

WireShark

A. ICMP

Command: ping

```
C:\Users\itsme>ping google.com

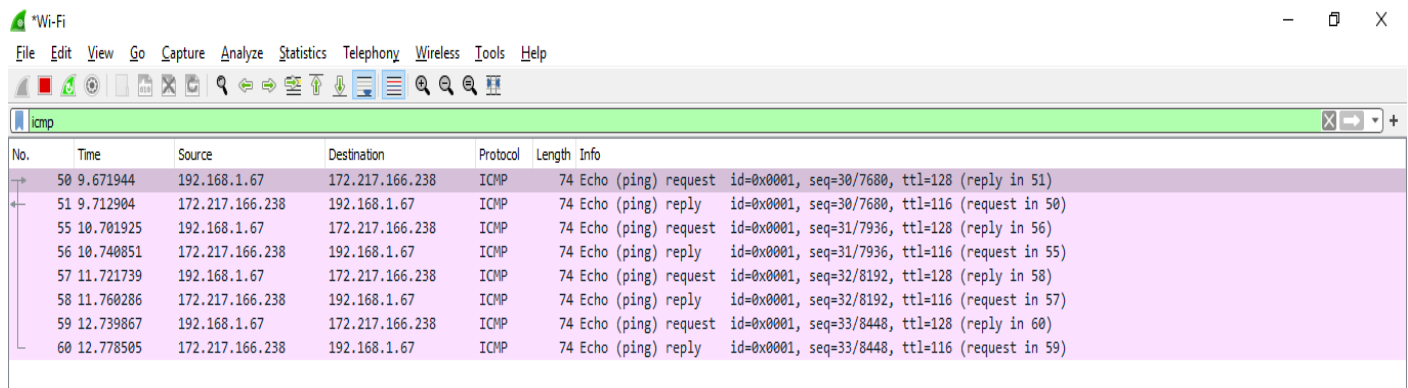
Pinging google.com [172.217.166.238] with 32 bytes of data:
Reply from 172.217.166.238: bytes=32 time=41ms TTL=116
Reply from 172.217.166.238: bytes=32 time=39ms TTL=116
Reply from 172.217.166.238: bytes=32 time=38ms TTL=116
Reply from 172.217.166.238: bytes=32 time=38ms TTL=116

Ping statistics for 172.217.166.238:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 38ms, Maximum = 41ms, Average = 39ms

C:\Users\itsme>
```

Packet Sniffed by Wireshark:

As the result of ping command, 4 packets were sent and all 4 were received. Same is captured by Wireshark as below.



The image shows a Wireshark packet capture window. The title bar indicates it's capturing on the 'Wi-Fi' interface. The menu bar includes File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, and Help. The toolbar contains various icons for packet capture and analysis. The packet list pane shows 8 packets, all of which are ICMP. The first four packets (50-53) are ping requests, and the next four (54-57) are replies. The packet details pane for the selected packet (No. 50) shows the ICMP Echo (ping) request with ID 0x0001, sequence 30/7680, and TTL 128. The packet bytes pane shows the raw data of the ICMP request.

No.	Time	Source	Destination	Protocol	Length	Info
50	9.671944	192.168.1.67	172.217.166.238	ICMP	74	Echo (ping) request id=0x0001, seq=30/7680, ttl=128 (reply in 51)
51	9.712904	172.217.166.238	192.168.1.67	ICMP	74	Echo (ping) reply id=0x0001, seq=30/7680, ttl=116 (request in 50)
55	10.701925	192.168.1.67	172.217.166.238	ICMP	74	Echo (ping) request id=0x0001, seq=31/7936, ttl=128 (reply in 56)
56	10.740851	172.217.166.238	192.168.1.67	ICMP	74	Echo (ping) reply id=0x0001, seq=31/7936, ttl=116 (request in 55)
57	11.721739	192.168.1.67	172.217.166.238	ICMP	74	Echo (ping) request id=0x0001, seq=32/8192, ttl=128 (reply in 58)
58	11.760286	172.217.166.238	192.168.1.67	ICMP	74	Echo (ping) reply id=0x0001, seq=32/8192, ttl=116 (request in 57)
59	12.739867	192.168.1.67	172.217.166.238	ICMP	74	Echo (ping) request id=0x0001, seq=33/8448, ttl=128 (reply in 60)
60	12.778505	172.217.166.238	192.168.1.67	ICMP	74	Echo (ping) reply id=0x0001, seq=33/8448, ttl=116 (request in 59)

Explanation

- The Packet is of 74 bytes (592 bits) with all the details shown below.

```
> Frame 50: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0
> Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
> Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
> Internet Control Message Protocol

0000  a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00  ....0. r.....E.
0010  00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9  <.....;...C..
0020  a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66  ....M=...abcdef
0030  67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76  ghijklmn opqrstuv
0040  77 61 62 63 64 65 66 67 68 69                    wabcdefg hi

▼ Frame 55: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0
> Interface id: 0 (\Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550})
  Encapsulation type: Ethernet (1)
  Arrival Time: Aug 16, 2020 11:03:32.314228000 India Standard Time
  [Time shift for this packet: 0.000000000 seconds]
  Epoch Time: 1597556012.314228000 seconds
  [Time delta from previous captured frame: 0.094035000 seconds]
  [Time delta from previous displayed frame: 0.989021000 seconds]
  [Time since reference or first frame: 10.701925000 seconds]
  Frame Number: 55
  Frame Length: 74 bytes (592 bits)
  Capture Length: 74 bytes (592 bits)
  [Frame is marked: False]
  [Frame is ignored: False]
  [Protocols in frame: eth:ethertype:ip:icmp:data]
  [Coloring Rule Name: ICMP]
  [Coloring Rule String: icmp || icmpv6]
> Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
```

This all information includes Interface id, interface type, Arrival time, frame number, frame length, captured frame length, protocol that frame is being running on and a bunch of other details.

- It shows the physical addresses associated with the frame.

```
▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
  ▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
  ▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
> Internet Control Message Protocol

0000  a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00  ....0. r.....E.
0010  00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9  <.....;...C..
0020  a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66  ....M=...abcdef
0030  67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76  ghijklmn opqrstuv
0040  77 61 62 63 64 65 66 67 68 69                    wabcdefg hi
```

The highlighted part shows the destination MAC address/Physical address, which is, a0:9d:86:e2:ee:80

MAC address, as shown, is of 48 bits in hexadecimal format. First 24 bits describes the OEM (Original Equipment Manufacturer) and the rest of the bits describes unique ID, which is different for each machine, as it shows the individuals NIC (Network Interface Card). As I pinged google.com, it looks like the destination MAC address should be of the google.com host, but that's not the case, it's the MAC address of the router, the end point of my network. No-one can get the MAC address of any device connected outside the personal network.

```

▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
  ▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    ....0. .... = LG bit: Globally unique address (factory default)
    ....0. .... = IG bit: Individual address (unicast)
  ▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    ....0. .... = LG bit: Globally unique address (factory default)
    ....0. .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
> Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	<..... ;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	....M=.. ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

The highlighted part shows the destination MAC address/Physical address, which is, 30:f7:72:0d:a4:07

It's the MAC address of my device on which I pinged google.com.

