

For <http://httpforever.com/>

IP: 146.190.62.39

144	5.621501	192.168.0.112	146.190.62.39	HTTP	527 GET / HTTP/1.1
163	5.894468	146.190.62.39	192.168.0.112	HTTP	1334 HTTP/1.1 200 OK

Request Packet

```
▼ Frame 144: 527 bytes on wire (4216 bits), 527 bytes captured (4216 bits) on interface \Device\NPF_{347F4A5C-F3A5-4421-A96D-4D281CBA0D9E}, id 0
  Section number: 1
  ▶ Interface id: 0 (\Device\NPF_{347F4A5C-F3A5-4421-A96D-4D281CBA0D9E})
    Encapsulation type: Ethernet (1)
    Arrival Time: Mar 11, 2025 21:50:55.318403000 Bangladesh Standard Time
    UTC Arrival Time: Mar 11, 2025 15:50:55.318403000 UTC
    Epoch Arrival Time: 1741708255.318403000
    [Time shift for this packet: 0.000000000 seconds]
    [Time delta from previous captured frame: 0.020086000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 5.621501000 seconds]
    Frame Number: 144
    Frame Length: 527 bytes (4216 bits)
    Capture Length: 527 bytes (4216 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: GigaByteTech_2d:89:f6 (74:56:3c:2d:89:f6), Dst: TPLink_0f:db:fe (3c:52:a1:0f:db:fe)
  ▶ Destination: TPLink_0f:db:fe (3c:52:a1:0f:db:fe)
  ▶ Source: GigaByteTech_2d:89:f6 (74:56:3c:2d:89:f6)
    Type: IPv4 (0x0800)
    [Stream index: 0]
```

```
▼ Internet Protocol Version 4, Src: 192.168.0.112, Dst: 146.190.62.39
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  ▶ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 513
    Identification: 0xe6c1 (59073)
  ▶ 010. .... = Flags: 0x2, Don't fragment
    ...0 0000 0000 0000 = Fragment Offset: 0
    Time to Live: 128
    Protocol: TCP (6)
    Header Checksum: 0x8037 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 192.168.0.112
    Destination Address: 146.190.62.39
    [Stream index: 6]
```

```

Transmission Control Protocol, Src Port: 65151, Dst Port: 80, Seq: 1, Ack: 1, Len: 473
  Source Port: 65151
  Destination Port: 80
  [Stream index: 5]
  [Stream Packet Number: 1]
  [Conversation completeness: Incomplete (28)]
  [TCP Segment Len: 473]
  Sequence Number: 1 (relative sequence number)
  Sequence Number (raw): 193890678
  [Next Sequence Number: 474 (relative sequence number)]
  Acknowledgment Number: 1 (relative ack number)
  Acknowledgment number (raw): 4233970817
  0101 .... = Header Length: 20 bytes (5)
  [Flags: 0x018 (PSH, ACK)]
  Window: 513
  [Calculated window size: 513]
  [Window size scaling factor: -1 (unknown)]
  Checksum: 0xb9cd [unverified]
  [Checksum Status: Unverified]
  Urgent Pointer: 0
  [Timestamps]
  [SEQ/ACK analysis]
  TCP payload (473 bytes)

Hypertext Transfer Protocol
  GET / HTTP/1.1\r\n
  Host: httpforever.com\r\n
  Connection: keep-alive\r\n
  Pragma: no-cache\r\n
  Cache-Control: no-cache\r\n
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/133.0.0.0 Safari/537.36\r\n
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7\r\n
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: en-US,en;q=0.9\r\n
  \r\n
  [Response in frame: 163]
  [Full request URI: http://httpforever.com/]

```

Response Packet

```

Frame 163: 1334 bytes on wire (10672 bits), 1334 bytes captured (10672 bits) on interface \Device\NPF_{347F4A5C-F3A5-4421-A96D-4D281C8A0D9E}, id 0
  Section number: 1
  [Interface id: 0 (\Device\NPF_{347F4A5C-F3A5-4421-A96D-4D281C8A0D9E})]
  Encapsulation type: Ethernet (1)
  Arrival Time: Mar 11, 2025 21:50:55.591370000 Bangladesh Standard Time
  UTC Arrival Time: Mar 11, 2025 15:50:55.591370000 UTC
  Epoch Arrival Time: 1741708255.591370000
  [Time shift for this packet: 0.000000000 seconds]
  [Time delta from previous captured frame: 0.000176000 seconds]
  [Time delta from previous displayed frame: 0.272967000 seconds]
  [Time since reference or first frame: 5.894468000 seconds]
  Frame Number: 163
  Frame Length: 1334 bytes (10672 bits)
  Capture Length: 1334 bytes (10672 bits)
  [Frame is marked: False]
  [Frame is ignored: False]
  [Protocols in frame: eth:ethertype:ip:tcp:http:data-text-lines]
  [Coloring Rule Name: HTTP]
  [Coloring Rule String: http || tcp.port == 80 || http2]

Ethernet II, Src: TPLink_0f:db:fe (3c:52:a1:0f:db:fe), Dst: GigaByteTech_2d:89:f6 (74:56:3c:2d:89:f6)
  Destination: GigaByteTech_2d:89:f6 (74:56:3c:2d:89:f6)
  Source: TPLink_0f:db:fe (3c:52:a1:0f:db:fe)
  Type: IPv4 (0x0800)
  [Stream index: 0]

