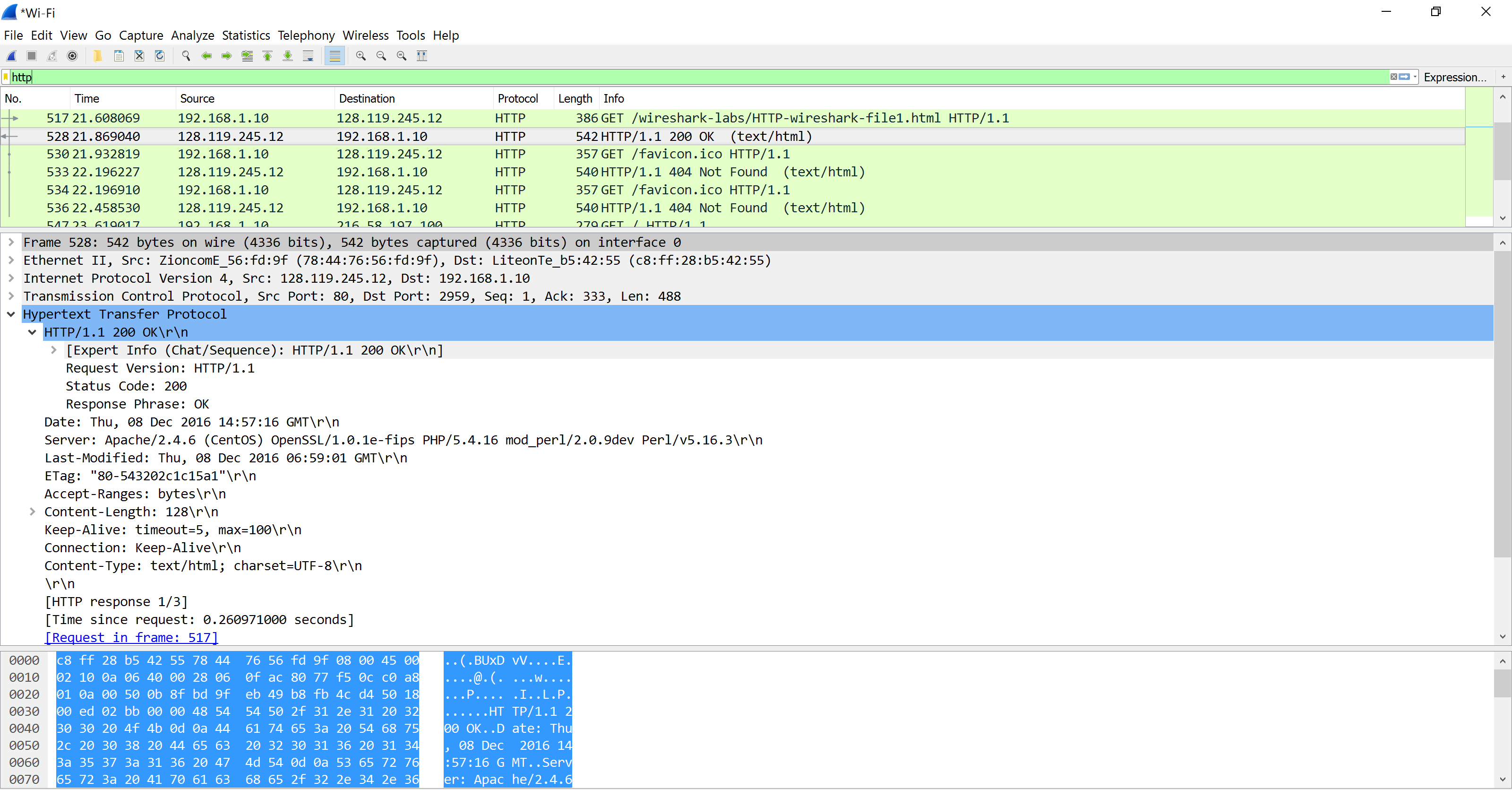
