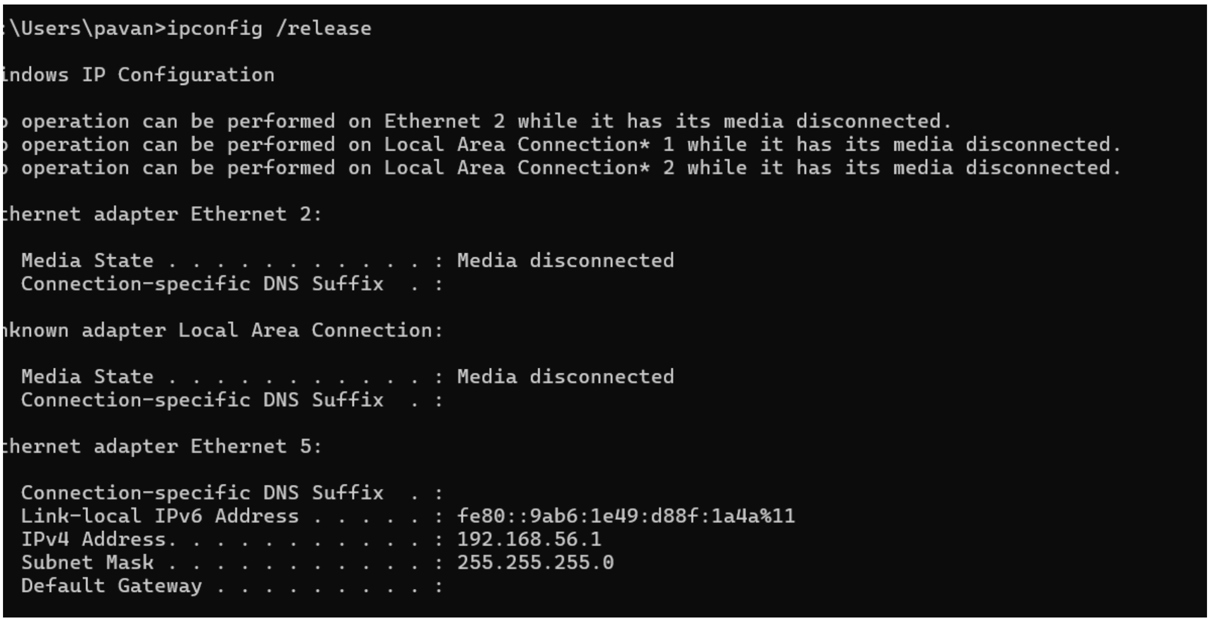
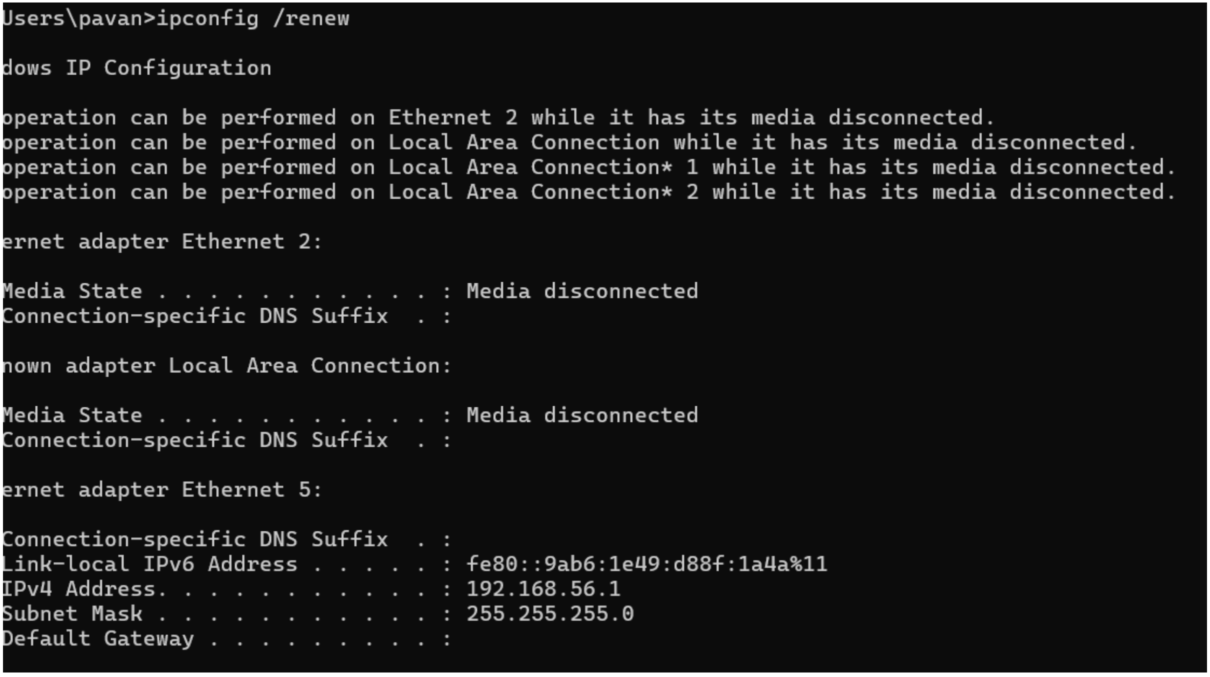
4. Use Wireshark to capture DHCP Discover, Offer, Request, and Acknowledge messages and explain the process.

