```
    156 10.126308      155.4.140.82          128.119.245.12        HTTP     409    GET /wireshark-labs/protected_pages/HTTP-
wiresharkfile5.html HTTP/1.1
Frame 156: 409 bytes on wire (3272 bits), 409 bytes captured (3272 bits) on interface 0
    Interface id: 0 (\Device\NPF_{FC2C61BE-0450-42D9-A76B-6E3FEC9C68A9})
    Encapsulation type: Ethernet (1)
    Arrival Time: Apr 11, 2018 00:43:32.379980000 Västeuropa, sommartid
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1523400212.379980000 seconds
    [Time delta from previous captured frame: 0.010389000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 10.126308000 seconds]
    Frame Number: 156
    Frame Length: 409 bytes (3272 bits)
    Capture Length: 409 bytes (3272 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: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6), Dst: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
    Destination: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
    Source: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 155.4.140.82, Dst: 128.119.245.12
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 395
    Identification: 0x24b1 (9393)
    Flags: 0x02 (Don't Fragment)
    Fragment offset: 0
    Time to live: 128
    Protocol: TCP (6)
    Header checksum: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source: 155.4.140.82
    Destination: 128.119.245.12
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
Transmission Control Protocol, Src Port: 58629, Dst Port: 80, Seq: 1, Ack: 1, Len: 355
    Source Port: 58629
    Destination Port: 80
    [Stream index: 24]
    [TCP Segment Len: 355]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 356    (relative sequence number)]
    Acknowledgment number: 1    (relative ack number)
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
    Window size value: 1024
    [Calculated window size: 262144]
    [Window size scaling factor: 256]
    Checksum: 0x9e58 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    TCP payload (355 bytes)
Hypertext Transfer Protocol
    GET /wireshark-labs/protected_pages/HTTP-wiresharkfile5.html HTTP/1.1\r\n
    Accept: text/html, application/xhtml+xml, image/jxr, */*\r\n
    Accept-Language: sv-SE,sv;q=0.8,en-US;q=0.5,en;q=0.3\r\n
    User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; Trident/7.0; ASTE; rv:11.0) like Gecko\r\n
    Accept-Encoding: gzip, deflate\r\n
    Host: gaia.cs.umass.edu\r\n
    Connection: Keep-Alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wiresharkfile5.html]
    [HTTP request 1/1]
    [Response in frame: 160]
    160 10.265537      128.119.245.12        155.4.140.82          HTTP     771    HTTP/1.1 401 Unauthorized  (text/html)
Frame 160: 771 bytes on wire (6168 bits), 771 bytes captured (6168 bits) on interface 0
    Interface id: 0 (\Device\NPF_{FC2C61BE-0450-42D9-A76B-6E3FEC9C68A9})
    Encapsulation type: Ethernet (1)
    Arrival Time: Apr 11, 2018 00:43:32.519209000 Västeuropa, sommartid
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1523400212.519209000 seconds
    [Time delta from previous captured frame: 0.000801000 seconds]
    [Time delta from previous displayed frame: 0.139229000 seconds]
    [Time since reference or first frame: 10.265537000 seconds]
    Frame Number: 160
```

```
    Frame Length: 771 bytes (6168 bits)
    Capture Length: 771 bytes (6168 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: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f), Dst: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Destination: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Source: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 155.4.140.82
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 757
    Identification: 0x8129 (33065)
    Flags: 0x02 (Don't Fragment)
    Fragment offset: 0
    Time to live: 42
    Protocol: TCP (6)
    Header checksum: 0x2fff [validation disabled]
    [Header checksum status: Unverified]
    Source: 128.119.245.12
    Destination: 155.4.140.82
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
Transmission Control Protocol, Src Port: 80, Dst Port: 58629, Seq: 1, Ack: 356, Len: 717
    Source Port: 80
    Destination Port: 58629
    [Stream index: 24]
    [TCP Segment Len: 717]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 718    (relative sequence number)]
    Acknowledgment number: 356    (relative ack number)
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
    Window size value: 237
    [Calculated window size: 30336]
    [Window size scaling factor: 128]
    Checksum: 0x3f01 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    TCP payload (717 bytes)
Hypertext Transfer Protocol
    HTTP/1.1 401 Unauthorized\r\n
    Date: Tue, 10 Apr 2018 22:43:35 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod_perl/2.0.10 Perl/v5.16.3\r\n
    WWW-Authenticate: Basic realm="wireshark-students only"\r\n
    Content-Length: 381\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 1/1]
    [Time since request: 0.139229000 seconds]
    [Request in frame: 156]
    File Data: 381 bytes
Line-based text data: text/html
    416 24.433191      155.4.140.82          128.119.245.12        HTTP     468    GET /wireshark-labs/protected_pages/HTTP-
wiresharkfile5.html HTTP/1.1
Frame 416: 468 bytes on wire (3744 bits), 468 bytes captured (3744 bits) on interface 0
    Interface id: 0 (\Device\NPF_{FC2C61BE-0450-42D9-A76B-6E3FEC9C68A9})
    Encapsulation type: Ethernet (1)
    Arrival Time: Apr 11, 2018 00:43:46.686863000 Västeuropa, sommartid
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1523400226.686863000 seconds
    [Time delta from previous captured frame: 0.006988000 seconds]
    [Time delta from previous displayed frame: 14.167654000 seconds]
    [Time since reference or first frame: 24.433191000 seconds]
    Frame Number: 416
    Frame Length: 468 bytes (3744 bits)
    Capture Length: 468 bytes (3744 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: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6), Dst: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
```

```
    Destination: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
    Source: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 155.4.140.82, Dst: 128.119.245.12
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 454
    Identification: 0x24b8 (9400)
    Flags: 0x02 (Don't Fragment)
    Fragment offset: 0
    Time to live: 128
    Protocol: TCP (6)
    Header checksum: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source: 155.4.140.82
    Destination: 128.119.245.12
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
Transmission Control Protocol, Src Port: 58632, Dst Port: 80, Seq: 1, Ack: 1, Len: 414
    Source Port: 58632
    Destination Port: 80
    [Stream index: 38]
    [TCP Segment Len: 414]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 415    (relative sequence number)]
    Acknowledgment number: 1    (relative ack number)
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
    Window size value: 1024
    [Calculated window size: 262144]
    [Window size scaling factor: 256]
    Checksum: 0x9e93 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    TCP payload (414 bytes)
Hypertext Transfer Protocol
    GET /wireshark-labs/protected_pages/HTTP-wiresharkfile5.html HTTP/1.1\r\n
    Accept: text/html, application/xhtml+xml, image/jxr, */*\r\n
    Accept-Language: sv-SE,sv;q=0.8,en-US;q=0.5,en;q=0.3\r\n
    User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; Trident/7.0; ASTE; rv:11.0) like Gecko\r\n
    Accept-Encoding: gzip, deflate\r\n
    Host: gaia.cs.umass.edu\r\n
    Connection: Keep-Alive\r\n
    Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wiresharkfile5.html]
    [HTTP request 1/1]
    [Response in frame: 418]
    418 24.572880      128.119.245.12        155.4.140.82          HTTP     583    HTTP/1.1 404 Not Found  (text/html)
Frame 418: 583 bytes on wire (4664 bits), 583 bytes captured (4664 bits) on interface 0
    Interface id: 0 (\Device\NPF_{FC2C61BE-0450-42D9-A76B-6E3FEC9C68A9})
    Encapsulation type: Ethernet (1)
    Arrival Time: Apr 11, 2018 00:43:46.826552000 Västeuropa, sommartid
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1523400226.826552000 seconds
    [Time delta from previous captured frame: 0.001493000 seconds]
    [Time delta from previous displayed frame: 0.139689000 seconds]
    [Time since reference or first frame: 24.572880000 seconds]
    Frame Number: 418
    Frame Length: 583 bytes (4664 bits)
    Capture Length: 583 bytes (4664 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: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f), Dst: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Destination: AsustekC_72:3f:a6 (2c:56:dc:72:3f:a6)
    Source: Cisco_ff:e8:3f (00:a2:ee:ff:e8:3f)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 155.4.140.82
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 569
    Identification: 0xe24e (57934)
    Flags: 0x02 (Don't Fragment)
    Fragment offset: 0
```

```
    Time to live: 43
    Protocol: TCP (6)
    Header checksum: 0xce95 [validation disabled]
    [Header checksum status: Unverified]
    Source: 128.119.245.12
    Destination: 155.4.140.82
    [Source GeoIP: Unknown]
    [Destination GeoIP: Unknown]
Transmission Control Protocol, Src Port: 80, Dst Port: 58632, Seq: 1, Ack: 415, Len: 529
    Source Port: 80
    Destination Port: 58632
    [Stream index: 38]
    [TCP Segment Len: 529]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 530    (relative sequence number)]
    Acknowledgment number: 415    (relative ack number)
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
    Window size value: 237
    [Calculated window size: 30336]
    [Window size scaling factor: 128]
    Checksum: 0x7896 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    TCP payload (529 bytes)
Hypertext Transfer Protocol
    HTTP/1.1 404 Not Found\r\n
    Date: Tue, 10 Apr 2018 22:43:49 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod_perl/2.0.10 Perl/v5.16.3\r\n
    Content-Length: 253\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 1/1]
    [Time since request: 0.139689000 seconds]
    [Request in frame: 416]
    File Data: 253 bytes
Line-based text data: text/html
```