

No.	Time	Source	Destination	Protocol	Length	Info
1944	21.684934	10.122.212.200	128.119.245.12	HTTP	566	GET /wireshark-labs/HTTP-wireshark-

file4.html HTTP/1.1

Frame 1944: 566 bytes on wire (4528 bits), 566 bytes captured (4528 bits) on interface \Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0

Section number: 1

Interface id: 0 (\Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})

Interface name: \Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}

Interface description: WLAN

Encapsulation type: Ethernet (1)

Arrival Time: Mar 17, 2023 13:40:30.445537000 中国标准时间

[Time shift for this packet: 0.000000000 seconds]

Epoch Time: 1679031630.445537000 seconds

[Time delta from previous captured frame: 0.000259000 seconds]

[Time delta from previous displayed frame: 0.000000000 seconds]

[Time since reference or first frame: 21.684934000 seconds]

Frame Number: 1944

Frame Length: 566 bytes (4528 bits)

Capture Length: 566 bytes (4528 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: IntelCor\_29:5a:27 (f0:9e:4a:29:5a:27), Dst: ArubaaHe\_6c:24:00 (10:4f:58:6c:24:00)

Destination: ArubaaHe\_6c:24:00 (10:4f:58:6c:24:00)

Address: ArubaaHe\_6c:24:00 (10:4f:58:6c:24:00)

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

.... 0. .... = IG bit: Individual address (unicast)

Source: IntelCor\_29:5a:27 (f0:9e:4a:29:5a:27)

Address: IntelCor\_29:5a:27 (f0:9e:4a:29:5a:27)

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

.... 0. .... = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 10.122.212.200, Dst: 128.119.245.12

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: 552

Identification: 0x63dd (25565)

010. .... = Flags: 0x2, Don't fragment

0... .... = Reserved bit: Not set

.1.. .... = Don't fragment: Set

..0. .... = More fragments: Not set

...0 0000 0000 0000 = Fragment Offset: 0

Time to Live: 128

Protocol: TCP (6)

Header Checksum: 0x0000 [validation disabled]

[Header checksum status: Unverified]

Source Address: 10.122.212.200

Destination Address: 128.119.245.12

Transmission Control Protocol, Src Port: 50935, Dst Port: 80, Seq: 1, Ack: 1, Len: 512

Source Port: 50935

Destination Port: 80

[Stream index: 31]

[Conversation completeness: Complete, WITH\_DATA (31)]

[TCP Segment Len: 512]

Sequence Number: 1 (relative sequence number)

Sequence Number (raw): 950212124

[Next Sequence Number: 513 (relative sequence number)]

Acknowledgment Number: 1 (relative ack number)

Acknowledgment number (raw): 3007916749

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

Flags: 0x018 (PSH, ACK)

000. .... = Reserved: Not set

...0 .... = Accurate ECN: Not set

.... 0... .... = Congestion Window Reduced: 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: 512
[Calculated window size: 131072]
[Window size scaling factor: 256]
Checksum: 0x56e1 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.296104000 seconds]
[Time since previous frame in this TCP stream: 0.000259000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.295845000 seconds]
[Bytes in flight: 512]
[Bytes sent since last PSH flag: 512]
TCP payload (512 bytes)
Hypertext Transfer Protocol
GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n
[Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n]
[GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n]
[Severity level: Chat]
[Group: Sequence]
Request Method: GET
Request URI: /wireshark-labs/HTTP-wireshark-file4.html
Request Version: HTTP/1.1
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/537.36 Edg/111.0.1661.41\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,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: zh-CN,zh;q=0.9,en-US;q=0.8,en;q=0.7,en-GB;q=0.6\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 1/2]
[Response in frame: 2034]
[Next request in frame: 2043]
No.      Time          Source          Destination      Protocol Length Info
2034 21.957206      128.119.245.12  10.122.212.200  HTTP      1355  HTTP/1.1 200 OK (text/html)
Frame 2034: 1355 bytes on wire (10840 bits), 1355 bytes captured (10840 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:30.717809000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031630.717809000 seconds
[Time delta from previous captured frame: 0.000524000 seconds]
[Time delta from previous displayed frame: 0.272272000 seconds]
[Time since reference or first frame: 21.957206000 seconds]
Frame Number: 2034
Frame Length: 1355 bytes (10840 bits)
Capture Length: 1355 bytes (10840 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: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00), Dst: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Destination: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
.... ..0. .... = LG bit: Globally unique address (factory default)
.... ..0 .... = IG bit: Individual address (unicast)
Source: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
.... ..0. .... = LG bit: Globally unique address (factory default)
.... ..0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.122.212.200
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: 1341
```

