# LAB 5: Analysis of IP packets through Wireshark and Introduction to static routing

through packet tracer.

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**Exercise:** 

# 1.2:

+ 3.303330	192.100.1.100	192.100.1.1	3301	174 M-SCRACH HITE/I.I
5 5.364799	192.168.1.100	192.168.1.1	SSDP	175 M-SEARCH * HTTP/1.1
6 5.864428	192.168.1.100	192.168.1.1	SSDP	174 M-SEARCH * HTTP/1.1
7 5.865461	192.168.1.100	192.168.1.1	SSDP	175 M-SEARCH * HTTP/1.1
8 6.163045	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=20483/848, ttl=1 (no response found!)
9 6.176826	10.216.228.1	192.168.1.102	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
10 6.188629	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=20739/849, ttl=2 (no response found!)
11 6.202957	24.218.0.153	192.168.1.102	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
12 6.208597	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=20995/850, ttl=3 (no response found!)
13 6.234505	24.128.190.197	192.168.1.102	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
14 6.238695	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=21251/851, ttl=4 (no response found!)
15 6.257672	24.128.0.101	192.168.1.102	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
16 6.258750	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=21507/852, ttl=5 (no response found!)
17 6.286017	12.125.47.49	192.168.1.102	ICMP	70 Time-to-live exceeded (Time to live exceeded in transit)
18 6.288750	192.168.1.102	128.59.23.100	ICMP	98 Echo (ping) request id=0x0300, seq=21763/853, ttl=6 (no response found!)
19 6 307657	12 123 40 218	192 168 1 102	TCMP	126 Time-to-live exceeded (Time to live exceeded in transit)
Differentiated Total Length:	ader Length: 20 byte   Services Field: 0x0	s (5) 0 (DSCP: CS0, ECN: No	t-ECT)	
Fragment offse	+. 0			
> Time to live:				
Protocol: ICMP				
	m: 0x2d2c [validatio	n disabledl		
	um status: Unverifie	•		
Source: 192.16		•		
Destination: 1				
[Source GeoIP:				
<u>-</u>	ieoIP: Unknown]			
	Message Protocol			

```
[Source GeoIP: Unknown]
[Destination GeoIP: Unknown]

**Internet Control Message Protocol

    Type: 8 (Echo (ping) request)
    Code: 0
    Checksum: 0xf7ca [correct]
    [Checksum Status: Good]
    Identifier (BE): 768 (0x0300)
    Identifier (LE): 3 (0x0003)
    Sequence number (BE): 20483 (0x5003)
    Sequence number (LE): 848 (0x0350)

    [No response seen]
    Data (56 bytes)
```

Answering below questions from the above screenshots

1. What is the IP address of your computer?

IP Address: 192.168.1.102.

2. Within the IP packet header, what is the value in the upper layer protocol field? Protocol: ICMP(1).

3. How many bytes are in the IP header? How many bytes are in the payload of the IP datagram? Explain how you determined the number of payload bytes.

The IP header length= 20 bytes.

The total length of the packet = 84 bytes

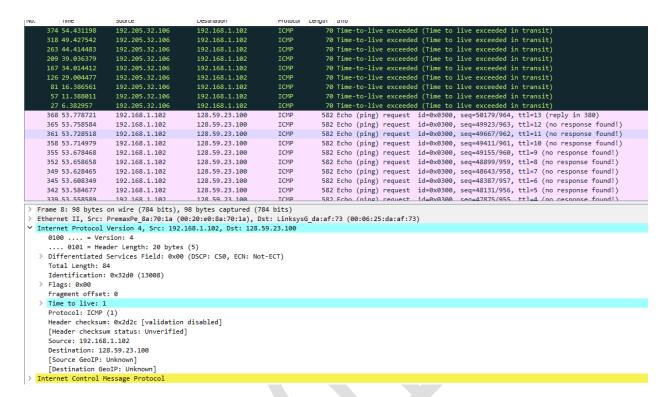
Payload -> 84 - 20 = 64 bytes.

4. Has this IP datagram been fragmented? Explain how you determined whether or not the datagram has been fragmented.

Fragment Offset: 0

Therefore there is no fragmentation.

# 1.3:



# 1.4:

- 1. Which fields in the IP datagram always change from one datagram to the next within this series of ICMP messages sent by your computer?
- 3 fields change from one datagram to another: Identification, Time to live and Header Checksum.
- 2. Which fields stay constant? Which of the fields must stay constant? Which fields must change? Why?

