

selective-repeat

The server and client code was run on two different VCL machines. On the receiver side a fixed window size of 1024 has been used for all experiments

The traceroute value between these machines == 1 hop

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traceroute
0 upgraded, 1 newly installed, 0 to remove and 349 not upgraded.
Need to get 45.0 kB of archives.
After this operation, 176 kB of additional disk space will be used.
Get:1 http://us.archive.ubuntu.com/ubuntu/ trusty-updates/universe traceroute amd64 1:2.0.20-0ub
untu0.1 [45.0 kB]
Fetched 45.0 kB in 0s (426 kB/s)
Selecting previously unselected package traceroute.
(Reading database ... 245762 files and directories currently installed.)
Preparing to unpack .../traceroute_1%3a2.0.20-0ubuntu0.1_amd64.deb ...
Unpacking traceroute (1:2.0.20-0ubuntu0.1) ...
Processing triggers for man-db (2.6.7.1-1ubuntu1) ...
Setting up traceroute (1:2.0.20-0ubuntu0.1) ...
update-alternatives: using /usr/bin/traceroute.db to provide /usr/bin/traceroute (traceroute) in
auto mode
update-alternatives: using /usr/bin/lft.db to provide /usr/bin/lft (lft) in auto mode
update-alternatives: using /usr/bin/traceproto.db to provide /usr/bin/traceproto (traceproto) in
auto mode
update-alternatives: using /usr/sbin/tcptraceproto.db to provide /usr/sbin/tcptraceproto (tcptra
ceproto) in auto mode
apatwar@bn19-88:~$ traceroute 152.46.20.210
traceroute to 152.46.20.210 (152.46.20.210), 30 hops max, 60 byte packets
 1  bn20-210.dcs.mcnc.org (152.46.20.210)  0.198 ms  0.176 ms  0.167 ms
apatwar@bn19-88:~$

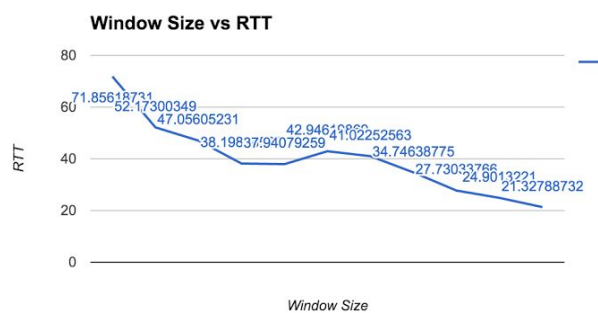
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1) Task 1 - Effect of Window size N on sender

Selective Repeat								
Window Size vs RTT								
MSS = 500								
Window Size	RTT1	RTT2	RTT3	RTT4	RTT5	AVG		
1	81.28320599	73.16895604	67.42105794	72.1928434	65.2148732	71.85618731		
2	48.99635315	55.24903607	57.37050104	52.1208249	47.1283023	52.17300349		
4	49.27851915	45.11479783	45.57447386	47.1872358	48.1252349	47.05605231		
8	47.58406115	39.1493609	29.41217804	33.6124982	41.2358308	38.19878582		
16	28.18526101	42.21778798	40.57195497	36.9051249	41.8238341	37.94079259		
32	39.776613	53.87956405	34.16263199	37.1209442	49.7912402	42.94619869		
64	41.72101402	39.58917189	43.66674185	37.9825134	42.153187	41.02252563		
128	31.54060102	37.67234516	33.76522589	36.9361738	33.8175929	34.74638775		
256	29.77095509	27.76674795	25.58870292	28.41946194	27.1058204	27.73033766		
512	29.59198618	25.59465003	21.66313601	21.6391087	26.0177296	24.9013221		
1024	21.64383912	19.65208912	21.91093516	21.812836	21.6197372	21.32788732		

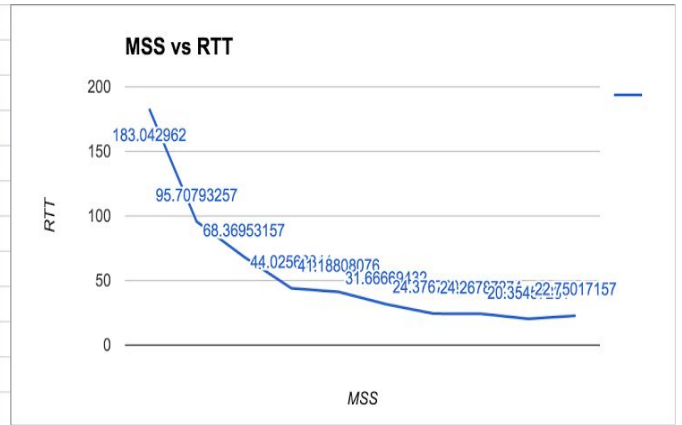
Window Size vs RTT

Window Size	RTT (AVG)
1	71.85618731
2	52.17300349
4	47.05605231
8	38.19878582
16	37.94079259
32	42.94619869
64	41.02252563
128	34.74638775
256	27.73033766
512	24.9013221
1024	21.32788732



2) Task 2 - Effect of MSS

MSS vs RTT						
MSS	RTT1	RTT2	RTT3	RTT4	RTT5	AVG
100	185.3894289	179.4740651	185.316994	183.1027232	181.9315988	183.042962
200	95.80393195	83.91027498	109.862632	88.1507291	100.8120948	95.70793257
300	70.60470581	74.75400114	62.67714381	64.4199824	69.3918247	68.36953157
400	39.9266119	51.83996105	34.014431	44.1284319	50.2189812	44.02568341
500	45.65296292	37.59935403	37.66275907	39.5128403	45.5124875	41.18808076
600	29.33986688	37.40525007	25.38132405	29.9182475	36.2887831	31.66669432
700	27.20960903	27.34123898	19.23171806	21.1297512	26.9712854	24.37672053
800	25.10817504	25.08157802	23.14838505	24.9812422	23.0199834	24.26787274
900	25.03427005	12.98027706	29.00984883	14.9249823	19.8234833	20.35457231
1000	22.99001098	26.93285084	18.92347312	22.9211095	21.9834134	22.75017157



3) Task 3 - Effect of Loss Probability p

EXPT 3						
RTT vs Prob	EXPT1	EXPT2	EXPT3	EXPT4	EXPT5	AVG
0.01	33.30163503	37.37868094	33.23756981	33.812487	36.1092352	34.7679216
0.02	53.37545609	61.32246089	63.33828092	55.1240951	61.3909215	58.9102429
0.03	81.36969399	73.28058004	77.2711761	80.2938593	74.8132949	77.40572087
0.04	81.27736878	79.28257298	77.18367195	78.8912498	79.9534932	79.31767134
0.05	81.39163518	73.16524601	77.40820503	76.6197123	73.9124739	76.49945448
0.06	91.28593802	99.22992492	97.37060809	93.4124923	96.8912913	95.63805093
0.07	97.37387204	91.32022405	93.35920906	92.5919379	96.1073819	94.15052499
0.08	97.31915092	109.342068	93.40014195	108.5471038	96.1240973	100.9465124
0.09	117.3972452	117.3983271	99.30768013	113.5711047	103.3813598	110.2111434
0.1	123.479526	121.451478	131.3336961	127.081258	129.2398592	126.5171635

