[SEQ/ACK analysis]

[iRTT: 0.119560000 seconds]

```
No.
       Time
                      Source
                                            Destination
                                                                 Protocol Length Info
    45 7.532171
                                                                                GET /wireshark-labs/INTRO-wireshark-
                      192.168.0.105
                                            128.119.245.12
                                                                 HTTP
                                                                          438
file1.html HTTP/1.1
Frame 45: 438 bytes on wire (3504 bits), 438 bytes captured (3504 bits) on interface \Device\NPF_{9D660822-84B8-4442-BBBD-
DC94F642EC7A}, id 0
   Interface id: 0 (\Device\NPF_{9D660822-84B8-4442-BBBD-DC94F642EC7A})
       Interface name: \Device\NPF_{9D660822-84B8-4442-BBBD-DC94F642EC7A}
       Interface description: Беспроводная сеть
    Encapsulation type: Ethernet (1)
   Arrival Time: Jun 12, 2020 13:22:56.688451000 RTZ 2 (зима)
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1591957376.688451000 seconds
    [Time delta from previous captured frame: 0.001117000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 7.532171000 seconds]
    Frame Number: 45
    Frame Length: 438 bytes (3504 bits)
    Capture Length: 438 bytes (3504 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_e5:52:a4 (68:07:15:e5:52:a4), Dst: Tp-LinkT_01:31:68 (84:16:f9:01:31:68)
   Destination: Tp-LinkT_01:31:68 (84:16:f9:01:31:68)
       Address: Tp-LinkT_01:31:68 (84:16:f9:01:31:68)
        .....0. ... = LG bit: Globally unique address (factory default)
.....0 ... = IG bit: Individual address (unicast)
    Source: IntelCor_e5:52:a4 (68:07:15:e5:52:a4)
       Address: IntelCor_e5:52:a4 (68:07:15:e5:52:a4)
        .... .0. .... = LG bit: Globally unique address (factory default)
        .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 192.168.0.105, 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: 424
    Identification: 0xee60 (61024)
    Flags: 0x4000, Don't fragment
       0... = Reserved bit: Not set
        .1. .... = Don't fragment: Set
        ..0. .... = More fragments: Not set
    Fragment offset: 0
    Time to live: 128
    Protocol: TCP (6)
    Header checksum: 0xd459 [validation disabled]
    [Header checksum status: Unverified]
    Source: 192.168.0.105
    Destination: 128.119.245.12
Transmission Control Protocol, Src Port: 61126, Dst Port: 80, Seq: 1, Ack: 1, Len: 384
    Source Port: 61126
    Destination Port: 80
    [Stream index: 7]
    [TCP Segment Len: 384]
    Sequence number: 1 (relative sequence number)
    Sequence number (raw): 199572591
    [Next sequence number: 385 (relative sequence number)]
    Acknowledgment number: 1
                              (relative ack number)
    Acknowledgment number (raw): 3446130988
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
       000. .... = Reserved: Not set
        ...0 .... = Nonce: Not set
        .... 0... = Congestion Window Reduced (CWR): Not set
        .... .0.. = ECN-Echo: Not set
        .... ..0. .... = Urgent: Not set
        .... - 1 .... = Acknowledgment: Set
        .... 1... = Push: Set
        .... .... .0.. = Reset: Not set
        .... .... ... ... = Syn: Not set
             .... 0 = Fin: Not set
        [TCP Flags: ······AP···]
    Window size value: 513
    [Calculated window size: 131328]
    [Window size scaling factor: 256]
    Checksum: 0x651f [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
```

```
[Bytes in flight: 384]
        [Bytes sent since last PSH flag: 384]
    [Timestamps]
        [Time since first frame in this TCP stream: 0.122153000 seconds]
        [Time since previous frame in this TCP stream: 0.002593000 seconds]
    TCP payload (384 bytes)
Hypertext Transfer Protocol
    GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
        [Expert Info (Chat/Sequence): GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n]
            [GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n]
            [Severity level: Chat]
            [Group: Sequence]
        Request Method: GET
        Request URI: /wireshark-labs/INTRO-wireshark-file1.html
        Request Version: HTTP/1.1
    Host: \ gaia.cs.umass.edu \\ \ r\\ \ n
    User-Agent: Mozilla/5.0 (Windows NT 10.0; WOW64; rv:68.0) Gecko/20100101 Firefox/68.0\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8\r\n
    Accept-Language: ru-RU,ru;q=0.8,en-US;q=0.5,en;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/INTRO-wireshark-file1.html]
    [HTTP request 1/1]
    [Response in frame: 51]
```

[Bytes in flight: 437]

```
No.
