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CS 372-X001

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Lab 1

1. List 3 different protocols that appear in the protocol column in the unfiltered packet-listing window in step 7 above.

- DNS, UDP, ICMPv6

2. How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packetlisting window is the amount of time, in seconds, since Wireshark tracing began. To display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)

- Sent at 14:53:08.459453, and received at 14:53:08.564320. Therefore, it took 0.104867

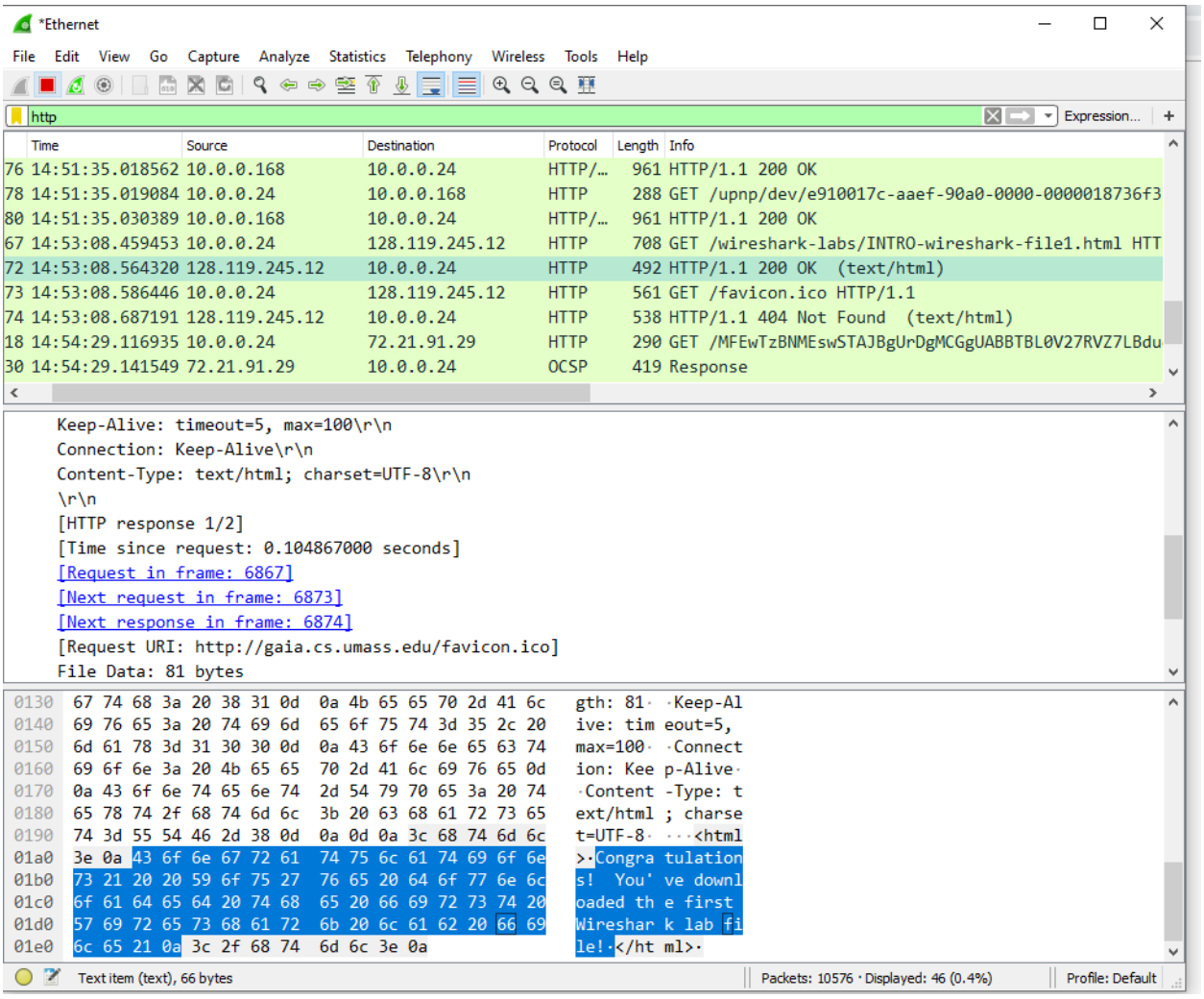
3. What is the Internet address of the gaia.cs.umass.edu (also known as wwwnet.cs.umass.edu)? What is the Internet address of your computer?

