

Pantheon Report

Generated at 2017-08-11 15:01:50 (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 1 flow.

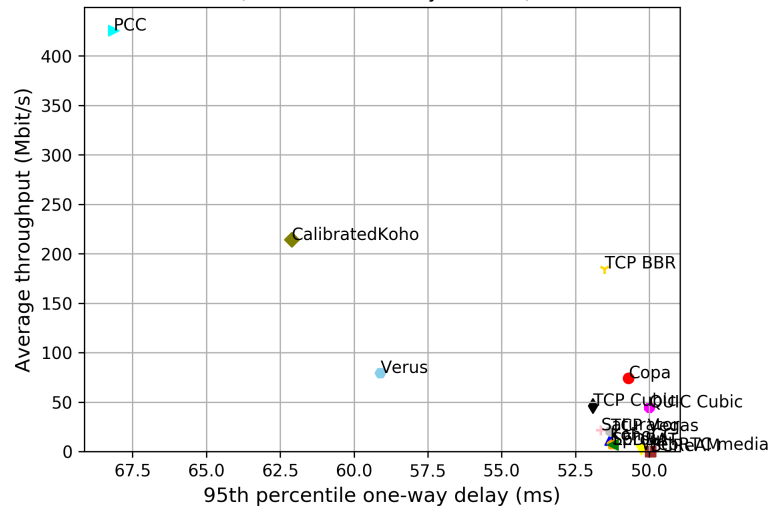
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

