

## Pantheon Report

Generated at 2017-08-21 10:37:04 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

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

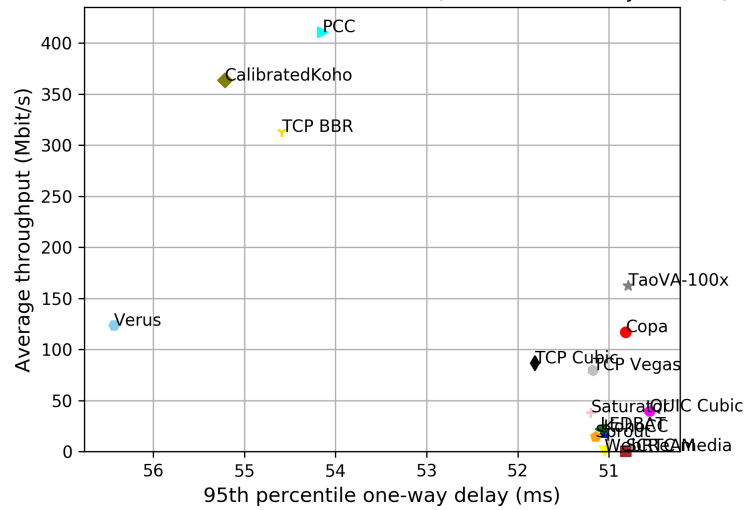
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

