

```
21 53.714381660 128.119.245.12 10.11.157.115 HTTP 783 HTTP/1.1 401 Unauthorized (text/html)
Frame 21: 783 bytes on wire (6264 bits), 783 bytes captured (6264 bits) on interface 0
Ethernet II, Src: Alcatel-_67:a4:81 (2c:fa:a2:67:a4:81), Dst: IntelCor_3f:83:e0 (e0:9d:31:3f:83:e0)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.11.157.115
Transmission Control Protocol, Src Port: 80, Dst Port: 47900, Seq: 1, Ack: 473, Len: 717
Source Port: 80
Destination Port: 47900
[Stream index: 1]
[TCP Segment Len: 717]
Sequence number: 1 (relative sequence number)
[Next sequence number: 718 (relative sequence number)]
Acknowledgment number: 473 (relative ack number)
1000 .... = Header Length: 32 bytes (8)
Flags: 0x018 (PSH, ACK)
Window size value: 235
[Calculated window size: 30080]
[Window size scaling factor: 128]
Checksum: 0x9cc7 [unverified]
[Checksum Status: Unverified]
Urgent pointer: 0
Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
[SEQ/ACK analysis]
TCP payload (717 bytes)
Hypertext Transfer Protocol
HTTP/1.1 401 Unauthorized\r\n
[Expert Info (Chat/Sequence): HTTP/1.1 401 Unauthorized\r\n]
Request Version: HTTP/1.1
Status Code: 401
[Status Code Description: Unauthorized]
Response Phrase: Unauthorized
Date: Thu, 25 Jan 2018 06:48:08 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: 0.088814666 seconds]
[Request in frame: 19]
File Data: 381 bytes
Line-based text data: text/html
```

18. 401 Unauthorized

```
34 82.281530844 10.11.157.115 128.119.245.12 HTTP 597 GET /wireshark-labs/protected_pages/HTTP-
wireshark-file5.html HTTP/1.1
Frame 34: 597 bytes on wire (4776 bits), 597 bytes captured (4776 bits) on interface 0
Ethernet II, Src: IntelCor_3f:83:e0 (e0:9d:31:3f:83:e0), Dst: Alcatel-_67:a4:81 (2c:fa:a2:67:a4:81)
Internet Protocol Version 4, Src: 10.11.157.115, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 47902, Dst Port: 80, Seq: 1, Ack: 1, Len: 531
  Source Port: 47902
  Destination Port: 80
  [Stream index: 2]
  [TCP Segment Len: 531]
  Sequence number: 1 (relative sequence number)
  [Next sequence number: 532 (relative sequence number)]
  Acknowledgment number: 1 (relative ack number)
  1000 .... = Header Length: 32 bytes (8)
  Flags: 0x018 (PSH, ACK)
  Window size value: 229
  [Calculated window size: 29312]
  [Window size scaling factor: 128]
  Checksum: 0x3edb [unverified]
  [Checksum Status: Unverified]
  Urgent pointer: 0
  Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
  [SEQ/ACK analysis]
  TCP payload (531 bytes)
Hypertext Transfer Protocol
  GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1\r\n
    [Expert Info (Chat/Sequence): GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1\r\n]
    Request Method: GET
    Request URI: /wireshark-labs/protected_pages/HTTP-wireshark-file5.html
    Request Version: HTTP/1.1
    Host: gaia.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Authorization: Basic d2lyZXNoYXJrLXN0dWR1bnRzOm5ldHdvcm0=\r\n
    Upgrade-Insecure-Requests: 1\r\n
    User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) QtWebEngine/5.10.0 Chrome/61.0.3163.140
    Safari/537.36\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8\r\n
    Accept-Language: en-US,en\r\n
    X-Do-Not-Track: 1\r\n
    DNT: 1\r\n
    Accept-Encoding: gzip, deflate\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html]
    [HTTP request 1/2]
    [Response in frame: 36]
    [Next request in frame: 38]
```

19. It adds an authorization field