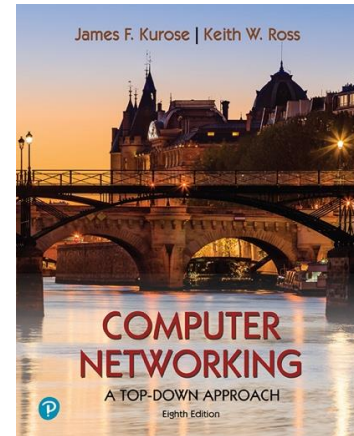


Wireshark Lab: TCP v8.1

Supplement to *Computer Networking: A Top-Down Approach*, 8th ed., J.F. Kurose and K.W. Ross

“Tell me and I forget. Show me and I remember. Involve me and I understand.” Chinese proverb

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0. Academic integrity

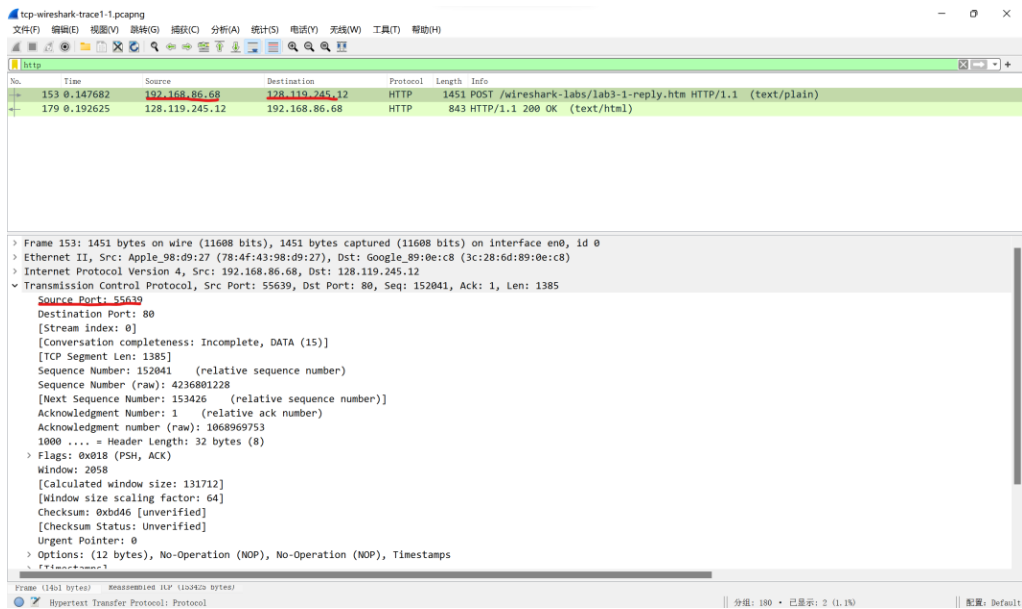
I have read and understood the course academic integrity policy.

1. Capturing a bulk TCP transfer from your computer to a remote server

2. A first look at the captured trace

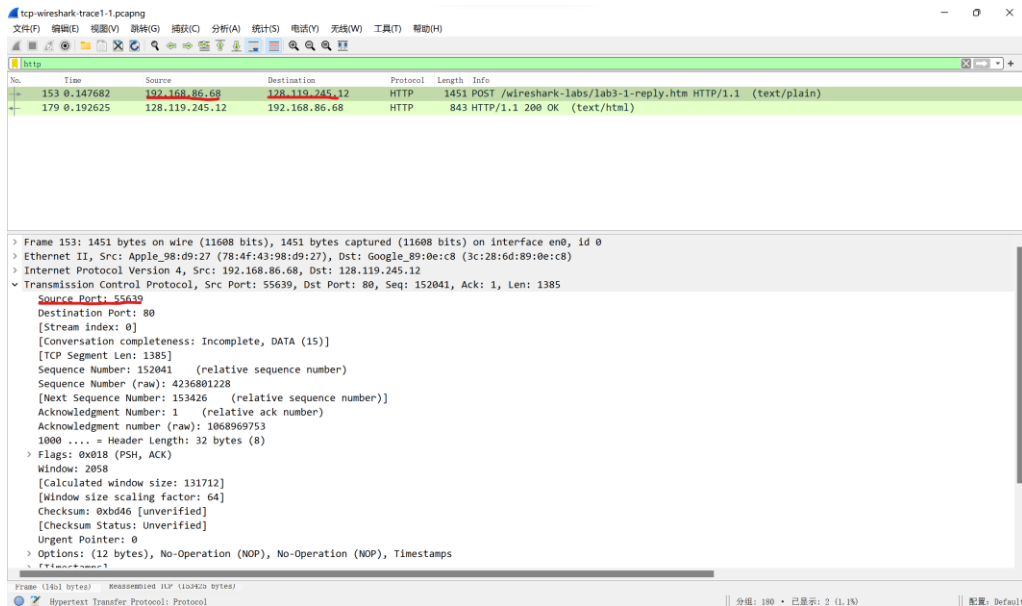
1. What is the IP address and TCP port number used by the client computer (source) that is transferring the alice.txt file to gaia.cs.umass.edu? To answer this question, it's probably easiest to select an HTTP message and explore the details of the TCP packet used to carry this HTTP message, using the “details of the selected packet header window” (refer to Figure 2 in the “Getting Started with Wireshark” Lab if you're uncertain about the Wireshark windows).

The IP address is 192.168.86.68 and the TCP port number is 55639.



2. What is the IP address of gaia.cs.umass.edu? On what port number is it sending and receiving TCP segments for this connection?

The IP address is 128.119.245.12.

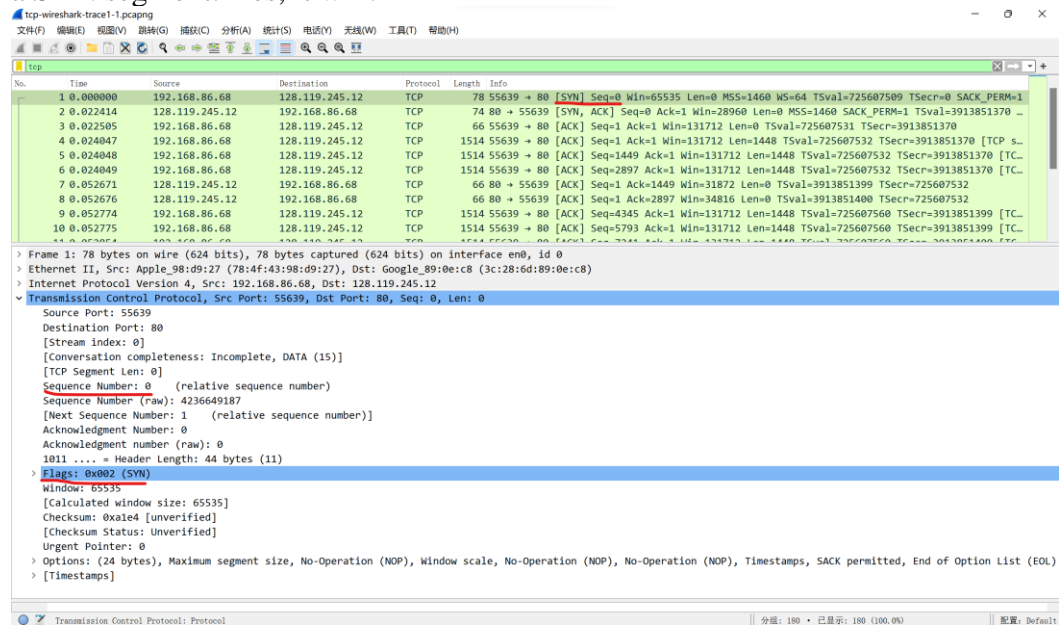


3. TCP Basics

3. What is the *sequence number* of the TCP SYN segment that is used to initiate the TCP connection between the client computer and gaia.cs.umass.edu? (Note: this is the “raw” sequence number carried in the TCP segment itself; it is *NOT* the packet # in the “No.” column in the Wireshark window. Remember there is no such thing as a “packet number” in TCP or UDP; as you know, there *are* sequence numbers in TCP and that’s what we’re after here. Also note that this is not the

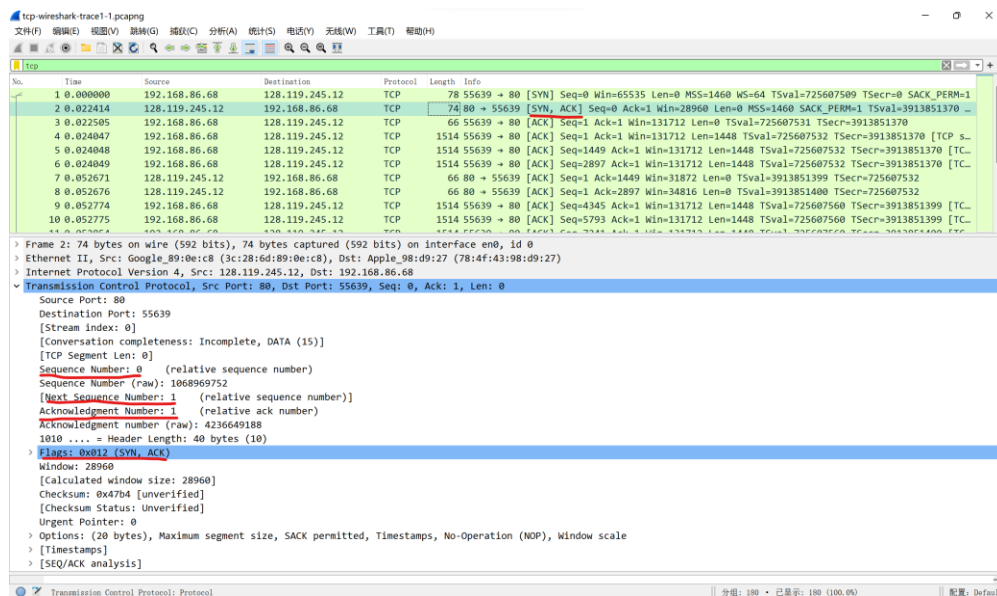
relative sequence number with respect to the starting sequence number of this TCP session.). What is it in this TCP segment that identifies the segment as a SYN segment? Will the TCP receiver in this session be able to use Selective Acknowledgments (allowing TCP to function a bit more like a “selective repeat” receiver, see section 3.4.5 in the text)?

The sequence number is 0, and the “Flags:0x002(SYN)” identifies the segment as a SYN segment. Yes, it will.



- What is the *sequence number* of the SYNACK segment sent by gaia.cs.umass.edu to the client computer in reply to the SYN? What is it in the segment that identifies the segment as a SYNACK segment? What is the value of the Acknowledgement field in the SYNACK segment? How did gaia.cs.umass.edu determine that value?

The sequence number is 0, and the “Flags:0x012(SYN,ACK)” identifies the segment as a SYNACK segment. The Acknowledgment number is 1, and gaia.cs.umass.edu determine that value by adding 1 to the sequence number of the previous segment.

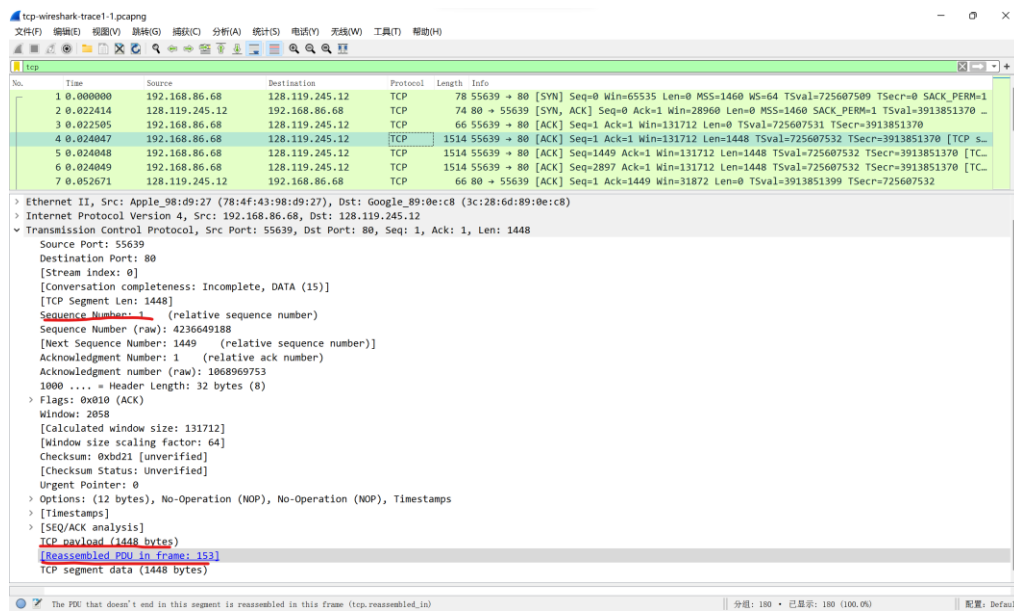


- What is the sequence number of the TCP segment containing the header of the HTTP POST command? Note that in order to find the POST message header, you'll need to dig into the packet content field at the bottom of the Wireshark window, *looking for a segment with the ASCII text "POST" within its DATA field*^{1,2}. How many bytes of data are contained in the payload (data) field of this TCP segment? Did all of the data in the transferred file `alice.txt` fit into this single segment?

The sequence number is 1 and this segment contains 1448 bytes payload. No, it didn't.

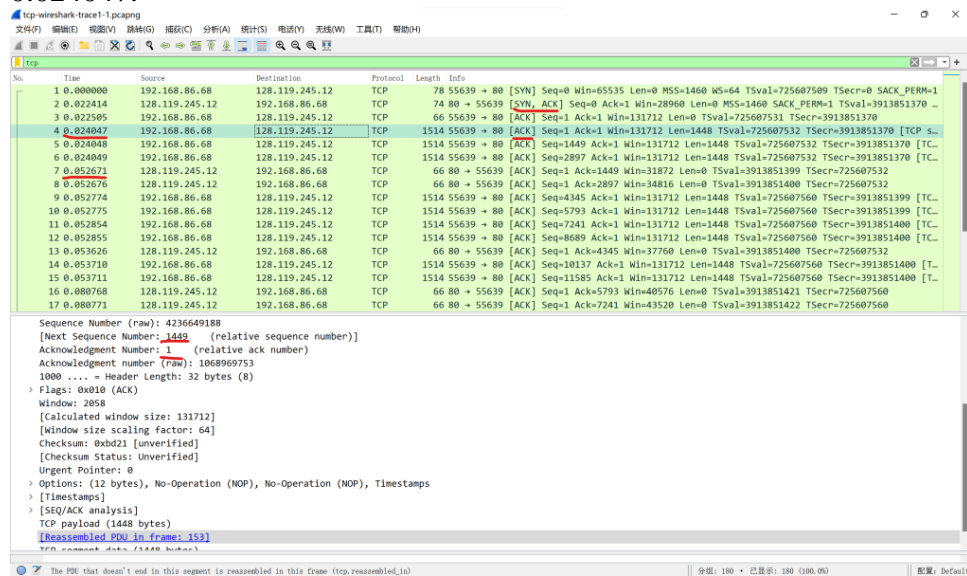
¹ *Hint:* this TCP segment is sent by the client soon (but not always immediately) after the SYNACK segment is received from the server.

