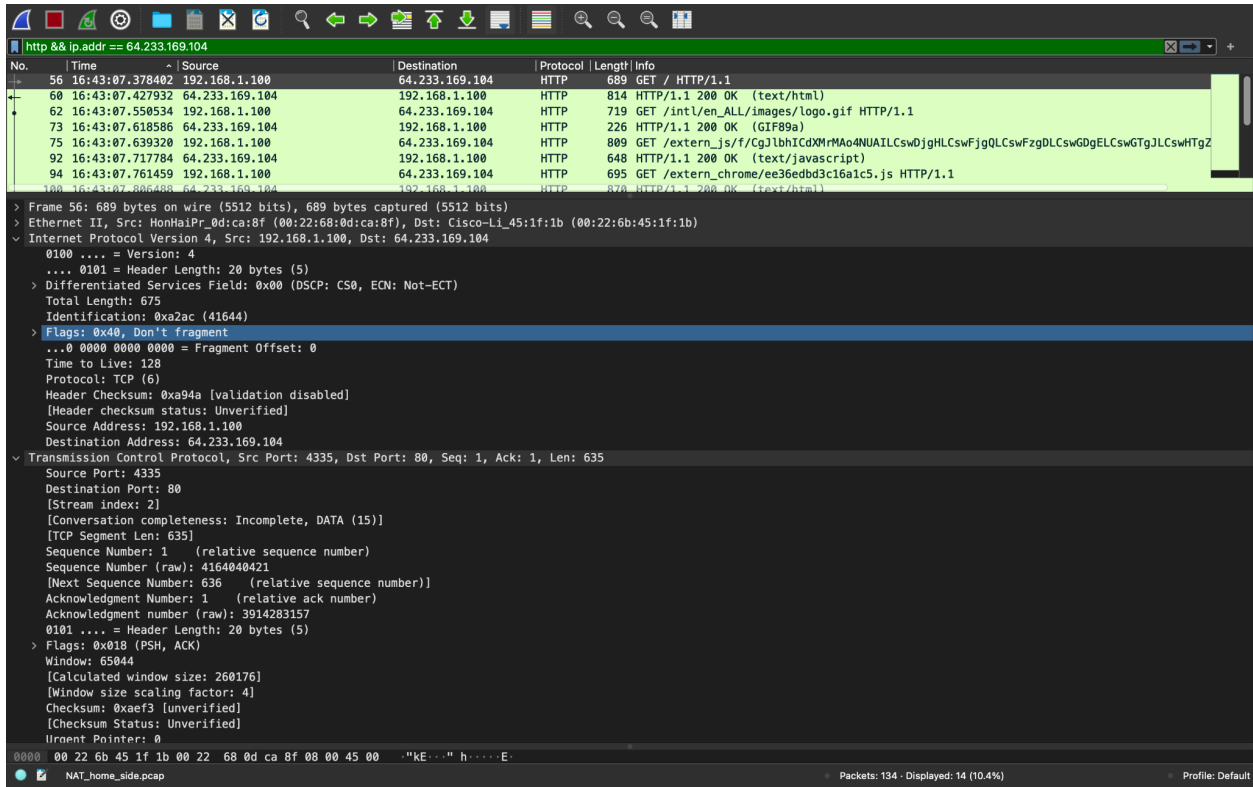


# Foundation of Computer Networks - Wireshark Project

## Bhavin Oza (bo2115)

1). 192.168.1.100



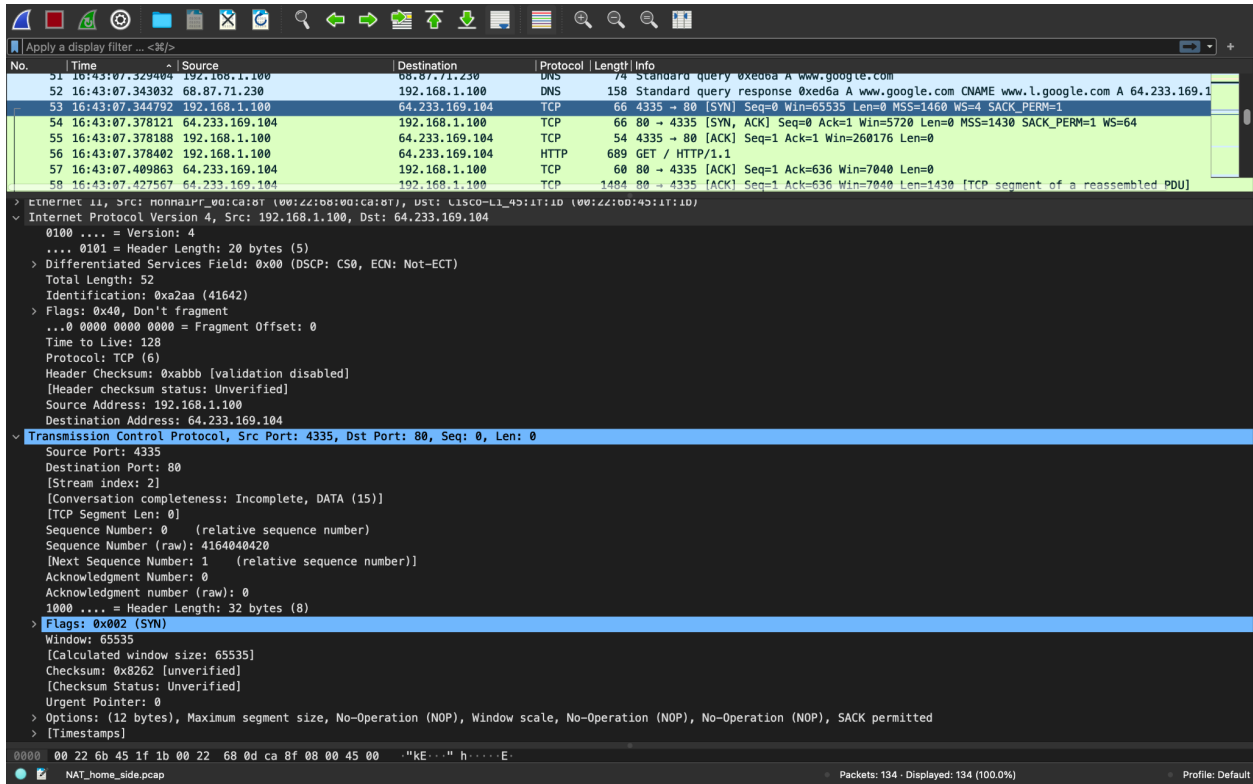
2). Refer above image

3). Source IP address: 192.168.1.100, Port: 4335  
Destination IP address: 64.233.169.104, Port: 80

4). Time: 7.427932  
Source IP address: 64.233.169.104, Port: 80  
Destination IP address: 192.168.1.100, Port: 4335

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## Bhavin Oza (bo2115)



