

1. Liệt kê 3 giao thức khác nhau xuất hiện trong cột giao thức ở bước 7 khi không áp dụng bộ lọc.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	fe80::81d4:63f4:591...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
2	0.000002	192.168.220.50	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
3	0.012486	fe80::81d4:63f4:591...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
4	0.012487	192.168.220.50	224.0.0.2	IGMPv2	60	Leave Group 224.0.0.252
5	0.013465	fe80::81d4:63f4:591...	ff02::16	ICMPv6	90	Multicast Listener Report Message v2
6	0.013466	192.168.220.50	224.0.0.252	IGMPv2	60	Membership Report group 224.0.0.252
7	0.014851	192.168.220.50	224.0.0.251	MDNS	74	Standard query 0x0000 ANY LinhDang.local, "QM" question
8	0.015533	fe80::81d4:63f4:591...	ff02::fb	MDNS	94	Standard query 0x0000 ANY LinhDang.local, "QM" question
9	0.015552	fe80::81d4:63f4:591...	ff02::1:3	LLMNR	88	Standard query 0x2286 ANY LinhDang
10	0.016806	192.168.220.50	224.0.0.252	LLMNR	68	Standard query 0x2286 ANY LinhDang

2. Mất bao lâu từ khi thông điệp HTTP GET được gửi cho đến khi HTTP OK được nhận (mặc định, giá trị của cột thời gian trong packet-listing window là khoảng thời gian tính bằng giây kể từ khi chương trình Wireshark bắt đầu).

HTTP GET:

No.	Time	Source	Destination	Protocol	Length	Info
7113	105.114714	192.168.220.77	128.119.245.12	HTTP	534	GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
7123	105.383067	128.119.245.12	192.168.220.77	HTTP	492	HTTP/1.1 200 OK (text/html)
7124	105.421024	192.168.220.77	128.119.245.12	HTTP	480	GET /favicon.ico HTTP/1.1
7128	105.687861	128.119.245.12	192.168.220.77	HTTP	538	HTTP/1.1 404 Not Found (text/html)

▼ Frame 7113: 534 bytes on wire (4272 bits), 534 bytes captured (4272 bits) on interface \Device\NPF_{472FCD9B-9932-4A9C-B9CF-2F6DB012791A}, id 0
Section number: 1
 > Interface id: 0 (\Device\NPF_{472FCD9B-9932-4A9C-B9CF-2F6DB012791A})
 Encapsulation type: Ethernet (1)
 Arrival Time: Oct 6, 2023 10:04:20.363902000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]

HTTP OK:

No.	Time	Source	Destination	Protocol	Length	Info
7113	105.114714	192.168.220.77	128.119.245.12	HTTP	534	GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
7123	105.383067	128.119.245.12	192.168.220.77	HTTP	492	HTTP/1.1 200 OK (text/html)
7124	105.421024	192.168.220.77	128.119.245.12	HTTP	480	GET /favicon.ico HTTP/1.1
7128	105.687861	128.119.245.12	192.168.220.77	HTTP	538	HTTP/1.1 404 Not Found (text/html)

▼ Frame 7123: 492 bytes on wire (3936 bits), 492 bytes captured (3936 bits) on interface \Device\NPF_{472FCD9B-9932-4A9C-B9CF-2F6DB012791A}, id 0
Section number: 1
 > Interface id: 0 (\Device\NPF_{472FCD9B-9932-4A9C-B9CF-2F6DB012791A})
 Encapsulation type: Ethernet (1)
 Arrival Time: Oct 6, 2023 10:04:20.632255000 SE Asia Standard Time
 [Time shift for this packet: 0.000000000 seconds]

Mất **0,268353 giây** từ khi thông điệp HTTP GET được gửi cho đến khi HTTP OK được nhận

3. Địa chỉ IP của gaia.cs.umass.edu là gì? Địa chỉ IP của máy tính bạn là gì?

Địa chỉ ip máy chủ:

Wireless LAN adapter Wi-Fi:

```
Connection-specific DNS Suffix  . :  
Link-local IPv6 Address . . . . . : fe80::ee8d:aaf9:7f69:deff%9  
IPv4 Address. . . . . : 10.45.44.81  
Subnet Mask . . . . . : 255.255.0.0  
Default Gateway . . . . . : 10.45.0.1
```

Địa chỉ ip của gaia.cs.umass.edu :

```
Non-authoritative answer:  
Name:      gaia.cs.umass.edu  
Address:   128.119.245.12
```

4. In 2 thông điệp HTTP (GET và OK) trong câu 2 ở trên (chọn Print từ File menu, chọn *Selected Packet Only* và *As Displayed*, sau đó chọn OK).

```
GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1  
Host: gaia.cs.umass.edu  
Connection: keep-alive  
Cache-Control: max-age=0  
Upgrade-Insecure-Requests: 1  
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/117.0.0.0 Safari/537.36 Edg/117.0.2045.47  
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7  
Accept-Encoding: gzip, deflate  
Accept-Language: en-US,en;q=0.9,vi;q=0.8  
  
HTTP/1.1 200 OK  
Date: Fri, 06 Oct 2023 07:53:09 GMT  
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3  
Last-Modified: Fri, 06 Oct 2023 05:59:02 GMT  
ETag: "51-60705eff5b47d"  
Accept-Ranges: bytes  
Content-Length: 81  
Keep-Alive: timeout=5, max=100  
Connection: Keep-Alive  
Content-Type: text/html; charset=UTF-8  
  
<html>  
Congratulations! You've downloaded the first Wireshark lab file!  
</html>
```