

No.	Time	Source	Destination	Protocol	Length	Info
8	2.172455	192.168.0.103	128.119.245.12	HTTP	453	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1

Frame 8: 453 bytes on wire (3624 bits), 453 bytes captured (3624 bits) on interface \Device\NPF\_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0  
Ethernet II, Src: IntelCor\_ff:28:78 (d4:6d:6d:ff:28:78), Dst: Tp-LinkT\_63:b5:fc (18:a6:f7:63:b5:fc)  
Internet Protocol Version 4, Src: 192.168.0.103, Dst: 128.119.245.12  
Transmission Control Protocol, Src Port: 4532, Dst Port: 80, Seq: 1, Ack: 1, Len: 399  
Source Port: 4532  
Destination Port: 80  
[Stream index: 0]  
[TCP Segment Len: 399]  
Sequence number: 1 (relative sequence number)  
Sequence number (raw): 205415340  
[Next sequence number: 400 (relative sequence number)]  
Acknowledgment number: 1 (relative ack number)  
Acknowledgment number (raw): 3162481869  
0101 .... = Header Length: 20 bytes (5)  
Flags: 0x018 (PSH, ACK)  
Window size value: 517  
[Calculated window size: 132352]  
[Window size scaling factor: 256]  
Checksum: 0xf1fb [unverified]  
[Checksum Status: Unverified]  
Urgent pointer: 0  
[SEQ/ACK analysis]  
[Timestamps]  
TCP payload (399 bytes)  
Hypertext Transfer Protocol  
GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n  
Host: gaia.cs.umass.edu\r\n  
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:76.0) Gecko/20100101 Firefox/76.0\r\n  
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,\*/\*;q=0.8\r\n  
Accept-Language: en,en-US;q=0.8,ru-RU;q=0.5,ru;q=0.3\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-file4.html]  
[HTTP request 1/1]  
[Response in frame: 10]

No.	Time	Source	Destination	Protocol	Length	Info
10	2.319408	128.119.245.12	192.168.0.103	HTTP	1127	HTTP/1.1 200 OK (text/html)

Frame 10: 1127 bytes on wire (9016 bits), 1127 bytes captured (9016 bits) on interface \Device\NPF\_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0  
Ethernet II, Src: Tp-LinkT\_63:b5:fc (18:a6:f7:63:b5:fc), Dst: IntelCor\_ff:28:78 (d4:6d:6d:ff:28:78)  
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.103  
Transmission Control Protocol, Src Port: 80, Dst Port: 4532, Seq: 1, Ack: 400, Len: 1073  
Source Port: 80  
Destination Port: 4532  
[Stream index: 0]  
[TCP Segment Len: 1073]  
Sequence number: 1 (relative sequence number)  
Sequence number (raw): 3162481869  
[Next sequence number: 1074 (relative sequence number)]  
Acknowledgment number: 400 (relative ack number)  
Acknowledgment number (raw): 205415739  
0101 .... = Header Length: 20 bytes (5)  
Flags: 0x018 (PSH, ACK)  
Window size value: 237  
[Calculated window size: 30336]  
[Window size scaling factor: 128]  
Checksum: 0x7387 [unverified]  
[Checksum Status: Unverified]  
Urgent pointer: 0  
[SEQ/ACK analysis]  
[Timestamps]  
TCP payload (1073 bytes)  
Hypertext Transfer Protocol  
HTTP/1.1 200 OK\r\n  
Date: Wed, 13 May 2020 21:46:31 GMT\r\n  
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod\_perl/2.0.11 Perl/v5.16.3\r\n  
Last-Modified: Wed, 13 May 2020 05:59:03 GMT\r\n  
ETag: "2ca-5a58146f90d2e"\r\n  
Accept-Ranges: bytes\r\n  
Content-Length: 714\r\n  
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: 0.146953000 seconds]
[Request in frame: 8]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html]
File Data: 714 bytes
Line-based text data: text/html (17 lines)
No.      Time      Source      Destination      Protocol Length Info
   12  2.367215    192.168.0.103    128.119.245.12    HTTP      410      GET /pearson.png HTTP/1.1