The fields that stay and must remain constant are:

- Source IP: Source is the same computer.
- Destination IP: Destination remains same.
- -Protocol: ICMP for all.

 Differentiated Services Field: All the packets are ICMP(they use the same types of services)

- Version: All the packets areIPv4

- Header Length: As we are using ICMP.

The fields that change are:

1. Identification: There should be a unique packet id.

2. Time to live: It decreases as it is in descending order.

3. Header checksum: Checksum changes as headers change.

3. Describe the pattern you see in the values in the identification field of the IP datagram.

The values change by 1 in the identification field.

4. Next (with the packets still sorted by source address) find the series of ICMP TTL exceeded replies sent to your computer by the nearest (first hop) router.

```
Destination
     376 54.659995
                                            192.168.1.102
     321 49.827260
                      67.99.58.194
                                            192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
     265 44.655324
                      67.99.58.194
     211 39.164169
                      67.99.58.194
                                                                 ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
    169 34.147910
                      67.99.58.194
                                           192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
    128 29.140439
                                                                 ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
     85 16.438258
                      67.99.58.194
                                           192.168.1.102
                                                                 ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                 ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
    346 53.615079
                                           192.168.1.102
                                                                 ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                      24.218.0.153
    290 48.610509
                                           192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                 ICMP
    235 43.600856
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                 ICMP
    184 38.554598
                      24.218.0.153
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                           192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
    142 33.537960
                      24.218.0.153
                                           192.168.1.102
                                                                ICMP
    101 28.530213
                      24.218.0.153
                                           192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
     67 16.206425
                      24.218.0.153
                                           192.168.1.102
                                                                 ICMP
     42 11.199219
                      24.218.0.153
                                           192.168.1.102
                                                                ICMP
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
     11 6.202957
                      24.218.0.153
                                           192.168.1.102
                                                                             70 Time-to-live exceeded (Time to live exceeded in transit)
     362 53.744006
                      24.128.190.197
                                           192.168.1.102
                                                                ICMP
> Frame 376: 70 bytes on wire (560 bits), 70 bytes captured (560 bits)
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: PremaxPe_8a:70:1a (00:20:e0:8a:70:1a)
Internet Protocol Version 4, Src: 67.99.58.194, Dst: 192.168.1.102
     0100 .... = Version: 4
      ... 0101 = Header Length: 20 bytes (5)
  > Differentiated Services Field: 0xc0 (DSCP: CS6, ECN: Not-ECT)
     Total Length: 56
     Identification: 0xa60b (42507)
  > Flags: 0x00
     Fragment offset: 0
     Time to live: 244
     Protocol: ICMP (1)
     Header checksum: 0xdfc5 [validation disabled]
     [Header checksum status: Unverified]
     Source: 67.99.58.194
     Destination: 192.168.1.102
     [Source GeoIP: Unknown]
     [Destination GeoIP: Unknown]
> Internet Control Message Protocol
```

5. What is the value in the Identification field and the TTL field?

TTL= 244 and Identification = 0xa60b (42507)

6. Do these values remain unchanged for all of the ICMP TTL-exceeded replies sent to your computer by the nearest (first hop) router? Why?

Yes, for all ICMP TTL-exceeded answers from the closest router, the TTL and identification values stay unaltered. Since the first hop router is constant, the TTL does not vary. Since these IP datagrams are parts of a larger IP datagram, they all have the same identification value.

