

Pantheon Report

Generated at 2017-08-11 20:10:16 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

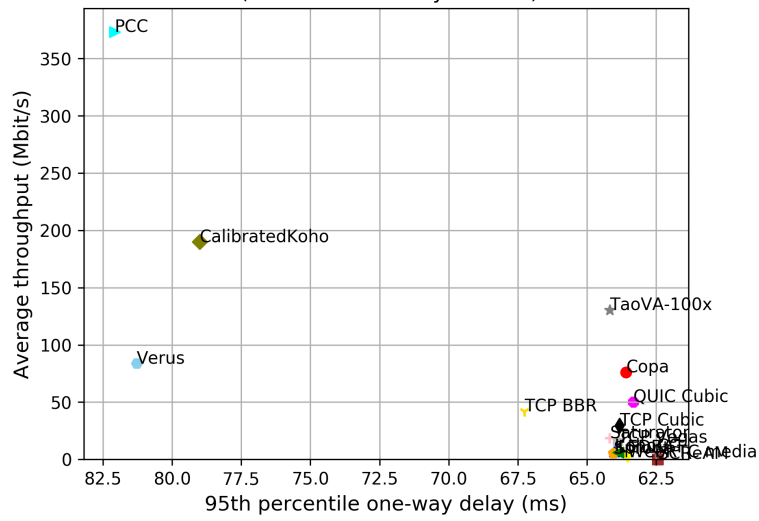
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

