

ELEC-5220

# Info. Networks

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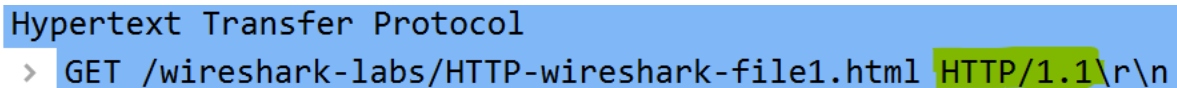
## Lab 2

## Introduction

This Lab was a continuation to *Lab 1*. We leaned a little more about Wireshark and how to find packet numbers and status codes along with other things.

### 1. Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?

Based on the info shown in WireShark shown in *Figure 1* below, my browser is running HTTP version 1.1.

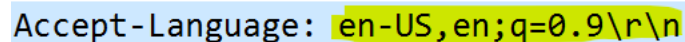


```
Hypertext Transfer Protocol
> GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
```

*Figure 1*

### 2. What languages (if any) does your browser indicate that it can accept to the server?

When checking, wireshark shows that our browser accepts the following languages: en-US, en;q=0.9\r\n. This is shown in *Figure 2* below.



```
Accept-Language: en-US,en;q=0.9\r\n
```

*Figure 2*

### 3. What is the IP address of your computer? Of the gaia.cs.umass.edu server?

When checking wireshark for the IP of the website and our PC, we get 192.188.1.11 for the website IP and 128.119.245.12 for our PC IP address as seen below in *Figure 3*.

Source	Destination
192.168.1.11	128.119.245.12

Figure 3

#### 4. What is the status code returned from the server to your browser?

The status code returned is 200 after checking Wireshark and is shown in Figure 4.

HTTP/1.1 200 OK

Figure 4

#### 5. How many bytes of content are being returned to your browser?

When checking Wireshark, it seems the number of bytes retrieved is 128 bytes. This is shown in Figure 5 below.

Next response in frame: 128  
 [Request URI: http://gaia.cs.un  
 File Data: 128 bytes

Figure 5

#### 6. How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill of Rights?

When checking Wireshark, I only had one GET request. The packet number for the GET request seems to be 23, as seen below in Figure 6.

No.	Time	Source	Destination	Protocol	Length	Info
23	19:29:35.948007	192.168.1.11	128.119.245.12	HTTP	642	GET /v
39	19:29:36.010290	128.119.245.12	192.168.1.11	HTTP	295	HTTP/1

Figure 6

## 7. Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request?

Packet number 39 contains the status code and phrase associated with the response to GET request. This is shown in *Figure 7* below.

No.	Time	Source	Destination	Protocol	Length	Info
23	19:29:35.948007	192.168.1.11	128.119.245.12	HTTP	642	GET /wireshark-labs
39	19:29:36.010290	128.119.245.12	192.168.1.11	HTTP	295	HTTP/1.1 304 Not

*Figure 7*

## 8. What is the status code and phrase in the response?

The status code is 304 and has the response phrase “Not Modified”. This can be seen in *Figure 8* below.

```
Status Code: 304
[Status Code Description: Not Modified]
Response Phrase: Not Modified
```

*Figure 8*

## 9. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?

When looking at wireshark after entering the URL, it seems that we sent 3 GET requests through the browser. The requests were sent to gaia.cs.umass.edu and requested wireshark-labs/HTTP-wireshark-file4.html, pearson.png, and 8E\_cover\_small.jpg. All info gathered from wireshark can be seen in *Figures 8 and 9* below.

Time	Source	Destination	Protocol	Length	Info
73	19:50:10.798852	192.168.1.11	HTTP	529	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
84	19:50:10.854473	128.119.245.12	HTTP	1355	HTTP/1.1 200 OK (text/html)
100	19:50:10.923717	192.168.1.11	HTTP	475	GET /pearson.png HTTP/1.1
109	19:50:10.978108	128.119.245.12	HTTP	745	HTTP/1.1 200 OK (PNG)
119	19:50:11.126688	192.168.1.11	HTTP	442	GET /8E_cover_small.jpg HTTP/1.1
123	19:50:11.239759	178.79.137.164	HTTP	225	HTTP/1.1 301 Moved Permanently

*Figure 8*

```
Request Method: GET  
Request URI: /wireshark-labs/HTTP-wireshark-  
Request Version: HTTP/1.1  
Host: gaia.cs.umass.edu\r\n
```

*Figure 9*

**10. What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser?**

The initial status code is 401 and response phrase is "Unauthorized". This is the code and phrase before signing into the webpage and the WireShark information is shown below in *Figure 10*.

```
Status Code: 401  
[Status Code Description: Unauthorized]  
Response Phrase: Unauthorized
```

*Figure 10*

**11. When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?**

The second time we send a GET request after signing in, we get a 200 OK message, meaning we have signed on and can see the webpage. This is shown below in *Figure 11*.

```
Info  
GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1  
HTTP/1.1 401 Unauthorized (text/html)  
GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1  
HTTP/1.1 200 OK (text/html)
```

*Figure 11*