

Pantheon Report

Generated at 2017-09-08 10:16:47 (UTC).

Data path: GCE Tokyo Ethernet (*remote*) → GCE Sydney Ethernet (*local*).

Repeated the test of 15 congestion control schemes 10 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

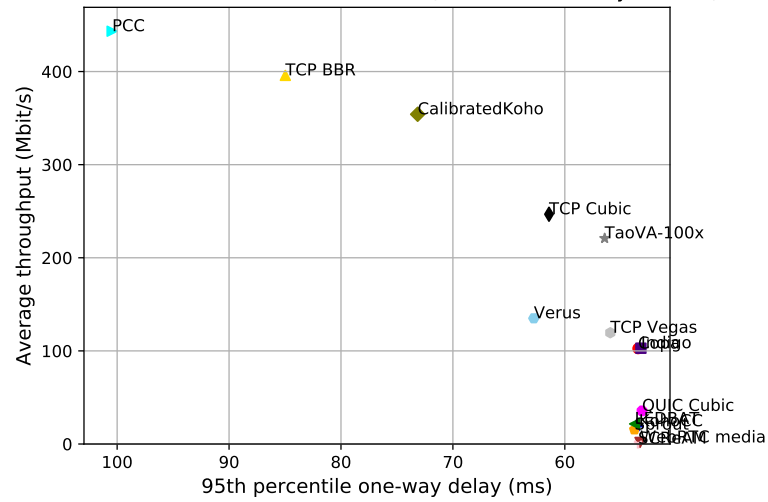
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

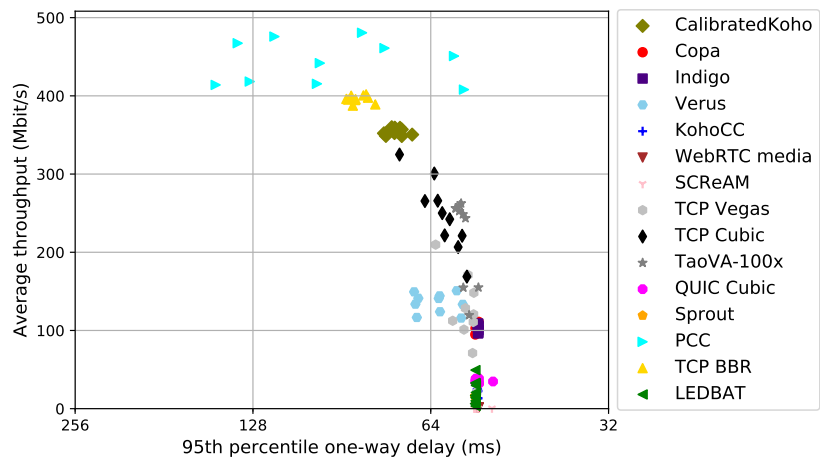
Git summary:

```
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE Tokyo Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Tokyo Ethernet to GCE Sydney Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	204.03	198.06	183.74	79.51	84.00	93.23	0.46	0.59	1.31
CalibratedKoho	10	220.03	152.81	100.00	73.47	72.43	75.47	0.25	0.46	1.84
Copa	10	61.84	51.07	49.08	53.36	53.30	53.32	0.21	0.42	1.30
TCP Cubic	10	126.04	134.02	96.13	60.58	60.52	62.17	0.40	0.68	1.50
Indigo	10	50.59	60.94	38.13	53.17	53.27	53.14	0.30	0.38	1.24
KohoCC	10	8.57	11.21	10.95	1085.17	53.37	53.39	0.23	0.54	1.09
LEDBAT	10	12.75	9.19	8.11	311.45	53.82	53.72	0.84	1.15	2.34
PCC	10	292.57	164.22	129.56	111.85	61.54	55.71	1.19	0.37	1.07
QUIC Cubic	10	0.06	40.35	27.16	54.96	52.40	52.96	0.00	0.54	1.40
SCReAM	10	0.21	0.21	0.22	52.47	51.47	51.89	0.37	0.44	0.96
Sprout	10	7.79	7.72	7.43	53.77	53.77	53.78	0.57	0.64	1.24
TaoVA-100x	10	137.29	109.00	65.19	55.59	56.51	55.30	0.27	0.35	1.19
TCP Vegas	10	59.39	57.43	66.16	54.69	54.60	57.25	0.36	0.48	0.99
Verus	10	82.19	57.61	45.66	63.23	62.50	58.80	0.21	0.54	1.01
WebRTC media	10	0.06	1.52	0.37	53.59	51.61	53.61	0.02	0.71	2.75

Run 1: Statistics of TCP BBR

Start at: 2017-09-08 04:21:08

End at: 2017-09-08 04:21:38

Below is generated by plot.py at 2017-09-08 09:36:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 400.21 Mbit/s

95th percentile per-packet one-way delay: 87.262 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 207.11 Mbit/s

95th percentile per-packet one-way delay: 79.641 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 199.23 Mbit/s

95th percentile per-packet one-way delay: 84.585 ms

Loss rate: 0.62%

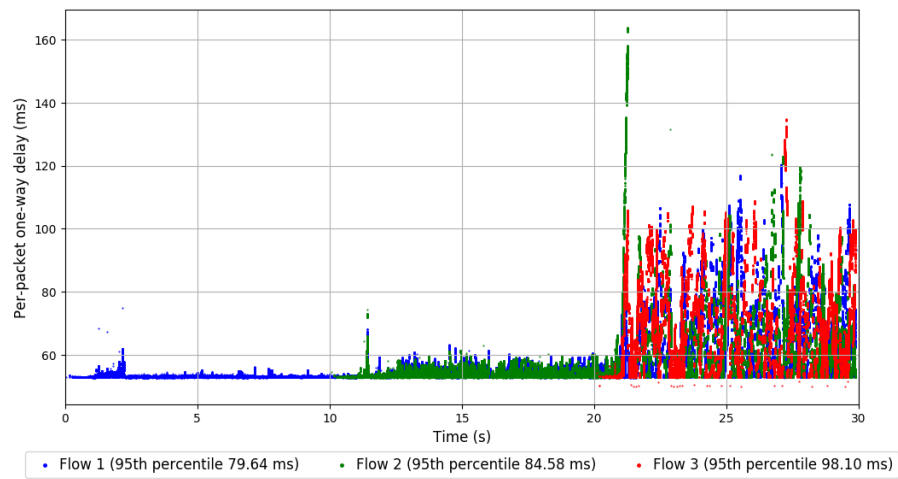
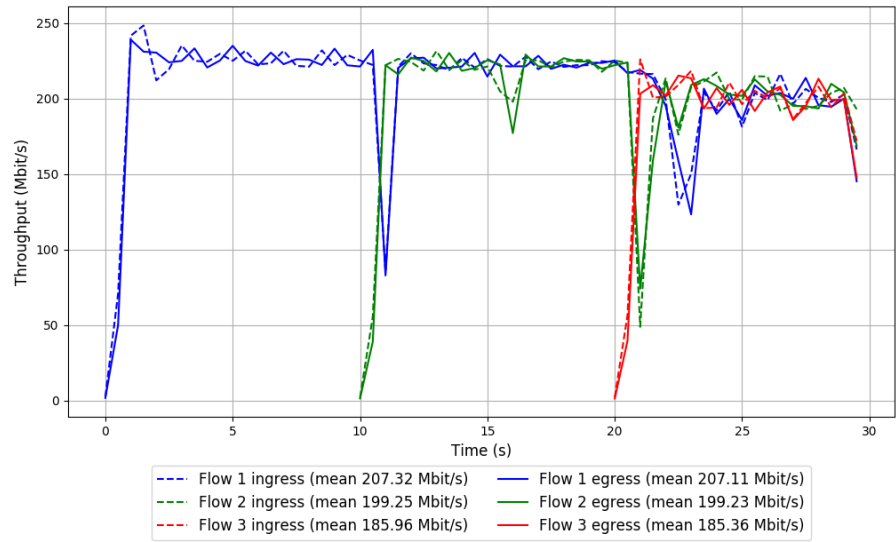
-- Flow 3:

Average throughput: 185.36 Mbit/s

95th percentile per-packet one-way delay: 98.103 ms

Loss rate: 1.43%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-08 04:33:33

End at: 2017-09-08 04:34:03

Below is generated by plot.py at 2017-09-08 09:36:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.05 Mbit/s

95th percentile per-packet one-way delay: 79.446 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 200.75 Mbit/s

95th percentile per-packet one-way delay: 77.865 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 193.90 Mbit/s

95th percentile per-packet one-way delay: 77.186 ms

Loss rate: 0.69%

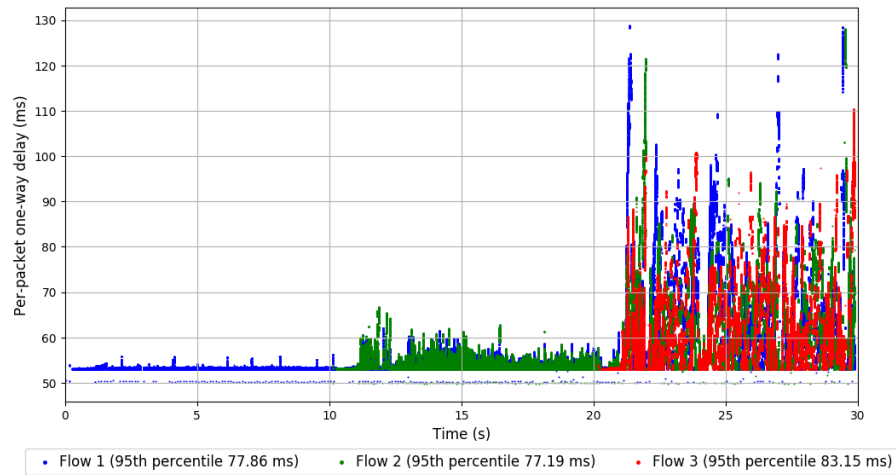
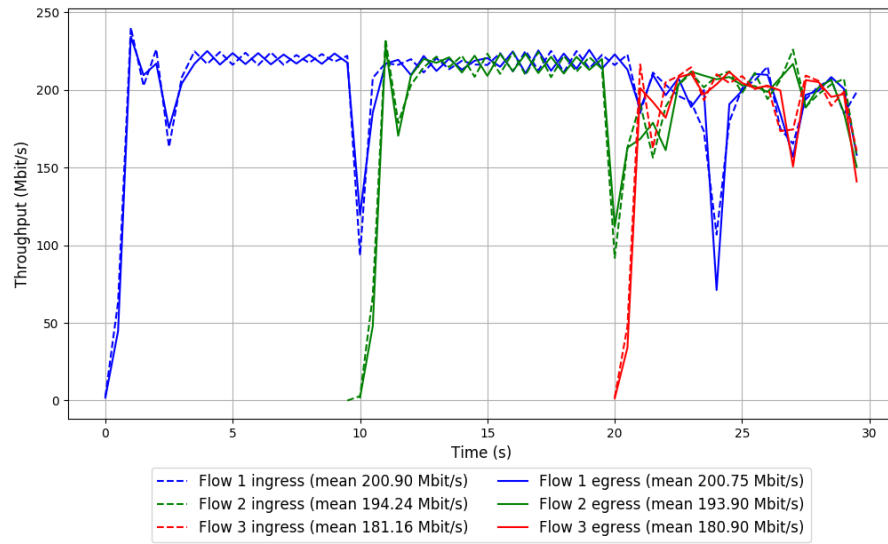
-- Flow 3:

Average throughput: 180.90 Mbit/s

95th percentile per-packet one-way delay: 83.151 ms

Loss rate: 1.24%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-08 04:45:55

End at: 2017-09-08 04:46:25

Below is generated by plot.py at 2017-09-08 09:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 395.27 Mbit/s

95th percentile per-packet one-way delay: 88.304 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 208.13 Mbit/s

95th percentile per-packet one-way delay: 82.184 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 193.19 Mbit/s

95th percentile per-packet one-way delay: 84.753 ms

Loss rate: 0.65%

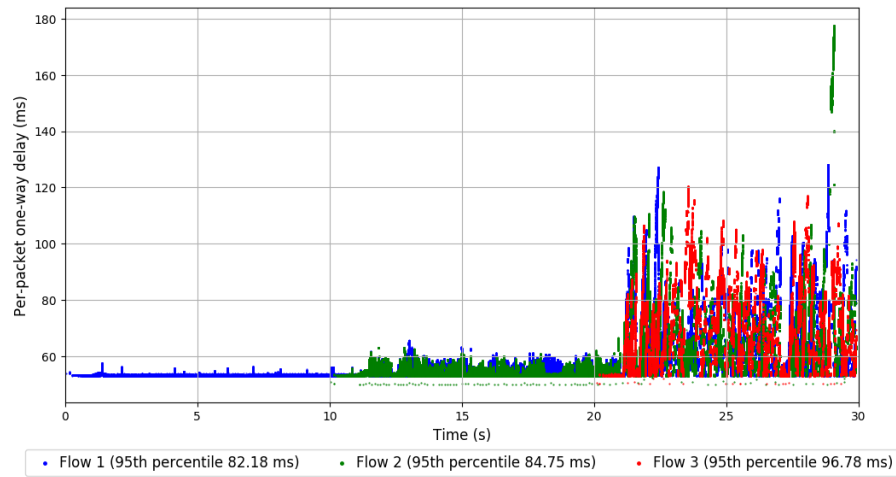
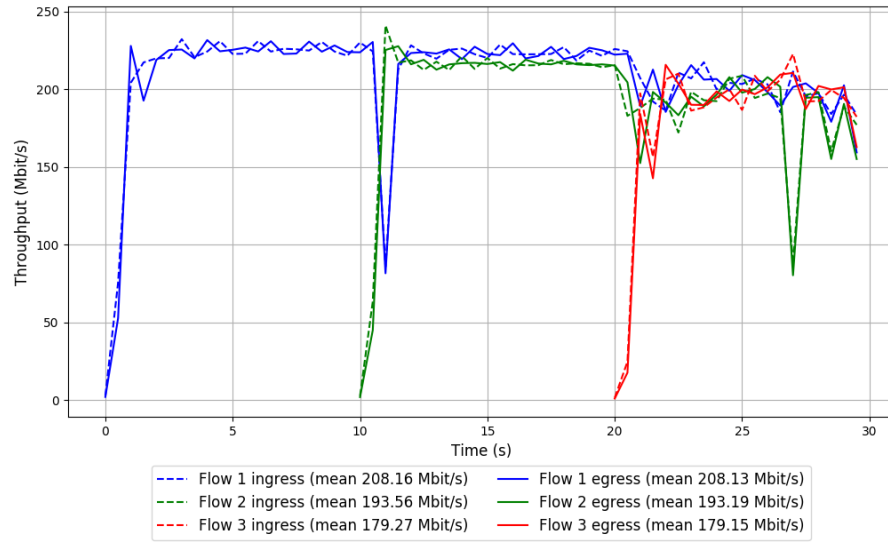
-- Flow 3:

Average throughput: 179.15 Mbit/s

95th percentile per-packet one-way delay: 96.779 ms

Loss rate: 1.20%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-08 04:58:14

End at: 2017-09-08 04:58:44

Below is generated by plot.py at 2017-09-08 09:38:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 400.60 Mbit/s

95th percentile per-packet one-way delay: 83.211 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 210.30 Mbit/s

95th percentile per-packet one-way delay: 76.634 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 192.85 Mbit/s

95th percentile per-packet one-way delay: 85.840 ms

Loss rate: 0.19%

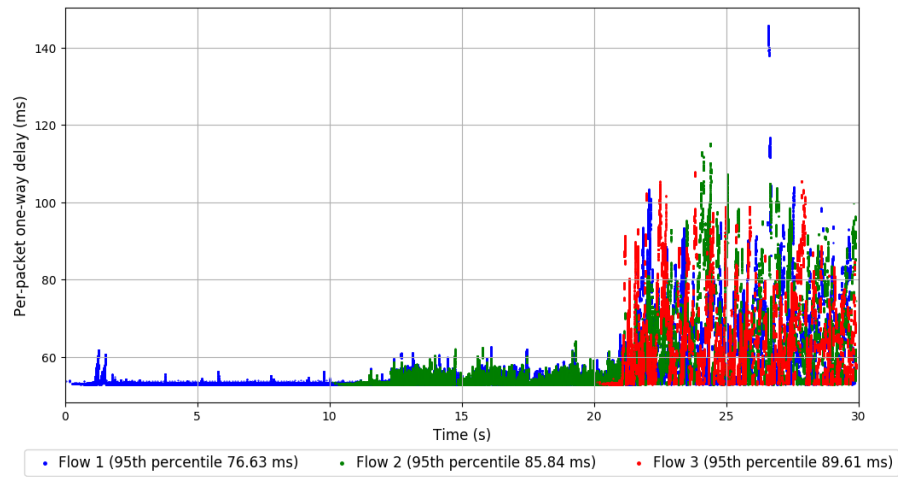
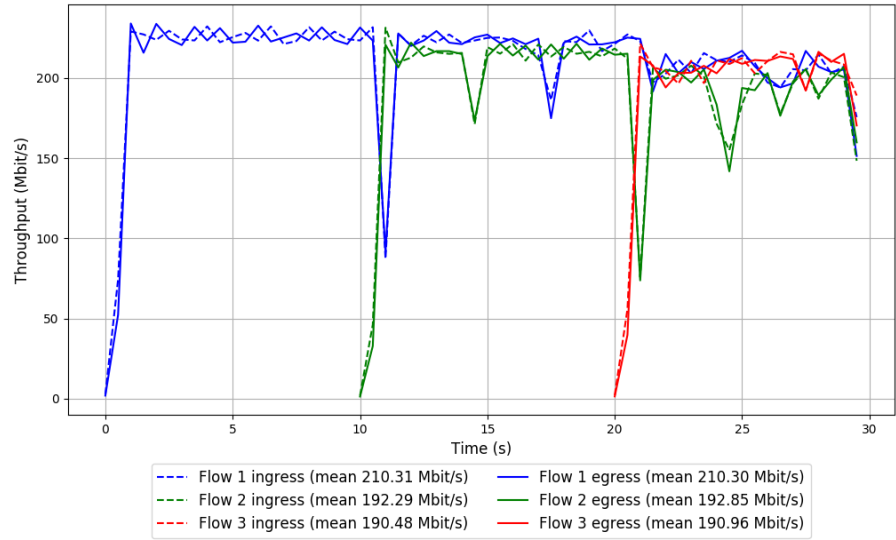
-- Flow 3:

Average throughput: 190.96 Mbit/s

95th percentile per-packet one-way delay: 89.615 ms

Loss rate: 1.11%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-08 05:10:37

End at: 2017-09-08 05:11:07

Below is generated by plot.py at 2017-09-08 09:39:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 394.64 Mbit/s

95th percentile per-packet one-way delay: 85.949 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 202.97 Mbit/s

95th percentile per-packet one-way delay: 82.732 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 200.77 Mbit/s

95th percentile per-packet one-way delay: 87.716 ms

Loss rate: 0.65%

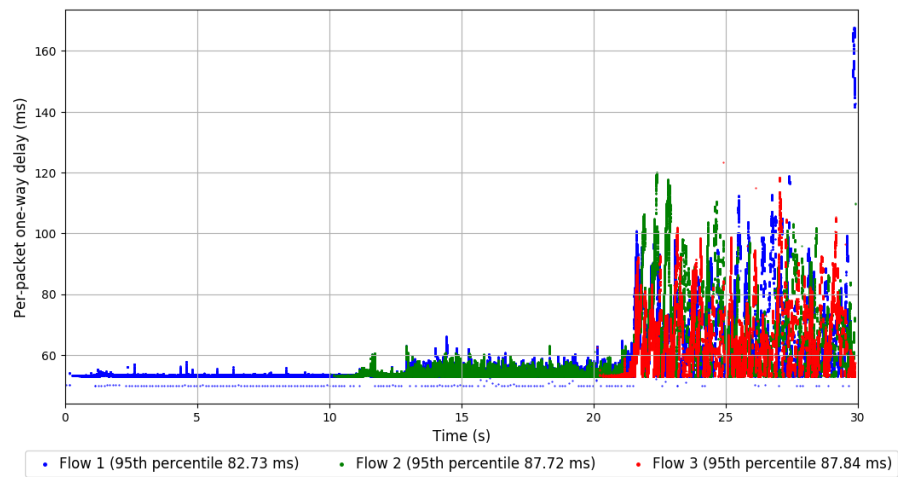
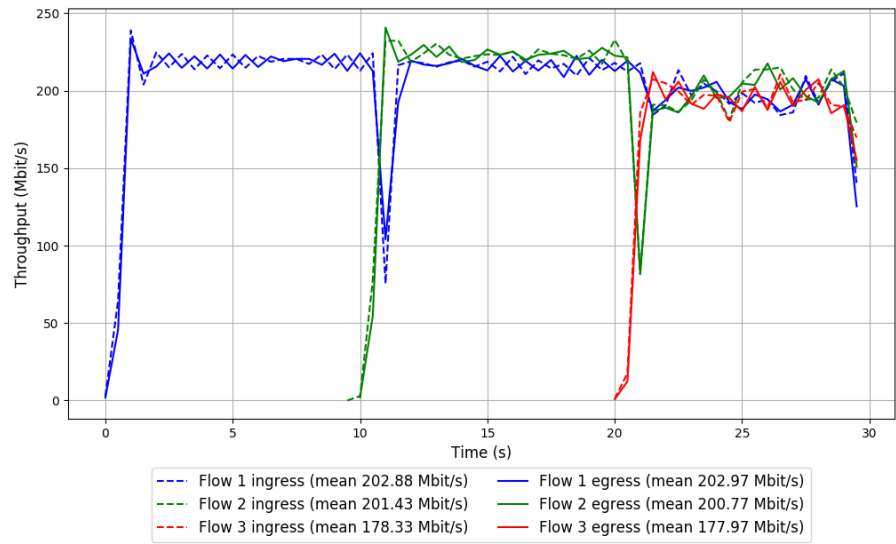
-- Flow 3:

Average throughput: 177.97 Mbit/s

95th percentile per-packet one-way delay: 87.842 ms

Loss rate: 1.28%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-08 05:22:48

End at: 2017-09-08 05:23:18

Below is generated by plot.py at 2017-09-08 09:39:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 397.71 Mbit/s

95th percentile per-packet one-way delay: 81.742 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 201.12 Mbit/s

95th percentile per-packet one-way delay: 75.288 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 201.93 Mbit/s

95th percentile per-packet one-way delay: 81.267 ms

Loss rate: 0.60%

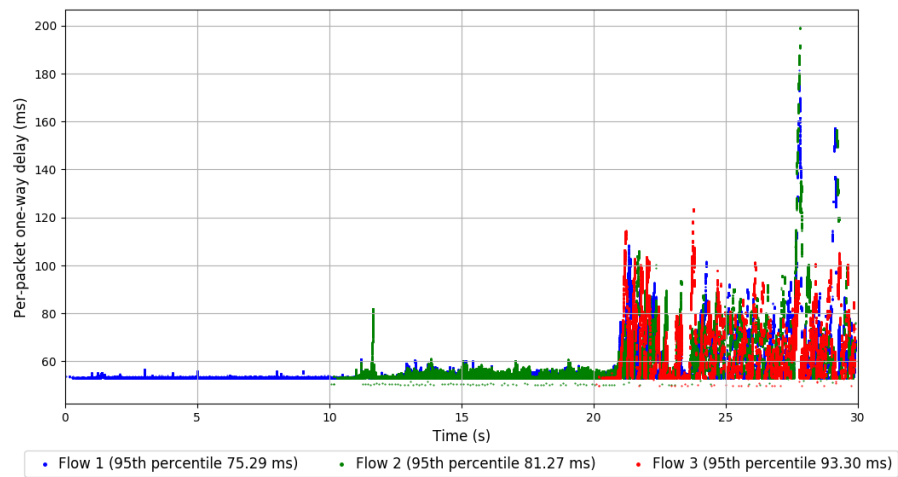
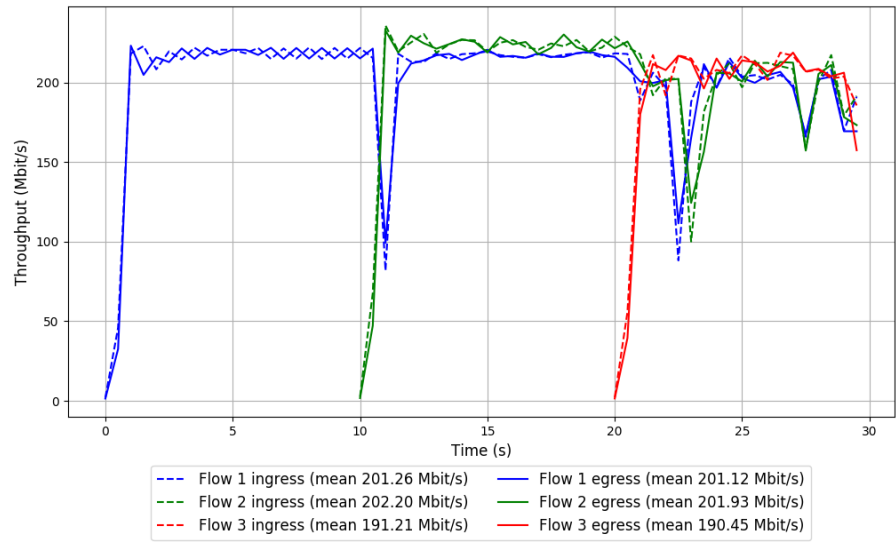
-- Flow 3:

Average throughput: 190.45 Mbit/s

95th percentile per-packet one-way delay: 93.302 ms

Loss rate: 1.41%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-08 05:35:20

End at: 2017-09-08 05:35:50

Below is generated by plot.py at 2017-09-08 09:40:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 387.52 Mbit/s

95th percentile per-packet one-way delay: 86.719 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 195.71 Mbit/s

95th percentile per-packet one-way delay: 80.274 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 200.64 Mbit/s

95th percentile per-packet one-way delay: 85.735 ms

Loss rate: 0.64%

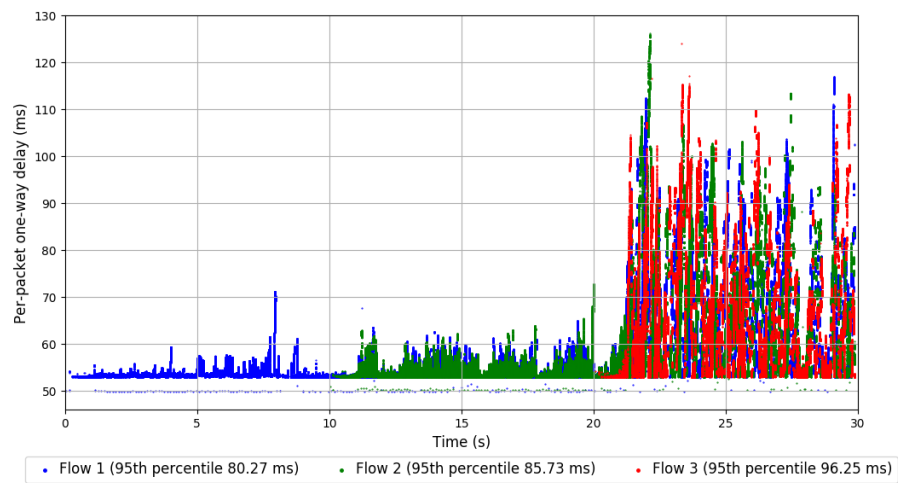
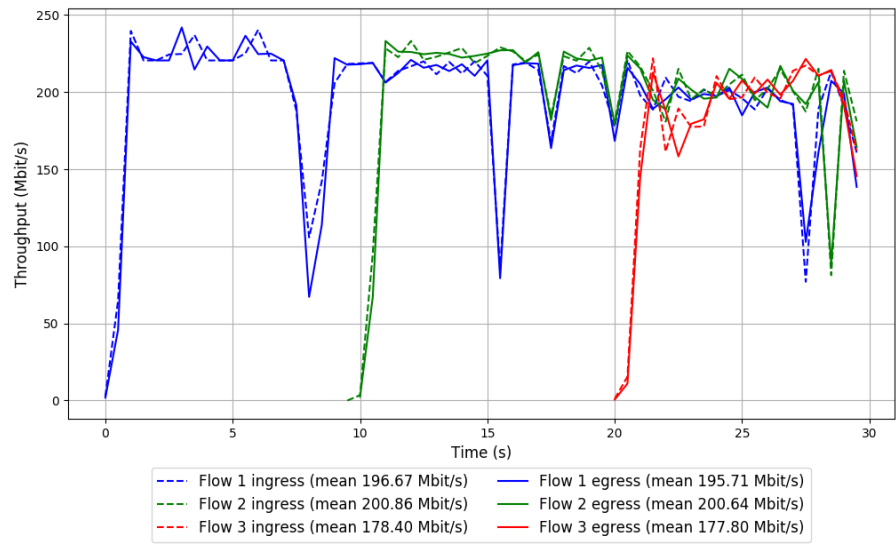
-- Flow 3:

Average throughput: 177.80 Mbit/s

95th percentile per-packet one-way delay: 96.249 ms

Loss rate: 1.29%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-08 05:47:26

End at: 2017-09-08 05:47:56

Below is generated by plot.py at 2017-09-08 09:40:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.09 Mbit/s

95th percentile per-packet one-way delay: 88.933 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 202.53 Mbit/s

95th percentile per-packet one-way delay: 85.226 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 198.46 Mbit/s

95th percentile per-packet one-way delay: 88.280 ms

Loss rate: 0.67%

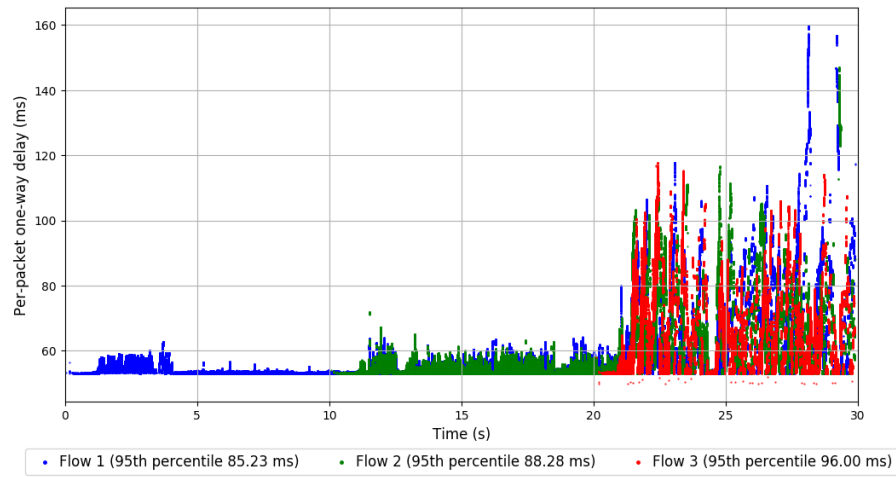
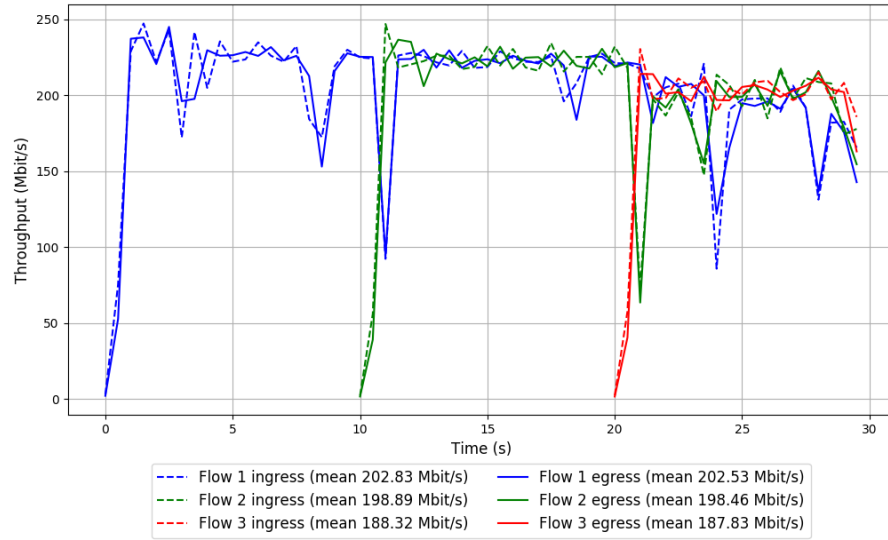
-- Flow 3:

Average throughput: 187.83 Mbit/s

95th percentile per-packet one-way delay: 96.002 ms

Loss rate: 1.34%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-09-08 05:59:45

End at: 2017-09-08 06:00:15

Below is generated by plot.py at 2017-09-08 09:42:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 395.76 Mbit/s

95th percentile per-packet one-way delay: 85.804 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 203.09 Mbit/s

95th percentile per-packet one-way delay: 78.861 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 200.38 Mbit/s

95th percentile per-packet one-way delay: 82.344 ms

Loss rate: 0.60%

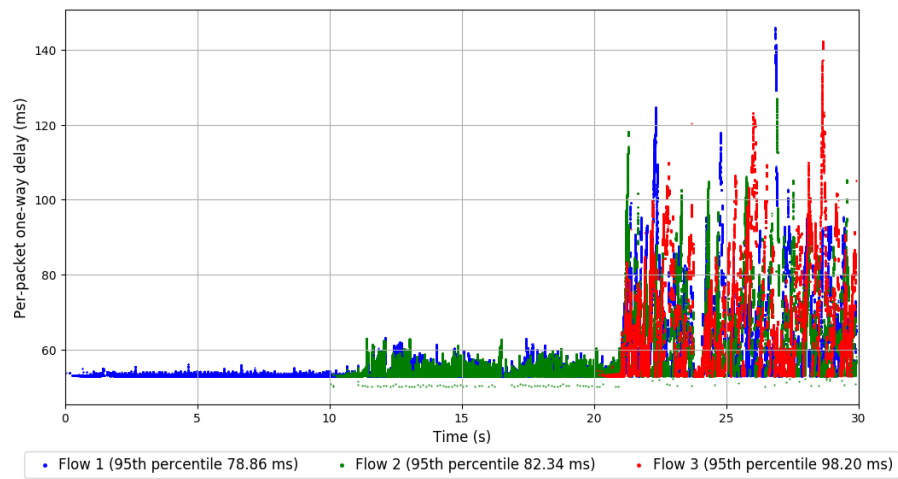
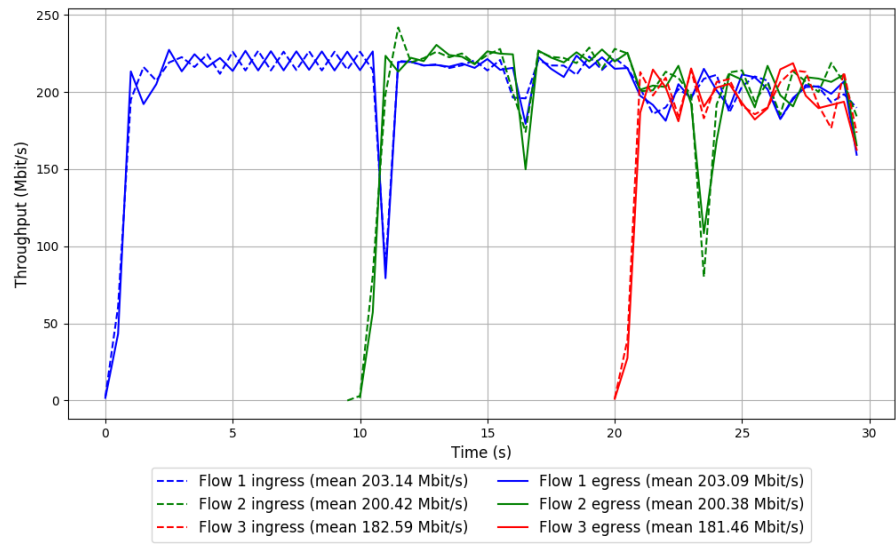
-- Flow 3:

Average throughput: 181.46 Mbit/s

95th percentile per-packet one-way delay: 98.197 ms

Loss rate: 1.41%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-08 06:12:08

End at: 2017-09-08 06:12:38

Below is generated by plot.py at 2017-09-08 09:42:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.96 Mbit/s

95th percentile per-packet one-way delay: 82.342 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 208.59 Mbit/s

95th percentile per-packet one-way delay: 76.360 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 199.20 Mbit/s

95th percentile per-packet one-way delay: 82.257 ms

Loss rate: 0.60%

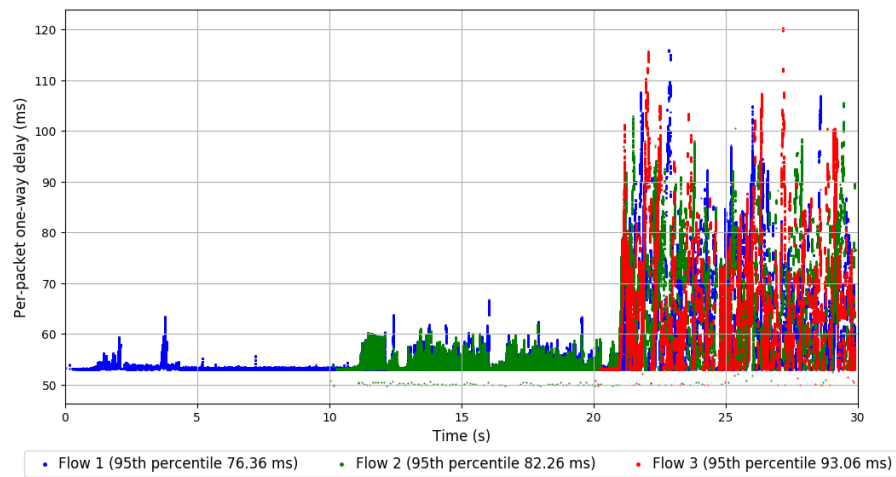
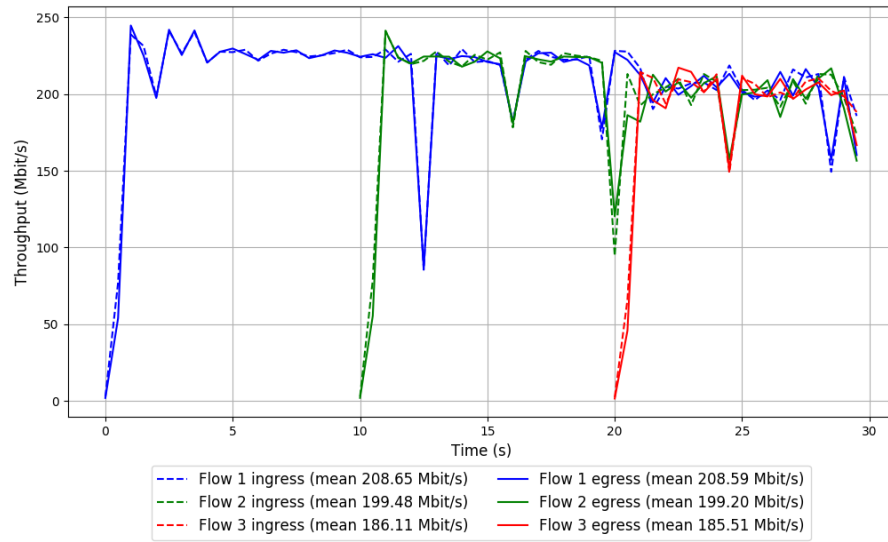
-- Flow 3:

Average throughput: 185.51 Mbit/s

95th percentile per-packet one-way delay: 93.063 ms

Loss rate: 1.35%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 04:19:05

End at: 2017-09-08 04:19:35

Below is generated by plot.py at 2017-09-08 09:43:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.29 Mbit/s

95th percentile per-packet one-way delay: 73.625 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 226.21 Mbit/s

95th percentile per-packet one-way delay: 75.535 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 153.92 Mbit/s

95th percentile per-packet one-way delay: 72.332 ms

Loss rate: 0.17%

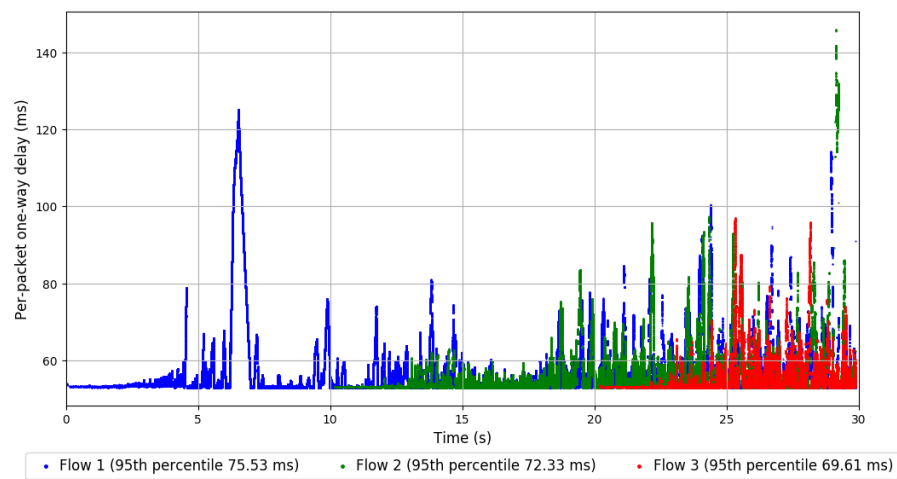
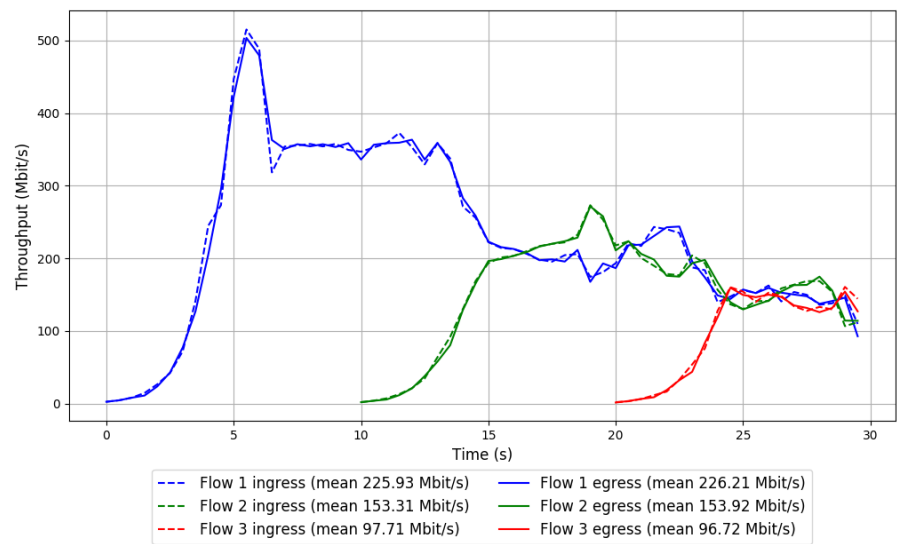
-- Flow 3:

Average throughput: 96.72 Mbit/s

95th percentile per-packet one-way delay: 69.606 ms

Loss rate: 2.07%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 04:31:36

End at: 2017-09-08 04:32:06

Below is generated by plot.py at 2017-09-08 09:43:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.91 Mbit/s

95th percentile per-packet one-way delay: 74.516 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 234.75 Mbit/s

95th percentile per-packet one-way delay: 75.236 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 141.59 Mbit/s

95th percentile per-packet one-way delay: 73.966 ms

Loss rate: 0.44%

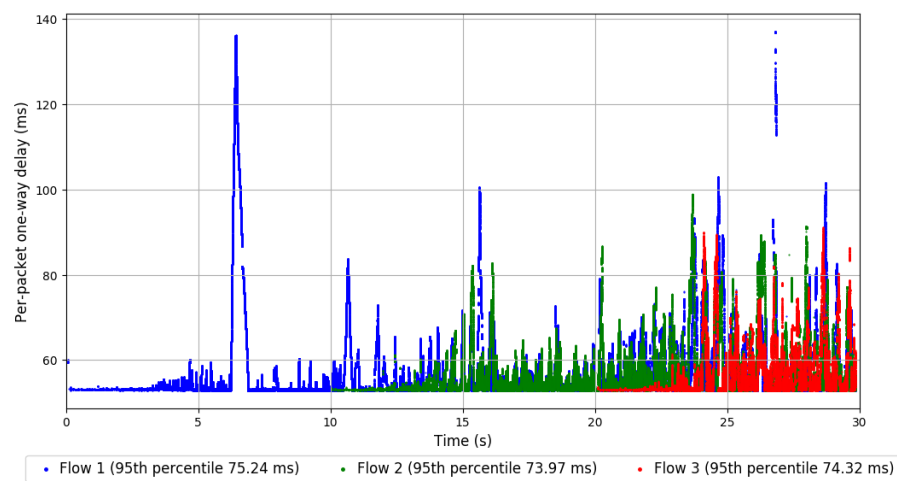
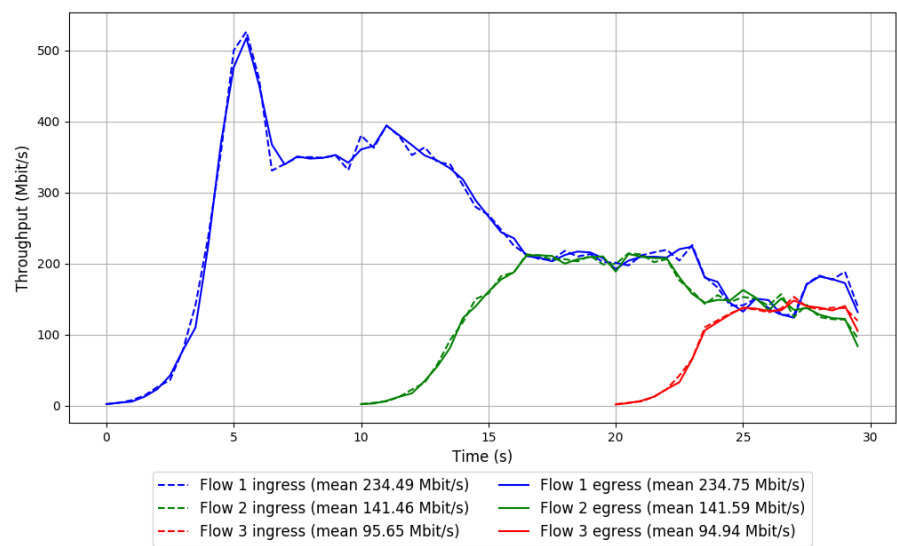
-- Flow 3:

Average throughput: 94.94 Mbit/s

95th percentile per-packet one-way delay: 74.318 ms

Loss rate: 1.76%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 04:43:54

End at: 2017-09-08 04:44:24

Below is generated by plot.py at 2017-09-08 09:44:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.11 Mbit/s

95th percentile per-packet one-way delay: 72.153 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 224.29 Mbit/s

95th percentile per-packet one-way delay: 71.341 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 155.83 Mbit/s

95th percentile per-packet one-way delay: 71.840 ms

Loss rate: 0.53%

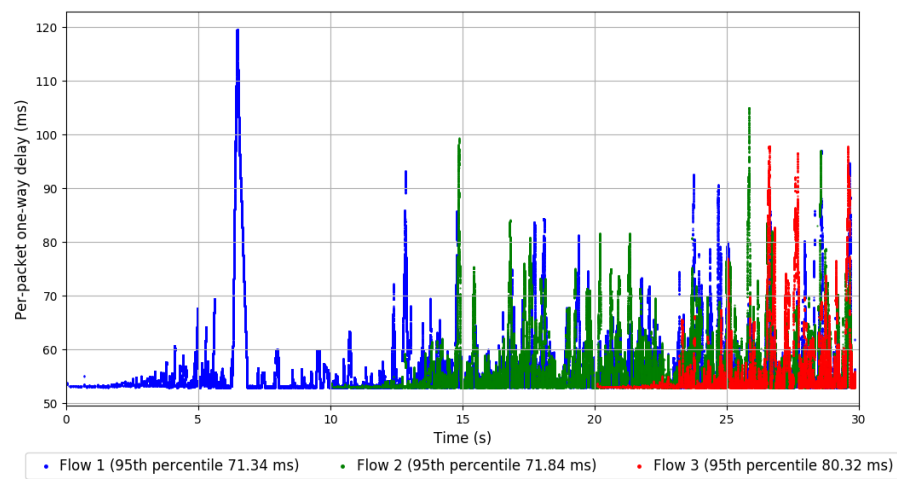
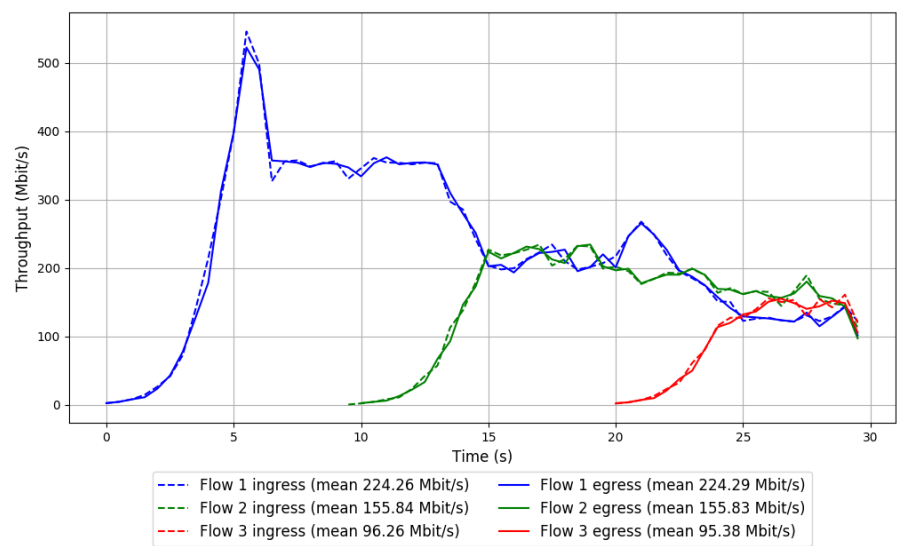
-- Flow 3:

Average throughput: 95.38 Mbit/s

95th percentile per-packet one-way delay: 80.322 ms

Loss rate: 2.04%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-08 04:56:16

End at: 2017-09-08 04:56:46

Below is generated by plot.py at 2017-09-08 09:44:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 348.74 Mbit/s

95th percentile per-packet one-way delay: 76.231 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 211.70 Mbit/s

95th percentile per-packet one-way delay: 80.150 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 156.97 Mbit/s

95th percentile per-packet one-way delay: 70.984 ms

Loss rate: 0.22%

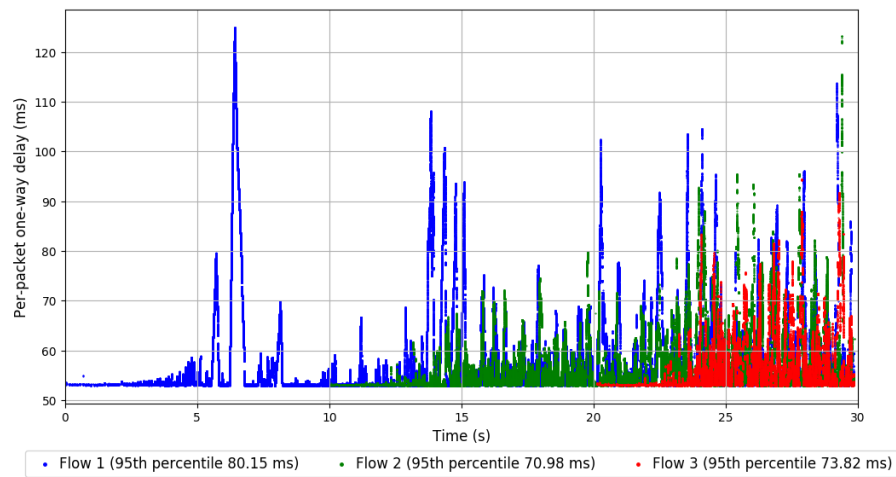
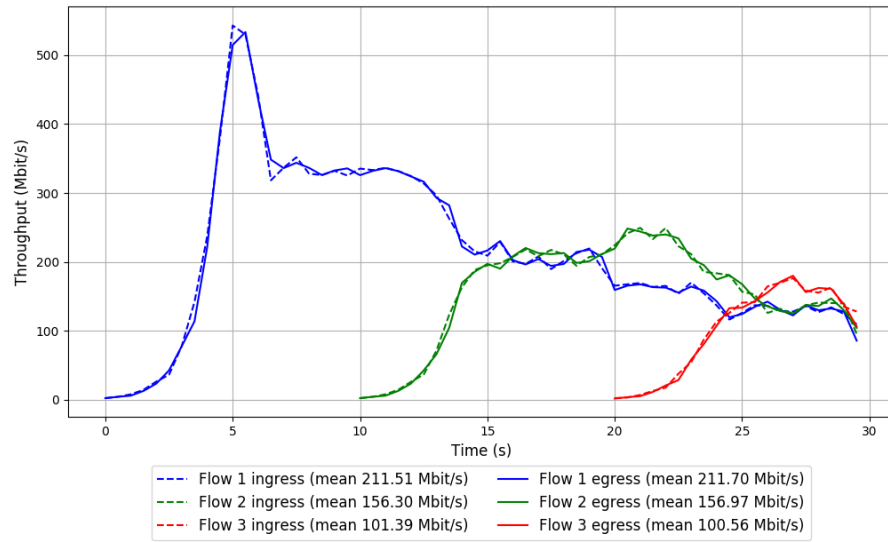
-- Flow 3:

Average throughput: 100.56 Mbit/s

95th percentile per-packet one-way delay: 73.820 ms

Loss rate: 1.82%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 05:08:40

End at: 2017-09-08 05:09:10

Below is generated by plot.py at 2017-09-08 09:45:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 348.61 Mbit/s

95th percentile per-packet one-way delay: 71.654 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 212.01 Mbit/s

95th percentile per-packet one-way delay: 69.961 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 153.20 Mbit/s

95th percentile per-packet one-way delay: 73.051 ms

Loss rate: 0.41%

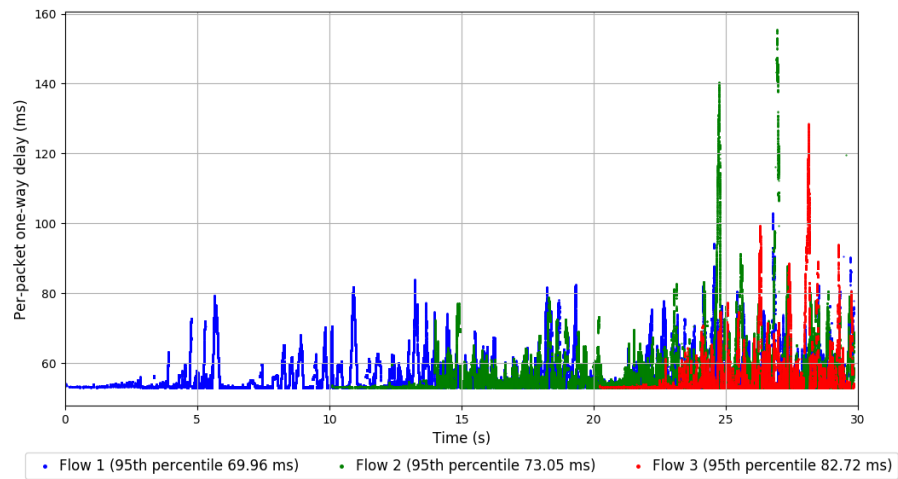
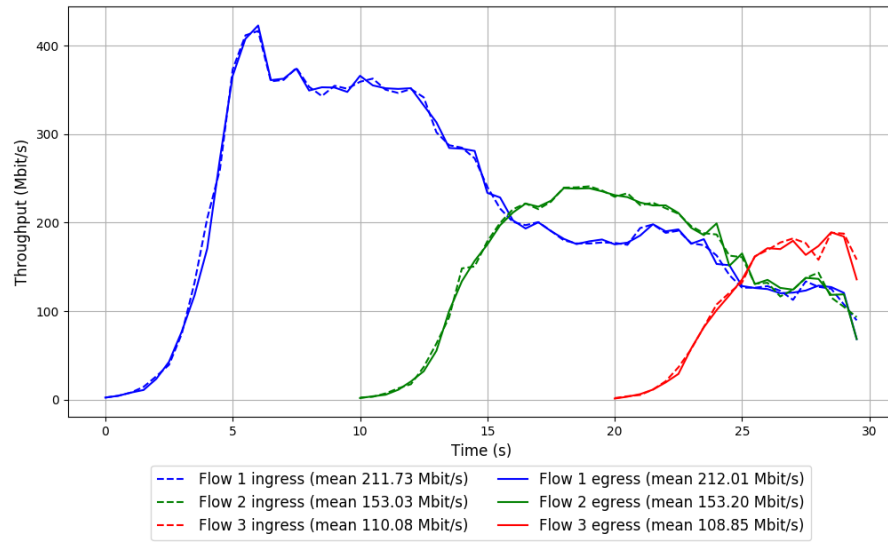
-- Flow 3:

Average throughput: 108.85 Mbit/s

95th percentile per-packet one-way delay: 82.724 ms

Loss rate: 2.14%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 05:20:48

End at: 2017-09-08 05:21:18

Below is generated by plot.py at 2017-09-08 09:45:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 352.40 Mbit/s

95th percentile per-packet one-way delay: 73.716 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 225.32 Mbit/s

95th percentile per-packet one-way delay: 72.797 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 142.92 Mbit/s

95th percentile per-packet one-way delay: 75.727 ms

Loss rate: 0.63%

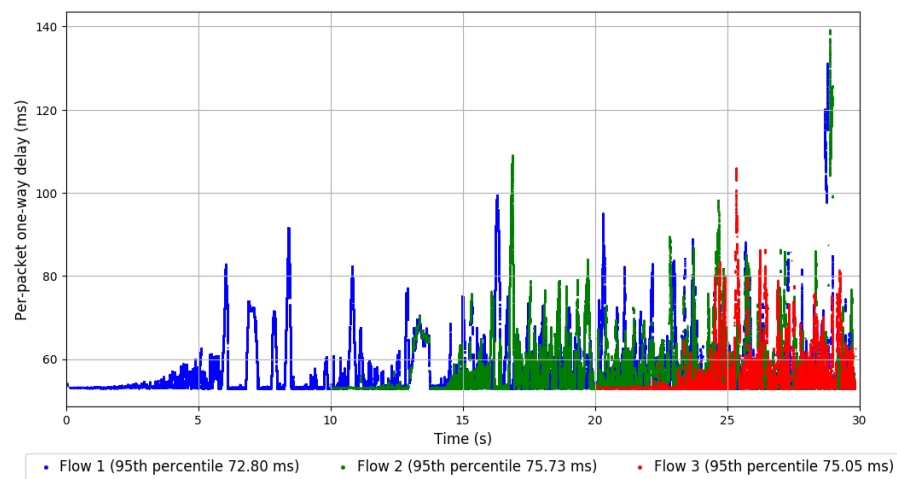
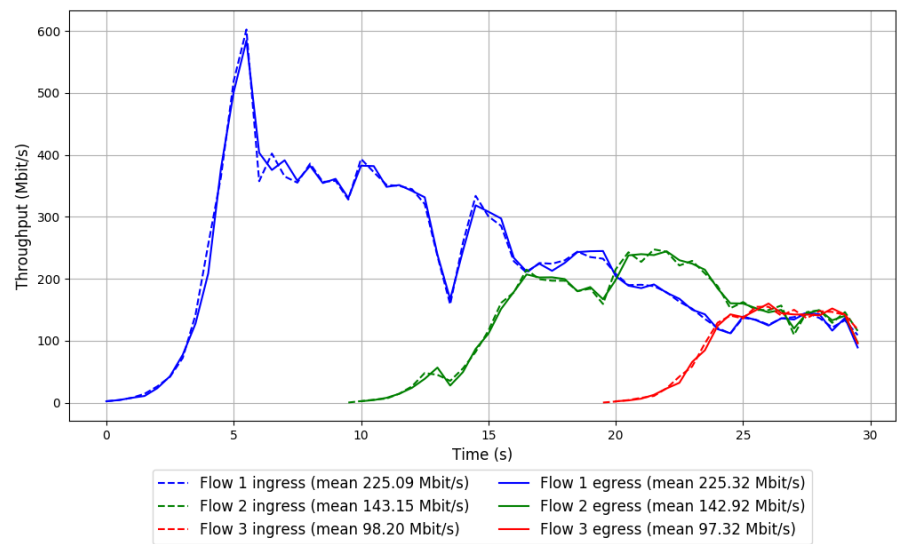
-- Flow 3:

Average throughput: 97.32 Mbit/s

95th percentile per-packet one-way delay: 75.048 ms

Loss rate: 1.87%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 05:33:16

End at: 2017-09-08 05:33:46

Below is generated by plot.py at 2017-09-08 09:46:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.42 Mbit/s

95th percentile per-packet one-way delay: 72.318 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 209.99 Mbit/s

95th percentile per-packet one-way delay: 73.075 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 165.23 Mbit/s

95th percentile per-packet one-way delay: 71.030 ms

Loss rate: 0.50%

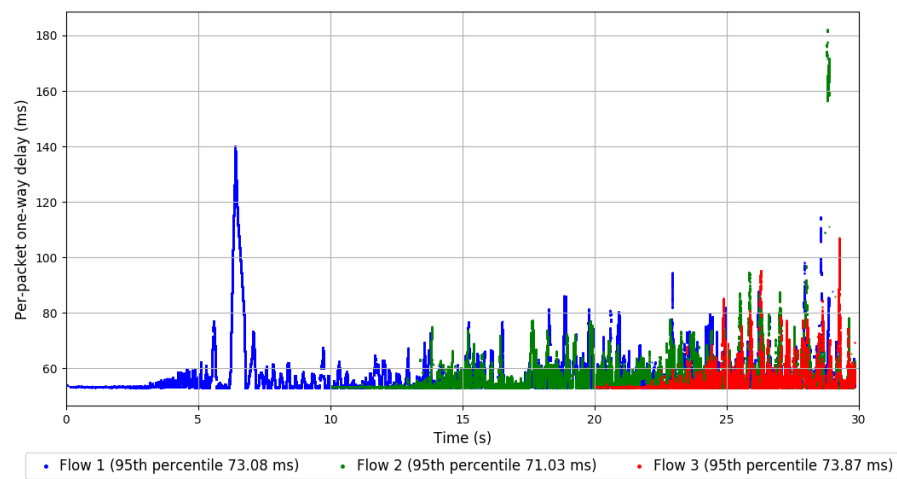
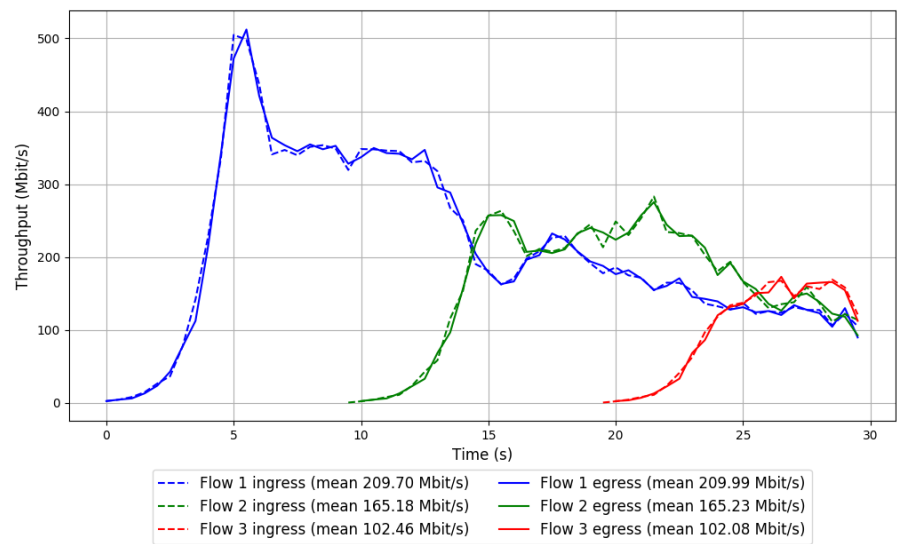
-- Flow 3:

Average throughput: 102.08 Mbit/s

95th percentile per-packet one-way delay: 73.871 ms

Loss rate: 1.40%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 05:45:27

End at: 2017-09-08 05:45:57

Below is generated by plot.py at 2017-09-08 09:46:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 352.13 Mbit/s

95th percentile per-packet one-way delay: 76.820 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 213.67 Mbit/s

95th percentile per-packet one-way delay: 75.837 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 154.25 Mbit/s

95th percentile per-packet one-way delay: 78.234 ms

Loss rate: 0.57%

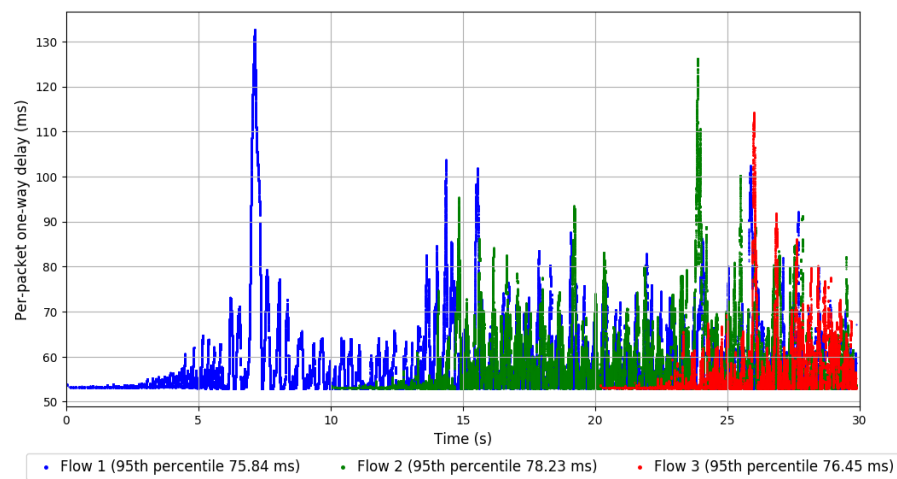
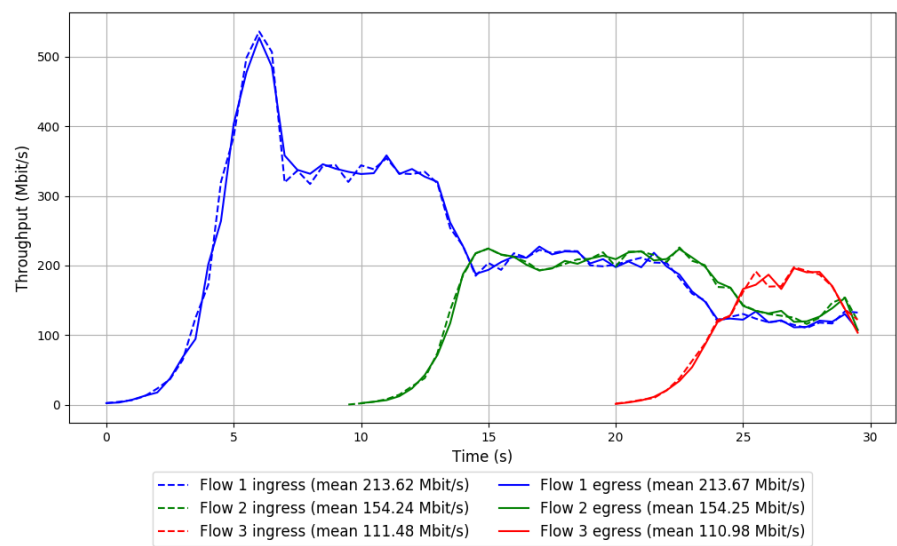
-- Flow 3:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 76.450 ms

Loss rate: 1.63%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 05:57:42

End at: 2017-09-08 05:58:12

Below is generated by plot.py at 2017-09-08 09:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.03 Mbit/s

95th percentile per-packet one-way delay: 71.657 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 219.65 Mbit/s

95th percentile per-packet one-way delay: 72.004 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 156.17 Mbit/s

95th percentile per-packet one-way delay: 69.808 ms

Loss rate: 0.47%

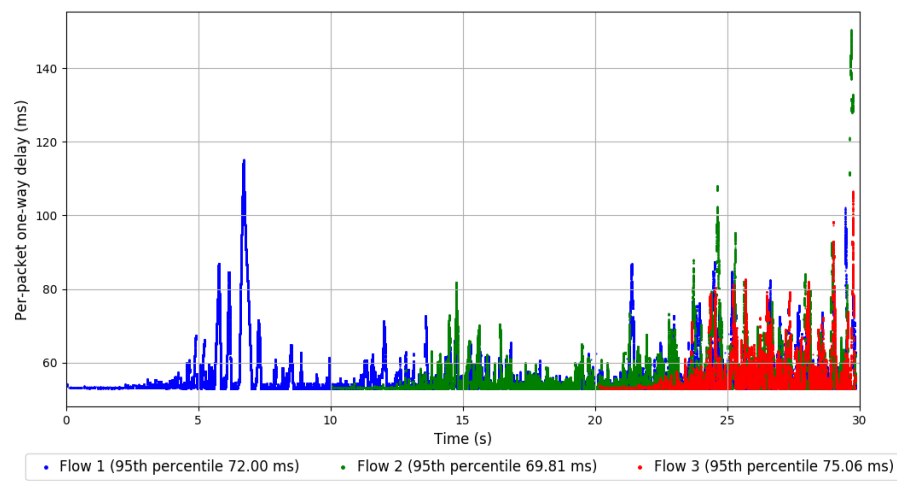
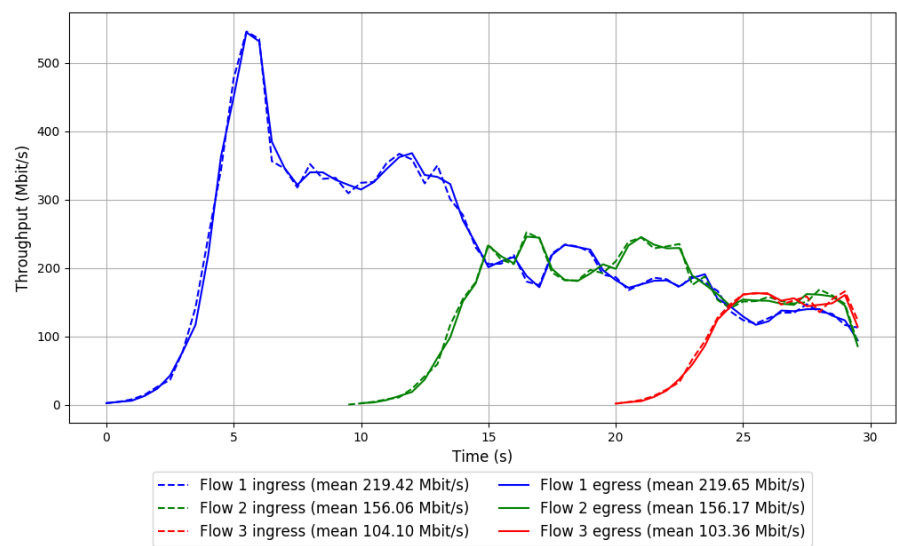
-- Flow 3:

Average throughput: 103.36 Mbit/s

95th percentile per-packet one-way delay: 75.058 ms

Loss rate: 1.84%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 06:10:08

End at: 2017-09-08 06:10:38

Below is generated by plot.py at 2017-09-08 09:47:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.43 Mbit/s

95th percentile per-packet one-way delay: 68.805 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 222.74 Mbit/s

95th percentile per-packet one-way delay: 68.787 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 147.97 Mbit/s

95th percentile per-packet one-way delay: 67.369 ms

Loss rate: 0.66%

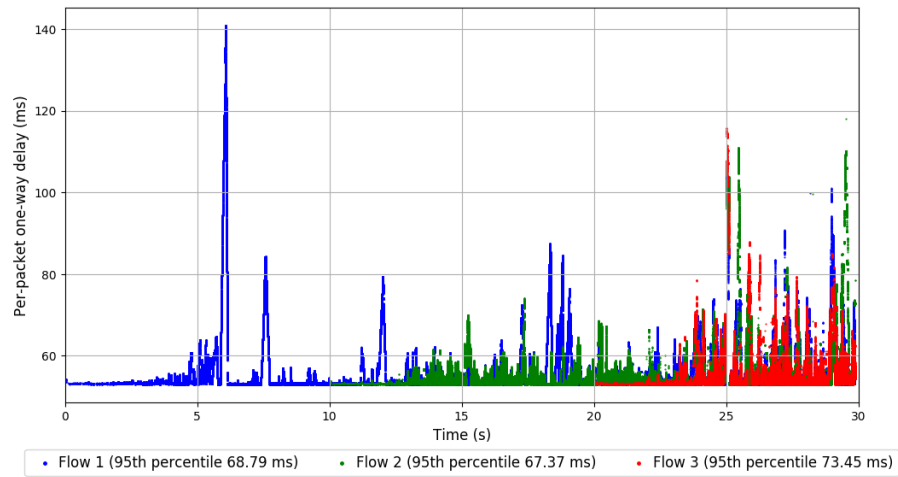
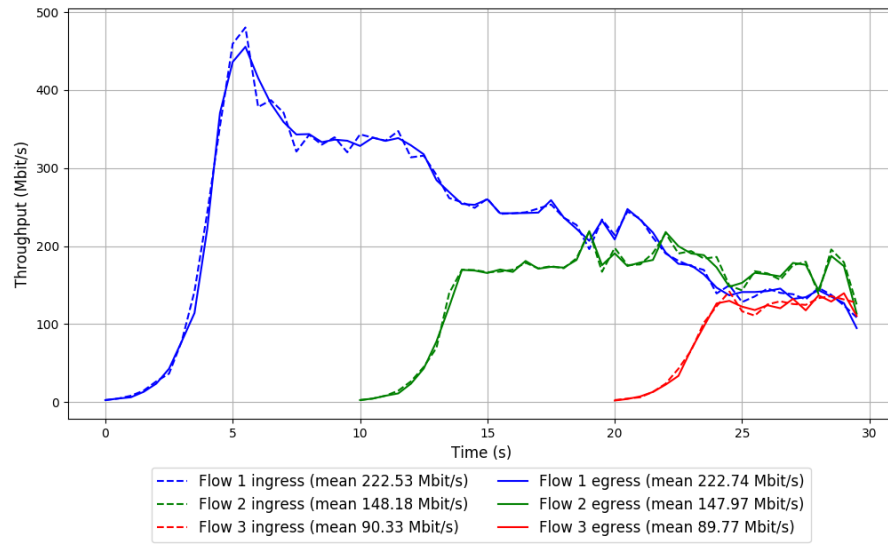
-- Flow 3:

Average throughput: 89.77 Mbit/s

95th percentile per-packet one-way delay: 73.452 ms

Loss rate: 1.78%

Run 10: Report of CalibratedKoho — Data Link

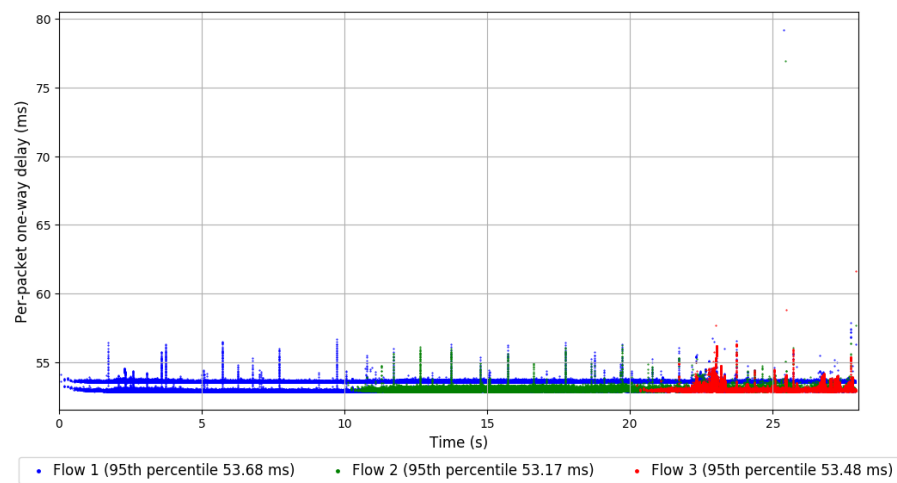
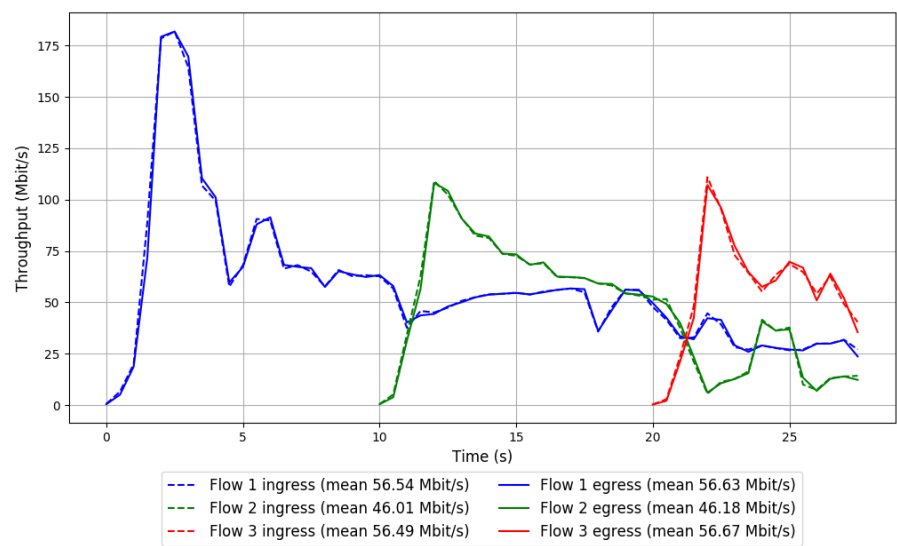


