```
No.     Time           Source                Destination           Protocol Length Info
      9 6.670285       192.168.0.36          192.168.0.1           DNS      72     Standard query 0x3080 A
www.ietf.org
Frame 9: 72 bytes on wire (576 bits), 72 bytes captured (576 bits) on interface
\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9})
        Interface name: \Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}
        Interface description: Wi-Fi
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  7, 2022 00:13:35.611405000 Pacific Daylight Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1665126815.611405000 seconds
    [Time delta from previous captured frame: 1.548164000 seconds]
    [Time delta from previous displayed frame: 1.548164000 seconds]
    [Time since reference or first frame: 6.670285000 seconds]
    Frame Number: 9
    Frame Length: 72 bytes (576 bits)
    Capture Length: 72 bytes (576 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: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26), Dst: Calix_88:88:71 (ec:4f:82:88:88:71)
    Destination: Calix_88:88:71 (ec:4f:82:88:88:71)
        Address: Calix_88:88:71 (ec:4f:82:88:88:71)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        Address: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.0.36, Dst: 192.168.0.1
    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: 58
    Identification: 0x3be3 (15331)
    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: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.36
    Destination Address: 192.168.0.1
User Datagram Protocol, Src Port: 60840, Dst Port: 53
    Source Port: 60840
    Destination Port: 53
    Length: 38
    Checksum: 0x81ad [unverified]
    [Checksum Status: Unverified]
    [Stream index: 2]
    [Timestamps]
        [Time since first frame: 0.000000000 seconds]
        [Time since previous frame: 0.000000000 seconds]
    UDP payload (30 bytes)
Domain Name System (query)
    Transaction ID: 0x3080
    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
    Questions: 1
    Answer RRs: 0
    Authority RRs: 0
    Additional RRs: 0
    Queries
        www.ietf.org: type A, class IN
            Name: www.ietf.org
            [Name Length: 12]
            [Label Count: 3]
            Type: A (Host Address) (1)
            Class: IN (0x0001)
    [Response In: 11]
```

```
No.     Time           Source                Destination           Protocol Length Info
     10 6.673874       192.168.0.36          20.54.27.42           TCP      66     50205 → 443 [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_{6DD84074-7A24-4352-8C75-28D57BE22CD9}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9})
        Interface name: \Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}
        Interface description: Wi-Fi
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  7, 2022 00:13:35.614994000 Pacific Daylight Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1665126815.614994000 seconds
    [Time delta from previous captured frame: 0.003589000 seconds]
    [Time delta from previous displayed frame: 0.003589000 seconds]
    [Time since reference or first frame: 6.673874000 seconds]
    Frame Number: 10
    Frame Length: 66 bytes (528 bits)
    Capture Length: 66 bytes (528 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:tcp]
    [Coloring Rule Name: TCP SYN/FIN]
    [Coloring Rule String: tcp.flags & 0x02 || tcp.flags.fin == 1]
Ethernet II, Src: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26), Dst: Calix_88:88:71 (ec:4f:82:88:88:71)
    Destination: Calix_88:88:71 (ec:4f:82:88:88:71)
        Address: Calix_88:88:71 (ec:4f:82:88:88:71)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        Address: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.0.36, Dst: 20.54.27.42
    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: 52
    Identification: 0x3616 (13846)
    010. .... = Flags: 0x2, Don't fragment
        0... .... = Reserved bit: Not set
        .1.. .... = Don't fragment: Set
        ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
    Time to Live: 128
    Protocol: TCP (6)
