

Marymount University - Portal Lab 6

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## My IP address

### Lab 6 – MAC/ARP

IT 520-A – Enterprise Infrastructure & Networks

**Instructions:**

- Clear your browser history, and visit: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-ethereal-lab-file3.html> (your browser should display the US Bill of Rights)
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**Questions:**

1. What is the MAC address from your computer?
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5. Using the terminal (cmd in Windows, Terminal in mac), run a command to display your full ARP list table. (Find out what the command is, and print a full screen shot of your result.)

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Command Prompt

```
Microsoft Windows [Version 10.0.17134.619]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Saints>ipconfig

Windows IP Configuration

Ethernet adapter Ethernet:

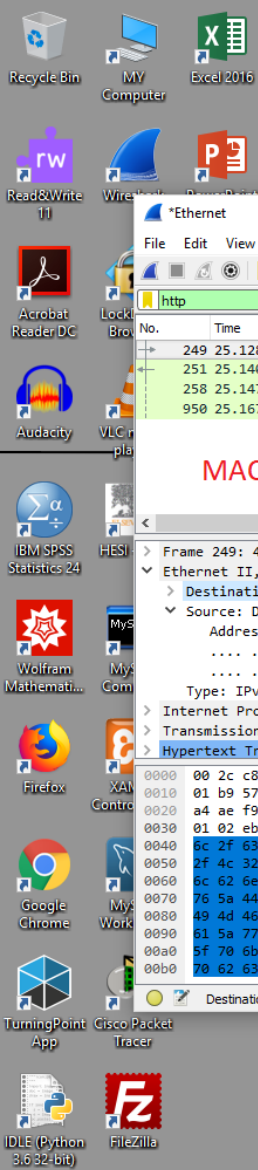
    Connection-specific DNS Suffix  . : marymount.edu
    Link-local IPv6 Address . . . . . : fe80::88bb:a9:56a3:b8d6%3
    IPv4 Address. . . . . : 10.8.20.131
    Subnet Mask . . . . . : 255.255.254.0
    Default Gateway . . . . . : 10.8.20.1

C:\Users\Saints>
```

(703)-526-6990

ur document (s) to a Flash drive or  
s like Dropbox or Google Drive.

documents saved or downloaded on  
this computer.



\*Ethernet

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No.	Time	Source	Destination	Protocol	Length	Info
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251	25.140047	172.217.164.174	10.8.20.131	HTTP	1196	HTTP/1.1 302 Found (text/html)
258	25.147730	10.8.20.131	216.59.116.76	HTTP	587	GET /edged1/chromewebstore/L2Nocm9tZV9leHR1bnNpb24vYmxv
950	25.167665	216.59.116.76	10.8.20.131	HTTP	980	HTTP/1.1 200 OK (application/x-chrome-extension)

MAC address from my computer

Frame 249: 455 bytes on wire (3640 bits), 455 bytes captured (3640 bits) on interface 0

Ethernet II, Src: Dell\_14:c0:18 (14:b3:1f:14:c0:18), Dst: Cisco\_59:ec:bf (00:2c:c8:59:ec:bf)

Destination: Cisco\_59:ec:bf (00:2c:c8:59:ec:bf)

Source: Dell\_14:c0:18 (14:b3:1f:14:c0:18)

Address: Dell\_14:c0:18 (14:b3:1f:14:c0:18)

.....0. .... = LG bit: Globally unique address (factory default)

.....0. .... = IG bit: Individual address (unicast)

Type: IPv4 (0x0800)

Internet Protocol Version 4, Src: 10.8.20.131, Dst: 172.217.164.174

Transmission Control Protocol, Src Port: 63995, Dst Port: 80, Seq: 1, Ack: 1, Len: 401