```

Identification: 0x83d5 (33749)
010. .... = Flags: 0x2, Don't fragment
    0... .... = Reserved bit: Not set
    .1... .... = Don't fragment: Set
    ..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 34
Protocol: TCP (6)
Header Checksum: 0x7b1f [validation disabled]
[Header checksum status: Unverified]
Source Address: 128.119.245.12
Destination Address: 10.122.212.200
Transmission Control Protocol, Src Port: 80, Dst Port: 50935, Seq: 1, Ack: 513, Len: 1301
Source Port: 80
Destination Port: 50935
[Stream index: 31]
[Conversation completeness: Complete, WITH_DATA (31)]
[TCP Segment Len: 1301]
Sequence Number: 1      (relative sequence number)
Sequence Number (raw): 3007916749
[Next Sequence Number: 1302      (relative sequence number)]
Acknowledgment Number: 513      (relative ack number)
Acknowledgment number (raw): 950212636
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
    000. .... .... = Reserved: Not set
    ...0 .... .... = Accurate ECN: Not set
    .... 0... .... = Congestion Window Reduced: 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: 237
[Calculated window size: 30336]
[Window size scaling factor: 128]
Checksum: 0xd8e3 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
    [Time since first frame in this TCP stream: 0.568376000 seconds]
    [Time since previous frame in this TCP stream: 0.000593000 seconds]
[SEQ/ACK analysis]
    [iRTT: 0.295845000 seconds]
    [Bytes in flight: 1301]
    [Bytes sent since last PSH flag: 1301]
TCP payload (1301 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: Fri, 17 Mar 2023 05:40:29 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: Fri, 17 Mar 2023 05:40:02 GMT\r\n
ETag: "3ae-5f7120234443e"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 942\r\n
    [Content length: 942]
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 1/2]
[Time since request: 0.272272000 seconds]
[Request in frame: 1944]
[Next request in frame: 2043]
[Next response in frame: 2064]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html]

```

