

```
No.      Time      Source      Destination      Protocol Length Info
11525 15:10:11.921054831 172.31.171.140 128.119.245.12 HTTP 480 GET /wireshark-labs/HTTP-wireshark-
file2.html HTTP/1.1
Frame 11525: 480 bytes on wire (3840 bits), 480 bytes captured (3840 bits) on interface eth0, id 0
Ethernet II, Src: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad), Dst: ConwareN_1f:00:01 (00:00:ac:1f:00:01)
Internet Protocol Version 4, Src: 172.31.171.140, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 51364, Dst Port: 80, Seq: 1, Ack: 1, Len: 426
  Source Port: 51364
  Destination Port: 80
  [Stream index: 5]
  [TCP Segment Len: 426]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 1794915360
  [Next sequence number: 427 (relative sequence number)]
  Acknowledgment number: 1 (relative ack number)
  Acknowledgment number (raw): 3563757153
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 64240
  [Calculated window size: 64240]
  [Window size scaling factor: -2 (no window scaling used)]
  Checksum: 0xcef4 [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  [SEQ/ACK analysis]
  [Timestamps]
  TCP payload (426 bytes)
Hypertext Transfer Protocol
  GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n
    [Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
      [GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
      [Severity level: Chat]
      [Group: Sequence]
    Request Method: GET
    Request URI: /wireshark-labs/HTTP-wireshark-file2.html
    Request Version: HTTP/1.1
  Host: gaia.cs.umass.edu\r\n
  User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0\r\n
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8\r\n
  Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2\r\n
  Accept-Encoding: gzip, deflate\r\n
  Connection: keep-alive\r\n
  Upgrade-Insecure-Requests: 1\r\n
  \r\n
  [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
  [HTTP request 1/1]
  [Response in frame: 11719]
No.      Time      Source      Destination      Protocol Length Info
11719 15:10:12.230897590 128.119.245.12 172.31.171.140 HTTP 784 HTTP/1.1 200 OK (text/html)
Frame 11719: 784 bytes on wire (6272 bits), 784 bytes captured (6272 bits) on interface eth0, id 0
Ethernet II, Src: ConwareN_1f:00:01 (00:00:ac:1f:00:01), Dst: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 172.31.171.140
Transmission Control Protocol, Src Port: 80, Dst Port: 51364, Seq: 1, Ack: 427, Len: 730
  Source Port: 80
  Destination Port: 51364
  [Stream index: 5]
  [TCP Segment Len: 730]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 3563757153
  [Next sequence number: 731 (relative sequence number)]
  Acknowledgment number: 427 (relative ack number)
  Acknowledgment number (raw): 1794915786
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 30016
  [Calculated window size: 30016]
  [Window size scaling factor: -2 (no window scaling used)]
  Checksum: 0x680c [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  [SEQ/ACK analysis]
  [Timestamps]
  TCP payload (730 bytes)
Hypertext Transfer Protocol
  HTTP/1.1 200 OK\r\n
    [Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
      [HTTP/1.1 200 OK\r\n]
      [Severity level: Chat]
      [Group: Sequence]
    Response Version: HTTP/1.1
    Status Code: 200
    [Status Code Description: OK]
    Response Phrase: OK
  Date: Tue, 03 Oct 2023 07:10:12 GMT\r\n
  Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
  Last-Modified: Tue, 03 Oct 2023 05:59:02 GMT\r\n
  ETag: "173-606c99670a680"\r\n
  Accept-Ranges: bytes\r\n
  Content-Length: 371\r\n
```

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Keep-Alive: timeout=5, max=100\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=UTF-8\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.309842759 seconds]
[Request in frame: 11525]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
File Data: 371 bytes
Line-based text data: text/html (10 lines)
  \n
  <html>\n
  \n
  Congratulations again! Now you've downloaded the file lab2-2.html. <br>\n
  This file's last modification date will not change. <p>\n
  Thus if you download this multiple times on your browser, a complete copy <br>\n
  will only be sent once by the server due to the inclusion of the IN-MODIFIED-SINCE<br>\n
  field in your browser's HTTP GET request to the server.\n
  \n
  </html>\n
No.      Time                Source                Destination            Protocol Length Info
  11759  15:10:12.277428209 172.31.171.140        128.119.245.12         HTTP      437      GET /favicon.ico HTTP/1.1
Frame 11759: 437 bytes on wire (3496 bits), 437 bytes captured (3496 bits) on interface eth0, id 0
