Institute of Information Technology
University of Dhaka

Assignment on TCP protocol observation

Submitted to:

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Submitted by:

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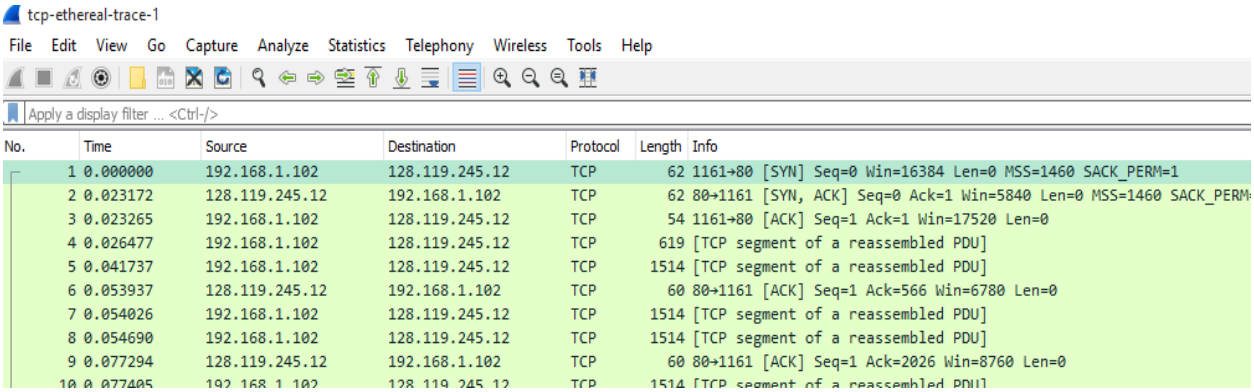
Roll: 811

1.



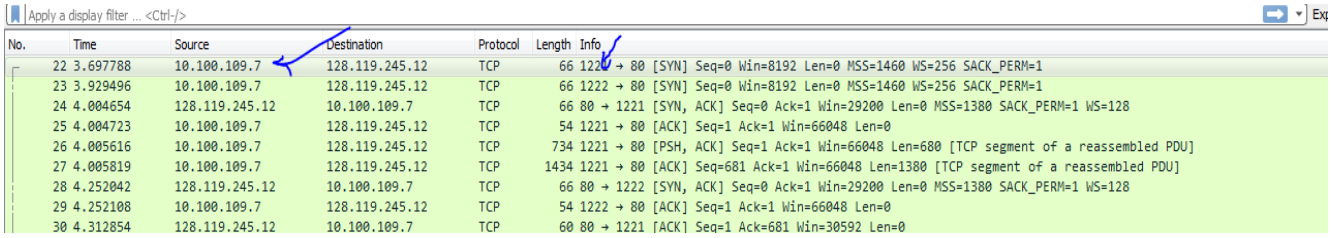
IP address and TCP port number used by the client computer:

192.168.1.102 and 1161

2.

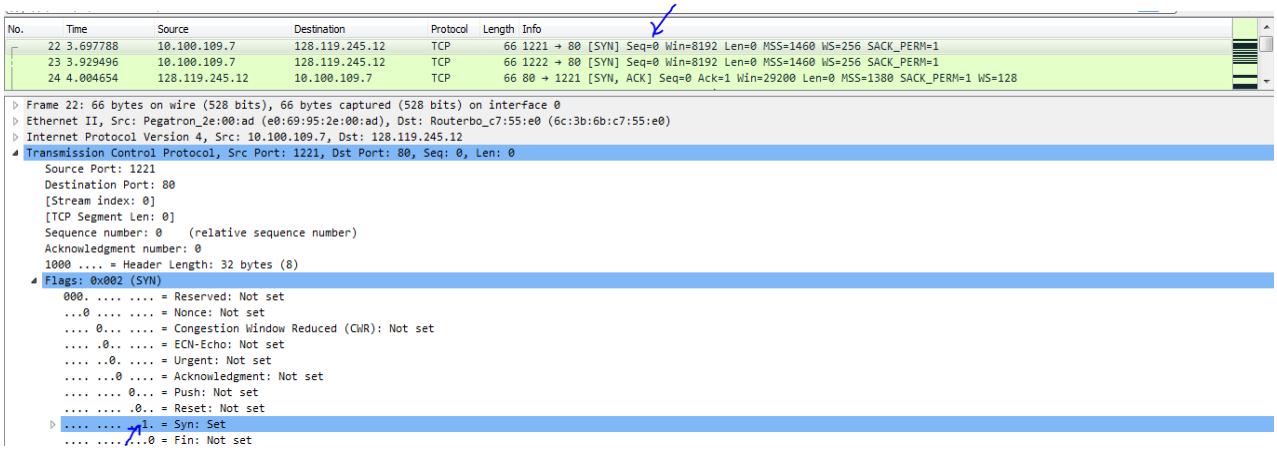
gaia.cs.umass.edu's IP address is *128.119.245.12*, port number is *80*

3.



