

CS 39006: Networks Lab
Assignment 4: Concurrent Server Implementation
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Lab Report by:
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Observations:

Q 1. Total number of segments received and segment size distribution.

Ans.

Segments received by the server - 54143

Segments received by client 1 (pdf) - 1525

Segments received by client 2 (video) - 26957

Segment size distribution for Server side with client 1 (all in bytes):

66,74,81,,498,1090,1467,1474,1514

Topic / Item	Count	Average	Min val	Max val	Rate (ms)	Percent	Burst rate	Burst start
▼ Packet Lengths	3058	1511.14	66	1514	0.3523	100%	8.1400	47.990
0-19	0	-	-	-	0.0000	0.00%	-	-
20-39	0	-	-	-	0.0000	0.00%	-	-
40-79	4	68.00	66	74	0.0005	0.13%	0.0200	39.619
80-159	1	81.00	81	81	0.0001	0.03%	0.0100	47.906
160-319	0	-	-	-	0.0000	0.00%	-	-
320-639	1	498.00	498	498	0.0001	0.03%	0.0100	48.063
640-1279	1	1090.00	1090	1090	0.0001	0.03%	0.0100	47.907
1280-2559	3051	1513.97	1467	1514	0.3515	99.77%	8.1300	47.910
2560-5119	0	-	-	-	0.0000	0.00%	-	-
5120 and greater	0	-	-	-	0.0000	0.00%	-	-

Segment size distribution for Server side with client 2 (all in bytes):

66,74,84,138,142,162,354,386,562,578,634,666,690,1090,1514,2962

Topic / Item	Count	Average	Min val	Max val	Rate (ms)	Percent	Burst rate	Burst start
▼ Packet Lengths	51085	1513.61	66	2962	1.1949	100%	8.1400	49.375
0-19	0	-	-	-	0.0000	0.00%	-	-
20-39	0	-	-	-	0.0000	0.00%	-	-
40-79	6	70.00	66	74	0.0001	0.01%	0.0200	11.996
80-159	3	121.33	84	142	0.0001	0.01%	0.0100	48.283
160-319	1	162.00	162	162	0.0000	0.00%	0.0100	50.007
320-639	5	502.80	354	634	0.0001	0.01%	0.0100	50.446
640-1279	3	815.33	666	1090	0.0001	0.01%	0.0100	48.284
1280-2559	51066	1514.00	1514	1514	1.1945	99.96%	8.1400	49.375
2560-5119	1	2962.00	2962	2962	0.0000	0.00%	0.0100	48.433
5120 and greater	0	-	-	-	0.0000	0.00%	-	-

Segment size distribution for client 1 (all in bytes): 66,74,81,98

Topic / Item	Count	Average	Min val	Max val	Rate (ms)	Percent	Burst rate	Burst start
▼ Packet Lengths	1525	66.04	66	98	0.1757	100%	4.0700	48.045
0-19	0	-	-	-	0.0000	0.00%	-	-
20-39	0	-	-	-	0.0000	0.00%	-	-
40-79	1523	66.01	66	74	0.1755	99.87%	4.0700	48.045
80-159	2	89.50	81	98	0.0002	0.13%	0.0100	47.906
160-319	0	-	-	-	0.0000	0.00%	-	-
320-639	0	-	-	-	0.0000	0.00%	-	-
640-1279	0	-	-	-	0.0000	0.00%	-	-
1280-2559	0	-	-	-	0.0000	0.00%	-	-
2560-5119	0	-	-	-	0.0000	0.00%	-	-
5120 and greater	0	-	-	-	0.0000	0.00%	-	-

Segment size distribution for client 2 (all in bytes): 66,74,78,84,86,94,98

Topic / Item	Count	Average	Min val	Max val	Rate (ms)	Percent	Burst rate	Burst start
▼ Packet Lengths	26957	67.21	66	98	0.6305	100%	4.8400	48.315
0-19	0	-	-	-	0.0000	0.00%	-	-
20-39	0	-	-	-	0.0000	0.00%	-	-
40-79	26622	66.95	66	78	0.6227	98.76%	4.6500	53.710
80-159	335	87.34	84	98	0.0078	1.24%	0.6500	48.390
160-319	0	-	-	-	0.0000	0.00%	-	-
320-639	0	-	-	-	0.0000	0.00%	-	-
640-1279	0	-	-	-	0.0000	0.00%	-	-
1280-2559	0	-	-	-	0.0000	0.00%	-	-
2560-5119	0	-	-	-	0.0000	0.00%	-	-
5120 and greater	0	-	-	-	0.0000	0.00%	-	-

Q 2) Total number of retransmitted packets

Ans.

Total packets retransmitted are: 31 from client 2

Q 3) Total time to receive the file

Ans.

Total time - 51.431s