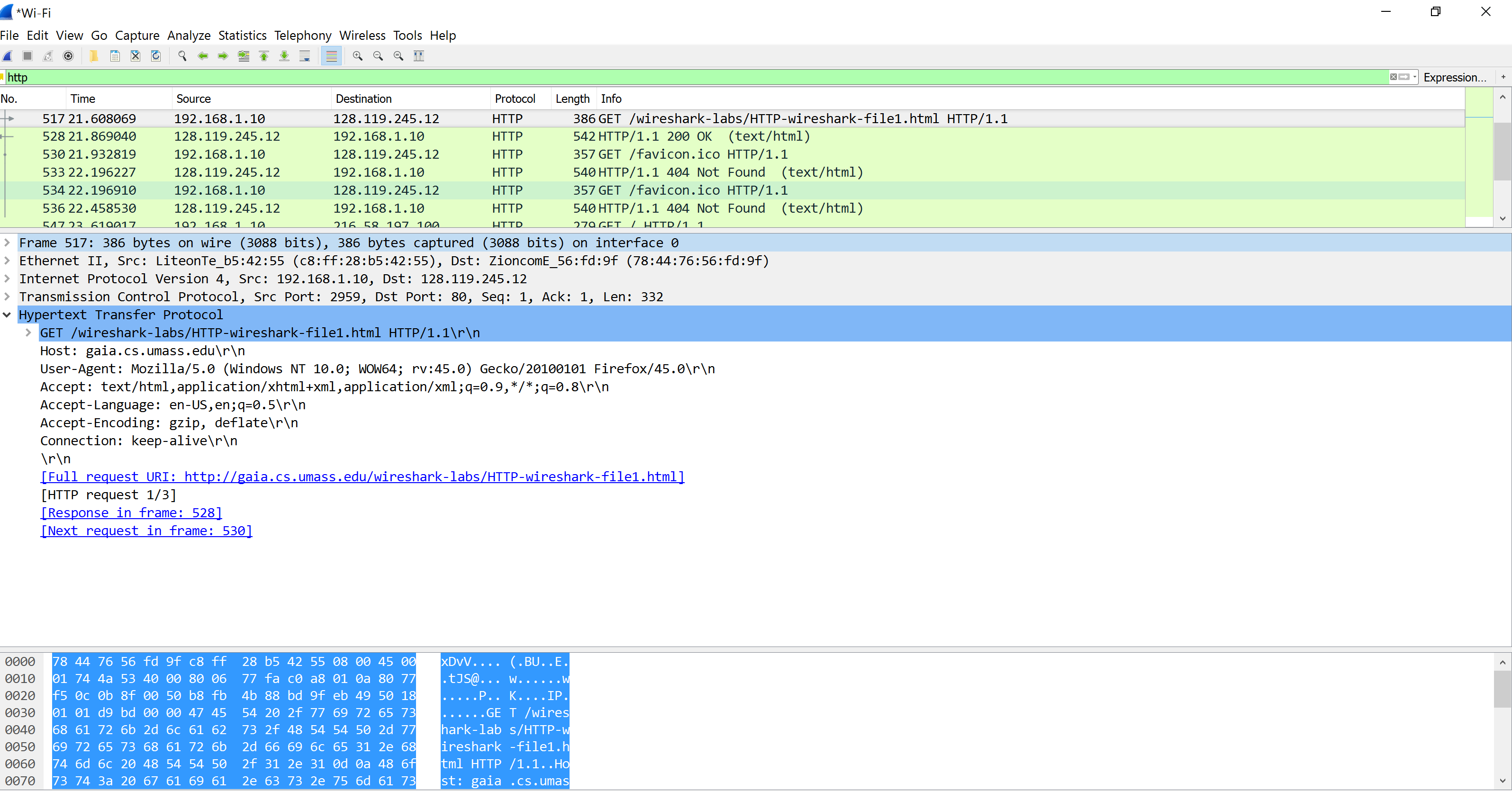
**Wireshark HTTP**



