ....<...e9566.d
0080 73 63 62 0a 61 6b 61 6d 61 69 65 64 67 65 c0 3d
                                                       scb.akamaiedge.=
0090 c0 4e 00 01 00 01 00 00 00 14 00 04 17 de a6 6b
                                                       .N....k
```