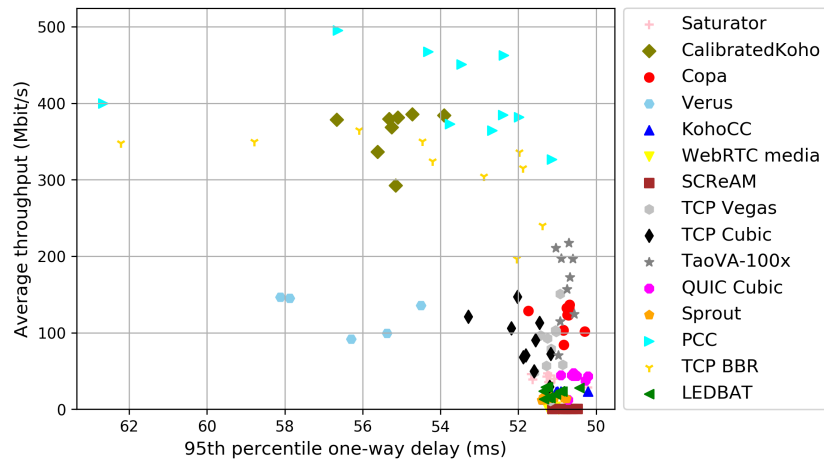
Git summary:

```
branch: master @ 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 London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme  
3 flows with 10s interval between flows (mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	144.61	180.76	145.51	123.58	54.27	57.27	2.55	1.67	6.63
CalibratedKoho	8	224.92	154.64	109.91	55.25	55.10	53.49	2.27	9.42	3.73
Copa	10	70.34	48.49	45.45	51.05	50.58	50.55	0.26	9.50	0.97
TCP Cubic	10	36.31	56.61	38.56	51.70	51.50	51.60	1.13	1.27	3.32
KohoCC	10	9.55	9.92	9.96	50.98	51.04	50.98	14.52	13.13	11.82
LEDBAT	10	13.05	10.33	6.15	51.11	51.02	51.09	0.90	1.22	3.73
PCC	10	279.45	138.75	122.57	58.05	51.91	51.16	8.65	3.77	6.01
QUIC Cubic	8	0.06	41.96	34.79	50.17	50.40	50.16	0.00	0.49	1.23
Saturator	10	22.47	20.09	19.57	51.18	51.22	51.10	1.82	8.37	10.76
SCReAM	10	0.22	0.22	0.22	50.66	50.34	50.64	0.25	0.46	0.93
Sprout	10	6.91	7.50	7.46	51.14	51.11	51.17	4.23	1.89	1.60
TaoVA-100x	9	186.89	144.80	122.60	50.73	50.65	50.70	0.34	1.08	0.77
TCP Vegas	10	48.53	33.95	26.27	51.09	51.12	51.74	0.65	1.05	2.66
Verus	5	70.46	57.22	45.37	56.41	56.50	54.65	22.99	10.73	3.11
WebRTC media	4	0.39	0.34	0.10	50.99	50.52	50.07	0.11	0.00	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-08-21 05:28:43

End at: 2017-08-21 05:29:13

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 196.48 Mbit/s

95th percentile per-packet one-way delay: 52.040 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 751.340 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 216.15 Mbit/s

95th percentile per-packet one-way delay: 51.298 ms

Loss rate: 0.57%

-- Flow 3:

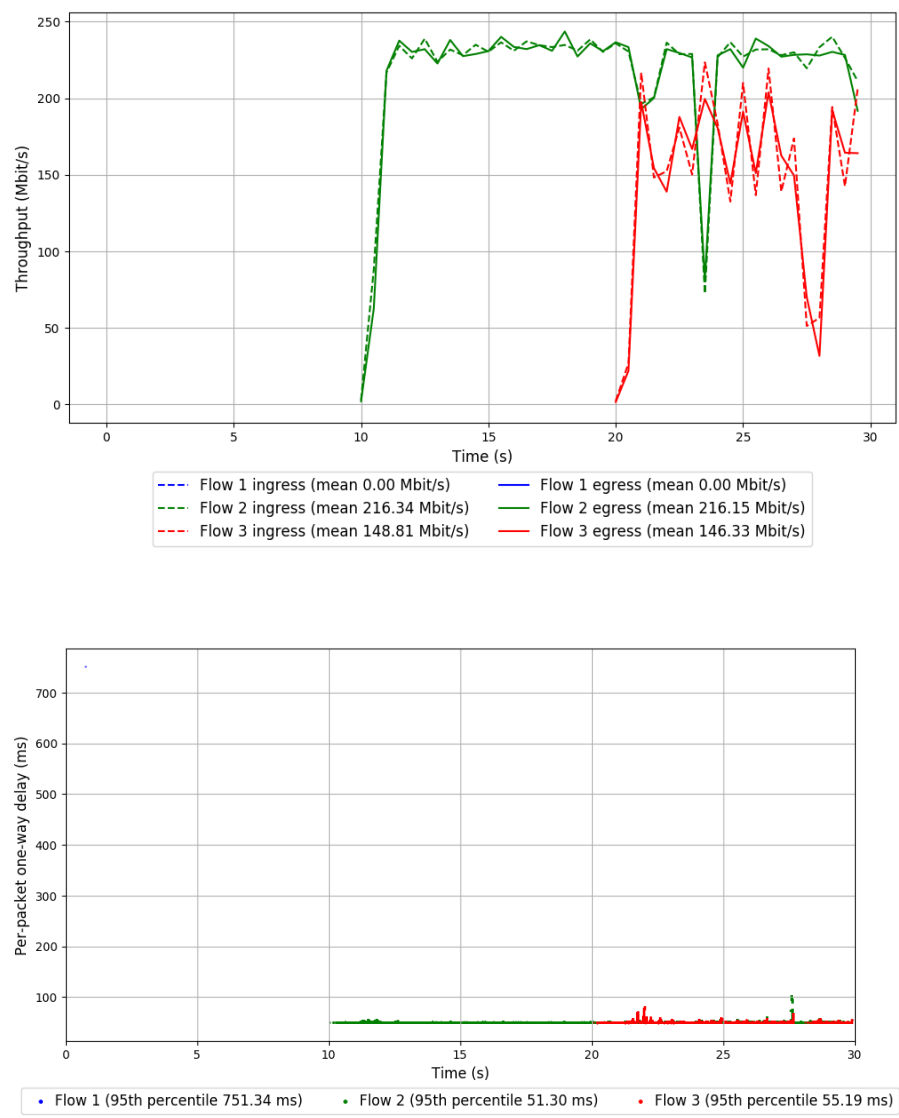
Average throughput: 146.33 Mbit/s

95th percentile per-packet one-way delay: 55.192 ms

Loss rate: 2.45%



Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-21 05:40:22

End at: 2017-08-21 05:40:52

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 350.04 Mbit/s

95th percentile per-packet one-way delay: 54.462 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 186.96 Mbit/s

95th percentile per-packet one-way delay: 54.048 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 195.09 Mbit/s

95th percentile per-packet one-way delay: 54.745 ms

Loss rate: 0.65%

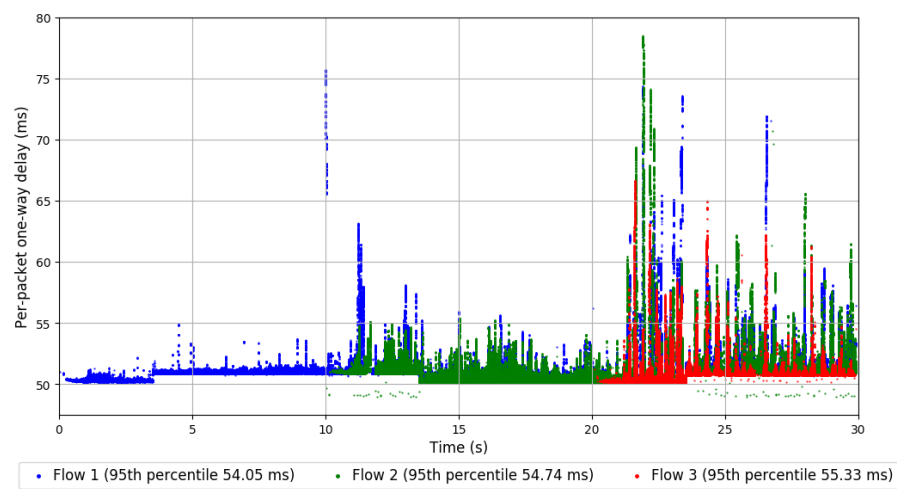
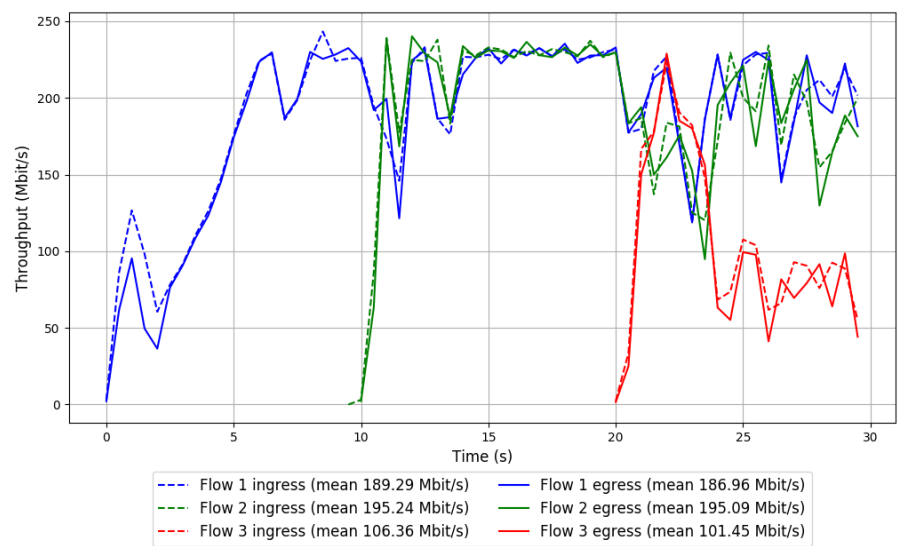
-- Flow 3:

Average throughput: 101.45 Mbit/s

95th percentile per-packet one-way delay: 55.332 ms

Loss rate: 5.32%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-21 05:52:00

End at: 2017-08-21 05:52:30

# Below is generated by plot.py at 2017-08-21 10:09:52

# Datalink statistics

-- Total of 3 flows:

Average throughput: 364.79 Mbit/s

95th percentile per-packet one-way delay: 56.087 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 159.13 Mbit/s

95th percentile per-packet one-way delay: 53.391 ms

Loss rate: 2.53%

-- Flow 2:

Average throughput: 211.63 Mbit/s

95th percentile per-packet one-way delay: 56.441 ms

Loss rate: 0.60%

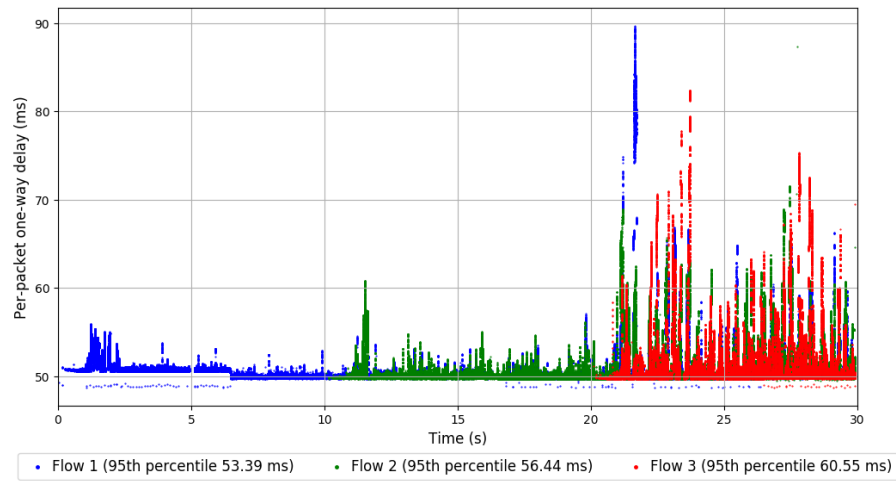
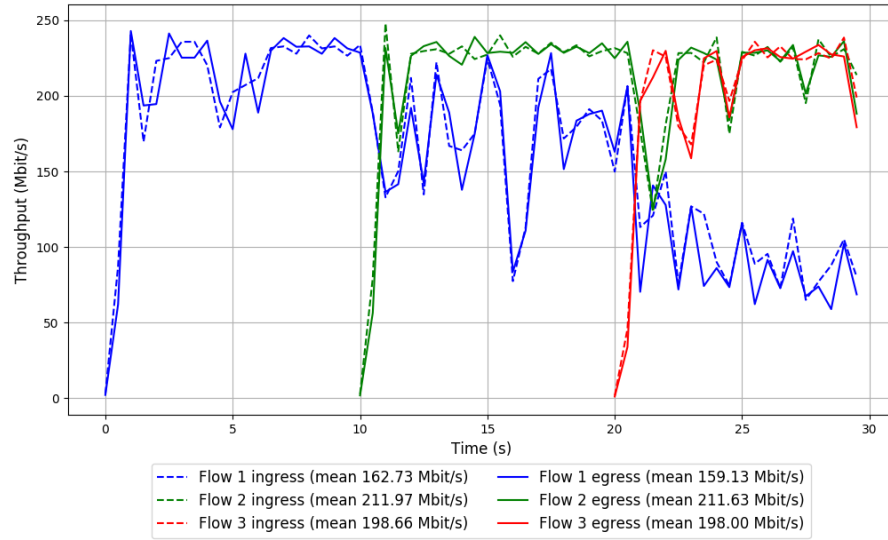
-- Flow 3:

Average throughput: 198.00 Mbit/s

95th percentile per-packet one-way delay: 60.553 ms

Loss rate: 1.35%

### Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-21 06:03:48

End at: 2017-08-21 06:04:18

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 336.23 Mbit/s

95th percentile per-packet one-way delay: 51.975 ms

Loss rate: 1.99%

-- Flow 1:

Average throughput: 213.92 Mbit/s

95th percentile per-packet one-way delay: 51.530 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 83.45 Mbit/s

95th percentile per-packet one-way delay: 51.680 ms

Loss rate: 8.50%

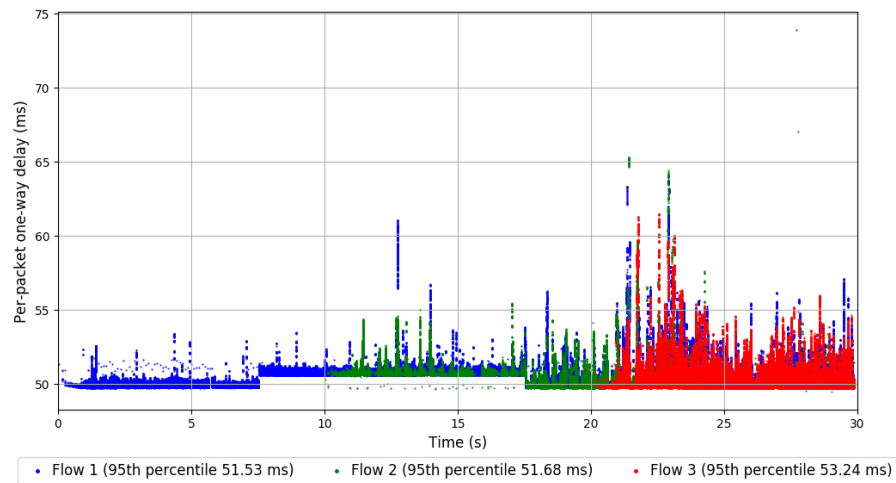
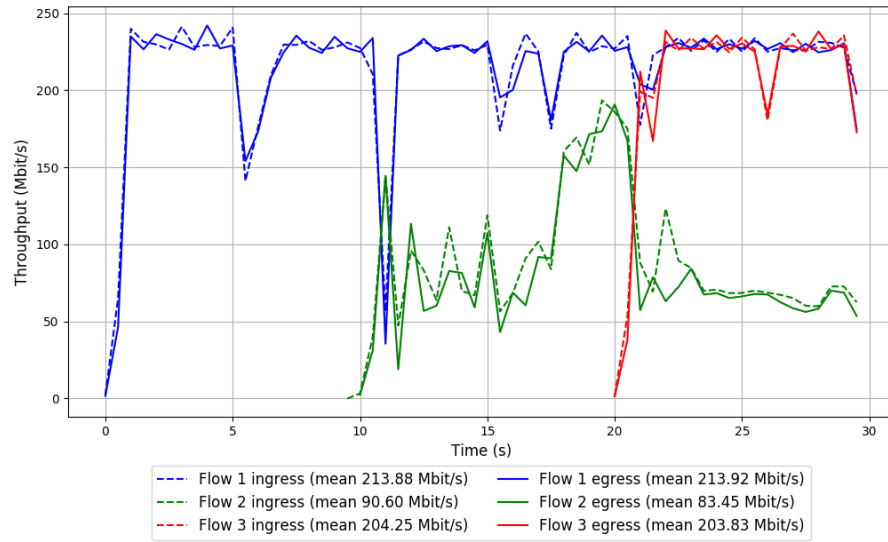
-- Flow 3:

Average throughput: 203.83 Mbit/s

95th percentile per-packet one-way delay: 53.242 ms

Loss rate: 1.28%

# Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-21 06:15:32

End at: 2017-08-21 06:16:02

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 347.84 Mbit/s

95th percentile per-packet one-way delay: 62.210 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 178.89 Mbit/s

95th percentile per-packet one-way delay: 61.081 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 190.63 Mbit/s

95th percentile per-packet one-way delay: 59.534 ms

Loss rate: 0.90%

-- Flow 3:

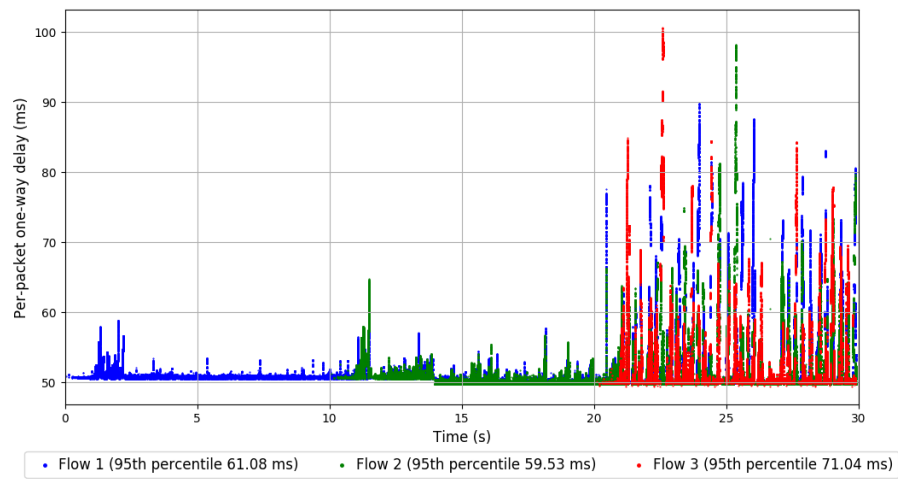
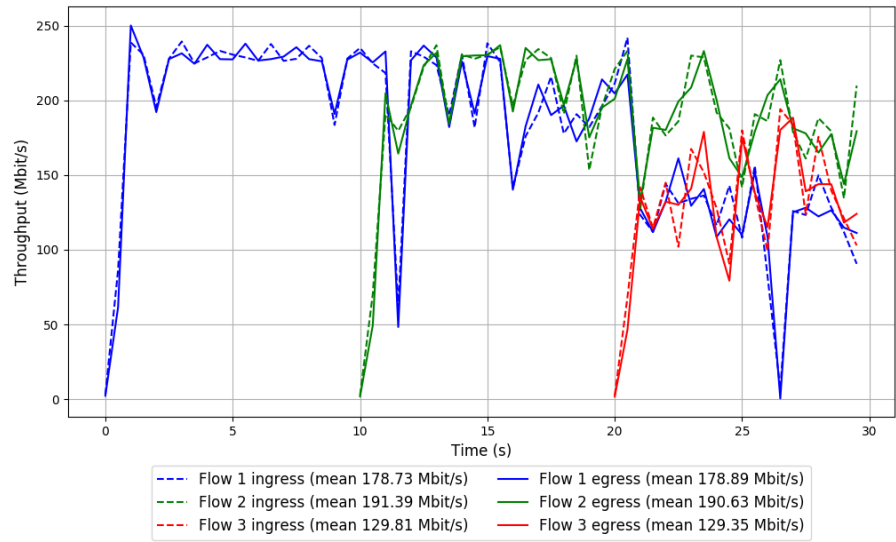
Average throughput: 129.35 Mbit/s

95th percentile per-packet one-way delay: 71.043 ms

Loss rate: 1.37%



### Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-21 06:27:45

End at: 2017-08-21 06:28:15

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 240.33 Mbit/s

95th percentile per-packet one-way delay: 51.377 ms

Loss rate: 3.97%

-- Flow 1:

Average throughput: 49.92 Mbit/s

95th percentile per-packet one-way delay: 50.922 ms

Loss rate: 13.86%

-- Flow 2:

Average throughput: 180.78 Mbit/s

95th percentile per-packet one-way delay: 51.653 ms

Loss rate: 0.84%

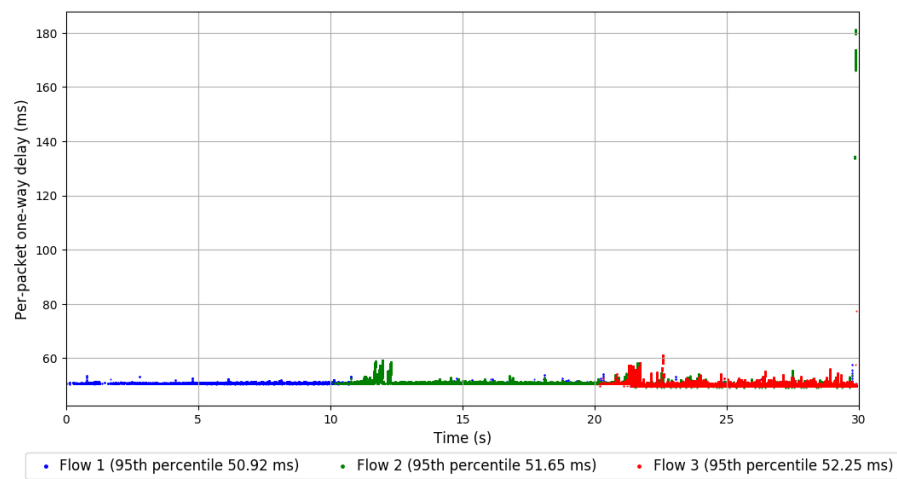
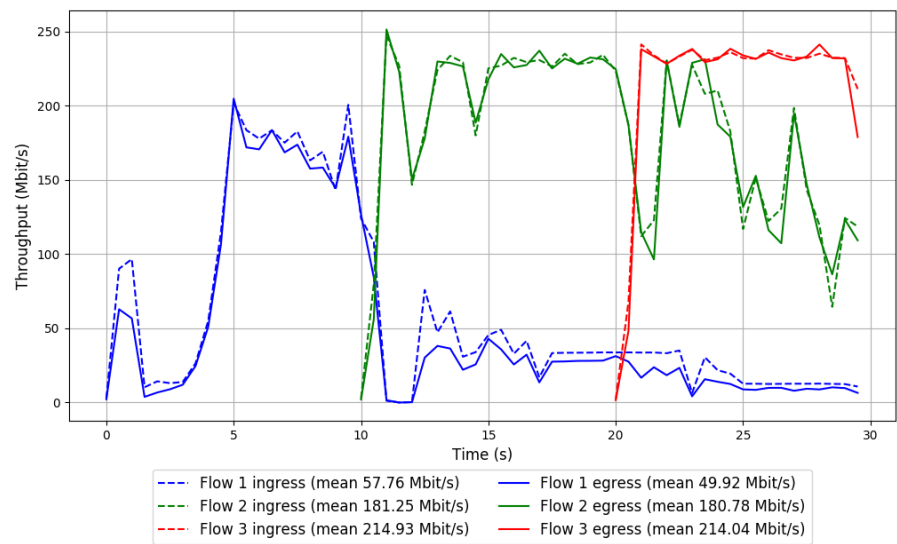
-- Flow 3:

Average throughput: 214.04 Mbit/s

95th percentile per-packet one-way delay: 52.253 ms

Loss rate: 1.25%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-21 06:40:01

End at: 2017-08-21 06:40:31

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 324.10 Mbit/s

95th percentile per-packet one-way delay: 54.206 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 166.85 Mbit/s

95th percentile per-packet one-way delay: 52.359 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 149.65 Mbit/s

95th percentile per-packet one-way delay: 54.542 ms

Loss rate: 1.44%

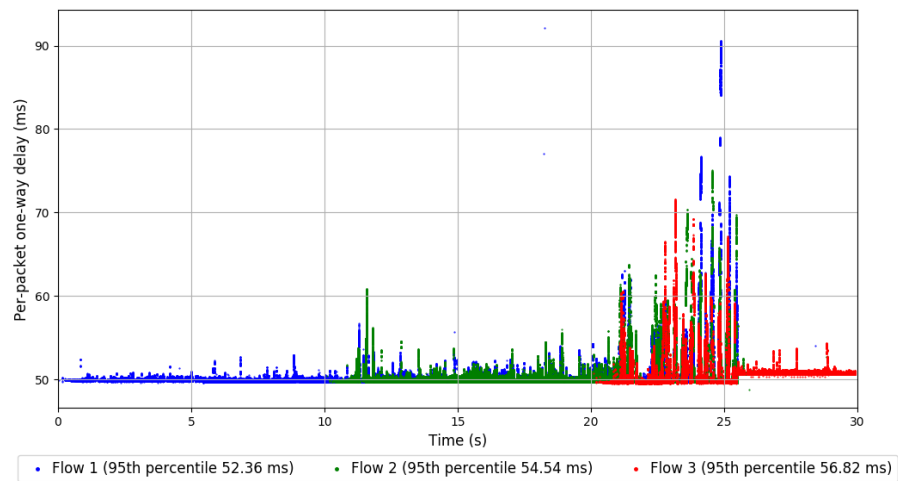
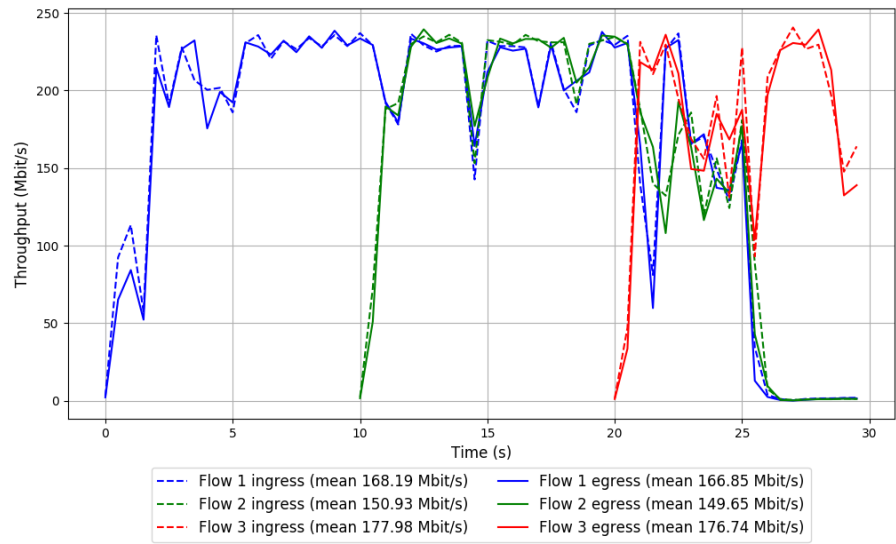
-- Flow 3:

Average throughput: 176.74 Mbit/s

95th percentile per-packet one-way delay: 56.819 ms

Loss rate: 1.85%

# Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-21 06:51:59

End at: 2017-08-21 06:52:29

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 349.57 Mbit/s

95th percentile per-packet one-way delay: 58.782 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 166.42 Mbit/s

95th percentile per-packet one-way delay: 56.947 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 217.10 Mbit/s

95th percentile per-packet one-way delay: 57.046 ms

Loss rate: 0.40%

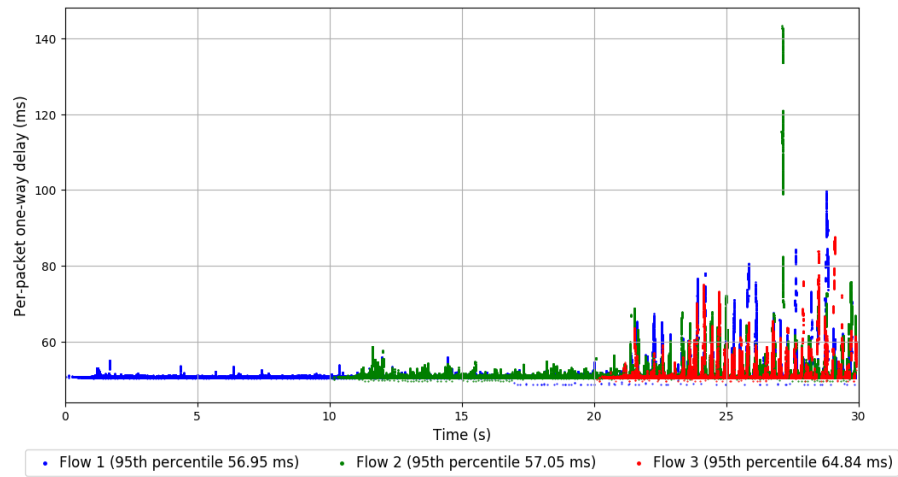
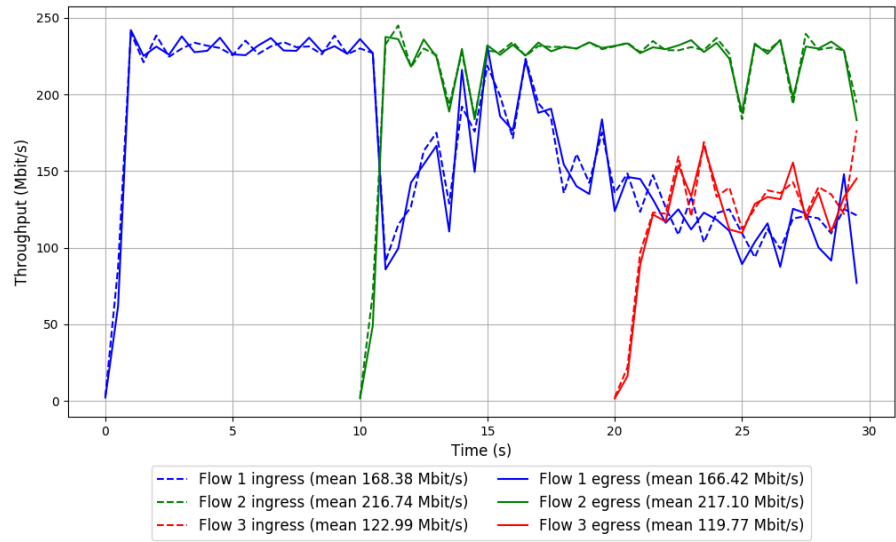
-- Flow 3:

Average throughput: 119.77 Mbit/s

95th percentile per-packet one-way delay: 64.841 ms

Loss rate: 3.44%

# Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-21 07:03:44

End at: 2017-08-21 07:04:14

# Below is generated by plot.py at 2017-08-21 10:12:40

# Datalink statistics

-- Total of 3 flows:

Average throughput: 304.50 Mbit/s

95th percentile per-packet one-way delay: 52.884 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 150.83 Mbit/s

95th percentile per-packet one-way delay: 52.569 ms

Loss rate: 2.81%

-- Flow 2:

Average throughput: 149.62 Mbit/s

95th percentile per-packet one-way delay: 53.439 ms

Loss rate: 2.16%

-- Flow 3:

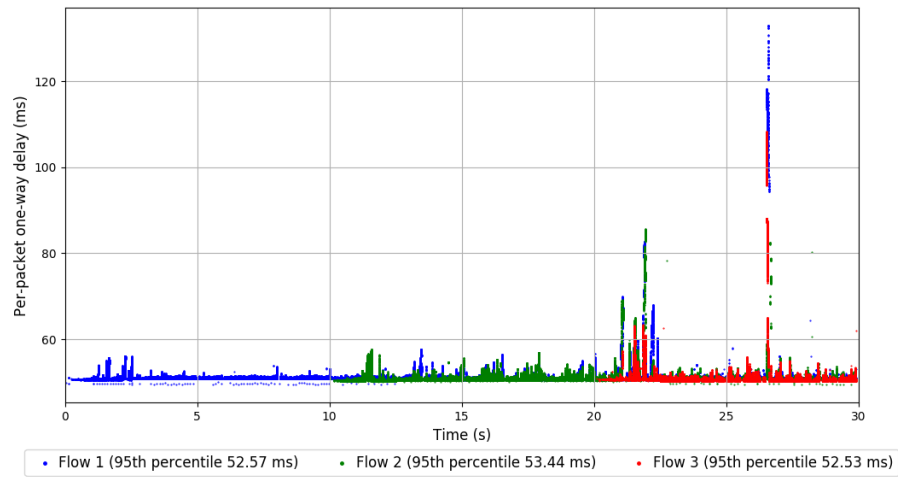
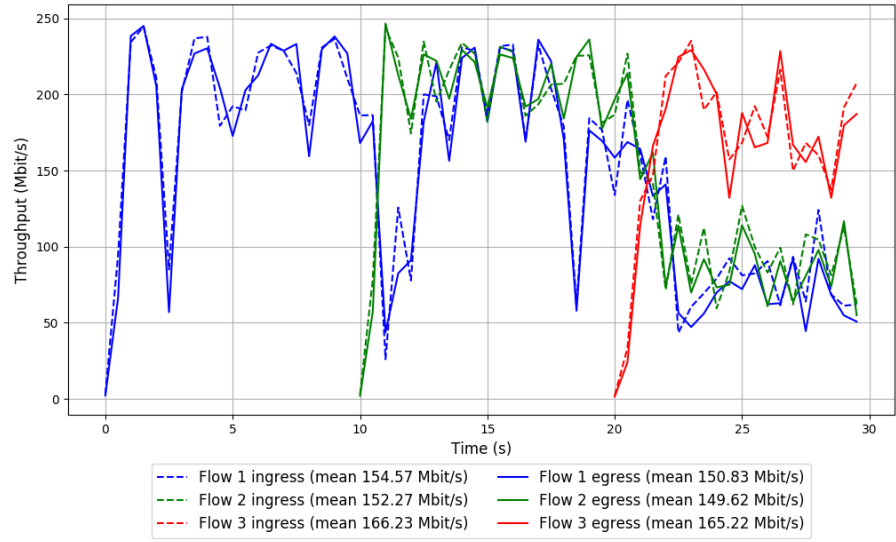
Average throughput: 165.22 Mbit/s

95th percentile per-packet one-way delay: 52.528 ms

Loss rate: 1.55%



# Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-21 07:15:30

End at: 2017-08-21 07:16:00

# Below is generated by plot.py at 2017-08-21 10:12:44

# Datalink statistics

-- Total of 3 flows:

Average throughput: 315.08 Mbit/s

95th percentile per-packet one-way delay: 51.879 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 173.15 Mbit/s

95th percentile per-packet one-way delay: 51.630 ms

Loss rate: 1.41%

-- Flow 2:

Average throughput: 213.48 Mbit/s

95th percentile per-packet one-way delay: 52.307 ms

Loss rate: 0.61%

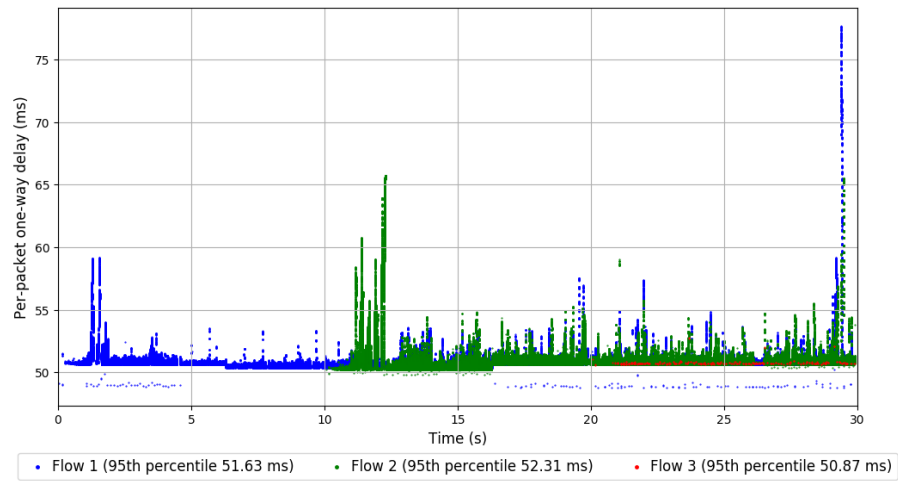
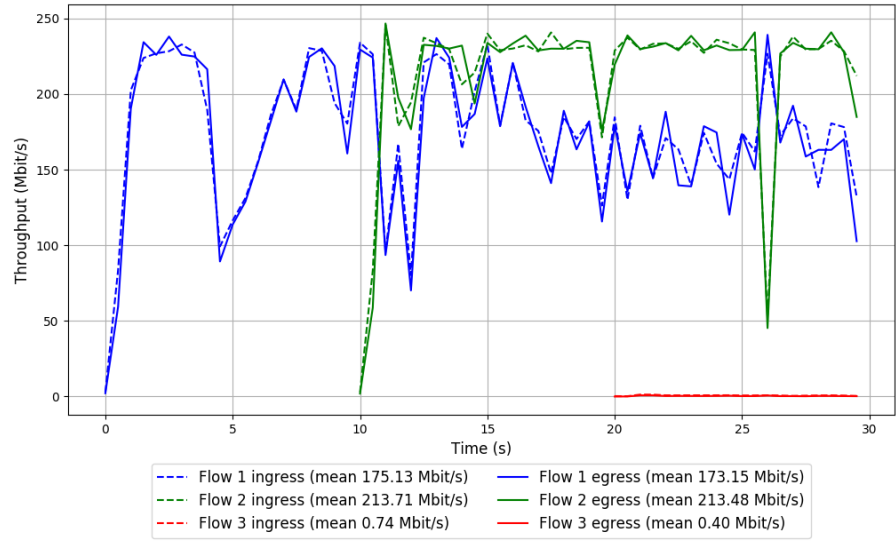
-- Flow 3:

Average throughput: 0.40 Mbit/s

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

Loss rate: 46.47%

# Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-21 05:32:07

End at: 2017-08-21 05:32:37

# Below is generated by plot.py at 2017-08-21 10:13:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 378.66 Mbit/s

95th percentile per-packet one-way delay: 56.668 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 230.60 Mbit/s

95th percentile per-packet one-way delay: 57.463 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 168.36 Mbit/s

95th percentile per-packet one-way delay: 56.751 ms

Loss rate: 0.67%

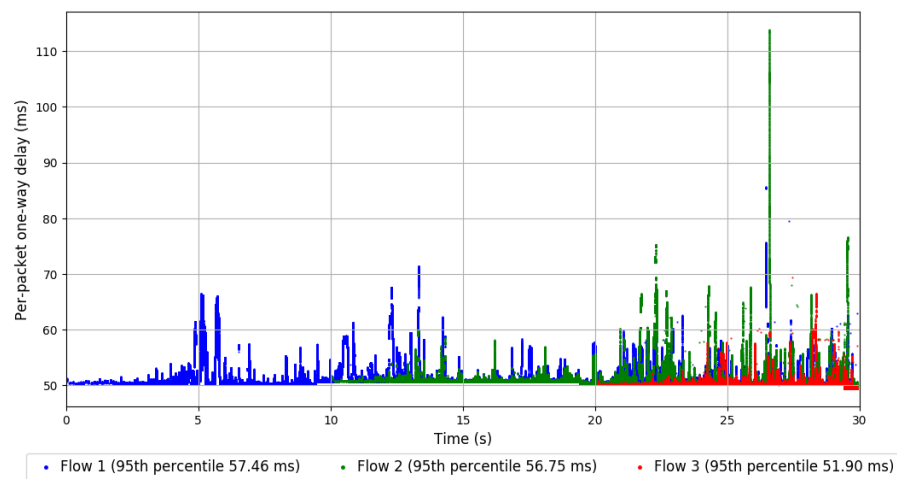
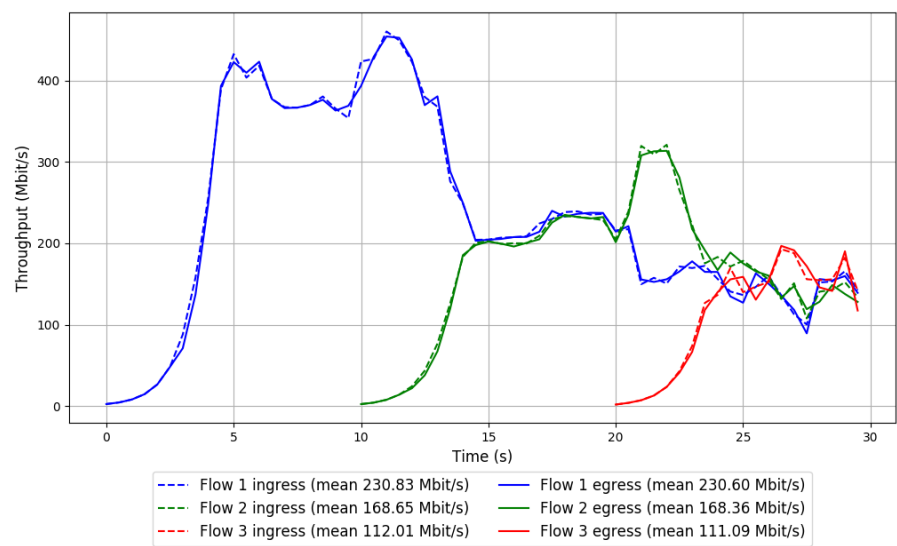
-- Flow 3:

Average throughput: 111.09 Mbit/s

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

Loss rate: 1.80%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-21 05:43:38

End at: 2017-08-21 05:44:08

# Below is generated by plot.py at 2017-08-21 10:13:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 292.64 Mbit/s

95th percentile per-packet one-way delay: 55.151 ms

Loss rate: 6.78%

-- Flow 1:

Average throughput: 116.65 Mbit/s

95th percentile per-packet one-way delay: 55.010 ms

Loss rate: 14.17%

-- Flow 2:

Average throughput: 209.44 Mbit/s

95th percentile per-packet one-way delay: 55.192 ms

Loss rate: 1.03%

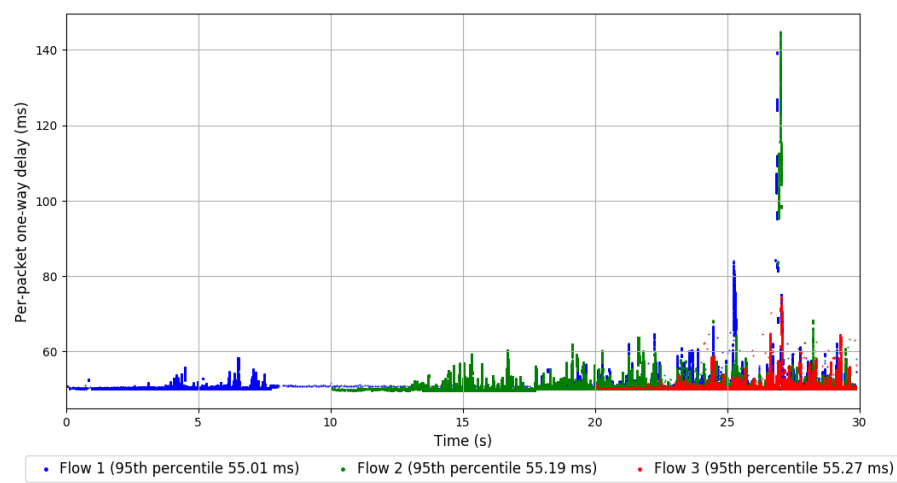
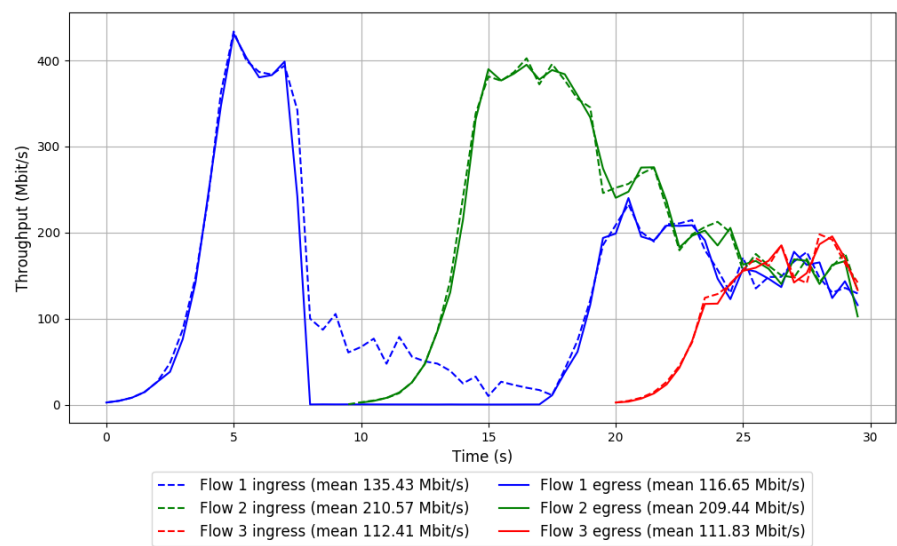
-- Flow 3:

Average throughput: 111.83 Mbit/s

95th percentile per-packet one-way delay: 55.272 ms

Loss rate: 1.60%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-21 05:55:24

End at: 2017-08-21 05:55:55

# Below is generated by plot.py at 2017-08-21 10:14:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 336.74 Mbit/s

95th percentile per-packet one-way delay: 55.617 ms

Loss rate: 2.13%

-- Flow 1:

Average throughput: 289.27 Mbit/s

95th percentile per-packet one-way delay: 56.083 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 50.734 ms

Loss rate: 70.63%

-- Flow 3:

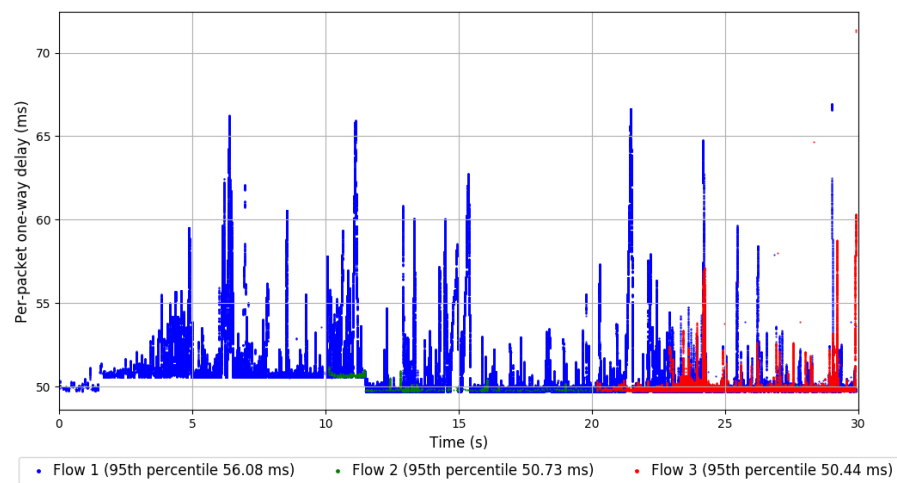
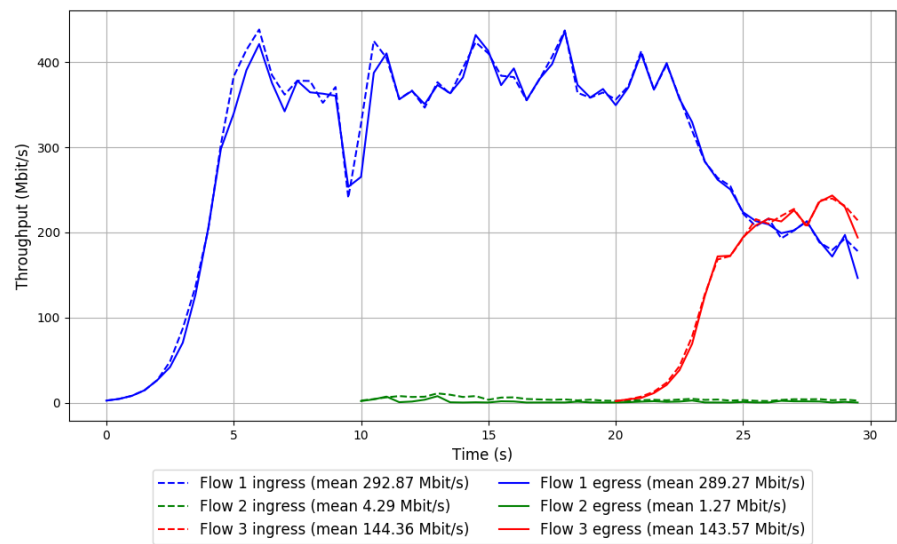
Average throughput: 143.57 Mbit/s

95th percentile per-packet one-way delay: 50.435 ms

Loss rate: 1.53%



Run 3: Report of CalibratedKoho — Data Link

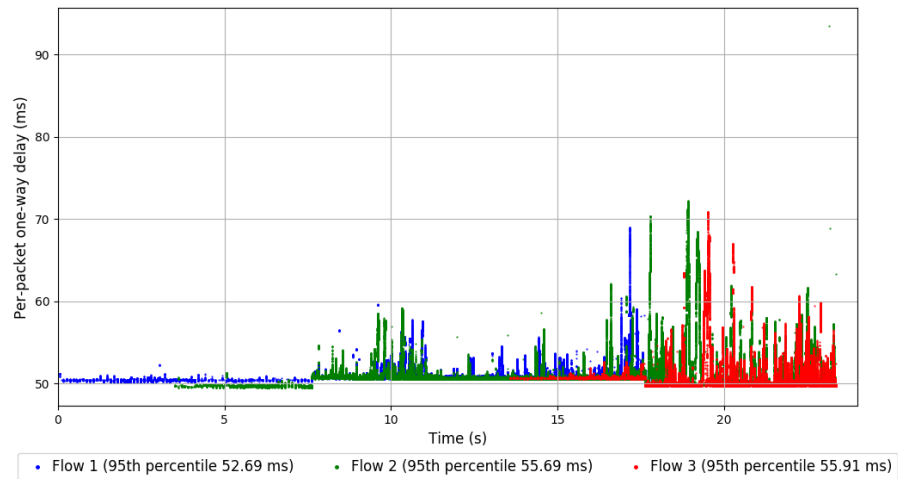
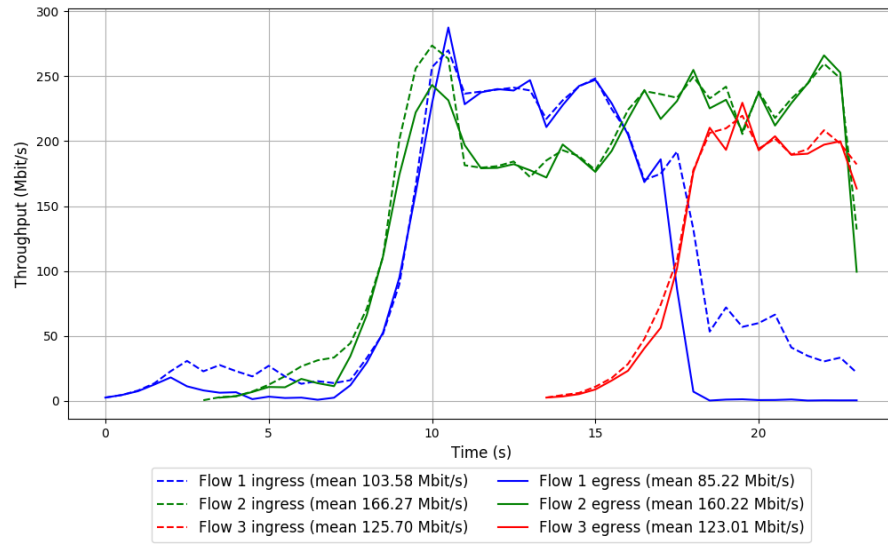


Run 4: Statistics of CalibratedKoho

Start at: 2017-08-21 06:07:12

End at: 2017-08-21 06:07:42

#### Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-21 06:19:05

End at: 2017-08-21 06:19:35

# Below is generated by plot.py at 2017-08-21 10:15:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 384.05 Mbit/s

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

Loss rate: 0.75%

-- Flow 1:

Average throughput: 239.43 Mbit/s

95th percentile per-packet one-way delay: 53.172 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 169.29 Mbit/s

95th percentile per-packet one-way delay: 56.282 ms

Loss rate: 0.51%

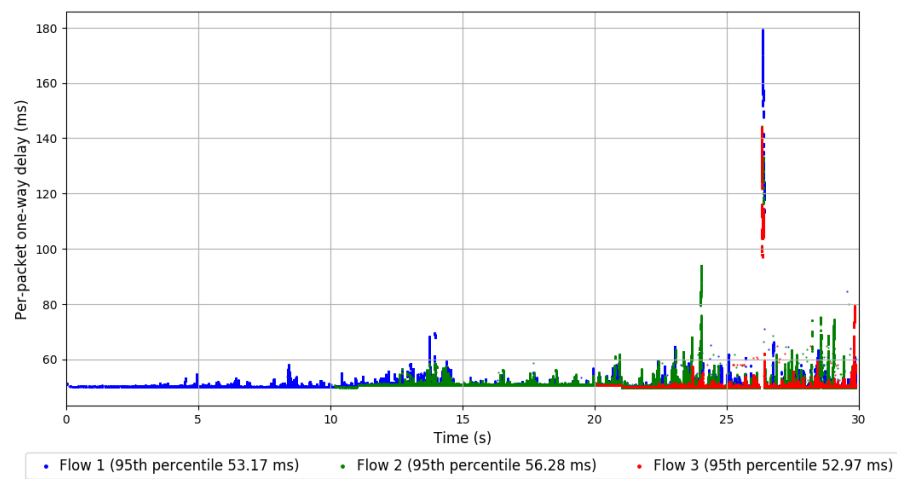
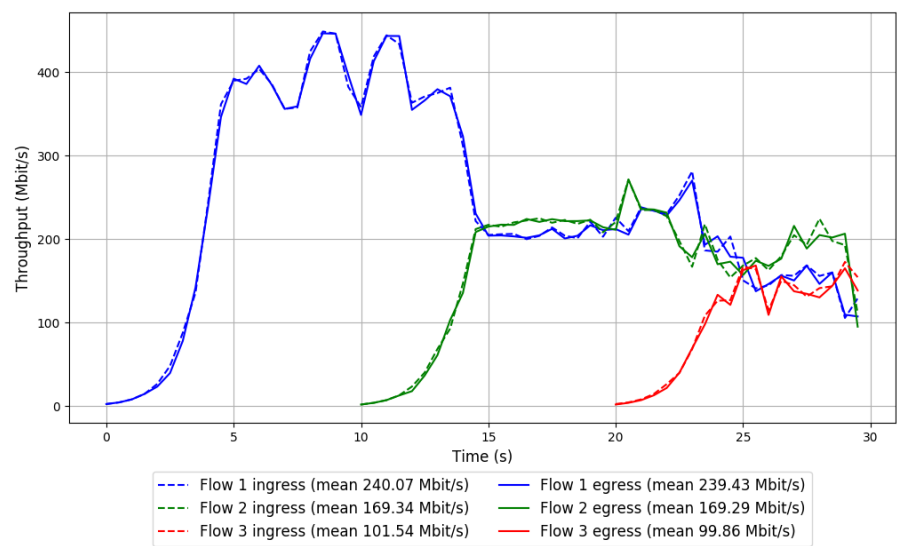
-- Flow 3:

Average throughput: 99.86 Mbit/s

95th percentile per-packet one-way delay: 52.974 ms

Loss rate: 2.71%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-21 06:31:03

End at: 2017-08-21 06:31:33

# Below is generated by plot.py at 2017-08-21 10:15:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 379.39 Mbit/s

95th percentile per-packet one-way delay: 55.321 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 225.88 Mbit/s

95th percentile per-packet one-way delay: 54.445 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 179.21 Mbit/s

95th percentile per-packet one-way delay: 57.142 ms

Loss rate: 0.35%

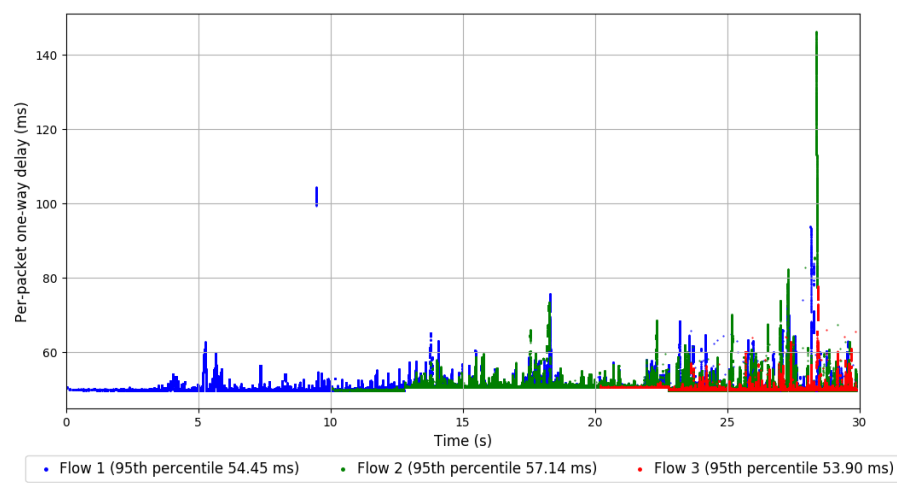
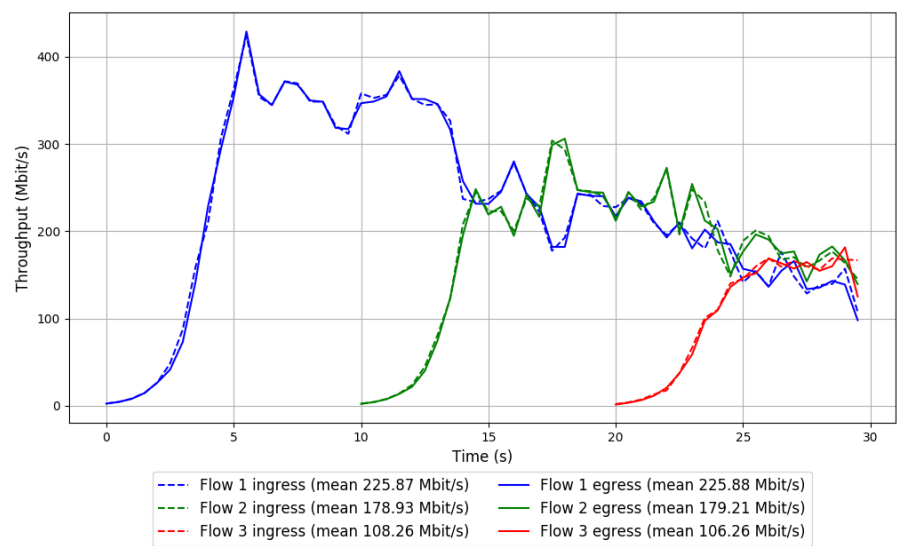
-- Flow 3:

Average throughput: 106.26 Mbit/s

95th percentile per-packet one-way delay: 53.900 ms

Loss rate: 2.85%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-21 06:43:21

End at: 2017-08-21 06:43:51

# Below is generated by plot.py at 2017-08-21 10:16:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 385.89 Mbit/s

95th percentile per-packet one-way delay: 54.724 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 236.09 Mbit/s

95th percentile per-packet one-way delay: 54.529 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 171.91 Mbit/s

95th percentile per-packet one-way delay: 54.707 ms

Loss rate: 0.40%

-- Flow 3:

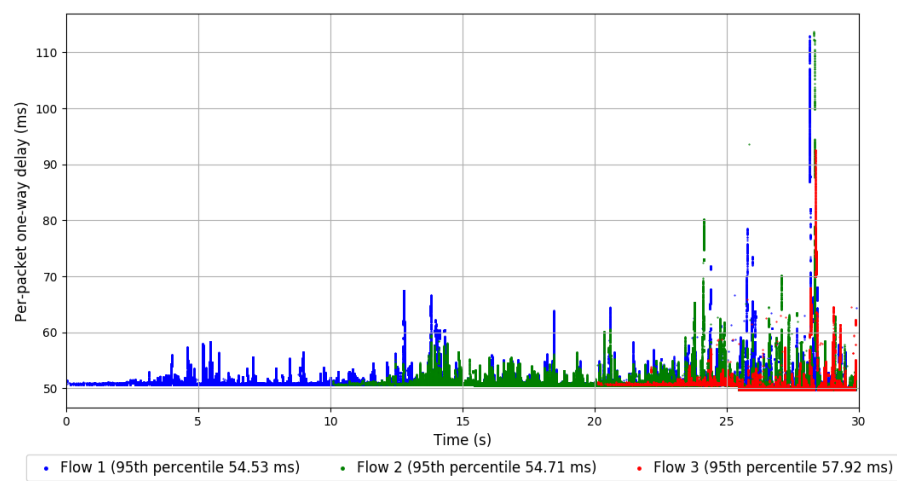
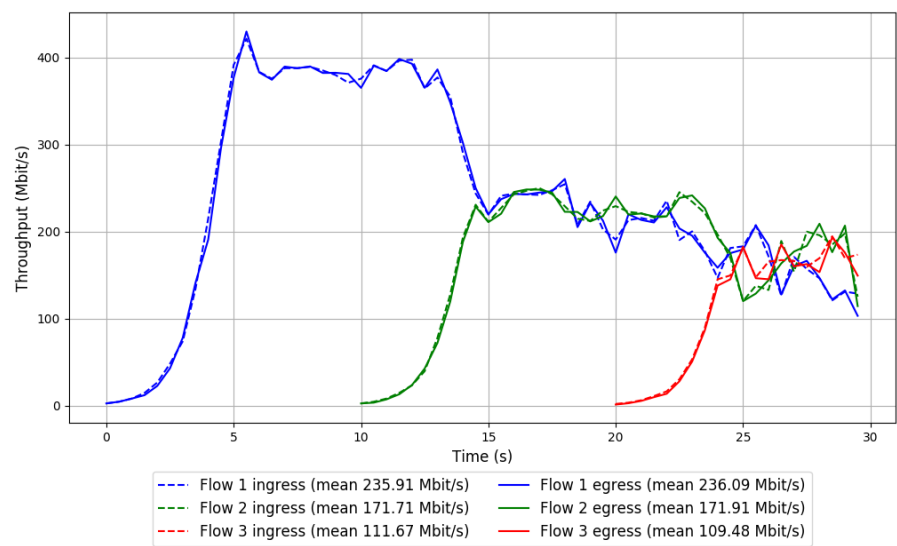
Average throughput: 109.48 Mbit/s

95th percentile per-packet one-way delay: 57.920 ms

Loss rate: 3.00%



Run 7: Report of CalibratedKoho — Data Link

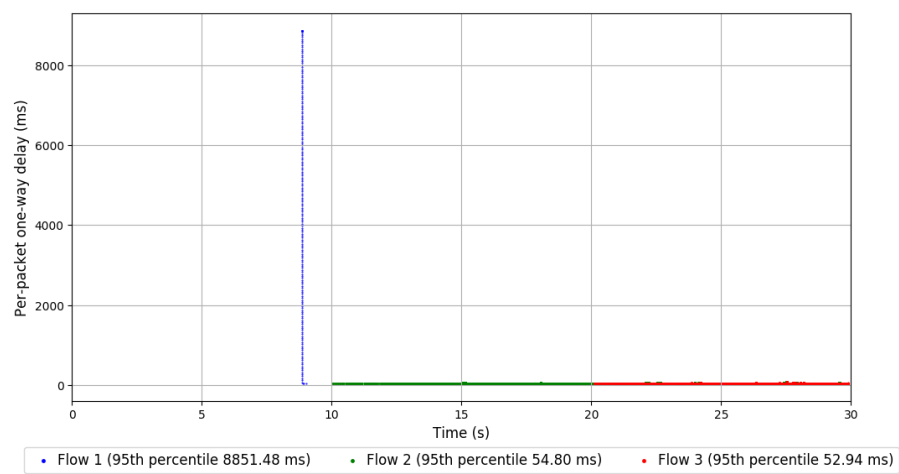
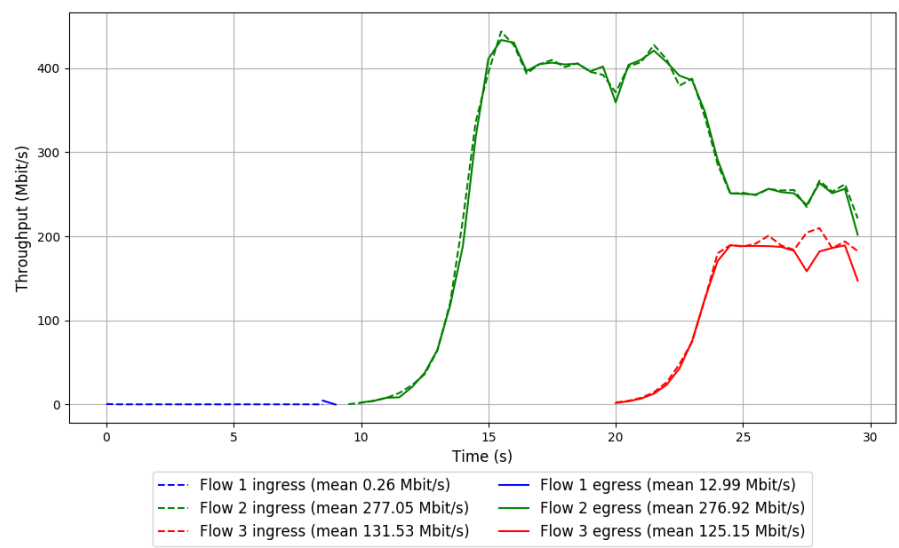


Run 8: Statistics of CalibratedKoho

Start at: 2017-08-21 06:55:21

End at: 2017-08-21 06:55:51

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

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

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

# Below is generated by plot.py at 2017-08-21 10:17:21

# Datalink statistics

-- Total of 3 flows:

Average throughput: 368.86 Mbit/s

95th percentile per-packet one-way delay: 55.257 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 227.02 Mbit/s

95th percentile per-packet one-way delay: 56.800 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 165.25 Mbit/s

95th percentile per-packet one-way delay: 53.009 ms

Loss rate: 1.07%

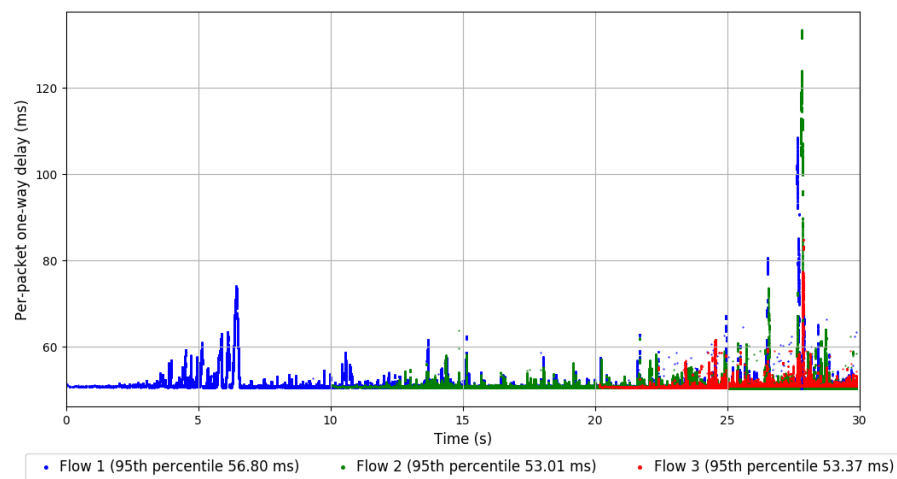
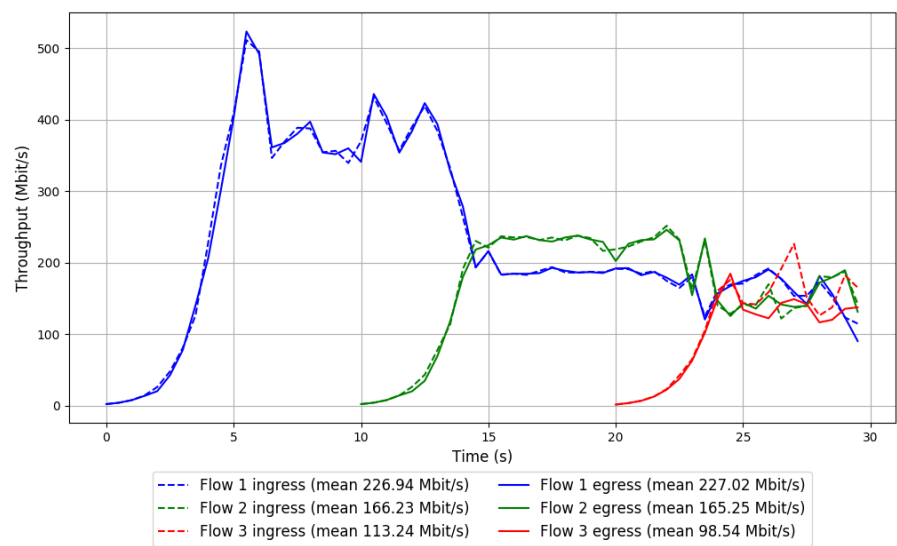
-- Flow 3:

Average throughput: 98.54 Mbit/s

95th percentile per-packet one-way delay: 53.368 ms

Loss rate: 13.89%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-21 07:18:44

End at: 2017-08-21 07:19:14

# Below is generated by plot.py at 2017-08-21 10:17:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 381.18 Mbit/s

95th percentile per-packet one-way delay: 55.093 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 234.42 Mbit/s

95th percentile per-packet one-way delay: 54.476 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 172.43 Mbit/s

95th percentile per-packet one-way delay: 57.020 ms

Loss rate: 0.67%

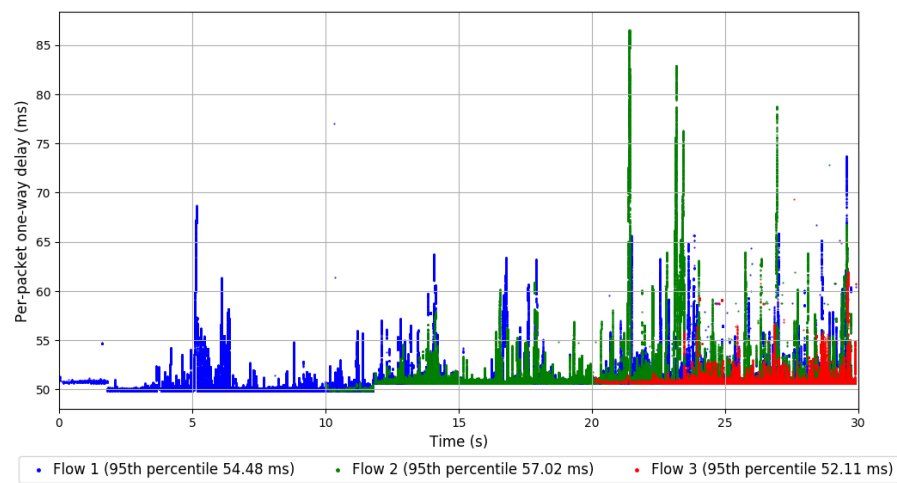
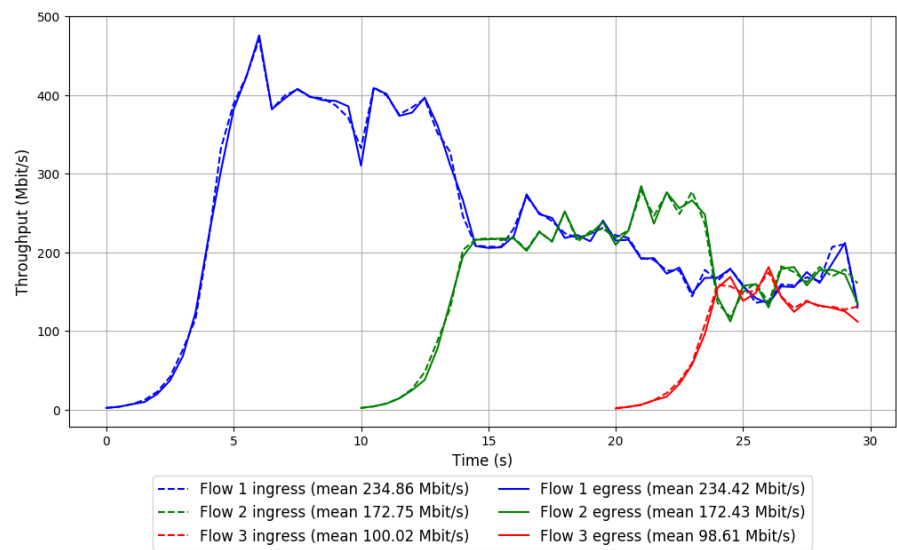
-- Flow 3:

Average throughput: 98.61 Mbit/s

95th percentile per-packet one-way delay: 52.111 ms

Loss rate: 2.47%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-21 05:24:54

End at: 2017-08-21 05:25:24

# Below is generated by plot.py at 2017-08-21 10:17:50

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.92 Mbit/s

95th percentile per-packet one-way delay: 50.846 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 70.32 Mbit/s

95th percentile per-packet one-way delay: 50.858 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 24.99 Mbit/s

95th percentile per-packet one-way delay: 50.808 ms

Loss rate: 0.52%

-- Flow 3:

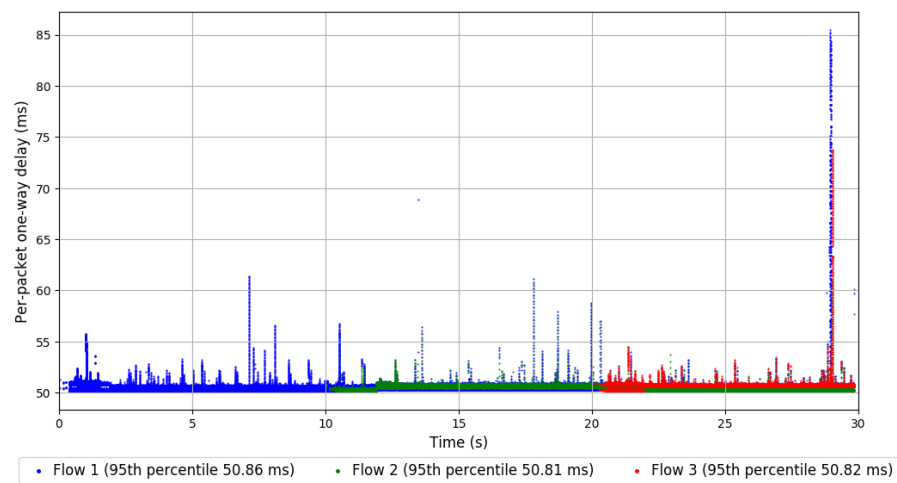
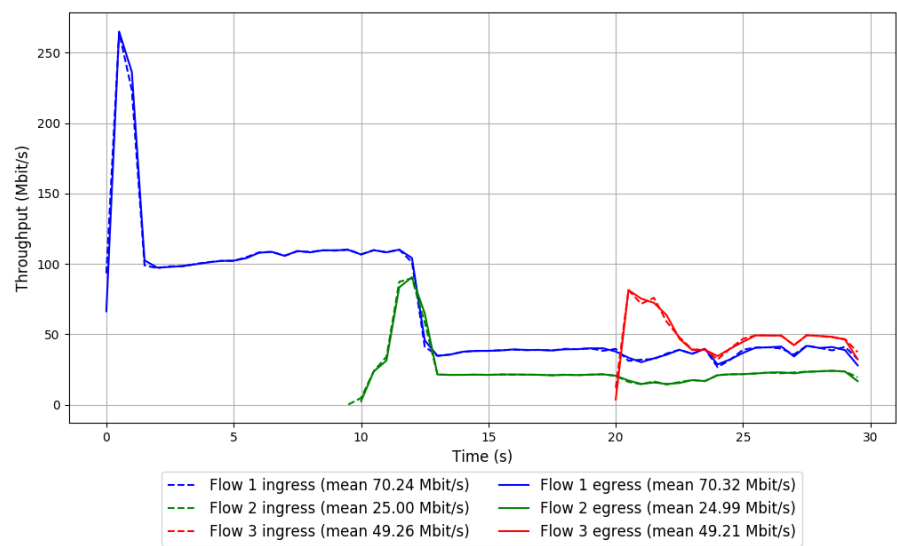
Average throughput: 49.21 Mbit/s

95th percentile per-packet one-way delay: 50.823 ms

Loss rate: 1.03%



Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-21 05:36:44

End at: 2017-08-21 05:37:14

# Below is generated by plot.py at 2017-08-21 10:18:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 103.41 Mbit/s

95th percentile per-packet one-way delay: 50.843 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 75.14 Mbit/s

95th percentile per-packet one-way delay: 51.013 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 34.17 Mbit/s

95th percentile per-packet one-way delay: 50.645 ms

Loss rate: 0.56%

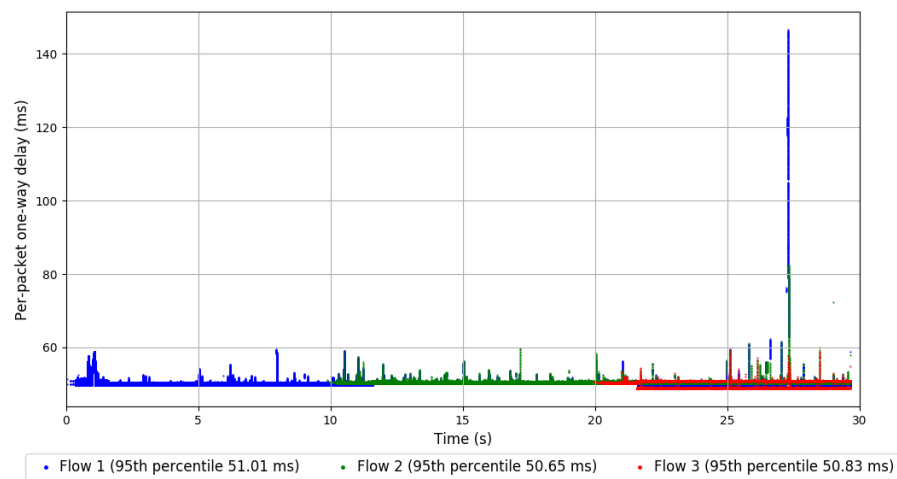
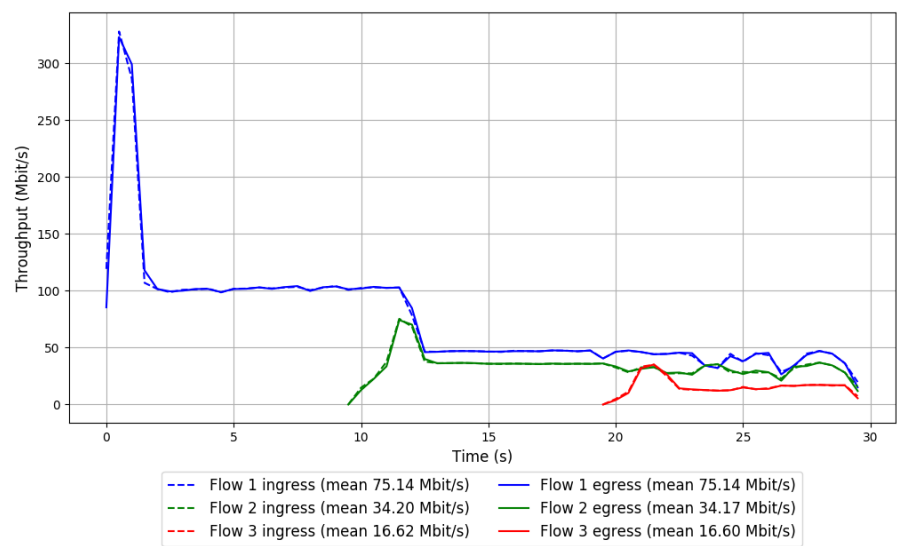
-- Flow 3:

Average throughput: 16.60 Mbit/s

95th percentile per-packet one-way delay: 50.829 ms

Loss rate: 1.08%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-21 05:48:08

End at: 2017-08-21 05:48:38

# Below is generated by plot.py at 2017-08-21 10:18:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 101.85 Mbit/s

95th percentile per-packet one-way delay: 50.293 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 44.05 Mbit/s

95th percentile per-packet one-way delay: 50.251 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 47.32 Mbit/s

95th percentile per-packet one-way delay: 50.225 ms

Loss rate: 0.43%

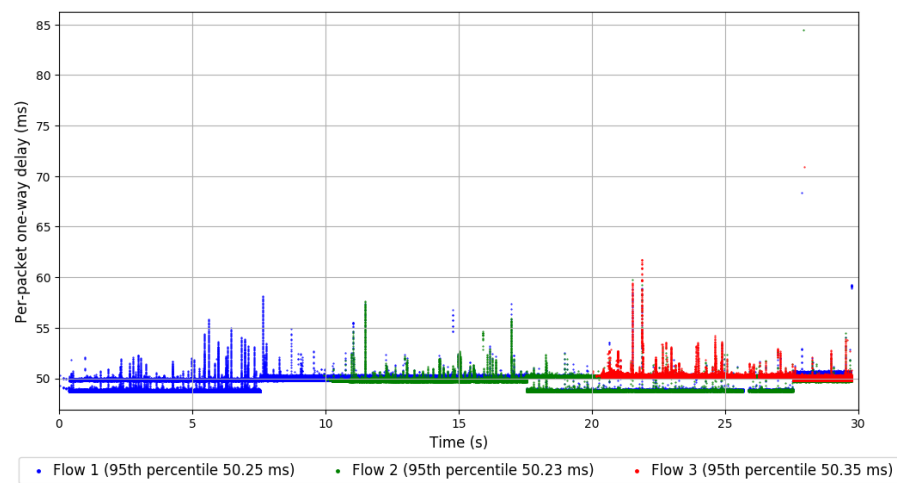
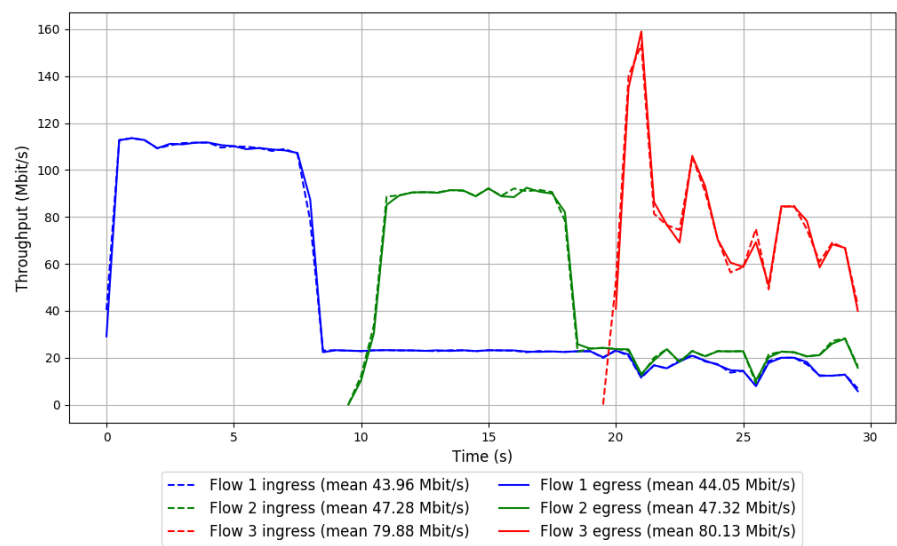
-- Flow 3:

Average throughput: 80.13 Mbit/s

95th percentile per-packet one-way delay: 50.348 ms

Loss rate: 0.65%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-21 05:59:59

End at: 2017-08-21 06:00:29

# Below is generated by plot.py at 2017-08-21 10:19:00

# Datalink statistics

-- Total of 3 flows:

Average throughput: 128.67 Mbit/s

95th percentile per-packet one-way delay: 51.746 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 92.55 Mbit/s

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

Loss rate: 0.27%

-- Flow 2:

Average throughput: 30.83 Mbit/s

95th percentile per-packet one-way delay: 50.702 ms

Loss rate: 0.18%

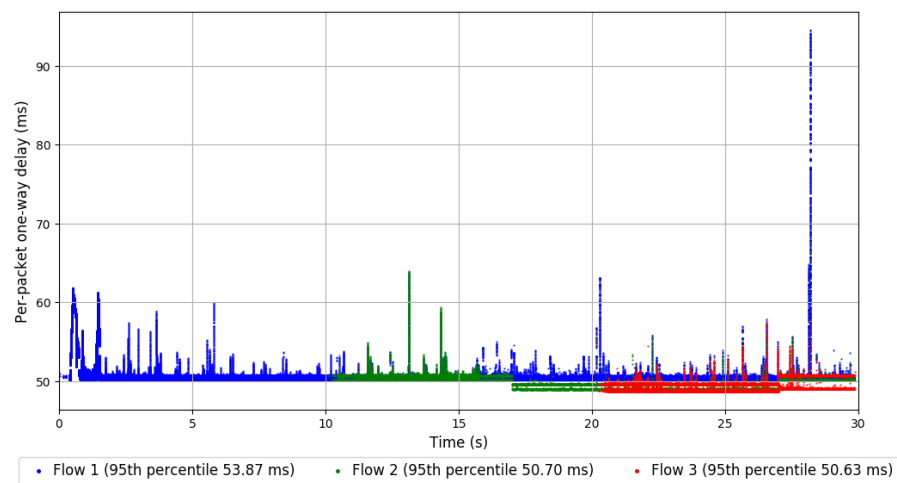
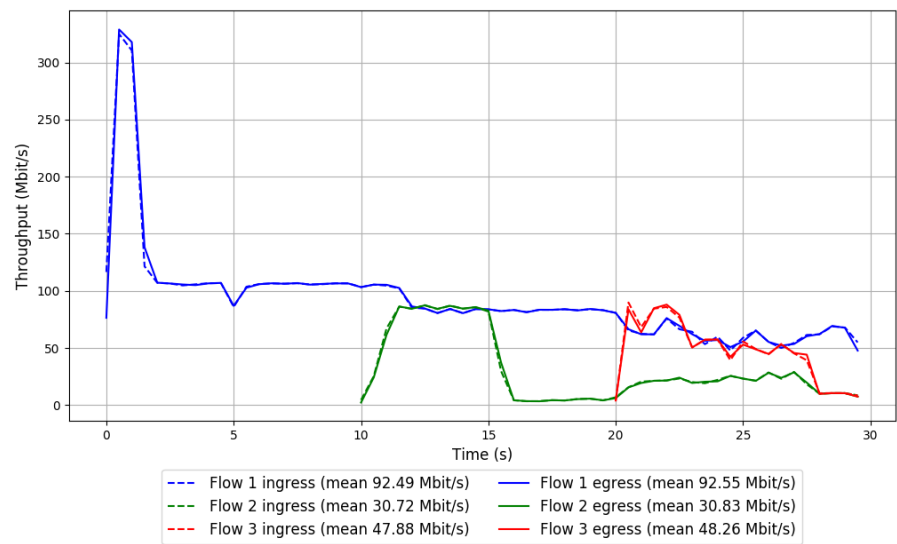
-- Flow 3:

Average throughput: 48.26 Mbit/s

95th percentile per-packet one-way delay: 50.629 ms

Loss rate: 0.22%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-21 06:11:37

End at: 2017-08-21 06:12:07

# Below is generated by plot.py at 2017-08-21 10:19:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 136.63 Mbit/s

95th percentile per-packet one-way delay: 50.680 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 58.07 Mbit/s

95th percentile per-packet one-way delay: 50.659 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 88.32 Mbit/s

95th percentile per-packet one-way delay: 50.694 ms

Loss rate: 0.31%

-- Flow 3:

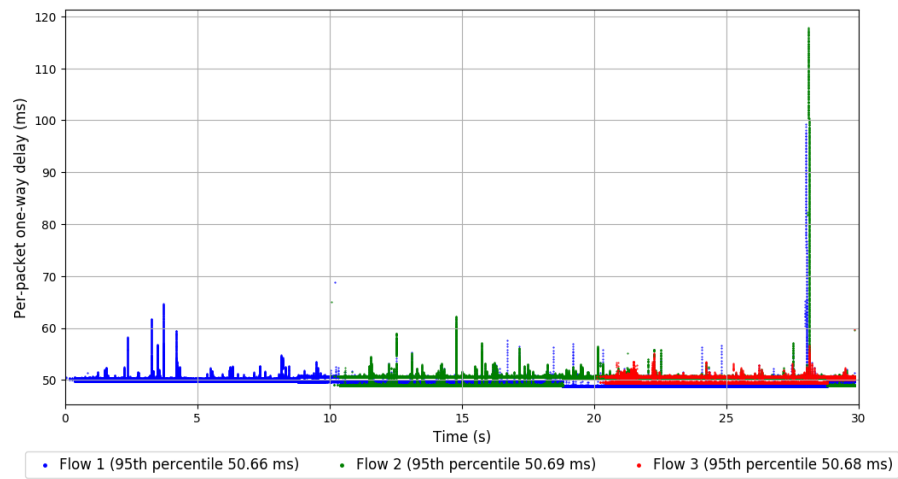
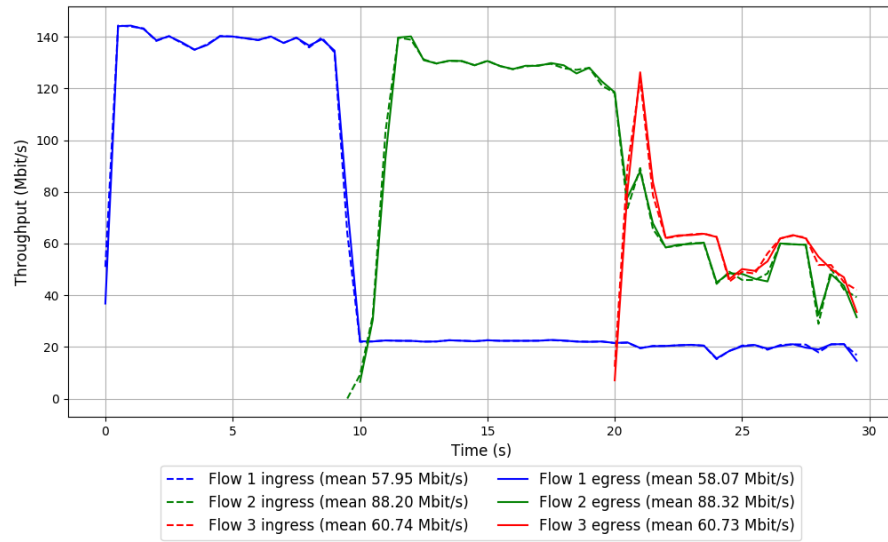
Average throughput: 60.73 Mbit/s

95th percentile per-packet one-way delay: 50.683 ms

Loss rate: 0.97%



## Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-21 06:23:44

End at: 2017-08-21 06:24:14

# Below is generated by plot.py at 2017-08-21 10:19:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 132.57 Mbit/s

95th percentile per-packet one-way delay: 50.763 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 95.27 Mbit/s

95th percentile per-packet one-way delay: 50.768 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 38.38 Mbit/s

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

Loss rate: 0.22%

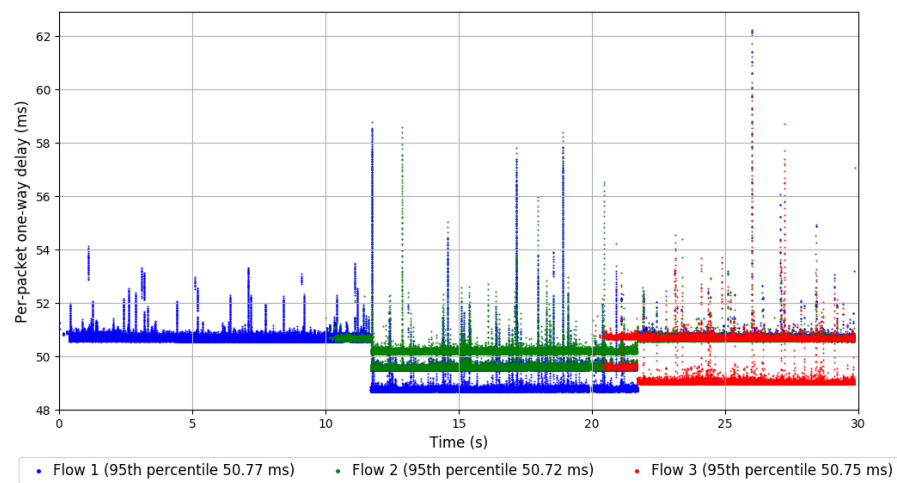
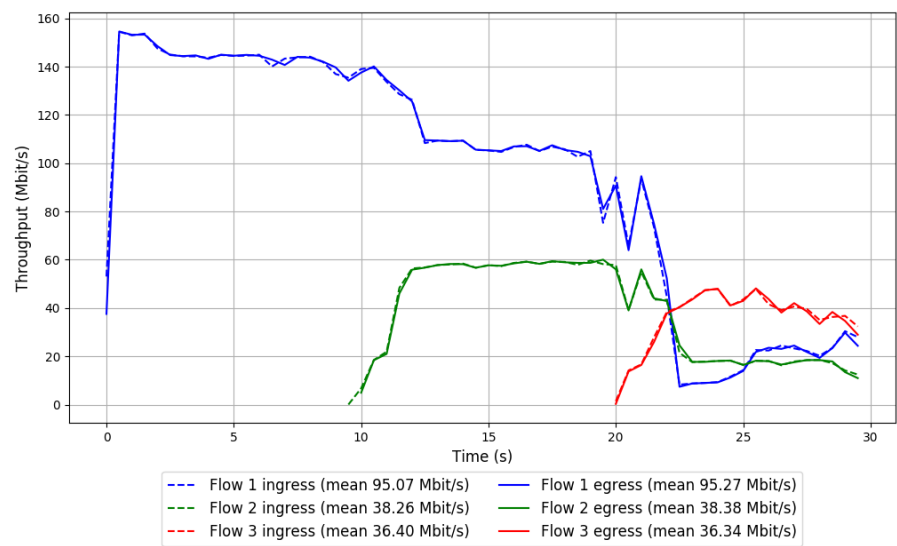
-- Flow 3:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 50.748 ms

Loss rate: 1.18%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-21 06:36:14

End at: 2017-08-21 06:36:44

# Below is generated by plot.py at 2017-08-21 10:19:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 132.45 Mbit/s

95th percentile per-packet one-way delay: 50.697 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 88.13 Mbit/s

95th percentile per-packet one-way delay: 50.709 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 54.85 Mbit/s

95th percentile per-packet one-way delay: 50.465 ms

Loss rate: 0.49%

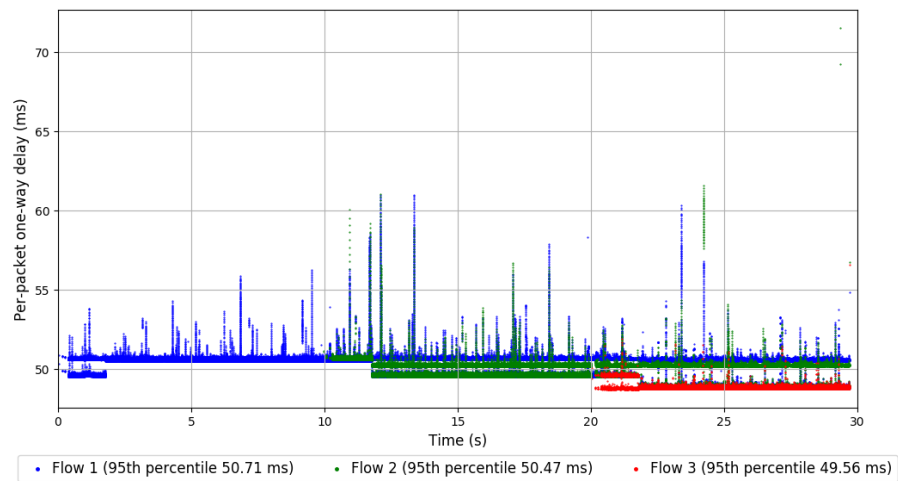
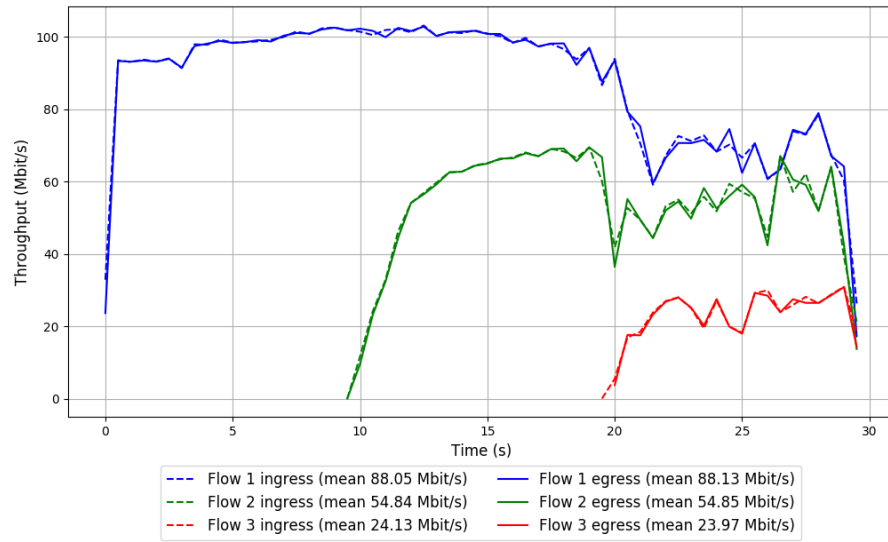
-- Flow 3:

Average throughput: 23.97 Mbit/s

95th percentile per-packet one-way delay: 49.562 ms

Loss rate: 1.60%

## Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-21 06:48:04

End at: 2017-08-21 06:48:34

# Below is generated by plot.py at 2017-08-21 10:20:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 84.39 Mbit/s

95th percentile per-packet one-way delay: 50.837 ms

Loss rate: 2.81%

-- Flow 1:

Average throughput: 63.52 Mbit/s

95th percentile per-packet one-way delay: 50.846 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 50.474 ms

Loss rate: 91.26%

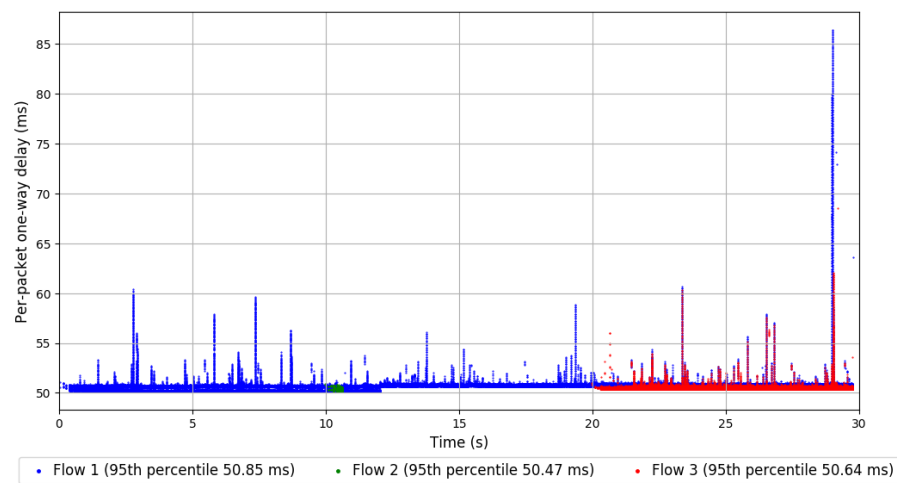
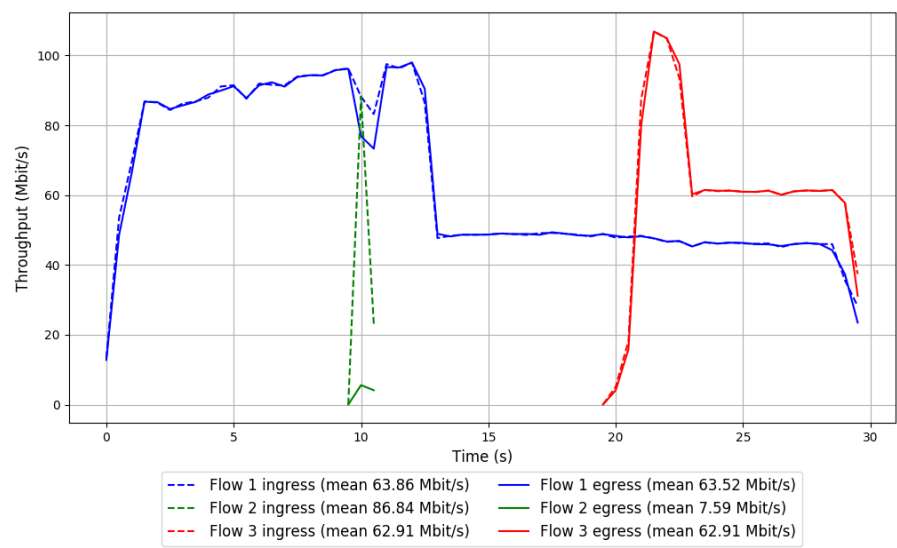
-- Flow 3:

Average throughput: 62.91 Mbit/s

95th percentile per-packet one-way delay: 50.637 ms

Loss rate: 1.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-21 06:59:47

End at: 2017-08-21 07:00:17

# Below is generated by plot.py at 2017-08-21 10:20:23

# Datalink statistics

-- Total of 3 flows:

Average throughput: 123.63 Mbit/s

95th percentile per-packet one-way delay: 50.743 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 52.96 Mbit/s

95th percentile per-packet one-way delay: 50.843 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 80.87 Mbit/s

95th percentile per-packet one-way delay: 50.508 ms

Loss rate: 0.50%

-- Flow 3:

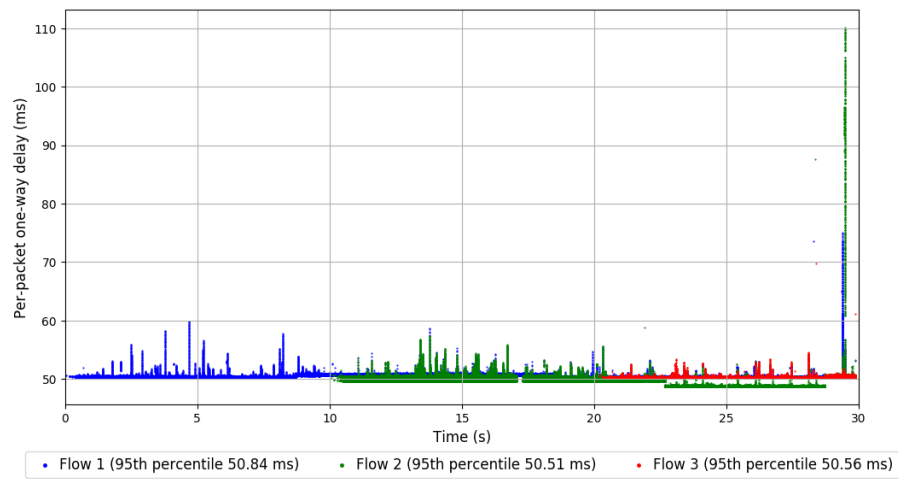
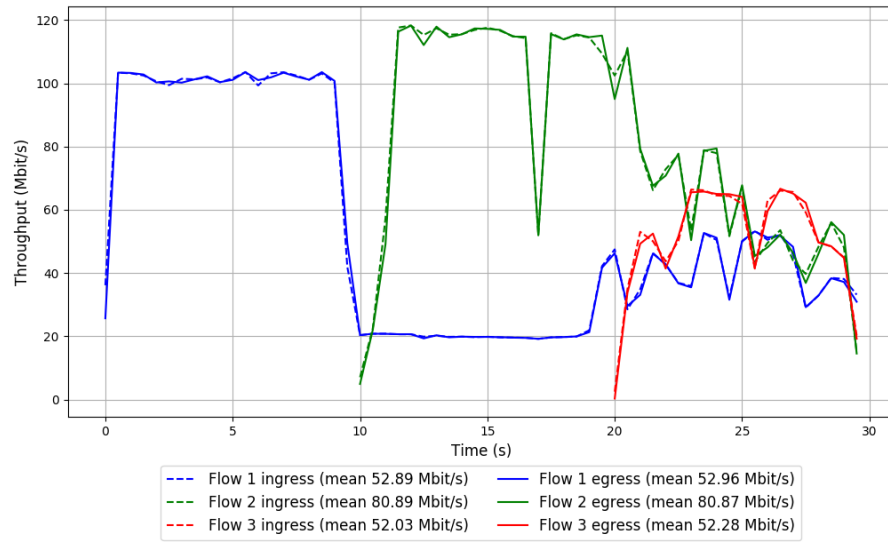
Average throughput: 52.28 Mbit/s

95th percentile per-packet one-way delay: 50.564 ms

Loss rate: 0.45%



## Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

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

End at: 2017-08-21 07:12:13

# Below is generated by plot.py at 2017-08-21 10:20:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 122.91 Mbit/s

95th percentile per-packet one-way delay: 50.709 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 63.44 Mbit/s

95th percentile per-packet one-way delay: 50.729 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 77.63 Mbit/s

95th percentile per-packet one-way delay: 50.586 ms

Loss rate: 0.54%

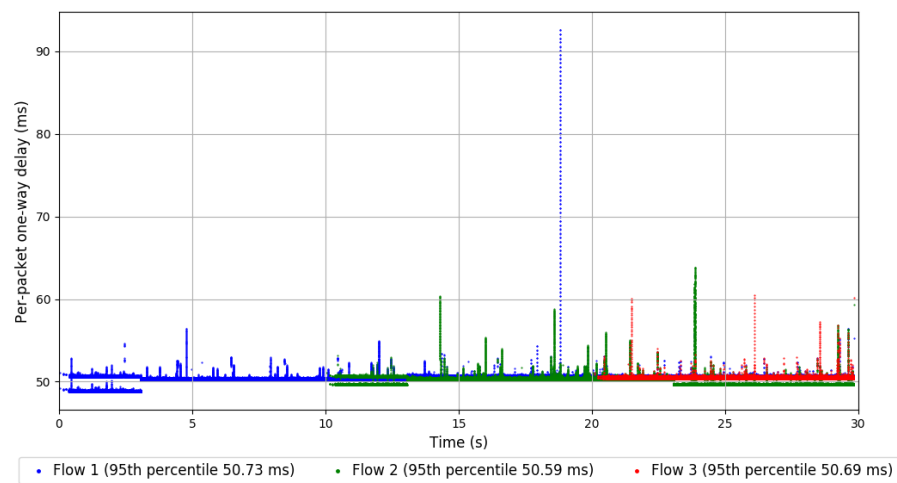
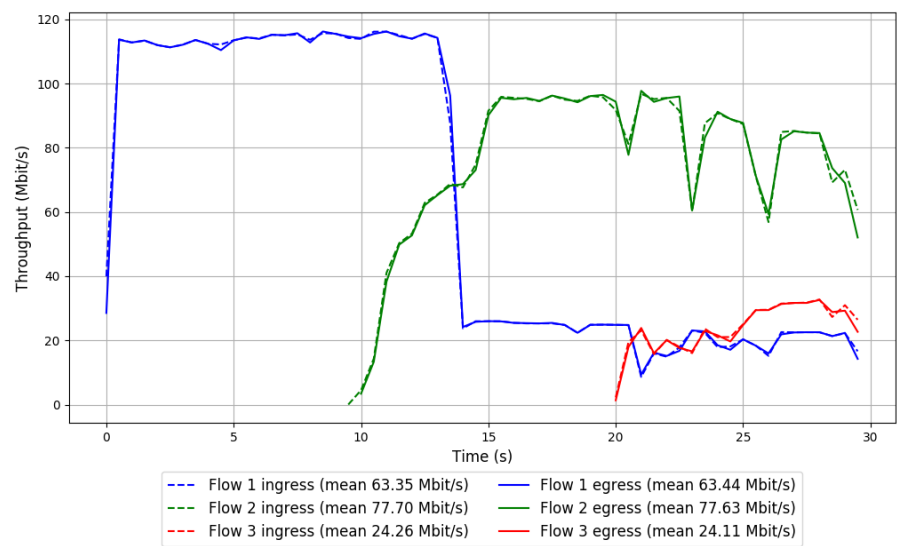
-- Flow 3:

Average throughput: 24.11 Mbit/s

95th percentile per-packet one-way delay: 50.687 ms

Loss rate: 1.55%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-21 05:23:25

End at: 2017-08-21 05:23:55

# Below is generated by plot.py at 2017-08-21 10:20:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 146.97 Mbit/s

95th percentile per-packet one-way delay: 52.023 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 121.65 Mbit/s

95th percentile per-packet one-way delay: 52.266 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 31.34 Mbit/s

95th percentile per-packet one-way delay: 51.119 ms

Loss rate: 1.08%

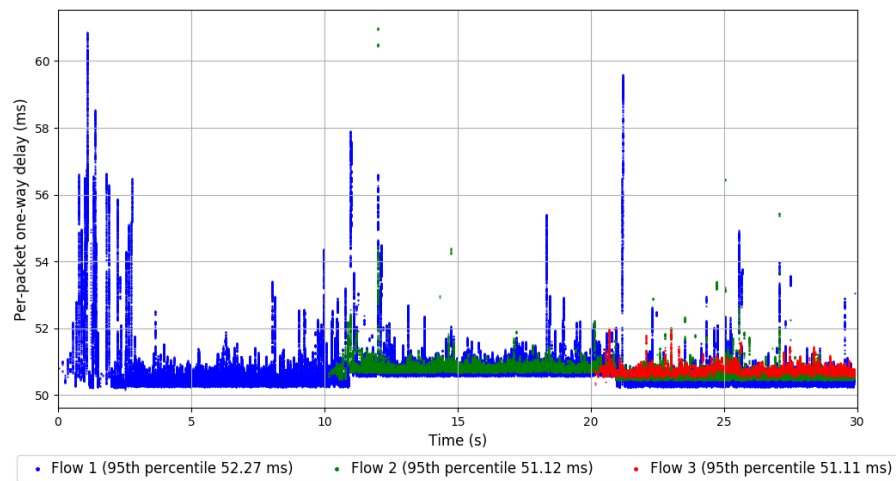
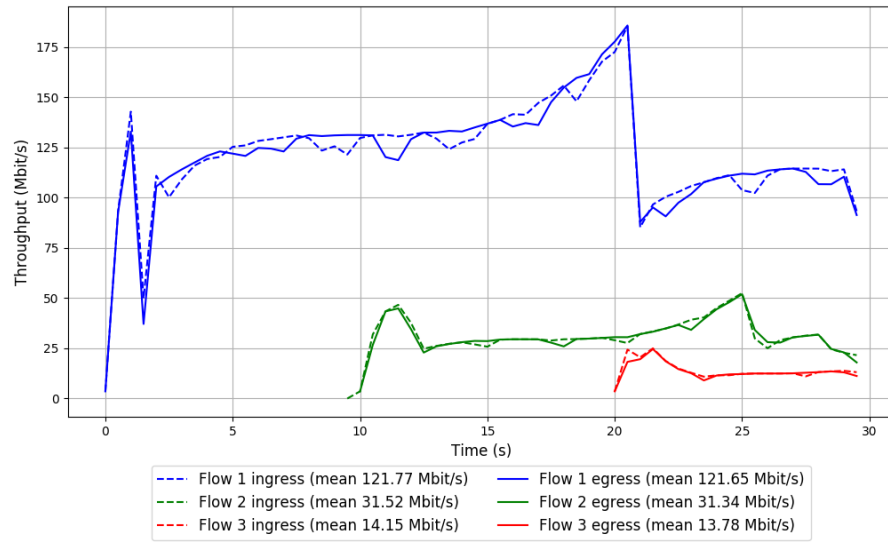
-- Flow 3:

Average throughput: 13.78 Mbit/s

95th percentile per-packet one-way delay: 51.113 ms

Loss rate: 3.77%

## Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-21 05:35:20

End at: 2017-08-21 05:35:50

# Below is generated by plot.py at 2017-08-21 10:21:04

# Datalink statistics

-- Total of 3 flows:

Average throughput: 67.99 Mbit/s

95th percentile per-packet one-way delay: 51.874 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 51.321 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 74.11 Mbit/s

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

Loss rate: 0.81%

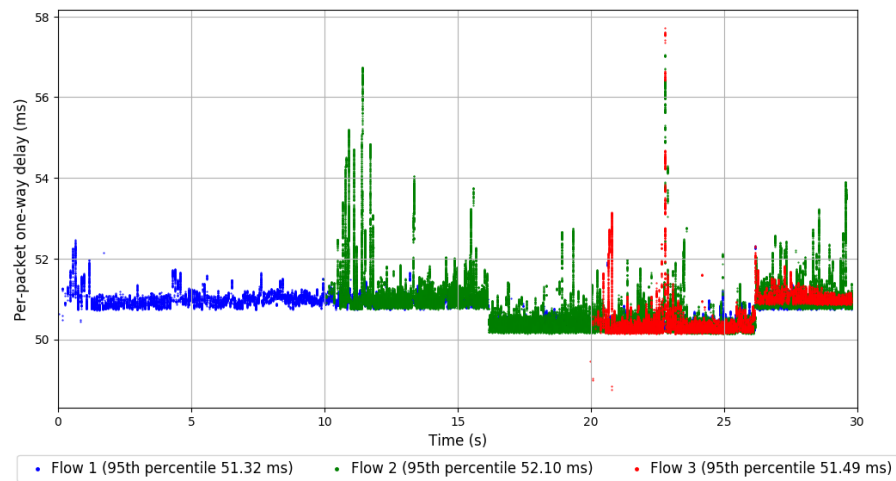
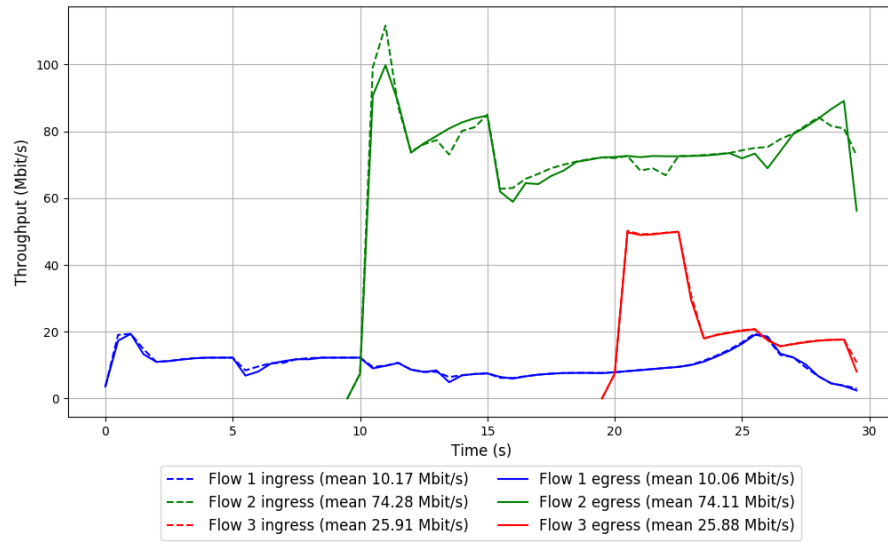
-- Flow 3:

Average throughput: 25.88 Mbit/s

95th percentile per-packet one-way delay: 51.493 ms

Loss rate: 1.11%

## Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-21 05:46:43

End at: 2017-08-21 05:47:13

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 72.15 Mbit/s

95th percentile per-packet one-way delay: 51.167 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 51.064 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 84.64 Mbit/s

95th percentile per-packet one-way delay: 51.341 ms

Loss rate: 0.59%

-- Flow 3:

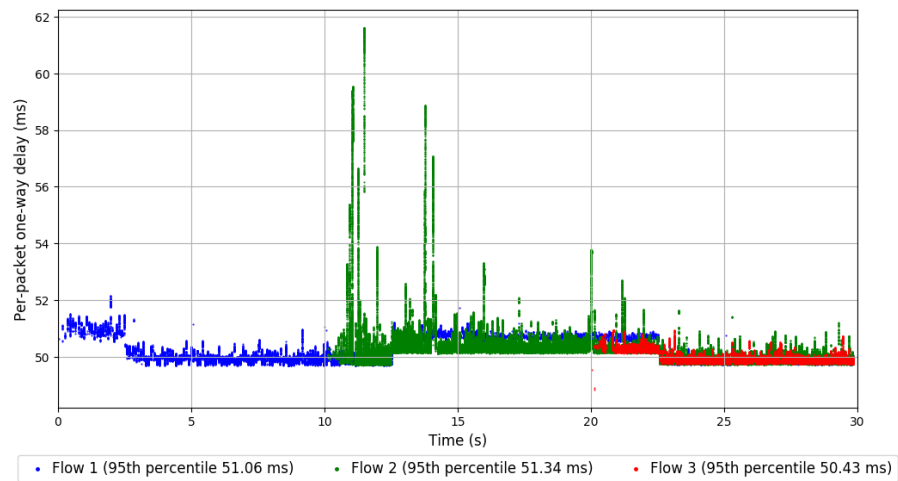
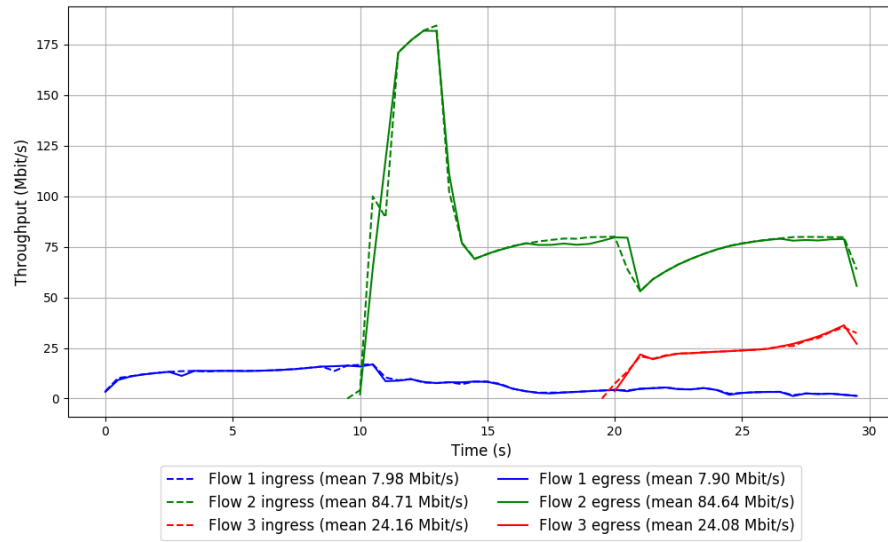
Average throughput: 24.08 Mbit/s

95th percentile per-packet one-way delay: 50.426 ms

Loss rate: 1.32%



### Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-21 05:58:32

End at: 2017-08-21 05:59:02

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 113.08 Mbit/s

95th percentile per-packet one-way delay: 51.452 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 44.24 Mbit/s

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

Loss rate: 0.28%

-- Flow 2:

Average throughput: 99.07 Mbit/s

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

Loss rate: 1.04%

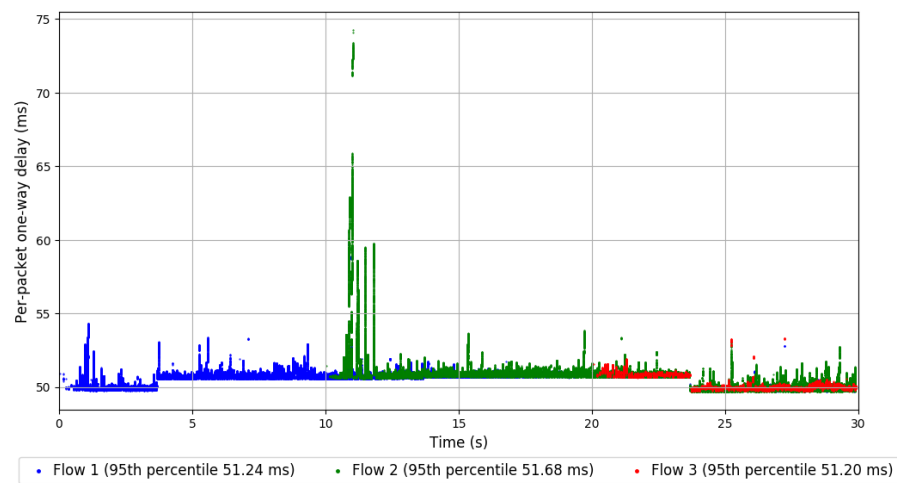
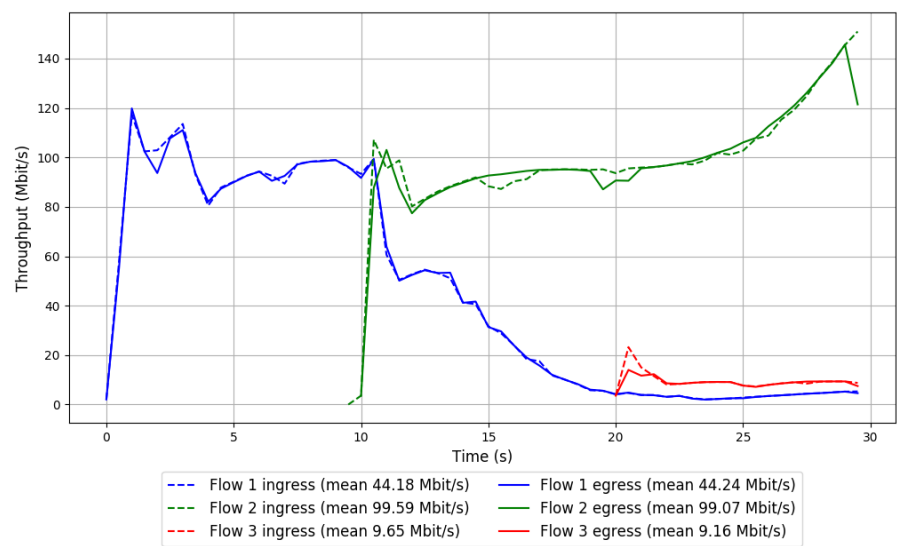
-- Flow 3:

Average throughput: 9.16 Mbit/s

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

Loss rate: 6.15%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-21 06:10:11

End at: 2017-08-21 06:10:41

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 105.82 Mbit/s

95th percentile per-packet one-way delay: 52.180 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 38.50 Mbit/s

95th percentile per-packet one-way delay: 51.150 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 53.21 Mbit/s

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

Loss rate: 0.96%

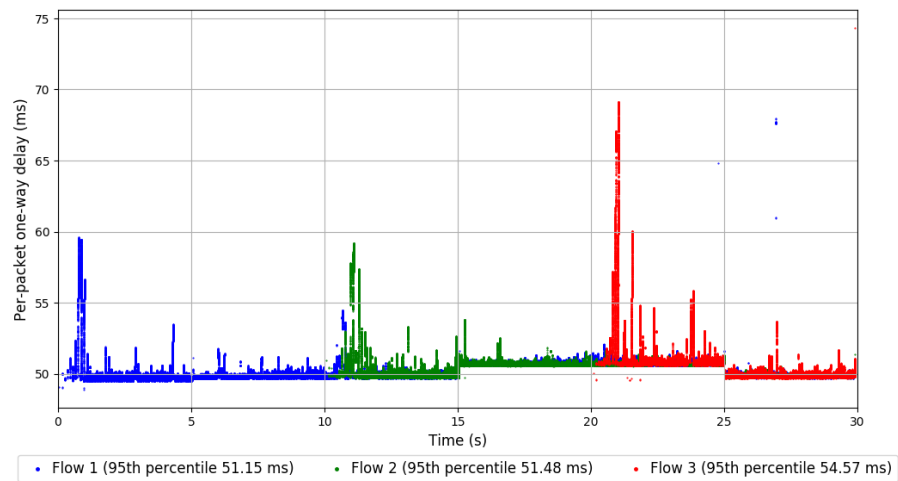
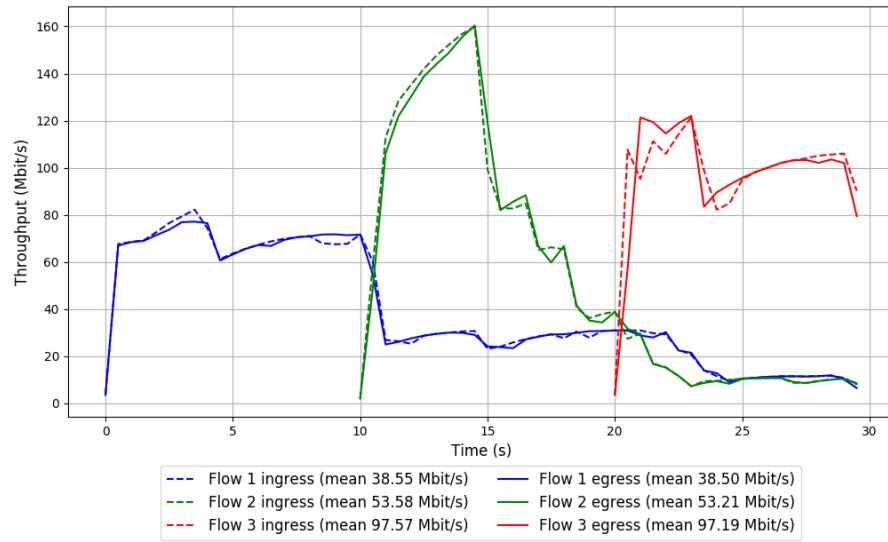
-- Flow 3:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 54.570 ms

Loss rate: 1.16%

## Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-21 06:22:17

End at: 2017-08-21 06:22:47

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 120.87 Mbit/s

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

Loss rate: 0.60%

-- Flow 1:

Average throughput: 53.76 Mbit/s

95th percentile per-packet one-way delay: 54.530 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 96.66 Mbit/s

95th percentile per-packet one-way delay: 52.367 ms

Loss rate: 0.59%

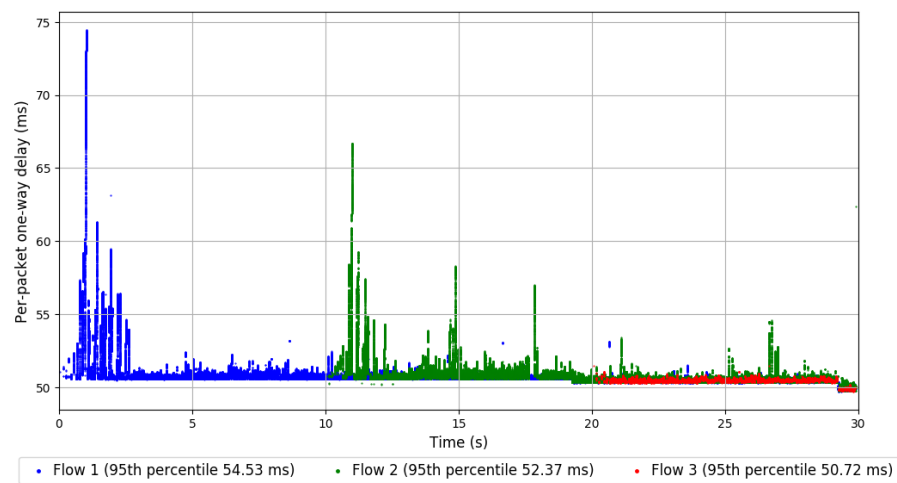
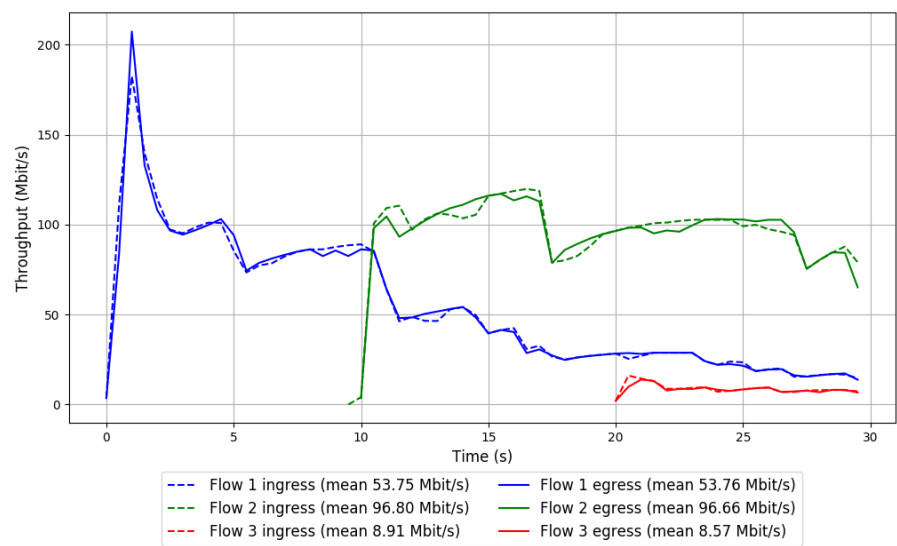
-- Flow 3:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 50.717 ms

Loss rate: 4.83%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-21 06:34:44

End at: 2017-08-21 06:35:14

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 70.46 Mbit/s

95th percentile per-packet one-way delay: 51.808 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 63.93 Mbit/s

95th percentile per-packet one-way delay: 51.801 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 50.992 ms

Loss rate: 2.67%

-- Flow 3:

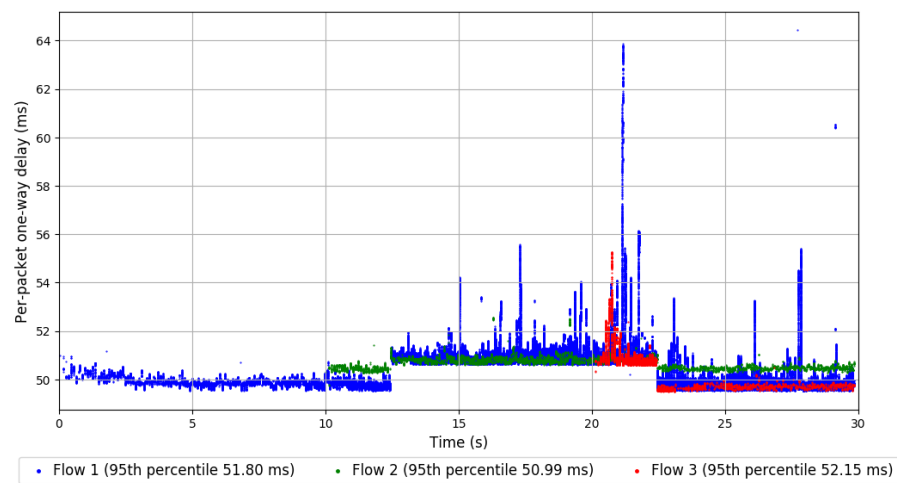
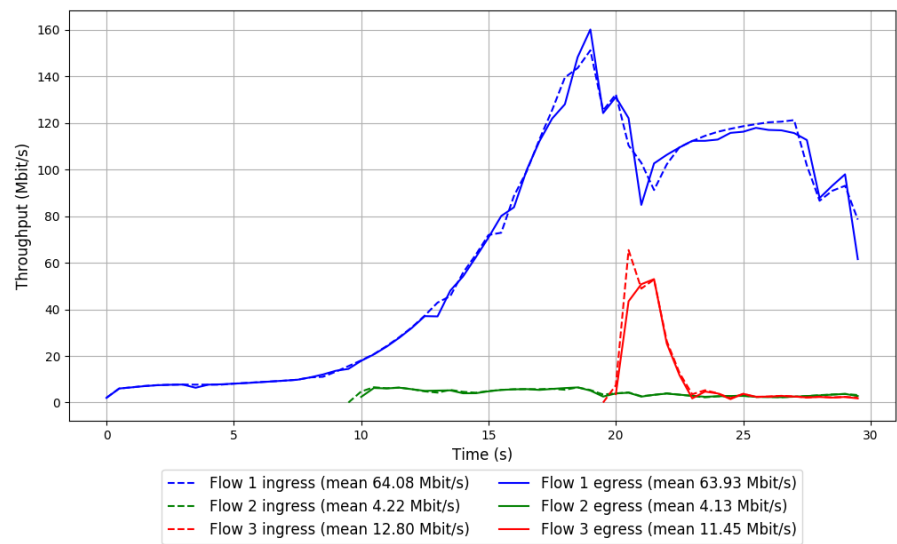
Average throughput: 11.45 Mbit/s

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

Loss rate: 11.46%



Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-21 06:46:41

End at: 2017-08-21 06:47:11

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 49.62 Mbit/s

95th percentile per-packet one-way delay: 51.597 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 12.14 Mbit/s

95th percentile per-packet one-way delay: 51.225 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 51.090 ms

Loss rate: 3.07%

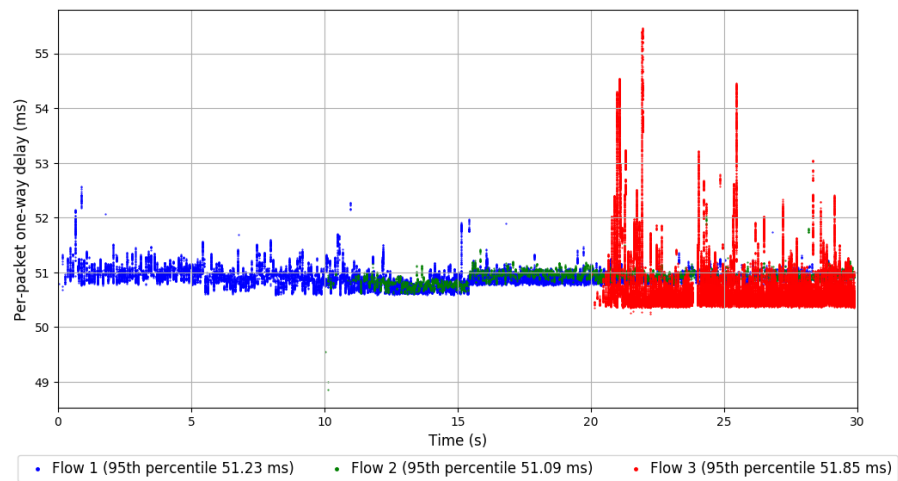
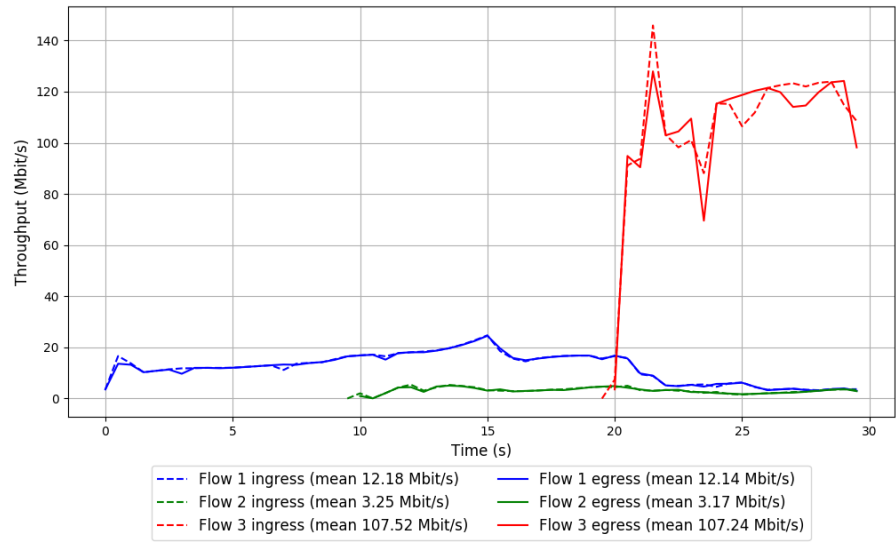
-- Flow 3:

Average throughput: 107.24 Mbit/s

95th percentile per-packet one-way delay: 51.855 ms

Loss rate: 1.28%

## Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-21 06:58:21

End at: 2017-08-21 06:58:51

# Below is generated by plot.py at 2017-08-21 10:21:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 90.45 Mbit/s

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

Loss rate: 0.91%

-- Flow 1:

Average throughput: 4.46 Mbit/s

95th percentile per-packet one-way delay: 51.257 ms

Loss rate: 3.99%

-- Flow 2:

Average throughput: 107.43 Mbit/s

95th percentile per-packet one-way delay: 51.659 ms

Loss rate: 0.65%

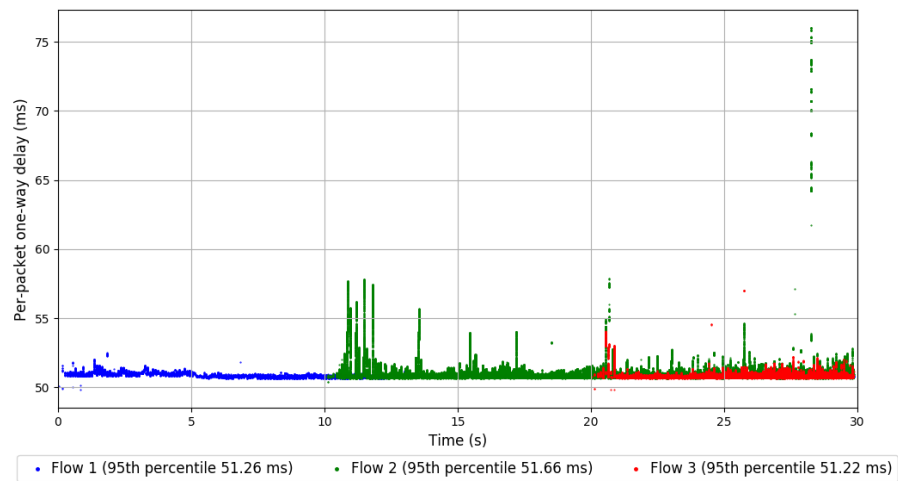
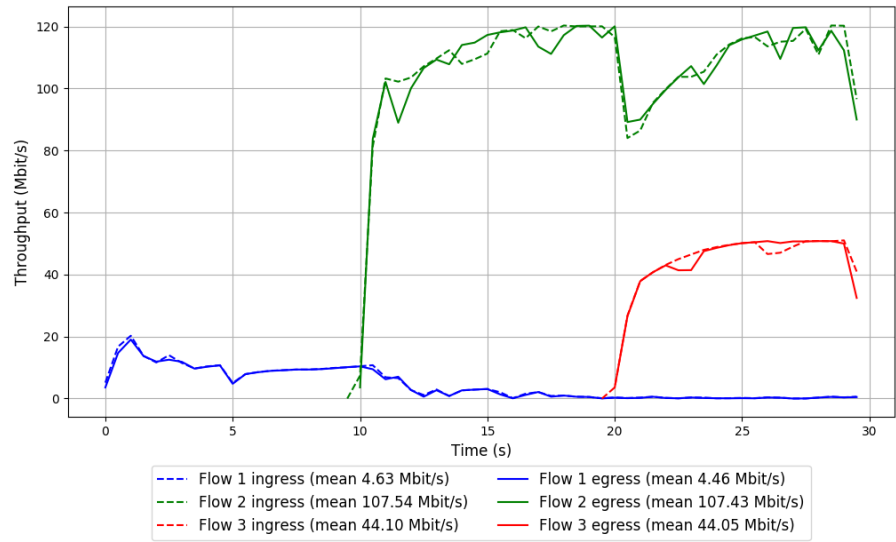
-- Flow 3:

Average throughput: 44.05 Mbit/s

95th percentile per-packet one-way delay: 51.219 ms

Loss rate: 1.19%

## Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-21 07:10:21

End at: 2017-08-21 07:10:51

# Below is generated by plot.py at 2017-08-21 10:21:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 29.20 Mbit/s

95th percentile per-packet one-way delay: 51.192 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 6.46 Mbit/s

95th percentile per-packet one-way delay: 51.146 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 12.37 Mbit/s

95th percentile per-packet one-way delay: 51.157 ms

Loss rate: 1.25%

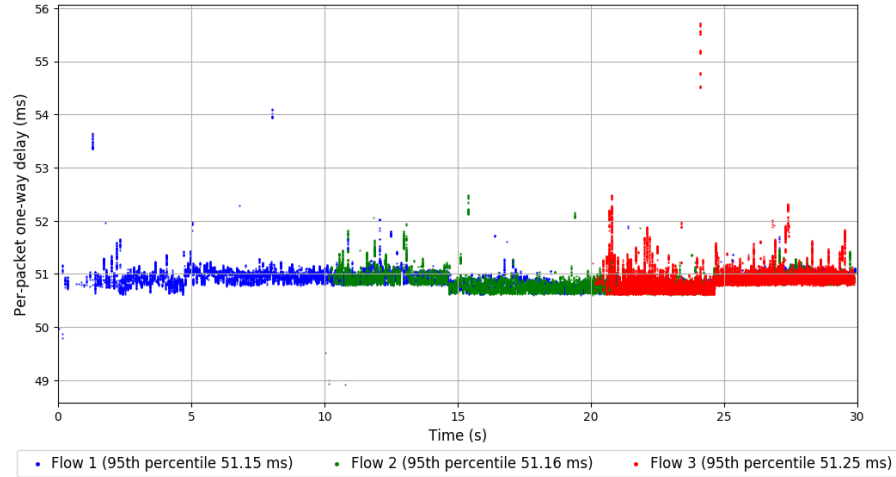
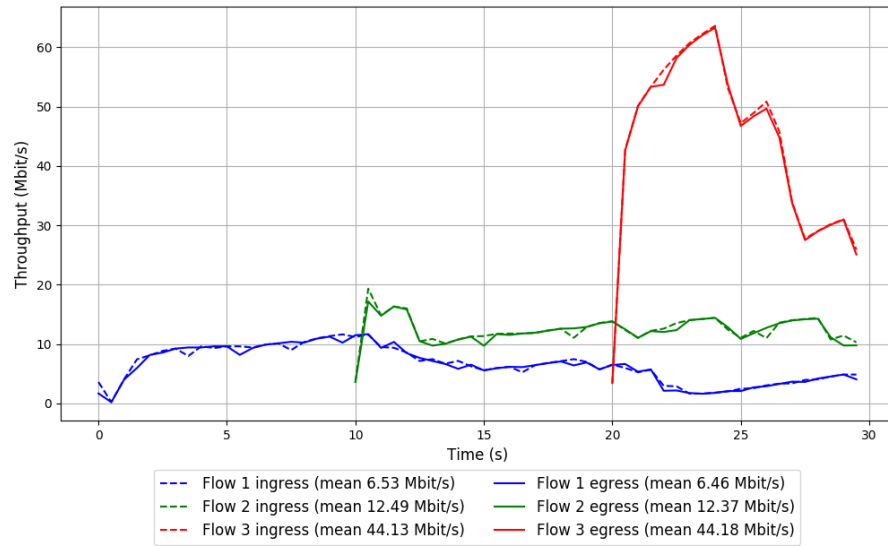
-- Flow 3:

Average throughput: 44.18 Mbit/s

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

Loss rate: 0.91%

## Run 10: Report of TCP Cubic — Data Link



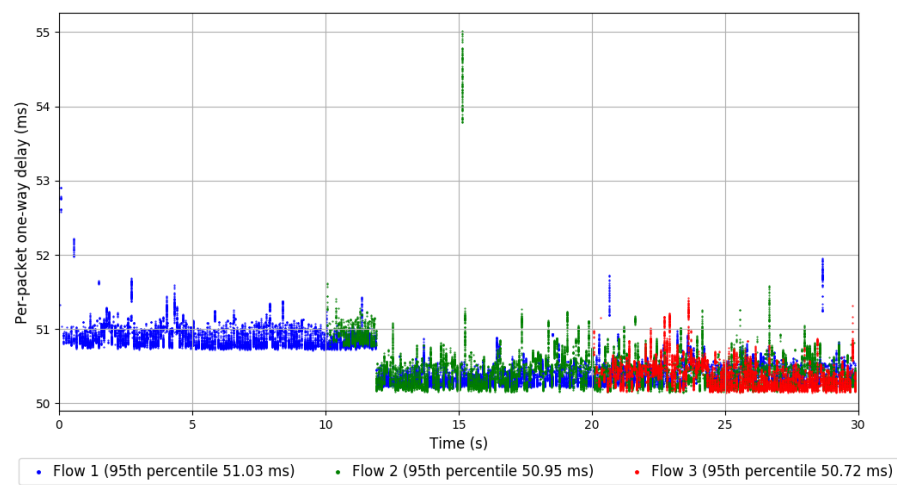
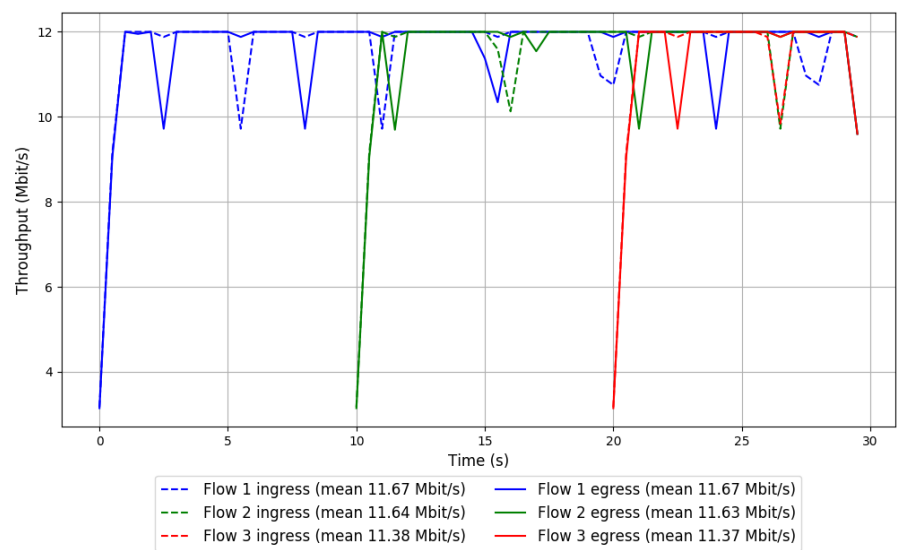
```
Run 1: Statistics of KohoCC