² Note that if you filter to only show "http" messages, you'll see that the TCP segment that Wireshark associates with the HTTP POST message is the *last* TCP segment in the connection (which contains the text at the *end* of `alice.txt`: "THE END") and *not* the first data-carrying segment in the connection. Students (and teachers!) often find this unexpected and/or confusing.



6. Consider the TCP segment containing the HTTP “POST” as the first segment in the data transfer part of the TCP connection.
 - At what time was the first segment (the one containing the HTTP POST) in the data-transfer part of the TCP connection sent?

0.024047.



- At what time was the ACK for this first data-containing segment received?

0.052671.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.86.68	128.119.245.12	TCP	78	55639 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=725607509 TSecr=0 SACK_PERM=1
2	0.022414	128.119.245.12	192.168.86.68	TCP	74	80 → 55639 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM=1 TSval=3913851370
3	0.022505	192.168.86.68	128.119.245.12	TCP	66	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=0 TSval=725607531 TSecr=3913851370
4	0.024047	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TCP S...
5	0.024048	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1449 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...
6	0.024049	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=2897 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...
7	0.052671	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=1449 Win=31872 Len=0 TSval=3913851399 TSecr=725607532
8	0.052676	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=2897 Win=34816 Len=0 TSval=3913851400 TSecr=725607532
9	0.052774	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=4345 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
10	0.052775	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=5793 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
11	0.052854	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=7241 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
12	0.052855	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=8689 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
13	0.053626	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=4345 Win=37760 Len=0 TSval=3913851400 TSecr=725607532
14	0.053710	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=10137 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
15	0.053711	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=11585 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
16	0.080768	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=5793 Win=40576 Len=0 TSval=3913851421 TSecr=725607560
17	0.080771	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=7241 Win=43520 Len=0 TSval=3913851422 TSecr=725607560

Sequence Number (raw): 4236649188
 [Next Sequence Number: 1449 (relative sequence number)]
 Acknowledgment Number: 1 (relative ack number)
 Acknowledgment number (raw): 1068969753
 1000 = Header Length: 32 bytes (8)
 > Flags: 0x010 (ACK)
 Window: 2958
 [calculated window size: 131712]
 [Window size scaling factor: 64]
 Checksum: 0xbd21 [unverified]
 [Checksum Status: Unverified]
 Urgent Pointer: 0
 > Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
 > [Timestamps]
 > [SEQ/ACK analysis]
 TCP payload (1448 bytes)
 [Reassembled PDU in frame: 153]
 TCP segment data (1448 bytes)

- What is the RTT for this first data-containing segment?

0.028624.

- What is the RTT value the second data-carrying TCP segment and its ACK?

0.028628.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.86.68	128.119.245.12	TCP	78	55639 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=725607509 TSecr=0 SACK_PERM=1
2	0.022414	128.119.245.12	192.168.86.68	TCP	74	80 → 55639 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM=1 TSval=3913851370
3	0.022505	192.168.86.68	128.119.245.12	TCP	66	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=0 TSval=725607531 TSecr=3913851370
4	0.024047	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TCP s...
5	0.024048	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1449 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...
6	0.024049	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=2897 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...
7	0.052671	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=1449 Win=31872 Len=0 TSval=3913851399 TSecr=725607532
8	0.052676	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=2897 Win=34816 Len=0 TSval=3913851400 TSecr=725607532
9	0.052774	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=4345 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
10	0.052775	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=5793 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
11	0.052854	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=7241 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
12	0.052855	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=8689 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
13	0.053626	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=4345 Win=37760 Len=0 TSval=3913851400 TSecr=725607532
14	0.053710	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=10137 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
15	0.053711	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=11585 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
16	0.080768	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=5793 Win=40576 Len=0 TSval=3913851421 TSecr=725607560
17	0.080771	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=7241 Win=43520 Len=0 TSval=3913851422 TSecr=725607560

Sequence Number (raw): 4236650636
 [Next Sequence Number: 2897 (relative sequence number)]
 Acknowledgment Number: 1 (relative ack number)
 Acknowledgment number (raw): 1068969753
 1000 = Header Length: 32 bytes (8)
 > Flags: 0x010 (ACK)
 Window: 2958
 [calculated window size: 131712]
 [Window size scaling factor: 64]
 Checksum: 0x42e8 [unverified]
 [Checksum Status: Unverified]
 Urgent Pointer: 0
 > Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
 > [Timestamps]
 > [SEQ/ACK analysis]
 TCP payload (1448 bytes)
 [Reassembled PDU in frame: 153]
 TCP segment data (1448 bytes)

- What is the EstimatedRTT value (see Section 3.5.3, in the text) after the ACK for the second data-carrying segment is received? Assume that in making this calculation after the received of the ACK for the second segment, that the initial value of EstimatedRTT is equal to the measured RTT for the first segment, and then is computed using the EstimatedRTT equation on page 242, and a value of $\alpha = 0.125$.

Note: Wireshark has a nice feature that allows you to plot the RTT for each of the TCP segments sent. Select a TCP segment in the “listing of captured packets” window that is being sent from the client to the gaia.cs.umass.edu server. Then select: *Statistics->TCP Stream Graph->Round Trip Time Graph*.

$$\text{Estimated RTT} = 0.875 \times 0.028624 + 0.125 \times 0.028628 = 0.028625.$$

- What is the length (header plus payload) of each of the first four data-carrying TCP segments?³

They are all 1460 bytes.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.86.68	128.119.245.12	TCP	78	55639 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=725607509 TSecr=0 SACK_PERM=1
2	0.022414	128.119.245.12	192.168.86.68	TCP	74	80 → 55639 [ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM=1 TSval=3913851370
3	0.022505	192.168.86.68	128.119.245.12	TCP	66	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=0 TSval=725607531 TSecr=3913851370
4	0.024047	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TCP S...
5	0.024048	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=1449 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...

Transmission Control Protocol, Src Port: 80, Dst Port: 55639, Seq: 0, Ack: 1, Len: 0
Source Port: 80
Destination Port: 55639
[Stream index: 0]
[Conversation completeness: Incomplete, DATA (15)]
[TCP Segment Len: 0]
Sequence Number: 0 (relative sequence number)
Sequence Number (raw): 1068969752
[Next Sequence Number: 1 (relative sequence number)]
Acknowledgment Number: 1 (relative ack number)
Acknowledgment number (raw): 4236649188
1010 = Header Length: 40 bytes (10)
Flags: 0x012 (SYN, ACK)
Window: 28960
[Calculated window size: 28960]
Checksum: 0x47b4 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0

- What is the minimum amount of available buffer space advertised to the client by gaia.cs.umass.edu among these first four data-carrying TCP segments⁴? Does the lack of receiver buffer space ever throttle the sender for these first four data-carrying segments?

28960 bytes. No, the lack of receiver buffer space didn’t throttle the sender.

³ The TCP segments in the tcp-wireshark-trace1-1 trace file are all less than 1480 bytes. This is because the computer on which the trace was gathered has an interface card that limits the length of the maximum IP datagram to 1500 bytes, and there is a *minimum* of 40 bytes of TCP/IP header data. This 1500-byte value is a fairly typical maximum length for an Internet IP datagram.

⁴ Give the Wireshark-reported value for “Window Size Value” which must then be multiplied by the Window Scaling Factor to give the actual number of buffer bytes available at gaia.cs.umass.edu for this connection.

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	192.168.86.68	128.119.245.12	TCP	78	55639 → 80 [SYN] Seq=0 Win=65535 Len=0 MSS=1460 WS=64 TSval=725607509 TSecr=0 SACK_PERM=1
2	0.022414	128.119.245.12	192.168.86.68	TCP	74	80 → 55639 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM=1 TSval=725607531 TSecr=3913851370
3	0.022505	192.168.86.68	128.119.245.12	TCP	66	55639 → 80 [ACK] Seq=1 Ack=1 Win=131712 Len=0 TSval=725607531 TSecr=3913851370
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6	0.024049	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=2897 Ack=1 Win=131712 Len=1448 TSval=725607532 TSecr=3913851370 [TC...
7	0.052671	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=1449 Win=31872 Len=0 TSval=3913851399 TSecr=725607532
8	0.052676	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=2897 Win=34816 Len=0 TSval=3913851400 TSecr=725607532
9	0.052774	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=4345 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
10	0.052775	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=5793 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851399 [TC...
11	0.052854	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=7241 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
12	0.052855	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=8689 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [TC...
13	0.053626	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=4345 Win=37760 Len=0 TSval=3913851400 TSecr=725607532
14	0.053710	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=10137 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
15	0.053711	192.168.86.68	128.119.245.12	TCP	1514	55639 → 80 [ACK] Seq=11585 Ack=1 Win=131712 Len=1448 TSval=725607560 TSecr=3913851400 [T...
16	0.080768	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=5793 Win=40576 Len=0 TSval=3913851421 TSecr=725607560
17	0.080771	128.119.245.12	192.168.86.68	TCP	66	80 → 55639 [ACK] Seq=1 Ack=7241 Win=43520 Len=0 TSval=3913851422 TSecr=725607560

9. Are there any retransmitted segments in the trace file? What did you check for (in the trace) in order to answer this question?

No, I can't find any retransmitted segments by checking if there were repeated sequence number.

10. How much data does the receiver typically acknowledge in an ACK among the first ten data-carrying segments sent from the client to gaia.cs.umass.edu? Can you identify cases where the receiver is ACKing every other received segment (see Table 3.2 in the text) among these first ten data-carrying segments?

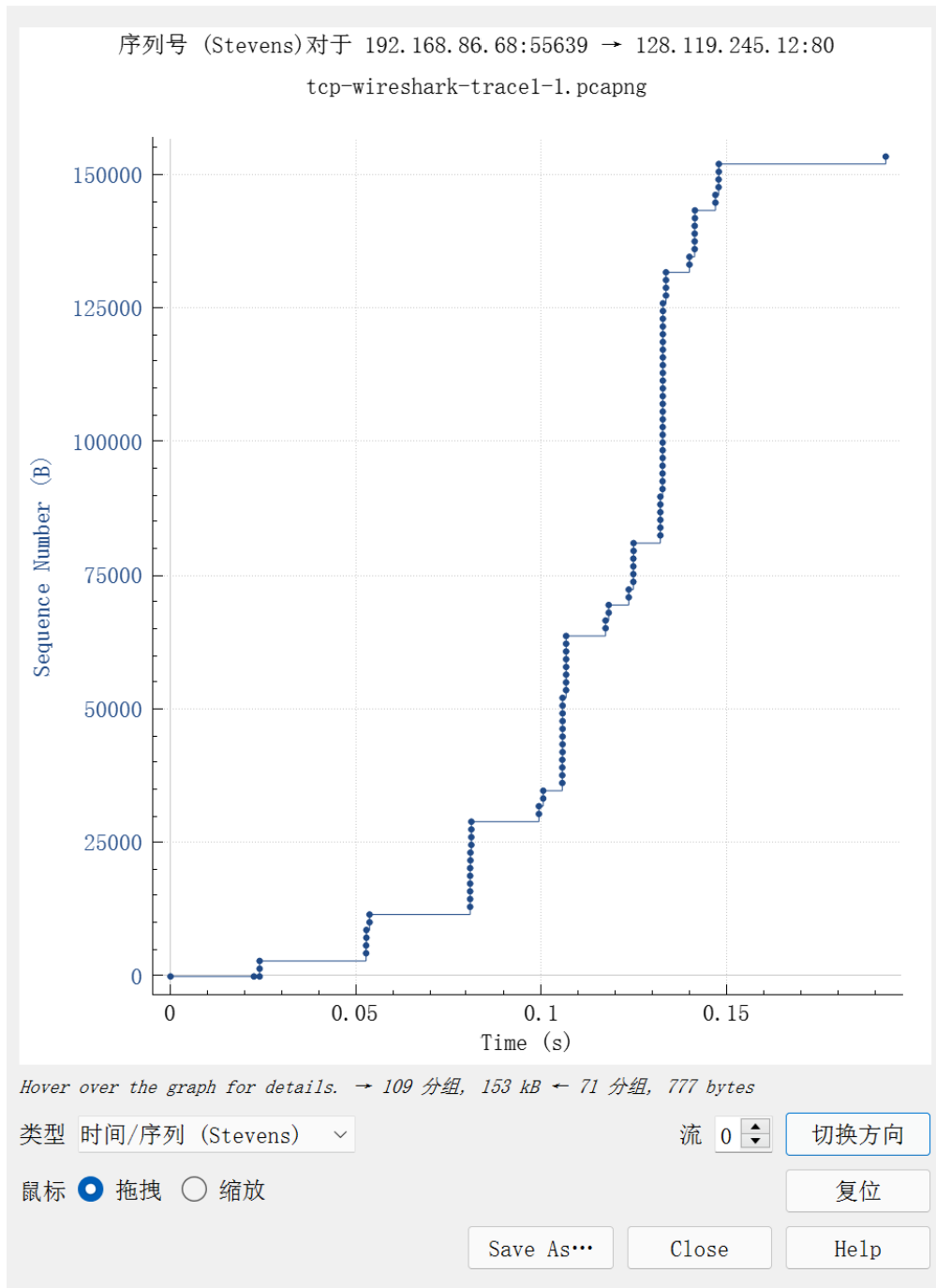
1460 bytes. No, I can't.

11. What is the throughput (bytes transferred per unit time) for the TCP connection? Explain how you calculated this value.

The whole txt data are 152136 bytes, the whole time is 0.192732s, so the throughput is 152136 bytes / 0.192732s = 789366 bytes / second.

4. TCP congestion control in action

12. Use the *Time-Sequence-Graph(Stevens)* plotting tool to view the sequence number versus time plot of segments being sent from the client to the gaia.cs.umass.edu server. Consider the “fleets” of packets sent around $t = 0.025$, $t = 0.053$, $t = 0.082$ and $t = 0.1$. Comment on whether this looks as if TCP is in its slow start phase, congestion avoidance phase or some other phase. Figure 6 shows a slightly different view of this data.



I think it is a slow-start phase in this time interval. But at 0.1 I think is a congestion control. The number of segments is significantly smaller than the number before that time.

13. These “fleets” of segments appear to have some periodicity. What can you say about the period?

This is the result of TCP's traffic control mechanism, which limits the number to a certain range.

14. Answer each of two questions above for the trace that you have gathered when you transferred a file from your computer to gaia.cs.umass.edu.

The answer is the same as 12 and 13.

5. Measuring bandwidth with Iperf3

(I tried two California servers and both failed to connect, so I chose the public server nyc.speedtest.clouvider.net in the New York, whose port is 5201.)