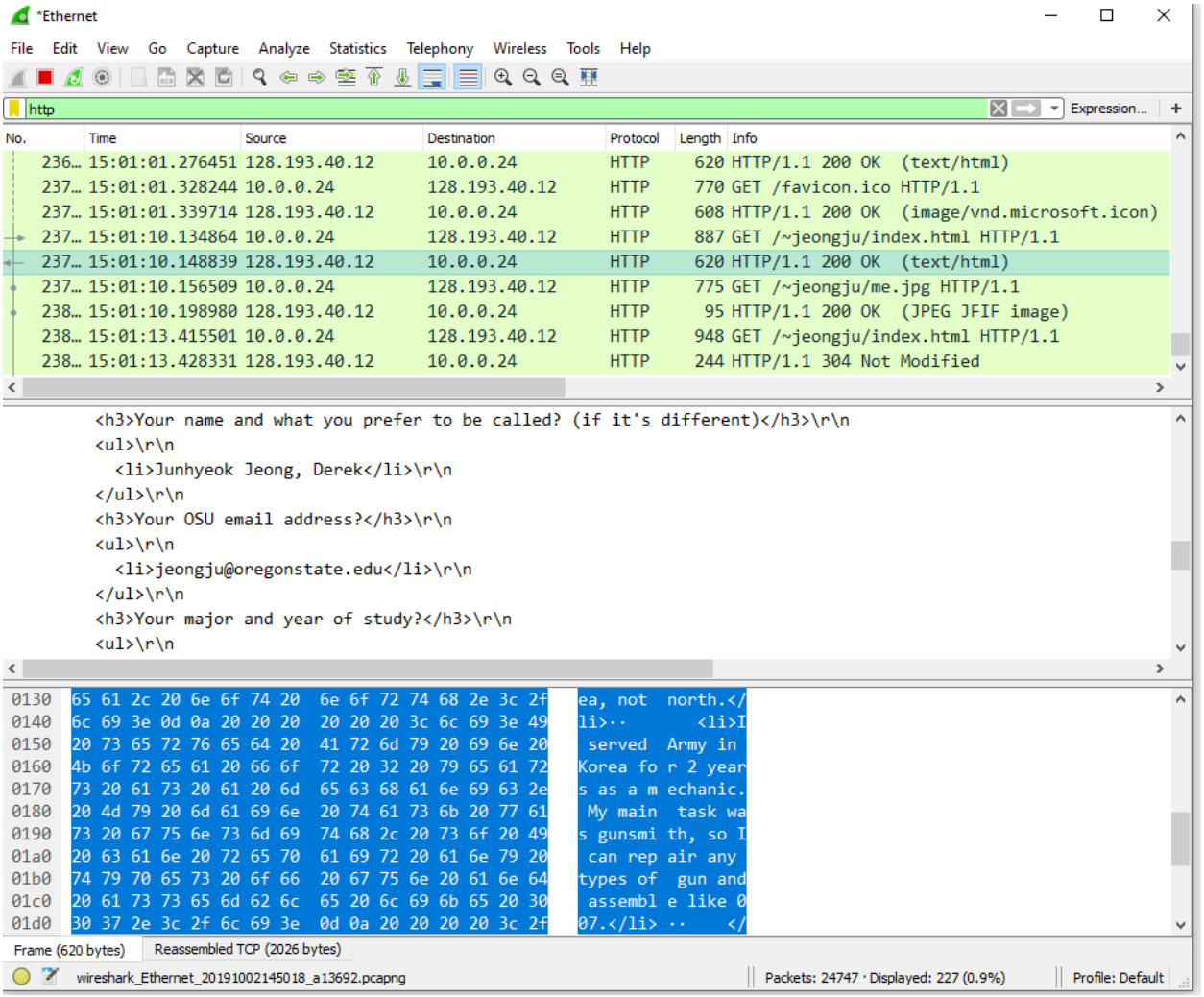
- gaia.cs.umass.edu: 128.119.245.12 (IPv4)

My computer: 10.0.0.24 (IPv4) / 2601:1c0:8600:4bc0:2887:a612:e034:fdad

4. Screenshot the two HTTP messages (GET and OK) referred to in question 2 above. Make sure to include all pertinent information in the screenshot (Time field, Internet addresses, etc). Paste these screenshots into your lab report.