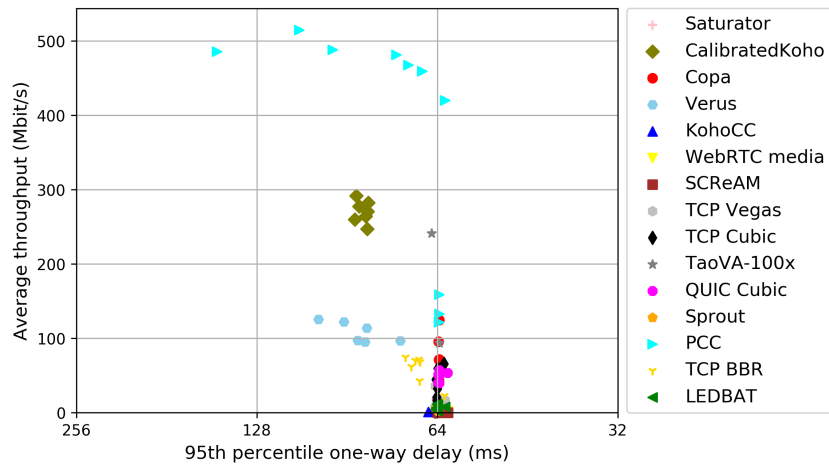
Git summary:

```
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-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Iowa Ethernet to GCE Tokyo 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	41.92	67.26	17.01
CalibratedKoho	10	189.89	79.01	23.12
Copa	6	76.13	63.59	4.57
TCP Cubic	10	29.70	63.82	1.74
KohoCC	9	7.27	64.00	20.80
LEDBAT	10	6.22	63.87	1.31
PCC	10	373.19	82.07	4.84
QUIC Cubic	9	50.25	63.33	0.00
Saturator	3	18.49	64.18	0.15
SCReAM	10	0.21	62.45	0.01
Sprout	10	5.28	64.05	5.46
TaoVA-100x	3	130.46	64.18	9.83
TCP Vegas	10	14.86	63.88	1.08
Verus	8	83.79	81.29	35.21
WebRTC media	9	2.03	63.53	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-08-11 17:12:57

End at: 2017-08-11 17:13:27

Below is generated by plot.py at 2017-08-11 19:52:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.24 Mbit/s

95th percentile per-packet one-way delay: 68.386 ms

Loss rate: 6.90%

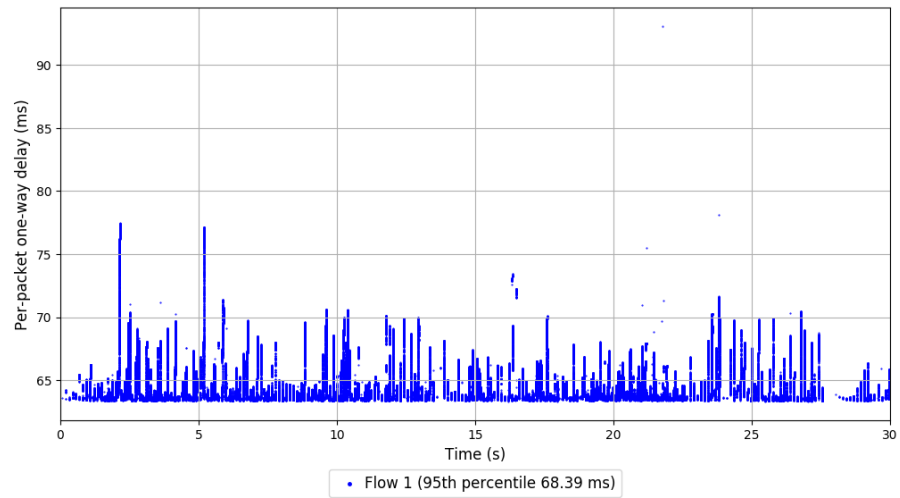
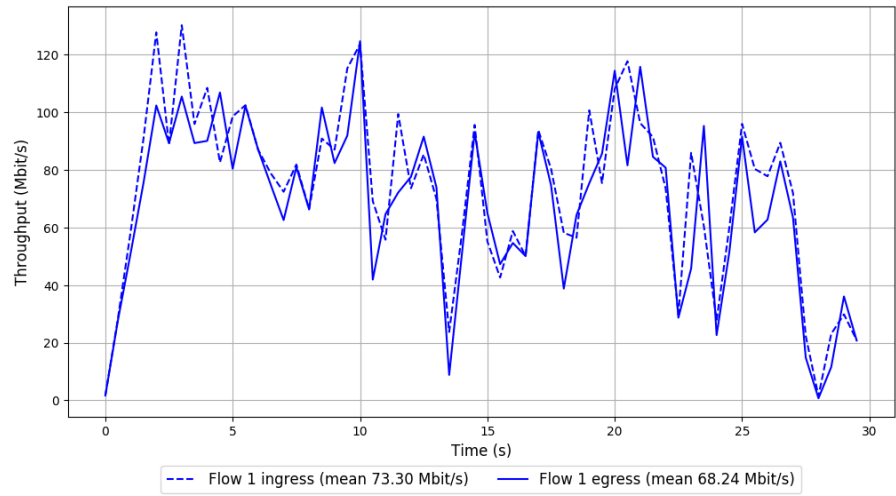
-- Flow 1:

Average throughput: 68.24 Mbit/s

95th percentile per-packet one-way delay: 68.386 ms

Loss rate: 6.90%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-11 17:23:46

End at: 2017-08-11 17:24:16

Below is generated by plot.py at 2017-08-11 19:52:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.10 Mbit/s

95th percentile per-packet one-way delay: 70.721 ms

Loss rate: 9.09%

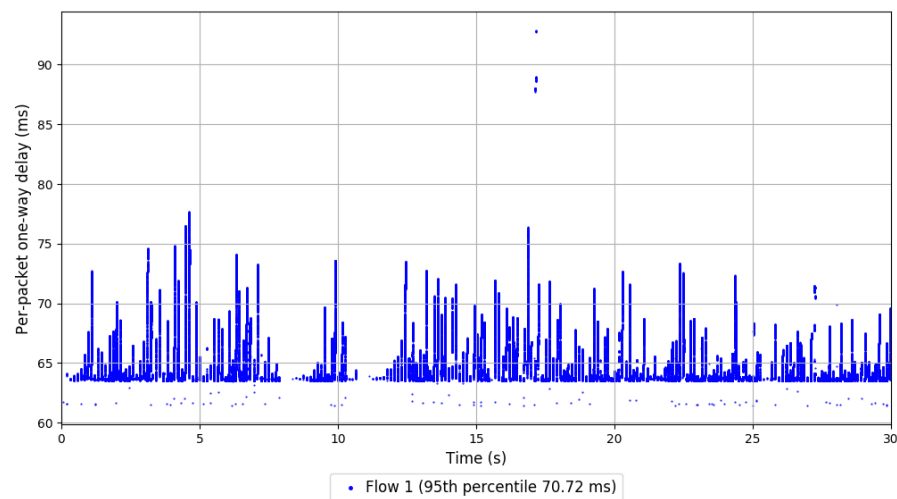
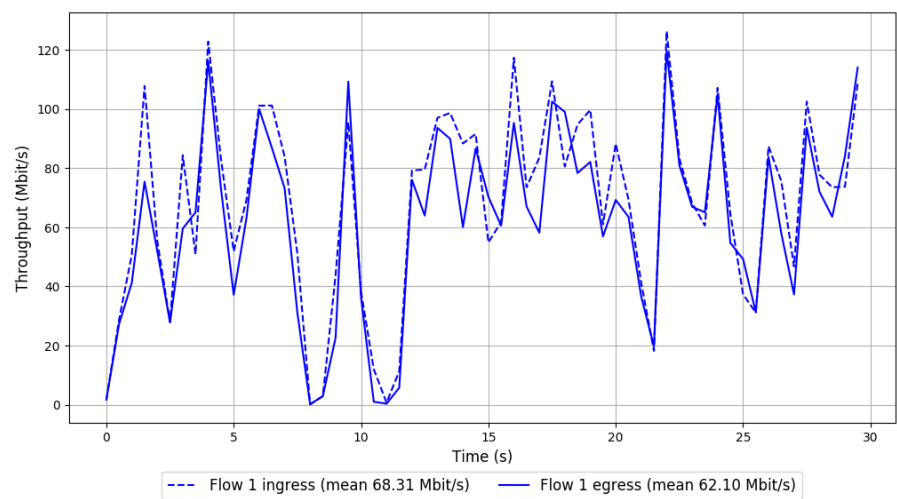
-- Flow 1:

Average throughput: 62.10 Mbit/s

95th percentile per-packet one-way delay: 70.721 ms

Loss rate: 9.09%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-11 17:34:26

End at: 2017-08-11 17:34:56

Below is generated by plot.py at 2017-08-11 19:52:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.74 Mbit/s

95th percentile per-packet one-way delay: 68.465 ms

Loss rate: 22.84%

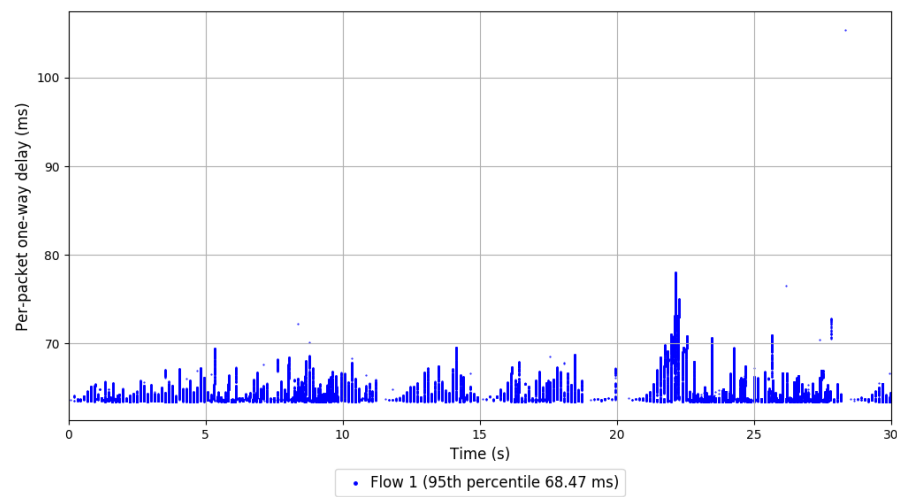
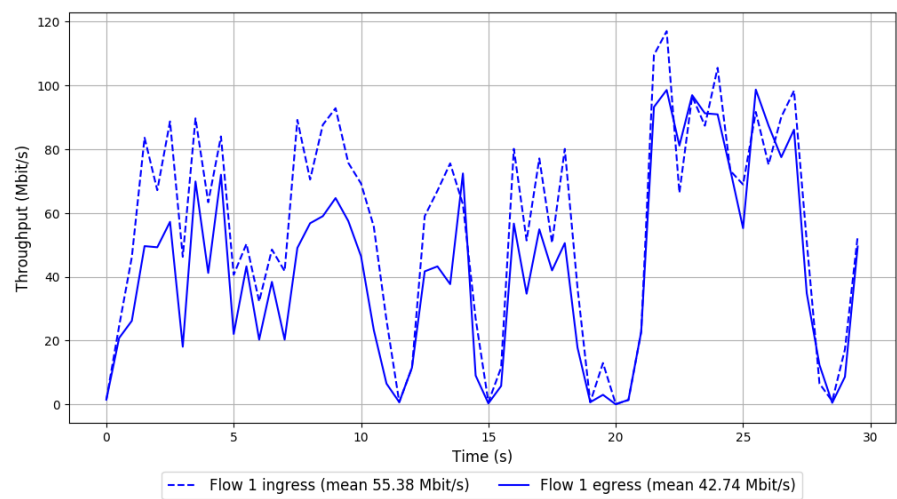
-- Flow 1:

Average throughput: 42.74 Mbit/s

95th percentile per-packet one-way delay: 68.465 ms

Loss rate: 22.84%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-11 17:44:58

End at: 2017-08-11 17:45:28

Below is generated by plot.py at 2017-08-11 19:52:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.58 Mbit/s

95th percentile per-packet one-way delay: 64.209 ms

Loss rate: 18.25%

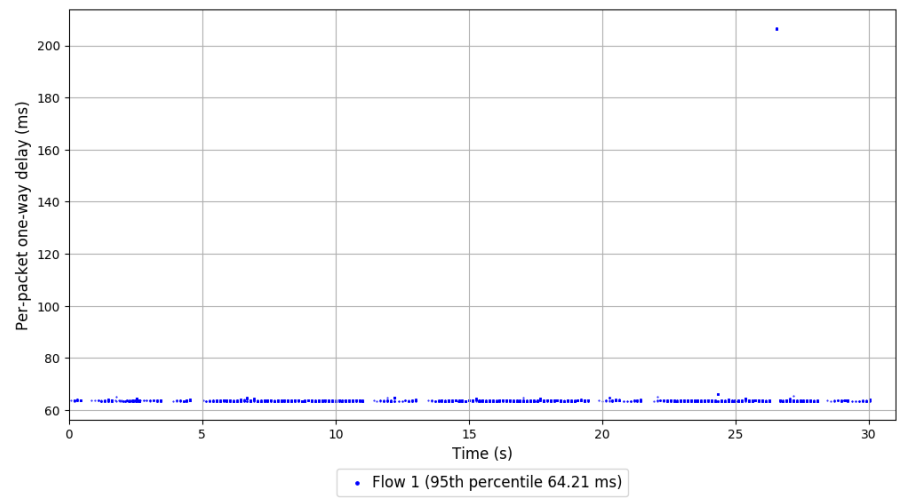
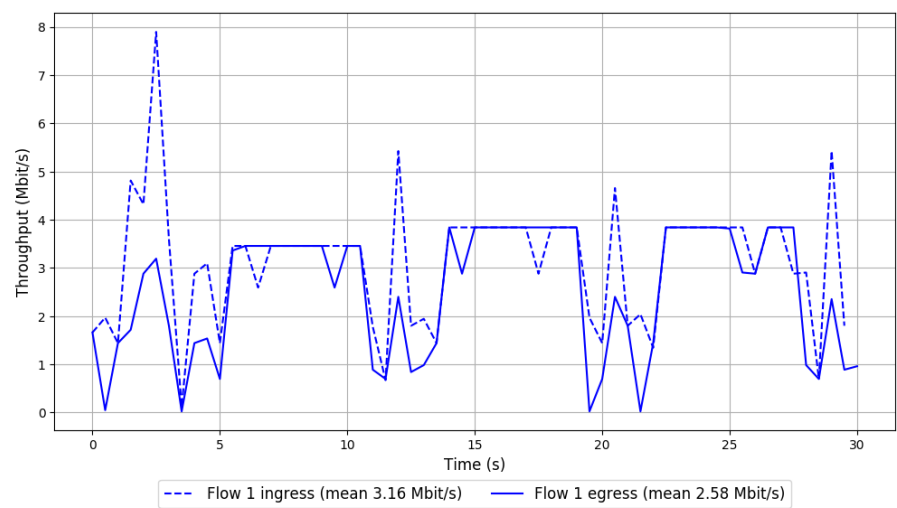
-- Flow 1:

Average throughput: 2.58 Mbit/s

95th percentile per-packet one-way delay: 64.209 ms

Loss rate: 18.25%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-11 17:55:17

End at: 2017-08-11 17:55:47

Below is generated by plot.py at 2017-08-11 19:52:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.48 Mbit/s

95th percentile per-packet one-way delay: 62.287 ms

Loss rate: 37.75%

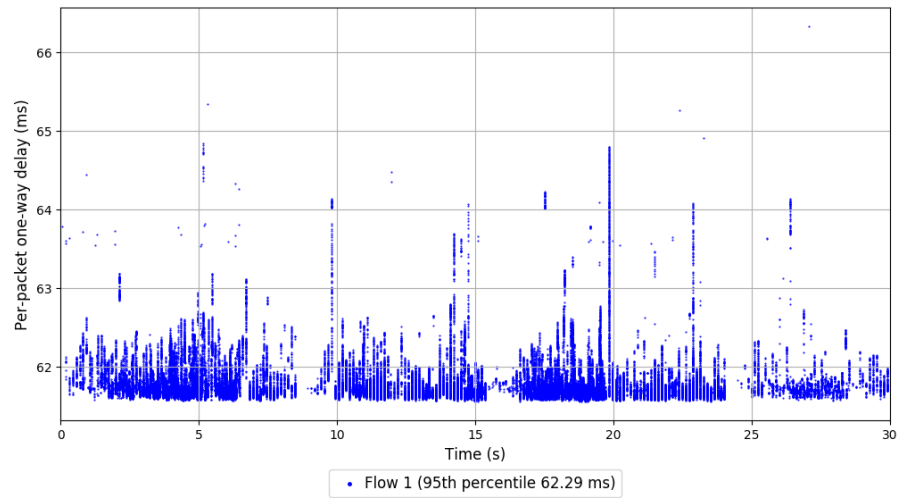
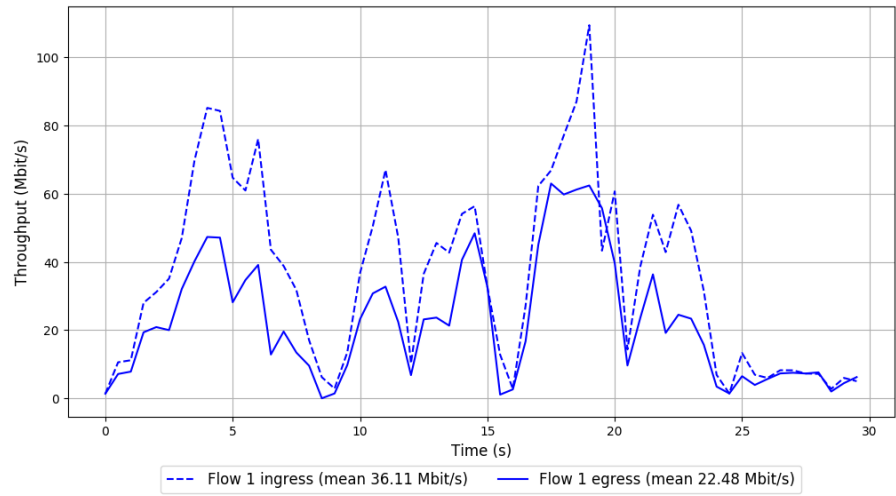
-- Flow 1:

Average throughput: 22.48 Mbit/s

95th percentile per-packet one-way delay: 62.287 ms

Loss rate: 37.75%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-11 18:05:27

End at: 2017-08-11 18:05:57

Below is generated by plot.py at 2017-08-11 19:52:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 63.798 ms

Loss rate: 30.71%

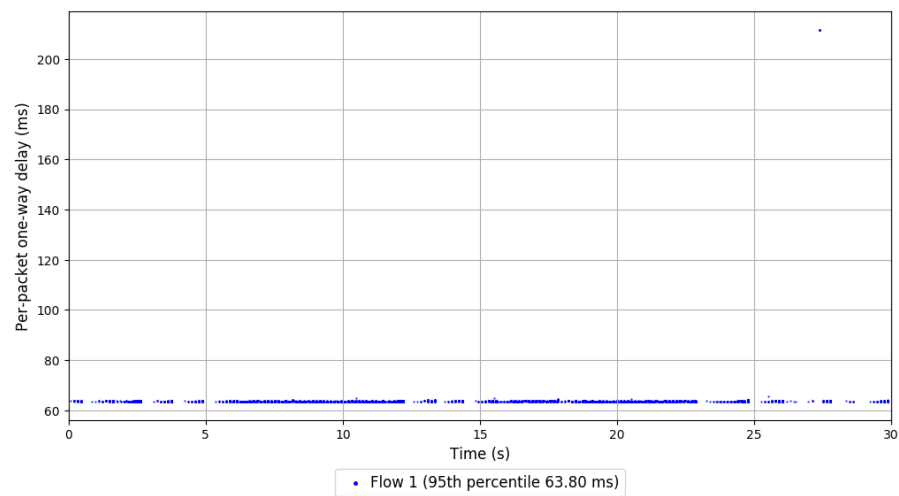
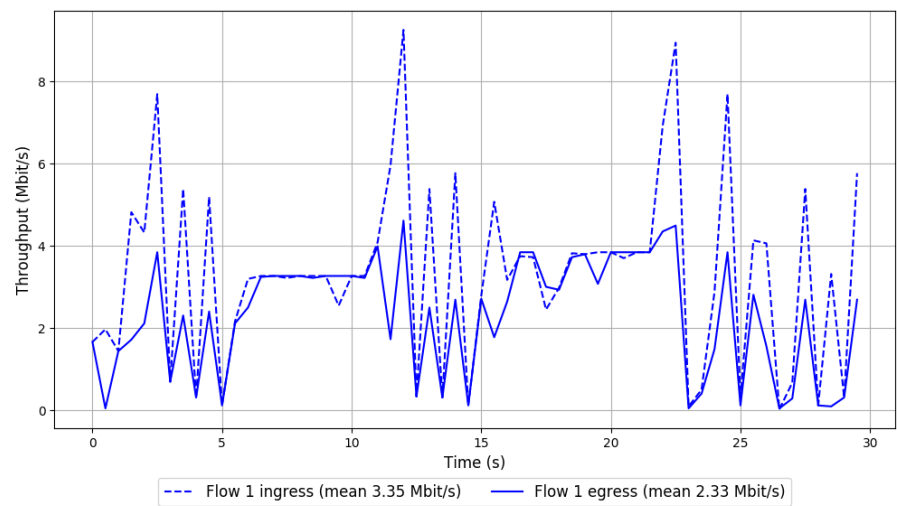
-- Flow 1:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 63.798 ms

Loss rate: 30.71%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-11 18:15:33

End at: 2017-08-11 18:16:03

Below is generated by plot.py at 2017-08-11 19:52:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.84 Mbit/s

95th percentile per-packet one-way delay: 68.702 ms

Loss rate: 5.69%

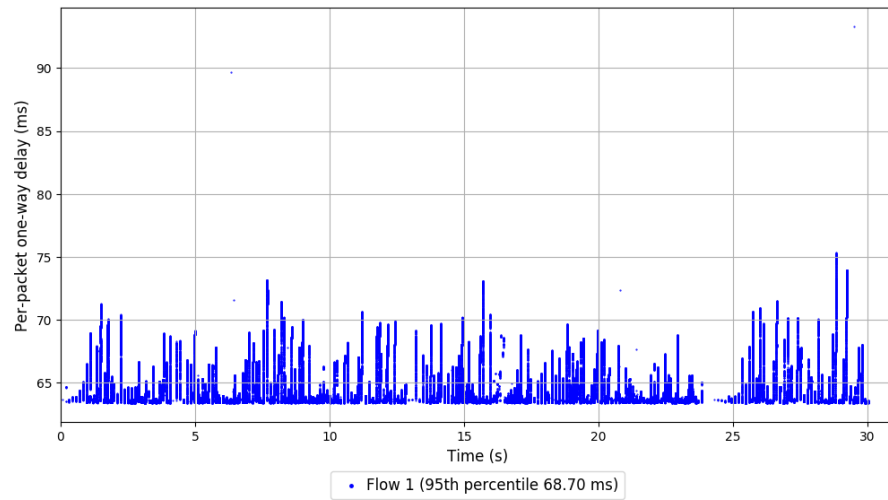
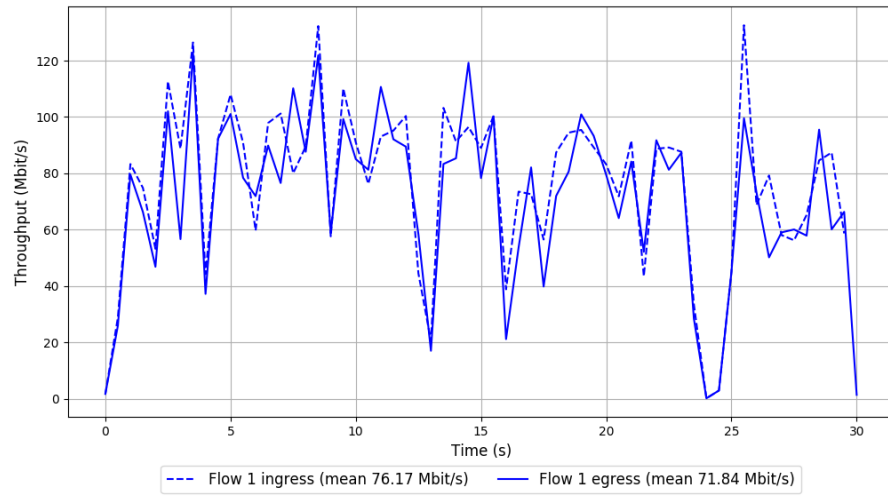
-- Flow 1:

Average throughput: 71.84 Mbit/s

95th percentile per-packet one-way delay: 68.702 ms

Loss rate: 5.69%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-11 18:25:53

End at: 2017-08-11 18:26:23

Below is generated by plot.py at 2017-08-11 19:52:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.38 Mbit/s

95th percentile per-packet one-way delay: 72.316 ms

Loss rate: 8.24%

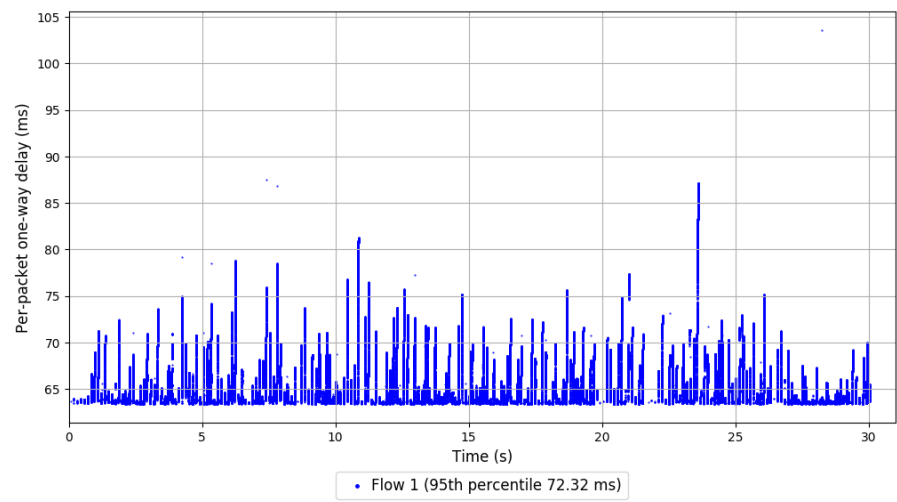
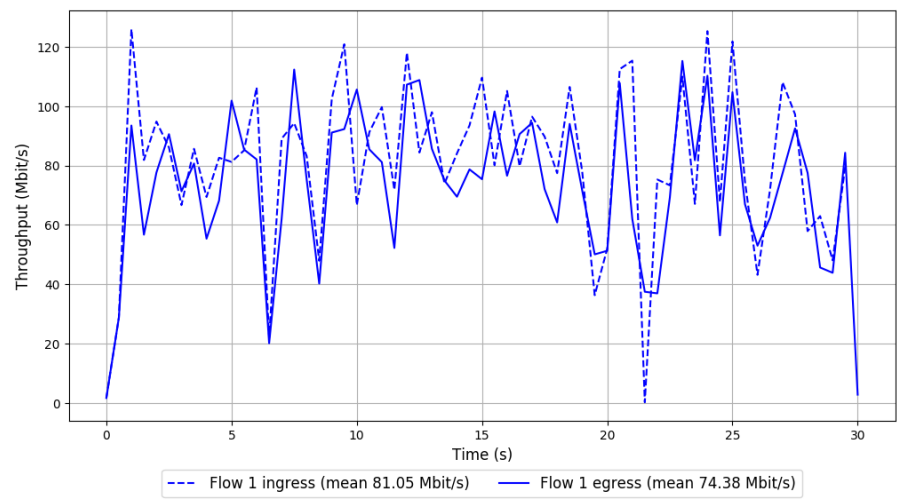
-- Flow 1:

Average throughput: 74.38 Mbit/s

95th percentile per-packet one-way delay: 72.316 ms

Loss rate: 8.24%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-11 18:36:07

End at: 2017-08-11 18:36:37

Below is generated by plot.py at 2017-08-11 19:52:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.27 Mbit/s

95th percentile per-packet one-way delay: 69.698 ms

Loss rate: 6.60%

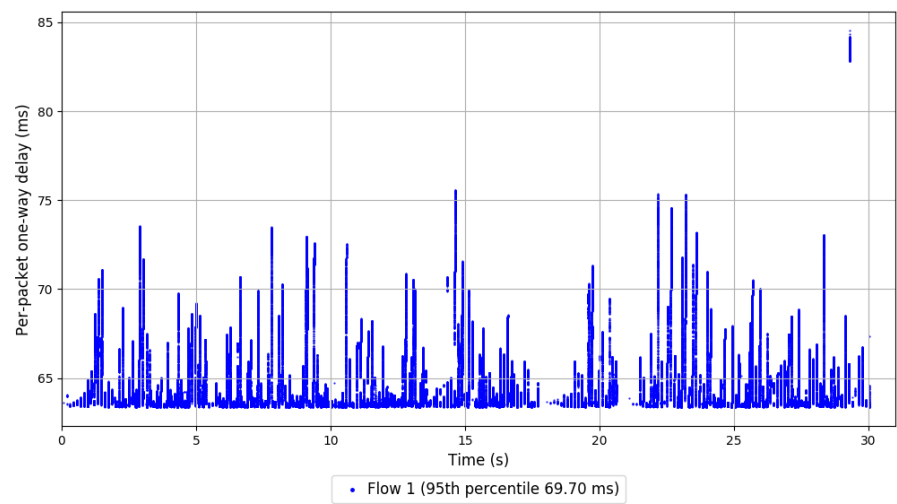
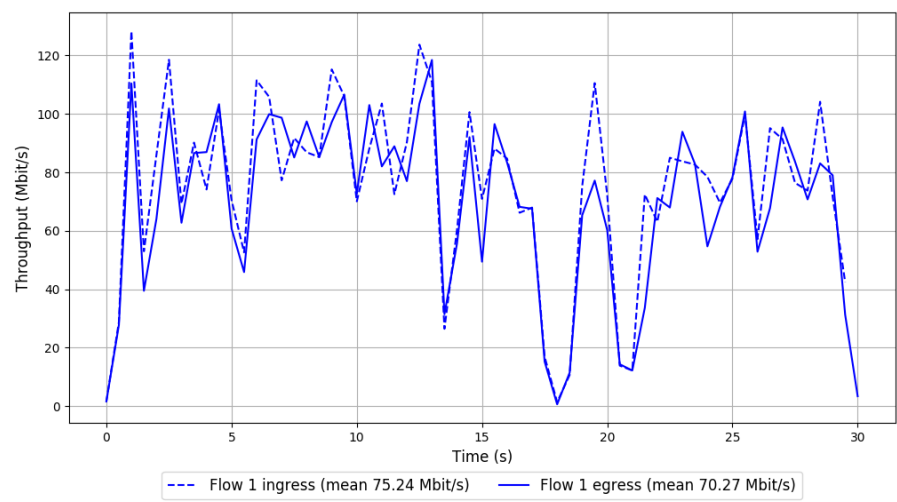
-- Flow 1:

Average throughput: 70.27 Mbit/s

95th percentile per-packet one-way delay: 69.698 ms

Loss rate: 6.60%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-11 18:46:45

End at: 2017-08-11 18:47:15

Below is generated by plot.py at 2017-08-11 19:52:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 64.017 ms

Loss rate: 24.05%

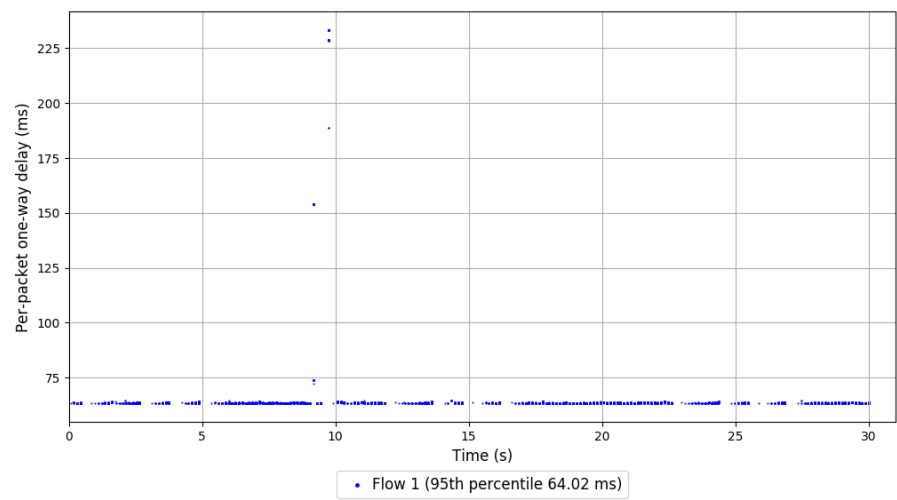
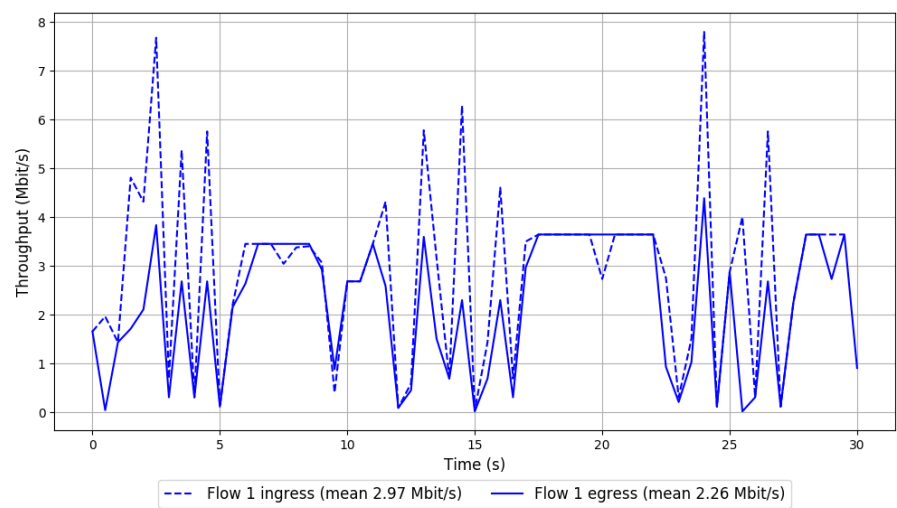
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 64.017 ms

Loss rate: 24.05%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-11 17:07:38

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

Below is generated by plot.py at 2017-08-11 19:52:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 64.588 ms

Loss rate: 69.60%

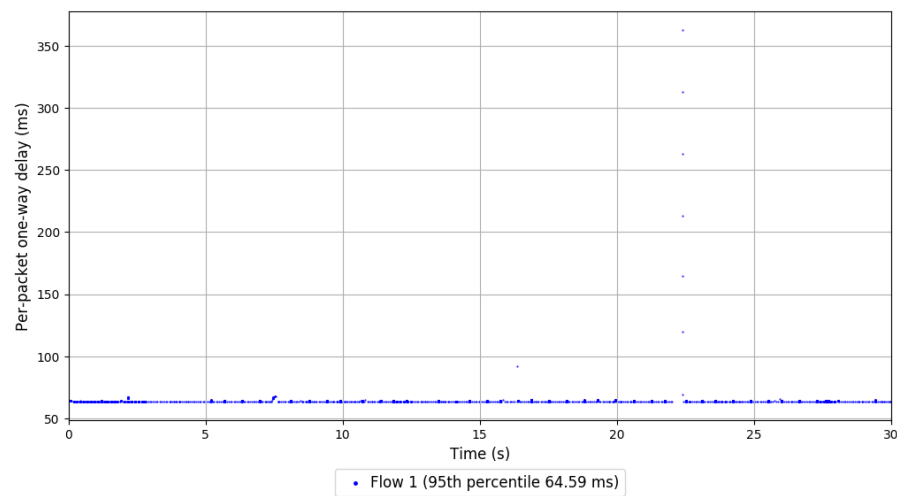
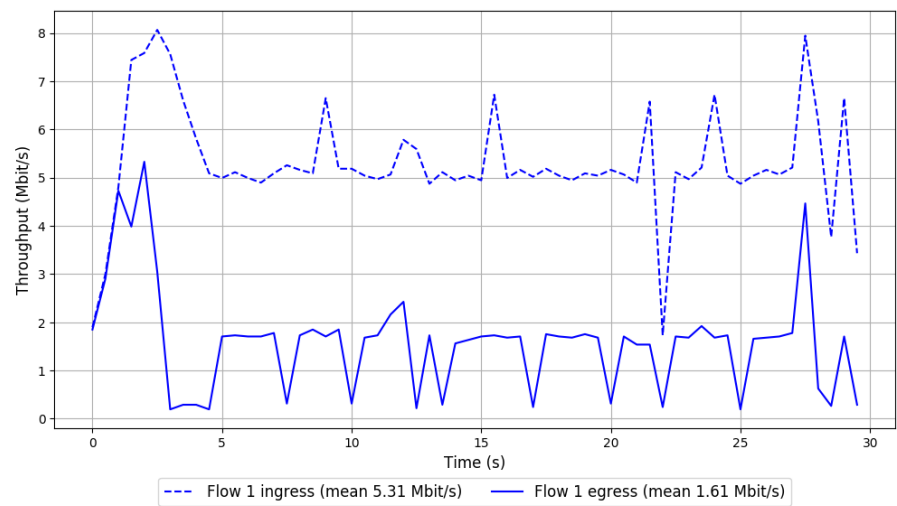
-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 64.588 ms

Loss rate: 69.60%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-11 17:17:52

End at: 2017-08-11 17:18:22

Below is generated by plot.py at 2017-08-11 19:53:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 282.65 Mbit/s

95th percentile per-packet one-way delay: 83.429 ms

Loss rate: 3.61%

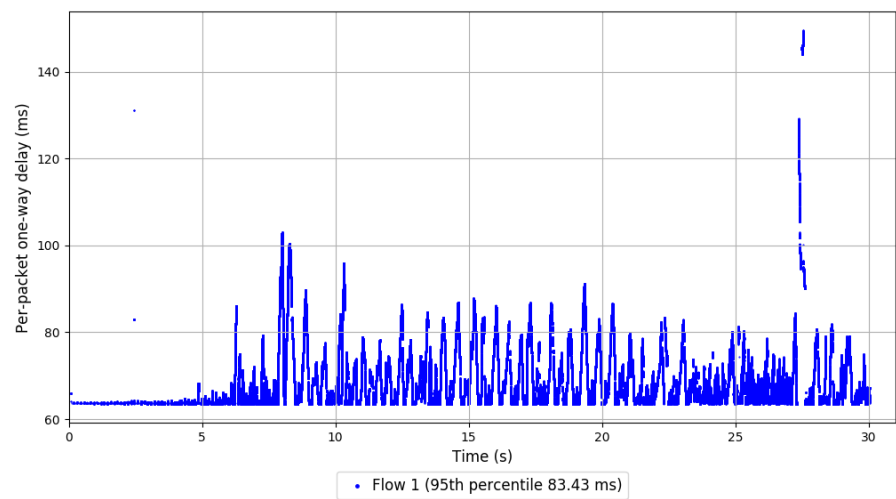
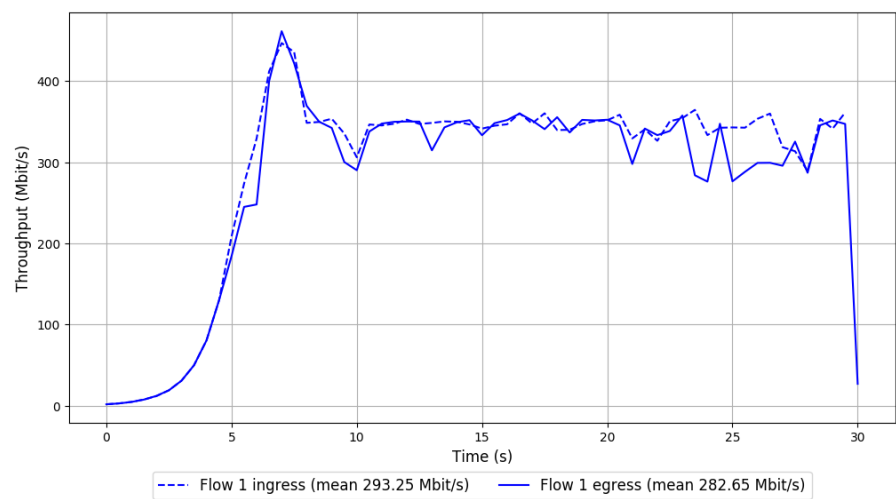
-- Flow 1:

Average throughput: 282.65 Mbit/s

95th percentile per-packet one-way delay: 83.429 ms

Loss rate: 3.61%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-11 17:28:25

End at: 2017-08-11 17:28:55

Below is generated by plot.py at 2017-08-11 19:53:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 264.50 Mbit/s

95th percentile per-packet one-way delay: 84.207 ms

Loss rate: 3.35%

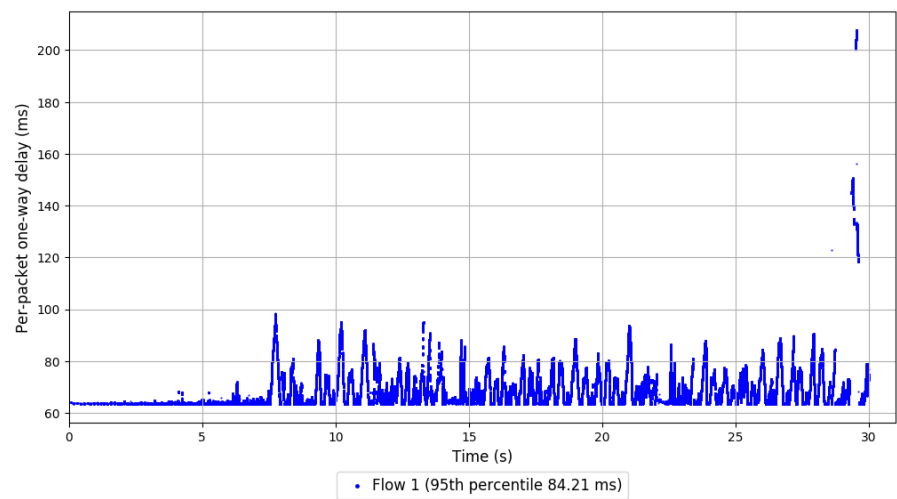
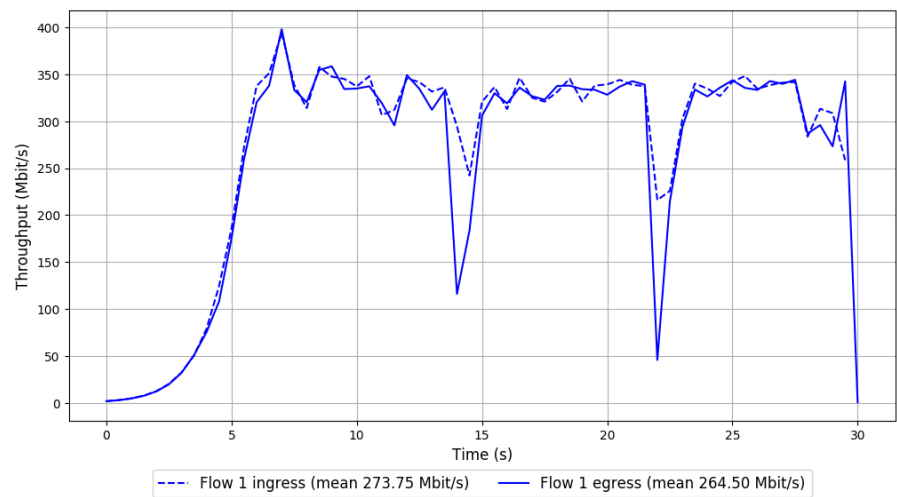
-- Flow 1:

Average throughput: 264.50 Mbit/s

95th percentile per-packet one-way delay: 84.207 ms

Loss rate: 3.35%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-11 17:38:59

End at: 2017-08-11 17:39:29

Below is generated by plot.py at 2017-08-11 19:54:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 291.69 Mbit/s

95th percentile per-packet one-way delay: 87.416 ms

Loss rate: 0.79%

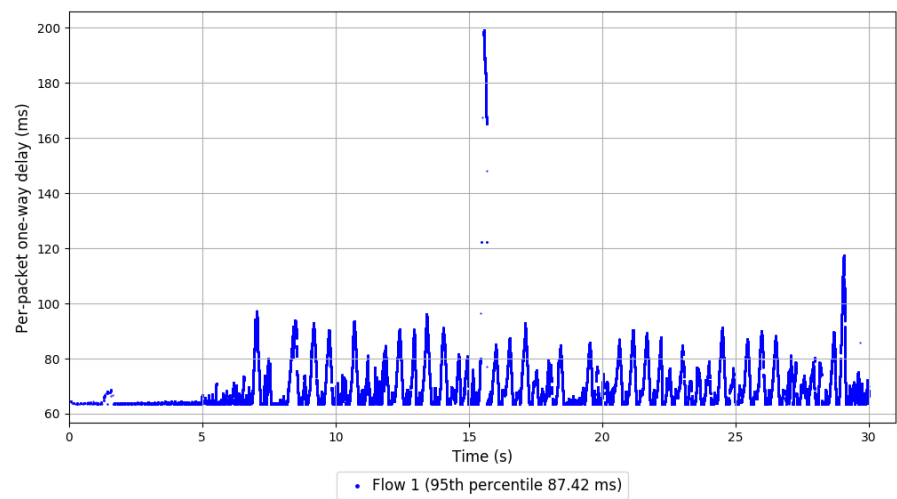
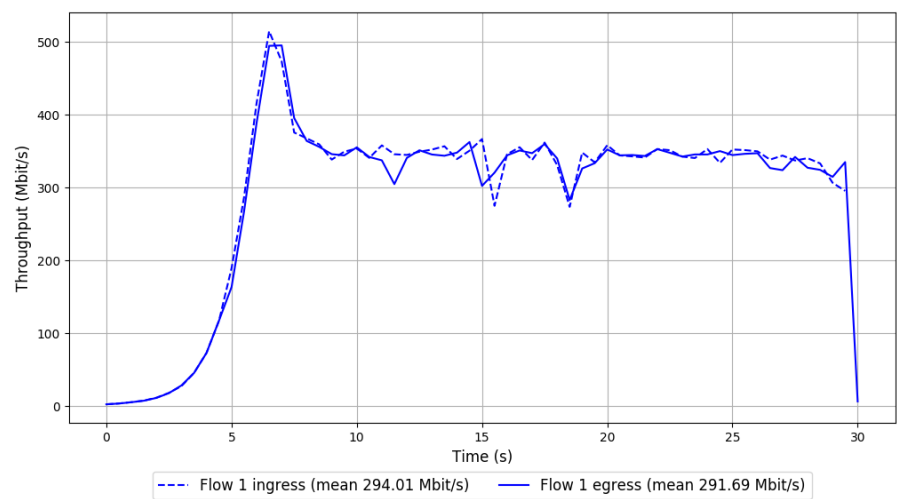
-- Flow 1:

Average throughput: 291.69 Mbit/s

95th percentile per-packet one-way delay: 87.416 ms

Loss rate: 0.79%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-11 17:49:36

End at: 2017-08-11 17:50:06

Below is generated by plot.py at 2017-08-11 19:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 247.22 Mbit/s

95th percentile per-packet one-way delay: 83.827 ms

Loss rate: 7.94%

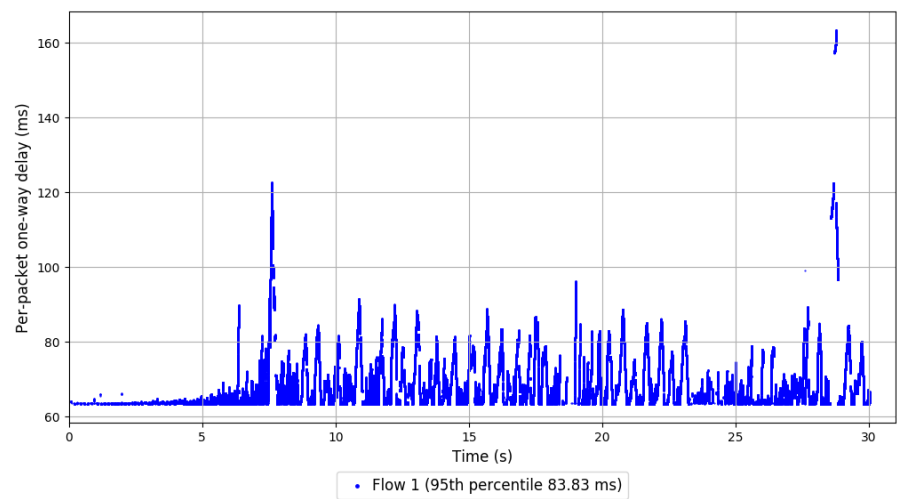
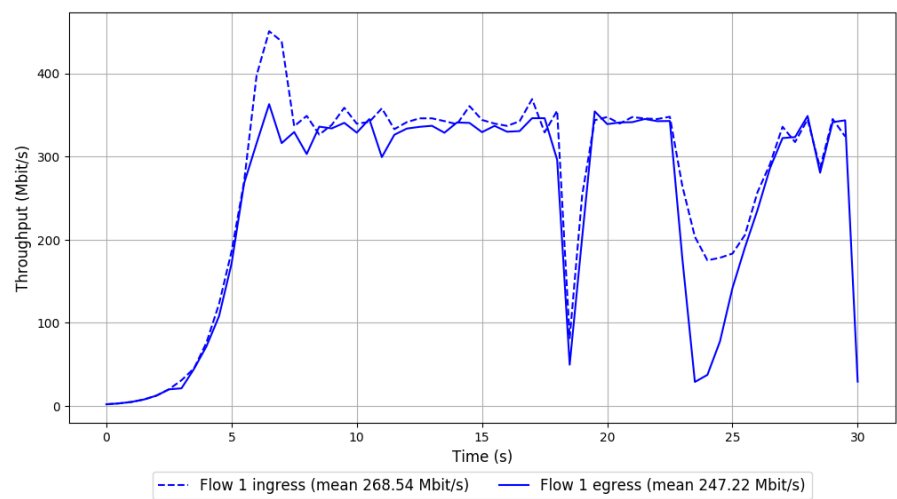
-- Flow 1:

Average throughput: 247.22 Mbit/s

95th percentile per-packet one-way delay: 83.827 ms

Loss rate: 7.94%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-11 17:59:54

End at: 2017-08-11 18:00:24

Below is generated by plot.py at 2017-08-11 19:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 64.309 ms

Loss rate: 69.52%

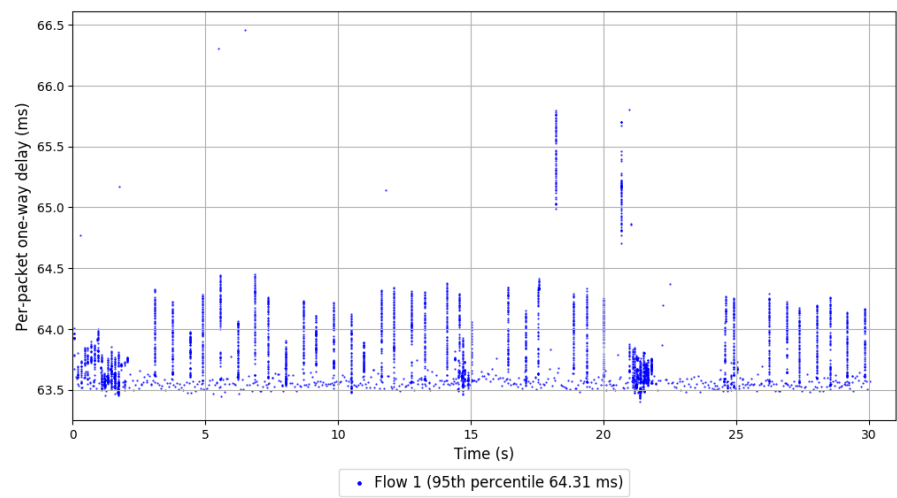
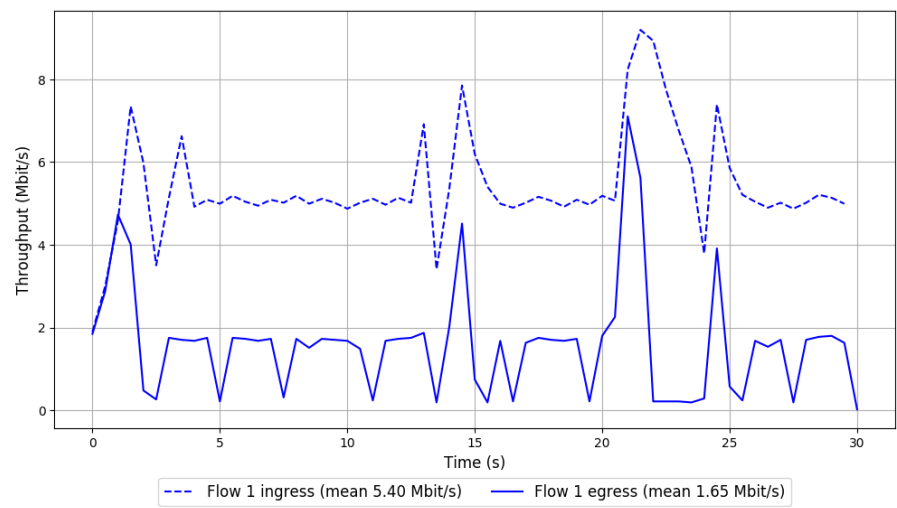
-- Flow 1:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 64.309 ms

Loss rate: 69.52%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-11 18:09:56

End at: 2017-08-11 18:10:26

Below is generated by plot.py at 2017-08-11 19:54:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 64.349 ms

Loss rate: 69.51%

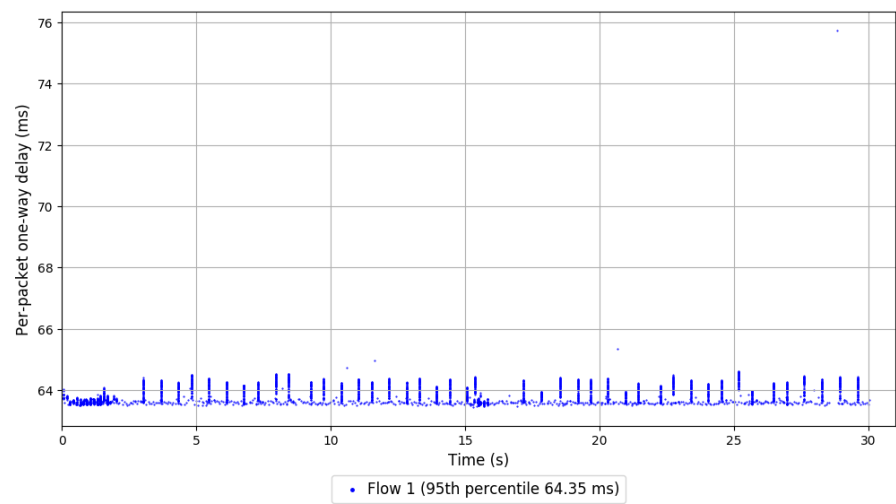
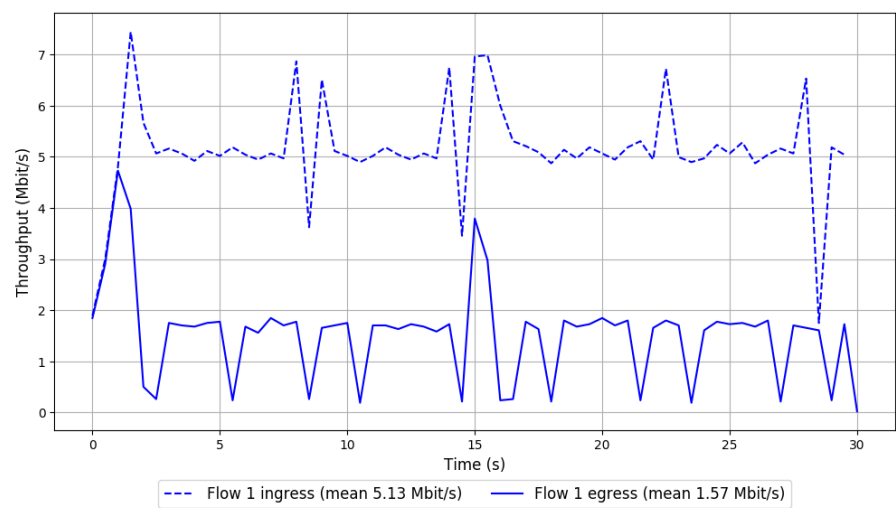
-- Flow 1:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 64.349 ms

Loss rate: 69.51%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-11 18:20:05

End at: 2017-08-11 18:20:35

Below is generated by plot.py at 2017-08-11 19:55:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 270.53 Mbit/s

95th percentile per-packet one-way delay: 83.710 ms

Loss rate: 2.32%

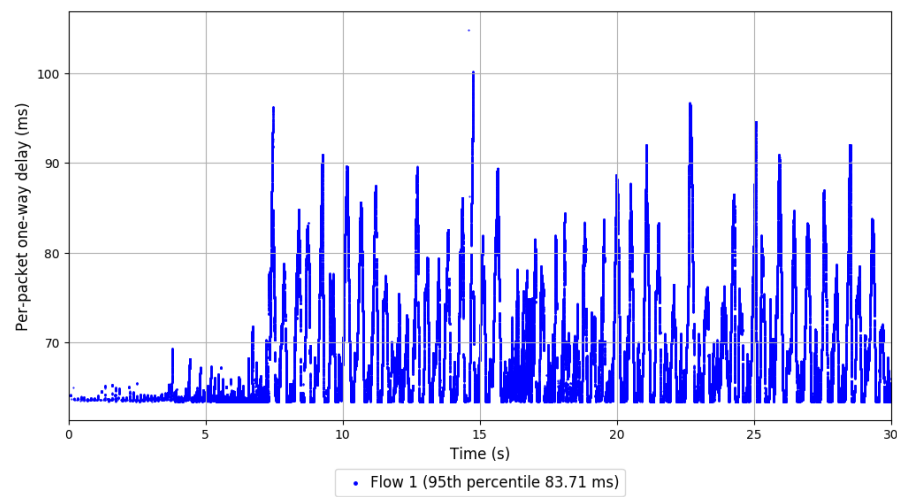
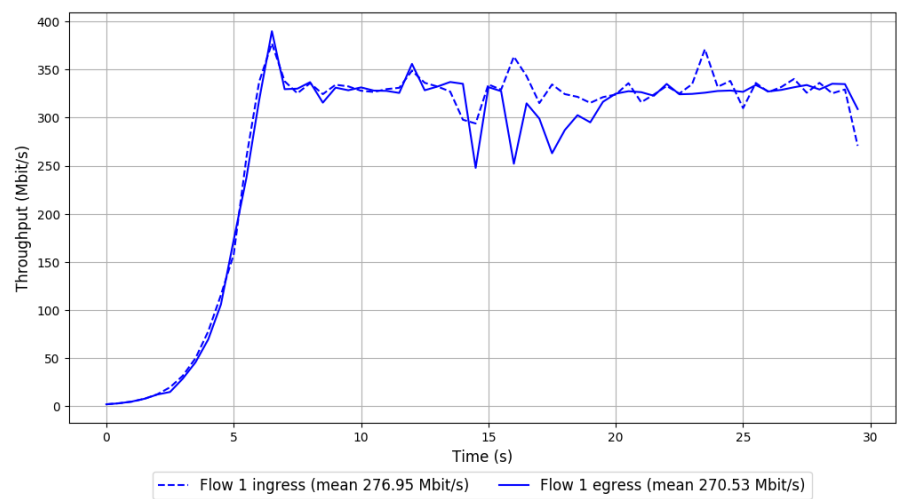
-- Flow 1:

Average throughput: 270.53 Mbit/s

95th percentile per-packet one-way delay: 83.710 ms

Loss rate: 2.32%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-11 18:30:27

End at: 2017-08-11 18:30:57

Below is generated by plot.py at 2017-08-11 19:55:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 260.16 Mbit/s

95th percentile per-packet one-way delay: 87.795 ms

Loss rate: 3.41%

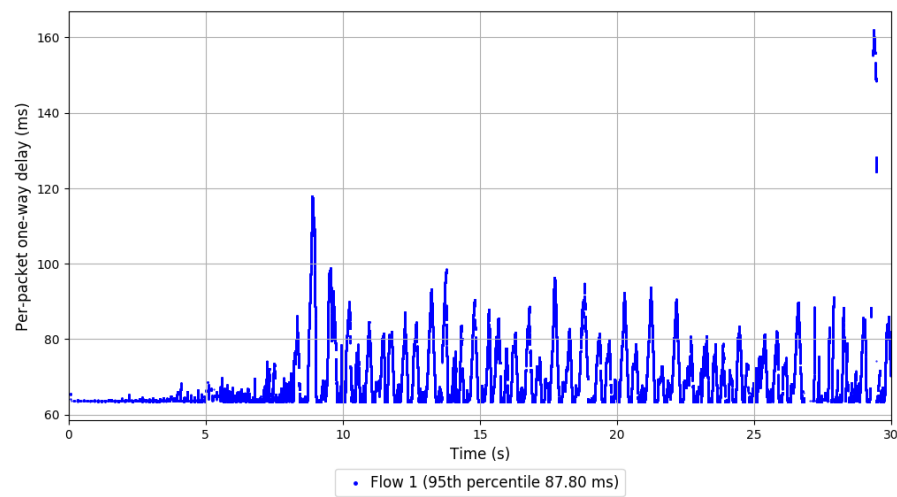
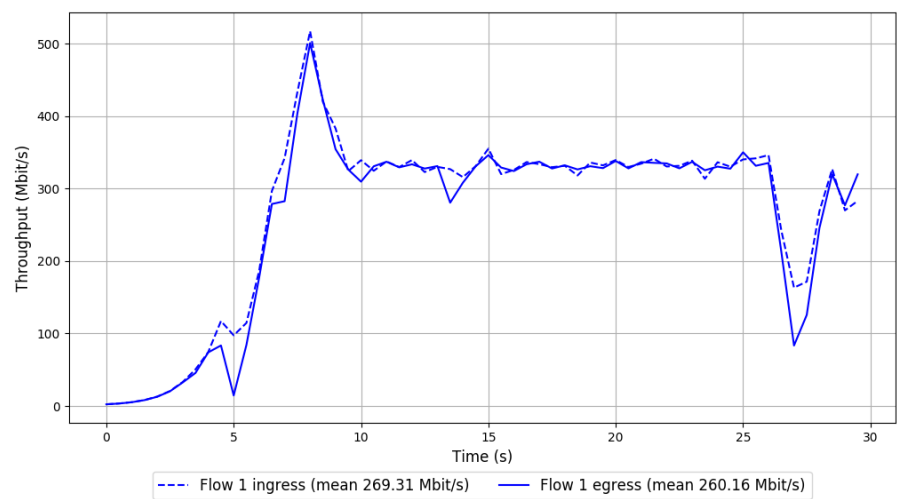
-- Flow 1:

Average throughput: 260.16 Mbit/s

95th percentile per-packet one-way delay: 87.795 ms

Loss rate: 3.41%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-11 18:40:44

End at: 2017-08-11 18:41:14

Below is generated by plot.py at 2017-08-11 19:56:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 277.36 Mbit/s

95th percentile per-packet one-way delay: 86.443 ms

Loss rate: 1.14%

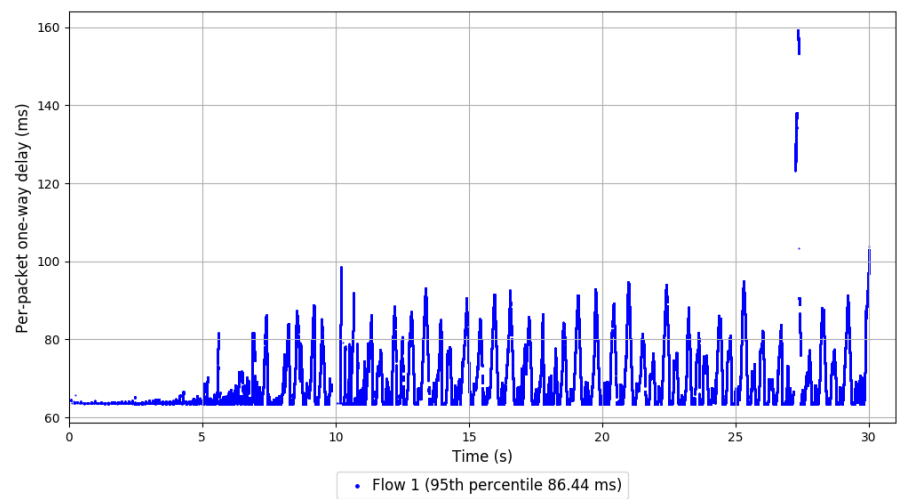
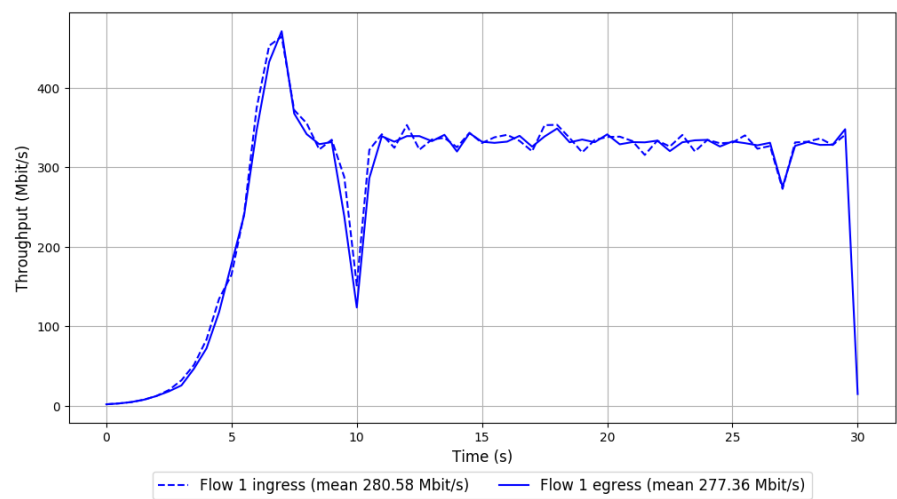
-- Flow 1:

Average throughput: 277.36 Mbit/s

95th percentile per-packet one-way delay: 86.443 ms

Loss rate: 1.14%

Run 10: Report of CalibratedKoho — Data Link

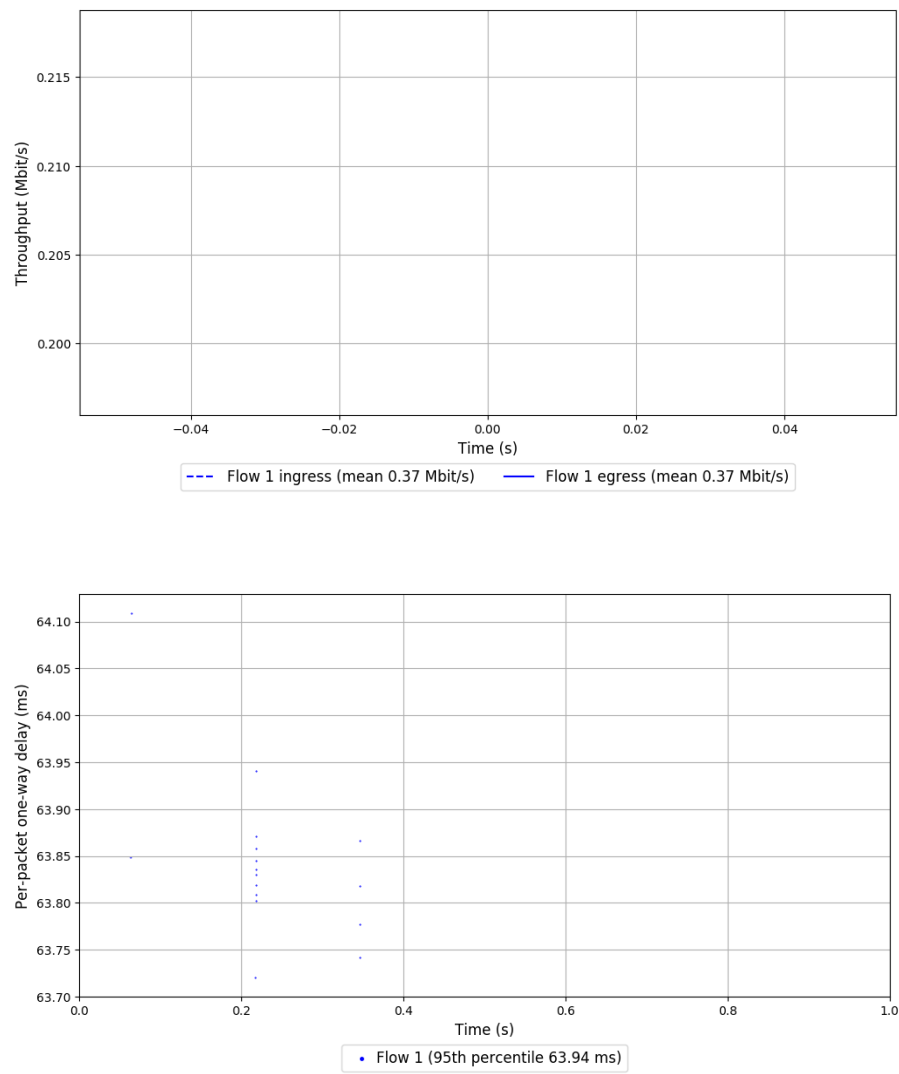


Run 1: Statistics of Copa

Start at: 2017-08-11 17:10:19

End at: 2017-08-11 17:10:49

Run 1: Report of Copa — Data Link

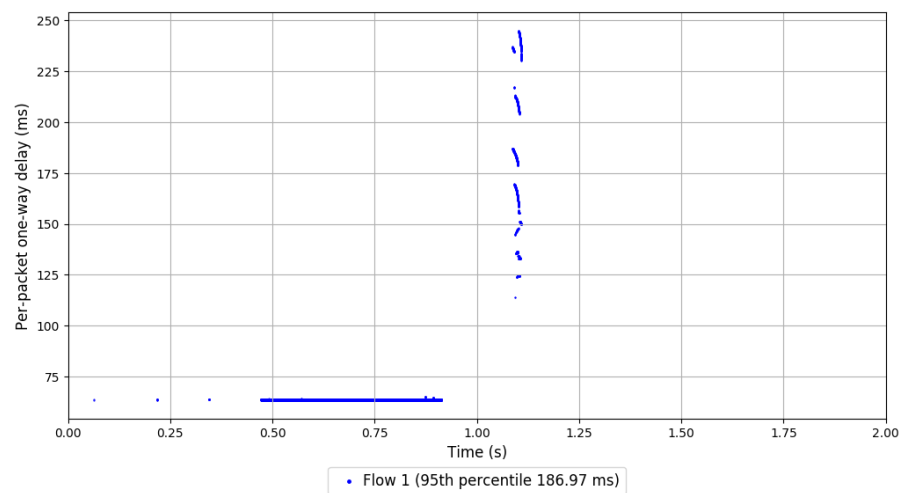
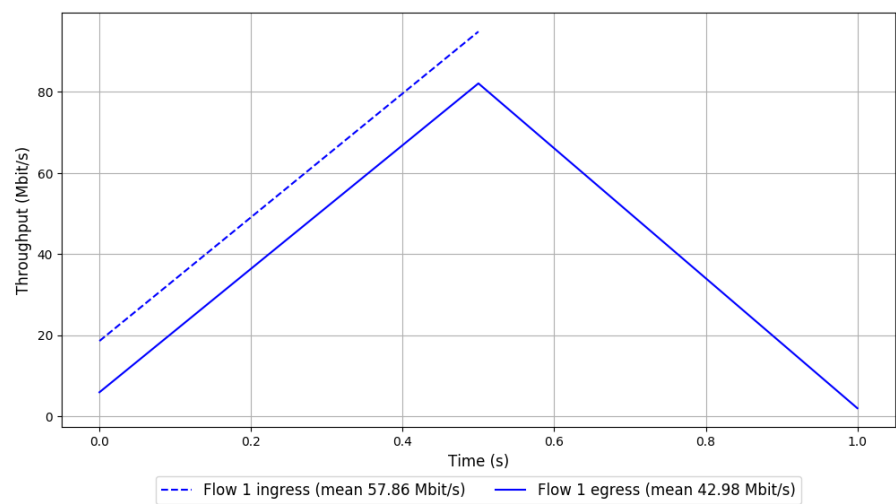


Run 2: Statistics of Copa

Start at: 2017-08-11 17:20:53

End at: 2017-08-11 17:21:23

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-11 17:31:23

End at: 2017-08-11 17:31:53

Below is generated by plot.py at 2017-08-11 19:56:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.42 Mbit/s

95th percentile per-packet one-way delay: 63.600 ms

Loss rate: 0.00%

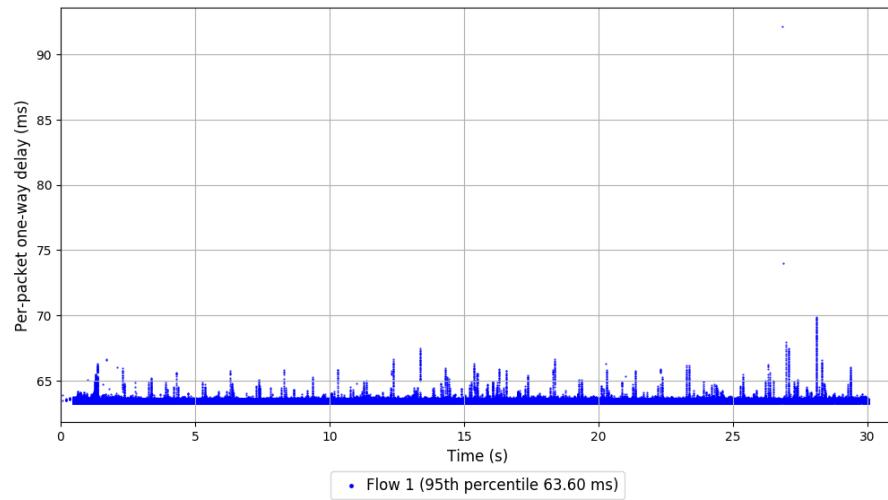
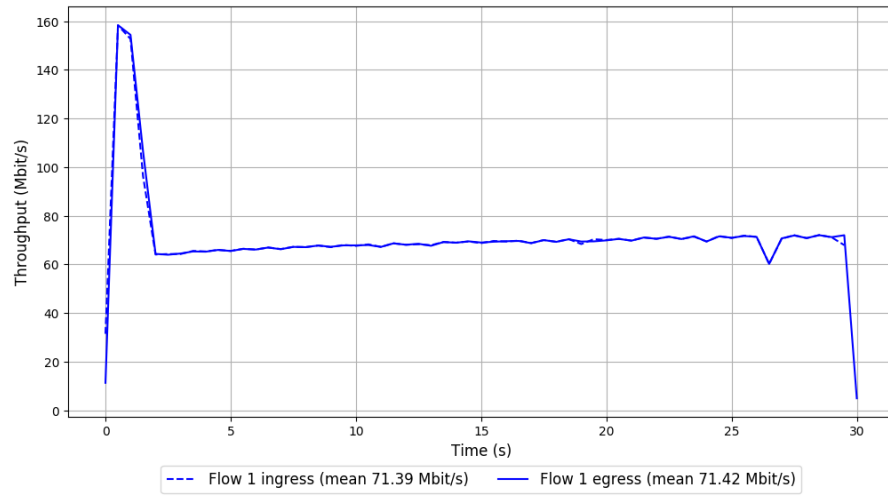
-- Flow 1:

Average throughput: 71.42 Mbit/s

95th percentile per-packet one-way delay: 63.600 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-11 17:41:52

End at: 2017-08-11 17:42:22

Below is generated by plot.py at 2017-08-11 19:56:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 124.57 Mbit/s

95th percentile per-packet one-way delay: 63.520 ms

Loss rate: 0.06%

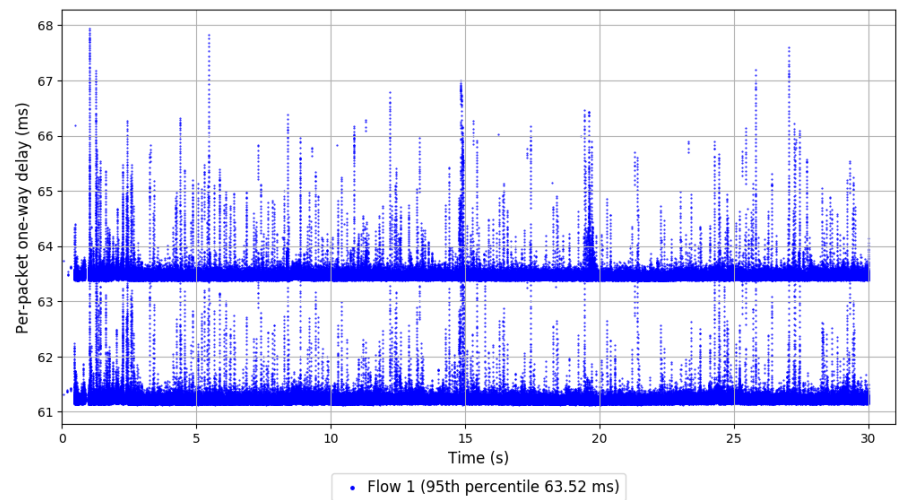
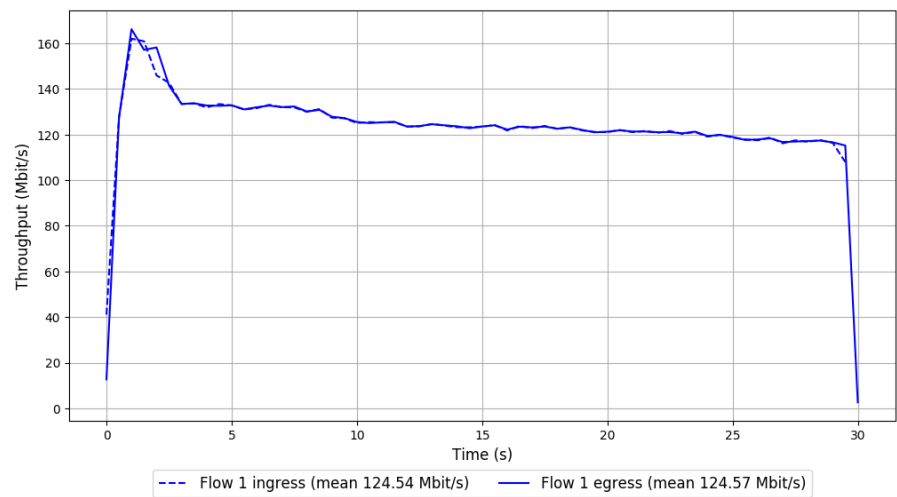
-- Flow 1:

Average throughput: 124.57 Mbit/s

95th percentile per-packet one-way delay: 63.520 ms

Loss rate: 0.06%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-11 17:52:28

End at: 2017-08-11 17:52:58

Below is generated by plot.py at 2017-08-11 19:57:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.59 Mbit/s

95th percentile per-packet one-way delay: 63.535 ms

Loss rate: 0.38%

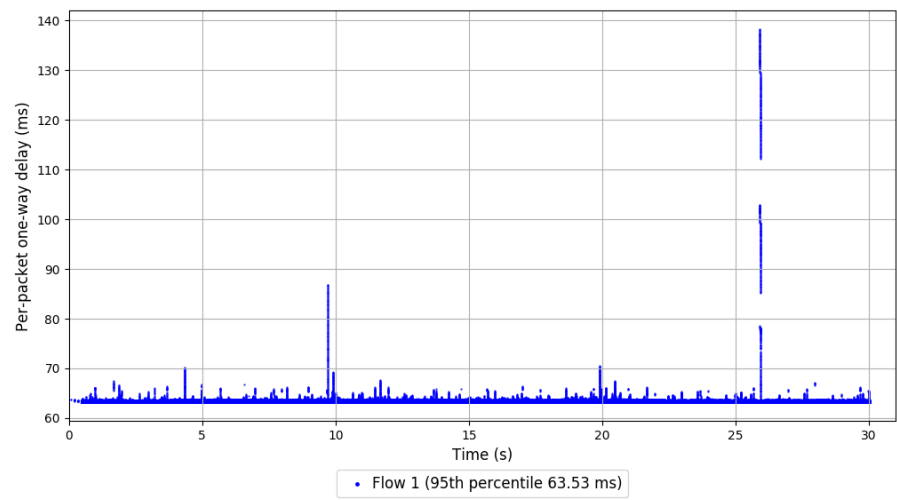
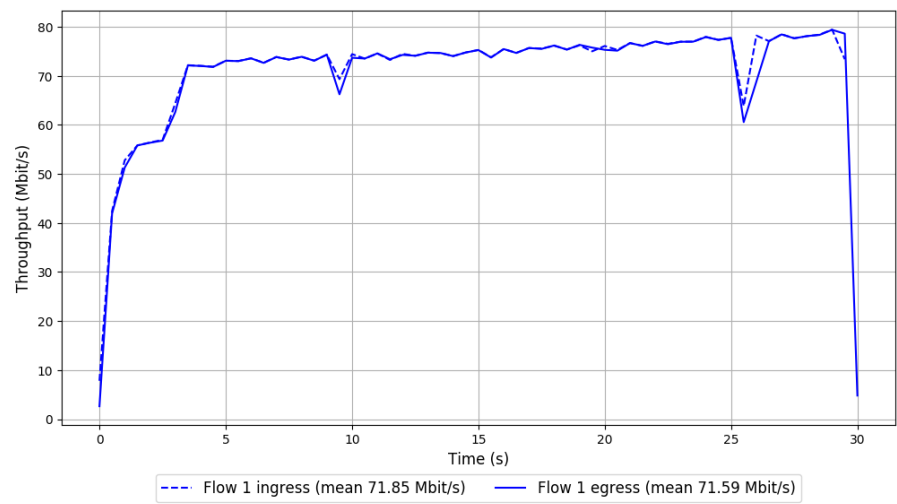
-- Flow 1:

Average throughput: 71.59 Mbit/s

95th percentile per-packet one-way delay: 63.535 ms

Loss rate: 0.38%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-11 18:02:26

End at: 2017-08-11 18:02:56

Below is generated by plot.py at 2017-08-11 19:57:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.93 Mbit/s

95th percentile per-packet one-way delay: 63.663 ms

Loss rate: 0.55%

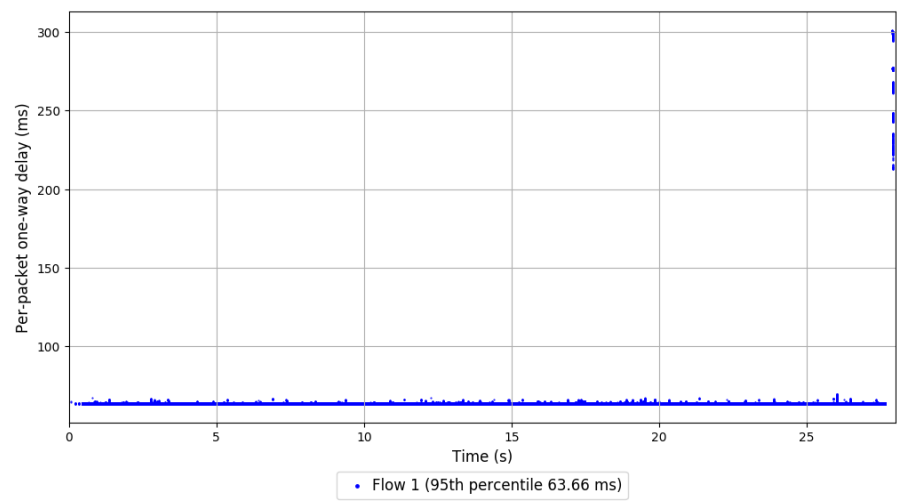
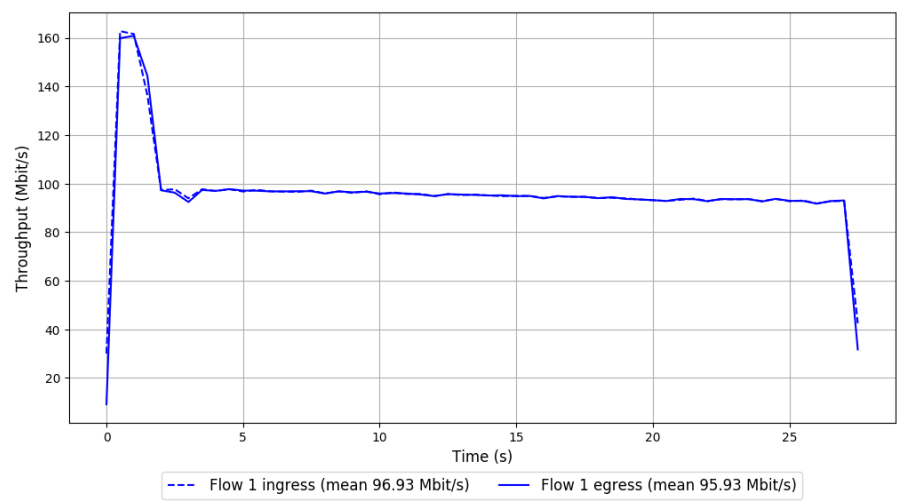
-- Flow 1:

Average throughput: 95.93 Mbit/s

95th percentile per-packet one-way delay: 63.663 ms

Loss rate: 0.55%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-11 18:12:34

End at: 2017-08-11 18:13:04

Below is generated by plot.py at 2017-08-11 19:57:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.26 Mbit/s

95th percentile per-packet one-way delay: 63.640 ms

Loss rate: 26.44%

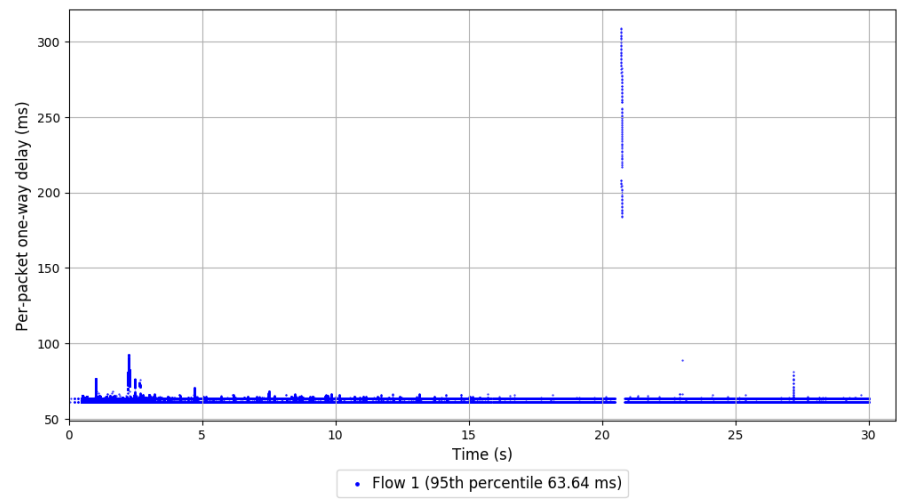
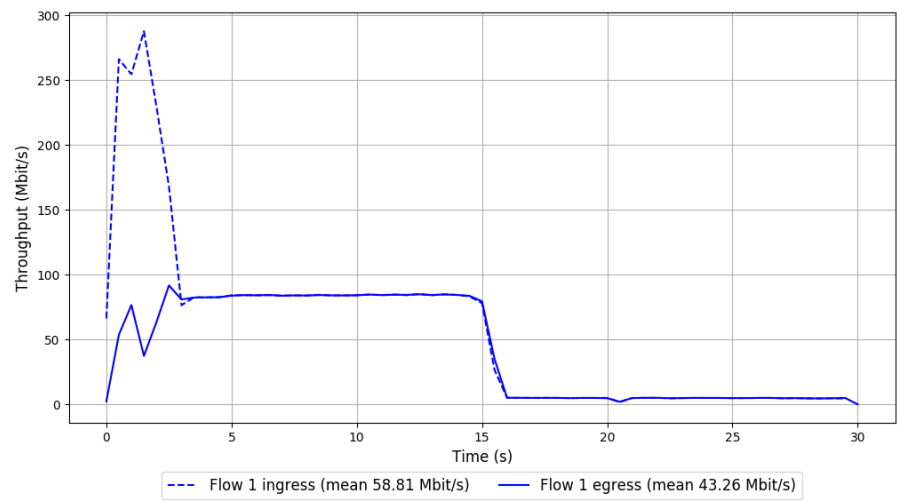
-- Flow 1:

Average throughput: 43.26 Mbit/s

95th percentile per-packet one-way delay: 63.640 ms

Loss rate: 26.44%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-11 18:22:54

End at: 2017-08-11 18:23:24

Below is generated by plot.py at 2017-08-11 19:57:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.01 Mbit/s

95th percentile per-packet one-way delay: 63.573 ms

Loss rate: 0.00%

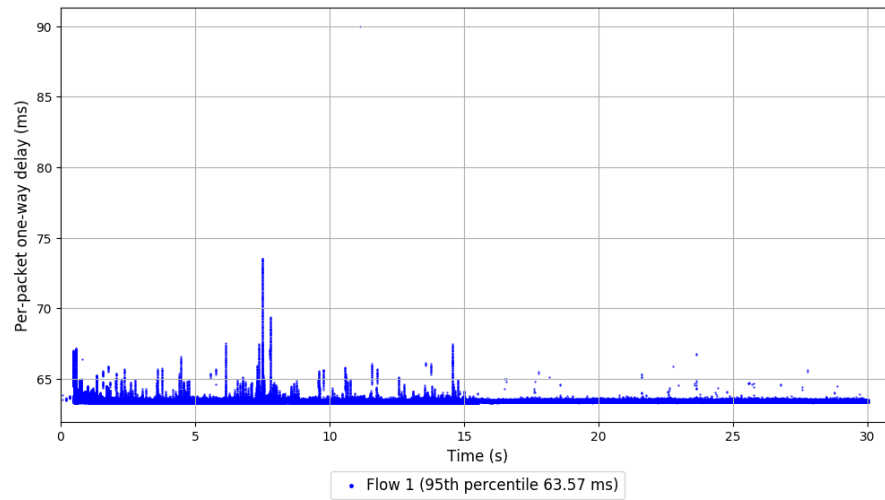
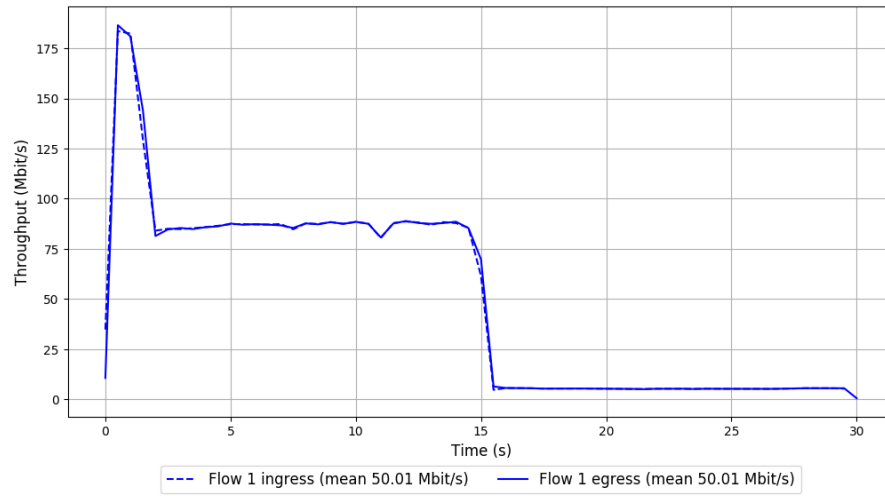
-- Flow 1:

Average throughput: 50.01 Mbit/s

95th percentile per-packet one-way delay: 63.573 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link

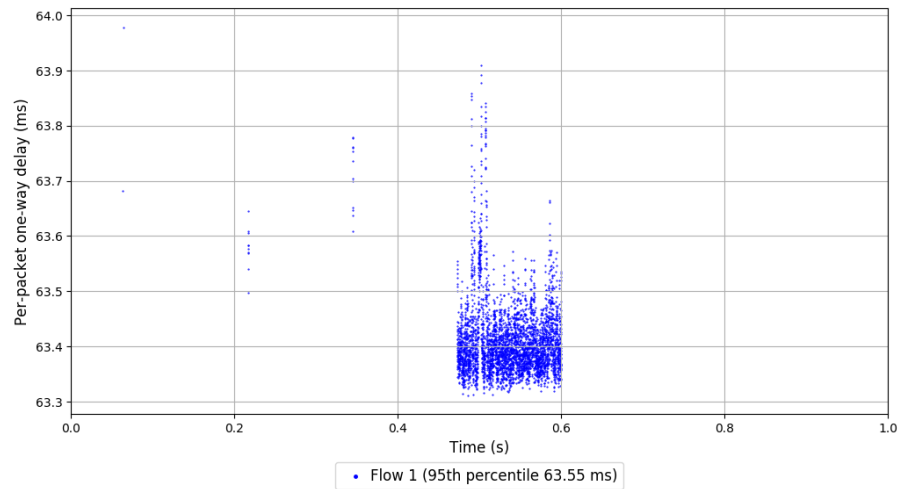
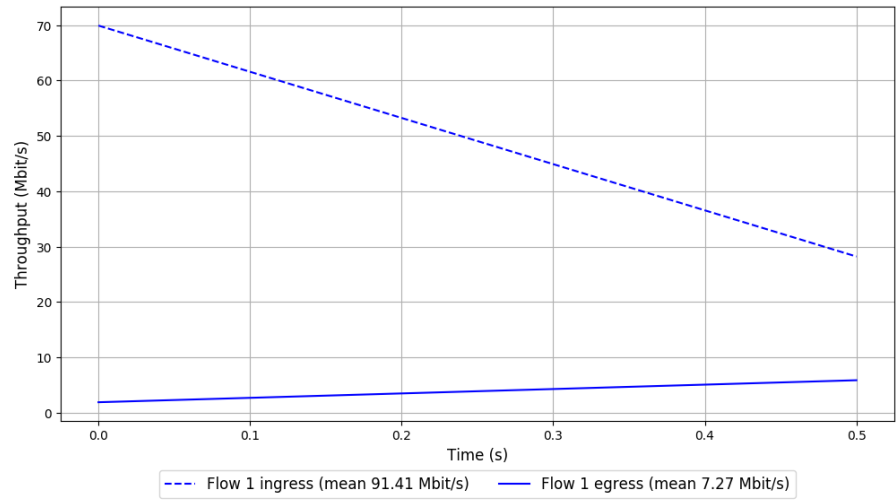


Run 9: Statistics of Copa

Start at: 2017-08-11 18:33:26

End at: 2017-08-11 18:33:56

Run 9: Report of Copa — Data Link

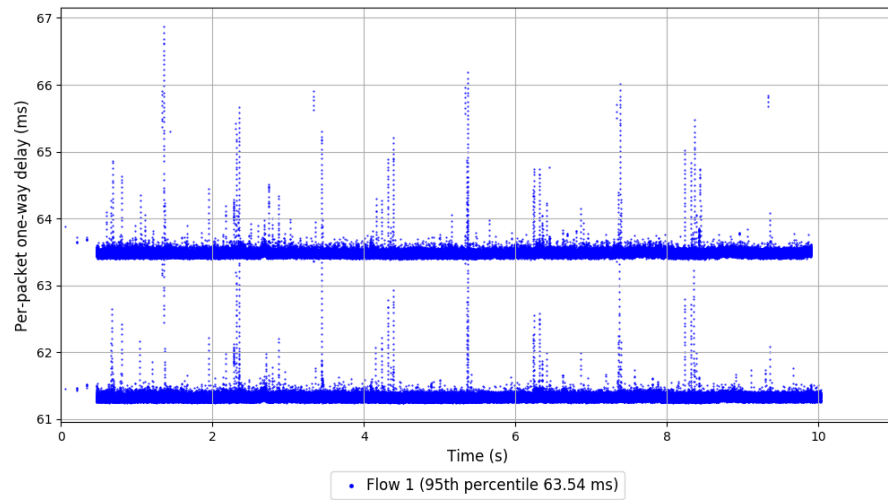
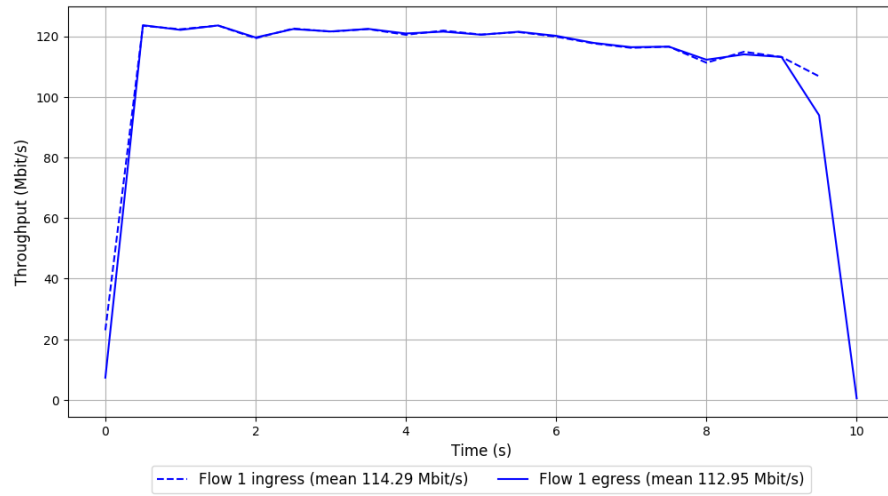


Run 10: Statistics of Copa

Start at: 2017-08-11 18:43:44

End at: 2017-08-11 18:44:14

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-11 17:15:35

End at: 2017-08-11 17:16:05

Below is generated by plot.py at 2017-08-11 19:57:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.66 Mbit/s

95th percentile per-packet one-way delay: 63.833 ms

Loss rate: 2.71%

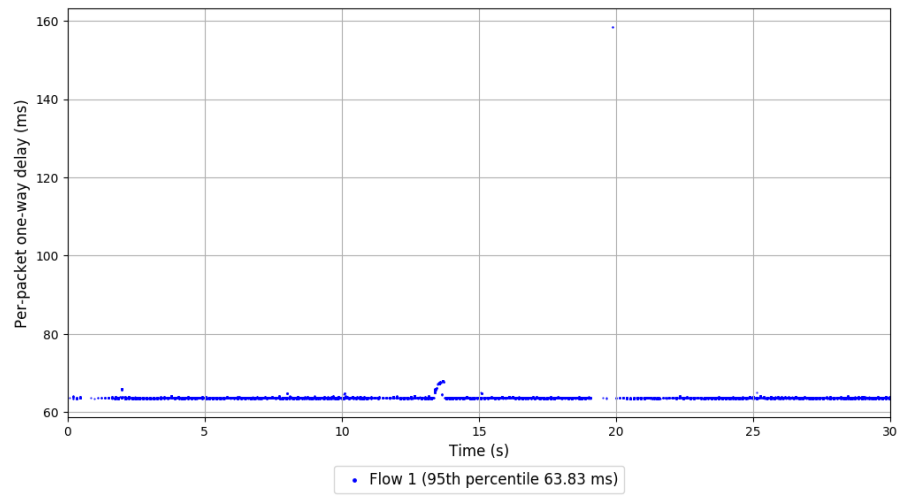
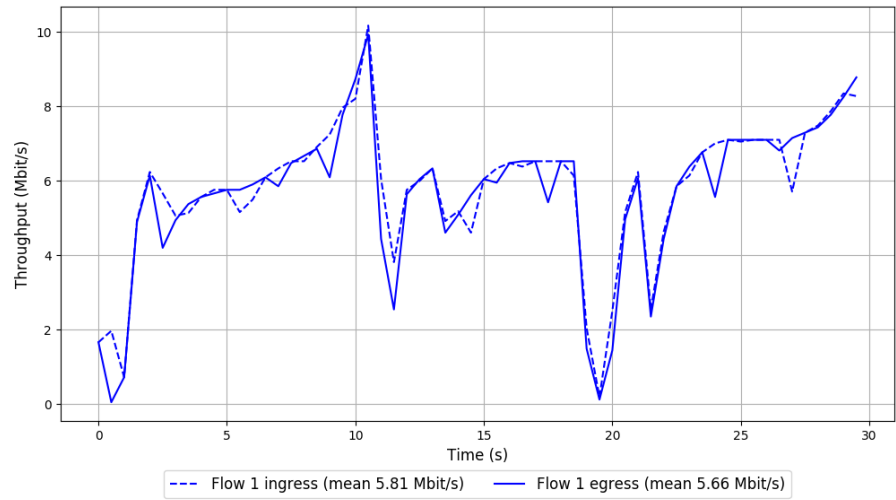
-- Flow 1:

Average throughput: 5.66 Mbit/s

95th percentile per-packet one-way delay: 63.833 ms

Loss rate: 2.71%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-11 17:26:23

End at: 2017-08-11 17:26:53

Below is generated by plot.py at 2017-08-11 19:57:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.63 Mbit/s

95th percentile per-packet one-way delay: 63.915 ms

Loss rate: 0.85%

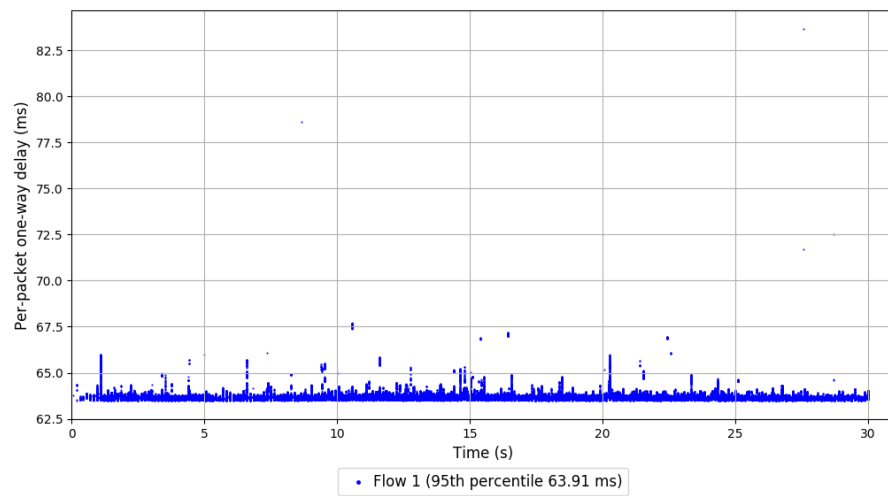
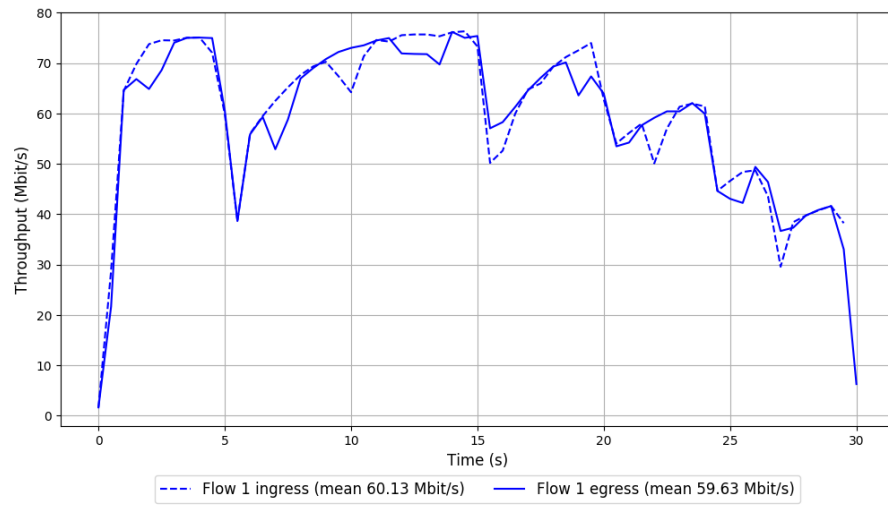
-- Flow 1:

Average throughput: 59.63 Mbit/s

95th percentile per-packet one-way delay: 63.915 ms

Loss rate: 0.85%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-11 17:37:02

End at: 2017-08-11 17:37:32

Below is generated by plot.py at 2017-08-11 19:57:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 63.738 ms

Loss rate: 2.16%

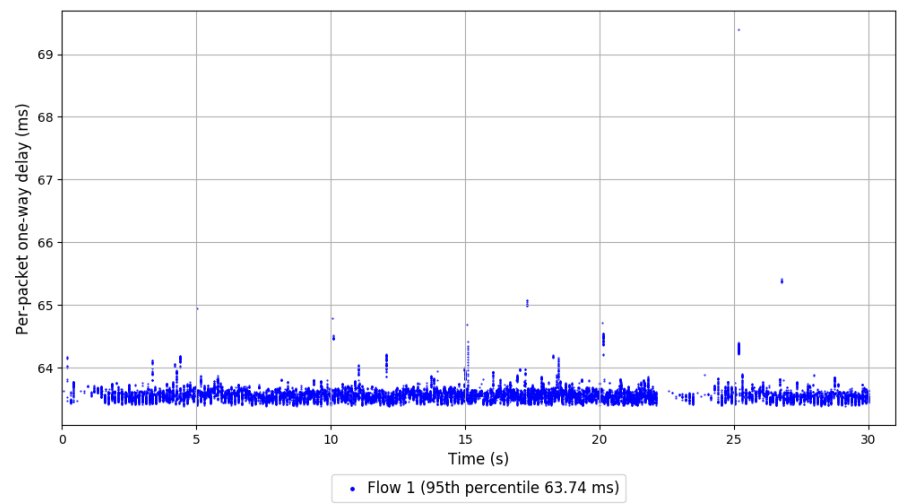
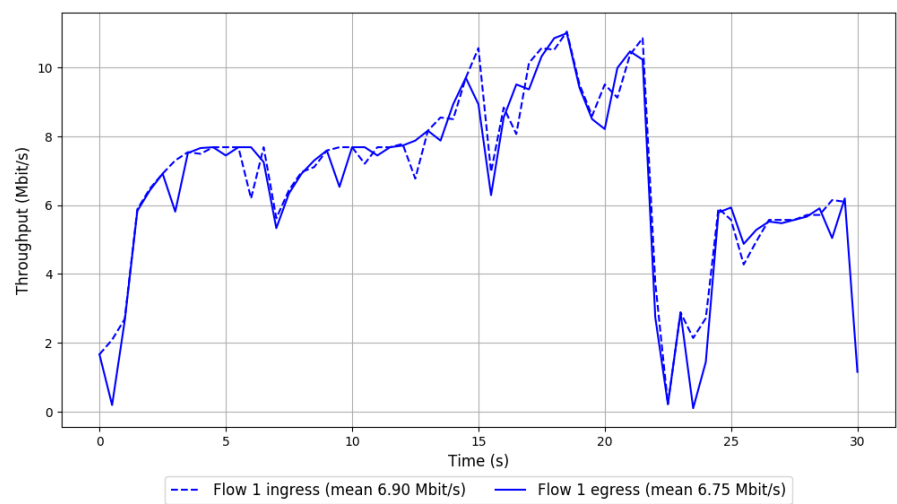
-- Flow 1:

Average throughput: 6.75 Mbit/s

95th percentile per-packet one-way delay: 63.738 ms

Loss rate: 2.16%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-11 17:47:29

End at: 2017-08-11 17:47:59

Below is generated by plot.py at 2017-08-11 19:57:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.71 Mbit/s

95th percentile per-packet one-way delay: 64.305 ms

Loss rate: 1.36%

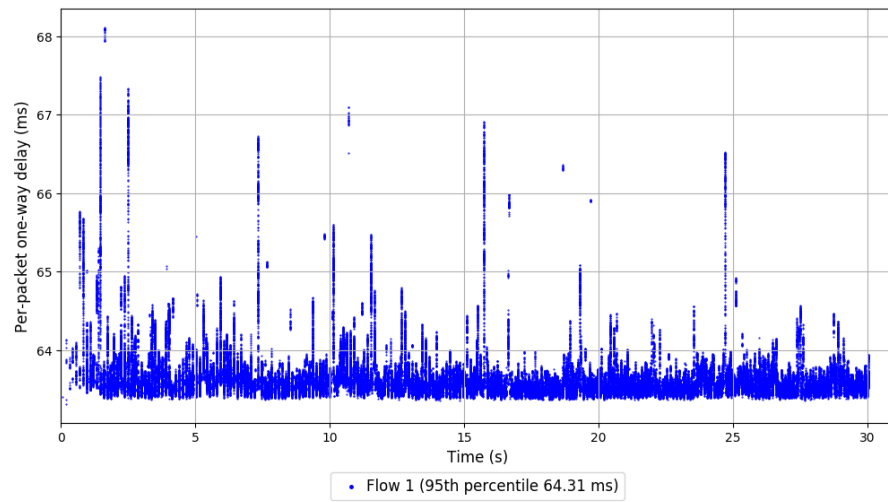
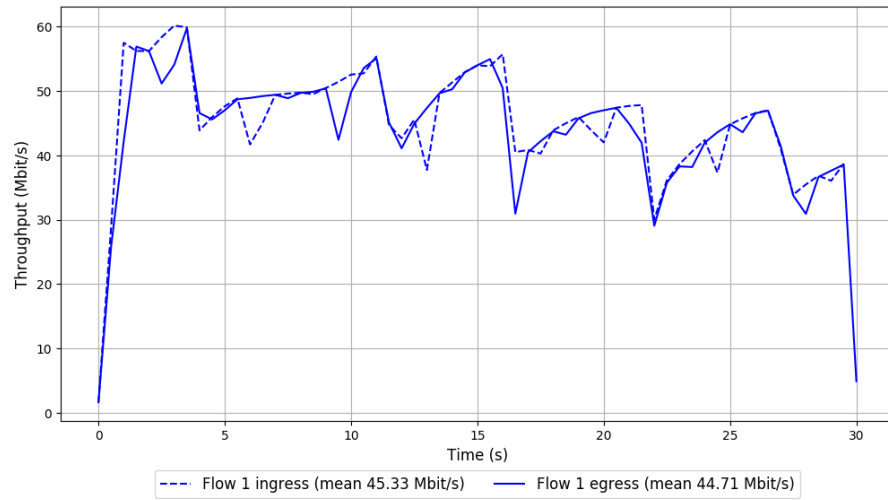
-- Flow 1:

Average throughput: 44.71 Mbit/s

95th percentile per-packet one-way delay: 64.305 ms

Loss rate: 1.36%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-11 17:57:50

End at: 2017-08-11 17:58:20

Below is generated by plot.py at 2017-08-11 19:58:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.61 Mbit/s

95th percentile per-packet one-way delay: 62.377 ms

Loss rate: 0.17%

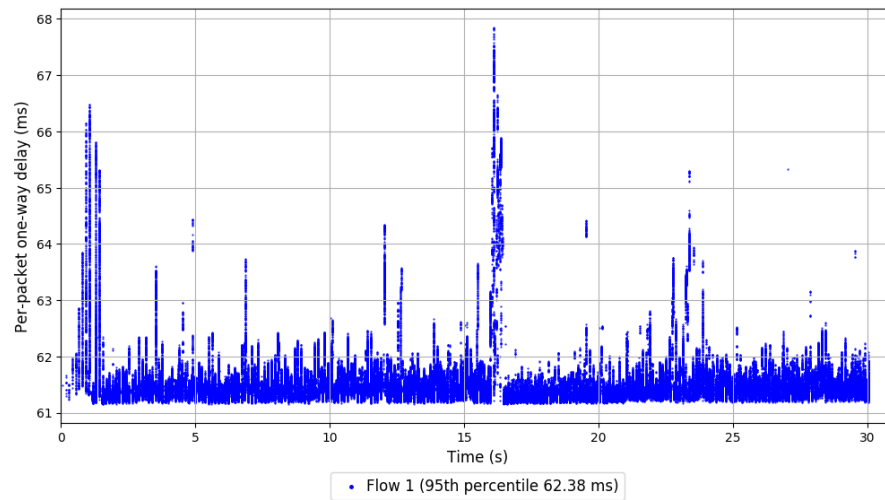
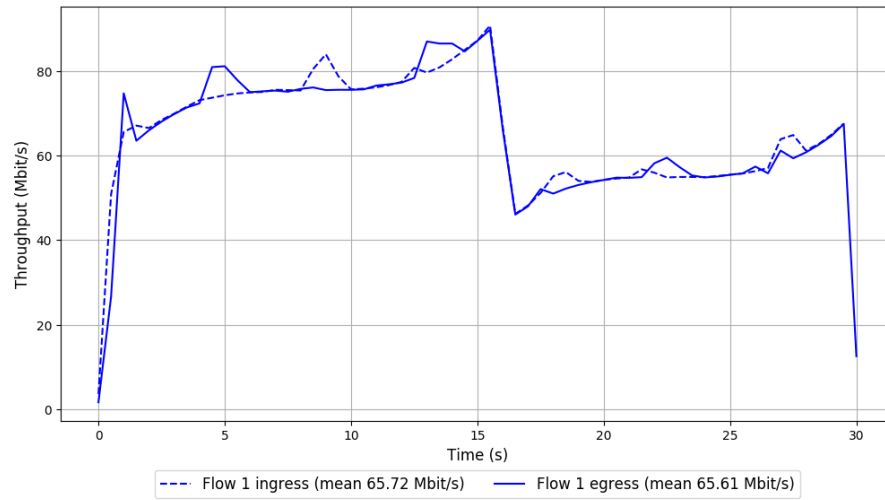
-- Flow 1:

Average throughput: 65.61 Mbit/s

95th percentile per-packet one-way delay: 62.377 ms

Loss rate: 0.17%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-11 18:07:58

End at: 2017-08-11 18:08:28

Below is generated by plot.py at 2017-08-11 19:58:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.32 Mbit/s

95th percentile per-packet one-way delay: 63.873 ms

Loss rate: 2.64%

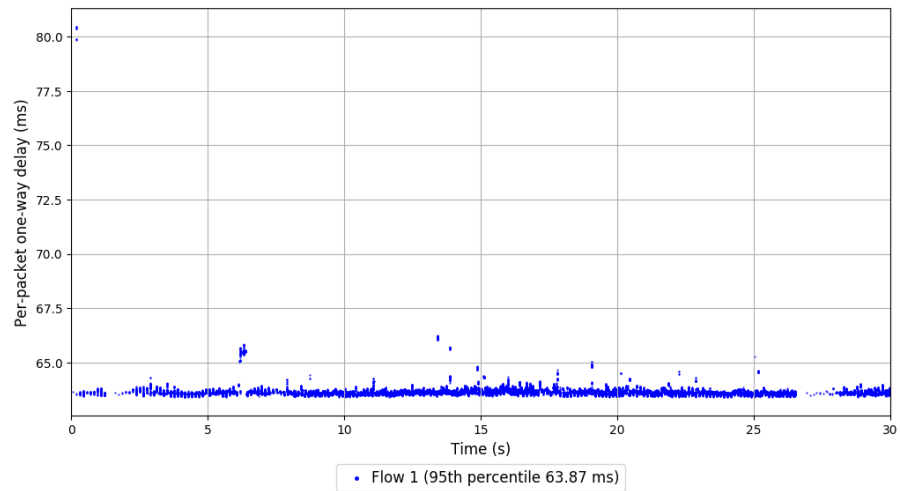
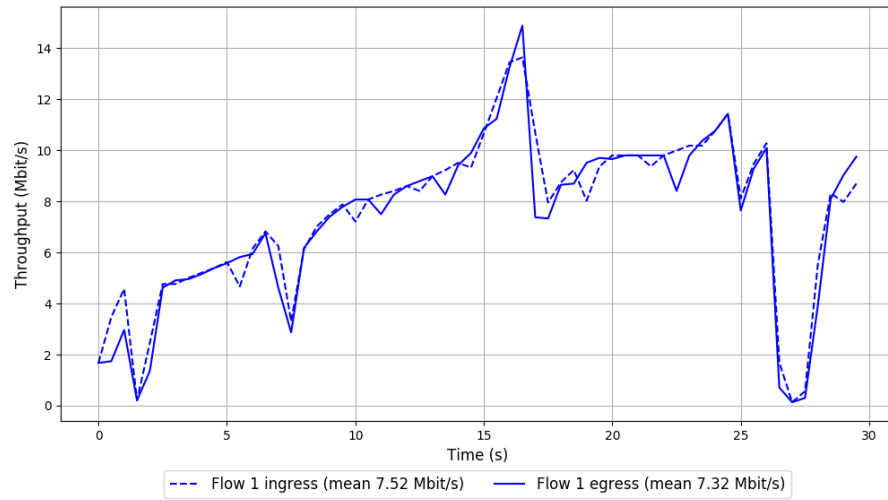
-- Flow 1:

Average throughput: 7.32 Mbit/s

95th percentile per-packet one-way delay: 63.873 ms

Loss rate: 2.64%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-11 18:18:09

End at: 2017-08-11 18:18:39

Below is generated by plot.py at 2017-08-11 19:58:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.86 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 1.71%

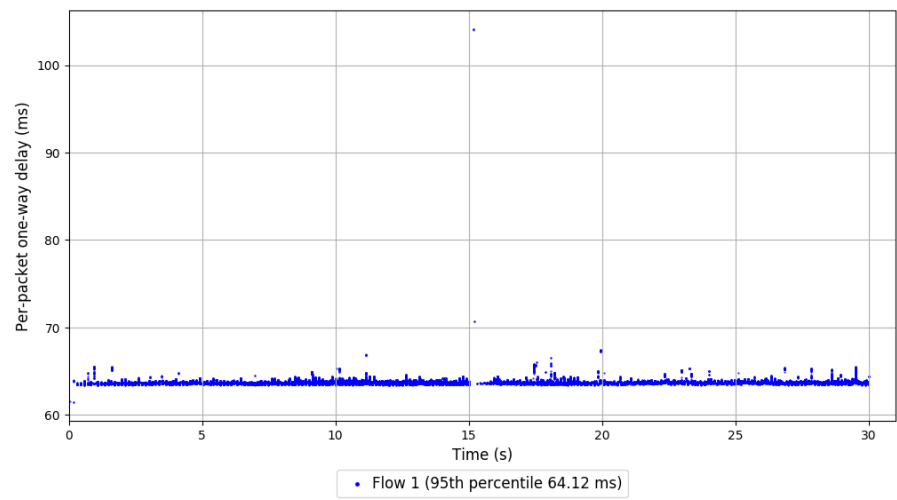
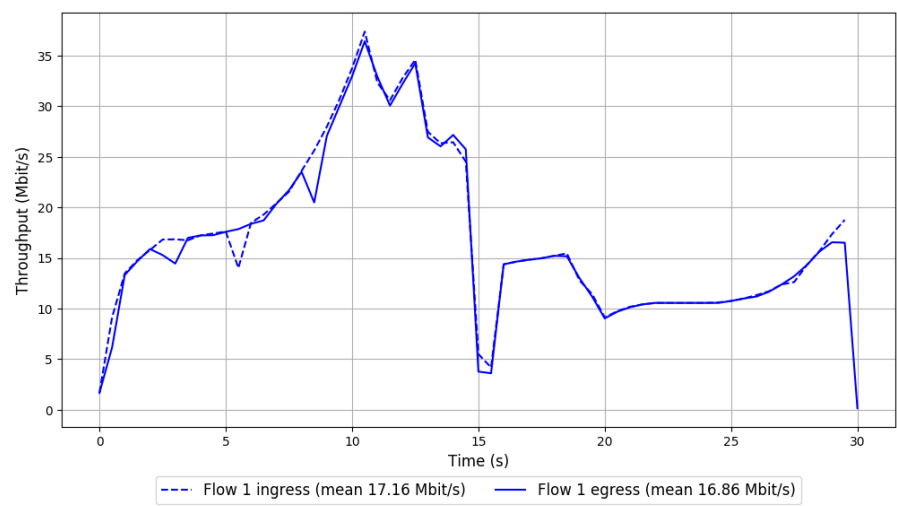
-- Flow 1:

Average throughput: 16.86 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 1.71%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-11 18:28:30

End at: 2017-08-11 18:29:00

Below is generated by plot.py at 2017-08-11 19:58:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.82 Mbit/s

95th percentile per-packet one-way delay: 64.167 ms

Loss rate: 2.02%

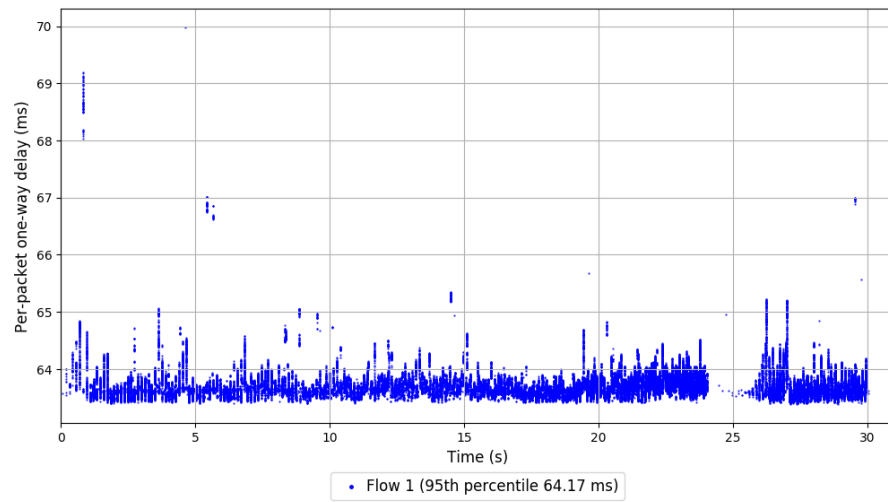
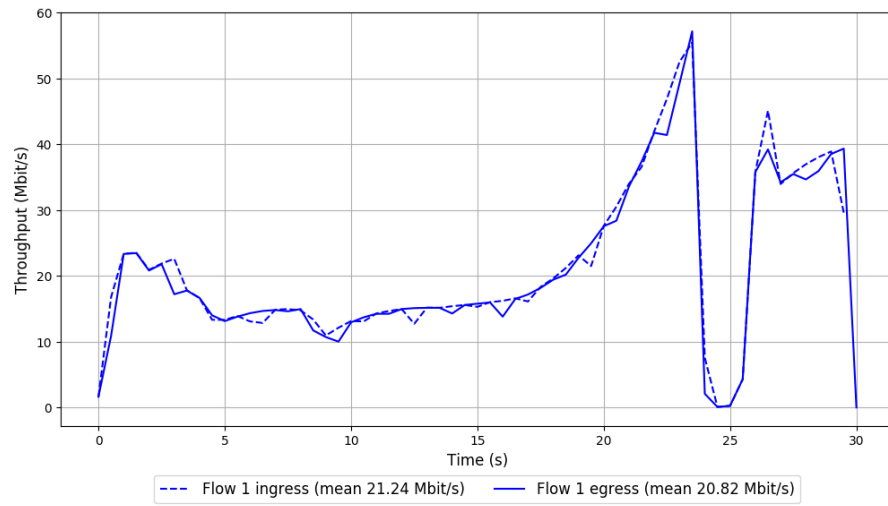
-- Flow 1:

Average throughput: 20.82 Mbit/s

95th percentile per-packet one-way delay: 64.167 ms

Loss rate: 2.02%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-11 18:38:44

End at: 2017-08-11 18:39:14

Below is generated by plot.py at 2017-08-11 19:58:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.38 Mbit/s

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

Loss rate: 1.68%

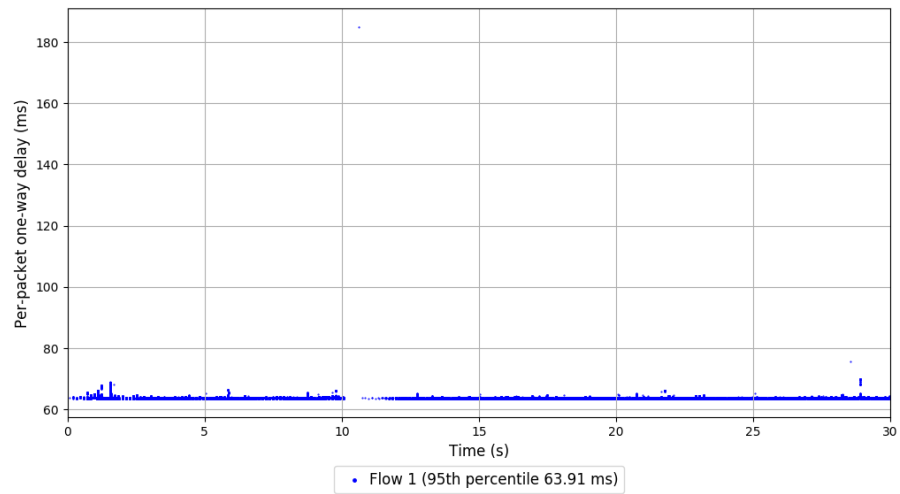
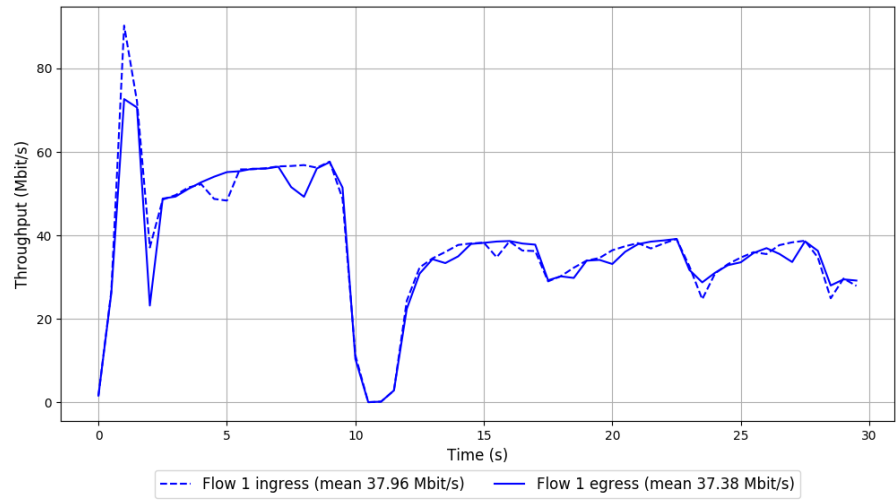
-- Flow 1:

Average throughput: 37.38 Mbit/s

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

Loss rate: 1.68%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-11 18:49:16

End at: 2017-08-11 18:49:46

Below is generated by plot.py at 2017-08-11 19:58:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.21 Mbit/s

95th percentile per-packet one-way delay: 63.986 ms

Loss rate: 2.12%

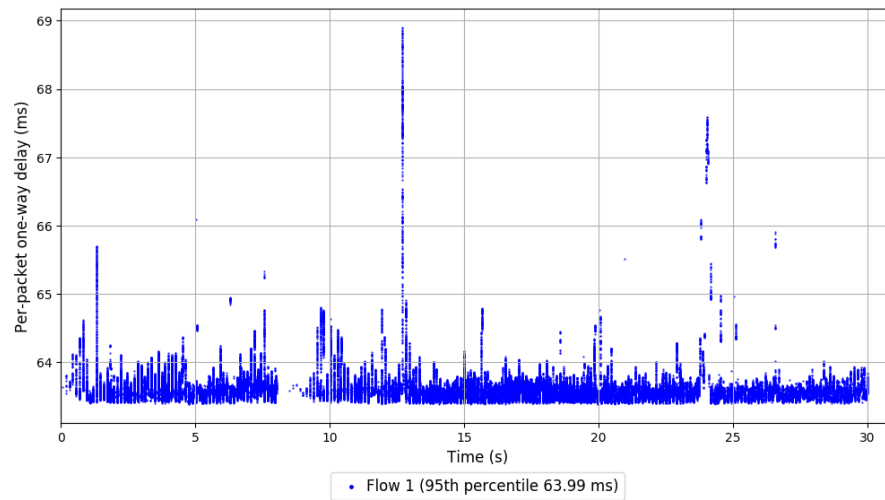
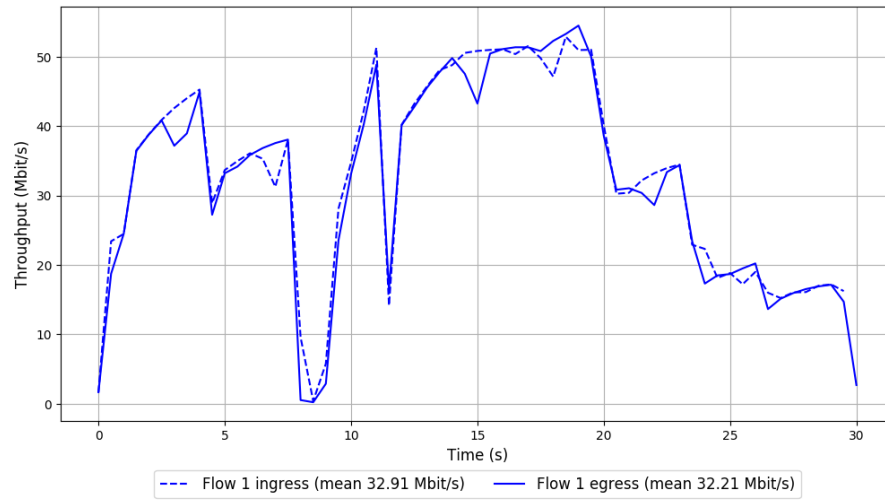
-- Flow 1:

Average throughput: 32.21 Mbit/s

95th percentile per-packet one-way delay: 63.986 ms

Loss rate: 2.12%

Run 10: Report of TCP Cubic — Data Link

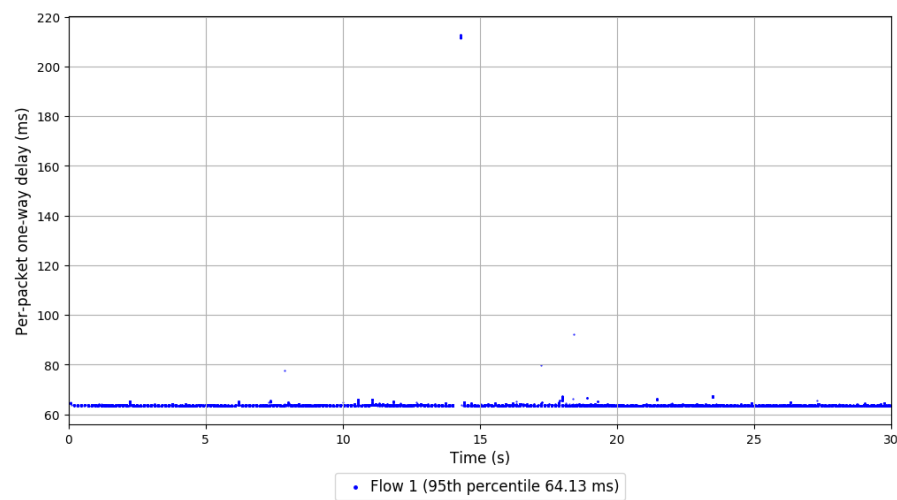
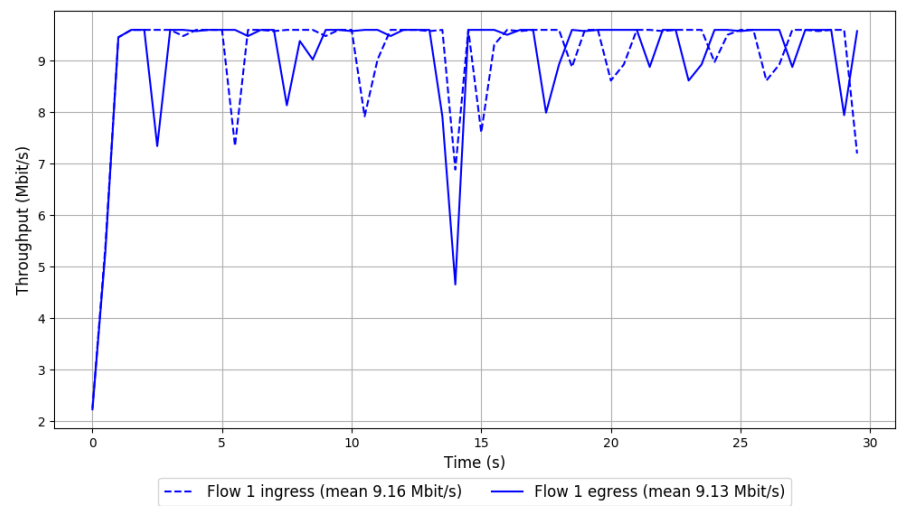


