```
30 40.316588
                              cc:01:4a:51:00:20
                                                           Broadcast
                                                                                                     60 Who has 192.168.2.2? Tell 192.168.2.3
                              192.168.2.3
                                                                                                   342 DHCP Offer
        32 42.020909
                                                            192.168.2.2
                                                                                                                               Transaction ID 0x7455cf58
                                                                                                   342 DHCP Offer
       33 42.020938
                              192.168.2.3
                                                          192.168.2.2
                                                                                                                            - Transaction ID 0x7455cf58
       35 42.652615
                              Frame 31: 406 bytes on wire (3248 bits), 406 bytes captured (3248 bits) on interface -, id 0 Ethernet II, Src: 00:50:79:66:68:03 (00:50:79:66:68:03), Dst: Broadcast (ff:ff:ff:ff:ff:ff) Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255
                                                                                                                                                                           01 88 00
                                                                                                                                                                                   00 4
      0100 .... = Version: 4
.... 0101 = Header Length: 20 bytes (5)
Differentiated Services Field: 0x10 (DSCP: Unknown, ECN: Not-ECT)
                                                                                                                                                                               58
                                                                                                                                                                           cf
                                                                                                                                                                                  00
                                                                                                                                                                                       00
                                                                                                                                                                           00
                                                                                                                                                                               00
                                                                                                                                                                                   00
                                                                                                                                                                           00
                                                                                                                                                                               00
      Total Length: 392
                                                                                                                                                                           00
                                                                                                                                                                               00
      Identification: 0x0000 (0)
                                                                                                                                                                           00
                                                                                                                                                                               00 00
      000. .... = Flags: 0x0
...0 0000 0000 0000 = Fragment Offset: 0
                                                                                                                                                                           00
                                                                                                                                                                               00 00
                                                                                                                                                                           00
                                                                                                                                                                               00
      Time to Live: 16
      Protocol: UDP (17)
Header Checksum: 0xa956 [validation disabled]
[Header checksum status: Unverified]
Source Address: 0.0.0.0 ПокауПК
                                                                                                                                                                               00 00
                                                                                                                                                                           00
                                                                                                                                                                           00
                                                                                                                                                                               00 00
                                                                                                                                                                           00
                                                                                                                                                                               00
                                                        Пока у ПК нет ІР-Адреса
                                                                                                                                                                           00
Source Address: 0.0.0.0

Destination Address: 255.255.255.255

► User Datagram Protocol, Src Port: 68, Dst Port: 67 DHCP Клиенти Сервер

▼ Dynamic Host Configuration Protocol (Discover)

DHCP Discover
                                                                                                                                                                               00
                                                                                                                                                                           00
                                                                                                                                                                           00
                                                                                                                                                                               00 00
                                                                                                                                                                           00
                                                                                                                                                                               00
      Message type: Boot Request (1)
Hardware type: Ethernet (0x01)
Hardware address length: 6
                                                                                                                                                                               34
                                                                                                                                                                           00
                                                                                                                                                                               00
                                                                                                                                                                           00
                                                                                                                                                                               00 00
                                                                                                                                                                           00
                                                                                                                                                                               00
                                                                                                                                                                                   00
      Hops: 0
      Transaction ID: 0x7455cf58
                                                                                                                                                                           00