15. Start a 10-second TCP transfer from a public server to your computer. Use the `-i` option on the client to report the TCP throughput every 100 ms. Plot the TCP throughput on the client as a function of time.

```
D:\iperf-3.1.3-win64>iperf3.exe -c nyc.speedtest.clouvider.net -i 0.1 -t 10 -R
Connecting to host nyc.speedtest.clouvider.net, port 5201
Reverse mode, remote host nyc.speedtest.clouvider.net is sending
[ 4] local 192.168.99.68 port 62295 connected to 94.154.159.137 port 5201
[ ID] Interval           Transfer     Bandwidth
[ 4]  0.00-0.11    sec      214 KBytes    16.4 Mbits/sec
[ 4]  0.11-0.21    sec      328 KBytes    26.5 Mbits/sec
[ 4]  0.21-0.31    sec      596 KBytes    48.4 Mbits/sec
[ 4]  0.31-0.40    sec      525 KBytes    47.2 Mbits/sec
[ 4]  0.40-0.50    sec      610 KBytes    48.0 Mbits/sec
[ 4]  0.50-0.61    sec      674 KBytes    54.4 Mbits/sec
[ 4]  0.61-0.70    sec      603 KBytes    51.2 Mbits/sec
[ 4]  0.70-0.80    sec      727 KBytes    60.1 Mbits/sec
[ 4]  0.80-0.90    sec      650 KBytes    52.5 Mbits/sec
[ 4]  0.90-1.00    sec      693 KBytes    56.4 Mbits/sec
[ 4]  1.00-1.11    sec      680 KBytes    53.3 Mbits/sec
[ 4]  1.11-1.21    sec      331 KBytes    27.9 Mbits/sec
[ 4]  1.21-1.31    sec      657 KBytes    49.9 Mbits/sec
[ 4]  1.31-1.41    sec      603 KBytes    53.0 Mbits/sec
[ 4]  1.41-1.50    sec      637 KBytes    55.1 Mbits/sec
[ 4]  1.50-1.60    sec      540 KBytes    43.9 Mbits/sec
[ 4]  1.60-1.70    sec      619 KBytes    51.4 Mbits/sec
[ 4]  1.70-1.80    sec      549 KBytes    45.1 Mbits/sec
[ 4]  1.80-1.90    sec      441 KBytes    35.8 Mbits/sec
[ 4]  1.90-2.01    sec      751 KBytes    57.8 Mbits/sec
[ 4]  2.01-2.10    sec      586 KBytes    51.5 Mbits/sec
[ 4]  2.10-2.21    sec      607 KBytes    46.9 Mbits/sec
[ 4]  2.21-2.30    sec      652 KBytes    56.8 Mbits/sec
[ 4]  2.30-2.41    sec      623 KBytes    47.9 Mbits/sec
[ 4]  2.41-2.50    sec      632 KBytes    55.6 Mbits/sec
[ 4]  2.50-2.60    sec      551 KBytes    44.3 Mbits/sec
[ 4]  2.60-2.70    sec      659 KBytes    53.0 Mbits/sec
[ 4]  2.70-2.80    sec      529 KBytes    44.7 Mbits/sec
[ 4]  2.80-2.90    sec      596 KBytes    48.3 Mbits/sec
[ 4]  2.90-3.00    sec      511 KBytes    42.3 Mbits/sec
[ 4]  3.00-3.10    sec      713 KBytes    58.2 Mbits/sec
[ 4]  3.10-3.21    sec      721 KBytes    54.8 Mbits/sec
[ 4]  3.21-3.30    sec      307 KBytes    26.2 Mbits/sec
[ 4]  3.30-3.41    sec      426 KBytes    32.9 Mbits/sec
[ 4]  3.41-3.50    sec      338 KBytes    30.9 Mbits/sec
[ 4]  3.50-3.60    sec      653 KBytes    53.4 Mbits/sec
[ 4]  3.60-3.70    sec      622 KBytes    50.6 Mbits/sec
[ 4]  3.70-3.80    sec      751 KBytes    61.2 Mbits/sec
[ 4]  3.80-3.90    sec      623 KBytes    49.8 Mbits/sec
[ 4]  3.90-4.00    sec      375 KBytes    32.0 Mbits/sec
[ 4]  4.00-4.10    sec      532 KBytes    41.7 Mbits/sec
```

```

[ 4] 4.10-4.21 sec 449 KBytes 34.3 Mbits/sec
[ 4] 4.21-4.30 sec 426 KBytes 37.7 Mbits/sec
[ 4] 4.30-4.41 sec 622 KBytes 47.9 Mbits/sec
[ 4] 4.41-4.50 sec 602 KBytes 55.4 Mbits/sec
[ 4] 4.50-4.60 sec 575 KBytes 47.1 Mbits/sec
[ 4] 4.60-4.70 sec 731 KBytes 59.1 Mbits/sec
[ 4] 4.70-4.80 sec 640 KBytes 52.6 Mbits/sec
[ 4] 4.80-4.90 sec 676 KBytes 56.0 Mbits/sec
[ 4] 4.90-5.00 sec 556 KBytes 45.3 Mbits/sec
[ 4] 5.00-5.10 sec 701 KBytes 56.1 Mbits/sec
[ 4] 5.10-5.21 sec 572 KBytes 45.9 Mbits/sec
[ 4] 5.21-5.31 sec 649 KBytes 52.7 Mbits/sec
[ 4] 5.31-5.41 sec 667 KBytes 52.5 Mbits/sec
[ 4] 5.41-5.50 sec 464 KBytes 41.4 Mbits/sec
[ 4] 5.50-5.60 sec 731 KBytes 58.1 Mbits/sec
[ 4] 5.60-5.70 sec 516 KBytes 43.0 Mbits/sec
[ 4] 5.70-5.81 sec 523 KBytes 40.2 Mbits/sec
[ 4] 5.81-5.90 sec 428 KBytes 37.7 Mbits/sec
[ 4] 5.90-6.00 sec 706 KBytes 58.0 Mbits/sec
[ 4] 6.00-6.10 sec 616 KBytes 51.6 Mbits/sec
[ 4] 6.10-6.20 sec 617 KBytes 49.5 Mbits/sec
[ 4] 6.20-6.30 sec 592 KBytes 47.8 Mbits/sec
[ 4] 6.30-6.40 sec 592 KBytes 48.1 Mbits/sec
[ 4] 6.40-6.50 sec 626 KBytes 53.2 Mbits/sec
[ 4] 6.50-6.60 sec 679 KBytes 54.2 Mbits/sec
[ 4] 6.60-6.71 sec 603 KBytes 48.3 Mbits/sec
[ 4] 6.71-6.80 sec 528 KBytes 44.4 Mbits/sec
[ 4] 6.80-6.90 sec 656 KBytes 54.3 Mbits/sec
[ 4] 6.90-7.01 sec 605 KBytes 44.6 Mbits/sec
[ 4] 7.01-7.11 sec 622 KBytes 55.3 Mbits/sec
[ 4] 7.11-7.20 sec 475 KBytes 40.8 Mbits/sec
[ 4] 7.20-7.30 sec 640 KBytes 52.0 Mbits/sec
[ 4] 7.30-7.40 sec 542 KBytes 44.9 Mbits/sec
[ 4] 7.40-7.50 sec 565 KBytes 44.8 Mbits/sec
[ 4] 7.50-7.60 sec 589 KBytes 49.7 Mbits/sec
[ 4] 7.60-7.71 sec 676 KBytes 51.9 Mbits/sec
[ 4] 7.71-7.80 sec 636 KBytes 54.6 Mbits/sec
[ 4] 7.80-7.90 sec 606 KBytes 50.9 Mbits/sec
[ 4] 7.90-8.00 sec 783 KBytes 64.1 Mbits/sec
[ 4] 8.00-8.10 sec 491 KBytes 39.7 Mbits/sec
[ 4] 8.10-8.20 sec 599 KBytes 48.4 Mbits/sec
[ 4] 8.20-8.31 sec 298 KBytes 23.2 Mbits/sec
[ 4] 8.31-8.40 sec 241 KBytes 21.3 Mbits/sec
[ 4] 8.40-8.51 sec 327 KBytes 24.8 Mbits/sec
[ 4] 8.51-8.61 sec 224 KBytes 17.7 Mbits/sec
[ 4] 8.61-8.70 sec 604 KBytes 53.7 Mbits/sec
[ 4] 8.70-8.81 sec 710 KBytes 52.8 Mbits/sec
[ 4] 8.81-8.90 sec 555 KBytes 52.9 Mbits/sec
[ 4] 8.90-9.00 sec 562 KBytes 45.9 Mbits/sec
[ 4] 9.00-9.10 sec 365 KBytes 29.4 Mbits/sec
[ 4] 9.10-9.22 sec 653 KBytes 47.6 Mbits/sec
[ 4] 9.22-9.30 sec 342 KBytes 31.3 Mbits/sec
[ 4] 9.30-9.42 sec 536 KBytes 39.7 Mbits/sec
[ 4] 9.42-9.51 sec 569 KBytes 50.9 Mbits/sec
[ 4] 9.51-9.60 sec 530 KBytes 46.3 Mbits/sec
[ 4] 9.60-9.71 sec 677 KBytes 52.2 Mbits/sec
[ 4] 9.71-9.81 sec 587 KBytes 48.2 Mbits/sec
[ 4] 9.81-9.90 sec 565 KBytes 47.3 Mbits/sec
[ 4] 9.90-10.01 sec 636 KBytes 50.8 Mbits/sec
-----
[ ID] Interval      sec Transfer  Bandwidth  Retr
[ 4]  0.00-10.01 sec 57.7 MBytes 48.4 Mbits/sec  0
[ 4]  0.00-10.01 sec 55.9 MBytes 46.9 Mbits/sec
sender
receiver

```

iperf Done.

16. Start a 10-second UDP transfer from a public server to your computer. Use the `-b` option to set the sending rate to a very high value (higher than the downlink speed of your Internet connection – 200 Mbps should be sufficient). Use the `-i` option