Sorce ip: 10.100.109.7; source port: 1221

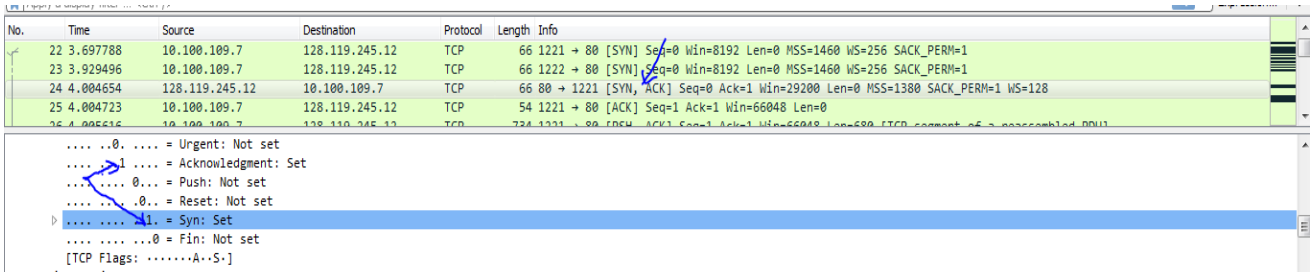
4.



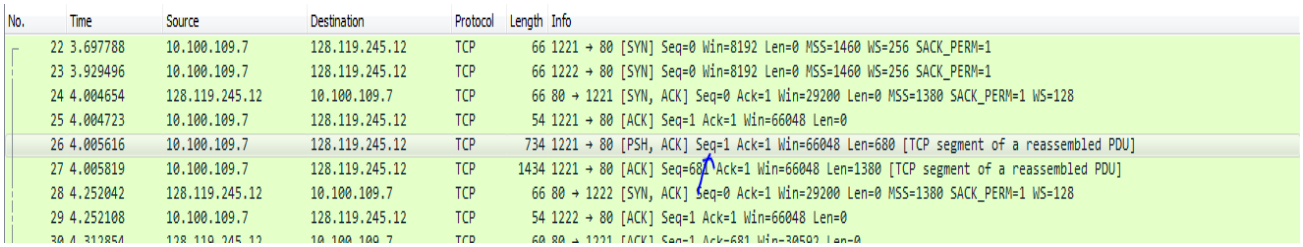
Seq number: 0. At flag part SYN in set to 1, so it is SYN segment.

5.

According to the screenshot below, the sequence number of the SYN_ACK segment sent by gaia.cs.umass.edu to the client computer in reply to the SYN is 0. The value of the acknowledgement field in the SYN_ACK segment is determined by the server gaia.cs.umass.edu. The server adds 1 to the initial sequence number of the SYN segment from the client computer. For this case, the initial sequence number of the SYN segment from the client computer is 0, thus the value of the acknowledgement field in the SYN_ACK segment is 1. A segment will be identified as a SYN_ACK segment if both SYN flag and ACKnowledgement flag in the segment are set to 1.



6.



Seq number: 1

7. a.