    Header Checksum: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.36
    Destination Address: 20.54.27.42
Transmission Control Protocol, Src Port: 50205, Dst Port: 443, Seq: 0, Len: 0
    Source Port: 50205
    Destination Port: 443
    [Stream index: 1]
    [Conversation completeness: Incomplete, DATA (15)]
    [TCP Segment Len: 0]
    Sequence Number: 0    (relative sequence number)
    Sequence Number (raw): 2140993681
    [Next Sequence Number: 1    (relative sequence number)]
    Acknowledgment Number: 0
    Acknowledgment number (raw): 0
    1000 .... = Header Length: 32 bytes (8)
    Flags: 0x002 (SYN)
        000. .... .... = Reserved: Not set
        ...0 .... .... = Accurate ECN: Not set
        .... 0... .... = Congestion Window Reduced: Not set
```

```
        .... .0.. .... = ECN-Echo: Not set
        .... ..0. .... = Urgent: Not set
        .... ...0 .... = Acknowledgment: Not set
        .... .... 0... = Push: Not set
        .... .... .0.. = Reset: Not set
        .... .... ..1. = Syn: Set
            [Expert Info (Chat/Sequence): Connection establish request (SYN): server port 443]
                [Connection establish request (SYN): server port 443]
                [Severity level: Chat]
                [Group: Sequence]
        .... .... ...0 = Fin: Not set
        [TCP Flags: ··********S·]
    Window: 64240
    [Calculated window size: 64240]
    Checksum: 0xf052 [unverified]
    [Checksum Status: Unverified]
    Urgent Pointer: 0
    Options: (12 bytes), Maximum segment size, No-Operation (NOP), Window scale, No-Operation (NOP), No-Operation
(NOP), SACK permitted
        TCP Option - Maximum segment size: 1460 bytes
            Kind: Maximum Segment Size (2)
            Length: 4
            MSS Value: 1460
        TCP Option - No-Operation (NOP)
            Kind: No-Operation (1)
        TCP Option - Window scale: 8 (multiply by 256)
            Kind: Window Scale (3)
            Length: 3
            Shift count: 8
            [Multiplier: 256]
        TCP Option - No-Operation (NOP)
            Kind: No-Operation (1)
        TCP Option - No-Operation (NOP)
            Kind: No-Operation (1)
        TCP Option - SACK permitted
            Kind: SACK Permitted (4)
            Length: 2
    [Timestamps]
        [Time since first frame in this TCP stream: 0.000000000 seconds]
        [Time since previous frame in this TCP stream: 0.000000000 seconds]
```

```
No.     Time           Source                Destination           Protocol Length Info
     11 6.688301       192.168.0.1           192.168.0.36          DNS      149    Standard query response 0x3080 A
www.ietf.org CNAME www.ietf.org.cdn.cloudflare.net A 104.16.45.99 A 104.16.44.99
Frame 11: 149 bytes on wire (1192 bits), 149 bytes captured (1192 bits) on interface
\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9})
        Interface name: \Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}
        Interface description: Wi-Fi
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  7, 2022 00:13:35.629421000 Pacific Daylight Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1665126815.629421000 seconds
    [Time delta from previous captured frame: 0.014427000 seconds]
    [Time delta from previous displayed frame: 0.014427000 seconds]
    [Time since reference or first frame: 6.688301000 seconds]
    Frame Number: 11
    Frame Length: 149 bytes (1192 bits)
    Capture Length: 149 bytes (1192 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: Calix_88:88:71 (ec:4f:82:88:88:71), Dst: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
    Destination: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        Address: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: Calix_88:88:71 (ec:4f:82:88:88:71)
        Address: Calix_88:88:71 (ec:4f:82:88:88:71)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.0.1, Dst: 192.168.0.36
    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: 135
    Identification: 0x0000 (0)
    010. .... = Flags: 0x2, Don't fragment
        0... .... = Reserved bit: Not set
        .1.. .... = Don't fragment: Set
        ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