on the client to report the UDP throughput every 100 ms. Plot the UDP throughput on the client as a function of time.

```
D:\iperf-3.1.3-win64>iperf3.exe -c nyc.speedtest.clouvider.net -i 0.1 -t 10 -R -u -b 200Mbps
Connecting to host nyc.speedtest.clouvider.net, port 5201
Reverse mode, remote host nyc.speedtest.clouvider.net is sending
[ 4] local 192.168.99.68 port 56506 connected to 94.154.159.137 port 5201
[ ID] Interval          Transfer      Bandwidth      Jitter      Lost/Total Datagrams
[ 4] 0.00-0.10 sec      56.0 KBytes   4.58 Mbits/sec  26.319 ms    0/7 (0%)
[ 4] 0.10-0.20 sec      1.29 MBytes   108 Mbits/sec   1.213 ms    0/165 (0%)
[ 4] 0.20-0.30 sec      1.76 MBytes   147 Mbits/sec   1.042 ms    0/225 (0%)
[ 4] 0.30-0.40 sec      1.70 MBytes   141 Mbits/sec   0.772 ms    0/218 (0%)
[ 4] 0.40-0.51 sec     1016 KBytes   79.9 Mbits/sec   1.172 ms    0/127 (0%)
[ 4] 0.51-0.60 sec      1.49 MBytes   132 Mbits/sec   4.277 ms    0/191 (0%)
[ 4] 0.60-0.71 sec      1.77 MBytes   136 Mbits/sec   0.291 ms    0/227 (0%)
[ 4] 0.71-0.80 sec      1.04 MBytes   95.2 Mbits/sec   0.558 ms    0/133 (0%)
[ 4] 0.80-0.90 sec      1.46 MBytes   123 Mbits/sec   1.119 ms    0/187 (0%)
[ 4] 0.90-1.00 sec      944 KBytes    77.7 Mbits/sec   3.196 ms    0/118 (0%)
[ 4] 1.00-1.11 sec      848 KBytes    61.0 Mbits/sec   0.743 ms    0/106 (0%)
[ 4] 1.11-1.20 sec      680 KBytes    64.7 Mbits/sec   1.255 ms    0/85 (0%)
[ 4] 1.20-1.30 sec      744 KBytes    60.5 Mbits/sec   2.008 ms    0/93 (0%)
[ 4] 1.30-1.41 sec      848 KBytes    66.8 Mbits/sec   1.701 ms    0/106 (0%)
[ 4] 1.41-1.50 sec      840 KBytes    71.4 Mbits/sec   1.078 ms    0/105 (0%)
[ 4] 1.50-1.60 sec      1.22 MBytes   100 Mbits/sec   1.086 ms    0/156 (0%)
[ 4] 1.60-1.70 sec      912 KBytes    76.2 Mbits/sec   1.369 ms    0/114 (0%)
[ 4] 1.70-1.81 sec      1.27 MBytes   96.5 Mbits/sec   0.469 ms    0/163 (0%)
[ 4] 1.81-1.90 sec      736 KBytes    68.1 Mbits/sec   1.699 ms    0/92 (0%)
[ 4] 1.90-2.00 sec      1.35 MBytes   114 Mbits/sec   1.503 ms    0/173 (0%)
[ 4] 2.00-2.10 sec      1.26 MBytes   104 Mbits/sec   1.394 ms    0/161 (0%)
[ 4] 2.10-2.20 sec      960 KBytes    77.2 Mbits/sec   3.924 ms    0/120 (0%)
[ 4] 2.20-2.30 sec      1.05 MBytes   88.5 Mbits/sec   1.503 ms    275/410 (67%)
[ 4] 2.30-2.40 sec      432 KBytes    35.2 Mbits/sec   0.975 ms    85/139 (61%)
[ 4] 2.40-2.50 sec      896 KBytes    74.6 Mbits/sec   5.523 ms    249/361 (69%)
[ 4] 2.50-2.60 sec      1.39 MBytes   118 Mbits/sec   0.831 ms    305/483 (63%)
[ 4] 2.60-2.70 sec      1.57 MBytes   133 Mbits/sec   1.496 ms    255/456 (56%)
[ 4] 2.70-2.80 sec      1.55 MBytes   130 Mbits/sec   0.506 ms    267/465 (57%)
[ 4] 2.80-2.90 sec      1.61 MBytes   133 Mbits/sec   3.774 ms    225/431 (52%)
[ 4] 2.90-3.00 sec      1.73 MBytes   147 Mbits/sec   0.899 ms    281/503 (56%)
[ 4] 3.00-3.10 sec      1.88 MBytes   157 Mbits/sec   0.553 ms    273/513 (53%)
[ 4] 3.10-3.20 sec      1.65 MBytes   139 Mbits/sec   0.277 ms    469/680 (69%)
[ 4] 3.20-3.30 sec      1.66 MBytes   138 Mbits/sec   0.455 ms    149/362 (41%)
[ 4] 3.30-3.40 sec      2.05 MBytes   171 Mbits/sec   0.681 ms    147/409 (36%)
[ 4] 3.40-3.50 sec      1.44 MBytes   121 Mbits/sec   2.668 ms    96/280 (34%)
[ 4] 3.50-3.60 sec      1.66 MBytes   139 Mbits/sec   3.411 ms    90/303 (30%)
[ 4] 3.60-3.70 sec      1.72 MBytes   147 Mbits/sec   0.320 ms    37/257 (14%)
[ 4] 3.70-3.80 sec      1.36 MBytes   114 Mbits/sec   0.392 ms    81/255 (32%)
[ 4] 3.80-3.90 sec      1.86 MBytes   154 Mbits/sec   0.498 ms    121/359 (34%)
[ 4] 3.90-4.00 sec      1.76 MBytes   150 Mbits/sec   0.503 ms    20/245 (8.2%)
[ 4] 4.00-4.10 sec      1.64 MBytes   137 Mbits/sec   0.808 ms    101/311 (32%)
[ 4] 4.10-4.20 sec      1.63 MBytes   137 Mbits/sec   0.769 ms    51/260 (20%)
[ 4] 4.20-4.30 sec      1.98 MBytes   163 Mbits/sec   0.714 ms    102/355 (29%)
[ 4] 4.30-4.40 sec      1.88 MBytes   160 Mbits/sec   0.879 ms    188/428 (44%)
[ 4] 4.40-4.50 sec      1.96 MBytes   161 Mbits/sec   1.429 ms    61/312 (20%)
[ 4] 4.50-4.60 sec      1.22 MBytes   105 Mbits/sec   0.614 ms    46/202 (23%)
[ 4] 4.60-4.71 sec      1.33 MBytes   102 Mbits/sec   1.560 ms    17/187 (9.1%)
[ 4] 4.71-4.80 sec      1.17 MBytes   108 Mbits/sec   0.794 ms    72/222 (32%)
[ 4] 4.80-4.91 sec      1.30 MBytes   101 Mbits/sec   3.348 ms    107/273 (39%)
[ 4] 4.91-5.00 sec      1.37 MBytes   125 Mbits/sec   0.407 ms    40/215 (19%)
[ 4] 5.00-5.11 sec      1.33 MBytes   106 Mbits/sec   0.773 ms    18/188 (9.6%)
[ 4] 5.11-5.21 sec      1.12 MBytes   93.6 Mbits/sec   2.265 ms    81/225 (36%)
[ 4] 5.21-5.30 sec      768 KBytes    66.3 Mbits/sec   2.481 ms    0/96 (0%)
[ 4] 5.30-5.41 sec      1.06 MBytes   85.2 Mbits/sec   5.553 ms    49/185 (26%)
[ 4] 5.41-5.50 sec      1.22 MBytes   107 Mbits/sec   0.827 ms    18/174 (10%)
[ 4] 5.50-5.60 sec      1.03 MBytes   86.8 Mbits/sec   1.137 ms    166/298 (56%)
[ 4] 5.60-5.70 sec      1.30 MBytes   108 Mbits/sec   1.090 ms    173/340 (51%)
[ 4] 5.70-5.80 sec      520 KBytes    43.1 Mbits/sec   1.253 ms    118/183 (64%)
[ 4] 5.80-5.90 sec     1016 KBytes   80.6 Mbits/sec   2.161 ms    57/184 (31%)
[ 4] 5.90-6.01 sec      1.27 MBytes   101 Mbits/sec   1.945 ms    154/316 (49%)
[ 4] 6.01-6.11 sec      1.21 MBytes   103 Mbits/sec   0.467 ms    79/234 (34%)
[ 4] 6.11-6.20 sec      1.23 MBytes   110 Mbits/sec   0.922 ms    181/338 (54%)
[ 4] 6.20-6.30 sec      1.59 MBytes   133 Mbits/sec   0.989 ms    397/601 (66%)
[ 4] 6.30-6.40 sec      1.58 MBytes   134 Mbits/sec   2.279 ms    226/428 (53%)
```

```

[ 4] 6.40-6.50 sec 1.26 MBytes 105 Mbits/sec 1.294 ms 236/397 (59%)
[ 4] 6.50-6.61 sec 1.33 MBytes 107 Mbits/sec 0.970 ms 239/409 (58%)
[ 4] 6.61-6.71 sec 1.30 MBytes 101 Mbits/sec 6.068 ms 230/397 (58%)
[ 4] 6.71-6.81 sec 1.33 MBytes 121 Mbits/sec 4.182 ms 166/336 (49%)
[ 4] 6.81-6.90 sec 1.29 MBytes 110 Mbits/sec 0.870 ms 190/355 (54%)
[ 4] 6.90-7.00 sec 1.39 MBytes 117 Mbits/sec 0.773 ms 129/307 (42%)
[ 4] 7.00-7.10 sec 1.41 MBytes 123 Mbits/sec 0.667 ms 84/265 (32%)
[ 4] 7.10-7.21 sec 1.45 MBytes 116 Mbits/sec 0.910 ms 111/296 (38%)
[ 4] 7.21-7.30 sec 1.35 MBytes 119 Mbits/sec 0.893 ms 125/298 (42%)
[ 4] 7.30-7.40 sec 1.66 MBytes 138 Mbits/sec 0.387 ms 228/441 (52%)
[ 4] 7.40-7.50 sec 1.13 MBytes 95.2 Mbits/sec 0.395 ms 118/263 (45%)
[ 4] 7.50-7.60 sec 1.40 MBytes 117 Mbits/sec 0.432 ms 150/329 (46%)
[ 4] 7.60-7.70 sec 1.88 MBytes 160 Mbits/sec 0.349 ms 193/434 (44%)
[ 4] 7.70-7.80 sec 1.39 MBytes 118 Mbits/sec 0.268 ms 108/286 (38%)
[ 4] 7.80-7.90 sec 1.50 MBytes 125 Mbits/sec 3.069 ms 147/339 (43%)
[ 4] 7.90-8.00 sec 1.48 MBytes 125 Mbits/sec 1.907 ms 123/313 (39%)
[ 4] 8.00-8.10 sec 1.70 MBytes 142 Mbits/sec 1.563 ms 93/310 (30%)
[ 4] 8.10-8.20 sec 1.86 MBytes 156 Mbits/sec 0.263 ms 153/391 (39%)
[ 4] 8.20-8.30 sec 1.70 MBytes 142 Mbits/sec 0.387 ms 135/352 (38%)
[ 4] 8.30-8.40 sec 1.09 MBytes 88.5 Mbits/sec 1.325 ms 60/199 (30%)
[ 4] 8.40-8.50 sec 1.24 MBytes 107 Mbits/sec 2.140 ms 115/274 (42%)
[ 4] 8.50-8.60 sec 1.02 MBytes 85.6 Mbits/sec 0.939 ms 0/131 (0%)
[ 4] 8.60-8.70 sec 1.62 MBytes 135 Mbits/sec 1.006 ms 175/382 (46%)
[ 4] 8.70-8.80 sec 1.70 MBytes 140 Mbits/sec 0.887 ms 90/307 (29%)
[ 4] 8.80-8.90 sec 1.71 MBytes 144 Mbits/sec 0.854 ms 33/252 (13%)
[ 4] 8.90-9.01 sec 1.31 MBytes 108 Mbits/sec 1.144 ms 69/237 (29%)
[ 4] 9.01-9.10 sec 1.20 MBytes 103 Mbits/sec 1.517 ms 75/228 (33%)
[ 4] 9.10-9.21 sec 512 KBytes 40.9 Mbits/sec 2.461 ms 8/72 (11%)
[ 4] 9.21-9.30 sec 832 KBytes 71.9 Mbits/sec 0.986 ms 206/310 (66%)
[ 4] 9.30-9.40 sec 1.05 MBytes 87.3 Mbits/sec 1.821 ms 99/234 (42%)
[ 4] 9.40-9.50 sec 1.34 MBytes 113 Mbits/sec 0.826 ms 170/341 (50%)
[ 4] 9.50-9.60 sec 424 KBytes 34.7 Mbits/sec 1.172 ms 7/60 (12%)
[ 4] 9.60-9.70 sec 1000 KBytes 78.9 Mbits/sec 1.823 ms 95/220 (43%)
[ 4] 9.70-9.80 sec 672 KBytes 55.5 Mbits/sec 1.472 ms 12/96 (12%)
[ 4] 9.80-9.90 sec 632 KBytes 53.7 Mbits/sec 1.399 ms 32/111 (29%)
[ 4] 9.90-10.00 sec 1.46 MBytes 119 Mbits/sec 0.984 ms 70/257 (27%)
-----
[ ID] Interval          Transfer      Bandwidth      Jitter      Lost/Total Datagrams
[ 4] 0.00-10.00 sec 238 MBytes 200 Mbits/sec 0.228 ms 12400/30525 (41%)
[ 4] Sent 30525 datagrams

```

iperf Done.

17. Compare the two graphs you plotted in (a) and (b) and write you're your observations and possible causes for the observed performance, in case it differs from the expected one.

You can see that UDP transfers are directly up to the maximum limit, which is much faster than the transfer rate of TCP. Of course TCP has traffic control, while UDP does not guarantee the complete transmission of data.

18. Start a 10-second TCP transfer from a public server to your computer. After 3 seconds, start another 10-second TCP transfer from a different public server (this means that you will have to run two iperf3 clients on your computer). Use the `-i` option on the client to report the TCP throughput every 100 ms. Plot the TCP throughput of each connection as a function of time on the same graph. Comment on how the two TCP sessions share the bandwidth.

```

D:\iperf-3.1.3-win64>iperf3.exe -c iperf3.velocityonline.net -i 0.1 -t 10 -R
Connecting to host iperf3.velocityonline.net, port 5201
Reverse mode, remote host iperf3.velocityonline.net is sending
[ 4] local 192.168.99.68 port 62266 connected to 216.162.135.203 port 5201
[ ID] Interval          Transfer      Bandwidth
[ 4] 0.00-0.10 sec 42.8 KBytes 3.41 Mbits/sec
[ 4] 0.10-0.20 sec 171 KBytes 14.1 Mbits/sec
[ 4] 0.20-0.31 sec 251 KBytes 19.7 Mbits/sec

```

[4]	0.31-0.40	sec	371 KBytes	32.1 Mbits/sec
[4]	0.40-0.51	sec	354 KBytes	26.8 Mbits/sec
[4]	0.51-0.60	sec	268 KBytes	23.3 Mbits/sec
[4]	0.60-0.70	sec	300 KBytes	25.5 Mbits/sec
[4]	0.70-0.80	sec	315 KBytes	24.8 Mbits/sec
[4]	0.80-0.90	sec	322 KBytes	26.9 Mbits/sec
[4]	0.90-1.00	sec	305 KBytes	24.9 Mbits/sec
[4]	1.00-1.10	sec	314 KBytes	26.1 Mbits/sec
[4]	1.10-1.20	sec	314 KBytes	25.0 Mbits/sec
[4]	1.20-1.31	sec	297 KBytes	22.6 Mbits/sec
[4]	1.31-1.40	sec	325 KBytes	29.7 Mbits/sec
[4]	1.40-1.50	sec	307 KBytes	24.7 Mbits/sec
[4]	1.50-1.60	sec	299 KBytes	24.5 Mbits/sec
[4]	1.60-1.71	sec	312 KBytes	23.1 Mbits/sec
[4]	1.71-1.80	sec	271 KBytes	24.4 Mbits/sec
[4]	1.80-1.91	sec	339 KBytes	25.8 Mbits/sec
[4]	1.91-2.00	sec	304 KBytes	28.2 Mbits/sec
[4]	2.00-2.11	sec	271 KBytes	21.2 Mbits/sec
[4]	2.11-2.20	sec	336 KBytes	28.1 Mbits/sec
[4]	2.20-2.31	sec	238 KBytes	18.3 Mbits/sec
[4]	2.31-2.40	sec	415 KBytes	36.7 Mbits/sec
[4]	2.40-2.51	sec	13.0 KBytes	996 Kbits/sec
[4]	2.51-2.60	sec	355 KBytes	31.7 Mbits/sec
[4]	2.60-2.71	sec	281 KBytes	21.7 Mbits/sec
[4]	2.71-2.80	sec	209 KBytes	17.9 Mbits/sec
[4]	2.80-2.91	sec	210 KBytes	16.4 Mbits/sec
[4]	2.91-3.00	sec	207 KBytes	18.1 Mbits/sec
[4]	3.00-3.11	sec	245 KBytes	19.4 Mbits/sec
[4]	3.11-3.20	sec	378 KBytes	31.8 Mbits/sec
[4]	3.20-3.31	sec	258 KBytes	20.1 Mbits/sec
[4]	3.31-3.40	sec	354 KBytes	30.7 Mbits/sec
[4]	3.40-3.50	sec	262 KBytes	21.9 Mbits/sec
[4]	3.50-3.60	sec	372 KBytes	29.9 Mbits/sec
[4]	3.60-3.70	sec	248 KBytes	20.3 Mbits/sec
[4]	3.70-3.80	sec	328 KBytes	27.4 Mbits/sec
[4]	3.80-3.90	sec	307 KBytes	24.2 Mbits/sec
[4]	3.90-4.00	sec	325 KBytes	26.7 Mbits/sec
[4]	4.00-4.10	sec	288 KBytes	24.5 Mbits/sec
[4]	4.10-4.20	sec	354 KBytes	29.1 Mbits/sec
[4]	4.20-4.30	sec	277 KBytes	22.5 Mbits/sec
[4]	4.30-4.40	sec	334 KBytes	27.0 Mbits/sec
[4]	4.40-4.51	sec	294 KBytes	21.4 Mbits/sec
[4]	4.51-4.60	sec	258 KBytes	24.4 Mbits/sec
[4]	4.60-4.72	sec	356 KBytes	25.6 Mbits/sec
[4]	4.72-4.80	sec	265 KBytes	25.4 Mbits/sec
[4]	4.80-4.90	sec	311 KBytes	25.2 Mbits/sec
[4]	4.90-5.01	sec	277 KBytes	21.6 Mbits/sec
[4]	5.01-5.10	sec	231 KBytes	20.1 Mbits/sec
[4]	5.10-5.21	sec	337 KBytes	26.3 Mbits/sec
[4]	5.21-5.30	sec	279 KBytes	24.5 Mbits/sec
[4]	5.30-5.41	sec	304 KBytes	23.2 Mbits/sec
[4]	5.41-5.50	sec	271 KBytes	23.9 Mbits/sec
[4]	5.50-5.61	sec	207 KBytes	15.6 Mbits/sec
[4]	5.61-5.70	sec	327 KBytes	29.1 Mbits/sec
[4]	5.70-5.81	sec	208 KBytes	15.9 Mbits/sec
[4]	5.81-5.90	sec	144 KBytes	12.8 Mbits/sec
[4]	5.90-6.00	sec	238 KBytes	19.3 Mbits/sec
[4]	6.00-6.10	sec	240 KBytes	19.8 Mbits/sec
[4]	6.10-6.21	sec	285 KBytes	21.6 Mbits/sec
[4]	6.21-6.30	sec	207 KBytes	18.2 Mbits/sec
[4]	6.30-6.41	sec	208 KBytes	15.7 Mbits/sec
[4]	6.41-6.50	sec	238 KBytes	21.2 Mbits/sec
[4]	6.50-6.61	sec	221 KBytes	16.8 Mbits/sec
[4]	6.61-6.70	sec	309 KBytes	27.7 Mbits/sec
[4]	6.70-6.81	sec	198 KBytes	14.6 Mbits/sec
[4]	6.81-6.90	sec	315 KBytes	28.4 Mbits/sec
[4]	6.90-7.00	sec	257 KBytes	21.3 Mbits/sec
[4]	7.00-7.10	sec	245 KBytes	19.7 Mbits/sec
[4]	7.10-7.20	sec	322 KBytes	26.2 Mbits/sec
[4]	7.20-7.31	sec	265 KBytes	21.0 Mbits/sec
[4]	7.31-7.41	sec	161 KBytes	12.8 Mbits/sec
[4]	7.41-7.51	sec	391 KBytes	33.3 Mbits/sec
[4]	7.51-7.61	sec	207 KBytes	16.0 Mbits/sec

