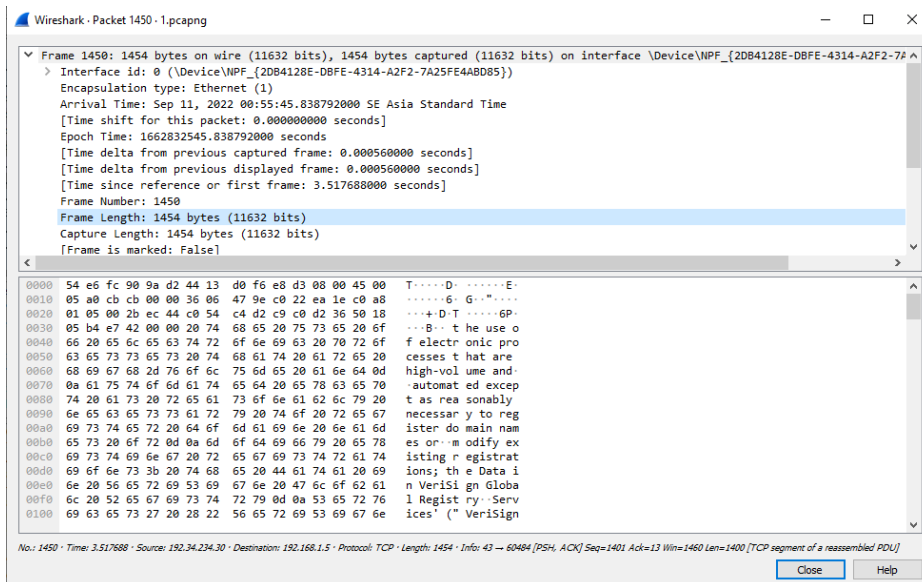
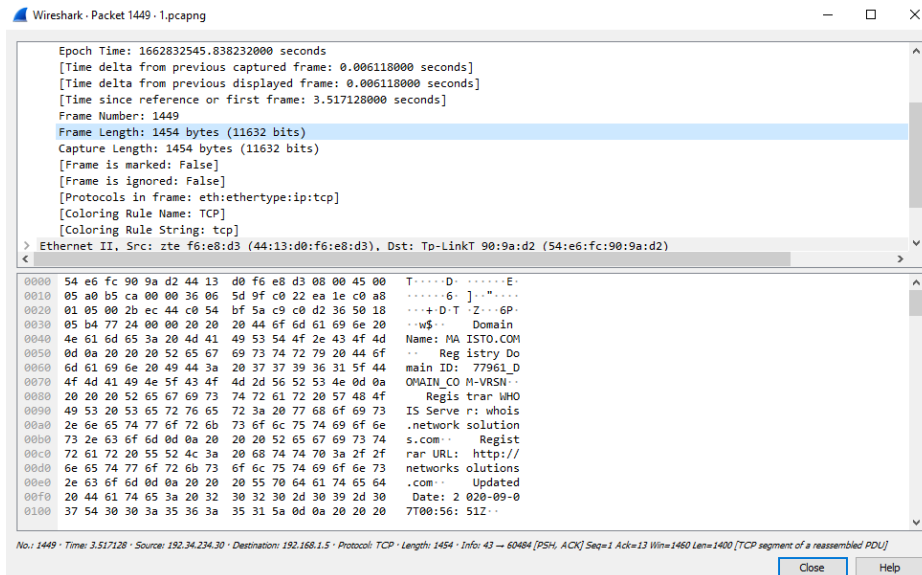


8. 1-b. How many TCP messages were used to send the replies to your query (use flowgraph)?

- What is the L2 Frame Length for each message?



