

Pantheon Report

Generated at 2017-09-08 10:12:53 (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.

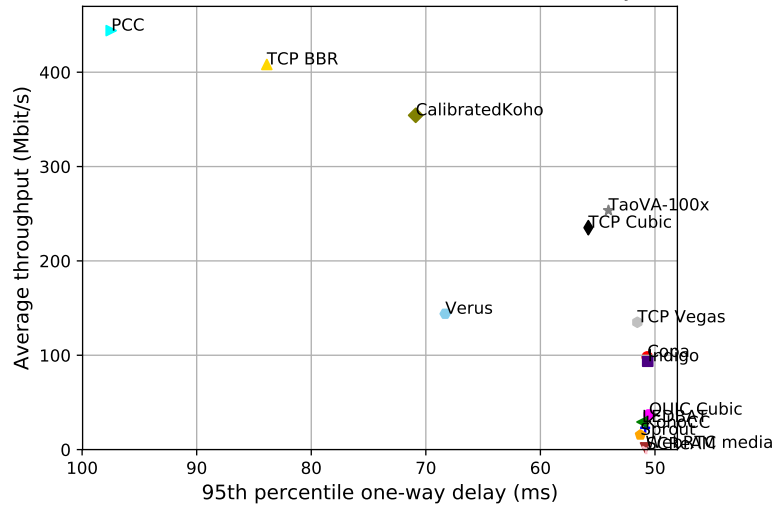
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