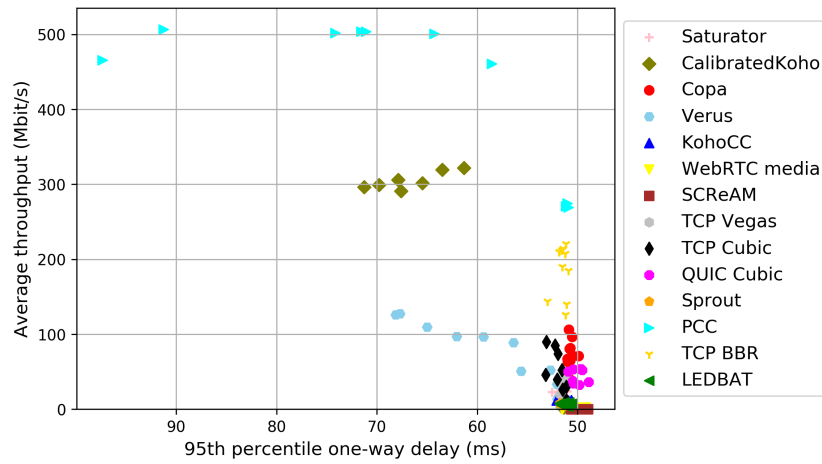
Git summary:

```
branch: master @ e43be7582298d552838afcf6382342bf187fbbd6
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ dae96123232f1bcb37725348fa2378691ce26725
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-stimuli @ fc73a85ca16c34366d1888dc8a0d0d88d4ebf2a7
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from GCE London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	184.90	51.52	2.19
CalibratedKoho	10	214.24	62.11	21.09
Copa	10	74.31	50.70	0.44
TCP Cubic	10	46.35	51.91	0.71
KohoCC	8	11.69	51.34	0.43
LEDBAT	10	6.79	51.24	0.80
PCC	10	425.65	68.14	2.89
QUIC Cubic	9	44.78	50.01	0.52
Saturator	9	21.46	51.64	5.09
SCReAM	9	0.22	49.96	0.33
Sprout	10	7.19	51.27	4.17
TaoVA-100x	0	N/A	N/A	N/A
TCP Vegas	10	20.69	51.31	0.91
Verus	10	79.59	59.11	32.10
WebRTC media	9	1.90	50.28	0.64

Run 1: Statistics of TCP BBR

Start at: 2017-08-11 10:38:45

End at: 2017-08-11 10:39:15

Below is generated by plot.py at 2017-08-11 14:40:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 220.56 Mbit/s

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

Loss rate: 0.41%

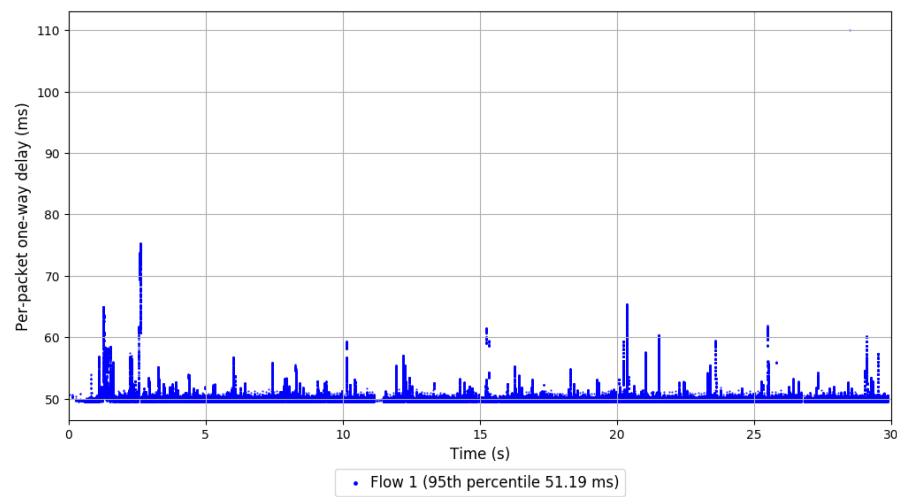
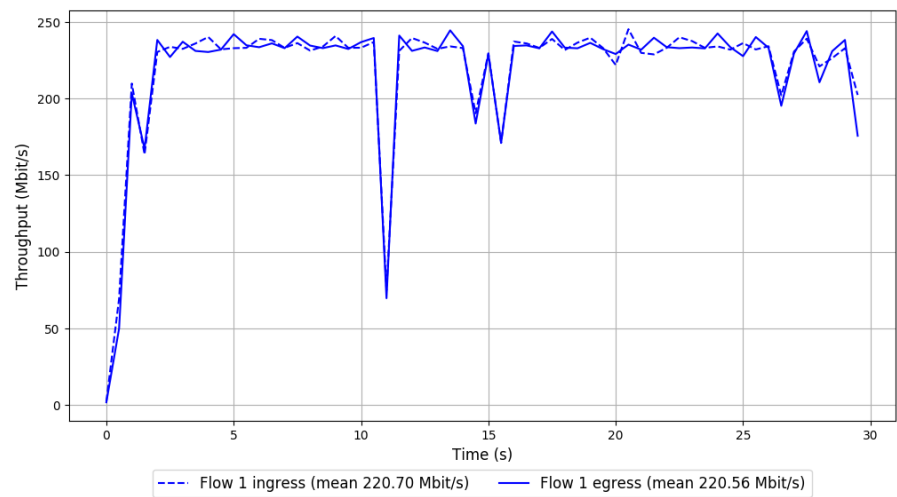
-- Flow 1:

Average throughput: 220.56 Mbit/s

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

Loss rate: 0.41%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-11 10:49:11

End at: 2017-08-11 10:49:41

Below is generated by plot.py at 2017-08-11 14:40:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 143.80 Mbit/s

95th percentile per-packet one-way delay: 53.011 ms

Loss rate: 6.61%

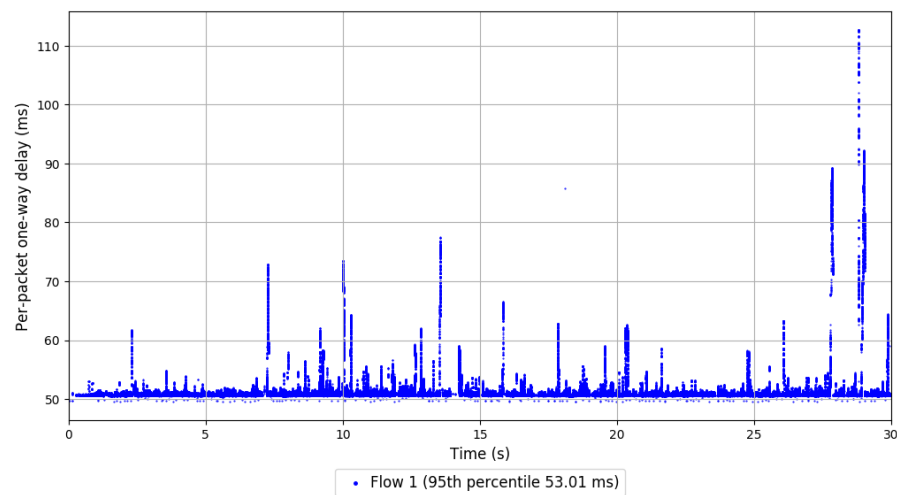
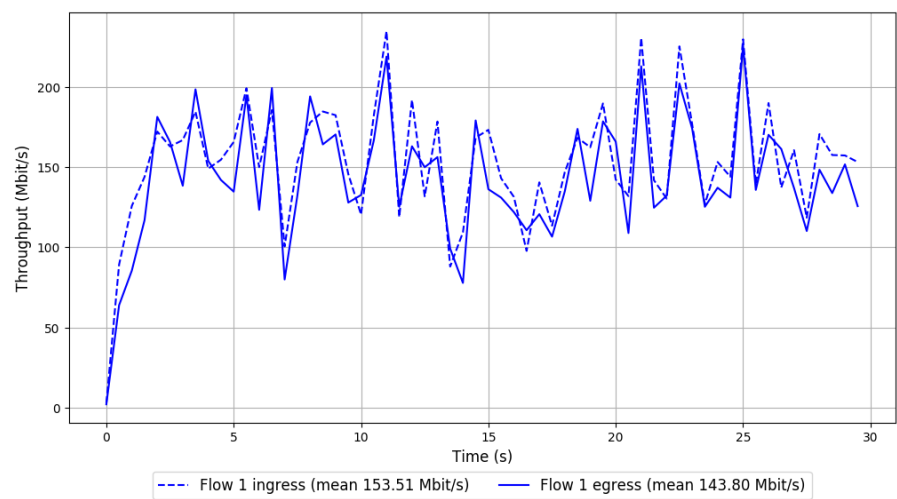
-- Flow 1:

Average throughput: 143.80 Mbit/s

95th percentile per-packet one-way delay: 53.011 ms

Loss rate: 6.61%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-11 10:59:08

End at: 2017-08-11 10:59:38

Below is generated by plot.py at 2017-08-11 14:40:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 126.02 Mbit/s

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

Loss rate: 5.33%

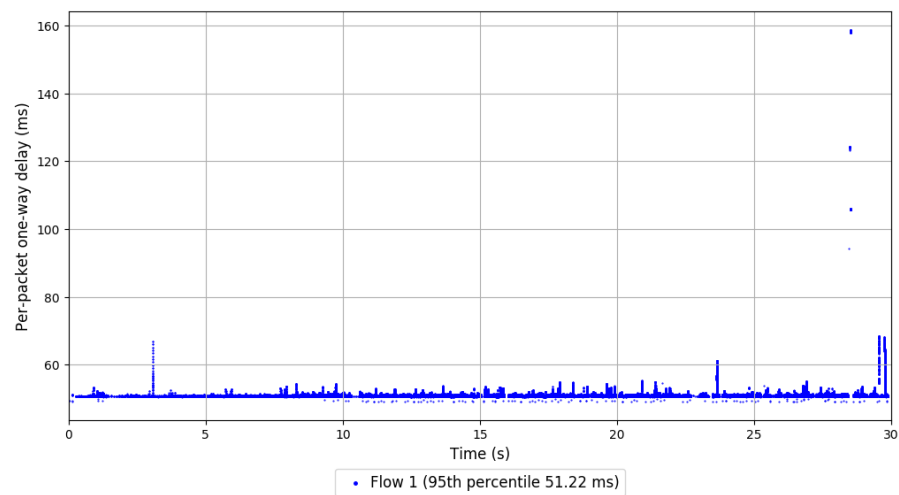
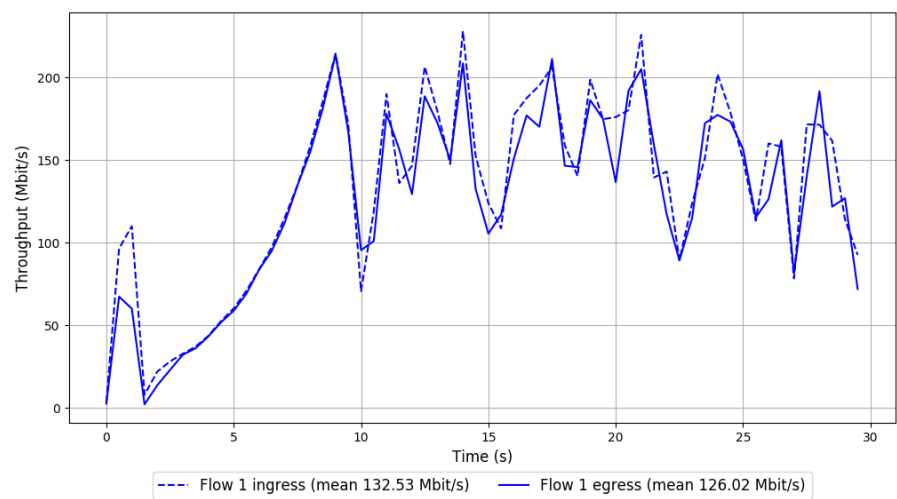
-- Flow 1:

Average throughput: 126.02 Mbit/s

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

Loss rate: 5.33%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-11 11:09:21

End at: 2017-08-11 11:09:51

Below is generated by plot.py at 2017-08-11 14:40:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 139.94 Mbit/s

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

Loss rate: 6.05%

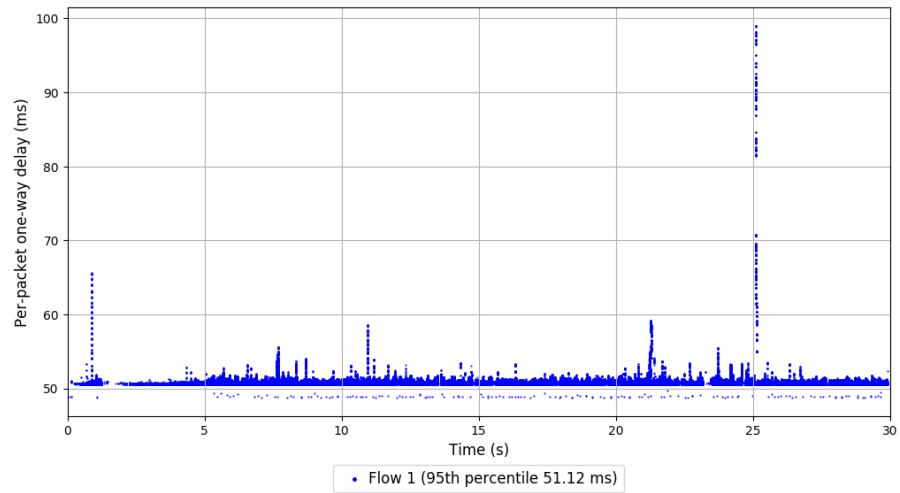
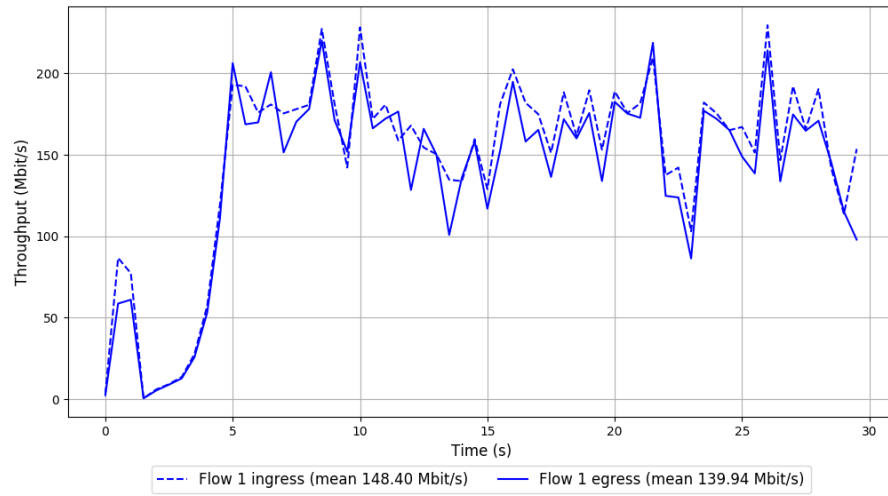
-- Flow 1:

Average throughput: 139.94 Mbit/s

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

Loss rate: 6.05%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-11 11:19:53

End at: 2017-08-11 11:20:23

Below is generated by plot.py at 2017-08-11 14:41:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 211.77 Mbit/s

95th percentile per-packet one-way delay: 51.609 ms

Loss rate: 0.40%

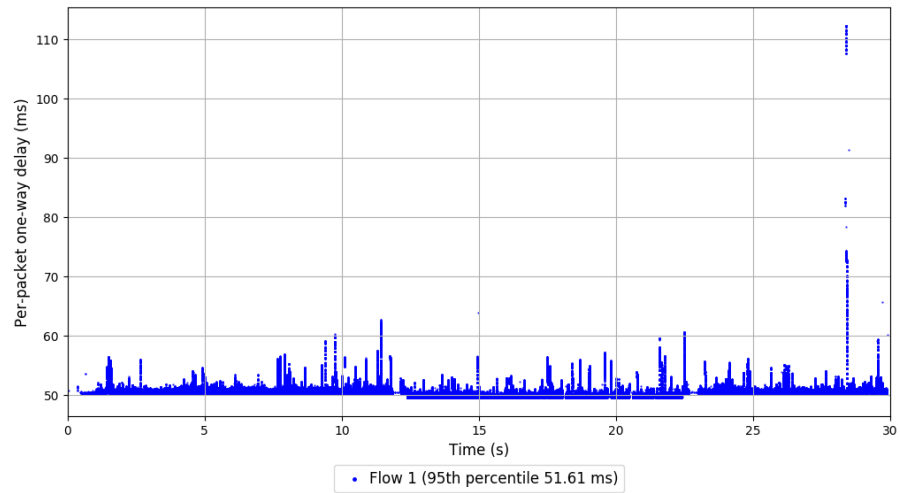
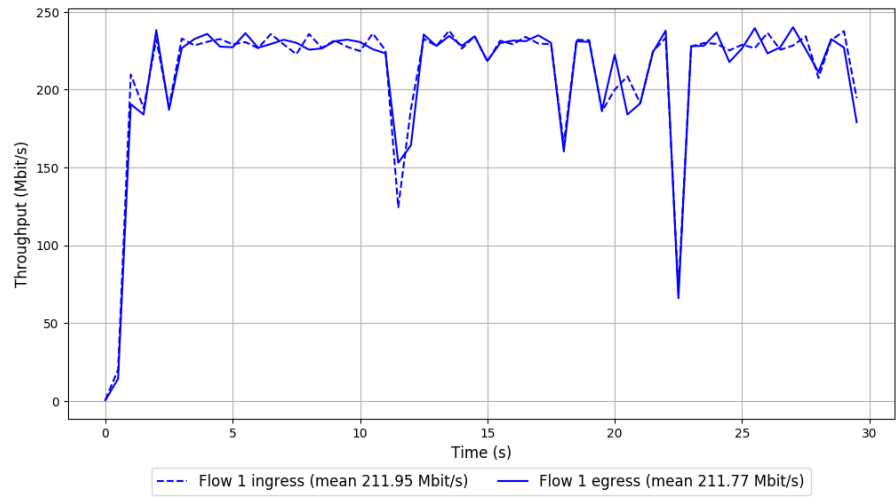
-- Flow 1:

Average throughput: 211.77 Mbit/s

95th percentile per-packet one-way delay: 51.609 ms

Loss rate: 0.40%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-11 11:30:09

End at: 2017-08-11 11:30:39

Below is generated by plot.py at 2017-08-11 14:41:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 207.54 Mbit/s

95th percentile per-packet one-way delay: 51.239 ms

Loss rate: 0.43%

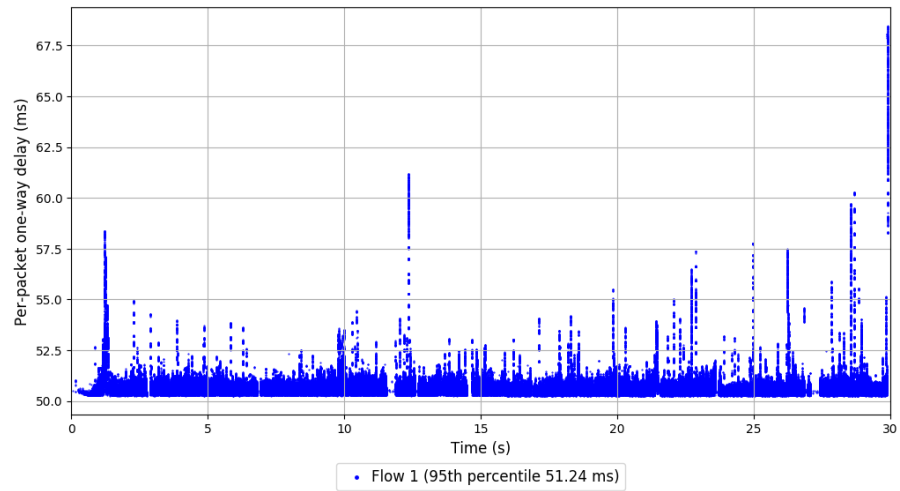
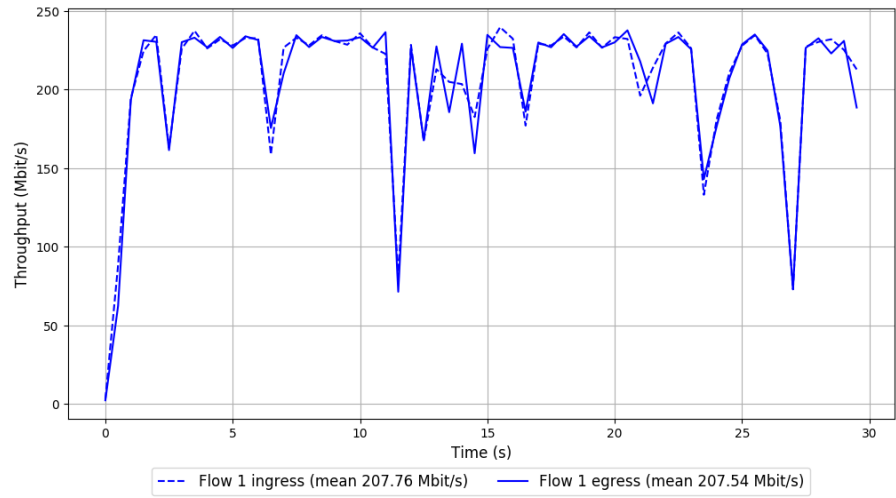
-- Flow 1:

Average throughput: 207.54 Mbit/s

95th percentile per-packet one-way delay: 51.239 ms

Loss rate: 0.43%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-11 11:40:25

End at: 2017-08-11 11:40:55

Below is generated by plot.py at 2017-08-11 14:41:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.00 Mbit/s

95th percentile per-packet one-way delay: 51.846 ms

Loss rate: 0.40%

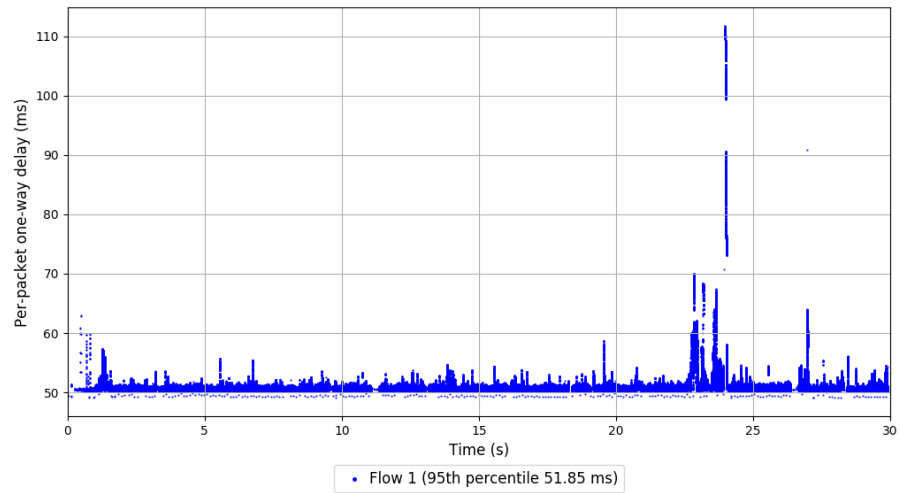
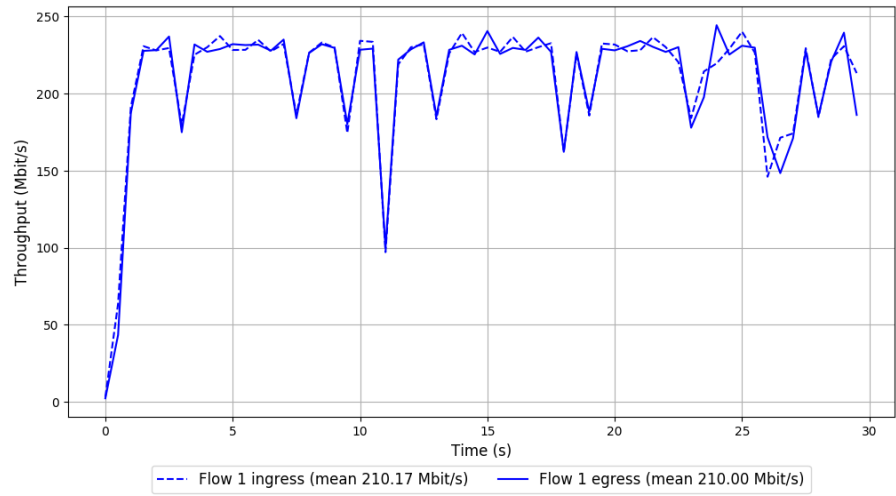
-- Flow 1:

Average throughput: 210.00 Mbit/s

95th percentile per-packet one-way delay: 51.846 ms

Loss rate: 0.40%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-11 11:50:57

End at: 2017-08-11 11:51:27

Below is generated by plot.py at 2017-08-11 14:41:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.12 Mbit/s

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

Loss rate: 0.82%

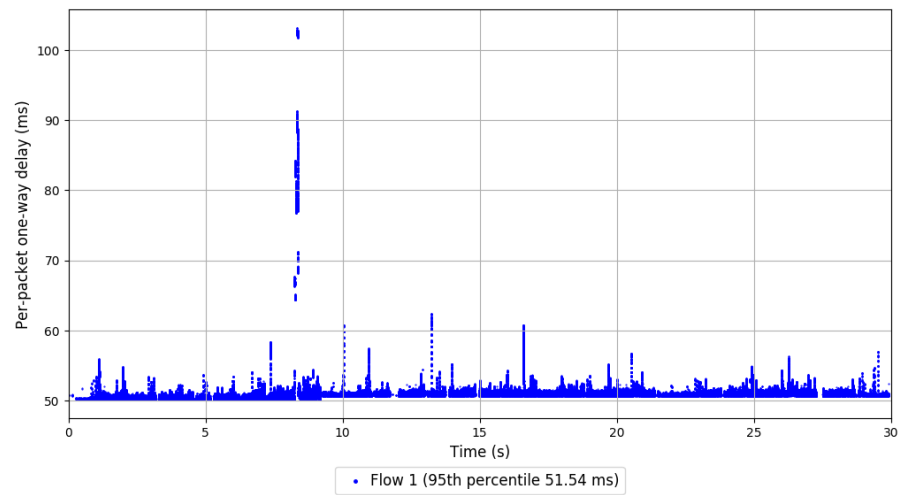
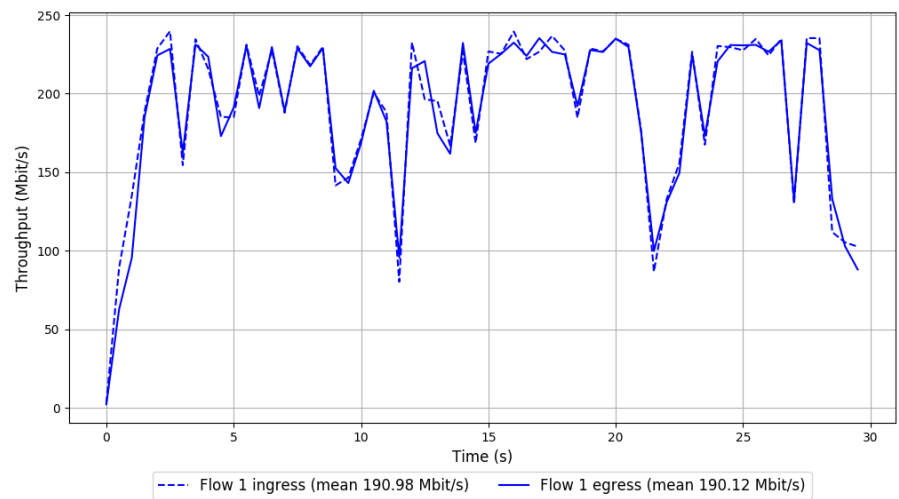
-- Flow 1:

Average throughput: 190.12 Mbit/s

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

Loss rate: 0.82%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-11 12:01:30

End at: 2017-08-11 12:02:00

Below is generated by plot.py at 2017-08-11 14:42:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 214.16 Mbit/s

95th percentile per-packet one-way delay: 51.474 ms

Loss rate: 0.38%

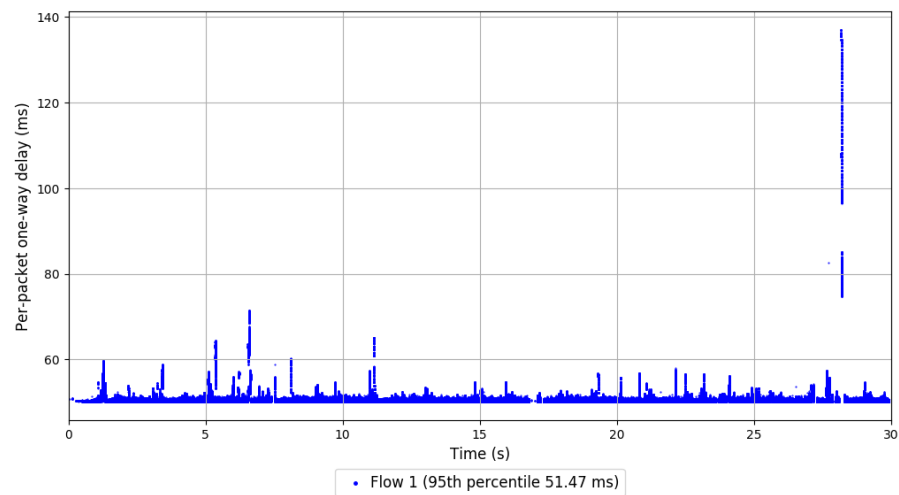
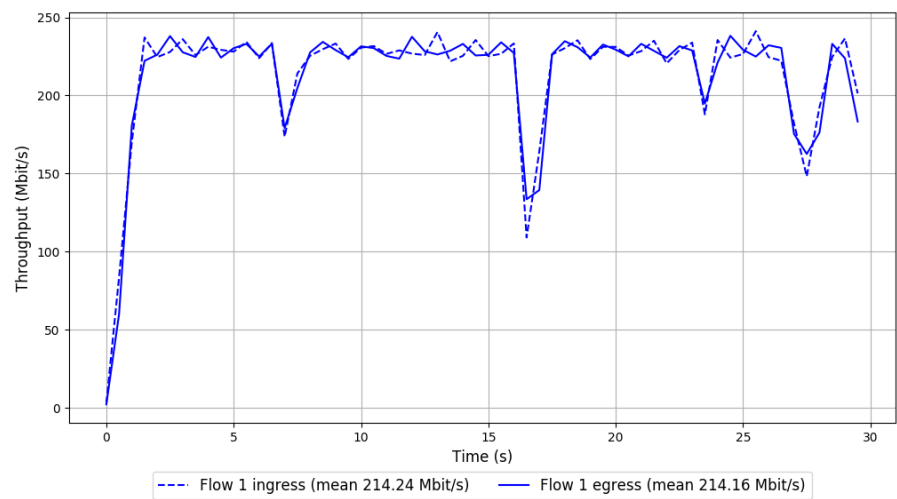
-- Flow 1:

Average throughput: 214.16 Mbit/s

95th percentile per-packet one-way delay: 51.474 ms

Loss rate: 0.38%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-11 12:12:09

End at: 2017-08-11 12:12:39

Below is generated by plot.py at 2017-08-11 14:42:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.05 Mbit/s

95th percentile per-packet one-way delay: 50.930 ms

Loss rate: 1.06%

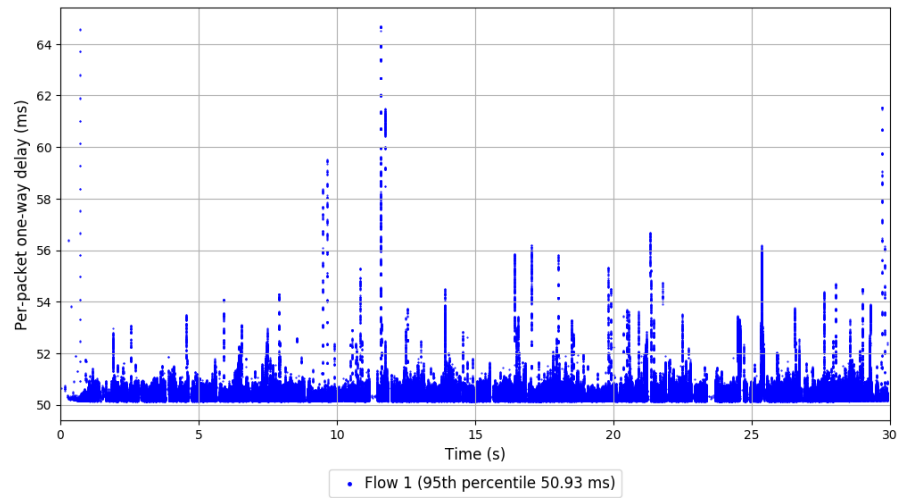
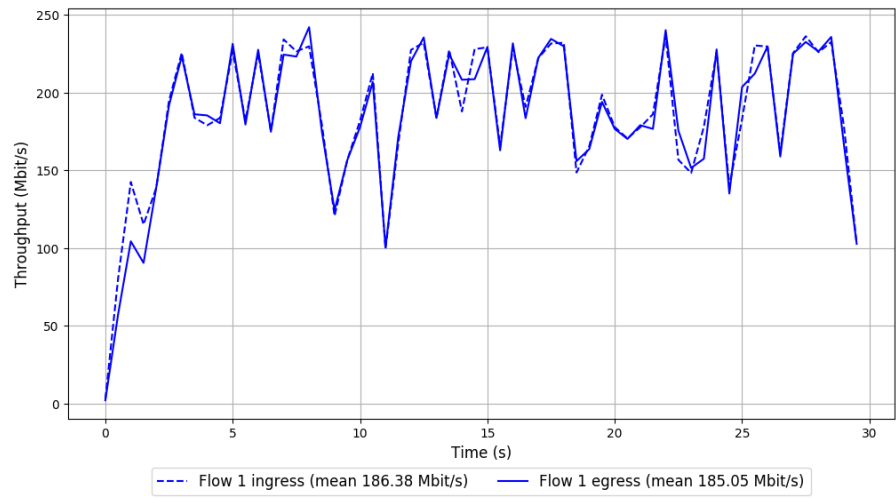
-- Flow 1:

Average throughput: 185.05 Mbit/s

95th percentile per-packet one-way delay: 50.930 ms

Loss rate: 1.06%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-11 10:45:23

End at: 2017-08-11 10:45:53

Below is generated by plot.py at 2017-08-11 14:43:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 319.20 Mbit/s

95th percentile per-packet one-way delay: 63.491 ms

Loss rate: 0.39%

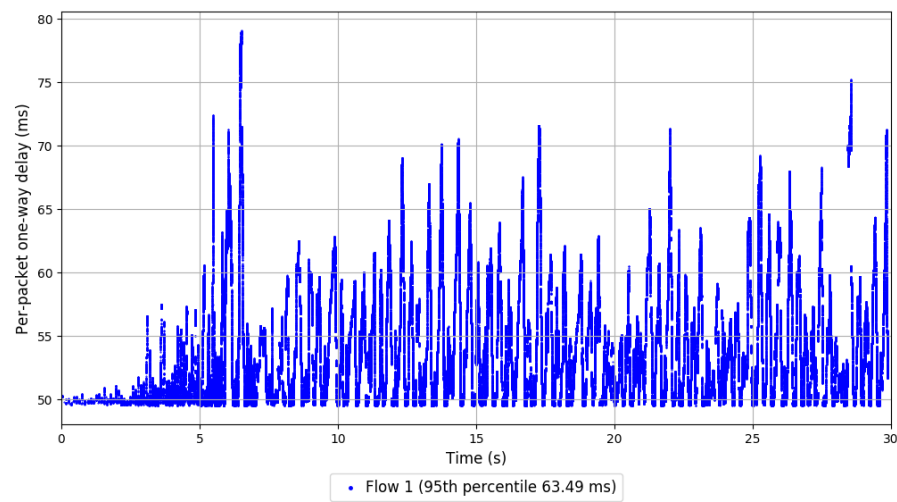
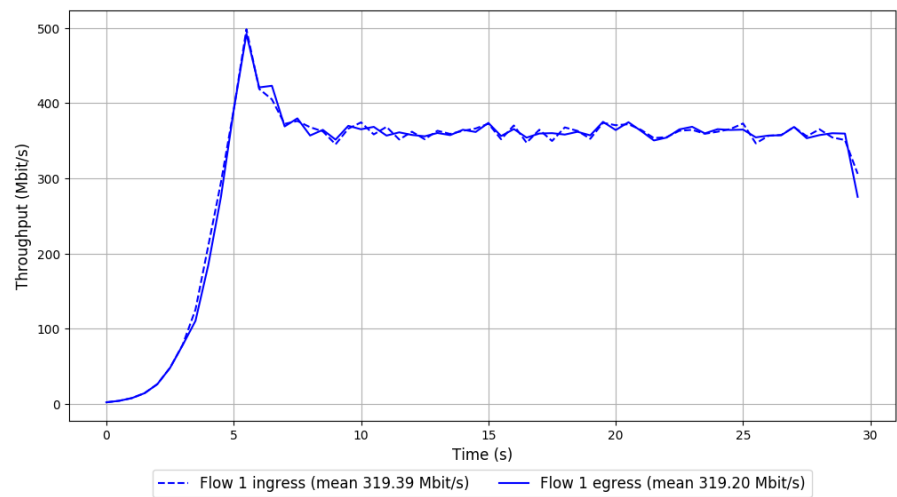
-- Flow 1:

Average throughput: 319.20 Mbit/s

95th percentile per-packet one-way delay: 63.491 ms

Loss rate: 0.39%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-11 10:55:46

End at: 2017-08-11 10:56:16

Below is generated by plot.py at 2017-08-11 14:43:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.49 Mbit/s

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

Loss rate: 69.11%

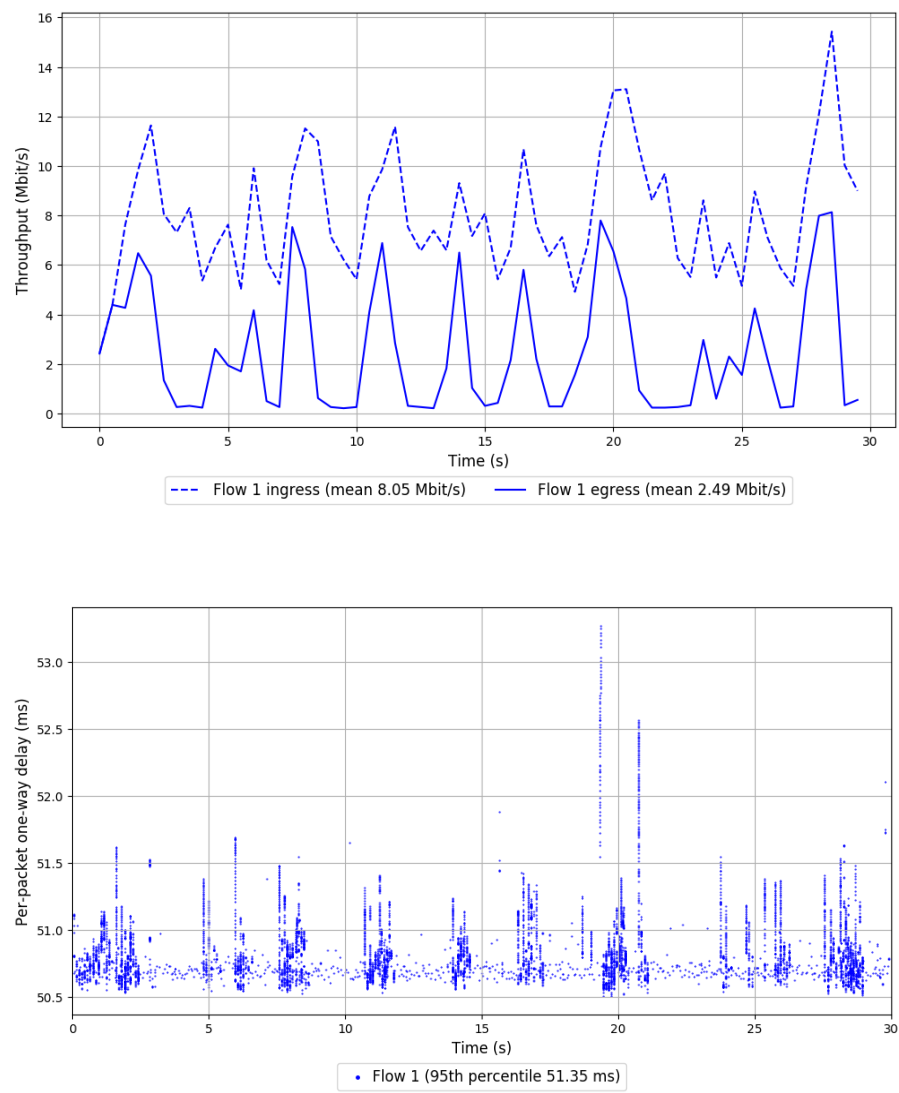
-- Flow 1:

Average throughput: 2.49 Mbit/s

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

Loss rate: 69.11%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-11 11:05:37

End at: 2017-08-11 11:06:07

Below is generated by plot.py at 2017-08-11 14:43:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 321.75 Mbit/s

95th percentile per-packet one-way delay: 61.310 ms

Loss rate: 0.55%

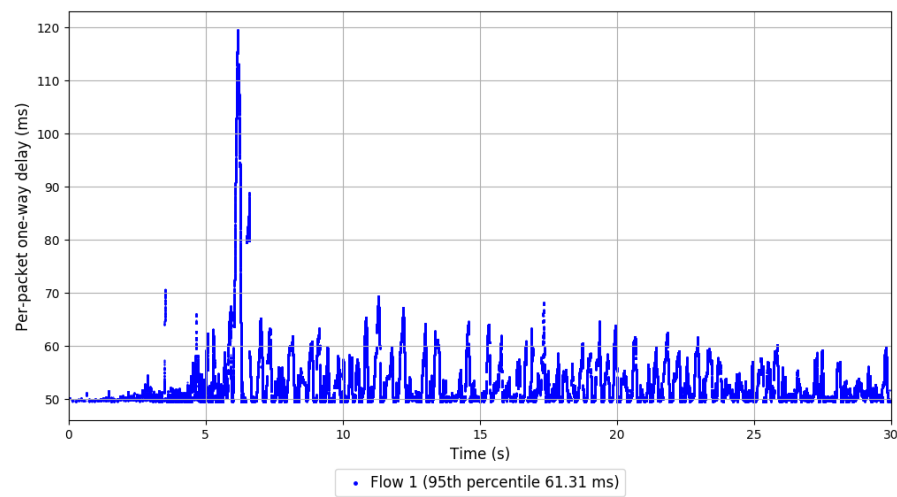
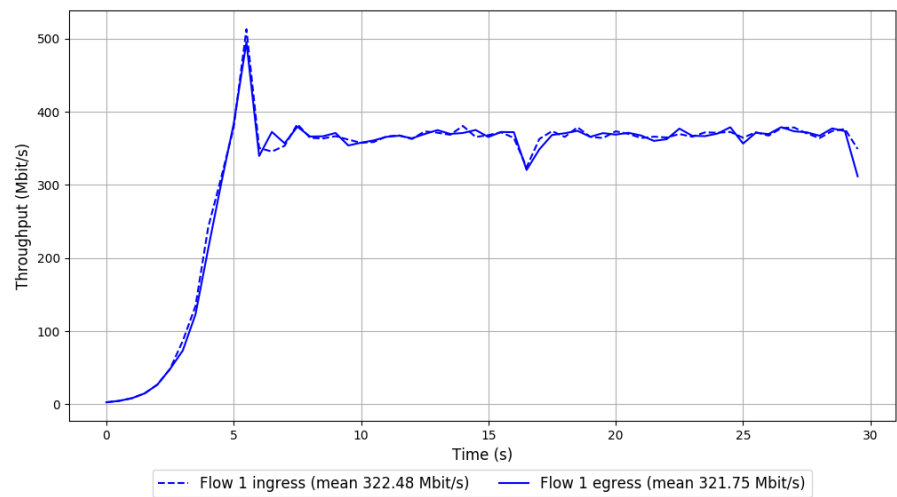
-- Flow 1:

Average throughput: 321.75 Mbit/s

95th percentile per-packet one-way delay: 61.310 ms

Loss rate: 0.55%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-11 11:16:00

End at: 2017-08-11 11:16:30

Below is generated by plot.py at 2017-08-11 14:44:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 301.61 Mbit/s

95th percentile per-packet one-way delay: 65.457 ms

Loss rate: 0.37%

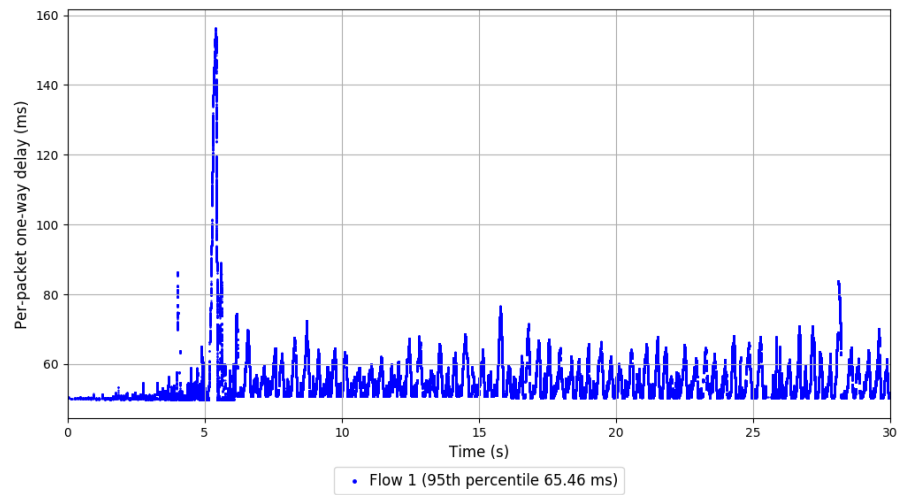
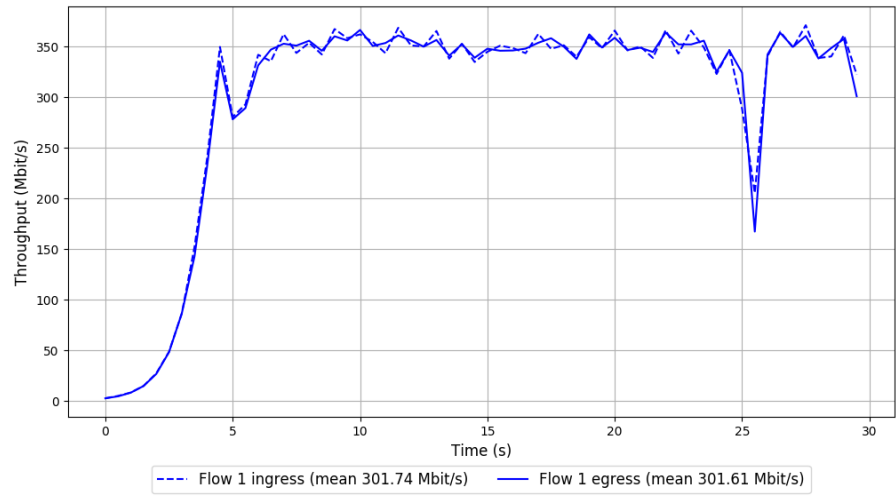
-- Flow 1:

Average throughput: 301.61 Mbit/s

95th percentile per-packet one-way delay: 65.457 ms

Loss rate: 0.37%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-11 11:26:32

End at: 2017-08-11 11:27:02

Below is generated by plot.py at 2017-08-11 14:44:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 51.449 ms

Loss rate: 69.45%

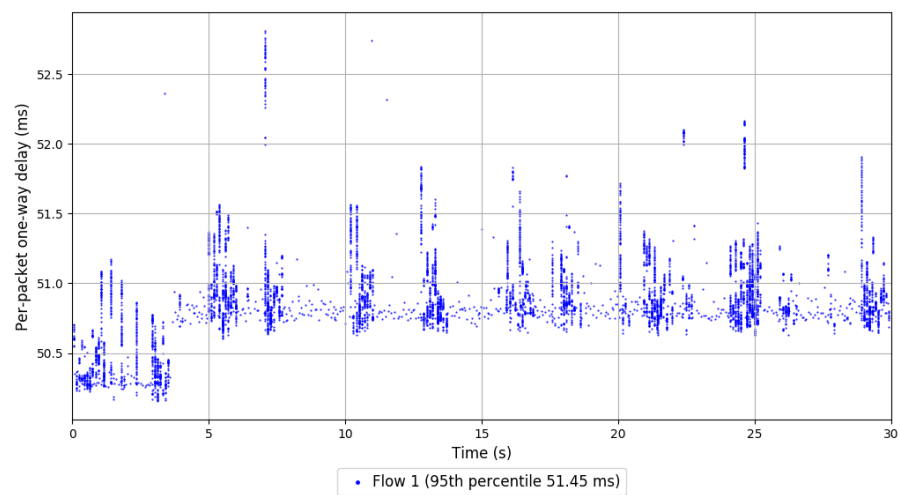
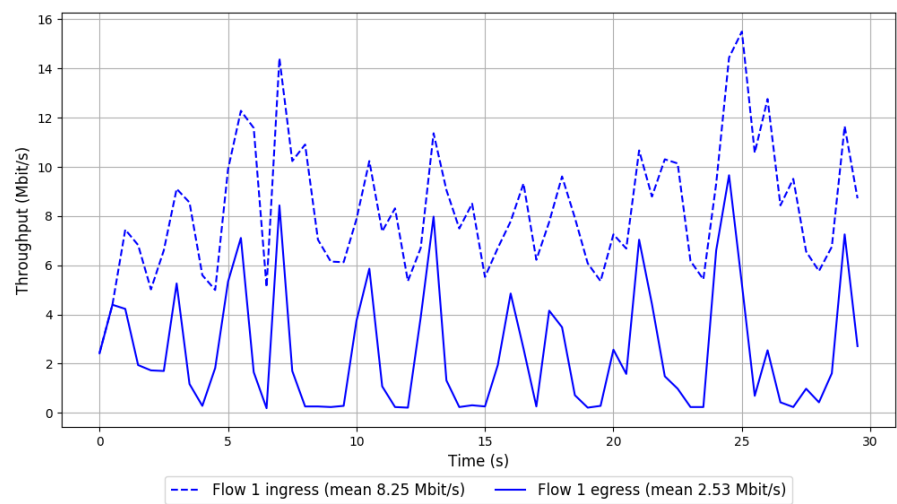
-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 51.449 ms

Loss rate: 69.45%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-11 11:36:50

End at: 2017-08-11 11:37:20

Below is generated by plot.py at 2017-08-11 14:44:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 51.519 ms

Loss rate: 69.00%

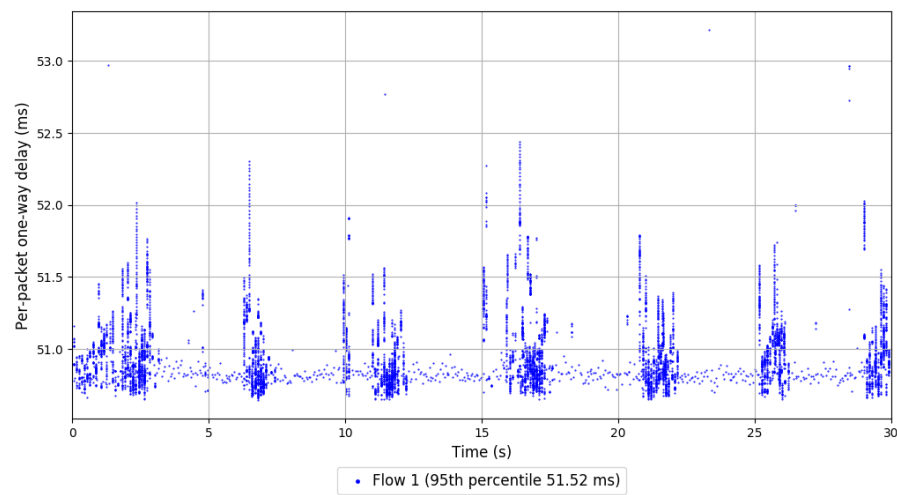
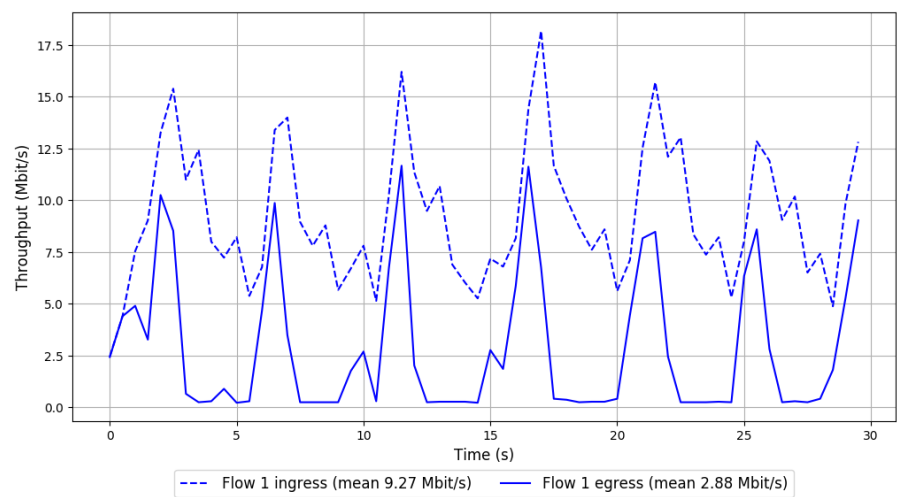
-- Flow 1:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 51.519 ms

Loss rate: 69.00%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-11 11:47:02

End at: 2017-08-11 11:47:32

Below is generated by plot.py at 2017-08-11 14:44:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 299.17 Mbit/s

95th percentile per-packet one-way delay: 69.807 ms

Loss rate: 0.53%

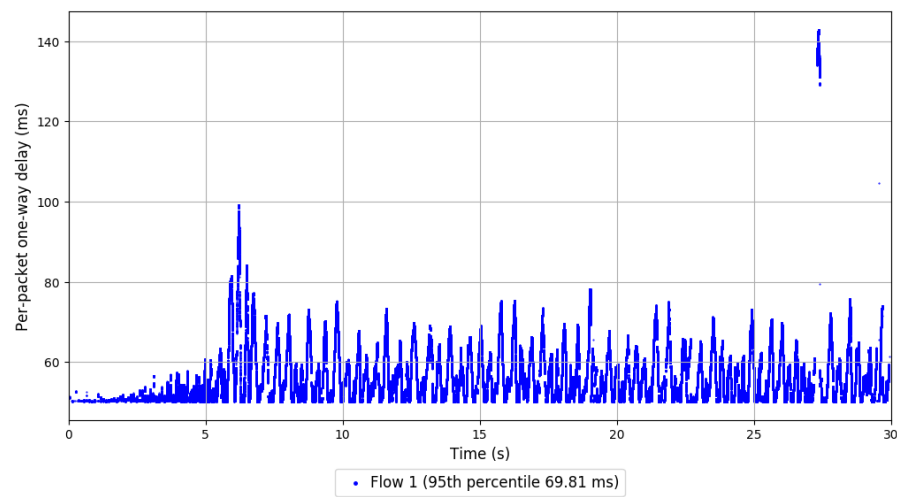
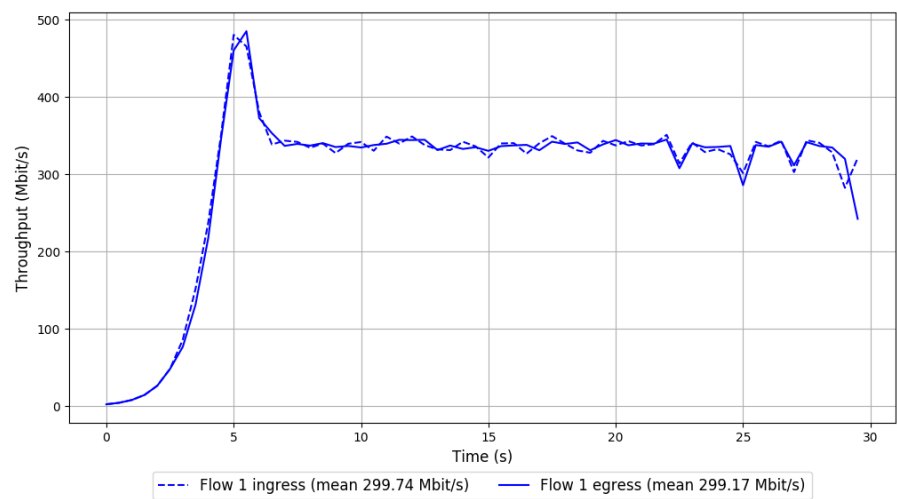
-- Flow 1:

Average throughput: 299.17 Mbit/s

95th percentile per-packet one-way delay: 69.807 ms

Loss rate: 0.53%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-11 11:57:34

End at: 2017-08-11 11:58:04

Below is generated by plot.py at 2017-08-11 14:45:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 296.17 Mbit/s

95th percentile per-packet one-way delay: 71.277 ms

Loss rate: 0.46%

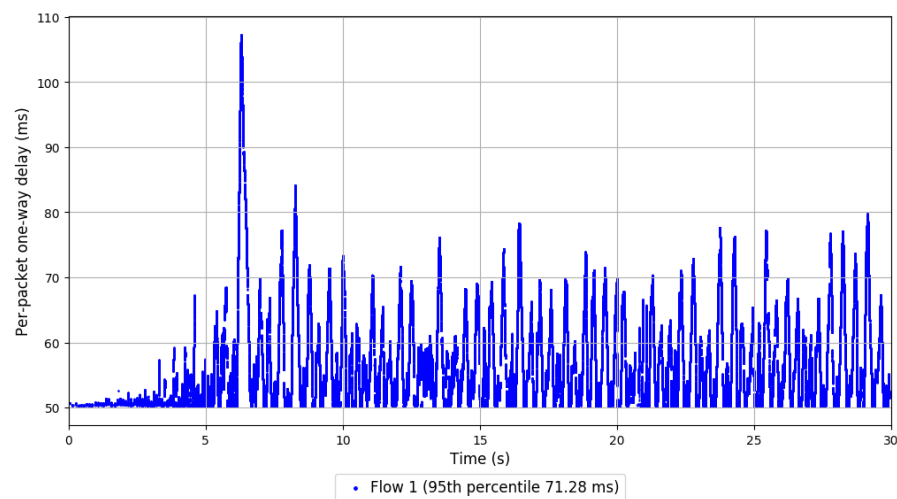
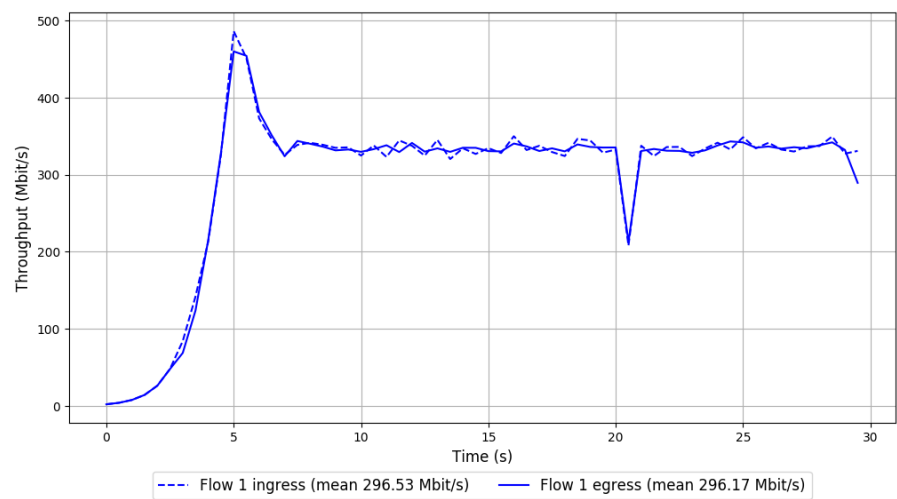
-- Flow 1:

Average throughput: 296.17 Mbit/s

95th percentile per-packet one-way delay: 71.277 ms

Loss rate: 0.46%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-11 12:08:15

End at: 2017-08-11 12:08:45

Below is generated by plot.py at 2017-08-11 14:45:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 305.91 Mbit/s

95th percentile per-packet one-way delay: 67.870 ms

Loss rate: 0.67%

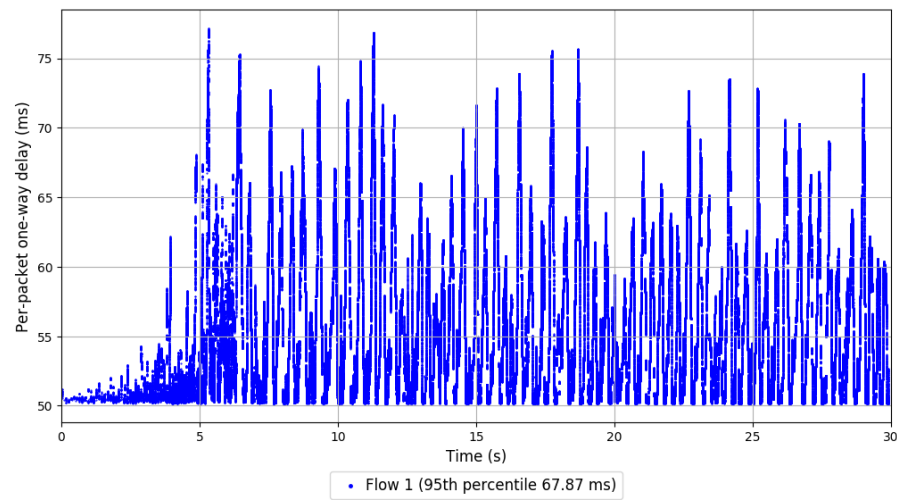
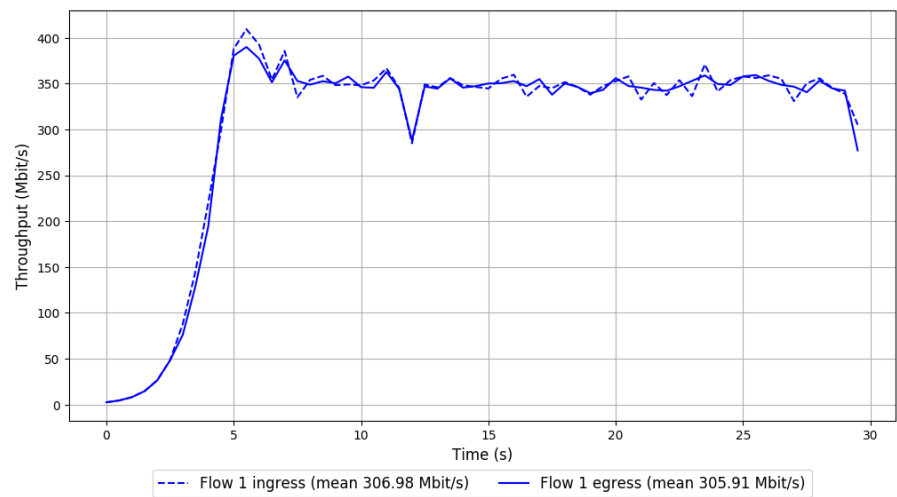
-- Flow 1:

Average throughput: 305.91 Mbit/s

95th percentile per-packet one-way delay: 67.870 ms

Loss rate: 0.67%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-11 12:18:45

End at: 2017-08-11 12:19:15

Below is generated by plot.py at 2017-08-11 14:46:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 290.72 Mbit/s

95th percentile per-packet one-way delay: 67.607 ms

Loss rate: 0.39%

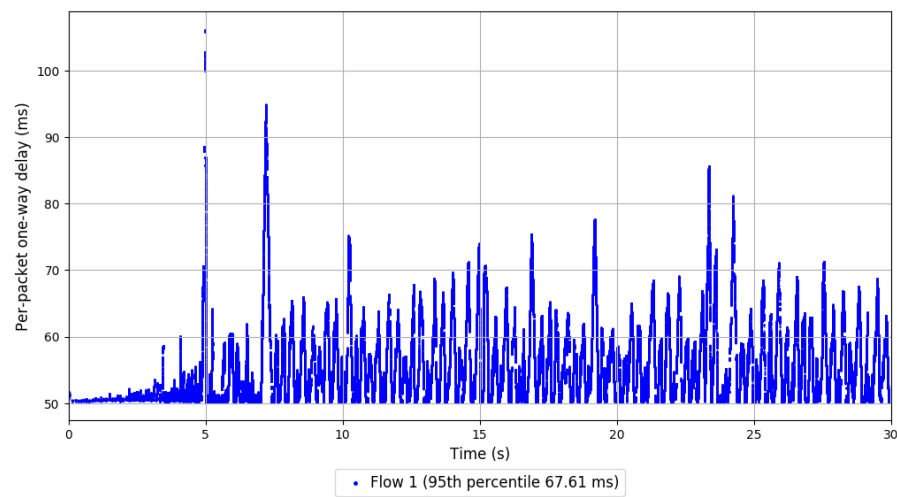
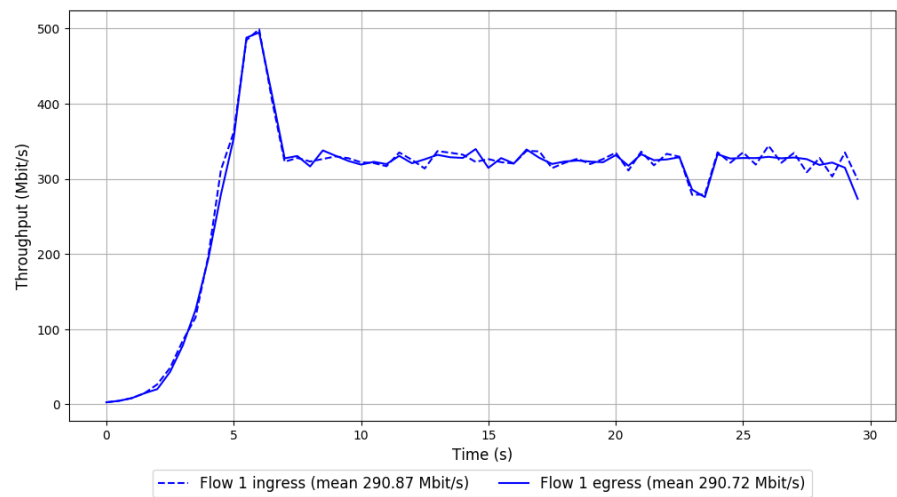
-- Flow 1:

Average throughput: 290.72 Mbit/s

95th percentile per-packet one-way delay: 67.607 ms

Loss rate: 0.39%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-11 10:40:13

End at: 2017-08-11 10:40:43

Below is generated by plot.py at 2017-08-11 14:46:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.17 Mbit/s

95th percentile per-packet one-way delay: 49.905 ms

Loss rate: 0.35%

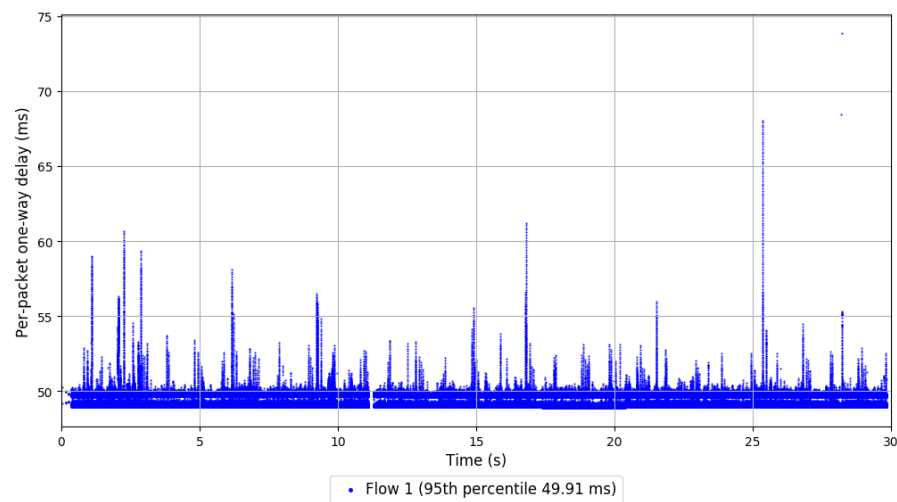
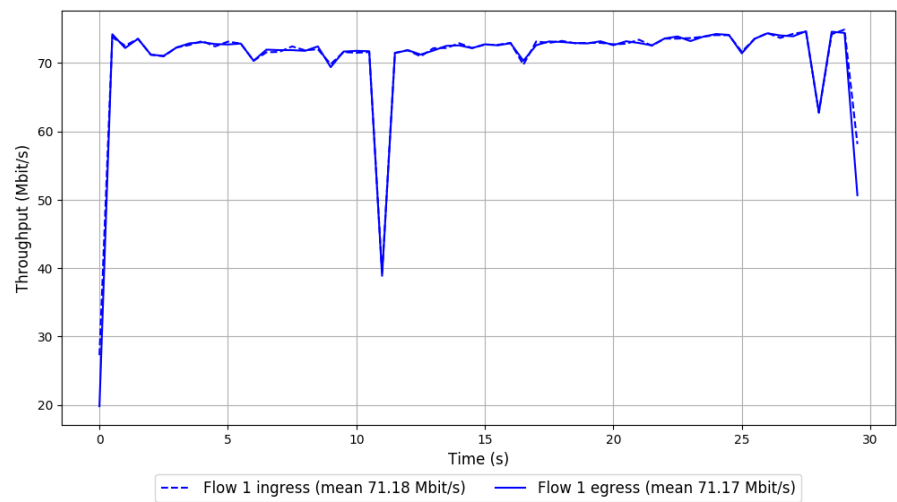
-- Flow 1:

Average throughput: 71.17 Mbit/s

95th percentile per-packet one-way delay: 49.905 ms

Loss rate: 0.35%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-11 10:50:34

End at: 2017-08-11 10:51:04

Below is generated by plot.py at 2017-08-11 14:46:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.20 Mbit/s

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

Loss rate: 1.03%

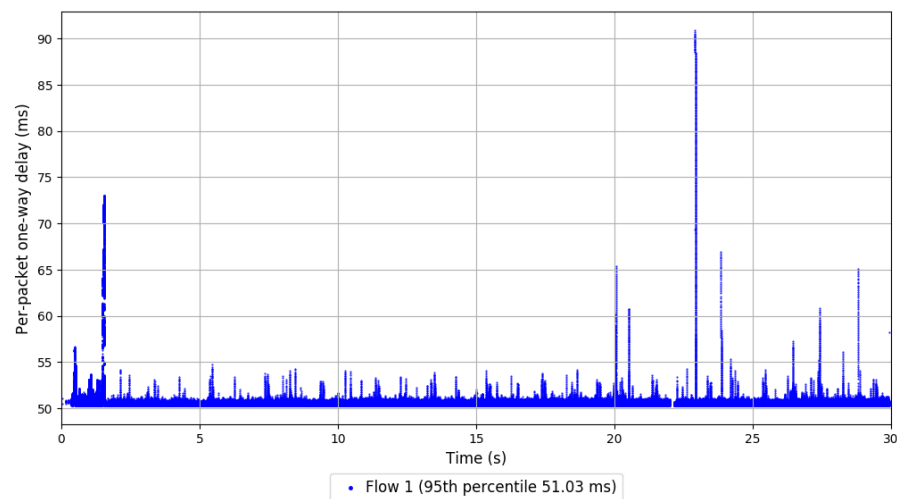
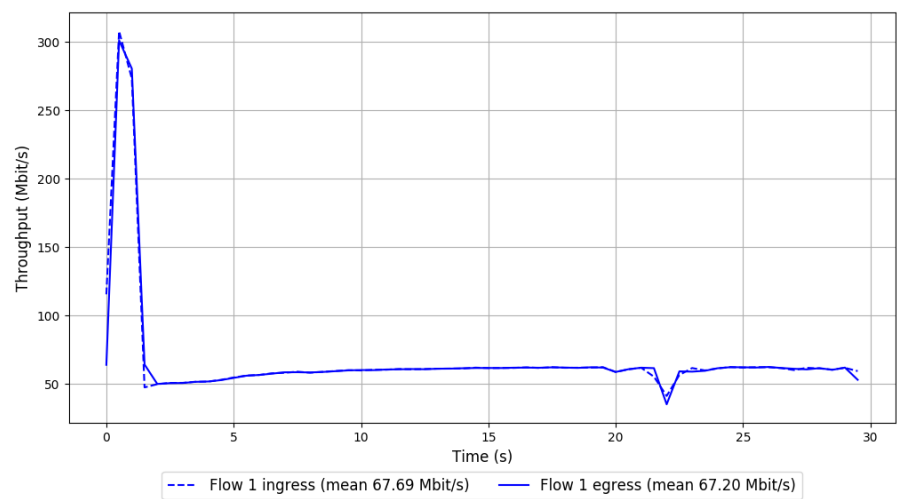
-- Flow 1:

Average throughput: 67.20 Mbit/s

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

Loss rate: 1.03%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-11 11:00:30

End at: 2017-08-11 11:01:00

Below is generated by plot.py at 2017-08-11 14:46:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.57 Mbit/s

95th percentile per-packet one-way delay: 50.567 ms

Loss rate: 0.33%

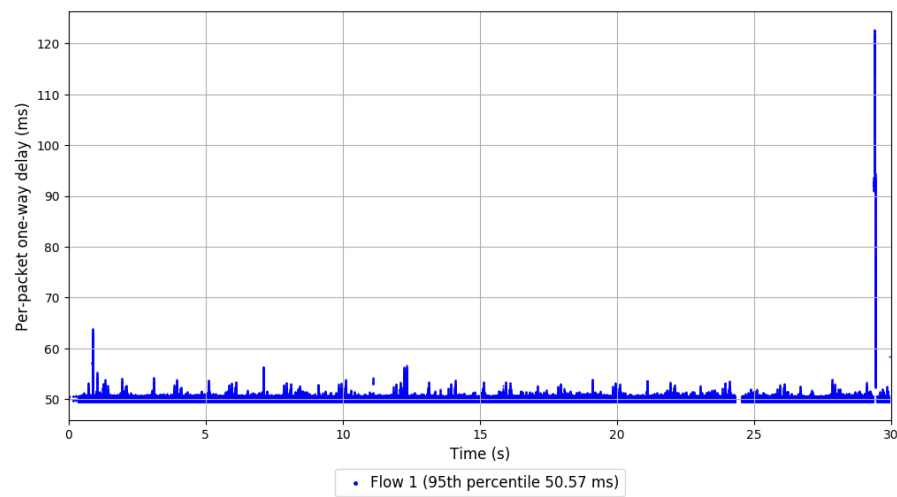
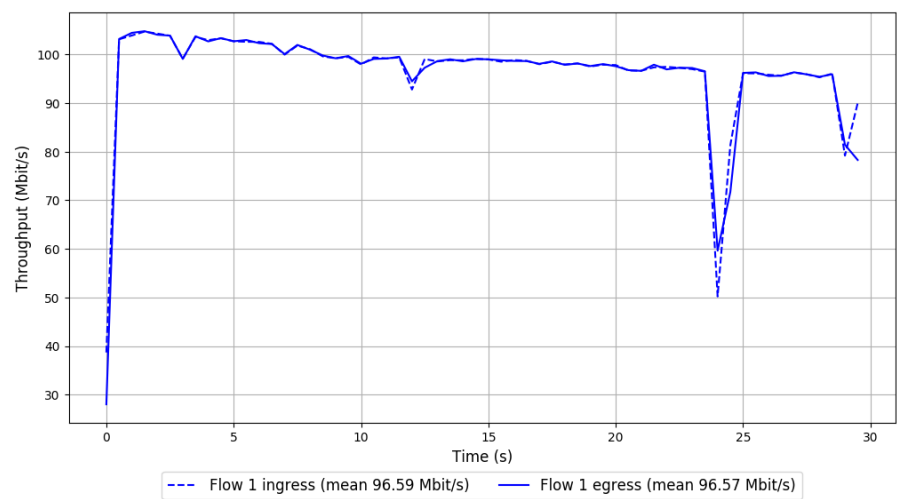
-- Flow 1:

Average throughput: 96.57 Mbit/s

95th percentile per-packet one-way delay: 50.567 ms

Loss rate: 0.33%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-11 11:10:44

End at: 2017-08-11 11:11:14

Below is generated by plot.py at 2017-08-11 14:47:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.54 Mbit/s

95th percentile per-packet one-way delay: 50.739 ms

Loss rate: 0.41%

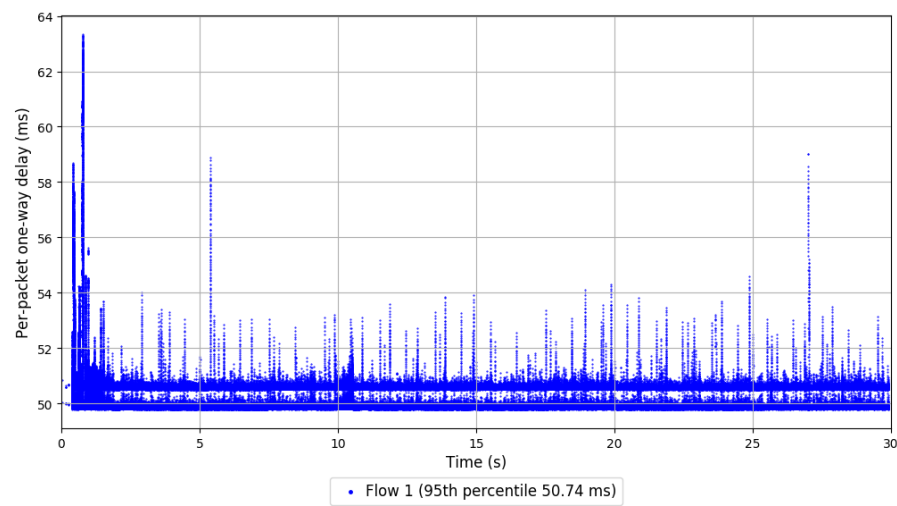
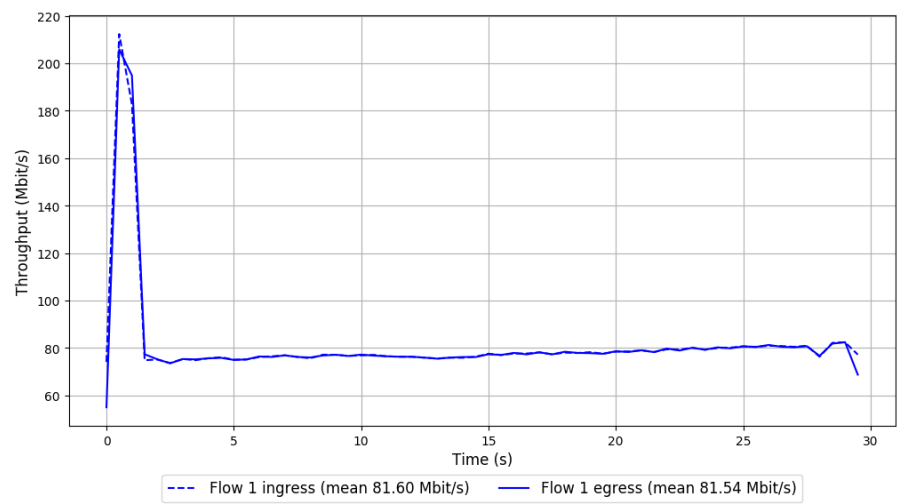
-- Flow 1:

Average throughput: 81.54 Mbit/s

95th percentile per-packet one-way delay: 50.739 ms

Loss rate: 0.41%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-11 11:21:20

End at: 2017-08-11 11:21:50

Below is generated by plot.py at 2017-08-11 14:47:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.18 Mbit/s

95th percentile per-packet one-way delay: 50.821 ms

Loss rate: 0.52%

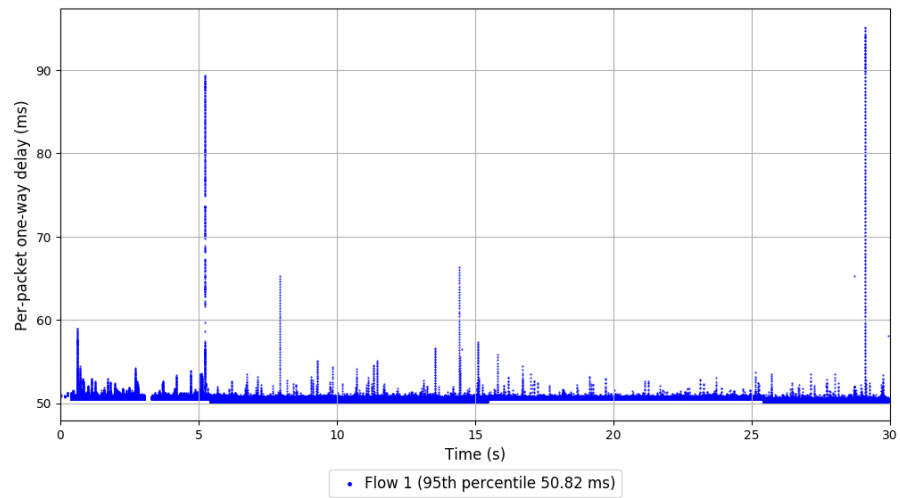
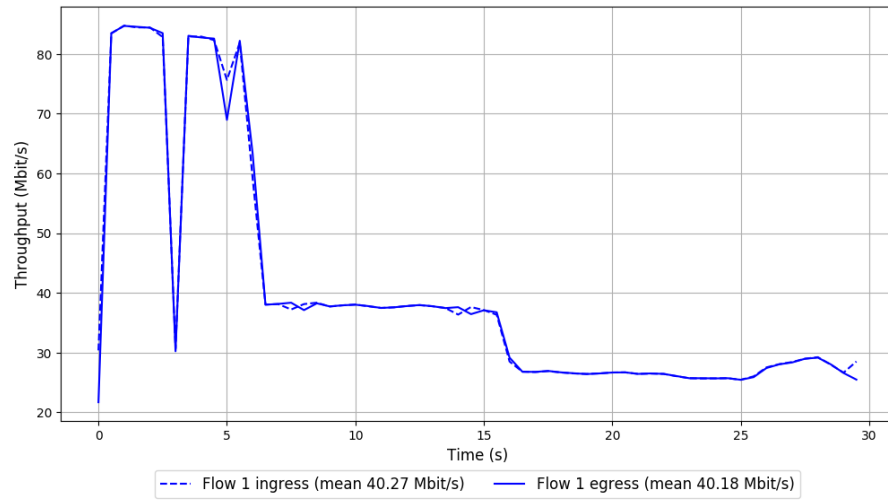
-- Flow 1:

Average throughput: 40.18 Mbit/s

95th percentile per-packet one-way delay: 50.821 ms

Loss rate: 0.52%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-11 11:31:36

End at: 2017-08-11 11:32:06

Below is generated by plot.py at 2017-08-11 14:47:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 106.37 Mbit/s

95th percentile per-packet one-way delay: 50.889 ms

Loss rate: 0.36%

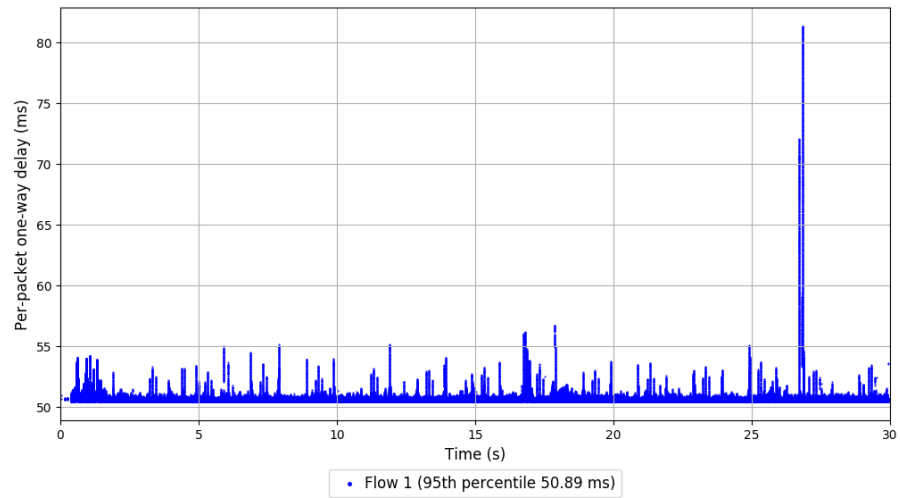
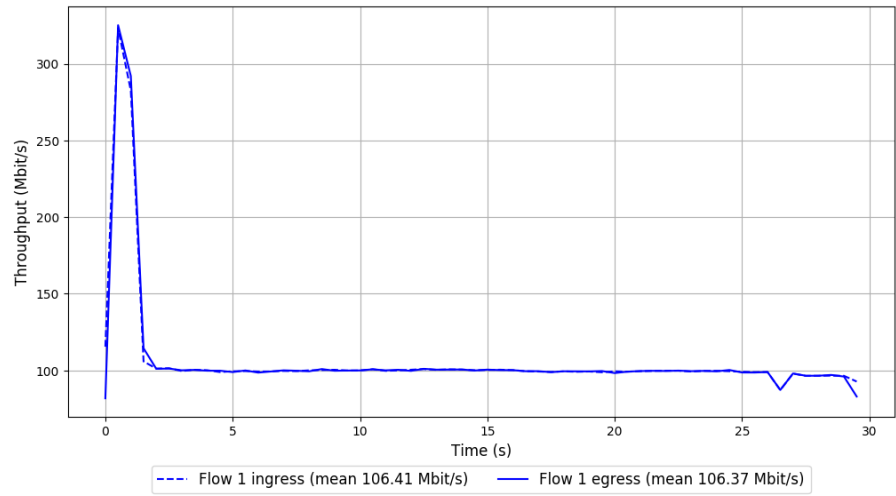
-- Flow 1:

Average throughput: 106.37 Mbit/s

95th percentile per-packet one-way delay: 50.889 ms

Loss rate: 0.36%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-11 11:41:51

End at: 2017-08-11 11:42:21

Below is generated by plot.py at 2017-08-11 14:47:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 50.990 ms

Loss rate: 0.36%

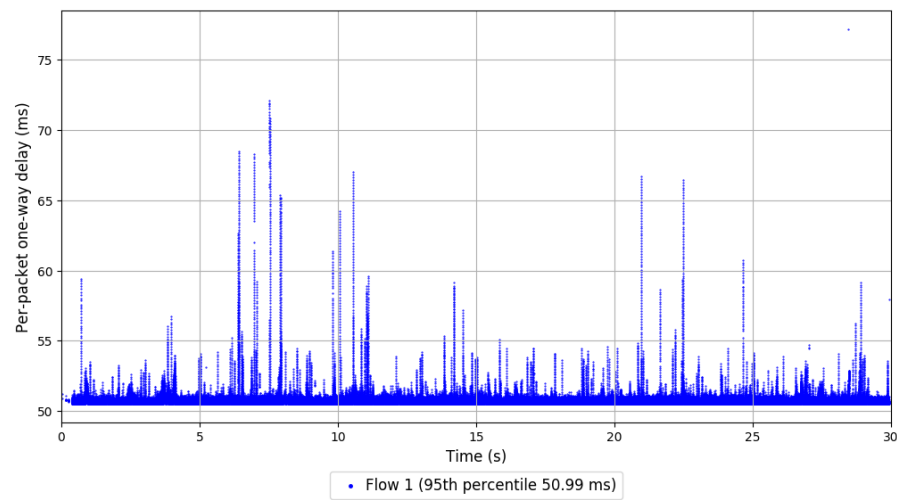
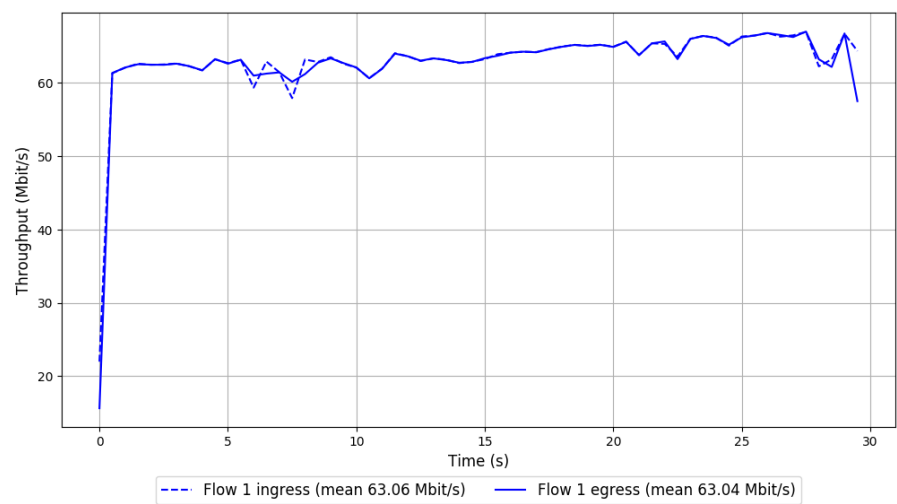
-- Flow 1:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 50.990 ms

Loss rate: 0.36%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-11 11:52:22

End at: 2017-08-11 11:52:52

Below is generated by plot.py at 2017-08-11 14:48:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.39 Mbit/s

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

Loss rate: 0.35%

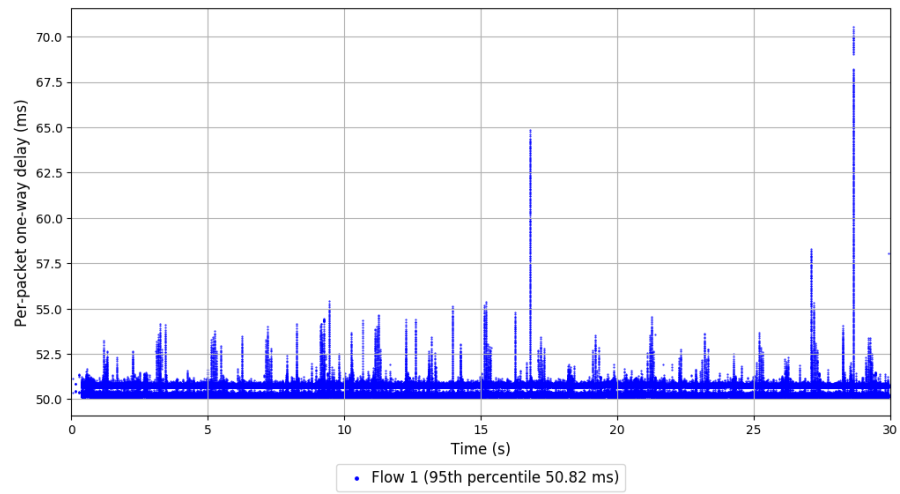
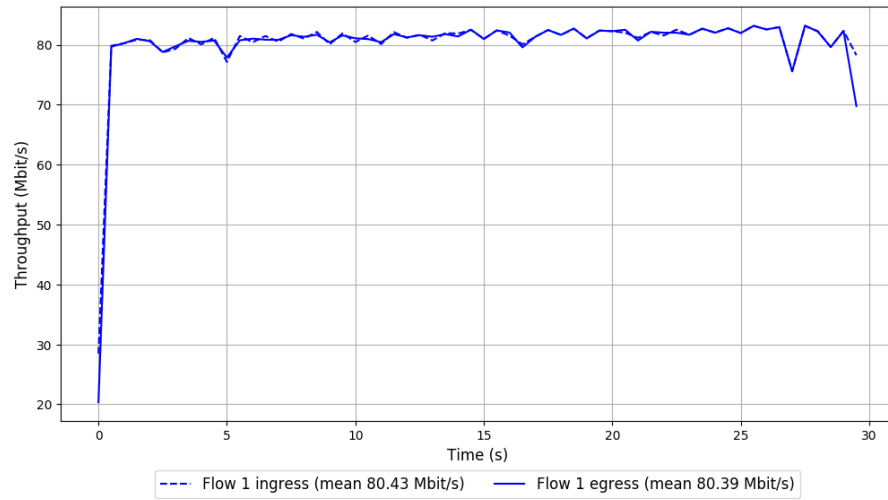
-- Flow 1:

Average throughput: 80.39 Mbit/s

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

Loss rate: 0.35%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-11 12:02:57

End at: 2017-08-11 12:03:27

Below is generated by plot.py at 2017-08-11 14:48:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.39 Mbit/s

95th percentile per-packet one-way delay: 50.514 ms

Loss rate: 0.32%

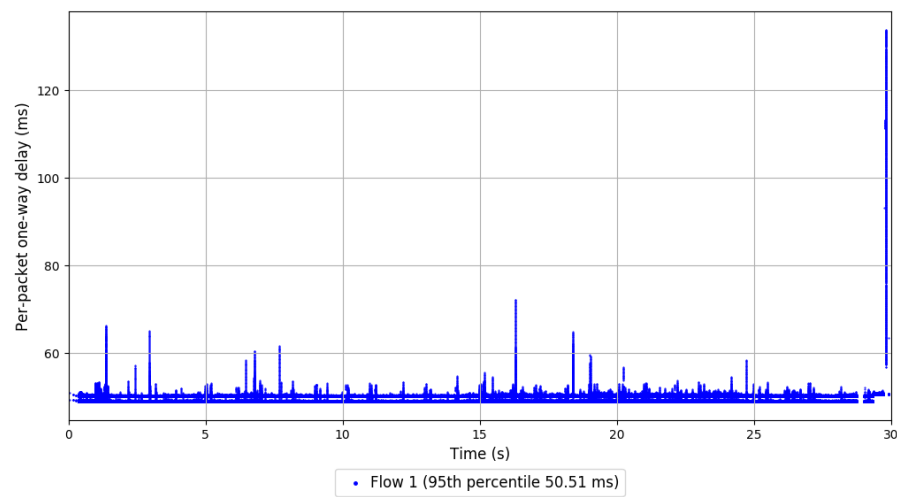
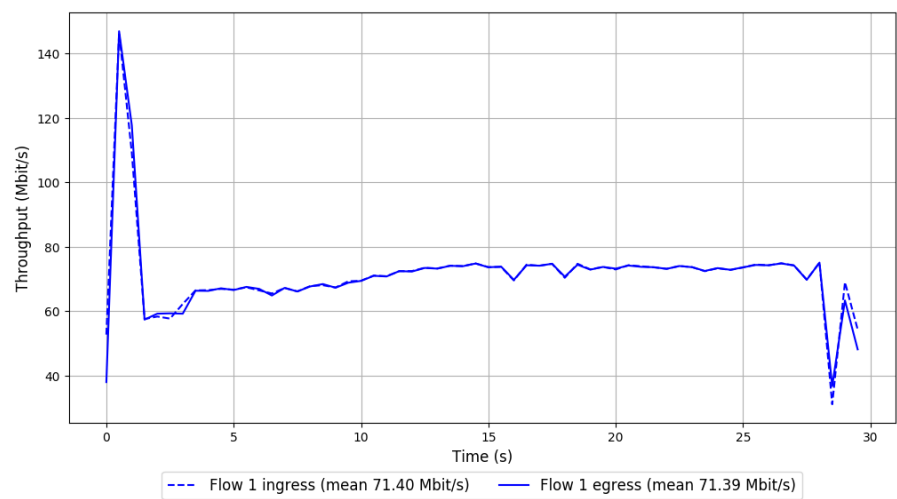
-- Flow 1:

Average throughput: 71.39 Mbit/s

95th percentile per-packet one-way delay: 50.514 ms

Loss rate: 0.32%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-11 12:13:34

End at: 2017-08-11 12:14:04

Below is generated by plot.py at 2017-08-11 14:48:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.20 Mbit/s

95th percentile per-packet one-way delay: 50.756 ms

Loss rate: 0.38%

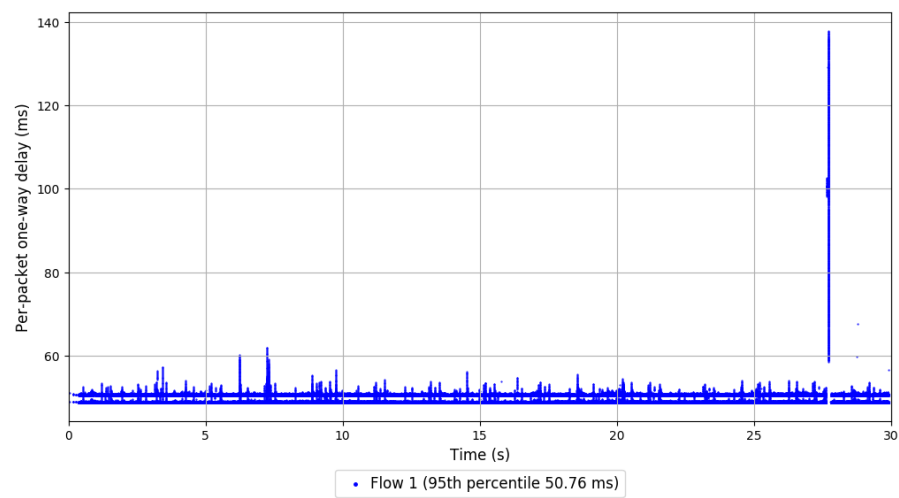
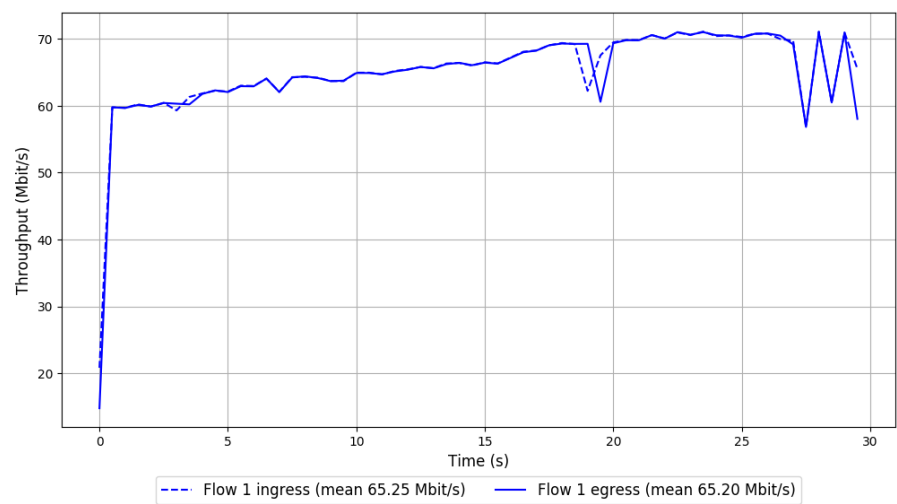
-- Flow 1:

Average throughput: 65.20 Mbit/s

95th percentile per-packet one-way delay: 50.756 ms

Loss rate: 0.38%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-11 10:43:27

End at: 2017-08-11 10:43:57

Below is generated by plot.py at 2017-08-11 14:48:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.89 Mbit/s

95th percentile per-packet one-way delay: 51.196 ms

Loss rate: 1.06%

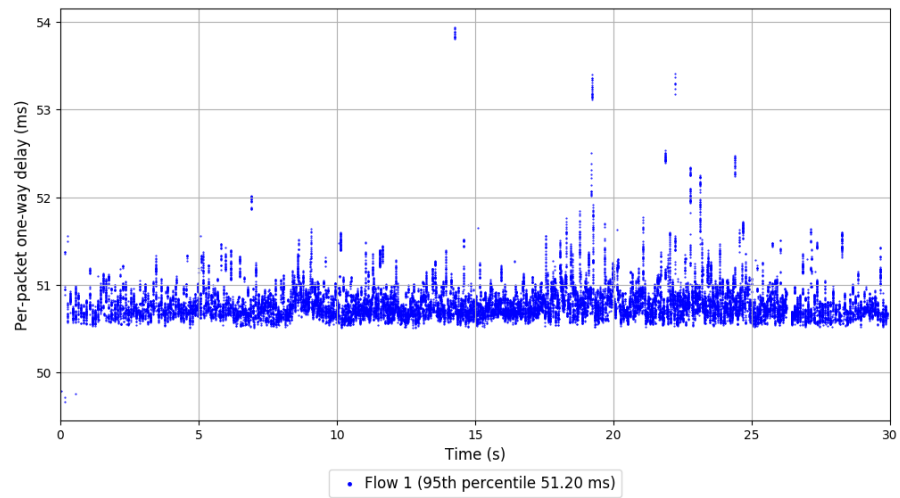
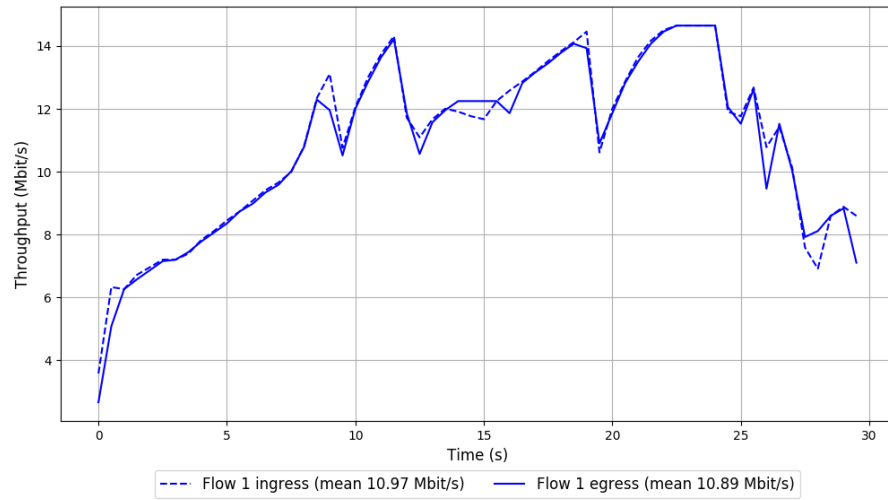
-- Flow 1:

Average throughput: 10.89 Mbit/s

95th percentile per-packet one-way delay: 51.196 ms

Loss rate: 1.06%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-11 10:53:49

End at: 2017-08-11 10:54:19

Below is generated by plot.py at 2017-08-11 14:48:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.21 Mbit/s

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

Loss rate: 0.99%

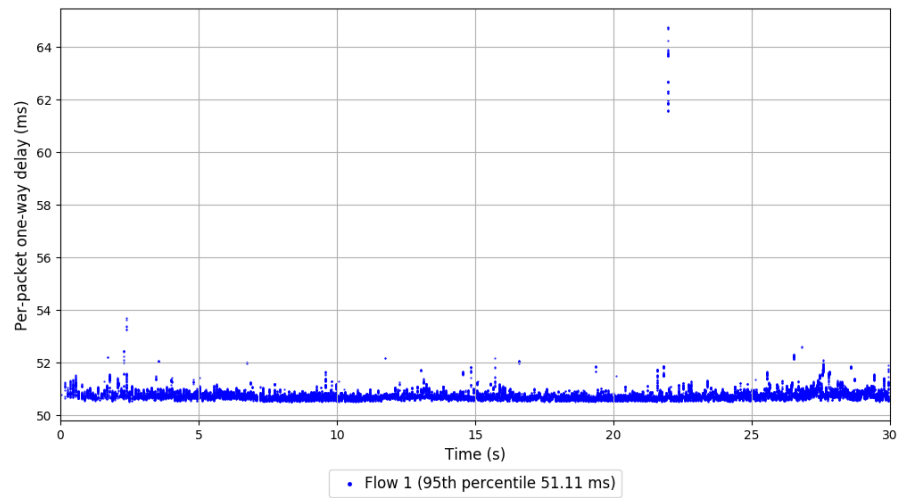
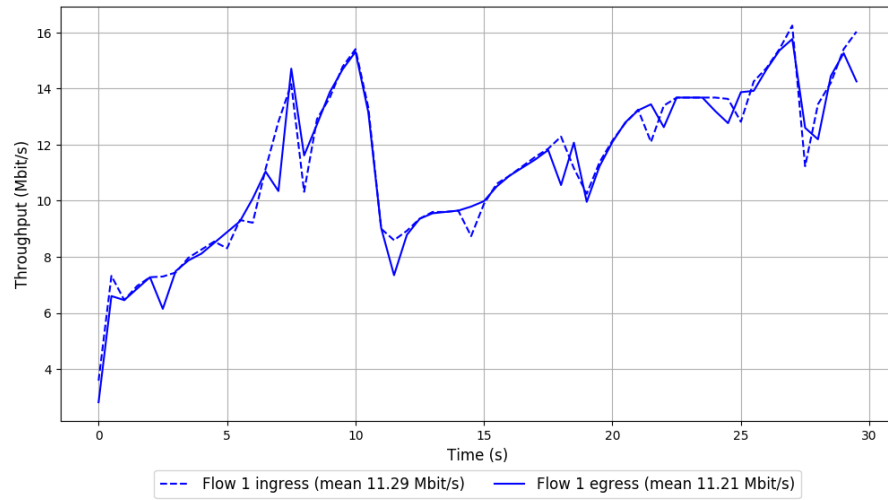
-- Flow 1:

Average throughput: 11.21 Mbit/s

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

Loss rate: 0.99%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-11 11:03:45

End at: 2017-08-11 11:04:15

Below is generated by plot.py at 2017-08-11 14:48:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 29.83 Mbit/s

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

Loss rate: 0.61%

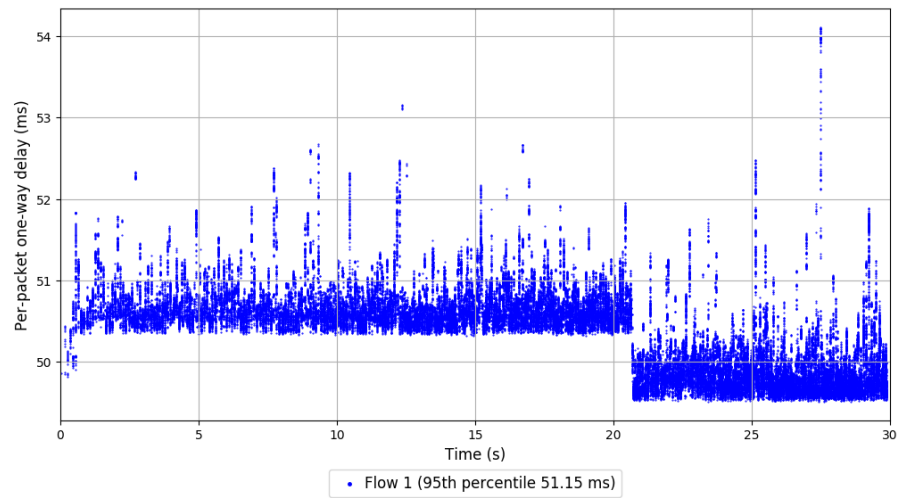
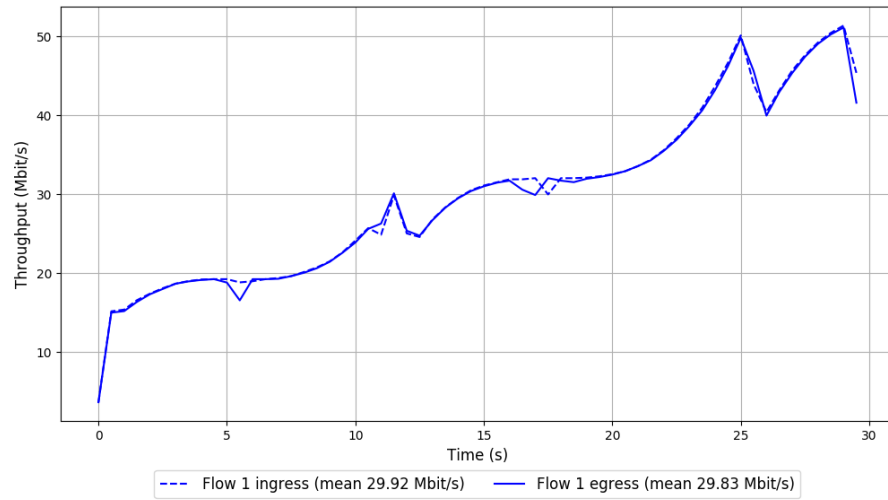
-- Flow 1:

Average throughput: 29.83 Mbit/s

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

Loss rate: 0.61%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-11 11:13:58

End at: 2017-08-11 11:14:28

Below is generated by plot.py at 2017-08-11 14:48:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.40 Mbit/s

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

Loss rate: 1.08%

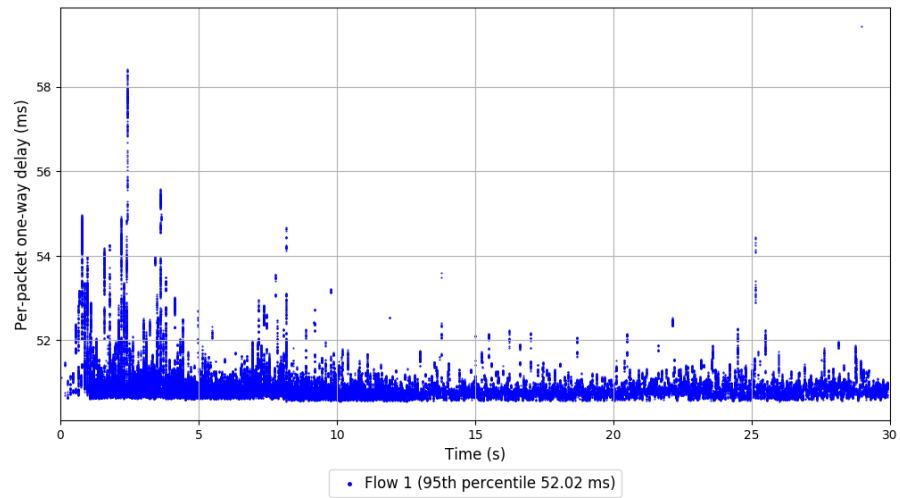
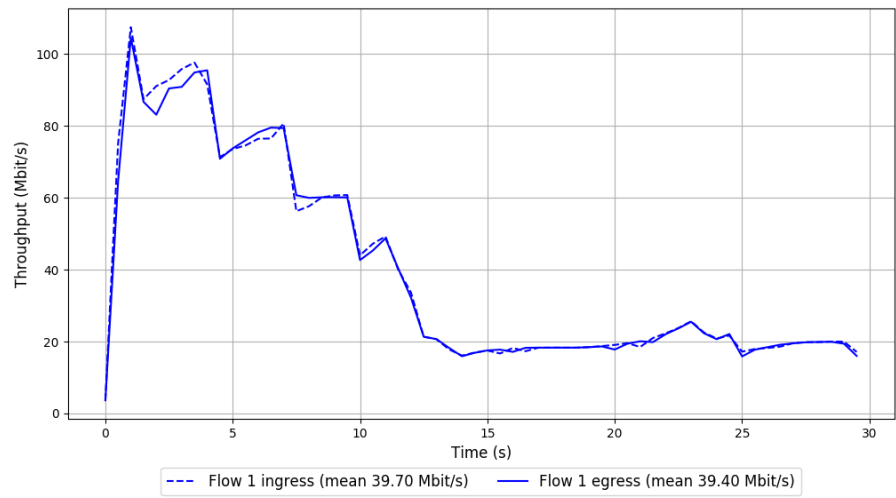
-- Flow 1:

Average throughput: 39.40 Mbit/s

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

Loss rate: 1.08%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-11 11:24:32

End at: 2017-08-11 11:25:02

Below is generated by plot.py at 2017-08-11 14:48:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 45.92 Mbit/s

95th percentile per-packet one-way delay: 53.193 ms

Loss rate: 0.75%

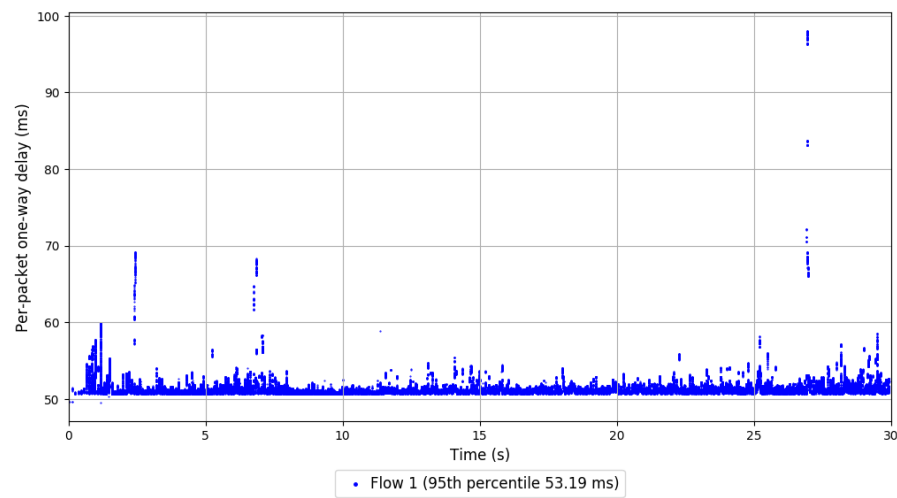
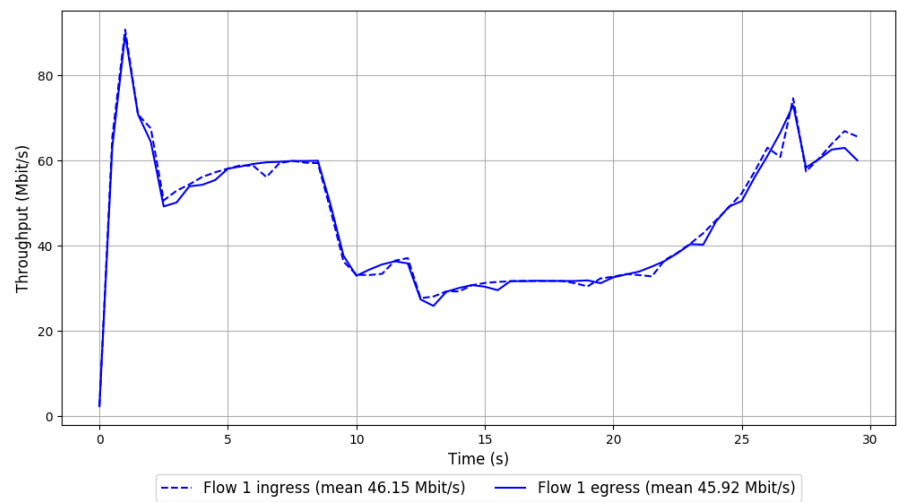
-- Flow 1:

Average throughput: 45.92 Mbit/s

95th percentile per-packet one-way delay: 53.193 ms

Loss rate: 0.75%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-11 11:34:54

End at: 2017-08-11 11:35:24

Below is generated by plot.py at 2017-08-11 14:48:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.78 Mbit/s

95th percentile per-packet one-way delay: 51.962 ms

Loss rate: 0.57%

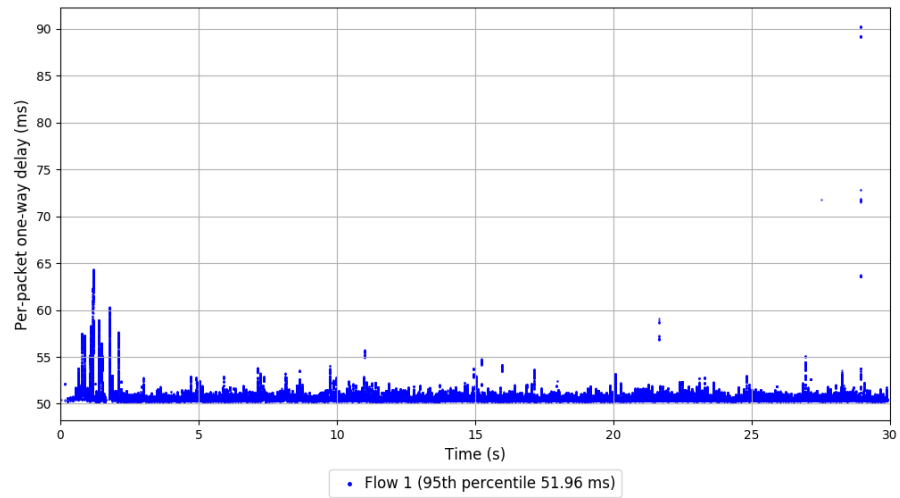
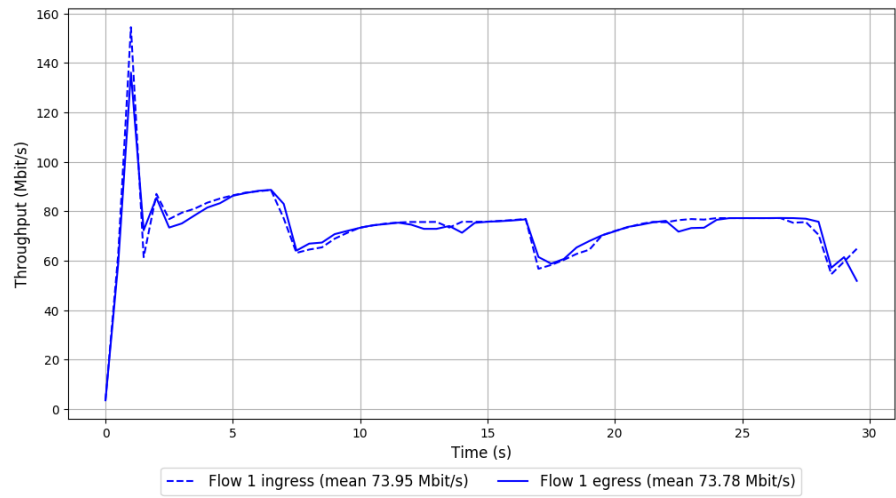
-- Flow 1:

Average throughput: 73.78 Mbit/s

95th percentile per-packet one-way delay: 51.962 ms

Loss rate: 0.57%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

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

End at: 2017-08-11 11:45:35

Below is generated by plot.py at 2017-08-11 14:48:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.87 Mbit/s

95th percentile per-packet one-way delay: 52.260 ms

Loss rate: 0.43%

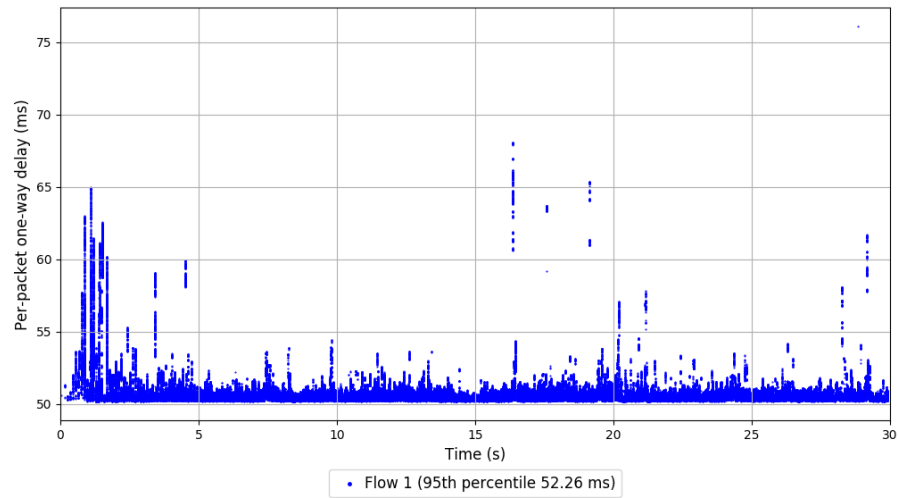
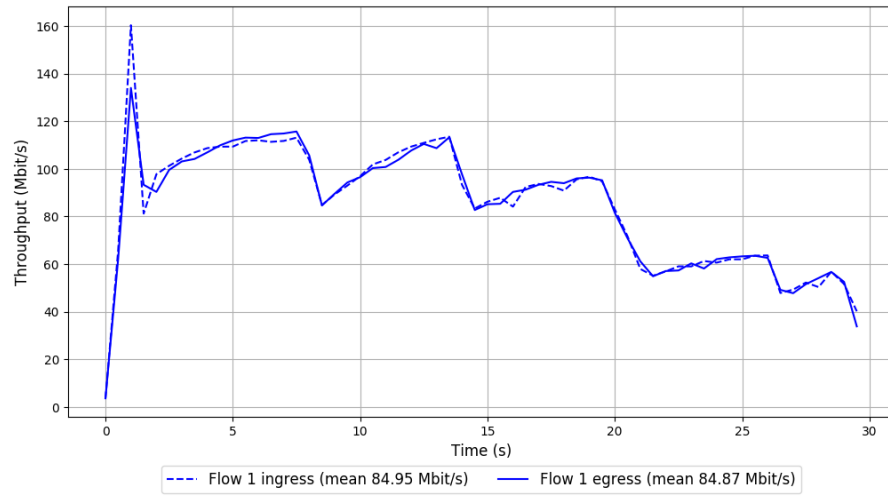
-- Flow 1:

Average throughput: 84.87 Mbit/s

95th percentile per-packet one-way delay: 52.260 ms

Loss rate: 0.43%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-11 11:55:37

End at: 2017-08-11 11:56:07

Below is generated by plot.py at 2017-08-11 14:48:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.02 Mbit/s

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

Loss rate: 0.53%

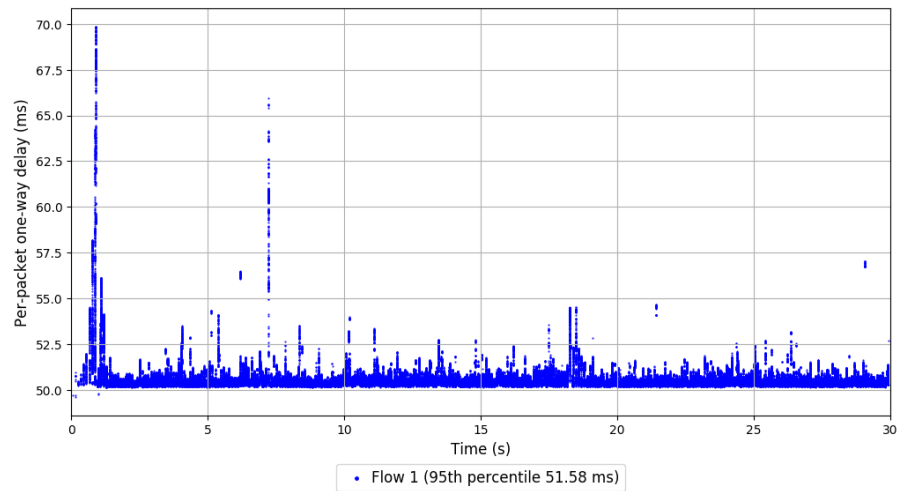
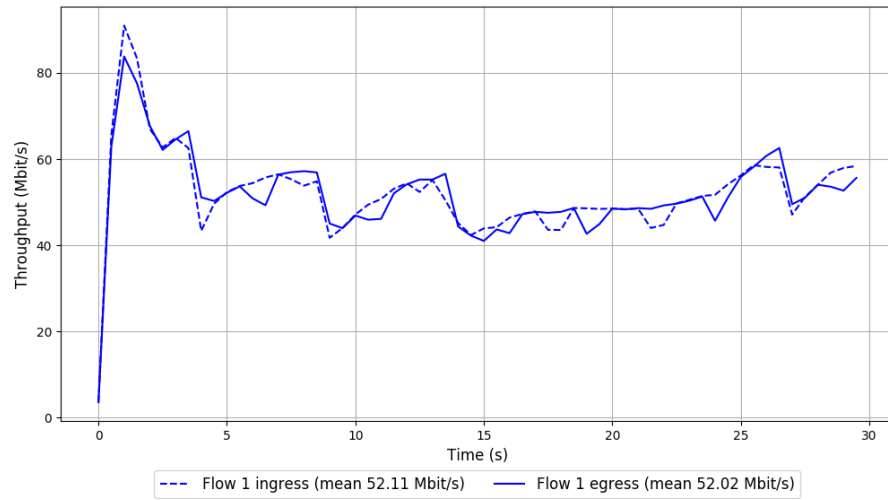
-- Flow 1:

Average throughput: 52.02 Mbit/s

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

Loss rate: 0.53%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-11 12:06:11

End at: 2017-08-11 12:06:41

Below is generated by plot.py at 2017-08-11 14:49:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 26.01 Mbit/s

95th percentile per-packet one-way delay: 51.508 ms

Loss rate: 0.73%

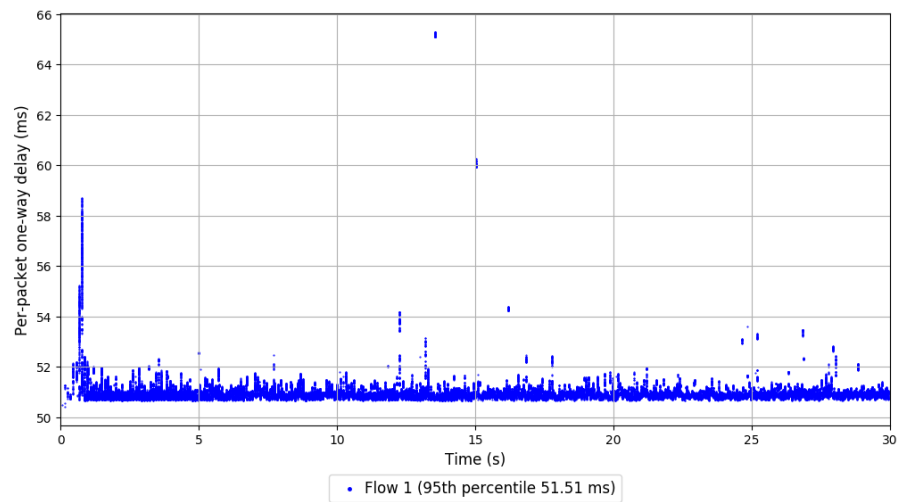
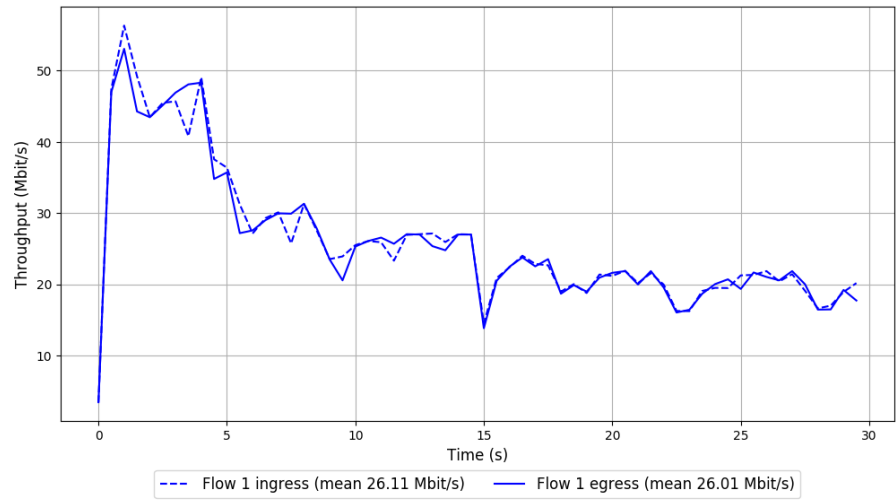
-- Flow 1:

Average throughput: 26.01 Mbit/s

95th percentile per-packet one-way delay: 51.508 ms

Loss rate: 0.73%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-11 12:16:49

End at: 2017-08-11 12:17:19

Below is generated by plot.py at 2017-08-11 14:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.58 Mbit/s

95th percentile per-packet one-way delay: 53.125 ms

Loss rate: 0.36%

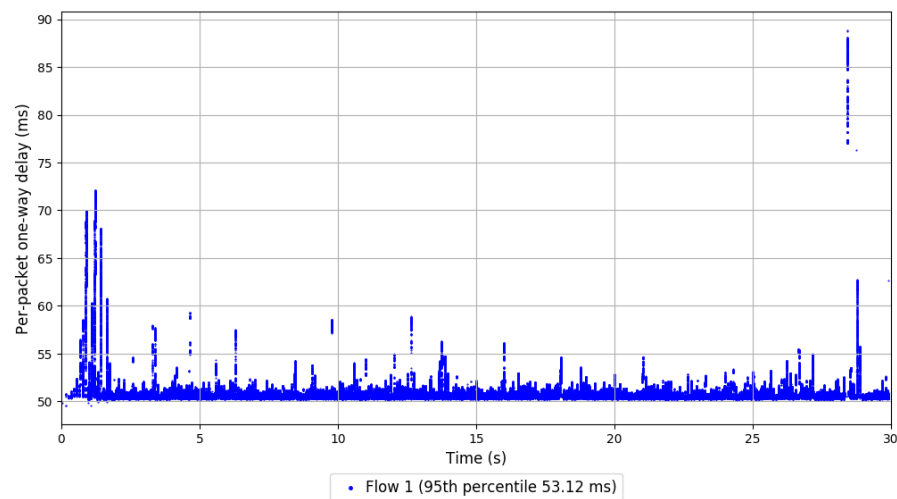
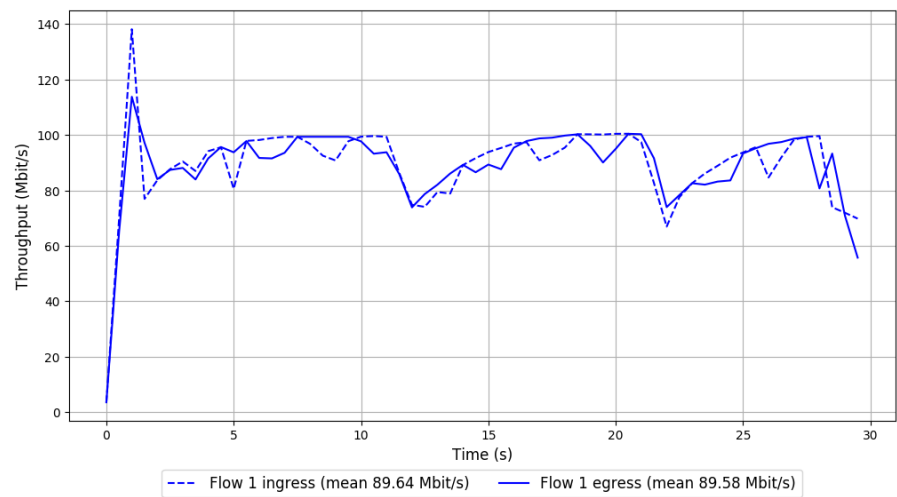
-- Flow 1:

Average throughput: 89.58 Mbit/s

95th percentile per-packet one-way delay: 53.125 ms

Loss rate: 0.36%

Run 10: Report of TCP Cubic — Data Link

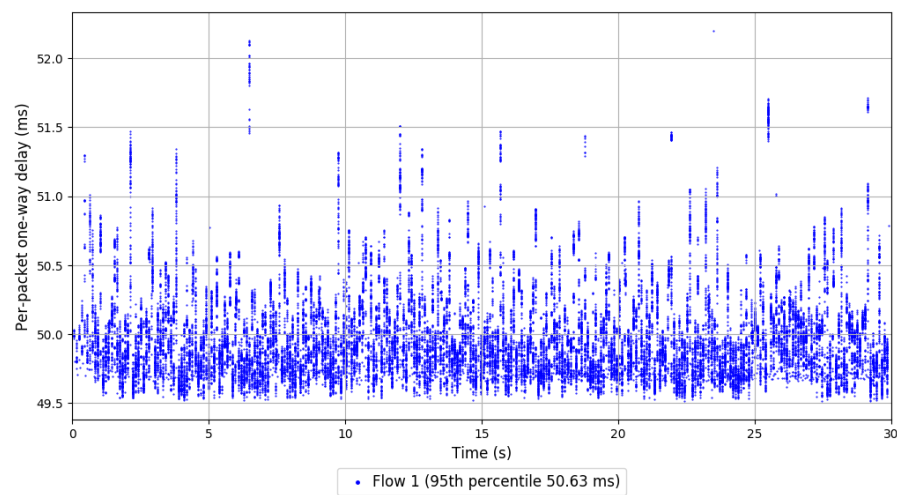
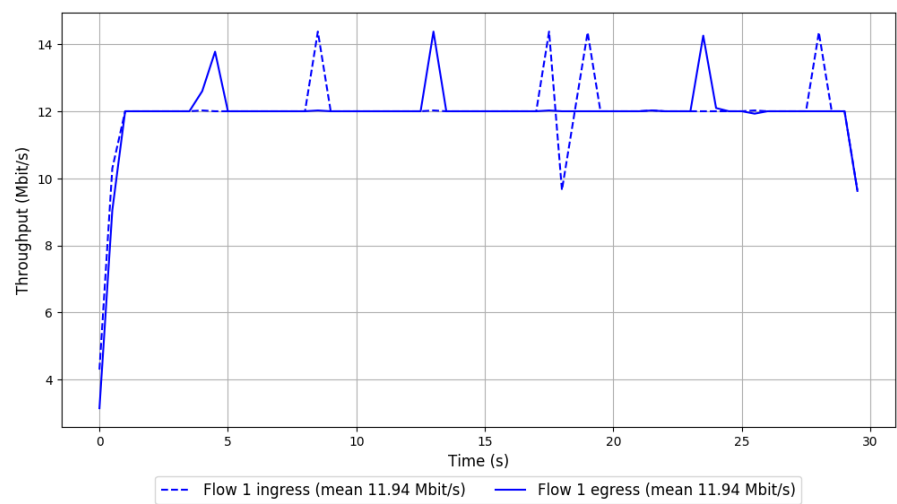