Ethernet II, Src: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad), Dst: ConwareN_1f:00:01 (00:00:ac:1f:00:01)
Internet Protocol Version 4, Src: 172.31.171.140, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 51360, Dst Port: 80, Seq: 1, Ack: 1, Len: 383
  Source Port: 51360
  Destination Port: 80
  [Stream index: 4]
  [TCP Segment Len: 383]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 2656310600
  [Next sequence number: 384 (relative sequence number)]
  Acknowledgment number: 1 (relative ack number)
  Acknowledgment number (raw): 2691148752
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 64240
  [Calculated window size: 64240]
  [Window size scaling factor: -2 (no window scaling used)]
  Checksum: 0xec9 [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  [SEQ/ACK analysis]
  [Timestamps]
  TCP payload (383 bytes)
Hypertext Transfer Protocol
  GET /favicon.ico HTTP/1.1\r\n
  [Expert Info (Chat/Sequence): GET /favicon.ico HTTP/1.1\r\n]
  [GET /favicon.ico HTTP/1.1\r\n]
  [Severity level: Chat]
  [Group: Sequence]
  Request Method: GET
  Request URI: /favicon.ico
  Request Version: HTTP/1.1
  Host: gaia.cs.umass.edu\r\n
  User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0\r\n
  Accept: image/avif,image/webp,*/*\r\n
  Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2\r\n
  Accept-Encoding: gzip, deflate\r\n
  Connection: keep-alive\r\n
  Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html\r\n
  \r\n
  [Full request URI: http://gaia.cs.umass.edu/favicon.ico]
  [HTTP request 1/2]
  [Response in frame: 11840]
  [Next request in frame: 13392]
No.      Time                Source                Destination            Protocol Length Info
  11840  15:10:12.588897404 128.119.245.12        172.31.171.140        HTTP      539      HTTP/1.1 404 Not Found (text/html)
Frame 11840: 539 bytes on wire (4312 bits), 539 bytes captured (4312 bits) on interface eth0, id 0
Ethernet II, Src: ConwareN_1f:00:01 (00:00:ac:1f:00:01), Dst: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 172.31.171.140
Transmission Control Protocol, Src Port: 80, Dst Port: 51360, Seq: 1, Ack: 384, Len: 485
  Source Port: 80
  Destination Port: 51360
  [Stream index: 4]
  [TCP Segment Len: 485]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 2691148752
  [Next sequence number: 486 (relative sequence number)]
  Acknowledgment number: 384 (relative ack number)
  Acknowledgment number (raw): 2656310983
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 30016
  [Calculated window size: 30016]
  [Window size scaling factor: -2 (no window scaling used)]
  Checksum: 0x4659 [unverified]
  [Checksum Status: Unverified]
```

Urgent pointer: 0
[SEQ/ACK analysis]
[Timestamps]
TCP payload (485 bytes)
Hypertext Transfer Protocol
HTTP/1.1 404 Not Found\r\n
[Expert Info (Chat/Sequence): HTTP/1.1 404 Not Found\r\n]
[HTTP/1.1 404 Not Found\r\n]
[Severity level: Chat]
[Group: Sequence]
Response Version: HTTP/1.1
Status Code: 404
[Status Code Description: Not Found]
Response Phrase: Not Found
Date: Tue, 03 Oct 2023 07:10:12 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
Content-Length: 209\r\n
Keep-Alive: timeout=5, max=100\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=iso-8859-1\r\n
\r\n
[HTTP response 1/2]
[Time since request: 0.311469195 seconds]
[Request in frame: 11759]
[Next request in frame: 13392]
[Request URI: http://gaia.cs.umass.edu/favicon.ico]
File Data: 209 bytes
Line-based text data: text/html (7 lines)
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">\n
<html><head>\n
<title>404 Not Found</title>\n
</head><body>\n
<h1>Not Found</h1>\n
<p>The requested URL /favicon.ico was not found on this server.</p>\n
</body></html>\n

| No. | Time | Source | Destination | Protocol | Length | Info |
|-------|--------------------|----------------|----------------|----------|--------|--|
| 13392 | 15:10:17.557896268 | 172.31.171.140 | 128.119.245.12 | HTTP | 566 | GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1 |

Frame 13392: 566 bytes on wire (4528 bits), 566 bytes captured (4528 bits) on interface eth0, id 0
Ethernet II, Src: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad), Dst: ConwareN_1f:00:01 (00:00:ac:1f:00:01)
Internet Protocol Version 4, Src: 172.31.171.140, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 51360, Dst Port: 80, Seq: 384, Ack: 486, Len: 512
Source Port: 51360
Destination Port: 80
[Stream index: 4]
[TCP Segment Len: 512]
Sequence number: 384 (relative sequence number)
Sequence number (raw): 2656310983
[Next sequence number: 896 (relative sequence number)]
Acknowledgment number: 486 (relative ack number)
Acknowledgment number (raw): 2691149237
0101 ... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