                                                                                                                                                                               00
     Seconds elapsed: 0
Bootp flags: 0x0000 (Unicast)
Client IP address: 0.0.0.0
                                                                                                                                                                           00 00 00
                                                                                                                                                                               00 00 00
                                                                                                                                                                           00
                                                                                                                                                                           00 00 00 00
      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: 00:50:79:66:68:03 (00:50:79:66:68:03) МАС-клиента
      Server host name not given
Boot file name not given
     342 DHCP Offer
                                                                                                                       - Transaction ID 0x7455cf58
                           192.168.2.3
                                                                                 DHCP
     32 42,020909
                                                        192.168.2.2
                                                                                              342 DHCP Offer
     33 42.020938
                          192.168.2.3
                                                       192,168,2,2
                                                                                                                         Transaction ID 0x7455cf58
Frame 33: 342 THE Server (2736 bits), 342 bytes captured (2726 MAS) on interface -, id 0 Ethernet II, Src: cc:01:4a:51:00:20 (cc:01:4a:51:00:20), Dst: 00:50:79:66:68:03 (00:50:79:66:68:03)
                                                                                                                                                                    00 50 79 66 68
                                                                                                                                                                    01 48 00 0f 00
Ethernet II, Src: cc:01:4a:51:00:20 (cc:01:4a:51:00:20), Dst: 00
Internet Protocol Version 4, Src: 192.168.2.3, Dst: 192.168.2.2
User Datagram Protocol, Src Port: 67, Dst Port: 68
Dynamic Host Configuration Protocol (Offer)
Message type: Boot Reply (2)
Hardware type: Ethernet (0x01)
Hardware dynamic Longth: 6
                                                                                                                                                                    02 02 00
                                                                                                                                                                    cf 58 00 00 00
                                                                                                                                                                    00 00 c0 a8 02
                                                                                                                                                                    00 00 00 00 00
                                                                                                                                                                    00 00 00 00 00
    Hardware address length: 6
                                                                                                                                                                    00
                                                                                                                                                                        00 00
                                                                                                                                                                                00 00
                                                                                                                                                                    00 00 00 00 00
    Hops: 0
    Transaction ID: 0x7455cf58
                                                                                                                                                                    00 00 00
                                                                                                                                                                                00 00
    Seconds elapsed: 0
                                                                                                                                                                    00 00 00 00
   00 00 00
                                                                                                                                                                                00 00
                                                                                                                                                                    00 00 00 00 00
                                                                                                                                                                    00 00 00 00 00
                                                                                                                                                                    00 00 00 00 00
                                                                                                                                                                    00
                                                                                                                                                                            00
                                                                                                                                                                        00
                                                                                                                                                                                00 00
    Server host name not given
                                                                                                                                                                        03 02
                                                                                                                                                                                33 04
    Boot file name not given
                                                                                                                                                                    04 00 0b
                                                                                                                                                                                89 20
    Magic cookie: DHCP
                                                                                                                                                                    03 06 04
                                                                                                                                                                                c0 a8
    Option: (53) DHCP Message Type (Offer)
                                                                                                                                                                    00 00 00 00 00
       Length: 1
   DHCP: Offer (2) Типсо
Option: (54) DHCP Server Identifier (192.168.3.2)
                                                               Тип сообщения
       Length: 4
   DHCP Server Identifier: 192.168.3.2
Option: (51) IP Address Lease Time
       Length: 4
                                                                 Сколько будет держаться ІР-Адрес
   IP Address Lease Time: 10 days (864000)
Option: (58) Renewal Time Value
       Length: 4
    Renewal Time Value: 5 days (432000)
Option: (59) Rebinding Time Value
       Length: 4
   Rebinding Time Value: 8 days, 18 hours (756000)
Option: (1) Subnet Mask (255.255.255.0)
       Length: 4
Subnet Mask: 255.255.255.0 Маска подсети
   Option: (3) Router
Length: 4
Router: 192.168.2.3 Маршрутизатор
   Option: (6) Domain Name Server
Length: 4
                                                      Имя сервера
   Domain Name Server: 192.168.2.3
Option: (255) End
Option End: 255
    User Datagram Protocol (udp), 8 byte(s)
                                                                                                           Пакеты: 47 · Отображаются: 47 (100.0%)
                                                                                                                                                                       Профиль: Defa
```

```
0c:2f:3c:90:00:02 LOOP
     35 42.652615
                           0c:2f:3c:90:00:02
                                                                                               60 Reply
     37 44.307934
                                                                                                                         Transaction ID 0x7455cf58
                            192,168,2,3
                                                        192,168,2,2
                                                                                               342 DHCP ACK
Frame 36: 406 bytes on wire (3248 bits), 406 bytes captured (3248 bits) on interface -, id 0
Ethernet II, Src: 00:50:79:66:68:03 (00:50:79:66:68:03), Dst: cc:01:4a:51:00:20 (cc:01:4a:51:00:20)
Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255
User Datagram Protocol, Src Port: 68, Dst Port: 67
Dynamic Host Configuration Protocol (Request)
Message type: Root Request (1)
   Message type: Boot Request (1)
Hardware type: Ethernet (0x01)
Hardware address length: 6
    Hops: 0
    Transaction ID: 0x7455cf58
    Seconds elapsed: 0
    Bootp flags: 0x0000 (Unicast)
   Server host name not given
    Boot file name not given
    Magic cookie: DHCP
   Option: (53) DHCP Message Type (Request)
       Length: 1
                                                         Тип запроса (Request)
  DHCP: Request (3)
Option: (54) DHCP Server Identifier (192.168.3.2)
       Length: 4
       DHCP Server Identifier: 192.168.3.2
  Option: (50) Requested IP Address (192.168.2.2)
       Length: 4
                                                                       Запрашиваемый ІР-Адрес
       Requested IP Address: 192.168.2.2
 ▼ Option: (61) Client identifier
       Length: 7
       Hardware type: Ethernet (0x01)
Client MAC address: 00:50:79:66:68:03 (00:50:79:66:68:03)
  Option: (12) Host Name
       Length: 3
       Host Name: PC4
  Option: (55) Parameter Request List
       Length: 4
      Parameter Request List Item: (1) Subnet Mask
Parameter Request List Item: (3) Router
Parameter Request List Item: (6) Domain Name Server
Parameter Request List Item: (15) Domain Name
   Option: (255) End
Option End: 255
```

```
35 42.652615
                                    60 Reply
                                                                                                                                       406 DHCP Request - Transaction ID 0x7455cf58
        36 44.289692 0.0.0.0
                                                                                255.255.255.255 DHCP
Frame 37: 342 bytes on wire (2736 bits), 342 bytes captured (2736 bits) on interface -, id 0
Ethernet II, Src: cc:01:4a:51:00:20 (cc:01:4a:51:00:20), Dst: 00:50:79:66:68:03 (00:50:79:66:68:03)
Internet Protocol Version 4, Src: 192.168.2.3, Dst: 192.168.2.2
User Datagram Protocol, Src Port: 67, Dst Port: 68
Dynamic Host Configuration Protocol (ACK)
Message type: Root Renly (2)
                                        00:50:79:66:68:03
                                                                                 Broadcast
                                                                                                                      ARP
                                                                                                                                            64 Gratuitous ARP for 192,168,2,2 (Request)
                                                                                                                                                                                                                                               01
                                                                                                                                                                                                                                               02 02
                                                                                                                                                                                                                                               cf
00
                                                                                                                                                                                                                                                     58
                                                                                                                                                                                                                                                     00
     Message type: Boot Reply (2)
Hardware type: Ethernet (0x01)
Hardware address length: 6
                                                                                                                                                                                                                                                    00
                                                                                                                                                                                                                                               00
                                                                                                                                                                                                                                                     00
      Hops: 0
                                                                                                                                                                                                                                                     00
      Transaction ID: 0x7455cf58
                                                                                                                                                                                                                                               00
                                                                                                                                                                                                                                                     00
    Iransaction ID: 0X7455CT58
Seconds elapsed: 0
Bootp flags: 0x0000 (Unicast)
Client IP address: 192.168.2.2
Your (client) IP address: 192.168.2.2
Next server IP address: 0.0.0.0
Relay agent IP address: 192.168.2.3
Client MAC address: 00:50:79:66:68:03 (00:50:79:66:68:03)
                                                                                                                                                                                                                                               00 00
                                                                                                                                                                                                                                               00
                                                                                                                                                                                                                                                     00
                                                                                                                                                                                                                                               00 00
                                                                                                                                                                                                                                              00
                                                                                                                                                                                                                                                     00
      00 00
                                                                                                                                                                                                                                              a8 03
      Boot file name not given
                                                                                                                                                                                                                                                     00
    Magic cookie: DHCP
Option: (53) DHCP Message Type (ACK)
                                                                                                                                                                                                                                              03 06
                                                                                                                                                                                                                                              00 00
          Length: 1
  DHCP: ACK (5) Типзапроса(ACK)

→ Option: (54) DHCP Server Identifier (192.168.3.2)

Length: 4
                                                                                      ID сервера
 DHCP Server Identifier: 192.168.3.2

▼ Option: (51) IP Address Lease Time

Length: 4
 IP Address Lease Time: 10 days (864000)
▼ Option: (58) Renewal Time Value
 Length: 4
Renewal Time Value: 5 days (432000)
Option: (59) Rebinding Time Value
 Length: 4
Rebinding Time Value: 8 days, 18 hours (756000)

Option: (1) Subnet Mask (255.255.255.0)
Length: 4
Subnet Mask: 255.255.255.0

Option: (3) Router
Length: 4
Router: 192.168.2.3

Option: (6) Domain Name Server
Length: 4
Domain Name Server: 192.168.2.3
                                                                                    Маска подсети
    Domain Name Server: 192.168.2.3
Option: (255) End
Option End: 255
Padding: 000000000000000000000000000
```