```

▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
  ▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    ....0. .... = LG bit: Globally unique address (factory default)
    ....0. .... = IG bit: Individual address (unicast)
  ▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    ....0. .... = LG bit: Globally unique address (factory default)
    ....0. .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
> Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	<..... ;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	....M=.. ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

These 4 bits (0800) in hexadecimal format (0x0800) which tells the destination device that the IP format of the packet that is being transferred from physical layer to network layer is of Version 4 (IPv4).

- Now the Packet is in Network Layer. This shows first destination IP address and then Source IP address.

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238		
0100	....	= Version: 4
....	0101	= Header Length: 20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
0000	00..	= Differentiated Services Codepoint: Default (0)
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 60		
Identification: 0x1bd3 (7123)		
> Flags: 0x0000		
Fragment offset: 0		
Time to live: 128		
Protocol: ICMP (1)		
Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
> Internet Control Message Protocol		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=...abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi
▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238		
0100	....	= Version: 4
....	0101	= Header Length: 20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
0000	00..	= Differentiated Services Codepoint: Default (0)
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 60		
Identification: 0x1bd3 (7123)		
> Flags: 0x0000		
Fragment offset: 0		
Time to live: 128		
Protocol: ICMP (1)		
Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
> Internet Control Message Protocol		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 000. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
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0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

Out of First 8 bits, first four describes IP version, last four describes header length.

These are some other information regarding the packet.

```

v Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 60
  Identification: 0x1bd3 (7123)
  > Flags: 0x0000
    Fragment offset: 0
    Time to live: 128
    Protocol: ICMP (1)
    Header checksum: 0x093b [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.1.67
    Destination: 172.217.166.238
  > Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<..... .;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

```

v Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 60
  Identification: 0x1bd3 (7123)
  > Flags: 0x0000
    Fragment offset: 0
    Time to live: 128
    Protocol: ICMP (1)
    Header checksum: 0x093b [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.1.67
    Destination: 172.217.166.238
  > Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<..... .;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
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v Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 60
  Identification: 0x1bd3 (7123)
  > Flags: 0x0000
    Fragment offset: 0
    Time to live: 128
    Protocol: ICMP (1)
    Header checksum: 0x093b [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.1.67
    Destination: 172.217.166.238
  > Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	....M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

```

v Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
  Total Length: 60
  Identification: 0x1bd3 (7123)
  > Flags: 0x0000
    Fragment offset: 0
    Time to live: 128
    Protocol: ICMP (1)
    Header checksum: 0x093b [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.1.67
    Destination: 172.217.166.238
  > Internet Control Message Protocol

```

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	....M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238		
0100	....	= Version: 4
....	0101	= Header Length: 20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
0000	00..	= Differentiated Services Codepoint: Default (0)
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 60		
Identification: 0x1bd3 (7123)		
> Flags: 0x0000		
Fragment offset: 0		
Time to live: 128		
Protocol: ICMP (1)		
Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
> Internet Control Message Protocol		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;.C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

Time to live is not actually time upto expiry, it's the number of hops frame/packet covers to reach destination.

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238		
0100	....	= Version: 4
....	0101	= Header Length: 20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
0000	00..	= Differentiated Services Codepoint: Default (0)
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 60		
Identification: 0x1bd3 (7123)		
> Flags: 0x0000		
Fragment offset: 0		
Time to live: 128		
Protocol: ICMP (1)		
Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
> Internet Control Message Protocol		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;.C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

The protocol regarding/ followed by frame, i.e, ICMP, here.

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238			
0100	....	= Version:	4
....	0101	= Header Length:	20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)			
0000	00..	= Differentiated Services Codepoint:	Default (0)
....	..00	= Explicit Congestion Notification:	Not ECN-Capable Transport (0)
Total Length: 60			
Identification: 0x1bd3 (7123)			
> Flags: 0x0000			
Fragment offset: 0			
Time to live: 128			
Protocol: ICMP (1)			
Header checksum: 0x093b [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 172.217.166.238			
> Internet Control Message Protocol			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0· r.....E·
0010	00 3c 1b d3 00 00 80 01	09 3b c0 a8 01 43 ac d9	·<.....·;...C·
0020	a6 ee 08 00 4d 3d 00 01	00 1e 61 62 63 64 65 66	...M=· ··abcdef
0030	67 68 69 6a 6b 6c 6d 6e	6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67	68 69	wabcdefg hi

Header Checksum is a method to determine the frame is not corrupted or damaged.

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238			
0100	....	= Version:	4
....	0101	= Header Length:	20 bytes (5)
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)			
0000	00..	= Differentiated Services Codepoint:	Default (0)
....	..00	= Explicit Congestion Notification:	Not ECN-Capable Transport (0)
Total Length: 60			
Identification: 0x1bd3 (7123)			
> Flags: 0x0000			
Fragment offset: 0			
Time to live: 128			
Protocol: ICMP (1)			
Header checksum: 0x093b [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 172.217.166.238			
> Internet Control Message Protocol			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0· r.....E·
0010	00 3c 1b d3 00 00 80 01	09 3b c0 a8 01 43 ac d9	·<.....·;...C·
0020	a6 ee 08 00 4d 3d 00 01	00 1e 61 62 63 64 65 66	...M=· ··abcdef
0030	67 68 69 6a 6b 6c 6d 6e	6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67	68 69	wabcdefg hi

Source: Source IP address, from which the request was sent.

Internet Protocol Version 4, Src: 192.168.1.67, Dst: 172.217.166.238		
0100	....	= Version: 4
....	0101	= Header Length: 20 bytes (5)
Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)		
0000	00..	= Differentiated Services Codepoint: Default (0)
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 60		
Identification: 0x1bd3 (7123)		
Flags: 0x0000		
Fragment offset: 0		
Time to live: 128		
Protocol: ICMP (1)		
Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
Internet Control Message Protocol		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

Destination: Destination IP address, Ip address of the host device where google.com is being hosted.

- It contains all the information regarding the protocol on which frame is being travelled.

Header checksum: 0x093b [validation disabled]		
[Header checksum status: Unverified]		
Source: 192.168.1.67		
Destination: 172.217.166.238		
Internet Control Message Protocol		
Type: 8 (Echo (ping) request)		
Code: 0		
Checksum: 0x4d3d [correct]		
[Checksum Status: Good]		
Identifier (BE): 1 (0x0001)		
Identifier (LE): 256 (0x0100)		
Sequence number (BE): 30 (0x001e)		
Sequence number (LE): 7680 (0x1e00)		
[Response frame: 51]		
Data (32 bytes)		
Data: 6162636465666768696a6b6c6d6e6f707172737475767761...		
[Length: 32]		
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	.<.....;...C..
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi

Header checksum: 0x093b [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 172.217.166.238			
▼ Internet Control Message Protocol			
Type: 8 (Echo (ping) request)			
Code: 0			
Checksum: 0x4d3d [correct]			
[Checksum Status: Good]			
Identifier (BE): 1 (0x0001)			
Identifier (LE): 256 (0x0100)			
Sequence number (BE): 30 (0x001e)			
Sequence number (LE): 7680 (0x1e00)			
[Response frame: 51]			
▼ Data (32 bytes)			
Data: 6162636465666768696a6b6c6d6e6f707172737475767761...			
[Length: 32]			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0· r.....E·
0010	00 3c 1b d3 00 00 80 01	09 3b c0 a8 01 43 ac d9	·<..... ;...C·
0020	a6 ee 08 00 4d 3d 00 01	00 1e 61 62 63 64 65 66	···M=·· ··abcdef
0030	67 68 69 6a 6b 6c 6d 6e	6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67	68 69	wabcdefg hi