```
Run 1: Statistics of KohoCC

Start at: 2017-08-11 17:13:40
End at: 2017-08-11 17:14:10

# Below is generated by plot.py at 2017-08-11 19:58:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 64.128 ms
Loss rate: 0.32%
-- Flow 1:
Average throughput: 9.13 Mbit/s
95th percentile per-packet one-way delay: 64.128 ms
Loss rate: 0.32%
```


Run 1: Report of KohoCC — Data Link

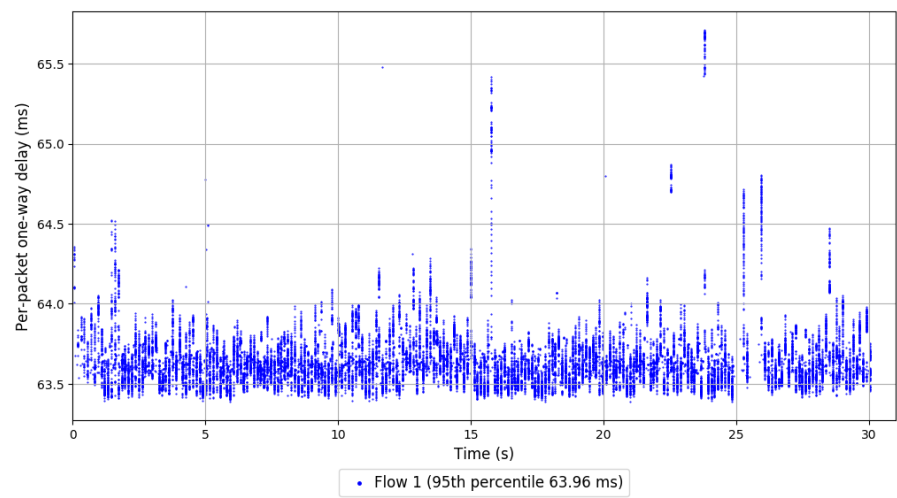
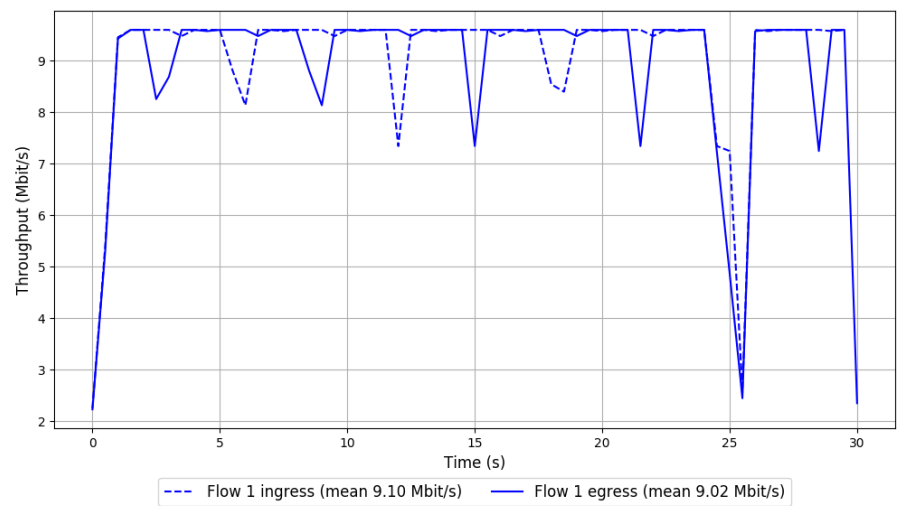


```
Run 2: Statistics of KohoCC

Start at: 2017-08-11 17:24:29
End at: 2017-08-11 17:24:59

# Below is generated by plot.py at 2017-08-11 19:58:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 63.956 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 63.956 ms
Loss rate: 0.90%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-11 17:35:07

End at: 2017-08-11 17:35:37

Below is generated by plot.py at 2017-08-11 19:58:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.09 Mbit/s

95th percentile per-packet one-way delay: 64.040 ms

Loss rate: 2.30%

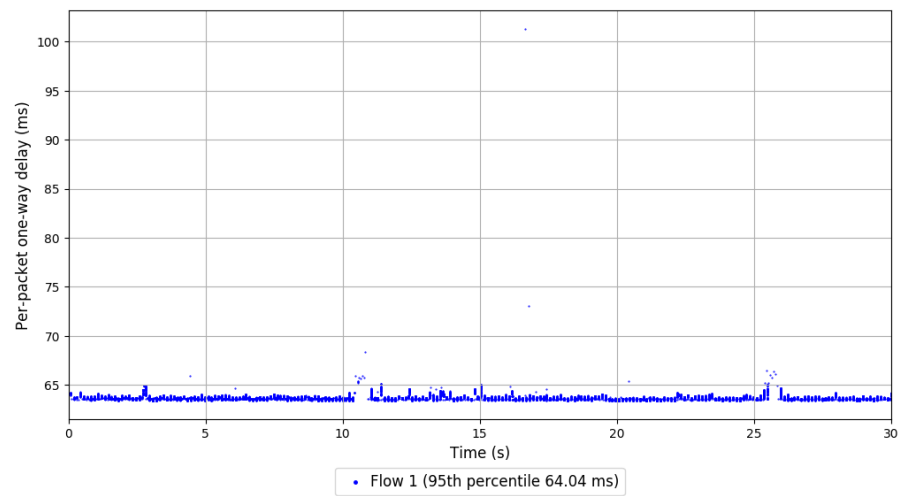
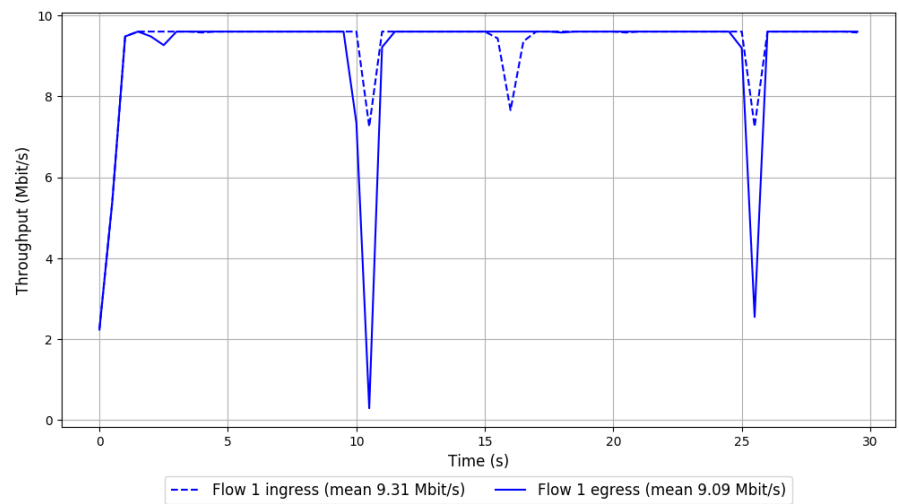
-- Flow 1:

Average throughput: 9.09 Mbit/s

95th percentile per-packet one-way delay: 64.040 ms

Loss rate: 2.30%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-11 17:45:36

End at: 2017-08-11 17:46:06

Below is generated by plot.py at 2017-08-11 19:58:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 66.231 ms

Loss rate: 85.67%

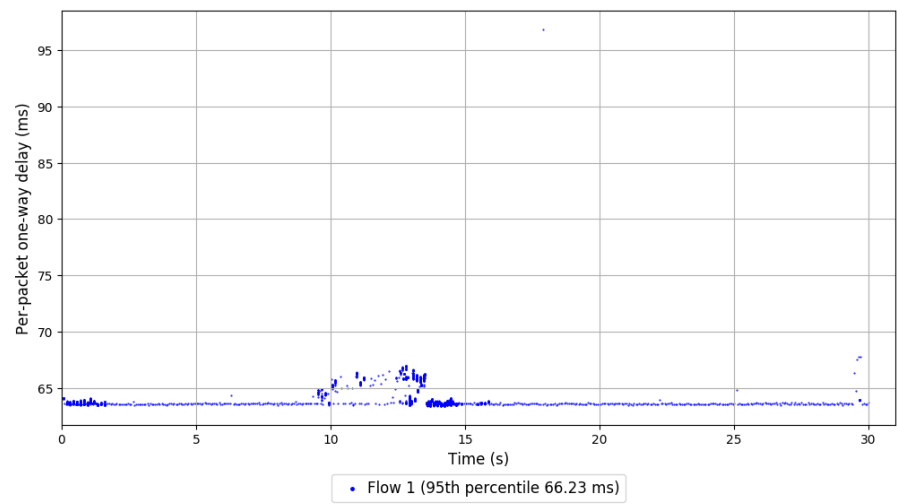
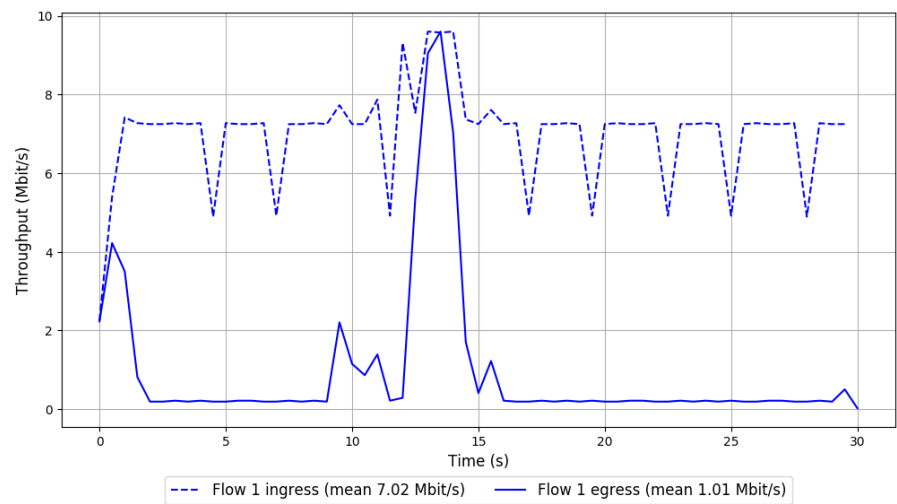
-- Flow 1:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 66.231 ms

Loss rate: 85.67%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-11 17:55:56

End at: 2017-08-11 17:56:26

Below is generated by plot.py at 2017-08-11 19:58:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.33 Mbit/s

95th percentile per-packet one-way delay: 61.678 ms

Loss rate: 0.50%

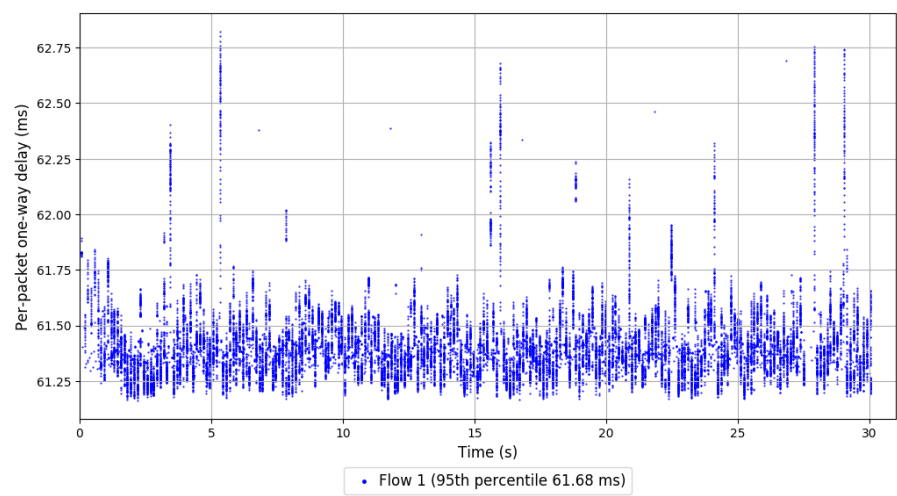
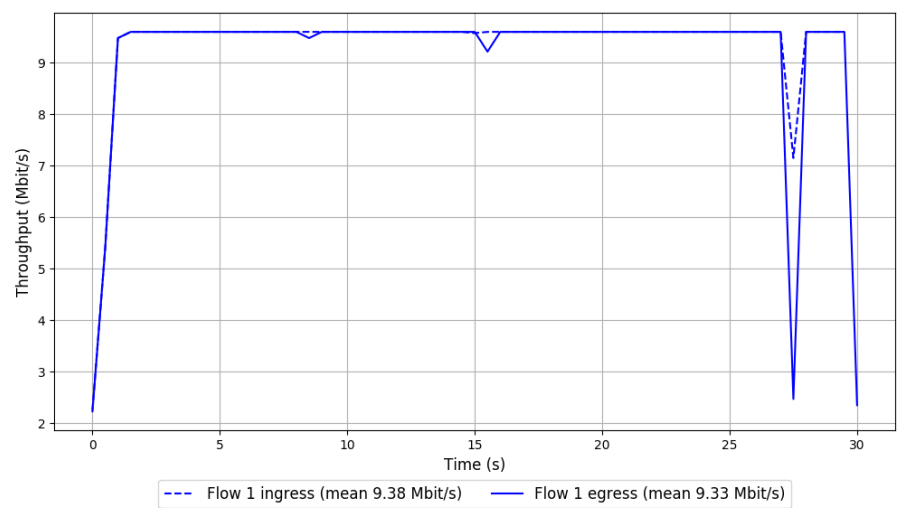
-- Flow 1:

Average throughput: 9.33 Mbit/s

95th percentile per-packet one-way delay: 61.678 ms

Loss rate: 0.50%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-11 18:06:05

End at: 2017-08-11 18:06:35

Below is generated by plot.py at 2017-08-11 19:58:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 63.793 ms

Loss rate: 95.41%

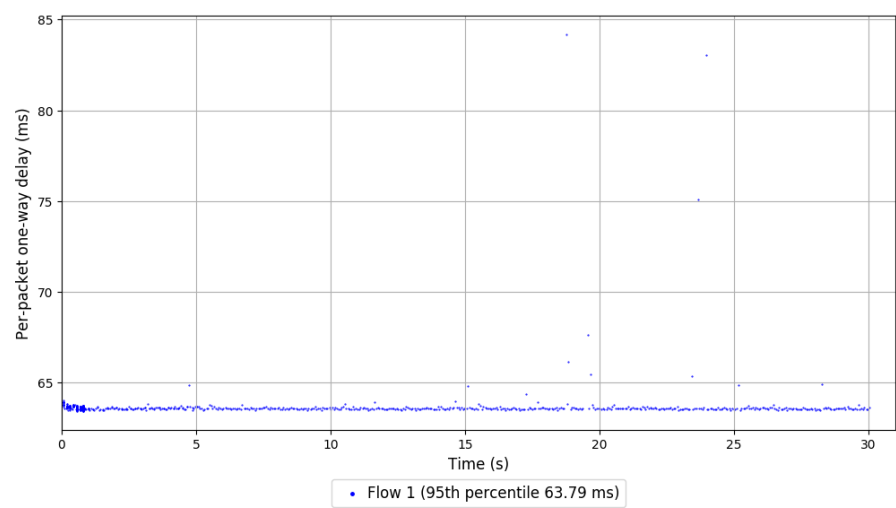
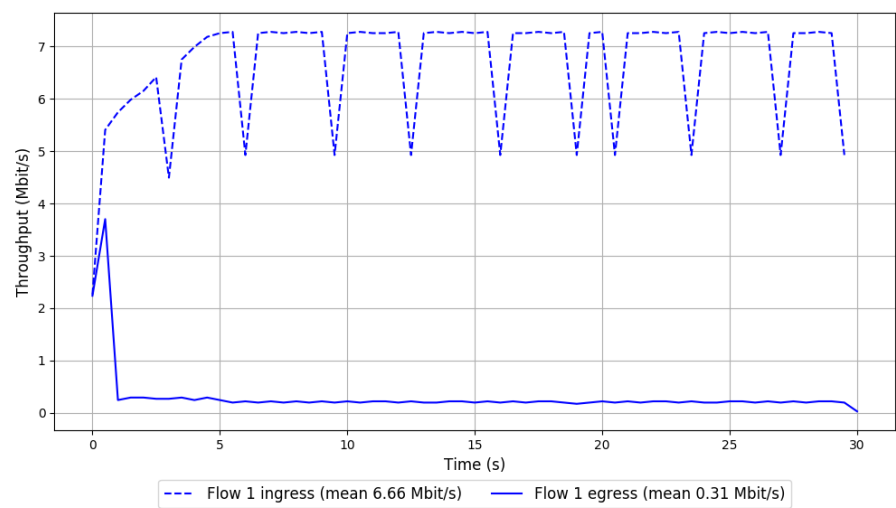
-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 63.793 ms

Loss rate: 95.41%

Run 6: Report of KohoCC — Data Link

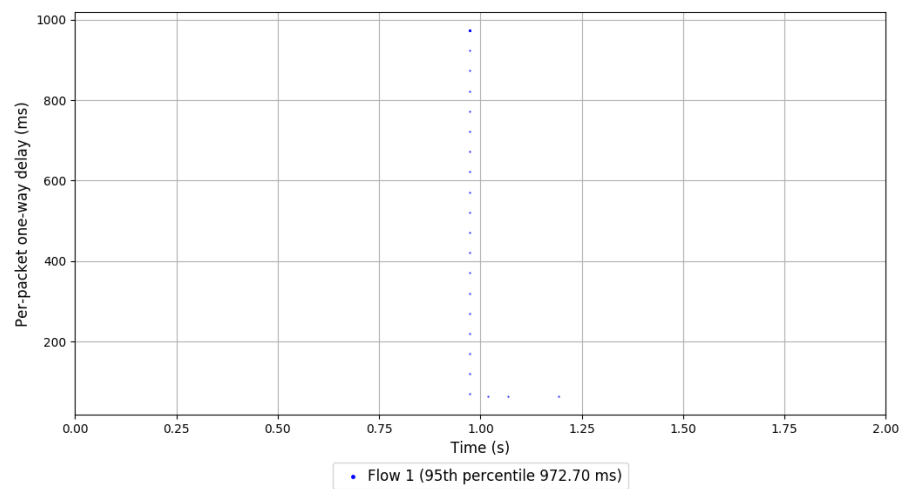
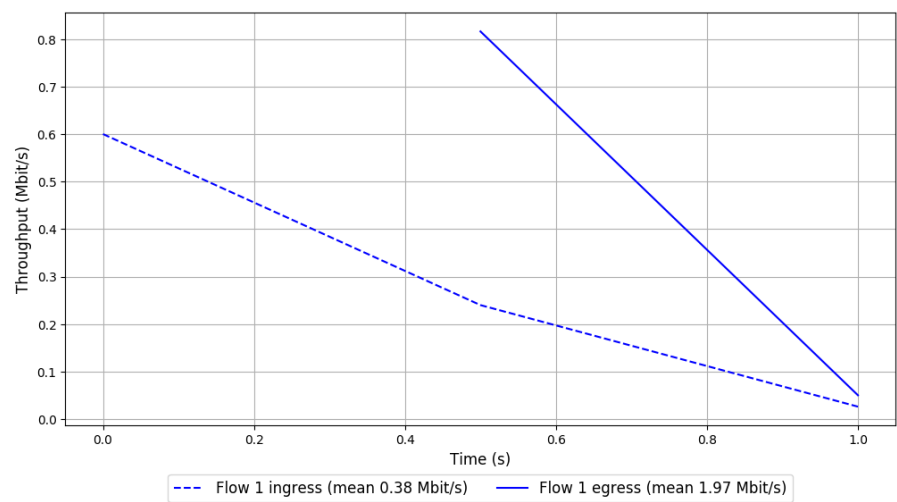


Run 7: Statistics of KohoCC

Start at: 2017-08-11 18:16:16

End at: 2017-08-11 18:16:46

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-11 18:26:36

End at: 2017-08-11 18:27:06

Below is generated by plot.py at 2017-08-11 19:58:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.03 Mbit/s

95th percentile per-packet one-way delay: 64.026 ms

Loss rate: 1.22%

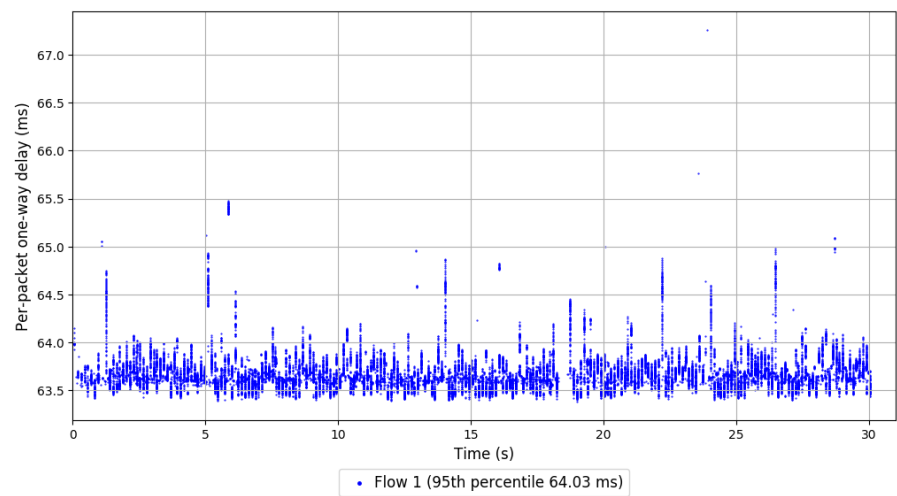
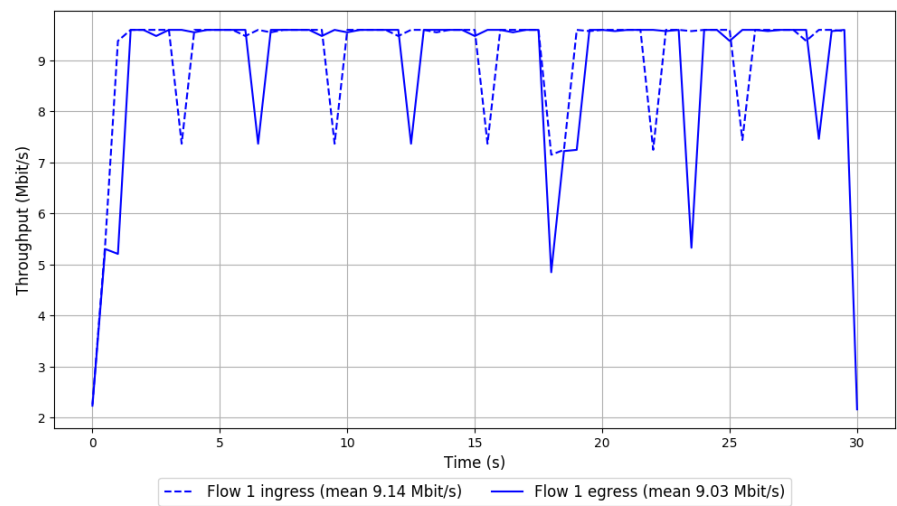
-- Flow 1:

Average throughput: 9.03 Mbit/s

95th percentile per-packet one-way delay: 64.026 ms

Loss rate: 1.22%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-11 18:36:50

End at: 2017-08-11 18:37:20

Below is generated by plot.py at 2017-08-11 19:58:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 64.123 ms

Loss rate: 0.82%

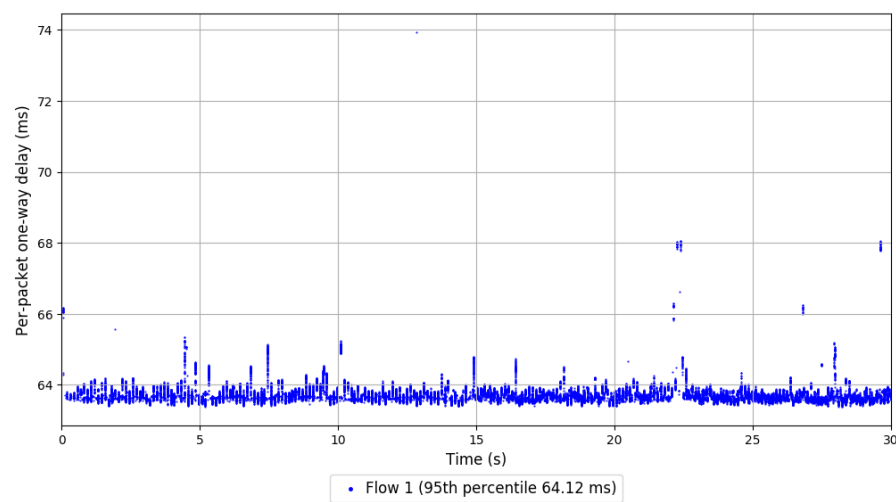
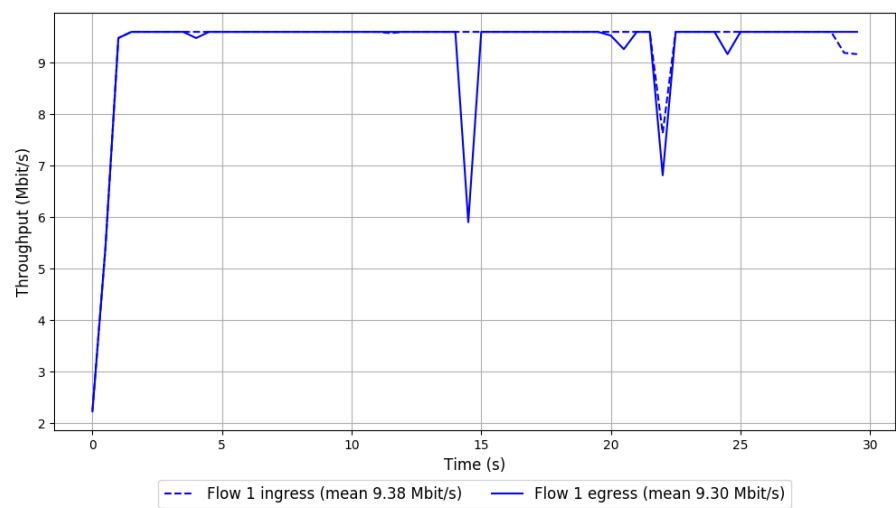
-- Flow 1:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 64.123 ms

Loss rate: 0.82%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-11 18:47:22

End at: 2017-08-11 18:47:53

Below is generated by plot.py at 2017-08-11 19:58:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.22 Mbit/s

95th percentile per-packet one-way delay: 64.010 ms

Loss rate: 0.08%

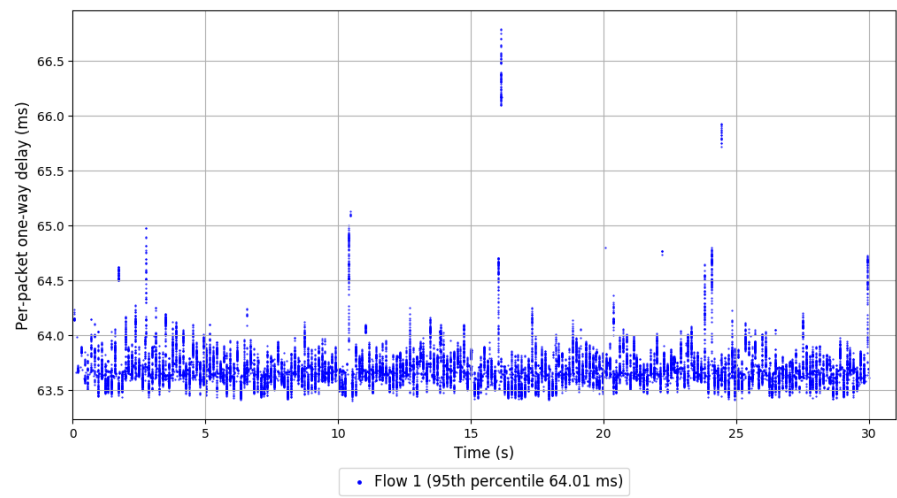
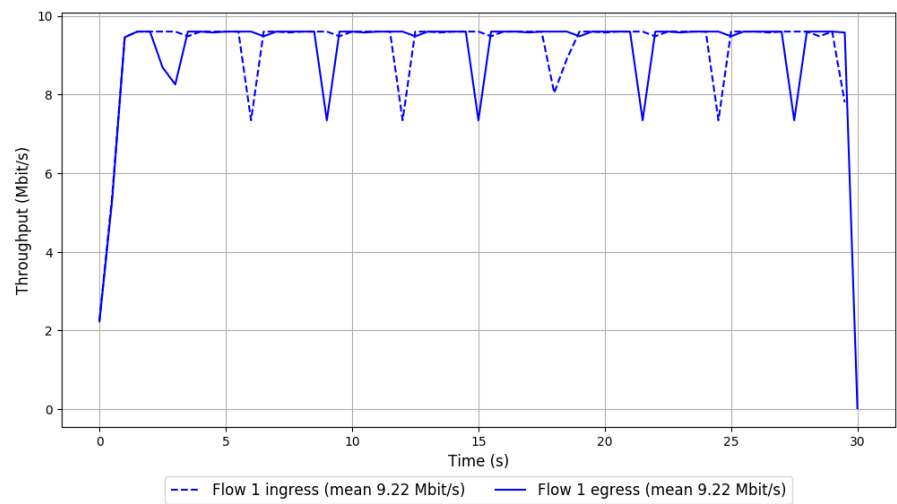
-- Flow 1:

Average throughput: 9.22 Mbit/s

95th percentile per-packet one-way delay: 64.010 ms

Loss rate: 0.08%

Run 10: Report of KohoCC — Data Link

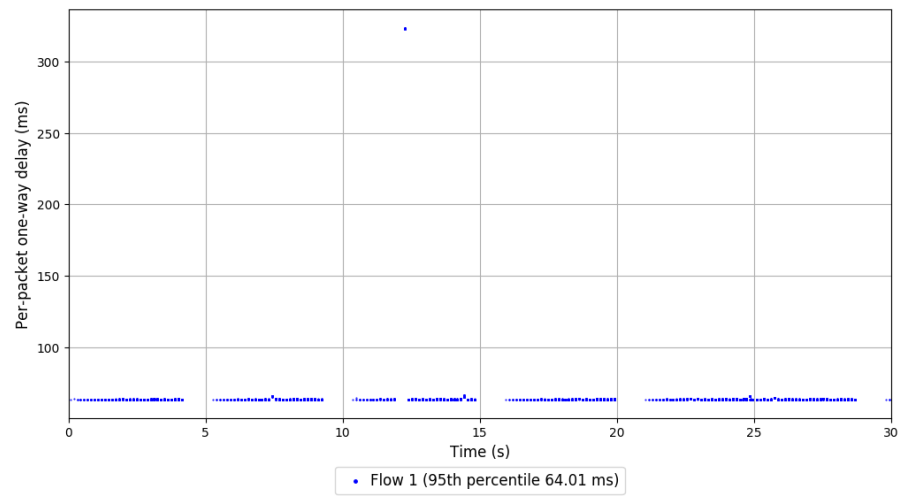
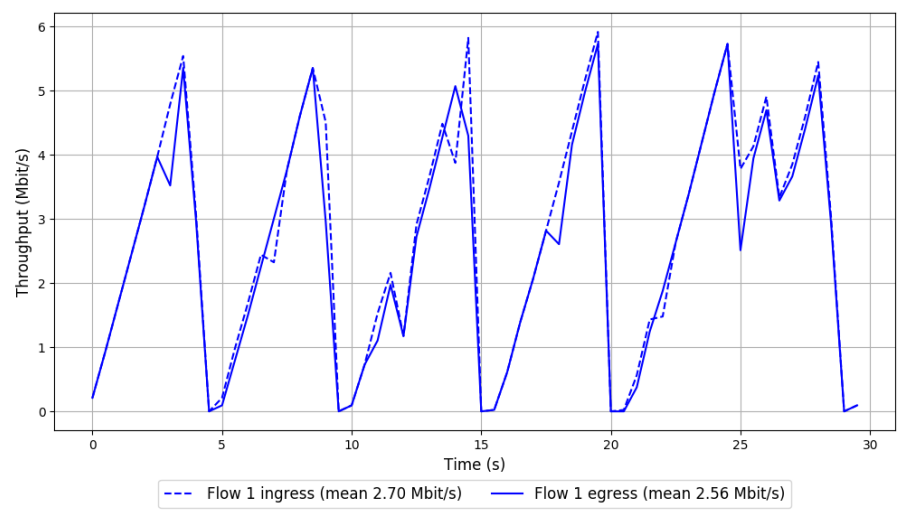


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-11 17:16:13
End at: 2017-08-11 17:16:43

# Below is generated by plot.py at 2017-08-11 19:58:34
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 64.013 ms
Loss rate: 5.30%
-- Flow 1:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 64.013 ms
Loss rate: 5.30%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-08-11 17:27:05