Sequence number for segment 1 is 1,

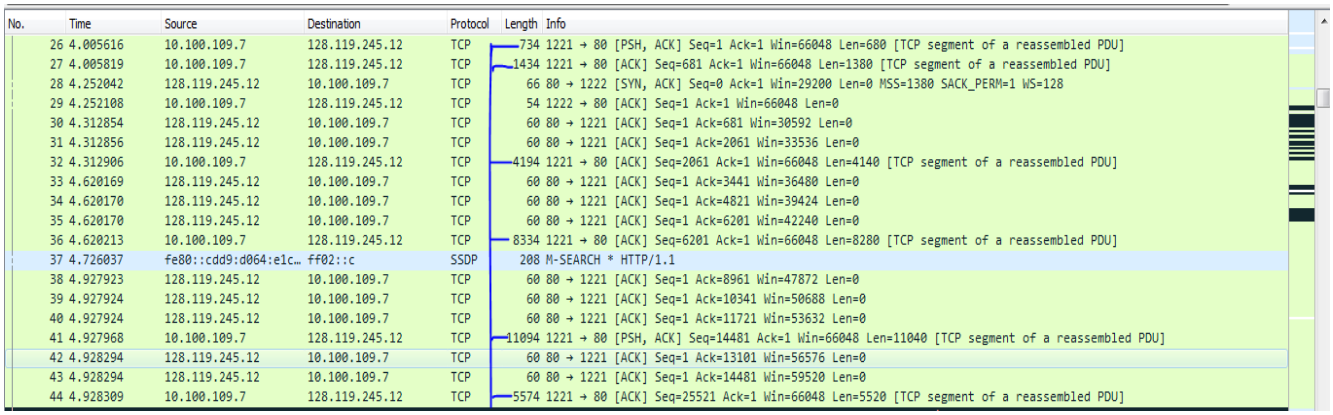
Sequence number for segment 2 is 681.

Sequence number of segment 3 is 2061.

Sequence number of segment 4 is 6201.

Sequence number of segment 5 is 14481.

Sequence number of segment 6 is 25521.



No.	Time	Source	Destination	Protocol	Length	Info
26	4.005616	10.100.109.7	128.119.245.12	TCP	734	1221 → 80 [PSH, ACK] Seq=1 Ack=1 Win=66048 Len=680 [TCP segment of a reassembled PDU]
27	4.005819	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=681 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
28	4.252042	128.119.245.12	10.100.109.7	TCP	66	80 → 1222 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1380 SACK_PERM=1 WS=128
29	4.252108	10.100.109.7	128.119.245.12	TCP	54	1222 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
30	4.312854	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=681 Win=30592 Len=0
31	4.312856	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=2061 Win=33536 Len=0
32	4.312906	10.100.109.7	128.119.245.12	TCP	4194	1221 → 80 [ACK] Seq=2061 Ack=1 Win=66048 Len=4140 [TCP segment of a reassembled PDU]
33	4.620169	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=3441 Win=36480 Len=0
34	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=4821 Win=39424 Len=0
35	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=6201 Win=42240 Len=0
36	4.620213	10.100.109.7	128.119.245.12	TCP	8334	1221 → 80 [ACK] Seq=6201 Ack=1 Win=66048 Len=8280 [TCP segment of a reassembled PDU]
37	4.726037	fe80::cdd9:d064:e1c…	ff02::c	SSDP	208	M-SEARCH * HTTP/1.1
38	4.927923	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=8961 Win=47872 Len=0
39	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=10341 Win=50688 Len=0
40	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=11721 Win=53632 Len=0
41	4.927968	10.100.109.7	128.119.245.12	TCP	11094	1221 → 80 [PSH, ACK] Seq=14481 Ack=1 Win=66048 Len=11040 [TCP segment of a reassembled PDU]
42	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=13101 Win=56576 Len=0
43	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=14481 Win=59520 Len=0
44	4.928309	10.100.109.7	128.119.245.12	TCP	5574	1221 → 80 [ACK] Seq=25521 Ack=1 Win=66048 Len=5520 [TCP segment of a reassembled PDU]

b. From the picture of par ‘a’ we can find:

Time for segment 1: 4.005616

Time for segment 2: 4.005819

Time for segment 3: 4.312906

Time for segment 4: 4.620213

Time for segment 5: 4.928294

Time for segment 6: 4.928309

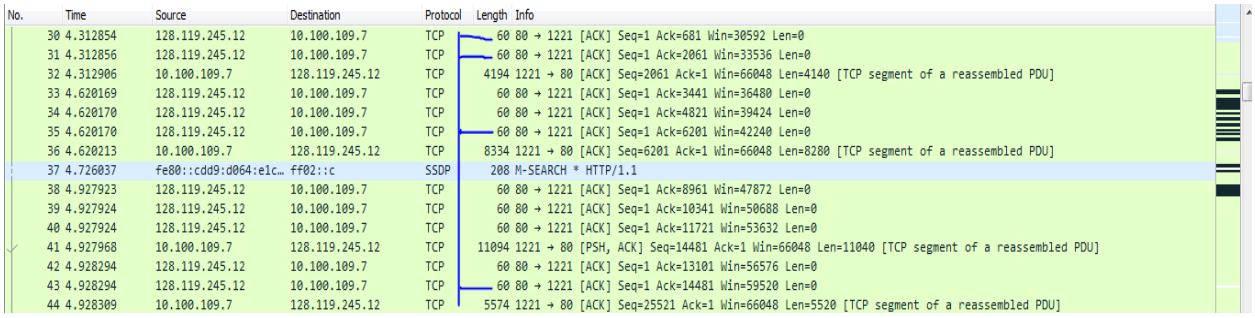
c. Receive time are given below:

Time for segment 1: 4.312854

Time for segment 2: 4.312856

Time for segment 3: 4.620170

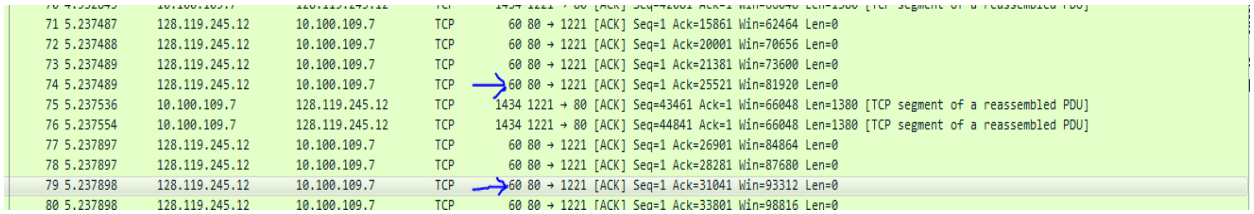
Time for segment 4: 4.928294



No.	Time	Source	Destination	Protocol	Length	Info
30	4.312854	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=681 Win=30592 Len=0
31	4.312856	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=2061 Win=33536 Len=0
32	4.312906	10.100.109.7	128.119.245.12	TCP	4194	1221 → 80 [ACK] Seq=2061 Ack=1 Win=66048 Len=4140 [TCP segment of a reassembled PDU]
33	4.620169	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=3441 Win=36480 Len=0
34	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=4821 Win=39424 Len=0
35	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=6201 Win=42240 Len=0
36	4.620213	10.100.109.7	128.119.245.12	TCP	8334	1221 → 80 [ACK] Seq=6201 Ack=1 Win=66048 Len=8280 [TCP segment of a reassembled PDU]
37	4.726037	fe80::cdd9:d064:e1c…	ff02::c	SSDP	208	M-SEARCH * HTTP/1.1
38	4.927923	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=8961 Win=47872 Len=0
39	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=10341 Win=50688 Len=0
40	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=11721 Win=53632 Len=0
41	4.927968	10.100.109.7	128.119.245.12	TCP	11094	1221 → 80 [PSH, ACK] Seq=14481 Ack=1 Win=66048 Len=11040 [TCP segment of a reassembled PDU]
42	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=13101 Win=56576 Len=0
43	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=14481 Win=59520 Len=0
44	4.928309	10.100.109.7	128.119.245.12	TCP	5574	1221 → 80 [ACK] Seq=25521 Ack=1 Win=66048 Len=5520 [TCP segment of a reassembled PDU]

Time for segment 5: 5.237489

Time for segment 6: 4.237898



71	5.237487	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=15861 Win=62464 Len=0
72	5.237488	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=20001 Win=70656 Len=0
73	5.237489	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=21381 Win=73600 Len=0
74	5.237489	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=25521 Win=81920 Len=0
75	5.237536	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=43461 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
76	5.237554	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=44841 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
77	5.237897	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=26901 Win=84864 Len=0
78	5.237897	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=28281 Win=87680 Len=0
79	5.237898	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=31041 Win=93312 Len=0
80	5.237898	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=33801 Win=98816 Len=0

d. From ‘b’ and ‘c’ we can find RTT:

RTT for segment 1 is 0.307238 seconds,

RTT for segment 2 is 0.307037 seconds,

RTT for segment 3 is 0.307264 seconds,

RTT for segment 4 is 0.308081 seconds,

RTT for segment 5 is 0.30918 seconds,

RTT for segment 6 is 0.309589 seconds.

8.