```
Run 1: Statistics of Copa

Start at: 2017-09-08 04:15:12
End at: 2017-09-08 04:15:42

# Below is generated by plot.py at 2017-09-08 09:48:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.72 Mbit/s
95th percentile per-packet one-way delay: 53.661 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 56.63 Mbit/s
95th percentile per-packet one-way delay: 53.678 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 46.18 Mbit/s
95th percentile per-packet one-way delay: 53.173 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 53.476 ms
Loss rate: 0.98%
```


Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-08 04:27:44

End at: 2017-09-08 04:28:14

Below is generated by plot.py at 2017-09-08 09:48:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.87 Mbit/s

95th percentile per-packet one-way delay: 53.654 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 56.57 Mbit/s

95th percentile per-packet one-way delay: 53.640 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 52.72 Mbit/s

95th percentile per-packet one-way delay: 53.677 ms

Loss rate: 0.26%

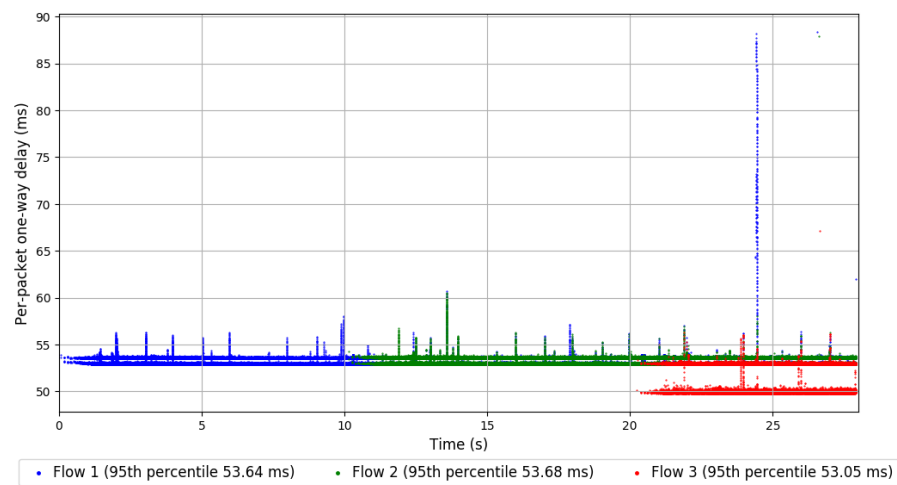
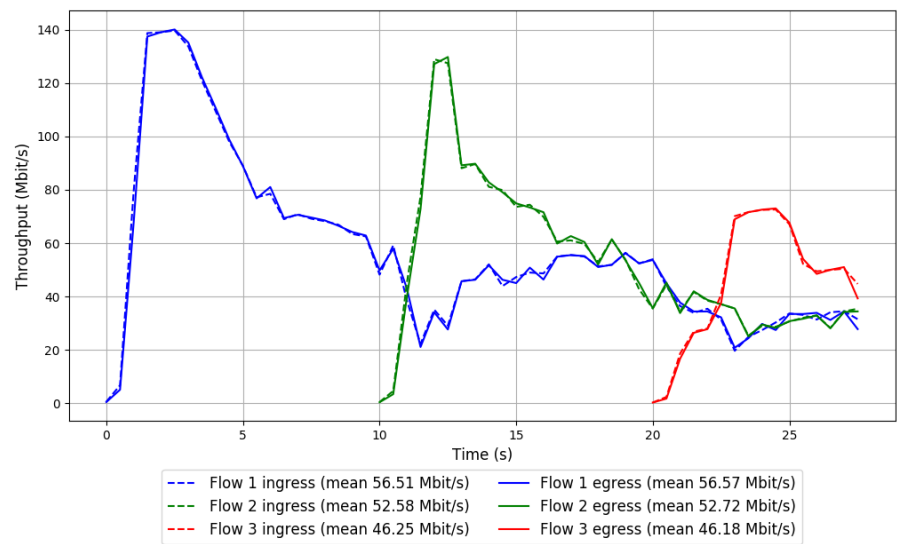
-- Flow 3:

Average throughput: 46.18 Mbit/s

95th percentile per-packet one-way delay: 53.050 ms

Loss rate: 1.46%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-08 04:40:05

End at: 2017-09-08 04:40:35

Below is generated by plot.py at 2017-09-08 09:49:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.31 Mbit/s

95th percentile per-packet one-way delay: 53.715 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 55.95 Mbit/s

95th percentile per-packet one-way delay: 53.704 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 51.04 Mbit/s

95th percentile per-packet one-way delay: 53.749 ms

Loss rate: 0.53%

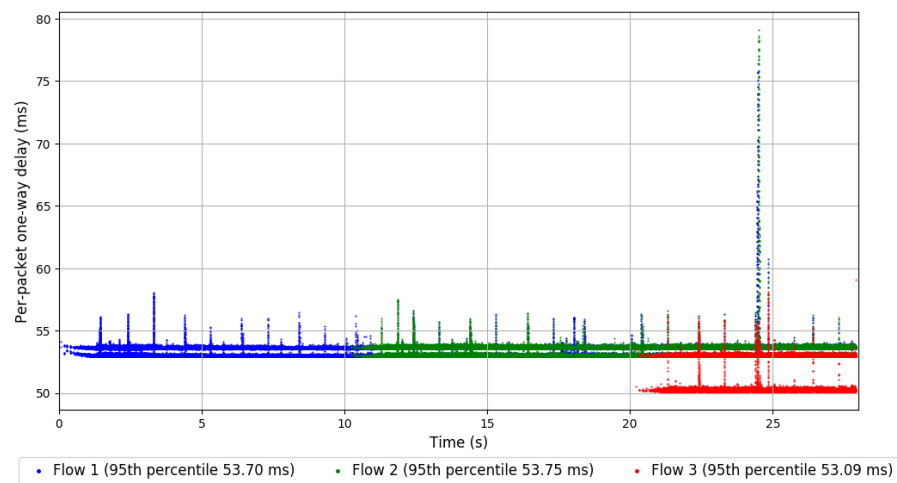
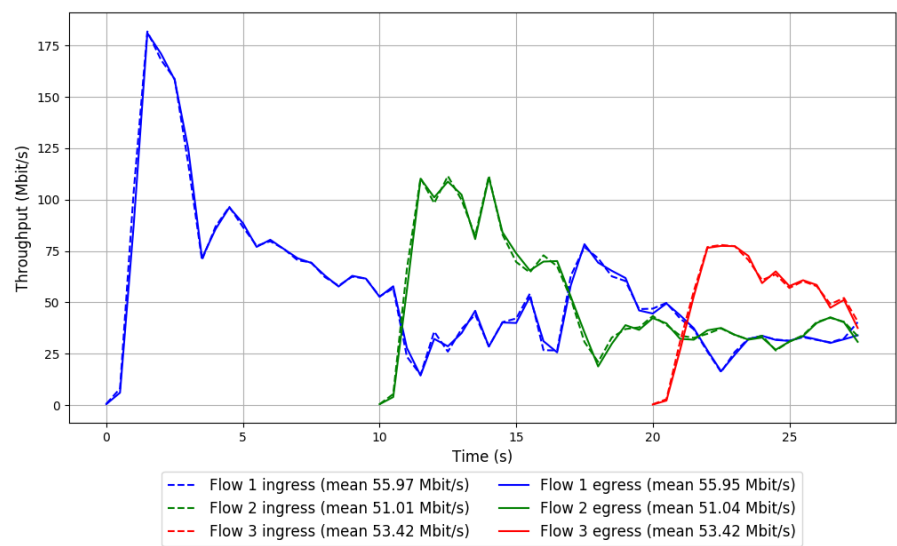
-- Flow 3:

Average throughput: 53.42 Mbit/s

95th percentile per-packet one-way delay: 53.093 ms

Loss rate: 1.22%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-08 04:52:27

End at: 2017-09-08 04:52:57

Below is generated by plot.py at 2017-09-08 09:49:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.18 Mbit/s

95th percentile per-packet one-way delay: 53.612 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 67.87 Mbit/s

95th percentile per-packet one-way delay: 53.091 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 44.56 Mbit/s

95th percentile per-packet one-way delay: 53.112 ms

Loss rate: 0.65%

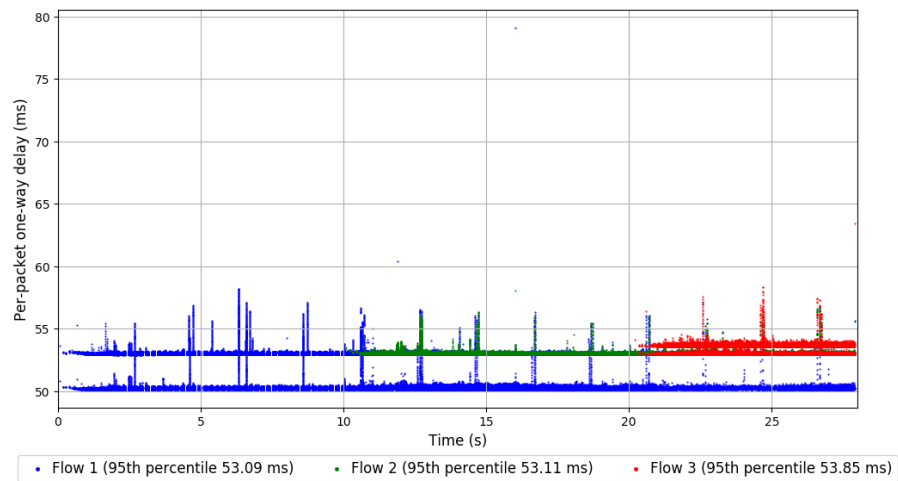
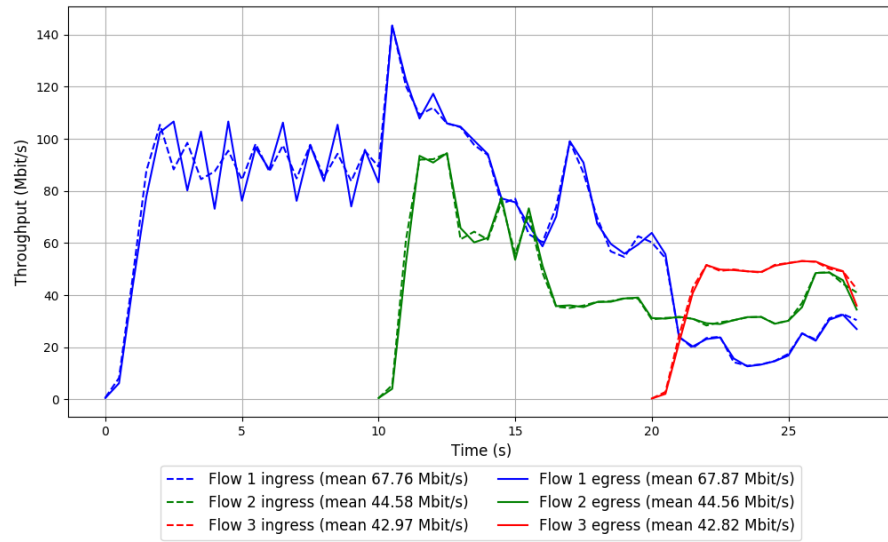
-- Flow 3:

Average throughput: 42.82 Mbit/s

95th percentile per-packet one-way delay: 53.847 ms

Loss rate: 1.66%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-08 05:04:47

End at: 2017-09-08 05:05:17

Below is generated by plot.py at 2017-09-08 09:49:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.55 Mbit/s

95th percentile per-packet one-way delay: 53.638 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 54.10 Mbit/s

95th percentile per-packet one-way delay: 53.185 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 47.23 Mbit/s

95th percentile per-packet one-way delay: 53.066 ms

Loss rate: 0.54%

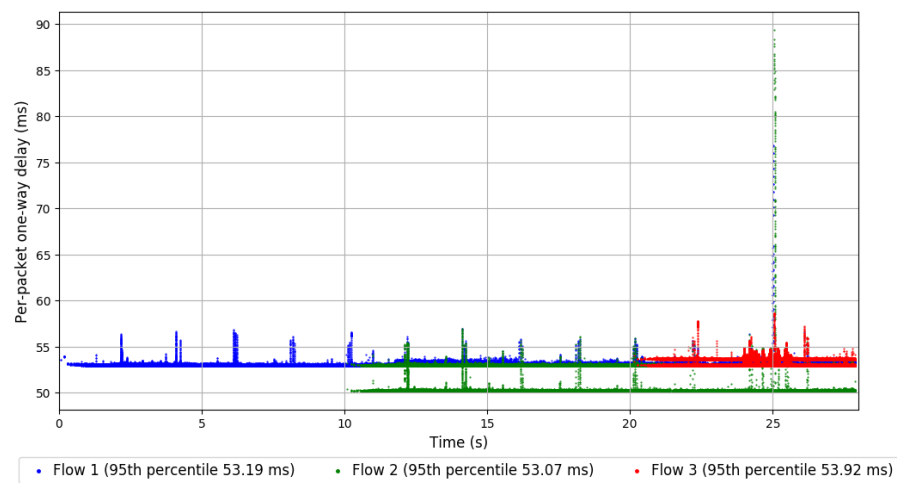
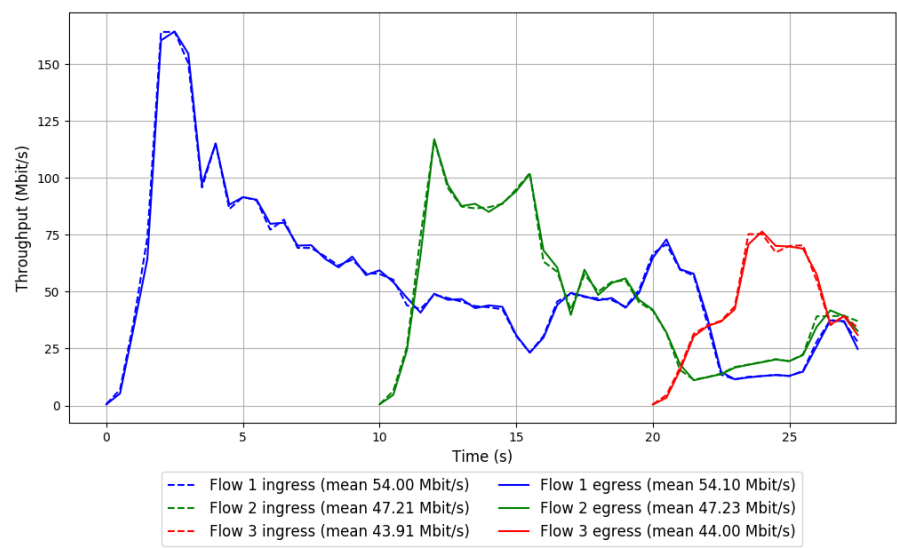
-- Flow 3:

Average throughput: 44.00 Mbit/s

95th percentile per-packet one-way delay: 53.924 ms

Loss rate: 1.14%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-08 05:16:57

End at: 2017-09-08 05:17:27

Below is generated by plot.py at 2017-09-08 09:49:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.50 Mbit/s

95th percentile per-packet one-way delay: 53.134 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 55.48 Mbit/s

95th percentile per-packet one-way delay: 53.169 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 50.51 Mbit/s

95th percentile per-packet one-way delay: 53.075 ms

Loss rate: 0.44%

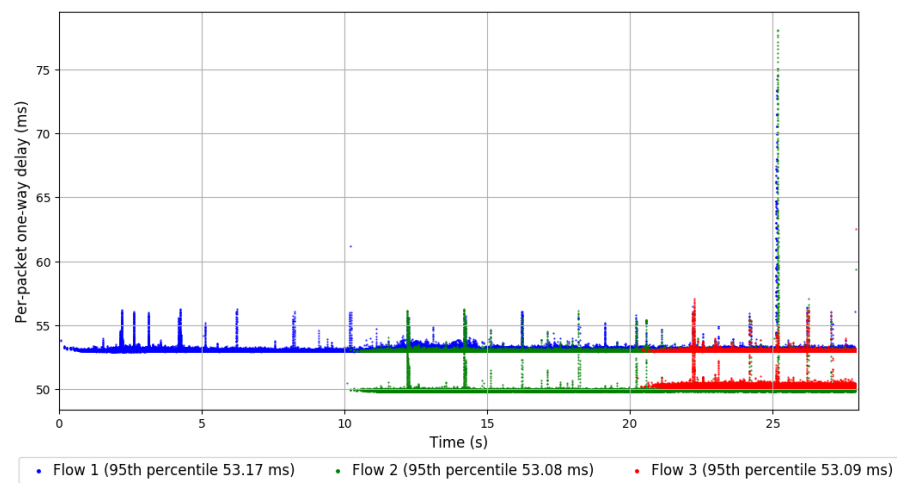
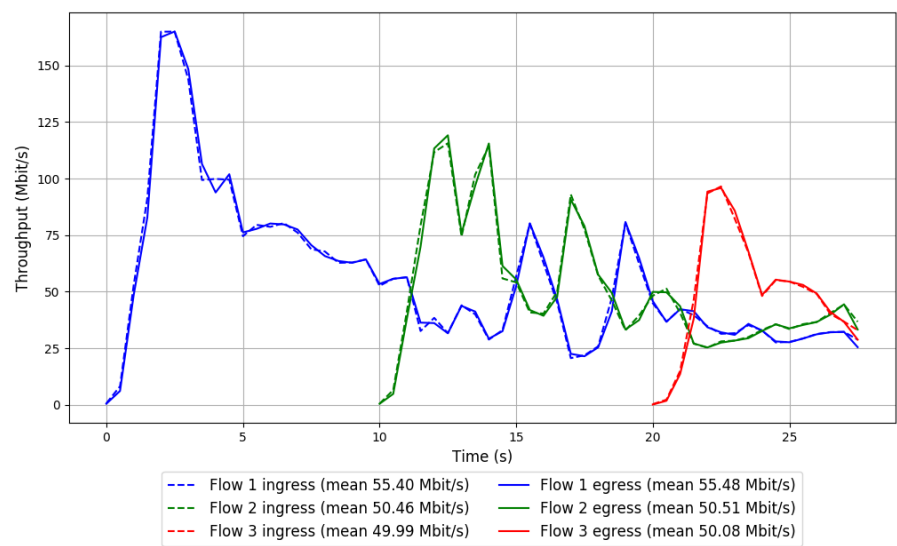
-- Flow 3:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 53.092 ms

Loss rate: 1.04%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-08 05:29:18

End at: 2017-09-08 05:29:48

Below is generated by plot.py at 2017-09-08 09:50:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.35 Mbit/s

95th percentile per-packet one-way delay: 53.128 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 58.84 Mbit/s

95th percentile per-packet one-way delay: 53.104 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 49.65 Mbit/s

95th percentile per-packet one-way delay: 53.149 ms

Loss rate: 0.37%

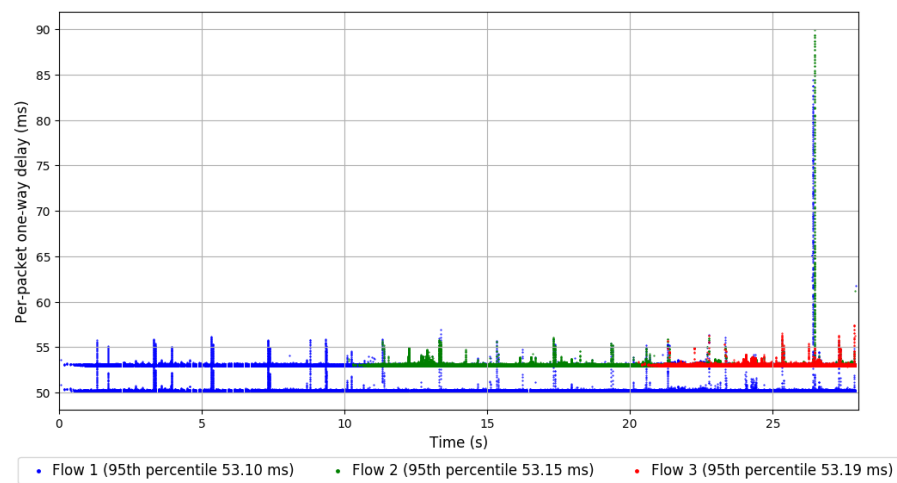
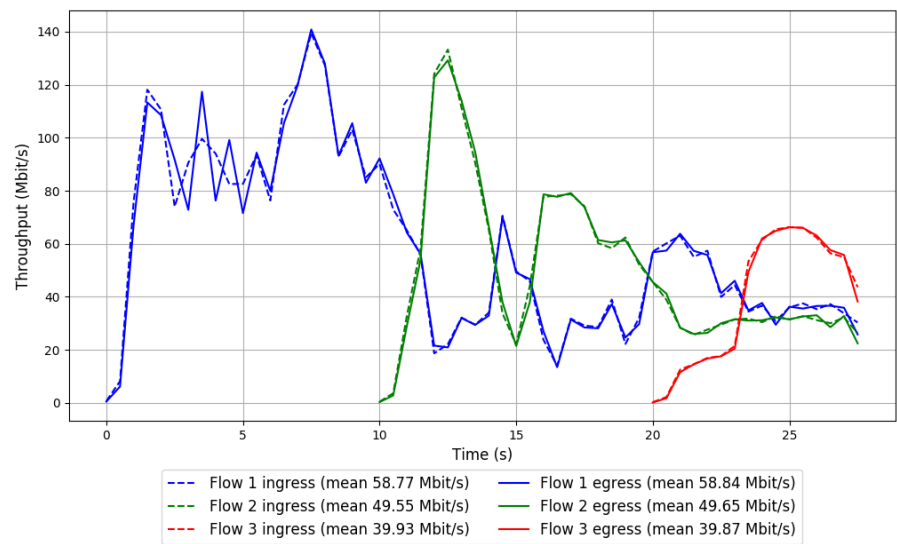
-- Flow 3:

Average throughput: 39.87 Mbit/s

95th percentile per-packet one-way delay: 53.188 ms

Loss rate: 1.56%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-08 05:41:45

End at: 2017-09-08 05:42:15

Below is generated by plot.py at 2017-09-08 09:50:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.92 Mbit/s

95th percentile per-packet one-way delay: 53.122 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 86.49 Mbit/s

95th percentile per-packet one-way delay: 53.128 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 84.71 Mbit/s

95th percentile per-packet one-way delay: 53.101 ms

Loss rate: 0.55%

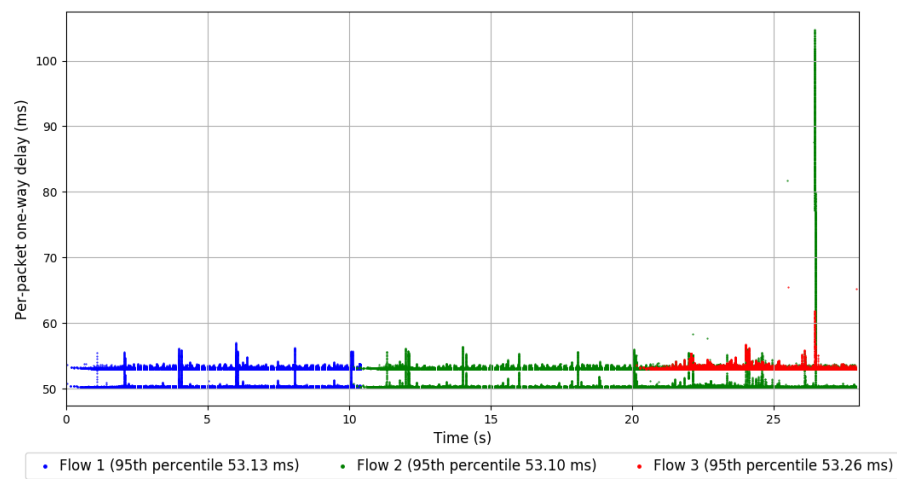
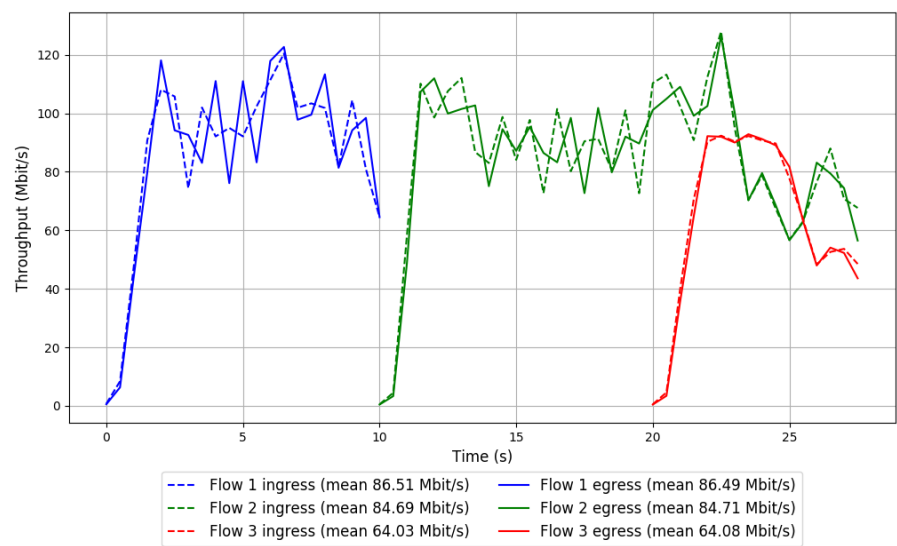
-- Flow 3:

Average throughput: 64.08 Mbit/s

95th percentile per-packet one-way delay: 53.257 ms

Loss rate: 1.13%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-08 05:53:53

End at: 2017-09-08 05:54:23

Below is generated by plot.py at 2017-09-08 09:50:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 53.106 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 69.03 Mbit/s

95th percentile per-packet one-way delay: 53.103 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 43.80 Mbit/s

95th percentile per-packet one-way delay: 53.107 ms

Loss rate: 0.27%

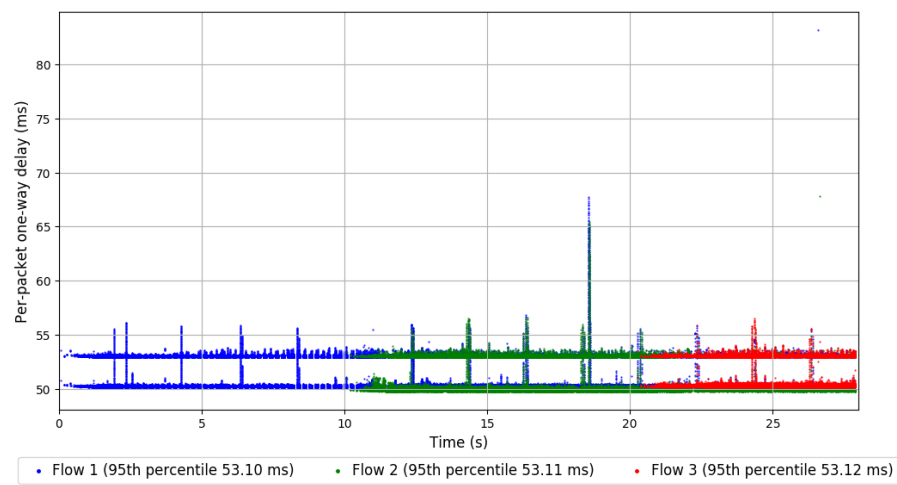
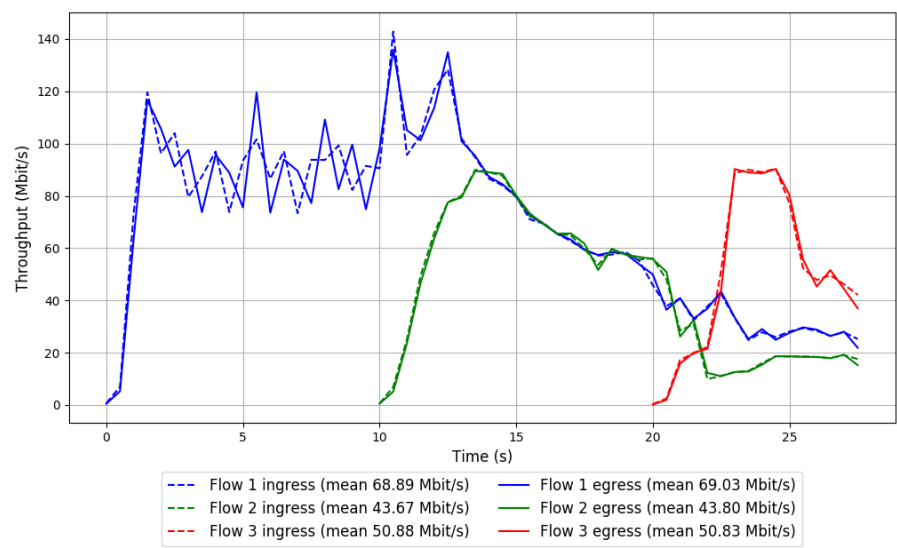
-- Flow 3:

Average throughput: 50.83 Mbit/s

95th percentile per-packet one-way delay: 53.117 ms

Loss rate: 1.41%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-08 06:06:18

End at: 2017-09-08 06:06:48

Below is generated by plot.py at 2017-09-08 09:50:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.88 Mbit/s

95th percentile per-packet one-way delay: 53.791 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 57.44 Mbit/s

95th percentile per-packet one-way delay: 53.807 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 40.34 Mbit/s

95th percentile per-packet one-way delay: 53.750 ms

Loss rate: 0.41%

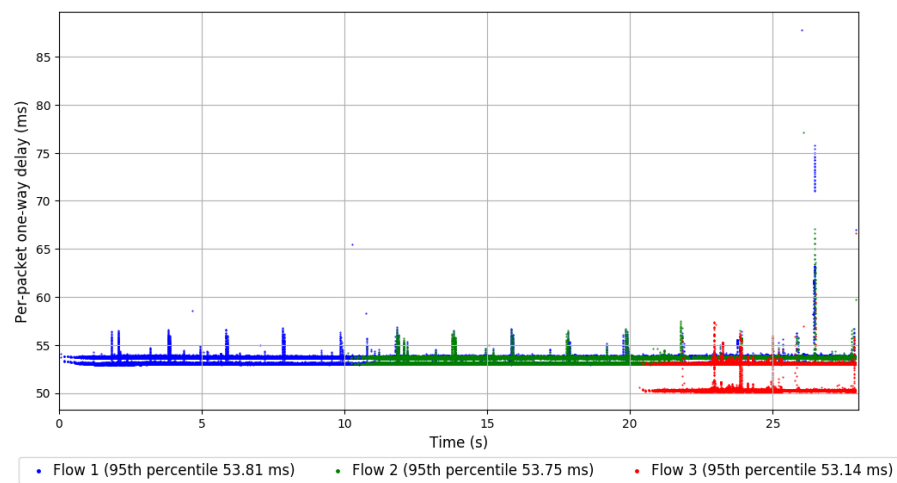
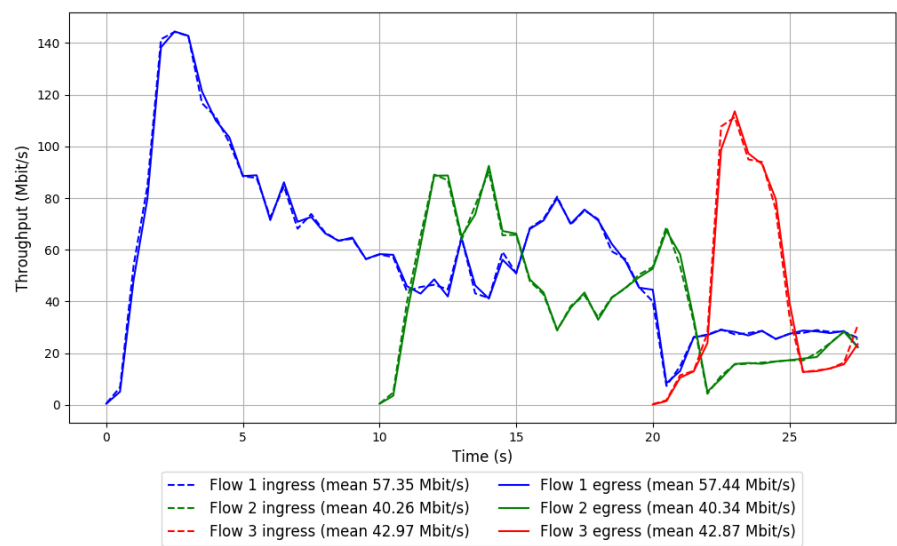
-- Flow 3:

Average throughput: 42.87 Mbit/s

95th percentile per-packet one-way delay: 53.139 ms

Loss rate: 1.41%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-09-08 04:20:13

End at: 2017-09-08 04:20:43

Below is generated by plot.py at 2017-09-08 09:51:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.91 Mbit/s

95th percentile per-packet one-way delay: 62.283 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 116.84 Mbit/s

95th percentile per-packet one-way delay: 59.338 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 168.06 Mbit/s

95th percentile per-packet one-way delay: 63.494 ms

Loss rate: 0.38%

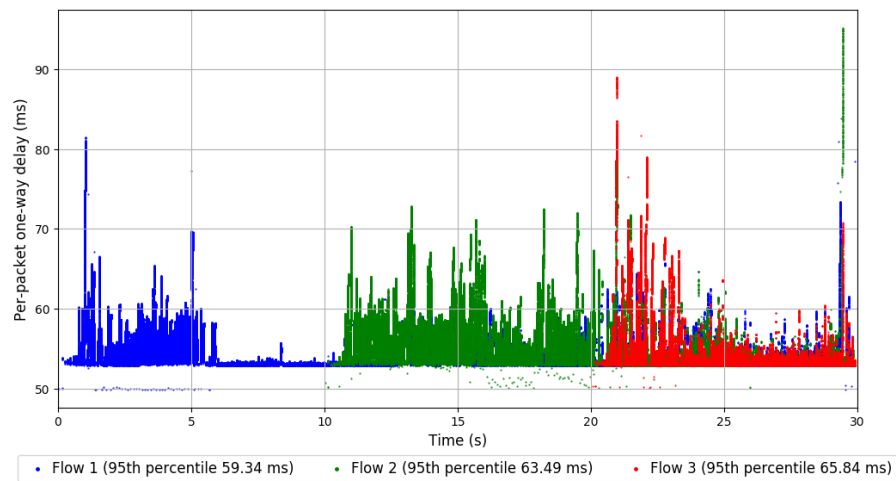
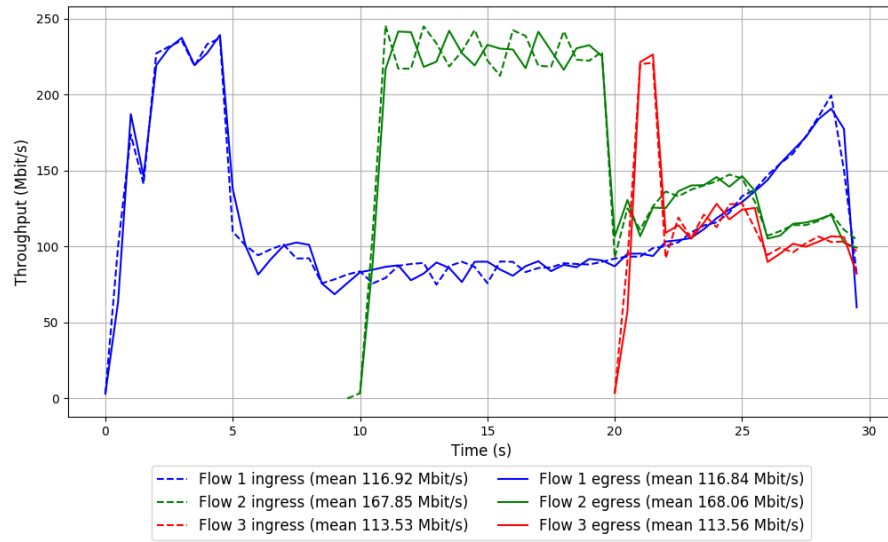
-- Flow 3:

Average throughput: 113.56 Mbit/s

95th percentile per-packet one-way delay: 65.839 ms

Loss rate: 0.99%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 04:32:41

End at: 2017-09-08 04:33:11

Below is generated by plot.py at 2017-09-08 09:51:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.64 Mbit/s

95th percentile per-packet one-way delay: 57.516 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 94.84 Mbit/s

95th percentile per-packet one-way delay: 55.996 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 119.24 Mbit/s

95th percentile per-packet one-way delay: 56.708 ms

Loss rate: 0.70%

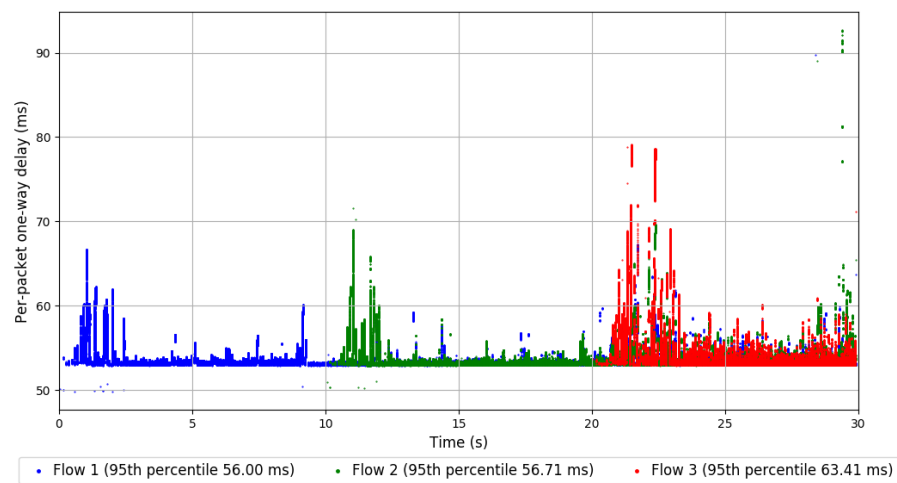
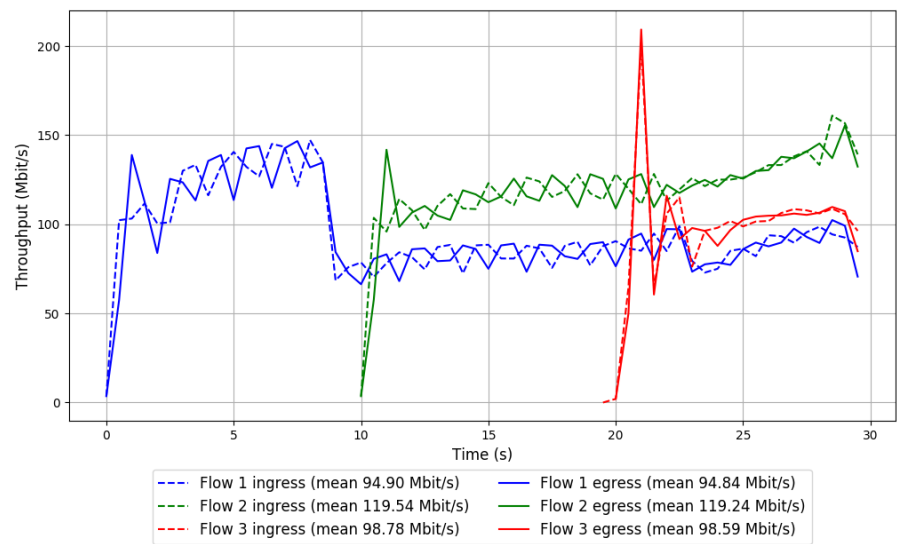
-- Flow 3:

Average throughput: 98.59 Mbit/s

95th percentile per-packet one-way delay: 63.408 ms

Loss rate: 1.13%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 04:45:03

End at: 2017-09-08 04:45:33

Below is generated by plot.py at 2017-09-08 09:52:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 221.11 Mbit/s

95th percentile per-packet one-way delay: 56.626 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 141.02 Mbit/s

95th percentile per-packet one-way delay: 57.287 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 118.10 Mbit/s

95th percentile per-packet one-way delay: 55.812 ms

Loss rate: 0.66%

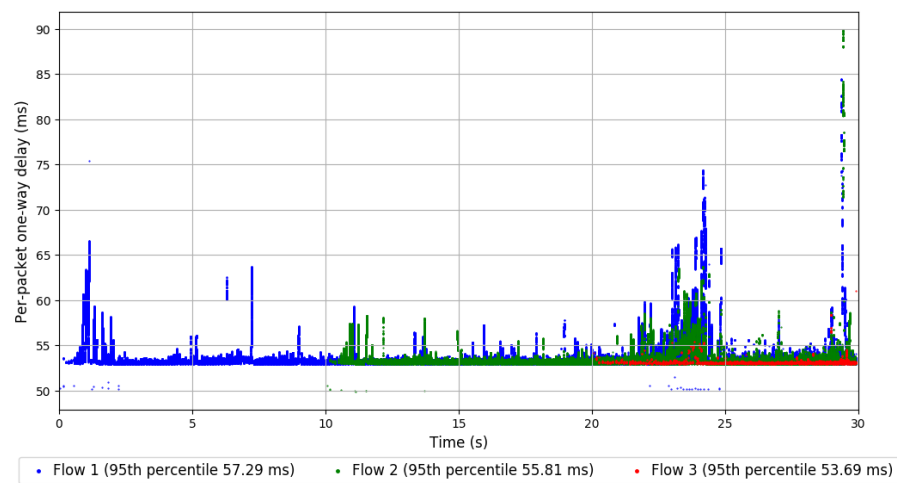
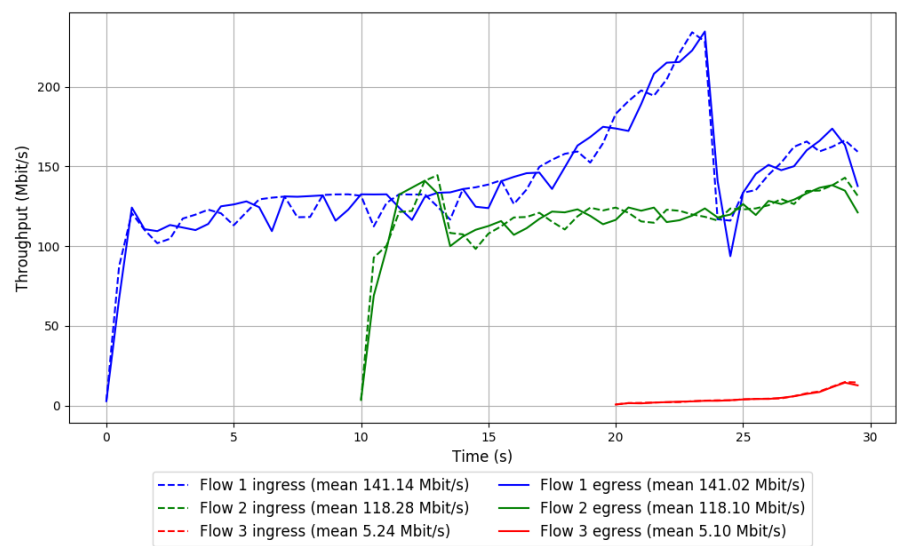
-- Flow 3:

Average throughput: 5.10 Mbit/s

95th percentile per-packet one-way delay: 53.688 ms

Loss rate: 3.68%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 04:57:20

End at: 2017-09-08 04:57:50

Below is generated by plot.py at 2017-09-08 09:52:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 221.58 Mbit/s

95th percentile per-packet one-way delay: 60.622 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 135.94 Mbit/s

95th percentile per-packet one-way delay: 62.639 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 126.43 Mbit/s

95th percentile per-packet one-way delay: 57.870 ms

Loss rate: 0.61%

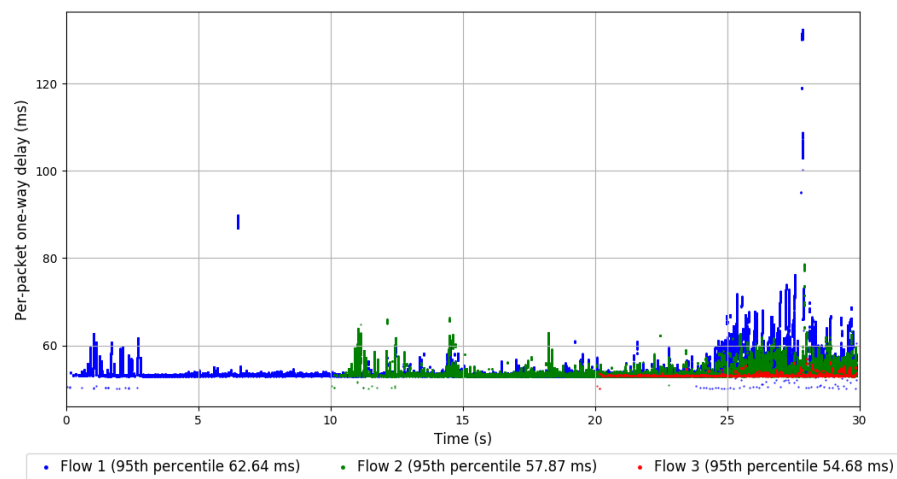
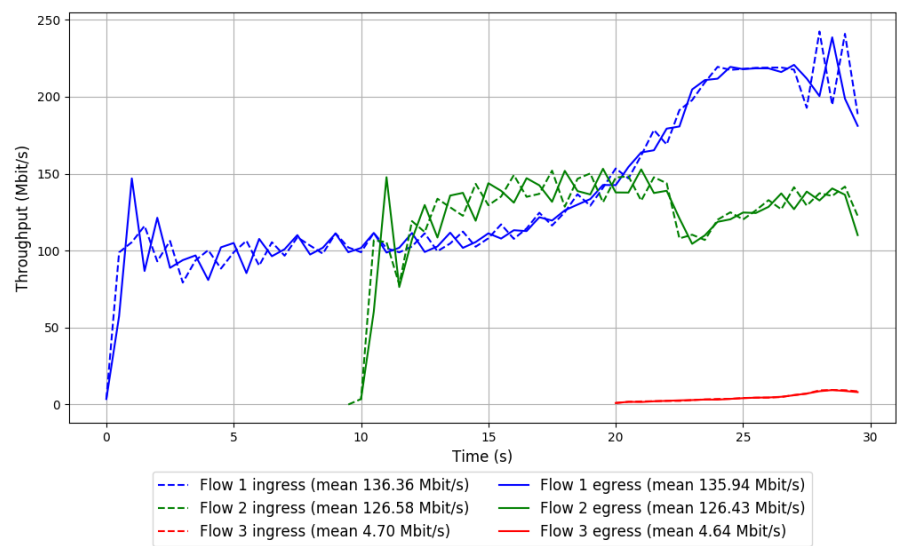
-- Flow 3:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 54.676 ms

Loss rate: 2.27%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-08 05:09:48

End at: 2017-09-08 05:10:18

Below is generated by plot.py at 2017-09-08 09:52:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 168.86 Mbit/s

95th percentile per-packet one-way delay: 55.592 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 101.50 Mbit/s

95th percentile per-packet one-way delay: 54.830 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 19.98 Mbit/s

95th percentile per-packet one-way delay: 54.077 ms

Loss rate: 1.53%

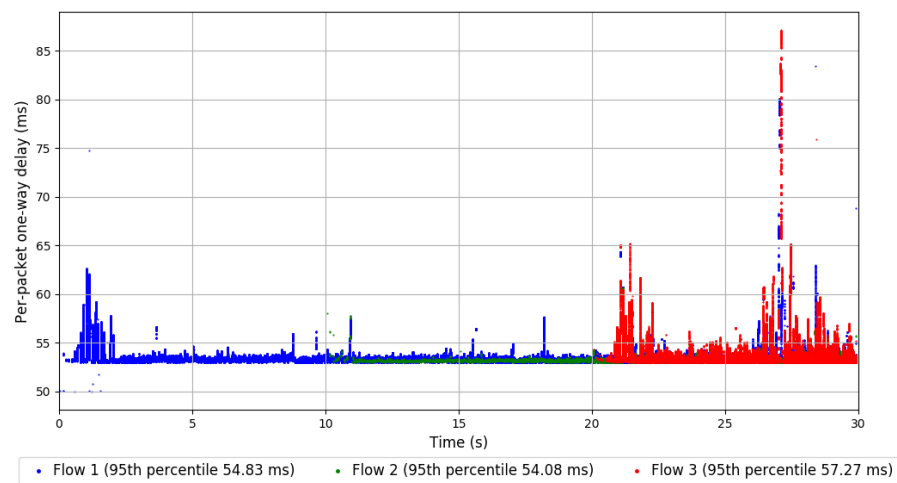
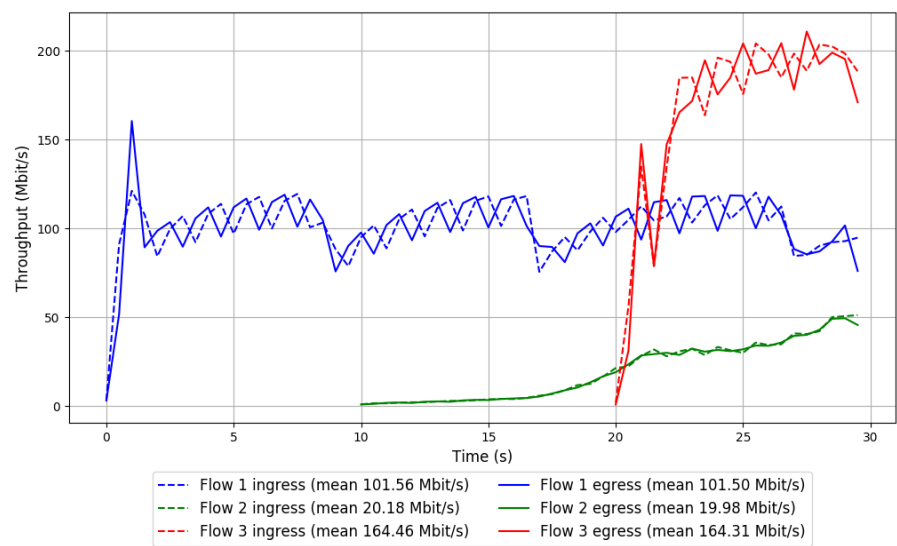
-- Flow 3:

Average throughput: 164.31 Mbit/s

95th percentile per-packet one-way delay: 57.273 ms

Loss rate: 1.31%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 05:21:54

End at: 2017-09-08 05:22:24

Below is generated by plot.py at 2017-09-08 09:53:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.50 Mbit/s

95th percentile per-packet one-way delay: 65.470 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 110.94 Mbit/s

95th percentile per-packet one-way delay: 56.848 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 173.69 Mbit/s

95th percentile per-packet one-way delay: 66.813 ms

Loss rate: 0.32%

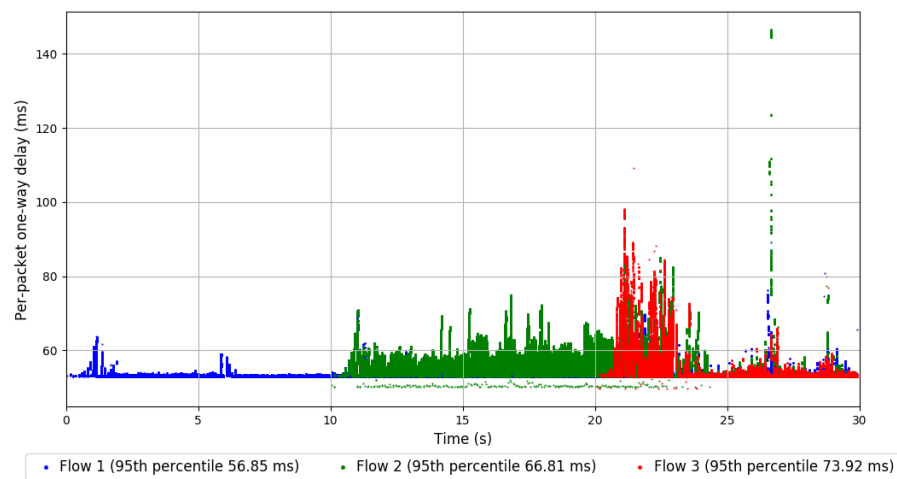
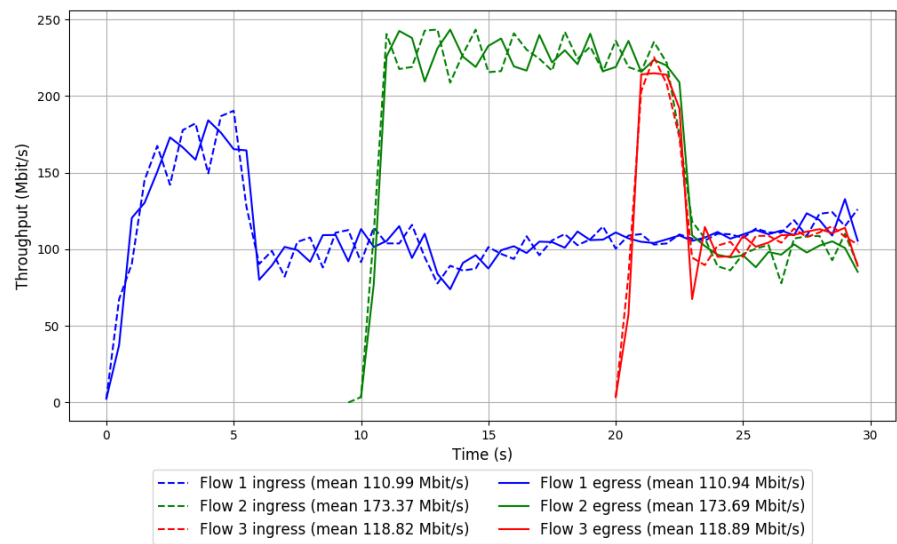
-- Flow 3:

Average throughput: 118.89 Mbit/s

95th percentile per-packet one-way delay: 73.916 ms

Loss rate: 0.96%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 05:34:23

End at: 2017-09-08 05:34:53

Below is generated by plot.py at 2017-09-08 09:53:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.95 Mbit/s

95th percentile per-packet one-way delay: 72.285 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 142.84 Mbit/s

95th percentile per-packet one-way delay: 74.812 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 217.32 Mbit/s

95th percentile per-packet one-way delay: 71.027 ms

Loss rate: 0.61%

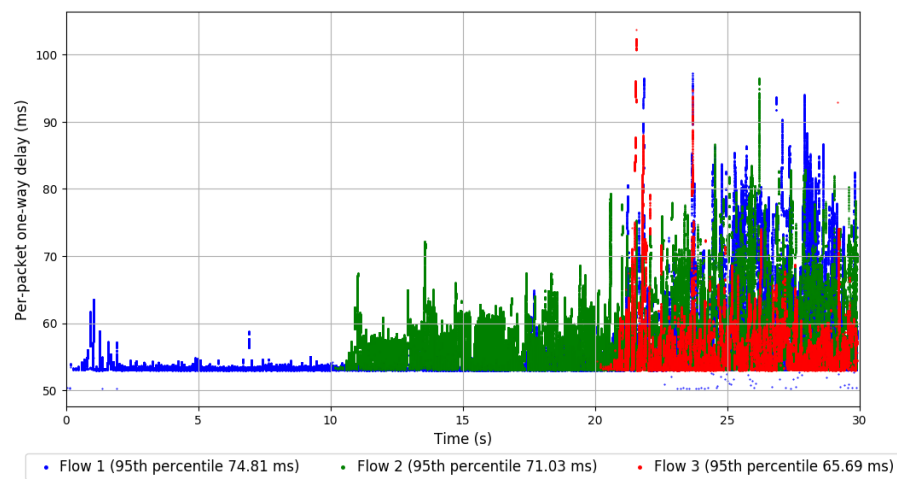
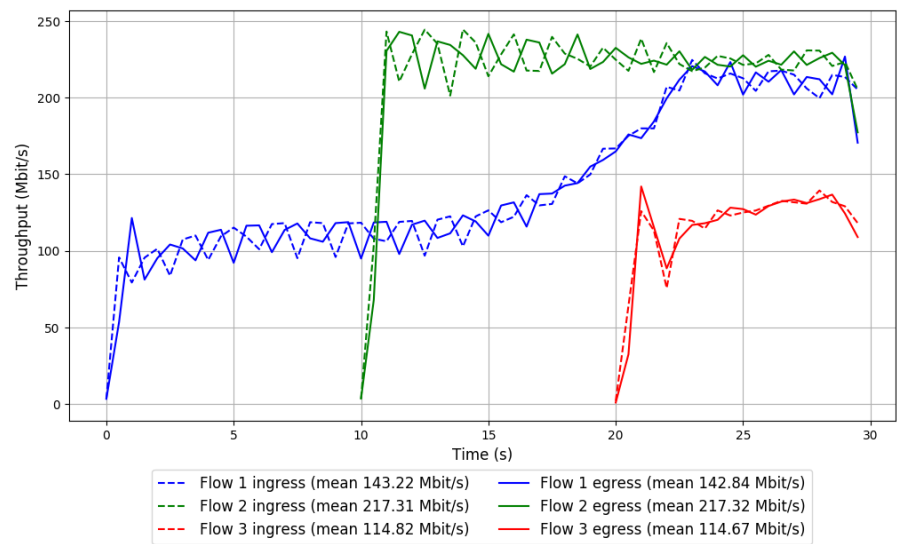
-- Flow 3:

Average throughput: 114.67 Mbit/s

95th percentile per-packet one-way delay: 65.691 ms

Loss rate: 1.25%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-08 05:46:32

End at: 2017-09-08 05:47:02

Below is generated by plot.py at 2017-09-08 09:54:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.07 Mbit/s

95th percentile per-packet one-way delay: 61.194 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 105.15 Mbit/s

95th percentile per-packet one-way delay: 59.205 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 163.91 Mbit/s

95th percentile per-packet one-way delay: 61.771 ms

Loss rate: 0.53%

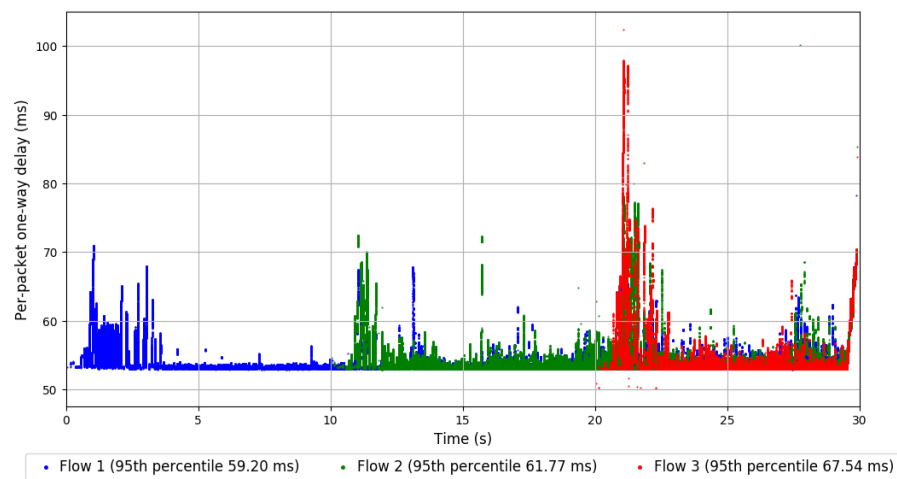
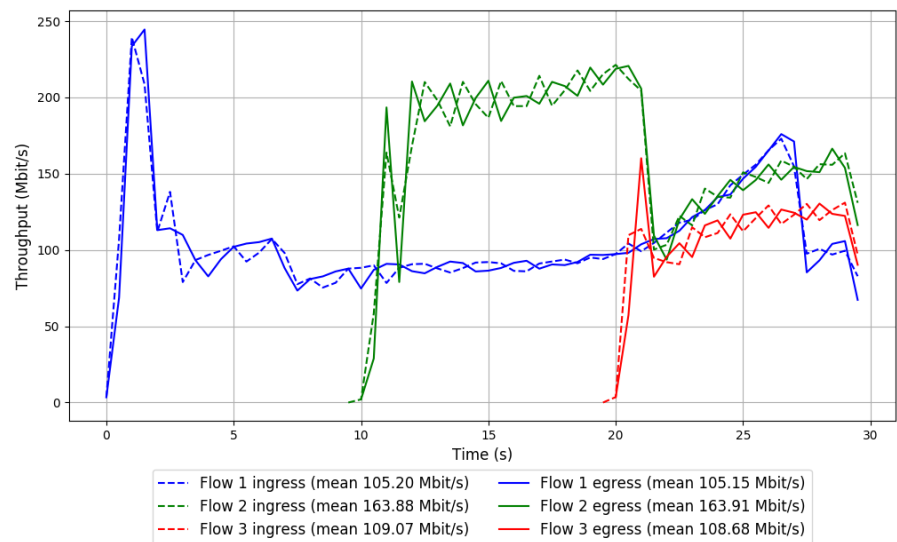
-- Flow 3:

Average throughput: 108.68 Mbit/s

95th percentile per-packet one-way delay: 67.541 ms

Loss rate: 1.24%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 05:58:47

End at: 2017-09-08 05:59:17

Below is generated by plot.py at 2017-09-08 09:54:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 300.69 Mbit/s

95th percentile per-packet one-way delay: 63.118 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 191.26 Mbit/s

95th percentile per-packet one-way delay: 65.246 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 107.35 Mbit/s

95th percentile per-packet one-way delay: 59.561 ms

Loss rate: 0.73%

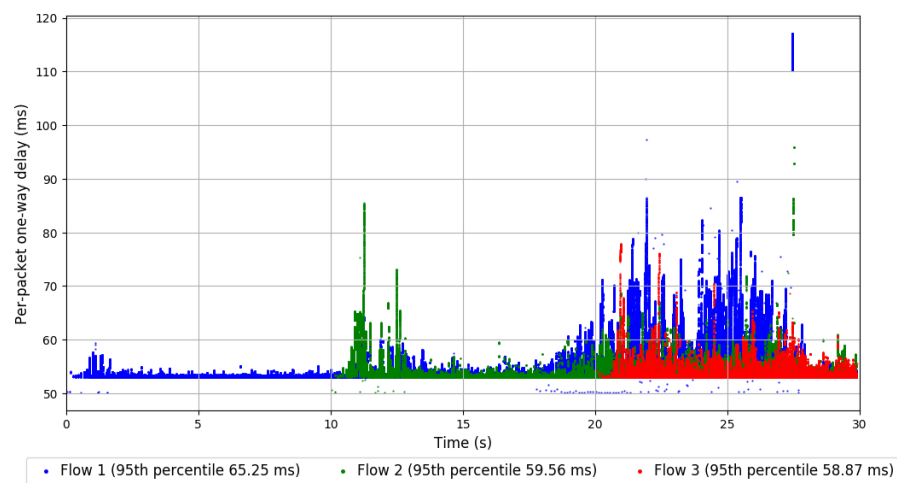
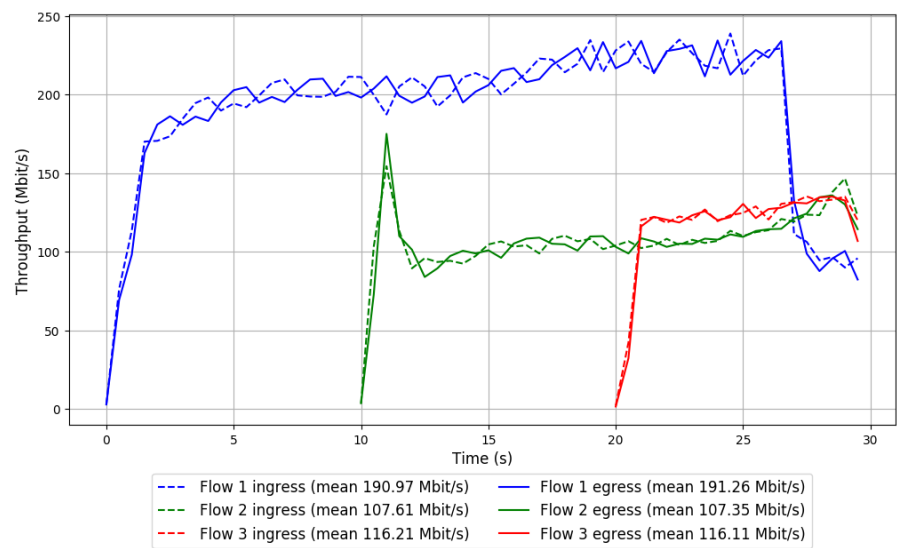
-- Flow 3:

Average throughput: 116.11 Mbit/s

95th percentile per-packet one-way delay: 58.873 ms

Loss rate: 1.25%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 06:11:14

End at: 2017-09-08 06:11:44

Below is generated by plot.py at 2017-09-08 09:54:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 242.24 Mbit/s

95th percentile per-packet one-way delay: 59.437 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 120.03 Mbit/s

95th percentile per-packet one-way delay: 59.637 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 126.12 Mbit/s

95th percentile per-packet one-way delay: 58.064 ms

Loss rate: 0.71%

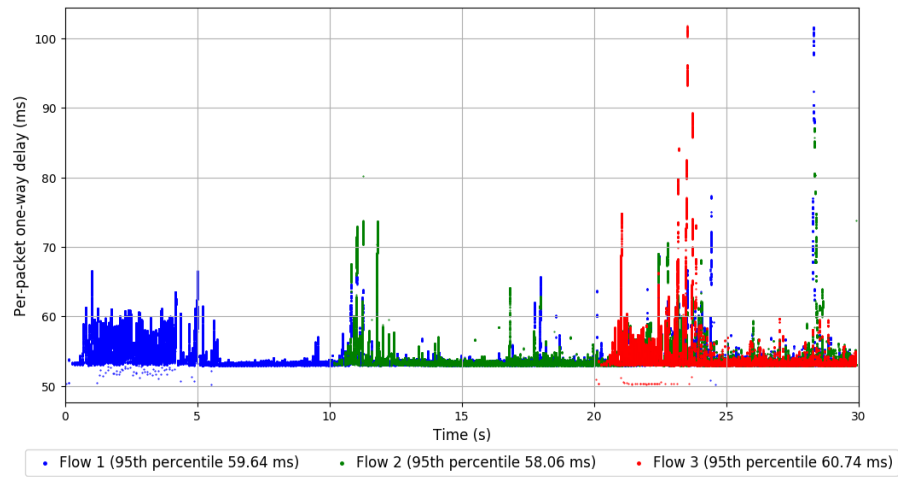
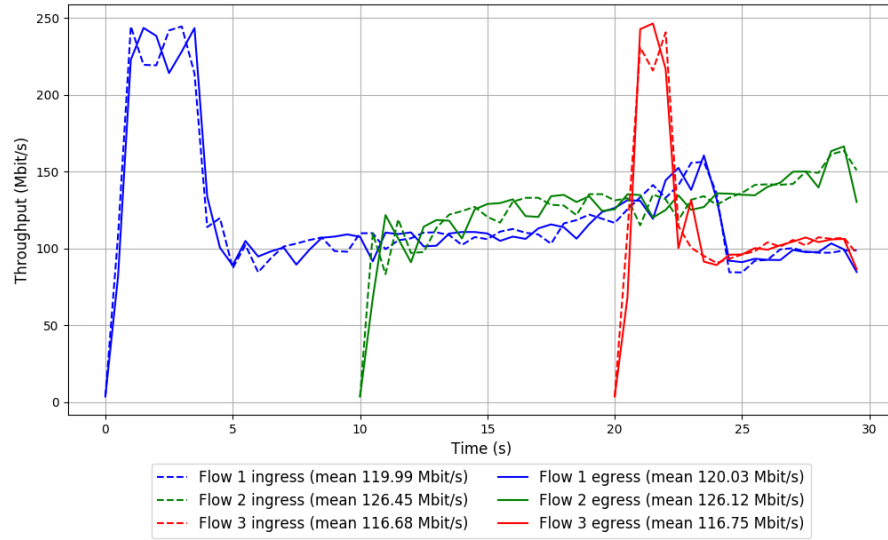
-- Flow 3:

Average throughput: 116.75 Mbit/s

95th percentile per-packet one-way delay: 60.745 ms

Loss rate: 0.95%

Run 10: Report of TCP Cubic — Data Link

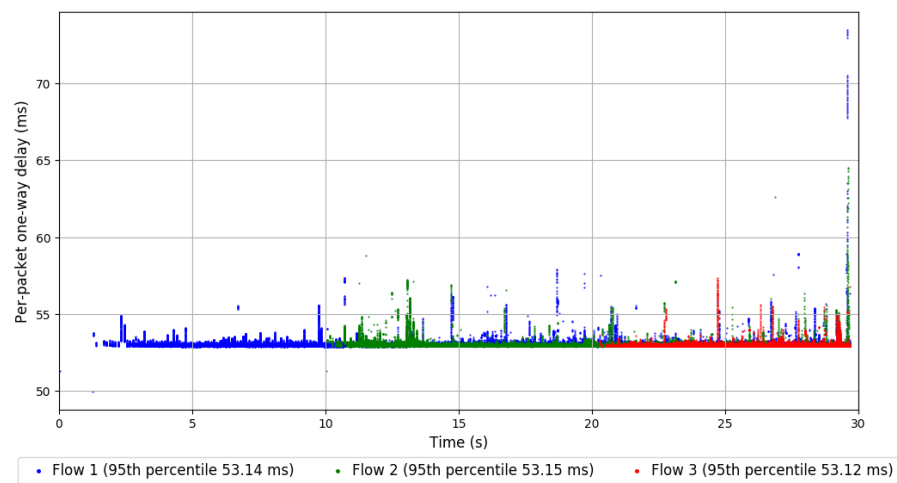
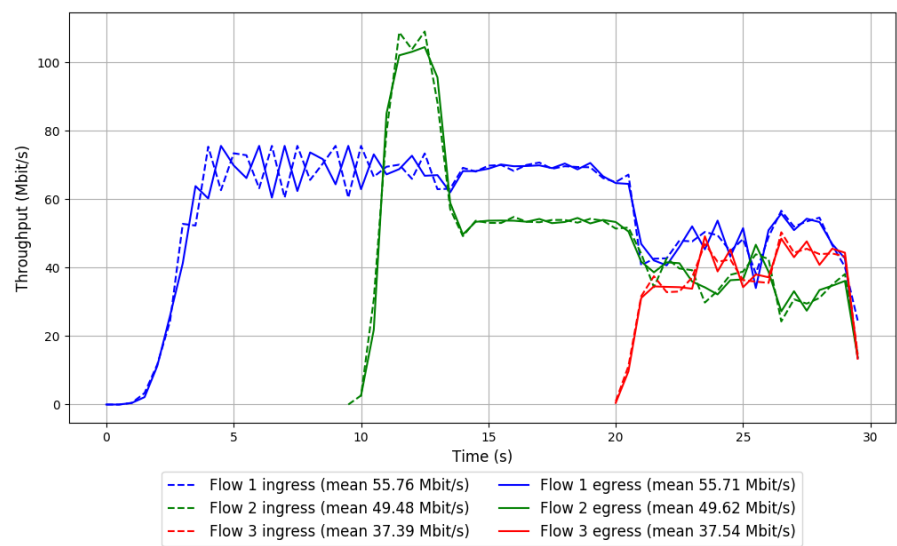