[4]	7.61-7.71	sec	208 KBytes	18.2 Mb	bits/sec	
[4]	7.71-7.80	sec	374 KBytes	31.0 Mb	bits/sec	
[4]	7.80-7.91	sec	248 KBytes	20.1 Mb	bits/sec	
[4]	7.91-8.01	sec	207 KBytes	15.8 Mb	bits/sec	
[4]	8.01-8.10	sec	252 KBytes	23.3 Mb	bits/sec	
[4]	8.10-8.20	sec	323 KBytes	26.7 Mb	bits/sec	
[4]	8.20-8.31	sec	264 KBytes	20.0 Mb	bits/sec	
[4]	8.31-8.40	sec	208 KBytes	18.1 Mb	bits/sec	
[4]	8.40-8.50	sec	322 KBytes	27.3 Mb	bits/sec	
[4]	8.50-8.60	sec	281 KBytes	22.6 Mb	bits/sec	
[4]	8.60-8.71	sec	221 KBytes	16.9 Mb	bits/sec	
[4]	8.71-8.80	sec	222 KBytes	20.0 Mb	bits/sec	
[4]	8.80-8.91	sec	205 KBytes	15.6 Mb	bits/sec	
[4]	8.91-9.00	sec	207 KBytes	18.3 Mb	bits/sec	
[4]	9.00-9.10	sec	352 KBytes	29.0 Mb	bits/sec	
[4]	9.10-9.20	sec	268 KBytes	21.8 Mb	bits/sec	
[4]	9.20-9.31	sec	208 KBytes	15.9 Mb	bits/sec	
[4]	9.31-9.40	sec	207 KBytes	18.3 Mb	bits/sec	
[4]	9.40-9.51	sec	222 KBytes	16.8 Mb	bits/sec	
[4]	9.51-9.60	sec	403 KBytes	35.3 Mb	bits/sec	
[4]	9.60-9.71	sec	207 KBytes	15.8 Mb	bits/sec	
[4]	9.71-9.80	sec	208 KBytes	18.6 Mb	bits/sec	
[4]	9.80-9.90	sec	227 KBytes	18.7 Mb	bits/sec	
[4]	9.90-10.00	sec	297 KBytes	23.8 Mb	bits/sec	

[ID]	Interval		Transfer	Bandwidth	Retr	
[4]	0.00-10.00	sec	28.4 MBytes	23.8 Mb	bits/sec	0
[4]	0.00-10.00	sec	26.8 MBytes	22.5 Mb	bits/sec	

sender
receiver

iperf Done.

D:\iperf-3.1.3-win64>iperf3.exe -c iperf3.velocityonline.net -i 0.1 -t 10 -R
Connecting to host iperf3.velocityonline.net, port 5201

Reverse mode, remote host iperf3.velocityonline.net is sending

[4] local 192.168.99.68 port 62266 connected to 216.162.135.203 port 5201

[ID]	Interval		Transfer	Bandwidth
[4]	0.00-0.10	sec	42.8 KBytes	3.41 Mb
[4]	0.10-0.20	sec	171 KBytes	14.1 Mb
[4]	0.20-0.31	sec	251 KBytes	19.7 Mb
[4]	0.31-0.40	sec	371 KBytes	32.1 Mb
[4]	0.40-0.51	sec	354 KBytes	26.8 Mb
[4]	0.51-0.60	sec	268 KBytes	23.3 Mb
[4]	0.60-0.70	sec	300 KBytes	25.5 Mb
[4]	0.70-0.80	sec	315 KBytes	24.8 Mb
[4]	0.80-0.90	sec	322 KBytes	26.9 Mb
[4]	0.90-1.00	sec	305 KBytes	24.9 Mb
[4]	1.00-1.10	sec	314 KBytes	26.1 Mb
[4]	1.10-1.20	sec	314 KBytes	25.0 Mb
[4]	1.20-1.31	sec	297 KBytes	22.6 Mb
[4]	1.31-1.40	sec	325 KBytes	29.7 Mb
[4]	1.40-1.50	sec	307 KBytes	24.7 Mb
[4]	1.50-1.60	sec	299 KBytes	24.5 Mb
[4]	1.60-1.71	sec	312 KBytes	23.1 Mb
[4]	1.71-1.80	sec	271 KBytes	24.4 Mb
[4]	1.80-1.91	sec	339 KBytes	25.8 Mb
[4]	1.91-2.00	sec	304 KBytes	28.2 Mb
[4]	2.00-2.11	sec	271 KBytes	21.2 Mb
[4]	2.11-2.20	sec	336 KBytes	28.1 Mb
[4]	2.20-2.31	sec	238 KBytes	18.3 Mb
[4]	2.31-2.40	sec	415 KBytes	36.7 Mb
[4]	2.40-2.51	sec	13.0 KBytes	996 Kb
[4]	2.51-2.60	sec	355 KBytes	31.7 Mb
[4]	2.60-2.71	sec	281 KBytes	21.7 Mb
[4]	2.71-2.80	sec	209 KBytes	17.9 Mb
[4]	2.80-2.91	sec	210 KBytes	16.4 Mb
[4]	2.91-3.00	sec	207 KBytes	18.1 Mb
[4]	3.00-3.11	sec	245 KBytes	19.4 Mb
[4]	3.11-3.20	sec	378 KBytes	31.8 Mb
[4]	3.20-3.31	sec	258 KBytes	20.1 Mb
[4]	3.31-3.40	sec	354 KBytes	30.7 Mb
[4]	3.40-3.50	sec	262 KBytes	21.9 Mb
[4]	3.50-3.60	sec	372 KBytes	29.9 Mb
[4]	3.60-3.70	sec	248 KBytes	20.3 Mb

```

[ 4] 3.70-3.80 sec 328 KBytes 27.4 Mbits/sec
[ 4] 3.80-3.90 sec 307 KBytes 24.2 Mbits/sec
[ 4] 3.90-4.00 sec 325 KBytes 26.7 Mbits/sec
[ 4] 4.00-4.10 sec 288 KBytes 24.5 Mbits/sec
[ 4] 4.10-4.20 sec 354 KBytes 29.1 Mbits/sec
[ 4] 4.20-4.30 sec 277 KBytes 22.5 Mbits/sec
[ 4] 4.30-4.40 sec 334 KBytes 27.0 Mbits/sec
[ 4] 4.40-4.51 sec 294 KBytes 21.4 Mbits/sec
[ 4] 4.51-4.60 sec 258 KBytes 24.4 Mbits/sec
[ 4] 4.60-4.72 sec 356 KBytes 25.6 Mbits/sec
[ 4] 4.72-4.80 sec 265 KBytes 25.4 Mbits/sec
[ 4] 4.80-4.90 sec 311 KBytes 25.2 Mbits/sec
[ 4] 4.90-5.01 sec 277 KBytes 21.6 Mbits/sec
[ 4] 5.01-5.10 sec 231 KBytes 20.1 Mbits/sec
[ 4] 5.10-5.21 sec 337 KBytes 26.3 Mbits/sec
[ 4] 5.21-5.30 sec 279 KBytes 24.5 Mbits/sec
[ 4] 5.30-5.41 sec 304 KBytes 23.2 Mbits/sec
[ 4] 5.41-5.50 sec 271 KBytes 23.9 Mbits/sec
[ 4] 5.50-5.61 sec 207 KBytes 15.6 Mbits/sec
[ 4] 5.61-5.70 sec 327 KBytes 29.1 Mbits/sec
[ 4] 5.70-5.81 sec 208 KBytes 15.9 Mbits/sec
[ 4] 5.81-5.90 sec 144 KBytes 12.8 Mbits/sec
[ 4] 5.90-6.00 sec 238 KBytes 19.3 Mbits/sec
[ 4] 6.00-6.10 sec 240 KBytes 19.8 Mbits/sec
[ 4] 6.10-6.21 sec 285 KBytes 21.6 Mbits/sec
[ 4] 6.21-6.30 sec 207 KBytes 18.2 Mbits/sec
[ 4] 6.30-6.41 sec 208 KBytes 15.7 Mbits/sec
[ 4] 6.41-6.50 sec 238 KBytes 21.2 Mbits/sec
[ 4] 6.50-6.61 sec 221 KBytes 16.8 Mbits/sec
[ 4] 6.61-6.70 sec 309 KBytes 27.7 Mbits/sec
[ 4] 6.70-6.81 sec 198 KBytes 14.6 Mbits/sec
[ 4] 6.81-6.90 sec 315 KBytes 28.4 Mbits/sec
[ 4] 6.90-7.00 sec 257 KBytes 21.3 Mbits/sec
[ 4] 7.00-7.10 sec 245 KBytes 19.7 Mbits/sec
[ 4] 7.10-7.20 sec 322 KBytes 26.2 Mbits/sec
[ 4] 7.20-7.31 sec 265 KBytes 21.0 Mbits/sec
[ 4] 7.31-7.41 sec 161 KBytes 12.8 Mbits/sec
[ 4] 7.41-7.51 sec 391 KBytes 33.3 Mbits/sec
[ 4] 7.51-7.61 sec 207 KBytes 16.0 Mbits/sec
[ 4] 7.61-7.71 sec 208 KBytes 18.2 Mbits/sec
[ 4] 7.71-7.80 sec 374 KBytes 31.0 Mbits/sec
[ 4] 7.80-7.91 sec 248 KBytes 20.1 Mbits/sec
[ 4] 7.91-8.01 sec 207 KBytes 15.8 Mbits/sec
[ 4] 8.01-8.10 sec 252 KBytes 23.3 Mbits/sec
[ 4] 8.10-8.20 sec 323 KBytes 26.7 Mbits/sec
[ 4] 8.20-8.31 sec 264 KBytes 20.0 Mbits/sec
[ 4] 8.31-8.40 sec 208 KBytes 18.1 Mbits/sec
[ 4] 8.40-8.50 sec 322 KBytes 27.3 Mbits/sec
[ 4] 8.50-8.60 sec 281 KBytes 22.6 Mbits/sec
[ 4] 8.60-8.71 sec 221 KBytes 16.9 Mbits/sec
[ 4] 8.71-8.80 sec 222 KBytes 20.0 Mbits/sec
[ 4] 8.80-8.91 sec 205 KBytes 15.6 Mbits/sec
[ 4] 8.91-9.00 sec 207 KBytes 18.3 Mbits/sec
[ 4] 9.00-9.10 sec 352 KBytes 29.0 Mbits/sec
[ 4] 9.10-9.20 sec 268 KBytes 21.8 Mbits/sec
[ 4] 9.20-9.31 sec 208 KBytes 15.9 Mbits/sec
[ 4] 9.31-9.40 sec 207 KBytes 18.3 Mbits/sec
[ 4] 9.40-9.51 sec 222 KBytes 16.8 Mbits/sec
[ 4] 9.51-9.60 sec 403 KBytes 35.3 Mbits/sec
[ 4] 9.60-9.71 sec 207 KBytes 15.8 Mbits/sec
[ 4] 9.71-9.80 sec 208 KBytes 18.6 Mbits/sec
[ 4] 9.80-9.90 sec 227 KBytes 18.7 Mbits/sec
[ 4] 9.90-10.00 sec 297 KBytes 23.8 Mbits/sec
- - - - -
[ ID] Interval      Transfer      Bandwidth      Retr
[ 4]  0.00-10.00 sec 28.4 MBytes 23.8 Mbits/sec    0
[ 4]  0.00-10.00 sec 26.8 MBytes 22.5 Mbits/sec
sender
receiver

```

iperf Done.

The transfer speeds of the two TCPs are largely unaffected, and they share the bandwidth fairly.