Length for segment 1: 734

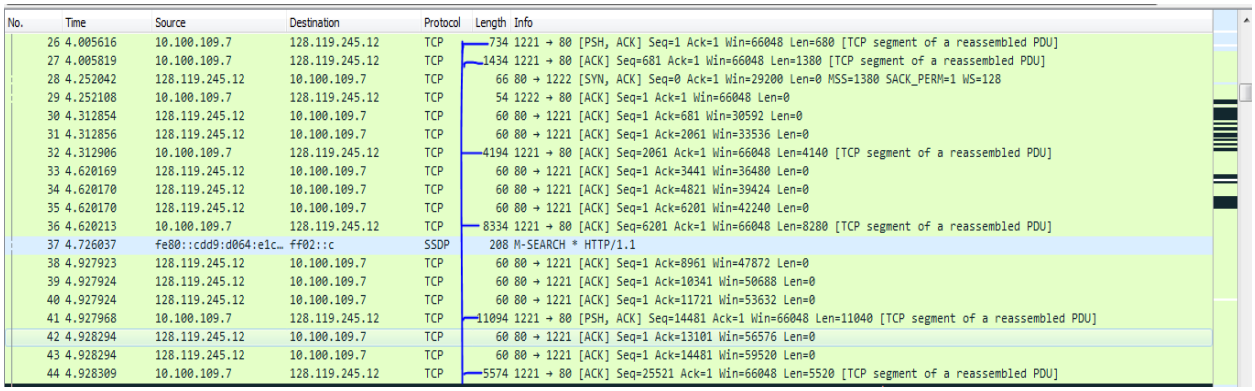
Length for segment 2: 1434

Length for segment 3: 4194

Length for segment 4: 8334

Length for segment 5: 11094

Length for segment 6: 5574



No.	Time	Source	Destination	Protocol	Length	Info
26	4.005616	10.100.109.7	128.119.245.12	TCP	734	1221 → 80 [PSH, ACK] Seq=1 Ack=1 Win=66048 Len=680 [TCP segment of a reassembled PDU]
27	4.005819	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=681 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
28	4.252042	128.119.245.12	10.100.109.7	TCP	66	80 → 1222 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1380 SACK_PERM=1 WS=128
29	4.252108	10.100.109.7	128.119.245.12	TCP	54	1222 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
30	4.312854	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=681 Win=30592 Len=0
31	4.312856	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=2061 Win=33536 Len=0
32	4.312906	10.100.109.7	128.119.245.12	TCP	4194	1221 → 80 [ACK] Seq=2061 Ack=1 Win=66048 Len=4140 [TCP segment of a reassembled PDU]
33	4.620169	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=3441 Win=36480 Len=0
34	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=4821 Win=39424 Len=0
35	4.620170	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=6201 Win=42240 Len=0
36	4.620213	10.100.109.7	128.119.245.12	TCP	8334	1221 → 80 [ACK] Seq=6201 Ack=1 Win=66048 Len=8280 [TCP segment of a reassembled PDU]
37	4.726037	fe80::cdd9:d064:e1c…	ff02::c	SSDP	208	M-SEARCH * HTTP/1.1
38	4.927923	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=8961 Win=47872 Len=0
39	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=10341 Win=50688 Len=0
40	4.927924	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=11721 Win=53632 Len=0
41	4.927968	10.100.109.7	128.119.245.12	TCP	11094	1221 → 80 [PSH, ACK] Seq=14481 Ack=1 Win=66048 Len=11040 [TCP segment of a reassembled PDU]
42	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=13101 Win=56576 Len=0
43	4.928294	128.119.245.12	10.100.109.7	TCP	60	80 → 1221 [ACK] Seq=1 Ack=14481 Win=59520 Len=0
44	4.928309	10.100.109.7	128.119.245.12	TCP	5574	1221 → 80 [ACK] Seq=25521 Ack=1 Win=66048 Len=5520 [TCP segment of a reassembled PDU]

9.

