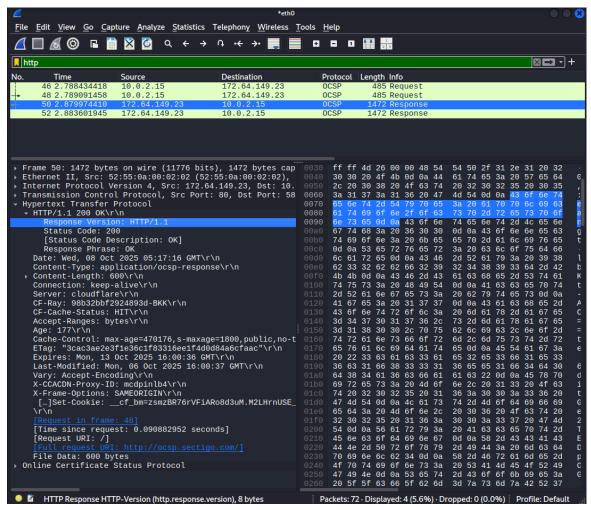
Work by: Nattanat Lertariyamaythee

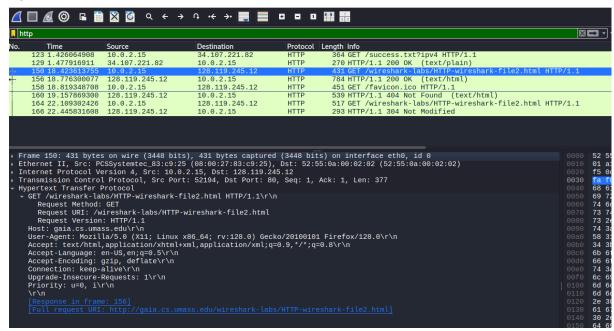


Part1: The Basic HTTP GET/response interaction

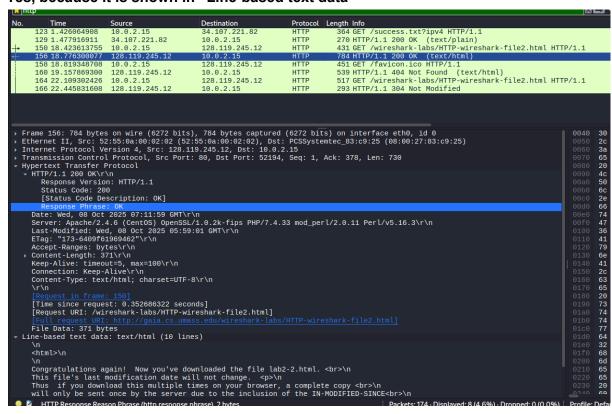
- 1. Is your browser running HTTP version 1.0, 1.1, or 2? What version of HTTP is the server running?
 - HTTP 1.1
- 2. What languages (if any) does your browser indicate that it can accept to the Server?
 - en-US
- 3. What is the IP address of your computer? What is the IP address of the gaia.cs.umass.edu server?
 - My computer IP: 10.0.2.15
 - gaia.cs.umass.edu server IP: 172.64.149.23
- 4. What is the status code returned from the server to your browser?
 - HTTP/1.1 200 OK
- 5. When was the HTML file that you are retrieving last modified at the server?
 - Mon, 06 Oct 2025 16:00:37 GMT
- 6. How many bytes of content are being returned to your browser?
 - 600 Bytes
- 7. 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.
 - Yes, for example, last-modified.

Part2: The HTTP CONDITIONAL GET/response interaction

- 8. 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.

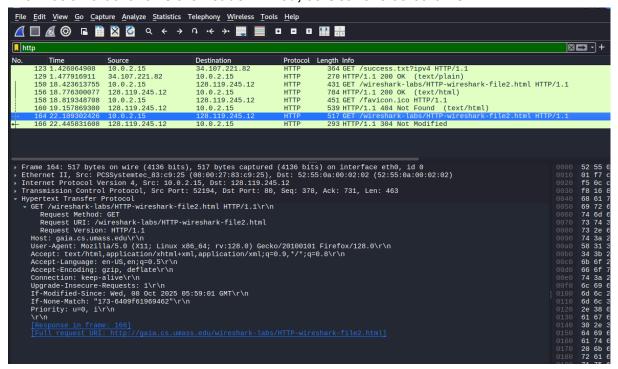


- 9. Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?
 - Yes, because it is shown in "Line-based text data"