Start at: 2017-08-21 05:30:34
End at: 2017-08-21 05:31:04

# Below is generated by plot.py at 2017-08-21 10:22:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.13 Mbit/s
95th percentile per-packet one-way delay: 50.991 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 11.67 Mbit/s
95th percentile per-packet one-way delay: 51.035 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 11.63 Mbit/s
95th percentile per-packet one-way delay: 50.949 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 11.37 Mbit/s
95th percentile per-packet one-way delay: 50.719 ms
Loss rate: 1.06%
```



Run 1: Report of KohoCC — Data Link

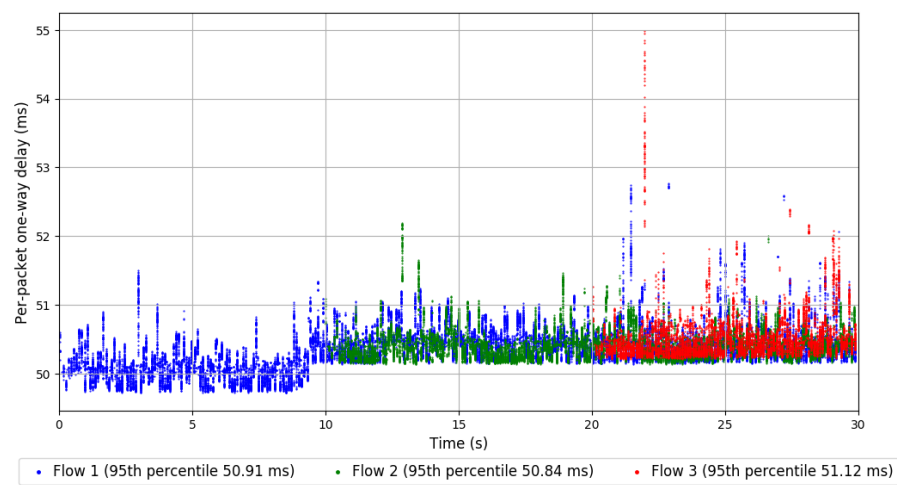
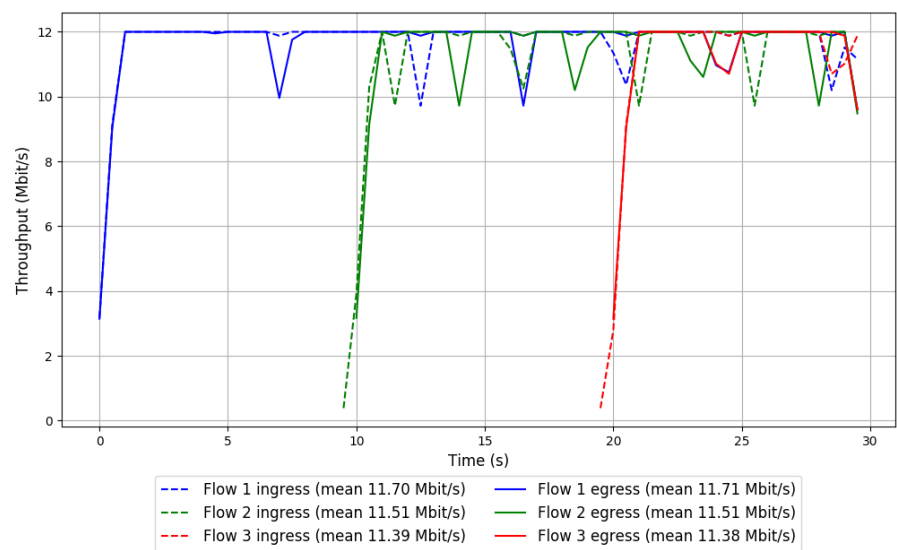


```
Run 2: Statistics of KohoCC

Start at: 2017-08-21 05:42:17
End at: 2017-08-21 05:42:47

# Below is generated by plot.py at 2017-08-21 10:22:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.11 Mbit/s
95th percentile per-packet one-way delay: 50.912 ms
Loss rate: 0.47%
-- Flow 1:
Average throughput: 11.71 Mbit/s
95th percentile per-packet one-way delay: 50.908 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 50.844 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 11.38 Mbit/s
95th percentile per-packet one-way delay: 51.122 ms
Loss rate: 1.06%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-21 05:53:55

End at: 2017-08-21 05:54:25

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.94 Mbit/s

95th percentile per-packet one-way delay: 51.028 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 11.59 Mbit/s

95th percentile per-packet one-way delay: 50.961 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 11.50 Mbit/s

95th percentile per-packet one-way delay: 51.113 ms

Loss rate: 0.55%

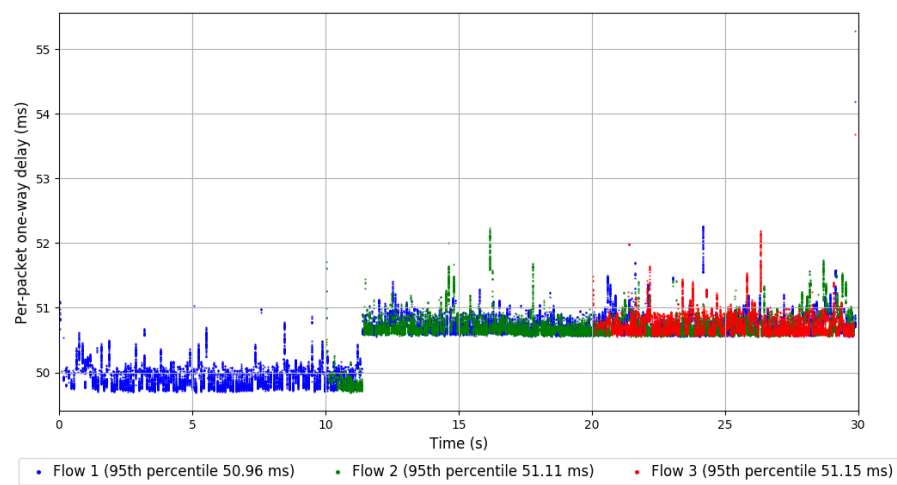
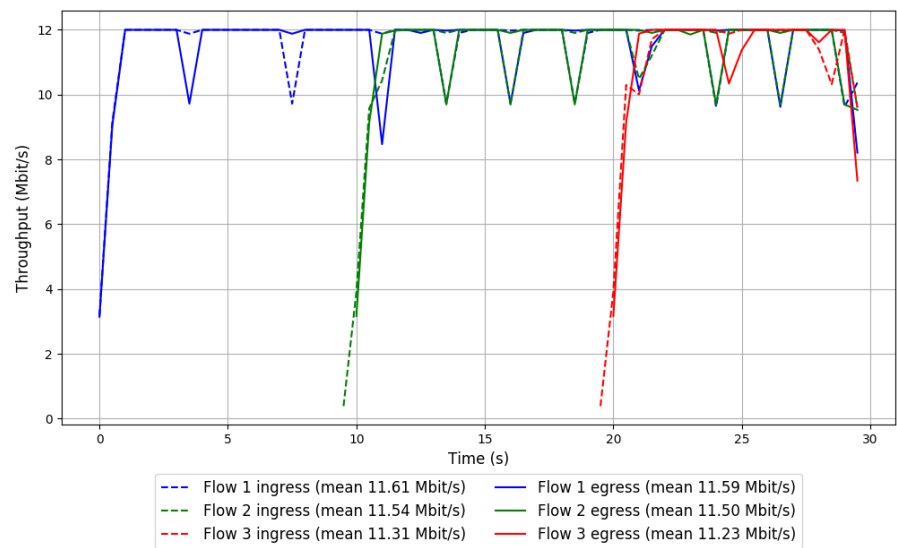
-- Flow 3:

Average throughput: 11.23 Mbit/s

95th percentile per-packet one-way delay: 51.148 ms

Loss rate: 1.18%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-21 06:05:44

End at: 2017-08-21 06:06:14

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.68 Mbit/s

95th percentile per-packet one-way delay: 51.230 ms

Loss rate: 27.62%

-- Flow 1:

Average throughput: 7.74 Mbit/s

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

Loss rate: 25.32%

-- Flow 2:

Average throughput: 5.87 Mbit/s

95th percentile per-packet one-way delay: 51.123 ms

Loss rate: 39.56%

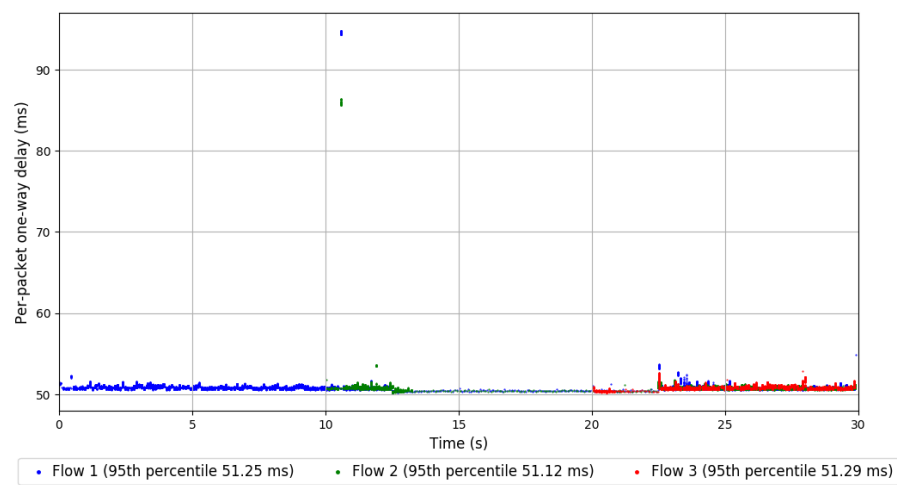
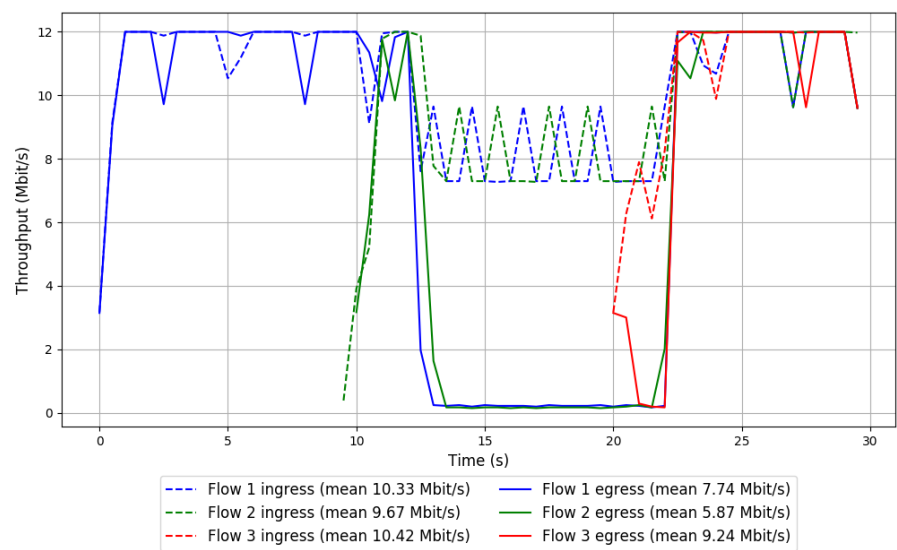
-- Flow 3:

Average throughput: 9.24 Mbit/s

95th percentile per-packet one-way delay: 51.293 ms

Loss rate: 12.22%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-21 06:17:34

End at: 2017-08-21 06:18:04

# Below is generated by plot.py at 2017-08-21 10:22:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.14 Mbit/s

95th percentile per-packet one-way delay: 50.208 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 11.68 Mbit/s

95th percentile per-packet one-way delay: 50.233 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 11.62 Mbit/s

95th percentile per-packet one-way delay: 50.208 ms

Loss rate: 0.54%

-- Flow 3:

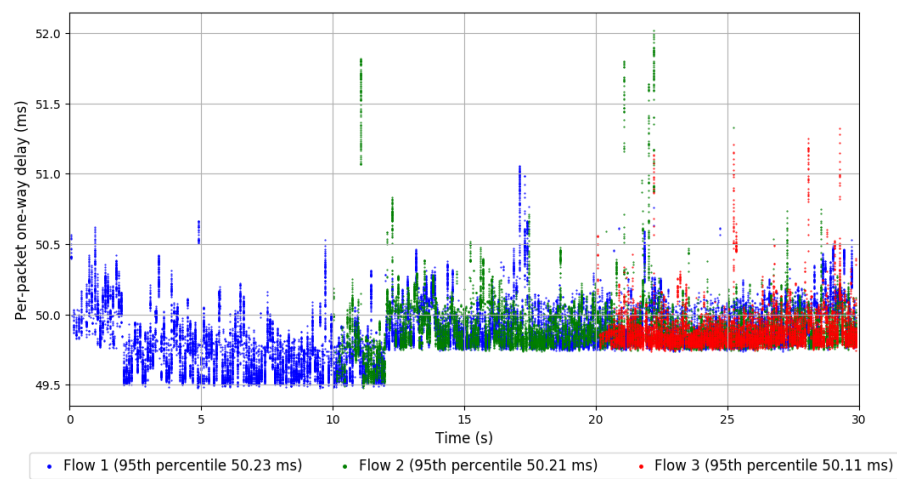
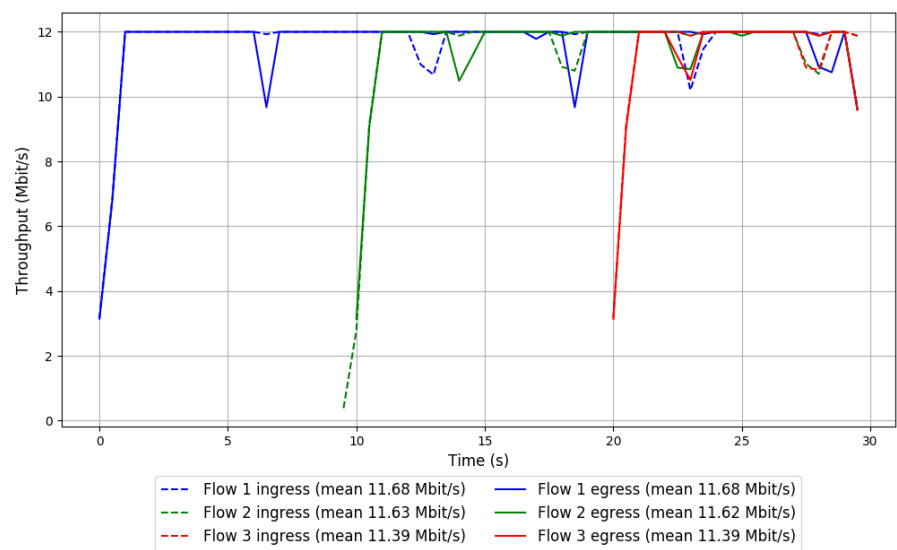
Average throughput: 11.39 Mbit/s

95th percentile per-packet one-way delay: 50.114 ms

Loss rate: 1.06%



Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-21 06:29:33

End at: 2017-08-21 06:30:03

# Below is generated by plot.py at 2017-08-21 10:22:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 17.20 Mbit/s

95th percentile per-packet one-way delay: 51.138 ms

Loss rate: 18.70%

-- Flow 1:

Average throughput: 5.82 Mbit/s

95th percentile per-packet one-way delay: 50.981 ms

Loss rate: 39.93%

-- Flow 2:

Average throughput: 11.55 Mbit/s

95th percentile per-packet one-way delay: 51.277 ms

Loss rate: 0.59%

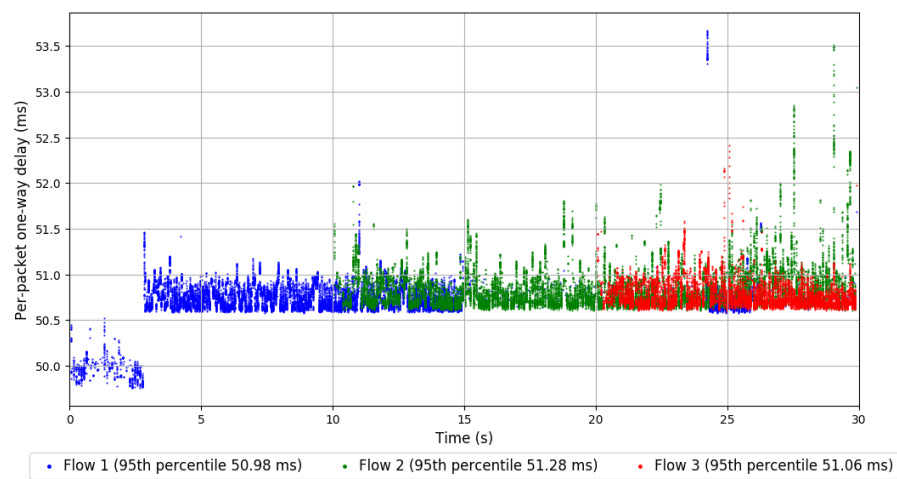
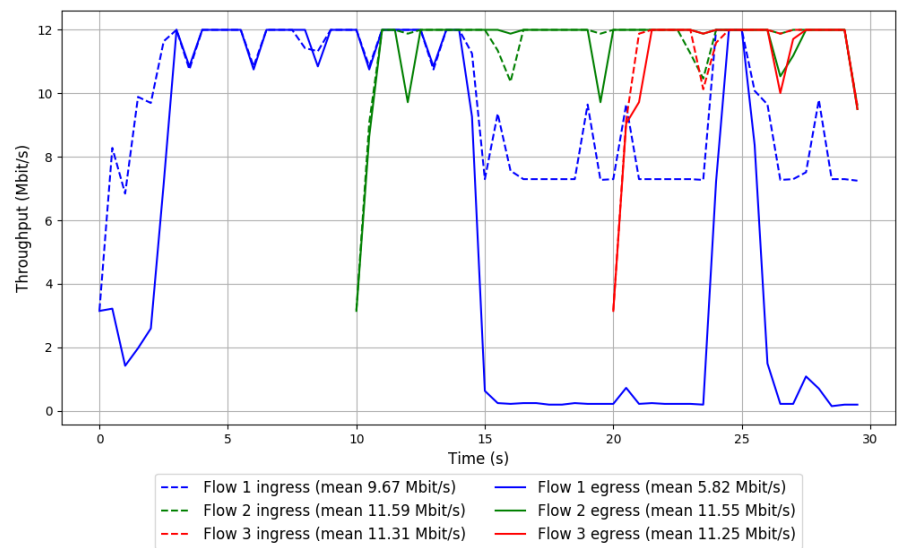
-- Flow 3:

Average throughput: 11.25 Mbit/s

95th percentile per-packet one-way delay: 51.063 ms

Loss rate: 1.06%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-21 06:41:58

End at: 2017-08-21 06:42:28

# Below is generated by plot.py at 2017-08-21 10:22:17

# Datalink statistics

-- Total of 3 flows:

Average throughput: 18.32 Mbit/s

95th percentile per-packet one-way delay: 51.140 ms

Loss rate: 14.87%

-- Flow 1:

Average throughput: 6.92 Mbit/s

95th percentile per-packet one-way delay: 50.425 ms

Loss rate: 31.05%

-- Flow 2:

Average throughput: 11.51 Mbit/s

95th percentile per-packet one-way delay: 51.251 ms

Loss rate: 0.60%

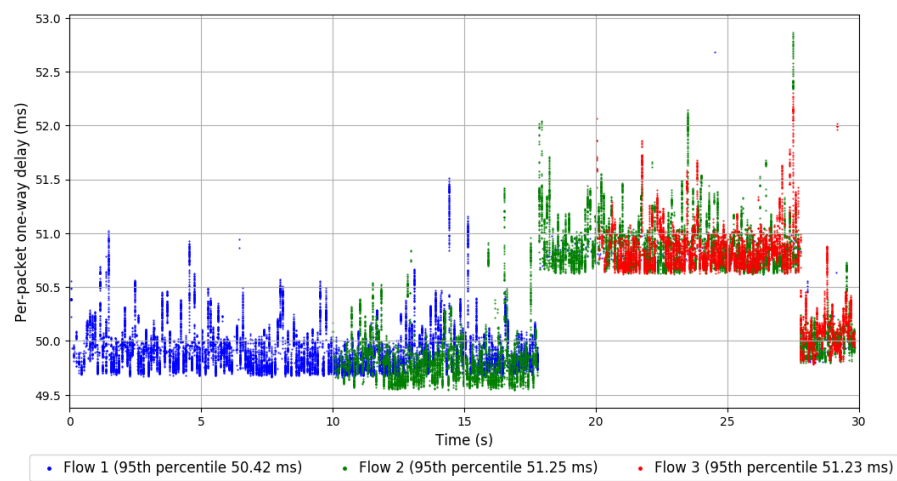
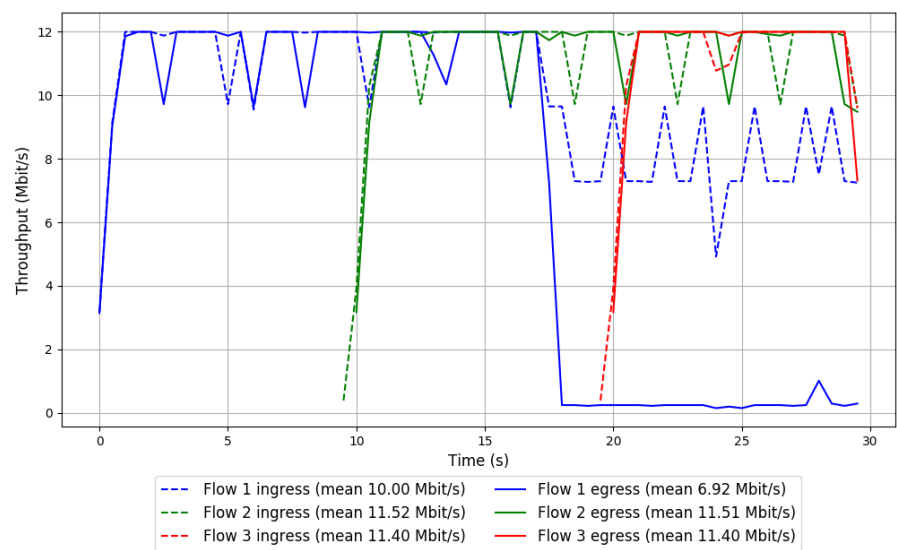
-- Flow 3:

Average throughput: 11.40 Mbit/s

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

Loss rate: 1.06%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-21 06:53:58

End at: 2017-08-21 06:54:28

# Below is generated by plot.py at 2017-08-21 10:22:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 16.08 Mbit/s

95th percentile per-packet one-way delay: 51.356 ms

Loss rate: 22.33%

-- Flow 1:

Average throughput: 4.98 Mbit/s

95th percentile per-packet one-way delay: 51.367 ms

Loss rate: 46.31%

-- Flow 2:

Average throughput: 11.34 Mbit/s

95th percentile per-packet one-way delay: 51.312 ms

Loss rate: 2.06%

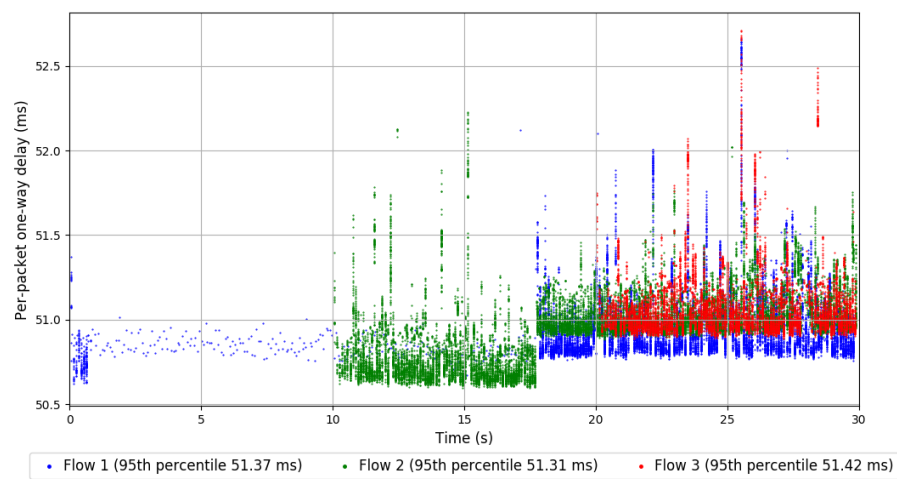
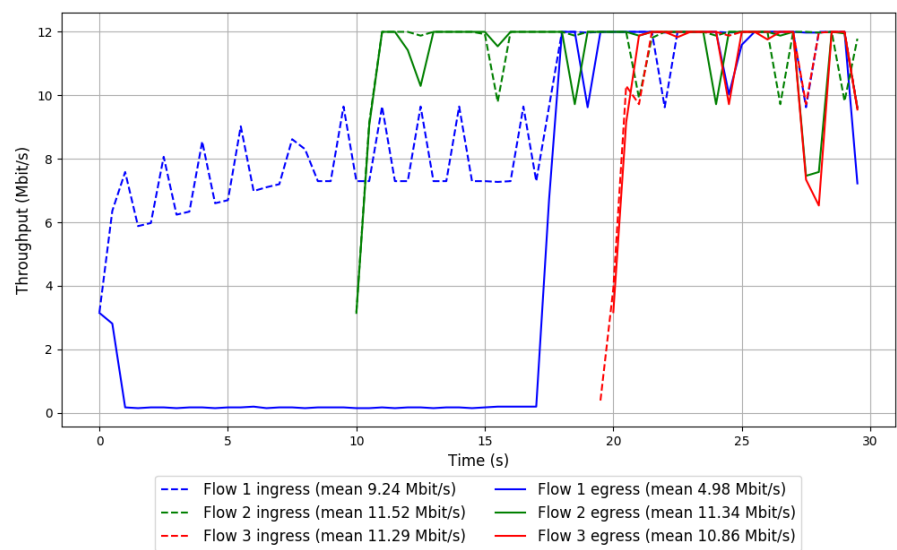
-- Flow 3:

Average throughput: 10.86 Mbit/s

95th percentile per-packet one-way delay: 51.420 ms

Loss rate: 4.73%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-21 07:05:40

End at: 2017-08-21 07:06:10

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 22.85 Mbit/s

95th percentile per-packet one-way delay: 51.268 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 11.63 Mbit/s

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

Loss rate: 0.74%

-- Flow 2:

Average throughput: 11.45 Mbit/s

95th percentile per-packet one-way delay: 51.054 ms

Loss rate: 0.59%

-- Flow 3:

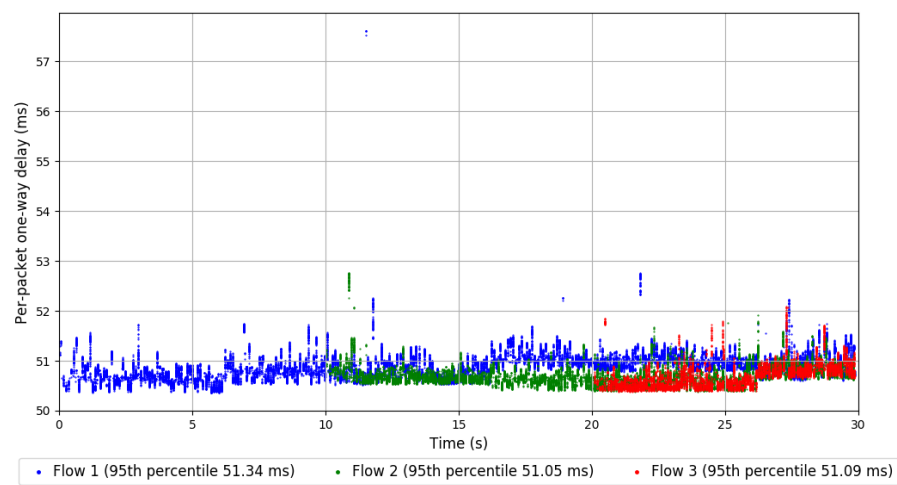
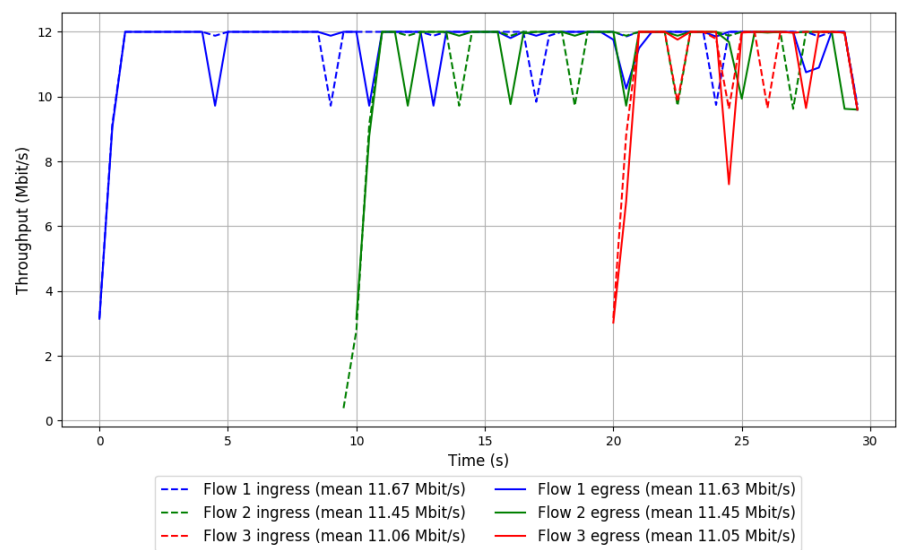
Average throughput: 11.05 Mbit/s

95th percentile per-packet one-way delay: 51.087 ms

Loss rate: 1.11%



Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-21 07:17:24

End at: 2017-08-21 07:17:54

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

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 51.321 ms

Loss rate: 35.19%

-- Flow 1:

Average throughput: 11.78 Mbit/s

95th percentile per-packet one-way delay: 51.331 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 51.282 ms

Loss rate: 85.64%

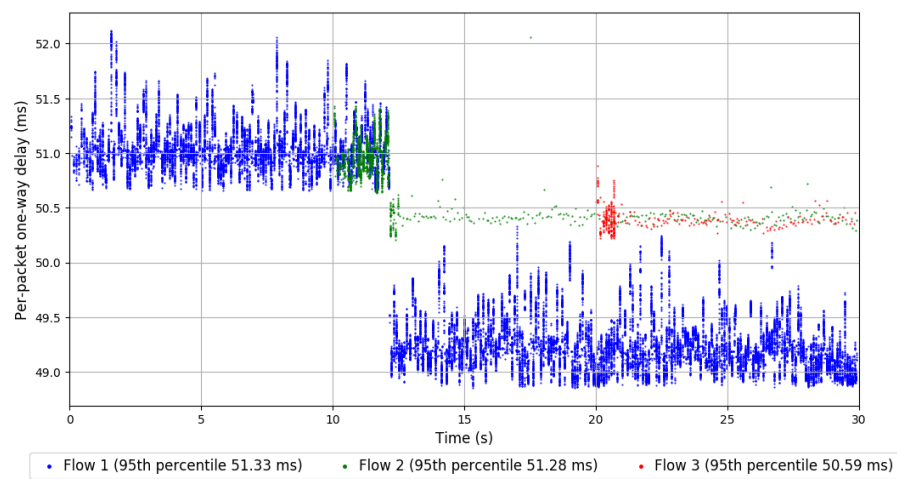
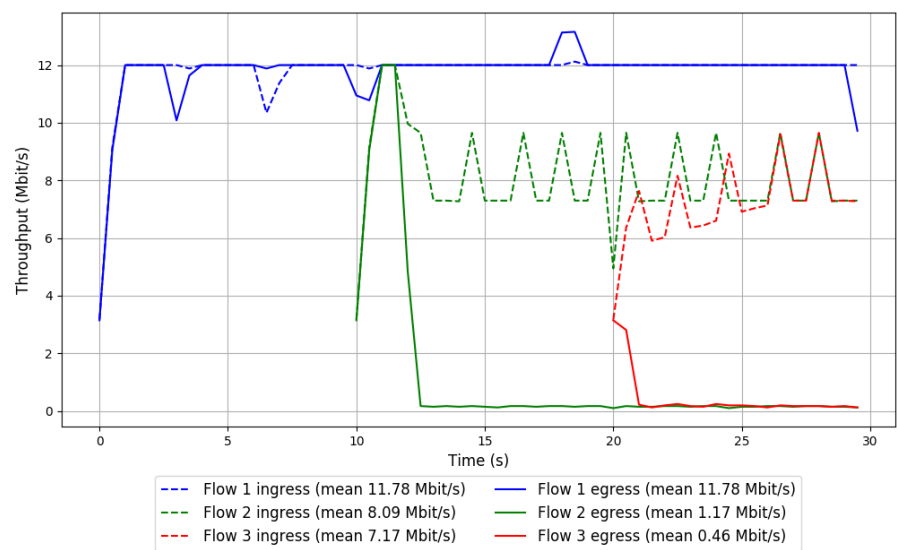
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 50.594 ms

Loss rate: 93.63%

Run 10: Report of KohoCC — Data Link

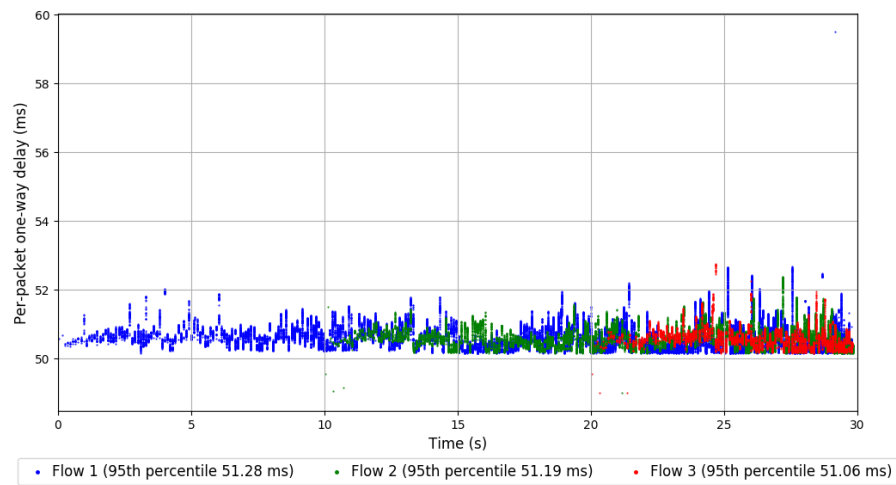
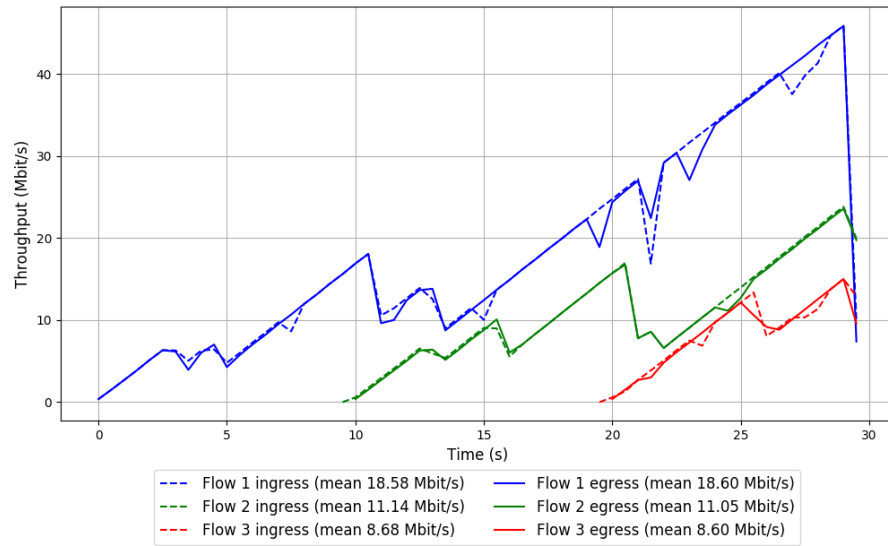


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-21 05:24:13
End at: 2017-08-21 05:24:43

