

计算机网络实验报告1_入门实验

学号: PB20000219 姓名:李蔚林

实验目的:

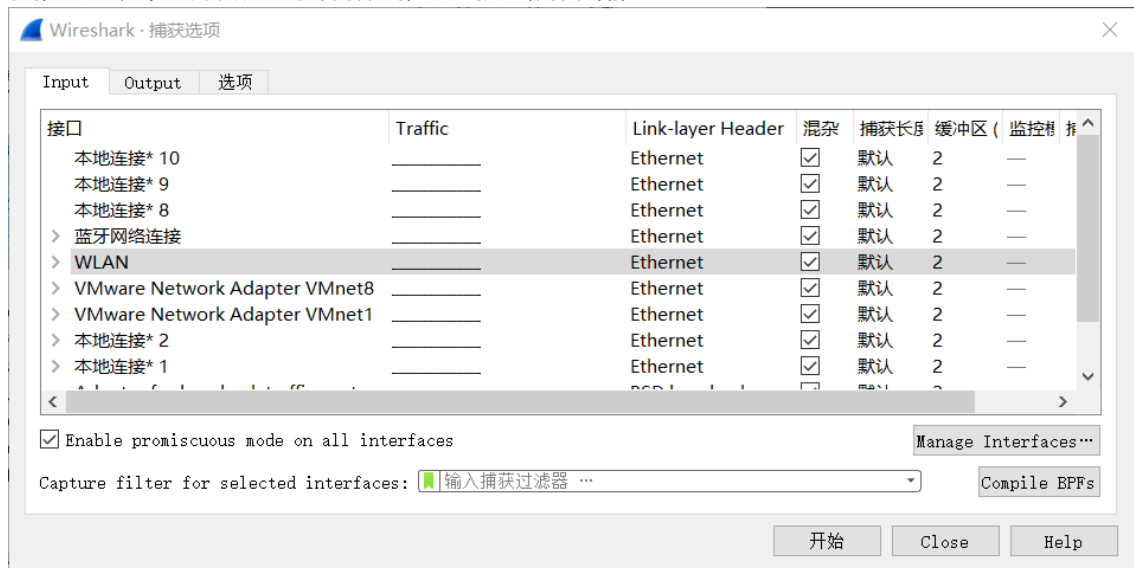
安装并学会使用Wireshark工具,做初步尝试.

实验步骤:

1. 打开浏览器并启动主页,然后启动Wireshark软件.

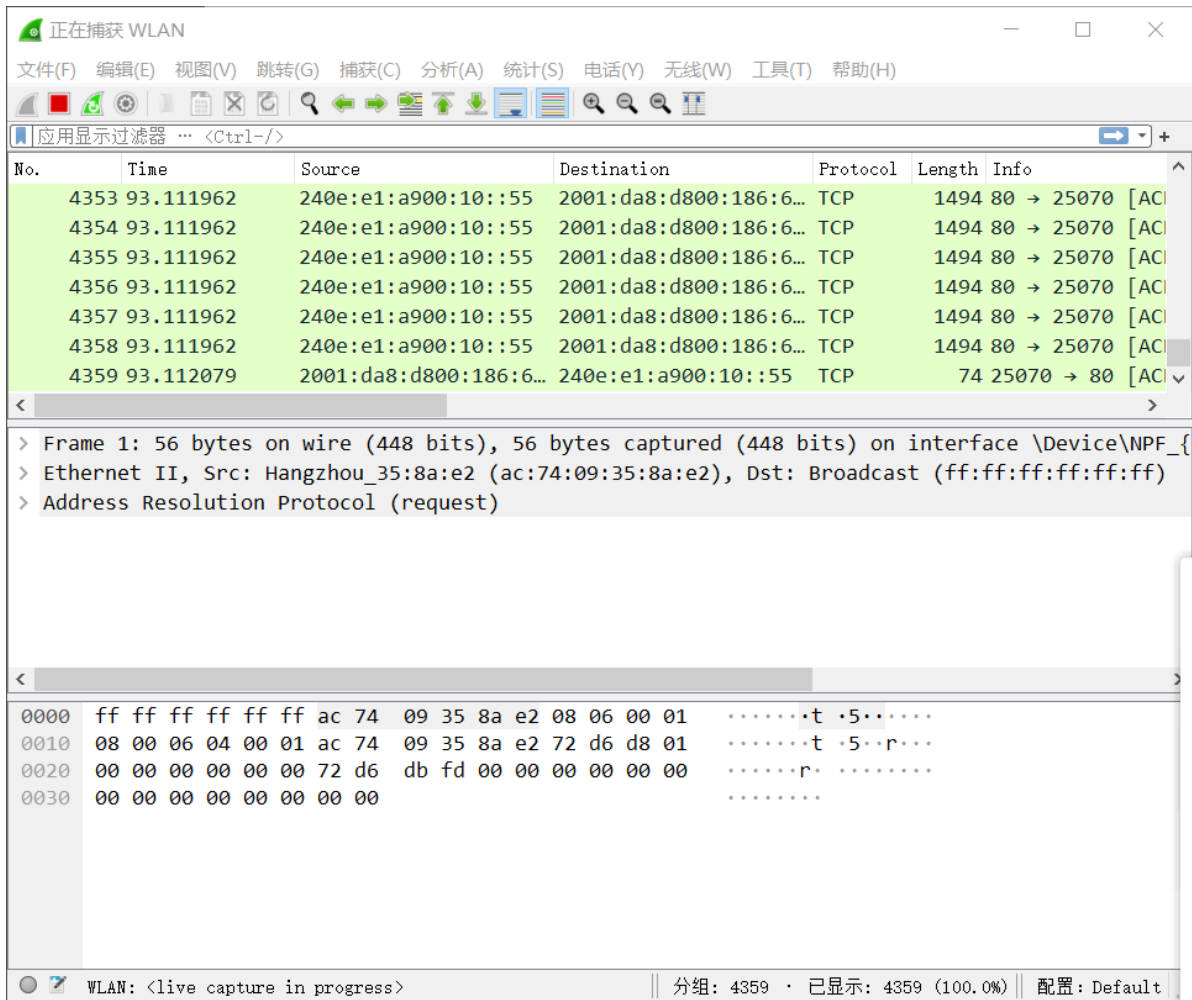


2. 在捕获选项中选择需要进行数据包捕获的接口,并开始捕获.

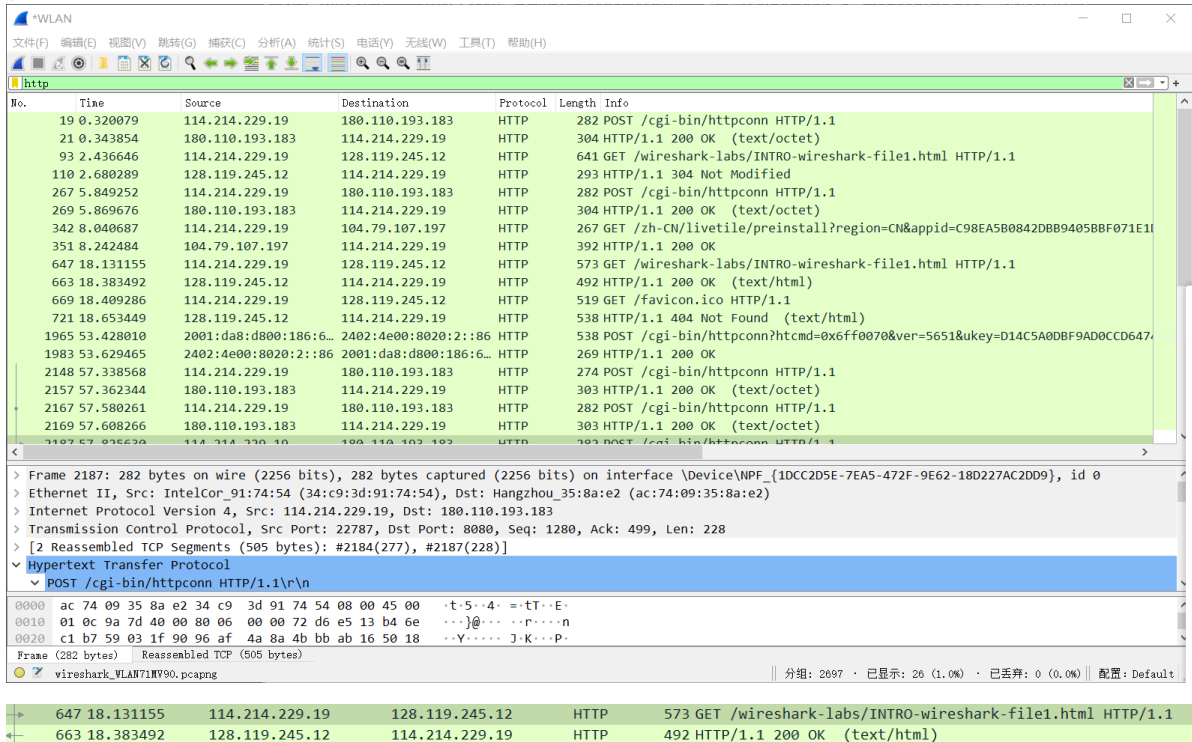


3. 打开<http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html>, 然后关闭捕捉

Congratulations! You've downloaded the first Wireshark lab file!

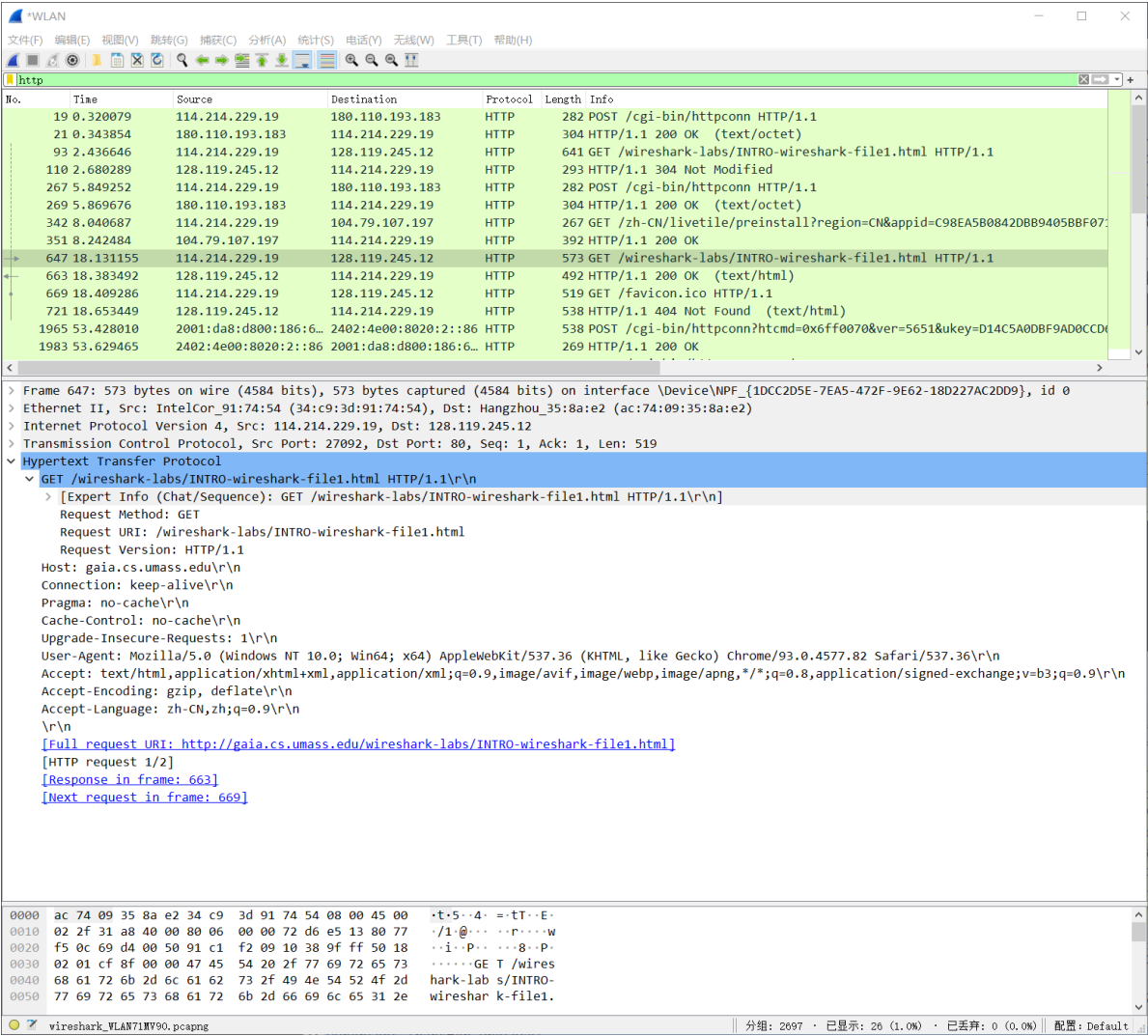


4.在顶部的显示过滤器中输入"http"并应用,展示所有的HTTP消息,从中选择从我的电脑向gaia.cs.umass.edu发送的GET消息.



5.关闭Wireshark.

实验结果:



实验运行结果如上图所示,成功捕捉到了该消息.

问题回答:

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

114.214.229.19	DNS
203.208.41.66	QUIC
128.119.245.12	HTTP
Broadcast	ARP

2.How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received?

answer: 0.914420 - 0.662083 = 0.252337s

647	22:47:09.662083	114.214.229.19	128.119.245.12	HTTP	573	GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
663	22:47:09.914420	128.119.245.12	114.214.229.19	HTTP	492	HTTP/1.1 200 OK (text/html)

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

answer: 该网站地址为:128.119.245.12

我的电脑地址为:114.214.229.19

647	22:47:09.662083	114.214.229.19	128.119.245.12	HTTP	573	GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
663	22:47:09.914420	128.119.245.12	114.214.229.19	HTTP	492	HTTP/1.1 200 OK (text/html)

4. Print the two HTTP messages (GET and OK) referred to in question 2 above.

answer: 如下图.

```

No.      Time                Source                Destination           Protocol Length Info
 663 22:47:09.914420    128.119.245.12       114.214.229.19       HTTP      492      HTTP/1.1 200 OK (text/html)
Frame 663: 492 bytes on wire (3936 bits), 492 bytes captured (3936 bits) on interface
\Device\NPF_{1DCC2D5E-7EA5-472F-9E62-18D227AC2DD9}, id 0
Ethernet II, Src: Hangzhou_35:8a:e2 (ac:74:09:35:8a:e2), Dst: IntelCor_91:74:54 (34:c9:3d:91:74:54)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 114.214.229.19
Transmission Control Protocol, Src Port: 80, Dst Port: 27092, Seq: 1, Ack: 520, Len: 438
Hypertext Transfer Protocol
  HTTP/1.1 200 OK\r\n
    [Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
    Response Version: HTTP/1.1
    Status Code: 200
    [Status Code Description: OK]
    Response Phrase: OK
  Date: Thu, 16 Sep 2021 14:47:12 GMT\r\n
  Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.23 mod_perl/2.0.11 Perl/v5.16.3\r\n
  Last-Modified: Thu, 16 Sep 2021 05:59:01 GMT\r\n
  ETag: "51-5cc1682edca49"\r\n
  Accept-Ranges: bytes\r\n
  Content-Length: 81\r\n
    [Content length: 81]
  Keep-Alive: timeout=5, max=100\r\n
  Connection: Keep-Alive\r\n
  Content-Type: text/html; charset=UTF-8\r\n
\r\n
  [HTTP response 1/2]
  [Time since request: 0.252337000 seconds]
  [Request in frame: 647]
  [Next request in frame: 669]
  [Next response in frame: 721]
  [Request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
  File Data: 81 bytes
Line-based text data: text/html (3 lines)

```

```

No.      Time                Source                Destination           Protocol Length Info
 647 22:47:09.662083    114.214.229.19       128.119.245.12       HTTP      573      GET /wireshark-labs/INTRO-wireshark-
file1.html HTTP/1.1
Frame 647: 573 bytes on wire (4584 bits), 573 bytes captured (4584 bits) on interface
\Device\NPF_{1DCC2D5E-7EA5-472F-9E62-18D227AC2DD9}, id 0
Ethernet II, Src: IntelCor_91:74:54 (34:c9:3d:91:74:54), Dst: Hangzhou_35:8a:e2 (ac:74:09:35:8a:e2)
Internet Protocol Version 4, Src: 114.214.229.19, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 27092, Dst Port: 80, Seq: 1, Ack: 1, Len: 519
Hypertext Transfer Protocol
  GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
    [Expert Info (Chat/Sequence): GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n]
    Request Method: GET
    Request URI: /wireshark-labs/INTRO-wireshark-file1.html
    Request Version: HTTP/1.1
  Host: gaia.cs.umass.edu\r\n
  Connection: keep-alive\r\n
  Pragma: no-cache\r\n
  Cache-Control: no-cache\r\n
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/93.0.4577.82 Safari/
537.36\r\n
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/
signed-exchange;v=b3;q=0.9\r\n
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: zh-CN,zh;q=0.9\r\n
\r\n
  [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
  [HTTP request 1/2]
  [Response in frame: 663]
  [Next request in frame: 669]

```