Step 1:

Using command prompt releasing and renew to trigger DHCP process



```
:\Users\pavan>ipconfig /release

indows IP Configuration

o operation can be performed on Ethernet 2 while it has its media disconnected.
o operation can be performed on Local Area Connection* 1 while it has its media disconnected.
o operation can be performed on Local Area Connection* 2 while it has its media disconnected.

thernet adapter Ethernet 2:

  Media State . . . . . . . . . . . : Media disconnected
  Connection-specific DNS Suffix  . :

nknown adapter Local Area Connection:

  Media State . . . . . . . . . . . : Media disconnected
  Connection-specific DNS Suffix  . :

thernet adapter Ethernet 5:

  Connection-specific DNS Suffix  . :
  Link-local IPv6 Address . . . . . : fe80::9ab6:1e49:d88f:1a4a%11
  IPv4 Address. . . . . . . . . . . : 192.168.56.1
  Subnet Mask . . . . . . . . . . . : 255.255.255.0
  Default Gateway . . . . . . . . . :
```

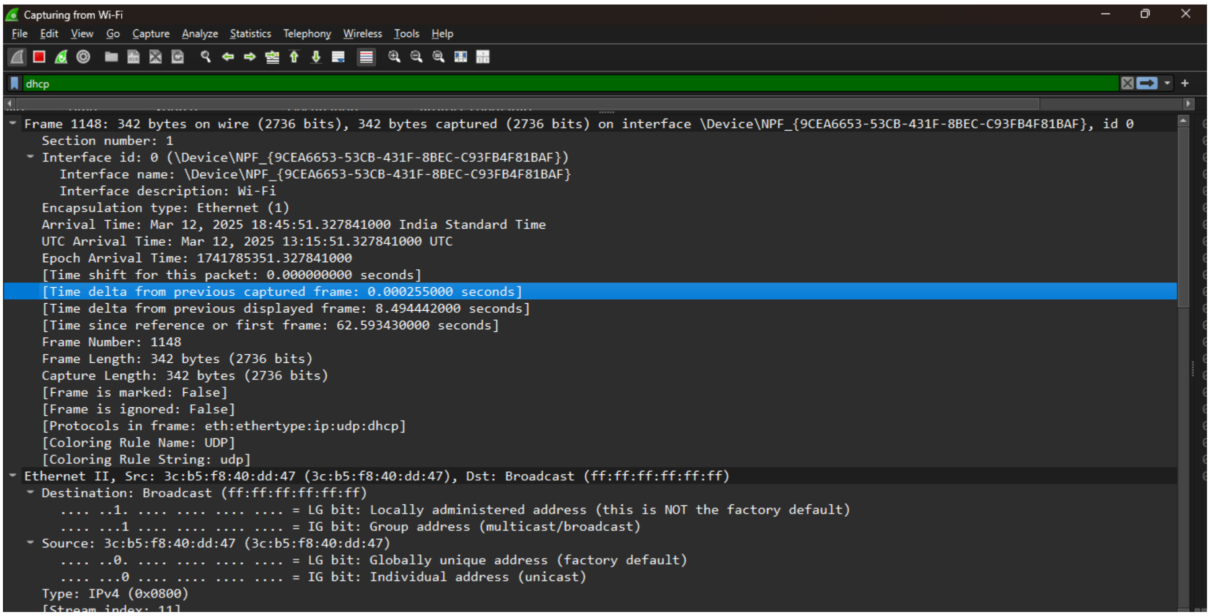


```
Users\pavan>ipconfig /renew

dows IP Configuration

operation can be performed on Ethernet 2 while it has its media disconnected.
operation can be performed on Local Area Connection while it has its media disconnected.
operation can be performed on Local Area Connection* 1 while it has its media disconnected.
operation can be performed on Local Area Connection* 2 while it has its media disconnected.

ernet adapter Ethernet 2:

Media State . . . . . . . . . . . : Media disconnected
Connection-specific DNS Suffix  . :

nown adapter Local Area Connection:

Media State . . . . . . . . . . . : Media disconnected
Connection-specific DNS Suffix  . :

ernet adapter Ethernet 5:

Connection-specific DNS Suffix  . :
Link-local IPv6 Address . . . . . : fe80::9ab6:1e49:d88f:1a4a%11
IPv4 Address. . . . . . . . . . . : 192.168.56.1
Subnet Mask . . . . . . . . . . . : 255.255.255.0
Default Gateway . . . . . . . . . :
```

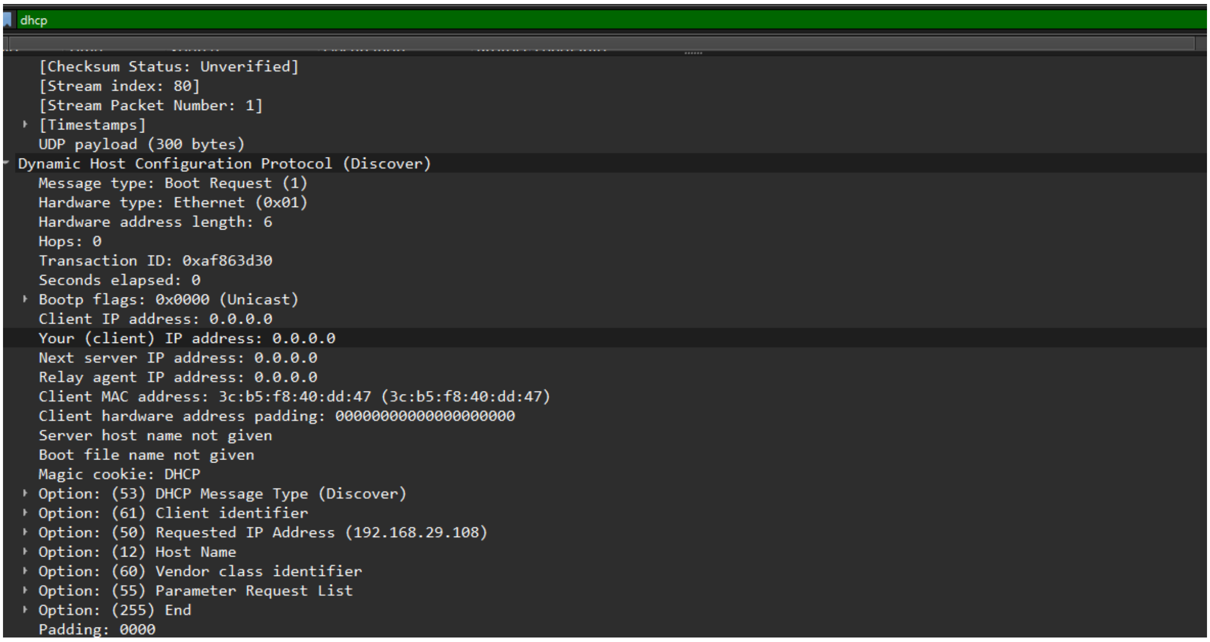
Step 2 : Using wireshark to capture DHCP packets