```
Run 1: Statistics of KohoCC

Start at: 2017-08-11 10:42:11
End at: 2017-08-11 10:42:41

# Below is generated by plot.py at 2017-08-11 14:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 50.635 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 11.94 Mbit/s
95th percentile per-packet one-way delay: 50.635 ms
Loss rate: 0.35%
```


Run 1: Report of KohoCC — Data Link



Run 2: Statistics of KohoCC

Start at: 2017-08-11 10:52:32

End at: 2017-08-11 10:53:02

Below is generated by plot.py at 2017-08-11 14:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.78 Mbit/s

95th percentile per-packet one-way delay: 50.907 ms

Loss rate: 0.36%

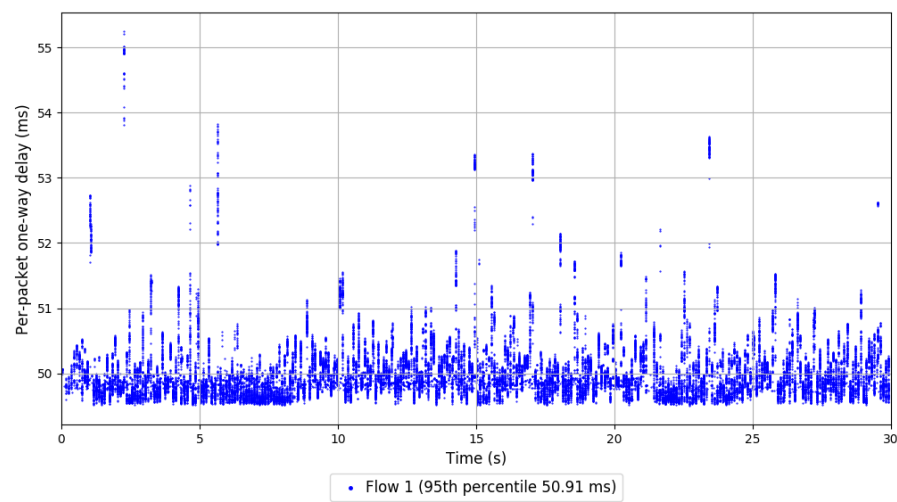
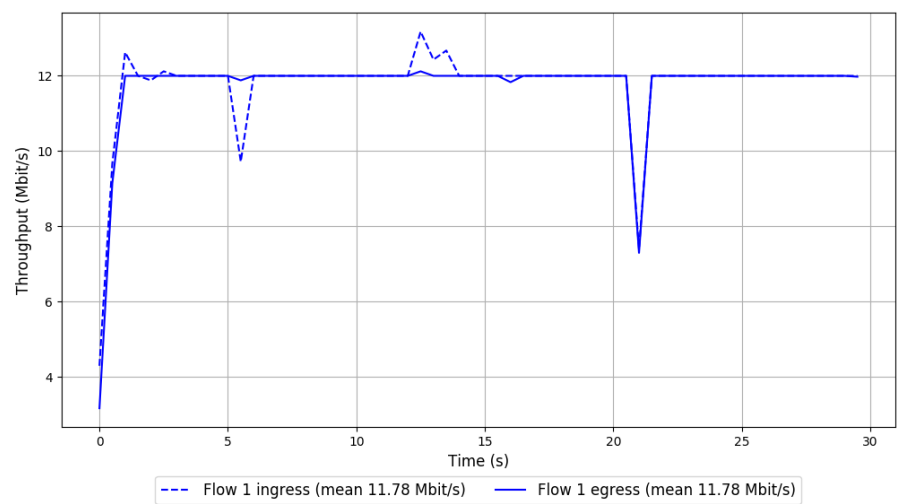
-- Flow 1:

Average throughput: 11.78 Mbit/s

95th percentile per-packet one-way delay: 50.907 ms

Loss rate: 0.36%

Run 2: Report of KohoCC — Data Link

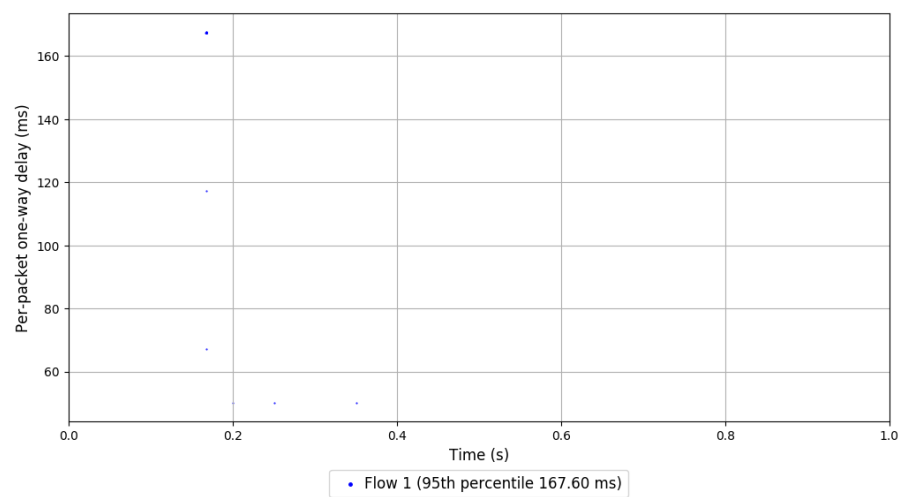
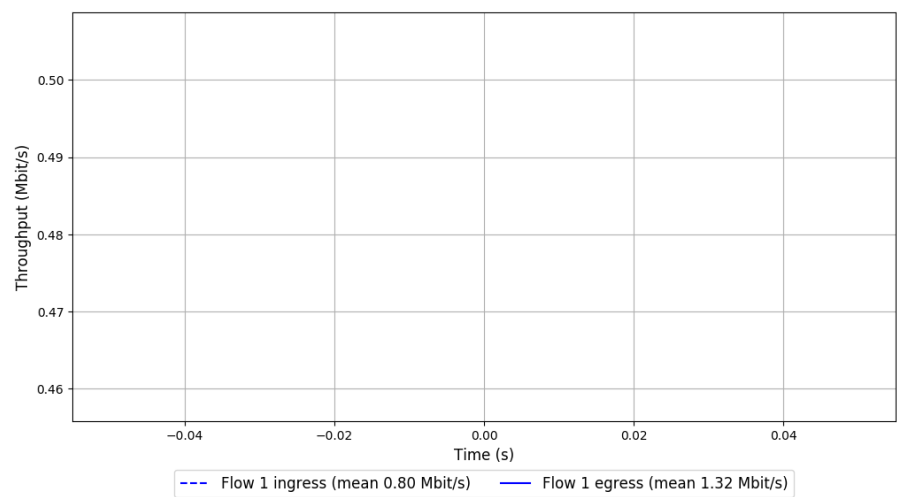


Run 3: Statistics of KohoCC

Start at: 2017-08-11 11:02:30

End at: 2017-08-11 11:03:00

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-11 11:12:43

End at: 2017-08-11 11:13:13

Below is generated by plot.py at 2017-08-11 14:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.60 Mbit/s

95th percentile per-packet one-way delay: 51.628 ms

Loss rate: 0.51%

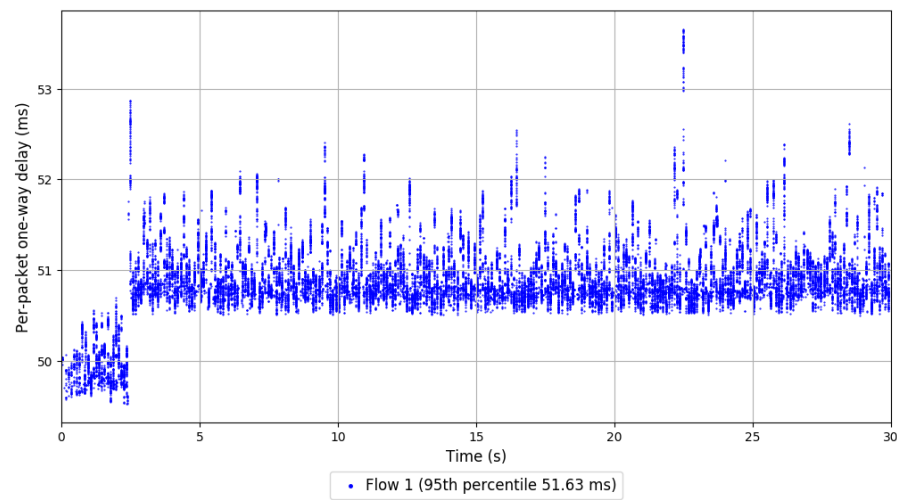
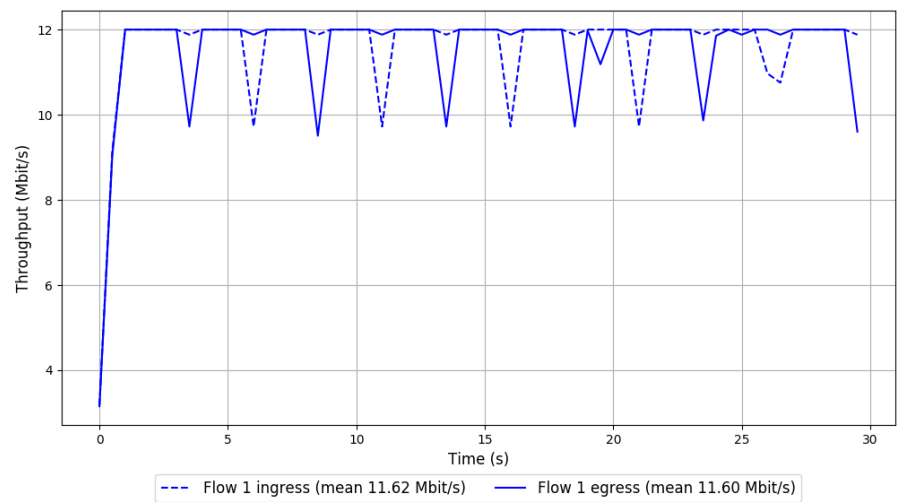
-- Flow 1:

Average throughput: 11.60 Mbit/s

95th percentile per-packet one-way delay: 51.628 ms

Loss rate: 0.51%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-11 11:23:16

End at: 2017-08-11 11:23:46

Below is generated by plot.py at 2017-08-11 14:49:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.61 Mbit/s

95th percentile per-packet one-way delay: 51.718 ms

Loss rate: 0.49%

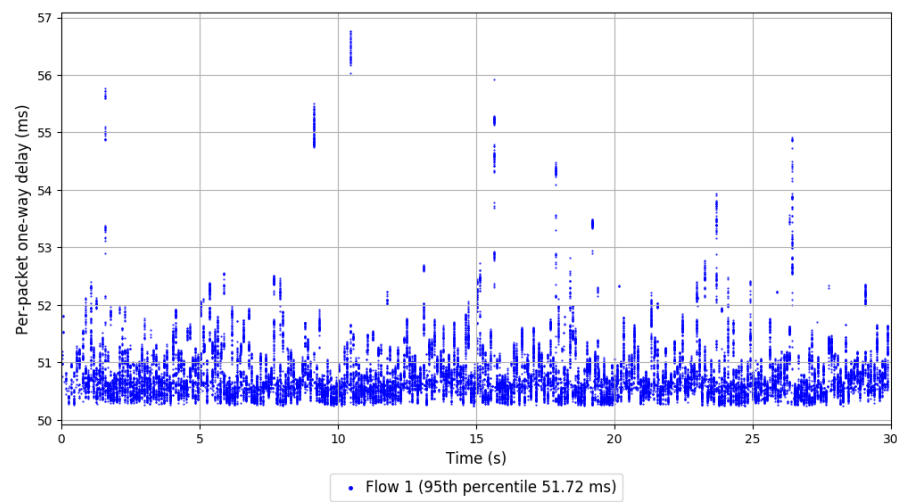
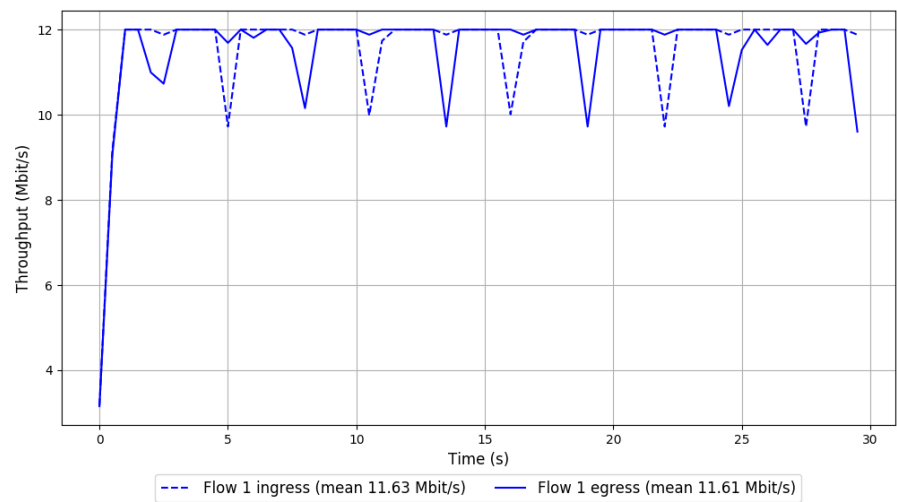
-- Flow 1:

Average throughput: 11.61 Mbit/s

95th percentile per-packet one-way delay: 51.718 ms

Loss rate: 0.49%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-11 11:33:38

End at: 2017-08-11 11:34:08

Below is generated by plot.py at 2017-08-11 14:49:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.66 Mbit/s

95th percentile per-packet one-way delay: 51.242 ms

Loss rate: 0.38%

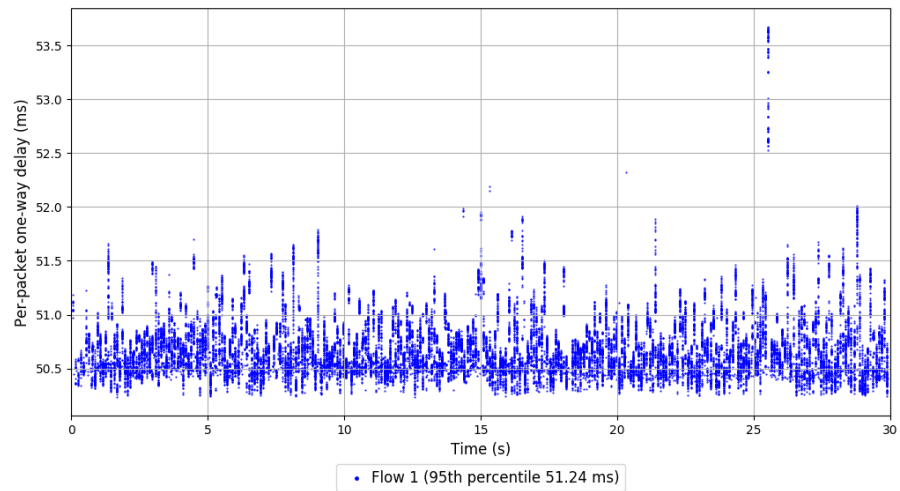
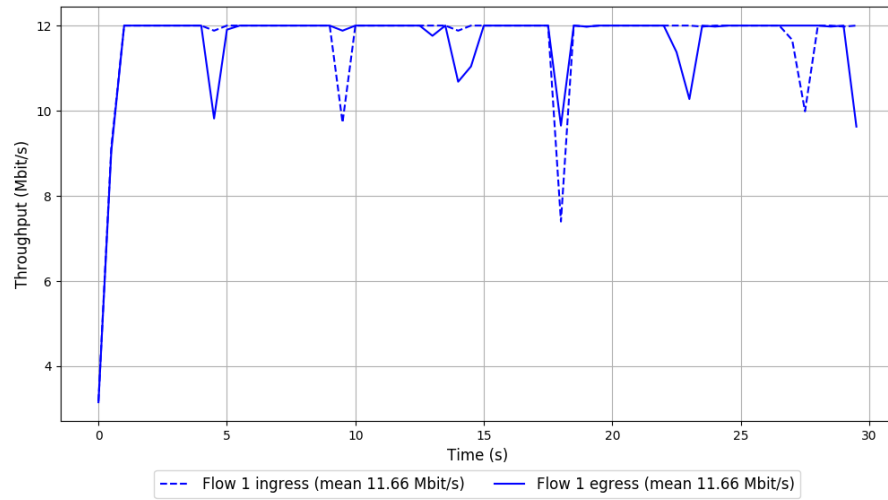
-- Flow 1:

Average throughput: 11.66 Mbit/s

95th percentile per-packet one-way delay: 51.242 ms

Loss rate: 0.38%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-11 11:43:48

End at: 2017-08-11 11:44:18

Below is generated by plot.py at 2017-08-11 14:49:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.68 Mbit/s

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

Loss rate: 0.52%

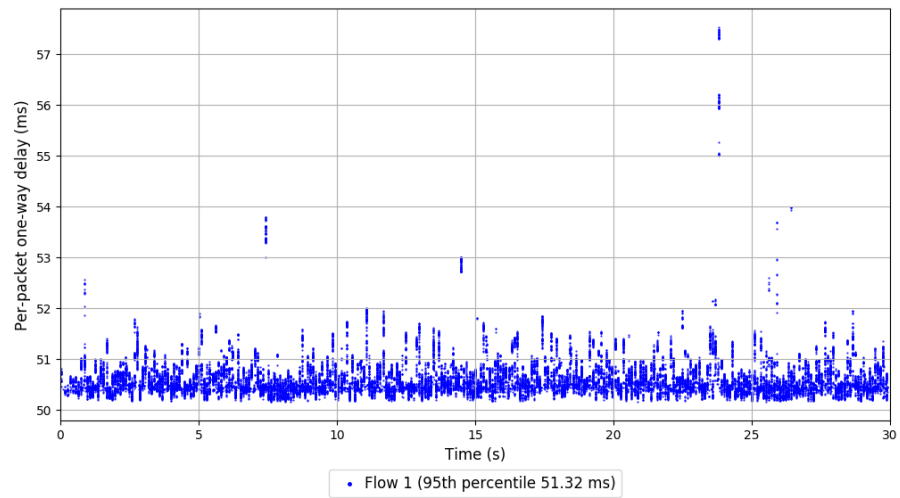
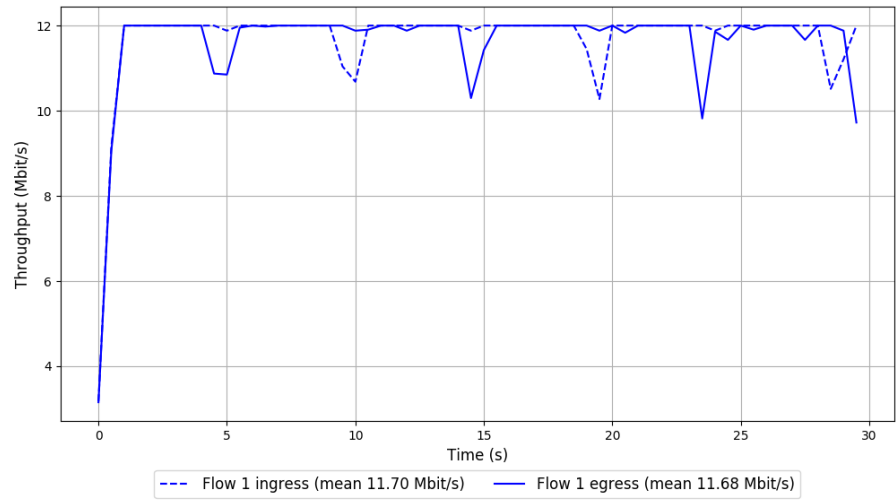
-- Flow 1:

Average throughput: 11.68 Mbit/s

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

Loss rate: 0.52%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-11 11:54:22

End at: 2017-08-11 11:54:52

Below is generated by plot.py at 2017-08-11 14:49:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.61 Mbit/s

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

Loss rate: 0.41%

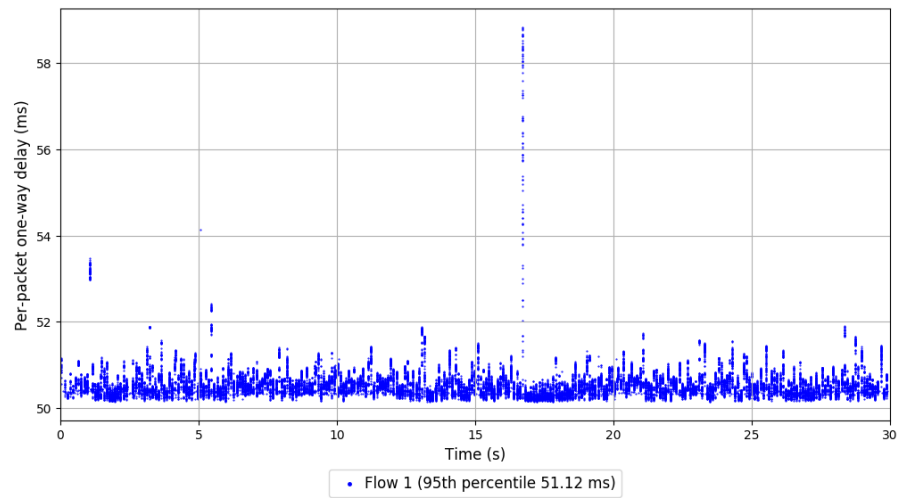
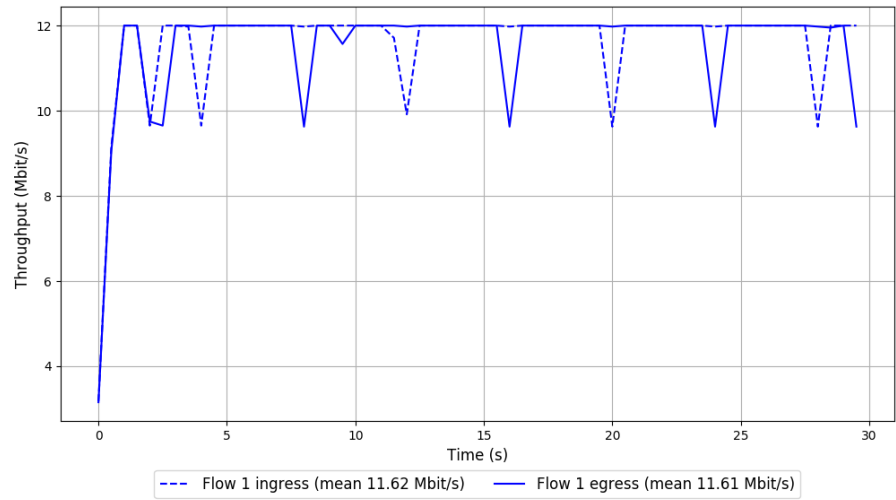
-- Flow 1:

Average throughput: 11.61 Mbit/s

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

Loss rate: 0.41%

Run 8: Report of KohoCC — Data Link

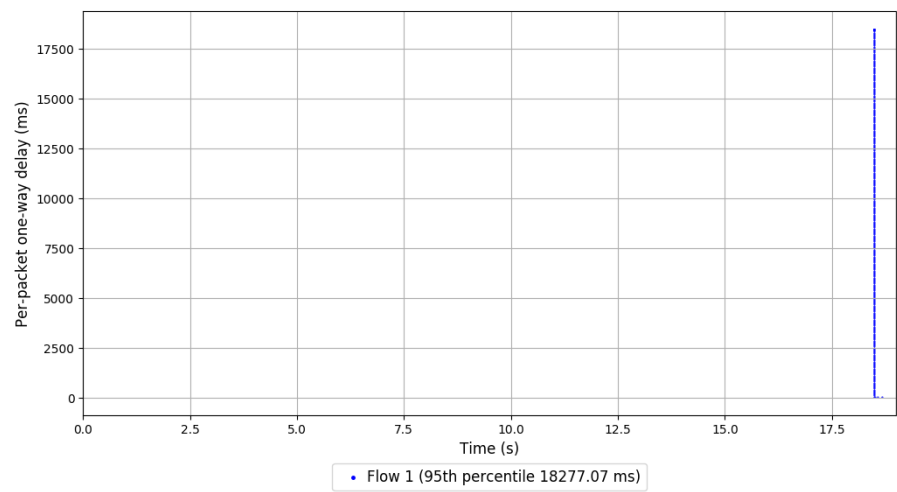
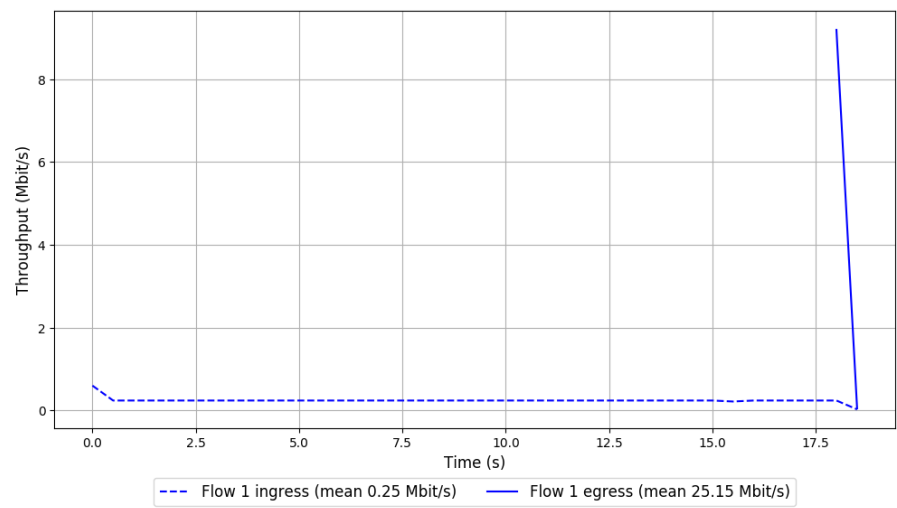


Run 9: Statistics of KohoCC

Start at: 2017-08-11 12:04:55

End at: 2017-08-11 12:05:25

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-11 12:15:32

End at: 2017-08-11 12:16:02

Below is generated by plot.py at 2017-08-11 14:49:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.63 Mbit/s

95th percentile per-packet one-way delay: 52.114 ms

Loss rate: 0.44%

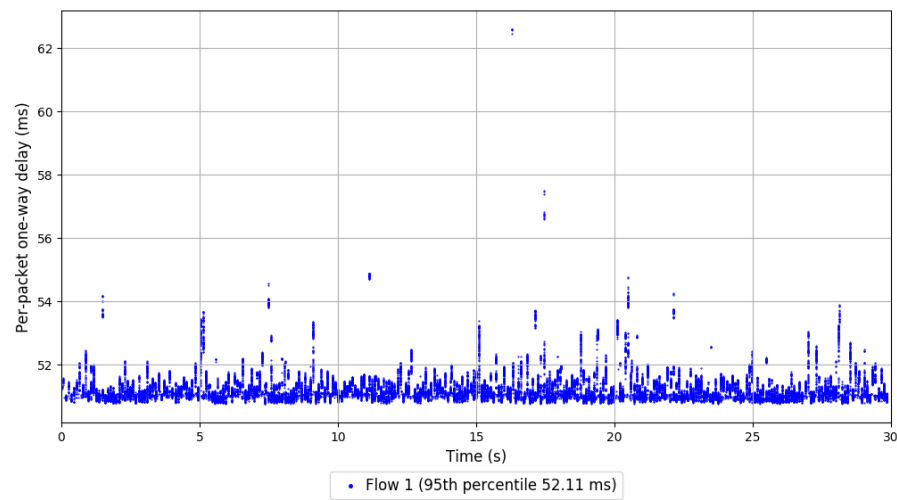
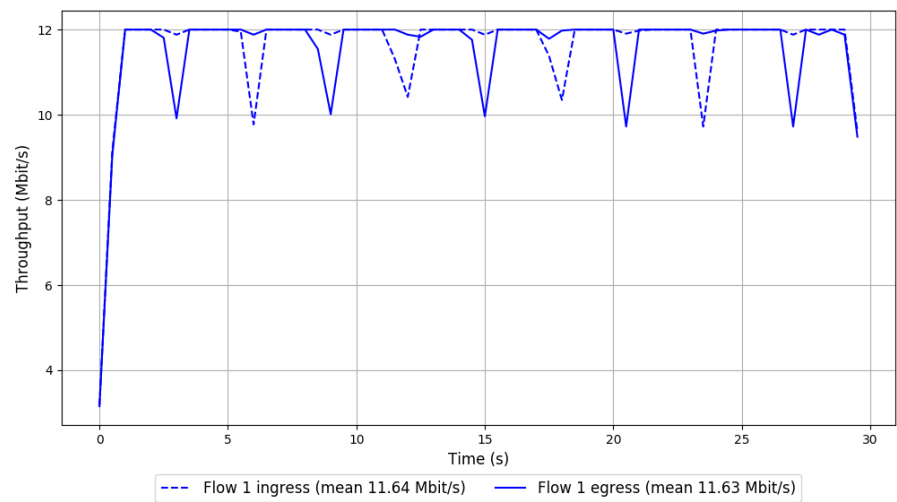
-- Flow 1:

Average throughput: 11.63 Mbit/s

95th percentile per-packet one-way delay: 52.114 ms

Loss rate: 0.44%

Run 10: Report of KohoCC — Data Link

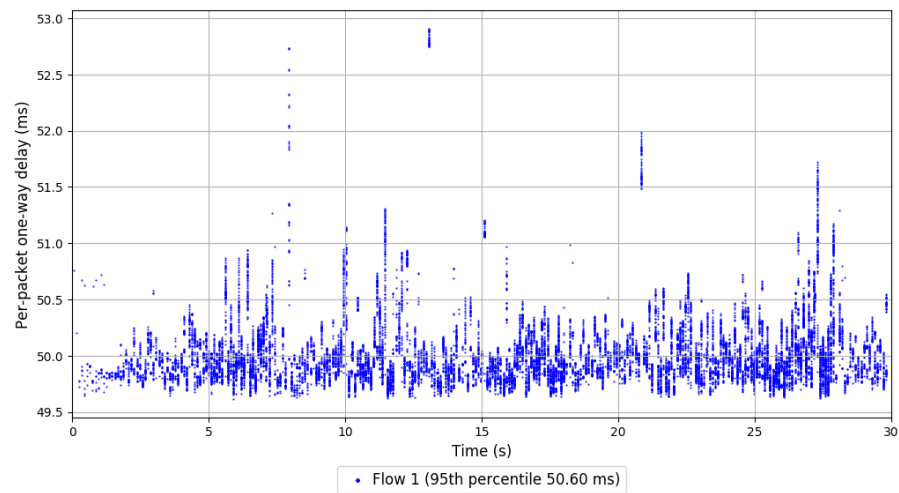
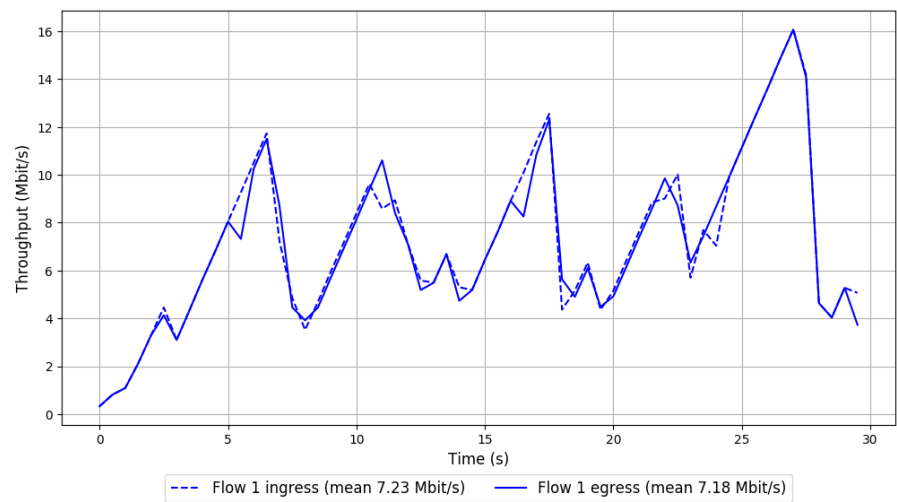


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-11 10:41:34
End at: 2017-08-11 10:42:04

# Below is generated by plot.py at 2017-08-11 14:49:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 50.598 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 7.18 Mbit/s
95th percentile per-packet one-way delay: 50.598 ms
Loss rate: 1.05%
```

Run 1: Report of LEDBAT — Data Link

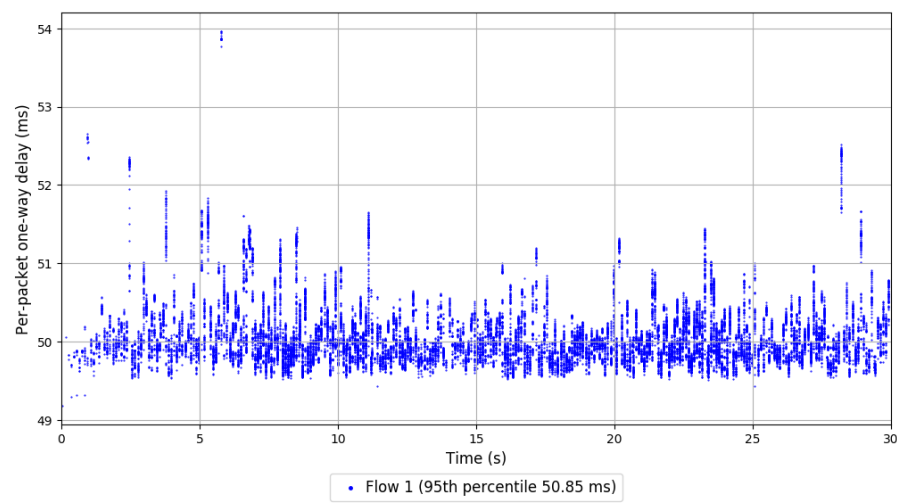
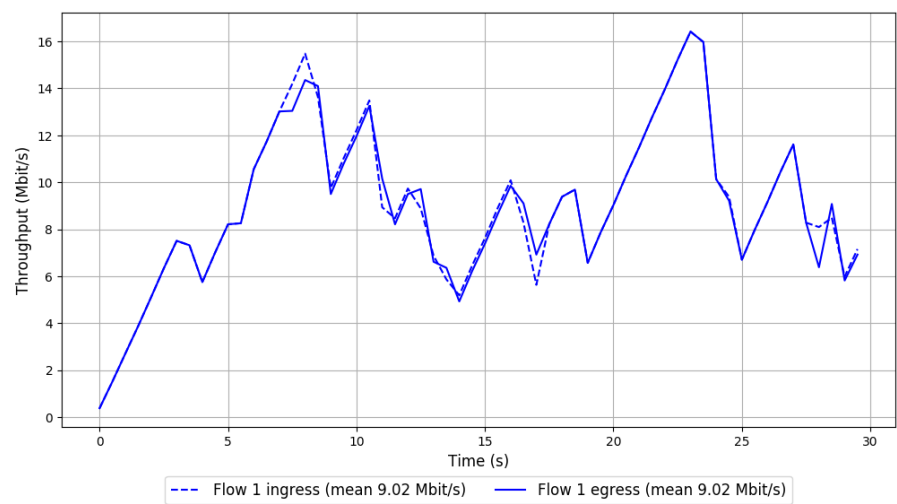


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-11 10:51:55
End at: 2017-08-11 10:52:25

# Below is generated by plot.py at 2017-08-11 14:49:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 50.852 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 50.852 ms
Loss rate: 0.33%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-11 11:01:53

End at: 2017-08-11 11:02:23

Below is generated by plot.py at 2017-08-11 14:49:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.23 Mbit/s

95th percentile per-packet one-way delay: 50.920 ms

Loss rate: 0.93%

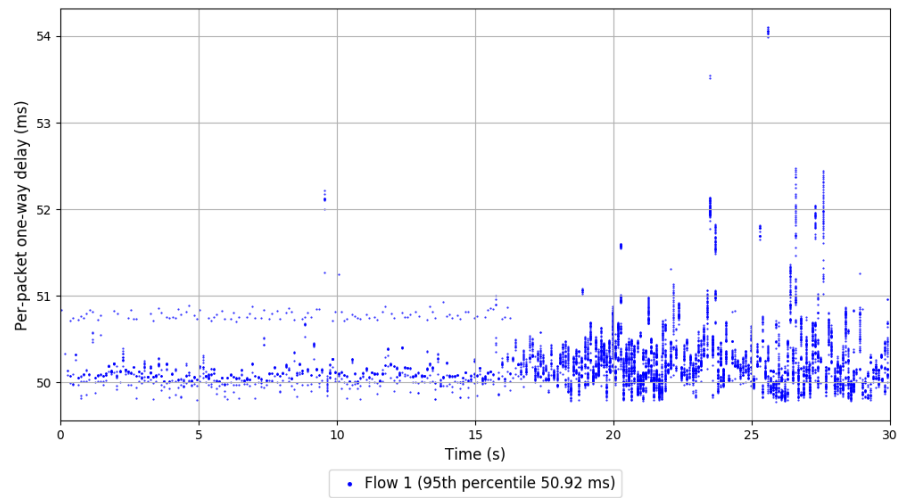
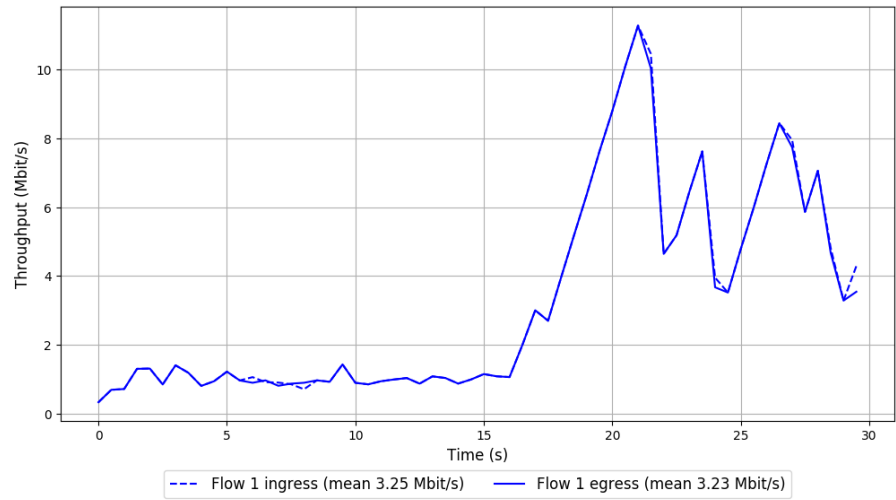
-- Flow 1:

Average throughput: 3.23 Mbit/s

95th percentile per-packet one-way delay: 50.920 ms

Loss rate: 0.93%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-11 11:12:06

End at: 2017-08-11 11:12:36

Below is generated by plot.py at 2017-08-11 14:49:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.48 Mbit/s

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

Loss rate: 0.34%

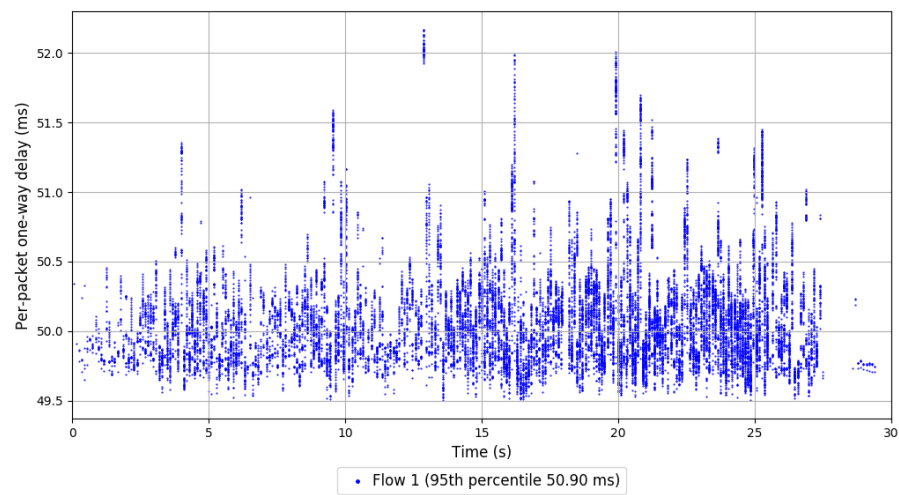
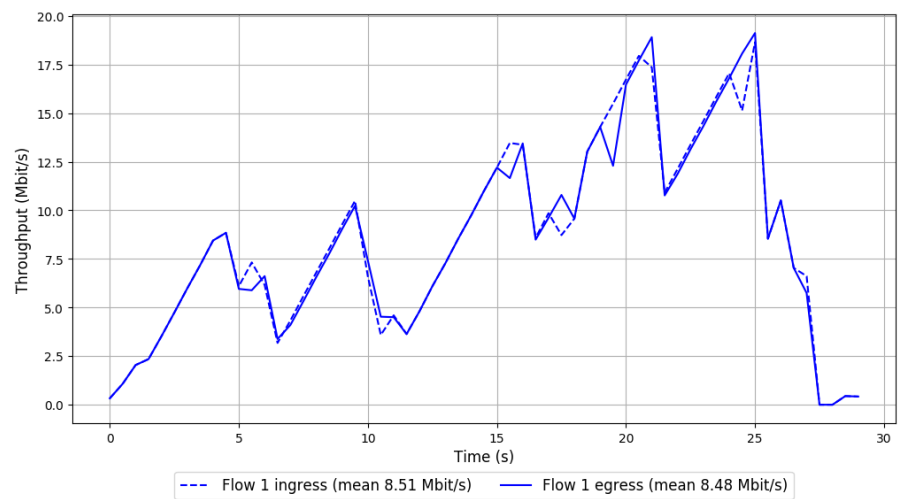
-- Flow 1:

Average throughput: 8.48 Mbit/s

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

Loss rate: 0.34%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-11 11:22:39

End at: 2017-08-11 11:23:09

Below is generated by plot.py at 2017-08-11 14:49:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 51.820 ms

Loss rate: 0.33%

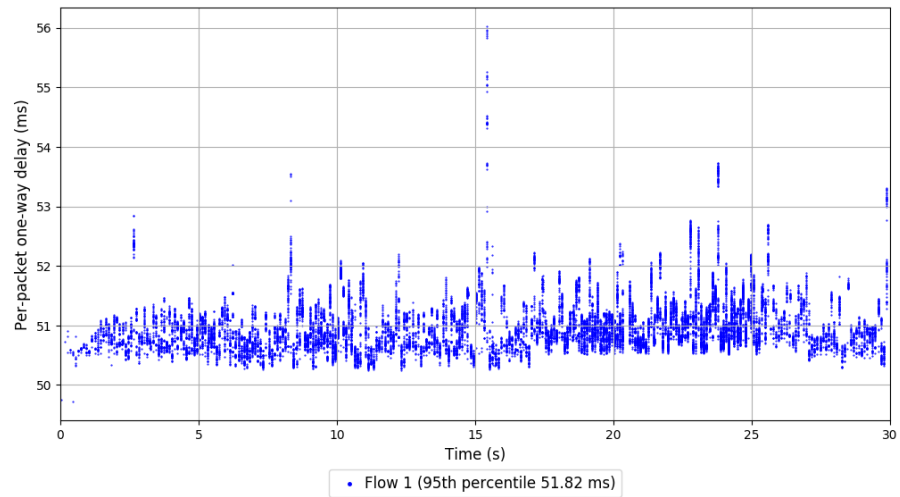
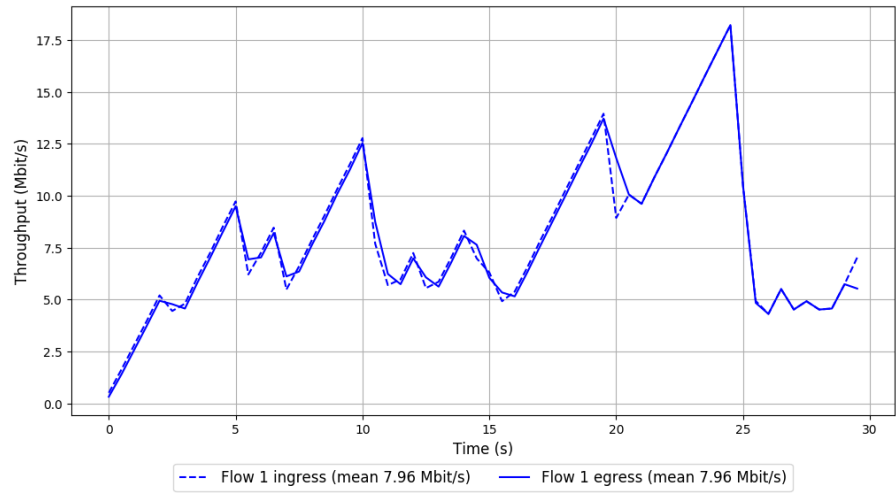
-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 51.820 ms