19. Start a 10-second TCP transfer from a public server to your computer. After 3 seconds, start a 10-second UDP transfer from a different public server (this means that you will have to run two iperf3 clients on your computer). Use the `-i` option on the client to report the TCP and UDP throughput every 100 ms. Plot the TCP and UDP throughput as a function of time on the same graph. Comment on how a UDP and a TCP connection share the bandwidth.

```
D:\iperf-3.1.3-win64>iperf3.exe -c nyc.speedtest.clouvider.net -i 0.1 -t 10 -R
Connecting to host nyc.speedtest.clouvider.net, port 5201
Reverse mode, remote host nyc.speedtest.clouvider.net is sending
[ 4] local 192.168.99.68 port 49457 connected to 94.154.159.137 port 5201
[ ID] Interval           Transfer     Bandwidth
[ 4] 0.00-0.11 sec      225 KBytes  17.1 Mbits/sec
[ 4] 0.11-0.20 sec      557 KBytes  49.6 Mbits/sec
[ 4] 0.20-0.31 sec      623 KBytes  47.1 Mbits/sec
[ 4] 0.31-0.40 sec      207 KBytes  18.4 Mbits/sec
[ 4] 0.40-0.50 sec      613 KBytes  49.5 Mbits/sec
[ 4] 0.50-0.60 sec      647 KBytes  53.7 Mbits/sec
[ 4] 0.60-0.70 sec      227 KBytes  18.3 Mbits/sec
[ 4] 0.70-0.80 sec      637 KBytes  52.1 Mbits/sec
[ 4] 0.80-0.90 sec      590 KBytes  49.1 Mbits/sec
[ 4] 0.90-1.00 sec      526 KBytes  41.7 Mbits/sec
[ 4] 1.00-1.10 sec      663 KBytes  56.8 Mbits/sec
[ 4] 1.10-1.21 sec      619 KBytes  46.8 Mbits/sec
[ 4] 1.21-1.30 sec      543 KBytes  46.5 Mbits/sec
[ 4] 1.30-1.40 sec      622 KBytes  51.7 Mbits/sec
[ 4] 1.40-1.50 sec      275 KBytes  22.3 Mbits/sec
[ 4] 1.50-1.61 sec      557 KBytes  44.2 Mbits/sec
[ 4] 1.61-1.70 sec      244 KBytes  21.1 Mbits/sec
[ 4] 1.70-1.80 sec      458 KBytes  36.8 Mbits/sec
[ 4] 1.80-1.90 sec      523 KBytes  43.2 Mbits/sec
[ 4] 1.90-2.00 sec      338 KBytes  27.2 Mbits/sec
[ 4] 2.00-2.10 sec      482 KBytes  39.7 Mbits/sec
[ 4] 2.10-2.20 sec      488 KBytes  40.4 Mbits/sec
[ 4] 2.20-2.31 sec      585 KBytes  46.3 Mbits/sec
[ 4] 2.31-2.40 sec      499 KBytes  41.8 Mbits/sec
[ 4] 2.40-2.51 sec      328 KBytes  26.2 Mbits/sec
[ 4] 2.51-2.60 sec      660 KBytes  57.4 Mbits/sec
[ 4] 2.60-2.70 sec      676 KBytes  55.7 Mbits/sec
[ 4] 2.70-2.80 sec      666 KBytes  54.8 Mbits/sec
[ 4] 2.80-2.90 sec      707 KBytes  56.9 Mbits/sec
[ 4] 2.90-3.00 sec      693 KBytes  57.9 Mbits/sec
[ 4] 3.00-3.11 sec      495 KBytes  38.1 Mbits/sec
[ 4] 3.11-3.20 sec      607 KBytes  52.3 Mbits/sec
[ 4] 3.20-3.31 sec      610 KBytes  48.1 Mbits/sec
[ 4] 3.31-3.41 sec      419 KBytes  32.3 Mbits/sec
[ 4] 3.41-3.50 sec      469 KBytes  42.0 Mbits/sec
[ 4] 3.50-3.61 sec      291 KBytes  22.9 Mbits/sec
[ 4] 3.61-3.70 sec      498 KBytes  42.8 Mbits/sec
[ 4] 3.70-3.81 sec      399 KBytes  31.7 Mbits/sec
[ 4] 3.81-3.90 sec      595 KBytes  50.7 Mbits/sec
[ 4] 3.90-4.01 sec      632 KBytes  46.8 Mbits/sec
[ 4] 4.01-4.10 sec      208 KBytes  18.3 Mbits/sec
[ 4] 4.10-4.22 sec      207 KBytes  15.3 Mbits/sec
[ 4] 4.22-4.31 sec      0.00 Bytes  0.00 bits/sec
[ 4] 4.31-4.40 sec      74.1 KBytes  6.37 Mbits/sec
[ 4] 4.40-4.52 sec      130 KBytes  9.61 Mbits/sec
[ 4] 4.52-4.61 sec      24.2 KBytes  2.20 Mbits/sec
[ 4] 4.61-4.71 sec      51.3 KBytes  3.88 Mbits/sec
[ 4] 4.71-4.81 sec      131 KBytes  11.5 Mbits/sec
[ 4] 4.81-4.91 sec      0.00 Bytes  0.00 bits/sec
[ 4] 4.91-5.01 sec      0.00 Bytes  0.00 bits/sec
[ 4] 5.01-5.10 sec      57.0 KBytes  4.97 Mbits/sec
[ 4] 5.10-5.21 sec      74.1 KBytes  5.47 Mbits/sec
[ 4] 5.21-5.31 sec      48.5 KBytes  4.27 Mbits/sec
[ 4] 5.31-5.40 sec      20.0 KBytes  1.74 Mbits/sec
[ 4] 5.40-5.51 sec      5.70 KBytes  441 Kbits/sec
[ 4] 5.51-5.60 sec      0.00 Bytes  0.00 bits/sec
```

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[ 4] 5.60-5.71 sec 0.00 Bytes 0.00 bits/sec
[ 4] 5.71-5.80 sec 0.00 Bytes 0.00 bits/sec
[ 4] 5.80-5.91 sec 0.00 Bytes 0.00 bits/sec
[ 4] 5.91-6.01 sec 0.00 Bytes 0.00 bits/sec
[ 4] 6.01-6.11 sec 1.43 KBytes 115 Kbits/sec
[ 4] 6.11-6.21 sec 55.6 KBytes 4.52 Mbits/sec
[ 4] 6.21-6.30 sec 14.3 KBytes 1.23 Mbits/sec
[ 4] 6.30-6.41 sec 2.85 KBytes 213 Kbits/sec
[ 4] 6.41-6.50 sec 0.00 Bytes 0.00 bits/sec
[ 4] 6.50-6.61 sec 57.0 KBytes 4.26 Mbits/sec
[ 4] 6.61-6.71 sec 0.00 Bytes 0.00 bits/sec
[ 4] 6.71-6.80 sec 0.00 Bytes 0.00 bits/sec
[ 4] 6.80-6.91 sec 0.00 Bytes 0.00 bits/sec
[ 4] 6.91-7.01 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.01-7.10 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.10-7.21 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.21-7.31 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.31-7.40 sec 12.8 KBytes 1.10 Mbits/sec
[ 4] 7.40-7.51 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.51-7.60 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.60-7.71 sec 57.0 KBytes 4.23 Mbits/sec
[ 4] 7.71-7.81 sec 0.00 Bytes 0.00 bits/sec
[ 4] 7.81-7.90 sec 62.7 KBytes 5.52 Mbits/sec
[ 4] 7.90-8.01 sec 74.1 KBytes 5.60 Mbits/sec
[ 4] 8.01-8.10 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.10-8.21 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.21-8.30 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.30-8.40 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.40-8.51 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.51-8.60 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.60-8.71 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.71-8.81 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.81-8.90 sec 0.00 Bytes 0.00 bits/sec
[ 4] 8.90-9.01 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.01-9.10 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.10-9.21 sec 117 KBytes 8.79 Mbits/sec
[ 4] 9.21-9.31 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.31-9.40 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.40-9.51 sec 2.85 KBytes 214 Kbits/sec
[ 4] 9.51-9.60 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.60-9.71 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.71-9.81 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.81-9.90 sec 0.00 Bytes 0.00 bits/sec
[ 4] 9.90-10.01 sec 0.00 Bytes 0.00 bits/sec

```

ID	Interval	Transfer	Bandwidth	Retr	sender	receiver
4	0.00-10.01	sec 23.5 MBytes	19.7 Mbits/sec	122		
4	0.00-10.01	sec 21.6 MBytes	18.1 Mbits/sec			

iperf Done.