Window size value: 63755
[Calculated window size: 63755]
[Window size scaling factor: -2 (no window scaling used)]
Checksum: 0xcf4a [unverified]
[Checksum Status: Unverified]
Urgent pointer: 0
[SEQ/ACK analysis]
[Timestamps]
TCP payload (512 bytes)
Hypertext Transfer Protocol
GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n
[Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
[GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
[Severity level: Chat]
[Group: Sequence]
Request Method: GET
Request URI: /wireshark-labs/HTTP-wireshark-file2.html
Request Version: HTTP/1.1
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8\r\n
Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Upgrade-Insecure-Requests: 1\r\n
If-Modified-Since: Tue, 03 Oct 2023 05:59:02 GMT\r\n
If-None-Match: "173-606c99670a680"\r\n
\r\n
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
[HTTP request 2/2]
[Prev request in frame: 11759]

| No. | Time | Source | Destination | Protocol | Length | Info |
|-------|--------------------|----------------|----------------|----------|--------|--|
| 13533 | 15:10:17.898181623 | 172.31.171.140 | 128.119.245.12 | HTTP | 566 | GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1 |

Frame 13533: 566 bytes on wire (4528 bits), 566 bytes captured (4528 bits) on interface eth0, id 0
Ethernet II, Src: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad), Dst: ConwareN_1f:00:01 (00:00:ac:1f:00:01)

Internet Protocol Version 4, Src: 172.31.171.140, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 51384, Dst Port: 80, Seq: 1, Ack: 1, Len: 512
Source Port: 51384
Destination Port: 80
[Stream index: 7]
[TCP Segment Len: 512]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 544661050
[Next sequence number: 513 (relative sequence number)]
Acknowledgment number: 1 (relative ack number)
Acknowledgment number (raw): 2853146192
0101 = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
Window size value: 64240
[Calculated window size: 64240]
[Window size scaling factor: -2 (no window scaling used)]
Checksum: 0xcf4a [unverified]
[Checksum Status: Unverified]
Urgent pointer: 0
[SEQ/ACK analysis]
[Timestamps]
TCP payload (512 bytes)
Hypertext Transfer Protocol
GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n
[Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
[GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
[Severity level: Chat]
[Group: Sequence]
Request Method: GET
Request URI: /wireshark-labs/HTTP-wireshark-file2.html
Request Version: HTTP/1.1
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:102.0) Gecko/20100101 Firefox/102.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8\r\n
Accept-Language: zh-CN,zh;q=0.8,zh-TW;q=0.7,zh-HK;q=0.5,en-US;q=0.3,en;q=0.2\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Upgrade-Insecure-Requests: 1\r\n
If-Modified-Since: Tue, 03 Oct 2023 05:59:02 GMT\r\n
If-None-Match: "173-606c99670a680"\r\n
\r\n
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
[HTTP request 1/1]
[Response in frame: 13585]

| No. | Time | Source | Destination | Protocol | Length | Info |
|-------|--------------------|----------------|----------------|----------|--------|---------------------------|
| 13585 | 15:10:18.208008549 | 128.119.245.12 | 172.31.171.140 | HTTP | 294 | HTTP/1.1 304 Not Modified |

Frame 13585: 294 bytes on wire (2352 bits), 294 bytes captured (2352 bits) on interface eth0, id 0
Ethernet II, Src: ConwareN_1f:00:01 (00:00:ac:1f:00:01), Dst: 2a:8d:41:03:b6:ad (2a:8d:41:03:b6:ad)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 172.31.171.140
Transmission Control Protocol, Src Port: 80, Dst Port: 51384, Seq: 1, Ack: 513, Len: 240
Source Port: 80
Destination Port: 51384
[Stream index: 7]
[TCP Segment Len: 240]
Sequence number: 1 (relative sequence number)
Sequence number (raw): 2853146192
[Next sequence number: 241 (relative sequence number)]
Acknowledgment number: 513 (relative ack number)
Acknowledgment number (raw): 544661562
0101 = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
Window size value: 30016
[Calculated window size: 30016]
[Window size scaling factor: -2 (no window scaling used)]
Checksum: 0xe7b8 [unverified]
[Checksum Status: Unverified]
Urgent pointer: 0
[SEQ/ACK analysis]
[Timestamps]
TCP payload (240 bytes)
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
Date: Tue, 03 Oct 2023 07:10:18 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
Connection: Keep-Alive\r\n
Keep-Alive: timeout=5, max=100\r\n
ETag: "173-606c99670a680"\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.309826926 seconds]
[Request in frame: 13533]

[Request URI: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html>]