

Wireshark Lab: UDP

- 1.a - 1
- 1.b - Dropbox LAN sync Discovery Protocol
- 1.c - 4 fields,
- 1.d - Source Port, Destination Port, Length, Checksum

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	144.122.228.244	255.255.255.255	Internet Protocol Version 4	28	Source Port: 17500, Destination Port: 17500
2	0.000000	144.122.243.255	144.122.243.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
3	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
4	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
5	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
6	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
7	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
8	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
9	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
10	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
11	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
12	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
13	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500
14	0.000000	144.122.228.244	144.122.228.255	Dropbox LAN sync Discovery Protocol, 250N	250	Source Port: 17500, Destination Port: 17500

2 - each of them is 2 bytes long

Source Port: 17500 Destination Port: 17500 Length: 225	Source Port: 17500 Destination Port: 17500 Length: 225	Destination Port: 17500 Length: 225 Checksum: 0xf312 [unverified]
Source Port (udp.srport), 2 bytes	Destination Port (udp.dstport), 2 bytes	Length in octets including this header and the data (udp.length), 2 bytes
Length: 225 Checksum: 0xf312 [unverified] [Checksum Status: Unverified] [Checksum: 0xf312]		
Details at: https://www.wireshark.org/docs/wsug_html_chunked/ChAdvChecksums.html (udp.checksum), 2 bytes		

- 3- $2^{16} - 8(\text{header}) = 65535 - 8 = 65527$ bytes
- 4- 17

5.a - 189 - 192

189 1.616054	144.122.135.197	144.122.135.197	DNS	83	Standard query 0x7709 A mmx-ds.cdn.whatsapp.net
192 1.619968	144.122.135.197	144.122.135.197	DNS	99	Standard query response 0x7709 A mmx-ds.cdn.whatsapp.net A 157.240.238.60
User Datagram Protocol, Src Port: 61948, Dst Port: 53 Source Port: 61948 Destination Port: 53					

5.b - 245 - 260, The source port in the send message is the destination port in the receive message, and the destination port in the send message is the source port in the receive message.

245 1.684058	144.122.135.197	144.122.135.197	DNS	85	Standard query 0xae9 A harvardonline.harvard.edu
248 1.740899	144.122.222.209	144.122.223.255	UDP	62	2008 → 2008 Len=20
249 1.740904	144.122.25.192	144.122.27.255	UDP	82	57621 → 57621 Len=40
250 1.740905	144.122.222.209	144.122.223.255	UDP	62	2007 → 2007 Len=20
251 1.740949	144.122.243.18	144.122.243.255	UDP	305	54915 → 54915 Len=263
252 1.741170	144.122.186.75	144.122.187.255	UDP	82	57621 → 57621 Len=40
253 1.741490	144.122.222.74	144.122.223.255	NBNS	92	Name query NB DD78<00>
260 1.763652	144.122.135.197	144.122.135.197	DNS	174	Standard query response 0xae9 A harvardonline.harvard.edu
User Datagram Protocol, Src Port: 54207, Dst Port: 53 Source Port: 54207 Destination Port: 53					