       Time
                      Source
                                           Destination
                                                                Protocol Length Info
                     128.119.245.12
                                          192.168.0.105
    51 7.657886
                                                                HTTP 491 HTTP/1.1 200 OK (text/html)
Frame 51: 491 bytes on wire (3928 bits), 491 bytes captured (3928 bits) on interface \Device\NPF_{9D660822-84B8-4442-BBBD-
DC94F642EC7A}, id 0
   Interface id: 0 (\Device\NPF {9D660822-84B8-4442-BBBD-DC94F642EC7A})
        Interface name: \Device\NPF_{9D660822-84B8-4442-BBBD-DC94F642EC7A}
       Interface description: Беспроводная сеть
    Encapsulation type: Ethernet (1)
    Arrival Time: Jun 12, 2020 13:22:56.814166000 RTZ 2 (зима)
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1591957376.814166000 seconds
    [Time delta from previous captured frame: 0.005066000 seconds]
    [Time delta from previous displayed frame: 0.125715000 seconds]
    [Time since reference or first frame: 7.657886000 seconds]
    Frame Number: 51
    Frame Length: 491 bytes (3928 bits)
    Capture Length: 491 bytes (3928 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: Tp-LinkT_01:31:68 (84:16:f9:01:31:68), Dst: IntelCor_e5:52:a4 (68:07:15:e5:52:a4)
    Destination: IntelCor_e5:52:a4 (68:07:15:e5:52:a4)
       Address: IntelCor_e5:52:a4 (68:07:15:e5:52:a4)
        .... .0. .... = LG bit: Globally unique address (factory default)
        .... ...0 .... = IG bit: Individual address (unicast)
    Source: Tp-LinkT_01:31:68 (84:16:f9:01:31:68)
       Address: Tp-LinkT_01:31:68 (84:16:f9:01:31:68)
        .... .0. .... = LG bit: Globally unique address (factory default)
        .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.105
   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: 477
    Identification: 0x2ed9 (11993)
    Flags: 0x4000, Don't fragment
       0... .... = Reserved bit: Not set
        .1.. ... = Don't fragment: Set
        ..0. .... = More fragments: Not set
    Fragment offset: 0
    Time to live: 48
    Protocol: TCP (6)
    Header checksum: 0xe3ac [validation disabled]
    [Header checksum status: Unverified]
    Source: 128.119.245.12
    Destination: 192.168.0.105
Transmission Control Protocol, Src Port: 80, Dst Port: 61126, Seq: 1, Ack: 385, Len: 437
    Source Port: 80
    Destination Port: 61126
    [Stream index: 7]
    [TCP Segment Len: 437]
    Sequence number: 1 (relative sequence number)
Sequence number (raw): 3446130988
    [Next sequence number: 438
                                (relative sequence number)]
    Acknowledgment number: 385
                                 (relative ack number)
    Acknowledgment number (raw): 199572975
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
       000. .... = Reserved: Not set
        ...0 .... = Nonce: Not set
        .... 0... = Congestion Window Reduced (CWR): Not set
        .... .0.. .... = ECN-Echo: Not set
        .... ..0. .... = Urgent: Not set
        .... = Acknowledgment: Set
        .... 1... = Push: Set
        .... .0.. = Reset: Not set
        .... .... ..0. = Syn: Not set
        .... 0 = Fin: Not set
        [TCP Flags: ······AP···]
    Window size value: 237
    [Calculated window size: 30336]
    [Window size scaling factor: 128]
    Checksum: 0x697a [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
        [iRTT: 0.119560000 seconds]
```

```
[Bytes sent since last PSH flag: 437]
    [Timestamps]
        [Time since first frame in this TCP stream: 0.247868000 seconds]
        [Time since previous frame in this TCP stream: 0.005066000 seconds]
   TCP payload (437 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, 12 Jun 2020 10:22:56 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.6 mod_perl/2.0.11 Perl/v5.16.3\r\n
    Last-Modified: Fri, 12 Jun 2020 05:59:02 GMT\r\n
    ETag: "51-5a7dcc6240bea"\r\n
   Accept-Ranges: bytes\r\n
   Content-Length: 81\r\n
        [Content length: 81]
    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: 0.125715000 seconds]
    [Request in frame: 45]
    [Request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    File Data: 81 bytes
Line-based text data: text/html (3 lines)
    <html>\n
    Congratulations! You've downloaded the first Wireshark lab file!\n
    </html>\n
```