Hypertext Transfer Protocol

```
0000 00 2c c8 59 ec bf 14 b3 1f 14 c0 18 08 00 45 00  .Y-----E-
0010 01 b9 57 b2 40 00 80 06 31 7a 0a 08 14 83 ac d9  .W@...1z-----
0020 a4 ae f9 fb 00 50 bc a4 de 03 8f 7e 5d 69 50 18  ....P...iP-
0030 01 02 eb 40 00 00 47 45 54 20 2f 65 64 67 65 64  .@...GE T /edged
0040 6c 2f 63 68 72 6f 6d 65 77 65 62 73 74 6f 72 65  l/chrome webstore
0050 2f 4c 32 4e 6f 63 6d 39 74 5a 56 39 6c 65 48 52  /L2Nocm9 tZV9leHR
0060 6c 62 6e 4e 70 62 32 34 76 59 6d 78 76 59 6e 4d  1bnNpb24 vYmxvYmN
0070 76 5a 44 49 33 51 55 46 57 64 44 4a 4c 62 7a 68  vZDI3QUF WdOjLbzh
0080 49 4d 46 4e 43 59 32 31 48 57 69 30 34 51 6d 46  IMPNCY21 HwI04QmF
0090 61 5a 77 2f 36 38 31 38 2e 35 32 38 2e 30 2e 30  aZw/6818 .528.0.0
00a0 5f 70 6b 65 64 63 6a 6b 64 65 66 67 70 64 65 6c  _pkedcjk defgpdel
00b0 70 62 63 6d 62 6d 65 6f 6d 63 6a 62 65 65 6d 66  bcbmbmeo mcjbeemf
```

Destination Hardware Address (eth.dst), 6 bytes

Packets: 1292 · Displayed: 4 (0.3%) · Dropped: 0 (0.0%) | Profile: Default

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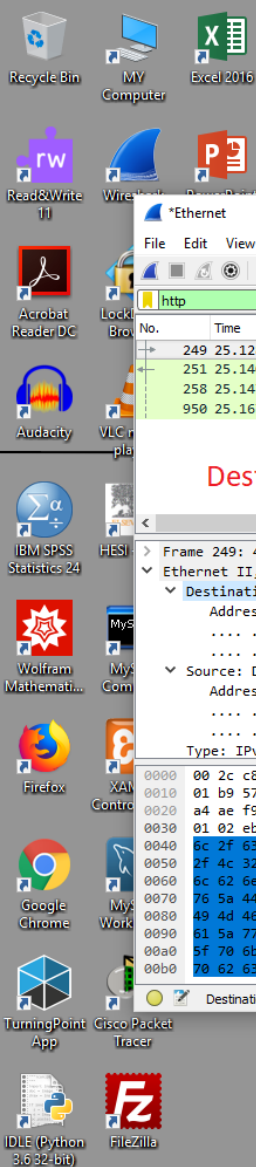
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950	25.167665	216.59.116.76	10.8.20.131	HTTP	980	HTTP/1.1 200 OK (application/x-chrome-extension)

Destination MAC address

Frame 249: 455 bytes on wire (3640 bits), 455 bytes captured (3640 bits) on interface 0

Ethernet II, Src: Dell\_14:c0:18 (14:b3:1f:14:c0:18), Dst: Cisco\_59:ec:bf (00:2c:c8:59:ec:bf)

Destination: Cisco\_59:ec:bf (00:2c:c8:59:ec:bf)

Address: Cisco\_59:ec:bf (00:2c:c8:59:ec:bf)

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...0. .... = LG bit: Globally unique address (factory default)

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Type: IPv4 (0x0800)

0000 00 2c c8 59 ec bf 14 b3 1f 14 c0 18 08 00 45 00 .Y.....E

0010 01 b9 57 b2 40 00 80 06 31 7a 0a 08 14 83 ac d9 .W@...1z...

0020 a4 ae f9 fb 00 50 bc a4 de 03 8f 7e 5d 69 50 18 ....P...iP...