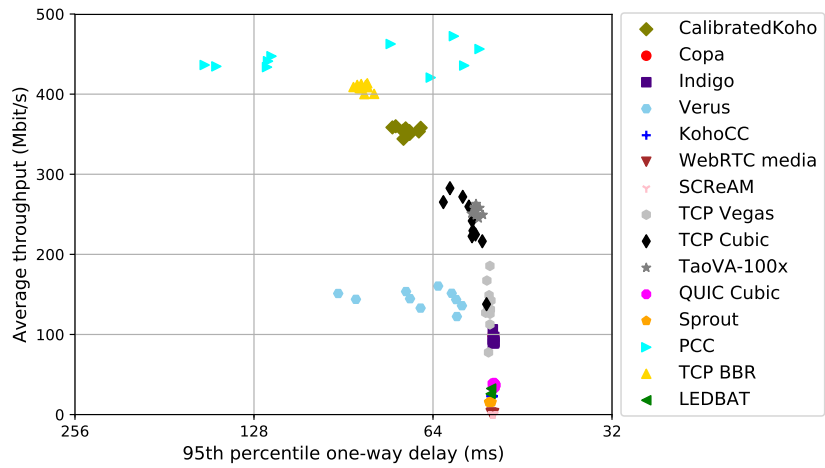
Git summary:

```
branch: master @ 2a98508c2457474d84cd2966a42b80b0bc62ecaf
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 10192113fb6902d25c86e0e3e4c85d7a05e43d7e
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
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 | 211.71 | 202.44 | 188.07 | 78.40 | 84.82 | 90.98 | 0.40 | 0.60 | 1.30 |
| CalibratedKoho | 10 | 221.19 | 149.13 | 103.53 | 72.59 | 67.69 | 71.55 | 0.22 | 0.51 | 1.72 |
| Copa | 4 | 56.62 | 48.55 | 37.70 | 50.65 | 50.69 | 50.62 | 0.26 | 0.45 | 0.63 |
| TCP Cubic | 10 | 117.28 | 136.00 | 83.66 | 54.46 | 55.75 | 56.09 | 0.35 | 0.48 | 1.80 |
| Indigo | 10 | 36.27 | 66.56 | 41.31 | 50.62 | 50.67 | 50.46 | 0.35 | 0.35 | 1.22 |
| KohoCC | 10 | 11.66 | 11.56 | 11.34 | 50.87 | 50.77 | 50.74 | 0.35 | 0.53 | 1.06 |
| LEDBAT | 2 | 16.05 | 15.82 | 8.15 | 51.24 | 51.02 | 51.04 | 0.57 | 0.82 | 2.17 |
| PCC | 10 | 298.17 | 168.59 | 105.95 | 104.87 | 52.59 | 51.16 | 0.90 | 0.40 | 1.02 |
| QUIC Cubic | 10 | 0.06 | 39.78 | 31.73 | 50.34 | 50.37 | 50.37 | 0.00 | 0.50 | 1.17 |
| SCReAM | 10 | 0.22 | 0.22 | 0.22 | 50.48 | 50.46 | 50.48 | 0.32 | 0.44 | 0.89 |
| Sprout | 10 | 7.92 | 7.84 | 7.58 | 51.27 | 51.29 | 51.05 | 0.42 | 0.53 | 1.06 |
| TaoVA-100x | 10 | 160.18 | 109.43 | 84.76 | 53.41 | 55.10 | 53.76 | 0.22 | 0.38 | 1.55 |
| TCP Vegas | 10 | 63.63 | 73.21 | 68.71 | 51.17 | 51.43 | 52.20 | 0.40 | 0.58 | 1.09 |
| Verus | 10 | 88.74 | 61.41 | 44.91 | 71.73 | 63.09 | 61.87 | 0.17 | 0.31 | 0.97 |
| WebRTC media | 10 | 0.16 | 1.58 | 0.39 | 87.86 | 50.75 | 50.70 | 0.01 | 0.81 | 2.42 |

Run 1: Statistics of TCP BBR

Start at: 2017-09-08 04:21:43

End at: 2017-09-08 04:22:13

Below is generated by plot.py at 2017-09-08 09:33:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 412.59 Mbit/s

95th percentile per-packet one-way delay: 84.511 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 215.02 Mbit/s

95th percentile per-packet one-way delay: 79.189 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 202.99 Mbit/s

95th percentile per-packet one-way delay: 83.940 ms

Loss rate: 0.64%

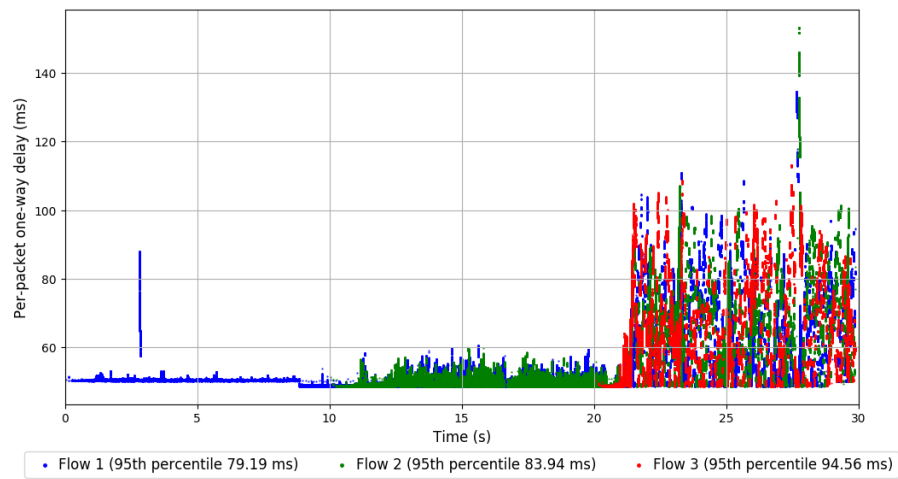
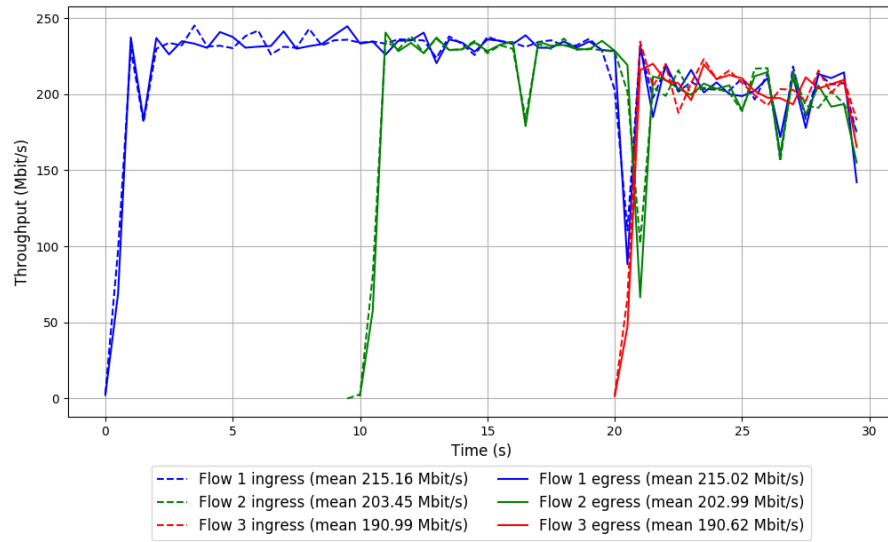
-- Flow 3:

Average throughput: 190.62 Mbit/s

95th percentile per-packet one-way delay: 94.560 ms

Loss rate: 1.19%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-08 04:34:05

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

Below is generated by plot.py at 2017-09-08 09:33:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 407.44 Mbit/s

95th percentile per-packet one-way delay: 84.505 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 209.74 Mbit/s

95th percentile per-packet one-way delay: 81.097 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 205.05 Mbit/s

95th percentile per-packet one-way delay: 80.357 ms

Loss rate: 0.58%

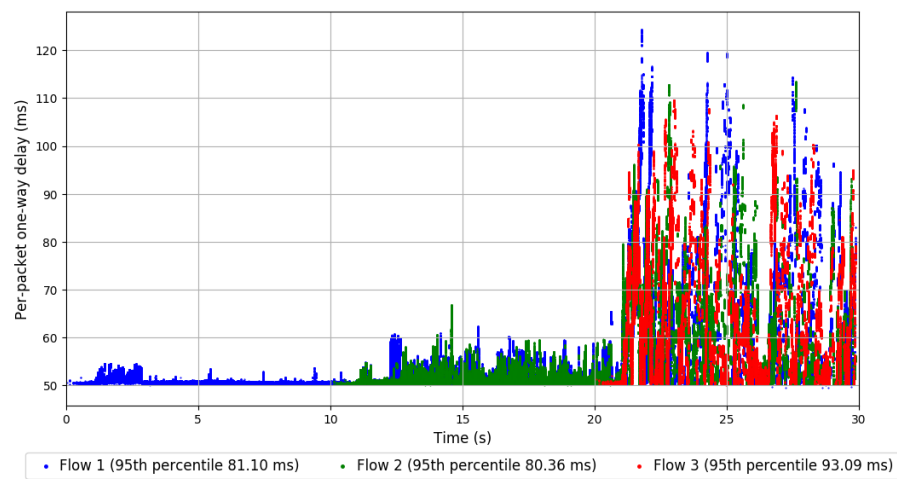
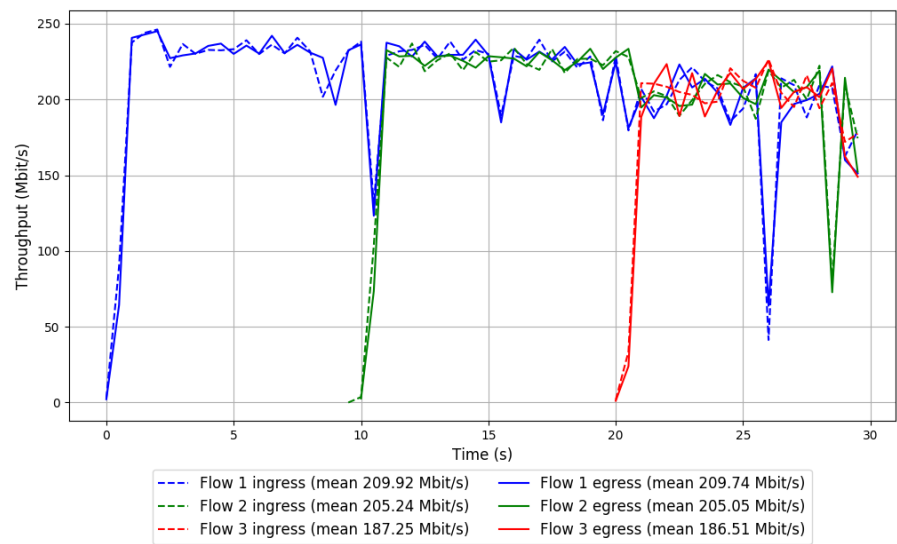
-- Flow 3:

Average throughput: 186.51 Mbit/s

95th percentile per-packet one-way delay: 93.095 ms

Loss rate: 1.43%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-08 04:46:15

End at: 2017-09-08 04:46:45

Below is generated by plot.py at 2017-09-08 09:34:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 407.42 Mbit/s

95th percentile per-packet one-way delay: 84.991 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 212.45 Mbit/s

95th percentile per-packet one-way delay: 77.455 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 202.78 Mbit/s

95th percentile per-packet one-way delay: 86.018 ms

Loss rate: 0.54%

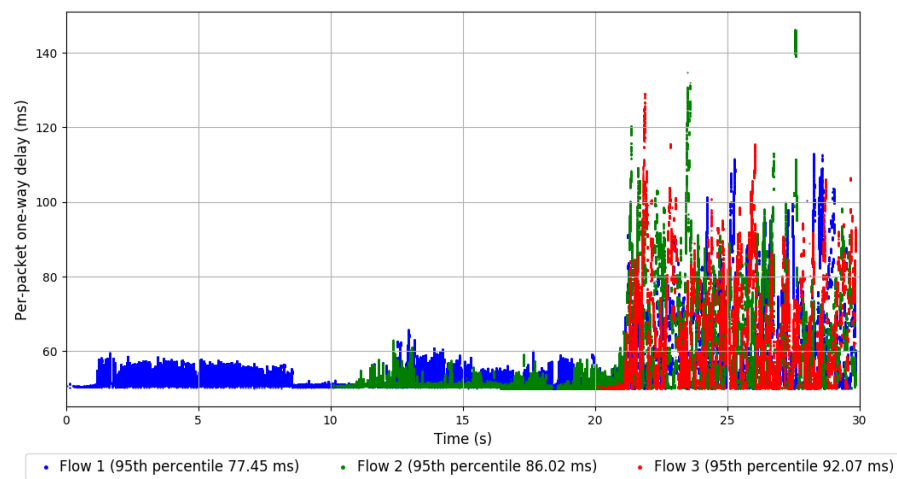
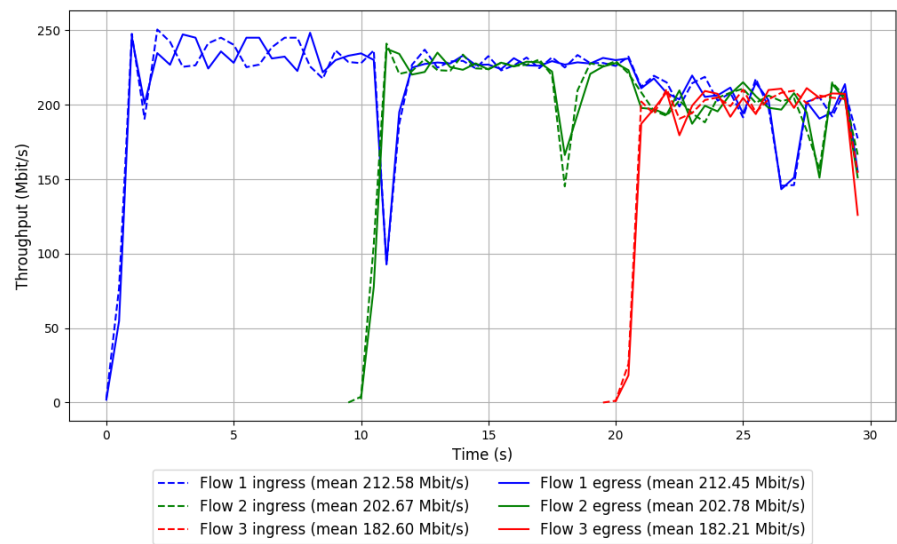
-- Flow 3:

Average throughput: 182.21 Mbit/s

95th percentile per-packet one-way delay: 92.067 ms

Loss rate: 1.35%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-08 04:58:31

End at: 2017-09-08 04:59:01

Below is generated by plot.py at 2017-09-08 09:34:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 400.03 Mbit/s

95th percentile per-packet one-way delay: 83.472 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 206.20 Mbit/s

95th percentile per-packet one-way delay: 80.258 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 197.49 Mbit/s

95th percentile per-packet one-way delay: 81.733 ms

Loss rate: 0.60%

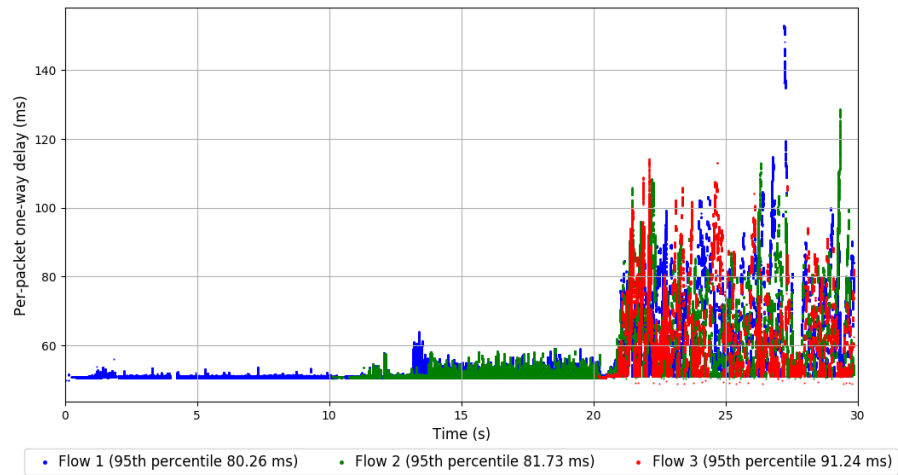
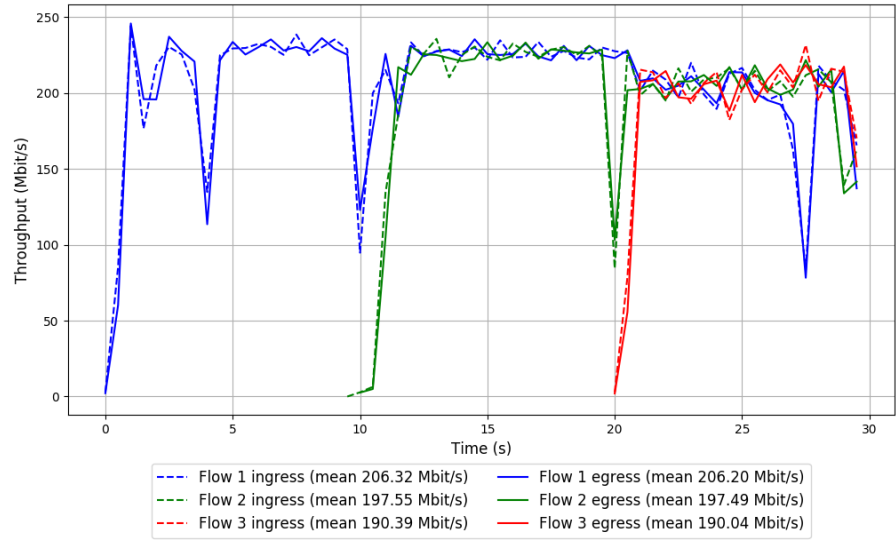
-- Flow 3:

Average throughput: 190.04 Mbit/s

95th percentile per-packet one-way delay: 91.240 ms

Loss rate: 1.28%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-08 05:10:56

End at: 2017-09-08 05:11:26

Below is generated by plot.py at 2017-09-08 09:35:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 400.32 Mbit/s

95th percentile per-packet one-way delay: 80.385 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 204.12 Mbit/s

95th percentile per-packet one-way delay: 76.058 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 203.41 Mbit/s

95th percentile per-packet one-way delay: 80.232 ms

Loss rate: 0.63%

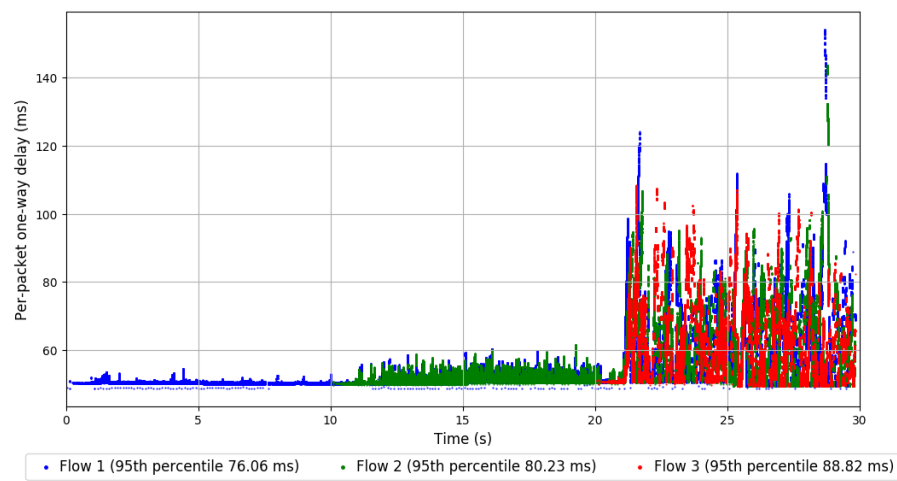
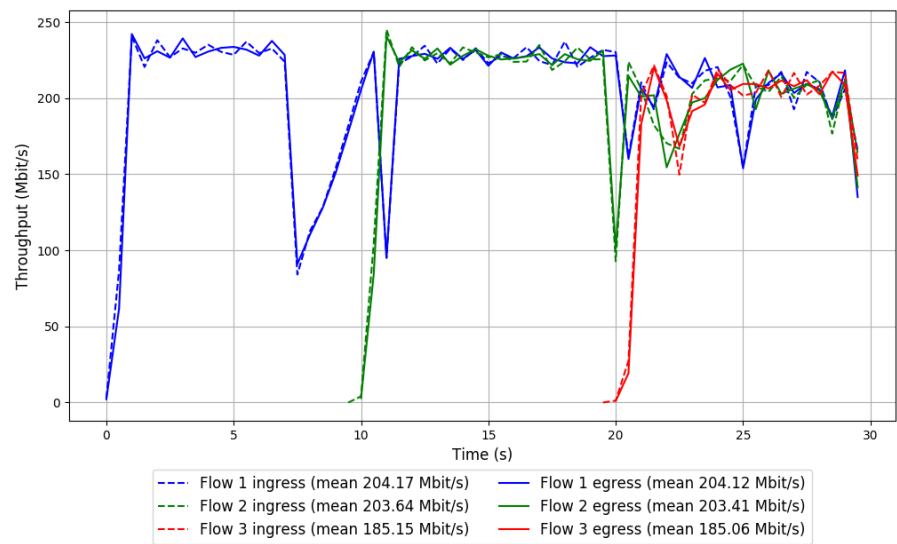
-- Flow 3:

Average throughput: 185.06 Mbit/s

95th percentile per-packet one-way delay: 88.822 ms

Loss rate: 1.12%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-08 05:23:10

End at: 2017-09-08 05:23:40

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.87 Mbit/s

95th percentile per-packet one-way delay: 87.075 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 213.62 Mbit/s

95th percentile per-packet one-way delay: 80.606 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 202.16 Mbit/s

95th percentile per-packet one-way delay: 94.722 ms

Loss rate: 0.65%

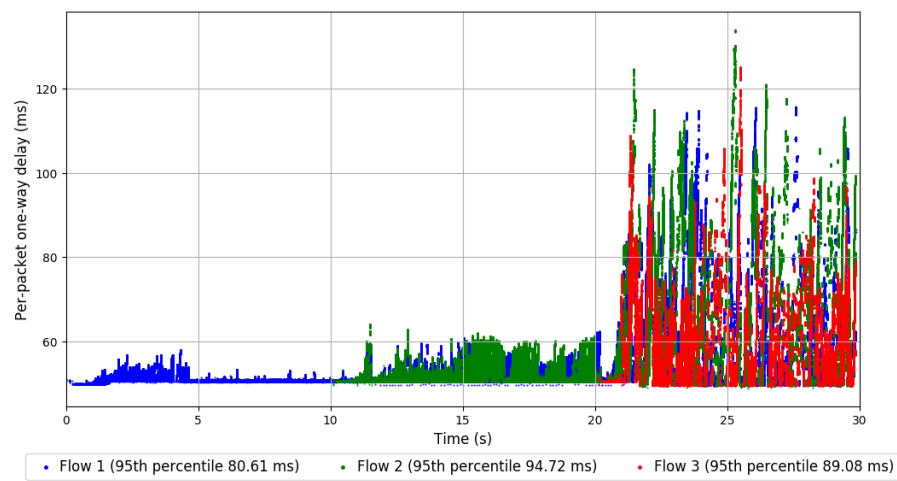
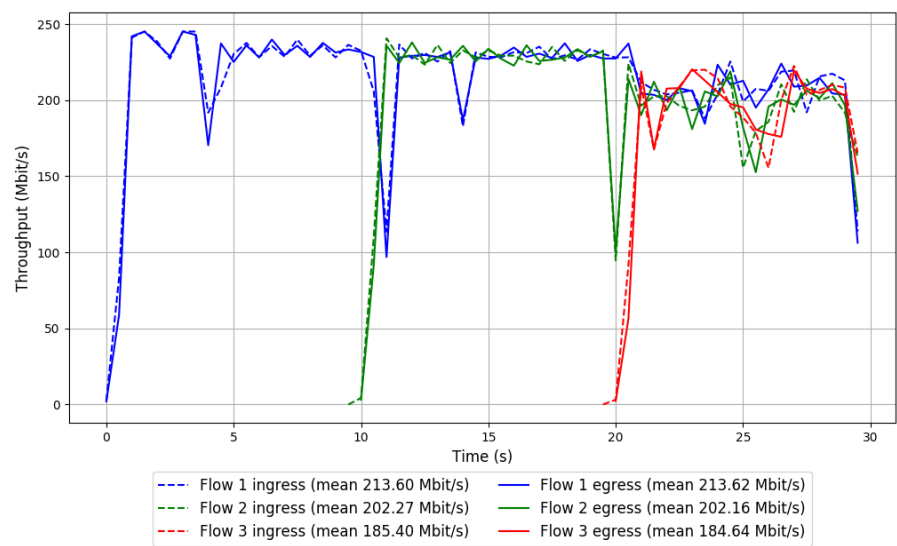
-- Flow 3:

Average throughput: 184.64 Mbit/s

95th percentile per-packet one-way delay: 89.075 ms

Loss rate: 1.28%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-08 05:35:14

End at: 2017-09-08 05:35:44

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 413.62 Mbit/s

95th percentile per-packet one-way delay: 82.544 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 214.88 Mbit/s

95th percentile per-packet one-way delay: 76.106 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 205.20 Mbit/s

95th percentile per-packet one-way delay: 84.855 ms

Loss rate: 0.58%

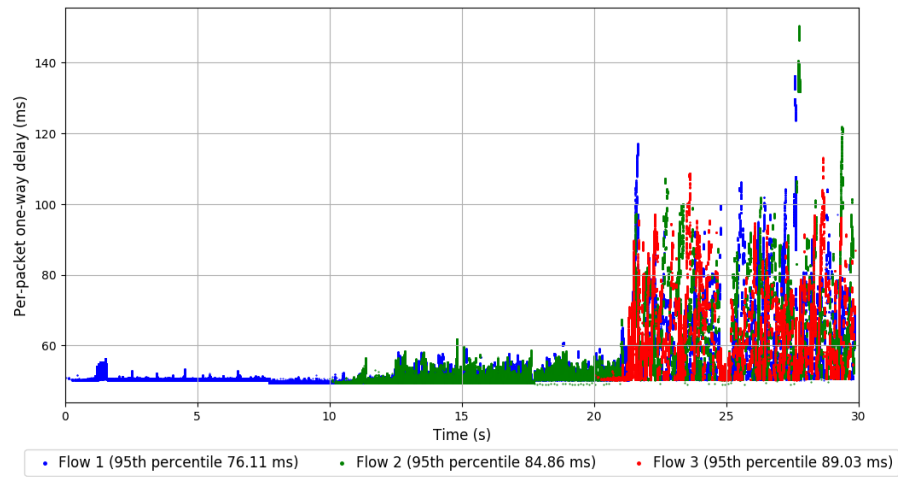
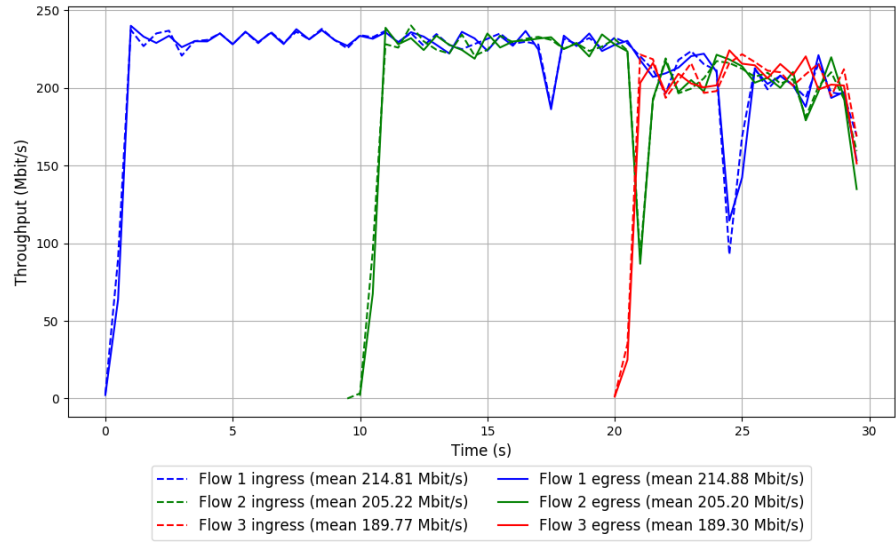
-- Flow 3:

Average throughput: 189.30 Mbit/s

95th percentile per-packet one-way delay: 89.027 ms

Loss rate: 1.28%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-08 05:47:30

End at: 2017-09-08 05:48:00

Below is generated by plot.py at 2017-09-08 09:37:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 411.57 Mbit/s

95th percentile per-packet one-way delay: 85.815 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 215.33 Mbit/s

95th percentile per-packet one-way delay: 78.277 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 202.83 Mbit/s

95th percentile per-packet one-way delay: 87.653 ms

Loss rate: 0.56%

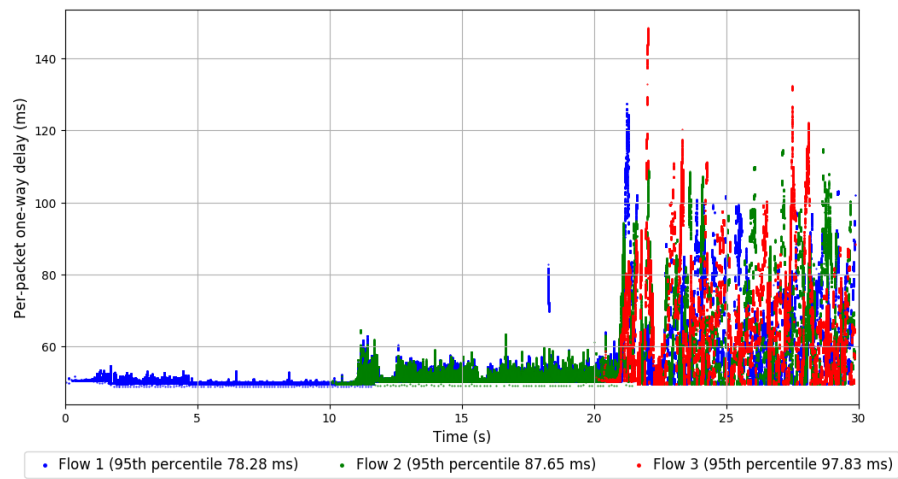
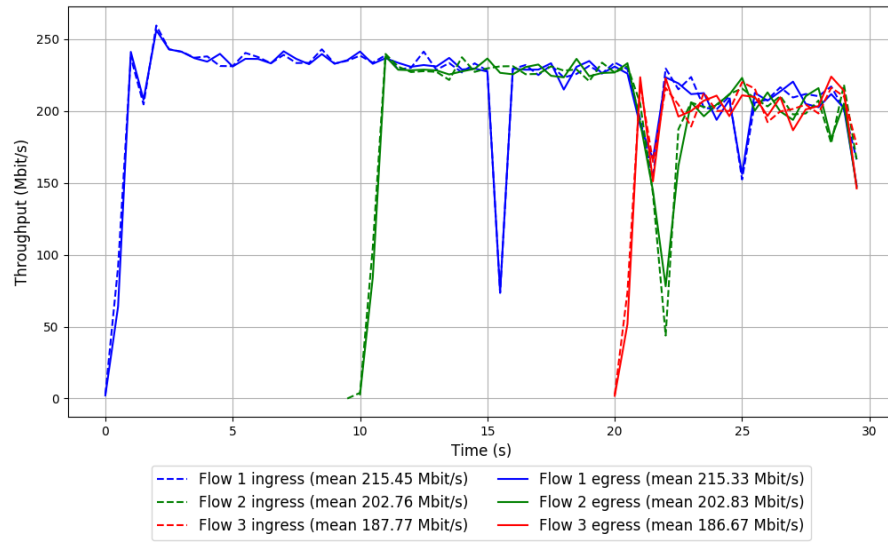
-- Flow 3:

Average throughput: 186.67 Mbit/s

95th percentile per-packet one-way delay: 97.826 ms

Loss rate: 1.43%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-09-08 05:59:39

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

Below is generated by plot.py at 2017-09-08 09:38:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 408.70 Mbit/s

95th percentile per-packet one-way delay: 82.434 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 211.41 Mbit/s

95th percentile per-packet one-way delay: 77.644 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 200.39 Mbit/s

95th percentile per-packet one-way delay: 86.707 ms

Loss rate: 0.58%

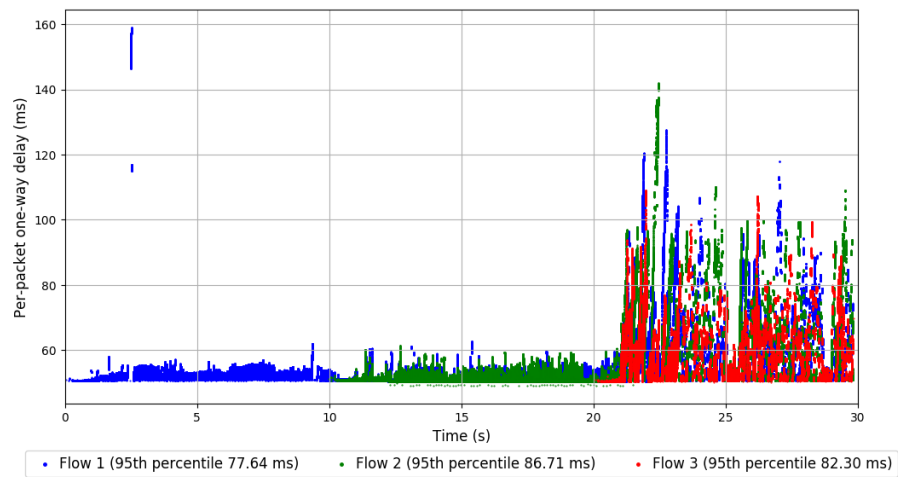
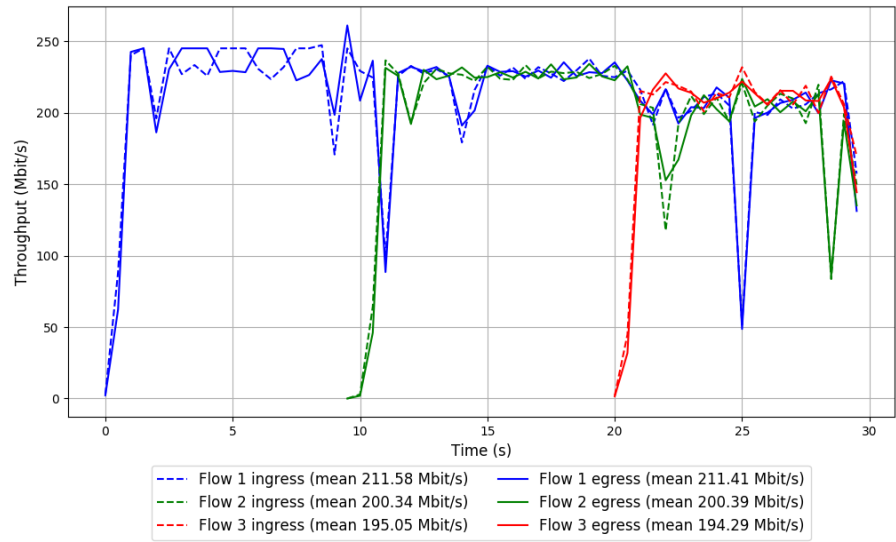
-- Flow 3:

Average throughput: 194.29 Mbit/s

95th percentile per-packet one-way delay: 82.299 ms

Loss rate: 1.38%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-08 06:11:49

End at: 2017-09-08 06:12:19

Below is generated by plot.py at 2017-09-08 09:39:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 411.52 Mbit/s

95th percentile per-packet one-way delay: 83.060 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 214.30 Mbit/s

95th percentile per-packet one-way delay: 77.303 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 202.09 Mbit/s

95th percentile per-packet one-way delay: 82.022 ms

Loss rate: 0.62%

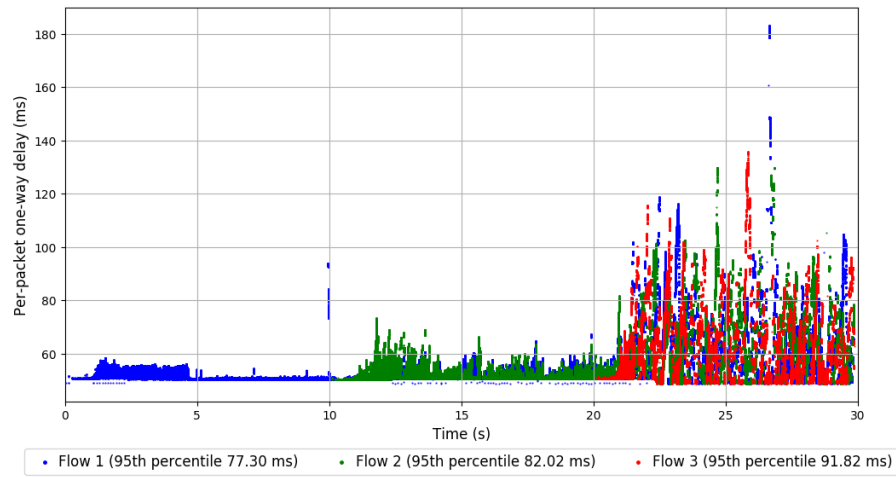
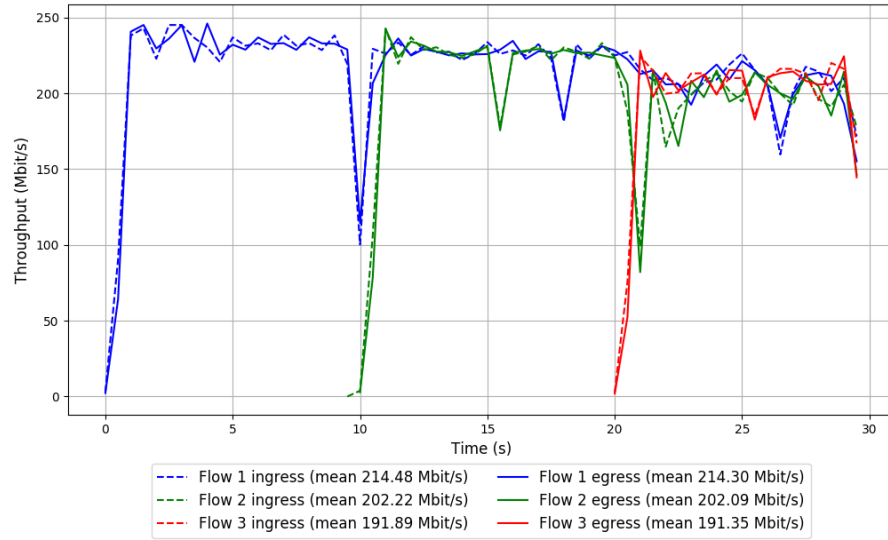
-- Flow 3:

Average throughput: 191.35 Mbit/s

95th percentile per-packet one-way delay: 91.817 ms

Loss rate: 1.26%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-08 04:18:28

End at: 2017-09-08 04:18:58

Below is generated by plot.py at 2017-09-08 09:39:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 350.38 Mbit/s

95th percentile per-packet one-way delay: 70.042 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 222.74 Mbit/s

95th percentile per-packet one-way delay: 69.244 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 146.48 Mbit/s

95th percentile per-packet one-way delay: 71.600 ms

Loss rate: 0.64%

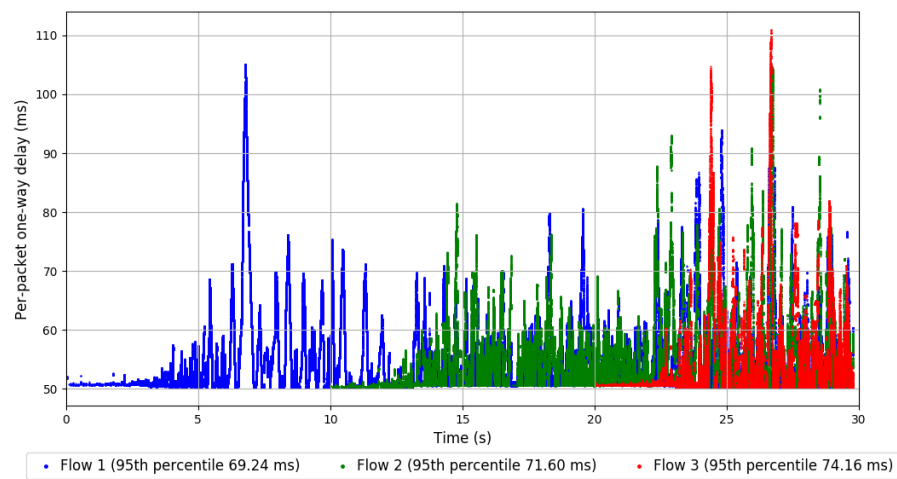
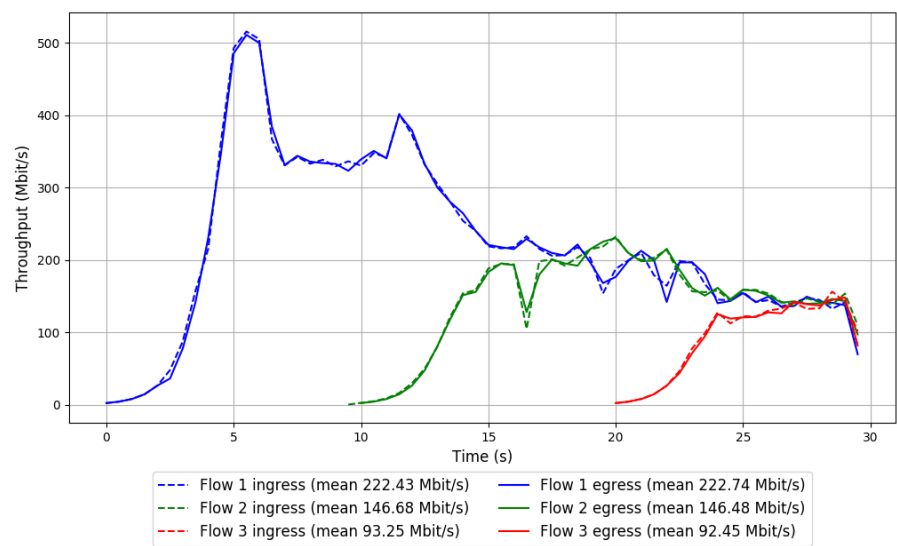
-- Flow 3:

Average throughput: 92.45 Mbit/s

95th percentile per-packet one-way delay: 74.160 ms

Loss rate: 1.85%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-08 04:30:40

End at: 2017-09-08 04:31:10

Below is generated by plot.py at 2017-09-08 09:40:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.89 Mbit/s

95th percentile per-packet one-way delay: 73.949 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 224.10 Mbit/s

95th percentile per-packet one-way delay: 73.427 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 153.34 Mbit/s

95th percentile per-packet one-way delay: 74.434 ms

Loss rate: 0.57%

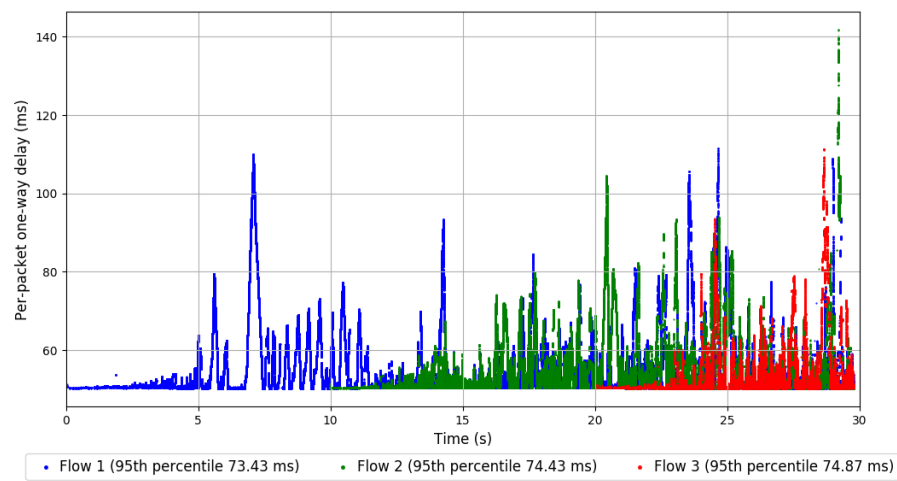
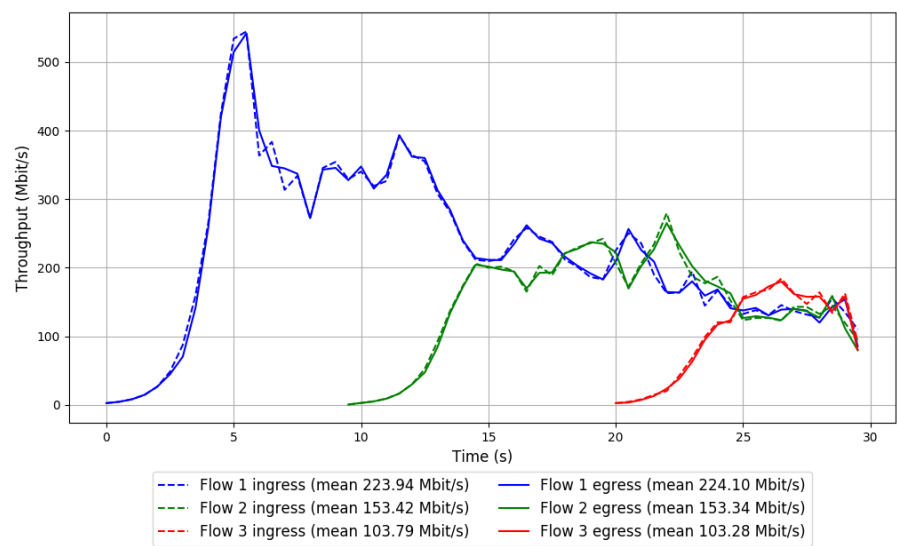
-- Flow 3:

Average throughput: 103.28 Mbit/s

95th percentile per-packet one-way delay: 74.866 ms

Loss rate: 1.59%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-08 04:43:02

End at: 2017-09-08 04:43:32

Below is generated by plot.py at 2017-09-08 09:40:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.47 Mbit/s

95th percentile per-packet one-way delay: 74.888 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 217.74 Mbit/s

95th percentile per-packet one-way delay: 77.123 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 159.33 Mbit/s

95th percentile per-packet one-way delay: 69.037 ms

Loss rate: 0.44%

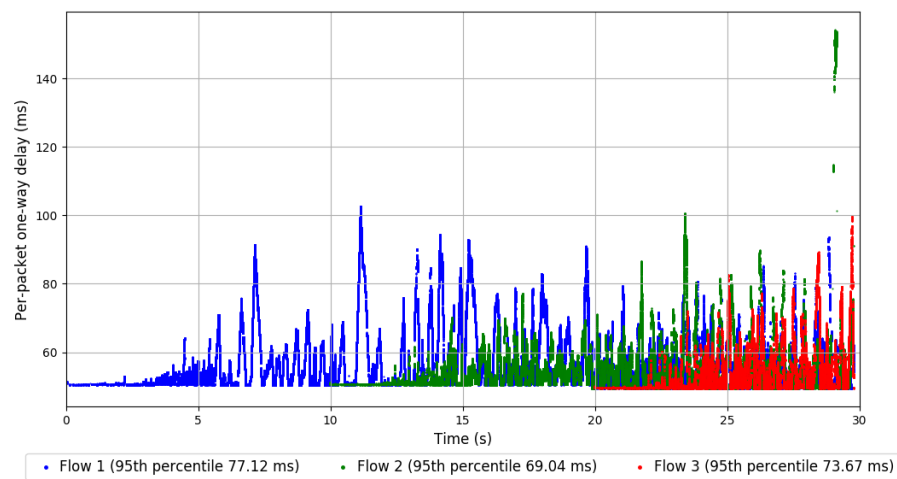
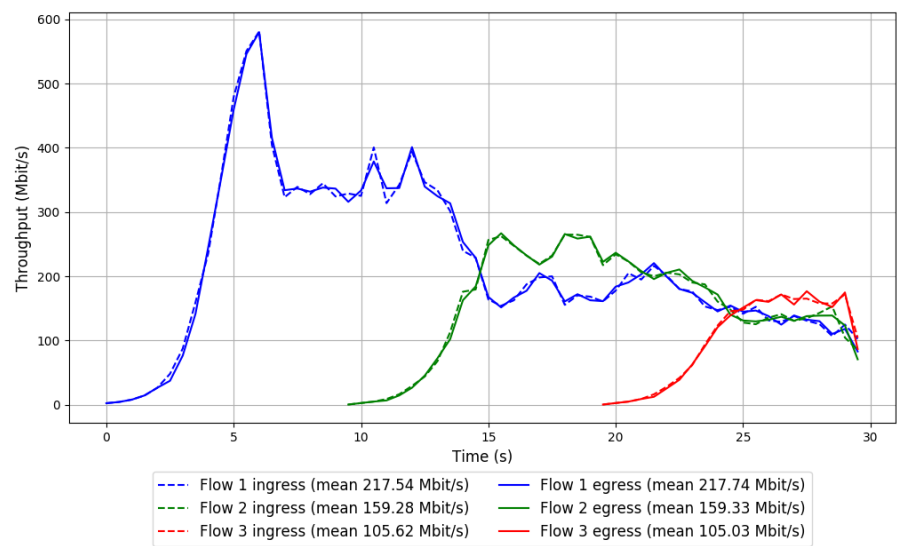
-- Flow 3:

Average throughput: 105.03 Mbit/s

95th percentile per-packet one-way delay: 73.665 ms

Loss rate: 1.57%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

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

End at: 2017-09-08 04:55:38

Below is generated by plot.py at 2017-09-08 09:41:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.30 Mbit/s

95th percentile per-packet one-way delay: 71.151 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 215.38 Mbit/s

95th percentile per-packet one-way delay: 74.312 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 154.05 Mbit/s

95th percentile per-packet one-way delay: 67.132 ms

Loss rate: 0.41%

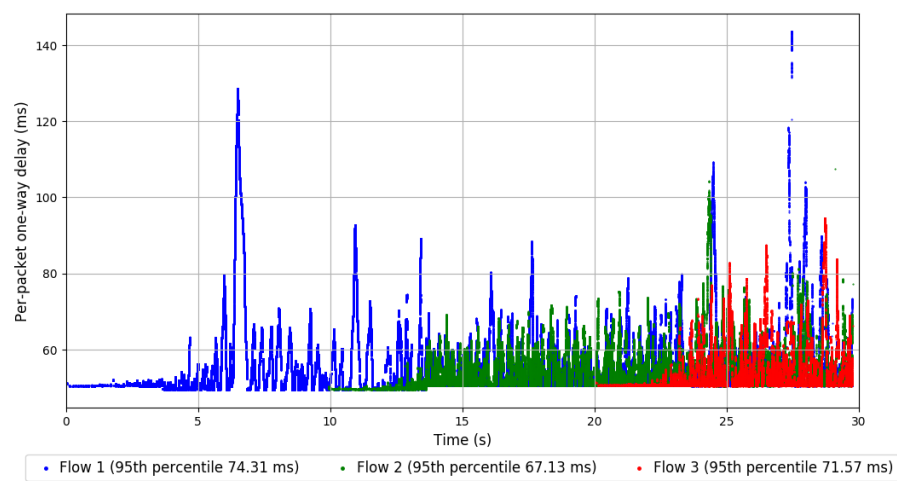
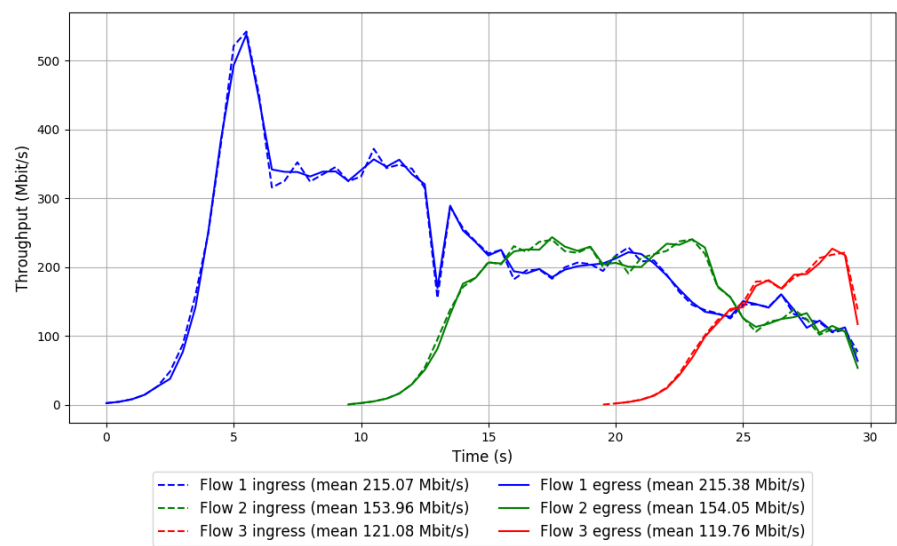
-- Flow 3:

Average throughput: 119.76 Mbit/s

95th percentile per-packet one-way delay: 71.573 ms

Loss rate: 2.04%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-08 05:07:30

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

Below is generated by plot.py at 2017-09-08 09:41:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.36 Mbit/s

95th percentile per-packet one-way delay: 67.613 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 231.43 Mbit/s

95th percentile per-packet one-way delay: 68.875 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 132.73 Mbit/s

95th percentile per-packet one-way delay: 63.909 ms

Loss rate: 0.59%

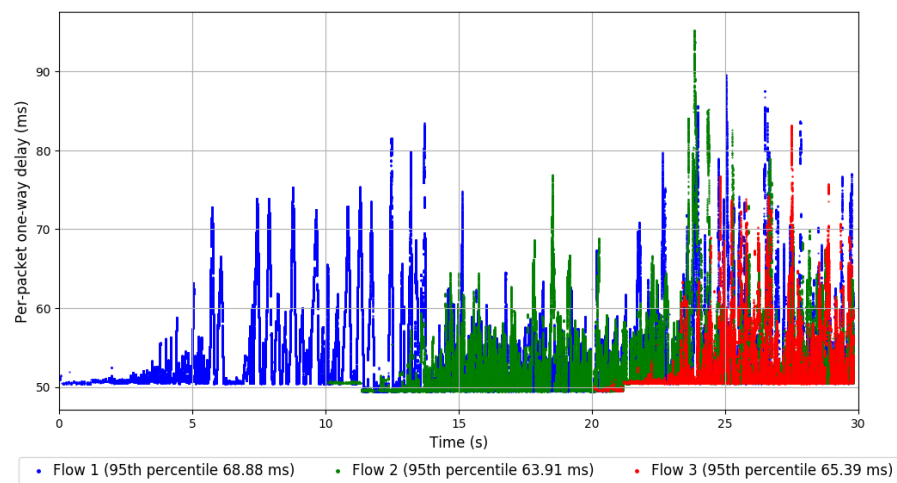
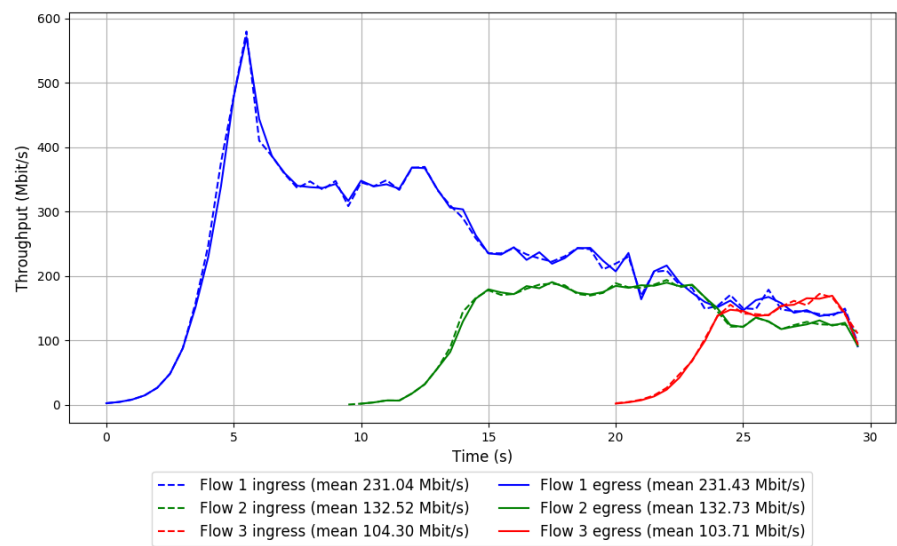
-- Flow 3:

Average throughput: 103.71 Mbit/s

95th percentile per-packet one-way delay: 65.391 ms

Loss rate: 1.58%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-08 05:19:52

End at: 2017-09-08 05:20:22

Below is generated by plot.py at 2017-09-08 09:42:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 354.24 Mbit/s

95th percentile per-packet one-way delay: 71.901 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 221.77 Mbit/s

95th percentile per-packet one-way delay: 73.431 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 153.56 Mbit/s

95th percentile per-packet one-way delay: 66.613 ms

Loss rate: 0.52%

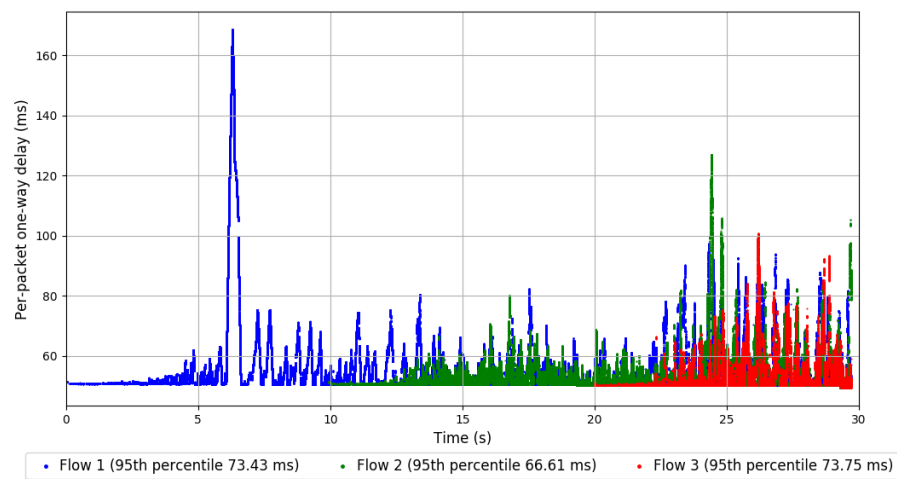
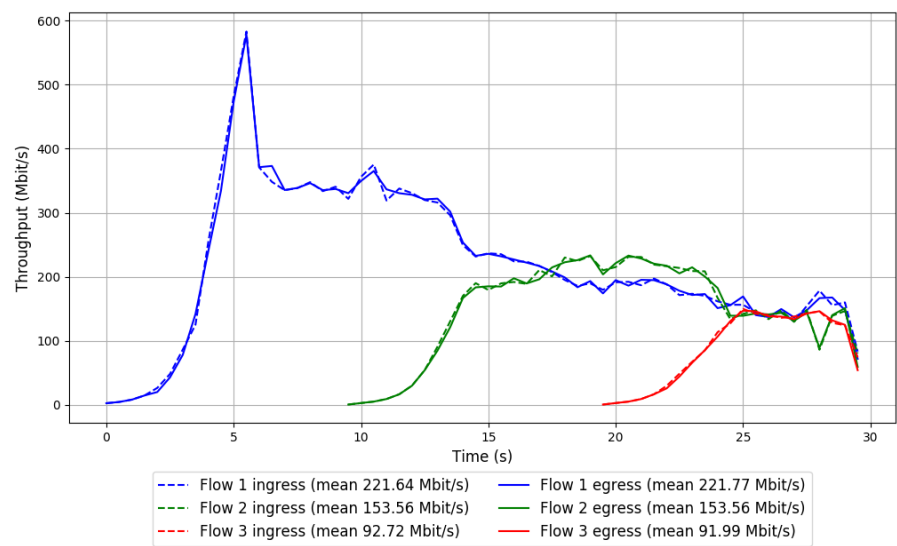
-- Flow 3:

Average throughput: 91.99 Mbit/s

95th percentile per-packet one-way delay: 73.748 ms

Loss rate: 1.71%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-08 05:32:00

End at: 2017-09-08 05:32:30

Below is generated by plot.py at 2017-09-08 09:42:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.32 Mbit/s

95th percentile per-packet one-way delay: 70.346 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 225.38 Mbit/s

95th percentile per-packet one-way delay: 77.767 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 144.45 Mbit/s

95th percentile per-packet one-way delay: 61.861 ms

Loss rate: 0.48%

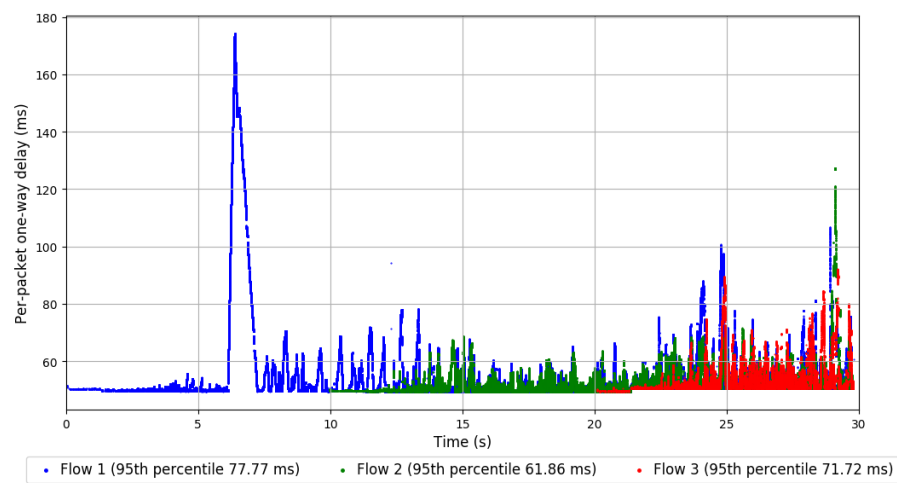
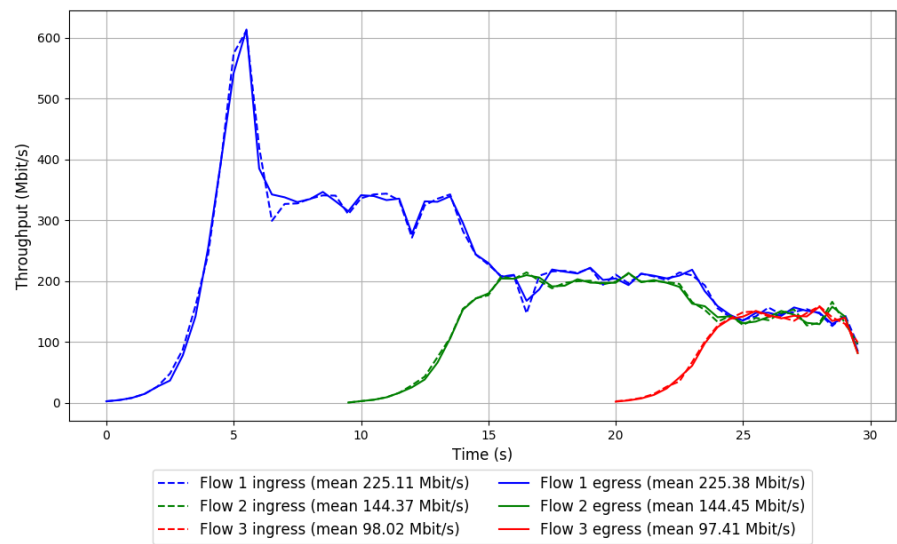
-- Flow 3:

Average throughput: 97.41 Mbit/s

95th percentile per-packet one-way delay: 71.725 ms

Loss rate: 1.59%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-08 05:44:07

End at: 2017-09-08 05:44:37

Below is generated by plot.py at 2017-09-08 09:43:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 344.20 Mbit/s

95th percentile per-packet one-way delay: 71.745 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 207.61 Mbit/s

95th percentile per-packet one-way delay: 74.435 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 153.69 Mbit/s

95th percentile per-packet one-way delay: 67.524 ms

Loss rate: 0.46%

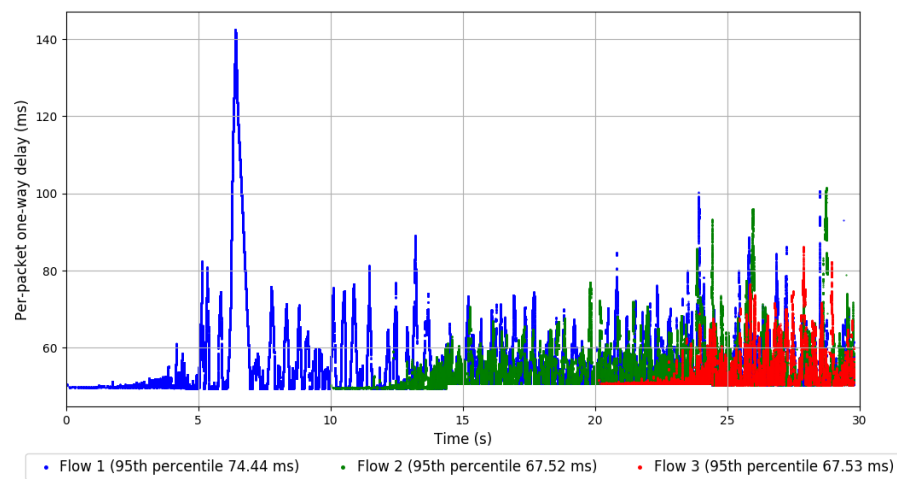
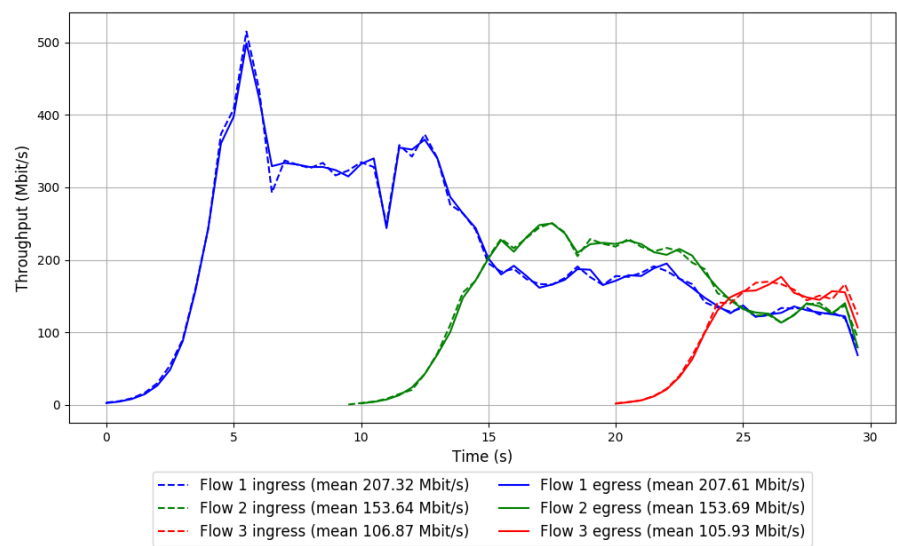
-- Flow 3:

Average throughput: 105.93 Mbit/s

95th percentile per-packet one-way delay: 67.526 ms

Loss rate: 1.91%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-08 05:56:19

End at: 2017-09-08 05:56:49

Below is generated by plot.py at 2017-09-08 09:44:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 357.98 Mbit/s

95th percentile per-packet one-way delay: 67.123 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 219.56 Mbit/s

95th percentile per-packet one-way delay: 67.274 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 158.95 Mbit/s

95th percentile per-packet one-way delay: 64.215 ms

Loss rate: 0.50%

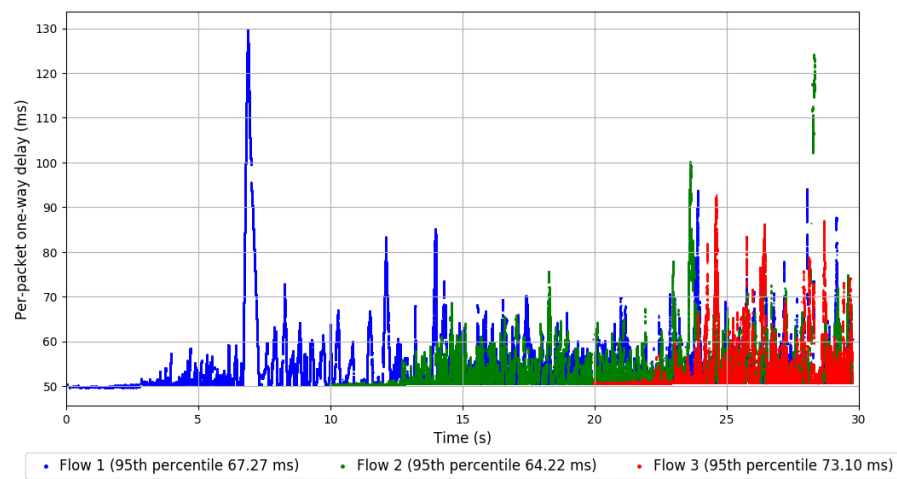
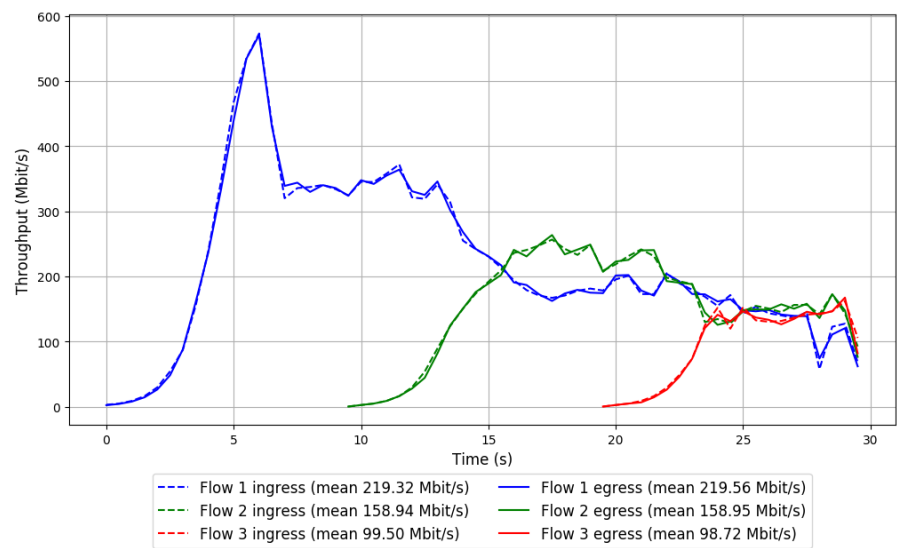
-- Flow 3:

Average throughput: 98.72 Mbit/s

95th percentile per-packet one-way delay: 73.097 ms

Loss rate: 1.72%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-08 06:08:34

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

Below is generated by plot.py at 2017-09-08 09:44:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 353.87 Mbit/s

95th percentile per-packet one-way delay: 70.102 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 226.17 Mbit/s

95th percentile per-packet one-way delay: 70.055 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 134.75 Mbit/s

95th percentile per-packet one-way delay: 70.541 ms

Loss rate: 0.46%

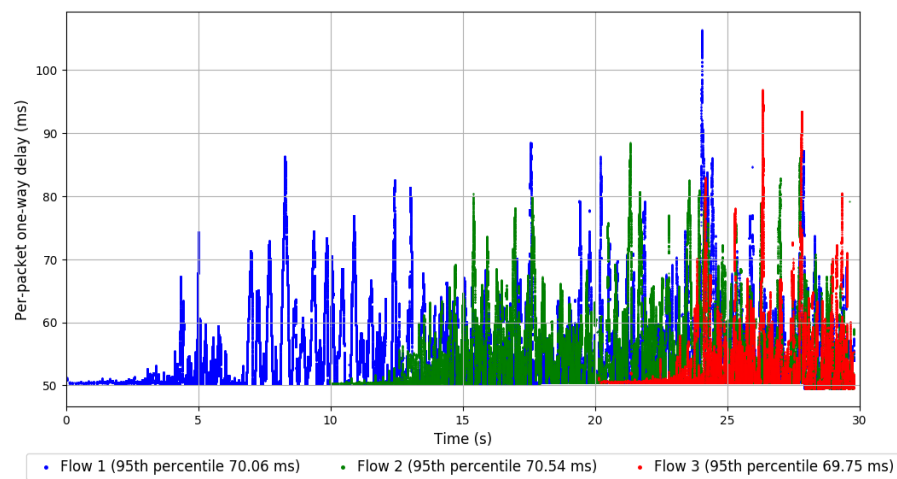
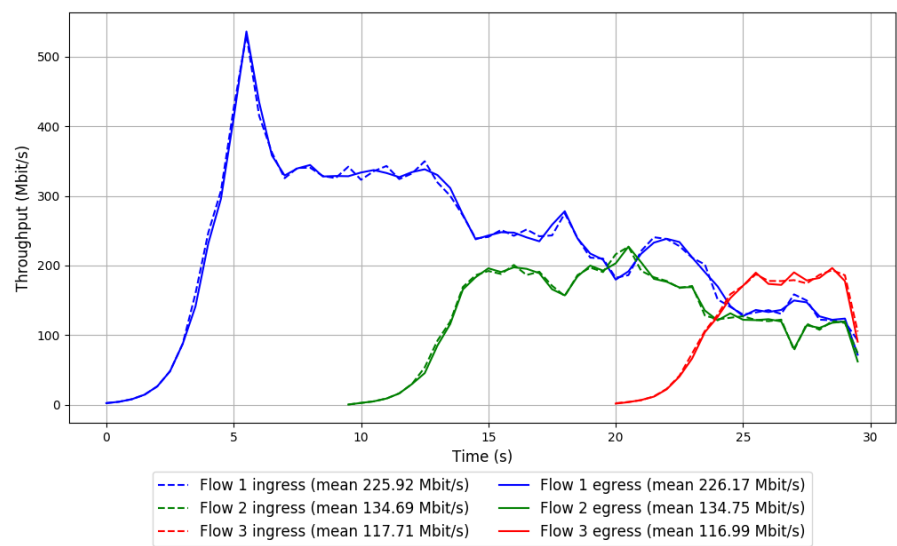
-- Flow 3:

Average throughput: 116.99 Mbit/s

95th percentile per-packet one-way delay: 69.746 ms

Loss rate: 1.59%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-09-08 04:20:24

End at: 2017-09-08 04:20:54

Run 1: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 2: Statistics of Copa

Start at: 2017-09-08 04:32:36

End at: 2017-09-08 04:33:06

Below is generated by plot.py at 2017-09-08 09:44:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.43 Mbit/s

95th percentile per-packet one-way delay: 50.522 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 53.35 Mbit/s

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

Loss rate: 0.22%

-- Flow 2:

Average throughput: 46.97 Mbit/s

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

Loss rate: 0.43%

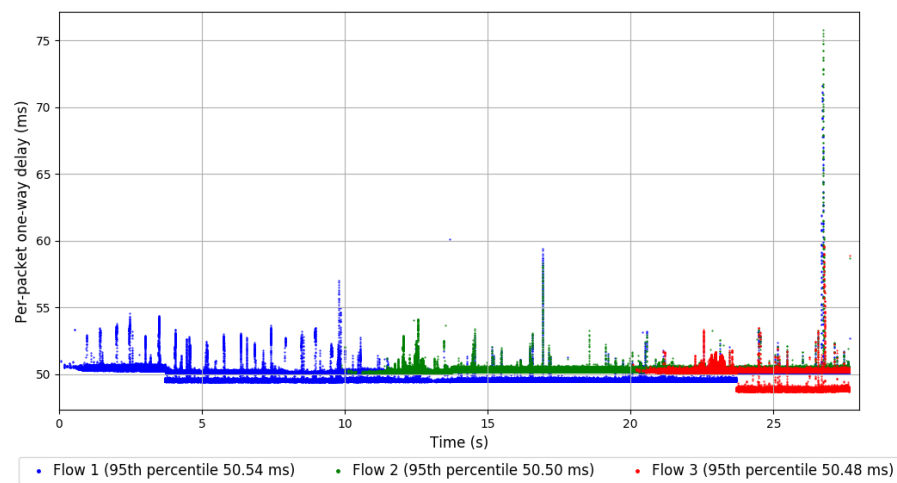
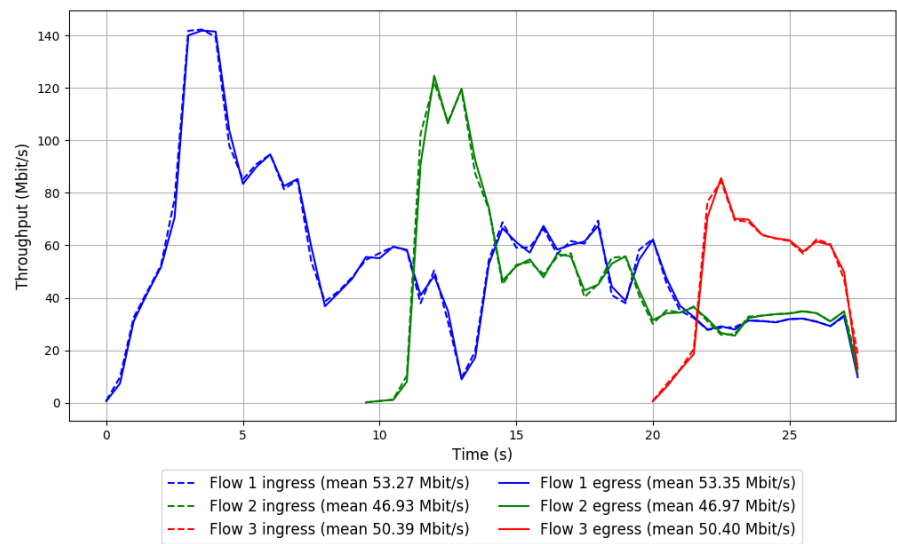
-- Flow 3:

Average throughput: 50.40 Mbit/s

95th percentile per-packet one-way delay: 50.475 ms

Loss rate: 1.21%

Run 2: Report of Copa — Data Link

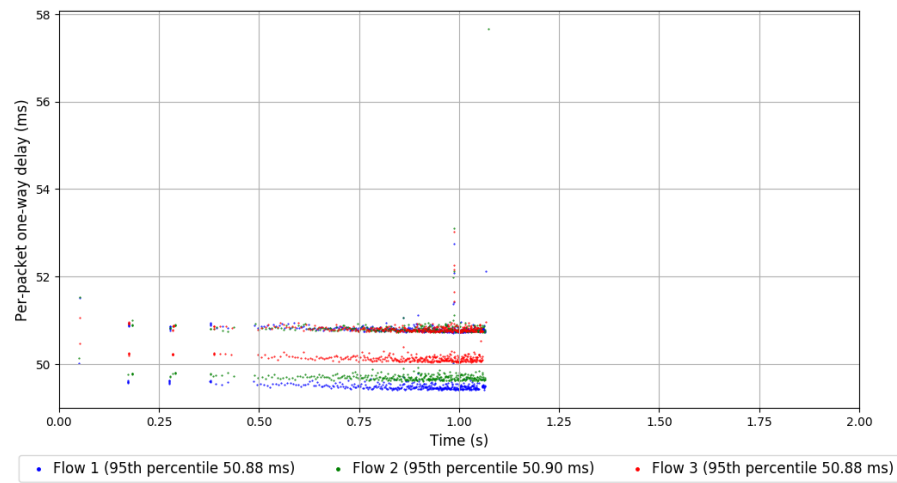
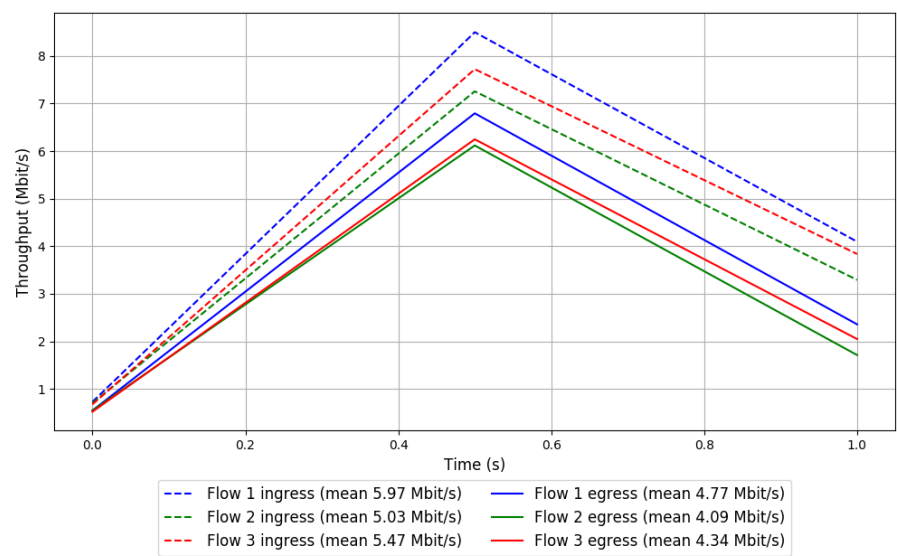


Run 3: Statistics of Copa

Start at: 2017-09-08 04:44:57

End at: 2017-09-08 04:45:27

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-08 04:57:03

End at: 2017-09-08 04:57:33

Below is generated by plot.py at 2017-09-08 09:45:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.51 Mbit/s

95th percentile per-packet one-way delay: 50.652 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 62.12 Mbit/s

95th percentile per-packet one-way delay: 50.634 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 51.99 Mbit/s

95th percentile per-packet one-way delay: 50.678 ms

Loss rate: 0.60%

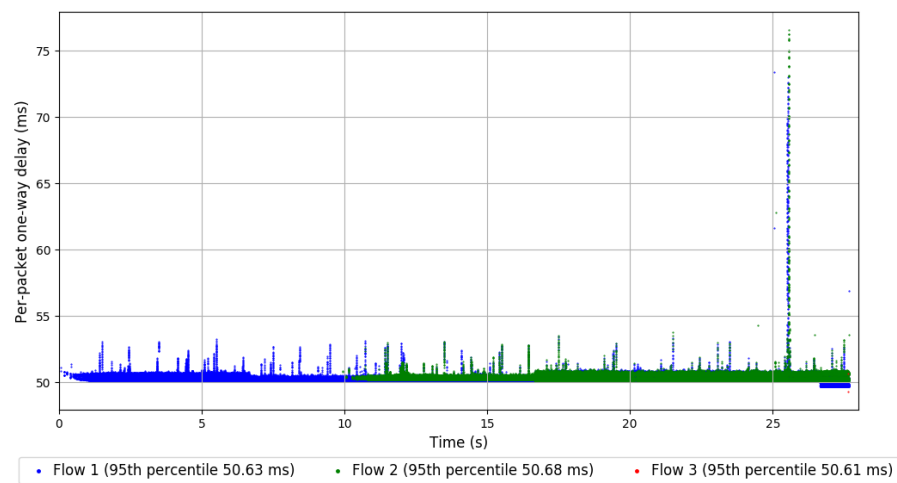
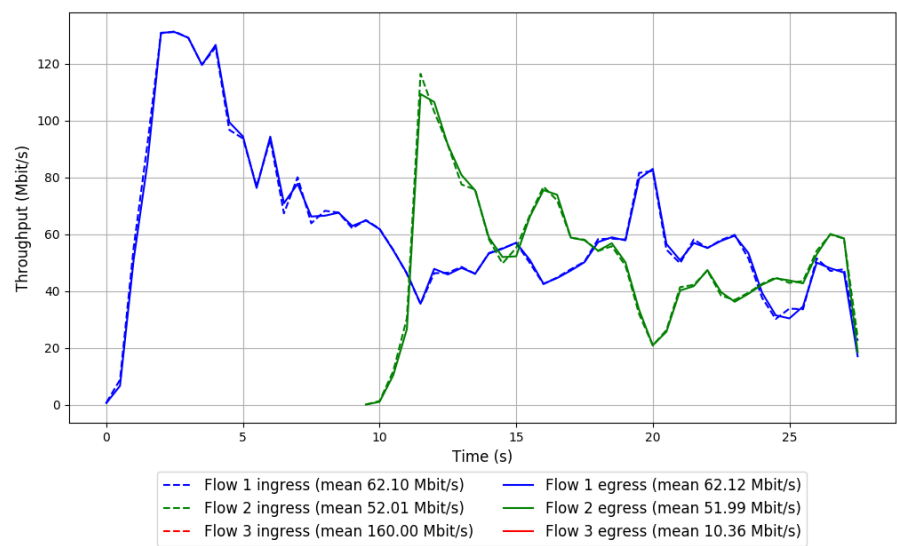
-- Flow 3:

Average throughput: 10.36 Mbit/s

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

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-08 05:09:28

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

Below is generated by plot.py at 2017-09-08 09:45:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.36 Mbit/s

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

Loss rate: 0.35%

-- Flow 1:

Average throughput: 55.55 Mbit/s

95th percentile per-packet one-way delay: 50.628 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 50.20 Mbit/s

95th percentile per-packet one-way delay: 50.741 ms

Loss rate: 0.37%

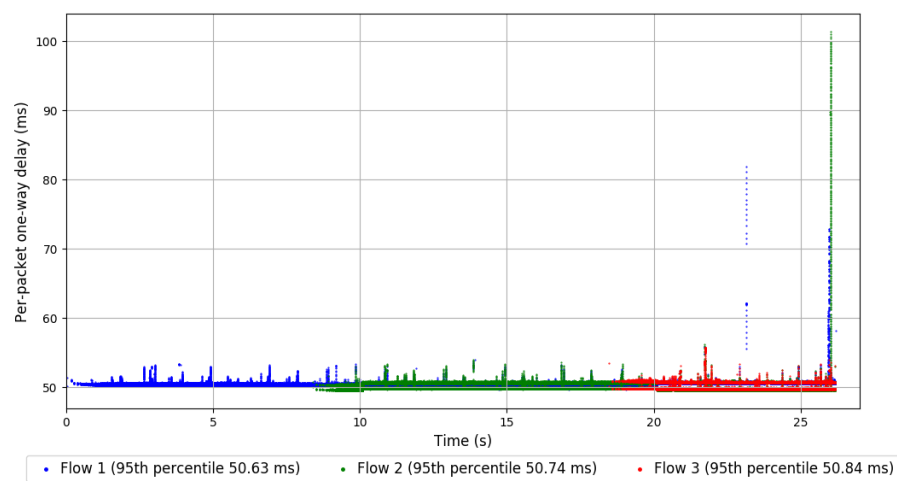
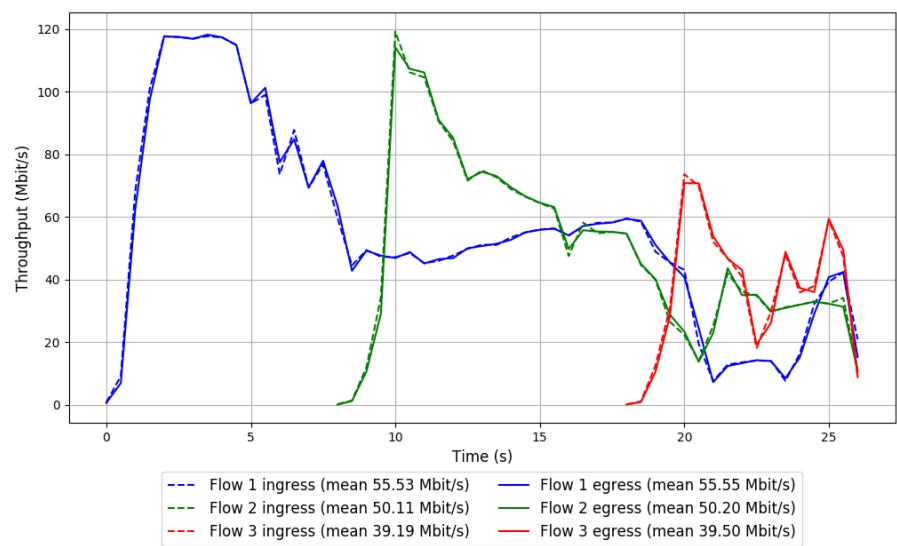
-- Flow 3:

Average throughput: 39.50 Mbit/s

95th percentile per-packet one-way delay: 50.838 ms

Loss rate: 0.49%

Run 5: Report of Copa — Data Link

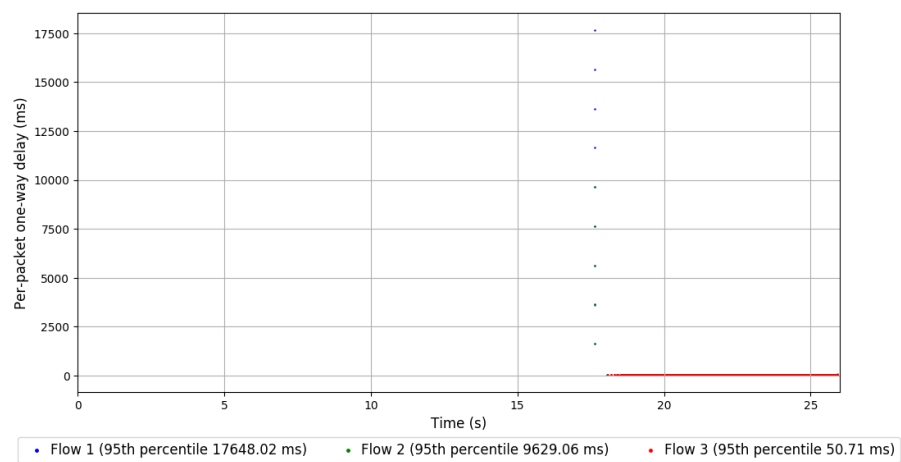
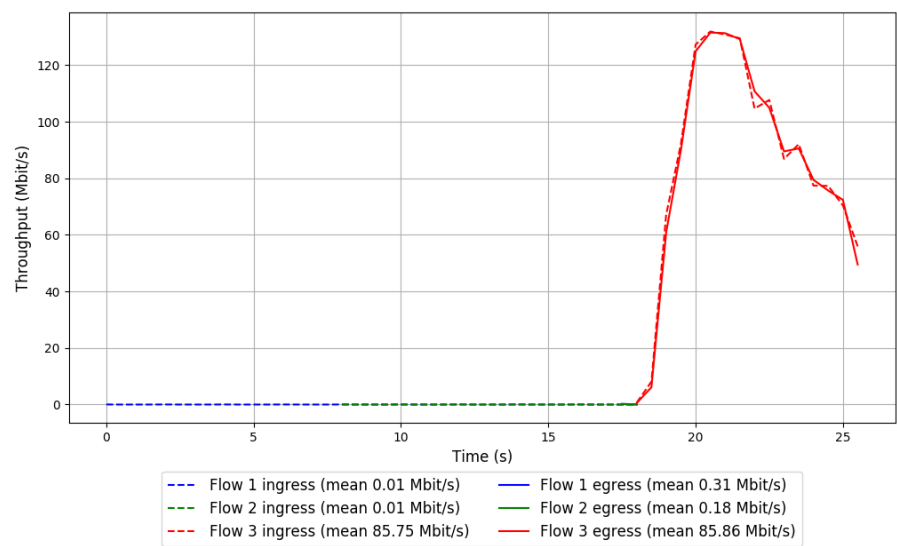


Run 6: Statistics of Copa

Start at: 2017-09-08 05:21:49

End at: 2017-09-08 05:22:19

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-08 05:33:56

End at: 2017-09-08 05:34:26

Run 7: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 8: Statistics of Copa

Start at: 2017-09-08 05:46:01

End at: 2017-09-08 05:46:31

Below is generated by plot.py at 2017-09-08 09:45:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 98.51 Mbit/s

95th percentile per-packet one-way delay: 50.806 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 55.47 Mbit/s

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

Loss rate: 0.20%

-- Flow 2:

Average throughput: 45.03 Mbit/s

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

Loss rate: 0.42%

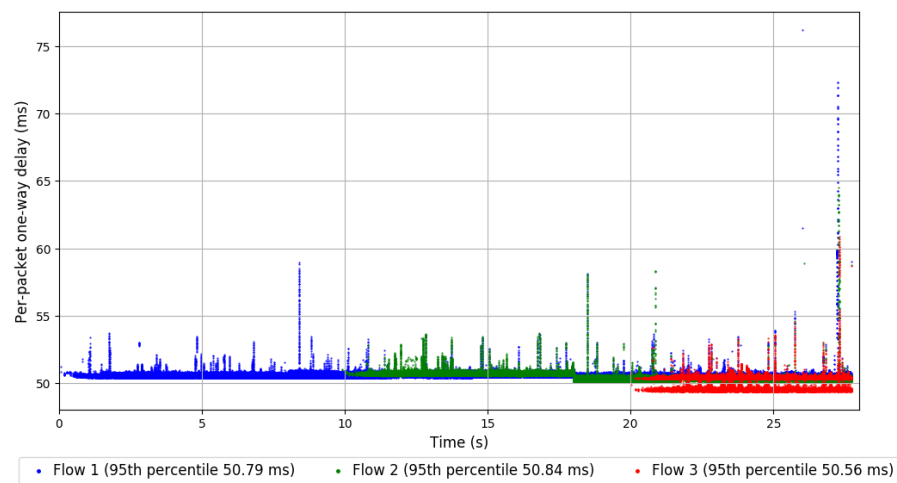
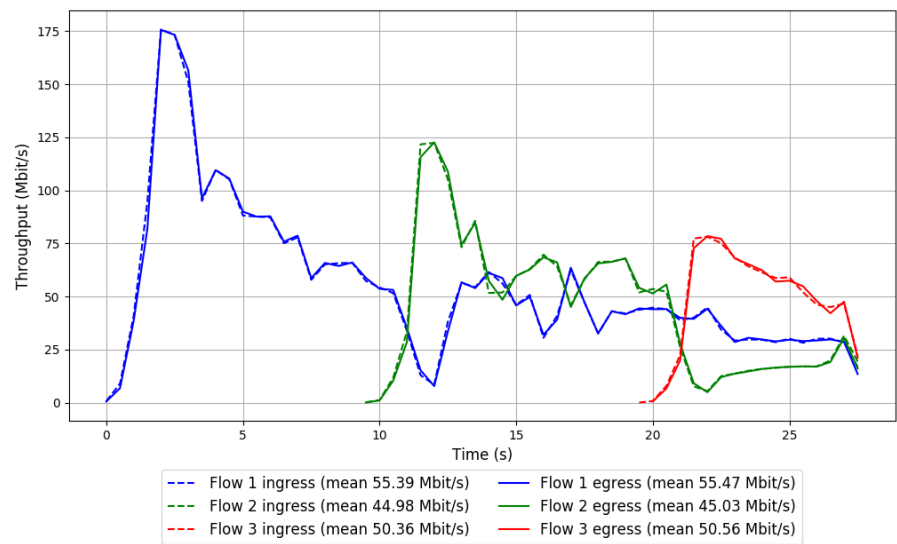
-- Flow 3:

Average throughput: 50.56 Mbit/s

95th percentile per-packet one-way delay: 50.561 ms

Loss rate: 0.81%

Run 8: Report of Copa — Data Link

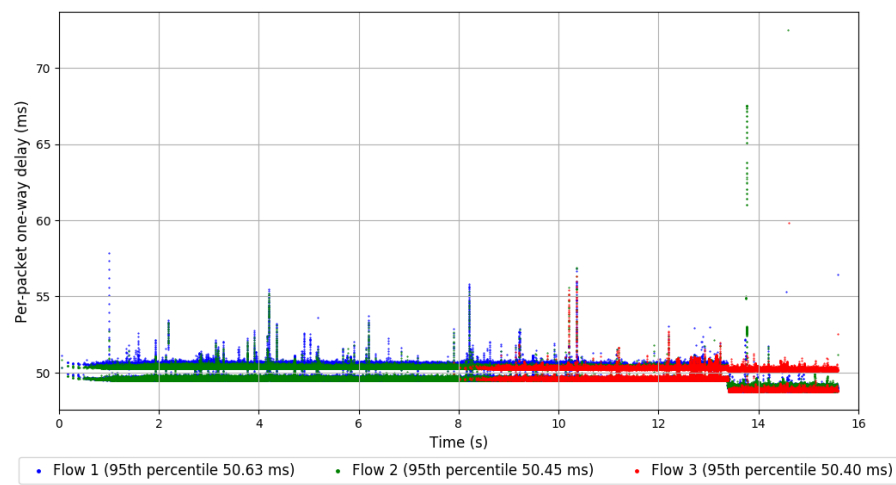
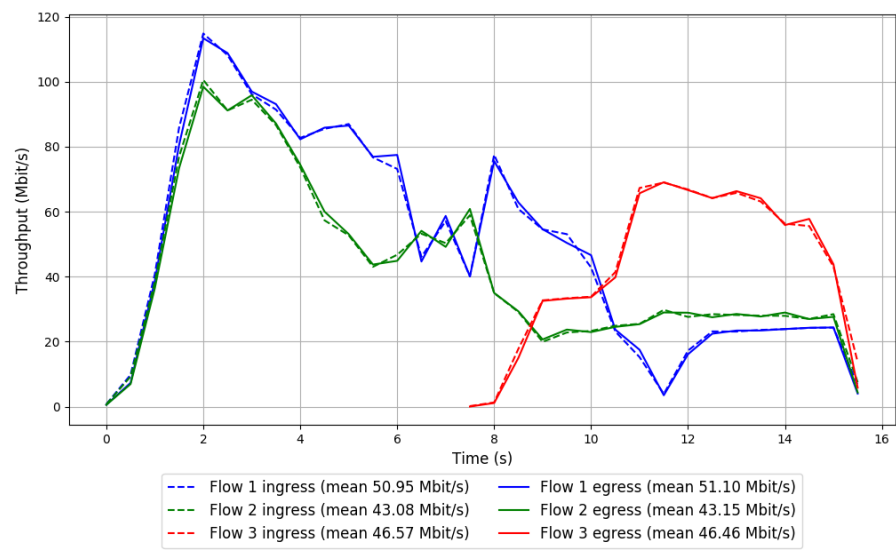


Run 9: Statistics of Copa

Start at: 2017-09-08 05:58:14

End at: 2017-09-08 05:58:44

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-08 06:10:30

End at: 2017-09-08 06:11:00

Run 10: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 1: Statistics of TCP Cubic

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

End at: 2017-09-08 04:15:38

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 271.80 Mbit/s

95th percentile per-packet one-way delay: 57.032 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 155.51 Mbit/s

95th percentile per-packet one-way delay: 54.773 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 171.93 Mbit/s

95th percentile per-packet one-way delay: 59.444 ms

Loss rate: 0.24%

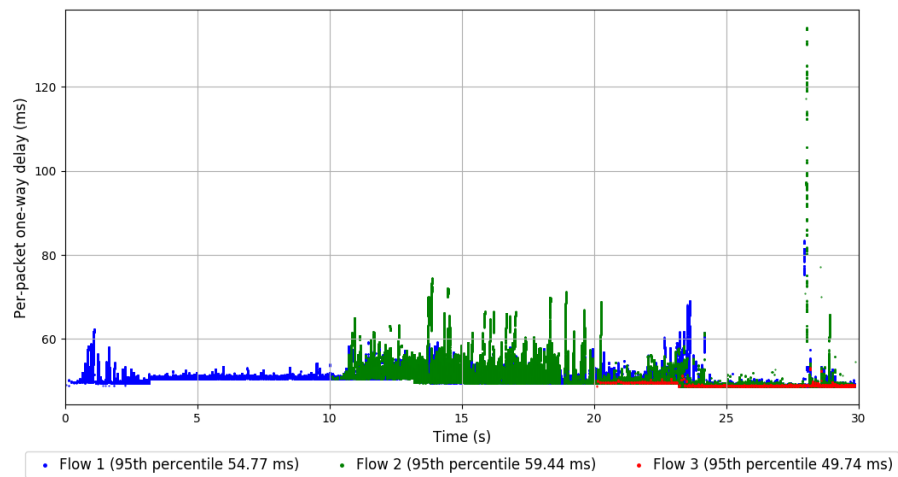
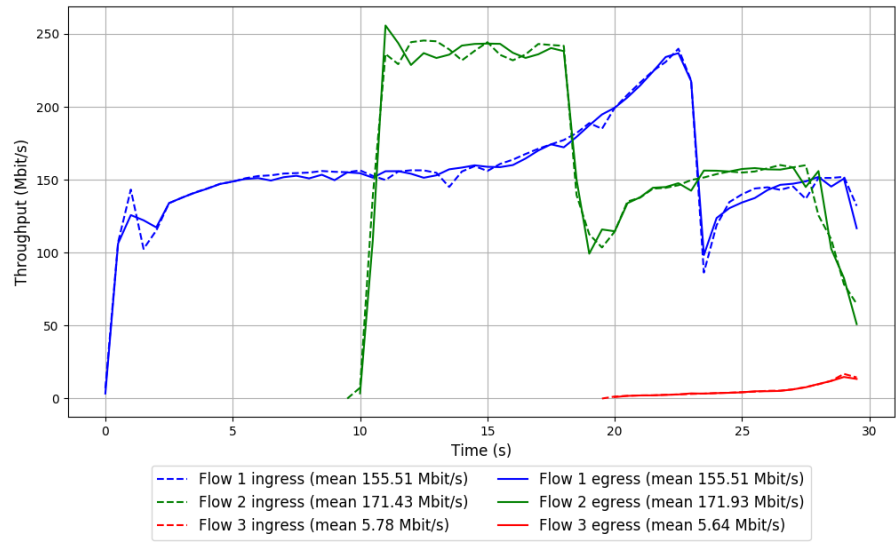
-- Flow 3:

Average throughput: 5.64 Mbit/s

95th percentile per-packet one-way delay: 49.743 ms

Loss rate: 3.39%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-08 04:27:21

End at: 2017-09-08 04:27:51

Below is generated by plot.py at 2017-09-08 09:46:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.60 Mbit/s

95th percentile per-packet one-way delay: 55.019 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 94.28 Mbit/s

95th percentile per-packet one-way delay: 53.443 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 150.13 Mbit/s

95th percentile per-packet one-way delay: 56.009 ms

Loss rate: 0.47%

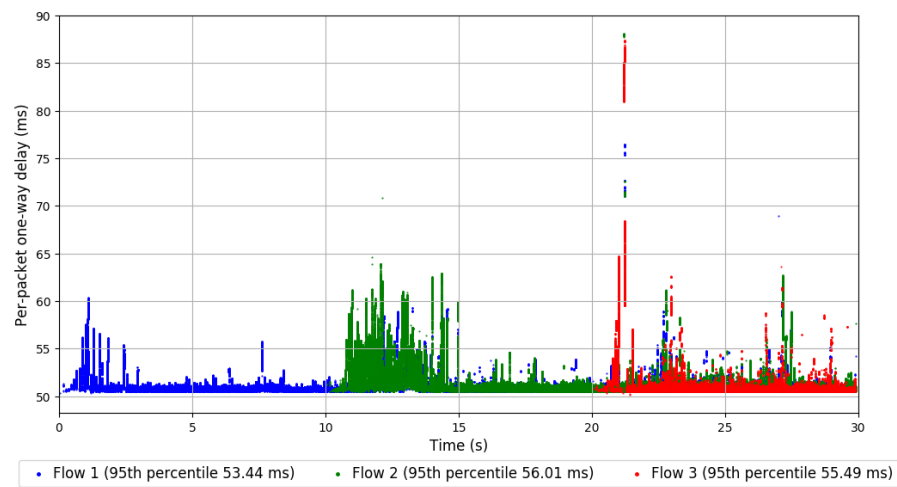
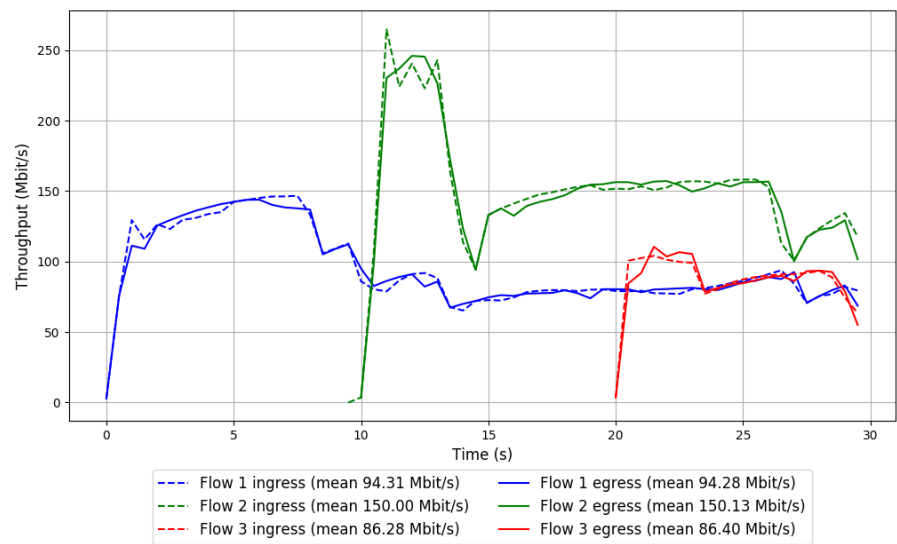
-- Flow 3:

Average throughput: 86.40 Mbit/s

95th percentile per-packet one-way delay: 55.486 ms

Loss rate: 0.85%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-08 04:39:43

End at: 2017-09-08 04:40:13

Below is generated by plot.py at 2017-09-08 09:47:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 216.35 Mbit/s

95th percentile per-packet one-way delay: 52.871 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 95.98 Mbit/s

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

Loss rate: 0.27%

-- Flow 2:

Average throughput: 119.20 Mbit/s

95th percentile per-packet one-way delay: 52.579 ms

Loss rate: 0.65%

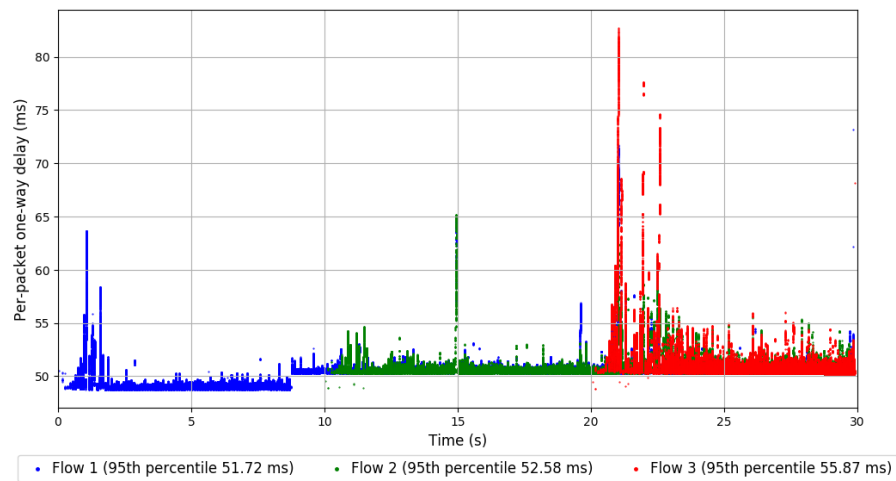
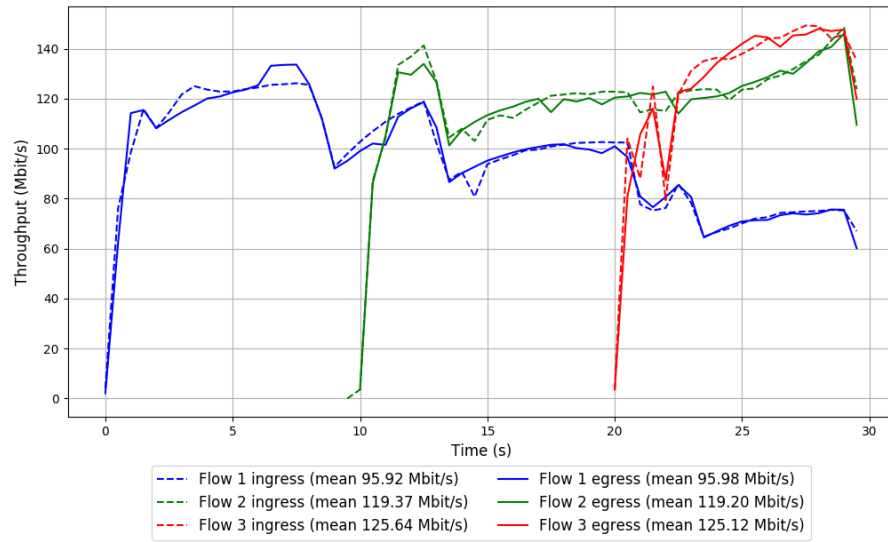
-- Flow 3:

Average throughput: 125.12 Mbit/s

95th percentile per-packet one-way delay: 55.870 ms

Loss rate: 1.21%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-08 04:51:48

End at: 2017-09-08 04:52:18

Below is generated by plot.py at 2017-09-08 09:47:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.63 Mbit/s

95th percentile per-packet one-way delay: 55.706 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 135.95 Mbit/s

95th percentile per-packet one-way delay: 56.342 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 133.96 Mbit/s

95th percentile per-packet one-way delay: 52.770 ms

Loss rate: 0.46%

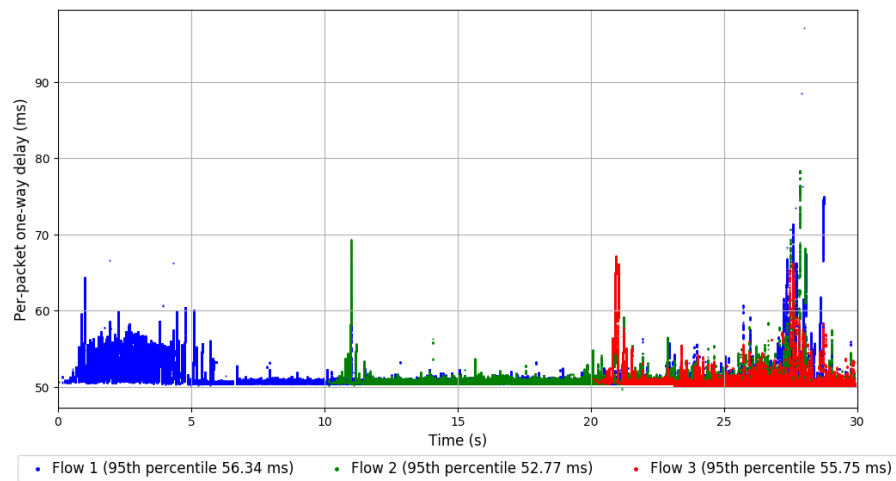
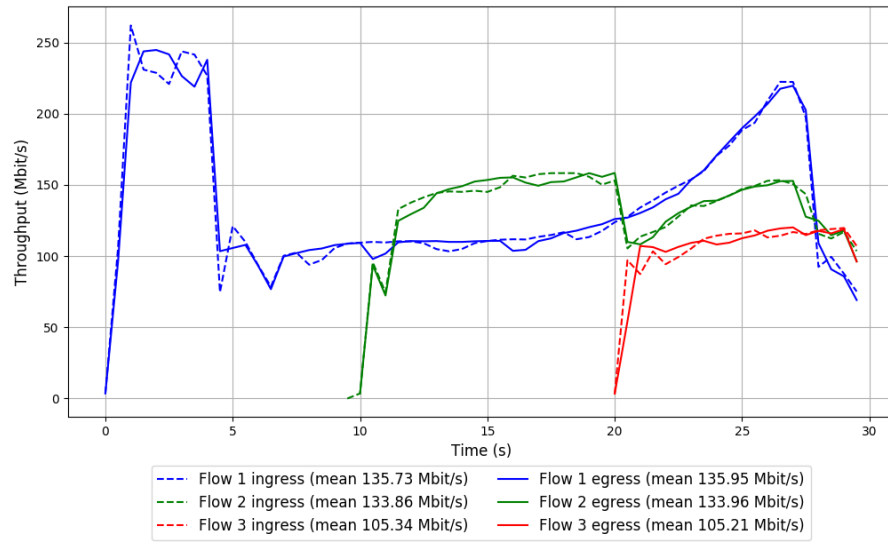
-- Flow 3:

Average throughput: 105.21 Mbit/s

95th percentile per-packet one-way delay: 55.746 ms

Loss rate: 1.15%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

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

End at: 2017-09-08 05:04:39

Below is generated by plot.py at 2017-09-08 09:48:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.80 Mbit/s

95th percentile per-packet one-way delay: 54.982 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 127.70 Mbit/s

95th percentile per-packet one-way delay: 52.941 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 103.01 Mbit/s

95th percentile per-packet one-way delay: 54.361 ms

Loss rate: 0.72%

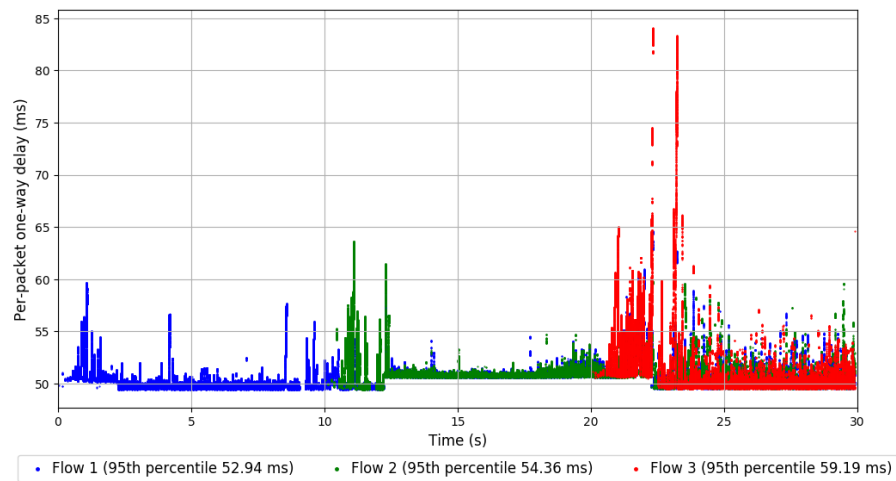
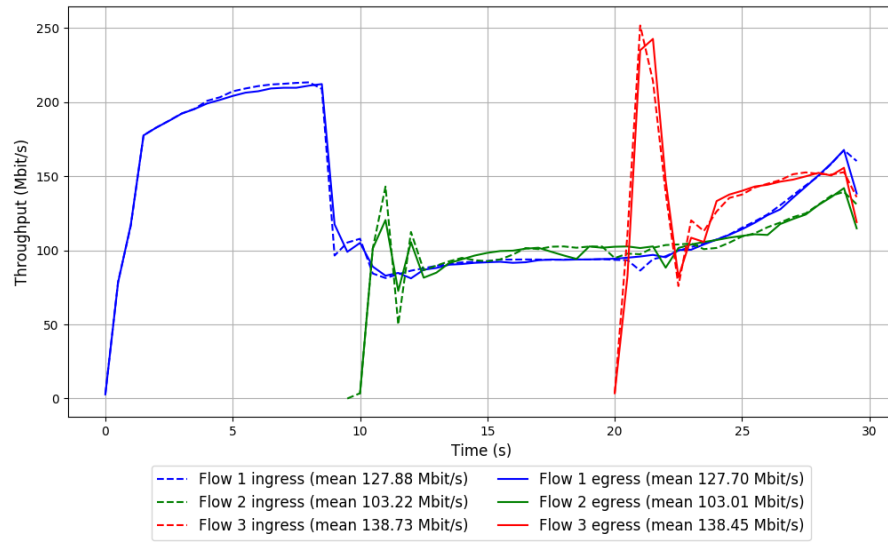
-- Flow 3:

Average throughput: 138.45 Mbit/s

95th percentile per-packet one-way delay: 59.186 ms

Loss rate: 1.13%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-08 05:16:32

End at: 2017-09-08 05:17:02

Below is generated by plot.py at 2017-09-08 09:48:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 265.22 Mbit/s

95th percentile per-packet one-way delay: 61.478 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 132.07 Mbit/s

95th percentile per-packet one-way delay: 61.775 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 138.50 Mbit/s

95th percentile per-packet one-way delay: 59.526 ms

Loss rate: 0.53%

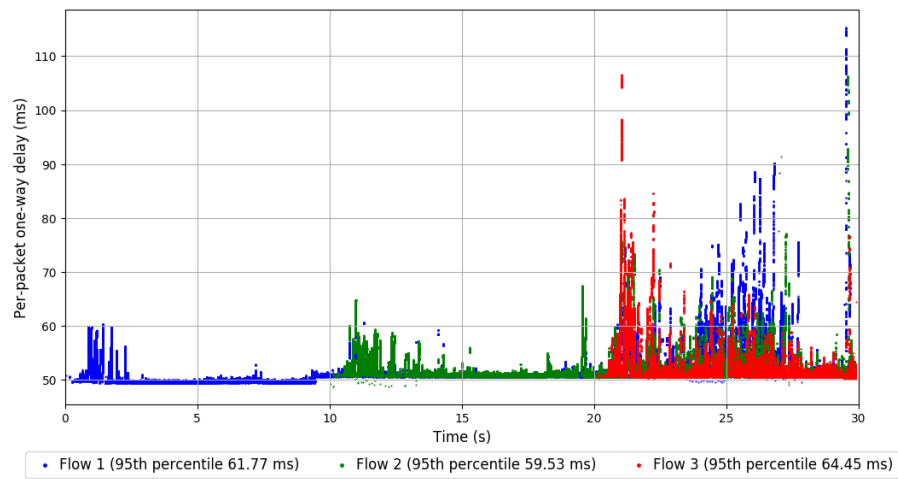
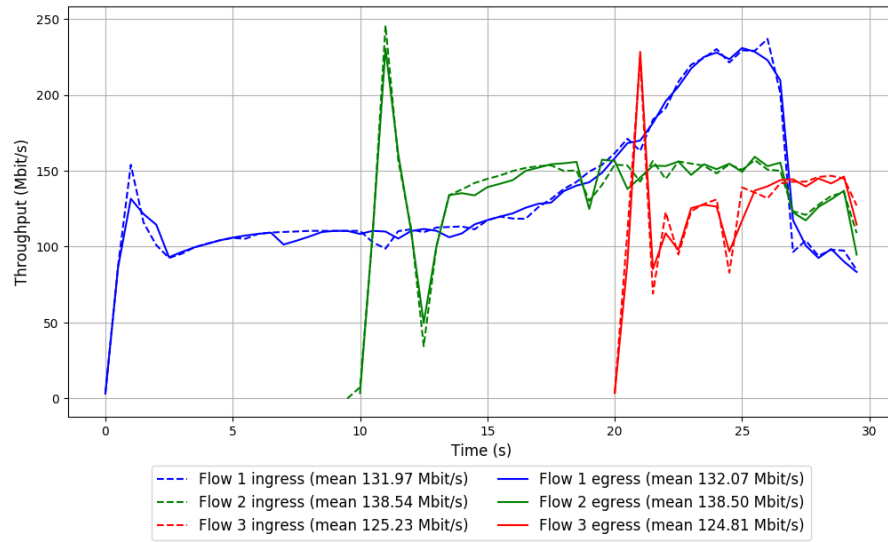
-- Flow 3:

Average throughput: 124.81 Mbit/s

95th percentile per-packet one-way delay: 64.449 ms

Loss rate: 1.19%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-08 05:28:41

End at: 2017-09-08 05:29:11

Below is generated by plot.py at 2017-09-08 09:48:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 229.51 Mbit/s

95th percentile per-packet one-way delay: 54.847 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 90.45 Mbit/s

95th percentile per-packet one-way delay: 53.401 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 157.71 Mbit/s

95th percentile per-packet one-way delay: 55.435 ms

Loss rate: 0.35%

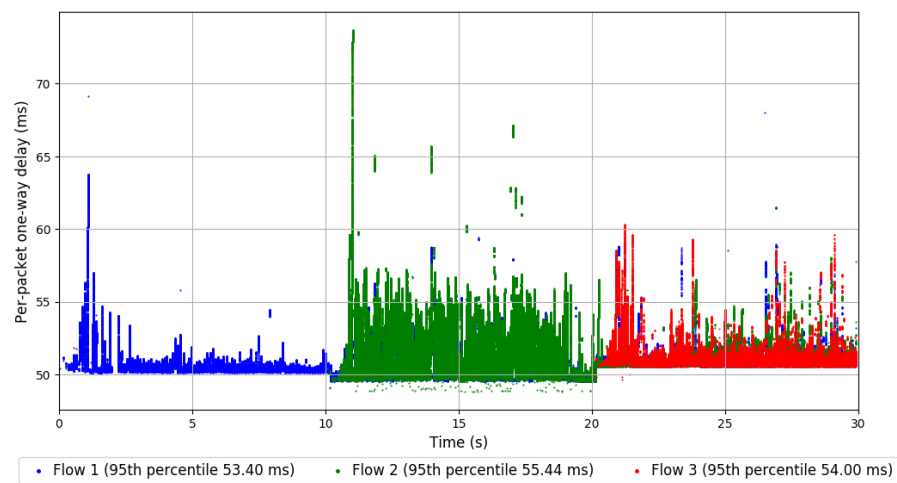
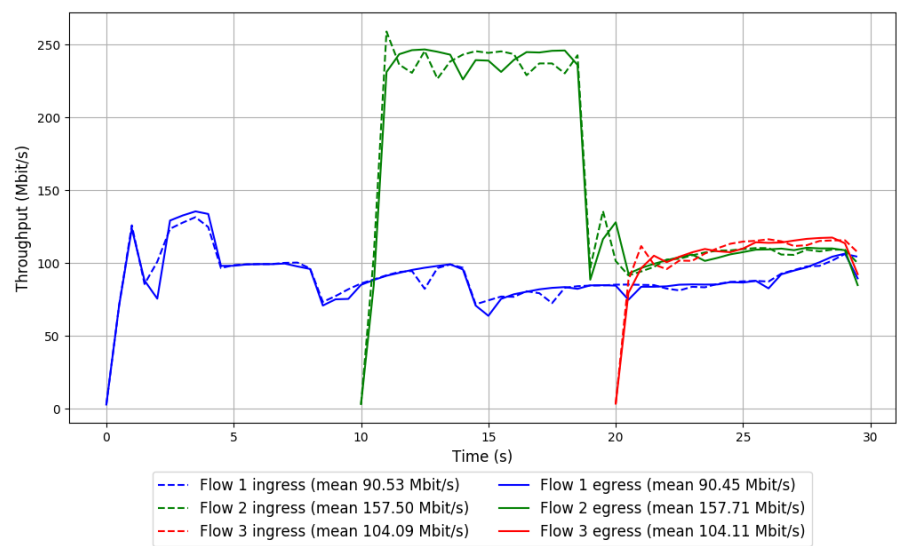
-- Flow 3:

Average throughput: 104.11 Mbit/s

95th percentile per-packet one-way delay: 54.002 ms

Loss rate: 1.13%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

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

End at: 2017-09-08 05:41:20

Below is generated by plot.py at 2017-09-08 09:49:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.81 Mbit/s

95th percentile per-packet one-way delay: 54.289 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 150.25 Mbit/s

95th percentile per-packet one-way delay: 54.868 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 109.42 Mbit/s

95th percentile per-packet one-way delay: 53.318 ms

Loss rate: 0.41%

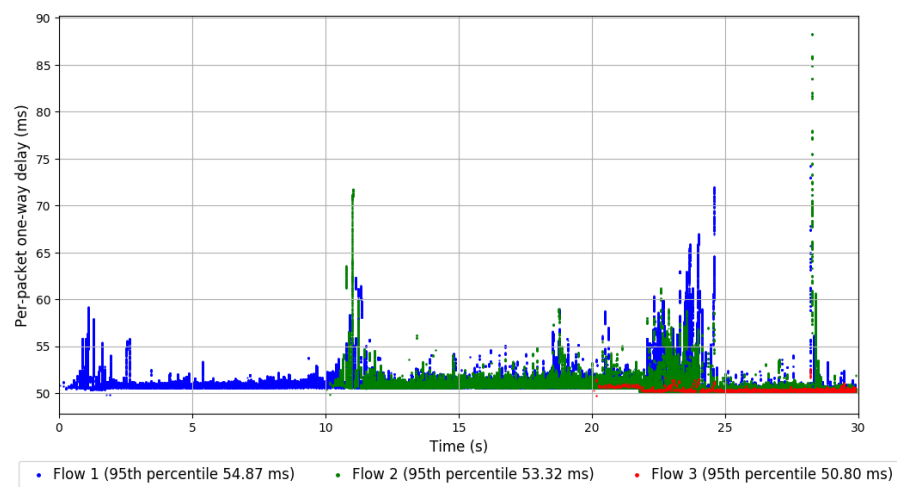
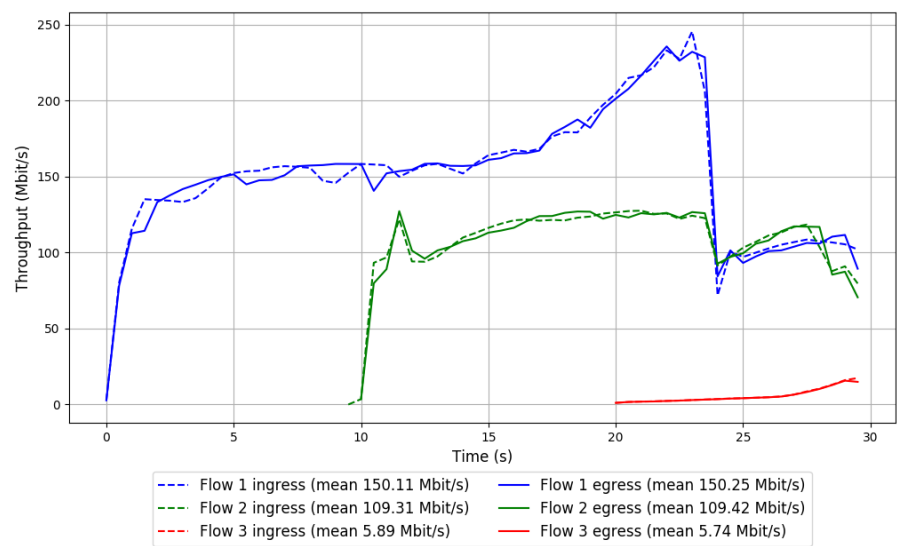
-- Flow 3:

Average throughput: 5.74 Mbit/s

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

Loss rate: 3.56%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-08 05:53:06

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

Below is generated by plot.py at 2017-09-08 09:49:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.83 Mbit/s

95th percentile per-packet one-way delay: 52.014 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 54.74 Mbit/s

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

Loss rate: 0.66%

-- Flow 2:

Average throughput: 122.38 Mbit/s

95th percentile per-packet one-way delay: 52.664 ms

Loss rate: 0.57%

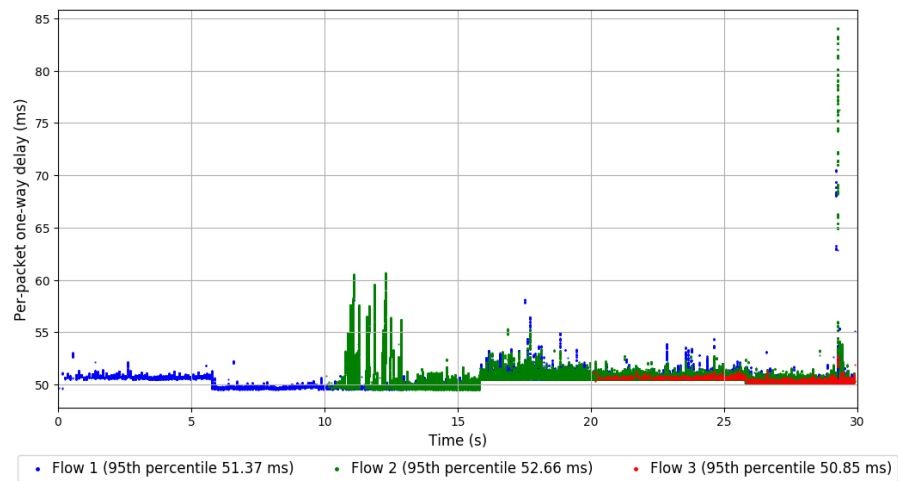
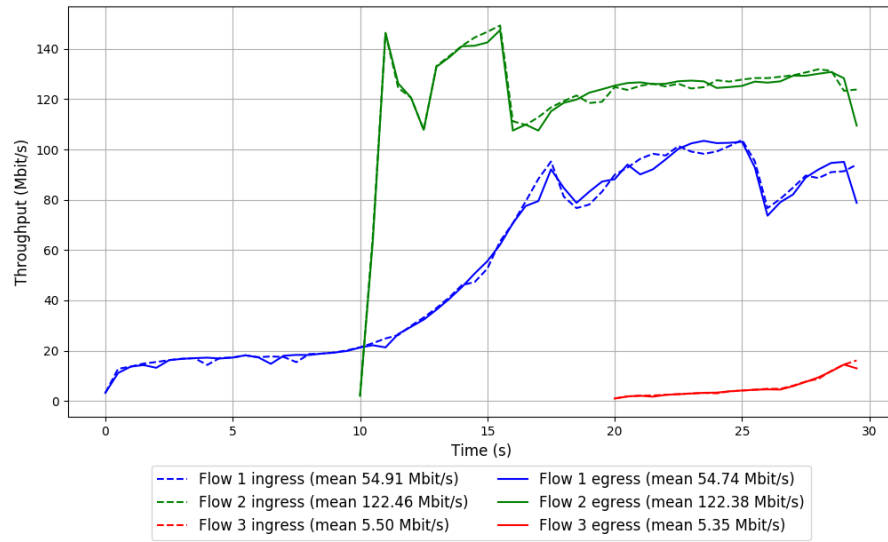
-- Flow 3:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 50.851 ms

Loss rate: 3.50%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-08 06:05:13

End at: 2017-09-08 06:05:43

Below is generated by plot.py at 2017-09-08 09:50:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 282.59 Mbit/s

95th percentile per-packet one-way delay: 59.933 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 135.89 Mbit/s

95th percentile per-packet one-way delay: 54.022 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 153.73 Mbit/s

95th percentile per-packet one-way delay: 61.425 ms

Loss rate: 0.37%

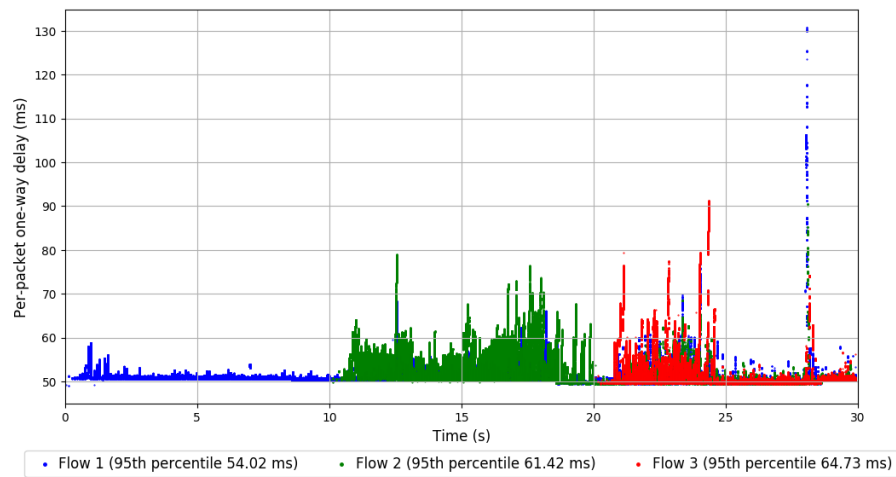
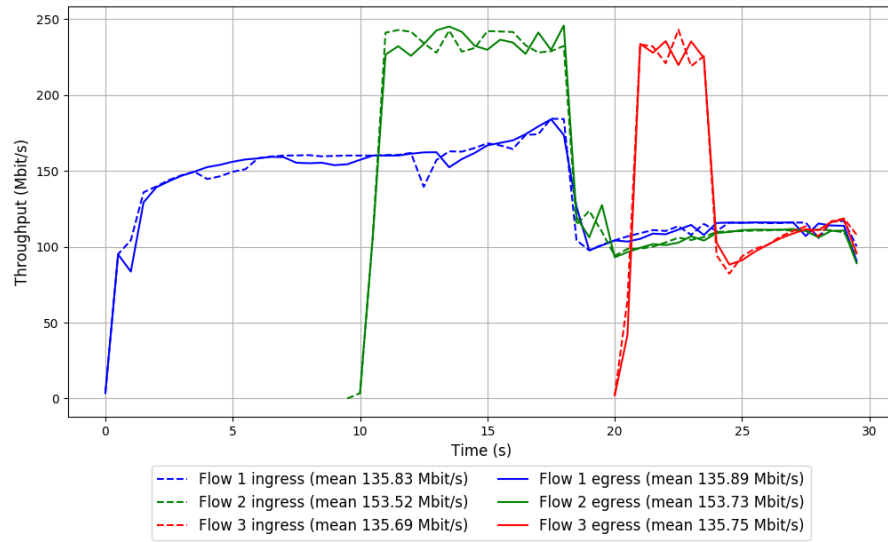
-- Flow 3:

Average throughput: 135.75 Mbit/s

95th percentile per-packet one-way delay: 64.733 ms

Loss rate: 0.89%

Run 10: Report of TCP Cubic — Data Link

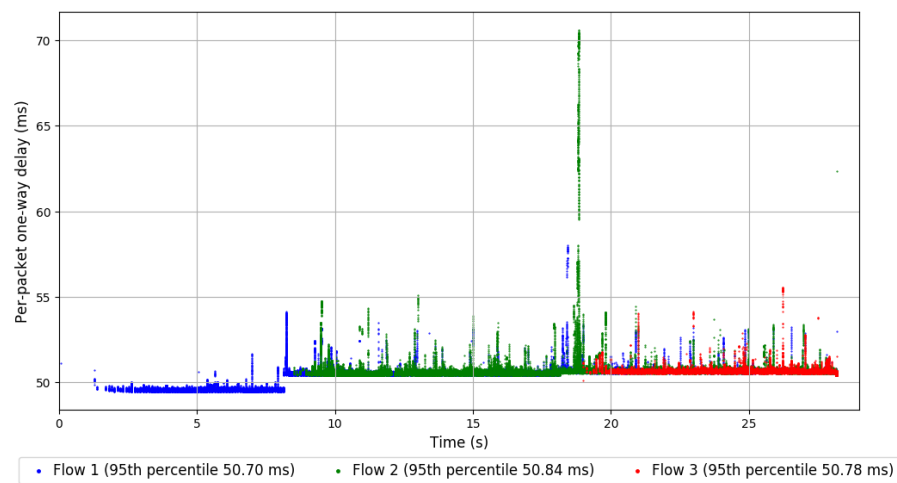
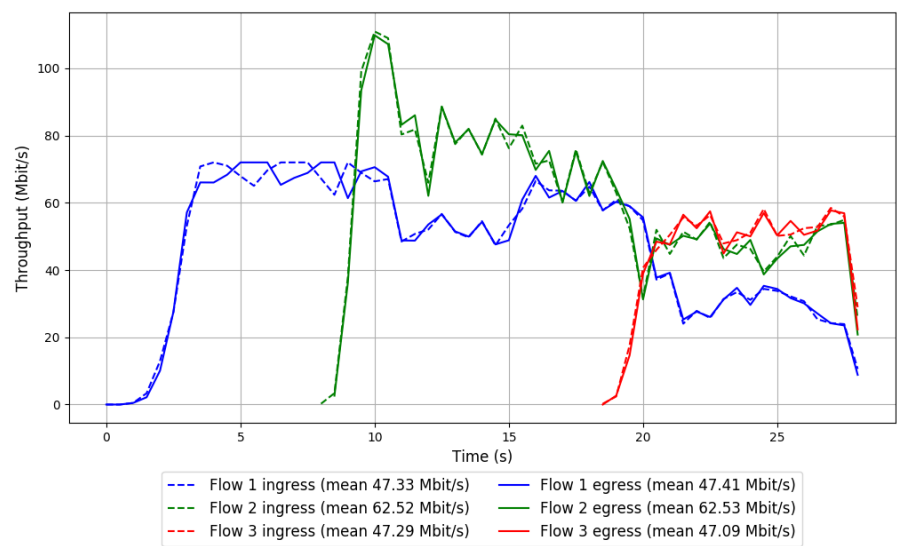