Header checksum: 0x093b [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 172.217.166.238			
▼ Internet Control Message Protocol			
Type: 8 (Echo (ping) request)			
Code: 0			
Checksum: 0x4d3d [correct]			
[Checksum Status: Good]			
Identifier (BE): 1 (0x0001)			
Identifier (LE): 256 (0x0100)			
Sequence number (BE): 30 (0x001e)			
Sequence number (LE): 7680 (0x1e00)			
[Response frame: 51]			
▼ Data (32 bytes)			
Data: 6162636465666768696a6b6c6d6e6f707172737475767761...			
[Length: 32]			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0· r.....E·
0010	00 3c 1b d3 00 00 80 01	09 3b c0 a8 01 43 ac d9	·<..... ;...C·
0020	a6 ee 08 00 4d 3d 00 01	00 1e 61 62 63 64 65 66	···M=·· ··abcdef
0030	67 68 69 6a 6b 6c 6d 6e	6f 70 71 72 73 74 75 76	ghijklmn opqrstuv
0040	77 61 62 63 64 65 66 67	68 69	wabcdefg hi

Header checksum: 0x093b [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 172.217.166.238			
▼ Internet Control Message Protocol			
Type: 8 (Echo (ping) request)			
Code: 0			
Checksum: 0x4d3d [correct]			
[Checksum Status: Good]			
Identifier (BE): 1 (0x0001)			
Identifier (LE): 256 (0x0100)			
Sequence number (BE): 30 (0x001e)			
Sequence number (LE): 7680 (0x1e00)			
[Response frame: 51]			
▼ Data (32 bytes)			
Data: 6162636465666768696a6b6c6d6e6f707172737475767761...			
[Length: 32]			
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0· r.....E·	
0010	00 3c 1b d3 00 00 80 01 09 3b c0 a8 01 43 ac d9	·<..... ;...C·	
0020	a6 ee 08 00 4d 3d 00 01 00 1e 61 62 63 64 65 66	...M=... ..abcdef	
0030	67 68 69 6a 6b 6c 6d 6e 6f 70 71 72 73 74 75 76	ghijklmn opqrstuv	
0040	77 61 62 63 64 65 66 67 68 69	wabcdefg hi	

Last 32 bytes describes the data being transferred in frame, in this case.

B. HTTP

On a web search of a website (<http://hmpg.net/>), I was able to sniff the HTTP frame in Wireshark.

The image shows a Wireshark packet capture of an HTTP GET request. The packet list on the left shows a packet of 7538 bytes (805 bytes captured) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0. The packet details pane shows the following structure:

- Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel_e2:ee:80 (a0:9d:86:e2:ee:80)
- Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11
- Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751
- Hypertext Transfer Protocol

The packet bytes pane shows the raw data of the HTTP request:

```
0000 a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00 .....0...r.....E...
0010 03 17 7e 8d 40 00 00 06 c7 a6 c0 a8 01 43 41 b6 ...~@... ..CA...
0020 ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18 ...(.P.P<Y5.P...
0030 00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50 @J...GE T / HTTP
0040 2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67 /1.1..Ho st: hmpg
0050 2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e .net..Co nnection
0060 3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61 : keep-a live..Ca
0070 63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78 che-Cont rol: max
0080 2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d -age=0... Upgrade-
```

- Information regarding the frame (self explanatory).

The image shows the packet details pane for the selected HTTP frame. The details are as follows:

- Frame 2: 805 bytes on wire (6440 bits), 805 bytes captured (6440 bits) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0
- Interface id: 0 (\Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550})
- Encapsulation type: Ethernet (1)
- Arrival Time: Aug 16, 2020 12:48:51.843887000 India Standard Time
- [Time shift for this packet: 0.000000000 seconds]
- Epoch Time: 1597562331.843887000 seconds
- [Time delta from previous captured frame: 0.007538000 seconds]
- [Time delta from previous displayed frame: 0.000000000 seconds]
- [Time since reference or first frame: 0.007538000 seconds]
- Frame Number: 2
- Frame Length: 805 bytes (6440 bits)
- Capture Length: 805 bytes (6440 bits)
- [Frame is marked: False]
- [Frame is ignored: False]
- [Protocols in frame: eth:ethertype:ip:tcp:http]
- [Coloring Rule Name: HTTP]
- [Coloring Rule String: http || tcp.port == 80 || http2]
- Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel_e2:ee:80 (a0:9d:86:e2:ee:80)

The packet bytes pane shows the raw data of the HTTP request, which is identical to the one shown in the previous image.

- Information regarding destination MAC address and source MAC address.

```

▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
  ▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
  ▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
  > Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11

0000 a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00 .....0. r.....E.
0010 03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6 ...~@... ..CA.
0020 ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18 ...(.P.P <Y5.P.
0030 00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50 @J...GE T / HTTP
0040 2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67 /1.1..Ho st: hmpg
0050 2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e .net..Co nnection
0060 3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61 : keep-a live..Ca
0070 63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78 che-Cont rol: max
0080 2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d -age=0.. Upgrade-

```

Destination MAC address is of my Router device as that's the end point of MAC address range.

```

▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
  ▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
  ▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
  > Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11

0000 a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00 .....0. r.....E.
0010 03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6 ...~@... ..CA.
0020 ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18 ...(.P.P <Y5.P.
0030 00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50 @J...GE T / HTTP
0040 2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67 /1.1..Ho st: hmpg
0050 2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e .net..Co nnection
0060 3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61 : keep-a live..Ca
0070 63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78 che-Cont rol: max
0080 2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d -age=0.. Upgrade-

```

Source MAC address is of my device by which the request was made.

▼ Ethernet II, Src: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07), Dst: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)			
▼ Destination: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)			
Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)			
.... ..0. = LG bit: Globally unique address (factory default)			
.... ..0 = IG bit: Individual address (unicast)			
▼ Source: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)			
Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)			
.... ..0. = LG bit: Globally unique address (factory default)			
.... ..0 = IG bit: Individual address (unicast)			
Type: IPv4 (0x0800)			
> Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11			
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r....E.	
0010	03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6	...~@... ..CA.	
0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	...(.P.P <Y5.P.	
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	@J...GE T / HTTP	
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg	
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Co nnection	
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca	
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max	
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-	

Tells the network layer next that the rest of from has version 4 of IP address.

- Here's the information regarding IPs associated.