▼ Frame 1451: 306 bytes on wire (2448 bits), 306 bytes captured (2448 bits) on interface \Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85} ^
 > Interface id: 0 (\Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85})
 Encapsulation type: Ethernet (1)
 Arrival Time: Sep 11, 2022 00:55:45.838792000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]
 Epoch Time: 1662832545.838792000 seconds
 [Time delta from previous captured frame: 0.000000000 seconds]
 [Time delta from previous displayed frame: 0.000000000 seconds]
 [Time since reference or first frame: 3.517688000 seconds]
 Frame Number: 1451
 Frame Length: 306 bytes (2448 bits)
 Capture Length: 306 bytes (2448 bits)
 [Frame is marked: False]

| | | | |
|------|-------------------------|-------------------------|----------------------|
| 0000 | 54 e6 fc 90 9a d2 44 13 | d0 f6 e8 d3 08 00 45 00 | T.....D:.....E: |
| 0010 | 01 24 35 08 00 00 36 06 | e2 dd c0 22 ea 1e c0 a8 | ..\$5...6...:"..... |
| 0020 | 01 05 00 2b ec 44 c0 54 | ca 4a c9 c0 d2 36 50 18 | ...+D:T...J...6P... |
| 0030 | 05 b4 c9 a5 00 00 20 6d | 61 79 20 72 65 73 74 72 |m ay restr... |
| 0040 | 69 63 74 20 6f 72 20 74 | 65 72 6d 69 6e 61 74 65 | ict on t erminate... |
| 0050 | 20 79 6f 75 72 20 61 63 | 63 65 73 73 20 74 6f 20 | your acc ess to... |
| 0060 | 74 68 65 0d 0a 57 68 6f | 69 73 20 64 61 74 61 62 | the who is datab... |
| 0070 | 61 73 65 20 66 6f 72 20 | 66 61 69 6c 75 72 65 20 | ase for failure... |
| 0080 | 74 6f 20 61 62 69 64 65 | 20 62 79 20 74 68 65 73 | to abide by thes... |
| 0090 | 65 20 74 65 72 6d 73 20 | 6f 66 20 75 73 65 2e 20 | e terms of use... |
| 00a0 | 56 65 72 69 53 69 67 6e | 0d 0a 72 65 73 65 72 76 | VeriSign ..reserv... |
| 00b0 | 65 73 20 74 68 65 20 72 | 69 67 68 74 20 74 6f 20 | es the r ight to... |
| 00c0 | 6d 6f 64 69 66 79 20 74 | 68 65 73 65 20 74 65 72 | modify t hese ter... |
| 00d0 | 6d 73 20 61 74 20 61 6e | 79 20 74 69 6d 65 2e 0d | ms at an y time... |
| 00e0 | 0a 0d 0a 54 68 65 20 52 | 65 67 69 73 74 72 79 20 | ...The R egistry... |
| 00f0 | 64 61 74 61 62 61 73 65 | 20 63 6f 6e 74 61 69 6e | database contain... |
| 0100 | 73 20 4f 4e 4c 59 20 2e | 43 4f 4d 2c 20 2e 4e 45 | s ONLY . COM, .NE |

No.: 1451 · Time: 3.517688 · Source: 192.34.234.30 · Destination: 192.168.1.5 · Protocol: TCP · Length: 306 · Info: 43 → 60484 [PSH, ACK] Seq=2801 Ack=13 Win=1460 Len=252 [TCP segment of a reassembled PDU]

Close

Help

▼ Frame 1770: 1506 bytes on wire (12048 bits), 1506 bytes captured (12048 bits) on interface \Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85} ^
 > Interface id: 0 (\Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85})
 Encapsulation type: Ethernet (1)
 Arrival Time: Sep 11, 2022 00:55:46.782926000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]
 Epoch Time: 1662832546.782926000 seconds
 [Time delta from previous captured frame: 0.001935000 seconds]
 [Time delta from previous displayed frame: 0.001935000 seconds]
 [Time since reference or first frame: 4.461822000 seconds]
 Frame Number: 1770
 Frame Length: 1506 bytes (12048 bits)
 Capture Length: 1506 bytes (12048 bits)
 [Frame is marked: False]