```
Run 1: Statistics of Indigo

Start at: 2017-09-08 04:12:02
End at: 2017-09-08 04:12:32

# Below is generated by plot.py at 2017-09-08 09:50:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 106.48 Mbit/s
95th percentile per-packet one-way delay: 50.765 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 47.41 Mbit/s
95th percentile per-packet one-way delay: 50.696 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 62.53 Mbit/s
95th percentile per-packet one-way delay: 50.844 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 47.09 Mbit/s
95th percentile per-packet one-way delay: 50.785 ms
Loss rate: 1.39%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-08 04:24:15

End at: 2017-09-08 04:24:45

Below is generated by plot.py at 2017-09-08 09:50:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.69 Mbit/s

95th percentile per-packet one-way delay: 50.730 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 35.81 Mbit/s

95th percentile per-packet one-way delay: 50.674 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 69.79 Mbit/s

95th percentile per-packet one-way delay: 50.802 ms

Loss rate: 0.38%

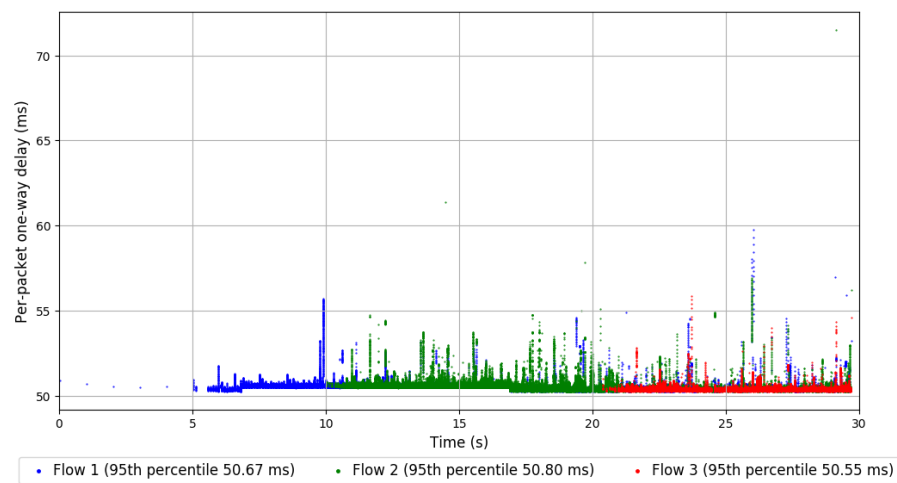
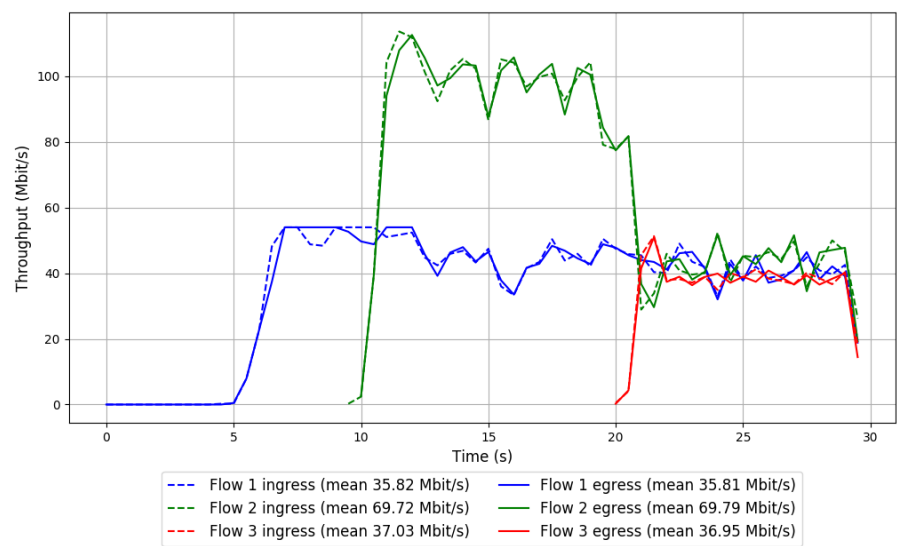
-- Flow 3:

Average throughput: 36.95 Mbit/s

95th percentile per-packet one-way delay: 50.551 ms

Loss rate: 1.21%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-08 04:36:37

End at: 2017-09-08 04:37:07

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.15 Mbit/s

95th percentile per-packet one-way delay: 50.436 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 50.436 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 62.75 Mbit/s

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

Loss rate: 0.31%

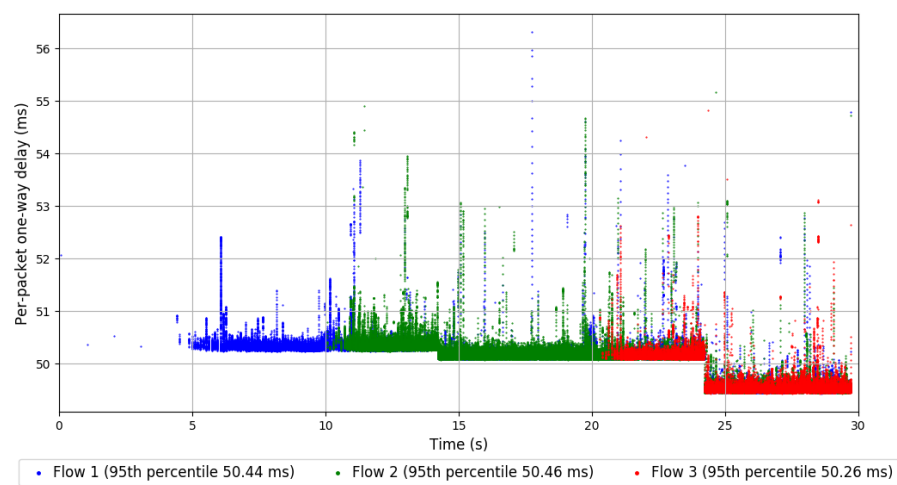
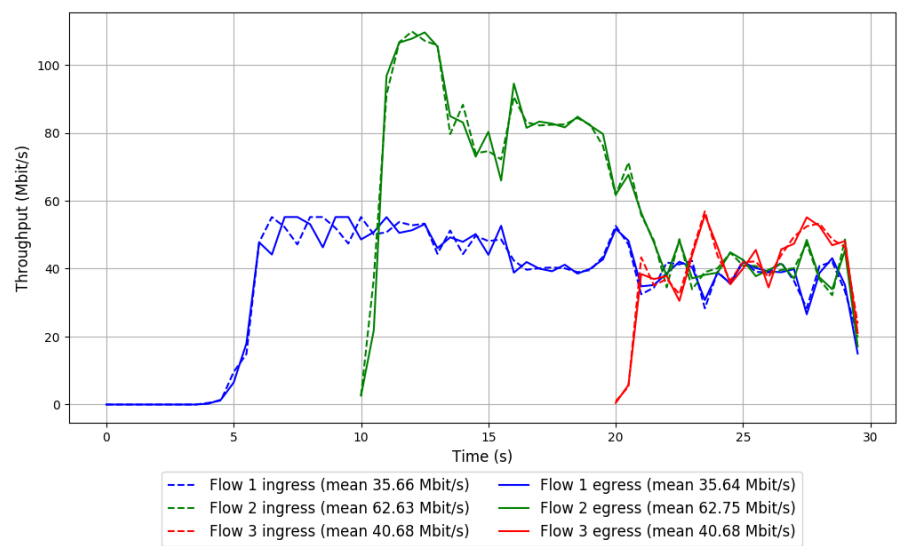
-- Flow 3:

Average throughput: 40.68 Mbit/s

95th percentile per-packet one-way delay: 50.255 ms

Loss rate: 0.97%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-08 04:48:45

End at: 2017-09-08 04:49:15

Below is generated by plot.py at 2017-09-08 09:50:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.16 Mbit/s

95th percentile per-packet one-way delay: 50.755 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 26.64 Mbit/s

95th percentile per-packet one-way delay: 50.613 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 74.77 Mbit/s

95th percentile per-packet one-way delay: 50.849 ms

Loss rate: 0.36%

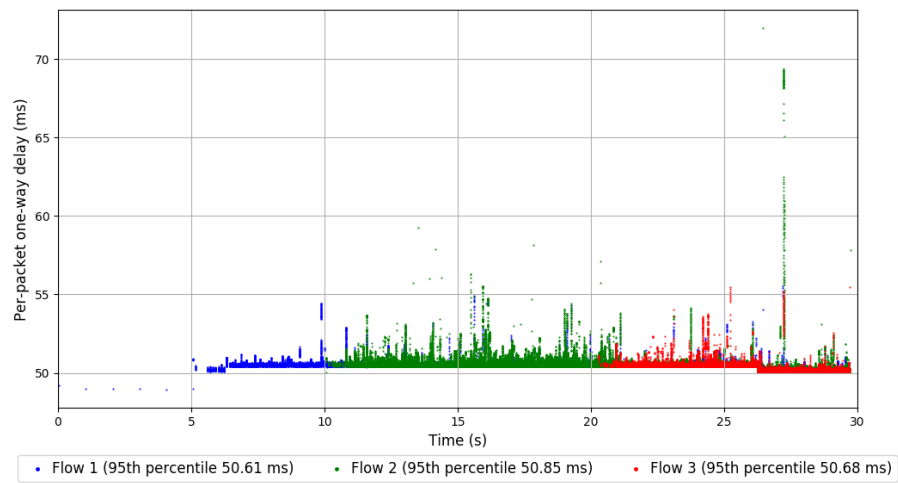
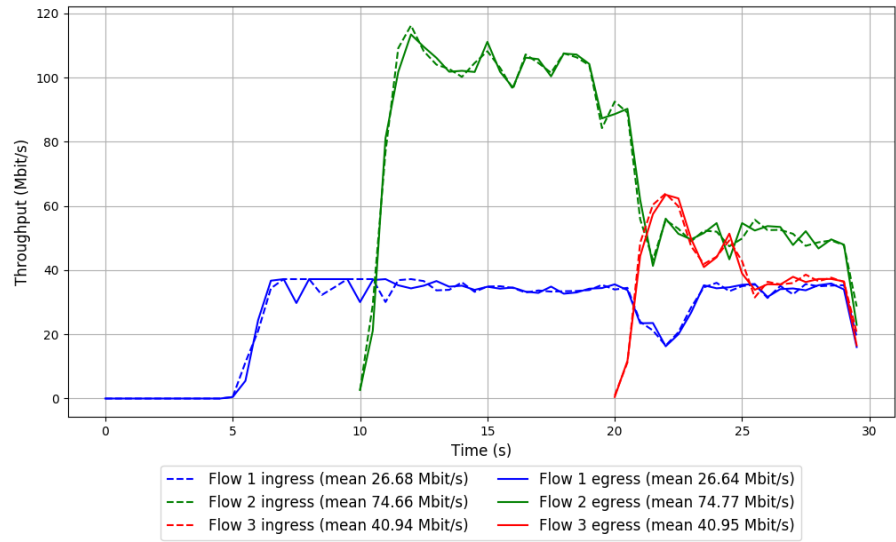
-- Flow 3:

Average throughput: 40.95 Mbit/s

95th percentile per-packet one-way delay: 50.678 ms

Loss rate: 1.01%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-08 05:01:03

End at: 2017-09-08 05:01:33

Below is generated by plot.py at 2017-09-08 09:50:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.70 Mbit/s

95th percentile per-packet one-way delay: 50.764 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 43.44 Mbit/s

95th percentile per-packet one-way delay: 50.750 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 57.33 Mbit/s

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

Loss rate: 0.46%

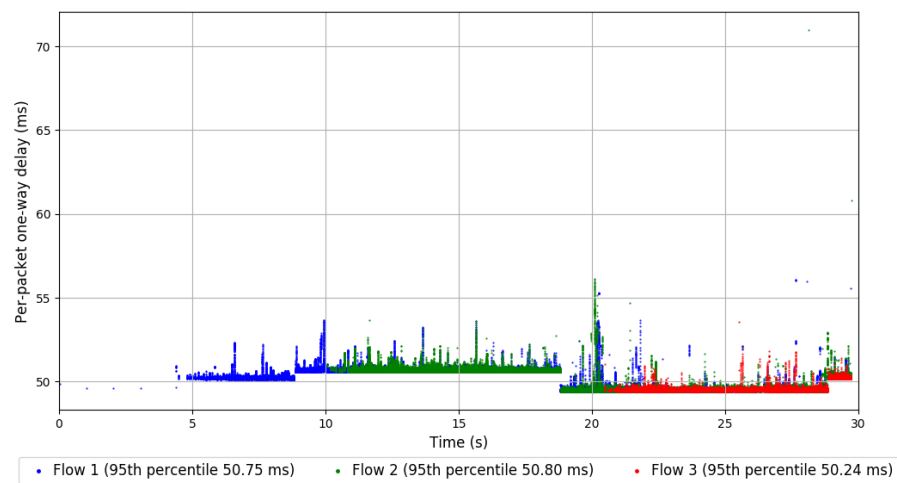
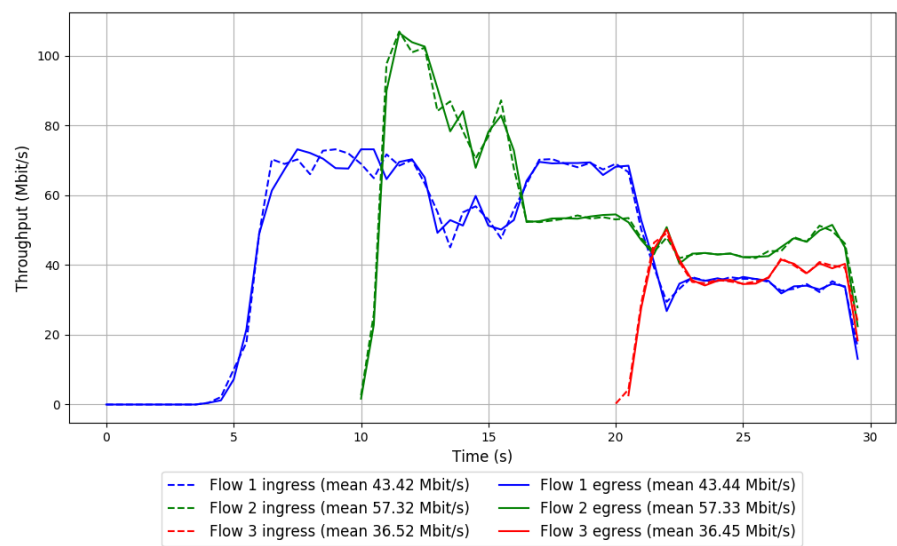
-- Flow 3:

Average throughput: 36.45 Mbit/s

95th percentile per-packet one-way delay: 50.244 ms

Loss rate: 1.31%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-09-08 05:13:26

End at: 2017-09-08 05:13:56

Below is generated by plot.py at 2017-09-08 09:50:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.98 Mbit/s

95th percentile per-packet one-way delay: 50.483 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 41.43 Mbit/s

95th percentile per-packet one-way delay: 50.417 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 61.57 Mbit/s

95th percentile per-packet one-way delay: 50.580 ms

Loss rate: 0.23%

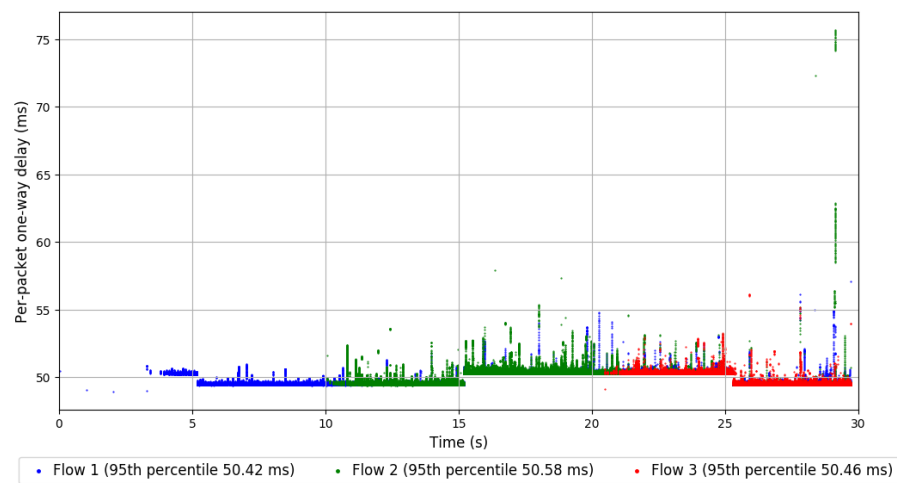
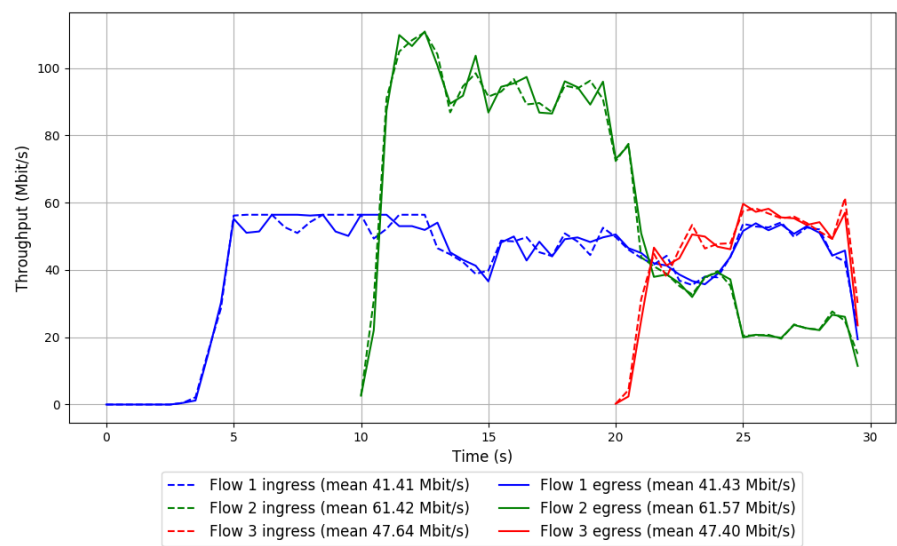
-- Flow 3:

Average throughput: 47.40 Mbit/s

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

Loss rate: 1.53%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-09-08 05:25:37

End at: 2017-09-08 05:26:07

Below is generated by plot.py at 2017-09-08 09:51:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.81 Mbit/s

95th percentile per-packet one-way delay: 50.521 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 25.74 Mbit/s

95th percentile per-packet one-way delay: 50.563 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 71.45 Mbit/s

95th percentile per-packet one-way delay: 50.522 ms

Loss rate: 0.29%

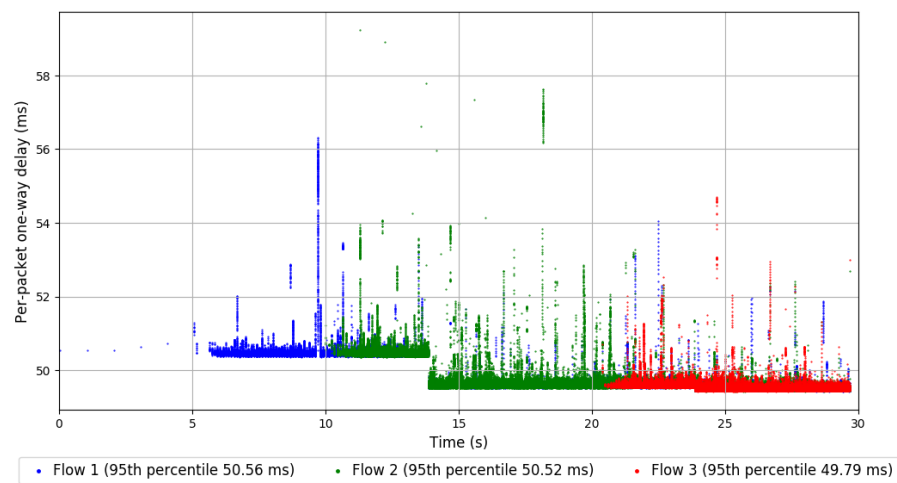
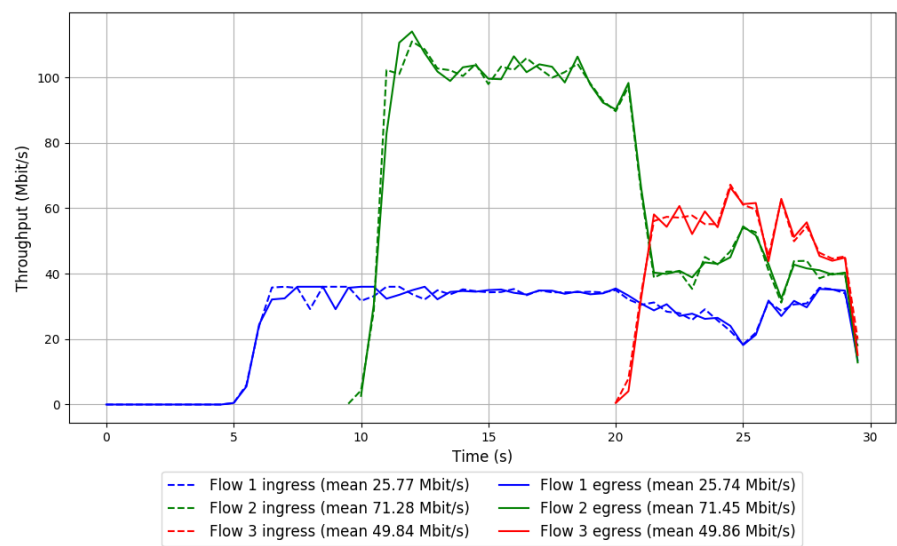
-- Flow 3:

Average throughput: 49.86 Mbit/s

95th percentile per-packet one-way delay: 49.789 ms

Loss rate: 1.04%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-08 05:37:45

End at: 2017-09-08 05:38:15

Below is generated by plot.py at 2017-09-08 09:51:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.93 Mbit/s

95th percentile per-packet one-way delay: 50.714 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 23.28 Mbit/s

95th percentile per-packet one-way delay: 50.648 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 84.31 Mbit/s

95th percentile per-packet one-way delay: 50.723 ms

Loss rate: 0.22%

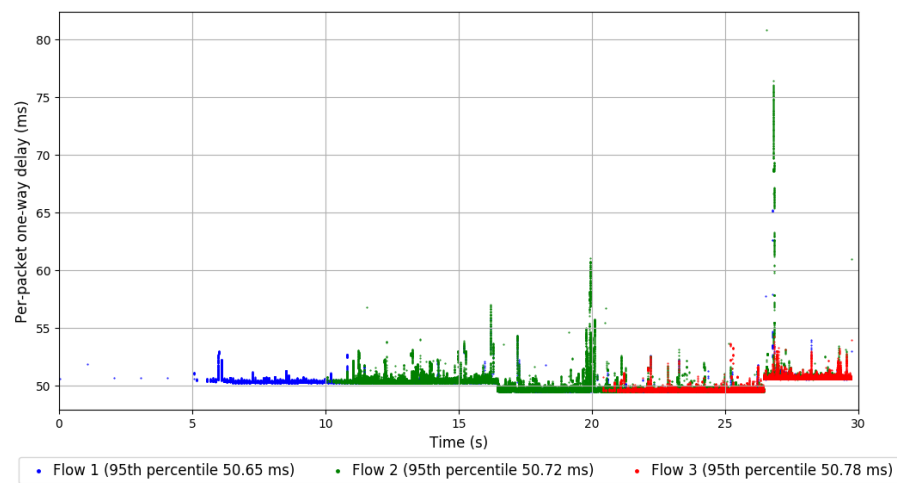
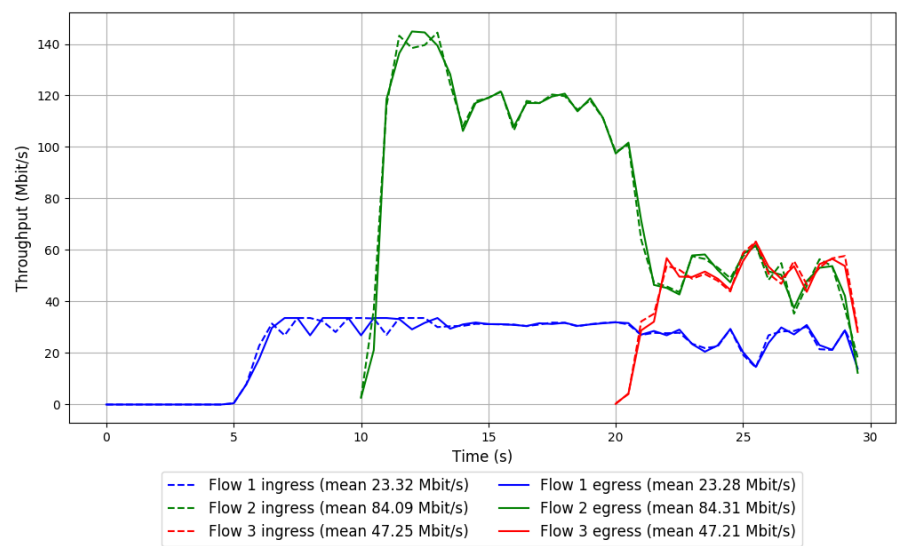
-- Flow 3:

Average throughput: 47.21 Mbit/s

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

Loss rate: 1.17%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-08 05:50:01

End at: 2017-09-08 05:50:31

Below is generated by plot.py at 2017-09-08 09:51:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.95 Mbit/s

95th percentile per-packet one-way delay: 50.692 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 41.29 Mbit/s

95th percentile per-packet one-way delay: 50.921 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 62.21 Mbit/s

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

Loss rate: 0.44%

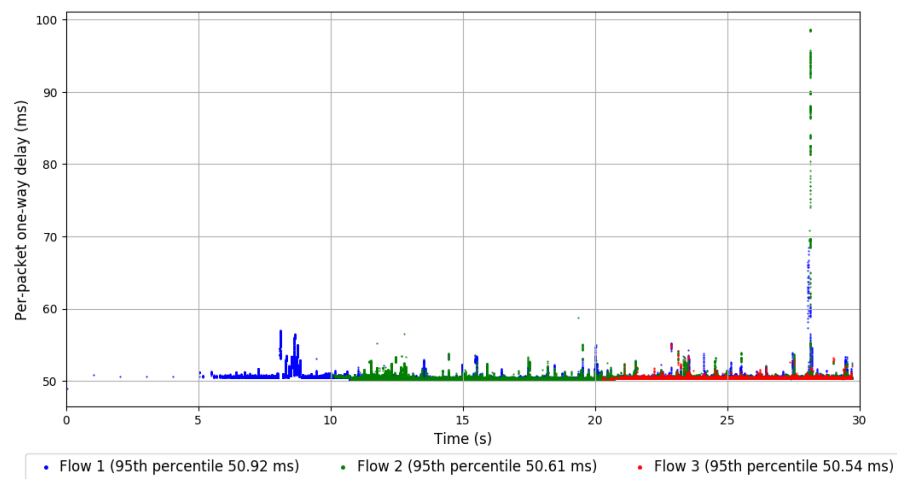
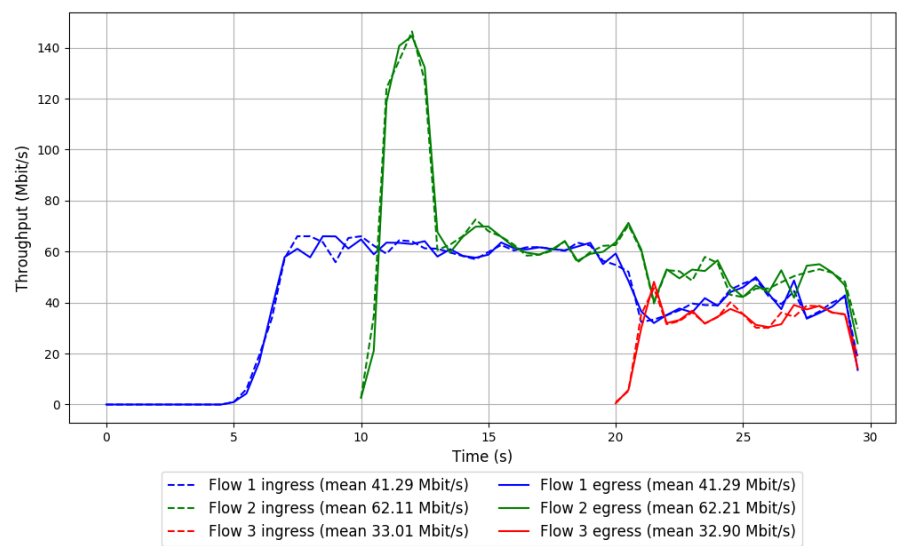
-- Flow 3:

Average throughput: 32.90 Mbit/s

95th percentile per-packet one-way delay: 50.544 ms

Loss rate: 1.33%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-08 06:02:08

End at: 2017-09-08 06:02:38

Below is generated by plot.py at 2017-09-08 09:51:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.68 Mbit/s

95th percentile per-packet one-way delay: 50.475 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 42.04 Mbit/s

95th percentile per-packet one-way delay: 50.443 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 58.93 Mbit/s

95th percentile per-packet one-way delay: 50.510 ms

Loss rate: 0.34%

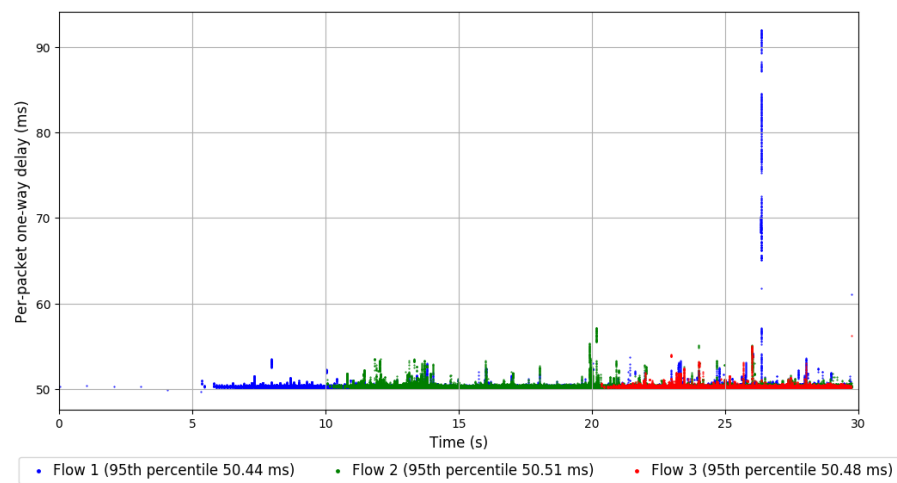
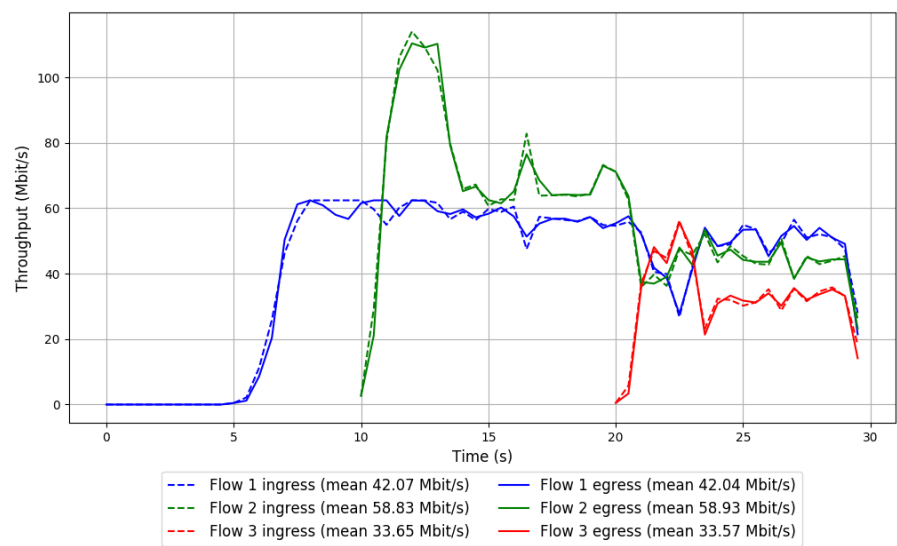
-- Flow 3:

Average throughput: 33.57 Mbit/s

95th percentile per-packet one-way delay: 50.483 ms

Loss rate: 1.20%

Run 10: Report of Indigo — Data Link

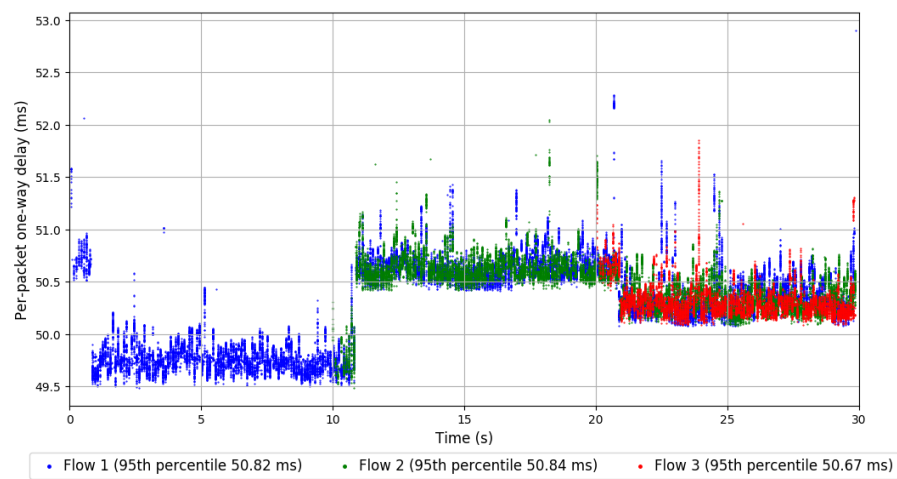
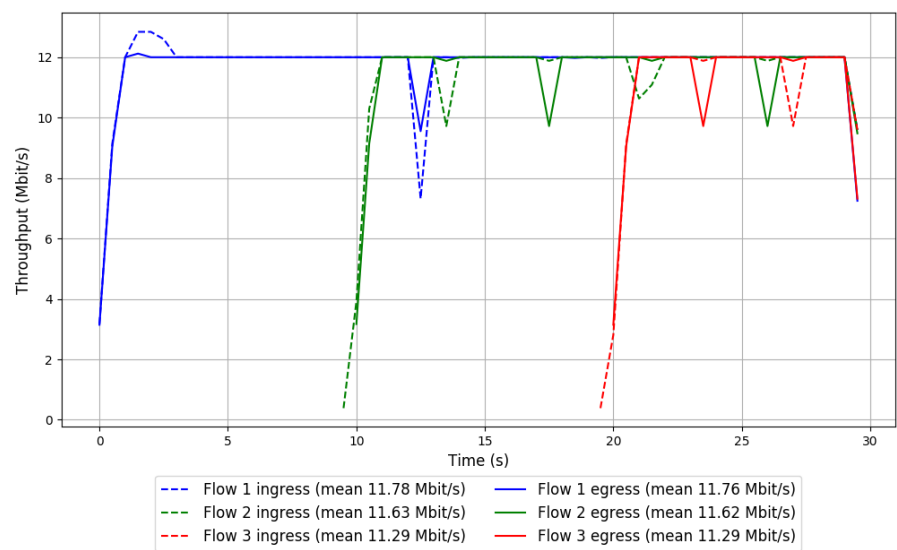


```
Run 1: Statistics of KohoCC

Start at: 2017-09-08 04:11:21
End at: 2017-09-08 04:11:51

# Below is generated by plot.py at 2017-09-08 09:51:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.20 Mbit/s
95th percentile per-packet one-way delay: 50.815 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 11.76 Mbit/s
95th percentile per-packet one-way delay: 50.823 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 11.62 Mbit/s
95th percentile per-packet one-way delay: 50.841 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 11.29 Mbit/s
95th percentile per-packet one-way delay: 50.666 ms
Loss rate: 1.07%
```

Run 1: Report of KohoCC — Data Link

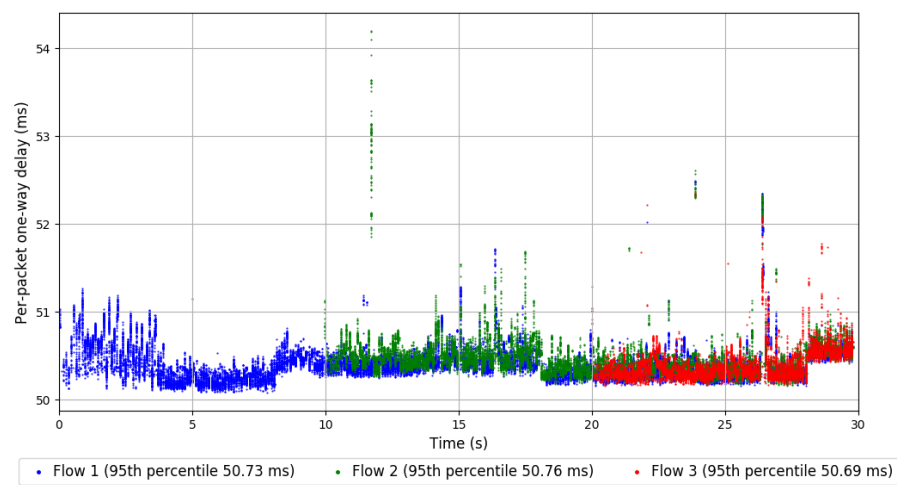
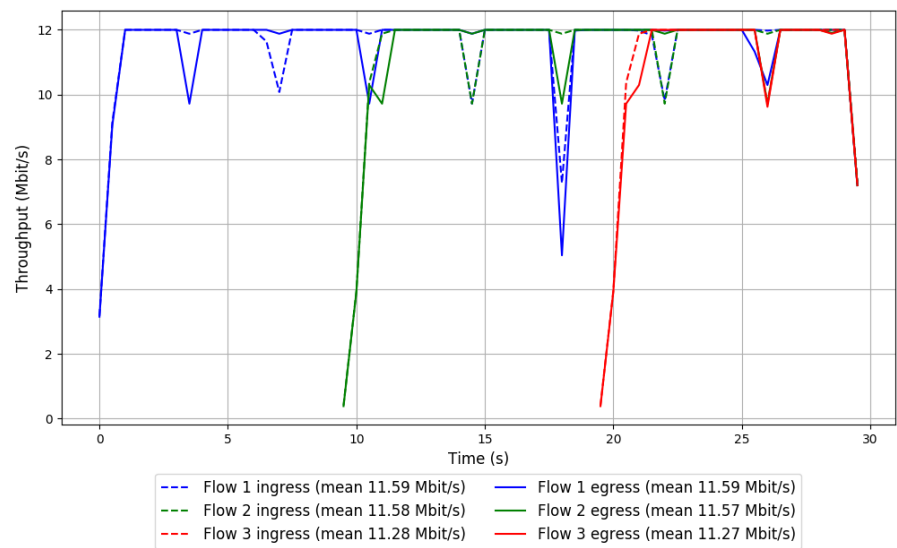


```
Run 2: Statistics of KohoCC

Start at: 2017-09-08 04:23:33
End at: 2017-09-08 04:24:03

# Below is generated by plot.py at 2017-09-08 09:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.01 Mbit/s
95th percentile per-packet one-way delay: 50.733 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 11.59 Mbit/s
95th percentile per-packet one-way delay: 50.725 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 11.57 Mbit/s
95th percentile per-packet one-way delay: 50.756 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 11.27 Mbit/s
95th percentile per-packet one-way delay: 50.685 ms
Loss rate: 1.13%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-08 04:35:56

End at: 2017-09-08 04:36:26

Below is generated by plot.py at 2017-09-08 09:51:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.10 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.70 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 11.51 Mbit/s

95th percentile per-packet one-way delay: 50.661 ms

Loss rate: 0.53%

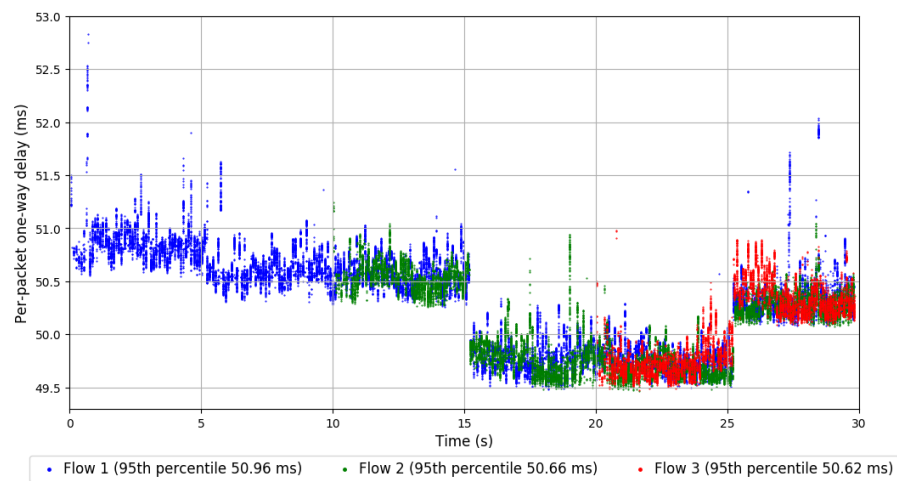
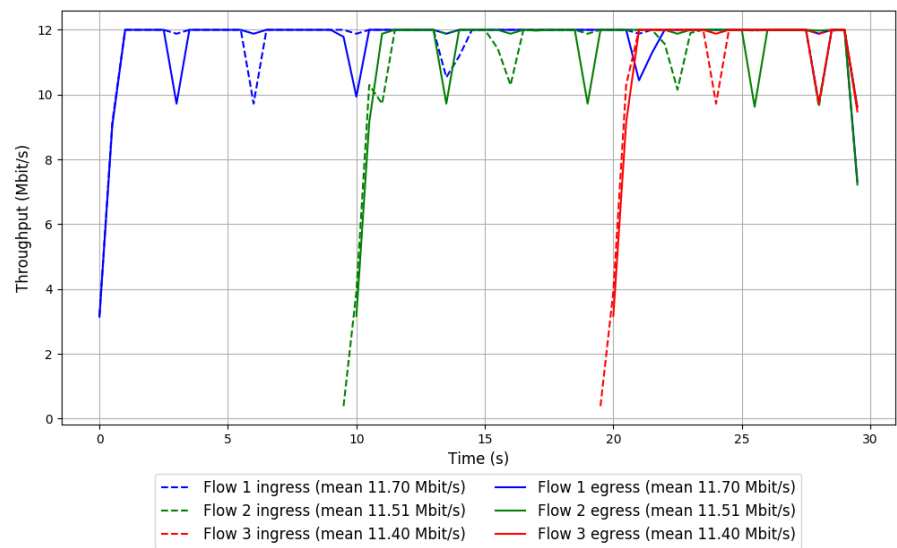
-- Flow 3:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 50.620 ms

Loss rate: 1.06%

Run 3: Report of KohoCC — Data Link

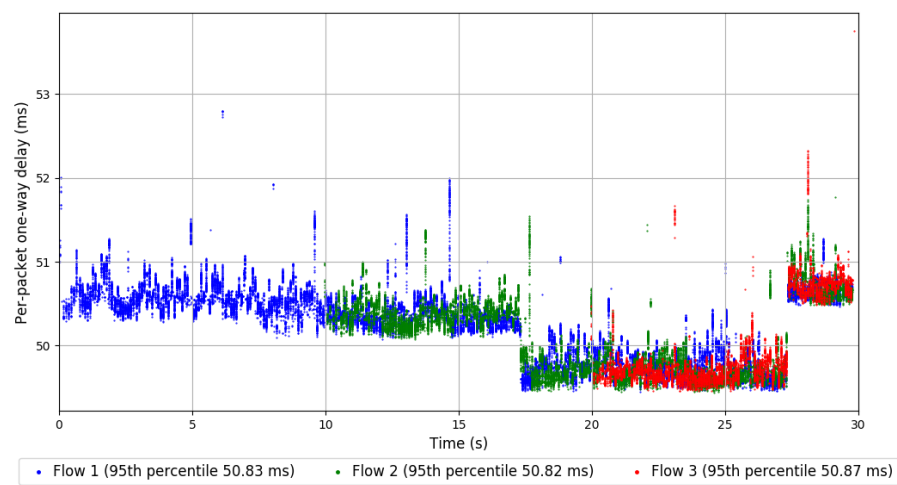
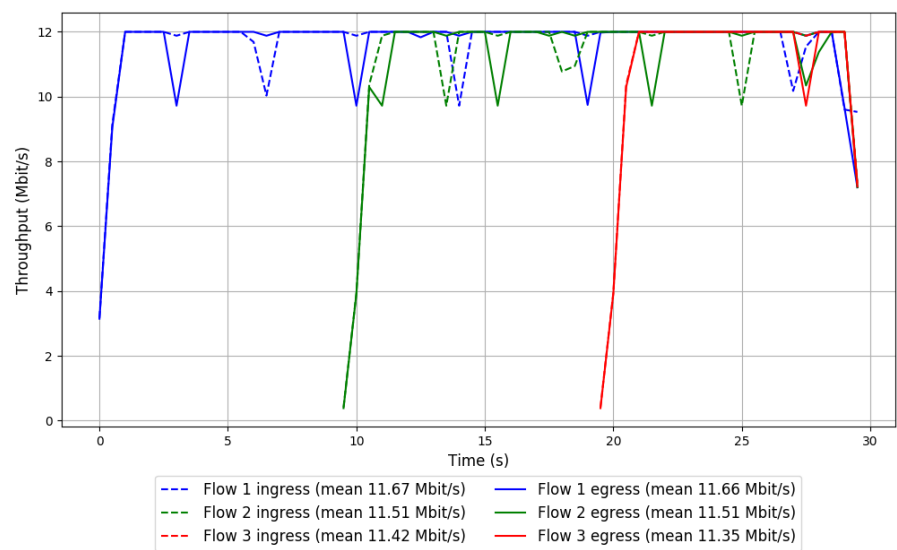