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

Browser and server are running HTTP 1.1

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

Accept-Language: en-US,en;q=0.5\r\n

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

My computer: 192.168.1.10, gaia.cs.umass.edu:128.119.245.12

1. **What is the status code returned from the server to your browser?**

200 OK

1. **When was the HTML file that you are retrieving last modified at the server?**

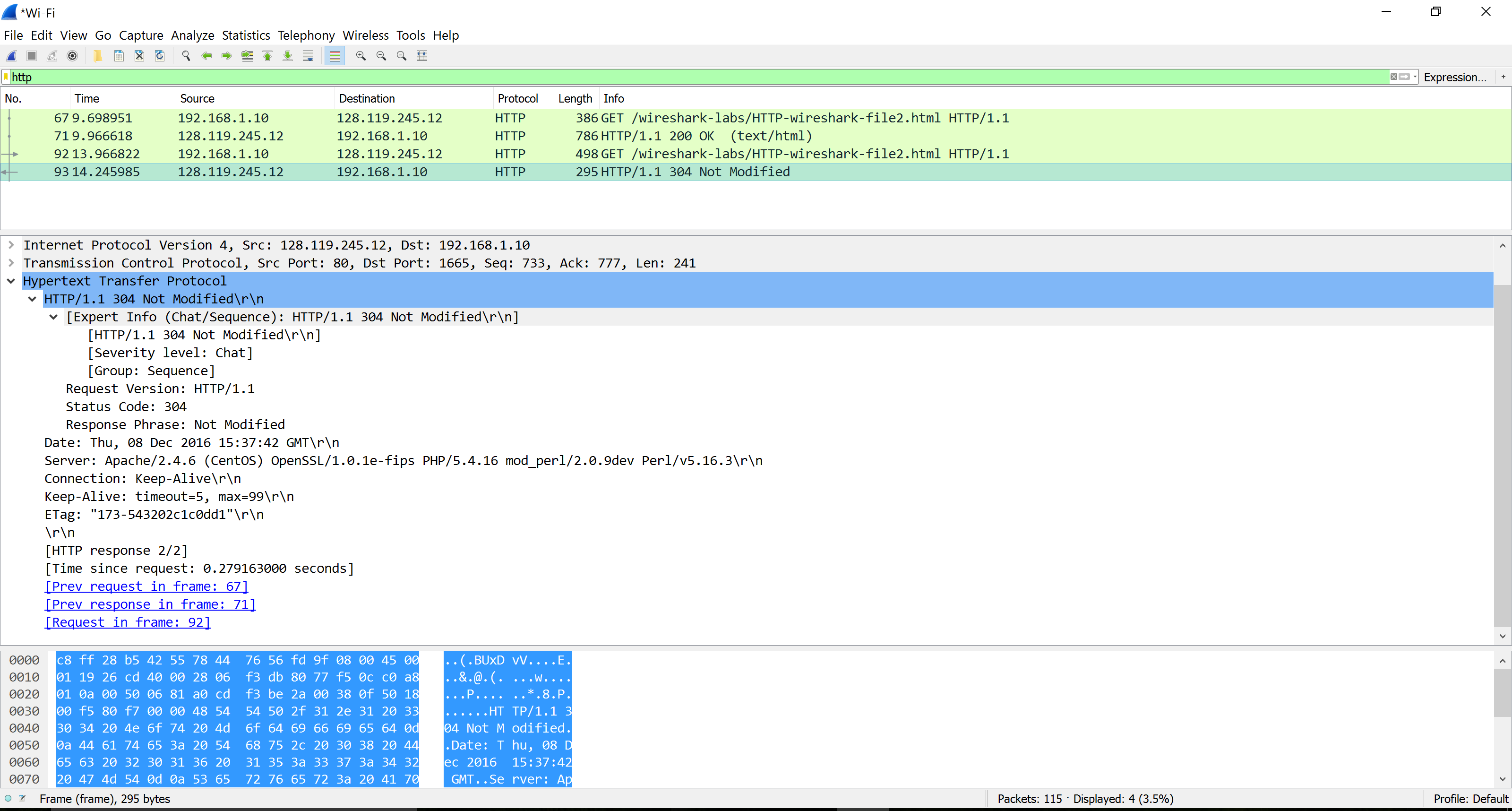
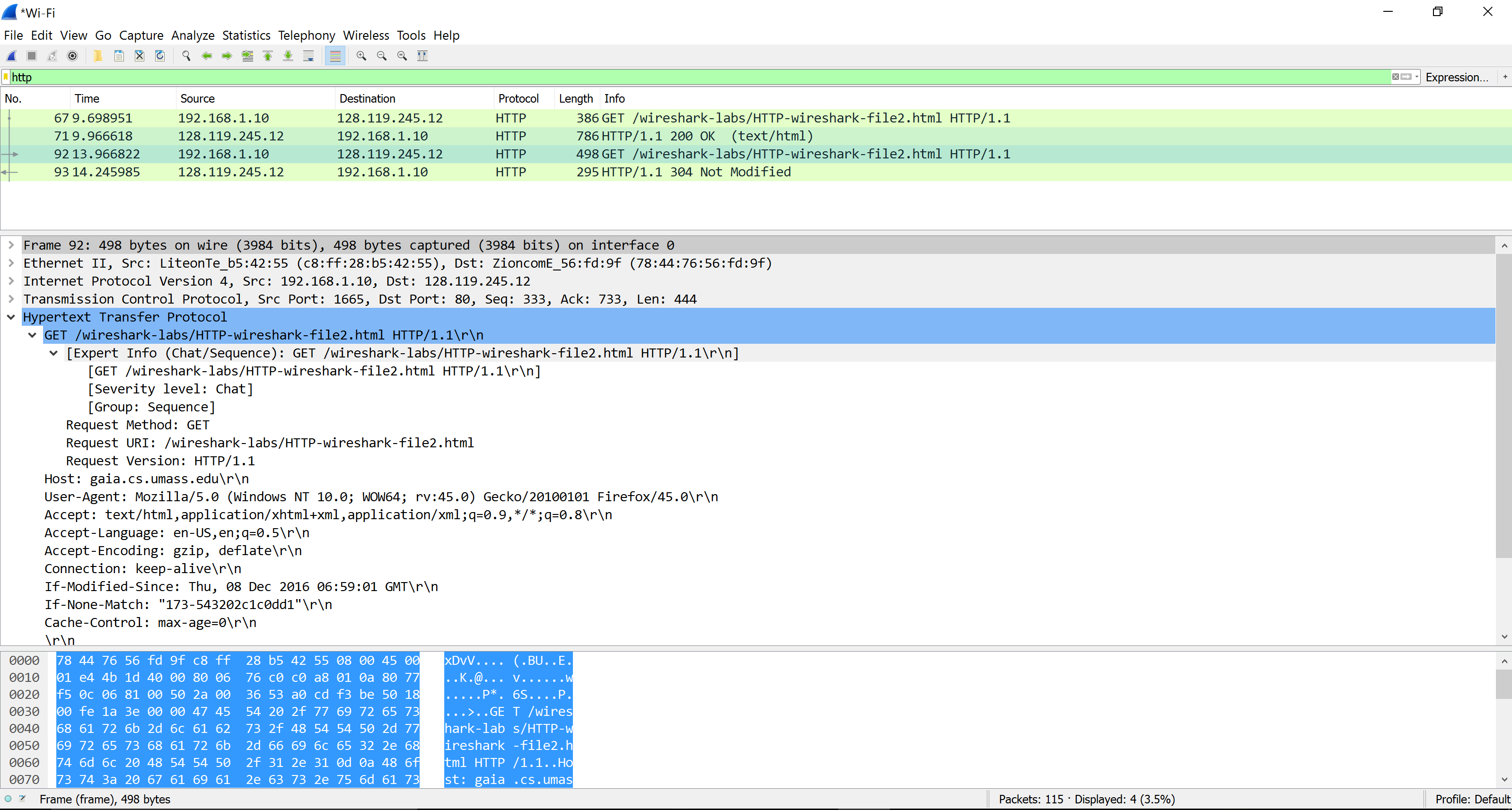
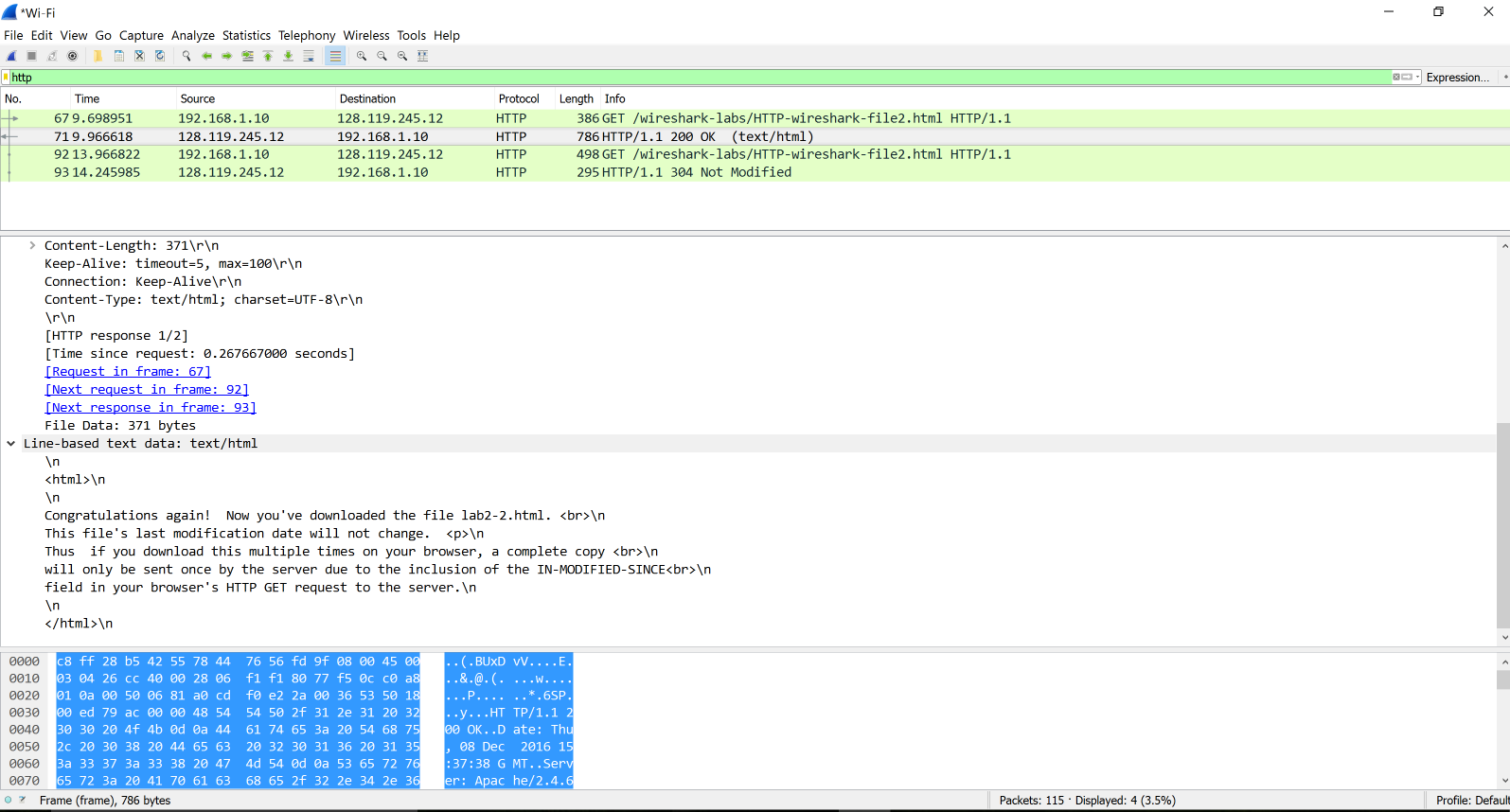
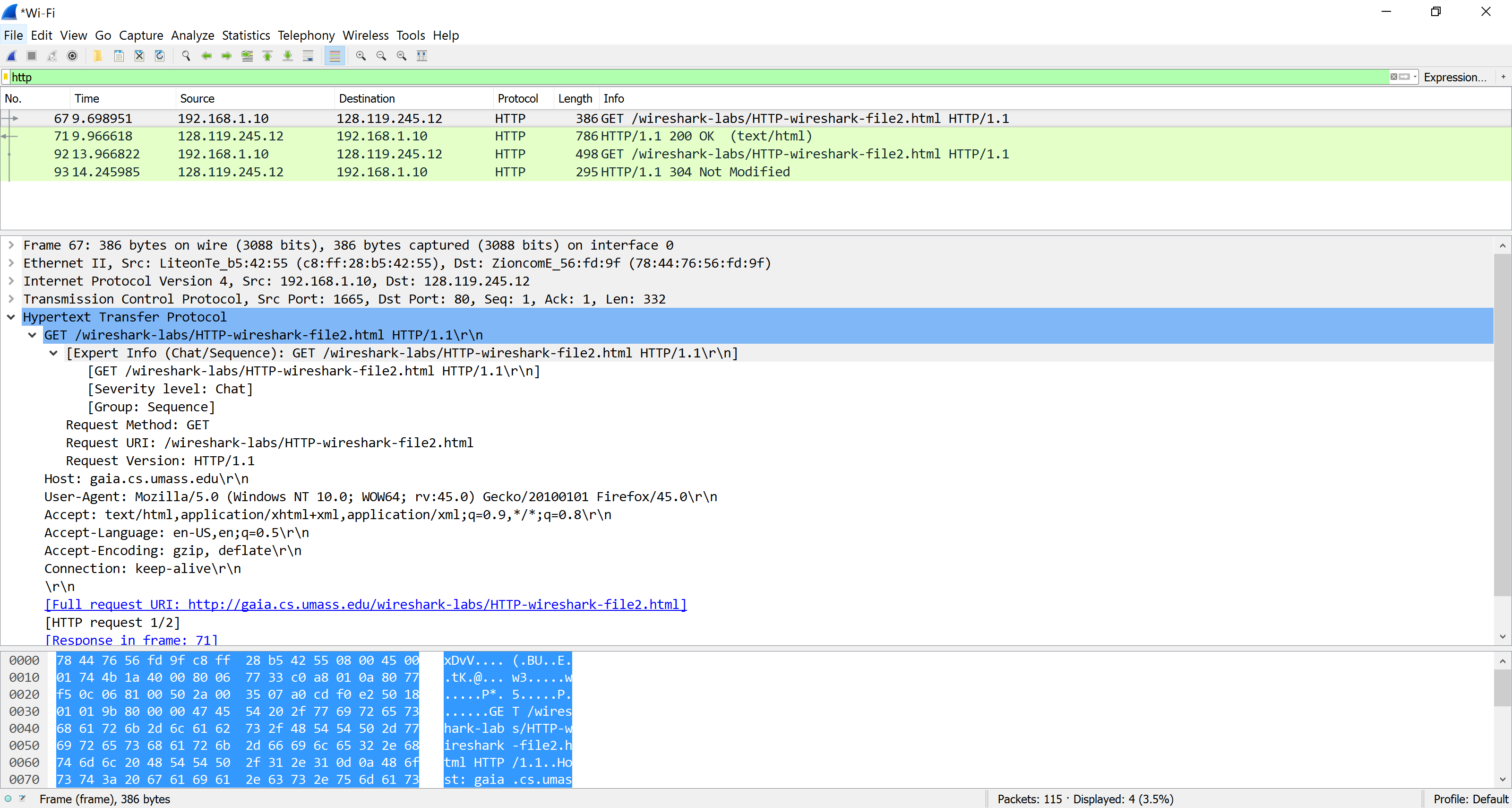
Last-Modified: Thu, 08 Dec 2016 06:59:01 GMT\r\n