The DHCP process consists of four main steps: **Discover, Offer, Request, and Acknowledge (DORA).**

DHCP discover : The client device (e.g., a computer or phone) **does not have an IP address** and wants to request one from a DHCP server.


Capturing from Wi-Fi
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
dhcp

```
Frame 1148: 342 bytes on wire (2736 bits), 342 bytes captured (2736 bits) on interface \Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF}, id 0
  Section number: 1
  Interface id: 0 (\Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF})
    Interface name: \Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF}
    Interface description: Wi-Fi
  Encapsulation type: Ethernet (1)
  Arrival Time: Mar 12, 2025 18:45:51.327841000 India Standard Time
  UTC Arrival Time: Mar 12, 2025 13:15:51.327841000 UTC
  Epoch Arrival Time: 1741785351.327841000
  [Time shift for this packet: 0.000000000 seconds]
  [Time delta from previous captured frame: 0.000255000 seconds]
  [Time delta from previous displayed frame: 8.494442000 seconds]
  [Time since reference or first frame: 62.593430000 seconds]
  Frame Number: 1148
  Frame Length: 342 bytes (2736 bits)
  Capture Length: 342 bytes (2736 bits)
  [Frame is marked: False]
  [Frame is ignored: False]
  [Protocols in frame: eth:ethertype:ip:udp:dhcp]
  [Coloring Rule Name: UDP]
  [Coloring Rule String: udp]
Ethernet II, Src: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47), Dst: Broadcast (ff:ff:ff:ff:ff:ff)
  Destination: Broadcast (ff:ff:ff:ff:ff:ff)
    .... ..1. .... .... .... .... = LG bit: Locally administered address (this is NOT the factory default)
    .... ...1 .... .... .... .... = IG bit: Group address (multicast/broadcast)
  Source: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47)
    .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
    .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
  [Stream index: 11]
```



```
  [Checksum Status: Unverified]
  [Stream index: 80]
  [Stream Packet Number: 1]
  [Timestamps]
  UDP payload (300 bytes)
Dynamic Host Configuration Protocol (Discover)
  Message type: Boot Request (1)
  Hardware type: Ethernet (0x01)
  Hardware address length: 6
  Hops: 0
  Transaction ID: 0xaf863d30
  Seconds elapsed: 0
  Bootp flags: 0x0000 (Unicast)
  Client IP address: 0.0.0.0
  Your (client) IP address: 0.0.0.0
  Next server IP address: 0.0.0.0
  Relay agent IP address: 0.0.0.0
  Client MAC address: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47)
  Client hardware address padding: 00000000000000000000
  Server host name not given
  Boot file name not given
  Magic cookie: DHCP
  Option: (53) DHCP Message Type (Discover)
  Option: (61) Client identifier
  Option: (50) Requested IP Address (192.168.29.108)
  Option: (12) Host Name
  Option: (60) Vendor class identifier
  Option: (55) Parameter Request List
  Option: (255) End
  Padding: 0000
```

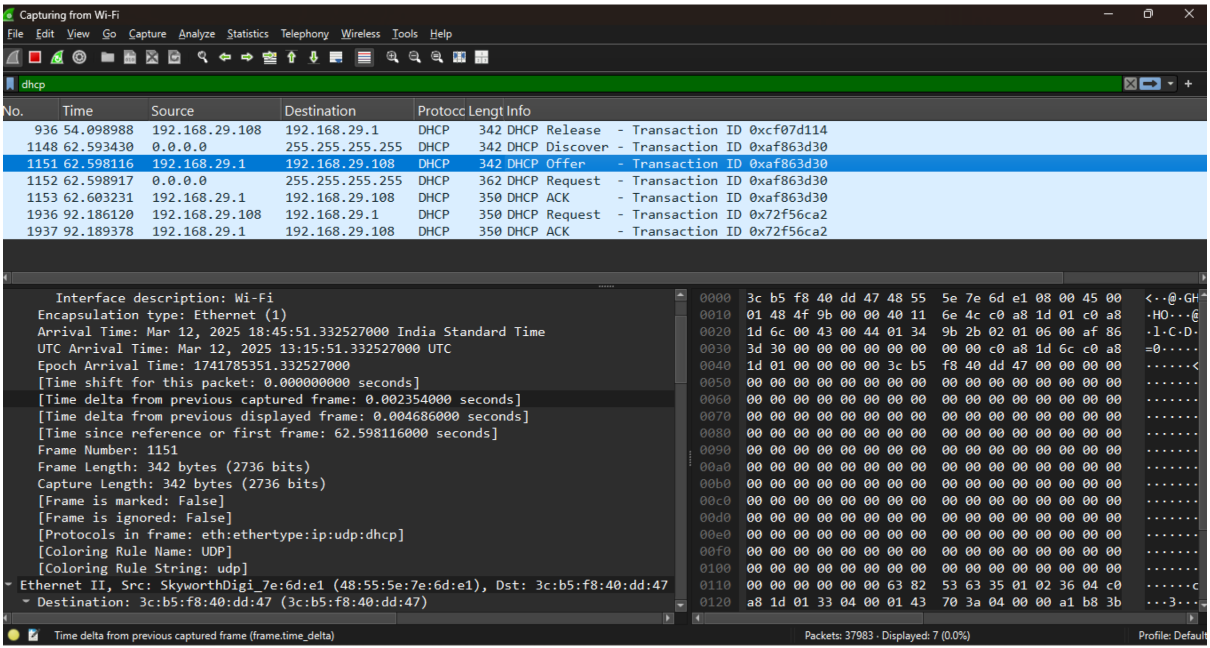
The client **broadcasts** a **DHCP Discover** message to 255.255.255.255 (or 0.0.0.0 to 255.255.255.255).