Available Buffer Space for segment 1:30592

Available Buffer Space for segment 2:33536

Available Buffer Space for segment 3:42240

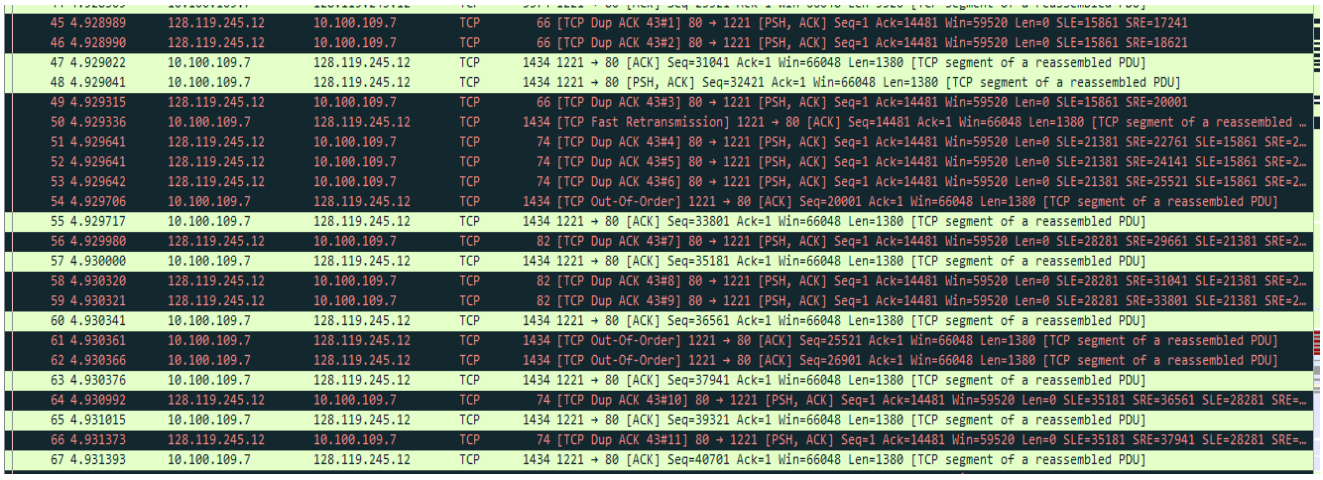
Available Buffer Space for segment 4:59520

Available Buffer Space for segment 5:81920

Available Buffer Space for segment 6:93312

10.

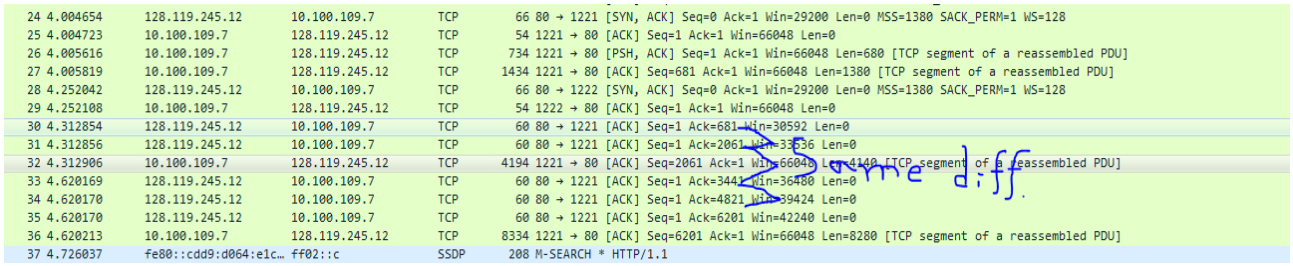
Yes, there are some retransmitted segments in the trace file. This can be explained by packets with same sequence number at different time is not found.



