

חלק C ובונוס

תז: 322453689, 325511541

*המערכת רצתה על IPV4

(1)

מהתוצאות הנראות למטה, ניתן לראות שreno נתן תוצאות טובות יותר מאשר מדבר על איבוד נתונים נמוך (192 בעוד סביבה 260ubic). אבל כאשר הגדרנו 10% rno נאלץ לשולח 327 חבילות בעוד cubic רק 246. لكن לאיבוד קטן נרצה להשתמש בreno בעוד בגודל יותר בcubic

(2)

RUDP רץ זמן ארוך יותר מאשר TCP. על כן TCP יעיל יותר גם כשמדבר באחוז איבוד חבילות גדול.

(3)

בהתחשב במהירות RUDP שבשו אחוז איבוד פאקטו לא מתעללה על TCP, אנו לא רואים שימוש לTCP בו הוא יהיה מועדף علينا.

שאלות בונוס:

(1)

הוא ייעיל במידה המרבית במקרה של קשר ארוך בראשת אמונה עם RTT קטן שכן איבוד פאקטו עם כל מدد אחר יהיה נפוץ יותר ובכך הוא ירד חזרה במהירות כל פעם. ראשית לא אמונה, RTT גדול מעליים את הסיכוי לאיבוד. הקשר קצר יש צורך מופחת להגעה לשיליחה הבוטחת המרבית שכן יסגר בקרוב בעוד באורך זהה תהיה גישה יעילה להמשך הקשר.

(2)

בכל שליחה אנו מכפילים את הגודל עד לאיבוד מידע. משום שאין איבוד מידע יהיו log בסיס 2 של S וכל אחד יירוץ בRTT 1. התפקיד תהיה גודל החלון כפול כמהות הנשלחים חלק הזמן ועל כן התשובה הראשונה

(3)

ספרת הביקורת של שניינו היא 3 קלומר גודל חבילה הוא 3Kbyte. זמן השהייה הוא 0.0005 שניות, זמן העברת כל חבילה הוא 0.000003. RTT הוא 0.000003 ועוד פעמיים 0.0005 סהכ 0.001003. Window size = 501.5

על חלק A:

בכל הוריאציות ישנו דפוס חוזר:

לחמש שליחות מידע חוזרת יננה עליה באיבוד הפאקטים במקביל לירידה ב מהירות הקוד כל שאמו מעלים את אחוז loss. כלומר 0 הוא המהיר ביותר ובעל מספר האיבודים הקטן ביותר בעוד 10% הוא האיטי ביותר עם מספר האיבודים הגדל יותר חשוב לציין שכי שנראה גם עם 0% PL בהגדלה, אנו רואים מספר פאקטות שונות שנשלח בין כמה ניסיונות ועל כן אפשר להסיק שעדיין הוא איבוד פאקטות שהתוכנה פיצטה עליו.

Reno -> Reno

0%

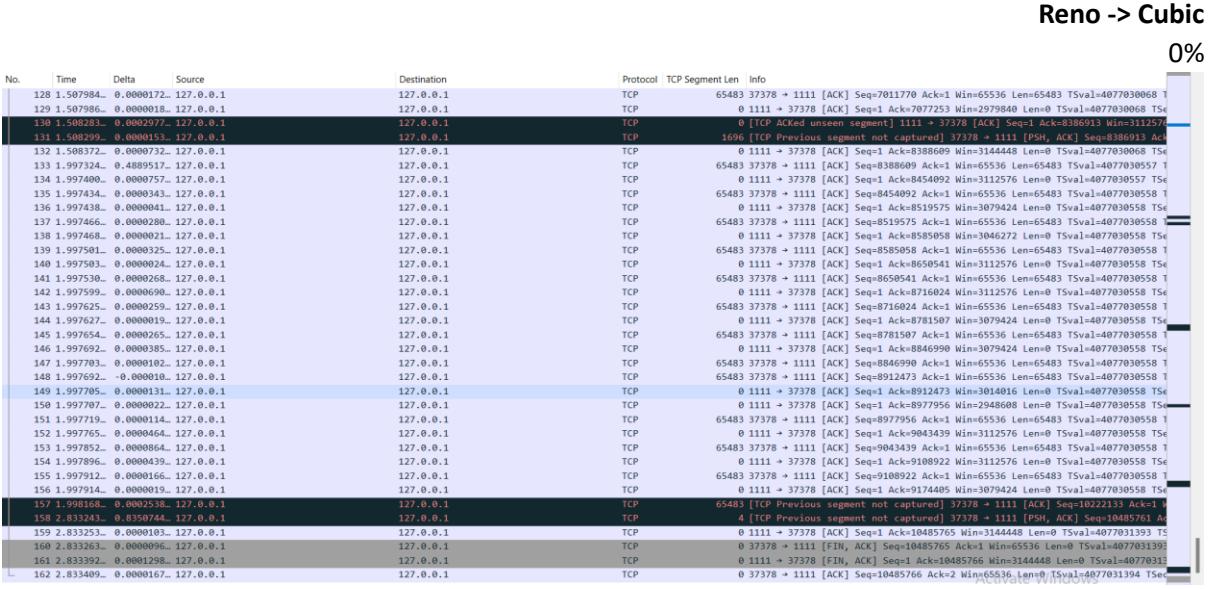
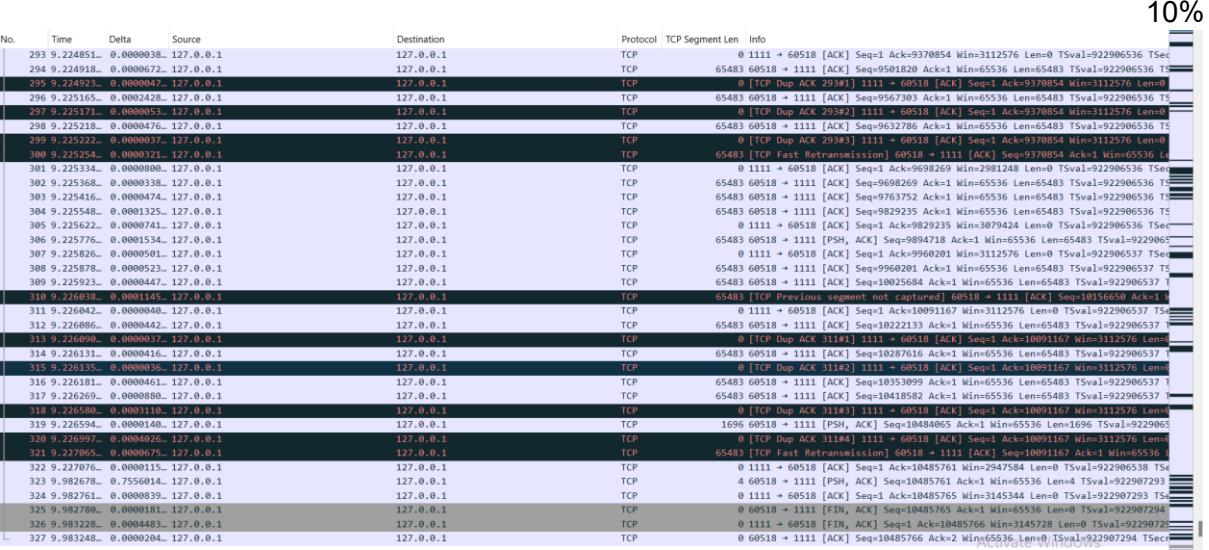
No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
162	1.242433..	0.0000278..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8321430 Ack=1 Win=65536 Len=65483 Tsv=922979230 TS	
163	1.242448..	0.0000149..	127.0.0.1	127.0.0.1	TCP	1696 54634 + 1111 [PSH, ACK] Seq=8386913 Ack=1 Win=65536 Len=1696 Tsv=92297923	
164	1.242461..	0.0000128..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=8388609 Win=3143168 Len=0 Tsv=922979230 Tsc	
165	1.467451..	0.0429901..	127.0.0.1	224.0.0.251	MDNS	Standard query 0x0000 PTR _ftp._tcp.local. "Q" question PTR _nfs._tcp.loca	
166	2.034543..	0.0570915..	127.0.0.1	127.0.0.1	TCP	65483 54634.. [ACK] Seq=93839973 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
167	2.034553..	0.00000105..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=1 Ack=8454092 Win=3112576 Len=0 Tsv=922979840 Tsc	
168	2.034557..	0.00000231..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8454096 Win=3079424 Len=0 Tsv=922979840 TS	
169	2.034579..	0.0000022..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=1 Ack=8519575 Win=3079424 Len=0 Tsv=922979840 Tsc	
170	2.034602..	0.0000029..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8519575 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
171	2.034603..	0.0000016..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=1 Ack=8585058 Win=3112576 Len=0 Tsv=922979840 Tsc	
172	2.034627..	0.00000234..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8585058 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
173	2.034674..	0.0000472..	127.0.0.1	127.0.0.1	TCP	0 [1111 + 54633] [ACK] Seq=85850541 Ack=1 Win=3112576 Len=0 Tsv=922979840 Tsc	
174	2.034696..	0.00000238..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8650546 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
175	2.034700..	0.0000025..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=1 Ack=8716024 Win=3079424 Len=0 Tsv=922979840 Tsc	
176	2.034723..	0.0000021..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Len=0 Tsv=922979840 TS	
177	2.034724..	0.0000015..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=1 Ack=8716027 Win=3079424 Len=0 Tsv=922979840 Tsc	
178	2.034734..	0.00000245..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8716027 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
179	2.034751..	0.00000105..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=1 Ack=8846990 Win=3112576 Len=0 Tsv=922979840 Tsc	
180	2.034776..	0.00000250..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8846990 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
181	2.034817..	0.0000018..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=1 Ack=8912473 Win=3112576 Len=0 Tsv=922979840 Tsc	
182	2.034842..	0.00000254..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
183	2.034844..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=1 Ack=8977956 Win=3079424 Len=0 Tsv=922979840 Tsc	
184	2.034869..	0.00000247..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=8977956 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
185	2.034903..	0.0000033..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsv=922979840 Tsc	
186	2.035085..	0.00001026..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
187	2.035088..	0.00000029..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [ACK] Seq=9043439 Ack=1 Win=3079808 Len=0 Tsv=922979840 Tsc	
188	2.035092..	0.00000152..	127.0.0.1	127.0.0.1	TCP	65483 54634 + 1111 [ACK] Seq=9108922 Ack=1 Win=65536 Len=65483 Tsv=922979840 TS	
189	2.035095..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=9108922 Ack=1 Win=3047168 Len=0 Tsv=922979840 Tsc	
190	2.035193..	0.00000167..	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKED unseen segment] 1111 + 54633 [ACK] Seq=1 Ack=9843918 Win=3112576	
191	2.035221..	0.0000010..	127.0.0.1	127.0.0.1	TCP	65483 [TCP Previous segment not captured] 54634 + 1111 [PSH, ACK] Seq=9843918 Ack=1	
192	2.817542..	0.7873209..	127.0.0.1	127.0.0.1	TCP	4 [TCP Previous segment not captured] 54634 + 1111 [PSH, ACK] Seq=9845761 Ack=1	
193	2.817625..	0.0000083..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54633 [ACK] Seq=10485765 Win=3143164 Len=0 Tsv=922980623 Tsc	
194	2.817644..	0.00000186..	127.0.0.1	127.0.0.1	TCP	0 54634 + 1111 [FIN, ACK] Seq=10485765 Ack=1 Win=65536 Len=0 Tsv=922980623	
195	2.817992..	0.00003477..	127.0.0.1	127.0.0.1	TCP	0 1111 + 54634 [FIN, ACK] Seq=1 Ack=10485766 Len=0 Tsv=922980623 Tsc	
196	2.818013..	0.00000212..	127.0.0.1	127.0.0.1	TCP	0 54634 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsv=922980623 Tsc	

