

# Wireshark

## 1) 192.168.0.104

No.	Time	Source	Destination	Protocol	Length	Info
34	2022-05-31 19:50:28,367254865	192.168.0.1	192.168.0.104	DNS	82	Standard query response 0xa404 Server fail
98	2022-05-31 19:50:29,883762623	192.168.0.104	192.168.0.1	DNS	88	Standard query 0xe327 AAAA gaia.cs.umass.e
99	2022-05-31 19:50:29,889108852	192.168.0.1	192.168.0.104	DNS	141	Standard query response 0xe327 AAAA gaia.c
101	2022-05-31 19:50:29,890015417	192.168.0.104	128.119.245.12	UDP	534	37262 → 33434 Len=1972
103	2022-05-31 19:50:29,890105548	192.168.0.104	128.119.245.12	UDP	534	58711 → 33435 Len=1972
105	2022-05-31 19:50:29,890192996	192.168.0.104	128.119.245.12	UDP	534	51193 → 33436 Len=1972
107	2022-05-31 19:50:29,890297637	192.168.0.104	128.119.245.12	UDP	534	42708 → 33437 Len=1972
109	2022-05-31 19:50:29,890370192	192.168.0.104	128.119.245.12	UDP	534	39807 → 33438 Len=1972
111	2022-05-31 19:50:29,890437766	192.168.0.104	128.119.245.12	UDP	534	43565 → 33439 Len=1972
113	2022-05-31 19:50:29,890504464	192.168.0.104	128.119.245.12	UDP	534	50093 → 33440 Len=1972
115	2022-05-31 19:50:29,890568987	192.168.0.104	128.119.245.12	UDP	534	59939 → 33441 Len=1972
117	2022-05-31 19:50:29,890637297	192.168.0.104	128.119.245.12	UDP	534	38369 → 33442 Len=1972
119	2022-05-31 19:50:29,890706170	192.168.0.104	128.119.245.12	UDP	534	26267 → 33443 Len=1972

> Frame 101: 534 bytes on wire (4272 bits), 534 bytes captured (4272 bits) on interface wlo1, id 0

> Ethernet II, Src: IntelCor\_af:c4:4f (b4:69:21:af:c4:4f), Dst: Tp-LinkT\_65:8a:70 (64:70:02:65:8a:70)

> Internet Protocol Version 4, Src: 192.168.0.104, Dst: 128.119.245.12

- 0100 ... = Version: 4
- ... 0101 = Header Length: 20 bytes (5)
- > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
- Total Length: 520
- Identification: 0xdeb4 (57012)
- > Flags: 0x00b9
- Fragment offset: 1480
- > Time to live: 1
- Protocol: UDP (17)
- Header checksum: 0xa1e3 [validation disabled]
- [Header checksum status: Unverified]
- Source: 192.168.0.104
- Destination: 128.119.245.12
- > [2 IPv4 Fragments (1980 bytes): #100(1480), #101(500)]

> User Datagram Protocol, Src Port: 37262, Dst Port: 33434

> Data (1972 bytes)

## 2) Protocol: UDP (17)

3) В заголовке 20 байт, вся длина 520 байт (Total length), полезная нагрузка 500 байт.

4) а) Header checksums меняются, Identification и Time to live

б) Все остальные поля, не перечисленные выше, не меняются. Не должны меняться поля Total Length, Header Length, Protocol, Version, Differentiated Services Field. Должны меняться Header checksum, Identification.

с) С каждым следующим запросом увеличивается на 1

5) Identification: 0x0e9f (3743), Time to live: 32

6) Identification меняется, TTL нет

7) Identification: 0xbdc1 (48577), Time to live: 21

```
.... 0101 = Header Length: 20 bytes (5)
> Differentiated Services Field: 0x00 (DSCP: CS0, EC
Total Length: 520
Identification: 0xbdc1 (48577)
> Flags: 0x00b9
Fragment offset: 1480
Time to live: 21
Protocol: UDP (17)
```

8) а) Разбилось на 3 фрагмента

б) Fragment offset, Flags, Total length, Header checksum