## 1.5:

```
No.
           Time
                            Source
                                                     Destination
                                                                               Protocol
                                                                                        Length Info
                           Dell 4f:36:23
         1 0.000000
                                                                                            42 Who has 192.168.1.1? Tell 192.168.1.101
                                                     Broadcast
                                                                               ARP
                                                                               ARP
         2 0.001649
                            LinksysG da:af:73
                                                     Dell 4f:36:23
                                                                                             60 192.168.1.1 is at 00:06:25:da:af:73
         3 0.001656
                            192.168.1.101
                                                     143.89.14.34
                                                                                            74 Echo (ping) request id=0x0200, seq=26369/359, ttl=128 (reply in 4)
                                                                                                                          id=0x0200, seq=26369/359, ttl=231 (request in 3)
         4 0.415098
                            143.89.14.34
                                                                                             74 Echo (ping) reply
         5 1.006279
                            192.168.1.101
                                                     143.89.14.34
                                                                               ICMP
                                                                                             74 Echo (ping) request id=0x0200, seq=26625/360, ttl=128 (reply in 6)
         6 1 431684
                           143 89 14 34
                                                     192 168 1 101
                                                                               TCMP
                                                                                             74 Echo (ping) reply
                                                                                                                         id=0x0200, seq=26625/360, ttl=231 (request in 5)
         7 2.006328
                           192.168.1.101
                                                     143.89.14.34
                                                                               ICMP
                                                                                            74 Echo (ping) request id=0x0200, seq=26881/361, ttl=128 (reply in 8)
         8 2.324479
                           143.89.14.34
                                                     192.168.1.101
                                                                               ICMP
                                                                                             74 Echo (ping) reply
                                                                                                                         id=0x0200, seq=26881/361, ttl=231 (request in 7)
         9 3.006356
                           192.168.1.101
                                                     143.89.14.34
                                                                                            74 Echo (ping) request id=0x0200, seq=27137/362, ttl=128 (reply in 10)
                           143.89.14.34
                                                     192.168.1.101
                                                                                                                         id=0x0200, seq=27137/362, ttl=231 (request in 9)
       10 3.321121
                                                                               ICMP
                                                                                             74 Echo (ping) reply
       11 4.006398
                           192.168.1.101
                                                     143.89.14.34
                                                                               ICMP
                                                                                             74 Echo (ping) request id=0x0200, seq=27393/363, ttl=128 (reply in 12)
       12 4.343301
                           143.89.14.34
                                                     192 168 1 101
                                                                               TCMP
                                                                                            74 Echo (ping) reply
                                                                                                                         id=0x0200, seq=27393/363, ttl=231 (request in 11)
       13 5.006454
                           192.168.1.101
                                                     143.89.14.34
                                                                              ICMP
                                                                                            74 Echo (ping) request id=0x0200, seq=27649/364, ttl=128 (reply in 14)
       14 5.365480
                           143.89.14.34
                                                     192.168.1.101
                                                                                             74 Echo (ping) reply
                                                                                                                         id=0x0200, seq=27649/364, ttl=231 (request in 13)
                                                                               ICMP
       15 6.022116
                           192.168.1.101
                                                     143.89.14.34
                                                                                             74 Echo (ping) request id=0x0200, seq=27905/365, ttl=128 (reply in 16)
       16 6.403470
                                                                                                                          id=0x0200, seq=27905/365, ttl=231 (request in 15)
                            143.89.14.34
                                                     192.168.1.101
                                                                               ICMP
                                                                                             74 Echo (ping) reply
       17 7.022213
                           192.168.1.101
                                                     143.89.14.34
                                                                              TCMP
                                                                                             74 Echo (ping) request id=0x0200, seq=28161/366, ttl=128 (reply in 18)
       18 7.423214
                           143.89.14.34
                                                     192.168.1.101
                                                                              TCMP
                                                                                             74 Echo (ping) reply