2%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
230	2.418691..	0.00000134..	127.0.0.1	127.0.0.1	TCP	65483 48360 + 1111 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
231	2.418693..	0.0000024..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=1 Ack=9108922 Win=2815744 Len=0 Tsv=923019642 Tsc	
232	2.418700..	0.0000015..	127.0.0.1	127.0.0.1	TCP	65483 48360 + 1111 [ACK] Seq=9108922 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
233	2.419727..	0.00000105..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=91474095 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
234	2.419728..	0.0000016..	127.0.0.1	127.0.0.1	TCP	65483 48360 + 1111 [ACK] Seq=92398888 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
235	2.419750..	0.0000021..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=92398888 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
236	2.419752..	0.00000023..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=92398888 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
237	2.419767..	0.00000151..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9305371 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
238	2.419769..	0.00000017..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9370854 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
239	2.419785..	0.00000157..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9370854 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
240	2.419787..	0.00000017..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
241	2.419813..	0.00000268..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
242	2.419846..	0.00000324..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=9518280 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
243	2.419866..	0.00000201..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=956730 Ack=1 Win=65536 Len=65483 Tsv=923019642 TS	
244	2.419895..	0.00000488..	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 48360 + 1111 [ACK] Seq=9763752 Ack=1	
245	2.419260..	0.00003451..	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKED unseen segment] 1111 + 48360 [ACK] Seq=1 Ack=9960281 Win=3144448	
246	2.419300..	0.00000045..	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 48360 + 1111 [ACK] Seq=1 Ack=9960281 Win=3144448	
247	2.419320..	0.0000045..	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 48360 + 1111 [ACK] Seq=1 Ack=9960281 Win=3144448	
248	2.419337..	0.00000073..	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 48360 + 1111 [ACK] Seq=10222133 Ack=1 Win=65536 Len=65483 Tsv=923019643 T	
249	2.419371..	0.00003933..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10237131 Ack=1 Win=65536 Len=65483 Tsv=923019643 T	
250	2.422753..	0.00000217..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10387616 Ack=1 Win=65536 Len=65483 Tsv=923019643 T	
251	2.422784..	0.00000312..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10418582 Ack=1 Win=65536 Len=65483 Tsv=923019643 T	
252	2.422785..	0.00000096..	127.0.0.1	127.0.0.1	TCP	1696 48360 + 1111 [PSH, ACK] Seq=10484965 Ack=1 Win=65536 Len=1696 Tsv=923019643 T	
253	2.422806..	0.00000217..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485154 Ack=1 Win=3015946 Len=0 Tsv=923019646 Tsc	
254	2.422823..	0.00000168..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485160 Ack=1 Win=3144448 Len=0	
255	2.422827..	0.00000034..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485160 Ack=1 Win=3144448 Len=0	
256	2.422862..	0.000000358..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485160 Ack=1 Win=3144448 Len=0	
257	2.422931..	0.00000688..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=104991167 Ack=1 Win=65536 Len=65483 Tsv=923020163	
258	2.422955..	0.00000036..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=104991167 Ack=1 Win=65536 Len=65483 Tsv=923020163	
259	2.422958..	0.00000031..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=104991167 Ack=1 Win=2619088 Len=0 Tsv=923019646 Tsc	
260	2.359960..	0.5170018..	127.0.0.1	127.0.0.1	TCP	4 48360 + 1111 [PSH, ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsv=923020163	
261	2.359978..	0.00000081..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsv=923020163	
262	2.359993..	0.000000145..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsv=923020163	
263	2.364036..	0.00000362..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsv=923020163	
264	2.364082..	0.000000207..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48360 [ACK] Seq=10485761 Ack=2 Win=65536 Len=0 Tsv=923020164 Tsc	

