

Computer Network Lab2

107081028 常安彦

Wireshark

The image shows a Wireshark interface with a packet capture list and a detailed view of the first packet. The packet list shows 1046 packets, with the first packet selected. The detailed view shows the packet structure: Ethernet II, Internet Protocol Version 4, User Datagram Protocol, and Data (263 bytes). The packet bytes pane shows the raw data in hexadecimal and ASCII.

No.	Time	Source	Destination	Protocol	Length	Info
68	37.070322	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
69	38.081991	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
70	39.075710	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
71	39.486820	192.168.210.40	192.168.210.106	DNS	76	Standard query 0xb49c A crl.verisign.c
72	39.517013	192.168.210.106	192.168.210.40	DNS	160	Standard query response 0xb49c A crl.v
81	40.072548	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
82	41.068798	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
83	42.067862	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
84	43.091433	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
85	44.103501	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
88	45.128064	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
91	46.125604	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
92	47.139889	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
93	47.413967	192.168.210.40	122.11.128.50	UDP	114	54720 → 19900 Len=72
94	48.135539	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
95	49.137197	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263
96	50.135712	192.168.210.40	192.168.210.255	UDP	305	54915 → 54915 Len=263

Frame 1: 305 bytes on wire (2440 bits), 305 bytes captured (2440 bits) on interface \Device\NPF_{8F3494C5-AAD4-43CD-A...}

Ethernet II, Src: 8e:b0:3a:a8:8d:7b (8e:b0:3a:a8:8d:7b), Dst: Broadcast (ff:ff:ff:ff:ff:ff)

Internet Protocol Version 4, Src: 192.168.210.40, Dst: 192.168.210.255

User Datagram Protocol, Src Port: 54915, Dst Port: 54915

Data (263 bytes)

0000 ff ff ff ff ff ff 8e b0 3a a8 8d 7b 08 00 45 00 :..E

0010 01 23 98 da 00 00 80 11 7a 76 c0 a8 d2 28 c0 a8 ..#..... zv...(..

0020 d2 ff d6 83 d6 83 01 0f 7f 1c 00 44 45 53 4b 54DESKT

Differentiated Services Field (ip.dsfield), 1 byte(s)

Packets: 1046 · Displayed: 904 (86.4%)

Profile: Default

```
> Frame 1: 305 bytes on wire (2440 bits), 305 bytes captured (2440 bits)
> Ethernet II, Src: 8e:b0:3a:a8:8d:7b (8e:b0:3a:a8:8d:7b), Dst: Broadcast
> Internet Protocol Version 4, Src: 192.168.210.40, Dst: 192.168.210.255
> User Datagram Protocol, Src Port: 54915, Dst Port: 54915
> Data (263 bytes)
```

Source IP address: 192.168.210.40

Destination IP address: 192.168.210.255

Destination port: 54915

Got permission denied when implementing on linux

Client-Server

```
lab2@lab2-VirtualBox:~/Documents$ ./server 8000
recv from client: test message
recv from client: hello server

```

```
lab2@lab2-VirtualBox:~/Documents$ ./client
please input target IP: 127.0.0.1
please input target port number: 8000
test message
hello server
```

Multithread

```
lab2@lab2-VirtualBox:~/Documents$ ./multithread 8020
please input target IP: 127.0.0.1
please input target port number: 8021
Hello from server1
recv from client: Hello from server2
test

```

```
lab2@lab2-VirtualBox:~/Documents$ ./multithread 8021
please input target IP: 127.0.0.1
please input target port number: 8020
recv from client: Hello from server1
Hello from server2
recv from client: test

```