```
Run 4: Statistics of KohoCC

Start at: 2017-09-08 04:48:04
End at: 2017-09-08 04:48:34

# Below is generated by plot.py at 2017-09-08 09:51:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 23.06 Mbit/s
95th percentile per-packet one-way delay: 50.835 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 50.826 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 50.819 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 11.35 Mbit/s
95th percentile per-packet one-way delay: 50.872 ms
Loss rate: 1.05%
```

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-08 05:00:22

End at: 2017-09-08 05:00:52

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.93 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.66 Mbit/s

95th percentile per-packet one-way delay: 50.646 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 11.38 Mbit/s

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

Loss rate: 0.53%

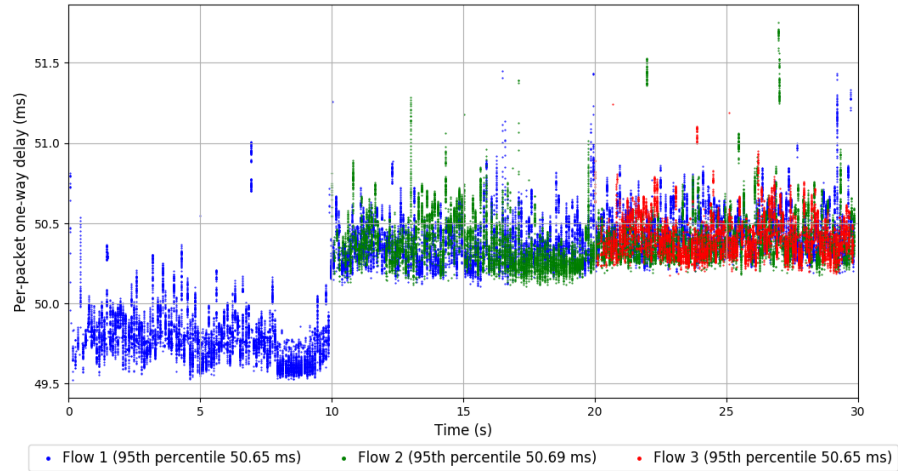
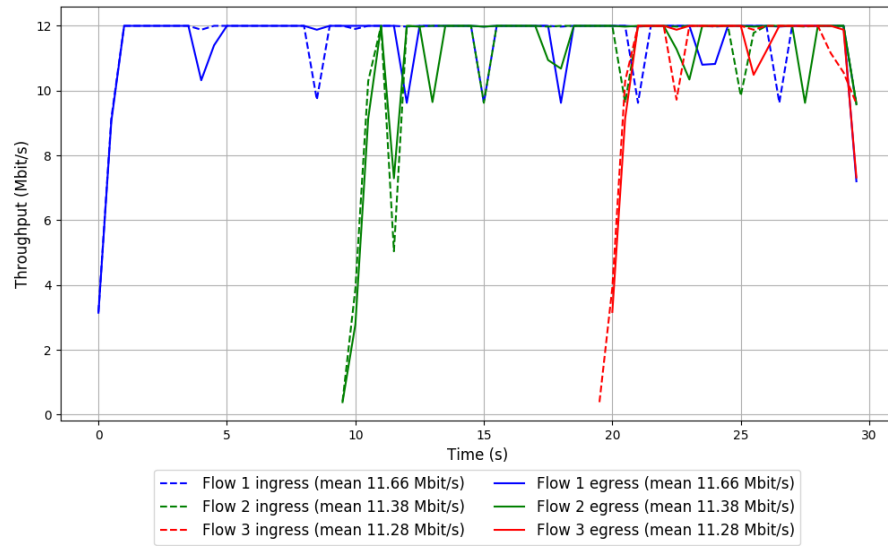
-- Flow 3:

Average throughput: 11.28 Mbit/s

95th percentile per-packet one-way delay: 50.653 ms

Loss rate: 1.07%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-08 05:12:45

End at: 2017-09-08 05:13:15

Below is generated by plot.py at 2017-09-08 09:51:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.96 Mbit/s

95th percentile per-packet one-way delay: 51.177 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 11.60 Mbit/s

95th percentile per-packet one-way delay: 51.254 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 11.52 Mbit/s

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

Loss rate: 0.52%

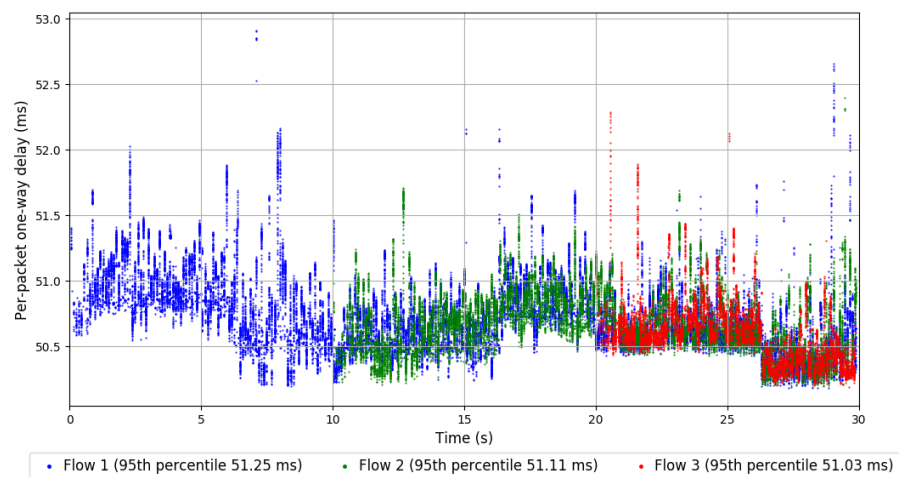
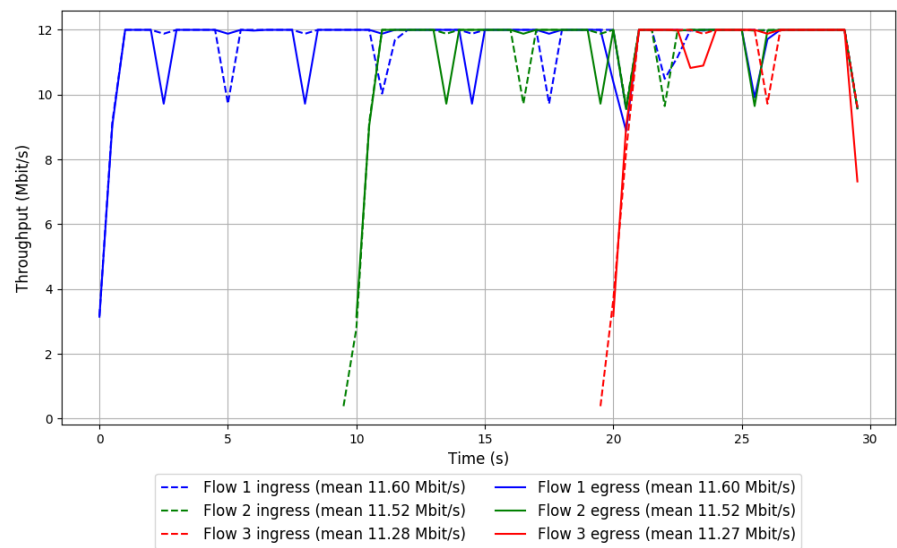
-- Flow 3:

Average throughput: 11.27 Mbit/s

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

Loss rate: 1.07%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-08 05:24:57

End at: 2017-09-08 05:25:27

Below is generated by plot.py at 2017-09-08 09:51:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.11 Mbit/s

95th percentile per-packet one-way delay: 50.699 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.65 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 11.56 Mbit/s

95th percentile per-packet one-way delay: 50.648 ms

Loss rate: 0.52%

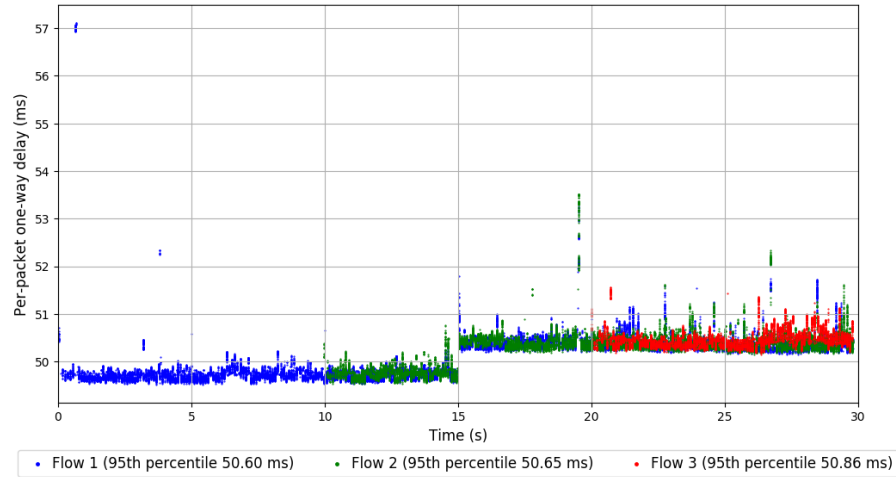
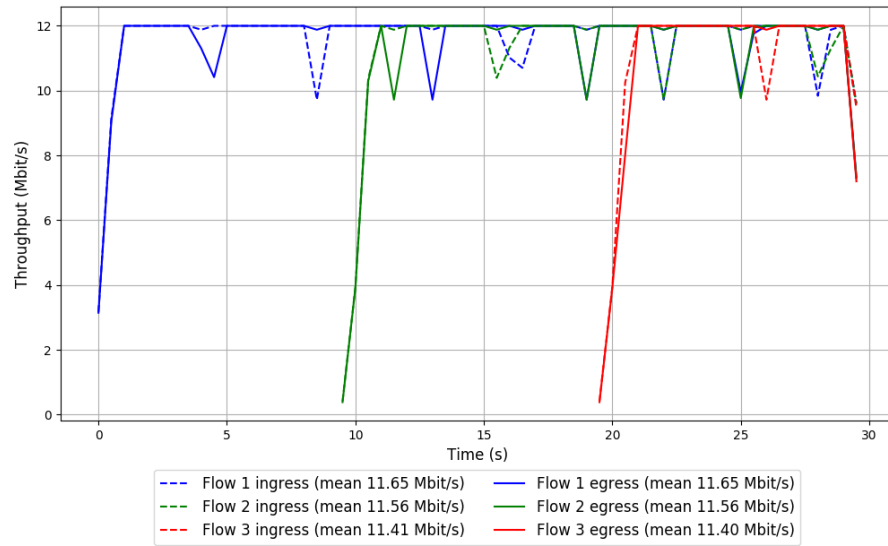
-- Flow 3:

Average throughput: 11.40 Mbit/s

95th percentile per-packet one-way delay: 50.864 ms

Loss rate: 1.06%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-08 05:37:04

End at: 2017-09-08 05:37:34

Below is generated by plot.py at 2017-09-08 09:51:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.17 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.65 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 11.75 Mbit/s

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

Loss rate: 0.51%

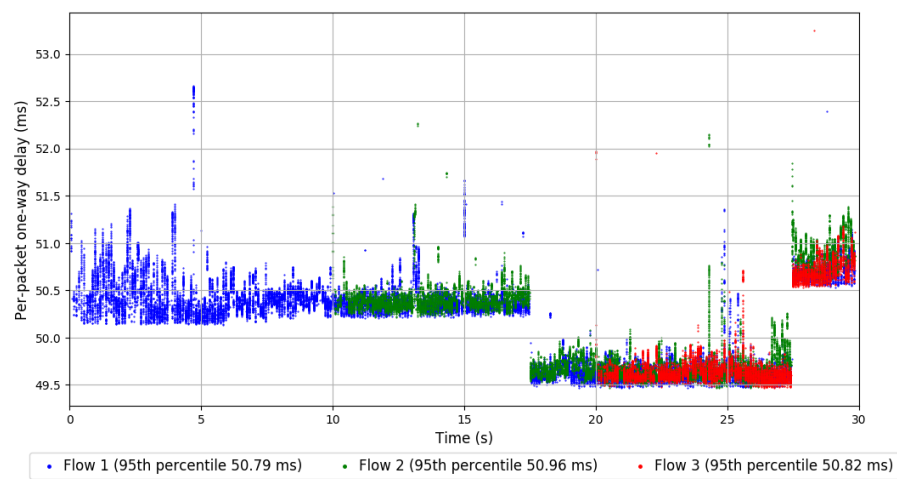
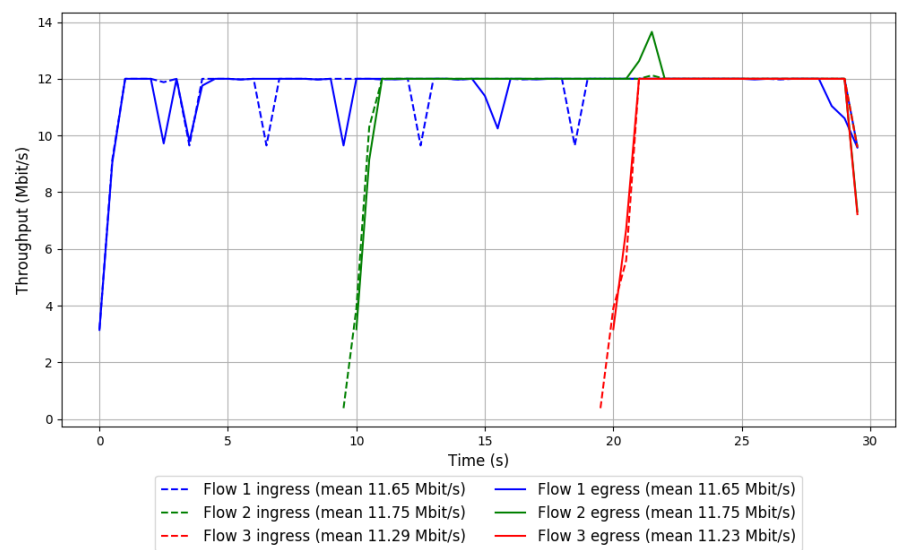
-- Flow 3:

Average throughput: 11.23 Mbit/s

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

Loss rate: 1.06%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-08 05:49:20

End at: 2017-09-08 05:49:50

Below is generated by plot.py at 2017-09-08 09:51:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.00 Mbit/s

95th percentile per-packet one-way delay: 51.094 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 11.56 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 11.57 Mbit/s

95th percentile per-packet one-way delay: 51.115 ms

Loss rate: 0.52%

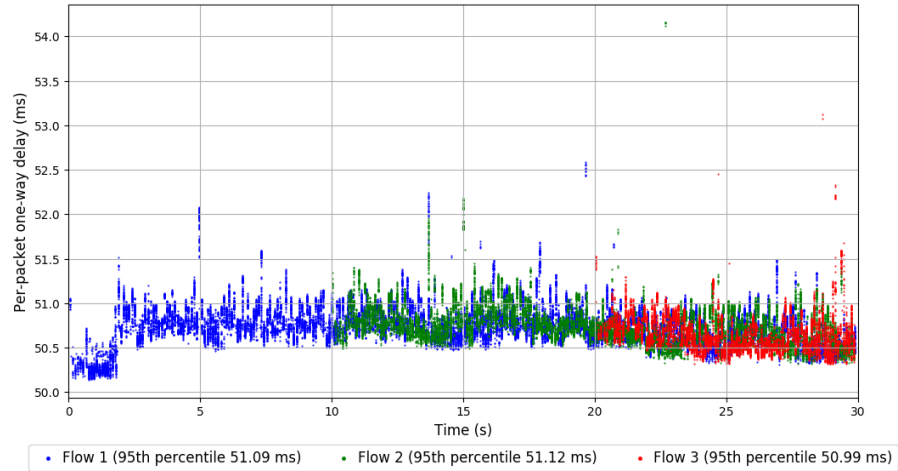
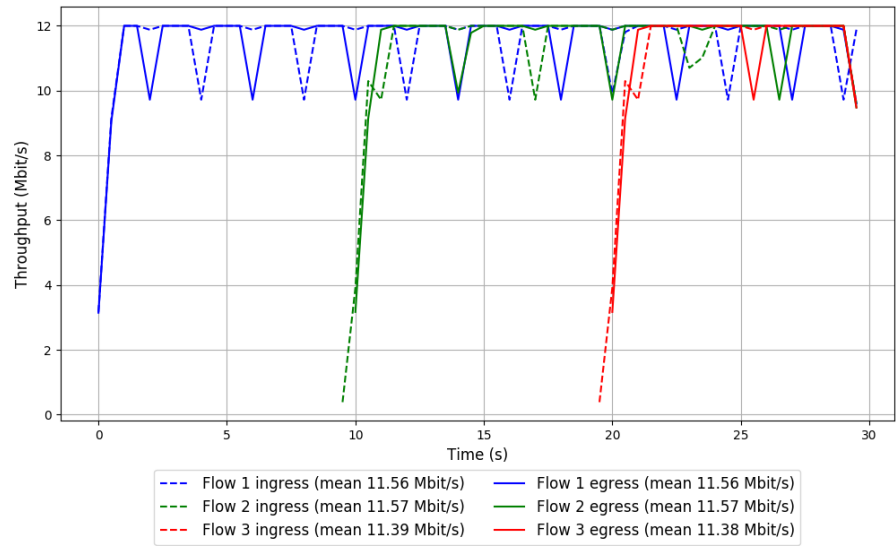
-- Flow 3:

Average throughput: 11.38 Mbit/s

95th percentile per-packet one-way delay: 50.993 ms

Loss rate: 1.06%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-08 06:01:27

End at: 2017-09-08 06:01:57

Below is generated by plot.py at 2017-09-08 09:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.24 Mbit/s

95th percentile per-packet one-way delay: 50.838 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 11.72 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 11.63 Mbit/s

95th percentile per-packet one-way delay: 50.103 ms

Loss rate: 0.52%

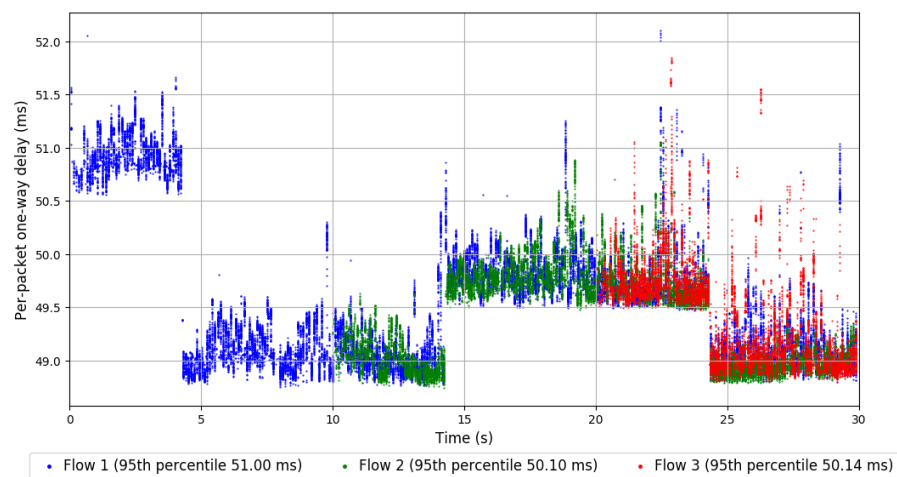
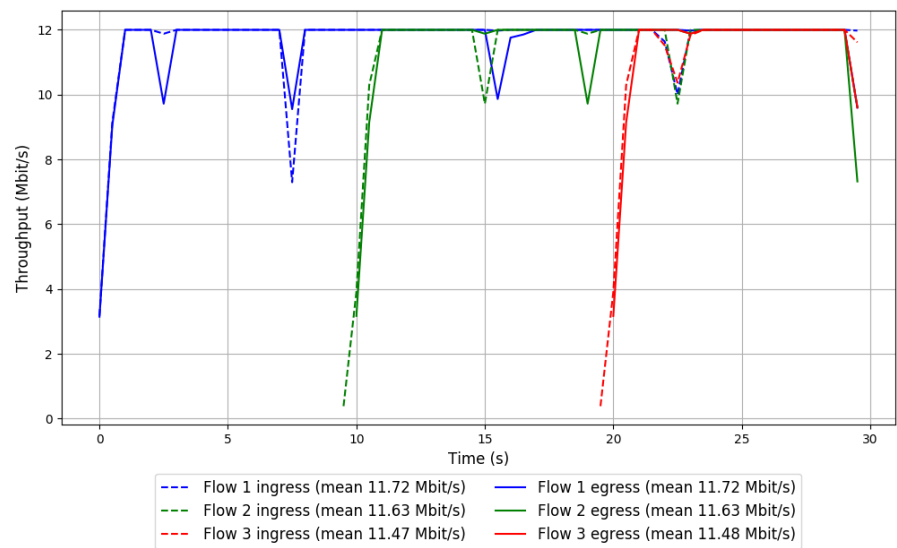
-- Flow 3:

Average throughput: 11.48 Mbit/s

95th percentile per-packet one-way delay: 50.144 ms

Loss rate: 0.94%

Run 10: Report of KohoCC — Data Link

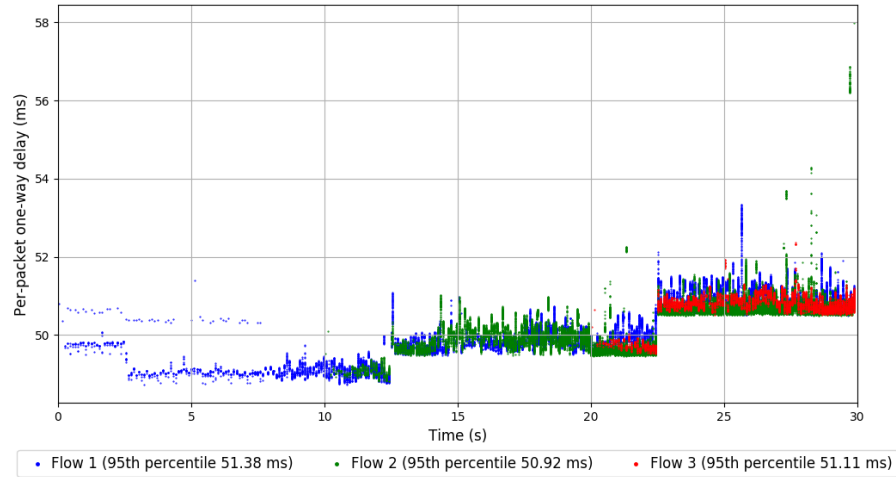
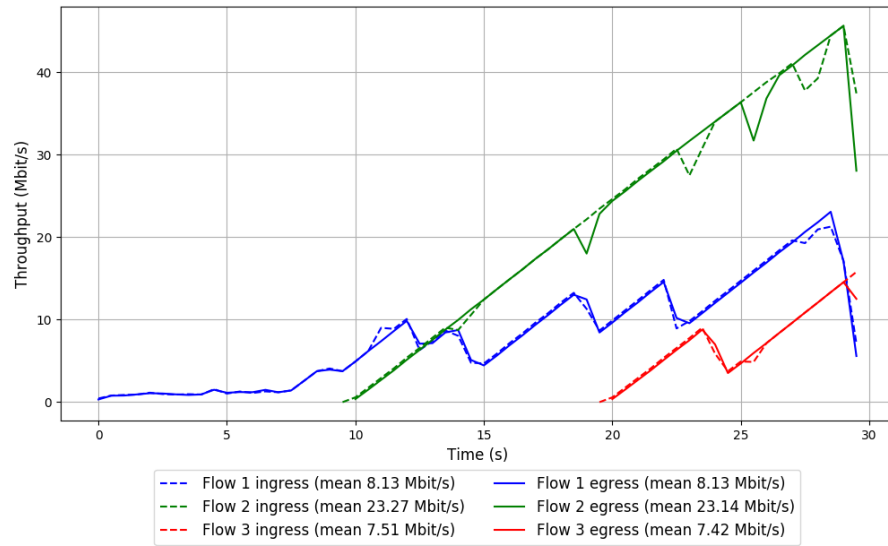


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-08 04:12:49
End at: 2017-09-08 04:13:19

# Below is generated by plot.py at 2017-09-08 09:51:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 25.97 Mbit/s
95th percentile per-packet one-way delay: 51.189 ms
Loss rate: 0.93%
-- Flow 1:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 51.376 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 23.14 Mbit/s
95th percentile per-packet one-way delay: 50.922 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 51.113 ms
Loss rate: 2.29%
```


Run 1: Report of LEDBAT — Data Link

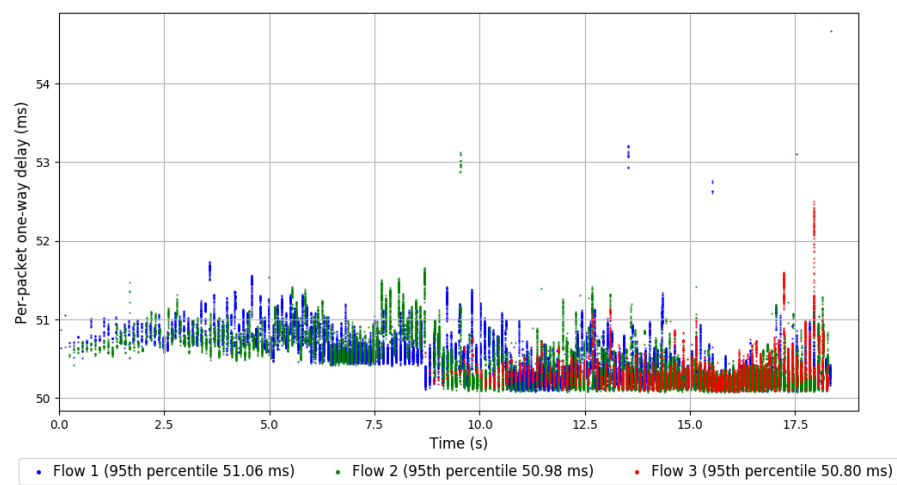
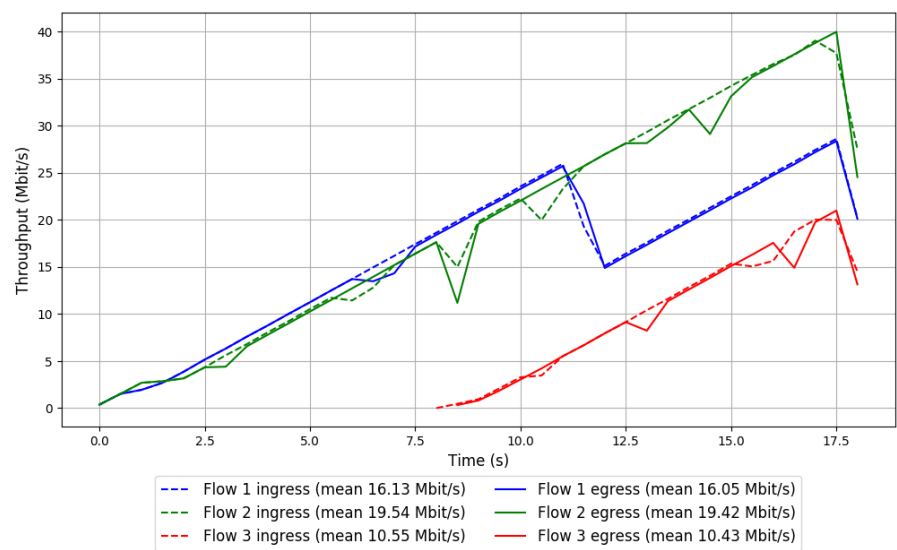


Run 2: Statistics of LEDBAT

Start at: 2017-09-08 04:25:01

End at: 2017-09-08 04:25:31

Run 2: Report of LEDBAT — Data Link

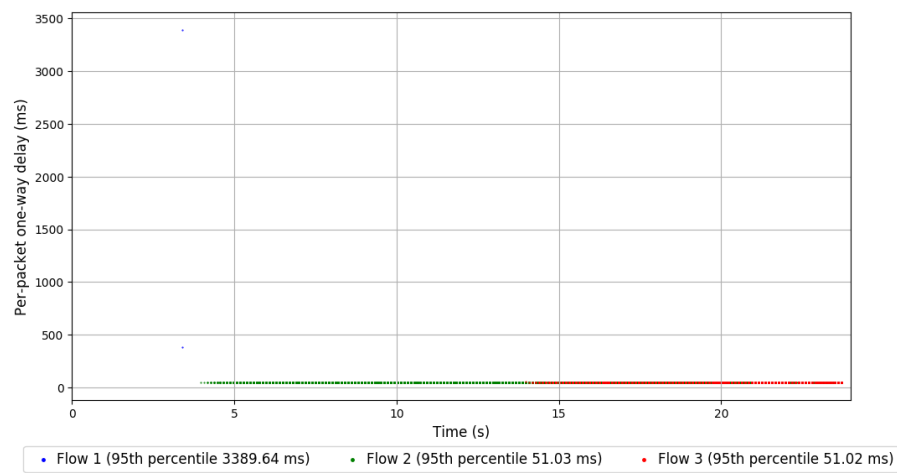
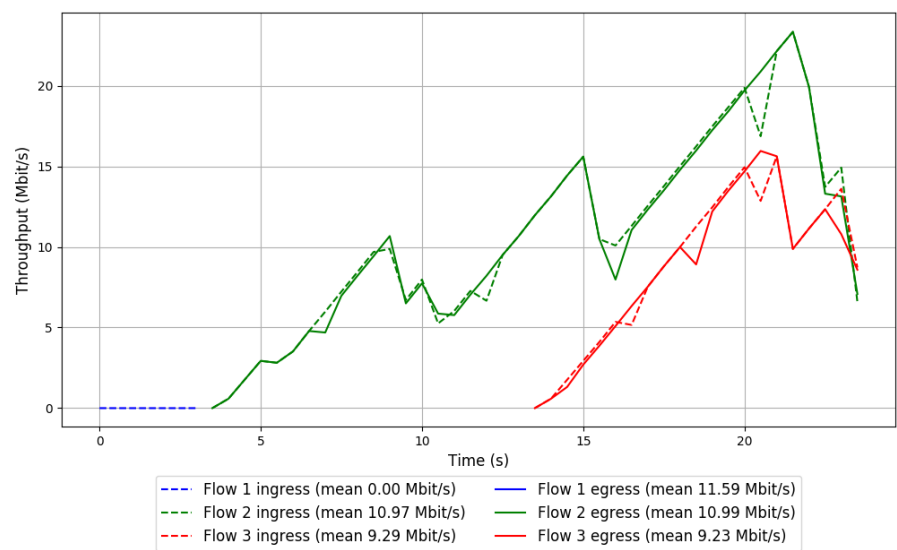


Run 3: Statistics of LEDBAT

Start at: 2017-09-08 04:37:24

End at: 2017-09-08 04:37:54

Run 3: Report of LEDBAT — Data Link

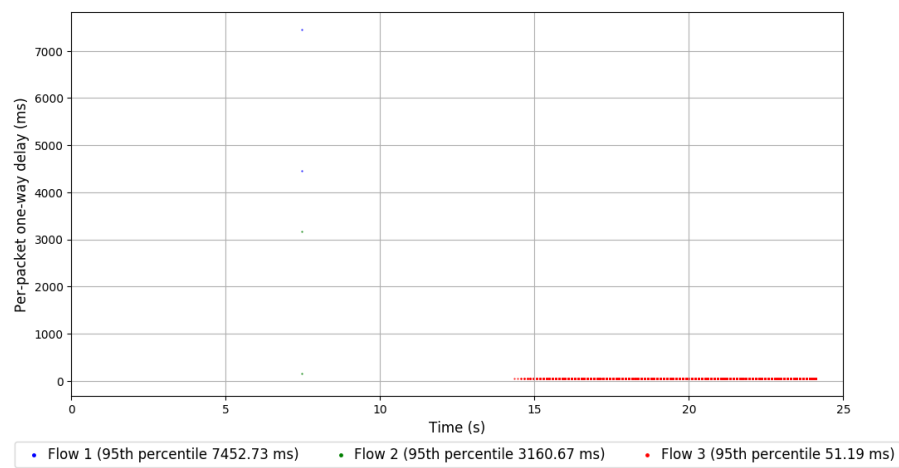
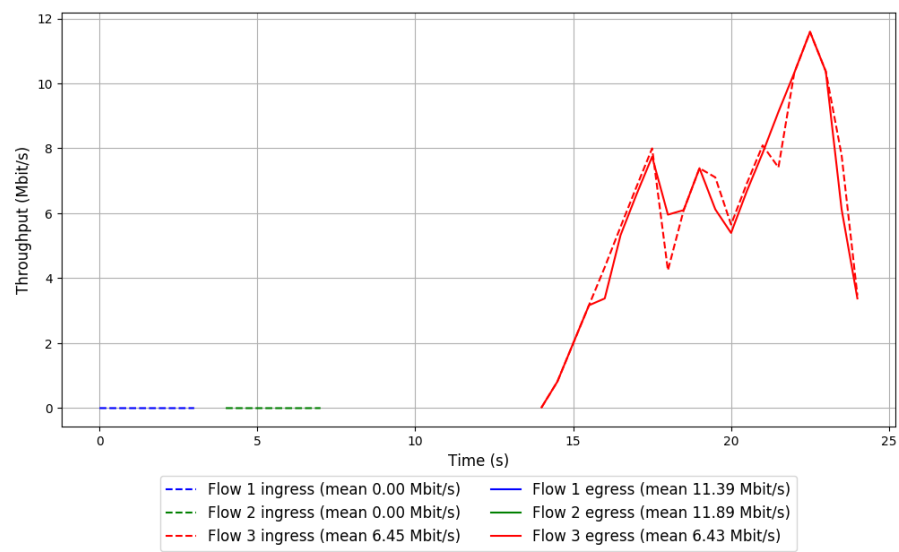


Run 4: Statistics of LEDBAT

Start at: 2017-09-08 04:49:32

End at: 2017-09-08 04:50:02

Run 4: Report of LEDBAT — Data Link

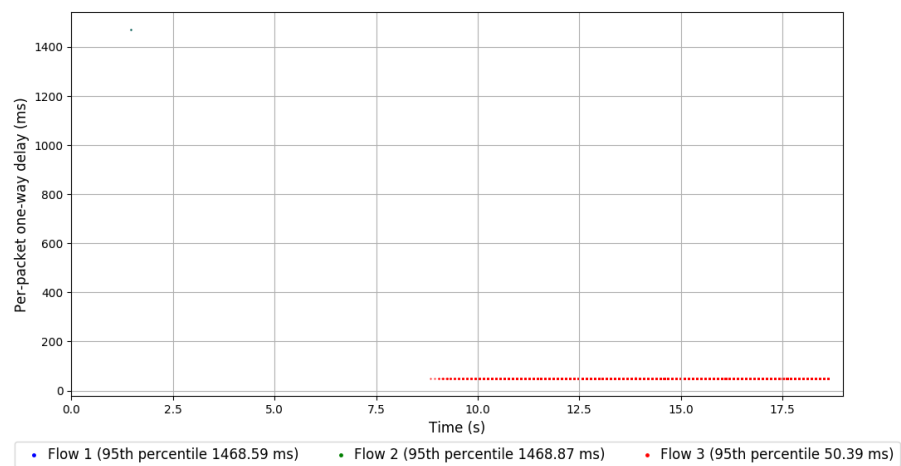
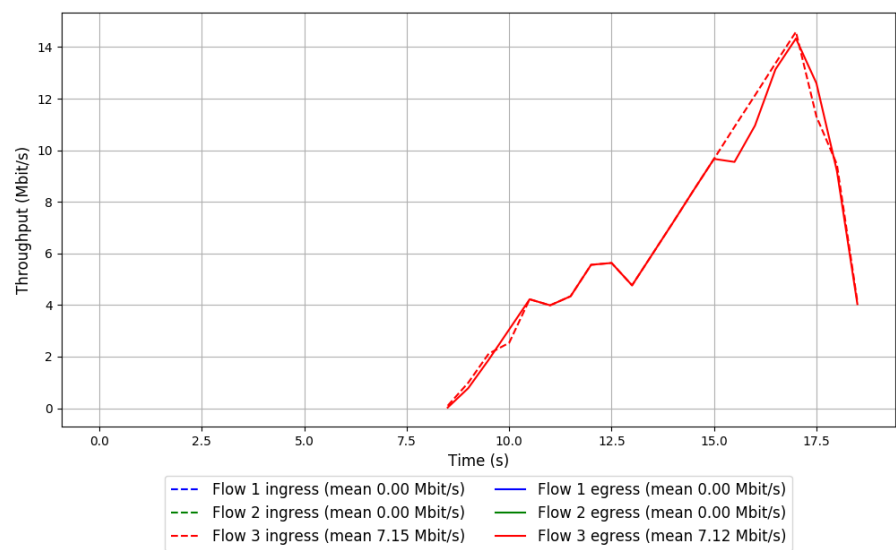


Run 5: Statistics of LEDBAT

Start at: 2017-09-08 05:01:49

End at: 2017-09-08 05:02:19

Run 5: Report of LEDBAT — Data Link

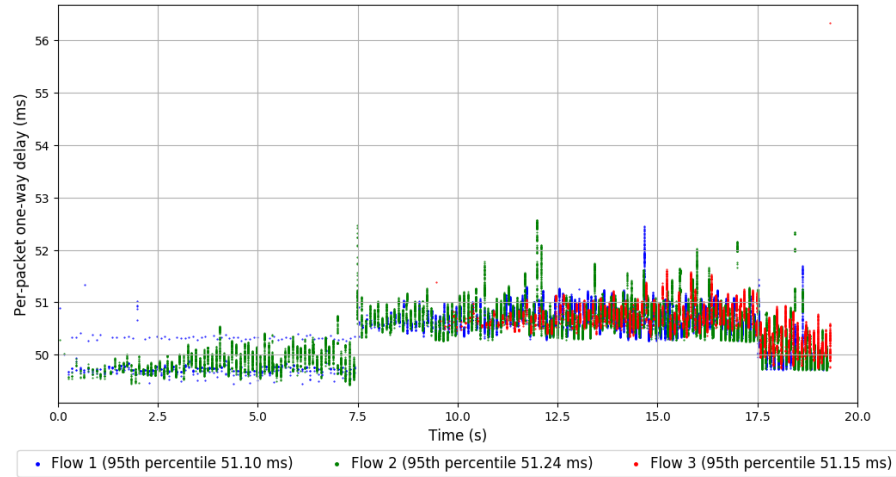
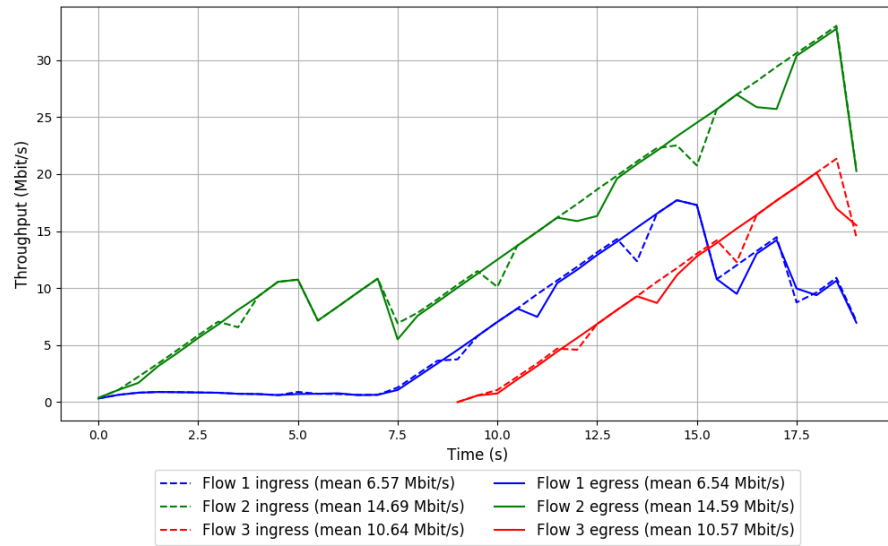


Run 6: Statistics of LEDBAT

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

End at: 2017-09-08 05:14:44

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-08 05:26:24

End at: 2017-09-08 05:26:54

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.53 Mbit/s

95th percentile per-packet one-way delay: 51.091 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 23.98 Mbit/s

95th percentile per-packet one-way delay: 51.097 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 8.51 Mbit/s

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

Loss rate: 0.64%

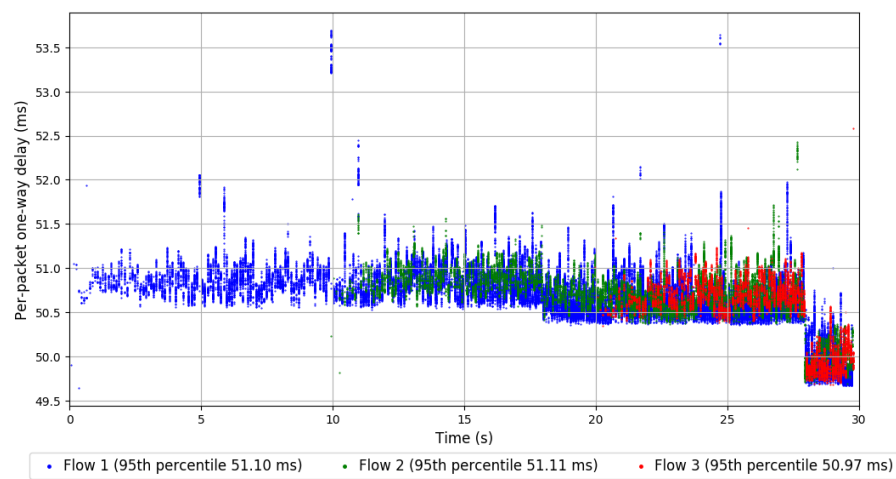
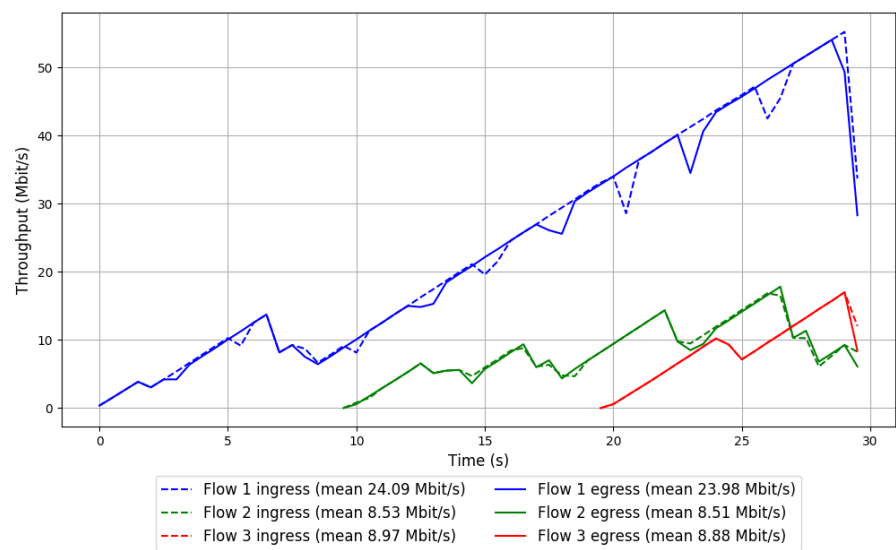
-- Flow 3:

Average throughput: 8.88 Mbit/s

95th percentile per-packet one-way delay: 50.971 ms

Loss rate: 2.04%

Run 7: Report of LEDBAT — Data Link

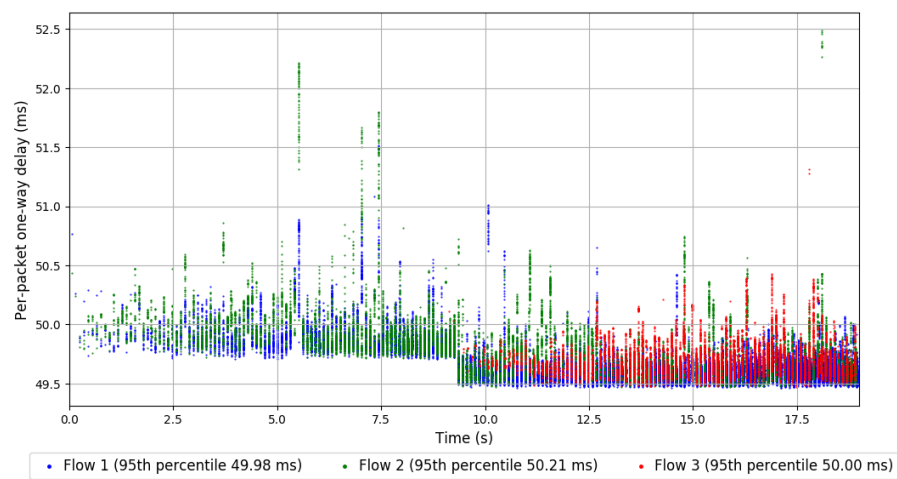
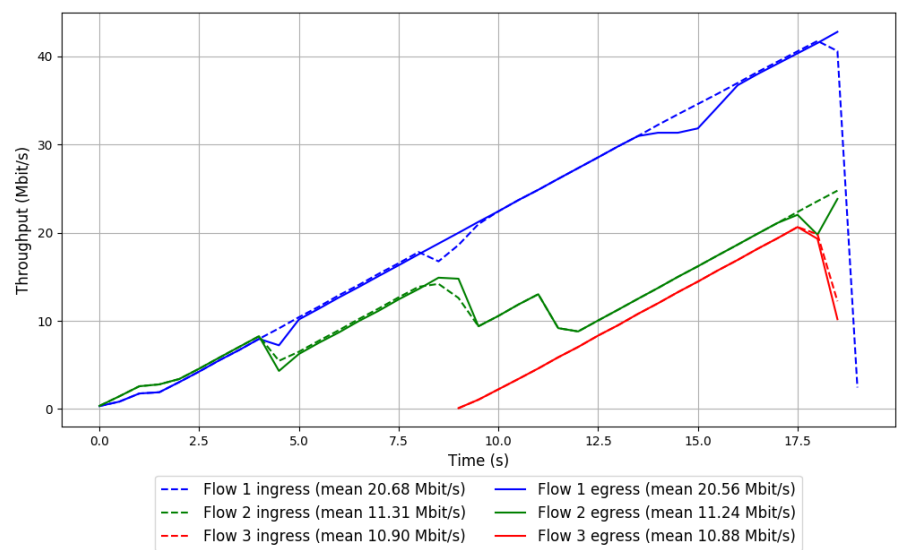


Run 8: Statistics of LEDBAT

Start at: 2017-09-08 05:38:31

End at: 2017-09-08 05:39:01

Run 8: Report of LEDBAT — Data Link

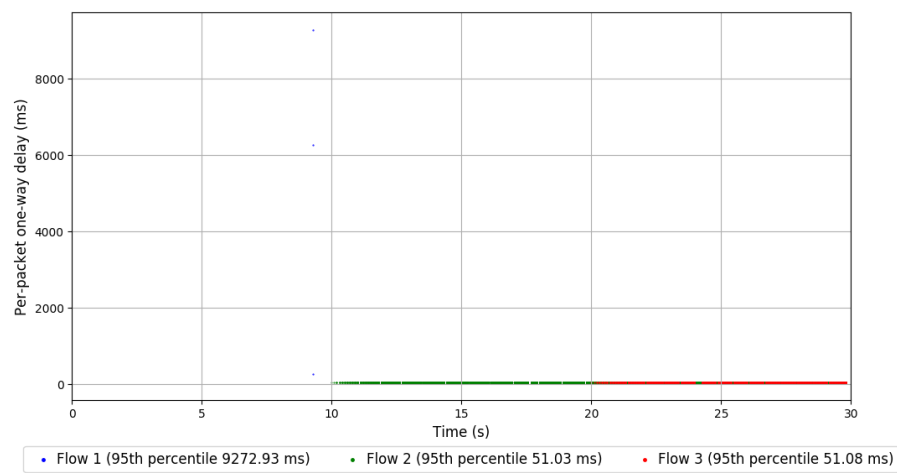
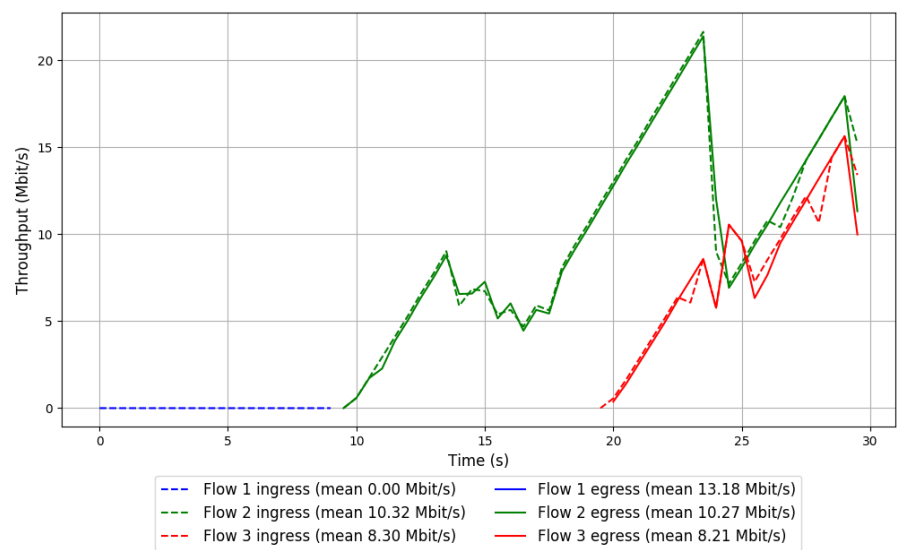


Run 9: Statistics of LEDBAT

Start at: 2017-09-08 05:50:48

End at: 2017-09-08 05:51:18

Run 9: Report of LEDBAT — Data Link

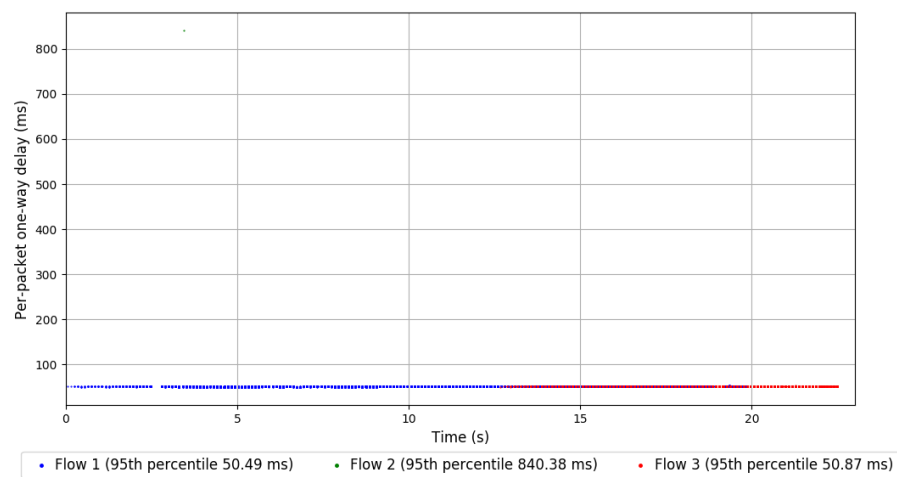
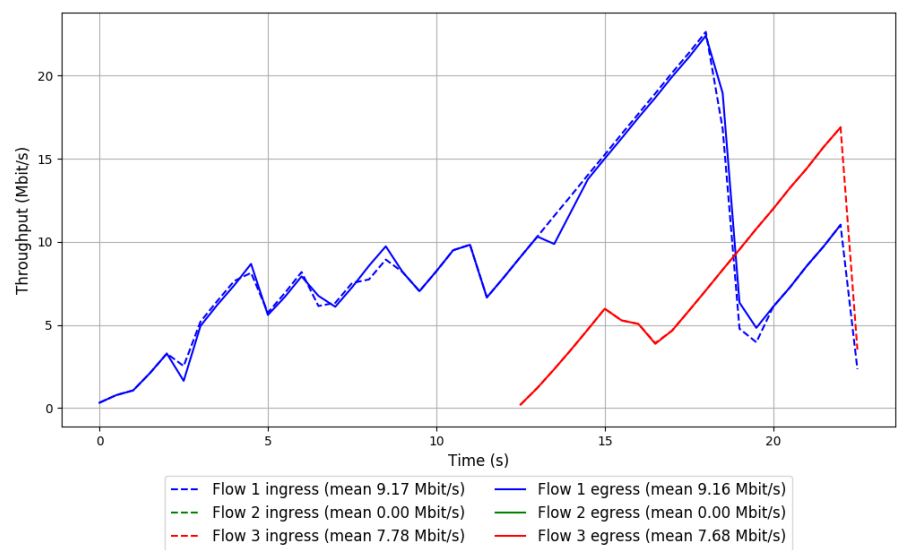


Run 10: Statistics of LEDBAT

Start at: 2017-09-08 06:02:55

End at: 2017-09-08 06:03:25

Run 10: Report of LEDBAT — Data Link

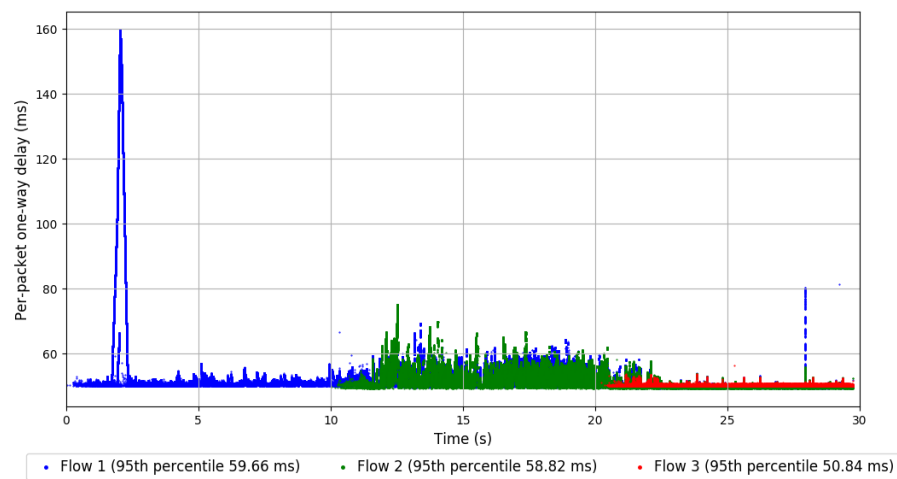
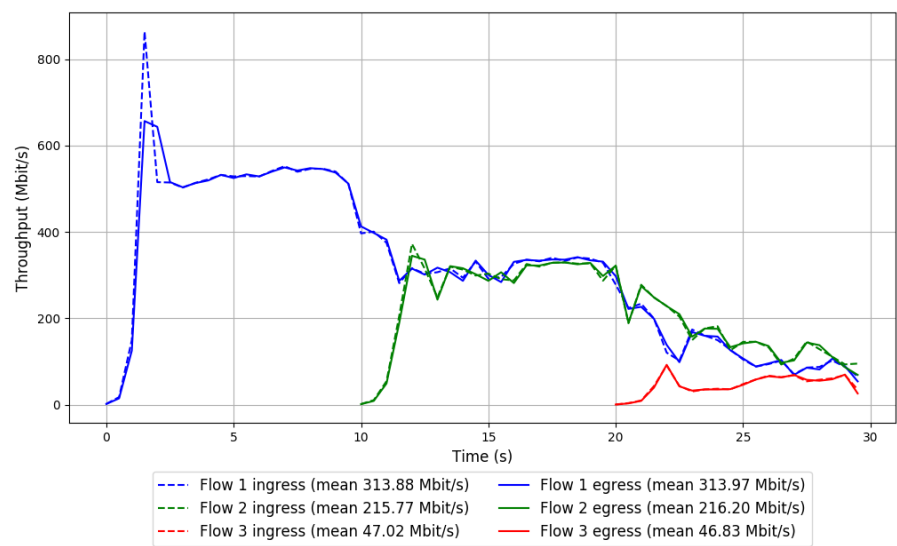


```
Run 1: Statistics of PCC

Start at: 2017-09-08 04:13:30
End at: 2017-09-08 04:14:00

# Below is generated by plot.py at 2017-09-08 09:53:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 472.36 Mbit/s
95th percentile per-packet one-way delay: 59.029 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 313.97 Mbit/s
95th percentile per-packet one-way delay: 59.660 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 216.20 Mbit/s
95th percentile per-packet one-way delay: 58.816 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 46.83 Mbit/s
95th percentile per-packet one-way delay: 50.840 ms
Loss rate: 1.68%
```

Run 1: Report of PCC — Data Link

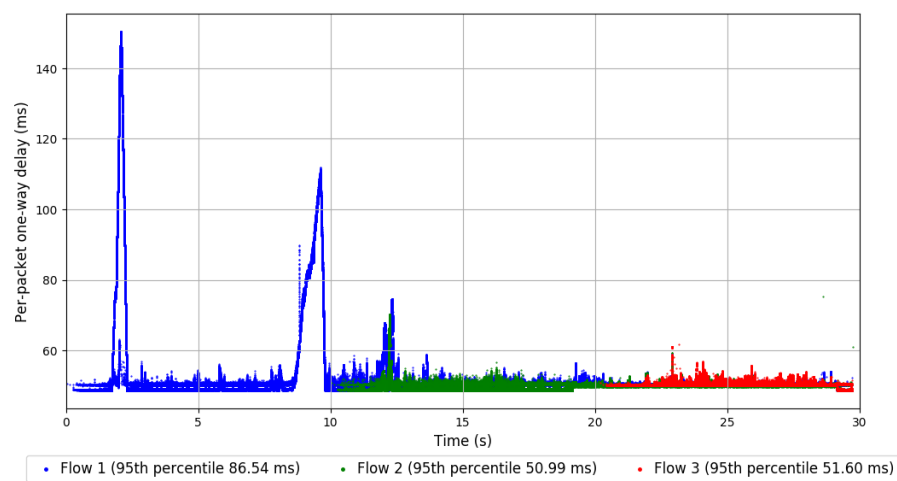
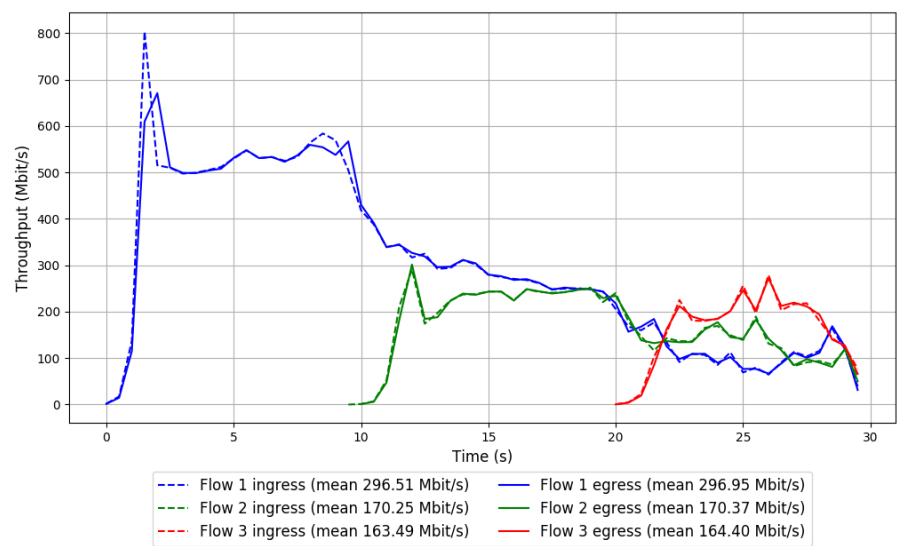


```
Run 2: Statistics of PCC

Start at: 2017-09-08 04:25:42
End at: 2017-09-08 04:26:12

# Below is generated by plot.py at 2017-09-08 09:53:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 462.62 Mbit/s
95th percentile per-packet one-way delay: 75.390 ms
Loss rate: 0.27%
-- Flow 1:
Average throughput: 296.95 Mbit/s
95th percentile per-packet one-way delay: 86.544 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 170.37 Mbit/s
95th percentile per-packet one-way delay: 50.995 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 164.40 Mbit/s
95th percentile per-packet one-way delay: 51.596 ms
Loss rate: 0.63%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

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

End at: 2017-09-08 04:38:35

Below is generated by plot.py at 2017-09-08 09:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 441.13 Mbit/s

95th percentile per-packet one-way delay: 121.216 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 299.12 Mbit/s

95th percentile per-packet one-way delay: 124.713 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 157.49 Mbit/s

95th percentile per-packet one-way delay: 51.690 ms

Loss rate: 0.37%

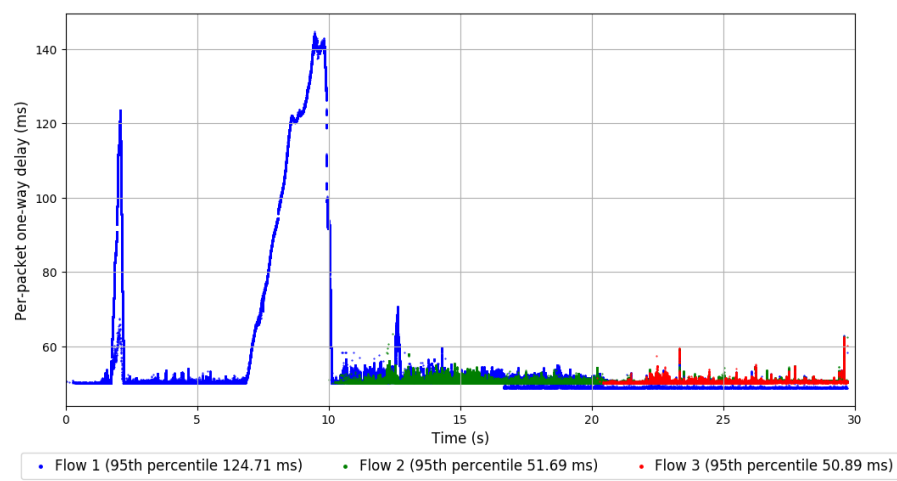
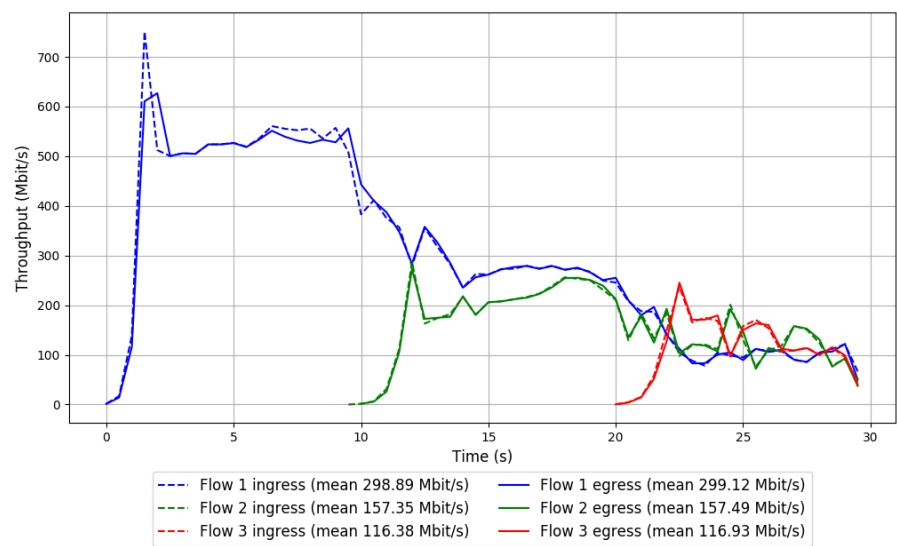
-- Flow 3:

Average throughput: 116.93 Mbit/s

95th percentile per-packet one-way delay: 50.892 ms

Loss rate: 0.50%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-08 04:50:11

End at: 2017-09-08 04:50:41

Below is generated by plot.py at 2017-09-08 09:55:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 435.67 Mbit/s

95th percentile per-packet one-way delay: 56.710 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 293.52 Mbit/s

95th percentile per-packet one-way delay: 62.070 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 169.96 Mbit/s

95th percentile per-packet one-way delay: 51.949 ms

Loss rate: 0.34%

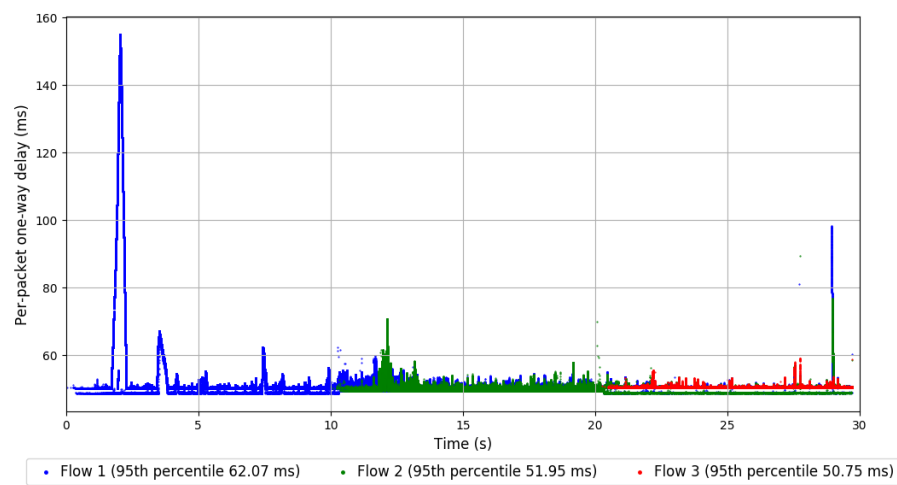
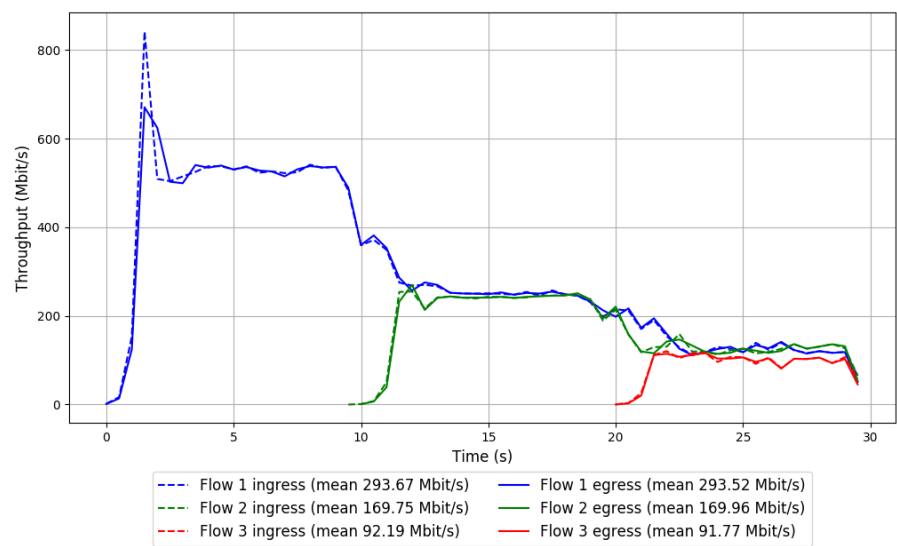
-- Flow 3:

Average throughput: 91.77 Mbit/s

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

Loss rate: 1.45%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

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

End at: 2017-09-08 05:02:59

Below is generated by plot.py at 2017-09-08 09:56:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 447.33 Mbit/s

95th percentile per-packet one-way delay: 119.598 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 303.82 Mbit/s

95th percentile per-packet one-way delay: 141.744 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 165.91 Mbit/s

95th percentile per-packet one-way delay: 52.523 ms

Loss rate: 0.30%

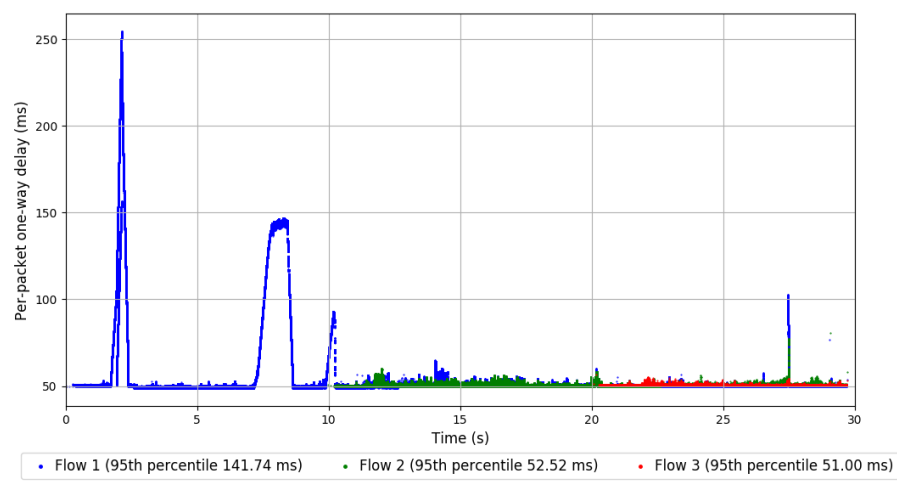
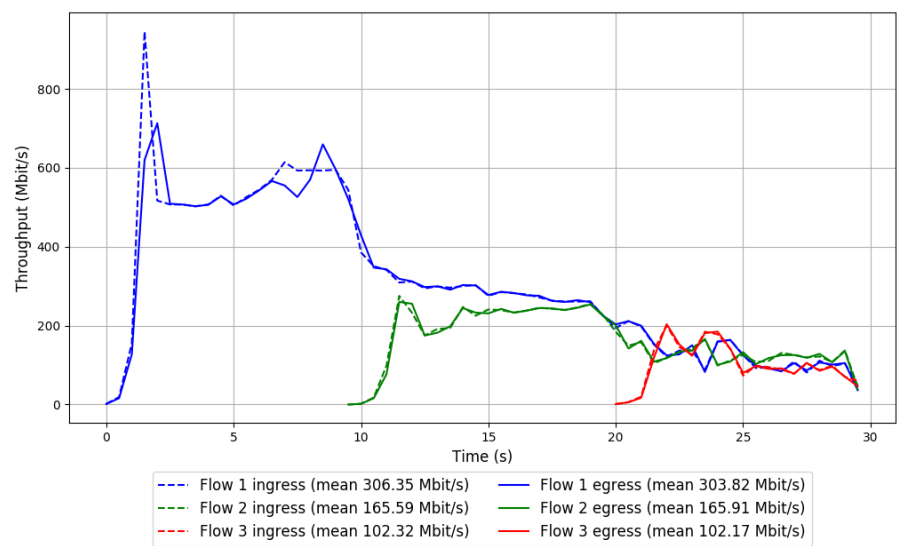
-- Flow 3:

Average throughput: 102.17 Mbit/s

95th percentile per-packet one-way delay: 51.003 ms

Loss rate: 1.22%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-08 05:14:54

End at: 2017-09-08 05:15:24

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 433.72 Mbit/s

95th percentile per-packet one-way delay: 121.699 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 299.14 Mbit/s

95th percentile per-packet one-way delay: 139.102 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 147.06 Mbit/s

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

Loss rate: 0.51%

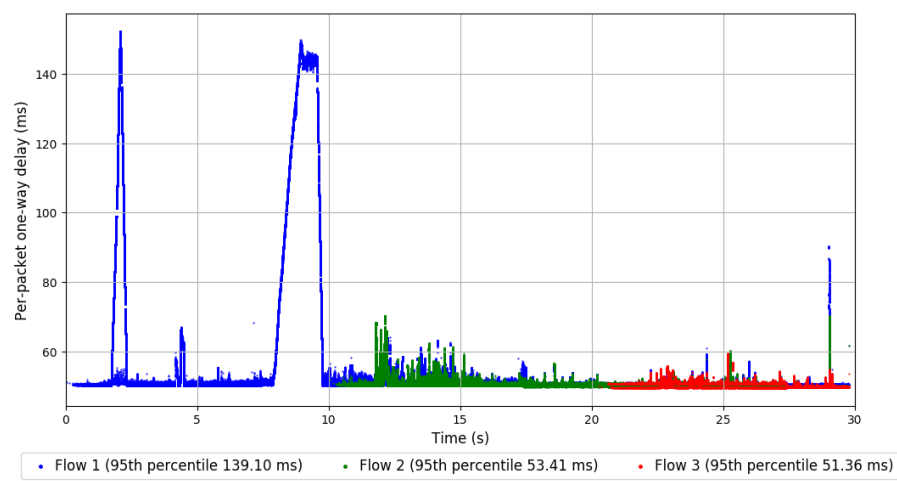
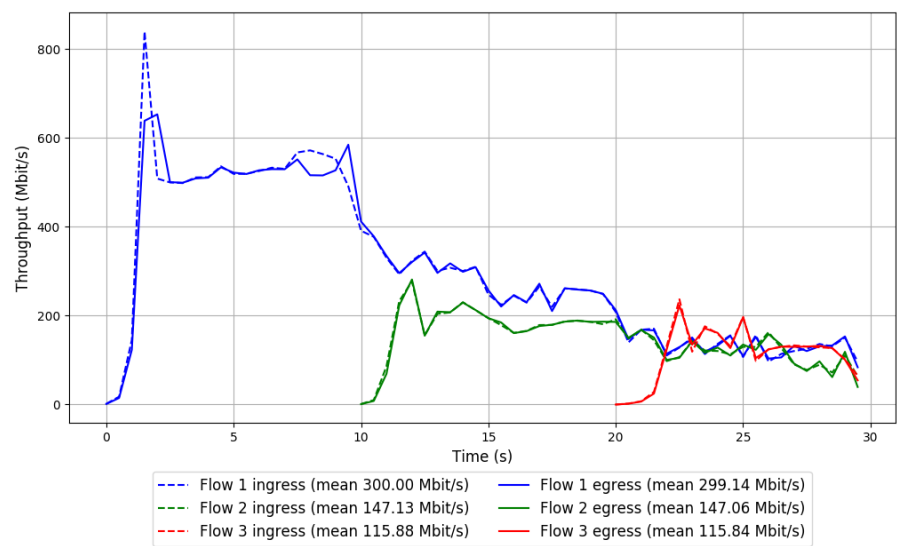
-- Flow 3:

Average throughput: 115.84 Mbit/s

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

Loss rate: 1.07%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

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

End at: 2017-09-08 05:27:35

Below is generated by plot.py at 2017-09-08 09:57:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 420.66 Mbit/s

95th percentile per-packet one-way delay: 64.560 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 293.81 Mbit/s

95th percentile per-packet one-way delay: 68.408 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 184.61 Mbit/s

95th percentile per-packet one-way delay: 51.785 ms

Loss rate: 0.35%

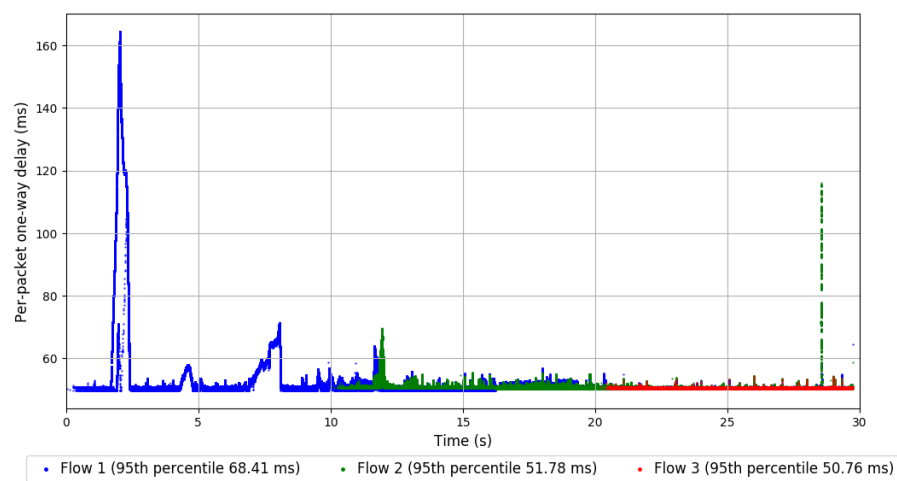
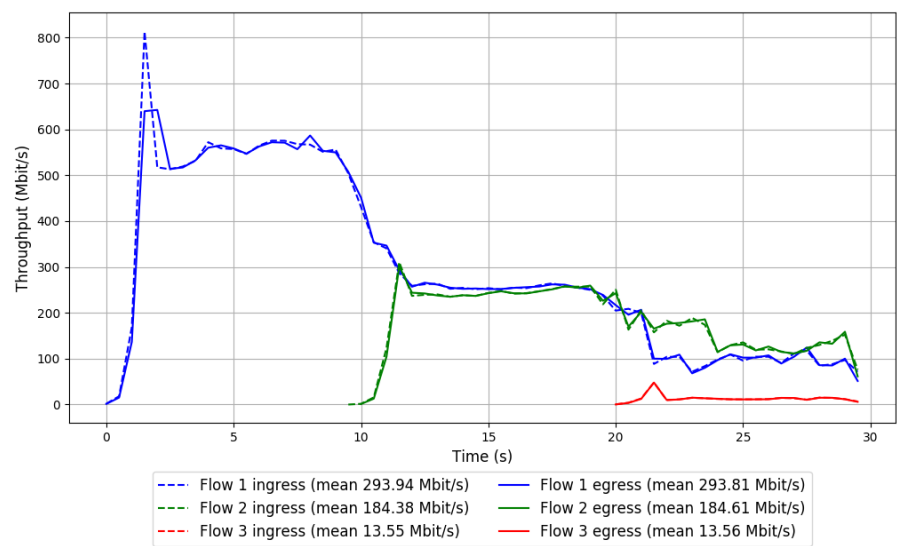
-- Flow 3:

Average throughput: 13.56 Mbit/s

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

Loss rate: 0.95%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-08 05:39:12

End at: 2017-09-08 05:39:42

Below is generated by plot.py at 2017-09-08 09:58:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.38 Mbit/s

95th percentile per-packet one-way delay: 154.912 ms

Loss rate: 3.19%

-- Flow 1:

Average throughput: 310.03 Mbit/s

95th percentile per-packet one-way delay: 157.486 ms

Loss rate: 4.22%

-- Flow 2:

Average throughput: 137.96 Mbit/s

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

Loss rate: 0.58%

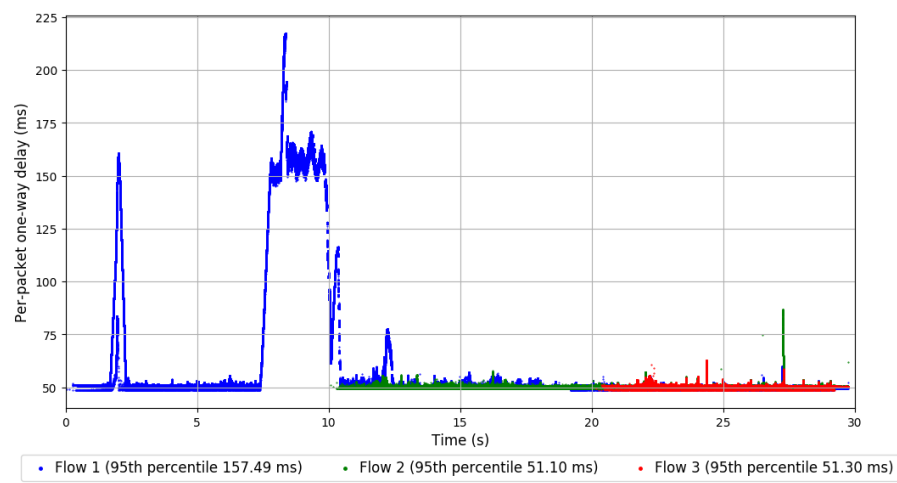
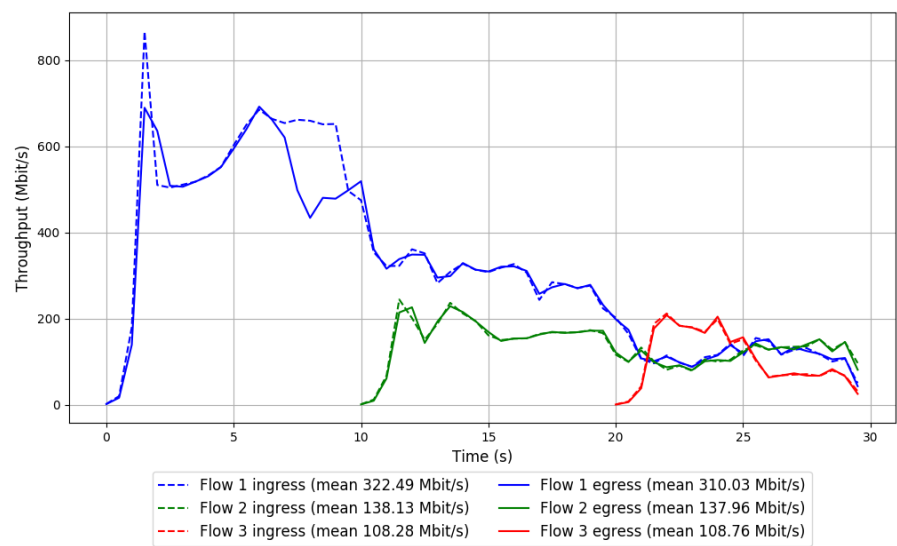
-- Flow 3:

Average throughput: 108.76 Mbit/s

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

Loss rate: 0.58%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-08 05:51:28

End at: 2017-09-08 05:51:58

Below is generated by plot.py at 2017-09-08 09:59:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 456.32 Mbit/s

95th percentile per-packet one-way delay: 53.443 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 287.05 Mbit/s

95th percentile per-packet one-way delay: 58.785 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 175.30 Mbit/s

95th percentile per-packet one-way delay: 51.457 ms

Loss rate: 0.24%

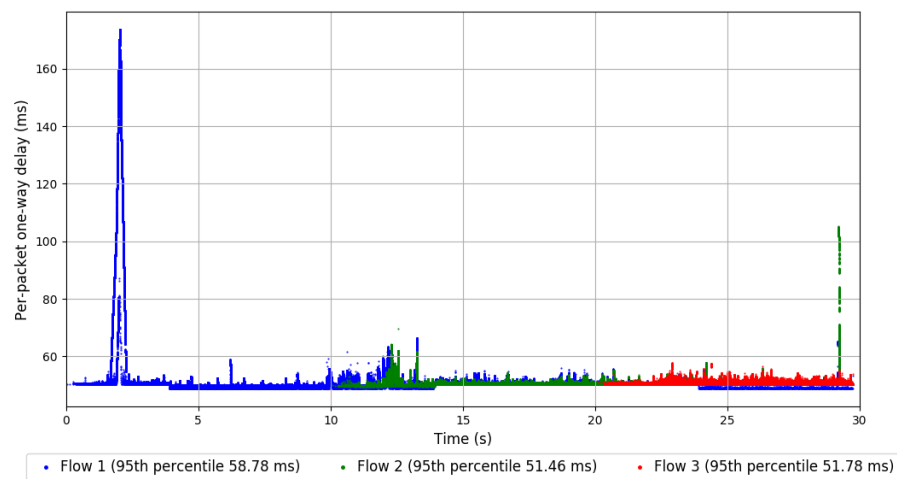
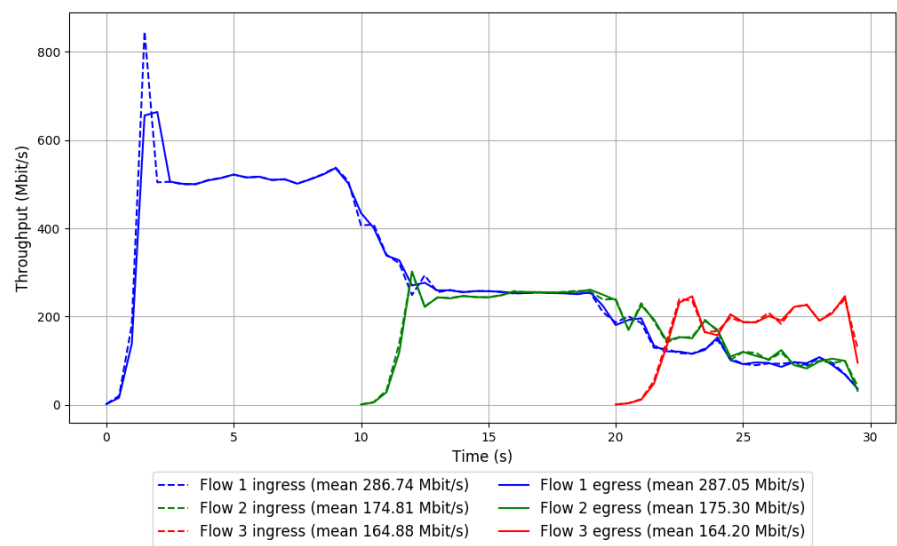
-- Flow 3:

Average throughput: 164.20 Mbit/s

95th percentile per-packet one-way delay: 51.782 ms

Loss rate: 1.50%

Run 9: Report of PCC — Data Link

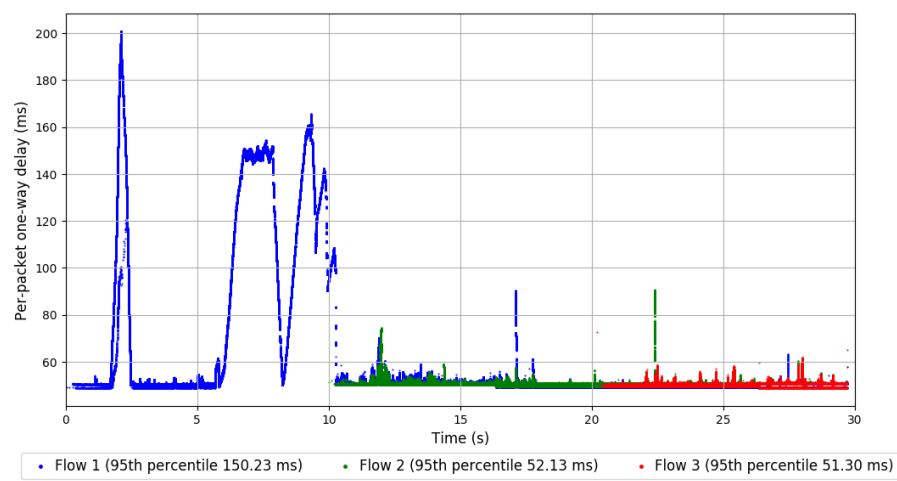
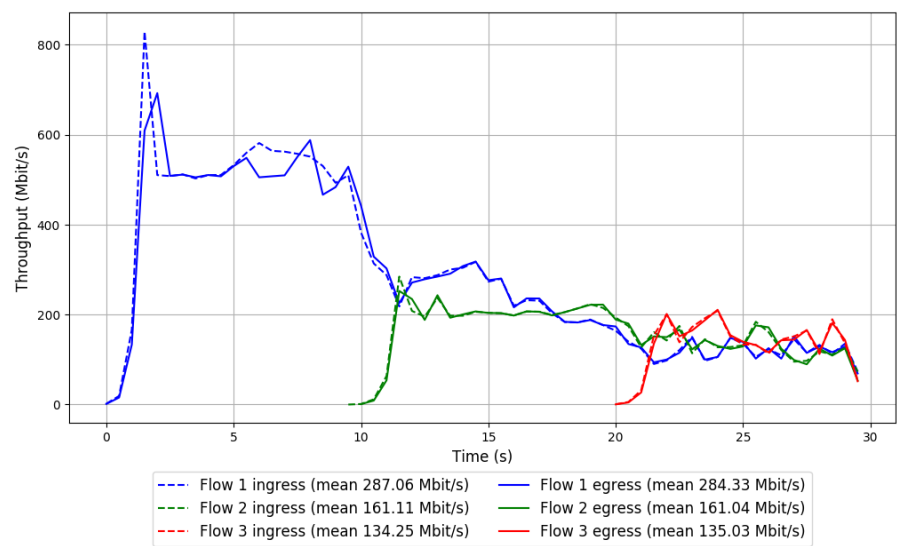


```
Run 10: Statistics of PCC

Start at: 2017-09-08 06:03:35
End at: 2017-09-08 06:04:05

# Below is generated by plot.py at 2017-09-08 09:59:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 434.64 Mbit/s
95th percentile per-packet one-way delay: 148.061 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 284.33 Mbit/s
95th percentile per-packet one-way delay: 150.234 ms
Loss rate: 1.26%
-- Flow 2:
Average throughput: 161.04 Mbit/s
95th percentile per-packet one-way delay: 52.127 ms
Loss rate: 0.49%
-- Flow 3:
Average throughput: 135.03 Mbit/s
95th percentile per-packet one-way delay: 51.298 ms
Loss rate: 0.64%
```

Run 10: Report of PCC — Data Link

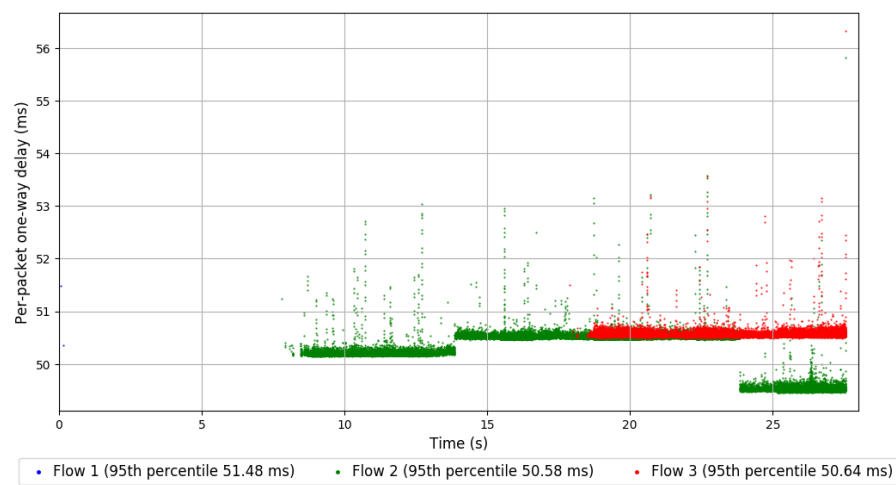
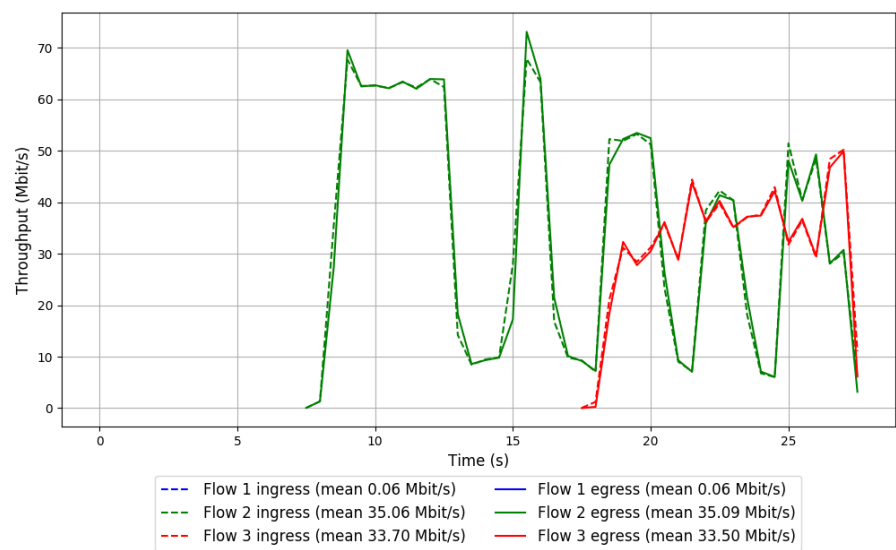


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-09-08 04:17:45
End at: 2017-09-08 04:18:15

# Below is generated by plot.py at 2017-09-08 09:59:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 36.99 Mbit/s
95th percentile per-packet one-way delay: 50.605 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.479 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 35.09 Mbit/s
95th percentile per-packet one-way delay: 50.576 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 33.50 Mbit/s
95th percentile per-packet one-way delay: 50.639 ms
Loss rate: 1.55%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-09-08 04:29:58

End at: 2017-09-08 04:30:28

Below is generated by plot.py at 2017-09-08 09:59:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.42 Mbit/s

95th percentile per-packet one-way delay: 50.517 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.673 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.34 Mbit/s

95th percentile per-packet one-way delay: 50.534 ms

Loss rate: 0.72%

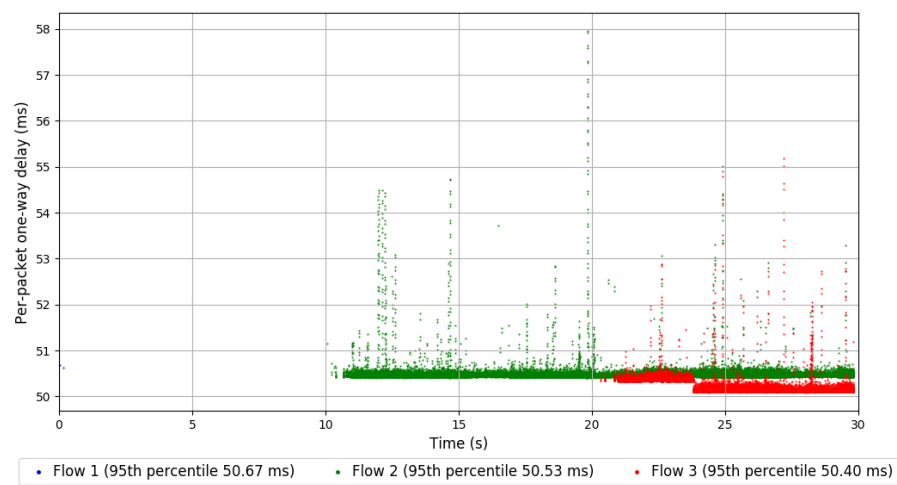
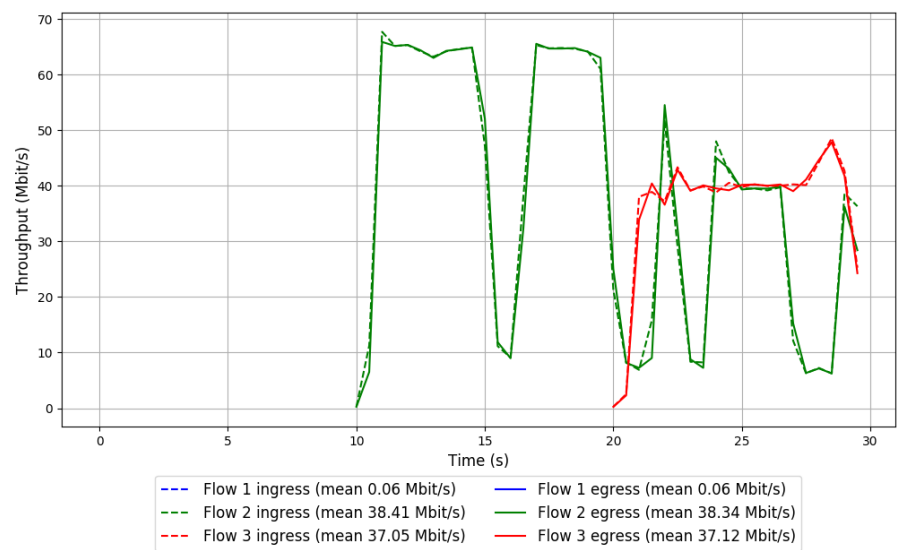
-- Flow 3:

Average throughput: 37.12 Mbit/s

95th percentile per-packet one-way delay: 50.399 ms

Loss rate: 0.86%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-08 04:42:18

End at: 2017-09-08 04:42:48

Below is generated by plot.py at 2017-09-08 09:59:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.79 Mbit/s

95th percentile per-packet one-way delay: 50.187 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.613 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.00 Mbit/s

95th percentile per-packet one-way delay: 50.184 ms

Loss rate: 0.51%

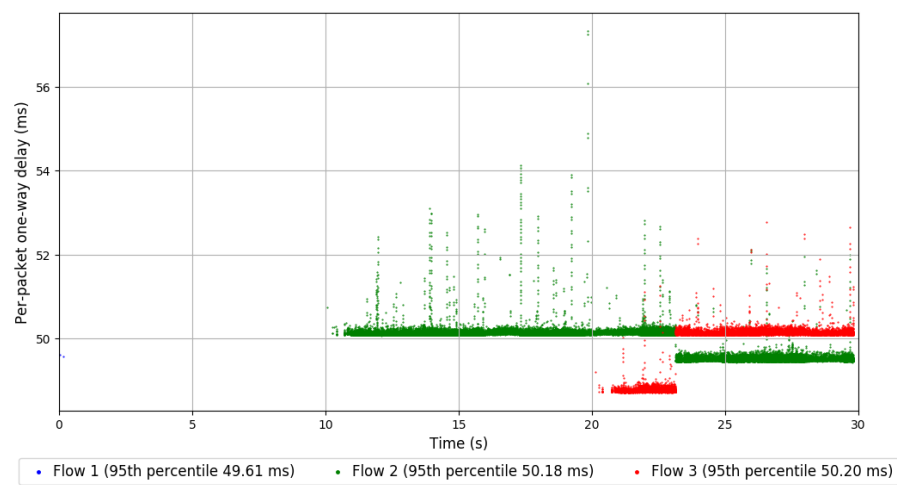
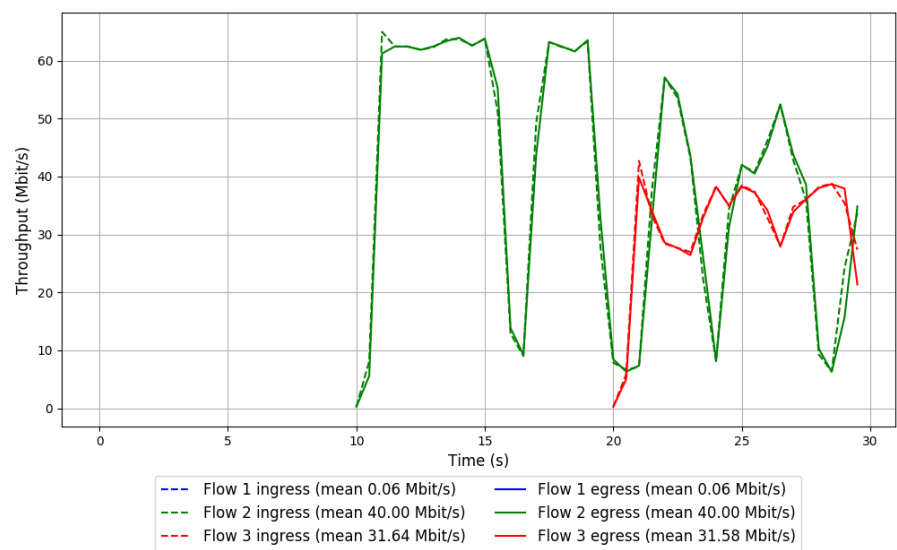
-- Flow 3:

Average throughput: 31.58 Mbit/s

95th percentile per-packet one-way delay: 50.195 ms

Loss rate: 1.20%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-08 04:54:25

End at: 2017-09-08 04:54:55

Below is generated by plot.py at 2017-09-08 09:59:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.34 Mbit/s

95th percentile per-packet one-way delay: 50.576 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 49.832 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.76 Mbit/s

95th percentile per-packet one-way delay: 50.571 ms

Loss rate: 0.53%

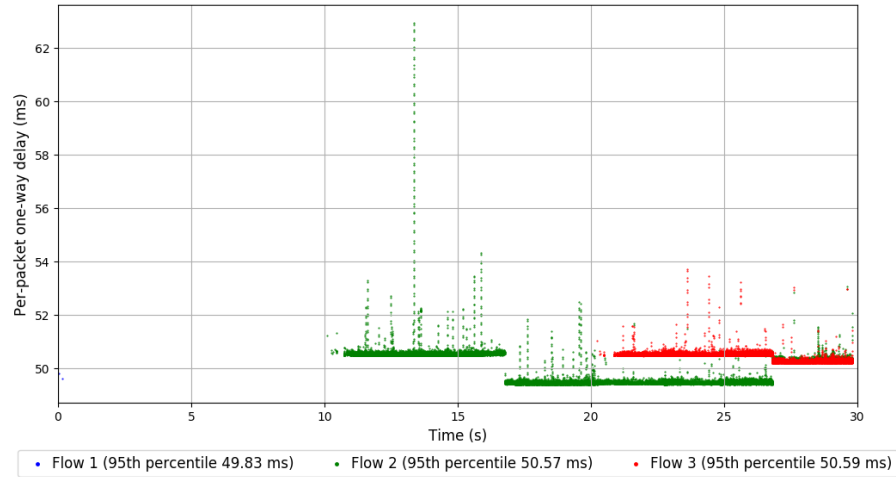
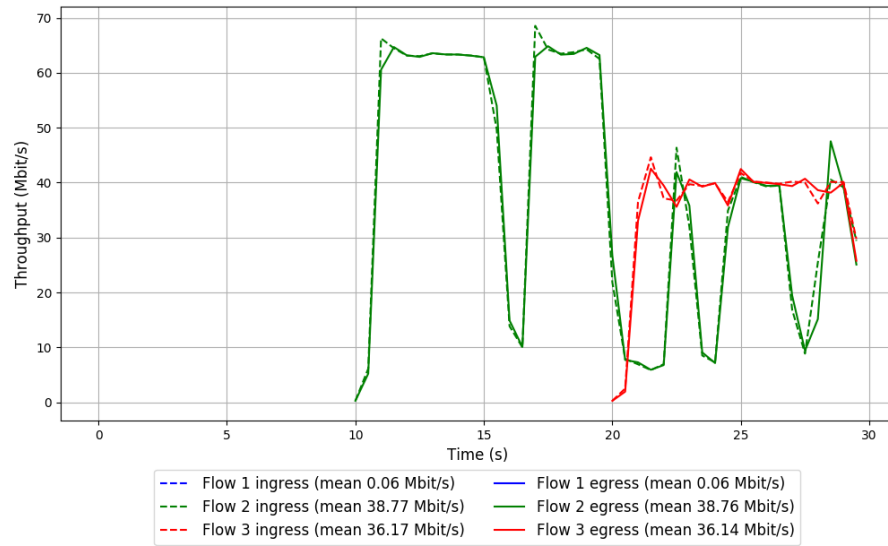
-- Flow 3:

Average throughput: 36.14 Mbit/s

95th percentile per-packet one-way delay: 50.588 ms

Loss rate: 1.13%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-08 05:06:48

End at: 2017-09-08 05:07:18

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.58 Mbit/s

95th percentile per-packet one-way delay: 50.816 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.414 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.46 Mbit/s

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

Loss rate: 0.43%

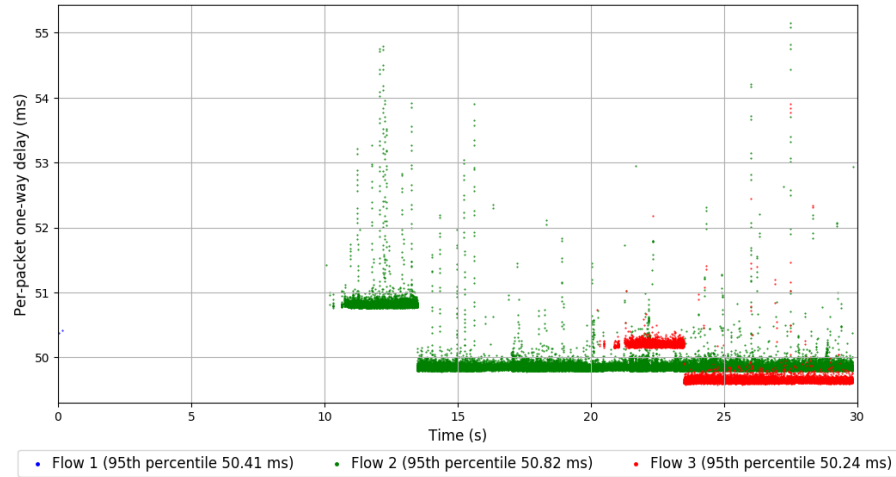
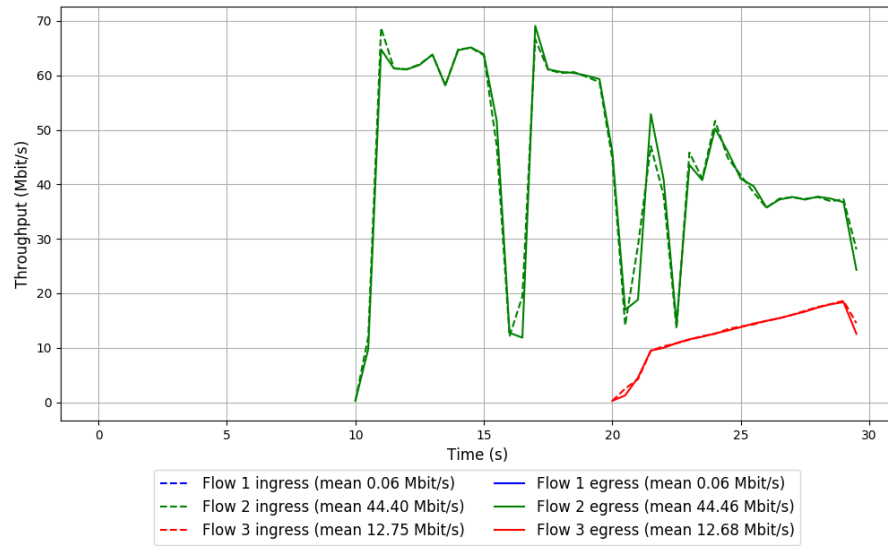
-- Flow 3:

Average throughput: 12.68 Mbit/s

95th percentile per-packet one-way delay: 50.238 ms

Loss rate: 1.58%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

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

End at: 2017-09-08 05:19:38

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 39.78 Mbit/s

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

Loss rate: 0.71%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.363 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.20 Mbit/s

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

Loss rate: 0.49%

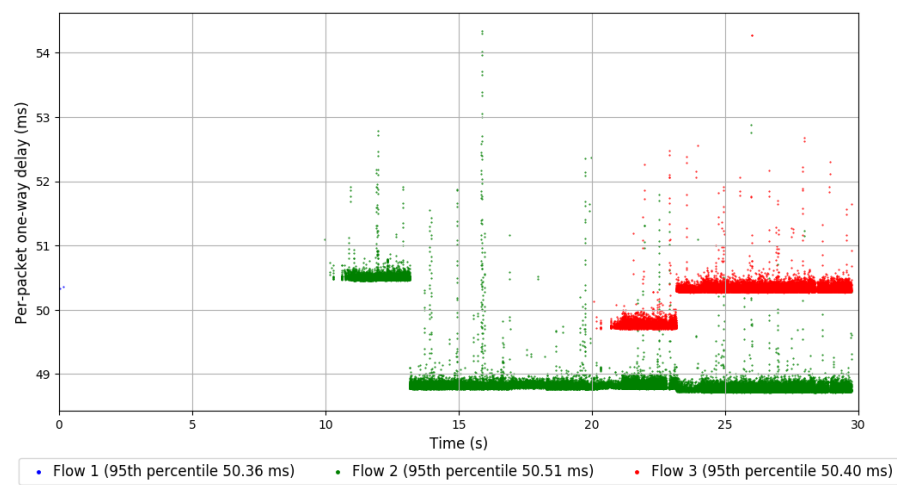
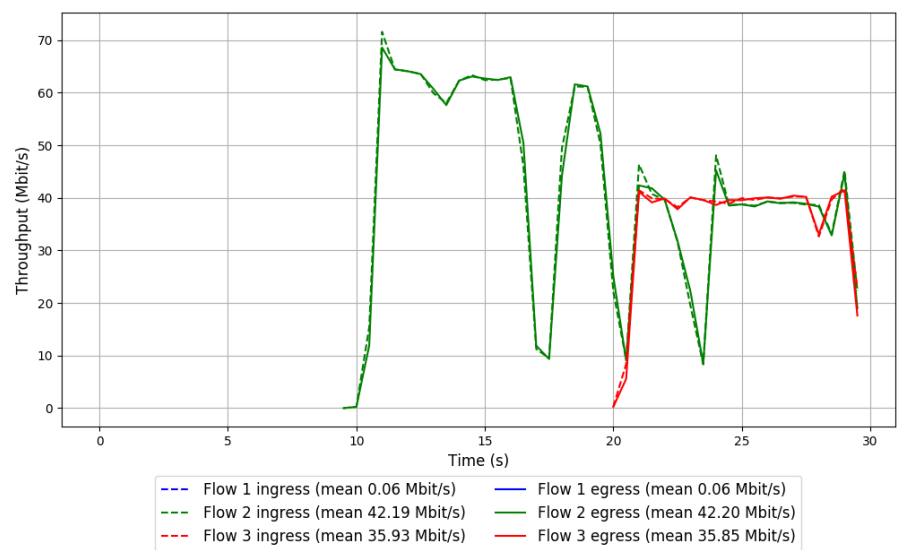
-- Flow 3:

Average throughput: 35.85 Mbit/s

95th percentile per-packet one-way delay: 50.400 ms

Loss rate: 1.24%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-09-08 05:31:17

End at: 2017-09-08 05:31:47

Below is generated by plot.py at 2017-09-08 10:00:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 39.06 Mbit/s

95th percentile per-packet one-way delay: 50.839 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 48.921 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.98 Mbit/s

95th percentile per-packet one-way delay: 50.851 ms

Loss rate: 0.43%

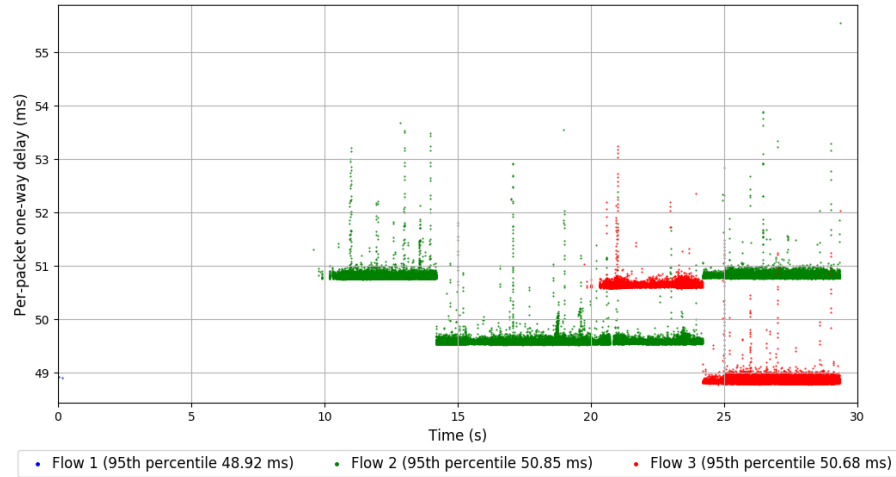
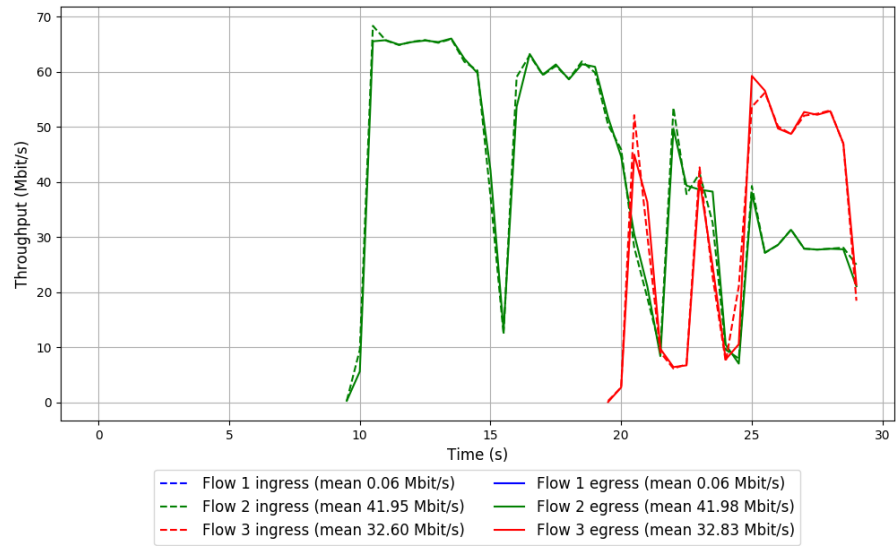
-- Flow 3:

Average throughput: 32.83 Mbit/s

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

Loss rate: 0.35%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-08 05:43:24

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

Below is generated by plot.py at 2017-09-08 10:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.29 Mbit/s

95th percentile per-packet one-way delay: 50.556 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 38.34 Mbit/s

95th percentile per-packet one-way delay: 50.423 ms

Loss rate: 0.51%

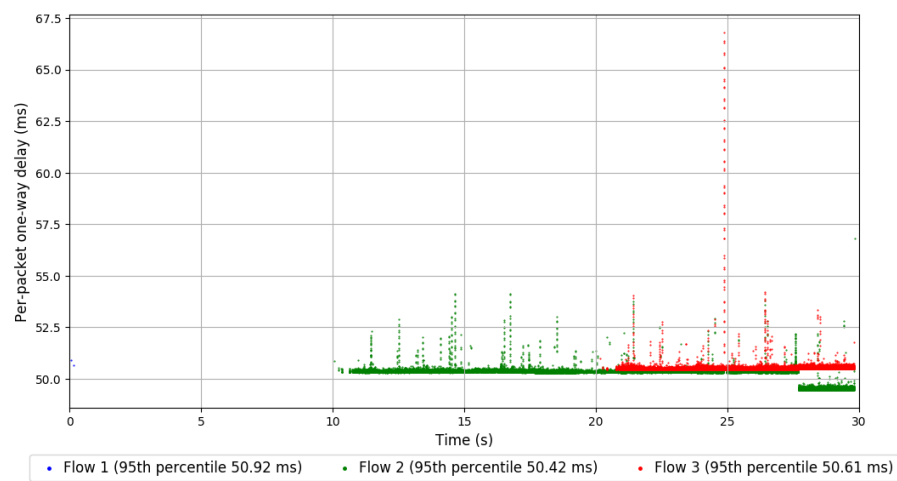
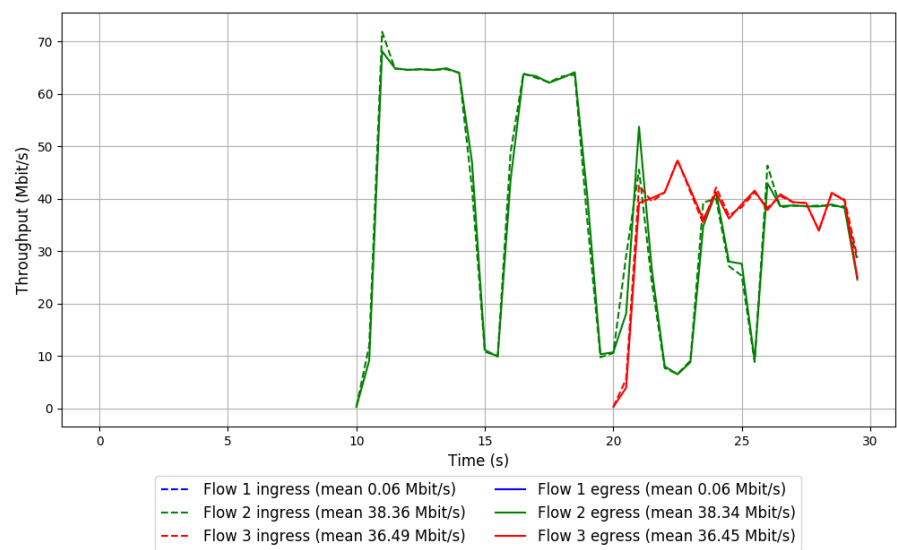
-- Flow 3:

Average throughput: 36.45 Mbit/s

95th percentile per-packet one-way delay: 50.608 ms

Loss rate: 1.12%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-08 05:55:35

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

Below is generated by plot.py at 2017-09-08 10:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 38.56 Mbit/s

95th percentile per-packet one-way delay: 50.333 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.56 Mbit/s

95th percentile per-packet one-way delay: 50.350 ms

Loss rate: 0.49%

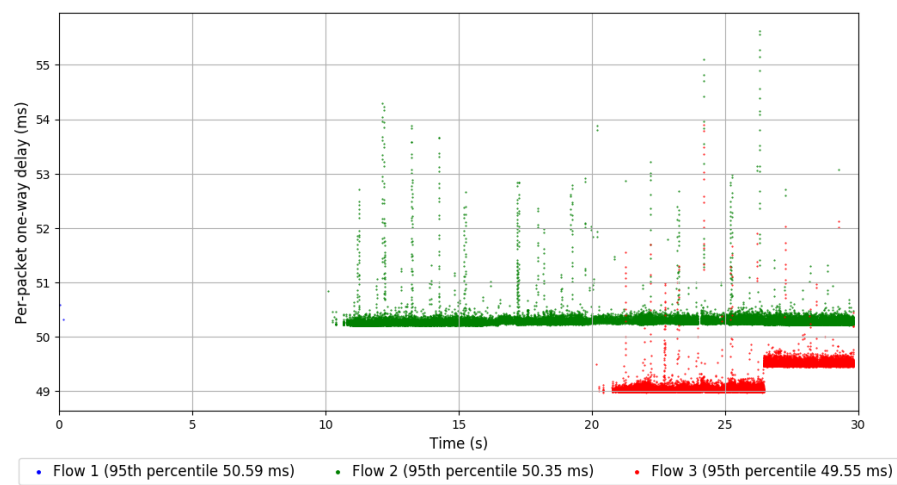
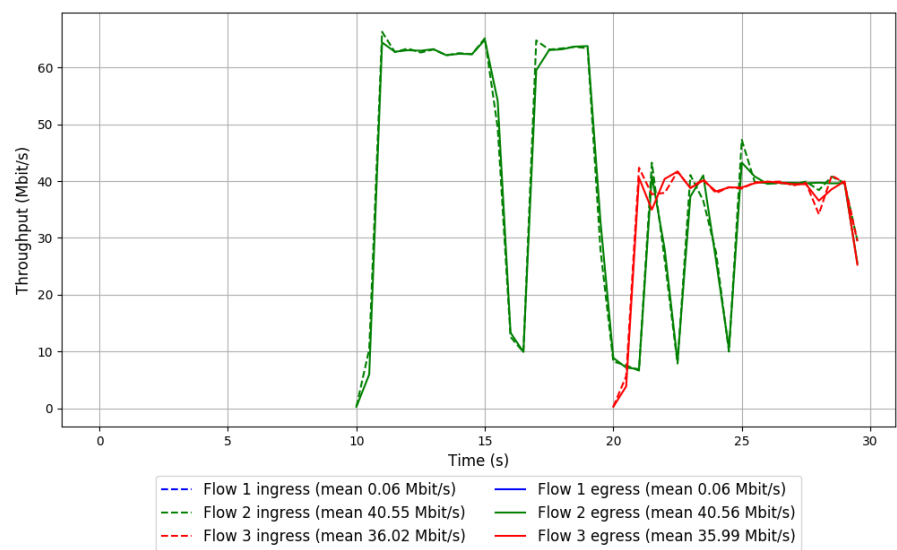
-- Flow 3:

Average throughput: 35.99 Mbit/s

95th percentile per-packet one-way delay: 49.548 ms

Loss rate: 1.11%

Run 9: Report of QUIC Cubic — Data Link

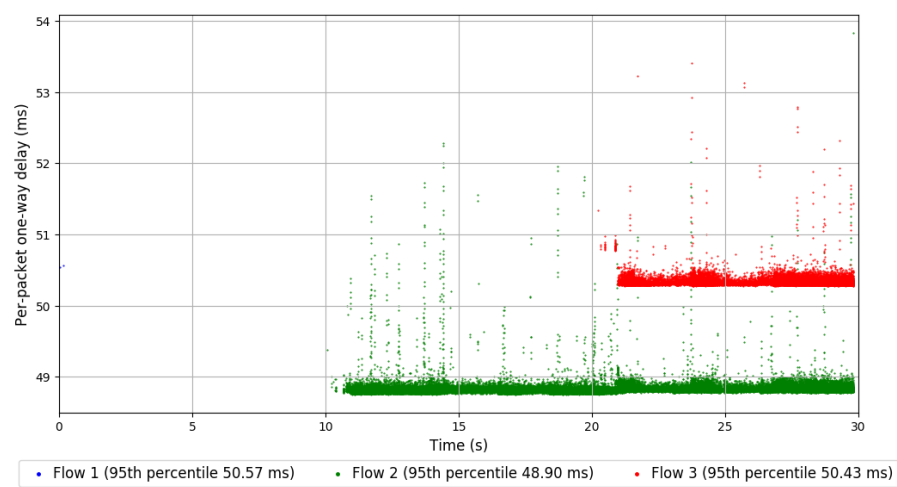
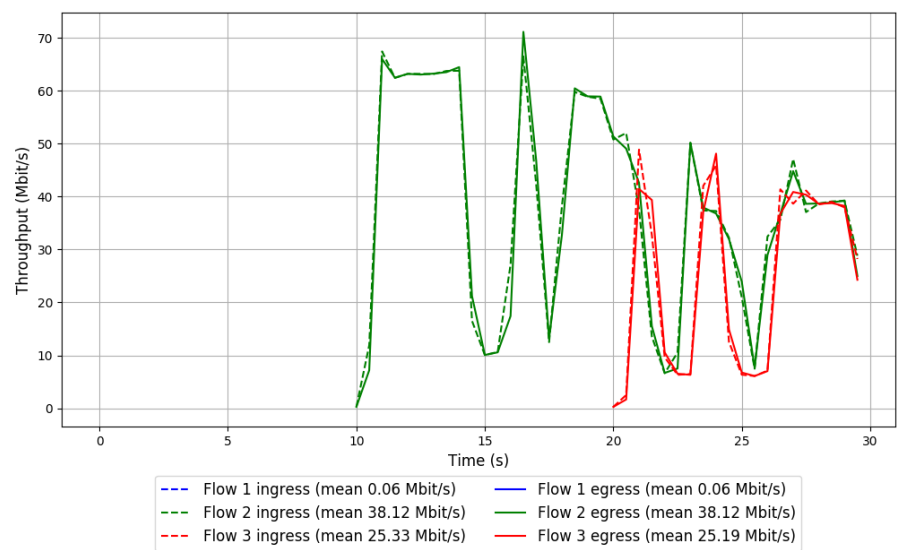


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-08 06:07:51
End at: 2017-09-08 06:08:21

# Below is generated by plot.py at 2017-09-08 10:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 33.44 Mbit/s
95th percentile per-packet one-way delay: 50.362 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.567 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 38.12 Mbit/s
95th percentile per-packet one-way delay: 48.898 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 25.19 Mbit/s
95th percentile per-packet one-way delay: 50.432 ms
Loss rate: 1.57%
```

Run 10: Report of QUIC Cubic — Data Link

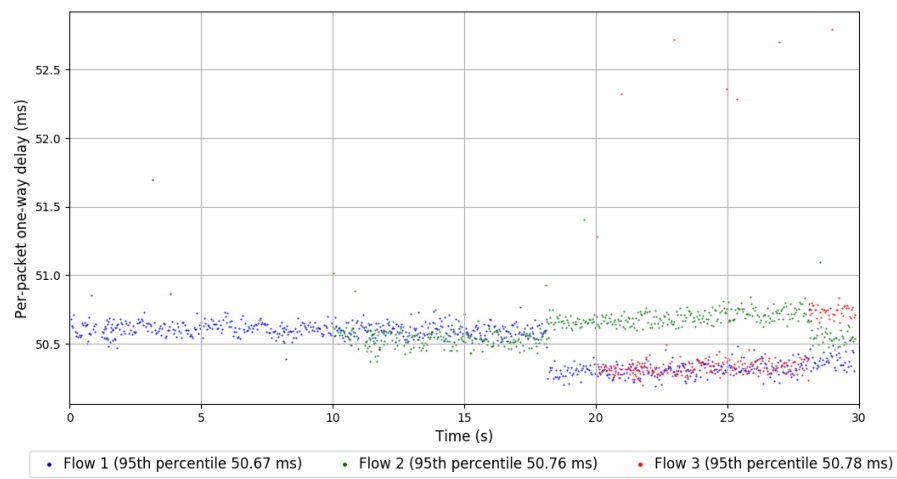
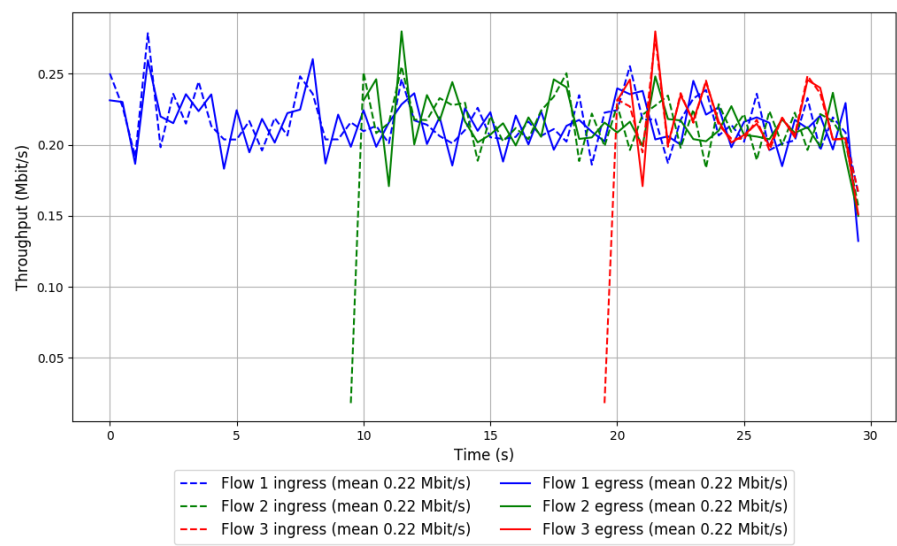


```
Run 1: Statistics of SReAM

Start at: 2017-09-08 04:21:03
End at: 2017-09-08 04:21:33

# Below is generated by plot.py at 2017-09-08 10:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.746 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.673 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.758 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.780 ms
Loss rate: 0.73%
```

Run 1: Report of SCSReAM — Data Link

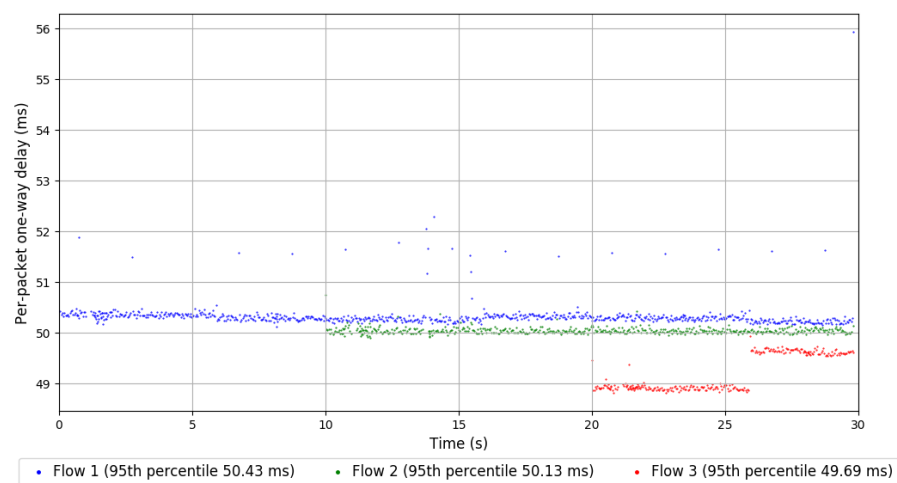
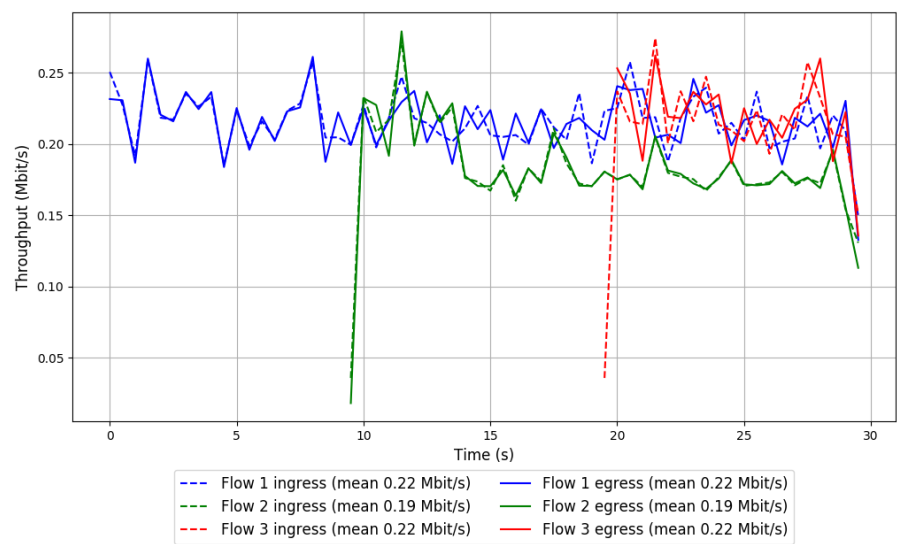


```
Run 2: Statistics of SCReAM

Start at: 2017-09-08 04:33:26
End at: 2017-09-08 04:33:56

# Below is generated by plot.py at 2017-09-08 10:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 50.397 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.432 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 50.130 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.685 ms
Loss rate: 0.74%
```

Run 2: Report of SReAM — Data Link

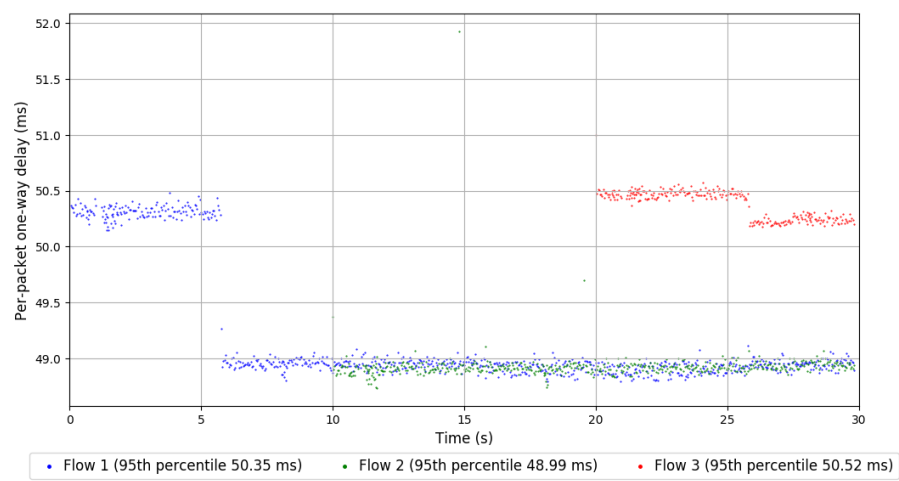
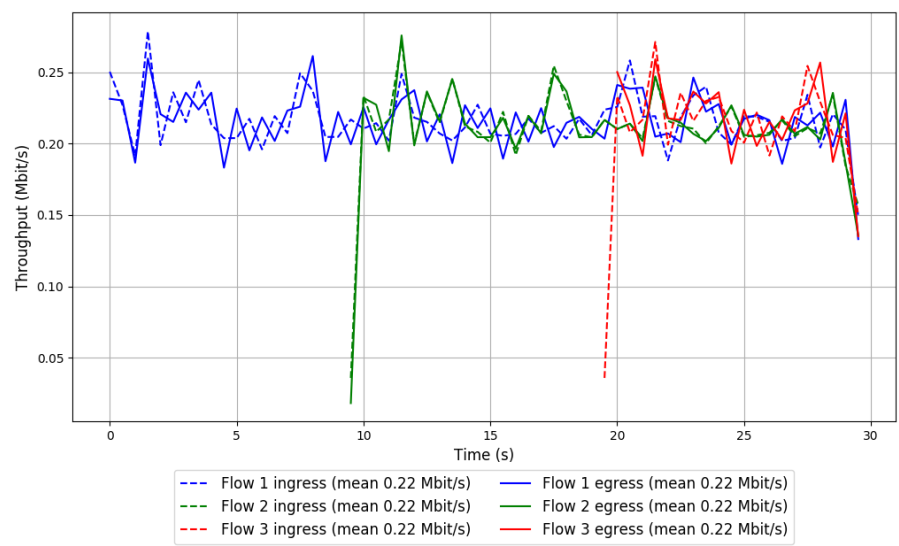


```
Run 3: Statistics of SCReAM

Start at: 2017-09-08 04:45:36
End at: 2017-09-08 04:46:06

# Below is generated by plot.py at 2017-09-08 10:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.474 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.349 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 48.992 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.522 ms
Loss rate: 0.73%
```


Run 3: Report of SReAM — Data Link

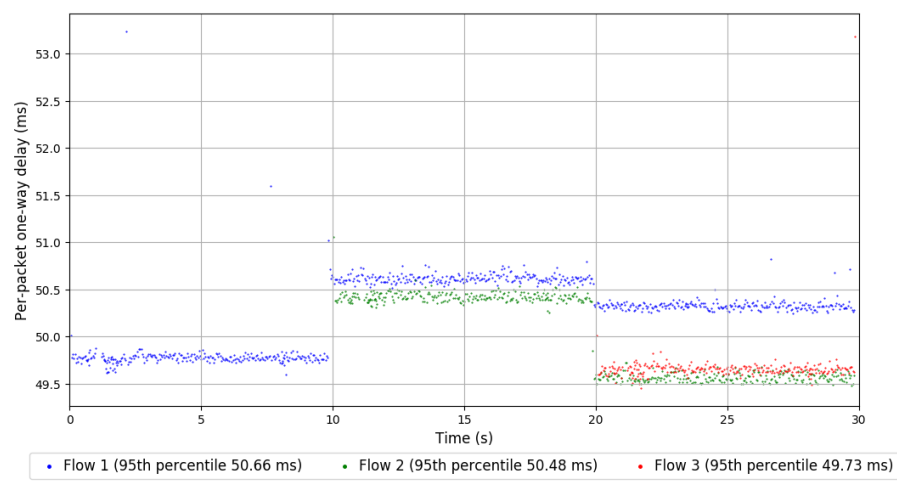
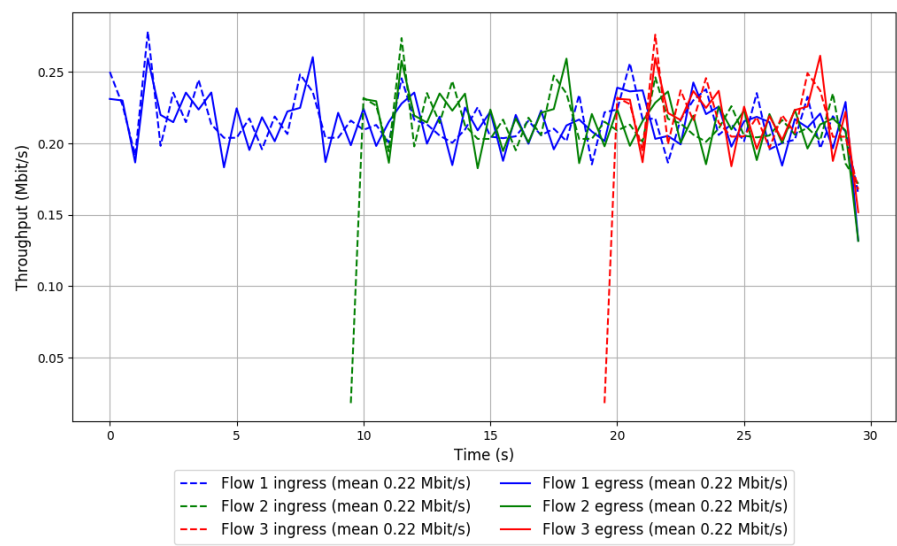


```
Run 4: Statistics of SCReAM

Start at: 2017-09-08 04:57:52
End at: 2017-09-08 04:58:22

# Below is generated by plot.py at 2017-09-08 10:00:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.637 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.661 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.480 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.730 ms
Loss rate: 0.74%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-09-08 05:10:17

End at: 2017-09-08 05:10:47

Below is generated by plot.py at 2017-09-08 10:00:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.115 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.479 ms

Loss rate: 0.42%

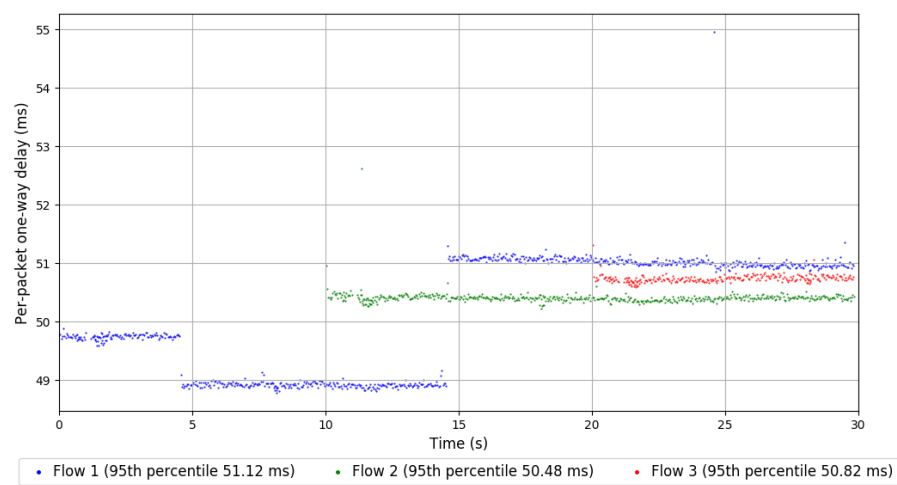
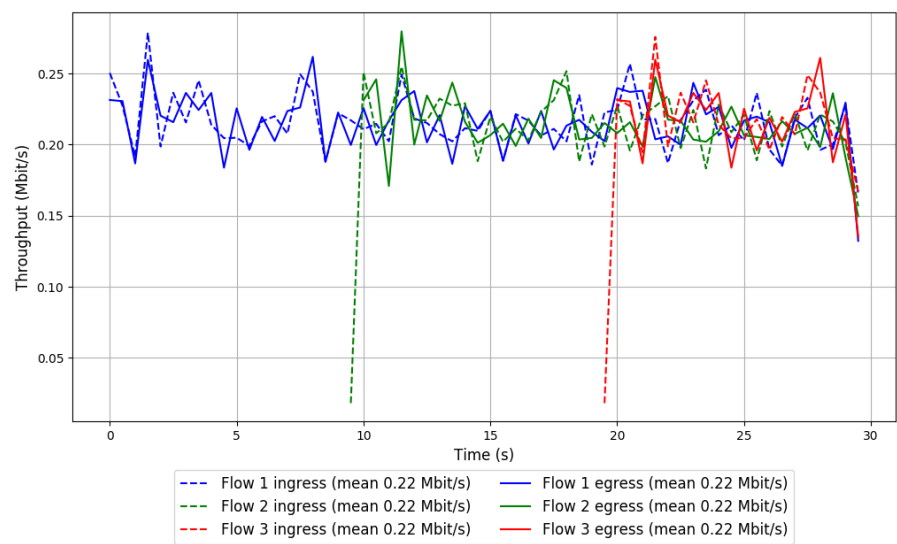
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.820 ms

Loss rate: 1.11%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2017-09-08 05:22:31

End at: 2017-09-08 05:23:01

Below is generated by plot.py at 2017-09-08 10:00:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.516 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.993 ms

Loss rate: 0.42%

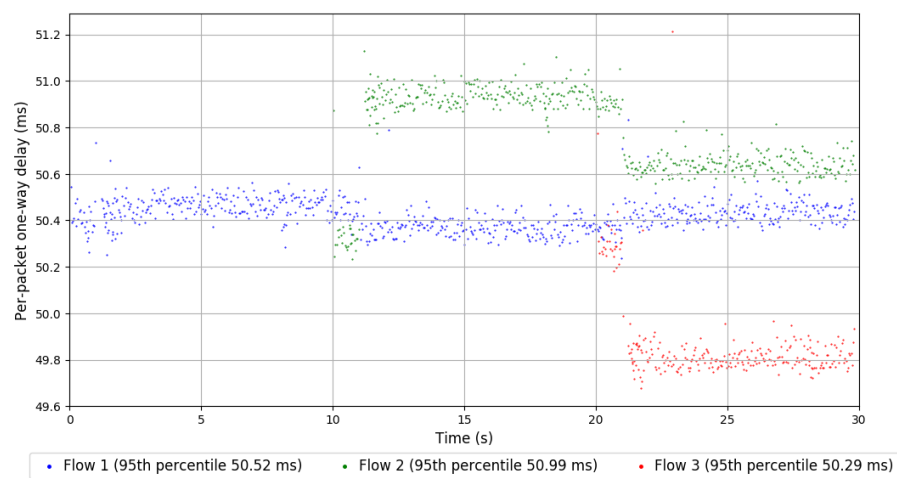
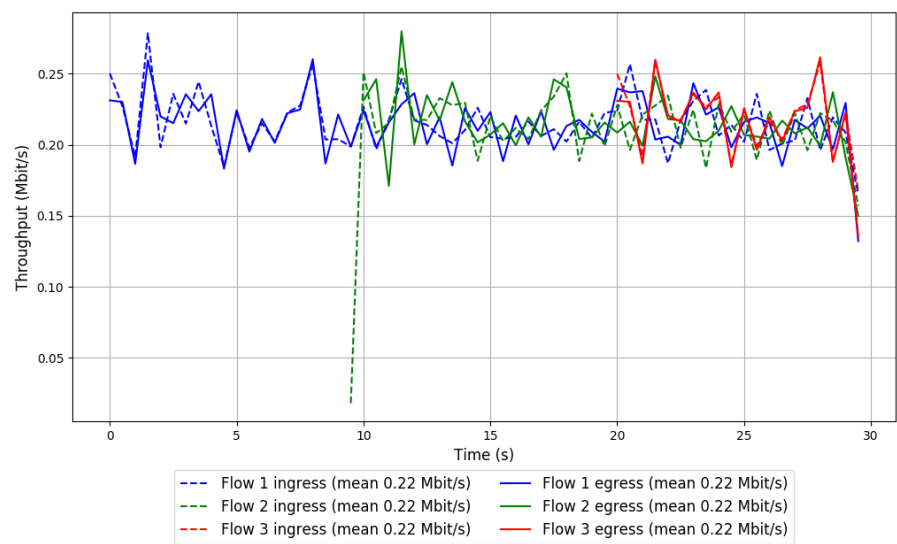
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.289 ms

Loss rate: 1.11%

Run 6: Report of SCRaM — Data Link

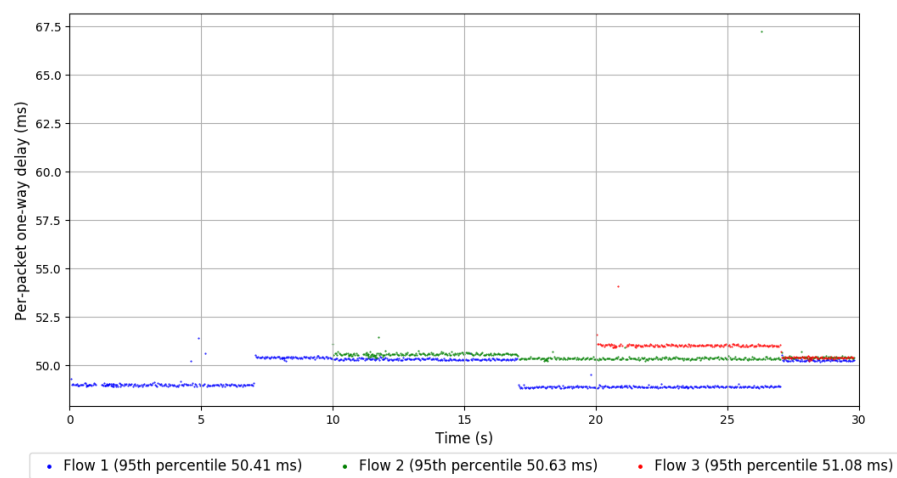
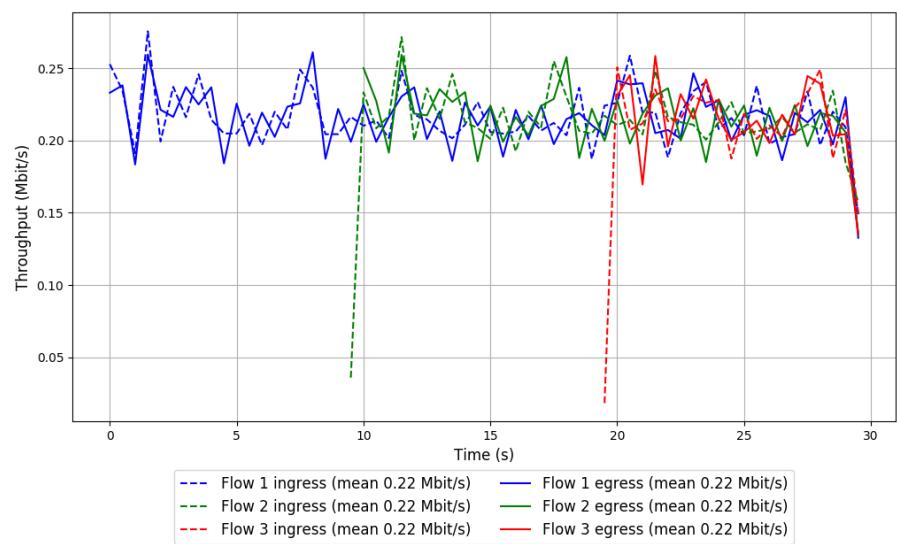


```
Run 7: Statistics of SReAM

Start at: 2017-09-08 05:34:34
End at: 2017-09-08 05:35:04

# Below is generated by plot.py at 2017-09-08 10:00:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 51.032 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.408 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.634 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.082 ms
Loss rate: 1.12%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-09-08 05:46:51

End at: 2017-09-08 05:47:21

Below is generated by plot.py at 2017-09-08 10:00:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.904 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.614 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.42%

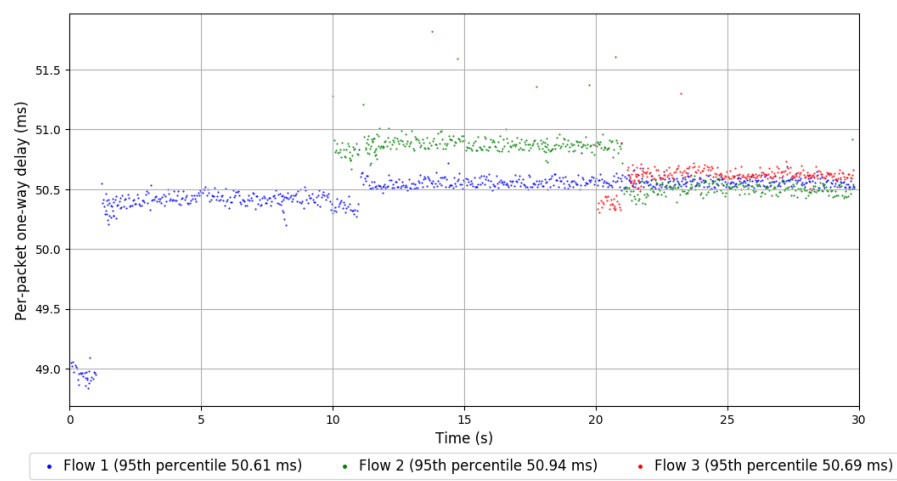
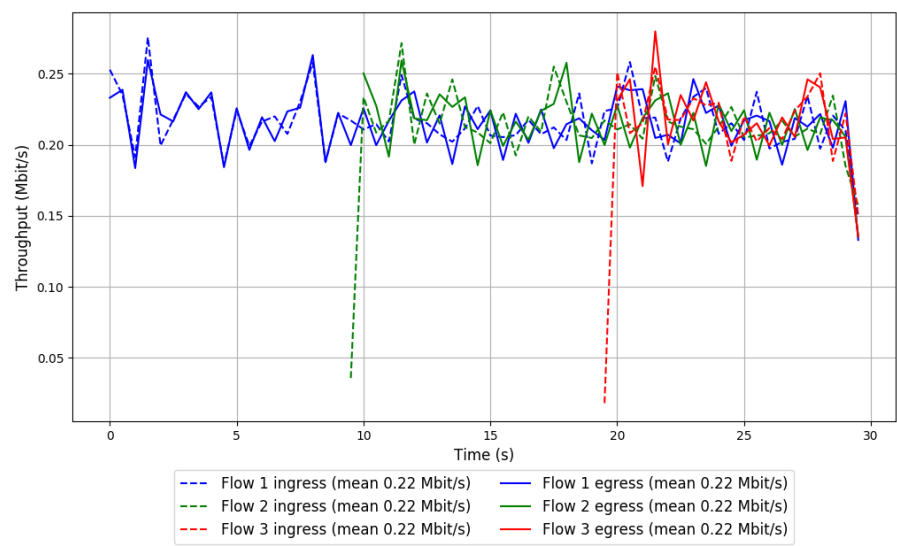
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.691 ms

Loss rate: 1.11%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-09-08 05:59:00

End at: 2017-09-08 05:59:30

Below is generated by plot.py at 2017-09-08 10:00:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.713 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.250 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.751 ms

Loss rate: 0.42%

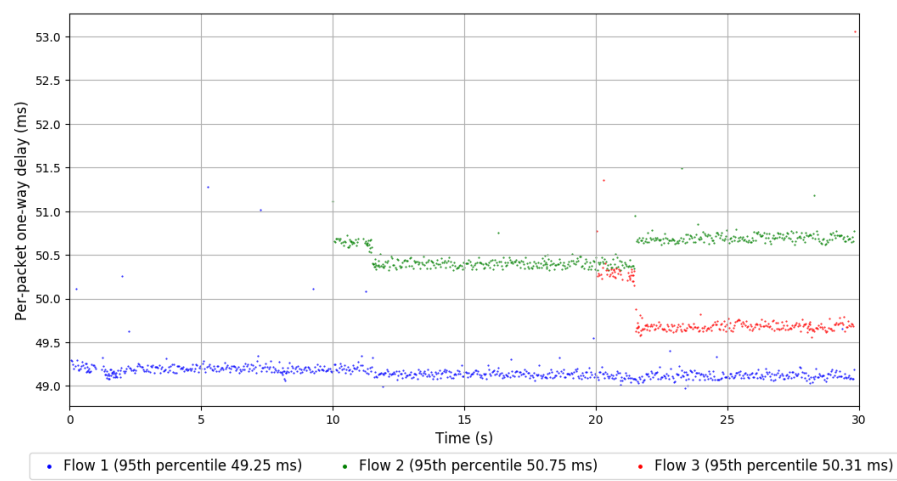
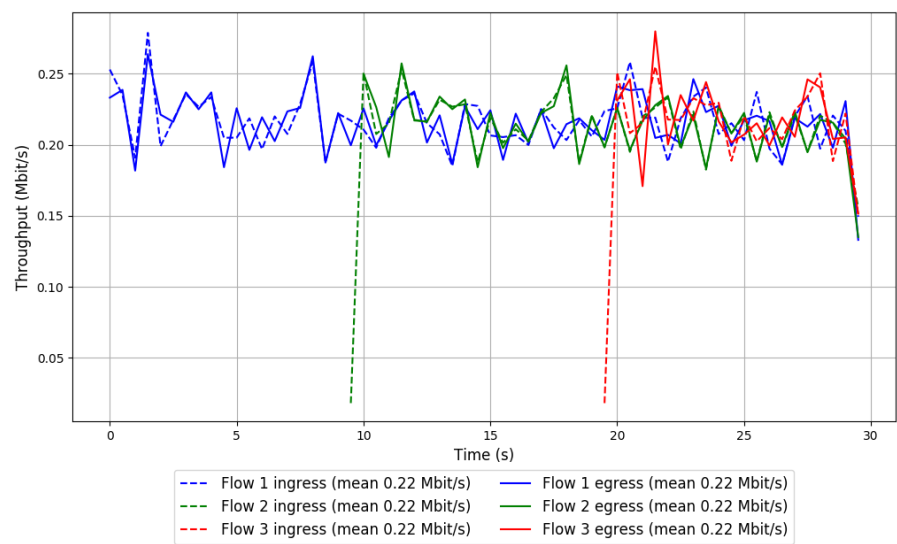
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.315 ms

Loss rate: 0.74%

Run 9: Report of SReAM — Data Link

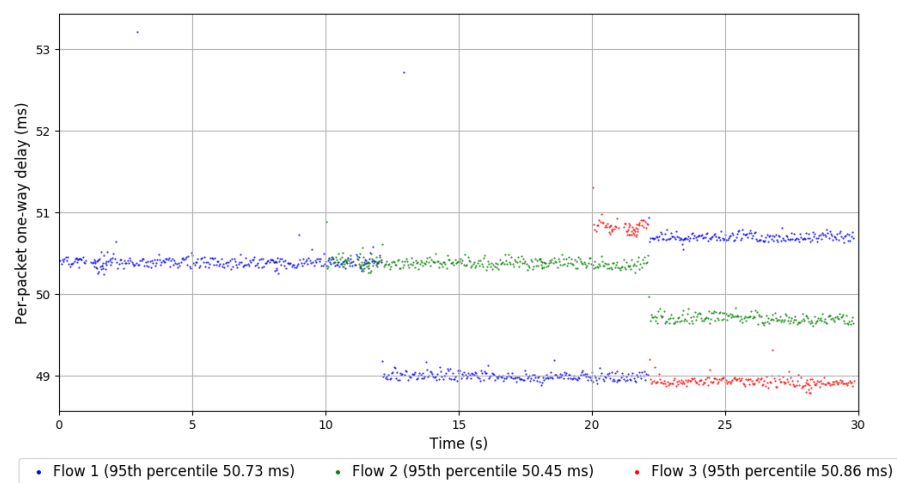
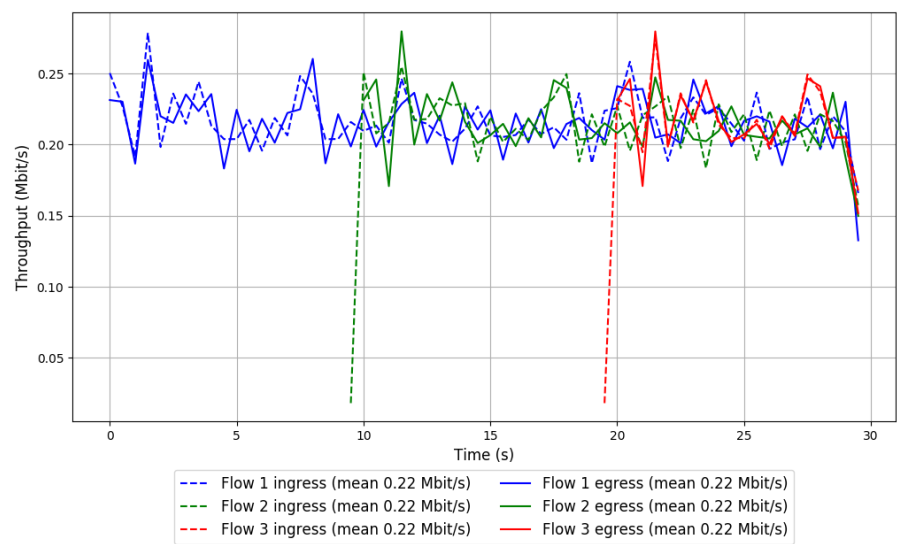


```
Run 10: Statistics of SReAM

Start at: 2017-09-08 06:11:09
End at: 2017-09-08 06:11:39

# Below is generated by plot.py at 2017-09-08 10:00:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 50.750 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.732 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.450 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.863 ms
Loss rate: 0.74%
```

Run 10: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

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

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

Below is generated by plot.py at 2017-09-08 10:00:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.67 Mbit/s

95th percentile per-packet one-way delay: 51.306 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 51.248 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 51.393 ms

Loss rate: 0.55%

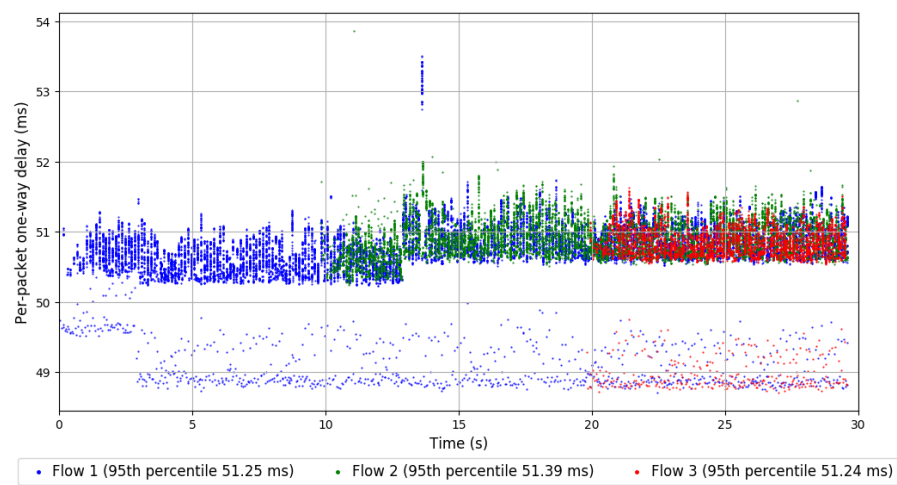
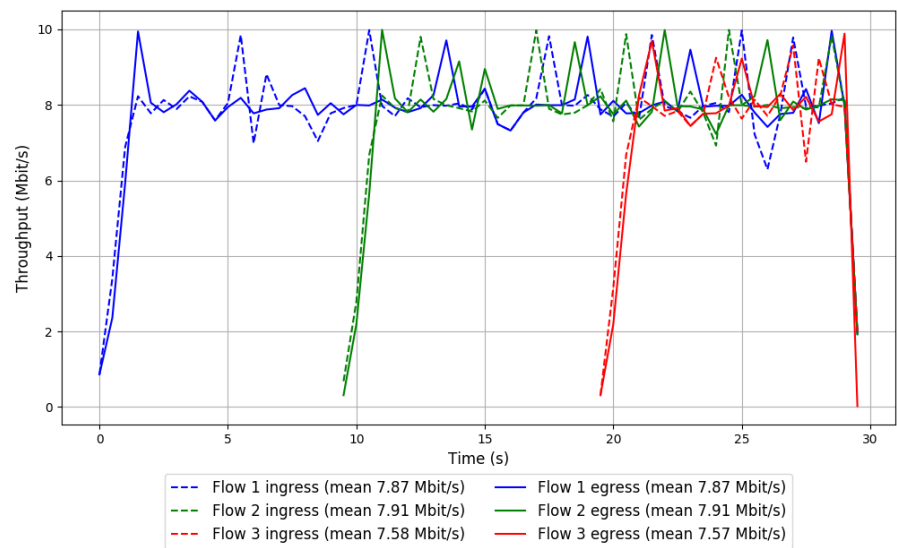
-- Flow 3:

Average throughput: 7.57 Mbit/s

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

Loss rate: 1.32%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-08 04:26:41

End at: 2017-09-08 04:27:11

Below is generated by plot.py at 2017-09-08 10:00:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.61 Mbit/s

95th percentile per-packet one-way delay: 50.963 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 7.96 Mbit/s

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

Loss rate: 0.52%

-- Flow 2:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 51.009 ms

Loss rate: 0.65%

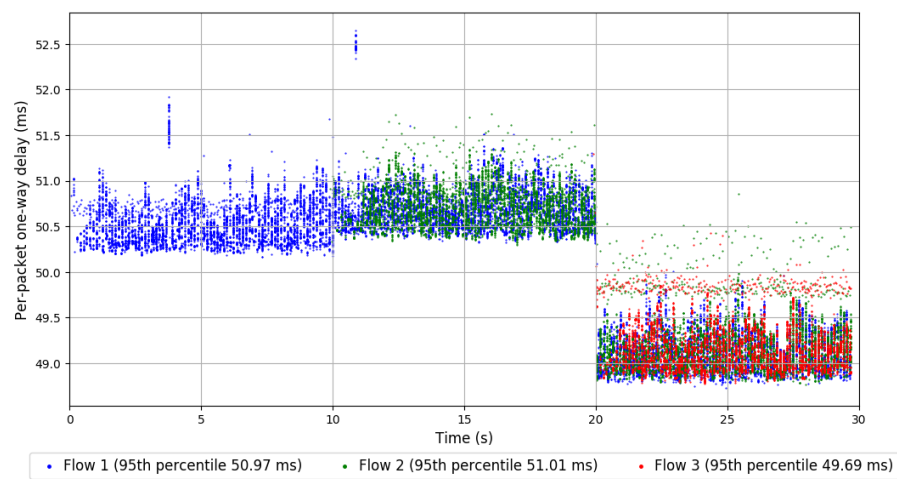
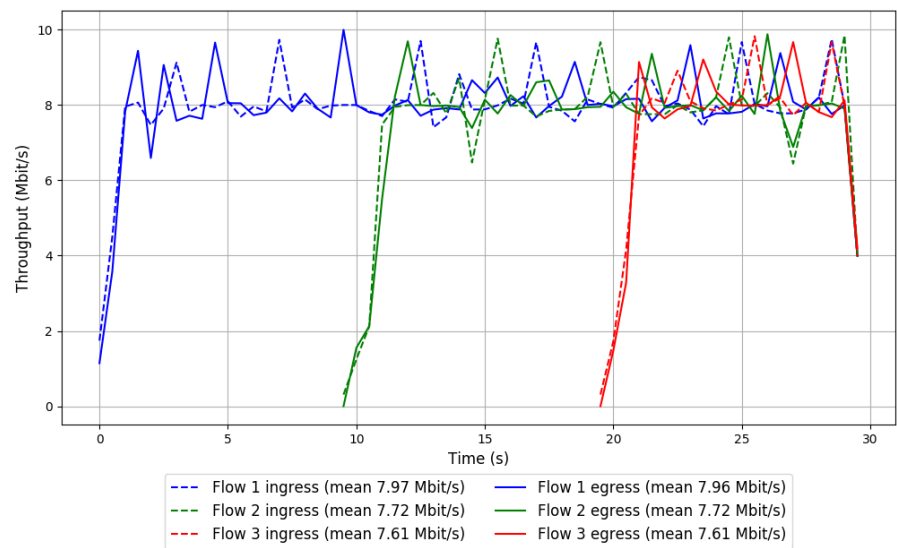
-- Flow 3:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 49.691 ms

Loss rate: 1.09%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-08 04:39:03

End at: 2017-09-08 04:39:33

Below is generated by plot.py at 2017-09-08 10:00:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.68 Mbit/s

95th percentile per-packet one-way delay: 51.245 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 7.98 Mbit/s

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

Loss rate: 0.44%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 51.163 ms

Loss rate: 0.07%

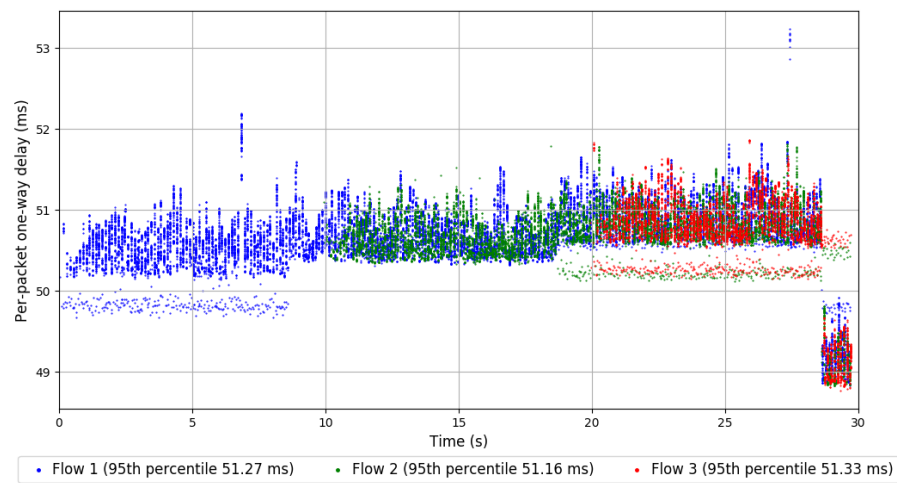
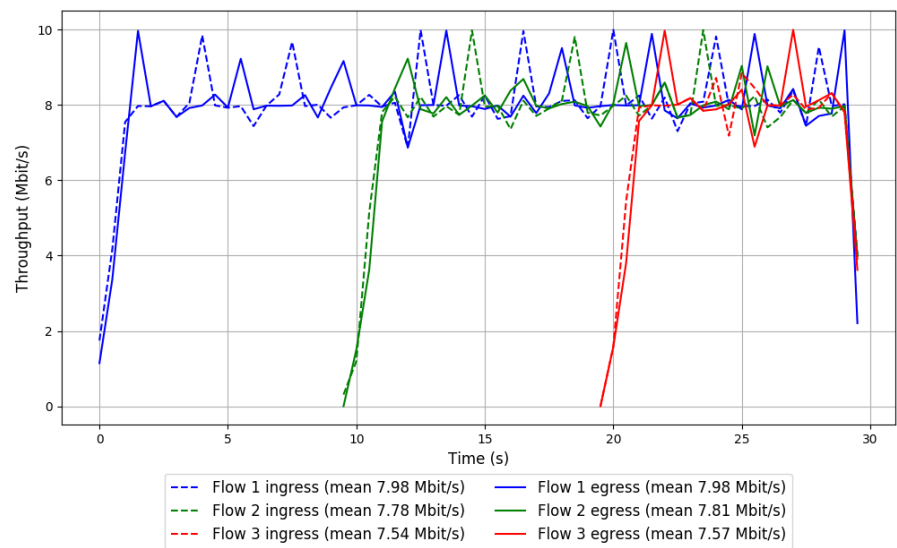
-- Flow 3:

Average throughput: 7.57 Mbit/s

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

Loss rate: 0.18%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

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

End at: 2017-09-08 04:51:38

Below is generated by plot.py at 2017-09-08 10:00:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.66 Mbit/s

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

Loss rate: 0.66%

-- Flow 1:

Average throughput: 7.92 Mbit/s

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

Loss rate: 0.46%

-- Flow 2:

Average throughput: 7.86 Mbit/s

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

Loss rate: 0.64%

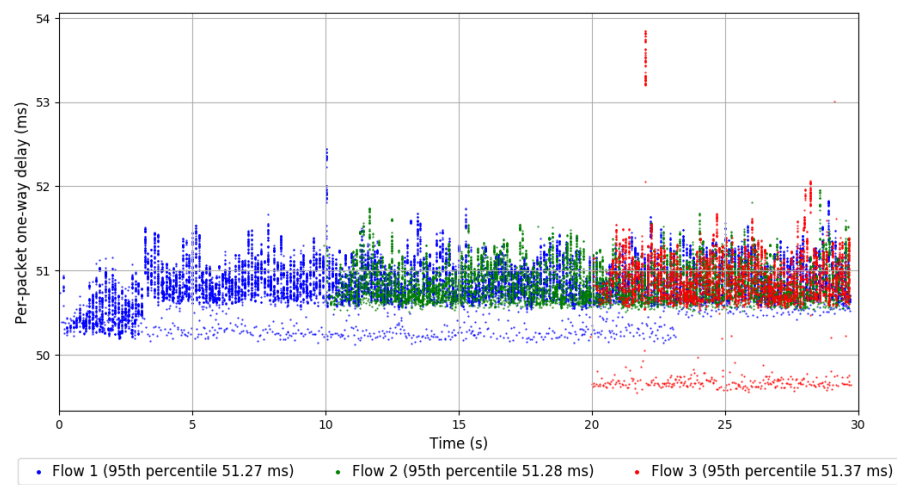
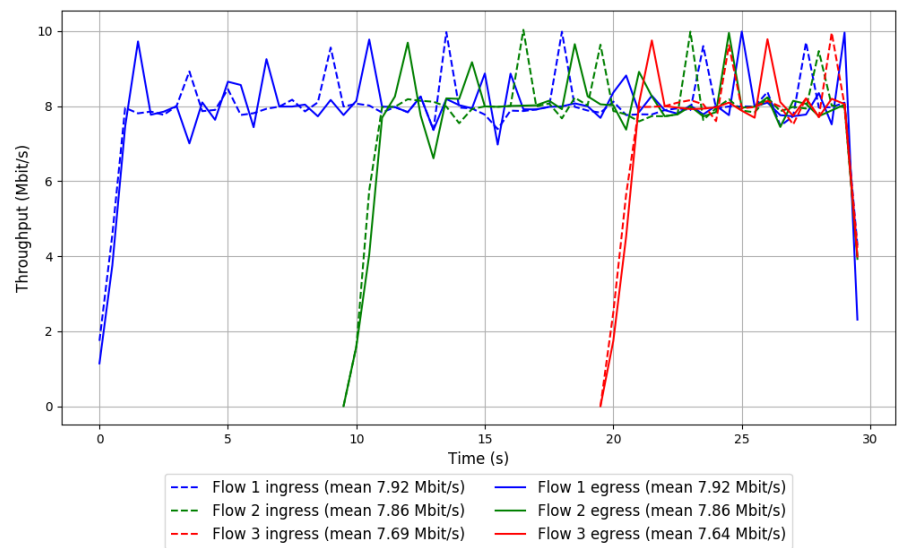
-- Flow 3:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 51.372 ms

Loss rate: 1.30%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-08 05:03:29

End at: 2017-09-08 05:03:59

Below is generated by plot.py at 2017-09-08 10:00:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.43 Mbit/s

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

Loss rate: 0.97%

-- Flow 1:

Average throughput: 7.79 Mbit/s

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

Loss rate: 0.90%

-- Flow 2:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.333 ms

Loss rate: 0.77%

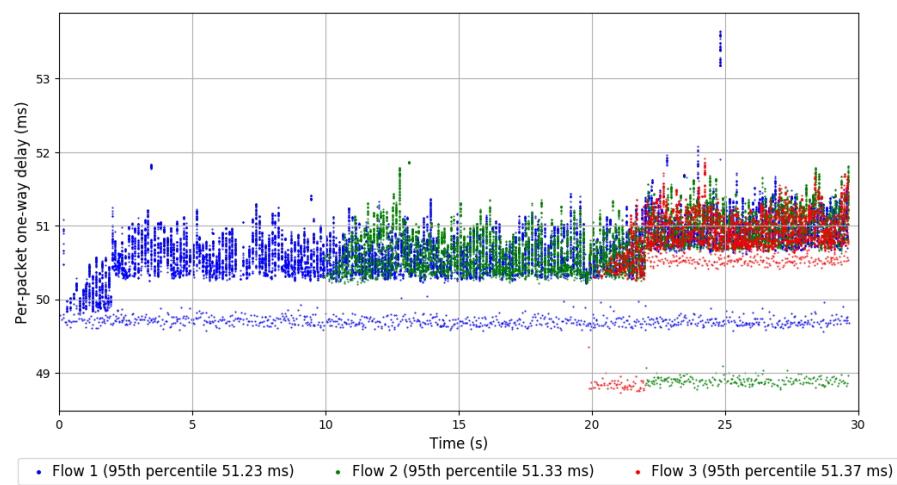
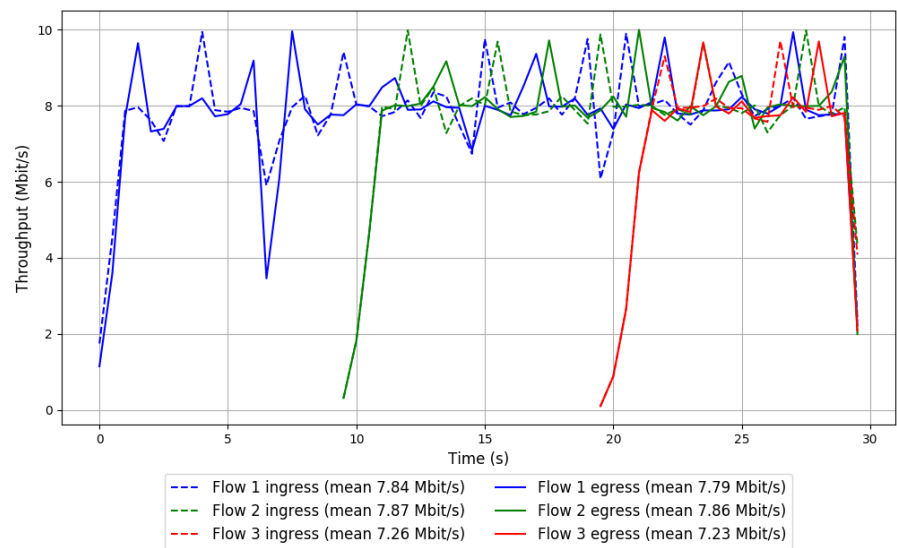
-- Flow 3:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 51.372 ms

Loss rate: 1.64%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-08 05:15:52

End at: 2017-09-08 05:16:22

Below is generated by plot.py at 2017-09-08 10:00:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.73 Mbit/s

95th percentile per-packet one-way delay: 51.309 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.284 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 51.313 ms

Loss rate: 0.65%

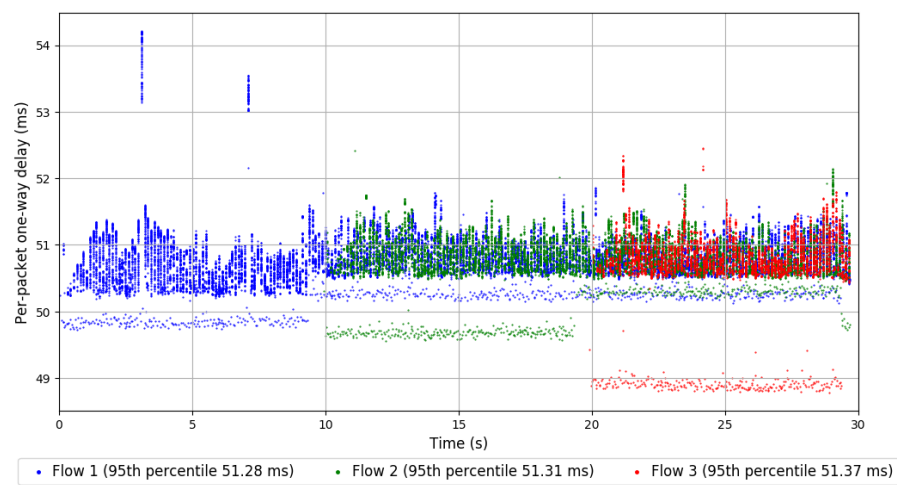
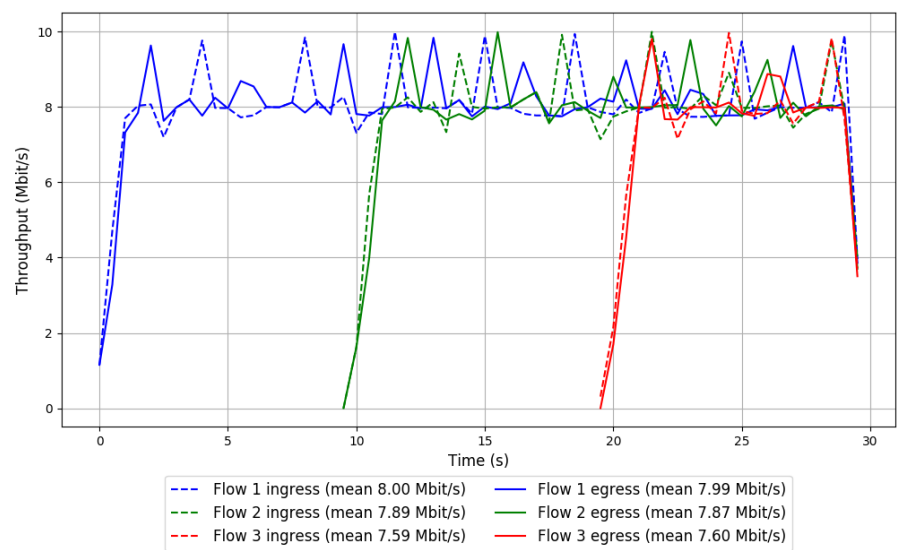
-- Flow 3:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 51.366 ms

Loss rate: 1.27%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-08 05:28:01

End at: 2017-09-08 05:28:31

Below is generated by plot.py at 2017-09-08 10:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.64 Mbit/s

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

Loss rate: 0.58%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 51.499 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 7.89 Mbit/s

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

Loss rate: 0.61%

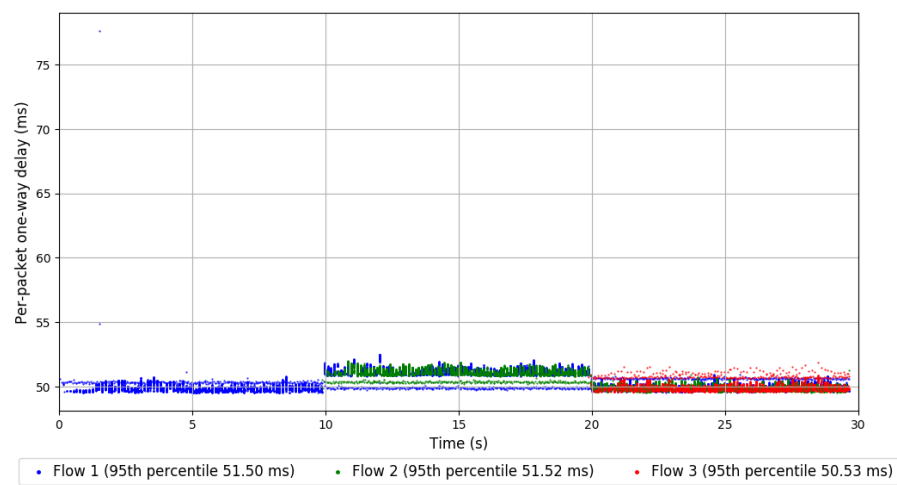
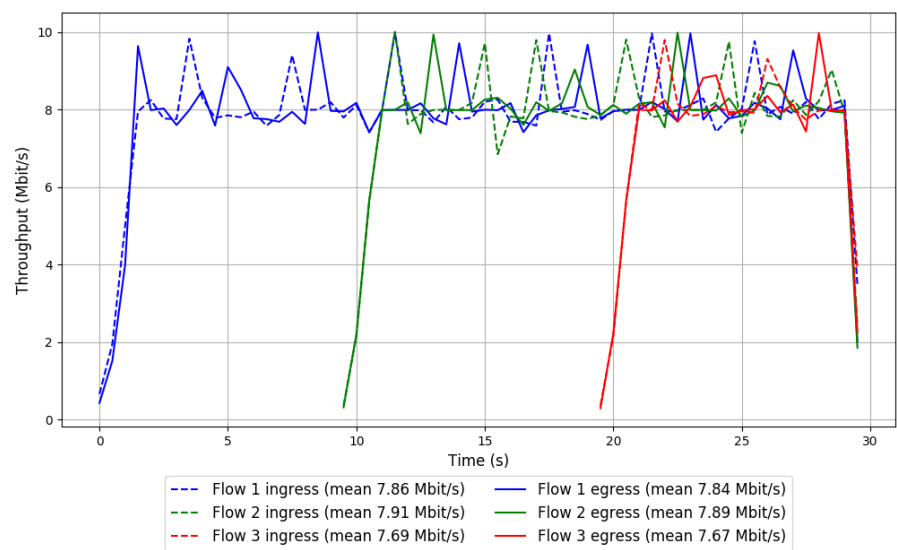
-- Flow 3:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 50.535 ms

Loss rate: 1.09%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

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

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

Below is generated by plot.py at 2017-09-08 10:00:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.71 Mbit/s

95th percentile per-packet one-way delay: 51.260 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.263 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 7.84 Mbit/s

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

Loss rate: 0.61%

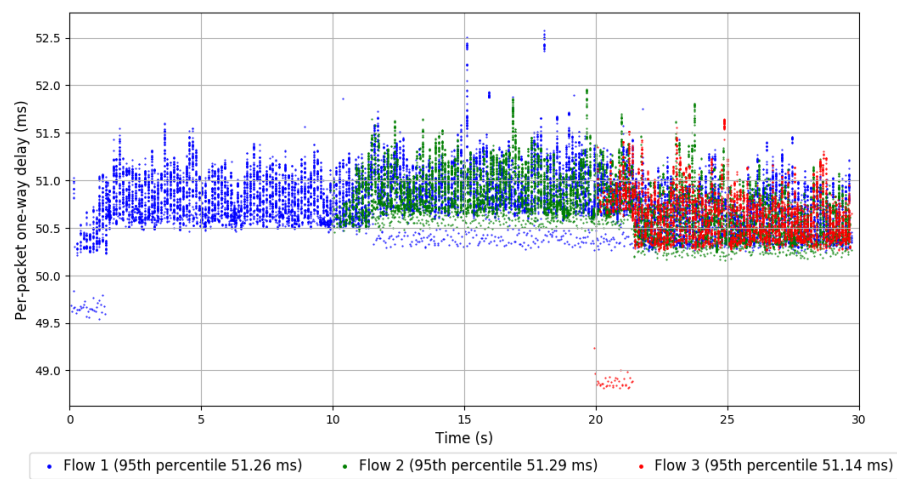
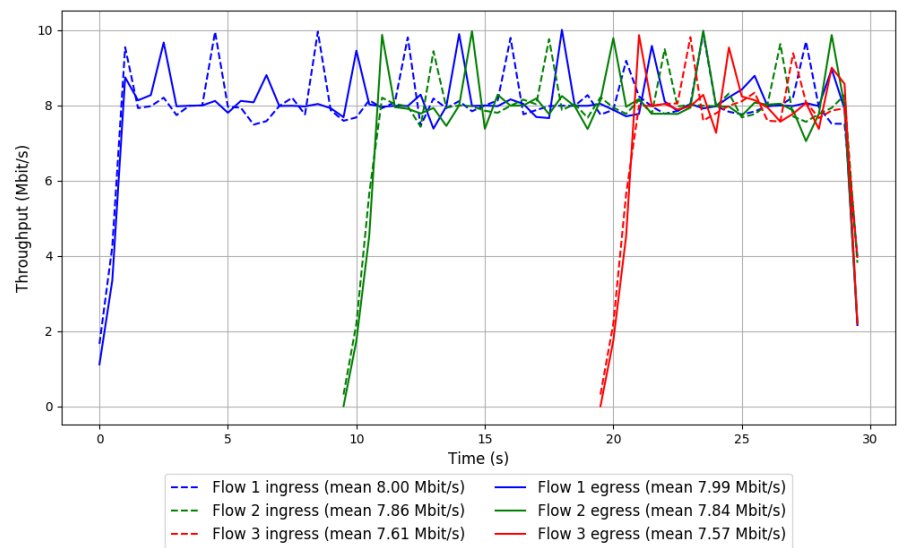
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 51.144 ms

Loss rate: 1.25%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-08 05:52:26

End at: 2017-09-08 05:52:56

Below is generated by plot.py at 2017-09-08 10:00:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.60 Mbit/s

95th percentile per-packet one-way delay: 51.556 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 51.564 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 51.605 ms

Loss rate: 0.65%

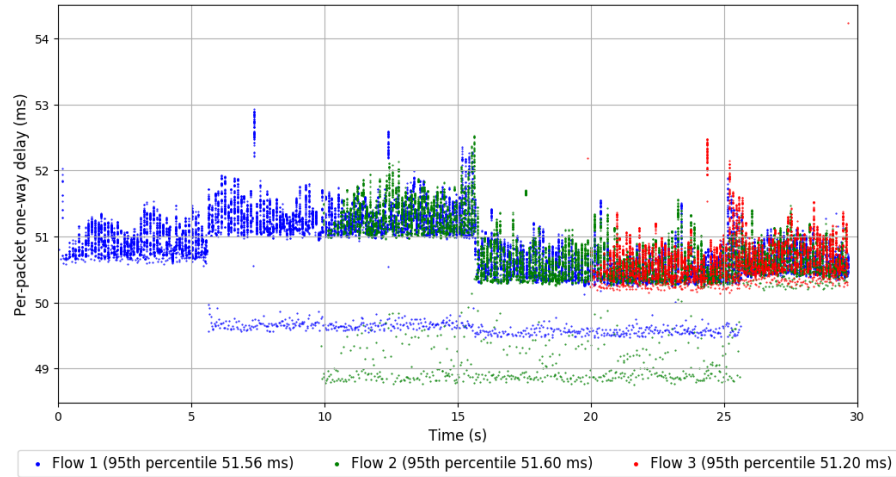
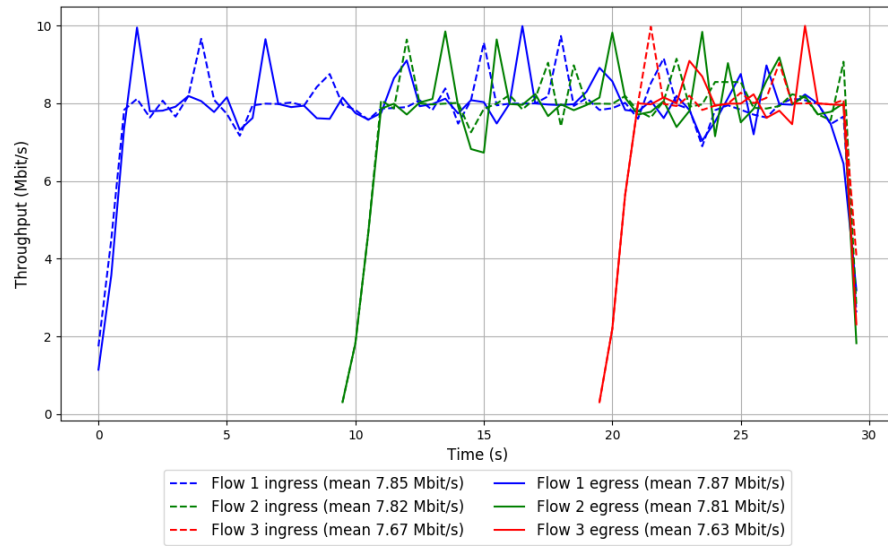
-- Flow 3:

Average throughput: 7.63 Mbit/s

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

Loss rate: 1.47%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-08 06:04:33

End at: 2017-09-08 06:05:03

Below is generated by plot.py at 2017-09-08 10:00:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.76 Mbit/s

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

Loss rate: 0.24%

-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 51.086 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 50.993 ms

Loss rate: 0.09%

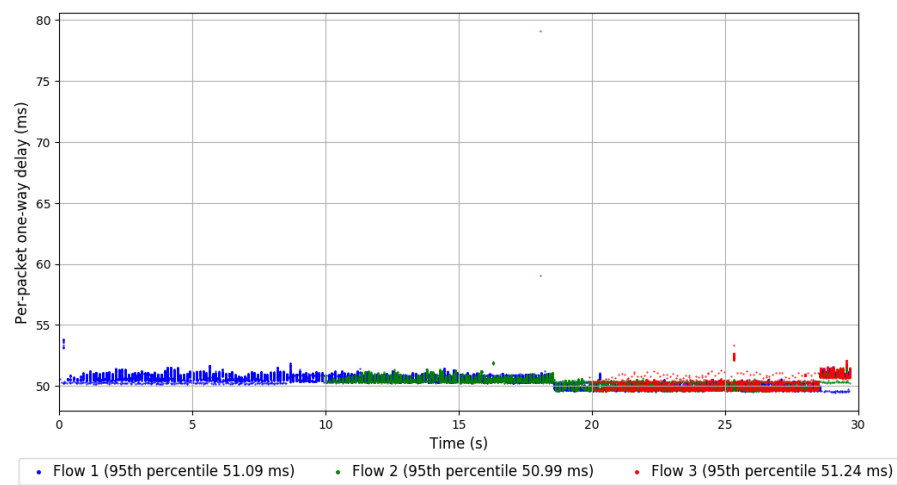
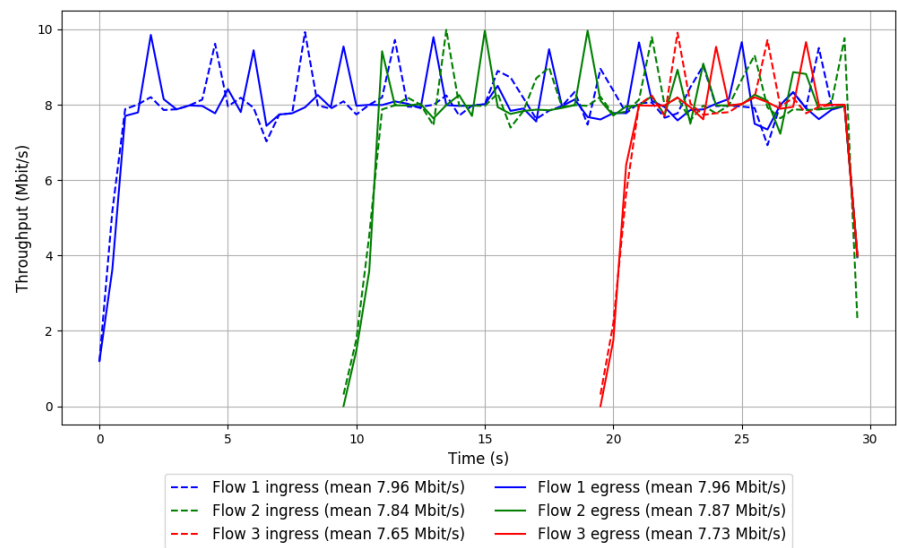
-- Flow 3:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 51.240 ms

Loss rate: 0.01%

Run 10: Report of Sprout — Data Link

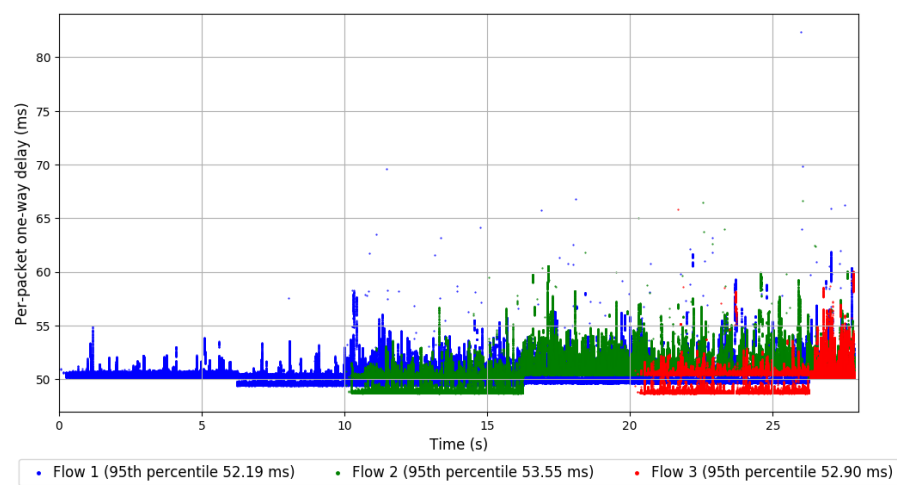
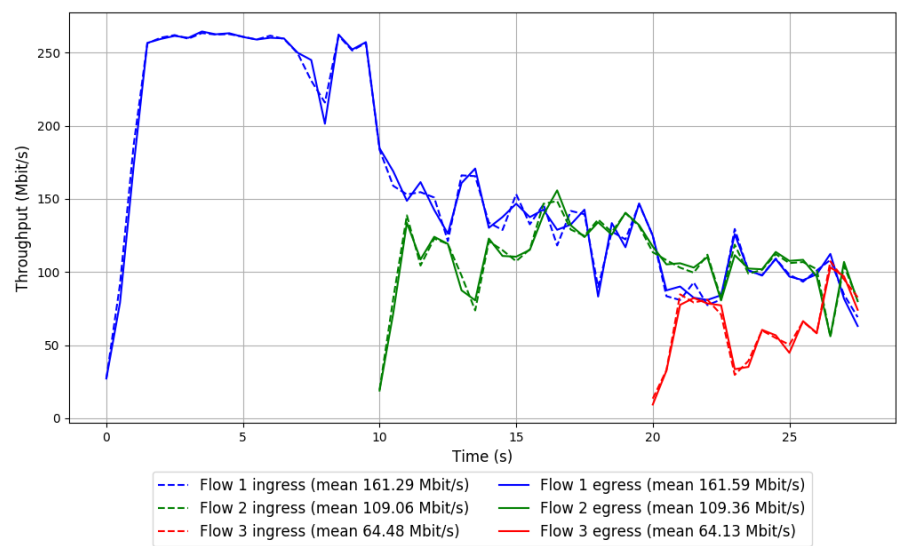


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-08 04:16:03
End at: 2017-09-08 04:16:33

# Below is generated by plot.py at 2017-09-08 10:02:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.36 Mbit/s
95th percentile per-packet one-way delay: 52.753 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 161.59 Mbit/s
95th percentile per-packet one-way delay: 52.194 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 109.36 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.27%
-- Flow 3:
Average throughput: 64.13 Mbit/s
95th percentile per-packet one-way delay: 52.897 ms
Loss rate: 1.81%
```

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

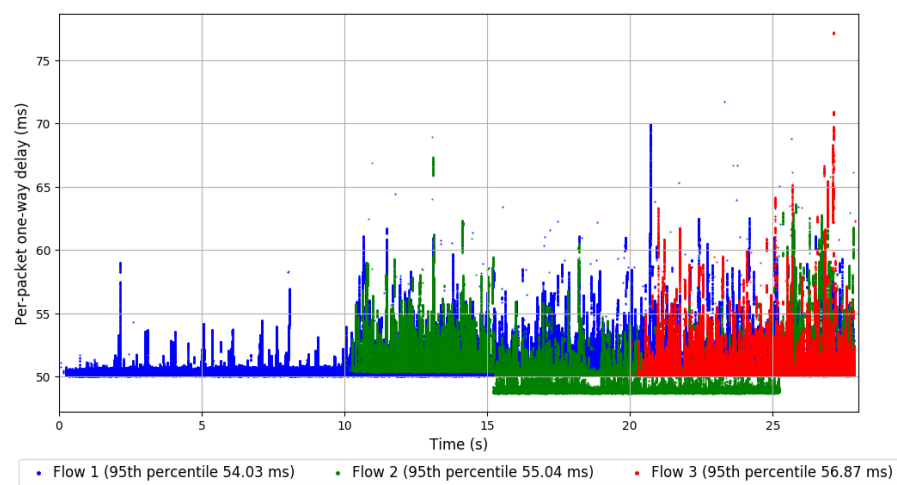
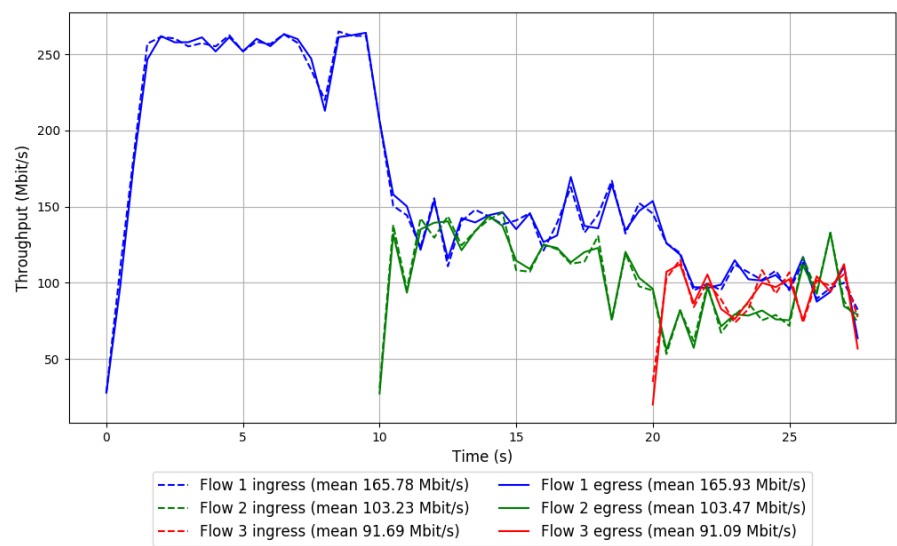


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-08 04:28:14
End at: 2017-09-08 04:28:44

# Below is generated by plot.py at 2017-09-08 10:02:16
# Datalink statistics
-- Total of 3 flows:
Average throughput: 257.64 Mbit/s
95th percentile per-packet one-way delay: 54.547 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 165.93 Mbit/s
95th percentile per-packet one-way delay: 54.029 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 103.47 Mbit/s
95th percentile per-packet one-way delay: 55.040 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 91.09 Mbit/s
95th percentile per-packet one-way delay: 56.873 ms
Loss rate: 1.87%
```