| | | | |
|------|-------------------------|-------------------------|-----------------------|
| 0000 | 54 e6 fc 90 9a d2 44 13 | d0 f6 e8 d3 08 00 45 00 | T.....D:.....E: |
| 0010 | 05 d4 20 86 40 00 70 06 | 0a 6e 40 45 d8 3d c0 a8 | ..@:p:..n@E=... |
| 0020 | 01 05 00 2b ec 45 67 0f | da c1 df 5d 2e 7b 50 10 | ...+Eg: ...].[P... |
| 0030 | 02 04 e2 e6 00 00 44 6f | 6d 61 69 6e 20 4e 61 6d |Do main Nam... |
| 0040 | 65 3a 20 4d 41 49 53 54 | 4f 2e 43 4f 4d 0a 52 65 | e: MAIST O.COM-Re... |
| 0050 | 67 69 73 74 72 79 20 44 | 6f 6d 61 69 6e 20 49 44 | gistry D omain ID... |
| 0060 | 3a 20 37 37 39 36 31 5f | 44 4f 4d 41 49 4e 5f 43 | : 77961_ DOMAIN_C... |
| 0070 | 4f 4d 2d 56 52 53 4e 0a | 52 65 67 69 73 74 72 61 | OM-VRSN_ Registra... |
| 0080 | 72 20 57 48 4f 49 53 20 | 53 65 72 76 65 72 3a 20 | r WHOIS Server: |
| 0090 | 77 68 6f 69 73 2e 6e 65 | 74 77 6f 72 6b 73 6f 6c | whois.ne twksol... |
| 00a0 | 75 74 69 6f 6e 73 2e 63 | 6f 6d 0a 52 65 67 69 73 | utions.c om Regis... |
| 00b0 | 74 72 61 72 20 55 52 4c | 3a 20 68 74 74 70 3a 2f | trar URL : http:/... |
| 00c0 | 2f 6e 65 74 77 6f 72 6b | 73 6f 6c 75 74 69 6f 6e | /network solution... |
| 00d0 | 73 2e 63 6f 6d 0a 55 70 | 64 61 74 65 64 20 44 61 | s.com Up dated Da... |
| 00e0 | 74 65 3a 20 32 30 32 30 | 2d 31 32 2d 30 31 54 30 | te: 2020 -12-01T0... |
| 00f0 | 37 3a 33 37 3a 34 35 5a | 0a 43 72 65 61 74 69 6f | 7:37:45Z ..Creatio... |
| 0100 | 6e 20 44 61 74 65 3a 20 | 31 39 39 36 2d 30 39 2d | n Date: 1996-09- |

No.: 1770 · Time: 4.461822 · Source: 64.69.216.61 · Destination: 192.168.1.5 · Protocol: TCP · Length: 1506 · Info: 43 → 60485 [ACK] Seq=1 Ack=13 Win=132096 Len=1452 [TCP segment of a reassembled PDU]