5). Time for SYN: 7.344792

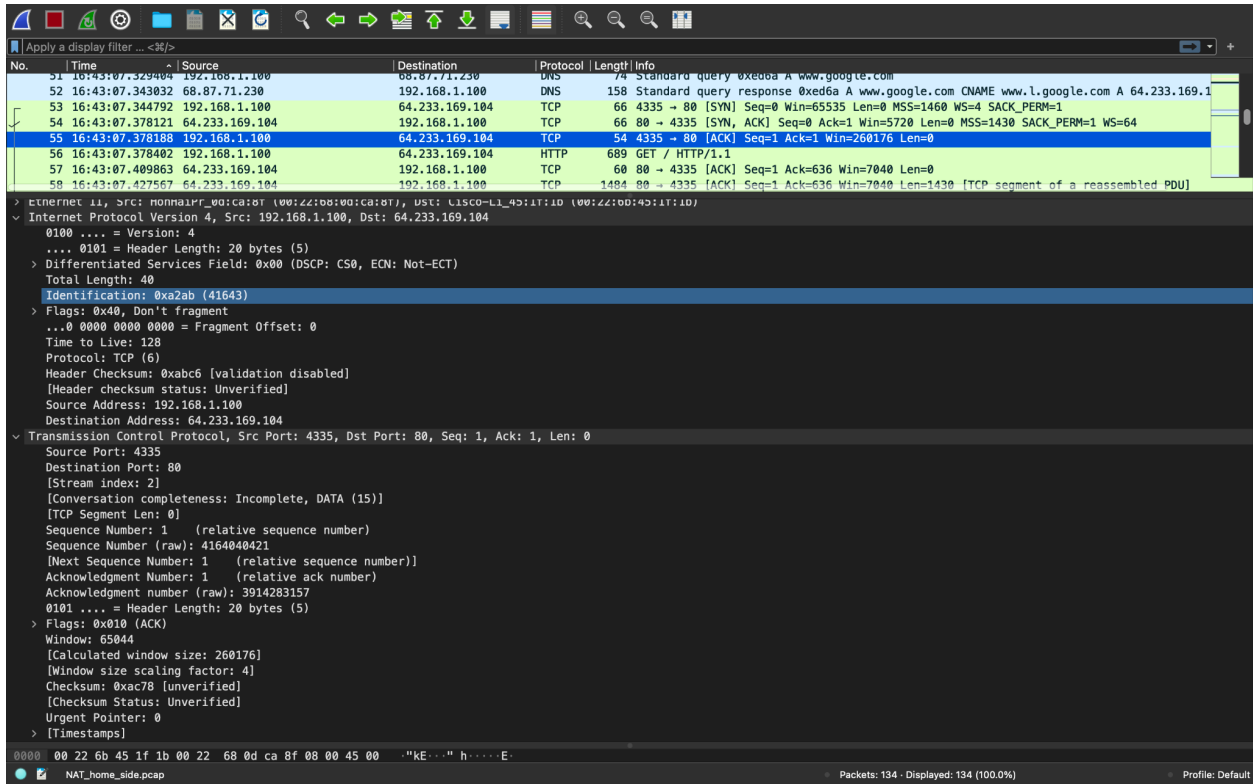
For SYN,

Source IP address: 192.168.1.100, Port: 4335

Destination IP address: 64.233.169.104, Port: 80

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## Bhavin Oza (bo2115)



For ACK,

Source IP address: 64.233.169.104, Port: 80

Destination IP address: 192.168.1.100, Port: 4335

Time for ACK: 7.378188

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### Bhavin Oza (bo2115)

The image shows a Wireshark packet capture of an HTTP GET request. The packet list shows several packets, with packet 85 selected. The packet details pane shows the structure of the packet, including Ethernet II, Internet Protocol Version 4, and Transmission Control Protocol. The packet bytes pane shows the raw data of the packet.