# Below is generated by plot.py at 2017-08-21 10:22:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.74 Mbit/s
95th percentile per-packet one-way delay: 51.239 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 18.60 Mbit/s
95th percentile per-packet one-way delay: 51.279 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 11.05 Mbit/s
95th percentile per-packet one-way delay: 51.189 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 8.60 Mbit/s
95th percentile per-packet one-way delay: 51.061 ms
Loss rate: 1.93%
```

## Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-08-21 05:36:03

End at: 2017-08-21 05:36:33

# Below is generated by plot.py at 2017-08-21 10:22:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.66 Mbit/s

95th percentile per-packet one-way delay: 51.353 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 14.85 Mbit/s

95th percentile per-packet one-way delay: 51.184 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 51.318 ms

Loss rate: 0.49%

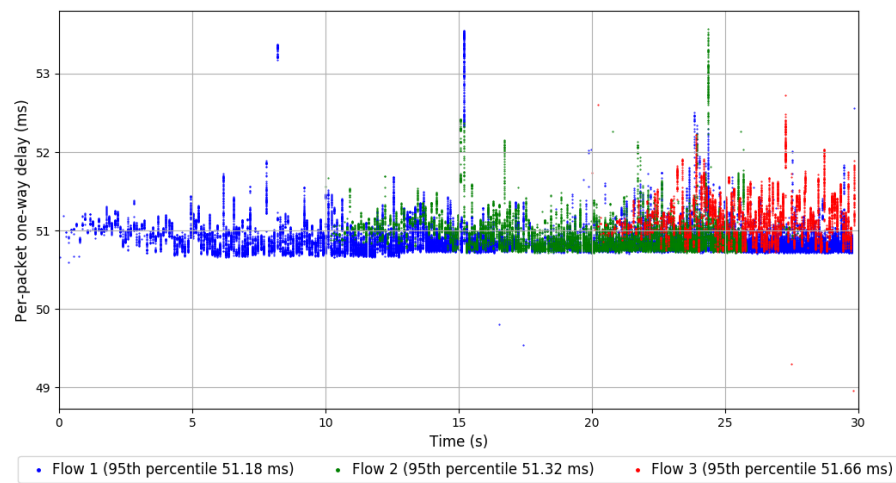
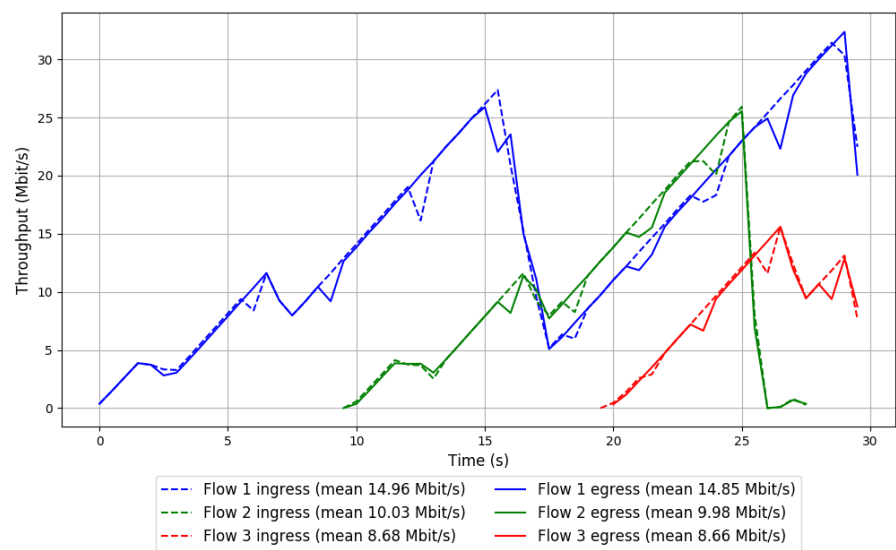
-- Flow 3:

Average throughput: 8.66 Mbit/s

95th percentile per-packet one-way delay: 51.658 ms

Loss rate: 1.25%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-21 05:47:27

End at: 2017-08-21 05:47:57

# Below is generated by plot.py at 2017-08-21 10:22:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 27.74 Mbit/s

95th percentile per-packet one-way delay: 50.433 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 14.31 Mbit/s

95th percentile per-packet one-way delay: 50.523 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 17.80 Mbit/s

95th percentile per-packet one-way delay: 50.268 ms

Loss rate: 0.73%

-- Flow 3:

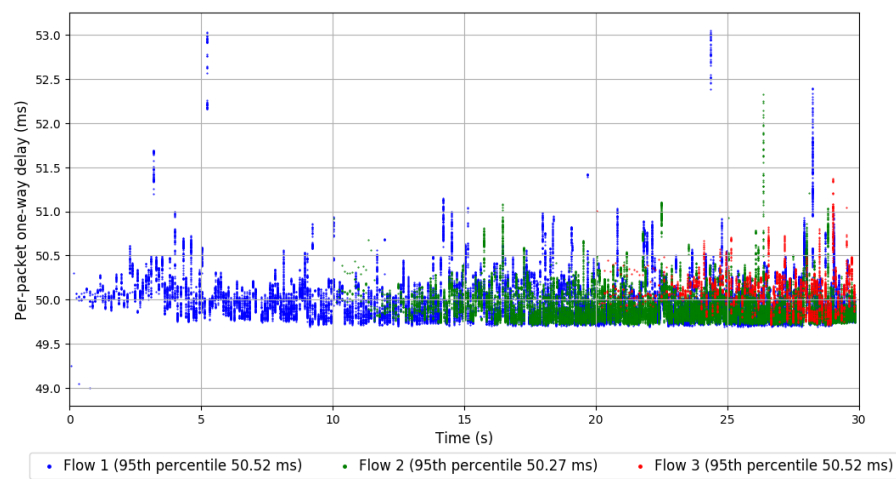
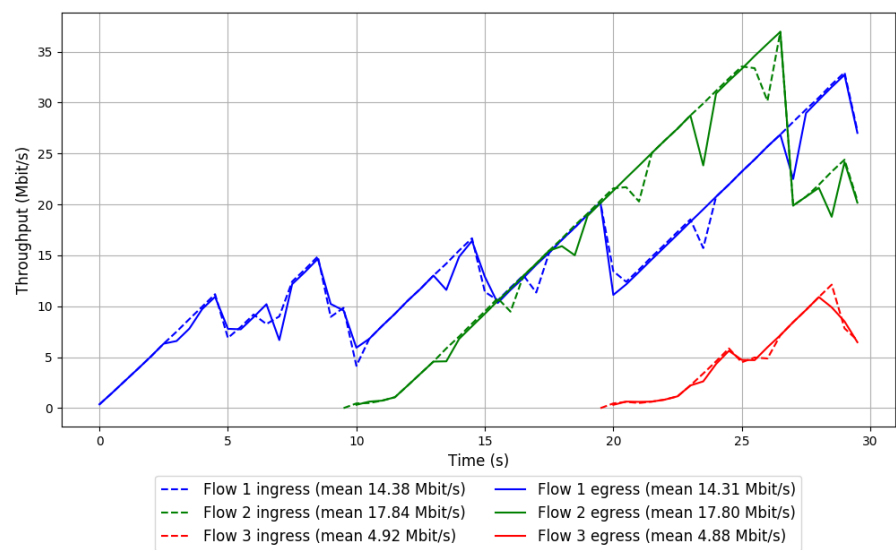
Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 50.523 ms

Loss rate: 1.97%



Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-21 05:59:18

End at: 2017-08-21 05:59:48

# Below is generated by plot.py at 2017-08-21 10:22:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 19.48 Mbit/s

95th percentile per-packet one-way delay: 51.036 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 10.85 Mbit/s

95th percentile per-packet one-way delay: 51.165 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 12.31 Mbit/s

95th percentile per-packet one-way delay: 50.759 ms

Loss rate: 1.18%

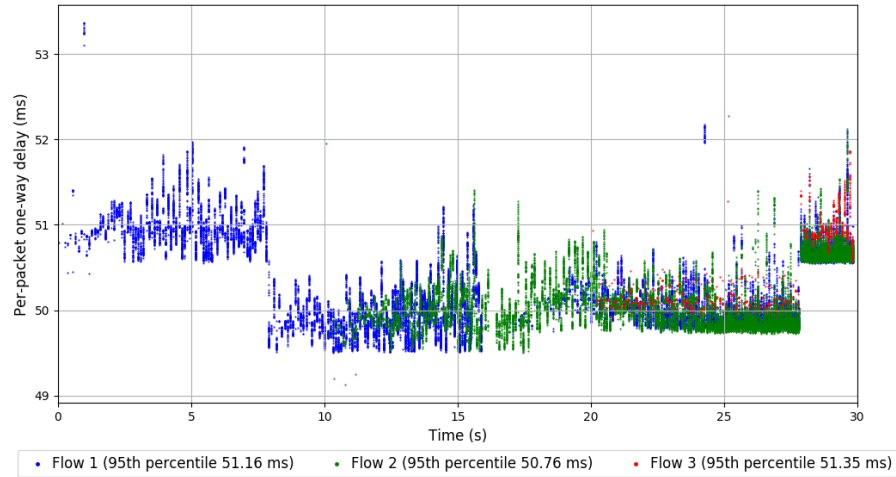
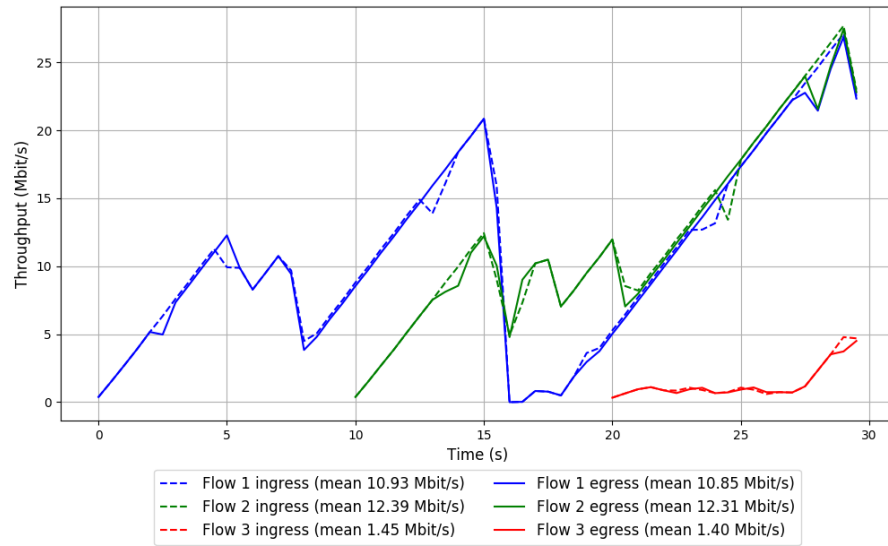
-- Flow 3:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 51.346 ms

Loss rate: 4.34%

# Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-21 06:10:57

End at: 2017-08-21 06:11:27

# Below is generated by plot.py at 2017-08-21 10:22:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.04 Mbit/s

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

Loss rate: 1.25%

-- Flow 1:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 51.325 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 7.04 Mbit/s

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

Loss rate: 1.01%

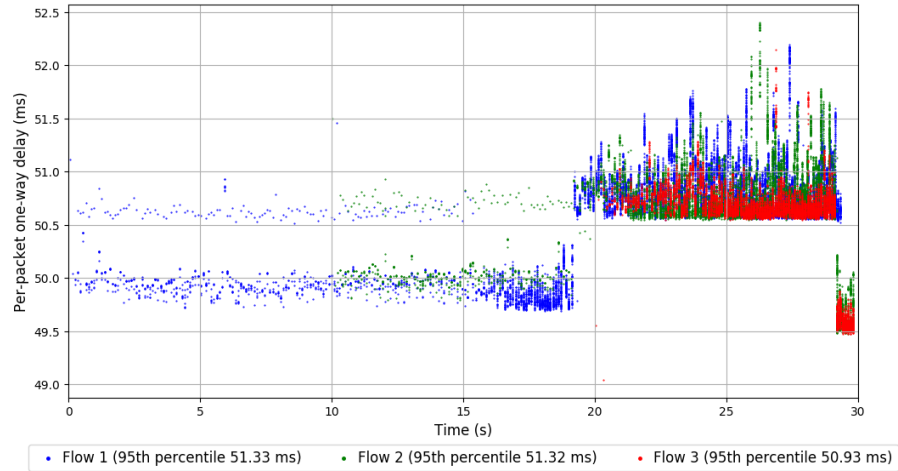
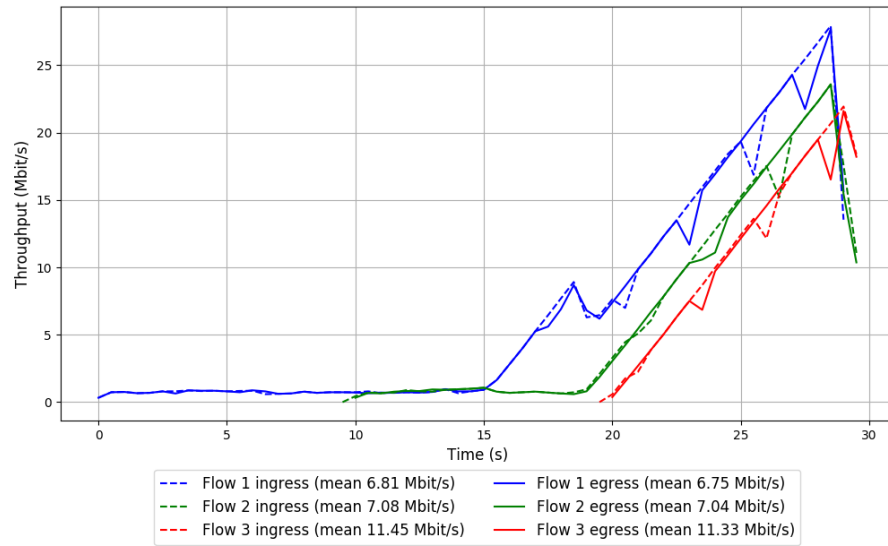
-- Flow 3:

Average throughput: 11.33 Mbit/s

95th percentile per-packet one-way delay: 50.931 ms

Loss rate: 2.06%

## Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-21 06:23:03

End at: 2017-08-21 06:23:33

# Below is generated by plot.py at 2017-08-21 10:22:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.27 Mbit/s

95th percentile per-packet one-way delay: 50.868 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 18.23 Mbit/s

95th percentile per-packet one-way delay: 50.873 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 50.891 ms

Loss rate: 1.25%

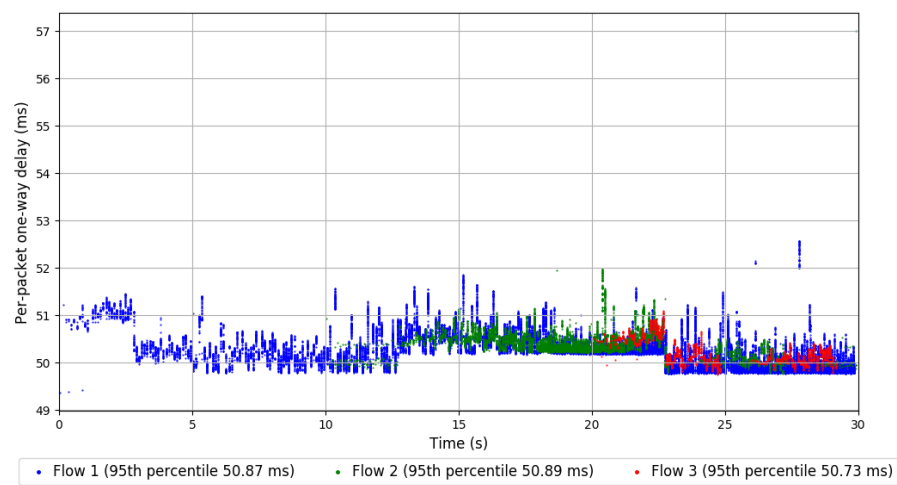
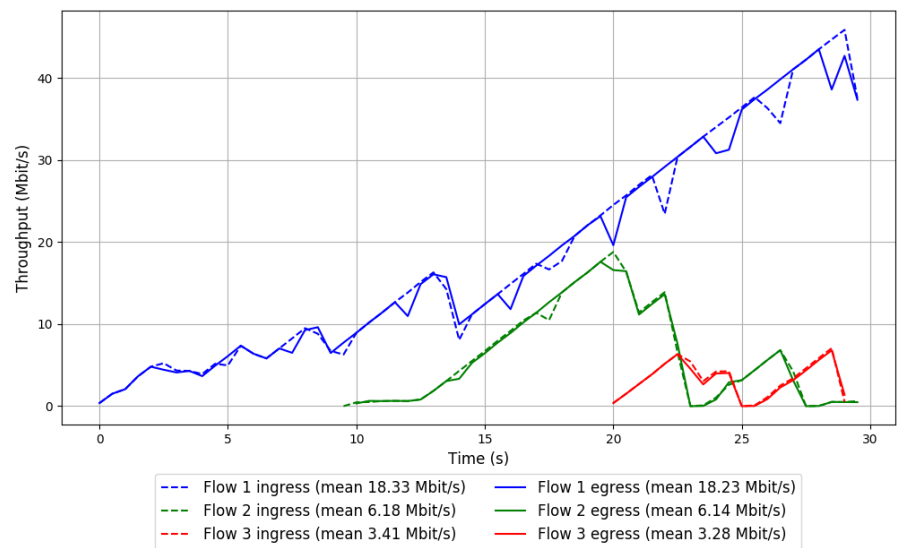
-- Flow 3:

Average throughput: 3.28 Mbit/s

95th percentile per-packet one-way delay: 50.725 ms

Loss rate: 3.89%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-21 06:35:32

End at: 2017-08-21 06:36:02

# Below is generated by plot.py at 2017-08-21 10:22:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 23.79 Mbit/s

95th percentile per-packet one-way delay: 50.926 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 16.86 Mbit/s

95th percentile per-packet one-way delay: 50.985 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 50.665 ms

Loss rate: 2.25%

-- Flow 3:

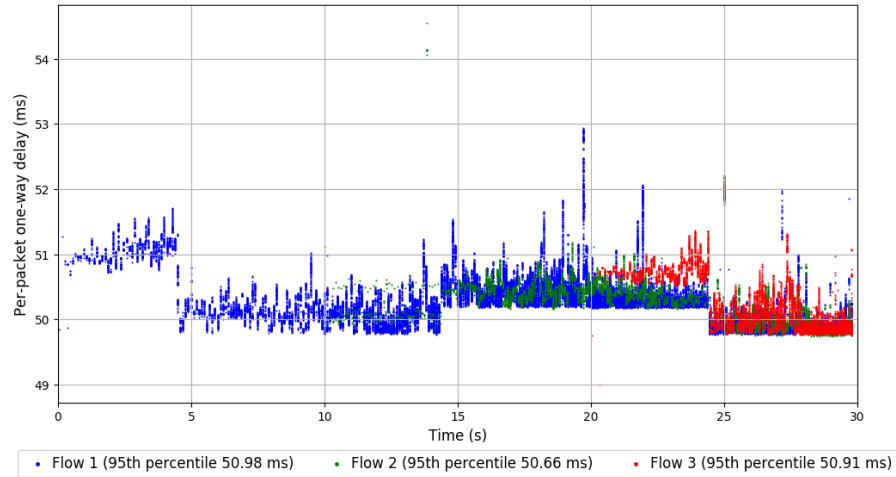
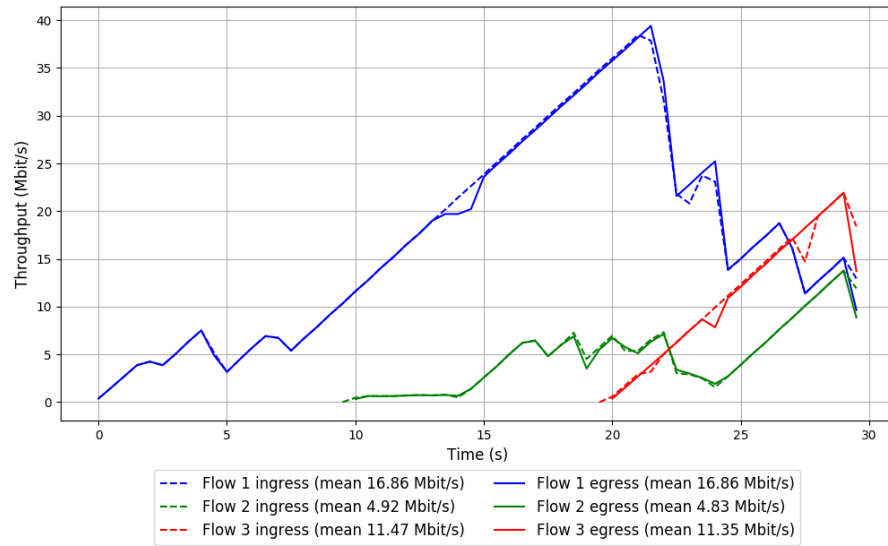
Average throughput: 11.35 Mbit/s

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

Loss rate: 2.06%



# Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-21 06:47:23

End at: 2017-08-21 06:47:53

# Below is generated by plot.py at 2017-08-21 10:22:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.32 Mbit/s

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

Loss rate: 1.42%

-- Flow 1:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 51.418 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 8.83 Mbit/s

95th percentile per-packet one-way delay: 51.229 ms

Loss rate: 0.70%

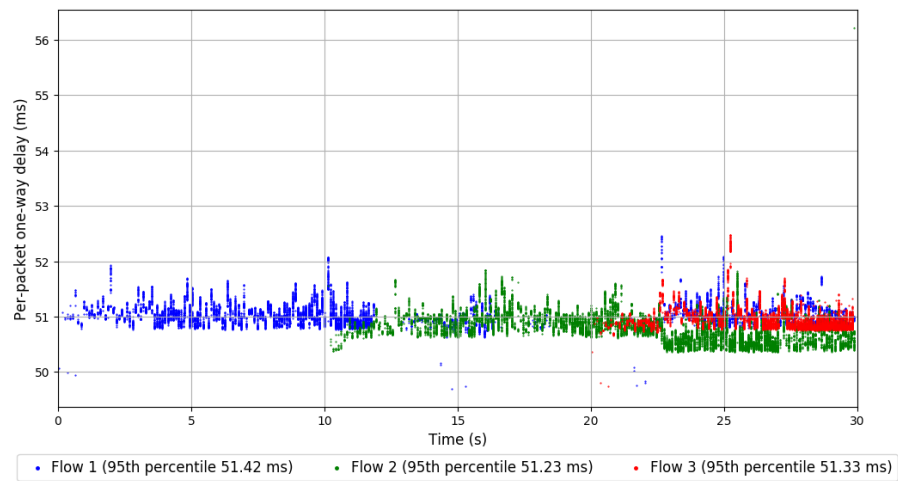
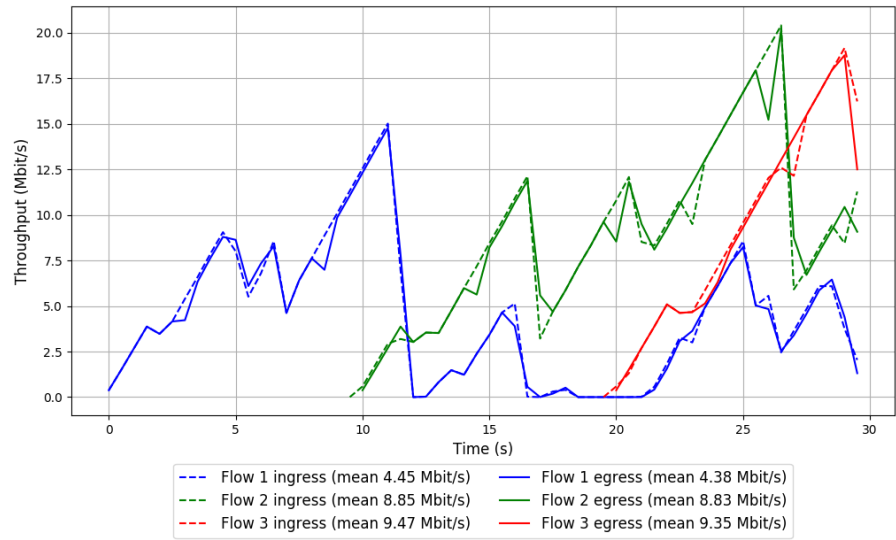
-- Flow 3:

Average throughput: 9.35 Mbit/s

95th percentile per-packet one-way delay: 51.325 ms

Loss rate: 2.21%

## Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-21 06:59:06

End at: 2017-08-21 06:59:36

# Below is generated by plot.py at 2017-08-21 10:22:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 28.83 Mbit/s

95th percentile per-packet one-way delay: 51.297 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 14.32 Mbit/s

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

Loss rate: 1.01%

-- Flow 2:

Average throughput: 21.41 Mbit/s

95th percentile per-packet one-way delay: 51.237 ms

Loss rate: 0.60%

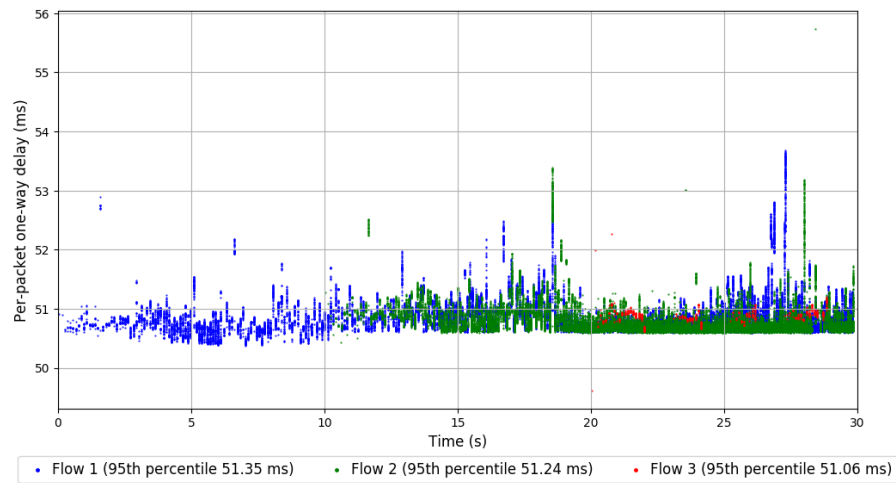
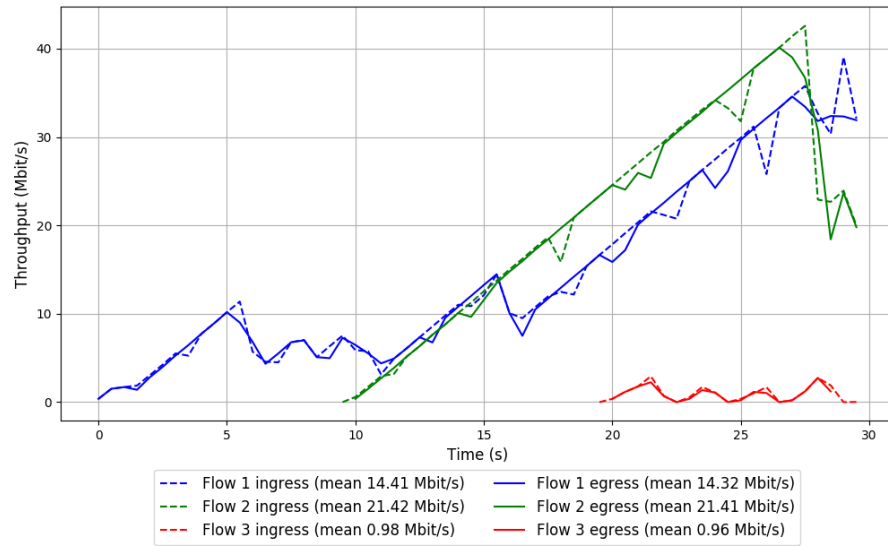
-- Flow 3:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 51.064 ms

Loss rate: 13.38%

## Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-21 07:11:02

End at: 2017-08-21 07:11:32

# Below is generated by plot.py at 2017-08-21 10:22:48

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.49 Mbit/s

95th percentile per-packet one-way delay: 51.179 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 11.35 Mbit/s

95th percentile per-packet one-way delay: 51.021 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 3.91 Mbit/s

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

Loss rate: 2.69%

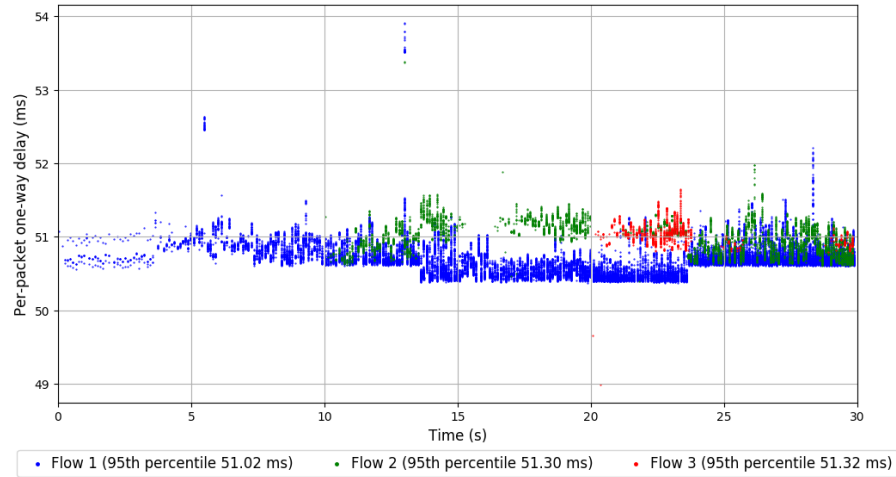
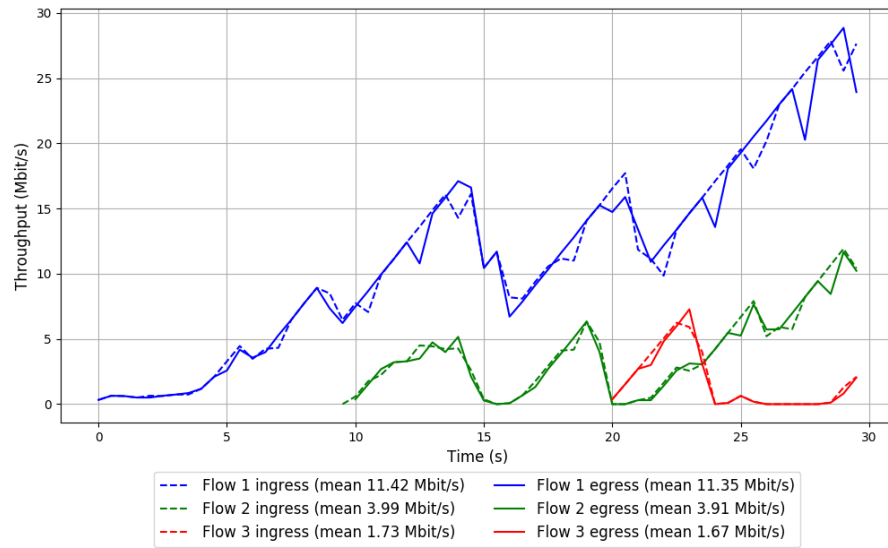
-- Flow 3:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 51.319 ms

Loss rate: 4.20%

# Run 10: Report of LEDBAT — Data Link



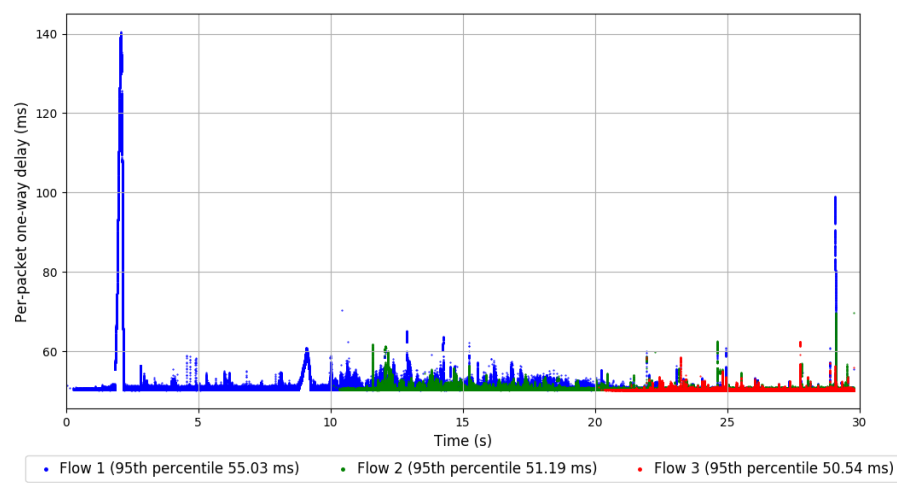
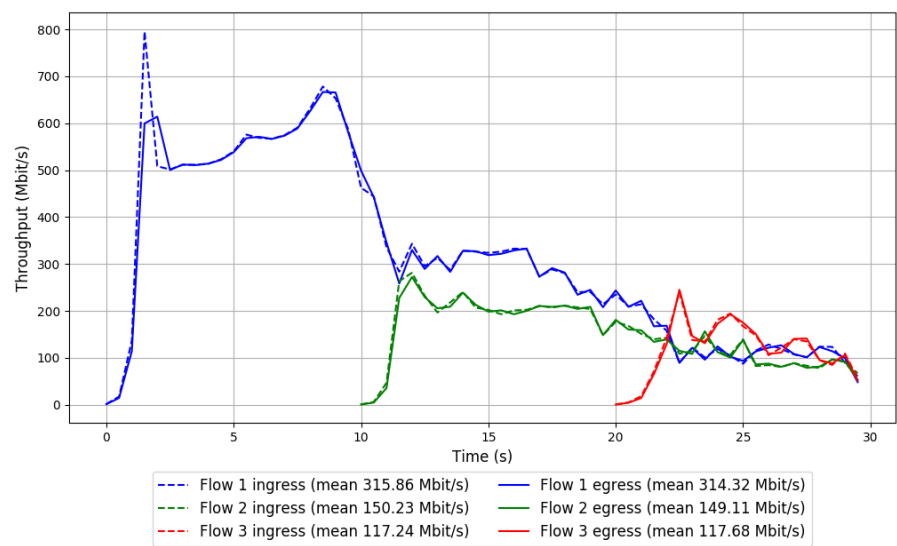
```
Run 1: Statistics of PCC

Start at: 2017-08-21 05:29:33
End at: 2017-08-21 05:30:03

# Below is generated by plot.py at 2017-08-21 10:24:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.01 Mbit/s
95th percentile per-packet one-way delay: 53.459 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 314.32 Mbit/s
95th percentile per-packet one-way delay: 55.031 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 149.11 Mbit/s
95th percentile per-packet one-way delay: 51.186 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 117.68 Mbit/s
95th percentile per-packet one-way delay: 50.544 ms
Loss rate: 0.77%
```



Run 1: Report of PCC — Data Link

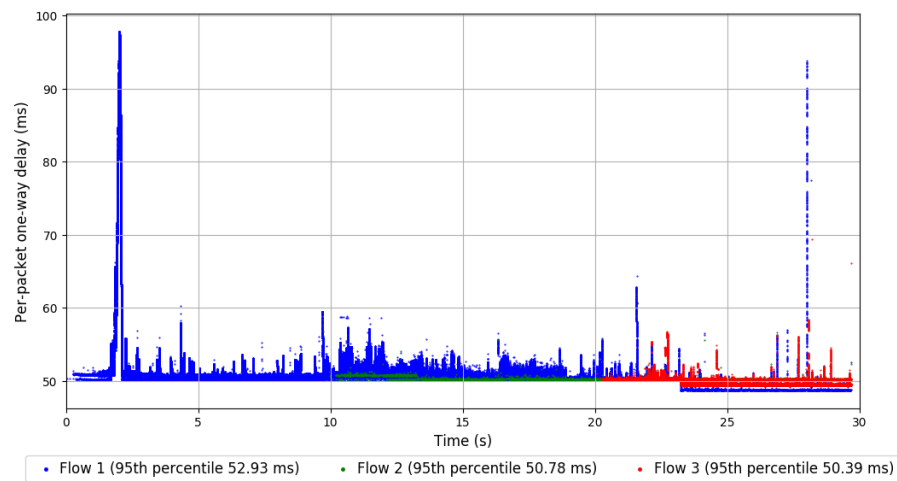
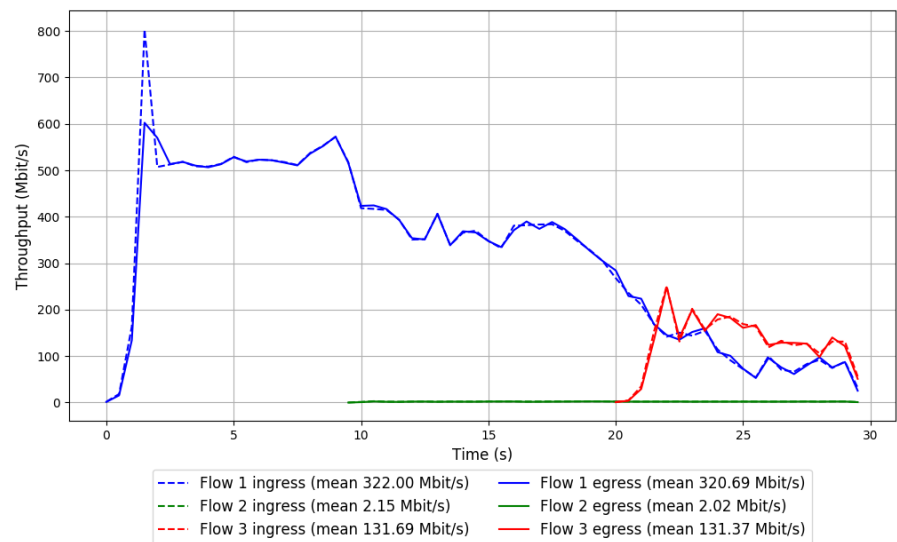


```
Run 2: Statistics of PCC

Start at: 2017-08-21 05:41:23
End at: 2017-08-21 05:41:53

# Below is generated by plot.py at 2017-08-21 10:24:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 364.55 Mbit/s
95th percentile per-packet one-way delay: 52.677 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 320.69 Mbit/s
95th percentile per-packet one-way delay: 52.932 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 50.785 ms
Loss rate: 6.69%
-- Flow 3:
Average throughput: 131.37 Mbit/s
95th percentile per-packet one-way delay: 50.388 ms
Loss rate: 1.13%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-21 05:53:00

End at: 2017-08-21 05:53:30

# Below is generated by plot.py at 2017-08-21 10:24:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 382.08 Mbit/s

95th percentile per-packet one-way delay: 51.981 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 316.55 Mbit/s

95th percentile per-packet one-way delay: 52.528 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 50.638 ms

Loss rate: 2.41%

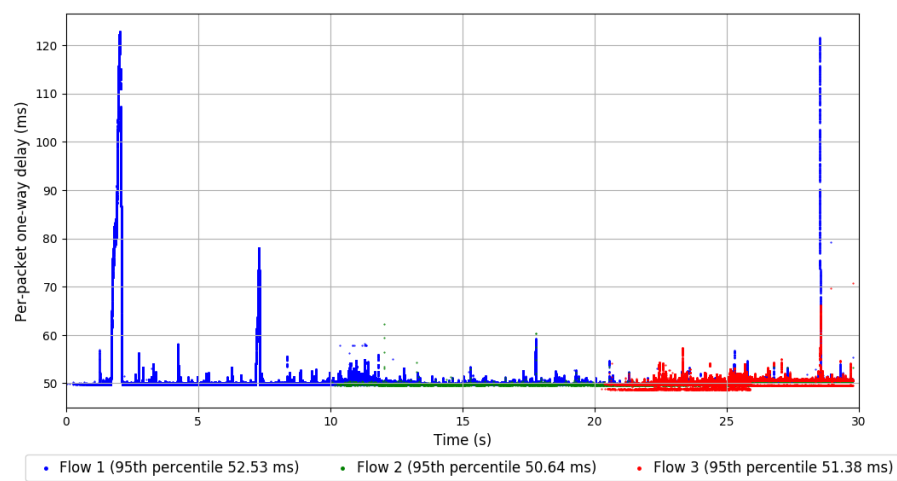
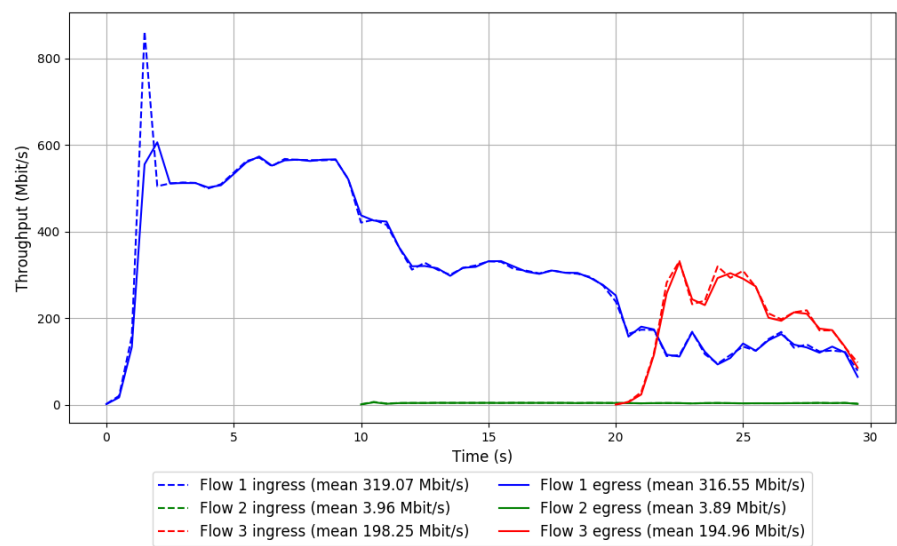
-- Flow 3:

Average throughput: 194.96 Mbit/s

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

Loss rate: 2.51%

Run 3: Report of PCC — Data Link

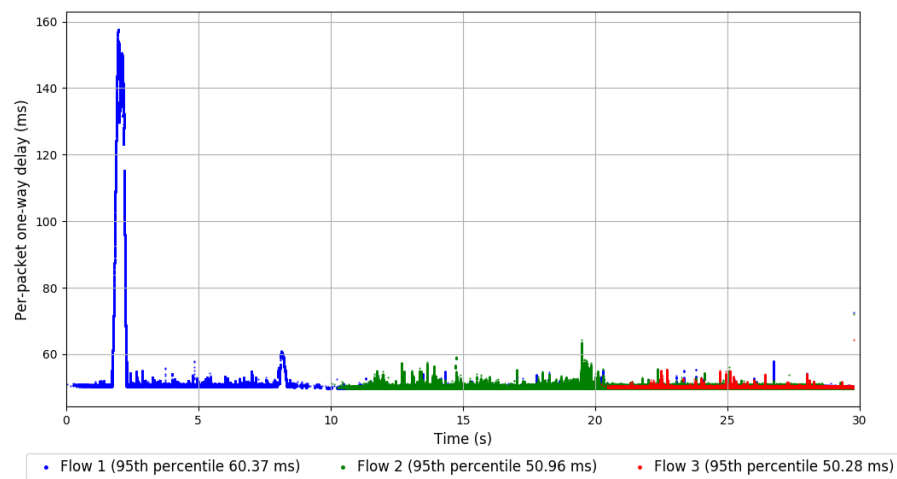
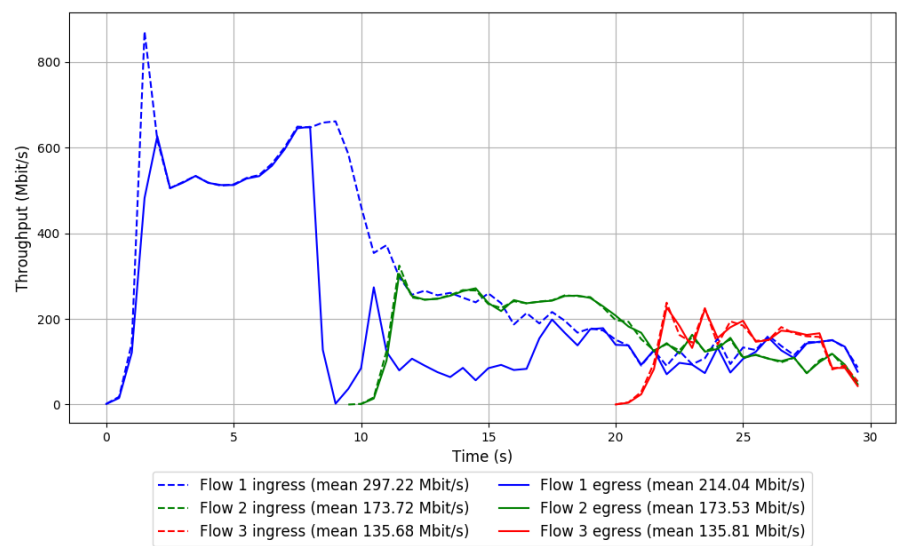


```
Run 4: Statistics of PCC

Start at: 2017-08-21 06:04:47
End at: 2017-08-21 06:05:17

# Below is generated by plot.py at 2017-08-21 10:25:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 372.84 Mbit/s
95th percentile per-packet one-way delay: 53.758 ms
Loss rate: 18.55%
-- Flow 1:
Average throughput: 214.04 Mbit/s
95th percentile per-packet one-way delay: 60.371 ms
Loss rate: 28.17%
-- Flow 2:
Average throughput: 173.53 Mbit/s
95th percentile per-packet one-way delay: 50.961 ms
Loss rate: 0.50%
-- Flow 3:
Average throughput: 135.81 Mbit/s
95th percentile per-packet one-way delay: 50.280 ms
Loss rate: 0.80%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-21 06:16:35

End at: 2017-08-21 06:17:05

# Below is generated by plot.py at 2017-08-21 10:26:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 495.35 Mbit/s

95th percentile per-packet one-way delay: 56.642 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 309.00 Mbit/s

95th percentile per-packet one-way delay: 65.233 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 192.16 Mbit/s

95th percentile per-packet one-way delay: 54.568 ms

Loss rate: 2.63%

-- Flow 3:

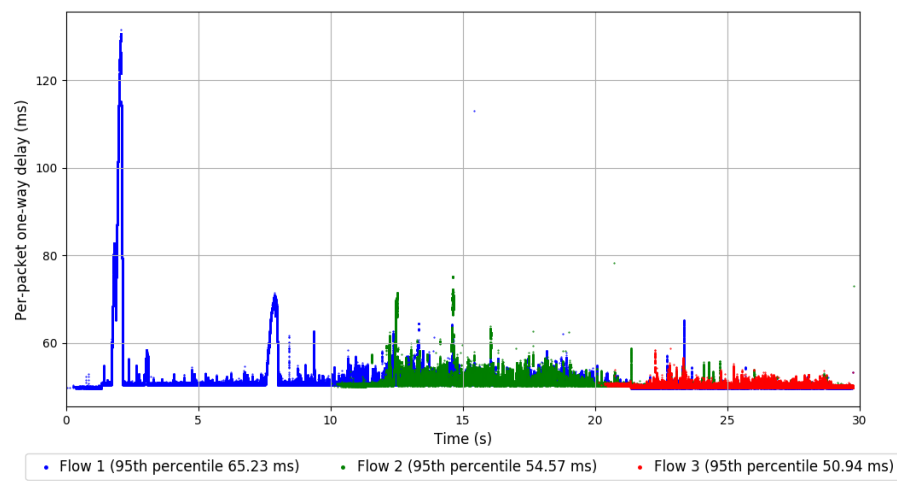
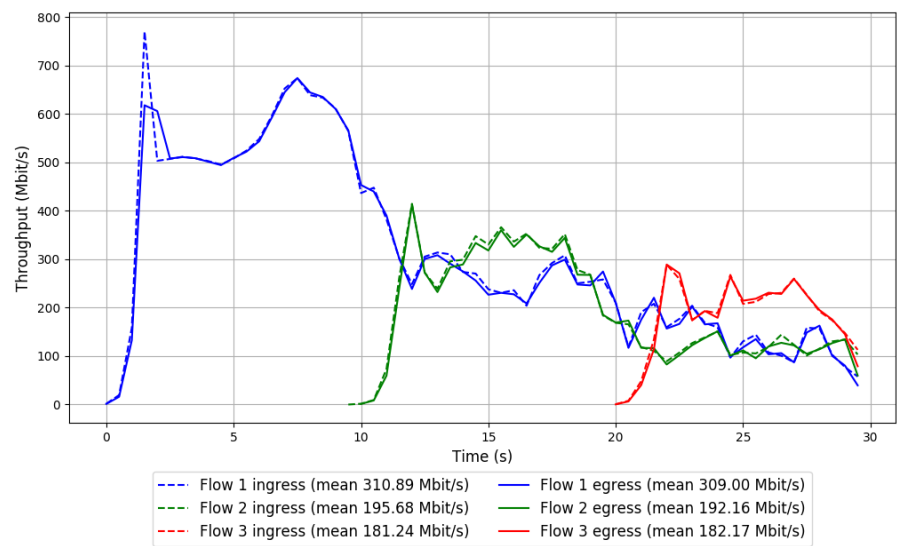
Average throughput: 182.17 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 1.47%



Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-21 06:28:39

End at: 2017-08-21 06:29:09

# Below is generated by plot.py at 2017-08-21 10:26:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 326.53 Mbit/s

95th percentile per-packet one-way delay: 51.143 ms

Loss rate: 12.25%

-- Flow 1:

Average throughput: 185.64 Mbit/s

95th percentile per-packet one-way delay: 50.683 ms

Loss rate: 19.55%

-- Flow 2:

Average throughput: 211.73 Mbit/s

95th percentile per-packet one-way delay: 51.634 ms

Loss rate: 0.30%

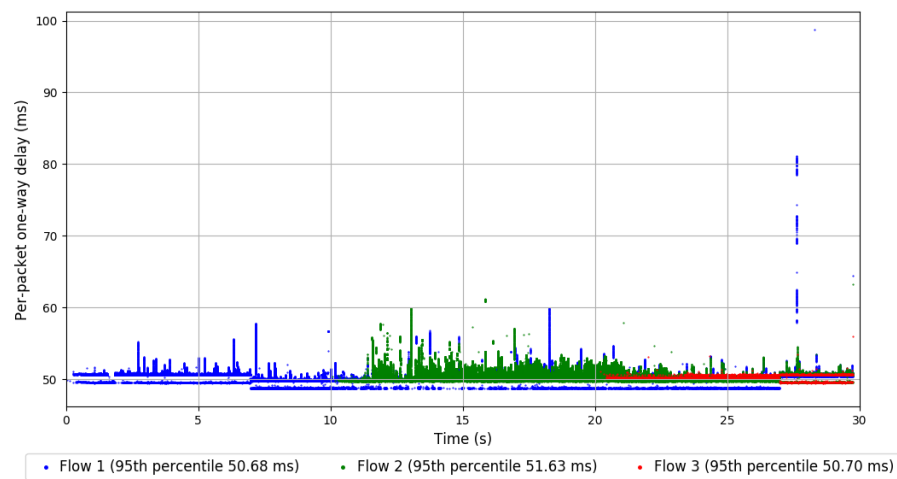
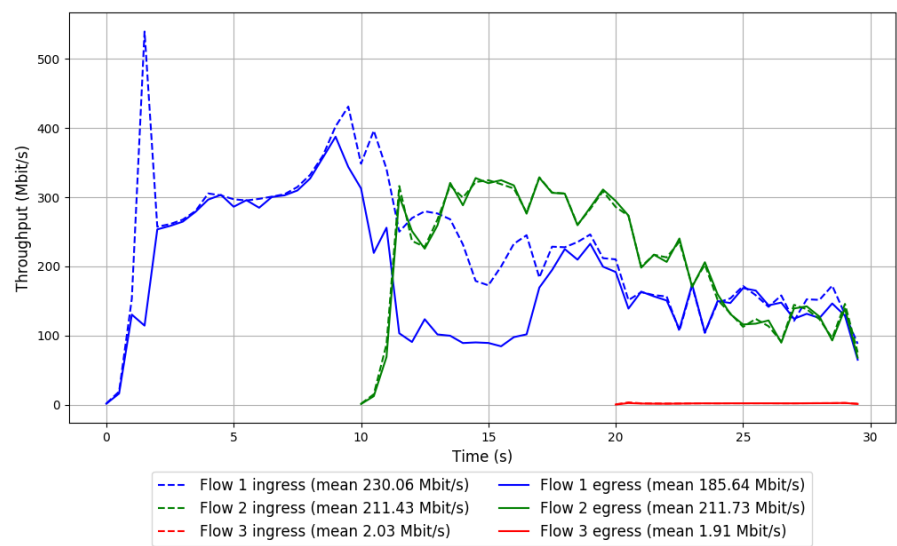
-- Flow 3:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 50.702 ms

Loss rate: 6.87%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-21 06:41:00

End at: 2017-08-21 06:41:30

# Below is generated by plot.py at 2017-08-21 10:27:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 384.54 Mbit/s

95th percentile per-packet one-way delay: 52.391 ms

Loss rate: 13.97%

-- Flow 1:

Average throughput: 202.45 Mbit/s

95th percentile per-packet one-way delay: 58.218 ms

Loss rate: 23.16%

-- Flow 2:

Average throughput: 178.00 Mbit/s

95th percentile per-packet one-way delay: 51.955 ms

Loss rate: 0.42%

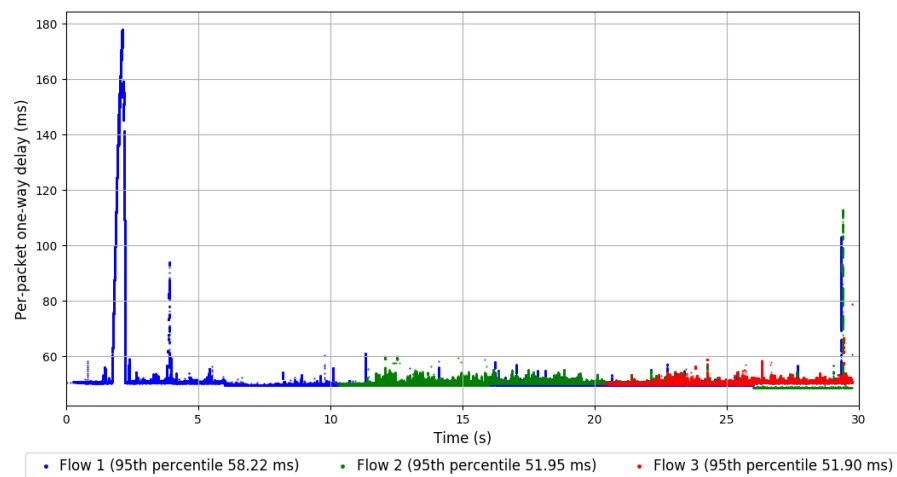
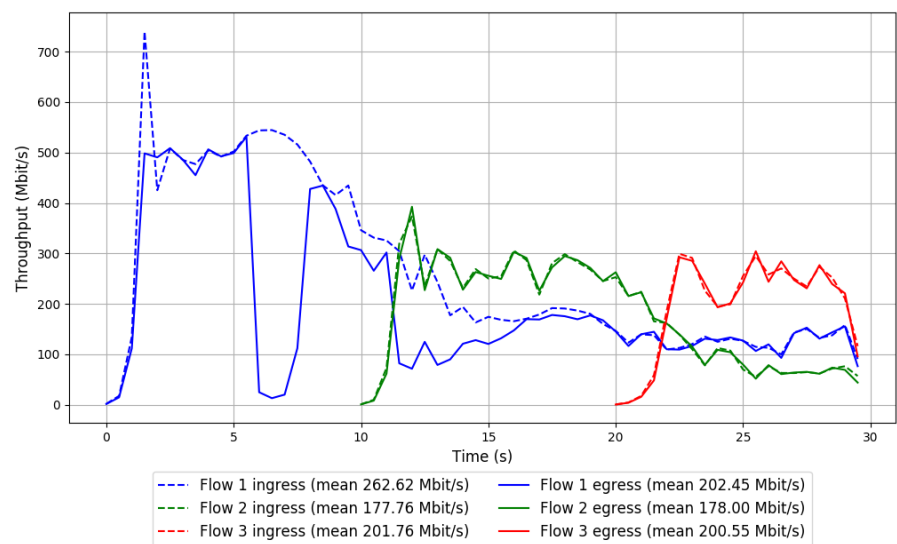
-- Flow 3:

Average throughput: 200.55 Mbit/s

95th percentile per-packet one-way delay: 51.896 ms

Loss rate: 1.44%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-21 06:52:59

End at: 2017-08-21 06:53:29

# Below is generated by plot.py at 2017-08-21 10:27:46

# Datalink statistics

-- Total of 3 flows:

Average throughput: 467.56 Mbit/s

95th percentile per-packet one-way delay: 54.320 ms

Loss rate: 10.94%

-- Flow 1:

Average throughput: 298.59 Mbit/s

95th percentile per-packet one-way delay: 54.788 ms

Loss rate: 9.43%

-- Flow 2:

Average throughput: 183.17 Mbit/s

95th percentile per-packet one-way delay: 54.344 ms

Loss rate: 0.51%

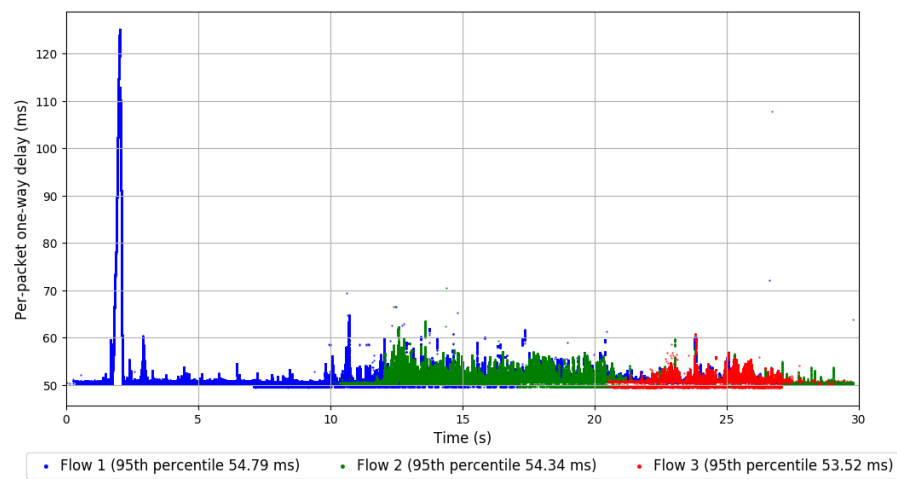
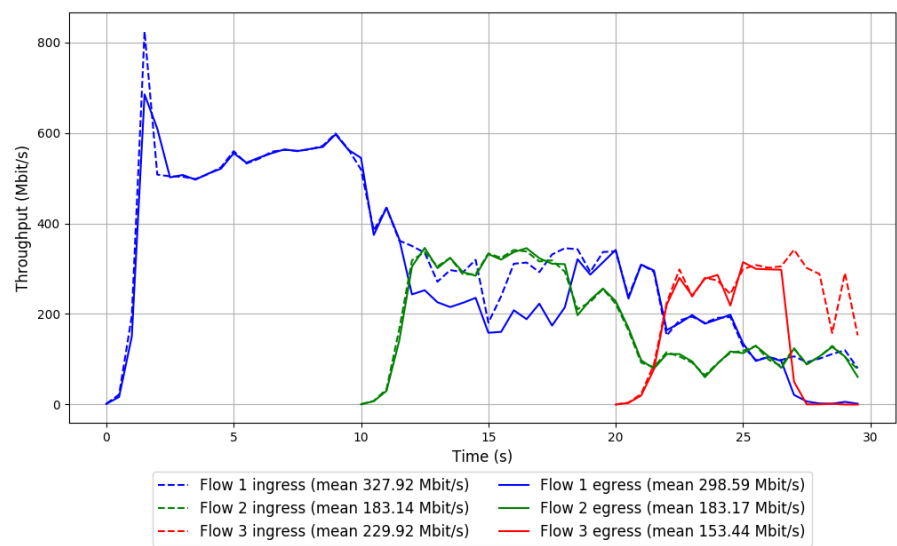
-- Flow 3:

Average throughput: 153.44 Mbit/s

95th percentile per-packet one-way delay: 53.525 ms

Loss rate: 34.71%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-21 07:04:42

End at: 2017-08-21 07:05:12

# Below is generated by plot.py at 2017-08-21 10:28:38

# Datalink statistics

-- Total of 3 flows:

Average throughput: 462.46 Mbit/s

95th percentile per-packet one-way delay: 52.373 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 329.95 Mbit/s

95th percentile per-packet one-way delay: 52.646 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 149.03 Mbit/s

95th percentile per-packet one-way delay: 51.080 ms

Loss rate: 2.04%

-- Flow 3:

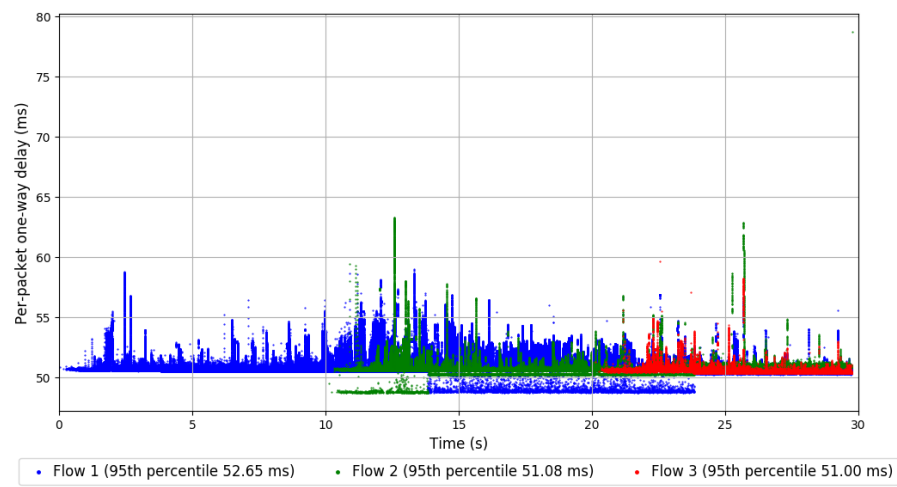
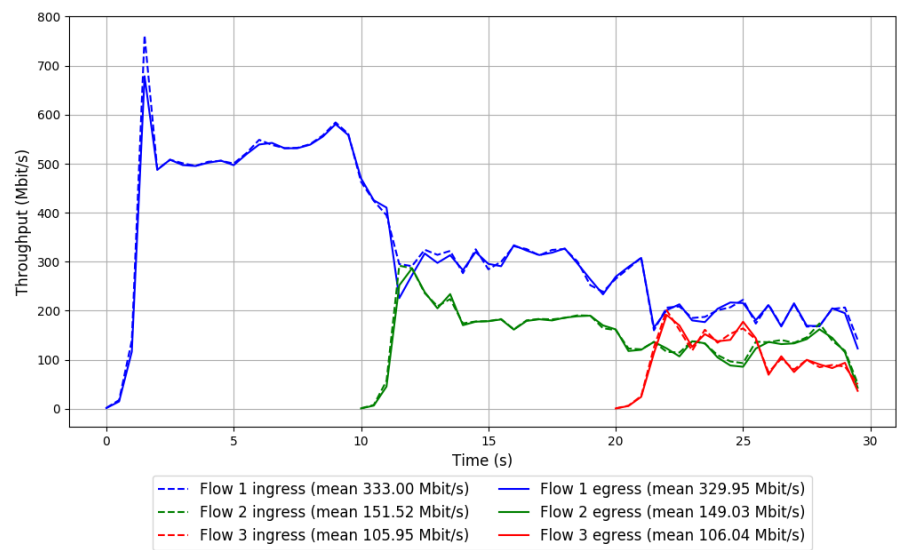
Average throughput: 106.04 Mbit/s

95th percentile per-packet one-way delay: 51.001 ms

Loss rate: 1.02%



Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-21 07:16:27

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

# Below is generated by plot.py at 2017-08-21 10:28:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 399.66 Mbit/s

95th percentile per-packet one-way delay: 62.669 ms

Loss rate: 6.74%

-- Flow 1:

Average throughput: 303.29 Mbit/s

95th percentile per-packet one-way delay: 78.115 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 144.85 Mbit/s

95th percentile per-packet one-way delay: 51.964 ms

Loss rate: 21.05%

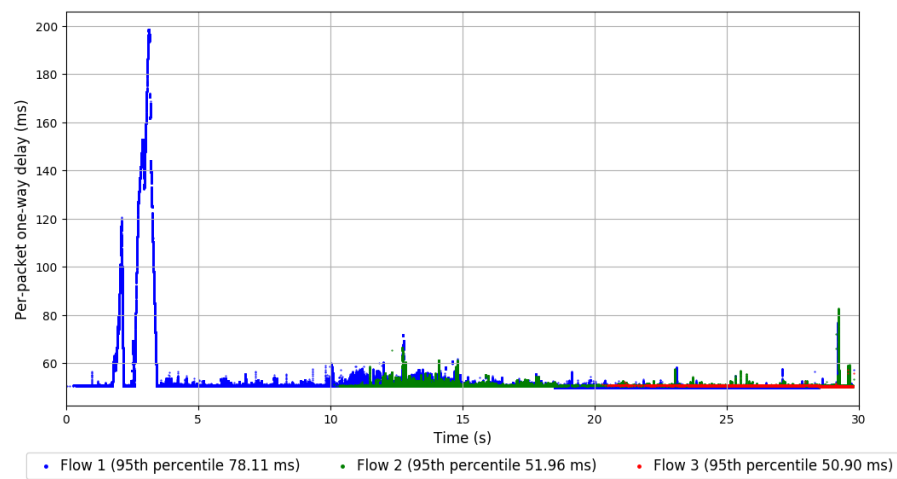
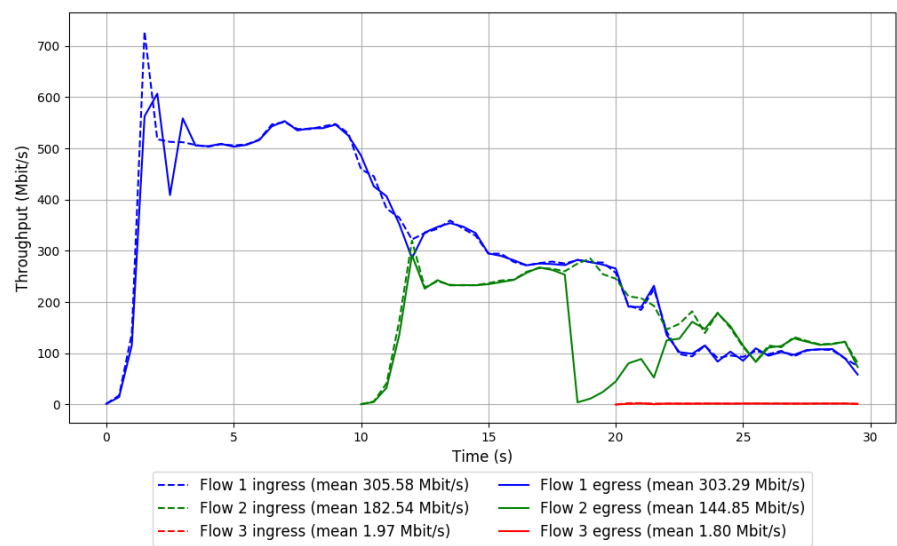
-- Flow 3:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 50.903 ms

Loss rate: 9.36%

Run 10: Report of PCC — Data Link

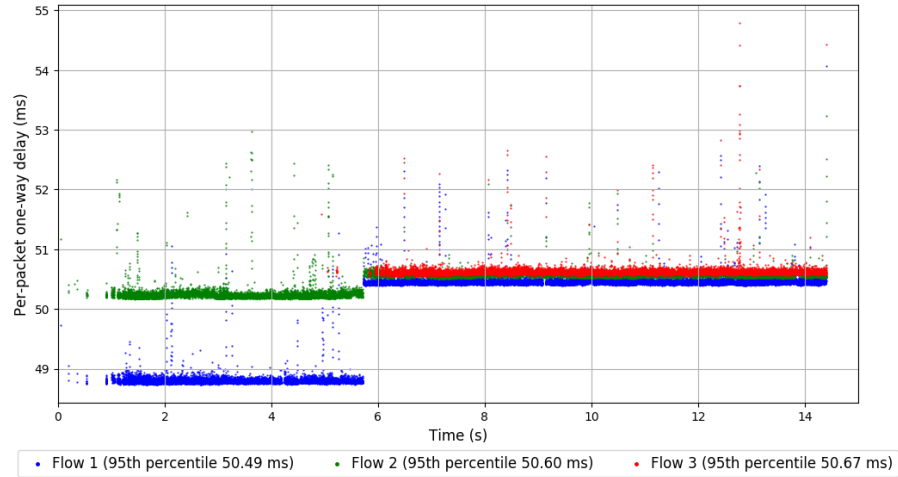
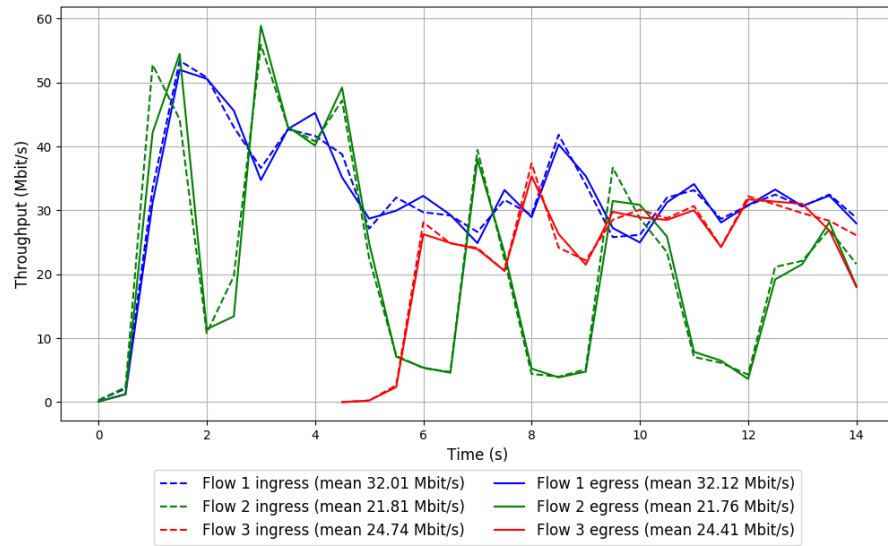


Run 1: Statistics of QUIC Cubic

Start at: 2017-08-21 05:33:15

End at: 2017-08-21 05:33:45

## Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-21 05:44:40

End at: 2017-08-21 05:45:10

# Below is generated by plot.py at 2017-08-21 10:28:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 37.42 Mbit/s

95th percentile per-packet one-way delay: 50.279 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 48.979 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.26 Mbit/s

95th percentile per-packet one-way delay: 50.294 ms

Loss rate: 0.60%

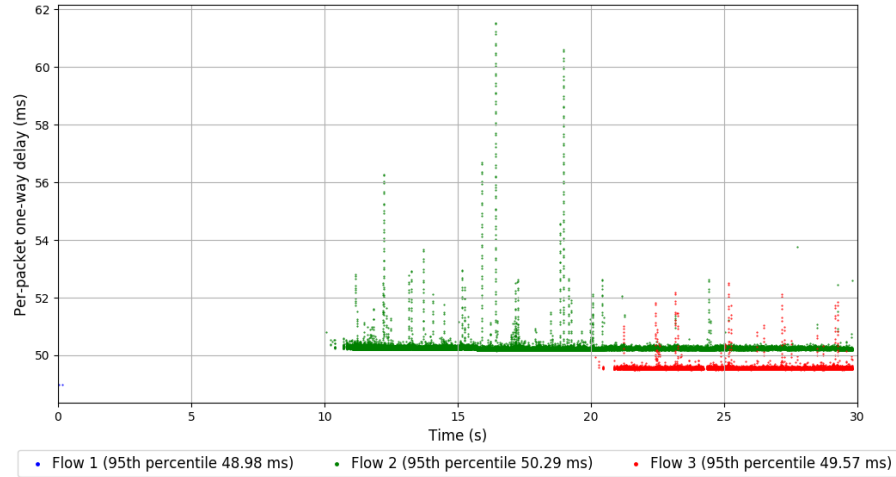
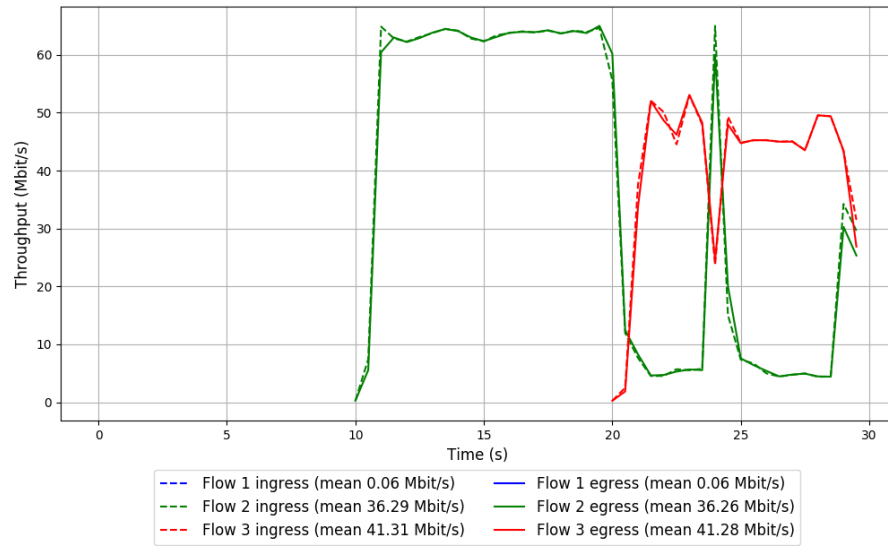
-- Flow 3:

Average throughput: 41.28 Mbit/s

95th percentile per-packet one-way delay: 49.574 ms

Loss rate: 1.12%

## Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-21 05:56:28

End at: 2017-08-21 05:56:58

# Below is generated by plot.py at 2017-08-21 10:29:01

# Datalink statistics

-- Total of 3 flows:

Average throughput: 43.13 Mbit/s

95th percentile per-packet one-way delay: 50.209 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.094 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.07 Mbit/s

95th percentile per-packet one-way delay: 49.989 ms

Loss rate: 0.45%

-- Flow 3:

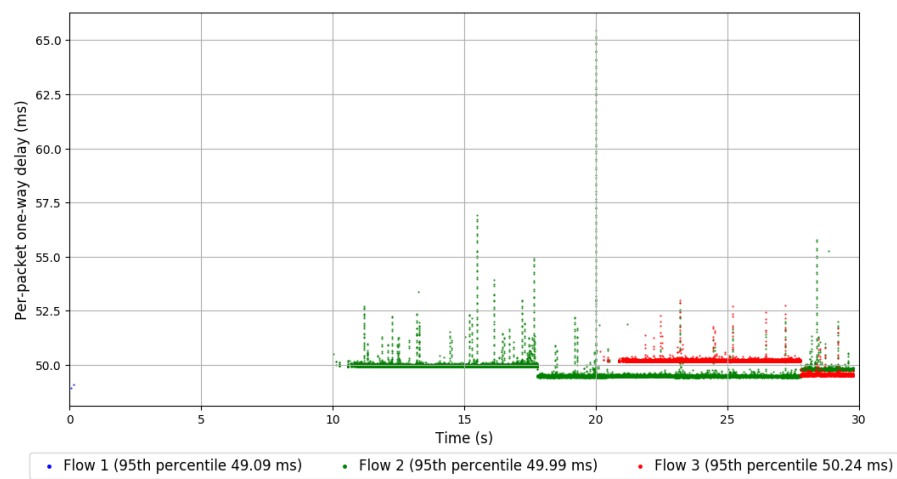
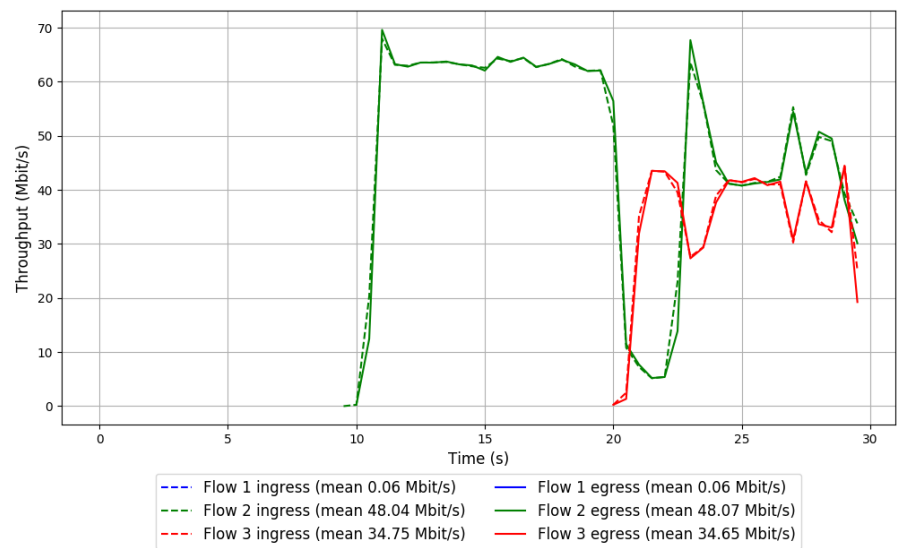
Average throughput: 34.65 Mbit/s

95th percentile per-packet one-way delay: 50.237 ms

Loss rate: 1.33%



Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

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

End at: 2017-08-21 06:08:38

# Below is generated by plot.py at 2017-08-21 10:29:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 43.64 Mbit/s

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

Loss rate: 0.40%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.160 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.31 Mbit/s

95th percentile per-packet one-way delay: 49.513 ms

Loss rate: 0.10%

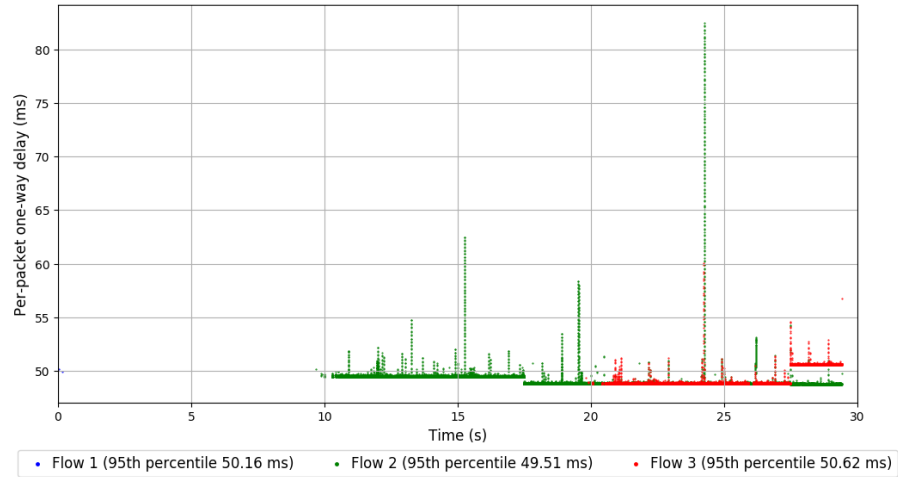
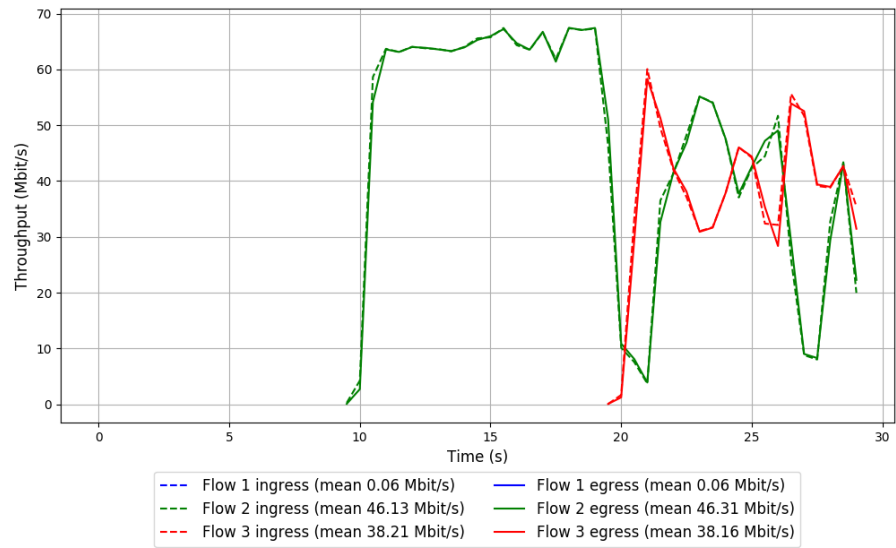
-- Flow 3:

Average throughput: 38.16 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 1.12%

#### Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-21 06:20:13

End at: 2017-08-21 06:20:43

# Below is generated by plot.py at 2017-08-21 10:29:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 47.22 Mbit/s

95th percentile per-packet one-way delay: 50.583 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.122 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.49 Mbit/s

95th percentile per-packet one-way delay: 50.591 ms

Loss rate: 0.47%

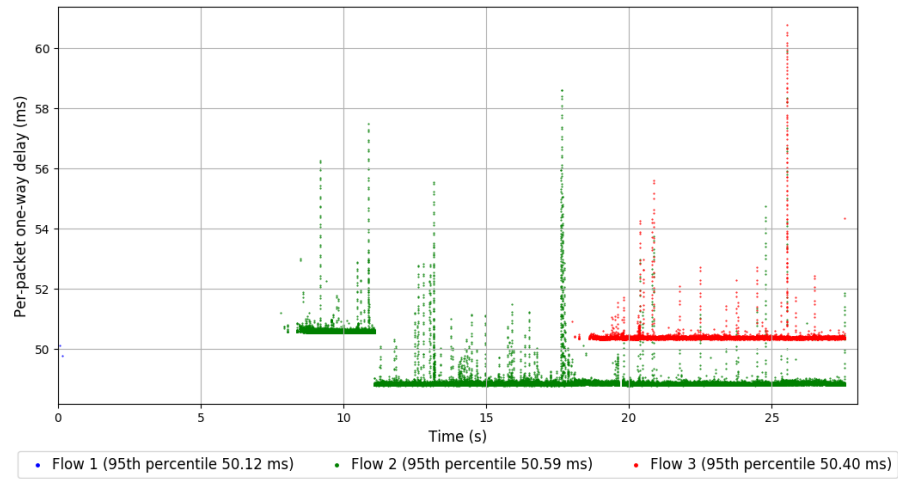
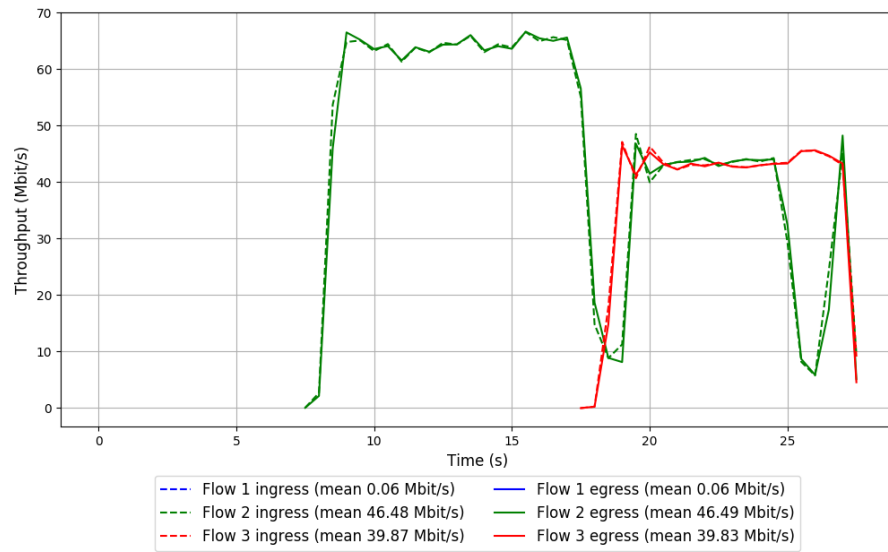
-- Flow 3:

Average throughput: 39.83 Mbit/s

95th percentile per-packet one-way delay: 50.398 ms

Loss rate: 1.13%

## Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-21 06:32:35

End at: 2017-08-21 06:33:05

# Below is generated by plot.py at 2017-08-21 10:29:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.55 Mbit/s

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

Loss rate: 1.13%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 52.745 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 14.86 Mbit/s

95th percentile per-packet one-way delay: 50.729 ms

Loss rate: 0.95%

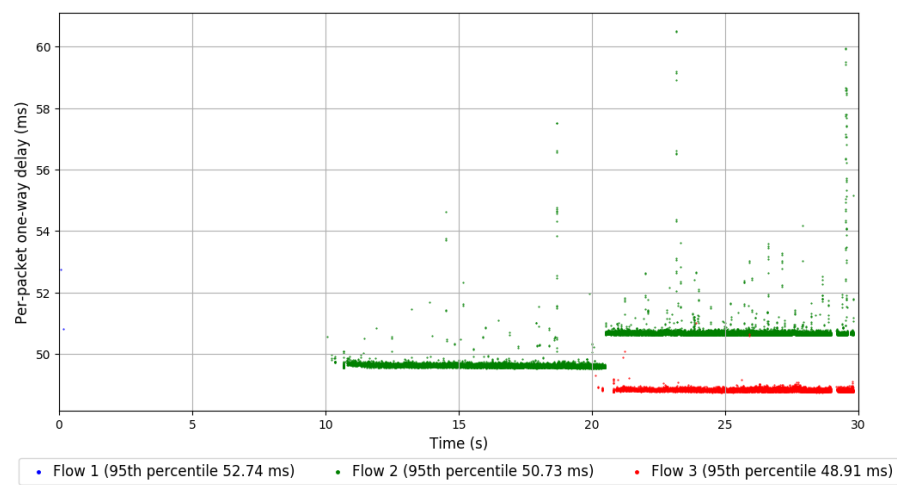
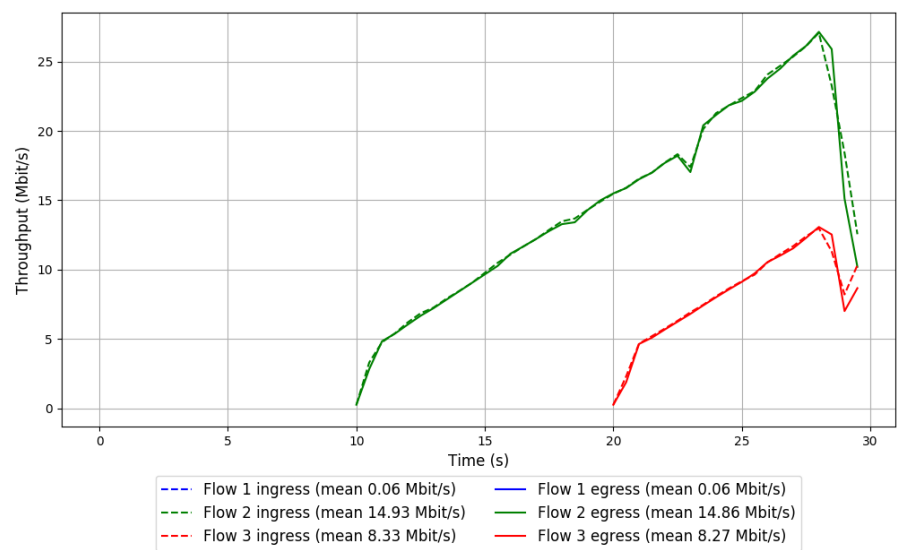
-- Flow 3:

Average throughput: 8.27 Mbit/s

95th percentile per-packet one-way delay: 48.905 ms

Loss rate: 1.75%

Run 6: Report of QUIC Cubic — Data Link



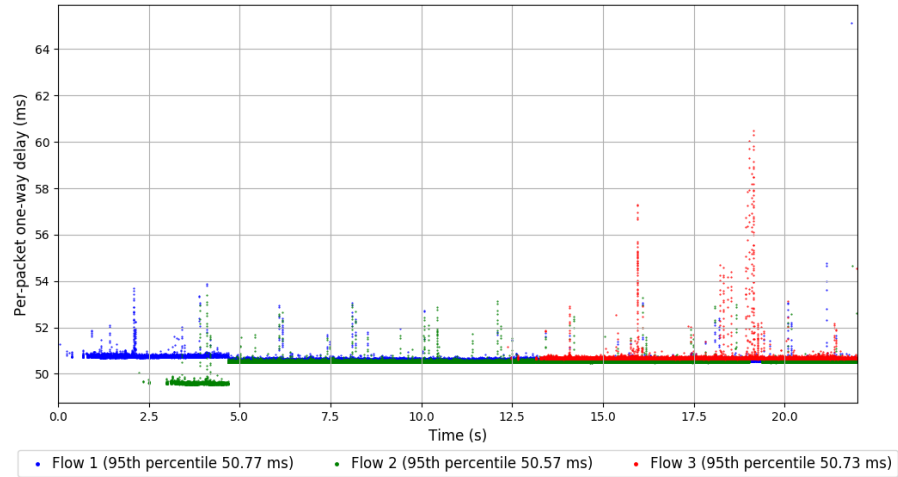
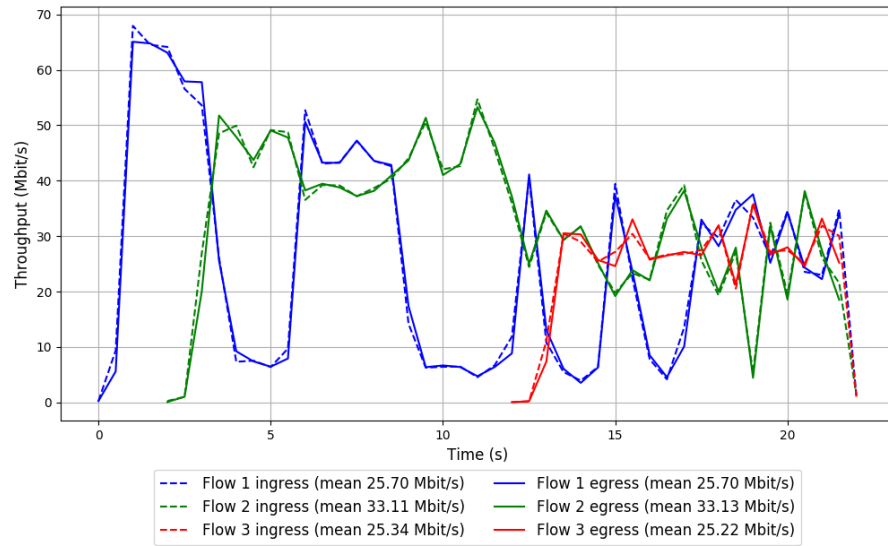
Run 7: Statistics of QUIC Cubic

Start at: 2017-08-21 06:44:33

End at: 2017-08-21 06:45:03



## Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-21 06:56:17

End at: 2017-08-21 06:56:47

# Below is generated by plot.py at 2017-08-21 10:29:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.71 Mbit/s

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

Loss rate: 0.64%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.280 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.78 Mbit/s

95th percentile per-packet one-way delay: 50.917 ms

Loss rate: 0.45%

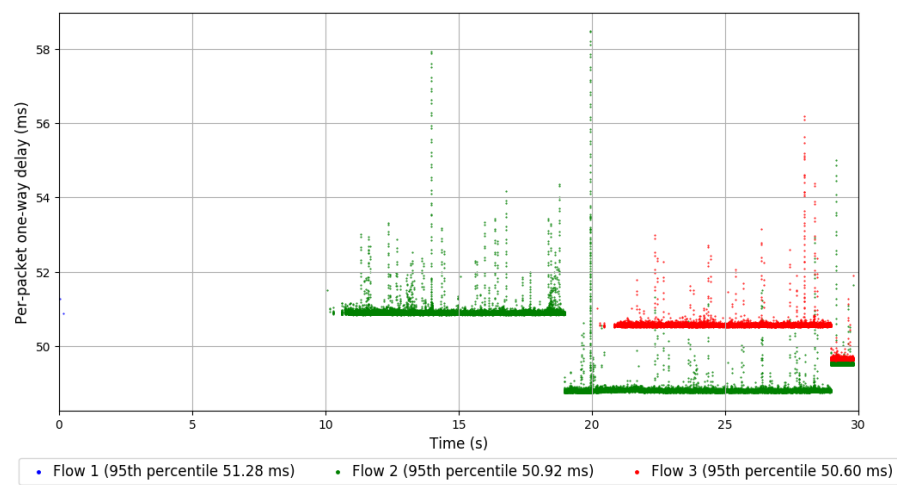
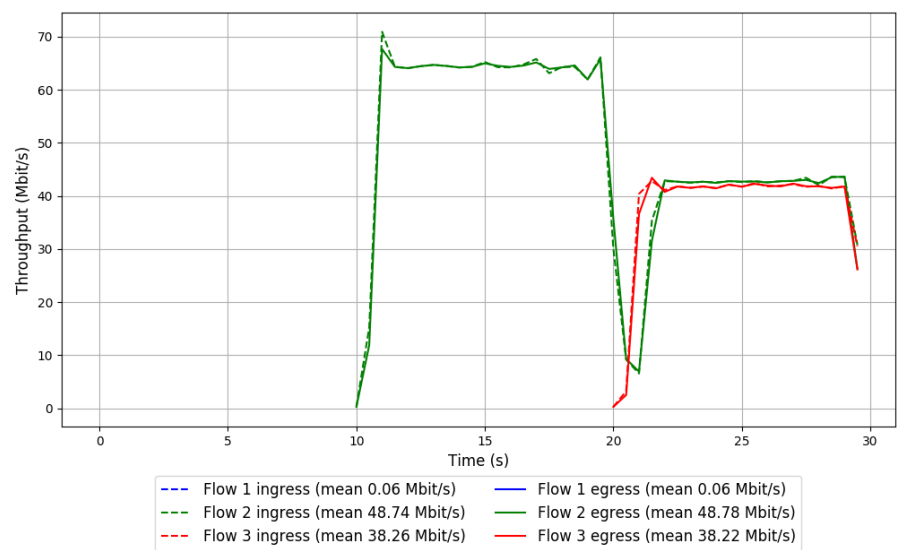
-- Flow 3:

Average throughput: 38.22 Mbit/s

95th percentile per-packet one-way delay: 50.600 ms

Loss rate: 1.14%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-21 07:08:17

End at: 2017-08-21 07:08:47

# Below is generated by plot.py at 2017-08-21 10:29:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 43.53 Mbit/s

95th percentile per-packet one-way delay: 50.497 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.847 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.54 Mbit/s

95th percentile per-packet one-way delay: 50.506 ms

Loss rate: 0.48%

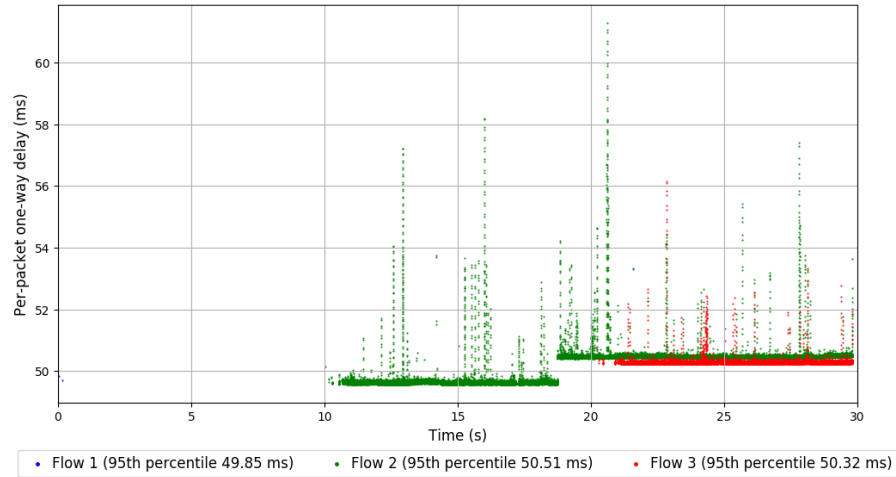
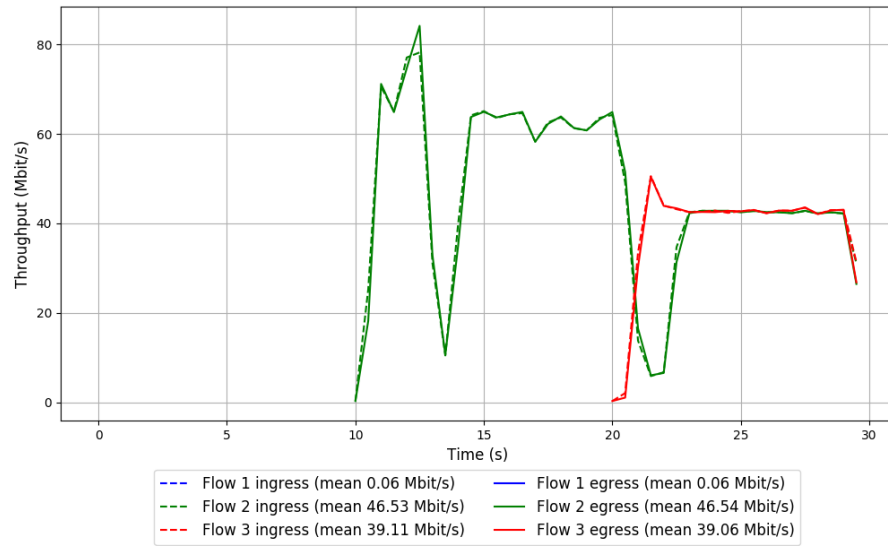
-- Flow 3:

Average throughput: 39.06 Mbit/s

95th percentile per-packet one-way delay: 50.324 ms

Loss rate: 1.16%

## Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-08-21 07:19:51

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

# Below is generated by plot.py at 2017-08-21 10:29:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.66 Mbit/s

95th percentile per-packet one-way delay: 50.633 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.118 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.35 Mbit/s

95th percentile per-packet one-way delay: 50.640 ms

Loss rate: 0.42%

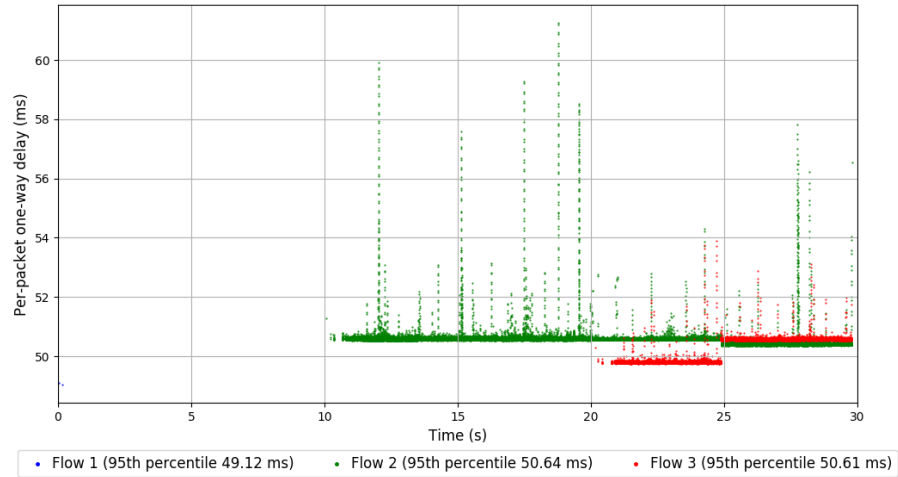
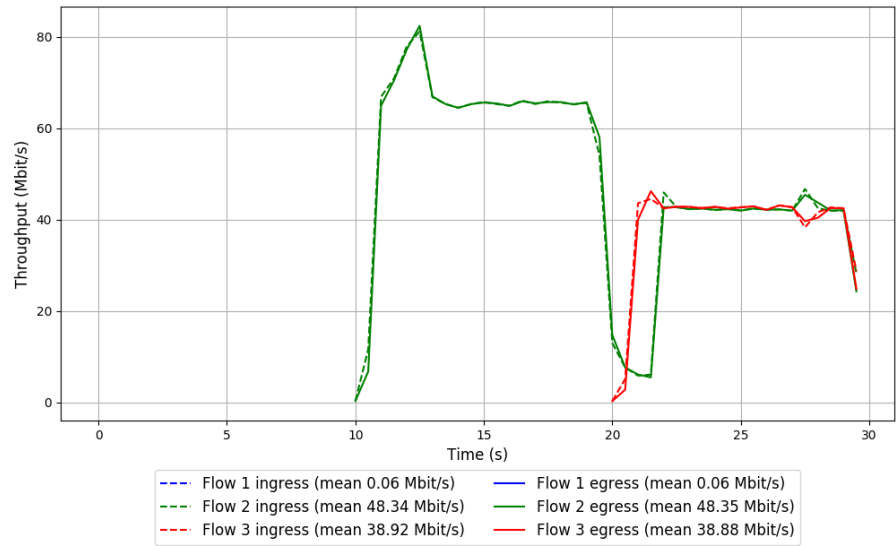
-- Flow 3:

Average throughput: 38.88 Mbit/s

95th percentile per-packet one-way delay: 50.610 ms

Loss rate: 1.09%

# Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-21 05:33:58

End at: 2017-08-21 05:34:28

# Below is generated by plot.py at 2017-08-21 10:29:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 46.10 Mbit/s

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

Loss rate: 0.77%

-- Flow 1:

Average throughput: 23.32 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 22.89 Mbit/s

95th percentile per-packet one-way delay: 51.767 ms

Loss rate: 1.28%

-- Flow 3:

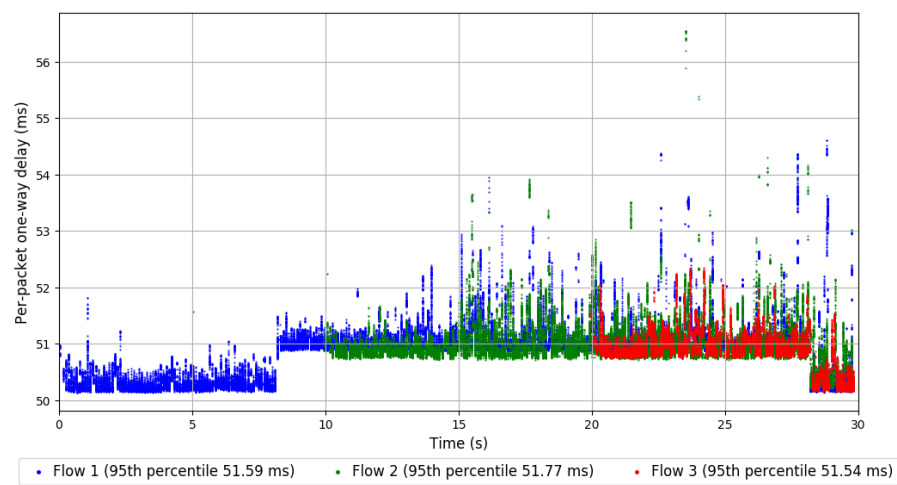
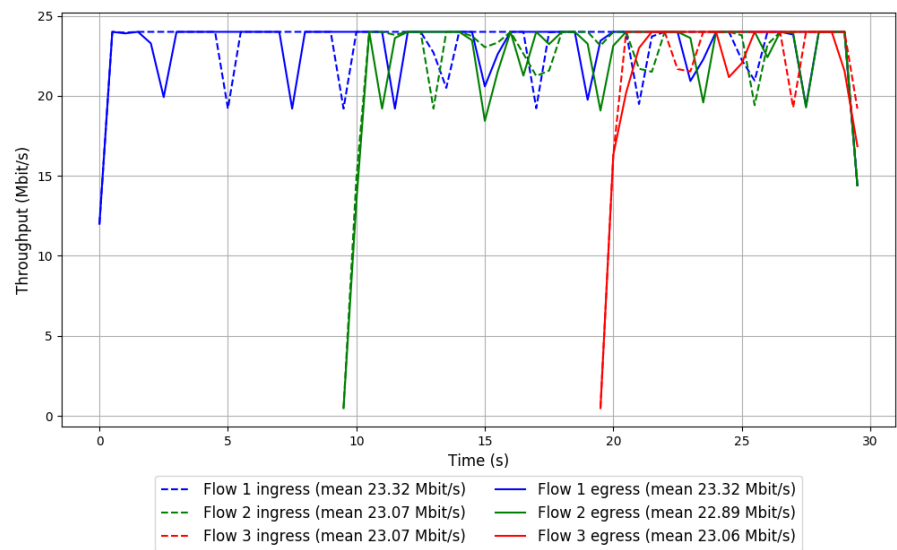
Average throughput: 23.06 Mbit/s

95th percentile per-packet one-way delay: 51.544 ms

Loss rate: 1.05%



Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-21 05:45:23

End at: 2017-08-21 05:45:53

# Below is generated by plot.py at 2017-08-21 10:29:35

# Datalink statistics

-- Total of 3 flows:

Average throughput: 28.21 Mbit/s

95th percentile per-packet one-way delay: 50.223 ms

Loss rate: 5.97%

-- Flow 1:

Average throughput: 23.58 Mbit/s

95th percentile per-packet one-way delay: 50.259 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 4.14 Mbit/s

95th percentile per-packet one-way delay: 50.175 ms

Loss rate: 51.23%

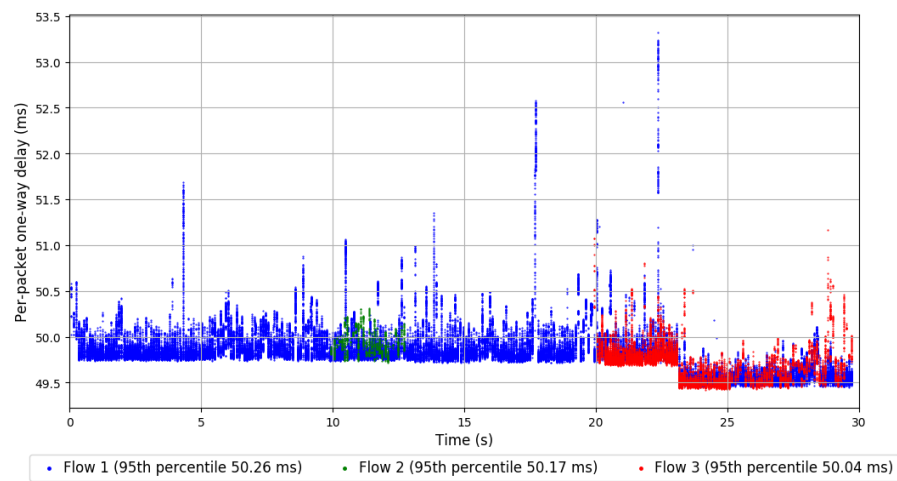
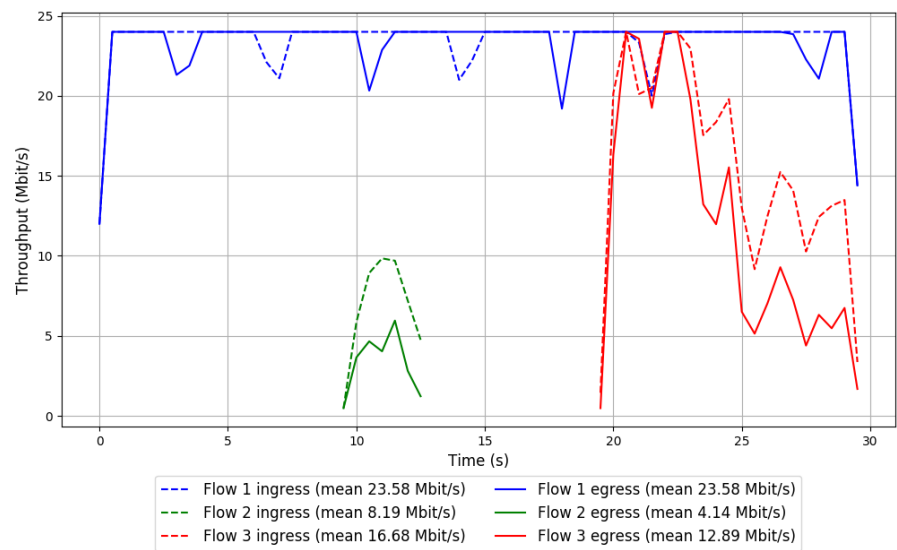
-- Flow 3:

Average throughput: 12.89 Mbit/s

95th percentile per-packet one-way delay: 50.041 ms

Loss rate: 23.55%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-21 05:57:10

End at: 2017-08-21 05:57:40

# Below is generated by plot.py at 2017-08-21 10:29:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 44.23 Mbit/s

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

Loss rate: 2.47%

-- Flow 1:

Average throughput: 23.27 Mbit/s

95th percentile per-packet one-way delay: 51.122 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 23.48 Mbit/s

95th percentile per-packet one-way delay: 51.280 ms

Loss rate: 0.66%

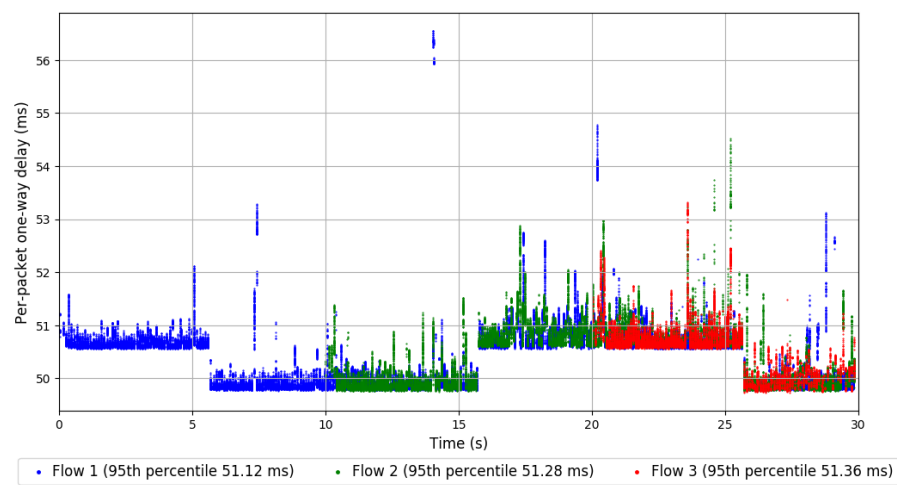
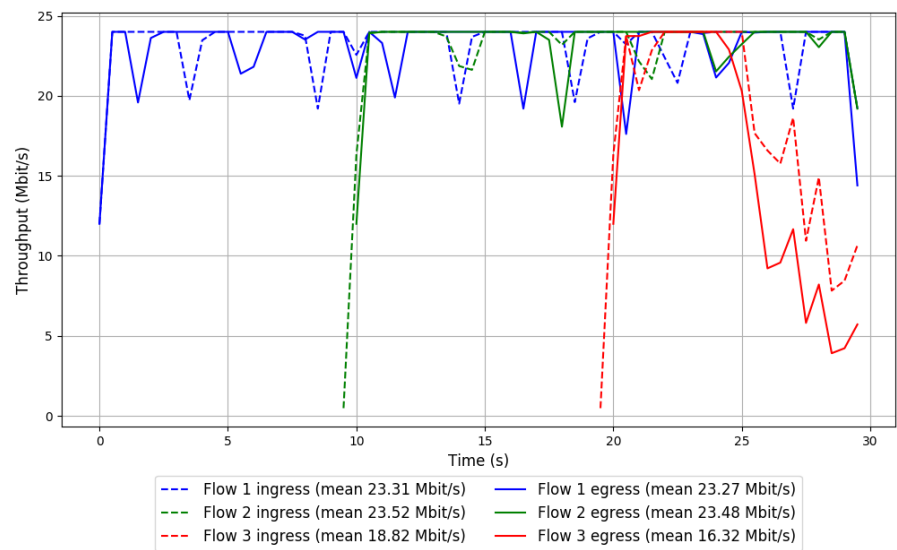
-- Flow 3:

Average throughput: 16.32 Mbit/s

95th percentile per-packet one-way delay: 51.361 ms

Loss rate: 14.22%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-21 06:08:51

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

# Below is generated by plot.py at 2017-08-21 10:29:43

# Datalink statistics

-- Total of 3 flows:

Average throughput: 26.32 Mbit/s

95th percentile per-packet one-way delay: 51.257 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 22.61 Mbit/s

95th percentile per-packet one-way delay: 51.543 ms

Loss rate: 2.30%

-- Flow 2:

Average throughput: 23.04 Mbit/s

95th percentile per-packet one-way delay: 51.200 ms

Loss rate: 1.11%

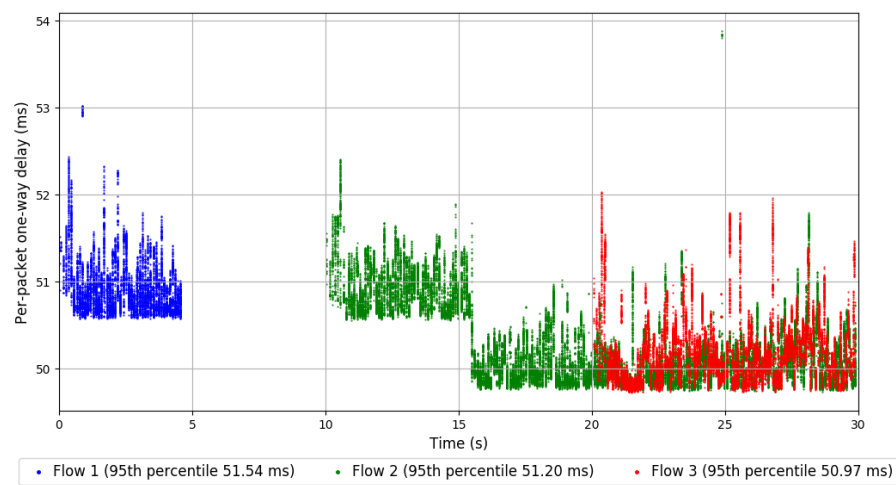
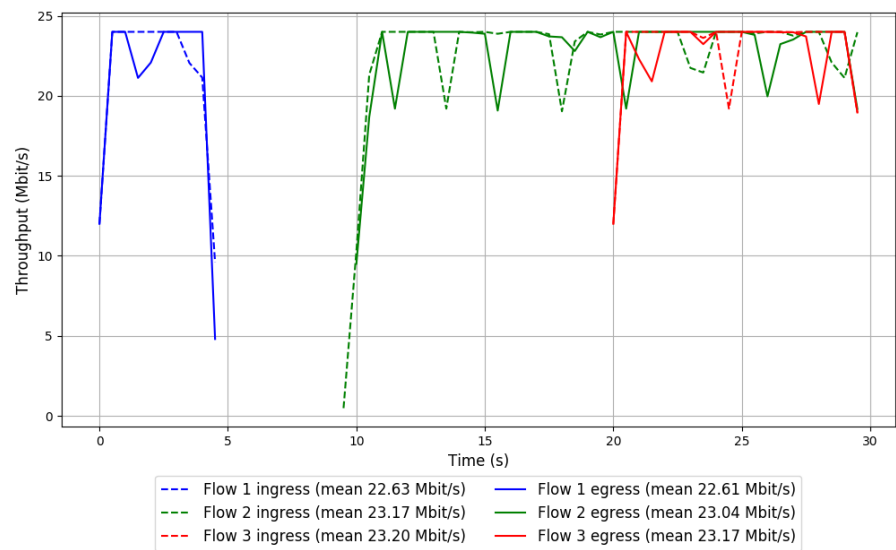
-- Flow 3:

Average throughput: 23.17 Mbit/s

95th percentile per-packet one-way delay: 50.973 ms

Loss rate: 1.14%

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-21 06:20:56

End at: 2017-08-21 06:21:26

# Below is generated by plot.py at 2017-08-21 10:29:49

# Datalink statistics

-- Total of 3 flows:

Average throughput: 34.11 Mbit/s

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

Loss rate: 11.34%

-- Flow 1:

Average throughput: 16.55 Mbit/s

95th percentile per-packet one-way delay: 51.229 ms

Loss rate: 10.41%

-- Flow 2:

Average throughput: 16.34 Mbit/s

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

Loss rate: 15.60%

-- Flow 3:

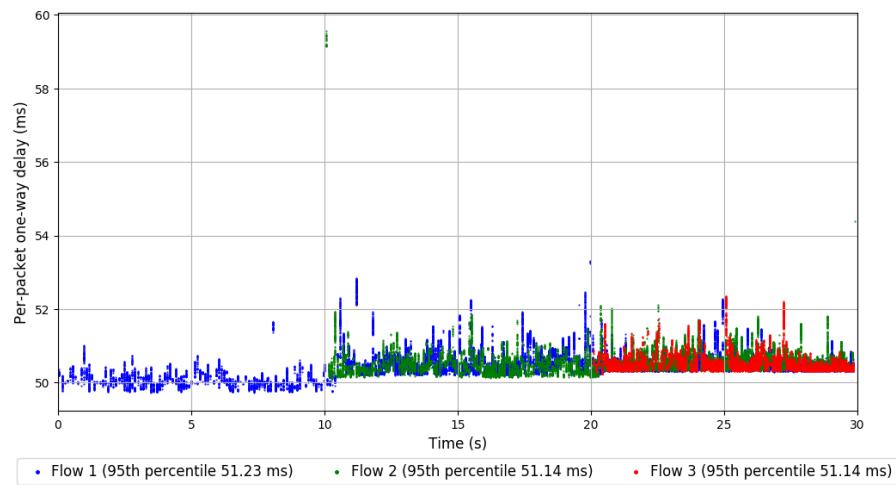
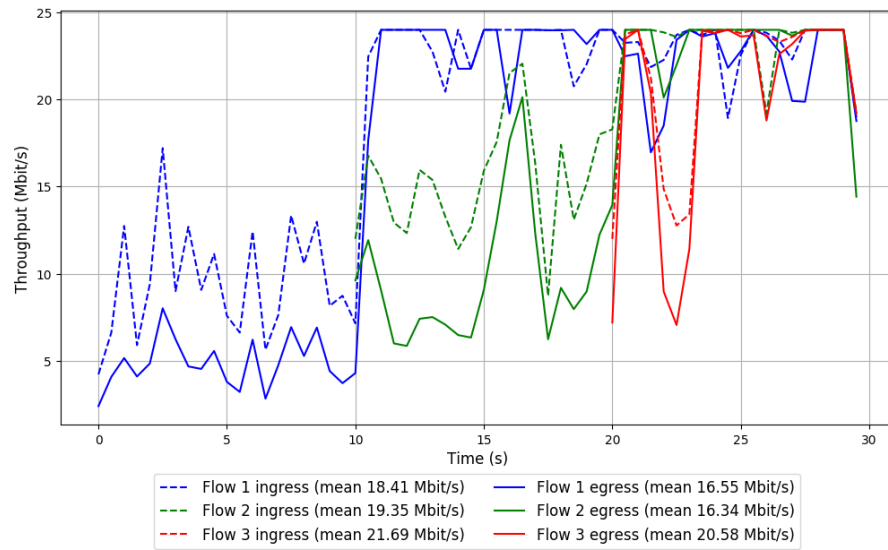
Average throughput: 20.58 Mbit/s

95th percentile per-packet one-way delay: 51.142 ms

Loss rate: 6.11%



## Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-21 06:33:17

End at: 2017-08-21 06:33:47

# Below is generated by plot.py at 2017-08-21 10:29:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 42.48 Mbit/s

95th percentile per-packet one-way delay: 51.268 ms

Loss rate: 3.93%

-- Flow 1:

Average throughput: 22.58 Mbit/s

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

Loss rate: 1.63%

-- Flow 2:

Average throughput: 18.47 Mbit/s

95th percentile per-packet one-way delay: 51.347 ms

Loss rate: 9.41%

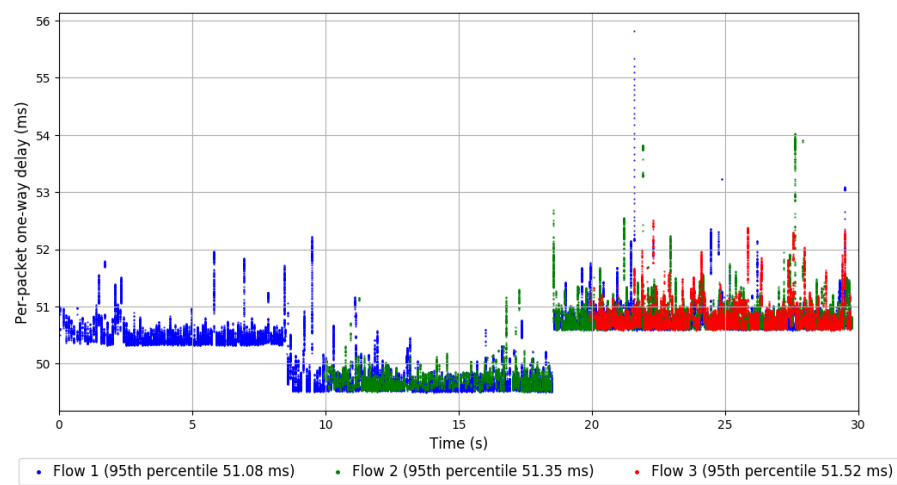
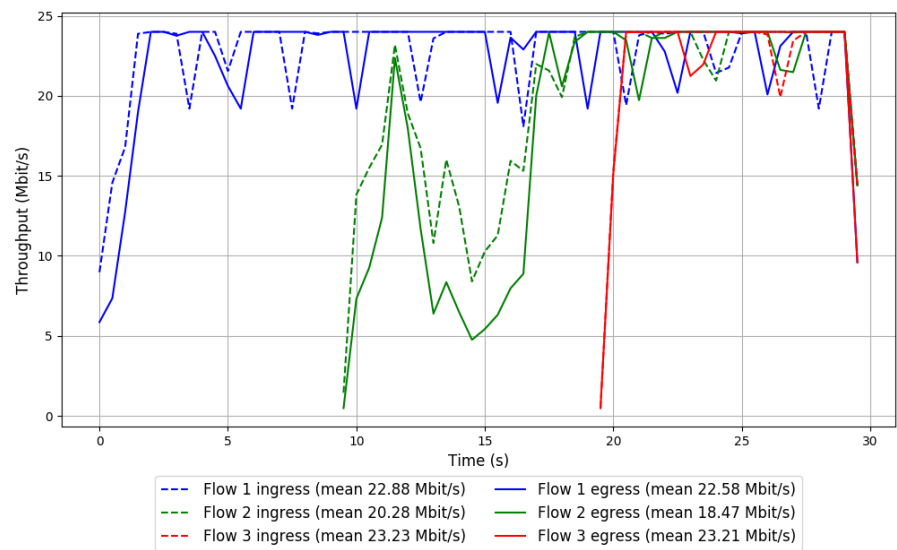
-- Flow 3:

Average throughput: 23.21 Mbit/s

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

Loss rate: 1.09%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-21 06:45:17

End at: 2017-08-21 06:45:47

# Below is generated by plot.py at 2017-08-21 10:29:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 46.63 Mbit/s

95th percentile per-packet one-way delay: 51.251 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 23.56 Mbit/s

95th percentile per-packet one-way delay: 51.402 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 23.44 Mbit/s

95th percentile per-packet one-way delay: 51.132 ms

Loss rate: 0.62%

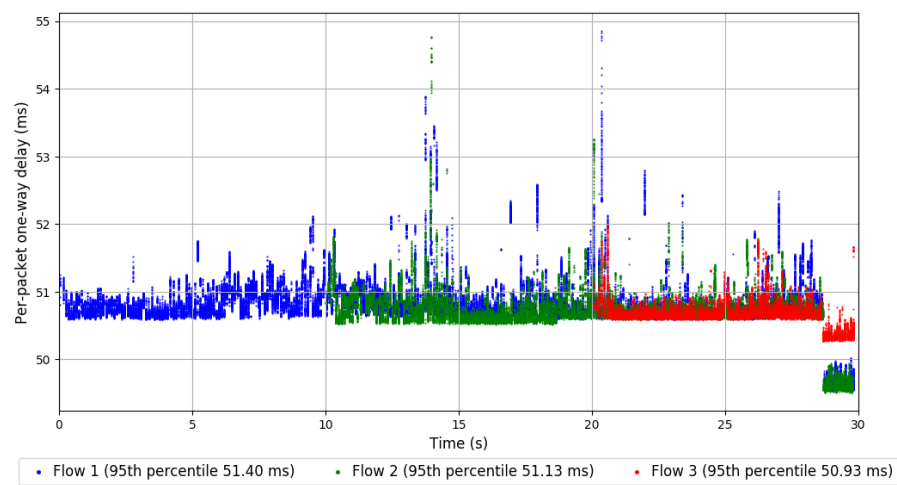
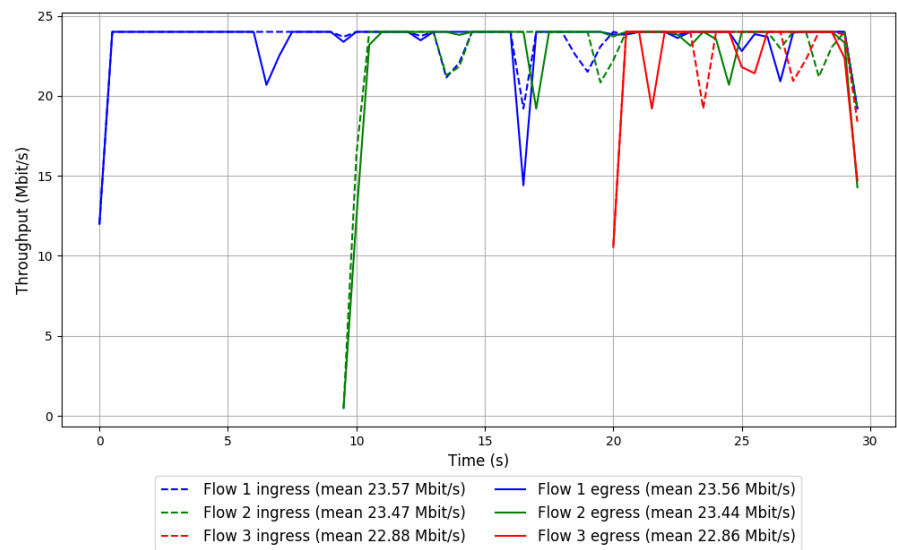
-- Flow 3:

Average throughput: 22.86 Mbit/s

95th percentile per-packet one-way delay: 50.932 ms

Loss rate: 1.16%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-21 06:56:59

End at: 2017-08-21 06:57:29

# Below is generated by plot.py at 2017-08-21 10:29:58

# Datalink statistics

-- Total of 3 flows:

Average throughput: 35.74 Mbit/s

95th percentile per-packet one-way delay: 51.224 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 23.11 Mbit/s

95th percentile per-packet one-way delay: 51.208 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 22.56 Mbit/s

95th percentile per-packet one-way delay: 51.385 ms

Loss rate: 2.32%

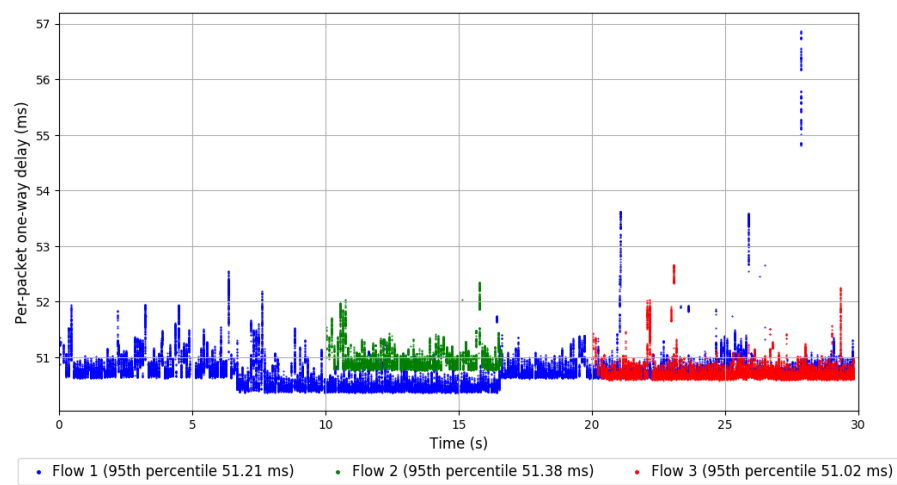
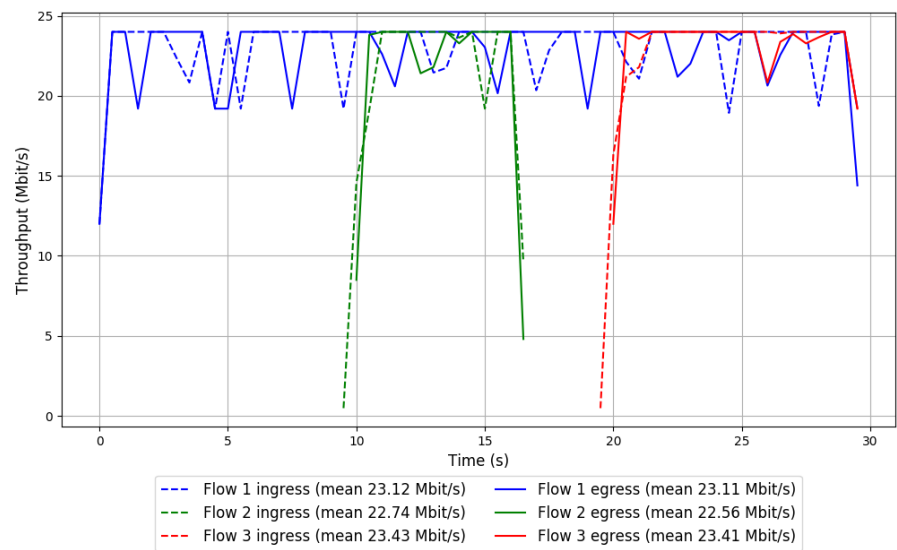
-- Flow 3:

Average throughput: 23.41 Mbit/s

95th percentile per-packet one-way delay: 51.022 ms

Loss rate: 1.10%

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

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

End at: 2017-08-21 07:09:30

# Below is generated by plot.py at 2017-08-21 10:30:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 38.85 Mbit/s

95th percentile per-packet one-way delay: 51.635 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 23.47 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 23.13 Mbit/s

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

Loss rate: 0.65%

-- Flow 3:

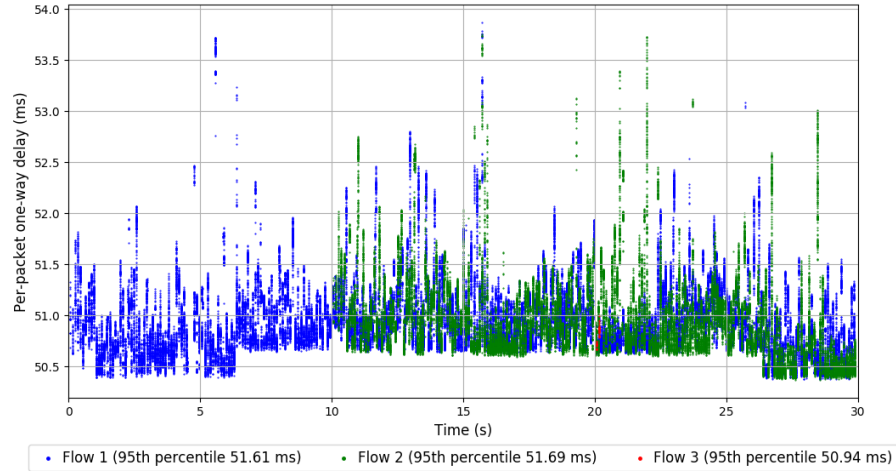
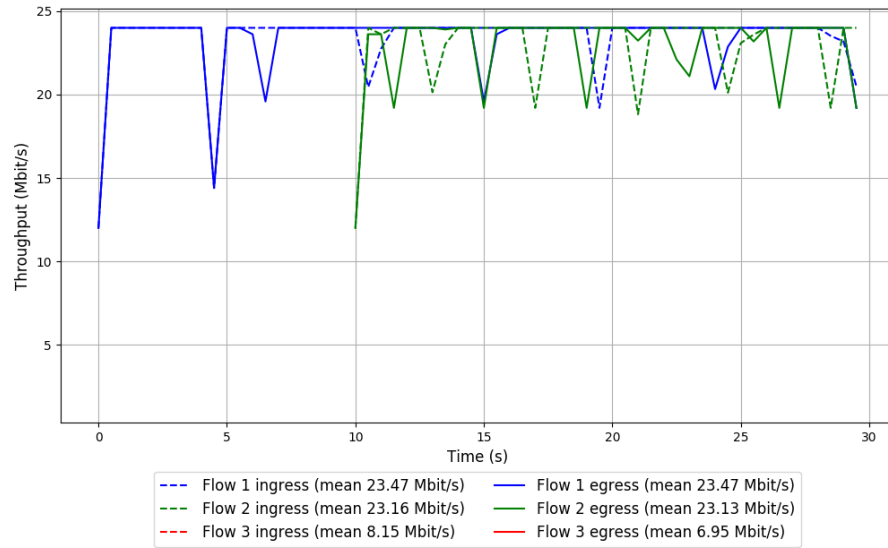
Average throughput: 6.95 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 57.14%



### Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-21 07:20:35

End at: 2017-08-21 07:21:05

# Below is generated by plot.py at 2017-08-21 10:30:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 39.84 Mbit/s

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

Loss rate: 1.16%

-- Flow 1:

Average throughput: 22.67 Mbit/s

95th percentile per-packet one-way delay: 50.742 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 23.37 Mbit/s

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

Loss rate: 0.81%

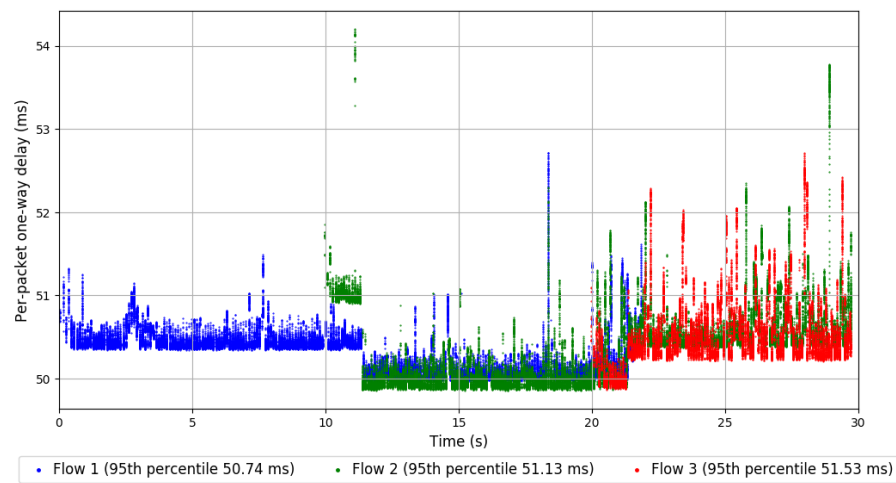
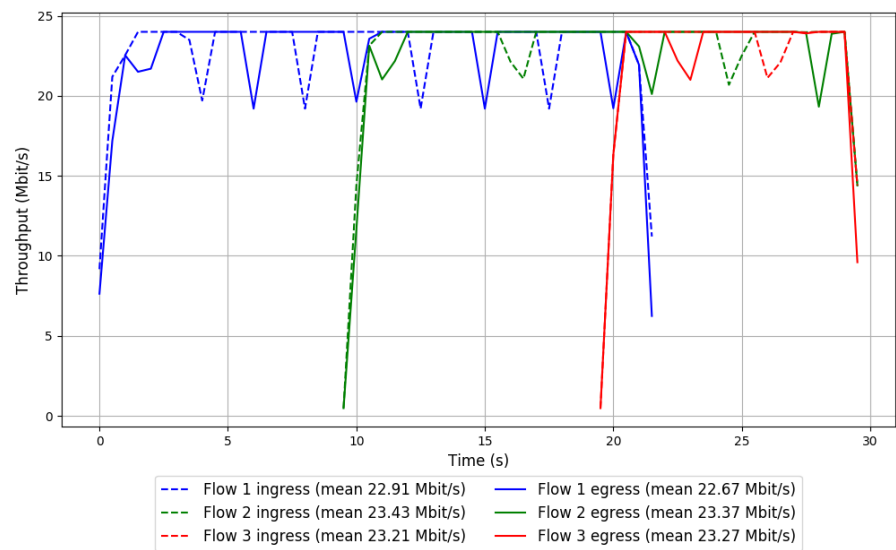
-- Flow 3:

Average throughput: 23.27 Mbit/s

95th percentile per-packet one-way delay: 51.530 ms

Loss rate: 1.06%

Run 10: Report of Saturator — Data Link

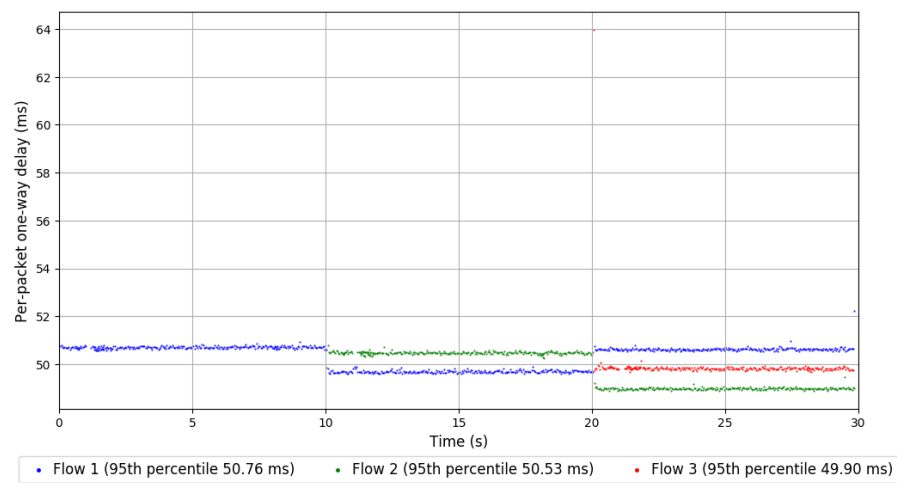
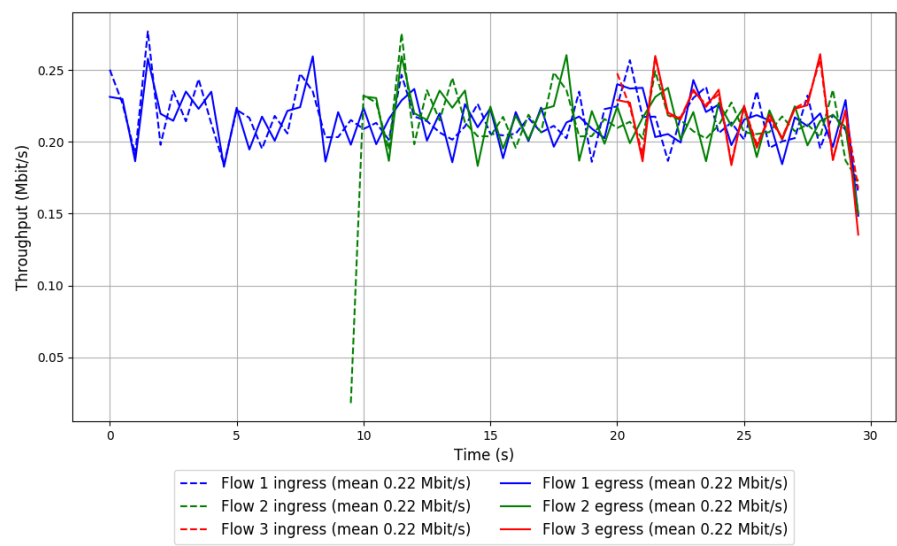