```
Run 1: Statistics of Indigo

Start at: 2017-09-08 04:13:45
End at: 2017-09-08 04:14:15

# Below is generated by plot.py at 2017-09-08 09:55:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.46 Mbit/s
95th percentile per-packet one-way delay: 53.139 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 55.71 Mbit/s
95th percentile per-packet one-way delay: 53.138 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 49.62 Mbit/s
95th percentile per-packet one-way delay: 53.151 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 37.54 Mbit/s
95th percentile per-packet one-way delay: 53.115 ms
Loss rate: 0.71%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-08 04:26:16

End at: 2017-09-08 04:26:46

Below is generated by plot.py at 2017-09-08 09:55:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.41 Mbit/s

95th percentile per-packet one-way delay: 53.137 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 51.11 Mbit/s

95th percentile per-packet one-way delay: 53.113 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 60.24 Mbit/s

95th percentile per-packet one-way delay: 53.187 ms

Loss rate: 0.53%

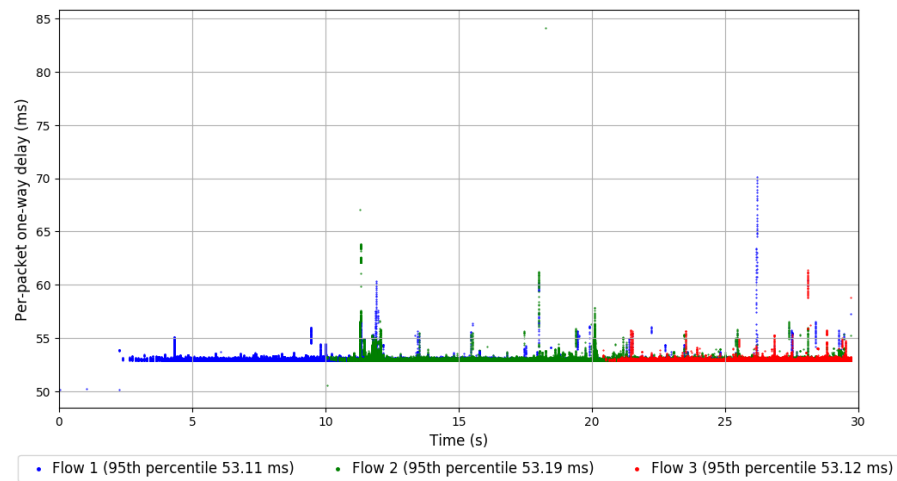
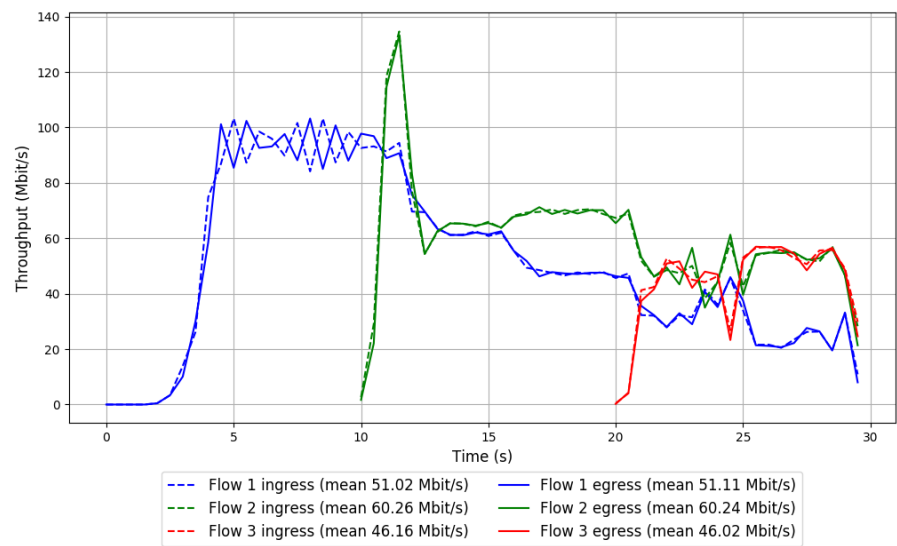
-- Flow 3:

Average throughput: 46.02 Mbit/s

95th percentile per-packet one-way delay: 53.118 ms

Loss rate: 1.39%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-08 04:38:38

End at: 2017-09-08 04:39:08

Below is generated by plot.py at 2017-09-08 09:55:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.74 Mbit/s

95th percentile per-packet one-way delay: 53.169 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 55.85 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 53.222 ms

Loss rate: 0.23%

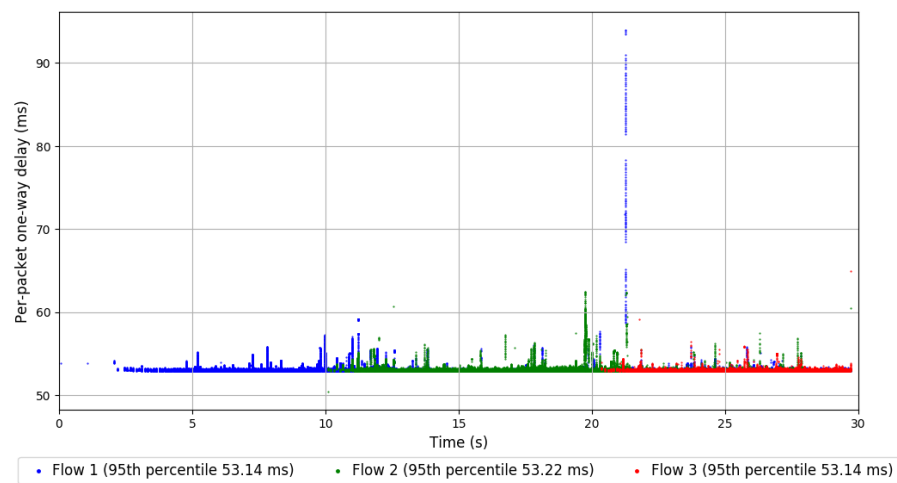
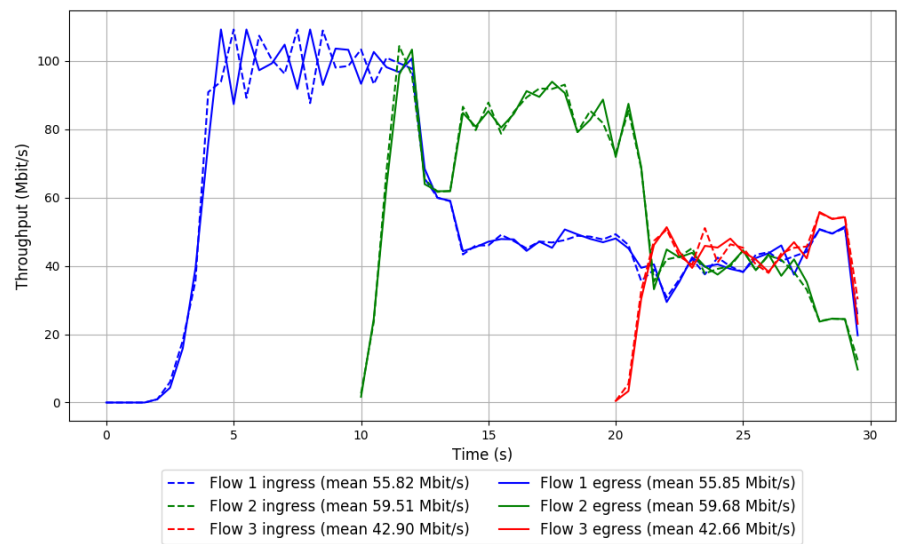
-- Flow 3:

Average throughput: 42.66 Mbit/s

95th percentile per-packet one-way delay: 53.140 ms

Loss rate: 1.60%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-08 04:50:59

End at: 2017-09-08 04:51:29

Below is generated by plot.py at 2017-09-08 09:55:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.70 Mbit/s

95th percentile per-packet one-way delay: 53.188 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 51.67 Mbit/s

95th percentile per-packet one-way delay: 53.169 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 60.87 Mbit/s

95th percentile per-packet one-way delay: 53.212 ms

Loss rate: 0.21%

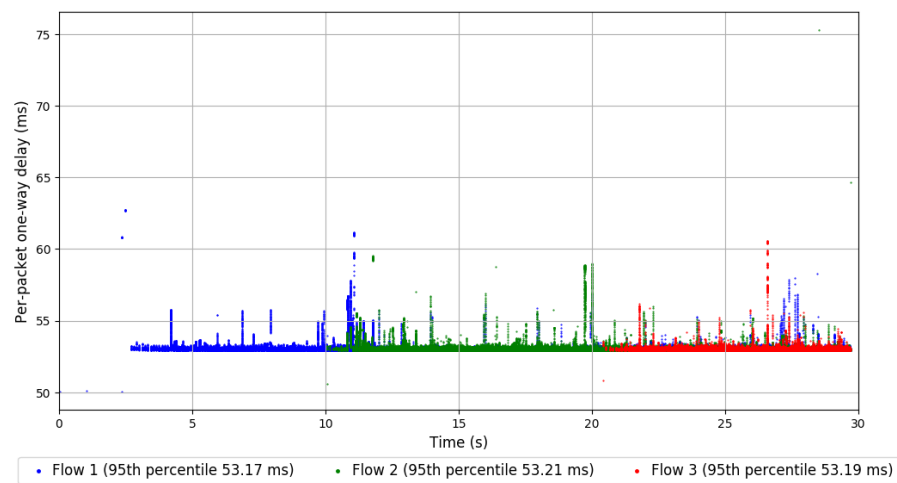
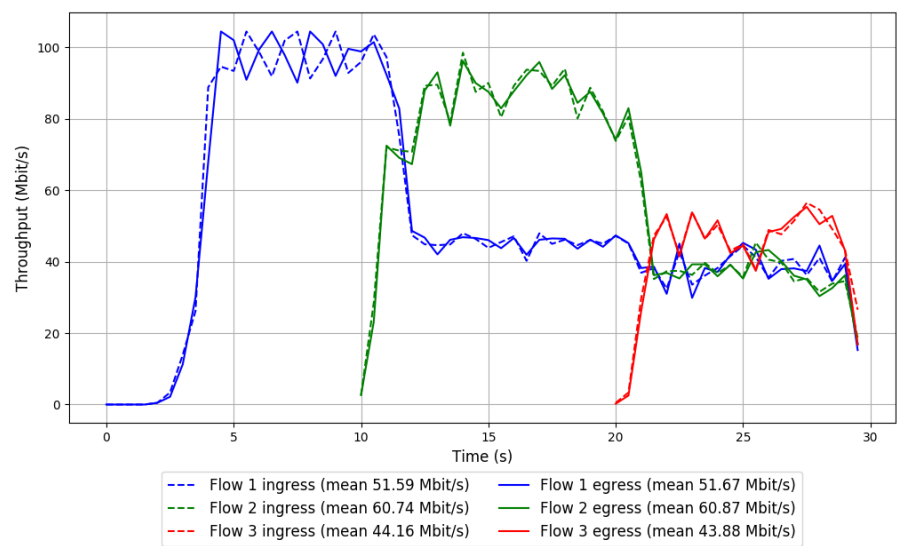
-- Flow 3:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 53.186 ms

Loss rate: 1.84%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-08 05:03:21

End at: 2017-09-08 05:03:51

Below is generated by plot.py at 2017-09-08 09:55:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.15 Mbit/s

95th percentile per-packet one-way delay: 53.194 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 54.16 Mbit/s

95th percentile per-packet one-way delay: 53.188 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 52.21 Mbit/s

95th percentile per-packet one-way delay: 53.236 ms

Loss rate: 0.32%

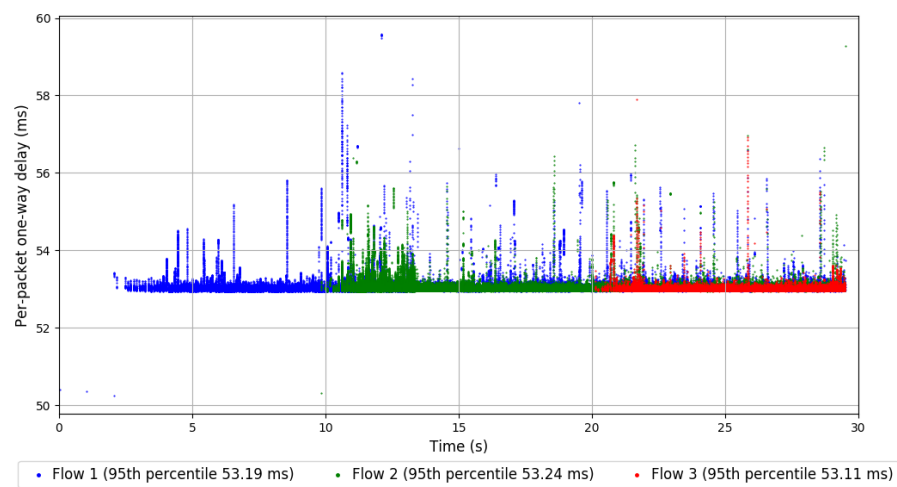
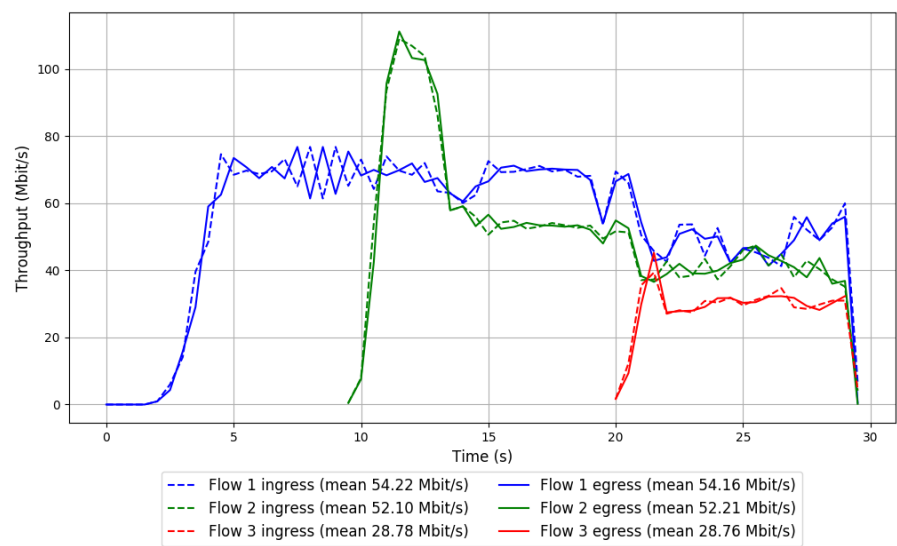
-- Flow 3:

Average throughput: 28.76 Mbit/s

95th percentile per-packet one-way delay: 53.112 ms

Loss rate: 1.30%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-09-08 05:15:29

End at: 2017-09-08 05:15:59

Below is generated by plot.py at 2017-09-08 09:56:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.51 Mbit/s

95th percentile per-packet one-way delay: 53.264 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 40.56 Mbit/s

95th percentile per-packet one-way delay: 53.133 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 84.57 Mbit/s

95th percentile per-packet one-way delay: 53.395 ms

Loss rate: 0.45%

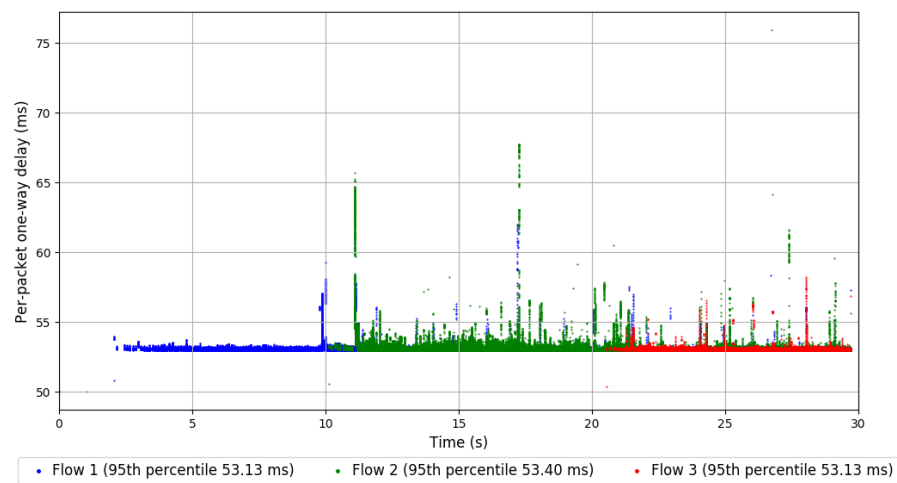
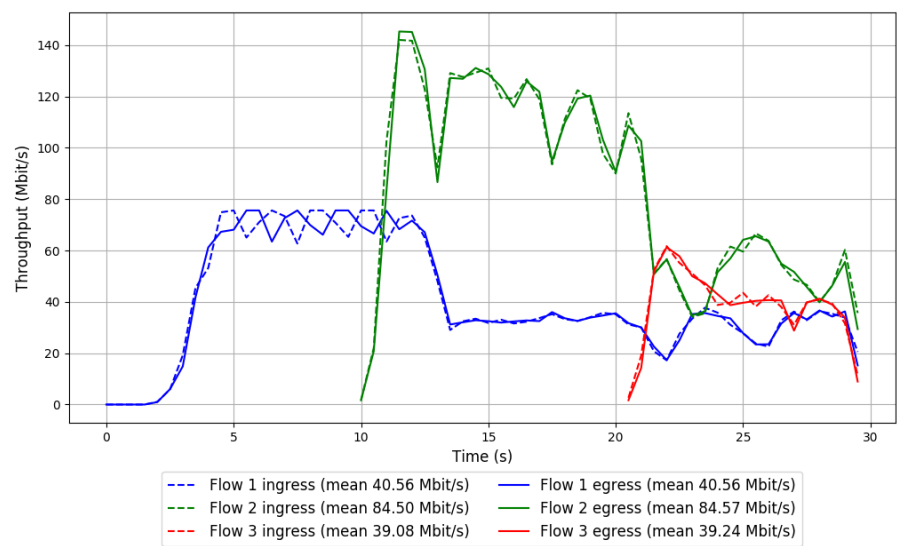
-- Flow 3:

Average throughput: 39.24 Mbit/s

95th percentile per-packet one-way delay: 53.134 ms

Loss rate: 0.69%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-08 05:27:51

End at: 2017-09-08 05:28:21

Below is generated by plot.py at 2017-09-08 09:56:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.67 Mbit/s

95th percentile per-packet one-way delay: 53.208 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 53.88 Mbit/s

95th percentile per-packet one-way delay: 53.201 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 47.55 Mbit/s

95th percentile per-packet one-way delay: 53.256 ms

Loss rate: 0.53%

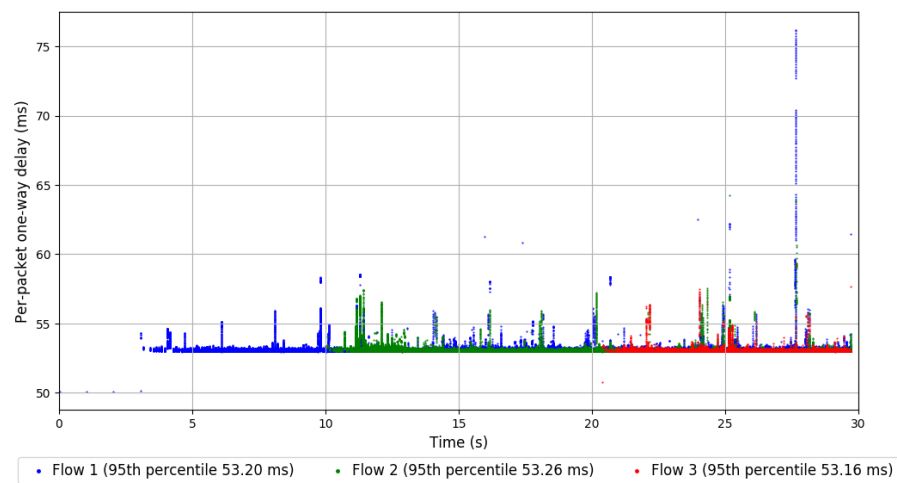
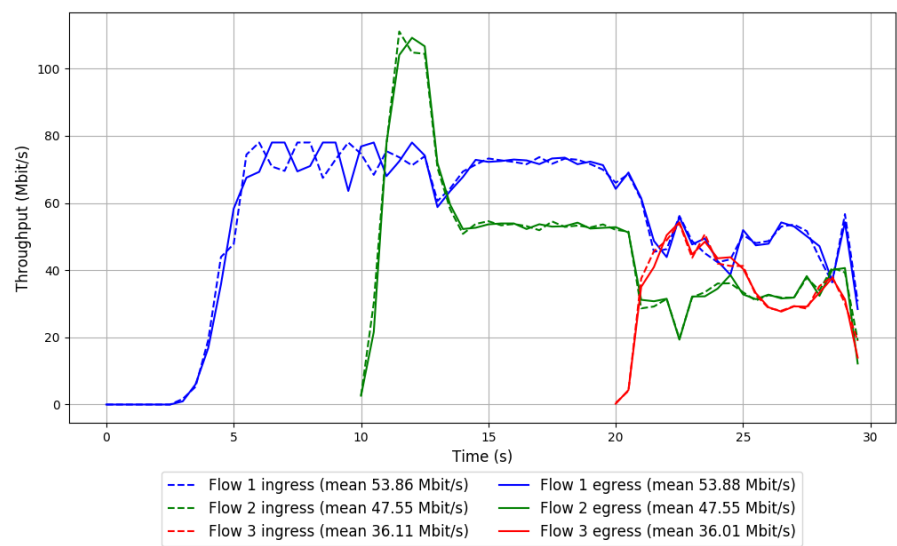
-- Flow 3:

Average throughput: 36.01 Mbit/s

95th percentile per-packet one-way delay: 53.161 ms

Loss rate: 1.23%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-08 05:40:18

End at: 2017-09-08 05:40:48

Below is generated by plot.py at 2017-09-08 09:56:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.34 Mbit/s

95th percentile per-packet one-way delay: 53.280 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 59.75 Mbit/s

95th percentile per-packet one-way delay: 53.269 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 54.00 Mbit/s

95th percentile per-packet one-way delay: 53.379 ms

Loss rate: 0.41%

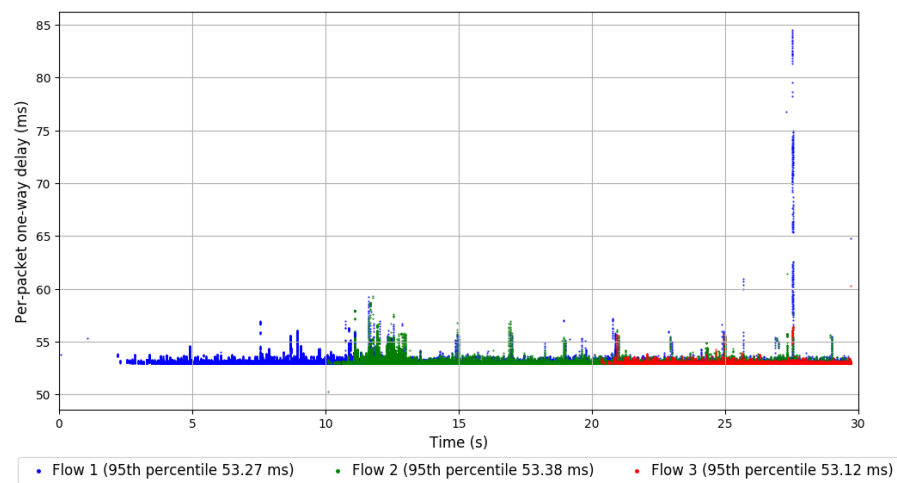
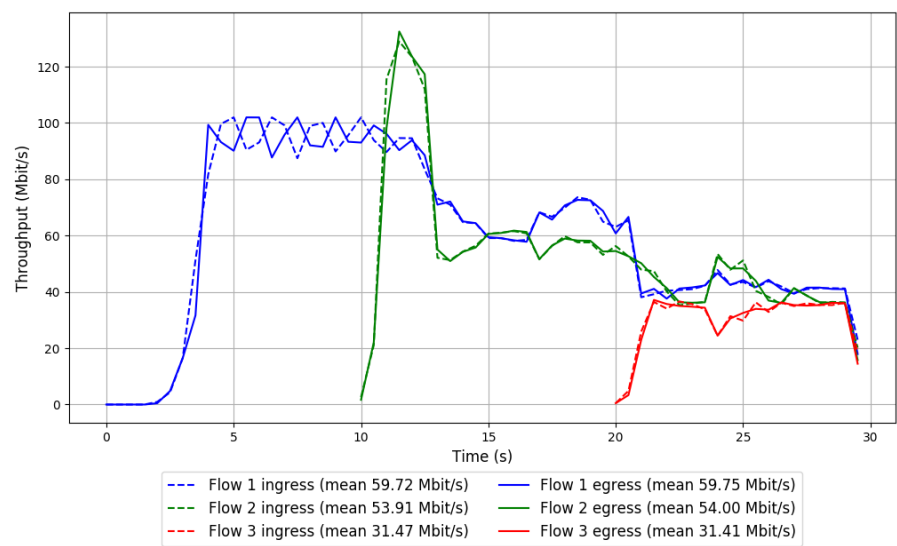
-- Flow 3:

Average throughput: 31.41 Mbit/s

95th percentile per-packet one-way delay: 53.120 ms

Loss rate: 1.24%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-08 05:52:25

End at: 2017-09-08 05:52:55

Below is generated by plot.py at 2017-09-08 09:56:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.53 Mbit/s

95th percentile per-packet one-way delay: 53.246 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 36.35 Mbit/s

95th percentile per-packet one-way delay: 53.144 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 82.65 Mbit/s

95th percentile per-packet one-way delay: 53.402 ms

Loss rate: 0.34%

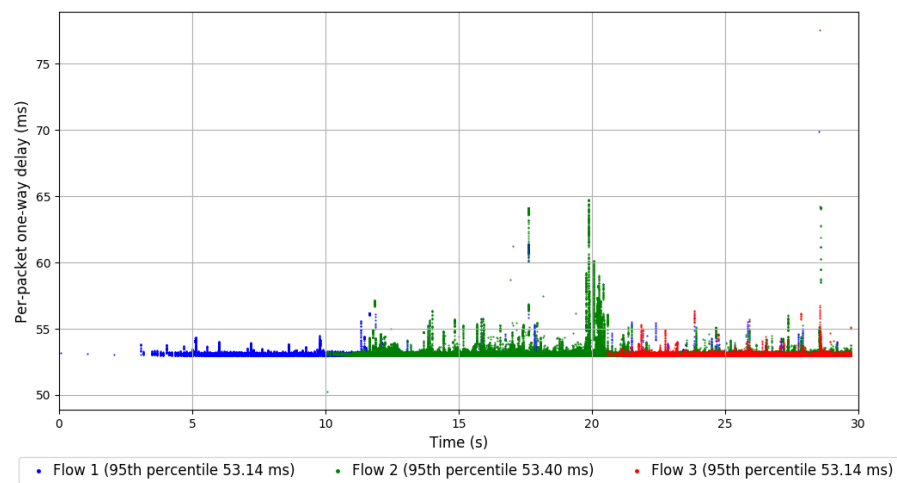
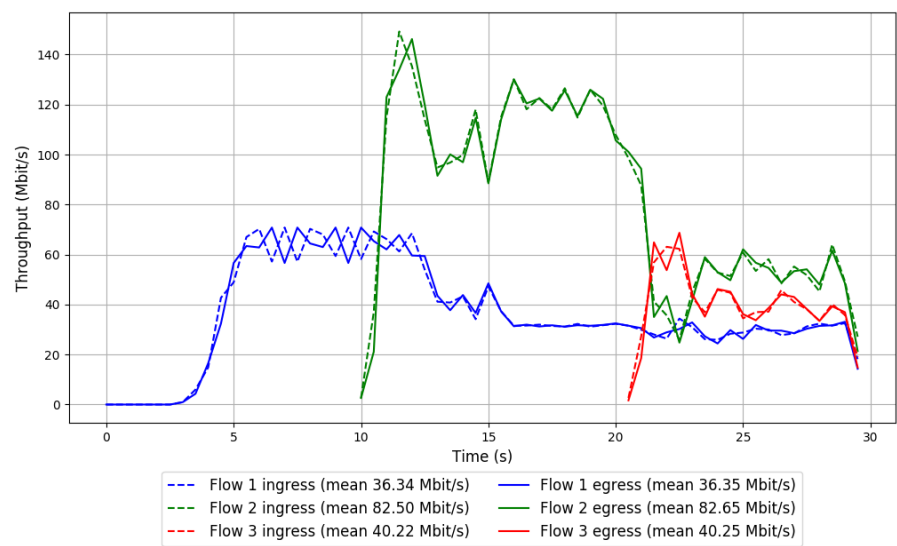
-- Flow 3:

Average throughput: 40.25 Mbit/s

95th percentile per-packet one-way delay: 53.144 ms

Loss rate: 1.08%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-08 06:04:51

End at: 2017-09-08 06:05:21

Below is generated by plot.py at 2017-09-08 09:56:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.34 Mbit/s

95th percentile per-packet one-way delay: 53.192 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 46.87 Mbit/s

95th percentile per-packet one-way delay: 53.157 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 57.96 Mbit/s

95th percentile per-packet one-way delay: 53.246 ms

Loss rate: 0.48%

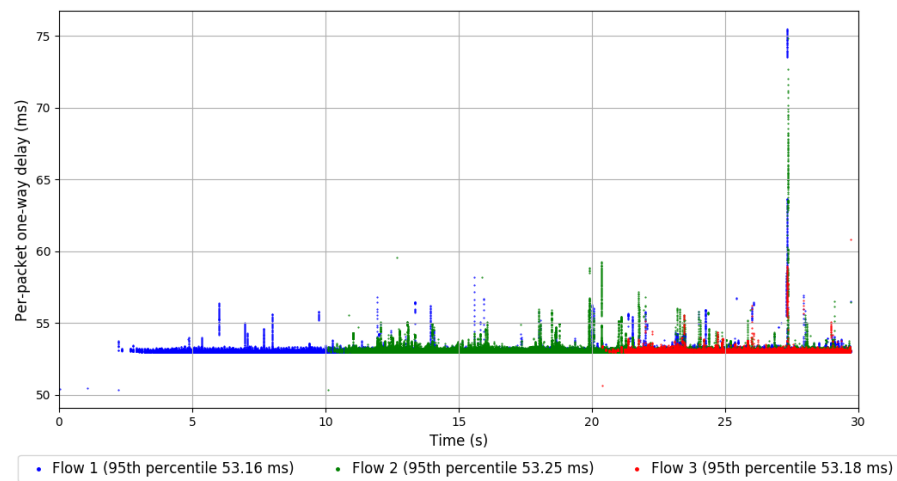
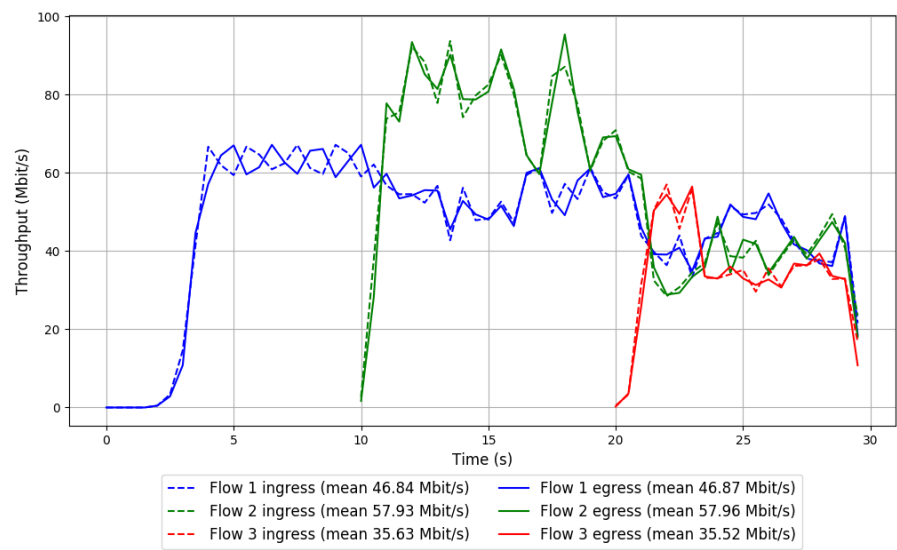
-- Flow 3:

Average throughput: 35.52 Mbit/s

95th percentile per-packet one-way delay: 53.178 ms

Loss rate: 1.29%

Run 10: Report of Indigo — Data Link

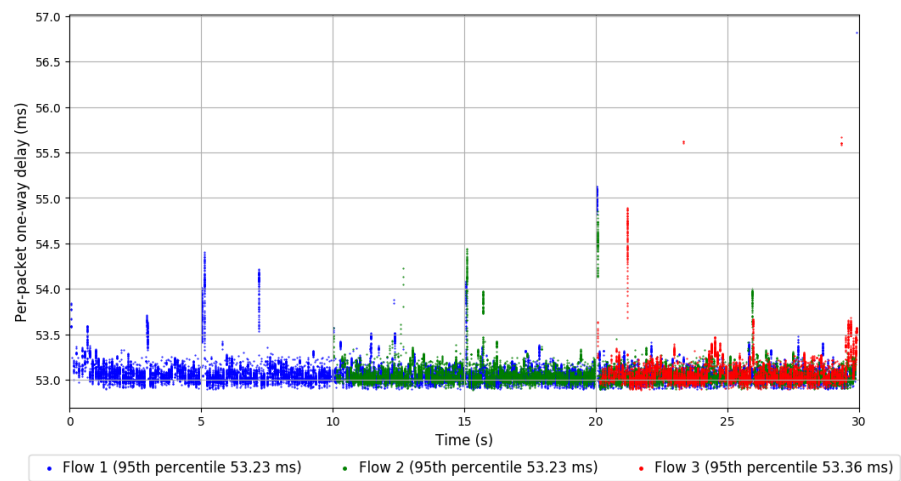
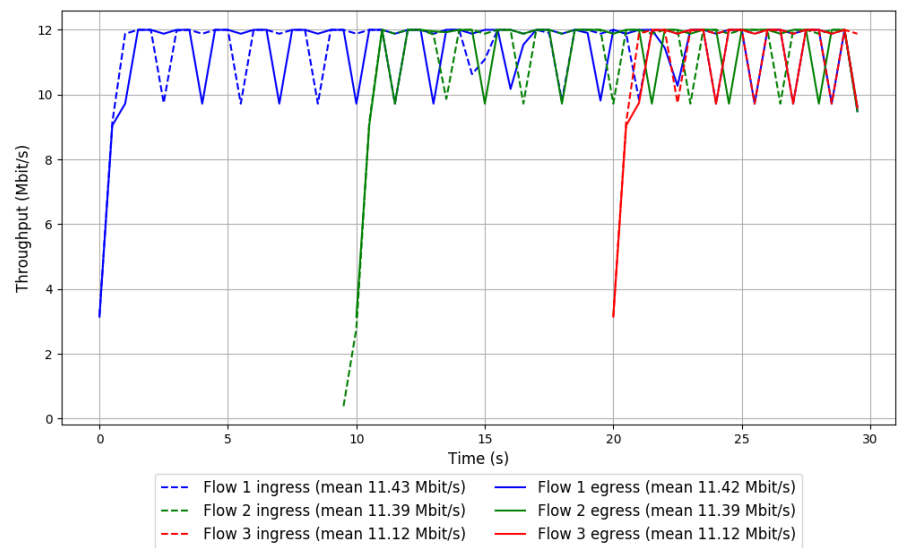


```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 04:16:02
End at: 2017-09-08 04:16:32

# Below is generated by plot.py at 2017-09-08 09:56:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.65 Mbit/s
95th percentile per-packet one-way delay: 53.258 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 11.42 Mbit/s
95th percentile per-packet one-way delay: 53.233 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 53.227 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 11.12 Mbit/s
95th percentile per-packet one-way delay: 53.360 ms
Loss rate: 1.09%
```