No.	Time	Source	Destination	Protocol	Length	Info
41	16:43:02.667888	71.192.34.104	74.125.106.31	HTTP	772	GET /safebrowsing/rd/goog-malware-shavar_a_14466-14470.14466.14467-14470: HTTP/1.1
42	16:43:02.690289	74.125.106.31	71.192.34.104	HTTP	881	HTTP/1.1 200 OK (application/vnd.google.safebrowsing-chunk)
43	16:43:02.704957	71.192.34.104	74.125.106.31	HTTP	776	GET /safebrowsing/rd/goog-phish-shavar_s_48291-48300.48291-48295.48296-48300: HTTP/1.1
44	16:43:02.727954	74.125.106.31	71.192.34.104	HTTP	526	HTTP/1.1 200 OK (application/vnd.google.safebrowsing-chunk)
45	16:43:02.735594	71.192.34.104	74.125.106.31	HTTP	776	GET /safebrowsing/rd/goog-phish-shavar_a_67721-67760.67721-67729.67730-67760: HTTP/1.1
46	16:43:02.754478	74.125.106.31	71.192.34.104	HTTP	1089	HTTP/1.1 200 OK (application/vnd.google.safebrowsing-chunk)
85	16:43:07.800232	71.192.34.104	64.233.169.104	HTTP	689	GET / HTTP/1.1
90	16:43:07.848634	64.233.169.104	71.192.34.104	HTTP	814	HTTP/1.1 200 OK (text/html)
93	16:43:07.972421	71.192.34.104	64.233.169.104	HTTP	719	GET /intl/en_ALL/images/logo.gif HTTP/1.1
103	16:43:08.039182	64.233.169.104	71.192.34.104	HTTP	226	HTTP/1.1 200 OK (GIF89a)
106	16:43:08.061195	71.192.34.104	64.233.169.104	HTTP	809	GET /extern_js/f/Cq3lhbICdXMRMAo4NUAILCswDjgHLCswFgQLCswFzgLcswGdGELCswGtGjLCswHTGzLCswJ

Frame 85: 689 bytes on wire (5512 bits), 689 bytes captured (5512 bits)  
> Ethernet II, Src: Dell\_4f:36:23 (00:08:74:4f:36:23), Dst: Cisco\_bf:6c:01 (00:0e:d6:bf:6c:01)  
Internet Protocol Version 4, Src: 71.192.34.104, Dst: 64.233.169.104  
0100 .... = Version: 4  
.... 0101 = Header Length: 20 bytes (5)  
> Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)  
Total Length: 675  
Identification: 0xa2ac (41644)  
> Flags: 0x40, Don't fragment  
...0 0000 0000 0000 = Fragment Offset: 0  
Time to Live: 127  
Protocol: TCP (6)  
Header Checksum: 0x022f [validation disabled]  
[Header checksum status: Unverified]  
Source Address: 71.192.34.104  
Destination Address: 64.233.169.104  
> Transmission Control Protocol, Src Port: 4335, Dst Port: 80, Seq: 1, Ack: 1, Len: 635  
Source Port: 4335  
Destination Port: 80  
[Stream index: 2]  
[Conversation completeness: Incomplete, DATA (15)]  
[TCP Segment Len: 635]  
Sequence Number: 1 (relative sequence number)  
Sequence Number (raw): 4164040421  
[Next Sequence Number: 636 (relative sequence number)]  
Acknowledgment Number: 1 (relative ack number)  
Acknowledgment number (raw): 3914283157  
0101 .... = Header Length: 20 bytes (5)  
> Flags: 0x018 (PSH, ACK)  
Window: 65044  
[Calculated window size: 260176]

6). Time: 7.800232

Source IP address: 71.192.34.104, Port: 4335

Destination IP address: 64.233.169.104, Port: 80

Only the Source IP address has changed

7). No fields in HTTP GET message have changed.

Only the checksum field has changed in the IP datagram.

The reason for change in checksum, is since Source IP address is changed, and the checksum includes the Source IP address, hence the checksum is changed.

8). Time: 7.848634

Source IP address: 64.233.169.104, Port: 80

Destination IP address: 71.192.34.104, Port: 4335

Only the Destination IP address has changed

9). Time for SYN: 7.766539 and Time for ACK: 7.799818

For SYN,

Source IP address: 71.192.34.104, Port: 4335

Destination IP address: 64.233.169.104, Port: 80

For ACK,

Source IP address: 64.233.169.104, Port: 80

Destination IP address: 71.192.34.104, Port: 4335

For SYN, Source IP address has changed and For ACK, Destination IP address has changed, whereas the Port numbers are the same in both cases.

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**Bhavin Oza (bo2115)**

10). NAT Translation table

LAN	WAN
192.168.1.100, 4335	71.192.34.104, 4335