5%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
173	2.444632...	0.0000284...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
174	2.444635...	0.0000033...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8519575 Win=397244092 Len=0 Tsvl=923089146 Tsvr=923089146
175	2.444636...	0.0000033...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8519575 Win=397244092 Len=0 Tsvl=923089146 Tsvr=923089146
176	2.444710...	0.0000555...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8508598 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
177	2.444758...	0.0000427...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8508598 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
178	2.444759...	0.0000017...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8650541 Win=3112576 Len=0 Tsvl=923089146 Tsvr=923089146
179	2.444784...	0.0000924...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8650541 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
180	2.444786...	0.0000802...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8716624 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
181	2.444811...	0.0000016...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8716624 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
182	2.444811...	0.0000016...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8716624 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
183	2.444838...	0.0000802...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8781597 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
184	2.444839...	0.0000016...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8864699 Win=3012992 Len=0 Tsvl=923089146 Tsvr=923089146
185	2.444866...	0.0000926...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8864699 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
186	2.444883...	0.0000017...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8977596 Win=3014019 Len=0 Tsvl=923089146 Tsvr=923089146
187	2.444918...	0.0000908...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8912473 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
188	2.444923...	0.0000053...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8977596 Win=3014019 Len=0 Tsvl=923089146 Tsvr=923089146
189	2.445001...	0.0000807...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8977596 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
190	2.445164...	0.0001612...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8940343 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
191	2.445165...	0.0000017...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=8940343 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
192	2.445221...	0.0000070...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8940343 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
193	2.445223...	0.0000080...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=9174489 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
194	2.445232...	0.0000013...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=9174489 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
195	2.445239...	0.0000019...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=923988627 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
196	2.445240...	0.0000019...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=923988627 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
197	2.445551...	0.0000875...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [ACK] Seq=8957315 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
198	2.445551...	0.0000271...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [PSH] ACK Seq=8957317 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
199	2.445772...	0.0001474...	127.0.0.1	127.0.0.1	TCP	65483	[TCP Retransmission] 44396 -> 1111 [ACK] Seq=9365571 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
200	2.445815...	0.0000924...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=9960291 Win=3815784 Len=0 Tsvl=923089146 Tsvr=923089146
201	2.445838...	0.0000024...	127.0.0.1	127.0.0.1	TCP	65483	[TCP Previous segment not captured] 44396 -> 1111 [ACK] Seq=108258648 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
202	2.445838...	0.0000024...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=108258648 Win=3979424092 Len=0 Tsvl=923089146 Tsvr=923089146
203	2.445871...	0.271114...	127.0.0.1	127.0.0.1	TCP	65483	[TCP Previous segment not captured] 44396 -> 1111 [PSH] ACK Seq=108457661 Ack=1 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146
204	3.168037...	0.0000804...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [ACK] Seq=1 Ack=108457653 Win=3112576 Len=0 Tsvl=923089146 Tsvr=923089146
205	3.168095...	0.0000804...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [PSH] ACK Seq=1 Ack=108457653 Win=3112576 Len=0 Tsvl=923089146 Tsvr=923089146
206	3.168498...	0.0000405...	127.0.0.1	127.0.0.1	TCP	65483	0 1111 -> 44396 [PSH] ACK Seq=1 Ack=108457660 Win=3112576 Len=0 Tsvl=923089146 Tsvr=923089146
207	3.168475...	0.0001609...	127.0.0.1	127.0.0.1	TCP	65483	44396 -> 1111 [PSH] ACK Seq=108457666 Ack=2 Win=65536 Len=65483 Tsvl=923089146 Tsvr=923089146



No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
209	2.263894...	0.0000027...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8585058 Win=3046272 Len=0 Tsv=4077096988 T	
210	2.263927...	0.00000325...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=8585058 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
211	2.263930...	0.0000031...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8650541 Win=3012992 Len=0 Tsv=4077096988 T	
212	2.263959...	0.00000289...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=8650541 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
213	2.264083...	0.00001240...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8716024 Win=3079424 Len=0 Tsv=4077096988 T	
214	2.264106...	0.0000028...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
215	2.264013...	0.0000092...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8781507 Win=3014016 Len=0 Tsv=4077096988 T	
216	2.264110...	0.00000958...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8846998 Win=2948088 Len=0 Tsv=4077096988 T	
217	2.264113...	0.0000027...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8846998 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
218	2.264052...	0.0000056...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8846998 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
219	2.264119...	0.0000067...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8912473 Win=3112576 Len=0 Tsv=4077096988 T	
220	2.264159...	0.00000406...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8912473 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
221	2.264163...	0.0000034...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8977956 Win=3079424 Len=0 Tsv=4077096988 T	
222	2.264197...	0.00000345...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=8977956 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
223	2.264200...	0.0000031...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9043439 Win=3112576 Len=0 Tsv=4077096988 T	
224	2.264308...	0.0000107...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9043439 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
225	2.264313...	0.0000047...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9108922 Win=3112576 Len=0 Tsv=4077096988 T	
226	2.264335...	0.0000025...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9108922 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
227	2.264338...	0.0000024...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9174405 Win=3079424 Len=0 Tsv=4077096988 T	
228	2.264359...	0.00000215...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9174405 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
229	2.264362...	0.0000023...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=9239888 Win=3046272 Len=0 Tsv=4077096988 T	
230	2.264504...	0.00001420...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 54220 → 1111 [ACK] Seq=9829235 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
231	2.264560...	0.00000560...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 54220 → 1111 [PSH, ACK] Seq=9960201 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
232	2.264710...	0.00001504...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=1 Ack=10025681 Win=3144448 Len=0 Tsv=4077096988 T	
233	2.264679...	0.0000030...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=10025684 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
234	2.264765...	0.00001504...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=10091167 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
235	2.264786...	0.00000209...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=10156656 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
236	2.264804...	0.00000178...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=10222133 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
237	2.264829...	0.00000255...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=10287616 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
238	2.264849...	0.00000202...	127.0.0.1	127.0.0.1	TCP	56483 54220 → 1111 [ACK] Seq=103530999 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
239	2.744912...	0.4880626...	127.0.0.1	127.0.0.1	TCP	4 [TCP Previous segment not captured] 54220 → 1111 [PSH, ACK] Seq=10485761 Ack=1 Win=65536 Len=65483 Tsv=4077096988 T	
240	2.745011...	0.00000953...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [ACK] Seq=10485765 Win=3144448 Len=0 Tsv=4077096988 T	
241	2.745029...	0.00000177...	127.0.0.1	127.0.0.1	TCP	0 54220 → 1111 [PSH, ACK] Seq=10485765 Ack=1 Win=65536 Len=0 Tsv=4077096988 T	
242	2.745363...	0.0000334...	127.0.0.1	127.0.0.1	TCP	0 1111 → 54220 [FIN, ACK] Seq=1 Ack=10485766 Win=3144448 Len=0 Tsv=4077096988 T	
243	2.745432...	0.00000689...	127.0.0.1	127.0.0.1	TCP	0 54220 → 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsv=4077096988 T	

5%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
209	1.990788...	0.00000287...	127.0.0.1	127.0.0.1	TCP	65483 43612 → 1111 [ACK] Seq=8650451 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
210	1.990790...	0.0000003...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK#2] 1111 → 43612 [ACK] Seq=8719579 Win=3079424 Len=0	
211	1.990815...	0.00000246...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Tsv=4077139490 T	
212	1.990817...	0.0000025...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK#3] 1111 → 43612 [ACK] Seq=8719579 Win=3079424 Len=0	
213	1.990967...	0.0000150...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8719579 Ack=1 Win=65536 Tsv=4077139490 T	
214	1.990970...	0.0000177...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK#4] 1111 → 43612 [ACK] Seq=8719579 Win=3079424 Len=0	
215	1.990988...	0.0000017...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8846996 Ack=1 Win=65536 Tsv=4077139490 T	
216	1.991014...	0.0000017...	127.0.0.1	127.0.0.1	TCP	0 [TCP Retransmission] 43612 → 1111 [ACK] Seq=8719579 Ack=1 Win=65536 Tsv=4077139490 T	
217	1.991018...	0.0000040...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=1 Ack=8912473 Win=2946688 Len=0 Tsv=4077139490 T	
218	1.991040...	0.00000214...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
219	1.991042...	0.0000032...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=8977959 Win=2913408 Len=0 Tsv=4077139490 T	
220	1.991063...	0.0000026...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
221	1.991065...	0.0000030...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=8977959 Ack=1 Win=65536 Len=0 Tsv=4077139490 T	
222	1.991079...	0.00000136...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
223	1.991081...	0.0000020...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
224	1.991100...	0.0000018...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
225	1.991102...	0.00000203...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
226	1.991113...	0.00000517...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=8977959 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
227	1.991121...	0.00000018...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=1 Ack=8912473 Win=2781568 Len=0 Tsv=4077139490 T	
228	1.991167...	0.00000461...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 43612 → 1111 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
229	1.991216...	0.00000487...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 43612 → 1111 [ACK] Seq=9567393 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
230	1.991339...	0.0000035...	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKed unseen segment] 1111 → 43612 [ACK] Seq=1 Ack=9763752 Win=3145728	
231	1.991462...	0.00000644...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 43612 → 1111 [ACK] Seq=9763752 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
232	1.991564...	0.00000102...	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKed unseen segment] 1111 → 43612 [ACK] Seq=1 Ack=10287616 Win=262288	
233	1.991584...	0.00000198...	127.0.0.1	127.0.0.1	TCP	56483 [TCP Previous segment not captured] 43612 → 1111 [ACK] Seq=103530999 Ack=1 Win=65536 Len=65483 Tsv=4077139490 T	
234	1.991636...	0.00000517...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=1 Ack=10415852 Win=3145728 Len=0 Tsv=4077139491 T	
235	1.991639...	0.00000305...	127.0.0.1	127.0.0.1	TCP	1696 [TCP Previous segment not captured] 43612 → 1111 [PSH, ACK] Seq=10484065 Ack=1 Win=65536 Len=65483 Tsv=4077139491 T	
236	1.991642...	0.0000022...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK#1] 1111 → 43612 [ACK] Seq=10415852 Win=3145728 Len=0	
237	1.991661...	0.00000192...	127.0.0.1	127.0.0.1	TCP	56483 43612 → 1111 [ACK] Seq=104158522 Win=3145728 Len=0 Tsv=4077139491 T	
238	2.505426...	0.5137625...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=10485761 Win=3079424 Len=0 Tsv=4076393998 T	
239	2.505426...	0.5137625...	127.0.0.1	127.0.0.1	TCP	4 43612 → 1111 [PSH, ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsv=4076393998 T	
240	2.505521...	0.0000167...	127.0.0.1	127.0.0.1	TCP	0 1111 → 43612 [ACK] Seq=10485763 Win=3145344 Len=0 Tsv=4077140005 T	
241	2.505521...	0.0000167...	127.0.0.1	127.0.0.1	TCP	4 43612 → 1111 [PSH, ACK] Seq=10485763 Ack=1 Win=65536 Len=4 Tsv=4077140005 T	
242	2.505664...	0.00000258...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485766 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
243	2.505666...	0.00000020...	127.0.0.1	127.0.0.1	TCP	1696 60516 → 1111 [PSH, ACK] Seq=10485766 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
244	2.505671...	0.00000049...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485767 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
245	2.505681...	0.00000004...	127.0.0.1	127.0.0.1	TCP	1696 60516 → 1111 [ACK] Seq=10485768 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
246	2.505681...	0.00000075...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485769 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
247	2.505681...	0.00000020...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485769 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
248	2.505681...	0.00000073...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485769 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
249	2.505681...	0.00000157...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485769 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
250	2.505681...	0.378872...	127.0.0.1	127.0.0.1	TCP	0 1111 → 60516 [ACK] Seq=10485769 Ack=1 Win=65536 Len=65483 Tsv=4076393995 T	
251	2.505681...	0.00000					