Run 1: Report of KohoCC — Data Link

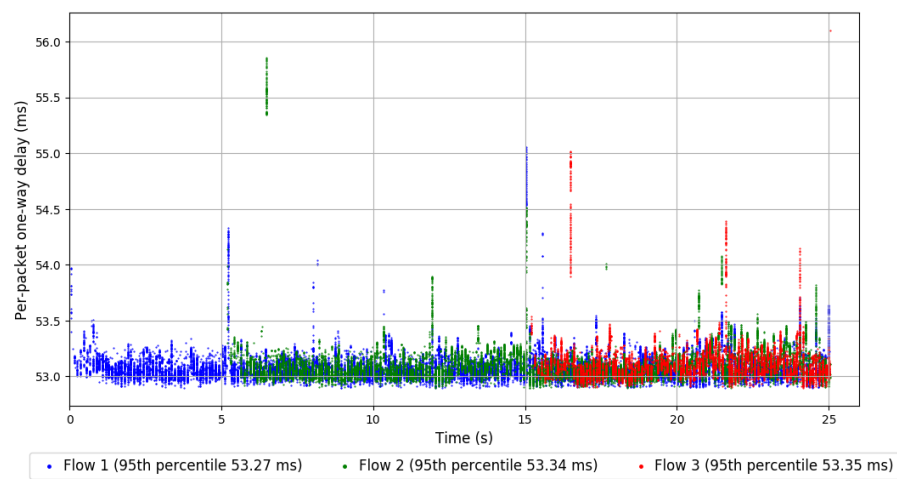
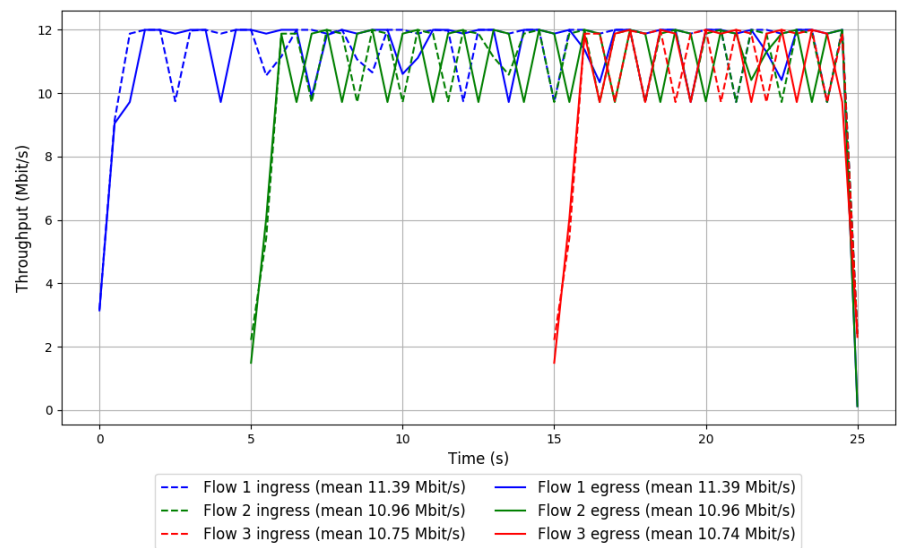


```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 04:28:34
End at: 2017-09-08 04:29:04

# Below is generated by plot.py at 2017-09-08 09:56:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.30 Mbit/s
95th percentile per-packet one-way delay: 53.312 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 11.39 Mbit/s
95th percentile per-packet one-way delay: 53.266 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 10.96 Mbit/s
95th percentile per-packet one-way delay: 53.339 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 10.74 Mbit/s
95th percentile per-packet one-way delay: 53.347 ms
Loss rate: 1.12%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-08 04:40:55

End at: 2017-09-08 04:41:25

Below is generated by plot.py at 2017-09-08 09:56:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 53.664 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 53.550 ms

Loss rate: 0.53%

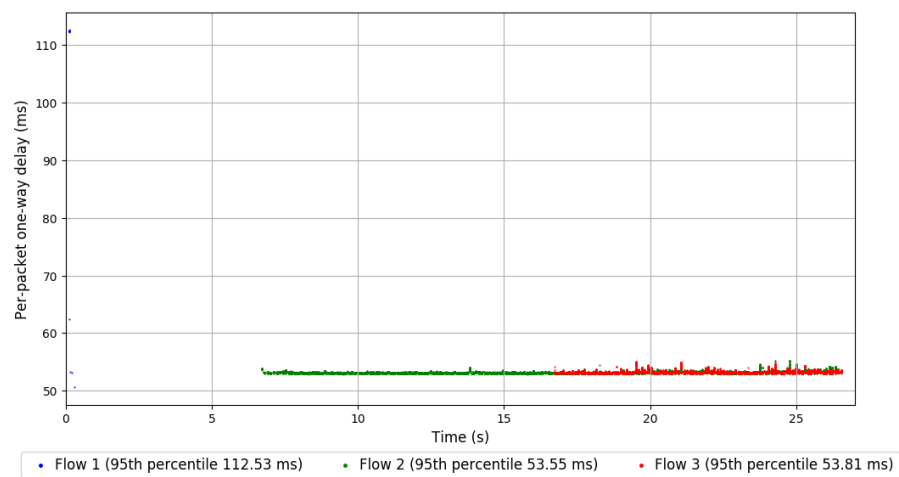
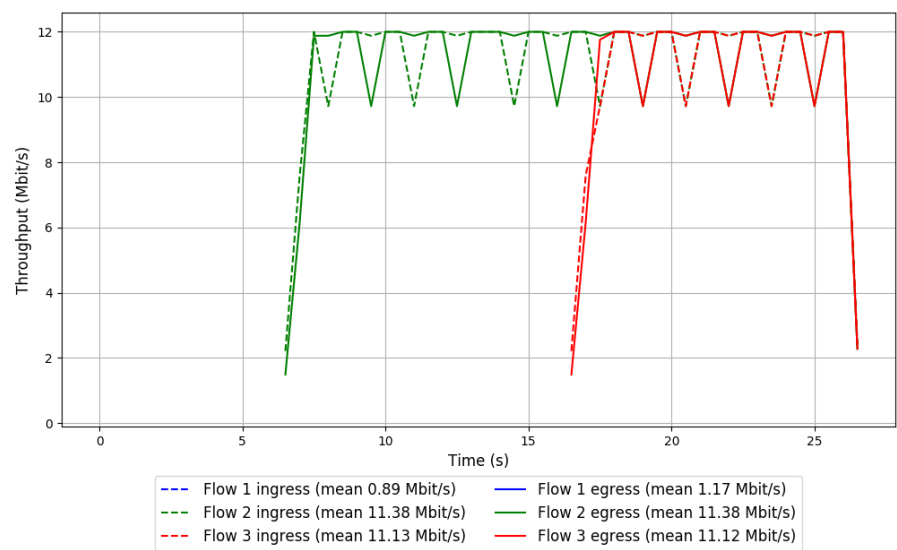
-- Flow 3:

Average throughput: 11.12 Mbit/s

95th percentile per-packet one-way delay: 53.813 ms

Loss rate: 1.09%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-09-08 04:53:16

End at: 2017-09-08 04:53:46

Below is generated by plot.py at 2017-09-08 09:56:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.52 Mbit/s

95th percentile per-packet one-way delay: 53.277 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 9.21 Mbit/s

95th percentile per-packet one-way delay: 5613.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.95 Mbit/s

95th percentile per-packet one-way delay: 53.278 ms

Loss rate: 0.54%

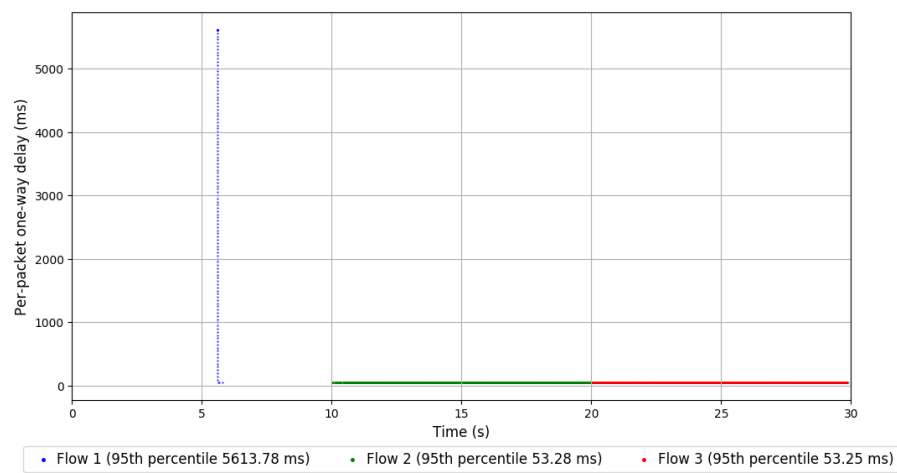
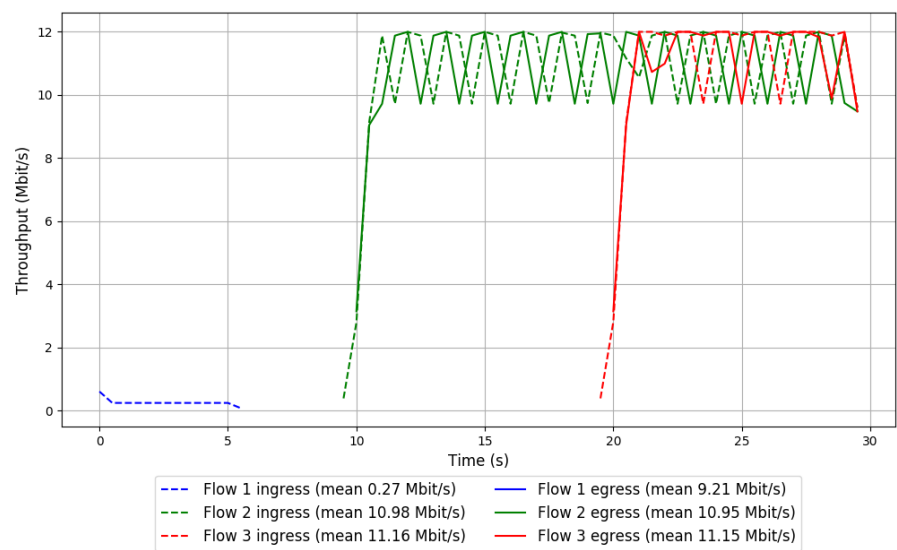
-- Flow 3:

Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 53.248 ms

Loss rate: 1.09%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-08 05:05:37

End at: 2017-09-08 05:06:07

Below is generated by plot.py at 2017-09-08 09:56:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.24 Mbit/s

95th percentile per-packet one-way delay: 53.260 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 142.421 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.33 Mbit/s

95th percentile per-packet one-way delay: 53.240 ms

Loss rate: 0.53%

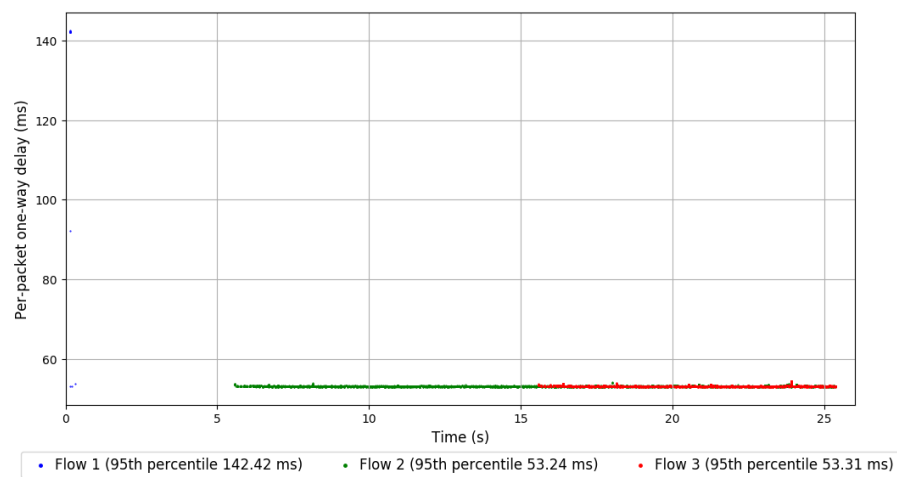
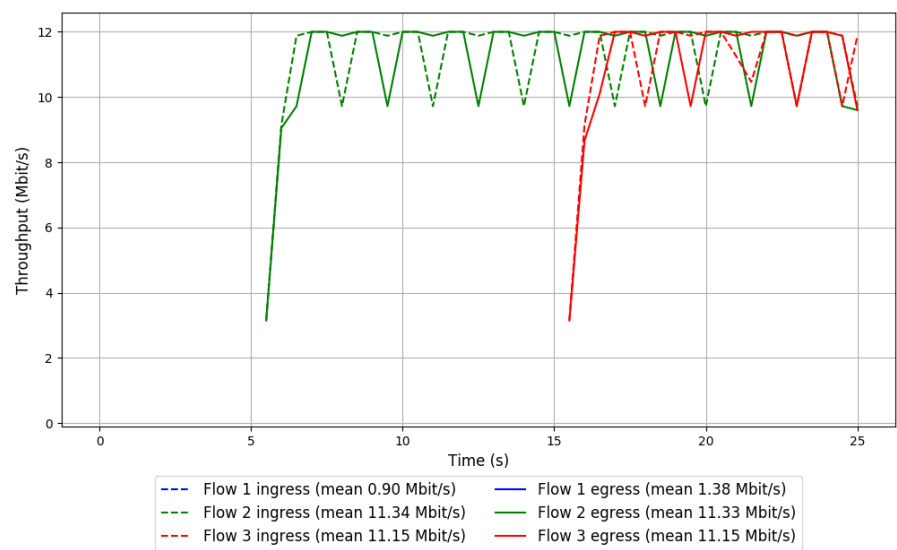
-- Flow 3:

Average throughput: 11.15 Mbit/s

95th percentile per-packet one-way delay: 53.312 ms

Loss rate: 1.09%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-08 05:17:47

End at: 2017-09-08 05:18:17

Below is generated by plot.py at 2017-09-08 09:56:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.06 Mbit/s

95th percentile per-packet one-way delay: 53.302 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 11.04 Mbit/s

95th percentile per-packet one-way delay: 53.287 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 11.33 Mbit/s

95th percentile per-packet one-way delay: 53.309 ms

Loss rate: 0.53%

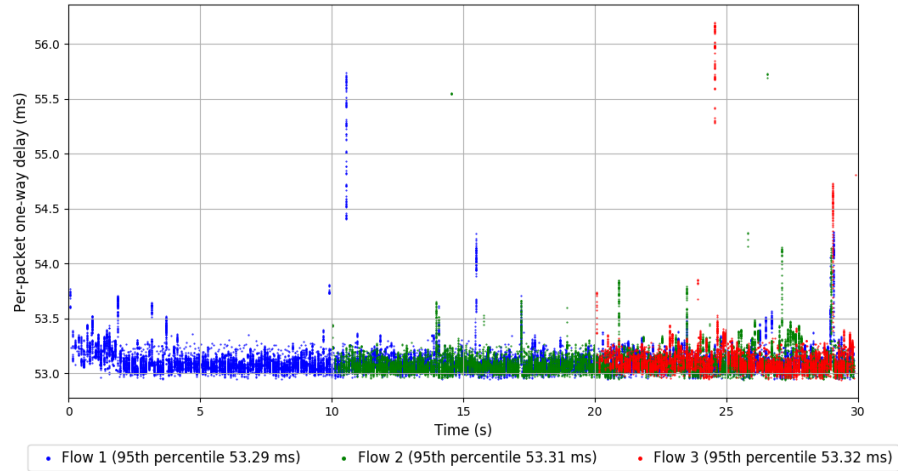
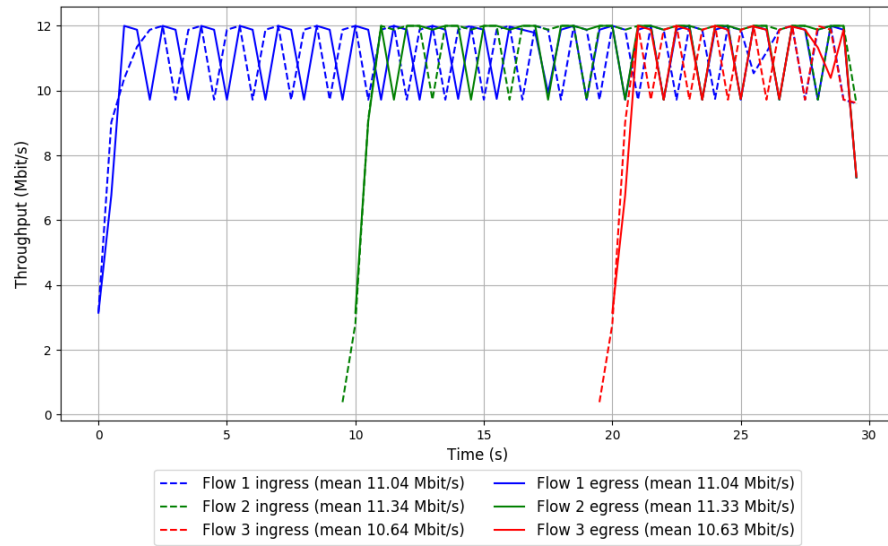
-- Flow 3:

Average throughput: 10.63 Mbit/s

95th percentile per-packet one-way delay: 53.322 ms

Loss rate: 1.13%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-08 05:30:08

End at: 2017-09-08 05:30:38

Below is generated by plot.py at 2017-09-08 09:56:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.97 Mbit/s

95th percentile per-packet one-way delay: 53.397 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 53.372 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 53.425 ms

Loss rate: 0.53%

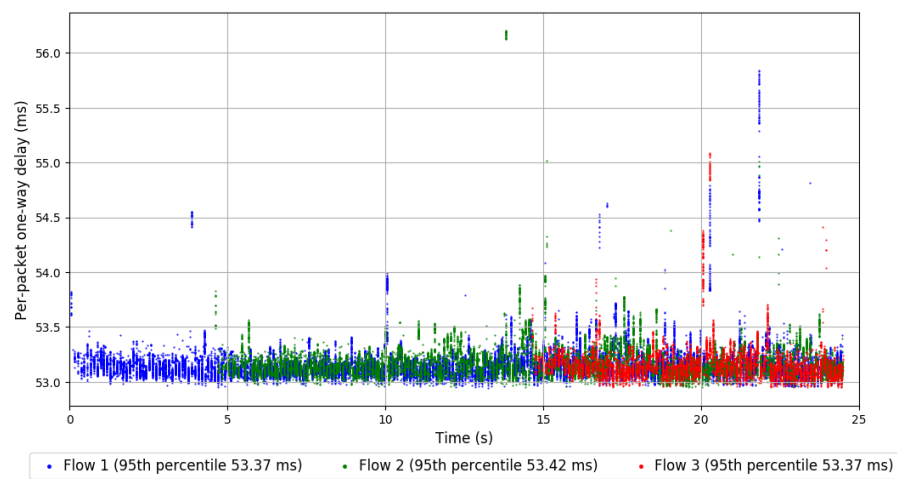
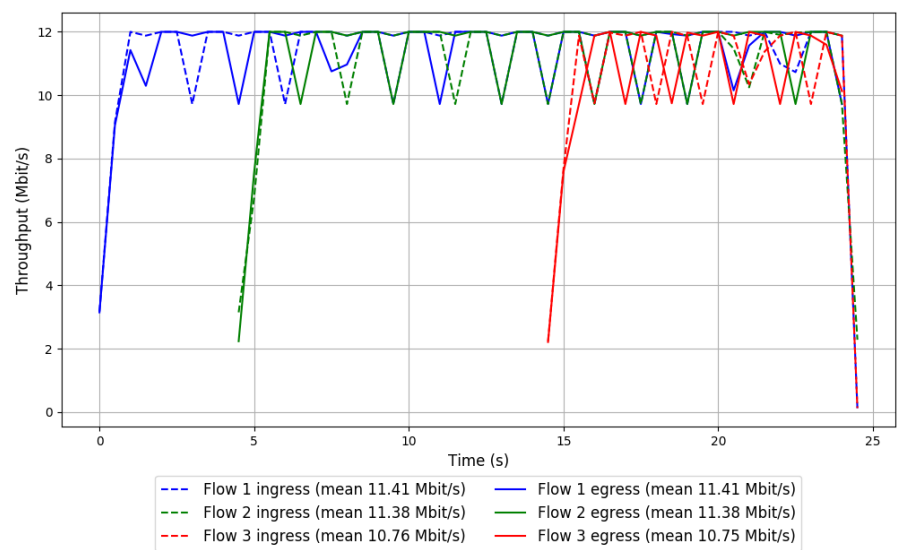
-- Flow 3:

Average throughput: 10.75 Mbit/s

95th percentile per-packet one-way delay: 53.366 ms

Loss rate: 1.12%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-08 05:42:33

End at: 2017-09-08 05:43:03

Below is generated by plot.py at 2017-09-08 09:57:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.36 Mbit/s

95th percentile per-packet one-way delay: 53.492 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 11.43 Mbit/s

95th percentile per-packet one-way delay: 53.564 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 53.389 ms

Loss rate: 0.54%

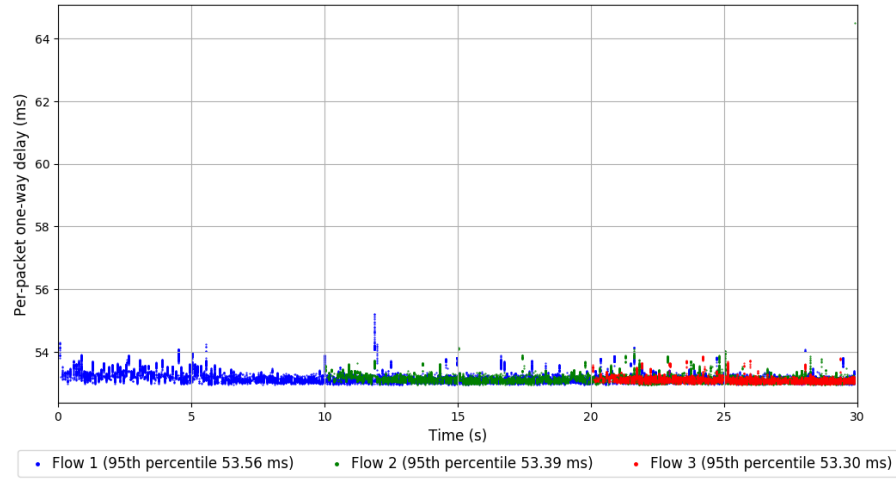
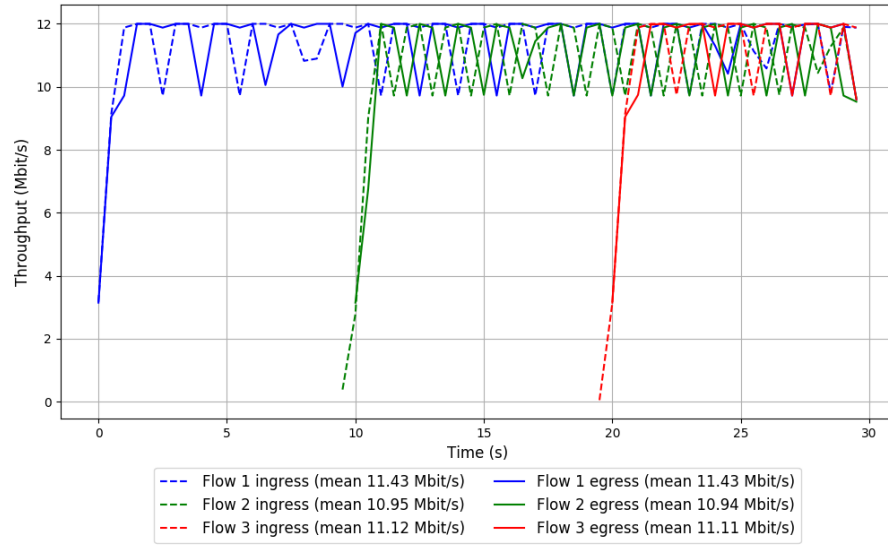
-- Flow 3:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 53.298 ms

Loss rate: 1.09%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-08 05:54:43

End at: 2017-09-08 05:55:13

Below is generated by plot.py at 2017-09-08 09:57:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.25 Mbit/s

95th percentile per-packet one-way delay: 53.412 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.05 Mbit/s

95th percentile per-packet one-way delay: 53.402 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 53.471 ms

Loss rate: 0.53%

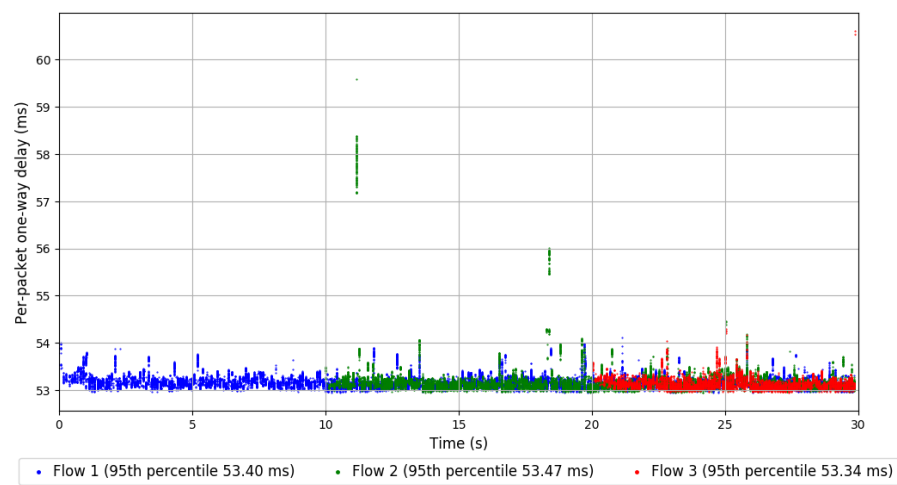
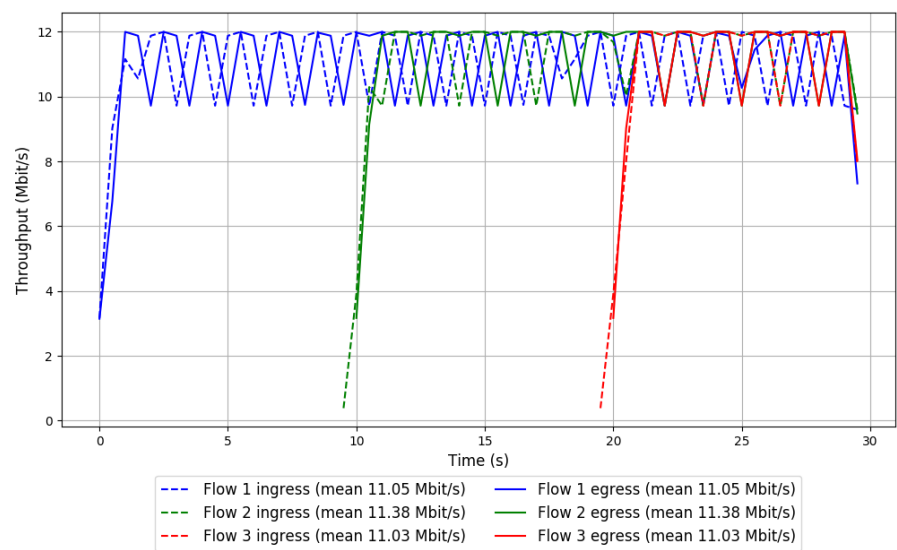
-- Flow 3:

Average throughput: 11.03 Mbit/s

95th percentile per-packet one-way delay: 53.345 ms

Loss rate: 0.97%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-08 06:07:07

End at: 2017-09-08 06:07:37

Below is generated by plot.py at 2017-09-08 09:57:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.91 Mbit/s

95th percentile per-packet one-way delay: 53.517 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 6.18 Mbit/s

95th percentile per-packet one-way delay: 4662.802 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.01 Mbit/s

95th percentile per-packet one-way delay: 53.508 ms

Loss rate: 0.55%

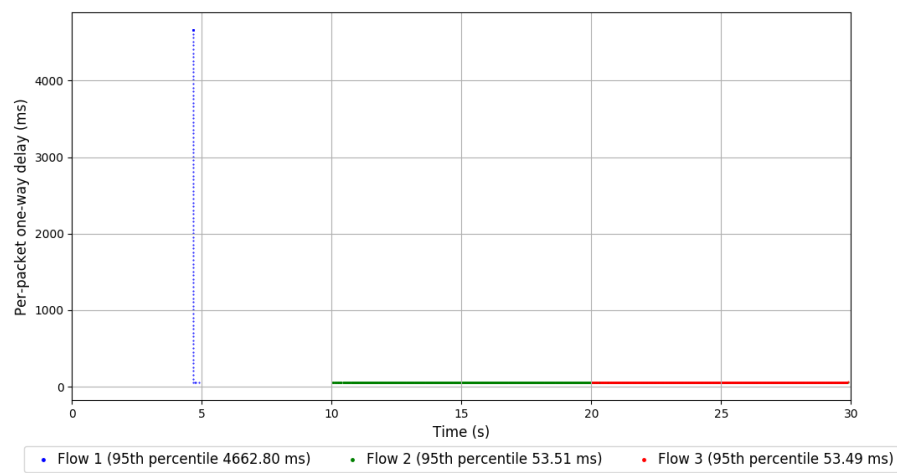
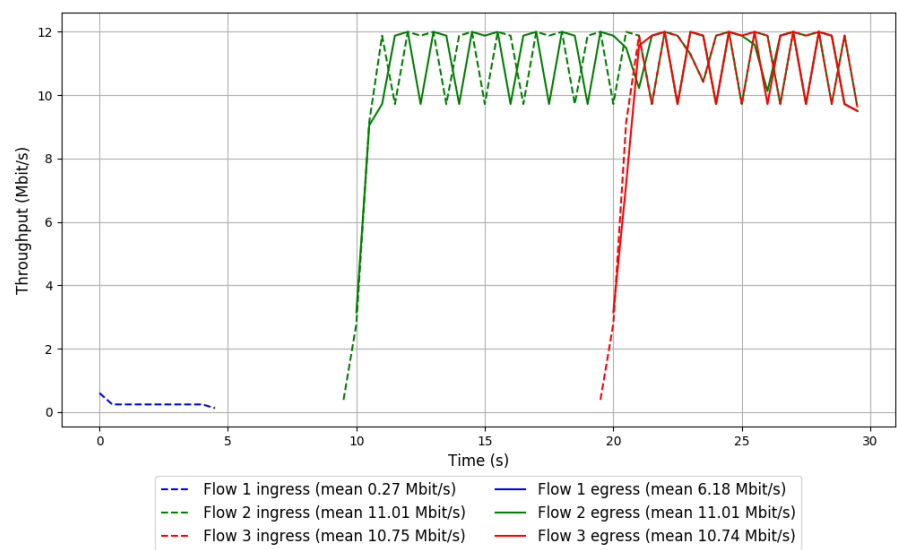
-- Flow 3:

Average throughput: 10.74 Mbit/s

95th percentile per-packet one-way delay: 53.495 ms

Loss rate: 1.12%

Run 10: Report of KohoCC — Data Link

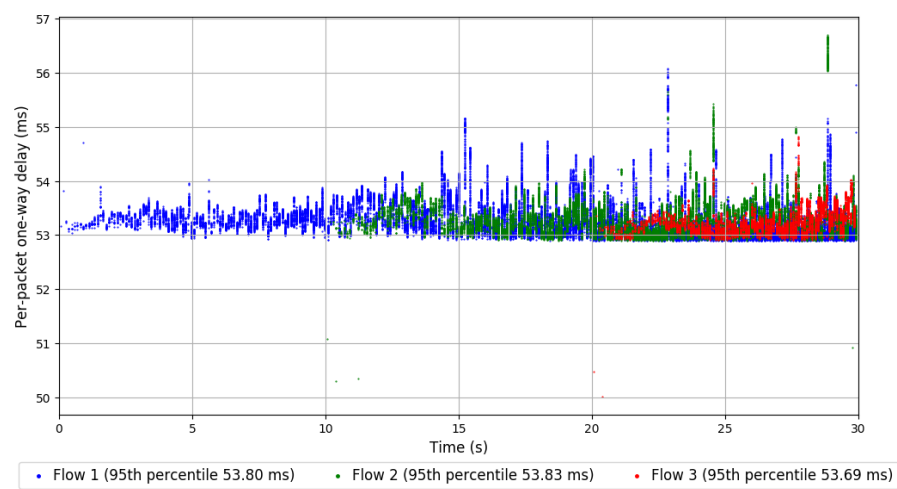
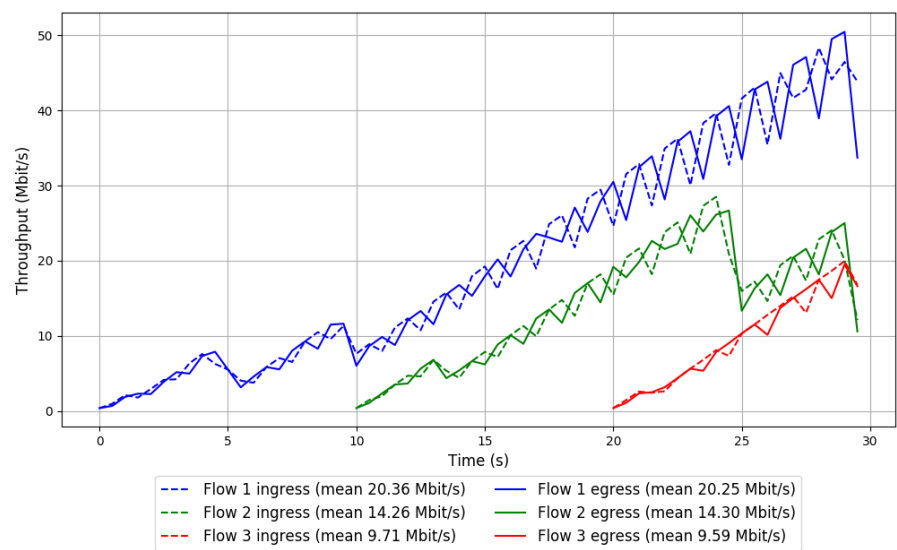


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 04:13:03
End at: 2017-09-08 04:13:33

# Below is generated by plot.py at 2017-09-08 09:57:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.89 Mbit/s
95th percentile per-packet one-way delay: 53.795 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 53.801 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 14.30 Mbit/s
95th percentile per-packet one-way delay: 53.831 ms
Loss rate: 0.26%
-- Flow 3:
Average throughput: 9.59 Mbit/s
95th percentile per-packet one-way delay: 53.693 ms
Loss rate: 2.23%
```


Run 1: Report of LEDBAT — Data Link

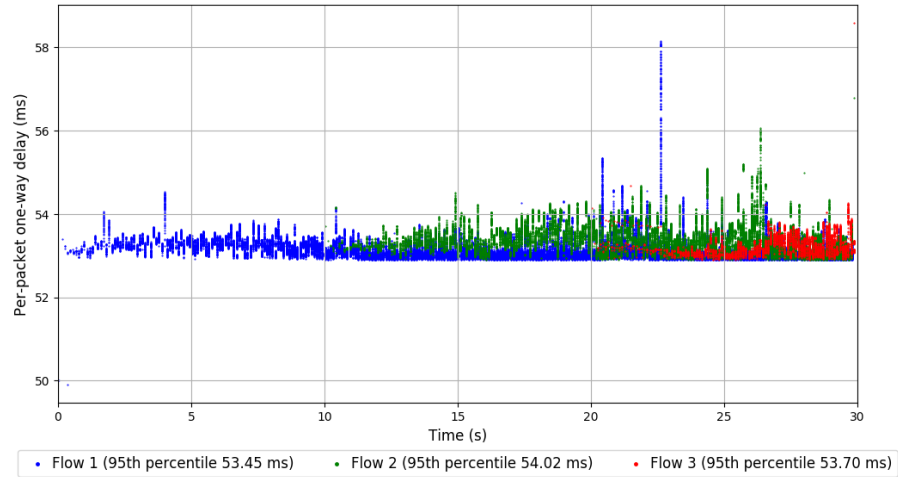
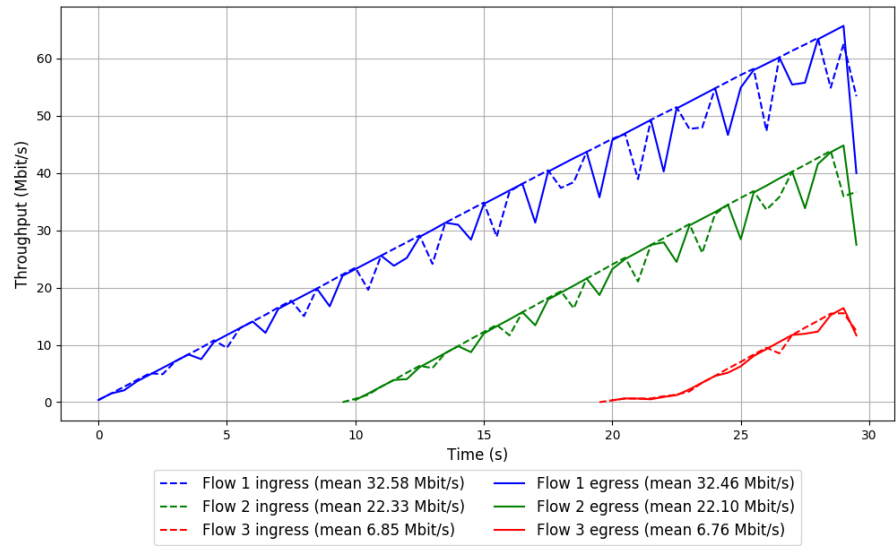


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-08 04:25:33
End at: 2017-09-08 04:26:03

# Below is generated by plot.py at 2017-09-08 09:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 49.33 Mbit/s
95th percentile per-packet one-way delay: 53.775 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 32.46 Mbit/s
95th percentile per-packet one-way delay: 53.446 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 22.10 Mbit/s
95th percentile per-packet one-way delay: 54.021 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 6.76 Mbit/s
95th percentile per-packet one-way delay: 53.699 ms
Loss rate: 2.26%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-08 04:37:57

End at: 2017-09-08 04:38:27

Below is generated by plot.py at 2017-09-08 09:57:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.05 Mbit/s

95th percentile per-packet one-way delay: 53.774 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 53.794 ms

Loss rate: 2.16%

-- Flow 2:

Average throughput: 11.70 Mbit/s

95th percentile per-packet one-way delay: 53.824 ms

Loss rate: 1.02%

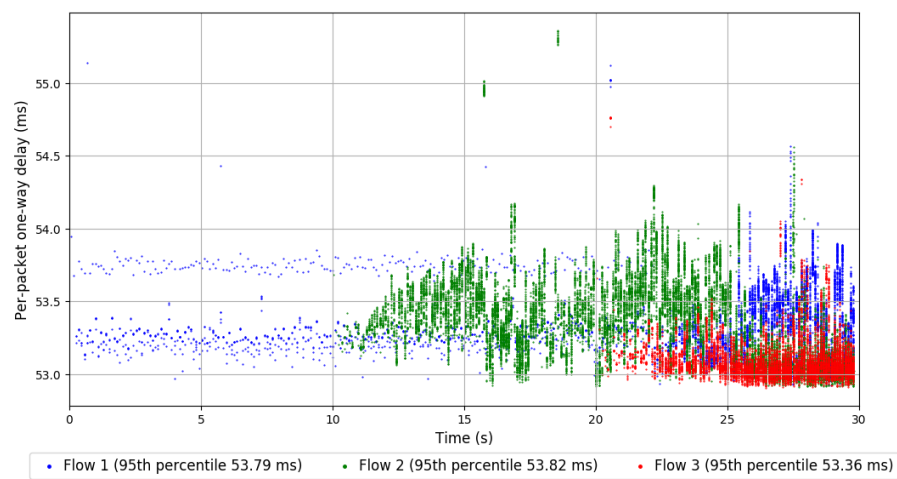
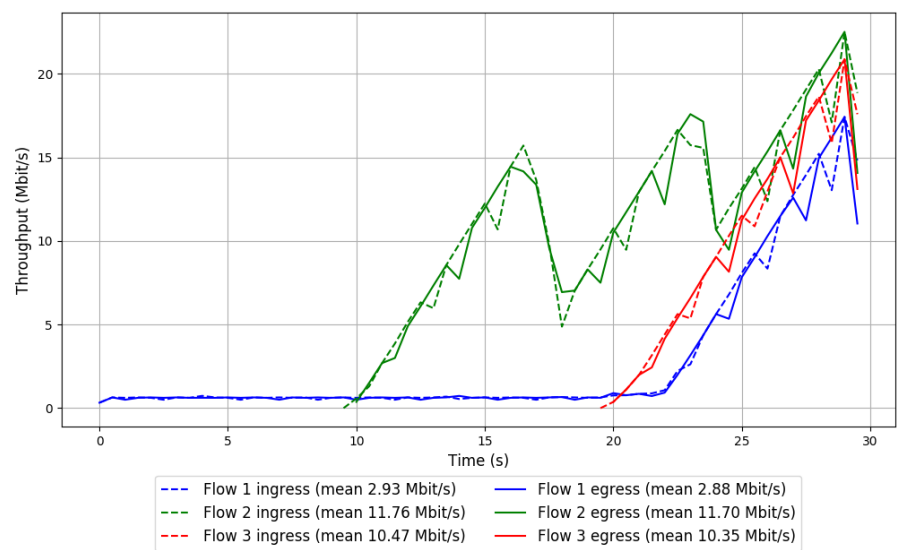
-- Flow 3:

Average throughput: 10.35 Mbit/s

95th percentile per-packet one-way delay: 53.362 ms

Loss rate: 2.17%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-08 04:50:19

End at: 2017-09-08 04:50:49

Below is generated by plot.py at 2017-09-08 09:57:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.42 Mbit/s

95th percentile per-packet one-way delay: 53.876 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 53.730 ms

Loss rate: 2.25%

-- Flow 2:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 53.817 ms

Loss rate: 2.32%

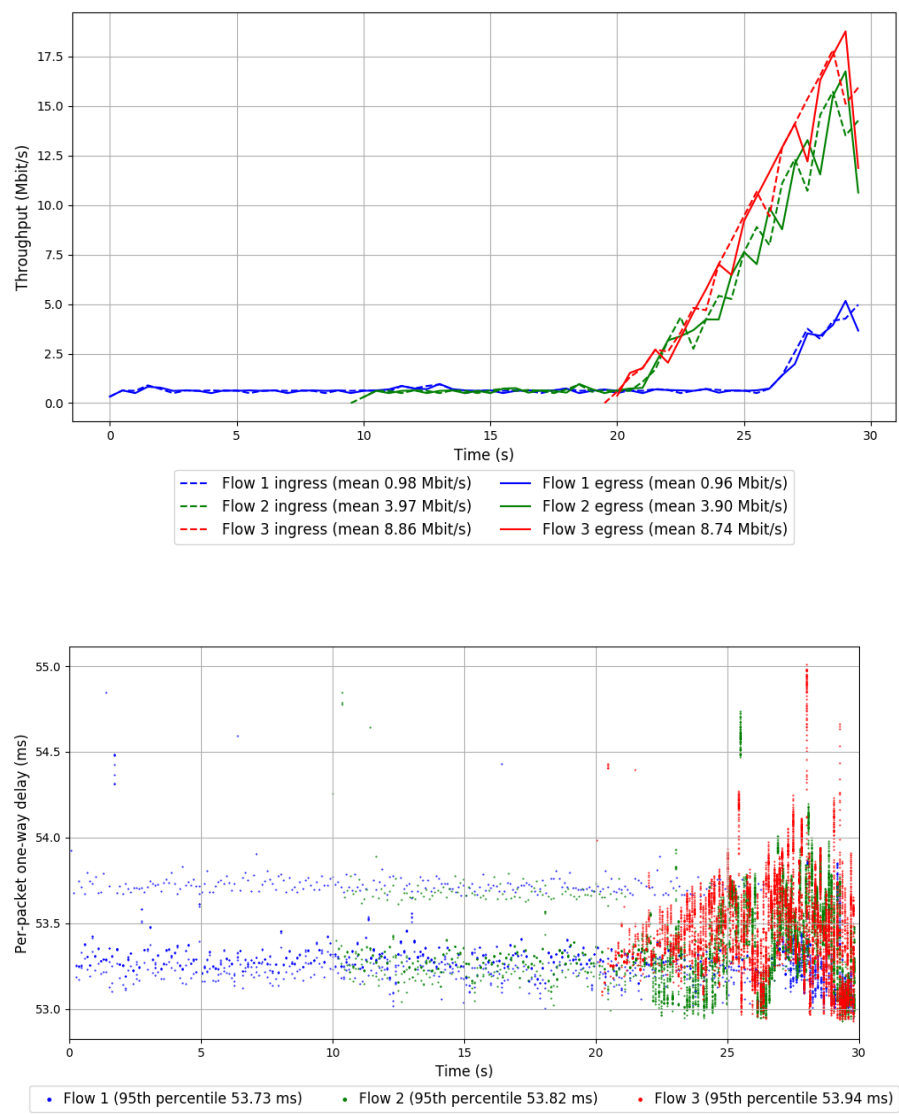
-- Flow 3:

Average throughput: 8.74 Mbit/s

95th percentile per-packet one-way delay: 53.939 ms

Loss rate: 2.32%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-08 05:02:40

End at: 2017-09-08 05:03:10

Below is generated by plot.py at 2017-09-08 09:57:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.66 Mbit/s

95th percentile per-packet one-way delay: 53.694 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 11.67 Mbit/s

95th percentile per-packet one-way delay: 53.740 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 11.45 Mbit/s

95th percentile per-packet one-way delay: 53.641 ms

Loss rate: 0.30%

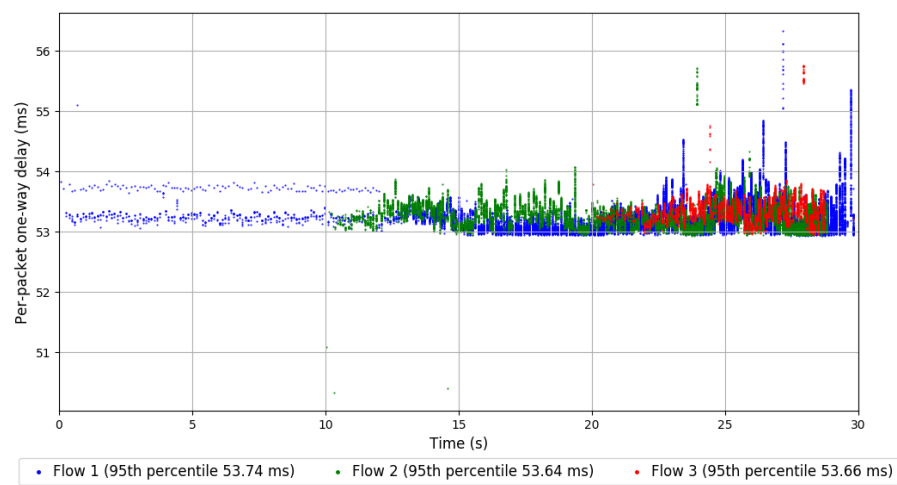
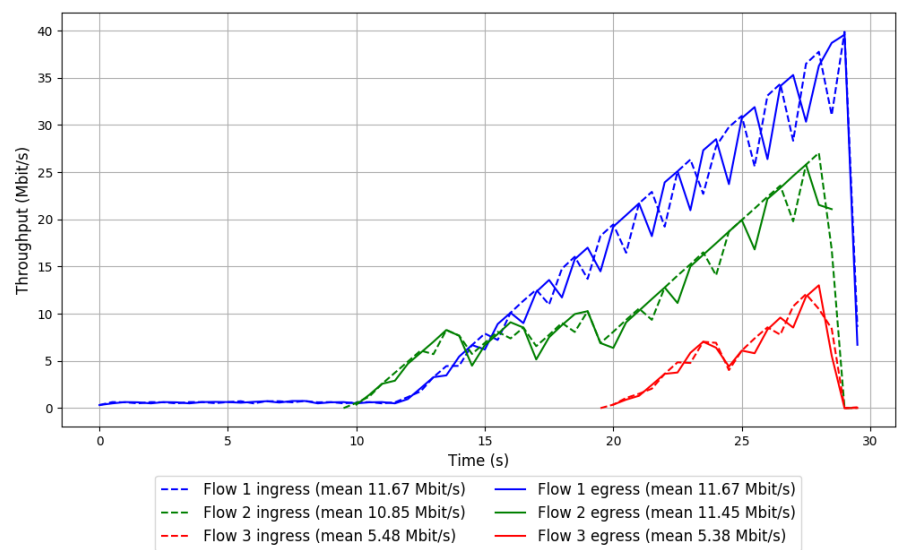
-- Flow 3:

Average throughput: 5.38 Mbit/s

95th percentile per-packet one-way delay: 53.659 ms

Loss rate: 2.84%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-08 05:14:49

End at: 2017-09-08 05:15:19

Below is generated by plot.py at 2017-09-08 09:57:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.83 Mbit/s

95th percentile per-packet one-way delay: 53.860 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 14.67 Mbit/s

95th percentile per-packet one-way delay: 53.877 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 53.789 ms

Loss rate: 0.56%

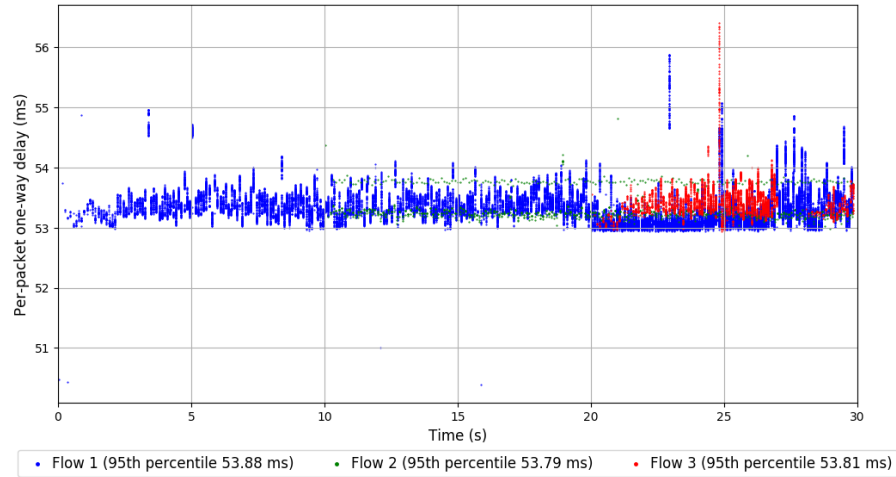
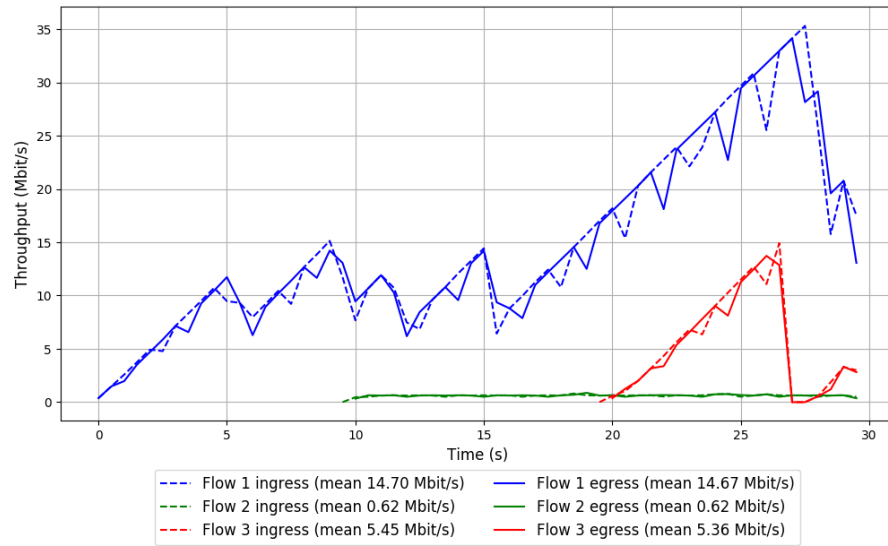
-- Flow 3:

Average throughput: 5.36 Mbit/s

95th percentile per-packet one-way delay: 53.807 ms

Loss rate: 2.67%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-08 05:27:11

End at: 2017-09-08 05:27:41

Below is generated by plot.py at 2017-09-08 09:57:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.40 Mbit/s

95th percentile per-packet one-way delay: 53.741 ms

Loss rate: 2.36%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 133.944 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 53.788 ms

Loss rate: 3.27%

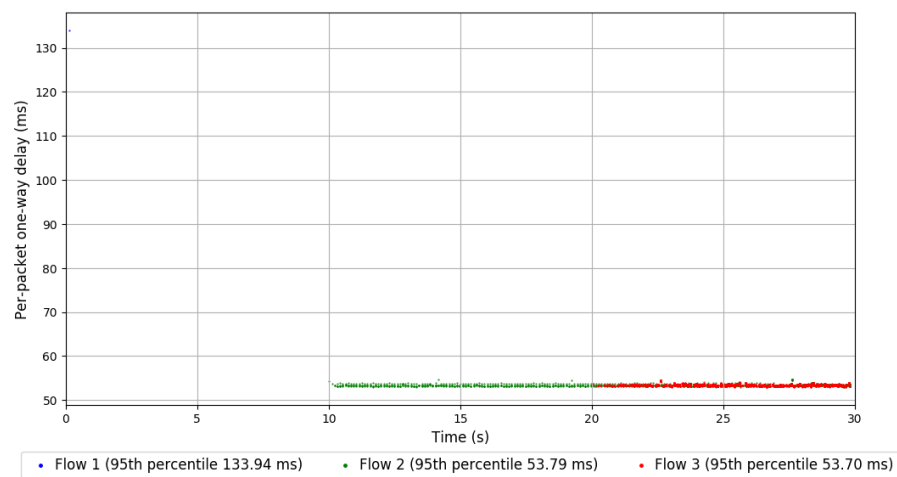
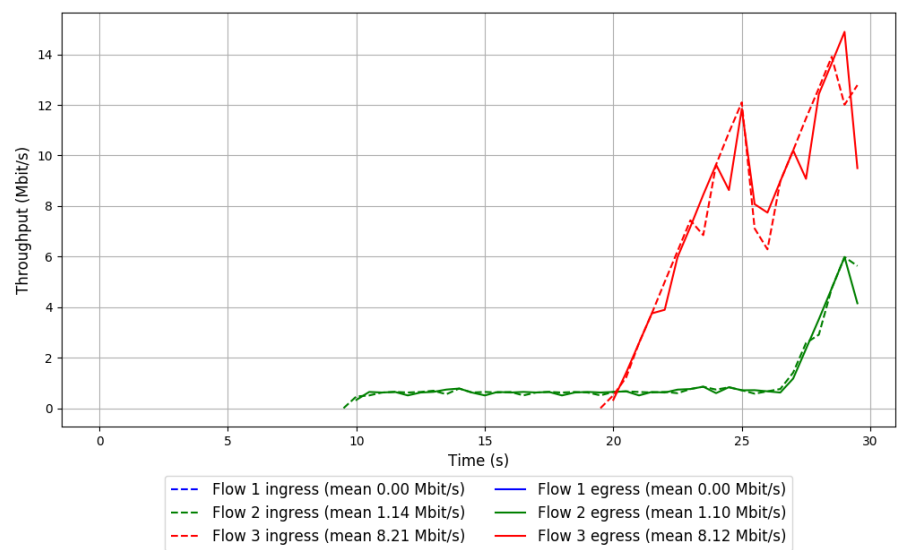
-- Flow 3:

Average throughput: 8.12 Mbit/s

95th percentile per-packet one-way delay: 53.700 ms

Loss rate: 2.10%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-08 05:39:37

End at: 2017-09-08 05:40:07

Below is generated by plot.py at 2017-09-08 09:57:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 29.73 Mbit/s

95th percentile per-packet one-way delay: 53.676 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 20.39 Mbit/s

95th percentile per-packet one-way delay: 53.570 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 10.59 Mbit/s

95th percentile per-packet one-way delay: 53.927 ms

Loss rate: 0.56%

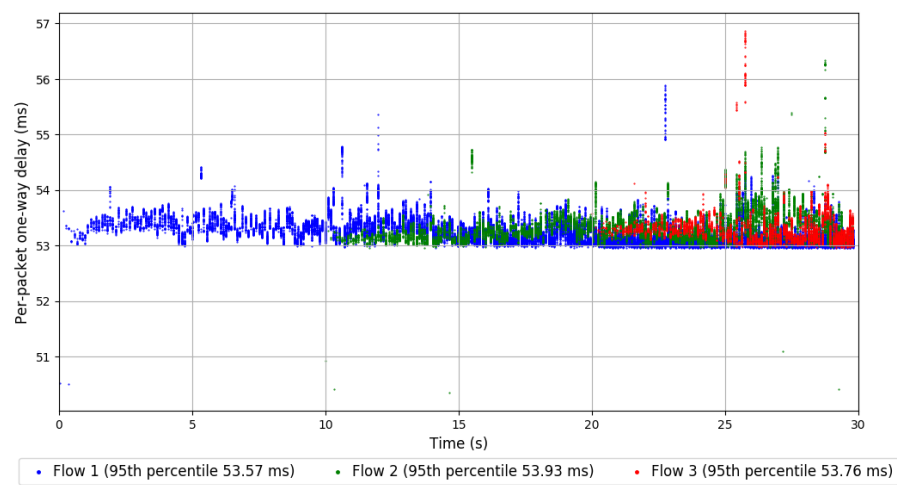
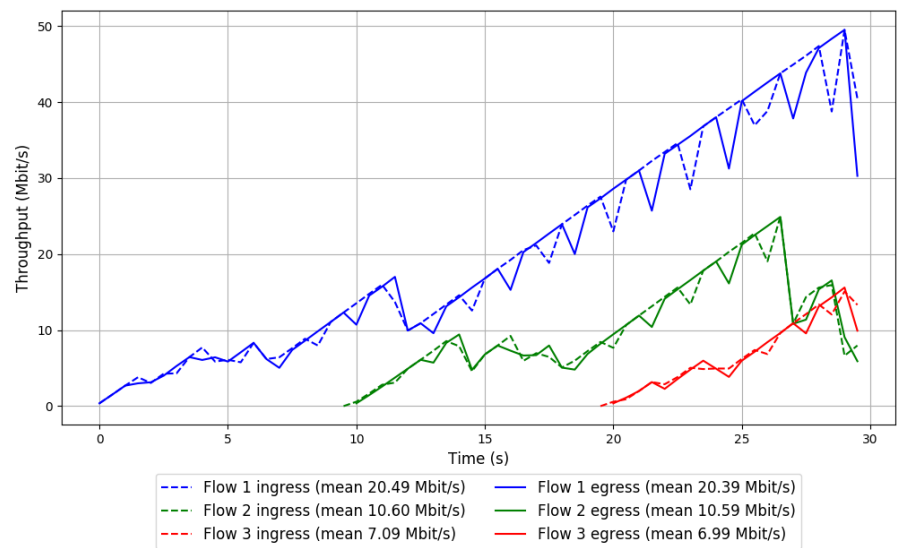
-- Flow 3:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 53.764 ms

Loss rate: 2.44%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-08 05:51:44

End at: 2017-09-08 05:52:14

Below is generated by plot.py at 2017-09-08 09:57:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.24 Mbit/s

95th percentile per-packet one-way delay: 53.693 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 24.23 Mbit/s

95th percentile per-packet one-way delay: 53.644 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 7.36 Mbit/s

95th percentile per-packet one-way delay: 53.849 ms

Loss rate: 1.09%

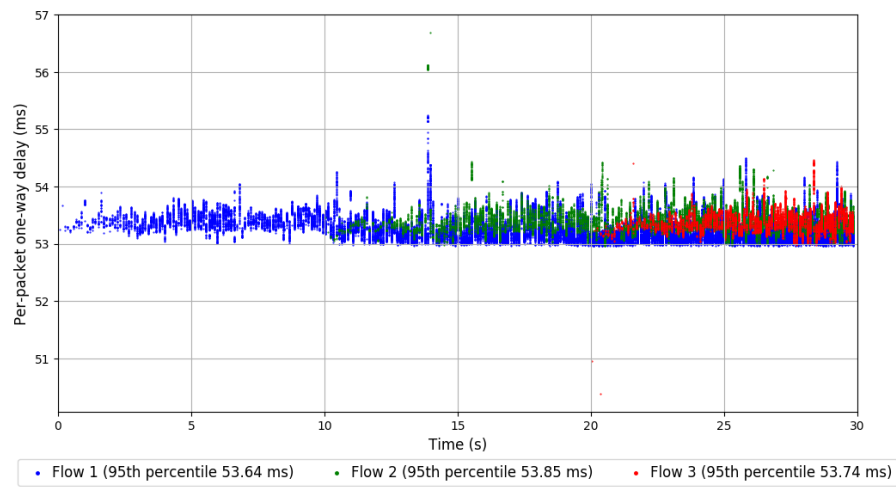
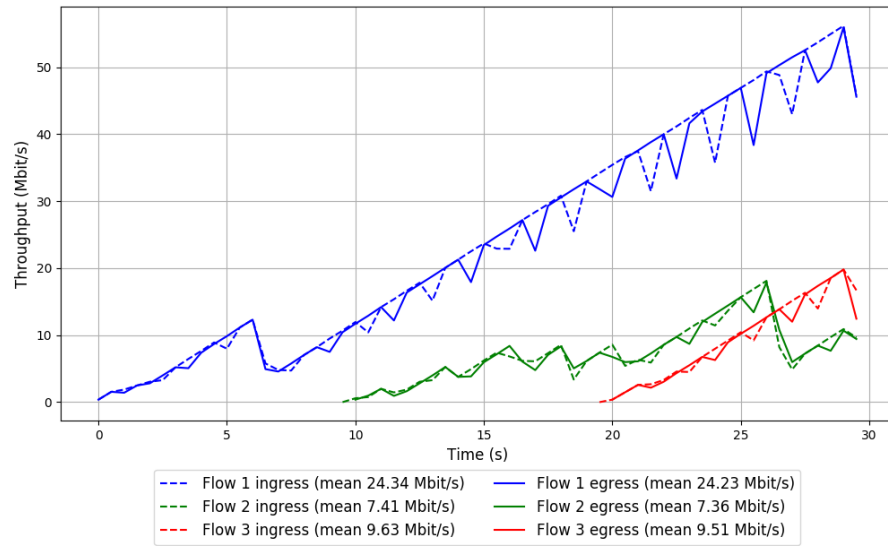
-- Flow 3:

Average throughput: 9.51 Mbit/s

95th percentile per-packet one-way delay: 53.736 ms

Loss rate: 2.23%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-09-08 06:04:11

End at: 2017-09-08 06:04:41

Below is generated by plot.py at 2017-09-08 09:57:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.08 Mbit/s

95th percentile per-packet one-way delay: 53.754 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2550.946 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 8.81 Mbit/s

95th percentile per-packet one-way delay: 53.740 ms

Loss rate: 1.04%

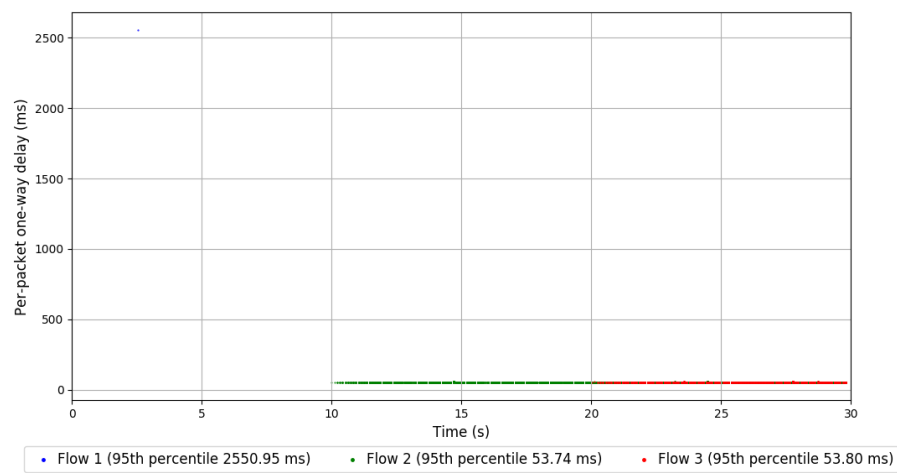
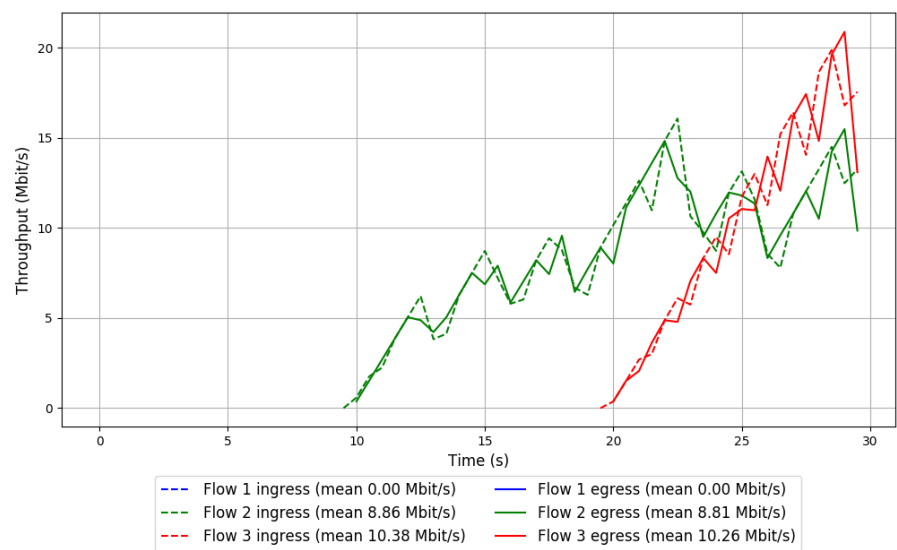
-- Flow 3:

Average throughput: 10.26 Mbit/s

95th percentile per-packet one-way delay: 53.795 ms

Loss rate: 2.17%

Run 10: Report of LEDBAT — Data Link

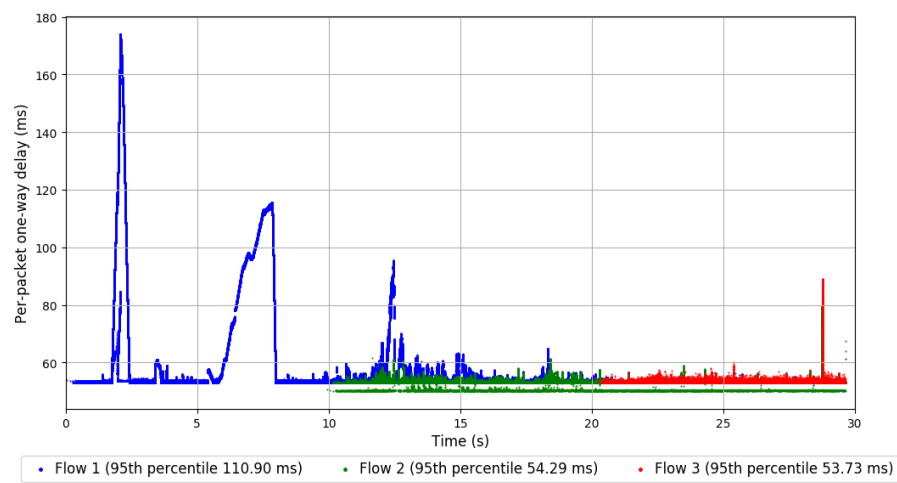
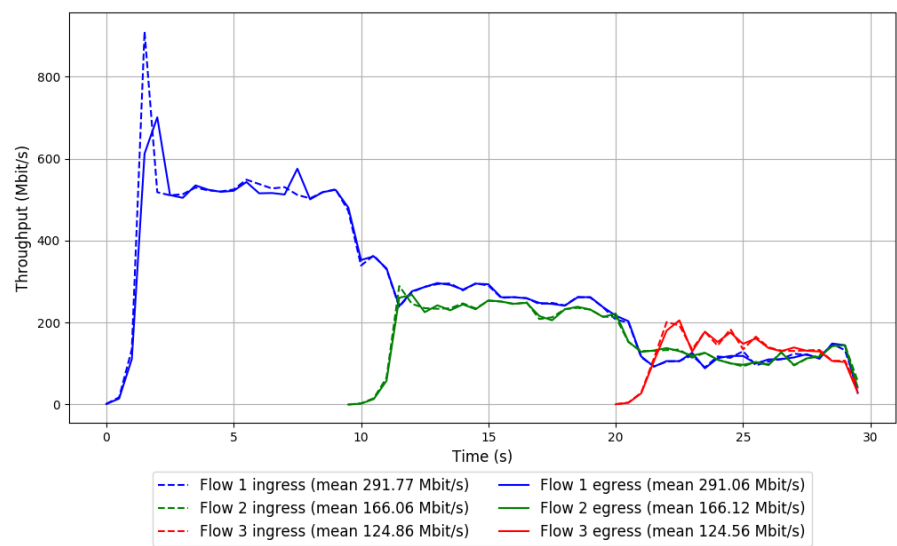


```
Run 1: Statistics of PCC

Start at: 2017-09-08 04:22:10
End at: 2017-09-08 04:22:40

# Below is generated by plot.py at 2017-09-08 09:58:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 441.84 Mbit/s
95th percentile per-packet one-way delay: 98.616 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 291.06 Mbit/s
95th percentile per-packet one-way delay: 110.899 ms
Loss rate: 0.61%
-- Flow 2:
Average throughput: 166.12 Mbit/s
95th percentile per-packet one-way delay: 54.287 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 124.56 Mbit/s
95th percentile per-packet one-way delay: 53.728 ms
Loss rate: 1.28%
```

Run 1: Report of PCC — Data Link

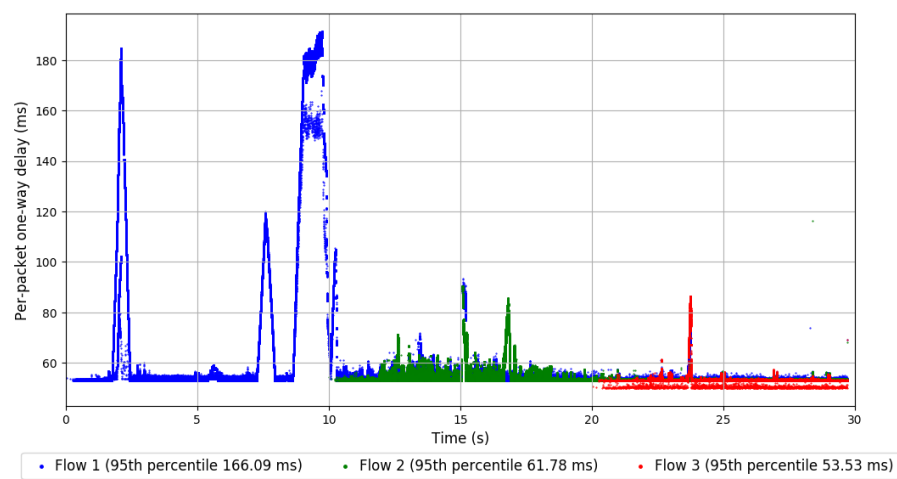
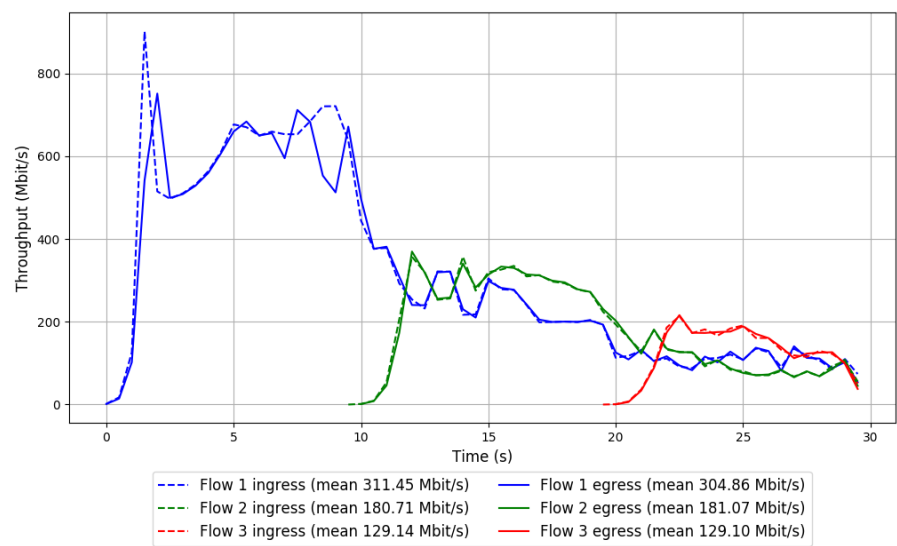


```
Run 2: Statistics of PCC

Start at: 2017-09-08 04:34:34
End at: 2017-09-08 04:35:04

# Below is generated by plot.py at 2017-09-08 09:59:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 467.29 Mbit/s
95th percentile per-packet one-way delay: 135.831 ms
Loss rate: 1.76%
-- Flow 1:
Average throughput: 304.86 Mbit/s
95th percentile per-packet one-way delay: 166.087 ms
Loss rate: 2.43%
-- Flow 2:
Average throughput: 181.07 Mbit/s
95th percentile per-packet one-way delay: 61.785 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 129.10 Mbit/s
95th percentile per-packet one-way delay: 53.529 ms
Loss rate: 0.98%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-09-08 04:46:57

End at: 2017-09-08 04:47:27

Below is generated by plot.py at 2017-09-08 10:00:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 460.99 Mbit/s

95th percentile per-packet one-way delay: 76.642 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 294.75 Mbit/s

95th percentile per-packet one-way delay: 80.412 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 197.00 Mbit/s

95th percentile per-packet one-way delay: 78.611 ms

Loss rate: 0.48%

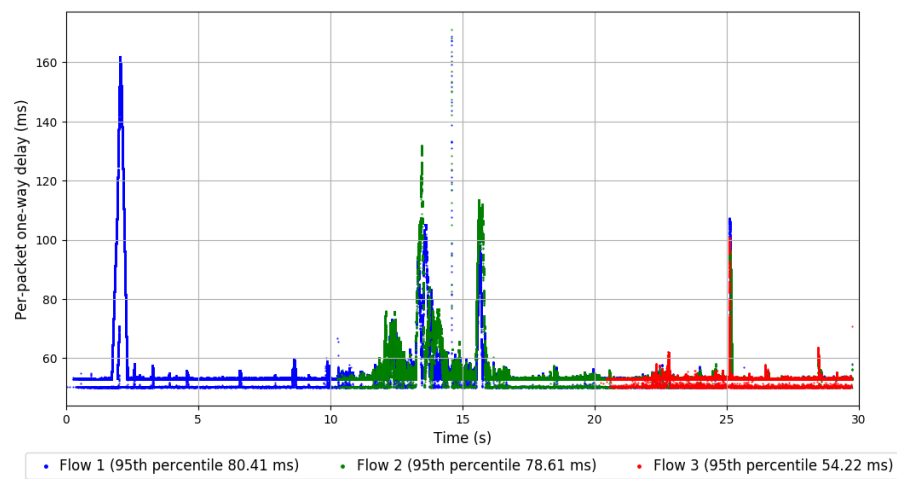
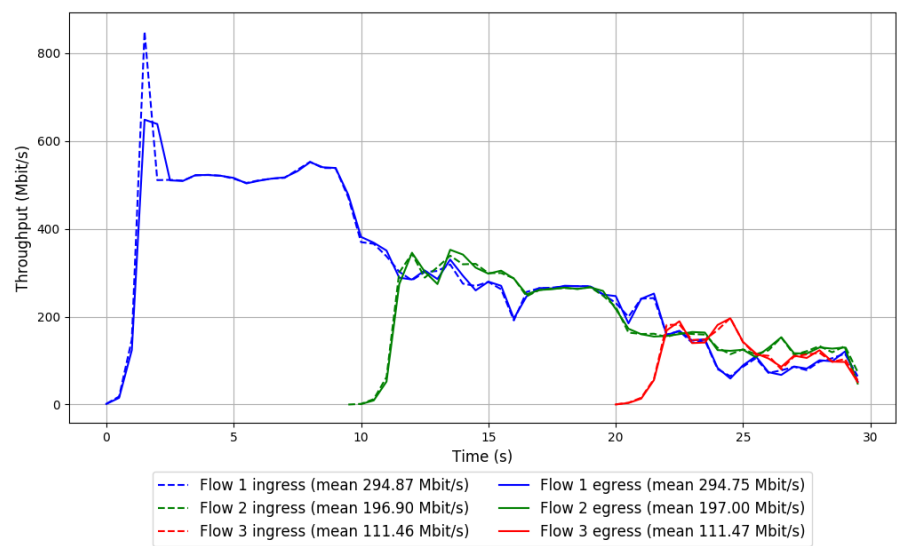
-- Flow 3:

Average throughput: 111.47 Mbit/s

95th percentile per-packet one-way delay: 54.221 ms

Loss rate: 0.96%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-08 04:59:15

End at: 2017-09-08 04:59:45

Below is generated by plot.py at 2017-09-08 10:00:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 415.39 Mbit/s

95th percentile per-packet one-way delay: 99.742 ms

Loss rate: 2.15%

-- Flow 1:

Average throughput: 294.66 Mbit/s

95th percentile per-packet one-way delay: 108.897 ms

Loss rate: 2.80%

-- Flow 2:

Average throughput: 125.00 Mbit/s

95th percentile per-packet one-way delay: 56.350 ms

Loss rate: 0.24%

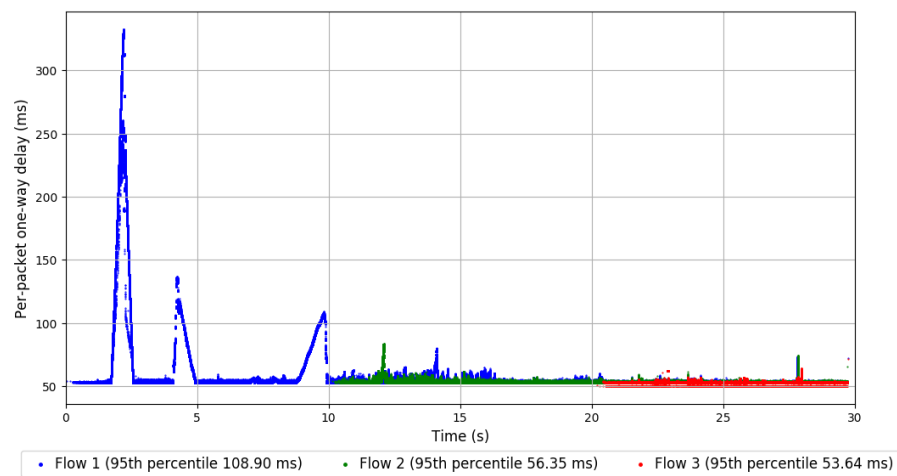
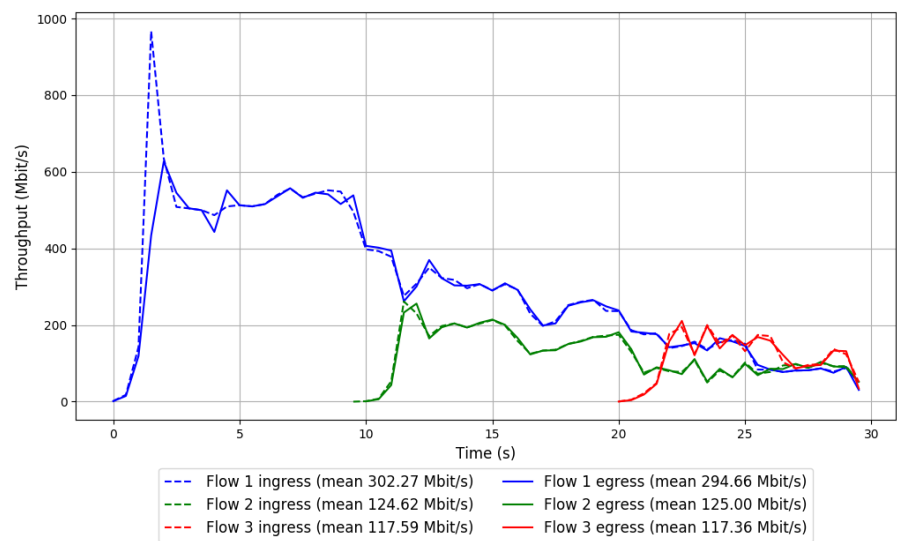
-- Flow 3:

Average throughput: 117.36 Mbit/s

95th percentile per-packet one-way delay: 53.636 ms

Loss rate: 1.12%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-08 05:11:39

End at: 2017-09-08 05:12:09

Below is generated by plot.py at 2017-09-08 10:01:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.30 Mbit/s

95th percentile per-packet one-way delay: 129.600 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 283.86 Mbit/s

95th percentile per-packet one-way delay: 143.275 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 143.54 Mbit/s

95th percentile per-packet one-way delay: 54.740 ms

Loss rate: 0.32%

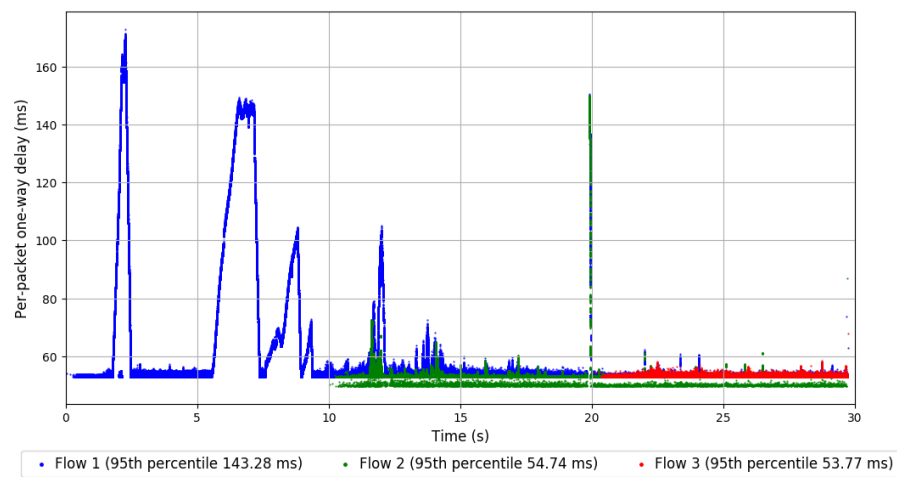
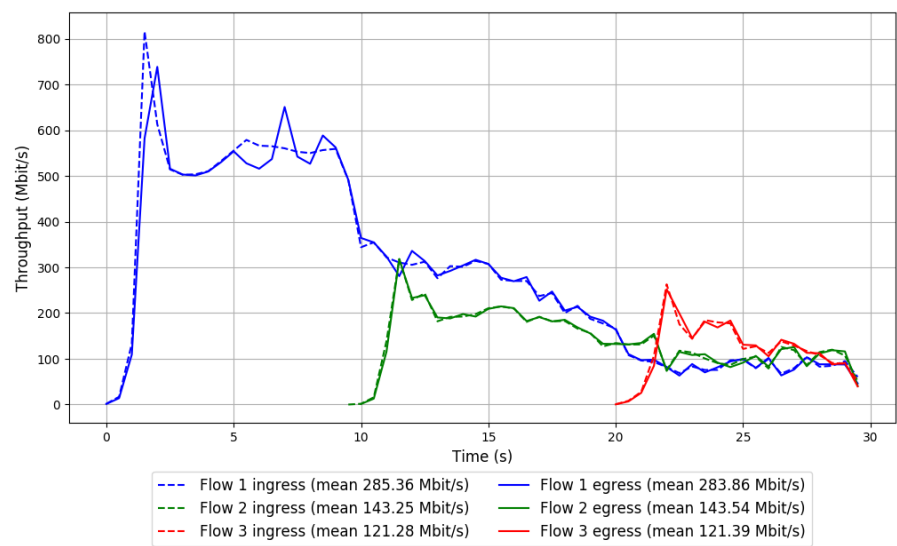
-- Flow 3:

Average throughput: 121.39 Mbit/s

95th percentile per-packet one-way delay: 53.774 ms

Loss rate: 0.90%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-08 05:23:50

End at: 2017-09-08 05:24:20

Below is generated by plot.py at 2017-09-08 10:01:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.00 Mbit/s

95th percentile per-packet one-way delay: 56.228 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 285.76 Mbit/s

95th percentile per-packet one-way delay: 59.354 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 173.50 Mbit/s

95th percentile per-packet one-way delay: 54.566 ms

Loss rate: 0.42%

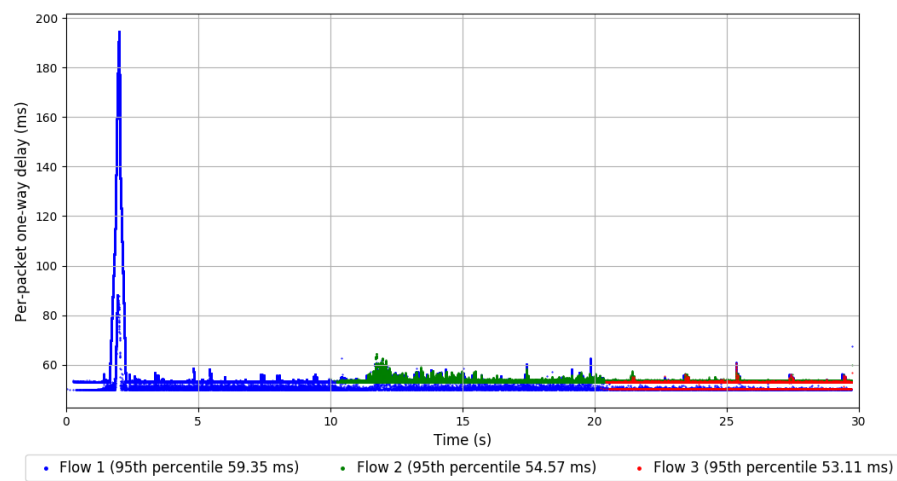
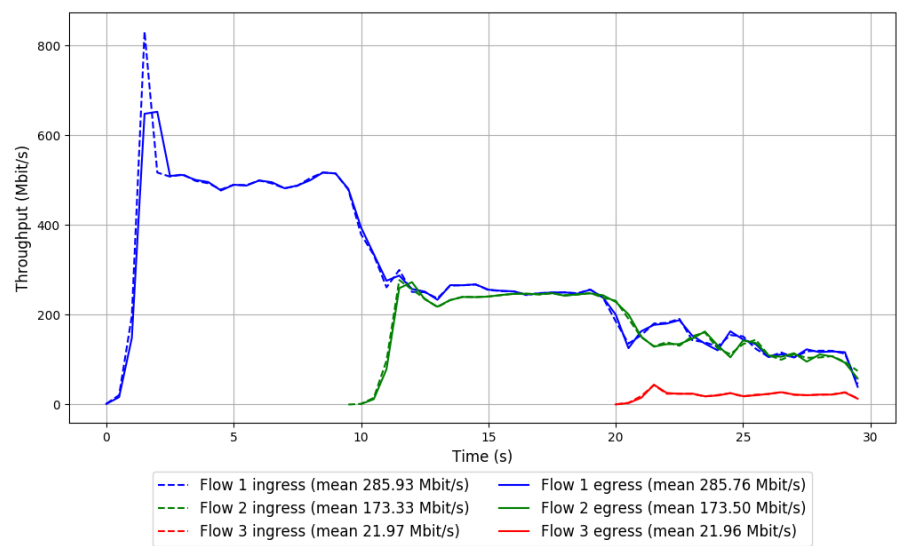
-- Flow 3:

Average throughput: 21.96 Mbit/s

95th percentile per-packet one-way delay: 53.106 ms

Loss rate: 1.05%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-08 05:36:23

End at: 2017-09-08 05:36:53

Below is generated by plot.py at 2017-09-08 10:03:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.67 Mbit/s

95th percentile per-packet one-way delay: 83.652 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 293.77 Mbit/s

95th percentile per-packet one-way delay: 92.876 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 192.17 Mbit/s

95th percentile per-packet one-way delay: 84.055 ms

Loss rate: 0.29%

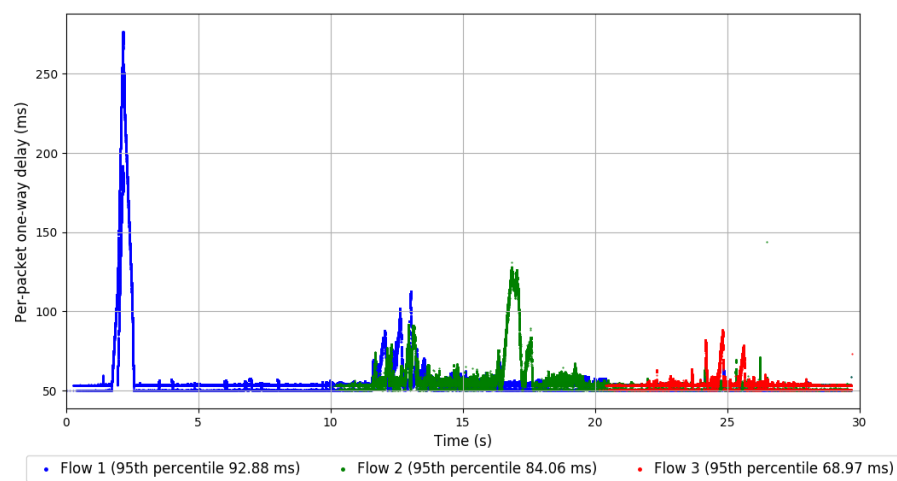
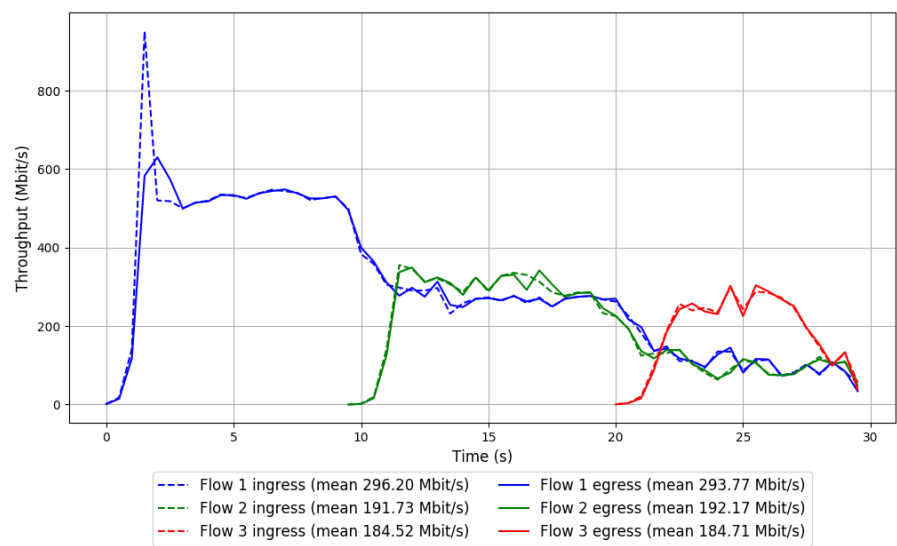
-- Flow 3:

Average throughput: 184.71 Mbit/s

95th percentile per-packet one-way delay: 68.969 ms

Loss rate: 0.80%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-08 05:48:29

End at: 2017-09-08 05:48:59

Below is generated by plot.py at 2017-09-08 10:03:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 475.82 Mbit/s

95th percentile per-packet one-way delay: 117.708 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 301.39 Mbit/s

95th percentile per-packet one-way delay: 138.847 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 174.82 Mbit/s

95th percentile per-packet one-way delay: 55.515 ms

Loss rate: 0.39%

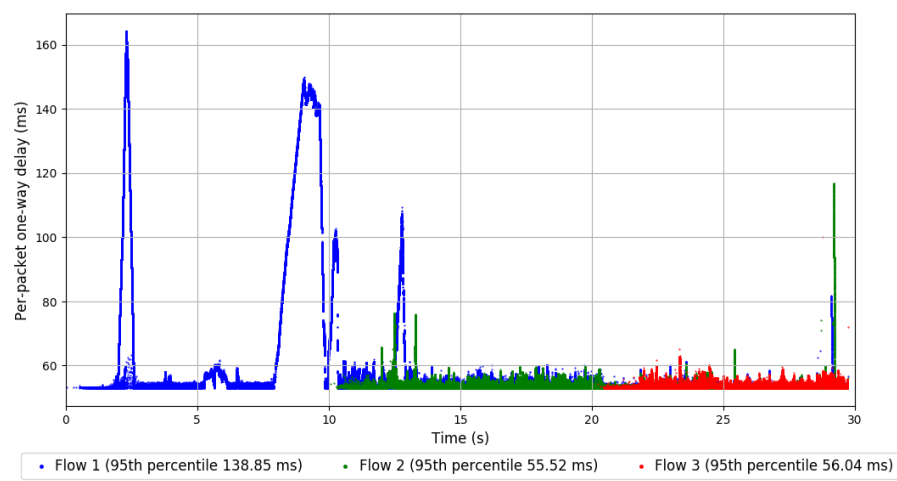
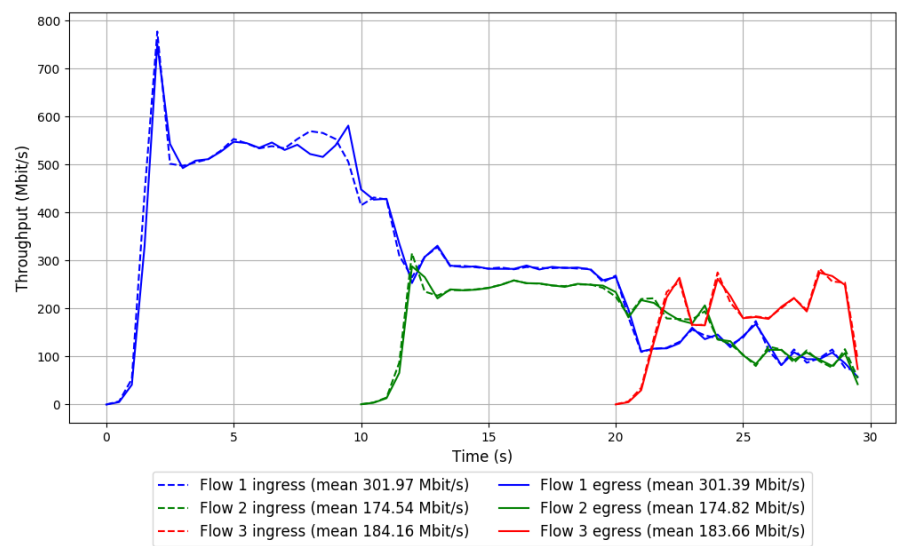
-- Flow 3:

Average throughput: 183.66 Mbit/s

95th percentile per-packet one-way delay: 56.043 ms

Loss rate: 1.26%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-08 06:00:47

End at: 2017-09-08 06:01:17

Below is generated by plot.py at 2017-09-08 10:04:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 450.90 Mbit/s

95th percentile per-packet one-way delay: 58.454 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 287.32 Mbit/s

95th percentile per-packet one-way delay: 66.735 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 154.05 Mbit/s

95th percentile per-packet one-way delay: 55.532 ms

Loss rate: 0.60%

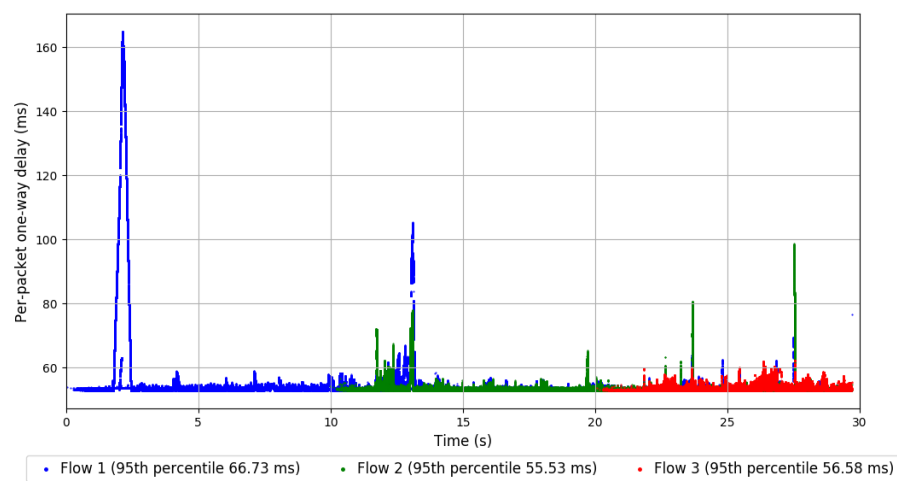
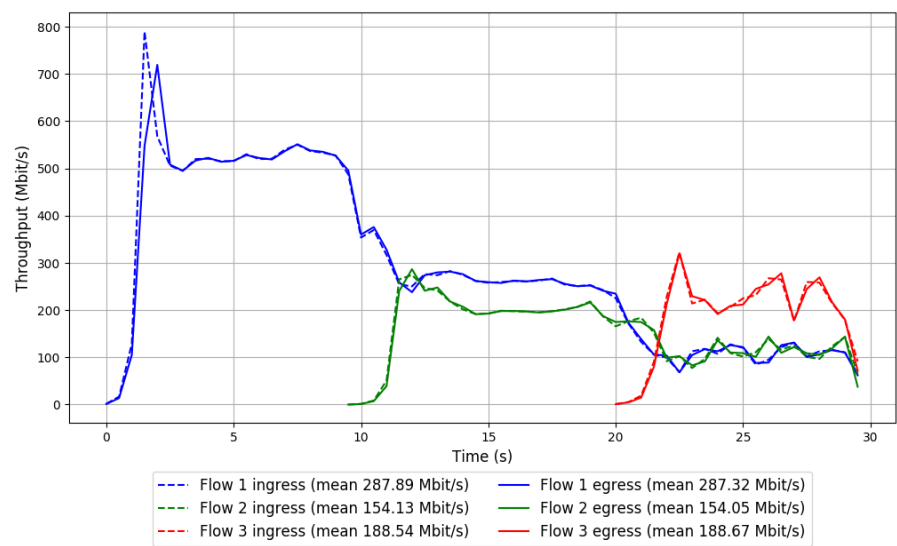
-- Flow 3:

Average throughput: 188.67 Mbit/s

95th percentile per-packet one-way delay: 56.578 ms

Loss rate: 1.04%

Run 9: Report of PCC — Data Link

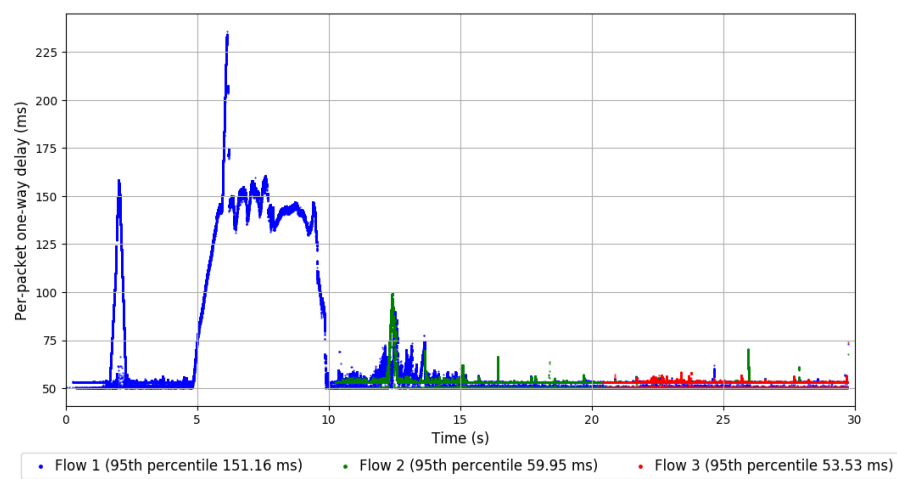
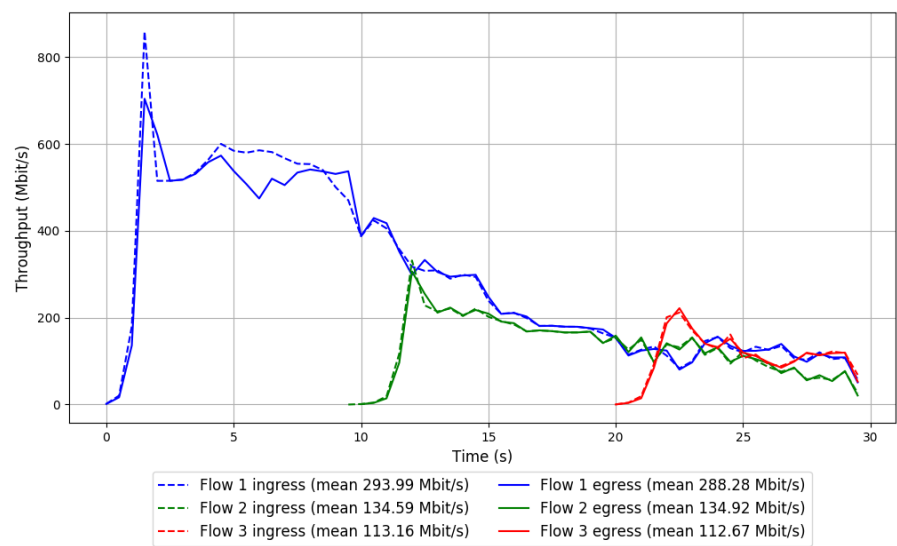


```
Run 10: Statistics of PCC

Start at: 2017-09-08 06:13:12
End at: 2017-09-08 06:13:42

# Below is generated by plot.py at 2017-09-08 10:04:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 413.98 Mbit/s
95th percentile per-packet one-way delay: 148.007 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 288.28 Mbit/s
95th percentile per-packet one-way delay: 151.158 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 134.92 Mbit/s
95th percentile per-packet one-way delay: 59.953 ms
Loss rate: 0.21%
-- Flow 3:
Average throughput: 112.67 Mbit/s
95th percentile per-packet one-way delay: 53.529 ms
Loss rate: 1.33%
```

Run 10: Report of PCC — Data Link

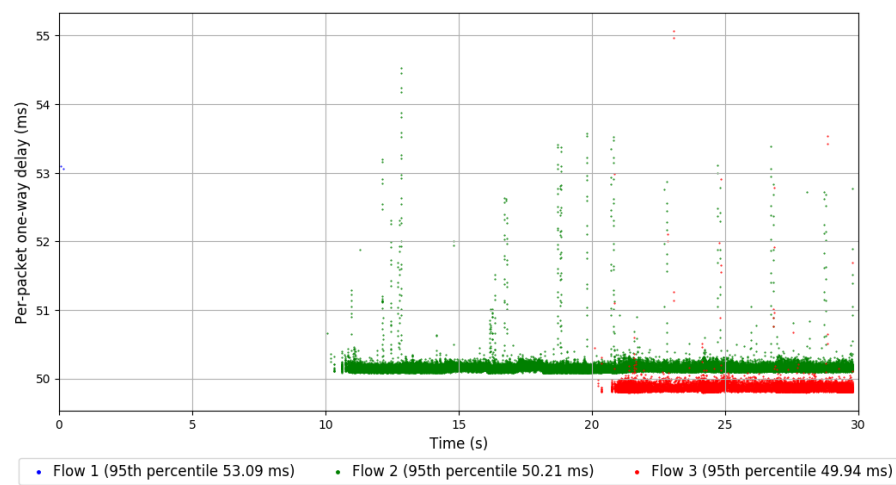
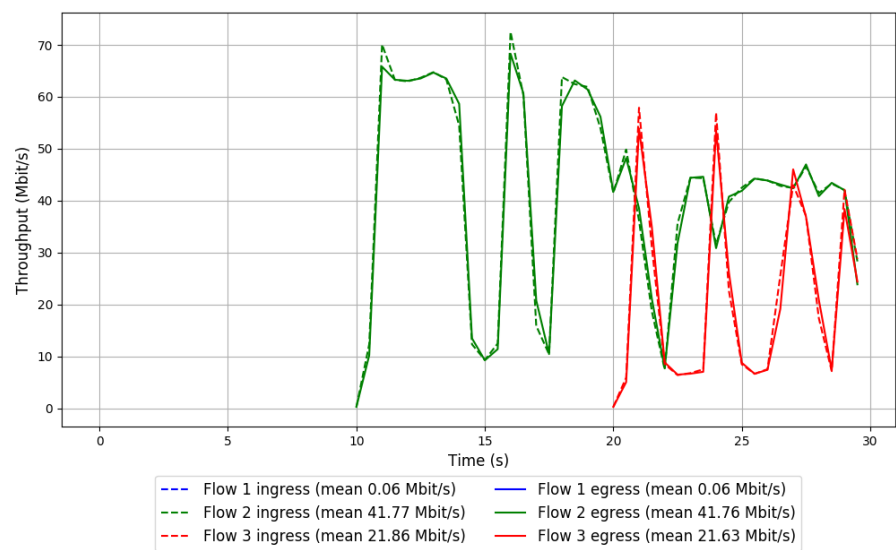


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 04:17:35
End at: 2017-09-08 04:18:05

# Below is generated by plot.py at 2017-09-08 10:04:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 34.75 Mbit/s
95th percentile per-packet one-way delay: 50.205 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 53.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 41.76 Mbit/s
95th percentile per-packet one-way delay: 50.212 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 21.63 Mbit/s
95th percentile per-packet one-way delay: 49.942 ms
Loss rate: 2.05%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 04:30:07

End at: 2017-09-08 04:30:37

Below is generated by plot.py at 2017-09-08 10:05:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.65 Mbit/s

95th percentile per-packet one-way delay: 53.003 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.806 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.84 Mbit/s

95th percentile per-packet one-way delay: 52.997 ms

Loss rate: 0.54%

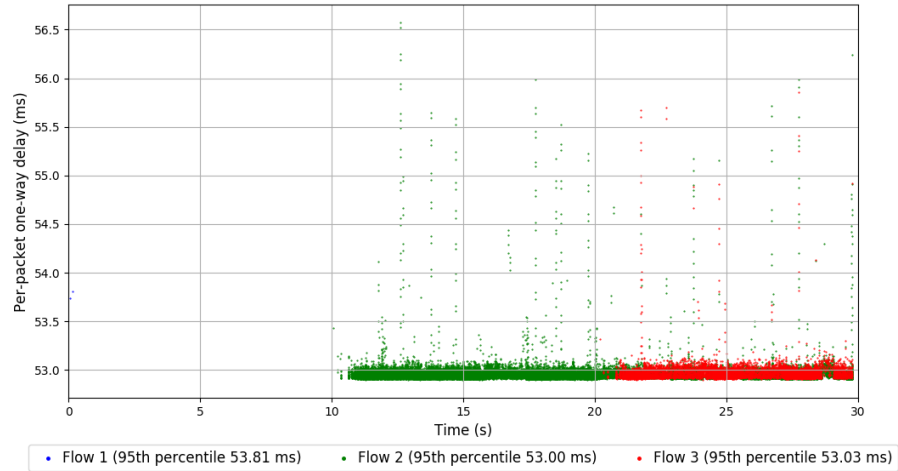
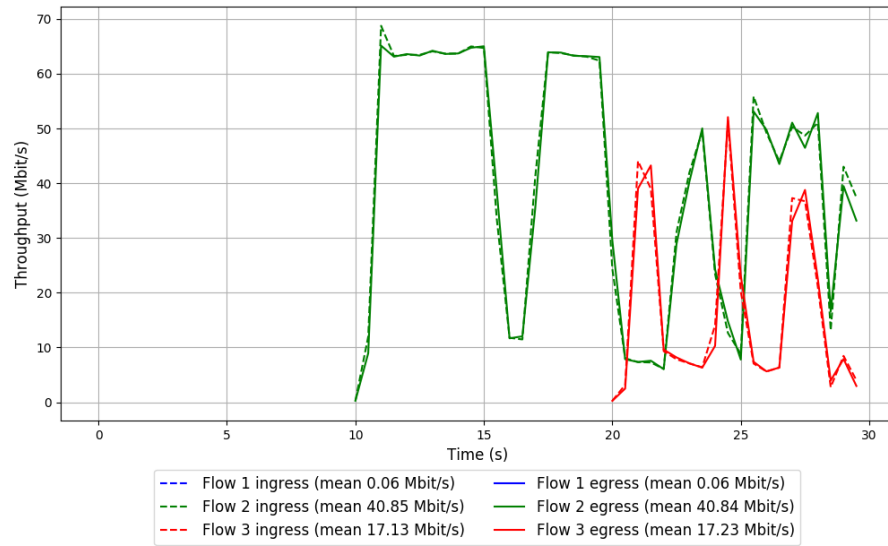
-- Flow 3:

Average throughput: 17.23 Mbit/s

95th percentile per-packet one-way delay: 53.028 ms

Loss rate: 0.52%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 04:42:26

End at: 2017-09-08 04:42:56

Below is generated by plot.py at 2017-09-08 10:05:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.21 Mbit/s

95th percentile per-packet one-way delay: 53.627 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.18 Mbit/s

95th percentile per-packet one-way delay: 53.080 ms

Loss rate: 0.67%

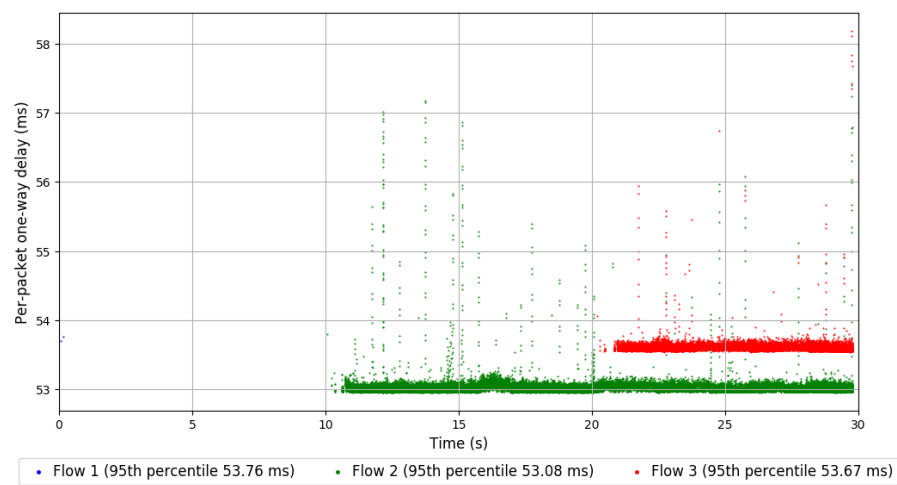
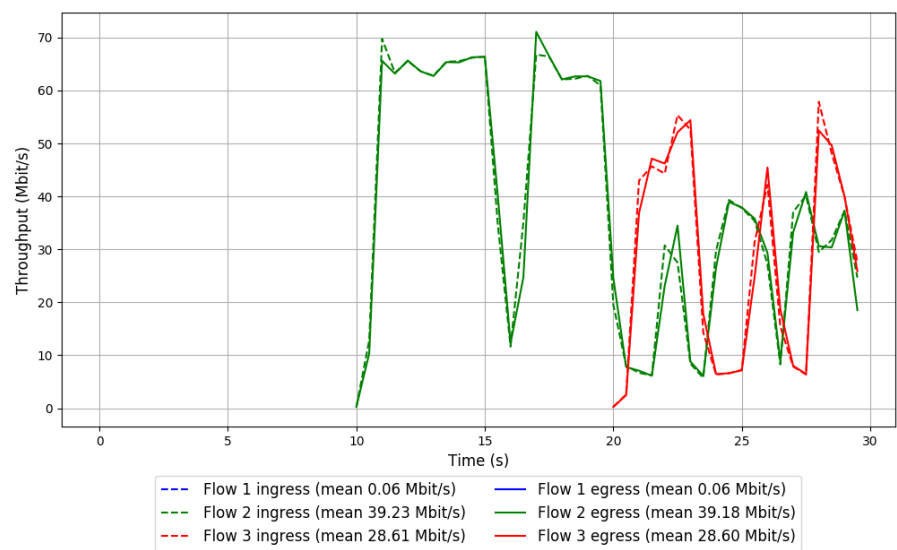
-- Flow 3:

Average throughput: 28.60 Mbit/s

95th percentile per-packet one-way delay: 53.666 ms

Loss rate: 1.13%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 04:54:46

End at: 2017-09-08 04:55:16

Below is generated by plot.py at 2017-09-08 10:05:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 38.49 Mbit/s

95th percentile per-packet one-way delay: 53.683 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 69.967 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.94 Mbit/s

95th percentile per-packet one-way delay: 50.270 ms

Loss rate: 0.48%

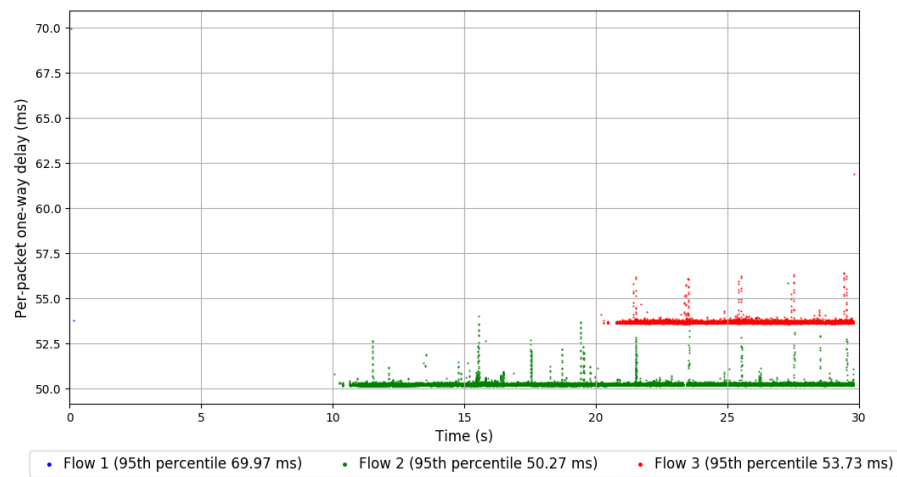
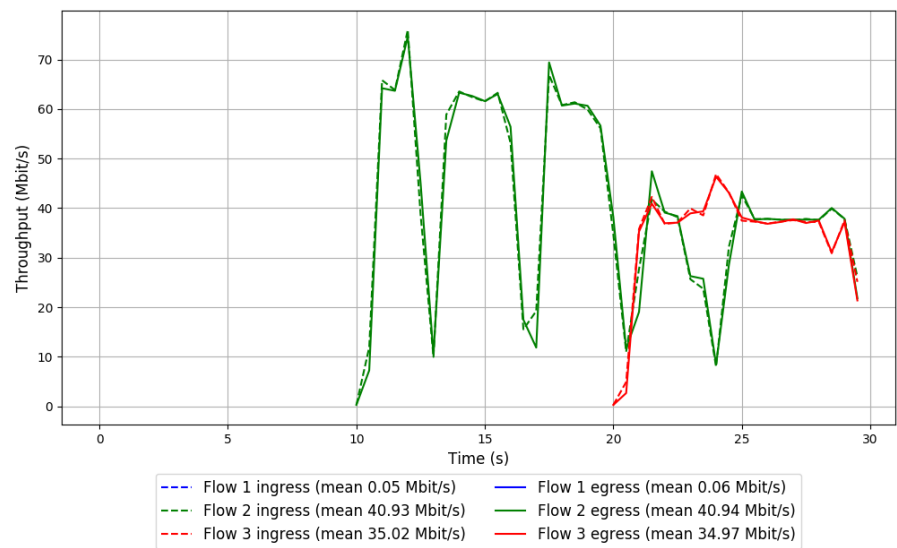
-- Flow 3:

Average throughput: 34.97 Mbit/s

95th percentile per-packet one-way delay: 53.725 ms

Loss rate: 1.15%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 05:07:07

End at: 2017-09-08 05:07:37

Below is generated by plot.py at 2017-09-08 10:05:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.53 Mbit/s

95th percentile per-packet one-way delay: 53.744 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.096 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.25 Mbit/s

95th percentile per-packet one-way delay: 53.746 ms

Loss rate: 0.58%

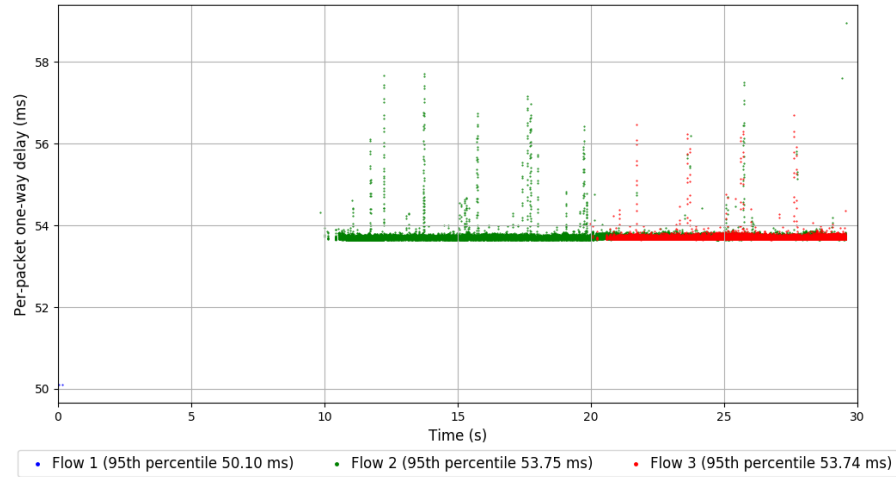
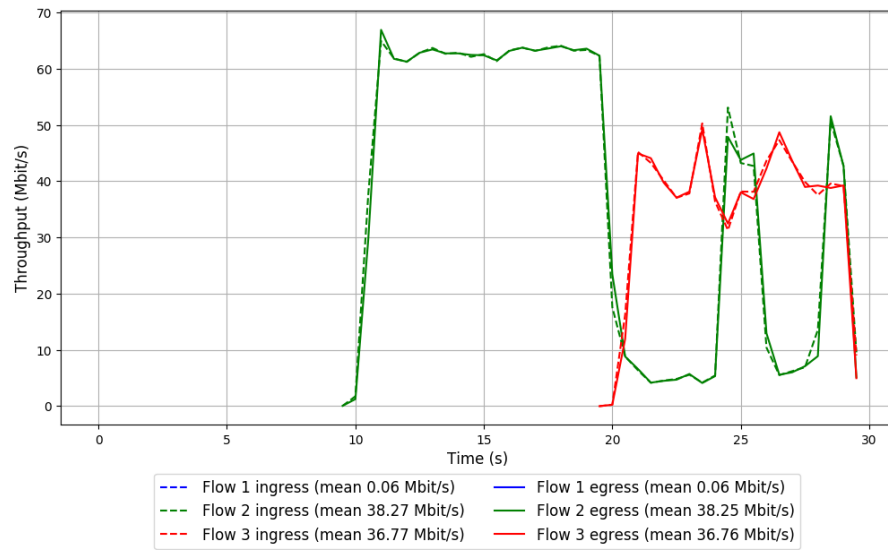
-- Flow 3:

Average throughput: 36.76 Mbit/s

95th percentile per-packet one-way delay: 53.741 ms

Loss rate: 1.15%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-08 05:19:19

End at: 2017-09-08 05:19:49

Below is generated by plot.py at 2017-09-08 10:05:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.31 Mbit/s

95th percentile per-packet one-way delay: 53.790 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.802 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.71 Mbit/s

95th percentile per-packet one-way delay: 53.799 ms

Loss rate: 0.50%

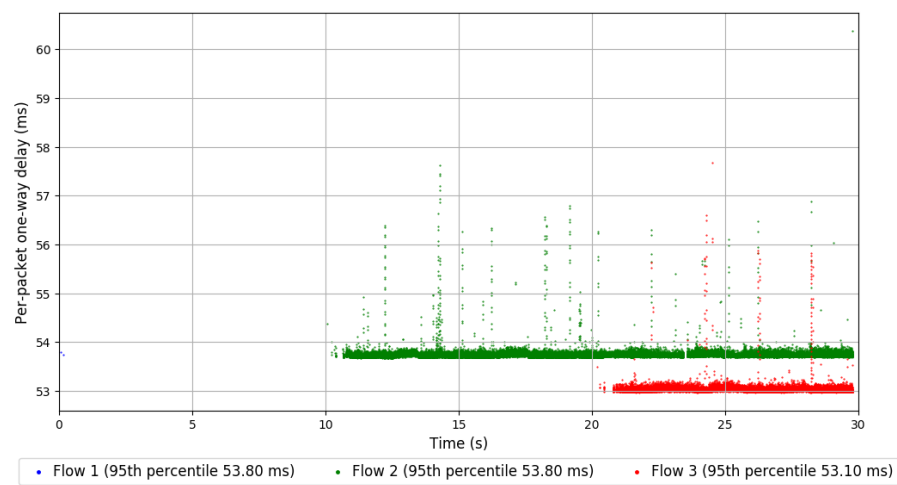
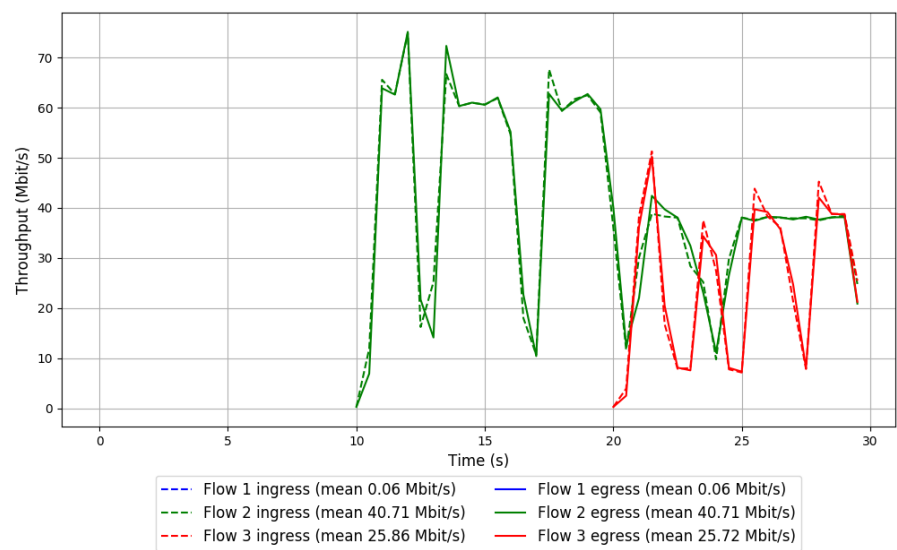
-- Flow 3:

Average throughput: 25.72 Mbit/s

95th percentile per-packet one-way delay: 53.103 ms

Loss rate: 1.65%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 05:31:41

End at: 2017-09-08 05:32:11

Below is generated by plot.py at 2017-09-08 10:05:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 38.70 Mbit/s

95th percentile per-packet one-way delay: 53.083 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.950 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.32 Mbit/s

95th percentile per-packet one-way delay: 53.058 ms

Loss rate: 0.41%

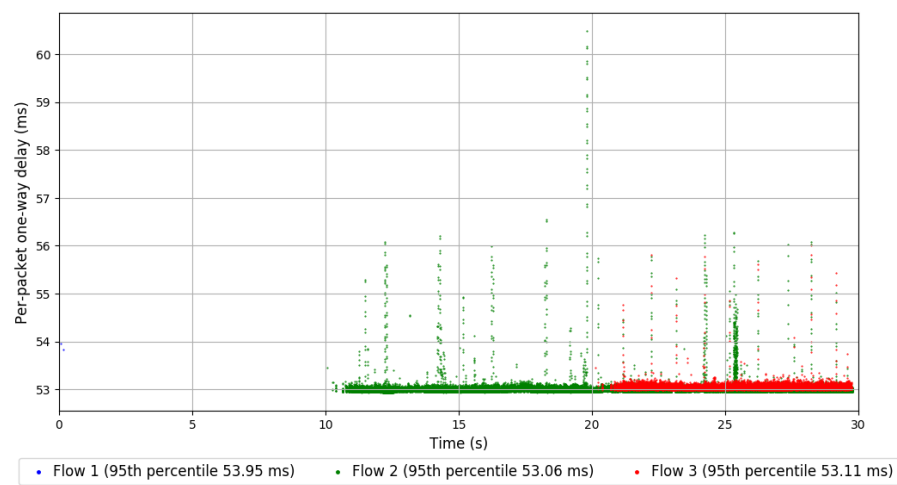
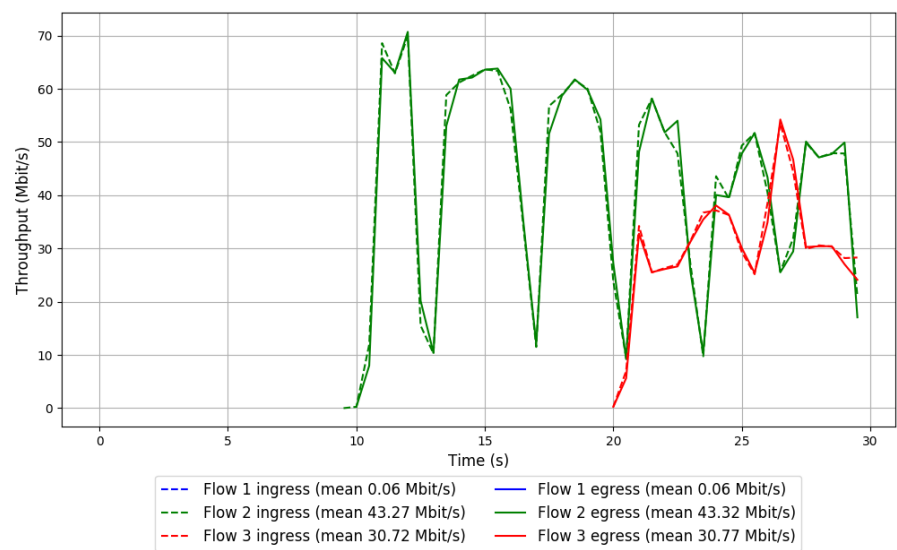
-- Flow 3:

Average throughput: 30.77 Mbit/s

95th percentile per-packet one-way delay: 53.113 ms

Loss rate: 1.40%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 05:44:03

End at: 2017-09-08 05:44:33

Below is generated by plot.py at 2017-09-08 10:05:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.58 Mbit/s

95th percentile per-packet one-way delay: 53.736 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.451 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.37 Mbit/s

95th percentile per-packet one-way delay: 53.744 ms

Loss rate: 0.68%

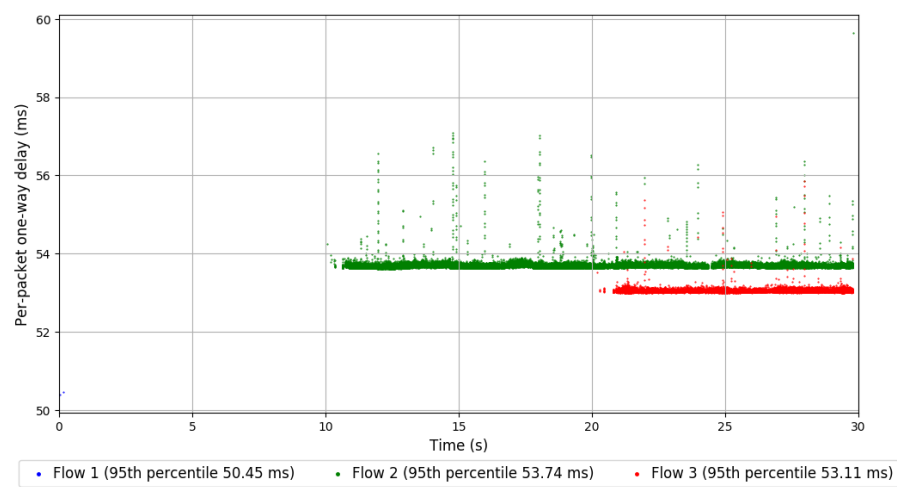
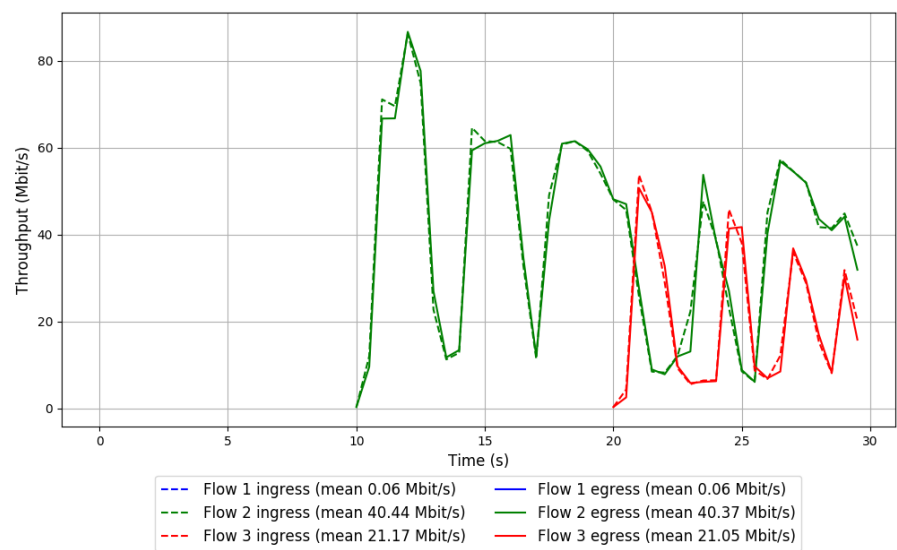
-- Flow 3:

Average throughput: 21.05 Mbit/s

95th percentile per-packet one-way delay: 53.109 ms

Loss rate: 1.68%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 05:56:15

End at: 2017-09-08 05:56:45

Below is generated by plot.py at 2017-09-08 10:05:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.81 Mbit/s

95th percentile per-packet one-way delay: 53.064 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 55.201 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.59 Mbit/s

95th percentile per-packet one-way delay: 49.940 ms

Loss rate: 0.48%

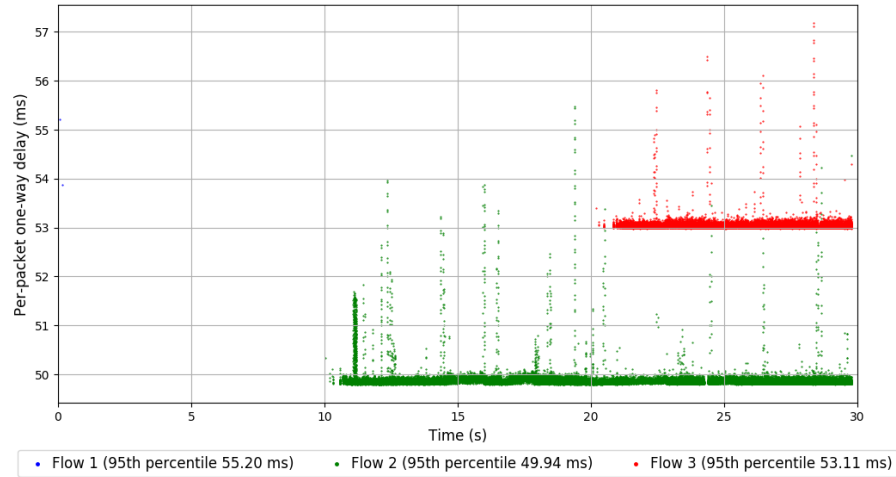
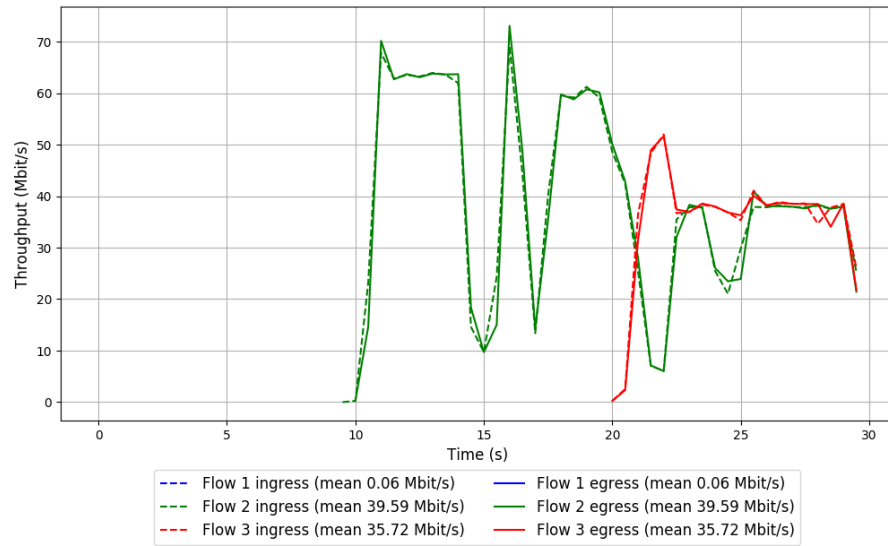
-- Flow 3:

Average throughput: 35.72 Mbit/s

95th percentile per-packet one-way delay: 53.106 ms

Loss rate: 1.17%

Run 9: Report of QUIC Cubic — Data Link

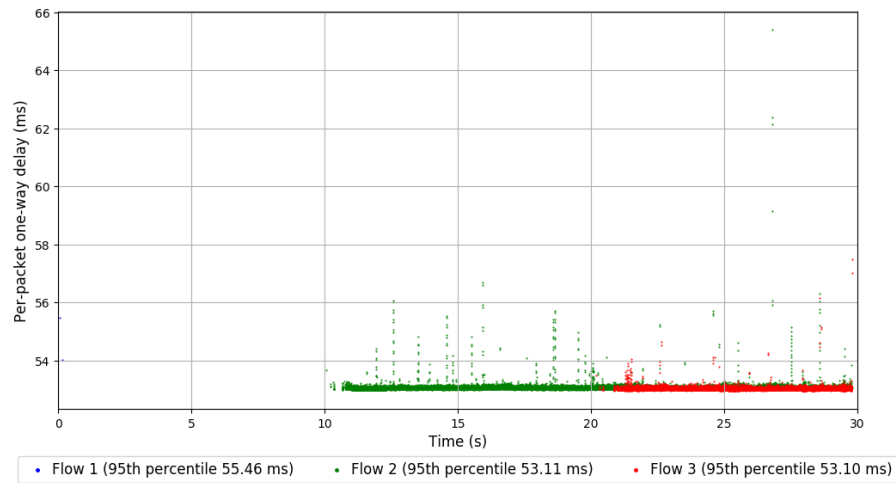
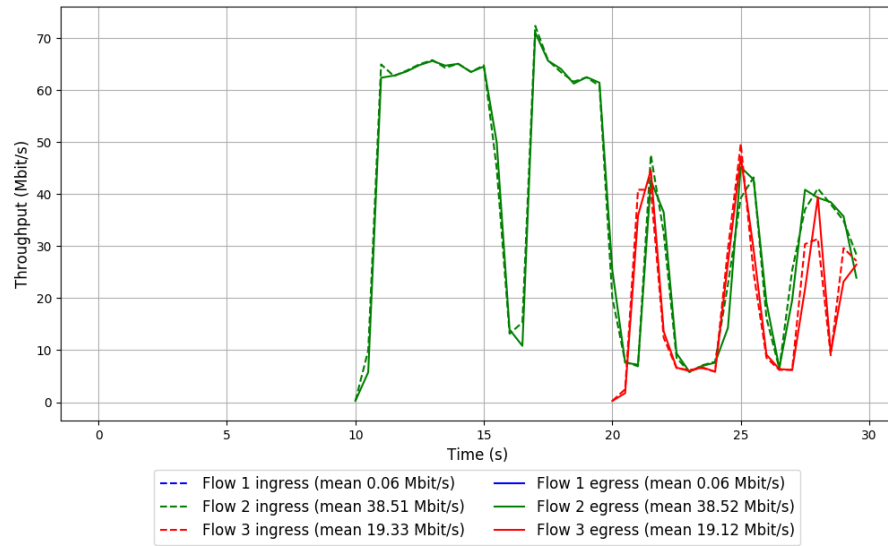


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 06:08:39
End at: 2017-09-08 06:09:09

# Below is generated by plot.py at 2017-09-08 10:05:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 31.71 Mbit/s
95th percentile per-packet one-way delay: 53.109 ms
Loss rate: 0.82%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 55.461 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.52 Mbit/s
95th percentile per-packet one-way delay: 53.112 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 19.12 Mbit/s
95th percentile per-packet one-way delay: 53.098 ms
Loss rate: 2.11%
```

Run 10: Report of QUIC Cubic — Data Link

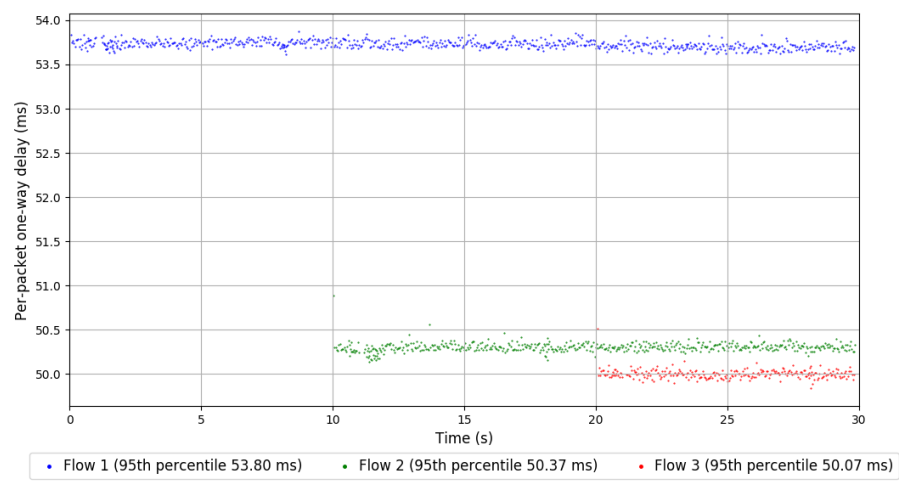
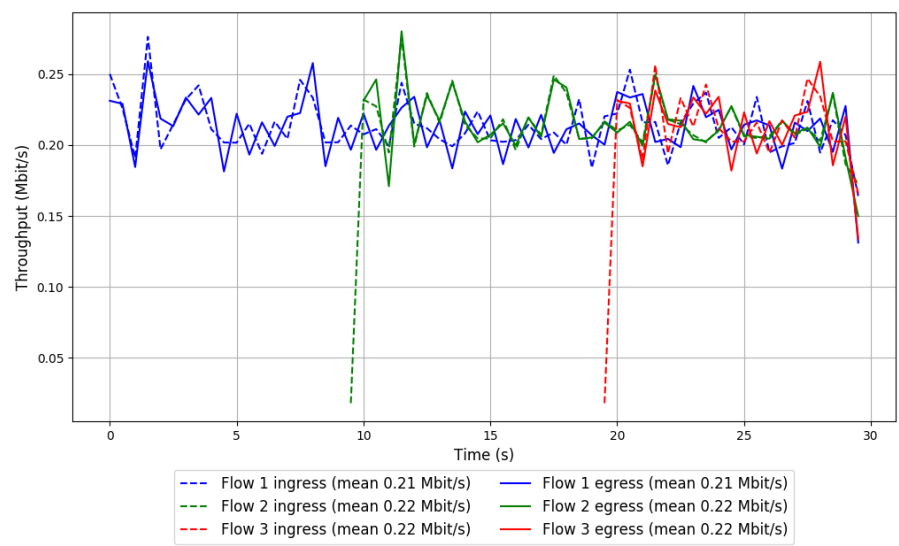


```
Run 1: Statistics of SCReAM

Start at: 2017-09-08 04:14:32
End at: 2017-09-08 04:15:02

# Below is generated by plot.py at 2017-09-08 10:05:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.784 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.800 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.369 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.071 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

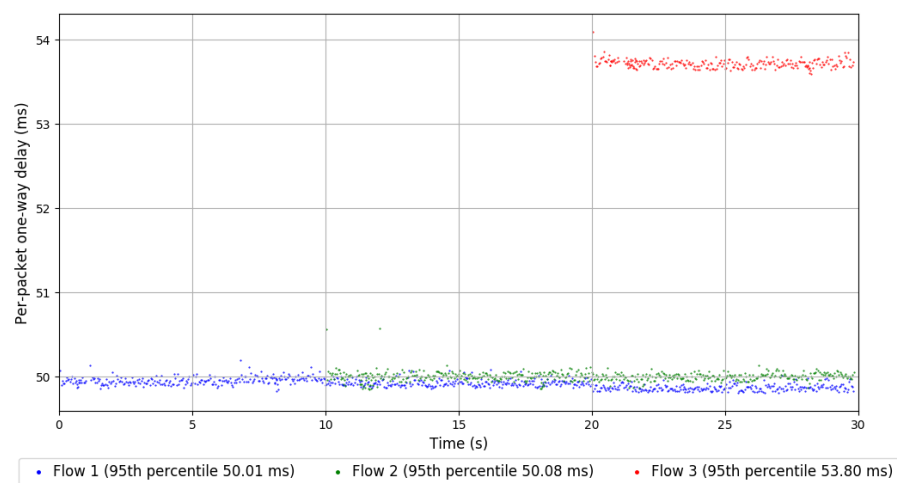
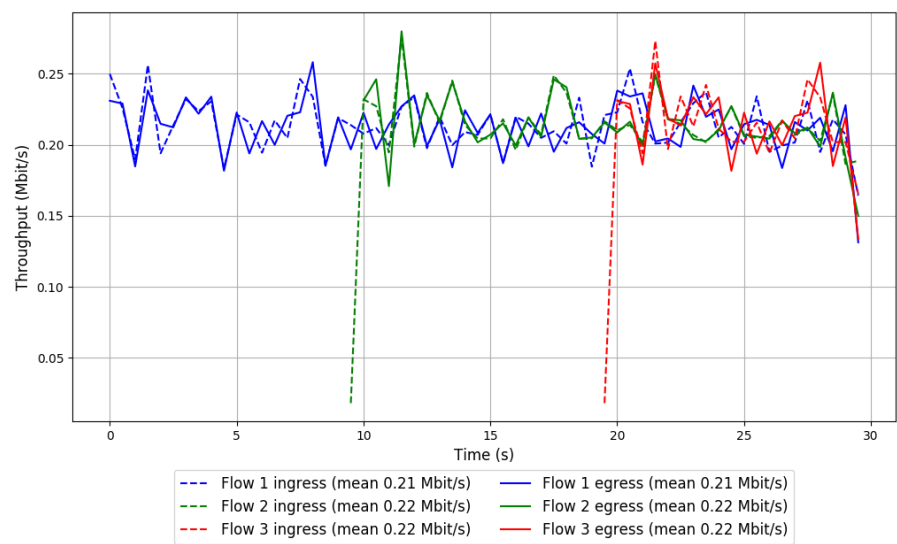


