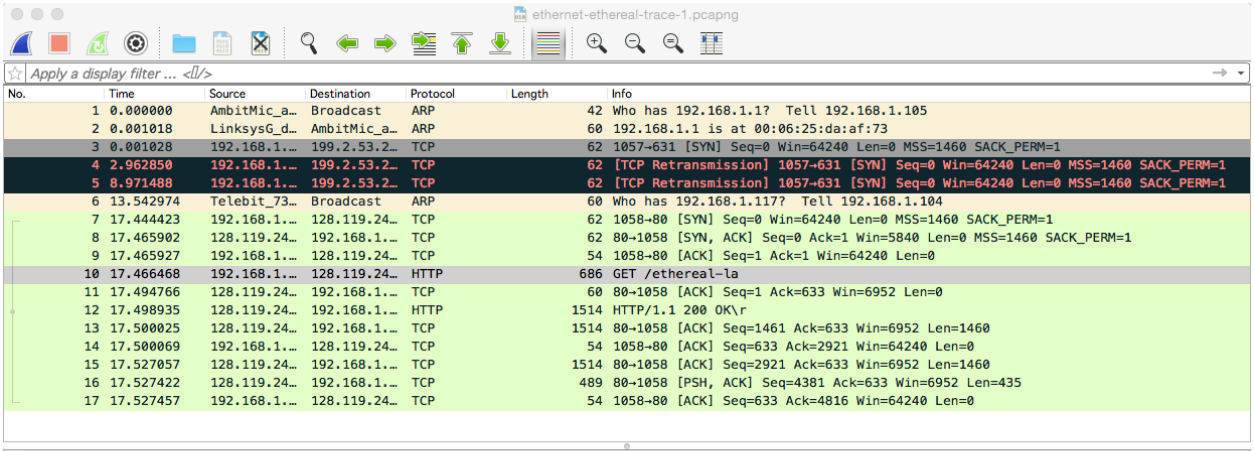
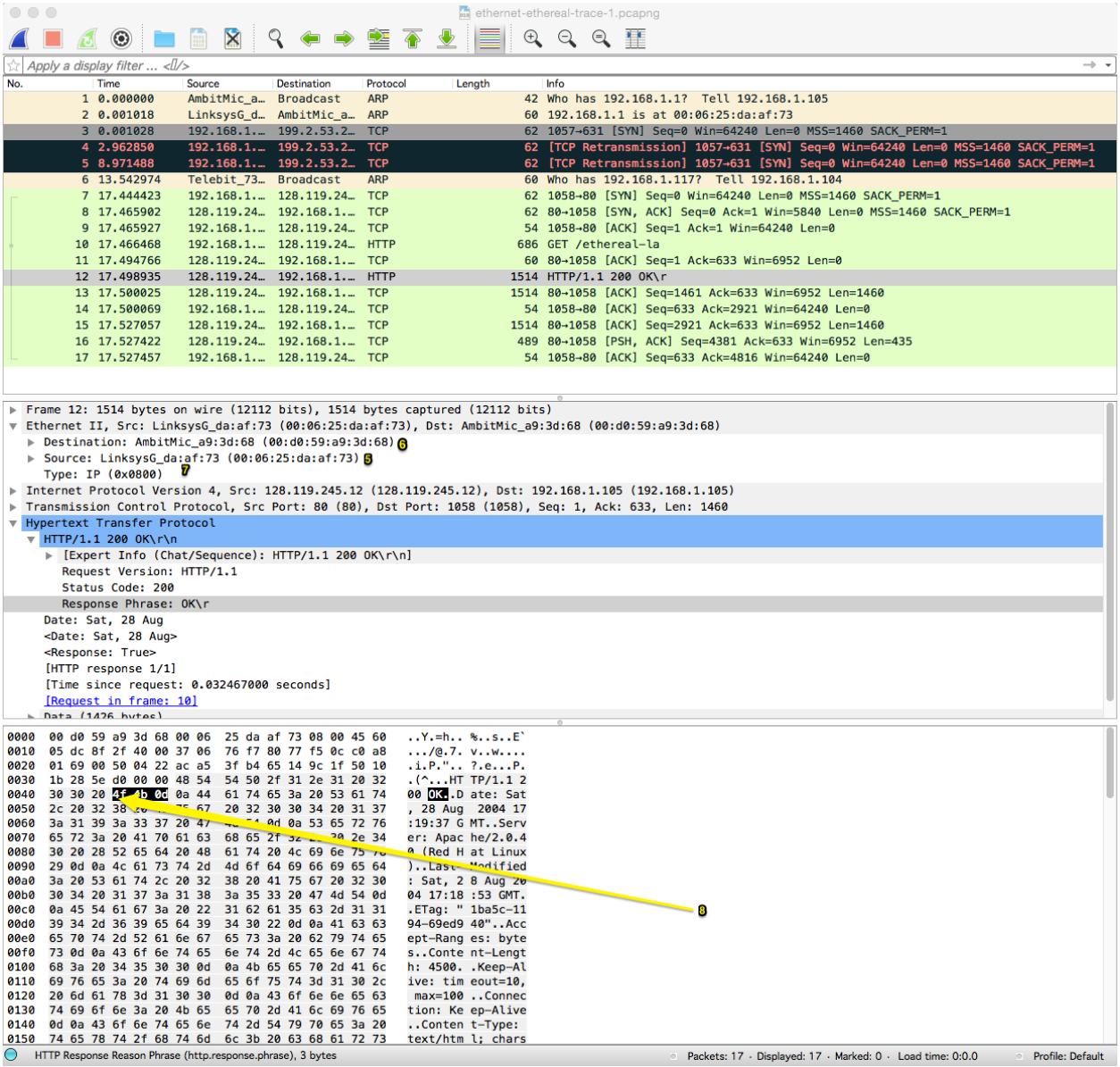
CS372 Lab 5
Eric Rouse

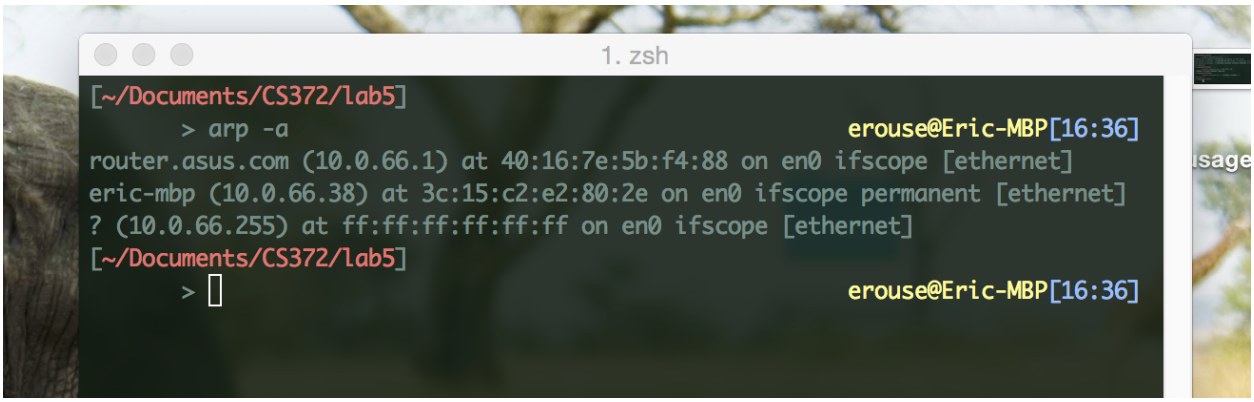
1. 00:d0:59:a9:3d:68
2. 00:06:25:da:af:73. No, this is the first hop router.
3. 0x0800
4. 36 (it is the 37th byte)



5. 00:06:25:da:af:73. No, this is the “last” hop router.
6. 00:d0:59:a9:3d:68. Yes, this is the MAC address of the computer.
7. 0x800; IP
8. 43 (it is the 44th).