End at: 2017-08-11 17:27:35

Below is generated by plot.py at 2017-08-11 19:58:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 63.879 ms

Loss rate: 0.65%

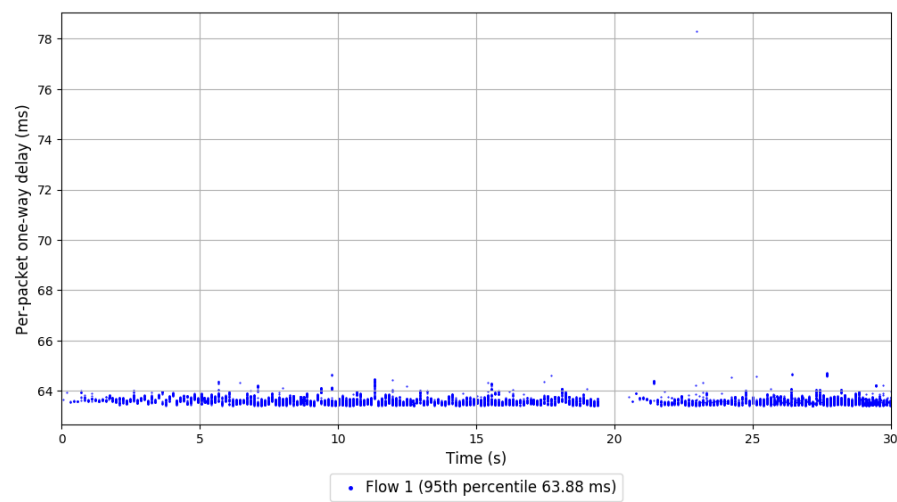
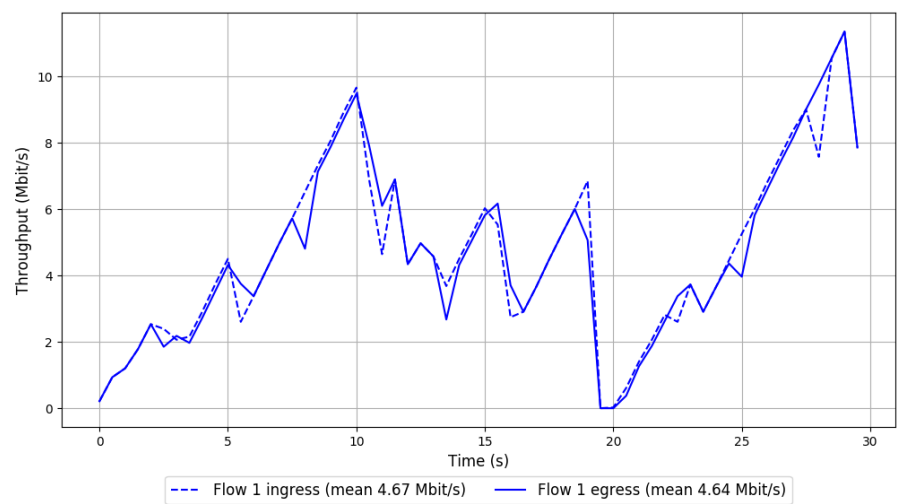
-- Flow 1:

Average throughput: 4.64 Mbit/s

95th percentile per-packet one-way delay: 63.879 ms

Loss rate: 0.65%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-11 17:37:40

End at: 2017-08-11 17:38:10

Below is generated by plot.py at 2017-08-11 19:58:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 63.954 ms

Loss rate: 0.90%

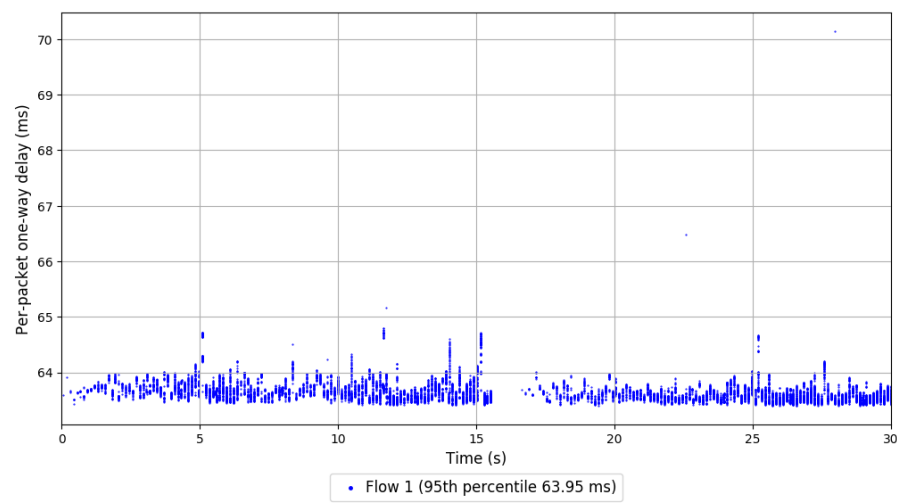
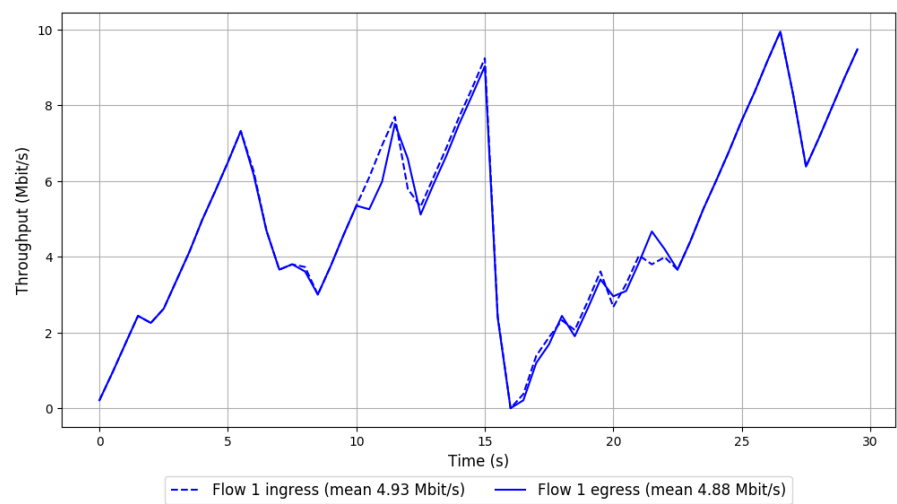
-- Flow 1:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 63.954 ms

Loss rate: 0.90%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

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

End at: 2017-08-11 17:48:40

Below is generated by plot.py at 2017-08-11 19:58:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.23 Mbit/s

95th percentile per-packet one-way delay: 63.917 ms

Loss rate: 0.00%

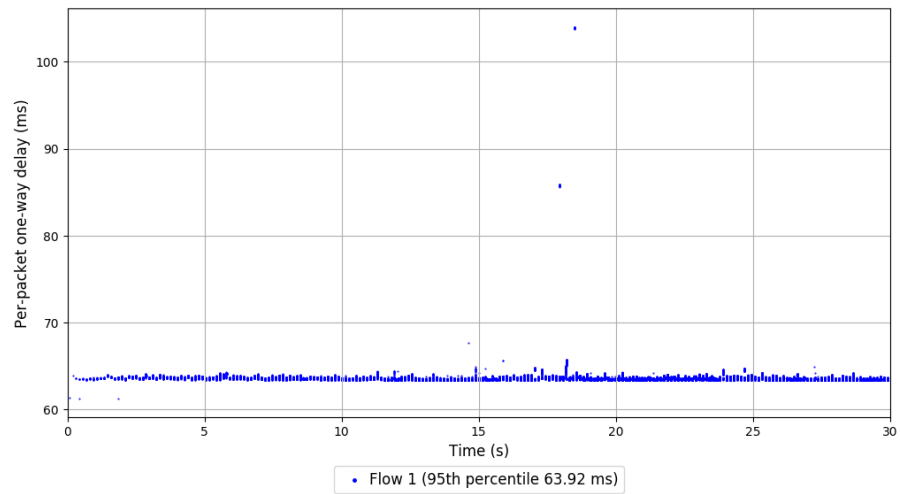
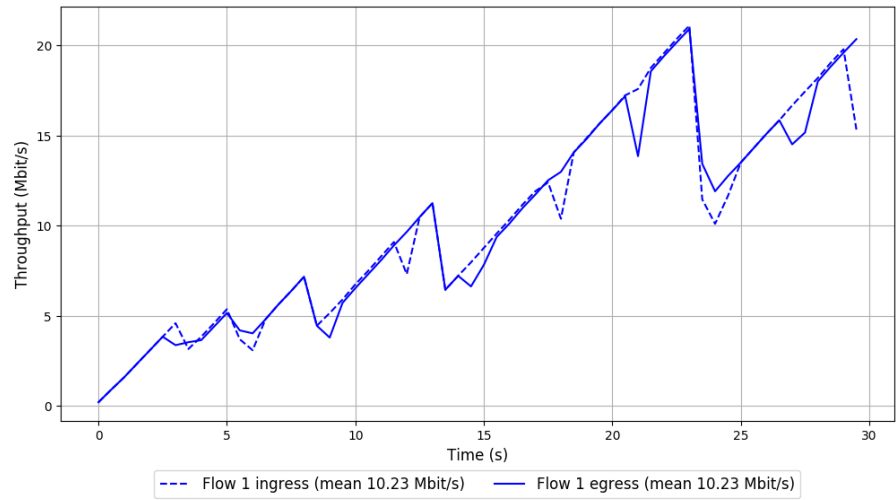
-- Flow 1:

Average throughput: 10.23 Mbit/s

95th percentile per-packet one-way delay: 63.917 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-11 17:58:32

End at: 2017-08-11 17:59:02

Below is generated by plot.py at 2017-08-11 19:58:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 62.109 ms

Loss rate: 0.00%

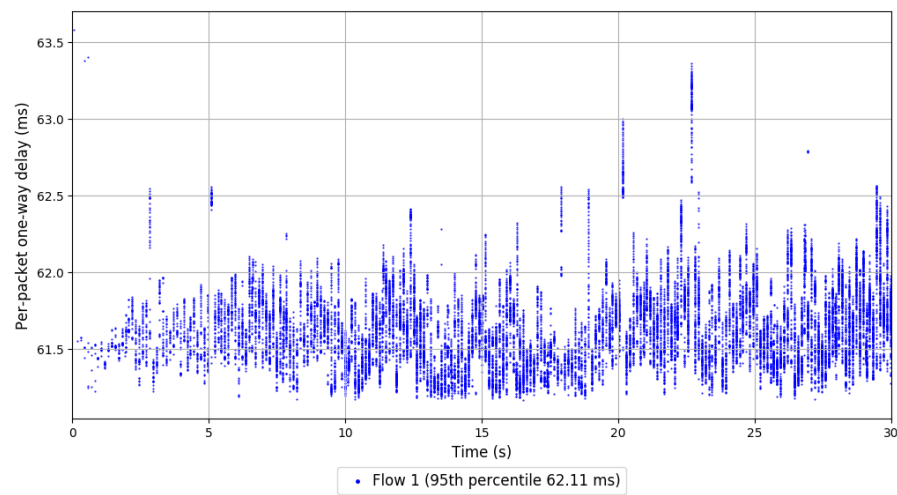
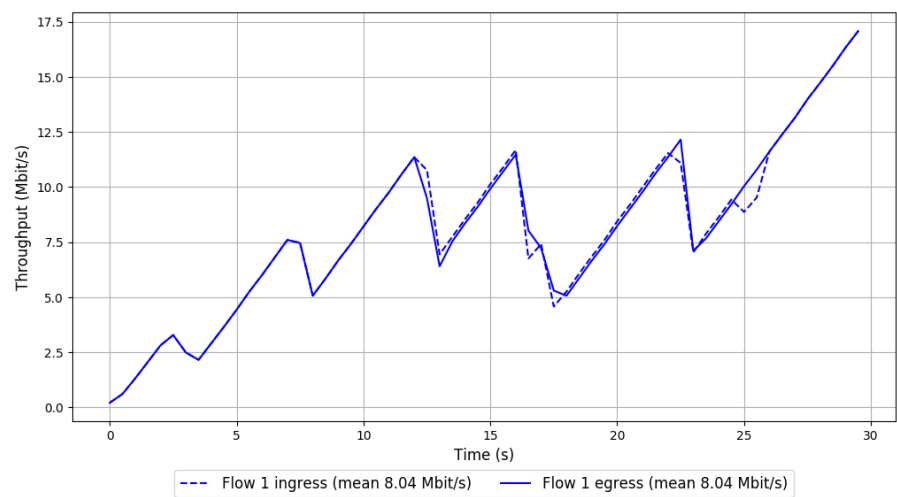
-- Flow 1:

Average throughput: 8.04 Mbit/s

95th percentile per-packet one-way delay: 62.109 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-11 18:08:36

End at: 2017-08-11 18:09:06

Below is generated by plot.py at 2017-08-11 19:58:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 63.927 ms

Loss rate: 4.03%

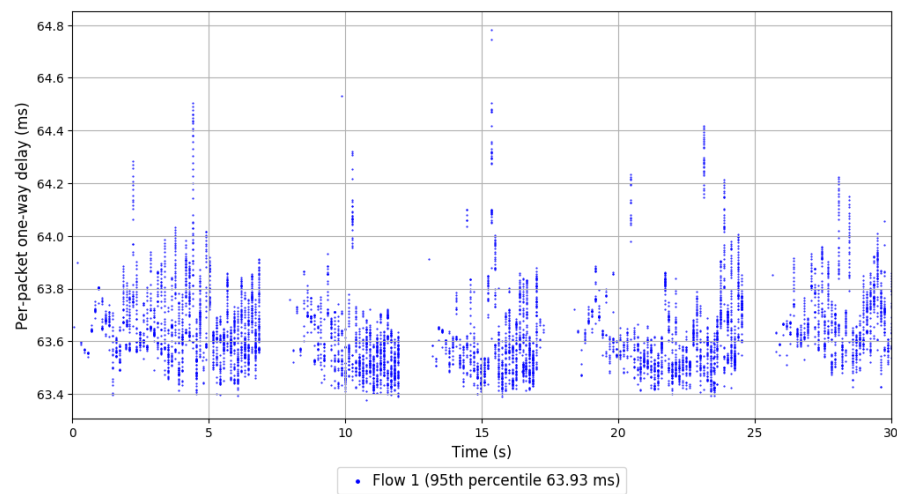
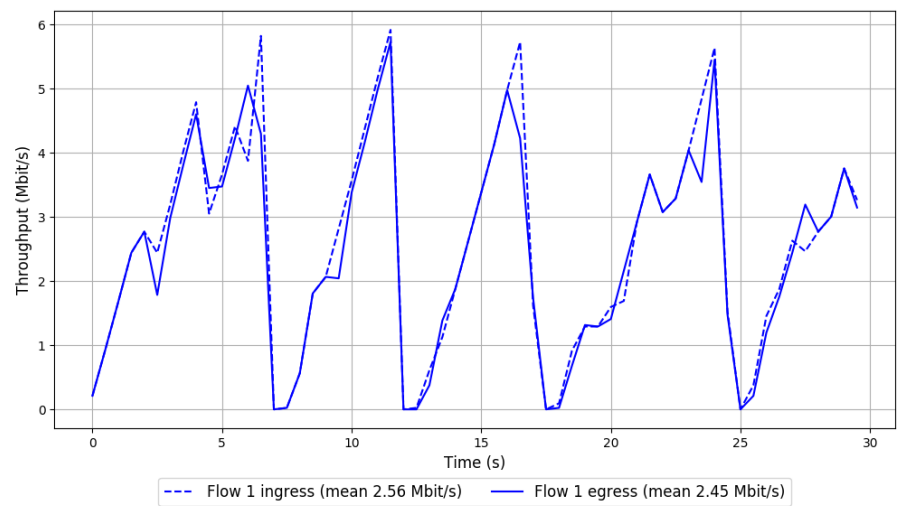
-- Flow 1:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 63.927 ms

Loss rate: 4.03%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-11 18:18:48

End at: 2017-08-11 18:19:18

Below is generated by plot.py at 2017-08-11 19:58:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 64.313 ms

Loss rate: 0.48%

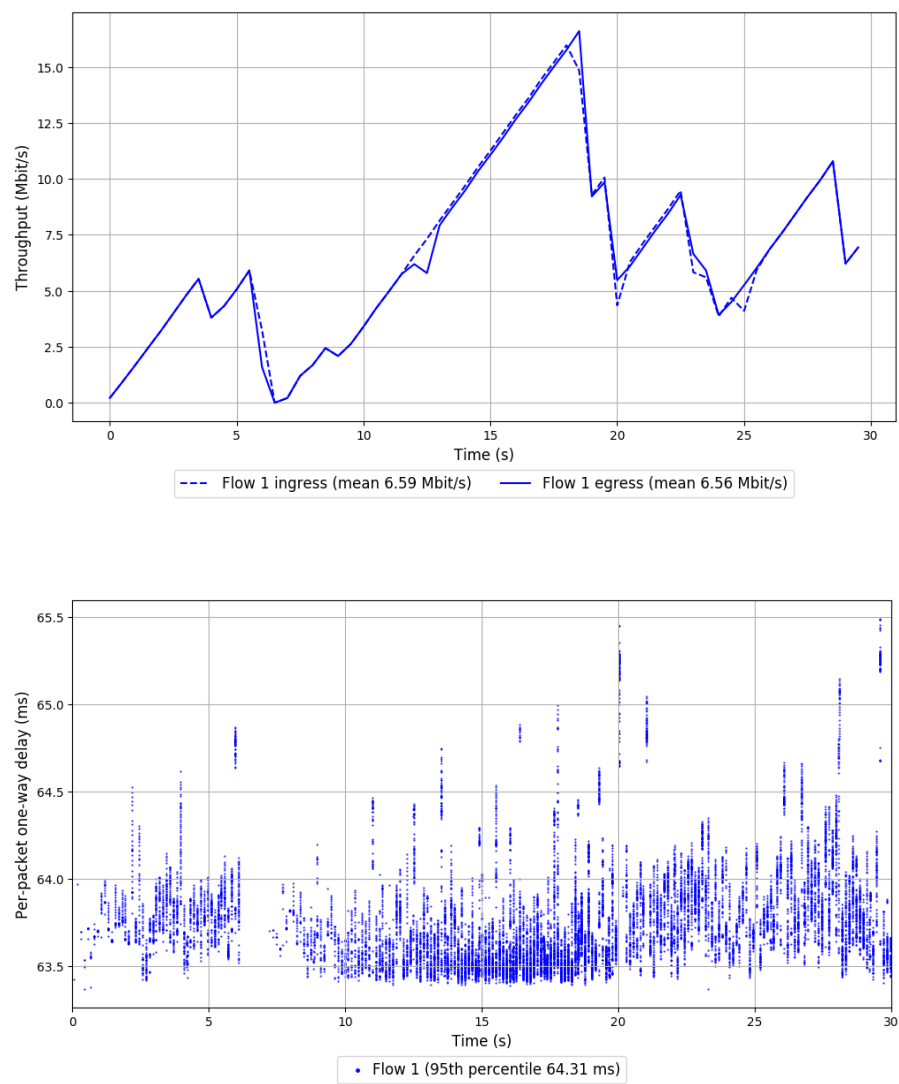
-- Flow 1:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 64.313 ms

Loss rate: 0.48%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-11 18:29:09

End at: 2017-08-11 18:29:39

Below is generated by plot.py at 2017-08-11 19:58:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.10 Mbit/s

95th percentile per-packet one-way delay: 64.283 ms

Loss rate: 0.59%

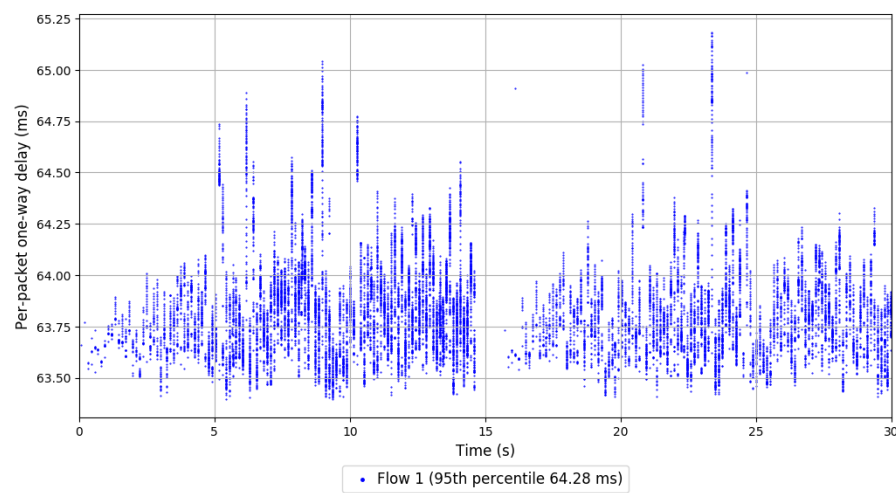
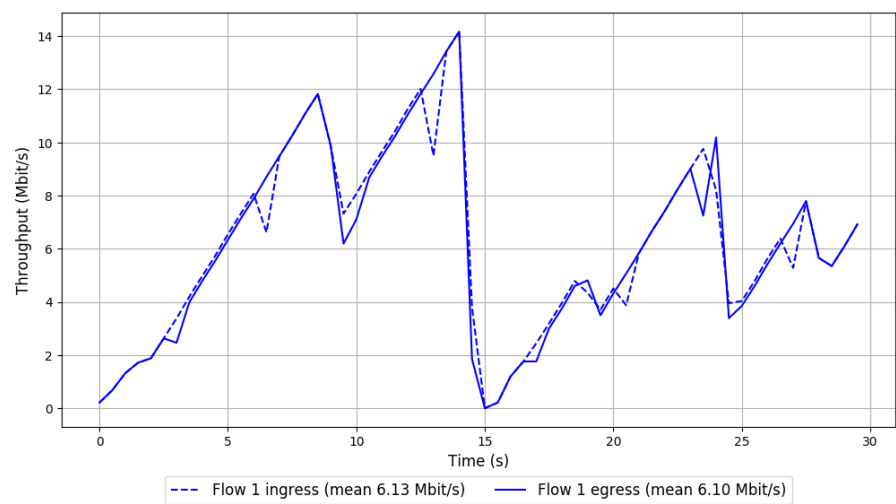
-- Flow 1:

Average throughput: 6.10 Mbit/s

95th percentile per-packet one-way delay: 64.283 ms

Loss rate: 0.59%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-11 18:39:24

End at: 2017-08-11 18:39:54

Below is generated by plot.py at 2017-08-11 19:58:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.74 Mbit/s

95th percentile per-packet one-way delay: 64.090 ms

Loss rate: 0.52%

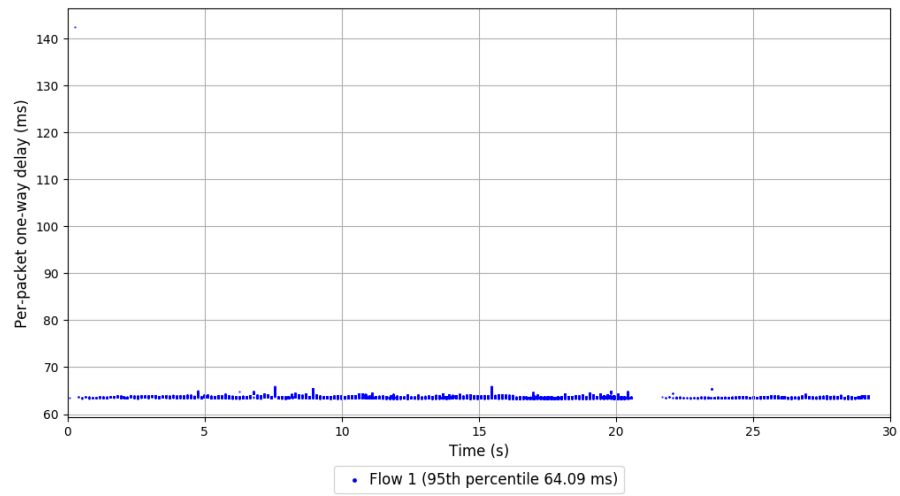
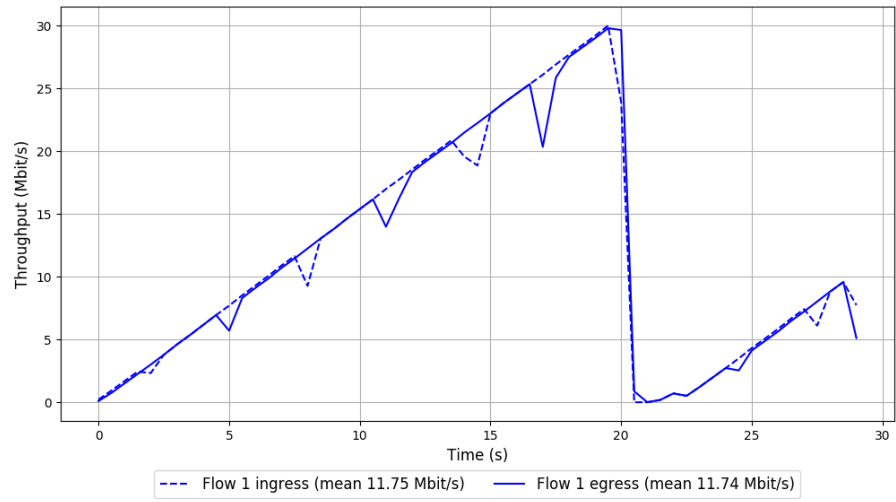
-- Flow 1:

Average throughput: 11.74 Mbit/s

95th percentile per-packet one-way delay: 64.090 ms

Loss rate: 0.52%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-11 18:49:56

End at: 2017-08-11 18:50:26

Below is generated by plot.py at 2017-08-11 19:58:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.99 Mbit/s

95th percentile per-packet one-way delay: 64.257 ms

Loss rate: 0.59%

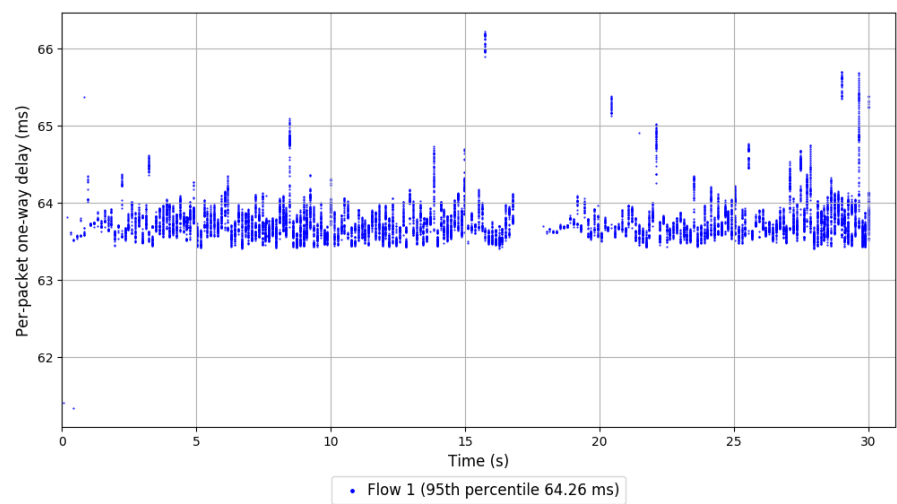
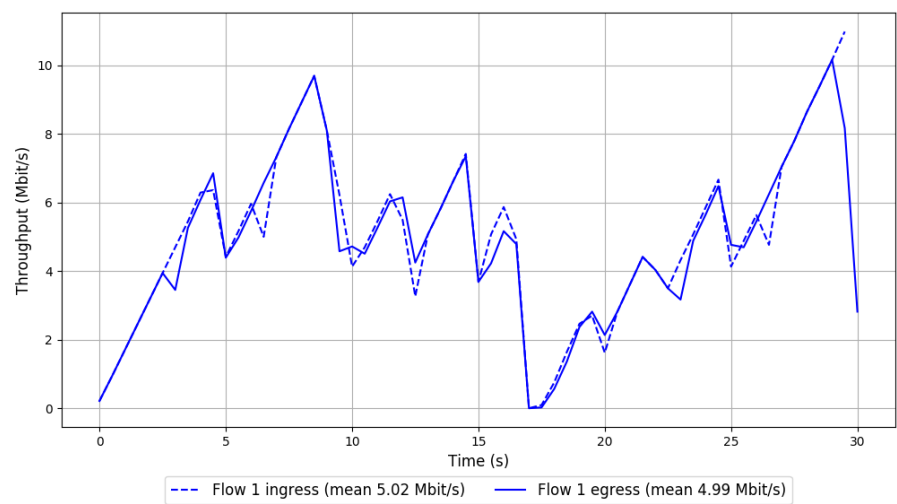
-- Flow 1:

Average throughput: 4.99 Mbit/s

95th percentile per-packet one-way delay: 64.257 ms

Loss rate: 0.59%

Run 10: Report of LEDBAT — Data Link

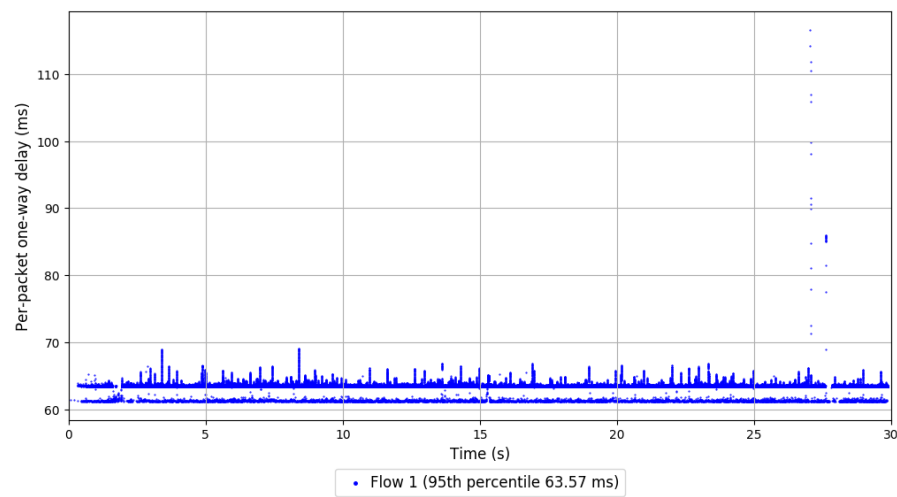
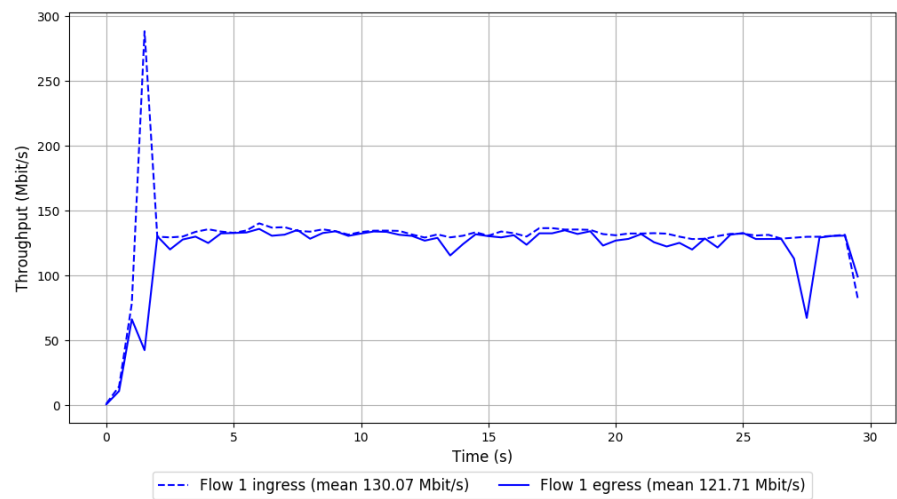


```
Run 1: Statistics of PCC

Start at: 2017-08-11 17:10:57
End at: 2017-08-11 17:11:27

# Below is generated by plot.py at 2017-08-11 19:59:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 121.71 Mbit/s
95th percentile per-packet one-way delay: 63.572 ms
Loss rate: 6.45%
-- Flow 1:
Average throughput: 121.71 Mbit/s
95th percentile per-packet one-way delay: 63.572 ms
Loss rate: 6.45%
```


Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-08-11 17:21:31

End at: 2017-08-11 17:22:01

Below is generated by plot.py at 2017-08-11 20:00:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 467.84 Mbit/s

95th percentile per-packet one-way delay: 71.512 ms

Loss rate: 5.25%

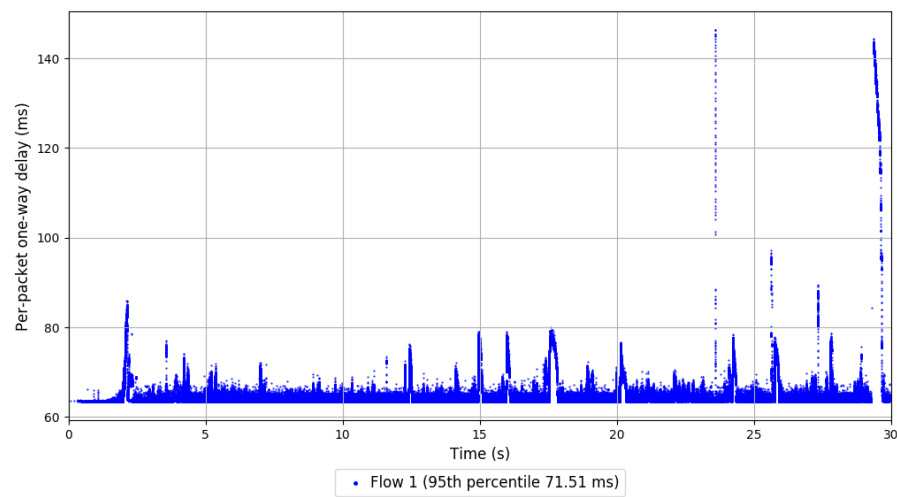
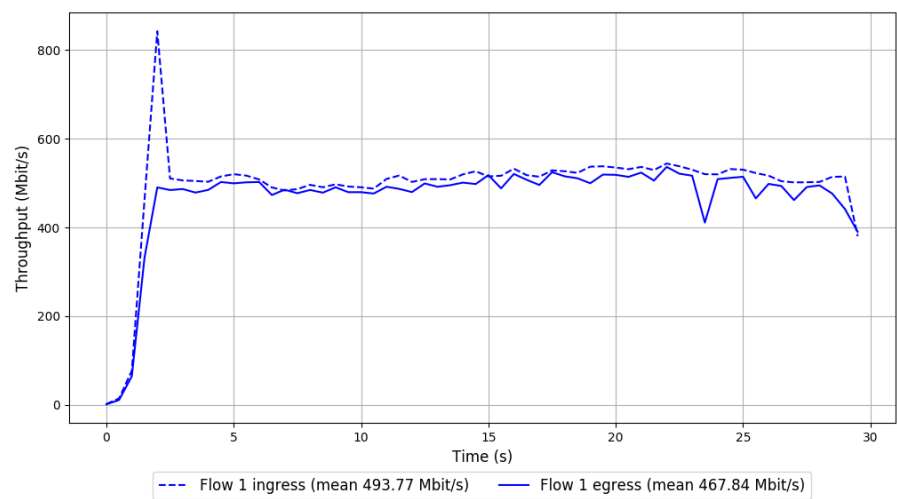
-- Flow 1:

Average throughput: 467.84 Mbit/s

95th percentile per-packet one-way delay: 71.512 ms

Loss rate: 5.25%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-11 17:32:08

End at: 2017-08-11 17:32:38

Below is generated by plot.py at 2017-08-11 20:00:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 515.00 Mbit/s

95th percentile per-packet one-way delay: 108.800 ms

Loss rate: 0.72%

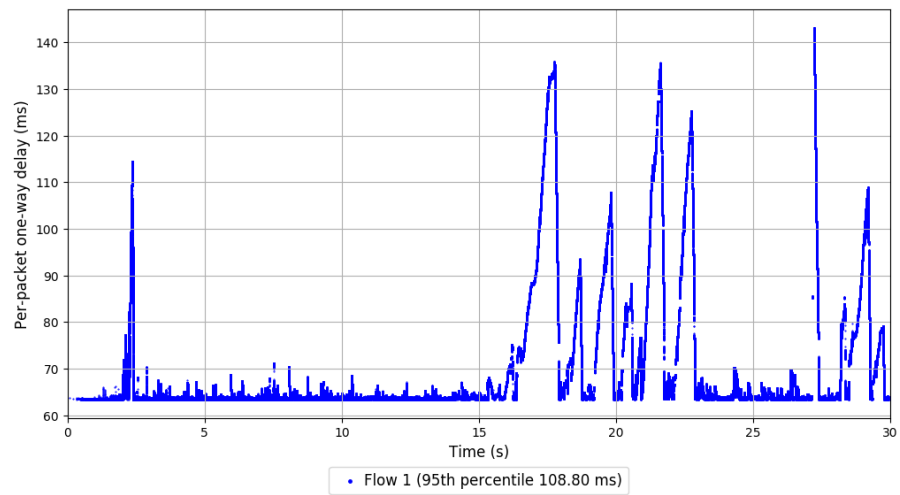
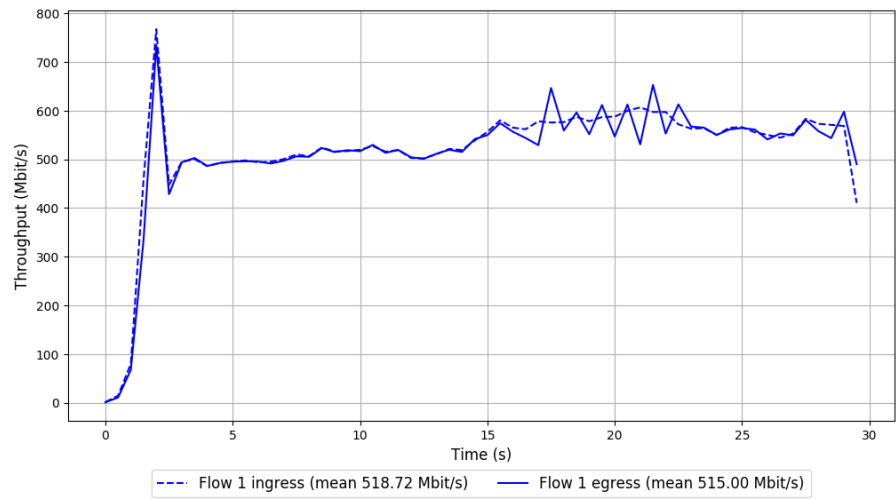
-- Flow 1:

Average throughput: 515.00 Mbit/s

95th percentile per-packet one-way delay: 108.800 ms

Loss rate: 0.72%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-11 17:42:42

End at: 2017-08-11 17:43:12

Below is generated by plot.py at 2017-08-11 20:01:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 459.32 Mbit/s

95th percentile per-packet one-way delay: 67.840 ms

Loss rate: 6.56%

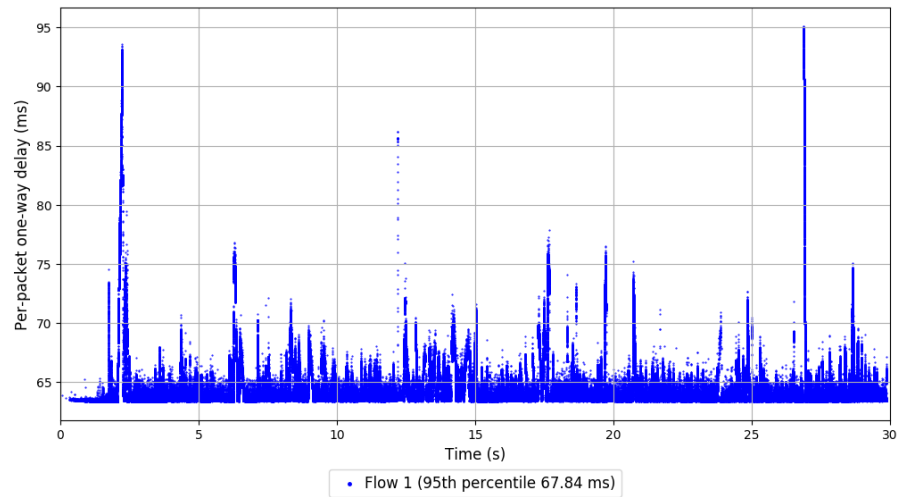
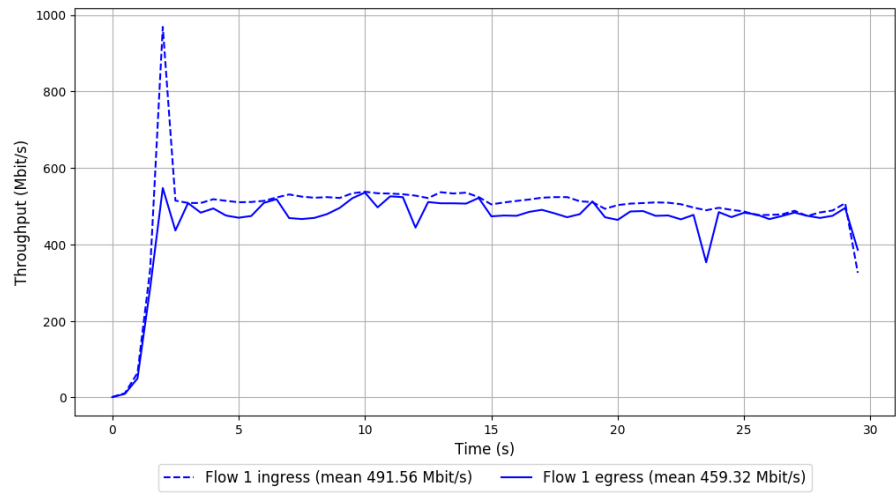
-- Flow 1:

Average throughput: 459.32 Mbit/s

95th percentile per-packet one-way delay: 67.840 ms

Loss rate: 6.56%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-11 17:53:13

End at: 2017-08-11 17:53:43

Below is generated by plot.py at 2017-08-11 20:01:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 132.72 Mbit/s

95th percentile per-packet one-way delay: 63.546 ms

Loss rate: 6.34%

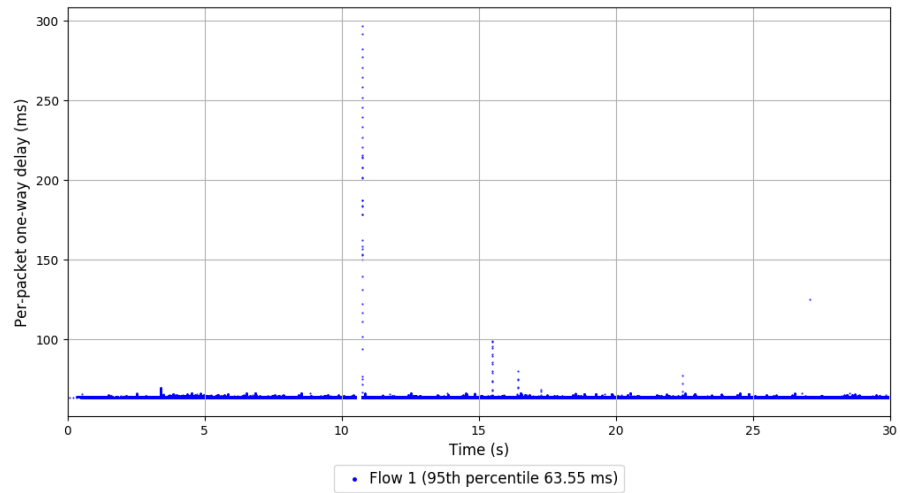
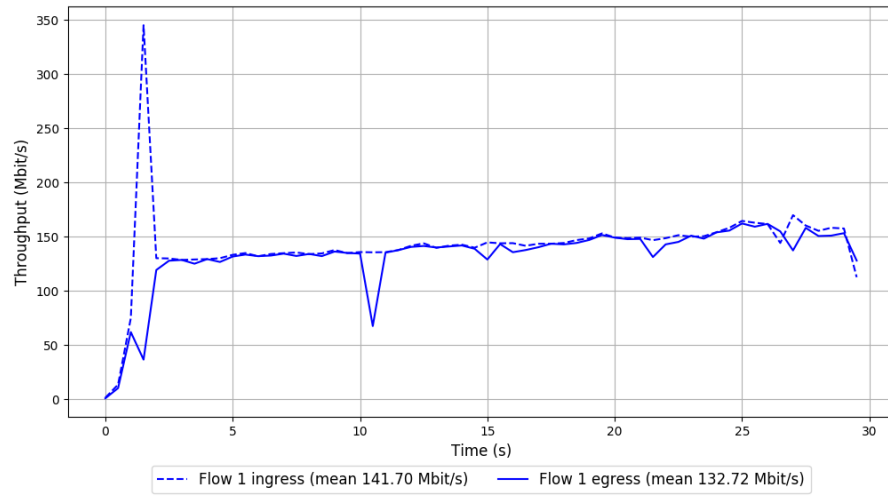
-- Flow 1:

Average throughput: 132.72 Mbit/s

95th percentile per-packet one-way delay: 63.546 ms

Loss rate: 6.34%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-11 18:03:13

End at: 2017-08-11 18:03:43

Below is generated by plot.py at 2017-08-11 20:03:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 420.49 Mbit/s

95th percentile per-packet one-way delay: 62.139 ms

Loss rate: 7.82%

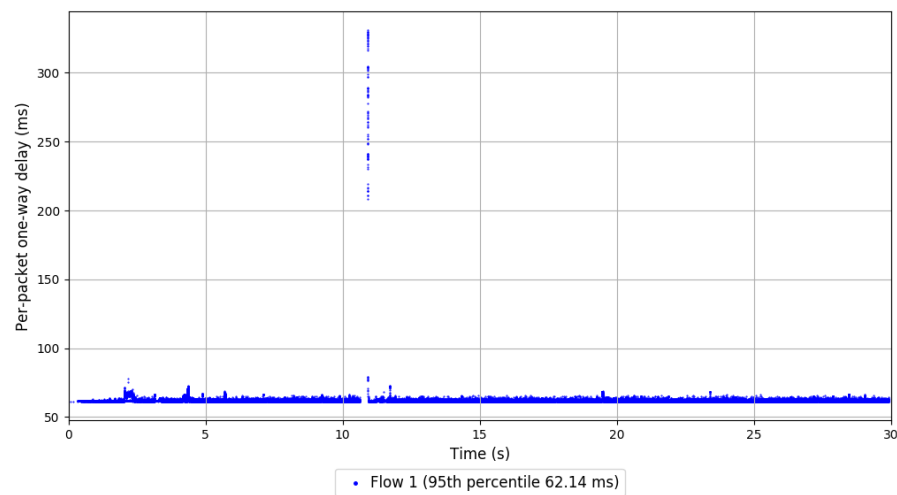
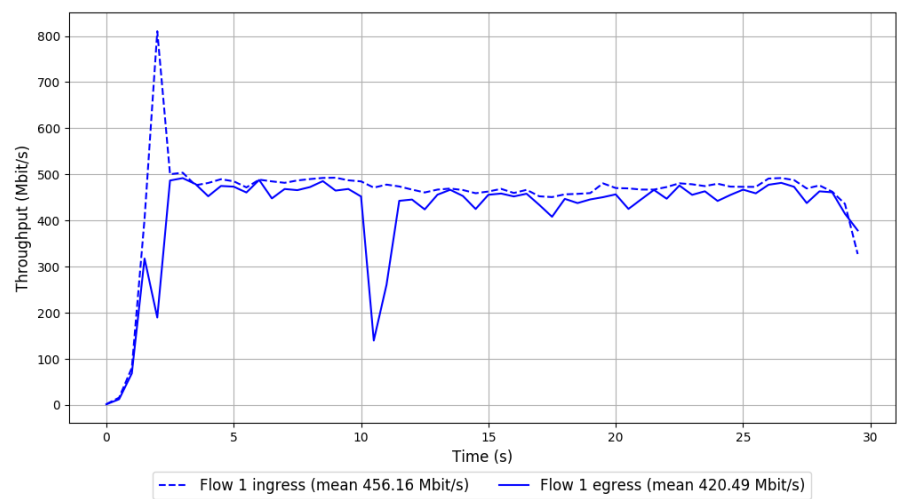
-- Flow 1:

Average throughput: 420.49 Mbit/s

95th percentile per-packet one-way delay: 62.139 ms

Loss rate: 7.82%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-11 18:13:17

End at: 2017-08-11 18:13:47

Below is generated by plot.py at 2017-08-11 20:03:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 481.40 Mbit/s

95th percentile per-packet one-way delay: 74.964 ms

Loss rate: 1.15%

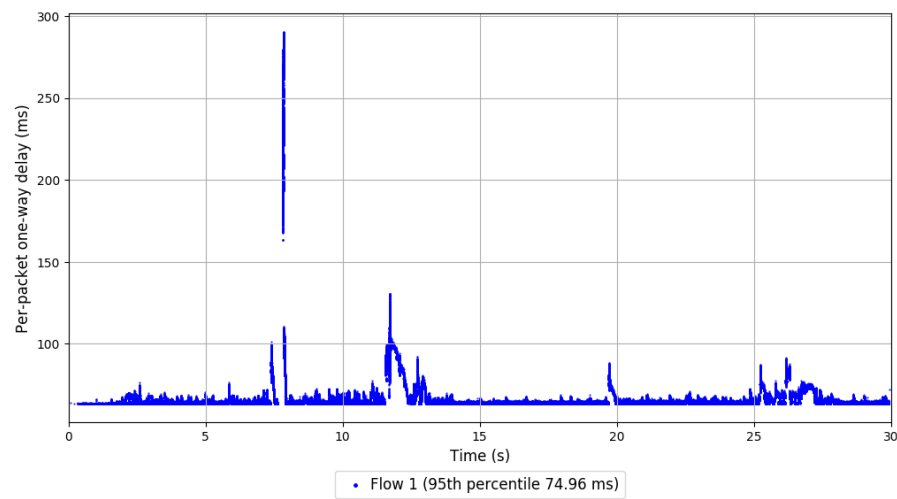
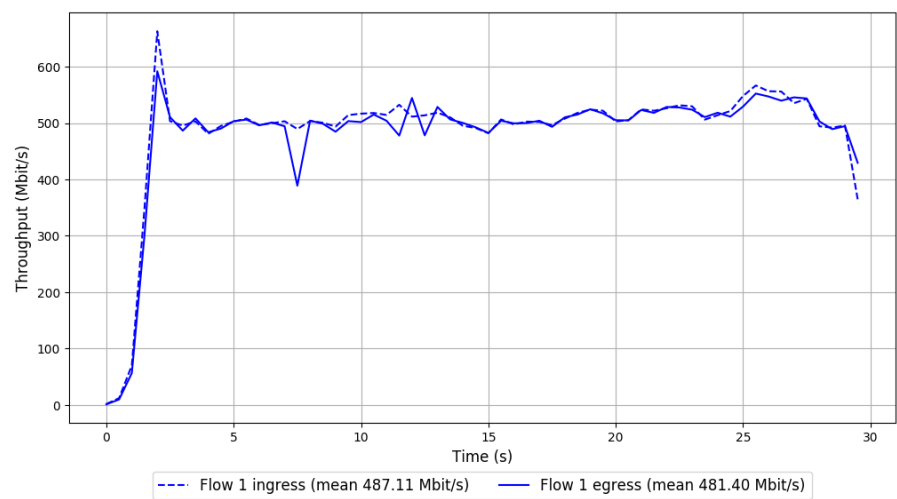
-- Flow 1:

Average throughput: 481.40 Mbit/s

95th percentile per-packet one-way delay: 74.964 ms

Loss rate: 1.15%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-11 18:23:37

End at: 2017-08-11 18:24:07

Below is generated by plot.py at 2017-08-11 20:04:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 485.89 Mbit/s

95th percentile per-packet one-way delay: 149.191 ms

Loss rate: 4.30%

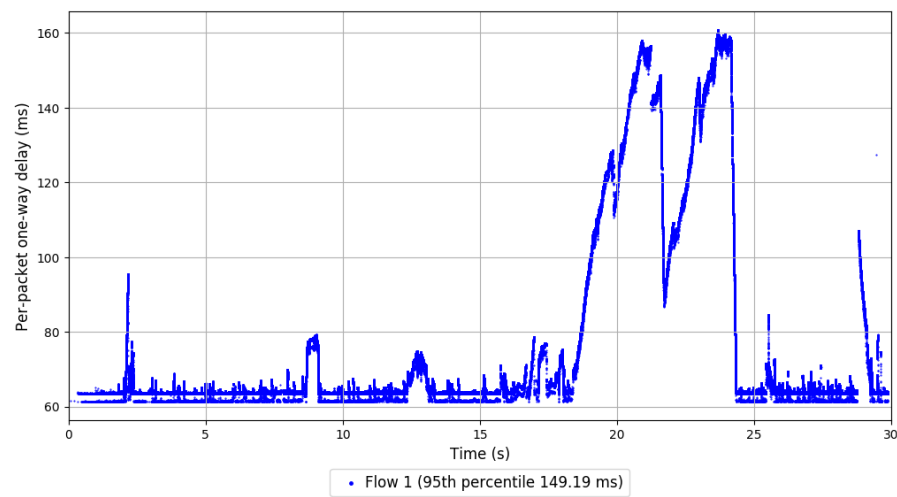
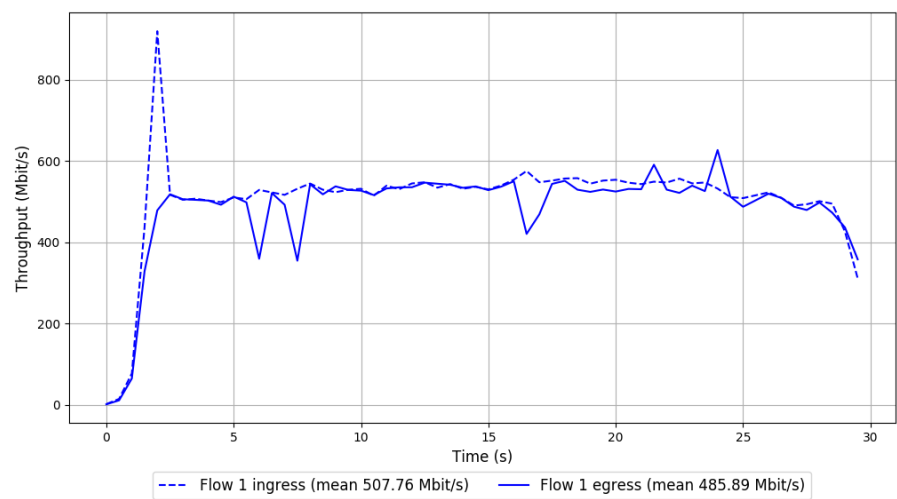
-- Flow 1:

Average throughput: 485.89 Mbit/s

95th percentile per-packet one-way delay: 149.191 ms

Loss rate: 4.30%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-11 18:34:03

End at: 2017-08-11 18:34:33

Below is generated by plot.py at 2017-08-11 20:04:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 159.06 Mbit/s

95th percentile per-packet one-way delay: 63.538 ms

Loss rate: 6.04%

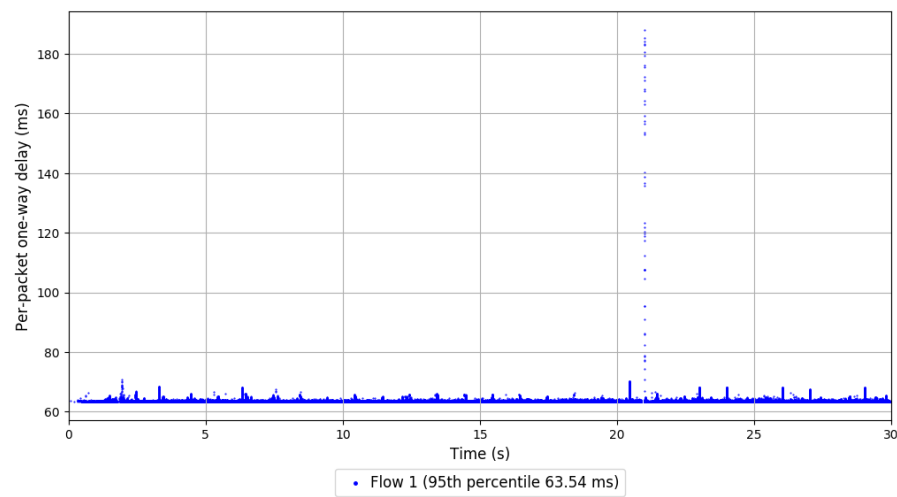
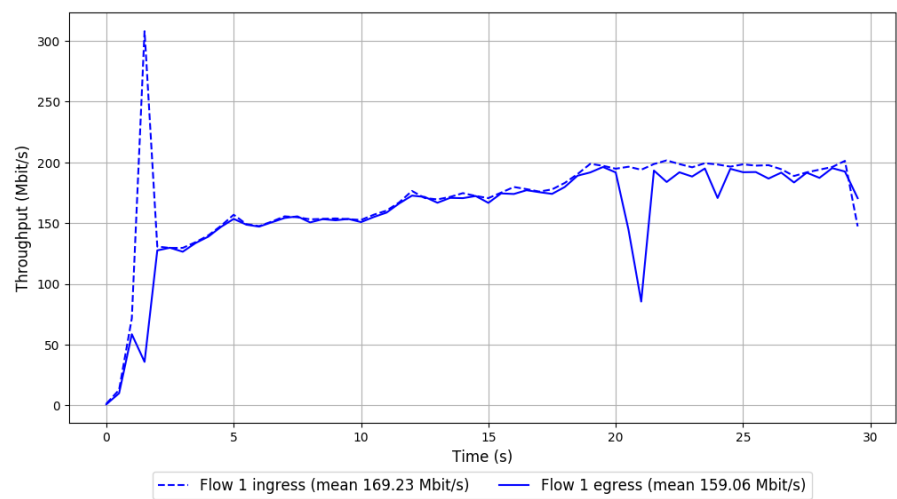
-- Flow 1:

Average throughput: 159.06 Mbit/s

95th percentile per-packet one-way delay: 63.538 ms

Loss rate: 6.04%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-08-11 18:44:26

End at: 2017-08-11 18:44:56

Below is generated by plot.py at 2017-08-11 20:05:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 488.52 Mbit/s

95th percentile per-packet one-way delay: 95.641 ms

Loss rate: 3.74%

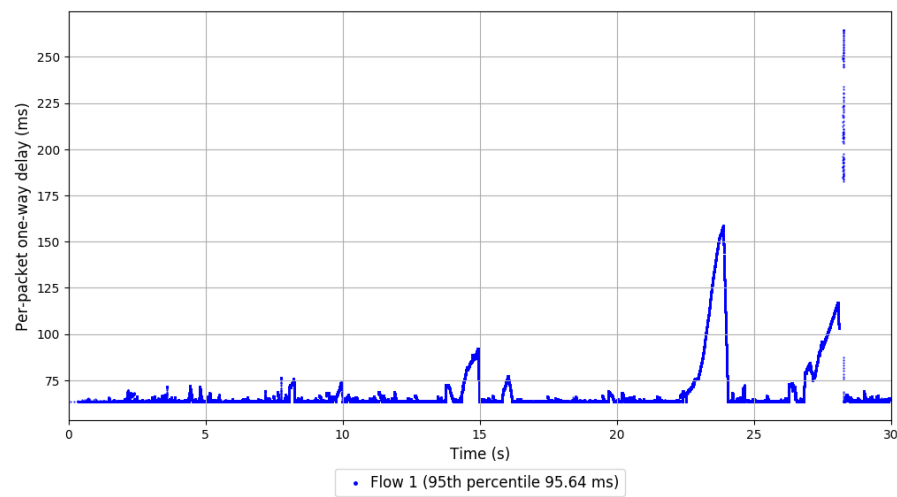
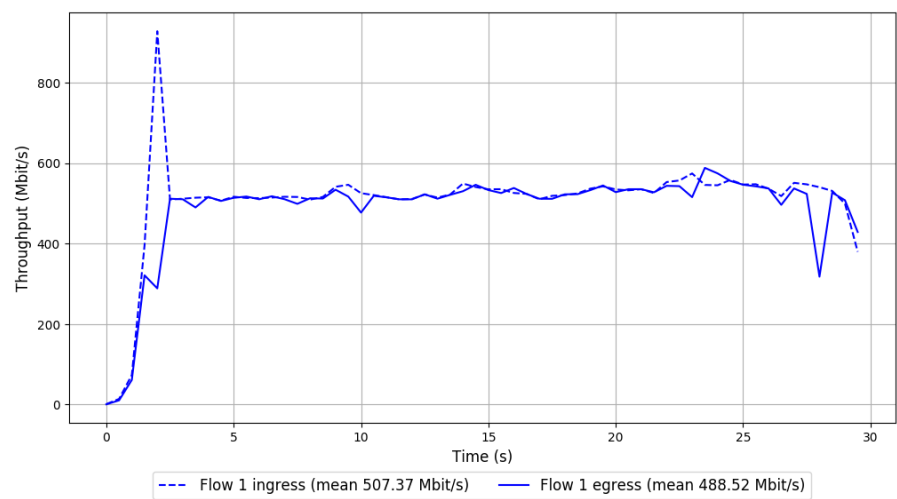
-- Flow 1:

Average throughput: 488.52 Mbit/s

95th percentile per-packet one-way delay: 95.641 ms

Loss rate: 3.74%

Run 10: Report of PCC — Data Link

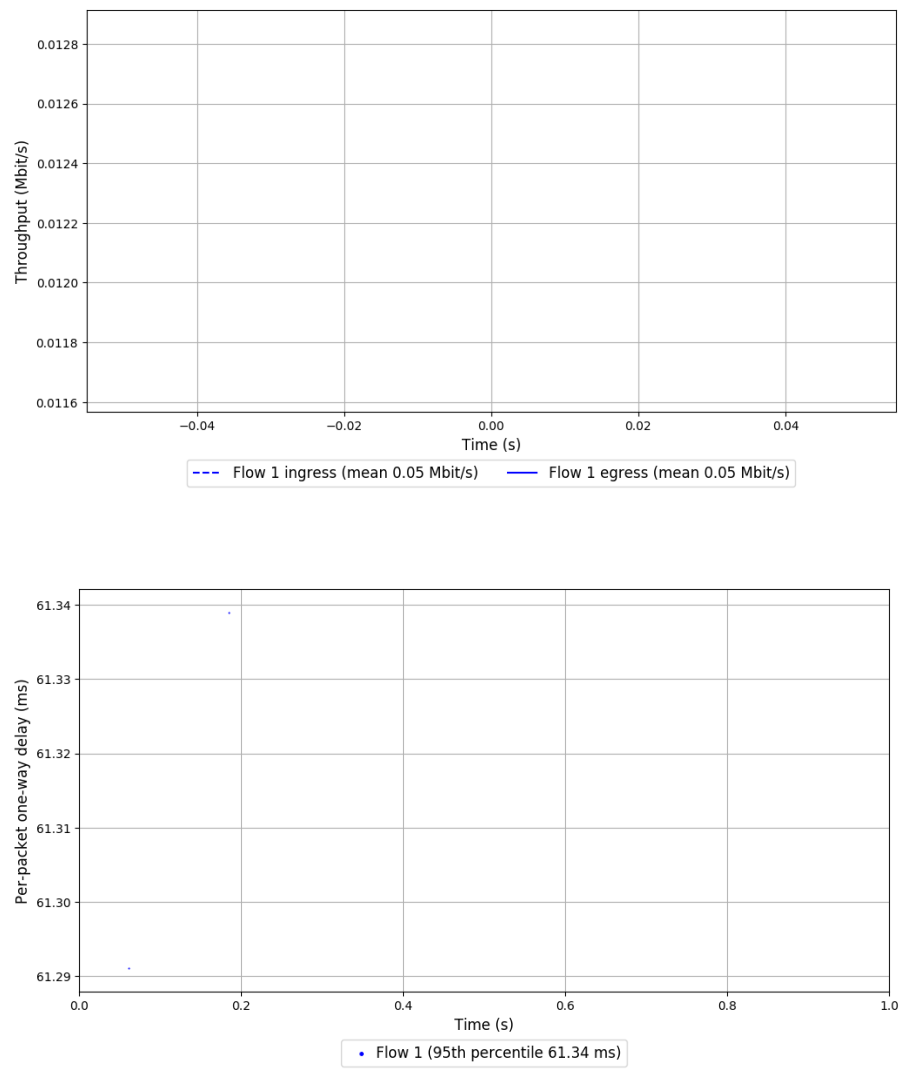


Run 1: Statistics of QUIC Cubic

Start at: 2017-08-11 17:11:40

End at: 2017-08-11 17:12:10

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-11 17:22:27

End at: 2017-08-11 17:22:57

Below is generated by plot.py at 2017-08-11 20:05:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.19 Mbit/s

95th percentile per-packet one-way delay: 63.784 ms

Loss rate: 0.00%

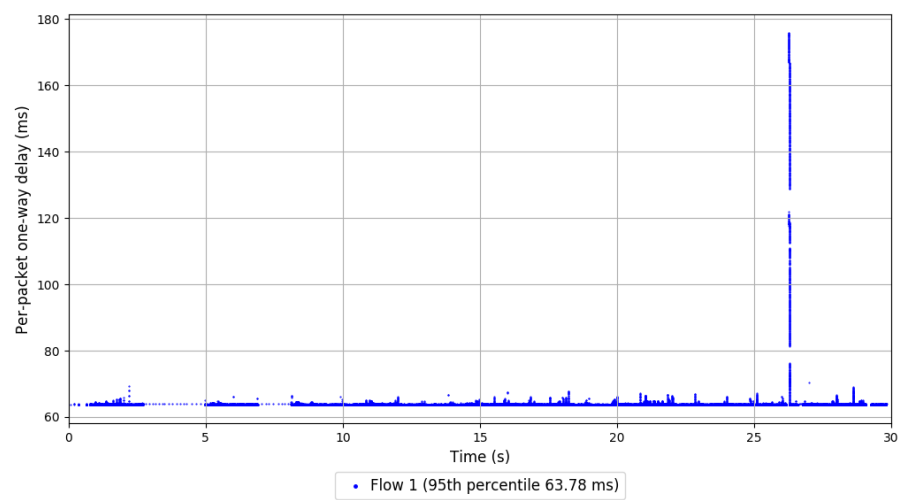
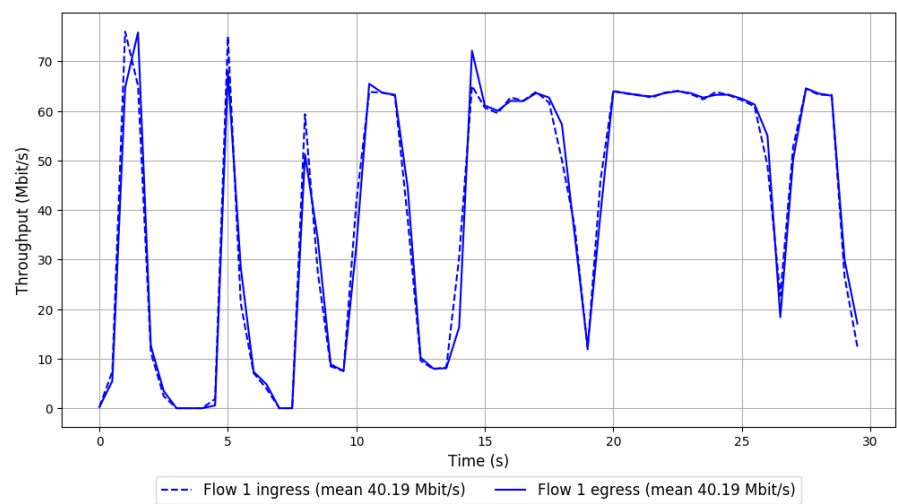
-- Flow 1:

Average throughput: 40.19 Mbit/s

95th percentile per-packet one-way delay: 63.784 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-11 17:33:06

End at: 2017-08-11 17:33:36

Below is generated by plot.py at 2017-08-11 20:05:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.55 Mbit/s

95th percentile per-packet one-way delay: 61.474 ms

Loss rate: 0.00%

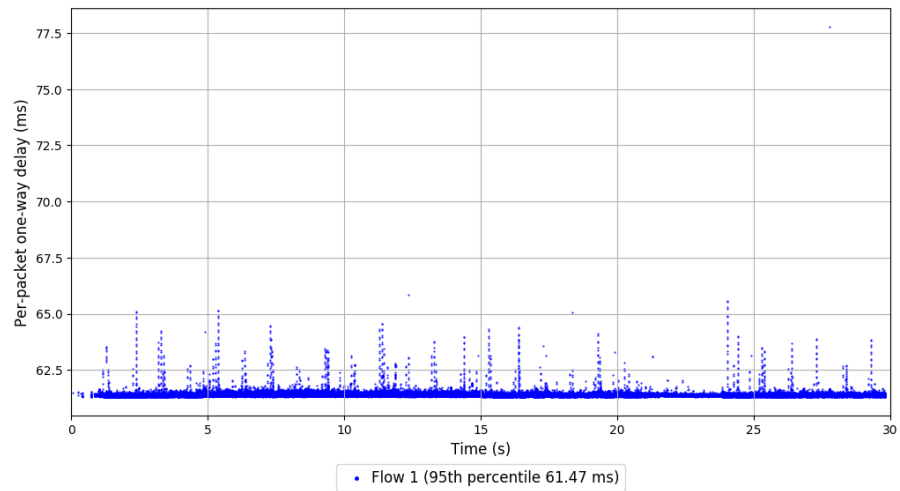
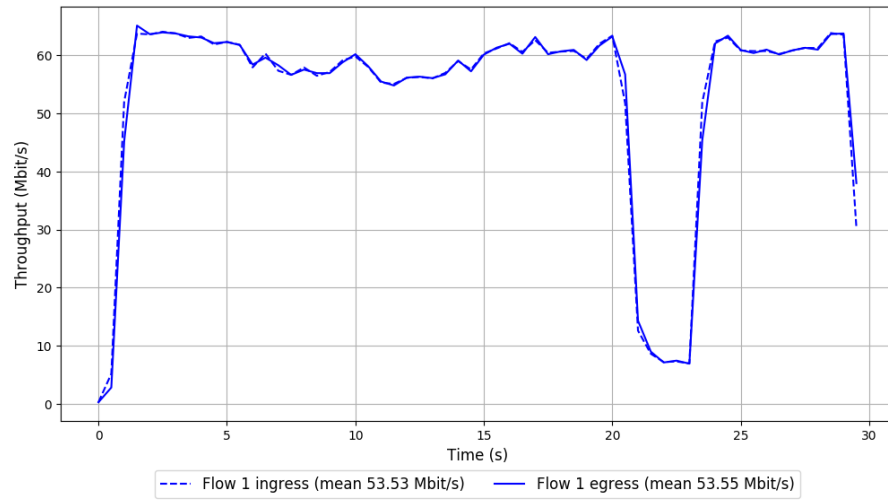
-- Flow 1:

Average throughput: 53.55 Mbit/s

95th percentile per-packet one-way delay: 61.474 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-11 17:43:38

End at: 2017-08-11 17:44:08

Below is generated by plot.py at 2017-08-11 20:05:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.88 Mbit/s

95th percentile per-packet one-way delay: 63.815 ms

Loss rate: 0.00%

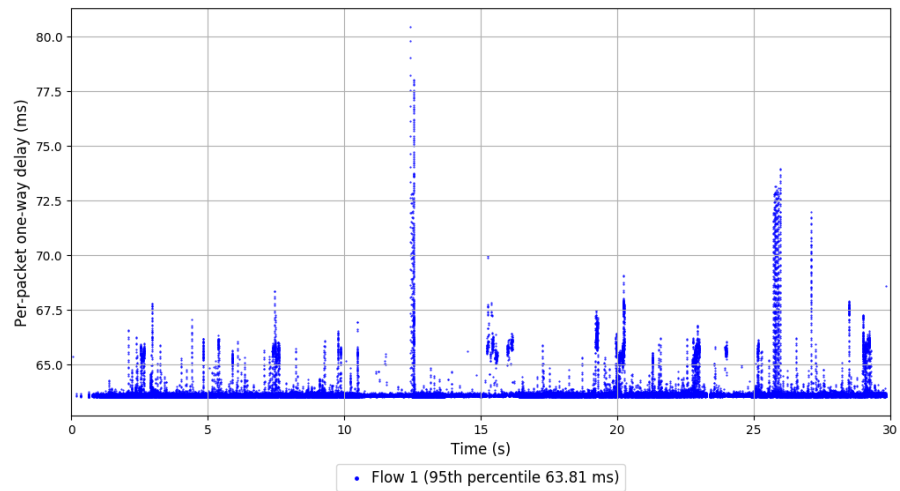
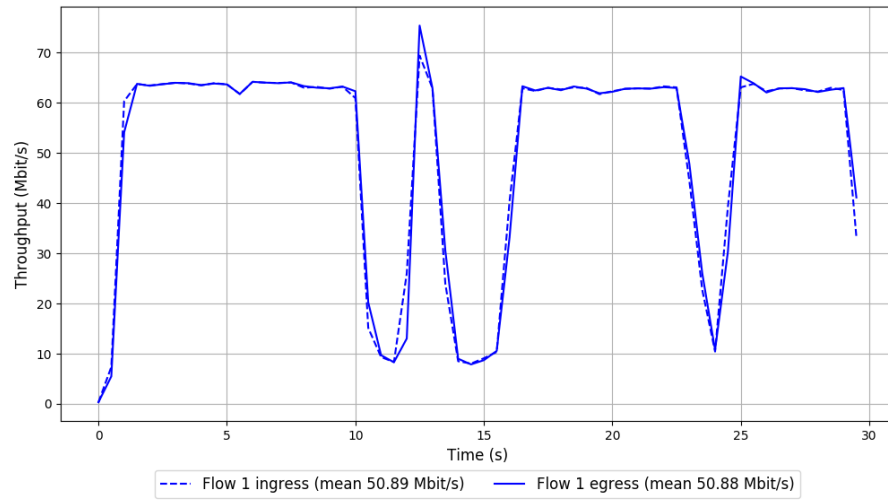
-- Flow 1:

Average throughput: 50.88 Mbit/s

95th percentile per-packet one-way delay: 63.815 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-11 17:53:56

End at: 2017-08-11 17:54:26

Below is generated by plot.py at 2017-08-11 20:05:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.44 Mbit/s

95th percentile per-packet one-way delay: 63.266 ms

Loss rate: 0.00%

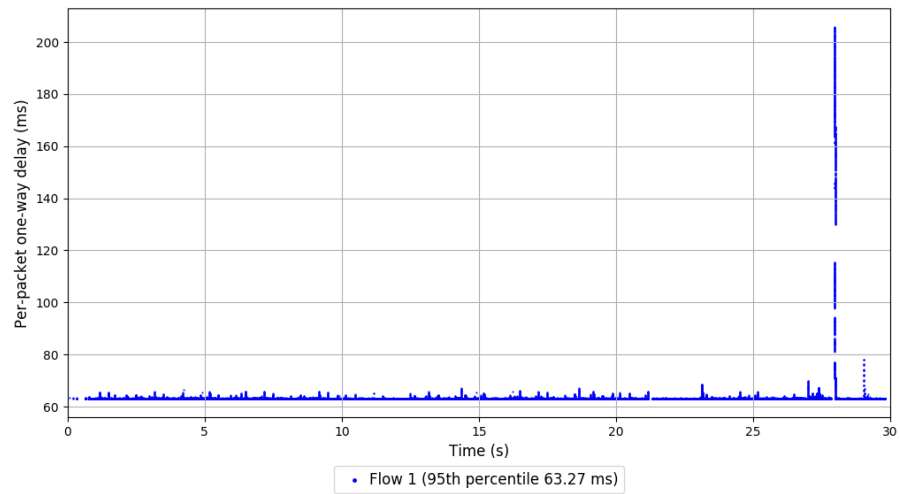
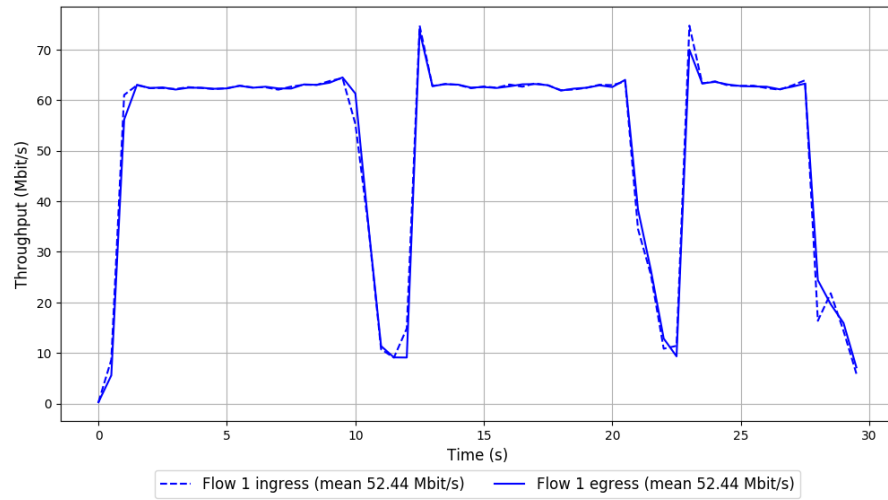
-- Flow 1:

Average throughput: 52.44 Mbit/s

95th percentile per-packet one-way delay: 63.266 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

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

End at: 2017-08-11 18:04:38

Below is generated by plot.py at 2017-08-11 20:05:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.92 Mbit/s

95th percentile per-packet one-way delay: 63.511 ms

Loss rate: 0.00%

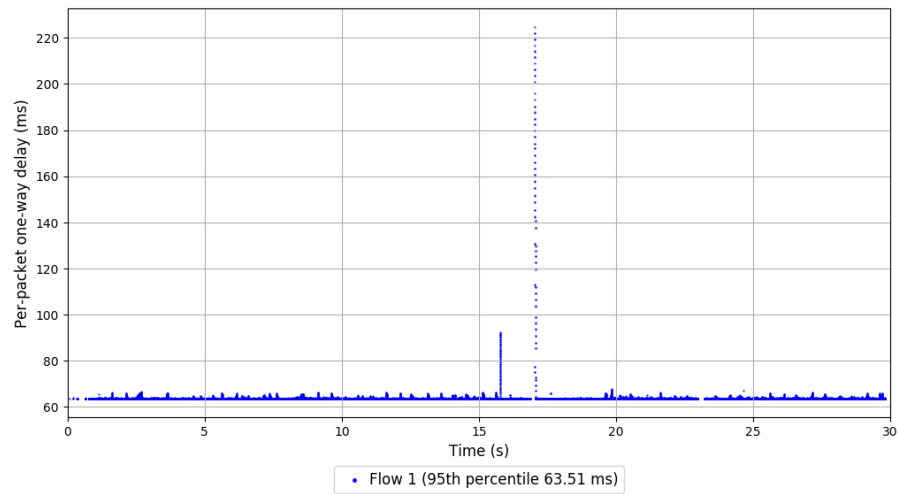
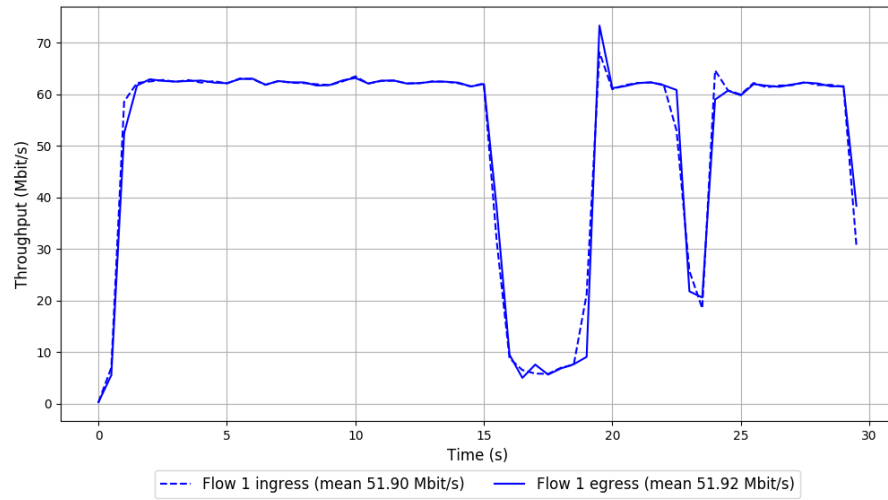
-- Flow 1:

Average throughput: 51.92 Mbit/s

95th percentile per-packet one-way delay: 63.511 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-11 18:14:13

End at: 2017-08-11 18:14:43

Below is generated by plot.py at 2017-08-11 20:05:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.21 Mbit/s

95th percentile per-packet one-way delay: 63.550 ms

Loss rate: 0.00%

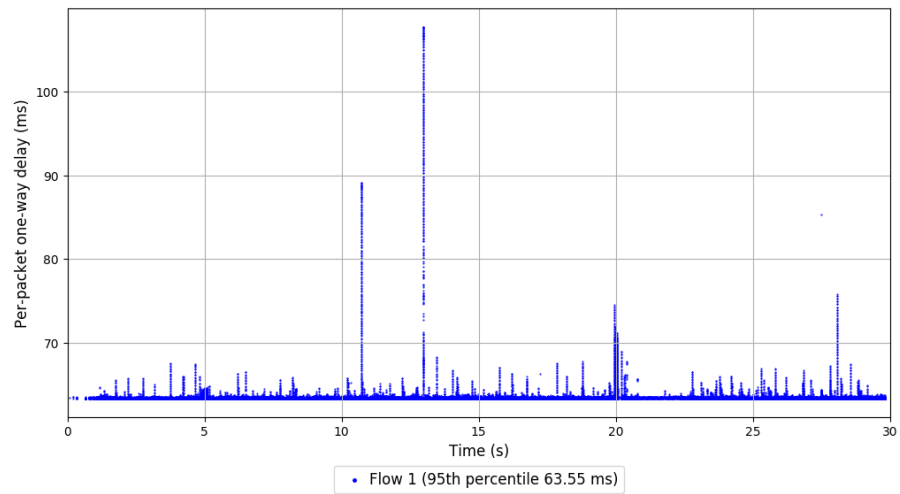
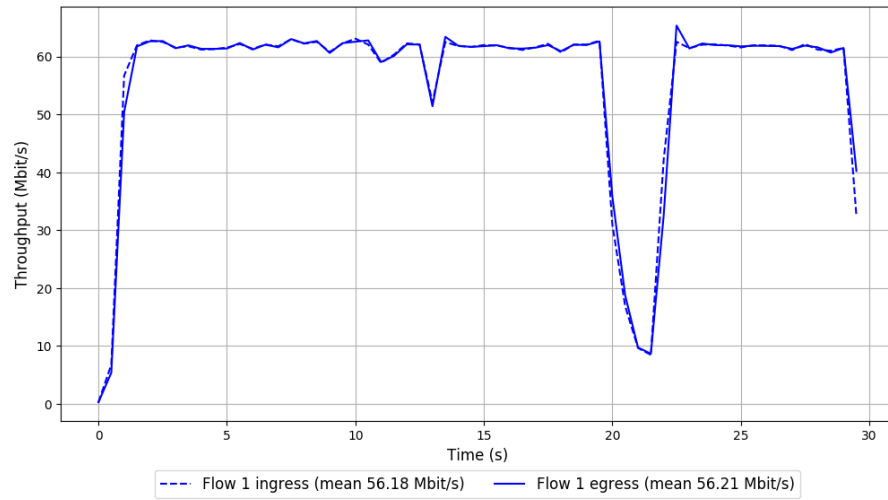
-- Flow 1:

Average throughput: 56.21 Mbit/s

95th percentile per-packet one-way delay: 63.550 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-11 18:24:34

End at: 2017-08-11 18:25:04

Below is generated by plot.py at 2017-08-11 20:05:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.69 Mbit/s

95th percentile per-packet one-way delay: 63.532 ms

Loss rate: 0.00%

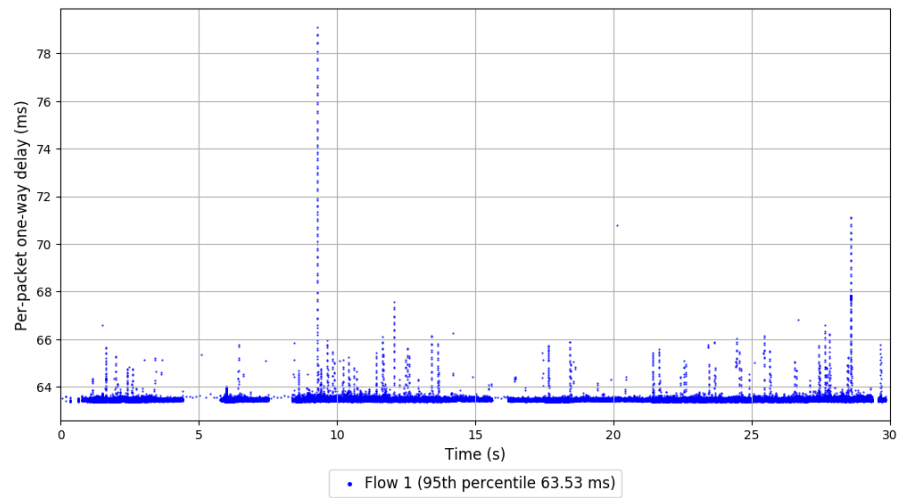
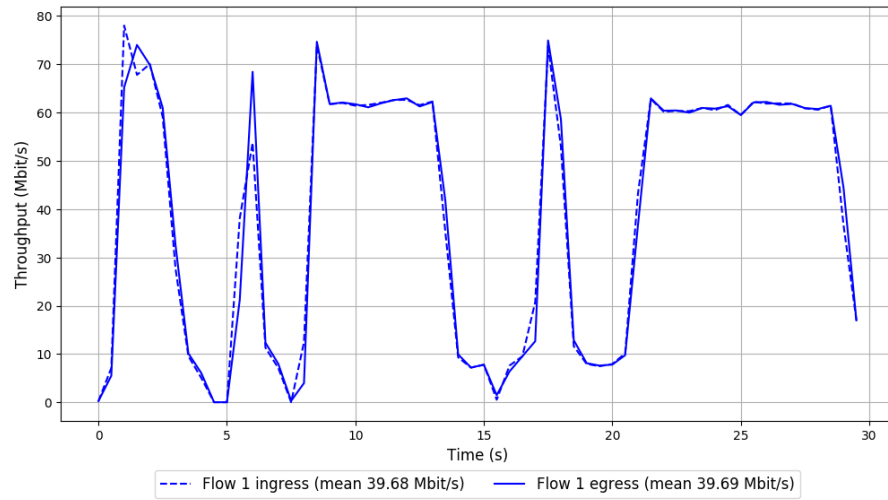
-- Flow 1:

Average throughput: 39.69 Mbit/s

95th percentile per-packet one-way delay: 63.532 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-11 18:34:47

End at: 2017-08-11 18:35:17

Below is generated by plot.py at 2017-08-11 20:05:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.06 Mbit/s

95th percentile per-packet one-way delay: 63.490 ms

Loss rate: 0.01%

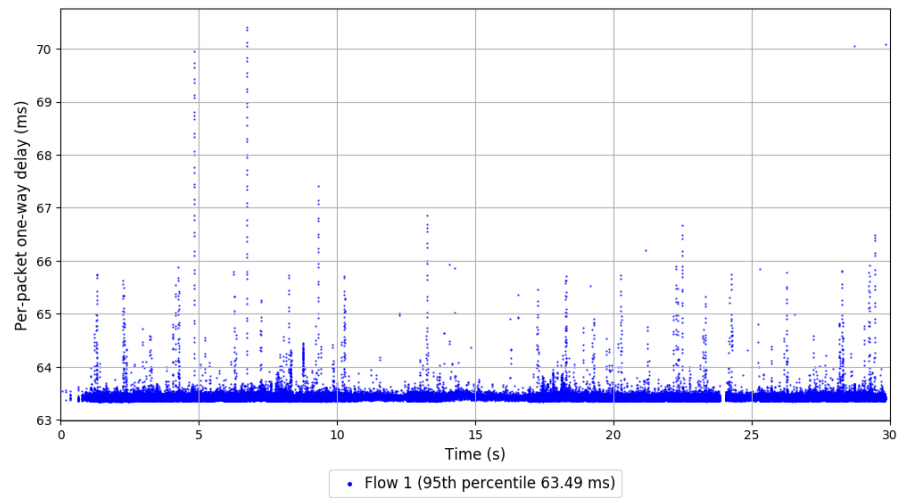
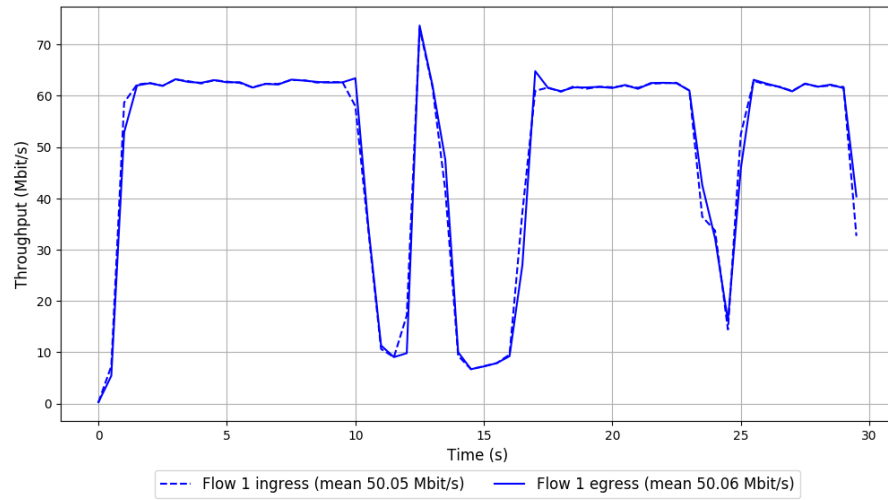
-- Flow 1:

Average throughput: 50.06 Mbit/s

95th percentile per-packet one-way delay: 63.490 ms

Loss rate: 0.01%

Run 9: Report of QUIC Cubic — Data Link

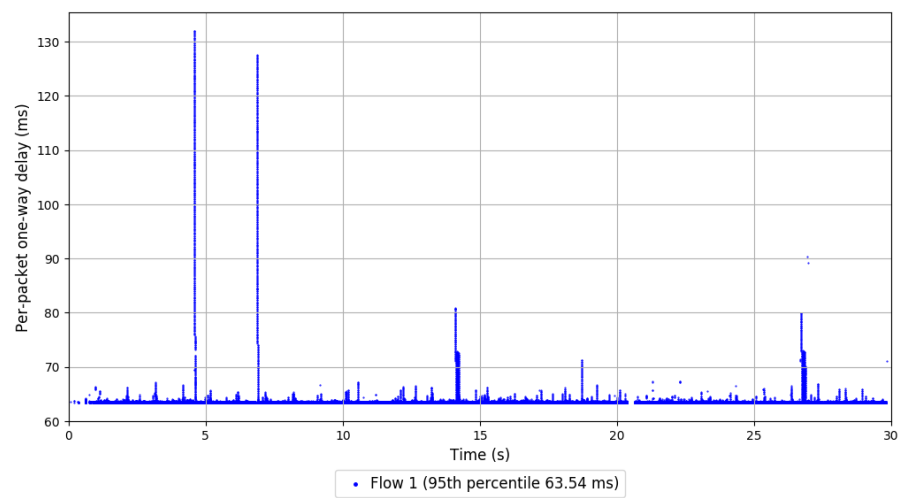
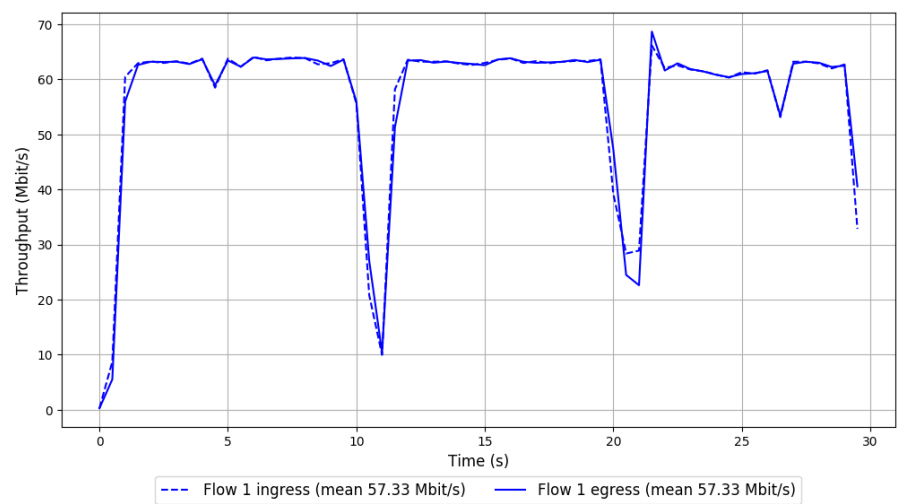


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-11 18:45:23
End at: 2017-08-11 18:45:53

# Below is generated by plot.py at 2017-08-11 20:05:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 63.536 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 57.33 Mbit/s
95th percentile per-packet one-way delay: 63.536 ms
Loss rate: 0.01%
```

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-11 17:09:40

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

Below is generated by plot.py at 2017-08-11 20:05:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.67 Mbit/s

95th percentile per-packet one-way delay: 64.127 ms

Loss rate: 0.02%

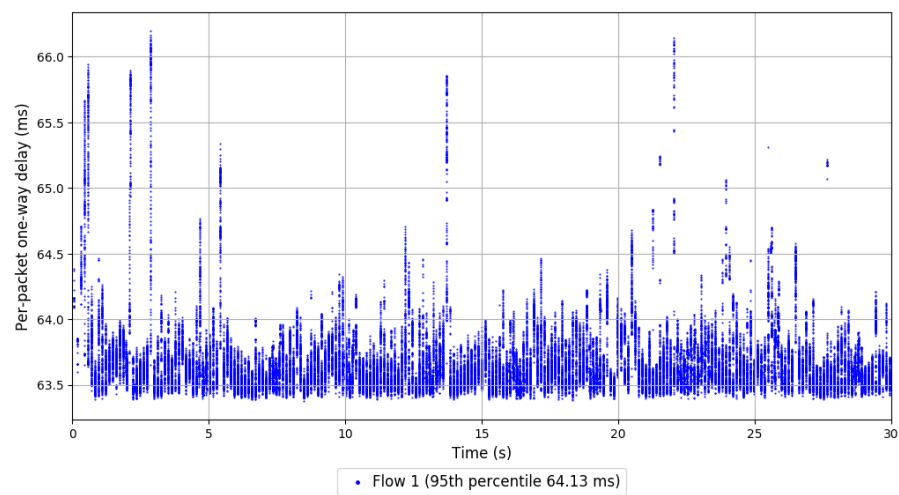
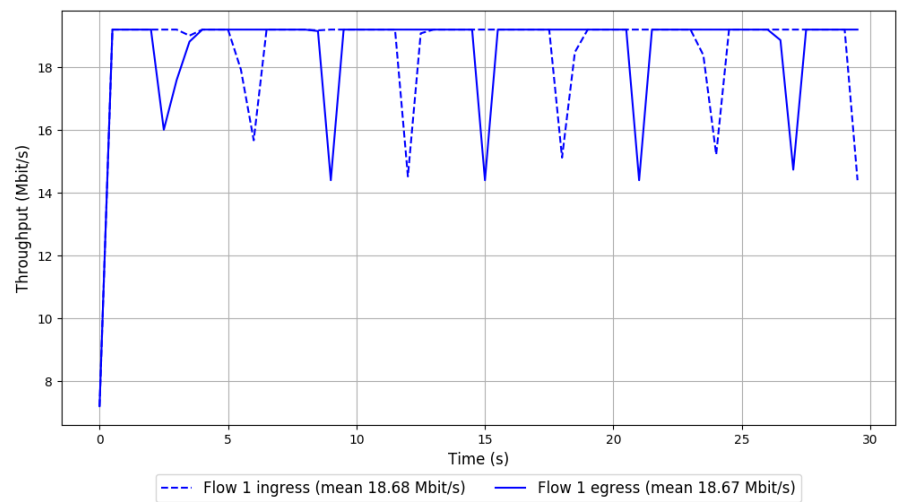
-- Flow 1:

Average throughput: 18.67 Mbit/s

95th percentile per-packet one-way delay: 64.127 ms

Loss rate: 0.02%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-11 17:20:13

End at: 2017-08-11 17:20:43

Below is generated by plot.py at 2017-08-11 20:06:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.55 Mbit/s

95th percentile per-packet one-way delay: 64.116 ms

Loss rate: 0.00%

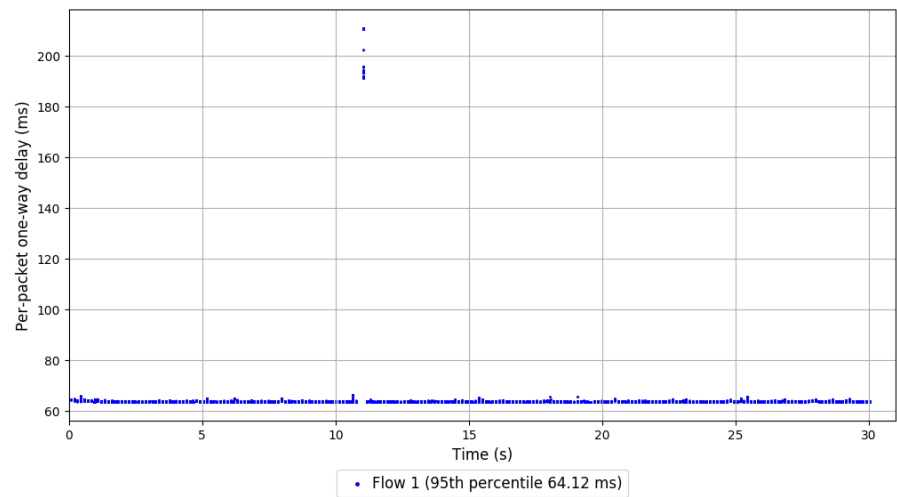
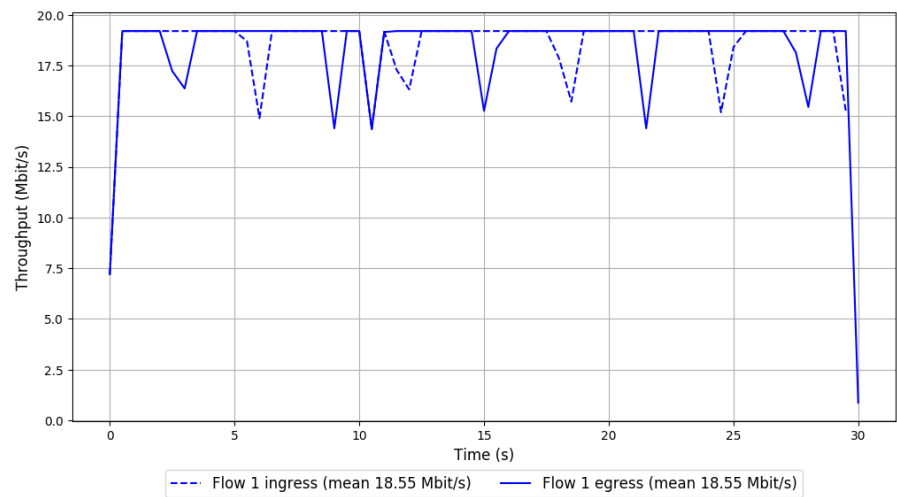
-- Flow 1:

Average throughput: 18.55 Mbit/s

95th percentile per-packet one-way delay: 64.116 ms

Loss rate: 0.00%

Run 2: Report of Saturator — Data Link

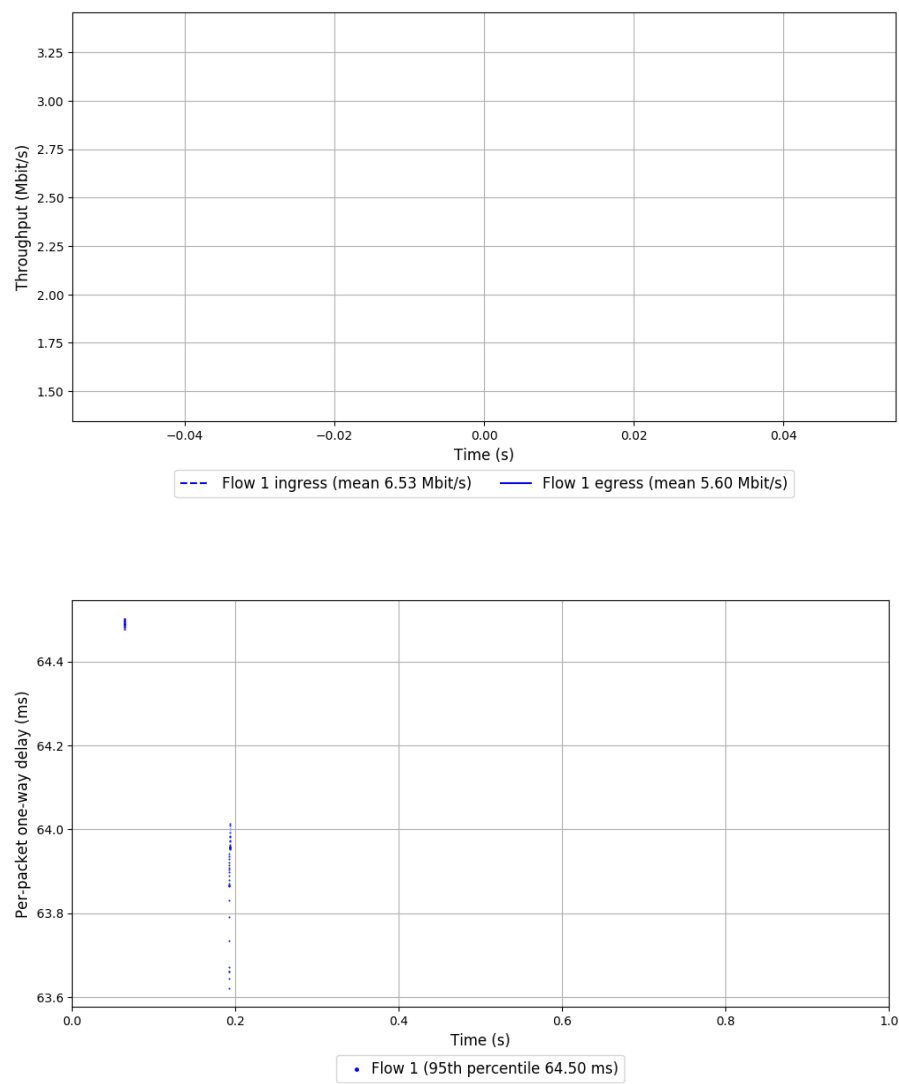


Run 3: Statistics of Saturator

Start at: 2017-08-11 17:30:46

End at: 2017-08-11 17:31:16

Run 3: Report of Saturator — Data Link

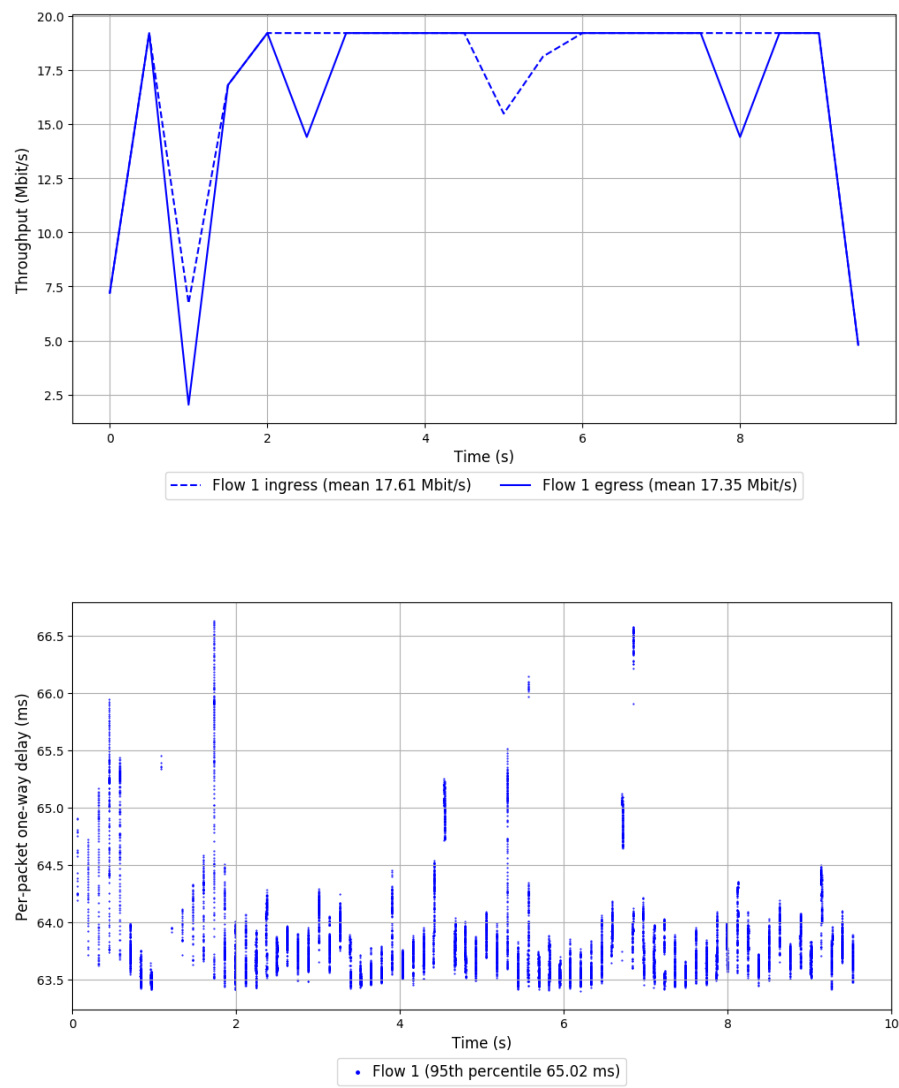


Run 4: Statistics of Saturator

Start at: 2017-08-11 17:41:14

End at: 2017-08-11 17:41:44

Run 4: Report of Saturator — Data Link

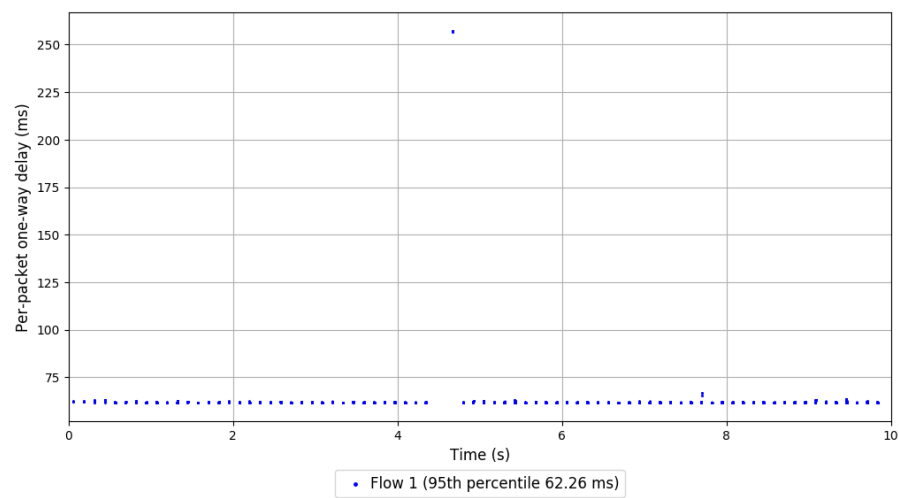
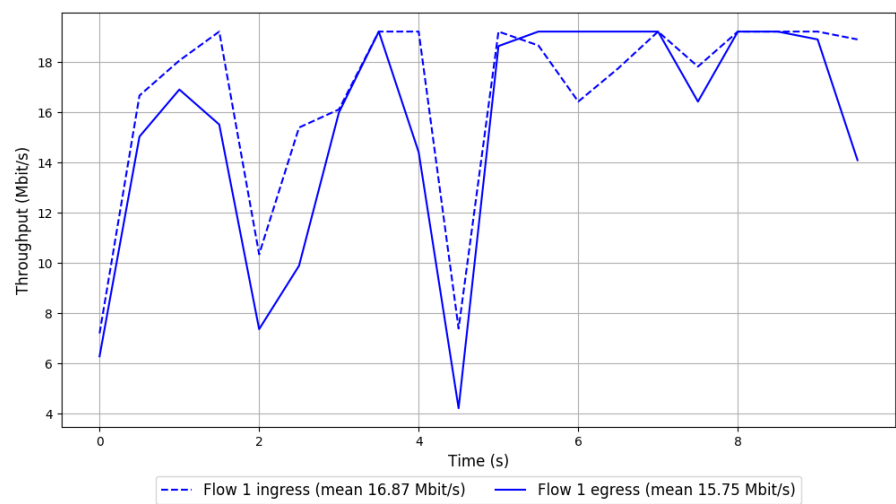


Run 5: Statistics of Saturator

Start at: 2017-08-11 17:51:50

End at: 2017-08-11 17:52:20

Run 5: Report of Saturator — Data Link

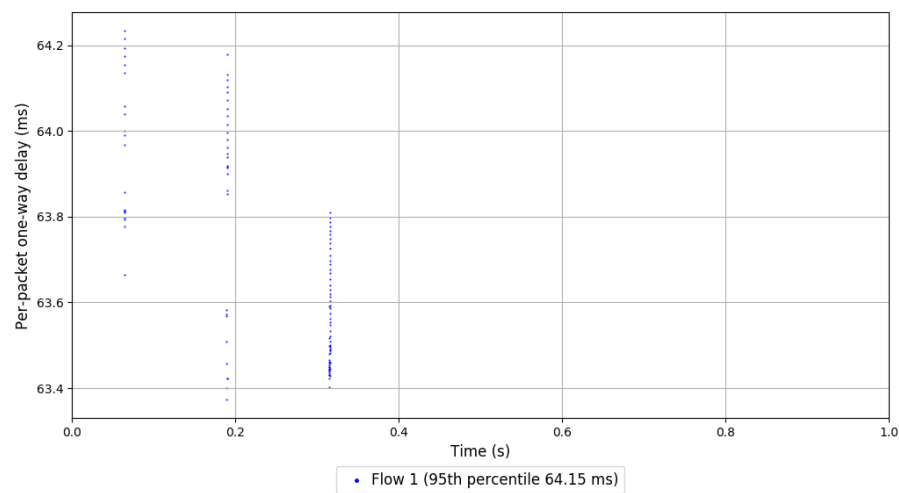
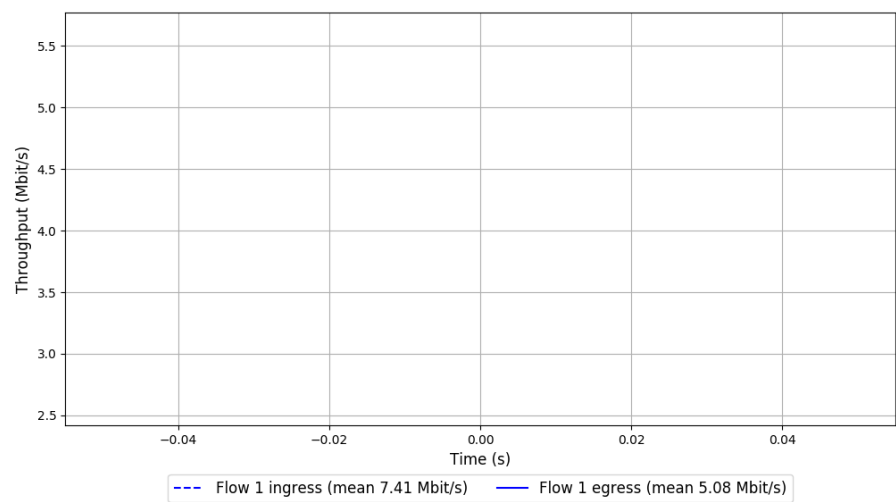


Run 6: Statistics of Saturator

Start at: 2017-08-11 18:01:49

End at: 2017-08-11 18:02:19

Run 6: Report of Saturator — Data Link

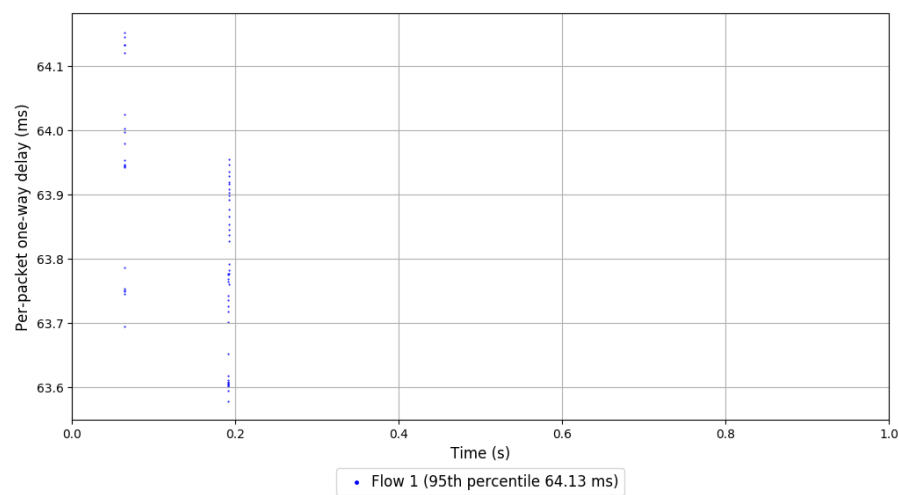
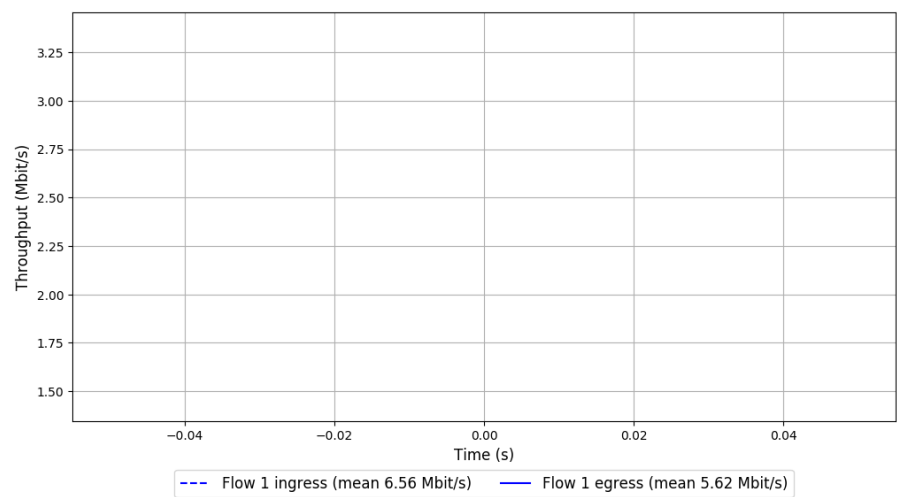


Run 7: Statistics of Saturator

Start at: 2017-08-11 18:11:56

End at: 2017-08-11 18:12:26

Run 7: Report of Saturator — Data Link

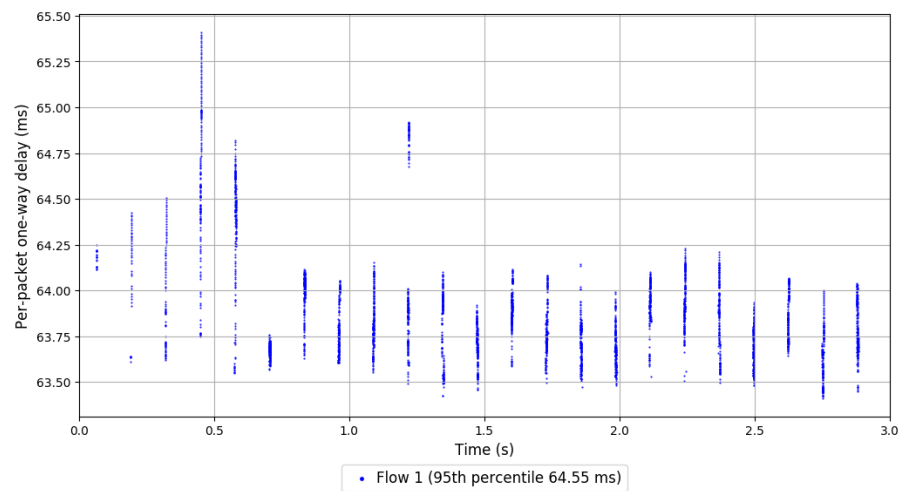
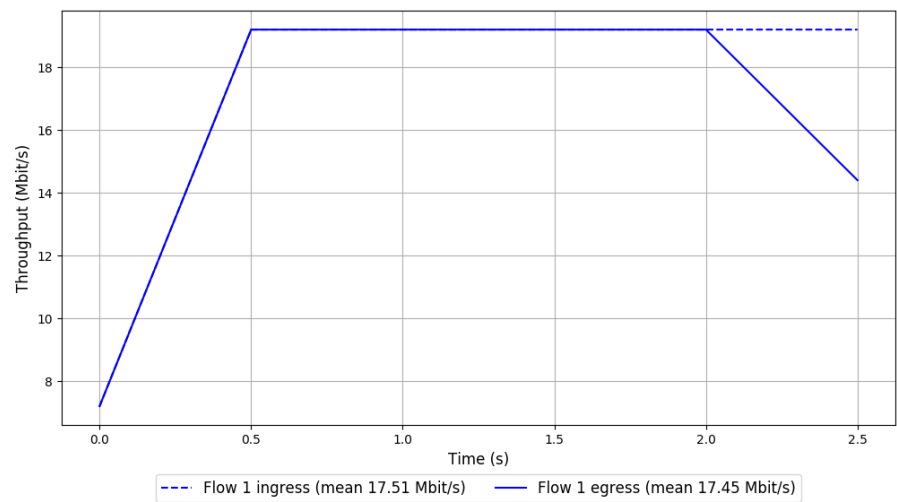


Run 8: Statistics of Saturator

Start at: 2017-08-11 18:22:16

End at: 2017-08-11 18:22:46

Run 8: Report of Saturator — Data Link

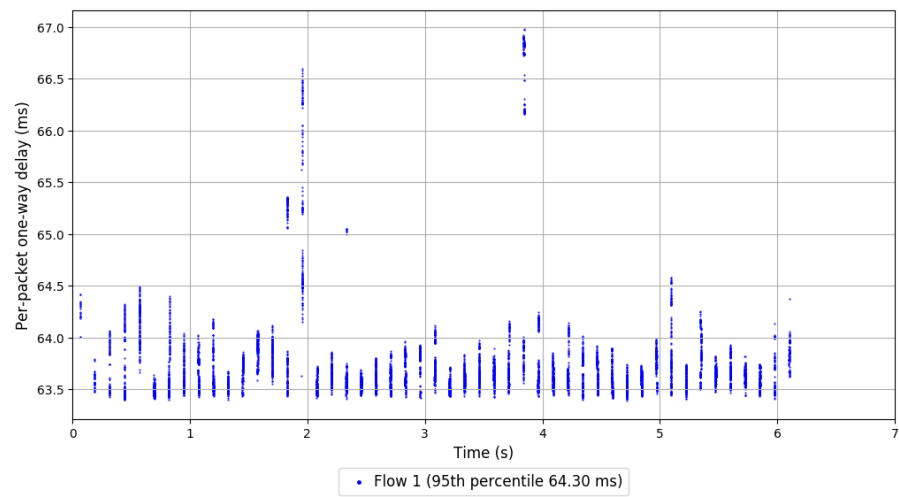
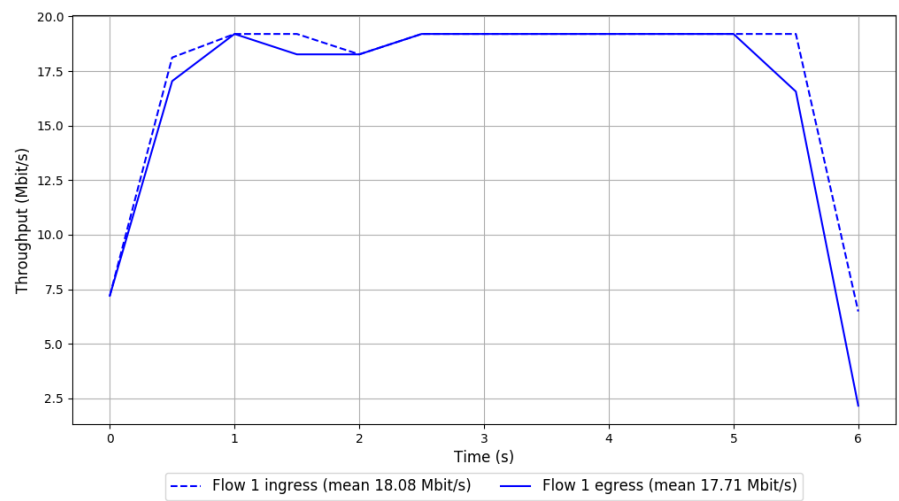


Run 9: Statistics of Saturator

Start at: 2017-08-11 18:32:48

End at: 2017-08-11 18:33:18

Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-11 18:43:05

End at: 2017-08-11 18:43:35

Below is generated by plot.py at 2017-08-11 20:06:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.26 Mbit/s

95th percentile per-packet one-way delay: 64.290 ms

Loss rate: 0.44%

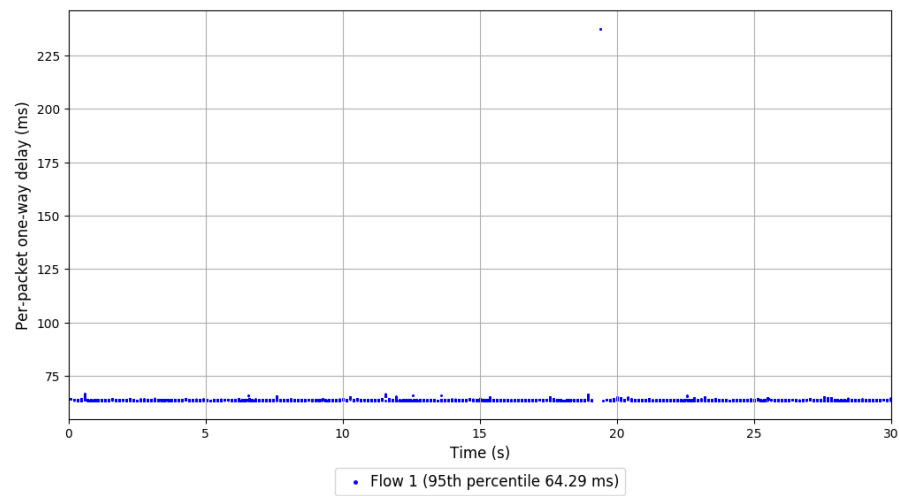
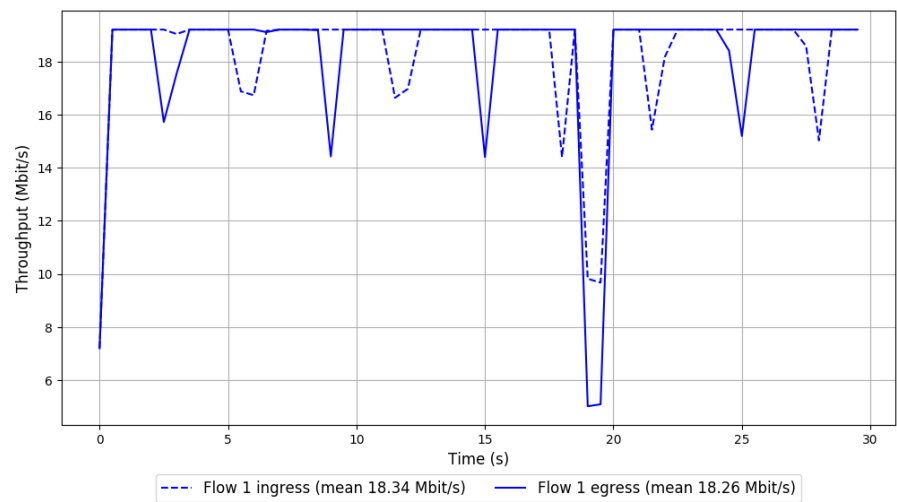
-- Flow 1:

Average throughput: 18.26 Mbit/s

95th percentile per-packet one-way delay: 64.290 ms

Loss rate: 0.44%

Run 10: Report of Saturator — Data Link

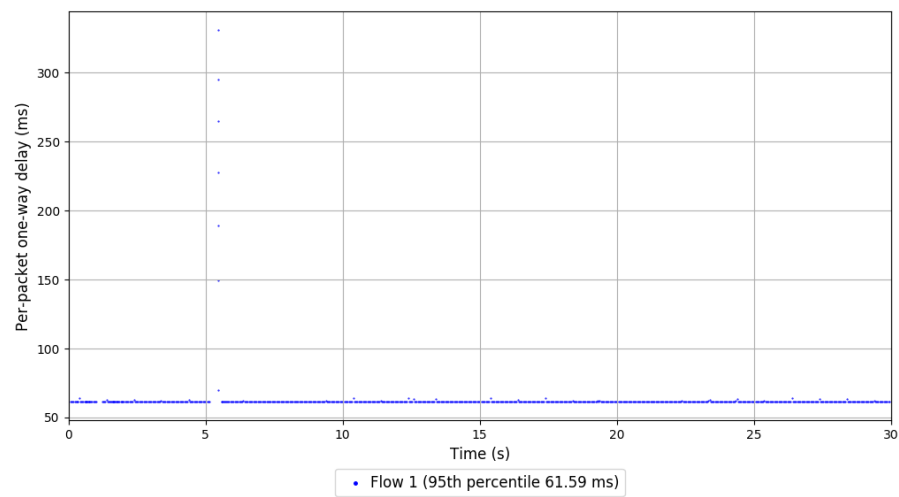
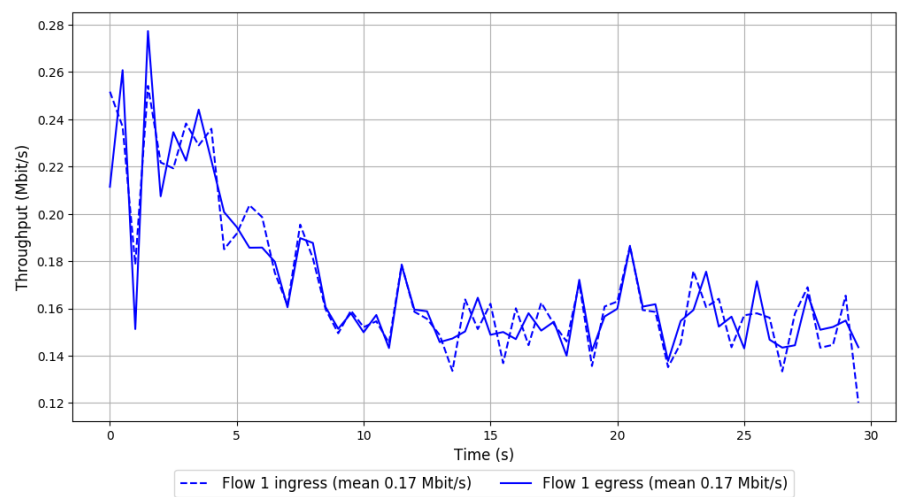