```
Run 1: Statistics of SCReAM

Start at: 2017-08-21 05:22:46
End at: 2017-08-21 05:23:16

# Below is generated by plot.py at 2017-08-21 10:30:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.735 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.757 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.533 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.902 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

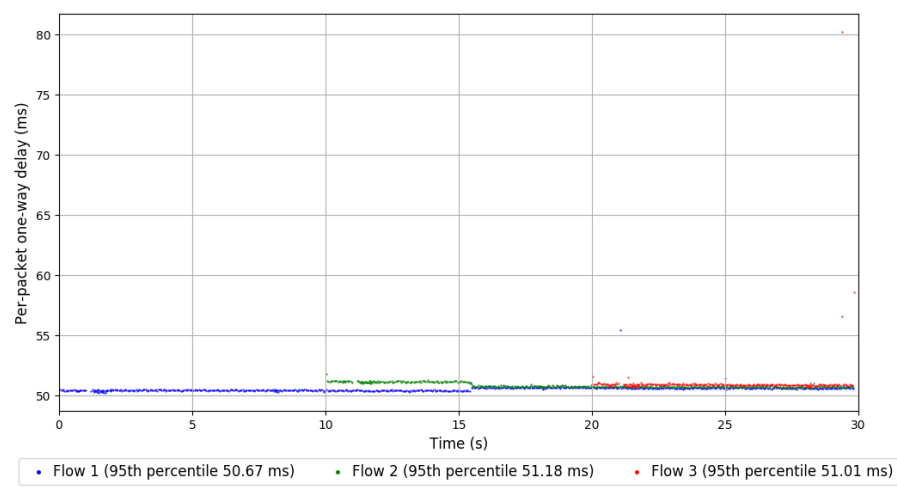
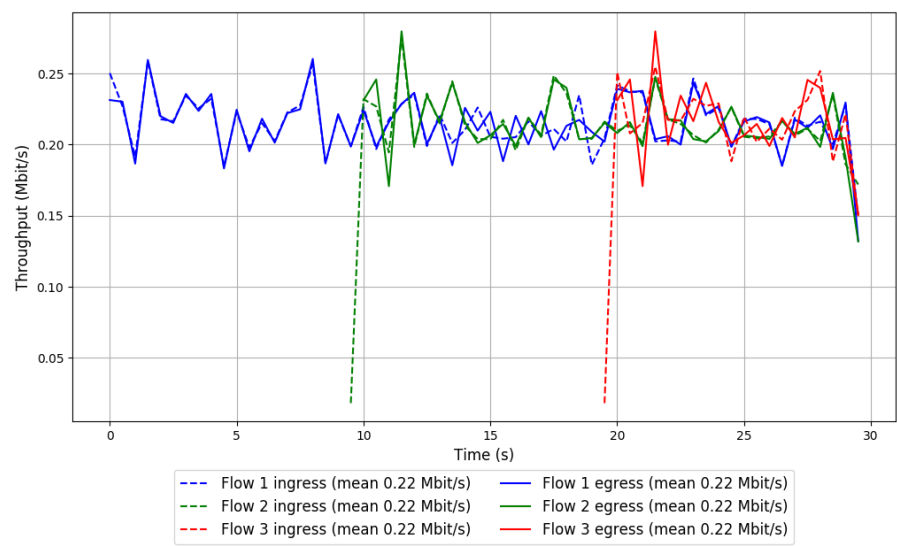


```
Run 2: Statistics of SReAM

Start at: 2017-08-21 05:34:40
End at: 2017-08-21 05:35:11

# Below is generated by plot.py at 2017-08-21 10:30:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.135 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.668 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.181 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.013 ms
Loss rate: 0.74%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-21 05:46:04

End at: 2017-08-21 05:46:34

# Below is generated by plot.py at 2017-08-21 10:30:09

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.478 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.469 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.497 ms

Loss rate: 0.42%

-- Flow 3:

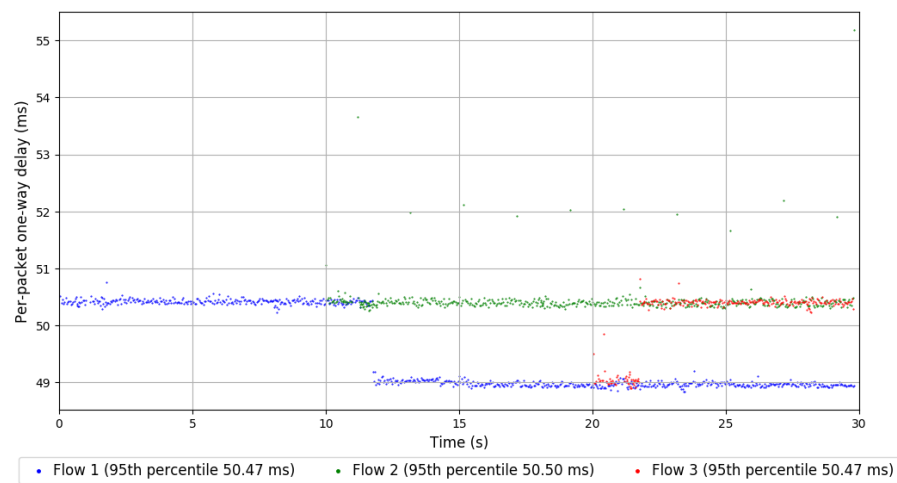
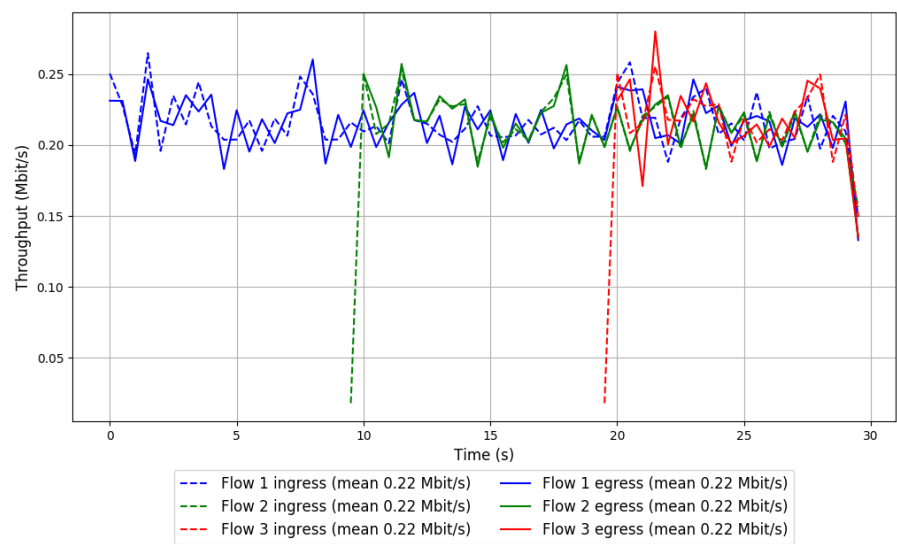
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.465 ms

Loss rate: 1.11%



Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-08-21 05:57:53

End at: 2017-08-21 05:58:23

# Below is generated by plot.py at 2017-08-21 10:30:10

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.578 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.599 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.287 ms

Loss rate: 0.42%

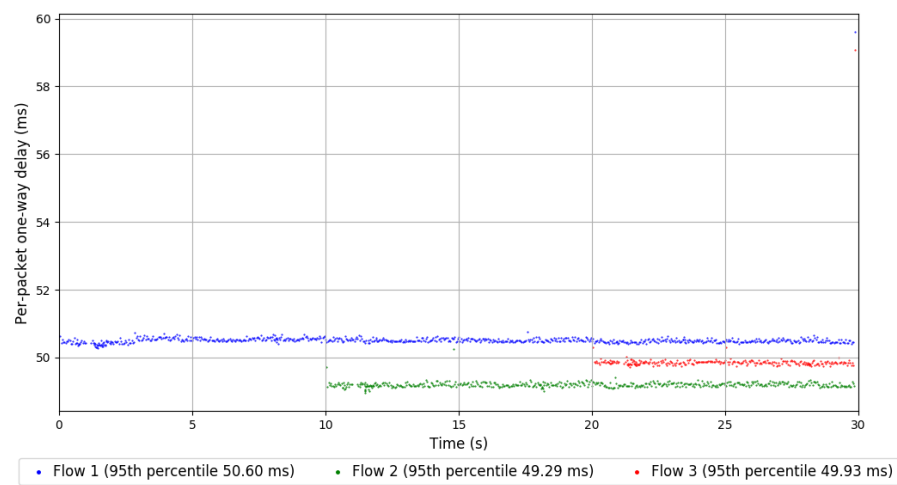
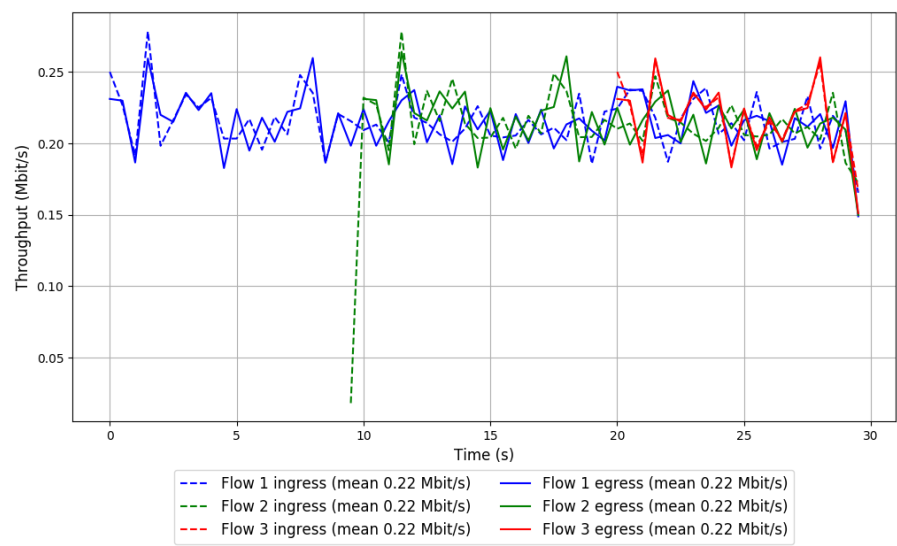
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.926 ms

Loss rate: 0.74%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-21 06:09:32

End at: 2017-08-21 06:10:02

# Below is generated by plot.py at 2017-08-21 10:30:11

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.784 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.797 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.000 ms

Loss rate: 0.42%

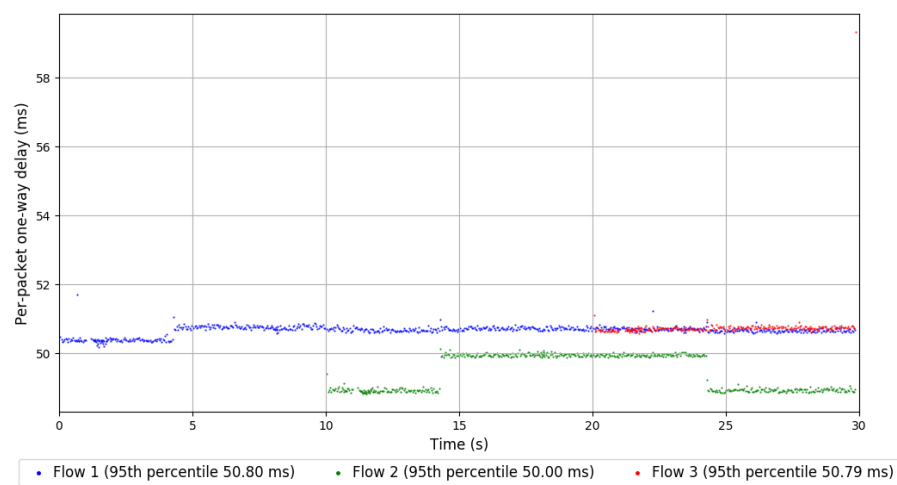
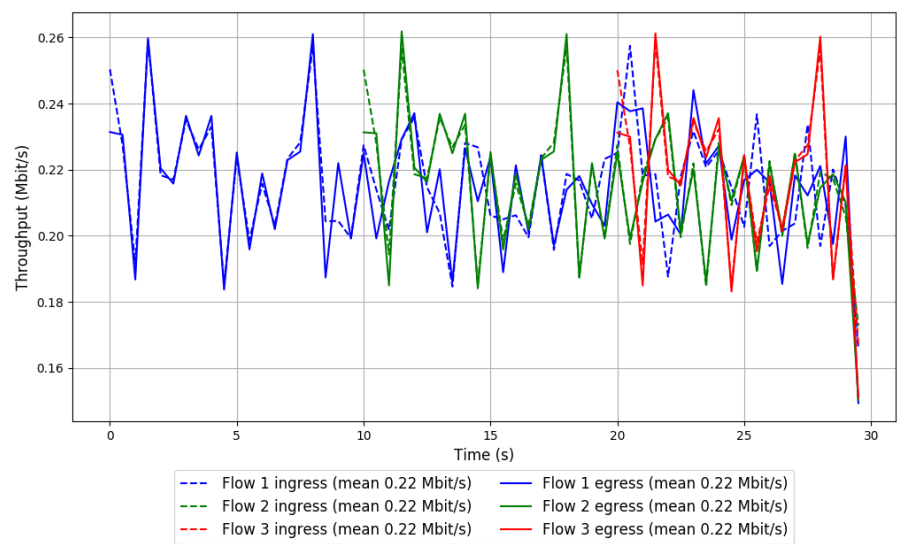
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.793 ms

Loss rate: 0.74%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-08-21 06:21:38

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

# Below is generated by plot.py at 2017-08-21 10:30:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.062 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.102 ms

Loss rate: 0.42%

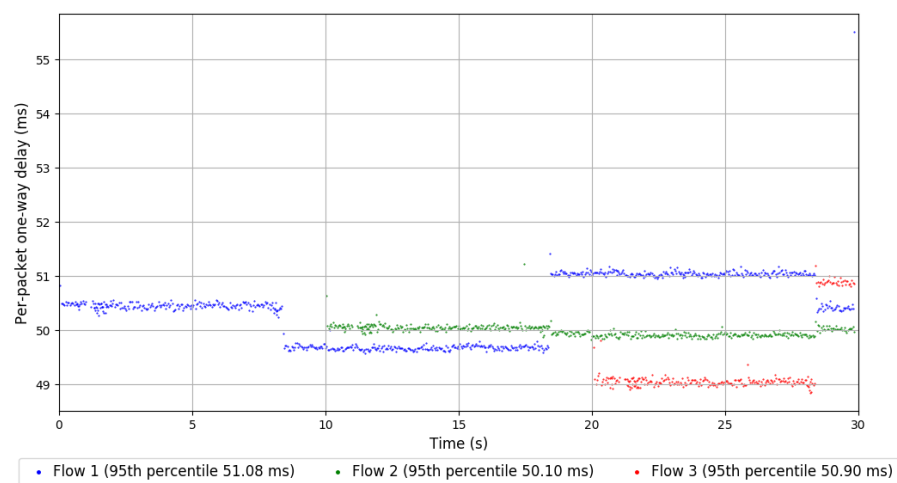
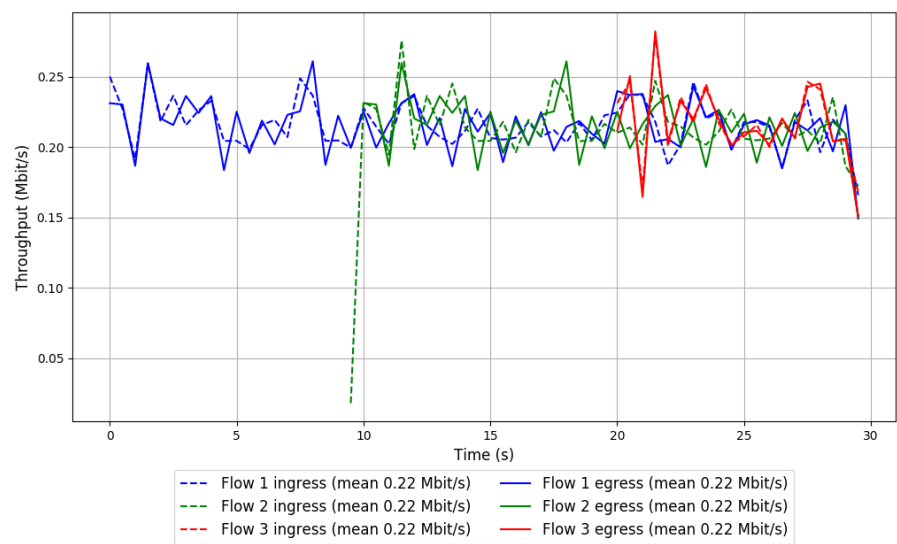
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.75%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-08-21 06:34:04

End at: 2017-08-21 06:34:34

# Below is generated by plot.py at 2017-08-21 10:30:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.853 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.42%

-- Flow 3:

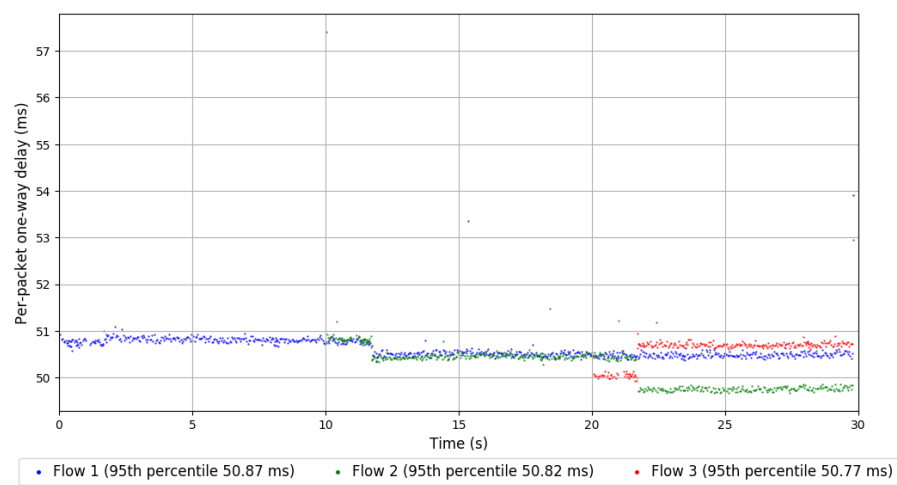
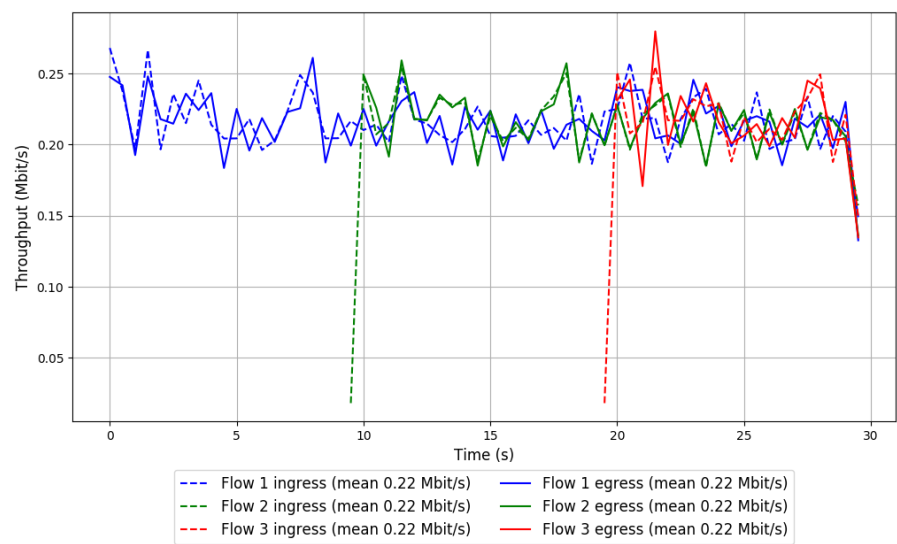
Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.775 ms

Loss rate: 1.11%



Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-21 06:46:01

End at: 2017-08-21 06:46:31

# Below is generated by plot.py at 2017-08-21 10:30:13

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.810 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.511 ms

Loss rate: 0.42%

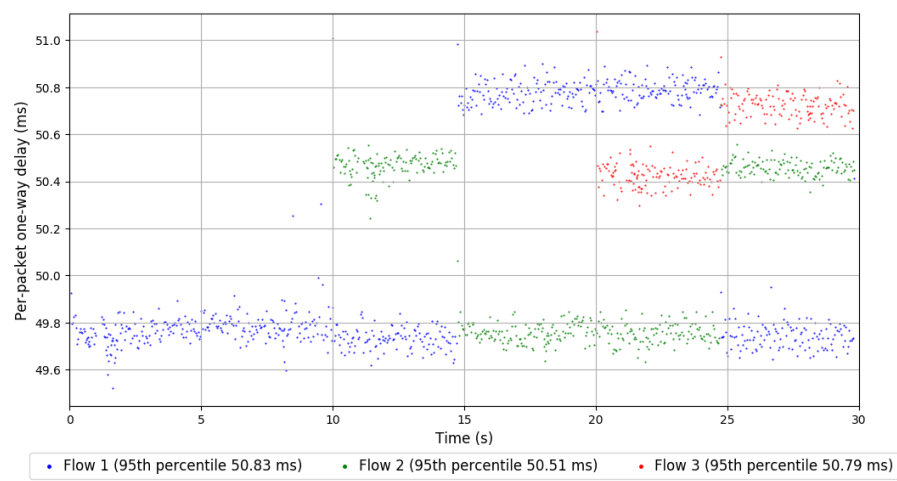
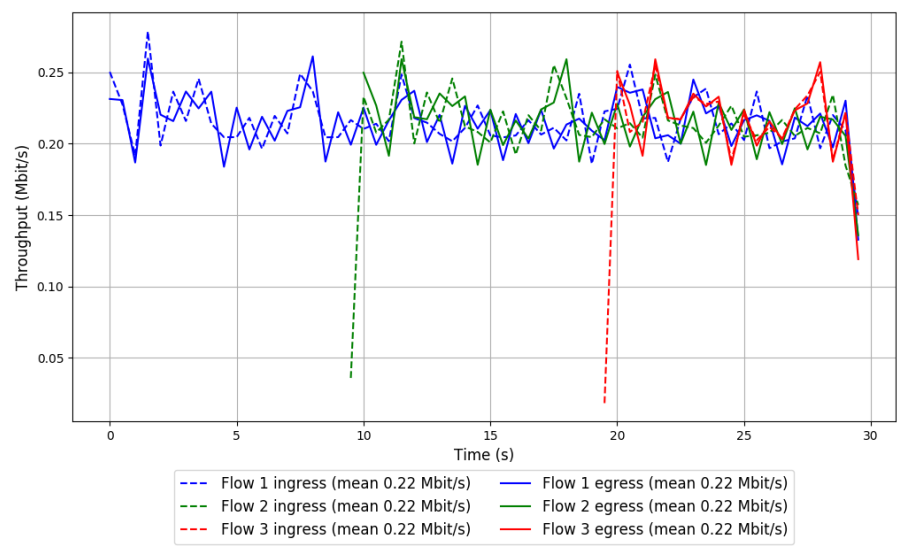
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.790 ms

Loss rate: 1.11%

Run 8: Report of SCRaM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-08-21 06:57:42

End at: 2017-08-21 06:58:12

# Below is generated by plot.py at 2017-08-21 10:30:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.631 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.578 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.502 ms

Loss rate: 0.63%

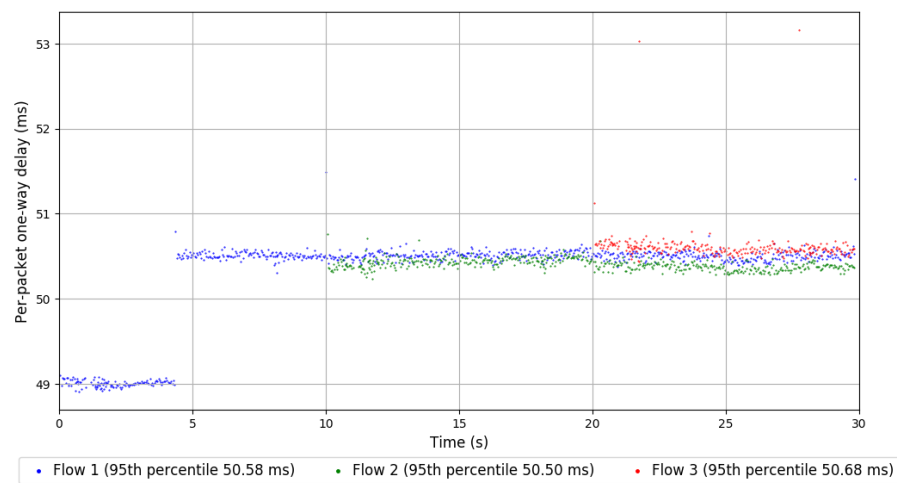
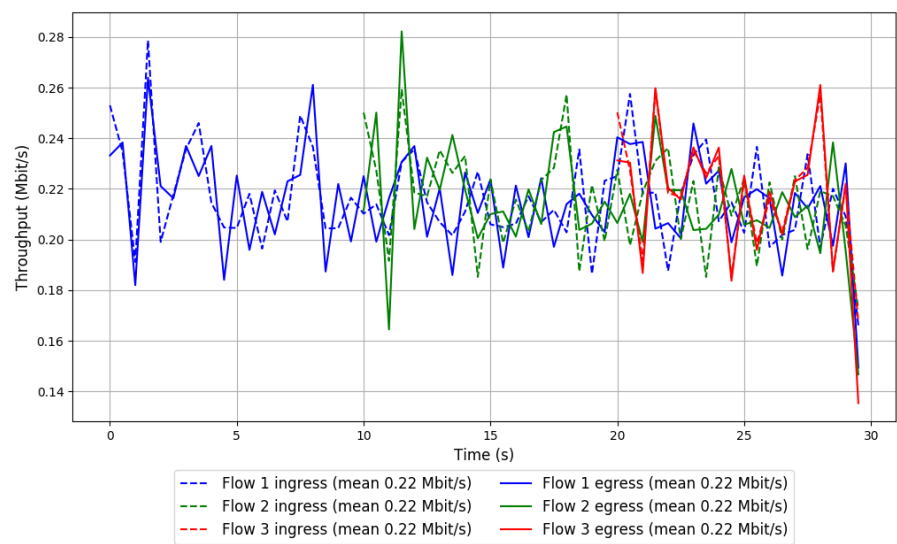
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.684 ms

Loss rate: 1.11%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-08-21 07:09:42

End at: 2017-08-21 07:10:12

# Below is generated by plot.py at 2017-08-21 10:30:14

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 51.093 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.932 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.974 ms

Loss rate: 0.42%

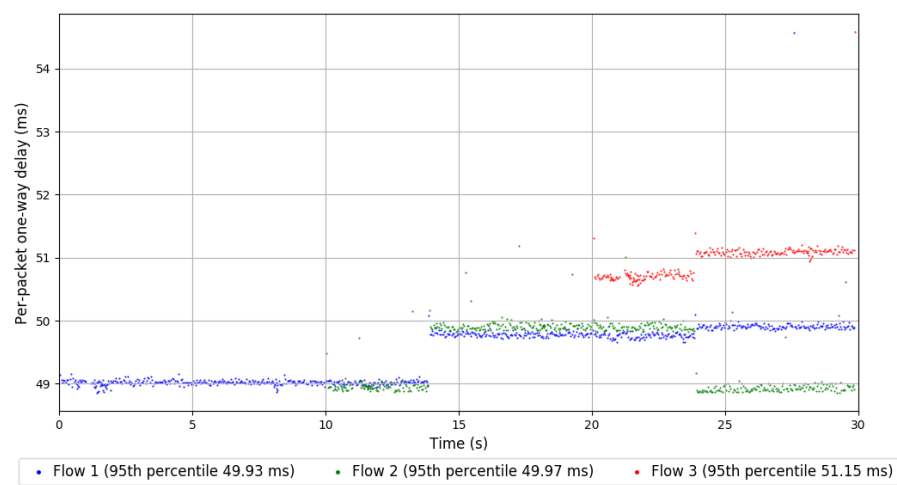
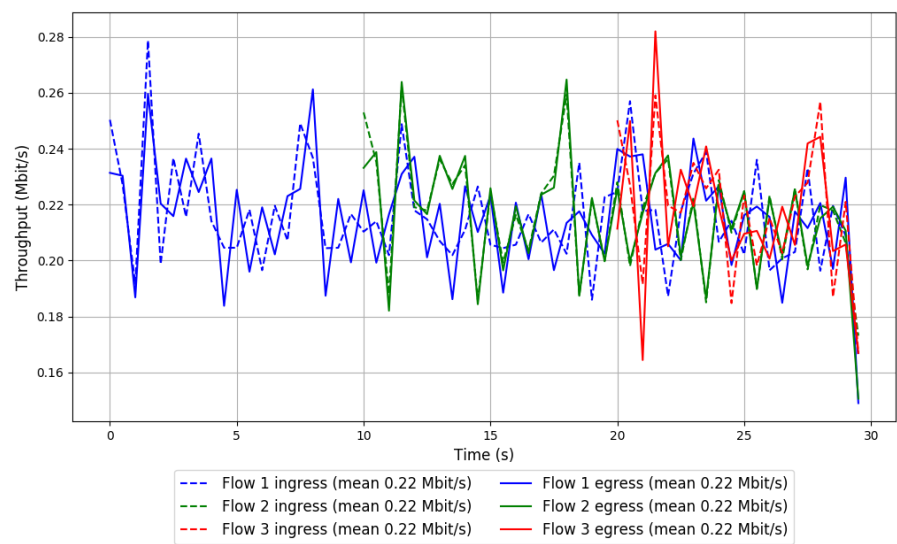
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.148 ms

Loss rate: 0.74%

Run 10: Report of SCRaM — Data Link



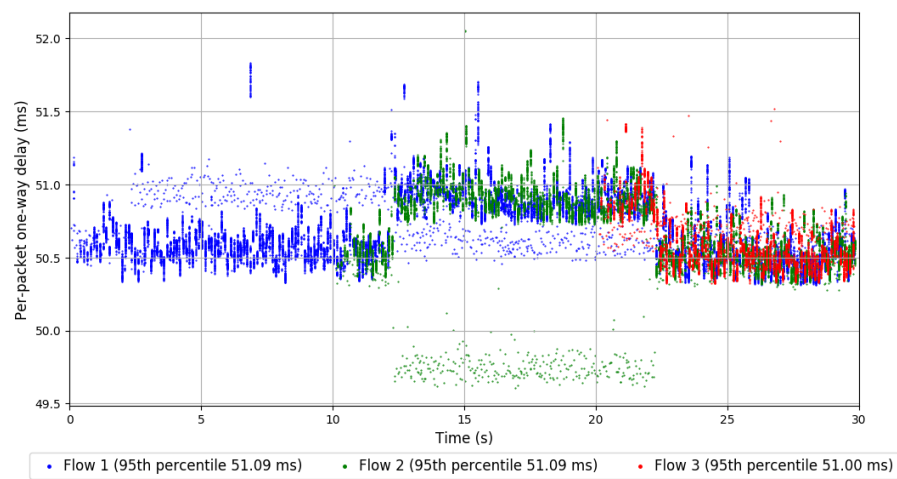
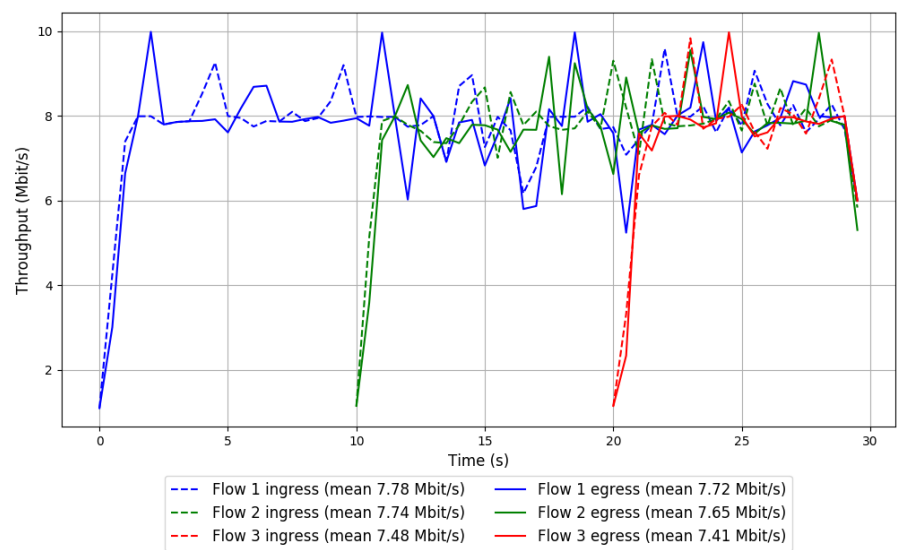
```
Run 1: Statistics of Sprout

Start at: 2017-08-21 05:27:14
End at: 2017-08-21 05:27:44

# Below is generated by plot.py at 2017-08-21 10:30:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.22 Mbit/s
95th percentile per-packet one-way delay: 51.079 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 51.091 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 51.087 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 50.996 ms
Loss rate: 1.67%
```



Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-21 05:39:00

End at: 2017-08-21 05:39:30

# Below is generated by plot.py at 2017-08-21 10:30:18

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.72 Mbit/s

95th percentile per-packet one-way delay: 50.824 ms

Loss rate: 3.80%

-- Flow 1:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 50.879 ms

Loss rate: 6.50%

-- Flow 2:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 50.681 ms

Loss rate: 1.75%

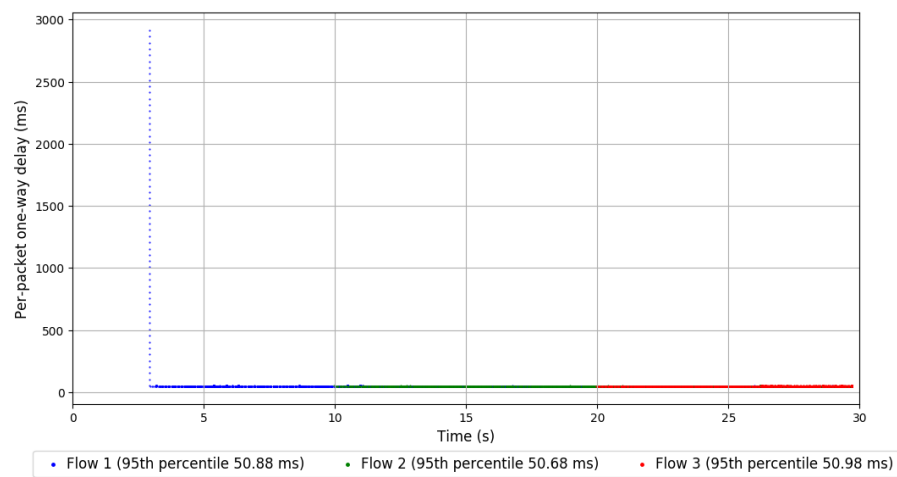
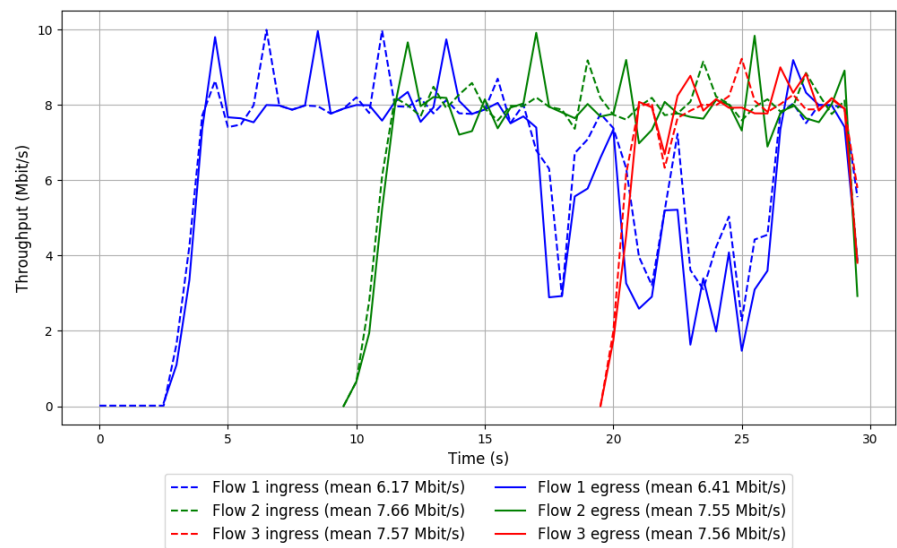
-- Flow 3:

Average throughput: 7.56 Mbit/s

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

Loss rate: 1.33%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-21 05:50:36

End at: 2017-08-21 05:51:06

# Below is generated by plot.py at 2017-08-21 10:30:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 13.78 Mbit/s

95th percentile per-packet one-way delay: 50.772 ms

Loss rate: 3.54%

-- Flow 1:

Average throughput: 6.17 Mbit/s

95th percentile per-packet one-way delay: 50.777 ms

Loss rate: 6.54%

-- Flow 2:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 50.742 ms

Loss rate: 0.57%

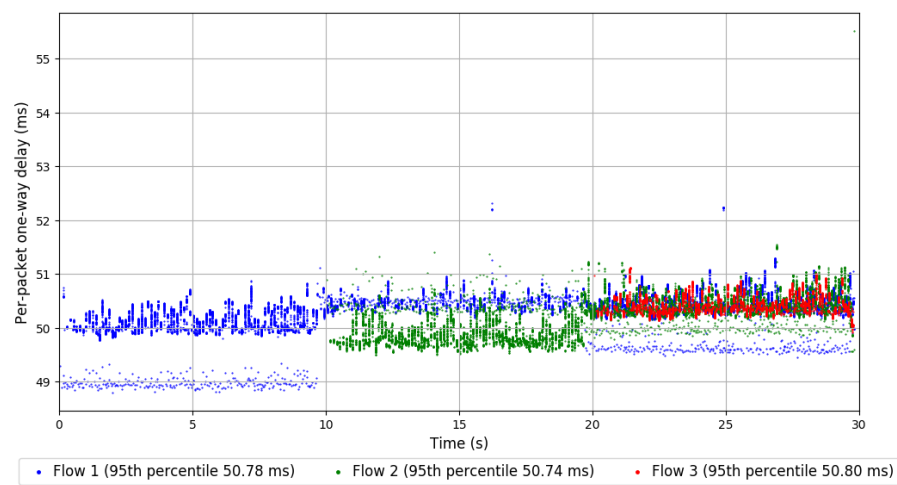
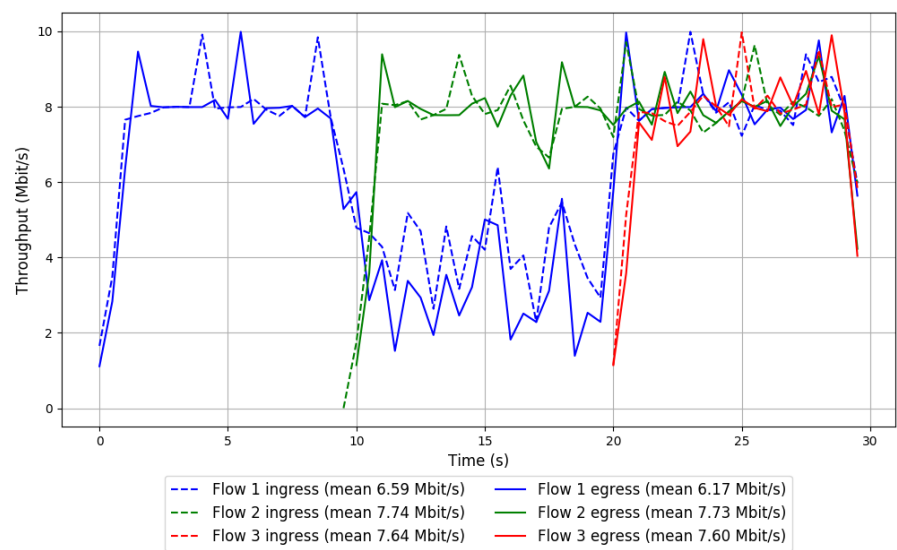
-- Flow 3:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 50.800 ms

Loss rate: 1.75%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-21 06:02:22

End at: 2017-08-21 06:02:52

# Below is generated by plot.py at 2017-08-21 10:30:22

# Datalink statistics

-- Total of 3 flows:

Average throughput: 14.31 Mbit/s

95th percentile per-packet one-way delay: 51.166 ms

Loss rate: 3.58%

-- Flow 1:

Average throughput: 7.14 Mbit/s

95th percentile per-packet one-way delay: 51.102 ms

Loss rate: 3.15%

-- Flow 2:

Average throughput: 7.08 Mbit/s

95th percentile per-packet one-way delay: 50.976 ms

Loss rate: 5.35%

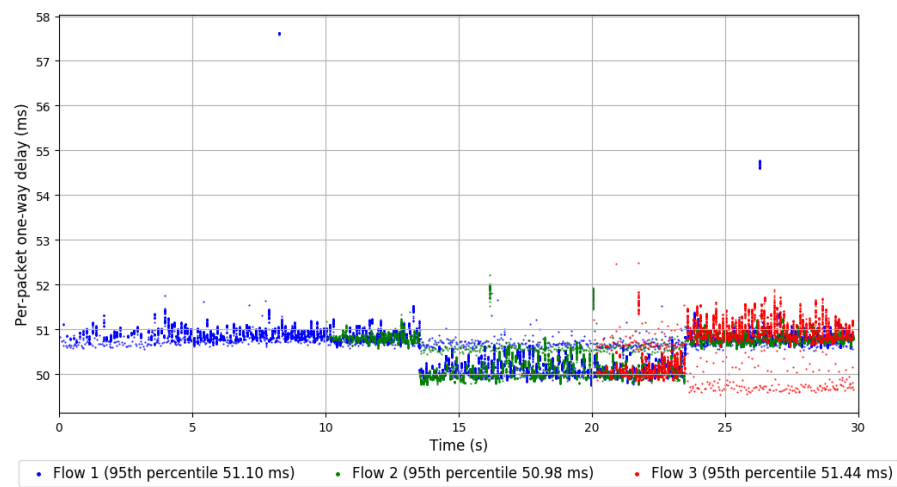
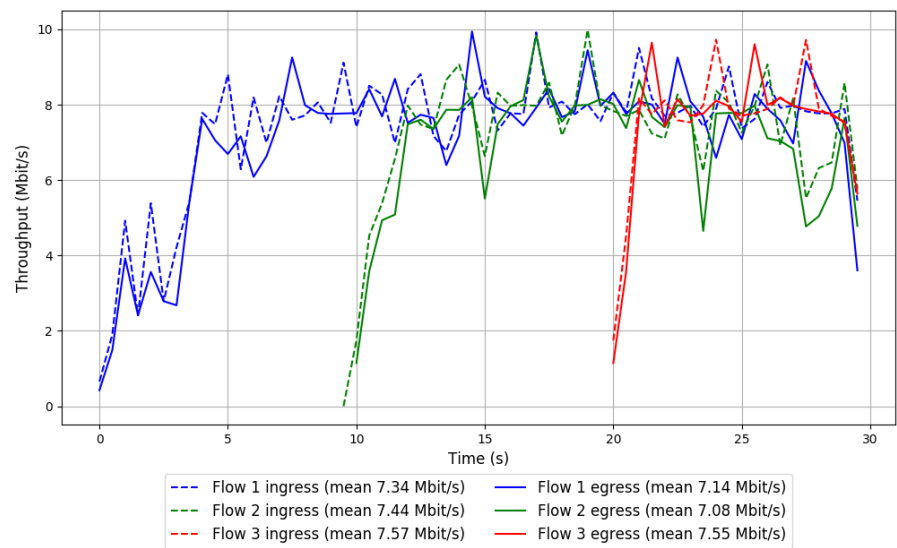
-- Flow 3:

Average throughput: 7.55 Mbit/s

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

Loss rate: 1.31%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-21 06:14:07

End at: 2017-08-21 06:14:37

# Below is generated by plot.py at 2017-08-21 10:30:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.54 Mbit/s

95th percentile per-packet one-way delay: 51.152 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.149 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 51.151 ms

Loss rate: 0.77%

-- Flow 3:

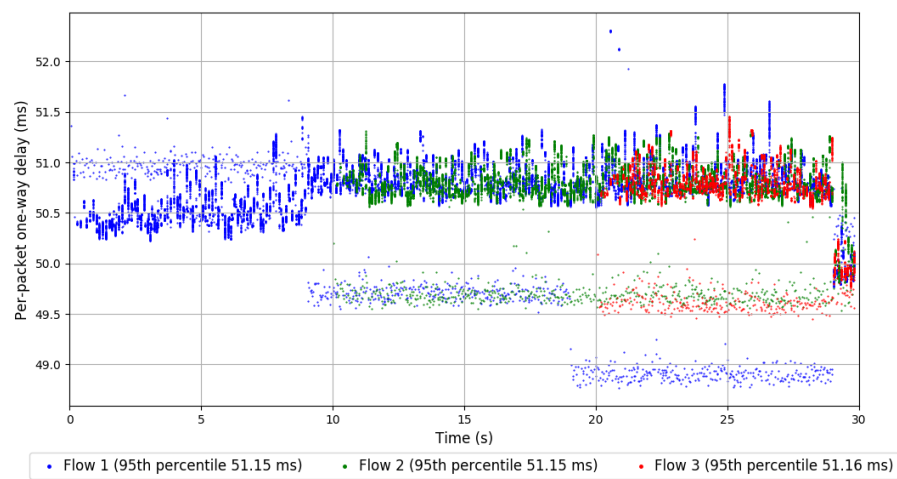
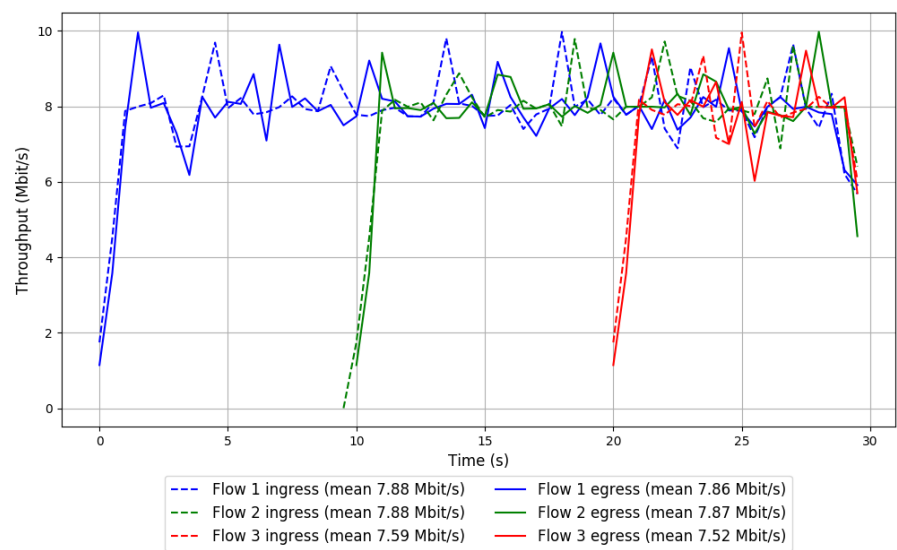
Average throughput: 7.52 Mbit/s

95th percentile per-packet one-way delay: 51.158 ms

Loss rate: 1.64%



Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-21 06:26:19

End at: 2017-08-21 06:26:49

# Below is generated by plot.py at 2017-08-21 10:30:26

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.35 Mbit/s

95th percentile per-packet one-way delay: 51.105 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.132 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 7.75 Mbit/s

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

Loss rate: 0.64%

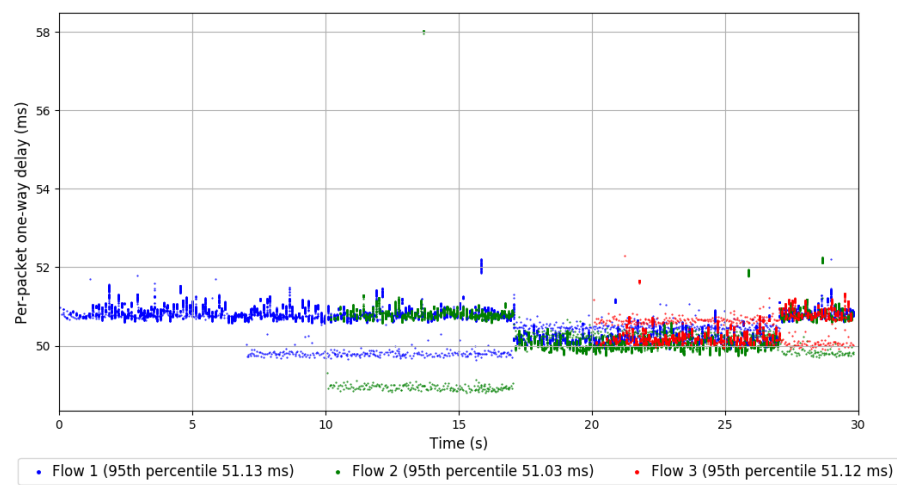
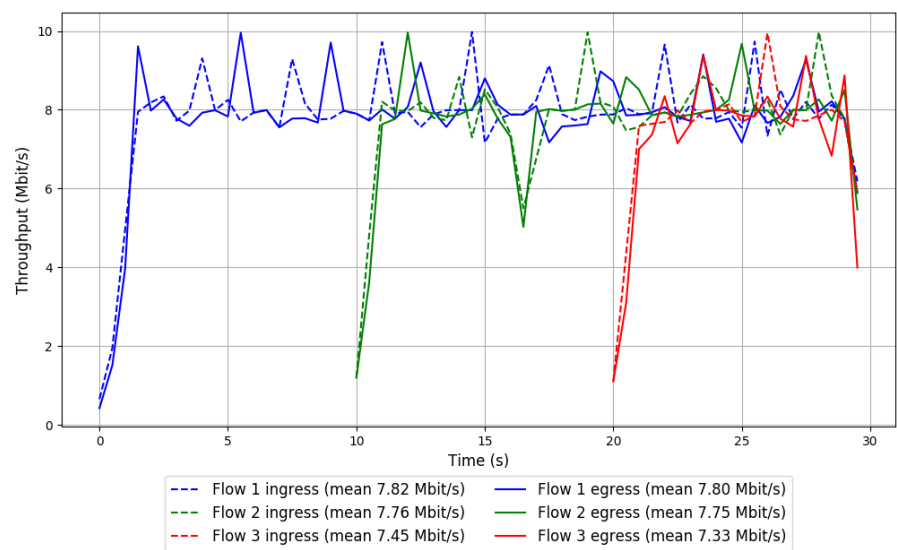
-- Flow 3:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 51.117 ms

Loss rate: 2.32%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-21 06:38:37

End at: 2017-08-21 06:39:07

# Below is generated by plot.py at 2017-08-21 10:30:30

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.57 Mbit/s

95th percentile per-packet one-way delay: 51.288 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.355 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 51.158 ms

Loss rate: 1.23%

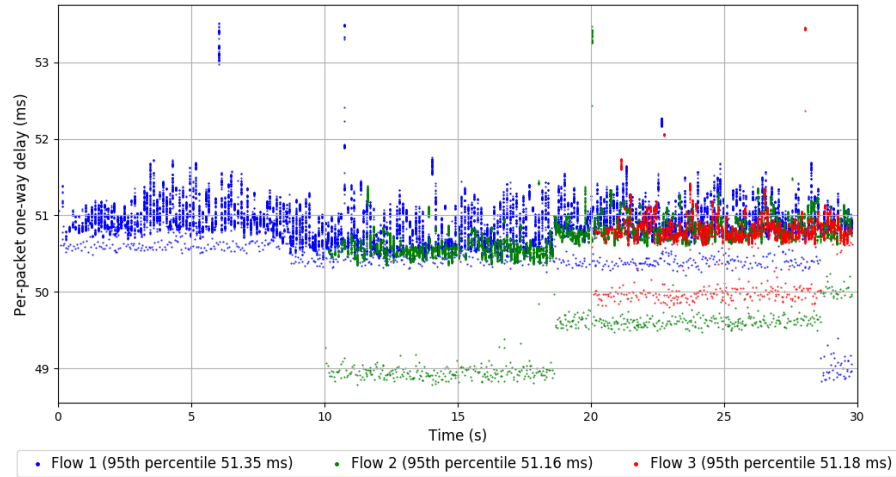
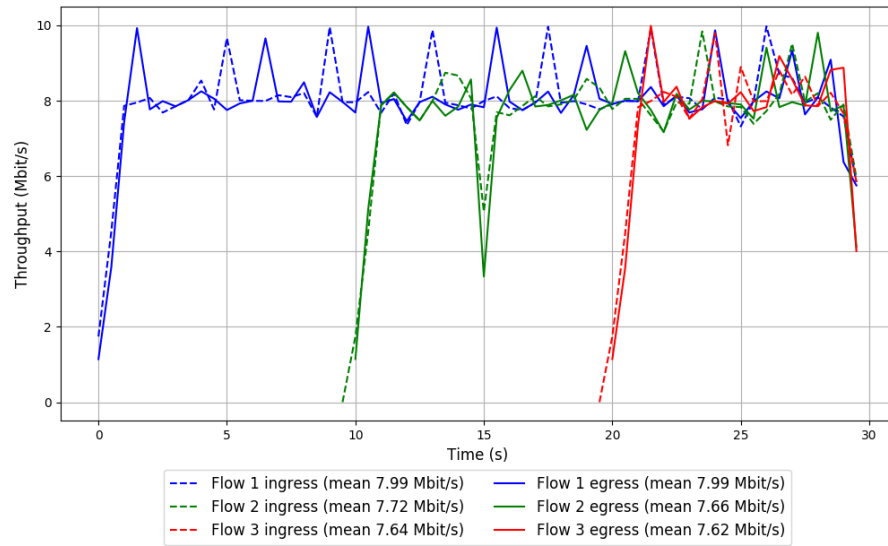
-- Flow 3:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 51.179 ms

Loss rate: 1.31%

## Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-21 06:50:35

End at: 2017-08-21 06:51:05

# Below is generated by plot.py at 2017-08-21 10:30:31

# Datalink statistics

-- Total of 3 flows:

Average throughput: 15.57 Mbit/s

95th percentile per-packet one-way delay: 51.351 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 7.95 Mbit/s

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

Loss rate: 0.57%

-- Flow 2:

Average throughput: 7.75 Mbit/s

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

Loss rate: 0.63%

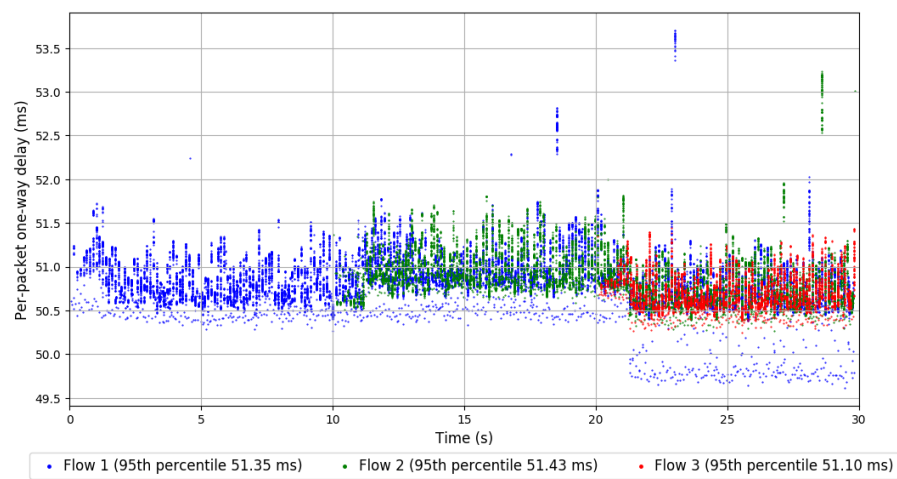
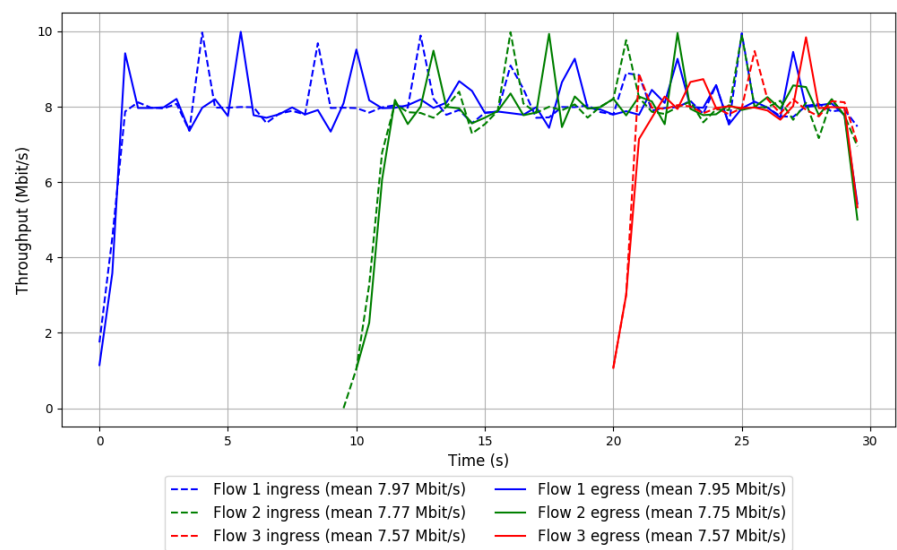
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 51.100 ms

Loss rate: 1.34%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-21 07:02:19

End at: 2017-08-21 07:02:49

# Below is generated by plot.py at 2017-08-21 10:30:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 12.20 Mbit/s

95th percentile per-packet one-way delay: 51.339 ms

Loss rate: 6.40%

-- Flow 1:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 12.86%

-- Flow 2:

Average throughput: 7.65 Mbit/s

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

Loss rate: 1.68%

-- Flow 3:

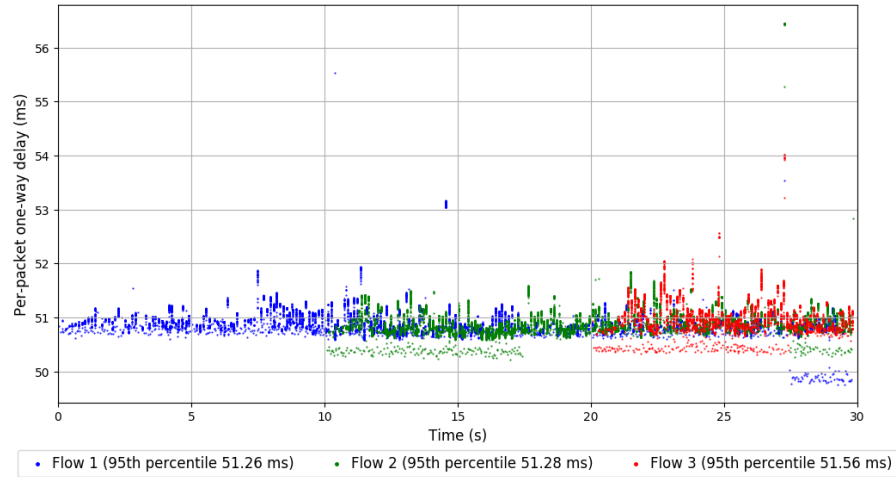
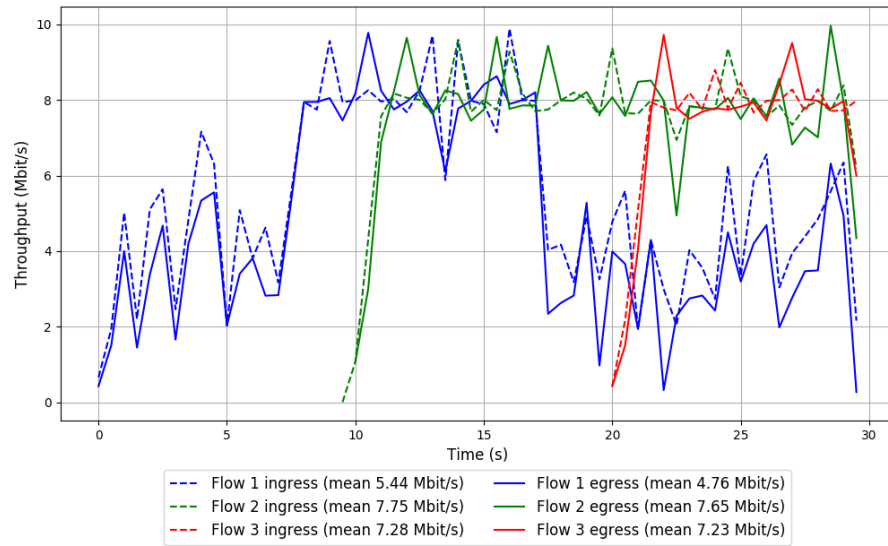
Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 51.557 ms

Loss rate: 1.88%



## Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-21 07:14:09

End at: 2017-08-21 07:14:39

# Below is generated by plot.py at 2017-08-21 10:30:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 11.84 Mbit/s

95th percentile per-packet one-way delay: 51.400 ms

Loss rate: 6.47%

-- Flow 1:

Average throughput: 5.31 Mbit/s

95th percentile per-packet one-way delay: 51.338 ms

Loss rate: 9.80%

-- Flow 2:

Average throughput: 6.30 Mbit/s

95th percentile per-packet one-way delay: 51.516 ms

Loss rate: 4.75%

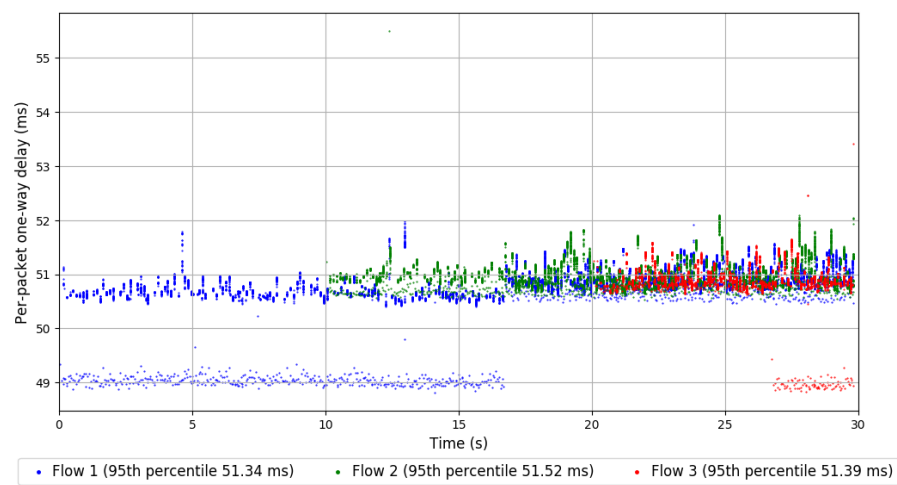
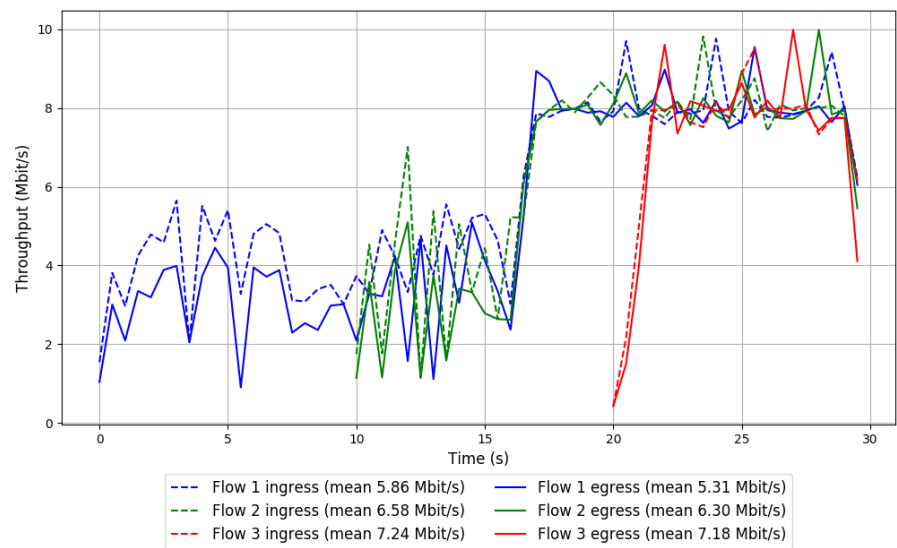
-- Flow 3:

Average throughput: 7.18 Mbit/s

95th percentile per-packet one-way delay: 51.391 ms

Loss rate: 1.43%

Run 10: Report of Sprout — Data Link

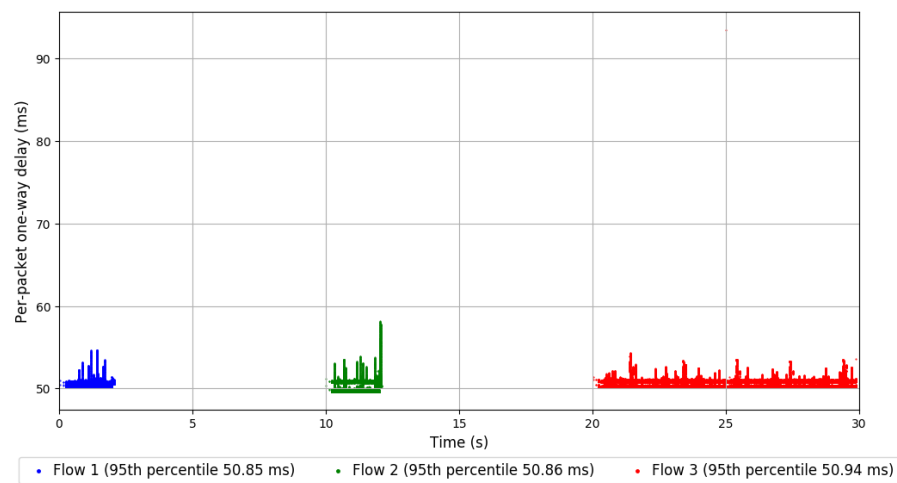
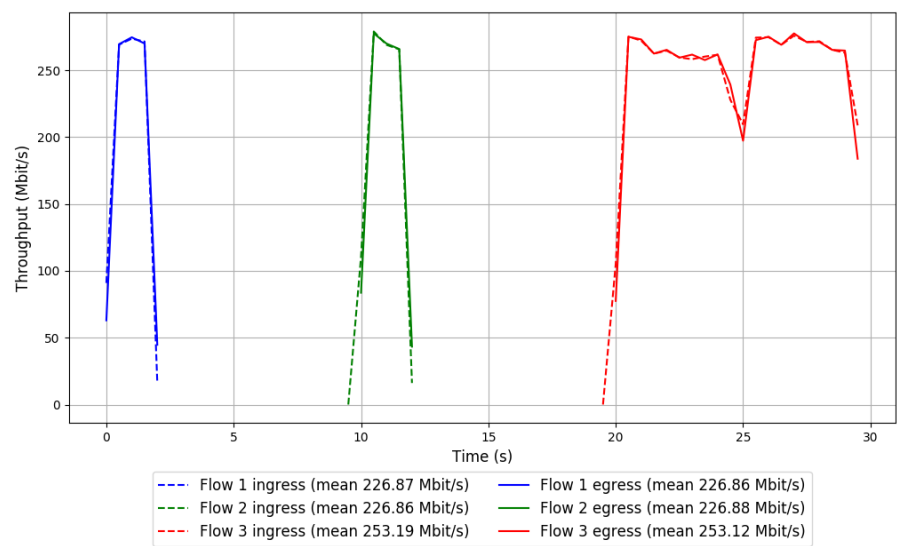


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-21 05:25:44
End at: 2017-08-21 05:26:14

# Below is generated by plot.py at 2017-08-21 10:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.74 Mbit/s
95th percentile per-packet one-way delay: 50.927 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 226.86 Mbit/s
95th percentile per-packet one-way delay: 50.847 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 226.88 Mbit/s
95th percentile per-packet one-way delay: 50.859 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 253.12 Mbit/s
95th percentile per-packet one-way delay: 50.936 ms
Loss rate: 1.00%
```