Loss rate: 0.33%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-11 11:33:01

End at: 2017-08-11 11:33:31

Below is generated by plot.py at 2017-08-11 14:49:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.90 Mbit/s

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

Loss rate: 1.41%

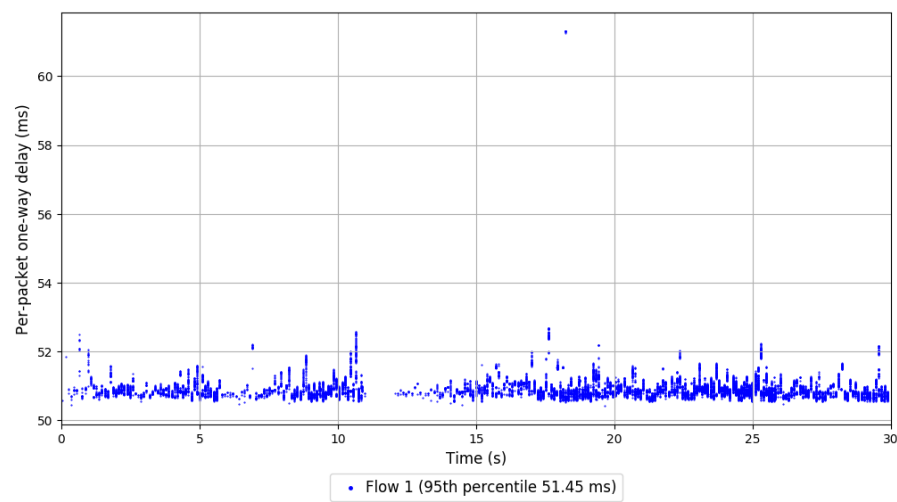
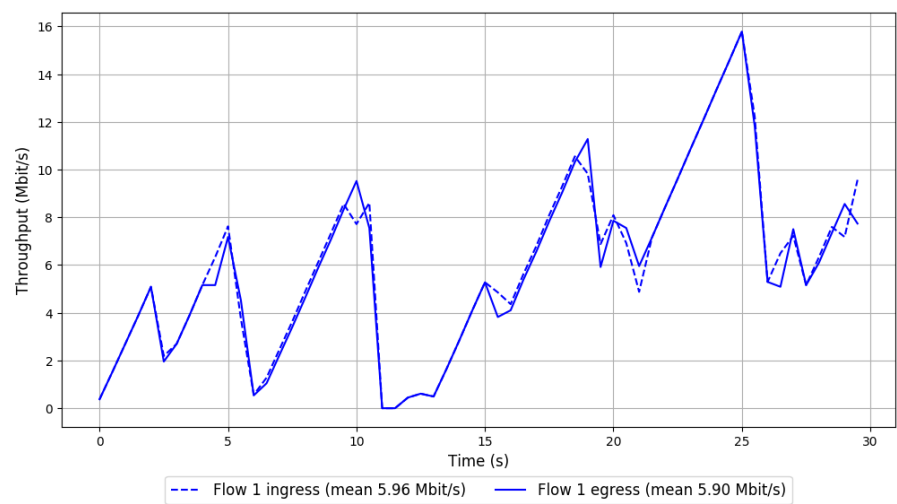
-- Flow 1:

Average throughput: 5.90 Mbit/s

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

Loss rate: 1.41%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

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

End at: 2017-08-11 11:43:41

Below is generated by plot.py at 2017-08-11 14:49:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.33 Mbit/s

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

Loss rate: 1.53%

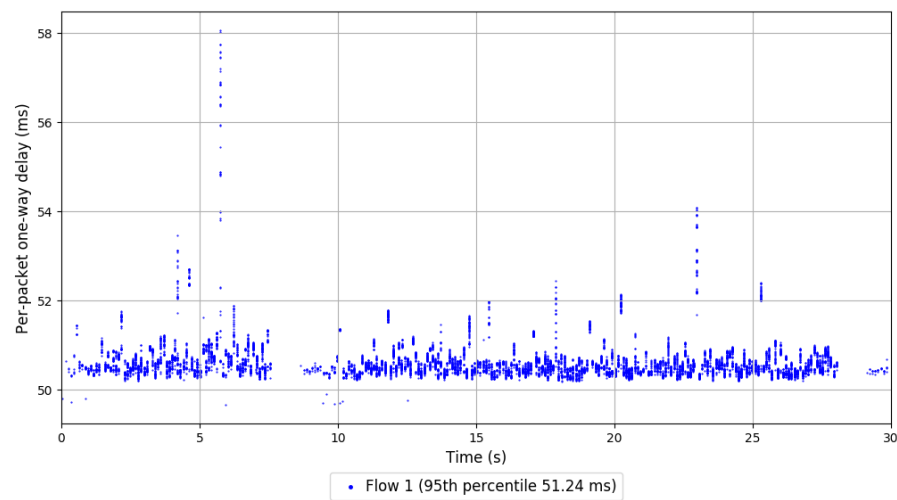
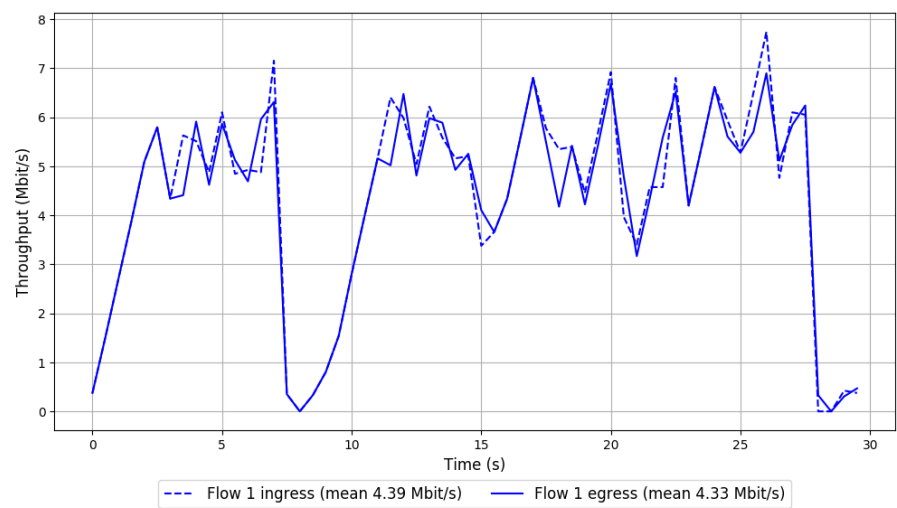
-- Flow 1:

Average throughput: 4.33 Mbit/s

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

Loss rate: 1.53%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-11 11:53:44

End at: 2017-08-11 11:54:14

Below is generated by plot.py at 2017-08-11 14:49:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.42 Mbit/s

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

Loss rate: 0.46%

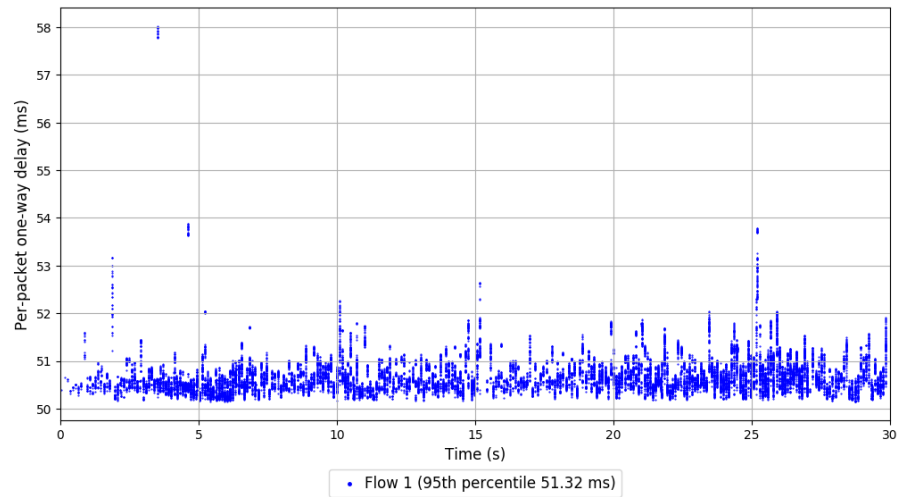
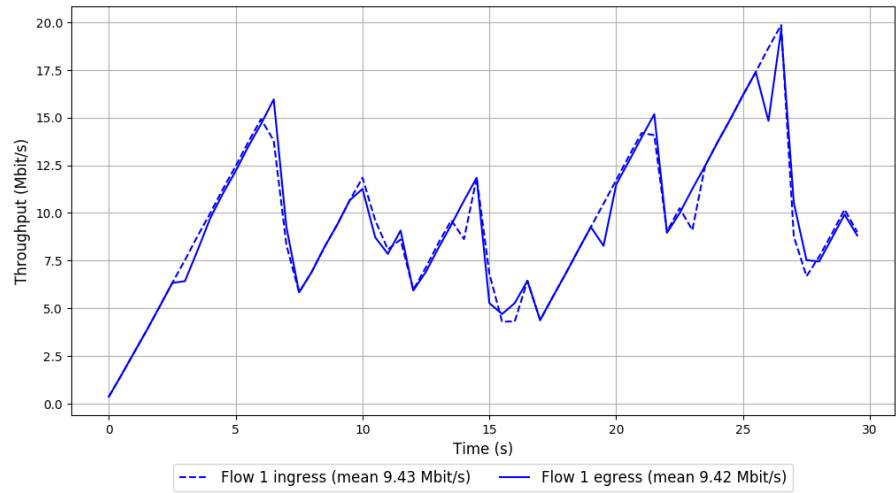
-- Flow 1:

Average throughput: 9.42 Mbit/s

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

Loss rate: 0.46%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-11 12:04:18

End at: 2017-08-11 12:04:48

Below is generated by plot.py at 2017-08-11 14:49:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.29 Mbit/s

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

Loss rate: 1.07%

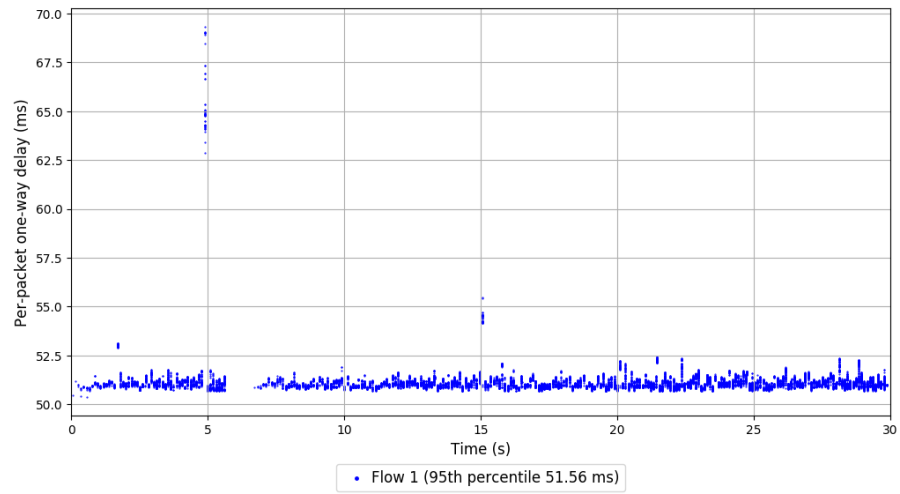
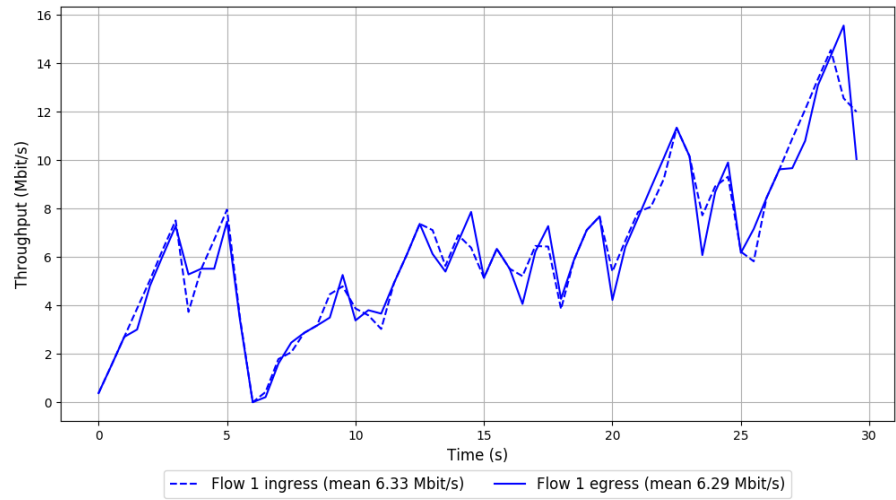
-- Flow 1:

Average throughput: 6.29 Mbit/s

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

Loss rate: 1.07%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-11 12:14:55

End at: 2017-08-11 12:15:25

Below is generated by plot.py at 2017-08-11 14:49:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.08 Mbit/s

95th percentile per-packet one-way delay: 51.722 ms

Loss rate: 0.58%

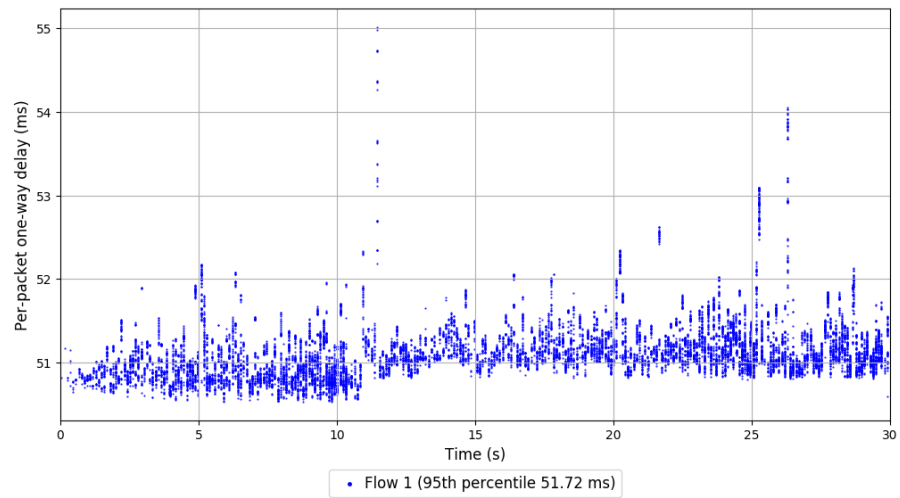
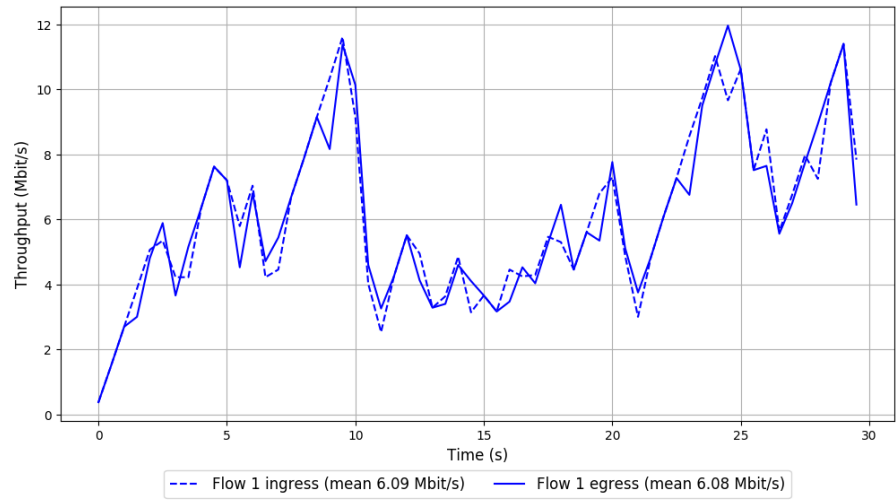
-- Flow 1:

Average throughput: 6.08 Mbit/s

95th percentile per-packet one-way delay: 51.722 ms

Loss rate: 0.58%

Run 10: Report of LEDBAT — Data Link

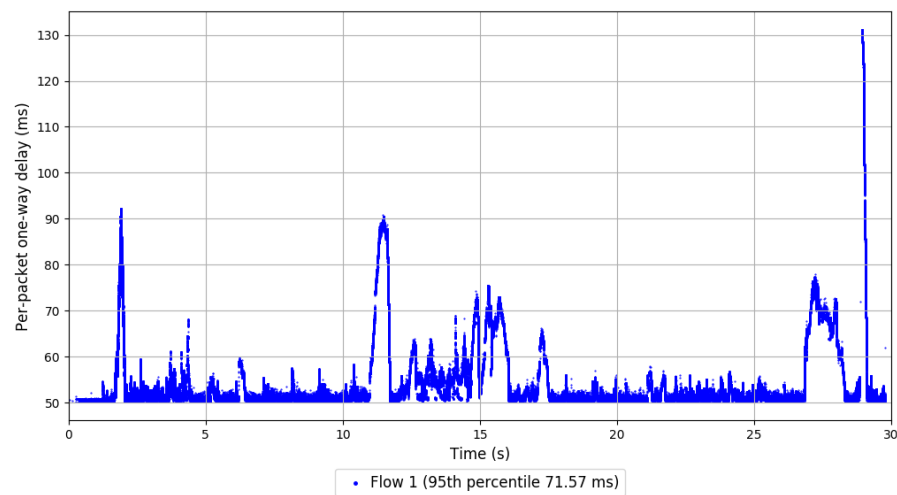
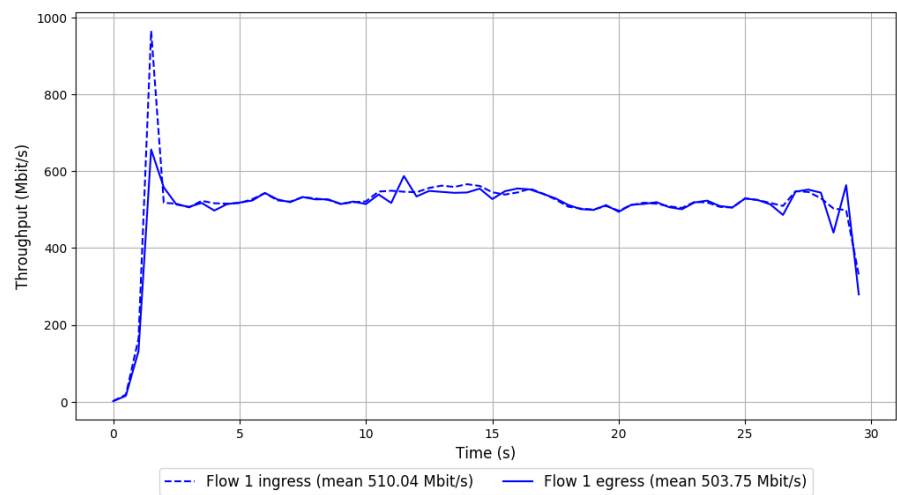


```
Run 1: Statistics of PCC

Start at: 2017-08-11 10:35:50
End at: 2017-08-11 10:36:20

# Below is generated by plot.py at 2017-08-11 14:51:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 503.75 Mbit/s
95th percentile per-packet one-way delay: 71.567 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 503.75 Mbit/s
95th percentile per-packet one-way delay: 71.567 ms
Loss rate: 1.53%
```


Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-08-11 10:46:23

End at: 2017-08-11 10:46:53

Below is generated by plot.py at 2017-08-11 14:51:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 270.81 Mbit/s

95th percentile per-packet one-way delay: 51.176 ms

Loss rate: 4.92%

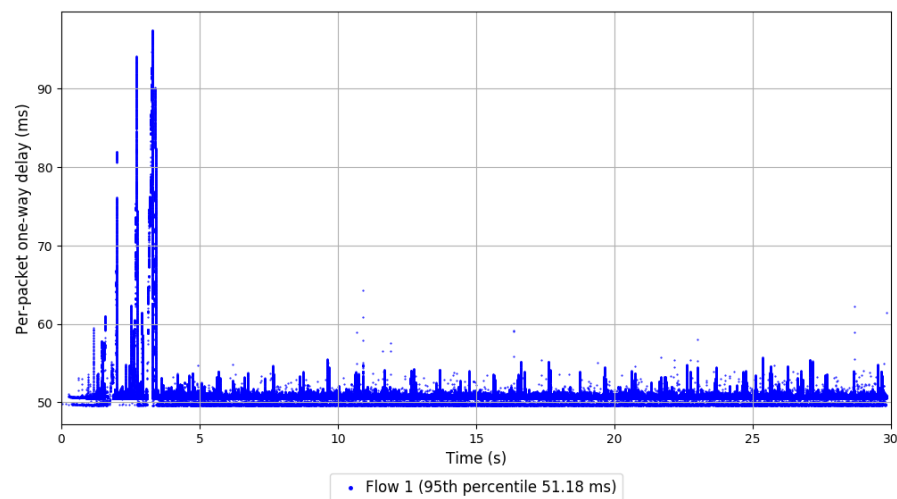
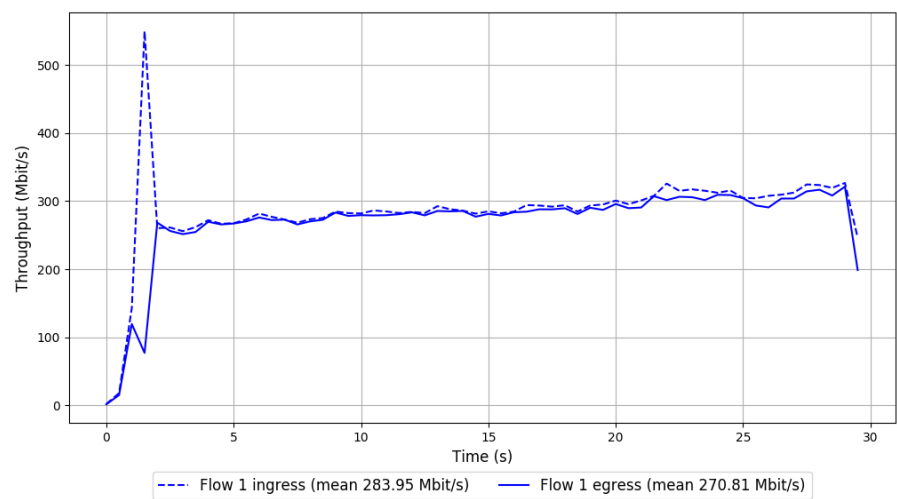
-- Flow 1:

Average throughput: 270.81 Mbit/s

95th percentile per-packet one-way delay: 51.176 ms

Loss rate: 4.92%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-11 10:56:23

End at: 2017-08-11 10:56:53

Below is generated by plot.py at 2017-08-11 14:51:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 274.36 Mbit/s

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

Loss rate: 5.30%

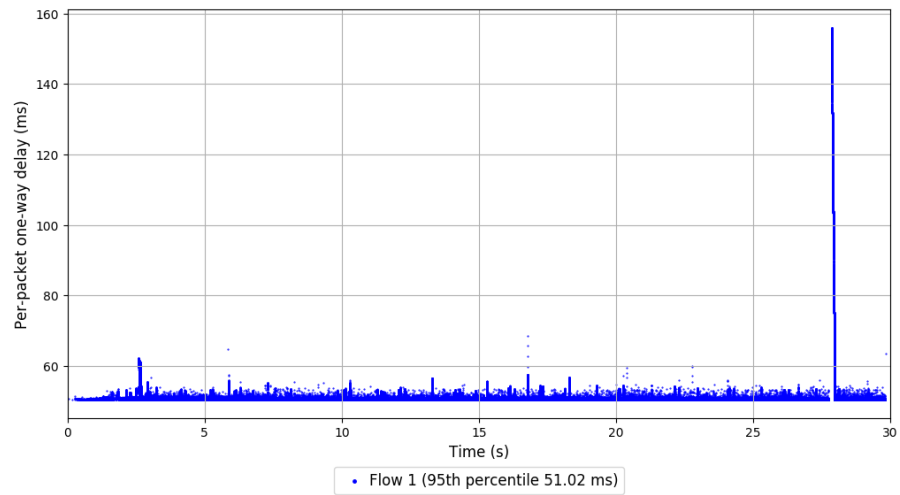
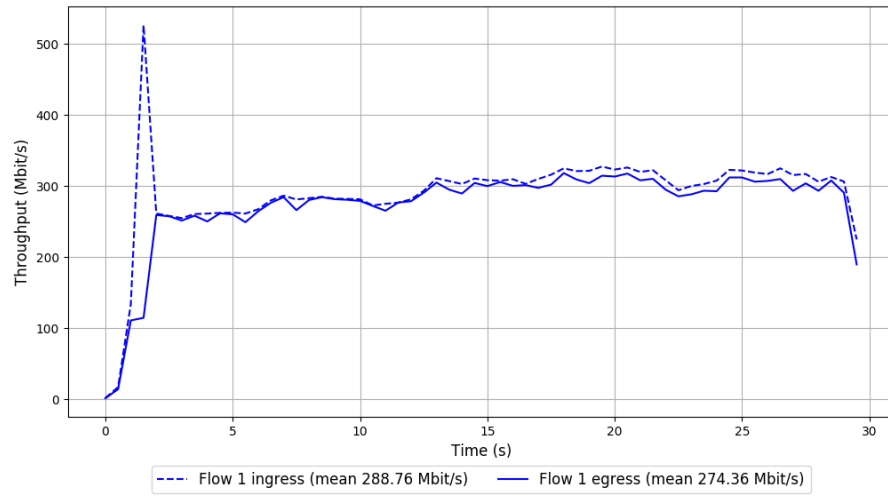
-- Flow 1:

Average throughput: 274.36 Mbit/s

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

Loss rate: 5.30%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

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

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

Below is generated by plot.py at 2017-08-11 14:52:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 269.03 Mbit/s

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

Loss rate: 4.17%

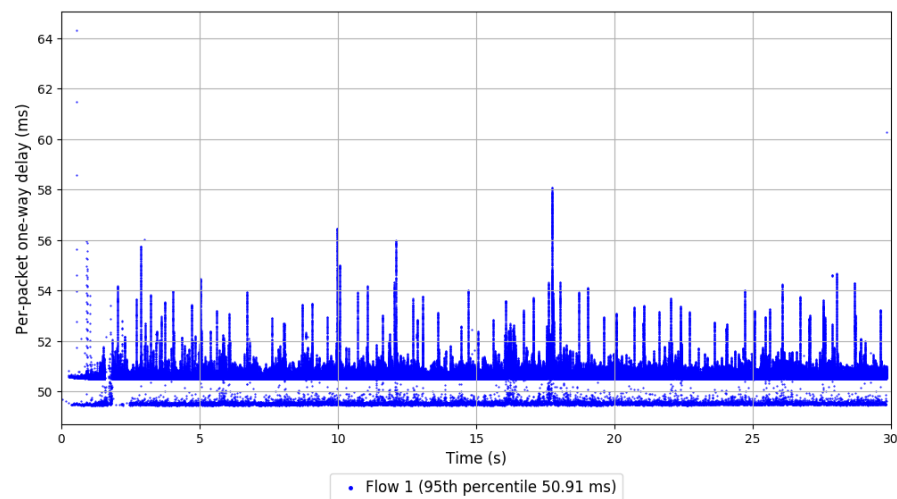
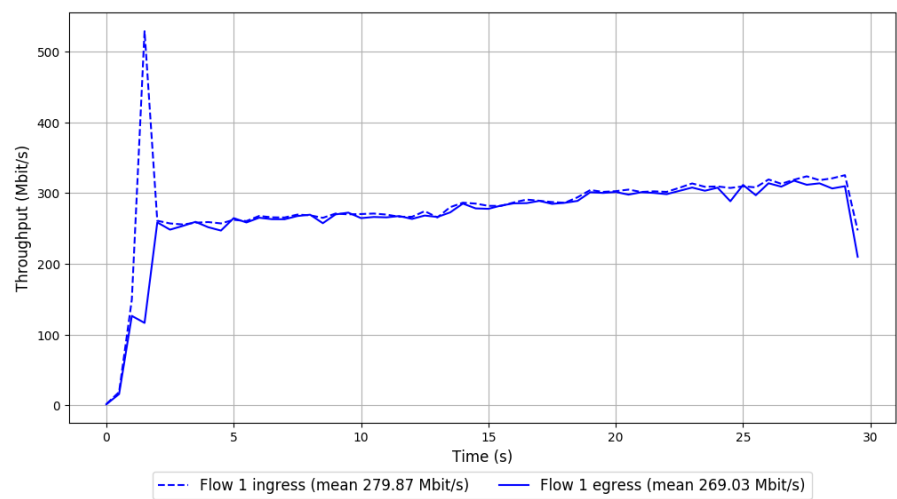
-- Flow 1:

Average throughput: 269.03 Mbit/s

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

Loss rate: 4.17%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-11 11:16:57

End at: 2017-08-11 11:17:27

Below is generated by plot.py at 2017-08-11 14:53:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 503.72 Mbit/s

95th percentile per-packet one-way delay: 71.105 ms

Loss rate: 1.24%

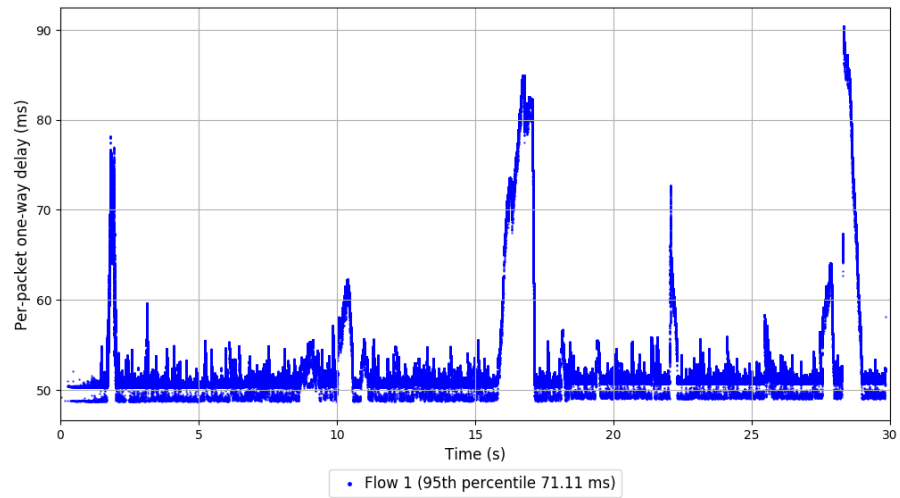
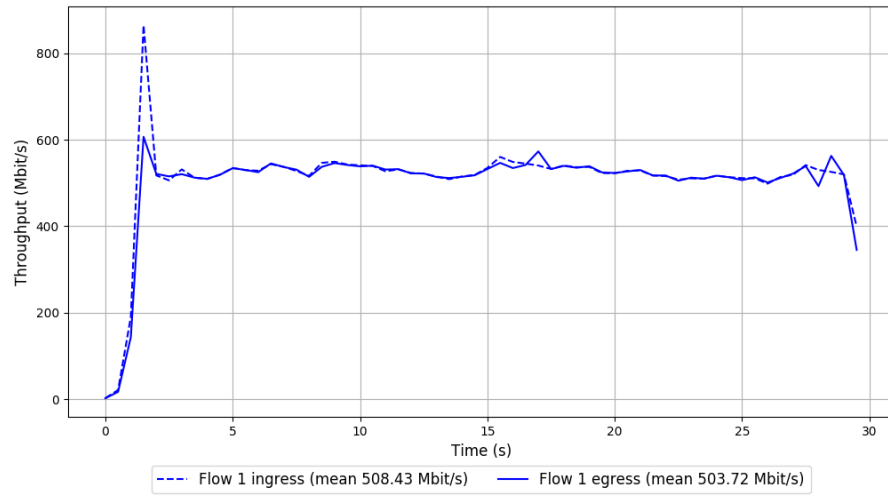
-- Flow 1:

Average throughput: 503.72 Mbit/s

95th percentile per-packet one-way delay: 71.105 ms

Loss rate: 1.24%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

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

End at: 2017-08-11 11:27:39

Below is generated by plot.py at 2017-08-11 14:54:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 506.30 Mbit/s

95th percentile per-packet one-way delay: 91.264 ms

Loss rate: 1.51%

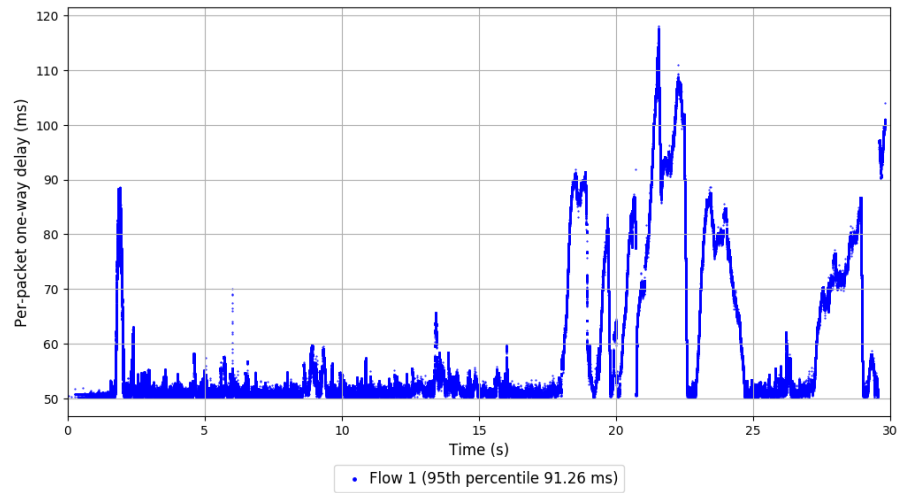
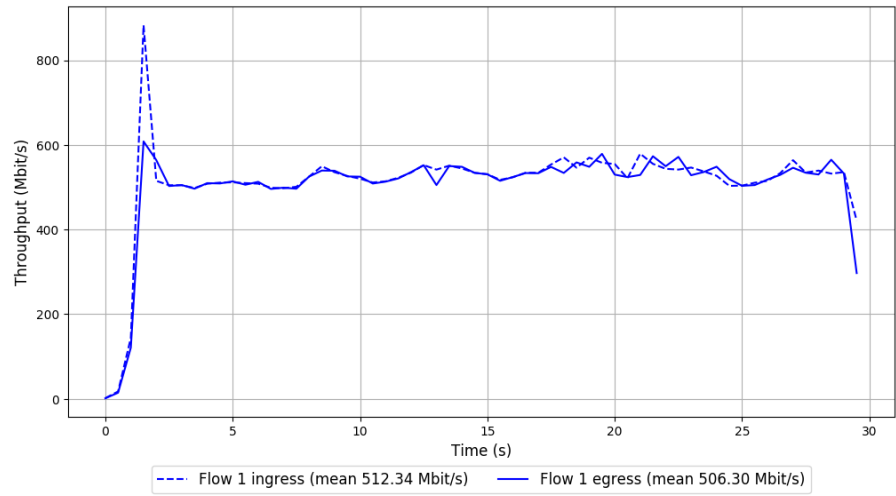
-- Flow 1:

Average throughput: 506.30 Mbit/s

95th percentile per-packet one-way delay: 91.264 ms

Loss rate: 1.51%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-11 11:37:28

End at: 2017-08-11 11:37:58

Below is generated by plot.py at 2017-08-11 14:54:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 465.68 Mbit/s

95th percentile per-packet one-way delay: 97.332 ms

Loss rate: 1.05%

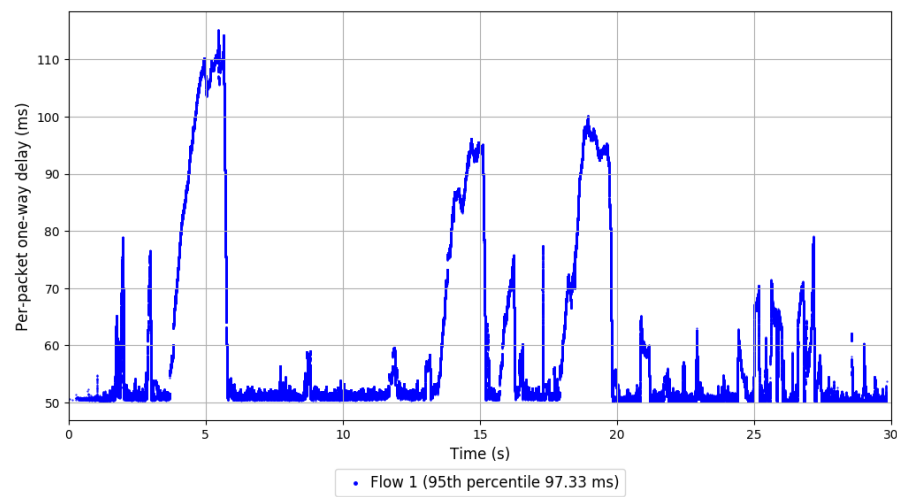
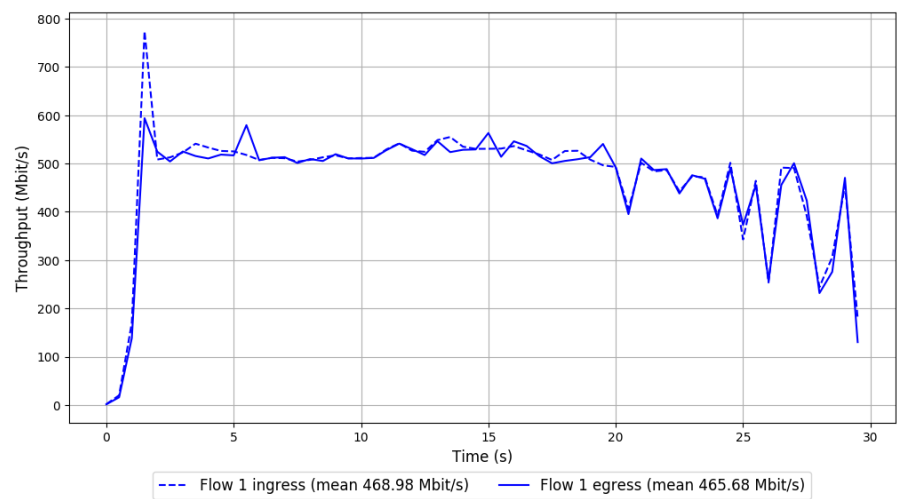
-- Flow 1:

Average throughput: 465.68 Mbit/s

95th percentile per-packet one-way delay: 97.332 ms

Loss rate: 1.05%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-11 11:48:01

End at: 2017-08-11 11:48:31

Below is generated by plot.py at 2017-08-11 14:55:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 501.79 Mbit/s

95th percentile per-packet one-way delay: 74.155 ms

Loss rate: 1.04%

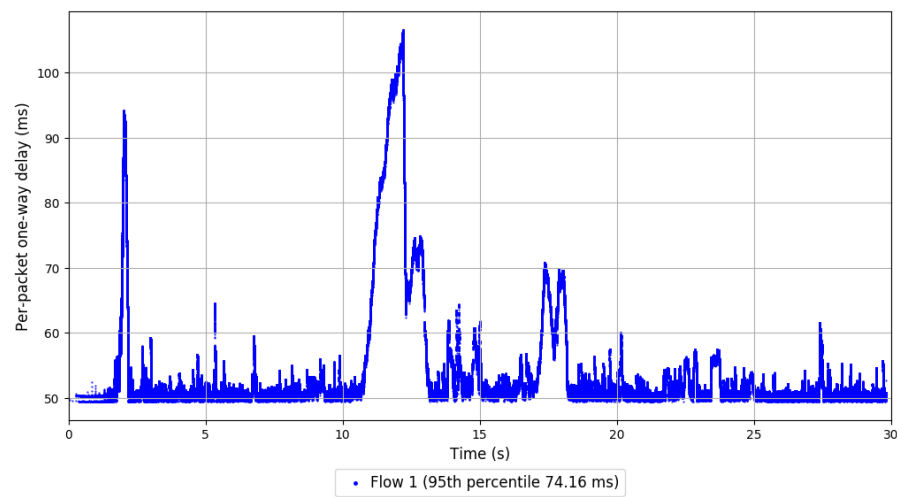
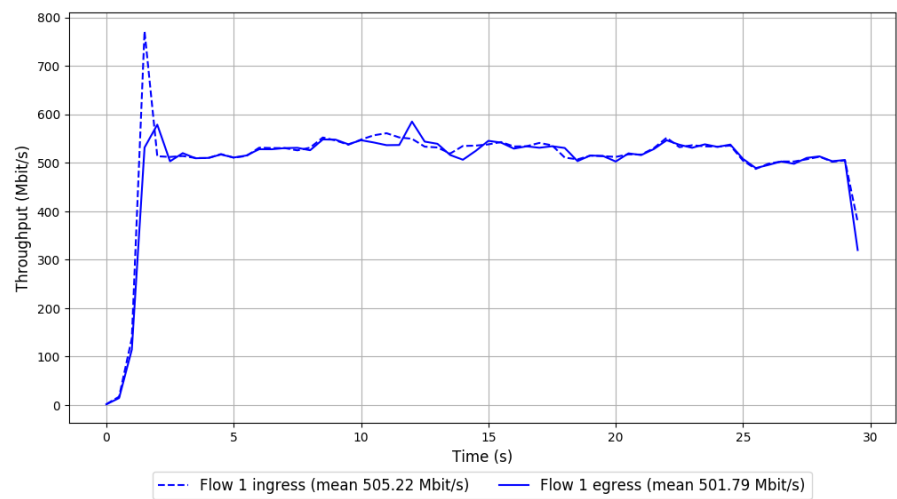
-- Flow 1:

Average throughput: 501.79 Mbit/s

95th percentile per-packet one-way delay: 74.155 ms

Loss rate: 1.04%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-11 11:58:33

End at: 2017-08-11 11:59:03

Below is generated by plot.py at 2017-08-11 14:56:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 500.54 Mbit/s

95th percentile per-packet one-way delay: 64.299 ms

Loss rate: 1.00%

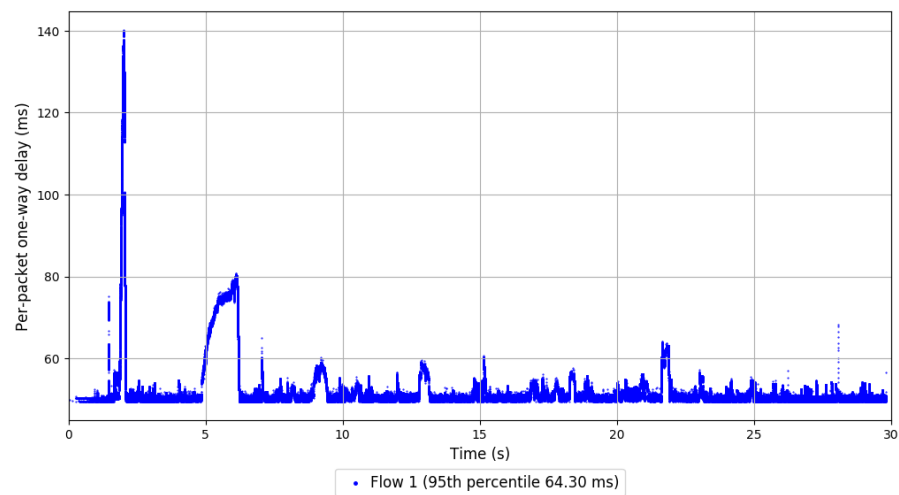
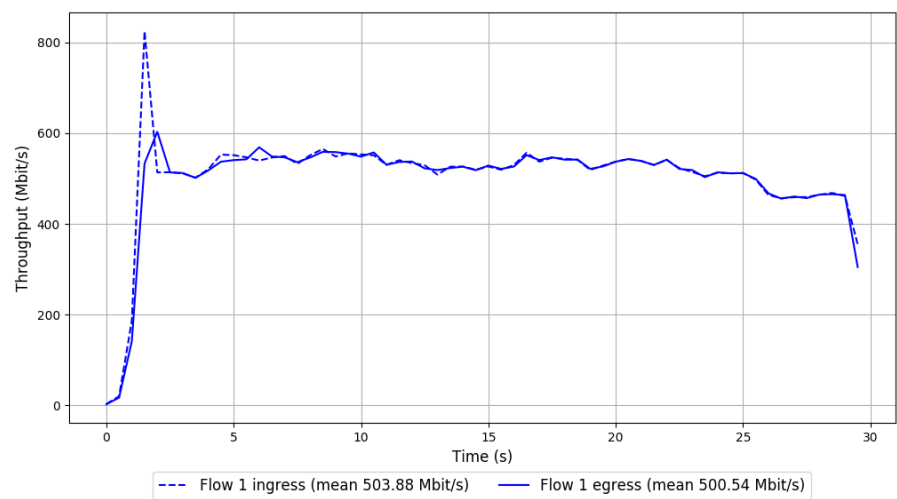
-- Flow 1:

Average throughput: 500.54 Mbit/s

95th percentile per-packet one-way delay: 64.299 ms

Loss rate: 1.00%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-11 12:09:13

End at: 2017-08-11 12:09:43

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 460.49 Mbit/s

95th percentile per-packet one-way delay: 58.563 ms

Loss rate: 7.10%

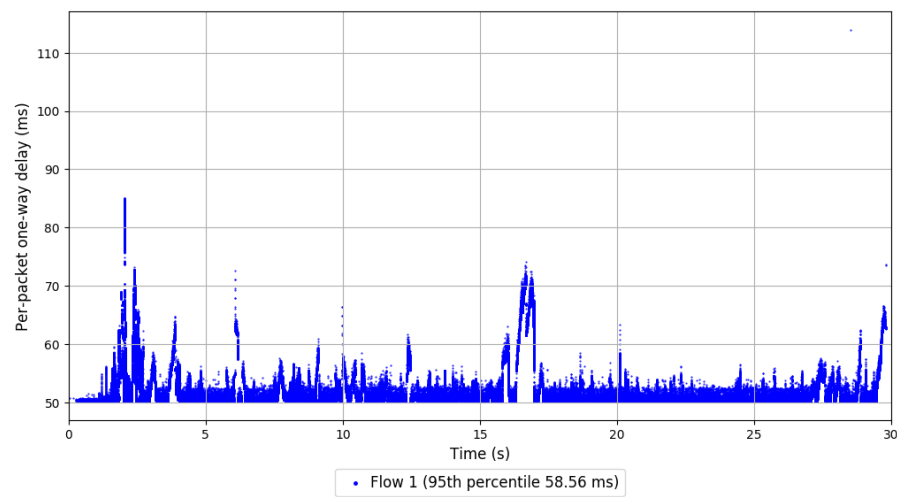
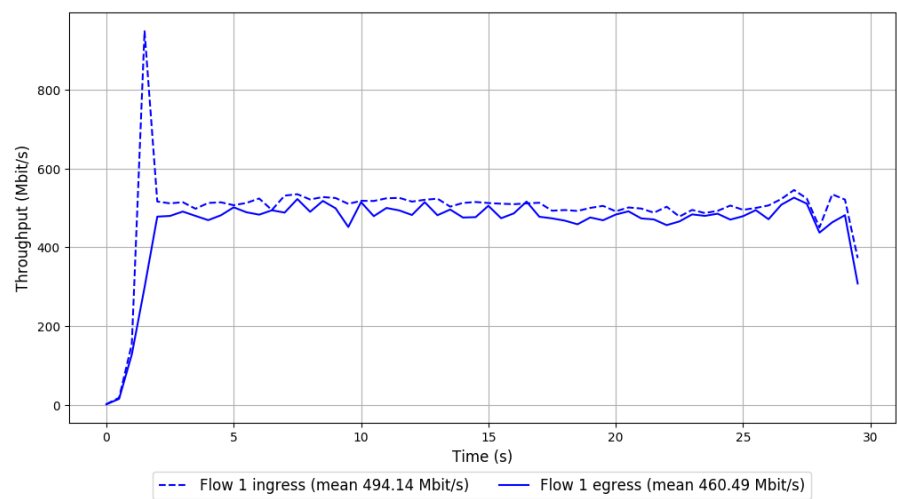
-- Flow 1:

Average throughput: 460.49 Mbit/s

95th percentile per-packet one-way delay: 58.563 ms

Loss rate: 7.10%

Run 10: Report of PCC — Data Link

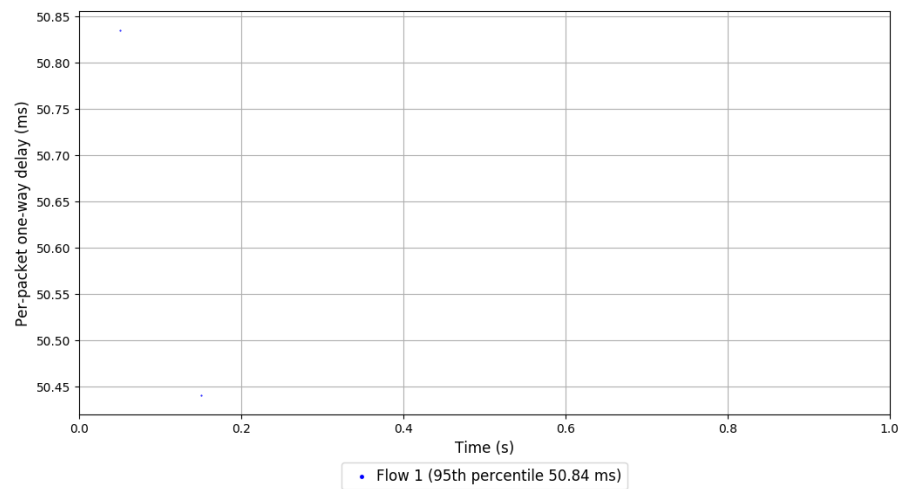
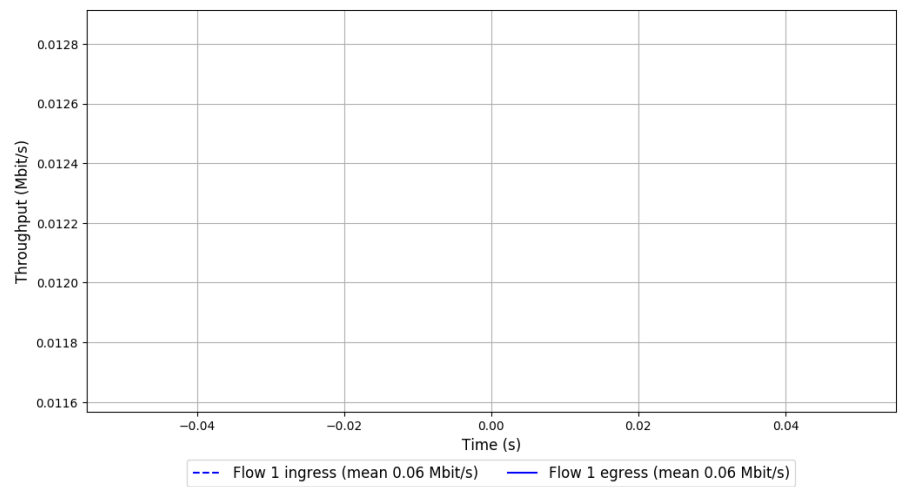


Run 1: Statistics of QUIC Cubic

Start at: 2017-08-11 10:38:08

End at: 2017-08-11 10:38:38

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-11 10:48:31

End at: 2017-08-11 10:49:01

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 50.970 ms

Loss rate: 0.71%

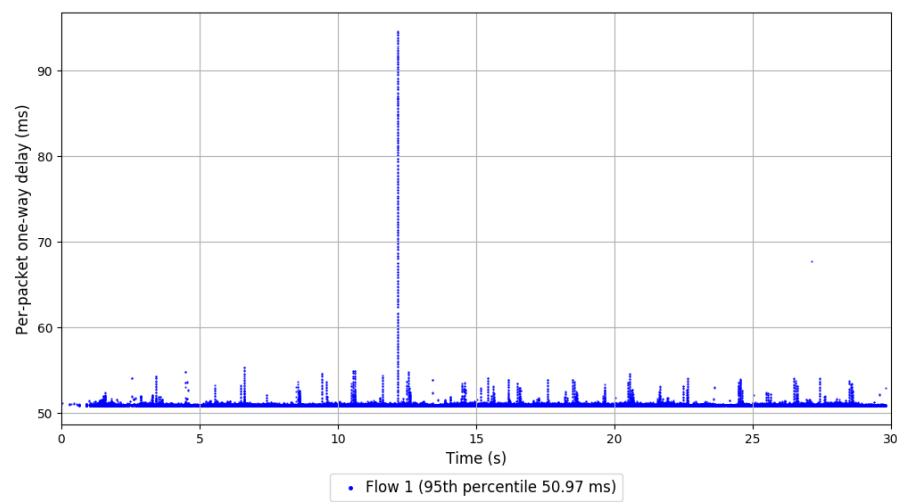
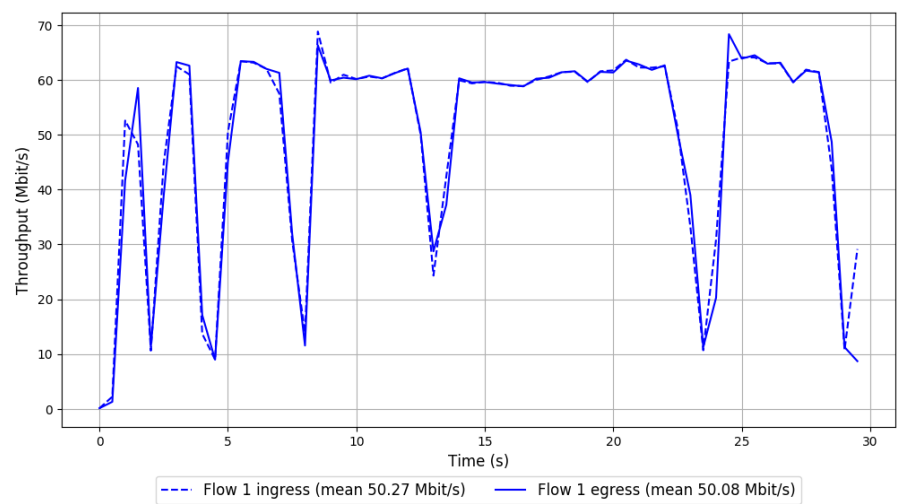
-- Flow 1:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 50.970 ms

Loss rate: 0.71%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-11 10:58:29

End at: 2017-08-11 10:58:59

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 36.06 Mbit/s

95th percentile per-packet one-way delay: 48.896 ms

Loss rate: 0.59%

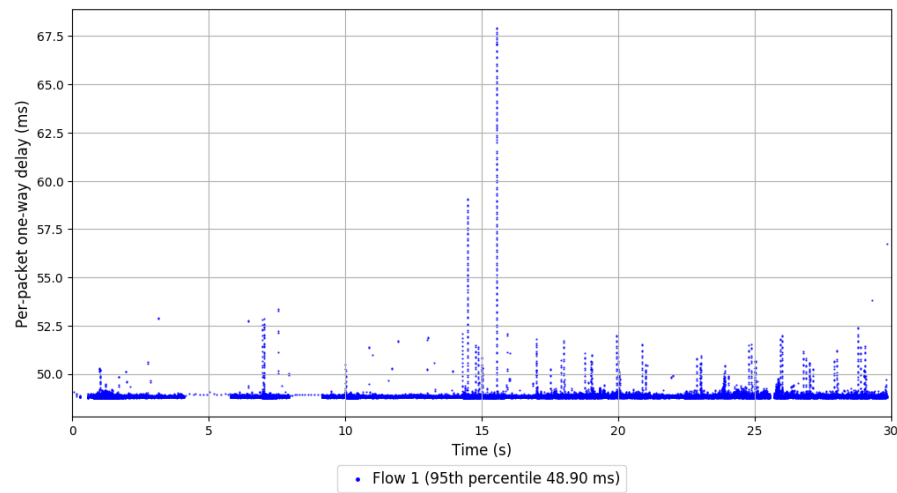
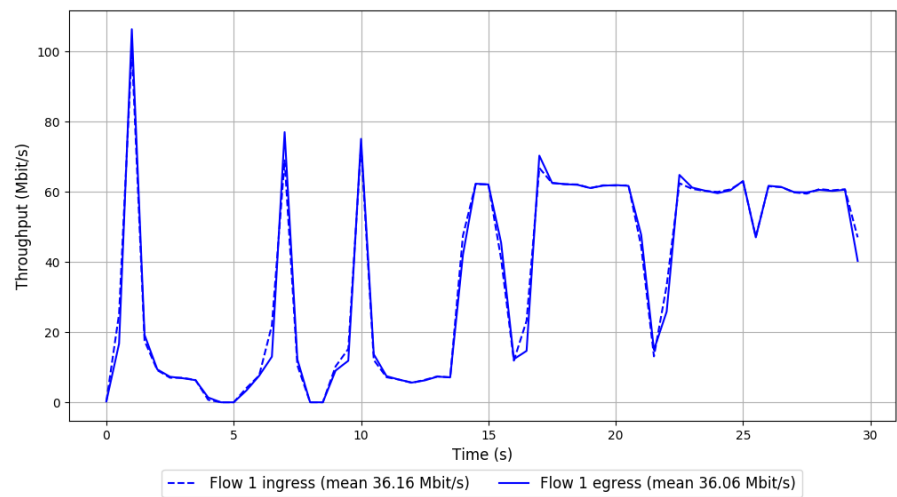
-- Flow 1:

Average throughput: 36.06 Mbit/s

95th percentile per-packet one-way delay: 48.896 ms

Loss rate: 0.59%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

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

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

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.09 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.43%