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
231	2.301697..	0.0000283..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=914405 Ack=1 Win=65536 Len=65483 Tsvl=4077565721 T	
232	2.301699..	0.0000097..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=9239888 Win=3046272 Len=0 Tsvl=4077565721 Tse	
233	2.301723..	0.0000246..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9239888 Ack=1 Win=65536 Len=65483 Tsvl=4077565721 T	
234	2.301749..	0.0000253..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9305371 Ack=1 Win=65536 Len=65483 Tsvl=4077565721 T	
235	2.301785..	0.0000359..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=9305371 Win=3079424 Len=0 Tsvl=4077565721 Tse	
236	2.301820..	0.0000352..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9346337 Ack=1 Win=65536 Len=65483 Tsvl=4077565721 T	
237	2.301968..	0.0001477..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsvl=4077565721 T	
238	2.301971..	0.0000093..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=9370854 Win=3014016 Len=0 Tsvl=4077565721 Tse	
239	2.301973..	0.0000016..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=9436337 Win=3112576 Len=0 Tsvl=4077565721 Tse	
240	2.302097..	0.0000343..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9501820 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
241	2.302034..	0.0000272..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9567303 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
242	2.302060..	0.0000258..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9632786 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
243	2.302090..	0.0000308..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9698269 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
244	2.302122..	0.0000318..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9763752 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
245	2.302158..	0.0000360..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9829235 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
246	2.302225..	0.0000672..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=9829235 Win=3144448 Len=0 Tsvl=4077565722 Tse	
247	2.302256..	0.0000303..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=9849718 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
248	2.302284..	0.0000283..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [PSK ACK] Seq=9960920 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
249	2.302309..	0.0000250..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10025684 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
250	2.302336..	0.0000274..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=1009167 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
251	2.302397..	0.0000669..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=10091167 Len=3144448 Tsvl=4077565722 TS	
252	2.302431..	0.0000341..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10156650 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
253	2.302463..	0.0000310..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10222333 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
254	2.302502..	0.0000393..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10287161 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
255	2.302562..	0.0000559..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=10287610 Len=3144448 Tsvl=4077565722 TS	
256	2.302597..	0.0000356..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10353099 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
257	2.302634..	0.0000368..	127.0.0.1	127.0.0.1	TCP	65483 58170 + 1111 [ACK] Seq=10418582 Ack=1 Win=65536 Len=65483 Tsvl=4077565722 T	
258	2.302688..	0.0000531..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=10484065 Win=3144448 Len=0 Tsvl=4077565722 TS	
259	2.302825..	0.00001378..	127.0.0.1	127.0.0.1	TCP	1696 58170 + 1111 [PSK ACK] Seq=10484065 Ack=1 Win=65536 Len=1696 Tsvl=4077565722 T	
260	2.302836..	0.0000103..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=10485761 Win=3144448 Len=0 Tsvl=4077565722 TS	
261	2.979555..	0.6767190..	127.0.0.1	127.0.0.1	TCP	4 58170 + 1111 [PSK ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsvl=4077566396 T	
262	2.979566..	0.0000109..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [ACK] Seq=1 Ack=10485761 Win=3144448 Len=0 Tsvl=4077566399 T	
263	2.979577..	0.0000110..	127.0.0.1	127.0.0.1	TCP	0 58170 + 1111 [FIN, ACK] Seq=10485765 Ack=1 Win=65536 Len=0 Tsvl=4077566399 Tse	
264	2.980234..	0.0000570..	127.0.0.1	127.0.0.1	TCP	0 1111 + 58170 [FIN, ACK] Seq=1 Ack=10485766 Win=3144448 Len=0 Tsvl=4077566400 Tsec	
265	2.980255..	0.0000208..	127.0.0.1	127.0.0.1	TCP	0 58170 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsvl=4077566400 Tsec	

2%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
235	1.838035..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35994 [ACK] Seq=1 Ack=8585095 Win=3046272 Len=0 Tsvl=4077600894 Tse	
236	1.838061..	0.0000021..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=8595096 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
237	1.838063..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=8605041 Win=3012592 Len=0 Tsvl=4077600894 Tse	
238	1.838096..	0.0000021..	127.0.0.1	127.0.0.1	TCP	65483 359945 + 1111 [ACK] Seq=8605041 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
239	1.838096..	0.0000021..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=8716024 Win=2979648 Len=0 Tsvl=4077600894 Tse	
240	1.838116..	0.0000021..	127.0.0.1	127.0.0.1	TCP	65483 359945 + 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
241	1.838118..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=871597 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
242	1.838148..	0.0000020..	127.0.0.1	127.0.0.1	TCP	65483 359946 + 1111 [ACK] Seq=871597 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
243	1.838150..	0.0000021..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=8846998 Win=2913408 Len=0 Tsvl=4077600894 Tse	
244	1.838181..	0.0000032..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=8846998 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
245	1.838183..	0.0000021..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=8912473 Win=288056 Len=0 Tsvl=4077600894 Tse	
246	1.838209..	0.0000026..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
247	1.838211..	0.0000021..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=8977956 Win=2847104 Len=0 Tsvl=4077600894 Tse	
248	1.838240..	0.0000028..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=8977956 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
249	1.838242..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=9043439 Win=2813952 Len=0 Tsvl=4077600894 Tse	
250	1.838345..	0.0000102..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
251	1.838348..	0.0000033..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=9108922 Win=2718184 Len=0 Tsvl=4077600894 Tse	
252	1.838367..	0.0000018..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=9108922 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
253	1.838369..	0.0000020..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=9174405 Win=2748416 Len=0 Tsvl=4077600894 Tse	
254	1.838384..	0.0000018..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=9174405 Ack=1 Win=65536 Len=65483 Tsvl=4077600894 T	
255	1.838385..	0.0000018..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35995 [ACK] Seq=1 Ack=9239888 Win=2715048 Len=0 Tsvl=4077600894 Tse	
256	1.838434..	0.0000043..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [TCP Previous segment not captured] 35994 + 1111 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
257	1.838492..	0.0000057..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [TCP Previous segment not captured] 35994 + 1111 [ACK] Seq=9567301 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
258	1.838624..	0.0000132..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [TCP Previous segment not captured] 35994 + 1111 [ACK] Seq=10025682 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
259	1.838675..	0.0000059..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [TCP Previous segment not captured] 35994 + 1111 [ACK] Seq=10156631 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
260	1.839094..	0.00004245..	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKed unseen segment] 1111 + 35994 [ACK] Seq=1 Ack=994718 Win=2880562 T	
261	2.183947..	0.0000074..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=10287616 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
262	1.839153..	0.0000060..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=10353094 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
263	1.839162..	0.0000085..	127.0.0.1	127.0.0.1	TCP	65483 35994 + 1111 [ACK] Seq=10418582 Ack=1 Win=65536 Len=65483 Tsvl=4077600895 T	
264	1.839162..	0.0000095..	127.0.0.1	127.0.0.1	TCP	1696 35994 + 1111 [PSH ACK] Seq=10418495 Ack=1 Win=65536 Len=1696 Tsvl=4077600895 T	
265	1.839262..	0.0000101..	127.0.0.1	127.0.0.1	TCP	0 1111 + 35994 [ACK] Seq=10485761 Ack=1 Win=65536 Len=4 Tsvl=407761421 T	
266	2.363561..	0.00005282..	127.0.0.1	127.0.0.1	TCP	0 35994 + 1111 [ACK] Seq=10485761 Ack=1 Win=65536 Len=0 Tsvl=407761421 T	
267	2.363581..	0.0000091..	127.0.0.1	127.0.0.1	TCP	0 35994 + 1111 [FIN, ACK] Seq=10485765 Ack=1 Win=65536 Len=0 Tsvl=407761421 T	
268	2.363593..	0.0000357..	127.0.0.1	127.0.0.1	TCP	0 35994 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsvl=407761421 Tse	
269	2.365557..	0.00000177..	127.0.0.1	127.0.0.1	TCP	0 35994 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsvl=407761421 Tse	

