

Pantheon Report

Generated at 2017-08-21 10:55:06 (UTC).

Data path: GCE Iowa Ethernet (*local*) → GCE London Ethernet (*remote*).

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.

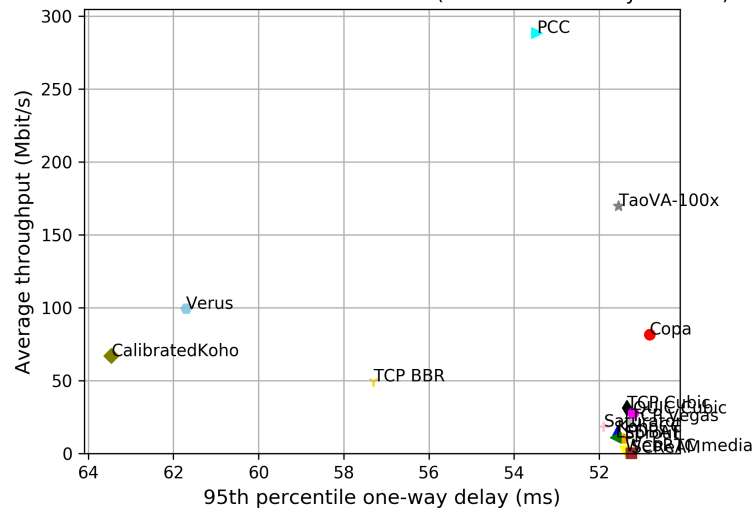
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

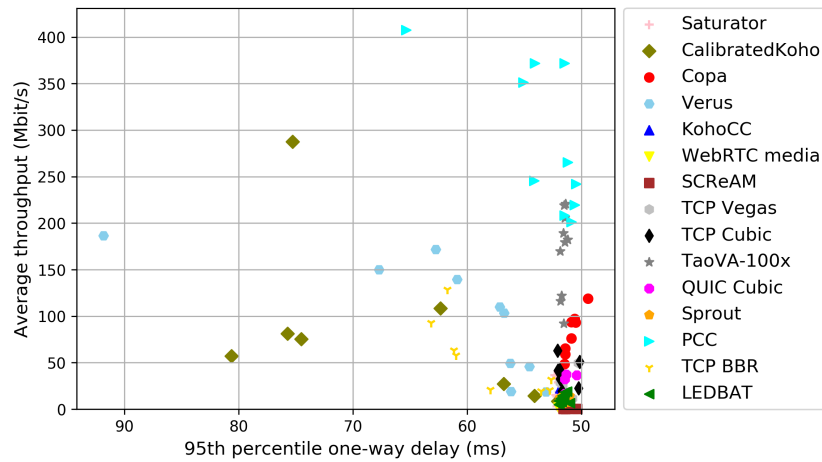
Git summary:

```
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
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-quick @ 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 Iowa Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



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



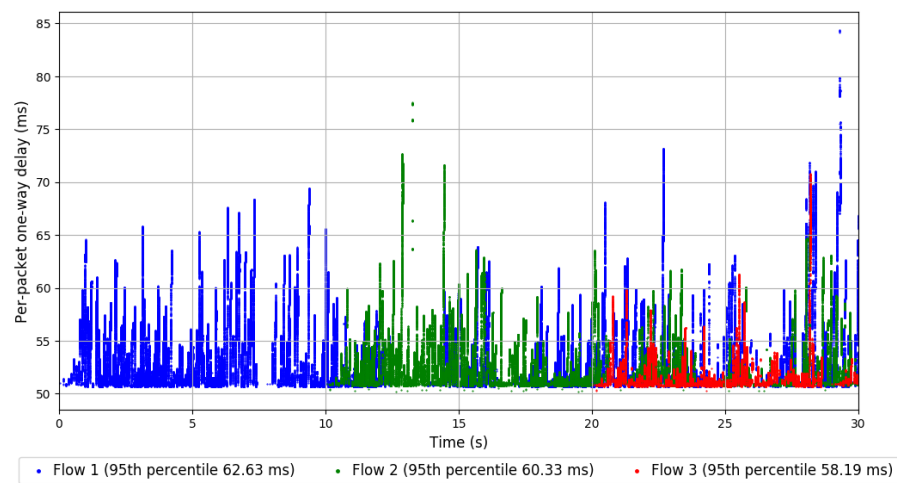
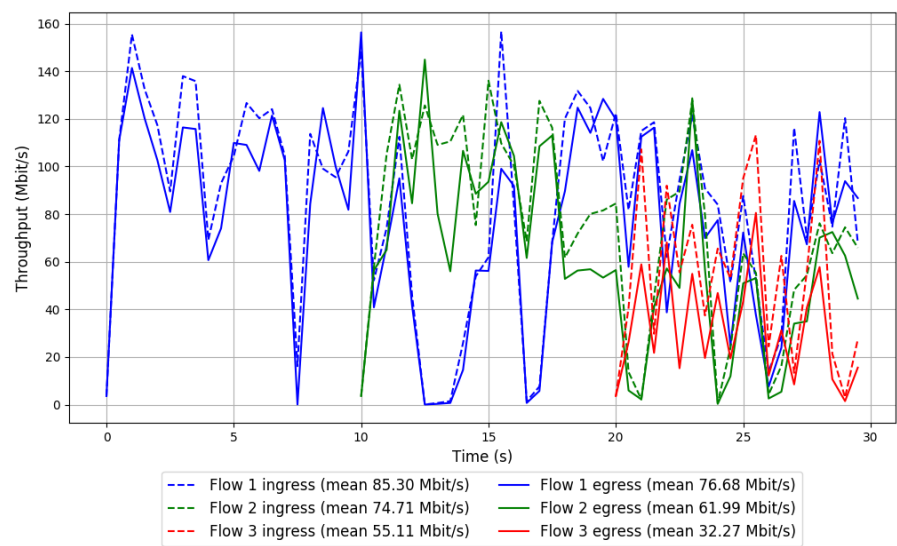
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	9	23.30	26.20	26.75	54.81	54.19	54.47	30.26	28.73	33.82
CalibratedKoho	10	27.08	19.30	81.34	54.52	53.05	61.83	62.64	69.11	40.33
Copa	8	78.73	50.49	57.61	50.70	75.73	50.73	0.87	3.32	0.01
TCP Cubic	10	11.76	21.87	15.12	51.16	51.15	51.20	1.81	1.86	4.50
KohoCC	10	6.95	6.92	10.13	51.57	51.63	51.45	38.32	38.43	9.63
LEDBAT	10	5.21	6.78	4.10	51.46	51.54	51.43	2.30	1.80	1.89
PCC	10	220.51	76.66	51.83	53.67	51.36	50.81	18.50	19.63	6.23
QUIC Cubic	5	57.94	23.79	34.11	50.83	50.83	51.34	0.00	0.00	0.00
Saturator	9	14.21	63.40	14.35	51.86	51.84	51.84	28.60	37.96	24.95
SCReAM	10	0.22	0.22	0.21	50.30	50.72	50.73	0.00	0.00	0.00
Sprout	10	4.87	5.09	5.65	51.27	51.26	51.32	13.36	12.30	9.72
TaoVA-100x	10	160.09	125.40	110.27	51.63	51.28	51.38	3.57	1.81	2.18
TCP Vegas	10	10.33	10.00	16.59	51.17	51.12	51.34	1.88	1.70	1.49
Verus	10	58.77	47.25	29.11	61.58	60.10	55.58	45.76	44.32	45.11
WebRTC media	10	0.06	1.85	0.48	51.29	51.16	51.33	0.00	0.00	0.02

```
Run 1: Statistics of TCP BBR

Start at: 2017-08-21 07:29:21
End at: 2017-08-21 07:29:51

# Below is generated by plot.py at 2017-08-21 10:38:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 128.53 Mbit/s
95th percentile per-packet one-way delay: 61.714 ms
Loss rate: 16.04%
-- Flow 1:
Average throughput: 76.68 Mbit/s
95th percentile per-packet one-way delay: 62.631 ms
Loss rate: 10.05%
-- Flow 2:
Average throughput: 61.99 Mbit/s
95th percentile per-packet one-way delay: 60.328 ms
Loss rate: 17.03%
-- Flow 3:
Average throughput: 32.27 Mbit/s
95th percentile per-packet one-way delay: 58.193 ms
Loss rate: 41.45%
```

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-21 07:40:30

End at: 2017-08-21 07:41:00

Below is generated by plot.py at 2017-08-21 10:38:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.46 Mbit/s

95th percentile per-packet one-way delay: 53.519 ms

Loss rate: 38.10%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 51.517 ms

Loss rate: 39.80%

-- Flow 2:

Average throughput: 11.86 Mbit/s

95th percentile per-packet one-way delay: 51.676 ms

Loss rate: 36.01%

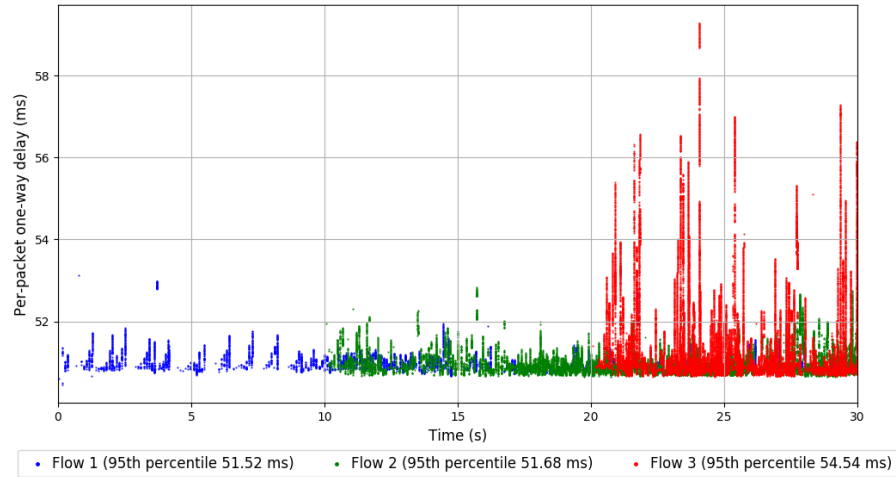
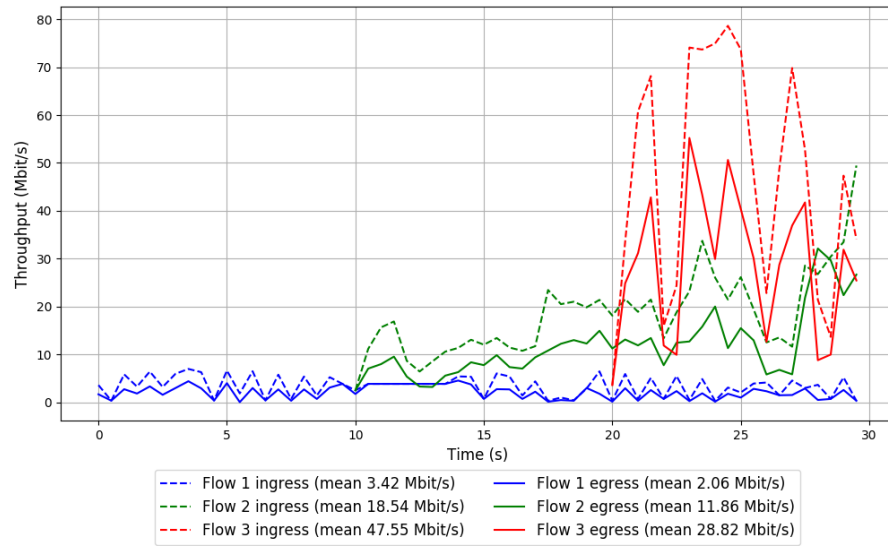
-- Flow 3:

Average throughput: 28.82 Mbit/s

95th percentile per-packet one-way delay: 54.541 ms

Loss rate: 39.37%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-21 07:51:26

End at: 2017-08-21 07:51:56

Below is generated by plot.py at 2017-08-21 10:38:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.84 Mbit/s

95th percentile per-packet one-way delay: 52.653 ms

Loss rate: 33.91%

-- Flow 1:

Average throughput: 14.35 Mbit/s

95th percentile per-packet one-way delay: 51.649 ms

Loss rate: 32.35%

-- Flow 2:

Average throughput: 25.68 Mbit/s

95th percentile per-packet one-way delay: 53.422 ms

Loss rate: 34.71%

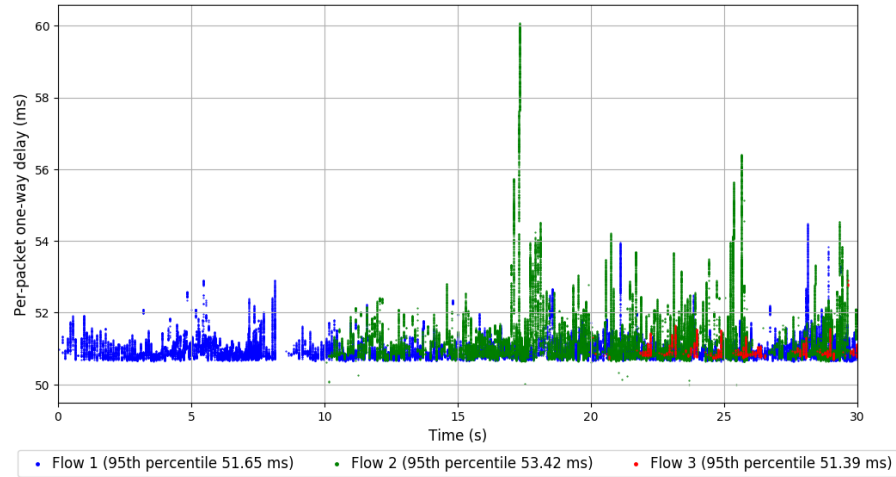
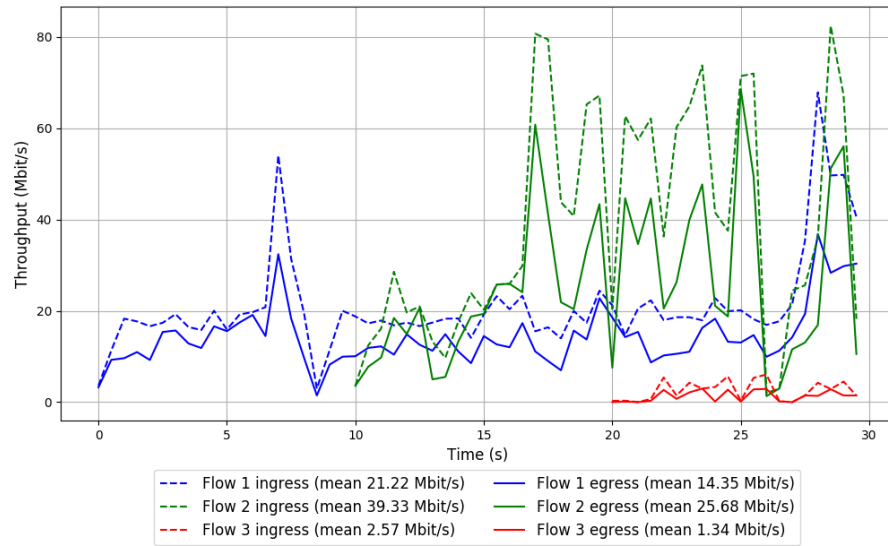
-- Flow 3:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 51.388 ms

Loss rate: 47.99%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-21 08:02:17

End at: 2017-08-21 08:02:47

Below is generated by plot.py at 2017-08-21 10:38:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.89 Mbit/s

95th percentile per-packet one-way delay: 60.977 ms

Loss rate: 18.44%

-- Flow 1:

Average throughput: 19.38 Mbit/s

95th percentile per-packet one-way delay: 55.531 ms

Loss rate: 36.53%

-- Flow 2:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 51.483 ms

Loss rate: 35.18%

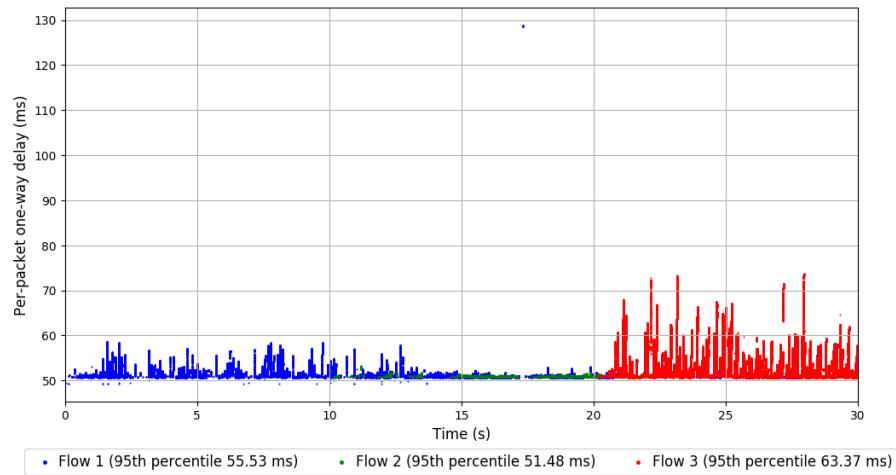
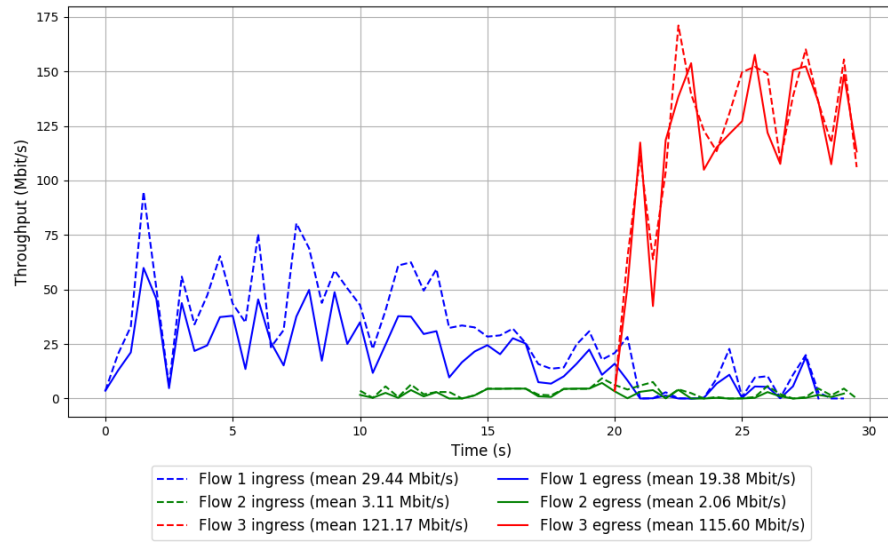
-- Flow 3:

Average throughput: 115.60 Mbit/s

95th percentile per-packet one-way delay: 63.370 ms

Loss rate: 4.55%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-21 08:13:09

End at: 2017-08-21 08:13:39

Below is generated by plot.py at 2017-08-21 10:38:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.03 Mbit/s

95th percentile per-packet one-way delay: 57.959 ms

Loss rate: 22.97%

-- Flow 1:

Average throughput: 2.67 Mbit/s

95th percentile per-packet one-way delay: 51.363 ms

Loss rate: 30.97%

-- Flow 2:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 51.302 ms

Loss rate: 21.74%

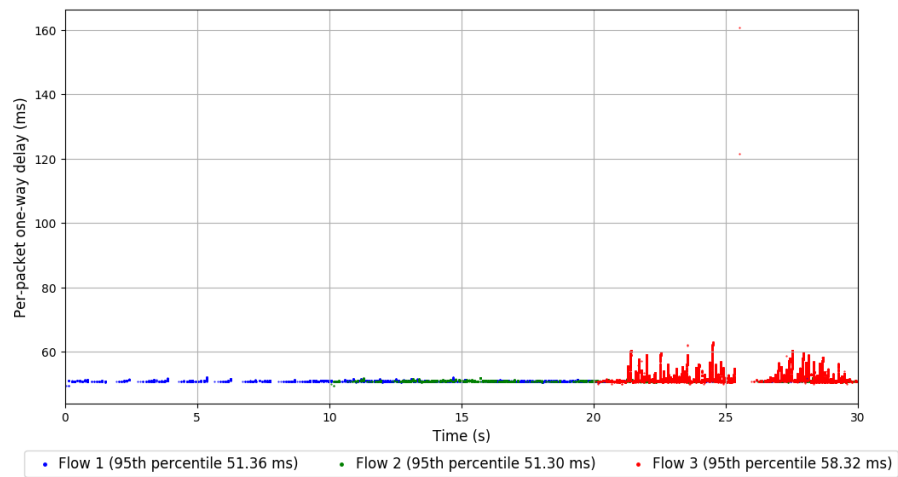
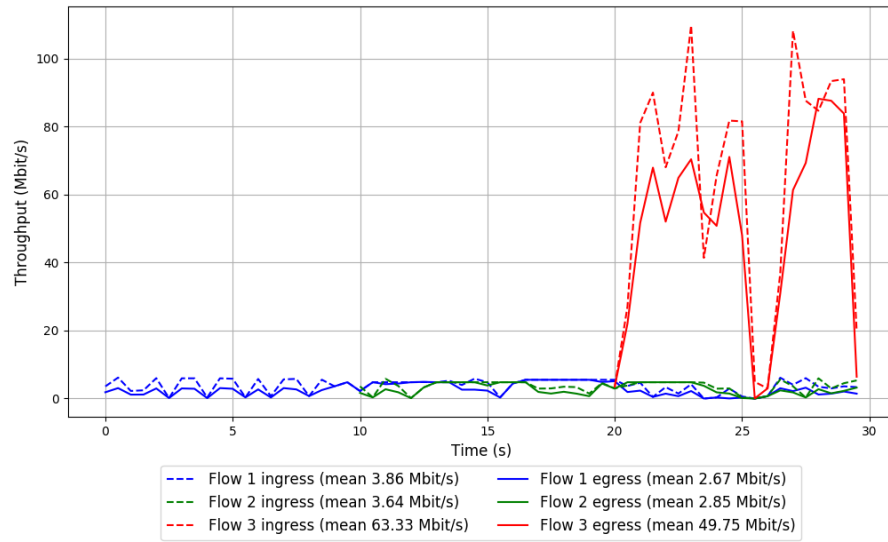
-- Flow 3:

Average throughput: 49.75 Mbit/s

95th percentile per-packet one-way delay: 58.318 ms

Loss rate: 21.65%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-21 08:23:53

End at: 2017-08-21 08:24:23

Below is generated by plot.py at 2017-08-21 10:38:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.03 Mbit/s

95th percentile per-packet one-way delay: 63.160 ms

Loss rate: 12.69%

-- Flow 1:

Average throughput: 83.86 Mbit/s

95th percentile per-packet one-way delay: 63.653 ms

Loss rate: 9.39%

-- Flow 2:

Average throughput: 12.88 Mbit/s

95th percentile per-packet one-way delay: 54.307 ms

Loss rate: 33.03%

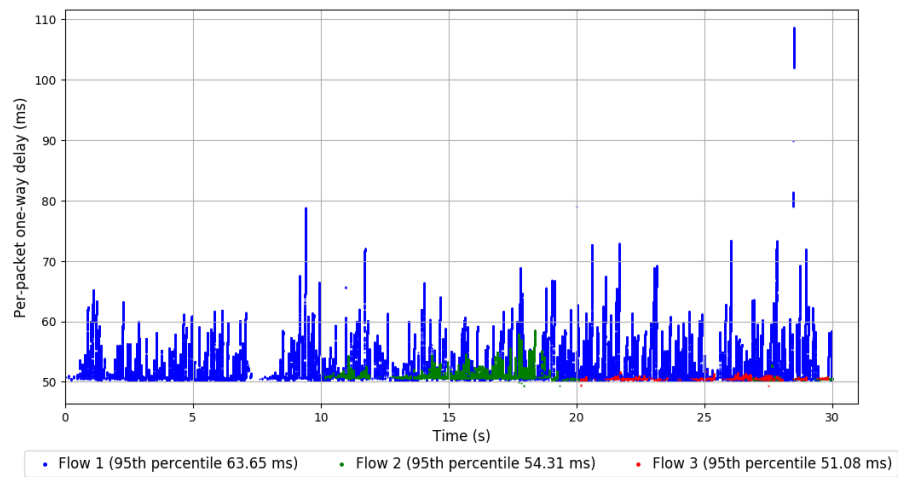
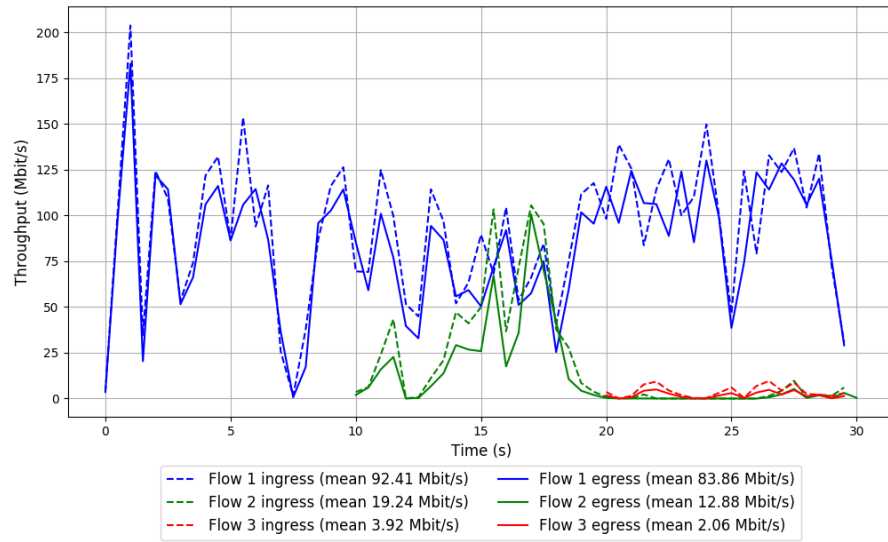
-- Flow 3:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 51.079 ms

Loss rate: 48.02%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-21 08:34:50

End at: 2017-08-21 08:35:20

Below is generated by plot.py at 2017-08-21 10:38:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.70 Mbit/s

95th percentile per-packet one-way delay: 52.784 ms

Loss rate: 42.55%

-- Flow 1:

Average throughput: 3.28 Mbit/s

95th percentile per-packet one-way delay: 52.122 ms

Loss rate: 36.61%

-- Flow 2:

Average throughput: 24.21 Mbit/s

95th percentile per-packet one-way delay: 52.981 ms

Loss rate: 44.55%

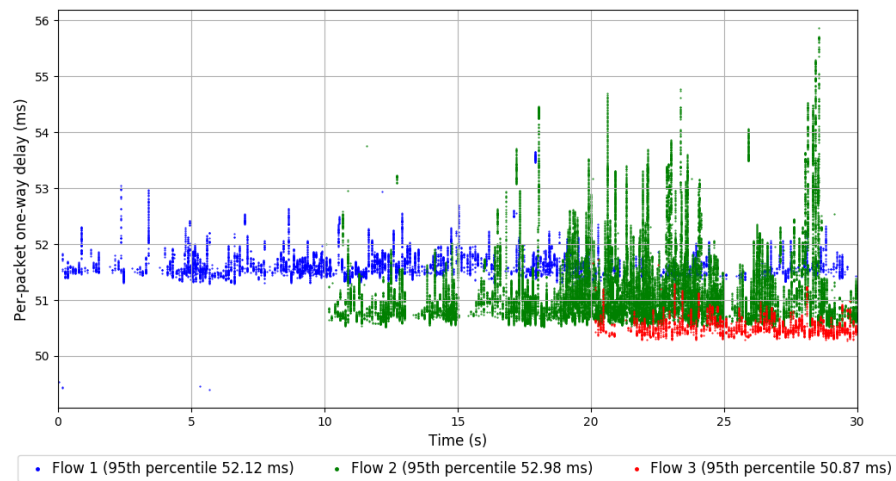
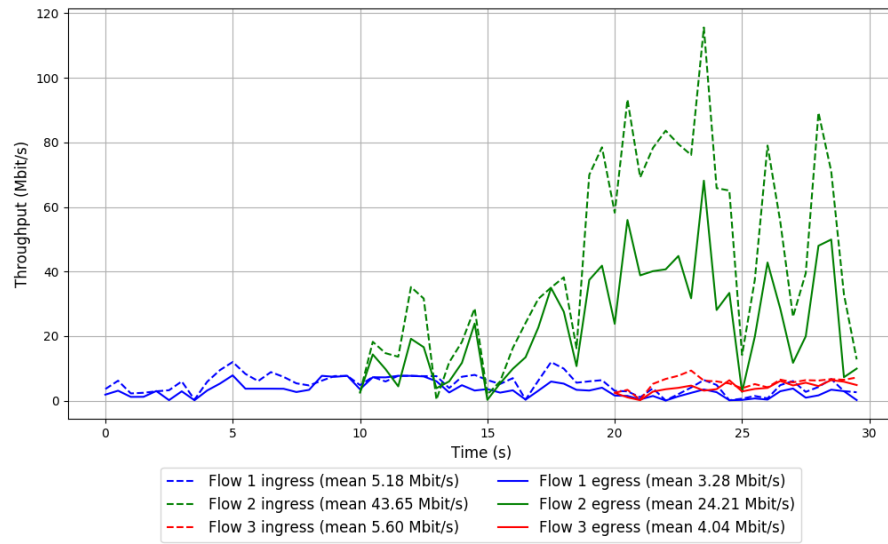
-- Flow 3:

Average throughput: 4.04 Mbit/s

95th percentile per-packet one-way delay: 50.869 ms

Loss rate: 27.83%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-21 08:45:46

End at: 2017-08-21 08:46:16

Below is generated by plot.py at 2017-08-21 10:38:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.88 Mbit/s

95th percentile per-packet one-way delay: 51.831 ms

Loss rate: 32.26%

-- Flow 1:

Average throughput: 5.84 Mbit/s

95th percentile per-packet one-way delay: 51.860 ms

Loss rate: 32.70%

-- Flow 2:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 50.939 ms

Loss rate: 28.55%

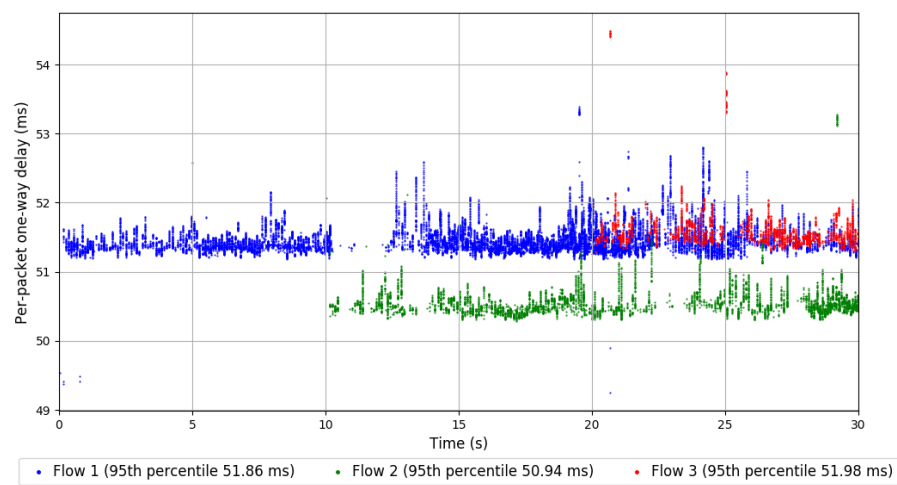
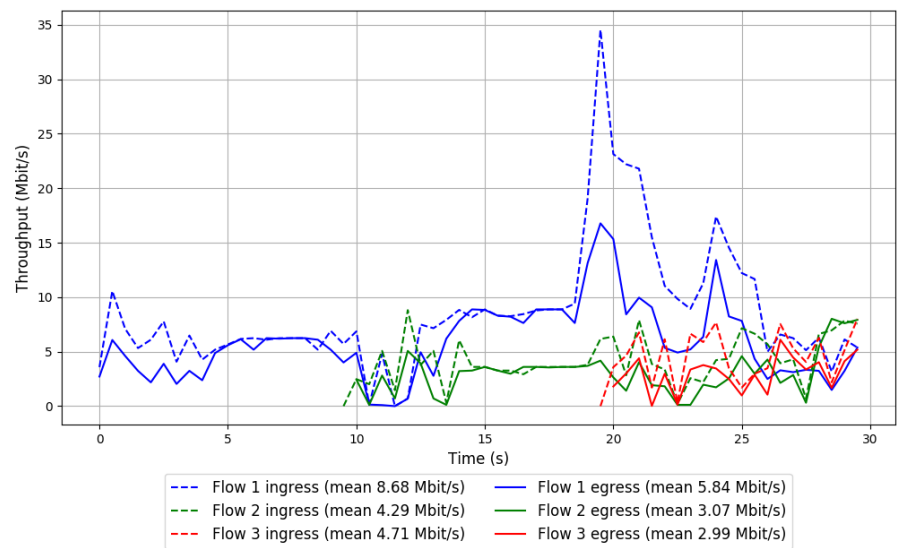
-- Flow 3:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 51.979 ms

Loss rate: 36.60%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-21 08:56:42

End at: 2017-08-21 08:57:12

Below is generated by plot.py at 2017-08-21 10:38:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.52 Mbit/s

95th percentile per-packet one-way delay: 61.157 ms

Loss rate: 10.03%

-- Flow 1:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 52.987 ms

Loss rate: 43.98%

-- Flow 2:

Average throughput: 91.20 Mbit/s

95th percentile per-packet one-way delay: 61.287 ms

Loss rate: 7.78%

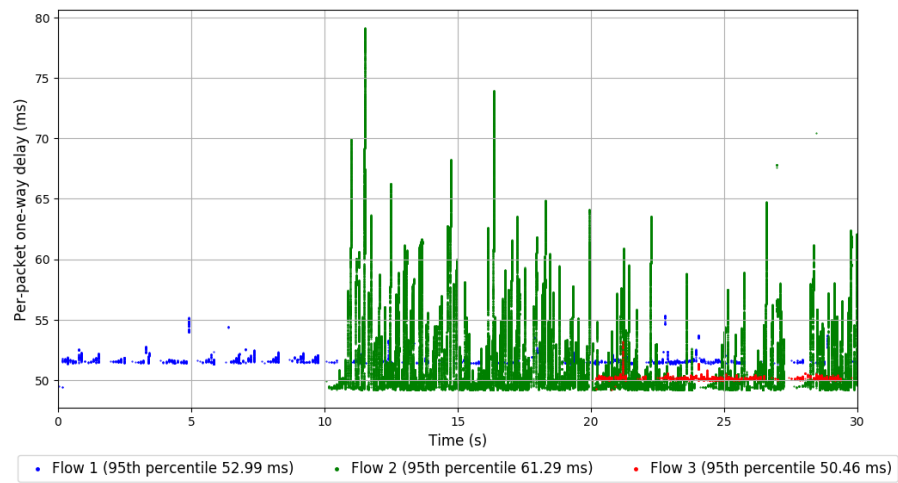
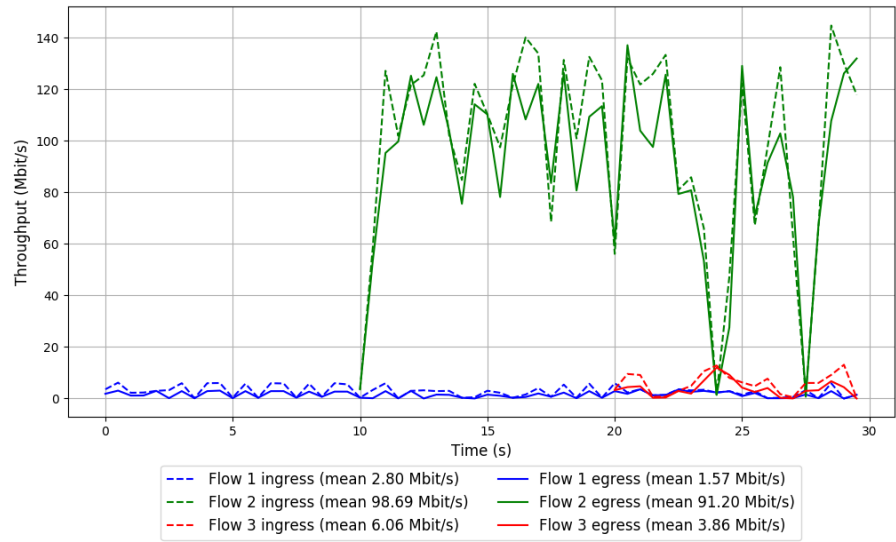
-- Flow 3:

Average throughput: 3.86 Mbit/s

95th percentile per-packet one-way delay: 50.458 ms

Loss rate: 36.95%

Run 9: Report of TCP BBR — Data Link

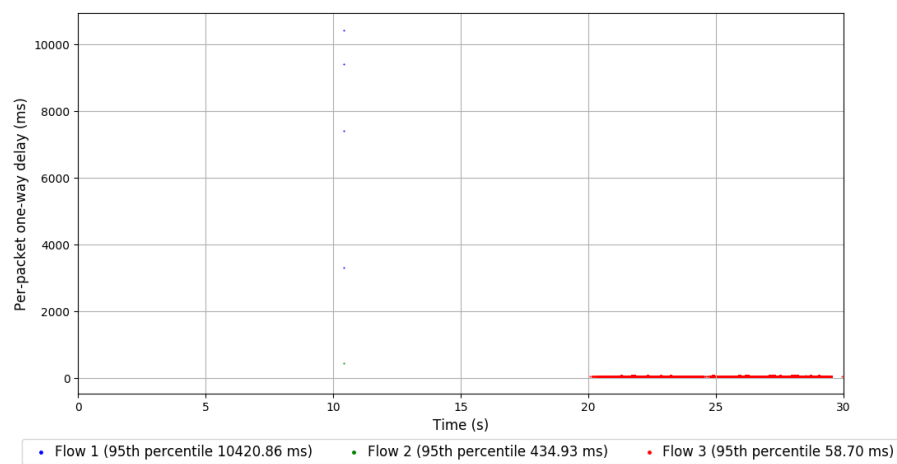
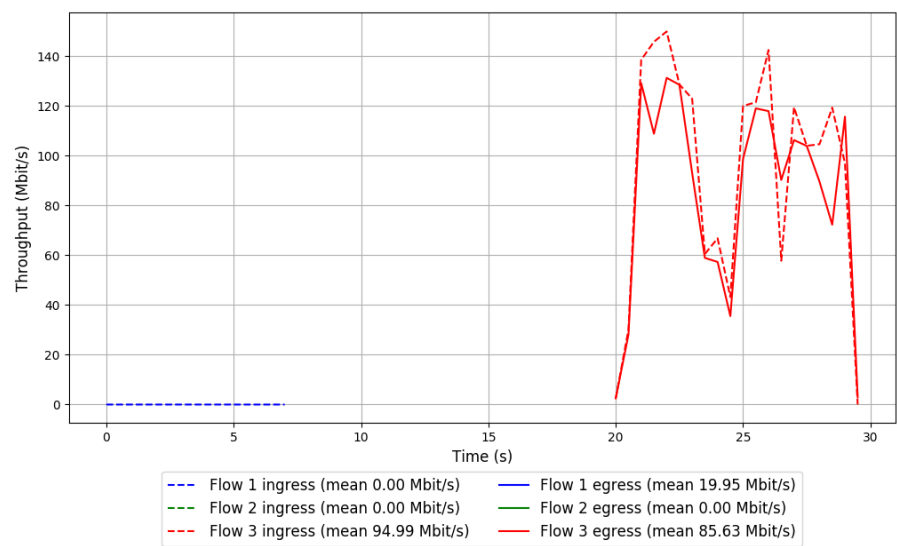


Run 10: Statistics of TCP BBR

Start at: 2017-08-21 09:08:00

End at: 2017-08-21 09:08:30

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-21 07:26:19

End at: 2017-08-21 07:26:49

Below is generated by plot.py at 2017-08-21 10:38:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.37 Mbit/s

95th percentile per-packet one-way delay: 74.523 ms

Loss rate: 21.13%

-- Flow 1:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 51.661 ms

Loss rate: 70.00%

-- Flow 2:

Average throughput: 6.52 Mbit/s

95th percentile per-packet one-way delay: 53.475 ms

Loss rate: 69.85%

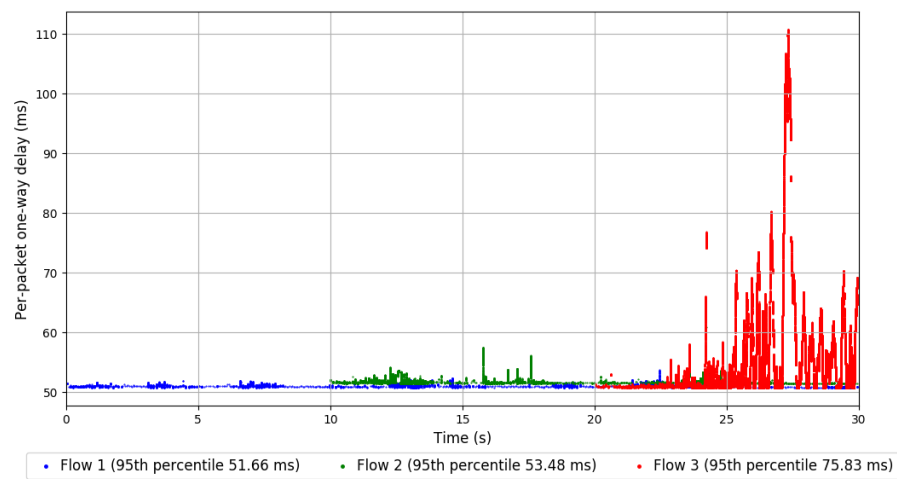
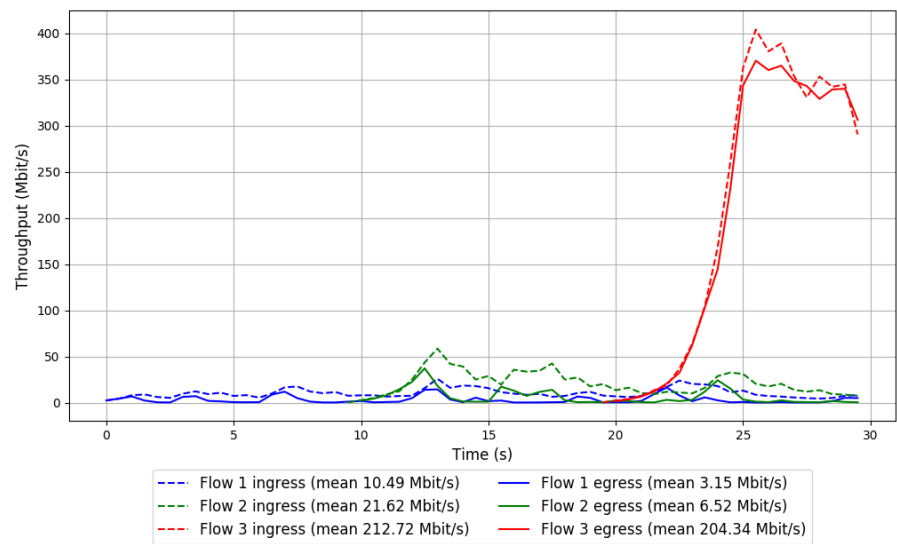
-- Flow 3:

Average throughput: 204.34 Mbit/s

95th percentile per-packet one-way delay: 75.830 ms

Loss rate: 3.96%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-21 07:37:24

End at: 2017-08-21 07:37:54

Below is generated by plot.py at 2017-08-21 10:38:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.18 Mbit/s

95th percentile per-packet one-way delay: 56.777 ms

Loss rate: 47.63%

-- Flow 1:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 51.856 ms

Loss rate: 69.97%

-- Flow 2:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 51.682 ms

Loss rate: 69.09%

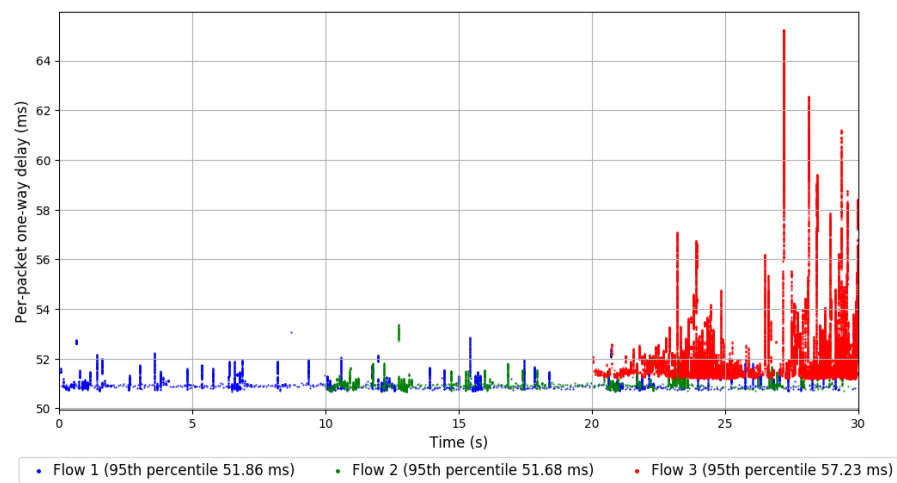
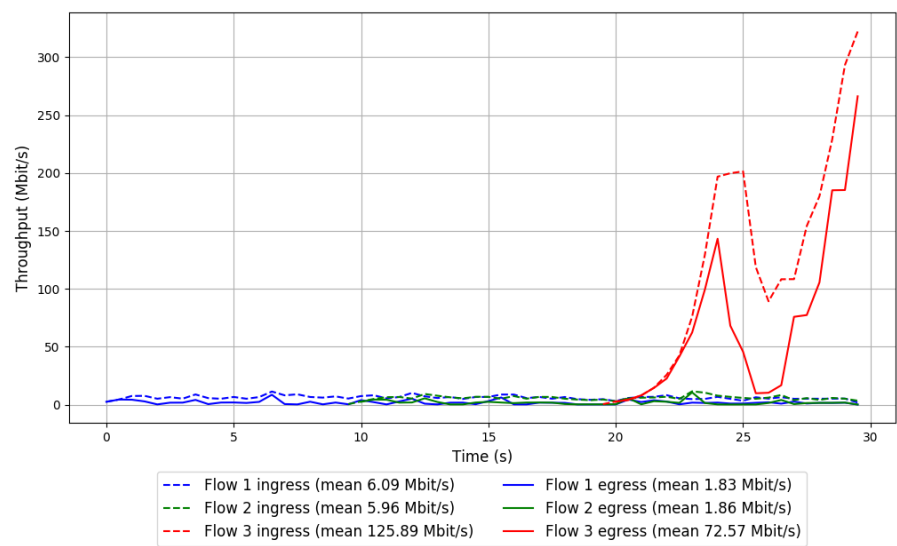
-- Flow 3:

Average throughput: 72.57 Mbit/s

95th percentile per-packet one-way delay: 57.235 ms

Loss rate: 42.34%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-21 07:48:16

End at: 2017-08-21 07:48:46

Below is generated by plot.py at 2017-08-21 10:38:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.56 Mbit/s

95th percentile per-packet one-way delay: 52.035 ms

Loss rate: 67.43%

-- Flow 1:

Average throughput: 1.84 Mbit/s

95th percentile per-packet one-way delay: 51.705 ms

Loss rate: 70.10%

-- Flow 2:

Average throughput: 9.01 Mbit/s

95th percentile per-packet one-way delay: 52.115 ms

Loss rate: 66.70%

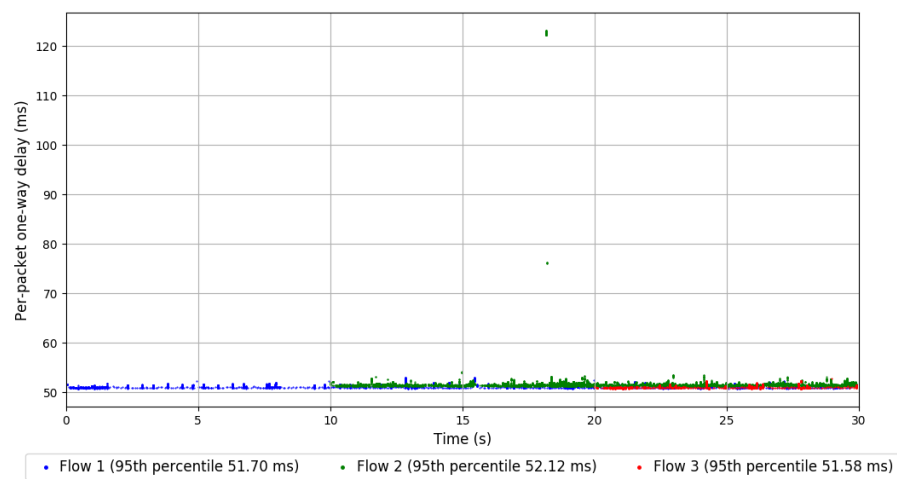
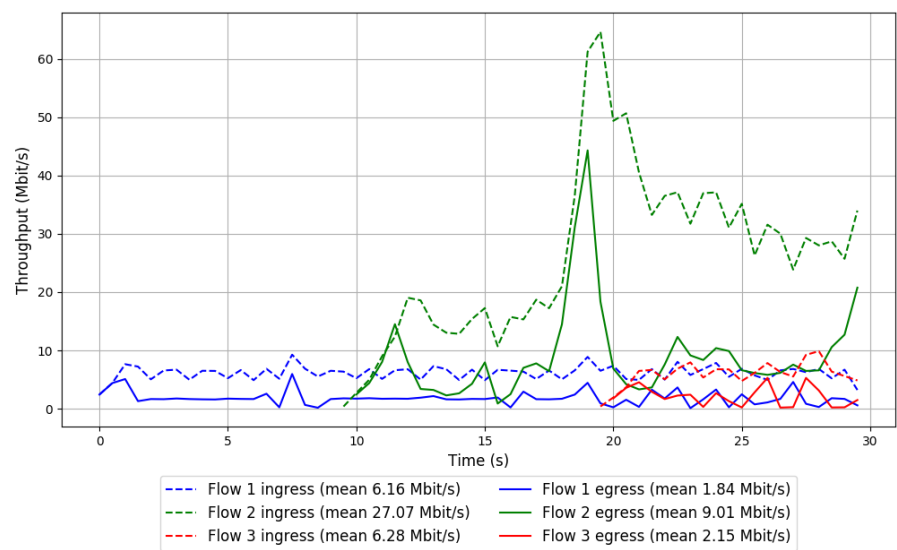
-- Flow 3:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 51.581 ms

Loss rate: 65.81%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-21 07:59:18

End at: 2017-08-21 07:59:48

Below is generated by plot.py at 2017-08-21 10:38:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 57.26 Mbit/s

95th percentile per-packet one-way delay: 80.618 ms

Loss rate: 34.68%

-- Flow 1:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 52.400 ms

Loss rate: 70.84%

-- Flow 2:

Average throughput: 3.85 Mbit/s

95th percentile per-packet one-way delay: 52.088 ms

Loss rate: 70.25%

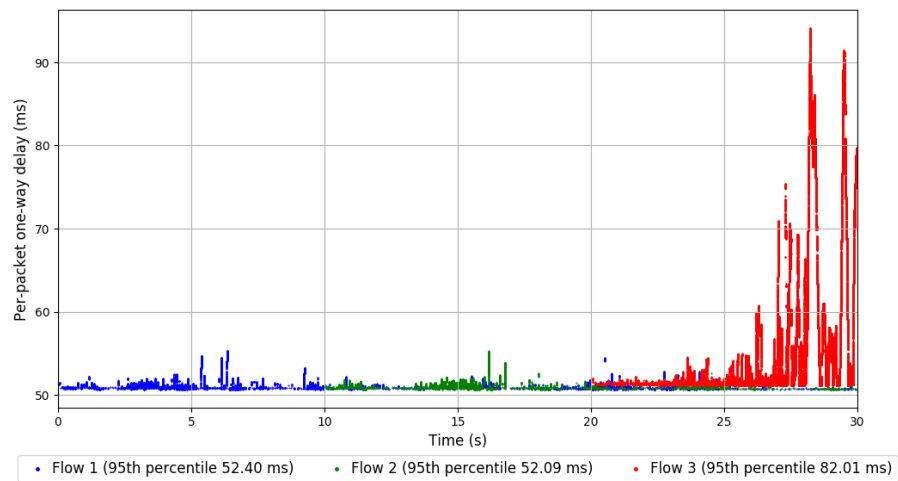
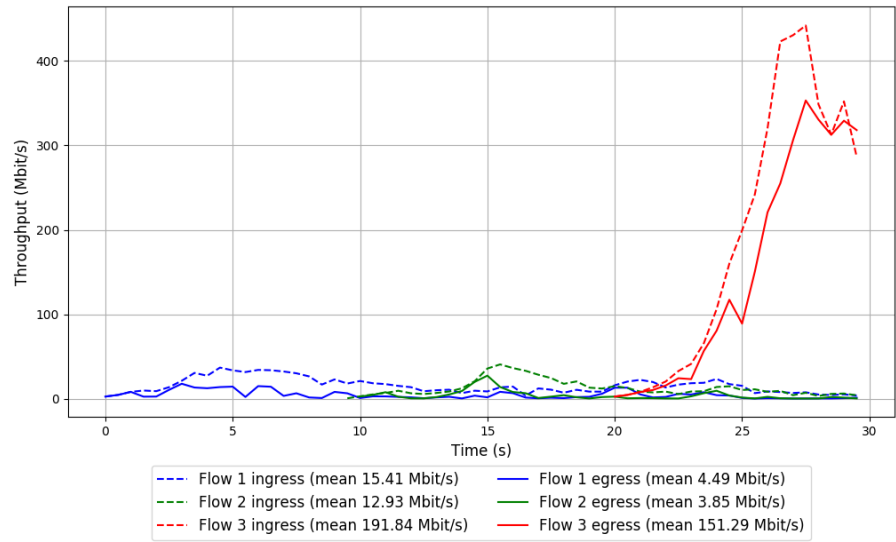
-- Flow 3:

Average throughput: 151.29 Mbit/s

95th percentile per-packet one-way delay: 82.006 ms

Loss rate: 21.12%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-21 08:10:05

End at: 2017-08-21 08:10:35

Below is generated by plot.py at 2017-08-21 10:39:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.38 Mbit/s

95th percentile per-packet one-way delay: 75.715 ms

Loss rate: 11.96%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 51.838 ms

Loss rate: 70.86%

-- Flow 2:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 53.216 ms

Loss rate: 69.91%

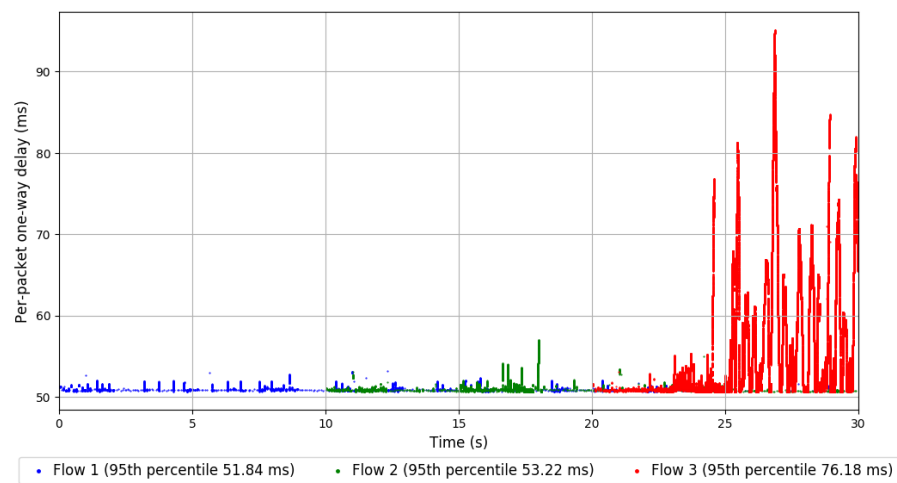
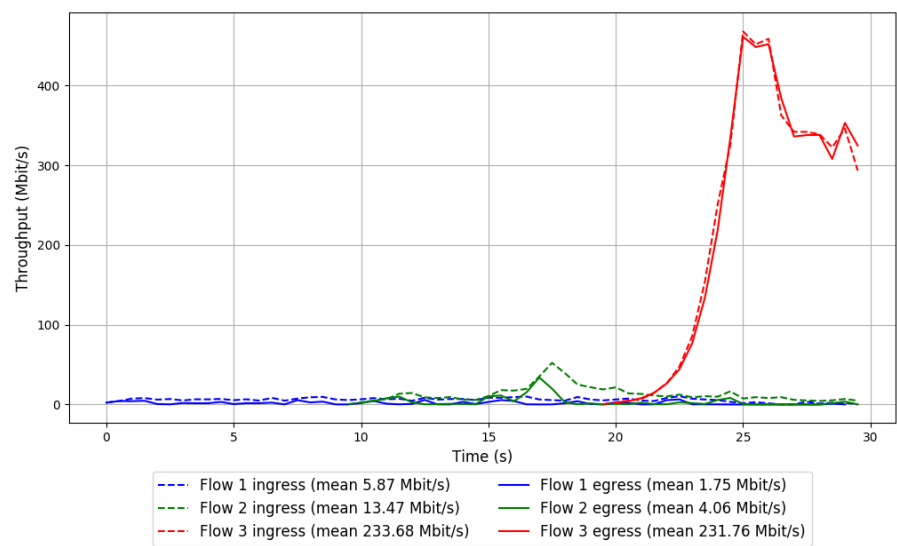
-- Flow 3:

Average throughput: 231.76 Mbit/s

95th percentile per-packet one-way delay: 76.179 ms

Loss rate: 0.83%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-21 08:20:47

End at: 2017-08-21 08:21:17

Below is generated by plot.py at 2017-08-21 10:39:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.25 Mbit/s

95th percentile per-packet one-way delay: 51.503 ms

Loss rate: 67.83%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 51.482 ms

Loss rate: 69.50%

-- Flow 2:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 51.507 ms

Loss rate: 68.99%

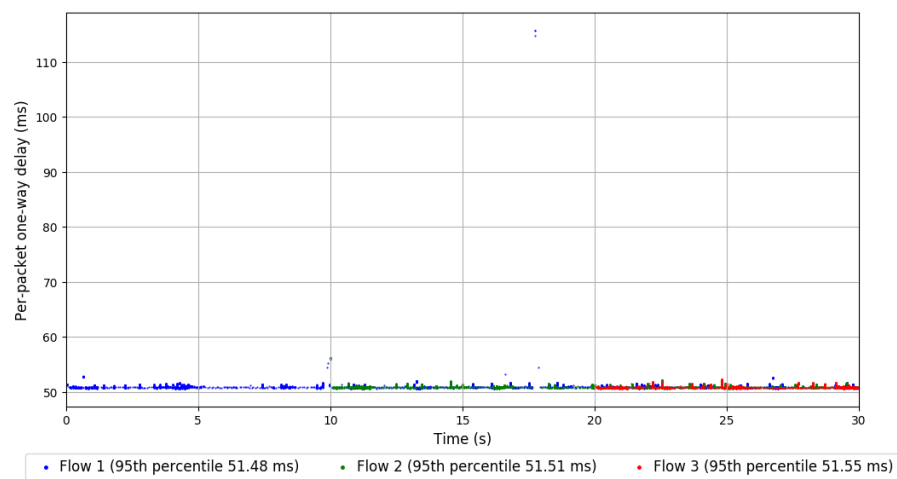
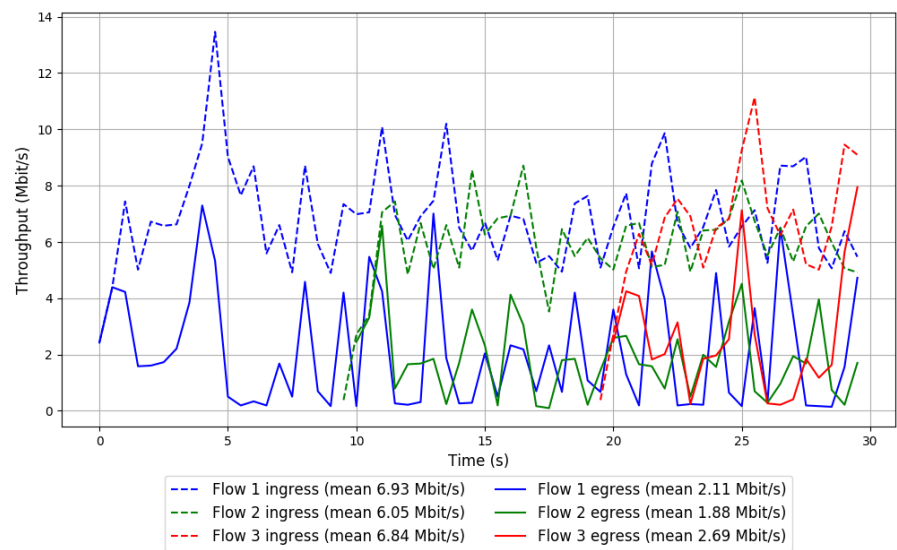
-- Flow 3:

Average throughput: 2.69 Mbit/s

95th percentile per-packet one-way delay: 51.553 ms

Loss rate: 60.66%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-21 08:31:38

End at: 2017-08-21 08:32:08

Below is generated by plot.py at 2017-08-21 10:39:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.25 Mbit/s

95th percentile per-packet one-way delay: 54.113 ms

Loss rate: 66.05%

-- Flow 1:

Average throughput: 11.89 Mbit/s

95th percentile per-packet one-way delay: 54.199 ms

Loss rate: 65.65%

-- Flow 2:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 51.234 ms

Loss rate: 68.71%

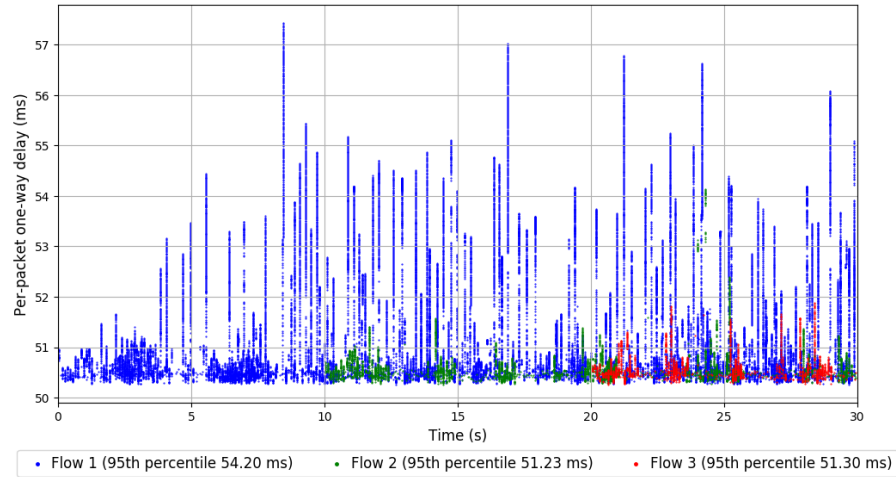
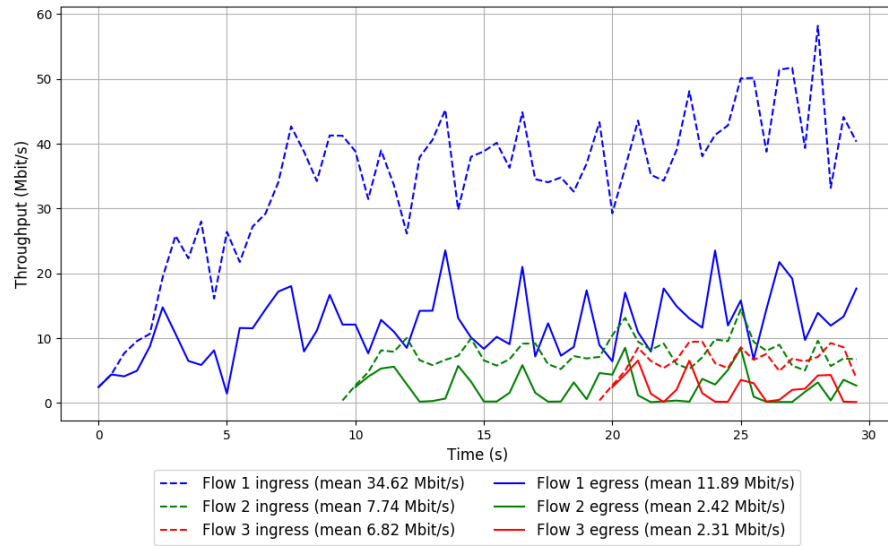
-- Flow 3:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 51.295 ms

Loss rate: 66.16%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-21 08:42:39

End at: 2017-08-21 08:43:09

Below is generated by plot.py at 2017-08-21 10:39:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 51.706 ms

Loss rate: 69.33%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 51.479 ms

Loss rate: 69.61%

-- Flow 2:

Average throughput: 2.98 Mbit/s

95th percentile per-packet one-way delay: 51.948 ms

Loss rate: 69.89%

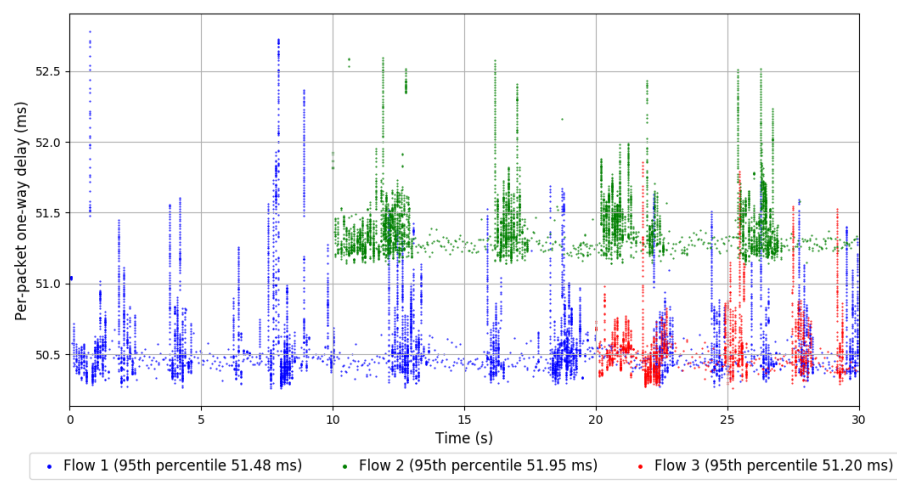
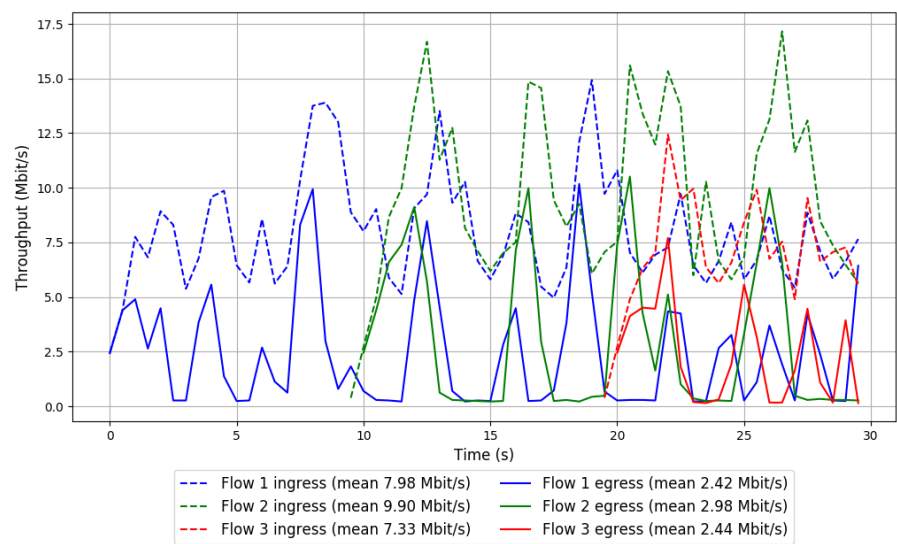
-- Flow 3:

Average throughput: 2.44 Mbit/s

95th percentile per-packet one-way delay: 51.203 ms

Loss rate: 66.86%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-21 08:53:29

End at: 2017-08-21 08:53:59

Below is generated by plot.py at 2017-08-21 10:39:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.45 Mbit/s

95th percentile per-packet one-way delay: 62.338 ms

Loss rate: 50.01%

-- Flow 1:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 52.601 ms

Loss rate: 67.80%

-- Flow 2:

Average throughput: 160.37 Mbit/s

95th percentile per-packet one-way delay: 62.358 ms

Loss rate: 49.60%

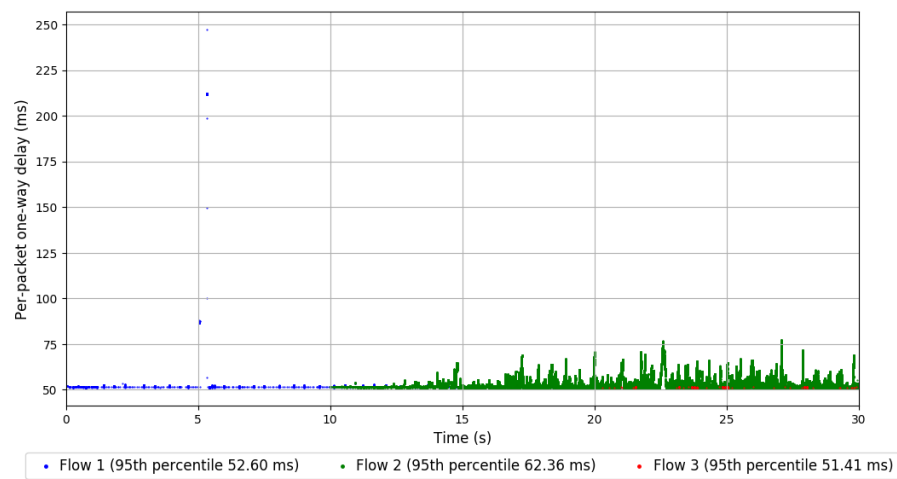
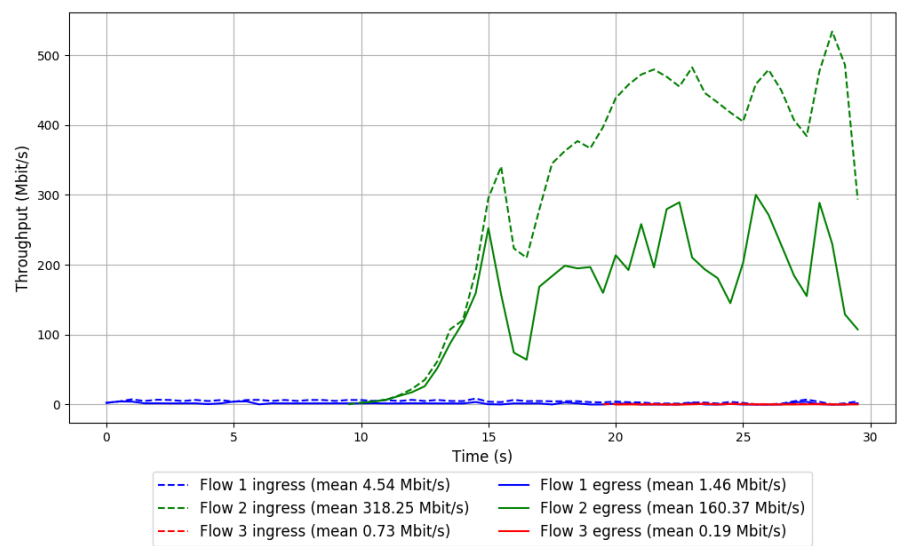
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 51.408 ms

Loss rate: 74.21%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-21 09:04:30

End at: 2017-08-21 09:05:00

Below is generated by plot.py at 2017-08-21 10:39:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 287.51 Mbit/s

95th percentile per-packet one-way delay: 75.257 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 239.86 Mbit/s

95th percentile per-packet one-way delay: 76.017 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 50.831 ms

Loss rate: 88.12%

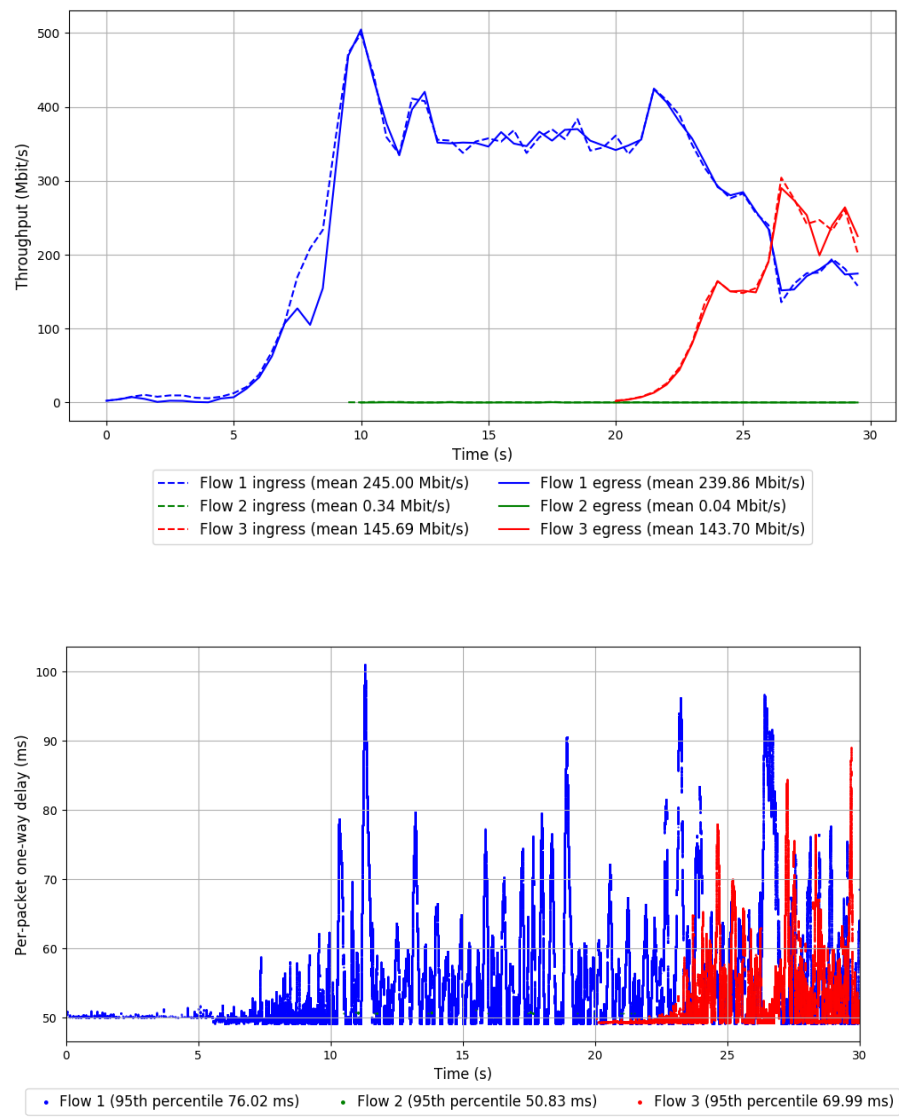
-- Flow 3:

Average throughput: 143.70 Mbit/s

95th percentile per-packet one-way delay: 69.987 ms

Loss rate: 1.37%

Run 10: Report of CalibratedKoho — Data Link

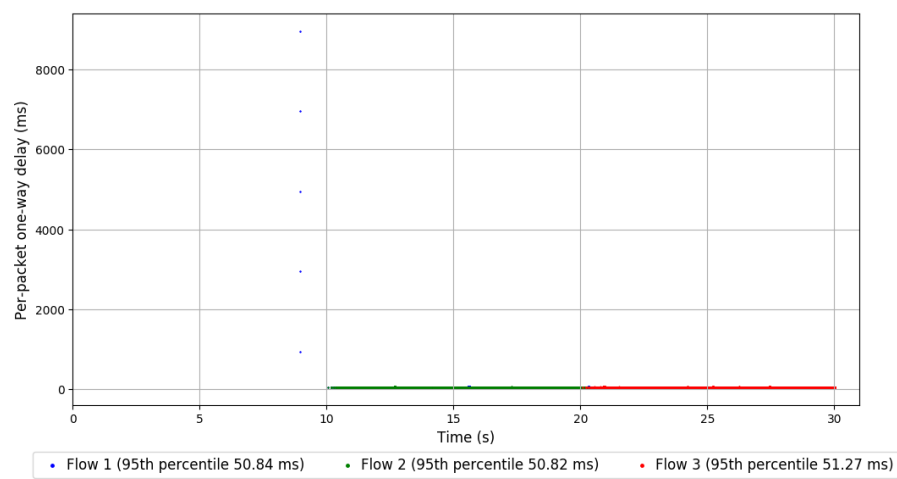
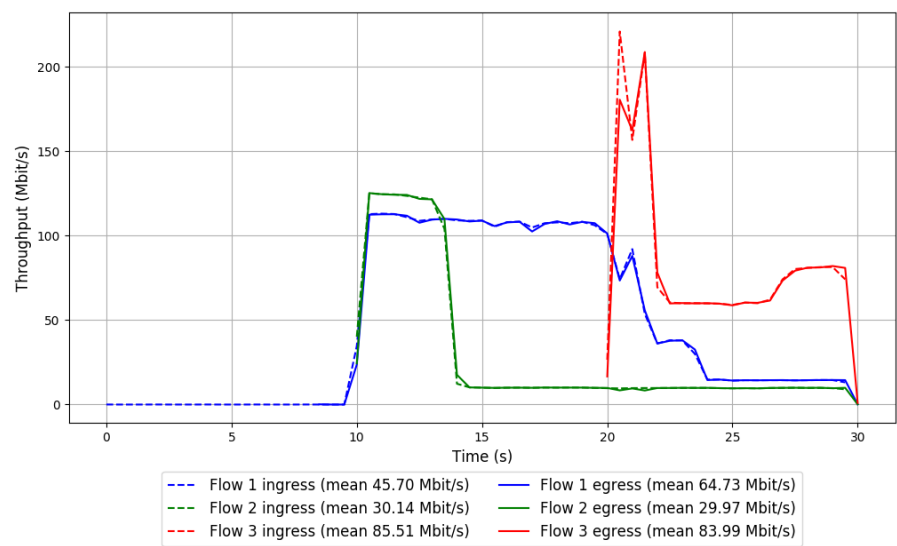


Run 1: Statistics of Copa

Start at: 2017-08-21 07:27:53

End at: 2017-08-21 07:28:23

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-21 07:39:03

End at: 2017-08-21 07:39:33

Below is generated by plot.py at 2017-08-21 10:40:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.34 Mbit/s

95th percentile per-packet one-way delay: 50.881 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.59 Mbit/s

95th percentile per-packet one-way delay: 50.895 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.17 Mbit/s

95th percentile per-packet one-way delay: 50.918 ms

Loss rate: 0.00%

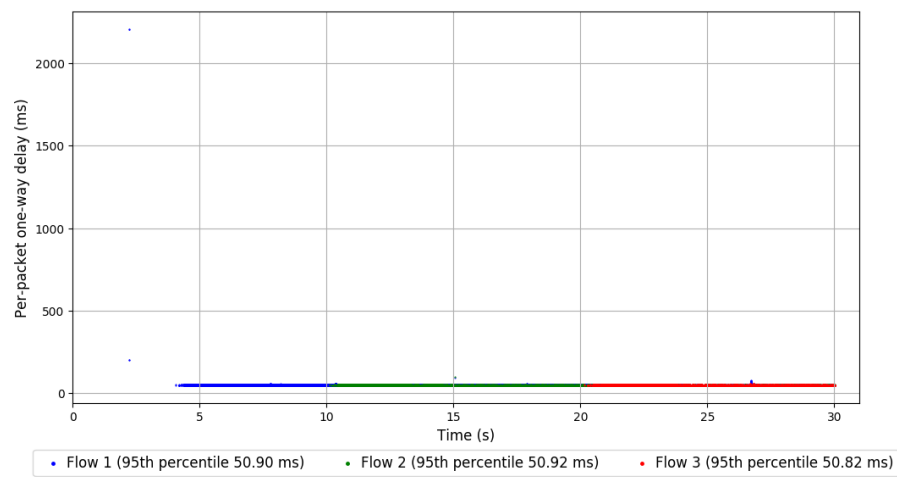
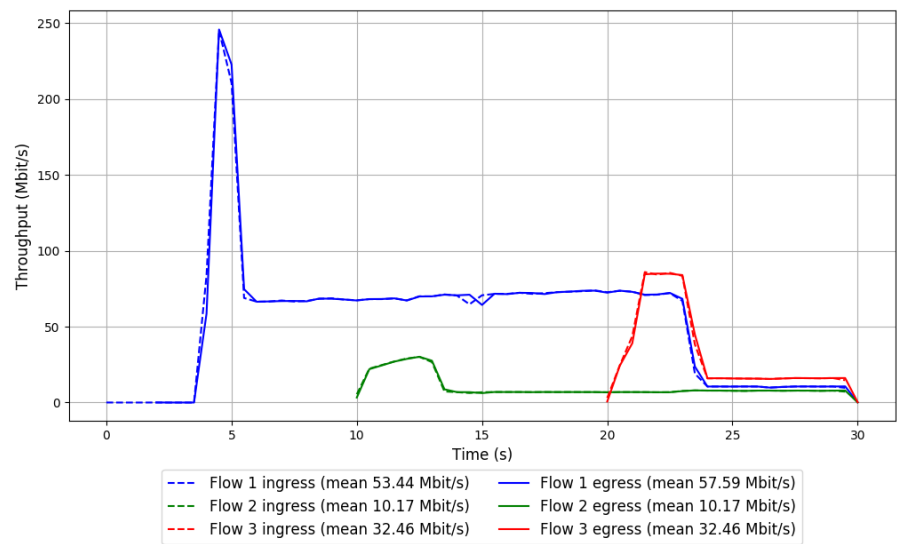
-- Flow 3:

Average throughput: 32.46 Mbit/s

95th percentile per-packet one-way delay: 50.819 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-21 07:49:57

End at: 2017-08-21 07:50:27

Below is generated by plot.py at 2017-08-21 10:40:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.56 Mbit/s

95th percentile per-packet one-way delay: 50.884 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 109.92 Mbit/s

95th percentile per-packet one-way delay: 50.769 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 52.42 Mbit/s

95th percentile per-packet one-way delay: 50.805 ms

Loss rate: 0.00%

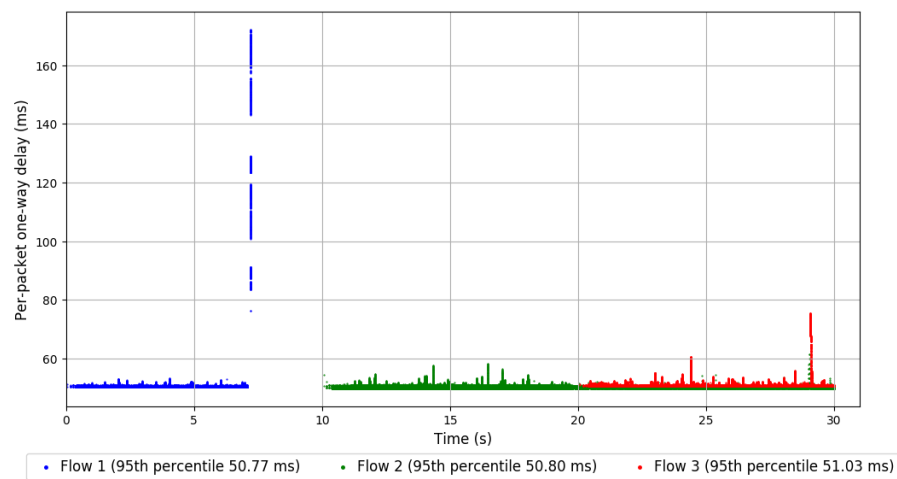
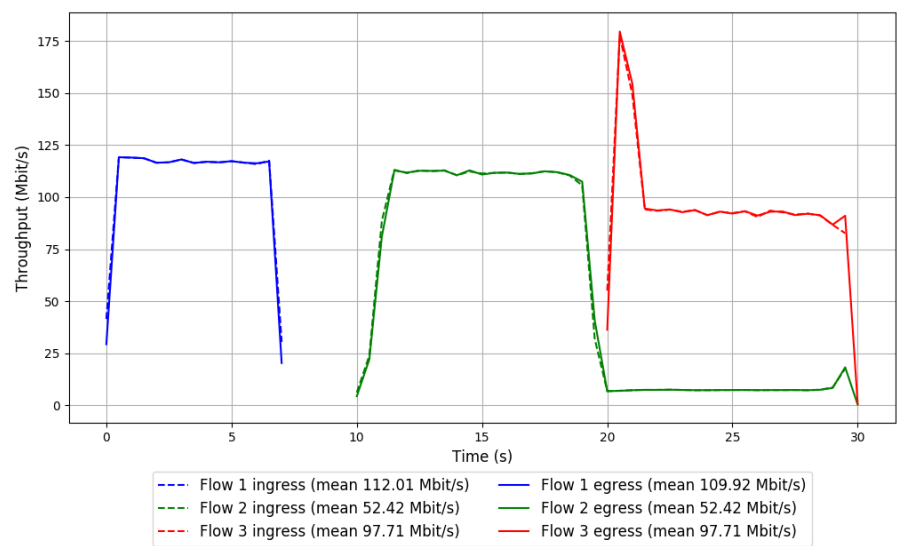
-- Flow 3:

Average throughput: 97.71 Mbit/s

95th percentile per-packet one-way delay: 51.034 ms

Loss rate: 0.08%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-21 08:00:54

End at: 2017-08-21 08:01:24

Below is generated by plot.py at 2017-08-21 10:40:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.68 Mbit/s

95th percentile per-packet one-way delay: 51.466 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 50.778 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 8.81 Mbit/s

95th percentile per-packet one-way delay: 251.743 ms

Loss rate: 21.55%

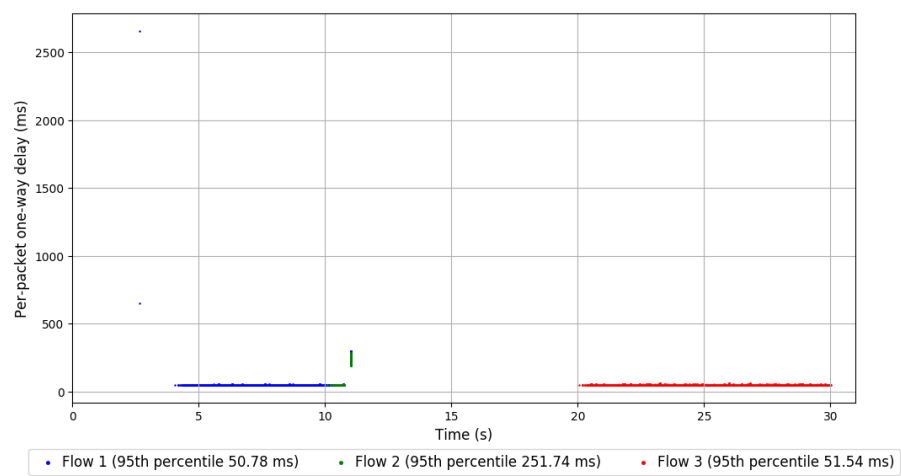
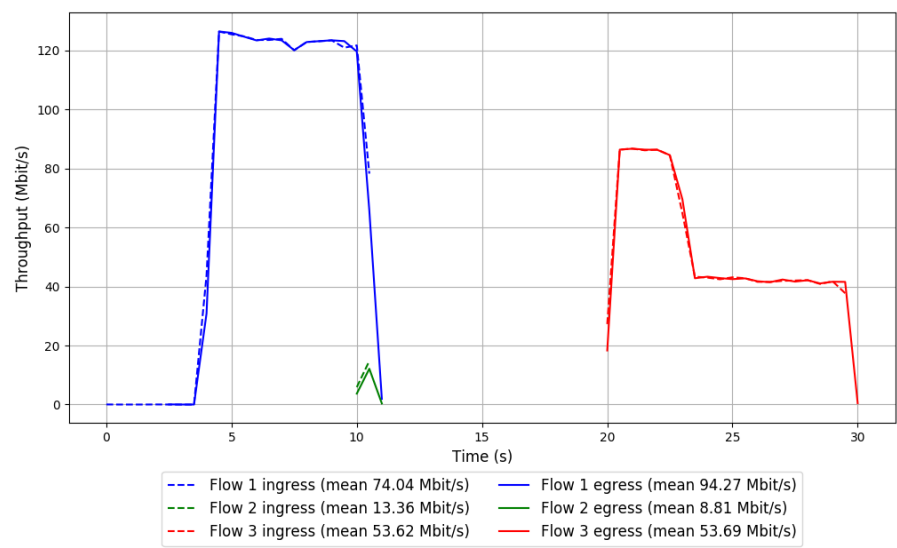
-- Flow 3:

Average throughput: 53.69 Mbit/s

95th percentile per-packet one-way delay: 51.537 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link

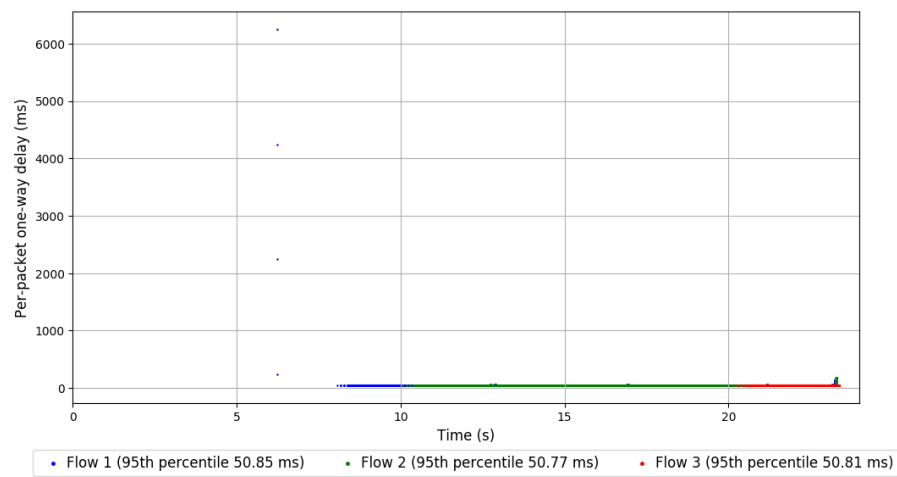
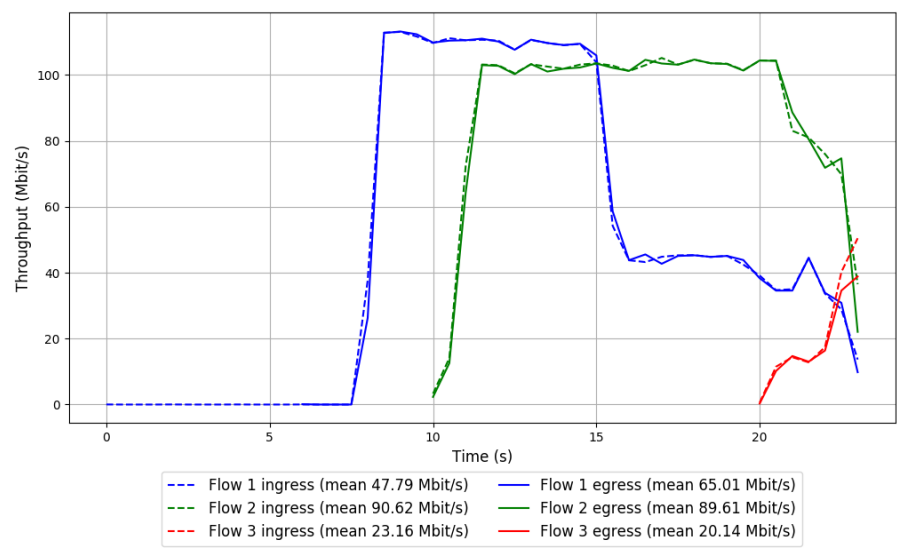


Run 5: Statistics of Copa

Start at: 2017-08-21 08:11:41

End at: 2017-08-21 08:12:11

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-21 08:22:25

End at: 2017-08-21 08:22:55

Below is generated by plot.py at 2017-08-21 10:40:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.36 Mbit/s

95th percentile per-packet one-way delay: 50.501 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 90.39 Mbit/s

95th percentile per-packet one-way delay: 50.464 ms

Loss rate: 1.93%

-- Flow 2:

Average throughput: 48.52 Mbit/s

95th percentile per-packet one-way delay: 50.401 ms

Loss rate: 0.00%

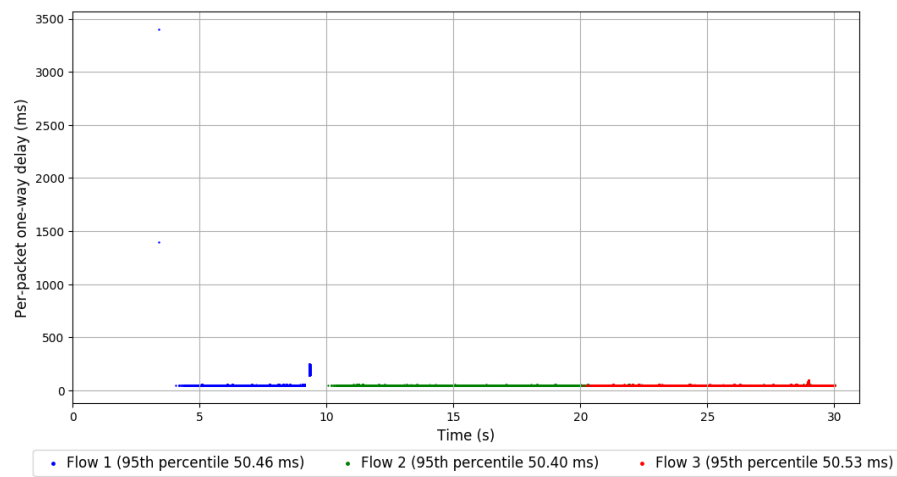
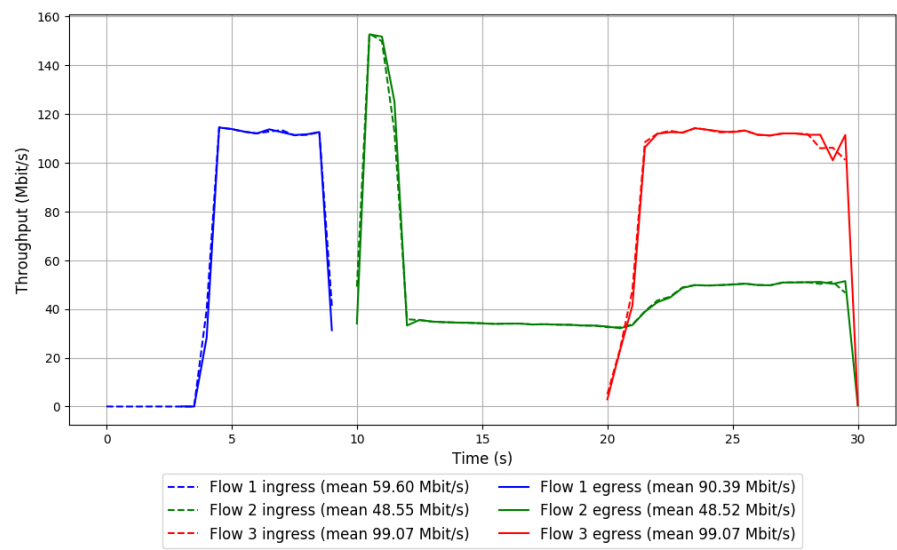
-- Flow 3:

Average throughput: 99.07 Mbit/s

95th percentile per-packet one-way delay: 50.531 ms

Loss rate: 0.01%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-21 08:33:20

End at: 2017-08-21 08:33:50

Below is generated by plot.py at 2017-08-21 10:41:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.14 Mbit/s

95th percentile per-packet one-way delay: 50.582 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.38 Mbit/s

95th percentile per-packet one-way delay: 50.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 63.81 Mbit/s

95th percentile per-packet one-way delay: 50.612 ms

Loss rate: 0.00%

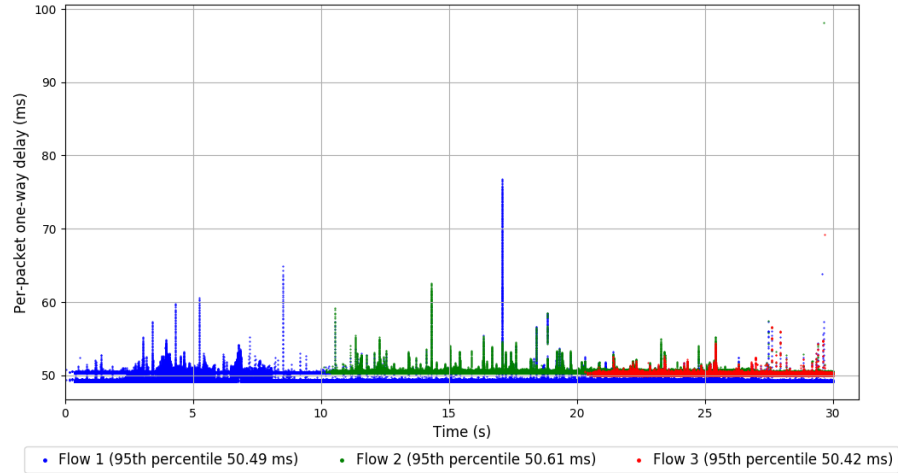
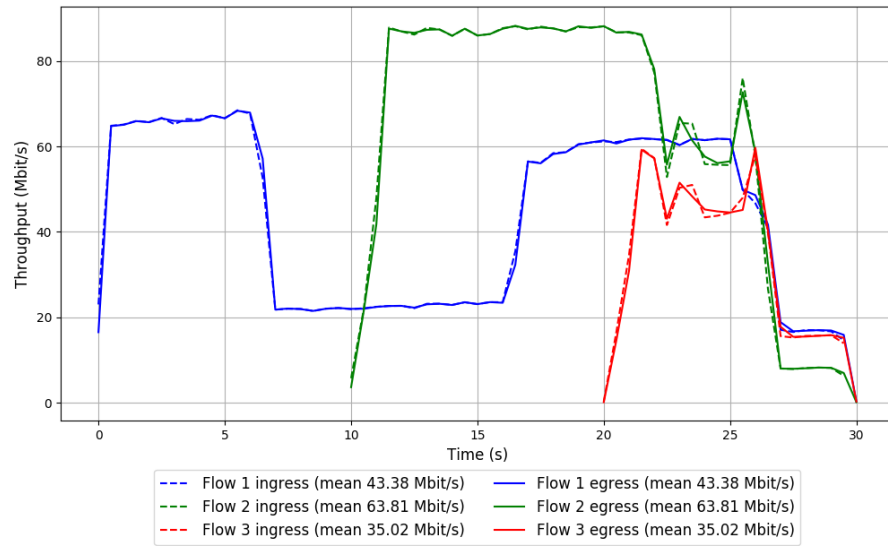
-- Flow 3:

Average throughput: 35.02 Mbit/s

95th percentile per-packet one-way delay: 50.424 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-21 08:44:21

End at: 2017-08-21 08:44:51

Below is generated by plot.py at 2017-08-21 10:41:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.10 Mbit/s

95th percentile per-packet one-way delay: 51.423 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 66.54 Mbit/s

95th percentile per-packet one-way delay: 51.453 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 54.52 Mbit/s

95th percentile per-packet one-way delay: 50.537 ms

Loss rate: 5.00%

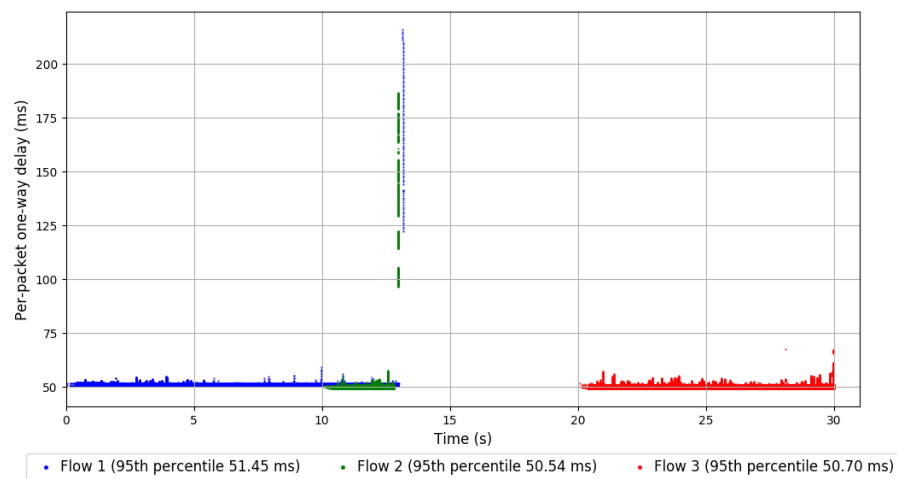
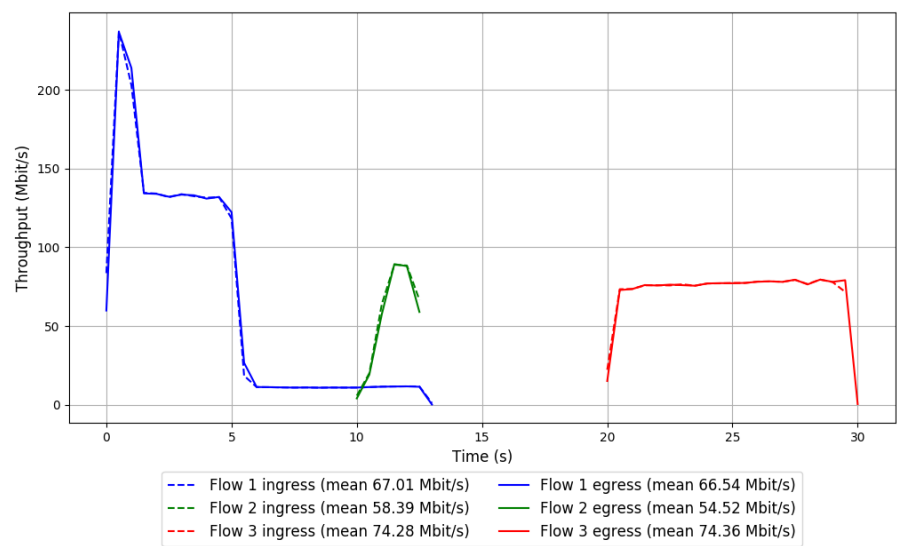
-- Flow 3:

Average throughput: 74.36 Mbit/s

95th percentile per-packet one-way delay: 50.701 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-21 08:55:16

End at: 2017-08-21 08:55:46

Below is generated by plot.py at 2017-08-21 10:41:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.20 Mbit/s

95th percentile per-packet one-way delay: 51.395 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 50.90 Mbit/s

95th percentile per-packet one-way delay: 51.405 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 45.07 Mbit/s

95th percentile per-packet one-way delay: 51.374 ms

Loss rate: 0.01%

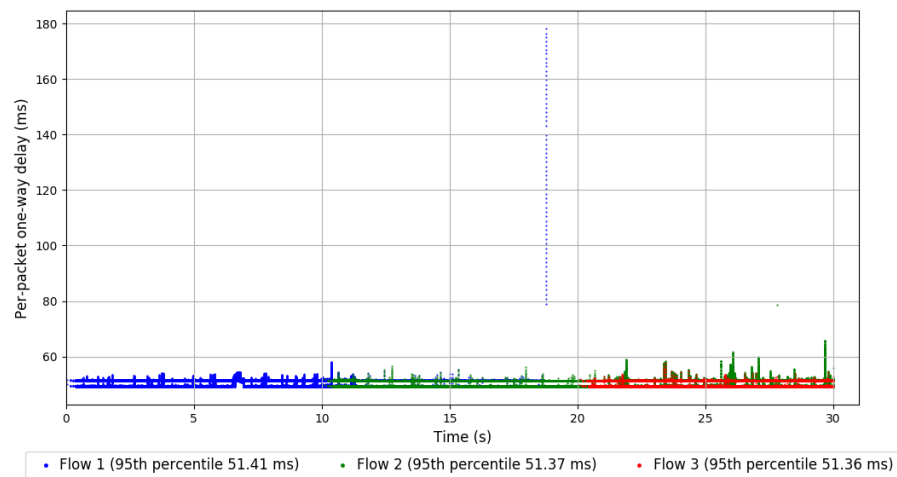
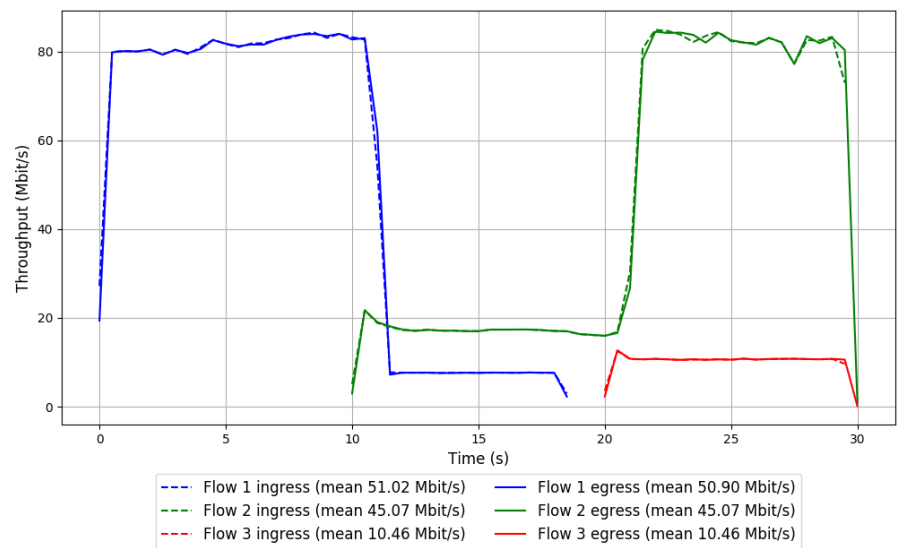
-- Flow 3:

Average throughput: 10.46 Mbit/s

95th percentile per-packet one-way delay: 51.363 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-21 09:06:30

End at: 2017-08-21 09:07:00

Below is generated by plot.py at 2017-08-21 10:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.07 Mbit/s

95th percentile per-packet one-way delay: 49.422 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 116.82 Mbit/s

95th percentile per-packet one-way delay: 49.325 ms

Loss rate: 1.99%

-- Flow 2:

Average throughput: 120.59 Mbit/s

95th percentile per-packet one-way delay: 49.450 ms

Loss rate: 0.00%

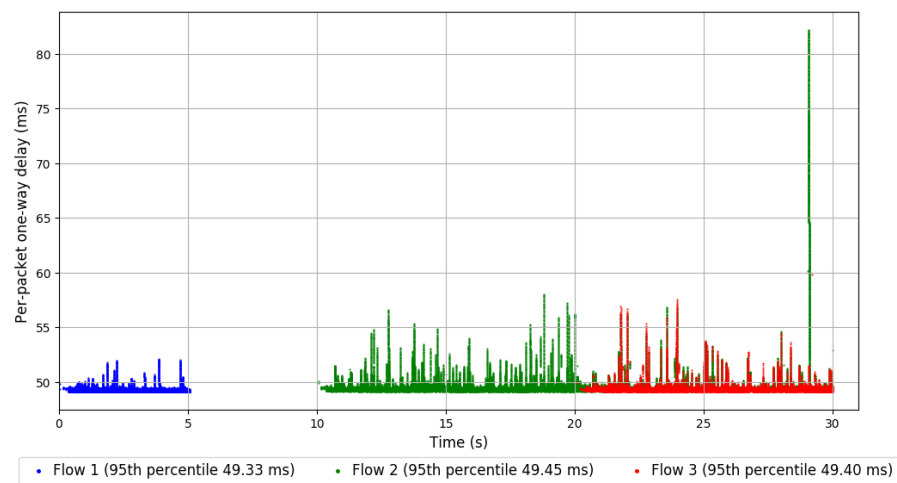
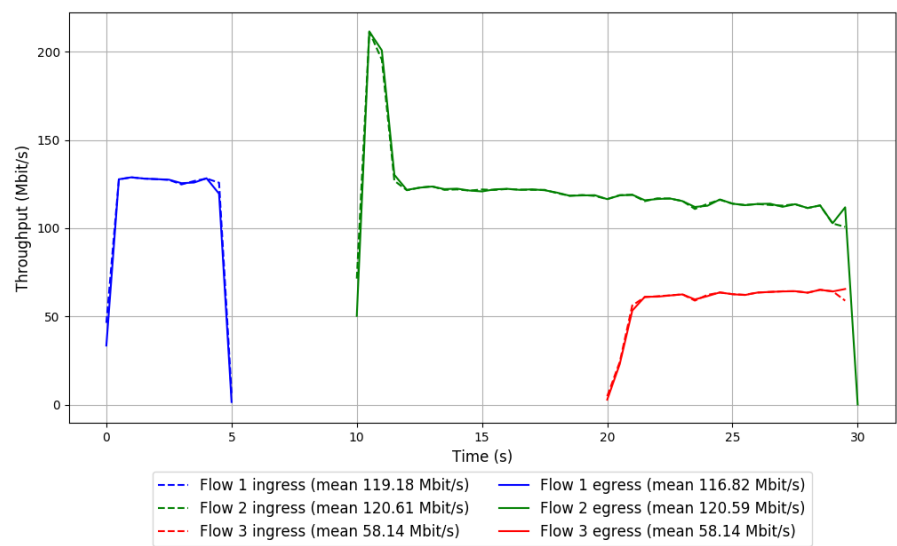
-- Flow 3:

Average throughput: 58.14 Mbit/s

95th percentile per-packet one-way delay: 49.404 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

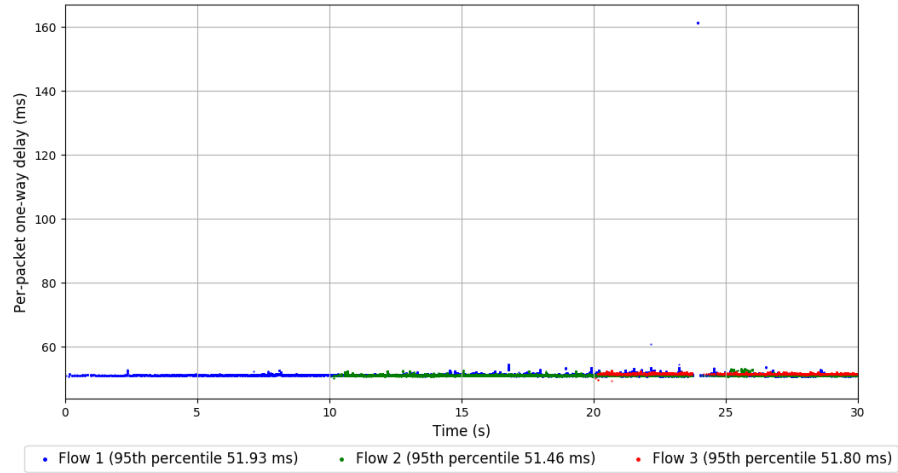
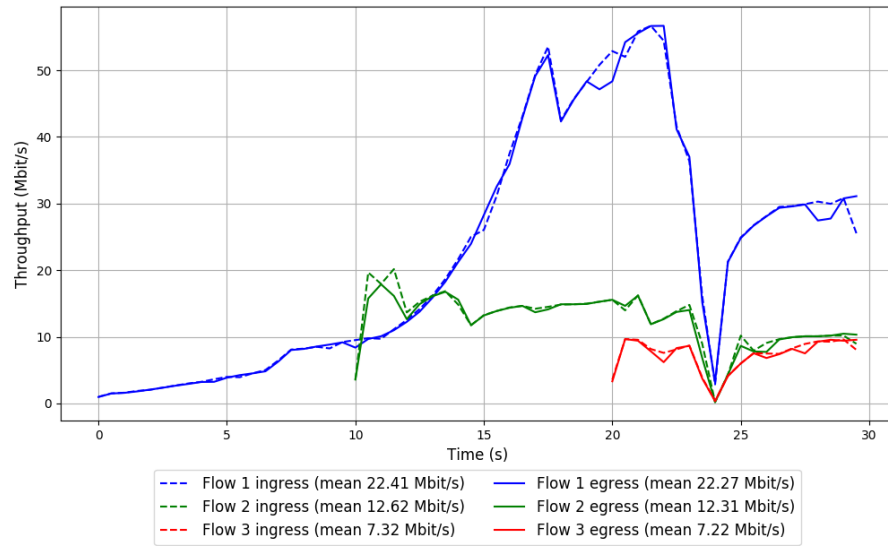


