

Лабораторная работа №10

Компьютерные сети

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[illegible]

```

.2...&I...E.
.8:....1...g.
...MD...HIJKLM
NOPQRSTU VWXYZ[\]
^`abc

```

1. Мой IP-адрес 192.168.0.103
2. ICMP (1)
3. В IP-заголовке 56 байт, полезной нагрузки
 $56 - 20 = 36$ байт



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Frame 6: 70 bytes on wire (560 bits), 70 bytes captured (560 bits) on interface wlp0s20f3, id 0
  Ethernet II, Src: 18:26:49:e1:fd:fc (18:26:49:e1:fd:fc), Dst: TendaTec_a2:d3:d8 (d8:32:14:a2:d3:d8)
  Internet Protocol Version 4, Src: 192.168.0.103, Dst: 173.194.222.138

```

4a. Identification, Time to Live, Checksum

4b. Не меняются - все остальные, они же должны оставаться неизменными (Version, Header Length, Total Length, Flags, Protocol, Source Address, Destination Address),

меняться должны Identification, Time to Live, Checksum.

4с. Каждое следующее значение на 1 больше предыдущего

5. Identification: 0x3ac4 (15044), TTL: 1

6. Нет


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0100 .... = Version: 4
.... 0101 = Header Length: 20 bytes (5)
  Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 56
    Identification: 0xa2f9 (41721)
  Flags: 0x0000
    Fragment offset: 0
    Time to live: 64
    Protocol: ICMP (1)
    Header checksum: 0x5613 [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.0.1
    Destination: 192.168.0.103
  Internet Control Message Protocol

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  3  [3 IPv4 Fragments (3480 Bytes):
  4  Internet Control Message Protocol]

```


No.	Time	Source	Destination	Protocol	Length	Info
	9 3.587572113	192.168.0.1	192.168.0.103	DNS		414 Standard query response 0x3b9c A google.com A 64.233.165.139 A 64...
	10 3.592262310	192.168.0.1	192.168.0.103	DNS		430 Standard query response 0x8296 AAAA google.com AAAA 2a00:1450:401...
	11 3.592918401	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=0, ID=4778) [Reassemble...
	12 3.592932531	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=1480, ID=4778) [Reassem...
*	13 3.592935467	192.168.0.103	64.233.165.139	ICMP		554 Echo (ping) request id=0x0003, seq=1/256, ttl=1 (no response fou...
	14 3.592947446	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=0, ID=4779) [Reassemble...
	15 3.592950508	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=1480, ID=4779) [Reassem...
	16 3.592953127	192.168.0.103	64.233.165.139	ICMP		554 Echo (ping) request id=0x0003, seq=2/512, ttl=1 (no response fou...
	17 3.592963823	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=0, ID=477a) [Reassemble...
	18 3.592966659	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=1480, ID=477a) [Reassem...
	19 3.592969241	192.168.0.103	64.233.165.139	ICMP		554 Echo (ping) request id=0x0003, seq=3/768, ttl=1 (no response fou...
	20 3.592979624	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=0, ID=477b) [Reassemble...
	21 3.592982667	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=1480, ID=477b) [Reassem...
	22 3.592985296	192.168.0.103	64.233.165.139	ICMP		554 Echo (ping) request id=0x0003, seq=4/1024, ttl=2 (no response fo...
	23 3.592995200	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=0, ID=477c) [Reassemble...
	24 3.592999304	192.168.0.103	64.233.165.139	IPv4		1514 Fragmented IP protocol (proto=ICMP 1, off=1480, ID=477c) [Reassem...
	25 3.593002039	192.168.0.103	64.233.165.139	ICMP		554 Echo (ping) request id=0x0003, seq=5/1280, ttl=2 (no response fo...

```
Internet Protocol Version 4, Src: 192.168.0.103, Dst: 64.233.165.139
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Data (1480 bytes)

8. Меняются значения Total Length, Flags, Fragment Offset, Header Checksum