0030 01 02 eb 40 00 00 47 45 54 20 2f 65 64 67 65 64 ...@...GE T /edged

0040 5c 2f 63 68 72 6f 6d 65 77 65 62 73 74 6f 72 65 l/chrome webstore

0050 2f 4c 32 4e 6f 63 6d 39 74 5a 56 39 6c 65 48 52 /L2Nocm9 tZV9leHR

0060 6c 62 6e 4e 70 62 32 34 76 59 6d 78 76 59 6e 4d 1bnNpb24 vYmxvYmN

0070 76 5a 44 49 33 51 55 46 57 64 44 4a 4c 62 7a 68 vZDI3QUF WdOJLbzh

0080 49 4d 46 4e 43 59 32 31 48 57 69 30 34 51 6d 46 IMFNCY21 HwI04QmF

0090 61 5a 77 2f 36 38 31 38 2e 35 32 38 2e 30 2e 30 aZw/6818 .528.0.0

00a0 5f 70 6b 65 64 63 6a 6b 64 65 66 67 70 64 65 6c \_pkedcjk defgpdelf

00b0 70 62 63 6d 62 6d 65 6f 6d 63 6a 62 65 65 6d 66 dbcbmeoa mcjbeemf

Destination Hardware Address (eth.dst), 6 bytes

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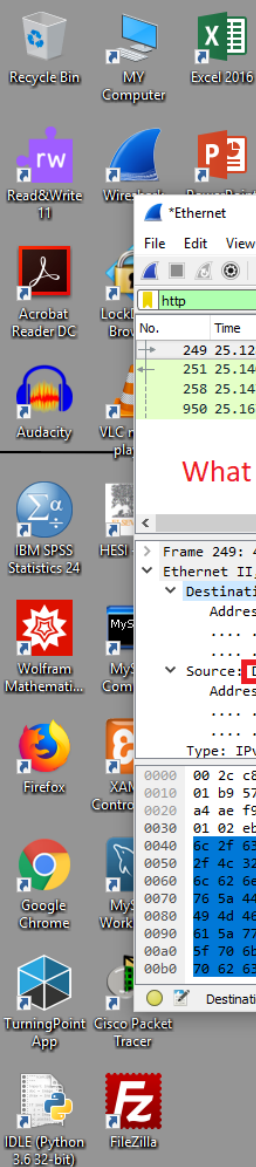
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What device has the MAC address shown in the destination?

Frame 249: 455 bytes on wire (3640 bits), 455 bytes captured (3640 bits) on interface 0

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0070 76 5a 44 49 33 51 55 46 57 64 44 4a 4c 62 7a 68 vZDI3QUF WdOJLbzh

0080 49 4d 46 4e 43 59 32 31 48 57 69 30 34 51 6d 46 IMFNVCY21 HwI04QmF

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00a0 5f 70 6b 65 64 63 6a 6b 64 65 66 67 70 64 65 6c \_pkedcjk defgpdelf

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Destination Hardware Address (eth.dst), 6 bytes

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Questions:

- What is the MAC address from your computer?
- What is the destination MAC address?
- What device has the MAC address shown in the destination?
- Explain the relationship between the destination MAC address and the destination IP address.

-The destination MAC address is the MAC address of the router connected to the source. It sends the data/info to the next router or to the final destination.

-The destination IP address is the address of the final destination.

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Command Prompt

Microsoft Windows [Version 10.0.17134.619]  
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Saints>arp -a

Interface: 10.8.20.131 --- 0x3	Internet Address	Physical Address	Type
10.8.20.1	00-2c-c8-59-ec-bf	dynamic	
10.8.21.18	f8-77-b8-81-ab-77	dynamic	
10.8.21.175	f8-3f-51-38-09-32	dynamic	
10.8.21.193	f8-77-b8-81-ab-85	dynamic	
10.8.21.255	ff-ff-ff-ff-ff-ff	static	
224.0.0.2	01-00-5e-00-00-02	static	
224.0.0.13	01-00-5e-00-00-0d	static	
224.0.0.22	01-00-5e-00-00-16	static	
224.0.0.251	01-00-5e-00-00-fb	static	
224.0.0.252	01-00-5e-00-00-fc	static	
239.0.0.28	01-00-5e-00-00-1c	static	
239.255.255.250	01-00-5e-7f-ff-fa	static	
255.255.255.255	ff-ff-ff-ff-ff-ff	static	

C:\Users\Saints>

Source: Dell\_14:c0:18 (14:b3:1f:14:c0:18)  
Address: Dell\_14:c0:18 (14:b3:1f:14:c0:18)  
Type: IPv4 (0x0800)

Type	Destination Hardware Address (eth.dst), 6 bytes	Packets: 1292	Displayed: 4 (0.3%)	Dropped: 0 (0.0%)	Profile: Default
0000	00 2c c8 59 ec bf 14 b3 1f 14 c0 18 08 00 45 00				
0010	01 b9 57 b2 40 00 80 06 31 7a 0a 08 14 83 ac d9				
0020	a4 ae f9 fb 00 50 bc a4 de 03 8f 7e 5d 69 50 18				
0030	01 02 eb 40 00 00 47 45 54 20 2f 65 64 67 65 64				
0040	6c 2f 63 68 72 6f 6d 65 77 65 62 73 74 6f 72 65				
0050	2f 4c 32 4e 6f 63 6d 39 74 5a 56 39 6c 65 48 52				
0060	6c 62 6e 4e 70 62 32 34 76 59 6d 78 76 59 6e 4d				
0070	76 5a 44 49 33 51 55 46 57 64 44 4a 4c 62 7a 68				
0080	49 4d 46 4e 43 59 32 31 48 57 69 30 34 51 6d 4e				
0090	61 5a 77 2f 36 38 31 38 2e 35 32 38 2e 30 2e 30				
00a0	5f 70 6b 65 64 63 6a 6b 64 65 66 70 64 65 6c				
00b0	70 62 63 6d 62 6d 65 6f 6d 63 6a 62 65 65 6d 66				