45	4.928989	128.119.245.12	10.100.109.7	TCP	66	[TCP Dup ACK 43#1] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=15861 SRE=17241
46	4.928990	128.119.245.12	10.100.109.7	TCP	66	[TCP Dup ACK 43#2] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=15861 SRE=18621
47	4.929022	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=31041 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
48	4.929041	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [PSH, ACK] Seq=32421 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
49	4.929315	128.119.245.12	10.100.109.7	TCP	66	[TCP Dup ACK 43#3] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=15861 SRE=20001
50	4.929336	10.100.109.7	128.119.245.12	TCP	1434	[TCP Fast Retransmission] 1221 → 80 [ACK] Seq=14481 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled …
51	4.929641	128.119.245.12	10.100.109.7	TCP	74	[TCP Dup ACK 43#4] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=21381 SRE=22761 SLE=15861 SRE=2…
52	4.929641	128.119.245.12	10.100.109.7	TCP	74	[TCP Dup ACK 43#5] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=21381 SRE=24141 SLE=15861 SRE=2…
53	4.929642	128.119.245.12	10.100.109.7	TCP	74	[TCP Dup ACK 43#6] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=21381 SRE=25521 SLE=15861 SRE=2…
54	4.929706	10.100.109.7	128.119.245.12	TCP	1434	[TCP Out-Of-Order] 1221 → 80 [ACK] Seq=20001 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
55	4.929717	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=33801 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
56	4.929980	128.119.245.12	10.100.109.7	TCP	82	[TCP Dup ACK 43#7] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=28281 SRE=29661 SLE=21381 SRE=2…
57	4.930000	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=35181 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
58	4.930320	128.119.245.12	10.100.109.7	TCP	82	[TCP Dup ACK 43#8] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=28281 SRE=31041 SLE=21381 SRE=2…
59	4.930321	128.119.245.12	10.100.109.7	TCP	82	[TCP Dup ACK 43#9] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=28281 SRE=33801 SLE=21381 SRE=2…
60	4.930341	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=36561 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
61	4.930361	10.100.109.7	128.119.245.12	TCP	1434	[TCP Out-Of-Order] 1221 → 80 [ACK] Seq=25521 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
62	4.930366	10.100.109.7	128.119.245.12	TCP	1434	[TCP Out-Of-Order] 1221 → 80 [ACK] Seq=26901 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
63	4.930376	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=37941 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
64	4.930992	128.119.245.12	10.100.109.7	TCP	74	[TCP Dup ACK 43#10] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=35181 SRE=36561 SLE=28281 SRE=…
65	4.931015	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=39321 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
66	4.931373	128.119.245.12	10.100.109.7	TCP	74	[TCP Dup ACK 43#11] 80 → 1221 [PSH, ACK] Seq=1 Ack=14481 Win=59520 Len=0 SLE=35181 SRE=37941 SLE=28281 SRE=…
67	4.931393	10.100.109.7	128.119.245.12	TCP	1434	1221 → 80 [ACK] Seq=40701 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]

11.

According to the screenshot below, we can see that the ACK numbers increase in the sequence of 681, 2061, 3441 and so on. The difference between the acks are always 1380. 1380 data acknowledge the receiver typically.



24	4.004654	128.119.245.12	10.100.109.7	TCP	66 80 → 1221 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1380 SACK_PERM=1 WS=128
25	4.004723	10.100.109.7	128.119.245.12	TCP	54 1221 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
26	4.005616	10.100.109.7	128.119.245.12	TCP	734 1221 → 80 [PSH, ACK] Seq=1 Ack=1 Win=66048 Len=680 [TCP segment of a reassembled PDU]
27	4.005819	10.100.109.7	128.119.245.12	TCP	1434 1221 → 80 [ACK] Seq=681 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]
28	4.252042	128.119.245.12	10.100.109.7	TCP	66 80 → 1222 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1380 SACK_PERM=1 WS=128
29	4.252108	10.100.109.7	128.119.245.12	TCP	54 1222 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
30	4.312854	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=681 Win=30592 Len=0
31	4.312856	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=2061 Win=33536 Len=0
32	4.312906	10.100.109.7	128.119.245.12	TCP	4194 1221 → 80 [ACK] Seq=2061 Ack=1 Win=66048 Len=4140 [TCP segment of a reassembled PDU]
33	4.620169	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=3441 Win=36480 Len=0
34	4.620170	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=4821 Win=39424 Len=0
35	4.620170	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=6201 Win=42240 Len=0
36	4.620213	10.100.109.7	128.119.245.12	TCP	8334 1221 → 80 [ACK] Seq=6201 Ack=1 Win=66048 Len=8280 [TCP segment of a reassembled PDU]
37	4.726037	fe80::cdd9:d064:e1c…	ff02::c	SSDP	208 M-SEARCH * HTTP/1.1