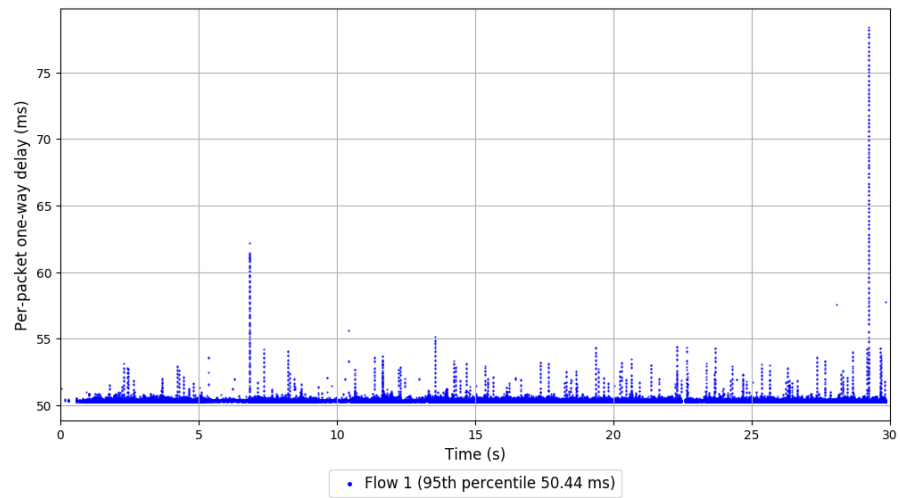
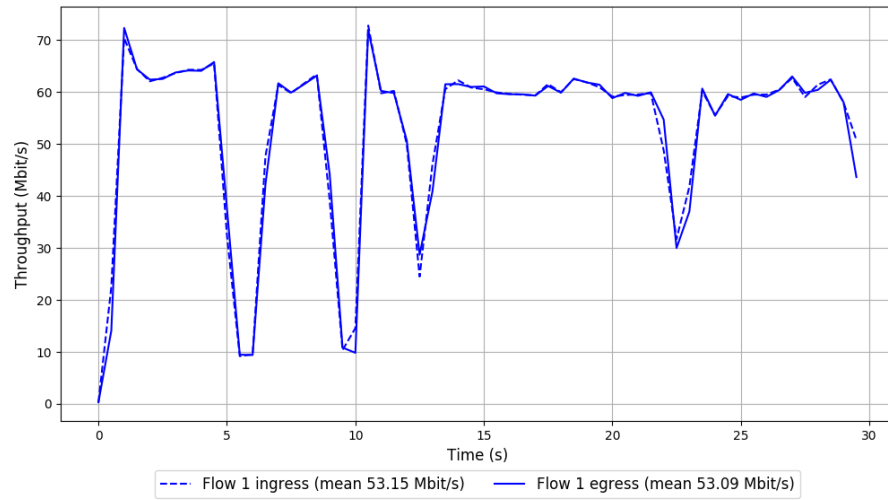
-- Flow 1:

Average throughput: 53.09 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.43%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-11 11:19:14

End at: 2017-08-11 11:19:44

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.85 Mbit/s

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

Loss rate: 0.52%

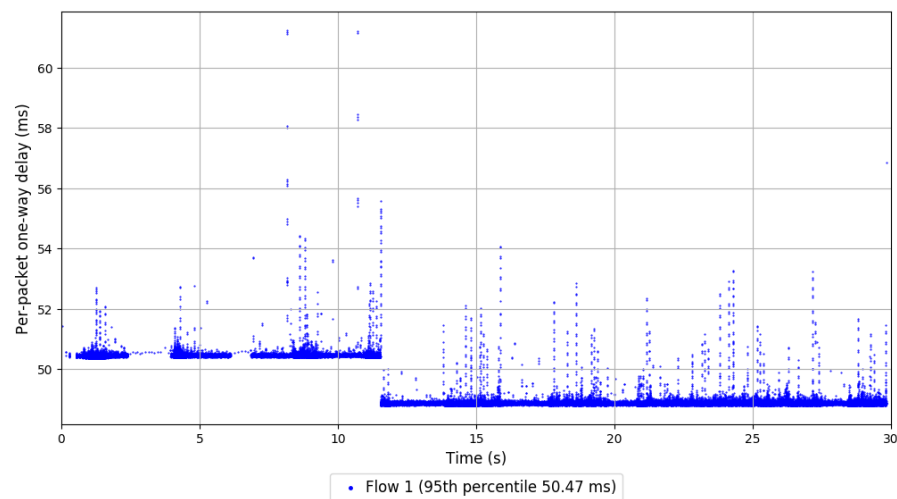
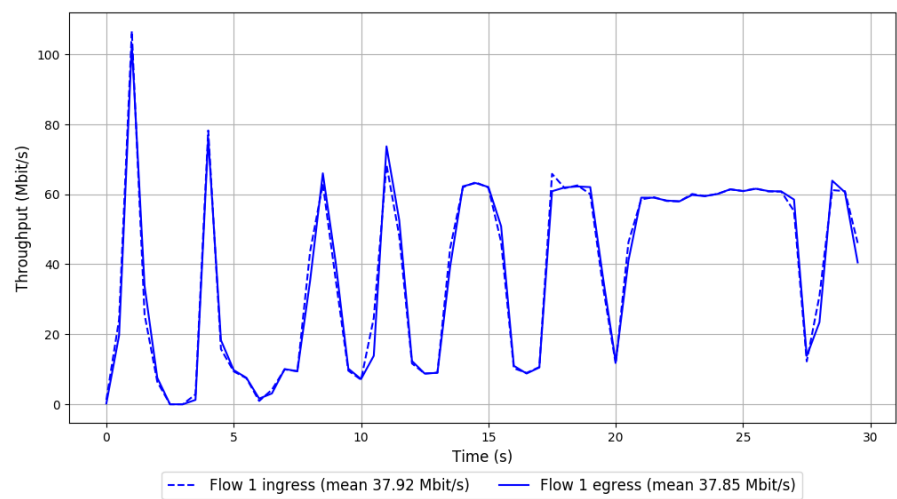
-- Flow 1:

Average throughput: 37.85 Mbit/s

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

Loss rate: 0.52%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-11 11:29:29

End at: 2017-08-11 11:29:59

Below is generated by plot.py at 2017-08-11 14:57:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.52 Mbit/s

95th percentile per-packet one-way delay: 49.658 ms

Loss rate: 0.38%

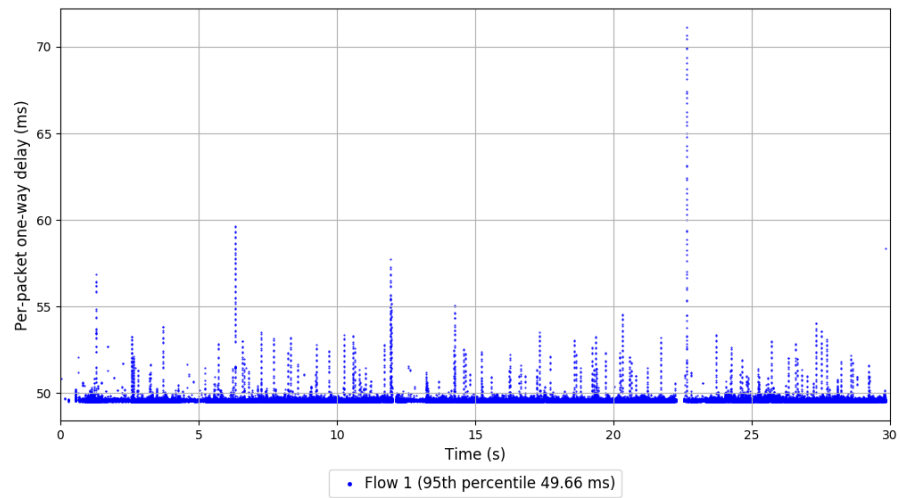
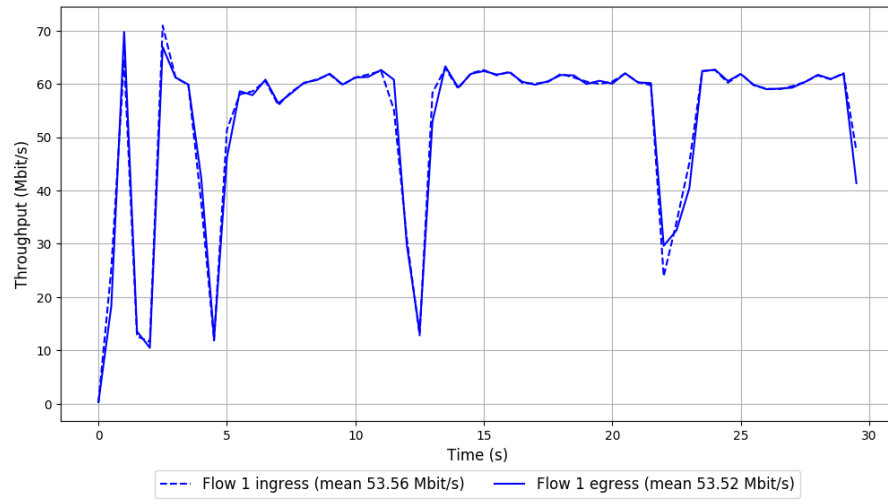
-- Flow 1:

Average throughput: 53.52 Mbit/s

95th percentile per-packet one-way delay: 49.658 ms

Loss rate: 0.38%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-11 11:39:45

End at: 2017-08-11 11:40:15

Below is generated by plot.py at 2017-08-11 14:57:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.33 Mbit/s

95th percentile per-packet one-way delay: 50.419 ms

Loss rate: 0.60%

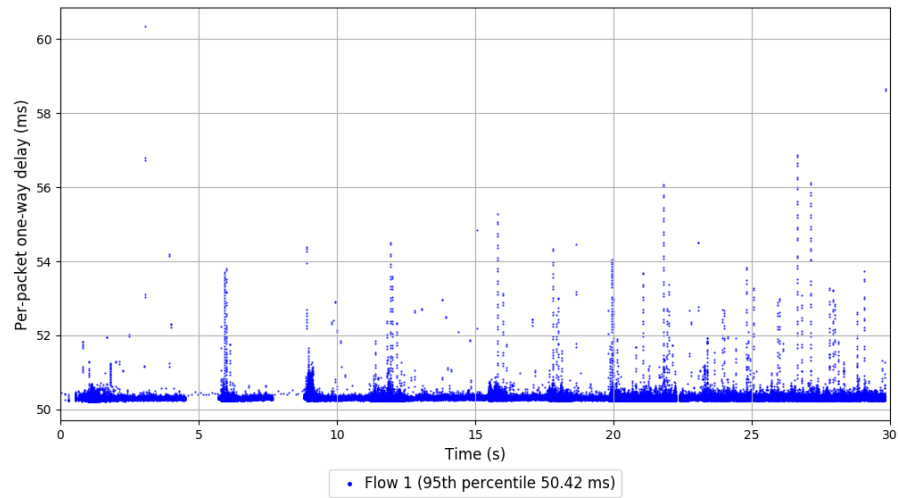
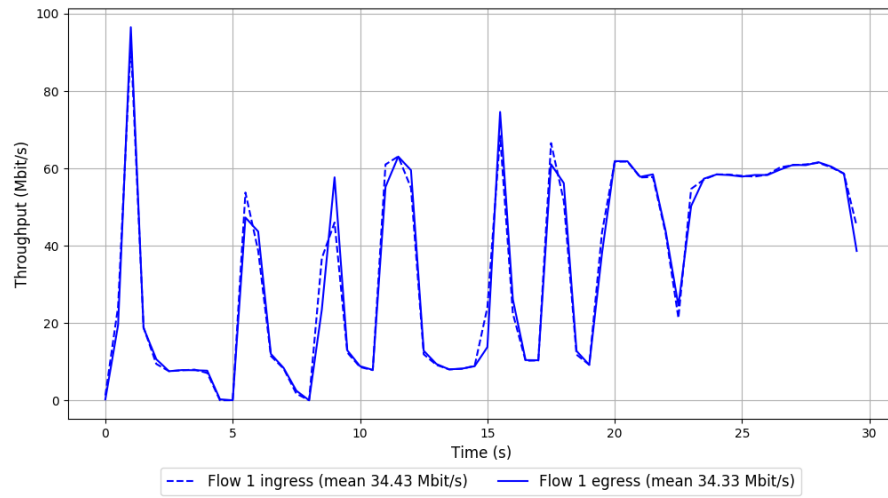
-- Flow 1:

Average throughput: 34.33 Mbit/s

95th percentile per-packet one-way delay: 50.419 ms

Loss rate: 0.60%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-11 11:50:18

End at: 2017-08-11 11:50:48

Below is generated by plot.py at 2017-08-11 14:57:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.27 Mbit/s

95th percentile per-packet one-way delay: 49.850 ms

Loss rate: 0.59%

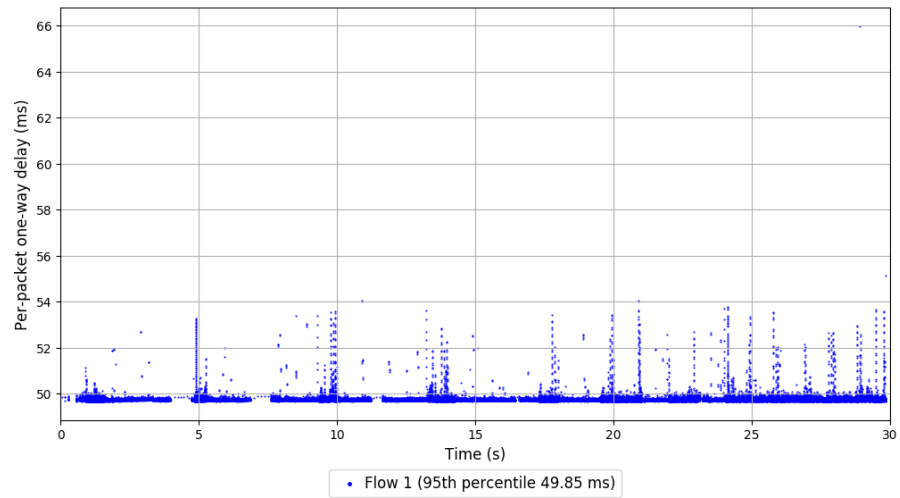
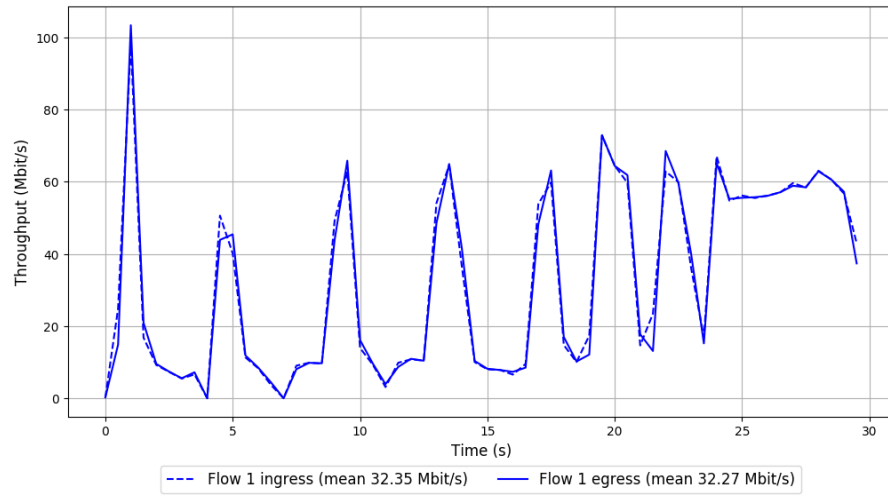
-- Flow 1:

Average throughput: 32.27 Mbit/s

95th percentile per-packet one-way delay: 49.850 ms

Loss rate: 0.59%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-11 12:00:50

End at: 2017-08-11 12:01:20

Below is generated by plot.py at 2017-08-11 14:57:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.81 Mbit/s

95th percentile per-packet one-way delay: 49.813 ms

Loss rate: 0.39%

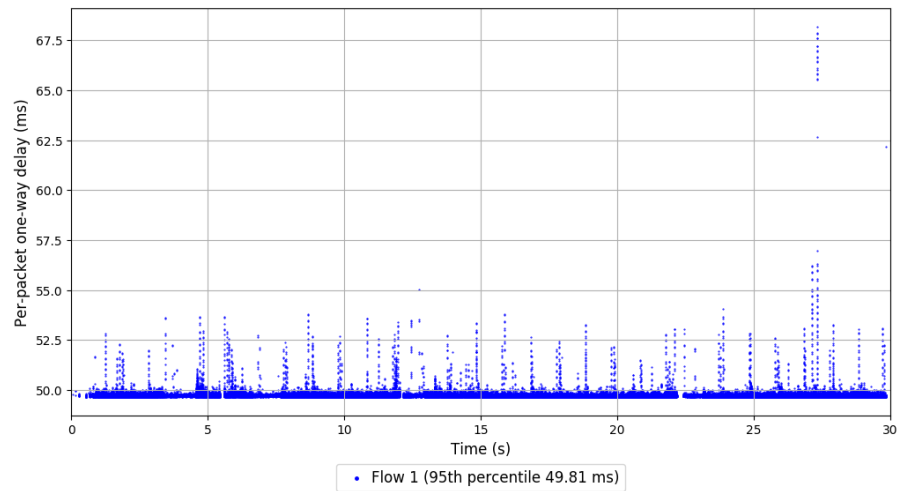
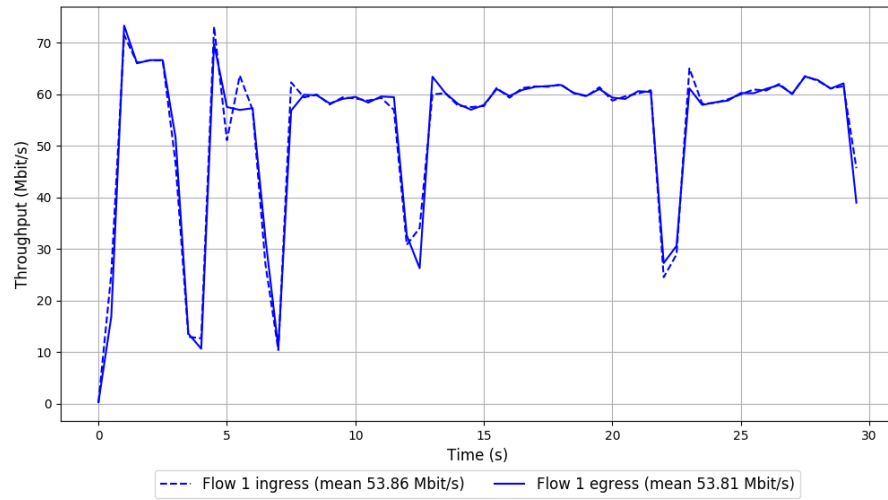
-- Flow 1:

Average throughput: 53.81 Mbit/s

95th percentile per-packet one-way delay: 49.813 ms

Loss rate: 0.39%

Run 9: Report of QUIC Cubic — Data Link

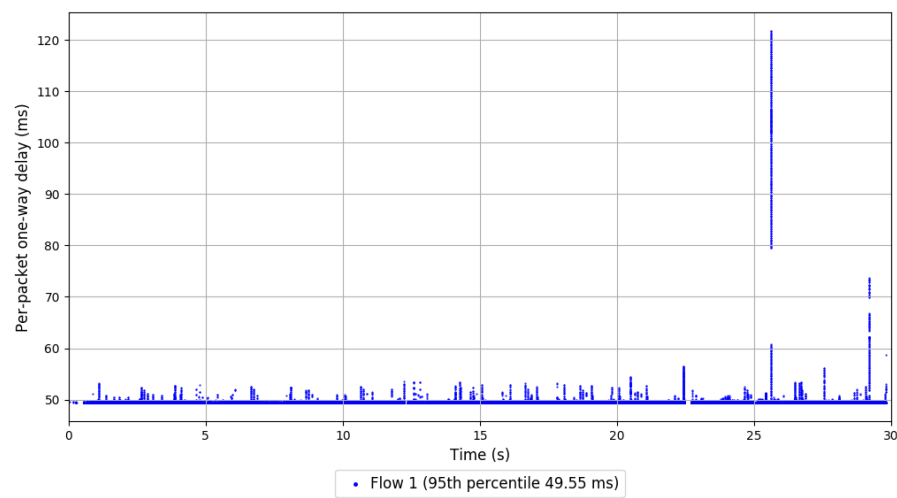
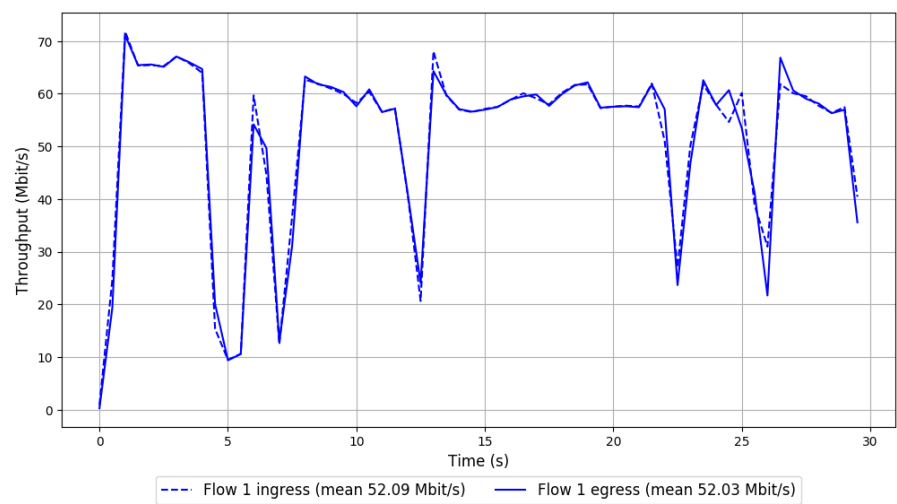


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-11 12:11:29
End at: 2017-08-11 12:11:59

# Below is generated by plot.py at 2017-08-11 14:57:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.03 Mbit/s
95th percentile per-packet one-way delay: 49.551 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 52.03 Mbit/s
95th percentile per-packet one-way delay: 49.551 ms
Loss rate: 0.43%
```

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-11 10:42:49

End at: 2017-08-11 10:43:19

Below is generated by plot.py at 2017-08-11 14:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 51.068 ms

Loss rate: 0.71%

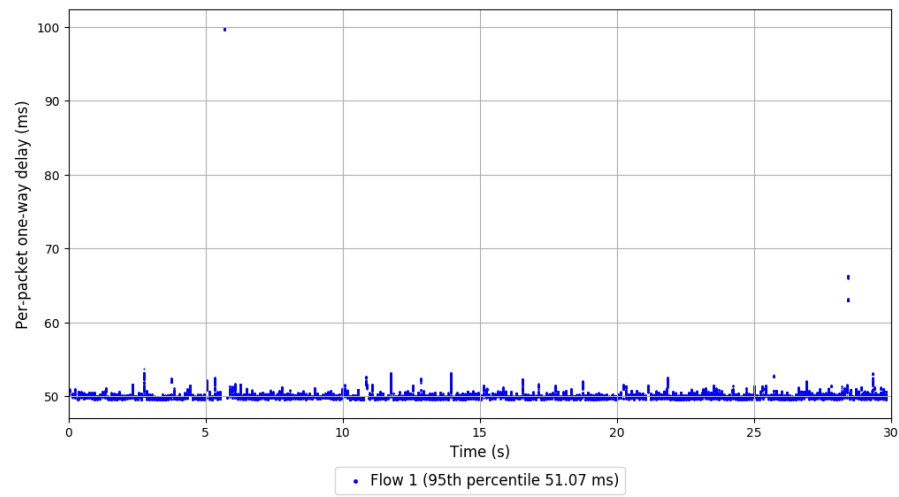
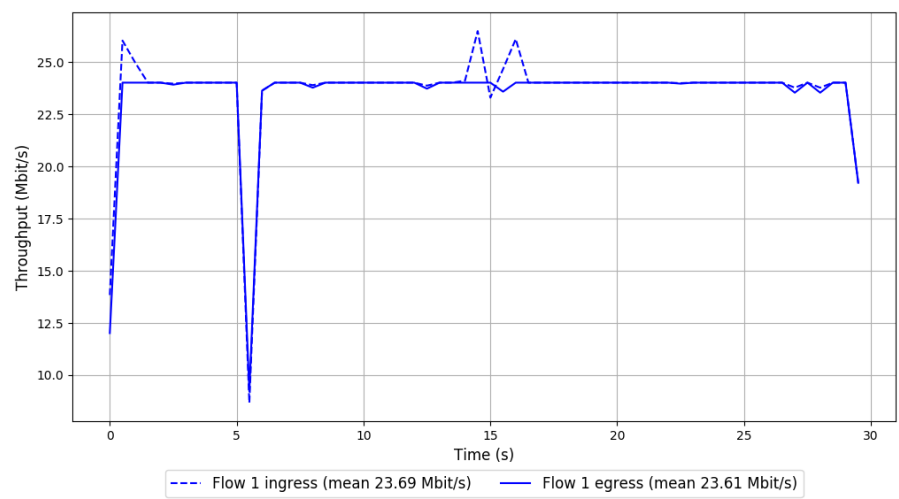
-- Flow 1:

Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 51.068 ms

Loss rate: 0.71%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-11 10:53:10

End at: 2017-08-11 10:53:40

Below is generated by plot.py at 2017-08-11 14:57:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.65 Mbit/s

95th percentile per-packet one-way delay: 51.279 ms

Loss rate: 0.51%

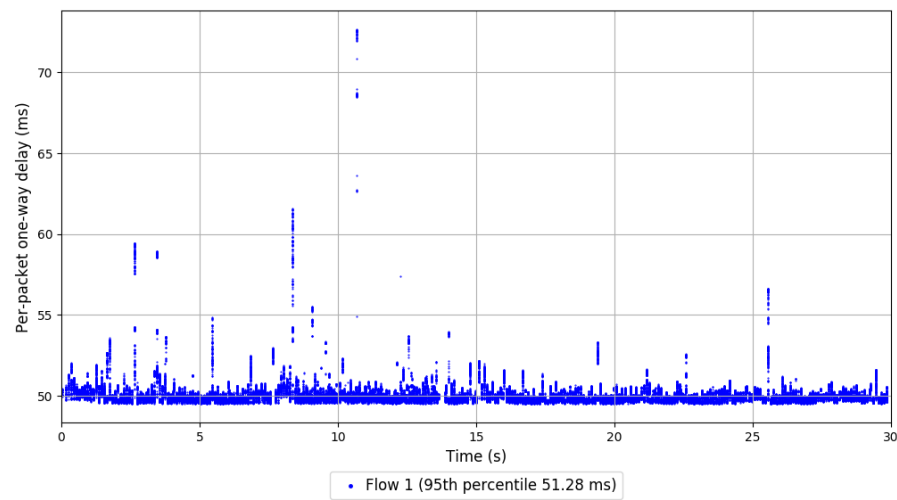
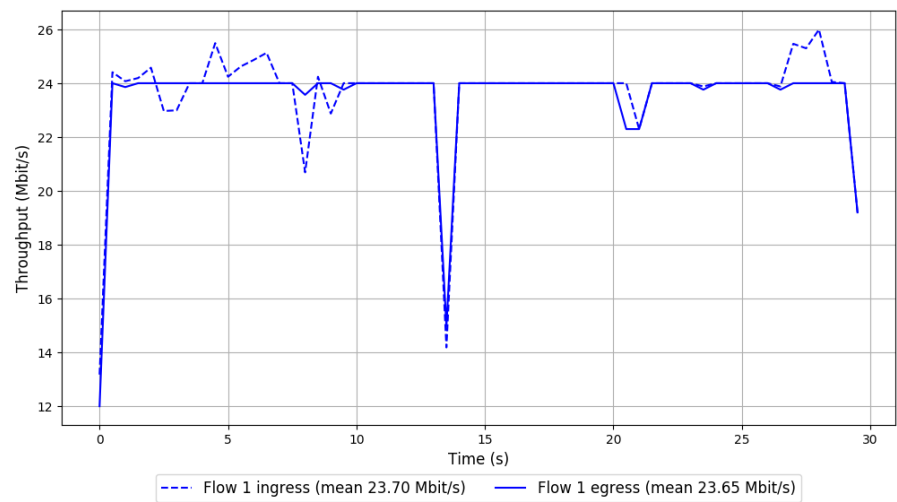
-- Flow 1:

Average throughput: 23.65 Mbit/s

95th percentile per-packet one-way delay: 51.279 ms

Loss rate: 0.51%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-11 11:03:07

End at: 2017-08-11 11:03:37

Below is generated by plot.py at 2017-08-11 14:57:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.84 Mbit/s

95th percentile per-packet one-way delay: 51.211 ms

Loss rate: 0.40%

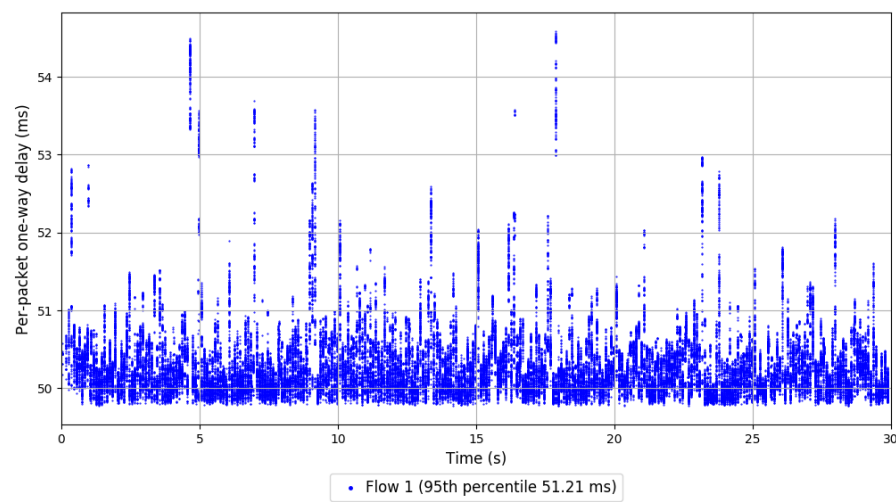
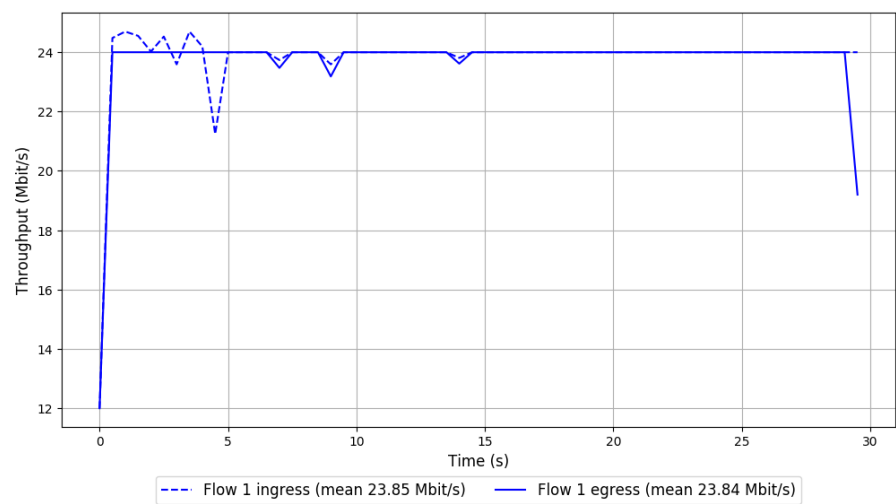
-- Flow 1:

Average throughput: 23.84 Mbit/s

95th percentile per-packet one-way delay: 51.211 ms

Loss rate: 0.40%

Run 3: Report of Saturator — Data Link

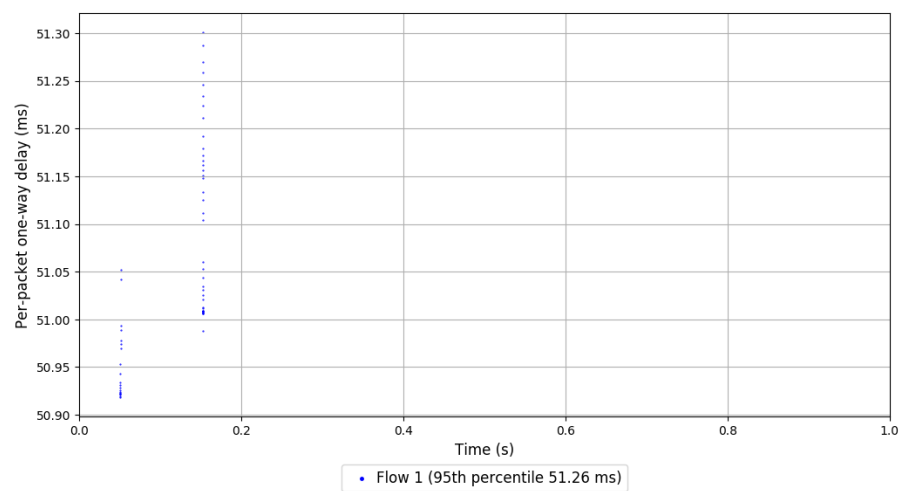
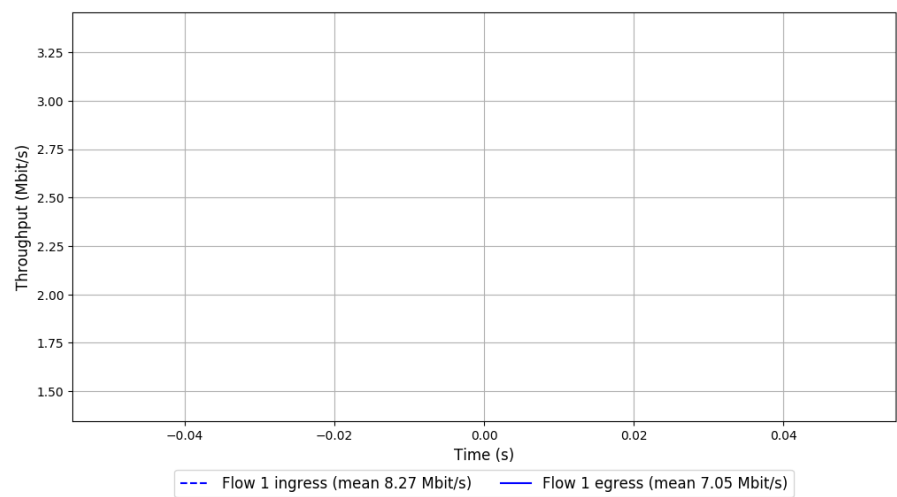


Run 4: Statistics of Saturator

Start at: 2017-08-11 11:13:21

End at: 2017-08-11 11:13:51

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-11 11:23:54

End at: 2017-08-11 11:24:24

Below is generated by plot.py at 2017-08-11 14:57:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.95 Mbit/s

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

Loss rate: 4.77%

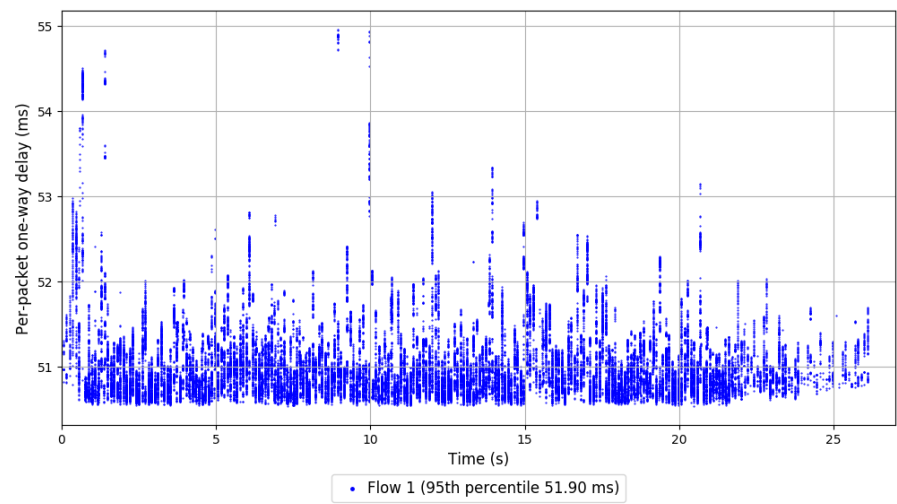
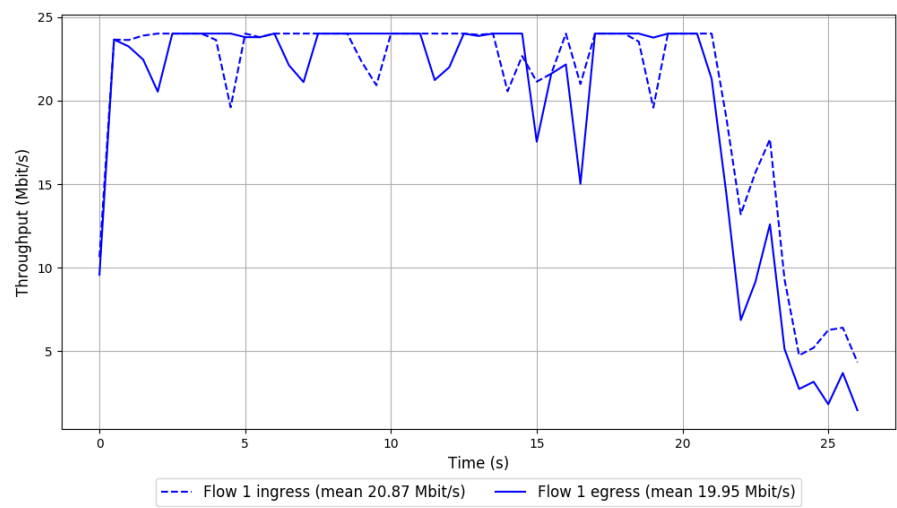
-- Flow 1:

Average throughput: 19.95 Mbit/s

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

Loss rate: 4.77%

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-11 11:34:16

End at: 2017-08-11 11:34:46

Below is generated by plot.py at 2017-08-11 14:57:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.59 Mbit/s

95th percentile per-packet one-way delay: 51.709 ms

Loss rate: 0.39%

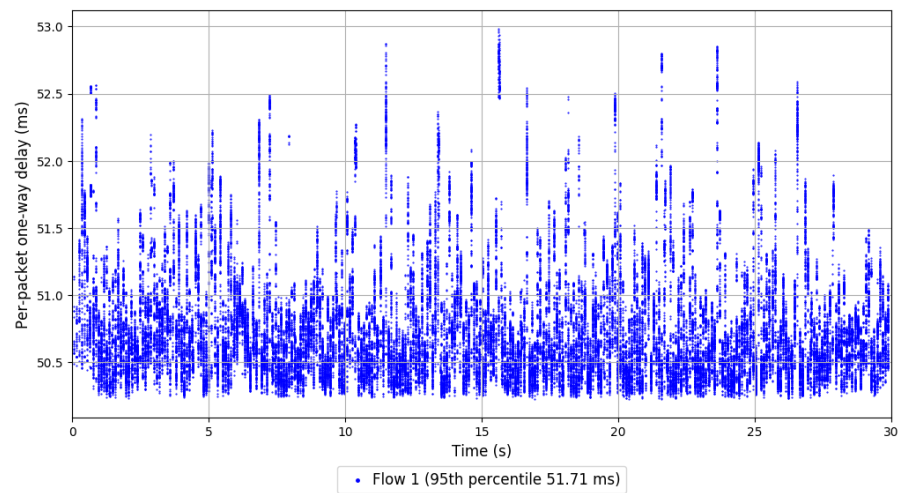
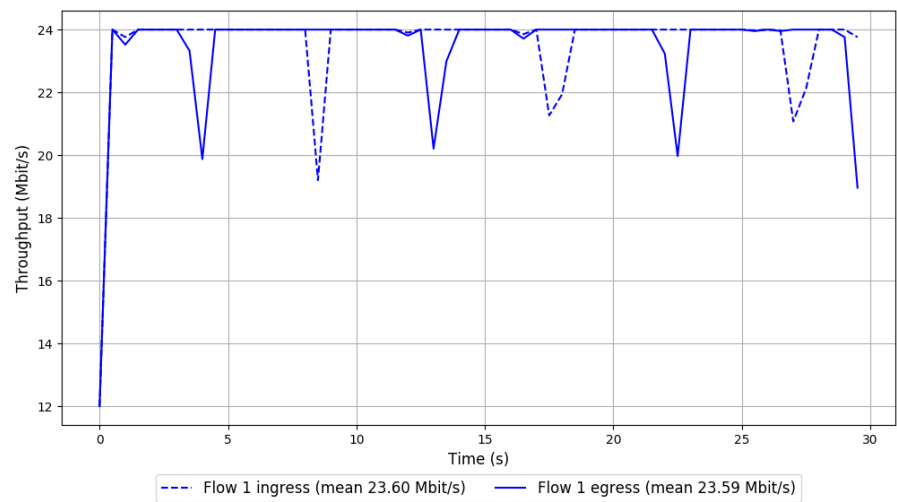
-- Flow 1:

Average throughput: 23.59 Mbit/s

95th percentile per-packet one-way delay: 51.709 ms

Loss rate: 0.39%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-11 11:44:26

End at: 2017-08-11 11:44:56

Below is generated by plot.py at 2017-08-11 14:57:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.08 Mbit/s

95th percentile per-packet one-way delay: 51.961 ms

Loss rate: 0.49%

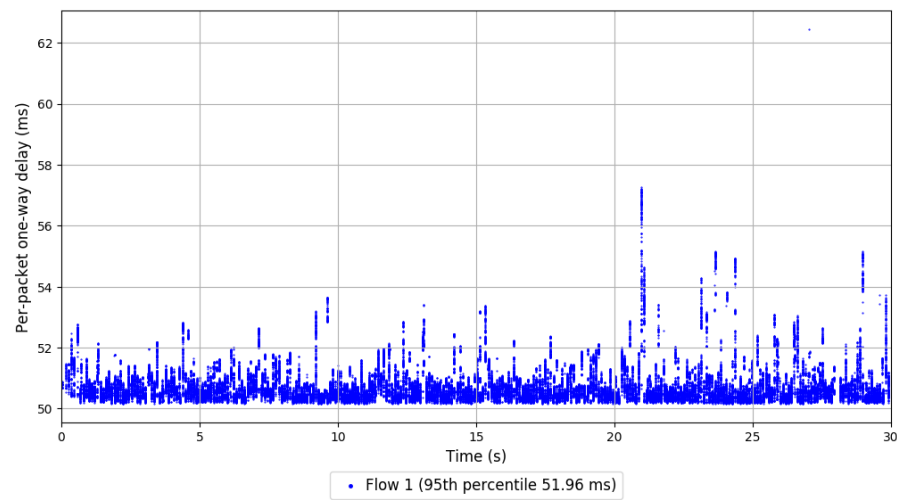
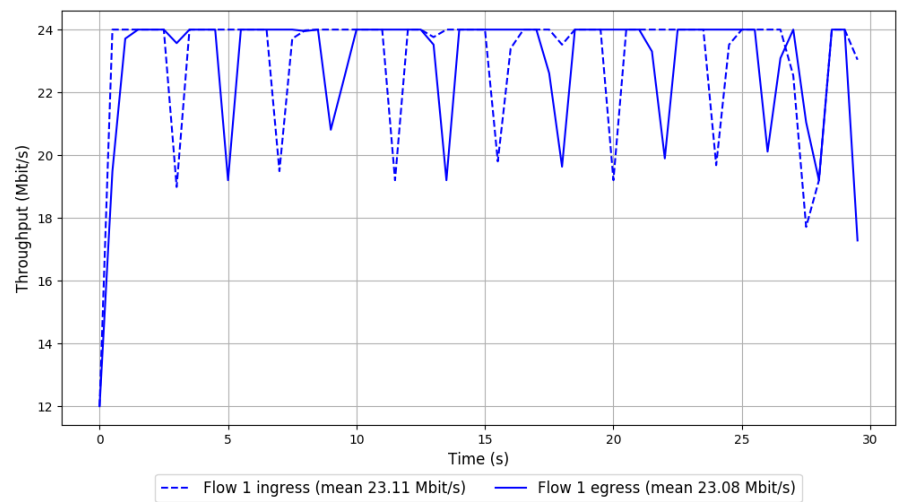
-- Flow 1:

Average throughput: 23.08 Mbit/s

95th percentile per-packet one-way delay: 51.961 ms

Loss rate: 0.49%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

Start at: 2017-08-11 11:54:59

End at: 2017-08-11 11:55:29

Below is generated by plot.py at 2017-08-11 14:57:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.18 Mbit/s

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

Loss rate: 37.27%

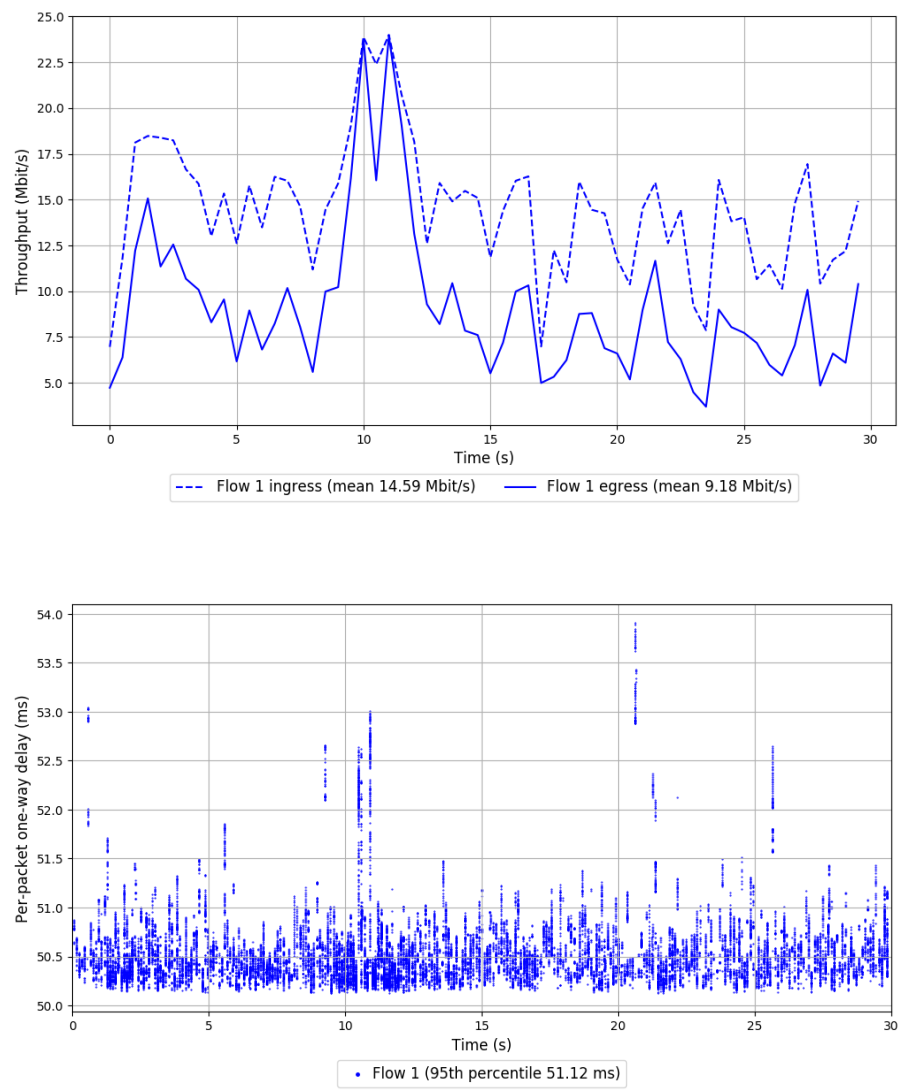
-- Flow 1:

Average throughput: 9.18 Mbit/s

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

Loss rate: 37.27%

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-11 12:05:32

End at: 2017-08-11 12:06:02

Below is generated by plot.py at 2017-08-11 14:57:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 23.34 Mbit/s

95th percentile per-packet one-way delay: 52.009 ms

Loss rate: 0.40%

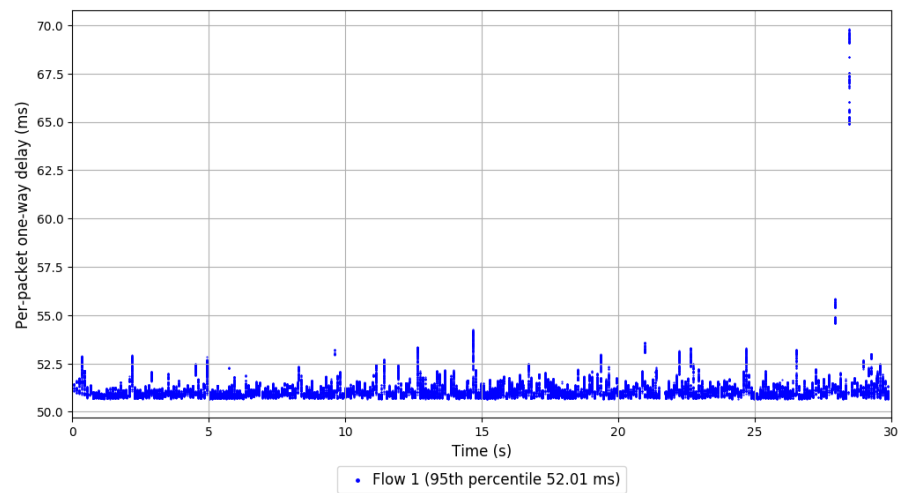
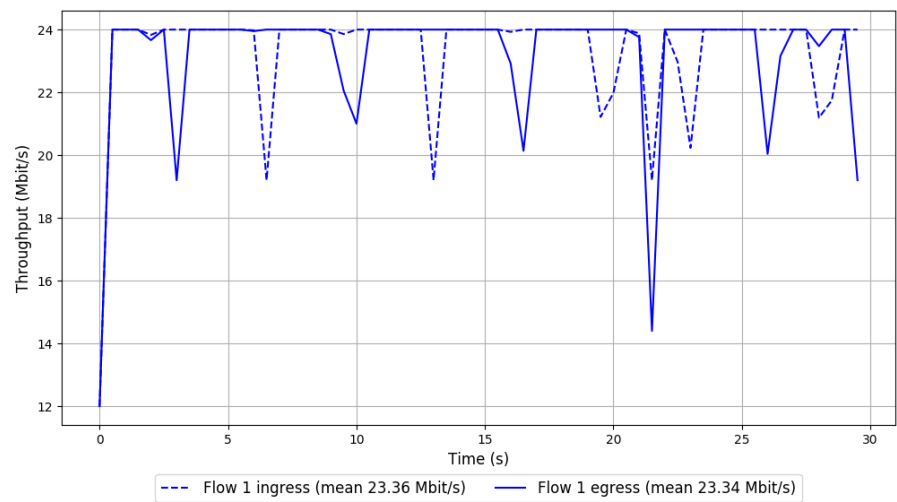
-- Flow 1:

Average throughput: 23.34 Mbit/s

95th percentile per-packet one-way delay: 52.009 ms

Loss rate: 0.40%

Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-11 12:16:10

End at: 2017-08-11 12:16:40

Below is generated by plot.py at 2017-08-11 14:57:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.88 Mbit/s

95th percentile per-packet one-way delay: 52.543 ms

Loss rate: 0.83%

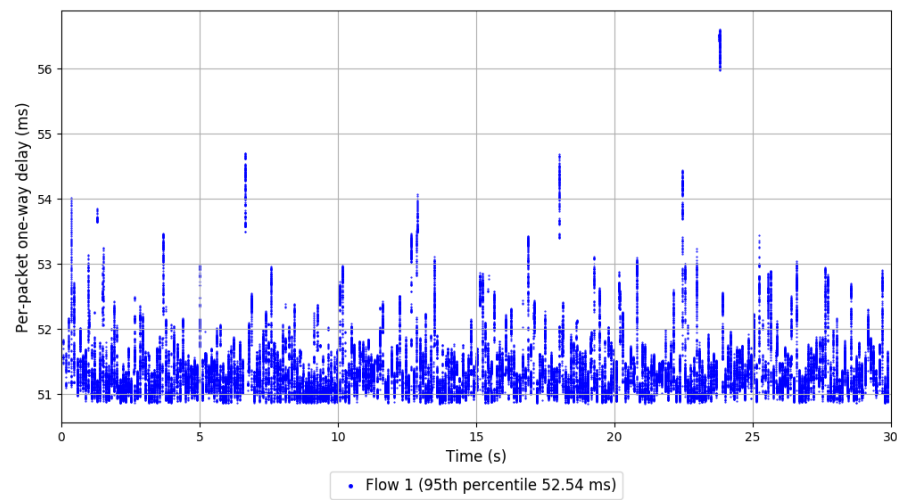
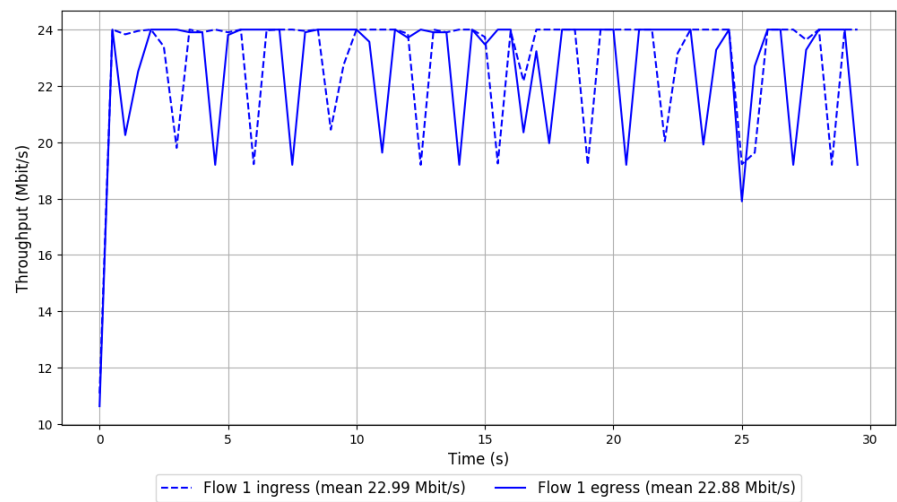
-- Flow 1:

Average throughput: 22.88 Mbit/s

95th percentile per-packet one-way delay: 52.543 ms

Loss rate: 0.83%

Run 10: Report of Saturator — Data Link

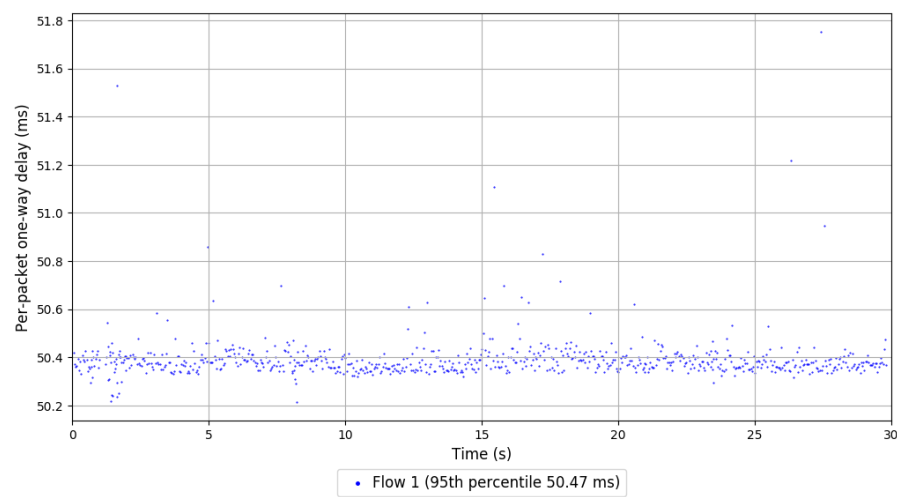
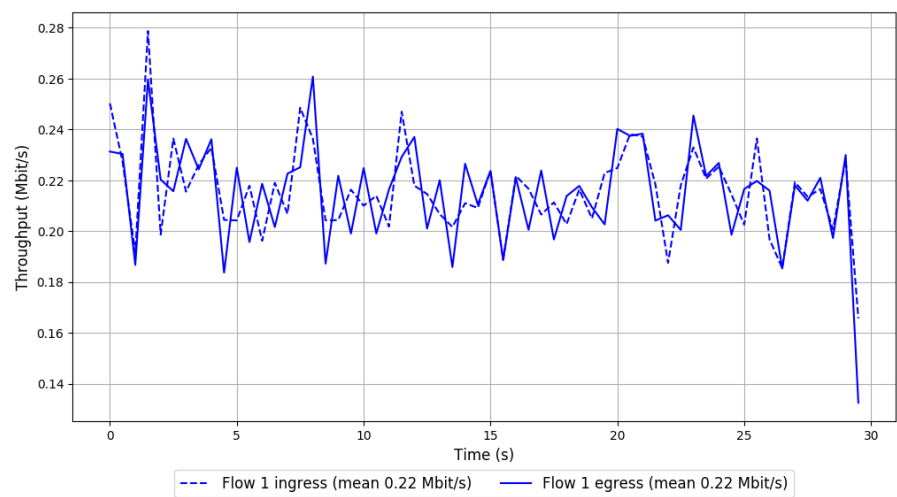


```
Run 1: Statistics of SCReAM

Start at: 2017-08-11 10:44:46
End at: 2017-08-11 10:45:16

# Below is generated by plot.py at 2017-08-11 14:57:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.471 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.471 ms
Loss rate: 0.38%
```

Run 1: Report of SReAM — Data Link

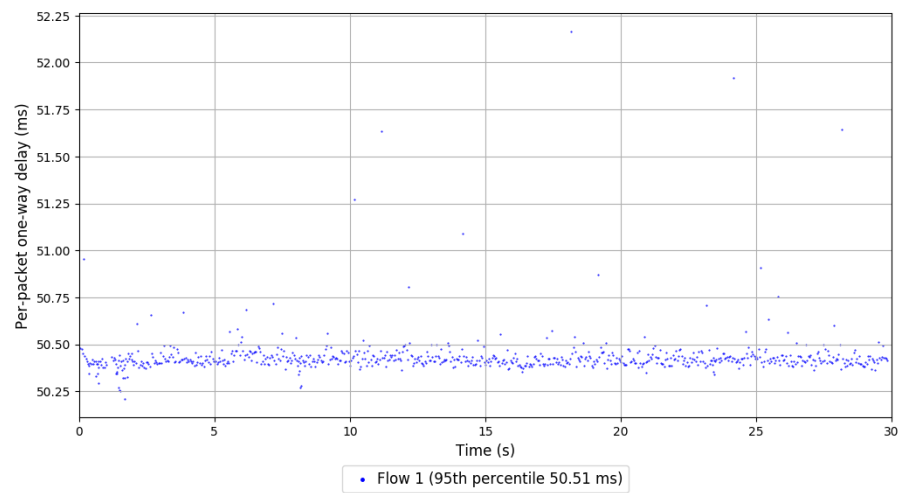
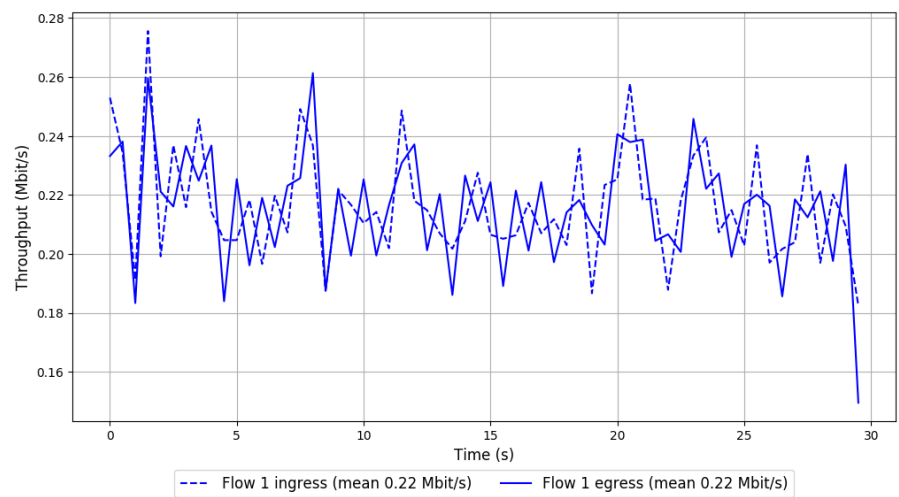