Lab 6

Historical Documents

Settings

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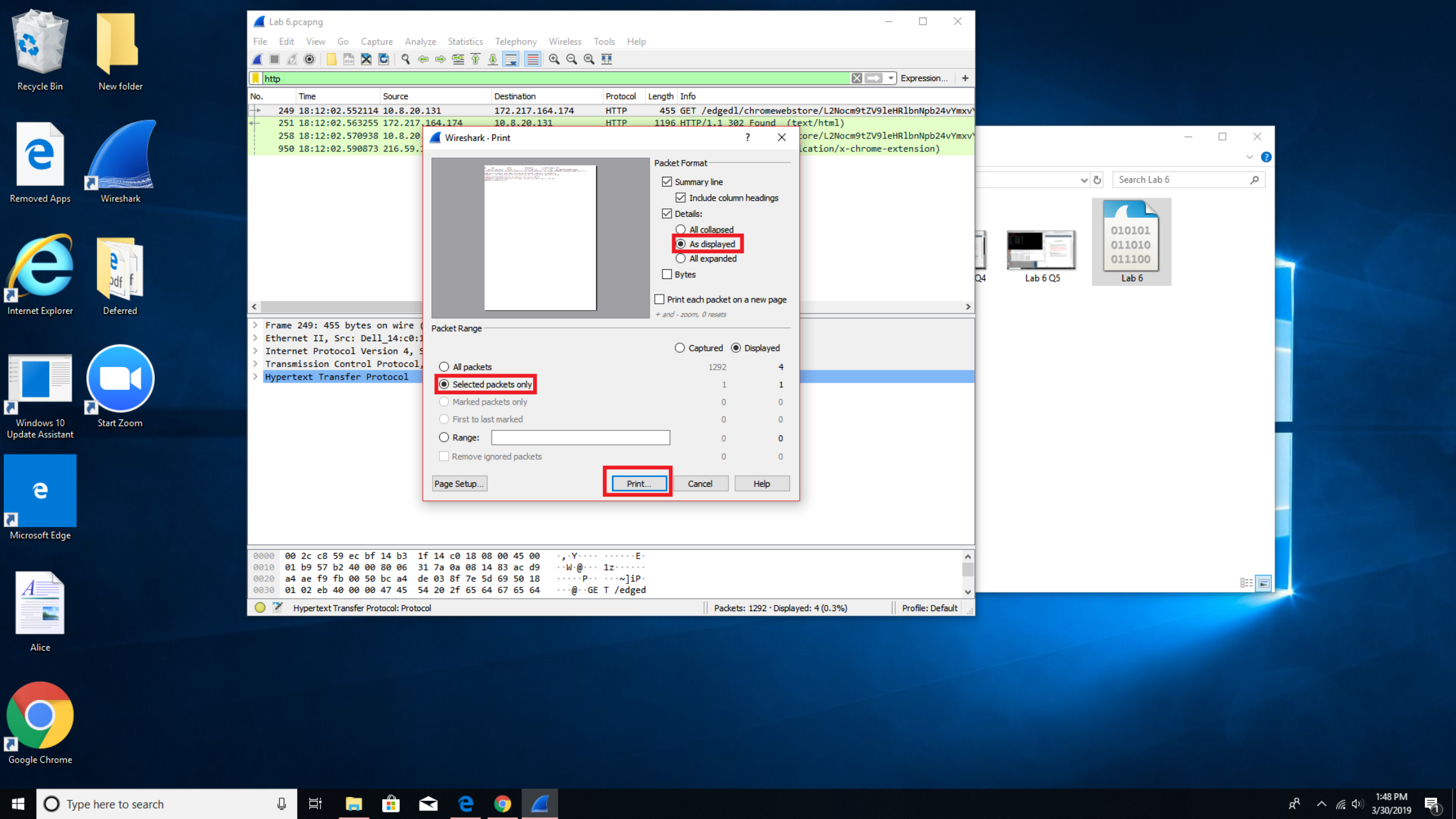
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Internet Protocol Version 4, Src: 10.8.20.131, Dst: 172.217.164.174  
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