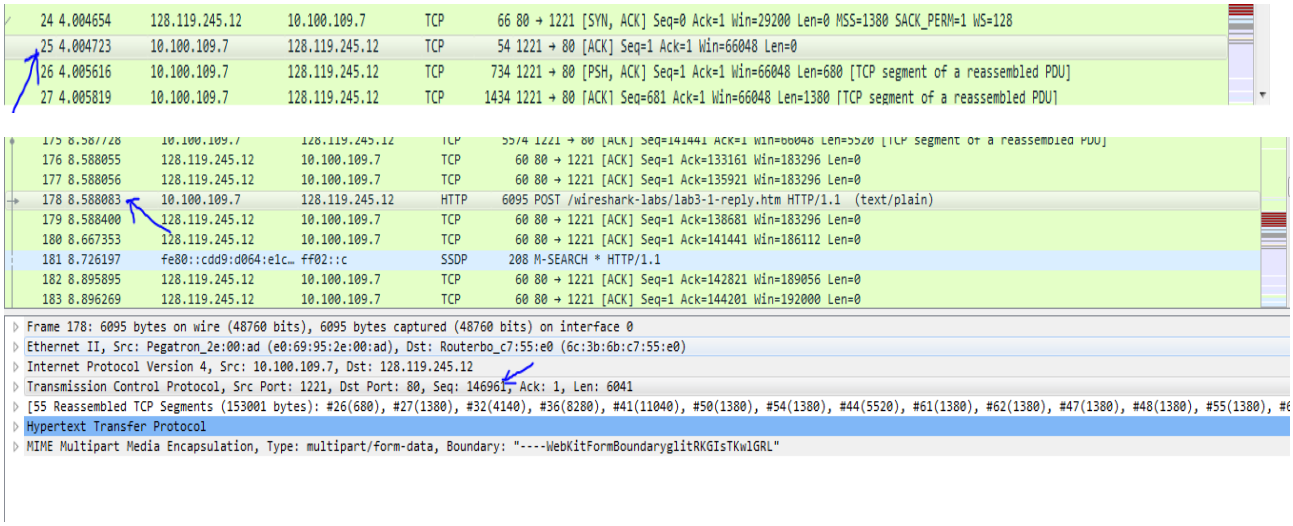
12.

Throughput = Amount of data transmitted / time incurred

Amount of data transmitted = 1175688

Time incurred = 8.588083 – 4.004723= 4.58336

Throughput = 1175688/4.58336 = 256512.253



24	4.004654	128.119.245.12	10.100.109.7	TCP	66 80 → 1221 [SYN, ACK] Seq=0 Ack=1 Win=29200 Len=0 MSS=1380 SACK_PERM=1 WS=128
25	4.004723	10.100.109.7	128.119.245.12	TCP	54 1221 → 80 [ACK] Seq=1 Ack=1 Win=66048 Len=0
26	4.005616	10.100.109.7	128.119.245.12	TCP	734 1221 → 80 [PSH, ACK] Seq=1 Ack=1 Win=66048 Len=680 [TCP segment of a reassembled PDU]
27	4.005819	10.100.109.7	128.119.245.12	TCP	1434 1221 → 80 [ACK] Seq=681 Ack=1 Win=66048 Len=1380 [TCP segment of a reassembled PDU]

176	8.588055	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=133161 Win=183296 Len=0
177	8.588056	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=135921 Win=183296 Len=0
178	8.588083	10.100.109.7	128.119.245.12	HTTP	6095 POST /wireshark-labs/lab3-1-reply.htm HTTP/1.1 (text/plain)
179	8.588400	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=138681 Win=183296 Len=0
180	8.667353	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=141441 Win=186112 Len=0
181	8.726197	fe80::cdd9:d064:e1c…	ff02::c	SSDP	208 M-SEARCH * HTTP/1.1
182	8.895895	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=142821 Win=189056 Len=0
183	8.896269	128.119.245.12	10.100.109.7	TCP	60 80 → 1221 [ACK] Seq=1 Ack=144201 Win=192000 Len=0

```
Frame 178: 6095 bytes on wire (48760 bits), 6095 bytes captured (48760 bits) on interface 0
Ethernet II, Src: Pegatron_2e:00:ad (e0:69:95:2e:00:ad), Dst: Routerbo_c7:55:e0 (6c:3b:6b:c7:55:e0)
Internet Protocol Version 4, Src: 10.100.109.7, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 1221, Dst Port: 80, Seq: 146961, Ack: 1, Len: 6041
[55 Reassembled TCP Segments (153001 bytes): #26(680), #27(1380), #32(4140), #36(8280), #41(11040), #50(1380), #54(1380), #44(5520), #61(1380), #62(1380), #47(1380), #48(1380), #55(1380), #
Hypertext Transfer Protocol
MIME Multipart Media Encapsulation, Type: multipart/form-data, Boundary: "----WebKitFormBoundaryglitRKGIsTKw1GRL"
```

13. *Time-Sequence-Graph(Stevens)* is given below: