

FQ-CoDel Project

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1 Explanation

All the results that are presented in the tables are obtained from multiple simulation runs with a different set of parameters. The fixed parameters was

- Interarrival time - 20 ms
- Sparseflow packetsize - 218 Byte
- Bandwidth - 10 Mbps
- Number of bulkflows - Either set to 1 or 0 depending on the scenario

The number of sparseflows was then changed between each round to observe the queuing latency. The two graphs provides a visual representation of the tabulated values.

2 Results

Number of sparseflows	Queueing delay (ms)	Sparseness (%)
1	0.0000	100
2	0.0000	100
4	0.0000	100
6	0.0000	100
8	0.0143	100
10	0.0288	100
12	0.0041	100
14	0.0028	100
16	0.0097	100
18	0.0383	100
20	0.0203	100
22	0.0241	100
24	0.0157	100
26	0.0174	100
28	0.0184	100
30	0.0376	100
32	0.0397	100
34	0.0136	100
36	0.0262	100
38	0.0400	100
40	0.0402	100
42	0.0453	100
44	0.0441	100
46	0.0704	100
48	0.0608	100
50	0.0867	100
52	0.0723	100
54	0.0699	100
56	0.0646	100
58	0.0637	100
60	0.0783	100
62	0.0953	100
64	0.0795	100
66	0.1199	100
68	0.1639	100
70	0.1425	100

Table 1: 0 bulk

Number of sparseflows	Queueing delay (ms)	Sparseness (%)
72	0.1369	100
74	0.1043	100
76	0.1494	100
78	0.2070	100
80	0.2324	100
82	0.2367	100
84	0.2377	100
86	0.1981	100
88	0.3128	100
90	0.3101	100
92	0.3041	100
94	0.2507	100
96	0.4173	100
98	0.3290	100
100	0.3929	100
102	0.5005	100
104	0.5725	100
106	0.7471	100
108	0.8363	100
110	1.0559	100
111	1.2830	100
112	1.2563	100
113	1.4117	100
114	1.5342	100
115	14.979	0

Table 2: Zero bulkflows

Number of sparseflows	Queueing delay (ms)	Sparseness (%)
1	0.6107	100
2	0.5982	100
4	0.6343	100
6	0.6082	100
8	0.6492	100
10	0.6077	100
12	0.6087	100
14	0.6086	100
16	0.6334	100
18	0.6091	100
20	0.6245	100
22	0.6159	100
24	0.6245	100
26	0.6326	100
28	0.6328	100
30	0.6237	100
32	0.6304	100
34	0.6233	100
36	0.6399	100
38	0.6657	100
40	0.6750	100
42	0.6339	100
44	0.6749	100
46	0.6713	100
48	0.6824	100
50	0.6830	100
52	0.6504	100
54	0.7177	100
56	0.7087	100
58	0.6937	100
60	0.7069	100
62	0.6891	100
64	0.7012	100
66	0.6795	100
68	0.7977	100
70	0.7437	100
72	0.7866	100
74	0.7316	100
76	0.8221	100
78	0.8259	100
80	0.8207	100

Table 3: One bulkflow

Number of sparseflows	Queueing delay (ms)	Sparseness (%)
82	0.8747	100
84	0.8686	100
86	0.8275	100
88	0.9016	100
90	0.9044	100
92	0.8915	100
94	0.9102	100
96	0.9535	100
98	1.0675	100
100	1.0871	100
102	1.1246	82.2
104	1.2016	53.5
106	1.1790	24.7
107	1.4885	10.2
108	12.365	0

Table 4: 1 bulk

Figure 1: Zero Bulkflows

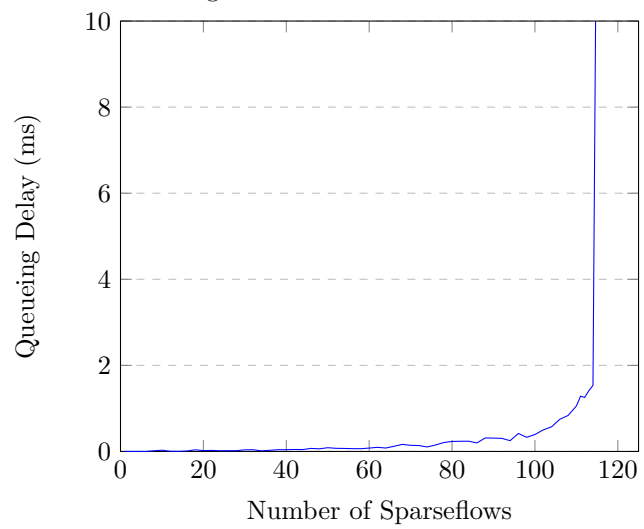


Figure 2: One Bulkflow