```
Run 1: Statistics of SCReAM

Start at: 2017-08-11 17:14:19
End at: 2017-08-11 17:14:49

# Below is generated by plot.py at 2017-08-11 20:06:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 61.585 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 61.585 ms
Loss rate: 0.15%
```

Run 1: Report of SReAM — Data Link

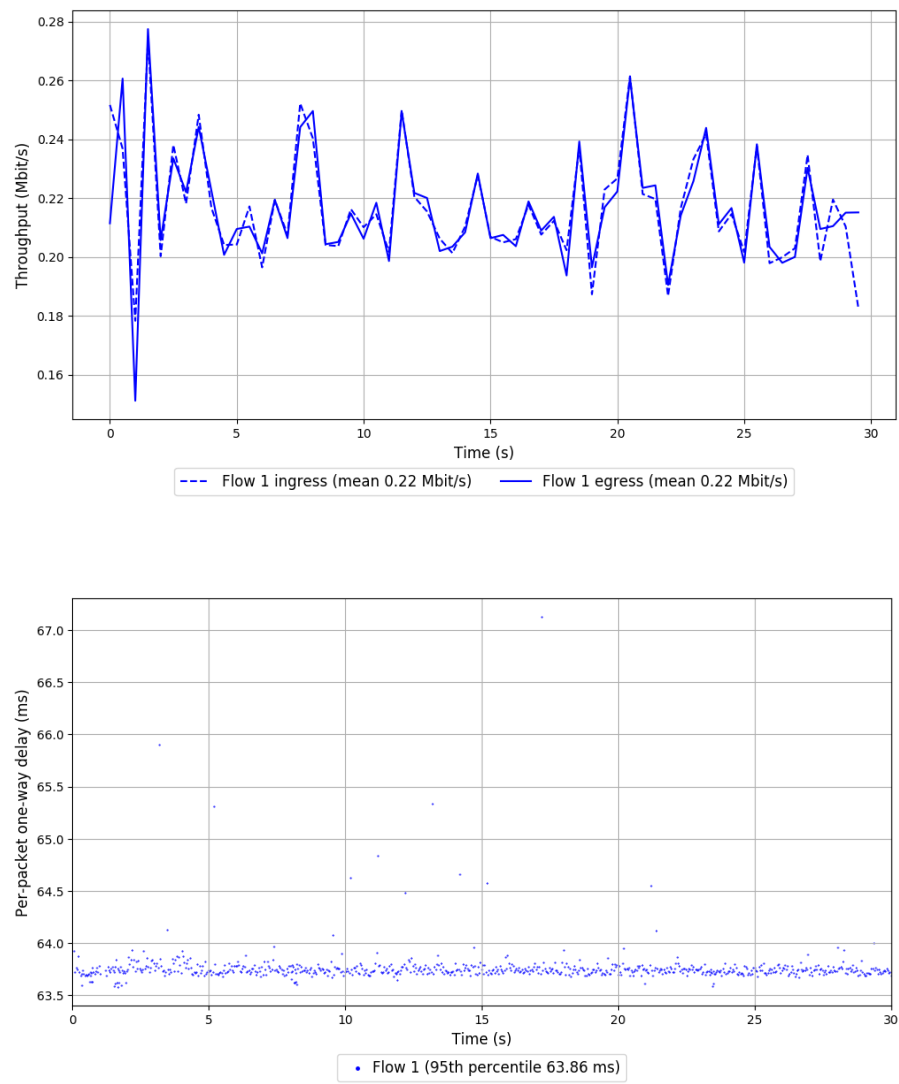


```
Run 2: Statistics of SCReAM

Start at: 2017-08-11 17:25:07
End at: 2017-08-11 17:25:37

# Below is generated by plot.py at 2017-08-11 20:06:15
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.858 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.858 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-11 17:35:46

End at: 2017-08-11 17:36:16

Below is generated by plot.py at 2017-08-11 20:06:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.649 ms

Loss rate: 0.00%

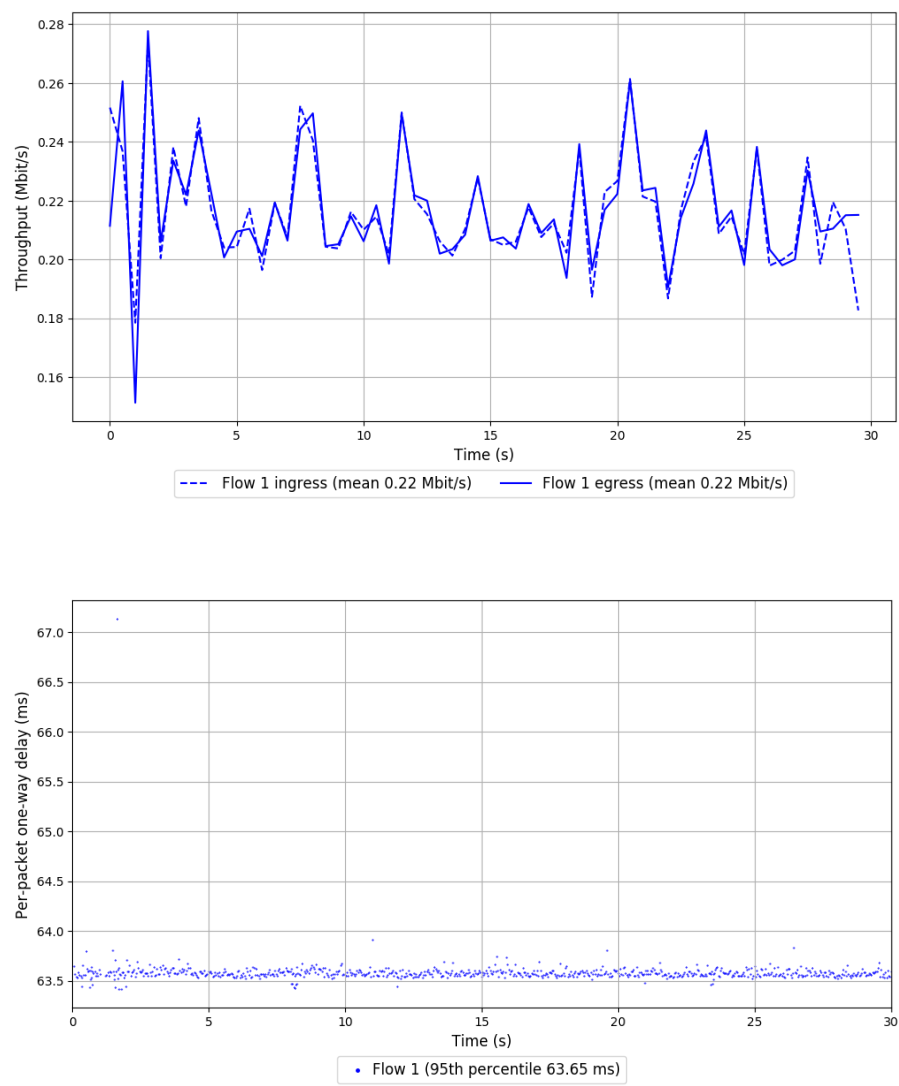
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.649 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-08-11 17:46:14

End at: 2017-08-11 17:46:44

Below is generated by plot.py at 2017-08-11 20:06:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.705 ms

Loss rate: 0.00%

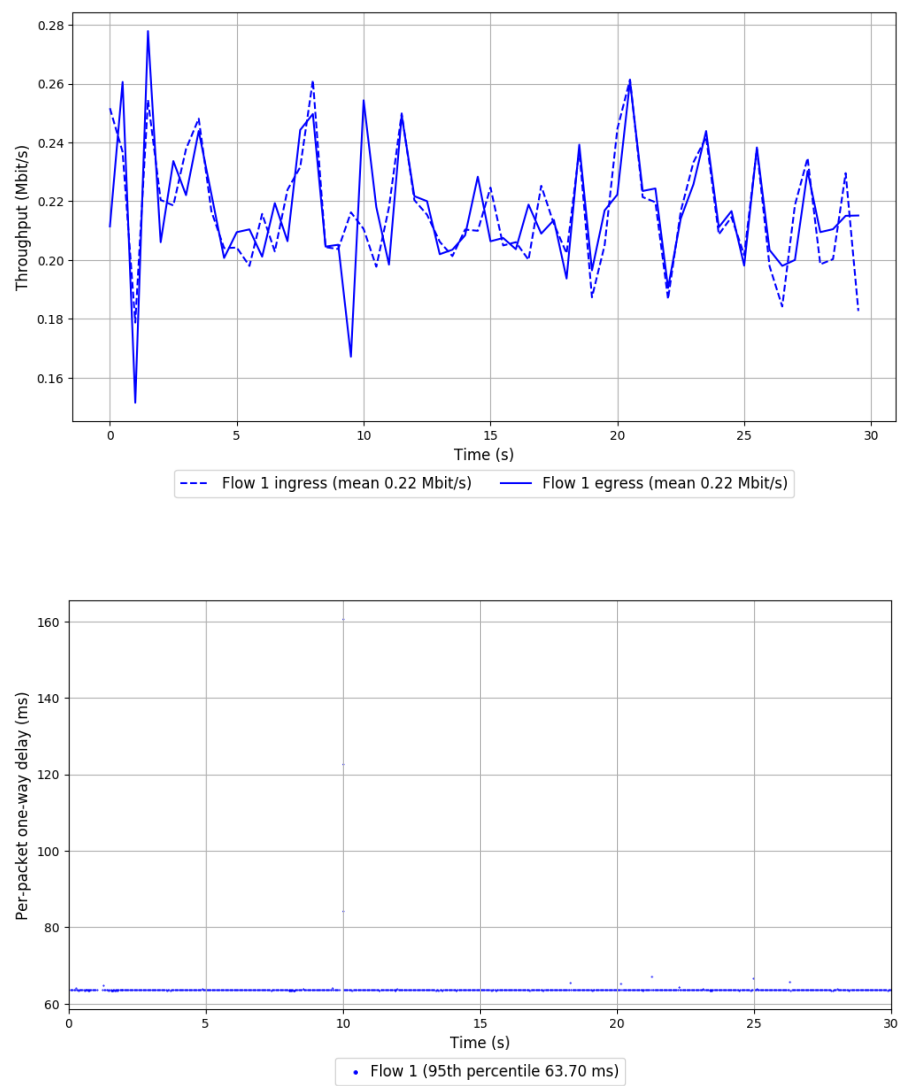
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.705 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-11 17:56:35

End at: 2017-08-11 17:57:05

Below is generated by plot.py at 2017-08-11 20:06:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.842 ms

Loss rate: 0.00%

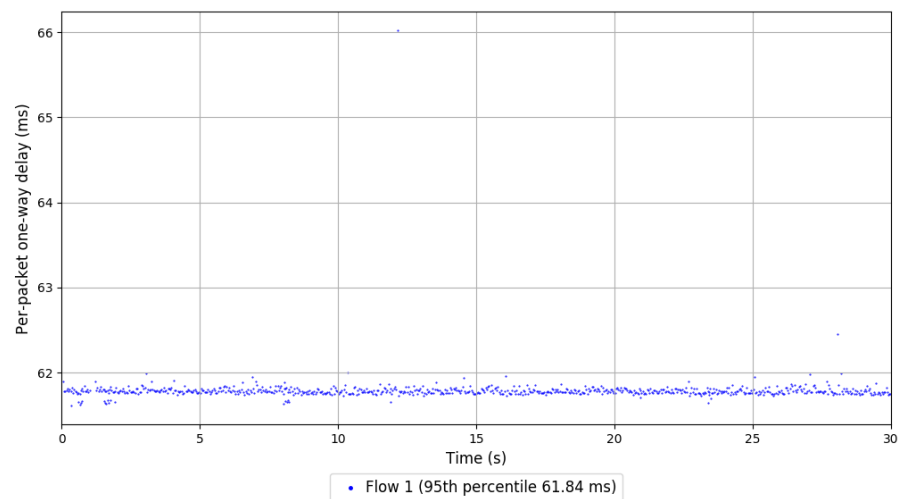
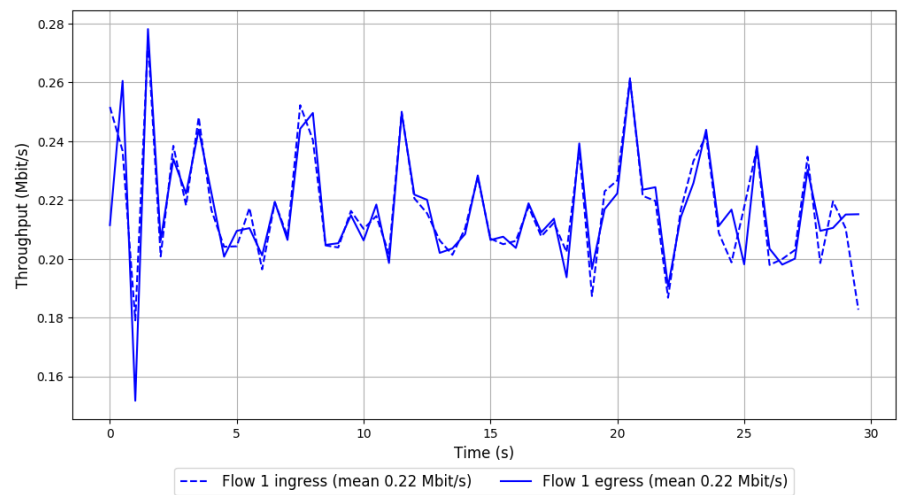
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.842 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-11 18:06:42

End at: 2017-08-11 18:07:13

Below is generated by plot.py at 2017-08-11 20:06:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.604 ms

Loss rate: 0.00%

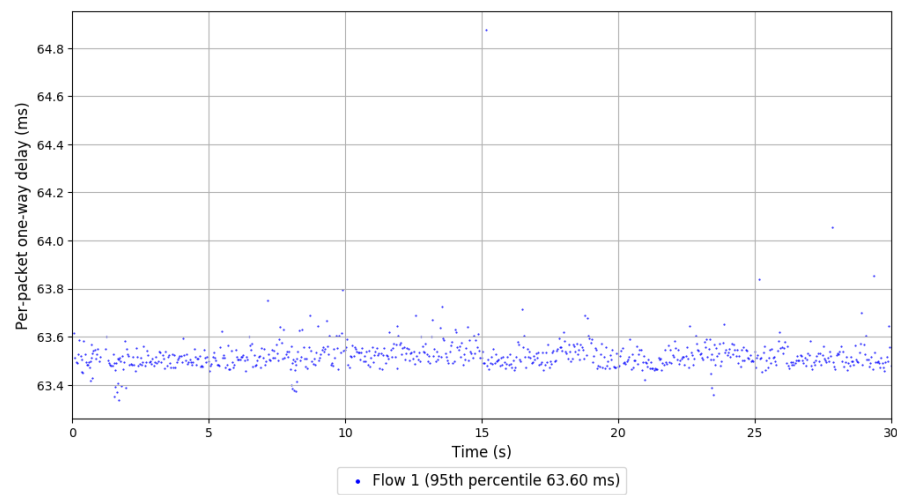
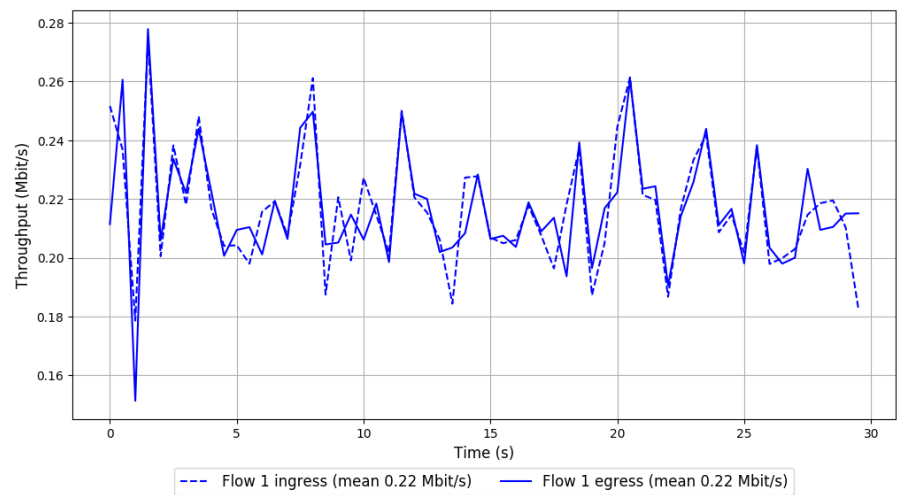
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.604 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-08-11 18:16:54

End at: 2017-08-11 18:17:24

Below is generated by plot.py at 2017-08-11 20:06:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.586 ms

Loss rate: 0.00%

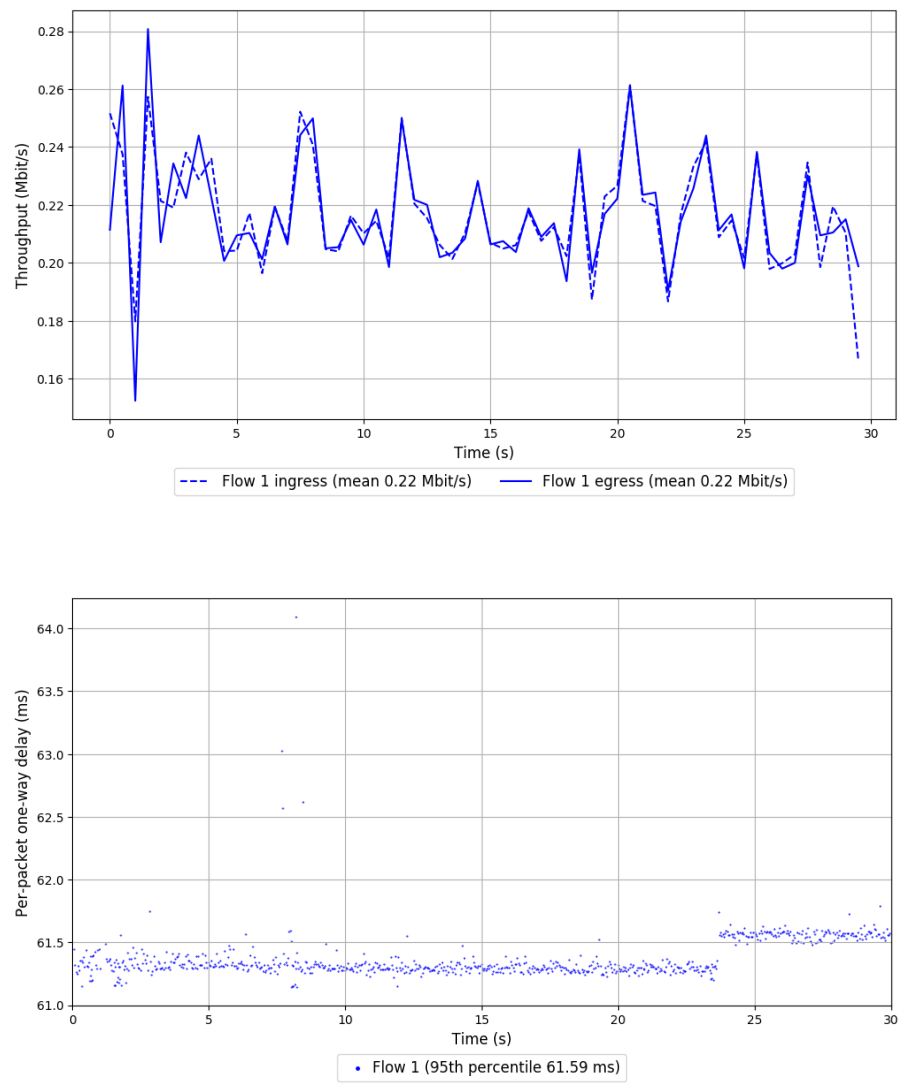
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.586 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-11 18:27:14

End at: 2017-08-11 18:27:44

Below is generated by plot.py at 2017-08-11 20:06:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.620 ms

Loss rate: 0.00%

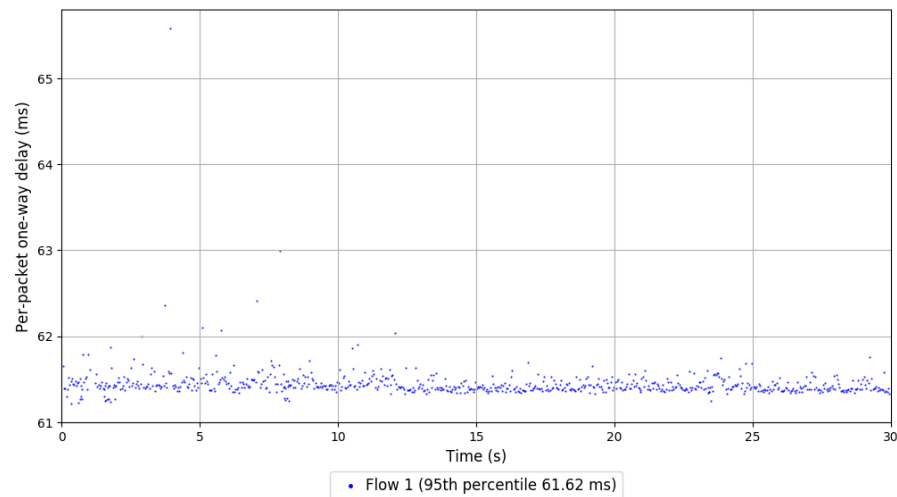
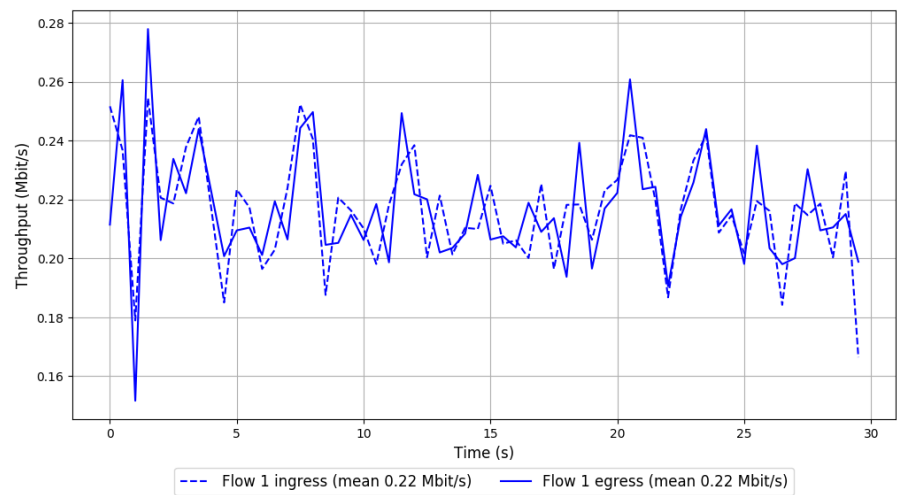
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.620 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-08-11 18:37:28

End at: 2017-08-11 18:37:58

Below is generated by plot.py at 2017-08-11 20:06:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.572 ms

Loss rate: 0.00%

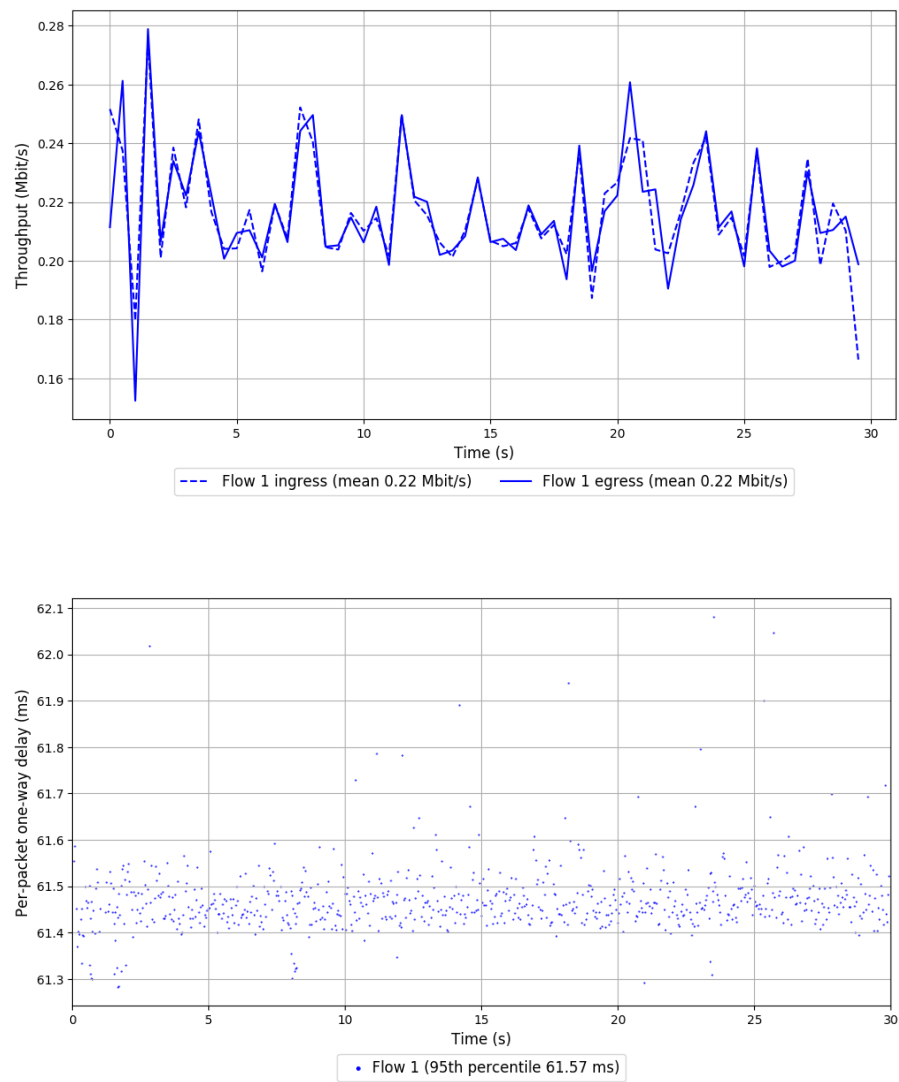
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.572 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-08-11 18:48:01

End at: 2017-08-11 18:48:31

Below is generated by plot.py at 2017-08-11 20:06:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.448 ms

Loss rate: 0.00%

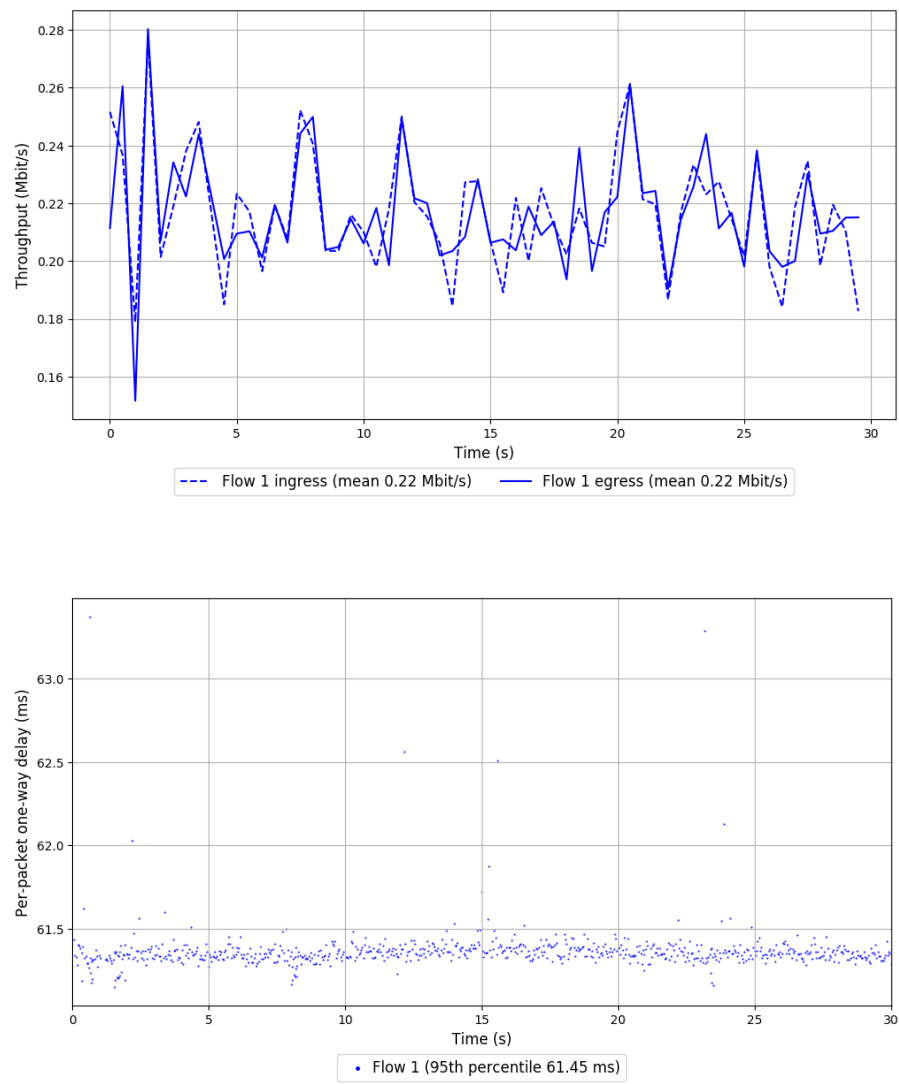
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.448 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-11 17:14:57

End at: 2017-08-11 17:15:27

Below is generated by plot.py at 2017-08-11 20:06:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 63.837 ms

Loss rate: 15.23%

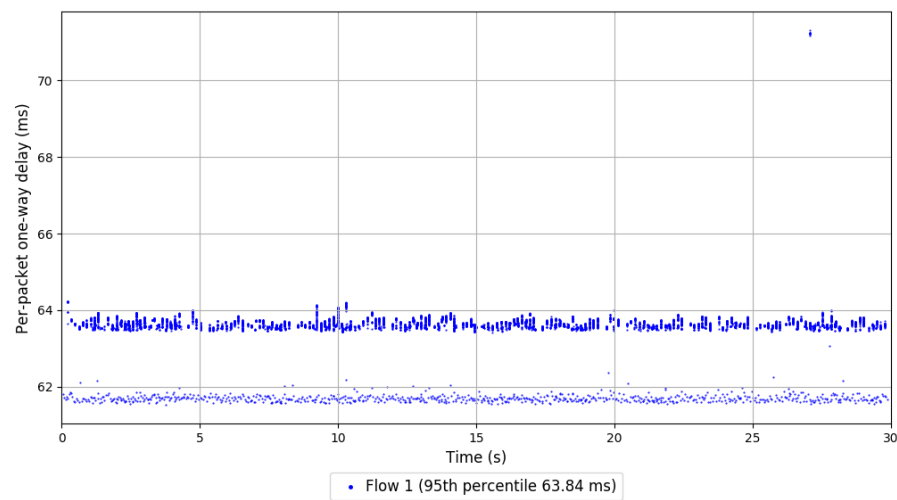
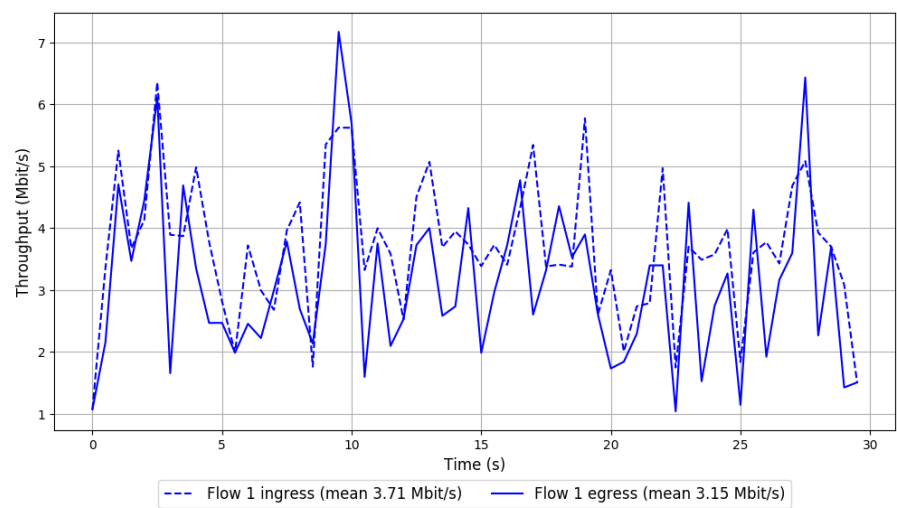
-- Flow 1:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 63.837 ms

Loss rate: 15.23%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-11 17:25:45

End at: 2017-08-11 17:26:15

Below is generated by plot.py at 2017-08-11 20:06:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 64.127 ms

Loss rate: 0.39%

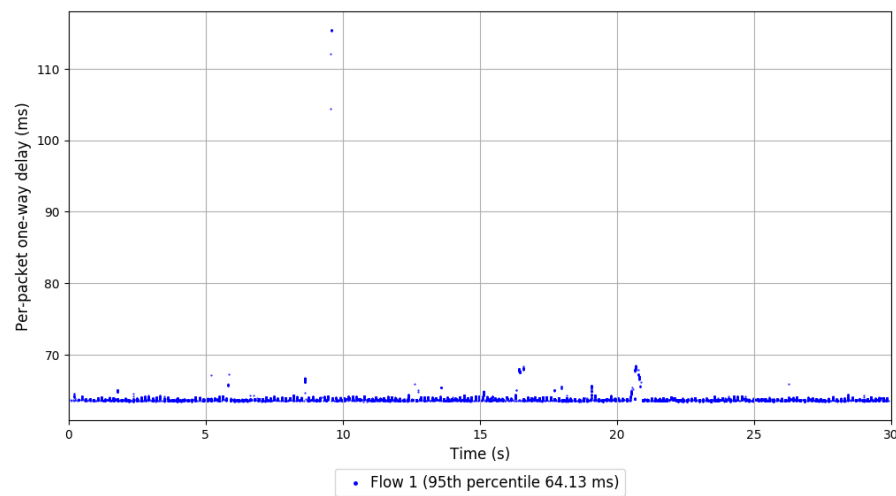
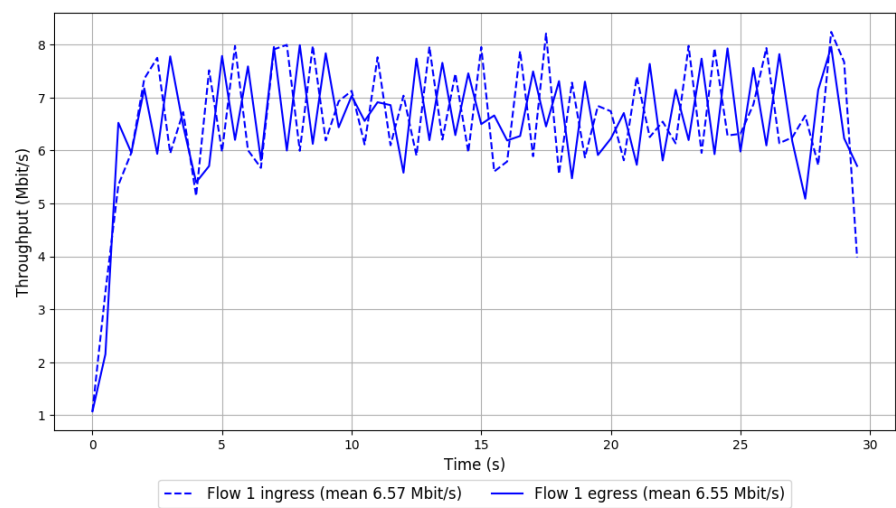
-- Flow 1:

Average throughput: 6.55 Mbit/s

95th percentile per-packet one-way delay: 64.127 ms

Loss rate: 0.39%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-11 17:36:23

End at: 2017-08-11 17:36:53

Below is generated by plot.py at 2017-08-11 20:06:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.32 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 0.55%

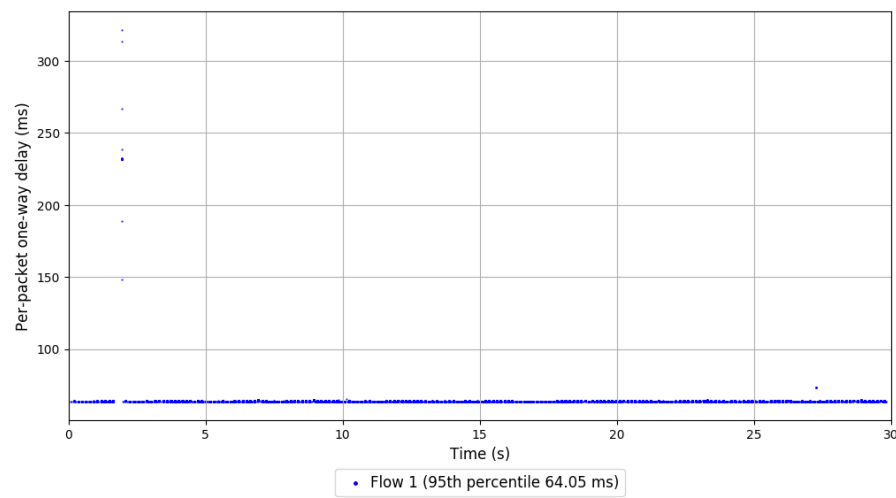
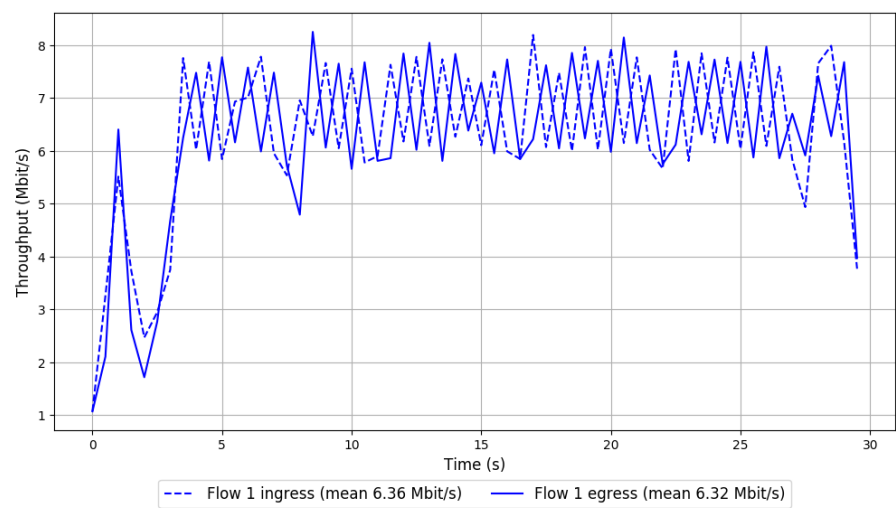
-- Flow 1:

Average throughput: 6.32 Mbit/s

95th percentile per-packet one-way delay: 64.054 ms

Loss rate: 0.55%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-11 17:46:51

End at: 2017-08-11 17:47:21

Below is generated by plot.py at 2017-08-11 20:06:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.28 Mbit/s