1. **How many bytes of content are being returned to your browser?**

128

1. **By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one.**

No



1. **Inspect the contents of the first HTTP GET request from your browser to the server. Do you see an “IF-MODIFIED-SINCE” line in the HTTP GET?**

No

1. **Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?**

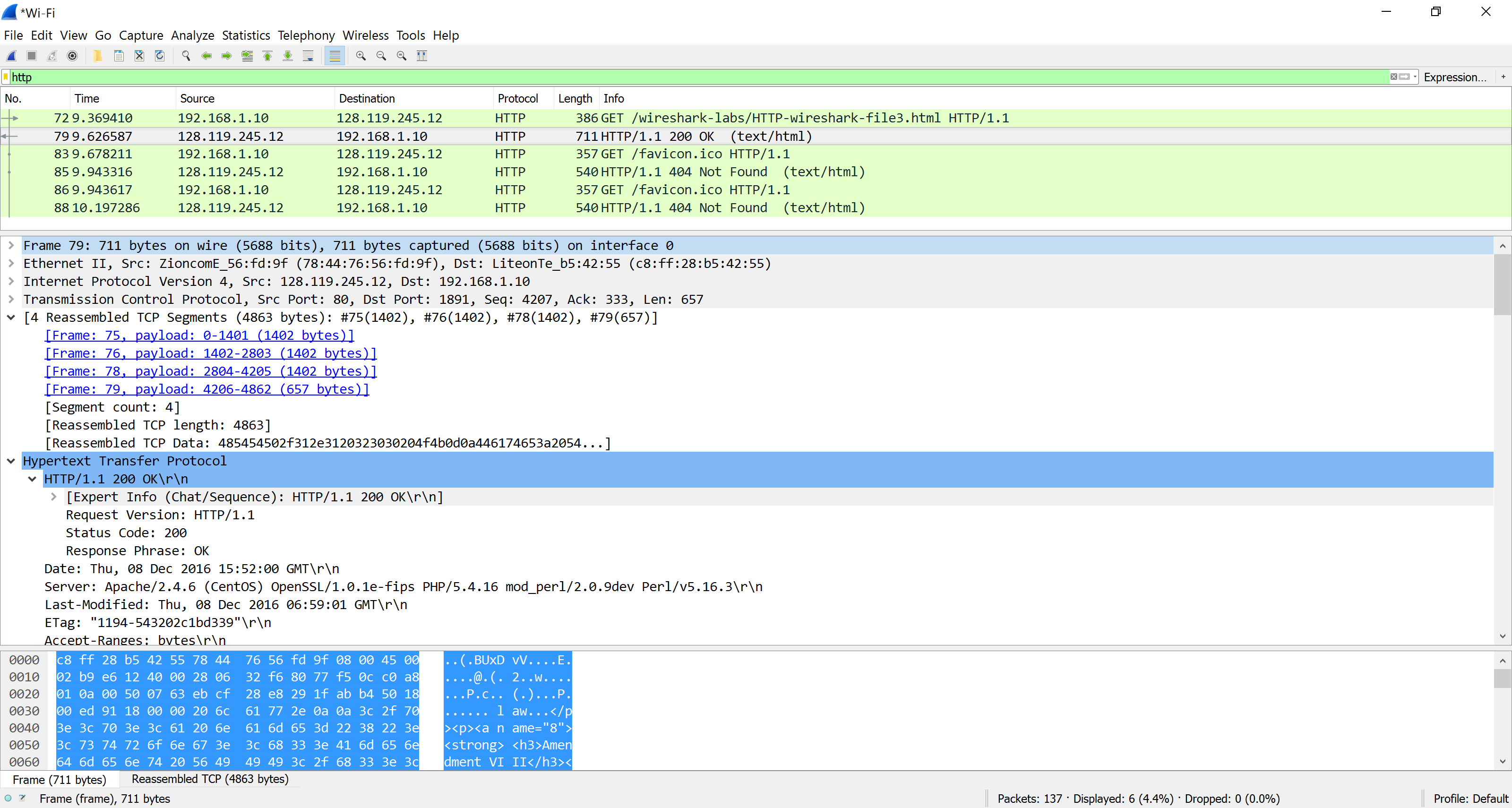
Yes. Because of the line base text data field