▼ Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11			
0100 = Version: 4			
.... 0101 = Header Length: 20 bytes (5)			
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)			
0000 00.. = Differentiated Services Codepoint: Default (0)			
.... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)			
Total Length: 791			
Identification: 0x7e8d (32397)			
> Flags: 0x4000, Don't fragment			
Fragment offset: 0			
Time to live: 128			
Protocol: TCP (6)			
Header checksum: 0xc7a6 [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 65.182.174.11			
> Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751			
0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r....E.	
0010	03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6	...~@... ..CA.	
0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	...(.P.P <Y5.P.	
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	@J...GE T / HTTP	
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg	
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Co nnection	
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca	
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max	
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-	

Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11			
0100	....	= Version: 4	
....	0101	= Header Length: 20 bytes (5)	
Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)			
0000	00..	= Differentiated Services Codepoint: Default (0)	
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)	
Total Length: 791			
Identification: 0x7e8d (32397)			
Flags: 0x4000, Don't fragment			
Fragment offset: 0			
Time to live: 128			
Protocol: TCP (6)			
Header checksum: 0xc7a6 [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 65.182.174.11			
Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len:			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	03 17 7e 8d 40 00 80 06	c7 a6 c0 a8 01 43 41 b6	...~. @... ..CA.
0020	ae 0b e2 28 00 50 d3 50	3c 0a 59 35 a1 e4 50 18	... (.P .P < .Y5 .P .
0030	00 40 4a b7 00 00 47 45	54 20 2f 20 48 54 54 50	..@J...GE T / HTTP
0040	2f 31 2e 31 0d 0a 48 6f	73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg
0050	2e 6e 65 74 0d 0a 43 6f	6e 6e 65 63 74 69 6f 6e	.net..Co nnection
0060	3a 20 6b 65 65 70 2d 61	6c 69 76 65 0d 0a 43 61	: keep-a live..Ca
0070	63 68 65 2d 43 6f 6e 74	72 6f 6c 3a 20 6d 61 78	che-Cont rol: max
0080	2d 61 67 65 3d 30 0d 0a	55 70 67 72 61 64 65 2d	-age=0.. Upgrade-

Shows the version of IP that is 4, IPv4.

Internet Protocol Version 4, Src: 192.168.1.67, Dst: 65.182.174.11			
0100	....	= Version: 4	
....	0101	= Header Length: 20 bytes (5)	
Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)			
0000	00..	= Differentiated Services Codepoint: Default (0)	
....	..00	= Explicit Congestion Notification: Not ECN-Capable Transport (0)	
Total Length: 791			
Identification: 0x7e8d (32397)			
Flags: 0x4000, Don't fragment			
Fragment offset: 0			
Time to live: 128			
Protocol: TCP (6)			
Header checksum: 0xc7a6 [validation disabled]			
[Header checksum status: Unverified]			
Source: 192.168.1.67			
Destination: 65.182.174.11			
Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751			
0000	a0 9d 86 e2 ee 80 30 f7	72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	03 17 7e 8d 40 00 80 06	c7 a6 c0 a8 01 43 41 b6	...~. @... ..CA.
0020	ae 0b e2 28 00 50 d3 50	3c 0a 59 35 a1 e4 50 18	... (.P .P < .Y5 .P .
0030	00 40 4a b7 00 00 47 45	54 20 2f 20 48 54 54 50	..@J...GE T / HTTP
0040	2f 31 2e 31 0d 0a 48 6f	73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg
0050	2e 6e 65 74 0d 0a 43 6f	6e 6e 65 63 74 69 6f 6e	.net..Co nnection
0060	3a 20 6b 65 65 70 2d 61	6c 69 76 65 0d 0a 43 61	: keep-a live..Ca
0070	63 68 65 2d 43 6f 6e 74	72 6f 6c 3a 20 6d 61 78	che-Cont rol: max
0080	2d 61 67 65 3d 30 0d 0a	55 70 67 72 61 64 65 2d	-age=0.. Upgrade-

Shows the Length of Header, i.e. 20 bytes.


```

0100 .... = Version: 4
.... 0101 = Header Length: 20 bytes (5)
v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 791
Identification: 0x7e8d (32397)
> Flags: 0x4000, Don't fragment
Fragment offset: 0
Time to live: 128
Protocol: TCP (6)
Header checksum: 0xc7a6 [validation disabled]
[Header checksum status: Unverified]
Source: 192.168.1.67
Destination: 65.182.174.11
> Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751
> Hypertext Transfer Protocol

0010  03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6  ...~@... ..CA.
0020  ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18  ...(.P.P<.Y5.P.
0030  00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50  .@J...GE T / HTTP
0040  2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67  /1.1..Ho st: hmpg
0050  2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e  .net..Co nnection
0060  3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61  : keep-a live..Ca
0070  63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78  che-Cont rol: max
0080  2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d  -age=0.. Upgrade-
0090  49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74  Insecure -Request

```

Time To Live (TTL) represents the number of hops the frame jumped from.

```

.... 0101 = Header Length: 20 bytes (5)
v Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    0000 00.. = Differentiated Services Codepoint: Default (0)
    .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
Total Length: 791
Identification: 0x7e8d (32397)
> Flags: 0x4000, Don't fragment
Fragment offset: 0
Time to live: 128
Protocol: TCP (6)
Header checksum: 0xc7a6 [validation disabled]
[Header checksum status: Unverified]
Source: 192.168.1.67
Destination: 65.182.174.11
> Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751
> Hypertext Transfer Protocol

0010  03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6  ...~@... ..CA.
0020  ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18  ...(.P.P<.Y5.P.
0030  00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50  .@J...GE T / HTTP
0040  2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67  /1.1..Ho st: hmpg
0050  2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e  .net..Co nnection
0060  3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61  : keep-a live..Ca
0070  63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78  che-Cont rol: max
0080  2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d  -age=0.. Upgrade-
0090  49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74  Insecure -Request

```

Source: Source IP address, that's the device's IP address from which the HTTP request was made (192.168.1.67), Private IP address.

.... 0101 = Header Length: 20 bytes (5)	
▼ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)	
0000 00.. = Differentiated Services Codepoint: Default (0)	
.... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)	
Total Length: 791	
Identification: 0x7e8d (32397)	
> Flags: 0x4000, Don't fragment	
Fragment offset: 0	
Time to live: 128	
Protocol: TCP (6)	
Header checksum: 0xc7a6 [validation disabled]	
[Header checksum status: Unverified]	
Source: 192.168.1.67	
Destination: 65.182.174.11	
> Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751	
> Hypertext Transfer Protocol	
0010 03 17 7e 8d 40 00 80 06 c7 a6 c0 a8 01 43 41 b6	...~@... ..CA.
0020 ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	... (·P·P <·Y5·P·
0030 00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	·@J··GE T / HTTP
0040 2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1·Ho st: hmpg
0050 2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net·Co nnection
0060 3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live·Ca
0070 63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max
0080 2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0· Upgrade-
0090 49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74	Insecure -Request

Destination: it's the IP address of destination or the host where the website searched in browser was hosted.

- Information about TCP (Transmission Control Protocol)

Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751

Source Port: 57896
Destination Port: 80
[Stream index: 1]
[TCP Segment Len: 751]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 3545250826
[Next sequence number: 752 (relative sequence number)]
Acknowledgment number: 1 (relative ack number)
Acknowledgment number (raw): 1496687076
0101 = Header Length: 20 bytes (5)
> Flags: 0x018 (PSH, ACK)
Window size value: 64
[Calculated window size: 64]
[Window size scaling factor: -1 (unknown)]
Checksum: 0x4ab7 [unverified]
[Checksum Status: Unverified]
Urgent pointer: 0
▼ [SEQ/ACK analysis]
[Bytes in flight: 751]
[Bytes sent since last PSH flag: 751]
▼ [Timestamps]
[Time since first frame in this TCP stream: 0.000000000 seconds]
[Time since previous frame in this TCP stream: 0.000000000 seconds]
TCP payload (751 bytes)
> Hypertext Transfer Protocol

0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	..(P.P <Y5P.
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	@J...GE T / HTTP
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Host: hmpg
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Connection
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-
0090	49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74	Insecure -Request
00a0	73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e 74	s: 1..User-Agent

Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751

Source Port: 57896
Destination Port: 80
[Stream index: 1]
[TCP Segment Len: 751]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 3545250826

0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	..(P.P <Y5P.
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	@J...GE T / HTTP
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Host: hmpg
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Connection
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-
0090	49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74	Insecure -Request
00a0	73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e 74	s: 1..User-Agent

Source Port: 57896 (one of the temporary ports on the source device used for making requests for webpages)

Transmission Control Protocol, Src Port: 57896, Dst Port: 80, Seq: 1, Ack: 1, Len: 751									
Source Port: 57896									
Destination Port: 80									
[Stream index: 1]									
[TCP Segment Len: 751]									
Sequence number: 1 (relative sequence number)									
Sequence number (raw): 3545250826									
0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	...(.P.P <Y5.P.							
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	.@J...GE T / HTTP							
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg							
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Co nnection							
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca							
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max							
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-							
0090	49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74	Insecure -Request							
00a0	73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e 74	s: 1..Us er-Agent							

Destination Port: 80 (Reserved port number for HTTP requests)

Flags: 0x018 (PSH, ACK)									
000. = Reserved: Not set									
...0 = Nonce: Not set									
.... 0... = Congestion Window Reduced (CWR): Not set									
.... .0.. = ECN-Echo: Not set									
.... ..0. = Urgent: Not set									
.... ...1 = Acknowledgment: Set									
.... 1... = Push: Set									
....0.. = Reset: Not set									
....0. = Syn: Not set									
....0 = Fin: Not set									
[TCP Flags: .....AP...]									
Window size value: 64									
[Calculated window size: 64]									
0020	ae 0b e2 28 00 50 d3 50 3c 0a 59 35 a1 e4 50 18	...(.P.P <Y5..P.							
0030	00 40 4a b7 00 00 47 45 54 20 2f 20 48 54 54 50	.@J...GE T / HTTP							
0040	2f 31 2e 31 0d 0a 48 6f 73 74 3a 20 68 6d 70 67	/1.1..Ho st: hmpg							
0050	2e 6e 65 74 0d 0a 43 6f 6e 6e 65 63 74 69 6f 6e	.net..Co nnection							
0060	3a 20 6b 65 65 70 2d 61 6c 69 76 65 0d 0a 43 61	: keep-a live..Ca							
0070	63 68 65 2d 43 6f 6e 74 72 6f 6c 3a 20 6d 61 78	che-Cont rol: max							
0080	2d 61 67 65 3d 30 0d 0a 55 70 67 72 61 64 65 2d	-age=0.. Upgrade-							
0090	49 6e 73 65 63 75 72 65 2d 52 65 71 75 65 73 74	Insecure -Request							
00a0	73 3a 20 31 0d 0a 55 73 65 72 2d 41 67 65 6e 74	s: 1..Us er-Agent							

This represents a number of flag bits for more information regarding the frame.

- HTTP

▼ Hypertext Transfer Protocol

```
> GET /R/A3sKIGH30GRlMjM0YjkyMjRjOGZlZDlmNjk3MDE5OTI5ODI2EgQIF0ggGjADIGeAKggIBBDF-OSBASoICAMQ6sJagAEyCwgEEMX45IEBGIAKOPSSmKABQICS_v2nck6TzNQ8b8jy97QpDArX7-IghAtJeaA7oamuEiAgyg= HTTP/1.1\r
Host: su.ff.avast.com\r\n
Accept: */*\r\n
Content-Type: application/octet-stream\r\n
Pragma: no-cache\r\n
Connection: keep-alive\r\n
\r\n
[Full request URI: http://su.ff.avast.com/R/A3sKIGH30GRlMjM0YjkyMjRjOGZlZDlmNjk3MDE5OTI5ODI2EgQIF0ggGjADIGeAKggIBBDF-OSBASoICAMQ6sJagAEyCwgEEMX45IEBGIAKOPSSmKABQICS_v2nck6TzNQ8b8jy97QpDa
[HTTP request 3/7]
[Prev request in frame: 7681]
[Response in frame: 25165]
[Next request in frame: 25166]
```

0030 00 3f 84 05 00 00 47 45 54 20 2f 52 2f 41 33 73 :?....GE T /R/A3s
0040 4b 49 47 4d 33 4f 47 52 6c 4d 6a 4d 30 59 6a 6b KIGH30GR lMjM0Yjk
0050 79 4e 6a 52 6a 4f 47 5a 69 5a 44 4a 6d 4e 6a 6b yljRjOGZ izDlmNjk
0060 33 4d 44 45 35 4f 54 49 35 4f 44 49 32 45 67 51 3MDE5OTI 50DI2EgQ
0070 49 46 51 67 67 47 4a 41 44 49 67 45 41 4b 67 67 IF0ggGjA DlgEAKgg
0080 49 42 42 44 46 2d 4f 53 42 41 53 6f 49 43 41 4d IBBDF-OS BASoICAM
0090 51 36 73 6a 61 67 41 45 79 43 77 67 45 45 4d 58 Q6sJagAE yCwgEEMX
00a0 34 35 49 45 42 47 49 41 4b 4f 50 53 53 6d 4b 41 45IEBGIA KOPSSmKA
00b0 42 51 69 43 53 5f 76 32 6e 63 6b 36 54 7a 4e 51 BQICS v2 nck6TzNQ

- Response HTTP

http

No.	Time	Source	Destination	Protocol	Length	Info
2	0.007538	192.168.1.67	65.182.174.11	HTTP	805	GET / HTTP/1.1
14	0.298612	65.182.174.11	192.168.1.67	HTTP	251	HTTP/1.1 304 Not Modified
65	1.284857	192.168.1.67	103.41.21.162	HTTP	136	GET /ncc.txt HTTP/1.1
68	1.299277	103.41.21.162	192.168.1.67	HTTP	205	HTTP/1.1 200 OK (text/html)

▼ Hypertext Transfer Protocol

▼ HTTP/1.1 304 Not Modified\r\n

▼ [Expert Info (Chat/Sequence): HTTP/1.1 304 Not Modified\r\n]

[HTTP/1.1 304 Not Modified\r\n]

[Severity level: Chat]

[Group: Sequence]

Response Version: HTTP/1.1

Status Code: 304

[Status Code Description: Not Modified]

Response Phrase: Not Modified

Server: nginx\r\n

Date: Sun, 16 Aug 2020 07:18:54 GMT\r\n

Last-Modified: Thu, 26 Jul 2012 19:37:56 GMT\r\n

Connection: keep-alive\r\n

ETag: "50119c94-652"\r\n

X-Powered-By: PleskLin\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.291074000 seconds]

[Request in frame: 2]

[Request URI: http://hmpg.net/]

