Christopher Desir CS-GY 6843 COMPUTER NETWORKING, Section CF 9/6/2019

- 1) The three different protocols that appear in the protocols column in the unfiltered packetlisting window was DNS, TCP, and HTTP.
- 2) It took 00.021466 seconds for HTTP GET message was sent until the HTTP OK reply was received.
- 3)IP 128.119.245.12 is the internet address of gaia.cs.umass.edu.

4) OK

```
Time
                          Source
                                                Destination
                                                                      Protocol Length Info
 91813 23:01:36.660512 128.119.245.12
                                                192.168.1.155
                                                                     HTTP 492 HTTP/1.1 200 OK (text/html)
Frame 91813: 492 bytes on wire (3936 bits), 492 bytes captured (3936 bits) on interface 0
Ethernet II, Src: AsustekC_d3:3e:b4 (1c:87:2c:d3:3e:b4), Dst: Micro-St_09:f9:a0 (4c:cc:6a:09:f9:a0)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.155
Transmission Control Protocol, Src Port: 80, Dst Port: 62106, Seq: 1, Ack: 461, Len: 438
    Source Port: 80
    Destination Port: 62106
    [Stream index: 300]
    [TCP Segment Len: 438]
    Sequence number: 1 (relative sequence number)
    [Next sequence number: 439 (relative sequence number)]
    Acknowledgment number: 461
                                  (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: 0x9632 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    [Timestamps]
    TCP payload (438 bytes)
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Sat, 07 Sep 2019 03:01:36 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
    Last-Modified: Fri, 06 Sep 2019 05:59:01 GMT\r\n
    ETag: "51-591dc228617ad"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 81\r\n
    Keep-Alive: timeout=5, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=UTF-8\r\n
    [HTTP response 1/2]
    [Time since request: 0.021466000 seconds]
    [Request in frame: 91809]
    [Next request in frame: 91825]
    [Next response in frame: 91829]
    [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)
```

```
Source
                                                   Destination
                                                                          Protocol Length Info
No.
        Time
  91809 23:01:36.639046
                            192.168.1.155
                                                   128.119.245.12
                                                                          HTTP
                                                                                    514
                                                                                           GET /wireshark-labs/INTRO-
wireshark-file1.html HTTP/1.1
Frame 91809: 514 bytes on wire (4112 bits), 514 bytes captured (4112 bits) on interface 0
Ethernet II, Src: Micro-St_09:f9:a0 (4c:cc:6a:09:f9:a0), Dst: AsustekC_d3:3e:b4 (1c:87:2c:d3:3e:b4)
Internet Protocol Version 4, Src: 192.168.1.155, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 62106, Dst Port: 80, Seq: 1, Ack: 1, Len: 460
    Source Port: 62106
    Destination Port: 80
    [Stream index: 300]
    [TCP Segment Len: 460]
    Sequence number: 1 (relative sequence number)
[Next sequence number: 461 (relative sequence
                                   (relative sequence number)]
                                 (relative ack number)
    Acknowledgment number: 1
    0101 .... = Header Length: 20 bytes (5)
    Flags: 0x018 (PSH, ACK)
    Window size value: 1026
    [Calculated window size: 262656]
    [Window size scaling factor: 256]
    Checksum: 0x54f7 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
    [SEQ/ACK analysis]
    [Timestamps]
    TCP payload (460 bytes)
Hypertext Transfer Protocol
    GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    Host: gaia.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Upgrade-Insecure-Requests: 1\r\n
    User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/76.0.3809.132
Safari/537.36\r\n
    Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/appg,*/*;q=0.8,application/signed-
exchange; v=b3\r\n
    Accept-Encoding: gzip, deflate\r\n
Accept-Language: en-US,en;q=0.9\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
    [HTTP request 1/2]
    [Response in frame: 91813]
    [Next request in frame: 91825]
```