5%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
136	2.055625..	0.0000681..	127.0.0.1	127.0.0.1	TCP	0 1111 + 48754 [ACK] Seq=1 Ack=8846990 Win=3112576 Len=0 Tsvl=4077635620 Tse	
137	2.055626..	0.0000372..	127.0.0.1	127.0.0.1	TCP	65483 48754 + 1111 [ACK] Seq=8846990 Ack=1 Win=65536 Len=65483 Tsvl=4077635620 T	
138	2.055705..	0.00000					

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
212	2.097472..	0.0000123..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 20#8] 1111 → 35928 [ACK] Seq=1 Ack=8388609 Win=3145728 Len=0
213	2.097531..	0.0000580..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8388598 Ack=1 Win=65536 Len=65483 Tsva=40751975981
214	2.097534..	0.0000032..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 20#8] 1111 → 35928 [ACK] Seq=1 Ack=8388609 Win=3145728 Len=0
215	2.097584..	0.0000501..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8385041 Ack=1 Win=65536 Len=65483 Tsva=40751975981
216	2.097681..	0.0000974..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8716027 Ack=1 Win=65536 Len=65483 Tsva=40751975981
217	2.097749..	0.0000672..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8781507 Ack=1 Win=65536 Len=65483 Tsva=40751975981
218	2.098078..	0.0003288..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 20#8] 1111 → 35928 [ACK] Seq=1 Ack=8388609 Win=3145728 Len=0
219	2.098262..	0.00001846..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8486995 Ack=1 Win=65536 Len=65483 Tsva=40751975981
220	2.098350..	0.0000087..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=40751975981
221	2.098398..	0.0000487..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=897795 Ack=1 Win=65536 Len=65483 Tsva=40751975981
222	2.099237..	0.0000389..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 20#8] 1111 → 35928 [ACK] Seq=1 Ack=8388609 Win=3145728 Len=0
223	2.099381..	0.00001434..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Fast Retransmission] 35928 + 1111 [ACK] Seq=8388609 Ack=1 Win=65536 Len=65483 Tsva=40751975981
224	2.099461..	0.0000085..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Previous segment not captured] 35928 + 1111 [ACK] Seq=9108922 Ack=1 Win=65536 Len=65483 Tsva=40751975981
225	2.099481..	0.00000199..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=9714405 Ack=1 Win=65536 Len=65483 Tsva=40751975981
226	2.099484..	0.0000028..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [ACK] Seq=1 Ack=9043439 Len=0 Tsva=40751975981
227	2.099517..	0.00000326..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 22#8] 1111 → 35928 [ACK] Seq=1 Ack=9043439 Win=2817024 Len=0
228	2.099520..	0.0000031..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 22#8] 1111 → 35928 [ACK] Seq=1 Ack=9043439 Win=2817024 Len=0
229	2.099528..	0.0000052..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=923988 Ack=1 Win=65536 Len=65483 Tsva=40751975981
230	2.099593..	0.00000199..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Previous segment not captured] 35928 + 1111 [ACK] Seq=9730854 Ack=1 Win=65536 Len=65483 Tsva=40751975981
231	2.099535..	0.0000058..	127.0.0.1	127.0.0.1	TCP	0	[TCP Window Update] 1111 → 35928 [ACK] Seq=1 Ack=9043439 Win=2980352 Len=0
232	2.099563..	0.00000279..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Fast Retransmission] 35928 + 1111 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsva=40751975981
233	2.099566..	0.0000030..	127.0.0.1	127.0.0.1	TCP	0	[TCP Dup ACK 22#8] 1111 → 35928 [ACK] Seq=1 Ack=9043439 Win=2980352 Len=0
234	2.099586..	0.00000280..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Retransmission] 35928 + 1111 [ACK] Seq=9305711 Ack=1 Win=65536 Len=65483 Tsva=40751975981
235	2.099588..	0.0000026..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [ACK] Seq=1 Ack=9305711 Win=2848000 Len=0 Tsva=40751975981
236	2.099609..	0.0000024..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=946337 Ack=1 Win=65536 Len=65483 Tsva=40751975981
237	2.099612..	0.0000029..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [ACK] Seq=1 Ack=946337 Win=2782464 Len=0 Tsva=40751975981
238	2.099632..	0.00000201..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=9501820 Ack=1 Win=65536 Len=65483 Tsva=40751975981
239	2.099634..	0.00000022..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [ACK] Seq=1 Ack=9501820 Win=27717056 Len=0 Tsva=40751975981
240	2.099669..	0.00000347..	127.0.0.1	127.0.0.1	TCP	65483	35928 + 1111 [ACK] Seq=9567303 Ack=1 Win=65536 Len=65483 Tsva=40751975981
241	2.099671..	0.0000026..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [ACK] Seq=1 Ack=9567303 Win=2651648 Len=0 Tsva=40751975981
242	2.755180..	0.65550490..	127.0.0.1	127.0.0.1	TCP	4	[TCP Previous segment not captured] 35928 + 1111 [FIN,PSH,ACK] Seq=10484065 Win=3145728
243	2.755194..	0.00000131..	127.0.0.1	127.0.0.1	TCP	0	[TCP ACKed unseen segment] 1111 → 35928 [ACK] Seq=1 Ack=10484065 Win=3145728
244	2.755203..	0.00000091..	127.0.0.1	127.0.0.1	TCP	1696	[TCP Out-Of-Order] 35928 + 1111 [PSH,ACK] Seq=10484066 Ack=1 Win=65536 Len=0
245	2.755319..	0.00001162..	127.0.0.1	127.0.0.1	TCP	0	1111 → 35928 [FIN,ACK] Seq=1 Ack=10485766 Win=3145728 Len=0 Tsva=407520416
246	2.755350..	0.00000310..	127.0.0.1	127.0.0.1	TCP	0	35928 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsva=407520416