0000 30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 20 0.r.....E
0010 00 ed 54 36 40 00 2b 06 49 08 41 b6 ae 0b c0 a8 ..T6@.+ I.A.....
0020 01 43 00 50 e2 28 59 35 a1 e4 d3 50 3e f9 50 18 .C.P.(Y5 ...P>.P.
0030 01 09 88 45 00 00 48 54 54 50 2f 31 2e 31 20 33 ...E..HT TP/1.1 3
0040 30 34 20 4e 6f 74 20 4d 6f 64 69 66 69 65 64 0d 04 Not M odified
0050 0a 53 65 72 76 65 72 3a 20 6e 67 69 6e 78 0d 0a .Server: nginx..
0060 44 61 74 65 3a 20 53 75 6e 2c 20 31 36 20 41 75 Date: Su n, 16 Au
0070 67 20 32 30 32 30 20 30 37 3a 31 38 3a 35 34 20 g 2020 0 7:18:54
0080 47 4d 54 0d 0a 4c 61 73 74 2d 4d 6f 64 69 66 69 GMT..Las t-Modifi

C. FTP

```
C:\Users\itsme>ftp ftp.mcafee.com
Connected to ftp.saasprotection.com.
220-----
220- WARNING: This is a restricted access system. If you do not have explicit
220- permission to access this system, please disconnect immediately!
220-----
220
200 Always in UTF8 mode.
User (ftp.saasprotection.com:(none)): anonymous
331 Please specify the password.
Password:
230 Login successful.
ftp> dir
500 Illegal PORT command.
425 Use PORT or PASV first.
ftp>
```

ftp						
No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.
> Frame 135428: 379 bytes on wire (3032 bits), 379 bytes captured (3032 bits) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0						
> Ethernet II, Src: Alcatel-e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)						
> Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67						
> Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325						
> File Transfer Protocol (FTP)						
[Current working directory:]						
0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0.r.....E(
0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	.mX#@.*. ...}				
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	.C.....\..P.				
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	.@^...22 0-----				
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----				
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----				
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----				
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----				
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----*20- WARI				

- Describes some basic information about frame.

```

▼ Frame 135428: 379 bytes on wire (3032 bits), 379 bytes captured (3032 bits) on interface \Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550}, id 0
  > Interface id: 0 (\Device\NPF_{B6C5B2EC-2E91-41BF-A028-A0870532B550})
    Encapsulation type: Ethernet (1)
    Arrival Time: Aug 16, 2020 14:17:33.793616000 India Standard Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1597567653.793616000 seconds
    [Time delta from previous captured frame: 0.183131000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 5321.957267000 seconds]
    Frame Number: 135428
    Frame Length: 379 bytes (3032 bits)
    Capture Length: 379 bytes (3032 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:tcp:ftp]
    [Coloring Rule Name: TCP]
    [Coloring Rule String: tcp]
  > Ethernet II, Src: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)

0000  30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28  0.r.....E(
0010  01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8  .mX#@.*. ...}....
0020  01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18  .C.....\..P.
0030  00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d  .@^...22 0-----
0040  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0050  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0060  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0070  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0080  2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e  -----2 20- WARN

```

- Describes the MAC information associated with the frame.

```

▼ Ethernet II, Src: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
  ▼ Destination: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
  ▼ Source: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
  > Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67
  > Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
  > File Transfer Protocol (FTP)

0000  30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28  0.r.....E(
0010  01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8  .mX#@.*. ...}....
0020  01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18  .C.....\..P.
0030  00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d  .@^...22 0-----
0040  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0050  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0060  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0070  2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d  -----
0080  2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e  -----2 20- WARN

```


- Destination MAC address information (30:f7:72:0d:a4:07). It's the MAC address of Device this response is going to.

```

▼ Ethernet II, Src: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
  ▼ Destination: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
  ▼ Source: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67
> Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
> File Transfer Protocol (FTP)
[Current working directory: ]

0000 30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28 0.r...E(
0010 01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8 .mX#@.*. ...}....
0020 01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18 .C.....\..P.
0030 00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d .@^...22 0-----
0040 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0050 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0060 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0070 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0080 2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e -----2 20- WARN

```

- Source MAC address information (a0:9d:86:e2:ee:80). It's the MAC address of the Router or Gateway as no one is allowed to go beyond the Gateway for MAC address.

```

▼ Ethernet II, Src: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
  ▼ Destination: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
  ▼ Source: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    Address: Alcatel-_e2:ee:80 (a0:9d:86:e2:ee:80)
    .... ..0. .... = LG bit: Globally unique address (factory default)
    .... ..0 .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
> Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67
> Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
> File Transfer Protocol (FTP)
[Current working directory: ]

0000 30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28 0.r...E(
0010 01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8 .mX#@.*. ...}....
0020 01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18 .C.....\..P.
0030 00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d .@^...22 0-----
0040 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0050 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0060 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0070 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d -----
0080 2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e -----2 20- WARN

```

Source Hardware Address (eth.src), 6 bytes

- Ethernet type

Ethernet II, Src: Alcatel-e2:ee:80 (a0:9d:86:e2:ee:80), Dst: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)

- Destination: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)

Address: HonHaiPr_0d:a4:07 (30:f7:72:0d:a4:07)

 0. = LG bit: Globally unique address (factory default)

 0. = IG bit: Individual address (unicast)
- Source: Alcatel-e2:ee:80 (a0:9d:86:e2:ee:80)

Address: Alcatel-e2:ee:80 (a0:9d:86:e2:ee:80)

 0. = LG bit: Globally unique address (factory default)

 0. = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67

Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

File Transfer Protocol (FTP)

[Current working directory:]

0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0·r·...·...·E(
0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	·mX#@·*·...}·...
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·...·...·\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^·...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN

Type (eth.type), 2 bytes

- IPv4 information

Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67

- 0100 = Version: 4
- 0101 = Header Length: 20 bytes (5)
- Differentiated Services Field: 0x28 (DSCP: AF11, ECN: Not-ECT)
 - 0010 10.. = Differentiated Services Codepoint: Assured Forwarding 11 (10)
 -00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
- Total Length: 365
- Identification: 0x5823 (22563)
- Flags: 0x4000, Don't fragment
 - Fragment offset: 0
 - Time to live: 42
 - Protocol: TCP (6)
 - Header checksum: 0x9ae8 [validation disabled]
 - [Header checksum status: Unverified]
 - Source: 185.125.224.238
 - Destination: 192.168.1.67
- Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
- File Transfer Protocol (FTP)

0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0·r·...·...·E(
0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	·mX#@·*·...}·...
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·...·...·\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^·...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN

Internet Protocol Version 4 (ip), 20 bytes

- This section describes the information, first the IP version, then the header length, then some other helpful information with IP flags, TTL (Number of hops jumped by frame), Protocol and transport layer (TCP), Header checksum (to check if the frame is not damaged or distorted).

▼ Internet Protocol Version 4, Src: 185.125.224.238, Dst: 192.168.1.67

0100 = Version: 4
 0101 = Header Length: 20 bytes (5)

▼ Differentiated Services Field: 0x28 (DSCP: AF11, ECN: Not-ECT)
 0010 10.. = Differentiated Services Codepoint: Assured Forwarding 11 (10)
00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)

Total Length: 365
 Identification: 0x5823 (22563)

▼ Flags: 0x4000, Don't fragment

0... = Reserved bit: Not set
 .1.. = Don't fragment: Set
 ..0. = More fragments: Not set

Fragment offset: 0
 Time to live: 42
 Protocol: TCP (6)
 Header checksum: 0x9ae8 [validation disabled]
 [Header checksum status: Unverified]
 Source: 185.125.224.238
 Destination: 192.168.1.67

> Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	·mX#@·*· ...}·...
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C· ... ···\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^· ...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a

Flags (3 bits) (ip.flags), 2 bytes

- Source IP address (185:125:224:238). This is the IP of ftp.mcafee.com → sender

Protocol: ICMP (b)
 Header checksum: 0x9ae8 [validation disabled]
 [Header checksum status: Unverified]
 Source: 185.125.224.238
 Destination: 192.168.1.67

> Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

> File Transfer Protocol (FTP)
 [Current working directory:]

0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	·mX#@·*· ...}·...
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C· ... ···\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^· ...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a

Source (ip.src), 4 bytes

- Destination IP address (192.168.1.67). this is the IP address of device getting the response.