This packet is sent over **UDP port 67**.

DHCP Offer :

When a **DHCP server receives the Discover packet**, it responds with a **DHCP Offer** message. This message contains an available IP address and additional network configuration details. The server may **broadcast** or **unicast** this response to the client.

Sent over **UDP port 68**.



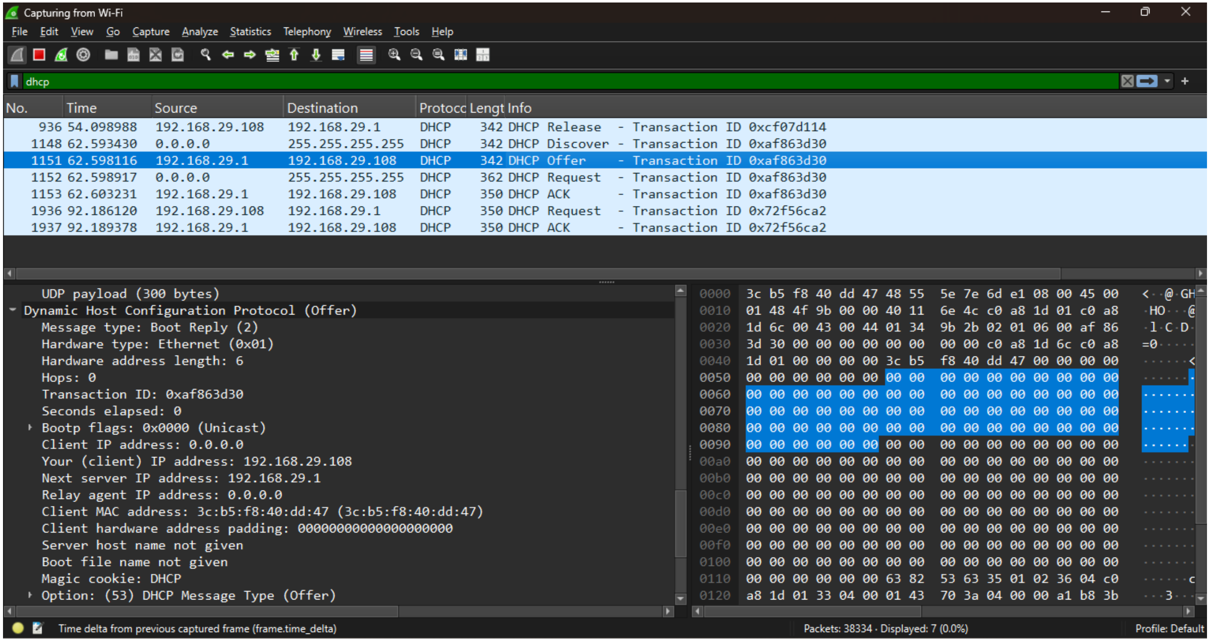
Capturing from Wi-Fi
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
dhcp

```
No.   Time       Source          Destination      Protocc Lengt Info
  936 54.098988  192.168.29.108  192.168.29.1     DHCP    342 DHCP Release  - Transaction ID 0xcf07d114
 1148 62.593430  0.0.0.0         255.255.255.255  DHCP    342 DHCP Discover - Transaction ID 0xaf863d30
 1151 62.598116  192.168.29.1    192.168.29.108   DHCP    342 DHCP Offer    - Transaction ID 0xaf863d30
 1152 62.598917  0.0.0.0         255.255.255.255  DHCP    362 DHCP Request  - Transaction ID 0xaf863d30
 1153 62.603231  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0xaf863d30
 1936 92.186120  192.168.29.108  192.168.29.1     DHCP    350 DHCP Request  - Transaction ID 0x72f56ca2
 1937 92.189378  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0x72f56ca2
```

```
    Interface description: Wi-Fi
  Encapsulation type: Ethernet (1)
  Arrival Time: Mar 12, 2025 18:45:51.332527000 India Standard Time
  UTC Arrival Time: Mar 12, 2025 13:15:51.332527000 UTC
  Epoch Arrival Time: 1741785351.332527000
  [Time shift for this packet: 0.000000000 seconds]
  [Time delta from previous captured frame: 0.002354000 seconds]
  [Time delta from previous displayed frame: 0.004686000 seconds]
  [Time since reference or first frame: 62.598116000 seconds]
  Frame Number: 1151
  Frame Length: 342 bytes (2736 bits)
  Capture Length: 342 bytes (2736 bits)
  [Frame is marked: False]
  [Frame is ignored: False]
  [Protocols in frame: eth:ethertype:ip:udp:dhcp]
  [Coloring Rule Name: UDP]
  [Coloring Rule String: udp]
Ethernet II, Src: SkyworthDigi_7e:6d:e1 (48:55:5e:7e:6d:e1), Dst: 3c:b5:f8:40:dd:47
  Destination: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47)
```

```
0000  3c b5 f8 40 dd 47 48 55  5e 7e 6d e1 08 00 45 00   <··@·GH
0010  01 48 4f 9b 00 00 40 11  6e 4c c0 a8 1d 01 c0 a8   ·HO···@
0020  1d 6c 00 43 00 44 01 34  9b 2b 02 01 06 00 af 86   ·l·C·D·
0030  3d 30 00 00 00 00 00 00  00 00 c0 a8 1d 6c c0 a8   =0·····
0040  1d 01 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 02 36 04 c0   ······c
0120  a8 1d 01 33 04 00 01 43  70 3a 04 00 00 a1 b8 3b   ···3···
```