Cubic -> Reno

0%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
282	1.661105..	0.0000003..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=1 Ack=7142736 Win=2913408 Len=0 Tsva=4070049268 Ts
283	1.661105..	0.0000003..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=1 Ack=7142736 Win=2880250 Len=0 Tsva=4070049268 Ts
284	1.661124..	0.0000189..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=7280212 Ack=1 Win=65536 Len=65483 Tsva=4070049268 Ts
285	1.661126..	0.000018..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=7280212 Win=2847104 Len=0 Tsva=4070049268 Ts
286	1.661159..	0.0000326..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=7273707 Ack=1 Win=65536 Len=65483 Tsva=4070049269 Ts
287	1.661161..	0.000021..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=7273707 Win=2813952 Len=0 Tsva=4070049269 Ts
288	2.214216..	0.5529648..	127.0.0.1	127.0.0.1	TCP	65483	[TCP Previous segment not captured] 55652 + 1111 [ACK] Seq=8388609 Ack=1 Win=65536 Len=65483 Tsva=4070049268 Ts
289	2.214194..	0.0000679..	127.0.0.1	127.0.0.1	TCP	0	[TCP ACKed unseen segment] 1111 → 35928 [ACK] Seq=1 Ack=10484065 Win=3145728
290	2.214227..	0.0000337..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsva=4070049262 T
291	2.214231..	0.0000031..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=1 Ack=8519575 Win=3079424 Len=0 Tsva=4070049262 Ts
292	2.214269..	0.0000385..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsva=4070049262 T
293	2.214271..	0.00000018..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=1 Ack=8519575 Win=2808250 Len=0 Tsva=4070049262 Ts
294	2.214295..	0.00000091..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8519575 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
295	2.214323..	0.0000051..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8519575 Win=2847104 Len=0 Tsva=4070049262 Ts
296	2.214325..	0.00000902..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8519575 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
297	2.214387..	0.00000616..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8519575 Win=2798040 Len=0 Tsva=4070049262 Ts
298	2.214451..	0.00000616..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
299	2.214504..	0.00000756..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8846995 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
300	2.214579..	0.00000756..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=1 Ack=8846995 Win=3079424 Len=0 Tsva=4070049262 Ts
301	2.214447..	0.0000029..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
302	2.214495..	0.00000080..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8912473 Win=2980864 Len=0 Tsva=4070049262 Ts
303	2.214498..	0.0000025..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
304	2.214618..	0.00001198..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
305	2.214657..	0.00000393..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8912473 Win=2978940 Len=0 Tsva=4070049262 Ts
306	2.214556..	-0.0000101..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
307	2.214575..	0.00001919..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8912473 Win=3112576 Len=0 Tsva=4070049262 Ts
308	2.214579..	0.00000225..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
309	2.214867..	0.00000695..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=8912473 Win=3112576 Len=0 Tsva=4070049262 Ts
310	2.214890..	0.00000237..	127.0.0.1	127.0.0.1	TCP	65483	55652 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsva=4070049262 Ts
311	2.214893..	0.00000026..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=9174405 Win=3079424 Len=0 Tsva=4070049262 Ts
312	2.214894..	0.00000038..	127.0.0.1	127.0.0.1	TCP	0	1111 → 55652 [ACK] Seq=9174405 Win=3112576 Len=0 Tsva=4070049262 Ts
313	2.214896..	0.00000023..	127.0.0.1	127.0.0.1	TCP	65483	47196 + 1111 [ACK] Seq=8781507 Ack=1 Win=65536 Len=65483 Tsva=407010229 Ts
314	2.214901..	0.00000095..	127.0.0.1	127.0.0.1	TCP	0	1111 → 47196 [ACK] Seq=1 Ack=8846990 Win=3079424 Len=0 Tsva=407010229 Ts
315	1.990103..	0.00000266..	127.0.0.1	127.0.0.1	TCP	65483	47196 + 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsva=407010229 Ts
316	1.990103..	0.00000266..	127.0.0.1	127.0.0.1	TCP	0	1111 → 47196 [ACK] Seq=8454092 Win=2808250 Len=0 Tsva=407010229 Ts
317	1.990106..	0.00000016..	127.0.0.1	127.0.0.1	TCP	0	1111 → 47196 [ACK] Seq=8454092 Win=2847104 Len=0 Tsva=407010229 Ts
318	1.990106..	0.00000294..	127.0.0.1	127.0.0.1	TCP	65483	47196 + 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsva=407010229 Ts
319	1.990108..	0.00000018..	127.0.0.1	127.0.0.1	TCP	0	1111 → 47196 [ACK] Seq=8454092 Win=2946688 Len=0 Tsva=407010229 Ts
320	1.990108..	0.00000108..	127.0.0.1	127.0.0.1	TCP	65483	47196 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
157	2.270997...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 > 53650 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsvl=4070163969 T	
158	2.270973...	-0.000024...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=9646287 Ack=1 Win=65536 Len=65483 Tsvl=4070163969 T	
159	2.271041...	-0.000067...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>7011770 Ack=1 Win=65536 Len=65483 Tsvl=4070163969 T	
160	2.271065...	-0.000092...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=7011770 Ack=1 Win=65536 Len=65483 Tsvl=4070163969 T	
161	2.271068...	-0.000090...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>7077251 Ack=1 Win=65536 Len=65483 Tsvl=4070163969 T	
162	3.180320...	-0.017718...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Previous segment not captured] 53650 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536	
163	3.278897...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 - 53650 [ACK] Seq=1 Ack=>8454092 Win=3112578 Len=0 Tsvl=4070164487 T	
164	3.2788947...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8454092 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
165	3.2788951...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>8519575 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
166	3.2788981...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8519575 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
167	3.2789083...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=8519575 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
168	3.2789014...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8505658 Win=3046773 Len=65483 Tsvl=4070164487 T	
169	3.2789017...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>8505658 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
170	3.2789043...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8505658 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
171	3.2789046...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=2979840 Len=0 Tsvl=4070164487 T	
172	2.289697...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8716024 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
173	2.2896926...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=2946688 Len=0 Tsvl=4070164487 T	
174	2.289124...	-0.000004...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Previous segment not captured] 53650 + 1111 [ACK] Seq=8840998 Ack=1 Win=65536	
175	3.289127...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=2946688 Len=0	
176	2.289152...	-0.000002...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
177	2.289152...	-0.000002...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
178	2.289329...	-0.000014...	127.0.0.1	127.0.0.1	TCP	0 [TCP Window Update] 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=3012992 Len=0	
179	2.289336...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Previous segment not captured] 53650 + 1111 [ACK] Seq=8840998 Ack=1 Win=65536	
180	2.289283...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=90843439 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
181	2.289287...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=3012992 Len=0	
182	2.289317...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=91089922 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
183	2.289320...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=3012992 Len=0	
184	2.289339...	-0.000001...	127.0.0.1	127.0.0.1	TCP	65483 53650 + 1111 [ACK] Seq=9174405 Ack=1 Win=65536 Len=65483 Tsvl=4070164487 T	
185	2.289343...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 53650 [ACK] Seq=1 Ack=>8715074 Win=3012992 Len=0	
186	3.399042...	-0.000000...	127.0.0.1	127.0.0.1	TCP	4 [TCP Previous segment not captured] 53650 + 1111 [PSH, ACK] Seq=10485761 Ack=1 Win=65536	
187	3.399095...	-0.000005...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [ACK] Seq=1 Ack=>8840998 Win=3143168 Len=0 Tsvl=4070165097 T	
188	3.399110...	-0.000001...	127.0.0.1	127.0.0.1	TCP	0 53650 + 1111 [FIN, ACK] Seq=10485765 Ack=1 Win=65536 Len=0 Tsvl=4070165097 T	
189	3.399324...	-0.000021...	127.0.0.1	127.0.0.1	TCP	0 1111 + 53650 [FIN, ACK] Seq=1 Ack=10485766 Win=3143168 Len=0 Tsvl=4070165097 T	
190	3.399345...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 53650 + 1111 [ACK] Seq=10485766 Ack=2 Win=65536 Len=0 Tsvl=4070165097 Tsvl=4070165097 T	
260	3.288820...	-0.000001...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=8912473 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
261	3.288824...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 47308 [ACK] Seq=1 Ack=>8715074 Win=3112576 Len=0	
262	3.288841...	-0.000001...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=8977956 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
263	3.288844...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 47308 [ACK] Seq=1 Ack=>8715074 Win=3112576 Len=0	
264	3.288862...	-0.000001...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9043439 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
265	3.288864...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 47308 [ACK] Seq=1 Ack=>8715074 Win=3112576 Len=0	
266	3.288868...	-0.000015...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=1089922 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
267	3.288882...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 47308 [ACK] Seq=1 Ack=>8715074 Win=3112576 Len=0	
268	3.288901...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=174405 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
269	3.288904...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Dup ACK 17#1] 1111 + 47308 [ACK] Seq=1 Ack=>8715074 Win=3112576 Len=0	
270	3.288932...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Fast Retransmission] 47308 + 1111 [ACK] Seq=8715074 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
271	3.281046...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 47308 + 1111 [ACK] Seq=9170854 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
272	3.281041...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9239888 Win=2915200 Len=0 Tsvl=4069957496 T	
273	3.281066...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Out-Of-Order] 47308 + 1111 [ACK] Seq=9239888 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
274	3.281070...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9305371 Win=2849792 Len=0 Tsvl=4069957496 T	
275	3.281092...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Retransmission] 47308 + 1111 [ACK] Seq=9305371 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
276	3.281095...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9436337 Win=2817024 Len=0 Tsvl=4069957496 T	
277	3.281128...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9436337 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
278	3.281158...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9501824 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
279	3.281192...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9573093 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
280	3.281234...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9632789 Ack=1 Win=65536 Len=65483 Tsvl=4069957496 T	
281	3.281372...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9567303 Win=3012929 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	
282	3.281413...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9698269 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
283	3.281427...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 47308 + 1111 [ACK] Seq=9698269 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
284	3.281535...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Previous segment not captured] 47308 + 1111 [ACK] Seq=9894718 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
285	3.281540...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9763752 Win=3080320 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	
286	3.281645...	-0.000000...	127.0.0.1	127.0.0.1	TCP	65483 [TCP Retransmission] 47308 + 1111 [ACK] Seq=9763752 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
287	3.281695...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>9829235 Win=3014912 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	
288	3.282145...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP ACKed unseen segment] 1111 + 47308 [ACK] Seq=1 Ack=>10485761 Win=3145728 Tsvl=4069957497 Tsvl=4069957497 T	
289	4.252887...	-0.000000...	127.0.0.1	127.0.0.1	TCP	4 [TCP Previous segment not captured] 47308 + 1111 [PSH, ACK] Seq=10485761 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
290	4.252936...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=1 Ack=>10485765 Win=3145728 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	
291	4.253130...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [FIN, ACK] Seq=1 Ack=>10485765 Win=3145728 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	
292	4.253136...	-0.000000...	127.0.0.1	127.0.0.1	TCP	0 [TCP Previous segment not captured] 47308 + 1111 [ACK] Seq=10485766 Ack=1 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
293	4.650472...	-0.397335...	127.0.0.1	127.0.0.1	TCP	0 [TCP Retransmission] 47308 + 1111 [FIN, ACK] Seq=10485766 Ack=2 Win=65536 Len=65483 Tsvl=4069957497 Tsvl=4069957497 T	
294	4.650488...	-0.000016...	127.0.0.1	127.0.0.1	TCP	0 1111 + 47308 [ACK] Seq=2 Ack=>10485766 Win=3145728 Len=0 Tsvl=4069957497 Tsvl=4069957497 T	