-




*Ethernet
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
http
Expression...
No. Time Source Destination Protocol Length Info
236... 15:01:01.276451 128.193.40.12 10.0.0.24 HTTP 620 HTTP/1.1 200 OK (text/html)
237... 15:01:01.328244 10.0.0.24 128.193.40.12 HTTP 770 GET /favicon.ico HTTP/1.1
237... 15:01:01.339714 128.193.40.12 10.0.0.24 HTTP 608 HTTP/1.1 200 OK (image/vnd.microsoft.icon)
237... 15:01:10.134864 10.0.0.24 128.193.40.12 HTTP 887 GET /~jeongju/index.html HTTP/1.1
237... 15:01:10.148839 128.193.40.12 10.0.0.24 HTTP 620 HTTP/1.1 200 OK (text/html)
237... 15:01:10.156509 10.0.0.24 128.193.40.12 HTTP 775 GET /~jeongju/me.jpg HTTP/1.1
238... 15:01:10.198980 128.193.40.12 10.0.0.24 HTTP 95 HTTP/1.1 200 OK (JPEG JFIF image)
238... 15:01:13.415501 10.0.0.24 128.193.40.12 HTTP 948 GET /~jeongju/index.html HTTP/1.1
238... 15:01:13.428331 128.193.40.12 10.0.0.24 HTTP 244 HTTP/1.1 304 Not Modified
<h3>Your name and what you prefer to be called? (if it's different)</h3>\r\n
\r\n
Junhyeok Jeong, Derek
\r\n
\r\n
<h3>Your OSU email address?</h3>\r\n
\r\n
jeongju@oregonstate.edu
\r\n
\r\n
<h3>Your major and year of study?</h3>\r\n
\r\n
0130 65 61 2c 20 6e 6f 74 20 6e 6f 72 74 68 2e 3c 2f ea, not north.</
0140 6c 69 3e 0d 0a 20 20 20 20 20 20 3c 6c 69 3e 49 li>·· I
0150 20 73 65 72 76 65 64 20 41 72 6d 79 20 69 6e 20 served Army in
0160 4b 6f 72 65 61 20 66 6f 72 20 32 20 79 65 61 72 Korea fo r 2 year
0170 73 20 61 73 20 61 20 6d 65 63 68 61 6e 69 63 2e s as a m echanic.
0180 20 4d 79 20 6d 61 69 6e 20 74 61 73 6b 20 77 61 My main task wa
0190 73 20 67 75 6e 73 6d 69 74 68 2c 20 73 6f 20 49 s gunsmi th, so I
01a0 20 63 61 6e 20 72 65 70 61 69 72 20 61 6e 79 20 can rep air any
01b0 74 79 70 65 73 20 6f 66 20 67 75 6e 20 61 6e 64 types of gun and
01c0 20 61 73 73 65 6d 62 6c 65 20 6c 69 6b 65 20 30 assembl e like 0
01d0 30 37 2e 3c 2f 6c 69 3e 0d 0a 20 20 20 20 3c 2f 07. ·· </
Frame (620 bytes)
Reassembled TCP (2026 bytes)
wireshark_Ethernet_20191002145018_a13692.pcapng
Packets: 24747 · Displayed: 227 (0.9%)
Profile: Default

Extra credit

2. access.engr.oregonstate.edu (jeon

```python
#written by Junhyeok Jeong
#CS 372 - Lab1 extra credit
#Language: python 3.x

import socket
import sys
import http.client
import urllib

#create an INET and STREAM socket
try:
        sc = socket.socket(socket.AF_INET, socket.SOCK_STREAM)
        print ("Socket Successfully created")
#error handling
except socket.error as err:
        print ("Socket creation failed with error {}".format(err))

#default port for socket
port = 80

#set host by internet address
try:
        host_ip = socket.gethostbyname('gaia.cs.umass.edu')
#error handling
except socket.gaierror:
        print ("there was an error resolving the host")
        sys.exit()

sc.connect((host_ip, port))

print ("the socket has successfully connected to gaia.cs.umass.edu: {}".format(host_ip))

connection = http.client.HTTPSConnection('gaia.cs.umass.edu')
connection.request("GET", "/")
response = connection.getresponse()
print ("connection status: {} and reason: {}".format(response.status, response.reason))

connection.close()

#references
#python documents site: docs.python.org/3/howto/sockets.html
#                       docs.python.org/3/library/http.client.html
```

2. access.engr.oregonstate.edu (jeon

```
[jeongju@flip3 ~/cs372]$ python3 ec_lab1.py
Socket Successfully created
the socket has successfully connected to gaia.cs.umass.edu: 128.119.245.12
connection status: 200 and reason: OK
```