```

D:\iperf-3.1.3-win64>iperf3.exe -c iperf3.velocityonline.net -i 0.1 -t 10 -R -u -b 200Mbps
Connecting to host iperf3.velocityonline.net, port 5201
Reverse mode, remote host iperf3.velocityonline.net is sending
[ 4] local 192.168.99.68 port 63180 connected to 216.162.135.203 port 5201
[ ID] Interval      Transfer    Bandwidth   Jitter    Lost/Total Datagrams
[ 4] 0.00-0.26 sec 8.00 KBytes 255 Kbits/sec 20.670 ms 0/1 (0%)
[ 4] 0.26-0.26 sec 0.00 Bytes 0.00 bits/sec 20.670 ms 0/0 (0%)
iperf3: OUT OF ORDER - incoming packet = 441 and received packet = 443 AND SP = 4
[ 4] 0.26-0.30 sec 768 KBytes 153 Mbits/sec 0.759 ms 347/442 (79%)
iperf3: OUT OF ORDER - incoming packet = 442 and received packet = 443 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 445 and received packet = 446 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 452 and received packet = 453 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 478 and received packet = 480 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 479 and received packet = 480 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 481 and received packet = 483 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 482 and received packet = 483 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 485 and received packet = 486 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 488 and received packet = 489 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 493 and received packet = 495 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 494 and received packet = 495 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 497 and received packet = 498 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 503 and received packet = 504 AND SP = 4

```

[illegible]

[illegible]

[illegible]

iperf3: OUT OF ORDER - incoming packet = 2405 and received packet = 2406 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2408 and received packet = 2409 AND SP = 4
[4] 1.20-1.30 sec 1.03 MBytes 86.5 Mbits/sec 1.300 ms 14/133 (11%)
iperf3: OUT OF ORDER - incoming packet = 2417 and received packet = 2418 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2420 and received packet = 2421 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2423 and received packet = 2424 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2426 and received packet = 2427 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2451 and received packet = 2452 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2469 and received packet = 2470 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2481 and received packet = 2482 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2489 and received packet = 2491 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2490 and received packet = 2491 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2493 and received packet = 2494 AND SP = 4
[4] 1.30-1.40 sec 792 KBytes 64.9 Mbits/sec 1.283 ms 11/100 (11%)
iperf3: OUT OF ORDER - incoming packet = 2533 and received packet = 2534 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2536 and received packet = 2537 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2545 and received packet = 2546 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2588 and received packet = 2589 AND SP = 4
[4] 1.40-1.51 sec 848 KBytes 63.5 Mbits/sec 1.243 ms 4/106 (3.8%)
iperf3: OUT OF ORDER - incoming packet = 2634 and received packet = 2635 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2637 and received packet = 2638 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2640 and received packet = 2641 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2655 and received packet = 2656 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2664 and received packet = 2665 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2692 and received packet = 2693 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2698 and received packet = 2699 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2701 and received packet = 2702 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2710 and received packet = 2711 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2734 and received packet = 2735 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2747 and received packet = 2748 AND SP = 4
[4] 1.51-1.60 sec 1008 KBytes 87.3 Mbits/sec 0.786 ms 11/126 (8.7%)
[4] 1.60-1.71 sec 16.0 KBytes 1.27 Mbits/sec 7.315 ms 0/2 (0%)
iperf3: OUT OF ORDER - incoming packet = 2759 and received packet = 2760 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2761 and received packet = 2763 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2762 and received packet = 2763 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2779 and received packet = 2781 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2780 and received packet = 2781 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2808 and received packet = 2809 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2811 and received packet = 2812 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2817 and received packet = 2818 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2820 and received packet = 2821 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2829 and received packet = 2830 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2832 and received packet = 2833 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2838 and received packet = 2839 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2847 and received packet = 2848 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2853 and received packet = 2854 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2860 and received packet = 2861 AND SP = 4
[4] 1.71-1.80 sec 880 KBytes 77.8 Mbits/sec 0.751 ms 15/110 (14%)
iperf3: OUT OF ORDER - incoming packet = 2869 and received packet = 2870 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2883 and received packet = 2885 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2884 and received packet = 2885 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2890 and received packet = 2891 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2927 and received packet = 2928 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2936 and received packet = 2937 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2939 and received packet = 2940 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2954 and received packet = 2955 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2963 and received packet = 2964 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2966 and received packet = 2967 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2969 and received packet = 2970 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2981 and received packet = 2982 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 2991 and received packet = 2992 AND SP = 4
[4] 1.80-1.92 sec 1.10 MBytes 80.3 Mbits/sec 0.685 ms 13/141 (9.2%)
iperf3: OUT OF ORDER - incoming packet = 3006 and received packet = 3007 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3015 and received packet = 3016 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3018 and received packet = 3019 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3024 and received packet = 3025 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3027 and received packet = 3028 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3037 and received packet = 3038 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3042 and received packet = 3043 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3055 and received packet = 3056 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3110 and received packet = 3111 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3116 and received packet = 3117 AND SP = 4
[4] 1.92-2.01 sec 944 KBytes 82.4 Mbits/sec 0.517 ms 11/119 (9.2%)

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[ 4] 2.01-2.10 sec 848 KBytes 74.5 Mbits/sec 1.359 ms 1/107 (0.93%)
iperf3: OUT OF ORDER - incoming packet = 3339 and received packet = 3340 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3357 and received packet = 3358 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3397 and received packet = 3398 AND SP = 4
[ 4] 2.10-2.20 sec 1.30 MBytes 111 Mbits/sec 0.712 ms 11/175 (6.3%)
iperf3: OUT OF ORDER - incoming packet = 3427 and received packet = 3428 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3442 and received packet = 3443 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3461 and received packet = 3462 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3476 and received packet = 3477 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3491 and received packet = 3492 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3500 and received packet = 3501 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3515 and received packet = 3516 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3522 and received packet = 3523 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3525 and received packet = 3526 AND SP = 4
[ 4] 2.20-2.30 sec 1016 KBytes 80.4 Mbits/sec 2.647 ms 14/132 (11%)
iperf3: OUT OF ORDER - incoming packet = 3546 and received packet = 3547 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3574 and received packet = 3575 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3577 and received packet = 3578 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3592 and received packet = 3593 AND SP = 4
[ 4] 2.30-2.41 sec 960 KBytes 71.4 Mbits/sec 1.051 ms 4/120 (3.3%)
iperf3: OUT OF ORDER - incoming packet = 3668 and received packet = 3669 AND SP = 4
[ 4] 2.41-2.50 sec 232 KBytes 21.9 Mbits/sec 1.629 ms 1/29 (3.4%)
iperf3: OUT OF ORDER - incoming packet = 3708 and received packet = 3709 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3717 and received packet = 3718 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3723 and received packet = 3724 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3744 and received packet = 3745 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3757 and received packet = 3758 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3760 and received packet = 3761 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3781 and received packet = 3782 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3799 and received packet = 3800 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3805 and received packet = 3806 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3976 and received packet = 3977 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3985 and received packet = 3986 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 3989 and received packet = 3990 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4047 and received packet = 4048 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4050 and received packet = 4051 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4056 and received packet = 4057 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4162 and received packet = 4163 AND SP = 4
[ 4] 2.50-2.60 sec 1.41 MBytes 118 Mbits/sec 1.902 ms 316/480 (66%)
iperf3: OUT OF ORDER - incoming packet = 4169 and received packet = 4170 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4172 and received packet = 4173 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4208 and received packet = 4209 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4233 and received packet = 4234 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4236 and received packet = 4237 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4239 and received packet = 4240 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4294 and received packet = 4295 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4312 and received packet = 4313 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4315 and received packet = 4316 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4327 and received packet = 4328 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4333 and received packet = 4334 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4346 and received packet = 4347 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4349 and received packet = 4350 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4352 and received packet = 4353 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4370 and received packet = 4371 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4376 and received packet = 4377 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4520 and received packet = 4521 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4678 and received packet = 4679 AND SP = 4
[ 4] 2.60-2.70 sec 1.71 MBytes 145 Mbits/sec 0.676 ms 347/548 (63%)
iperf3: OUT OF ORDER - incoming packet = 4715 and received packet = 4716 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 4773 and received packet = 4774 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5289 and received packet = 5290 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5295 and received packet = 5296 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5304 and received packet = 5305 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5307 and received packet = 5308 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5312 and received packet = 5314 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5313 and received packet = 5314 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5316 and received packet = 5317 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5321 and received packet = 5323 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5386 and received packet = 5387 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5389 and received packet = 5390 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5392 and received packet = 5393 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5396 and received packet = 5397 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5402 and received packet = 5403 AND SP = 4
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iperf3: OUT OF ORDER - incoming packet = 5516 and received packet = 5518 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5517 and received packet = 5519 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5520 and received packet = 5522 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5521 and received packet = 5522 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5523 and received packet = 5525 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5524 and received packet = 5525 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5594 and received packet = 5595 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5597 and received packet = 5598 AND SP = 4
[ 4] 2.70-2.80 sec 1.59 MBytes 134 Mbts/sec 0.908 ms 724/905 (80%)
iperf3: OUT OF ORDER - incoming packet = 5661 and received packet = 5662 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5710 and received packet = 5711 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5712 and received packet = 5714 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5713 and received packet = 5714 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5786 and received packet = 5787 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5804 and received packet = 5805 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5917 and received packet = 5918 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5930 and received packet = 5931 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 5933 and received packet = 5934 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6064 and received packet = 6065 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6069 and received packet = 6071 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6070 and received packet = 6071 AND SP = 4
[ 4] 2.80-2.90 sec 1.42 MBytes 115 Mbts/sec 1.786 ms 289/459 (63%)
iperf3: OUT OF ORDER - incoming packet = 6079 and received packet = 6080 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6119 and received packet = 6120 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6174 and received packet = 6175 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6180 and received packet = 6181 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6235 and received packet = 6236 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6265 and received packet = 6266 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6424 and received packet = 6425 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6494 and received packet = 6495 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6500 and received packet = 6501 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6503 and received packet = 6504 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6516 and received packet = 6517 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6521 and received packet = 6522 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6540 and received packet = 6541 AND SP = 4
[ 4] 2.90-3.01 sec 1.60 MBytes 130 Mbts/sec 1.454 ms 275/467 (59%)
iperf3: OUT OF ORDER - incoming packet = 6543 and received packet = 6544 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6552 and received packet = 6553 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6558 and received packet = 6559 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6582 and received packet = 6583 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6622 and received packet = 6623 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6631 and received packet = 6632 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6698 and received packet = 6699 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6702 and received packet = 6703 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6787 and received packet = 6788 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6793 and received packet = 6794 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 6802 and received packet = 6803 AND SP = 4
[ 4] 3.01-3.10 sec 1.57 MBytes 137 Mbts/sec 0.806 ms 154/344 (45%)
iperf3: OUT OF ORDER - incoming packet = 7288 and received packet = 7289 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7641 and received packet = 7642 AND SP = 4
[ 4] 3.10-3.21 sec 1.34 MBytes 110 Mbts/sec 3.508 ms 637/806 (79%)
iperf3: OUT OF ORDER - incoming packet = 7706 and received packet = 7707 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7724 and received packet = 7725 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7736 and received packet = 7737 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7739 and received packet = 7740 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7760 and received packet = 7761 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7764 and received packet = 7765 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7773 and received packet = 7774 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7782 and received packet = 7783 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7822 and received packet = 7823 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7828 and received packet = 7829 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7831 and received packet = 7832 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7910 and received packet = 7911 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7913 and received packet = 7914 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7925 and received packet = 7926 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7931 and received packet = 7932 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7935 and received packet = 7936 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7959 and received packet = 7960 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7971 and received packet = 7972 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 7974 and received packet = 7975 AND SP = 4
[ 4] 3.21-3.30 sec 1.70 MBytes 148 Mbts/sec 0.738 ms 115/313 (37%)
iperf3: OUT OF ORDER - incoming packet = 8050 and received packet = 8051 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 8054 and received packet = 8055 AND SP = 4

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[illegible]

iperf3: OUT OF ORDER - incoming packet = 9848 and received packet = 9849 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 9853 and received packet = 9855 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 9854 and received packet = 9855 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 9964 and received packet = 9965 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 9967 and received packet = 9968 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10007 and received packet = 10008 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10010 and received packet = 10011 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10025 and received packet = 10026 AND SP = 4
[4] 3.81-3.90 sec 1.37 MBytes 121 Mbits/sec 0.755 ms 74/241 (31%)
iperf3: OUT OF ORDER - incoming packet = 10119 and received packet = 10120 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10178 and received packet = 10179 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10245 and received packet = 10246 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10248 and received packet = 10249 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10254 and received packet = 10255 AND SP = 4
[4] 3.90-4.00 sec 1.19 MBytes 97.9 Mbits/sec 0.855 ms 79/226 (35%)
iperf3: OUT OF ORDER - incoming packet = 10300 and received packet = 10301 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10309 and received packet = 10310 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10400 and received packet = 10401 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10403 and received packet = 10404 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10406 and received packet = 10407 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10422 and received packet = 10423 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10425 and received packet = 10426 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10443 and received packet = 10444 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10452 and received packet = 10453 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10501 and received packet = 10502 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10538 and received packet = 10539 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10547 and received packet = 10548 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10589 and received packet = 10590 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10599 and received packet = 10600 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10602 and received packet = 10603 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10614 and received packet = 10615 AND SP = 4
[4] 4.00-4.10 sec 1.95 MBytes 167 Mbits/sec 0.604 ms 122/355 (34%)
iperf3: OUT OF ORDER - incoming packet = 10641 and received packet = 10642 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10651 and received packet = 10652 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10709 and received packet = 10710 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10712 and received packet = 10713 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10718 and received packet = 10719 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10754 and received packet = 10755 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10770 and received packet = 10771 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10779 and received packet = 10780 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10782 and received packet = 10783 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10788 and received packet = 10789 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10791 and received packet = 10792 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10800 and received packet = 10801 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10803 and received packet = 10804 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10858 and received packet = 10859 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10861 and received packet = 10862 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10876 and received packet = 10877 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10880 and received packet = 10881 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10885 and received packet = 10886 AND SP = 4
[4] 4.10-4.20 sec 1.73 MBytes 146 Mbits/sec 0.558 ms 47/251 (19%)
iperf3: OUT OF ORDER - incoming packet = 10895 and received packet = 10896 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10901 and received packet = 10902 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10925 and received packet = 10926 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10943 and received packet = 10944 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10947 and received packet = 10948 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10953 and received packet = 10954 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 10968 and received packet = 10969 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11066 and received packet = 11067 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11072 and received packet = 11073 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11089 and received packet = 11091 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11090 and received packet = 11091 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11121 and received packet = 11122 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11154 and received packet = 11155 AND SP = 4
[4] 4.20-4.30 sec 1.76 MBytes 147 Mbits/sec 0.954 ms 54/266 (20%)
iperf3: OUT OF ORDER - incoming packet = 11160 and received packet = 11161 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11166 and received packet = 11167 AND SP = 4
[4] 4.30-4.40 sec 184 KBytes 14.8 Mbits/sec 0.930 ms 2/23 (8.7%)
iperf3: OUT OF ORDER - incoming packet = 11191 and received packet = 11192 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11212 and received packet = 11213 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11218 and received packet = 11219 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11258 and received packet = 11259 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11270 and received packet = 11271 AND SP = 4

iperf3: OUT OF ORDER - incoming packet = 11285 and received packet = 11286 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11322 and received packet = 11323 AND SP = 4
[4] 4.40-4.50 sec 1000 KBytes 80.6 Mbits/sec 1.413 ms 90/208 (43%)
iperf3: OUT OF ORDER - incoming packet = 11417 and received packet = 11418 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11423 and received packet = 11424 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11426 and received packet = 11427 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11432 and received packet = 11433 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11450 and received packet = 11451 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11478 and received packet = 11479 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11496 and received packet = 11497 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11502 and received packet = 11503 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11505 and received packet = 11506 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11557 and received packet = 11558 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11560 and received packet = 11561 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11569 and received packet = 11570 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11578 and received packet = 11579 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11600 and received packet = 11601 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11603 and received packet = 11604 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11606 and received packet = 11607 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11612 and received packet = 11613 AND SP = 4
[4] 4.50-4.60 sec 1.68 MBytes 143 Mbits/sec 0.585 ms 53/251 (21%)
iperf3: OUT OF ORDER - incoming packet = 11642 and received packet = 11643 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11661 and received packet = 11662 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11719 and received packet = 11720 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11725 and received packet = 11726 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11728 and received packet = 11729 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11734 and received packet = 11735 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11850 and received packet = 11851 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11874 and received packet = 11875 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11877 and received packet = 11878 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11905 and received packet = 11906 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 11932 and received packet = 11933 AND SP = 4
[4] 4.60-4.70 sec 1.49 MBytes 127 Mbits/sec 0.665 ms 137/317 (43%)
iperf3: OUT OF ORDER - incoming packet = 12009 and received packet = 12010 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12012 and received packet = 12013 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12170 and received packet = 12171 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12198 and received packet = 12199 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12225 and received packet = 12226 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12274 and received packet = 12275 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12277 and received packet = 12278 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12341 and received packet = 12342 AND SP = 4
[4] 4.70-4.80 sec 1.64 MBytes 137 Mbits/sec 0.821 ms 207/409 (51%)
iperf3: OUT OF ORDER - incoming packet = 12421 and received packet = 12422 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12424 and received packet = 12425 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12436 and received packet = 12437 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12439 and received packet = 12440 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12445 and received packet = 12446 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12463 and received packet = 12464 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12469 and received packet = 12470 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12479 and received packet = 12480 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12482 and received packet = 12483 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12497 and received packet = 12498 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12500 and received packet = 12501 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12552 and received packet = 12553 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12567 and received packet = 12568 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12570 and received packet = 12571 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12582 and received packet = 12583 AND SP = 4
[4] 4.80-4.90 sec 1.79 MBytes 147 Mbits/sec 0.569 ms 27/241 (11%)
iperf3: OUT OF ORDER - incoming packet = 12677 and received packet = 12678 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12683 and received packet = 12684 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12698 and received packet = 12699 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12704 and received packet = 12705 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12738 and received packet = 12739 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12753 and received packet = 12754 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12802 and received packet = 12803 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12805 and received packet = 12806 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 12832 and received packet = 12833 AND SP = 4
[4] 4.90-5.00 sec 1.67 MBytes 146 Mbits/sec 0.991 ms 144/349 (41%)
iperf3: OUT OF ORDER - incoming packet = 13064 and received packet = 13065 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13623 and received packet = 13624 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13657 and received packet = 13658 AND SP = 4
[4] 5.00-5.10 sec 1.88 MBytes 156 Mbits/sec 0.649 ms 502/739 (68%)
iperf3: OUT OF ORDER - incoming packet = 13693 and received packet = 13694 AND SP = 4