Activate Windows

על חלק B:

כאשר הרכינו את התוכנה בהתאם להגדרת סטיית התקן, ראיינו שינויים עיקריים בכמות הפקטוטות הנשלחות במקביל ל מהירות המאטה כל שאוז loss packet גדל. ניתן לראות מאוז עליה בזמן ובמספר הפקטוטות שנשלחו שמעיד על איבוד(ב% הינה יותר מהמוצופה, נראה ייחודי) :

זה הינה האחוז בו שליחת התוכן משולח למקבל היה המהירה ביותר

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
321	3.886985..	0.0002759..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000013, counter=257698037760148, datalen=59984
322	3.887393..	0.0004885..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
323	3.887867..	0.0004732..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000014, counter=257702332726920, datalen=59984
324	3.888342..	0.0004753..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
325	3.888645..	0.0003025..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000015, counter=257702332726808, datalen=59984
326	3.889078..	0.0004335..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
327	3.889374..	0.0002958..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000016, counter=257702332727244, datalen=59984
328	3.889783..	0.0004944..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
329	3.890035..	0.0002519..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000017, counter=257702332727170, datalen=59984
330	3.890489..	0.0004533..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
331	3.890818..	0.0003292..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000018, counter=257702332726978, datalen=59984
332	3.891248..	0.0004298..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
333	3.891502..	0.0002539..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000019, counter=257698037760047, datalen=59984
334	3.891812..	0.0003100..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
335	3.892050..	0.0002381..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001A, counter=257698037760113, datalen=59984
336	3.892683..	0.0006333..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
337	3.892955..	0.0002718..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001B, counter=257702332726740, datalen=59984
338	3.893466..	0.0005510..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
339	3.893614..	0.0001476..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001C, counter=257702332727078, datalen=59984
340	3.893963..	0.0003493..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
341	3.894136..	0.0001729..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001D, counter=257702332727124, datalen=59984
342	3.894573..	0.0008365..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
343	3.894824..	0.0002516..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001E, counter=257698037760066, datalen=59984
344	3.895364..	0.0005397..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
345	3.895663..	0.0002989..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001F, counter=257702332726949, datalen=59984
346	3.896109..	0.0004453..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
347	3.896404..	0.0002985..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000020, counter=257702332727159, datalen=59984
348	3.896842..	0.0004381..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
349	3.897157..	0.0003142..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000021, counter=257702332727065, datalen=59984
350	3.897601..	0.0004441..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
351	3.897912..	0.0003113..	127.0.0.1	127.0.0.1	UDP	33475 + 1111 Len=60016	
352	3.898331..	0.0008198..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
353	4.870853..	0.9725215..	127.0.0.1	127.0.0.1	UDP	33475 + 1111 Len=60016	
354	4.871384..	0.0005315..	127.0.0.1	127.0.0.1	UDP	1111 + 33475 Len=60016	
355	8.404999..	3.5336149..	127.0.0.1	224.0.0.251	MDNS		Standard query 0x0000 PTR _ftp._tcp.local; "QNAME question PTR _nfs._tcp.local" [Acquire via Windows]

כאן ראיינו שהזמן היה איטי יותר במעט (סביב 2 שניות) והיו אבדות פקטוטות :2%

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
311	10.42125...	0.0003673...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
312	10.42151...	0.0002652...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000013, counter=257702332726887, datalen=59984	
313	10.42189...	0.0003795...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
314	10.42215...	0.0002588...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000014, counter=257702332727166, datalen=59984	
315	10.42251...	0.0003573...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
316	10.42274...	0.0002339...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000015, counter=257702332727168, datalen=59984	
317	10.42314...	0.0004010...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
318	10.42338...	0.0003474...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000016, counter=257698037760210, datalen=59984	
319	10.42372...	0.0003383...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
320	10.42397...	0.0002569...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000017, counter=257702332727155, datalen=59984	
321	10.42432...	0.0003522...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
322	10.42459...	0.0002683...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000018, counter=257702332727085, datalen=59984	
323	10.42506...	0.0004698...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
324	10.42532...	0.0002563...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000019, counter=257702332727225, datalen=59984	
325	10.42568...	0.0003611...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
326	10.42594...	0.0002637...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001A, counter=257702332727289, datalen=59984	
327	10.42633...	0.0003966...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
328	10.42657...	0.0003636...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001B, counter=257698037760080, datalen=59984	
329	10.42696...	0.0003928...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
330	10.42723...	0.0002626...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001C, counter=257702332726940, datalen=59984	
331	10.42756...	0.0003364...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
332	10.42780...	0.0002368...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001D, counter=257698037760013, datalen=59984	
333	10.42816...	0.0003595...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
334	10.42841...	0.0002459...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001E, counter=257698037760463, datalen=59984	
335	10.42885...	0.0004412...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
336	10.42922...	0.0003688...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001F, counter=257702332727275, datalen=59984	
337	10.42961...	0.0003992...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
338	10.42990...	0.0002831...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000020, counter=257702332727243, datalen=59984	
339	10.43031...	0.0004104...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
340	10.43055...	0.0002462...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000021, counter=257702332727137, datalen=59984	
341	10.43091...	0.0003527...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
342	10.43115...	0.0002386...	127.0.0.1	127.0.0.1	UDP	32888 → 1111 Len=60016	
343	10.43149...	0.0003471...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	
344	11.05739...	0.6258954...	127.0.0.1	127.0.0.1	UDP	32888 → 1111 Len=60016	
345	11.05772...	0.0003361...	127.0.0.1	127.0.0.1	UDP	1111 → 32888 Len=60016	Activate Windows

:5%

פה זמן הריצה היה ארוך ממש מועתייט סיבת ה-5- שניות וכן גם כמות הפקטוטות שנשלחו על כן היו יותר איבודים