▾ Flags: 0x4000, Don't fragment
 0... .. = Reserved bit: Not set
 .1... .. = Don't fragment: Set
 ..0. = More fragments: Not set
 Fragment offset: 0
 Time to live: 42
 Protocol: TCP (6)
 Header checksum: 0x9ae8 [validation disabled]
 [Header checksum status: Unverified]
 Source: 185.125.224.238
 Destination: 192.168.1.67
 > Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
 > File Transfer Protocol (FTP)
 [Current working directory:]

0010	01 6d 58 23 40 00 2a 06 9a e8 b9 7d e0 ee c0 a8	·mX#@·*· ...}···
0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C····· ···\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a

Destination (ip.dst), 4 bytes

- Transmission Control Protocol

▾ Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325
 Source Port: 21
 Destination Port: 59317
 [Stream index: 1456]
 [TCP Segment Len: 325]
 Sequence number: 1 (relative sequence number)
 Sequence number (raw): 45333409
 [Next sequence number: 326 (relative sequence number)]
 Acknowledgment number: 1 (relative ack number)
 Acknowledgment number (raw): 131750931
 0101 = Header Length: 20 bytes (5)
 > Flags: 0x018 (PSH, ACK)
 Window size value: 64
 [Calculated window size: 65536]
 [Window size scaling factor: 1024]
 Checksum: 0x5e17 [unverified]
 [Checksum Status: Unverified]
 Urgent pointer: 0
 ▾ [SEQ/ACK analysis]
 [iRTT: 0.191410000 seconds]
 [Bytes in flight: 325]
 [Bytes sent since last PSH flag: 325]
 > [Timestamps]
 TCP payload (325 bytes)
 > File Transfer Protocol (FTP)
 [Current working directory:]

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C····· ···\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Transmission Control Protocol (tcp), 20 bytes

- Source port → 21, reserved for ftp

Destination: 192.168.1.67

▼ Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

Source Port: 21

Destination Port: 59317

[Stream index: 1456]

[TCP Segment Len: 325]

Sequence number: 1 (relative sequence number)

Sequence number (raw): 45333409

[Next sequence number: 326 (relative sequence number)]

Acknowledgment number: 1 (relative ack number)

Acknowledgment number (raw): 131750031

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·····\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Source Port (tcp.srcport), 2 bytes

- Destination port, temporary, for my device.

Destination: 192.168.1.67

▼ Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

Source Port: 21

Destination Port: 59317

[Stream index: 1456]

[TCP Segment Len: 325]

Sequence number: 1 (relative sequence number)

Sequence number (raw): 45333409

[Next sequence number: 326 (relative sequence number)]

Acknowledgment number: 1 (relative ack number)

Acknowledgment number (raw): 131750031

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·····\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Destination Port (tcp.dstport), 2 bytes

- Sequence number

Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

Source Port: 21
Destination Port: 59317
[Stream index: 1456]
[TCP Segment Len: 325]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 45333409
[Next sequence number: 326 (relative sequence number)]
Acknowledgment number: 1 (relative ack number)
Acknowledgment number (raw): 131750931
0101 Header Length: 20 bytes (5)

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·····\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Sequence number (tcp.seq), 4 bytes

- Acknowledgment number

Transmission Control Protocol, Src Port: 21, Dst Port: 59317, Seq: 1, Ack: 1, Len: 325

Source Port: 21
Destination Port: 59317
[Stream index: 1456]
[TCP Segment Len: 325]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 45333409
[Next sequence number: 326 (relative sequence number)]
Acknowledgment number: 1 (relative ack number)
Acknowledgment number (raw): 131750931
0101 Header Length: 20 bytes (5)

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	·C·····\·P·
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	·@^···22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----·2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Acknowledgment number (tcp.ack), 4 bytes

- TCP Flags information

Flags: 0x018 (PSH, ACK)

000. = Reserved: Not set
 ...0 = Nonce: Not set
 0... = Congestion Window Reduced (CWR): Not set
0.. = ECN-Echo: Not set
0. = Urgent: Not set
1 = Acknowledgment: Set
 1... = Push: Set
0.. = Reset: Not set
0. = Syn: Not set
0 = Fin: Not set
 [TCP Flags:AP...]
 Window size value: 64
 [Calculated window size: 65536]

0020	01 43 00 15 e7 b5 02 b3 bb a1 07 da 5c 13 50 18	.C.....\P.
0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	.@^...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces

Flags (12 bits) (tcp.flags), 2 bytes

- TCP payload → FTP based data left as trailer

[Calculated window size: 65536]
 [Window size scaling factor: 1024]
 Checksum: 0x5e17 [unverified]
 [Checksum Status: Unverified]
 Urgent pointer: 0

▼ [SEQ/ACK analysis]
 [iRTT: 0.191410000 seconds]
 [Bytes in flight: 325]
 [Bytes sent since last PSH flag: 325]

> [Timestamps]
 TCP payload (325 bytes)

> File Transfer Protocol (FTP)
 [Current working directory:]

0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	.@^...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces
00b0	73 20 73 79 73 74 65 6d 2e 20 20 49 66 20 79 6f	s system . If yo
00c0	75 20 64 6f 20 6e 6f 74 20 68 61 76 65 20 65 78	u do not have ex
00d0	70 6c 69 63 69 74 0d 0a 32 32 30 2d 20 20 20 20	plicit.. 220-

The TCP payload of this packet (tcp.payload), 325 bytes

- FTP

```
File Transfer Protocol (FTP)
> 220-----\r\n
220- WARNING: This is a restricted access system. If you do not have explicit\r\n
220- permission to access this system, please disconnect immediately!\r\n
220-----\r\n
[Current working directory: ]
```

0030	00 40 5e 17 00 00 32 32 30 2d 2d 2d 2d 2d 2d 2d	@^...22 0-----
0040	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0050	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0060	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0070	2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d 2d	-----
0080	2d 2d 2d 2d 2d 0d 0a 32 32 30 2d 20 57 41 52 4e	-----2 20- WARN
0090	49 4e 47 3a 20 20 54 68 69 73 20 69 73 20 61 20	ING: Th is is a
00a0	72 65 73 74 72 69 63 74 65 64 20 61 63 63 65 73	restrict ed acces
00b0	73 20 73 79 73 74 65 6d 2e 20 20 49 66 20 79 6f	s system . If yo
00c0	75 20 64 6f 20 6e 6f 74 20 68 61 76 65 20 65 78	u s do not have ex
00d0	70 6c 69 63 69 74 0d 0a 32 32 30 2d 20 20 20 20	plicit.. 220-

File Transfer Protocol (FTP) (ftp), 325 bytes

- FTP response

No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.

