CSUS, College of Engineering and Computer Science

**Department of Computer Science**

**CSC/CPE 138 – Computer Network and Internet**

# Lab 2 - Wireshark – HTTP

## 1. The Basic HTTP GET/response interaction

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

My browser is running HTTP version 1.1. The version of HTTP the server is running is 1.1.

Graphical user interface, text, application, Word

Description automatically generated

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

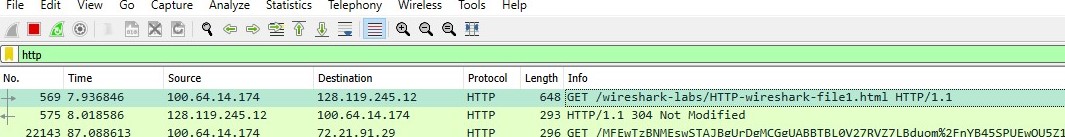
The language that my browser indicate that it can accept to the server en-US.

Graphical user interface, application

Description automatically generated

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

The IP address of my computer is 128.119.245.12 and the gaia.cs.umass.edu server is 100.64.4.207



Graphical user interface, text, application, Word, email

Description automatically generated

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

The status code returned from the server to my browser is 200.

Graphical user interface, text, application, Word, email

Description automatically generated

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

The HTML file that I was retrieving was last modified at the server on Mon, 04 OCT 2021 21:41:21 GMT.

Graphical user interface, text, application, email

Description automatically generated

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

1057 bytes of content are being returned to my browser.

Table

Description automatically generated with medium confidence

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 there is none.

## 2. The HTTP CONDITIONAL GET/response interaction

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?

There is an “IF-MODIFIED-SINCE” line in the HTTP GET and the date is Mon, 24 OCT 2021 at 05:25:02 GMT.

Graphical user interface, text, application, email

Description automatically generated

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

Yes, the server explicitly return the contents of the file and you can tell because the content is shown in the section “Line-based test data: text/html.”

Graphical user interface, text, application

Description automatically generated

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?

I do see an “IF-MODIFIED-SINCE:” line in the HTTP GET. The information that follows in the header is Mon, 04 Oct 2021 05:59:02 GMT.Graphical user interface, text, application

Description automatically generated

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.

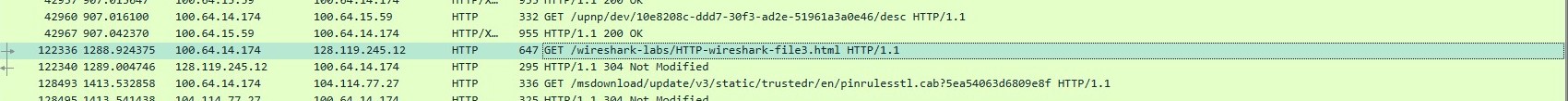
The HTTP status code and phrase returned from the server in response to this second HTTP GET is 304 and Not Modified. The server did not explicitly return the contents of the file because the second HTTP GET request sent by the browser included the “IF-MOTIFIED-SINCE” header and since the file on the server has not been modified sinve the time specidiewd by the IF MODIFIED SINCE header, the server simply responds that it has not been modified instead of retuening the contents of the file again.



## 3. Retrieving Long Documents

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?

The HTTP GET request messages that my browser send was 1288. The packet number in the trace that GET message for the Bill or Rights is 122336.



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

The packet number in the trace that contains the status code and phrase associated with the response to the HTTP GET request is 4264.

Graphical user interface, text, application, email

Description automatically generated

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

The status code and phrase in the response is 200 and OK.

Graphical user interface, text, application, email

Description automatically generated

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

Four data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights.

Text

Description automatically generated

## 4. HTML Documents with Embedded Objects

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

There are three HTTP GET request messages that my browser sent.

Text

Description automatically generated

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.

The browser downloaded that the browser sent the HTTP GET request message for the second image after the HTTP response for the first image was received.

## 5 HTTP Authentication

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

The server’s response in response to the initial HTTP GET message from browser is 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 new field that is included in the HTTP GET message is Authorization: Basic.