Frame 12: 410 bytes on wire (3280 bits), 410 bytes captured (3280 bits) on interface \Device\NPF_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0
Ethernet II, Src: IntelCor_ff:28:78 (d4:6d:6d:ff:28:78), Dst: Tp-LinkT_63:b5:fc (18:a6:f7:63:b5:fc)
Internet Protocol Version 4, Src: 192.168.0.103, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 4533, Dst Port: 80, Seq: 1, Ack: 1, Len: 356
  Source Port: 4533
  Destination Port: 80
  [Stream index: 1]
  [TCP Segment Len: 356]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 1929824452
  [Next sequence number: 357 (relative sequence number)]
  Acknowledgment number: 1 (relative ack number)
  Acknowledgment number (raw): 1349771735
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 517
  [Calculated window size: 132352]
  [Window size scaling factor: 256]
  Checksum: 0x84aa [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  [SEQ/ACK analysis]
  [Timestamps]
  TCP payload (356 bytes)
Hypertext Transfer Protocol
  GET /pearson.png HTTP/1.1\r\n
  Host: gaia.cs.umass.edu\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:76.0) Gecko/20100101 Firefox/76.0\r\n
  Accept: image/webp,*/*\r\n
  Accept-Language: en,en-US;q=0.8,ru-RU;q=0.5,ru;q=0.3\r\n
  Accept-Encoding: gzip, deflate\r\n
  Connection: keep-alive\r\n
  Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n
  \r\n
  [Full request URI: http://gaia.cs.umass.edu/pearson.png]
  [HTTP request 1/2]
  [Response in frame: 49]
  [Next request in frame: 62]
No.      Time      Source      Destination      Protocol Length Info
   46  2.502476    192.168.0.103    128.119.245.12    HTTP      424      GET /~kurose/cover_5th_ed.jpg HTTP/1.1
Frame 46: 424 bytes on wire (3392 bits), 424 bytes captured (3392 bits) on interface \Device\NPF_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0
Ethernet II, Src: IntelCor_ff:28:78 (d4:6d:6d:ff:28:78), Dst: Tp-LinkT_63:b5:fc (18:a6:f7:63:b5:fc)
Internet Protocol Version 4, Src: 192.168.0.103, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 4534, Dst Port: 80, Seq: 1, Ack: 1, Len: 370
  Source Port: 4534
  Destination Port: 80
  [Stream index: 2]
  [TCP Segment Len: 370]
  Sequence number: 1 (relative sequence number)
  Sequence number (raw): 1274672176
  [Next sequence number: 371 (relative sequence number)]
  Acknowledgment number: 1 (relative ack number)
  Acknowledgment number (raw): 2851294193
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
  Window size value: 517
  [Calculated window size: 132352]
  [Window size scaling factor: 256]
  Checksum: 0x9e44 [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  [SEQ/ACK analysis]
  [Timestamps]
  TCP payload (370 bytes)
Hypertext Transfer Protocol
  GET /~kurose/cover_5th_ed.jpg HTTP/1.1\r\n
  Host: manic.cs.umass.edu\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:76.0) Gecko/20100101 Firefox/76.0\r\n
  Accept: image/webp,*/*\r\n
  Accept-Language: en,en-US;q=0.8,ru-RU;q=0.5,ru;q=0.3\r\n
  Accept-Encoding: gzip, deflate\r\n
  Connection: keep-alive\r\n
```

Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n\r\n

[Full request URI: http://manic.cs.umass.edu/~kurose/cover\_5th\_ed.jpg]

[HTTP request 1/1]

[Response in frame: 172]

No.	Time	Source	Destination	Protocol	Length	Info
49	2.502708	128.119.245.12	192.168.0.103	HTTP	786	HTTP/1.1 200 OK (PNG)

Frame 49: 786 bytes on wire (6288 bits), 786 bytes captured (6288 bits) on interface \Device\NPF\_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0

Ethernet II, Src: Tp-LinkT\_63:b5:fc (18:a6:f7:63:b5:fc), Dst: IntelCor\_ff:28:78 (d4:6d:6d:ff:28:78)

Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.103

Transmission Control Protocol, Src Port: 80, Dst Port: 4533, Seq: 2881, Ack: 357, Len: 732

Source Port: 80

Destination Port: 4533

[Stream index: 1]

[TCP Segment Len: 732]

Sequence number: 2881 (relative sequence number)

Sequence number (raw): 1349774615

[Next sequence number: 3613 (relative sequence number)]

Acknowledgment number: 357 (relative ack number)

Acknowledgment number (raw): 1929824808

0101 .... = Header Length: 20 bytes (5)

Flags: 0x018 (PSH, ACK)

Window size value: 237

[Calculated window size: 30336]

[Window size scaling factor: 128]

Checksum: 0xfac9 [unverified]

[Checksum Status: Unverified]

Urgent pointer: 0

[SEQ/ACK analysis]

[Timestamps]

TCP payload (732 bytes)

TCP segment data (732 bytes)

[3 Reassembled TCP Segments (3612 bytes): #47(1440), #48(1440), #49(732)]

Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n

Date: Wed, 13 May 2020 21:46:31 GMT\r\n

Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod\_perl/2.0.11 Perl/v5.16.3\r\n

Last-Modified: Sat, 06 Aug 2016 10:08:14 GMT\r\n

ETag: "cc3-539645c7f1ee7"\r\n

Accept-Ranges: bytes\r\n

Content-Length: 3267\r\n

Keep-Alive: timeout=5, max=100\r\n

Connection: Keep-Alive\r\n

Content-Type: image/png\r\n

\r\n

[HTTP response 1/2]

[Time since request: 0.135493000 seconds]

[Request in frame: 12]

[Next request in frame: 62]

[Next response in frame: 82]

[Request URI: http://gaia.cs.umass.edu/pearson.png]

File Data: 3267 bytes

Portable Network Graphics

No.	Time	Source	Destination	Protocol	Length	Info
172	3.026329	128.119.245.12	192.168.0.103	HTTP	830	HTTP/1.1 200 OK (JPEG JFIF image)

Frame 172: 830 bytes on wire (6640 bits), 830 bytes captured (6640 bits) on interface \Device\NPF\_{4411A0BE-7C39-4402-A536-A363854FC3CE}, id 0

Ethernet II, Src: Tp-LinkT\_63:b5:fc (18:a6:f7:63:b5:fc), Dst: IntelCor\_ff:28:78 (d4:6d:6d:ff:28:78)

Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.103

Transmission Control Protocol, Src Port: 80, Dst Port: 4534, Seq: 100543, Ack: 371, Len: 776

Source Port: 80

Destination Port: 4534

[Stream index: 2]

[TCP Segment Len: 776]

Sequence number: 100543 (relative sequence number)

Sequence number (raw): 2851394735

[Next sequence number: 101319 (relative sequence number)]

Acknowledgment number: 371 (relative ack number)

Acknowledgment number (raw): 1274672546

0101 .... = Header Length: 20 bytes (5)

Flags: 0x018 (PSH, ACK)

Window size value: 237

[Calculated window size: 30336]

[Window size scaling factor: 128]

Checksum: 0xbf4c [unverified]

[Checksum Status: Unverified]

Urgent pointer: 0

[SEQ/ACK analysis]

[Timestamps]

TCP payload (776 bytes)

TCP segment data (776 bytes)

[71 Reassembled TCP Segments (101318 bytes): #64(1440), #65(1440), #66(1440), #67(1440), #68(1440), #70(1440), #71(1440), #73(1440), #74(1440), #75(1440), #85(1440), #86(1440), #87(1440), #90(1440), #91(1440), #92(1440), #93(1440), #94(1440)]

Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\n

Date: Wed, 13 May 2020 21:46:31 GMT\r\n

Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod\_perl/2.0.11 Perl/v5.16.3\r\n

Last-Modified: Tue, 15 Sep 2009 18:23:27 GMT\r\n

ETag: "18a68-473a1e0e6e5c0"\r\n

Accept-Ranges: bytes\r\n

Content-Length: 100968\r\n

Keep-Alive: timeout=5, max=100\r\n

Connection: Keep-Alive\r\n

Content-Type: image/jpeg\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.523853000 seconds]

[Request in frame: 46]

[Request URI: http://manic.cs.umass.edu/~kurose/cover\_5th\_ed.jpg]

File Data: 100968 bytes

JPEG File Interchange Format