```

```

▼ Internet Protocol Version 4, Src: 146.190.62.39, Dst: 192.168.0.112
  0100 .... = Version: 4
  .... 0101 = Header Length: 20 bytes (5)
  ▶ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
  Total Length: 1320
  Identification: 0x8912 (35090)
  ▶ 010. .... = Flags: 0x2, Don't fragment
  ...0 0000 0000 0000 = Fragment Offset: 0
  Time to Live: 50
  Protocol: TCP (6)
  Header Checksum: 0x28c0 [validation disabled]
  [Header checksum status: Unverified]
  Source Address: 146.190.62.39
  Destination Address: 192.168.0.112
  [Stream index: 6]

```

```

▼ Transmission Control Protocol, Src Port: 80, Dst Port: 65151, Seq: 1461, Ack: 474, Len: 1280
  Source Port: 80
  Destination Port: 65151
  [Stream index: 5]
  [Stream Packet Number: 3]
  ▶ [Conversation completeness: Incomplete (28)]
  [TCP Segment Len: 1280]
  Sequence Number: 1461 (relative sequence number)
  Sequence Number (raw): 4233972277
  [Next Sequence Number: 2741 (relative sequence number)]
  Acknowledgment Number: 474 (relative ack number)
  Acknowledgment number (raw): 193891151
  0101 .... = Header Length: 20 bytes (5)
  ▶ Flags: 0x018 (PSH, ACK)
  Window: 501
  [Calculated window size: 501]
  [Window size scaling factor: -1 (unknown)]
  Checksum: 0x7b94 [unverified]
  [Checksum Status: Unverified]
  Urgent Pointer: 0
  ▶ [Timestamps]
  ▶ [SEQ/ACK analysis]
  TCP payload (1280 bytes)
  TCP segment data (1280 bytes)

```

```

▼ Hypertext Transfer Protocol, has 2 chunks (including last chunk)
  HTTP/1.1 200 OK\r\n
  Server: nginx/1.18.0 (Ubuntu)\r\n
  Date: Tue, 11 Mar 2025 15:50:57 GMT\r\n
  Content-Type: text/html\r\n
  Last-Modified: Wed, 22 Mar 2023 14:54:48 GMT\r\n
  Transfer-Encoding: chunked\r\n
  Connection: keep-alive\r\n
  ETag: W/"641b6b8-1404"\r\n
  Referrer-Policy: strict-origin-when-cross-origin\r\n
  X-Content-Type-Options: nosniff\r\n
  Feature-Policy: accelerometer 'none'; camera 'none'; geolocation 'none'; gyroscope 'none'; magnetometer 'none'; microphone 'none'; payment 'none'; usb 'none'\r\n
  [Content-Security-Policy: default-src 'self'; script-src cdnjs.cloudflare.com 'self'; style-src cdnjs.cloudflare.com 'self'; font-src fonts.googleapis.com 'unsafe-inline'; font-src fonts.googleapis.com 'unsafe-inline']\r\n
  Content-Encoding: gzip\r\n
  \r\n
  [Request in frame: 144]
  [Time since request: 0.272967000 seconds]
  [Request URI: /]
  [Full request URI: http://httpforever.com/]
  ▶ HTTP chunked response
  Content-encoded entity body (gzip): 1910 bytes -> 5124 bytes
  File Data: 5124 bytes

```

Frame (Physical Layer):

Here Frame number is a unique identifier for Wireshark. Arrival time is a timestamp to the time of packet capture. Frame length is the size of the packet.

Ethernet II (Data Link Layer):

Destination is the Mac Address of a switch or router. Source is Mac address of a network interface. Type is the network used here.

IPv4 (Network Layer):

Here the version is 4. Header length is the size of the IP header. Identification is a unique ID for a packet. Time to Live is the number of hops before discarding the packet. Protocol indicates the transport layer. Source address is the IP of the sender. Destination address is the IP of the web server.

TCP (Transportation Layer):

Source port is a random port address by the client. Destination port is the web server's port. Sequence number is the position of the segment. Acknowledgement number confirms receipt of previous data. Window size is the number of bytes the receiver can accept.

HTTP (Application Layer):

Method defines request type like GET. Host is the web server requested by the client. User Agent is the client's software. Accept is the content type.