```
Run 2: Statistics of SCReAM

Start at: 2017-08-11 10:55:09
End at: 2017-08-11 10:55:40

# Below is generated by plot.py at 2017-08-11 14:57:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.508 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.508 ms
Loss rate: 0.38%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-11 11:05:01

End at: 2017-08-11 11:05:31

Below is generated by plot.py at 2017-08-11 14:57:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.672 ms

Loss rate: 0.26%

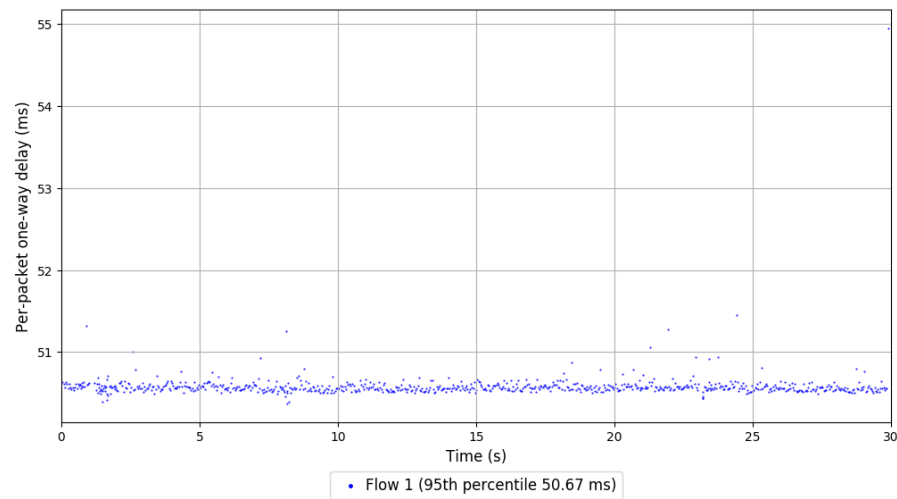
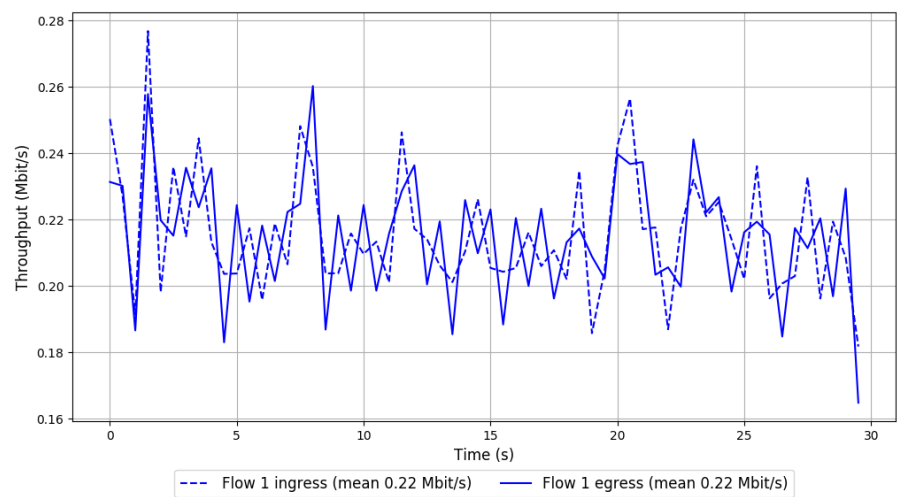
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.672 ms

Loss rate: 0.26%

Run 3: Report of SReAM — Data Link

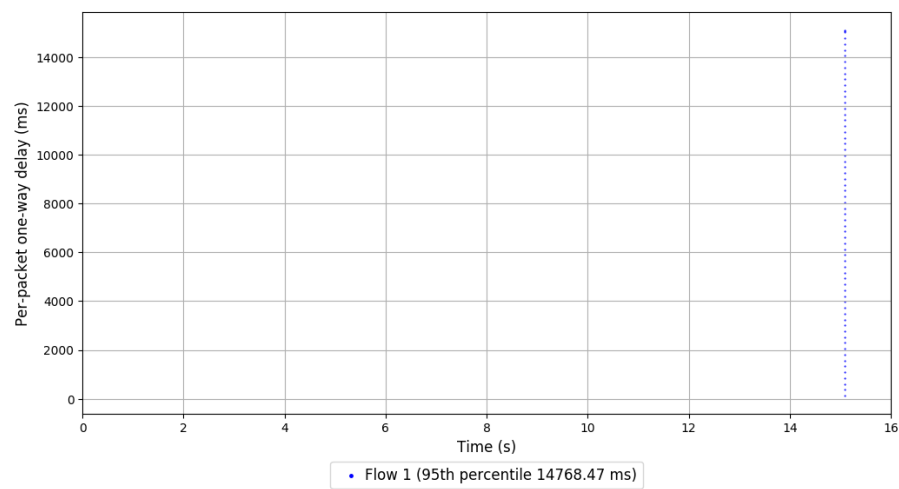
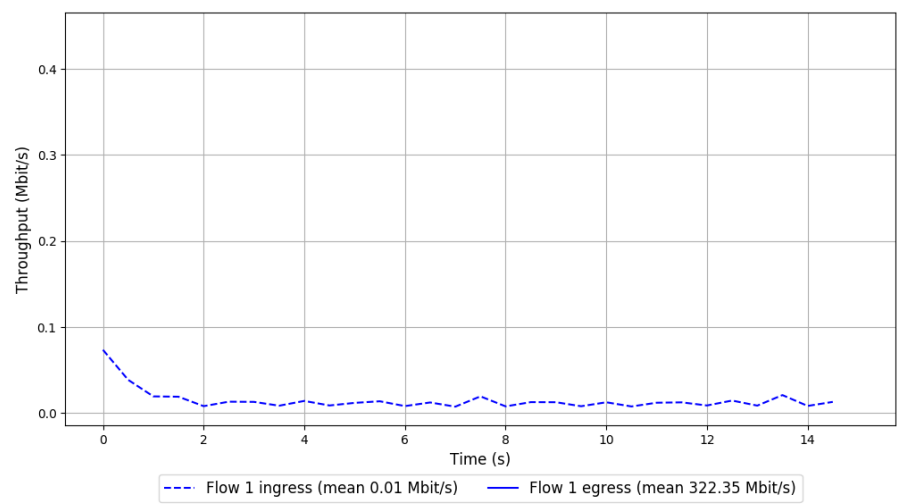


Run 4: Statistics of SReAM

Start at: 2017-08-11 11:15:23

End at: 2017-08-11 11:15:53

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-11 11:25:55

End at: 2017-08-11 11:26:25

Below is generated by plot.py at 2017-08-11 14:57:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.831 ms

Loss rate: 0.26%

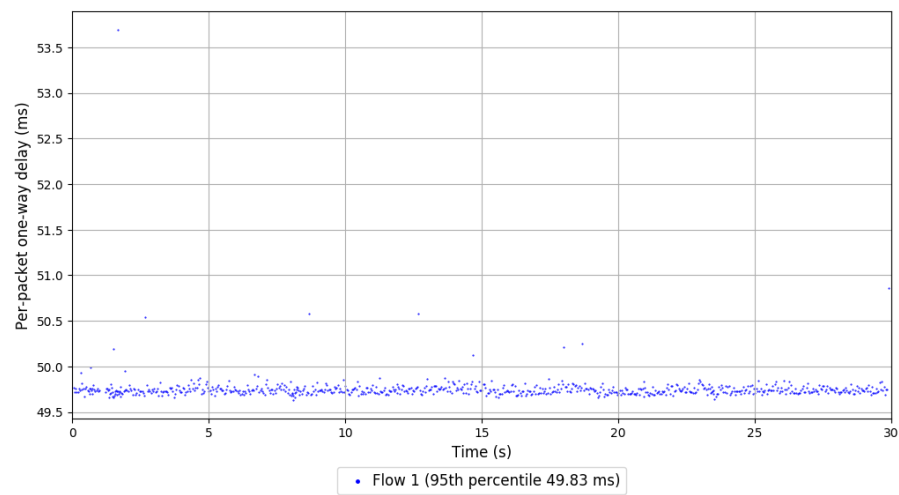
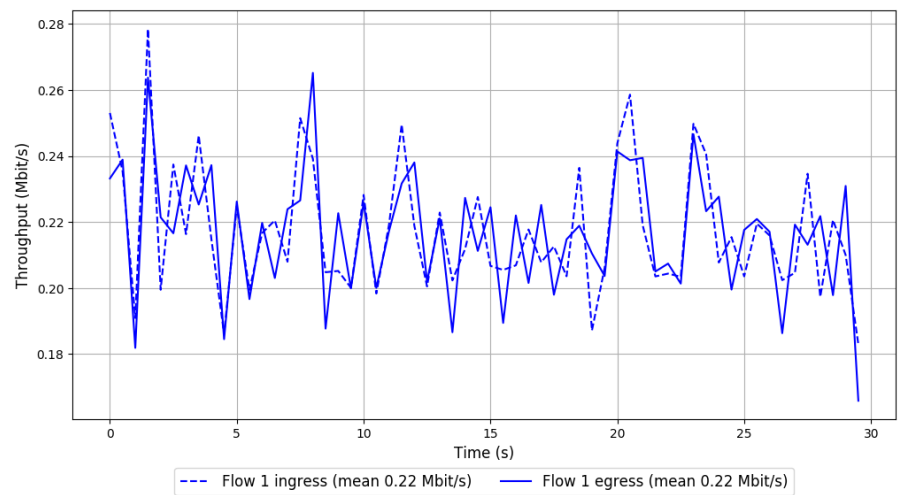
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.831 ms

Loss rate: 0.26%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-11 11:36:14

End at: 2017-08-11 11:36:44

Below is generated by plot.py at 2017-08-11 14:57:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.485 ms

Loss rate: 0.38%

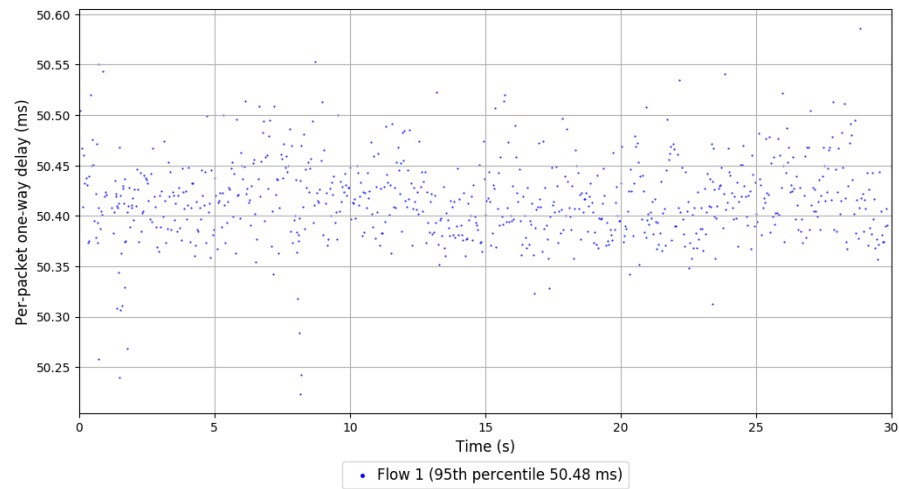
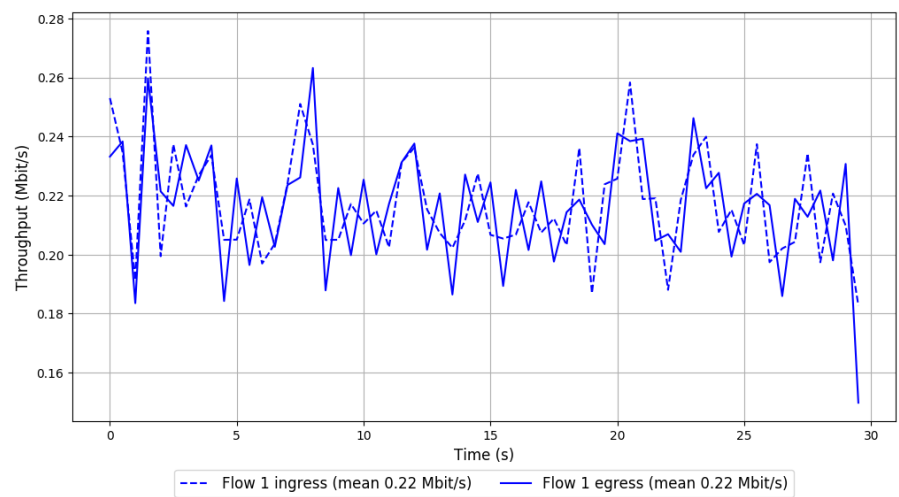
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.485 ms

Loss rate: 0.38%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-08-11 11:46:26

End at: 2017-08-11 11:46:56

Below is generated by plot.py at 2017-08-11 14:57:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.994 ms

Loss rate: 0.26%

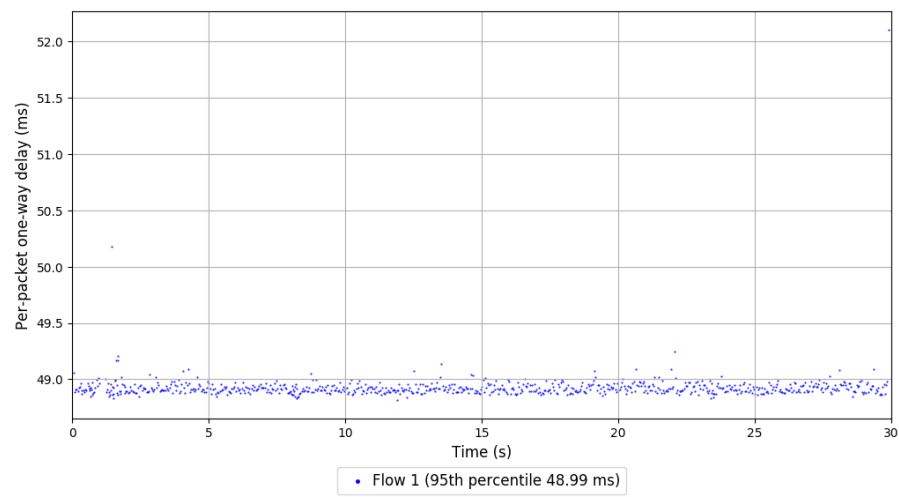
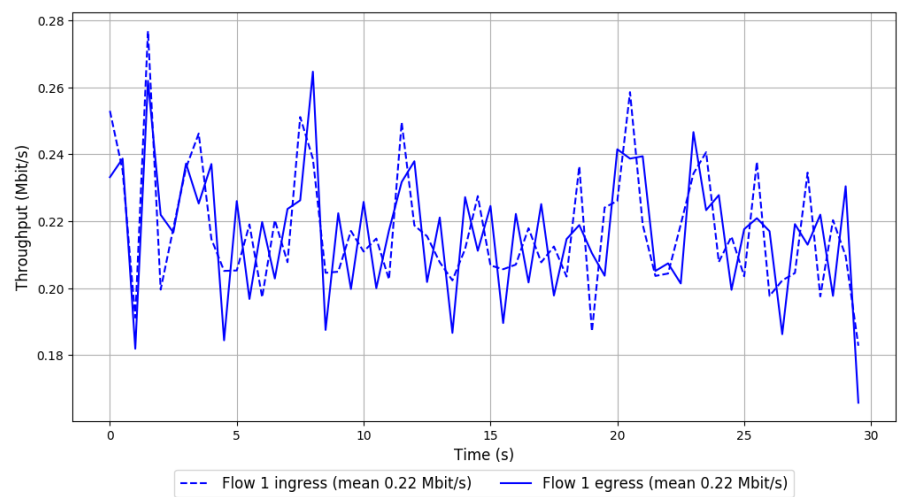
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.994 ms

Loss rate: 0.26%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-11 11:56:57

End at: 2017-08-11 11:57:27

Below is generated by plot.py at 2017-08-11 14:58:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.26%

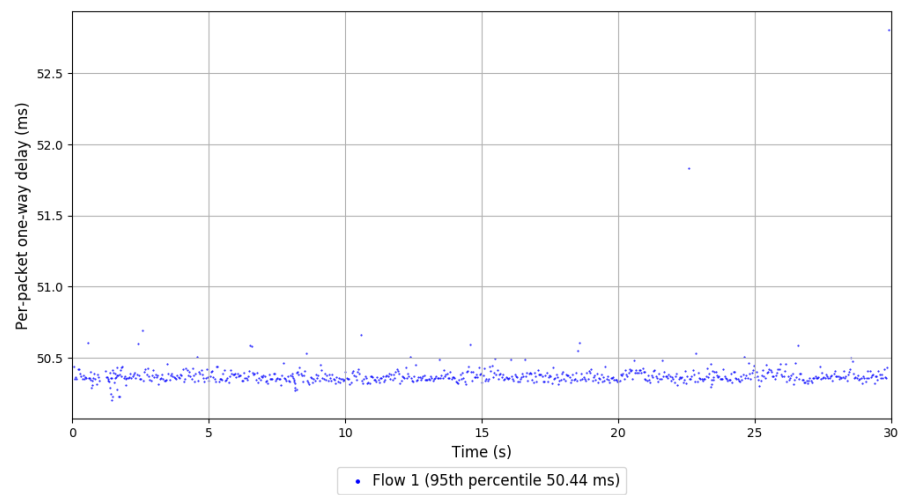
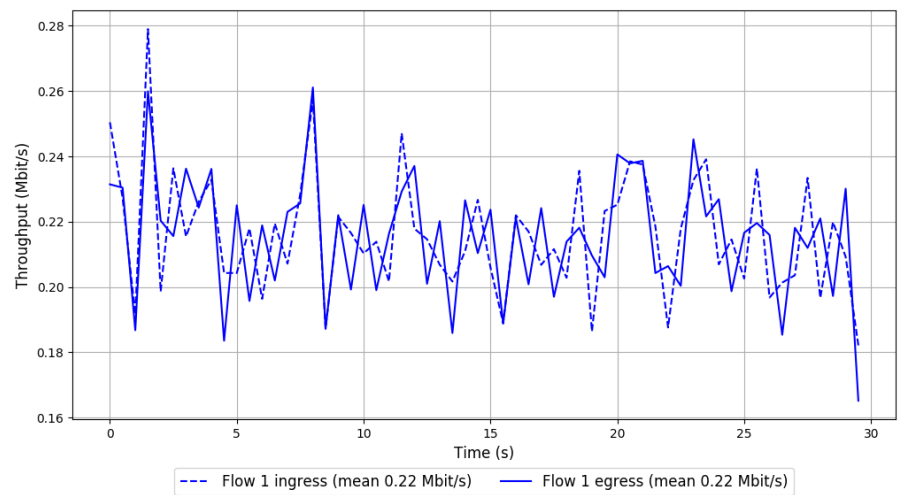
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.26%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-08-11 12:07:38

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

Below is generated by plot.py at 2017-08-11 14:58:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.988 ms

Loss rate: 0.38%

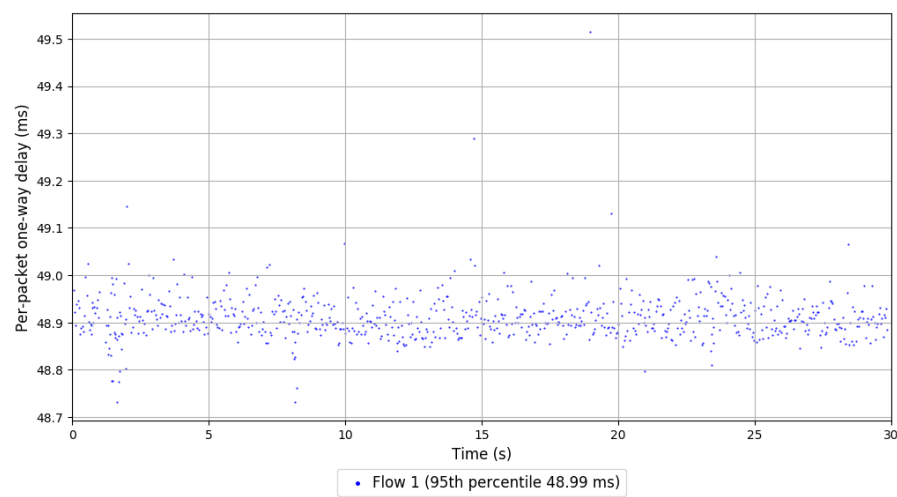
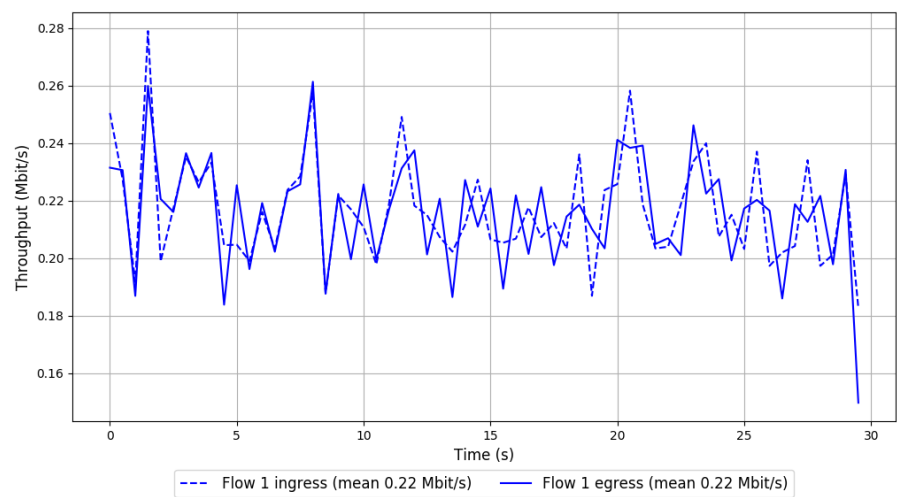
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.988 ms