Close

Help

▼ Frame 1771: 1506 bytes on wire (12048 bits), 1506 bytes captured (12048 bits) on interface \Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85} ^
 > Interface id: 0 (\Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85})
 Encapsulation type: Ethernet (1)
 Arrival Time: Sep 11, 2022 00:55:46.783354000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]
 Epoch Time: 1662832546.783354000 seconds
 [Time delta from previous captured frame: 0.000428000 seconds]
 [Time delta from previous displayed frame: 0.000428000 seconds]
 [Time since reference or first frame: 4.462250000 seconds]
 Frame Number: 1771
 Frame Length: 1506 bytes (12048 bits)
 Capture Length: 1506 bytes (12048 bits)
 [Frame is marked: False]

```
0000  54 e6 fc 90 9a d2 44 13 d0 f6 e8 d3 08 00 45 00  T....D.....E.
0010  05 d4 20 87 40 00 70 06 0a 6d 40 45 d8 3d c0 a8  ..@p...mE=...
0020  01 05 00 2b ec 45 67 0f e0 6d df 5d 2e 7b 50 10  ...+Eg...m...{P
0030  02 04 94 be 00 00 73 74 61 6c 20 43 6f 64 65 3a  ....st al Code:
0040  20 33 32 32 35 36 0a 54 65 63 68 20 43 6f 75 6e  32256-T ech Coun
0050  74 72 79 3a 20 55 53 0a 54 65 63 68 20 50 68 6f  try: US- Tech Pho
0060  6e 65 3a 20 2b 31 2e 35 37 30 37 30 38 38 36 32  ne: +1.5 70708862
0070  32 0a 54 65 63 68 20 50 68 6f 6e 65 20 45 78 74  2-Tech P hone Ext
0080  3a 20 0a 54 65 63 68 20 46 61 78 3a 20 0a 54 65  : Tech Fax: Tec
0090  63 68 20 46 61 78 20 45 78 74 3a 20 0a 54 65 63  ch Fax E xt: Tec
00a0  68 20 45 6d 61 69 6c 3a 20 61 34 35 36 32 38 67  h Email: a45628g
00b0  77 37 62 62 40 6e 65 74 77 6f 72 6b 73 6f 6c 75  w7bb@net worksolu
00c0  74 69 6f 6e 73 70 72 69 76 61 74 65 72 65 67 69  tionspri vateregi
00d0  73 74 72 61 74 69 6f 6e 2e 63 6f 6d 0a 4e 61 6d  stration .com-Nam
00e0  65 20 53 65 72 76 65 72 3a 20 4e 53 35 31 2e 57  e Server : NS51.W
00f0  4f 52 4c 44 4e 49 43 2e 43 4f 4d 0a 4e 61 6d 65  ORLDNIC. COM-Name
0100  20 53 65 72 76 65 72 3a 20 4e 53 35 32 2e 57 4f  Server: NS52.WO
```

No.: 1771 · Time: 4.462250 · Source: 64.69.216.61 · Destination: 192.168.1.5 · Protocol: TCP · Length: 1506 · Info: 43 → 60485 [ACK] Seq=1453 Ack=13 Win=132096 Len=1452 [TCP segment of a reassembled PDU]

Close Help

▼ Frame 1772: 661 bytes on wire (5288 bits), 661 bytes captured (5288 bits) on interface \Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85} ^
 > Interface id: 0 (\Device\NPF_{2DB4128E-DBFE-4314-A2F2-7A25FE4ABD85})
 Encapsulation type: Ethernet (1)
 Arrival Time: Sep 11, 2022 00:55:46.783354000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]
 Epoch Time: 1662832546.783354000 seconds
 [Time delta from previous captured frame: 0.000000000 seconds]
 [Time delta from previous displayed frame: 0.000000000 seconds]
 [Time since reference or first frame: 4.462250000 seconds]
 Frame Number: 1772
 Frame Length: 661 bytes (5288 bits)
 Capture Length: 661 bytes (5288 bits)
 [Frame is marked: False]

```
0000  54 e6 fc 90 9a d2 44 13 d0 f6 e8 d3 08 00 45 00  T....D.....E.
0010  02 87 20 88 40 00 70 06 0d b9 40 45 d8 3d c0 a8  ..@p...@E=...
0020  01 05 00 2b ec 45 67 0f e6 19 df 5d 2e 7b 50 18  ...+Eg...{P
0030  02 04 cb 0f 00 00 65 72 74 69 73 69 6e 67 20 6f  ....er tising o
0040  72 20 73 6f 6c 69 63 69 74 61 74 69 6f 6e 73 20  r solici tations
0050  76 69 61 20 64 69 72 65 63 74 20 6d 61 69 6c 2c  via dire ct mail,
0060  20 65 6c 65 63 74 72 6f 6e 69 63 20 6d 61 69 6c  electro nic mail
0070  2c 20 6f 72 20 62 79 0a 74 65 6c 65 70 68 6f 6e  , or by: telephon
0080  65 3b 20 6f 72 20 28 32 29 20 65 6e 61 62 6c 65  e; or (2 ) enable
0090  20 68 69 67 68 20 76 6f 6c 75 6d 65 2c 20 61 75  high vo lume, au
00a0  74 6f 6d 61 74 65 64 2c 20 65 6c 65 63 74 72 6f  tomated, electro
00b0  6e 69 63 20 70 72 6f 63 65 73 73 65 73 0a 74 68  nic proc esses.th
00c0  61 74 20 61 70 70 6c 79 20 74 6f 20 4e 65 74 77  at apply to Netw
00d0  6f 72 6b 73 6f 6c 75 74 69 6f 6e 73 2e 63 6f 6d  orksolut ions.com
00e0  20 20 28 6f 72 20 69 74 73 20 73 79 73 74 65 6d  (or it s system
00f0  73 29 2e 20 54 68 65 20 63 6f 6d 70 69 6c 61 74  s). The compilat
0100  69 6f 6e 2c 0a 72 65 70 61 63 6b 61 67 69 6e 67  ion,-rep ackaging
```