    Time to Live: 64
    Protocol: UDP (17)
    Header Checksum: 0xb8f0 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.1
    Destination Address: 192.168.0.36
User Datagram Protocol, Src Port: 53, Dst Port: 60840
    Source Port: 53
    Destination Port: 60840
    Length: 115
    Checksum: 0xe90b [unverified]
    [Checksum Status: Unverified]
    [Stream index: 2]
    [Timestamps]
        [Time since first frame: 0.018016000 seconds]
        [Time since previous frame: 0.018016000 seconds]
    UDP payload (107 bytes)
Domain Name System (response)
    Transaction ID: 0x3080
    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
    .... .... .0.. .... = 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.ietf.org: type A, class IN
        Name: www.ietf.org
        [Name Length: 12]
        [Label Count: 3]
        Type: A (Host Address) (1)
        Class: IN (0x0001)
Answers
    www.ietf.org: type CNAME, class IN, cname www.ietf.org.cdn.cloudflare.net
        Name: www.ietf.org
        Type: CNAME (Canonical NAME for an alias) (5)
        Class: IN (0x0001)
        Time to live: 218 (3 minutes, 38 seconds)
        Data length: 33
        CNAME: www.ietf.org.cdn.cloudflare.net
    www.ietf.org.cdn.cloudflare.net: type A, class IN, addr 104.16.45.99
        Name: www.ietf.org.cdn.cloudflare.net
        Type: A (Host Address) (1)
        Class: IN (0x0001)
        Time to live: 300 (5 minutes)
        Data length: 4
        Address: 104.16.45.99
    www.ietf.org.cdn.cloudflare.net: type A, class IN, addr 104.16.44.99
        Name: www.ietf.org.cdn.cloudflare.net
        Type: A (Host Address) (1)
        Class: IN (0x0001)
        Time to live: 300 (5 minutes)
        Data length: 4
        Address: 104.16.44.99
[Request In: 9]
[Time: 0.018016000 seconds]
```

```
No.     Time           Source                Destination           Protocol Length Info
     12 6.693471       192.168.0.36          192.168.0.1           DNS      69     Standard query 0x9e93 A wpad.Home
Frame 12: 69 bytes on wire (552 bits), 69 bytes captured (552 bits) on interface
\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9})
        Interface name: \Device\NPF_{6DD84074-7A24-4352-8C75-28D57BE22CD9}
        Interface description: Wi-Fi
    Encapsulation type: Ethernet (1)
    Arrival Time: Oct  7, 2022 00:13:35.634591000 Pacific Daylight Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1665126815.634591000 seconds
    [Time delta from previous captured frame: 0.005170000 seconds]
    [Time delta from previous displayed frame: 0.005170000 seconds]
    [Time since reference or first frame: 6.693471000 seconds]
    Frame Number: 12
    Frame Length: 69 bytes (552 bits)
    Capture Length: 69 bytes (552 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: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26), Dst: Calix_88:88:71 (ec:4f:82:88:88:71)
    Destination: Calix_88:88:71 (ec:4f:82:88:88:71)
        Address: Calix_88:88:71 (ec:4f:82:88:88:71)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        Address: IntelCor_7d:f2:26 (e8:84:a5:7d:f2:26)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.0.36, Dst: 192.168.0.1
    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: 55
    Identification: 0x3be4 (15332)
    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: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.36
    Destination Address: 192.168.0.1
User Datagram Protocol, Src Port: 50698, Dst Port: 53
    Source Port: 50698
    Destination Port: 53
    Length: 35
    Checksum: 0x81aa [unverified]
    [Checksum Status: Unverified]
    [Stream index: 3]
    [Timestamps]
        [Time since first frame: 0.000000000 seconds]
        [Time since previous frame: 0.000000000 seconds]
    UDP payload (27 bytes)
Domain Name System (query)
    Transaction ID: 0x9e93
    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
Questions: 1
Answer RRs: 0
Authority RRs: 0
Additional RRs: 0
Queries
    wpad.Home: type A, class IN
        Name: wpad.Home
        [Name Length: 9]
        [Label Count: 2]
        Type: A (Host Address) (1)
        Class: IN (0x0001)
[Response In: 14]
```