1. **Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an “IF-MODIFIED-SINCE:” line in the HTTP GET? If so, what information follows the “IF-MODIFIED-SINCE:” header?**

Yes. If-Modified-Since: Thu, 08 Dec 2016 06:59:01 GMT\r\n

1. **What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.**

HTTP/1.1 304 Not Modified. The server didn’t return the contents of the file since the browser loaded it from its cache.



1. **How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill or Rights?**

1 HTTP GET request sent. Packet 72

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

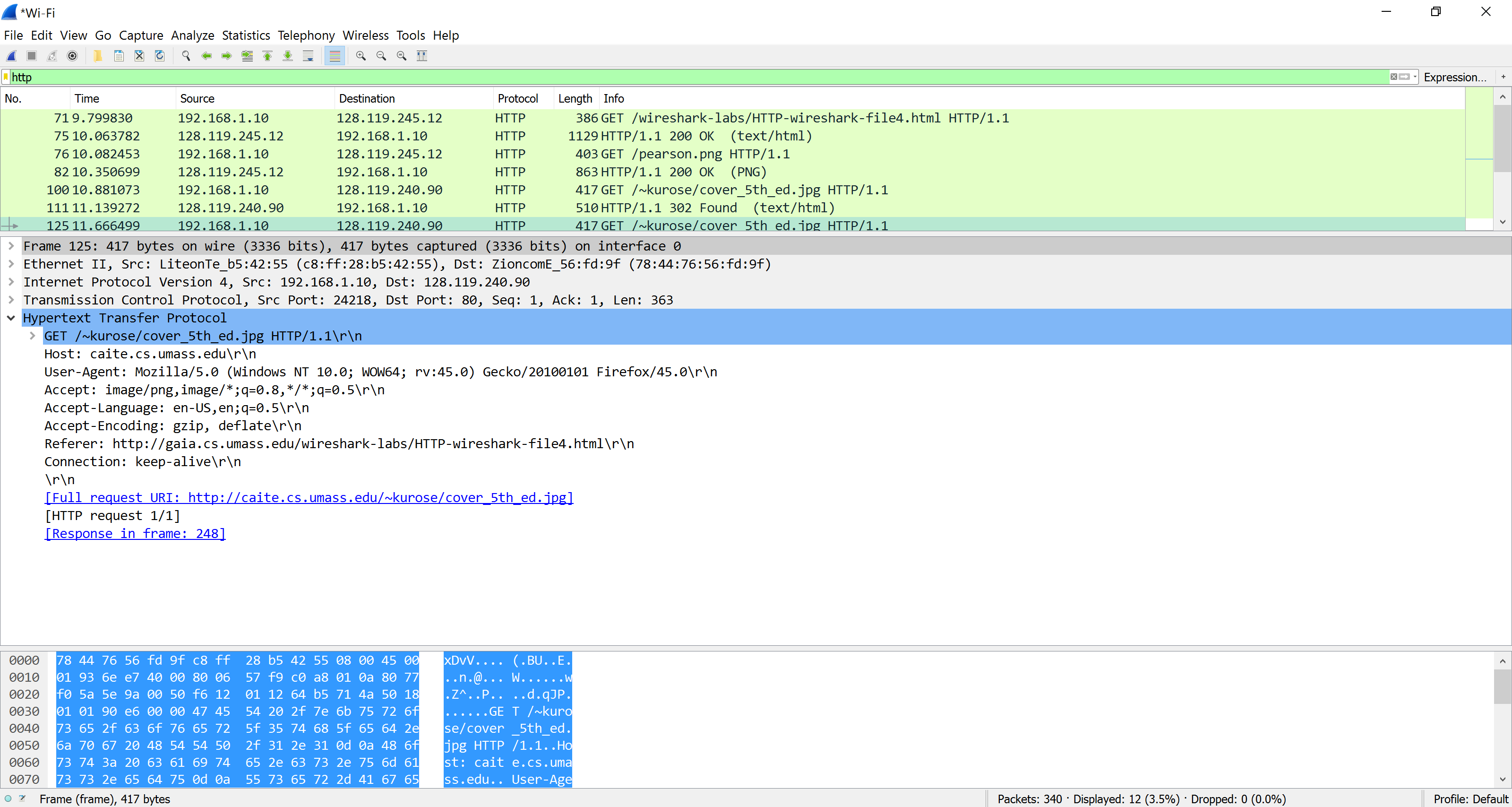
Packet 79

1. **What is the status code and phrase in the response?**