                                                                                                                         id=0x0200, seq=28161/366, ttl=231 (request in 17)
       19 8.022249
                           192.168.1.101
                                                     143.89.14.34
                                                                               ICMP
                                                                                             74 Echo (ping) request
                                                                                                                         id=0x0200, seq=28417/367, ttl=128 (reply in 20)
   Frame 3: 74 bytes on wire (592 bits), 74 bytes captured (592 bits)
   Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
Internet Protocol Version 4, Src: 192.168.1.101, Dst: 143.89.14.34
      0100 .... = Version: 4
.... 0101 = Header Length: 20 bytes (5)
   > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
      Total Length: 60
      Identification: 0xd1fd (53757)
   > 000. .... = Flags: 0x0
       ...0 0000 0000 0000 = Fragment Offset: 0
      Time to Live: 128
      Protocol: ICMP (1)
      Header Checksum: 0x093b [validation disabled]
      [Header checksum status: Unverified]
      Source Address: 192.168.1.101
      Destination Address: 143.89.14.34
  Internet Control Message Protocol
   [Community ID: 1:9bpUzetgMBJudNIqhOrXyMOxWvs=]
       3 0.001656
                       192.168.1.101
                                             143.89.14.34
                                                                                74 Echo (ping) request id=0x0200, seq=26369/359, ttl=128 (reply in 4)
                                                                                                        id=0x0200, seq=26369/359, ttl=231 (request in 3) id=0x0200, seq=26625/360, ttl=128 (reply in 6) id=0x0200, seq=26625/360, ttl=231 (request in 5)
       4 0.415098
                        143.89.14.34
                                              192.168.1.101
                                                                    ICMP
                                                                                74 Echo (ping) reply
       5 1.006279
6 1.431684
                        192.168.1.101
                                              143.89.14.34
                                                                                74 Echo (ping) request
                                                                               74 Echo (ping) reply
                                                                    ICMP
                        143.89.14.34
                                             192.168.1.101
                                                                    ICMP
                                                                               74 Echo (ping) request
74 Echo (ping) reply
                                                                                                        id=0x0200, seq=26881/361, ttl=128 (reply in 8) id=0x0200, seq=26881/361, ttl=231 (request in 7)
       7 2 006329
                        192.168.1.101
                                             143.89.14.34
       8 2.324479
                        143.89.14.34
                                              192.168.1.101
                                                                                                        id=0x0200, seq=27137/362, ttl=128 (reply in 10) id=0x0200, seq=27137/362, ttl=231 (request in 9)
       9 3.006356
                        192,168,1,101
                                             143.89.14.34
                                                                    TCMP
                                                                                74 Echo (ping) request
      10 3.321121
                                                                                74 Echo (ping) reply
                                                                                                        id=0x0200, seq=27393/363, ttl=128 (reply in 12)
id=0x0200, seq=27393/363, ttl=231 (request in 11)
id=0x0200, seq=27649/364, ttl=128 (reply in 14)
      11 4.006398
                        192.168.1.101
                                             143.89.14.34
                                                                    ICMP
                                                                               74 Echo (ping) request
      12 4.343301
                                              192.168.1.101
                                                                                74 Echo (ping) reply
                        192.168.1.101
                                                                                74 Echo (ping) request
      13 5.006454
                                             143.89.14.34
                                                                    ICMP
                                             192.168.1.101
143.89.14.34
                                                                    ICMP
ICMP
                                                                                                        id=0x0200, seq=27649/364, ttl=231 (request in 13) id=0x0200, seq=27905/365, ttl=128 (reply in 16)
      14.5.365480
                        143.89.14.34
                                                                                74 Echo (ping) reply
                        192.168.1.101
      15 6.022116
                                                                               74 Echo (ping) request
      16 6.403470
17 7.022213
                                                                               74 Echo (ping) reply
74 Echo (ping) request
                                                                                                        id=0x0200, seq=27905/365, ttl=231 (request in 15) id=0x0200, seq=28161/366, ttl=128 (reply in 18)
                        143.89.14.34
                                             192.168.1.101
                                                                    TCMP
                                                                                                         id=0x0200, seq=28161/366, ttl=231 (request in 17)
      18 7.423214
                       143.89.14.34
                                             192.168.1.101
                                                                   ICMP
                                                                               74 Echo (ping) reply
                       192.168.1.101
      19 8.022249
                                                                                74 Echo (ping) request
                                                                                                        id=0x0200, seq=28417/367, ttl=128 (reply in 20)
   Frame 3: 74 bytes on wire (592 bits), 74 bytes captured (592 bits)
  Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: Linksys6_da:af:73 (00:06:25:da:af:73) Internet Protocol Version 4, Src: 192.168.1.101, Dst: 143.89.14.34
  Internet Control Message Protocol
     Type: 8 (Echo (ping) request)
Code: 0
     Checksum: 0xe45a [correct]
     [Checksum Status: Good]
     Identifier (BE): 512 (0x0200)
Identifier (LE): 2 (0x0002)
Sequence Number (BE): 26369 (0x6701)
     Sequence Number (LE): 359 (0x0167)
[Response frame: 4]
   > Data (32 bytes)
  [Community ID: 1:9bpUzetgMBJudNIqhOrXvMOxWvs=]
```

1. What is the IP address of your host? What is the IP address of the destination host?

IP address of host = 192.168.1.101

IP address of destination host = 143.89.14.34.

2. Why is it that an ICMP packet does not have source and destination port numbers?

The ICMP packet lacks source and destination port information since it was not intended to be used for application layer processes to exchange network-layer data. Its purpose was to facilitate information exchange at the network layer between hosts and routers. Each ICMP packet have type and code attached to it. They help to identify the message that is being received. No port numbers are required to route an ICMP message to an application layer process because the network software interprets all ICMP signals.

3. Examine one of the ping request packets sent by your host. What are the ICMP type and code numbers? What other fields does this ICMP packet have? How many bytes are the checksum, sequence number and identifier fields?

ICMP type = 8 and code number =0.

Some other fields in this ICMP packet are:

Checksum, identifier, sequence number, and data fields, each of 2 bytes

4. Examine the corresponding ping reply packet. What are the ICMP type and code numbers? What other fields does this ICMP packet have? How many bytes are the checksum, sequence number and identifier fields?

```
3 0.001656
                       192.168.1.101
                                                                 ICMP
                                                                                                     id=0x0200, seq=26369/359, ttl=128 (reply in 4)
                                                                             74 Echo (ping) request
       4 0.415098
                      143.89.14.34
                                            192.168.1.101
                                                                 TCMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=26369/359, ttl=231 (request in 3)
       5 1.006279
                      192,168,1,101
                                            143.89.14.34
                                                                 TCMP
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=26625/360, ttl=128 (reply in 6)
      6 1.431684
                                            192.168.1.101
                      143.89.14.34
                                                                 ICMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seg=26625/360, ttl=231 (request in 5)
       7 2.006328
                      192.168.1.101
                                            143.89.14.34
                                                                 ICMP
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=26881/361, ttl=128 (reply in 8)
       8 2.324479
                      143.89.14.34
                                                                                                     id=0x0200, seq=26881/361, ttl=231 (request in 7)
                                                                             74 Echo (ping) reply
      9 3.006356
                       192.168.1.101
                                            143.89.14.34
                                                                 ICMP
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=27137/362, ttl=128 (reply in 10)
      10 3.321121
                      143.89.14.34
                                            192 168 1 101
                                                                 TCMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=27137/362, ttl=231 (request in 9)
                      192.168.1.101
                                                                 ICMP
                                                                                                     id=0x0200, seq=27393/363, ttl=128 (reply in 12)
      11 4.006398
                                            143.89.14.34
                                                                             74 Echo (ping) request
      12 4.343301
                      143.89.14.34
                                            192.168.1.101
                                                                 ICMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=27393/363, ttl=231 (request in 11)
                      192.168.1.101
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=27649/364, ttl=128 (reply in 14)
      14 5.365480
                      143.89.14.34
                                            192.168.1.101
                                                                 ICMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=27649/364, ttl=231 (request in 13)
      15 6.022116
                      192.168.1.101
                                            143.89.14.34
                                                                 ICMP
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=27905/365, ttl=128 (reply in 16)
      16 6.403470
                      143.89.14.34
                                            192.168.1.101
                                                                 TCMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=27905/365, ttl=231 (request in 15)
      17 7.022213
                                                                 ICMP
                      192.168.1.101
                                           143.89.14.34
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=28161/366, ttl=128 (reply in 18)
      18 7.423214
                      143.89.14.34
                                            192.168.1.101
                                                                 ICMP
                                                                             74 Echo (ping) reply
                                                                                                     id=0x0200, seq=28161/366, ttl=231 (request in 17)
     19 8.022249
                      192.168.1.101
                                           143.89.14.34
                                                                             74 Echo (ping) request
                                                                                                     id=0x0200, seq=28417/367, ttl=128 (reply in 20)
  Frame 4: 74 bytes on wire (592 bits), 74 bytes captured (592 bits)
 Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: Dell 4f:36:23 (00:08:74:4f:36:23)
  Internet Protocol Version 4, Src: 143.89.14.34, Dst: 192.168.1.101
∨ Internet Control Message Protocol
     Type: 0 (Echo (ping) reply)
     Code: 0
     Checksum: 0xec5a [correct]
     [Checksum Status: Good]
     Identifier (BE): 512 (0x0200)
     Identifier (LE): 2 (0x0002)
    Sequence Number (BE): 26369 (0x6701)
    Sequence Number (LE): 359 (0x0167)
     [Request frame: 3]
     [Response time: 413.442 ms]
    Data (32 bytes)
  [Community ID: 1:9bpUzetgMBJudNIqhOrXyMOxWvs=]
```

ICMP type =0 and code number = 0.

Some other fields in this ICMP packet are:

Checksum, identifier, sequence number, and data fields, each of 2 bytes

# 1.6

1 0.000000 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4195/420, ttl=1 (no response foundl) 2 0.013151 10.216.228.1 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42241/421, ttl=1 (no response foundl) 4 0.025551 10.216.228.1 192.168.1.101 138.96.146.2 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 5 0.025542 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42241/421, ttl=1 (no response foundl) 6 0.039171 10.216.228.1 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 7 1.033537 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=422941/221, ttl=1 (no response foundl) 8 1.0354542 42.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43909/424, ttl=2 (no response foundl) 10 1.058646 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43909/424, ttl=2 (no response foundl) 12 1.038260 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response foundl) 14 2.092773 24.128.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response foundl) 16 2.104444 19.001977 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/420, ttl=3 (no response foundl) 18 2.118806 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.1117/0 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4329/429,										
3 0.013258   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-42241/421, ttl=1 (no response foundl) 4 0.025551   102.16.228.11   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 5 0.025634   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-42497/422, ttl=1 (no response foundl) 6 0.039171   10.216.228.1   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 7 1.03337   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43263/423, ttl=2 (no response foundl) 8 1.054542   24.218.0.153   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43009/424, ttl=2 (no response foundl) 10 1.008846   24.218.0.153   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068751   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43265/425, ttl=2 (no response foundl) 12 1.032508   24.218.0.153   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43265/425, ttl=2 (no response foundl) 14 2.092773   24.128.190.197   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43251/426, ttl=3 (no response foundl) 15 2.092873   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43251/426, ttl=3 (no response foundl) 16 2.104444   24.128.190.197   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543   192.168.1.101   138.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43259/429, ttl=4 (no response foundl) 18 2.118306   24.128.190.197   192.168.1.101   ICMP   70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770   192.168.1.101   33.96.146.2   ICMP   106 Echo (ping) request id-0x0200, seq-43289/429, ttl=4 (no response foundl) 18 2.118306   24.128.190.197   192.168.1.101   138.96.14	1 0.000000	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=41985/420	, ttl=1 (n	o response found!)
4 0.035551 10.216.228.1 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42497/422, ttl=1 (no response found!) 6 0.039171 10.216.228.1 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 7 1.033537 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42753/423, ttl=2 (no response found!) 8 1.054542 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43009/424, ttl=2 (no response found!) 10 1.068046 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068046 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 12 1.0805051 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43009/424, ttl=2 (no response found!) 12 1.0805051 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=430265/425, ttl=2 (no response found!) 12 1.0805052 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118360 24.128.190.197 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118360 24.128.190.197 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118360 24.128.190.197 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44039/429, ttl=4 (no response found!) 18 2.118360 24.128.1291 192.16	2 0.013151	10.216.228.1	192.168.1.101	ICMP	70 Time-to-liv	e exceede	d (Time to	live exceeded	in transit	:)
5 0.025634 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42497/422, ttl=1 (no response found!) 6 0.039171 10.216.228.1 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 7 1.033537 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42753/423, ttl=2 (no response found!) 8 1.054542 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4309/424, ttl=2 (no response found!) 10 1.068846 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4309/424, ttl=2 (no response found!) 12 1.082598 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.1084543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=3 (no response found!) 18 2.11380 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=3 (no response found!) 10 Echo (ping) request id=0x0200, seq=44289/429, ttl=3 (no response found!) 10 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 10 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 10 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 10 Echo (ping) request id=0x0200, seq=44289/429	3 0.013258	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=42241/421	, ttl=1 (n	o response found!)
6 0.93171 10.216.228.1 102.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42753/423, ttl=2 (no response found!) 8 1.054542 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43099/424, ttl=2 (no response found!) 10 1.068646 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 12 1.082508 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.088462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43271/426, ttl=3 (no response found!) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43371/427, ttl=3 (no response found!) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43371/427, ttl=3 (no response found!) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44331/428, ttl=3 (no response found!) 18 2.113306 24.128.190.197 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.113306 24.128.190.197 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.11306 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101 10.101	4 0.025551	10.216.228.1	192.168.1.101	ICMP	70 Time-to-liv	e exceede	d (Time to	live exceeded	in transit	:)
71.033537 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=42753/423, ttl=2 (no response found!) 81.054542 24.218.0.153 192.168.1.101 138.96.146.2 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 91.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4309/424, ttl=2 (no response found!) 101.068646 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 111.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 121.082508 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 132.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 142.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 152.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=4377/427, ttl=3 (no response found!) 162.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 172.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43428, ttl=3 (no response found!) 182.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 193.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 182.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 193.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 107.104543 192.108.108 1138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 1082.118306 1138.9	5 0.025634	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=42497/422	, ttl=1 (n	o response found!)
8 1,054542 24,218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43009/424, ttl=2 (no response found!) 10 1.086866 24,218.0.153 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 11 1.085751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 12 1.082508 24,218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.088402 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43221/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 IMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.188306 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.188306 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18 2.188306 192.18836 192.18836 192.18836 192.18836 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 192.18839 19	6 0.039171	10.216.228.1	192.168.1.101	ICMP	70 Time-to-liv	e exceede	d (Time to	live exceeded	in transit	:)
9 1.054646 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43009/424, ttl=2 (no response found!) 10 1.068561 24.218.0.153 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43009/424, ttl=2 (no response found!) 11 1.0685751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43557/425, ttl=2 (no response found!) 12 1.082508 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43289/429, ttl=4 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!)  18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!)  19 2.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!)  10 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!)  10 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!)  10 Echo (ping) request id=0x0200, seq=44289	7 1.033537	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=42753/423	, ttl=2 (n	o response found!)
10 1.068646 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 11 1.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 12 1.083508 24.218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 13 2.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=3 (no response found!) 2 ame 1: 106 bytes on wire (848 bits), 106 bytes captured (848 bits) 2 hernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: Linksys6_da:af:73 (00:06:25:da:af:73) 2 hernet Protocol Version 4, Src: 192.168.1.101, Dst: 138.96.146.2 2 hernet Control Message Protocol  Type: 8 (Echo (ping) request) Code: 0 Checksum: 0x51fe [correct] [Checksum Status: Good] Identifier (EE): 2 (0x0000) Sequence Number (EE): 420 (0x01a4) [No response seen] Data (64 bytes)	8 1.054542	24.218.0.153	192.168.1.101	ICMP	70 Time-to-liv	e exceede	d (Time to	live exceeded	in transit	:)
111.068751 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43265/425, ttl=2 (no response found!) 121.082508 24,218.0.153 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 132.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 142.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 152.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 162.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 172.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 182.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 193.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) 18me 1: 106 bytes on wire (848 bits), 106 bytes captured (848 bits) 19 shernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: Linksys6_da:af:73 (00:06:25:da:af:73)  19 ternet Control Message Protocol  Type: 8 (Echo (ping) request)  Code: 0  Checksum: 0x51fe [correct] [Checksum Status: Good]  Identifier (EE): 512 (0x0200)  Identifier (EE): 512 (0x0200)  Identifier (EE): 2 (0x0002)  Sequence Number (BE): 41985 (0xa401)  Sequence Number (BE): 41985 (0xa401)  Sequence Number (EE): 420 (0x01a4)  [No response Seen]  Data (64 bytes)	9 1.054646	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=43009/424	, ttl=2 (n	o response found!)
12 1.082508	10 1.068646	24.218.0.153	192.168.1.101	ICMP	70 Time-to-liv	e exceede	d (Time to	live exceeded	in transit	:)
13 2.080462 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43521/426, ttl=3 (no response found!) 14 2.092773 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.118306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) ame 1: 106 bytes on wire (848 bits), 106 bytes captured (848 bits) hernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73) ternet Protocol Version 4, Src: 192.168.1.101, Dst: 138.96.146.2 ternet Control Message Protocol  Type: 8 (Echo (ping) request) Code: 0 Checksum: 0x51fe [correct] [Checksum Status: Good] Identifier (EE): 2 (0x0000) Identifier (EE): 2 (0x0000) Sequence Number (EE): 41985 (0xa401) Sequence Number (EE): 420 (0x01a4) [No response seen] Data (64 bytes)	11 1.068751	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=43265/425	, ttl=2 (n	o response found!)
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15 2.092873 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=43777/427, ttl=3 (no response found!) 16 2.104444 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 17 2.104543 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44033/428, ttl=3 (no response found!) 18 2.18306 24.128.190.197 192.168.1.101 ICMP 70 Time-to-live exceeded (Time to live exceeded in transit) 19 3.111770 192.168.1.101 138.96.146.2 ICMP 106 Echo (ping) request id=0x0200, seq=44289/429, ttl=4 (no response found!) ame 1: 106 bytes on wire (848 bits), 106 bytes captured (848 bits) hernet II, Src: Dell_4f:36:23 (00:08:74:44f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73) ternet Protocol Version 4, Src: 192.168.1.101, Dst: 138.96.146.2 ternet Control Message Protocol Type: 8 (Echo (ping) request) Code: 0 Checksum: 0x51fe [correct] [Checksum Status: Good] Identifier (BE): 512 (0x0200) Identifier (BE): 512 (0x0200) Sequence Number (BE): 41985 (0xa401) Sequence Number (BE): 41985 (0xa401) Sequence Number (LE): 420 (0x01a4) [No response Seen] Data (64 bytes)	13 2.080462	192.168.1.101	138.96.146.2	ICMP	106 Echo (ping)	request	id=0x0200,	seq=43521/426	, ttl=3 (n	o response found!)
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1. What is the IP address of your host? What is the IP address of the target destination host?

The IP address of our host= 192.168.1.101

IP address of the target = 138.96.146.2.

2. If ICMP sent UDP packets instead (as in Unix/Linux), would the IP protocol number still be 01 for the probe packets? If not, what would it be?

No. The IP Protocol number would change to 0x11 if ICMP instead transmitted UDP packets.

3. Examine the ICMP echo packet in your screenshot. Is this different from the ICMP ping query packets in the first half of this lab? If yes, how so?

The ICMP echo packet is not different and has the same fields.

```
> Frame 1: 106 bytes on wire (848 bits), 106 bytes captured (848 bits)
> Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
Internet Protocol Version 4, Src: 192.168.1.101, Dst: 138.96.146.2
     0100 .... = Version: 4
     .... 0101 = Header Length: 20 bytes (5)
  > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
     Total Length: 92
     Identification: 0xd2d5 (53973)
  > 000. .... = Flags: 0x0
     ...0 0000 0000 0000 = Fragment Offset: 0
   > Time to Live: 1
     Protocol: ICMP (1)
     Header Checksum: 0x085c [validation disabled]
     [Header checksum status: Unverified]
     Source Address: 192.168.1.101
     Destination Address: 138.96.146.2
Internet Control Message Protocol
     Type: 8 (Echo (ping) request)
     Code: 0
     Checksum: 0x51fe [correct]
     [Checksum Status: Good]
     Identifier (BE): 512 (0x0200)
     Identifier (LE): 2 (0x0002)
     Sequence Number (BE): 41985 (0xa401)
     Sequence Number (LE): 420 (0x01a4)
  > [No response seen]
   > Data (64 bytes)
```

4. Examine the ICMP error packet in your screenshot. It has more fields than the ICMP echo packet. What is included in those fields?

Yes it is more than the echo packet as it contains both the IP header and the first 8 bytes of the original ICMP packet.

5. Examine the last three ICMP packets received by the source host. How are these packets different from the ICMP error packets? Why are they different?

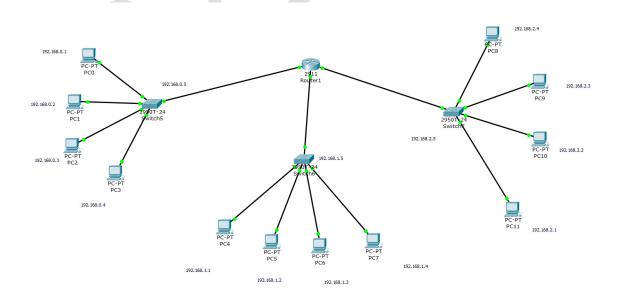
Type field = 0 (echo reply) and not 11 (TTL expired)

It also does not contain additional IP header information.

ICMP packets reach the destination before the TTL happens.

## 2.1

Design a topology which have three networks. Each network has 4 PCs and all three network are connected to each other. The suggested IP ranges are 192.168.0.1 to 192.168.2.4. All IP addresses of all network should be from the given range. Run the experiment and ping from each network to every other Network. Take a snapshot and submit. Also submit the snapshot of topology with IP assigned to each PC.



Here are the 3 cases of Ping from all the three different PC connected across another PC through the router.

### Case 1

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.0.3

Pinging 192.168.0.3 with 32 bytes of data:

Reply from 192.168.0.3: bytes=32 time=10ms TTL=128
Reply from 192.168.0.3: bytes=32 time=1ms TTL=128
Reply from 192.168.0.3: bytes=32 time=6ms TTL=128
Reply from 192.168.0.3: bytes=32 time=7ms TTL=128

Ping statistics for 192.168.0.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:

Minimum = 1ms, Maximum = 10ms, Average = 6ms

PC>
```

# Case 2

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.1.3

Pinging 192.168.1.3 with 32 bytes of data:

Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.1.3:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>
```

# Case 3

```
Packet Tracer PC Command Line 1.0
PC>ping 192.168.2.4

Pinging 192.168.2.4 with 32 bytes of data:

Reply from 192.168.2.4: bytes=32 time=0ms TTL=128
Ping statistics for 192.168.2.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
PC>
```