[Bytes in flight: 331]
[Bytes sent since last PSH flag: 6]

> [Timestamps]
TCP payload (6 bytes)

▼ File Transfer Protocol (FTP)
▼ 220 \r\n
Response code: Service ready for new user (220)
[Current working directory:]

0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0·r·.....E(
0010	00 2e 58 24 40 00 2a 06 9c 26 b9 7d e0 ee c0 a8	·X\$@·*·&·}·....
0020	01 43 00 15 e7 b5 02 b3 bc e6 07 da 5c 13 50 18	·C·.....·\P·
0030	00 40 d8 80 00 00 32 32 30 20 0d 0a	·@·....22 0 ··

- ftp request

ftp							
No.	Time	Source	Destination	Protocol	Length	Info	
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----	
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220	
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON	
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.	
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous	
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.	
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword	
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.	
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186	
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.	
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST	
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.	

[Bytes sent since last PSH flag: 14]

- > [Timestamps]
- TCP payload (14 bytes)
- File Transfer Protocol (FTP)
 - OPTS UTF8 ON\r\n
Request command: OPTS
Request arg: UTF8 ON
[Current working directory:]

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 36 53 e8 40 00 80 06 4a 82 c0 a8 01 43 b9 7d	..6S.@... J.....C.}
0020	e0 ee e7 b5 00 15 07 da 5c 13 02 b3 bc ec 50 18	..... \.....P.
0030	1e b5 7c a2 00 00 4f 50 54 53 20 55 54 46 38 20	..|...OP TS UTF8
0040	4f 4e 0d 0a	ON..

- ftp response

ftp							
No.	Time	Source	Destination	Protocol	Length	Info	
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----	
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220	
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON	
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.	
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous	
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.	
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword	
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.	
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186	
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.	
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST	
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.	

[Bytes sent since last PSH flag: 26]

- > [Timestamps]
- TCP payload (26 bytes)
- File Transfer Protocol (FTP)
 - 200 Always in UTF8 mode.\r\n
Response code: Command okay (200)
Response arg: Always in UTF8 mode.
[Current working directory:]

0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0.r.....E(
0010	00 42 58 26 40 00 2a 06 9c 10 b9 7d e0 ee c0 a8	..BX&@.*. ...}
0020	01 43 00 15 e7 b5 02 b3 bc ec 07 da 5c 21 50 18	..C.....\!P.
0030	00 40 87 03 00 00 32 30 30 20 41 6c 77 61 79 73	..@....20 0 Always
0040	20 69 6e 20 55 54 46 38 20 6d 6f 64 65 2e 0d 0a	in UTF8 mode...

- ftp login with username → request to login

ftp						
No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.

[Bytes sent since last PSH flag: 16]

> [Timestamps]
TCP payload (16 bytes)

File Transfer Protocol (FTP)

USER anonymous\r\n
Request command: USER
Request arg: anonymous
[Current working directory:]

```

0000 a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00 .....0. r.....E(
0010 00 38 53 ea 40 00 80 06 4a 7e c0 a8 01 43 b9 7d .8S.@... J~...C.}
0020 e0 ee e7 b5 00 15 07 da 5c 21 02 b3 bd 06 50 18 ..... \l...P.
0030 1e 9b a1 6d 00 00 55 53 45 52 20 61 6e 6f 79 ...m...US ER anony
0040 6d 6f 75 73 0d 0a .....mous..

```

- ftp response asking for password

ftp						
No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
✓ 1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.

[Bytes sent since last PSH flag: 34]

> [Timestamps]
TCP payload (34 bytes)

File Transfer Protocol (FTP)

331 Please specify the password.\r\n
Response code: User name okay, need password (331)
Response arg: Please specify the password.
[Current working directory:]

```

0000 30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28 0.r.....E(
0010 00 4a 58 27 40 00 2a 06 9c 07 b9 7d e0 ee c0 a8 .JX'@.*. ...}....
0020 01 43 00 15 e7 b5 02 b3 bd 06 07 da 5c 31 50 18 .C..... \lP.
0030 00 40 00 62 00 00 33 33 31 20 50 6c 65 61 73 65 .@.b...33 1 Please
0040 20 73 70 65 63 69 66 79 20 74 68 65 20 70 61 73 specify the pas
0050 73 77 6f 72 64 2e 0d 0a .....sword..

```


- ftp request to access after entering the password

ftp						
No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.

[Bytes sent since last PSH flag: 18]	
> [Timestamps]	
TCP payload (18 bytes)	
File Transfer Protocol (FTP)	
PASS anypassword\r\n	
Request command: PASS	
Request arg: anypassword	
[Current working directory:]	

0000	a0 9d 86 e2 ee 80 30 f7 72 0d a4 07 08 00 45 00	.....0. r.....E.
0010	00 3a 53 ec 40 00 80 06 4a 7a c0 a8 01 43 b9 7d	..S:@... Jz...C.}
0020	e0 ee e7 b5 00 15 07 da 5c 31 02 b3 bd 28 50 18	..... \1....(P.
0030	1e 79 1c 16 00 00 50 41 53 53 20 61 6e 79 70 61	..y....PA SS anypa
0040	73 73 77 6f 72 64 0d 0a	ssword..

- ftp response with message about login validation

ftp						
No.	Time	Source	Destination	Protocol	Length	Info
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	379	Response: 220-----
1354...	5321.957267	185.125.224.238	192.168.1.67	FTP	60	Response: 220
1354...	5322.030783	192.168.1.67	185.125.224.238	FTP	68	Request: OPTS UTF8 ON
1354...	5322.206243	185.125.224.238	192.168.1.67	FTP	80	Response: 200 Always in UTF8 mode.
1363...	5344.579644	192.168.1.67	185.125.224.238	FTP	70	Request: USER anonymous
1363...	5344.751629	185.125.224.238	192.168.1.67	FTP	88	Response: 331 Please specify the password.
1363...	5349.007397	192.168.1.67	185.125.224.238	FTP	72	Request: PASS anypassword
1363...	5349.202453	185.125.224.238	192.168.1.67	FTP	77	Response: 230 Login successful.
1380...	5366.185108	192.168.1.67	185.125.224.238	FTP	81	Request: PORT 192,168,1,67,231,186
1380...	5366.355437	185.125.224.238	192.168.1.67	FTP	81	Response: 500 Illegal PORT command.
1380...	5366.363181	192.168.1.67	185.125.224.238	FTP	60	Request: LIST
1380...	5366.550736	185.125.224.238	192.168.1.67	FTP	83	Response: 425 Use PORT or PASV first.

[Bytes sent since last PSH flag: 23]	
> [Timestamps]	
TCP payload (23 bytes)	
File Transfer Protocol (FTP)	
230 Login successful.\r\n	
Response code: User logged in, proceed (230)	
Response arg: Login successful.	
[Current working directory:]	

0000	30 f7 72 0d a4 07 a0 9d 86 e2 ee 80 08 00 45 28	0.r.....E(
0010	00 3f 58 28 40 00 2a 06 9c 11 b9 7d e0 ee c0 a8	..?X(@.*.}
0020	01 43 00 15 e7 b5 02 b3 bd 28 07 da 5c 43 50 18	.C..... (\CP.
0030	00 40 65 e1 00 00 32 33 30 20 4c 6f 67 69 6e 20	..@e...23 0 Login
0040	73 75 63 65 73 73 66 75 6c 2e 0d 0a	successf ul...