200 OK

1. **How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights?**

4

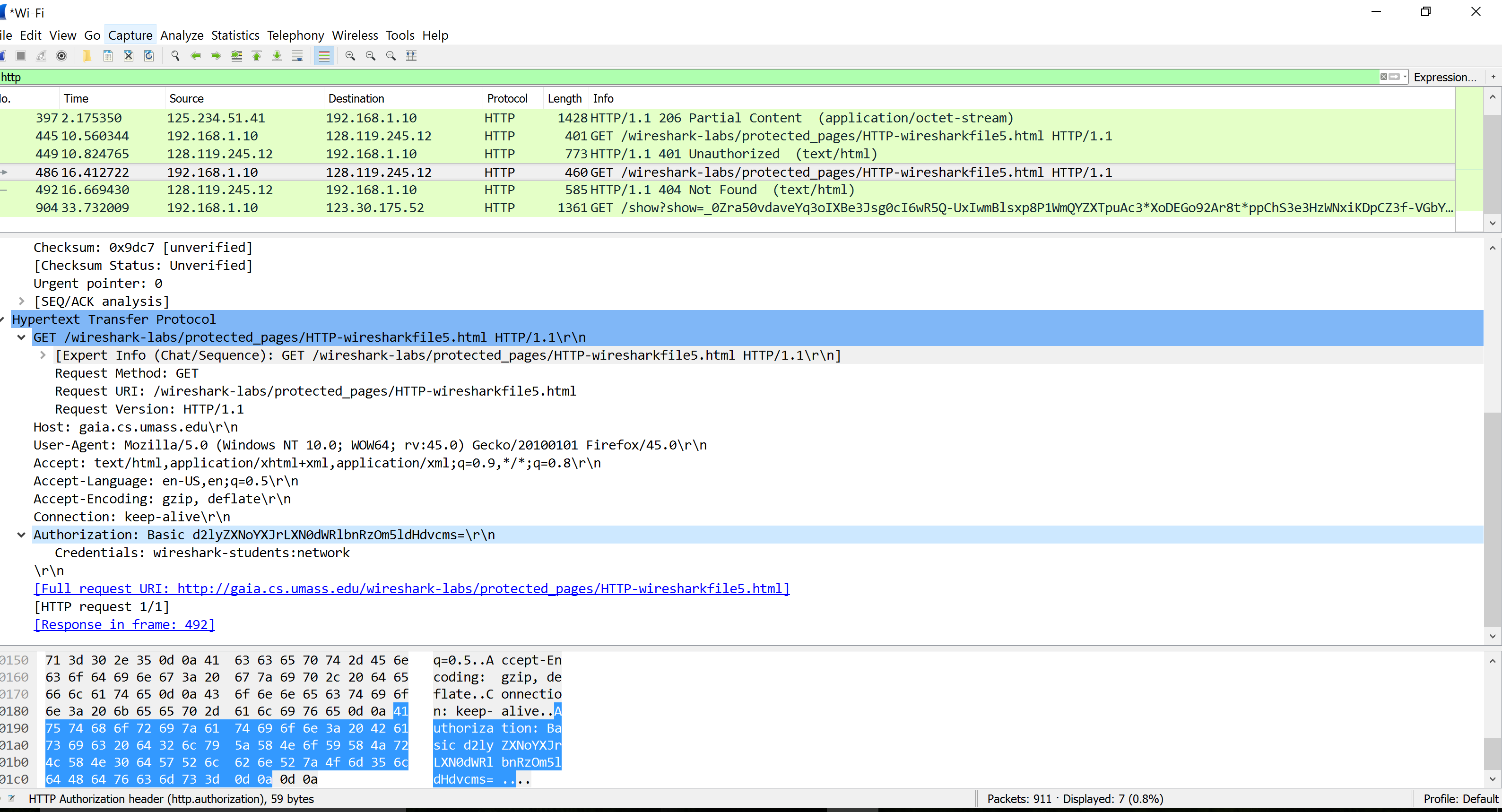


1. **How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?**

4. Initial page: 128.119.245.12, Pearson’s logo: 128.119.245.12, Cover 5th ed:128.119.240.90, 128.119.240.90

1. **Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.**

Yes, by checking the TCP ports we can see if our files were downloaded serially or in parallel.



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

401 Unauthorized

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

The HTTP GET includes the Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n