```
File Data: 942 bytes
Line-based text data: text/html (23 lines)
<html>\n
<head>\n
<title>Lab2-4 file: Embedded URLs</title>\n
<meta http-equiv="Content-Type" content="text/html; charset=iso-8859-1">\n
</head>\n
\n
<body bgcolor="#FFFFFF" text="#000000">\n
\n
<p>\n
 </p>\n
<p>This little HTML file is being served by gaia.cs.umass.edu. \n
It contains two embedded images. The image above, also served from the \n
gaia.cs.umass.edu web site, is the logo of our publisher, Pearson. \n
The image of our 8th edition book cover below is stored at, and served from,\n
a WWW server kurose.cslash.net in France:</p>\n
<p align="left"></p>\n
And while we have your attention, you might want to take time to check out the\n
\t\t available open resources for this book at\n
\t\t <a href="http://gaia.cs.umass.edu/kurose_ross"> http://gaia.cs.umass.edu/kurose_ross</a>.\n
\n
</body>\n
</html>\n
No.      Time          Source          Destination      Protocol Length Info
 2043 22.059884    10.122.212.200  128.119.245.12  HTTP      512    GET /pearson.png HTTP/1.1
Frame 2043: 512 bytes on wire (4096 bits), 512 bytes captured (4096 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:30.820487000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031630.820487000 seconds
[Time delta from previous captured frame: 0.010257000 seconds]
[Time delta from previous displayed frame: 0.102678000 seconds]
[Time since reference or first frame: 22.059884000 seconds]
Frame Number: 2043
Frame Length: 512 bytes (4096 bits)
Capture Length: 512 bytes (4096 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: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27), Dst: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Destination: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Source: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.122.212.200, Dst: 128.119.245.12
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: 498
Identification: 0x63df (25567)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: TCP (6)
Header Checksum: 0x0000 [validation disabled]
[Header checksum status: Unverified]
Source Address: 10.122.212.200
Destination Address: 128.119.245.12
```

Transmission Control Protocol, Src Port: 50935, Dst Port: 80, Seq: 513, Ack: 1302, Len: 458

Source Port: 50935  
Destination Port: 80  
[Stream index: 31]  
[Conversation completeness: Complete, WITH\_DATA (31)]  
[TCP Segment Len: 458]  
Sequence Number: 513 (relative sequence number)  
Sequence Number (raw): 950212636  
[Next Sequence Number: 971 (relative sequence number)]  
Acknowledgment Number: 1302 (relative ack number)  
Acknowledgment number (raw): 3007918050  
0101 .... = Header Length: 20 bytes (5)  
Flags: 0x018 (PSH, ACK)  
000. .... = Reserved: Not set  
...0 .... = Accurate ECN: Not set  
.... 0... = Congestion Window Reduced: 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: 507  
[Calculated window size: 129792]  
[Window size scaling factor: 256]  
Checksum: 0x56ab [unverified]  
[Checksum Status: Unverified]  
Urgent Pointer: 0  
[Timestamps]  
[Time since first frame in this TCP stream: 0.671054000 seconds]  
[Time since previous frame in this TCP stream: 0.062853000 seconds]  
[SEQ/ACK analysis]  
[iRTT: 0.295845000 seconds]  
[Bytes in flight: 458]  
[Bytes sent since last PSH flag: 458]

TCP payload (458 bytes)

Hypertext Transfer Protocol

GET /pearson.png HTTP/1.1\r\n  
[Expert Info (Chat/Sequence): GET /pearson.png HTTP/1.1\r\n]  
[GET /pearson.png HTTP/1.1\r\n]  
[Severity level: Chat]  
[Group: Sequence]  
Request Method: GET  
Request URI: /pearson.png  
Request Version: HTTP/1.1

Host: gaia.cs.umass.edu\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/537.36 Edg/111.0.1661.41\r\n

Accept: image/webp,image/apng,image/svg+xml,image/\*,\*/\*;q=0.8\r\n

Accept-Encoding: gzip, deflate\r\n

Accept-Language: zh-CN,zh;q=0.9,en-US;q=0.8,en;q=0.7,en-GB;q=0.6\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 2/2]

[Prev request in frame: 1944]

[Response in frame: 2064]

No.	Time	Source	Destination	Protocol	Length	Info
2064	22.332200	128.119.245.12	10.122.212.200	HTTP	901	HTTP/1.1 200 OK (PNG)

Frame 2064: 901 bytes on wire (7208 bits), 901 bytes captured (7208 bits) on interface \Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0

Section number: 1

Interface id: 0 (\Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})

Interface name: \Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}

Interface description: WLAN

Encapsulation type: Ethernet (1)

Arrival Time: Mar 17, 2023 13:40:31.092803000 中国标准时间

[Time shift for this packet: 0.000000000 seconds]

Epoch Time: 1679031631.092803000 seconds

[Time delta from previous captured frame: 0.000000000 seconds]

[Time delta from previous displayed frame: 0.272316000 seconds]

[Time since reference or first frame: 22.332200000 seconds]

Frame Number: 2064

Frame Length: 901 bytes (7208 bits)

```

Capture Length: 901 bytes (7208 bits)
[Frame is marked: False]
[Frame is ignored: False]
[Protocols in frame: eth:ethertype:ip:tcp:http:png]
[Coloring Rule Name: HTTP]
[Coloring Rule String: http || tcp.port == 80 || http2]
Ethernet II, Src: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00), Dst: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
  Destination: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
    Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
      .... 0. .... = LG bit: Globally unique address (factory default)
      .... 0 .... = IG bit: Individual address (unicast)
  Source: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
    Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
      .... 0. .... = LG bit: Globally unique address (factory default)
      .... 0 .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.122.212.200
  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: 887
  Identification: 0x83d8 (33752)
  010. .... = Flags: 0x2, Don't fragment
    0... .... = Reserved bit: Not set
    .1.. .... = Don't fragment: Set
    ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
  Time to Live: 34
  Protocol: TCP (6)
  Header Checksum: 0x7ce2 [validation disabled]
  [Header checksum status: Unverified]
  Source Address: 128.119.245.12
  Destination Address: 10.122.212.200
Transmission Control Protocol, Src Port: 80, Dst Port: 50935, Seq: 4066, Ack: 971, Len: 847
  Source Port: 80
  Destination Port: 50935
  [Stream index: 31]
  [Conversation completeness: Complete, WITH_DATA (31)]
  [TCP Segment Len: 847]
  Sequence Number: 4066 (relative sequence number)
  Sequence Number (raw): 3007920814
  [Next Sequence Number: 4913 (relative sequence number)]
  Acknowledgment Number: 971 (relative ack number)
  Acknowledgment number (raw): 950213094
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
    000. .... = Reserved: Not set
    ...0 .... = Accurate ECN: Not set
    .... 0... = Congestion Window Reduced: 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: 245
  [Calculated window size: 31360]
  [Window size scaling factor: 128]
  Checksum: 0x5cd8 [unverified]
  [Checksum Status: Unverified]
  Urgent Pointer: 0
  [Timestamps]
    [Time since first frame in this TCP stream: 0.943370000 seconds]
    [Time since previous frame in this TCP stream: 0.000000000 seconds]
  [SEQ/ACK analysis]
    [iRTT: 0.295845000 seconds]
    [Bytes in flight: 3611]
    [Bytes sent since last PSH flag: 3611]
  TCP payload (847 bytes)
  TCP segment data (847 bytes)
[3 Reassembled TCP Segments (3611 bytes): #2062(1382), #2063(1382), #2064(847)]
  [Frame: 2062, payload: 0-1381 (1382 bytes)]
  [Frame: 2063, payload: 1382-2763 (1382 bytes)]

```