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
317	18.54293...	0.0003992...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000013, counter=2577023327222, datalen=59984	
318	18.54308...	0.0001546...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
319	18.54333...	0.0002408...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000014, counter=25770233272102, datalen=59984	
320	18.54367...	0.0003427...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
321	18.54412...	0.0004502...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000015, counter=257698037760020, datalen=59984	
322	18.54465...	0.0005293...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
323	18.54472...	0.0001294...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000016, counter=257702332727291, datalen=59984	
324	18.54490...	0.0001227...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
325	18.54519...	0.0002696...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000017, counter=257698037760397, datalen=59984	
326	18.54746...	0.0002659...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
327	18.54791...	0.0004524...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000018, counter=257698037760045, datalen=59984	
328	18.54845...	0.0005409...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
329	18.54874...	0.0002875...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000019, counter=257698037760011, datalen=59984	
330	18.54888...	0.0001466...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
331	18.54939...	0.0005019...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001A, counter=25770233272104, datalen=59984	
332	18.55016...	0.0007746...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
333	18.55066...	0.0004968...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001B, counter=257702332726904, datalen=59984	
334	18.55090...	0.0002425...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
335	18.55099...	0.0000890...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001C, counter=25770233272144, datalen=59984	
336	18.55105...	0.0000625...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
337	18.55121...	0.0001604...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001D, counter=25770233272180, datalen=59984	
338	18.55139...	0.0001782...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
339	18.55150...	0.0001124...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001E, counter=257698037760284, datalen=59984	
340	18.55179...	0.0002854...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
341	18.55205...	0.000294...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x0000001F, counter=25769803776008, datalen=59984	
342	18.55234...	0.0002897...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
343	18.55260...	0.0002657...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000020, counter=257702332726965, datalen=59984	
344	18.55291...	0.0003101...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
345	18.55318...	0.0002620...	127.0.0.1	127.0.0.1	WireGu...	Transport Data, receiver=0x00000021, counter=257698037760214, datalen=59984	
346	18.55361...	0.0004380...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
347	18.55385...	0.0002400...	127.0.0.1	127.0.0.1	UDP	48397 → 1111 Len=60016	
348	18.55406...	0.0002044...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
349	19.12531...	0.5712485...	127.0.0.1	127.0.0.1	UDP	48397 → 1111 Len=60016	
350	19.12987...	0.0045652...	127.0.0.1	127.0.0.1	UDP	1111 → 48397 Len=60016	
351	23.11186...	3.0819837...	127.0.0.1	224.0.0.251	MDNS	Standard query 0x0000 PTR _ftp._tcp.local. "QNAME" question PTR _nfs._tcp.local.	Activate Windows

:10%

כפוי, אחוז זה הזמן היה ארוך ביחסו סיבת ה-20-15 שניות ונבדה כמות פקטוטות שלא ראיינו בהרצות 0/2 ואילו 5 אחוז.

No.	Time	Delta	Source	Destination	Protocol	TCP Segment Len	Info
330	33.78504..	0.0001005..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000012, counter=257702332727100, datalen=59984
331	33.78508..	0.0000422..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
332	33.78517..	0.0000959..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000013, counter=257702332727287, datalen=59984
333	33.78522..	0.0000473..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
334	33.78532..	0.0000981..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000014, counter=257698037760335, datalen=59984
335	33.78536..	0.0000428..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
336	33.78545..	0.00009910..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000015, counter=257702332727260, datalen=59984
337	33.78550..	0.0000442..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
338	33.78560..	0.0000987..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000016, counter=257698037760161, datalen=59984
339	33.78564..	0.0000391..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
340	34.80706..	1.0214270..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000018, counter=257702332727075, datalen=59984
341	34.80720..	0.0001326..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
342	34.80733..	0.0001336..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000019, counter=257702332727234, datalen=59984
343	34.80737..	0.0000404..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
344	34.80755..	0.0001810..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001A, counter=257702332727262, datalen=59984
345	35.83099..	1.0234349..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001A, counter=257702332727262, datalen=59984
346	35.83117..	0.0001829..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
347	35.83193..	0.0007656..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001B, counter=257702332727035, datalen=59984
348	35.83202..	0.0000876..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
349	35.83230..	0.0002738..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001C, counter=257702332727123, datalen=59984
350	35.83239..	0.00009925..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
351	35.83260..	0.0002162..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001D, counter=257698037760042, datalen=59984
352	35.83273..	0.0001213..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
353	35.83296..	0.0002386..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001E, counter=257698037760036, datalen=59984
354	35.83338..	0.0004184..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
355	35.83361..	0.0002315..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x0000001F, counter=257698037760232, datalen=59984
356	35.83372..	0.0001060..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
357	35.83391..	0.0001936..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000020, counter=257698037760201, datalen=59984
358	35.83395..	0.0000374..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
359	35.83483..	0.0000796..	127.0.0.1	127.0.0.1	WireGu..		Transport Data, receiver=0x00000021, counter=257702332726918, datalen=59984
360	35.83487..	0.0000345..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
361	35.83416..	0.0000916..	127.0.0.1	127.0.0.1	UDP	34281 → 1111 Len=60016	
362	35.83419..	0.0000299..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	
363	37.54104..	1.7068541..	127.0.0.1	127.0.0.1	UDP	34281 → 1111 Len=60016	
364	37.54115..	0.00001050..	127.0.0.1	127.0.0.1	UDP	1111 → 34281 Len=60016	

Activate Windows

: (5) הנתקות מפערם של גלגולים

SS Threshold -> rule if $\Delta \text{RTT} > \text{SSThreshold}$ then $\Delta \text{RTT} = \text{SSThreshold}$

5 types {

- Mean -
- Var -
- | C μ RTT -

avg round trip time = $\frac{\sum \text{RTT}_i}{n}$ $\Delta \text{RTT} = \text{RTT}_i - \text{avg}$
var = $\frac{\sum (\text{RTT}_i - \text{avg})^2}{n}$ $\Delta \text{RTT} = \text{RTT}_i - \text{avg}$
threshold = $\Delta \text{RTT} = \text{RTT}_i - \text{avg}$

round trip delay = $\text{RTT}_i + \text{RTT}_j$ $\Delta \text{RTT} = \text{RTT}_i - \text{RTT}_j$

round trip delay = $\text{RTT}_i + \text{RTT}_j$ $\Delta \text{RTT} = \text{RTT}_i - \text{RTT}_j$

round trip delay = $\text{RTT}_i + \text{RTT}_j$ $\Delta \text{RTT} = \text{RTT}_i - \text{RTT}_j$

.2

וְמִרְאֵי יְהוָה כִּי־בַּת־יְהוָה תִּהְיֶה תְּמִימָה וְלֹא־בְּתִי־יְהוָה

סְגִילָה שֶׁבַת כְּלֵי מִזְבֵּחַ וְכֵלֶת כְּלֵי מִזְבֵּחַ (אֲנֹרֶךְ) כְּלֵי מִזְבֵּחַ וְכֵלֶת כְּלֵי מִזְבֵּחַ

(3120 Kile SSTresh -f 102.0P 20

high (low) $\log_2 S$ is a large S (small S)

לען רם ג' נס צהוב נס צהוב נס צהוב נס צהוב נס צהוב

$$\sum_{i=0}^{\log_2 S} 2^i = \frac{2^{(\log_2 S + 1)} - 1}{2 - 1} = \frac{2^{\log_2 S} \cdot 2 - 1}{1} =$$

$$= S^{\log_2 2} \cdot 2 - 1 = 2S - 1$$

$$\text{Round trip time} = \frac{\text{RTT}}{2} + \frac{\text{MSS}}{\text{Bandwidth}}$$

. X=1 (1) ערך מינימלי סוף

: 10

$$8 \cdot 10^9 \frac{\text{Byte}}{\text{sec}}$$

- עליה נזק

$$1 \cdot 10^3 \text{ Byte}$$

טב פיז

$$2 \cdot 10^8 \frac{\text{m}}{\text{sec}} - \text{עליה נזק}$$

$$1 \cdot 10^3 \text{ m} : \text{טב}$$

: טב

$$\frac{\text{טב}}{\text{טב}} = \frac{\text{טב}}{\text{טב}} = \frac{1 \cdot 10^3}{8 \cdot 10^9} = \frac{1}{8 \cdot 10^6} \text{ sec}$$

$$\frac{\text{טב}}{\text{טב}} = \frac{\text{טב}}{\text{טב}} = \frac{1 \cdot 10^3}{2 \cdot 10^8} = \frac{1}{2 \cdot 10^5} \text{ sec}$$

$$RTT = 2 \cdot \frac{\text{טב}}{\text{טב}} + \frac{\text{טב}}{\text{טב}} = 2 \cdot \frac{1}{2 \cdot 10^5} + \frac{1}{8 \cdot 10^6} = 1.0125 \cdot 10^{-5}$$

$$\frac{\text{טב}}{\text{טב}} = \frac{\text{טב} \cdot RTT}{\text{טב}} = \frac{1.0125 \cdot 10^{-5} \cdot 8 \cdot 10^9}{1 \cdot 10^3} = \boxed{81}$$