No.: 1772 · Time: 4.462250 · Source: 64.69.216.61 · Destination: 192.168.1.5 · Protocol: TCP · Length: 661 · Info: 43 → 60485 [PSH, ACK] Seq=2905 Ack=13 Win=132096 Len=607 [TCP segment of a reassembled PDU]

Close Help

- What is the L3 Payload Header Length and Total Length for each message?

| | | | | |
|--------------------|----------|-------------------------------------|-------------|-----|
| 1449 | 3.517128 | 192.34.234.30 | 192.168.1.5 | TCP |
| Total Length: 1440 | | 0101 = Header Length: 20 bytes | | |
| 1450 | 3.517688 | 192.34.234.30 | 192.168.1.5 | TCP |
| Total Length: 1440 | | 0101 = Header Length: 20 bytes | | |
| 1451 | 3.517688 | 192.34.234.30 | 192.168.1.5 | TCP |
| Total Length: 292 | | 0101 = Header Length: 20 bytes | | |
| 1770 | 4.461822 | 64.69.216.61 | 192.168.1.5 | TCP |
| Total Length: 1492 | | 0101 = Header Length: 20 bytes | | |
| 1771 | 4.462250 | 64.69.216.61 | 192.168.1.5 | TCP |
| Total Length: 1492 | | 0101 = Header Length: 20 bytes | | |
| 1772 | 4.462250 | 64.69.216.61 | 192.168.1.5 | TCP |
| Total Length: 647 | | 0101 = Header Length: 20 bytes | | |

- What is the L4 payload size for each message?

| | | | | |
|--------------------------|----------|---------------|-------------|-----|
| 1449 | 3.517128 | 192.34.234.30 | 192.168.1.5 | TCP |
| TCP payload (1400 bytes) | | | | |
| 1450 | 3.517688 | 192.34.234.30 | 192.168.1.5 | TCP |
| TCP payload (1400 bytes) | | | | |
| 1451 | 3.517688 | 192.34.234.30 | 192.168.1.5 | TCP |
| TCP payload (252 bytes) | | | | |
| 1770 | 4.461822 | 64.69.216.61 | 192.168.1.5 | TCP |
| TCP payload (1452 bytes) | | | | |
| 1771 | 4.462250 | 64.69.216.61 | 192.168.1.5 | TCP |

TCP payload (1452 bytes)

| | | | | |
|------|----------|--------------|-------------|-----|
| 1772 | 4.462250 | 64.69.216.61 | 192.168.1.5 | TCP |
|------|----------|--------------|-------------|-----|

TCP payload (607 bytes)