```
[Frame: 2064, payload: 2764-3610 (847 bytes)]
[Segment count: 3]
[Reassembled TCP length: 3611]
[Reassembled TCP Data: 485454502f312e3120323030204f4b0d0a446174653a204672692c203137204d61722032...]
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: Fri, 17 Mar 2023 05:40:29 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: 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
  [Content length: 3267]
Keep-Alive: timeout=5, max=99\r\n
Connection: Keep-Alive\r\n
Content-Type: image/png\r\n
\r\n
[HTTP response 2/2]
[Time since request: 0.272316000 seconds]
[Prev request in frame: 1944]
[Prev response in frame: 2034]
[Request in frame: 2043]
[Request URI: http://gaia.cs.umass.edu/pearson.png]
File Data: 3267 bytes
```

Portable Network Graphics

```
PNG Signature: 89504e470d0a1a0a
Image Header (IHDR)
  Len: 13
  Chunk: IHDR
  ..0. .... = Ancillary: This is a CRITICAL chunk
  .... ..0. .... = Private: This is a PUBLIC chunk
  .... ....0. .... = Safe To Copy: This chunk is NOT safe to copy
  Width: 253
  Height: 199
  Bit Depth: 8
  Colour Type: Indexed-colour (3)
  Compression Method: Deflate (0)
  Filter Method: Adaptive (0)
  Interlace Method: No interlace (0)
  CRC: 0xe50aa505
Palette (PLTE)
  Len: 189
  Chunk: PLTE
  ..0. .... = Ancillary: This is a CRITICAL chunk
  .... ..0. .... = Private: This is a PUBLIC chunk
  .... ....0. .... = Safe To Copy: This chunk is NOT safe to copy
  Data
  CRC: 0xbd86a38a
Image data chunk (IDAT)
  Len: 3009
  Chunk: IDAT
  ..0. .... = Ancillary: This is a CRITICAL chunk
  .... ..0. .... = Private: This is a PUBLIC chunk
  .... ....0. .... = Safe To Copy: This chunk is NOT safe to copy
  Data
  CRC: 0x93ccbcbcb
Image Trailer (IEND)
  Len: 0
  Chunk: IEND
  ..0. .... = Ancillary: This is a CRITICAL chunk
  .... ..0. .... = Private: This is a PUBLIC chunk
  .... ....0. .... = Safe To Copy: This chunk is NOT safe to copy
  CRC: 0xae426082
```

No.	Time	Source	Destination	Protocol	Length	Info
2073	22.375311	10.122.212.200	178.79.137.164	HTTP	479	GET /8E_cover_small.jpg HTTP/1.1

Frame 2073: 479 bytes on wire (3832 bits), 479 bytes captured (3832 bits) on interface \Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0  
Section number: 1  
Interface id: 0 (\Device\NPF\_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})

```
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:31.135914000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031631.135914000 seconds
[Time delta from previous captured frame: 0.000493000 seconds]
[Time delta from previous displayed frame: 0.043111000 seconds]
[Time since reference or first frame: 22.375311000 seconds]
Frame Number: 2073
Frame Length: 479 bytes (3832 bits)
Capture Length: 479 bytes (3832 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: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27), Dst: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Destination: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0 .... = IG bit: Individual address (unicast)
Source: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.122.212.200, Dst: 178.79.137.164
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: 465
Identification: 0x4e5d (20061)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: TCP (6)
Header Checksum: 0x0000 [validation disabled]
[Header checksum status: Unverified]
Source Address: 10.122.212.200
Destination Address: 178.79.137.164
Transmission Control Protocol, Src Port: 50943, Dst Port: 80, Seq: 1, Ack: 1, Len: 425
Source Port: 50943
Destination Port: 80
[Stream index: 35]
[Conversation completeness: Complete, WITH_DATA (63)]
[TCP Segment Len: 425]
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 623134386
[Next Sequence Number: 426 (relative sequence number)]
Acknowledgment Number: 1 (relative ack number)
Acknowledgment number (raw): 141250328
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
000. .... = Reserved: Not set
...0 .... = Accurate ECN: Not set
.... 0... = Congestion Window Reduced: 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: 512
[Calculated window size: 131072]
[Window size scaling factor: 256]
Checksum: 0x1cfa [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
```



```
[Time since first frame in this TCP stream: 0.301071000 seconds]
[Time since previous frame in this TCP stream: 0.000493000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.300578000 seconds]
[Bytes in flight: 425]
[Bytes sent since last PSH flag: 425]
TCP payload (425 bytes)
Hypertext Transfer Protocol
GET /8E_cover_small.jpg HTTP/1.1\r\n
[Expert Info (Chat/Sequence): GET /8E_cover_small.jpg HTTP/1.1\r\n]
[GET /8E_cover_small.jpg HTTP/1.1\r\n]
[Severity level: Chat]
[Group: Sequence]
Request Method: GET
Request URI: /8E_cover_small.jpg
Request Version: HTTP/1.1
Host: kurose.cslash.net\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/537.36 Edg/111.0.1661.41\r\n
Accept: image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: zh-CN,zh;q=0.9,en-US;q=0.8,en;q=0.7,en-GB;q=0.6\r\n
Connection: keep-alive\r\n
Referer: http://gaia.cs.umass.edu/\r\n
\r\n
[Full request URI: http://kurose.cslash.net/8E_cover_small.jpg]
[HTTP request 1/1]
[Response in frame: 2120]
No.      Time      Source      Destination      Protocol Length Info
2101 22.519889 10.122.212.200 128.119.245.12 HTTP 527 GET /wireshark-labs/img/ico.png HTTP/1.1
Frame 2101: 527 bytes on wire (4216 bits), 527 bytes captured (4216 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:31.280492000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031631.280492000 seconds
[Time delta from previous captured frame: 0.000684000 seconds]
[Time delta from previous displayed frame: 0.144578000 seconds]
[Time since reference or first frame: 22.519889000 seconds]
Frame Number: 2101
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: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27), Dst: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Destination: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Source: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.122.212.200, Dst: 128.119.245.12
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: 513
Identification: 0x63e3 (25571)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 128
Protocol: TCP (6)
Header Checksum: 0x0000 [validation disabled]
```

```
[Header checksum status: Unverified]
Source Address: 10.122.212.200
Destination Address: 128.119.245.12
Transmission Control Protocol, Src Port: 50944, Dst Port: 80, Seq: 1, Ack: 1, Len: 473
Source Port: 50944
Destination Port: 80
[Stream index: 36]
[Conversation completeness: Incomplete, DATA (15)]
[TCP Segment Len: 473]
Sequence Number: 1      (relative sequence number)
Sequence Number (raw): 3394942441
[Next Sequence Number: 474      (relative sequence number)]
Acknowledgment Number: 1      (relative ack number)
Acknowledgment number (raw): 573270861
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
    000. .... = Reserved: Not set
    ...0 .... = Accurate ECN: Not set
    .... 0... = Congestion Window Reduced: 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: 512
[Calculated window size: 131072]
[Window size scaling factor: 256]
Checksum: 0x56ba [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
    [Time since first frame in this TCP stream: 0.280116000 seconds]
    [Time since previous frame in this TCP stream: 0.000684000 seconds]
[SEQ/ACK analysis]
    [iRTT: 0.279432000 seconds]
    [Bytes in flight: 473]
    [Bytes sent since last PSH flag: 473]
TCP payload (473 bytes)
Hypertext Transfer Protocol
GET /wireshark-labs/img/ico.png HTTP/1.1\r\n
    [Expert Info (Chat/Sequence): GET /wireshark-labs/img/ico.png HTTP/1.1\r\n]
    [GET /wireshark-labs/img/ico.png HTTP/1.1\r\n]
    [Severity level: Chat]
    [Group: Sequence]
Request Method: GET
Request URI: /wireshark-labs/img/ico.png
Request Version: HTTP/1.1
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/
537.36 Edg/111.0.1661.41\r\n
Accept: image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: zh-CN,zh;q=0.9,en-US;q=0.8,en;q=0.7,en-GB;q=0.6\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/wireshark-labs/img/ico.png]
[HTTP request 1/2]
[Response in frame: 2132]
[Next request in frame: 3201]
No.      Time      Source      Destination      Protocol Length Info
2120 22.677175 178.79.137.164 10.122.212.200 HTTP 225 HTTP/1.1 301 Moved Permanently
Frame 2120: 225 bytes on wire (1800 bits), 225 bytes captured (1800 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
    Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
    Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:31.437778000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031631.437778000 seconds
[Time delta from previous captured frame: 0.000000000 seconds]
[Time delta from previous displayed frame: 0.157286000 seconds]
```

```

[Time since reference or first frame: 22.677175000 seconds]
Frame Number: 2120
Frame Length: 225 bytes (1800 bits)
Capture Length: 225 bytes (1800 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: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00), Dst: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Destination: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
....0. .... = LG bit: Globally unique address (factory default)
....0. .... = IG bit: Individual address (unicast)
Source: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
....0. .... = LG bit: Globally unique address (factory default)
....0. .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 178.79.137.164, Dst: 10.122.212.200
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: 211
Identification: 0x0621 (1569)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 38
Protocol: TCP (6)
Header Checksum: 0x32ce [validation disabled]
[Header checksum status: Unverified]
Source Address: 178.79.137.164
Destination Address: 10.122.212.200
Transmission Control Protocol, Src Port: 80, Dst Port: 50943, Seq: 1, Ack: 426, Len: 171
Source Port: 80
Destination Port: 50943
[Stream index: 35]
[Conversation completeness: Complete, WITH_DATA (63)]
[TCP Segment Len: 171]
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 141250328
[Next Sequence Number: 172 (relative sequence number)]
Acknowledgment Number: 426 (relative ack number)
Acknowledgment number (raw): 623134811
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
000. .... = Reserved: Not set
...0. .... = Accurate ECN: Not set
....0... = Congestion Window Reduced: 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: 501
[Calculated window size: 64128]
[Window size scaling factor: 128]
Checksum: 0x170a [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.602935000 seconds]
[Time since previous frame in this TCP stream: 0.000000000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.300578000 seconds]
[Bytes in flight: 171]
[Bytes sent since last PSH flag: 171]
TCP payload (171 bytes)
Hypertext Transfer Protocol

```

```
HTTP/1.1 301 Moved Permanently\r\n
[Expert Info (Chat/Sequence): HTTP/1.1 301 Moved Permanently\r\n]
[HTTP/1.1 301 Moved Permanently\r\n]
[Severity level: Chat]
[Group: Sequence]
Response Version: HTTP/1.1
Status Code: 301
[Status Code Description: Moved Permanently]
Response Phrase: Moved Permanently
Location: https://kurose.cslash.net/8E_cover_small.jpg\r\n
Content-Length: 0\r\n
[Content length: 0]
Date: Fri, 17 Mar 2023 05:40:29 GMT\r\n
Server: lighttpd/1.4.47\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.301864000 seconds]
[Request in frame: 2073]
[Request URI: http://kurose.cslash.net/8E_cover_small.jpg]
No.      Time      Source      Destination      Protocol Length Info
2132 22.795148 128.119.245.12 10.122.212.200 HTTP 554 HTTP/1.1 404 Not Found (text/html)
Frame 2132: 554 bytes on wire (4432 bits), 554 bytes captured (4432 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:31.555751000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031631.555751000 seconds
[Time delta from previous captured frame: 0.000000000 seconds]
[Time delta from previous displayed frame: 0.117973000 seconds]
[Time since reference or first frame: 22.795148000 seconds]
Frame Number: 2132
Frame Length: 554 bytes (4432 bits)
Capture Length: 554 bytes (4432 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: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00), Dst: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Destination: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Source: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
.... 0. .... = LG bit: Globally unique address (factory default)
.... 0. .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.122.212.200
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: 540
Identification: 0xc711 (50961)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 35
Protocol: TCP (6)
Header Checksum: 0x3a04 [validation disabled]
[Header checksum status: Unverified]
Source Address: 128.119.245.12
Destination Address: 10.122.212.200
Transmission Control Protocol, Src Port: 80, Dst Port: 50944, Seq: 1, Ack: 474, Len: 500
Source Port: 80
Destination Port: 50944
[Stream index: 36]
[Conversation completeness: Incomplete, DATA (15)]
[TCP Segment Len: 500]
```

```
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 573270861
[Next Sequence Number: 501 (relative sequence number)]
Acknowledgment Number: 474 (relative ack number)
Acknowledgment number (raw): 3394942914
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
 000. .... = Reserved: Not set
...0 .... = Accurate ECN: Not set
.... 0... = Congestion Window Reduced: 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: 237
[Calculated window size: 30336]
[Window size scaling factor: 128]
Checksum: 0xa953 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.555375000 seconds]
[Time since previous frame in this TCP stream: 0.000000000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.279432000 seconds]
[Bytes in flight: 500]
[Bytes sent since last PSH flag: 500]
TCP payload (500 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: Fri, 17 Mar 2023 05:40:30 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: 224\r\n
[Content length: 224]
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: 0.275259000 seconds]
[Request in frame: 2101]
[Next request in frame: 3201]
[Next response in frame: 3229]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/img/ico.png]
File Data: 224 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 /wireshark-labs/img/ico.png was not found on this server.</p>\n
</body></html>\n
No. Time Source Destination Protocol Length Info
3201 27.490222 10.122.212.200 128.119.245.12 HTTP 512 GET /favicon.ico HTTP/1.1
Frame 3201: 512 bytes on wire (4096 bits), 512 bytes captured (4096 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
Interface description: WLAN
Encapsulation type: Ethernet (1)
Arrival Time: Mar 17, 2023 13:40:36.250825000 中国标准时间
[Time shift for this packet: 0.000000000 seconds]
Epoch Time: 1679031636.250825000 seconds
```

```
[Time delta from previous captured frame: 0.011669000 seconds]
[Time delta from previous displayed frame: 4.695074000 seconds]
[Time since reference or first frame: 27.490222000 seconds]
Frame Number: 3201
Frame Length: 512 bytes (4096 bits)
Capture Length: 512 bytes (4096 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: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27), Dst: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
  Destination: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
    Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
      .... 0. .... = LG bit: Globally unique address (factory default)
      .... 0 .... = IG bit: Individual address (unicast)
  Source: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
    Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
      .... 0. .... = LG bit: Globally unique address (factory default)
      .... 0 .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.122.212.200, Dst: 128.119.245.12
  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: 498
  Identification: 0x63e7 (25575)
  010. .... = Flags: 0x2, Don't fragment
    0... .... = Reserved bit: Not set
    .1.. .... = Don't fragment: Set
    ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
  Time to Live: 128
  Protocol: TCP (6)
  Header Checksum: 0x0000 [validation disabled]
  [Header checksum status: Unverified]
  Source Address: 10.122.212.200
  Destination Address: 128.119.245.12
Transmission Control Protocol, Src Port: 50944, Dst Port: 80, Seq: 474, Ack: 501, Len: 458
  Source Port: 50944
  Destination Port: 80
  [Stream index: 36]
  [Conversation completeness: Incomplete, DATA (15)]
  [TCP Segment Len: 458]
  Sequence Number: 474 (relative sequence number)
  Sequence Number (raw): 3394942914
  [Next Sequence Number: 932 (relative sequence number)]
  Acknowledgment Number: 501 (relative ack number)
  Acknowledgment number (raw): 573271361
  0101 .... = Header Length: 20 bytes (5)
  Flags: 0x018 (PSH, ACK)
    000. .... = Reserved: Not set
    ...0 .... = Accurate ECN: Not set
    .... 0... = Congestion Window Reduced: 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: 510
  [Calculated window size: 130560]
  [Window size scaling factor: 256]
  Checksum: 0x56ab [unverified]
  [Checksum Status: Unverified]
  Urgent Pointer: 0
  [Timestamps]
    [Time since first frame in this TCP stream: 5.250449000 seconds]
    [Time since previous frame in this TCP stream: 4.655159000 seconds]
  [SEQ/ACK analysis]
    [iRTT: 0.279432000 seconds]
    [Bytes in flight: 458]
    [Bytes sent since last PSH flag: 458]
```

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TCP payload (458 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 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/111.0.0.0 Safari/537.36 Edg/111.0.1661.41\r\n
Accept: image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: zh-CN,zh;q=0.9,en-US;q=0.8,en;q=0.7,en-GB;q=0.6\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/favicon.ico]
[HTTP request 2/2]
[Prev request in frame: 2101]
[Response in frame: 3229]
No.      Time                Source                Destination            Protocol Length Info
 3229 27.769537         128.119.245.12        10.122.212.200        HTTP      538    HTTP/1.1 404 Not Found (text/html)
Frame 3229: 538 bytes on wire (4304 bits), 538 bytes captured (4304 bits) on interface \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}, id 0
  Section number: 1
  Interface id: 0 (\Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93})
    Interface name: \Device\NPF_{E86A0AD6-BF88-4FDE-94F9-A7531B9ADD93}
    Interface description: WLAN
  Encapsulation type: Ethernet (1)
  Arrival Time: Mar 17, 2023 13:40:36.530140000 中国标准时间
  [Time shift for this packet: 0.000000000 seconds]
  Epoch Time: 1679031636.530140000 seconds
  [Time delta from previous captured frame: 0.057737000 seconds]
  [Time delta from previous displayed frame: 0.279315000 seconds]
  [Time since reference or first frame: 27.769537000 seconds]
  Frame Number: 3229
  Frame Length: 538 bytes (4304 bits)
  Capture Length: 538 bytes (4304 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: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00), Dst: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
  Destination: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
    Address: IntelCor_29:5a:27 (f0:9e:4a:29:5a:27)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
  Source: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
    Address: ArubaaHe_6c:24:00 (10:4f:58:6c:24:00)
      ....0. .... = LG bit: Globally unique address (factory default)
      ....0. .... = IG bit: Individual address (unicast)
  Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.122.212.200
  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: 524
  Identification: 0xc712 (50962)
  010. .... = Flags: 0x2, Don't fragment
    0... .... = Reserved bit: Not set
    .1.. .... = Don't fragment: Set
    ..0. .... = More fragments: Not set
  ...0 0000 0000 0000 = Fragment Offset: 0
  Time to Live: 35
  Protocol: TCP (6)
  Header Checksum: 0x3a13 [validation disabled]
  [Header checksum status: Unverified]
  Source Address: 128.119.245.12
  Destination Address: 10.122.212.200
Transmission Control Protocol, Src Port: 80, Dst Port: 50944, Seq: 501, Ack: 932, Len: 484
  Source Port: 80
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Destination Port: 50944
[Stream index: 36]
[Conversation completeness: Incomplete, DATA (15)]
[TCP Segment Len: 484]
Sequence Number: 501      (relative sequence number)
Sequence Number (raw): 573271361
[Next Sequence Number: 985      (relative sequence number)]
Acknowledgment Number: 932      (relative ack number)
Acknowledgment number (raw): 3394943372
0101 .... = Header Length: 20 bytes (5)
Flags: 0x018 (PSH, ACK)
  000. .... = Reserved: Not set
  ...0 .... = Accurate ECN: Not set
  .... 0... = Congestion Window Reduced: 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: 245
[Calculated window size: 31360]
[Window size scaling factor: 128]
Checksum: 0x0fe9 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
  [Time since first frame in this TCP stream: 5.529764000 seconds]
  [Time since previous frame in this TCP stream: 0.279315000 seconds]
[SEQ/ACK analysis]
  [This is an ACK to the segment in frame: 3201]
  [The RTT to ACK the segment was: 0.279315000 seconds]
  [iRTT: 0.279432000 seconds]
  [Bytes in flight: 484]
  [Bytes sent since last PSH flag: 484]
TCP payload (484 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: Fri, 17 Mar 2023 05:40:35 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
  [Content length: 209]
Keep-Alive: timeout=5, max=99\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=iso-8859-1\r\n
\r\n
[HTTP response 2/2]
[Time since request: 0.279315000 seconds]
[Prev request in frame: 2101]
[Prev response in frame: 2132]
[Request in frame: 3201]
[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
```