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

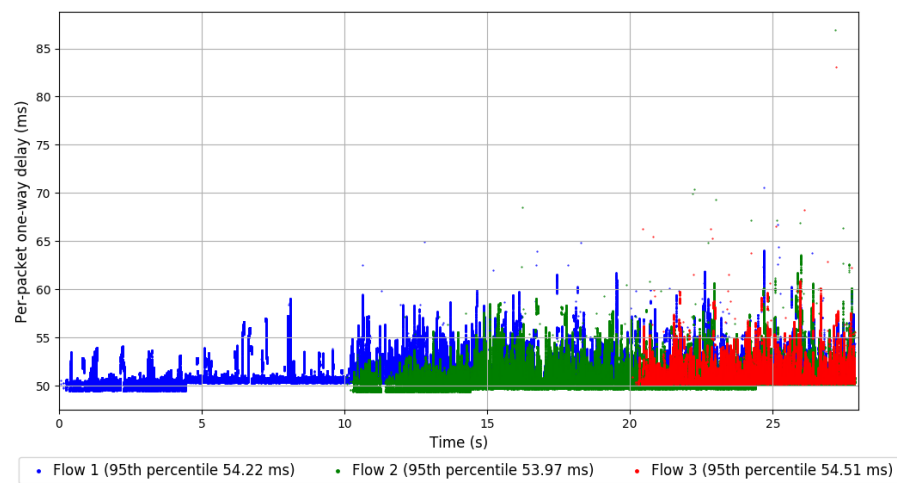
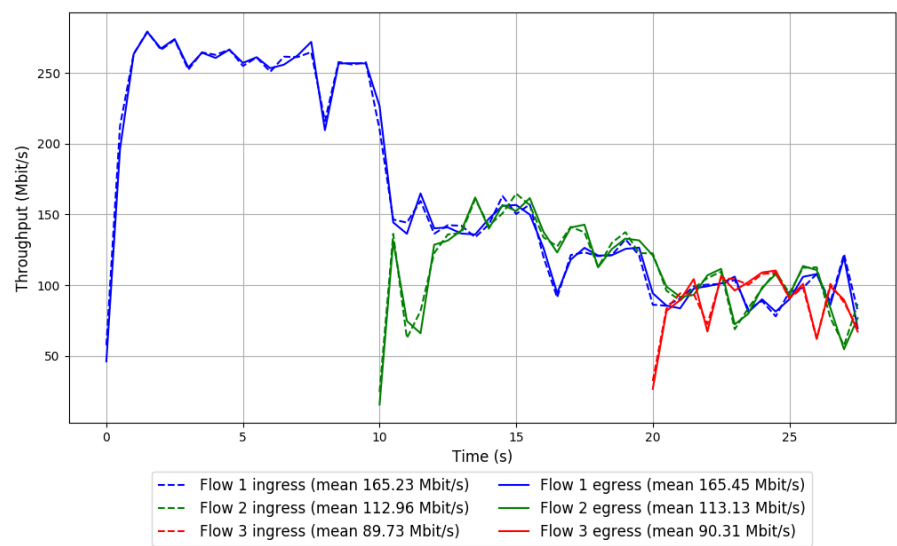


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-09-08 04:40:35
End at: 2017-09-08 04:41:05

# Below is generated by plot.py at 2017-09-08 10:03:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 262.95 Mbit/s
95th percentile per-packet one-way delay: 54.176 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 165.45 Mbit/s
95th percentile per-packet one-way delay: 54.220 ms
Loss rate: 0.24%
-- Flow 2:
Average throughput: 113.13 Mbit/s
95th percentile per-packet one-way delay: 53.967 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 90.31 Mbit/s
95th percentile per-packet one-way delay: 54.509 ms
Loss rate: 0.63%
```


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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-08 04:52:43

End at: 2017-09-08 04:53:13

Below is generated by plot.py at 2017-09-08 10:03:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 253.53 Mbit/s

95th percentile per-packet one-way delay: 54.204 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 158.39 Mbit/s

95th percentile per-packet one-way delay: 52.800 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 107.97 Mbit/s

95th percentile per-packet one-way delay: 56.545 ms

Loss rate: 0.08%

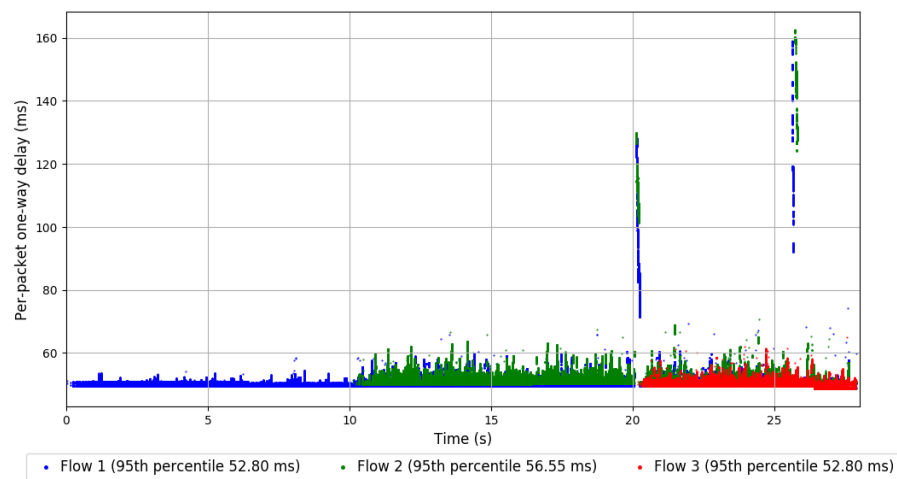
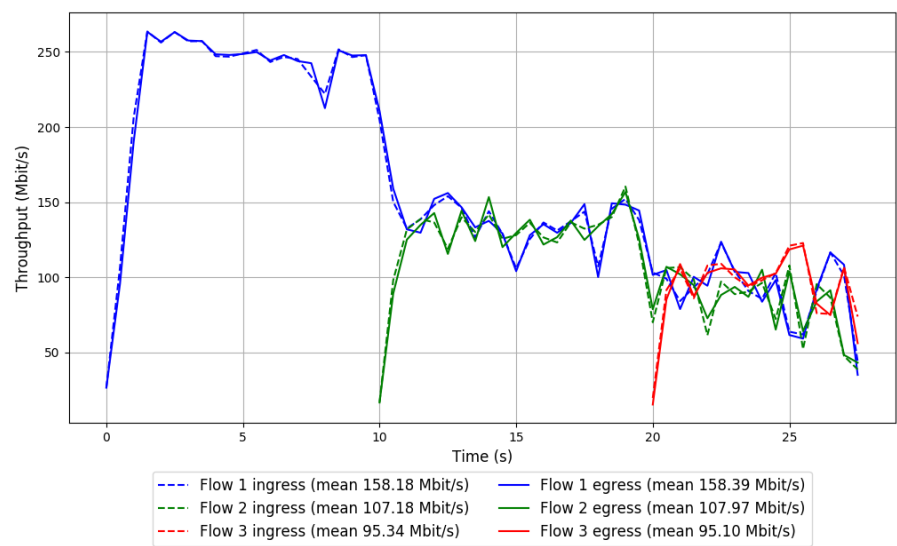
-- Flow 3:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 52.801 ms

Loss rate: 1.60%

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

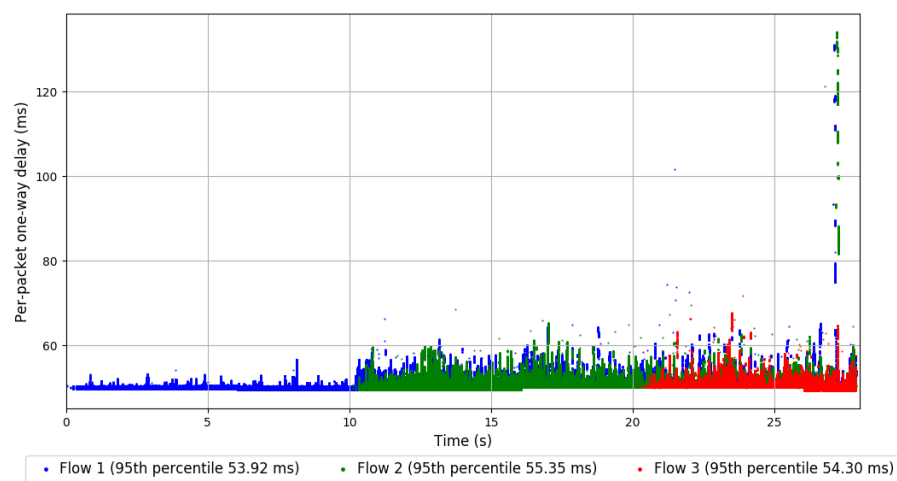
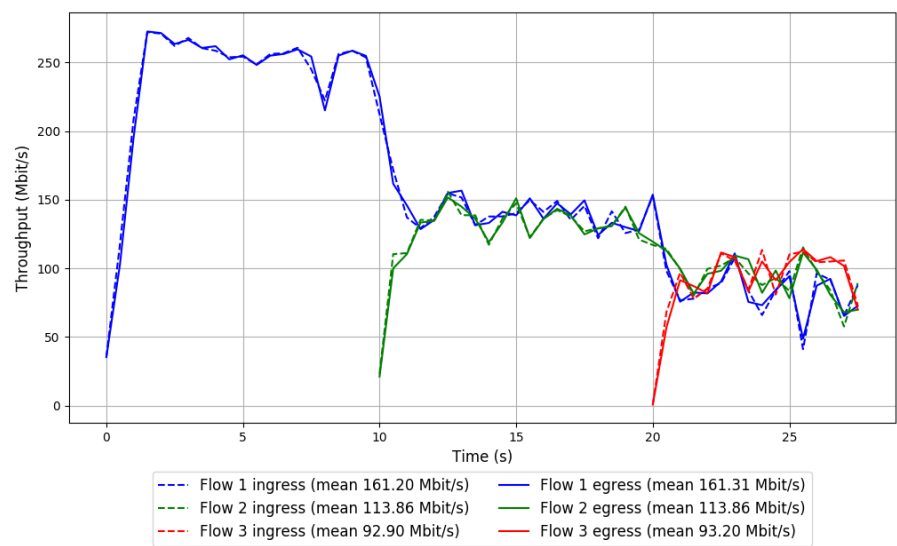


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-08 05:05:03
End at: 2017-09-08 05:05:33

# Below is generated by plot.py at 2017-09-08 10:04:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 259.46 Mbit/s
95th percentile per-packet one-way delay: 54.445 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 161.31 Mbit/s
95th percentile per-packet one-way delay: 53.924 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 113.86 Mbit/s
95th percentile per-packet one-way delay: 55.352 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 93.20 Mbit/s
95th percentile per-packet one-way delay: 54.303 ms
Loss rate: 0.93%
```

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



Run 6: Statistics of TaoVA-100x

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

End at: 2017-09-08 05:17:57

Below is generated by plot.py at 2017-09-08 10:05:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 244.93 Mbit/s

95th percentile per-packet one-way delay: 53.616 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 156.31 Mbit/s

95th percentile per-packet one-way delay: 53.429 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 105.05 Mbit/s

95th percentile per-packet one-way delay: 54.203 ms

Loss rate: 0.08%

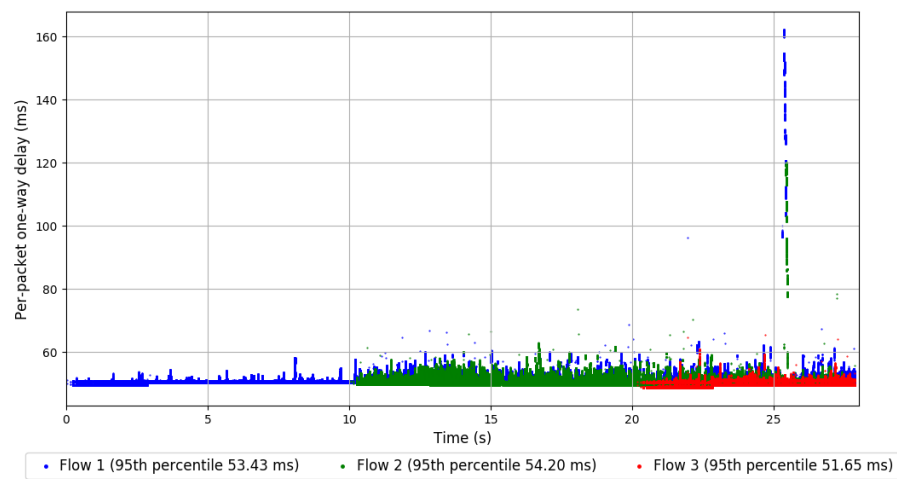
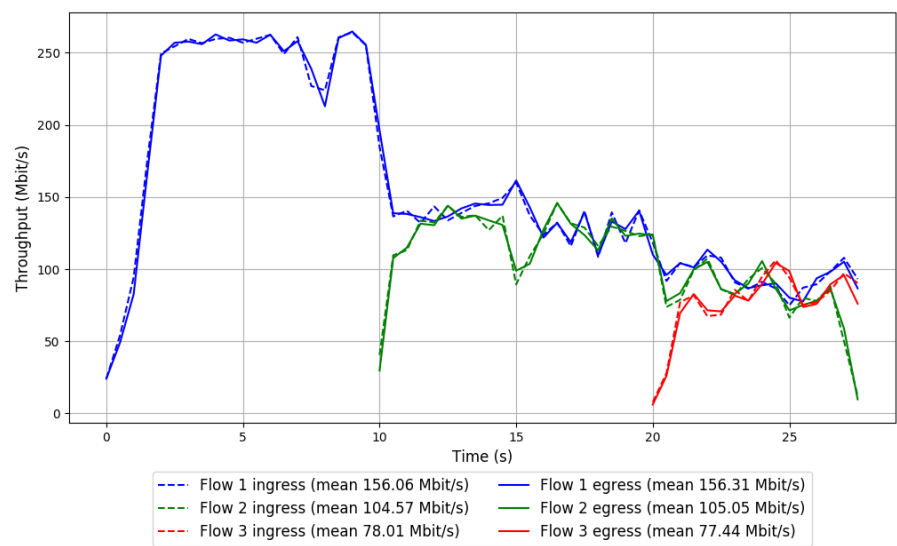
-- Flow 3:

Average throughput: 77.44 Mbit/s

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

Loss rate: 2.02%

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

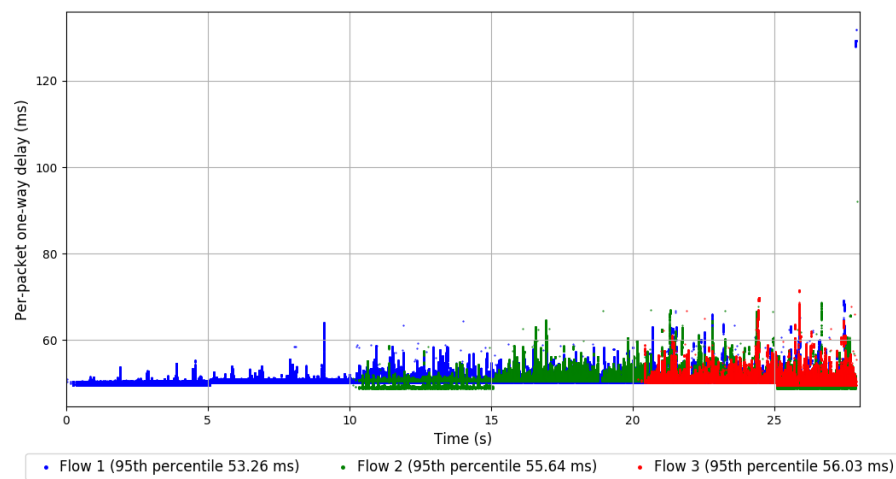
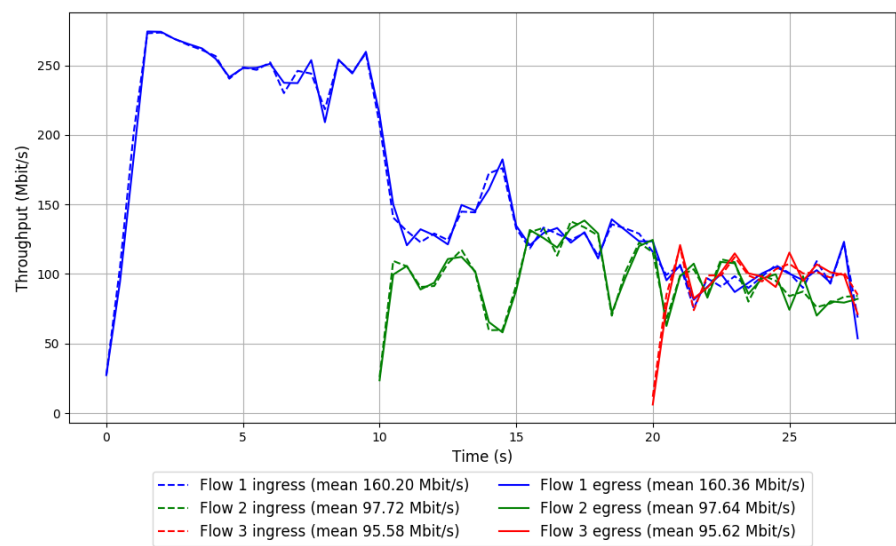


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-09-08 05:29:34
End at: 2017-09-08 05:30:04

# Below is generated by plot.py at 2017-09-08 10:06:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 248.85 Mbit/s
95th percentile per-packet one-way delay: 54.212 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 160.36 Mbit/s
95th percentile per-packet one-way delay: 53.257 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 97.64 Mbit/s
95th percentile per-packet one-way delay: 55.640 ms
Loss rate: 0.41%
-- Flow 3:
Average throughput: 95.62 Mbit/s
95th percentile per-packet one-way delay: 56.032 ms
Loss rate: 1.31%
```


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

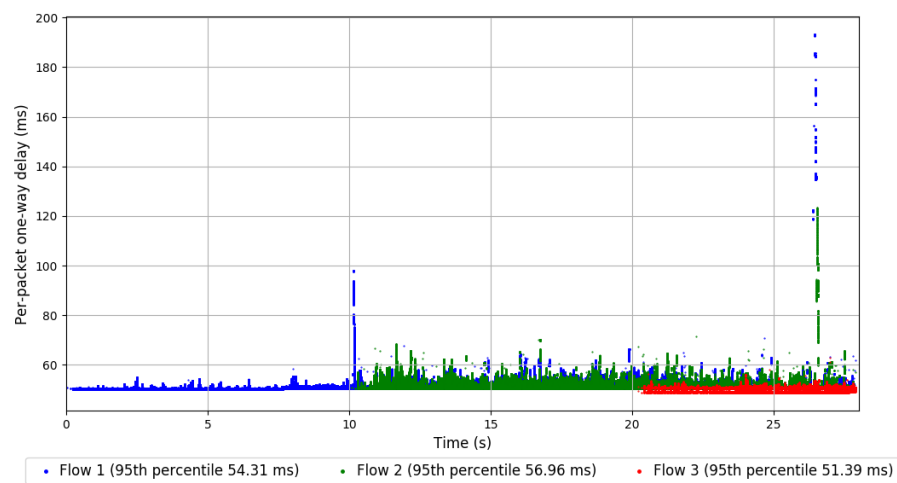
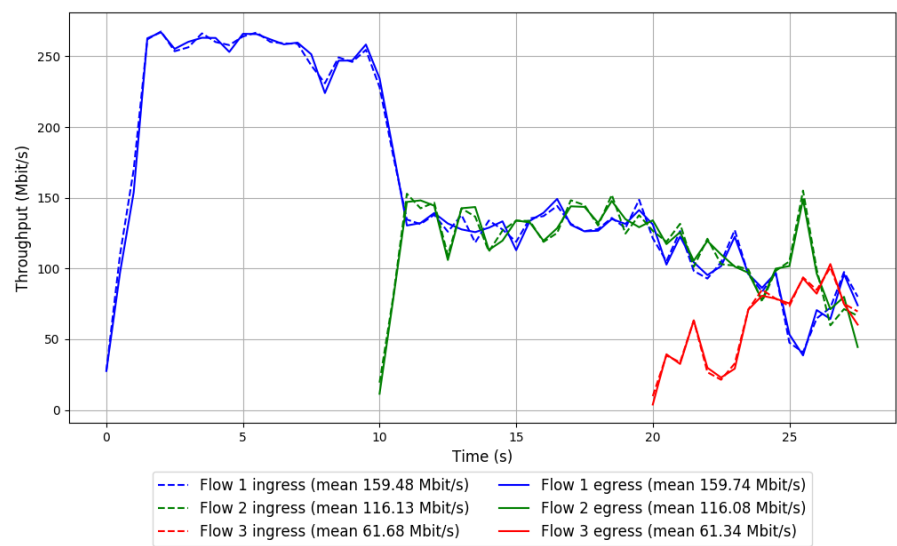


```
Run 8: Statistics of TaoVA-100x

Start at: 2017-09-08 05:41:42
End at: 2017-09-08 05:42:12

# Below is generated by plot.py at 2017-09-08 10:06:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 250.84 Mbit/s
95th percentile per-packet one-way delay: 55.150 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 159.74 Mbit/s
95th percentile per-packet one-way delay: 54.312 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 116.08 Mbit/s
95th percentile per-packet one-way delay: 56.956 ms
Loss rate: 0.55%
-- Flow 3:
Average throughput: 61.34 Mbit/s
95th percentile per-packet one-way delay: 51.394 ms
Loss rate: 1.90%
```

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

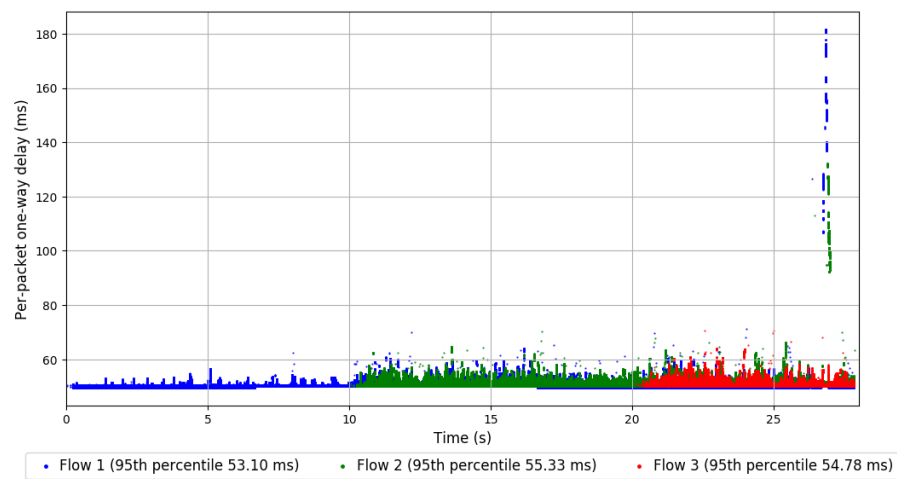
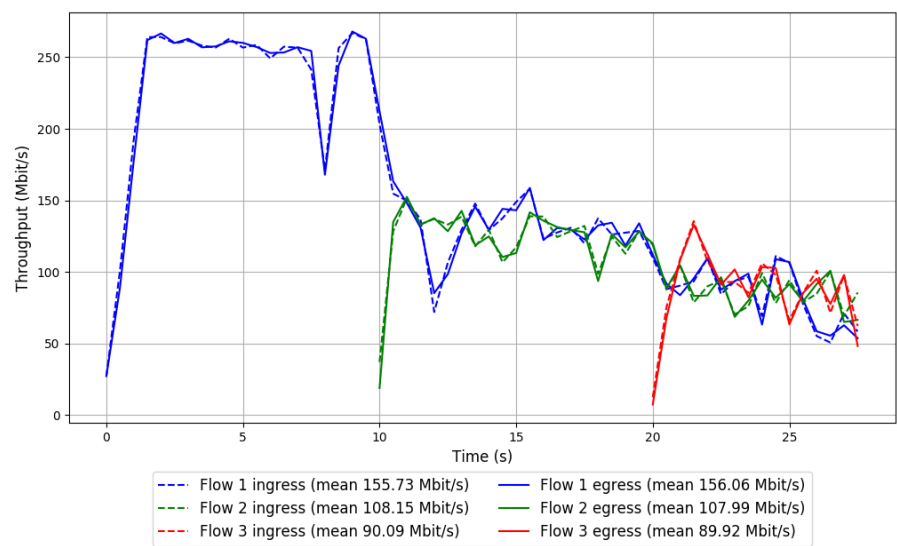


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-09-08 05:53:53
End at: 2017-09-08 05:54:23

# Below is generated by plot.py at 2017-09-08 10:07:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.89 Mbit/s
95th percentile per-packet one-way delay: 54.066 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 156.06 Mbit/s
95th percentile per-packet one-way delay: 53.102 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 107.99 Mbit/s
95th percentile per-packet one-way delay: 55.327 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 89.92 Mbit/s
95th percentile per-packet one-way delay: 54.780 ms
Loss rate: 1.50%
```

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

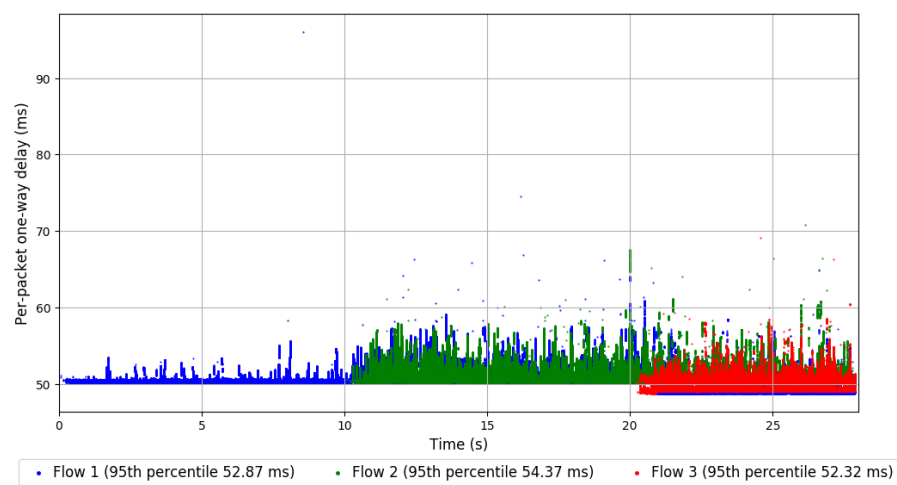
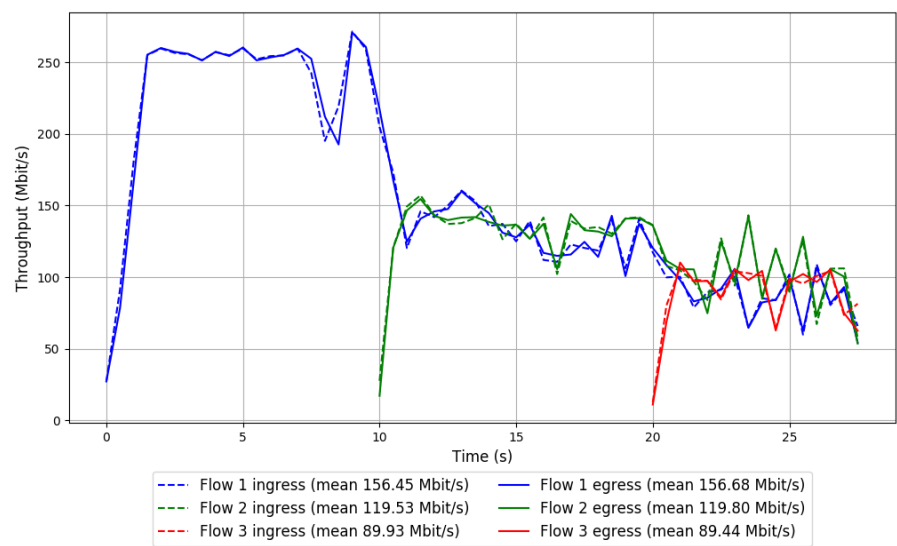


```
Run 10: Statistics of TaoVA-100x

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

# Below is generated by plot.py at 2017-09-08 10:08:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 258.02 Mbit/s
95th percentile per-packet one-way delay: 53.423 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 156.68 Mbit/s
95th percentile per-packet one-way delay: 52.865 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 119.80 Mbit/s
95th percentile per-packet one-way delay: 54.374 ms
Loss rate: 0.39%
-- Flow 3:
Average throughput: 89.44 Mbit/s
95th percentile per-packet one-way delay: 52.318 ms
Loss rate: 1.90%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-08 04:22:44

End at: 2017-09-08 04:23:14

Below is generated by plot.py at 2017-09-08 10:08:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 167.29 Mbit/s

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

Loss rate: 0.48%

-- Flow 1:

Average throughput: 138.42 Mbit/s

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

Loss rate: 0.37%

-- Flow 2:

Average throughput: 12.17 Mbit/s

95th percentile per-packet one-way delay: 51.056 ms

Loss rate: 0.99%

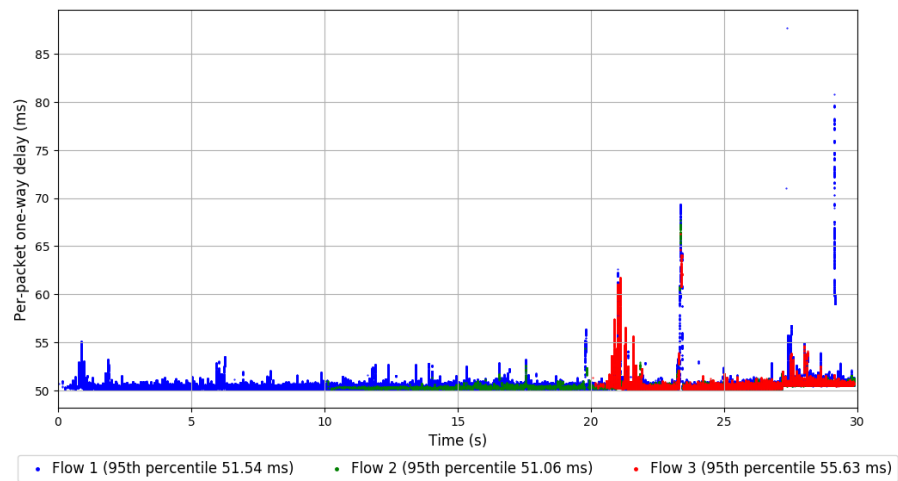
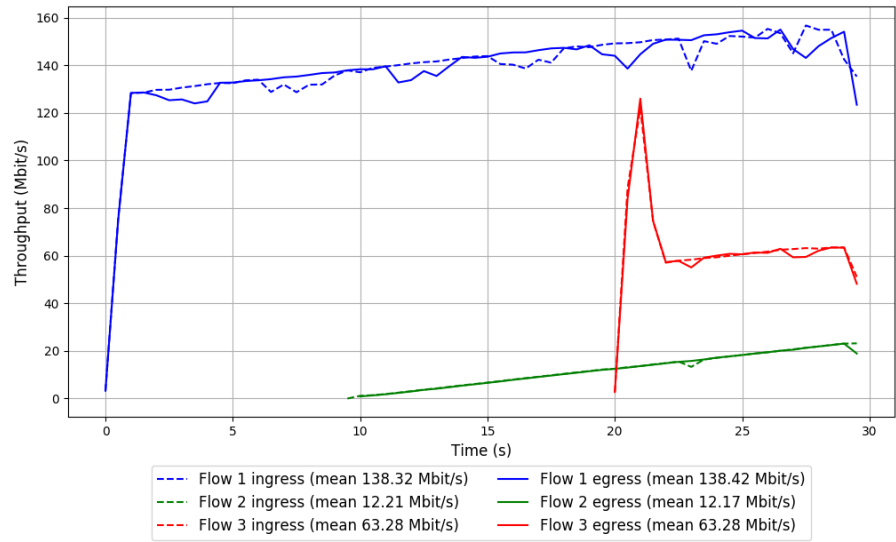
-- Flow 3:

Average throughput: 63.28 Mbit/s

95th percentile per-packet one-way delay: 55.632 ms

Loss rate: 1.02%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-08 04:35:06

End at: 2017-09-08 04:35:36

Below is generated by plot.py at 2017-09-08 10:08:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.57 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 70.07 Mbit/s

95th percentile per-packet one-way delay: 51.262 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 153.83 Mbit/s

95th percentile per-packet one-way delay: 51.491 ms

Loss rate: 0.56%

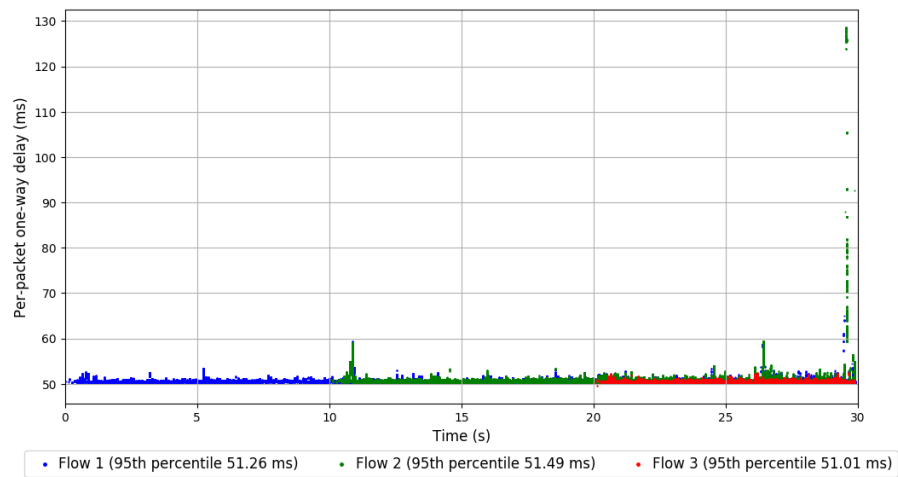
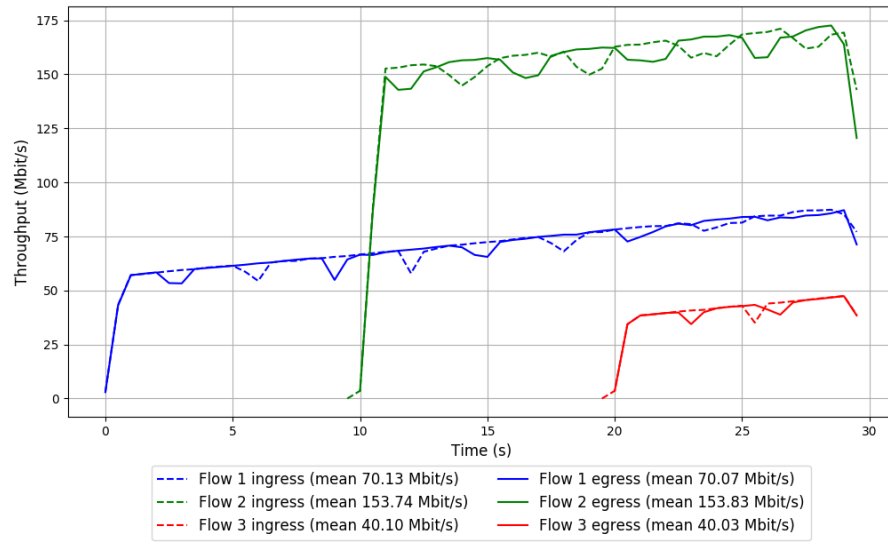
-- Flow 3:

Average throughput: 40.03 Mbit/s

95th percentile per-packet one-way delay: 51.006 ms

Loss rate: 1.20%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-08 04:47:17

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

Below is generated by plot.py at 2017-09-08 10:08:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.35 Mbit/s

95th percentile per-packet one-way delay: 51.246 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 76.96 Mbit/s

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

Loss rate: 0.39%

-- Flow 2:

Average throughput: 72.97 Mbit/s

95th percentile per-packet one-way delay: 51.534 ms

Loss rate: 0.55%

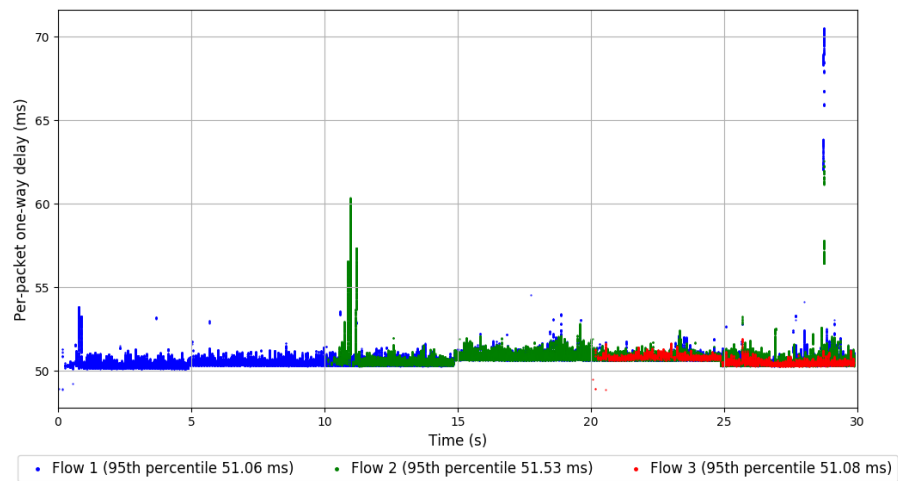
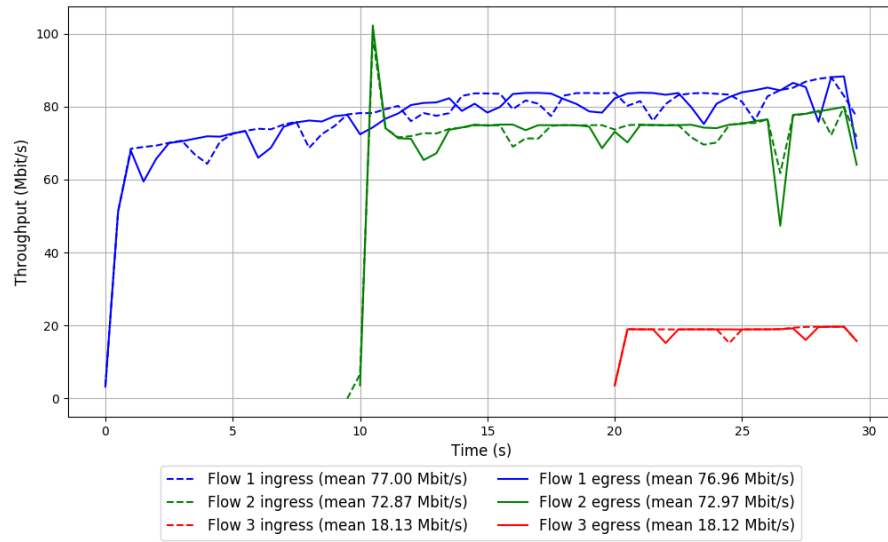
-- Flow 3:

Average throughput: 18.12 Mbit/s

95th percentile per-packet one-way delay: 51.083 ms

Loss rate: 1.09%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-08 04:59:33

End at: 2017-09-08 05:00:03

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.99 Mbit/s

95th percentile per-packet one-way delay: 51.509 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 65.04 Mbit/s

95th percentile per-packet one-way delay: 51.328 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 107.21 Mbit/s

95th percentile per-packet one-way delay: 51.751 ms

Loss rate: 0.57%

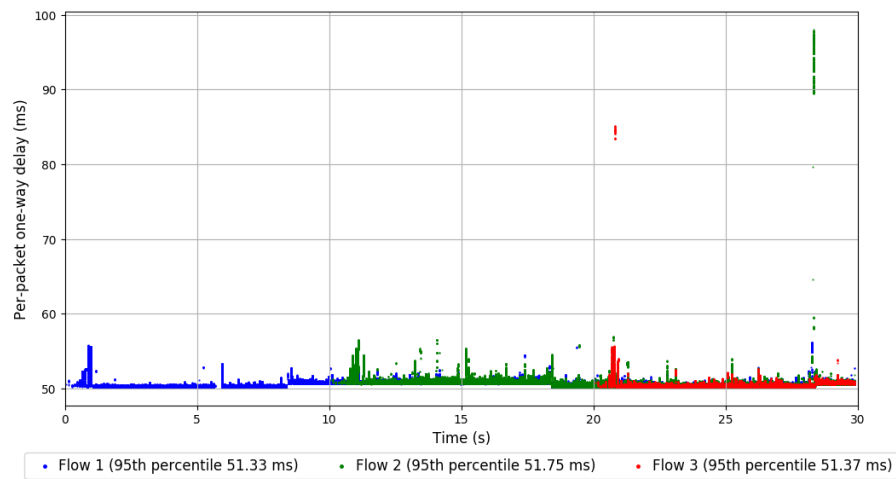
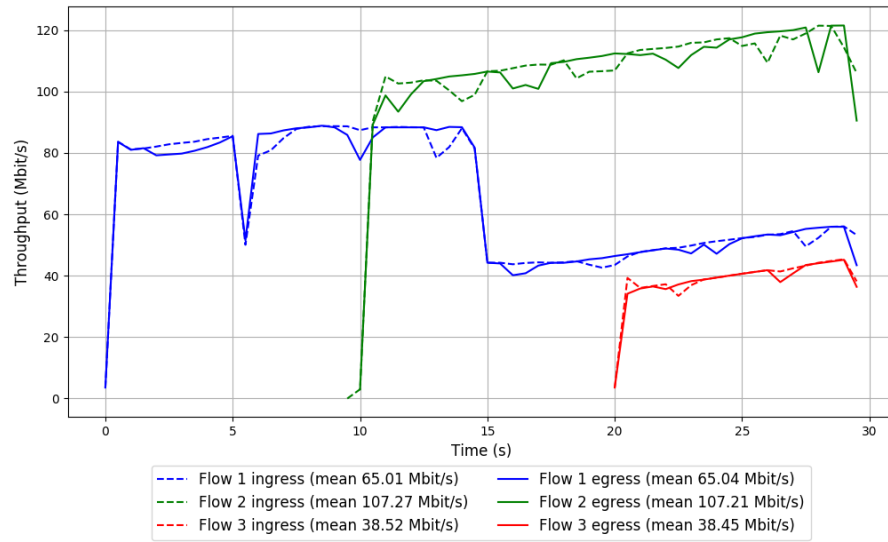
-- Flow 3:

Average throughput: 38.45 Mbit/s

95th percentile per-packet one-way delay: 51.369 ms

Loss rate: 1.22%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-08 05:11:57

End at: 2017-09-08 05:12:27

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.39 Mbit/s

95th percentile per-packet one-way delay: 51.135 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 81.08 Mbit/s

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

Loss rate: 0.41%

-- Flow 2:

Average throughput: 70.18 Mbit/s

95th percentile per-packet one-way delay: 51.128 ms

Loss rate: 0.60%

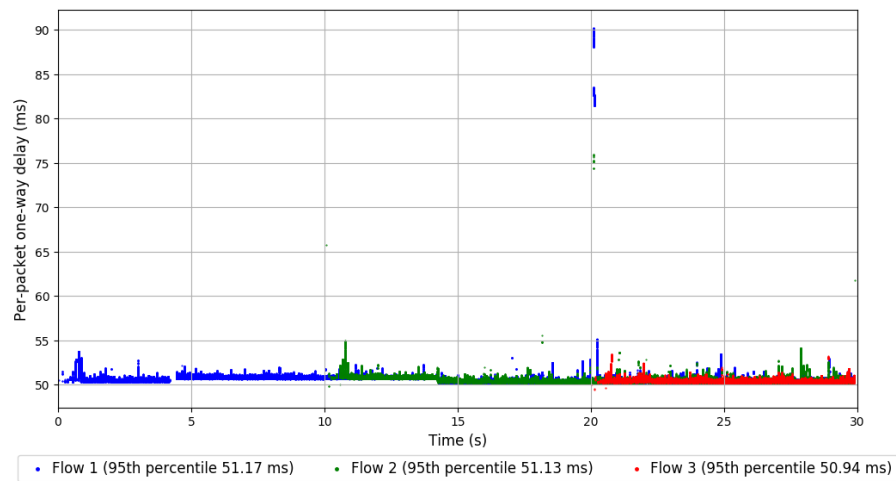
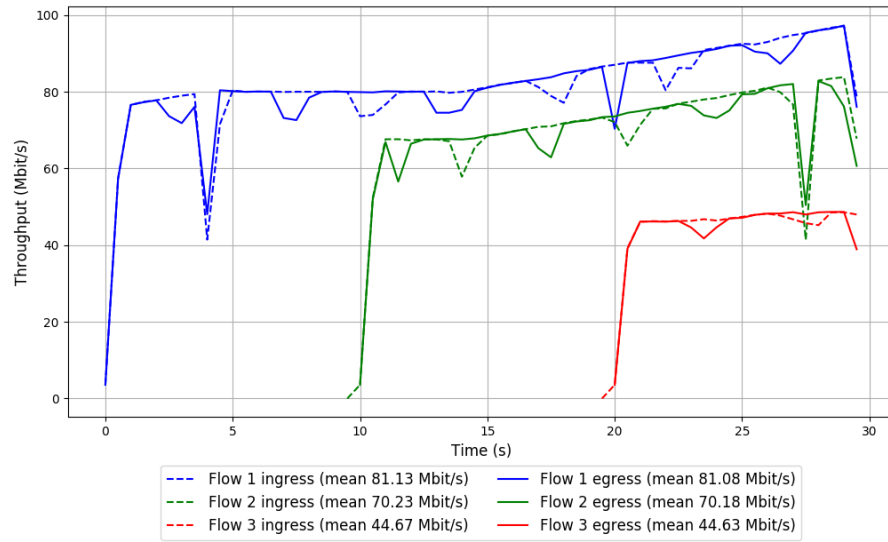
-- Flow 3:

Average throughput: 44.63 Mbit/s

95th percentile per-packet one-way delay: 50.937 ms

Loss rate: 1.10%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-08 05:24:12

End at: 2017-09-08 05:24:42

Below is generated by plot.py at 2017-09-08 10:09:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.63 Mbit/s

95th percentile per-packet one-way delay: 51.618 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 23.14 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 19.88 Mbit/s

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

Loss rate: 0.51%

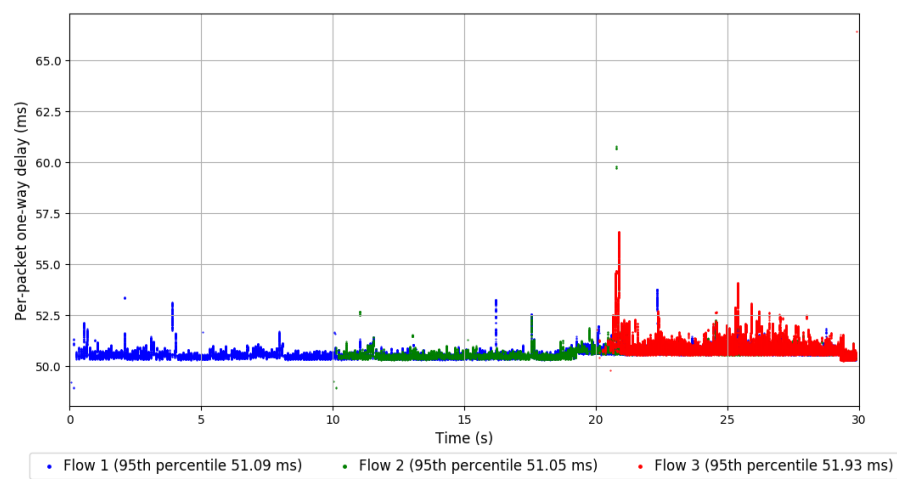
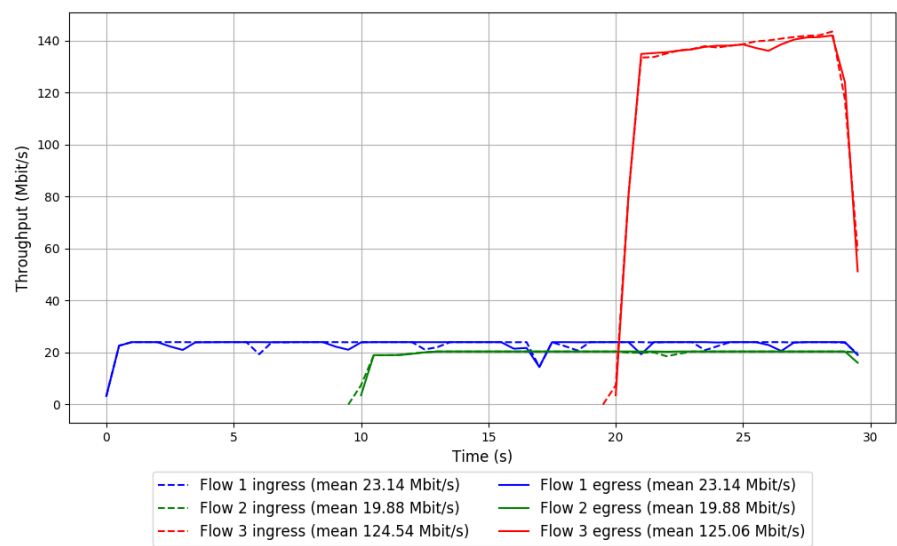
-- Flow 3:

Average throughput: 125.06 Mbit/s

95th percentile per-packet one-way delay: 51.930 ms

Loss rate: 0.58%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-08 05:36:16

End at: 2017-09-08 05:36:46

Below is generated by plot.py at 2017-09-08 10:09:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.07 Mbit/s

95th percentile per-packet one-way delay: 52.183 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 18.13 Mbit/s

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

Loss rate: 0.84%

-- Flow 2:

Average throughput: 101.52 Mbit/s

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

Loss rate: 0.49%

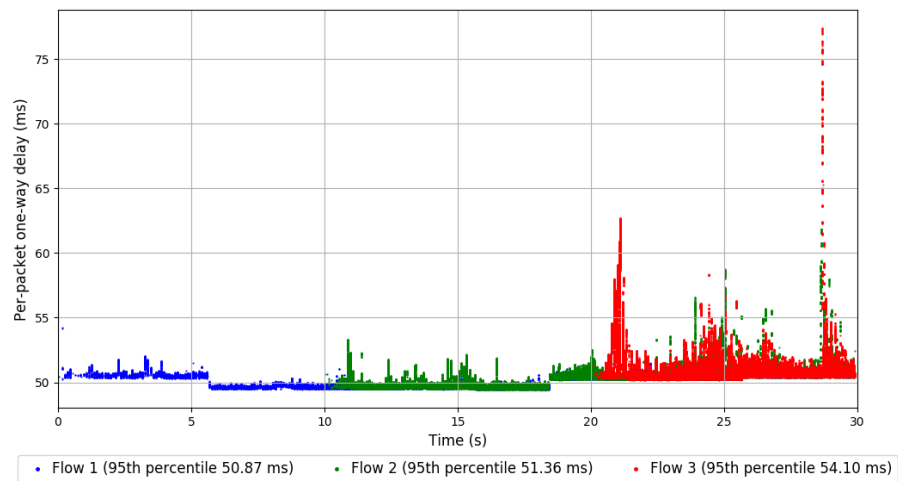
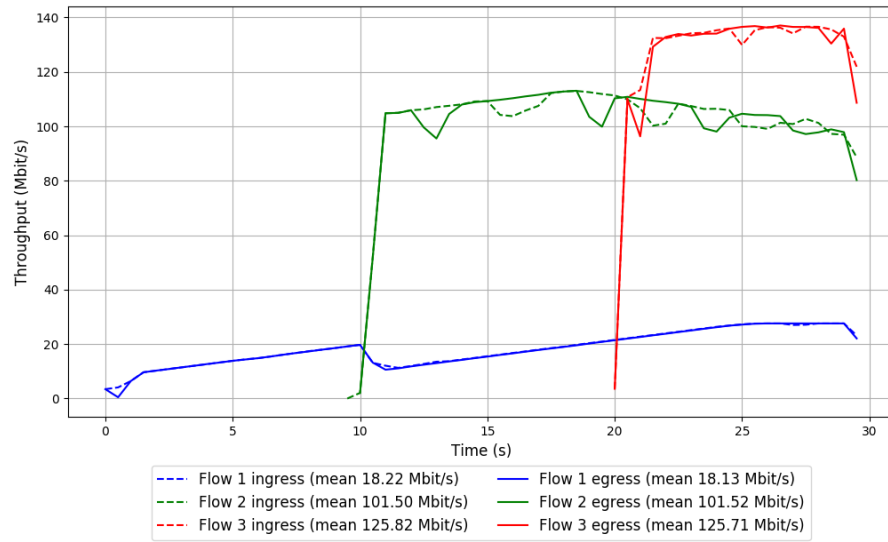
-- Flow 3:

Average throughput: 125.71 Mbit/s

95th percentile per-packet one-way delay: 54.105 ms

Loss rate: 1.09%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-08 05:48:33

End at: 2017-09-08 05:49:03

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.83 Mbit/s

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

Loss rate: 0.55%

-- Flow 1:

Average throughput: 59.01 Mbit/s

95th percentile per-packet one-way delay: 51.078 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 63.17 Mbit/s

95th percentile per-packet one-way delay: 51.499 ms

Loss rate: 0.53%

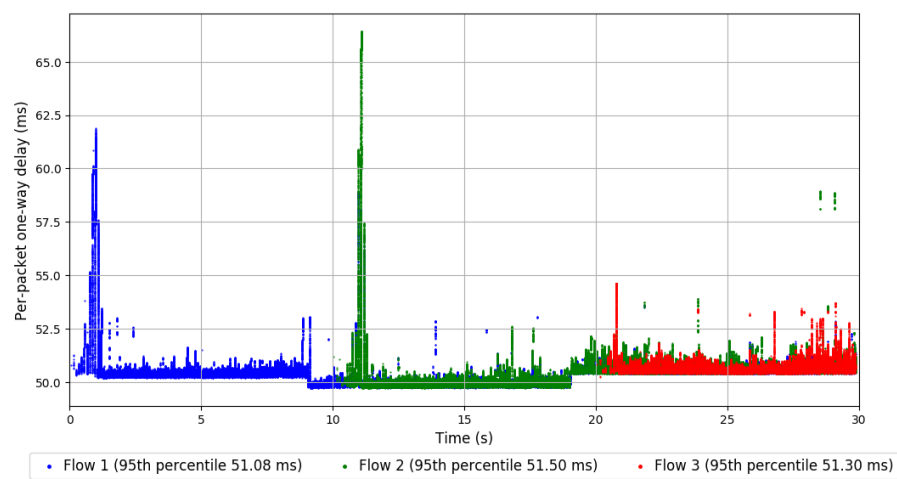
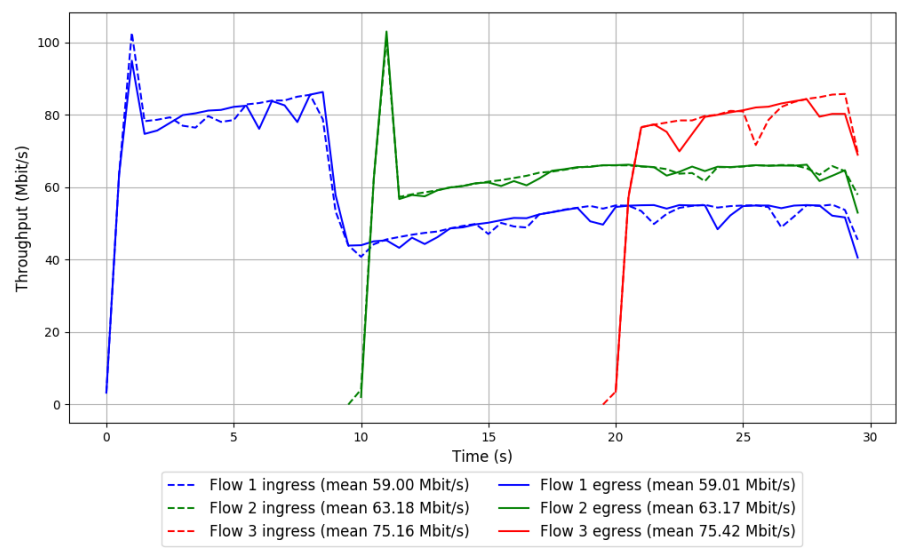
-- Flow 3:

Average throughput: 75.42 Mbit/s

95th percentile per-packet one-way delay: 51.299 ms

Loss rate: 1.16%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-08 06:00:41

End at: 2017-09-08 06:01:11

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.60 Mbit/s

95th percentile per-packet one-way delay: 51.337 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 41.79 Mbit/s

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

Loss rate: 0.33%

-- Flow 2:

Average throughput: 94.94 Mbit/s

95th percentile per-packet one-way delay: 51.908 ms

Loss rate: 0.44%

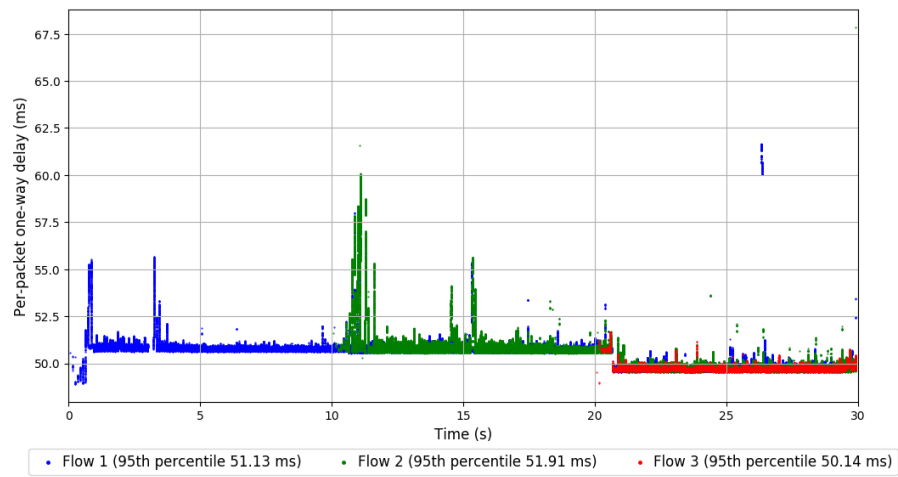
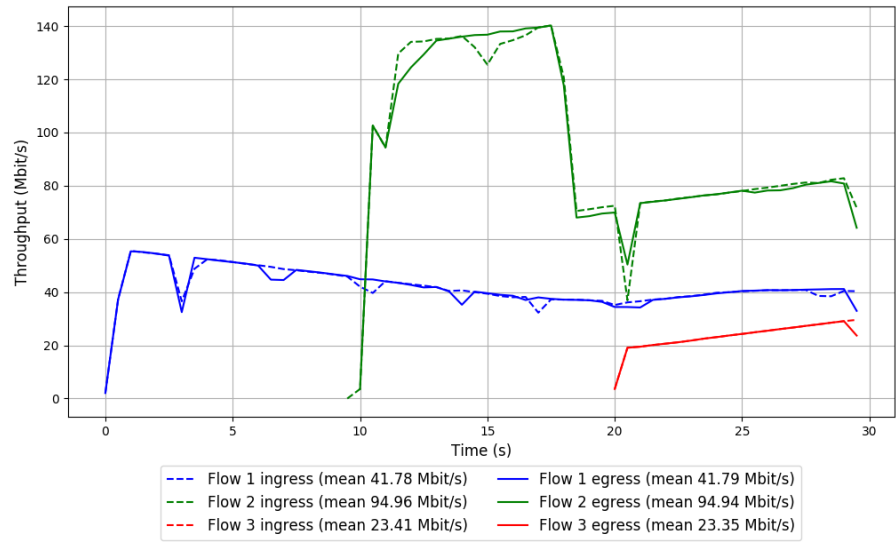
-- Flow 3:

Average throughput: 23.35 Mbit/s

95th percentile per-packet one-way delay: 50.140 ms

Loss rate: 1.28%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-08 06:12:51

End at: 2017-09-08 06:13:21

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.61 Mbit/s

95th percentile per-packet one-way delay: 51.770 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 62.68 Mbit/s

95th percentile per-packet one-way delay: 51.218 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 36.23 Mbit/s

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

Loss rate: 0.53%

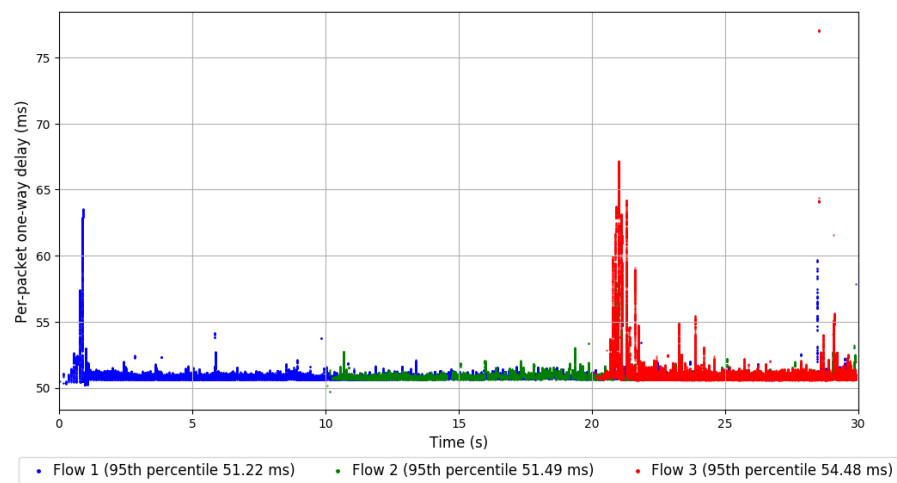
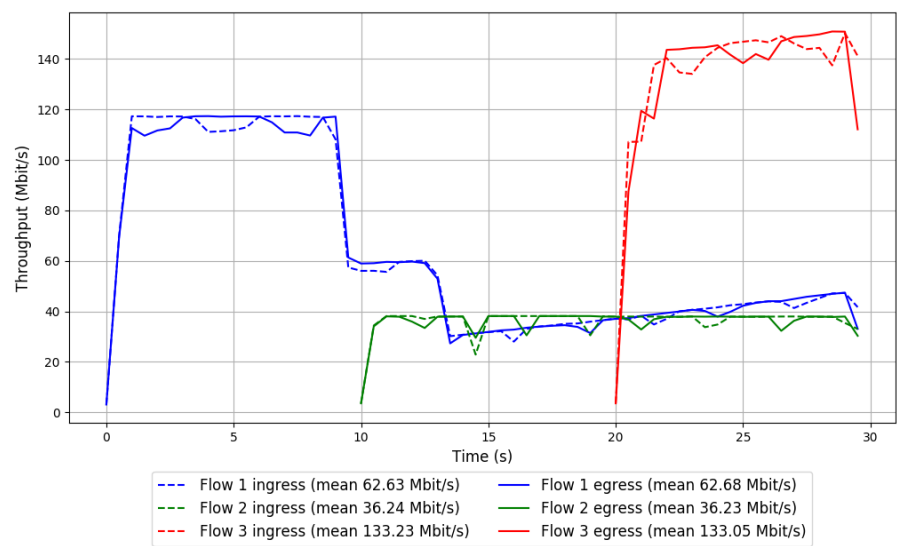
-- Flow 3:

Average throughput: 133.05 Mbit/s

95th percentile per-packet one-way delay: 54.483 ms

Loss rate: 1.14%

Run 10: Report of TCP Vegas — Data Link

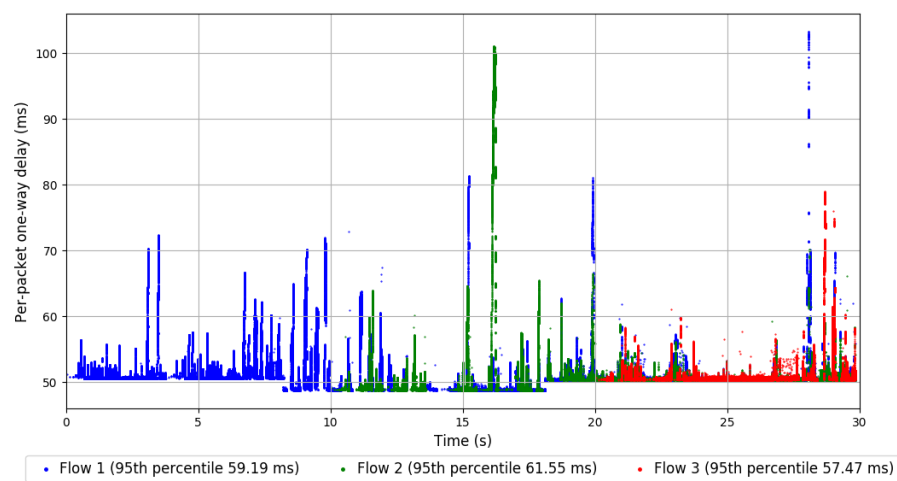
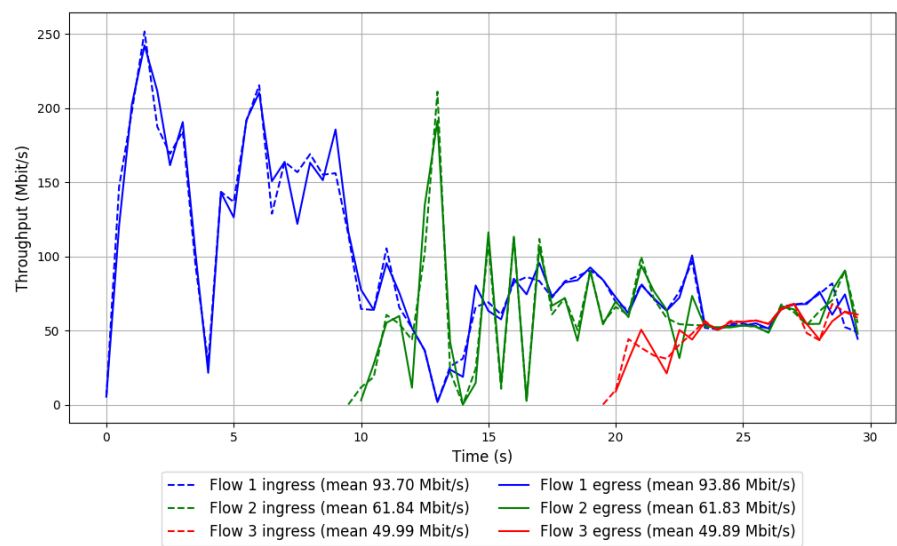