iperf3: OUT OF ORDER - incoming packet = 13708 and received packet = 13709 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13715 and received packet = 13716 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13730 and received packet = 13731 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13736 and received packet = 13737 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13763 and received packet = 13764 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13766 and received packet = 13767 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13779 and received packet = 13780 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13788 and received packet = 13789 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13791 and received packet = 13792 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13794 and received packet = 13795 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13840 and received packet = 13841 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13898 and received packet = 13899 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13916 and received packet = 13917 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 13943 and received packet = 13944 AND SP = 4
[4] 5.10-5.20 sec 1.62 MBytes 136 Mbits/sec 0.779 ms 117/309 (38%)
iperf3: OUT OF ORDER - incoming packet = 14004 and received packet = 14005 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14014 and received packet = 14015 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14017 and received packet = 14018 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14035 and received packet = 14036 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14044 and received packet = 14045 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14047 and received packet = 14048 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14062 and received packet = 14063 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14078 and received packet = 14079 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14081 and received packet = 14082 AND SP = 4
[4] 5.20-5.30 sec 2.02 MBytes 171 Mbits/sec 0.761 ms 124/374 (33%)
iperf3: OUT OF ORDER - incoming packet = 14477 and received packet = 14478 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14526 and received packet = 14527 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14551 and received packet = 14552 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14566 and received packet = 14567 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14581 and received packet = 14582 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14639 and received packet = 14640 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14648 and received packet = 14649 AND SP = 4
[4] 5.30-5.40 sec 1.93 MBytes 157 Mbits/sec 0.723 ms 93/333 (28%)
iperf3: OUT OF ORDER - incoming packet = 14758 and received packet = 14759 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14780 and received packet = 14781 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14841 and received packet = 14842 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14871 and received packet = 14872 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14877 and received packet = 14878 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14914 and received packet = 14915 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14923 and received packet = 14924 AND SP = 4
[4] 5.40-5.51 sec 1.16 MBytes 94.9 Mbits/sec 1.048 ms 85/226 (38%)
iperf3: OUT OF ORDER - incoming packet = 14947 and received packet = 14948 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14987 and received packet = 14988 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 14990 and received packet = 14991 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15011 and received packet = 15012 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15021 and received packet = 15022 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15085 and received packet = 15086 AND SP = 4
[4] 5.51-5.60 sec 1.15 MBytes 98.6 Mbits/sec 1.849 ms 31/172 (18%)
iperf3: OUT OF ORDER - incoming packet = 15109 and received packet = 15110 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15167 and received packet = 15168 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15176 and received packet = 15177 AND SP = 4
[4] 5.60-5.70 sec 600 KBytes 50.1 Mbits/sec 1.597 ms 3/75 (4%)
iperf3: OUT OF ORDER - incoming packet = 15195 and received packet = 15196 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15198 and received packet = 15199 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15204 and received packet = 15205 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15243 and received packet = 15244 AND SP = 4
[4] 5.70-5.80 sec 320 KBytes 25.7 Mbits/sec 3.315 ms 36/72 (50%)
iperf3: OUT OF ORDER - incoming packet = 15262 and received packet = 15263 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15268 and received packet = 15269 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15289 and received packet = 15290 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15326 and received packet = 15327 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15329 and received packet = 15330 AND SP = 4
[4] 5.80-5.90 sec 808 KBytes 65.7 Mbits/sec 2.222 ms 79/175 (45%)
iperf3: OUT OF ORDER - incoming packet = 15460 and received packet = 15461 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15472 and received packet = 15473 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15506 and received packet = 15507 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15521 and received packet = 15522 AND SP = 4
[4] 5.90-6.01 sec 768 KBytes 59.2 Mbits/sec 1.924 ms 21/113 (19%)
iperf3: OUT OF ORDER - incoming packet = 15543 and received packet = 15544 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15552 and received packet = 15553 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15573 and received packet = 15574 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15588 and received packet = 15589 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 15591 and received packet = 15592 AND SP = 4

[illegible]

iperf3: OUT OF ORDER - incoming packet = 16571 and received packet = 16572 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16577 and received packet = 16578 AND SP = 4
[4] 6.40-6.50 sec 1.30 MBytes 108 Mbits/sec 0.716 ms 82/222 (37%)
iperf3: OUT OF ORDER - incoming packet = 16583 and received packet = 16584 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16591 and received packet = 16593 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16592 and received packet = 16593 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16595 and received packet = 16596 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16602 and received packet = 16603 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16605 and received packet = 16606 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16608 and received packet = 16609 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16611 and received packet = 16612 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16614 and received packet = 16615 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16617 and received packet = 16618 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16672 and received packet = 16673 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16675 and received packet = 16676 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16705 and received packet = 16706 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16855 and received packet = 16856 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16907 and received packet = 16908 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16934 and received packet = 16935 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 16943 and received packet = 16944 AND SP = 4
[4] 6.50-6.60 sec 1.55 MBytes 131 Mbits/sec 0.720 ms 209/390 (54%)
iperf3: OUT OF ORDER - incoming packet = 17053 and received packet = 17054 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17071 and received packet = 17072 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17075 and received packet = 17076 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17081 and received packet = 17082 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17084 and received packet = 17085 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17090 and received packet = 17091 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17239 and received packet = 17240 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17242 and received packet = 17243 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17325 and received packet = 17326 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17718 and received packet = 17719 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17761 and received packet = 17762 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17779 and received packet = 17780 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17789 and received packet = 17790 AND SP = 4
[4] 6.60-6.70 sec 1.34 MBytes 109 Mbits/sec 3.831 ms 763/921 (83%)
iperf3: OUT OF ORDER - incoming packet = 17892 and received packet = 17893 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 17914 and received packet = 17915 AND SP = 4
[4] 6.70-6.80 sec 1.36 MBytes 114 Mbits/sec 1.830 ms 305/477 (64%)
[4] 6.80-6.90 sec 1.50 MBytes 128 Mbits/sec 1.188 ms 146/338 (43%)
[4] 6.90-7.01 sec 296 KBytes 22.5 Mbits/sec 0.615 ms 0/37 (0%)
[4] 7.01-7.11 sec 336 KBytes 26.5 Mbits/sec 3.547 ms 80/122 (66%)
[4] 7.11-7.21 sec 984 KBytes 85.2 Mbits/sec 0.644 ms 81/204 (40%)
[4] 7.21-7.31 sec 192 KBytes 15.3 Mbits/sec 2.975 ms 0/24 (0%)
iperf3: OUT OF ORDER - incoming packet = 19122 and received packet = 19123 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19223 and received packet = 19224 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19391 and received packet = 19392 AND SP = 4
[4] 7.31-7.41 sec 1.06 MBytes 91.0 Mbits/sec 1.184 ms 184/317 (58%)
[4] 7.41-7.52 sec 0.00 Bytes 0.00 Mbits/sec 1.184 ms 0/0 (0%)
iperf3: OUT OF ORDER - incoming packet = 19431 and received packet = 19432 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19437 and received packet = 19438 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19449 and received packet = 19450 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19488 and received packet = 19489 AND SP = 4
[4] 7.52-7.60 sec 904 KBytes 84.4 Mbits/sec 0.885 ms 38/147 (26%)
iperf3: OUT OF ORDER - incoming packet = 19684 and received packet = 19685 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19693 and received packet = 19694 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19702 and received packet = 19703 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19711 and received packet = 19712 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19720 and received packet = 19721 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19727 and received packet = 19728 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19748 and received packet = 19749 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19751 and received packet = 19752 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19800 and received packet = 19801 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19803 and received packet = 19804 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19845 and received packet = 19846 AND SP = 4
[4] 7.60-7.70 sec 1.42 MBytes 121 Mbits/sec 0.526 ms 136/307 (44%)
iperf3: OUT OF ORDER - incoming packet = 19873 and received packet = 19874 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19885 and received packet = 19886 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19928 and received packet = 19929 AND SP = 4
[4] 7.70-7.80 sec 320 KBytes 25.8 Mbits/sec 4.960 ms 39/76 (51%)
iperf3: OUT OF ORDER - incoming packet = 19946 and received packet = 19947 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19952 and received packet = 19953 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19958 and received packet = 19959 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 19965 and received packet = 19966 AND SP = 4

iperf3: OUT OF ORDER - incoming packet = 19986 and received packet = 19987 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20001 and received packet = 20002 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20004 and received packet = 20005 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20081 and received packet = 20082 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20087 and received packet = 20088 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20090 and received packet = 20091 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20105 and received packet = 20106 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20111 and received packet = 20112 AND SP = 4
[4] 7.80-7.90 sec 896 KBytes 73.2 Mbits/sec 0.946 ms 78/178 (44%)
iperf3: OUT OF ORDER - incoming packet = 20117 and received packet = 20118 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20120 and received packet = 20121 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20123 and received packet = 20124 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20129 and received packet = 20130 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20160 and received packet = 20161 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20166 and received packet = 20167 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20190 and received packet = 20191 AND SP = 4
[4] 7.90-8.01 sec 344 KBytes 25.7 Mbits/sec 1.490 ms 40/76 (53%)
iperf3: OUT OF ORDER - incoming packet = 20197 and received packet = 20198 AND SP = 4
[4] 8.01-8.10 sec 56.0 KBytes 5.24 Mbits/sec 7.735 ms 1/7 (14%)
iperf3: OUT OF ORDER - incoming packet = 20236 and received packet = 20237 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20245 and received packet = 20246 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20294 and received packet = 20295 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20306 and received packet = 20307 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20312 and received packet = 20313 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20334 and received packet = 20335 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20340 and received packet = 20341 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20349 and received packet = 20350 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20355 and received packet = 20356 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20364 and received packet = 20365 AND SP = 4
[4] 8.10-8.21 sec 920 KBytes 65.8 Mbits/sec 1.545 ms 65/170 (38%)
iperf3: OUT OF ORDER - incoming packet = 20392 and received packet = 20393 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20395 and received packet = 20396 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20425 and received packet = 20426 AND SP = 4
[4] 8.21-8.31 sec 416 KBytes 36.4 Mbits/sec 1.584 ms 58/107 (54%)
iperf3: OUT OF ORDER - incoming packet = 20541 and received packet = 20542 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20554 and received packet = 20555 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20593 and received packet = 20594 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20621 and received packet = 20622 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20648 and received packet = 20649 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20654 and received packet = 20655 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20676 and received packet = 20677 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20685 and received packet = 20686 AND SP = 4
[4] 8.31-8.40 sec 840 KBytes 74.7 Mbits/sec 0.751 ms 113/210 (54%)
iperf3: OUT OF ORDER - incoming packet = 20688 and received packet = 20689 AND SP = 4
[4] 8.40-8.51 sec 88.0 KBytes 6.68 Mbits/sec 0.768 ms 12/22 (55%)
iperf3: OUT OF ORDER - incoming packet = 20782 and received packet = 20783 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20825 and received packet = 20826 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20837 and received packet = 20838 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20877 and received packet = 20878 AND SP = 4
[4] 8.51-8.60 sec 720 KBytes 64.0 Mbits/sec 0.818 ms 93/179 (52%)
iperf3: OUT OF ORDER - incoming packet = 20914 and received packet = 20915 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20920 and received packet = 20921 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20932 and received packet = 20933 AND SP = 4
[4] 8.60-8.71 sec 400 KBytes 30.5 Mbits/sec 1.218 ms 6/53 (11%)
iperf3: OUT OF ORDER - incoming packet = 20950 and received packet = 20951 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20981 and received packet = 20982 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20984 and received packet = 20985 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 20996 and received packet = 20997 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21008 and received packet = 21009 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21033 and received packet = 21034 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21084 and received packet = 21085 AND SP = 4
[4] 8.71-8.80 sec 816 KBytes 71.9 Mbits/sec 0.743 ms 50/145 (34%)
iperf3: OUT OF ORDER - incoming packet = 21533 and received packet = 21534 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21545 and received packet = 21546 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21561 and received packet = 21562 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21777 and received packet = 21778 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21780 and received packet = 21781 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21802 and received packet = 21803 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21805 and received packet = 21806 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21817 and received packet = 21818 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 21832 and received packet = 21833 AND SP = 4
[4] 8.80-8.90 sec 1.18 MBytes 99.1 Mbits/sec 0.655 ms 606/748 (81%)
iperf3: OUT OF ORDER - incoming packet = 21881 and received packet = 21882 AND SP = 4

iperf3: OUT OF ORDER - incoming packet = 22265 and received packet = 22266 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22269 and received packet = 22270 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22278 and received packet = 22279 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22281 and received packet = 22282 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22287 and received packet = 22288 AND SP = 4
[4] 8.90-9.00 sec 776 KBytes 61.6 Mbits/sec 2.830 ms 431/522 (83%)
iperf3: OUT OF ORDER - incoming packet = 22354 and received packet = 22355 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22357 and received packet = 22358 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22369 and received packet = 22370 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22452 and received packet = 22453 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22461 and received packet = 22462 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22482 and received packet = 22483 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22489 and received packet = 22490 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22497 and received packet = 22498 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22500 and received packet = 22502 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22501 and received packet = 22502 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22510 and received packet = 22511 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22513 and received packet = 22514 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22516 and received packet = 22517 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22525 and received packet = 22526 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22528 and received packet = 22529 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22531 and received packet = 22532 AND SP = 4
[4] 9.00-9.10 sec 808 KBytes 68.4 Mbits/sec 6.067 ms 509/594 (86%)
iperf3: OUT OF ORDER - incoming packet = 22952 and received packet = 22953 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22955 and received packet = 22956 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22961 and received packet = 22962 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22964 and received packet = 22965 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 22983 and received packet = 22984 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23004 and received packet = 23005 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23044 and received packet = 23045 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23050 and received packet = 23051 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23053 and received packet = 23054 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23056 and received packet = 23057 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23062 and received packet = 23063 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23065 and received packet = 23066 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23072 and received packet = 23073 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23120 and received packet = 23121 AND SP = 4
[4] 9.10-9.21 sec 768 KBytes 59.5 Mbits/sec 1.389 ms 96/178 (54%)
[4] 9.21-9.31 sec 0.00 Bytes 0.00 bits/sec 1.389 ms 0/0 (0%)
iperf3: OUT OF ORDER - incoming packet = 23135 and received packet = 23136 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23224 and received packet = 23225 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23227 and received packet = 23228 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23230 and received packet = 23231 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23233 and received packet = 23234 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23236 and received packet = 23237 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23242 and received packet = 23243 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23248 and received packet = 23249 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23291 and received packet = 23292 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23294 and received packet = 23295 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23373 and received packet = 23374 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23376 and received packet = 23377 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23382 and received packet = 23383 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23389 and received packet = 23390 AND SP = 4
[4] 9.31-9.40 sec 864 KBytes 82.4 Mbits/sec 0.579 ms 186/280 (66%)
iperf3: OUT OF ORDER - incoming packet = 23410 and received packet = 23411 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23419 and received packet = 23420 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23422 and received packet = 23423 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23459 and received packet = 23460 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23462 and received packet = 23463 AND SP = 4
[4] 9.40-9.52 sec 480 KBytes 34.2 Mbits/sec 0.768 ms 5/60 (8.3%)
iperf3: OUT OF ORDER - incoming packet = 23473 and received packet = 23475 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23474 and received packet = 23475 AND SP = 4
[4] 9.52-9.61 sec 152 KBytes 13.5 Mbits/sec 5.131 ms 2/19 (11%)
iperf3: OUT OF ORDER - incoming packet = 23489 and received packet = 23491 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23499 and received packet = 23500 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23508 and received packet = 23509 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23514 and received packet = 23515 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23520 and received packet = 23521 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23569 and received packet = 23570 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23575 and received packet = 23576 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23581 and received packet = 23582 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23584 and received packet = 23585 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 23822 and received packet = 23823 AND SP = 4

[4]	9.61-9.70	sec	544 KBytes	47.6 Mbits/sec	2.628 ms	281/339 (83%)	
iperf3:	OUT OF ORDER	-	incoming packet = 23834	and received packet = 23835	AND	SP = 4	
[4]	9.70-9.80	sec	80.0 KBytes	6.60 Mbits/sec	7.516 ms	1/10 (10%)	
iperf3:	OUT OF ORDER	-	incoming packet = 23837	and received packet = 23838	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 23840	and received packet = 23841	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 23892	and received packet = 23893	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24011	and received packet = 24012	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24020	and received packet = 24021	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24033	and received packet = 24034	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24085	and received packet = 24086	AND	SP = 4	
[4]	9.80-9.91	sec	896 KBytes	63.9 Mbits/sec	2.096 ms	298/403 (74%)	
iperf3:	OUT OF ORDER	-	incoming packet = 24246	and received packet = 24247	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24252	and received packet = 24253	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24835	and received packet = 24836	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24847	and received packet = 24848	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24853	and received packet = 24854	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 24866	and received packet = 24867	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25000	and received packet = 25001	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25006	and received packet = 25007	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25009	and received packet = 25010	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25012	and received packet = 25013	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25015	and received packet = 25016	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25079	and received packet = 25080	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25314	and received packet = 25315	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25433	and received packet = 25434	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25442	and received packet = 25443	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25461	and received packet = 25462	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25497	and received packet = 25498	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25501	and received packet = 25502	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25506	and received packet = 25507	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25619	and received packet = 25620	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25656	and received packet = 25657	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 25662	and received packet = 25663	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26062	and received packet = 26063	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26126	and received packet = 26127	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26236	and received packet = 26237	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26369	and received packet = 26371	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26370	and received packet = 26371	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26386	and received packet = 26387	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26709	and received packet = 26710	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26715	and received packet = 26716	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26718	and received packet = 26719	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26733	and received packet = 26734	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26736	and received packet = 26737	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26785	and received packet = 26786	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26791	and received packet = 26792	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26794	and received packet = 26795	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26803	and received packet = 26805	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26804	and received packet = 26805	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26813	and received packet = 26814	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26819	and received packet = 26820	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26822	and received packet = 26823	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26831	and received packet = 26832	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26837	and received packet = 26838	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26846	and received packet = 26847	AND	SP = 4	
iperf3:	OUT OF ORDER	-	incoming packet = 26855	and received packet = 2685			

iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27060	and	received	packet	=	27061	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27066	and	received	packet	=	27067	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27106	and	received	packet	=	27107	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27109	and	received	packet	=	27110	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27112	and	received	packet	=	27113	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27118	and	received	packet	=	27119	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27133	and	received	packet	=	27134	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27136	and	received	packet	=	27137	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27142	and	received	packet	=	27143	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27145	and	received	packet	=	27146	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27158	and	received	packet	=	27159	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27160	and	received	packet	=	27162	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27161	and	received	packet	=	27162	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27167	and	received	packet	=	27168	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27191	and	received	packet	=	27192	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27194	and	received	packet	=	27195	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27197	and	received	packet	=	27198	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27203	and	received	packet	=	27204	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27219	and	received	packet	=	27220	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27362	and	received	packet	=	27363	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27365	and	received	packet	=	27366	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27368	and	received	packet	=	27369	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27383	and	received	packet	=	27384	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27389	and	received	packet	=	27390	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27393	and	received	packet	=	27394	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27399	and	received	packet	=	27400	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27402	and	received	packet	=	27403	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27609	and	received	packet	=	27610	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27688	and	received	packet	=	27689	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27774	and	received	packet	=	27775	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27786	and	received	packet	=	27787	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27841	and	received	packet	=	27842	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27844	and	received	packet	=	27845	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27847	and	received	packet	=	27848	AND	SP	=	4
iperf3:	OUT	OF	ORDER	-	incoming	packet	=	27850	and	received	packet	=					

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iperf3: OUT OF ORDER - incoming packet = 30707 and received packet = 30708 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 30710 and received packet = 30711 AND SP = 4
iperf3: OUT OF ORDER - incoming packet = 30713 and received packet = 30714 AND SP = 4
[ 4]  9.91-10.00 sec  80.0 KBytes  7.68 Mbits/sec  5.716 ms  1/10 (10%)
- - - - -
[ ID] Interval      Transfer    Bandwidth    Jitter    Lost/Total Datagrams
[ 4]  0.00-10.00 sec  240 MBytes  201 Mbits/sec  0.573 ms  16787/30729 (55%)
[ 4] Sent 30729 datagrams
[SUM] 0.0-10.0 sec  1089 datagrams received out-of-order

iperf Done.

```

After 3 seconds the speed of TCP slowed down significantly and there was a lot of disorder in the UDP transmission. Since TCP has traffic control, even though UDP slows it down, TCP consumes most of the bandwidth.