```
Run 2: Statistics of SReAM

Start at: 2017-09-08 04:27:04
End at: 2017-09-08 04:27:34

# Below is generated by plot.py at 2017-09-08 10:05:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.744 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.010 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.075 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.797 ms
Loss rate: 1.10%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-09-08 04:39:26

End at: 2017-09-08 04:39:56

Below is generated by plot.py at 2017-09-08 10:05:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.904 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.920 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.249 ms

Loss rate: 0.42%

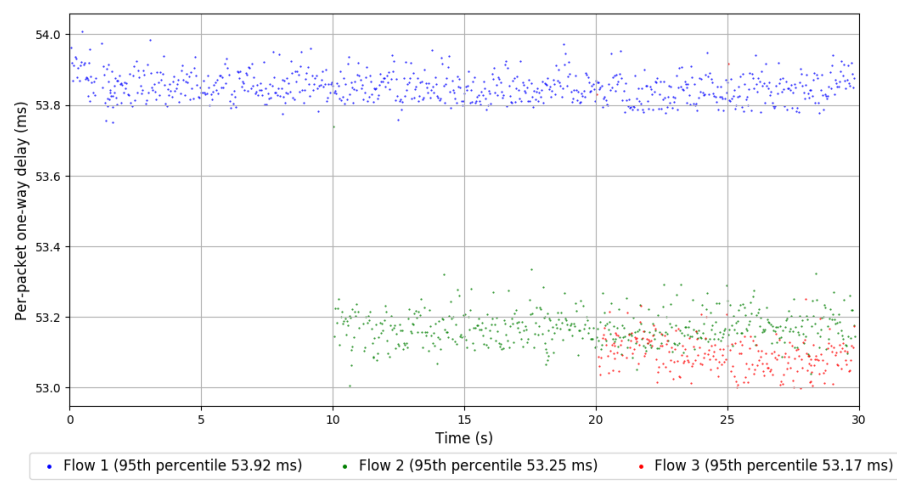
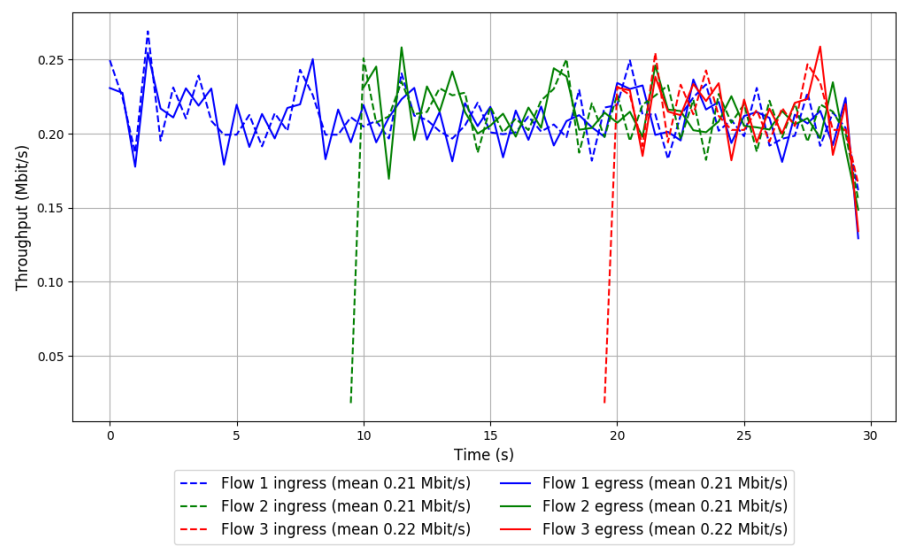
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.173 ms

Loss rate: 1.11%

Run 3: Report of SCSReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-09-08 04:51:47

End at: 2017-09-08 04:52:17

Below is generated by plot.py at 2017-09-08 10:05:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.854 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.872 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.111 ms

Loss rate: 0.42%

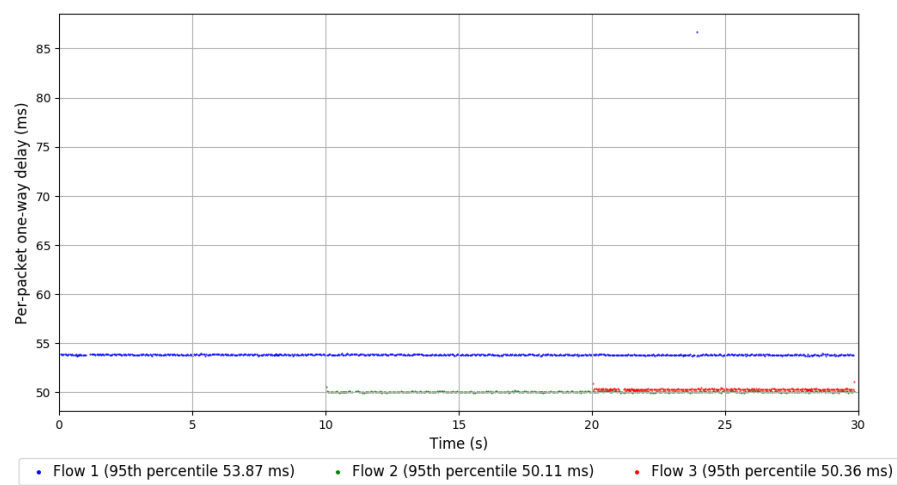
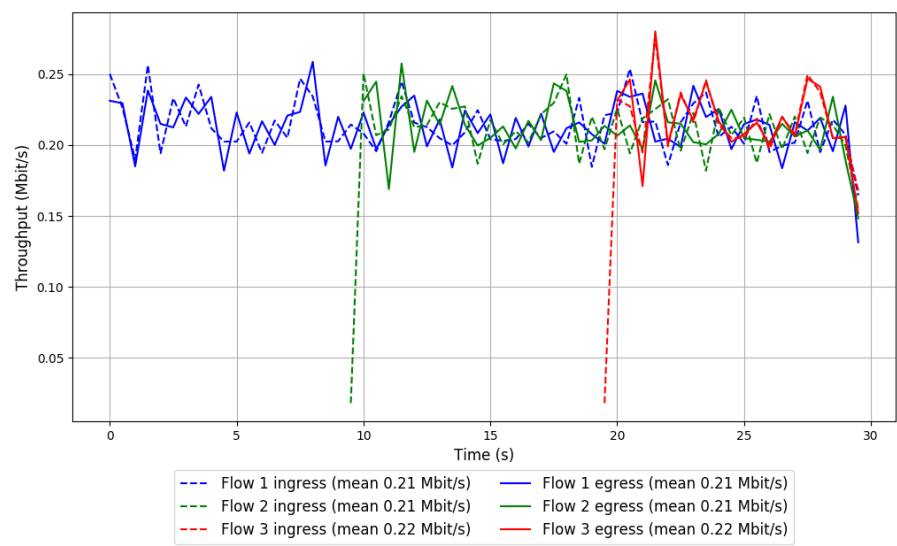
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.364 ms

Loss rate: 0.74%

Run 4: Report of SCReAM — Data Link

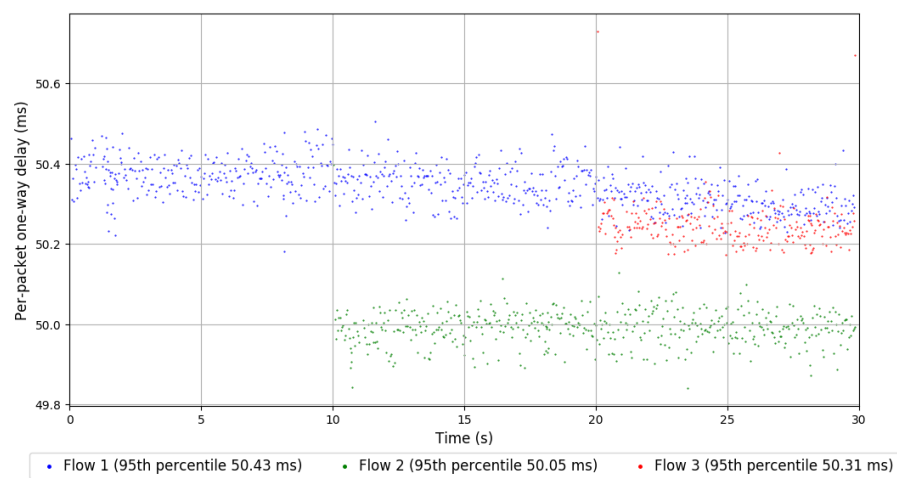
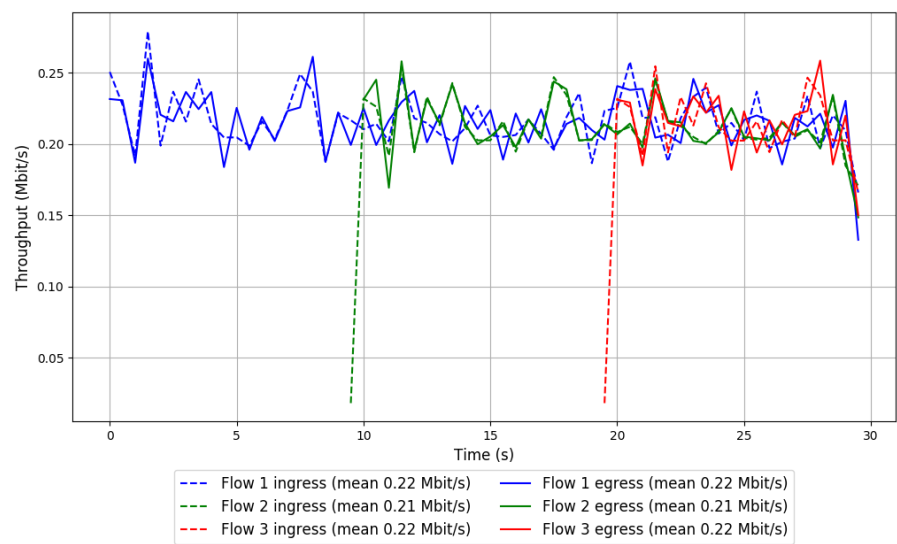


```
Run 5: Statistics of SReAM

Start at: 2017-09-08 05:04:08
End at: 2017-09-08 05:04:38

# Below is generated by plot.py at 2017-09-08 10:05:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.414 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.433 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.052 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.307 ms
Loss rate: 0.74%
```

Run 5: Report of SReAM — Data Link

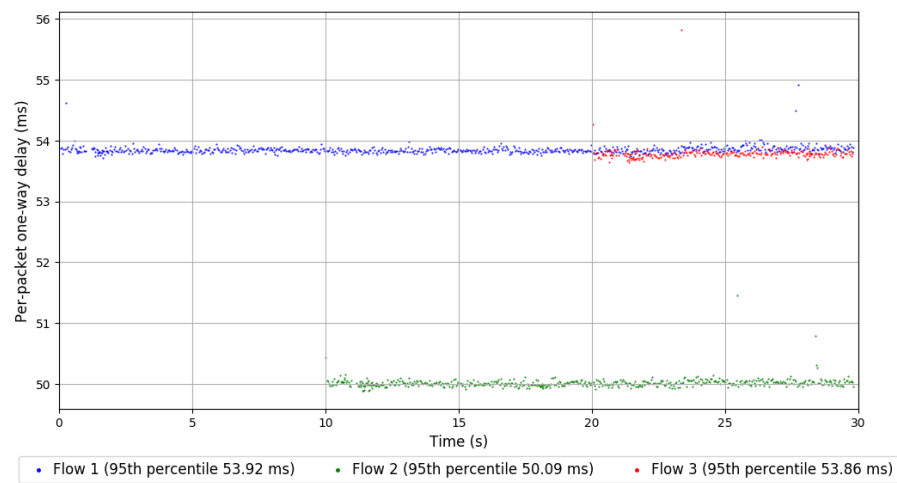
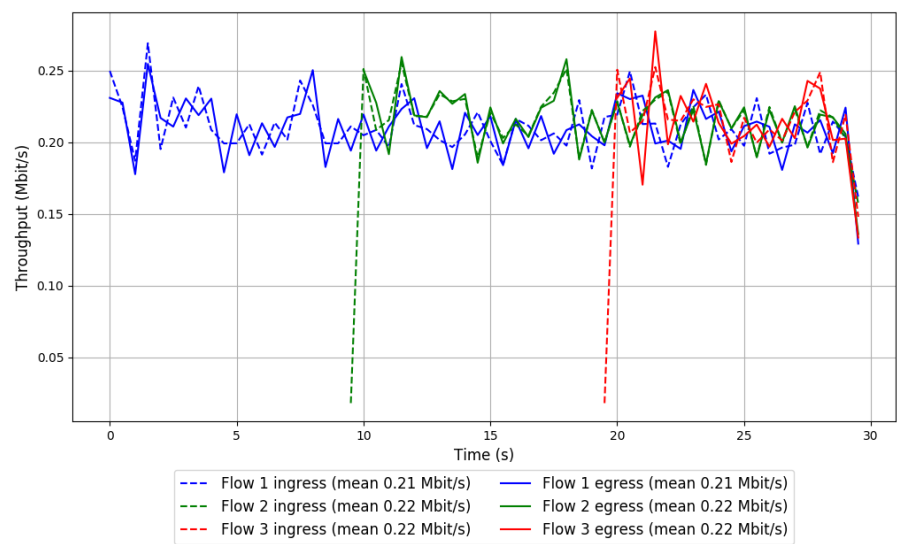


```
Run 6: Statistics of SReAM

Start at: 2017-09-08 05:16:18
End at: 2017-09-08 05:16:48

# Below is generated by plot.py at 2017-09-08 10:05:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.899 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.920 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.089 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.858 ms
Loss rate: 1.11%
```

Run 6: Report of SReAM — Data Link

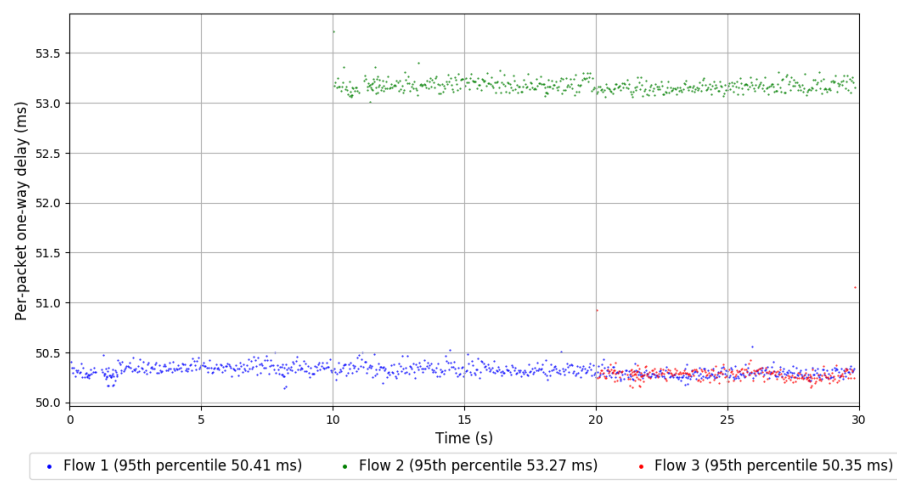
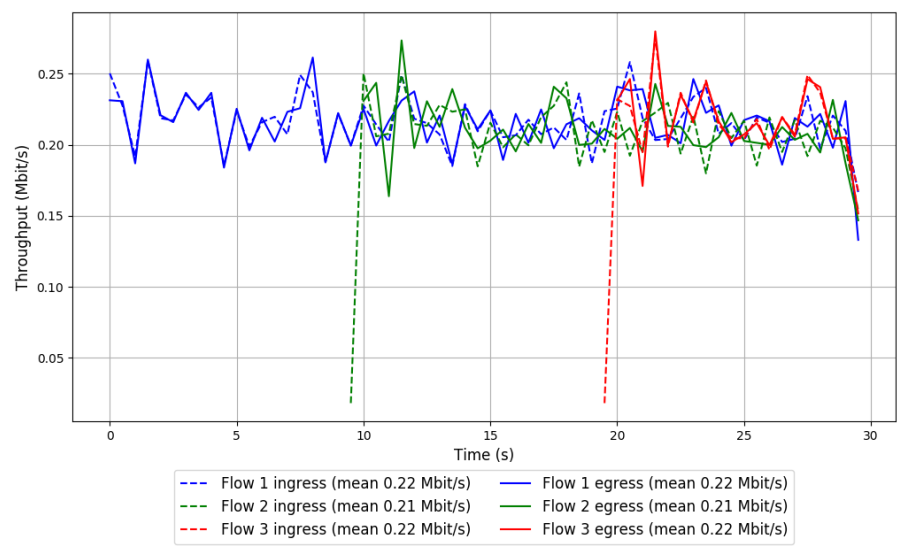


```
Run 7: Statistics of SCReAM

Start at: 2017-09-08 05:28:39
End at: 2017-09-08 05:29:09

# Below is generated by plot.py at 2017-09-08 10:05:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.232 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.411 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.265 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.347 ms
Loss rate: 0.74%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-09-08 05:41:06

End at: 2017-09-08 05:41:36

Below is generated by plot.py at 2017-09-08 10:05:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.880 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.455 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.922 ms

Loss rate: 0.42%

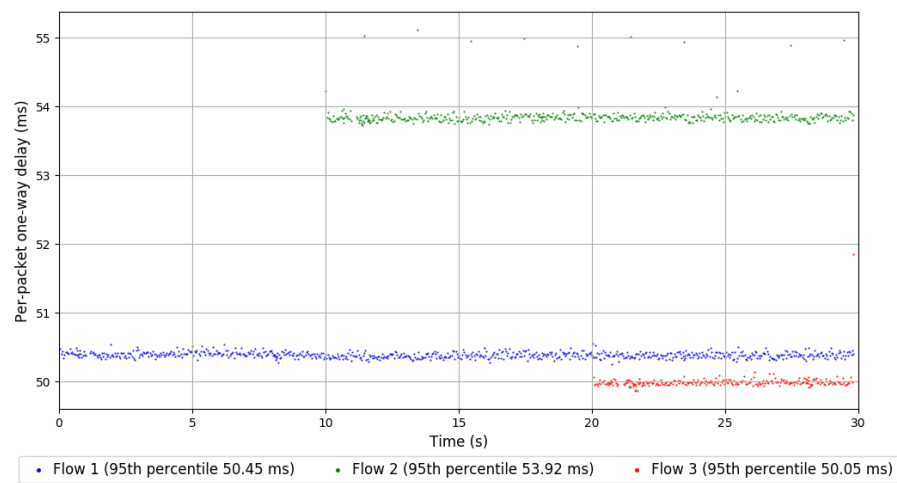
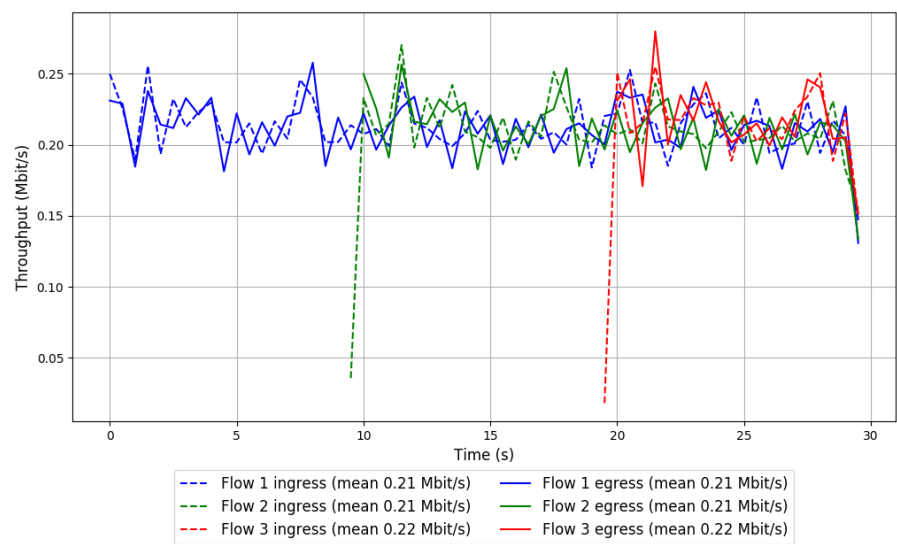
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.054 ms

Loss rate: 0.74%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-09-08 05:53:14

End at: 2017-09-08 05:53:44

Below is generated by plot.py at 2017-09-08 10:05:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.896 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.915 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.194 ms

Loss rate: 0.42%

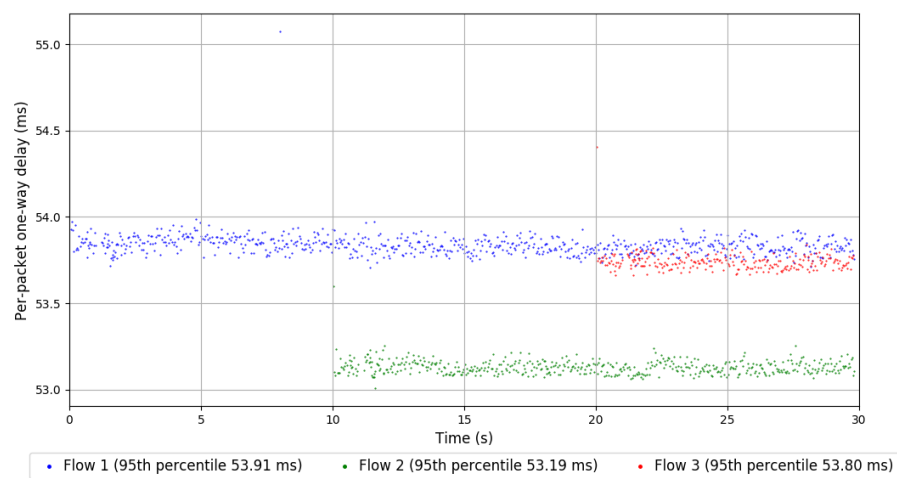
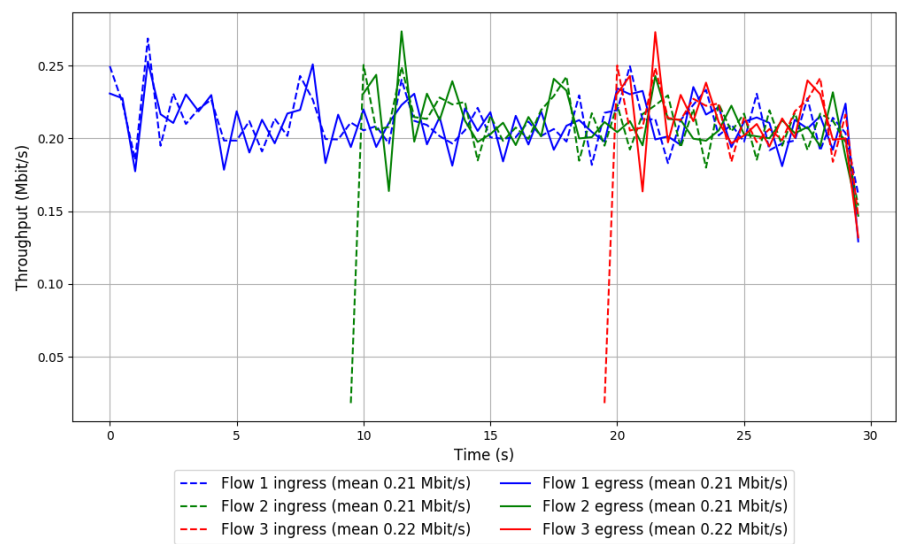
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.797 ms

Loss rate: 1.11%

Run 9: Report of SReAM — Data Link

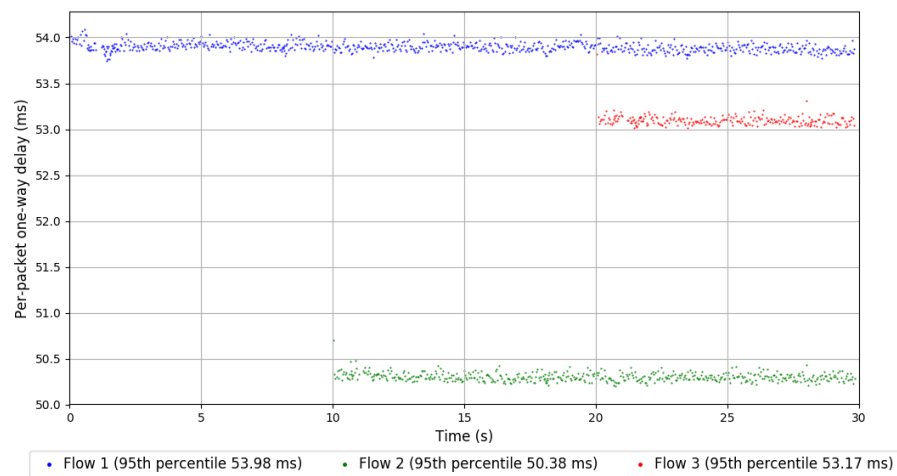
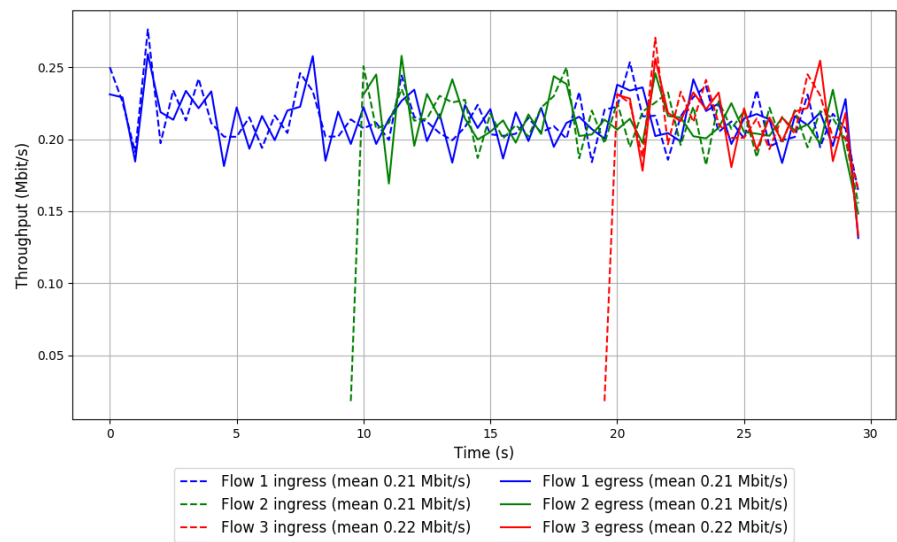


```
Run 10: Statistics of SReAM

Start at: 2017-09-08 06:05:38
End at: 2017-09-08 06:06:08

# Below is generated by plot.py at 2017-09-08 10:05:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.960 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.982 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.379 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.172 ms
Loss rate: 1.11%
```

Run 10: Report of SCReAM — Data Link

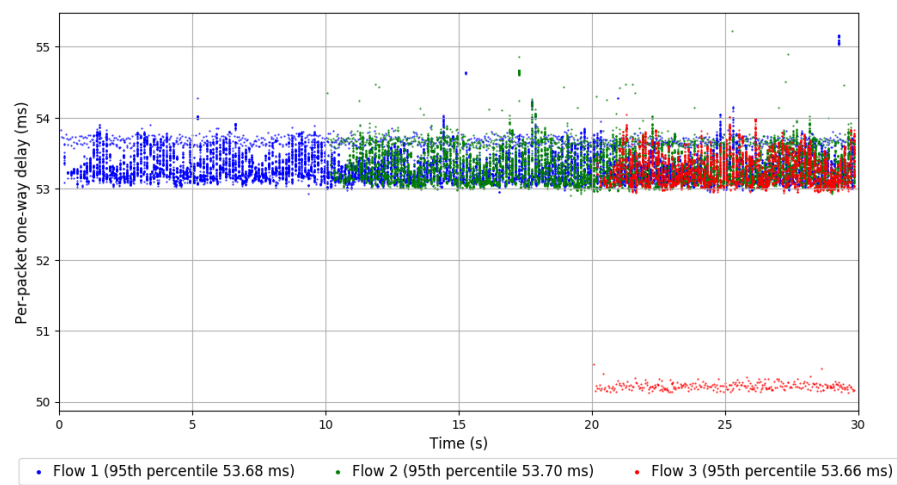
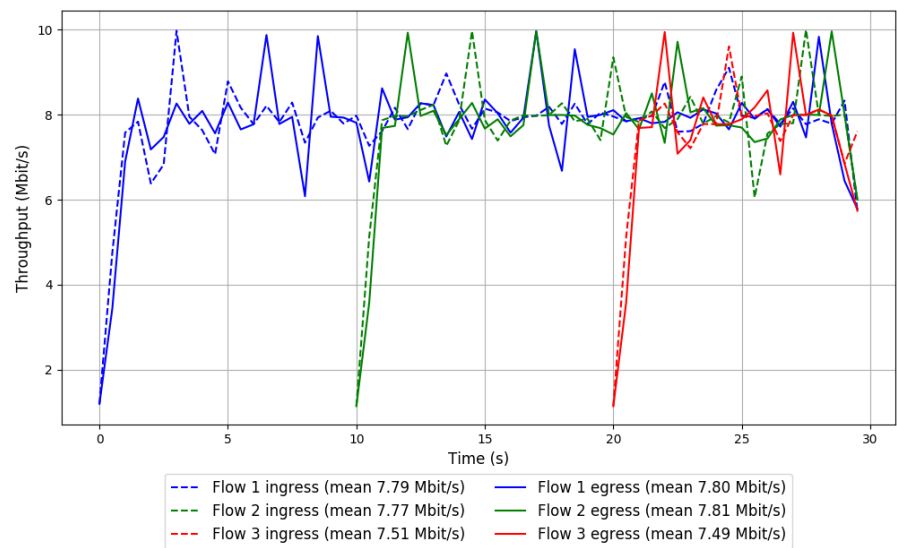


```
Run 1: Statistics of Sprout

Start at: 2017-09-08 04:12:22
End at: 2017-09-08 04:12:52

# Below is generated by plot.py at 2017-09-08 10:05:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.43 Mbit/s
95th percentile per-packet one-way delay: 53.690 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 53.682 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 7.81 Mbit/s
95th percentile per-packet one-way delay: 53.703 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.49 Mbit/s
95th percentile per-packet one-way delay: 53.661 ms
Loss rate: 1.26%
```


Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-08 04:24:52

End at: 2017-09-08 04:25:22

Below is generated by plot.py at 2017-09-08 10:05:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 53.763 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 53.754 ms

Loss rate: 0.32%

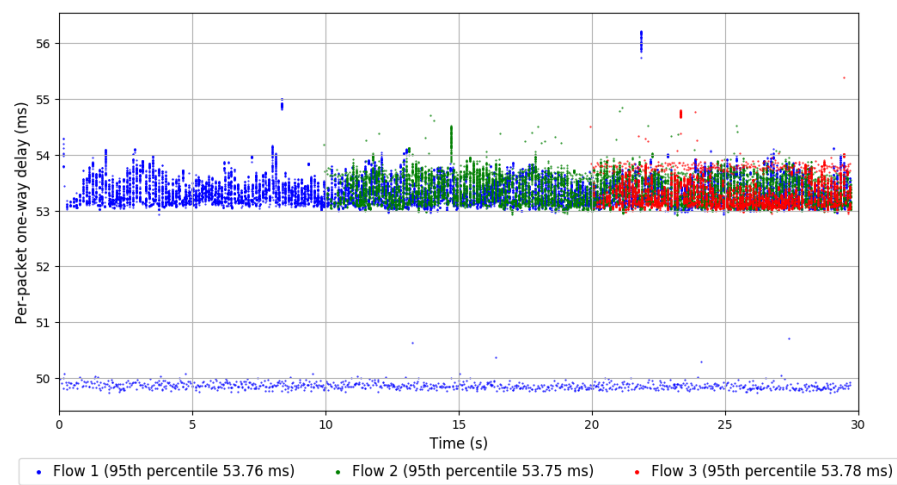
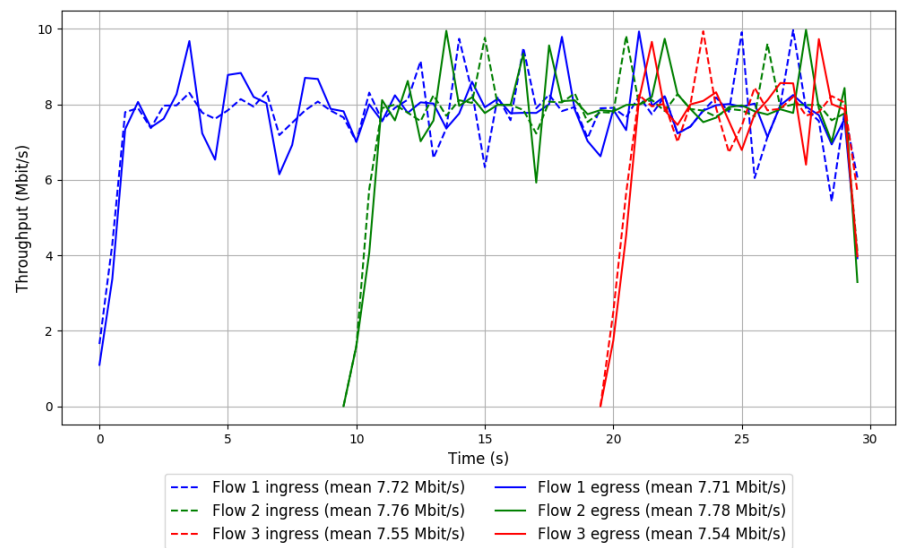
-- Flow 3:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 53.776 ms

Loss rate: 1.41%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-08 04:37:16

End at: 2017-09-08 04:37:47

Below is generated by plot.py at 2017-09-08 10:05:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.45 Mbit/s

95th percentile per-packet one-way delay: 53.698 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 53.735 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 53.662 ms

Loss rate: 0.56%

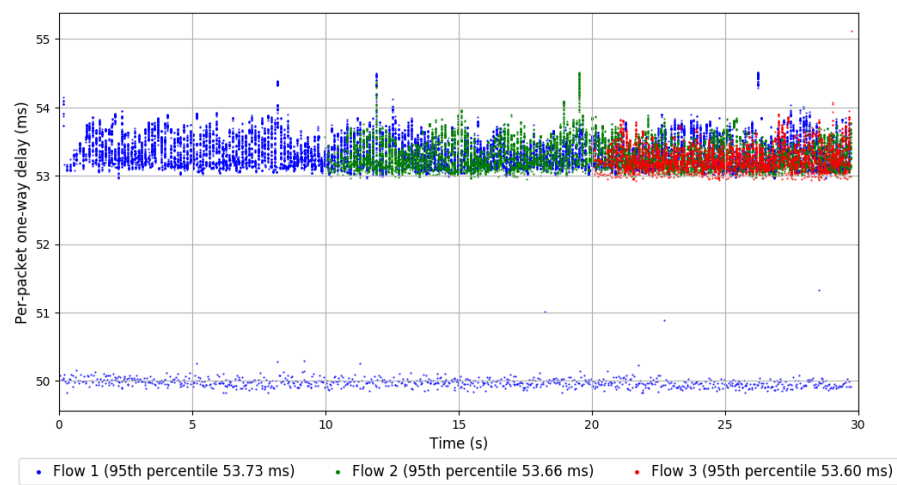
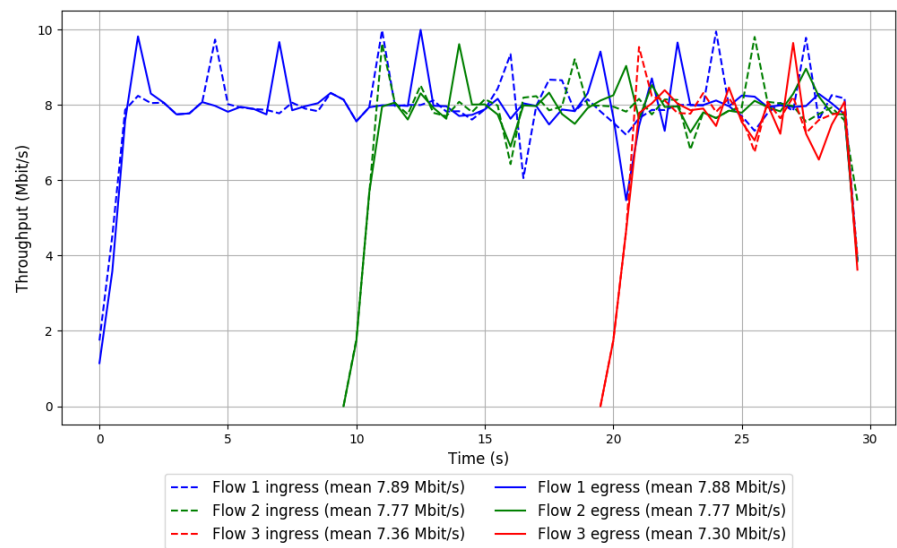
-- Flow 3:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 53.604 ms

Loss rate: 1.48%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-08 04:49:39

End at: 2017-09-08 04:50:09

Below is generated by plot.py at 2017-09-08 10:05:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.18 Mbit/s

95th percentile per-packet one-way delay: 53.785 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 53.747 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 53.826 ms

Loss rate: 1.37%

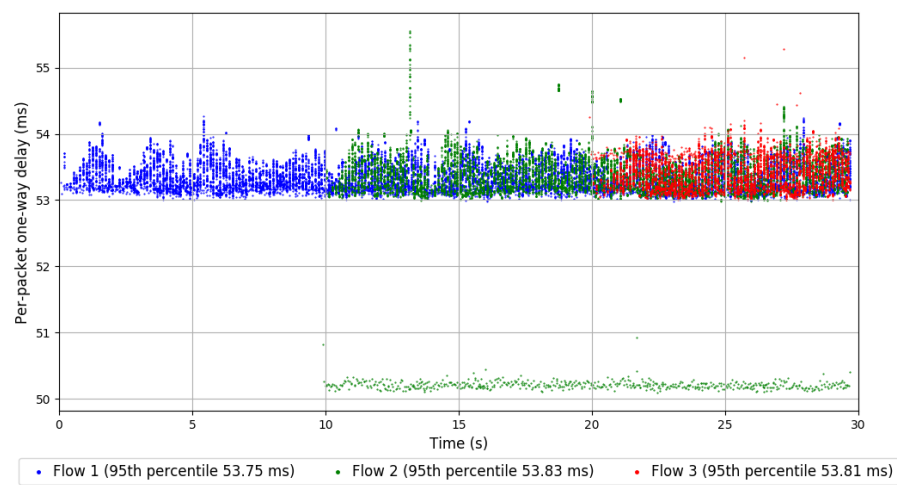
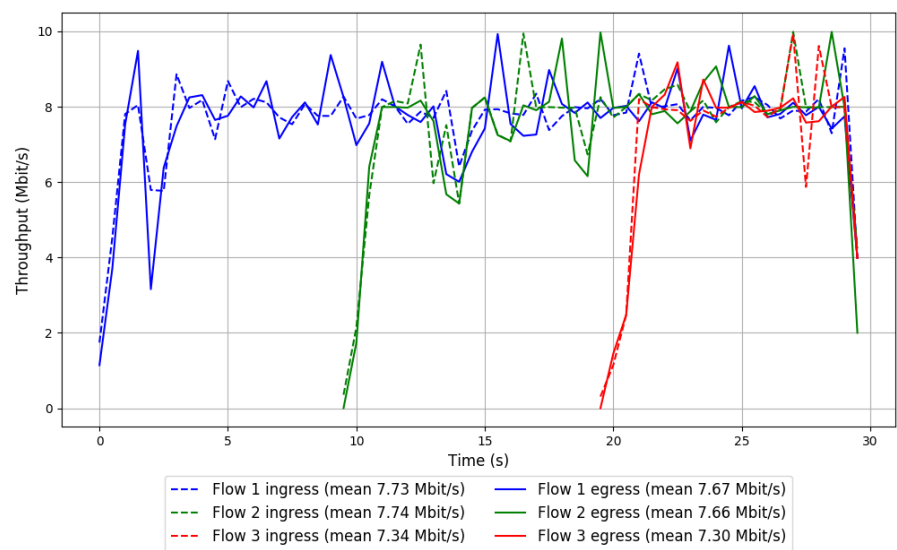
-- Flow 3:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 53.814 ms

Loss rate: 1.17%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-08 05:01:59

End at: 2017-09-08 05:02:29

Below is generated by plot.py at 2017-09-08 10:05:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.48 Mbit/s

95th percentile per-packet one-way delay: 53.824 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 53.808 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 53.832 ms

Loss rate: 0.63%

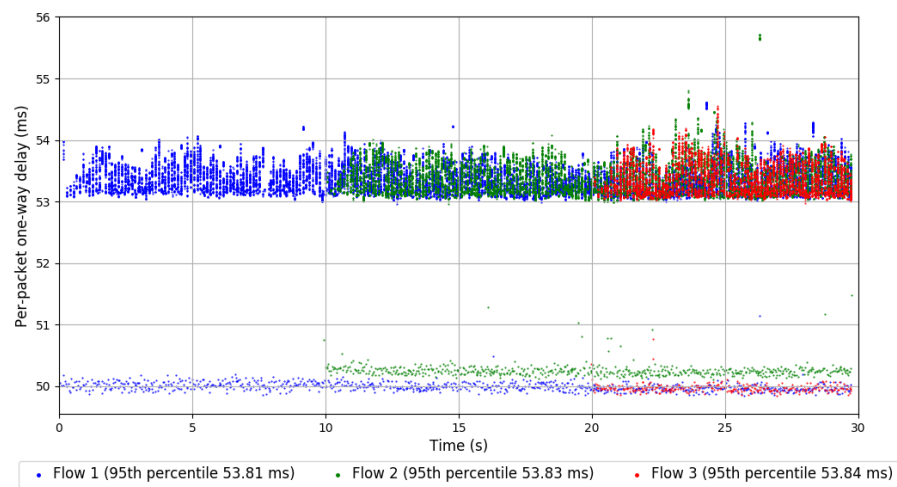
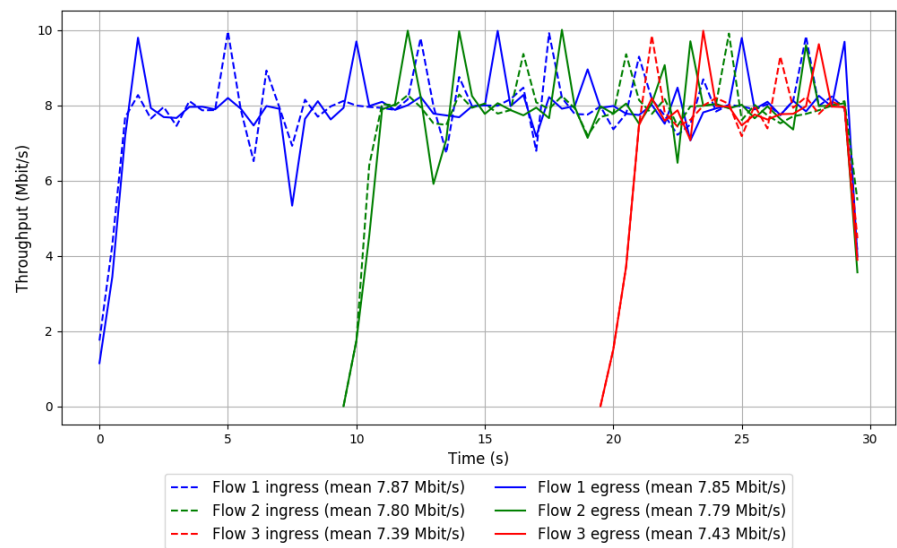
-- Flow 3:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 53.844 ms

Loss rate: 0.54%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-08 05:14:08

End at: 2017-09-08 05:14:38

Below is generated by plot.py at 2017-09-08 10:05:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.85 Mbit/s

95th percentile per-packet one-way delay: 53.793 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 7.69 Mbit/s

95th percentile per-packet one-way delay: 53.798 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 53.759 ms

Loss rate: 0.72%

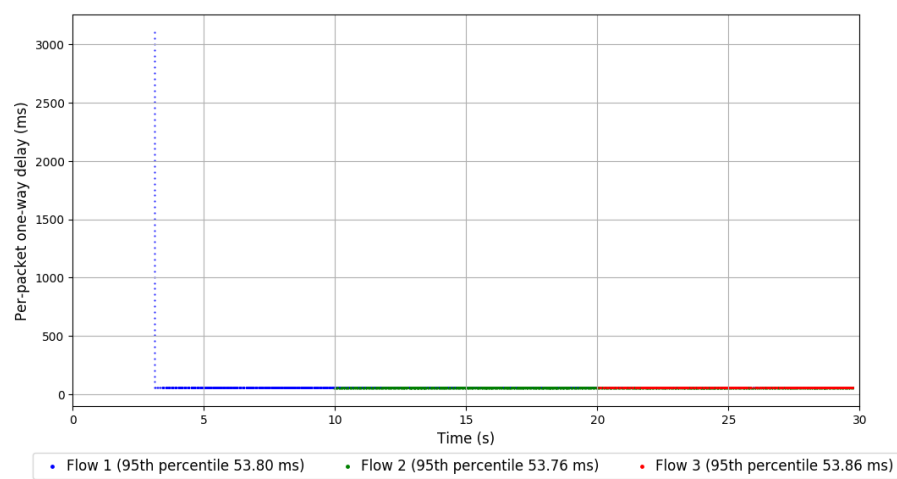
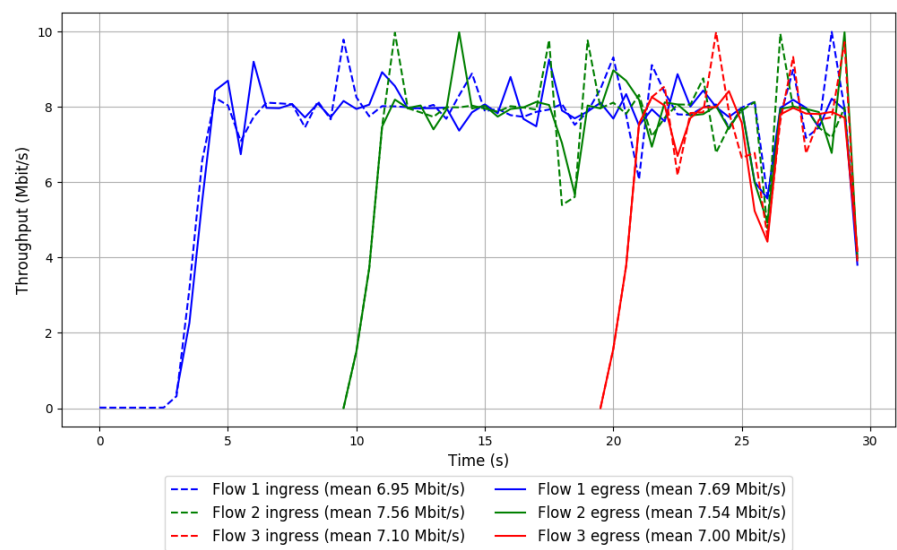
-- Flow 3:

Average throughput: 7.00 Mbit/s

95th percentile per-packet one-way delay: 53.856 ms

Loss rate: 2.66%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-08 05:26:31

End at: 2017-09-08 05:27:01

Below is generated by plot.py at 2017-09-08 10:06:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.39 Mbit/s

95th percentile per-packet one-way delay: 53.802 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 53.798 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 53.760 ms

Loss rate: 0.81%

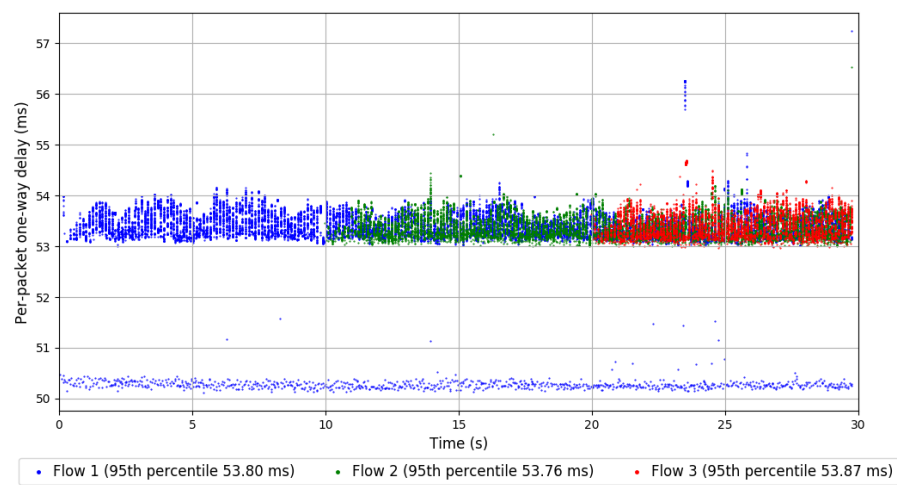
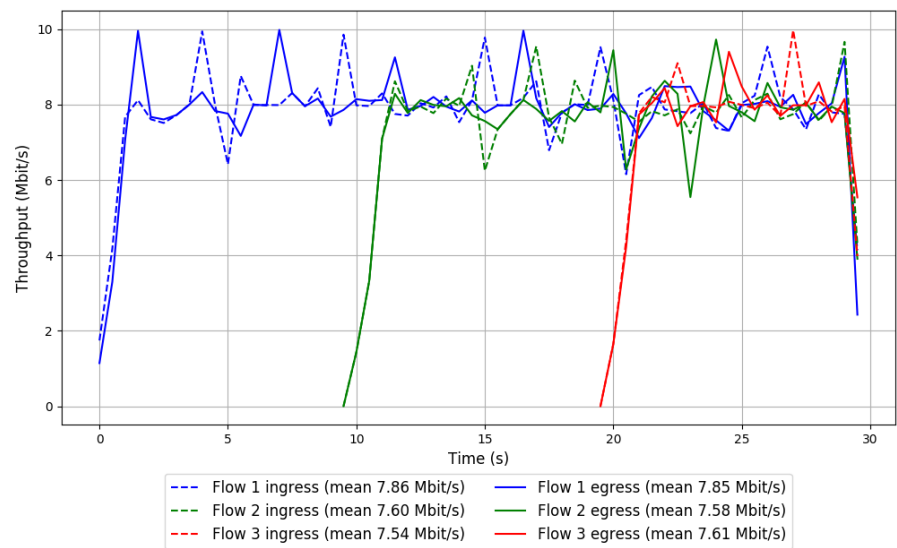
-- Flow 3:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 53.867 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-09-08 05:38:56

End at: 2017-09-08 05:39:26

Below is generated by plot.py at 2017-09-08 10:06:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.63 Mbit/s

95th percentile per-packet one-way delay: 53.785 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 53.779 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 53.810 ms

Loss rate: 0.65%

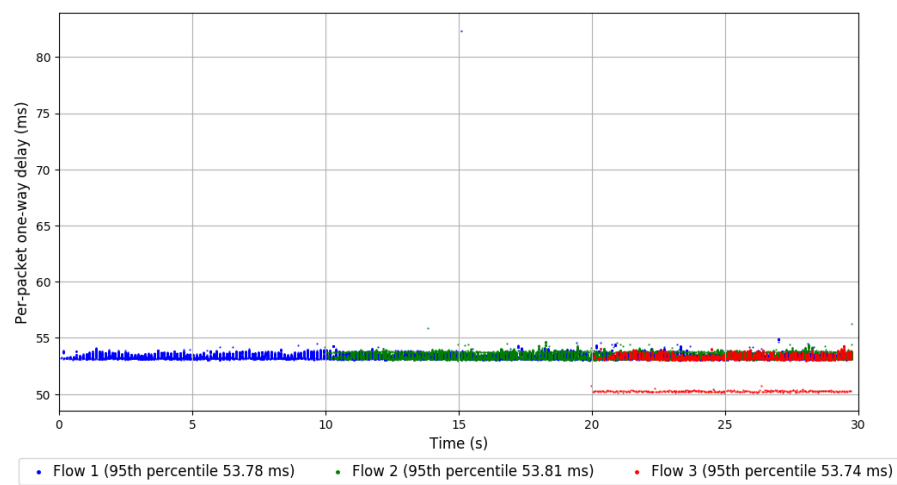
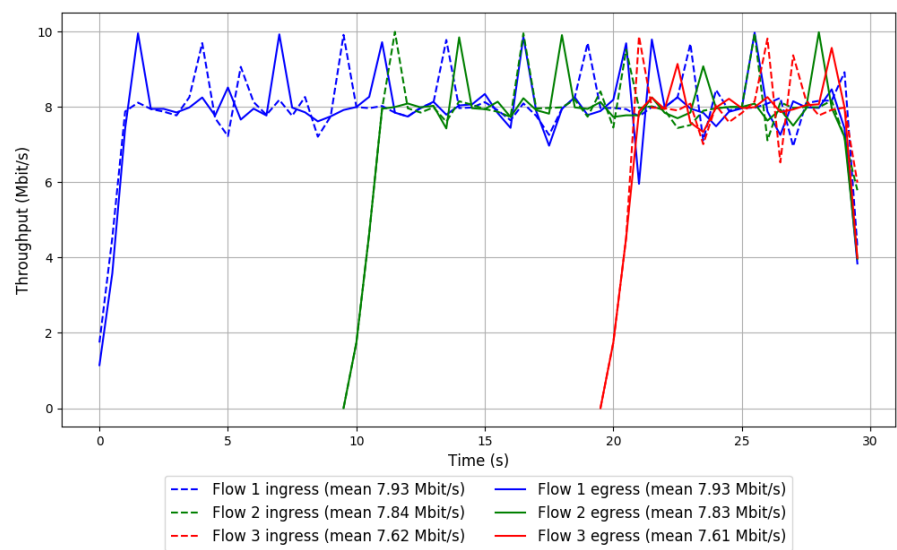
-- Flow 3:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 53.738 ms

Loss rate: 1.33%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-08 05:51:03

End at: 2017-09-08 05:51:33

Below is generated by plot.py at 2017-09-08 10:06:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.40 Mbit/s

95th percentile per-packet one-way delay: 53.786 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 7.78 Mbit/s

95th percentile per-packet one-way delay: 53.786 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 53.792 ms

Loss rate: 0.63%

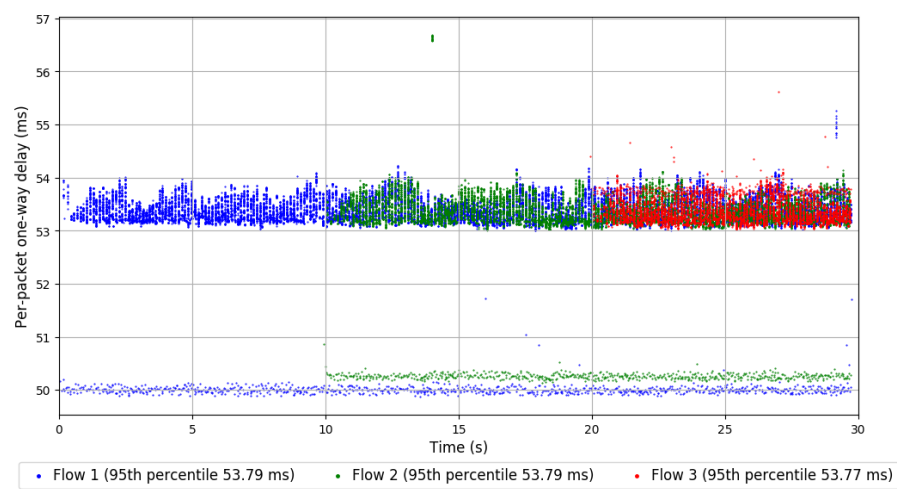
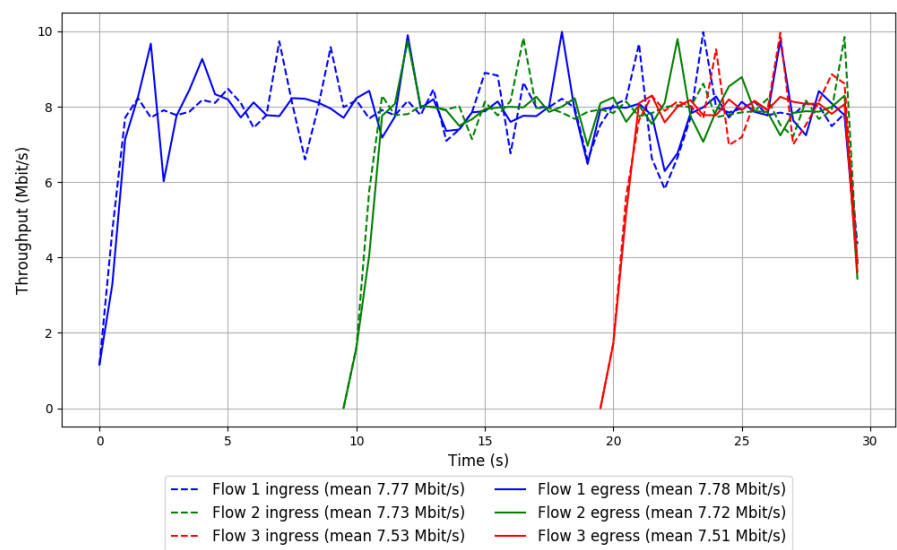
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 53.775 ms

Loss rate: 1.28%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-08 06:03:31

End at: 2017-09-08 06:04:01

Below is generated by plot.py at 2017-09-08 10:06:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.34 Mbit/s

95th percentile per-packet one-way delay: 53.850 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 53.845 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 7.74 Mbit/s

95th percentile per-packet one-way delay: 53.839 ms

Loss rate: 0.69%

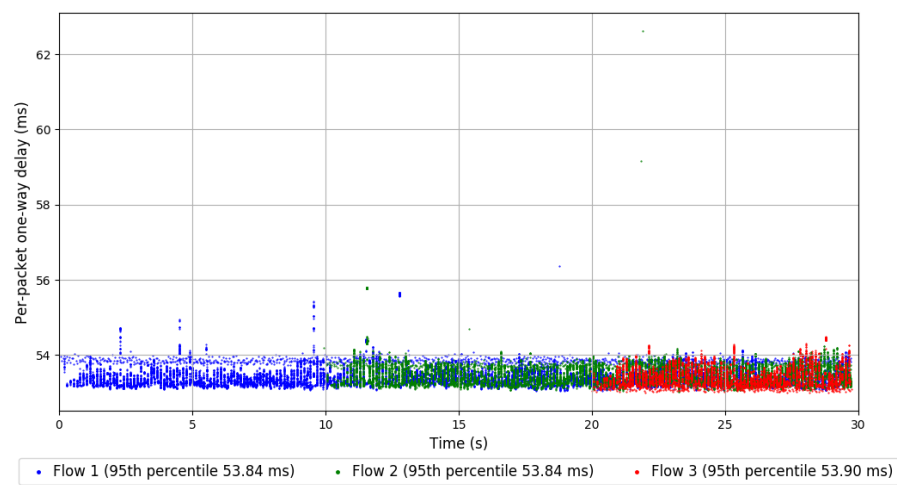
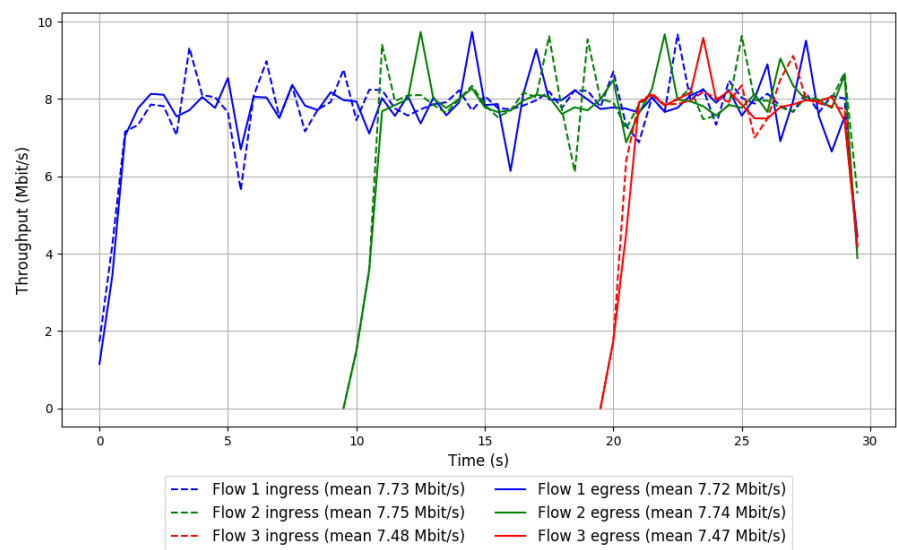
-- Flow 3:

Average throughput: 7.47 Mbit/s

95th percentile per-packet one-way delay: 53.897 ms

Loss rate: 1.30%

Run 10: Report of Sprout — Data Link

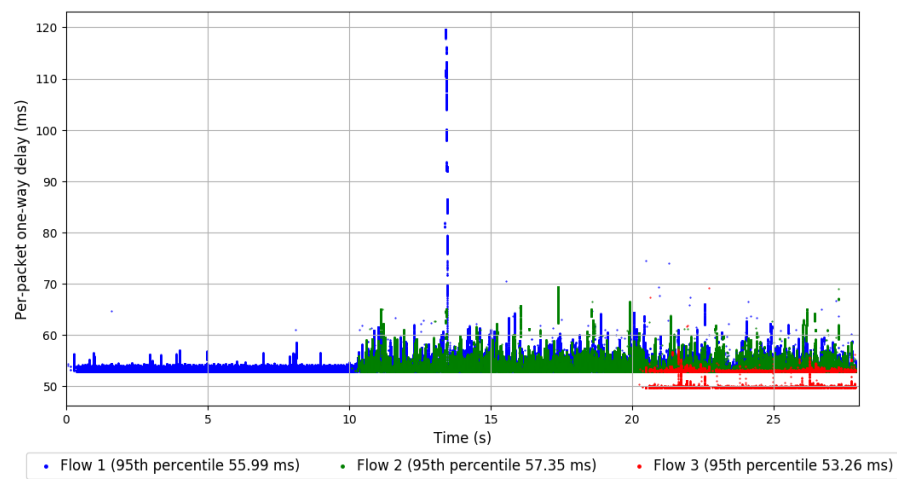
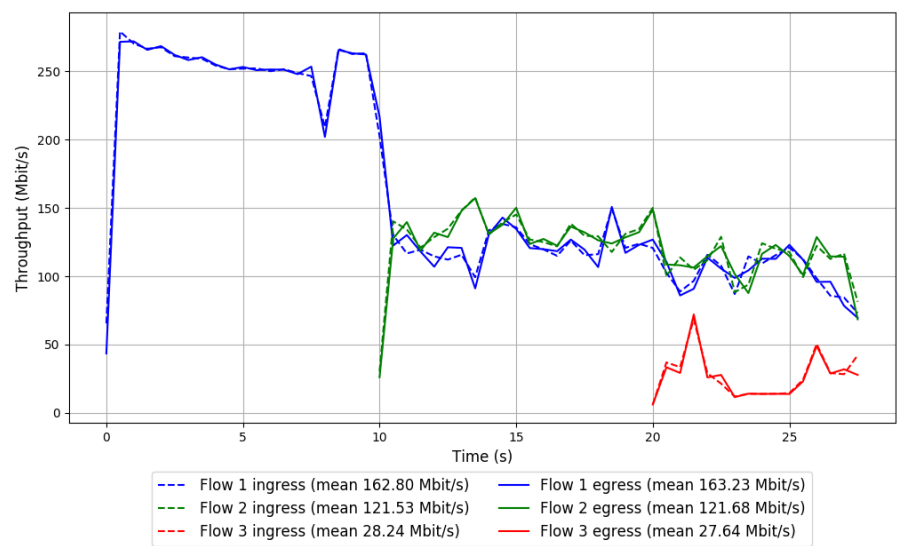


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 04:11:19
End at: 2017-09-08 04:11:49

# Below is generated by plot.py at 2017-09-08 10:07:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.52 Mbit/s
95th percentile per-packet one-way delay: 56.453 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 163.23 Mbit/s
95th percentile per-packet one-way delay: 55.995 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 121.68 Mbit/s
95th percentile per-packet one-way delay: 57.351 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 27.64 Mbit/s
95th percentile per-packet one-way delay: 53.260 ms
Loss rate: 3.64%
```