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

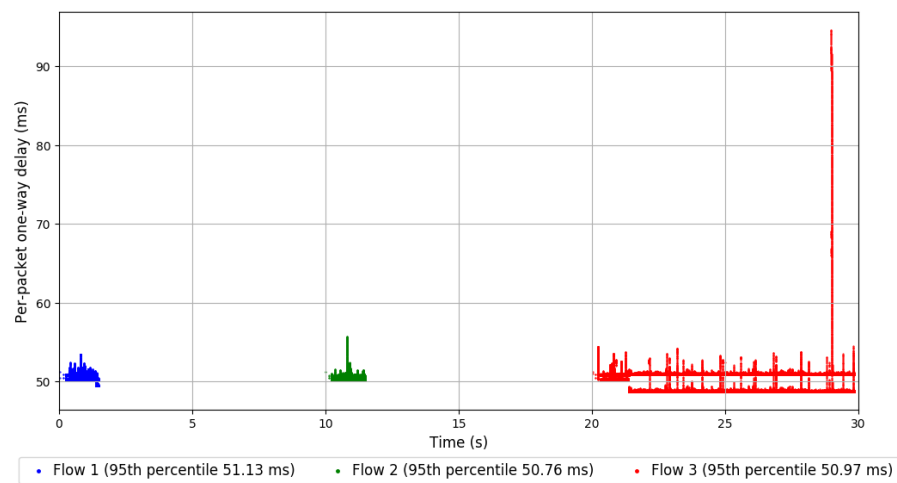
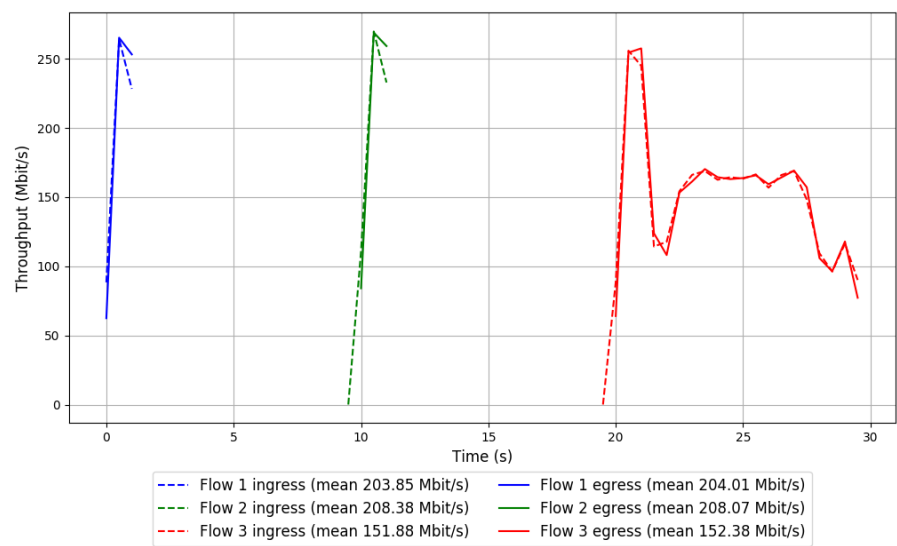


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-21 05:37:35
End at: 2017-08-21 05:38:05

# Below is generated by plot.py at 2017-08-21 10:31:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 70.29 Mbit/s
95th percentile per-packet one-way delay: 50.970 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 204.01 Mbit/s
95th percentile per-packet one-way delay: 51.133 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 208.07 Mbit/s
95th percentile per-packet one-way delay: 50.758 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 152.38 Mbit/s
95th percentile per-packet one-way delay: 50.970 ms
Loss rate: 0.73%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-21 05:48:58

End at: 2017-08-21 05:49:28

# Below is generated by plot.py at 2017-08-21 10:31:51

# Datalink statistics

-- Total of 3 flows:

Average throughput: 196.62 Mbit/s

95th percentile per-packet one-way delay: 50.597 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 249.57 Mbit/s

95th percentile per-packet one-way delay: 50.686 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 176.07 Mbit/s

95th percentile per-packet one-way delay: 49.904 ms

Loss rate: 0.25%

-- Flow 3:

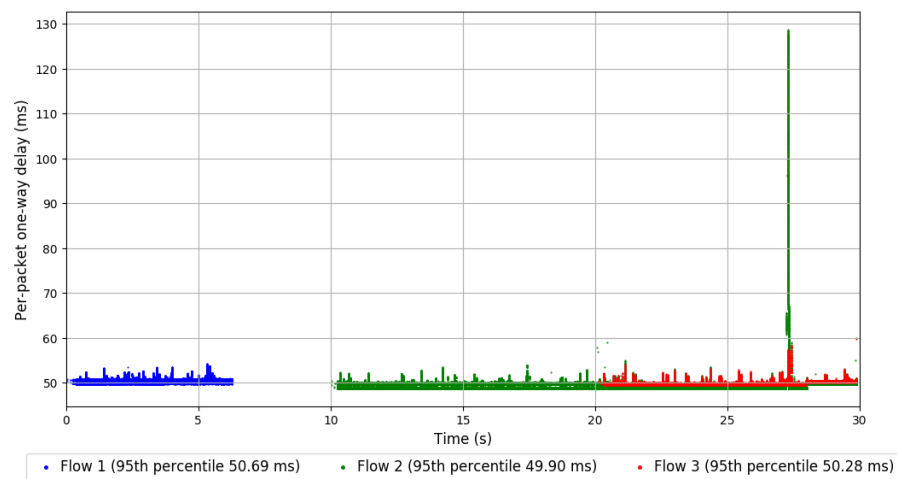
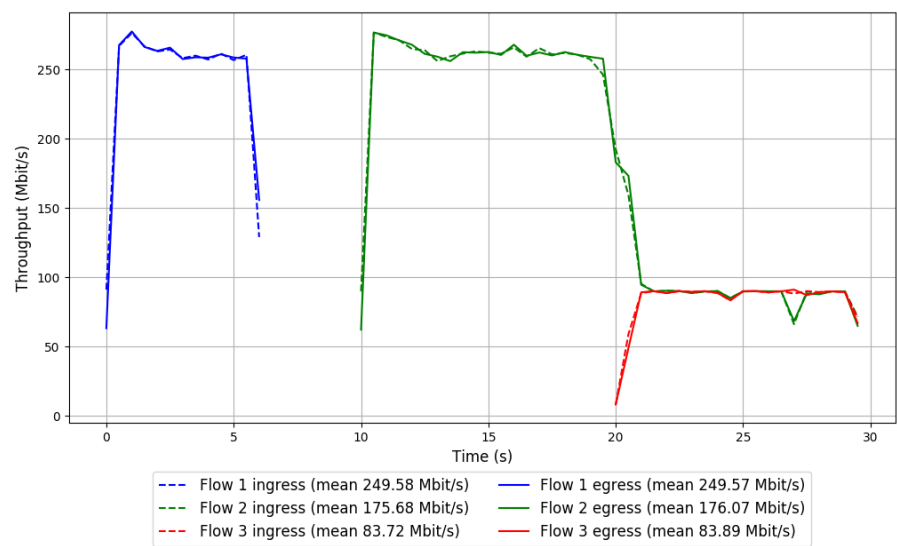
Average throughput: 83.89 Mbit/s

95th percentile per-packet one-way delay: 50.280 ms

Loss rate: 0.81%



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

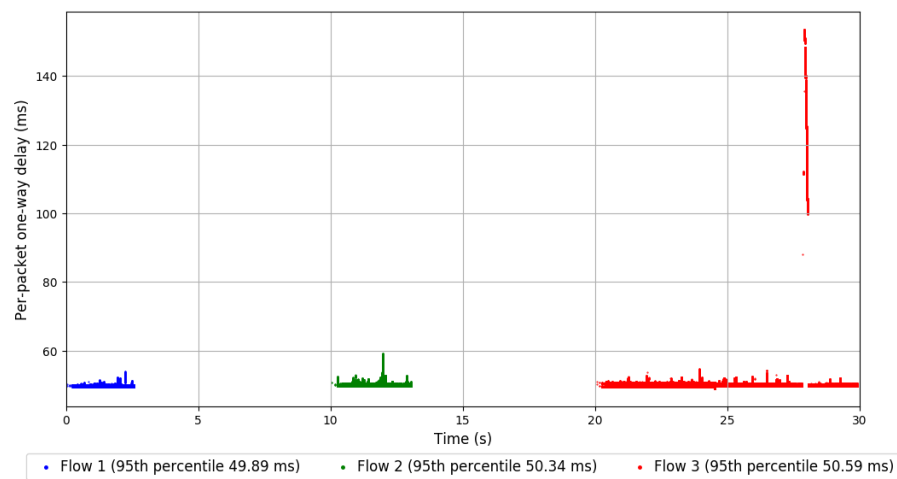
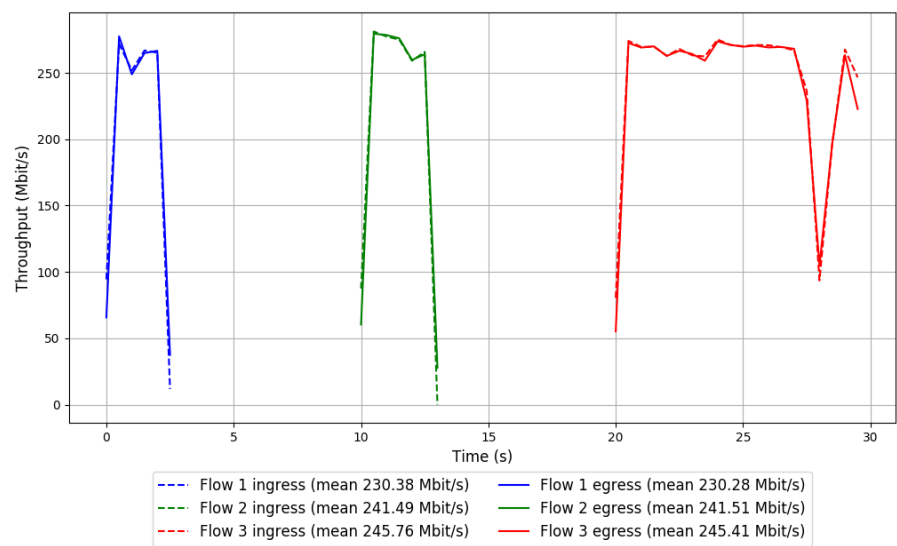


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-08-21 06:00:51
End at: 2017-08-21 06:01:21

# Below is generated by plot.py at 2017-08-21 10:31:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 124.50 Mbit/s
95th percentile per-packet one-way delay: 50.566 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 230.28 Mbit/s
95th percentile per-packet one-way delay: 49.889 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 241.51 Mbit/s
95th percentile per-packet one-way delay: 50.341 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 245.41 Mbit/s
95th percentile per-packet one-way delay: 50.595 ms
Loss rate: 1.18%
```

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

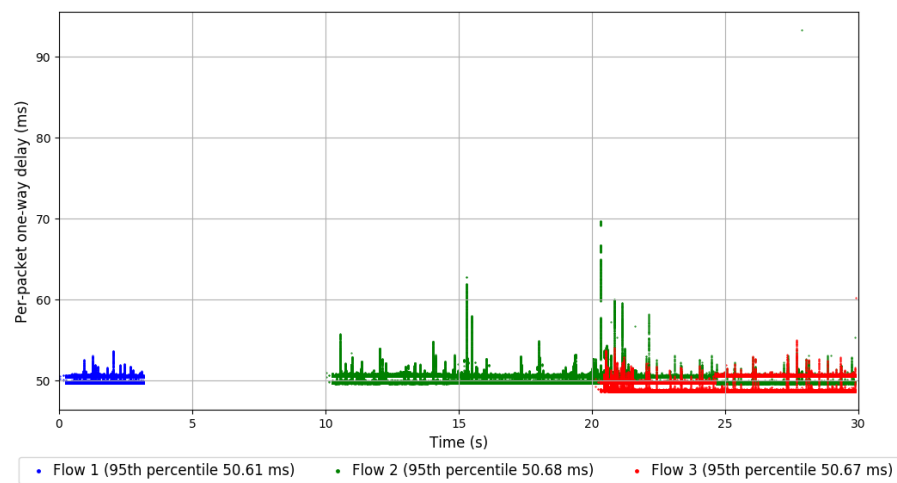
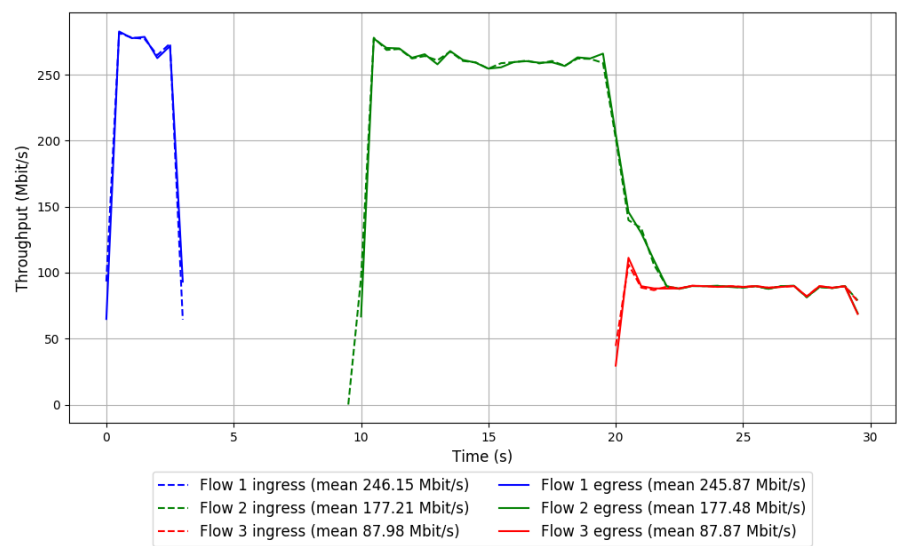


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-21 06:12:31
End at: 2017-08-21 06:13:01

# Below is generated by plot.py at 2017-08-21 10:32:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.43 Mbit/s
95th percentile per-packet one-way delay: 50.671 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 245.87 Mbit/s
95th percentile per-packet one-way delay: 50.606 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 177.48 Mbit/s
95th percentile per-packet one-way delay: 50.678 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 87.87 Mbit/s
95th percentile per-packet one-way delay: 50.673 ms
Loss rate: 1.07%
```

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-21 06:24:38

End at: 2017-08-21 06:25:08

# Below is generated by plot.py at 2017-08-21 10:33:05

# Datalink statistics

-- Total of 3 flows:

Average throughput: 217.21 Mbit/s

95th percentile per-packet one-way delay: 50.700 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 139.57 Mbit/s

95th percentile per-packet one-way delay: 50.667 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 89.11 Mbit/s

95th percentile per-packet one-way delay: 50.815 ms

Loss rate: 0.36%

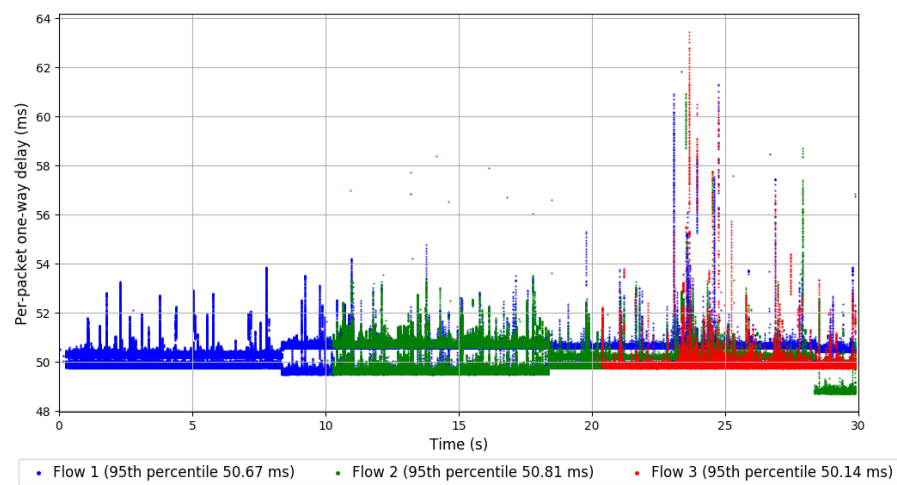
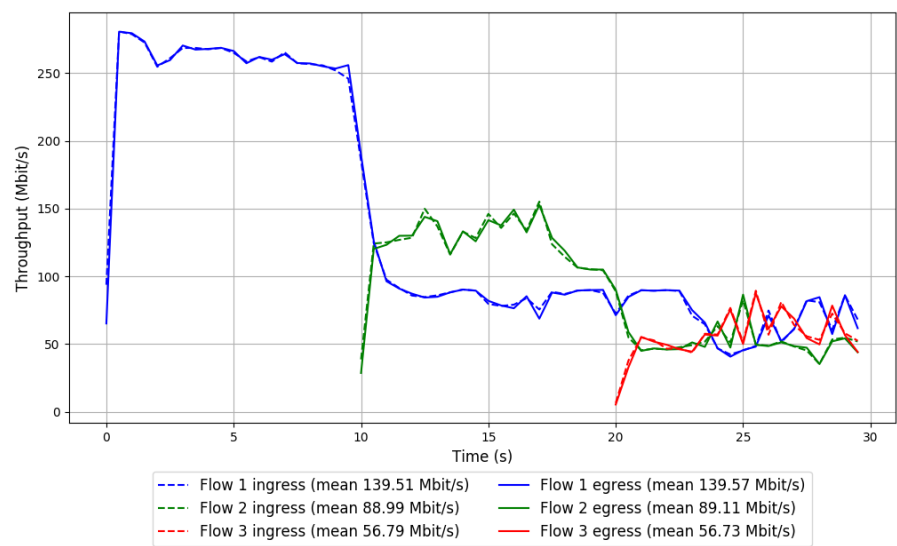
-- Flow 3:

Average throughput: 56.73 Mbit/s

95th percentile per-packet one-way delay: 50.139 ms

Loss rate: 1.10%

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



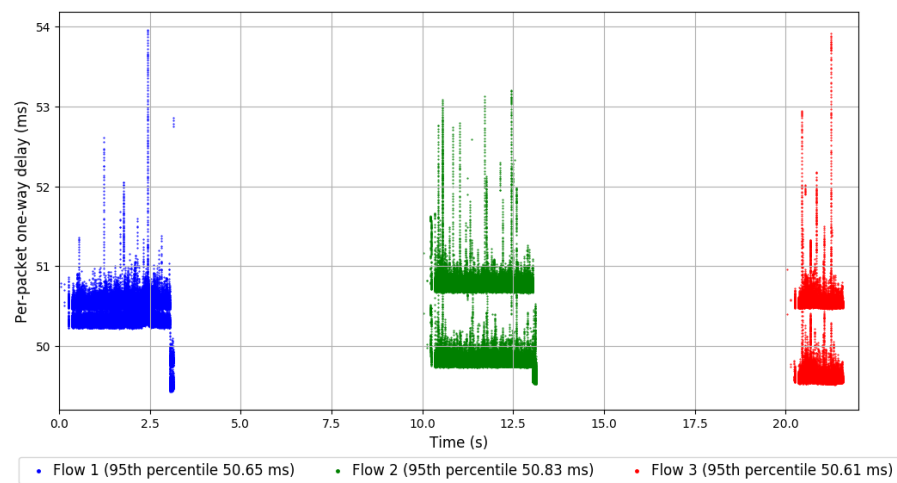
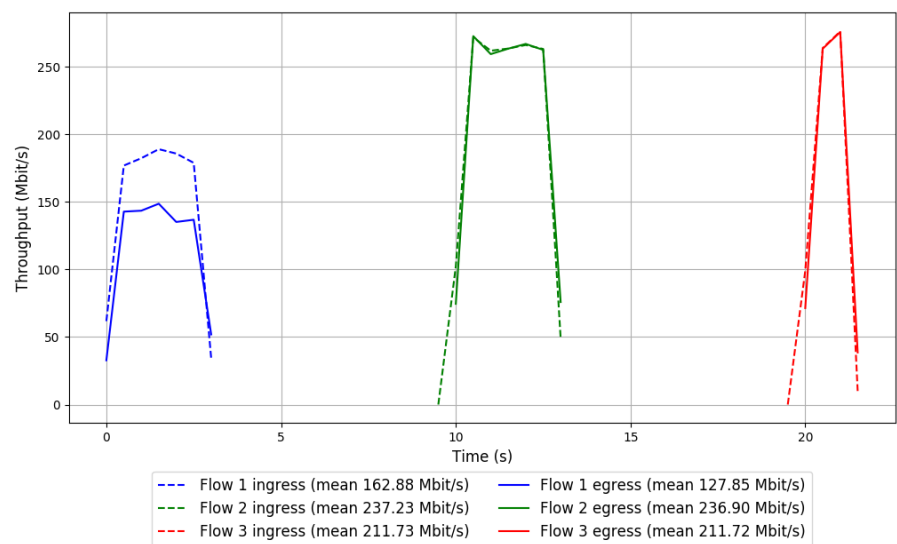
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-21 06:37:13

End at: 2017-08-21 06:37:43



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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-21 06:48:53

End at: 2017-08-21 06:49:23

# Below is generated by plot.py at 2017-08-21 10:34:03

# Datalink statistics

-- Total of 3 flows:

Average throughput: 210.73 Mbit/s

95th percentile per-packet one-way delay: 51.042 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 145.20 Mbit/s

95th percentile per-packet one-way delay: 51.057 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 58.07 Mbit/s

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

Loss rate: 0.13%

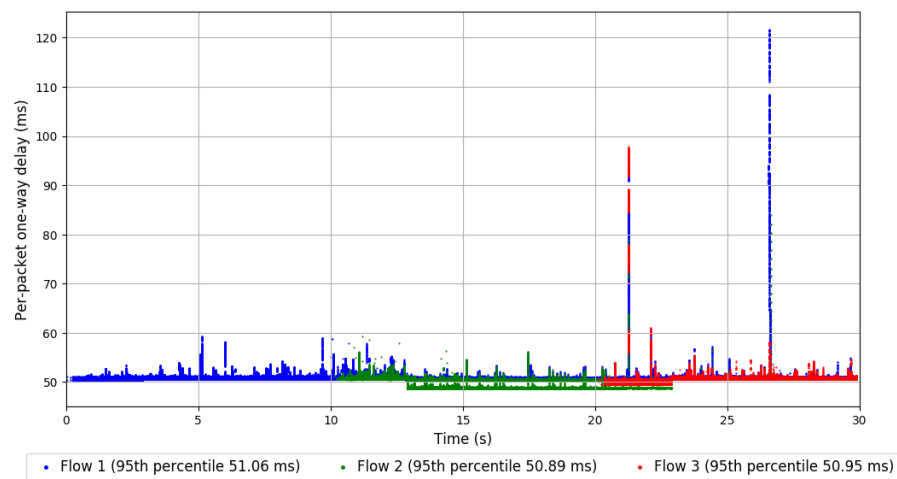
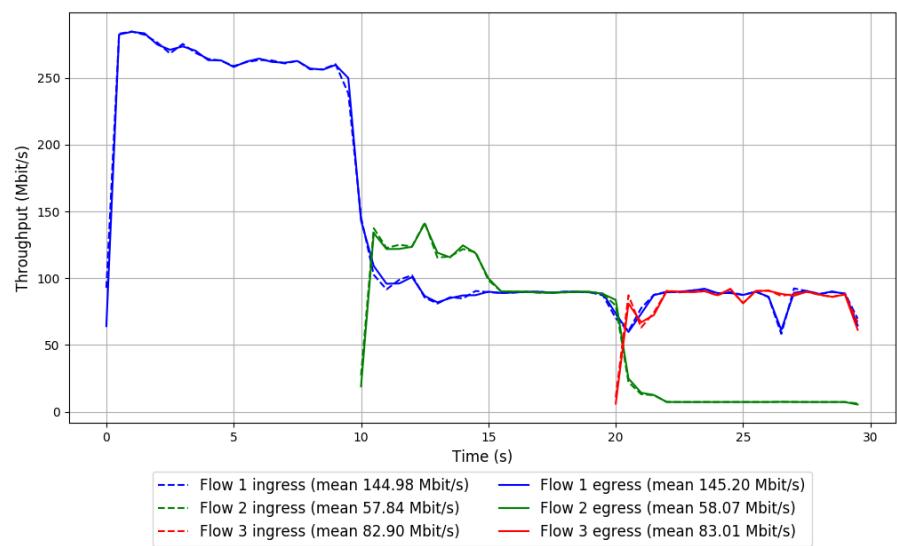
-- Flow 3:

Average throughput: 83.01 Mbit/s

95th percentile per-packet one-way delay: 50.954 ms

Loss rate: 0.91%

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

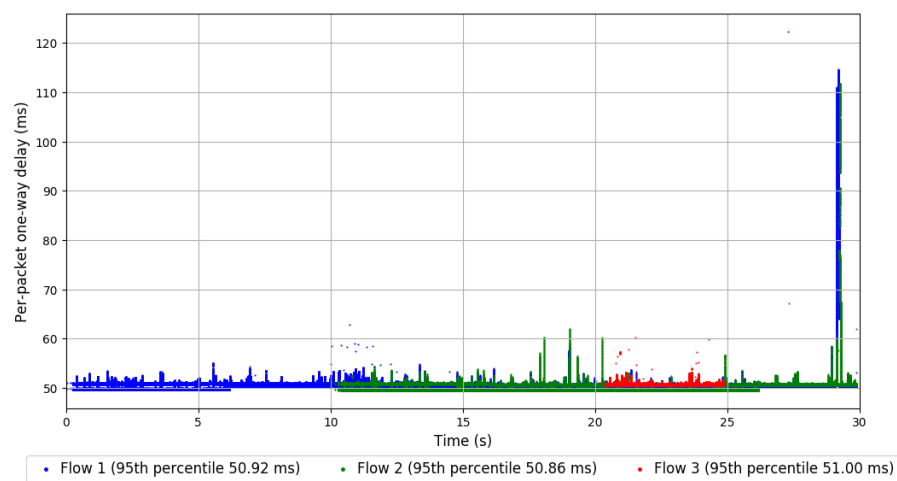
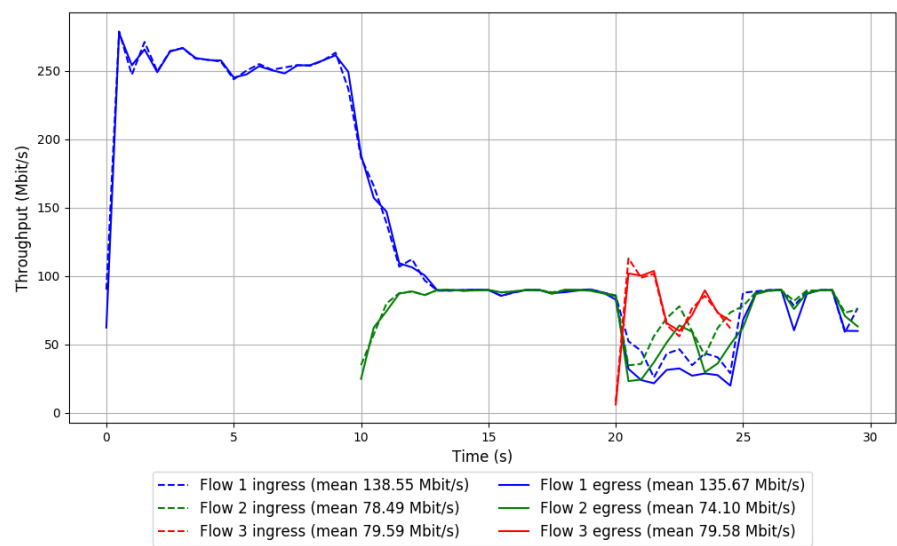


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-08-21 07:00:40
End at: 2017-08-21 07:01:10

# Below is generated by plot.py at 2017-08-21 10:34:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 197.21 Mbit/s
95th percentile per-packet one-way delay: 50.901 ms
Loss rate: 3.18%
-- Flow 1:
Average throughput: 135.67 Mbit/s
95th percentile per-packet one-way delay: 50.917 ms
Loss rate: 2.39%
-- Flow 2:
Average throughput: 74.10 Mbit/s
95th percentile per-packet one-way delay: 50.858 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 79.58 Mbit/s
95th percentile per-packet one-way delay: 50.996 ms
Loss rate: 0.02%
```

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

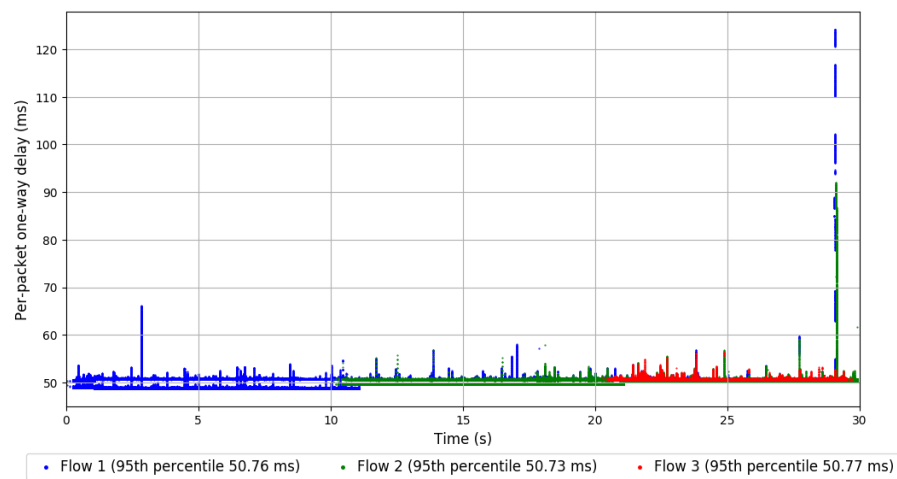
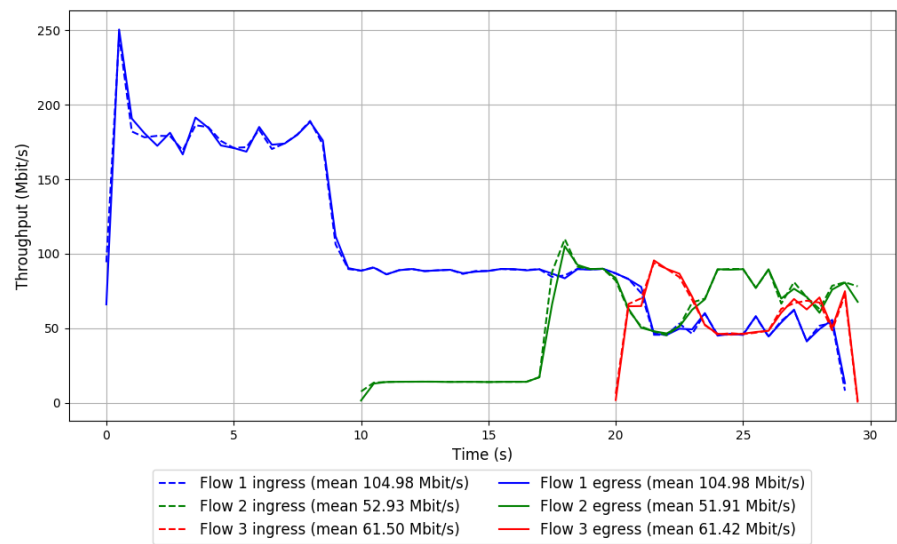


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-21 07:12:35
End at: 2017-08-21 07:13:05

# Below is generated by plot.py at 2017-08-21 10:34:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 156.86 Mbit/s
95th percentile per-packet one-way delay: 50.753 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 104.98 Mbit/s
95th percentile per-packet one-way delay: 50.756 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 51.91 Mbit/s
95th percentile per-packet one-way delay: 50.728 ms
Loss rate: 2.41%
-- Flow 3:
Average throughput: 61.42 Mbit/s
95th percentile per-packet one-way delay: 50.773 ms
Loss rate: 0.12%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-21 05:27:54

End at: 2017-08-21 05:28:24

# Below is generated by plot.py at 2017-08-21 10:34:53

# Datalink statistics

-- Total of 3 flows:

Average throughput: 150.58 Mbit/s

95th percentile per-packet one-way delay: 50.925 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 104.21 Mbit/s

95th percentile per-packet one-way delay: 50.980 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 46.91 Mbit/s

95th percentile per-packet one-way delay: 50.827 ms

Loss rate: 0.64%

-- Flow 3:

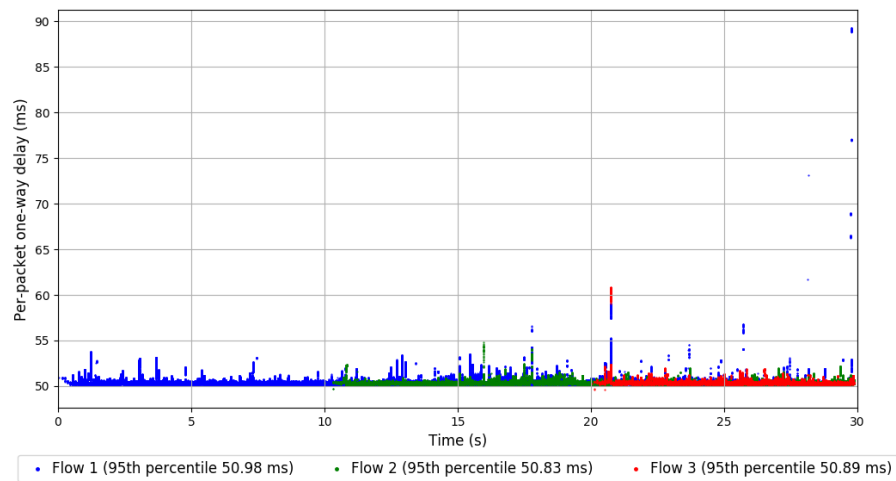
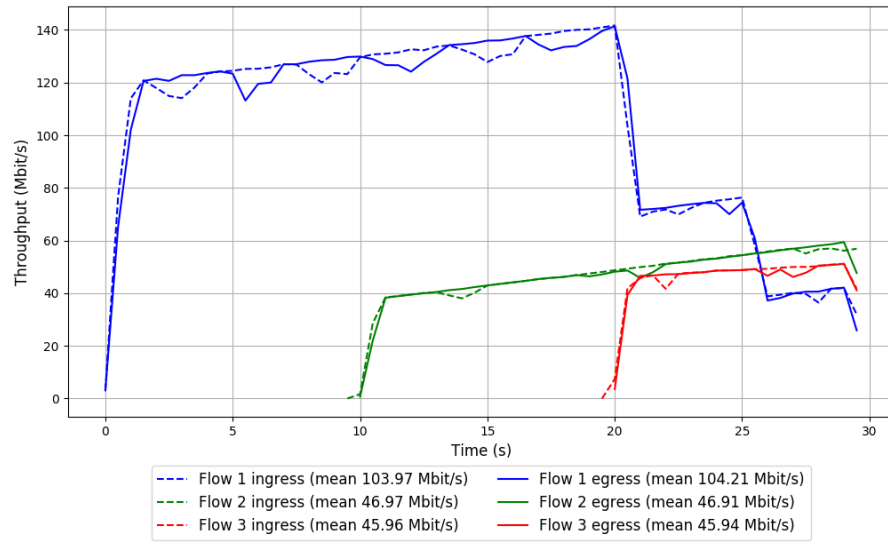
Average throughput: 45.94 Mbit/s

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

Loss rate: 1.13%



## Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-21 05:39:40

End at: 2017-08-21 05:40:10

# Below is generated by plot.py at 2017-08-21 10:34:54

# Datalink statistics

-- Total of 3 flows:

Average throughput: 48.49 Mbit/s

95th percentile per-packet one-way delay: 51.587 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 31.52 Mbit/s

95th percentile per-packet one-way delay: 51.289 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 14.37 Mbit/s

95th percentile per-packet one-way delay: 51.988 ms

Loss rate: 0.68%

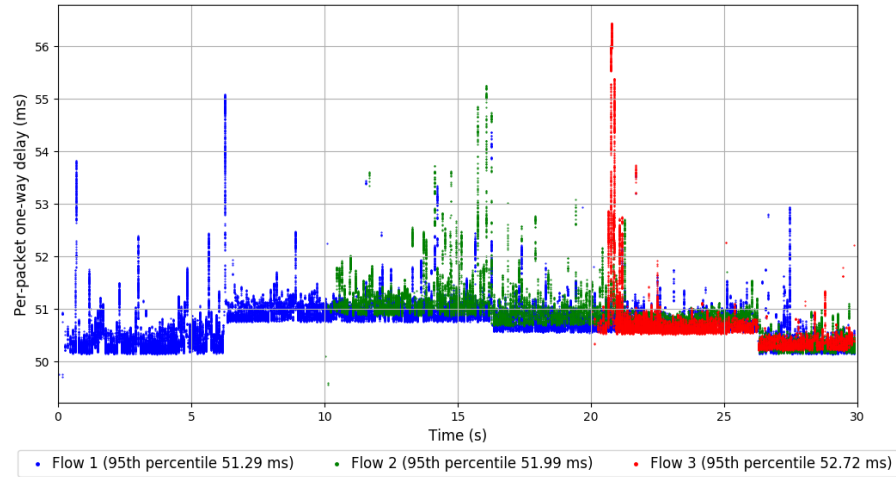
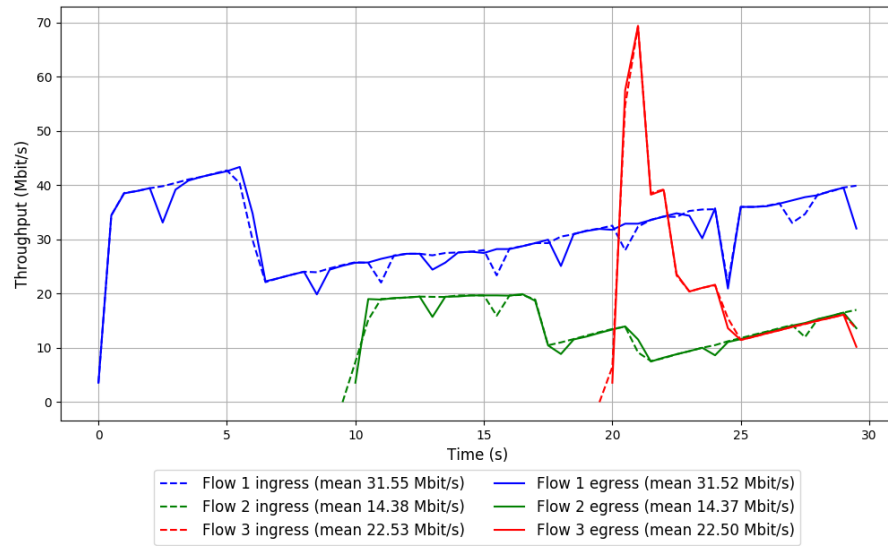
-- Flow 3:

Average throughput: 22.50 Mbit/s

95th percentile per-packet one-way delay: 52.717 ms

Loss rate: 1.18%

## Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-21 05:51:16

End at: 2017-08-21 05:51:46

# Below is generated by plot.py at 2017-08-21 10:34:56

# Datalink statistics

-- Total of 3 flows:

Average throughput: 58.28 Mbit/s

95th percentile per-packet one-way delay: 50.864 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 14.16 Mbit/s

95th percentile per-packet one-way delay: 50.735 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 47.43 Mbit/s

95th percentile per-packet one-way delay: 50.524 ms

Loss rate: 0.55%

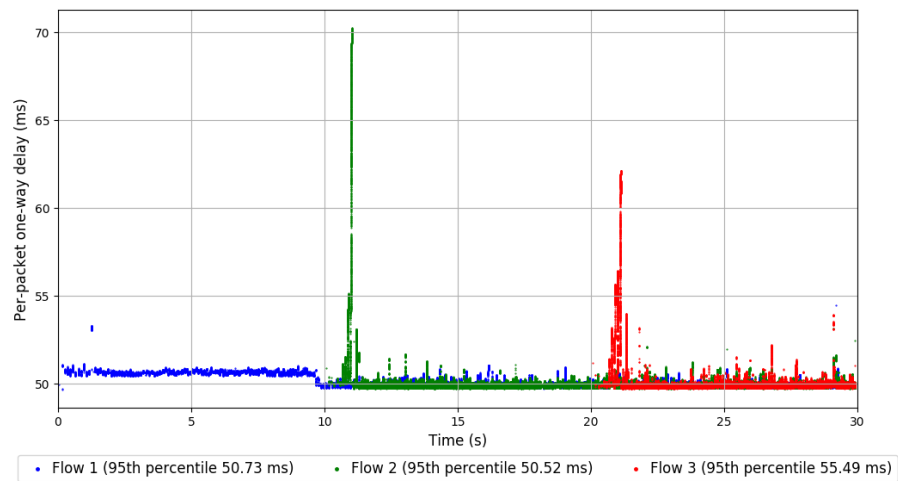
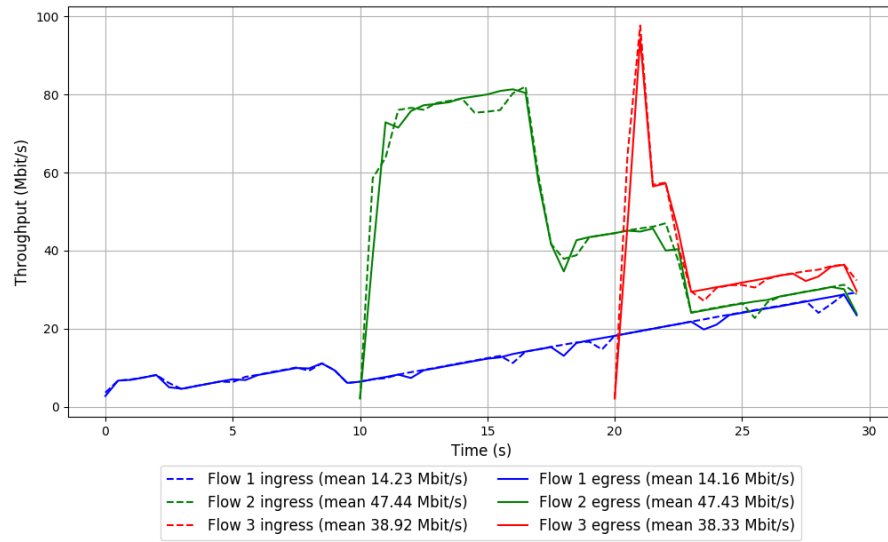
-- Flow 3:

Average throughput: 38.33 Mbit/s

95th percentile per-packet one-way delay: 55.492 ms

Loss rate: 2.56%

### Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-21 06:03:03

End at: 2017-08-21 06:03:33

# Below is generated by plot.py at 2017-08-21 10:35:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 101.13 Mbit/s

95th percentile per-packet one-way delay: 51.032 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 87.12 Mbit/s

95th percentile per-packet one-way delay: 50.986 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 3.34 Mbit/s

95th percentile per-packet one-way delay: 50.137 ms

Loss rate: 2.09%

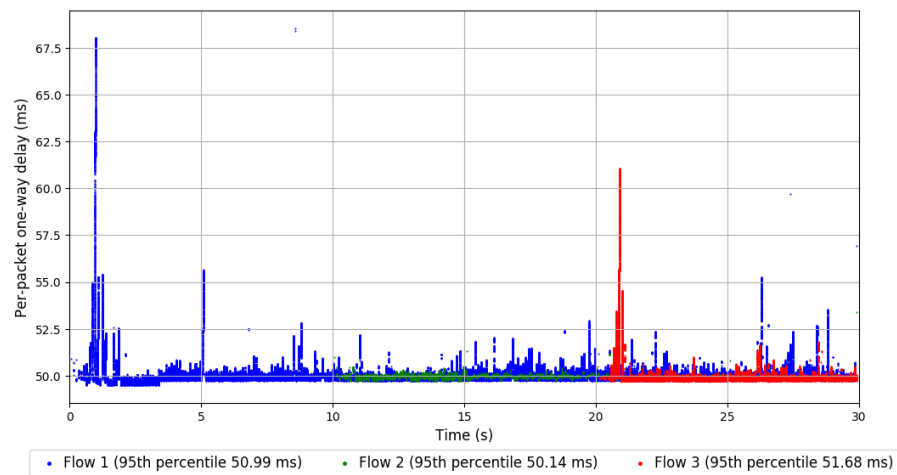
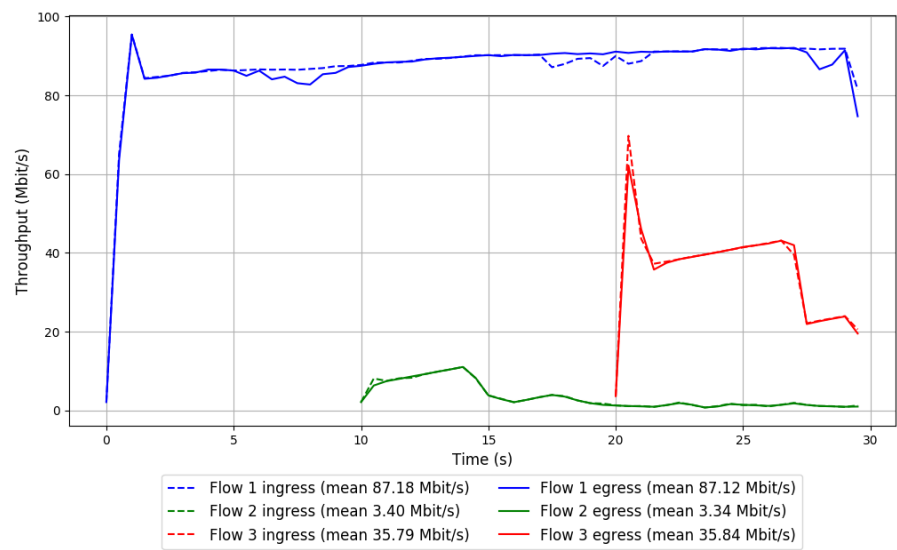
-- Flow 3:

Average throughput: 35.84 Mbit/s

95th percentile per-packet one-way delay: 51.680 ms

Loss rate: 0.88%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-21 06:14:47

End at: 2017-08-21 06:15:17

# Below is generated by plot.py at 2017-08-21 10:35:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 92.64 Mbit/s

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

Loss rate: 0.58%

-- Flow 1:

Average throughput: 46.04 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 69.14 Mbit/s

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

Loss rate: 0.67%

-- Flow 3:

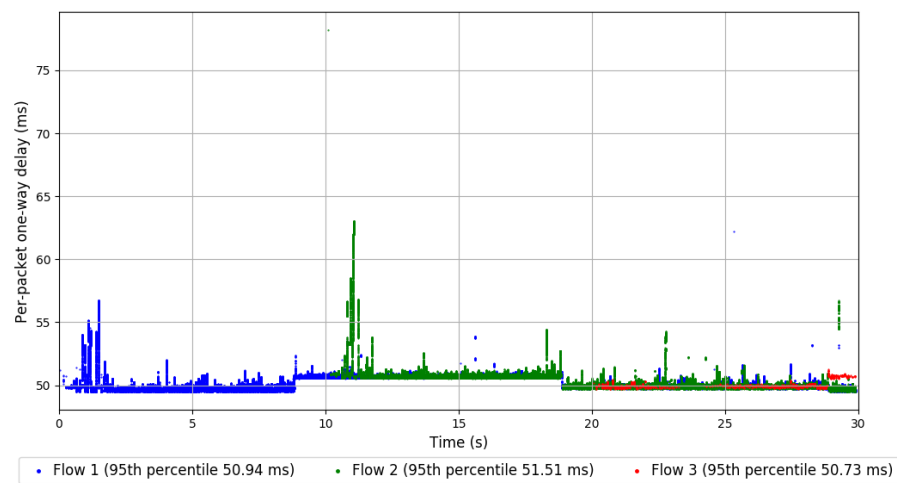
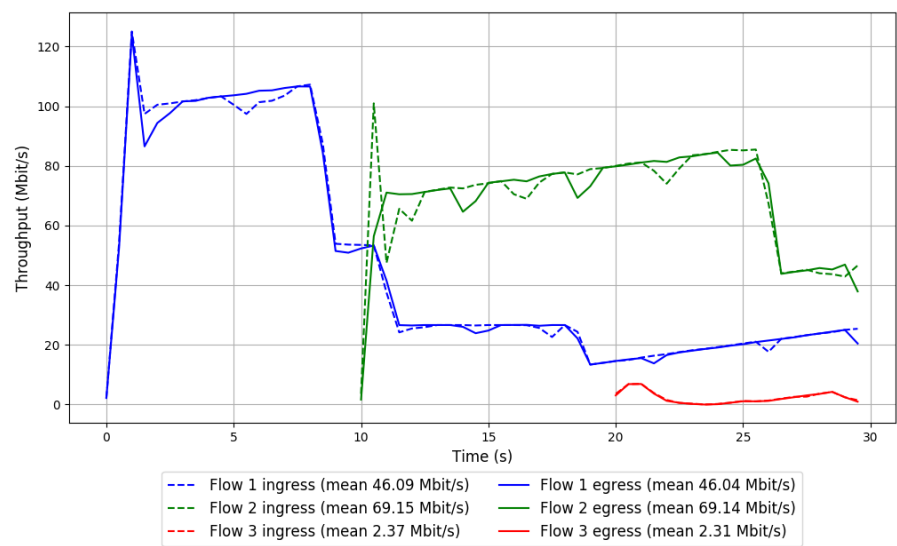
Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 50.731 ms

Loss rate: 3.73%



Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-21 06:26:59

End at: 2017-08-21 06:27:29

# Below is generated by plot.py at 2017-08-21 10:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 102.99 Mbit/s

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

Loss rate: 0.43%

-- Flow 1:

Average throughput: 40.90 Mbit/s

95th percentile per-packet one-way delay: 51.138 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 83.70 Mbit/s

95th percentile per-packet one-way delay: 50.985 ms

Loss rate: 0.45%

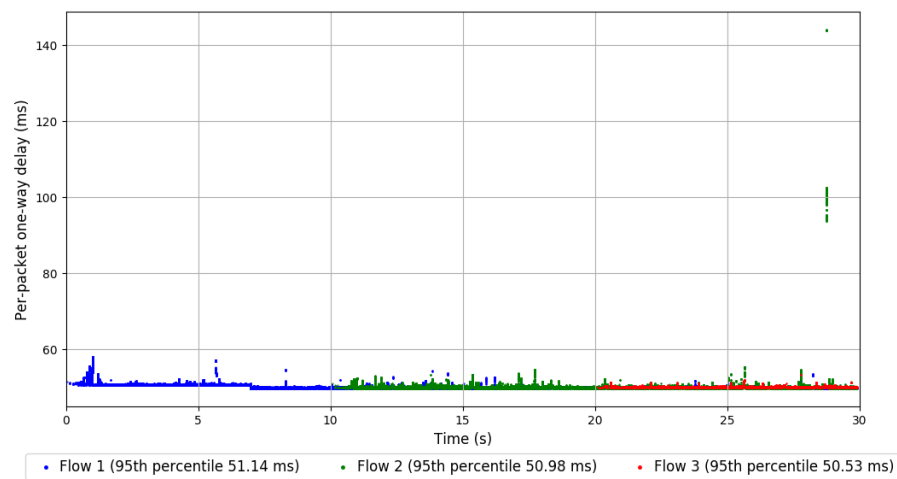
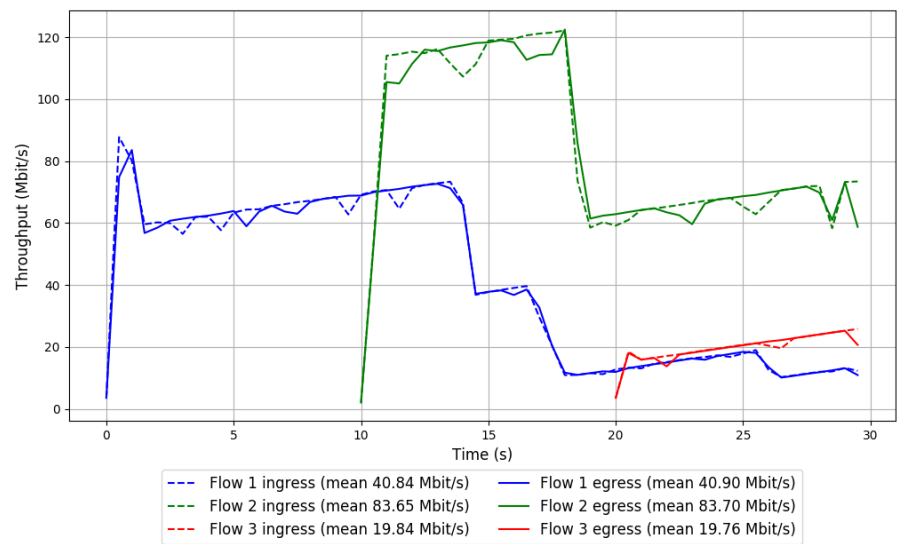
-- Flow 3:

Average throughput: 19.76 Mbit/s

95th percentile per-packet one-way delay: 50.534 ms

Loss rate: 1.41%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-21 06:39:18

End at: 2017-08-21 06:39:48

# Below is generated by plot.py at 2017-08-21 10:35:29

# Datalink statistics

-- Total of 3 flows:

Average throughput: 56.85 Mbit/s

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

Loss rate: 0.49%

-- Flow 1:

Average throughput: 37.55 Mbit/s

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

Loss rate: 0.24%

-- Flow 2:

Average throughput: 28.23 Mbit/s

95th percentile per-packet one-way delay: 51.391 ms

Loss rate: 0.69%

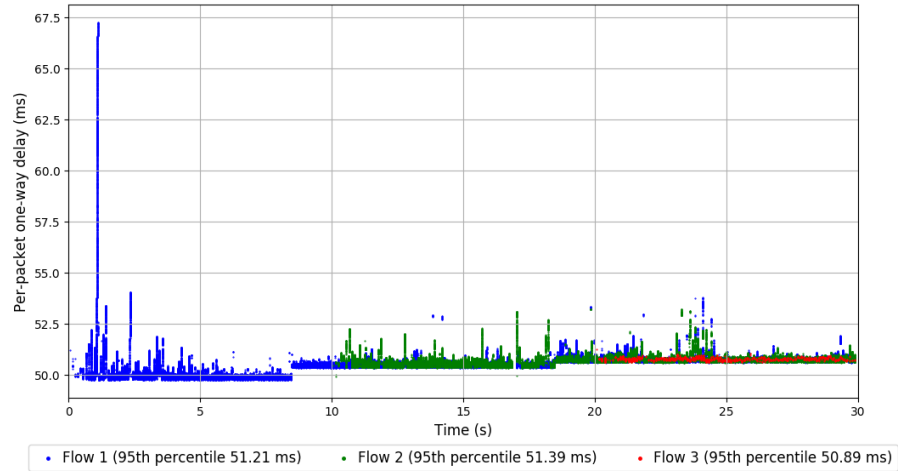
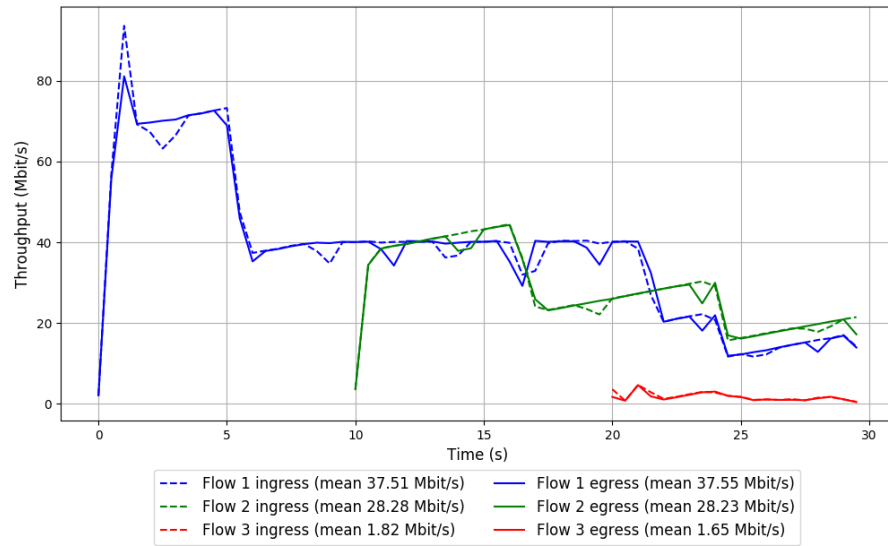
-- Flow 3:

Average throughput: 1.65 Mbit/s

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

Loss rate: 10.13%

## Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-21 06:51:15

End at: 2017-08-21 06:51:45

# Below is generated by plot.py at 2017-08-21 10:35:37

# Datalink statistics

-- Total of 3 flows:

Average throughput: 78.86 Mbit/s

95th percentile per-packet one-way delay: 51.156 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 61.12 Mbit/s

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

Loss rate: 0.44%

-- Flow 2:

Average throughput: 20.35 Mbit/s

95th percentile per-packet one-way delay: 51.494 ms

Loss rate: 1.22%

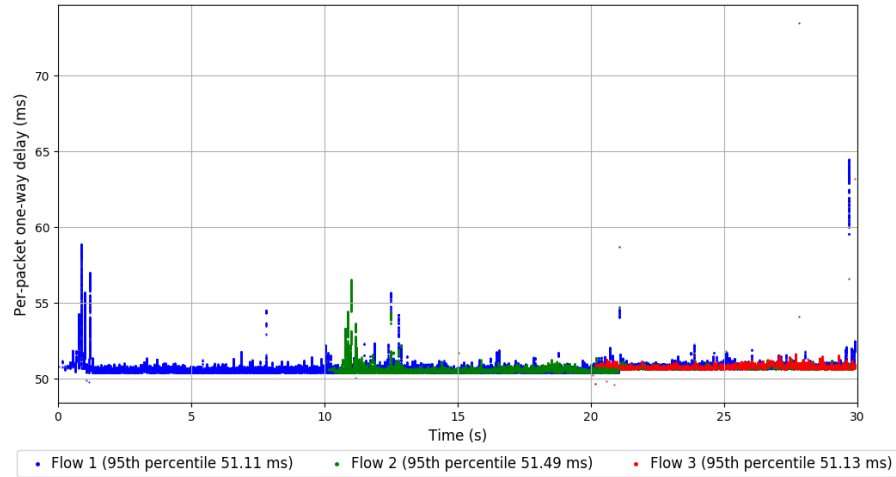
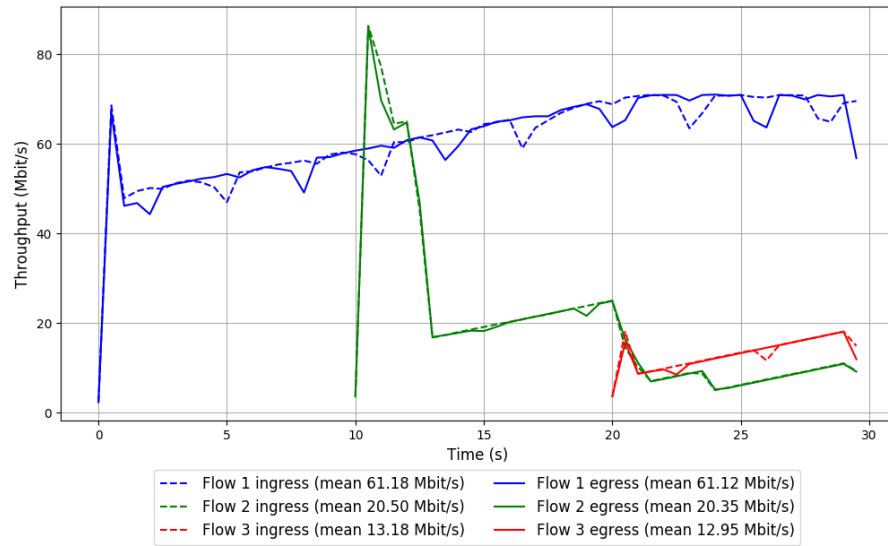
-- Flow 3:

Average throughput: 12.95 Mbit/s

95th percentile per-packet one-way delay: 51.133 ms

Loss rate: 2.07%

# Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-21 07:02:58

End at: 2017-08-21 07:03:28

# Below is generated by plot.py at 2017-08-21 10:35:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 96.45 Mbit/s

95th percentile per-packet one-way delay: 51.427 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 56.84 Mbit/s

95th percentile per-packet one-way delay: 51.368 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 21.53 Mbit/s

95th percentile per-packet one-way delay: 51.183 ms

Loss rate: 0.71%

-- Flow 3:

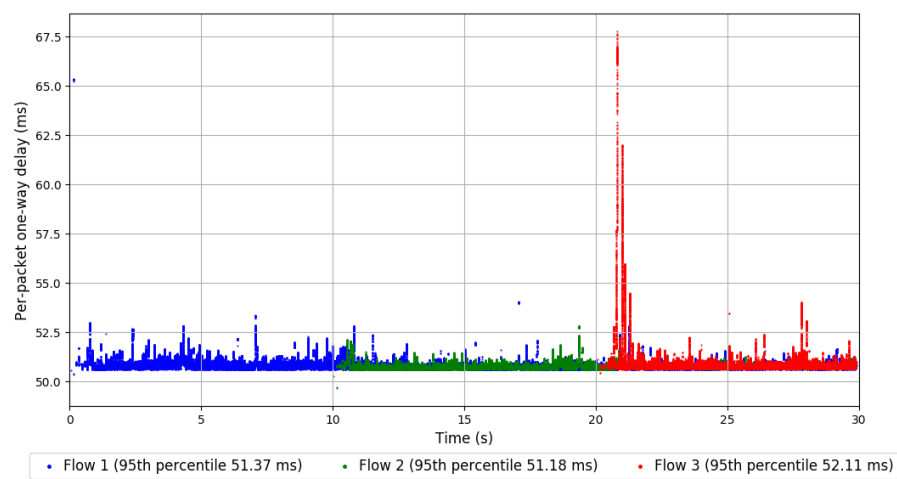
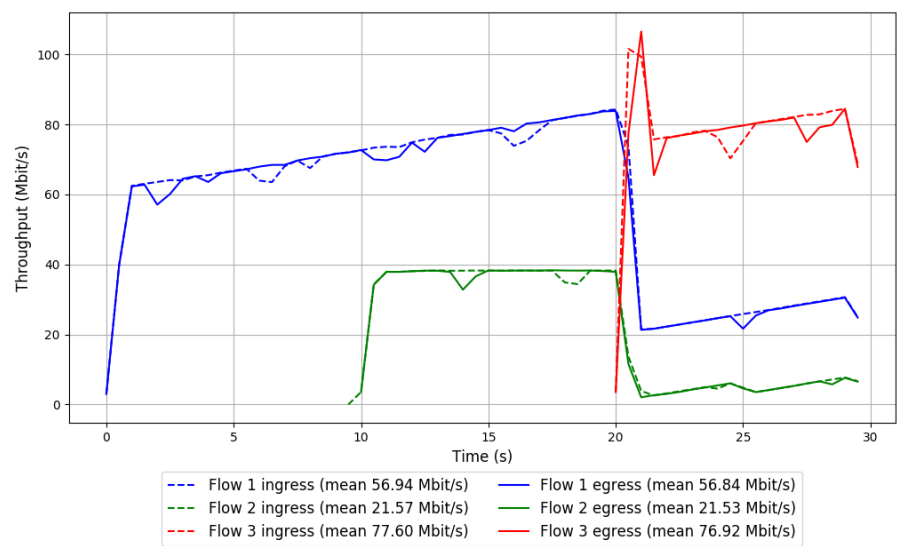
Average throughput: 76.92 Mbit/s

95th percentile per-packet one-way delay: 52.114 ms

Loss rate: 1.90%



Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-21 07:14:49

End at: 2017-08-21 07:15:19

# Below is generated by plot.py at 2017-08-21 10:35:47

# Datalink statistics

-- Total of 3 flows:

Average throughput: 10.96 Mbit/s

95th percentile per-packet one-way delay: 51.181 ms

Loss rate: 2.56%

-- Flow 1:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 51.162 ms

Loss rate: 2.75%

-- Flow 2:

Average throughput: 4.55 Mbit/s

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

Loss rate: 2.84%

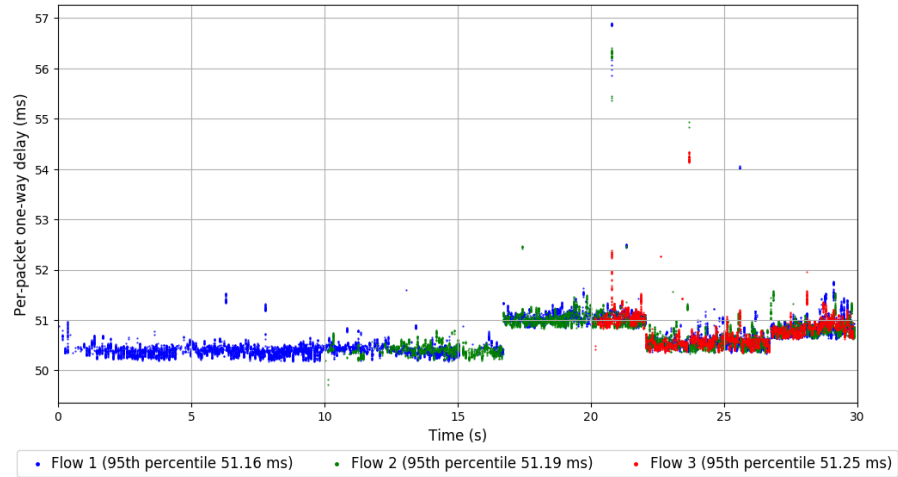
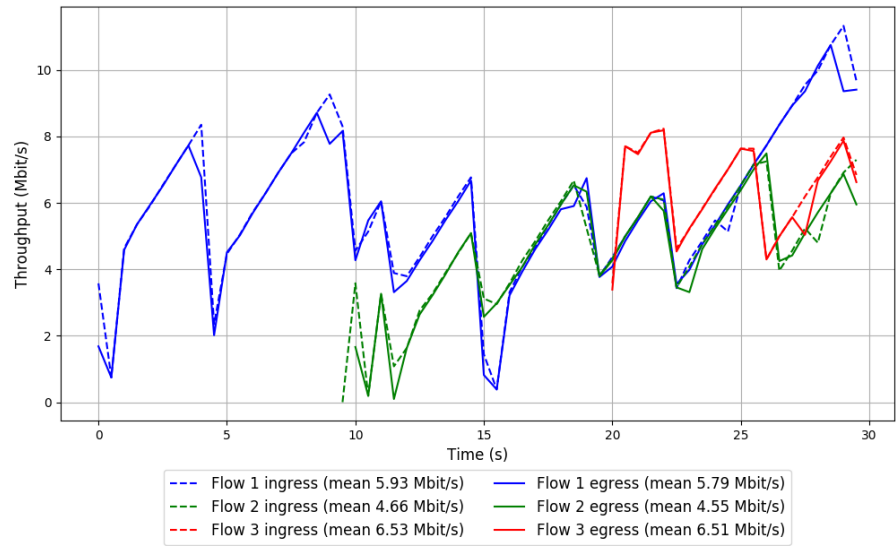
-- Flow 3:

Average throughput: 6.51 Mbit/s

95th percentile per-packet one-way delay: 51.250 ms

Loss rate: 1.65%

# Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-21 05:31:15

End at: 2017-08-21 05:31:45

# Below is generated by plot.py at 2017-08-21 10:36:07

# Datalink statistics

-- Total of 3 flows:

Average throughput: 146.42 Mbit/s

95th percentile per-packet one-way delay: 58.117 ms

Loss rate: 14.32%

-- Flow 1:

Average throughput: 83.35 Mbit/s

95th percentile per-packet one-way delay: 57.628 ms

Loss rate: 21.88%

-- Flow 2:

Average throughput: 66.78 Mbit/s

95th percentile per-packet one-way delay: 60.125 ms

Loss rate: 0.28%

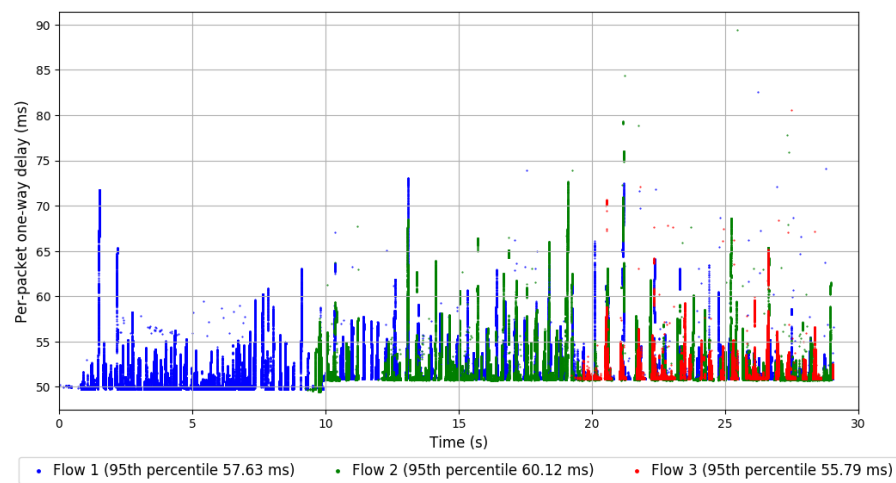
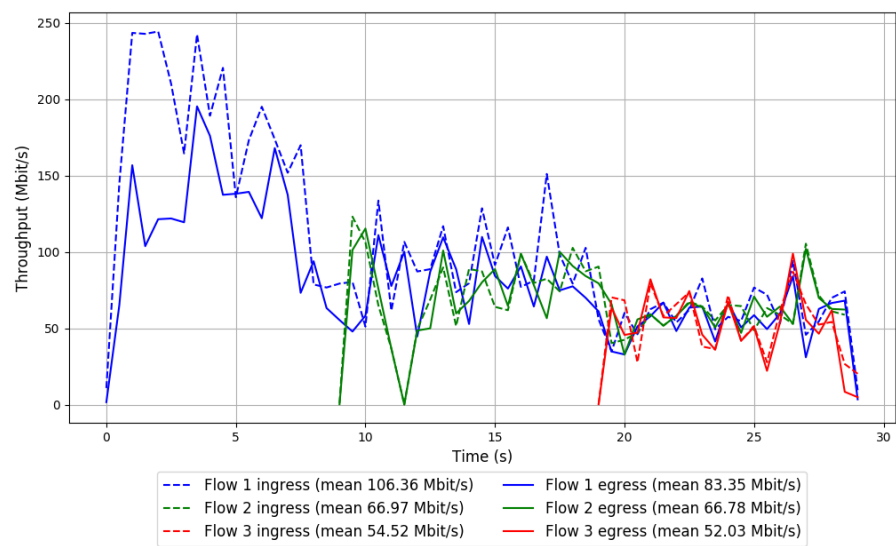
-- Flow 3:

Average throughput: 52.03 Mbit/s

95th percentile per-packet one-way delay: 55.794 ms

Loss rate: 5.36%

Run 1: Report of Verus — Data Link

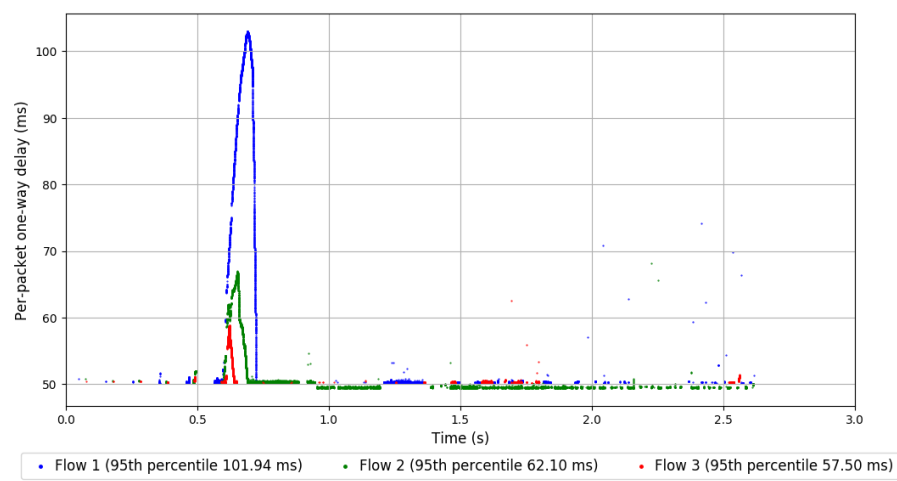
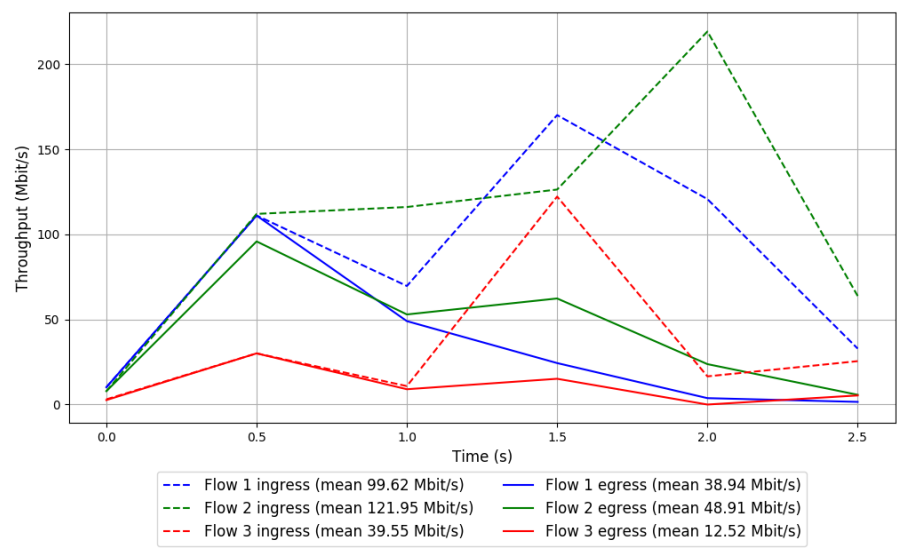


Run 2: Statistics of Verus

Start at: 2017-08-21 05:42:58

End at: 2017-08-21 05:43:28

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-21 05:54:36

End at: 2017-08-21 05:55:06

# Below is generated by plot.py at 2017-08-21 10:36:12

# Datalink statistics

-- Total of 3 flows:

Average throughput: 99.14 Mbit/s

95th percentile per-packet one-way delay: 55.372 ms

Loss rate: 51.15%

-- Flow 1:

Average throughput: 51.28 Mbit/s

95th percentile per-packet one-way delay: 52.955 ms

Loss rate: 66.66%

-- Flow 2:

Average throughput: 52.45 Mbit/s

95th percentile per-packet one-way delay: 56.959 ms

Loss rate: 3.06%

-- Flow 3:

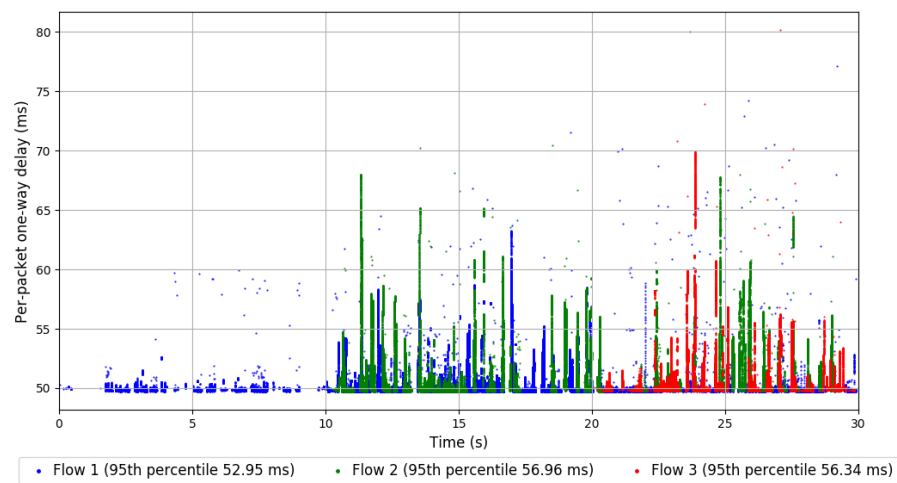
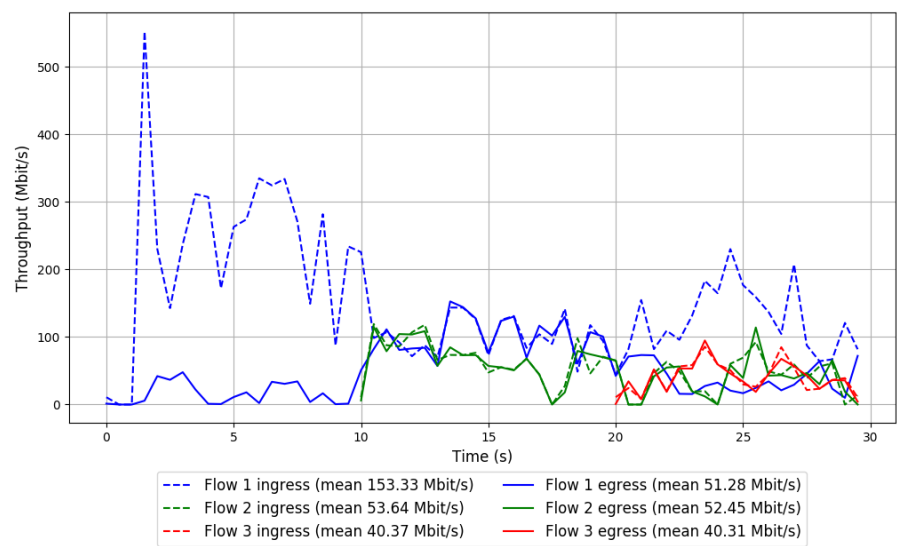
Average throughput: 40.31 Mbit/s

95th percentile per-packet one-way delay: 56.336 ms

Loss rate: 1.31%



Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-21 06:06:25

End at: 2017-08-21 06:06:55

# Below is generated by plot.py at 2017-08-21 10:36:28

# Datalink statistics

-- Total of 3 flows:

Average throughput: 91.72 Mbit/s

95th percentile per-packet one-way delay: 56.292 ms

Loss rate: 30.57%

-- Flow 1:

Average throughput: 51.22 Mbit/s

95th percentile per-packet one-way delay: 58.874 ms

Loss rate: 25.25%

-- Flow 2:

Average throughput: 36.20 Mbit/s

95th percentile per-packet one-way delay: 52.933 ms

Loss rate: 48.75%

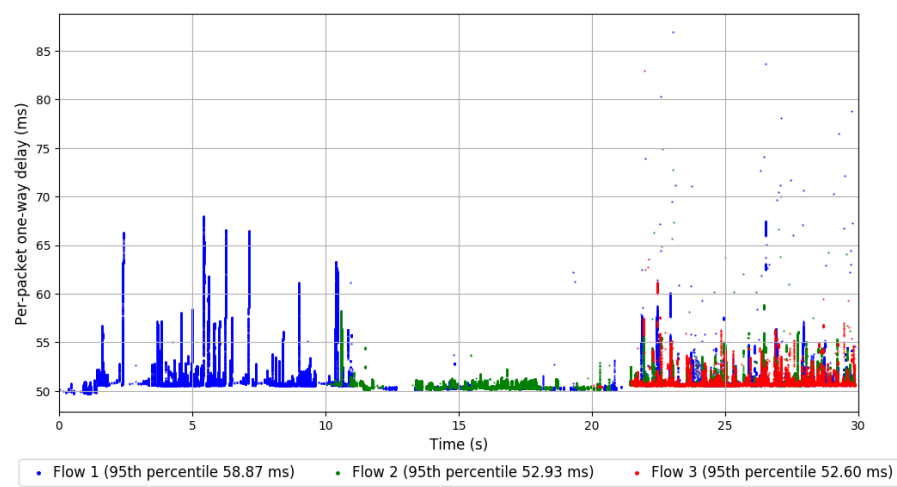
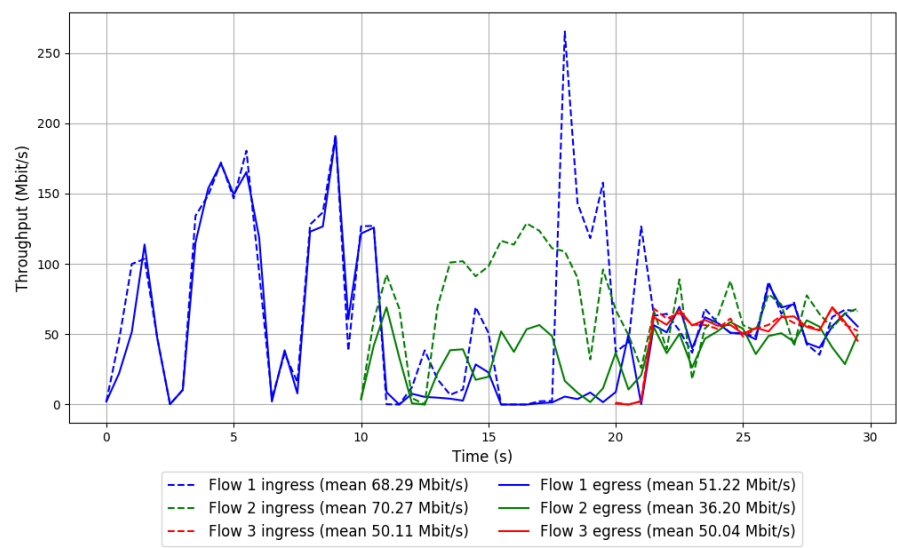
-- Flow 3:

Average throughput: 50.04 Mbit/s

95th percentile per-packet one-way delay: 52.602 ms

Loss rate: 1.25%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-21 06:18:15

End at: 2017-08-21 06:18:45

# Below is generated by plot.py at 2017-08-21 10:36:34

# Datalink statistics

-- Total of 3 flows:

Average throughput: 135.79 Mbit/s

95th percentile per-packet one-way delay: 54.504 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 79.10 Mbit/s

95th percentile per-packet one-way delay: 54.738 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 65.30 Mbit/s

95th percentile per-packet one-way delay: 53.068 ms

Loss rate: 0.85%

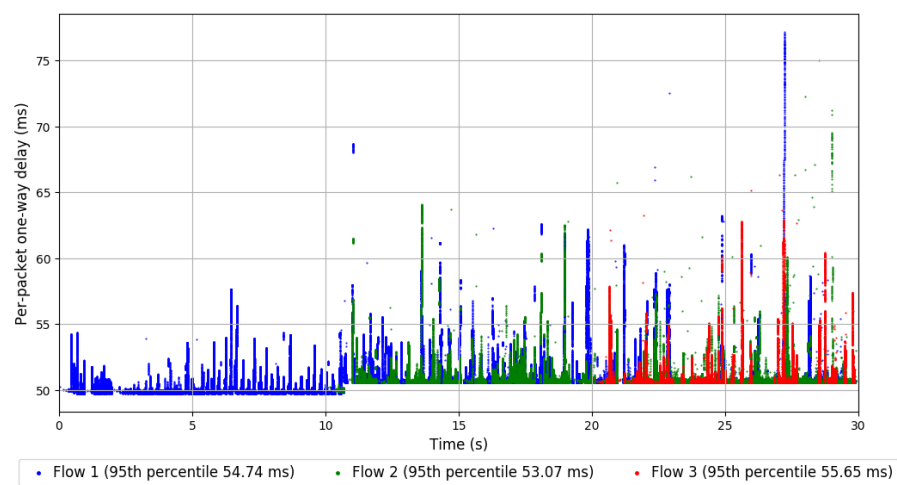
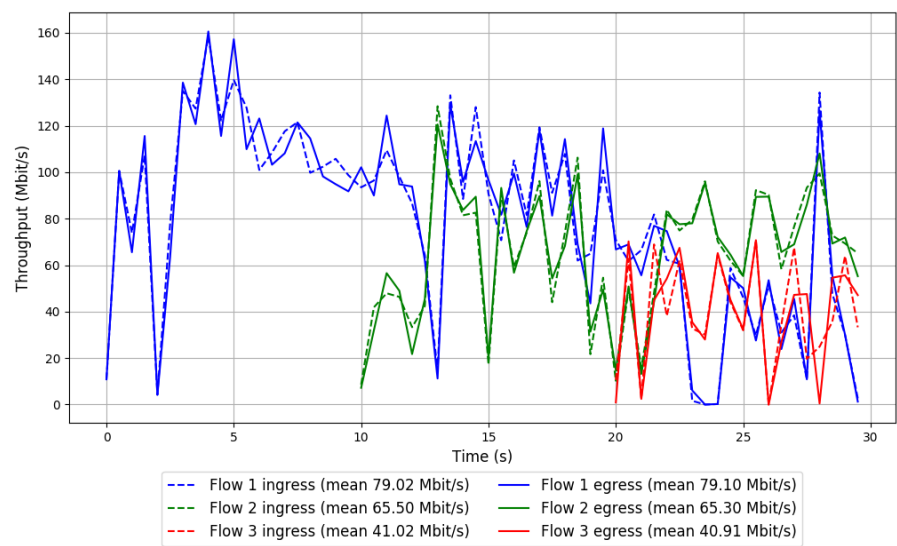
-- Flow 3:

Average throughput: 40.91 Mbit/s

95th percentile per-packet one-way delay: 55.649 ms

Loss rate: 0.28%

Run 5: Report of Verus — Data Link

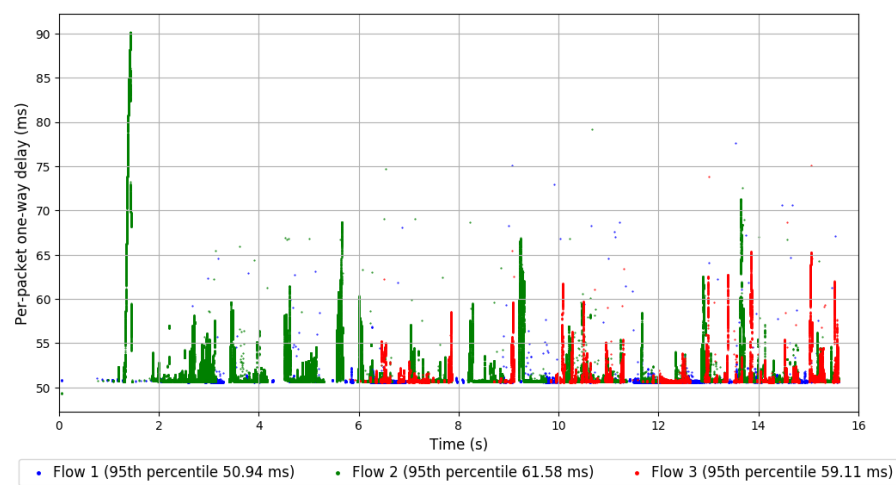
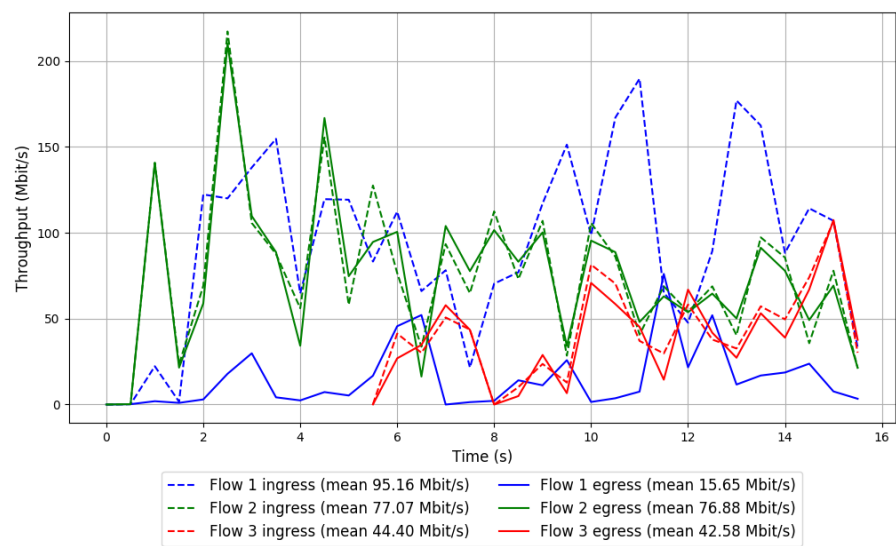


Run 6: Statistics of Verus

Start at: 2017-08-21 06:30:15

End at: 2017-08-21 06:30:45

Run 6: Report of Verus — Data Link



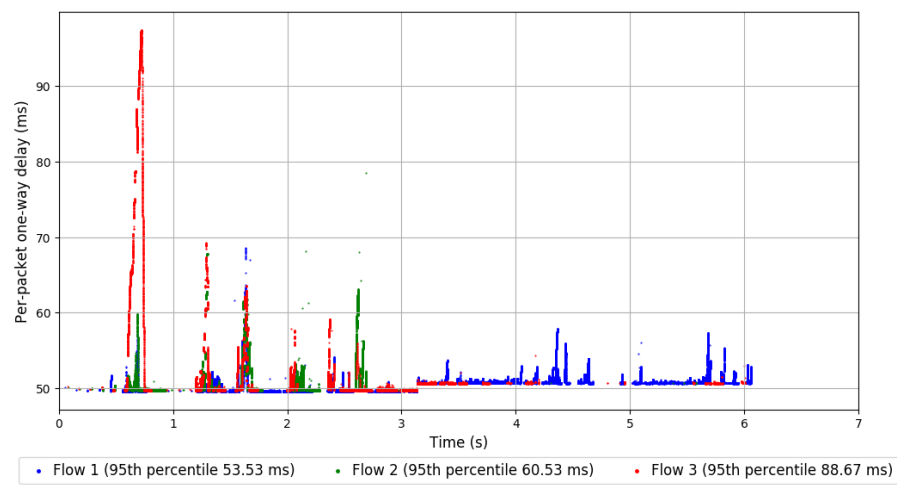
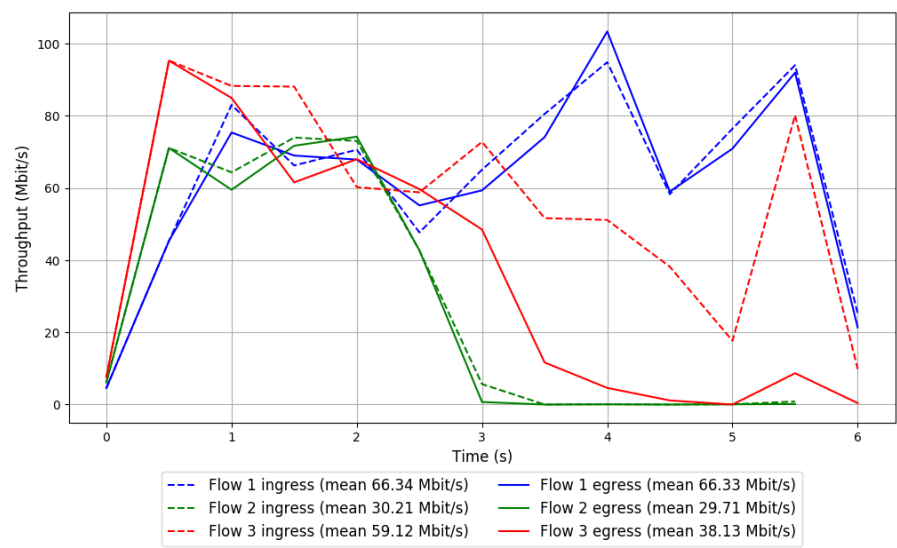
Run 7: Statistics of Verus

Start at: 2017-08-21 06:42:39

End at: 2017-08-21 06:43:09



Run 7: Report of Verus — Data Link

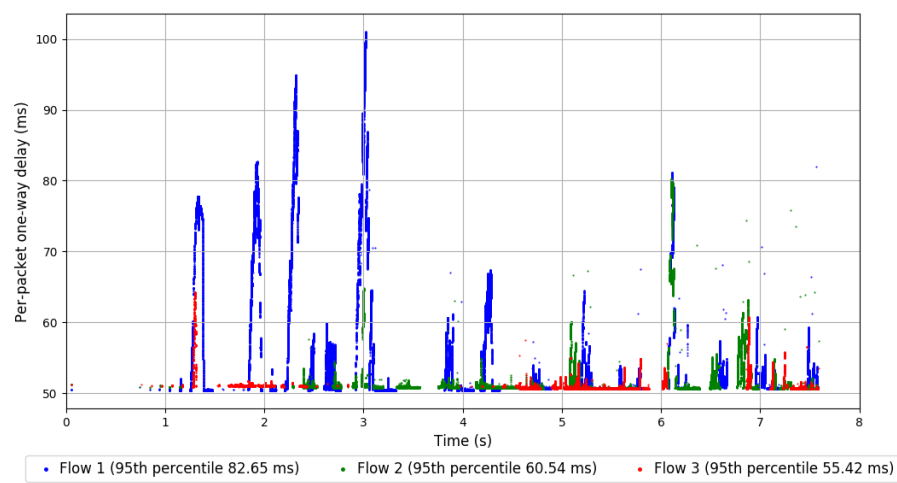
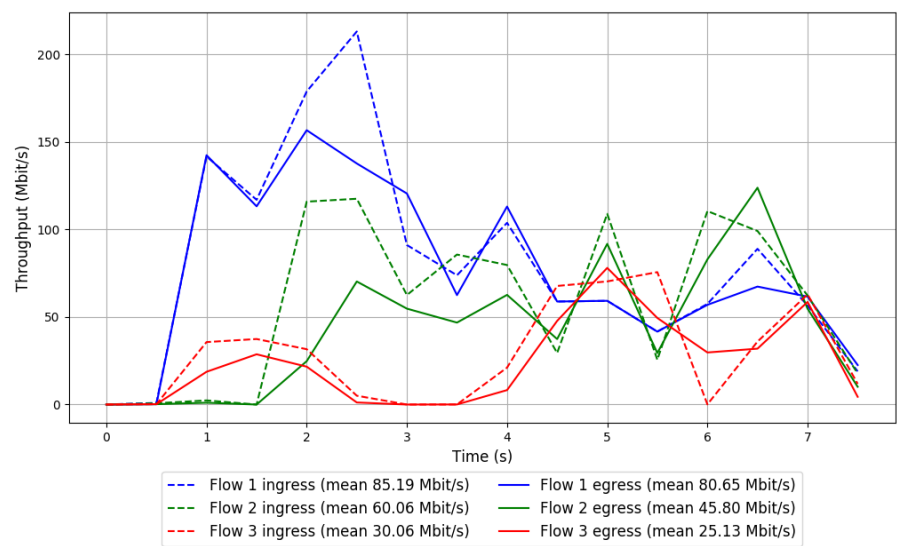


Run 8: Statistics of Verus

Start at: 2017-08-21 06:54:39

End at: 2017-08-21 06:55:09

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-21 07:06:21

End at: 2017-08-21 07:06:51

# Below is generated by plot.py at 2017-08-21 10:37:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 145.00 Mbit/s

95th percentile per-packet one-way delay: 57.875 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 87.37 Mbit/s

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

Loss rate: 0.91%

-- Flow 2:

Average throughput: 65.35 Mbit/s

95th percentile per-packet one-way delay: 59.407 ms

Loss rate: 0.72%

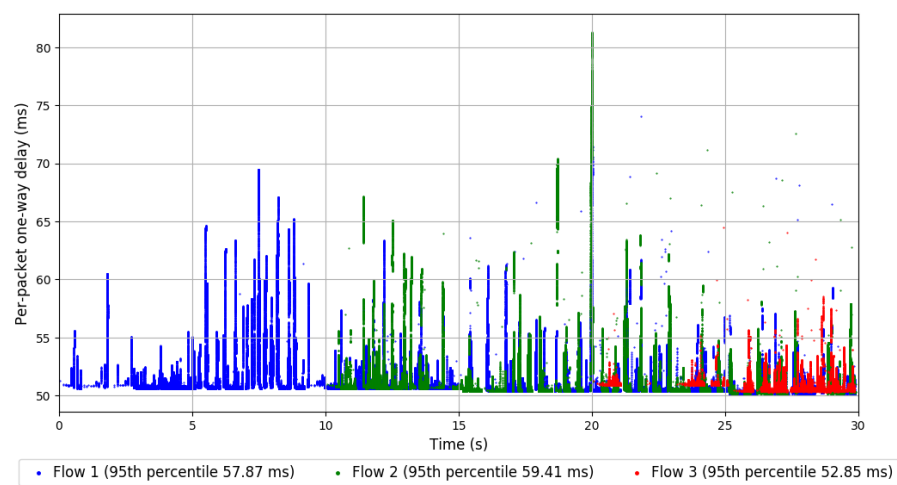
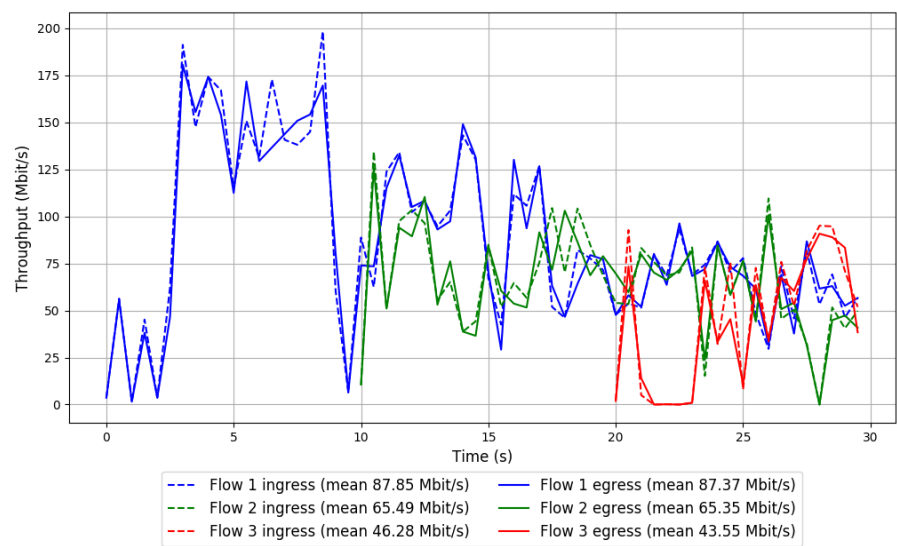
-- Flow 3:

Average throughput: 43.55 Mbit/s

95th percentile per-packet one-way delay: 52.847 ms

Loss rate: 7.36%

Run 9: Report of Verus — Data Link

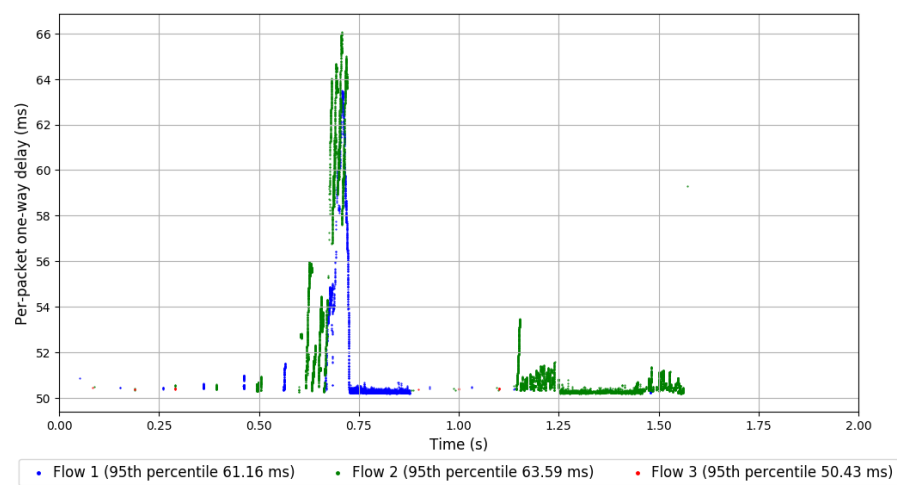
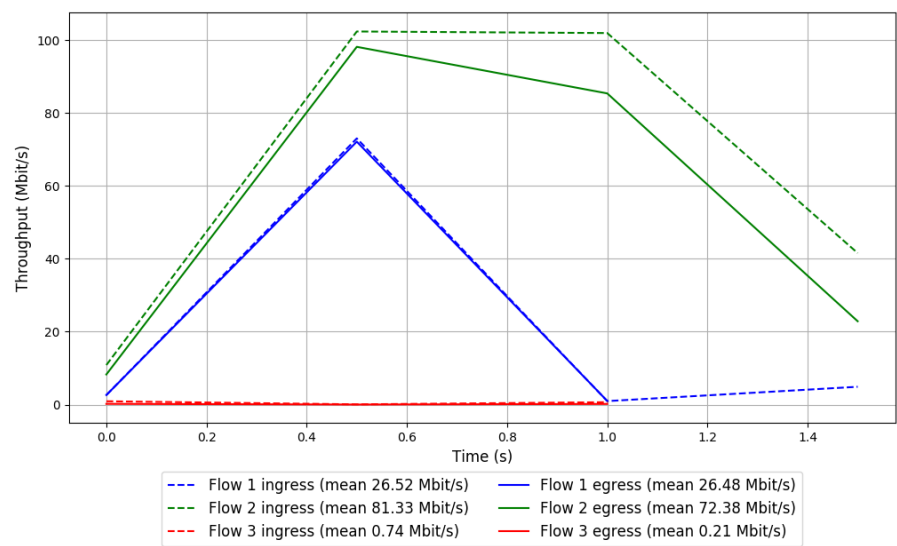


Run 10: Statistics of Verus

Start at: 2017-08-21 07:18:04

End at: 2017-08-21 07:18:34

Run 10: Report of Verus — Data Link



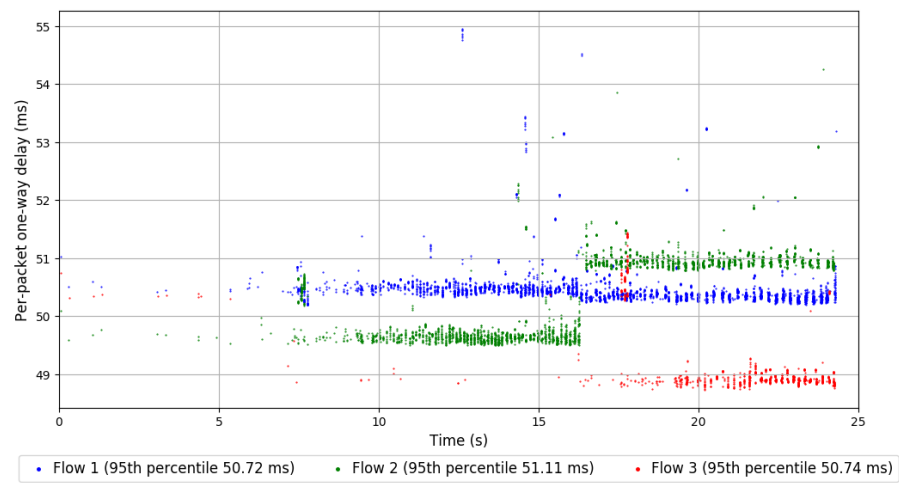
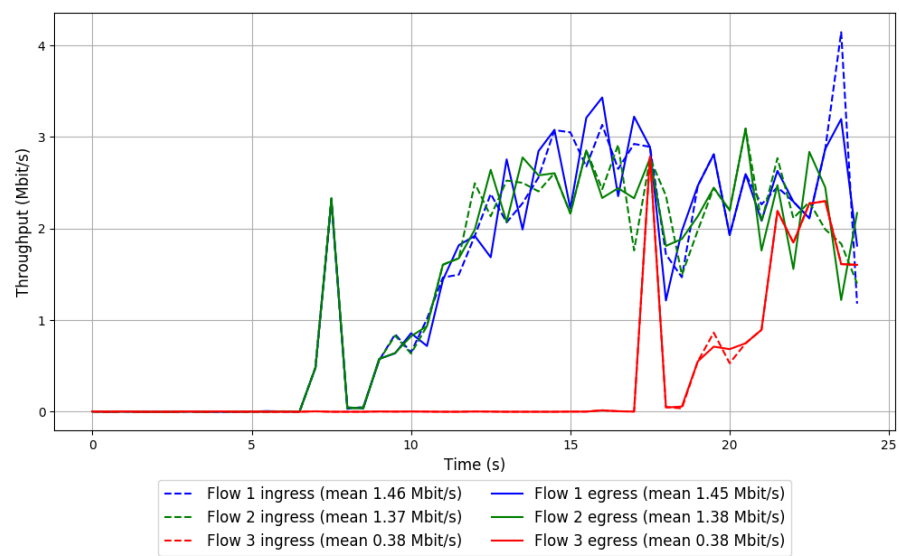
```
Run 1: Statistics of WebRTC media

Start at: 2017-08-21 05:26:34
End at: 2017-08-21 05:27:04

# Below is generated by plot.py at 2017-08-21 10:37:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.21 Mbit/s
95th percentile per-packet one-way delay: 51.043 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 50.715 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 51.106 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 50.740 ms
Loss rate: 0.00%
```



Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-21 05:38:21

End at: 2017-08-21 05:38:51

# Below is generated by plot.py at 2017-08-21 10:37:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.05 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: 51.240 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 49.085 ms

Loss rate: 0.00%

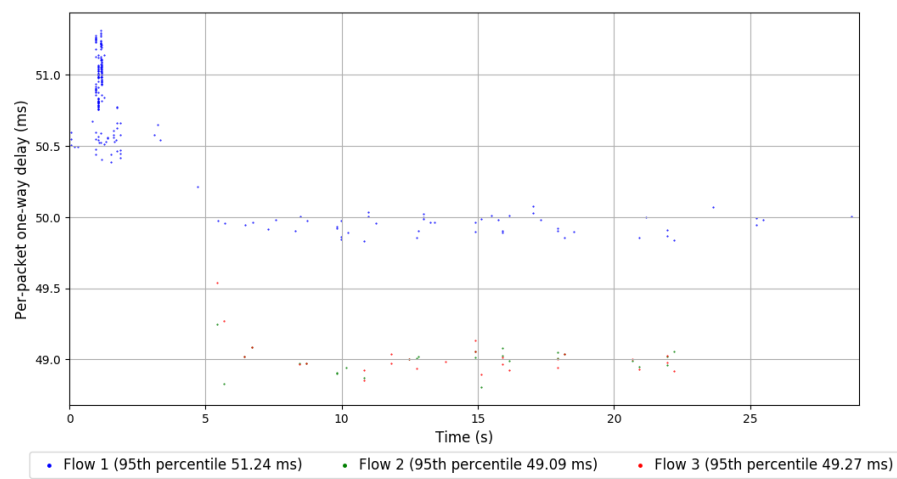
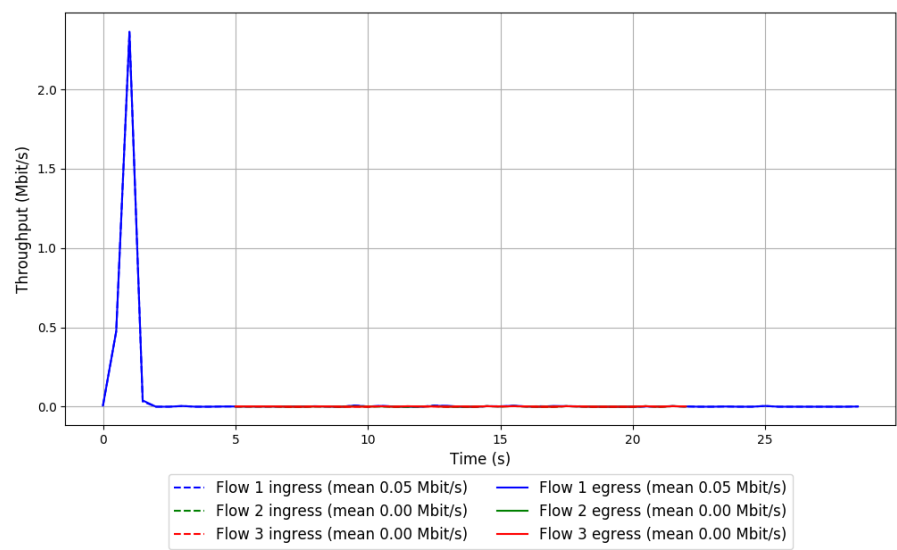
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 49.270 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-21 05:49:57

End at: 2017-08-21 05:50:27

### Run 3: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of WebRTC media

Start at: 2017-08-21 06:01:43

End at: 2017-08-21 06:02:13

# Below is generated by plot.py at 2017-08-21 10:37:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.962 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 51.060 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

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

Loss rate: 0.00%

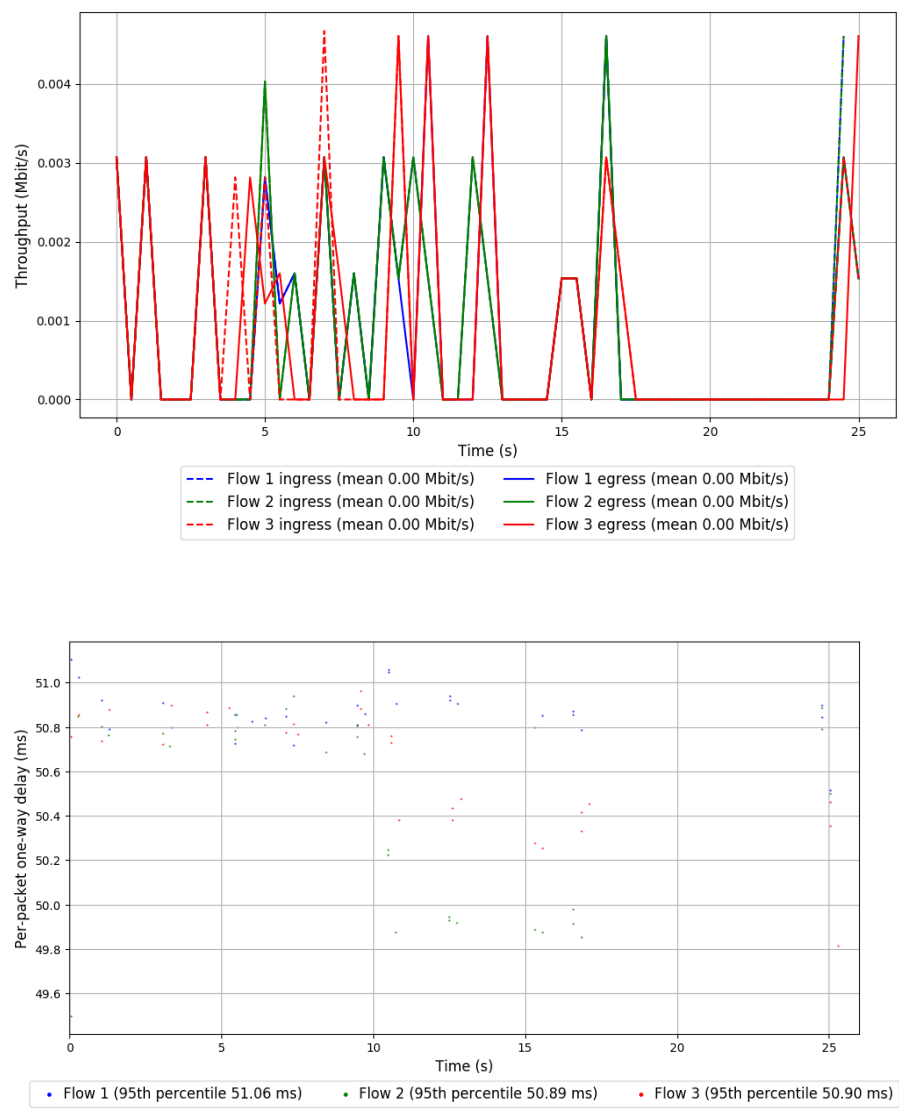
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.900 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



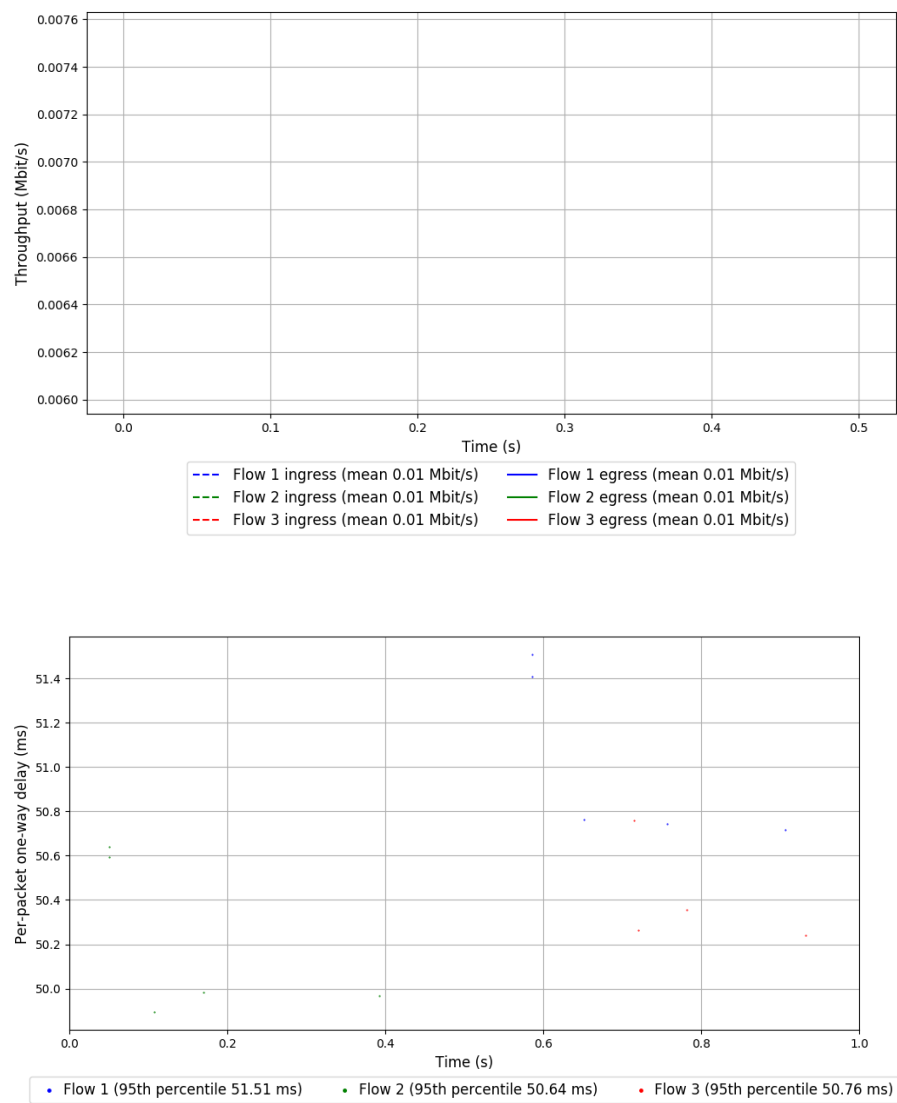
Run 5: Statistics of WebRTC media

Start at: 2017-08-21 06:13:28

End at: 2017-08-21 06:13:58



Run 5: Report of WebRTC media — Data Link

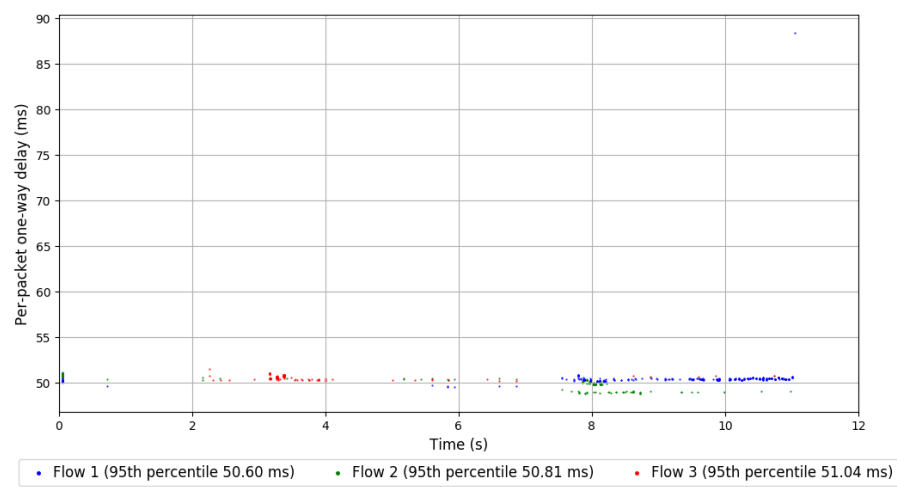
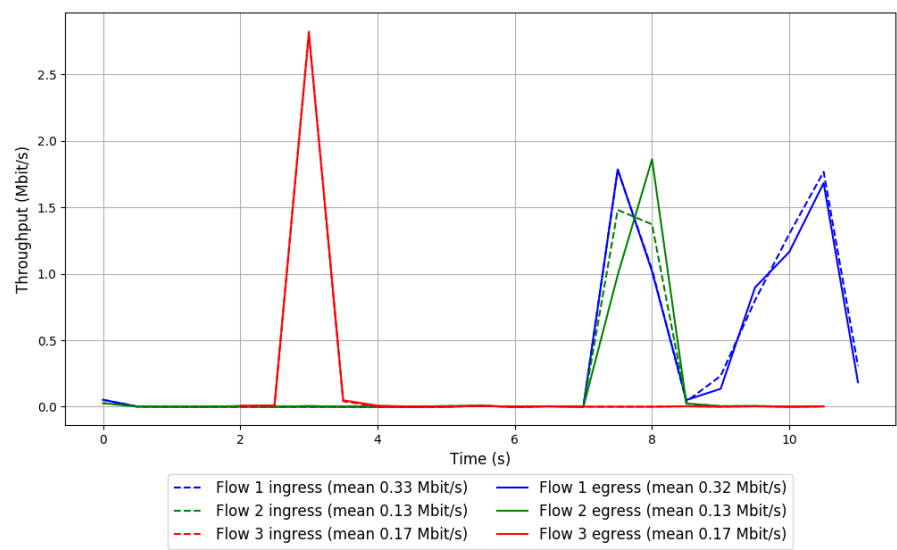


Run 6: Statistics of WebRTC media

Start at: 2017-08-21 06:25:40

End at: 2017-08-21 06:26:10

Run 6: Report of WebRTC media — Data Link

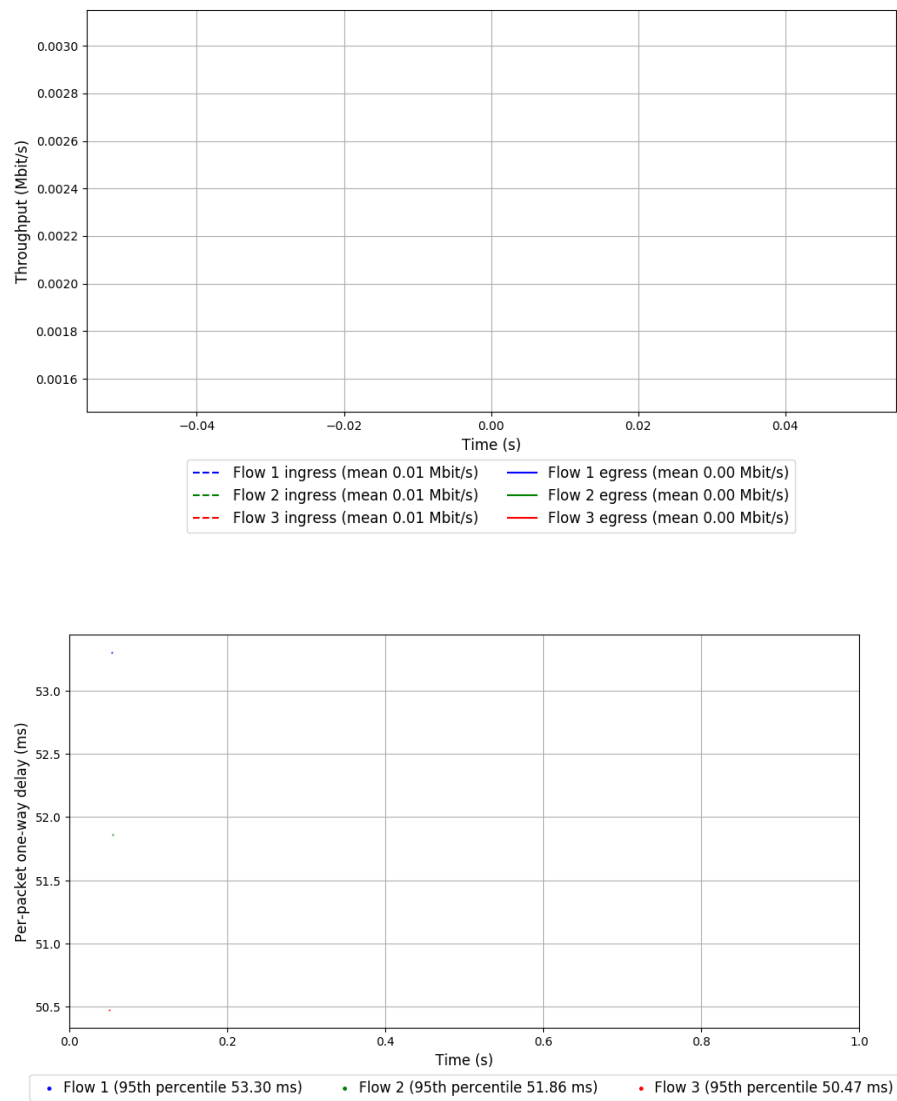


Run 7: Statistics of WebRTC media

Start at: 2017-08-21 06:37:58

End at: 2017-08-21 06:38:28

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-21 06:49:56

End at: 2017-08-21 06:50:26

Run 8: Report of WebRTC media — Data Link

Figure is missing

Figure is missing

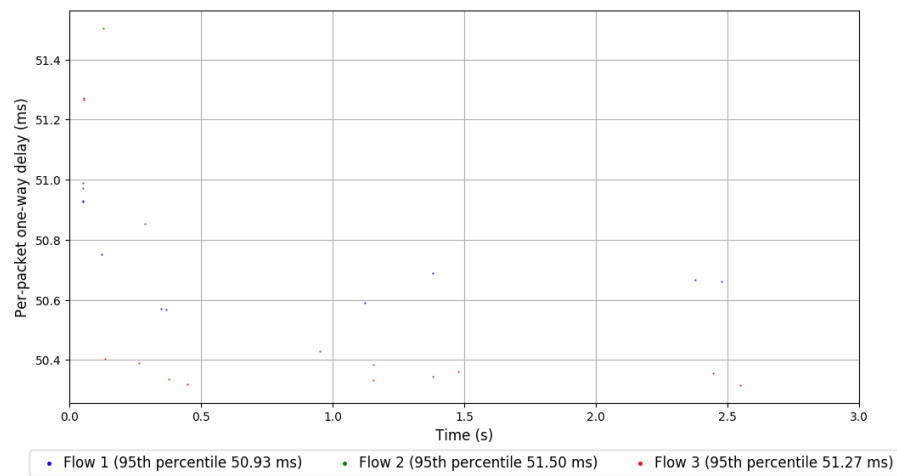
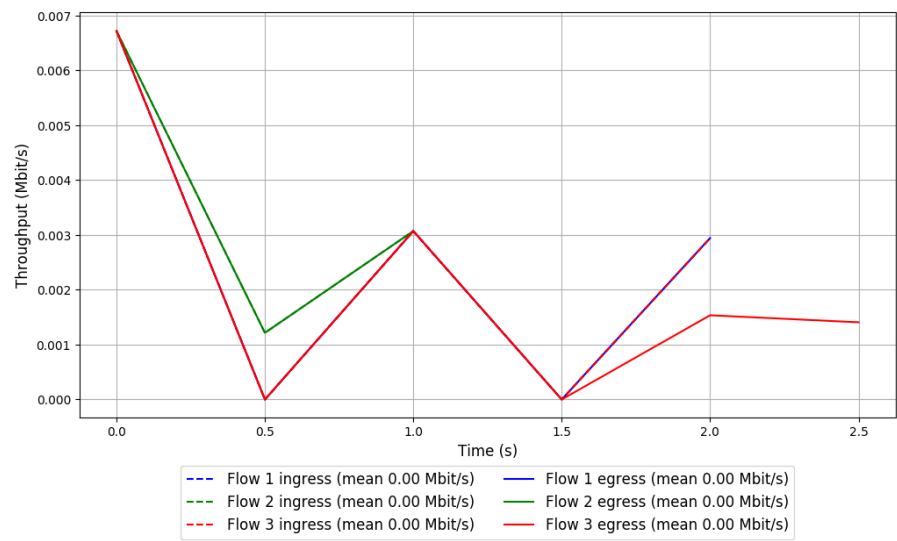
Run 9: Statistics of WebRTC media

Start at: 2017-08-21 07:01:39

End at: 2017-08-21 07:02:09



Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-21 07:13:30

End at: 2017-08-21 07:14:00

# Below is generated by plot.py at 2017-08-21 10:37:02

# Datalink statistics

-- Total of 3 flows:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.960 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.963 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 51.004 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 49.366 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

