

Wireshark tasks

1) Сообщения посылаются поверх UDP

No.	Time	Source	Destination	Protocol	Length	Info
29	2022-05-30 21:29:20,475142559	0.0.0.0	255.255.255.255	DHCP	347	DHCP Discover - Transaction ID 0x86e9d86e
32	2022-05-30 21:29:21,816521298	192.168.0.1	192.168.0.104	DHCP	590	DHCP Offer - Transaction ID 0x86e9d86e
33	2022-05-30 21:29:21,816937090	0.0.0.0	255.255.255.255	DHCP	353	DHCP Request - Transaction ID 0x86e9d86e
34	2022-05-30 21:29:21,821135037	192.168.0.1	192.168.0.104	DHCP	590	DHCP ACK - Transaction ID 0x86e9d86e

> Frame 32: 590 bytes on wire (4720 bits), 590 bytes captured (4720 bits) on interface wlo1, id 0
> Ethernet II, Src: Tp-LinkT_65:8a:70 (64:70:02:65:8a:70), Dst: IntelCor_af:c4:4f (b4:69:21:af:c4:4f)
> Internet Protocol Version 4, Src: 192.168.0.1, Dst: 192.168.0.104
> User Datagram Protocol, Src Port: 67, Dst Port: 68
> Dynamic Host Configuration Protocol (Offer)

2) b4:69:21:af:c4:4f

> Frame 33: 353 bytes on wire (2824 bits), 353 bytes captured (2824 bits) on interface wlo1, id 0
▼ Ethernet II, Src: IntelCor_af:c4:4f (b4:69:21:af:c4:4f), Dst: Broadcast
 > Destination: Broadcast (ff:ff:ff:ff:ff:ff)
 > Source: IntelCor_af:c4:4f (b4:69:21:af:c4:4f)
 └ Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 0.0.0.0, Dst: 255.255.255.255
> User Datagram Protocol, Src Port: 68, Dst Port: 67
> Dynamic Host Configuration Protocol (Request)

3) Значение Transaction ID 0x86e9d86e. Это поле позволяет клиенту понять, какому DHCP-запросу какой соответствует ответ.

Length	Info
342	DHCP Release - Transaction ID 0x96d7cf41
347	DHCP Discover - Transaction ID 0x86e9d86e
590	DHCP Offer - Transaction ID 0x86e9d86e
353	DHCP Request - Transaction ID 0x86e9d86e
590	DHCP ACK - Transaction ID 0x86e9d86e

- 4) Source IP будет либо IP клиента, либо сервера, Destination IP будет равно 255.255.255.255.
- 5) 192.168.0.1
- 6) IP выдается DHCP-сервером на какое-то время и освобождается, если клиент не продлевает срок. У меня на 2 часа.

```
boot file name not given
Magic cookie: DHCP
> Option: (53) DHCP Message Type (Offer)
> Option: (54) DHCP Server Identifier (192.168.0.1)
✓ Option: (51) IP Address Lease Time
  Length: 4
  IP Address Lease Time: (7200s) 2 hours
> Option: (1) Subnet Mask (255.255.255.0)
> Option: (3) Router
```