```
Run 1: Statistics of Verus

Start at: 2017-09-08 04:19:33
End at: 2017-09-08 04:20:03

# Below is generated by plot.py at 2017-09-08 10:10:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 151.39 Mbit/s
95th percentile per-packet one-way delay: 59.524 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 93.86 Mbit/s
95th percentile per-packet one-way delay: 59.188 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 61.83 Mbit/s
95th percentile per-packet one-way delay: 61.554 ms
Loss rate: 0.54%
-- Flow 3:
Average throughput: 49.89 Mbit/s
95th percentile per-packet one-way delay: 57.468 ms
Loss rate: 0.94%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-09-08 04:31:45

End at: 2017-09-08 04:32:15

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.87 Mbit/s

95th percentile per-packet one-way delay: 86.254 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 94.13 Mbit/s

95th percentile per-packet one-way delay: 96.079 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 49.72 Mbit/s

95th percentile per-packet one-way delay: 70.500 ms

Loss rate: 0.47%

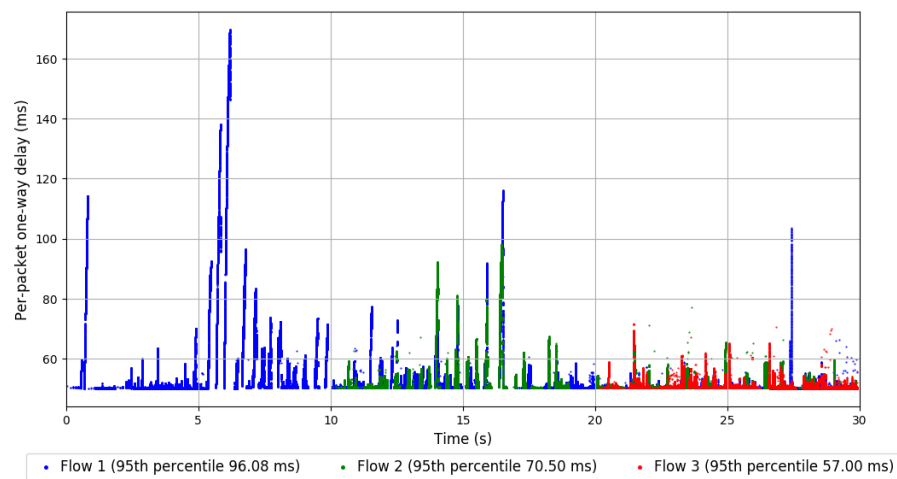
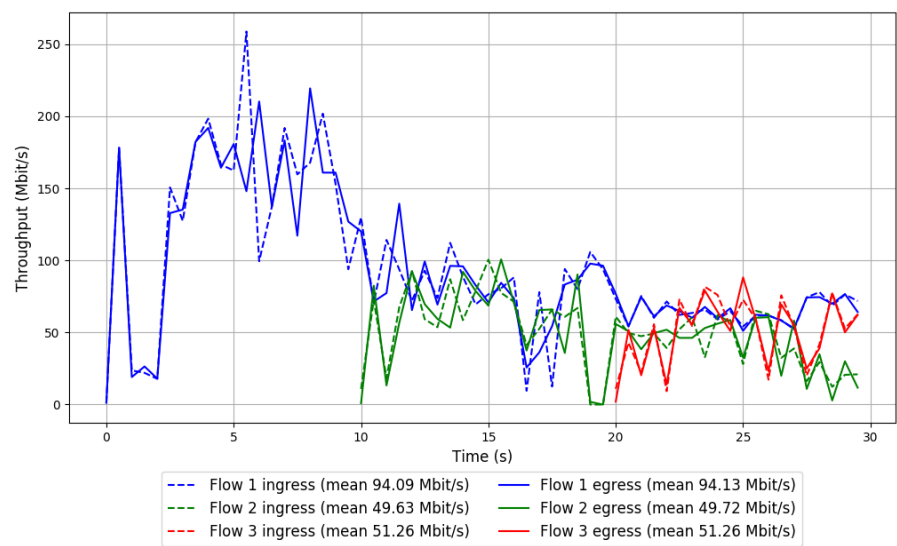
-- Flow 3:

Average throughput: 51.26 Mbit/s

95th percentile per-packet one-way delay: 56.997 ms

Loss rate: 0.73%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-08 04:44:06

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

Below is generated by plot.py at 2017-09-08 10:11:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.91 Mbit/s

95th percentile per-packet one-way delay: 57.213 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 82.59 Mbit/s

95th percentile per-packet one-way delay: 55.779 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 60.67 Mbit/s

95th percentile per-packet one-way delay: 58.203 ms

Loss rate: 0.00%

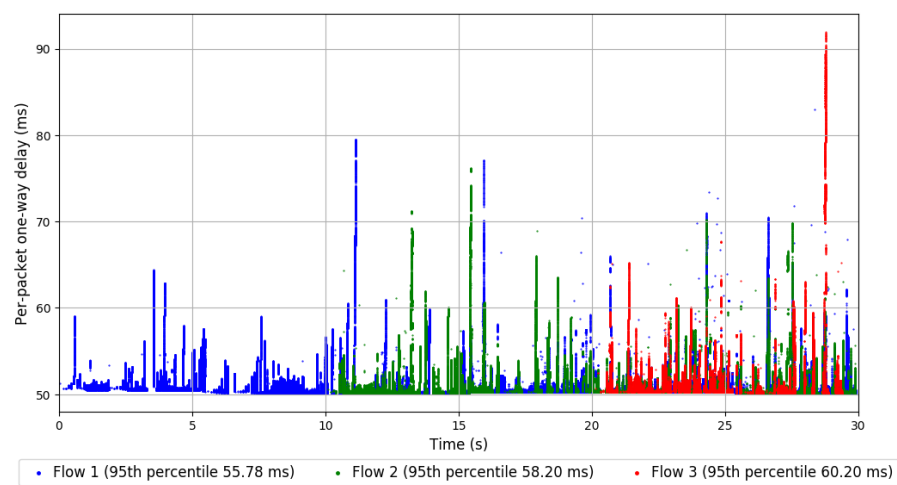
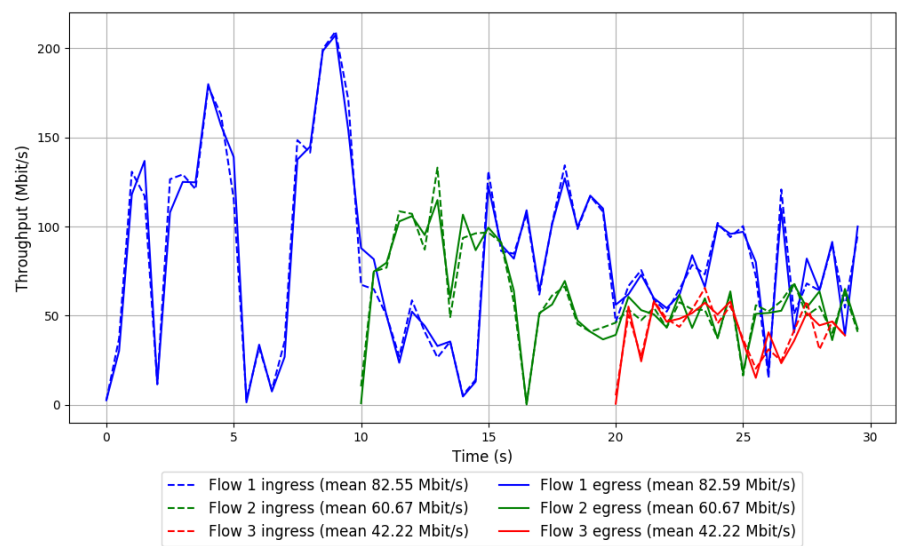
-- Flow 3:

Average throughput: 42.22 Mbit/s

95th percentile per-packet one-way delay: 60.197 ms

Loss rate: 0.00%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-08 04:56:13

End at: 2017-09-08 04:56:43

Below is generated by plot.py at 2017-09-08 10:11:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.37 Mbit/s

95th percentile per-packet one-way delay: 58.341 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 59.91 Mbit/s

95th percentile per-packet one-way delay: 58.657 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.55 Mbit/s

95th percentile per-packet one-way delay: 56.518 ms

Loss rate: 0.58%

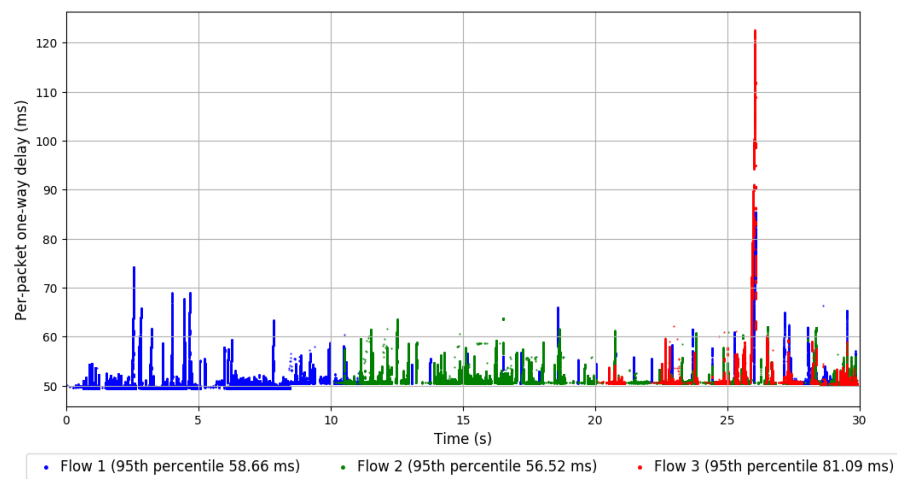
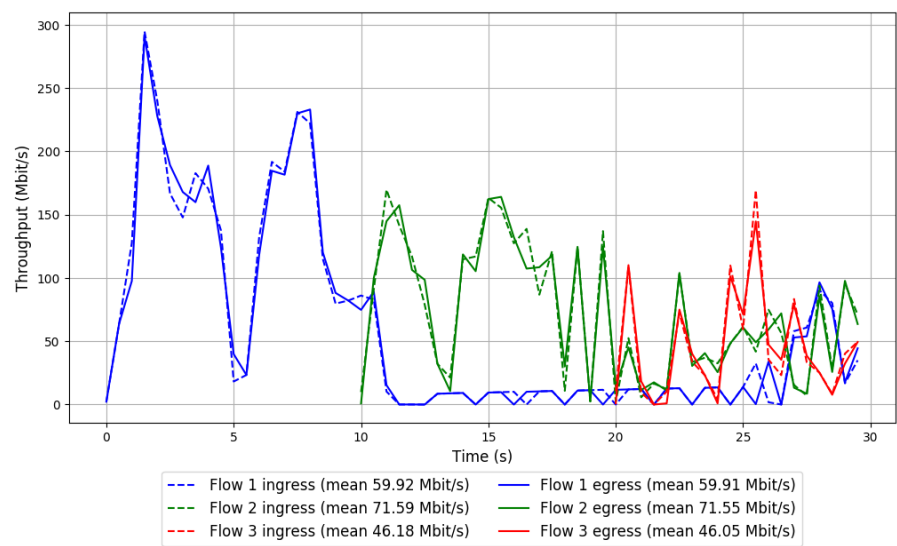
-- Flow 3:

Average throughput: 46.05 Mbit/s

95th percentile per-packet one-way delay: 81.095 ms

Loss rate: 0.96%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

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

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

Below is generated by plot.py at 2017-09-08 10:11:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 153.57 Mbit/s

95th percentile per-packet one-way delay: 71.034 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 98.42 Mbit/s

95th percentile per-packet one-way delay: 80.593 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.07 Mbit/s

95th percentile per-packet one-way delay: 58.602 ms

Loss rate: 0.00%

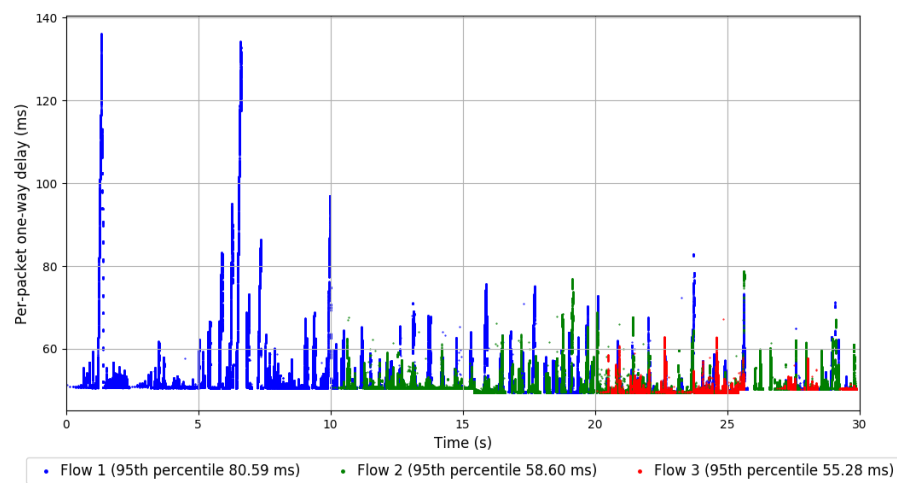
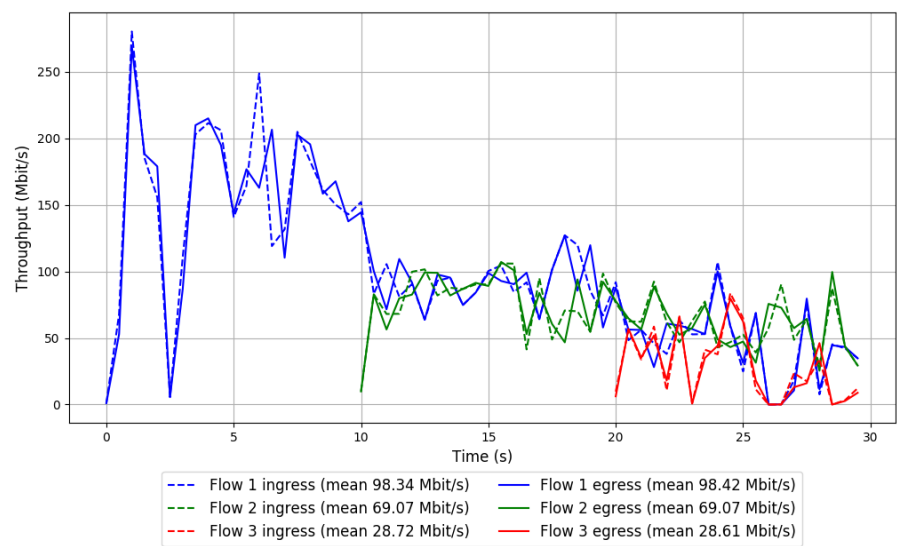
-- Flow 3:

Average throughput: 28.61 Mbit/s

95th percentile per-packet one-way delay: 55.281 ms

Loss rate: 0.70%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-08 05:20:58

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

Below is generated by plot.py at 2017-09-08 10:11:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.17 Mbit/s

95th percentile per-packet one-way delay: 92.383 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 101.96 Mbit/s

95th percentile per-packet one-way delay: 112.647 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 57.165 ms

Loss rate: 0.09%

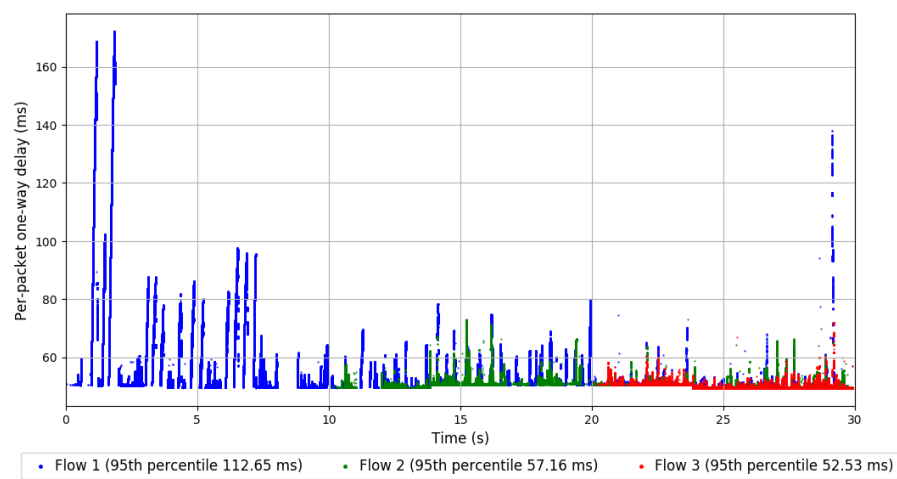
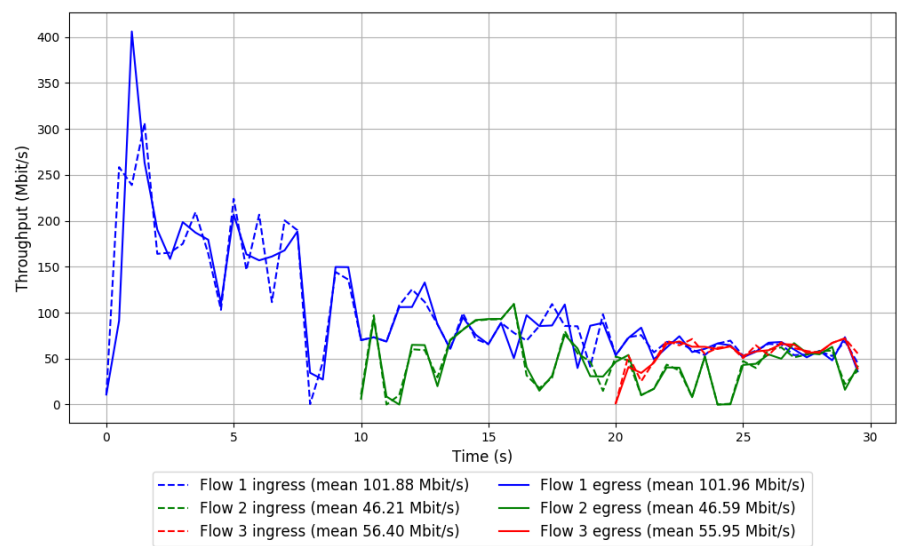
-- Flow 3:

Average throughput: 55.95 Mbit/s

95th percentile per-packet one-way delay: 52.529 ms

Loss rate: 1.84%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

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

End at: 2017-09-08 05:33:35

Below is generated by plot.py at 2017-09-08 10:12:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.55 Mbit/s

95th percentile per-packet one-way delay: 58.513 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 93.21 Mbit/s

95th percentile per-packet one-way delay: 59.229 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 68.95 Mbit/s

95th percentile per-packet one-way delay: 56.754 ms

Loss rate: 0.38%

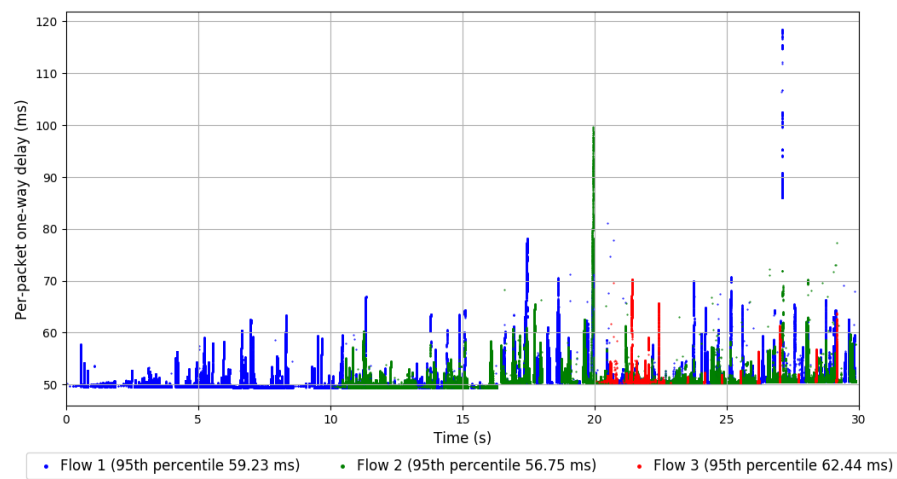
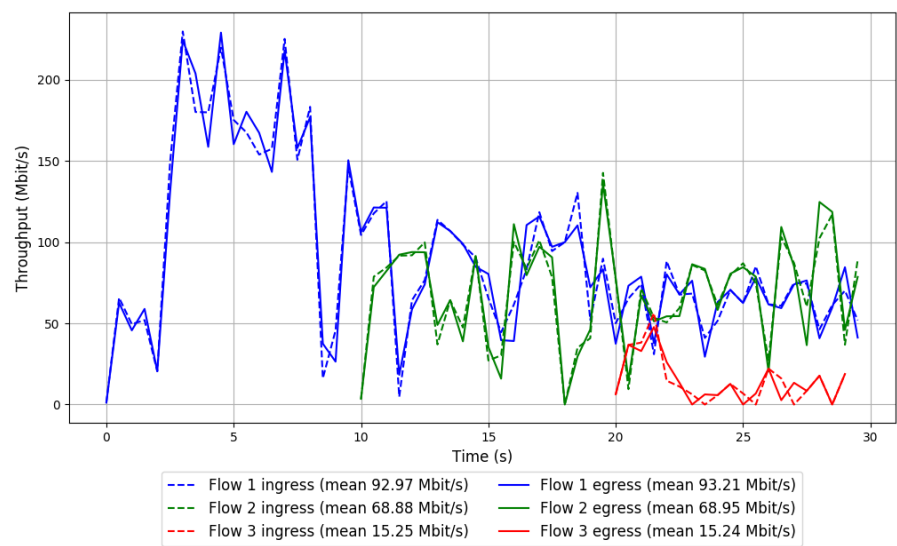
-- Flow 3:

Average throughput: 15.24 Mbit/s

95th percentile per-packet one-way delay: 62.438 ms

Loss rate: 0.00%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-08 05:45:11

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

Below is generated by plot.py at 2017-09-08 10:12:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 144.66 Mbit/s

95th percentile per-packet one-way delay: 69.953 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 73.25 Mbit/s

95th percentile per-packet one-way delay: 63.046 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 74.97 Mbit/s

95th percentile per-packet one-way delay: 85.380 ms

Loss rate: 0.83%

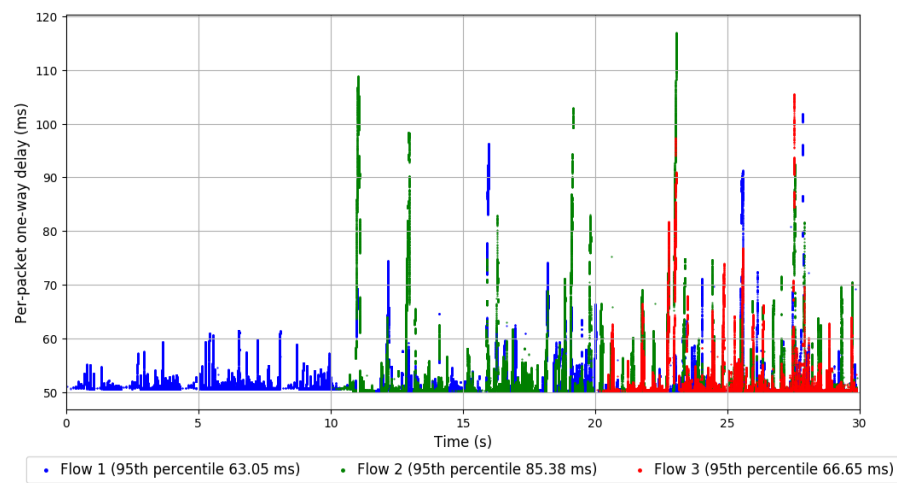
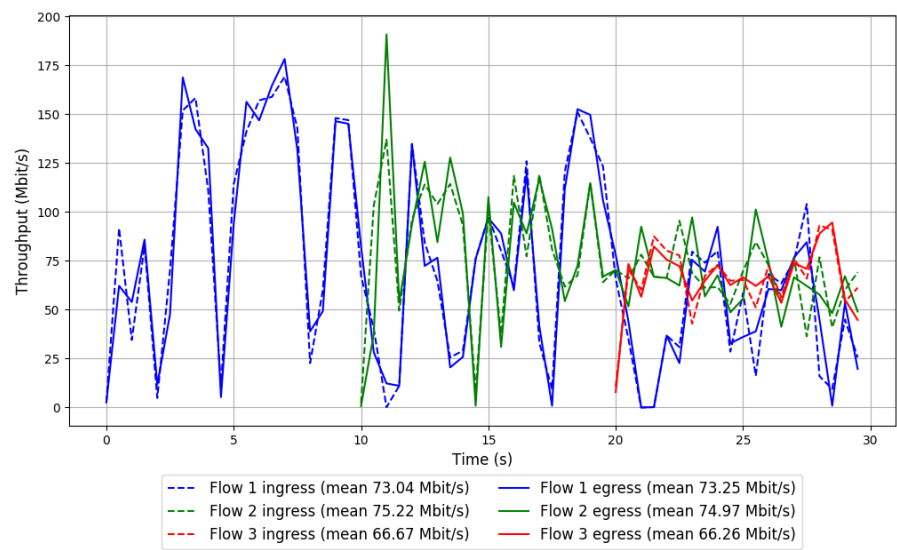
-- Flow 3:

Average throughput: 66.26 Mbit/s

95th percentile per-packet one-way delay: 66.650 ms

Loss rate: 1.61%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-08 05:57:25

End at: 2017-09-08 05:57:55

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.92 Mbit/s

95th percentile per-packet one-way delay: 67.148 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 85.16 Mbit/s

95th percentile per-packet one-way delay: 67.546 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 51.74 Mbit/s

95th percentile per-packet one-way delay: 68.859 ms

Loss rate: 0.00%

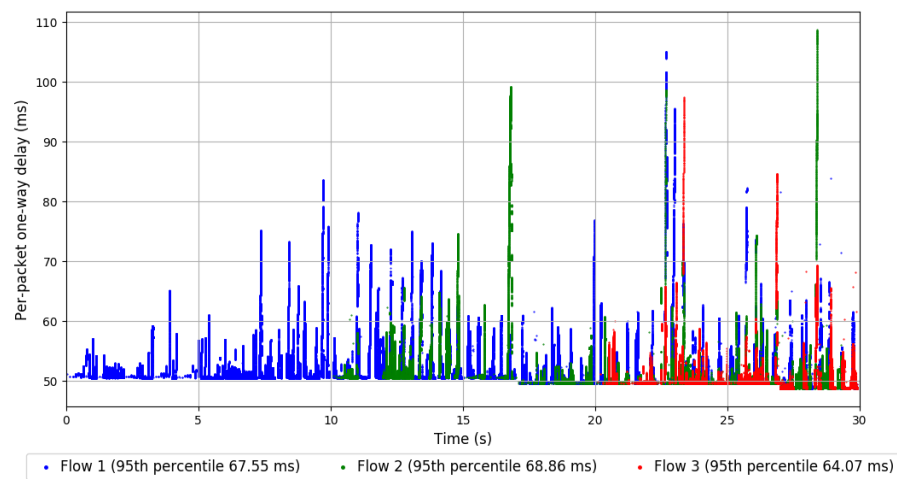
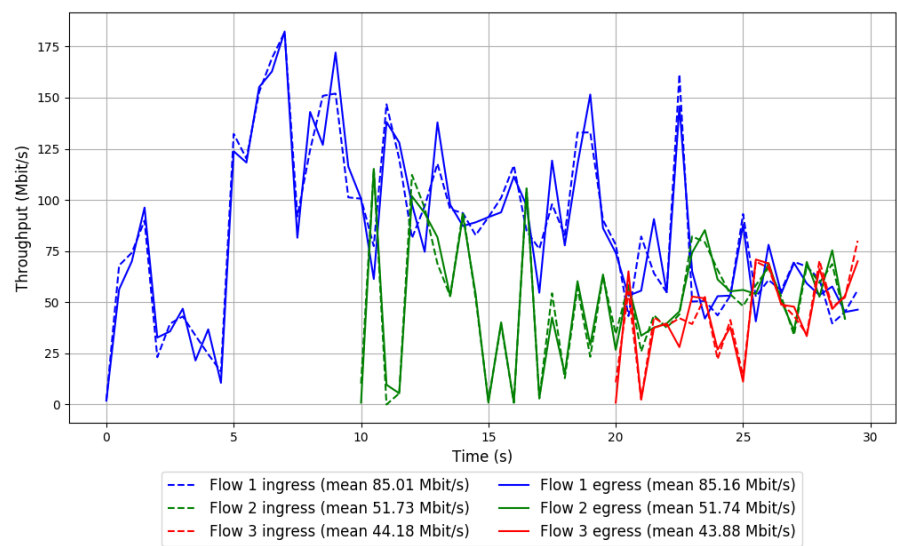
-- Flow 3:

Average throughput: 43.88 Mbit/s

95th percentile per-packet one-way delay: 64.071 ms

Loss rate: 1.72%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

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

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

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.42 Mbit/s

95th percentile per-packet one-way delay: 62.738 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 104.94 Mbit/s

95th percentile per-packet one-way delay: 64.537 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 59.01 Mbit/s

95th percentile per-packet one-way delay: 57.340 ms

Loss rate: 0.21%

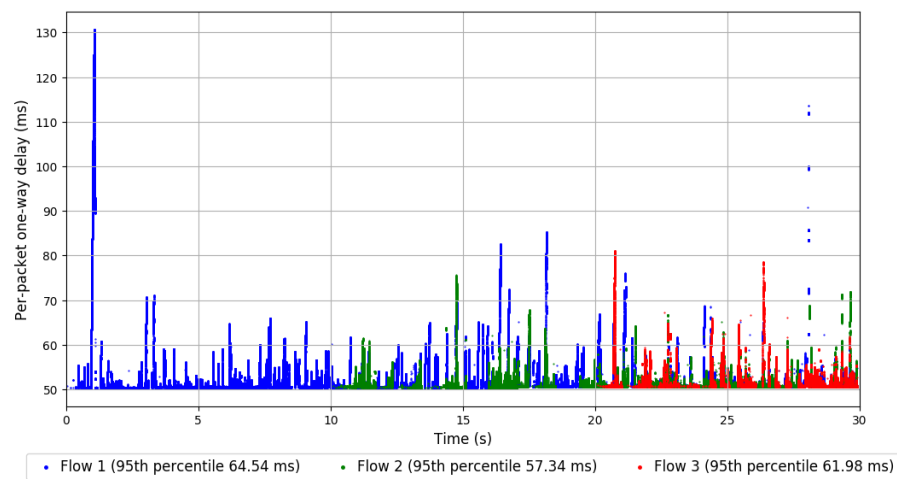
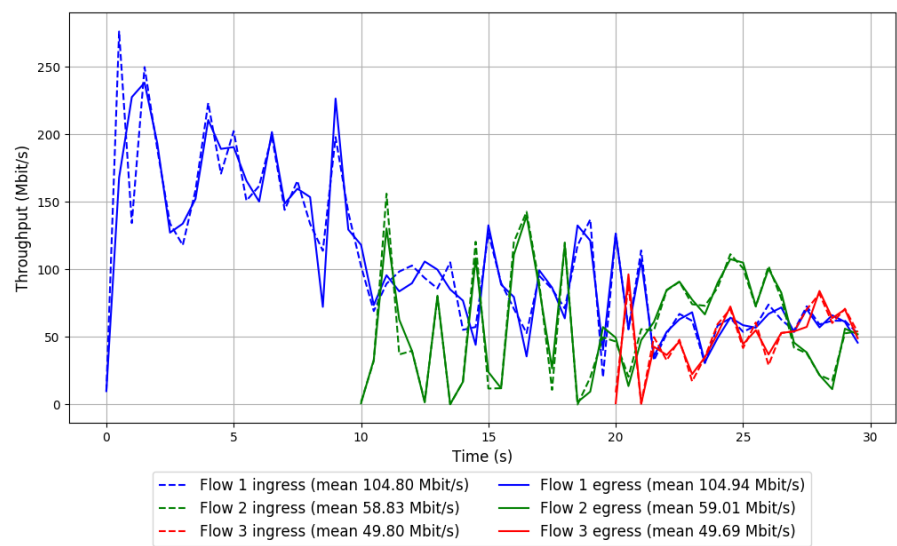
-- Flow 3:

Average throughput: 49.69 Mbit/s

95th percentile per-packet one-way delay: 61.982 ms

Loss rate: 1.24%

Run 10: Report of Verus — Data Link

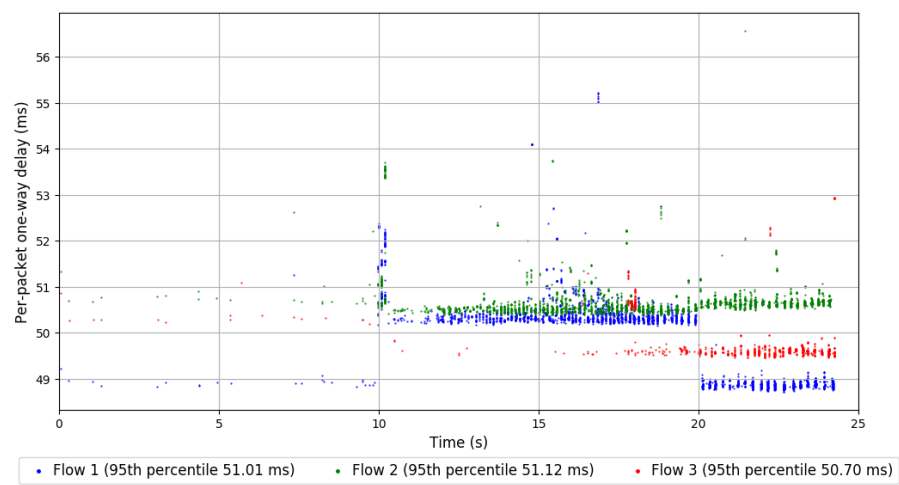
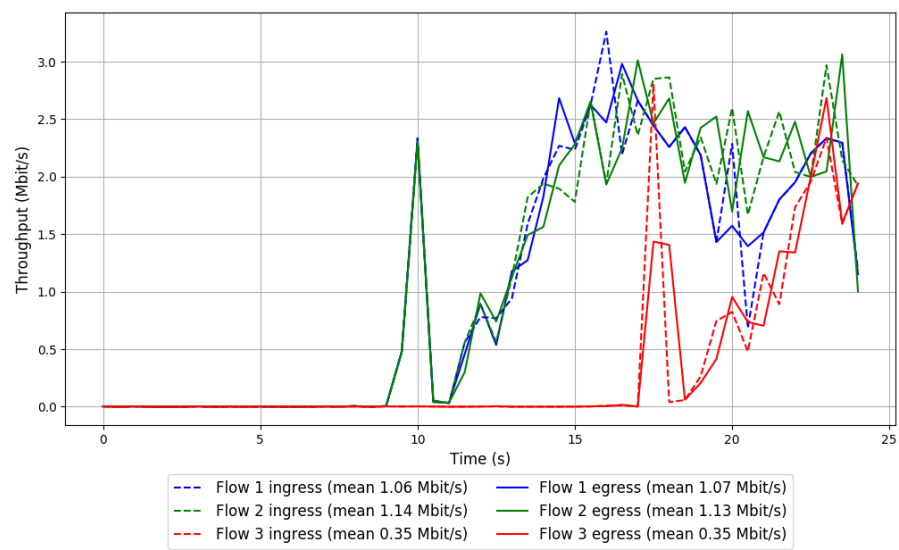


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-08 04:17:06
End at: 2017-09-08 04:17:36

# Below is generated by plot.py at 2017-09-08 10:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 51.060 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 1.07 Mbit/s
95th percentile per-packet one-way delay: 51.011 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 51.122 ms
Loss rate: 1.67%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 50.700 ms
Loss rate: 0.01%
```


Run 1: Report of WebRTC media — Data Link

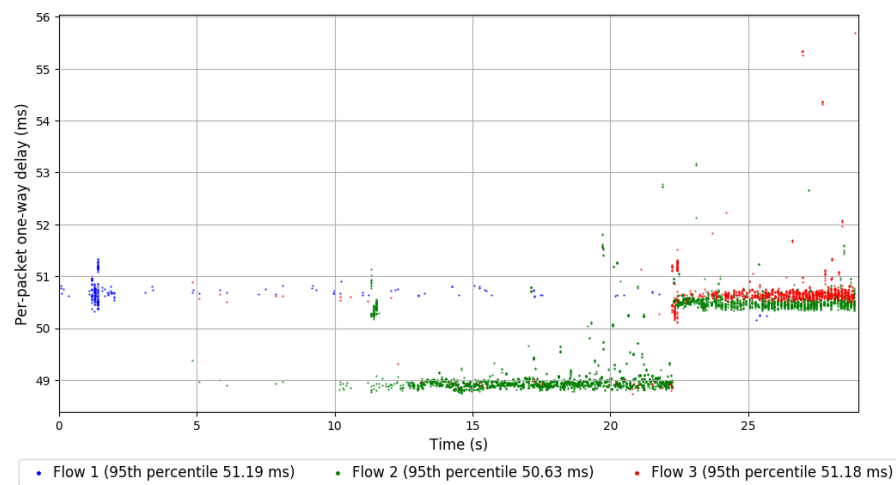
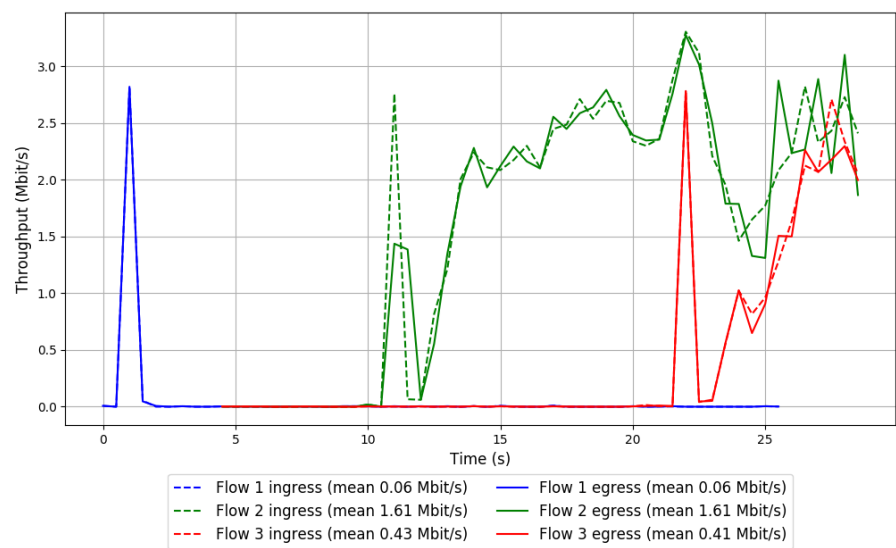


```
Run 2: Statistics of WebRTC media

Start at: 2017-09-08 04:29:18
End at: 2017-09-08 04:29:48

# Below is generated by plot.py at 2017-09-08 10:12:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 50.767 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 51.191 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 50.628 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 51.178 ms
Loss rate: 3.07%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-08 04:41:39

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

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 50.651 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.60 Mbit/s

95th percentile per-packet one-way delay: 50.730 ms

Loss rate: 0.23%

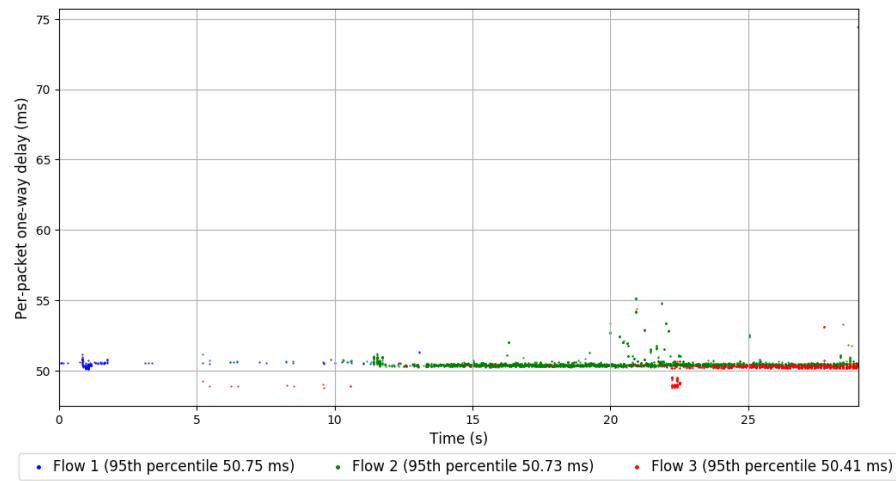
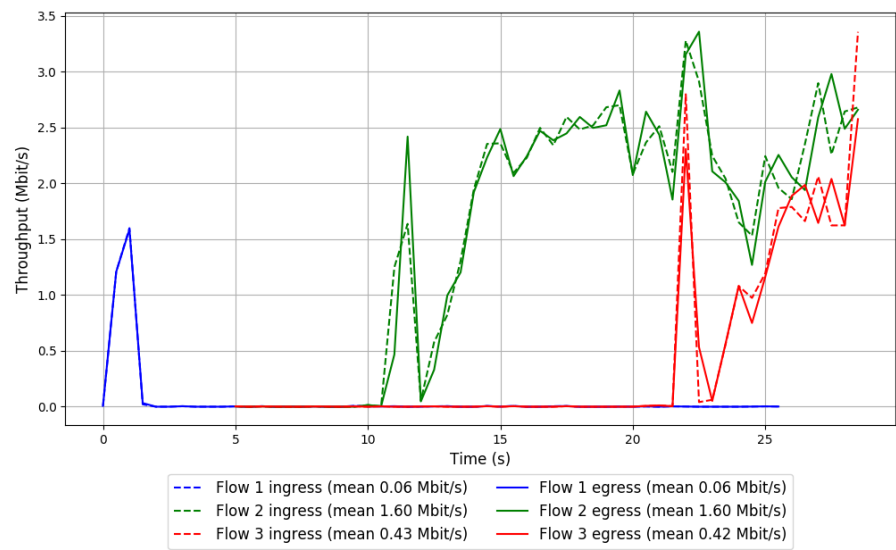
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 50.408 ms

Loss rate: 3.78%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-08 04:53:45

End at: 2017-09-08 04:54:15

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 50.832 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 0.06 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 50.848 ms

Loss rate: 0.97%

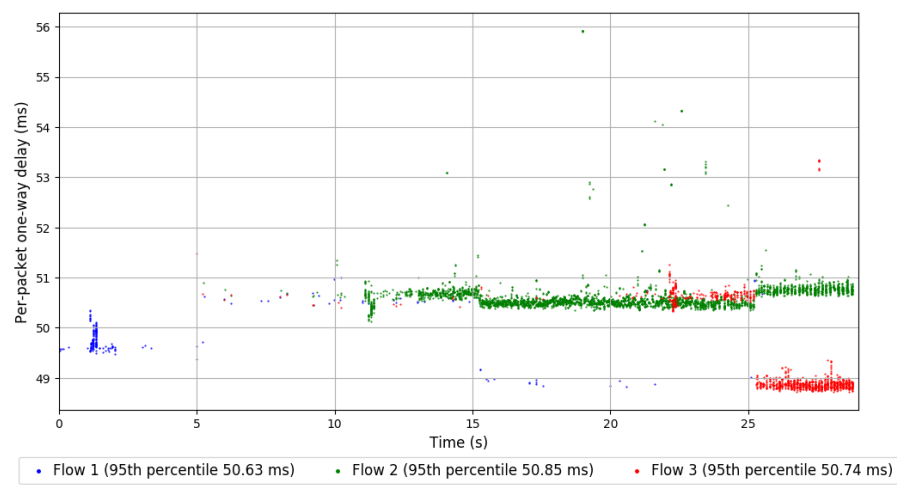
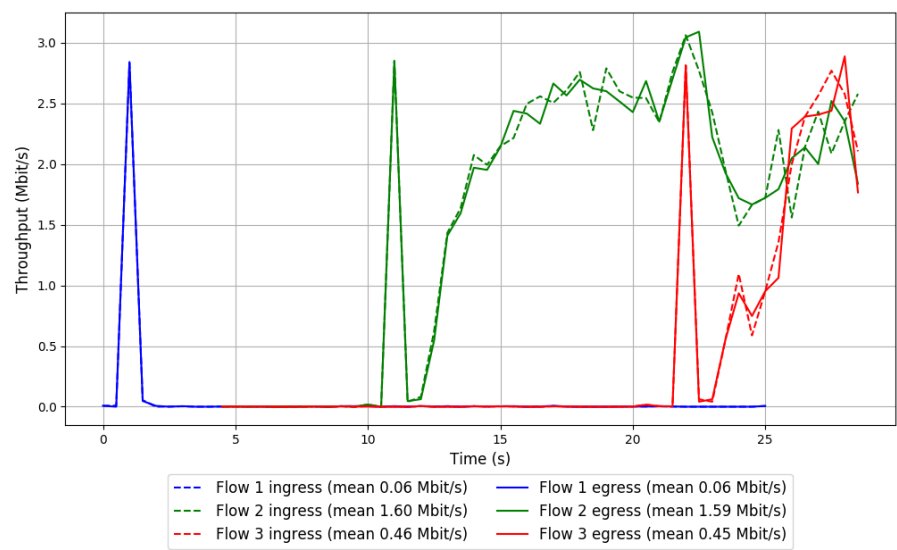
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 50.740 ms

Loss rate: 2.35%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

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

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

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 51.180 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.292 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 51.126 ms

Loss rate: 0.72%

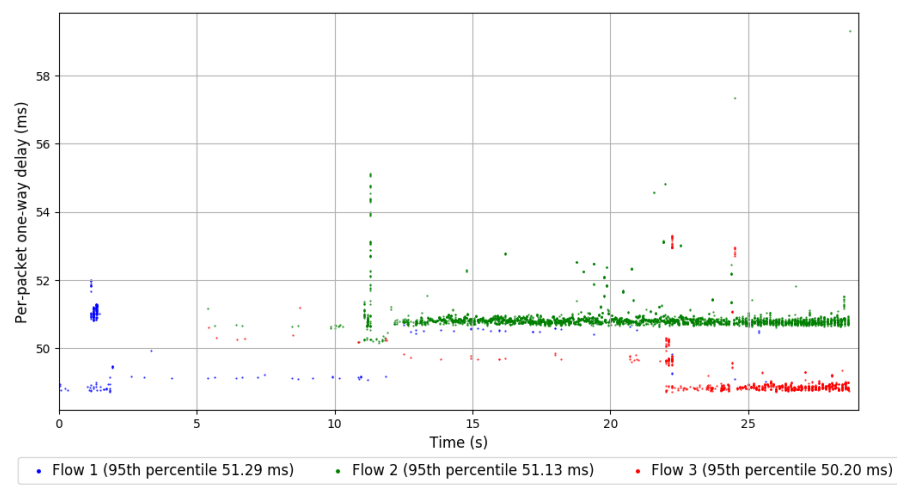
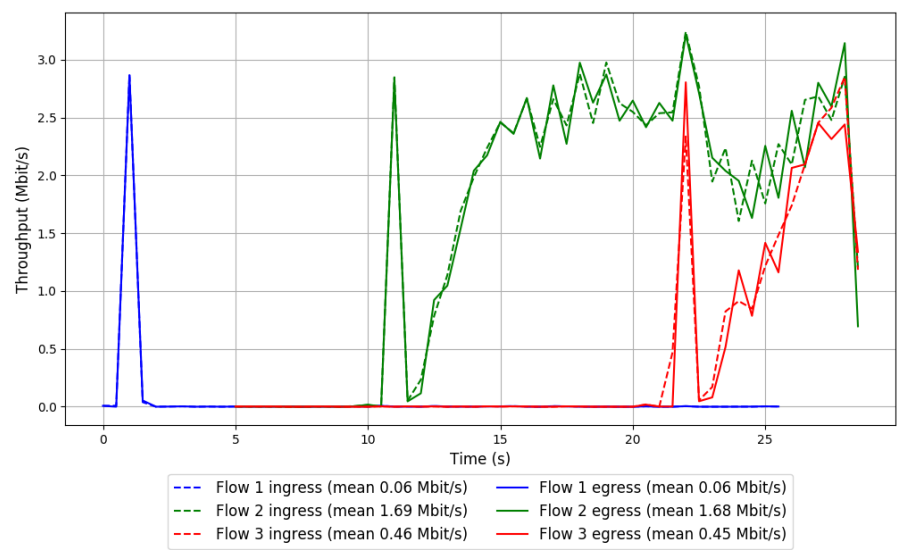
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 50.205 ms

Loss rate: 2.49%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

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

End at: 2017-09-08 05:18:59

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 51.004 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 0.05 Mbit/s

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

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 50.946 ms

Loss rate: 1.07%

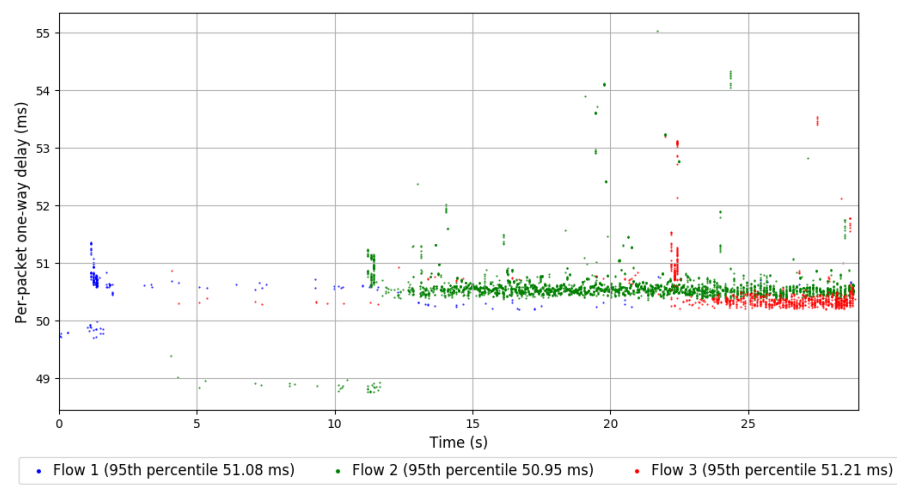
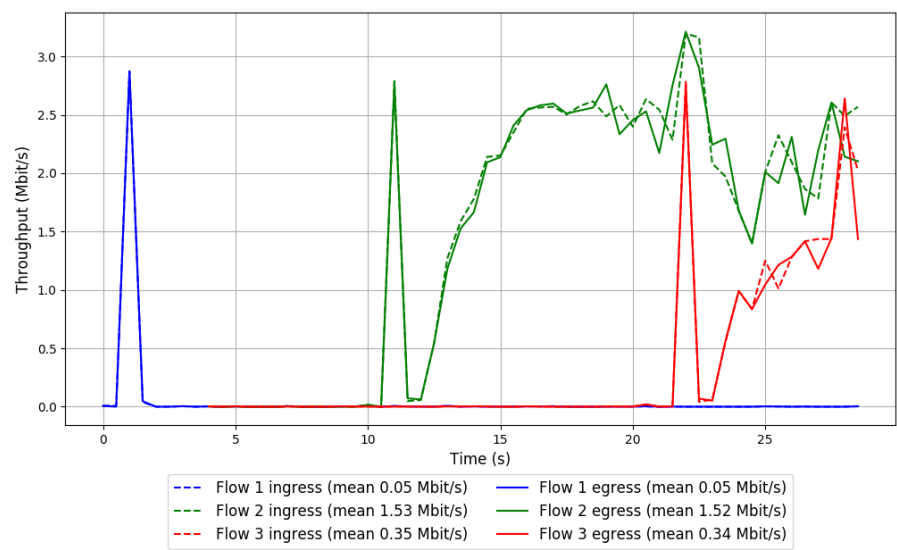
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 51.213 ms

Loss rate: 3.35%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-08 05:30:37

End at: 2017-09-08 05:31:07

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

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

Loss rate: 0.49%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.966 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.60 Mbit/s

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

Loss rate: 0.20%

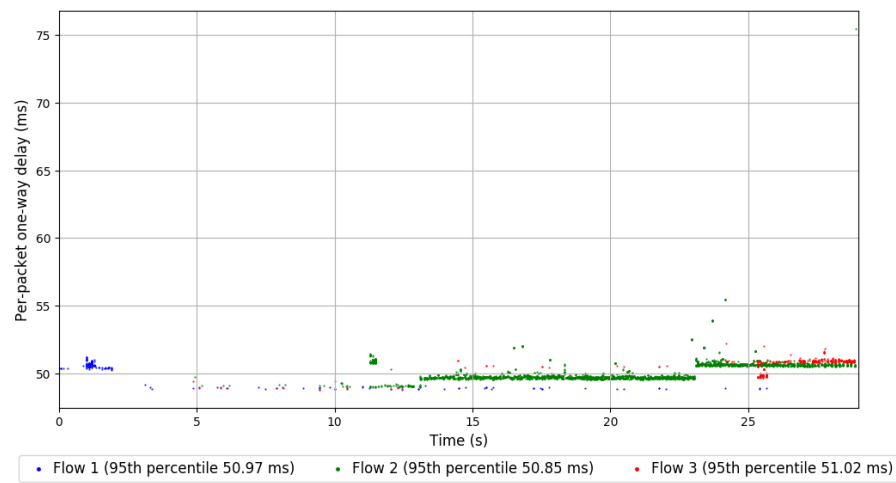
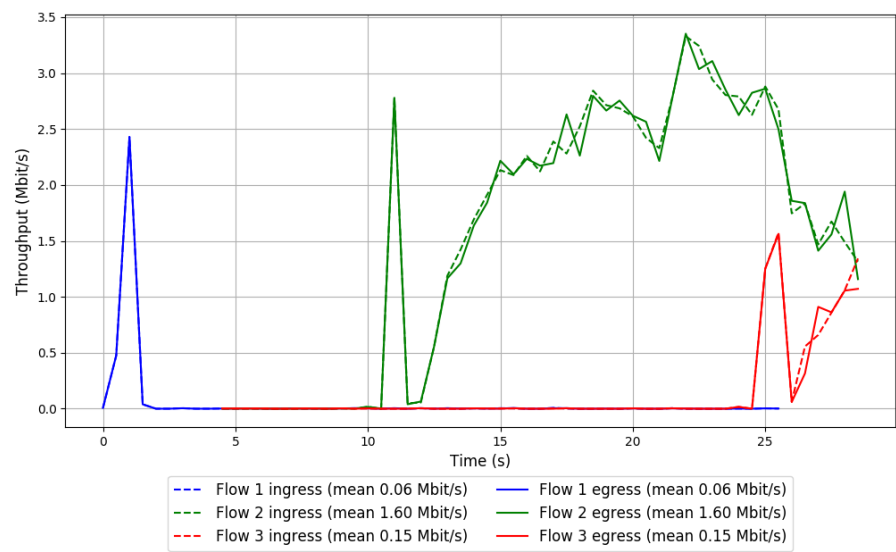
-- Flow 3:

Average throughput: 0.15 Mbit/s

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

Loss rate: 3.69%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-08 05:42:44

End at: 2017-09-08 05:43:14

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 50.699 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 238.806 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.66 Mbit/s

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

Loss rate: 0.73%

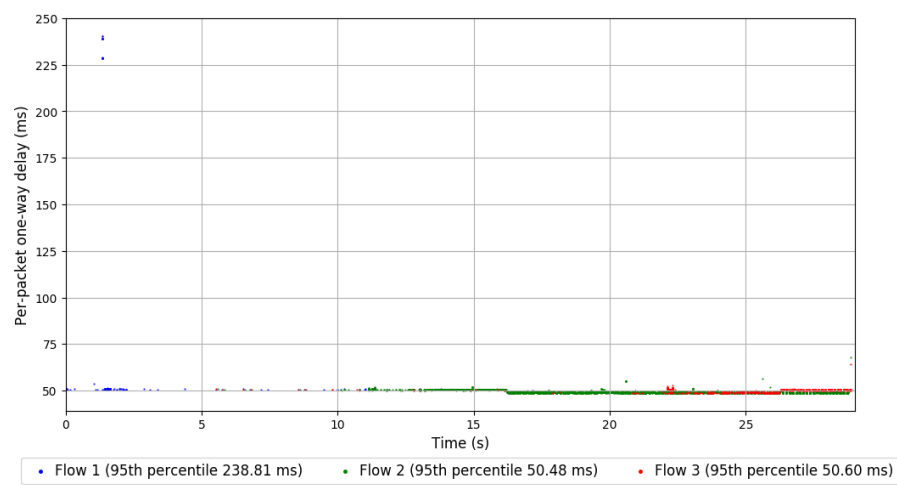
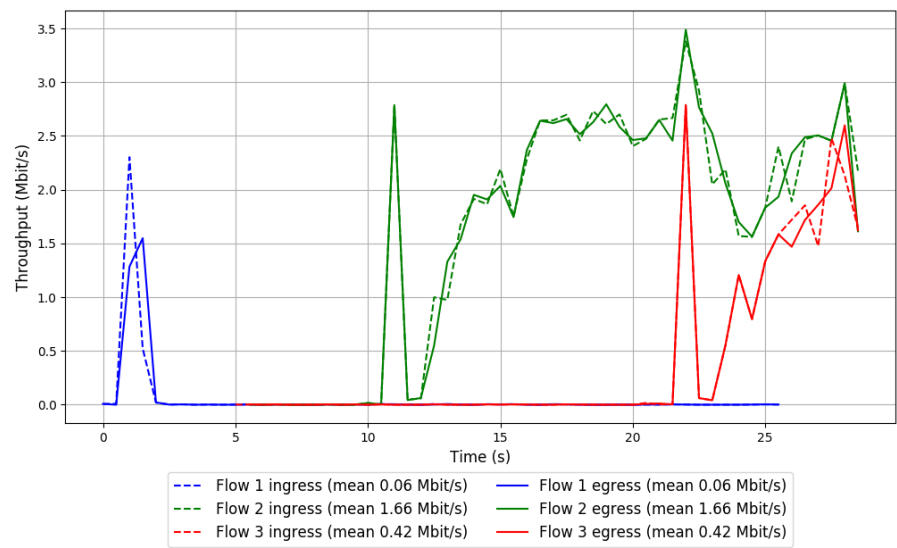
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 50.603 ms

Loss rate: 0.11%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-08 05:54:56

End at: 2017-09-08 05:55:26

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 50.515 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 231.888 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 50.363 ms

Loss rate: 0.97%

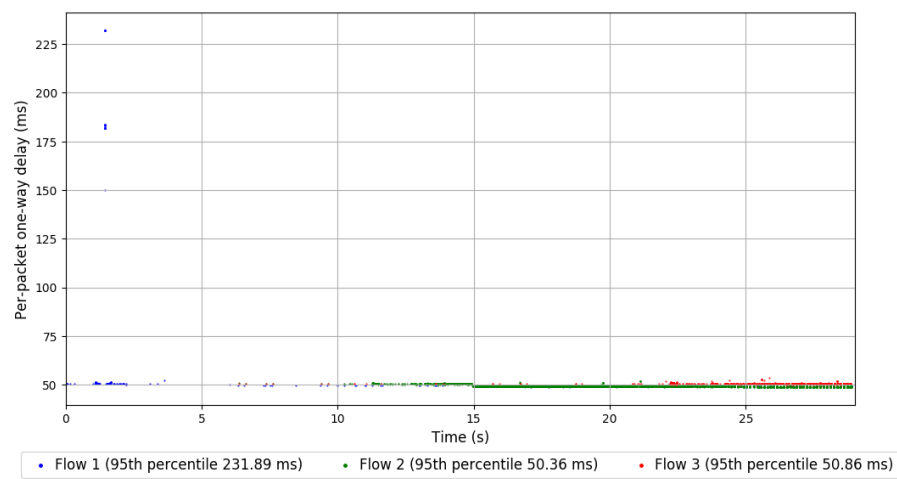
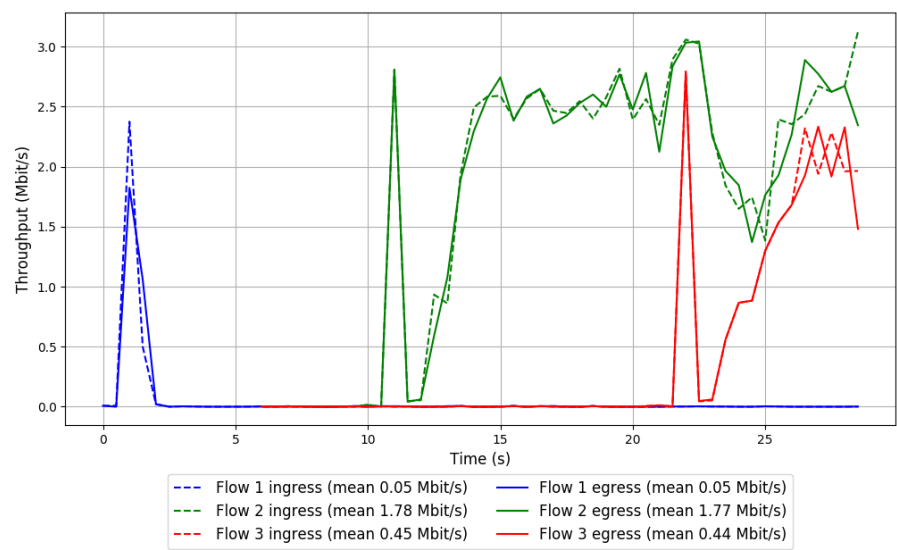
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 50.857 ms

Loss rate: 2.39%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-08 06:07:11

End at: 2017-09-08 06:07:41

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 50.608 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 50.993 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 50.404 ms

Loss rate: 0.81%

-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 50.059 ms

Loss rate: 2.91%

Run 10: Report of WebRTC media — Data Link