Time delta from previous captured frame (frame.time_delta)   Packets: 37983 · Displayed: 7 (0.0%)   Profile: Default



Capturing from Wi-Fi
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
dhcp

```
No.   Time       Source          Destination      Protocc Lengt Info
  936 54.098988  192.168.29.108  192.168.29.1     DHCP    342 DHCP Release  - Transaction ID 0xcf07d114
 1148 62.593430  0.0.0.0         255.255.255.255  DHCP    342 DHCP Discover - Transaction ID 0xaf863d30
 1151 62.598116  192.168.29.1    192.168.29.108   DHCP    342 DHCP Offer    - Transaction ID 0xaf863d30
 1152 62.598917  0.0.0.0         255.255.255.255  DHCP    362 DHCP Request  - Transaction ID 0xaf863d30
 1153 62.603231  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0xaf863d30
 1936 92.186120  192.168.29.108  192.168.29.1     DHCP    350 DHCP Request  - Transaction ID 0x72f56ca2
 1937 92.189378  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0x72f56ca2
```

```
  UDP payload (300 bytes)
Dynamic Host Configuration Protocol (Offer)
  Message type: Boot Reply (2)
  Hardware type: Ethernet (0x01)
  Hardware address length: 6
  Hops: 0
  Transaction ID: 0xaf863d30
  Seconds elapsed: 0
  Bootp flags: 0x0000 (Unicast)
  Client IP address: 0.0.0.0
  Your (client) IP address: 192.168.29.108
  Next server IP address: 192.168.29.1
  Relay agent IP address: 0.0.0.0
  Client MAC address: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47)
  Client hardware address padding: 00000000000000000000
  Server host name not given
  Boot file name not given
  Magic cookie: DHCP
  Option: (53) DHCP Message Type (Offer)
```

```
0000  3c b5 f8 40 dd 47 48 55  5e 7e 6d e1 08 00 45 00   <··@·GH
0010  01 48 4f 9b 00 00 40 11  6e 4c c0 a8 1d 01 c0 a8   ·HO···@
0020  1d 6c 00 43 00 44 01 34  9b 2b 02 01 06 00 af 86   ·l·C·D·
0030  3d 30 00 00 00 00 00 00  00 00 c0 a8 1d 6c c0 a8   =0·····
0040  1d 01 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 02 36 04 c0   ······c
0120  a8 1d 01 33 04 00 01 43  70 3a 04 00 00 a1 b8 3b   ···3···
```

Time delta from previous captured frame (frame.time_delta)   Packets: 38334 · Displayed: 7 (0.0%)   Profile: Default

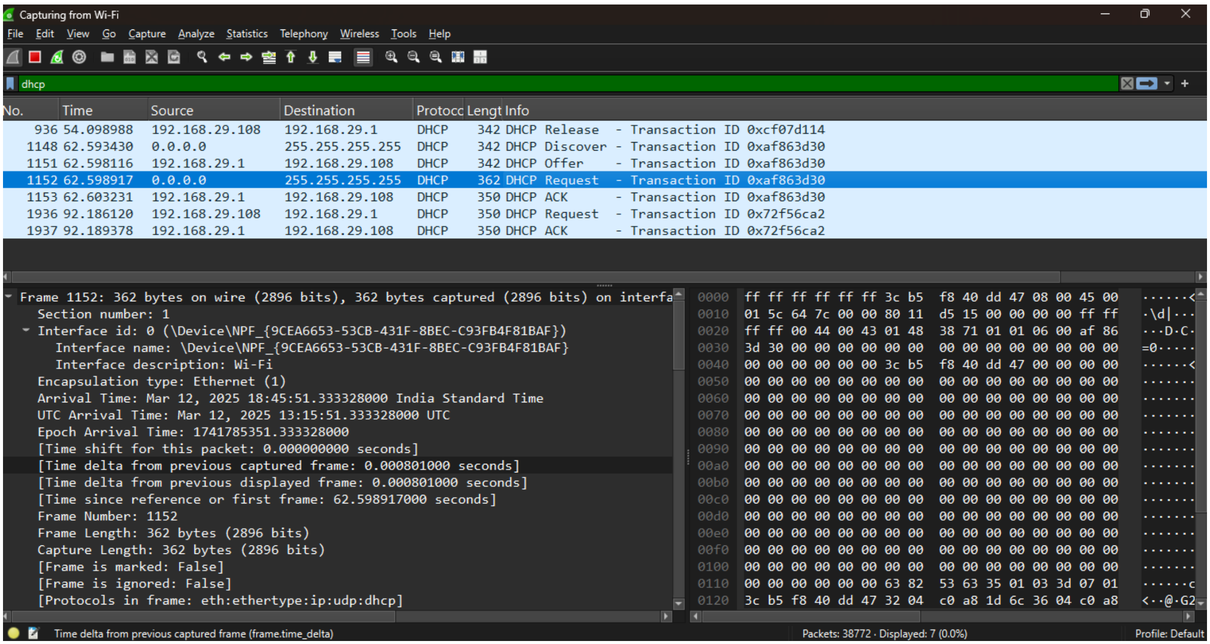
DHCP Request:

The client selects **one** DHCP server (if multiple responded) and sends a **DHCP Request** message.

This confirms that the client accepts the offered IP address.

The request is **broadcasted** to inform all DHCP servers (so others can reclaim their offered IPs).

Sent over **UDP port 67**.

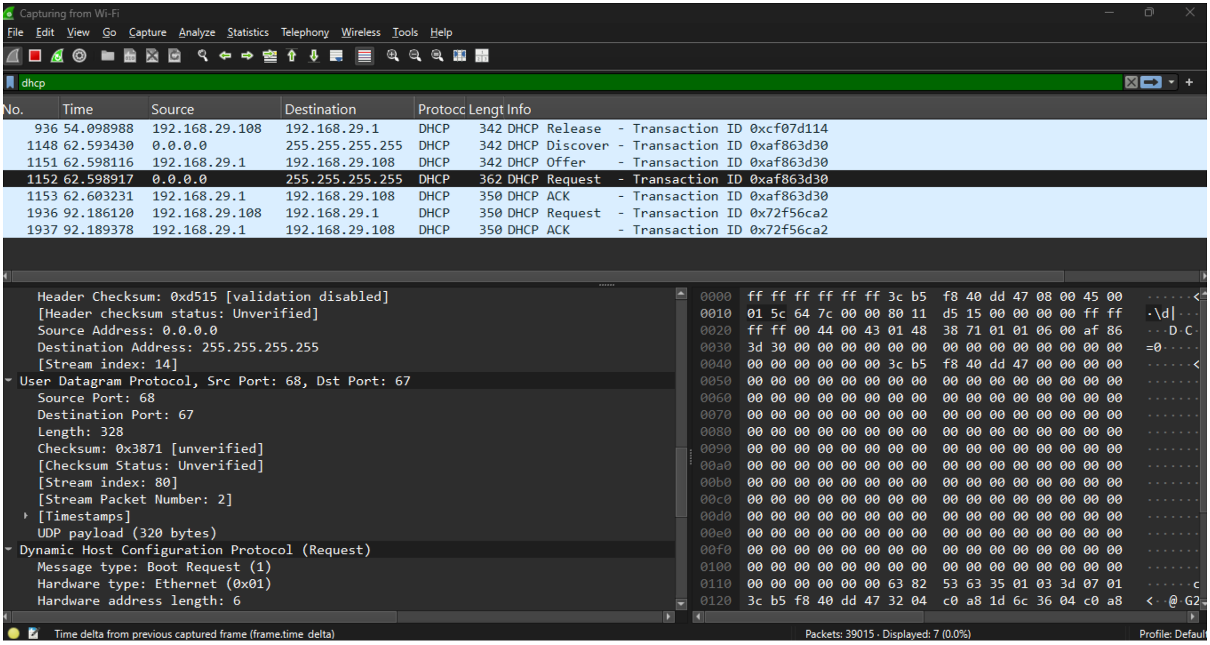

Capturing from Wi-Fi
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
dhcp

```
No.   Time       Source          Destination      Protocol Length Info
  936 54.098988  192.168.29.108  192.168.29.1     DHCP   342 DHCP Release  - Transaction ID 0xcf07d114
 1148 62.593430  0.0.0.0         255.255.255.255  DHCP   342 DHCP Discover - Transaction ID 0xaf863d30
 1151 62.598116  192.168.29.1    192.168.29.108   DHCP   342 DHCP Offer    - Transaction ID 0xaf863d30
 1152 62.598917  0.0.0.0         255.255.255.255  DHCP   362 DHCP Request  - Transaction ID 0xaf863d30
 1153 62.603231  192.168.29.1    192.168.29.108   DHCP   350 DHCP ACK      - Transaction ID 0xaf863d30
 1936 92.186120  192.168.29.108  192.168.29.1     DHCP   350 DHCP Request  - Transaction ID 0x72f56ca2
 1937 92.189378  192.168.29.1    192.168.29.108   DHCP   350 DHCP ACK      - Transaction ID 0x72f56ca2
```

```
Frame 1152: 362 bytes on wire (2896 bits), 362 bytes captured (2896 bits) on interfa
    Section number: 1
  Interface id: 0 (\Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF})
      Interface name: \Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF}
      Interface description: Wi-Fi
    Encapsulation type: Ethernet (1)
    Arrival Time: Mar 12, 2025 18:45:51.333328000 India Standard Time
    UTC Arrival Time: Mar 12, 2025 13:15:51.333328000 UTC
    Epoch Arrival Time: 1741785351.333328000
    [Time shift for this packet: 0.000000000 seconds]
    [Time delta from previous captured frame: 0.000801000 seconds]
    [Time delta from previous displayed frame: 0.000801000 seconds]
    [Time since reference or first frame: 62.598917000 seconds]
    Frame Number: 1152
    Frame Length: 362 bytes (2896 bits)
    Capture Length: 362 bytes (2896 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:udp:dhcp]
```

```
0000  ff ff ff ff ff ff 3c b5  f8 40 dd 47 08 00 45 00   ·······<
0010  01 5c 64 7c 00 00 80 11  d5 15 00 00 00 00 ff ff   ·\d|···
0020  ff ff 00 44 00 43 01 48  38 71 01 01 06 00 af 86   ···D·C·
0030  3d 30 00 00 00 00 00 00  00 00 00 00 00 00 00 00   =0·····
0040  00 00 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 03 3d 07 01   ······c
0120  3c b5 f8 40 dd 47 32 04  c0 a8 1d 6c 36 04 c0 a8   <··@·G2
```

Time delta from previous captured frame (frame.time_delta)   Packets: 38772 · Displayed: 7 (0.0%)   Profile: Default


Capturing from Wi-Fi
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
dhcp

```
No.   Time       Source          Destination      Protocol Length Info
  936 54.098988  192.168.29.108  192.168.29.1     DHCP   342 DHCP Release  - Transaction ID 0xcf07d114
 1148 62.593430  0.0.0.0         255.255.255.255  DHCP   342 DHCP Discover - Transaction ID 0xaf863d30
 1151 62.598116  192.168.29.1    192.168.29.108   DHCP   342 DHCP Offer    - Transaction ID 0xaf863d30
 1152 62.598917  0.0.0.0         255.255.255.255  DHCP   362 DHCP Request  - Transaction ID 0xaf863d30
 1153 62.603231  192.168.29.1    192.168.29.108   DHCP   350 DHCP ACK      - Transaction ID 0xaf863d30
 1936 92.186120  192.168.29.108  192.168.29.1     DHCP   350 DHCP Request  - Transaction ID 0x72f56ca2
 1937 92.189378  192.168.29.1    192.168.29.108   DHCP   350 DHCP ACK      - Transaction ID 0x72f56ca2
```

```
    Header Checksum: 0xd515 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 0.0.0.0
    Destination Address: 255.255.255.255
    [Stream index: 14]
User Datagram Protocol, Src Port: 68, Dst Port: 67
    Source Port: 68
    Destination Port: 67
    Length: 328
    Checksum: 0x3871 [unverified]
    [Checksum Status: Unverified]
    [Stream index: 80]
    [Stream Packet Number: 2]
  [Timestamps]
    UDP payload (320 bytes)
Dynamic Host Configuration Protocol (Request)
    Message type: Boot Request (1)
    Hardware type: Ethernet (0x01)
    Hardware address length: 6
```

```
0000  ff ff ff ff ff ff 3c b5  f8 40 dd 47 08 00 45 00   ······<
0010  01 5c 64 7c 00 00 80 11  d5 15 00 00 00 00 ff ff   ·\d|···
0020  ff ff 00 44 00 43 01 48  38 71 01 01 06 00 af 86   ···D·C
0030  3d 30 00 00 00 00 00 00  00 00 00 00 00 00 00 00   =0·····
0040  00 00 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 03 3d 07 01   ······c
0120  3c b5 f8 40 dd 47 32 04  c0 a8 1d 6c 36 04 c0 a8   <··@·G2
```

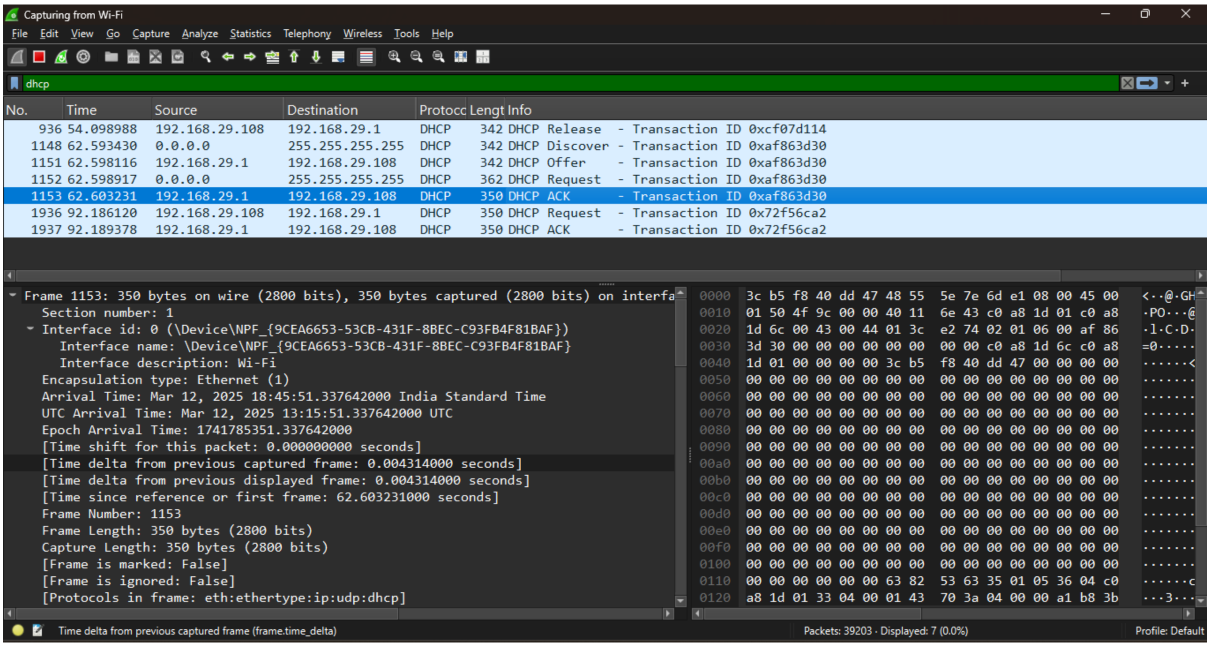
Time delta from previous captured frame (frame.time delta)   Packets: 39015 · Displayed: 7 (0.0%)   Profile: Default

DHCP Acknowledge :

The **DHCP server** that provided the IP **sends a DHCP Acknowledge (ACK)** message to confirm the lease.

The client is now allowed to use the assigned IP address.

Sent over **UDP port 68**.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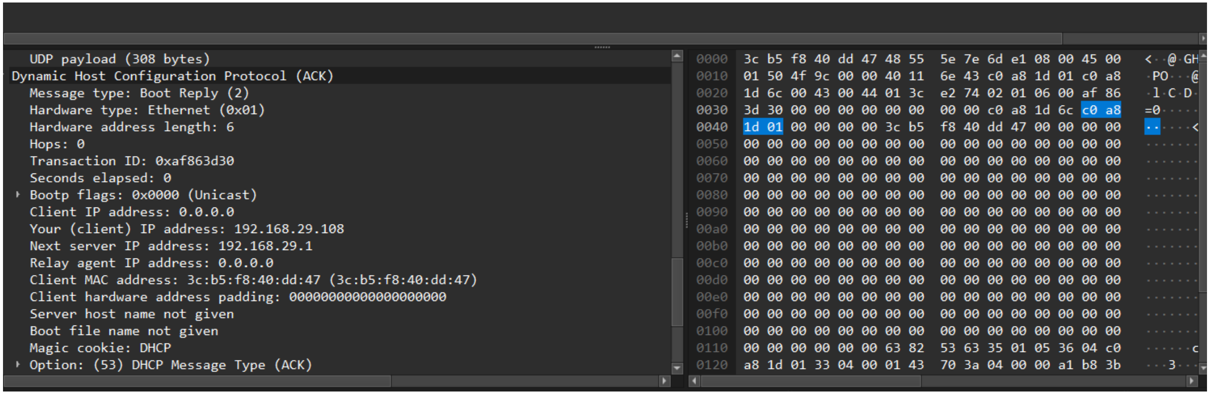
```
dhcp
```

```
No.   Time       Source          Destination      Protocc Lengt Info
  936 54.098988  192.168.29.108  192.168.29.1     DHCP    342 DHCP Release  - Transaction ID 0xcf07d114
 1148 62.593430  0.0.0.0         255.255.255.255  DHCP    342 DHCP Discover - Transaction ID 0xaf863d30
 1151 62.598116  192.168.29.1    192.168.29.108   DHCP    342 DHCP Offer    - Transaction ID 0xaf863d30
 1152 62.598917  0.0.0.0         255.255.255.255  DHCP    362 DHCP Request  - Transaction ID 0xaf863d30
 1153 62.603231  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0xaf863d30
 1936 92.186120  192.168.29.108  192.168.29.1     DHCP    350 DHCP Request  - Transaction ID 0x72f56ca2
 1937 92.189378  192.168.29.1    192.168.29.108   DHCP    350 DHCP ACK      - Transaction ID 0x72f56ca2
```

```
Frame 1153: 350 bytes on wire (2800 bits), 350 bytes captured (2800 bits) on interfa
  Section number: 1
  Interface id: 0 (\Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF})
    Interface name: \Device\NPF_{9CEA6653-53CB-431F-8BEC-C93FB4F81BAF}
    Interface description: Wi-Fi
  Encapsulation type: Ethernet (1)
  Arrival Time: Mar 12, 2025 18:45:51.337642000 India Standard Time
  UTC Arrival Time: Mar 12, 2025 13:15:51.337642000 UTC
  Epoch Arrival Time: 1741785351.337642000
  [Time shift for this packet: 0.000000000 seconds]
  [Time delta from previous captured frame: 0.004314000 seconds]
  [Time delta from previous displayed frame: 0.004314000 seconds]
  [Time since reference or first frame: 62.603231000 seconds]
  Frame Number: 1153
  Frame Length: 350 bytes (2800 bits)
  Capture Length: 350 bytes (2800 bits)
  [Frame is marked: False]
  [Frame is ignored: False]
  [Protocols in frame: eth:ethertype:ip:udp:dhcp]
```

```
0000  3c b5 f8 40 dd 47 48 55  5e 7e 6d e1 08 00 45 00   <··@·GH
0010  01 50 4f 9c 00 00 40 11  6e 43 c0 a8 1d 01 c0 a8   ·PO···@
0020  1d 6c 00 43 00 44 01 3c  e2 74 02 01 06 00 af 86   ·l·C·D·
0030  3d 30 00 00 00 00 00 00  00 00 c0 a8 1d 6c c0 a8   =0·····
0040  1d 01 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 05 36 04 c0   ······c
0120  a8 1d 01 33 04 00 01 43  70 3a 04 00 00 a1 b8 3b   ···3···
```

```
Time delta from previous captured frame (frame.time_delta)      Packets: 39203 · Displayed: 7 (0.0%)      Profile: Default
```



```
  UDP payload (308 bytes)
Dynamic Host Configuration Protocol (ACK)
  Message type: Boot Reply (2)
  Hardware type: Ethernet (0x01)
  Hardware address length: 6
  Hops: 0
  Transaction ID: 0xaf863d30
  Seconds elapsed: 0
  Bootp flags: 0x0000 (Unicast)
  Client IP address: 0.0.0.0
  Your (client) IP address: 192.168.29.108
  Next server IP address: 192.168.29.1
  Relay agent IP address: 0.0.0.0
  Client MAC address: 3c:b5:f8:40:dd:47 (3c:b5:f8:40:dd:47)
  Client hardware address padding: 00000000000000000000
  Server host name not given
  Boot file name not given
  Magic cookie: DHCP
  Option: (53) DHCP Message Type (ACK)
```

```
0000  3c b5 f8 40 dd 47 48 55  5e 7e 6d e1 08 00 45 00   <··@·GH
0010  01 50 4f 9c 00 00 40 11  6e 43 c0 a8 1d 01 c0 a8   ·PO···@
0020  1d 6c 00 43 00 44 01 3c  e2 74 02 01 06 00 af 86   ·l·C·D·
0030  3d 30 00 00 00 00 00 00  00 00 c0 a8 1d 6c c0 a8   =0·····
0040  1d 01 00 00 00 00 3c b5  f8 40 dd 47 00 00 00 00   ······<
0050  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0060  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0070  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0080  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0090  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00a0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00b0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00c0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00d0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00e0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
00f0  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0100  00 00 00 00 00 00 00 00  00 00 00 00 00 00 00 00   ·······
0110  00 00 00 00 00 00 63 82  53 63 35 01 05 36 04 c0   ······c
0120  a8 1d 01 33 04 00 01 43  70 3a 04 00 00 a1 b8 3b   ···3···
```