```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-21 07:30:11
End at: 2017-08-21 07:30:41

# Below is generated by plot.py at 2017-08-21 10:42:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.84 Mbit/s
95th percentile per-packet one-way delay: 51.841 ms
Loss rate: 1.25%
-- Flow 1:
Average throughput: 22.27 Mbit/s
95th percentile per-packet one-way delay: 51.932 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 12.31 Mbit/s
95th percentile per-packet one-way delay: 51.462 ms
Loss rate: 2.71%
-- Flow 3:
Average throughput: 7.22 Mbit/s
95th percentile per-packet one-way delay: 51.799 ms
Loss rate: 1.95%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-21 07:41:11

End at: 2017-08-21 07:41:41

Below is generated by plot.py at 2017-08-21 10:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.91 Mbit/s

95th percentile per-packet one-way delay: 51.207 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 51.252 ms

Loss rate: 1.35%

-- Flow 2:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 51.172 ms

Loss rate: 2.41%

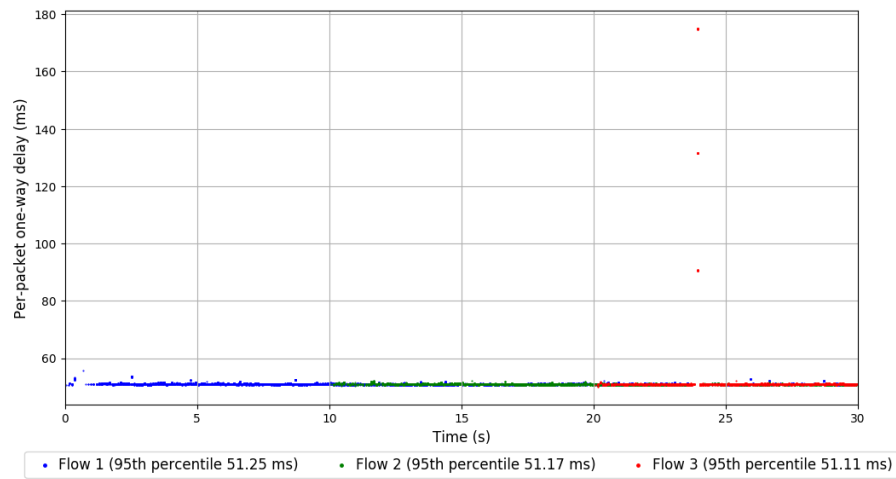
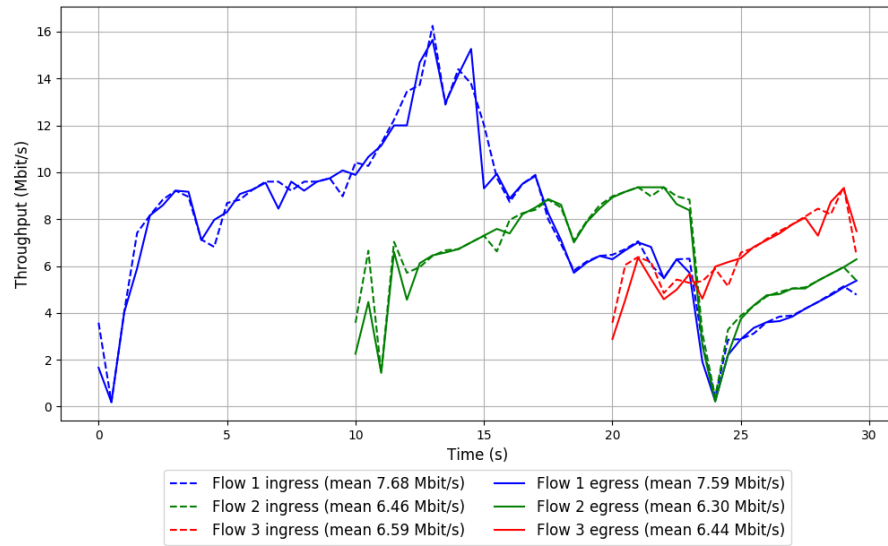
-- Flow 3:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 51.114 ms

Loss rate: 2.23%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-21 07:52:08

End at: 2017-08-21 07:52:38

Below is generated by plot.py at 2017-08-21 10:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.50 Mbit/s

95th percentile per-packet one-way delay: 52.037 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 4.93 Mbit/s

95th percentile per-packet one-way delay: 51.244 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 49.57 Mbit/s

95th percentile per-packet one-way delay: 52.166 ms

Loss rate: 1.00%

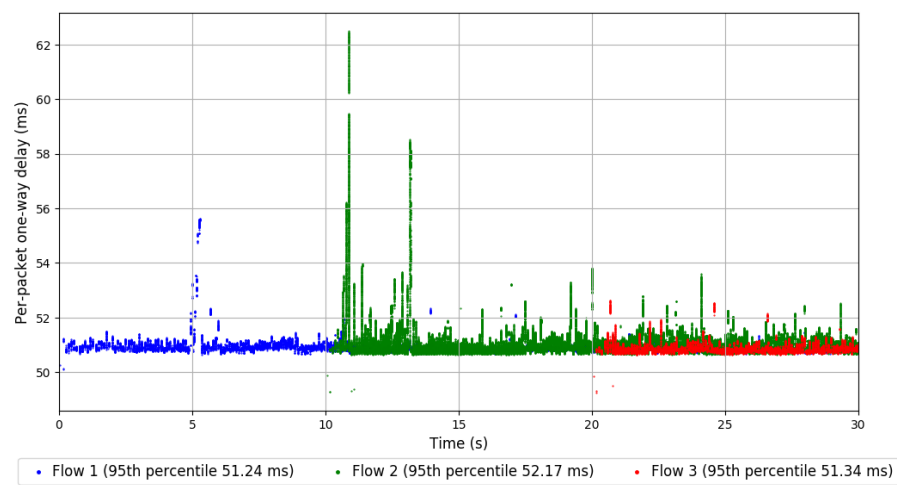
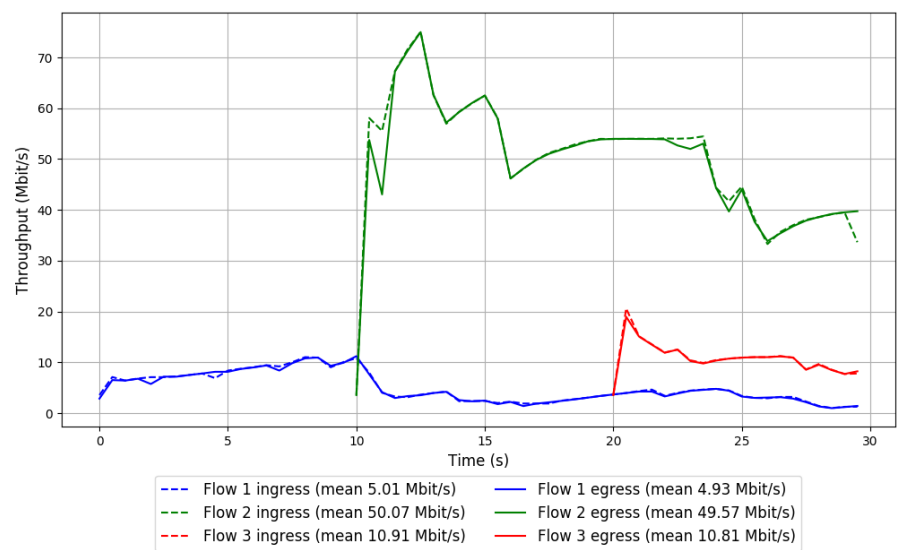
-- Flow 3:

Average throughput: 10.81 Mbit/s

95th percentile per-packet one-way delay: 51.343 ms

Loss rate: 0.92%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-21 08:03:01

End at: 2017-08-21 08:03:31

Below is generated by plot.py at 2017-08-21 10:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.90 Mbit/s

95th percentile per-packet one-way delay: 51.129 ms

Loss rate: 2.49%

-- Flow 1:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 51.110 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 7.19 Mbit/s

95th percentile per-packet one-way delay: 51.303 ms

Loss rate: 2.56%

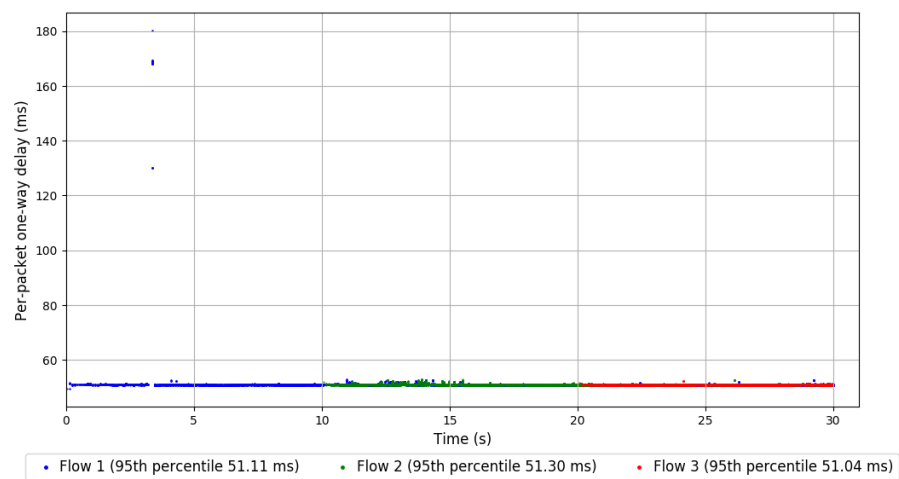
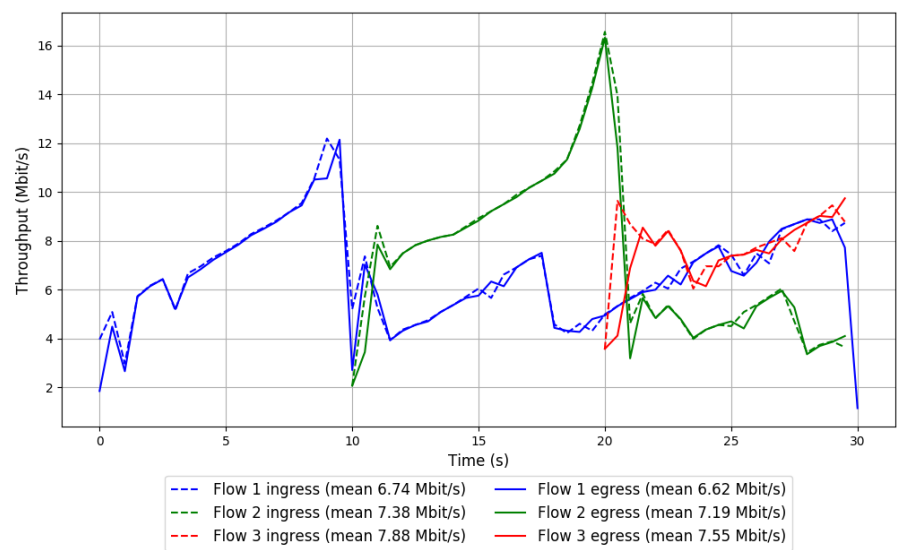
-- Flow 3:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 51.038 ms

Loss rate: 4.15%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-21 08:13:50

End at: 2017-08-21 08:14:20

Below is generated by plot.py at 2017-08-21 10:42:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.75 Mbit/s

95th percentile per-packet one-way delay: 51.303 ms

Loss rate: 3.43%

-- Flow 1:

Average throughput: 7.24 Mbit/s

95th percentile per-packet one-way delay: 51.345 ms

Loss rate: 2.10%

-- Flow 2:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 51.215 ms

Loss rate: 3.50%

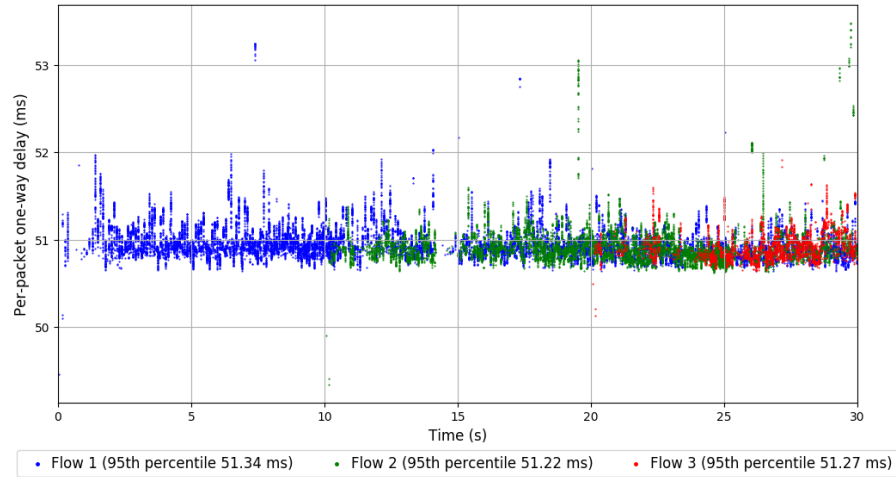
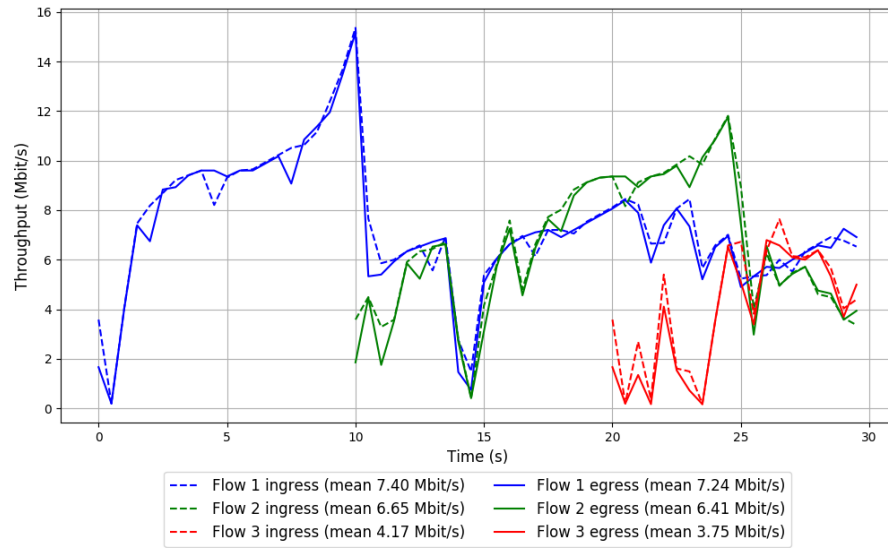
-- Flow 3:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 51.274 ms

Loss rate: 10.32%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-21 08:24:39

End at: 2017-08-21 08:25:09

Below is generated by plot.py at 2017-08-21 10:42:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.96 Mbit/s

95th percentile per-packet one-way delay: 51.883 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 8.11 Mbit/s

95th percentile per-packet one-way delay: 50.830 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 4.91 Mbit/s

95th percentile per-packet one-way delay: 50.796 ms

Loss rate: 2.87%

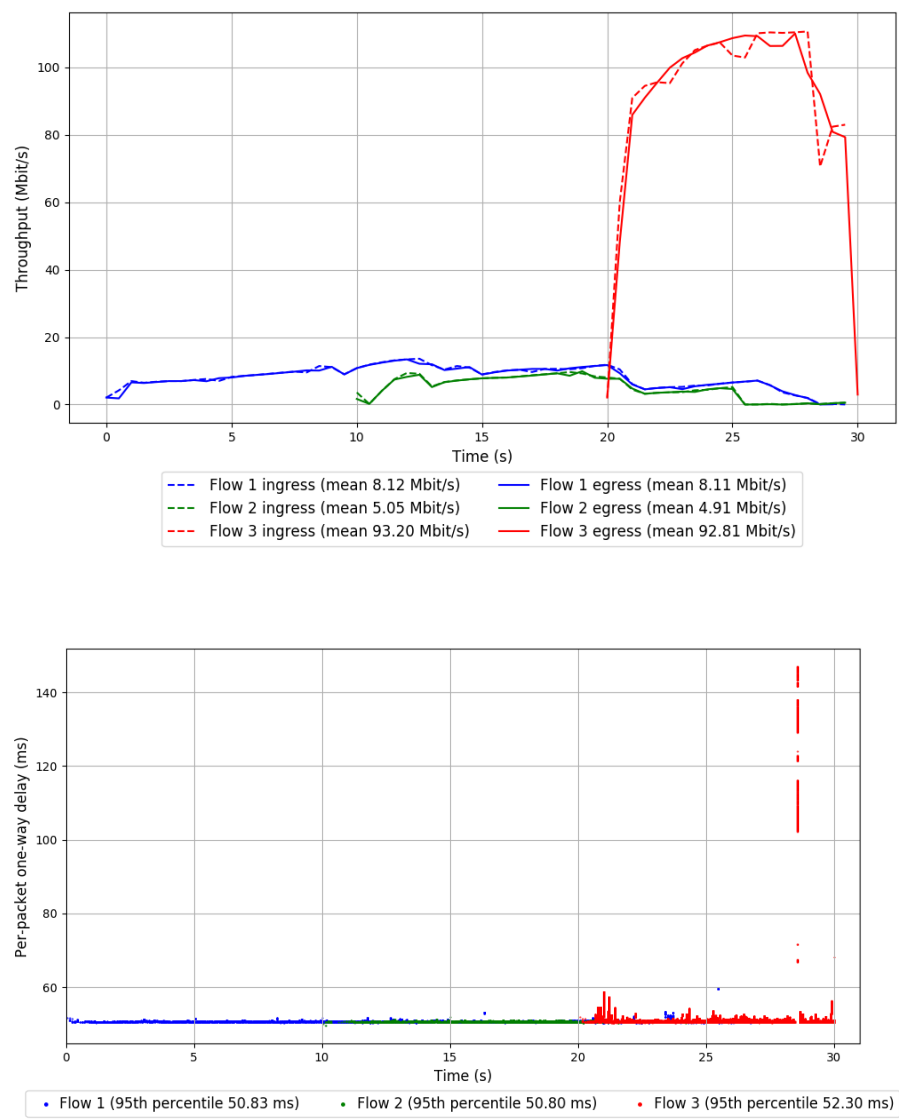
-- Flow 3:

Average throughput: 92.81 Mbit/s

95th percentile per-packet one-way delay: 52.298 ms

Loss rate: 0.29%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-21 08:35:31

End at: 2017-08-21 08:36:01

Below is generated by plot.py at 2017-08-21 10:42:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.68 Mbit/s

95th percentile per-packet one-way delay: 51.683 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 51.773 ms

Loss rate: 3.56%

-- Flow 2:

Average throughput: 15.63 Mbit/s

95th percentile per-packet one-way delay: 51.549 ms

Loss rate: 0.93%

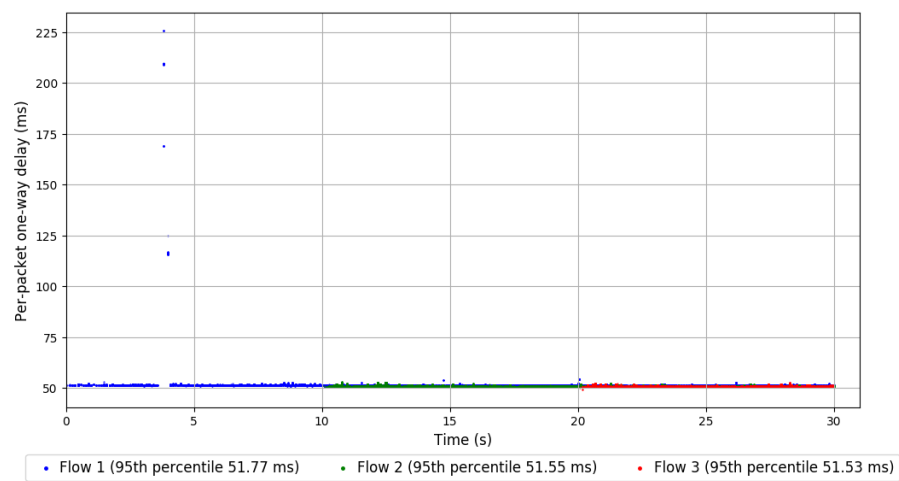
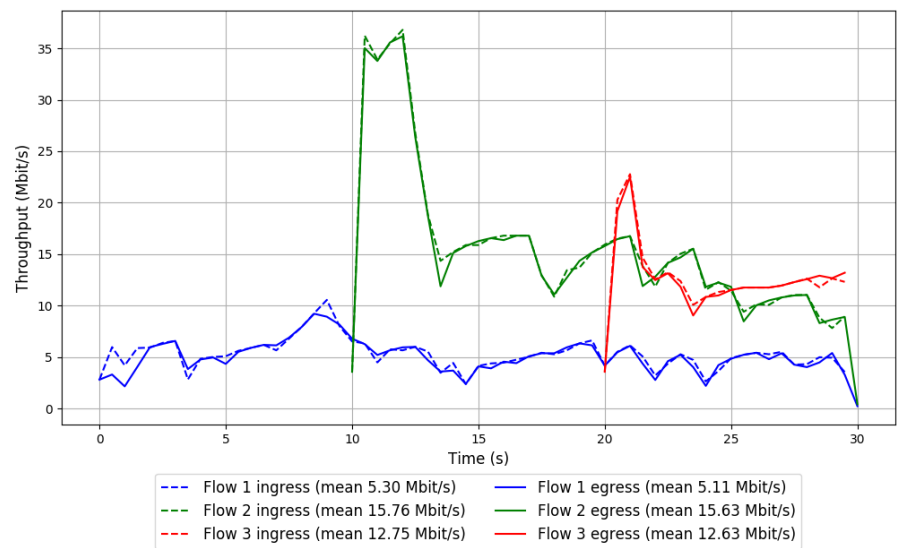
-- Flow 3:

Average throughput: 12.63 Mbit/s

95th percentile per-packet one-way delay: 51.529 ms

Loss rate: 0.94%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-21 08:46:26

End at: 2017-08-21 08:46:56

Below is generated by plot.py at 2017-08-21 10:42:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.00 Mbit/s

95th percentile per-packet one-way delay: 52.059 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 51.951 ms

Loss rate: 4.07%

-- Flow 2:

Average throughput: 88.10 Mbit/s

95th percentile per-packet one-way delay: 52.098 ms

Loss rate: 0.51%

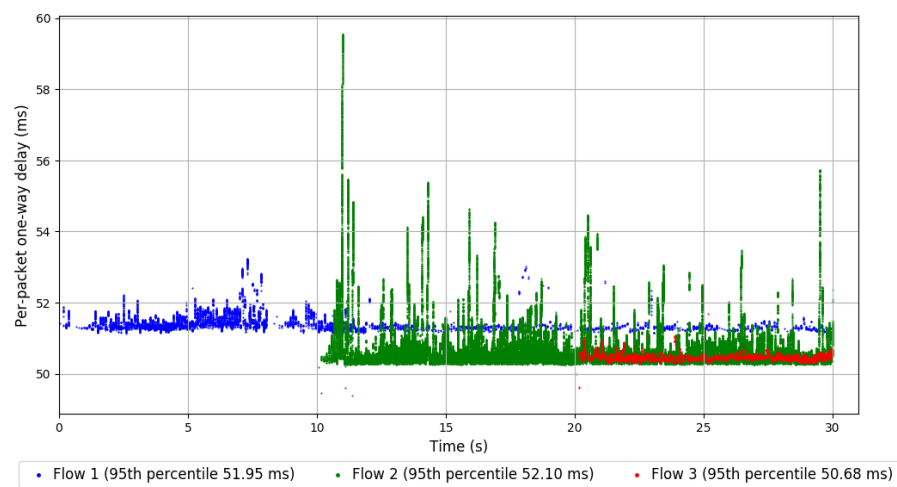
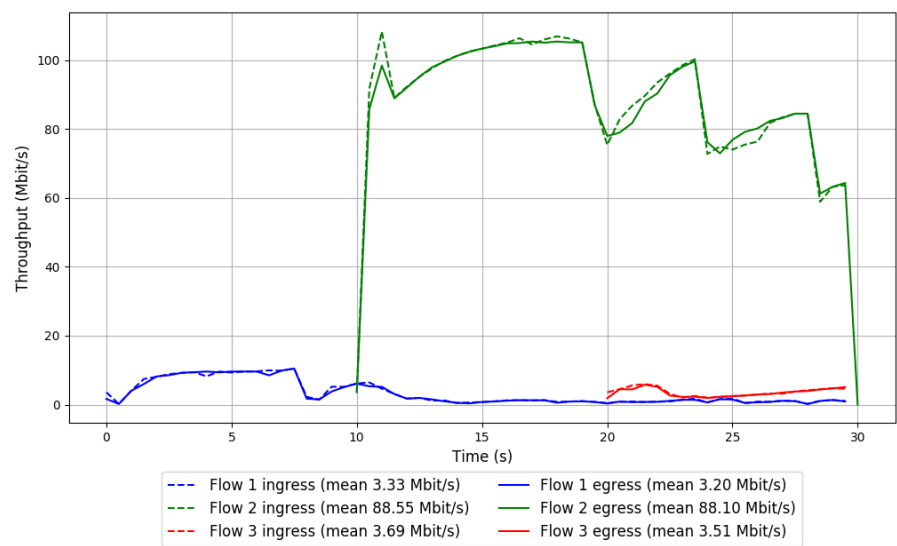
-- Flow 3:

Average throughput: 3.51 Mbit/s

95th percentile per-packet one-way delay: 50.677 ms

Loss rate: 5.04%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-21 08:57:27

End at: 2017-08-21 08:57:57

Below is generated by plot.py at 2017-08-21 10:42:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.11 Mbit/s

95th percentile per-packet one-way delay: 50.156 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 39.39 Mbit/s

95th percentile per-packet one-way delay: 50.001 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 15.75 Mbit/s

95th percentile per-packet one-way delay: 49.740 ms

Loss rate: 0.96%

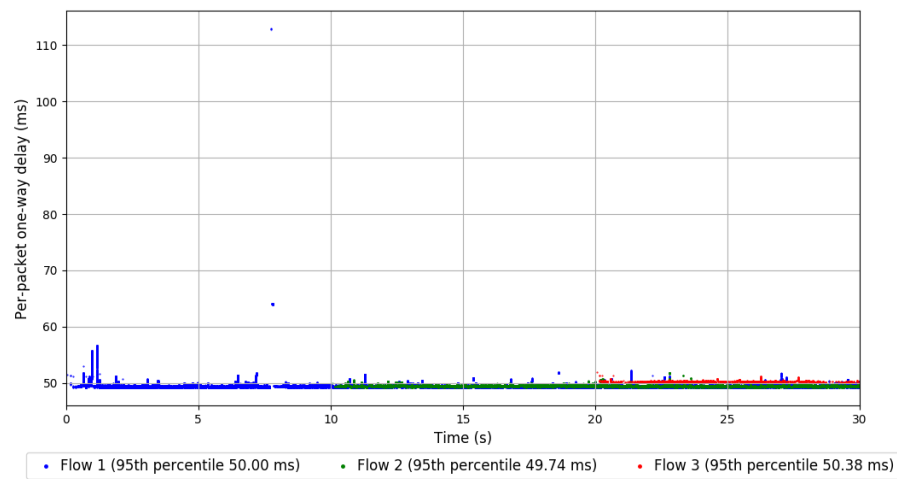
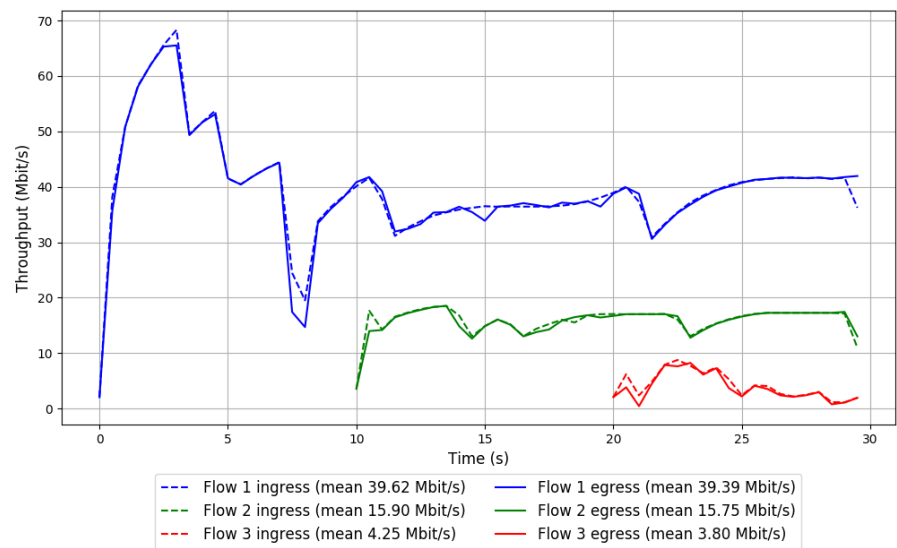
-- Flow 3:

Average throughput: 3.80 Mbit/s

95th percentile per-packet one-way delay: 50.382 ms

Loss rate: 10.71%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-21 09:08:42

End at: 2017-08-21 09:09:12

Below is generated by plot.py at 2017-08-21 10:42:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.42 Mbit/s

95th percentile per-packet one-way delay: 50.248 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 13.19 Mbit/s

95th percentile per-packet one-way delay: 50.185 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 12.55 Mbit/s

95th percentile per-packet one-way delay: 50.026 ms

Loss rate: 1.10%

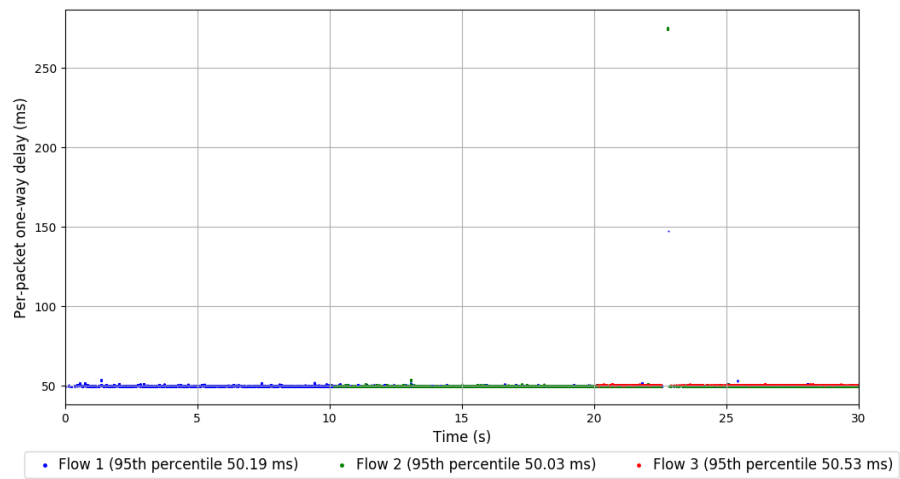
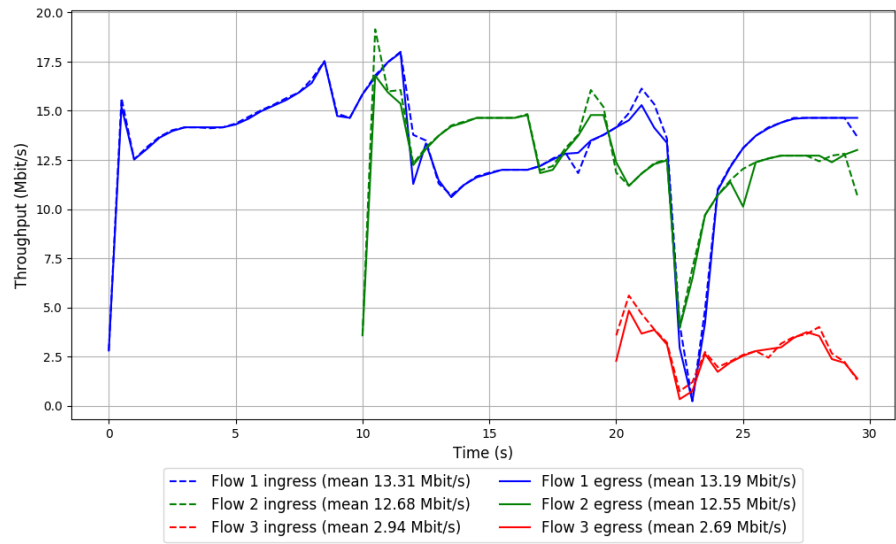
-- Flow 3:

Average throughput: 2.69 Mbit/s

95th percentile per-packet one-way delay: 50.526 ms

Loss rate: 8.45%

Run 10: Report of TCP Cubic — Data Link

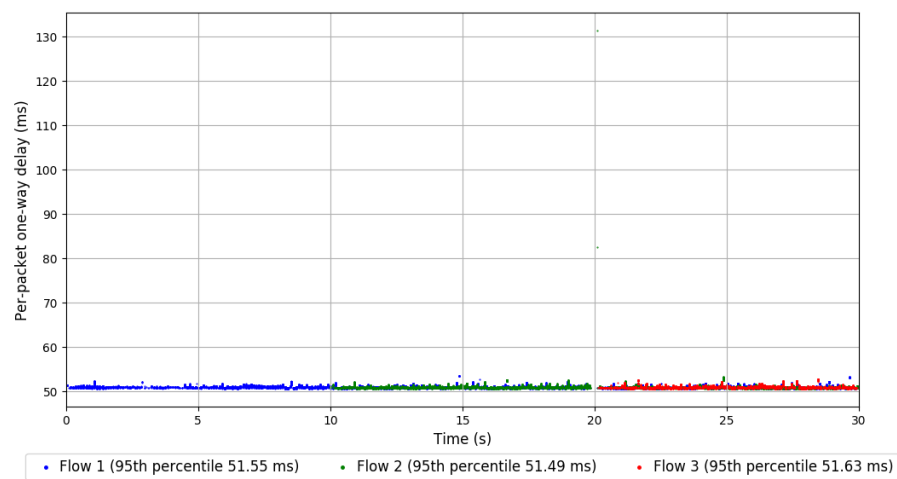
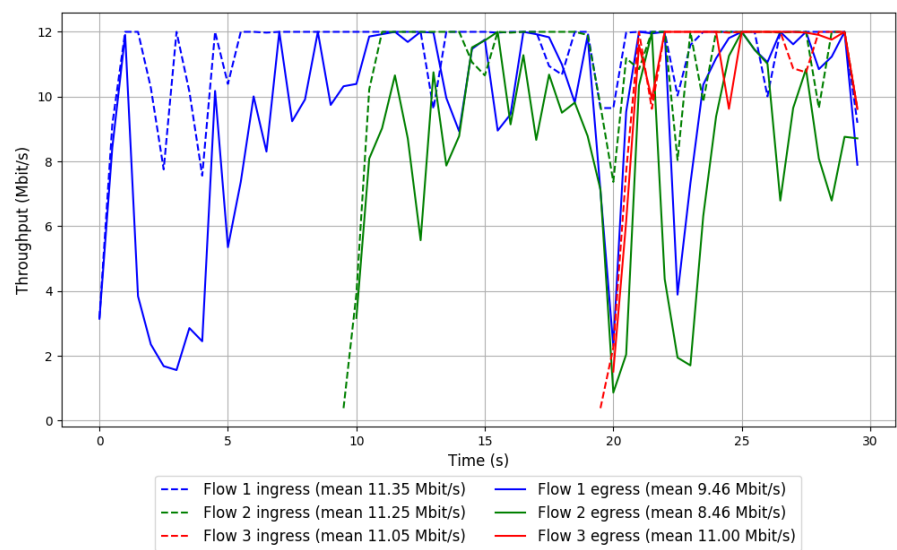


```
Run 1: Statistics of KohoCC

Start at: 2017-08-21 07:22:44
End at: 2017-08-21 07:23:14

# Below is generated by plot.py at 2017-08-21 10:42:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.71 Mbit/s
95th percentile per-packet one-way delay: 51.545 ms
Loss rate: 16.87%
-- Flow 1:
Average throughput: 9.46 Mbit/s
95th percentile per-packet one-way delay: 51.553 ms
Loss rate: 16.64%
-- Flow 2:
Average throughput: 8.46 Mbit/s
95th percentile per-packet one-way delay: 51.491 ms
Loss rate: 24.80%
-- Flow 3:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 51.628 ms
Loss rate: 1.40%
```

Run 1: Report of KohoCC — Data Link

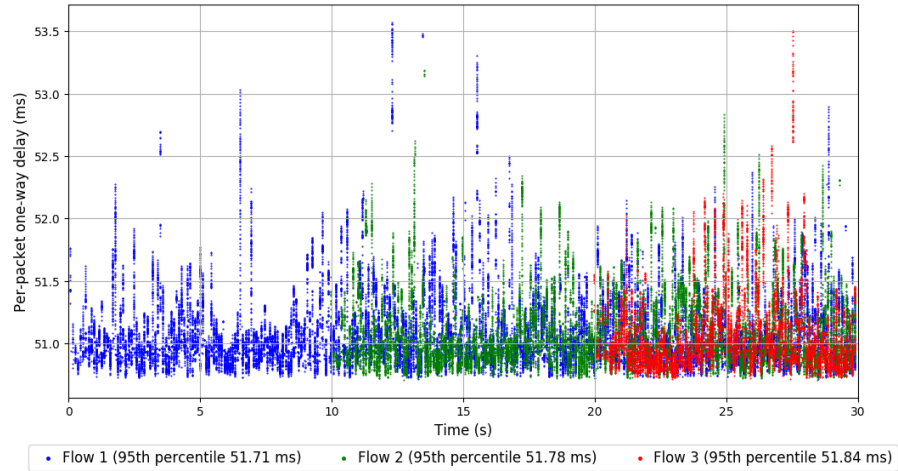
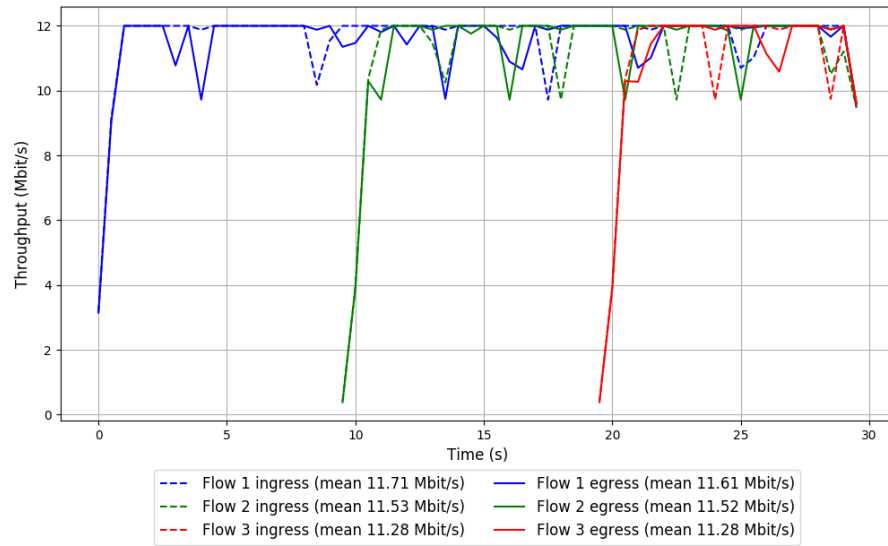


```
Run 2: Statistics of KohoCC

Start at: 2017-08-21 07:33:50
End at: 2017-08-21 07:34:20

# Below is generated by plot.py at 2017-08-21 10:42:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.03 Mbit/s
95th percentile per-packet one-way delay: 51.752 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 11.61 Mbit/s
95th percentile per-packet one-way delay: 51.713 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 11.52 Mbit/s
95th percentile per-packet one-way delay: 51.777 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 11.28 Mbit/s
95th percentile per-packet one-way delay: 51.841 ms
Loss rate: 0.00%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-21 07:44:42

End at: 2017-08-21 07:45:12

Below is generated by plot.py at 2017-08-21 10:42:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.51 Mbit/s

95th percentile per-packet one-way delay: 51.844 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 11.32 Mbit/s

95th percentile per-packet one-way delay: 51.877 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 11.41 Mbit/s

95th percentile per-packet one-way delay: 51.901 ms

Loss rate: 0.75%

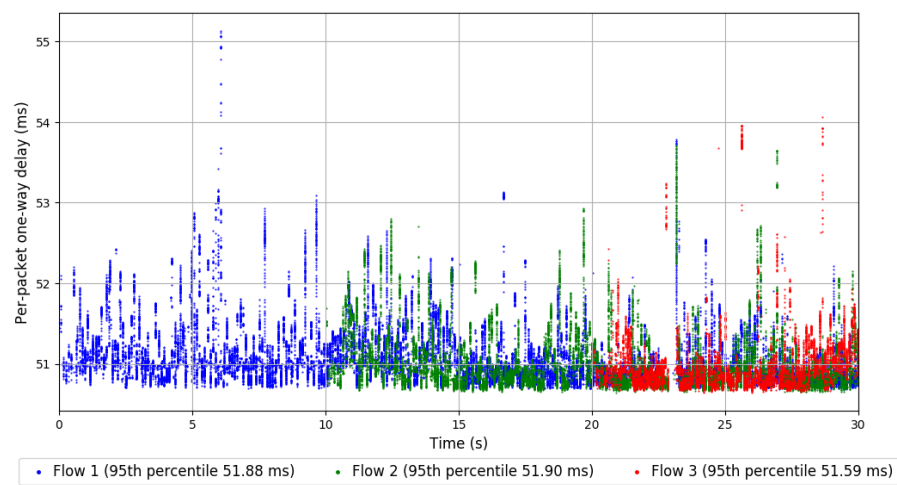
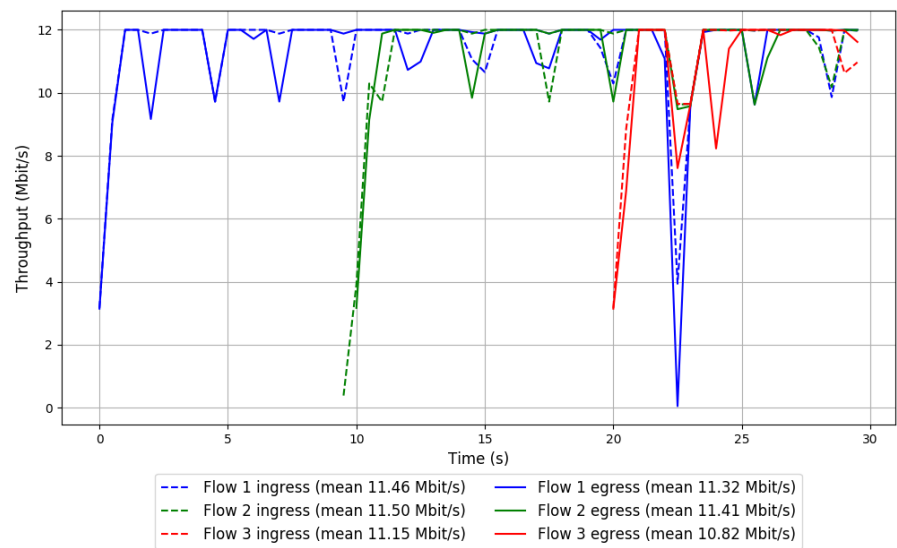
-- Flow 3:

Average throughput: 10.82 Mbit/s

95th percentile per-packet one-way delay: 51.590 ms

Loss rate: 2.98%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-21 07:55:46

End at: 2017-08-21 07:56:16

Below is generated by plot.py at 2017-08-21 10:42:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.25 Mbit/s

95th percentile per-packet one-way delay: 51.673 ms

Loss rate: 6.60%

-- Flow 1:

Average throughput: 10.09 Mbit/s

95th percentile per-packet one-way delay: 51.588 ms

Loss rate: 11.77%

-- Flow 2:

Average throughput: 11.25 Mbit/s

95th percentile per-packet one-way delay: 51.545 ms

Loss rate: 1.29%

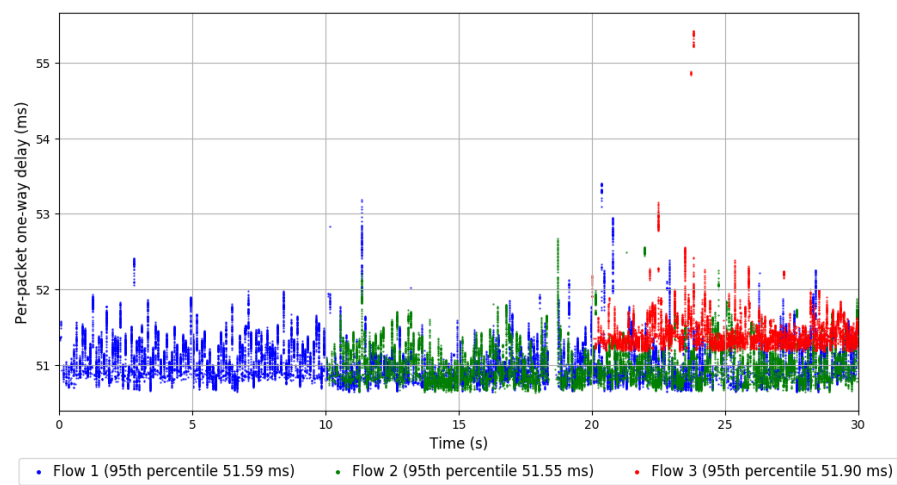
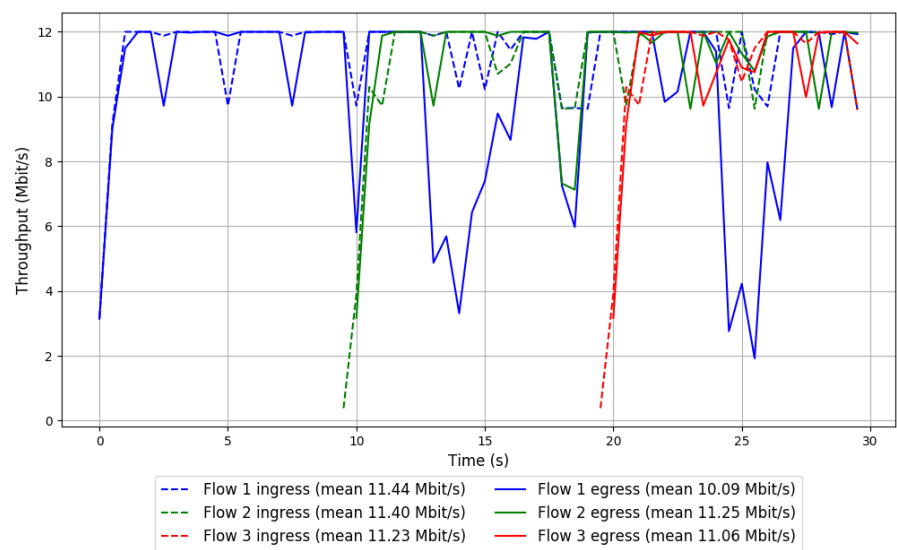
-- Flow 3:

Average throughput: 11.06 Mbit/s

95th percentile per-packet one-way delay: 51.897 ms

Loss rate: 1.57%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-21 08:06:32

End at: 2017-08-21 08:07:02

Below is generated by plot.py at 2017-08-21 10:42:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.77 Mbit/s

95th percentile per-packet one-way delay: 51.531 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 11.35 Mbit/s

95th percentile per-packet one-way delay: 51.554 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 11.53 Mbit/s

95th percentile per-packet one-way delay: 51.464 ms

Loss rate: 0.10%

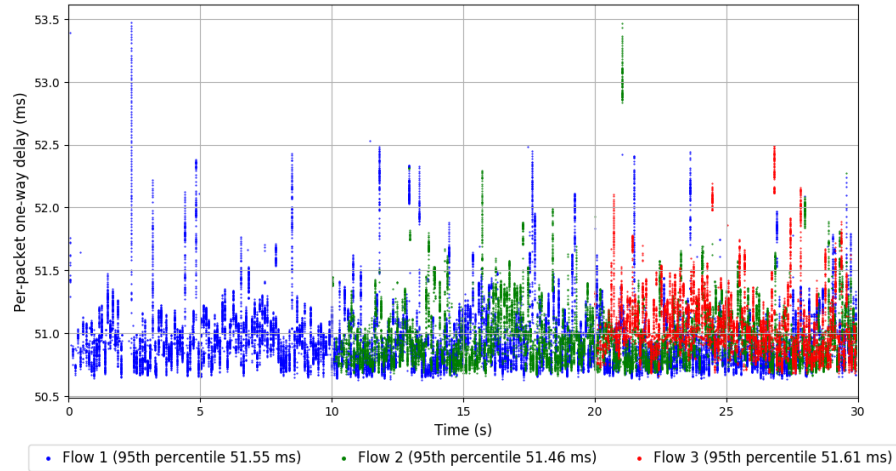
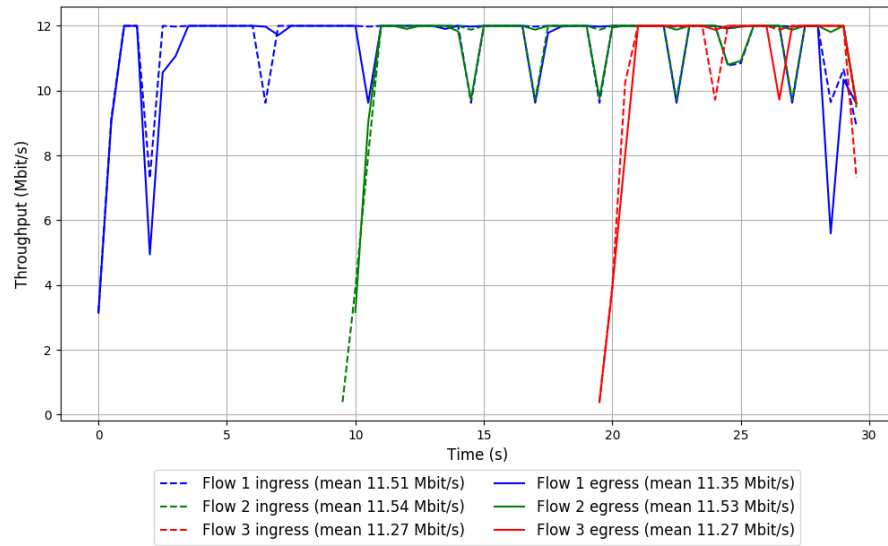
-- Flow 3:

Average throughput: 11.27 Mbit/s

95th percentile per-packet one-way delay: 51.612 ms

Loss rate: 0.00%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-21 08:17:20

End at: 2017-08-21 08:17:50

Below is generated by plot.py at 2017-08-21 10:42:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.73 Mbit/s

95th percentile per-packet one-way delay: 51.827 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 11.43 Mbit/s

95th percentile per-packet one-way delay: 51.835 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 51.822 ms

Loss rate: 0.06%

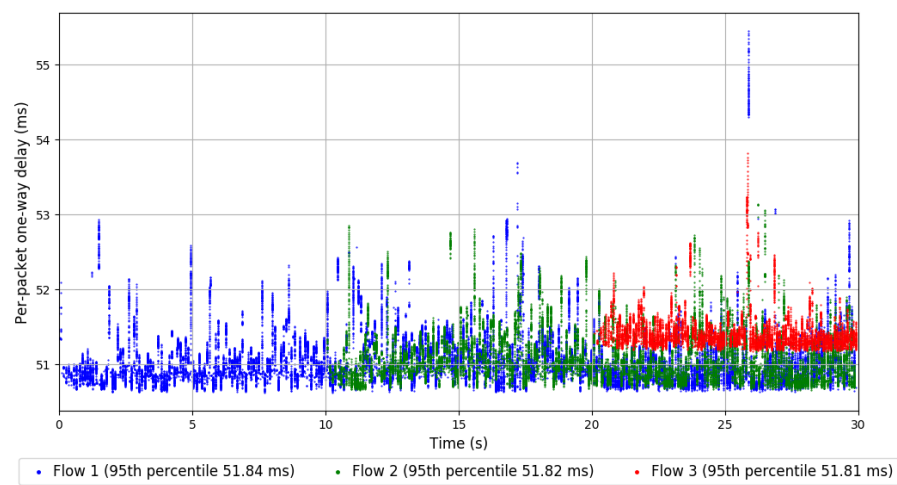
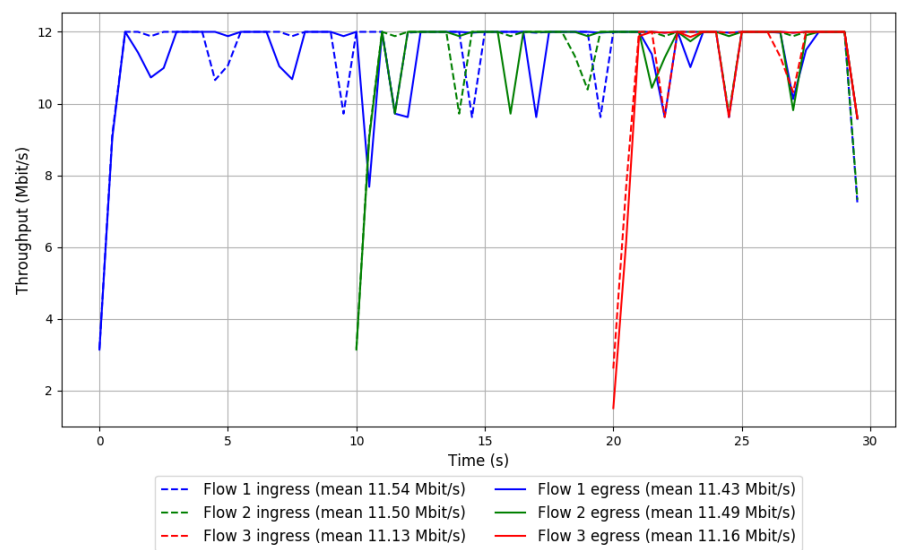
-- Flow 3:

Average throughput: 11.16 Mbit/s

95th percentile per-packet one-way delay: 51.809 ms

Loss rate: 0.24%

Run 6: Report of KohoCC — Data Link

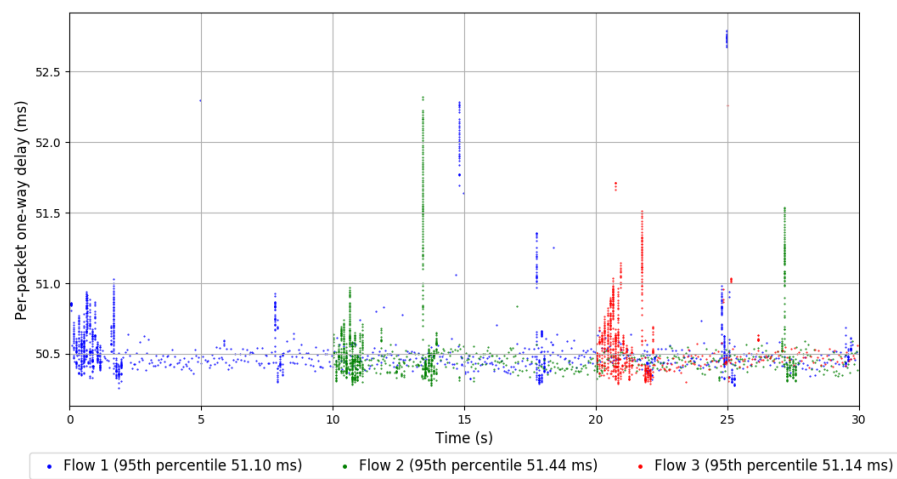
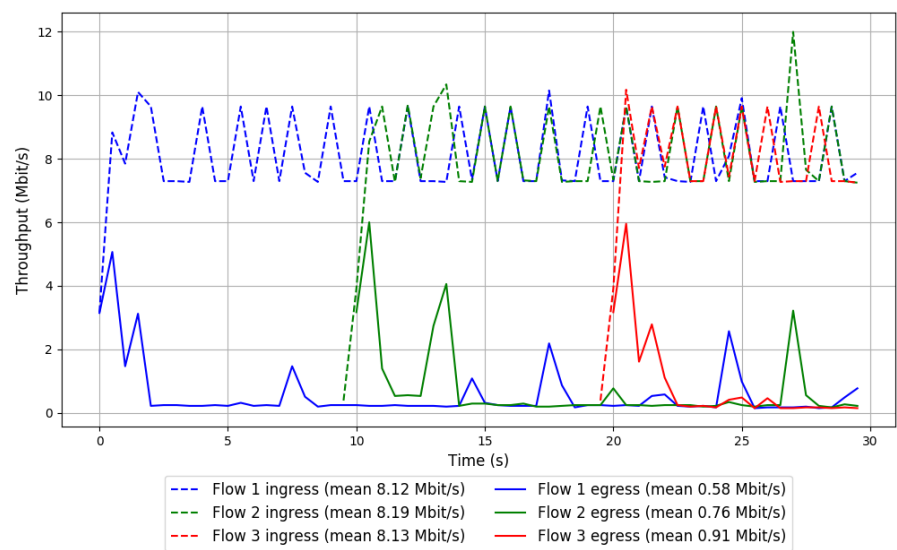


```
Run 7: Statistics of KohoCC

Start at: 2017-08-21 08:28:12
End at: 2017-08-21 08:28:42

# Below is generated by plot.py at 2017-08-21 10:42:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 51.254 ms
Loss rate: 91.49%
-- Flow 1:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 51.099 ms
Loss rate: 92.90%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 51.437 ms
Loss rate: 90.72%
-- Flow 3:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 51.140 ms
Loss rate: 88.81%
```

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-21 08:39:02

End at: 2017-08-21 08:39:32

Below is generated by plot.py at 2017-08-21 10:42:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.91 Mbit/s

95th percentile per-packet one-way delay: 51.553 ms

Loss rate: 61.56%

-- Flow 1:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 51.307 ms

Loss rate: 77.81%

-- Flow 2:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 51.888 ms

Loss rate: 78.22%

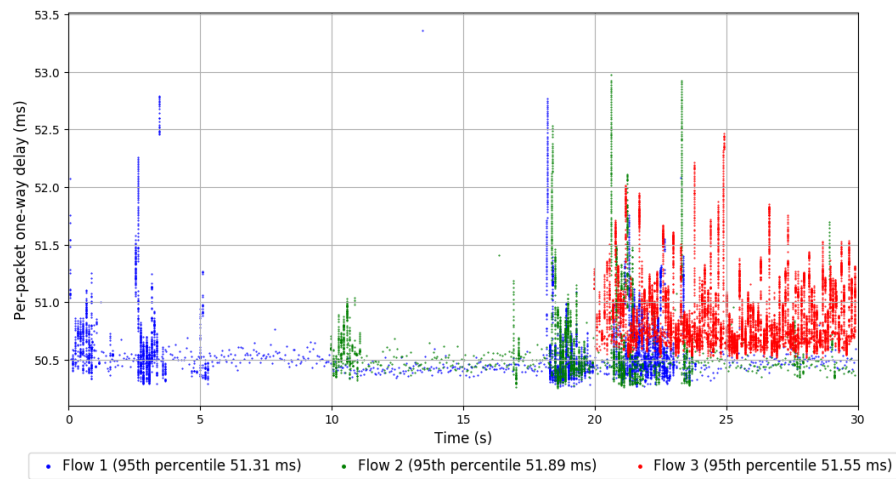
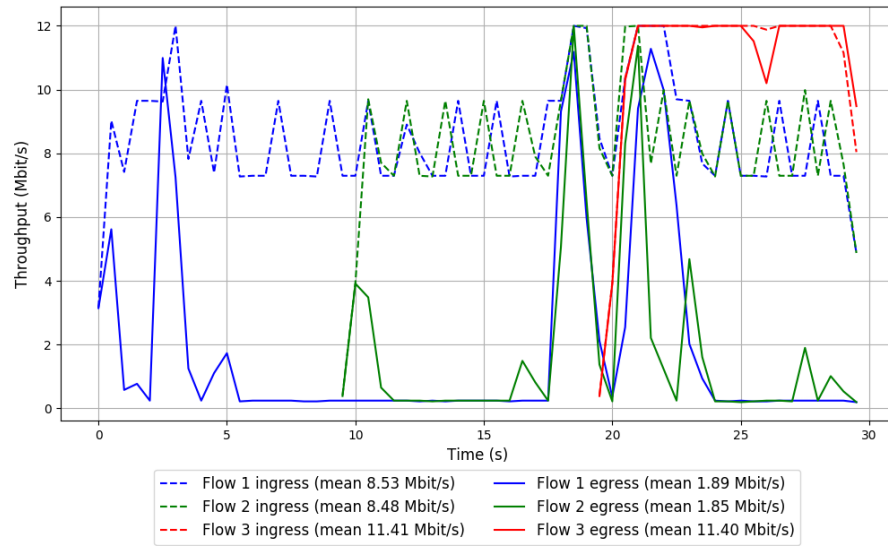
-- Flow 3:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 51.550 ms

Loss rate: 0.02%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-21 08:50:07

End at: 2017-08-21 08:50:37

Below is generated by plot.py at 2017-08-21 10:42:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.49 Mbit/s

95th percentile per-packet one-way delay: 51.307 ms

Loss rate: 69.00%

-- Flow 1:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 51.378 ms

Loss rate: 83.59%

-- Flow 2:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 50.788 ms

Loss rate: 92.36%

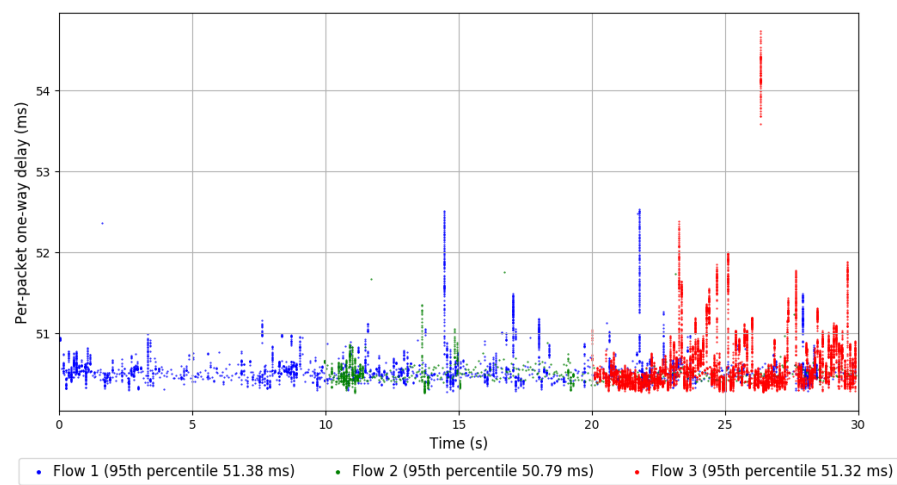
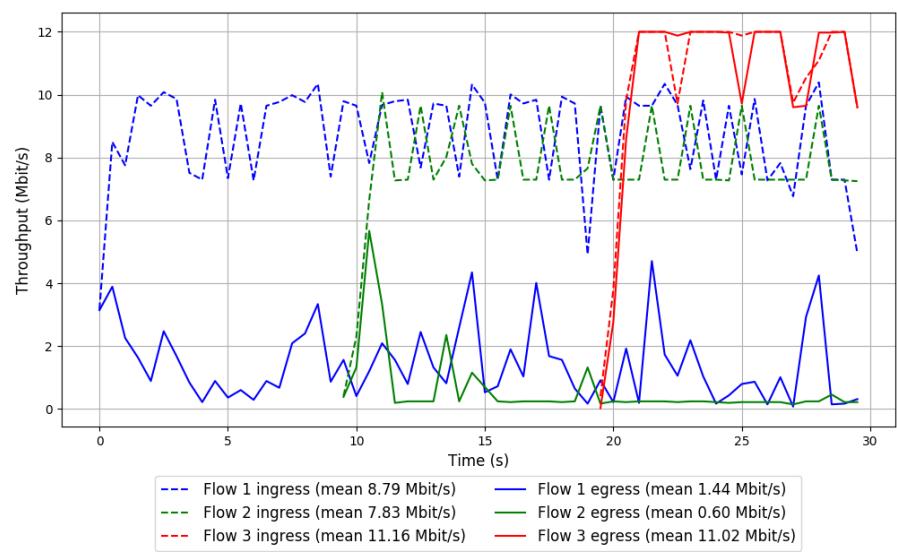
-- Flow 3:

Average throughput: 11.02 Mbit/s

95th percentile per-packet one-way delay: 51.324 ms

Loss rate: 1.28%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-21 09:01:03

End at: 2017-08-21 09:01:33

Below is generated by plot.py at 2017-08-21 10:42:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.30 Mbit/s

95th percentile per-packet one-way delay: 51.470 ms

Loss rate: 73.91%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 51.748 ms

Loss rate: 96.09%

-- Flow 2:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 52.154 ms

Loss rate: 95.89%

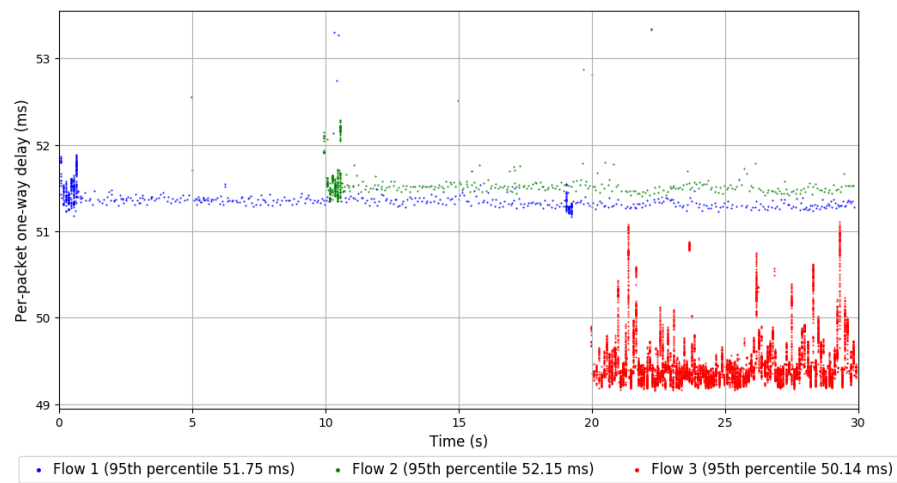
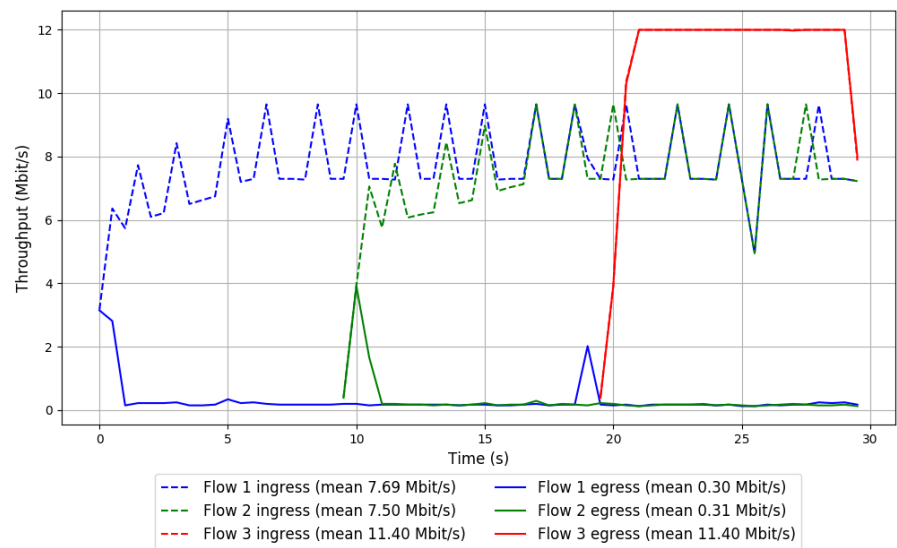
-- Flow 3:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 50.143 ms

Loss rate: 0.01%

Run 10: Report of KohoCC — Data Link

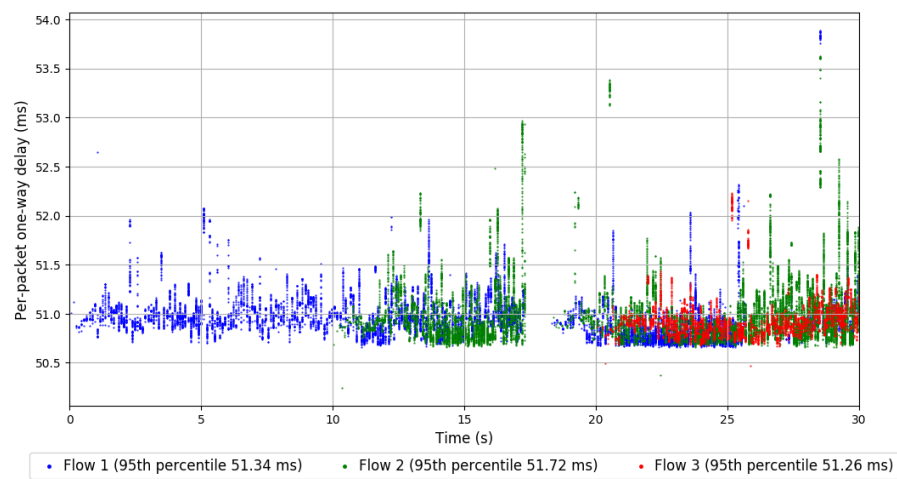
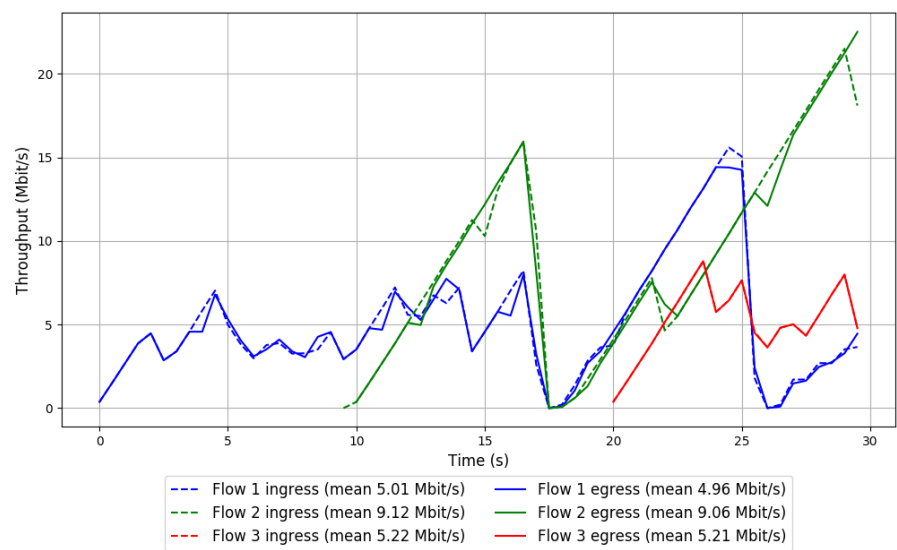


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-21 07:31:47
End at: 2017-08-21 07:32:17

# Below is generated by plot.py at 2017-08-21 10:42:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.70 Mbit/s
95th percentile per-packet one-way delay: 51.501 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 4.96 Mbit/s
95th percentile per-packet one-way delay: 51.344 ms
Loss rate: 0.99%
-- Flow 2:
Average throughput: 9.06 Mbit/s
95th percentile per-packet one-way delay: 51.722 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 5.21 Mbit/s
95th percentile per-packet one-way delay: 51.261 ms
Loss rate: 0.09%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-08-21 07:42:41

End at: 2017-08-21 07:43:11

Below is generated by plot.py at 2017-08-21 10:42:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.60 Mbit/s

95th percentile per-packet one-way delay: 51.781 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 5.30 Mbit/s

95th percentile per-packet one-way delay: 51.866 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 51.741 ms

Loss rate: 1.10%

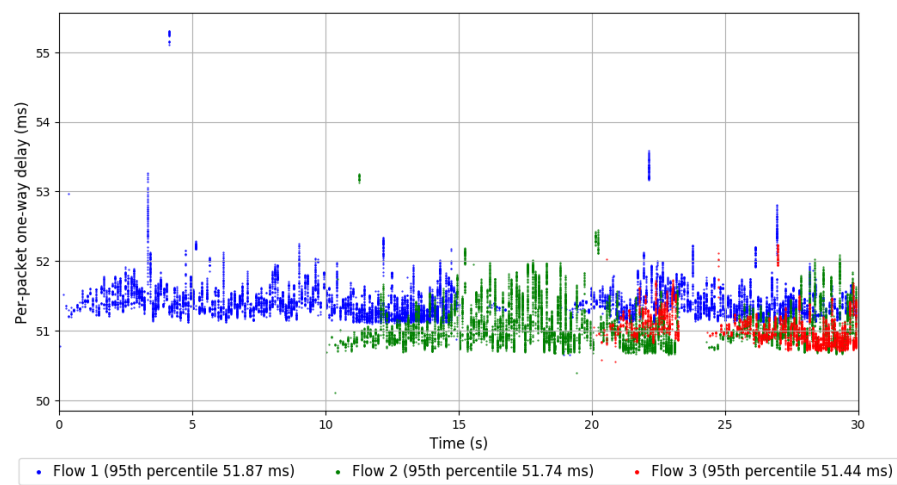
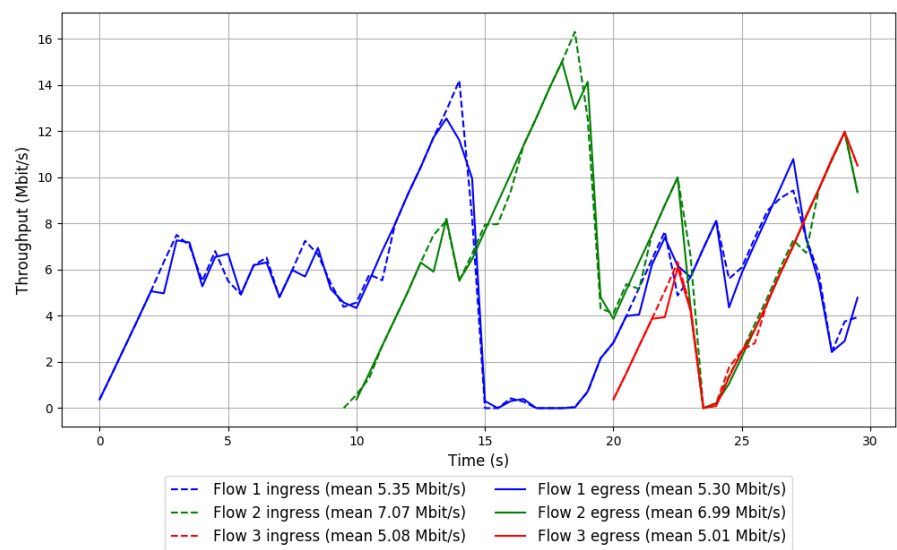
-- Flow 3:

Average throughput: 5.01 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 1.50%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-21 07:53:44

End at: 2017-08-21 07:54:14

Below is generated by plot.py at 2017-08-21 10:42:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.49 Mbit/s

95th percentile per-packet one-way delay: 51.675 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 9.54 Mbit/s

95th percentile per-packet one-way delay: 51.784 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 51.428 ms

Loss rate: 1.36%

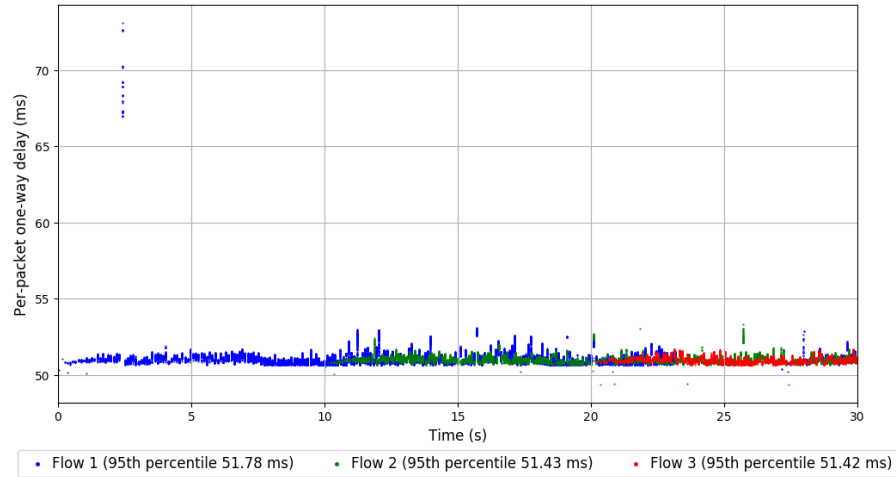
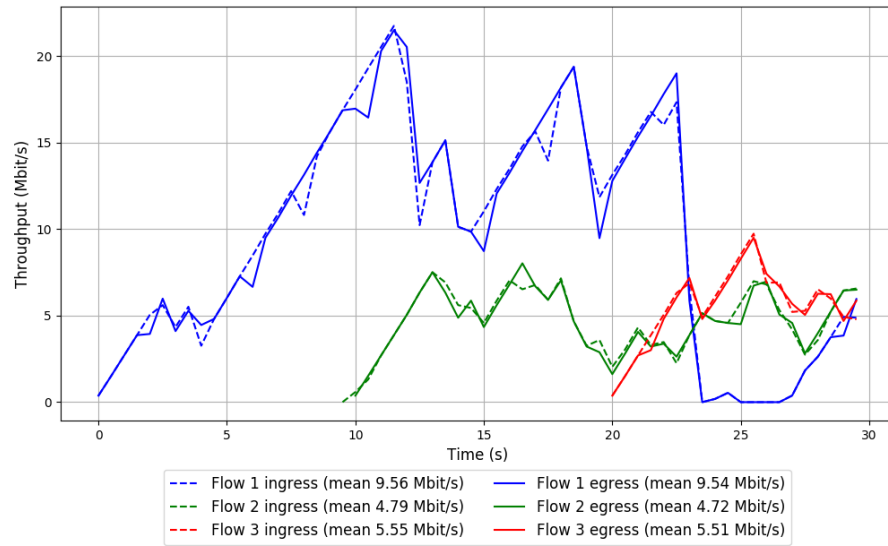
-- Flow 3:

Average throughput: 5.51 Mbit/s

95th percentile per-packet one-way delay: 51.417 ms

Loss rate: 0.71%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-21 08:04:32

End at: 2017-08-21 08:05:02

Below is generated by plot.py at 2017-08-21 10:42:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 51.716 ms

Loss rate: 2.17%

-- Flow 1:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 51.269 ms

Loss rate: 4.01%

-- Flow 2:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 52.150 ms

Loss rate: 2.00%

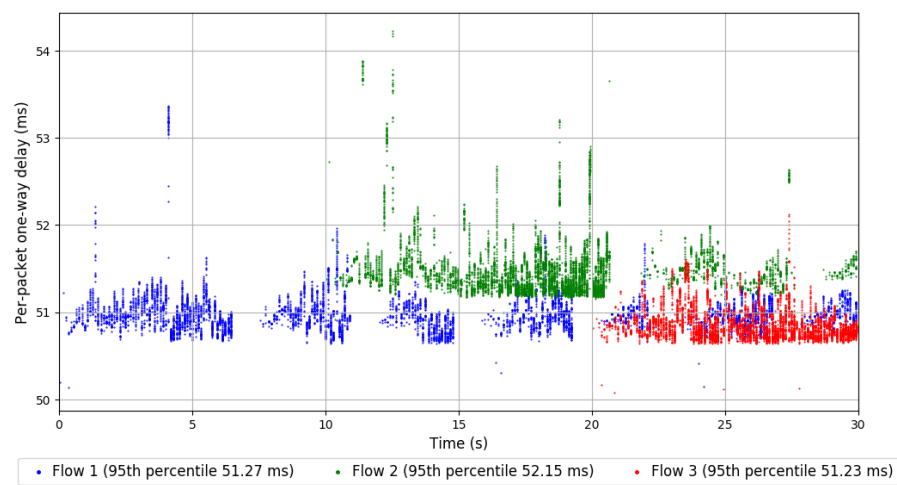
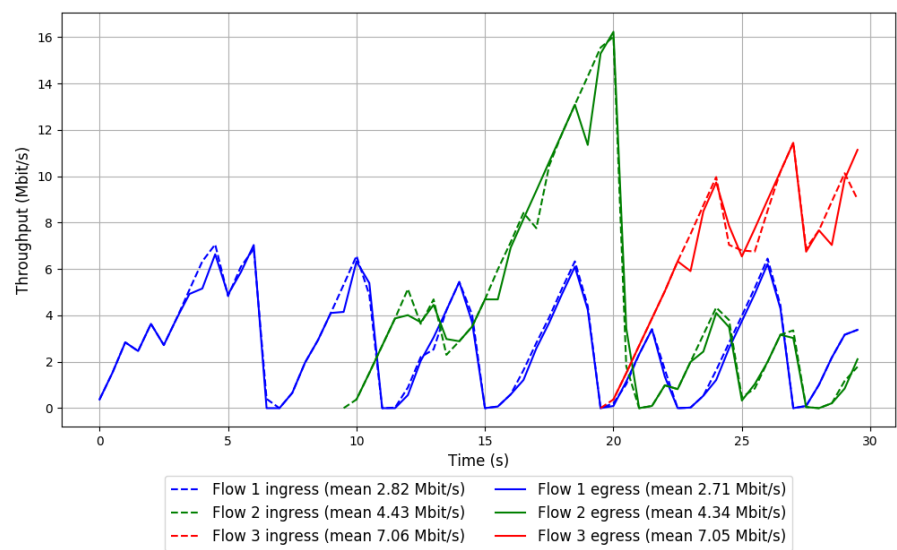
-- Flow 3:

Average throughput: 7.05 Mbit/s

95th percentile per-packet one-way delay: 51.227 ms

Loss rate: 0.15%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-21 08:15:20

End at: 2017-08-21 08:15:50

Below is generated by plot.py at 2017-08-21 10:42:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.14 Mbit/s

95th percentile per-packet one-way delay: 51.931 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 6.82 Mbit/s

95th percentile per-packet one-way delay: 52.008 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 51.426 ms

Loss rate: 1.97%

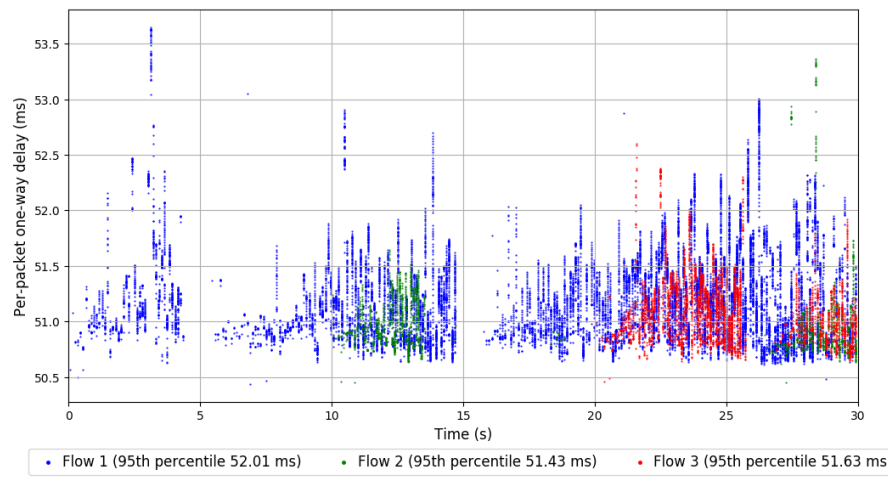
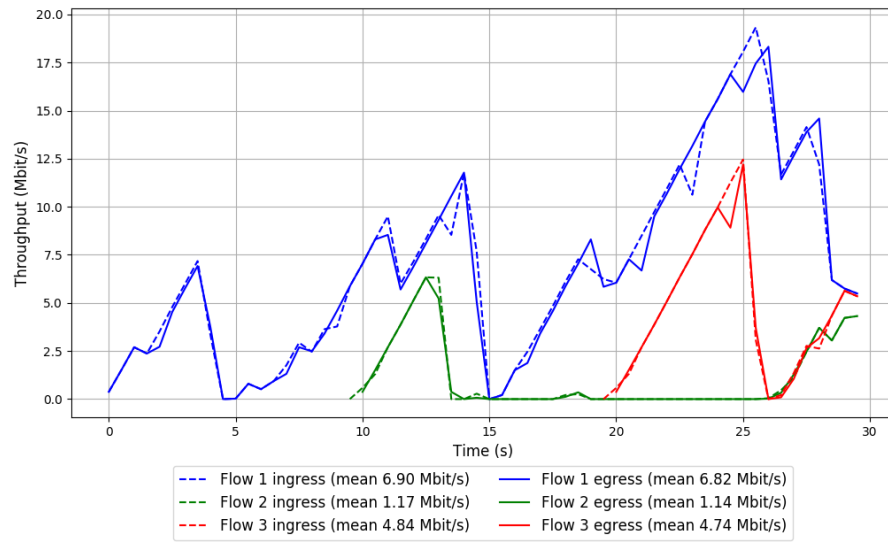
-- Flow 3:

Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 51.627 ms

Loss rate: 2.07%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-21 08:26:10

End at: 2017-08-21 08:26:40

Below is generated by plot.py at 2017-08-21 10:42:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 50.987 ms

Loss rate: 2.25%

-- Flow 1:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 50.982 ms

Loss rate: 2.59%

-- Flow 2:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 50.969 ms

Loss rate: 2.65%

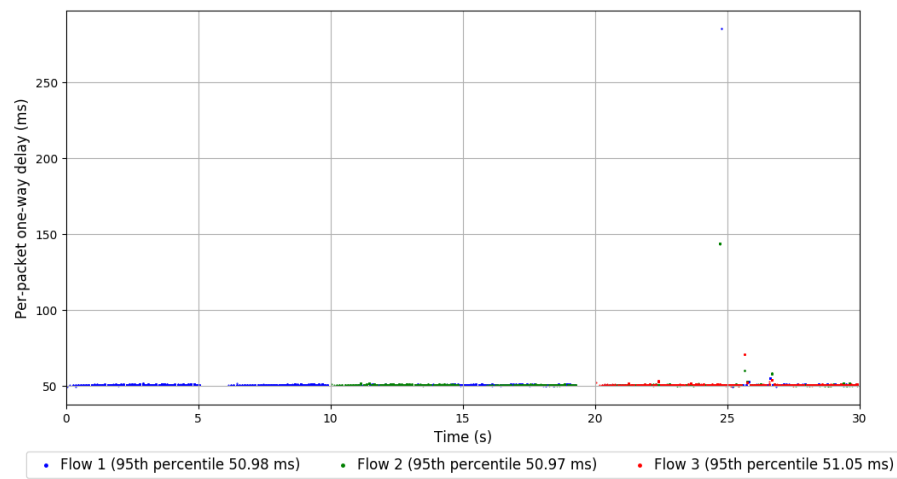
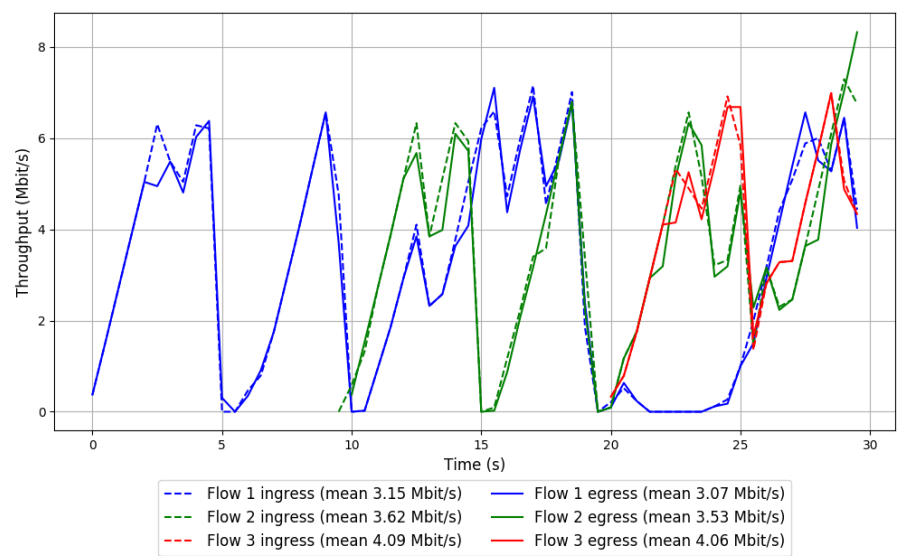
-- Flow 3:

Average throughput: 4.06 Mbit/s

95th percentile per-packet one-way delay: 51.055 ms

Loss rate: 0.73%

Run 6: Report of LEDBAT — Data Link

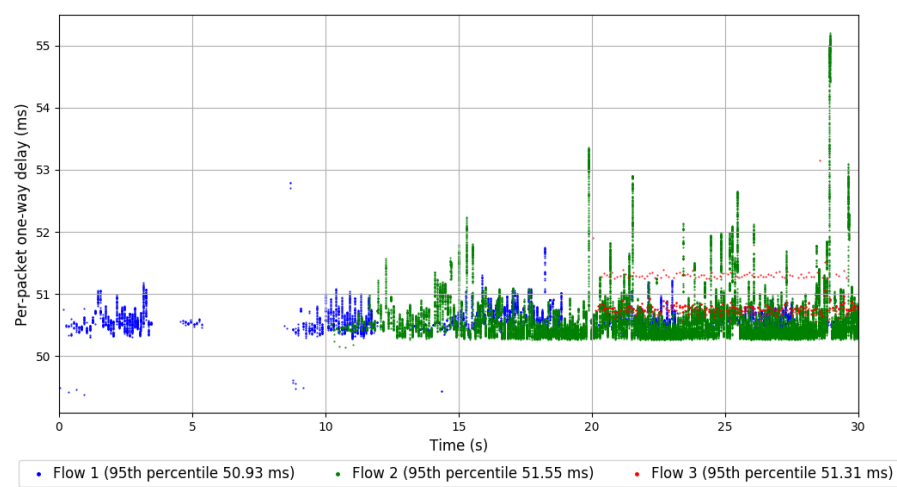
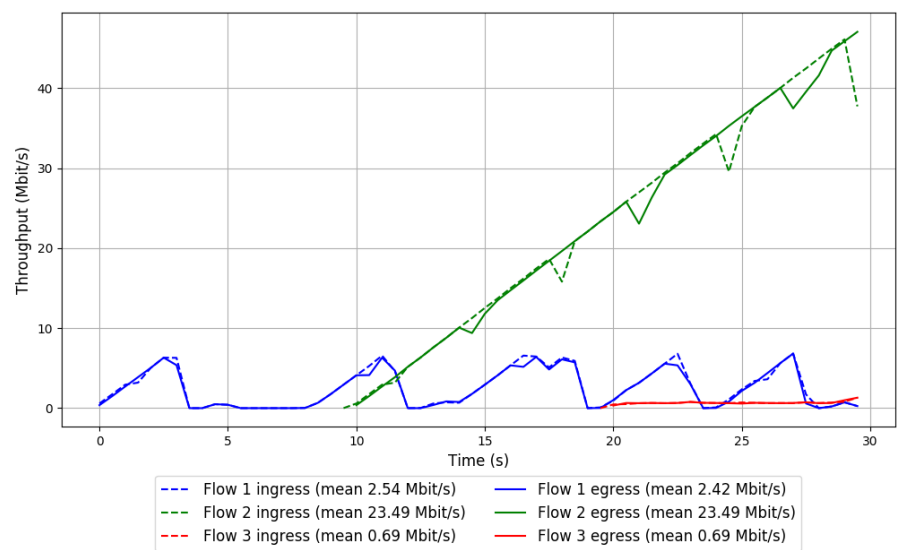


```
Run 7: Statistics of LEDBAT

Start at: 2017-08-21 08:37:01
End at: 2017-08-21 08:37:31

# Below is generated by plot.py at 2017-08-21 10:42:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.28 Mbit/s
95th percentile per-packet one-way delay: 51.452 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 2.42 Mbit/s
95th percentile per-packet one-way delay: 50.932 ms
Loss rate: 4.64%
-- Flow 2:
Average throughput: 23.49 Mbit/s
95th percentile per-packet one-way delay: 51.555 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 51.308 ms
Loss rate: 0.00%
```

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-21 08:48:06

End at: 2017-08-21 08:48:36

Below is generated by plot.py at 2017-08-21 10:42:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.23 Mbit/s

95th percentile per-packet one-way delay: 51.991 ms

Loss rate: 3.12%

-- Flow 1:

Average throughput: 2.65 Mbit/s

95th percentile per-packet one-way delay: 51.813 ms

Loss rate: 3.00%

-- Flow 2:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 52.065 ms

Loss rate: 3.27%

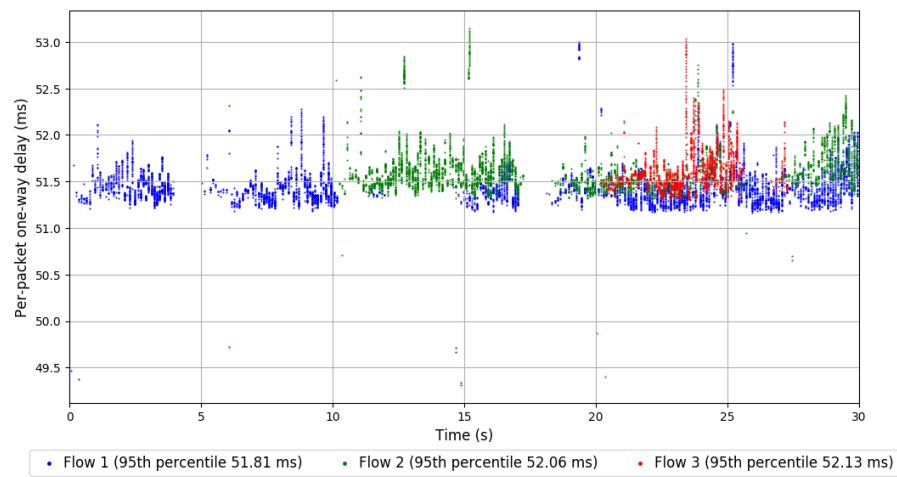
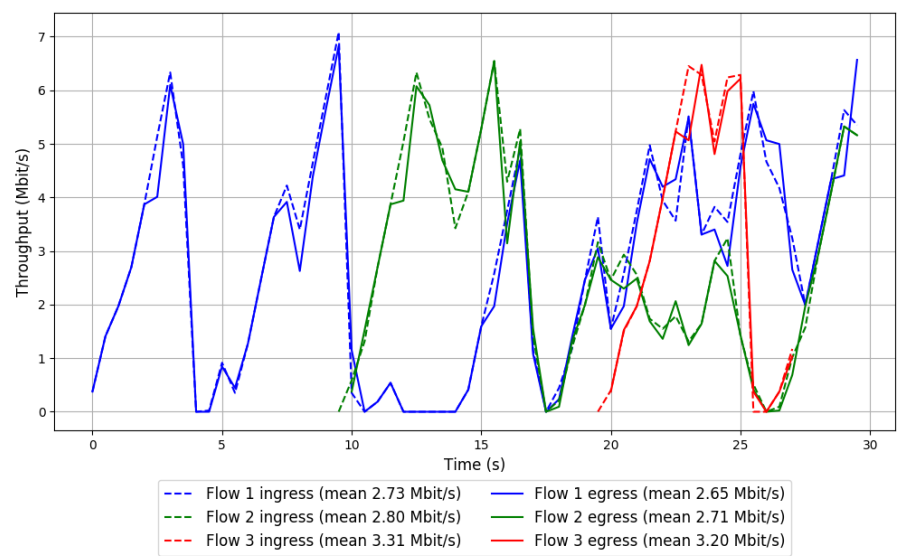
-- Flow 3:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 52.126 ms

Loss rate: 3.19%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-21 08:59:01

End at: 2017-08-21 08:59:31

Below is generated by plot.py at 2017-08-21 10:43:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.28 Mbit/s

95th percentile per-packet one-way delay: 51.241 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 12.12 Mbit/s

95th percentile per-packet one-way delay: 50.624 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 9.81 Mbit/s

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

Loss rate: 0.25%

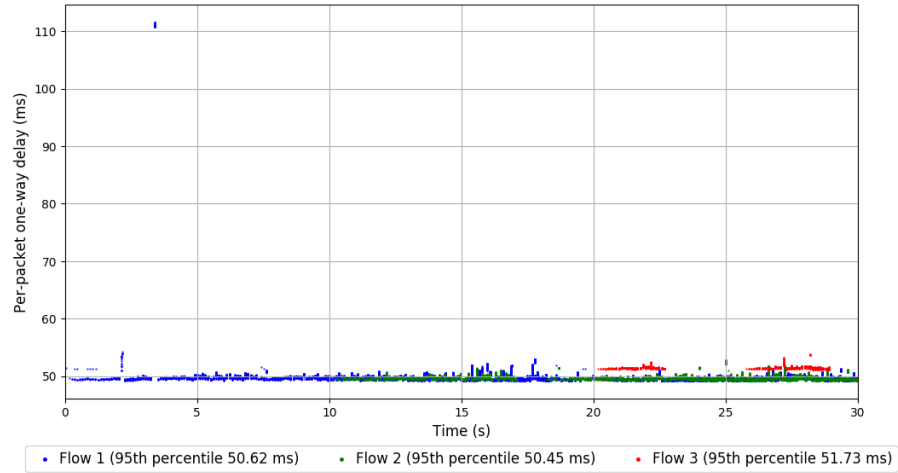
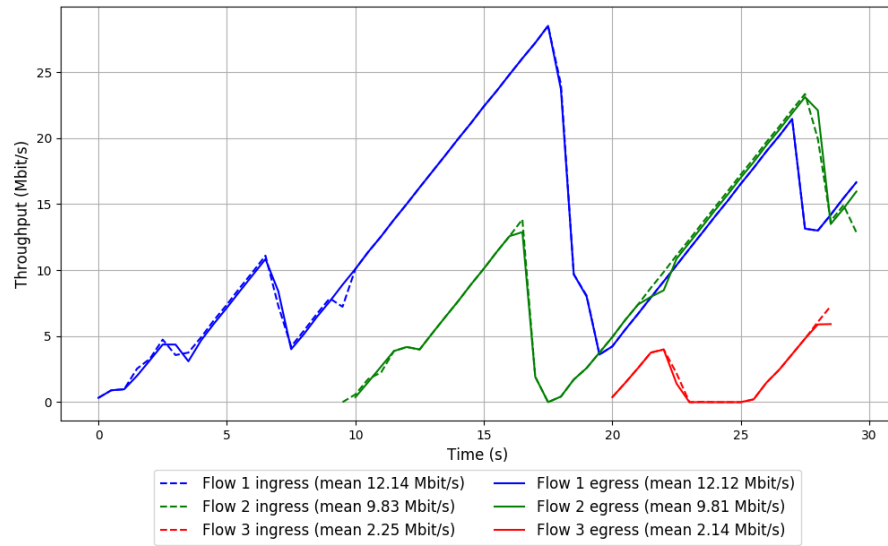
-- Flow 3:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 51.729 ms

Loss rate: 5.82%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-21 09:10:17

End at: 2017-08-21 09:10:47

Below is generated by plot.py at 2017-08-21 10:43:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.94 Mbit/s

95th percentile per-packet one-way delay: 51.913 ms

Loss rate: 4.97%

-- Flow 1:

Average throughput: 2.50 Mbit/s

95th percentile per-packet one-way delay: 51.976 ms

Loss rate: 5.25%

-- Flow 2:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 51.865 ms

Loss rate: 4.73%

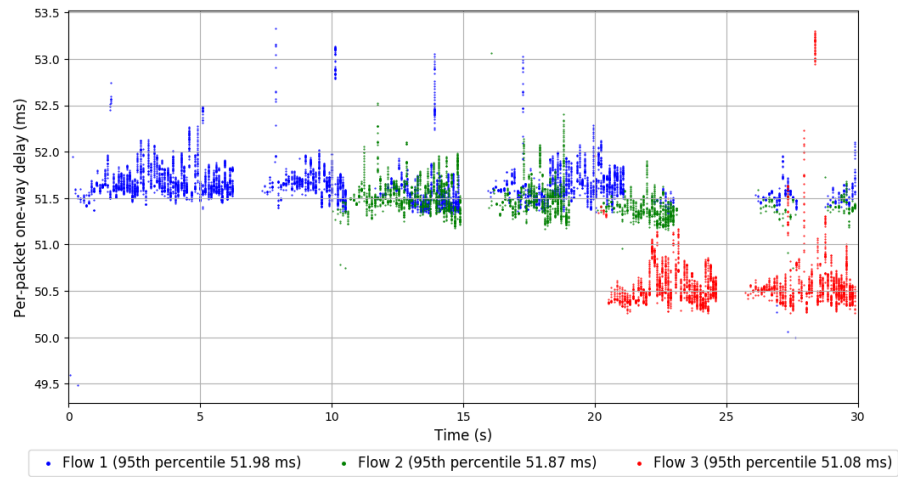
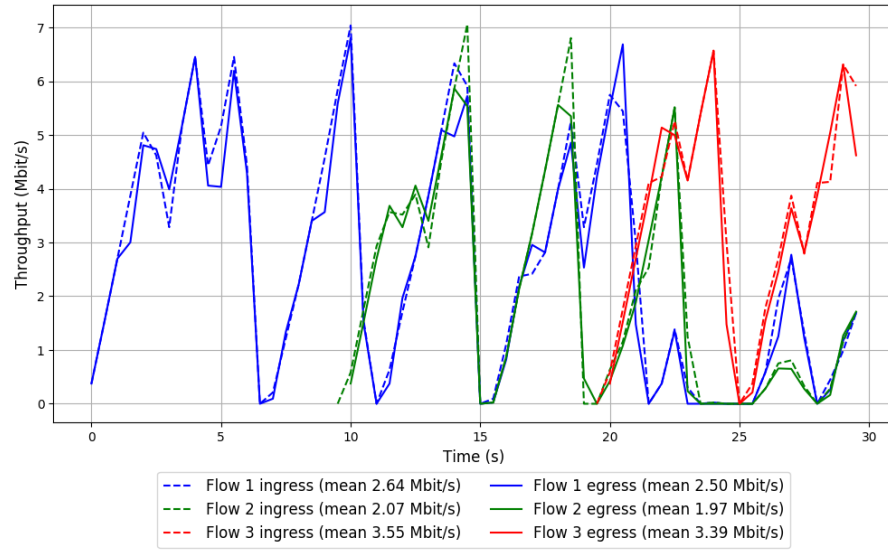
-- Flow 3:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 51.076 ms

Loss rate: 4.63%

Run 10: Report of LEDBAT — Data Link

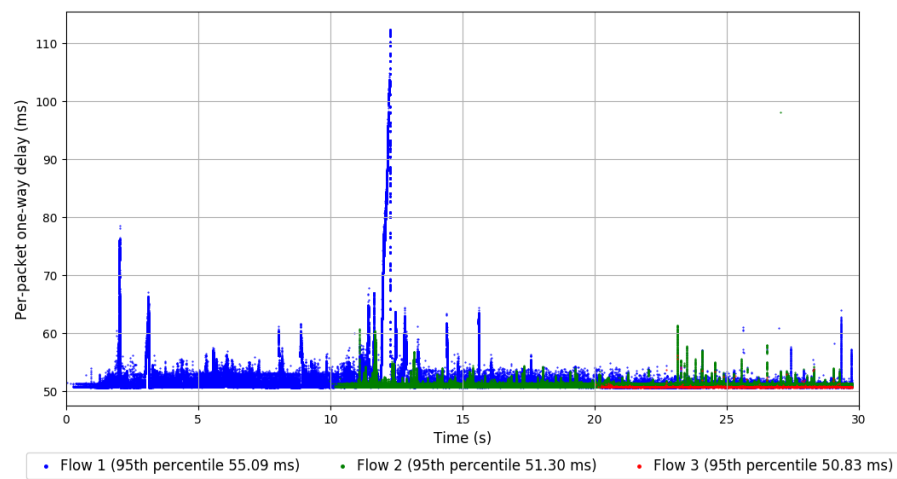
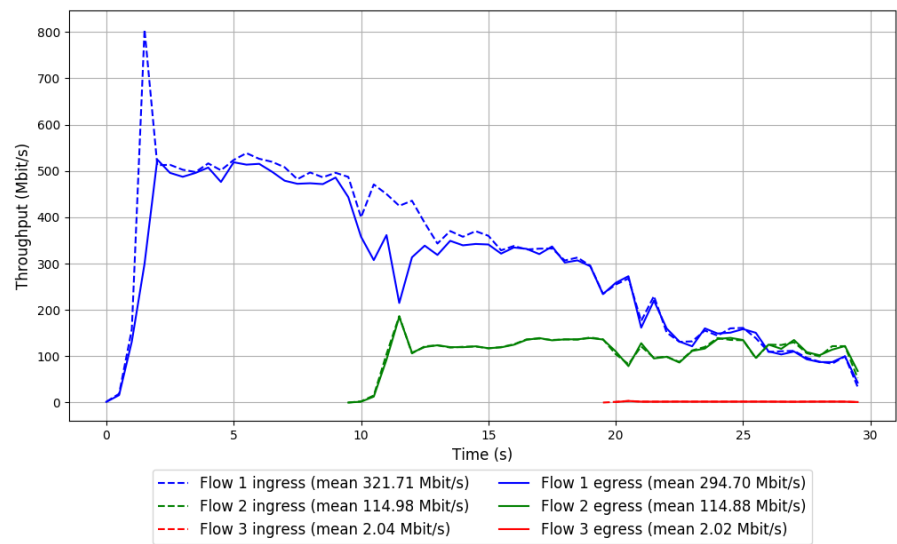


```
Run 1: Statistics of PCC

Start at: 2017-08-21 07:30:52
End at: 2017-08-21 07:31:22

# Below is generated by plot.py at 2017-08-21 10:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 371.91 Mbit/s
95th percentile per-packet one-way delay: 54.064 ms
Loss rate: 6.79%
-- Flow 1:
Average throughput: 294.70 Mbit/s
95th percentile per-packet one-way delay: 55.090 ms
Loss rate: 8.40%
-- Flow 2:
Average throughput: 114.88 Mbit/s
95th percentile per-packet one-way delay: 51.304 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 1.03%
```

Run 1: Report of PCC — Data Link

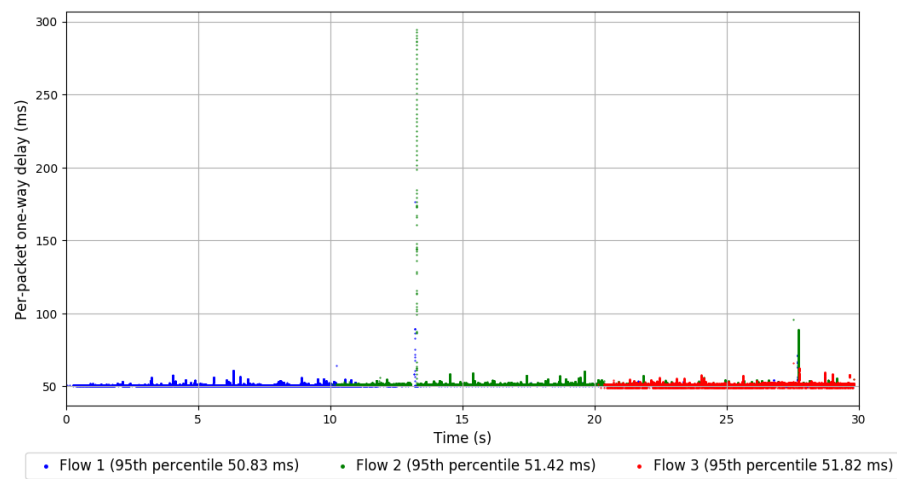
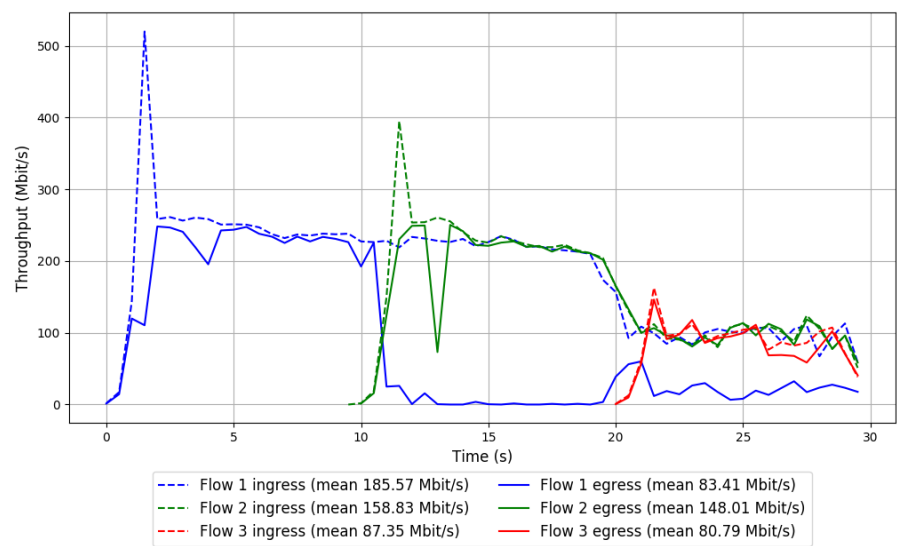


```
Run 2: Statistics of PCC

Start at: 2017-08-21 07:41:51
End at: 2017-08-21 07:42:21

# Below is generated by plot.py at 2017-08-21 10:43:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.15 Mbit/s
95th percentile per-packet one-way delay: 51.458 ms
Loss rate: 34.88%
-- Flow 1:
Average throughput: 83.41 Mbit/s
95th percentile per-packet one-way delay: 50.834 ms
Loss rate: 55.06%
-- Flow 2:
Average throughput: 148.01 Mbit/s
95th percentile per-packet one-way delay: 51.420 ms
Loss rate: 6.80%
-- Flow 3:
Average throughput: 80.79 Mbit/s
95th percentile per-packet one-way delay: 51.818 ms
Loss rate: 7.48%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-21 07:52:50

End at: 2017-08-21 07:53:20

Below is generated by plot.py at 2017-08-21 10:44:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 351.47 Mbit/s

95th percentile per-packet one-way delay: 55.084 ms

Loss rate: 3.06%

-- Flow 1:

Average throughput: 349.54 Mbit/s

95th percentile per-packet one-way delay: 55.133 ms

Loss rate: 3.05%

-- Flow 2:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 50.894 ms

Loss rate: 4.91%

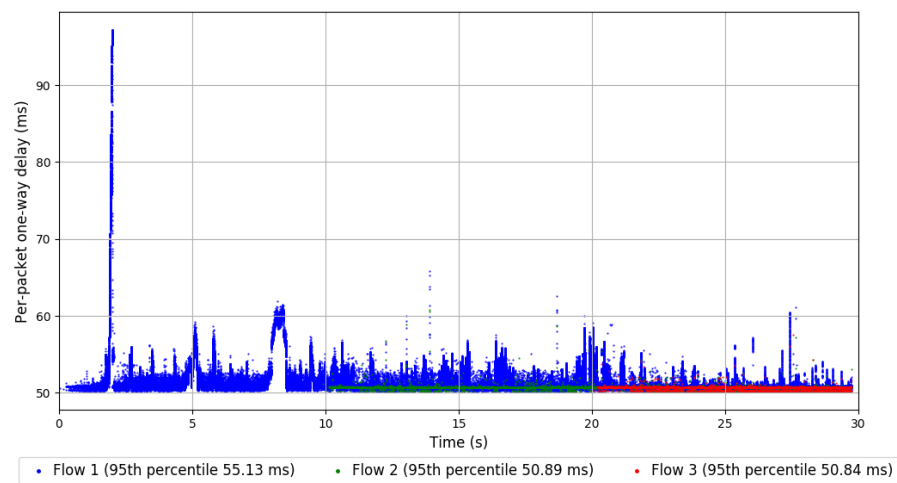
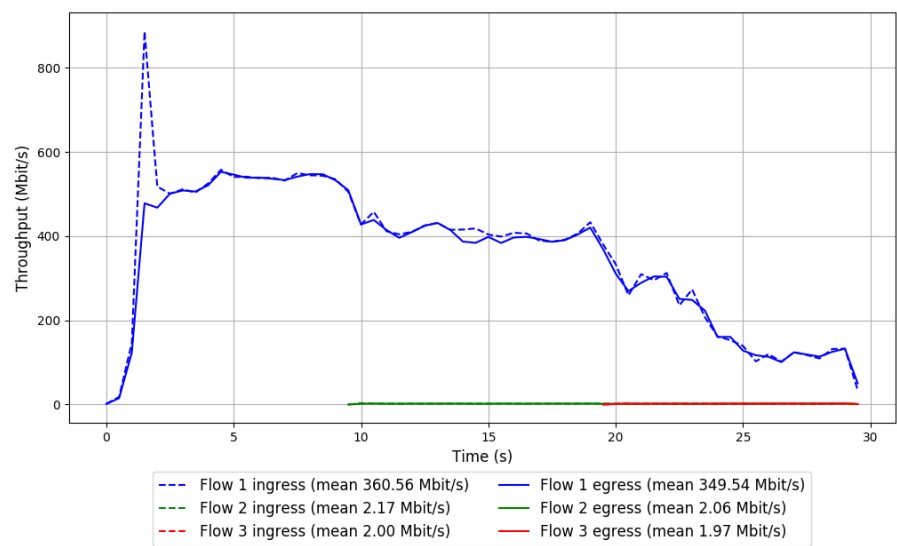
-- Flow 3:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 50.835 ms

Loss rate: 1.78%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-21 08:03:42

End at: 2017-08-21 08:04:12

Below is generated by plot.py at 2017-08-21 10:44:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.37 Mbit/s

95th percentile per-packet one-way delay: 51.187 ms

Loss rate: 4.83%

-- Flow 1:

Average throughput: 236.81 Mbit/s

95th percentile per-packet one-way delay: 51.193 ms

Loss rate: 4.83%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 50.977 ms

Loss rate: 31.77%

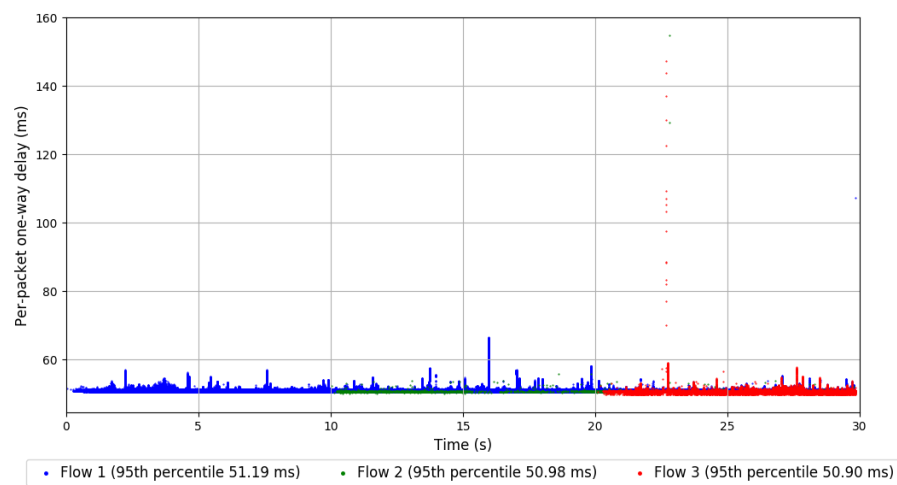
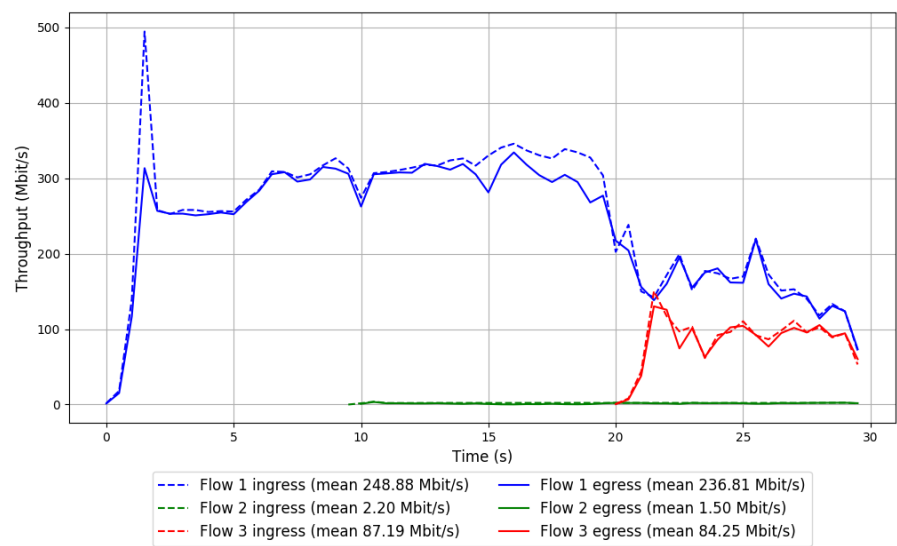
-- Flow 3:

Average throughput: 84.25 Mbit/s

95th percentile per-packet one-way delay: 50.901 ms

Loss rate: 3.46%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-21 08:14:30

End at: 2017-08-21 08:15:00

Below is generated by plot.py at 2017-08-21 10:45:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 201.43 Mbit/s

95th percentile per-packet one-way delay: 50.875 ms

Loss rate: 22.27%

-- Flow 1:

Average throughput: 81.67 Mbit/s

95th percentile per-packet one-way delay: 50.787 ms

Loss rate: 40.75%

-- Flow 2:

Average throughput: 178.82 Mbit/s

95th percentile per-packet one-way delay: 51.010 ms

Loss rate: 1.16%

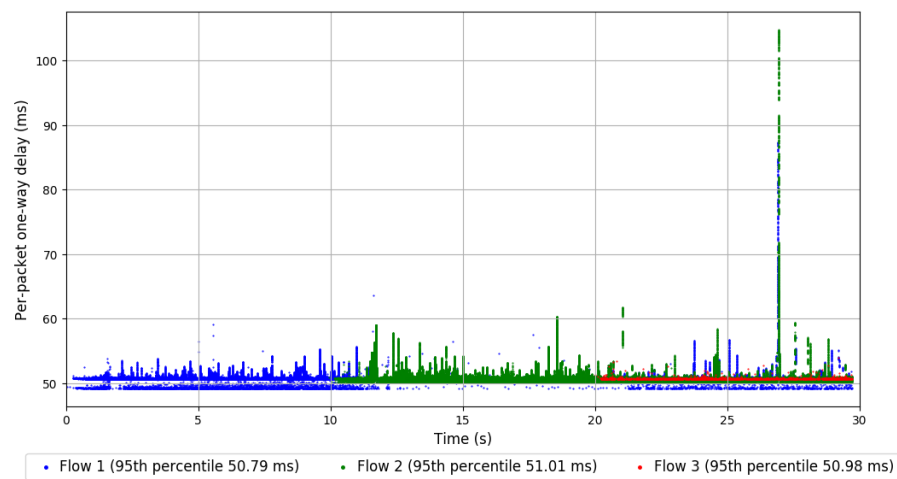
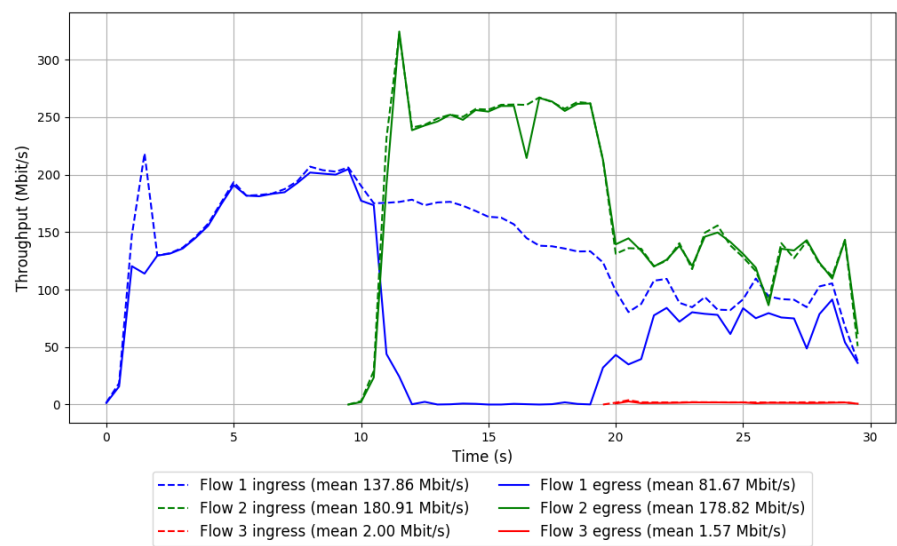
-- Flow 3:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 50.978 ms

Loss rate: 21.49%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-21 08:25:21

End at: 2017-08-21 08:25:51

Below is generated by plot.py at 2017-08-21 10:45:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 219.47 Mbit/s

95th percentile per-packet one-way delay: 50.593 ms

Loss rate: 5.94%

-- Flow 1:

Average throughput: 199.61 Mbit/s

95th percentile per-packet one-way delay: 50.728 ms

Loss rate: 6.31%

-- Flow 2:

Average throughput: 28.80 Mbit/s

95th percentile per-packet one-way delay: 50.396 ms

Loss rate: 2.20%

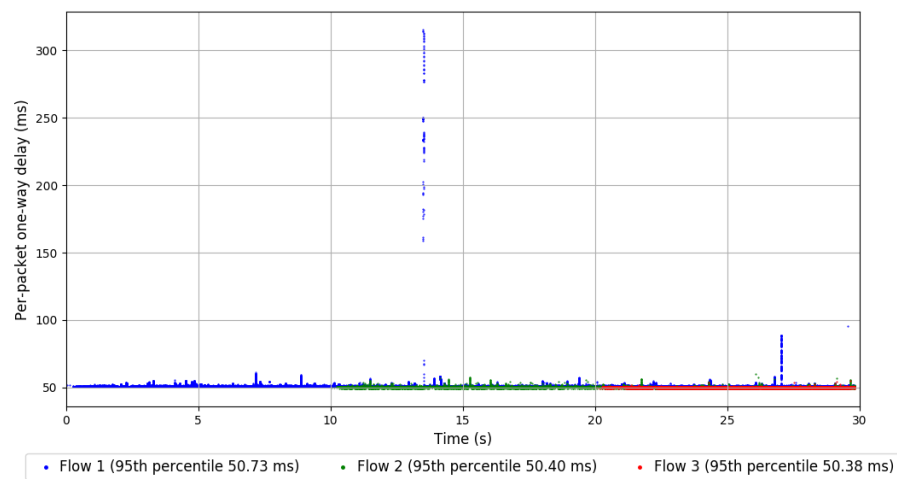
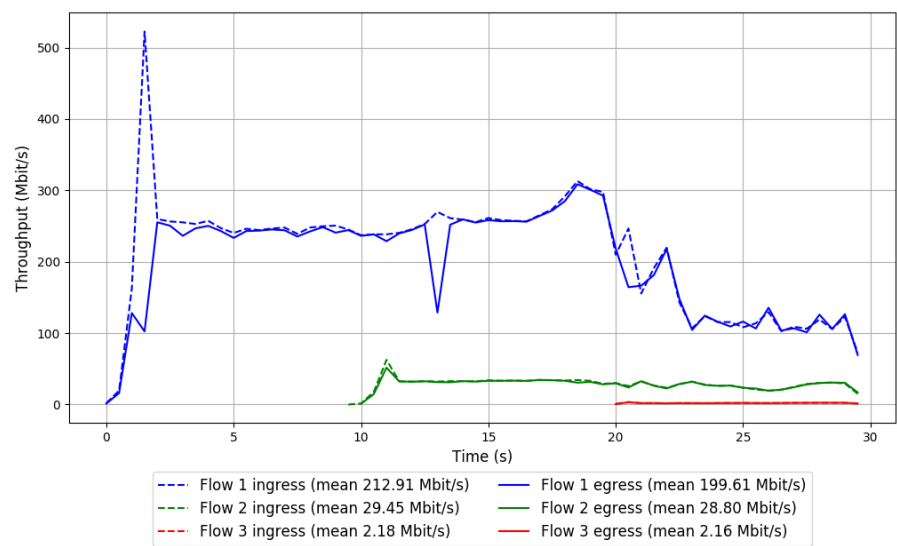
-- Flow 3:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 50.381 ms

Loss rate: 0.96%

Run 6: Report of PCC — Data Link

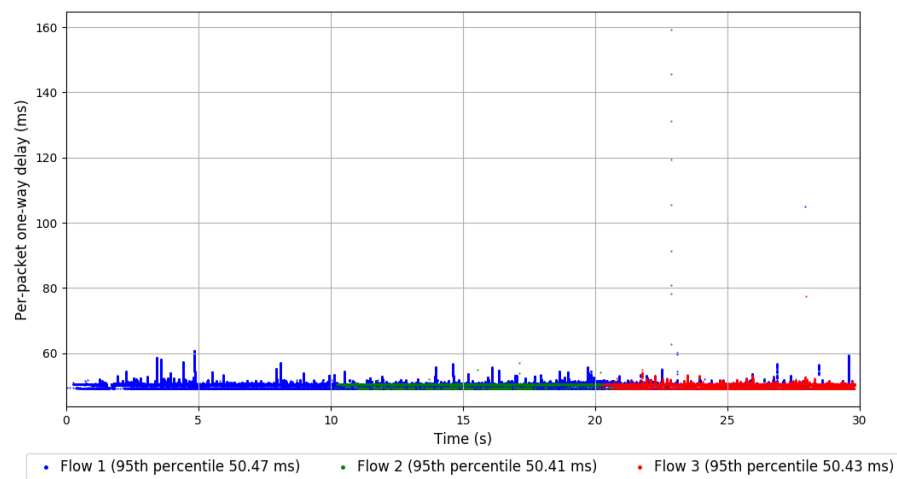
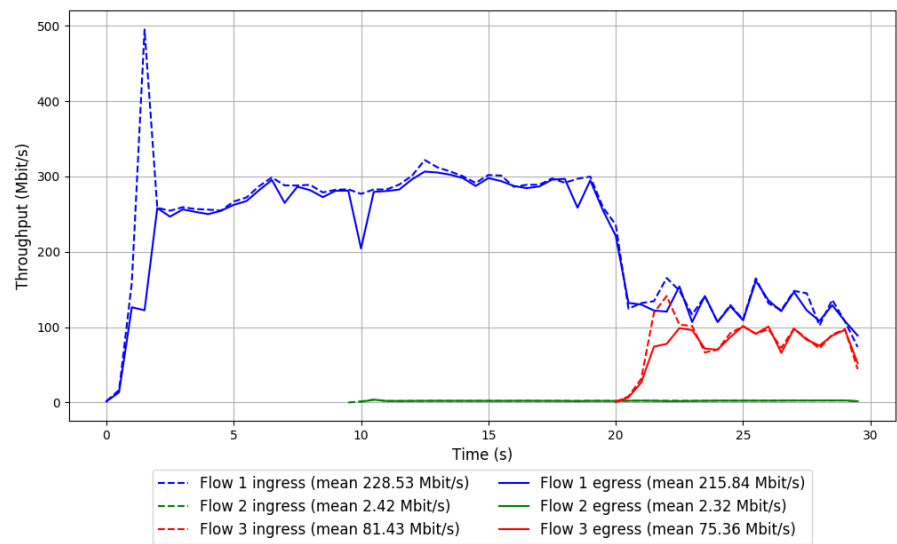


```
Run 7: Statistics of PCC

Start at: 2017-08-21 08:36:11
End at: 2017-08-21 08:36:41

# Below is generated by plot.py at 2017-08-21 10:46:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 241.97 Mbit/s
95th percentile per-packet one-way delay: 50.460 ms
Loss rate: 5.75%
-- Flow 1:
Average throughput: 215.84 Mbit/s
95th percentile per-packet one-way delay: 50.466 ms
Loss rate: 5.55%
-- Flow 2:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 50.409 ms
Loss rate: 4.01%
-- Flow 3:
Average throughput: 75.36 Mbit/s
95th percentile per-packet one-way delay: 50.431 ms
Loss rate: 7.56%
```

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-21 08:47:09

End at: 2017-08-21 08:47:39

Below is generated by plot.py at 2017-08-21 10:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 407.62 Mbit/s

95th percentile per-packet one-way delay: 65.324 ms

Loss rate: 5.00%

-- Flow 1:

Average throughput: 362.97 Mbit/s

95th percentile per-packet one-way delay: 68.849 ms

Loss rate: 5.03%

-- Flow 2:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 51.232 ms

Loss rate: 53.66%

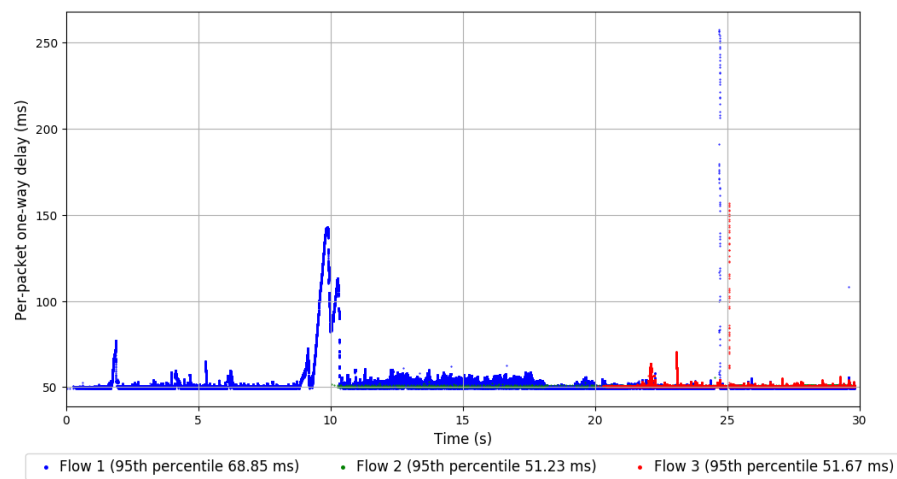
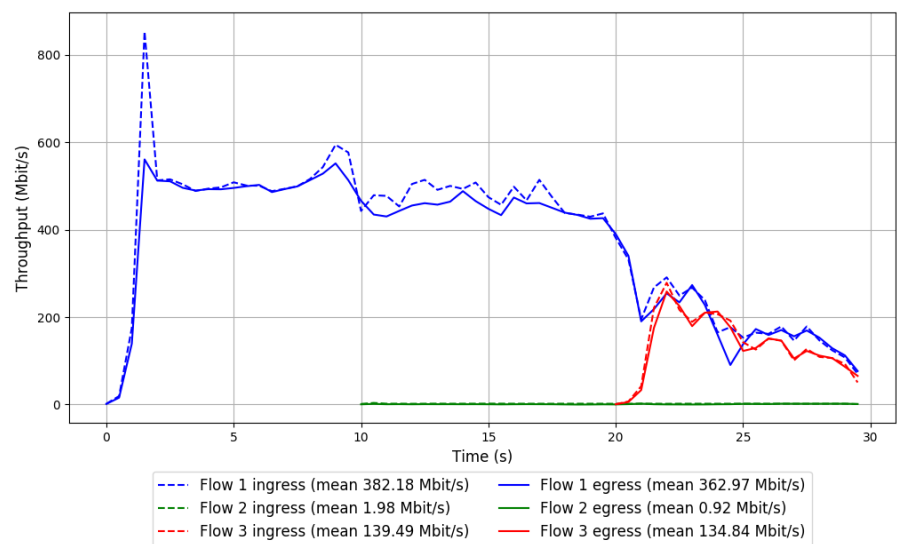
-- Flow 3:

Average throughput: 134.84 Mbit/s

95th percentile per-packet one-way delay: 51.666 ms

Loss rate: 3.34%

Run 8: Report of PCC — Data Link

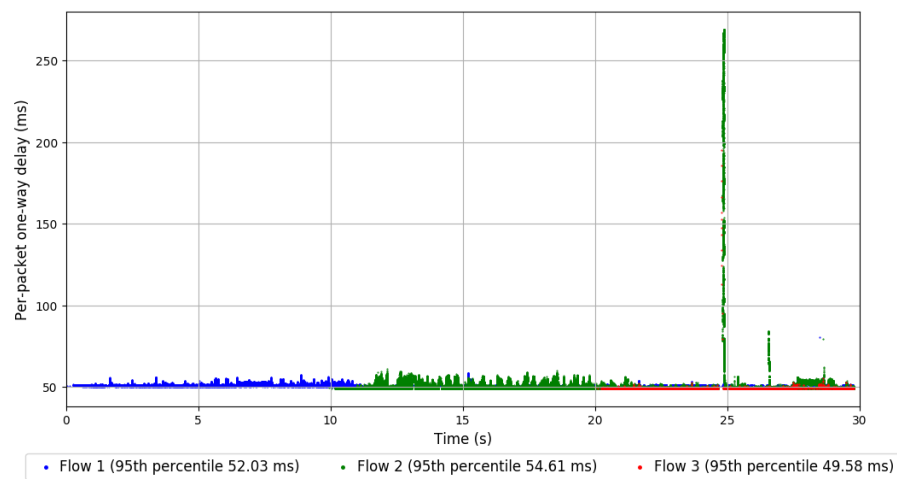
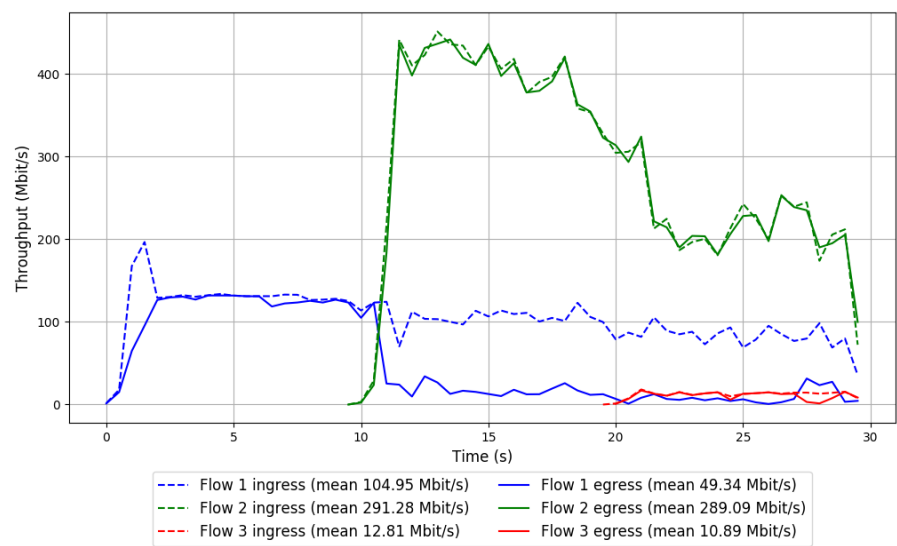


```
Run 9: Statistics of PCC

Start at: 2017-08-21 08:58:10
End at: 2017-08-21 08:58:40

# Below is generated by plot.py at 2017-08-21 10:46:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 245.72 Mbit/s
95th percentile per-packet one-way delay: 54.120 ms
Loss rate: 19.04%
-- Flow 1:
Average throughput: 49.34 Mbit/s
95th percentile per-packet one-way delay: 52.026 ms
Loss rate: 53.03%
-- Flow 2:
Average throughput: 289.09 Mbit/s
95th percentile per-packet one-way delay: 54.614 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 10.89 Mbit/s
95th percentile per-packet one-way delay: 49.576 ms
Loss rate: 15.00%
```

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-21 09:09:23

End at: 2017-08-21 09:09:53

Below is generated by plot.py at 2017-08-21 10:47:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 371.82 Mbit/s

95th percentile per-packet one-way delay: 51.479 ms

Loss rate: 3.09%

-- Flow 1:

Average throughput: 331.25 Mbit/s

95th percentile per-packet one-way delay: 51.571 ms

Loss rate: 3.03%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.364 ms

Loss rate: 90.94%

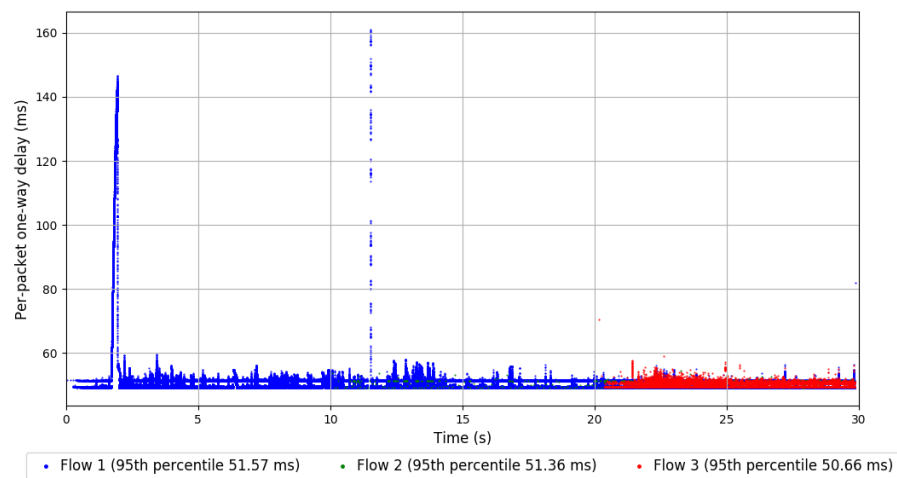
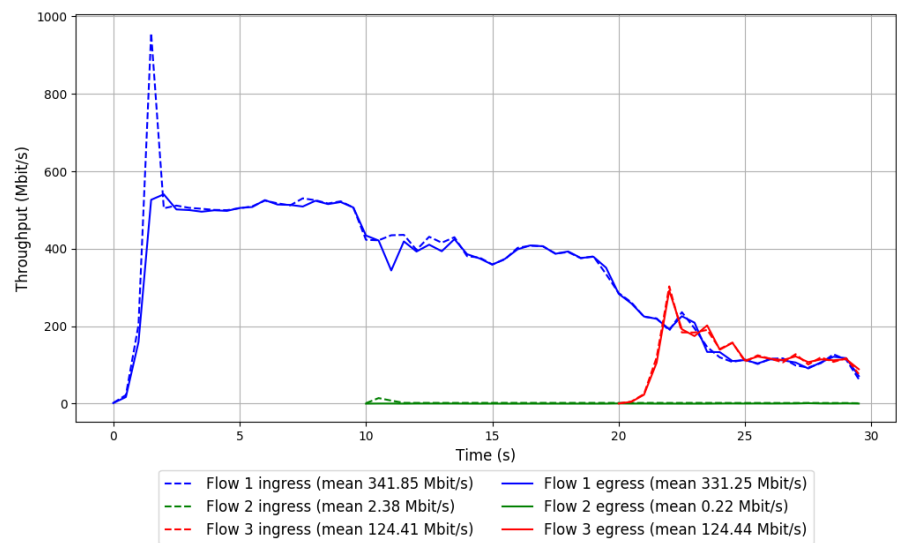
-- Flow 3:

Average throughput: 124.44 Mbit/s

95th percentile per-packet one-way delay: 50.660 ms

Loss rate: 0.19%

Run 10: Report of PCC — Data Link

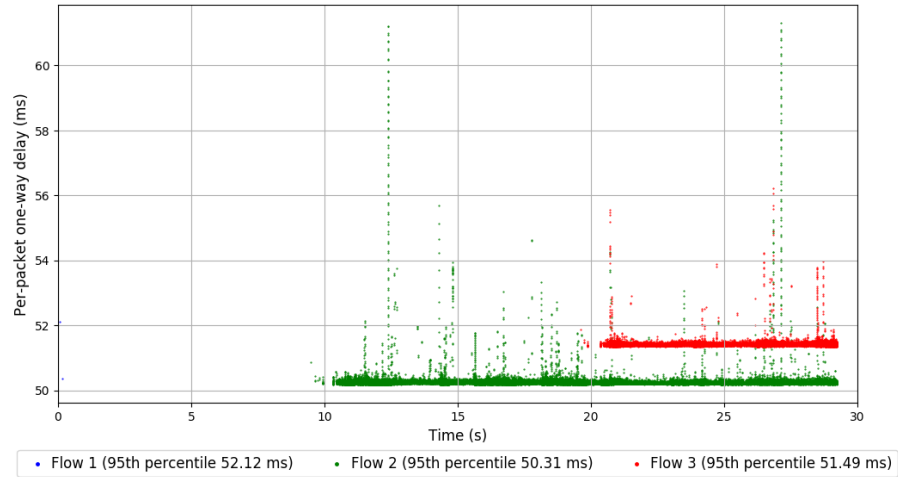
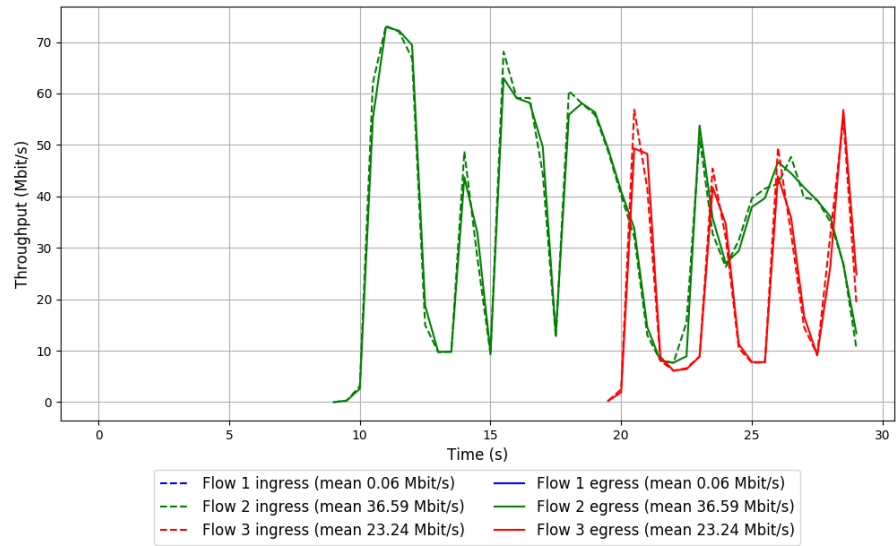


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-21 07:22:02
End at: 2017-08-21 07:22:32

# Below is generated by plot.py at 2017-08-21 10:47:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 32.42 Mbit/s
95th percentile per-packet one-way delay: 51.438 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 52.118 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 36.59 Mbit/s
95th percentile per-packet one-way delay: 50.315 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 23.24 Mbit/s
95th percentile per-packet one-way delay: 51.492 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-21 07:33:07

End at: 2017-08-21 07:33:37

Below is generated by plot.py at 2017-08-21 10:47:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.43 Mbit/s

95th percentile per-packet one-way delay: 51.322 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.452 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.93 Mbit/s

95th percentile per-packet one-way delay: 50.792 ms

Loss rate: 0.00%

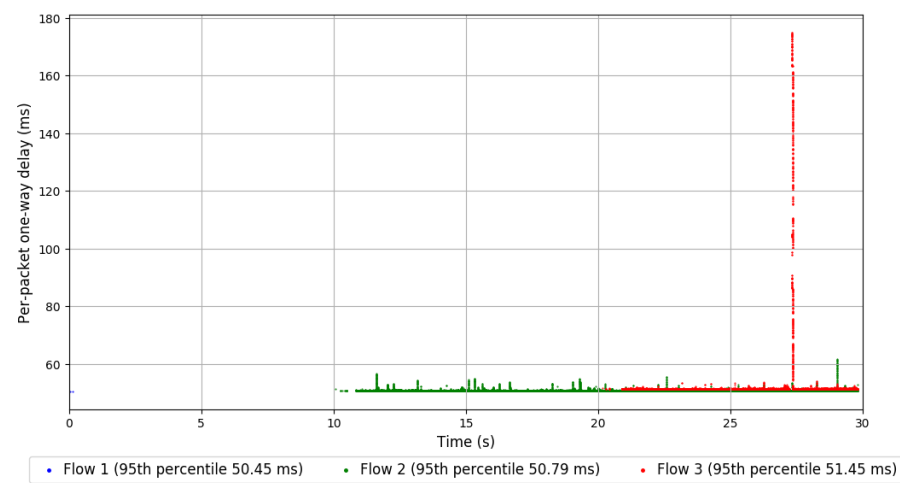
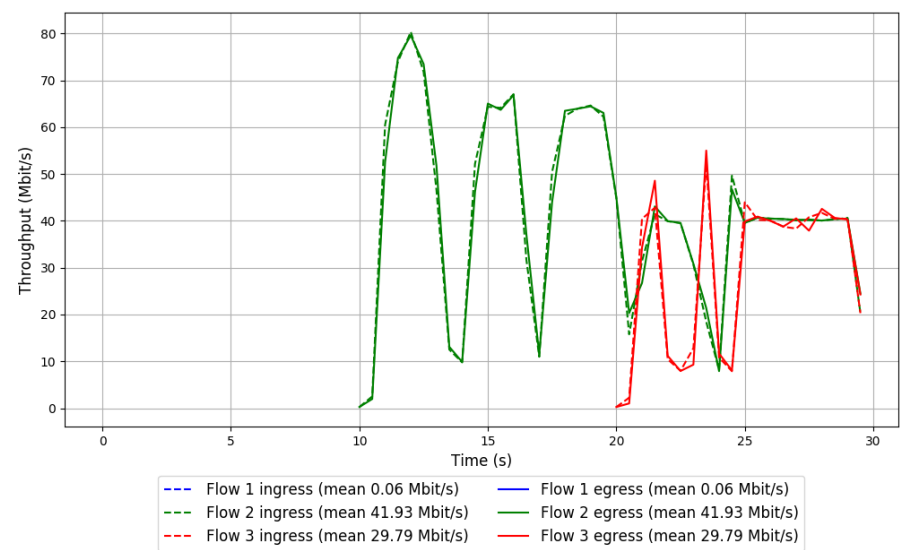
-- Flow 3:

Average throughput: 29.79 Mbit/s

95th percentile per-packet one-way delay: 51.446 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link

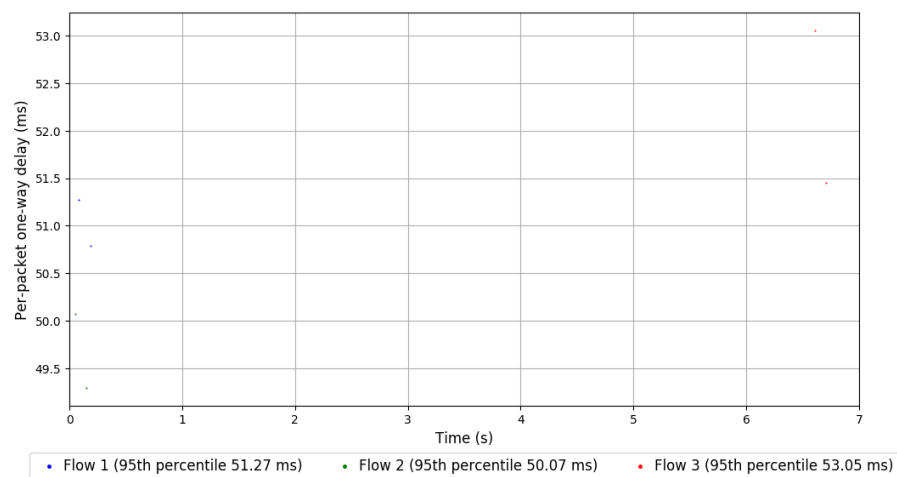
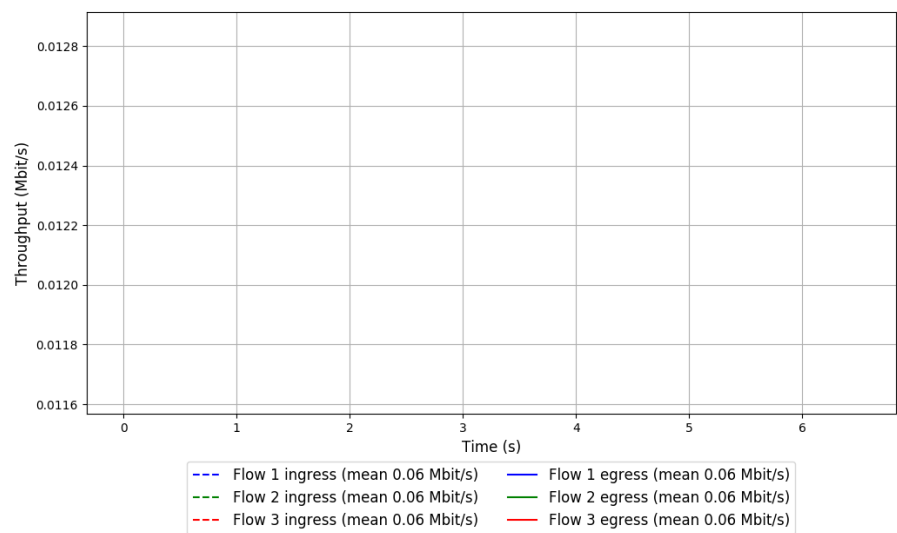


Run 3: Statistics of QUIC Cubic

Start at: 2017-08-21 07:44:01

End at: 2017-08-21 07:44:31

Run 3: Report of QUIC Cubic — Data Link

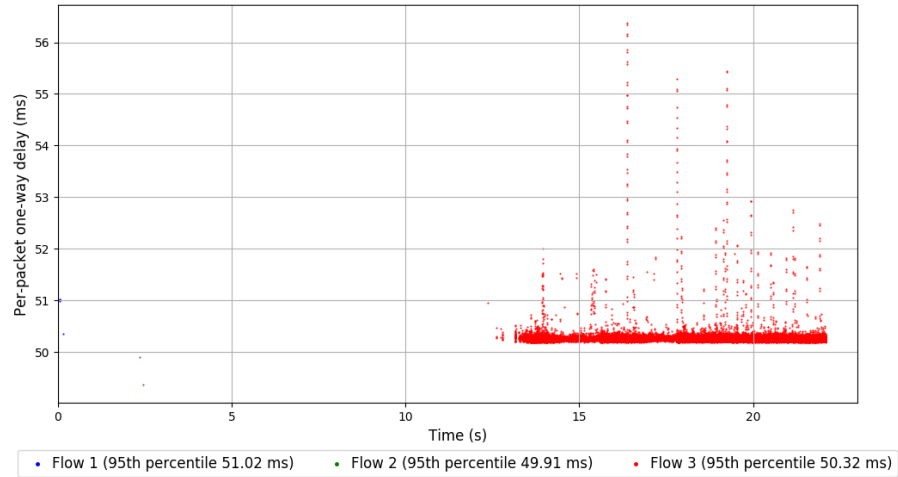
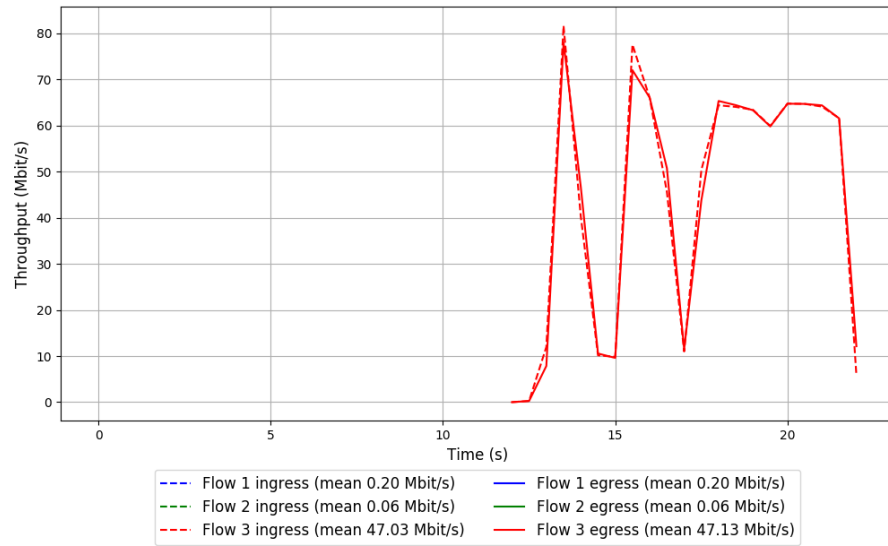


Run 4: Statistics of QUIC Cubic

Start at: 2017-08-21 07:55:04

End at: 2017-08-21 07:55:34

Run 4: Report of QUIC Cubic — Data Link

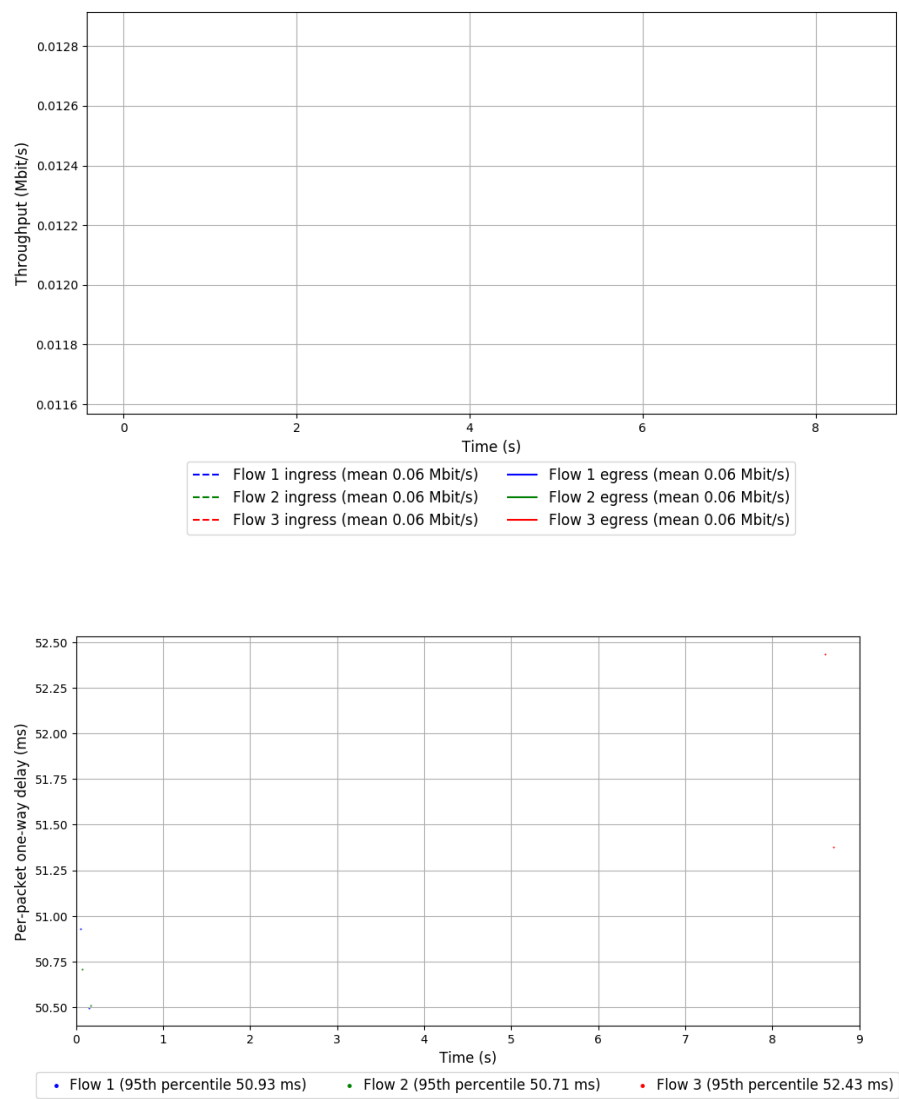


Run 5: Statistics of QUIC Cubic

Start at: 2017-08-21 08:05:52

End at: 2017-08-21 08:06:22

Run 5: Report of QUIC Cubic — Data Link

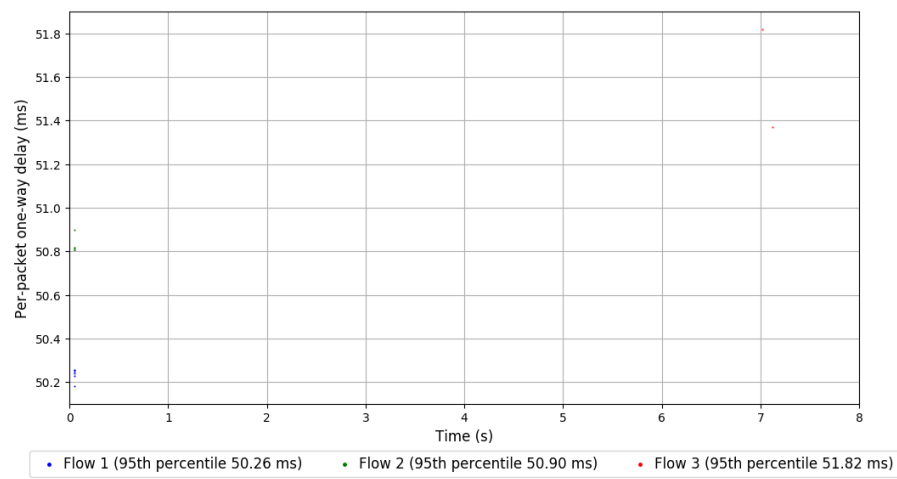
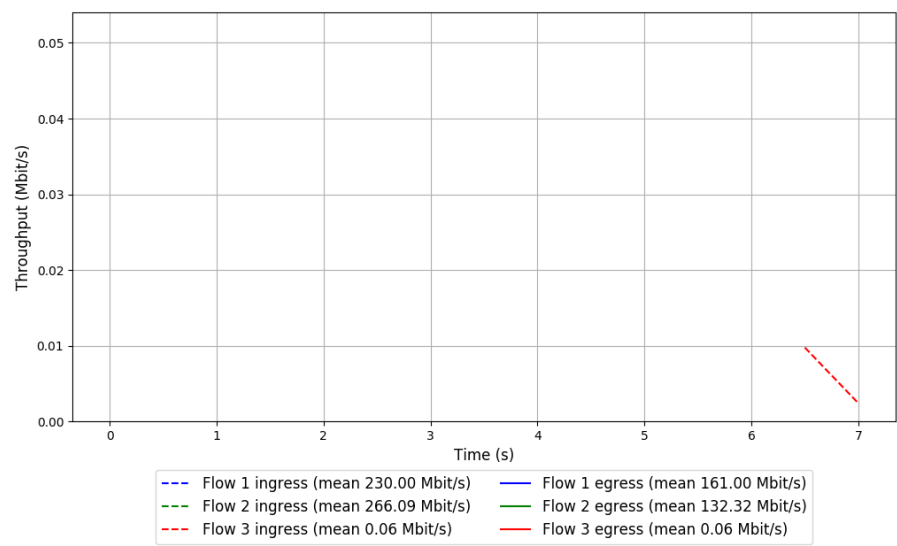


Run 6: Statistics of QUIC Cubic

Start at: 2017-08-21 08:16:40

End at: 2017-08-21 08:17:10

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-21 08:27:30

End at: 2017-08-21 08:28:00

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.65 Mbit/s

95th percentile per-packet one-way delay: 50.411 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.392 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.32 Mbit/s

95th percentile per-packet one-way delay: 50.341 ms

Loss rate: 0.00%

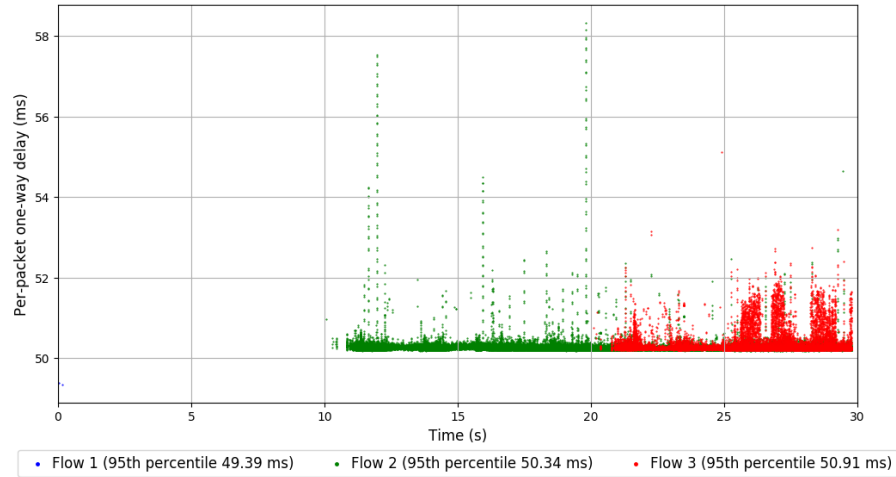
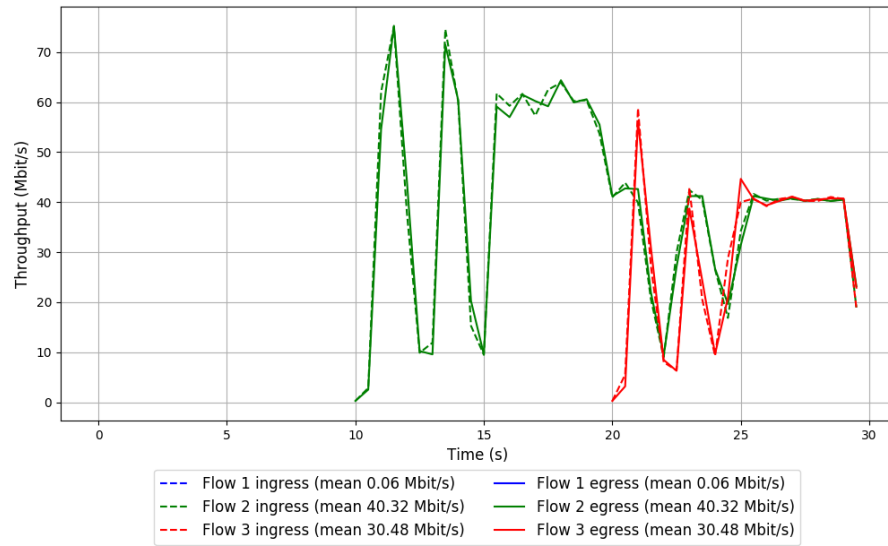
-- Flow 3:

Average throughput: 30.48 Mbit/s

95th percentile per-packet one-way delay: 50.913 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link

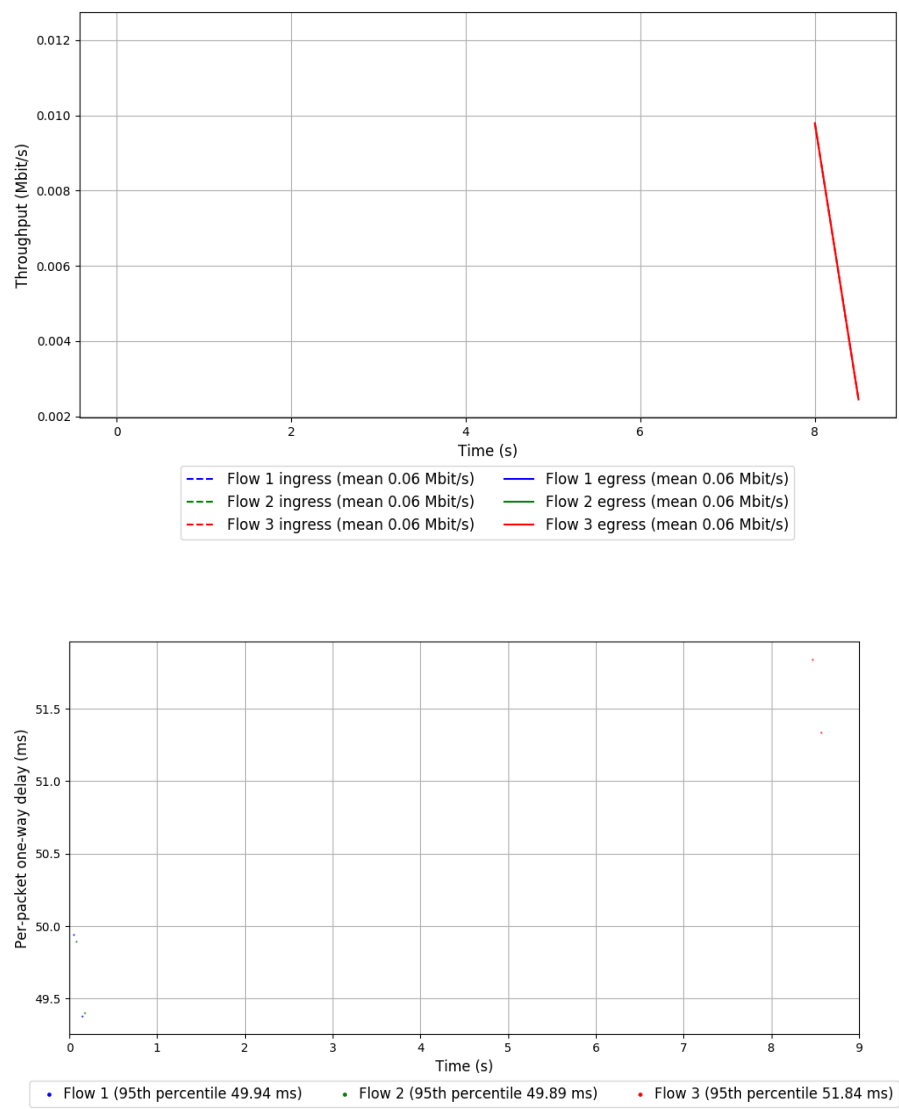


Run 8: Statistics of QUIC Cubic

Start at: 2017-08-21 08:38:22

End at: 2017-08-21 08:38:52

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-21 08:49:25

End at: 2017-08-21 08:49:55

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 16.91 Mbit/s

95th percentile per-packet one-way delay: 51.443 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 52.053 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.972 ms

Loss rate: 0.00%

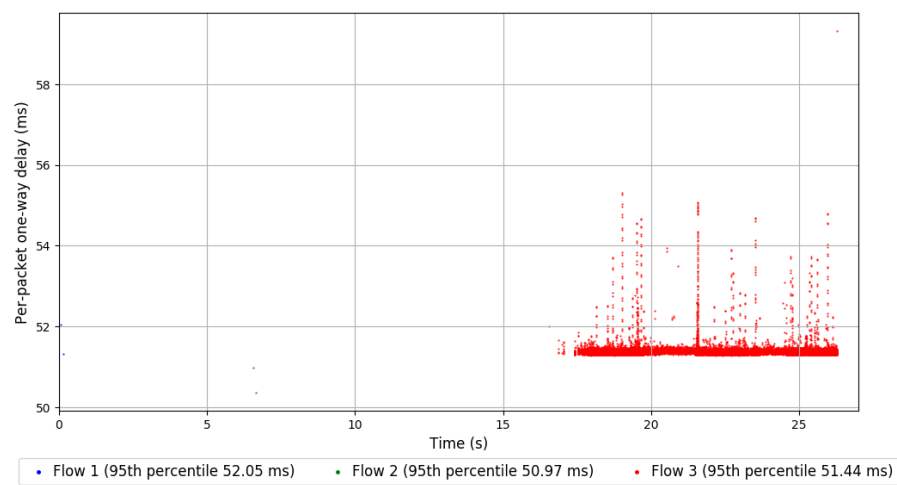
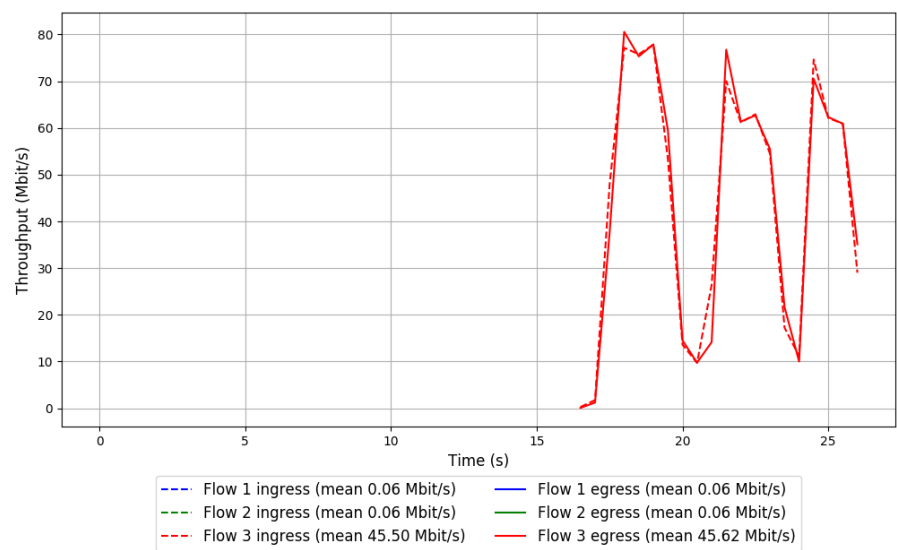
-- Flow 3:

Average throughput: 45.62 Mbit/s

95th percentile per-packet one-way delay: 51.443 ms

Loss rate: 0.02%

Run 9: Report of QUIC Cubic — Data Link

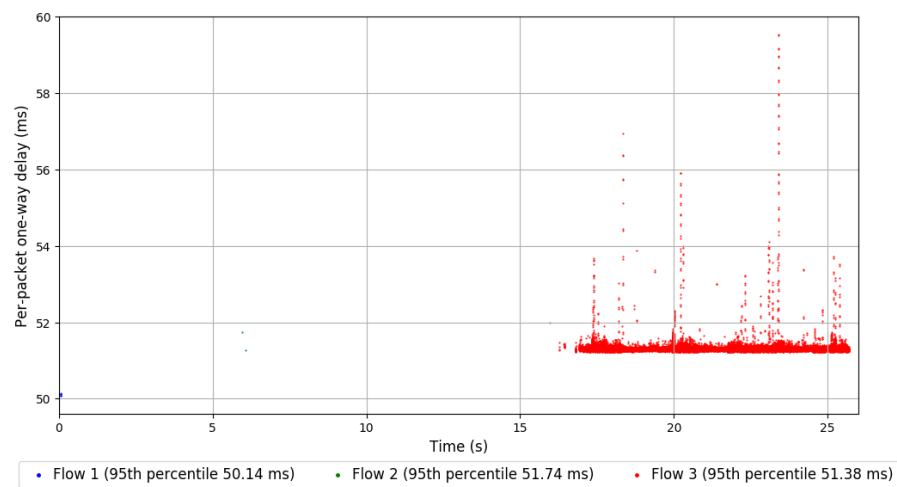
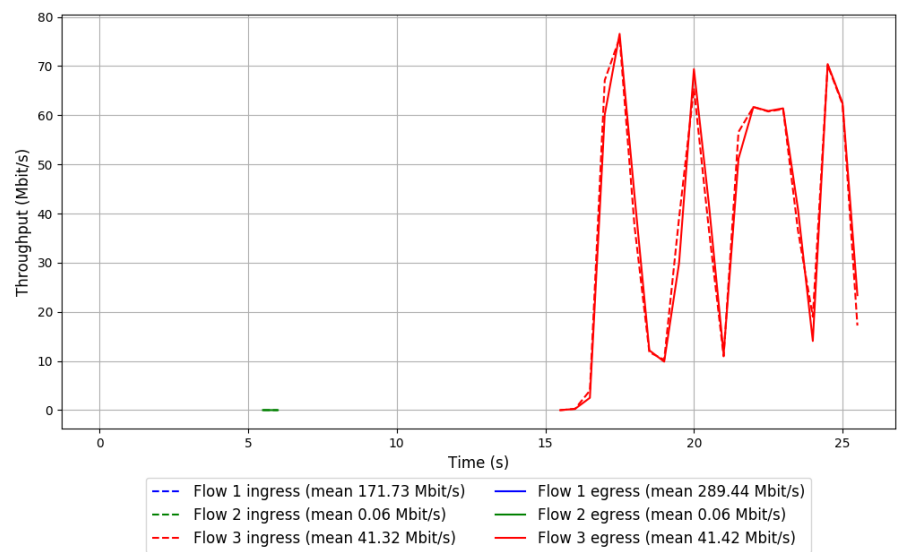


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-21 09:00:22
End at: 2017-08-21 09:00:52

# Below is generated by plot.py at 2017-08-21 10:47:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.69 Mbit/s
95th percentile per-packet one-way delay: 51.385 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 289.44 Mbit/s
95th percentile per-packet one-way delay: 50.136 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.742 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.42 Mbit/s
95th percentile per-packet one-way delay: 51.385 ms
Loss rate: 0.00%
```


Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-21 07:25:39

End at: 2017-08-21 07:26:09

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.29 Mbit/s

95th percentile per-packet one-way delay: 52.146 ms

Loss rate: 41.12%

-- Flow 1:

Average throughput: 7.04 Mbit/s

95th percentile per-packet one-way delay: 51.403 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 10.47 Mbit/s

95th percentile per-packet one-way delay: 52.363 ms

Loss rate: 33.31%

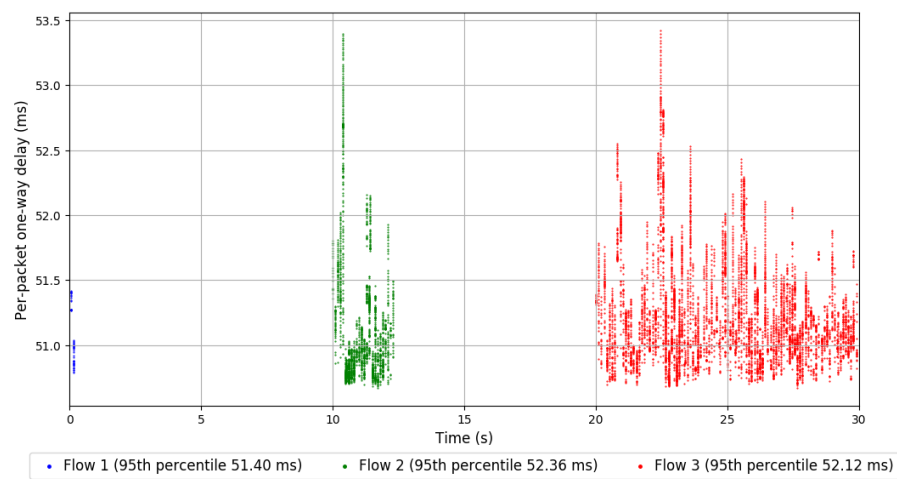
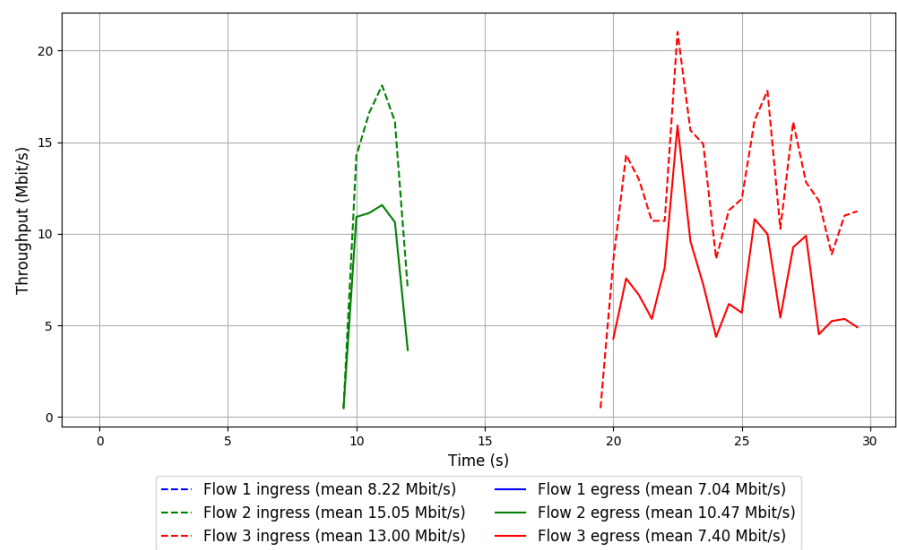
-- Flow 3:

Average throughput: 7.40 Mbit/s

95th percentile per-packet one-way delay: 52.121 ms

Loss rate: 43.12%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-21 07:36:42

End at: 2017-08-21 07:37:12

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.57 Mbit/s

95th percentile per-packet one-way delay: 52.331 ms

Loss rate: 4.21%

-- Flow 1:

Average throughput: 23.06 Mbit/s

95th percentile per-packet one-way delay: 52.190 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 14.74 Mbit/s

95th percentile per-packet one-way delay: 52.429 ms

Loss rate: 19.25%

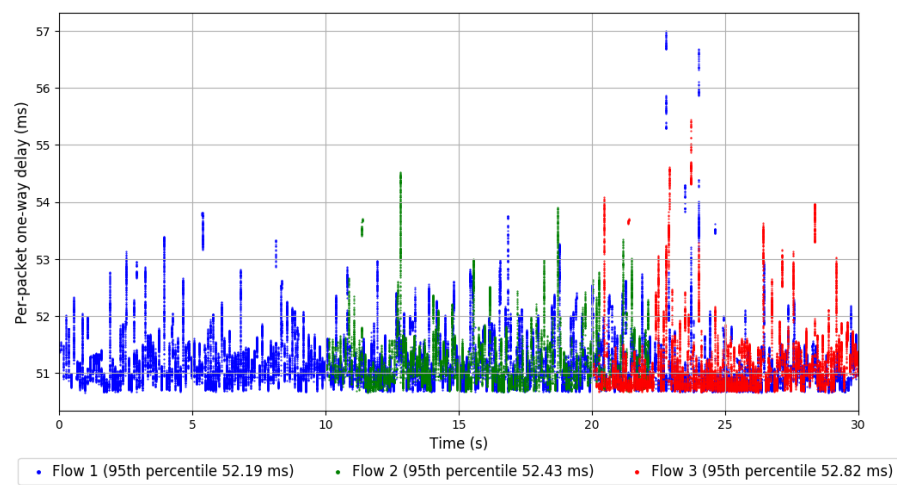
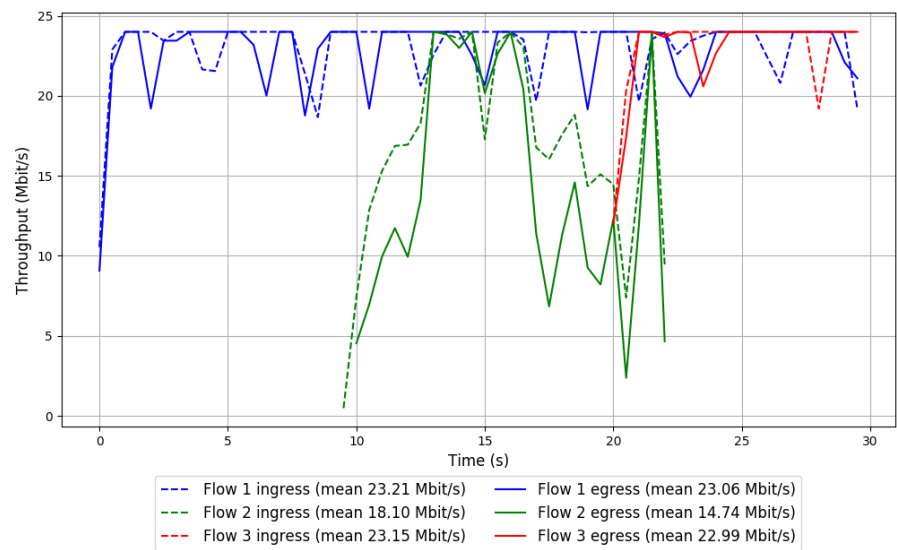
-- Flow 3:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 52.822 ms

Loss rate: 0.67%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-21 07:47:34

End at: 2017-08-21 07:48:04

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 34.08 Mbit/s

95th percentile per-packet one-way delay: 52.153 ms

Loss rate: 12.45%

-- Flow 1:

Average throughput: 10.93 Mbit/s

95th percentile per-packet one-way delay: 52.116 ms

Loss rate: 30.38%

-- Flow 2:

Average throughput: 23.19 Mbit/s

95th percentile per-packet one-way delay: 52.152 ms

Loss rate: 0.38%

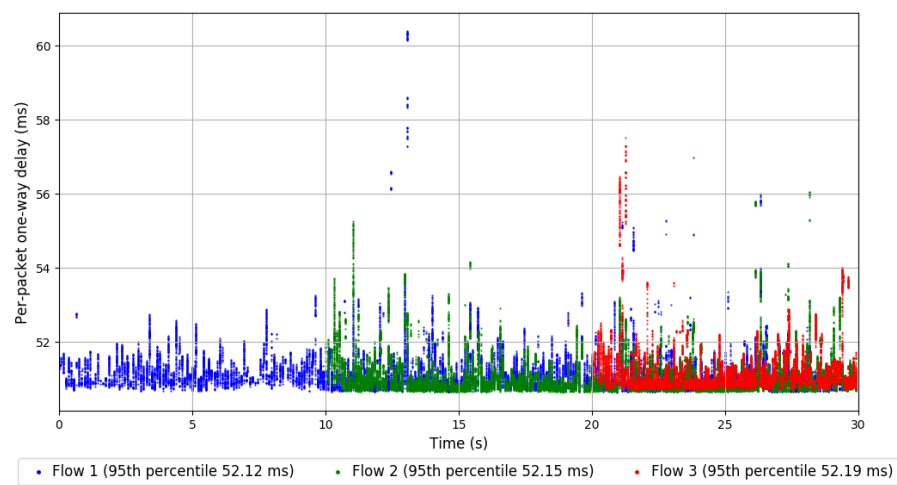
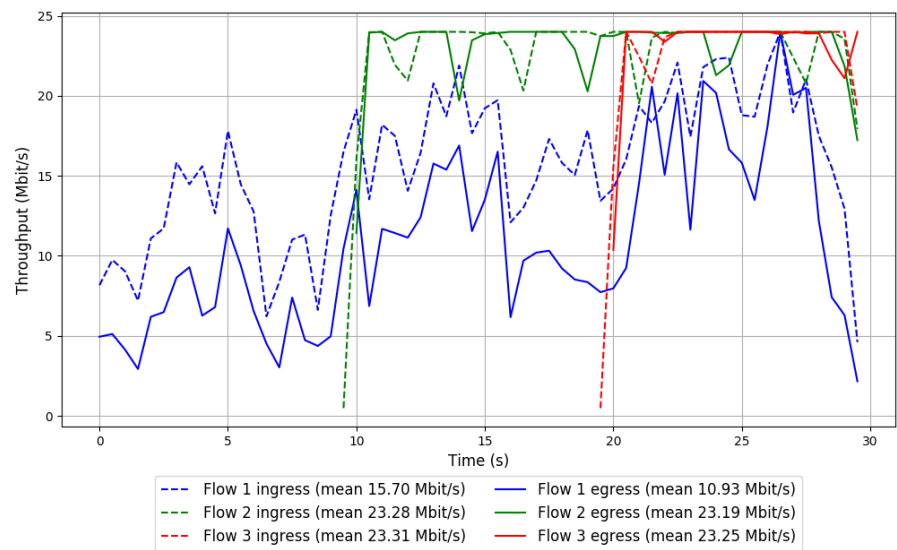
-- Flow 3:

Average throughput: 23.25 Mbit/s

95th percentile per-packet one-way delay: 52.186 ms

Loss rate: 0.26%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-21 07:58:36

End at: 2017-08-21 07:59:06

Below is generated by plot.py at 2017-08-21 10:47:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.94 Mbit/s

95th percentile per-packet one-way delay: 52.018 ms

Loss rate: 12.13%

-- Flow 1:

Average throughput: 23.54 Mbit/s

95th percentile per-packet one-way delay: 52.042 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 51.671 ms

Loss rate: 47.57%

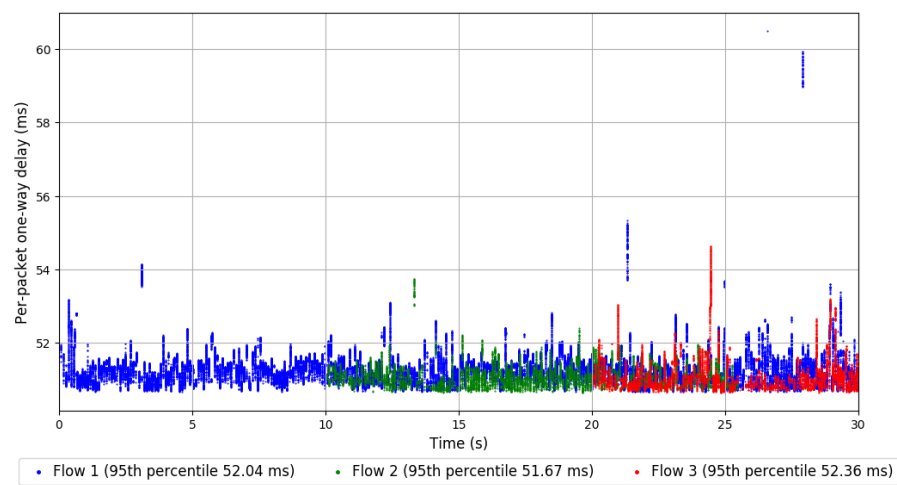
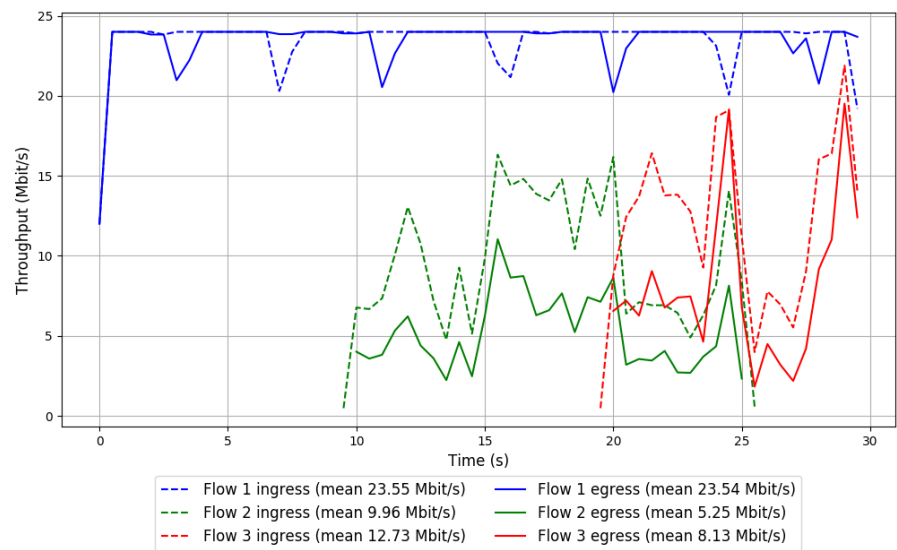
-- Flow 3:

Average throughput: 8.13 Mbit/s

95th percentile per-packet one-way delay: 52.358 ms

Loss rate: 36.09%

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-21 08:09:24

End at: 2017-08-21 08:09:54

Below is generated by plot.py at 2017-08-21 10:47:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.18 Mbit/s

95th percentile per-packet one-way delay: 52.247 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 22.20 Mbit/s

95th percentile per-packet one-way delay: 52.224 ms

Loss rate: 3.47%

-- Flow 2:

Average throughput: 478.09 Mbit/s

95th percentile per-packet one-way delay: 51.190 ms

Loss rate: 66.67%

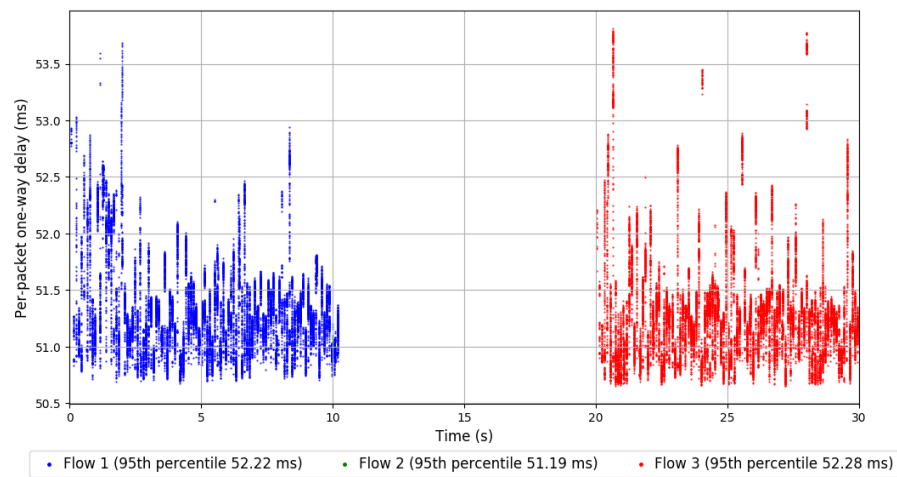
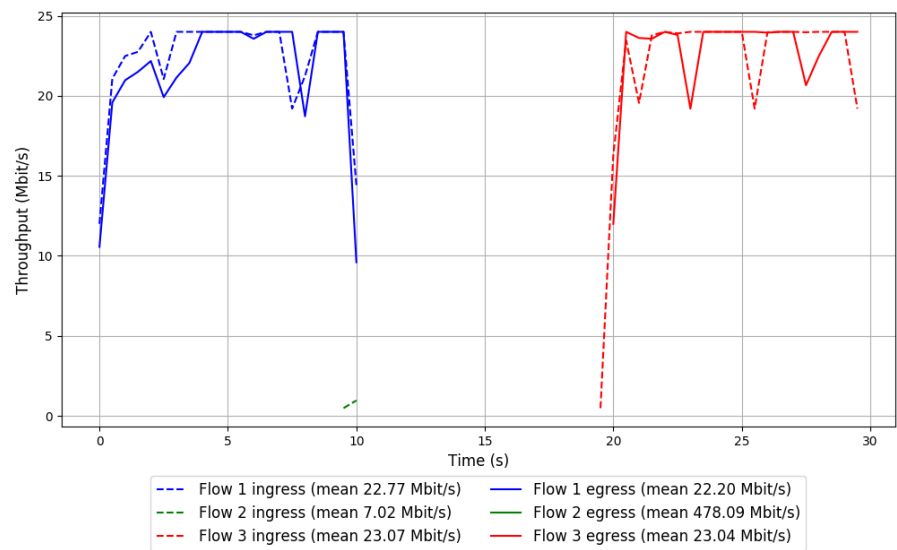
-- Flow 3:

Average throughput: 23.04 Mbit/s

95th percentile per-packet one-way delay: 52.285 ms

Loss rate: 0.12%

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-21 08:20:06

End at: 2017-08-21 08:20:36

Below is generated by plot.py at 2017-08-21 10:47:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.82 Mbit/s

95th percentile per-packet one-way delay: 52.126 ms

Loss rate: 10.48%

-- Flow 1:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 51.569 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 19.68 Mbit/s

95th percentile per-packet one-way delay: 52.137 ms

Loss rate: 6.75%

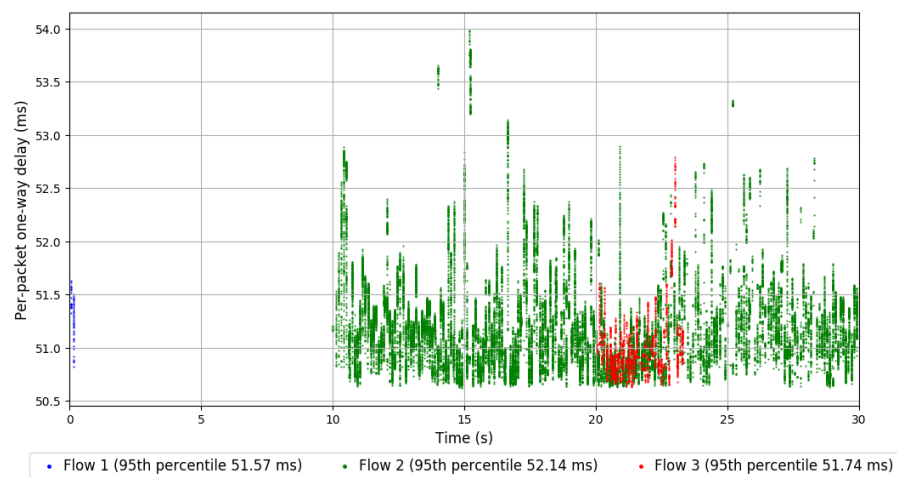
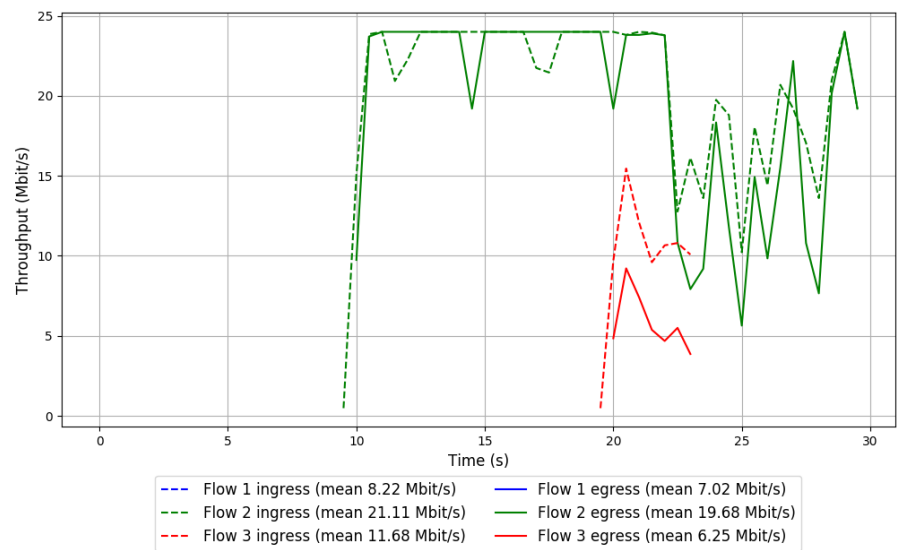
-- Flow 3:

Average throughput: 6.25 Mbit/s

95th percentile per-packet one-way delay: 51.741 ms

Loss rate: 48.14%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-21 08:30:58

End at: 2017-08-21 08:31:28

Below is generated by plot.py at 2017-08-21 10:47:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 51.276 ms

Loss rate: 41.23%

-- Flow 1:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 51.198 ms

Loss rate: 51.41%

-- Flow 2:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 51.234 ms

Loss rate: 57.14%

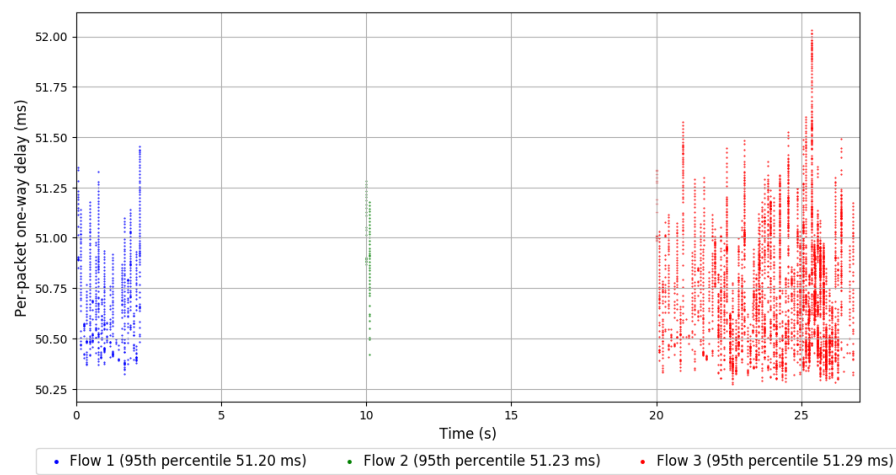
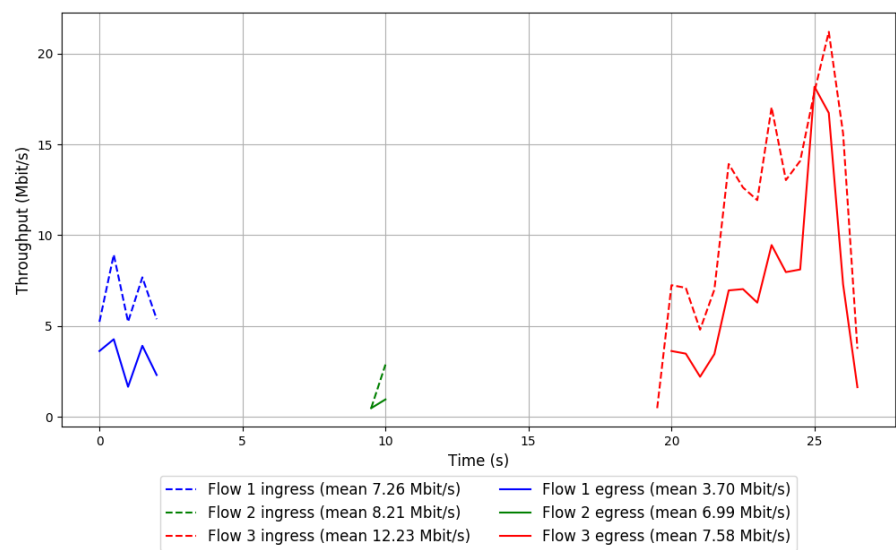
-- Flow 3:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 51.290 ms

Loss rate: 38.94%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-21 08:41:57

End at: 2017-08-21 08:42:27

Below is generated by plot.py at 2017-08-21 10:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.60 Mbit/s

95th percentile per-packet one-way delay: 51.684 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 23.55 Mbit/s

95th percentile per-packet one-way delay: 51.686 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.01 Mbit/s

95th percentile per-packet one-way delay: 51.084 ms

Loss rate: 57.14%

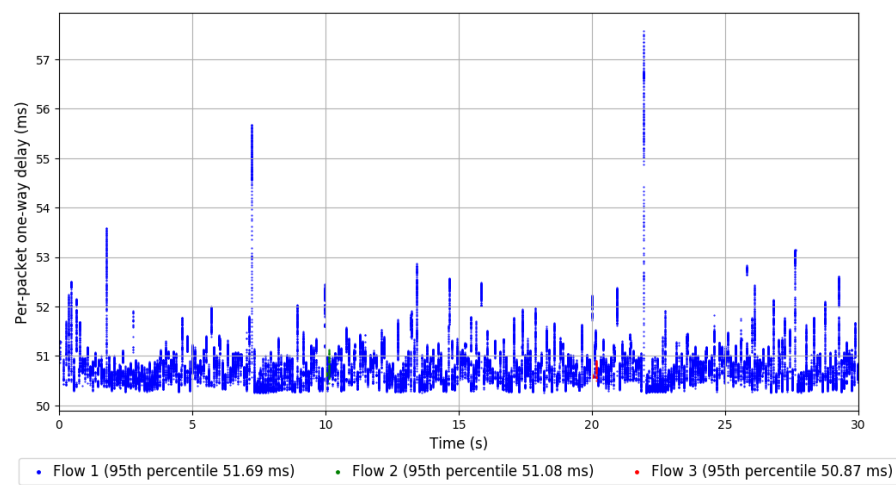
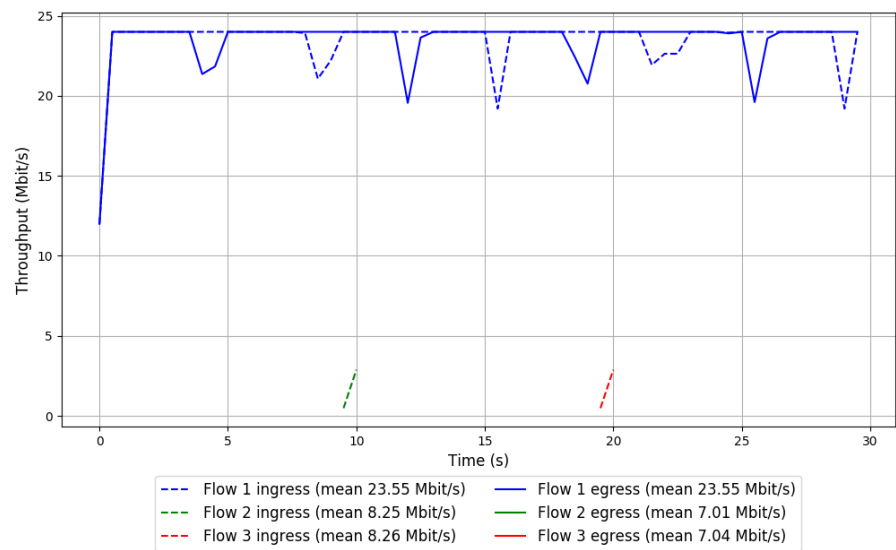
-- Flow 3:

Average throughput: 7.04 Mbit/s

95th percentile per-packet one-way delay: 50.866 ms

Loss rate: 57.14%

Run 8: Report of Saturator — Data Link

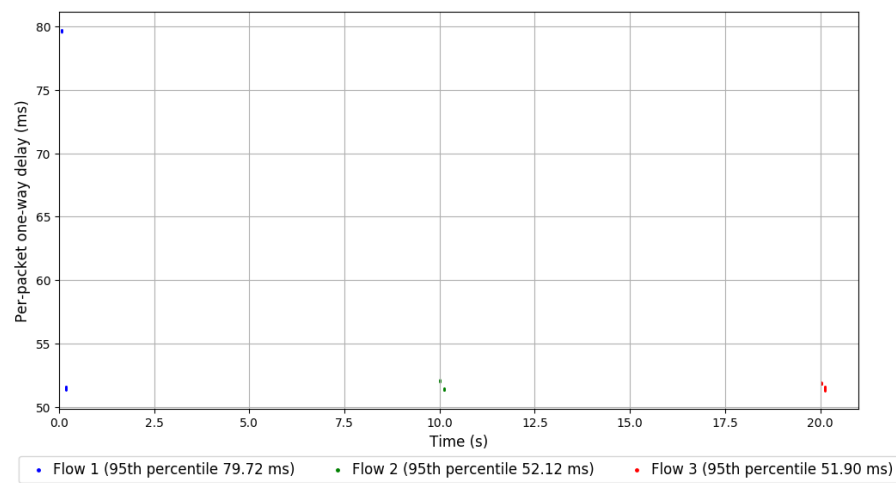
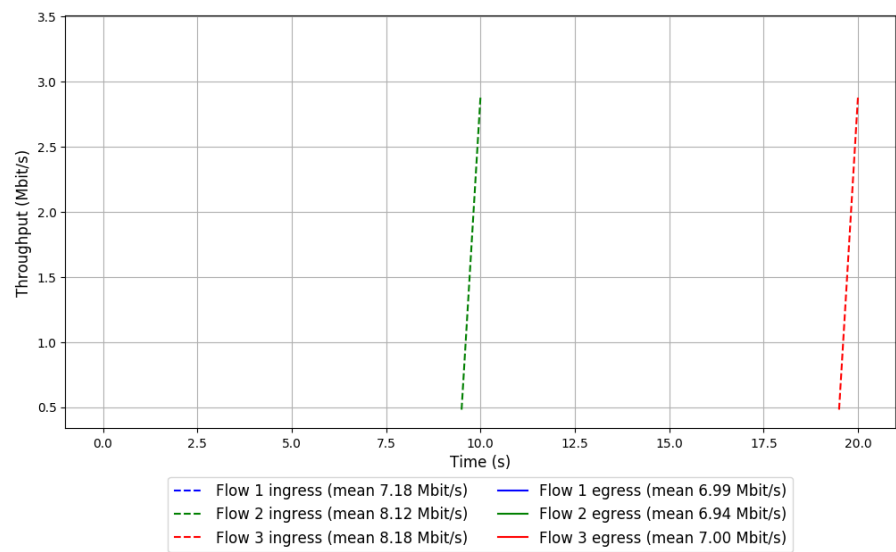


Run 9: Statistics of Saturator

Start at: 2017-08-21 08:52:50

End at: 2017-08-21 08:53:20

Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-21 09:03:50

End at: 2017-08-21 09:04:20

Below is generated by plot.py at 2017-08-21 10:47:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 51.075 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 6.84 Mbit/s

95th percentile per-packet one-way delay: 52.279 ms

Loss rate: 57.14%

-- Flow 2:

Average throughput: 5.22 Mbit/s

95th percentile per-packet one-way delay: 52.264 ms

Loss rate: 53.45%

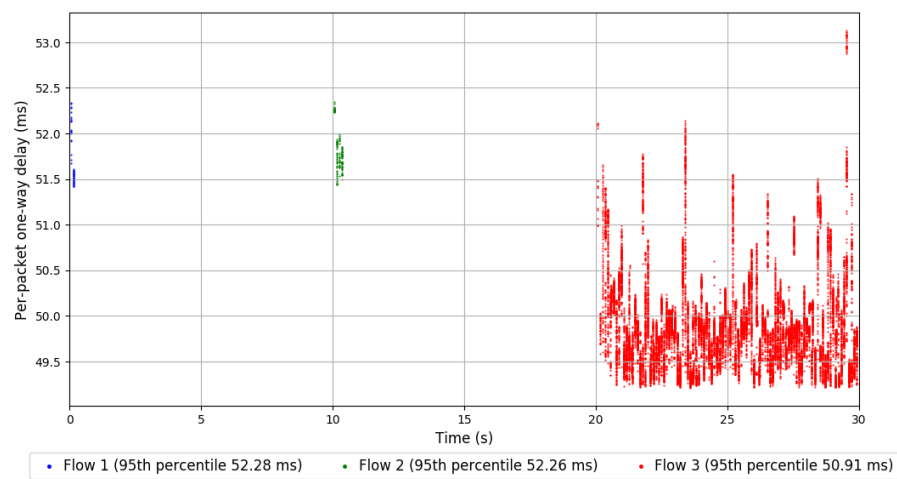
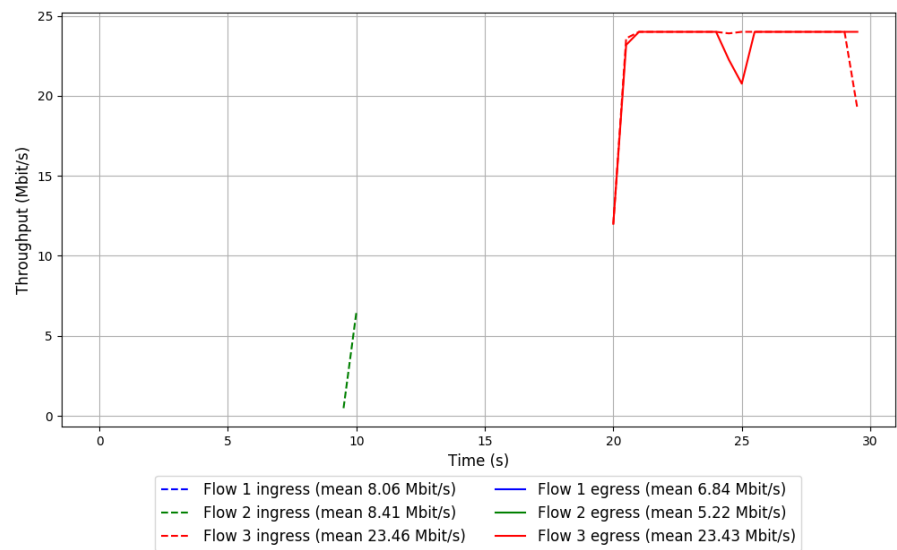
-- Flow 3:

Average throughput: 23.43 Mbit/s

95th percentile per-packet one-way delay: 50.914 ms

Loss rate: 0.11%

Run 10: Report of Saturator — Data Link

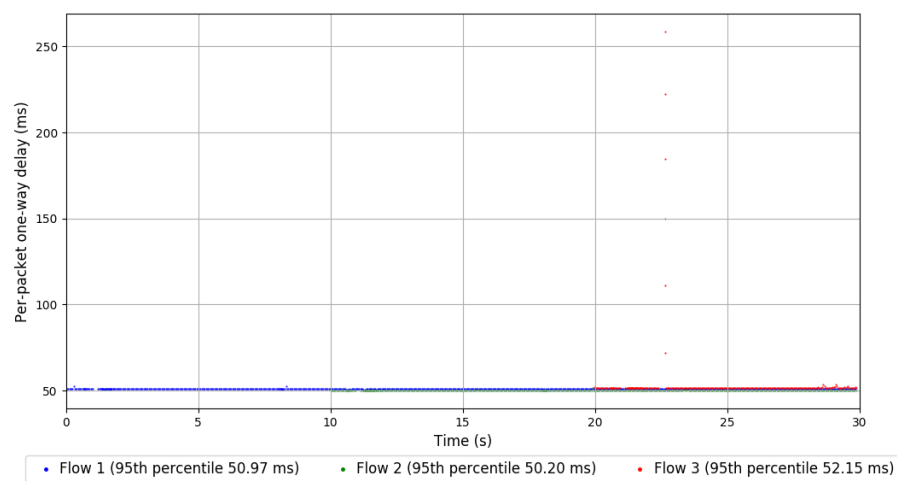
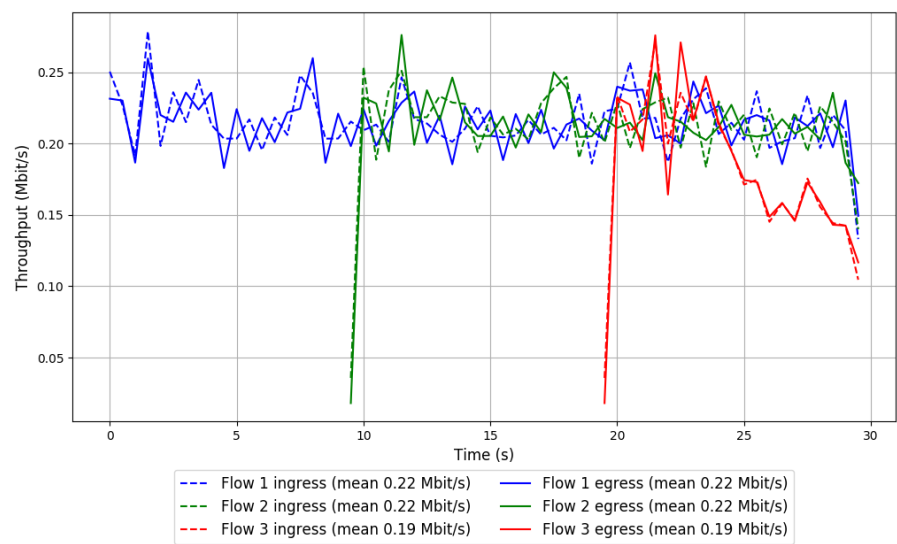


```
Run 1: Statistics of SCReAM

Start at: 2017-08-21 07:28:42
End at: 2017-08-21 07:29:12

# Below is generated by plot.py at 2017-08-21 10:47:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 51.423 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.970 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.201 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 52.153 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

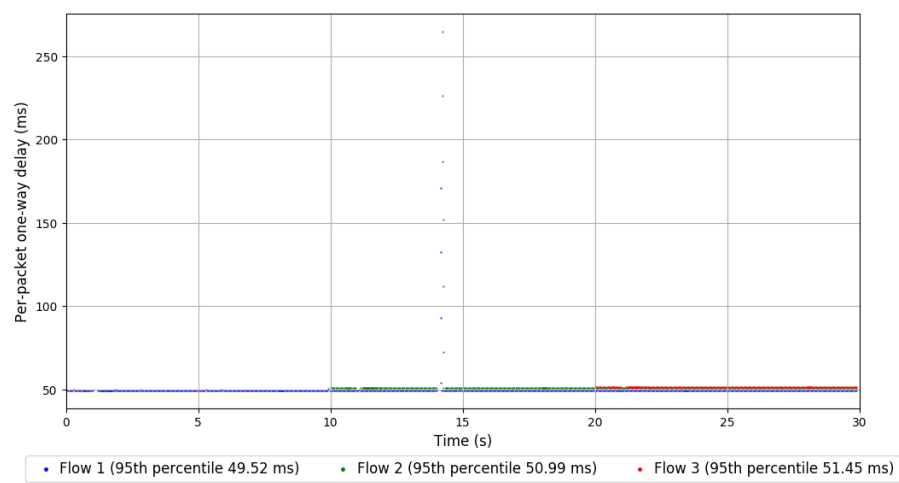
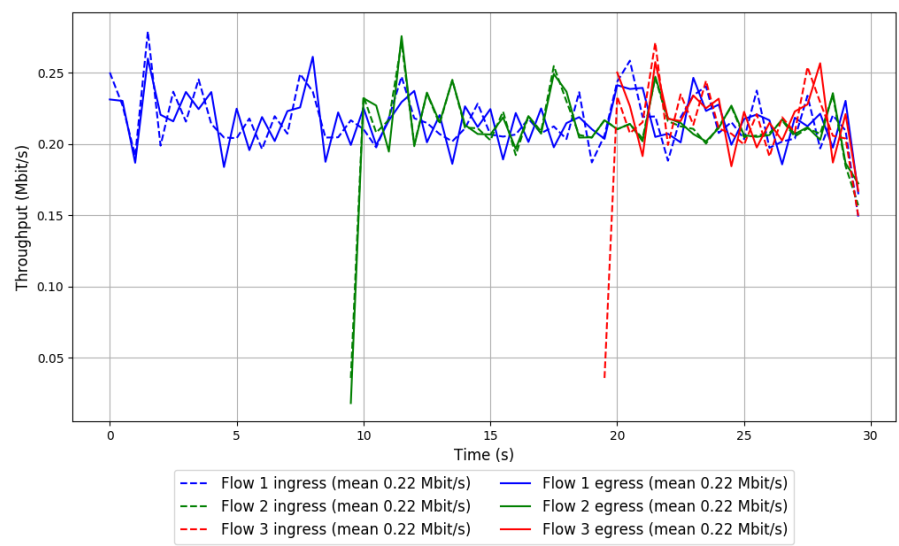


```
Run 2: Statistics of SReAM

Start at: 2017-08-21 07:39:50
End at: 2017-08-21 07:40:20

# Below is generated by plot.py at 2017-08-21 10:47:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.391 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.517 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.995 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.446 ms
Loss rate: 0.00%
```


Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-21 07:50:47

End at: 2017-08-21 07:51:17

Below is generated by plot.py at 2017-08-21 10:47:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.575 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.982 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.746 ms

Loss rate: 0.00%

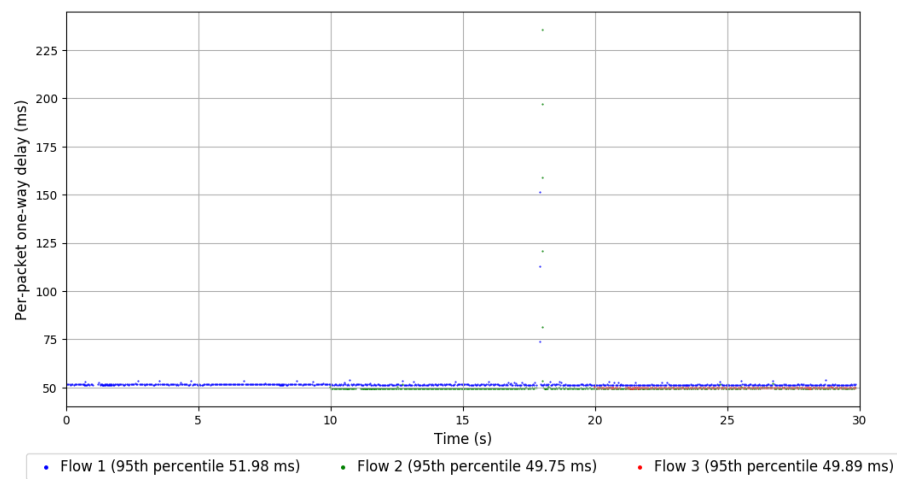
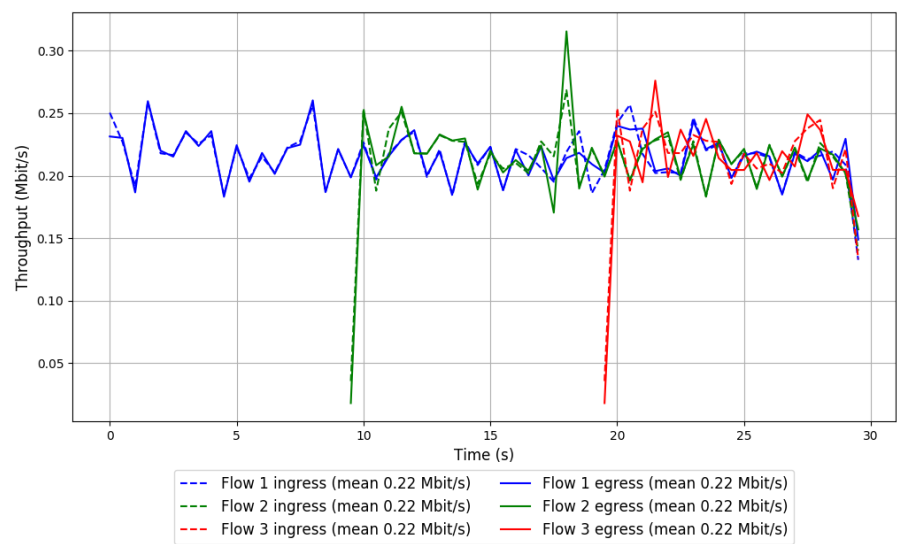
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.889 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

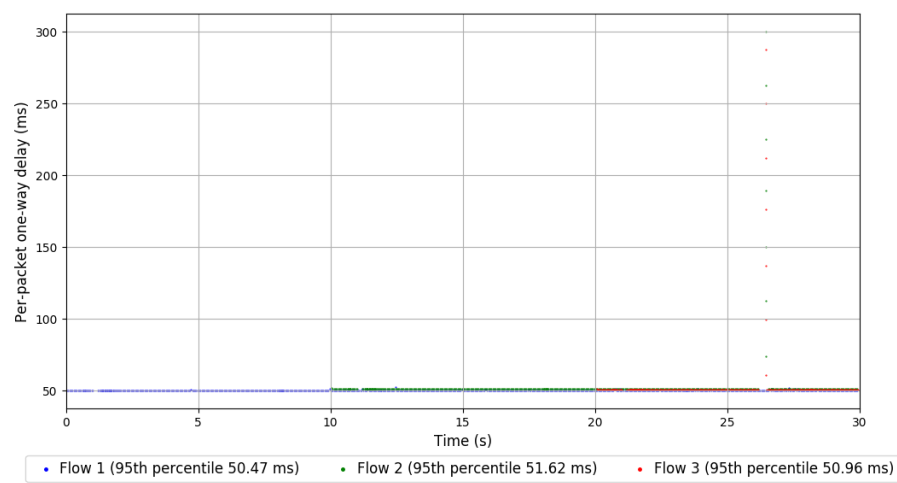
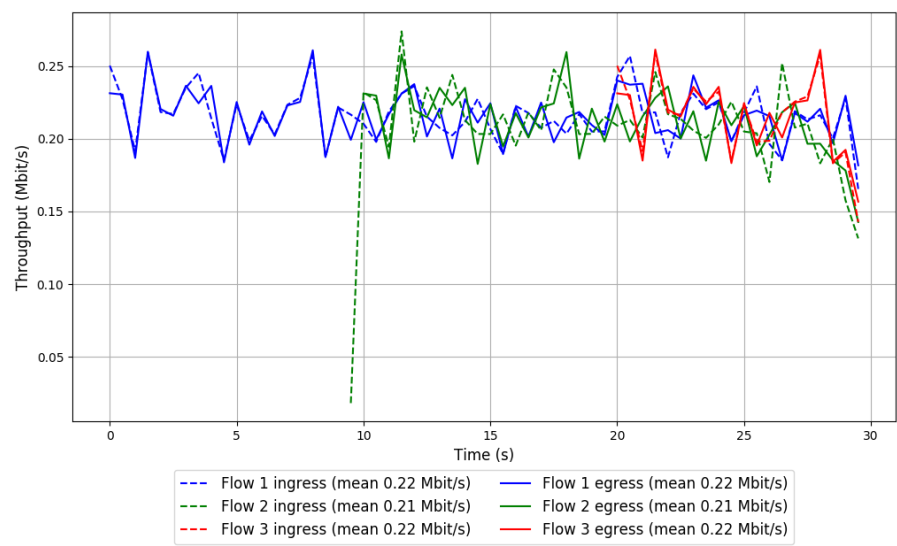


```
Run 4: Statistics of SReAM

Start at: 2017-08-21 08:01:38
End at: 2017-08-21 08:02:08

# Below is generated by plot.py at 2017-08-21 10:47:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.577 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.473 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 51.616 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.956 ms
Loss rate: 0.00%
```

Run 4: Report of SCReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-08-21 08:12:30

End at: 2017-08-21 08:13:00

Below is generated by plot.py at 2017-08-21 10:47:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.366 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.819 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.508 ms

Loss rate: 0.00%

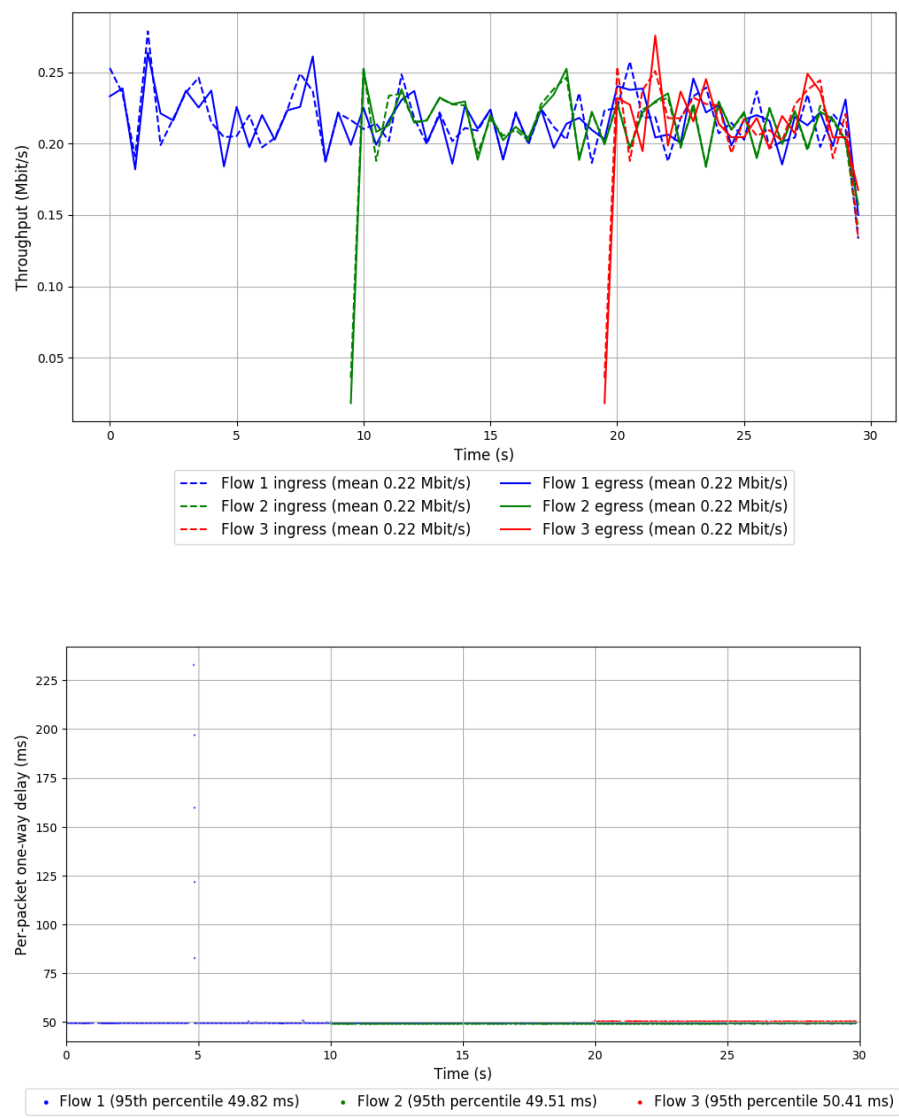
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.411 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-21 08:23:13

End at: 2017-08-21 08:23:43

Below is generated by plot.py at 2017-08-21 10:48:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 51.350 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.446 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.374 ms

Loss rate: 0.00%

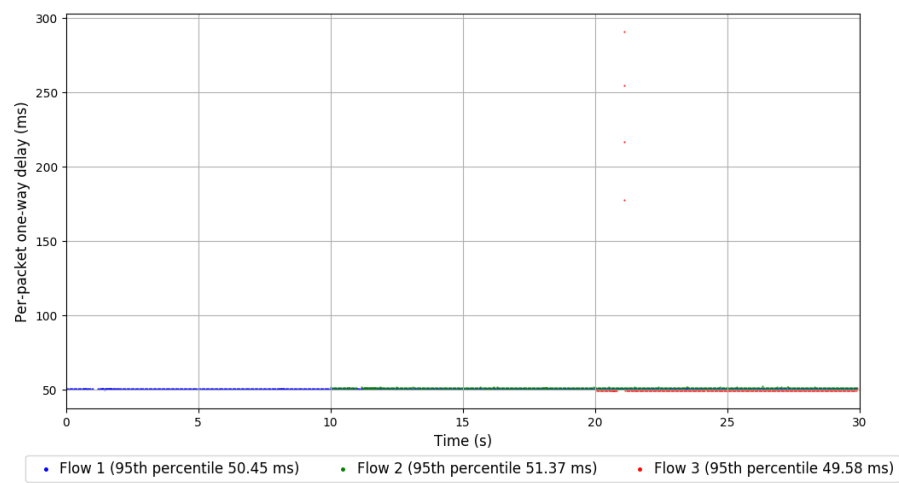
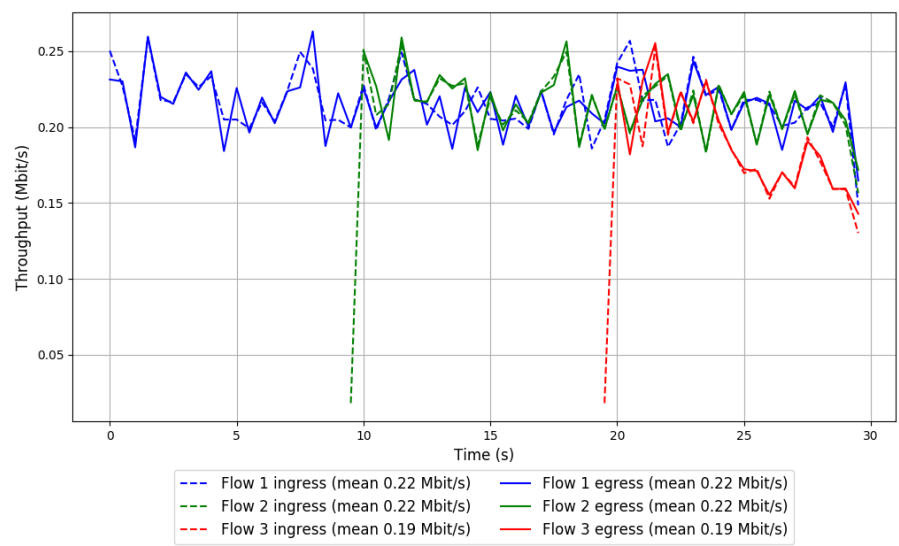
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 49.577 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

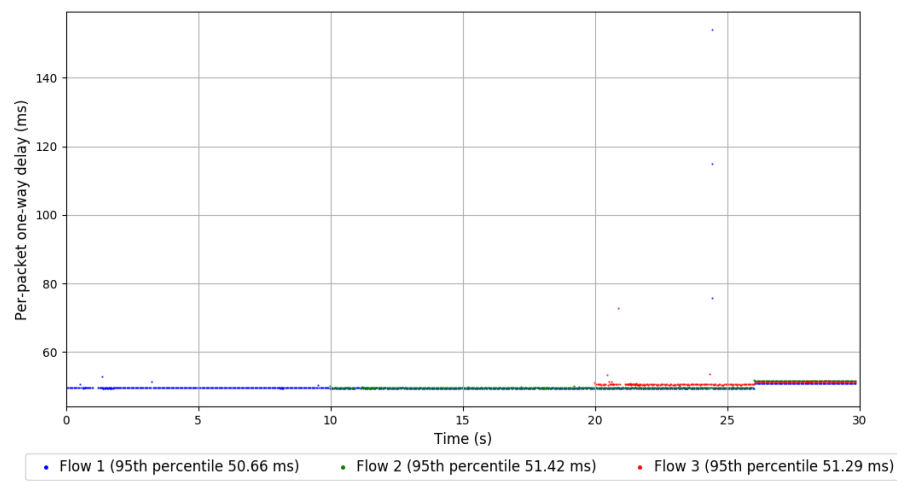
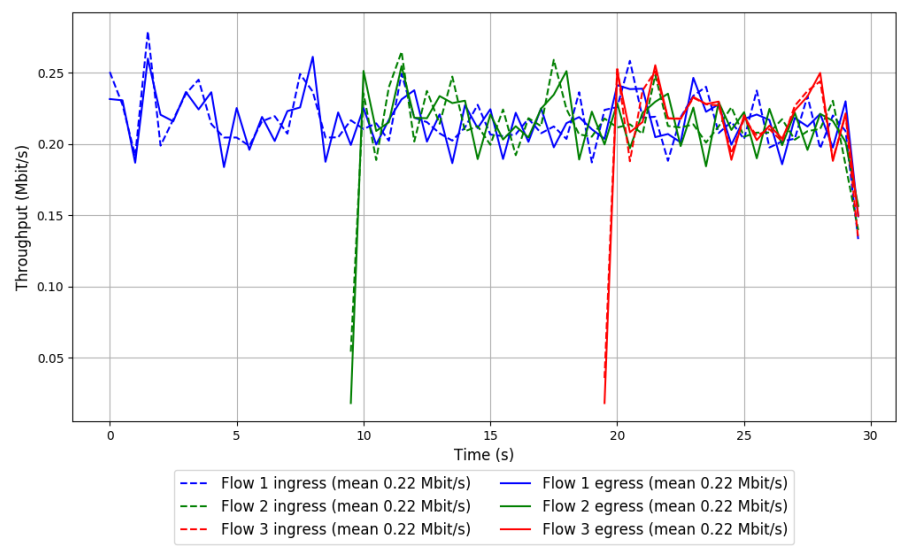


```
Run 7: Statistics of SReAM

Start at: 2017-08-21 08:34:10
End at: 2017-08-21 08:34:40

# Below is generated by plot.py at 2017-08-21 10:48:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 51.379 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.657 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.418 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.290 ms
Loss rate: 0.00%
```

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-21 08:45:07

End at: 2017-08-21 08:45:37

Below is generated by plot.py at 2017-08-21 10:48:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.635 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.419 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.487 ms

Loss rate: 0.00%

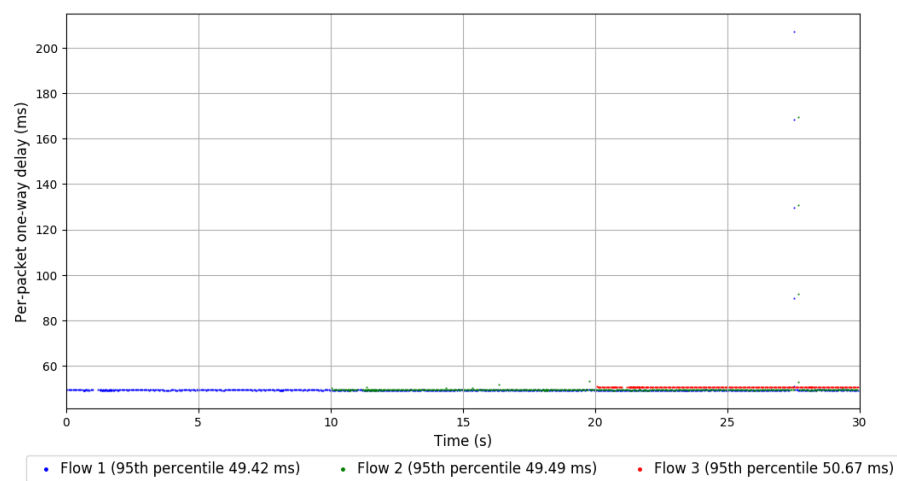
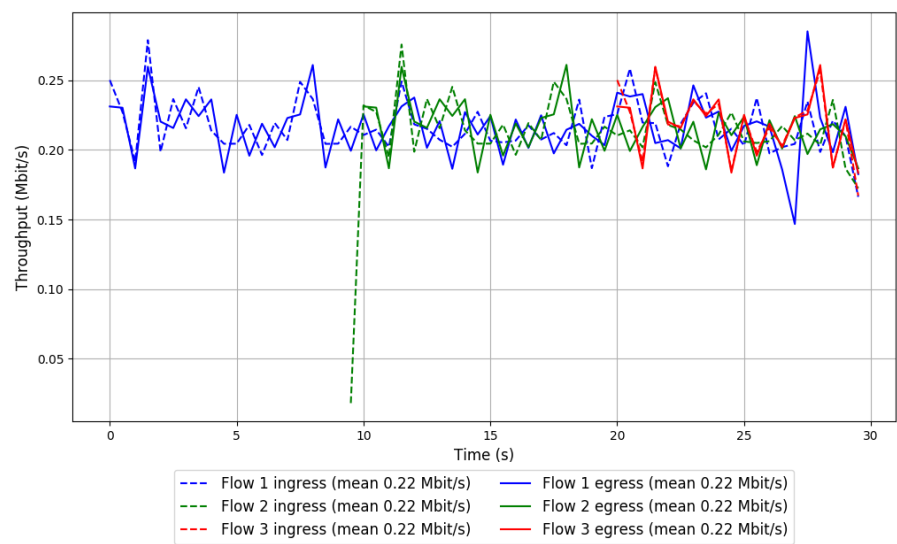
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.670 ms

Loss rate: 0.00%

Run 8: Report of SCRaM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-08-21 08:56:03

End at: 2017-08-21 08:56:33

Below is generated by plot.py at 2017-08-21 10:48:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.415 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.462 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 51.408 ms

Loss rate: 0.00%

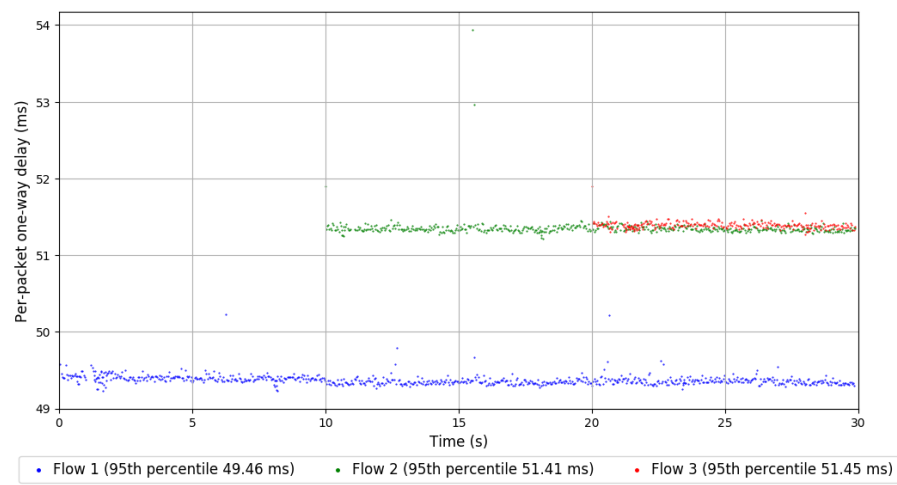
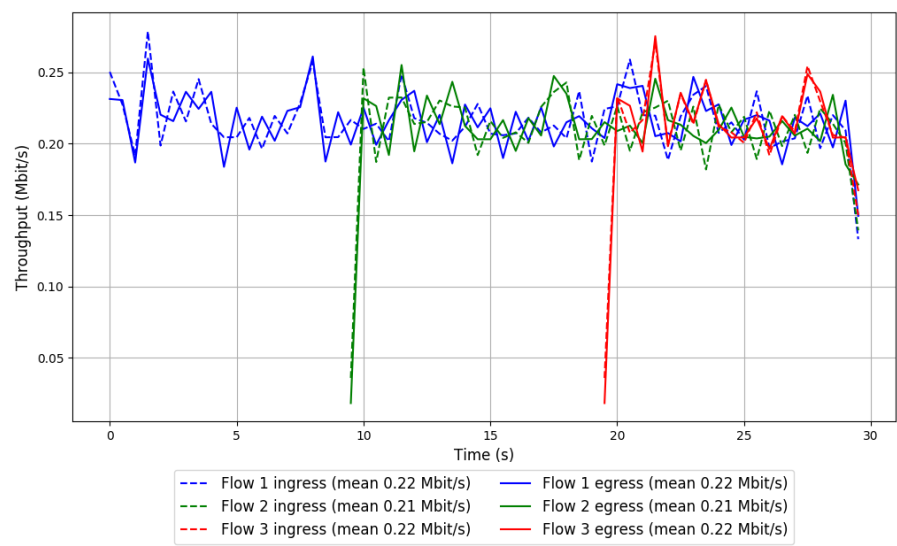
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.455 ms

Loss rate: 0.00%

Run 9: Report of SCRaM — Data Link

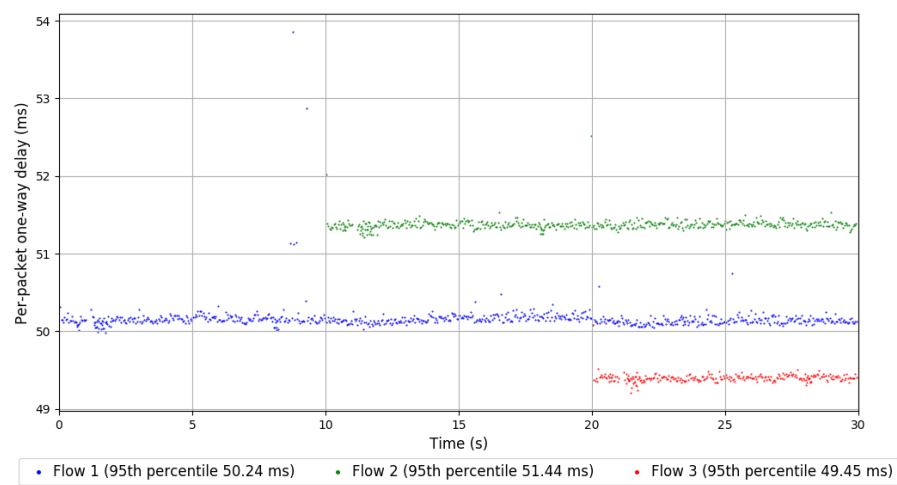
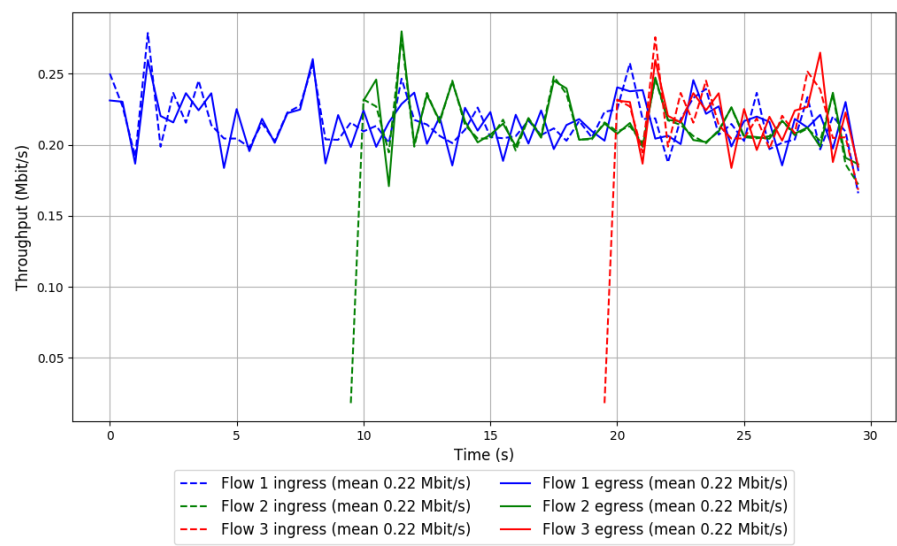


```
Run 10: Statistics of SReAM

Start at: 2017-08-21 09:07:21
End at: 2017-08-21 09:07:51

# Below is generated by plot.py at 2017-08-21 10:48:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.413 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.242 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.442 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.454 ms
Loss rate: 0.00%
```


Run 10: Report of SCReAM — Data Link

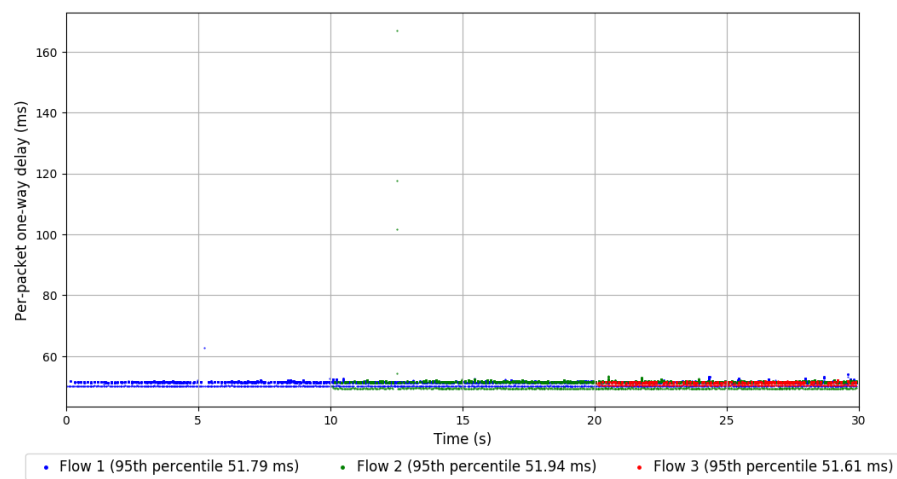
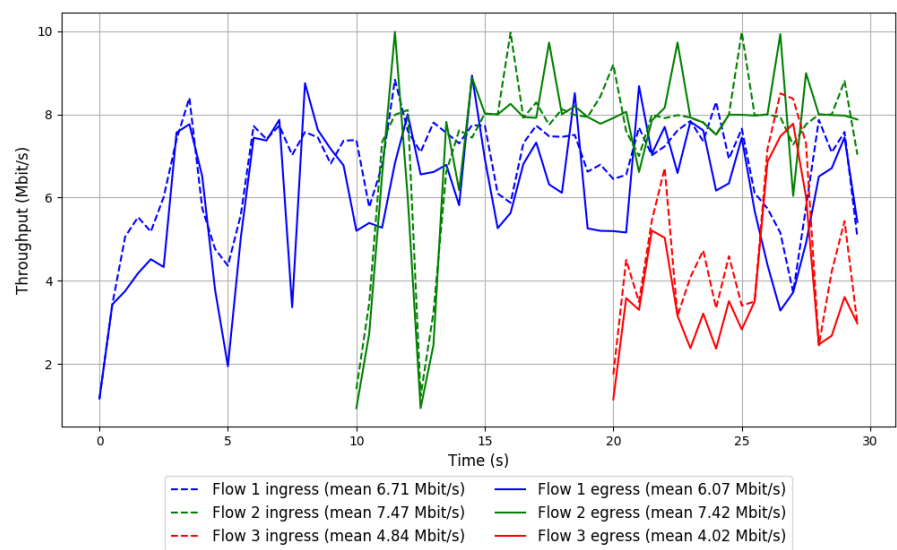


```
Run 1: Statistics of Sprout

Start at: 2017-08-21 07:21:22
End at: 2017-08-21 07:21:52

# Below is generated by plot.py at 2017-08-21 10:48:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 12.33 Mbit/s
95th percentile per-packet one-way delay: 51.875 ms
Loss rate: 7.07%
-- Flow 1:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 51.790 ms
Loss rate: 9.47%
-- Flow 2:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 51.944 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 51.613 ms
Loss rate: 16.88%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-21 07:32:27

End at: 2017-08-21 07:32:57

Below is generated by plot.py at 2017-08-21 10:48:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 51.342 ms

Loss rate: 16.21%

-- Flow 1:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 51.212 ms

Loss rate: 22.83%

-- Flow 2:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 51.336 ms

Loss rate: 20.11%

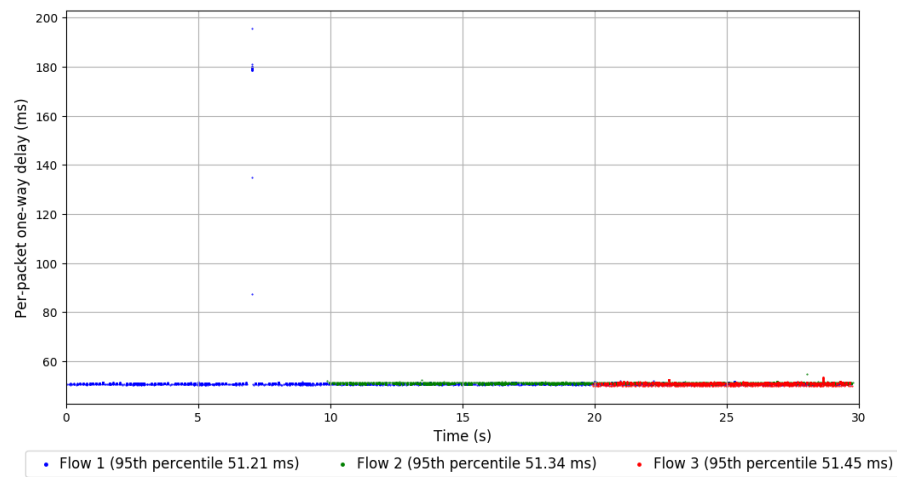
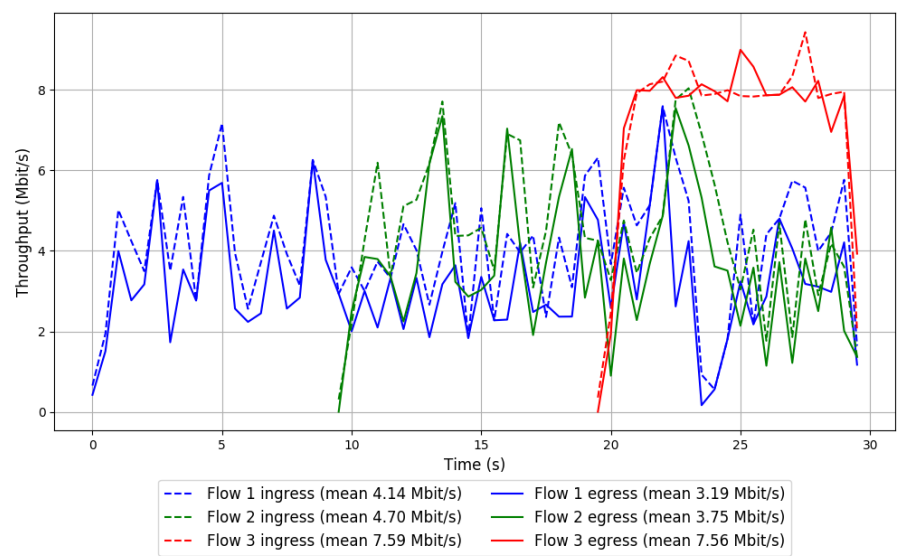
-- Flow 3:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 51.454 ms

Loss rate: 0.46%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-21 07:43:22

End at: 2017-08-21 07:43:52

Below is generated by plot.py at 2017-08-21 10:48:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.37 Mbit/s

95th percentile per-packet one-way delay: 51.098 ms

Loss rate: 15.30%

-- Flow 1:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 51.109 ms

Loss rate: 20.52%

-- Flow 2:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 51.127 ms

Loss rate: 17.09%

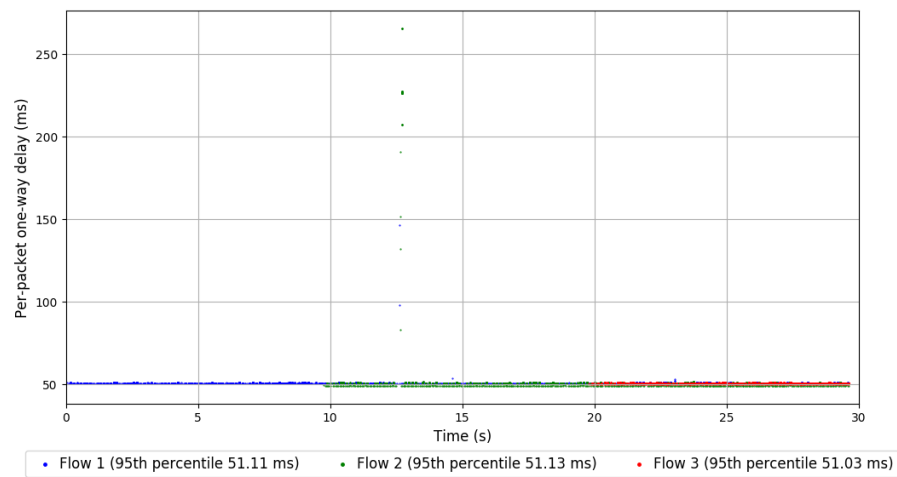
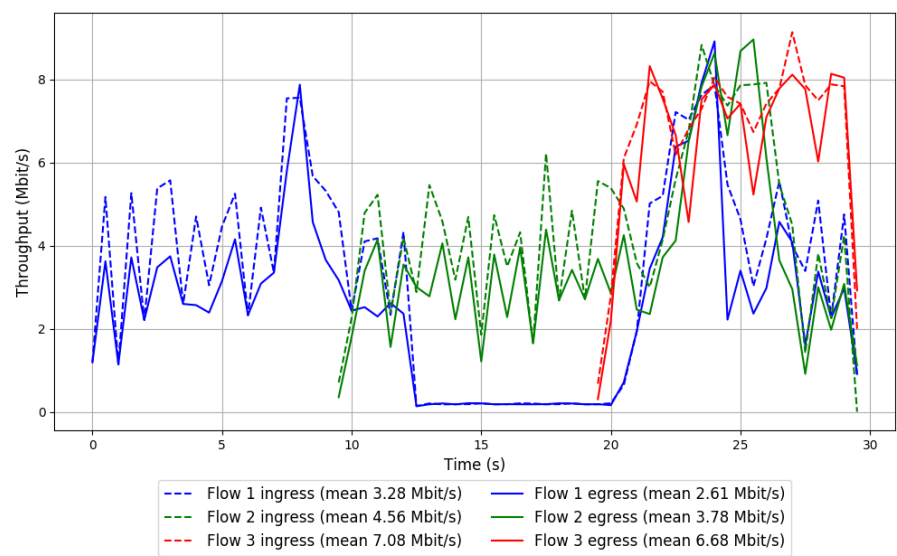
-- Flow 3:

Average throughput: 6.68 Mbit/s

95th percentile per-packet one-way delay: 51.033 ms

Loss rate: 5.74%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-21 07:54:24

End at: 2017-08-21 07:54:54

Below is generated by plot.py at 2017-08-21 10:48:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.94 Mbit/s

95th percentile per-packet one-way delay: 51.541 ms

Loss rate: 5.33%

-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.575 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 6.00 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 8.51%

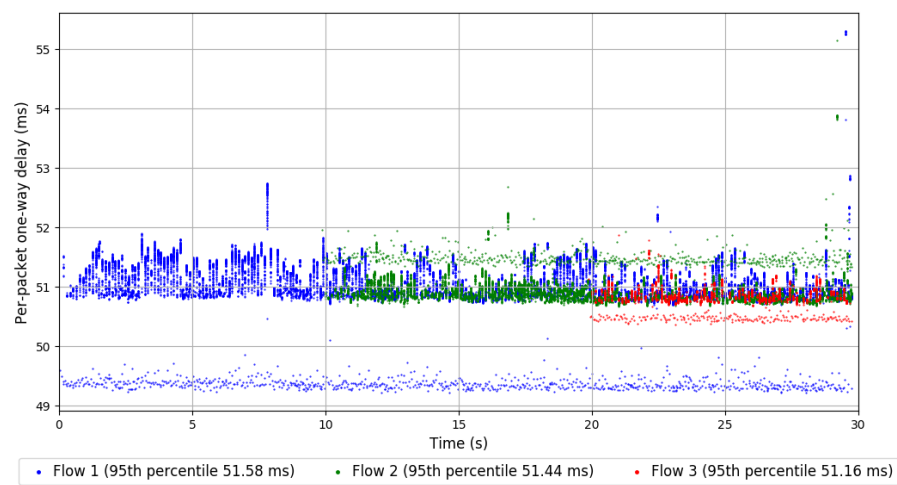
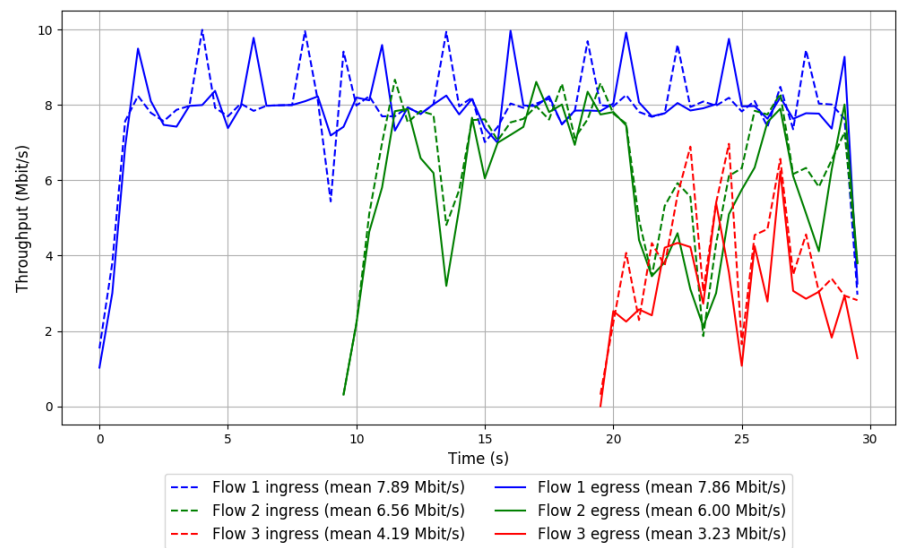
-- Flow 3:

Average throughput: 3.23 Mbit/s

95th percentile per-packet one-way delay: 51.161 ms

Loss rate: 23.05%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-21 08:05:12

End at: 2017-08-21 08:05:42

Below is generated by plot.py at 2017-08-21 10:48:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 51.409 ms

Loss rate: 5.38%

-- Flow 1:

Average throughput: 4.69 Mbit/s

95th percentile per-packet one-way delay: 51.114 ms

Loss rate: 10.85%

-- Flow 2:

Average throughput: 7.14 Mbit/s

95th percentile per-packet one-way delay: 51.445 ms

Loss rate: 0.90%

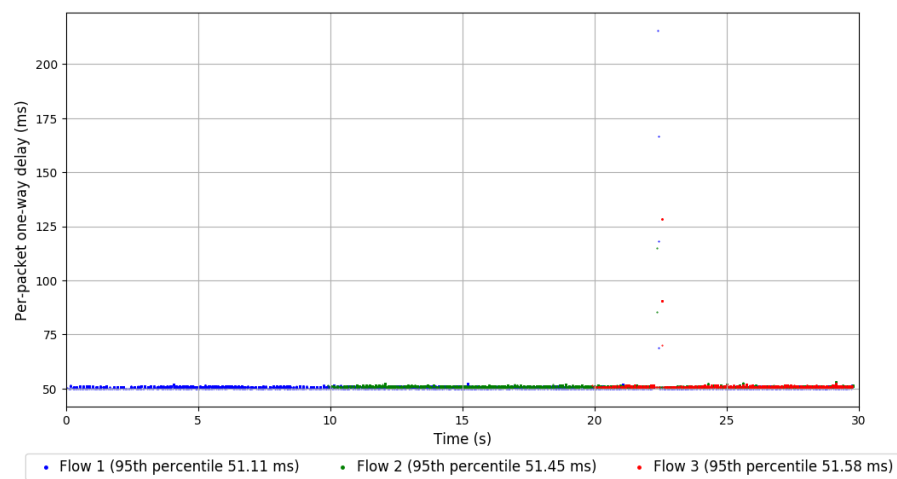
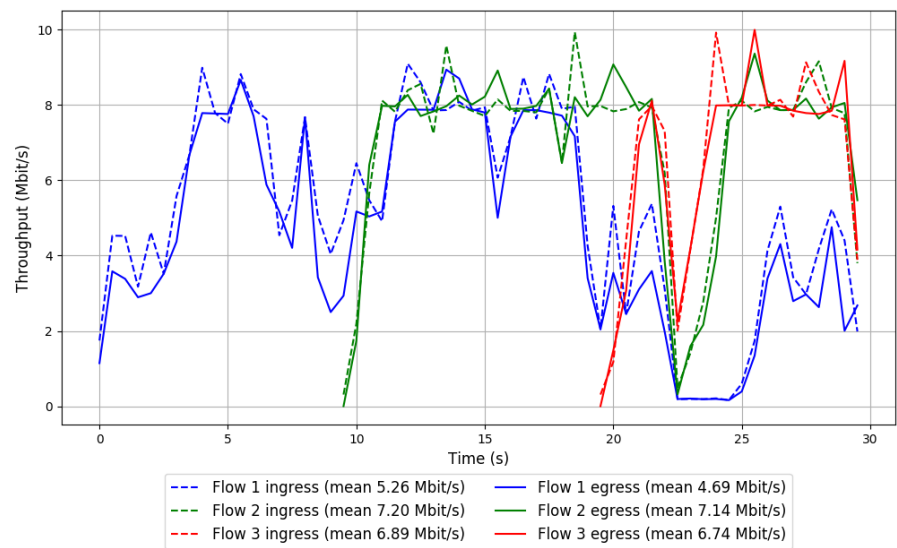
-- Flow 3:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 51.577 ms

Loss rate: 2.22%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-21 08:16:00

End at: 2017-08-21 08:16:30

Below is generated by plot.py at 2017-08-21 10:48:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 51.485 ms

Loss rate: 16.58%

-- Flow 1:

Average throughput: 2.95 Mbit/s

95th percentile per-packet one-way delay: 51.185 ms

Loss rate: 22.06%

-- Flow 2:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 51.130 ms

Loss rate: 24.94%

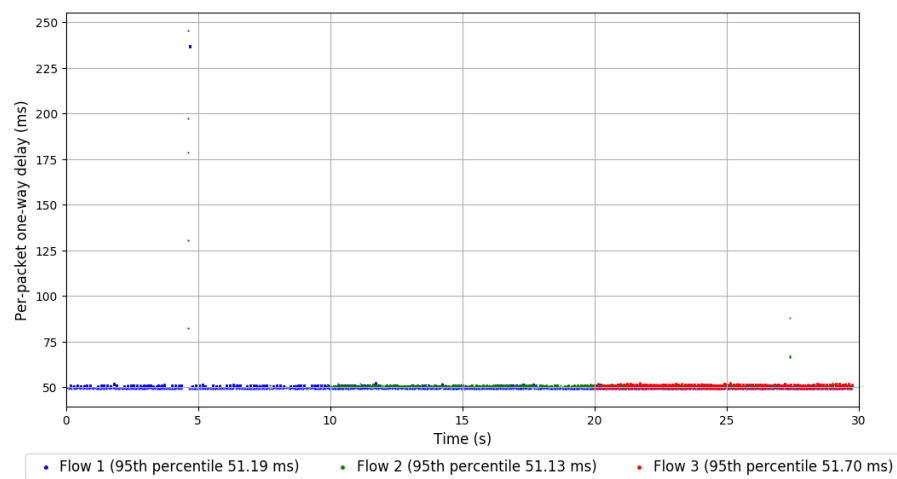
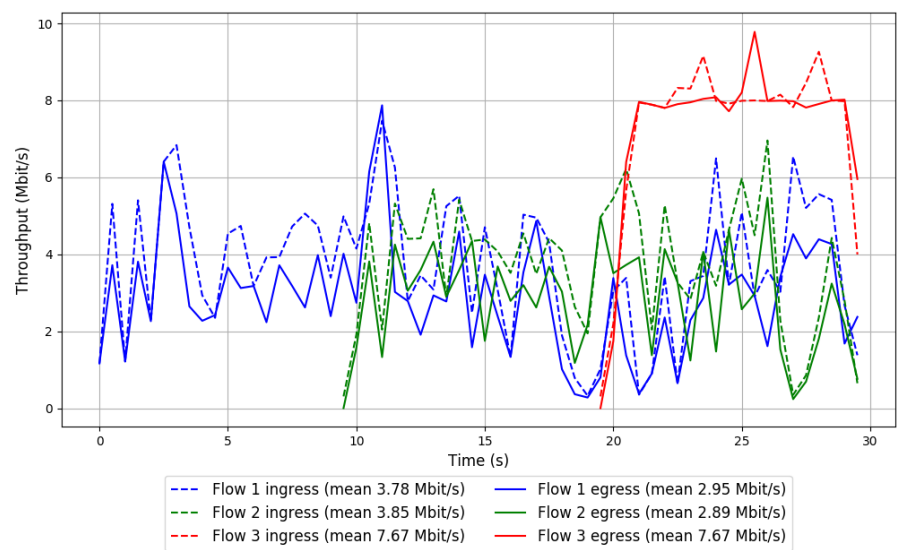
-- Flow 3:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 51.699 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-21 08:26:50

End at: 2017-08-21 08:27:20

Below is generated by plot.py at 2017-08-21 10:48:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.48 Mbit/s

95th percentile per-packet one-way delay: 51.043 ms

Loss rate: 2.14%

-- Flow 1:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 51.098 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 6.80 Mbit/s

95th percentile per-packet one-way delay: 50.886 ms

Loss rate: 4.57%

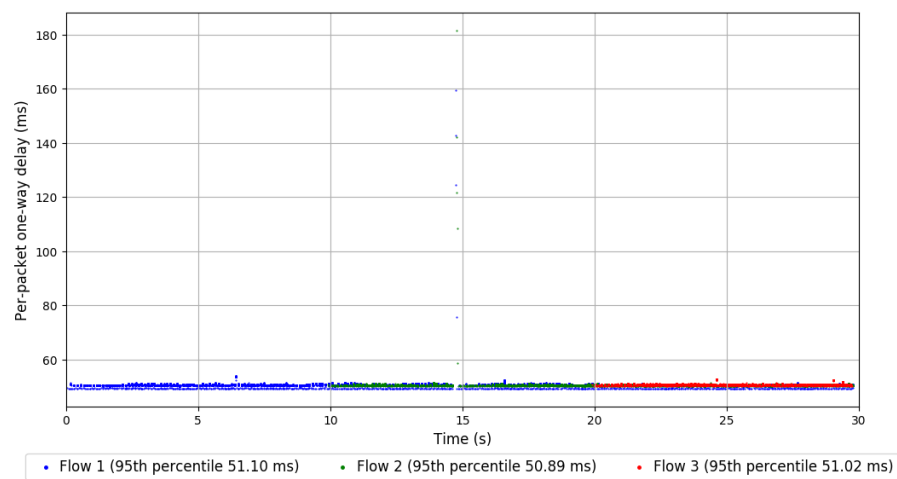
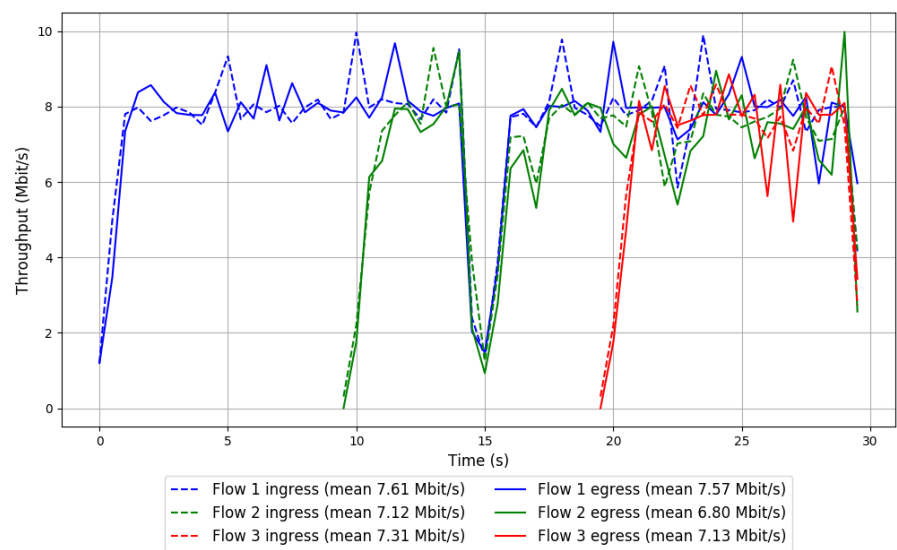
-- Flow 3:

Average throughput: 7.13 Mbit/s

95th percentile per-packet one-way delay: 51.016 ms

Loss rate: 2.51%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-21 08:37:41

End at: 2017-08-21 08:38:11

Below is generated by plot.py at 2017-08-21 10:48:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.95 Mbit/s

95th percentile per-packet one-way delay: 51.431 ms

Loss rate: 4.77%

-- Flow 1:

Average throughput: 7.17 Mbit/s

95th percentile per-packet one-way delay: 51.305 ms

Loss rate: 3.95%

-- Flow 2:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 51.025 ms

Loss rate: 1.98%

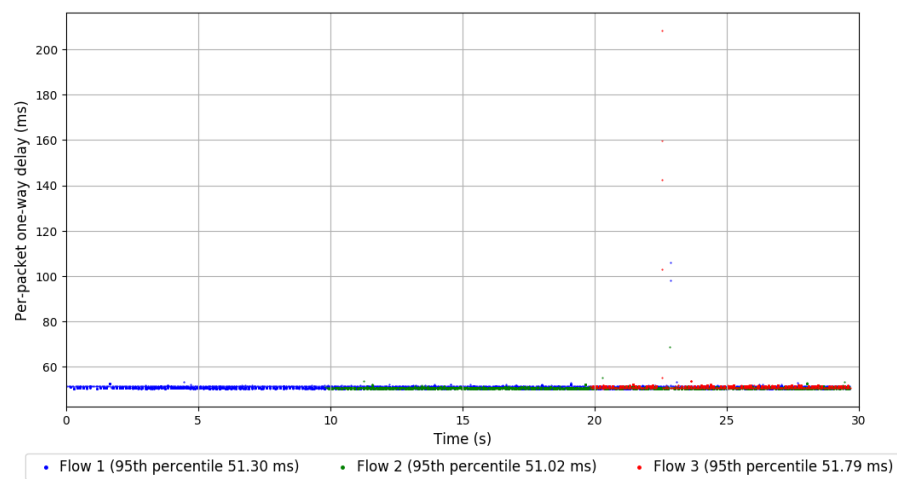
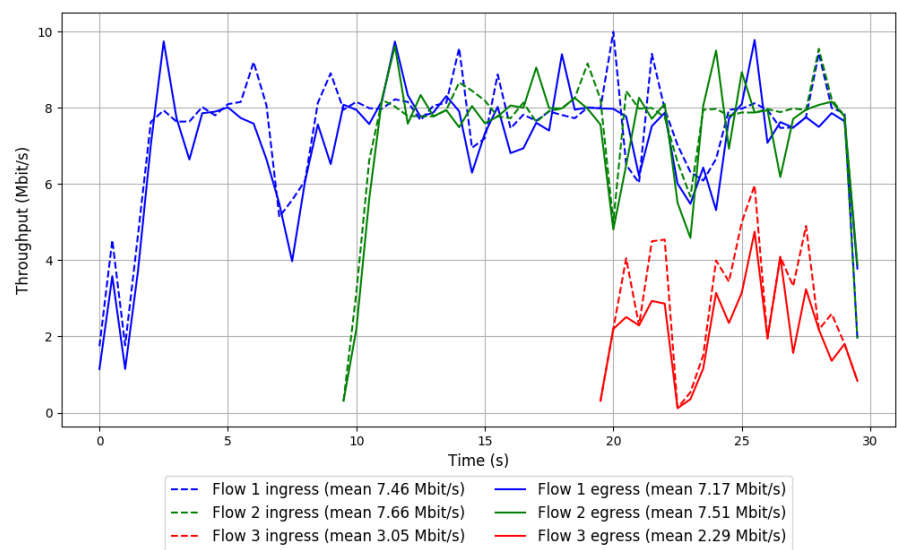
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 51.788 ms

Loss rate: 24.89%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-21 08:48:45

End at: 2017-08-21 08:49:15

Below is generated by plot.py at 2017-08-21 10:48:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.13 Mbit/s

95th percentile per-packet one-way delay: 51.555 ms

Loss rate: 22.45%

-- Flow 1:

Average throughput: 2.75 Mbit/s

95th percentile per-packet one-way delay: 50.854 ms

Loss rate: 23.53%

-- Flow 2:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 50.736 ms

Loss rate: 22.58%

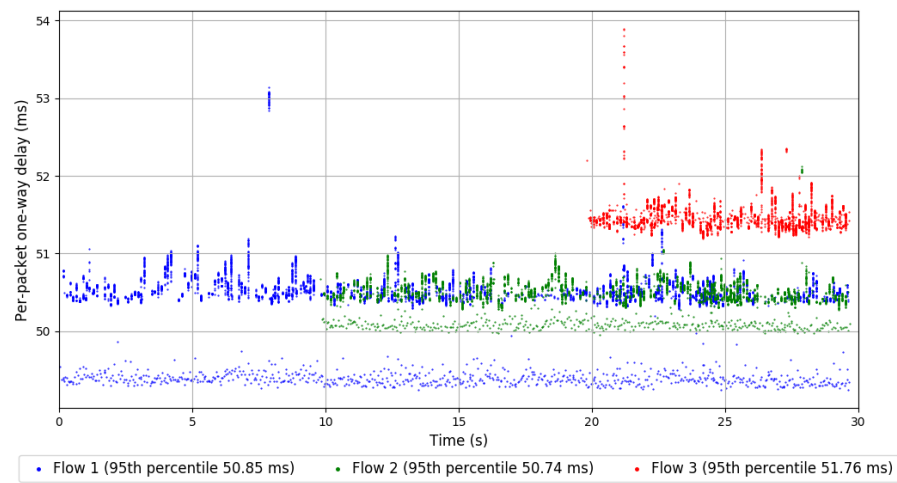
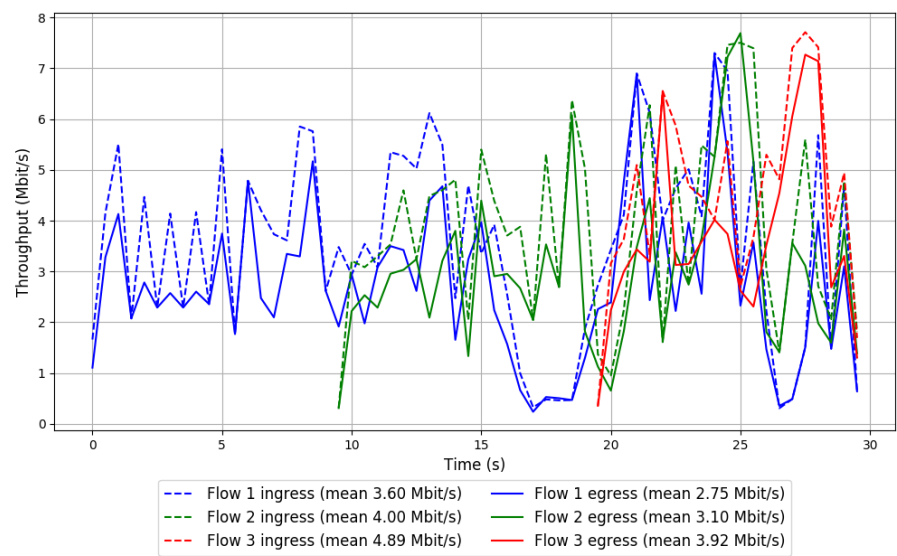
-- Flow 3:

Average throughput: 3.92 Mbit/s

95th percentile per-packet one-way delay: 51.758 ms

Loss rate: 19.88%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-21 08:59:42

End at: 2017-08-21 09:00:12

Below is generated by plot.py at 2017-08-21 10:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.459 ms

Loss rate: 15.29%

-- Flow 1:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 51.429 ms

Loss rate: 19.48%

-- Flow 2:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 51.571 ms

Loss rate: 21.63%

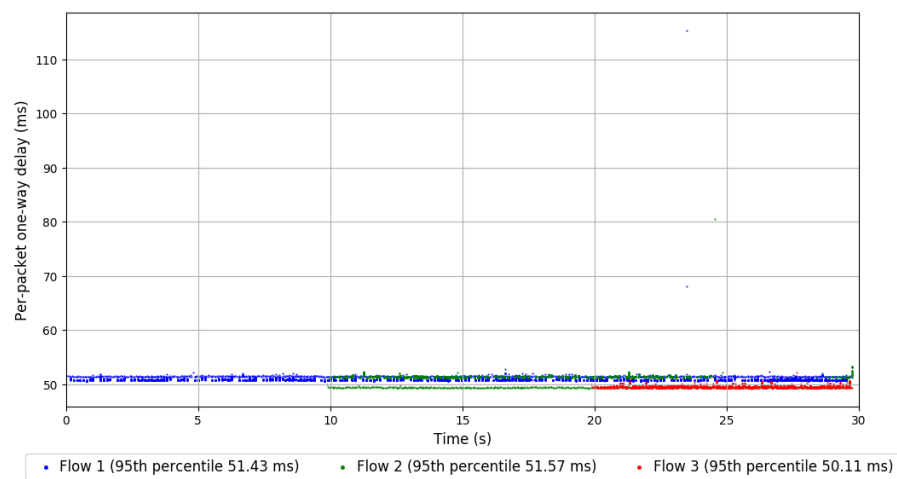
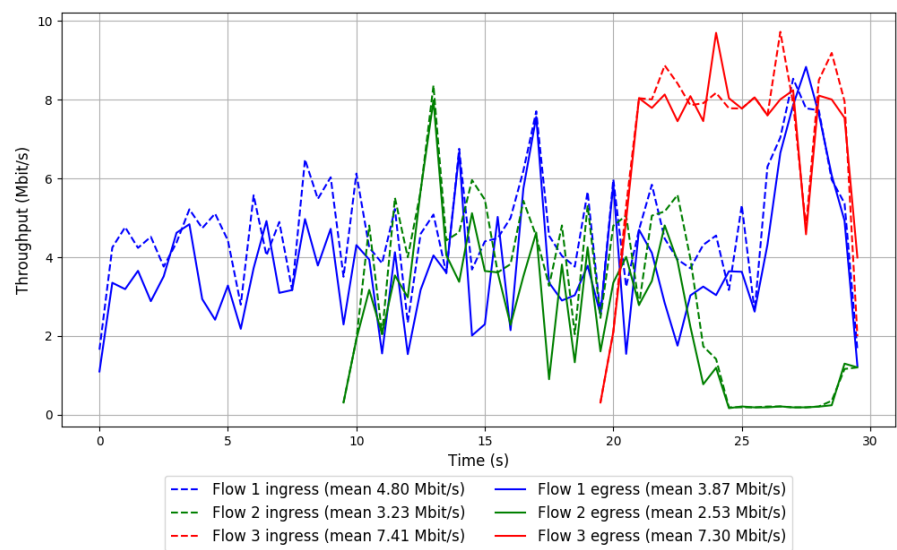
-- Flow 3:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 50.110 ms

Loss rate: 1.56%

Run 10: Report of Sprout — Data Link

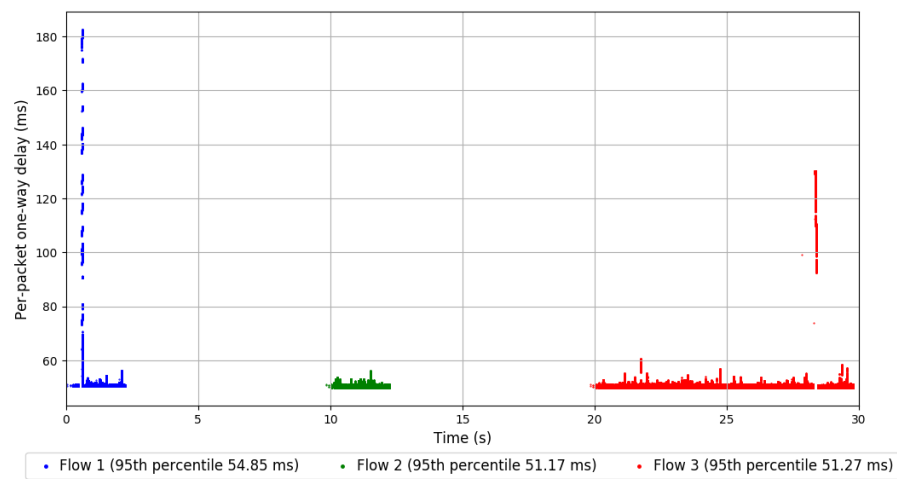
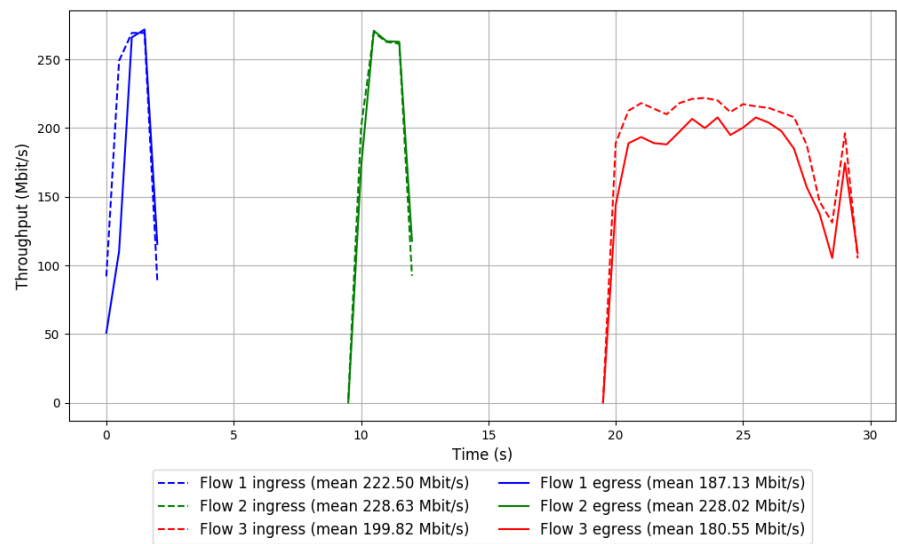


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-21 07:27:04
End at: 2017-08-21 07:27:34

# Below is generated by plot.py at 2017-08-21 10:48:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.27 Mbit/s
95th percentile per-packet one-way delay: 51.539 ms
Loss rate: 8.96%
-- Flow 1:
Average throughput: 187.13 Mbit/s
95th percentile per-packet one-way delay: 54.852 ms
Loss rate: 15.91%
-- Flow 2:
Average throughput: 228.02 Mbit/s
95th percentile per-packet one-way delay: 51.171 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 180.55 Mbit/s
95th percentile per-packet one-way delay: 51.271 ms
Loss rate: 9.64%
```

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

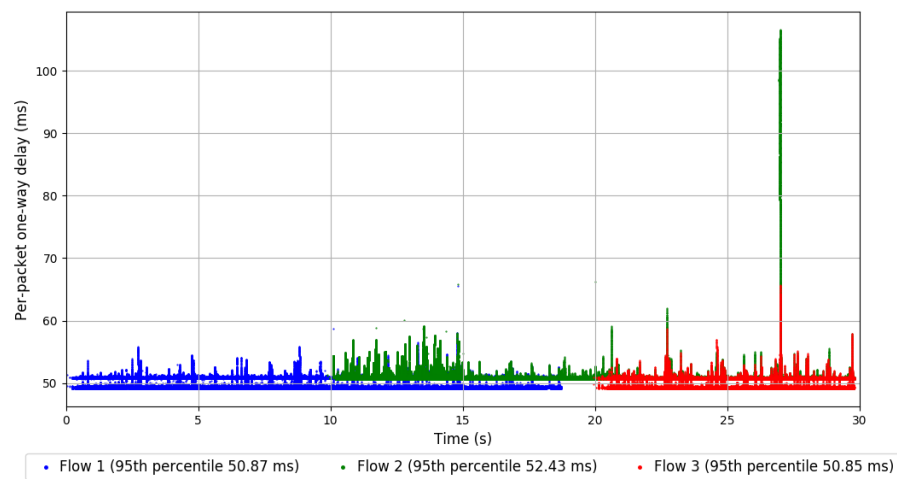
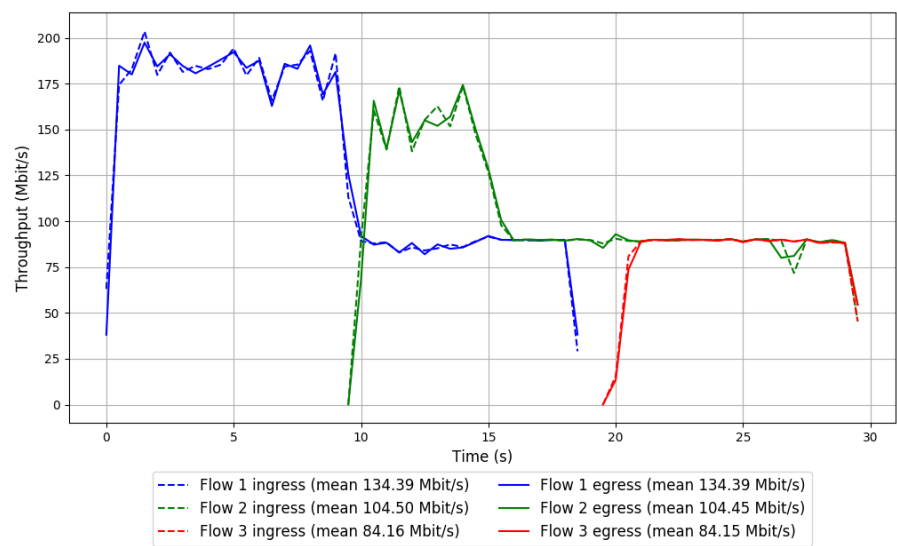


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-21 07:38:06
End at: 2017-08-21 07:38:36

# Below is generated by plot.py at 2017-08-21 10:49:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.13 Mbit/s
95th percentile per-packet one-way delay: 51.185 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 134.39 Mbit/s
95th percentile per-packet one-way delay: 50.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 104.45 Mbit/s
95th percentile per-packet one-way delay: 52.432 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 84.15 Mbit/s
95th percentile per-packet one-way delay: 50.850 ms
Loss rate: 0.05%
```


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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-21 07:48:57

End at: 2017-08-21 07:49:27

Below is generated by plot.py at 2017-08-21 10:49:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 205.64 Mbit/s

95th percentile per-packet one-way delay: 51.440 ms

Loss rate: 6.14%

-- Flow 1:

Average throughput: 112.22 Mbit/s

95th percentile per-packet one-way delay: 50.910 ms

Loss rate: 8.18%

-- Flow 2:

Average throughput: 108.60 Mbit/s

95th percentile per-packet one-way delay: 51.717 ms

Loss rate: 1.97%

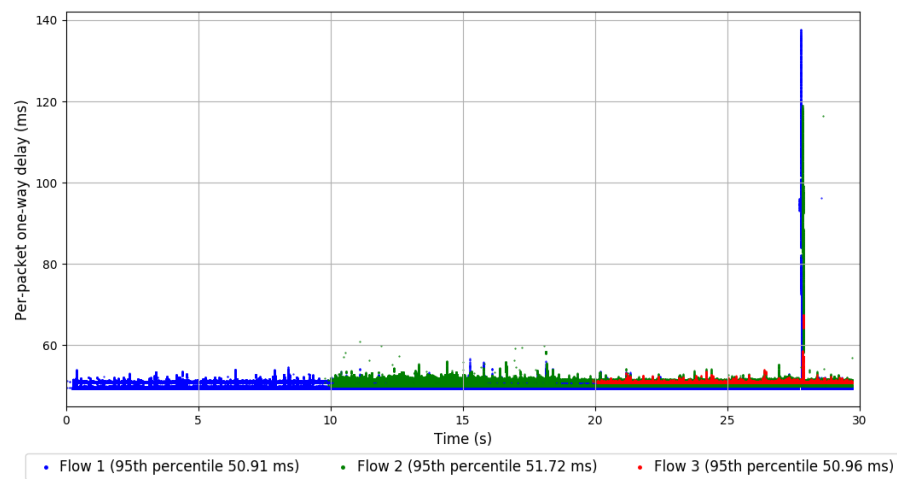
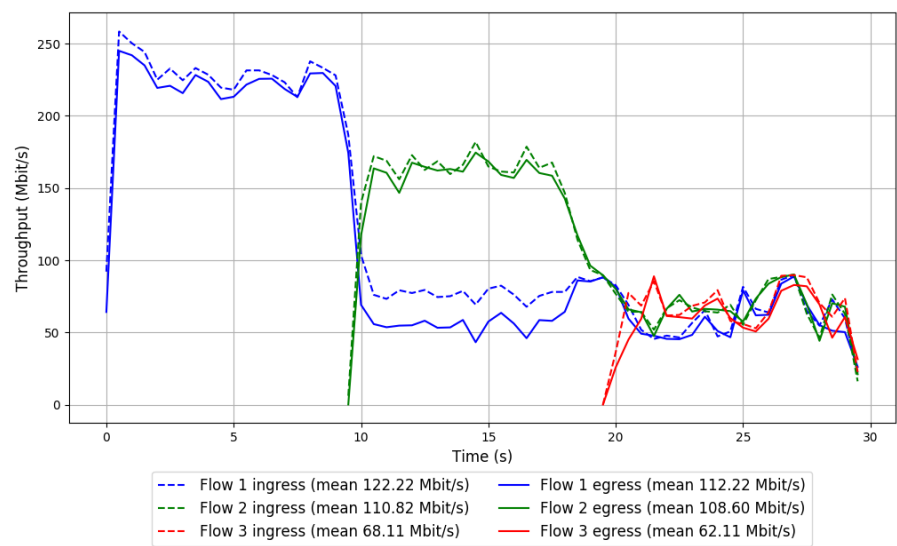
-- Flow 3:

Average throughput: 62.11 Mbit/s

95th percentile per-packet one-way delay: 50.956 ms

Loss rate: 8.81%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-08-21 08:00:02

End at: 2017-08-21 08:00:32

Below is generated by plot.py at 2017-08-21 10:49:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.12 Mbit/s

95th percentile per-packet one-way delay: 51.734 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 162.26 Mbit/s

95th percentile per-packet one-way delay: 51.124 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 162.15 Mbit/s

95th percentile per-packet one-way delay: 51.668 ms

Loss rate: 1.05%

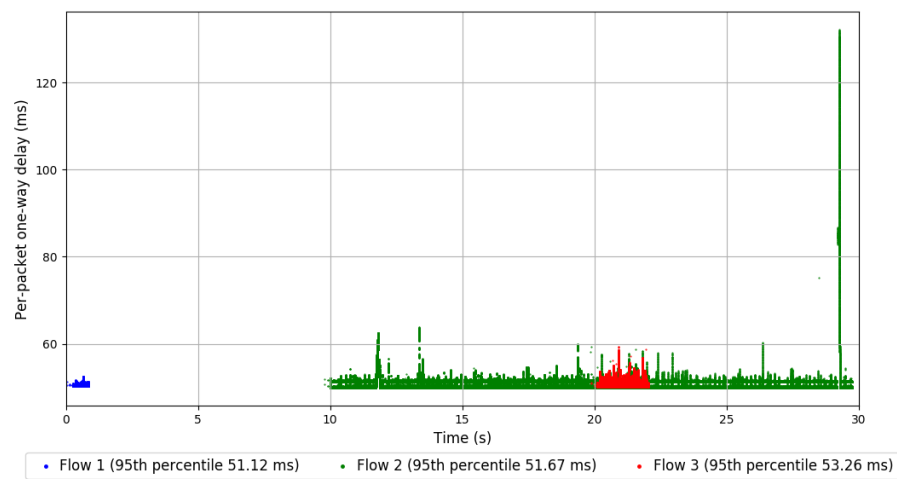
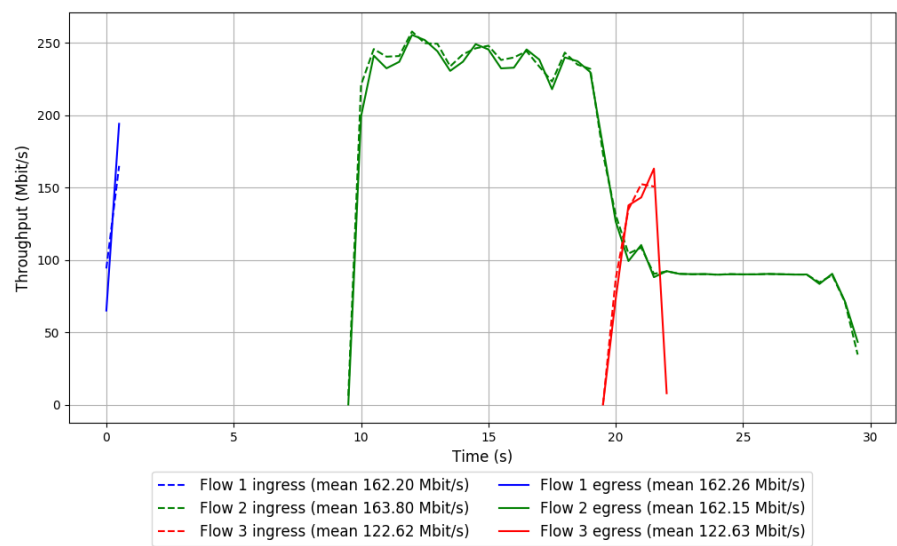
-- Flow 3:

Average throughput: 122.63 Mbit/s

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

Loss rate: 0.00%

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

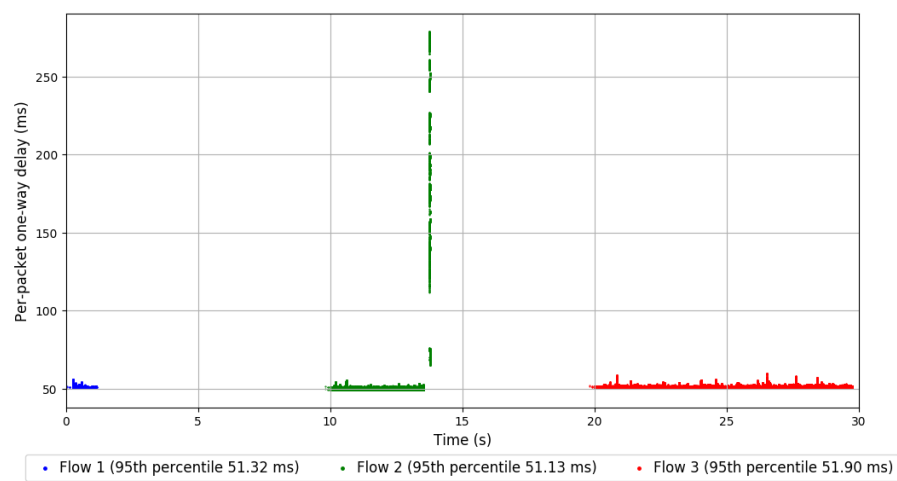
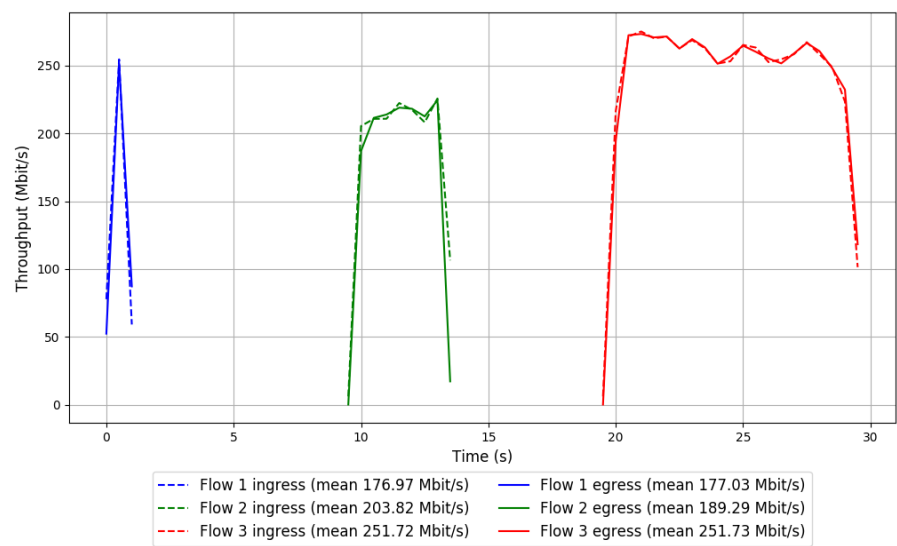


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-21 08:10:51
End at: 2017-08-21 08:11:21

# Below is generated by plot.py at 2017-08-21 10:50:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 116.12 Mbit/s
95th percentile per-packet one-way delay: 51.830 ms
Loss rate: 1.56%
-- Flow 1:
Average throughput: 177.03 Mbit/s
95th percentile per-packet one-way delay: 51.323 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 189.29 Mbit/s
95th percentile per-packet one-way delay: 51.129 ms
Loss rate: 6.78%
-- Flow 3:
Average throughput: 251.73 Mbit/s
95th percentile per-packet one-way delay: 51.900 ms
Loss rate: 0.00%
```

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-21 08:21:27

End at: 2017-08-21 08:21:57

Below is generated by plot.py at 2017-08-21 10:50:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.36 Mbit/s

95th percentile per-packet one-way delay: 51.575 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 209.41 Mbit/s

95th percentile per-packet one-way delay: 50.918 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 164.00 Mbit/s

95th percentile per-packet one-way delay: 51.792 ms

Loss rate: 1.60%

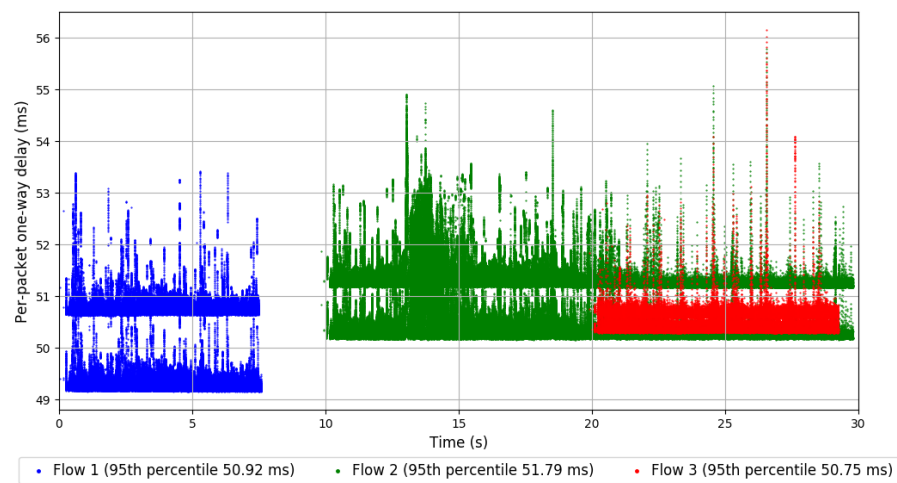
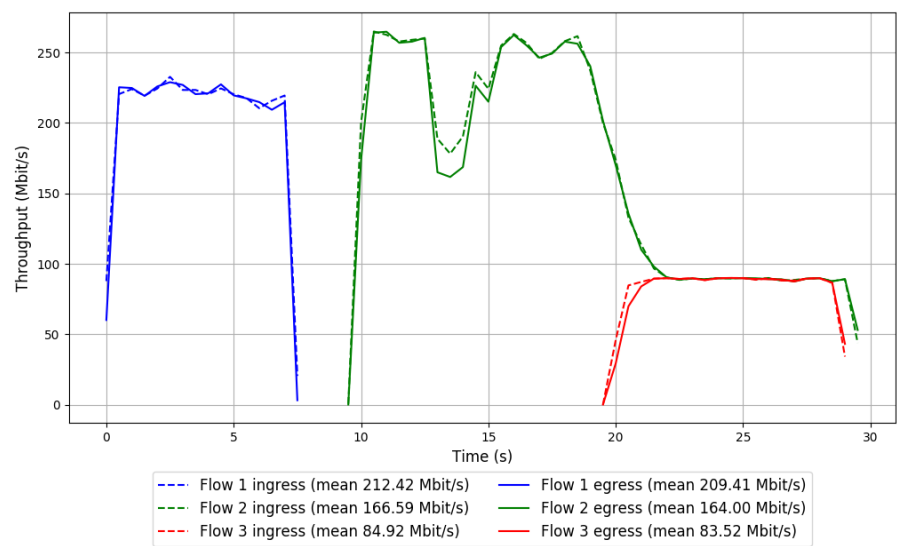
-- Flow 3:

Average throughput: 83.52 Mbit/s

95th percentile per-packet one-way delay: 50.753 ms

Loss rate: 1.65%

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

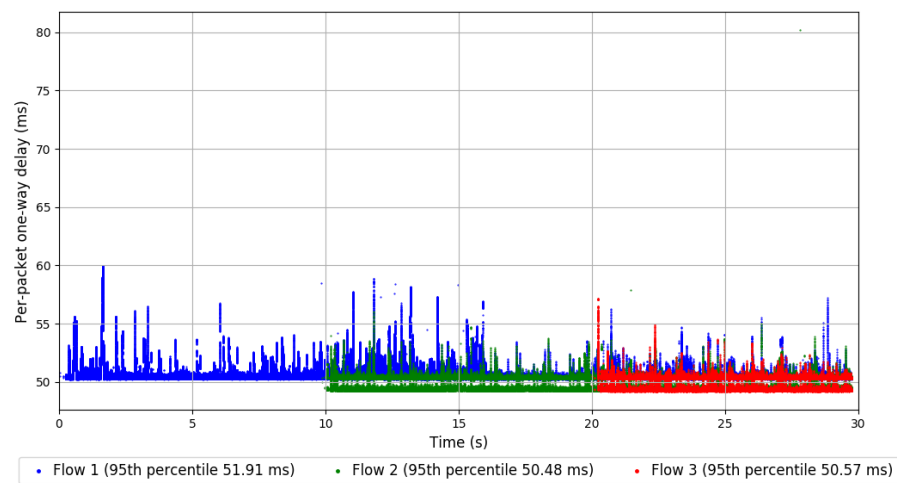
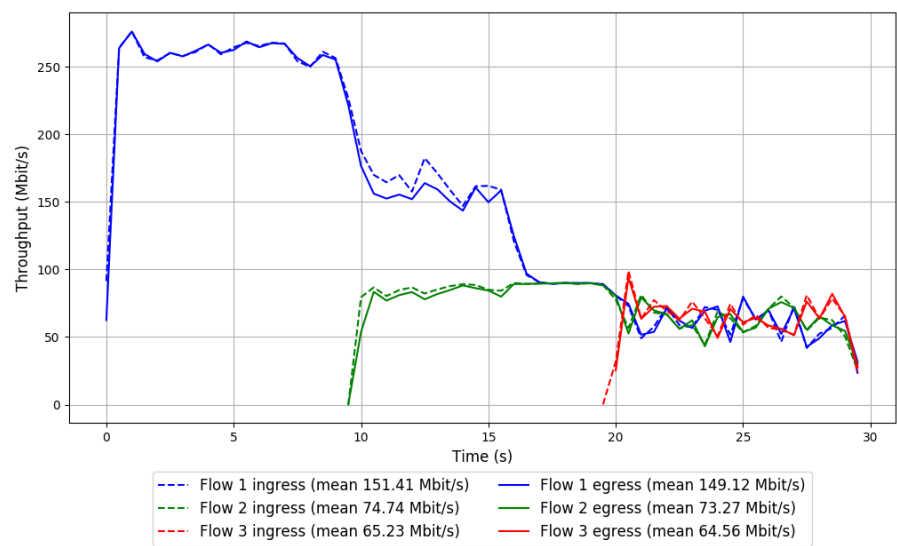


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-21 08:32:19
End at: 2017-08-21 08:32:49

# Below is generated by plot.py at 2017-08-21 10:51:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 219.28 Mbit/s
95th percentile per-packet one-way delay: 51.500 ms
Loss rate: 1.57%
-- Flow 1:
Average throughput: 149.12 Mbit/s
95th percentile per-packet one-way delay: 51.905 ms
Loss rate: 1.52%
-- Flow 2:
Average throughput: 73.27 Mbit/s
95th percentile per-packet one-way delay: 50.480 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 64.56 Mbit/s
95th percentile per-packet one-way delay: 50.568 ms
Loss rate: 1.03%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-21 08:43:19

End at: 2017-08-21 08:43:49

Below is generated by plot.py at 2017-08-21 10:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 220.82 Mbit/s

95th percentile per-packet one-way delay: 51.380 ms

Loss rate: 3.75%

-- Flow 1:

Average throughput: 153.83 Mbit/s

95th percentile per-packet one-way delay: 50.833 ms

Loss rate: 4.74%

-- Flow 2:

Average throughput: 69.35 Mbit/s

95th percentile per-packet one-way delay: 51.448 ms

Loss rate: 1.84%

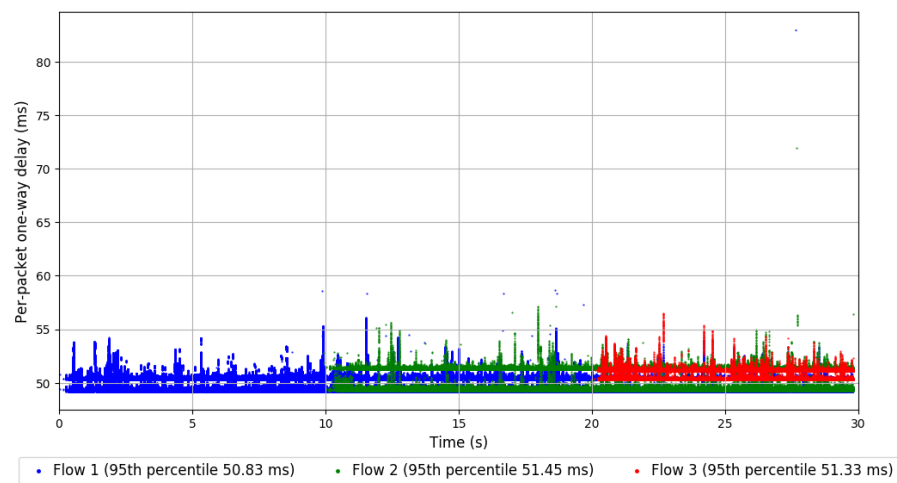
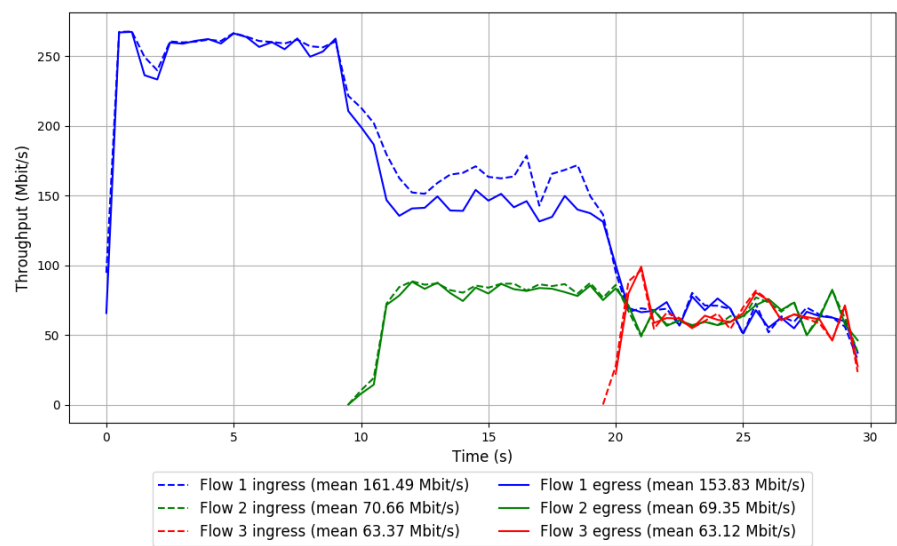
-- Flow 3:

Average throughput: 63.12 Mbit/s

95th percentile per-packet one-way delay: 51.326 ms

Loss rate: 0.39%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-21 08:54:18

End at: 2017-08-21 08:54:48

Below is generated by plot.py at 2017-08-21 10:52:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 169.71 Mbit/s

95th percentile per-packet one-way delay: 51.864 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 206.82 Mbit/s

95th percentile per-packet one-way delay: 52.257 ms

Loss rate: 3.49%

-- Flow 2:

Average throughput: 77.96 Mbit/s

95th percentile per-packet one-way delay: 49.473 ms

Loss rate: 2.46%

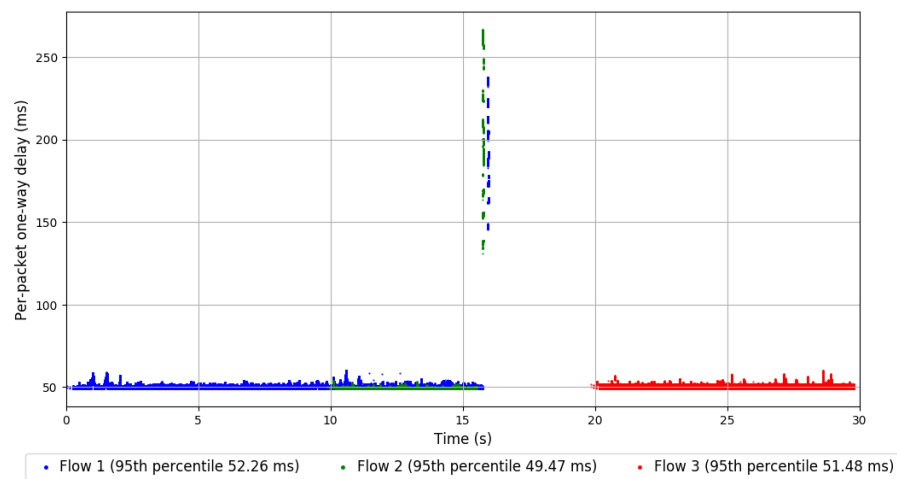
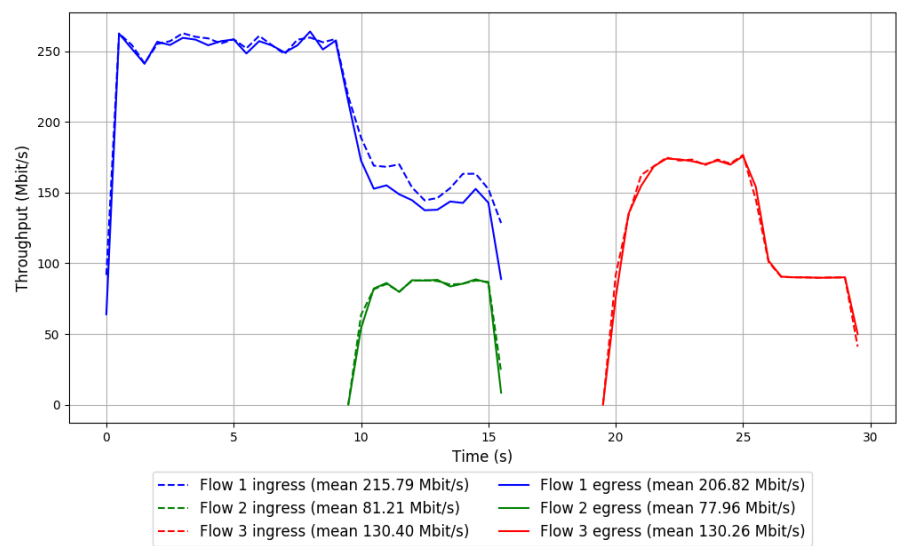
-- Flow 3:

Average throughput: 130.26 Mbit/s

95th percentile per-packet one-way delay: 51.476 ms

Loss rate: 0.22%

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

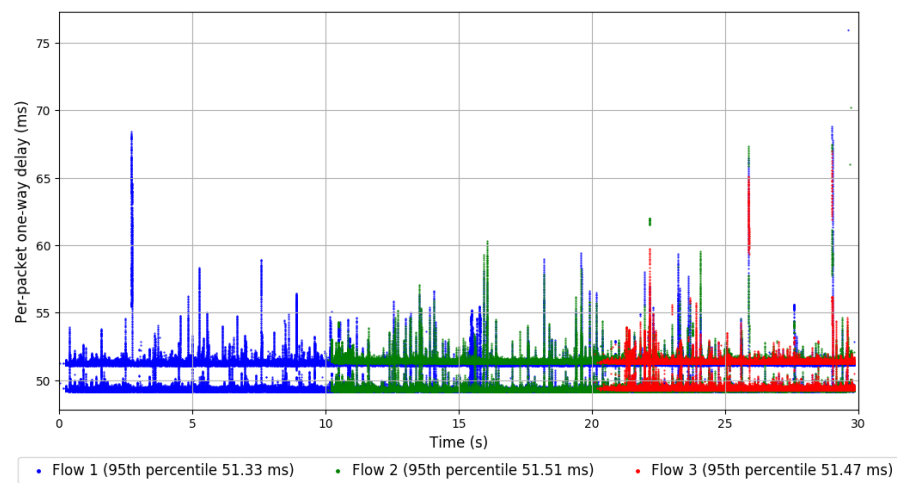
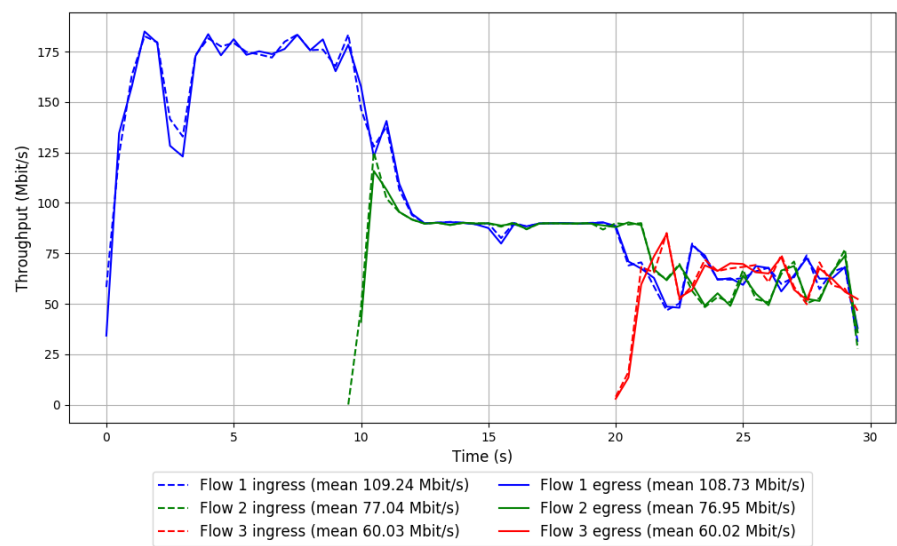


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-21 09:05:32
End at: 2017-08-21 09:06:02

# Below is generated by plot.py at 2017-08-21 10:52:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.59 Mbit/s
95th percentile per-packet one-way delay: 51.453 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 108.73 Mbit/s
95th percentile per-packet one-way delay: 51.328 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 76.95 Mbit/s
95th percentile per-packet one-way delay: 51.509 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 60.02 Mbit/s
95th percentile per-packet one-way delay: 51.473 ms
Loss rate: 0.00%
```


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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-21 07:24:18

End at: 2017-08-21 07:24:48

Below is generated by plot.py at 2017-08-21 10:52:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.81 Mbit/s

95th percentile per-packet one-way delay: 51.838 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 8.72 Mbit/s

95th percentile per-packet one-way delay: 51.800 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 24.40 Mbit/s

95th percentile per-packet one-way delay: 51.932 ms

Loss rate: 0.34%

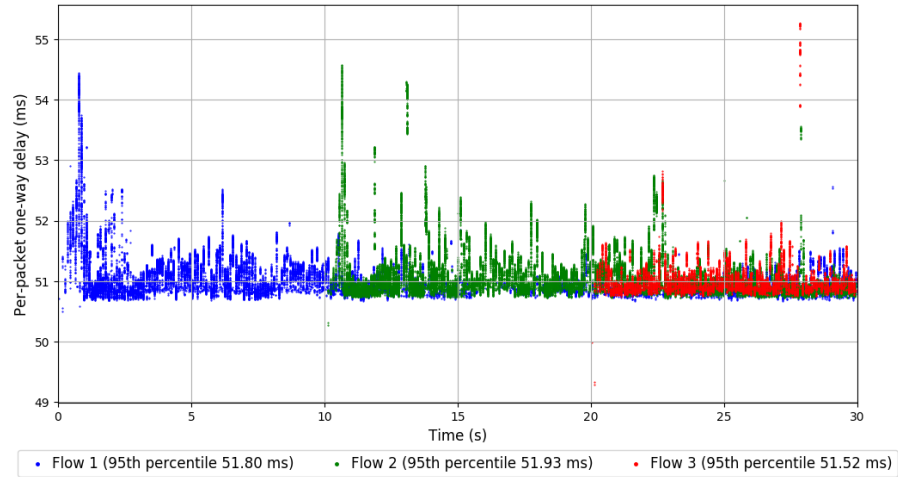
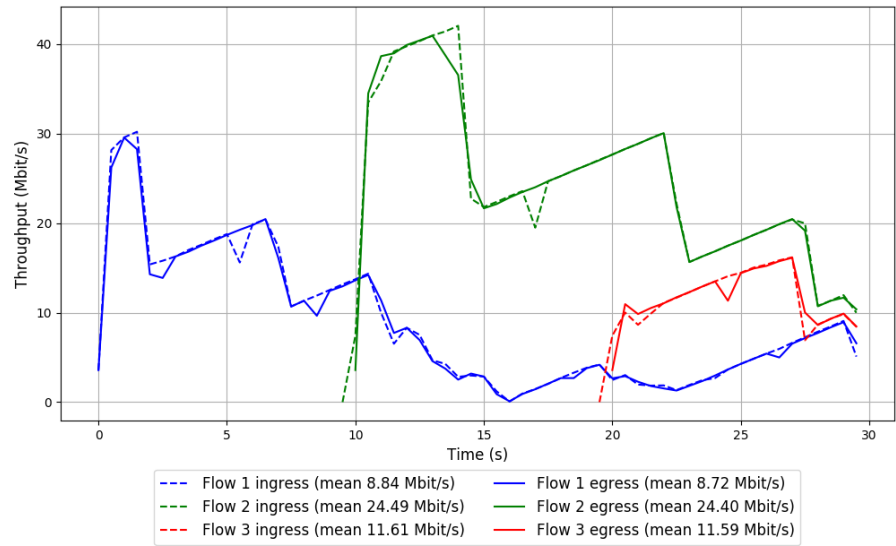
-- Flow 3:

Average throughput: 11.59 Mbit/s

95th percentile per-packet one-way delay: 51.520 ms

Loss rate: 0.49%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-21 07:35:22

End at: 2017-08-21 07:35:52

Below is generated by plot.py at 2017-08-21 10:52:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.97 Mbit/s

95th percentile per-packet one-way delay: 51.365 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 51.217 ms

Loss rate: 2.87%

-- Flow 2:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 51.243 ms

Loss rate: 1.83%

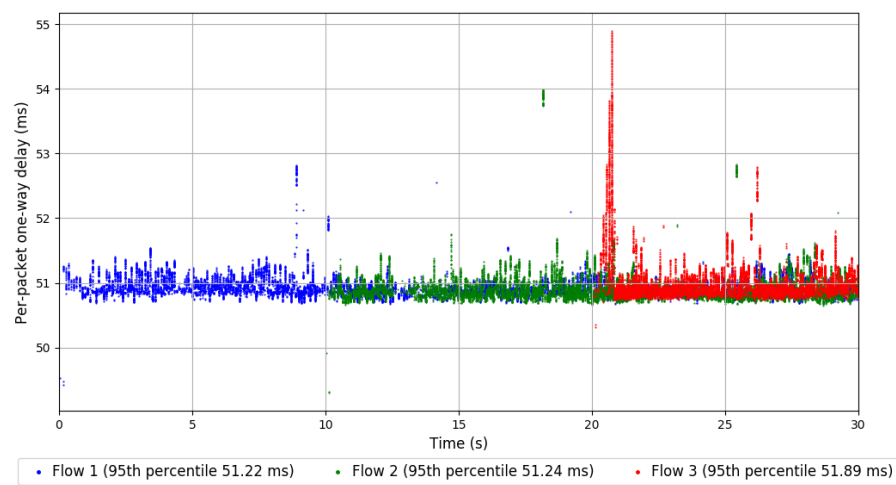
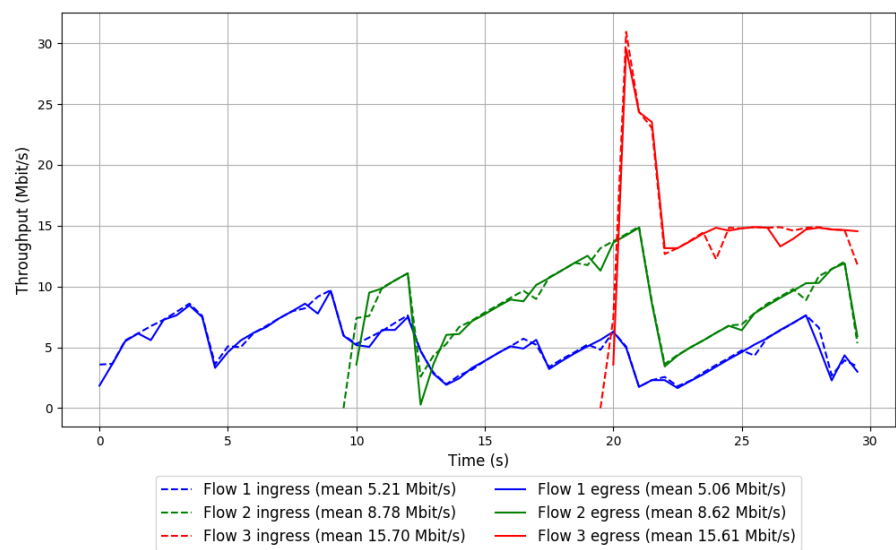
-- Flow 3:

Average throughput: 15.61 Mbit/s

95th percentile per-packet one-way delay: 51.891 ms

Loss rate: 0.57%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-21 07:46:14

End at: 2017-08-21 07:46:44

Below is generated by plot.py at 2017-08-21 10:52:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.95 Mbit/s

95th percentile per-packet one-way delay: 51.247 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 5.25 Mbit/s

95th percentile per-packet one-way delay: 51.234 ms

Loss rate: 3.20%

-- Flow 2:

Average throughput: 5.90 Mbit/s

95th percentile per-packet one-way delay: 51.215 ms

Loss rate: 1.05%

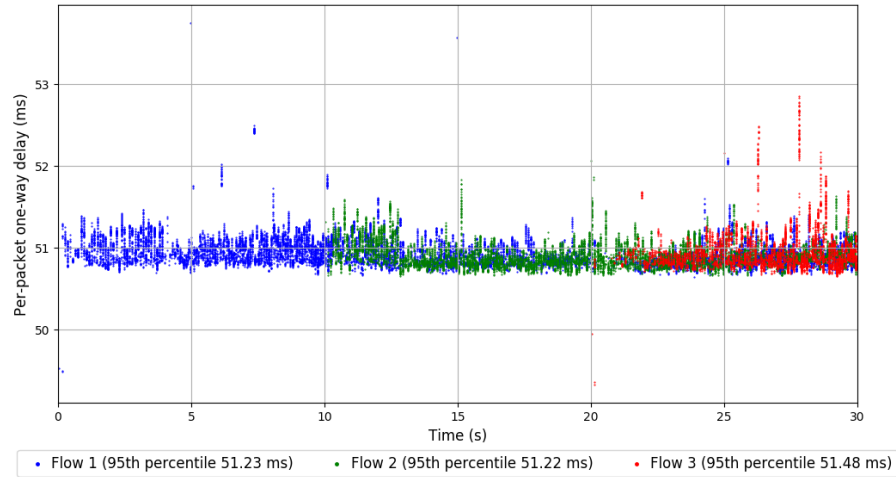
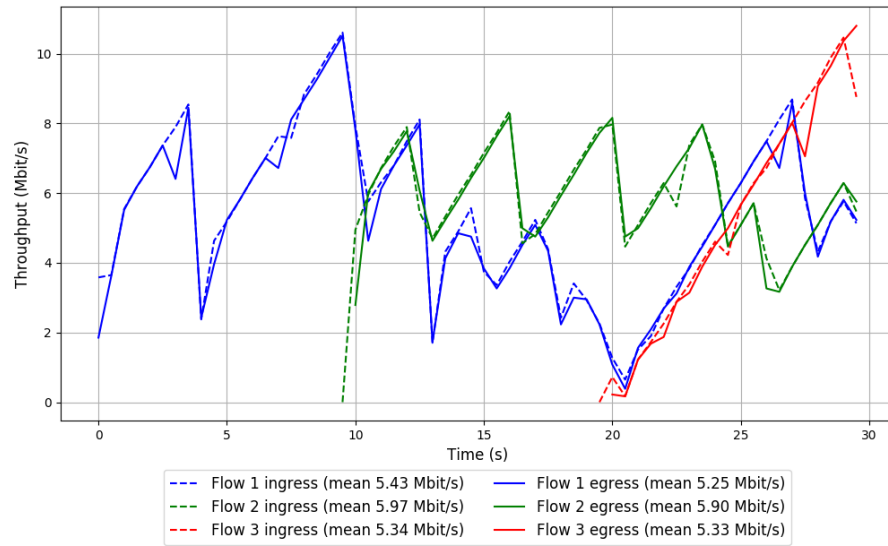
-- Flow 3:

Average throughput: 5.33 Mbit/s

95th percentile per-packet one-way delay: 51.480 ms

Loss rate: 0.50%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-21 07:57:16

End at: 2017-08-21 07:57:46

Below is generated by plot.py at 2017-08-21 10:52:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 17.03 Mbit/s

95th percentile per-packet one-way delay: 51.582 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 5.92 Mbit/s

95th percentile per-packet one-way delay: 51.314 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 11.46 Mbit/s

95th percentile per-packet one-way delay: 51.916 ms

Loss rate: 0.91%

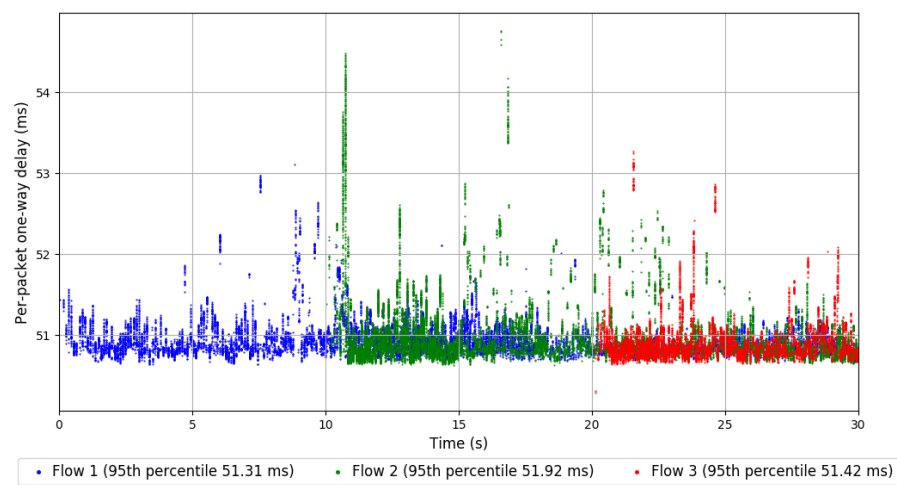
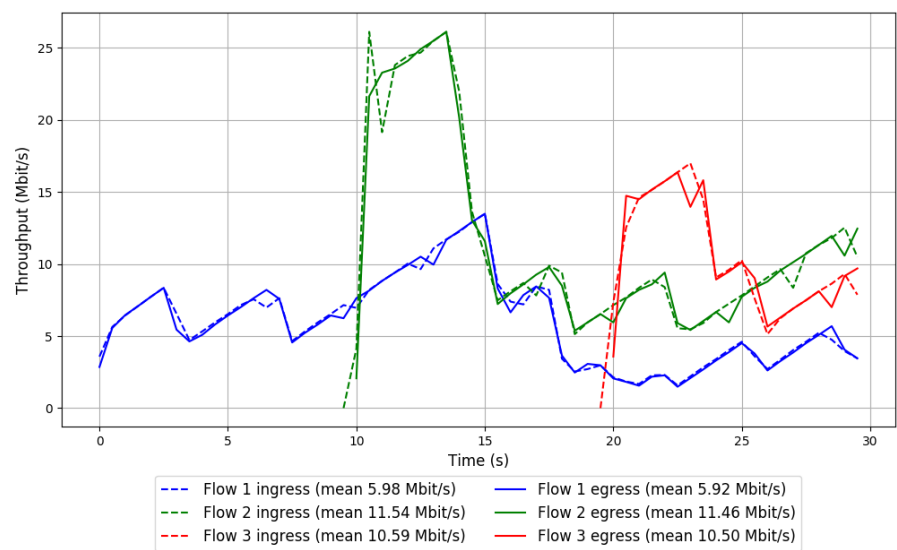
-- Flow 3:

Average throughput: 10.50 Mbit/s

95th percentile per-packet one-way delay: 51.416 ms

Loss rate: 0.82%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

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

End at: 2017-08-21 08:08:33

Below is generated by plot.py at 2017-08-21 10:53:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.04 Mbit/s

95th percentile per-packet one-way delay: 51.637 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 9.70 Mbit/s

95th percentile per-packet one-way delay: 51.594 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 5.03 Mbit/s

95th percentile per-packet one-way delay: 51.099 ms

Loss rate: 2.78%

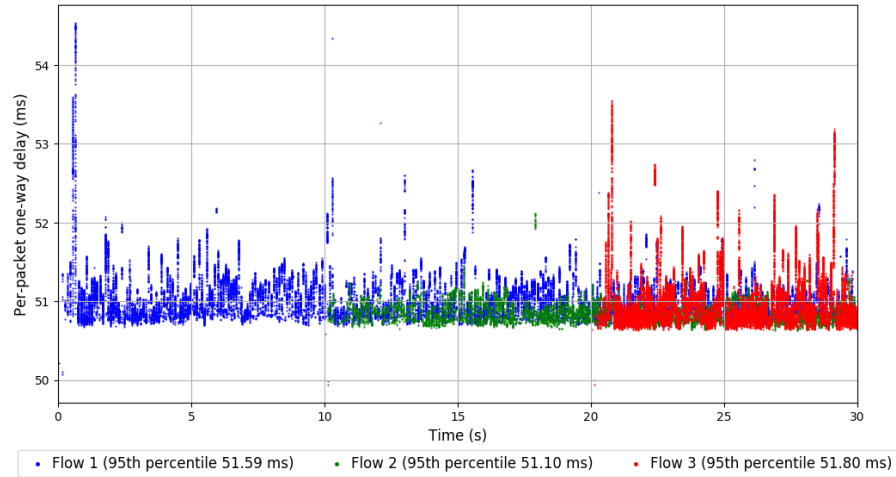
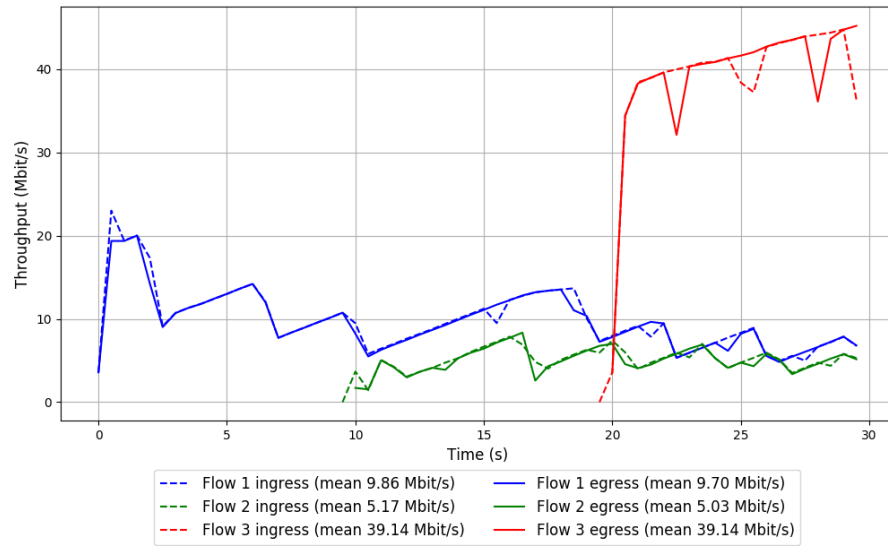
-- Flow 3:

Average throughput: 39.14 Mbit/s

95th percentile per-packet one-way delay: 51.795 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-21 08:18:46

End at: 2017-08-21 08:19:16

Below is generated by plot.py at 2017-08-21 10:53:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.94 Mbit/s

95th percentile per-packet one-way delay: 51.164 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 5.99 Mbit/s

95th percentile per-packet one-way delay: 51.136 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 6.12 Mbit/s

95th percentile per-packet one-way delay: 51.253 ms

Loss rate: 1.43%

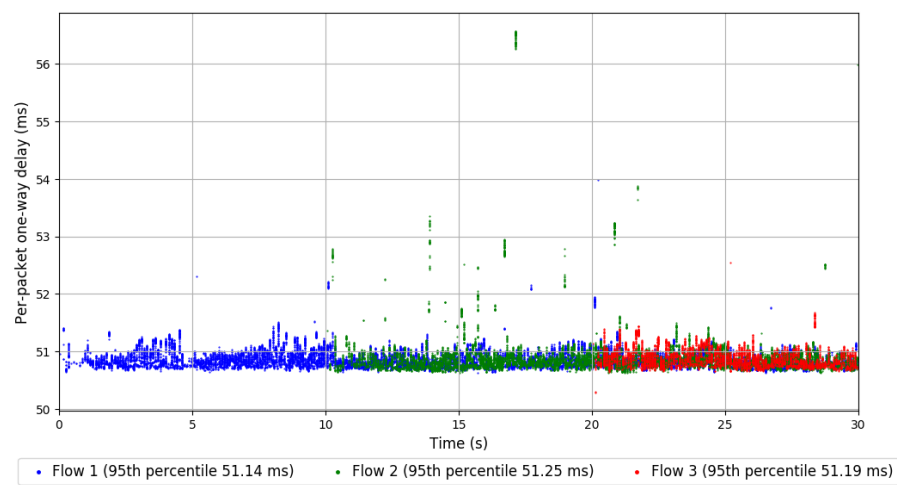
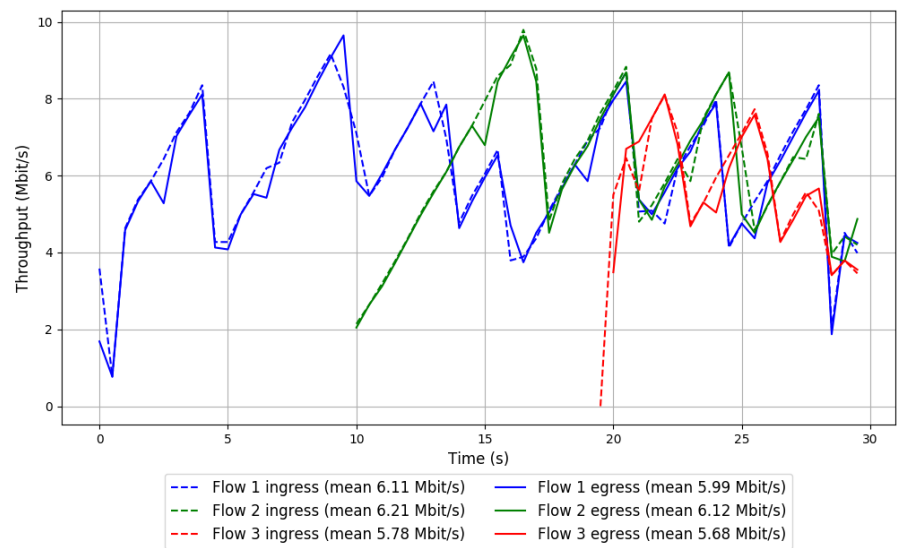
-- Flow 3:

Average throughput: 5.68 Mbit/s

95th percentile per-packet one-way delay: 51.190 ms

Loss rate: 1.78%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-21 08:29:37

End at: 2017-08-21 08:30:07

Below is generated by plot.py at 2017-08-21 10:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.23 Mbit/s

95th percentile per-packet one-way delay: 51.311 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 34.02 Mbit/s

95th percentile per-packet one-way delay: 51.348 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 50.719 ms

Loss rate: 3.73%

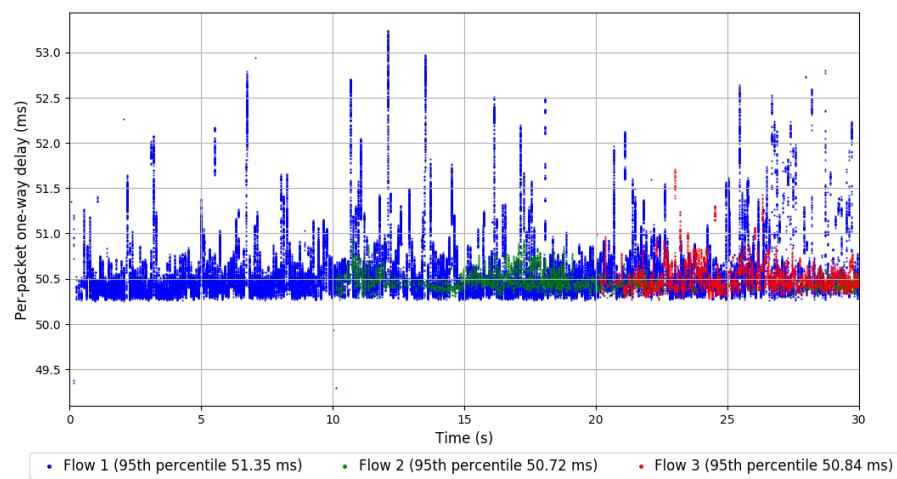
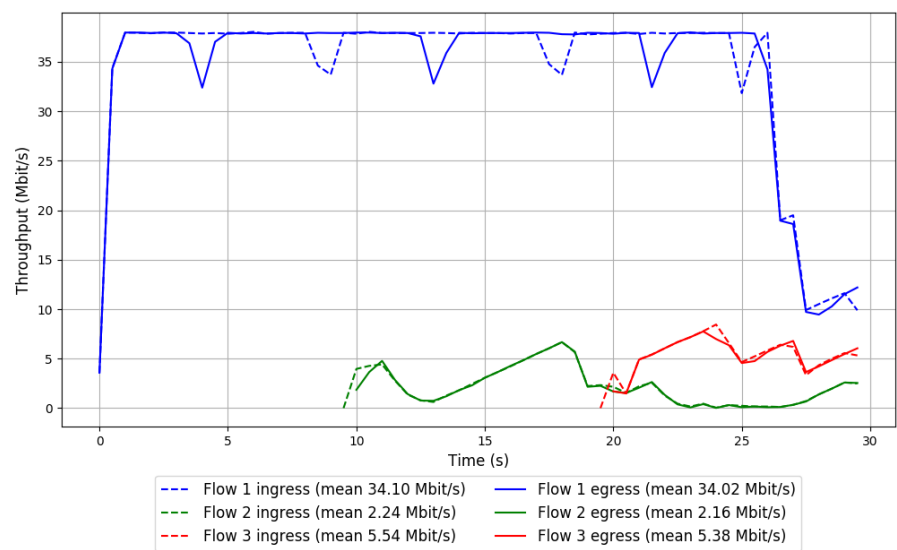
-- Flow 3:

Average throughput: 5.38 Mbit/s

95th percentile per-packet one-way delay: 50.845 ms

Loss rate: 2.88%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-21 08:40:37

End at: 2017-08-21 08:41:07

Below is generated by plot.py at 2017-08-21 10:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.54 Mbit/s

95th percentile per-packet one-way delay: 51.459 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 10.68 Mbit/s

95th percentile per-packet one-way delay: 51.281 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 4.60 Mbit/s

95th percentile per-packet one-way delay: 50.887 ms

Loss rate: 2.17%

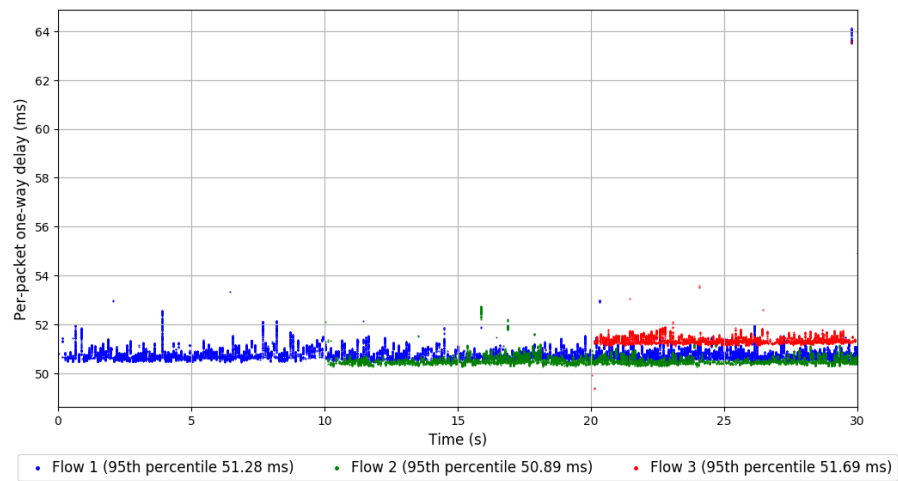
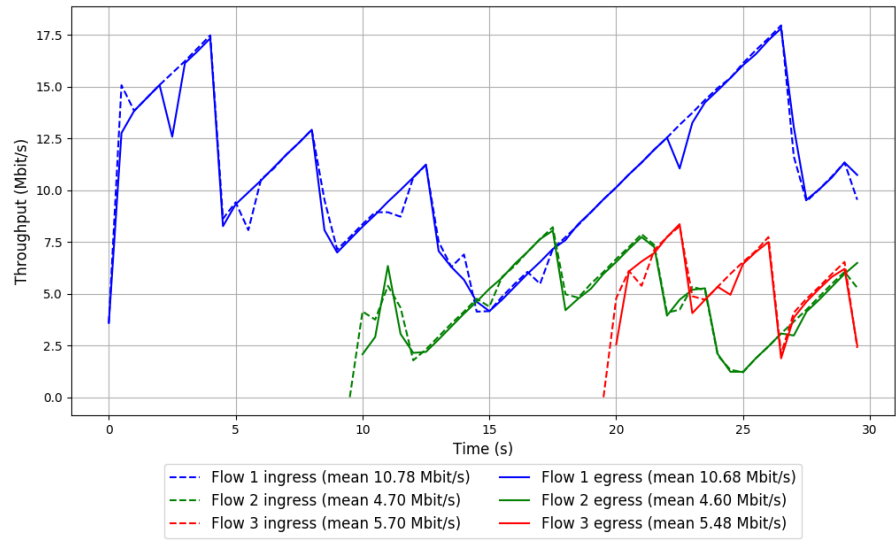
-- Flow 3:

Average throughput: 5.48 Mbit/s

95th percentile per-packet one-way delay: 51.694 ms

Loss rate: 3.90%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-21 08:51:30

End at: 2017-08-21 08:52:00

Below is generated by plot.py at 2017-08-21 10:53:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 50.791 ms

Loss rate: 2.66%

-- Flow 1:

Average throughput: 5.87 Mbit/s

95th percentile per-packet one-way delay: 50.804 ms

Loss rate: 2.63%

-- Flow 2:

Average throughput: 5.34 Mbit/s

95th percentile per-packet one-way delay: 50.720 ms

Loss rate: 2.39%

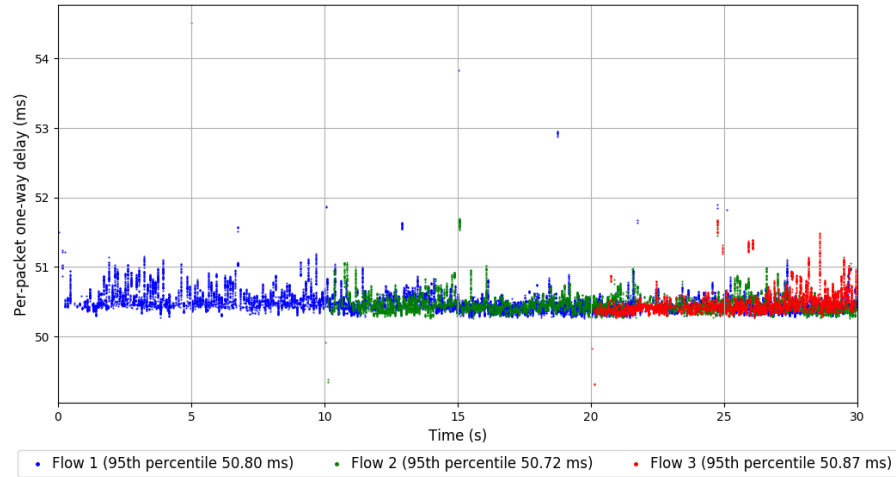
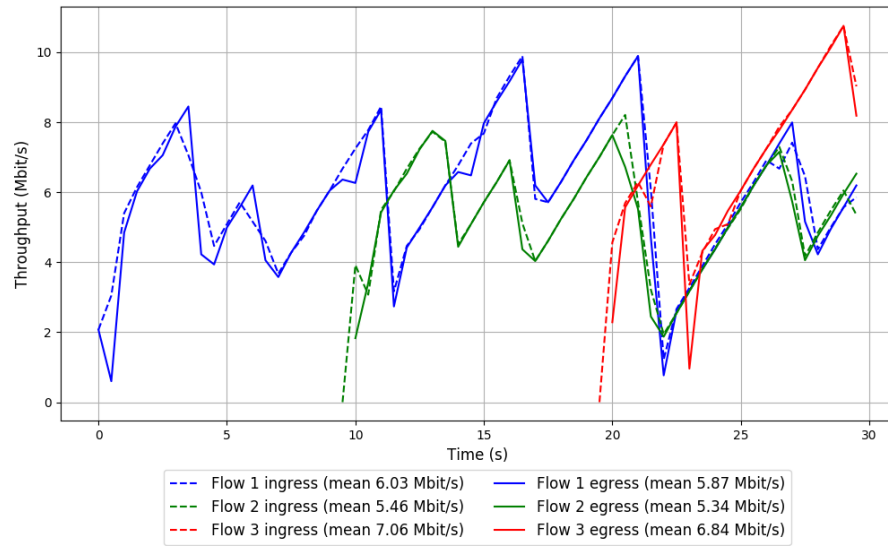
-- Flow 3:

Average throughput: 6.84 Mbit/s

95th percentile per-packet one-way delay: 50.872 ms

Loss rate: 3.16%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-21 09:02:27

End at: 2017-08-21 09:02:57

Below is generated by plot.py at 2017-08-21 10:53:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.68 Mbit/s

95th percentile per-packet one-way delay: 50.260 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 12.10 Mbit/s

95th percentile per-packet one-way delay: 49.984 ms

Loss rate: 3.15%

-- Flow 2:

Average throughput: 26.41 Mbit/s

95th percentile per-packet one-way delay: 50.256 ms

Loss rate: 0.39%

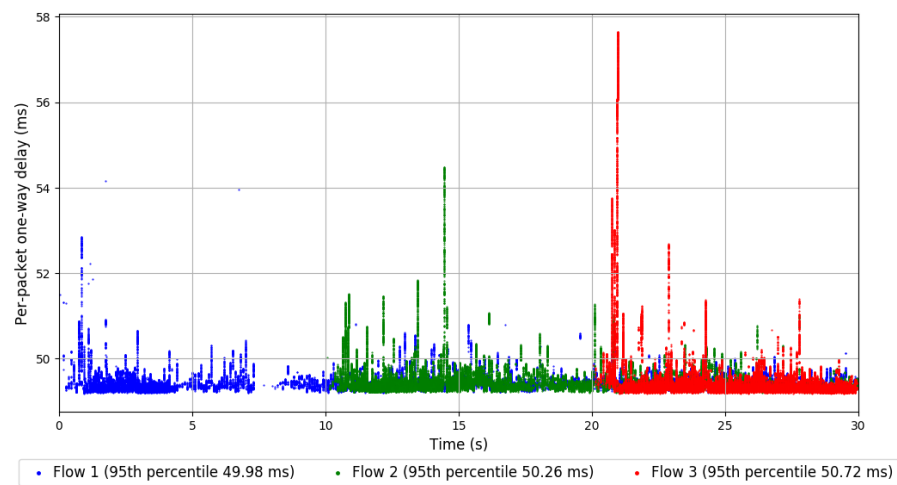
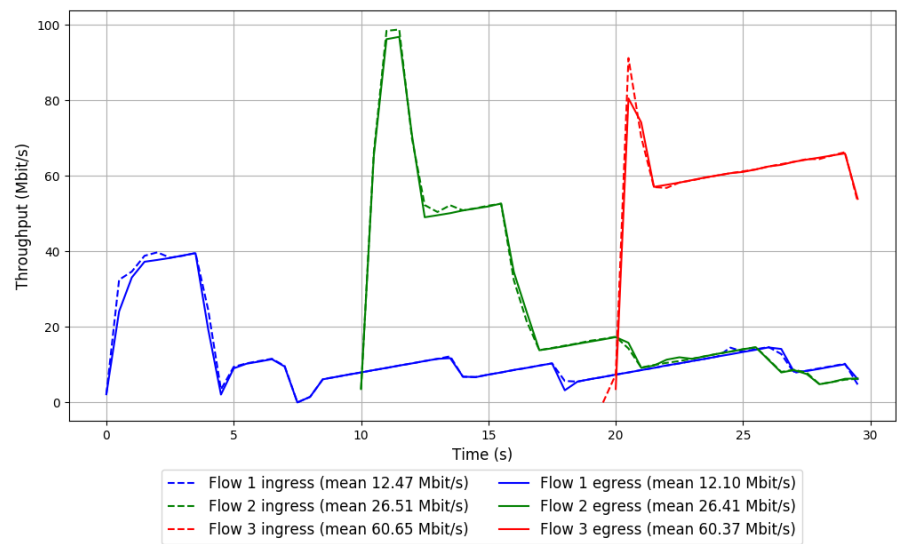
-- Flow 3:

Average throughput: 60.37 Mbit/s

95th percentile per-packet one-way delay: 50.721 ms

Loss rate: 0.77%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-21 07:23:25

End at: 2017-08-21 07:23:55

Below is generated by plot.py at 2017-08-21 10:53:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.96 Mbit/s

95th percentile per-packet one-way delay: 62.733 ms

Loss rate: 11.21%

-- Flow 1:

Average throughput: 96.97 Mbit/s

95th percentile per-packet one-way delay: 59.586 ms

Loss rate: 16.20%

-- Flow 2:

Average throughput: 87.39 Mbit/s

95th percentile per-packet one-way delay: 70.930 ms

Loss rate: 2.76%

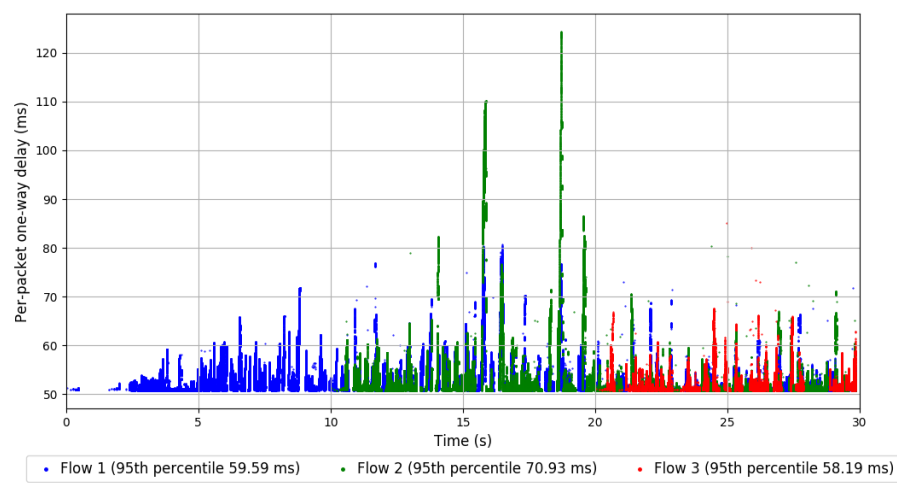
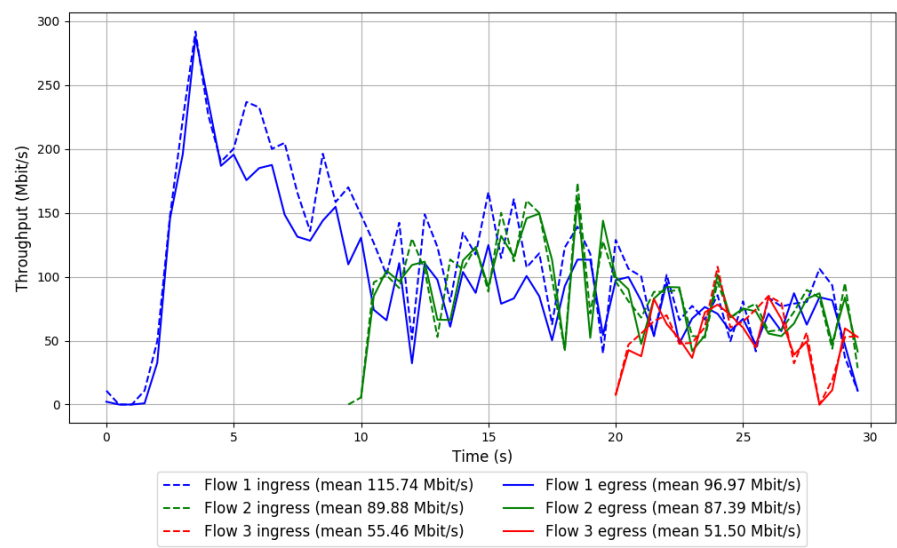
-- Flow 3:

Average throughput: 51.50 Mbit/s

95th percentile per-packet one-way delay: 58.194 ms

Loss rate: 7.14%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-21 07:34:31

End at: 2017-08-21 07:35:01

Below is generated by plot.py at 2017-08-21 10:53:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.40 Mbit/s

95th percentile per-packet one-way delay: 60.881 ms

Loss rate: 29.08%

-- Flow 1:

Average throughput: 84.79 Mbit/s

95th percentile per-packet one-way delay: 63.880 ms

Loss rate: 27.04%

-- Flow 2:

Average throughput: 50.83 Mbit/s

95th percentile per-packet one-way delay: 55.128 ms

Loss rate: 39.33%

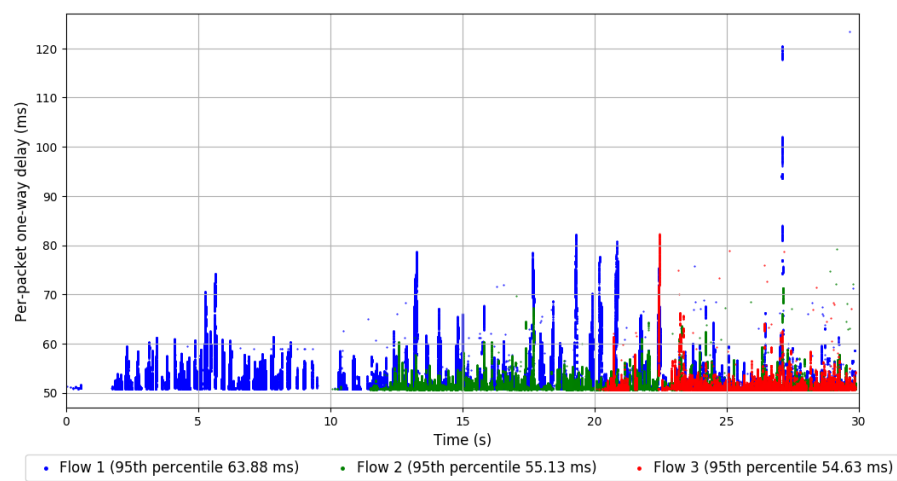
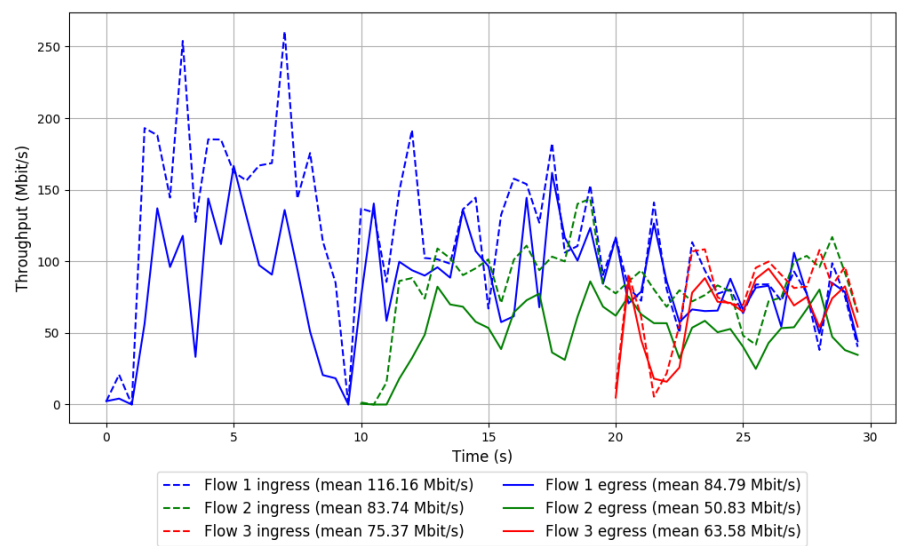
-- Flow 3:

Average throughput: 63.58 Mbit/s

95th percentile per-packet one-way delay: 54.630 ms

Loss rate: 15.67%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-21 07:45:23

End at: 2017-08-21 07:45:53

Below is generated by plot.py at 2017-08-21 10:54:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.90 Mbit/s

95th percentile per-packet one-way delay: 67.703 ms

Loss rate: 12.21%

-- Flow 1:

Average throughput: 84.93 Mbit/s

95th percentile per-packet one-way delay: 70.152 ms

Loss rate: 3.64%

-- Flow 2:

Average throughput: 87.60 Mbit/s

95th percentile per-packet one-way delay: 61.637 ms

Loss rate: 14.35%

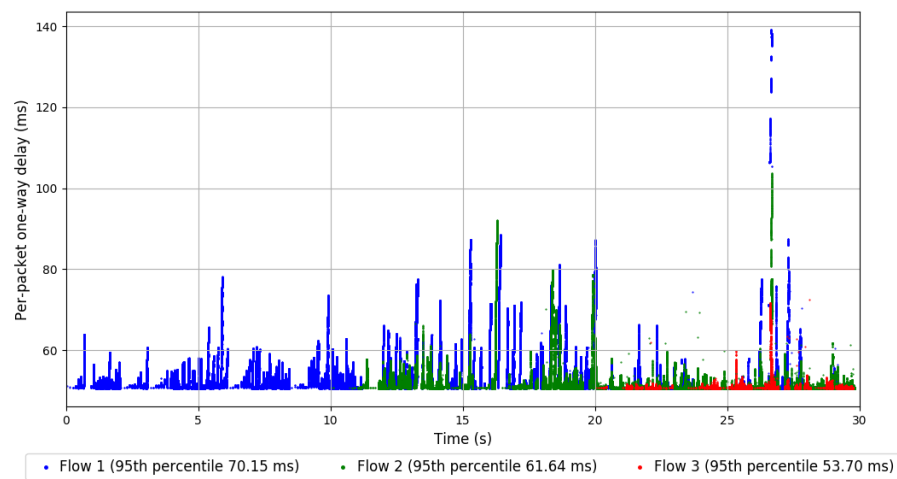
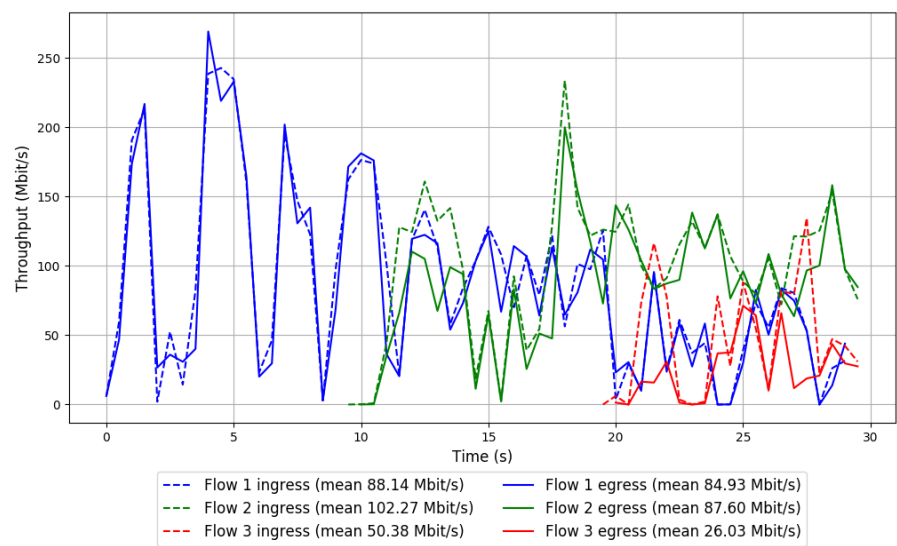
-- Flow 3:

Average throughput: 26.03 Mbit/s

95th percentile per-packet one-way delay: 53.695 ms

Loss rate: 48.34%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-21 07:56:27

End at: 2017-08-21 07:56:57

Below is generated by plot.py at 2017-08-21 10:54:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.41 Mbit/s

95th percentile per-packet one-way delay: 56.750 ms

Loss rate: 32.99%

-- Flow 1:

Average throughput: 53.96 Mbit/s

95th percentile per-packet one-way delay: 57.795 ms

Loss rate: 13.28%

-- Flow 2:

Average throughput: 66.11 Mbit/s

95th percentile per-packet one-way delay: 55.283 ms

Loss rate: 47.07%

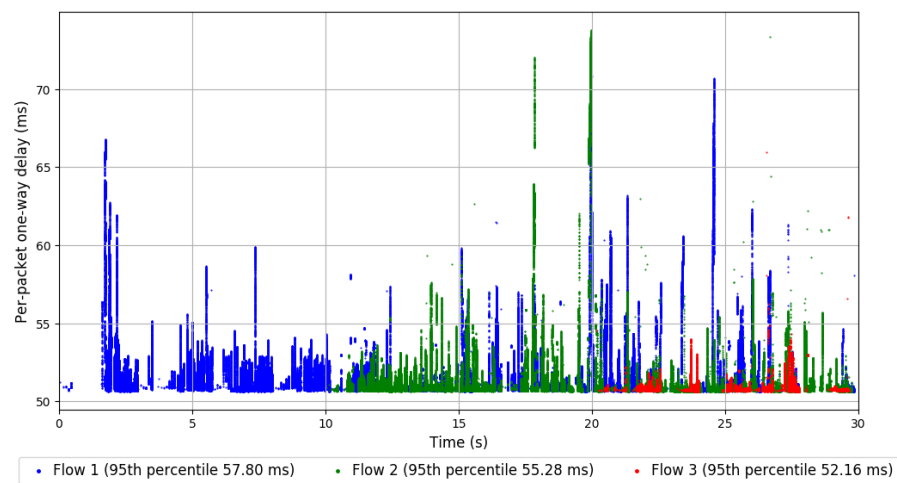
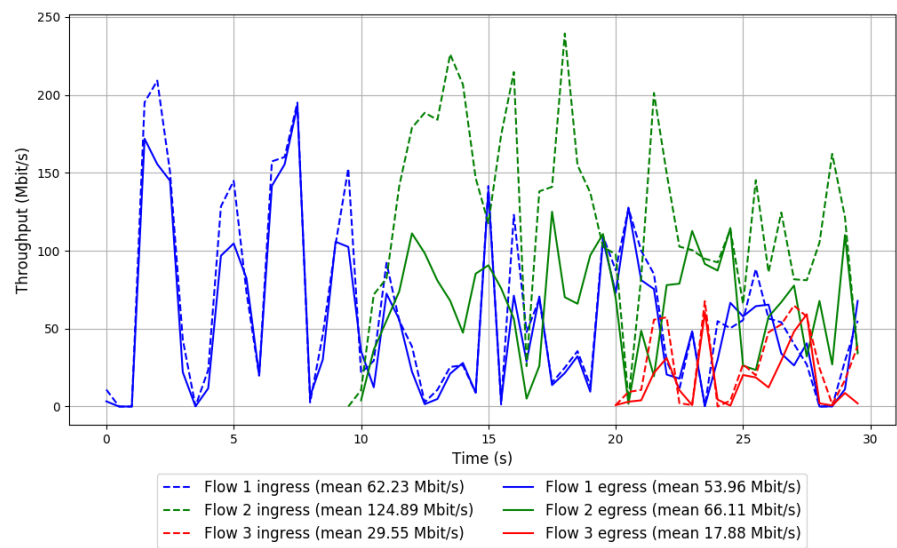
-- Flow 3:

Average throughput: 17.88 Mbit/s

95th percentile per-packet one-way delay: 52.155 ms

Loss rate: 39.52%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-21 08:07:14

End at: 2017-08-21 08:07:44

Below is generated by plot.py at 2017-08-21 10:54:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.02 Mbit/s

95th percentile per-packet one-way delay: 57.152 ms

Loss rate: 48.33%

-- Flow 1:

Average throughput: 77.34 Mbit/s

95th percentile per-packet one-way delay: 58.051 ms

Loss rate: 45.40%

-- Flow 2:

Average throughput: 35.25 Mbit/s

95th percentile per-packet one-way delay: 54.456 ms

Loss rate: 51.88%

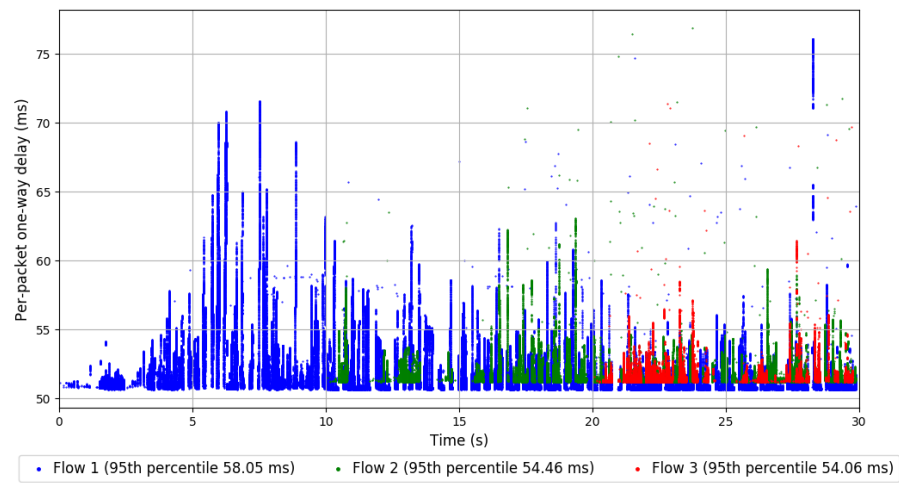
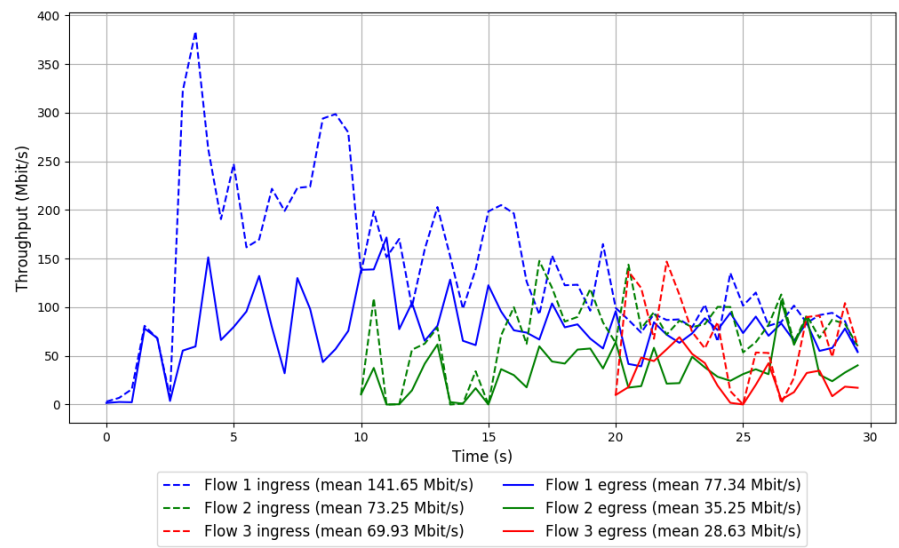
-- Flow 3:

Average throughput: 28.63 Mbit/s

95th percentile per-packet one-way delay: 54.061 ms

Loss rate: 59.06%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-21 08:18:01

End at: 2017-08-21 08:18:31

Below is generated by plot.py at 2017-08-21 10:54:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.86 Mbit/s

95th percentile per-packet one-way delay: 54.528 ms

Loss rate: 75.96%

-- Flow 1:

Average throughput: 33.34 Mbit/s

95th percentile per-packet one-way delay: 55.020 ms

Loss rate: 72.58%

-- Flow 2:

Average throughput: 18.94 Mbit/s

95th percentile per-packet one-way delay: 51.344 ms

Loss rate: 81.82%

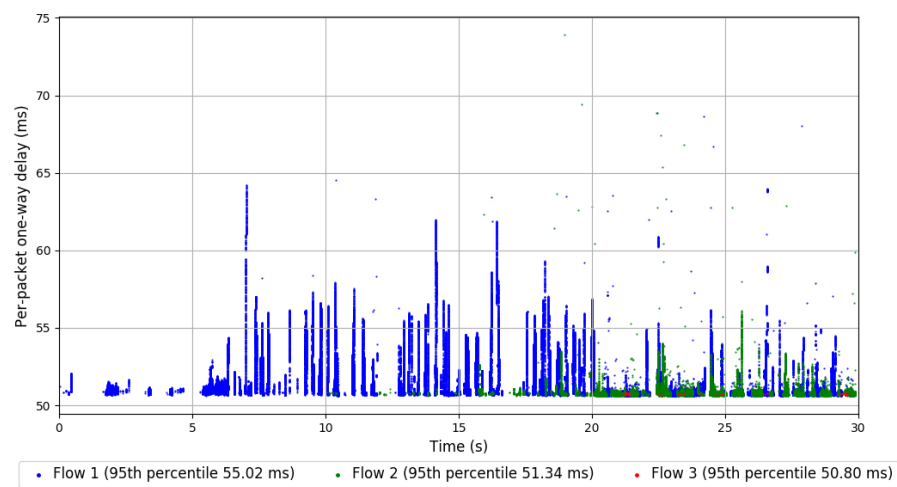
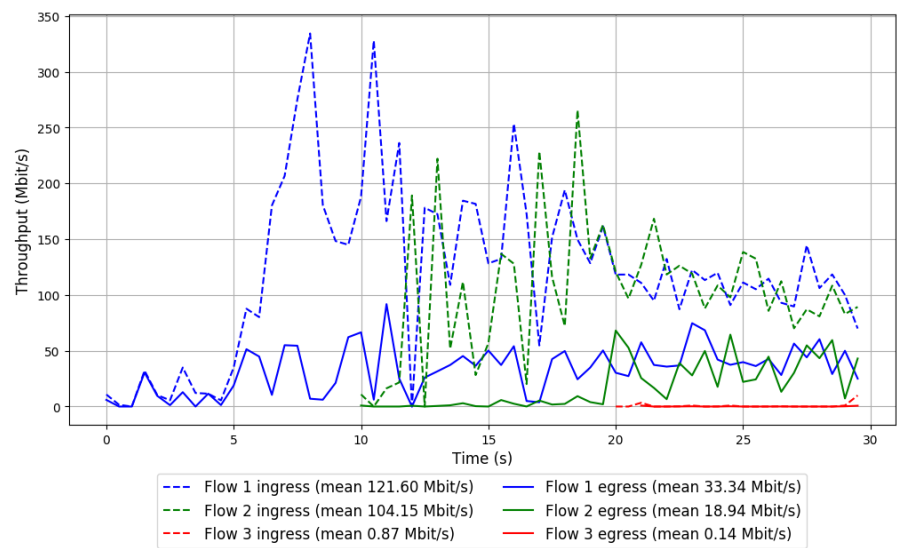
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 50.797 ms

Loss rate: 85.55%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-21 08:28:52

End at: 2017-08-21 08:29:22

Below is generated by plot.py at 2017-08-21 10:54:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.26 Mbit/s

95th percentile per-packet one-way delay: 56.223 ms

Loss rate: 69.24%

-- Flow 1:

Average throughput: 16.46 Mbit/s

95th percentile per-packet one-way delay: 51.202 ms

Loss rate: 83.99%

-- Flow 2:

Average throughput: 44.96 Mbit/s

95th percentile per-packet one-way delay: 57.777 ms

Loss rate: 13.61%

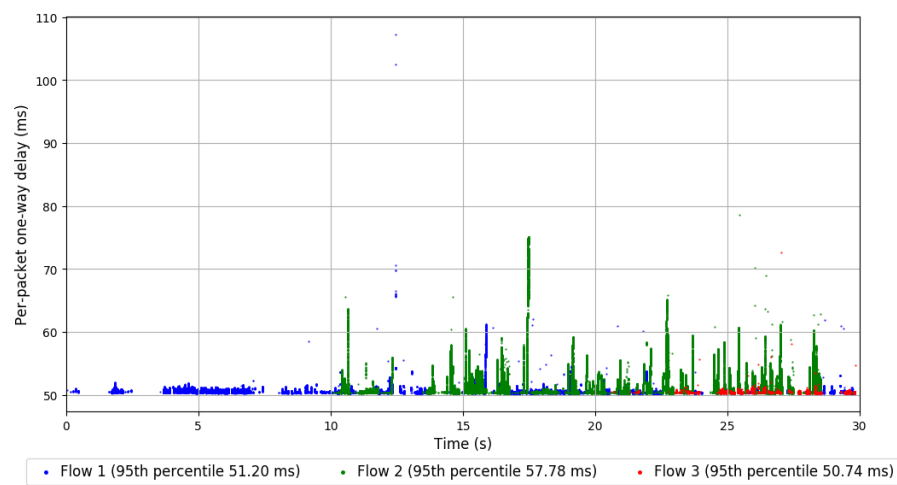
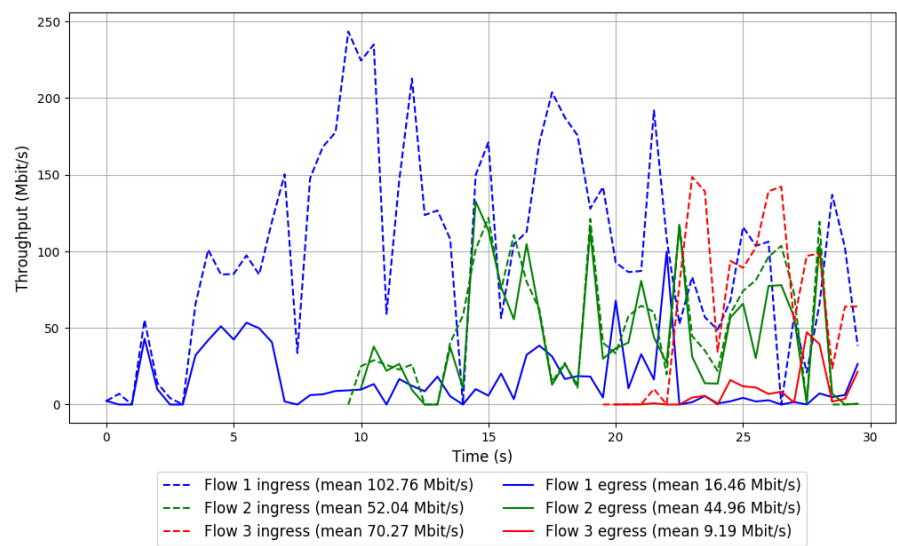
-- Flow 3:

Average throughput: 9.19 Mbit/s

95th percentile per-packet one-way delay: 50.740 ms

Loss rate: 86.91%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-21 08:39:42

End at: 2017-08-21 08:40:12

Below is generated by plot.py at 2017-08-21 10:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.55 Mbit/s

95th percentile per-packet one-way delay: 91.829 ms

Loss rate: 13.14%

-- Flow 1:

Average throughput: 123.61 Mbit/s

95th percentile per-packet one-way delay: 93.964 ms

Loss rate: 17.37%

-- Flow 2:

Average throughput: 74.71 Mbit/s

95th percentile per-packet one-way delay: 91.428 ms

Loss rate: 2.95%

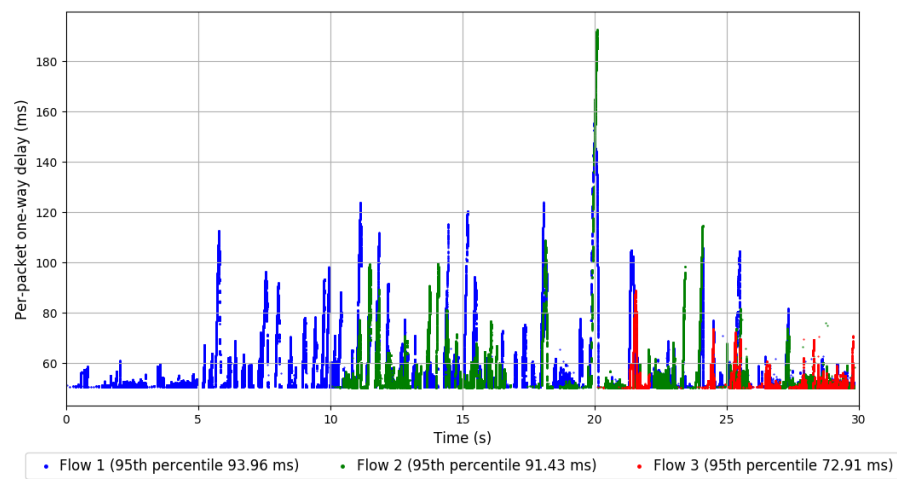
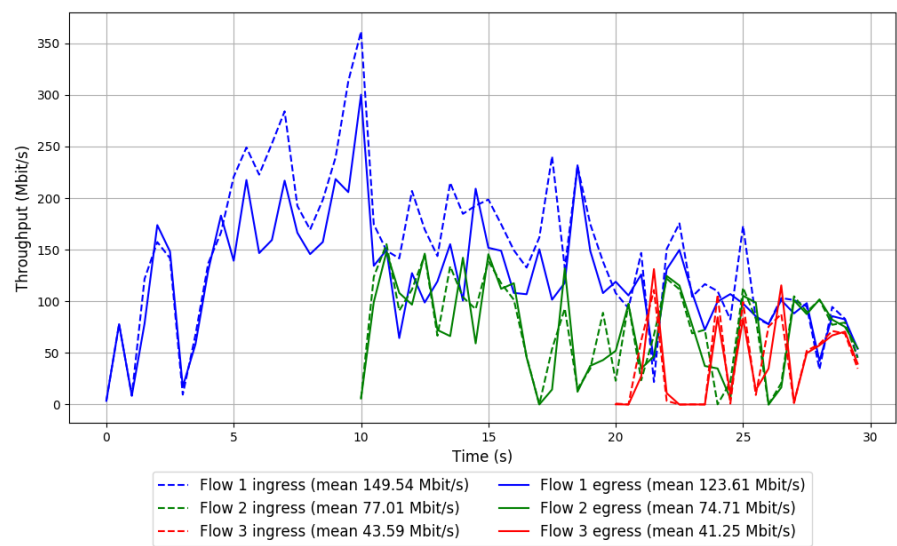
-- Flow 3:

Average throughput: 41.25 Mbit/s

95th percentile per-packet one-way delay: 72.905 ms

Loss rate: 5.31%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-21 08:50:47

End at: 2017-08-21 08:51:17

Below is generated by plot.py at 2017-08-21 10:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 18.59 Mbit/s

95th percentile per-packet one-way delay: 53.097 ms

Loss rate: 88.42%

-- Flow 1:

Average throughput: 12.89 Mbit/s

95th percentile per-packet one-way delay: 54.022 ms

Loss rate: 81.87%

-- Flow 2:

Average throughput: 4.78 Mbit/s

95th percentile per-packet one-way delay: 51.104 ms

Loss rate: 92.08%

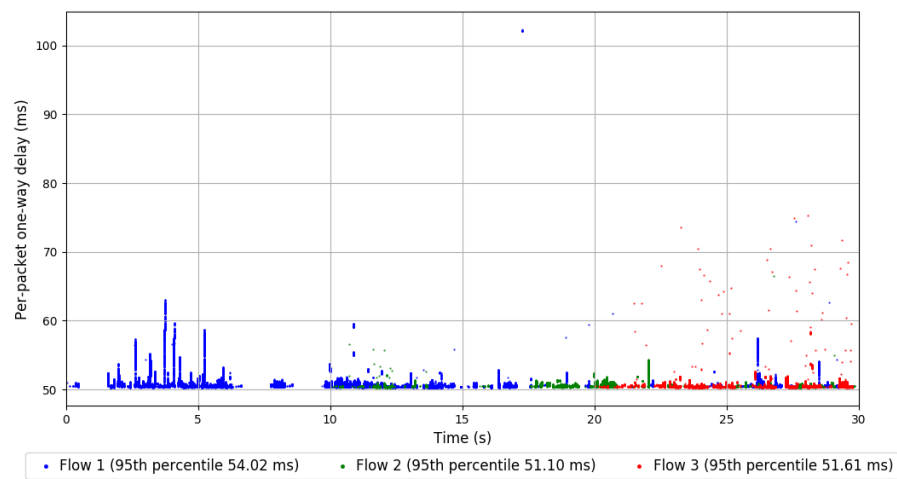
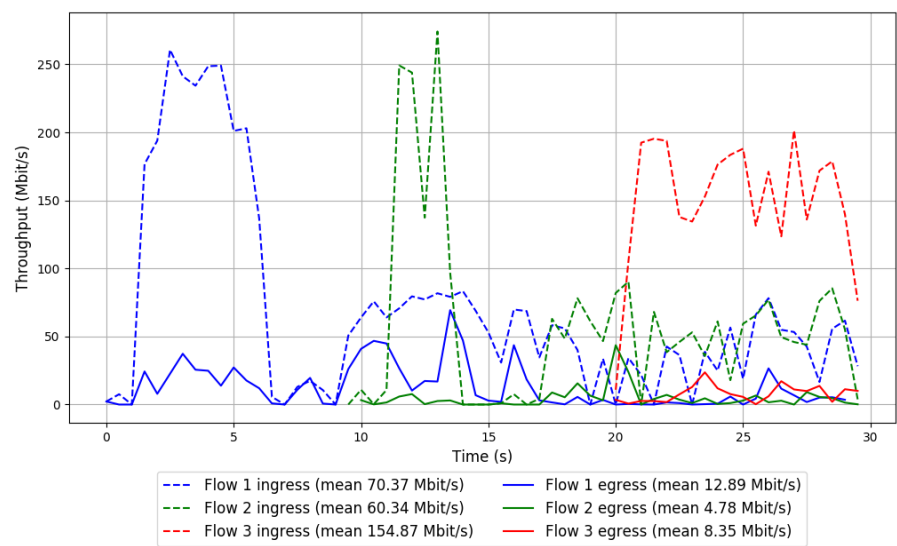
-- Flow 3:

Average throughput: 8.35 Mbit/s

95th percentile per-packet one-way delay: 51.607 ms

Loss rate: 94.61%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-21 09:01:43

End at: 2017-08-21 09:02:13

Below is generated by plot.py at 2017-08-21 10:54:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 19.12 Mbit/s

95th percentile per-packet one-way delay: 56.148 ms

Loss rate: 87.45%

-- Flow 1:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 52.084 ms

Loss rate: 96.23%

-- Flow 2:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 51.961 ms

Loss rate: 97.37%

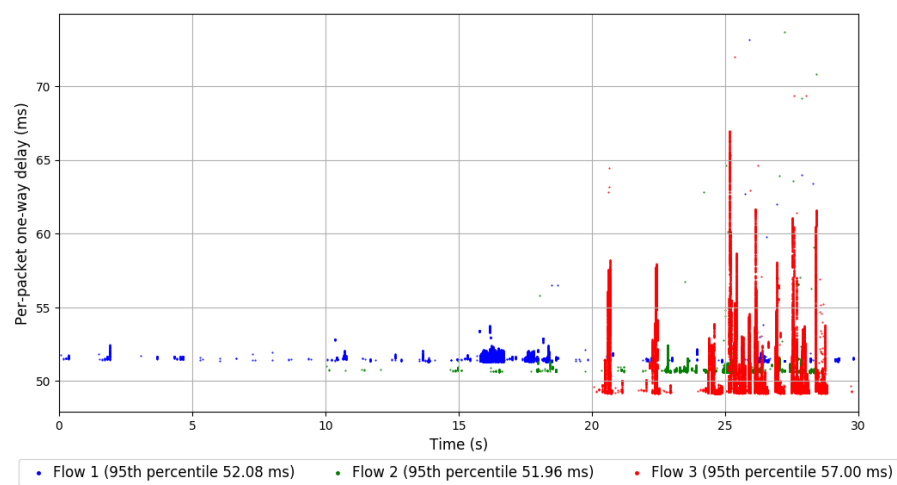
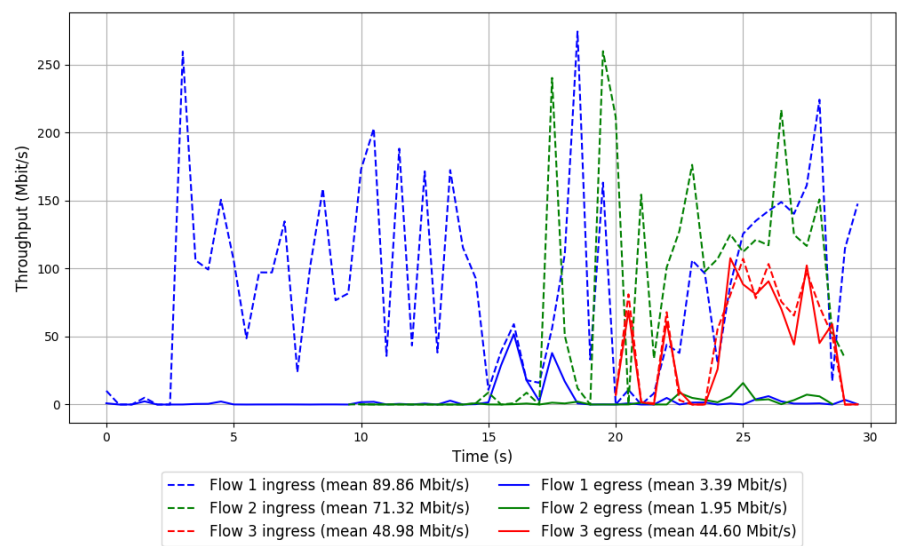
-- Flow 3:

Average throughput: 44.60 Mbit/s

95th percentile per-packet one-way delay: 57.003 ms

Loss rate: 8.96%

Run 10: Report of Verus — Data Link

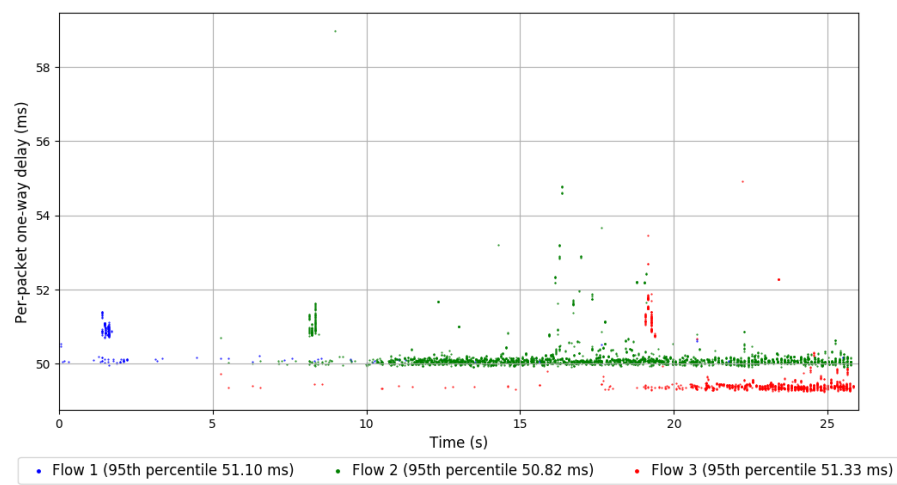
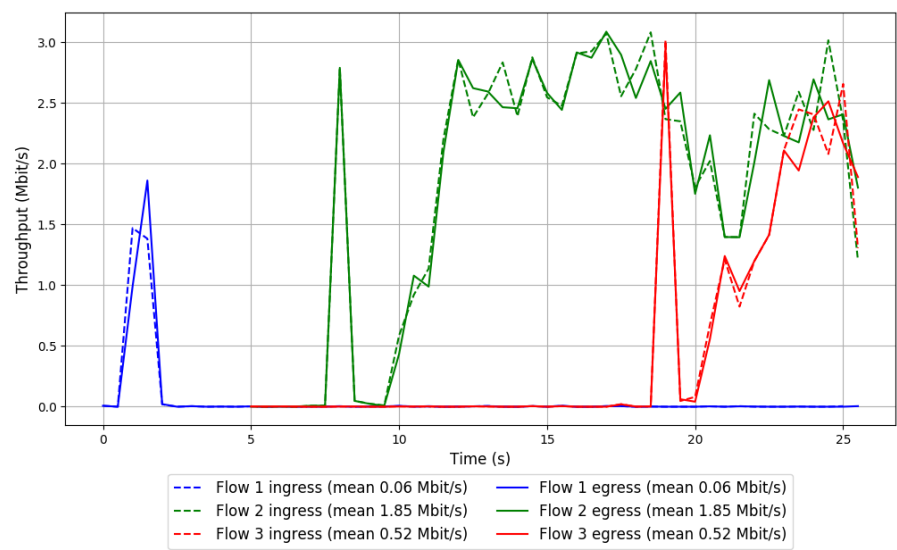


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-21 07:25:00
End at: 2017-08-21 07:25:30

# Below is generated by plot.py at 2017-08-21 10:54:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 51.012 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.100 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 50.816 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 51.329 ms
Loss rate: 0.22%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-21 07:36:02

End at: 2017-08-21 07:36:33

Below is generated by plot.py at 2017-08-21 10:54:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 51.230 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 51.132 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 51.340 ms

Loss rate: 0.00%

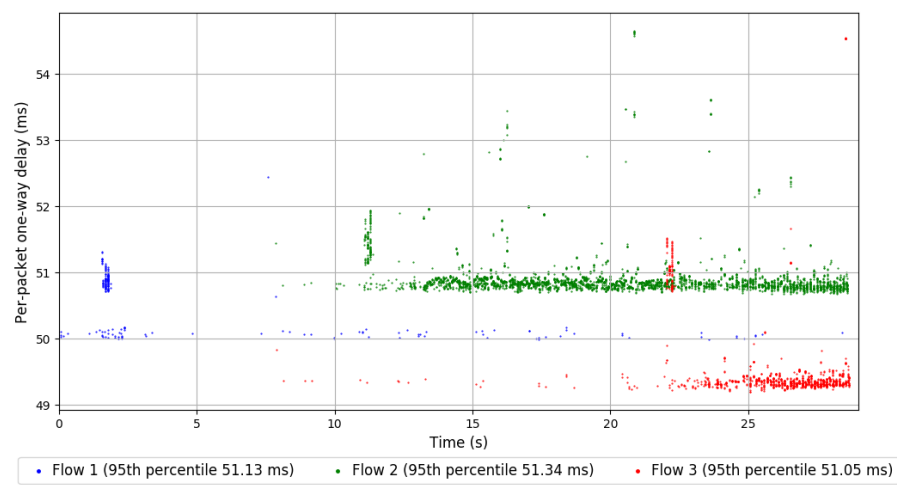
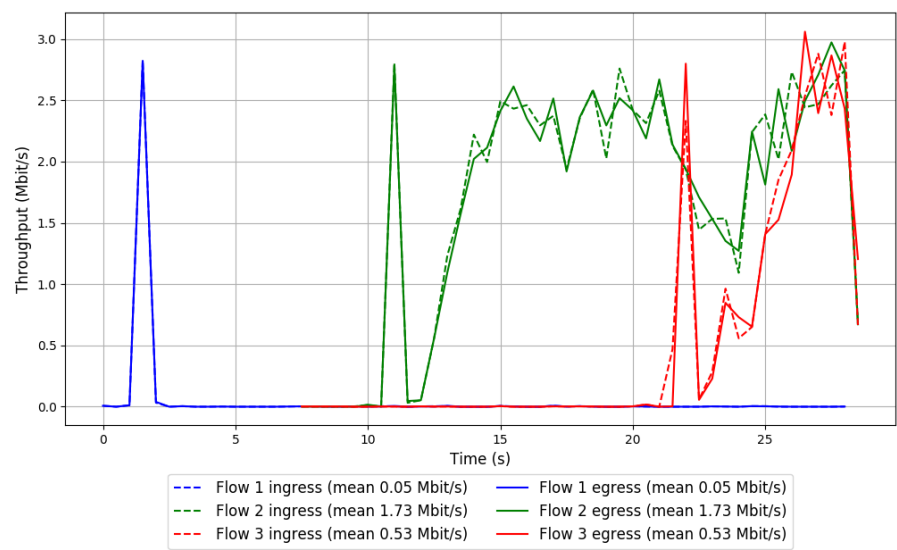
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 51.052 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-21 07:46:54

End at: 2017-08-21 07:47:24

Below is generated by plot.py at 2017-08-21 10:54:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 51.176 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.131 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 51.155 ms

Loss rate: 0.00%

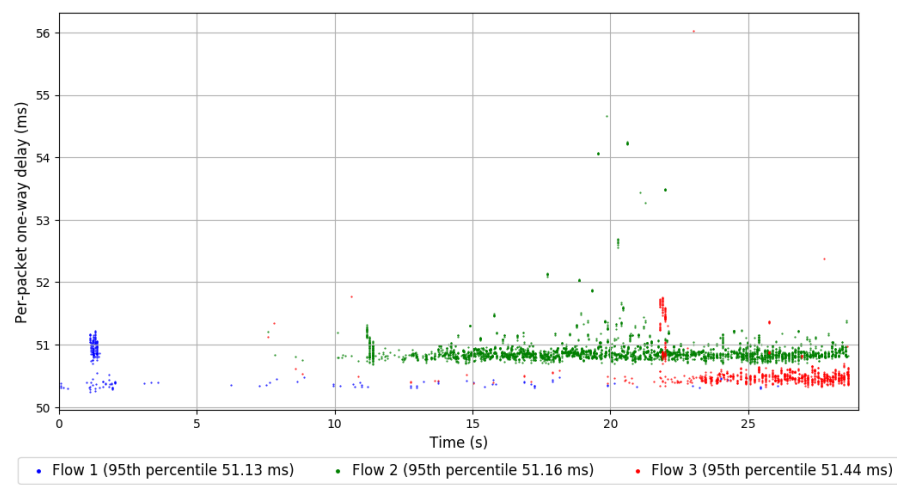
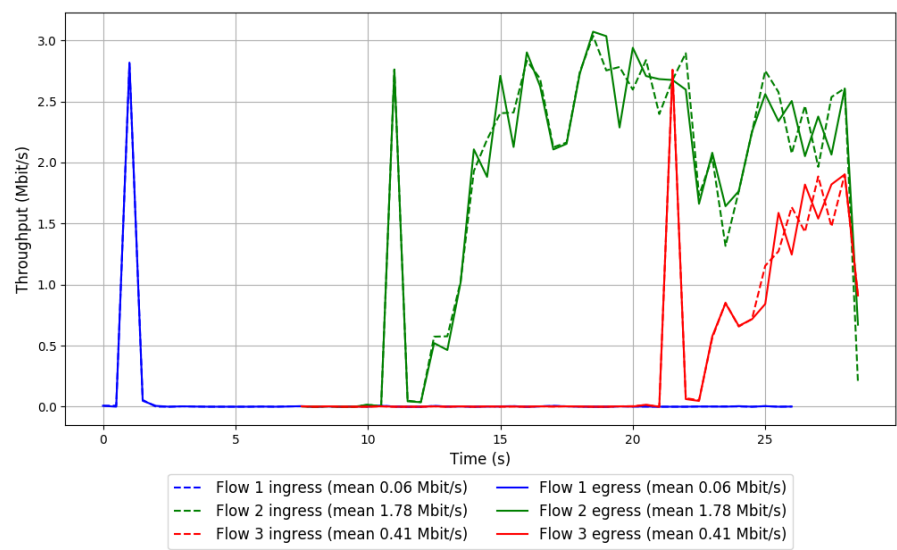
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 51.443 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-21 07:57:56

End at: 2017-08-21 07:58:26

Below is generated by plot.py at 2017-08-21 10:54:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 51.121 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.392 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.00%

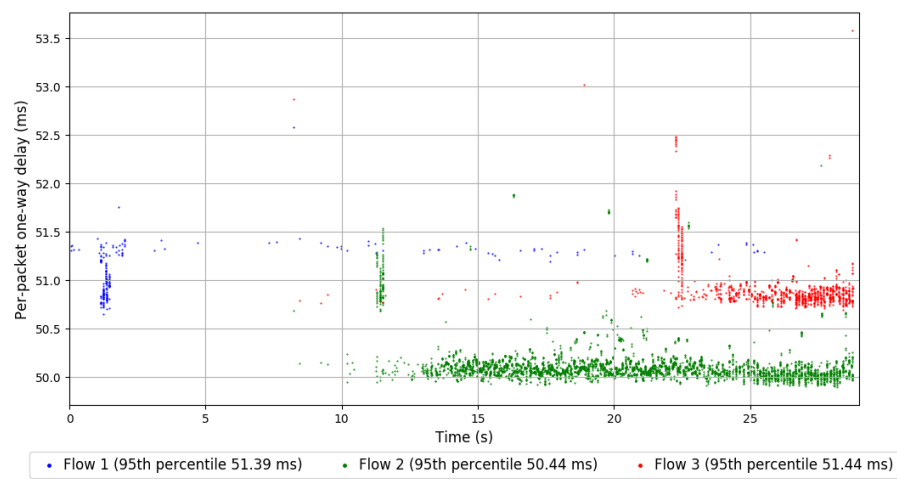
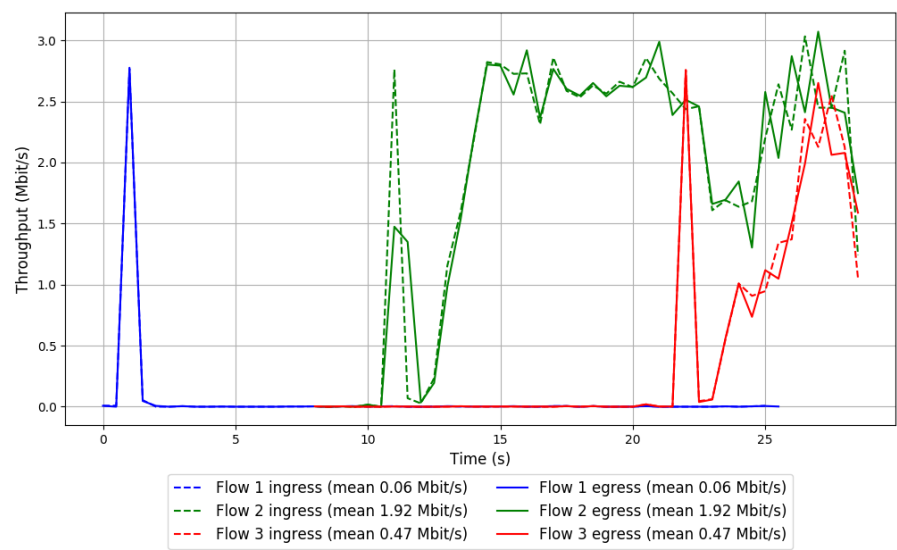
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-21 08:08:45

End at: 2017-08-21 08:09:15

Below is generated by plot.py at 2017-08-21 10:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 51.222 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 52.496 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 51.314 ms

Loss rate: 0.00%

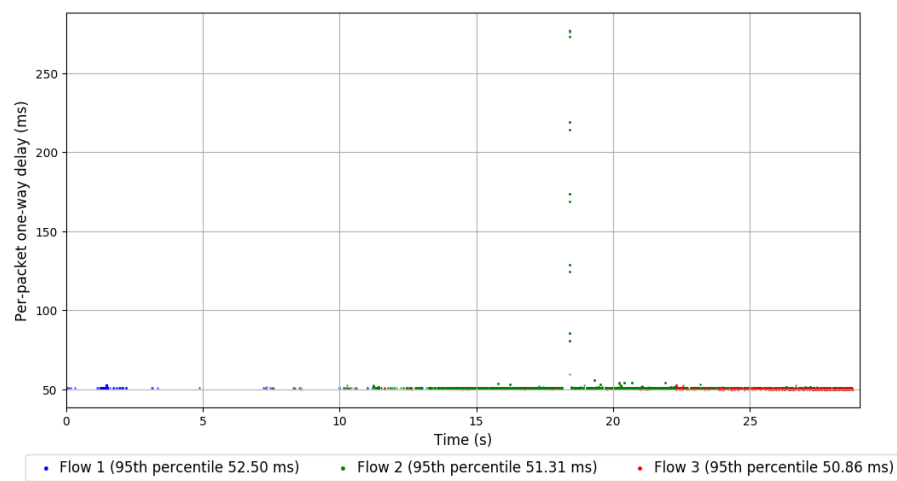
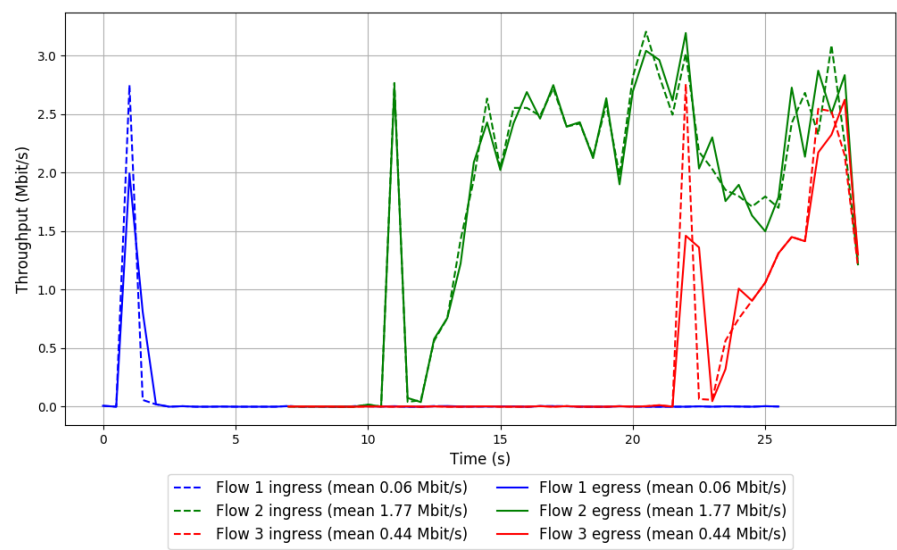
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 50.860 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-21 08:19:27

End at: 2017-08-21 08:19:57

Below is generated by plot.py at 2017-08-21 10:55:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 51.130 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.319 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 50.832 ms

Loss rate: 0.00%

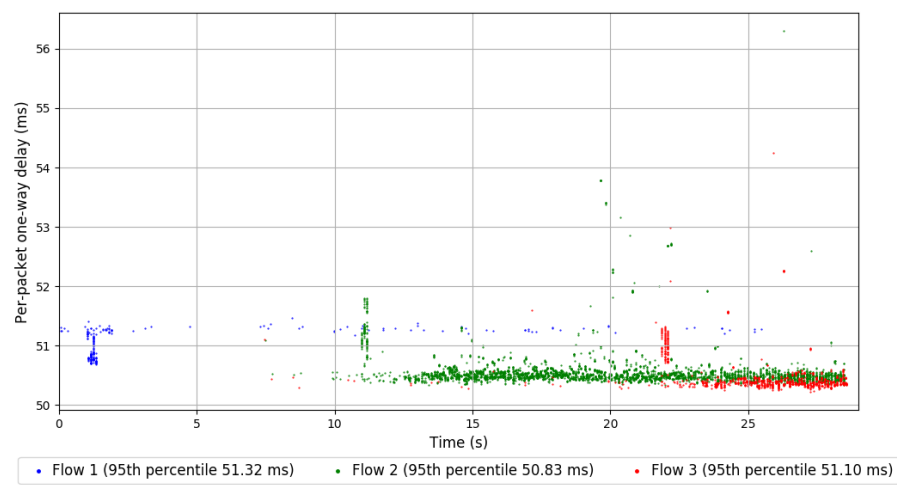
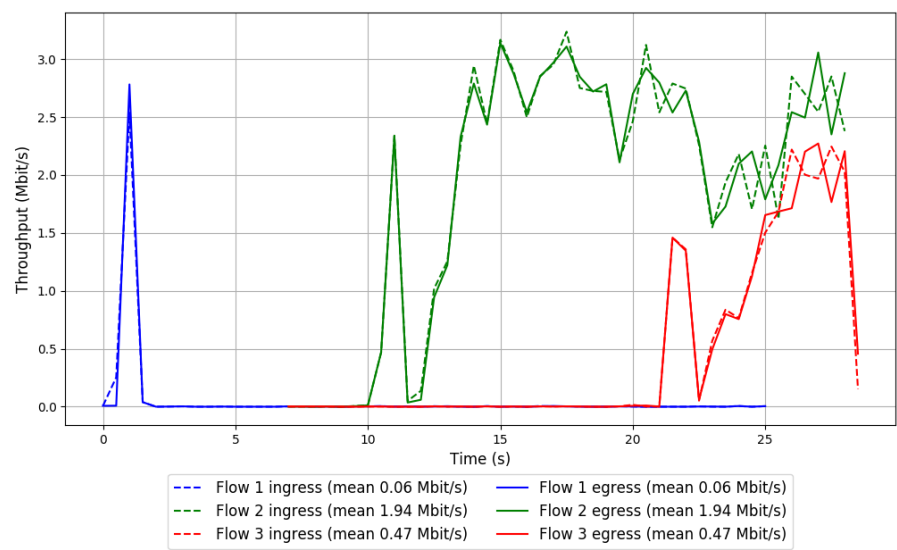
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 51.100 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-21 08:30:19

End at: 2017-08-21 08:30:49

Below is generated by plot.py at 2017-08-21 10:55:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 51.683 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.762 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 51.781 ms

Loss rate: 0.00%

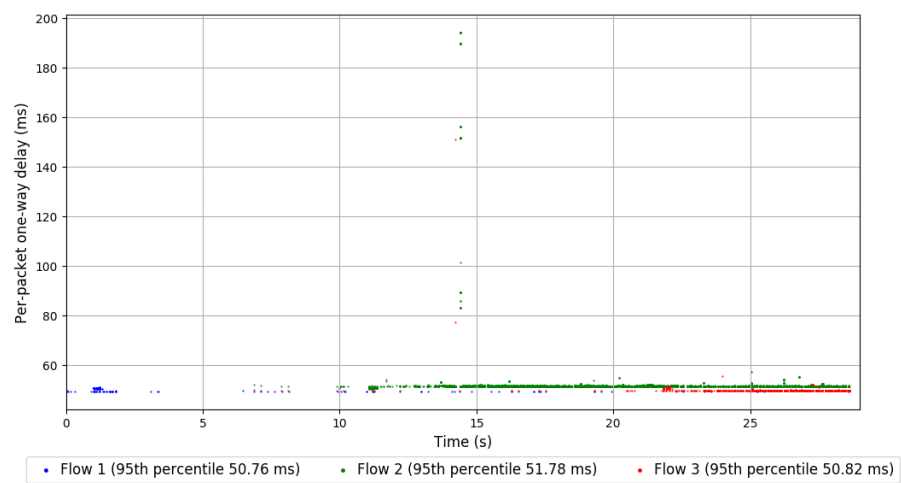
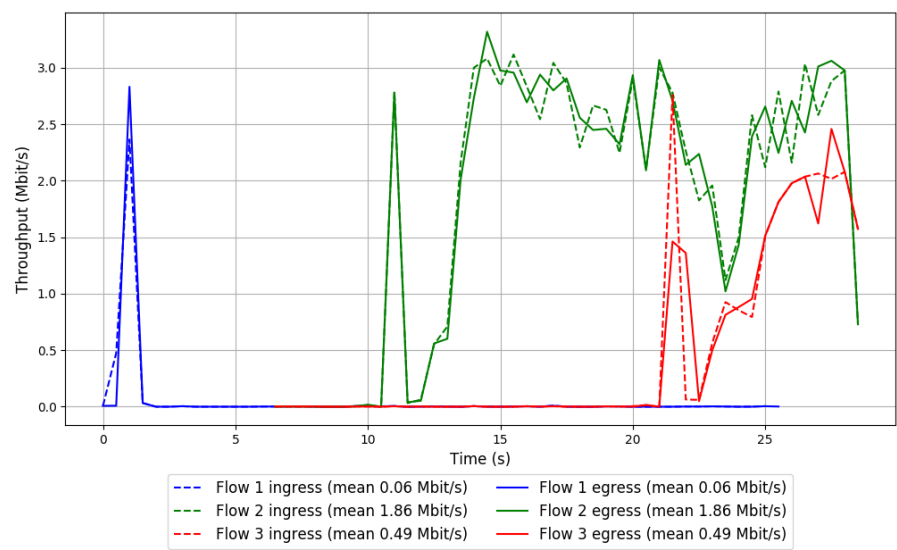
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 50.820 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-21 08:41:18

End at: 2017-08-21 08:41:48

Below is generated by plot.py at 2017-08-21 10:55:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 51.501 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.913 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 49.673 ms

Loss rate: 0.00%

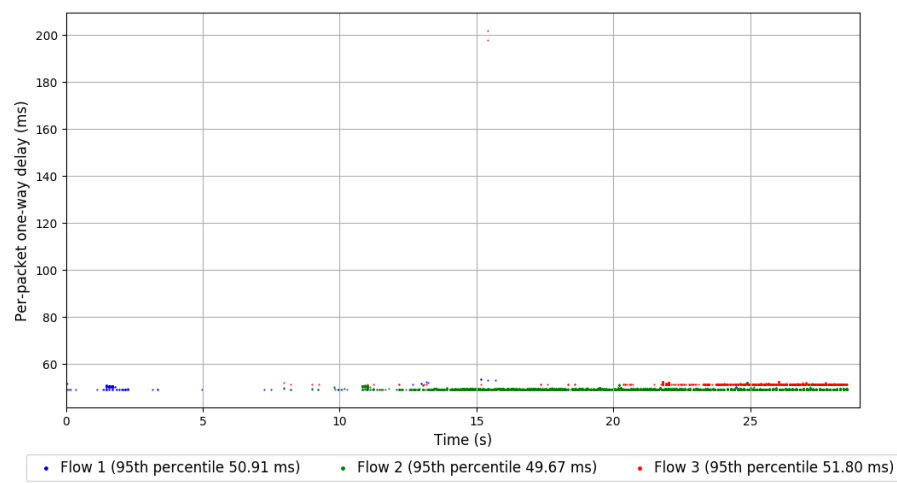
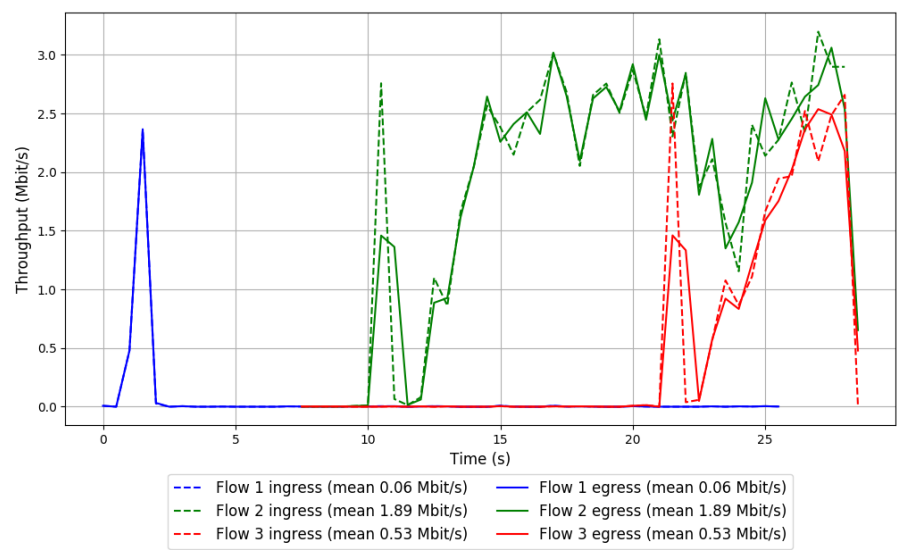
-- Flow 3:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 51.795 ms

Loss rate: 0.01%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-21 08:52:11

End at: 2017-08-21 08:52:41

Below is generated by plot.py at 2017-08-21 10:55:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 51.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.314 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.93 Mbit/s

95th percentile per-packet one-way delay: 51.953 ms

Loss rate: 0.00%

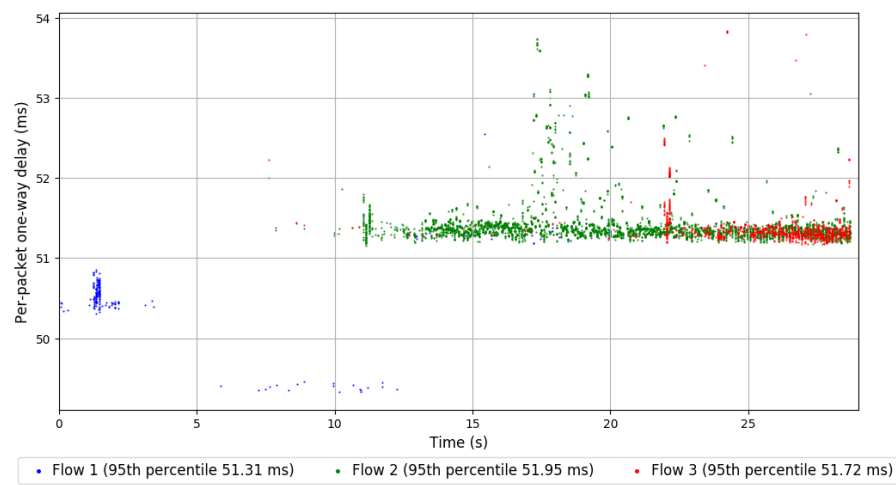
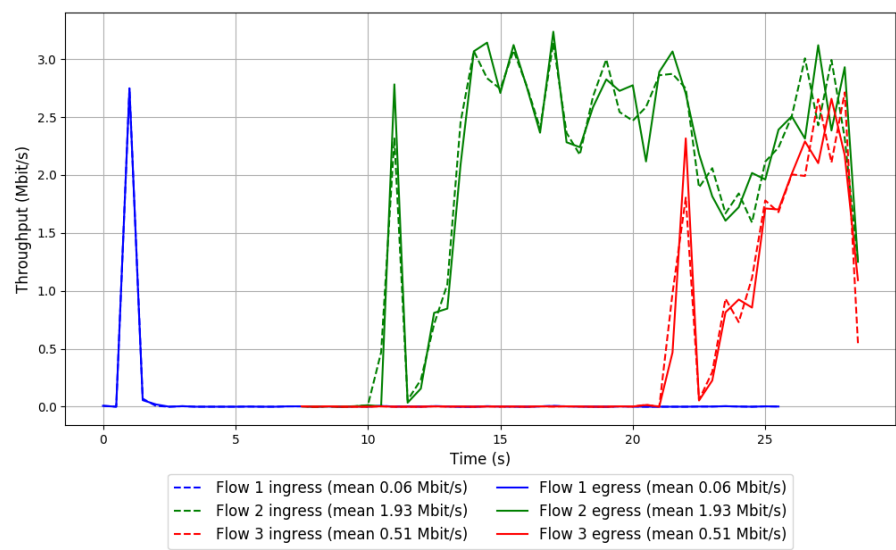
-- Flow 3:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 51.724 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-21 09:03:10

End at: 2017-08-21 09:03:40

Below is generated by plot.py at 2017-08-21 10:55:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 52.020 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.384 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 52.251 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 51.761 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