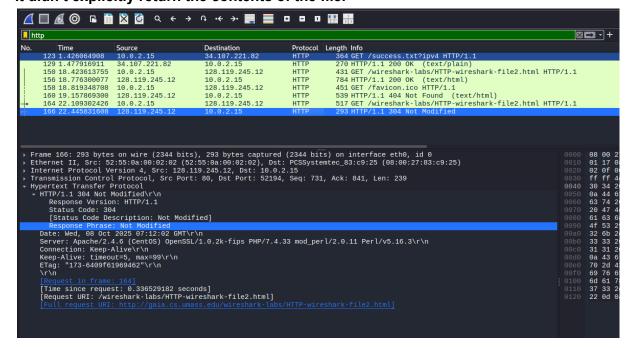


10. Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE:" line in the HTTP GET6? If so, what information follows the "IF-MODIFIED-SINCE:" header?

- Yes.
- Information that follows the header: "Wed, 08 Oct 2025 05:59:01 GMT"

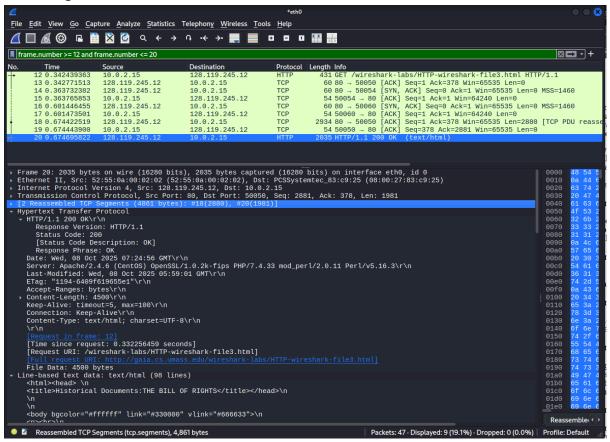


- 11. What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.
 - Status code: 304 with Respond Phase: Not Modified
 - It didn't explicitly return the contents of the file.



Part3: Retrieving Long Documents

- 12. 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?
 - Only 1 request.
 - Packet number 12.
- 13. Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request?
 - Packet number 20.
- 14. What is the status code and phrase in the response?
 - Status code: 200 with Respond phrase: OK
- 15. How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights?
 - 2 TCP segments were needed.



Part4: HTML Documents with Embedded Objects

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

• 3 request

- 1st request was sent to
 - "http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html"

Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html

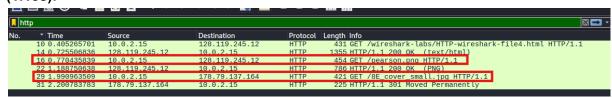
o 2nd request was sent to "http://gaia.cs.umass.edu/pearson.png"

[Full request URI: http://gaia.cs.umass.edu/pearson.png]

3rd request was sent to "http://kurose.cslash.net/8E_cover_small.jpg"

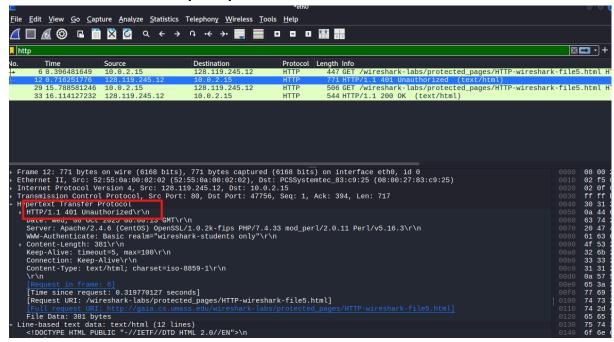
[Full request URI: http://kurose.cslash.net/8E_cover_small.jpg]

- 17. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.
 - Serially, because the time of the GET request for the "8E_cover_small.jpg" (1.9s) was sent after we got a response from the "pearson.png" request (1.18s).



Part5: HTTP Authentication

- 18. What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser?
 - Status code: 401 with Respond phrase: "Unauthorized"



- 19. When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?
 - Authorization header was included.

