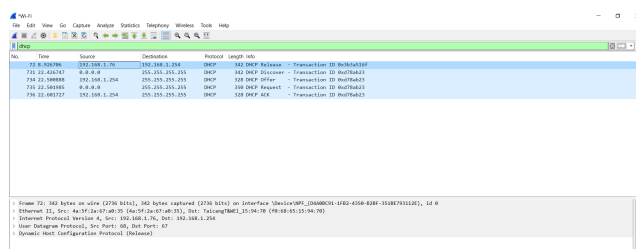


DHCP on wireshark

- DHCP run on port 68 for client and 67 for server.
- IT is implemented in both IPv6 and IPv4
- Uses UDP of transport layer for connectionless services
- ALL DHCP packets are 300-500 bytes

DHCP Messages

Number	Message Type
1	Discover
2	Offer
3	Request
4	Decline
5	Acknowledgment
6	Negative Acknowledgment
7	Release
8	Informational



The image shows a Wireshark packet capture window with a list of DHCP messages. The messages are as follows:

No.	Time	Source	Destination	Protocol	Length	Info
70	0.000000	192.168.1.1	255.255.255.255	DHCP	342	DHCP Discover - Transaction ID: 0x00000001
71	0.000000	255.255.255.255	192.168.1.1	DHCP	342	DHCP Offer - Transaction ID: 0x00000001
72	0.000000	192.168.1.1	255.255.255.255	DHCP	342	DHCP Request - Transaction ID: 0x00000001
73	0.000000	255.255.255.255	192.168.1.1	DHCP	342	DHCP Ack - Transaction ID: 0x00000001

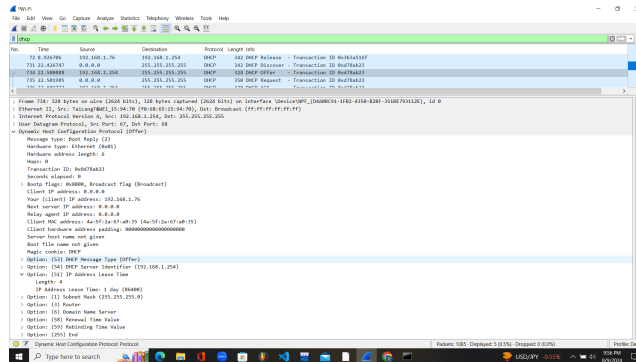
The packet details pane shows the selected packet (No. 72) with the following information:

- Frame 72: 342 bytes on wire (2736 bits), 342 bytes captured (2736 bits) on interface vnet0-0 (vnet0-0) (0.0.0.0)
- Ethernet II, Src: vnet0-0 (0.0.0.0), Dst: vnet0-0 (0.0.0.0)
- Internet Protocol Version 4, Src: 192.168.1.1, Dst: 255.255.255.255
- User Datagram Protocol, Src Port: 67, Dst Port: 68
- DHCP Message Type: Offer

1. DHCP Discover

Function:

- [illegible]



3. DHCP Request

Function:

- The client uses this message to request the IP address offered by a DHCP server and to accept the offer.
- **Process:**
 - After receiving one or more Offers from DHCP servers, the client selects one and responds with a DHCP Request packet. This packet requests the IP address offered by a specific server and provides information about the client's selected offer.

4. DHCP Acknowledgement

Function:

- The DHCP server uses this message to acknowledge the client's Request and finalize the IP address assignment.
- **Process:**
 - The server receives the Request packet from the client and responds with a DHCP Acknowledgement packet, confirming that the IP address has been assigned and providing additional configuration information.