Run 1: Report of TaoVA-100x — Data Link

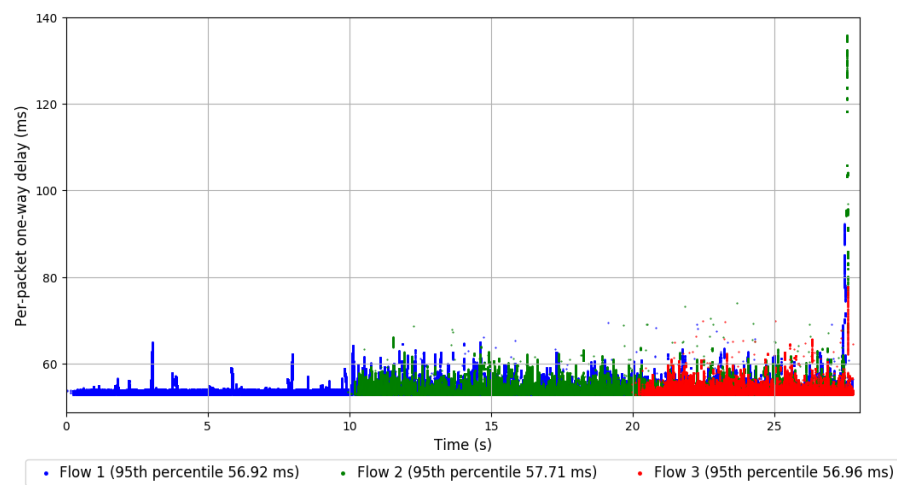
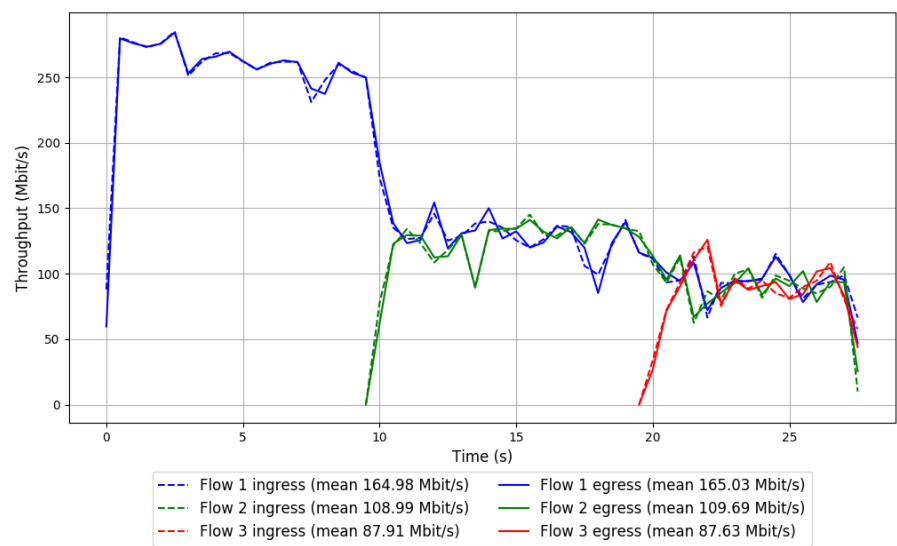


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 04:23:48
End at: 2017-09-08 04:24:18

# Below is generated by plot.py at 2017-09-08 10:07:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 260.06 Mbit/s
95th percentile per-packet one-way delay: 57.188 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 165.03 Mbit/s
95th percentile per-packet one-way delay: 56.925 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 109.69 Mbit/s
95th percentile per-packet one-way delay: 57.708 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 87.63 Mbit/s
95th percentile per-packet one-way delay: 56.960 ms
Loss rate: 1.58%
```

Run 2: Report of TaoVA-100x — Data Link



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 04:36:14

End at: 2017-09-08 04:36:44

Below is generated by plot.py at 2017-09-08 10:08:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 243.57 Mbit/s

95th percentile per-packet one-way delay: 55.893 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 186.92 Mbit/s

95th percentile per-packet one-way delay: 55.462 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 46.36 Mbit/s

95th percentile per-packet one-way delay: 53.434 ms

Loss rate: 0.00%

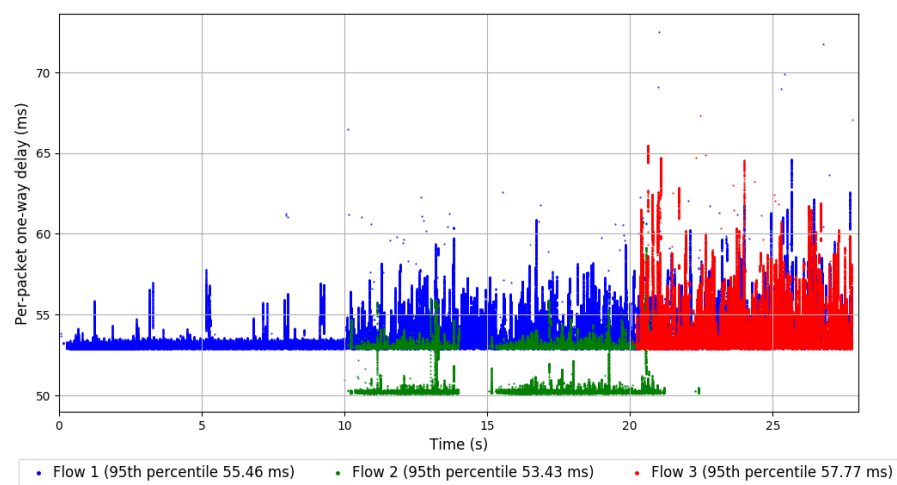
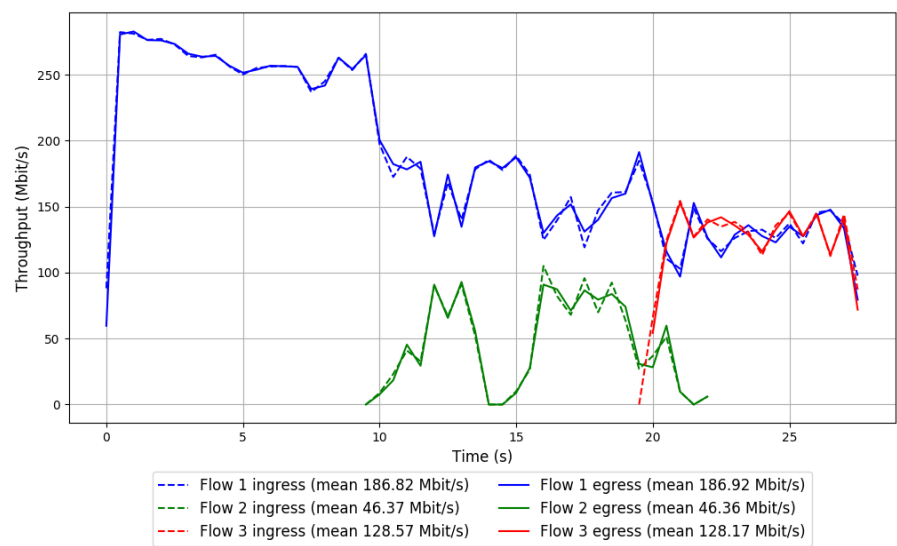
-- Flow 3:

Average throughput: 128.17 Mbit/s

95th percentile per-packet one-way delay: 57.771 ms

Loss rate: 1.64%

Run 3: Report of TaoVA-100x — Data Link

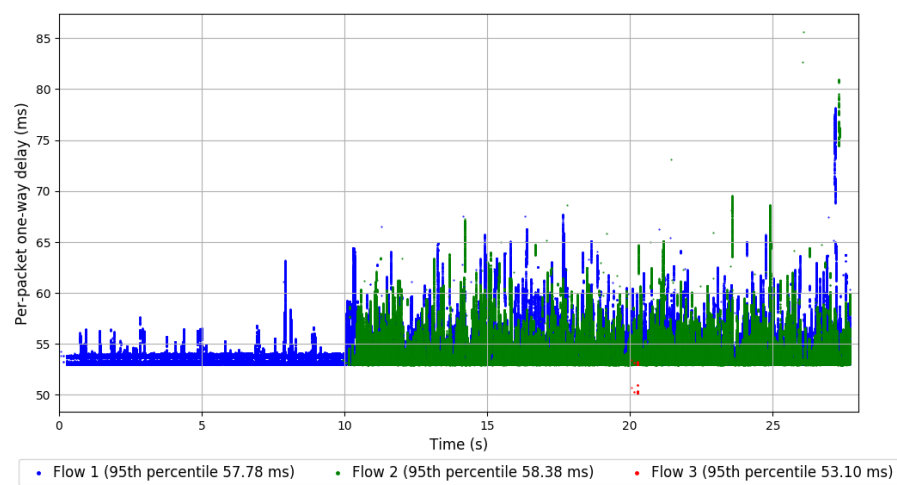
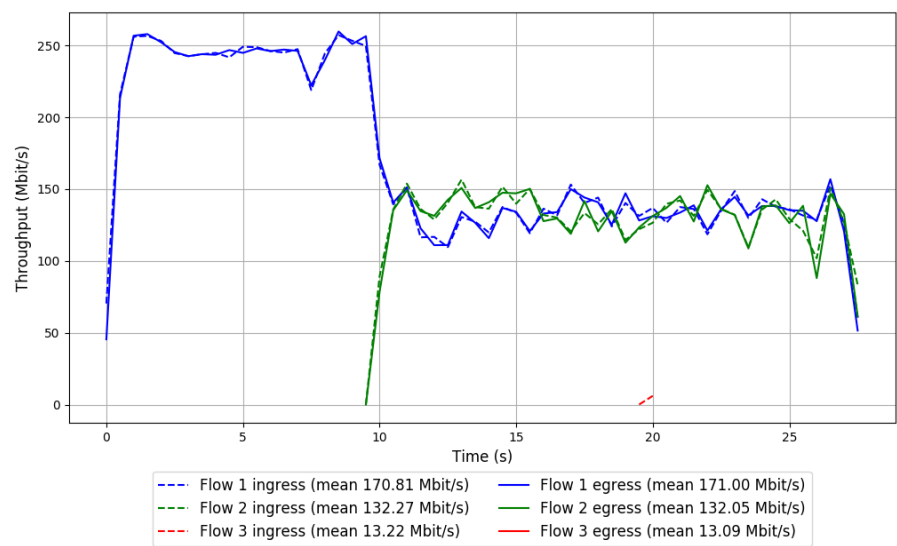


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 04:48:36
End at: 2017-09-08 04:49:06

# Below is generated by plot.py at 2017-09-08 10:08:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 255.97 Mbit/s
95th percentile per-packet one-way delay: 58.035 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 171.00 Mbit/s
95th percentile per-packet one-way delay: 57.780 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 132.05 Mbit/s
95th percentile per-packet one-way delay: 58.383 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 53.101 ms
Loss rate: 0.00%
```

Run 4: Report of TaoVA-100x — Data Link

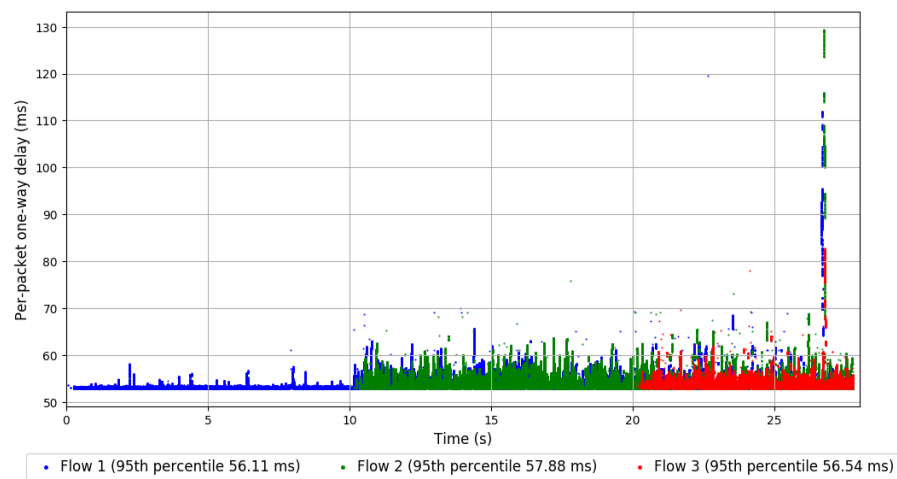
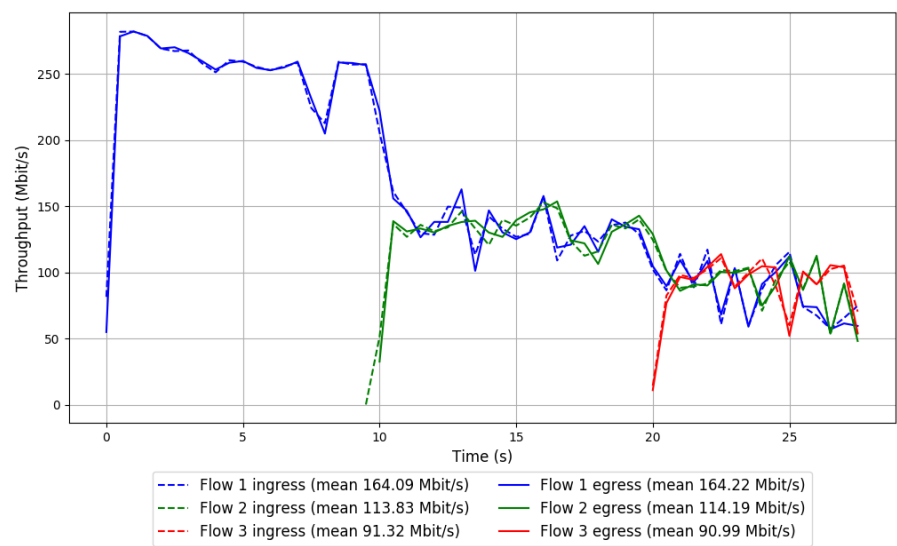


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 05:00:53
End at: 2017-09-08 05:01:23

# Below is generated by plot.py at 2017-09-08 10:10:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.50 Mbit/s
95th percentile per-packet one-way delay: 56.857 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 164.22 Mbit/s
95th percentile per-packet one-way delay: 56.112 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 114.19 Mbit/s
95th percentile per-packet one-way delay: 57.881 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 90.99 Mbit/s
95th percentile per-packet one-way delay: 56.538 ms
Loss rate: 1.68%
```

Run 5: Report of TaoVA-100x — Data Link



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-08 05:13:16

End at: 2017-09-08 05:13:46

Below is generated by plot.py at 2017-09-08 10:10:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.57 Mbit/s

95th percentile per-packet one-way delay: 55.112 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 62.60 Mbit/s

95th percentile per-packet one-way delay: 53.116 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 41.27 Mbit/s

95th percentile per-packet one-way delay: 53.252 ms

Loss rate: 0.00%

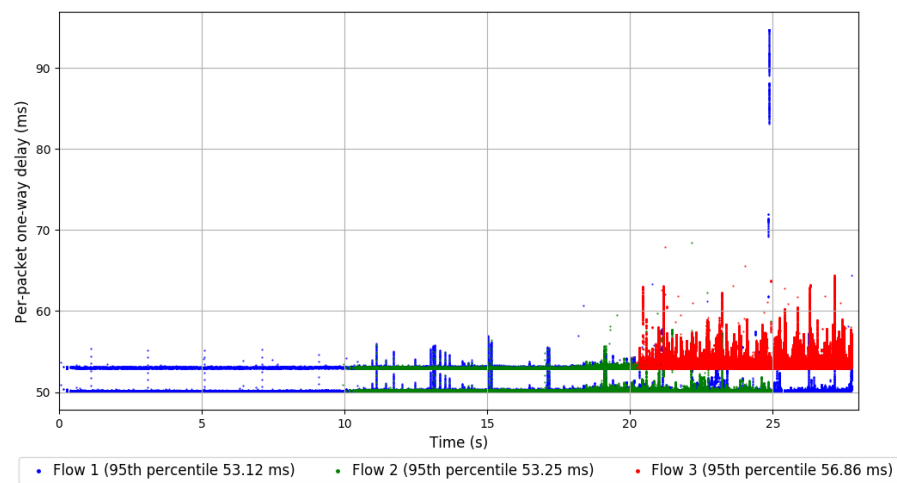
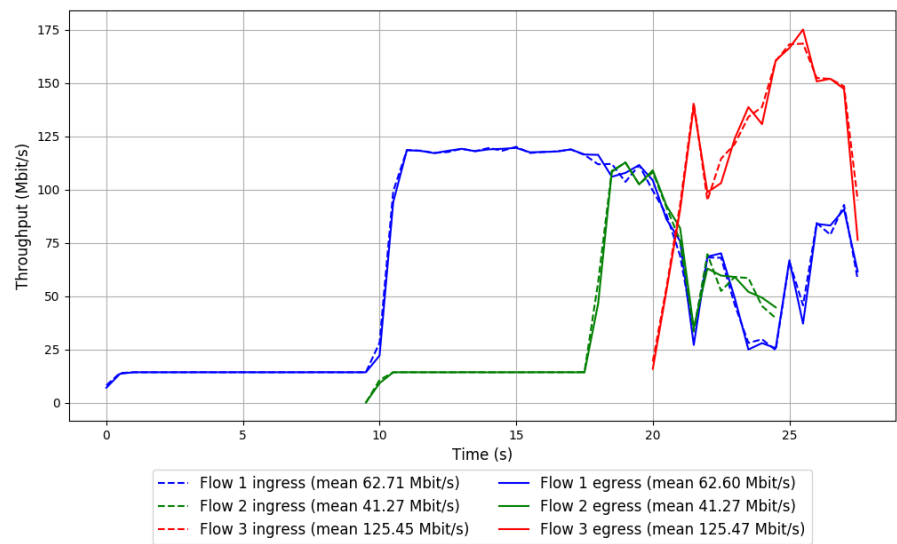
-- Flow 3:

Average throughput: 125.47 Mbit/s

95th percentile per-packet one-way delay: 56.864 ms

Loss rate: 1.73%

Run 6: Report of TaoVA-100x — Data Link

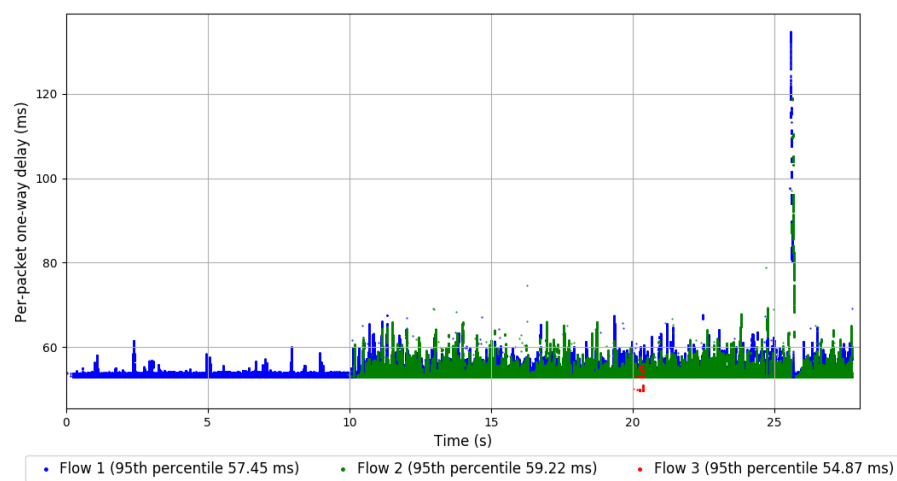
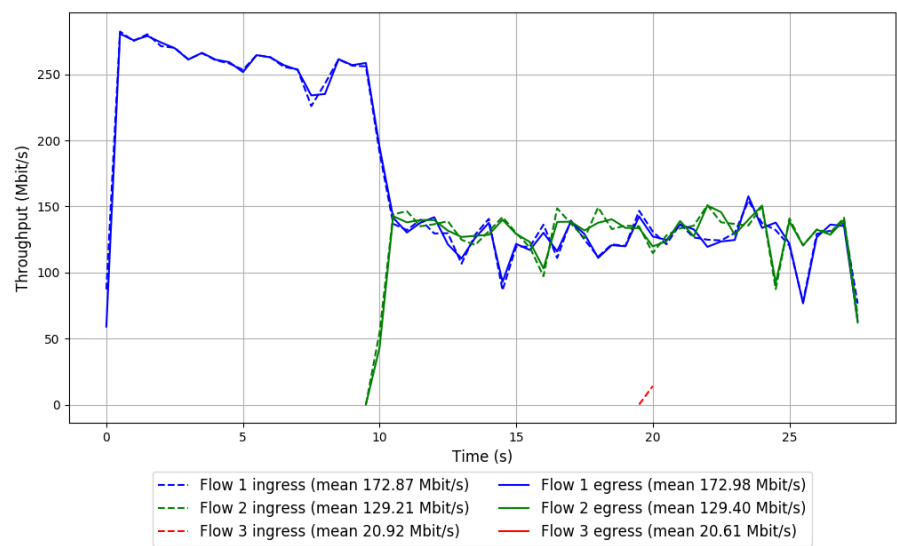


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 05:25:26
End at: 2017-09-08 05:25:56

# Below is generated by plot.py at 2017-09-08 10:11:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 256.42 Mbit/s
95th percentile per-packet one-way delay: 58.100 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 172.98 Mbit/s
95th percentile per-packet one-way delay: 57.455 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 129.40 Mbit/s
95th percentile per-packet one-way delay: 59.223 ms
Loss rate: 0.45%
-- Flow 3:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 54.871 ms
Loss rate: 0.00%
```


Run 7: Report of TaoVA-100x — Data Link



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 05:38:03

End at: 2017-09-08 05:38:33

Below is generated by plot.py at 2017-09-08 10:11:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.97 Mbit/s

95th percentile per-packet one-way delay: 53.144 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 86.14 Mbit/s

95th percentile per-packet one-way delay: 53.130 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 107.53 Mbit/s

95th percentile per-packet one-way delay: 53.165 ms

Loss rate: 0.25%

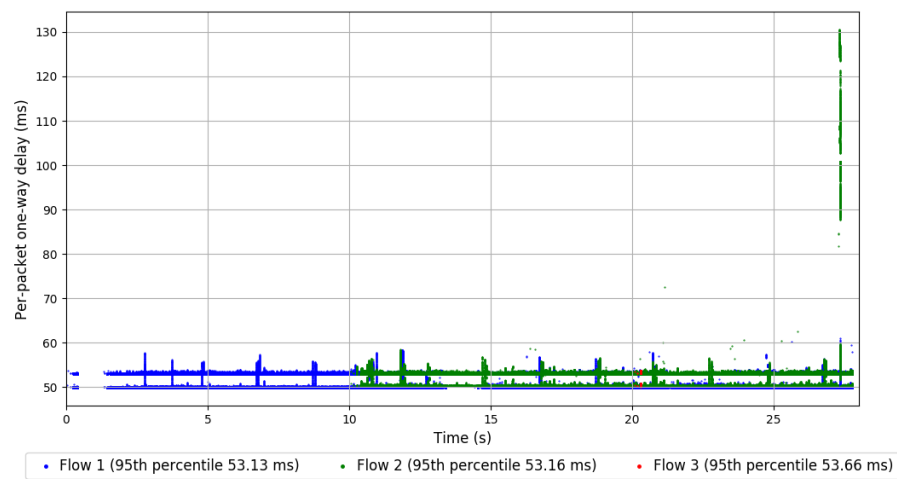
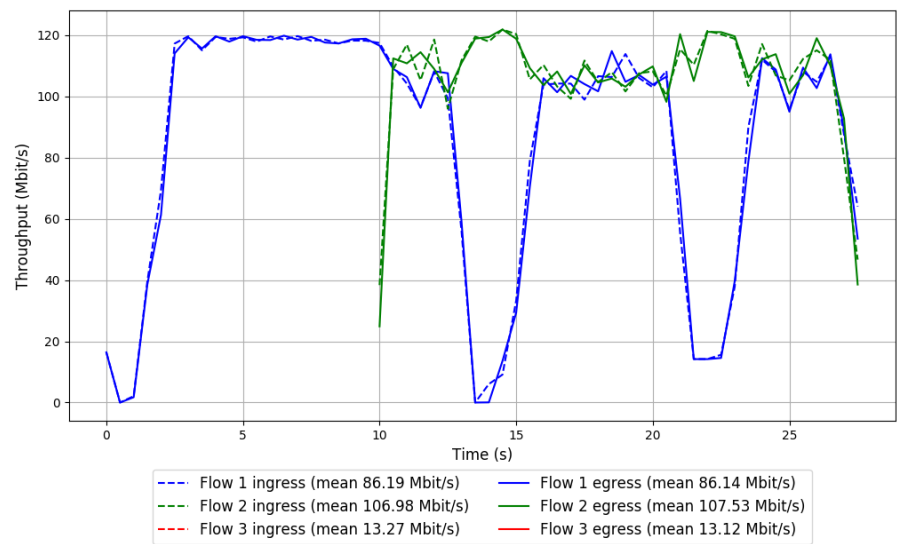
-- Flow 3:

Average throughput: 13.12 Mbit/s

95th percentile per-packet one-way delay: 53.664 ms

Loss rate: 0.00%

Run 8: Report of TaoVA-100x — Data Link

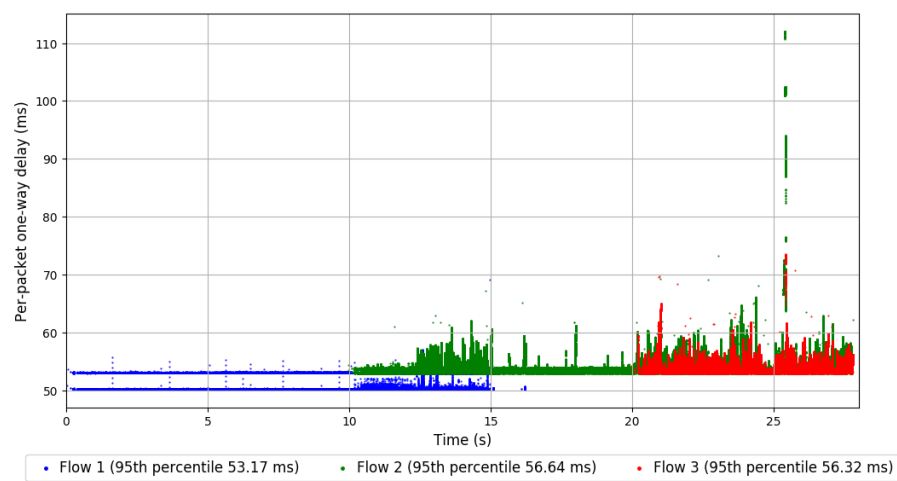
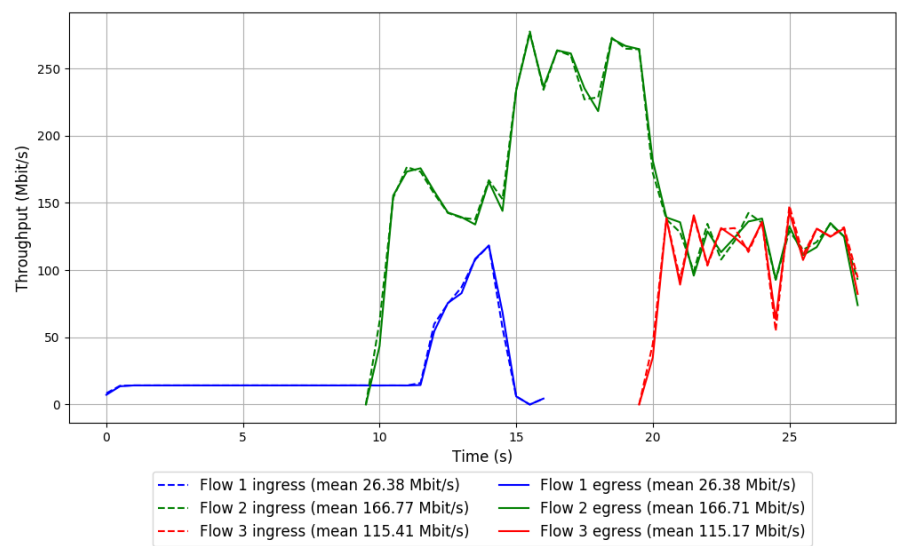


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 05:50:10
End at: 2017-09-08 05:50:40

# Below is generated by plot.py at 2017-09-08 10:12:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 154.82 Mbit/s
95th percentile per-packet one-way delay: 56.367 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 26.38 Mbit/s
95th percentile per-packet one-way delay: 53.167 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 166.71 Mbit/s
95th percentile per-packet one-way delay: 56.642 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 115.17 Mbit/s
95th percentile per-packet one-way delay: 56.324 ms
Loss rate: 1.61%
```

Run 9: Report of TaoVA-100x — Data Link

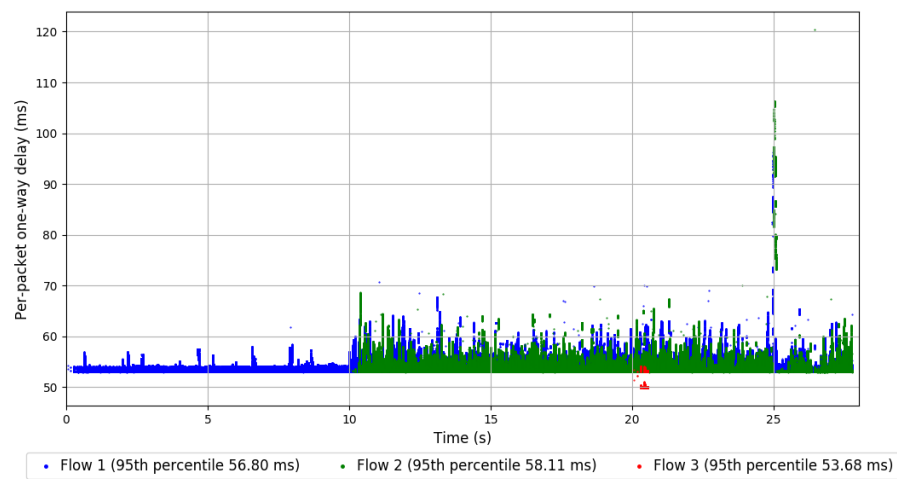
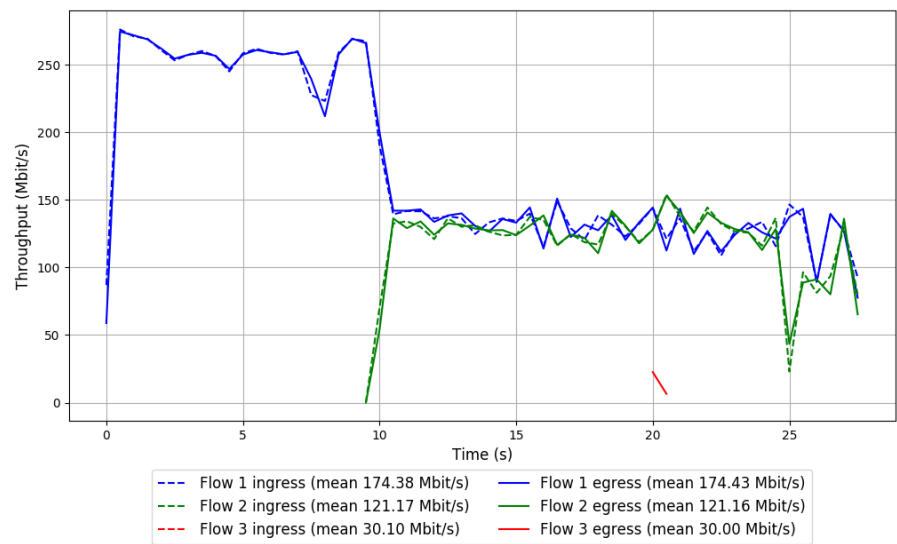


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-08 06:02:27
End at: 2017-09-08 06:02:57

# Below is generated by plot.py at 2017-09-08 10:12:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.65 Mbit/s
95th percentile per-packet one-way delay: 57.269 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 174.43 Mbit/s
95th percentile per-packet one-way delay: 56.800 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 121.16 Mbit/s
95th percentile per-packet one-way delay: 58.107 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 30.00 Mbit/s
95th percentile per-packet one-way delay: 53.682 ms
Loss rate: 0.00%
```

Run 10: Report of TaoVA-100x — Data Link



Run 1: Statistics of TCP Vegas

Start at: 2017-09-08 04:18:18

End at: 2017-09-08 04:18:48

Below is generated by plot.py at 2017-09-08 10:12:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.18 Mbit/s

95th percentile per-packet one-way delay: 54.104 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 92.21 Mbit/s

95th percentile per-packet one-way delay: 54.096 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 79.08 Mbit/s

95th percentile per-packet one-way delay: 54.178 ms

Loss rate: 0.60%

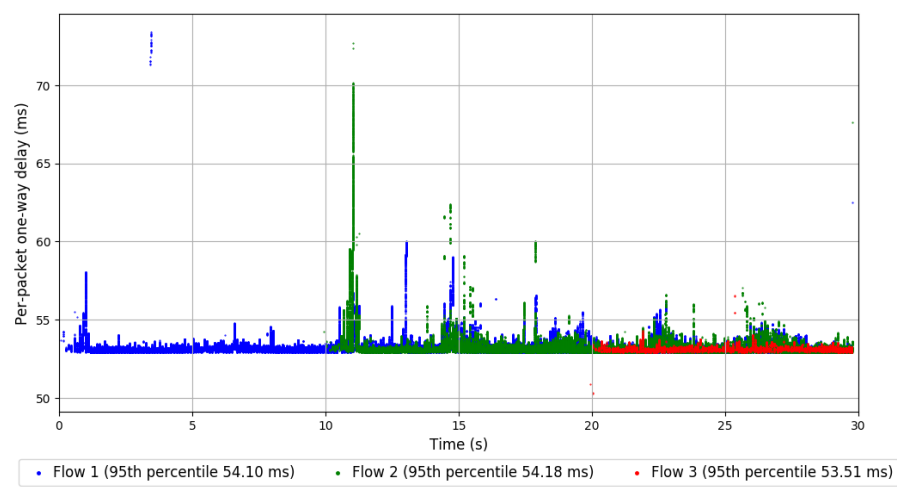
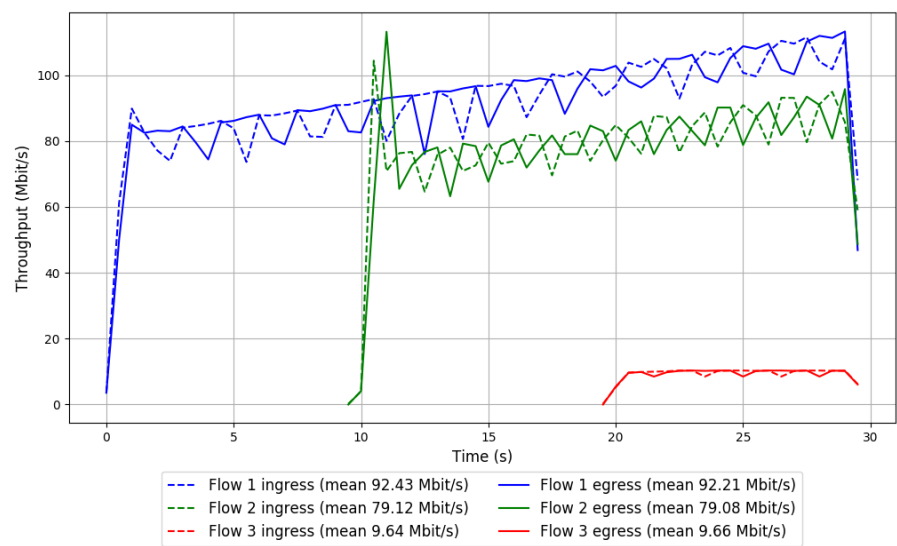
-- Flow 3:

Average throughput: 9.66 Mbit/s

95th percentile per-packet one-way delay: 53.507 ms

Loss rate: 1.08%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 04:30:49

End at: 2017-09-08 04:31:19

Below is generated by plot.py at 2017-09-08 10:12:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.40 Mbit/s

95th percentile per-packet one-way delay: 58.760 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 84.96 Mbit/s

95th percentile per-packet one-way delay: 58.418 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 8.67 Mbit/s

95th percentile per-packet one-way delay: 53.714 ms

Loss rate: 0.54%

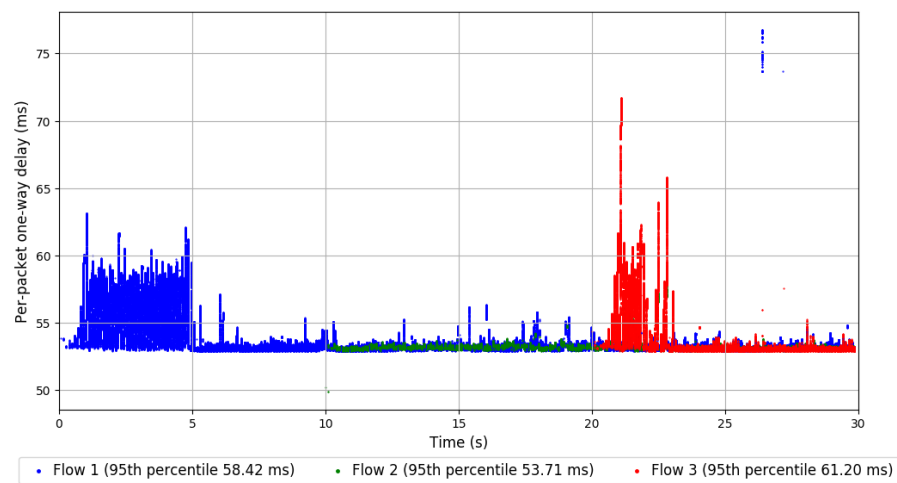
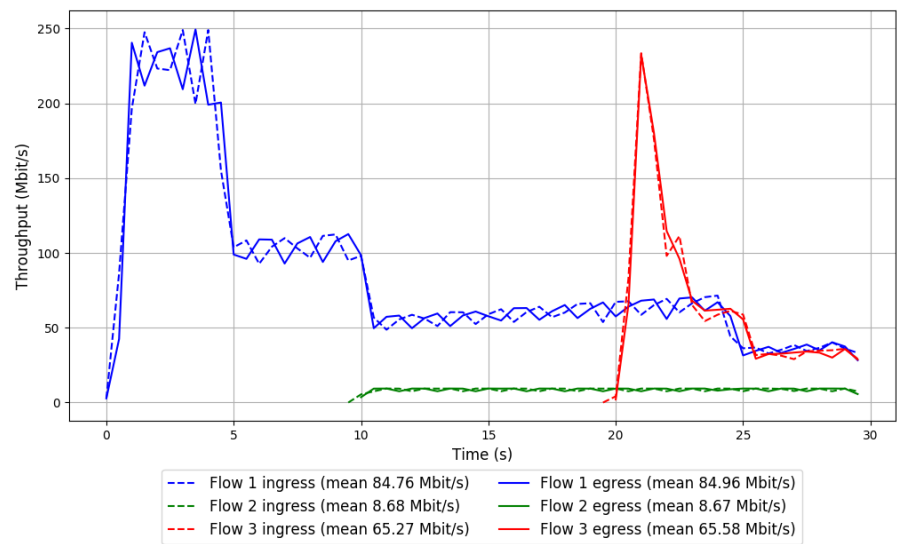
-- Flow 3:

Average throughput: 65.58 Mbit/s

95th percentile per-packet one-way delay: 61.205 ms

Loss rate: 0.58%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 04:43:08

End at: 2017-09-08 04:43:38

Below is generated by plot.py at 2017-09-08 10:12:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.11 Mbit/s

95th percentile per-packet one-way delay: 56.229 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 8.08 Mbit/s

95th percentile per-packet one-way delay: 53.430 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 74.71 Mbit/s

95th percentile per-packet one-way delay: 54.596 ms

Loss rate: 0.60%

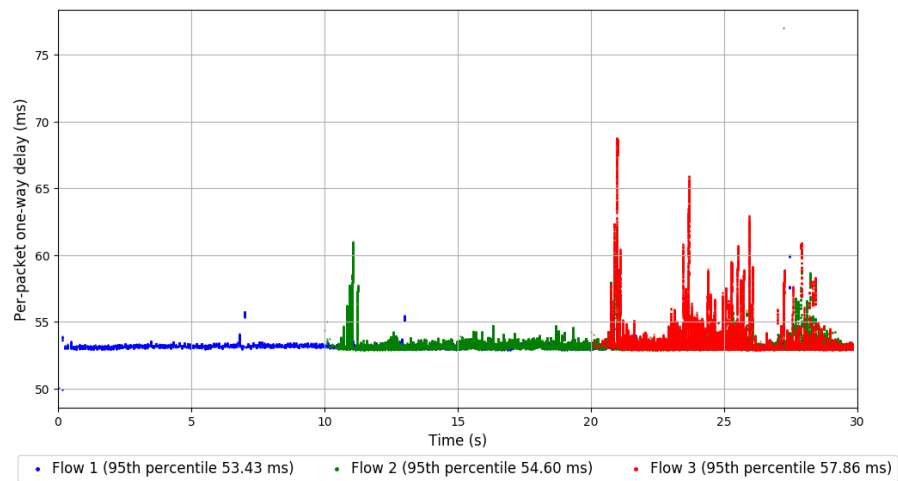
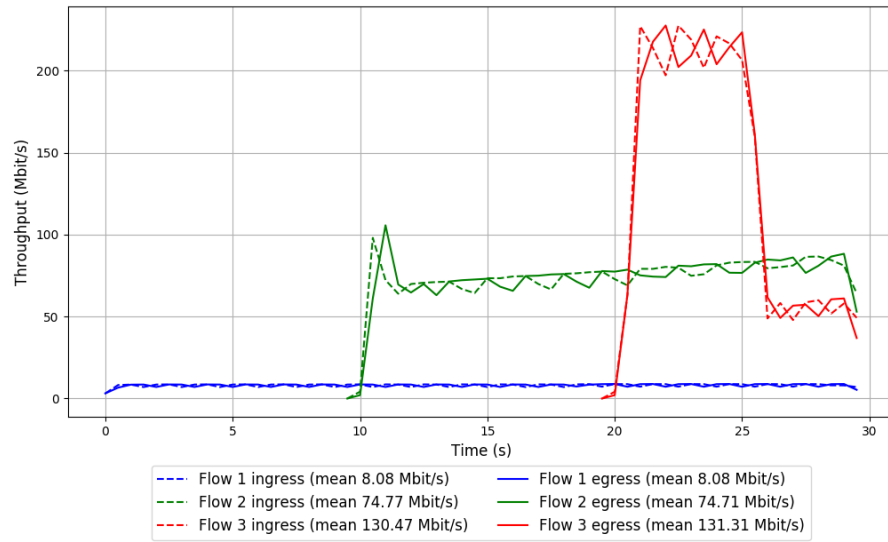
-- Flow 3:

Average throughput: 131.31 Mbit/s

95th percentile per-packet one-way delay: 57.863 ms

Loss rate: 0.49%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 04:55:29

End at: 2017-09-08 04:55:59

Below is generated by plot.py at 2017-09-08 10:13:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.63 Mbit/s

95th percentile per-packet one-way delay: 54.154 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 92.09 Mbit/s

95th percentile per-packet one-way delay: 53.836 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 8.96 Mbit/s

95th percentile per-packet one-way delay: 53.797 ms

Loss rate: 0.54%

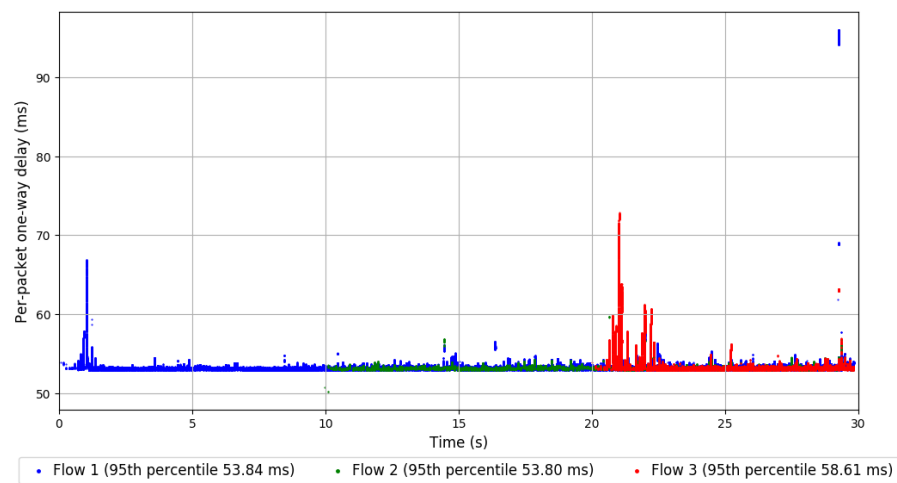
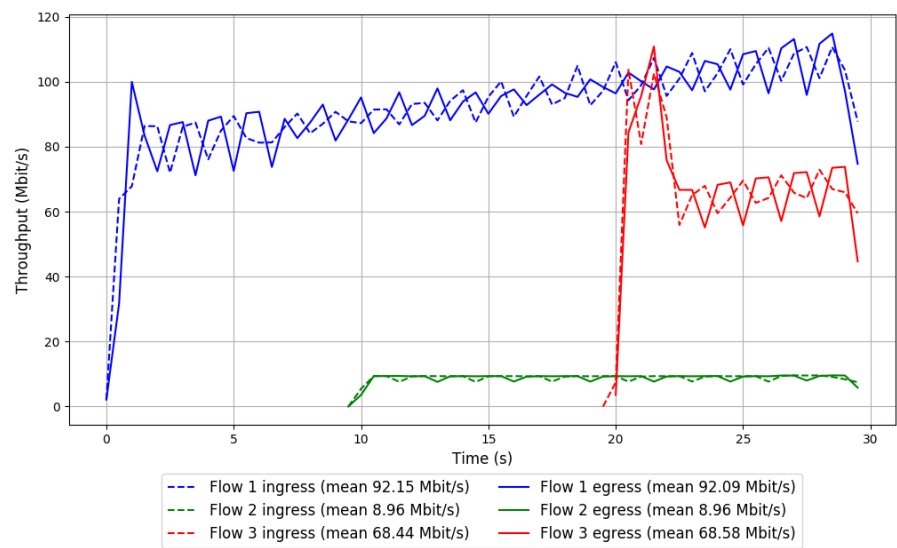
-- Flow 3:

Average throughput: 68.58 Mbit/s

95th percentile per-packet one-way delay: 58.611 ms

Loss rate: 1.10%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 05:07:51

End at: 2017-09-08 05:08:21

Below is generated by plot.py at 2017-09-08 10:13:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.98 Mbit/s

95th percentile per-packet one-way delay: 55.348 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 107.36 Mbit/s

95th percentile per-packet one-way delay: 54.889 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 39.75 Mbit/s

95th percentile per-packet one-way delay: 54.000 ms

Loss rate: 0.41%

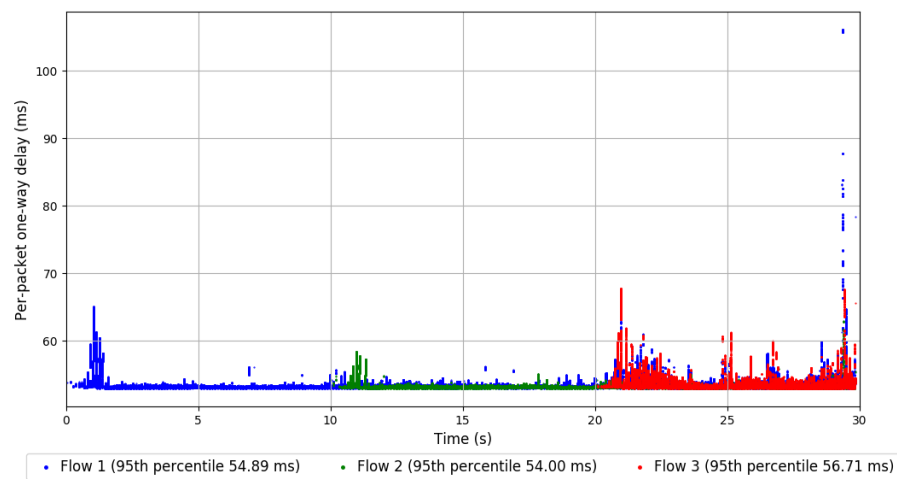
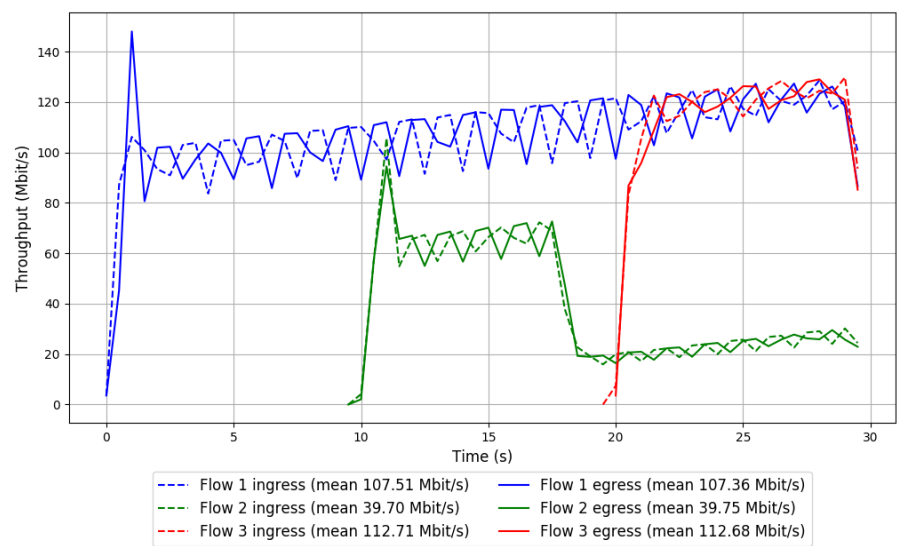
-- Flow 3:

Average throughput: 112.68 Mbit/s

95th percentile per-packet one-way delay: 56.713 ms

Loss rate: 1.16%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 05:20:02

End at: 2017-09-08 05:20:32

Below is generated by plot.py at 2017-09-08 10:13:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.81 Mbit/s

95th percentile per-packet one-way delay: 54.230 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 87.51 Mbit/s

95th percentile per-packet one-way delay: 54.274 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 17.19 Mbit/s

95th percentile per-packet one-way delay: 53.865 ms

Loss rate: 0.55%

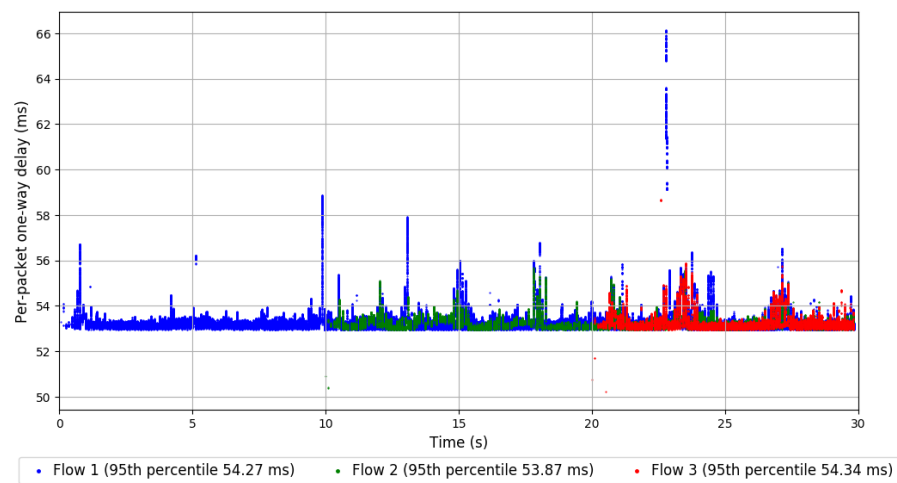
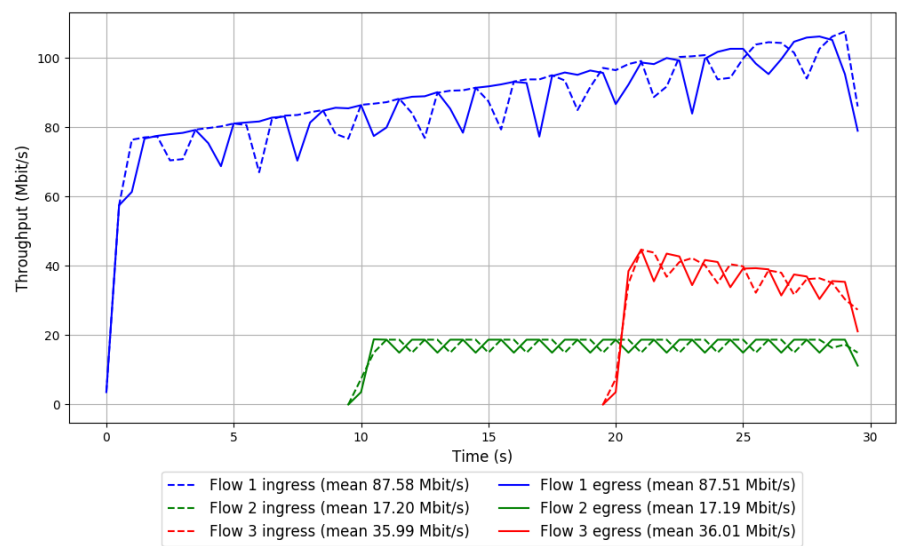
-- Flow 3:

Average throughput: 36.01 Mbit/s

95th percentile per-packet one-way delay: 54.337 ms

Loss rate: 0.99%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 05:32:24

End at: 2017-09-08 05:32:54

Below is generated by plot.py at 2017-09-08 10:14:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 209.71 Mbit/s

95th percentile per-packet one-way delay: 62.795 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 91.35 Mbit/s

95th percentile per-packet one-way delay: 57.064 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 73.07 Mbit/s

95th percentile per-packet one-way delay: 57.940 ms

Loss rate: 0.59%

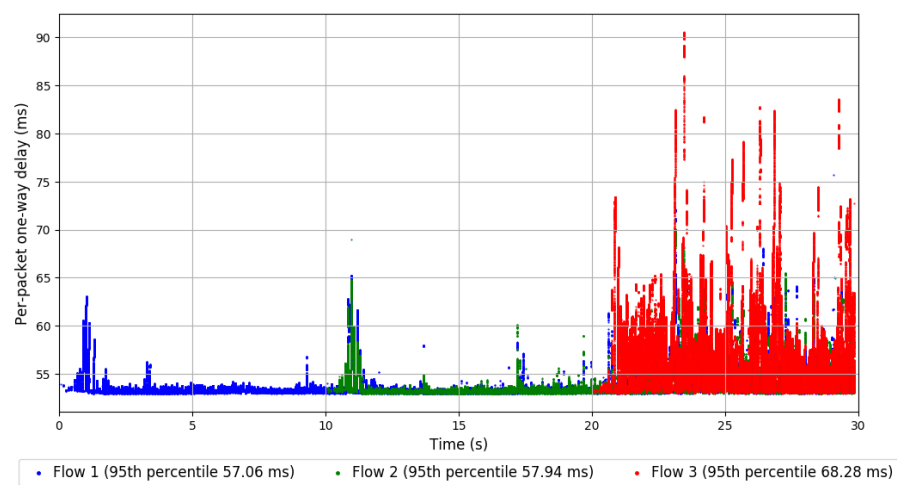
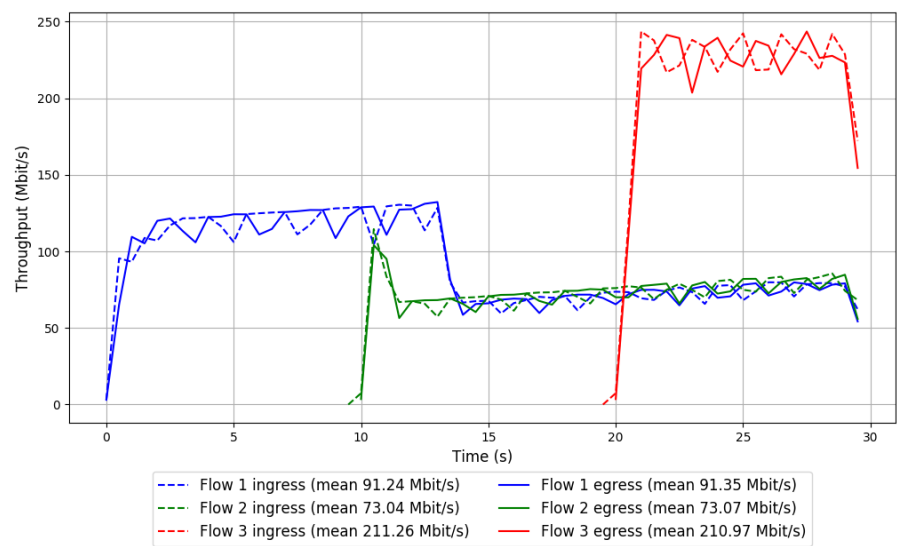
-- Flow 3:

Average throughput: 210.97 Mbit/s

95th percentile per-packet one-way delay: 68.280 ms

Loss rate: 1.26%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 05:44:46

End at: 2017-09-08 05:45:16

Below is generated by plot.py at 2017-09-08 10:14:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.31 Mbit/s

95th percentile per-packet one-way delay: 53.466 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 12.43 Mbit/s

95th percentile per-packet one-way delay: 53.488 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 8.99 Mbit/s

95th percentile per-packet one-way delay: 53.453 ms

Loss rate: 0.54%

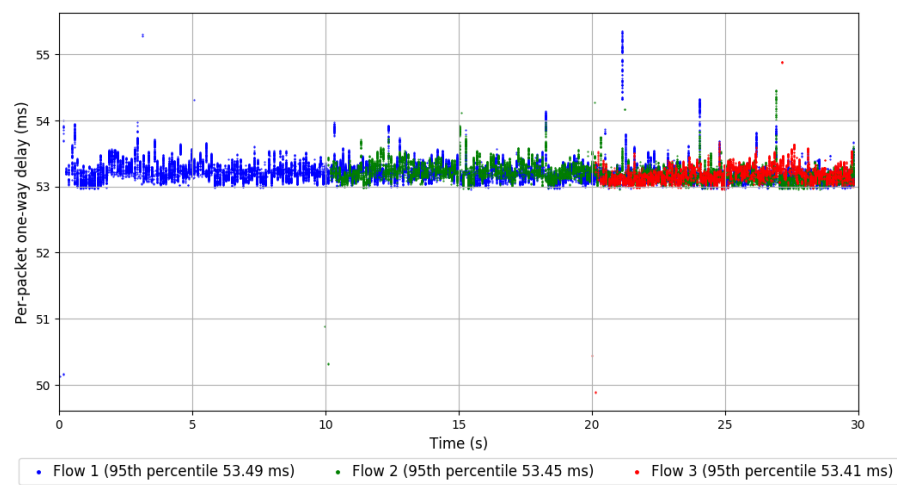
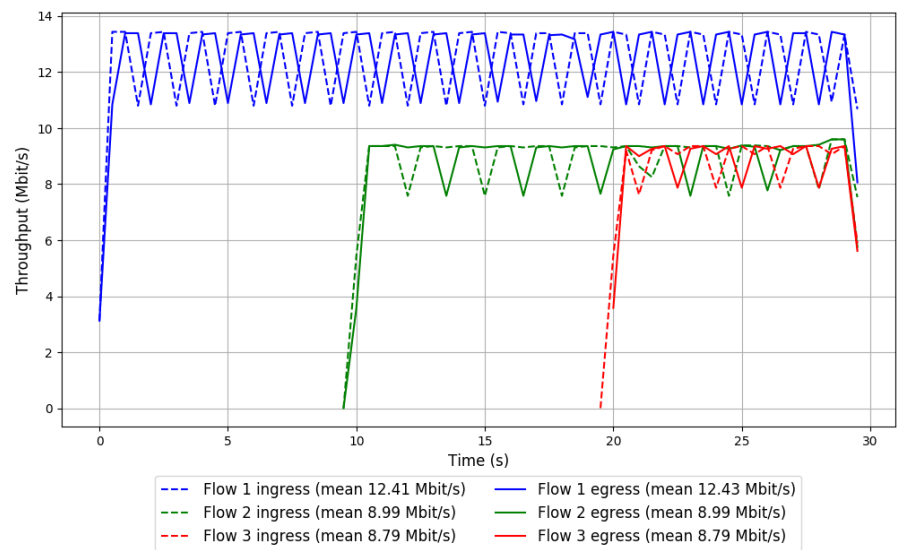
-- Flow 3:

Average throughput: 8.79 Mbit/s

95th percentile per-packet one-way delay: 53.412 ms

Loss rate: 1.08%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 05:56:58

End at: 2017-09-08 05:57:28

Below is generated by plot.py at 2017-09-08 10:14:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.11 Mbit/s

95th percentile per-packet one-way delay: 54.372 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 9.42 Mbit/s

95th percentile per-packet one-way delay: 53.583 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 88.08 Mbit/s

95th percentile per-packet one-way delay: 54.504 ms

Loss rate: 0.24%

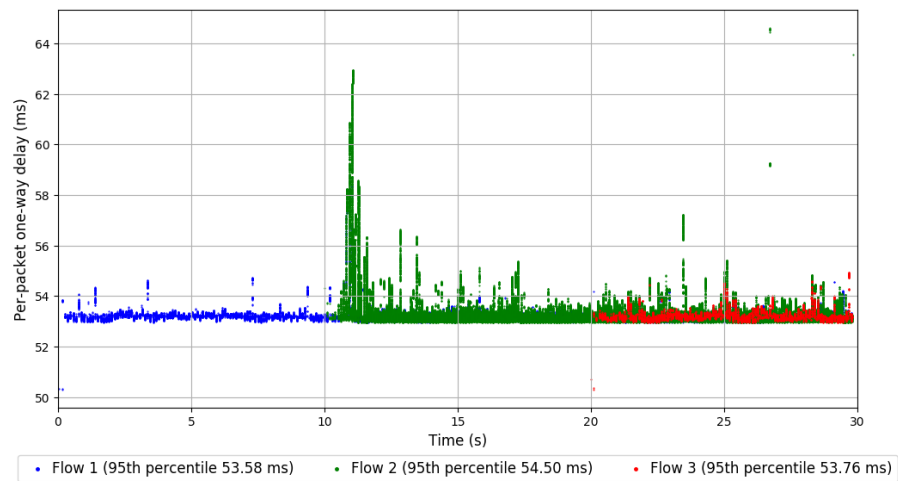
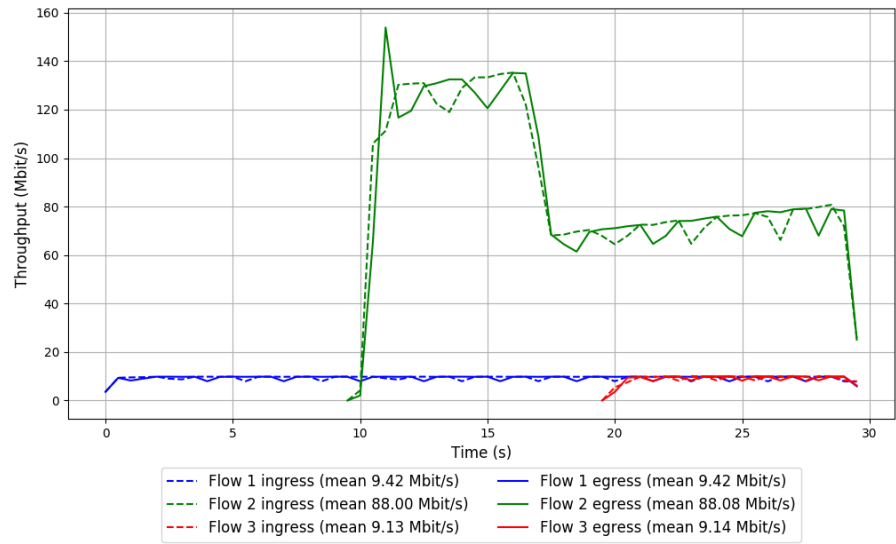
-- Flow 3:

Average throughput: 9.14 Mbit/s

95th percentile per-packet one-way delay: 53.759 ms

Loss rate: 1.12%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 06:09:22

End at: 2017-09-08 06:09:52

Below is generated by plot.py at 2017-09-08 10:14:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 128.43 Mbit/s

95th percentile per-packet one-way delay: 55.911 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 8.49 Mbit/s

95th percentile per-packet one-way delay: 53.848 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 175.79 Mbit/s

95th percentile per-packet one-way delay: 55.998 ms

Loss rate: 0.19%

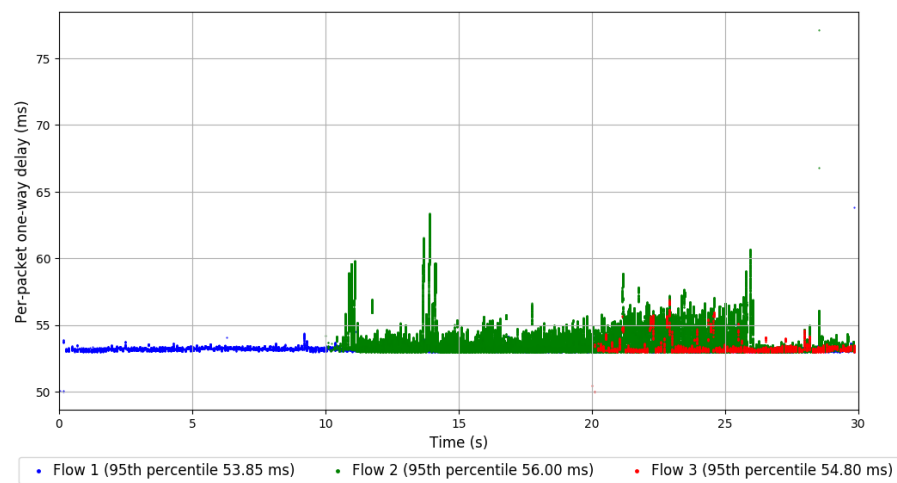
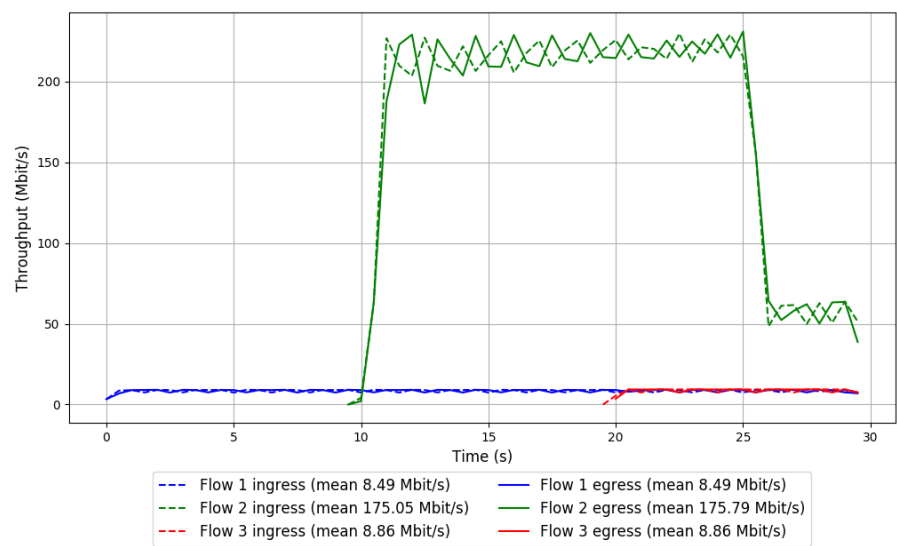
-- Flow 3:

Average throughput: 8.86 Mbit/s

95th percentile per-packet one-way delay: 54.798 ms

Loss rate: 1.06%

Run 10: Report of TCP Vegas — Data Link

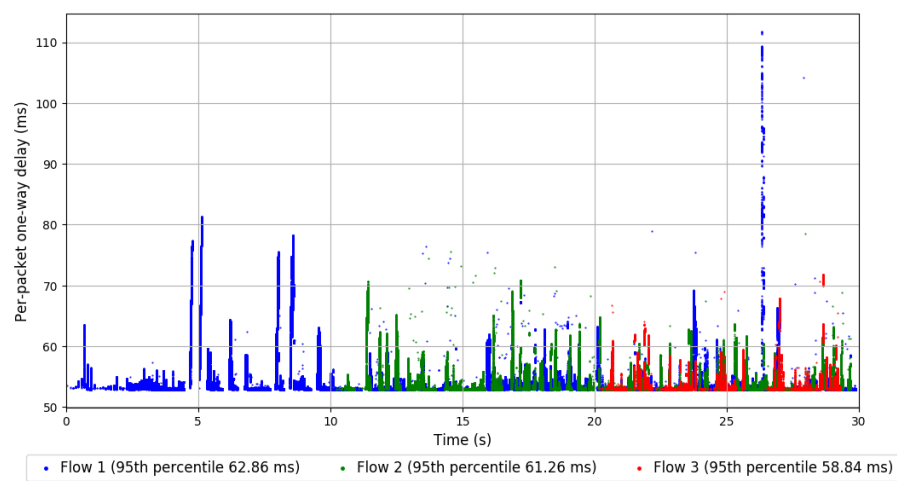
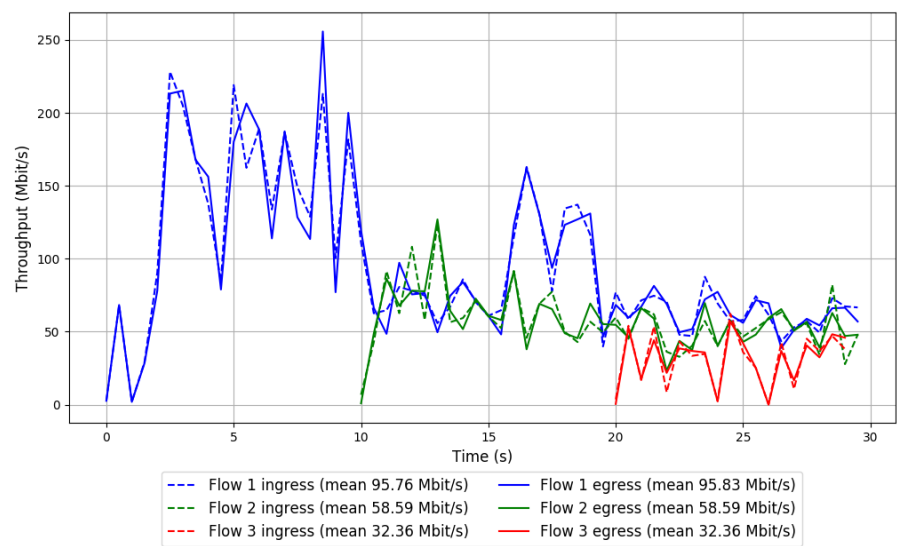


```
Run 1: Statistics of Verus

Start at: 2017-09-08 04:16:43
End at: 2017-09-08 04:17:13

# Below is generated by plot.py at 2017-09-08 10:14:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 144.25 Mbit/s
95th percentile per-packet one-way delay: 61.821 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 95.83 Mbit/s
95th percentile per-packet one-way delay: 62.862 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 58.59 Mbit/s
95th percentile per-packet one-way delay: 61.262 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 32.36 Mbit/s
95th percentile per-packet one-way delay: 58.845 ms
Loss rate: 0.00%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-08 04:29:15

End at: 2017-09-08 04:29:45

Below is generated by plot.py at 2017-09-08 10:15:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.38 Mbit/s

95th percentile per-packet one-way delay: 68.284 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 99.01 Mbit/s

95th percentile per-packet one-way delay: 70.085 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.35 Mbit/s

95th percentile per-packet one-way delay: 65.575 ms

Loss rate: 0.82%

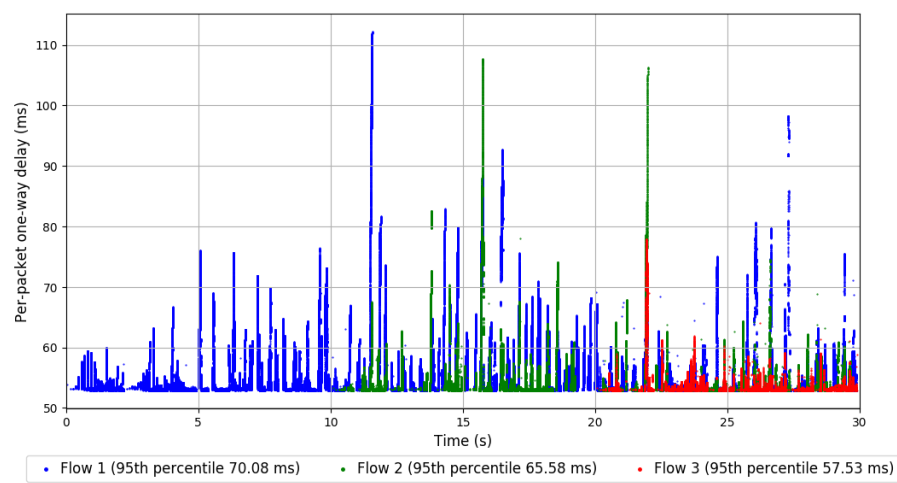
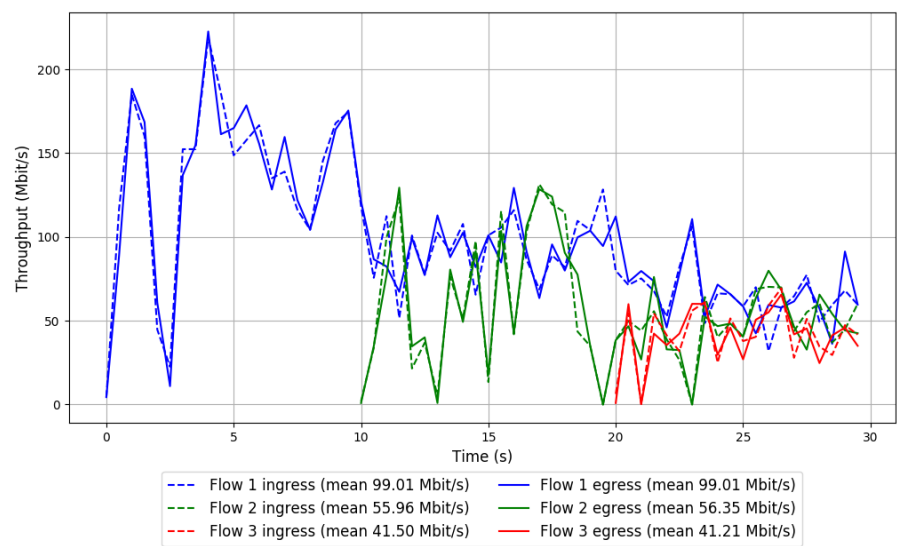
-- Flow 3:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 57.530 ms

Loss rate: 1.47%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-08 04:41:36

End at: 2017-09-08 04:42:06

Below is generated by plot.py at 2017-09-08 10:15:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.65 Mbit/s

95th percentile per-packet one-way delay: 67.947 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 70.45 Mbit/s

95th percentile per-packet one-way delay: 66.097 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 76.24 Mbit/s

95th percentile per-packet one-way delay: 75.914 ms

Loss rate: 0.06%

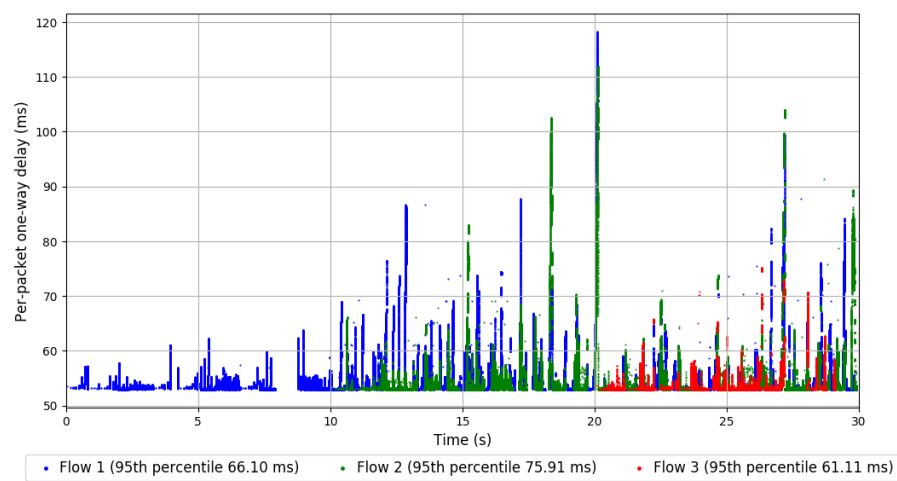
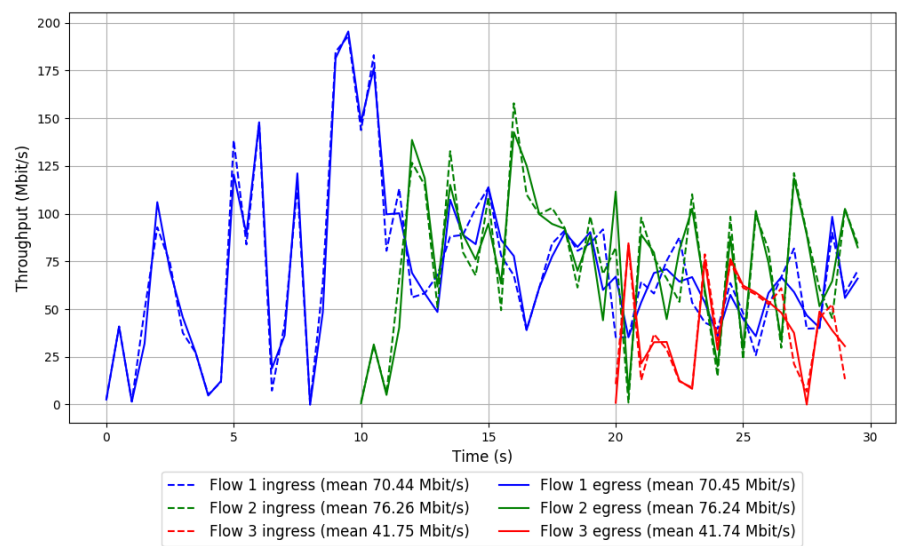
-- Flow 3:

Average throughput: 41.74 Mbit/s

95th percentile per-packet one-way delay: 61.112 ms

Loss rate: 0.00%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-08 04:53:57

End at: 2017-09-08 04:54:27

Below is generated by plot.py at 2017-09-08 10:15:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.87 Mbit/s

95th percentile per-packet one-way delay: 56.839 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 66.45 Mbit/s

95th percentile per-packet one-way delay: 57.421 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 51.56 Mbit/s

95th percentile per-packet one-way delay: 55.511 ms

Loss rate: 0.75%

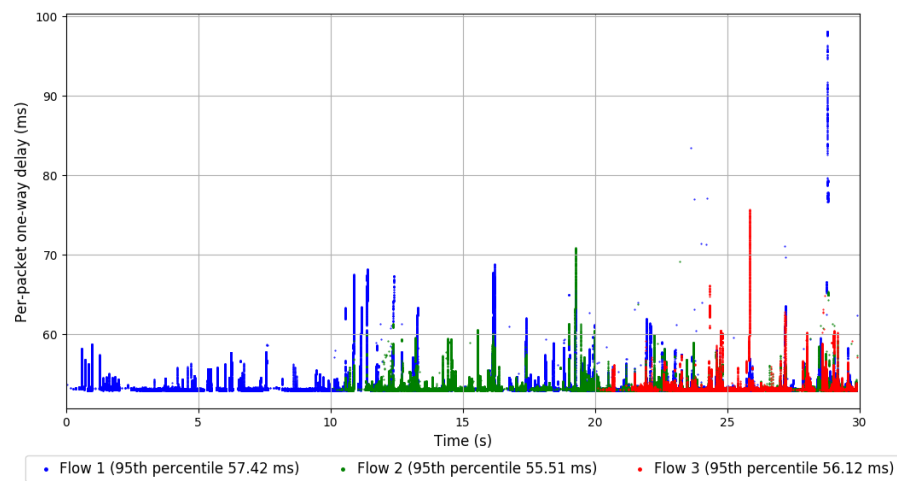
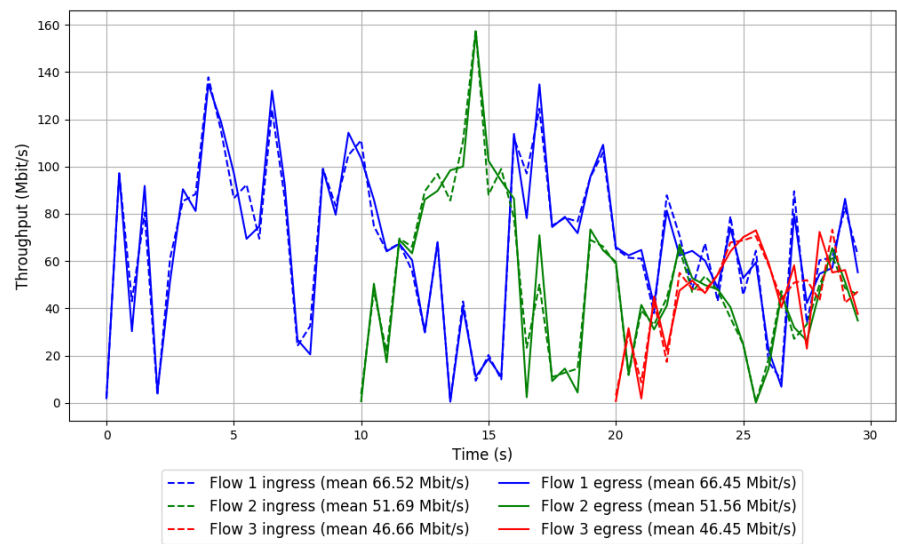
-- Flow 3:

Average throughput: 46.45 Mbit/s

95th percentile per-packet one-way delay: 56.115 ms

Loss rate: 1.49%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-08 05:06:17

End at: 2017-09-08 05:06:47

Below is generated by plot.py at 2017-09-08 10:15:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.94 Mbit/s

95th percentile per-packet one-way delay: 61.731 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 70.35 Mbit/s

95th percentile per-packet one-way delay: 58.860 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 57.94 Mbit/s

95th percentile per-packet one-way delay: 67.678 ms

Loss rate: 1.02%

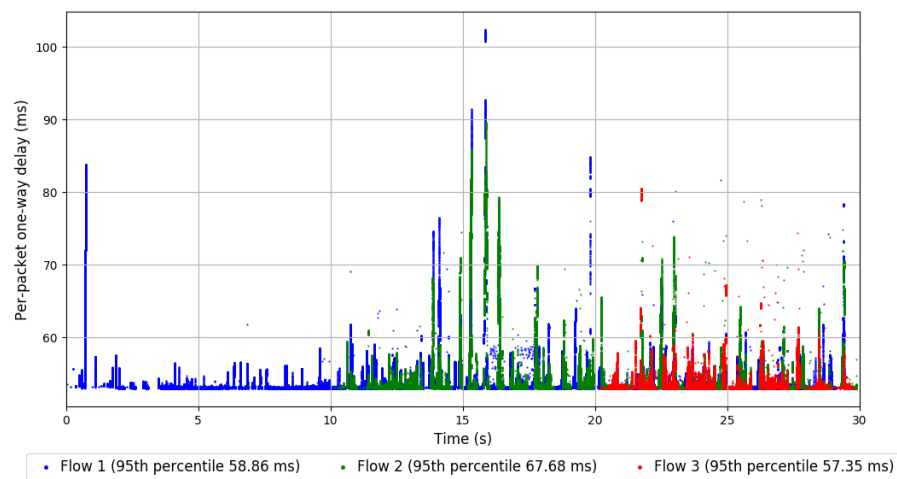
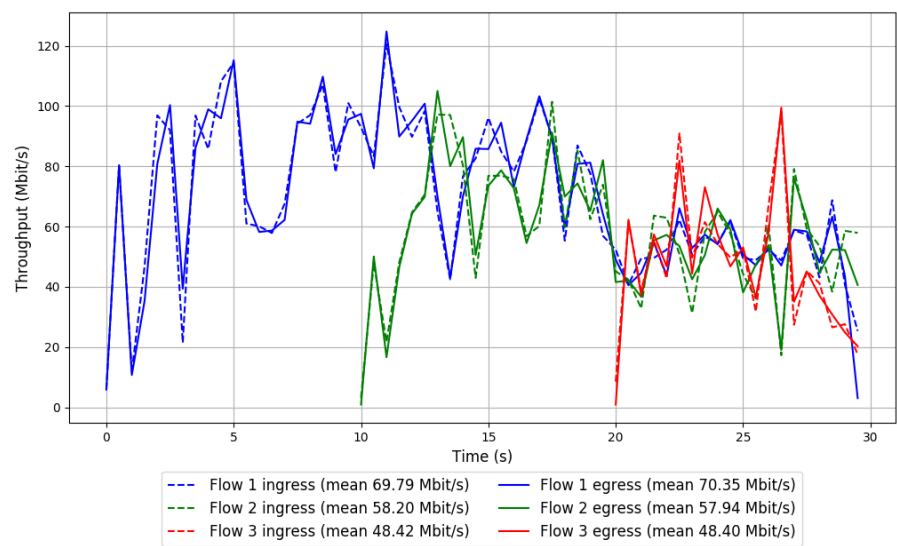
-- Flow 3:

Average throughput: 48.40 Mbit/s

95th percentile per-packet one-way delay: 57.346 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-08 05:18:28

End at: 2017-09-08 05:18:58

Below is generated by plot.py at 2017-09-08 10:15:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.20 Mbit/s

95th percentile per-packet one-way delay: 67.176 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 93.00 Mbit/s

95th percentile per-packet one-way delay: 70.640 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 46.16 Mbit/s

95th percentile per-packet one-way delay: 58.839 ms

Loss rate: 0.80%

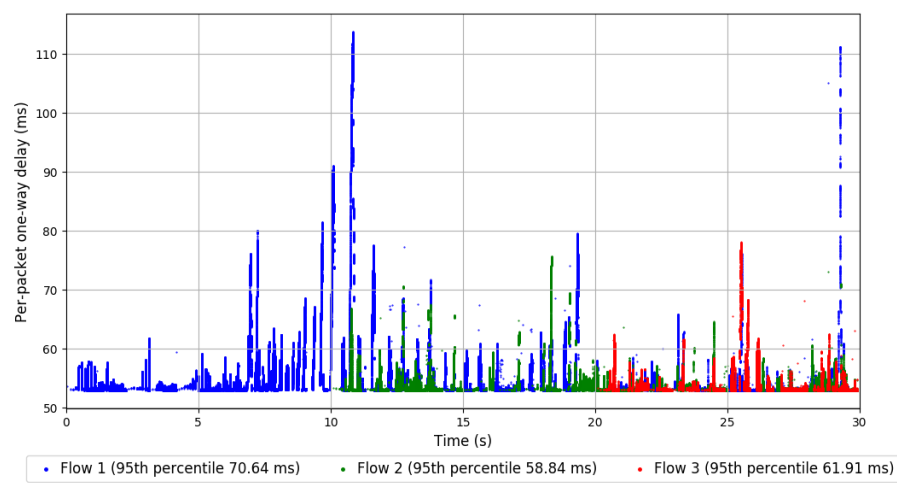
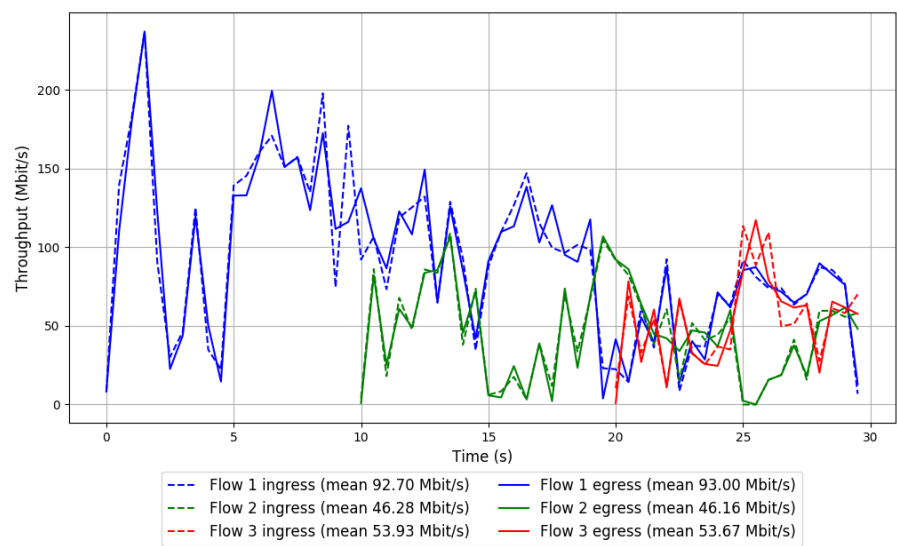
-- Flow 3:

Average throughput: 53.67 Mbit/s

95th percentile per-packet one-way delay: 61.909 ms

Loss rate: 1.62%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-08 05:30:49

End at: 2017-09-08 05:31:19

Below is generated by plot.py at 2017-09-08 10:15:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.82 Mbit/s

95th percentile per-packet one-way delay: 57.832 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 84.87 Mbit/s

95th percentile per-packet one-way delay: 58.263 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 75.77 Mbit/s

95th percentile per-packet one-way delay: 57.476 ms

Loss rate: 0.80%

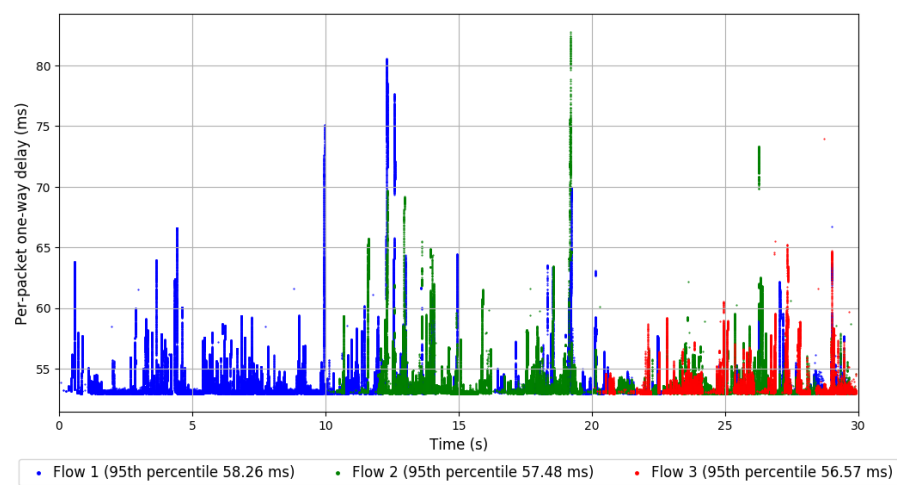
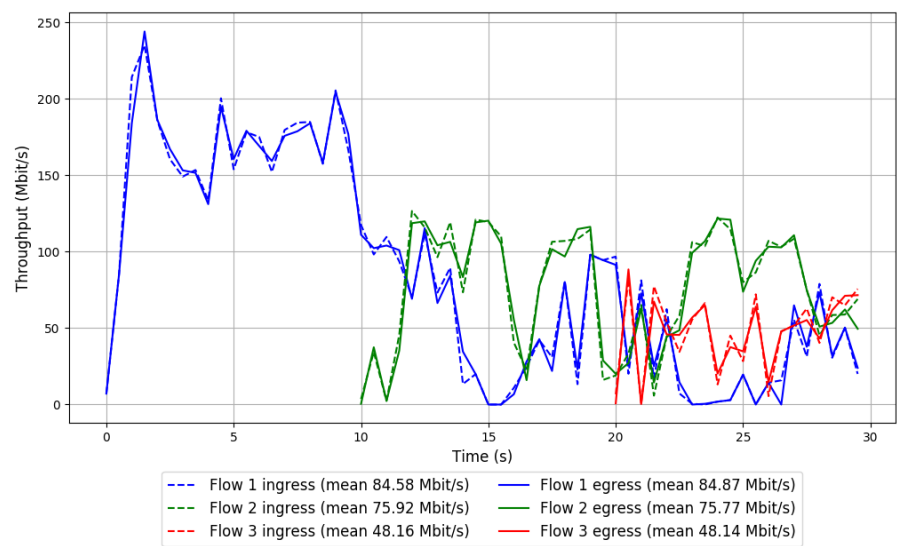
-- Flow 3:

Average throughput: 48.14 Mbit/s

95th percentile per-packet one-way delay: 56.568 ms

Loss rate: 1.14%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-08 05:43:15

End at: 2017-09-08 05:43:45

Below is generated by plot.py at 2017-09-08 10:16:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.64 Mbit/s

95th percentile per-packet one-way delay: 67.567 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 73.71 Mbit/s

95th percentile per-packet one-way delay: 68.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 64.867 ms

Loss rate: 0.31%

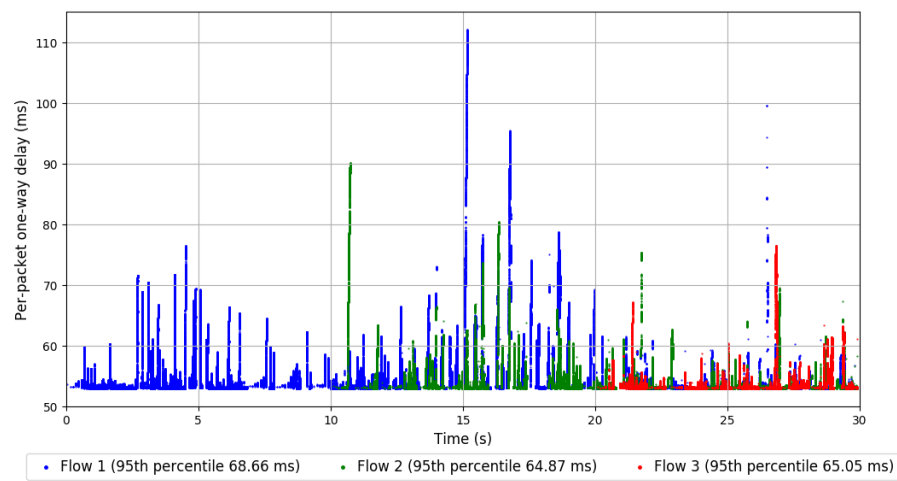
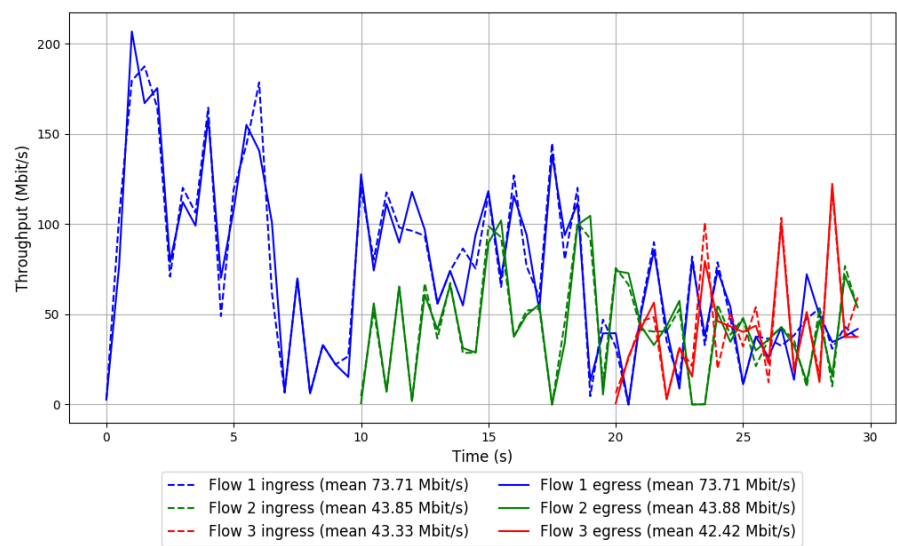
-- Flow 3:

Average throughput: 42.42 Mbit/s

95th percentile per-packet one-way delay: 65.049 ms

Loss rate: 3.05%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-08 05:55:24

End at: 2017-09-08 05:55:54

Below is generated by plot.py at 2017-09-08 10:16:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.38 Mbit/s

95th percentile per-packet one-way delay: 56.491 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 79.04 Mbit/s

95th percentile per-packet one-way delay: 55.743 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 61.52 Mbit/s

95th percentile per-packet one-way delay: 58.559 ms

Loss rate: 0.43%

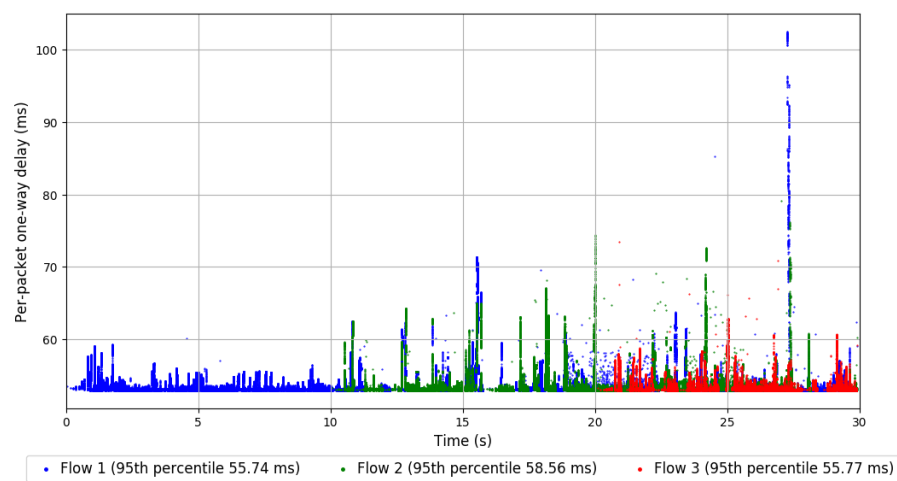
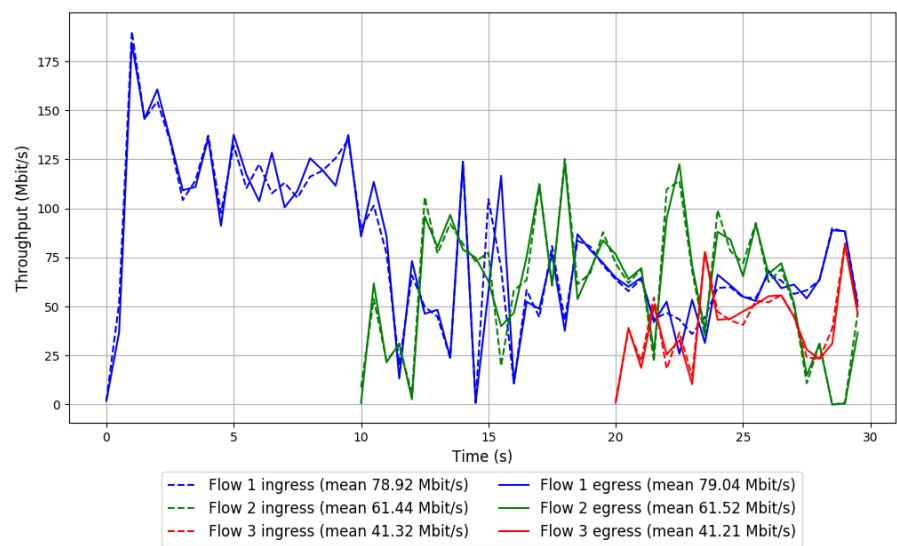
-- Flow 3:

Average throughput: 41.21 Mbit/s

95th percentile per-packet one-way delay: 55.765 ms

Loss rate: 1.34%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-08 06:07:48

End at: 2017-09-08 06:08:18

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.95 Mbit/s

95th percentile per-packet one-way delay: 62.037 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 89.20 Mbit/s

95th percentile per-packet one-way delay: 63.681 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 48.12 Mbit/s

95th percentile per-packet one-way delay: 59.314 ms

Loss rate: 0.41%

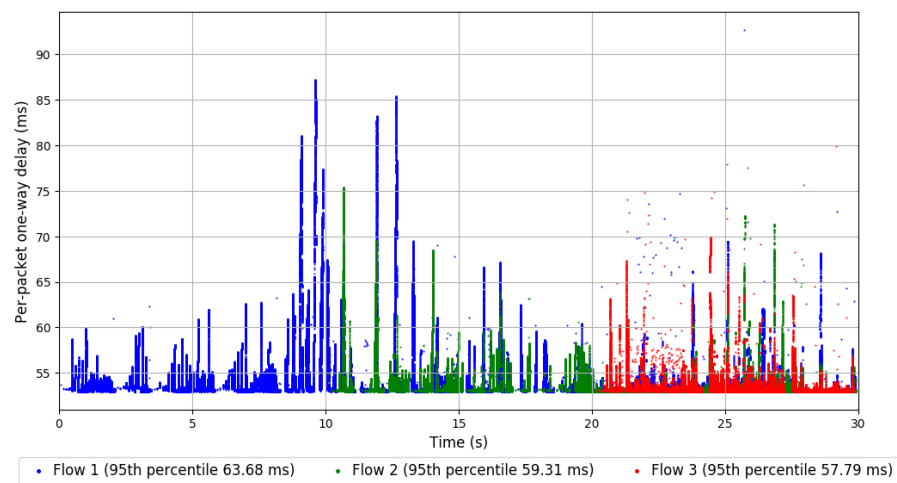
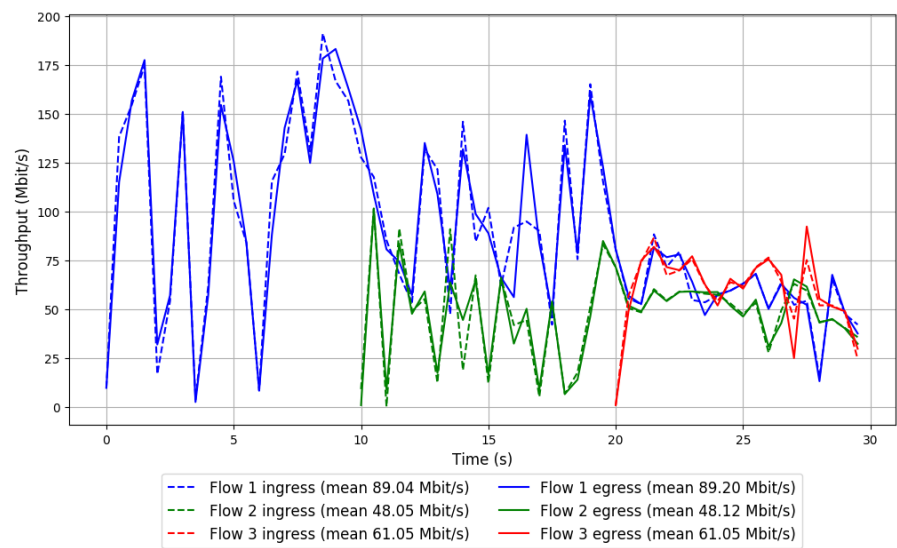
-- Flow 3:

Average throughput: 61.05 Mbit/s

95th percentile per-packet one-way delay: 57.790 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link

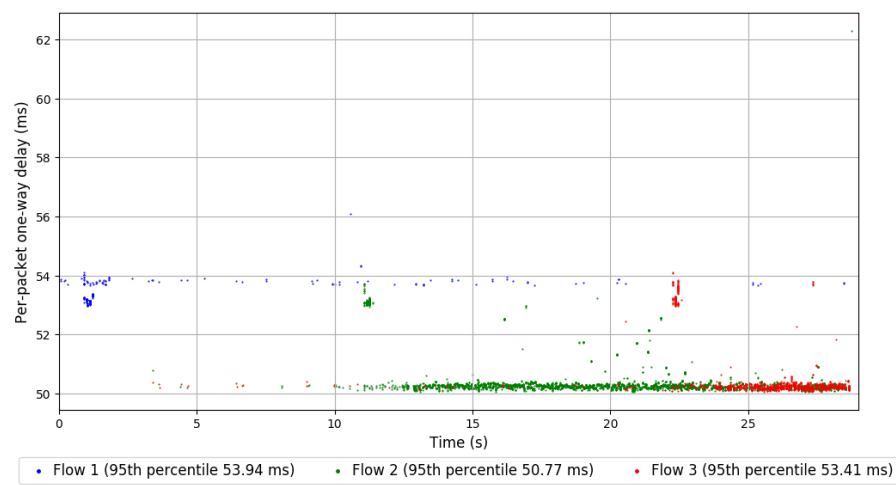
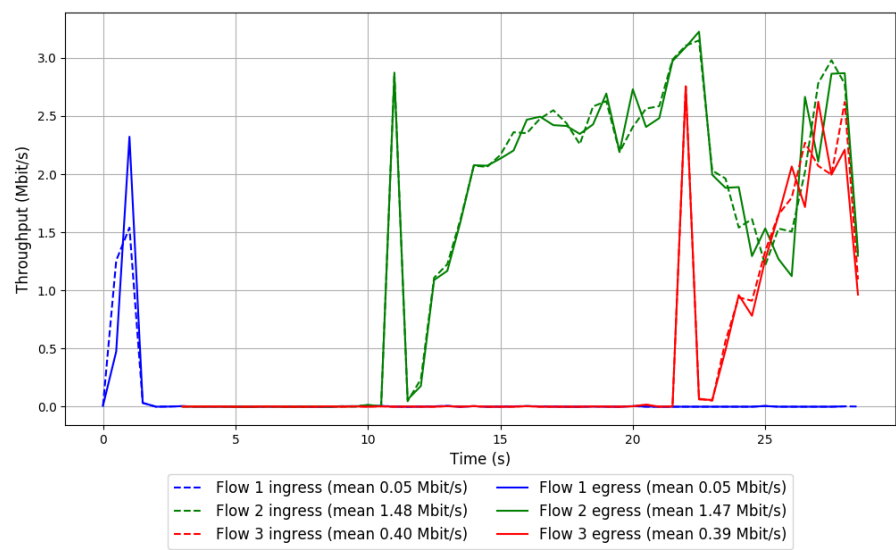


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 04:23:07
End at: 2017-09-08 04:23:37

# Below is generated by plot.py at 2017-09-08 10:16:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 53.156 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 53.941 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 50.768 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 53.414 ms
Loss rate: 2.69%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-08 04:35:34

End at: 2017-09-08 04:36:04

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 53.071 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.555 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 50.767 ms

Loss rate: 0.80%

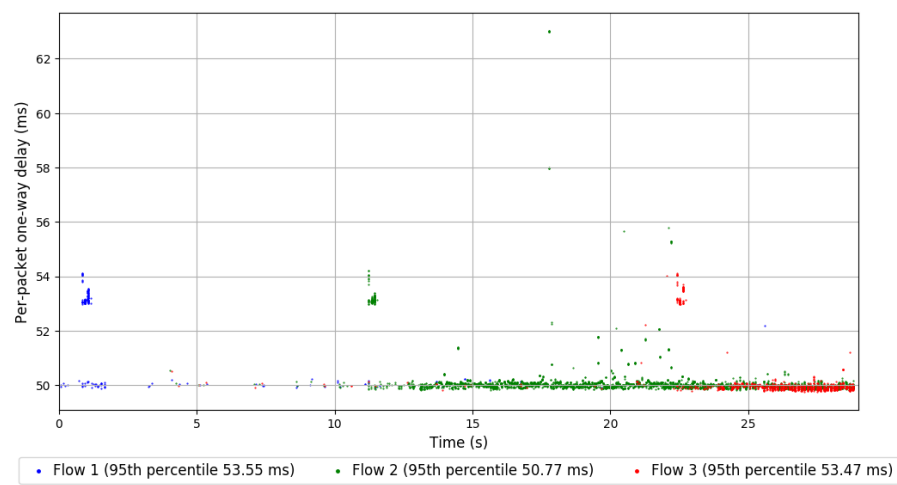
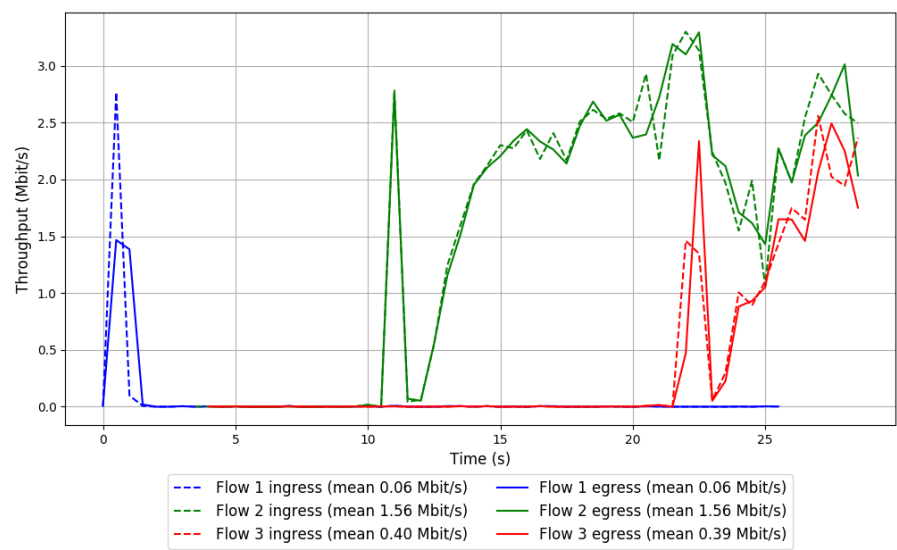
-- Flow 3:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 53.469 ms

Loss rate: 3.10%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-08 04:47:56

End at: 2017-09-08 04:48:26

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.258 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 50.973 ms

Loss rate: 0.38%

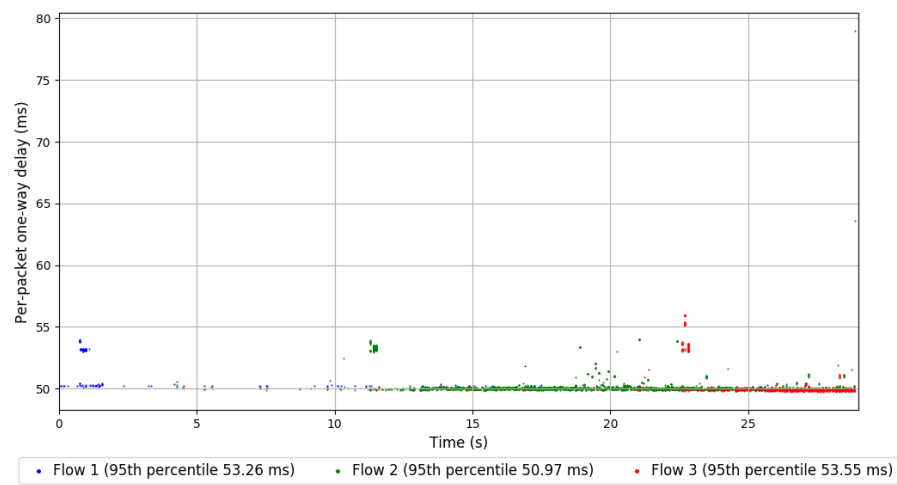
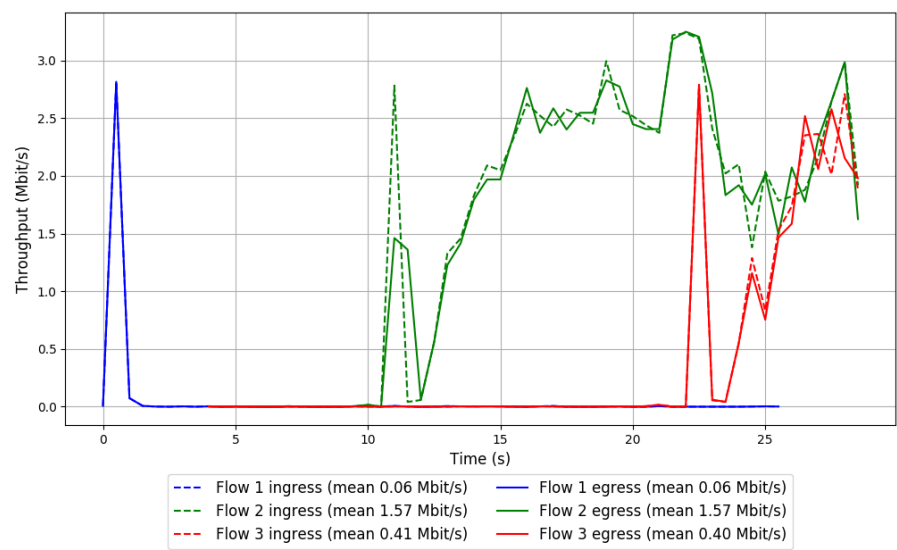
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 53.554 ms

Loss rate: 2.24%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-08 05:00:13

End at: 2017-09-08 05:00:43

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 53.646 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.880 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 53.360 ms

Loss rate: 0.64%

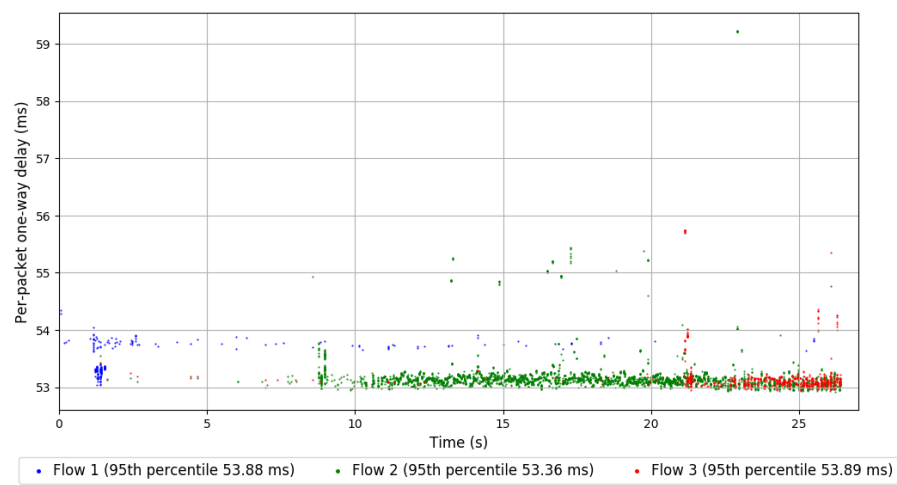
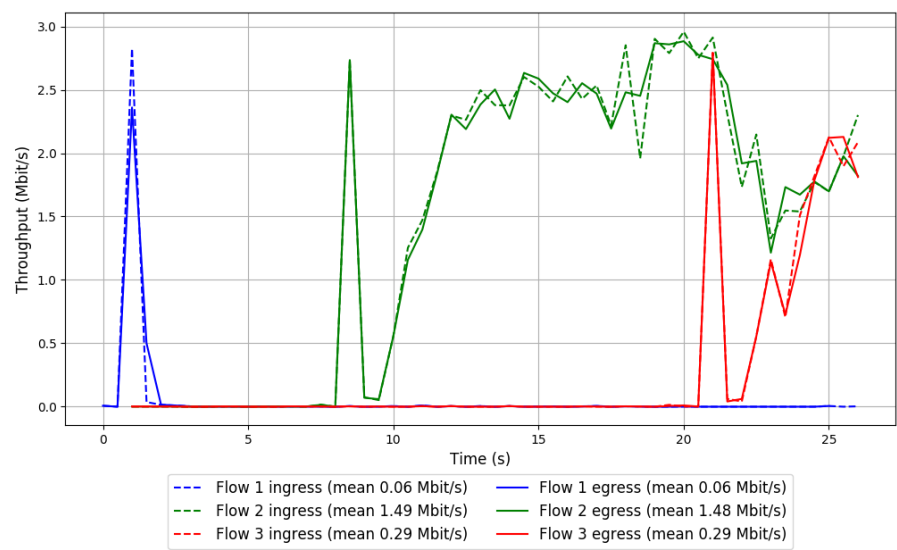
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 53.890 ms

Loss rate: 2.65%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-08 05:12:36

End at: 2017-09-08 05:13:06

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 53.168 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.547 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 51.453 ms

Loss rate: 0.81%

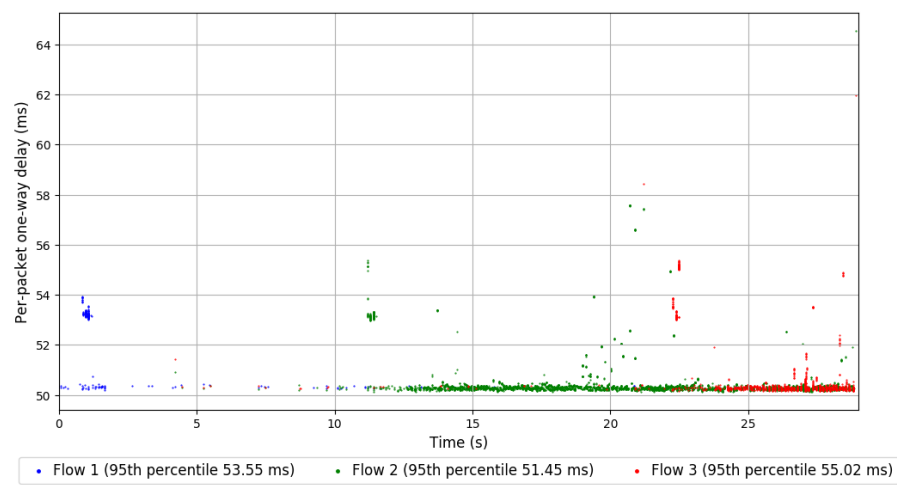
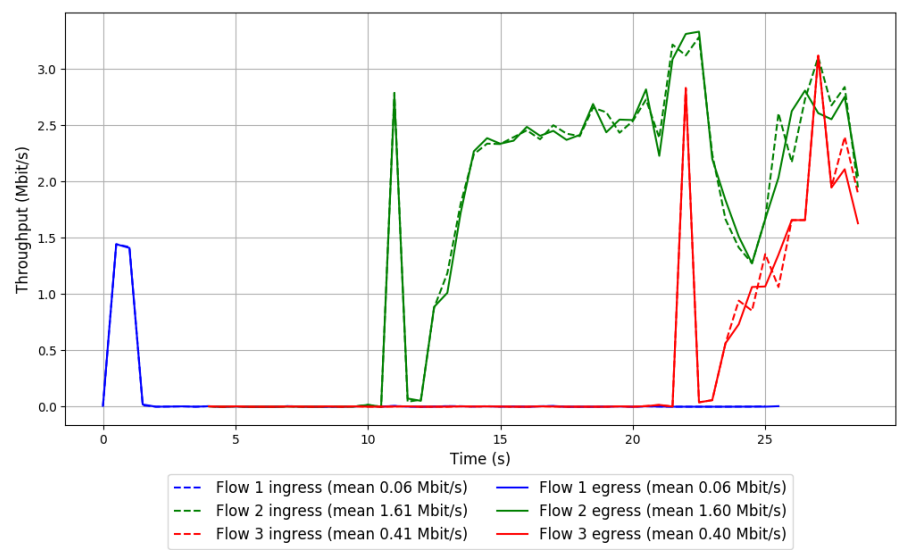
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 55.025 ms

Loss rate: 2.72%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-08 05:24:46

End at: 2017-09-08 05:25:16

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 53.359 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.644 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 51.062 ms

Loss rate: 0.53%

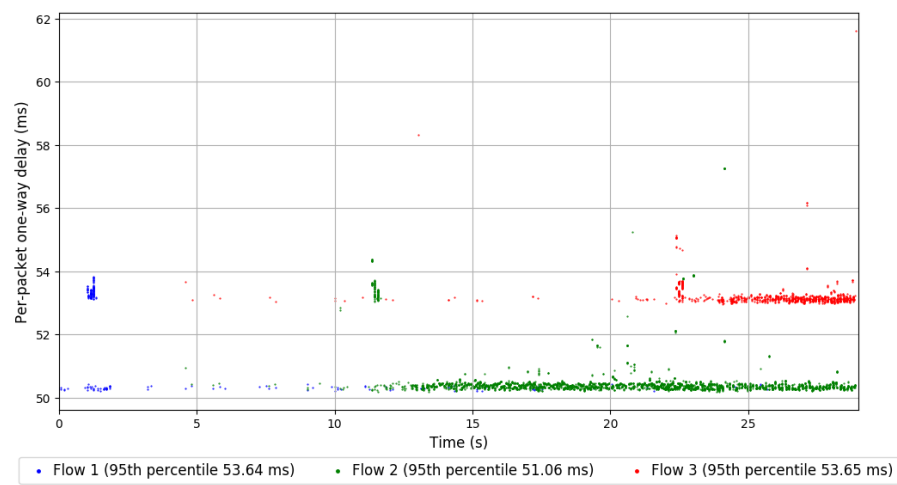
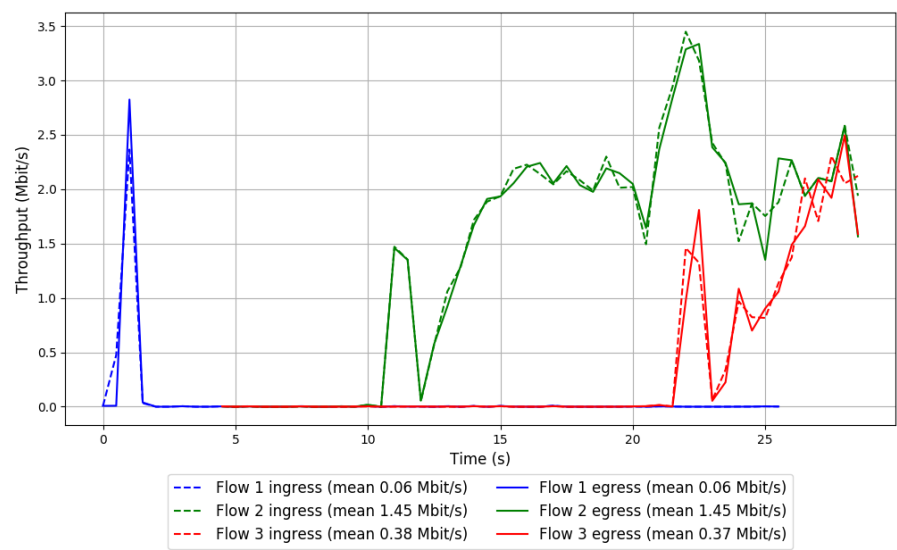
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 53.651 ms

Loss rate: 2.88%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-08 05:37:22

End at: 2017-09-08 05:37:52

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 53.144 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 53.385 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 50.882 ms

Loss rate: 0.74%

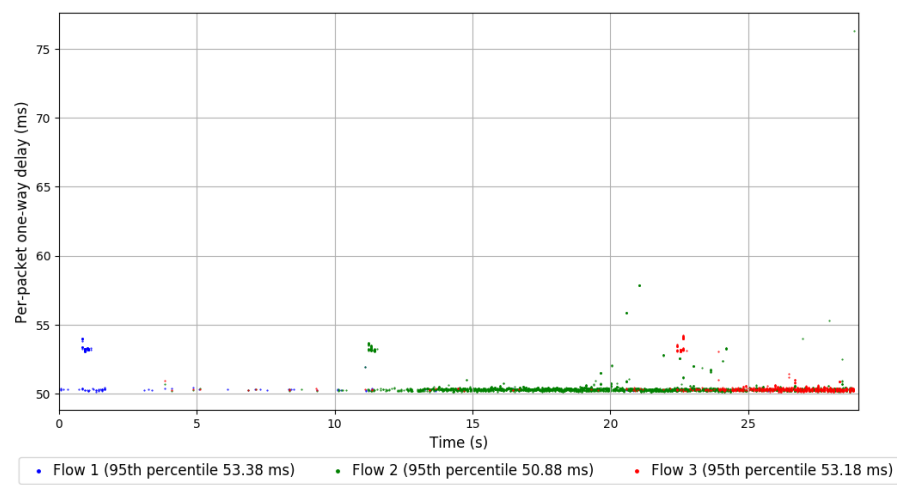
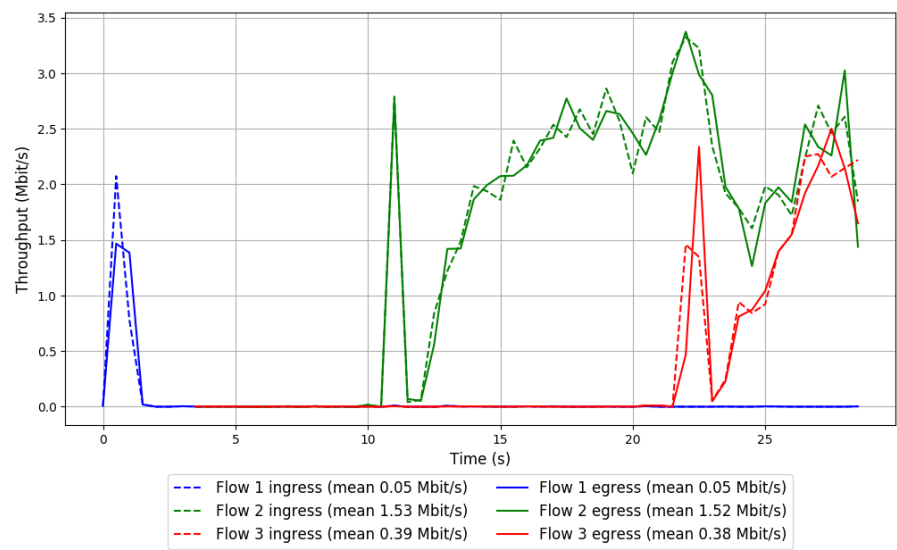
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 53.179 ms

Loss rate: 2.89%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-08 05:49:30

End at: 2017-09-08 05:50:00

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 53.649 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.806 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 53.487 ms

Loss rate: 0.85%

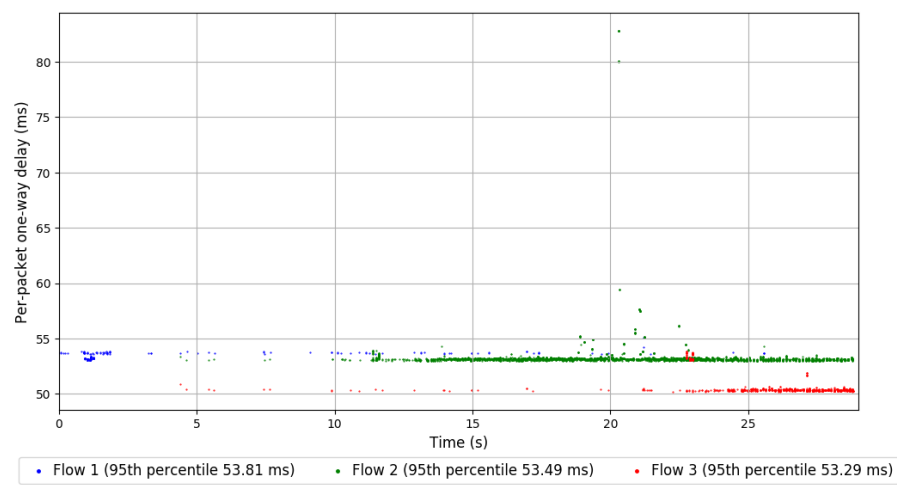
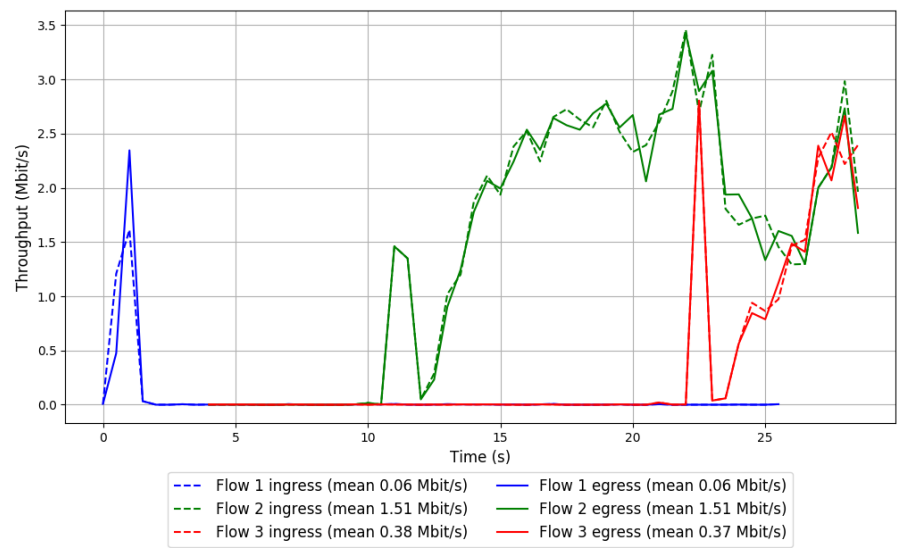
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 53.292 ms

Loss rate: 3.11%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-08 06:01:46

End at: 2017-09-08 06:02:16

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 53.250 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.311 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 51.867 ms

Loss rate: 0.73%

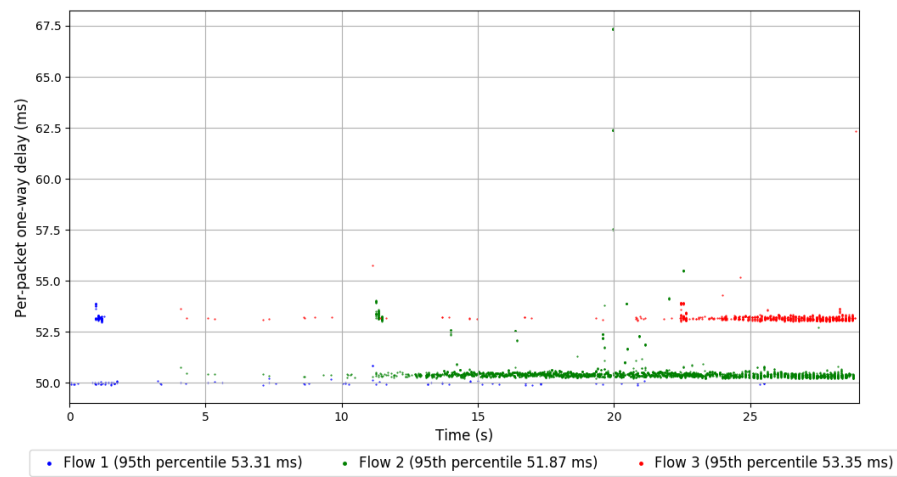
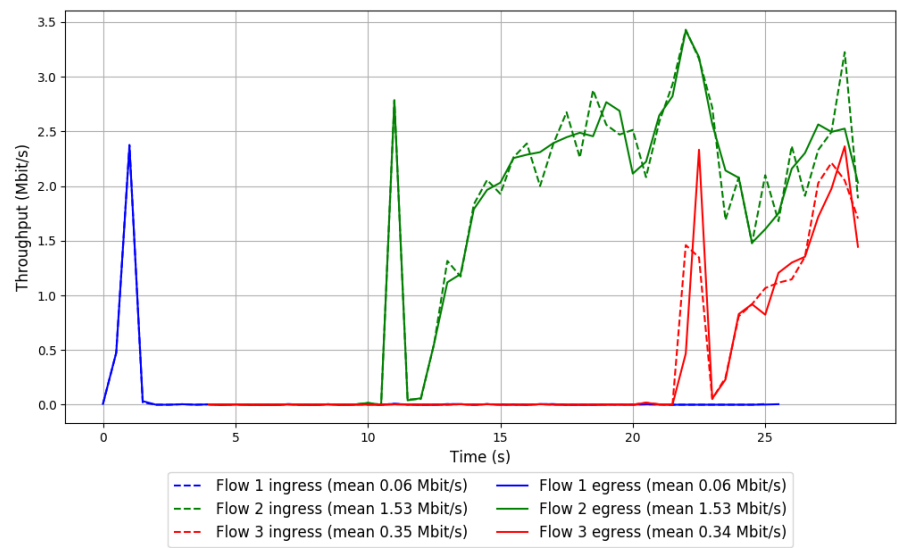
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 53.350 ms

Loss rate: 2.81%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-08 06:14:08

End at: 2017-09-08 06:14:38

Below is generated by plot.py at 2017-09-08 10:16:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 53.216 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 53.546 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 0.75%

-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 53.284 ms

Loss rate: 2.38%

Run 10: Report of WebRTC media — Data Link