Loss rate: 0.38%

Run 9: Report of SCRaM — Data Link

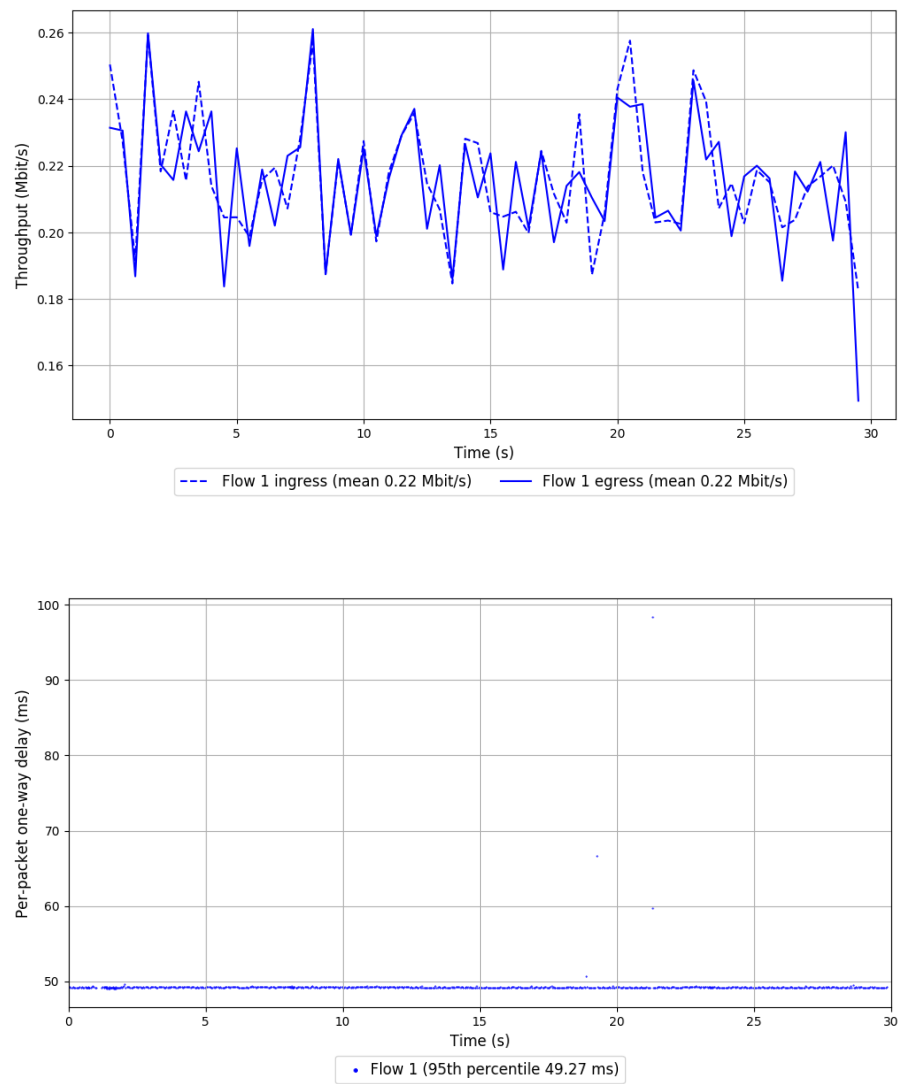


```
Run 10: Statistics of SReAM

Start at: 2017-08-11 12:18:09
End at: 2017-08-11 12:18:39

# Below is generated by plot.py at 2017-08-11 14:58:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.266 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.266 ms
Loss rate: 0.38%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-11 10:40:56

End at: 2017-08-11 10:41:26

Below is generated by plot.py at 2017-08-11 14:58:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.51%

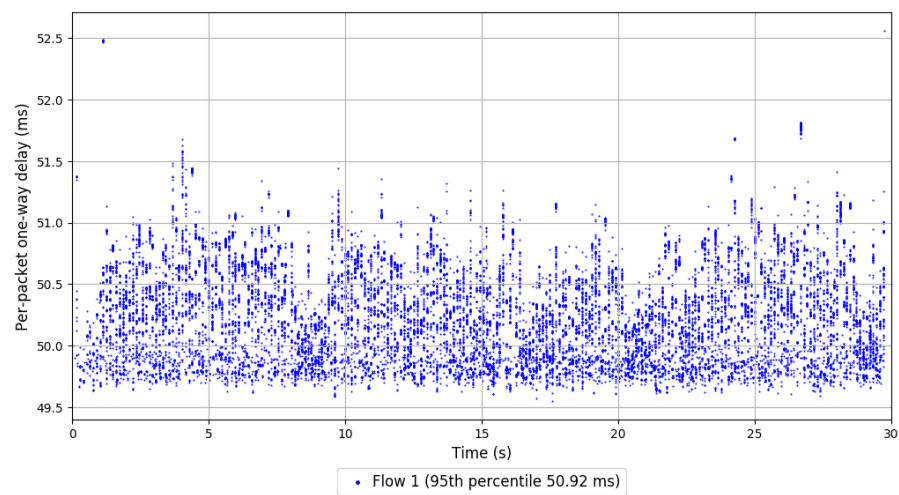
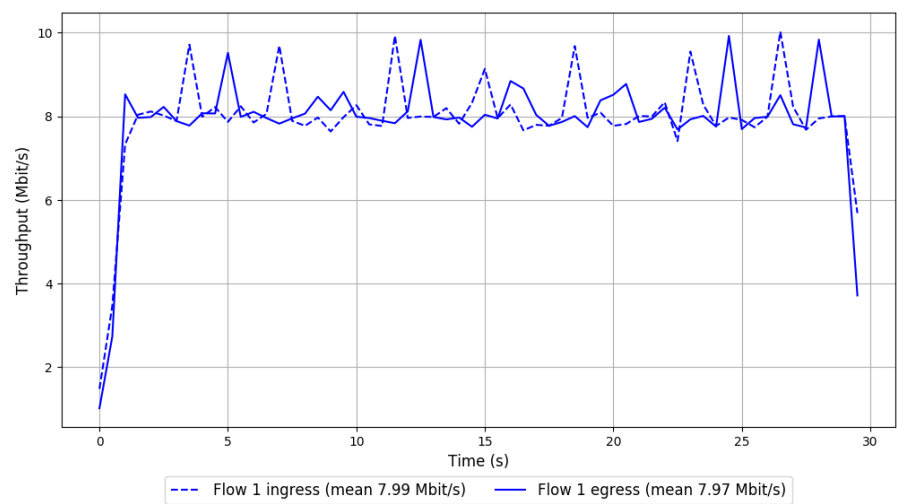
-- Flow 1:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.51%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-11 10:51:17

End at: 2017-08-11 10:51:48

Below is generated by plot.py at 2017-08-11 14:58:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

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

Loss rate: 0.17%

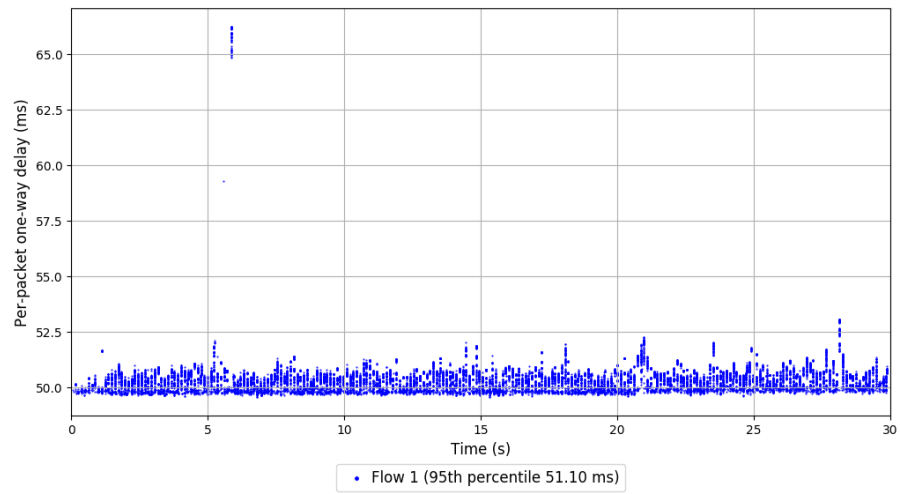
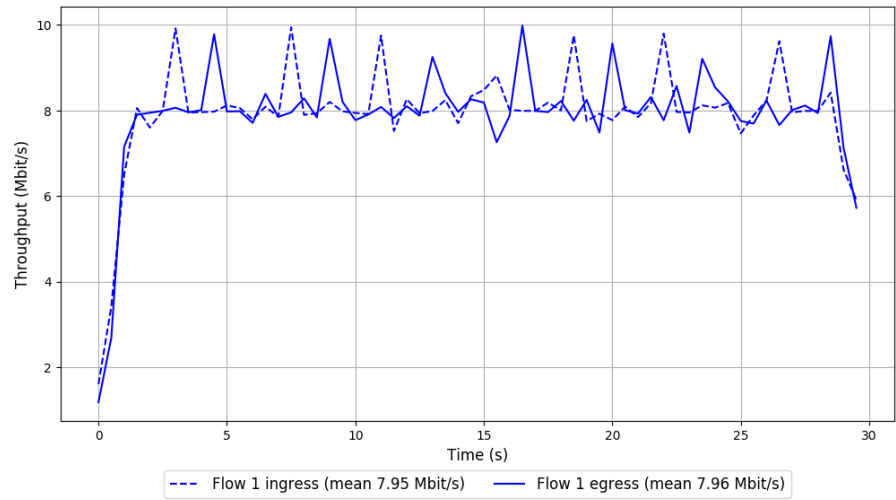
-- Flow 1:

Average throughput: 7.96 Mbit/s

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

Loss rate: 0.17%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-11 11:01:16

End at: 2017-08-11 11:01:46

Below is generated by plot.py at 2017-08-11 14:58:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 50.860 ms

Loss rate: 2.01%

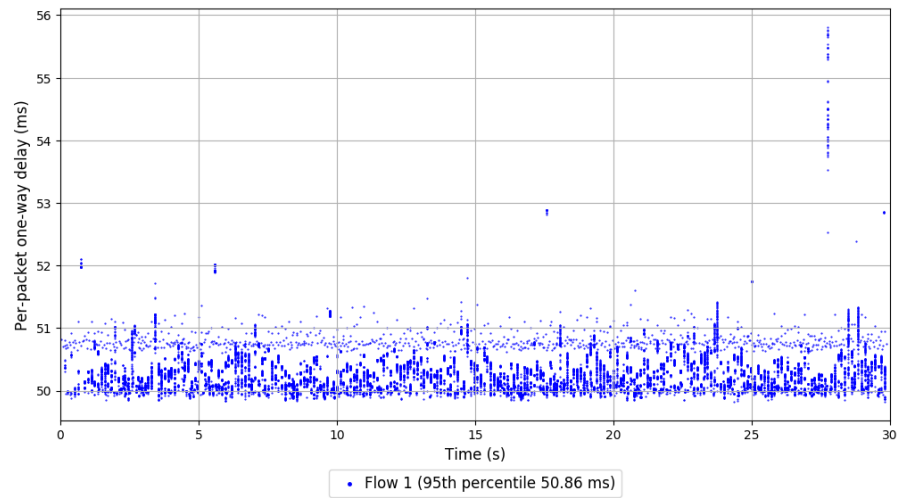
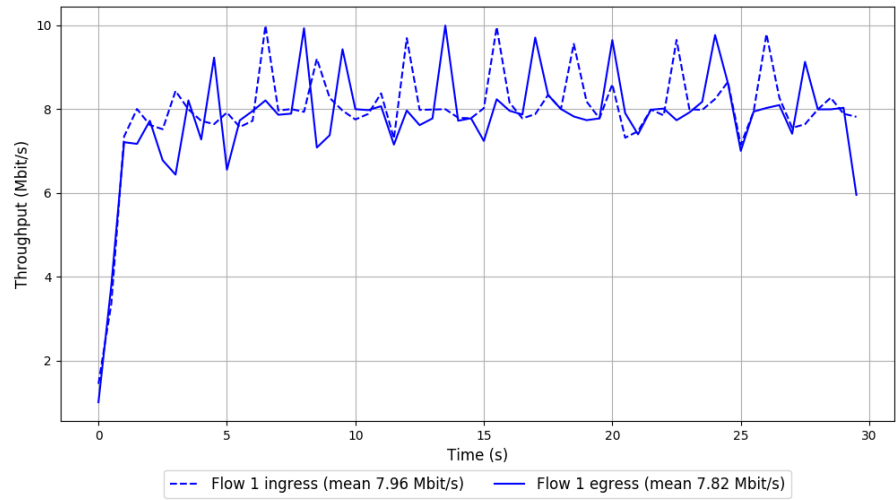
-- Flow 1:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 50.860 ms

Loss rate: 2.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-11 11:11:29

End at: 2017-08-11 11:11:59

Below is generated by plot.py at 2017-08-11 14:58:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 50.885 ms

Loss rate: 0.43%

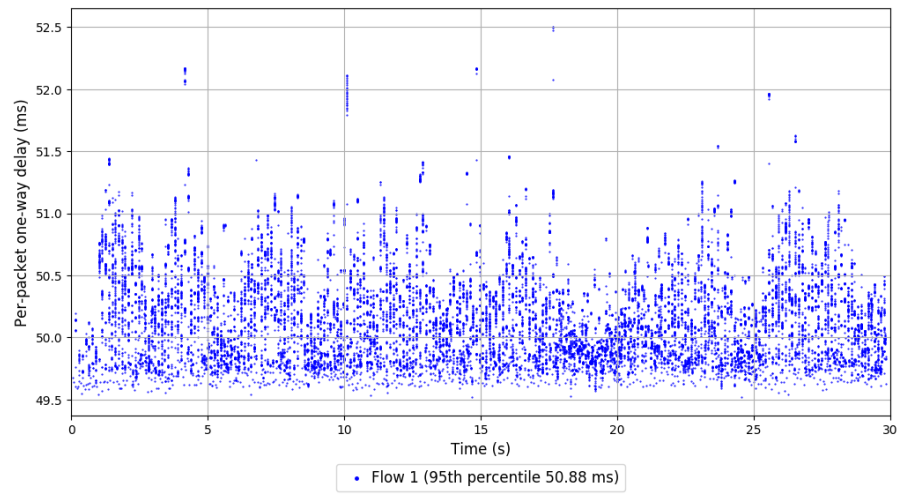
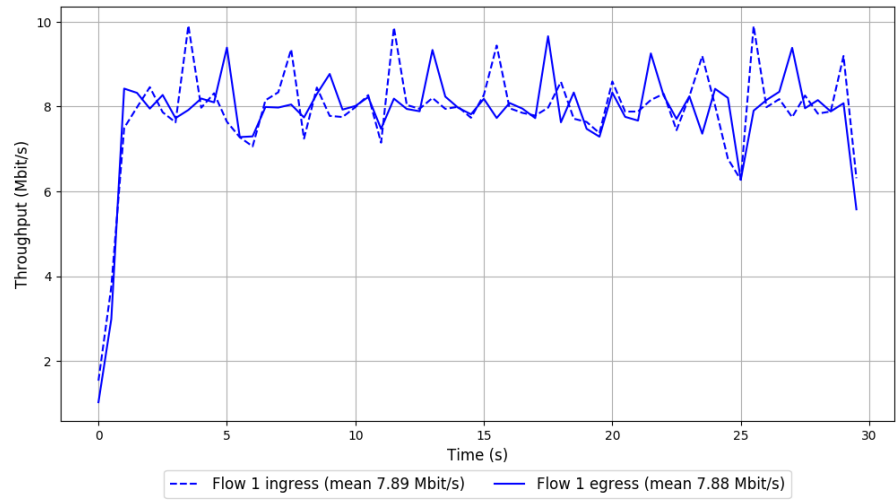
-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 50.885 ms

Loss rate: 0.43%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-11 11:22:02

End at: 2017-08-11 11:22:32

Below is generated by plot.py at 2017-08-11 14:58:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 51.411 ms

Loss rate: 15.99%

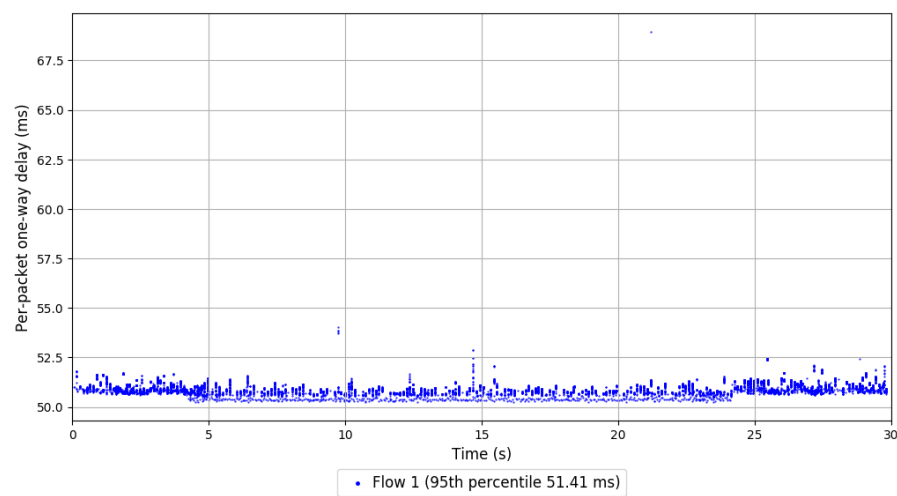
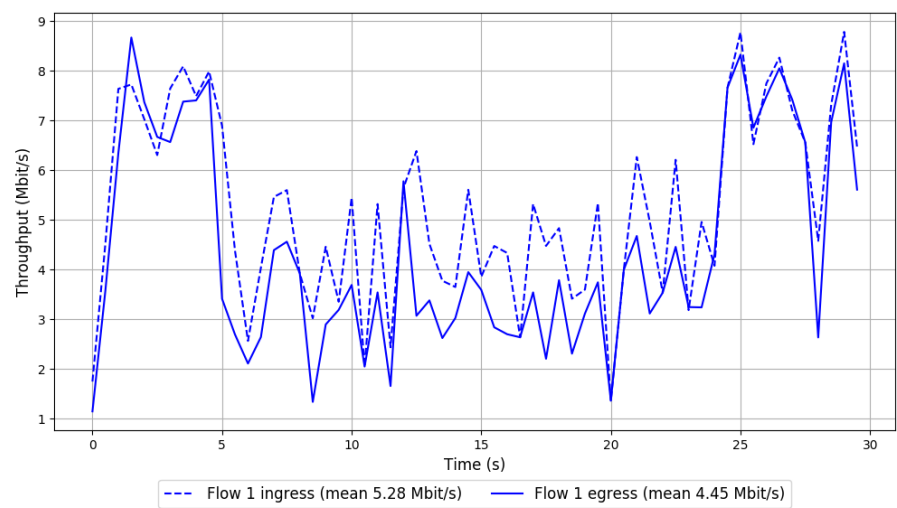
-- Flow 1:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 51.411 ms

Loss rate: 15.99%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-11 11:32:23

End at: 2017-08-11 11:32:54

Below is generated by plot.py at 2017-08-11 14:58:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 51.700 ms

Loss rate: 0.87%

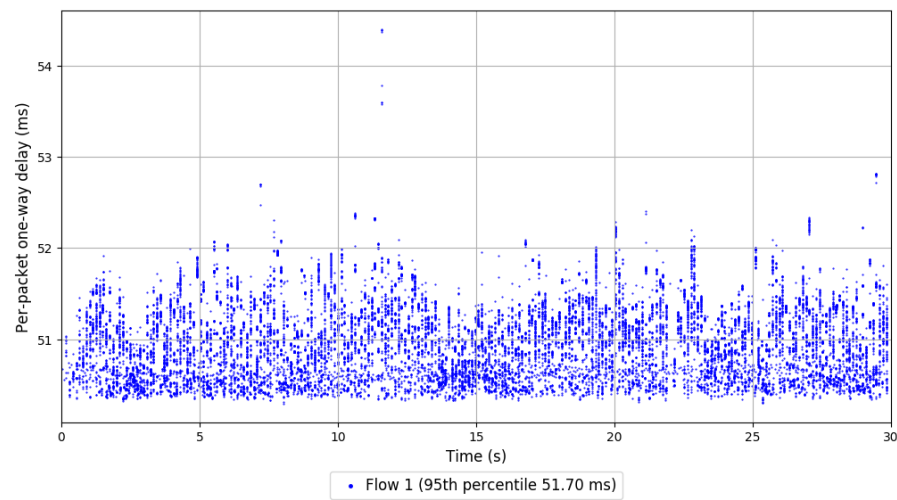
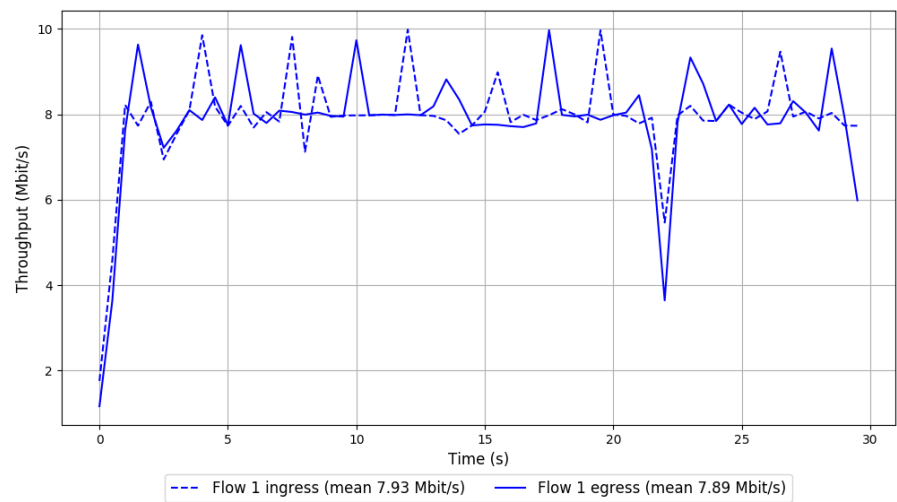
-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 51.700 ms

Loss rate: 0.87%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-11 11:42:34

End at: 2017-08-11 11:43:04

Below is generated by plot.py at 2017-08-11 14:58:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 51.354 ms

Loss rate: 3.97%

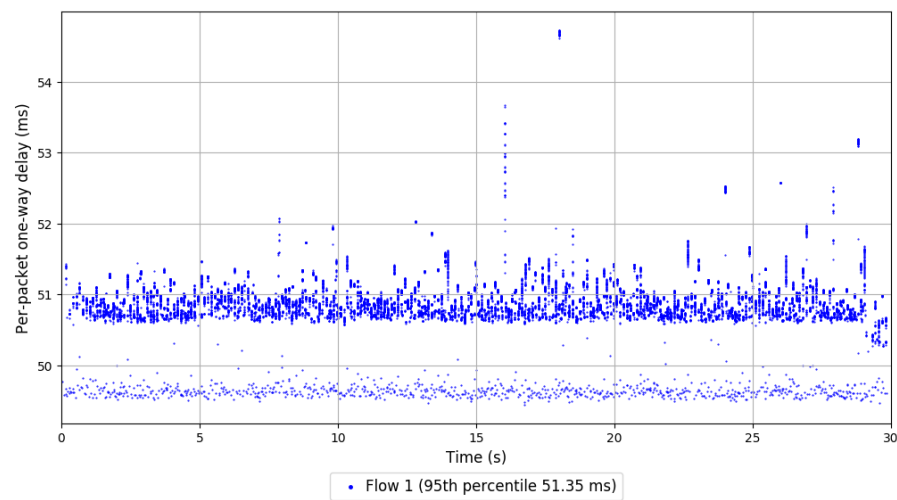
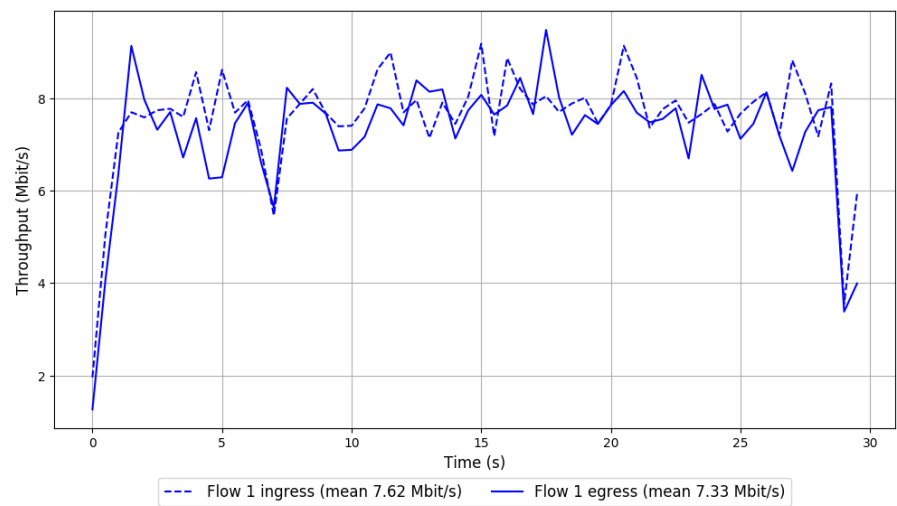
-- Flow 1:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 51.354 ms

Loss rate: 3.97%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-11 11:53:07

End at: 2017-08-11 11:53:37

Below is generated by plot.py at 2017-08-11 14:58:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.82 Mbit/s

95th percentile per-packet one-way delay: 50.959 ms

Loss rate: 15.88%

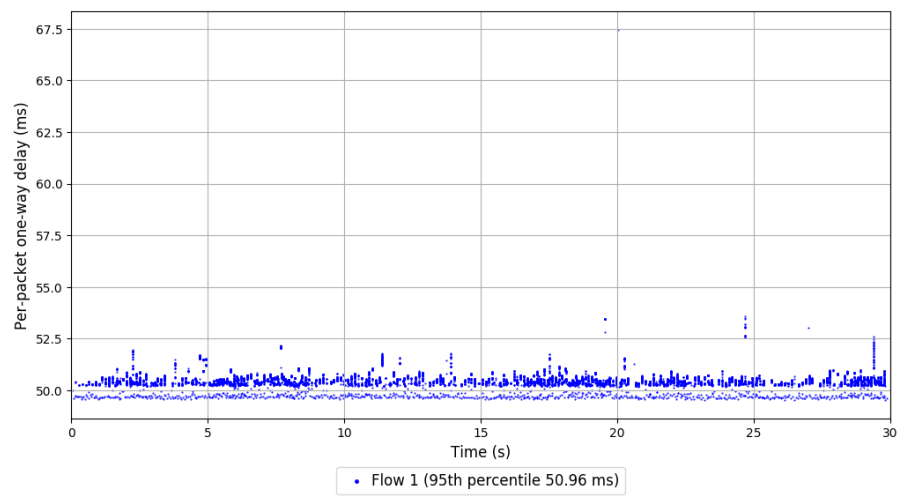
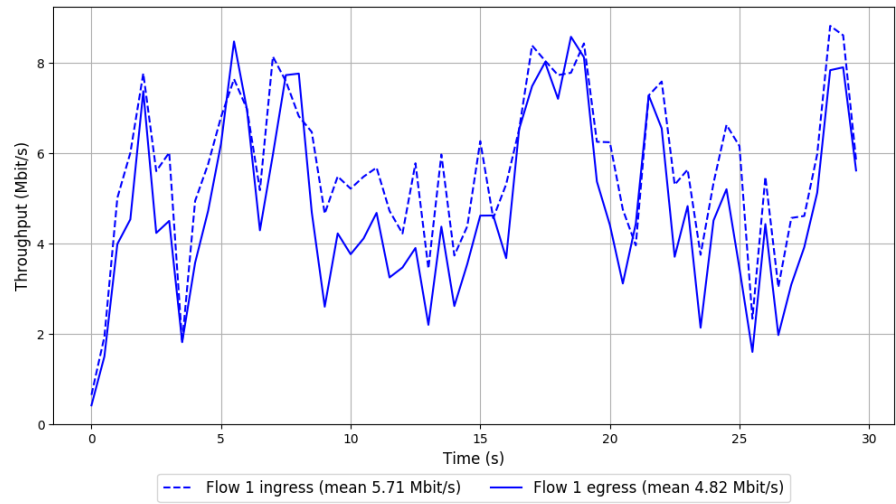
-- Flow 1:

Average throughput: 4.82 Mbit/s

95th percentile per-packet one-way delay: 50.959 ms

Loss rate: 15.88%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-11 12:03:41

End at: 2017-08-11 12:04:11

Below is generated by plot.py at 2017-08-11 14:58:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.783 ms

Loss rate: 1.34%

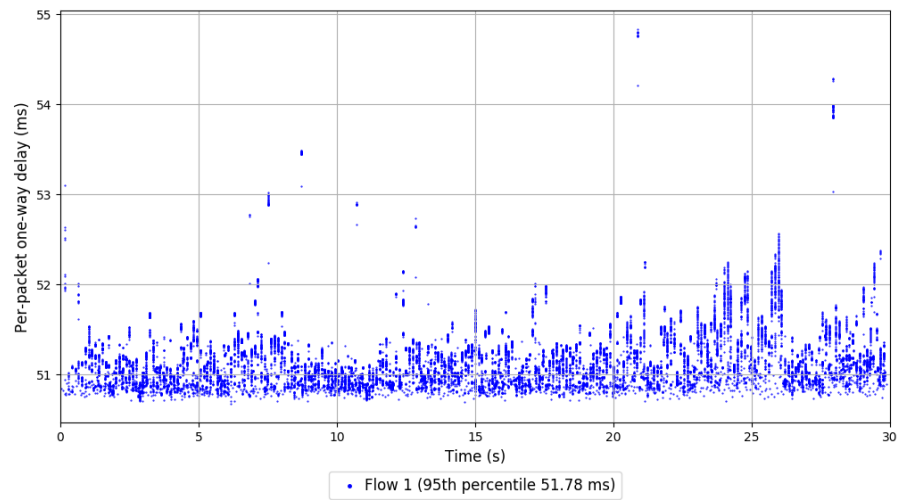
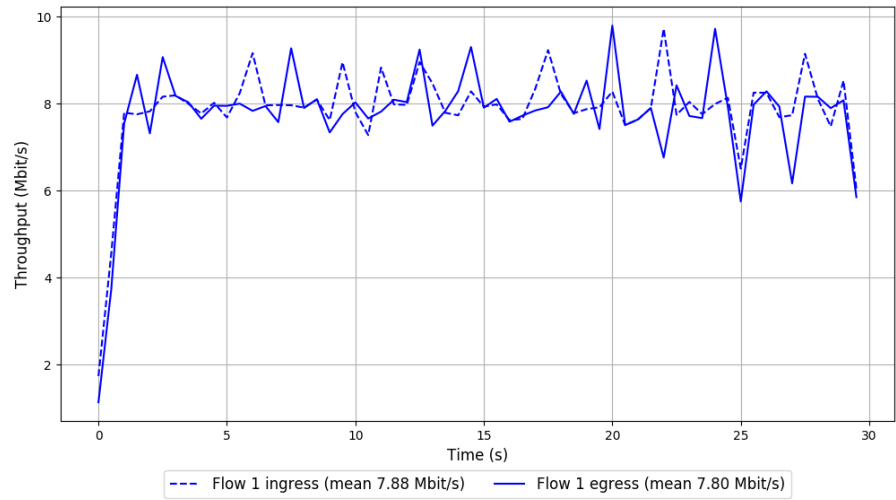
-- Flow 1:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.783 ms

Loss rate: 1.34%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-11 12:14:18

End at: 2017-08-11 12:14:48

Below is generated by plot.py at 2017-08-11 14:58:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.739 ms

Loss rate: 0.48%

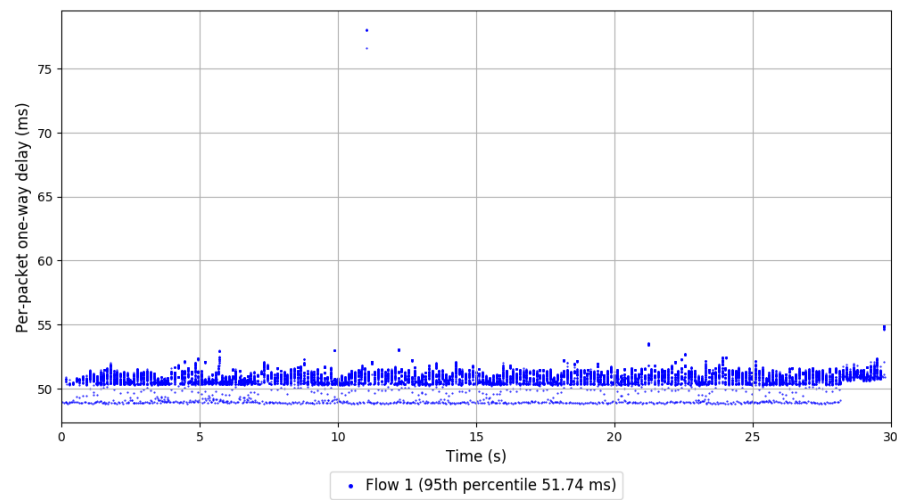
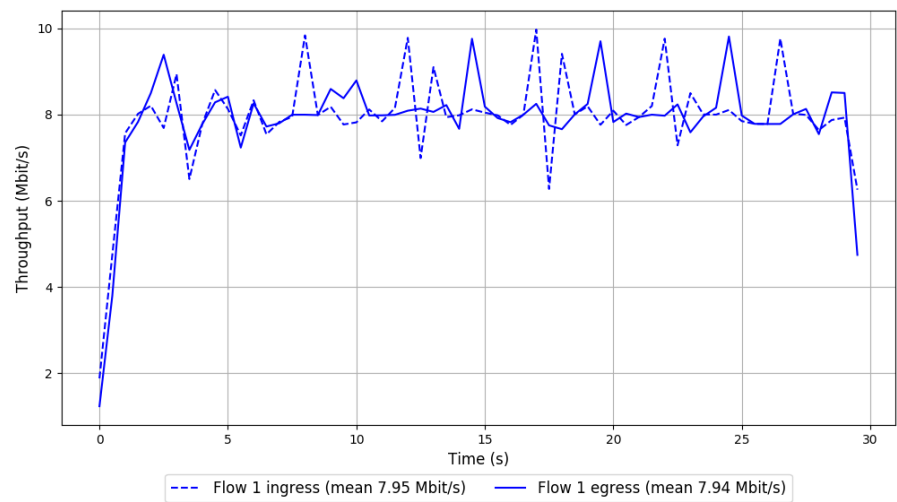
-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.739 ms

Loss rate: 0.48%

Run 10: Report of Sprout — Data Link

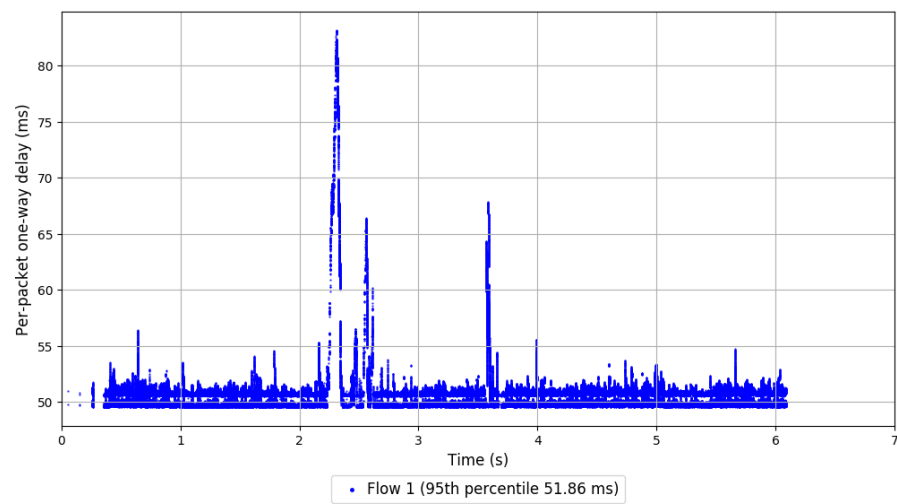
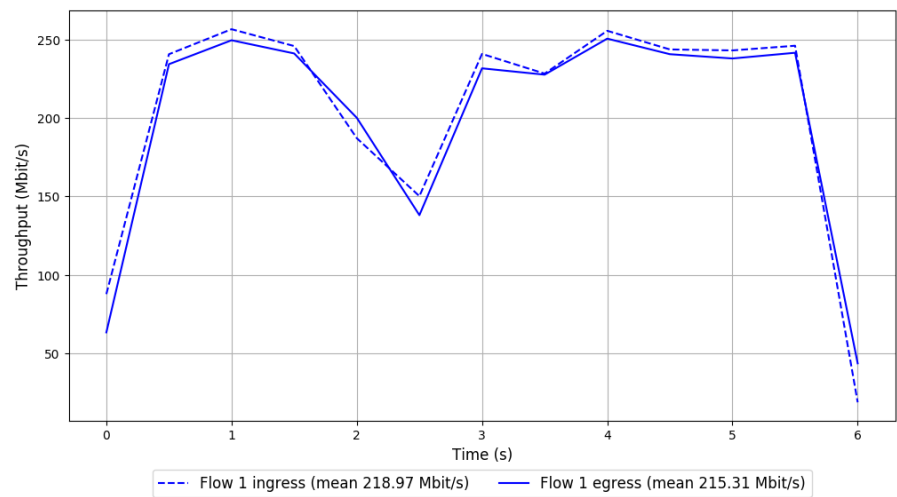


Run 1: Statistics of TaoVA-100x

Start at: 2017-08-11 10:44:05

End at: 2017-08-11 10:44:35

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

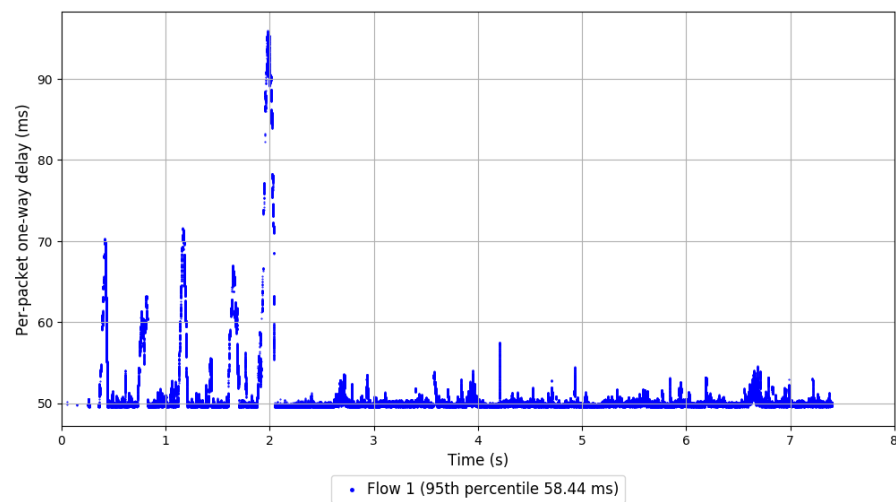
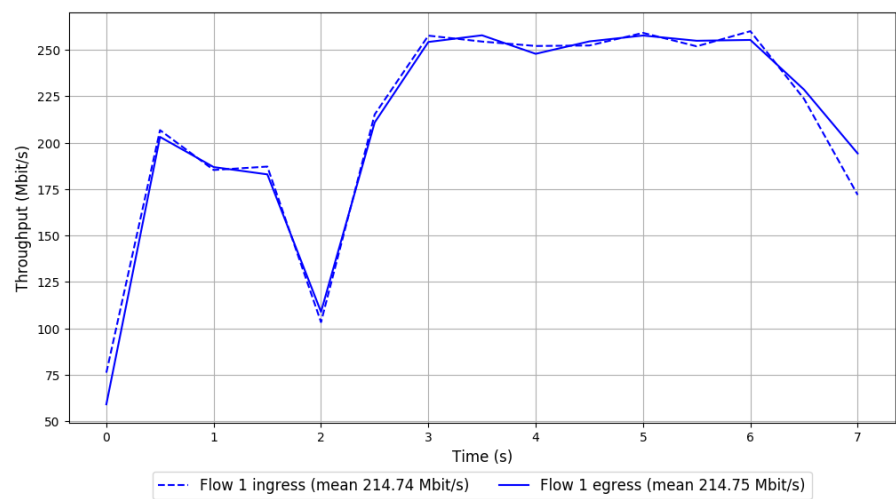


Run 2: Statistics of TaoVA-100x

Start at: 2017-08-11 10:54:27

End at: 2017-08-11 10:54:57

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

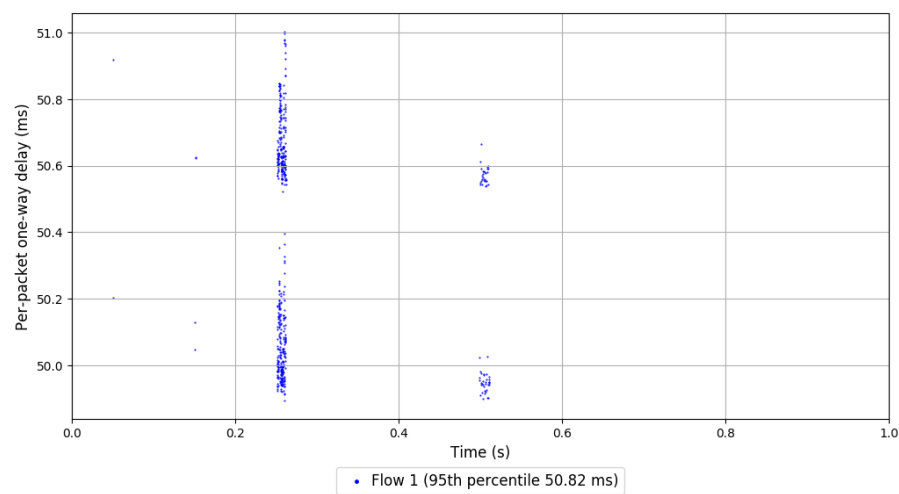
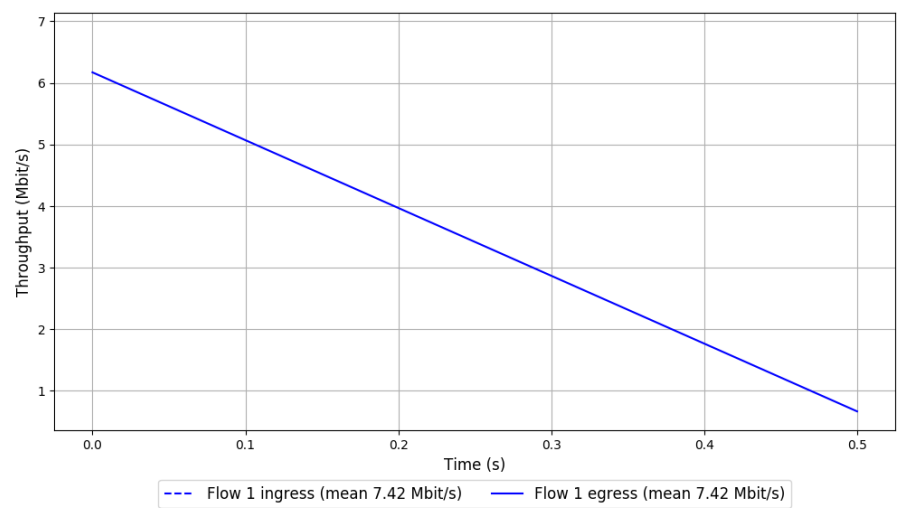


Run 3: Statistics of TaoVA-100x

Start at: 2017-08-11 11:04:24

End at: 2017-08-11 11:04:54

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

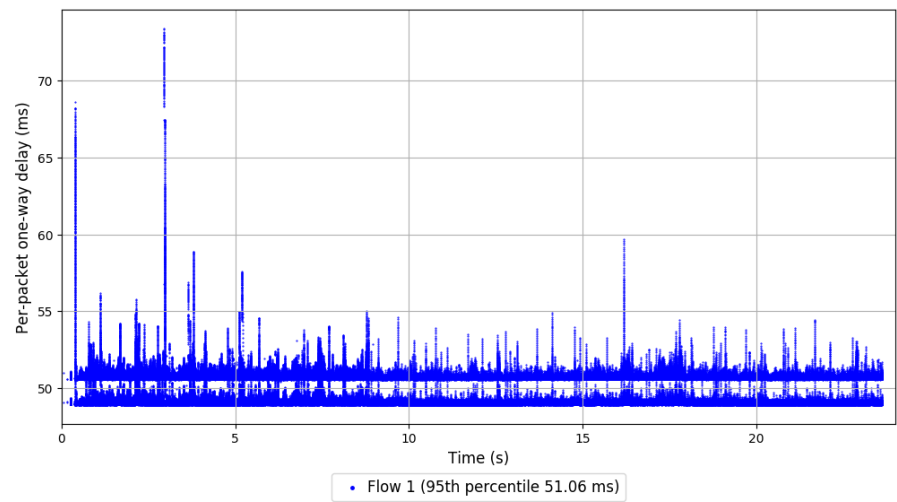
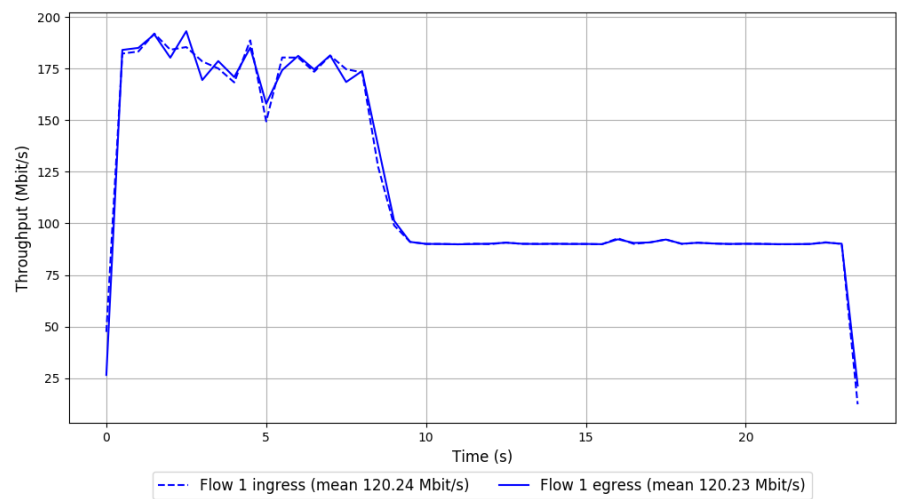


Run 4: Statistics of TaoVA-100x

Start at: 2017-08-11 11:14:37

End at: 2017-08-11 11:15:07

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

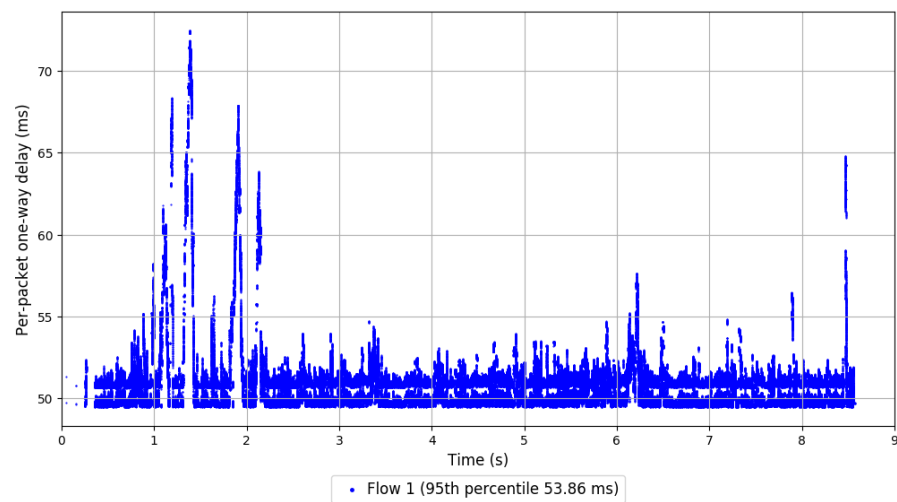
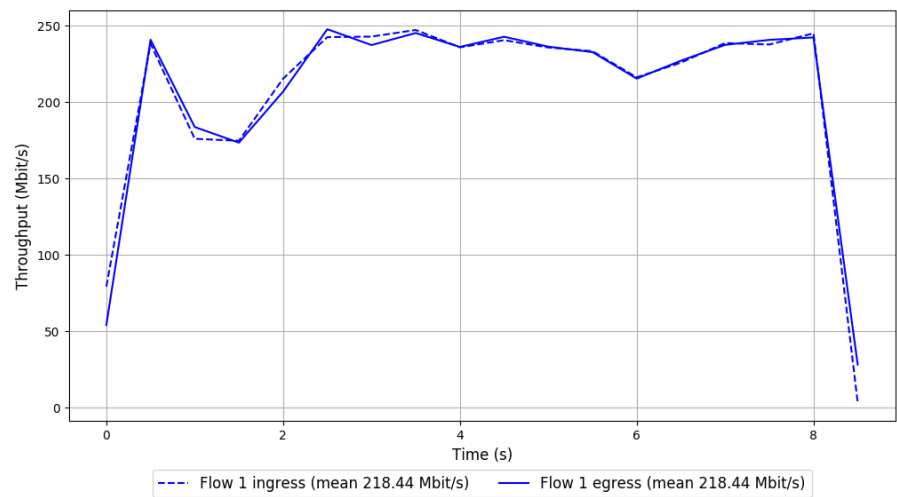


Run 5: Statistics of TaoVA-100x

Start at: 2017-08-11 11:25:12

End at: 2017-08-11 11:25:42

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

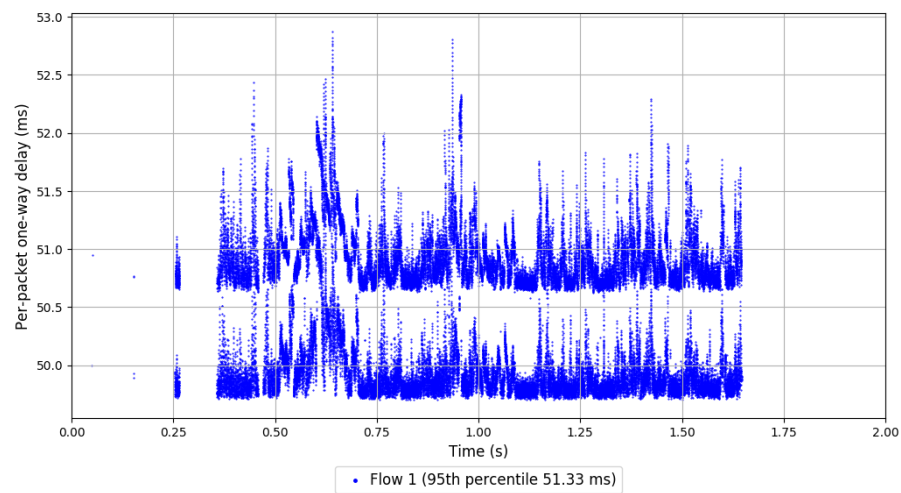
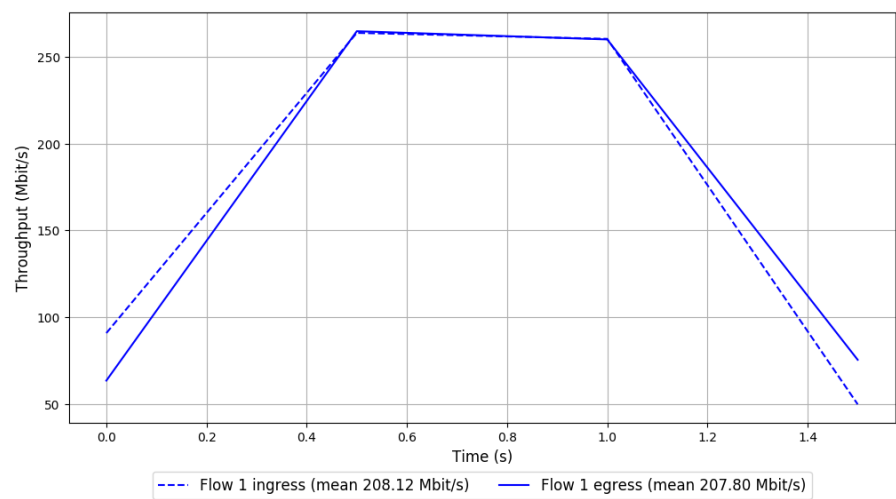


Run 6: Statistics of TaoVA-100x

Start at: 2017-08-11 11:35:35

End at: 2017-08-11 11:36:05

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

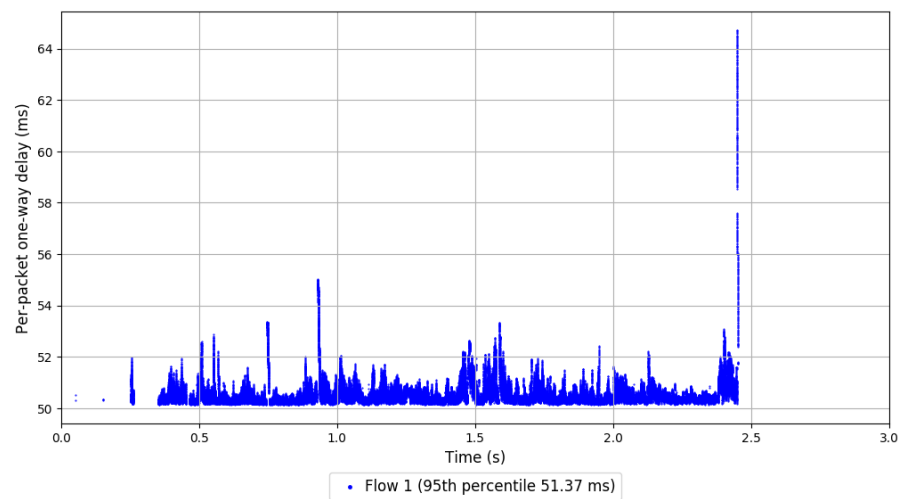
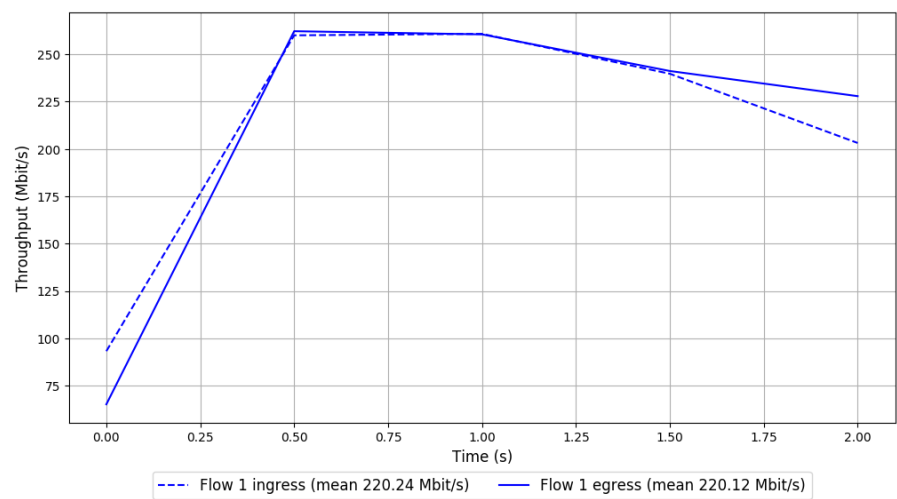


Run 7: Statistics of TaoVA-100x

Start at: 2017-08-11 11:45:47

End at: 2017-08-11 11:46:17

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

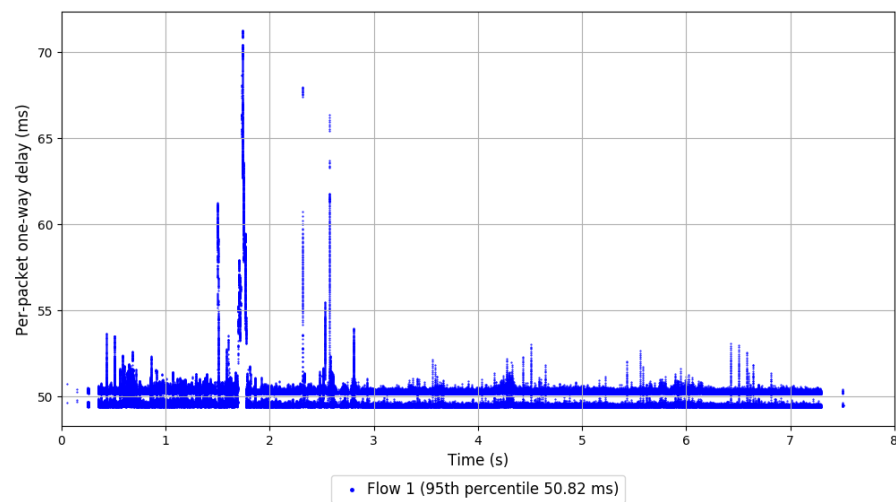
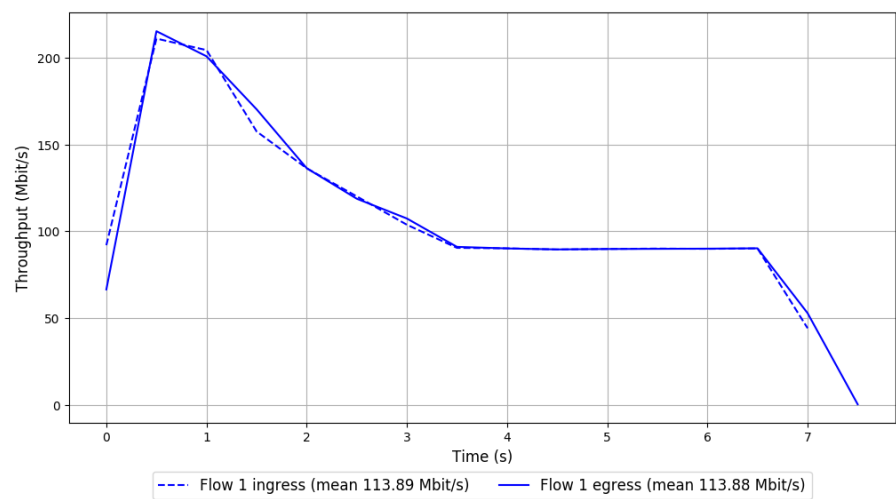


Run 8: Statistics of TaoVA-100x

Start at: 2017-08-11 11:56:17

End at: 2017-08-11 11:56:47

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

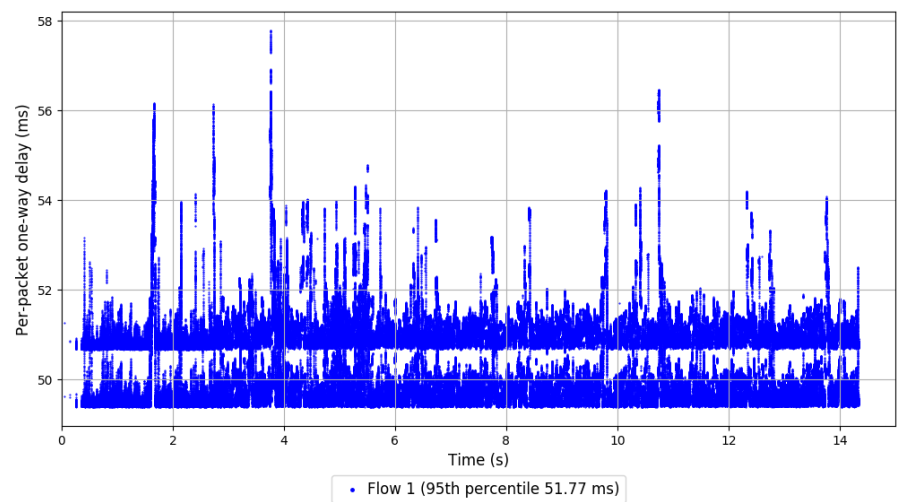
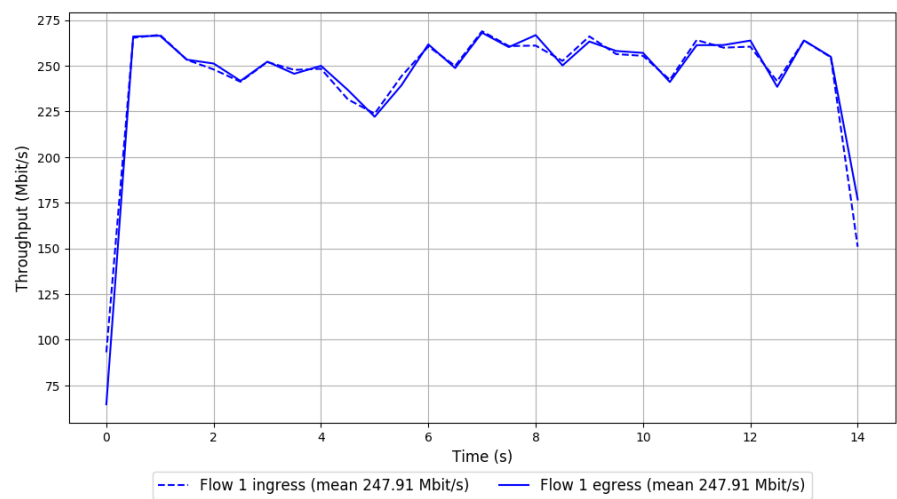


Run 9: Statistics of TaoVA-100x

Start at: 2017-08-11 12:06:49

End at: 2017-08-11 12:07:19

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

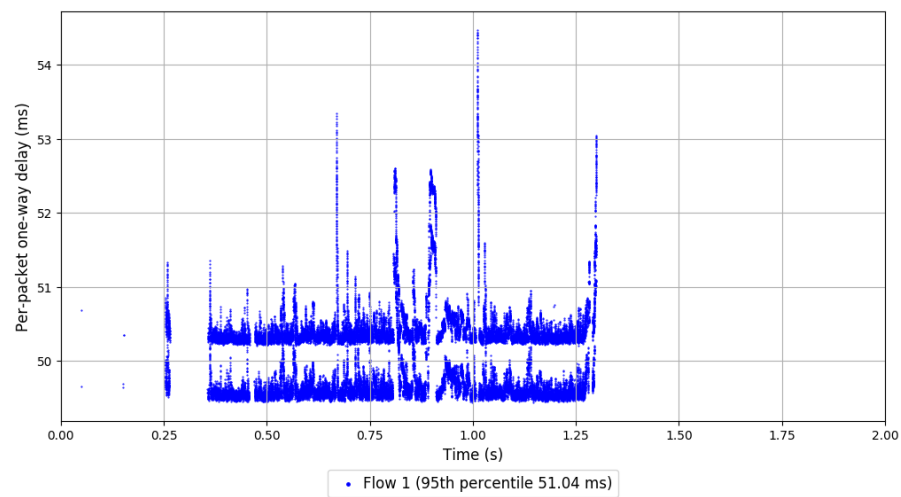
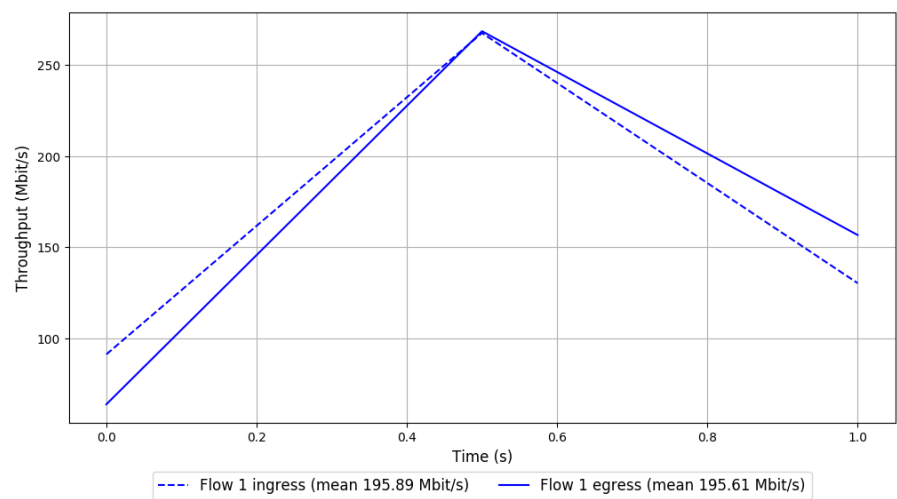


Run 10: Statistics of TaoVA-100x

Start at: 2017-08-11 12:17:31

End at: 2017-08-11 12:18:01

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-11 10:39:33

End at: 2017-08-11 10:40:03

Below is generated by plot.py at 2017-08-11 14:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.55 Mbit/s

95th percentile per-packet one-way delay: 51.074 ms

Loss rate: 0.27%

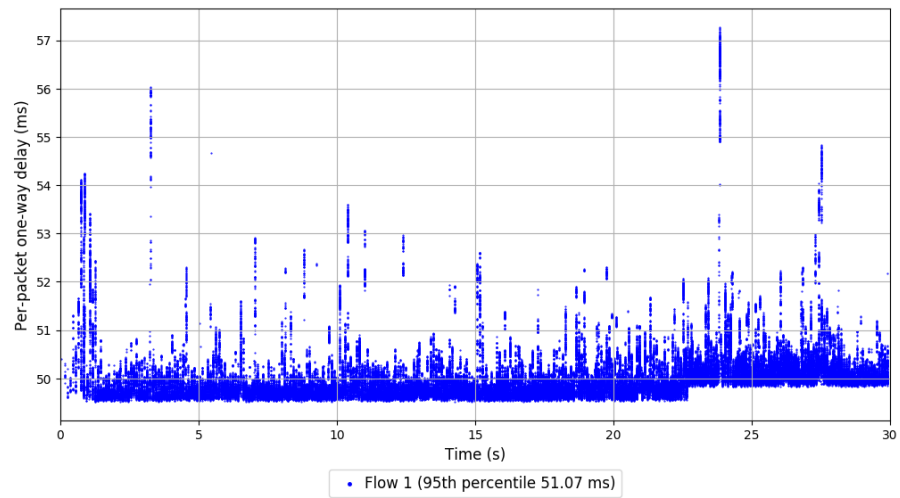
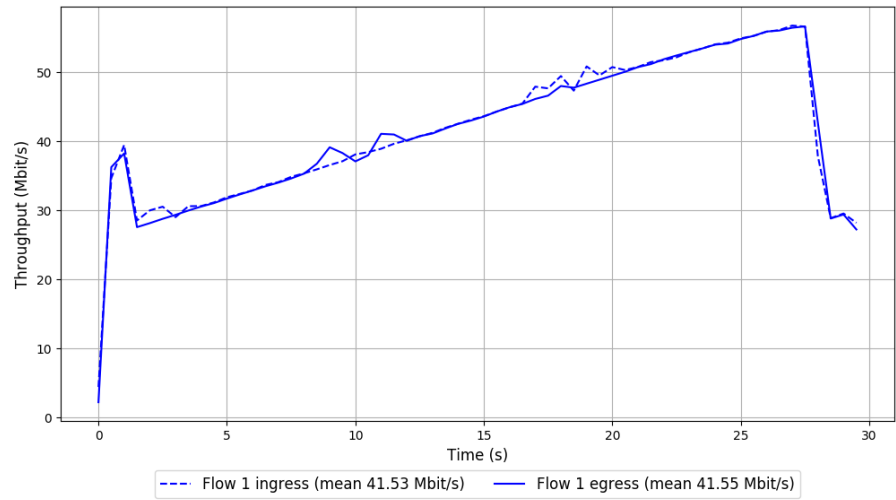
-- Flow 1:

Average throughput: 41.55 Mbit/s

95th percentile per-packet one-way delay: 51.074 ms

Loss rate: 0.27%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-11 10:49:57

End at: 2017-08-11 10:50:27

Below is generated by plot.py at 2017-08-11 14:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.97 Mbit/s

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

Loss rate: 1.58%

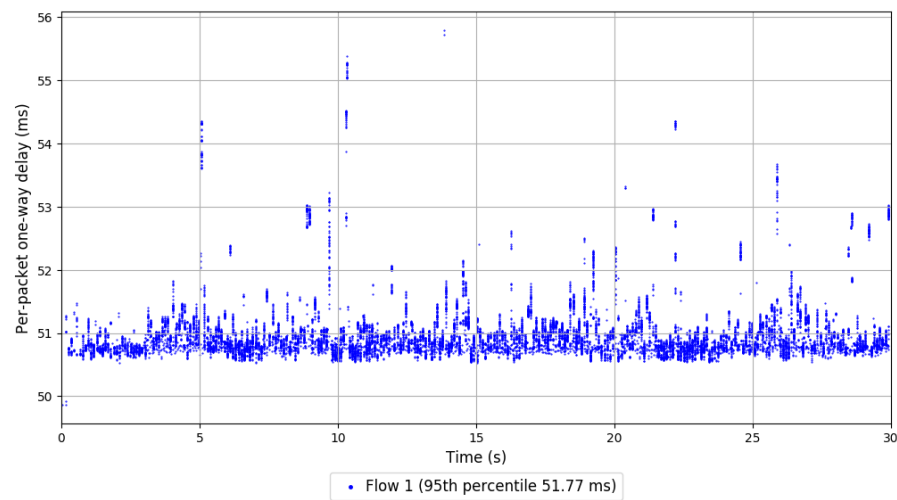
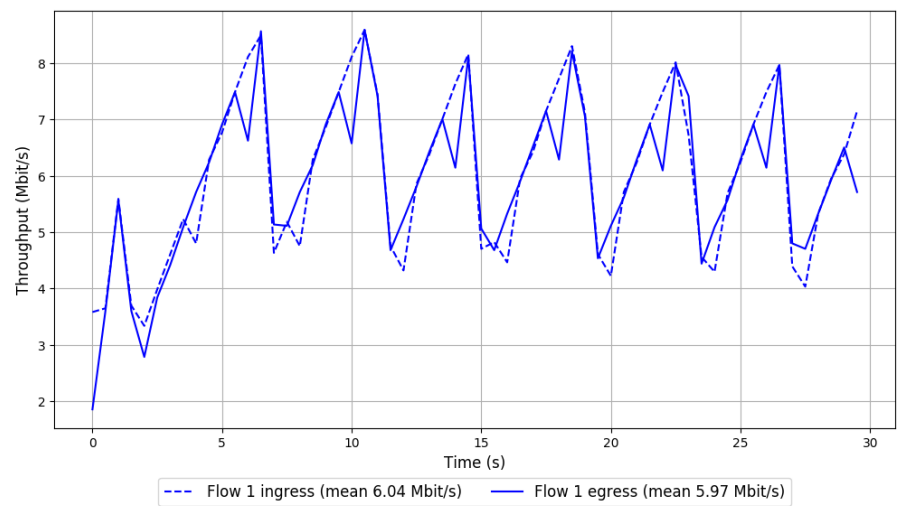
-- Flow 1:

Average throughput: 5.97 Mbit/s

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

Loss rate: 1.58%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-11 10:59:52

End at: 2017-08-11 11:00:22

Below is generated by plot.py at 2017-08-11 14:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 51.112 ms

Loss rate: 1.69%

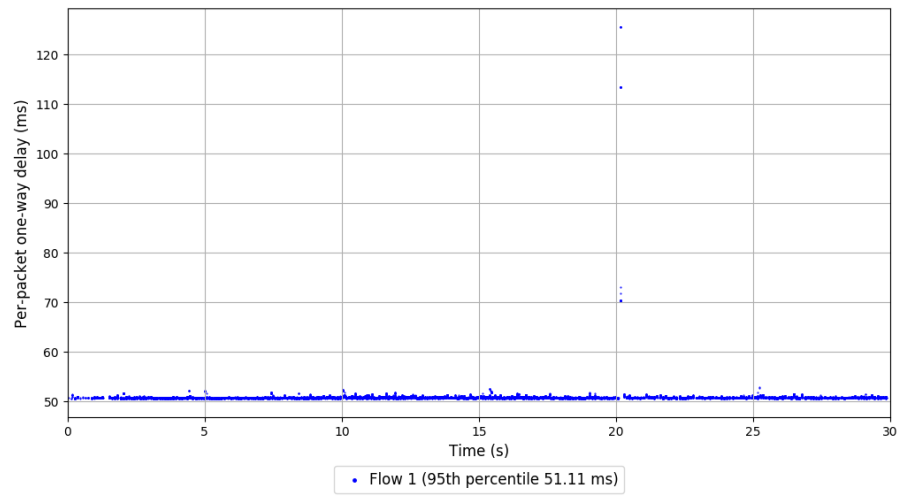
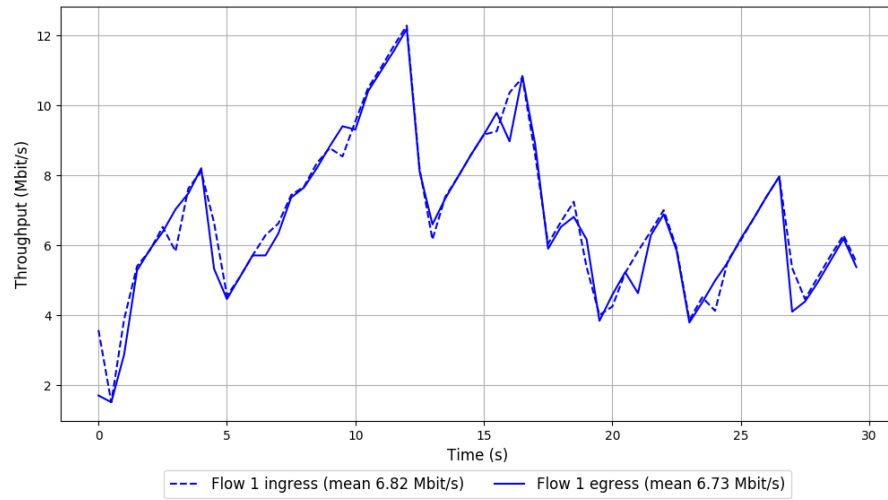
-- Flow 1:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 51.112 ms

Loss rate: 1.69%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-11 11:10:07

End at: 2017-08-11 11:10:37

Below is generated by plot.py at 2017-08-11 14:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.43 Mbit/s

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

Loss rate: 1.14%

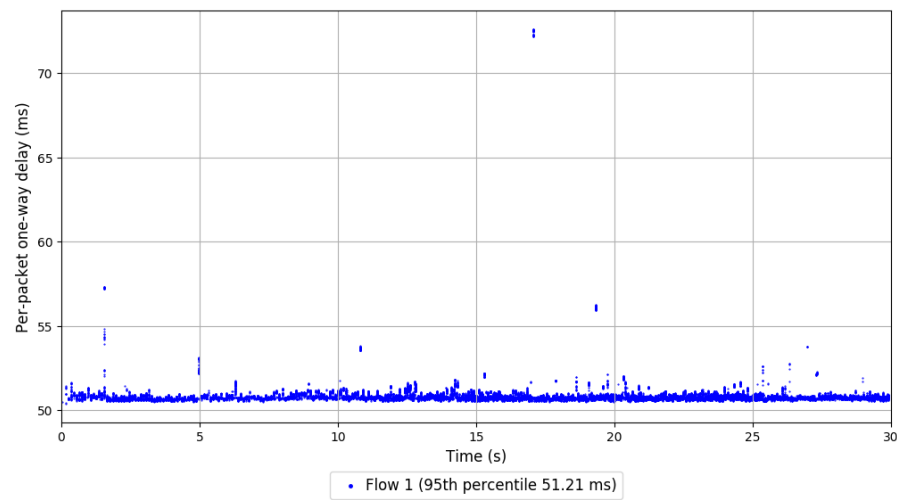
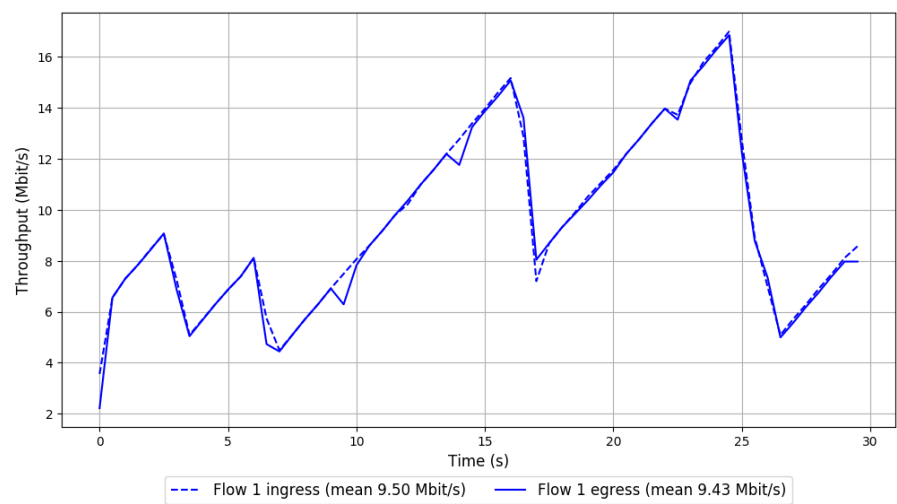
-- Flow 1:

Average throughput: 9.43 Mbit/s

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

Loss rate: 1.14%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-11 11:20:42

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

Below is generated by plot.py at 2017-08-11 14:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.86 Mbit/s

95th percentile per-packet one-way delay: 51.435 ms

Loss rate: 0.22%

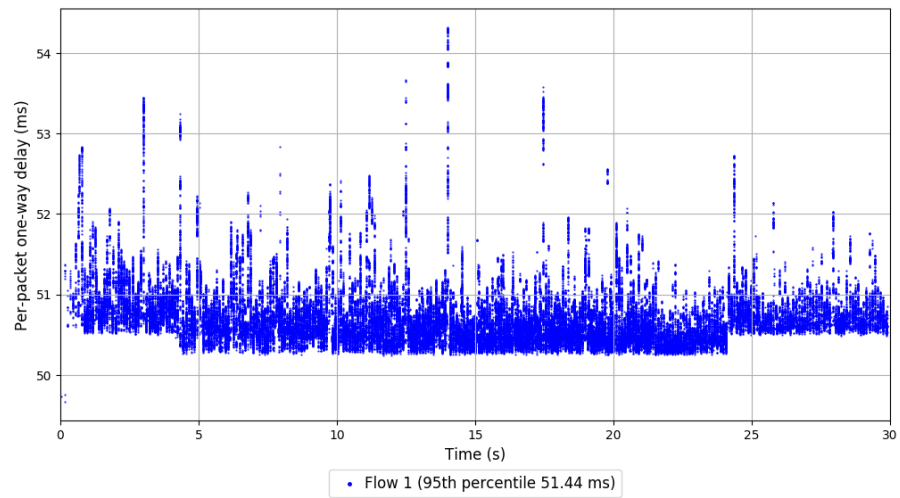
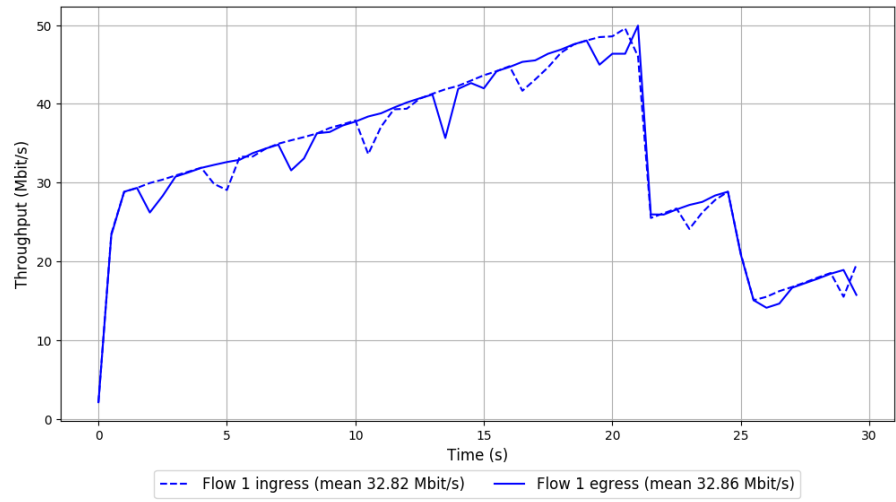
-- Flow 1:

Average throughput: 32.86 Mbit/s

95th percentile per-packet one-way delay: 51.435 ms

Loss rate: 0.22%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-11 11:30:57

End at: 2017-08-11 11:31:27

Below is generated by plot.py at 2017-08-11 14:59:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 36.15 Mbit/s

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

Loss rate: 0.22%

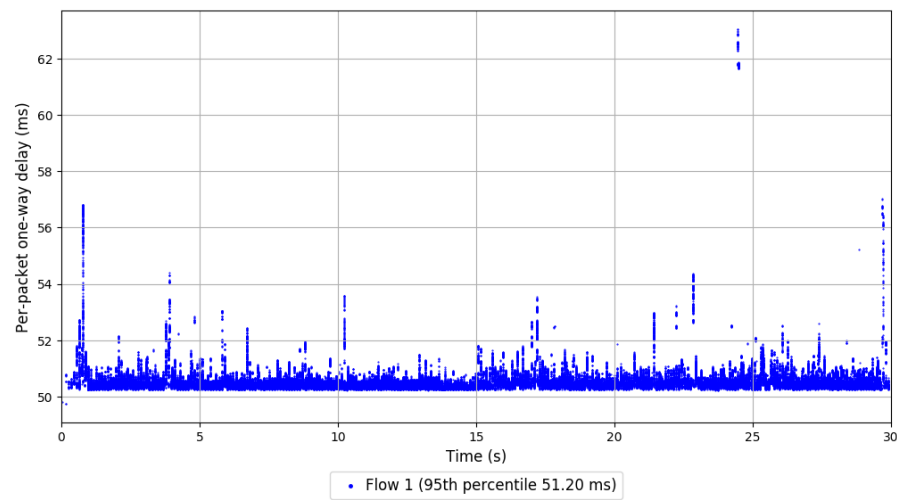
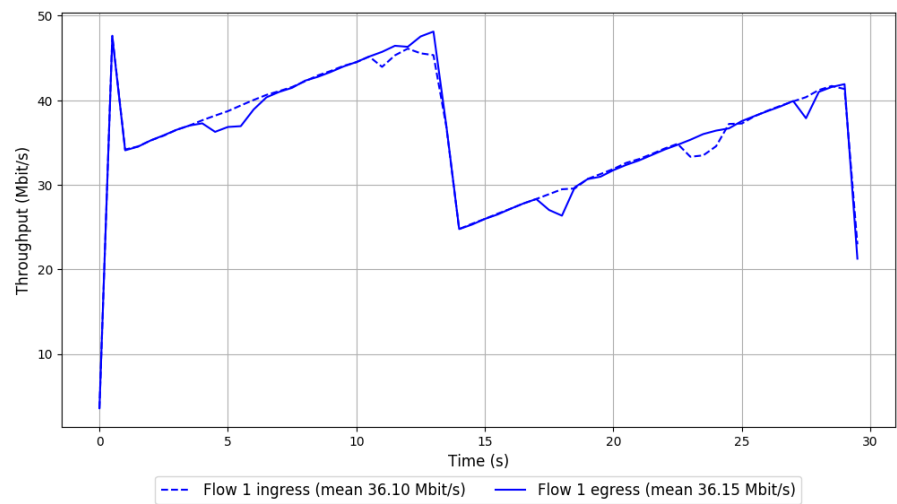
-- Flow 1:

Average throughput: 36.15 Mbit/s

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

Loss rate: 0.22%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-11 11:41:13

End at: 2017-08-11 11:41:43

Below is generated by plot.py at 2017-08-11 14:59:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.37 Mbit/s

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

Loss rate: 1.53%

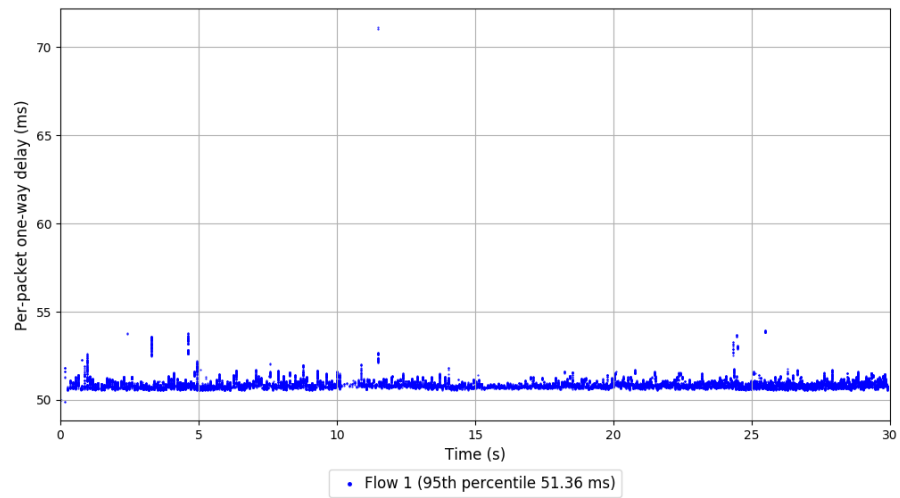
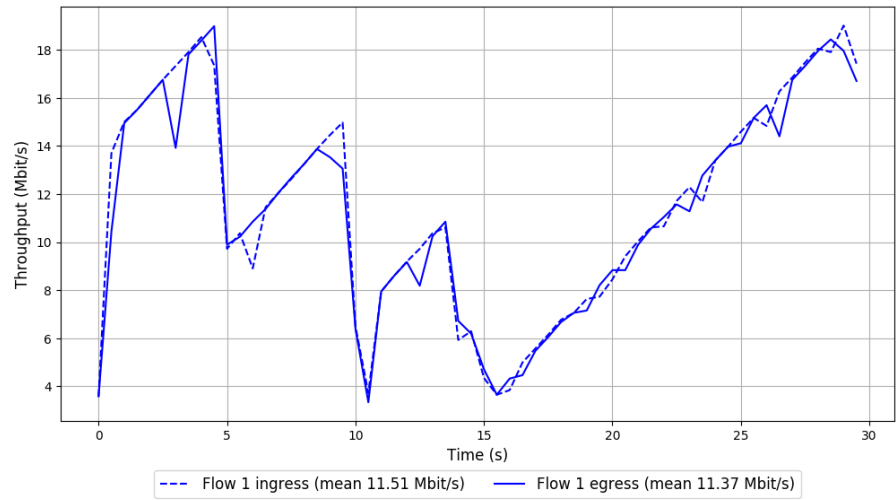
-- Flow 1:

Average throughput: 11.37 Mbit/s

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

Loss rate: 1.53%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-11 11:51:43

End at: 2017-08-11 11:52:13

Below is generated by plot.py at 2017-08-11 15:00:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 36.13 Mbit/s

95th percentile per-packet one-way delay: 51.542 ms

Loss rate: 0.30%

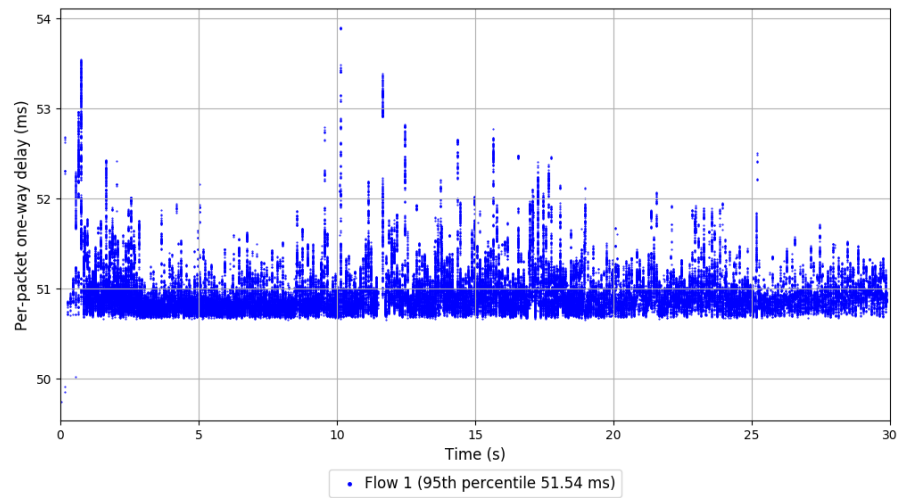
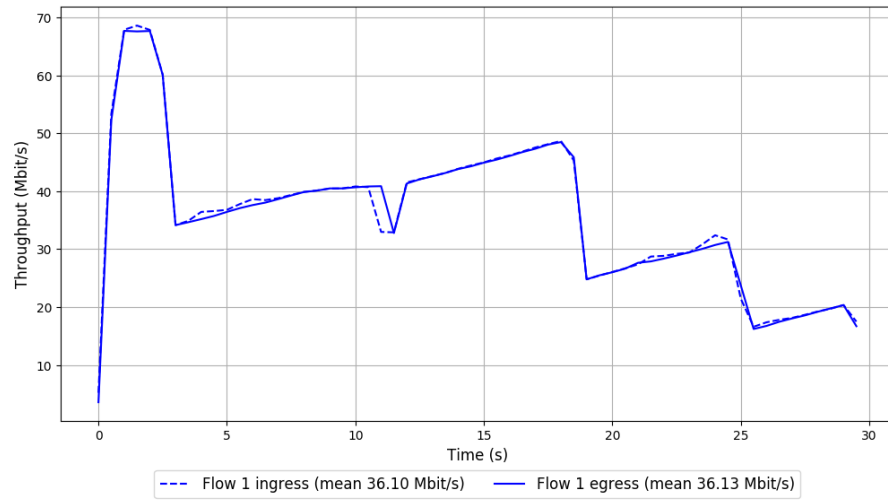
-- Flow 1:

Average throughput: 36.13 Mbit/s

95th percentile per-packet one-way delay: 51.542 ms

Loss rate: 0.30%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-11 12:02:19

End at: 2017-08-11 12:02:49

Below is generated by plot.py at 2017-08-11 15:00:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.53 Mbit/s

95th percentile per-packet one-way delay: 50.735 ms

Loss rate: 1.65%

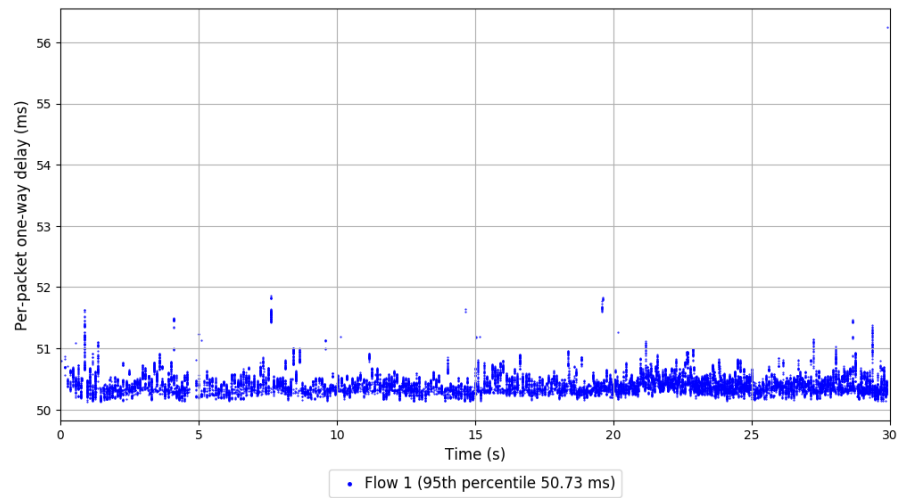
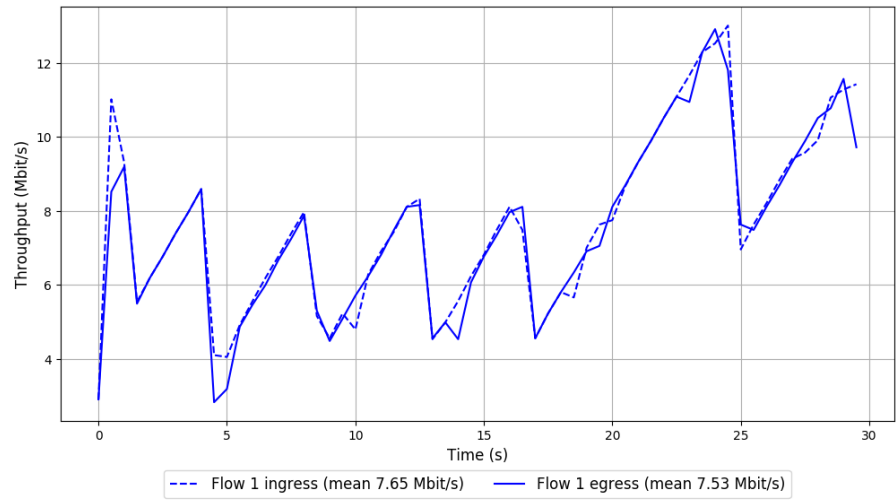
-- Flow 1:

Average throughput: 7.53 Mbit/s

95th percentile per-packet one-way delay: 50.735 ms

Loss rate: 1.65%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-11 12:12:56

End at: 2017-08-11 12:13:26

Below is generated by plot.py at 2017-08-11 15:00:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.20 Mbit/s

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

Loss rate: 0.53%

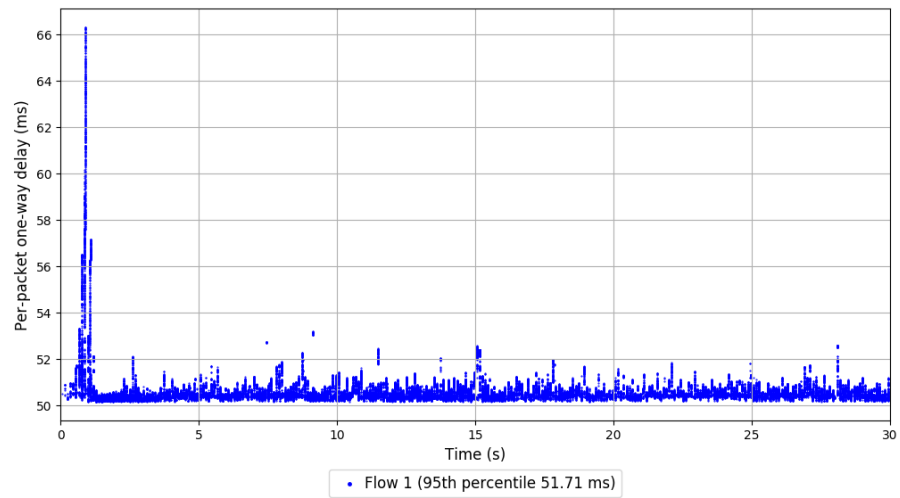
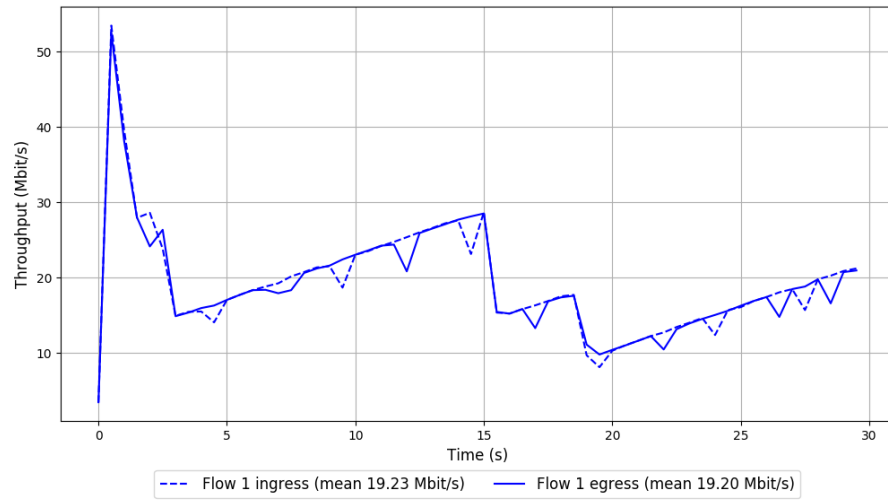
-- Flow 1:

Average throughput: 19.20 Mbit/s

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

Loss rate: 0.53%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-11 10:37:23

End at: 2017-08-11 10:37:53

Below is generated by plot.py at 2017-08-11 15:00:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 126.18 Mbit/s

95th percentile per-packet one-way delay: 68.143 ms

Loss rate: 3.45%

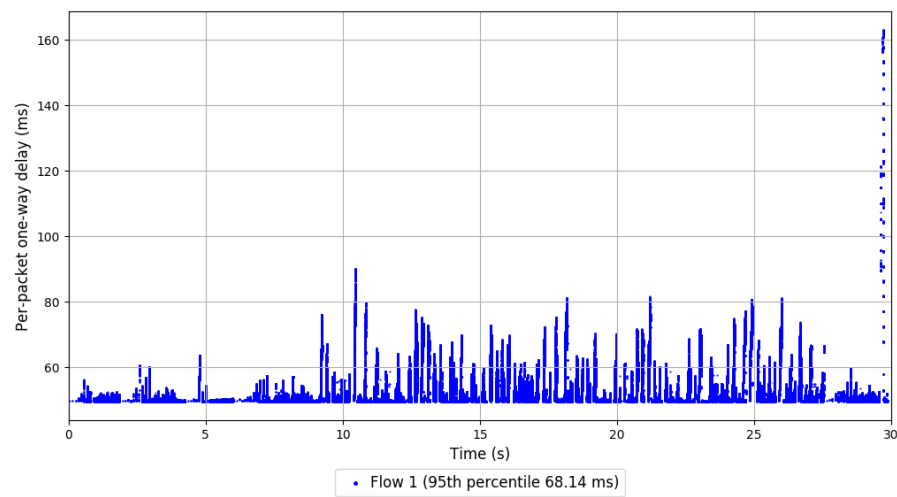
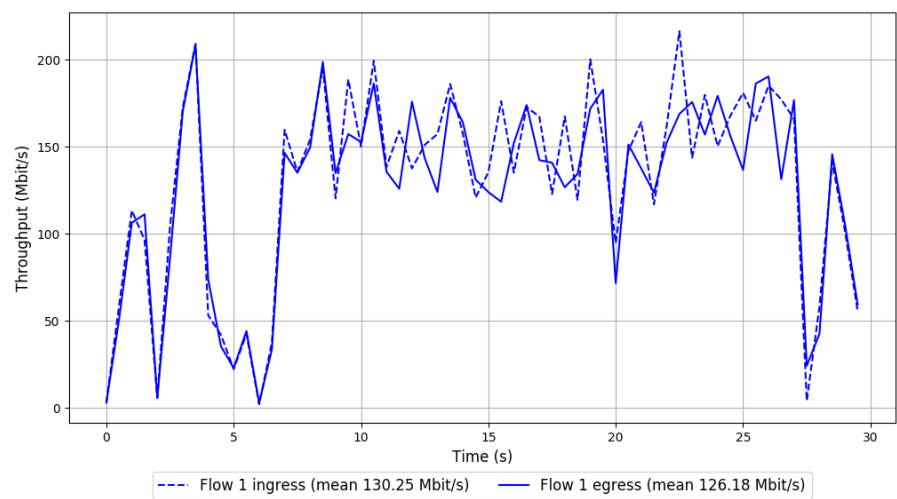
-- Flow 1:

Average throughput: 126.18 Mbit/s

95th percentile per-packet one-way delay: 68.143 ms

Loss rate: 3.45%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-11 10:47:47

End at: 2017-08-11 10:48:17

Below is generated by plot.py at 2017-08-11 15:00:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 62.064 ms

Loss rate: 2.14%

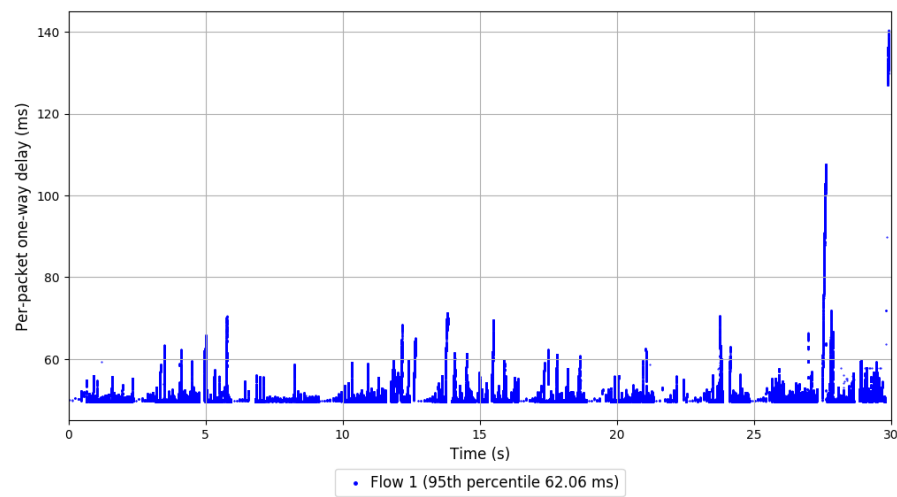
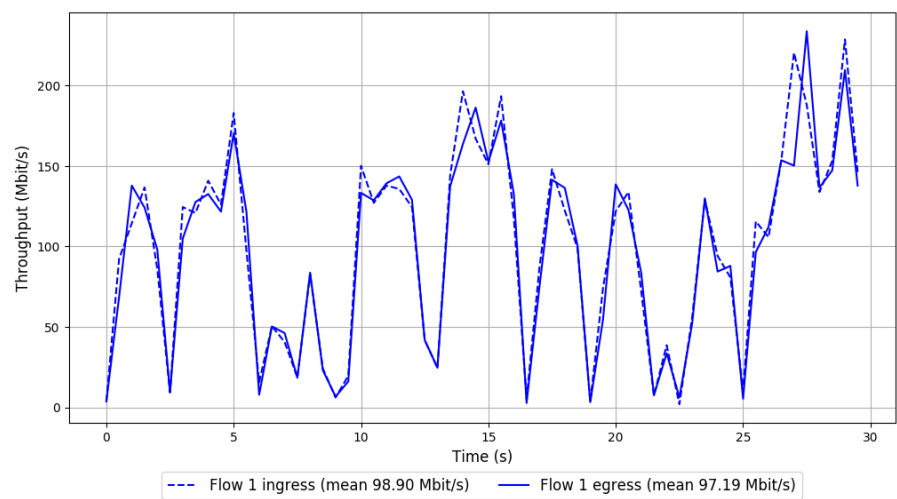
-- Flow 1:

Average throughput: 97.19 Mbit/s

95th percentile per-packet one-way delay: 62.064 ms

Loss rate: 2.14%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-11 10:57:48

End at: 2017-08-11 10:58:18

Below is generated by plot.py at 2017-08-11 15:00:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.63 Mbit/s

95th percentile per-packet one-way delay: 52.031 ms

Loss rate: 90.68%

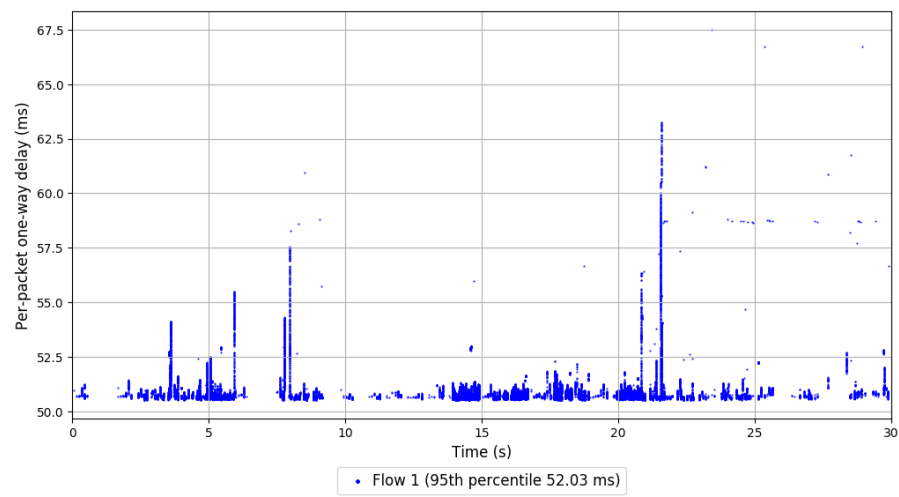
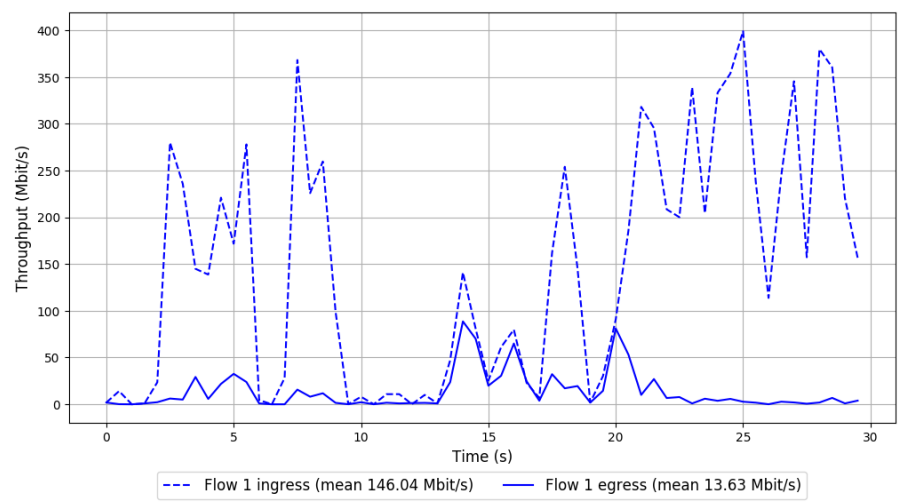
-- Flow 1:

Average throughput: 13.63 Mbit/s

95th percentile per-packet one-way delay: 52.031 ms

Loss rate: 90.68%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-11 11:08:00

End at: 2017-08-11 11:08:30

Below is generated by plot.py at 2017-08-11 15:00:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.55 Mbit/s

95th percentile per-packet one-way delay: 52.057 ms

Loss rate: 72.11%

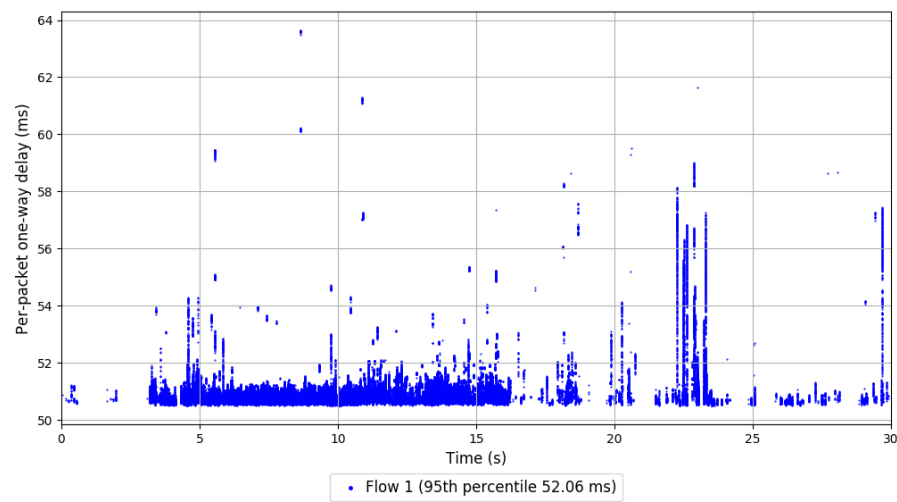
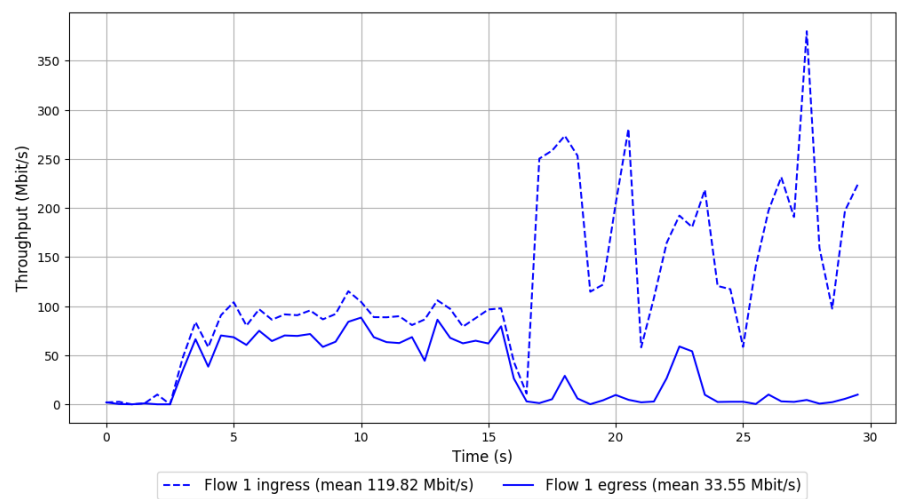
-- Flow 1:

Average throughput: 33.55 Mbit/s

95th percentile per-packet one-way delay: 52.057 ms

Loss rate: 72.11%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-11 11:18:31

End at: 2017-08-11 11:19:01

Below is generated by plot.py at 2017-08-11 15:00:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.45 Mbit/s

95th percentile per-packet one-way delay: 59.368 ms

Loss rate: 6.68%

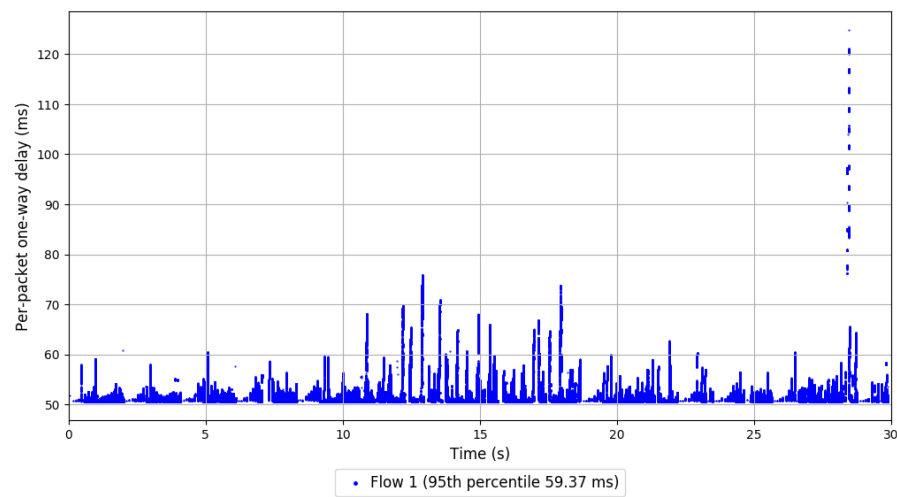
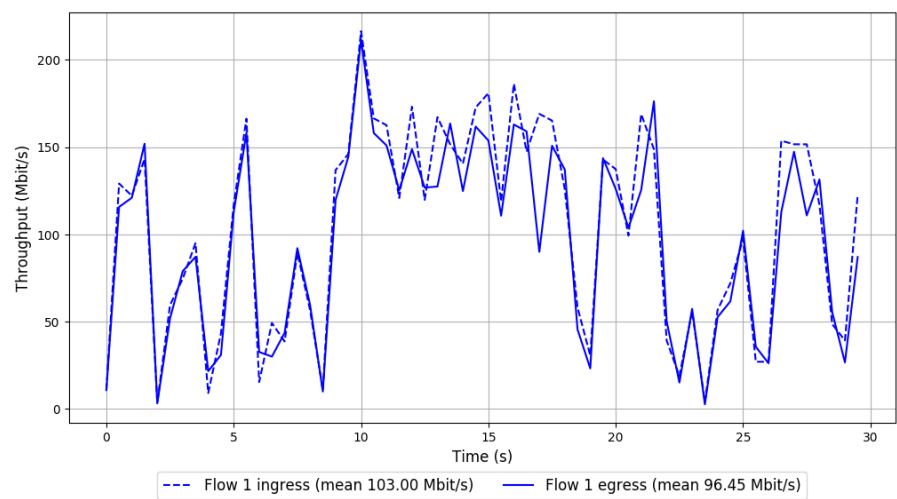
-- Flow 1:

Average throughput: 96.45 Mbit/s

95th percentile per-packet one-way delay: 59.368 ms

Loss rate: 6.68%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-11 11:28:44

End at: 2017-08-11 11:29:14

Below is generated by plot.py at 2017-08-11 15:01:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 109.68 Mbit/s

95th percentile per-packet one-way delay: 65.002 ms

Loss rate: 1.84%

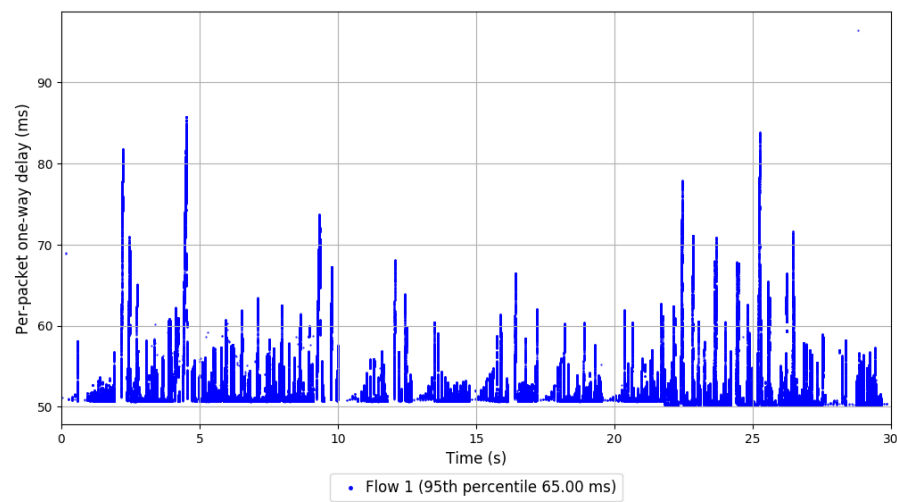
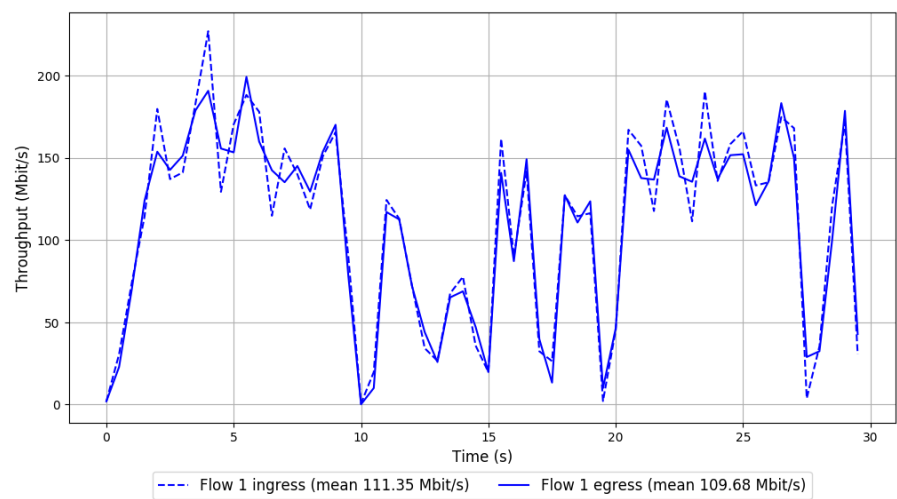
-- Flow 1:

Average throughput: 109.68 Mbit/s

95th percentile per-packet one-way delay: 65.002 ms

Loss rate: 1.84%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-11 11:39:00

End at: 2017-08-11 11:39:30

Below is generated by plot.py at 2017-08-11 15:01:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 127.63 Mbit/s

95th percentile per-packet one-way delay: 67.686 ms

Loss rate: 4.79%

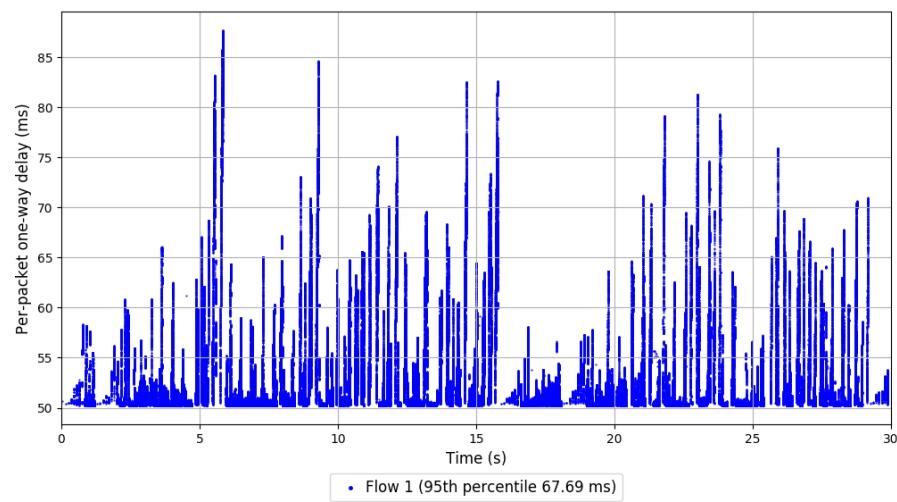
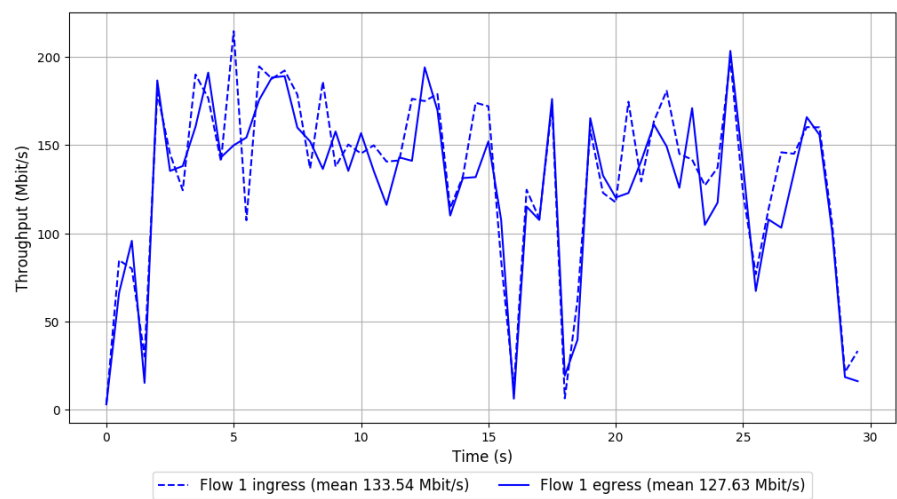
-- Flow 1:

Average throughput: 127.63 Mbit/s

95th percentile per-packet one-way delay: 67.686 ms

Loss rate: 4.79%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-11 11:49:34

End at: 2017-08-11 11:50:04

Below is generated by plot.py at 2017-08-11 15:01:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.72 Mbit/s

95th percentile per-packet one-way delay: 56.393 ms

Loss rate: 1.73%

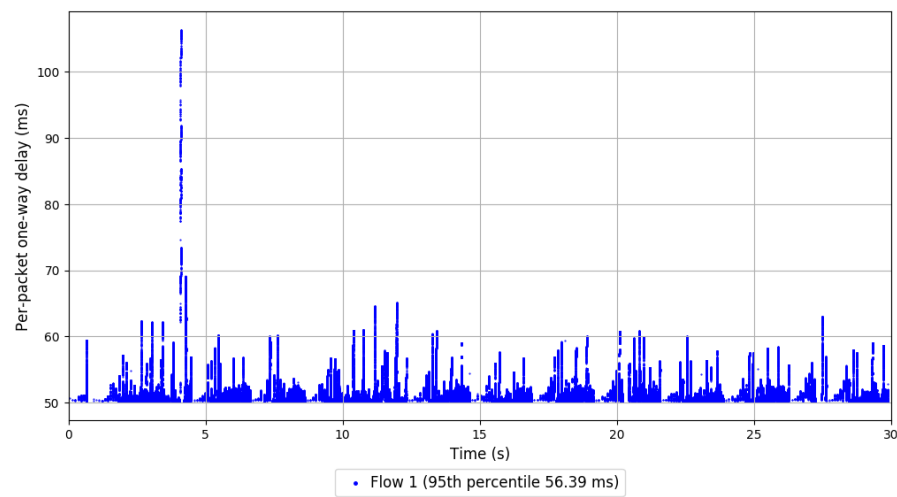
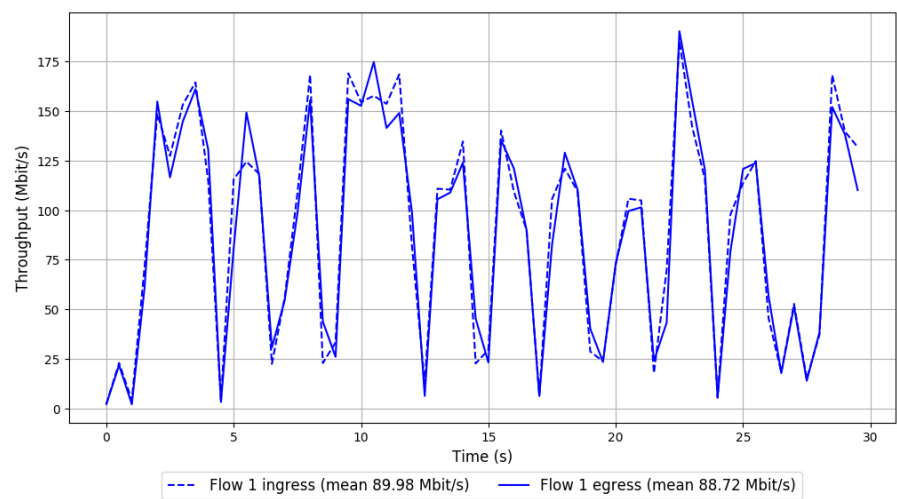
-- Flow 1:

Average throughput: 88.72 Mbit/s

95th percentile per-packet one-way delay: 56.393 ms

Loss rate: 1.73%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-11 12:00:06

End at: 2017-08-11 12:00:36

Below is generated by plot.py at 2017-08-11 15:01:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.64 Mbit/s

95th percentile per-packet one-way delay: 55.647 ms

Loss rate: 73.02%

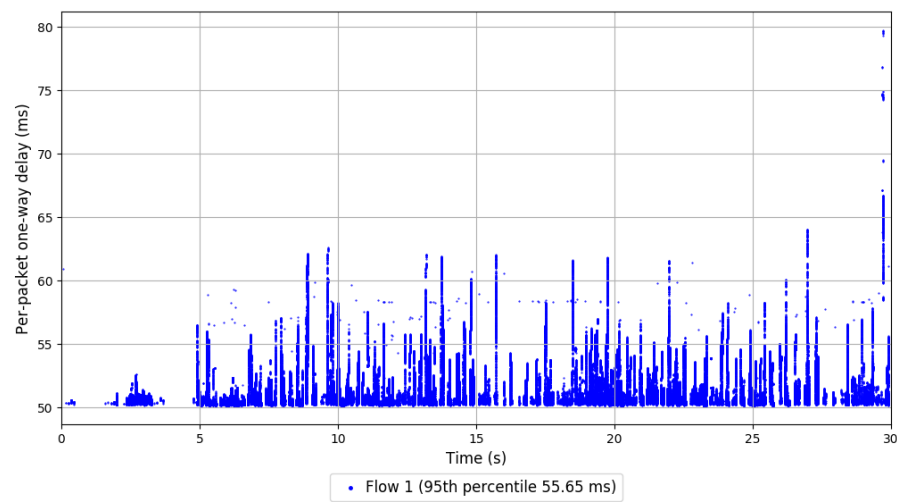
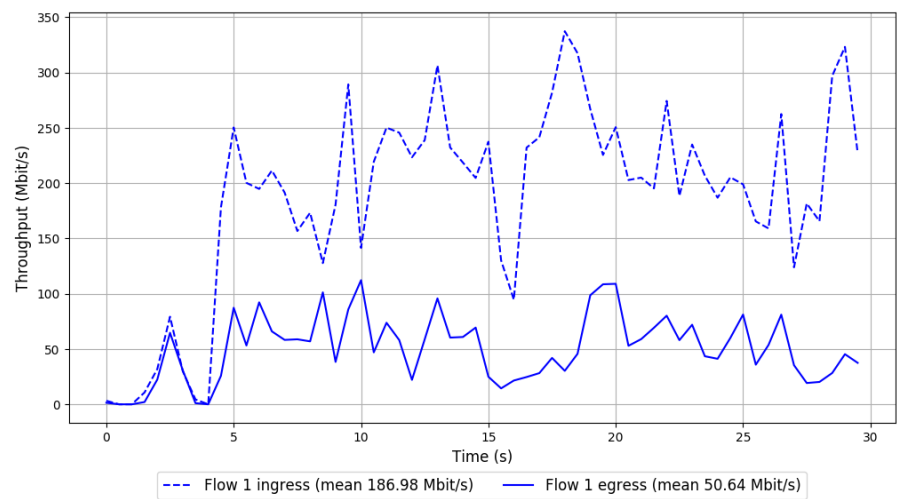
-- Flow 1:

Average throughput: 50.64 Mbit/s

95th percentile per-packet one-way delay: 55.647 ms

Loss rate: 73.02%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-11 12:10:46

End at: 2017-08-11 12:11:16

Below is generated by plot.py at 2017-08-11 15:01:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.24 Mbit/s

95th percentile per-packet one-way delay: 52.722 ms

Loss rate: 64.58%

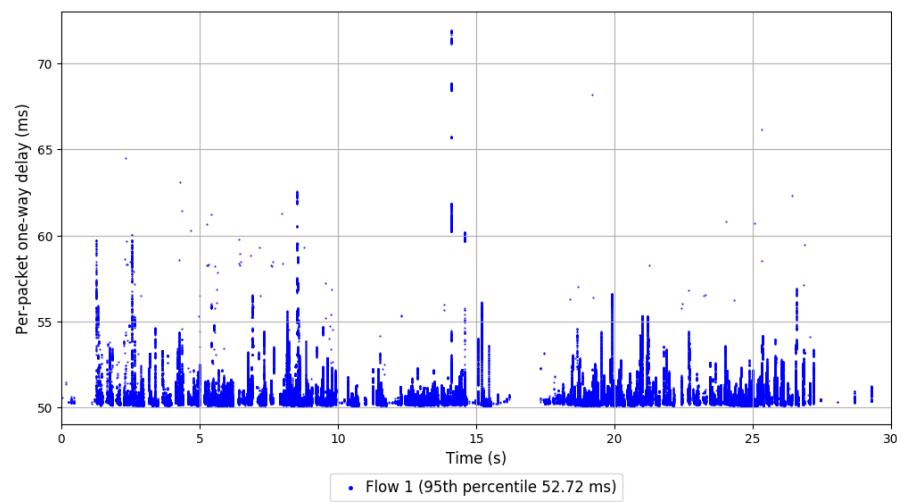
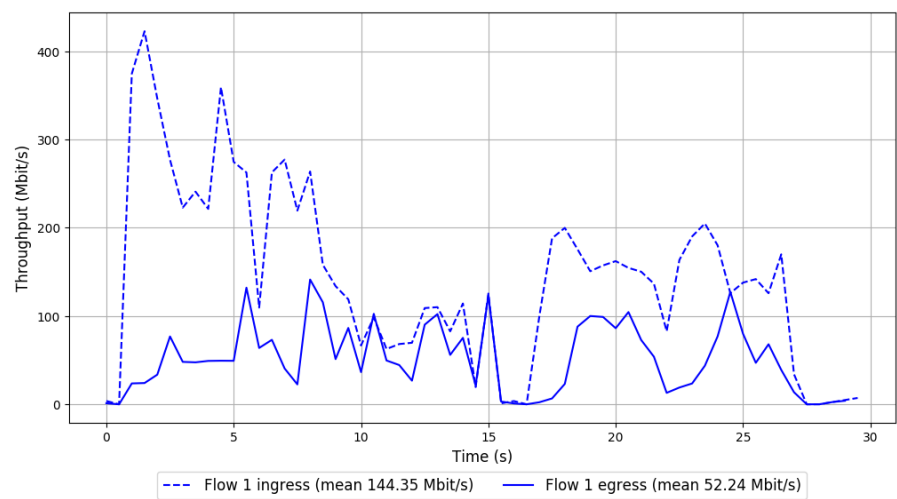
-- Flow 1:

Average throughput: 52.24 Mbit/s

95th percentile per-packet one-way delay: 52.722 ms

Loss rate: 64.58%

Run 10: Report of Verus — Data Link

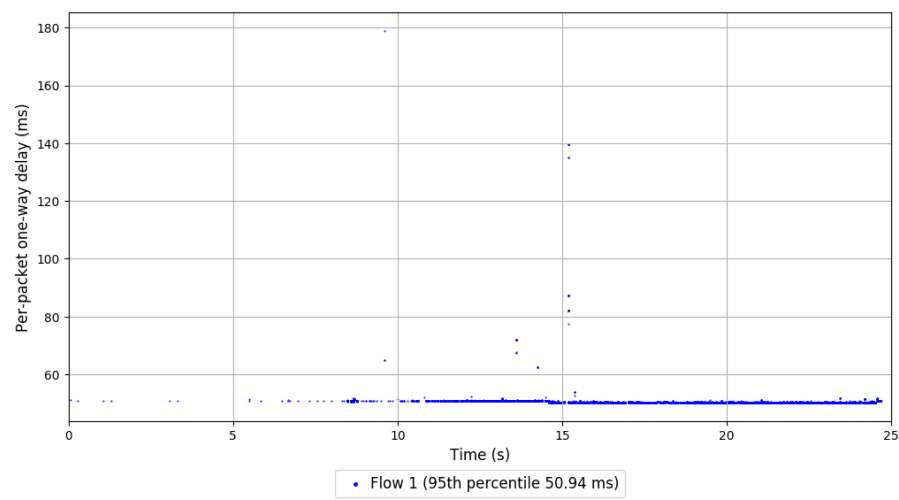
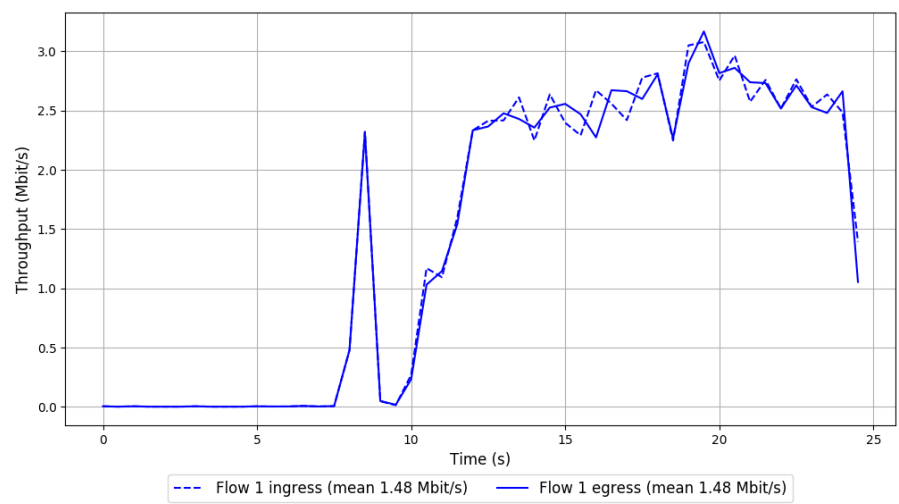


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-11 10:36:46
End at: 2017-08-11 10:37:16

# Below is generated by plot.py at 2017-08-11 15:01:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 50.943 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 50.943 ms
Loss rate: 0.78%
```