ethernet-ethereal-trace-1.pcapng
Apply a display filter ... <⌘/>
No. Time Source Destination Protocol Length Info
1 0.000000 AmbitMic_a… Broadcast ARP 42 Who has 192.168.1.1? Tell 192.168.1.105
2 0.001018 LinksysG_d… AmbitMic_a… ARP 60 192.168.1.1 is at 00:06:25:da:af:73
3 0.001028 192.168.1.… 199.2.53.2… TCP 62 1057→631 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1
4 2.962850 192.168.1.… 199.2.53.2… TCP 62 [TCP Retransmission] 1057→631 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1
5 8.971488 192.168.1.… 199.2.53.2… TCP 62 [TCP Retransmission] 1057→631 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1
6 13.542974 Telebit_73… Broadcast ARP 60 Who has 192.168.1.117? Tell 192.168.1.104
7 17.444423 192.168.1.… 128.119.24… TCP 62 1058→80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 SACK_PERM=1
8 17.465902 128.119.24… 192.168.1.… TCP 62 80→1058 [SYN, ACK] Seq=0 Ack=1 Win=5840 Len=0 MSS=1460 SACK_PERM=1
9 17.465927 192.168.1.… 128.119.24… TCP 54 1058→80 [ACK] Seq=1 Ack=1 Win=64240 Len=0
10 17.466468 192.168.1.… 128.119.24… HTTP 686 GET /ethereal-la
11 17.494766 128.119.24… 192.168.1.… TCP 60 80→1058 [ACK] Seq=1 Ack=633 Win=6952 Len=0
12 17.498935 128.119.24… 192.168.1.… HTTP 1514 HTTP/1.1 200 OK\r
13 17.500025 128.119.24… 192.168.1.… TCP 1514 80→1058 [ACK] Seq=1461 Ack=633 Win=6952 Len=1460
14 17.500069 192.168.1.… 128.119.24… TCP 54 1058→80 [ACK] Seq=633 Ack=2921 Win=64240 Len=0
15 17.527057 128.119.24… 192.168.1.… TCP 1514 80→1058 [ACK] Seq=2921 Ack=633 Win=6952 Len=1460
16 17.527422 128.119.24… 192.168.1.… TCP 489 80→1058 [PSH, ACK] Seq=4381 Ack=633 Win=6952 Len=435
17 17.527457 192.168.1.… 128.119.24… TCP 54 1058→80 [ACK] Seq=633 Ack=4816 Win=64240 Len=0
Frame 12: 1514 bytes on wire (12112 bits), 1514 bytes captured (12112 bits)
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: AmbitMic_a9:3d:68 (00:d0:59:a9:3d:68)
Destination: AmbitMic_a9:3d:68 (00:d0:59:a9:3d:68) 6
Source: LinksysG_da:af:73 (00:06:25:da:af:73) 5
Type: IP (0x0800) 7
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst: 192.168.1.105 (192.168.1.105)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 1058 (1058), Seq: 1, Ack: 633, Len: 1460
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
[Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
Request Version: HTTP/1.1
Status Code: 200
Response Phrase: OK\r
Date: Sat, 28 Aug
<Date: Sat, 28 Aug>
<Response: True>
[HTTP response 1/1]
[Time since request: 0.032467000 seconds]
[Request in frame: 10]
Data (1426 bytes)
0000 00 d0 59 a9 3d 68 00 06 25 da af 73 08 00 45 60 ..Y.=h.. %..s..E`
0010 05 dc 8f 2f 40 00 37 06 76 f7 80 77 f5 0c c0 a8 .../@.7. v..w....
0020 01 69 00 50 04 22 ac a5 3f b4 65 14 9c 1f 50 10 .i.P.".. ?.e...P.
0030 1b 28 5e d0 00 00 48 54 54 50 2f 31 2e 31 20 32 .(^...HT TP/1.1 2
0040 30 30 20 4f 4b 0d 0a 44 61 74 65 3a 20 53 61 74 00 OK..D ate: Sat
0050 2c 20 32 38 20 .. .. 67 20 32 30 30 34 20 31 37 , 28 Aug 2004 17
0060 3a 31 39 3a 33 37 20 47 .. .. 0d 0a 53 65 72 76 :19:37 G MT..Serv
0070 65 72 3a 20 41 70 61 63 68 65 2f .. .. 20 2e 34 er: Apac he/2.0.4
0080 30 20 28 52 65 64 20 48 61 74 20 4c 69 6e 75 .. 0 (Red H at Linux
0090 29 0d 0a 4c 61 73 74 2d 4d 6f 64 69 66 69 65 64)..Last-Modified
00a0 3a 20 53 61 74 2c 20 32 38 20 41 75 67 20 32 30 : Sat, 2 8 Aug 20
00b0 30 34 20 31 37 3a 31 38 3a 35 33 20 47 4d 54 0d 04 17:18 :53 GMT.
00c0 0a 45 54 61 67 3a 20 22 31 62 61 35 63 2d 31 31 .ETag: " 1ba5c-11
00d0 39 34 2d 36 39 65 64 39 34 30 22 0d 0a 41 63 63 94-69ed9 40"..Acc
00e0 65 70 74 2d 52 61 6e 67 65 73 3a 20 62 79 74 65 ept-Rang es: byte
00f0 73 0d 0a 43 6f 6e 74 65 6e 74 2d 4c 65 6e 67 74 s..Conte nt-Lengt
0100 68 3a 20 34 35 30 30 0d 0a 4b 65 65 70 2d 41 6c h: 4500. .Keep-Al
0110 69 76 65 3a 20 74 69 6d 65 6f 75 74 3d 31 30 2c ive: tim eout=10,
0120 20 6d 61 78 3d 31 30 30 0d 0a 43 6f 6e 6e 65 63 max=100 ..Connec
0130 74 69 6f 6e 3a 20 4b 65 65 70 2d 41 6c 69 76 65 tion: Ke ep-Alive
0140 0d 0a 43 6f 6e 74 65 6e 74 2d 54 79 70 65 3a 20 ..Conten t-Type:
0150 74 65 78 74 2f 68 74 6d 6c 3b 20 63 68 61 72 73 text/htm l; chars
8
HTTP Response Reason Phrase (http.response.phrase), 3 bytes
Packets: 17 · Displayed: 17 · Marked: 0 · Load time: 0:0.0
Profile: Default

9. see below



10. source: 00:80:ad:73:8d:ce. Destination ff:ff:ff:ff:ff:ff
11. 0x0806, type is ARP
12. a. 24 b. 1 for request c. yes d. Target HA octet.
13. a. 20 b. 2 for reply c. target IP
14. Source: 00:06:25:da:af:73 Dest: 00:d0:59:a9:3d:68
15. There is no ARP reply because the packet is intended for 192.168.1.104, which is not the host computer. Therefore, no ARP reply will be given from 192.168.1.105, and would not show up on the Wireshark trace. That is why the first two packets are a request and a reply as opposed to just a request.