Run 1: Report of WebRTC media — Data Link

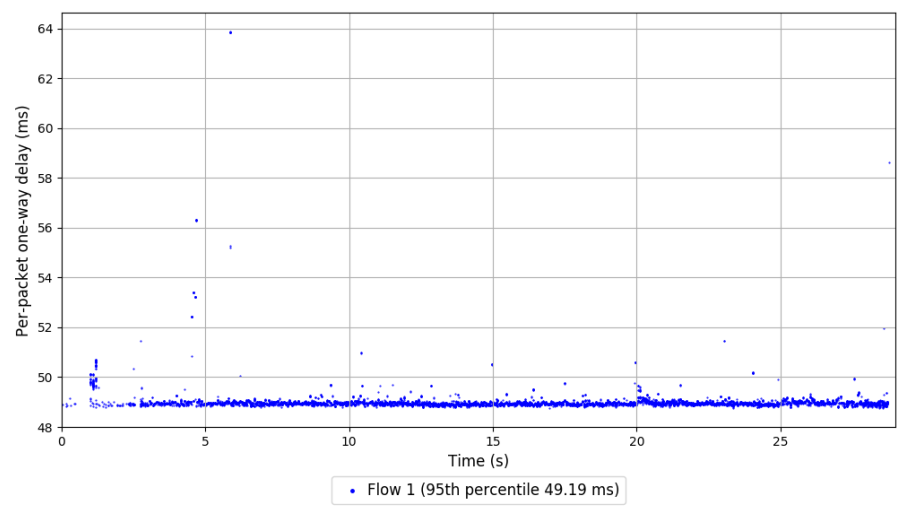
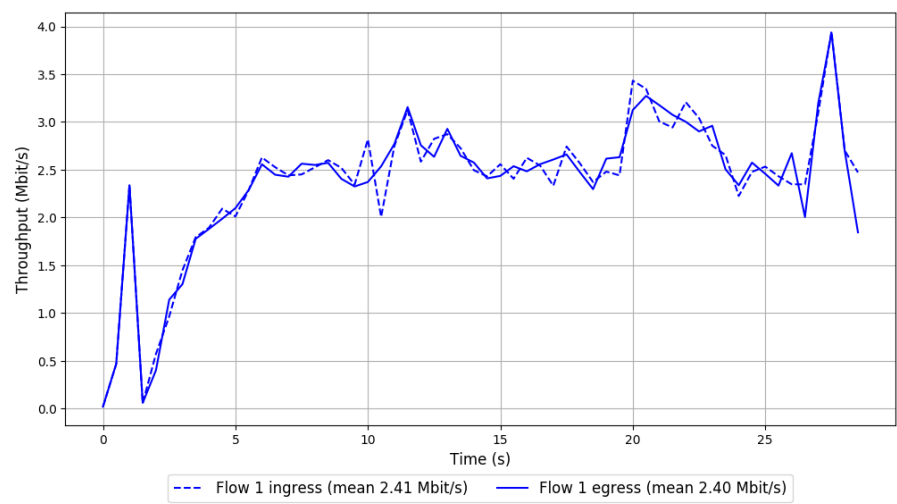


```
Run 2: Statistics of WebRTC media

Start at: 2017-08-11 10:47:10
End at: 2017-08-11 10:47:40

# Below is generated by plot.py at 2017-08-11 15:01:43
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 49.192 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 49.192 ms
Loss rate: 0.64%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-11 10:57:11

End at: 2017-08-11 10:57:41

Below is generated by plot.py at 2017-08-11 15:01:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 49.923 ms

Loss rate: 0.54%

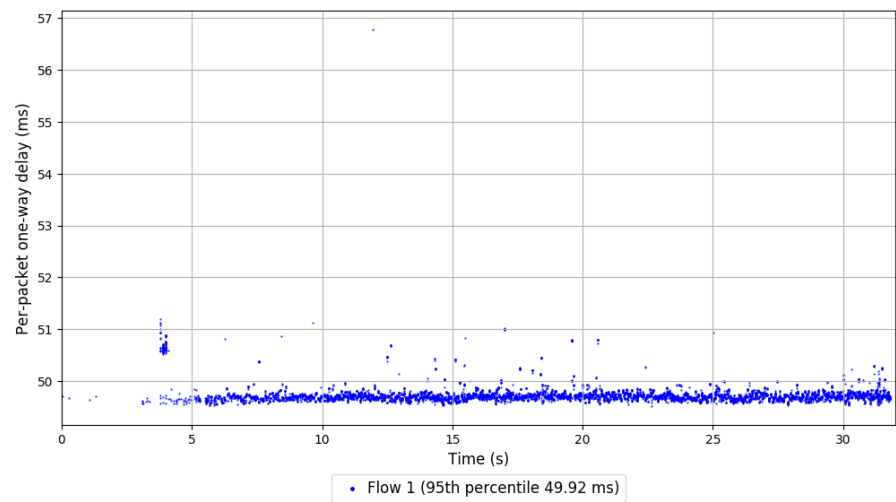
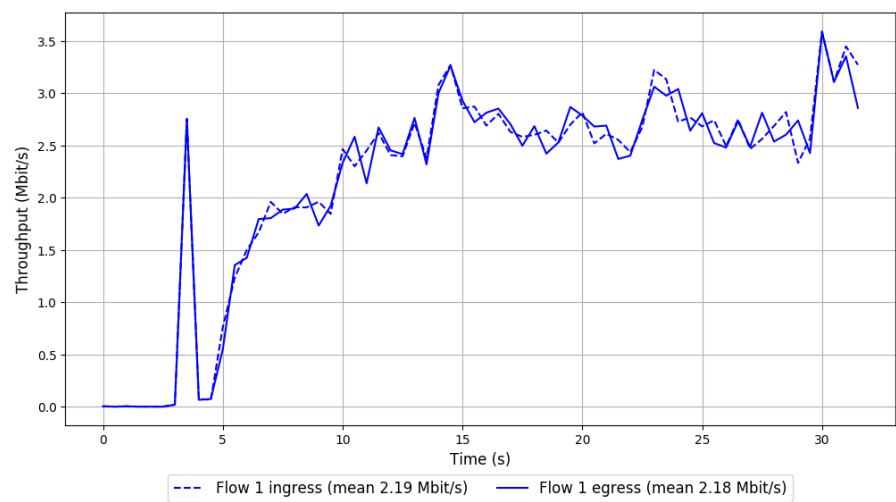
-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 49.923 ms

Loss rate: 0.54%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-11 11:07:24

End at: 2017-08-11 11:07:54

Below is generated by plot.py at 2017-08-11 15:01:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.536 ms

Loss rate: 0.00%

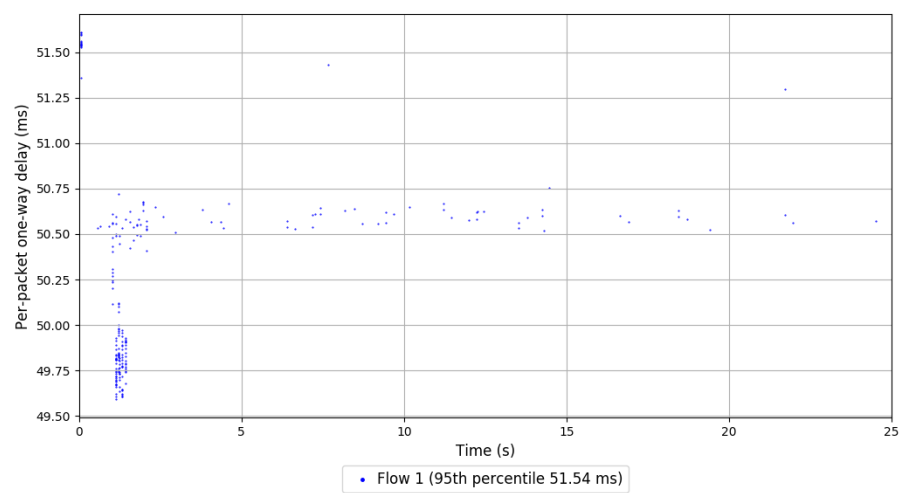
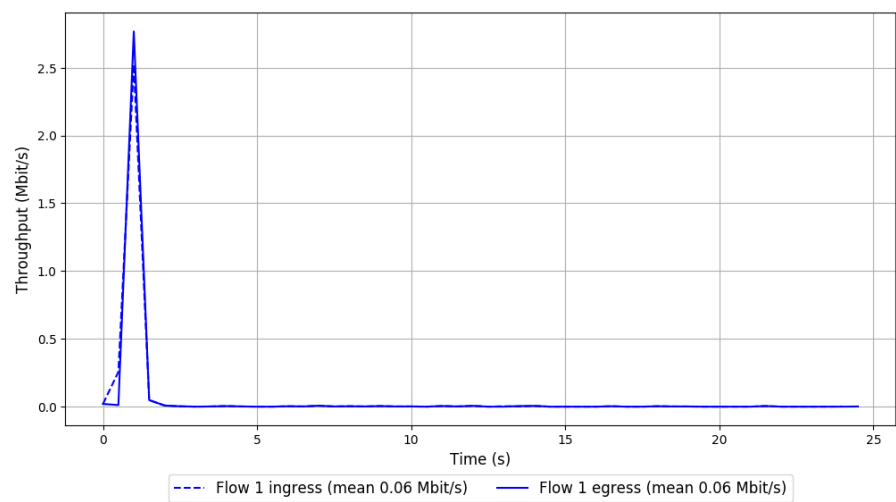
-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 51.536 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-11 11:17:54

End at: 2017-08-11 11:18:24

Below is generated by plot.py at 2017-08-11 15:01:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 51.058 ms

Loss rate: 0.66%

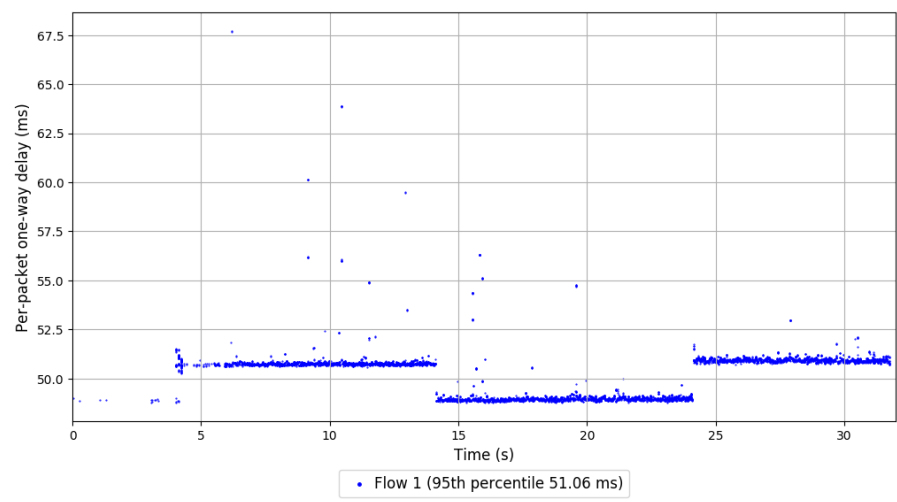
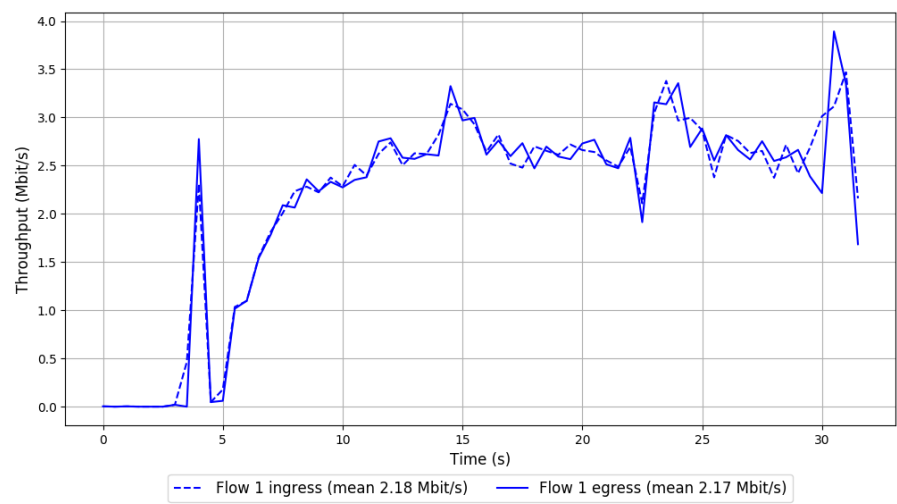
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 51.058 ms

Loss rate: 0.66%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-11 11:28:07

End at: 2017-08-11 11:28:37

Below is generated by plot.py at 2017-08-11 15:01:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 49.563 ms

Loss rate: 0.77%

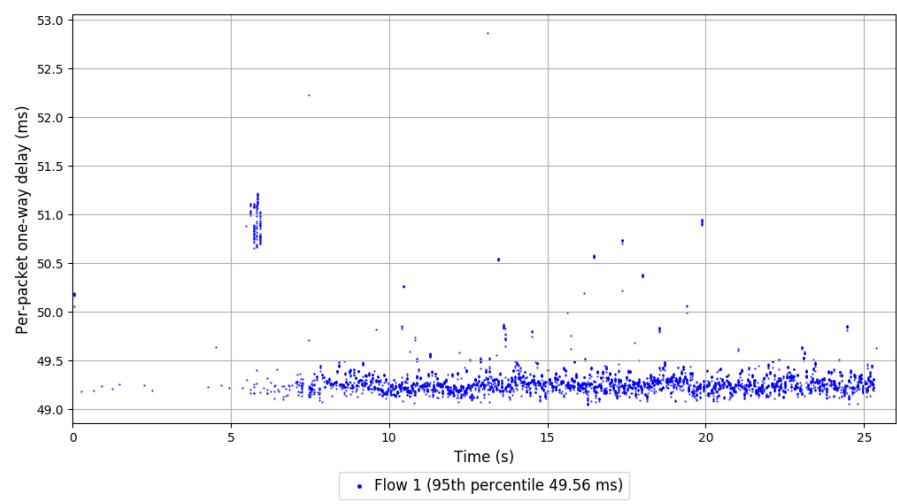
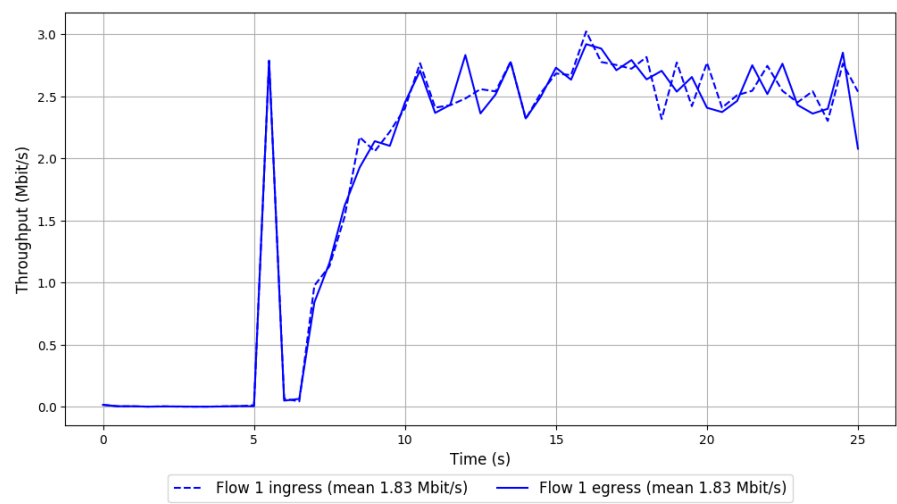
-- Flow 1:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 49.563 ms

Loss rate: 0.77%

Run 6: Report of WebRTC media — Data Link

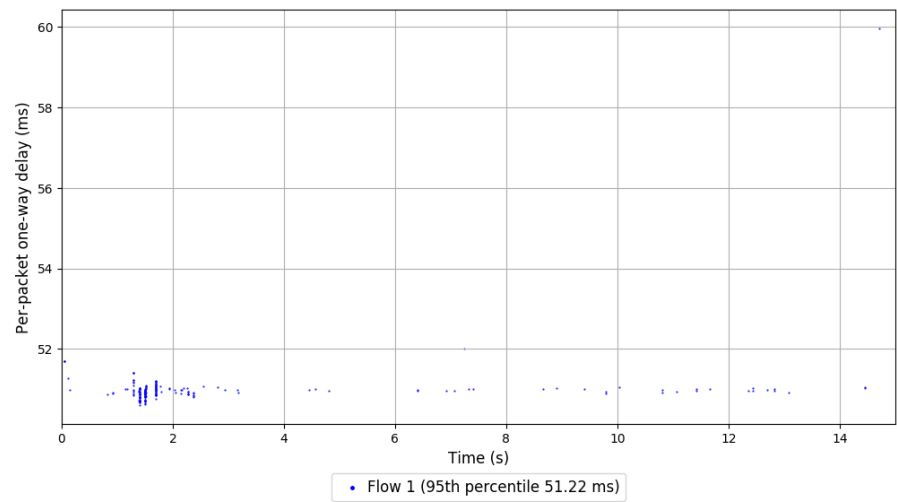
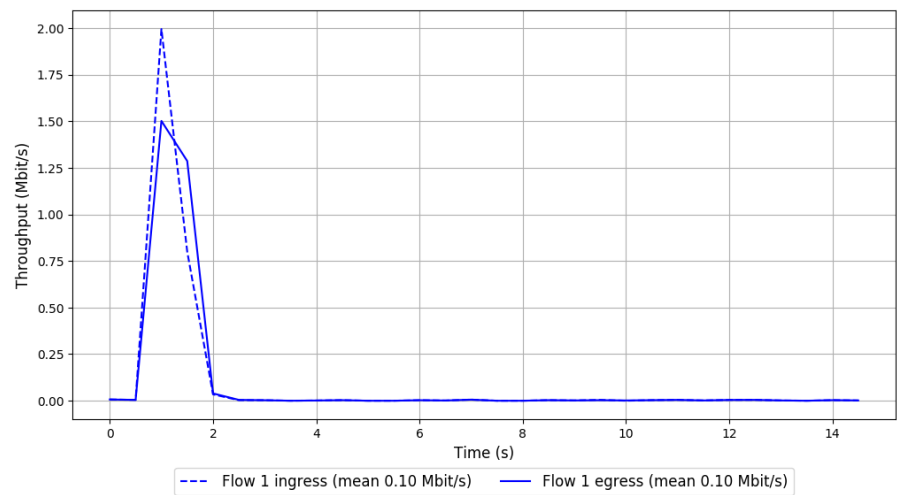


Run 7: Statistics of WebRTC media

Start at: 2017-08-11 11:38:23

End at: 2017-08-11 11:38:53

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-11 11:48:57

End at: 2017-08-11 11:49:27

Below is generated by plot.py at 2017-08-11 15:01:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 49.895 ms

Loss rate: 0.49%

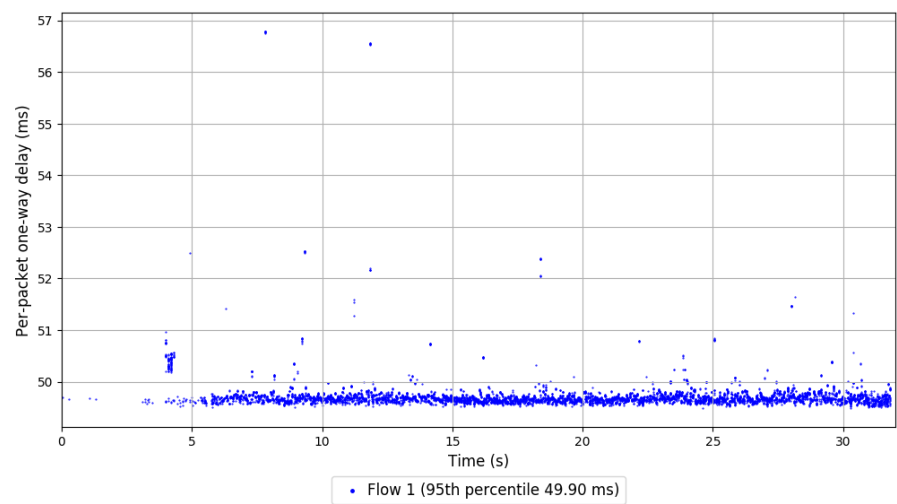
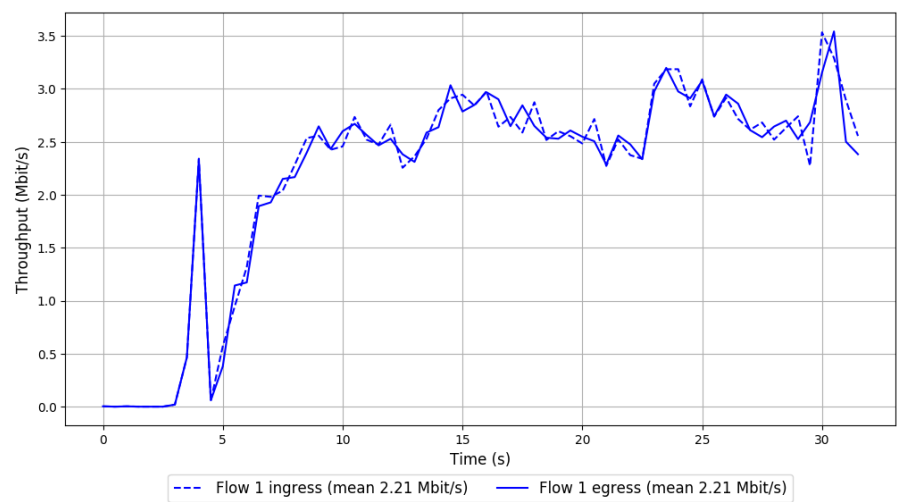
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 49.895 ms

Loss rate: 0.49%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-11 11:59:29

End at: 2017-08-11 11:59:59

Below is generated by plot.py at 2017-08-11 15:01:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 49.834 ms

Loss rate: 1.33%

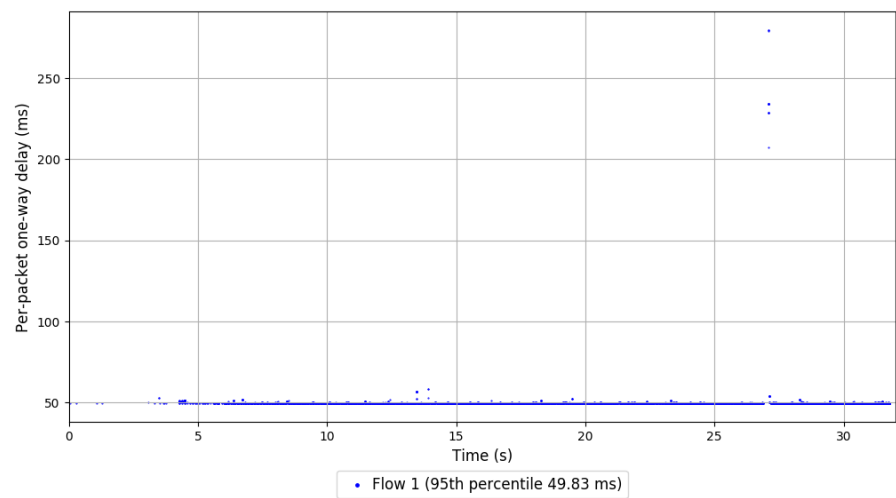
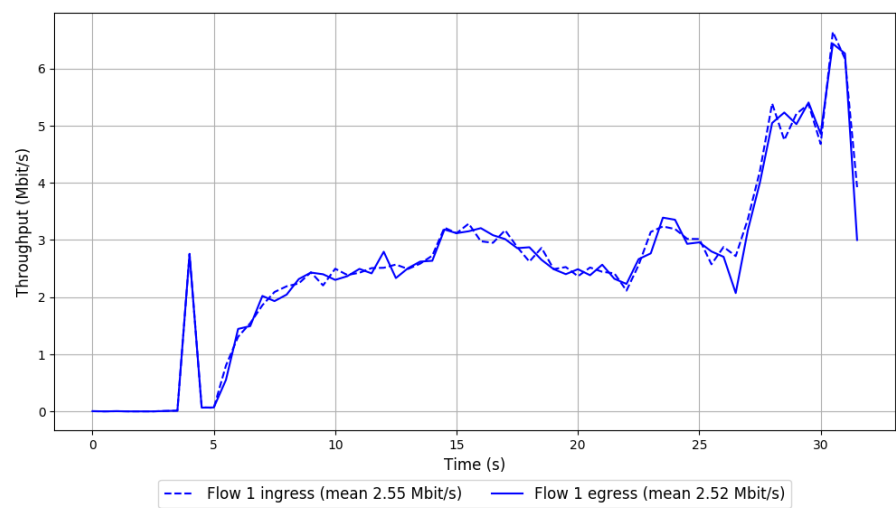
-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 49.834 ms

Loss rate: 1.33%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-11 12:10:09

End at: 2017-08-11 12:10:39

Below is generated by plot.py at 2017-08-11 15:01:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.536 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 50.536 ms

Loss rate: 0.52%

Run 10: Report of WebRTC media — Data Link