95th percentile per-packet one-way delay: 64.031 ms

Loss rate: 0.60%

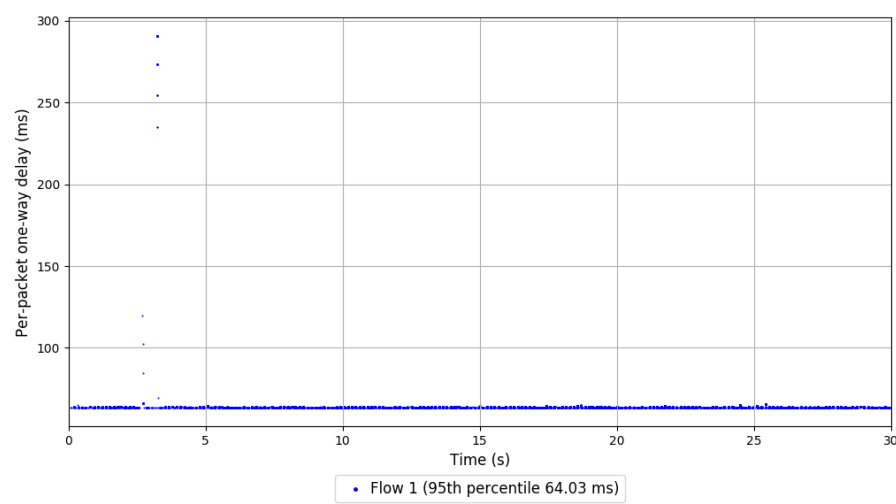
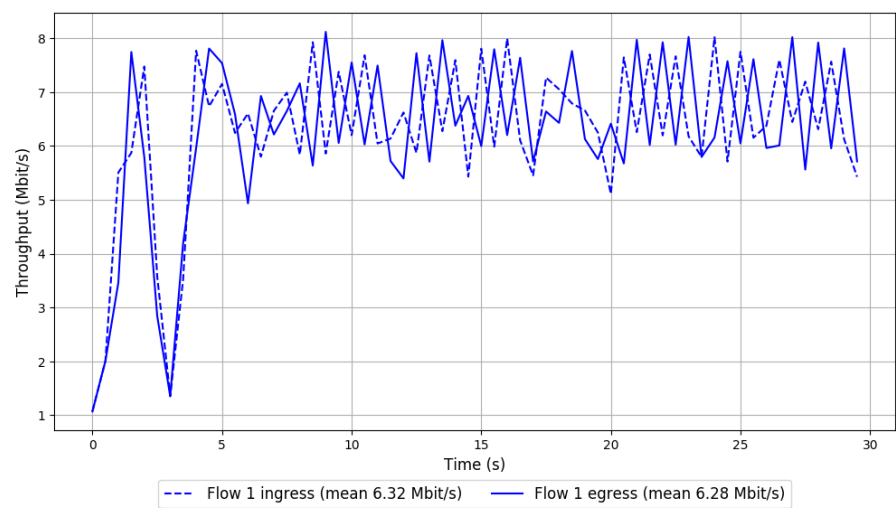
-- Flow 1:

Average throughput: 6.28 Mbit/s

95th percentile per-packet one-way delay: 64.031 ms

Loss rate: 0.60%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-11 17:57:12

End at: 2017-08-11 17:57:42

Below is generated by plot.py at 2017-08-11 20:06:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 63.701 ms

Loss rate: 19.11%

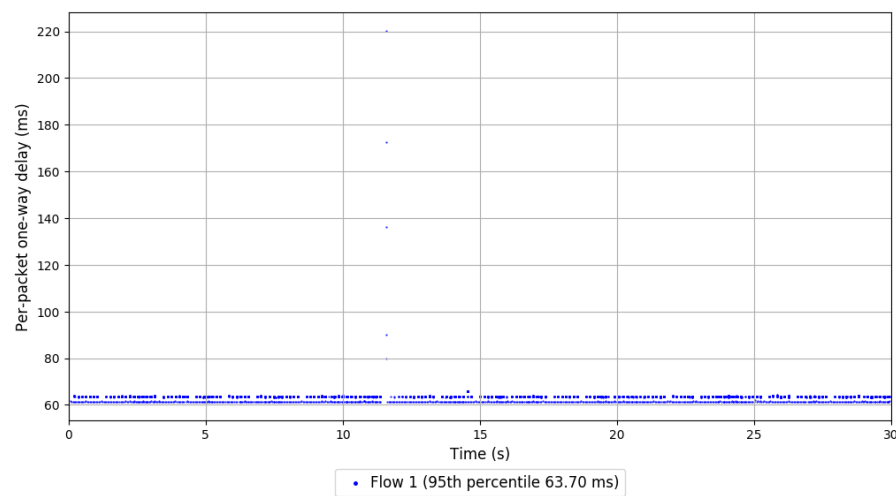
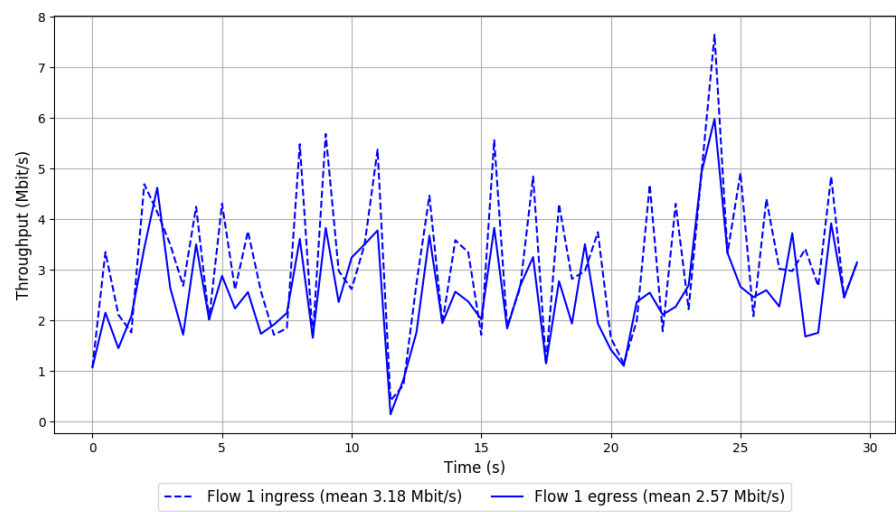
-- Flow 1:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 63.701 ms

Loss rate: 19.11%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-11 18:07:20

End at: 2017-08-11 18:07:50

Below is generated by plot.py at 2017-08-11 20:06:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.23 Mbit/s

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

Loss rate: 15.29%

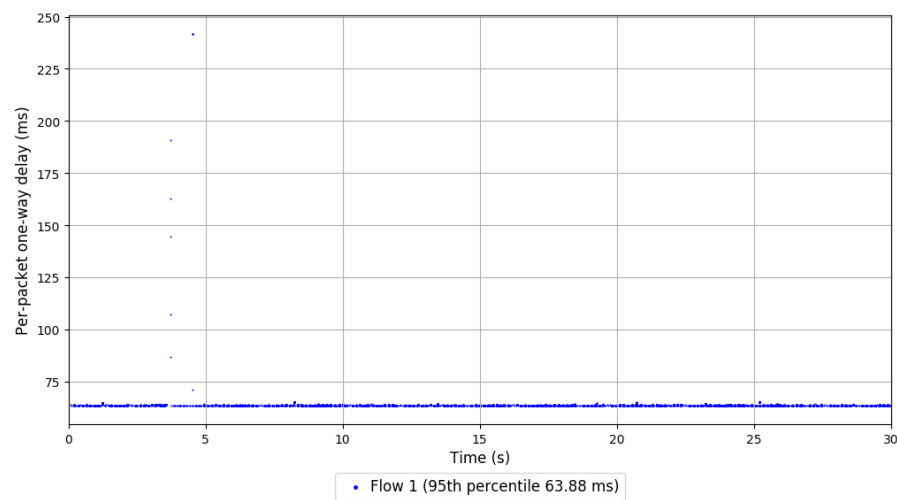
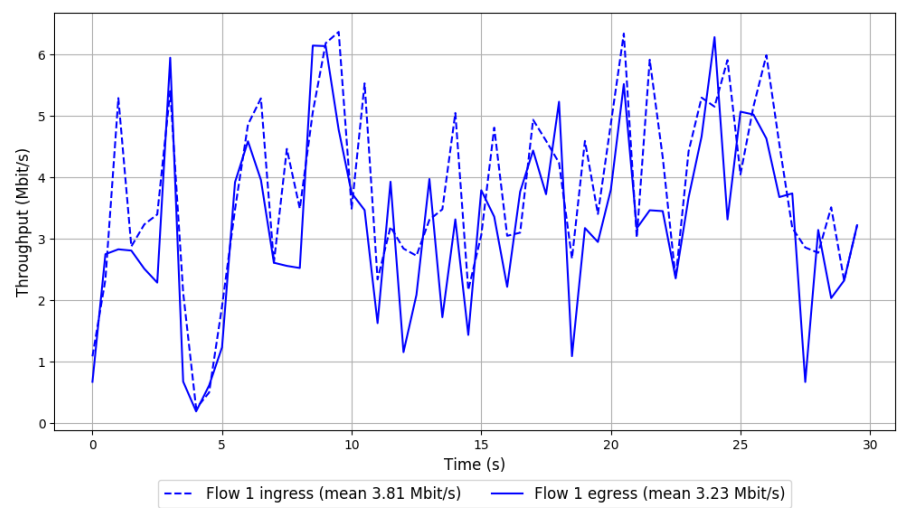
-- Flow 1:

Average throughput: 3.23 Mbit/s

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

Loss rate: 15.29%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-11 18:17:31

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

Below is generated by plot.py at 2017-08-11 20:06:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.32 Mbit/s

95th percentile per-packet one-way delay: 64.072 ms

Loss rate: 1.57%

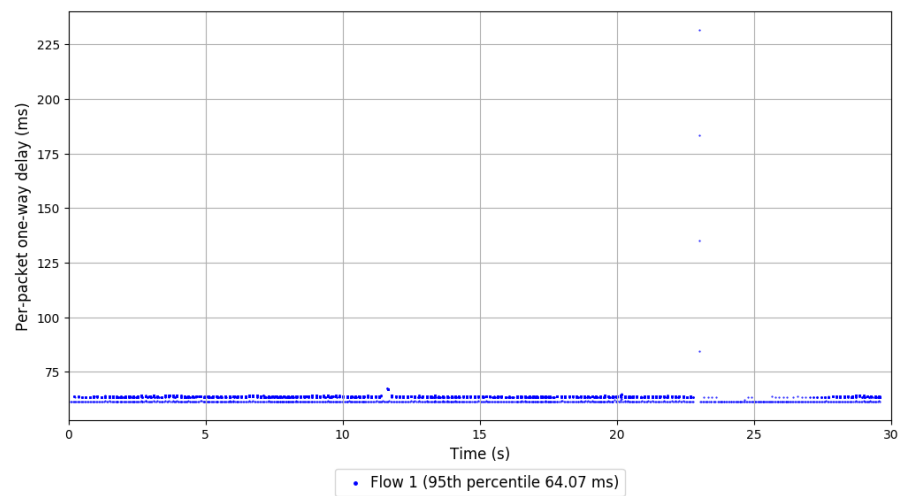
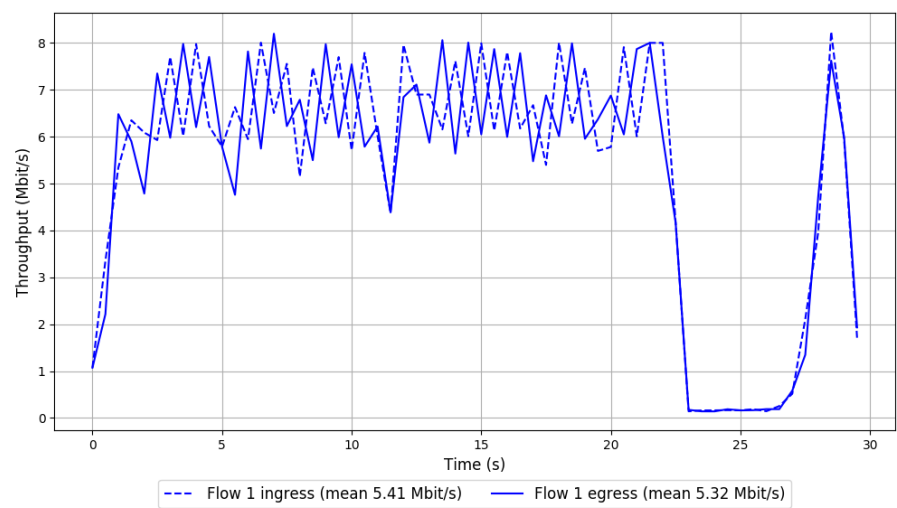
-- Flow 1:

Average throughput: 5.32 Mbit/s

95th percentile per-packet one-way delay: 64.072 ms

Loss rate: 1.57%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-11 18:27:52

End at: 2017-08-11 18:28:22

Below is generated by plot.py at 2017-08-11 20:06:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.59 Mbit/s

95th percentile per-packet one-way delay: 64.433 ms

Loss rate: 0.01%

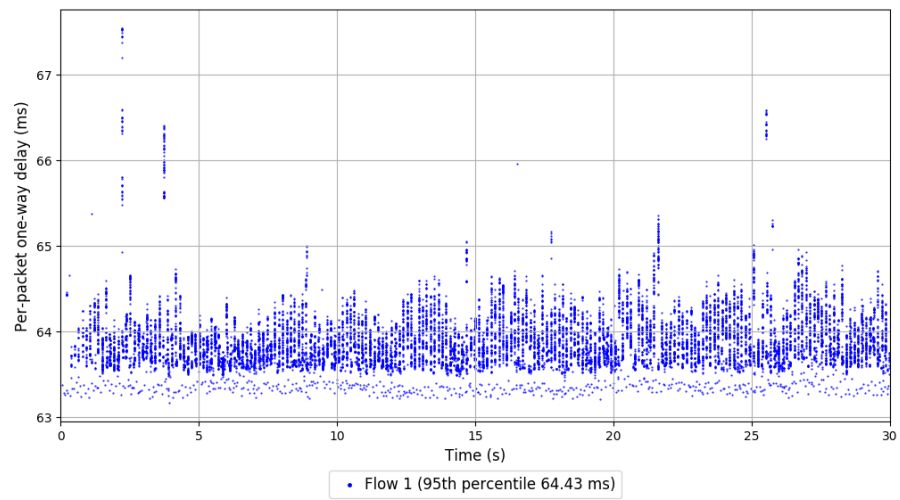
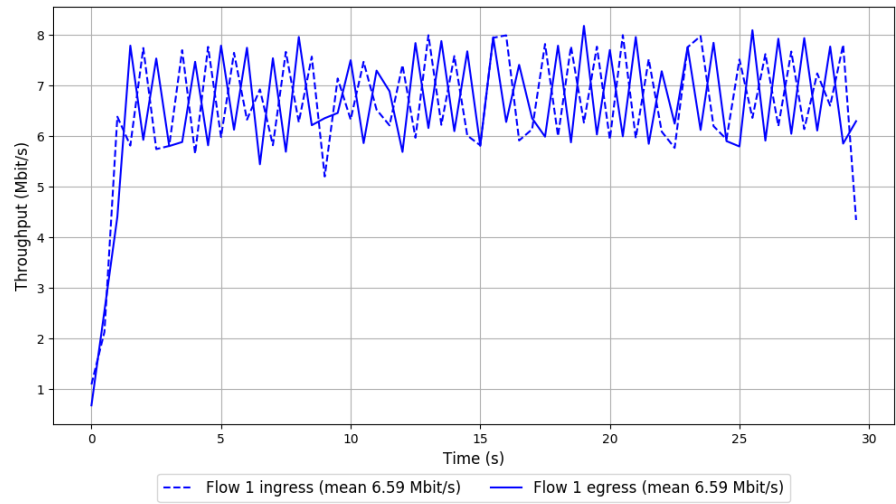
-- Flow 1:

Average throughput: 6.59 Mbit/s

95th percentile per-packet one-way delay: 64.433 ms

Loss rate: 0.01%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-11 18:38:06

End at: 2017-08-11 18:38:36

Below is generated by plot.py at 2017-08-11 20:06:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.37 Mbit/s

95th percentile per-packet one-way delay: 64.209 ms

Loss rate: 0.64%

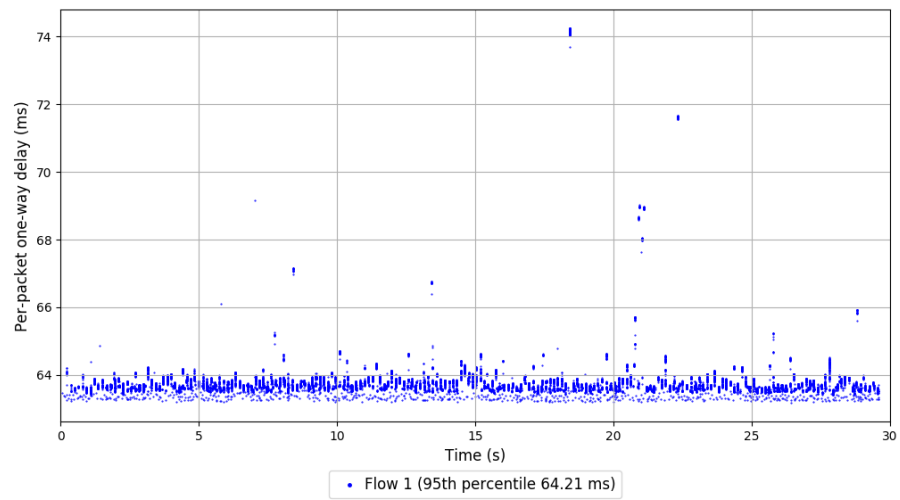
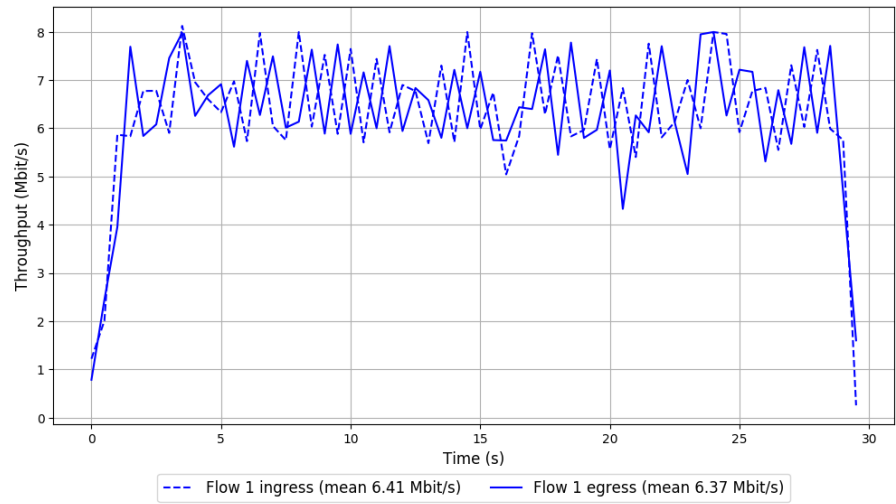
-- Flow 1:

Average throughput: 6.37 Mbit/s

95th percentile per-packet one-way delay: 64.209 ms

Loss rate: 0.64%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-11 18:48:38

End at: 2017-08-11 18:49:08

Below is generated by plot.py at 2017-08-11 20:06:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 1.17%

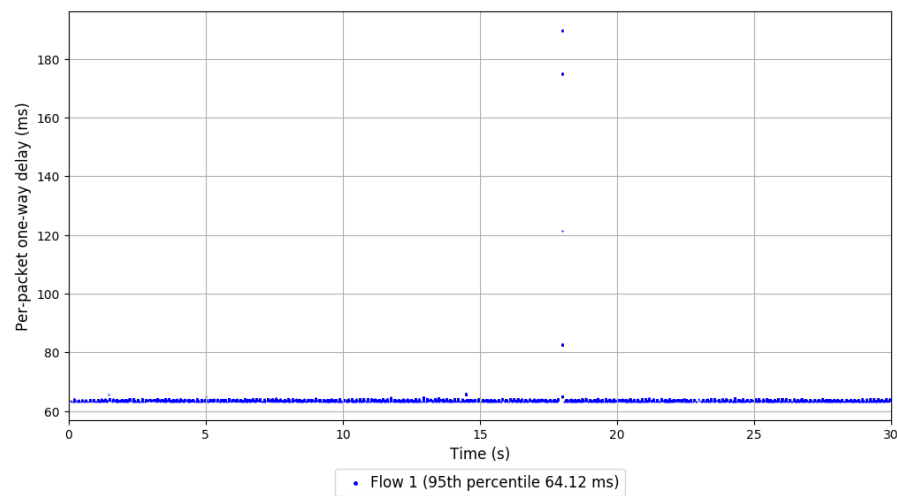
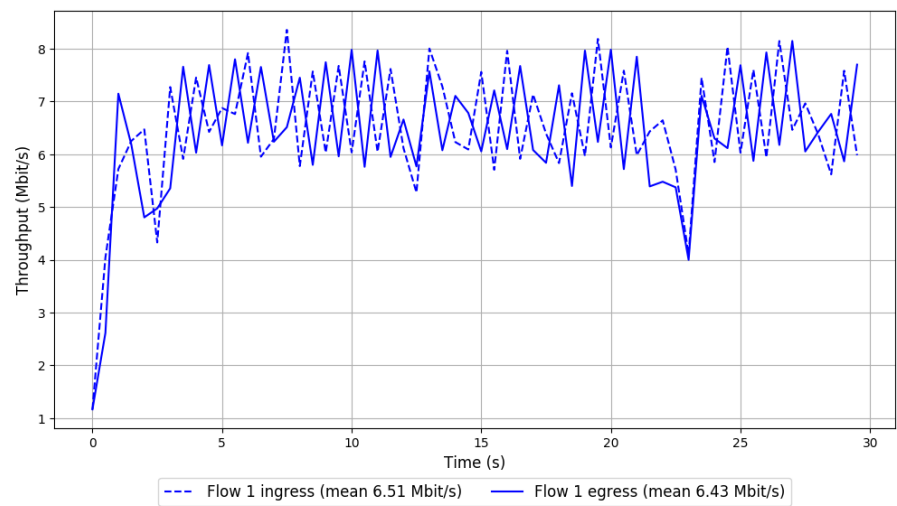
-- Flow 1:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 64.118 ms

Loss rate: 1.17%

Run 10: Report of Sprout — Data Link

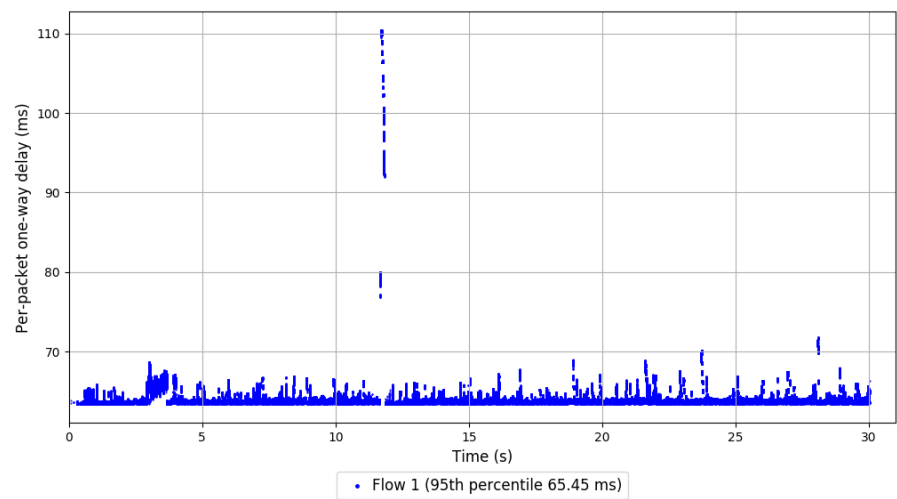
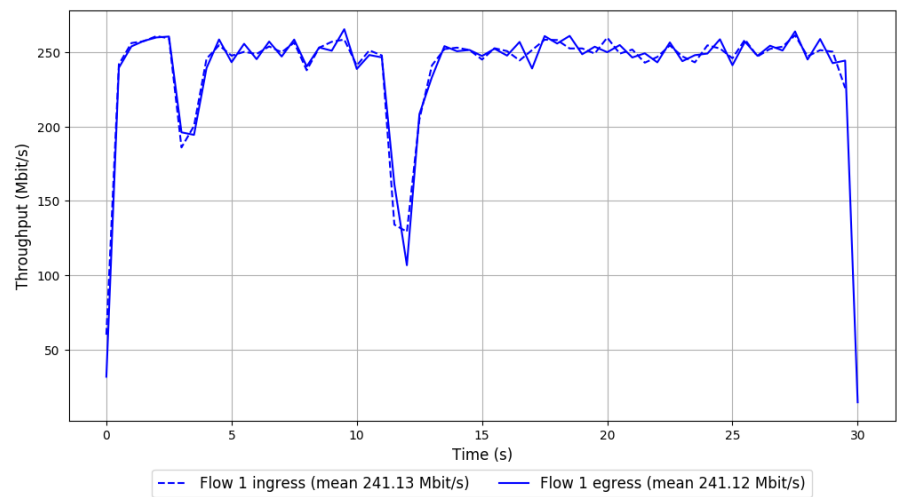


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-11 17:16:51
End at: 2017-08-11 17:17:21

# Below is generated by plot.py at 2017-08-11 20:07:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 241.12 Mbit/s
95th percentile per-packet one-way delay: 65.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 241.12 Mbit/s
95th percentile per-packet one-way delay: 65.447 ms
Loss rate: 0.00%
```

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

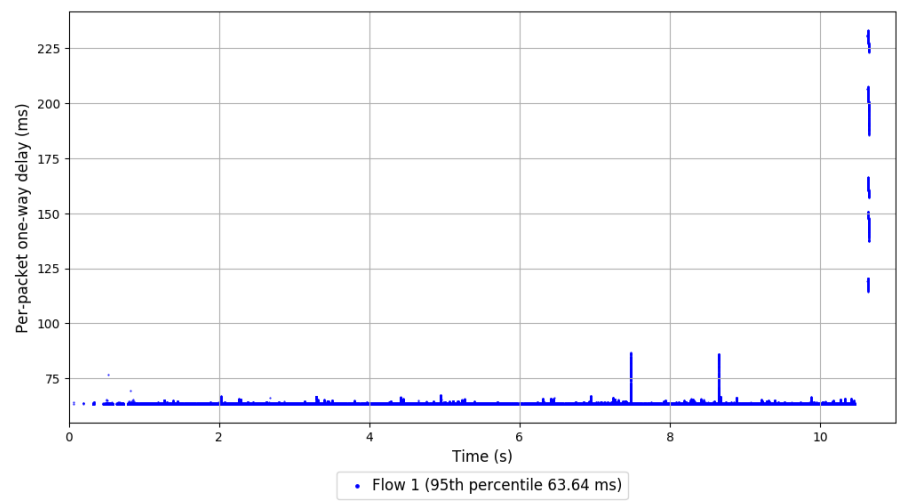
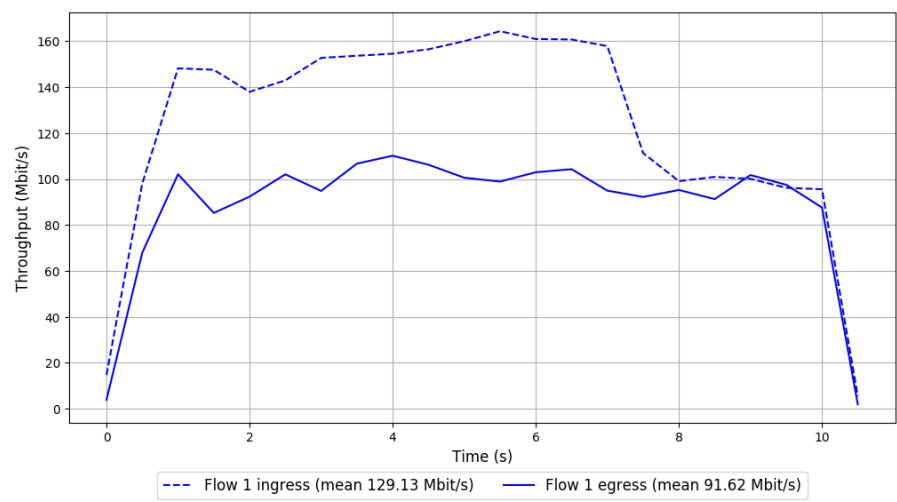


Run 2: Statistics of TaoVA-100x

Start at: 2017-08-11 17:27:43

End at: 2017-08-11 17:28:13

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

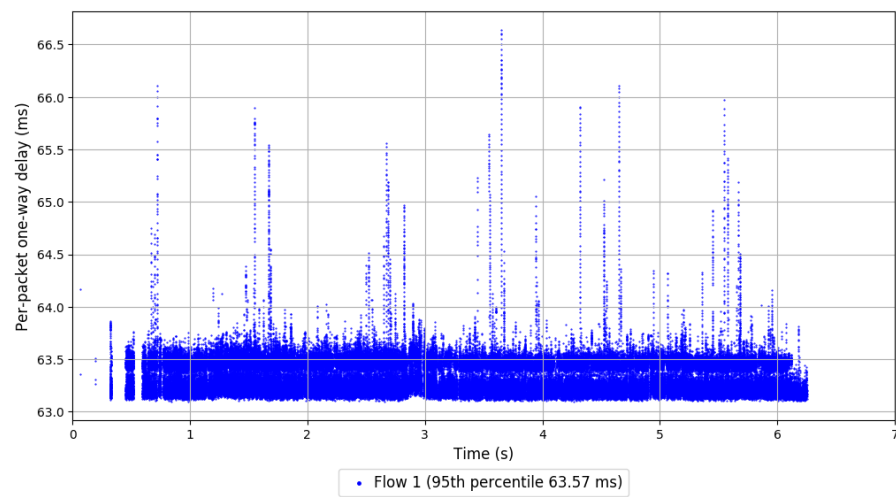
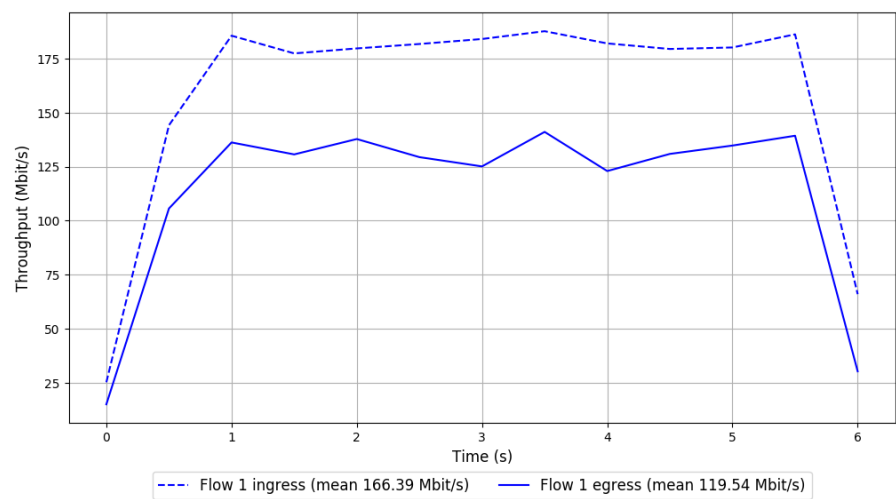


Run 3: Statistics of TaoVA-100x

Start at: 2017-08-11 17:38:18

End at: 2017-08-11 17:38:48

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-08-11 17:48:48

End at: 2017-08-11 17:49:18

Below is generated by plot.py at 2017-08-11 20:07:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.59 Mbit/s

95th percentile per-packet one-way delay: 63.560 ms

Loss rate: 11.18%

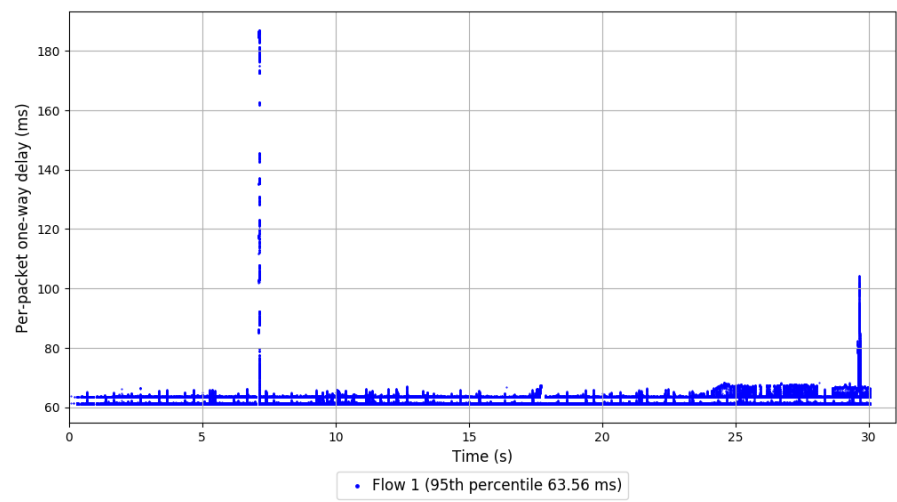
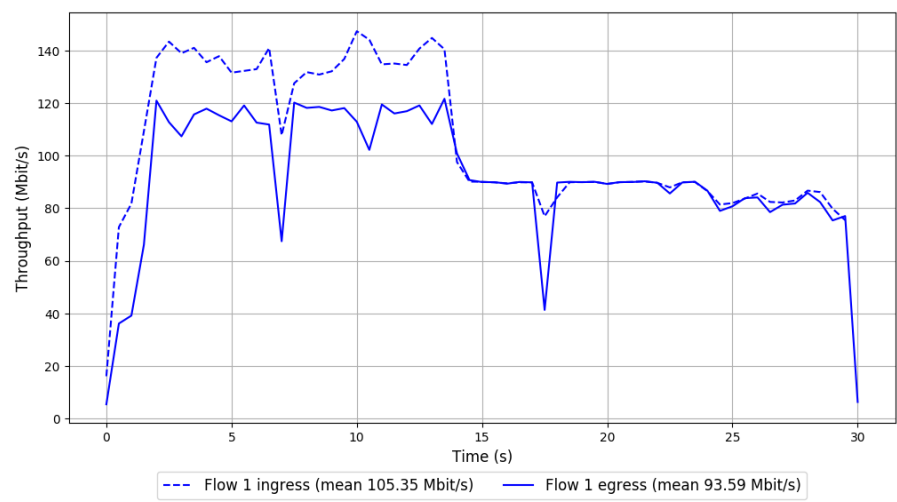
-- Flow 1:

Average throughput: 93.59 Mbit/s

95th percentile per-packet one-way delay: 63.560 ms

Loss rate: 11.18%

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

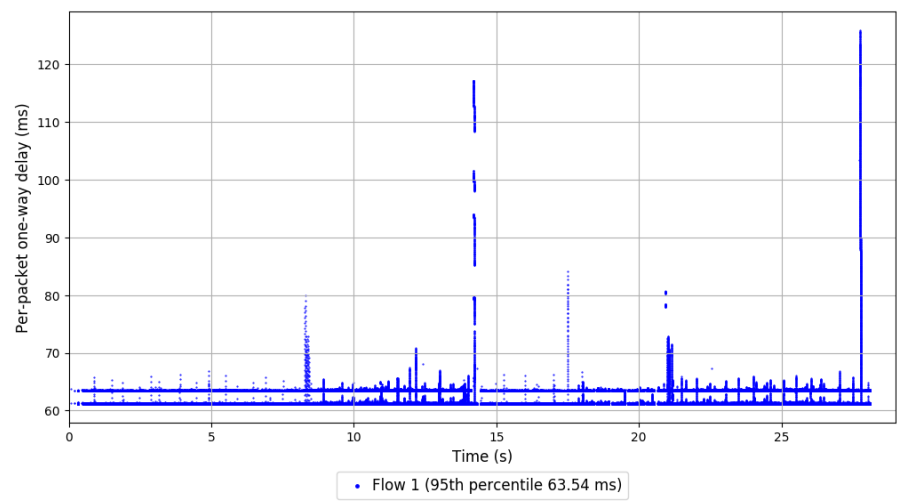
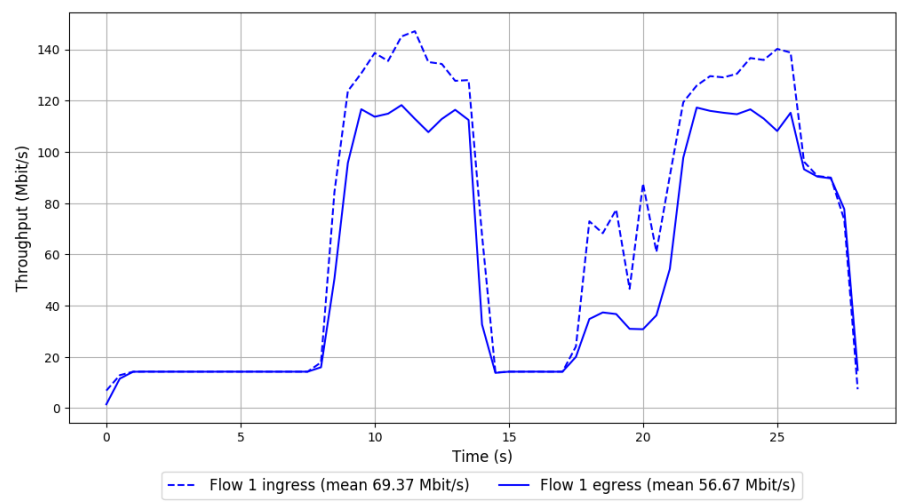


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-08-11 17:59:10
End at: 2017-08-11 17:59:40

# Below is generated by plot.py at 2017-08-11 20:08:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 63.538 ms
Loss rate: 18.32%
-- Flow 1:
Average throughput: 56.67 Mbit/s
95th percentile per-packet one-way delay: 63.538 ms
Loss rate: 18.32%
```

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

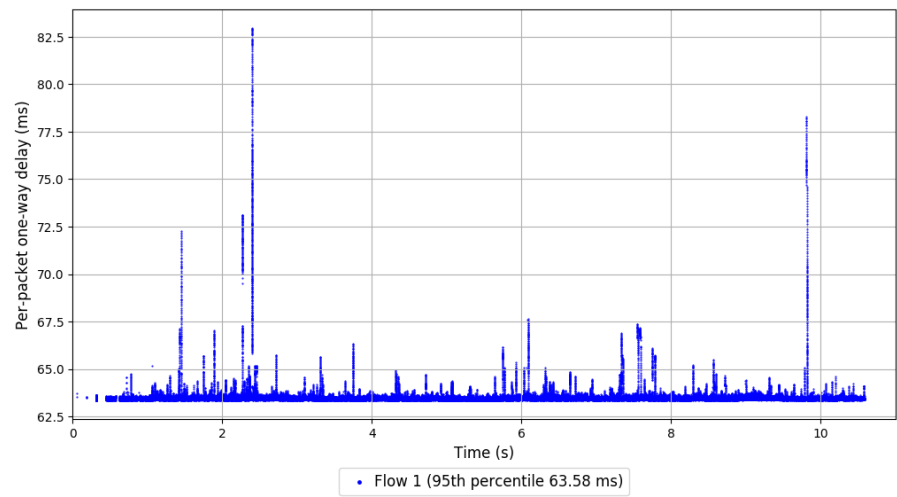
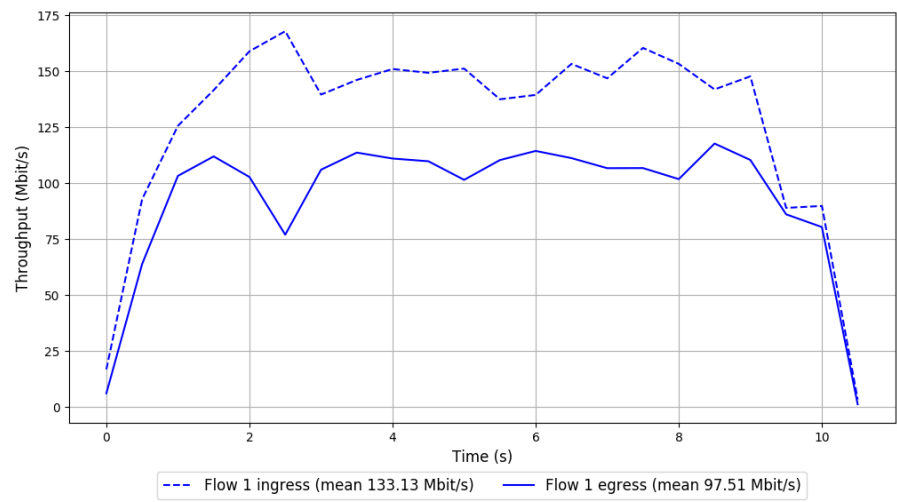


Run 6: Statistics of TaoVA-100x

Start at: 2017-08-11 18:09:14

End at: 2017-08-11 18:09:44

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

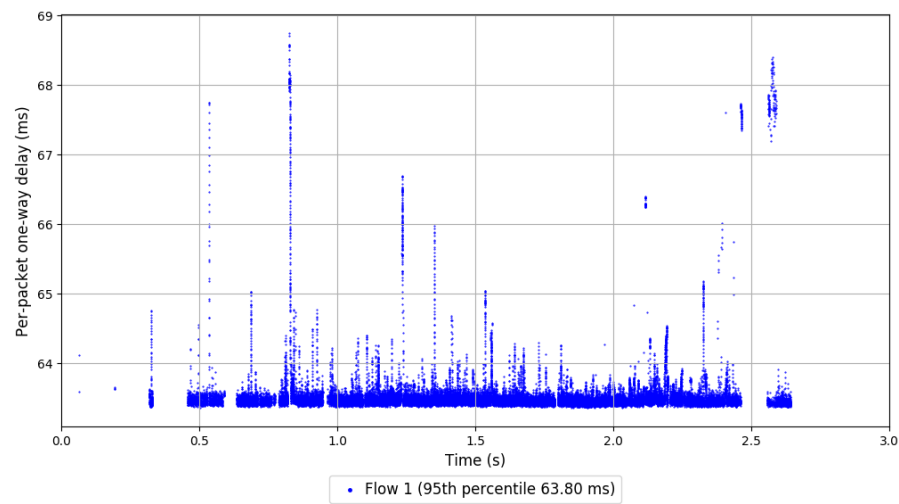
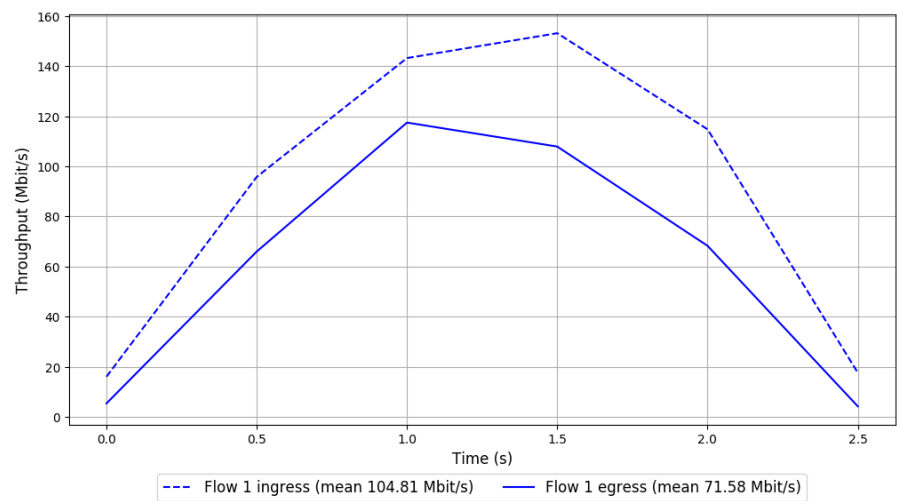


Run 7: Statistics of TaoVA-100x

Start at: 2017-08-11 18:19:26

End at: 2017-08-11 18:19:56

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

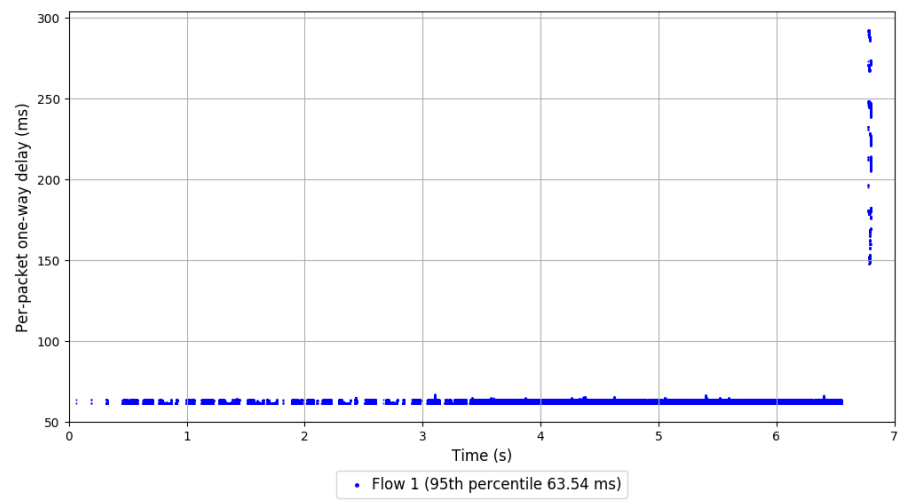
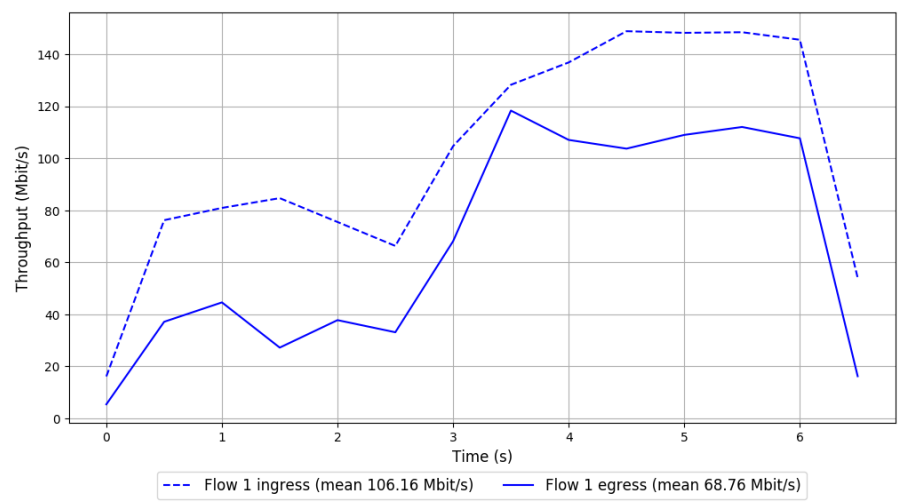


Run 8: Statistics of TaoVA-100x

Start at: 2017-08-11 18:29:47

End at: 2017-08-11 18:30:17

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

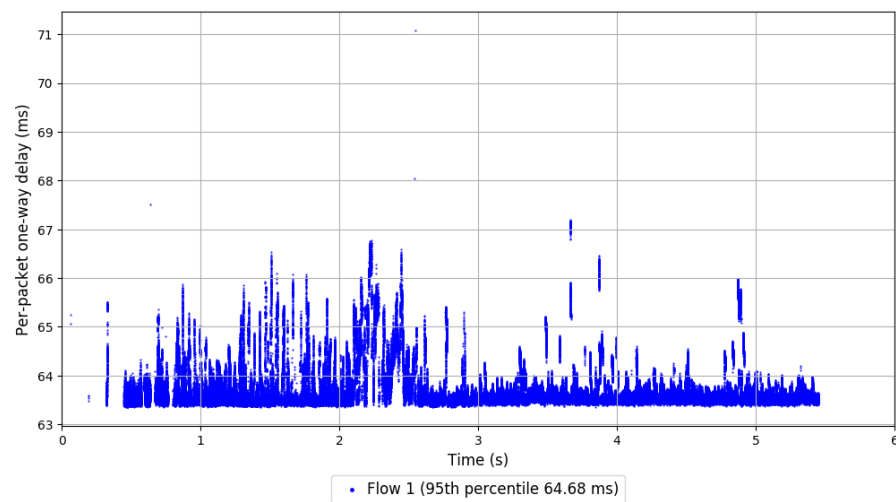
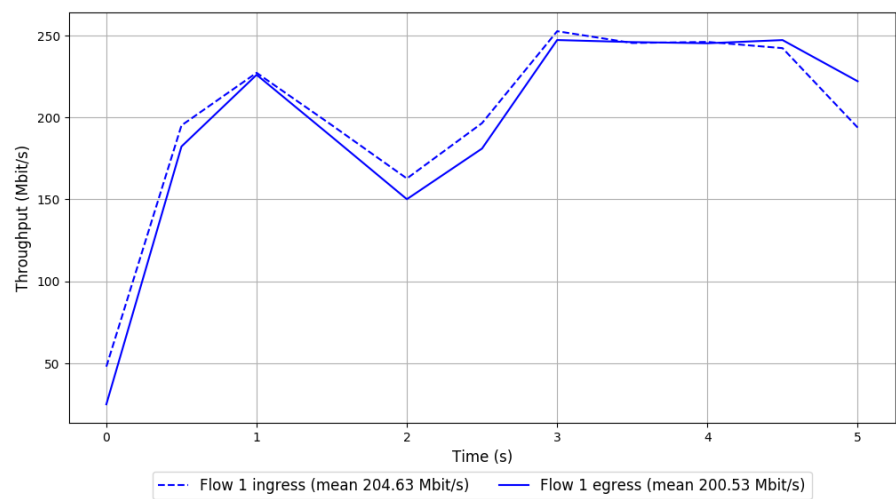


Run 9: Statistics of TaoVA-100x

Start at: 2017-08-11 18:40:03

End at: 2017-08-11 18:40:33

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

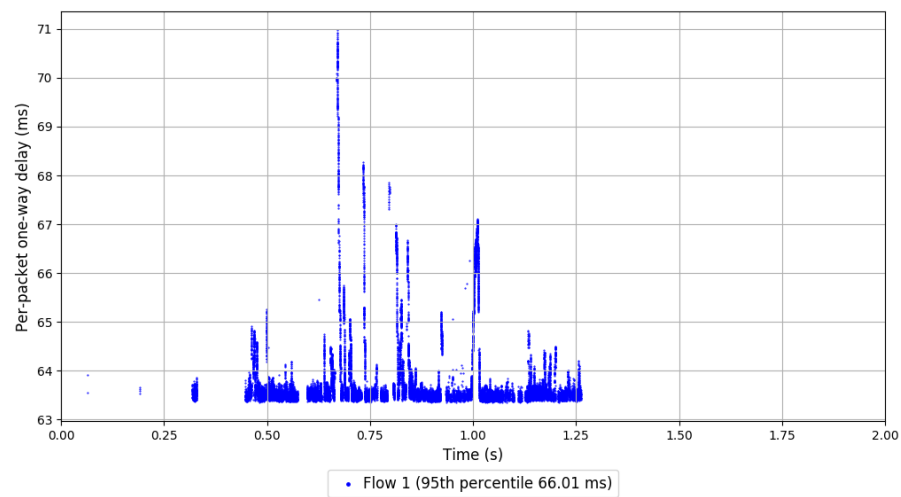
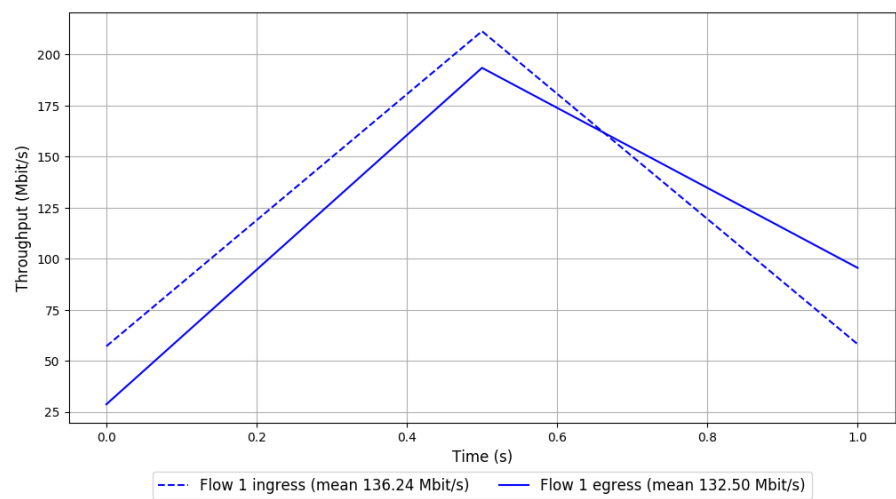


Run 10: Statistics of TaoVA-100x

Start at: 2017-08-11 18:50:34

End at: 2017-08-11 18:51:04

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-11 17:12:18

End at: 2017-08-11 17:12:48

Below is generated by plot.py at 2017-08-11 20:08:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.89 Mbit/s

95th percentile per-packet one-way delay: 64.171 ms

Loss rate: 0.53%

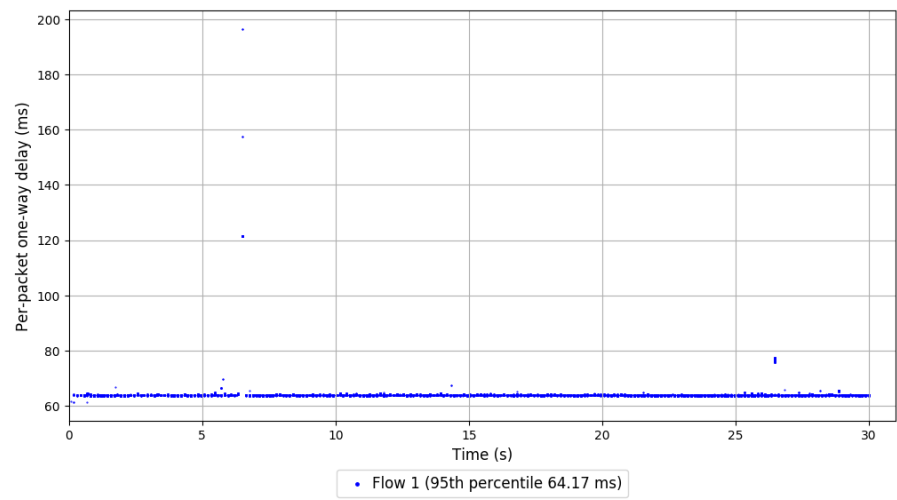
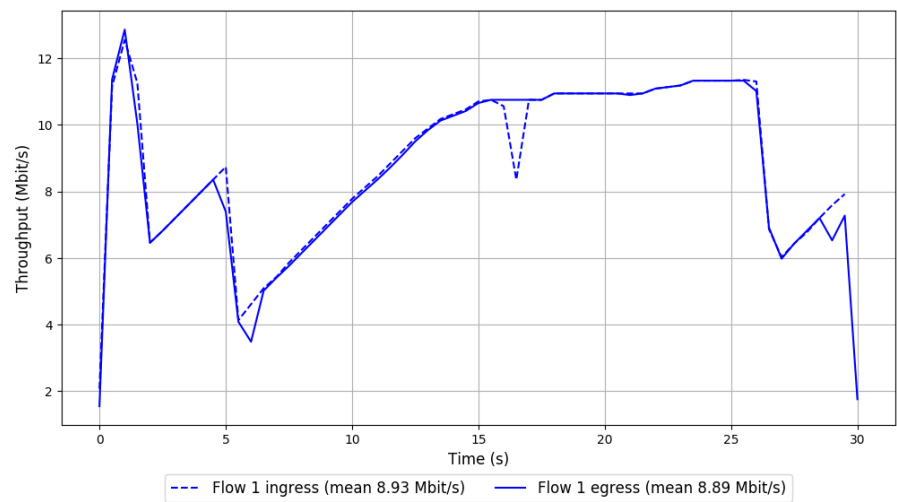
-- Flow 1:

Average throughput: 8.89 Mbit/s

95th percentile per-packet one-way delay: 64.171 ms

Loss rate: 0.53%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-11 17:23:08

End at: 2017-08-11 17:23:38

Below is generated by plot.py at 2017-08-11 20:08:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.89 Mbit/s

95th percentile per-packet one-way delay: 64.188 ms

Loss rate: 1.25%

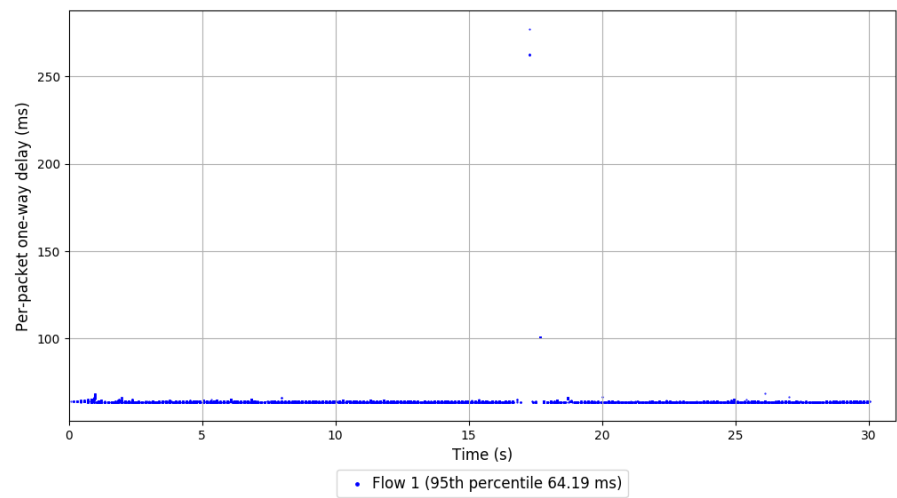
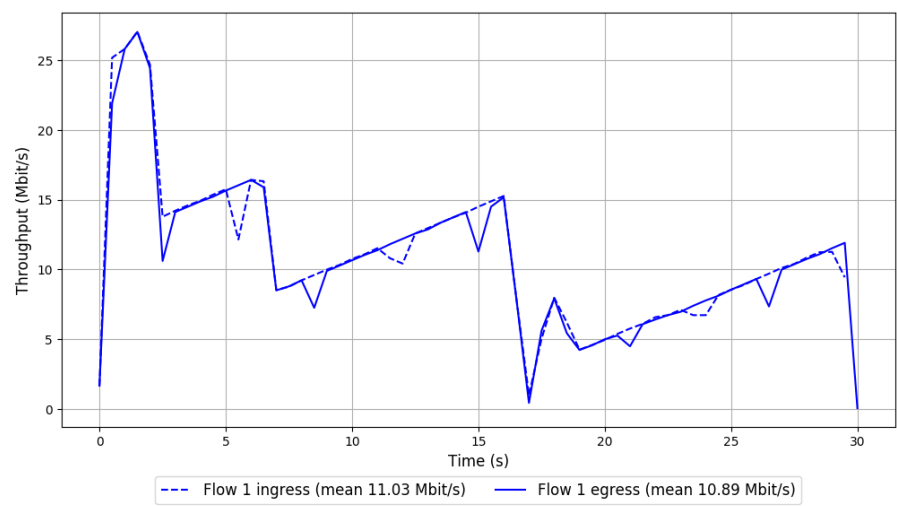
-- Flow 1:

Average throughput: 10.89 Mbit/s

95th percentile per-packet one-way delay: 64.188 ms

Loss rate: 1.25%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-11 17:33:47

End at: 2017-08-11 17:34:17

Below is generated by plot.py at 2017-08-11 20:08:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.84 Mbit/s

95th percentile per-packet one-way delay: 63.829 ms

Loss rate: 0.00%

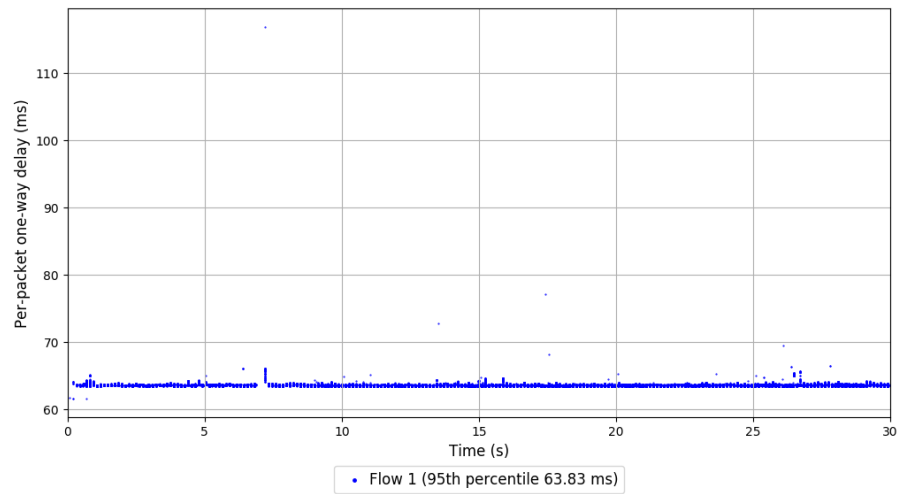
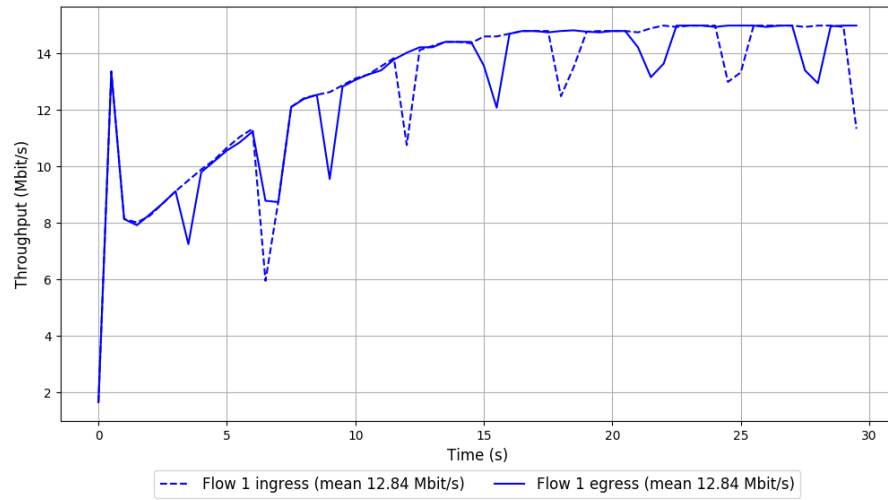
-- Flow 1:

Average throughput: 12.84 Mbit/s

95th percentile per-packet one-way delay: 63.829 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-11 17:44:19

End at: 2017-08-11 17:44:49

Below is generated by plot.py at 2017-08-11 20:08:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 15.64 Mbit/s

95th percentile per-packet one-way delay: 64.059 ms

Loss rate: 1.26%

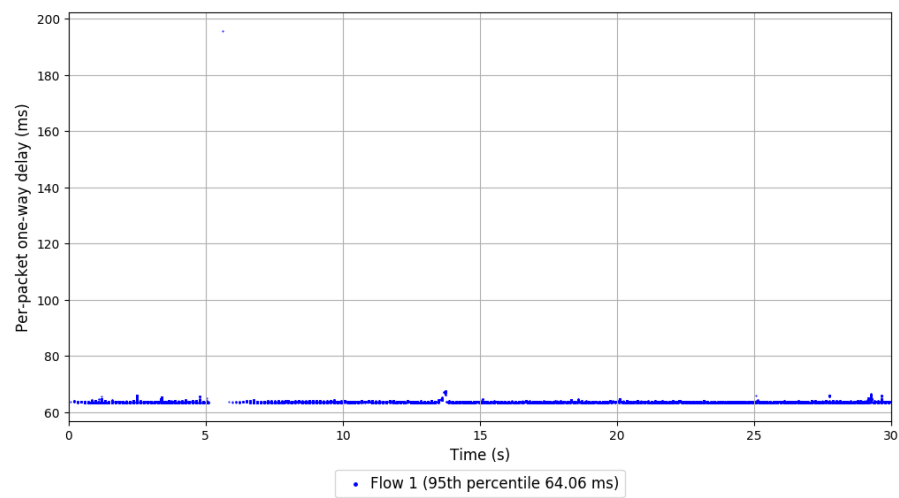
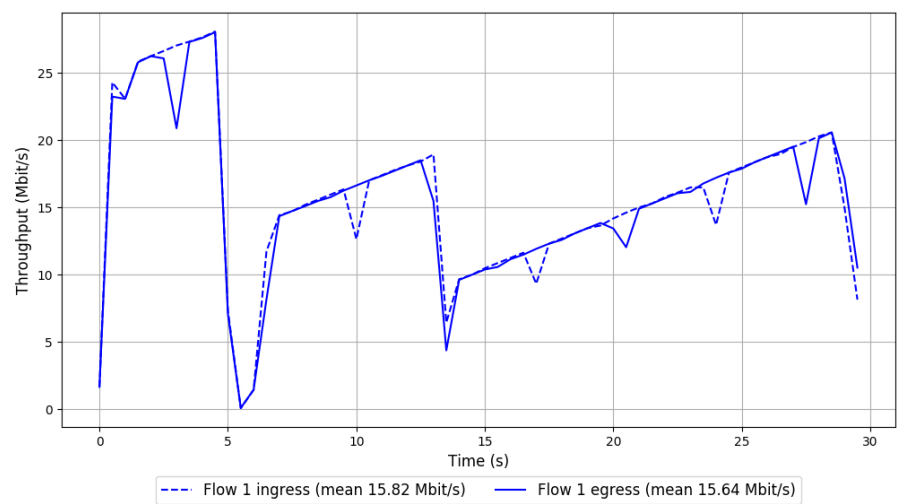
-- Flow 1:

Average throughput: 15.64 Mbit/s

95th percentile per-packet one-way delay: 64.059 ms

Loss rate: 1.26%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-11 17:54:37

End at: 2017-08-11 17:55:07

Below is generated by plot.py at 2017-08-11 20:08:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.76 Mbit/s

95th percentile per-packet one-way delay: 62.099 ms

Loss rate: 1.64%

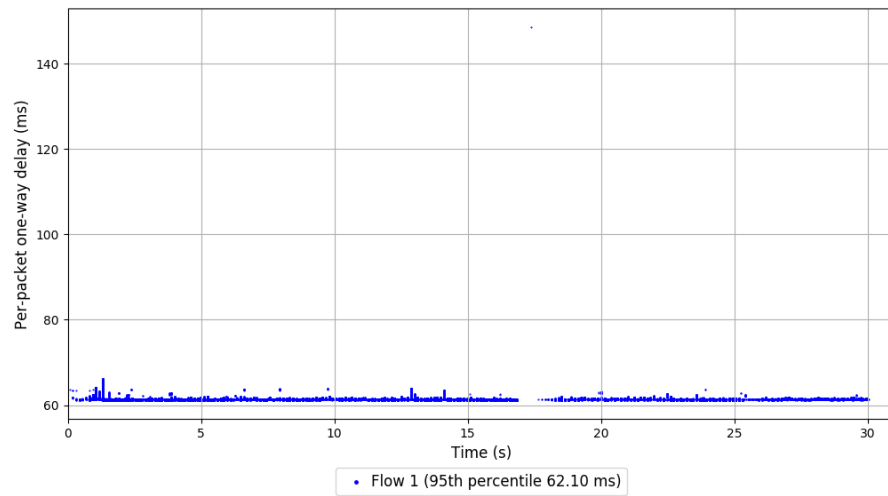
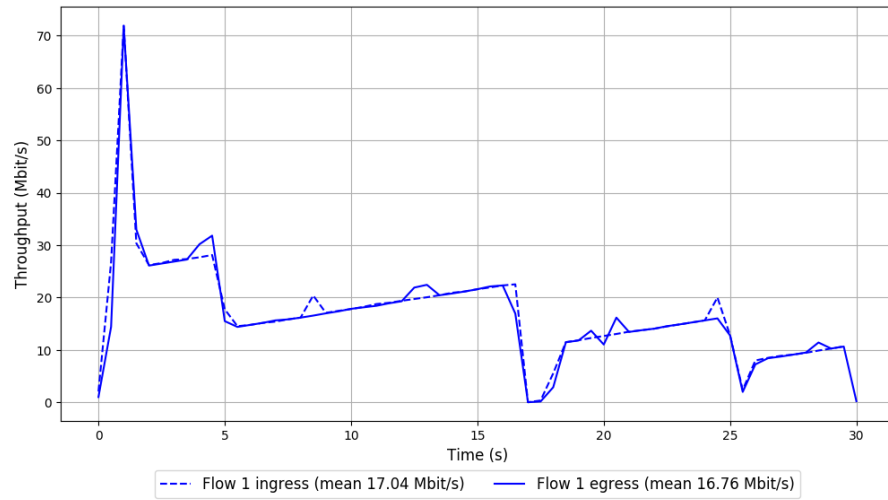
-- Flow 1:

Average throughput: 16.76 Mbit/s

95th percentile per-packet one-way delay: 62.099 ms

Loss rate: 1.64%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-11 18:04:49

End at: 2017-08-11 18:05:19

Below is generated by plot.py at 2017-08-11 20:08:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.04 Mbit/s

95th percentile per-packet one-way delay: 63.791 ms

Loss rate: 2.65%

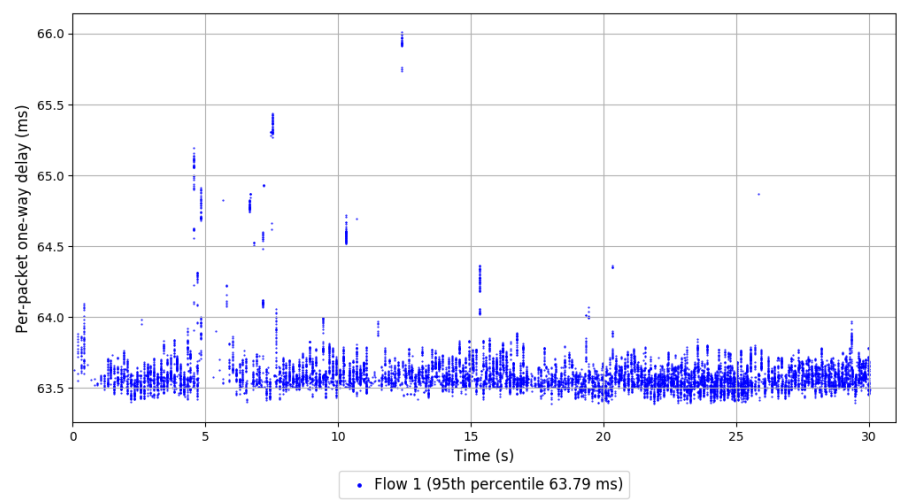
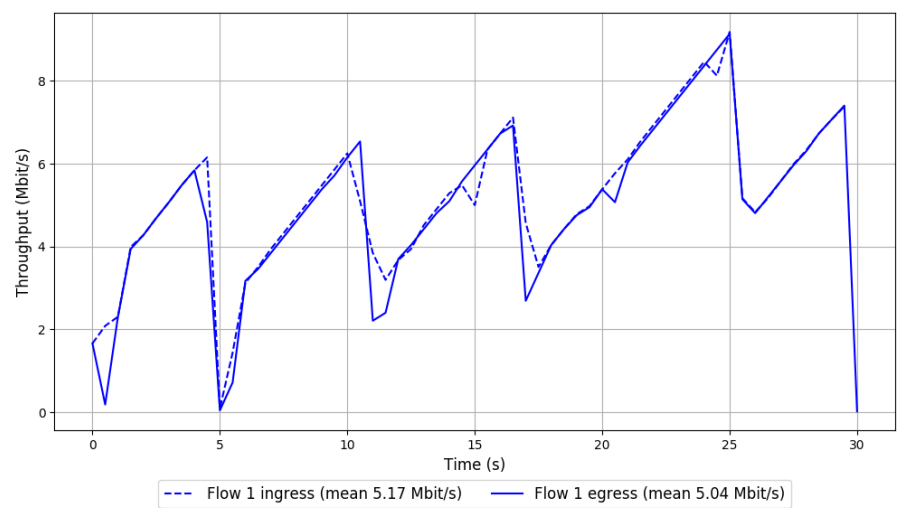
-- Flow 1:

Average throughput: 5.04 Mbit/s

95th percentile per-packet one-way delay: 63.791 ms

Loss rate: 2.65%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-11 18:14:55

End at: 2017-08-11 18:15:25

Below is generated by plot.py at 2017-08-11 20:08:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.81 Mbit/s

95th percentile per-packet one-way delay: 63.999 ms

Loss rate: 0.75%

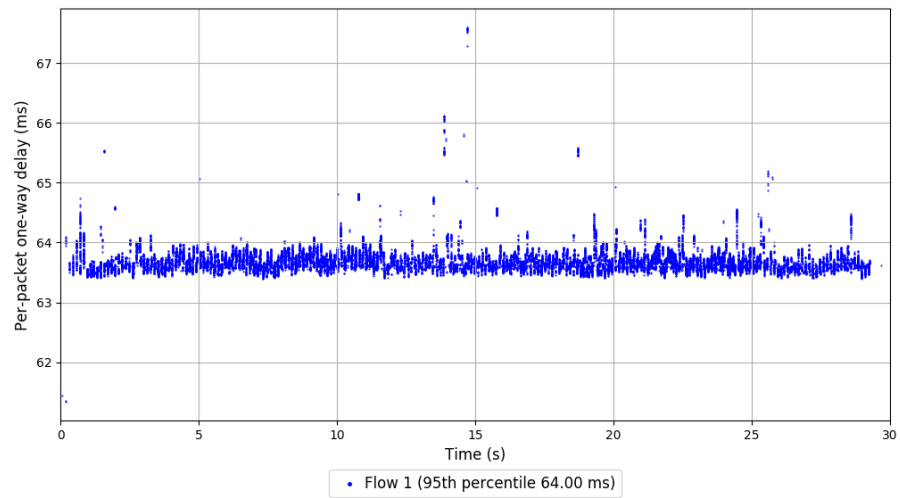
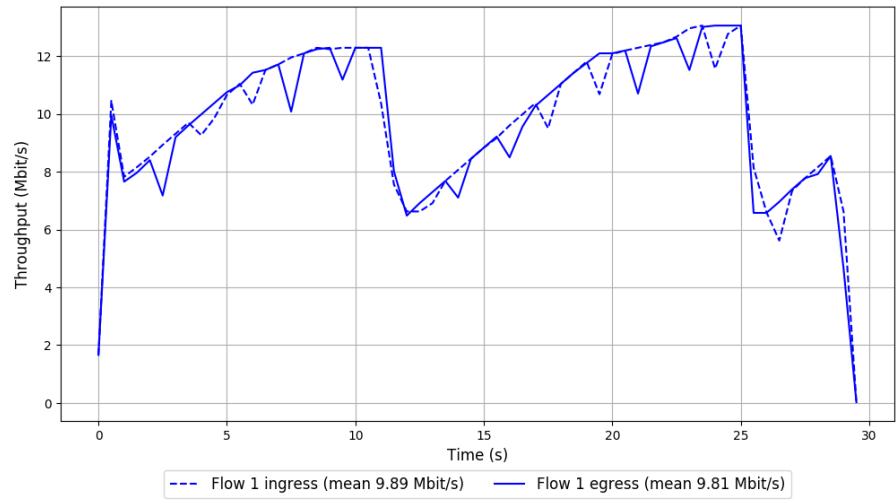
-- Flow 1:

Average throughput: 9.81 Mbit/s

95th percentile per-packet one-way delay: 63.999 ms

Loss rate: 0.75%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-11 18:25:14

End at: 2017-08-11 18:25:44

Below is generated by plot.py at 2017-08-11 20:08:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.78 Mbit/s

95th percentile per-packet one-way delay: 64.104 ms

Loss rate: 0.40%

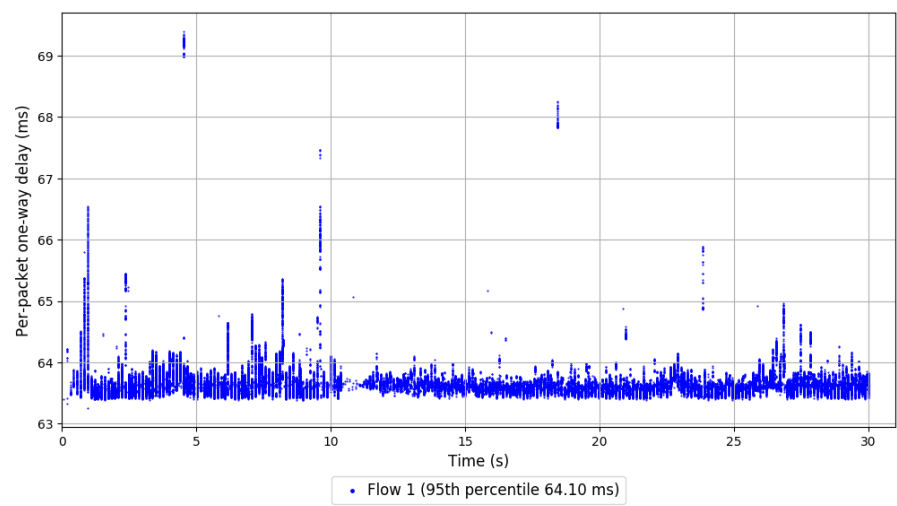
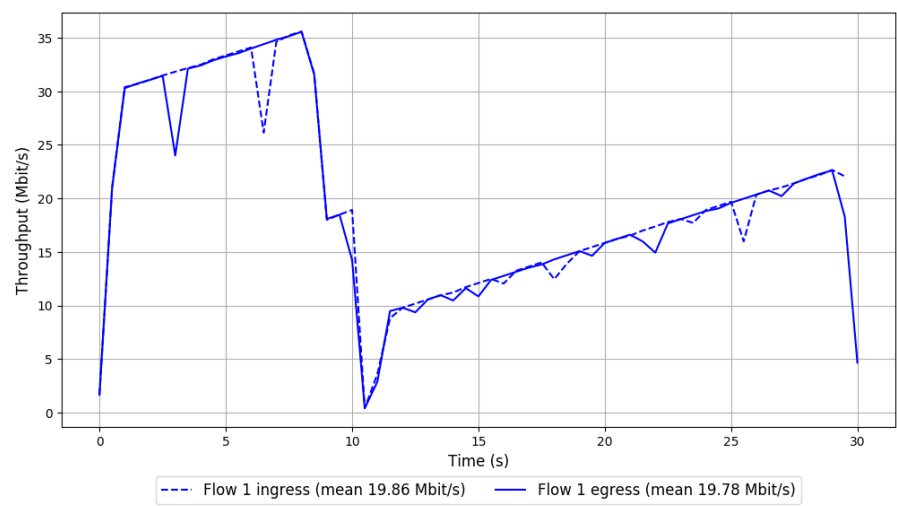
-- Flow 1:

Average throughput: 19.78 Mbit/s

95th percentile per-packet one-way delay: 64.104 ms

Loss rate: 0.40%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-11 18:35:28

End at: 2017-08-11 18:35:58

Below is generated by plot.py at 2017-08-11 20:08:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.26 Mbit/s

95th percentile per-packet one-way delay: 64.009 ms

Loss rate: 2.12%

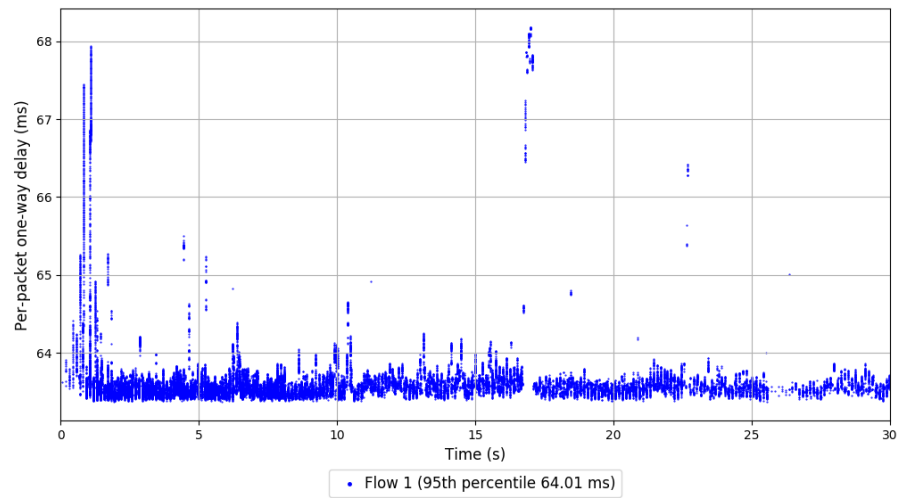
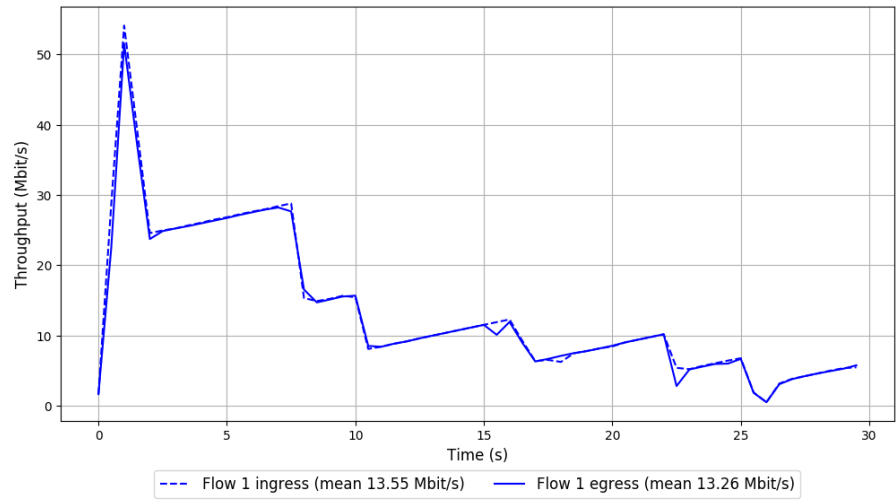
-- Flow 1:

Average throughput: 13.26 Mbit/s

95th percentile per-packet one-way delay: 64.009 ms

Loss rate: 2.12%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-11 18:46:05

End at: 2017-08-11 18:46:35

Below is generated by plot.py at 2017-08-11 20:08:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.65 Mbit/s

95th percentile per-packet one-way delay: 64.547 ms

Loss rate: 0.19%

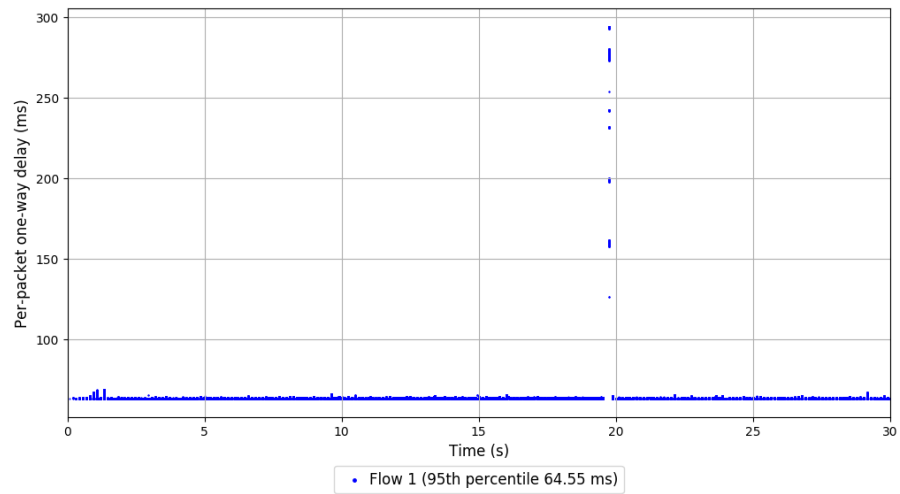
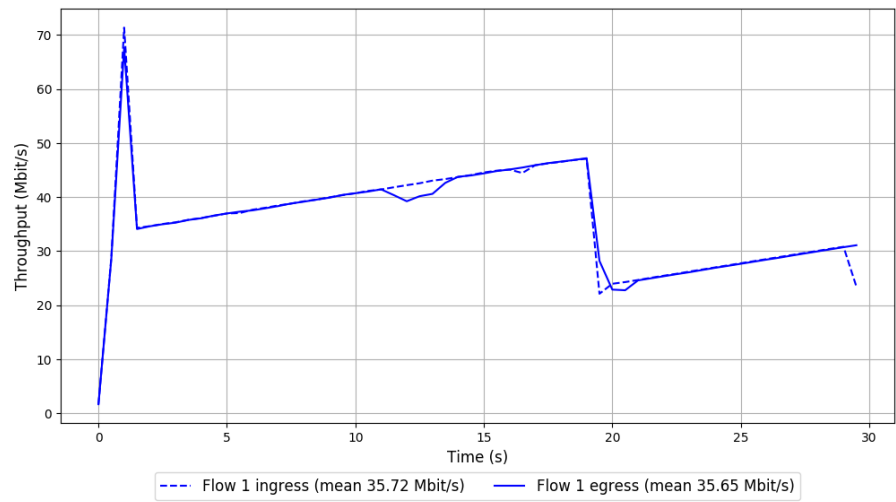
-- Flow 1:

Average throughput: 35.65 Mbit/s

95th percentile per-packet one-way delay: 64.547 ms

Loss rate: 0.19%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

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

End at: 2017-08-11 17:09:24

Below is generated by plot.py at 2017-08-11 20:09:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 96.87 Mbit/s

95th percentile per-packet one-way delay: 73.772 ms

Loss rate: 33.06%

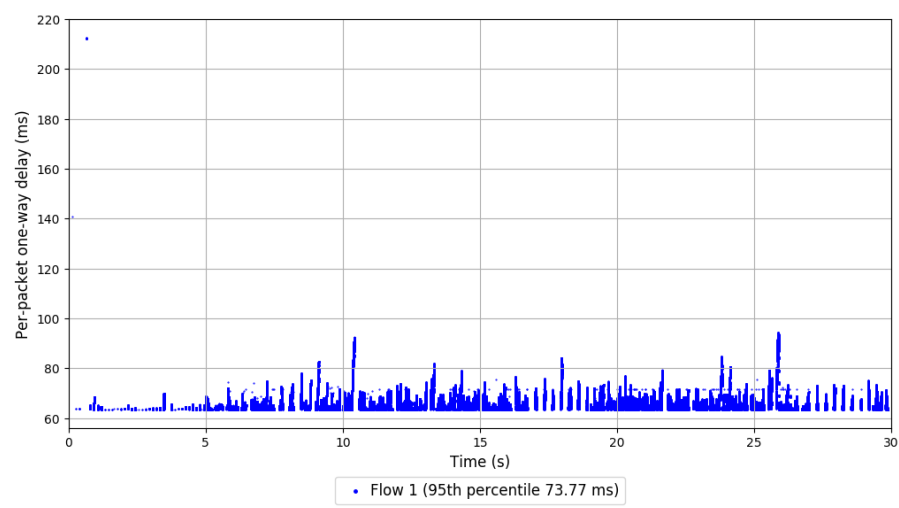
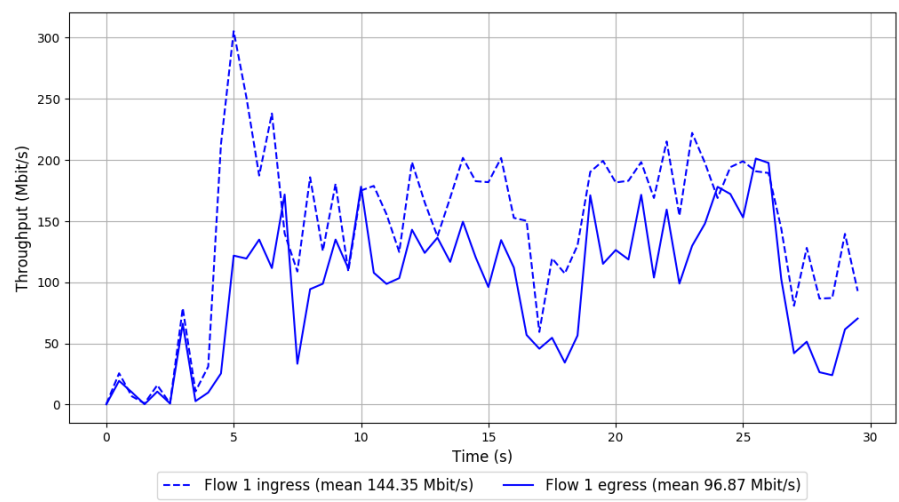
-- Flow 1:

Average throughput: 96.87 Mbit/s

95th percentile per-packet one-way delay: 73.772 ms

Loss rate: 33.06%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-11 17:19:28

End at: 2017-08-11 17:19:58

Below is generated by plot.py at 2017-08-11 20:09:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 97.26 Mbit/s

95th percentile per-packet one-way delay: 86.878 ms

Loss rate: 27.80%

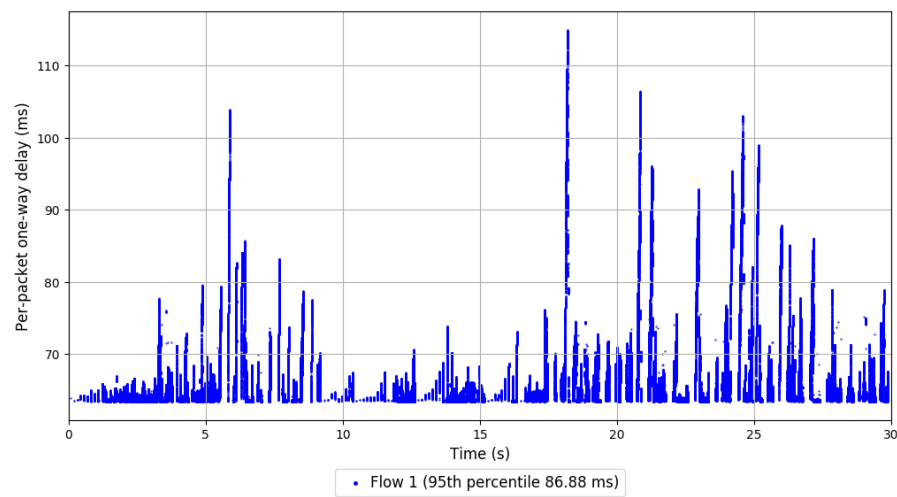
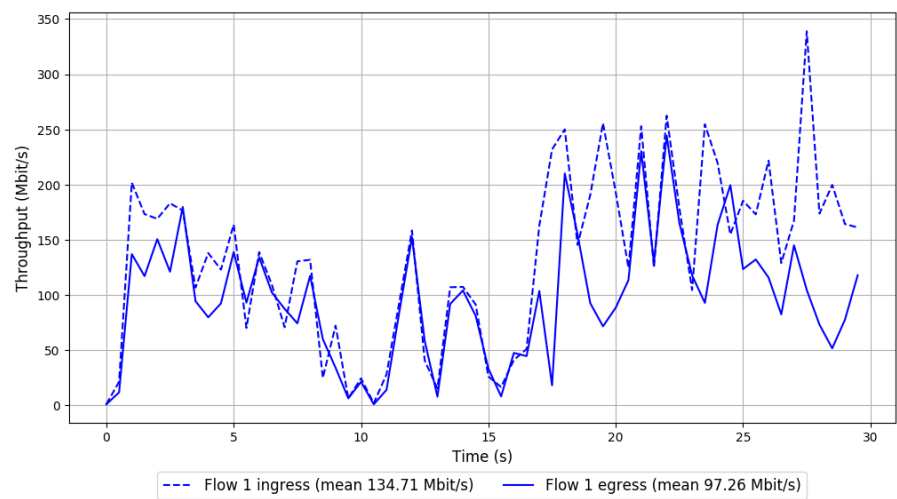
-- Flow 1:

Average throughput: 97.26 Mbit/s

95th percentile per-packet one-way delay: 86.878 ms

Loss rate: 27.80%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-11 17:29:59

End at: 2017-08-11 17:30:29

Below is generated by plot.py at 2017-08-11 20:09:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 125.64 Mbit/s

95th percentile per-packet one-way delay: 101.028 ms

Loss rate: 4.85%

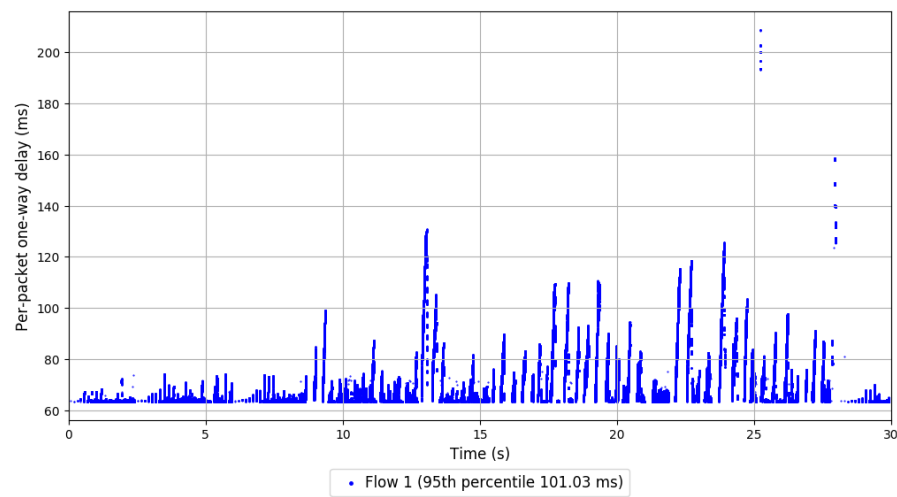
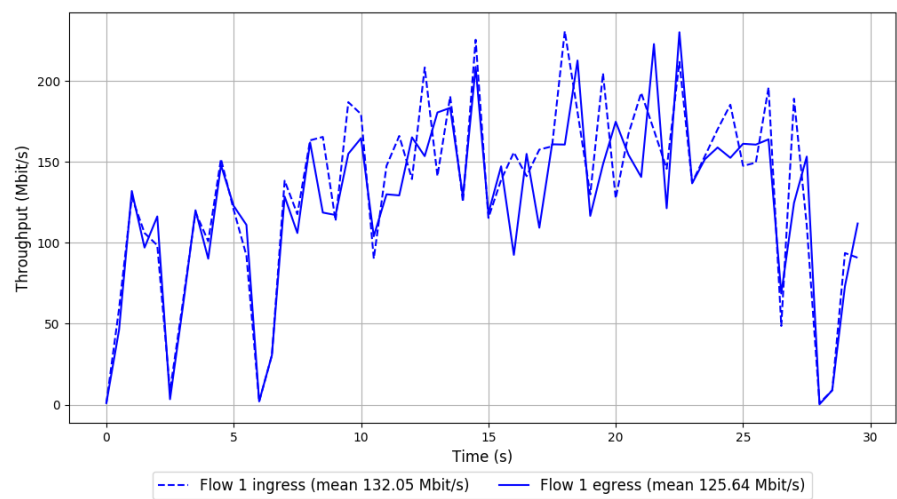
-- Flow 1:

Average throughput: 125.64 Mbit/s

95th percentile per-packet one-way delay: 101.028 ms

Loss rate: 4.85%

Run 3: Report of Verus — Data Link

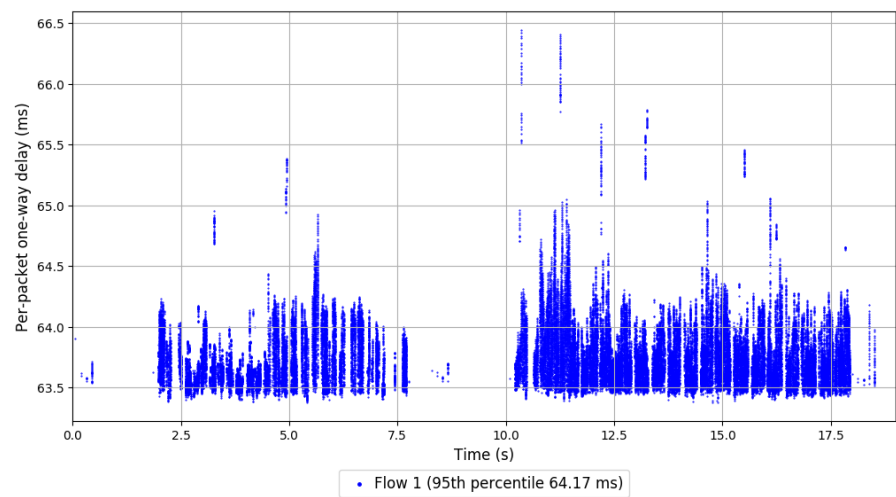
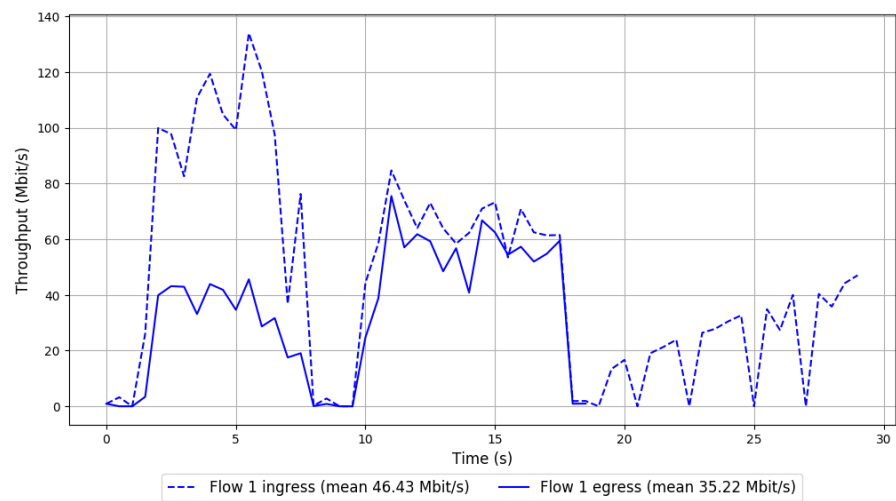


Run 4: Statistics of Verus

Start at: 2017-08-11 17:40:34

End at: 2017-08-11 17:41:04

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

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

End at: 2017-08-11 17:51:40

Below is generated by plot.py at 2017-08-11 20:09:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.66 Mbit/s

95th percentile per-packet one-way delay: 64.499 ms

Loss rate: 89.15%

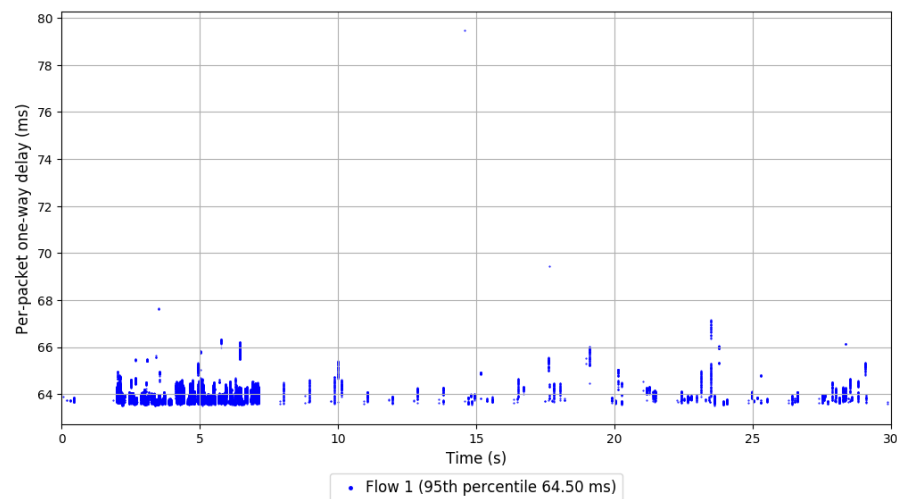
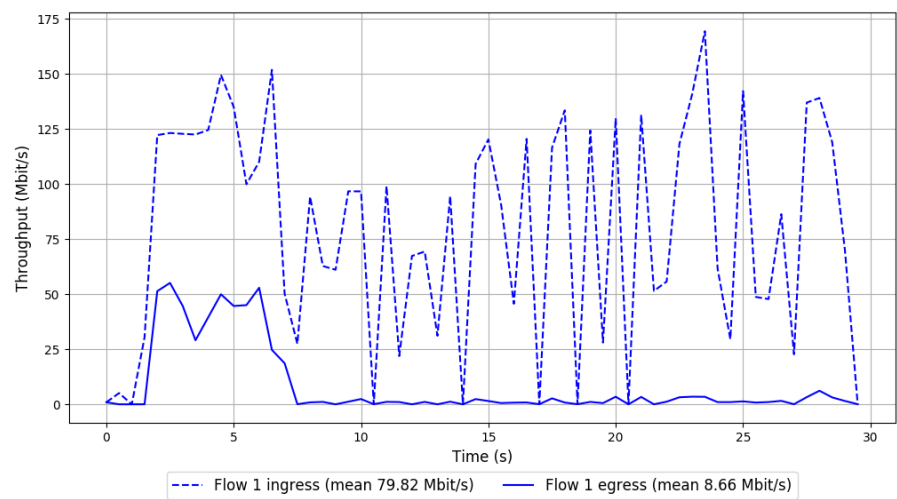
-- Flow 1:

Average throughput: 8.66 Mbit/s

95th percentile per-packet one-way delay: 64.499 ms

Loss rate: 89.15%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-11 18:01:09

End at: 2017-08-11 18:01:39

Below is generated by plot.py at 2017-08-11 20:09:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 64.194 ms

Loss rate: 85.26%

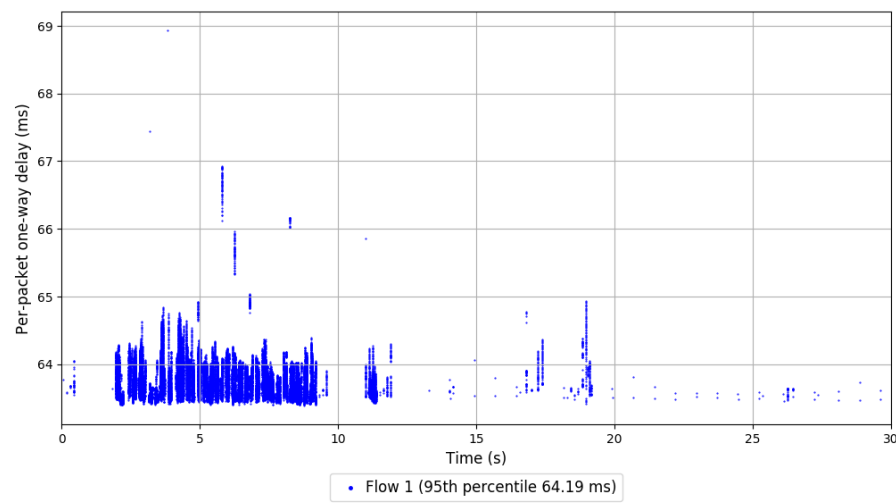
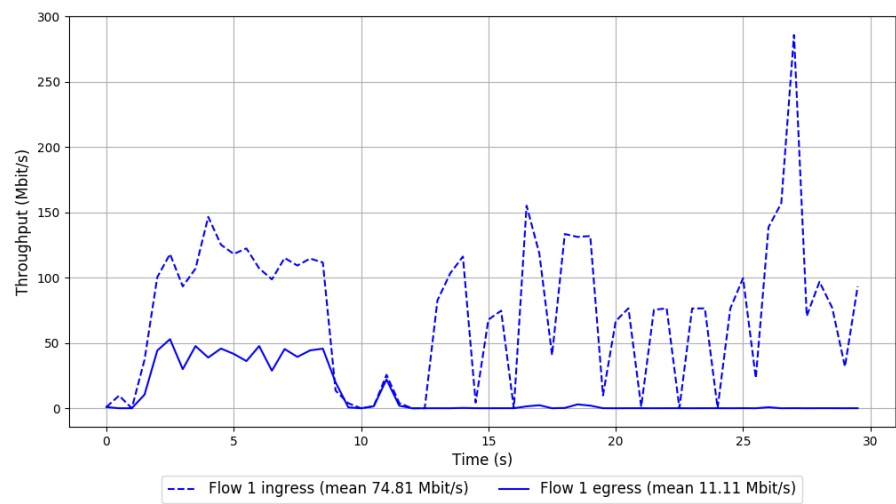
-- Flow 1:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 64.194 ms

Loss rate: 85.26%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

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

End at: 2017-08-11 18:11:41

Below is generated by plot.py at 2017-08-11 20:09:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.03 Mbit/s

95th percentile per-packet one-way delay: 84.433 ms

Loss rate: 10.83%

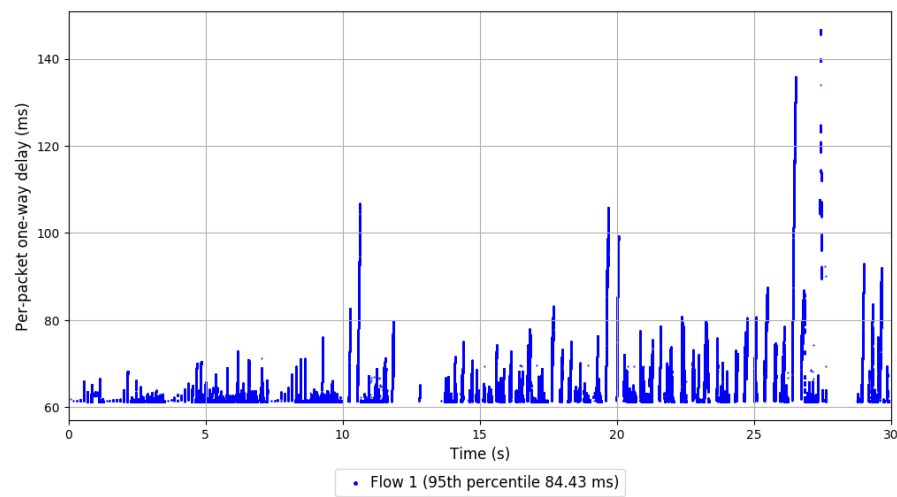
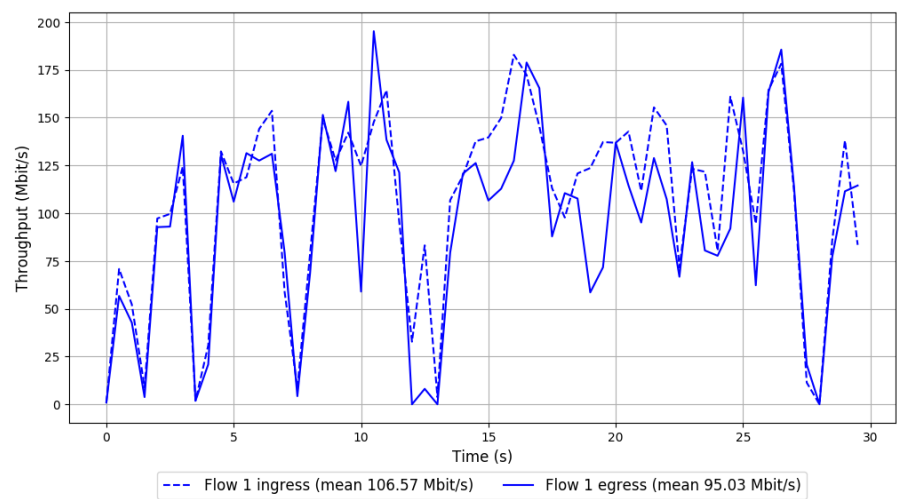
-- Flow 1:

Average throughput: 95.03 Mbit/s

95th percentile per-packet one-way delay: 84.433 ms

Loss rate: 10.83%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-11 18:21:39

End at: 2017-08-11 18:22:09

Run 8: Report of Verus — Data Link

Figure is missing

Figure is missing

Run 9: Statistics of Verus

Start at: 2017-08-11 18:32:01

End at: 2017-08-11 18:32:31

Below is generated by plot.py at 2017-08-11 20:09:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 122.14 Mbit/s

95th percentile per-packet one-way delay: 91.604 ms

Loss rate: 25.57%

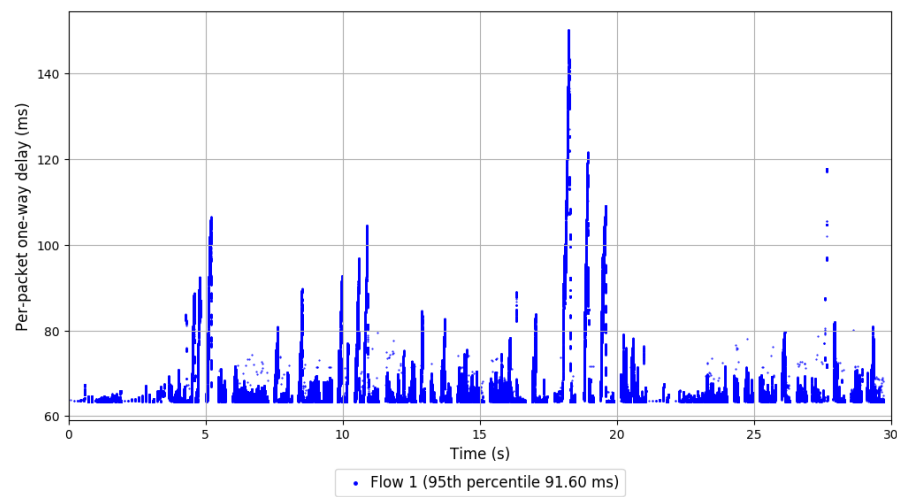
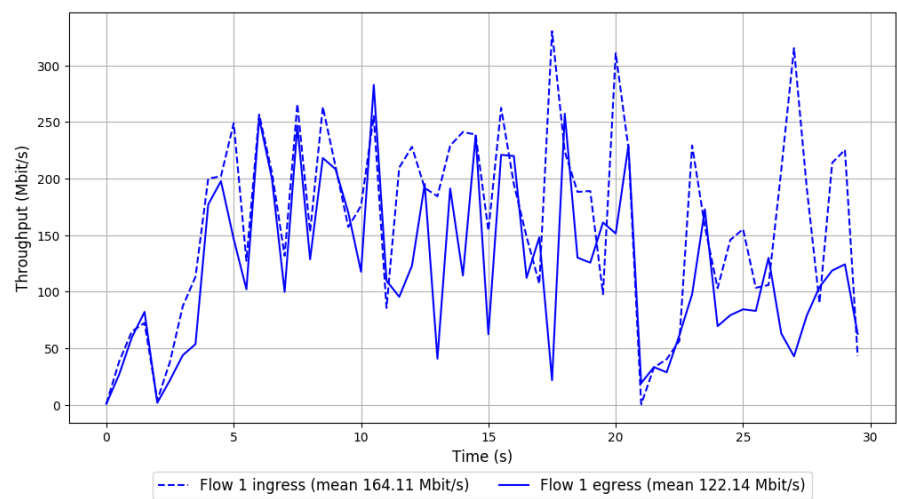
-- Flow 1:

Average throughput: 122.14 Mbit/s

95th percentile per-packet one-way delay: 91.604 ms

Loss rate: 25.57%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-11 18:42:19

End at: 2017-08-11 18:42:49

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 113.62 Mbit/s

95th percentile per-packet one-way delay: 83.880 ms

Loss rate: 5.14%

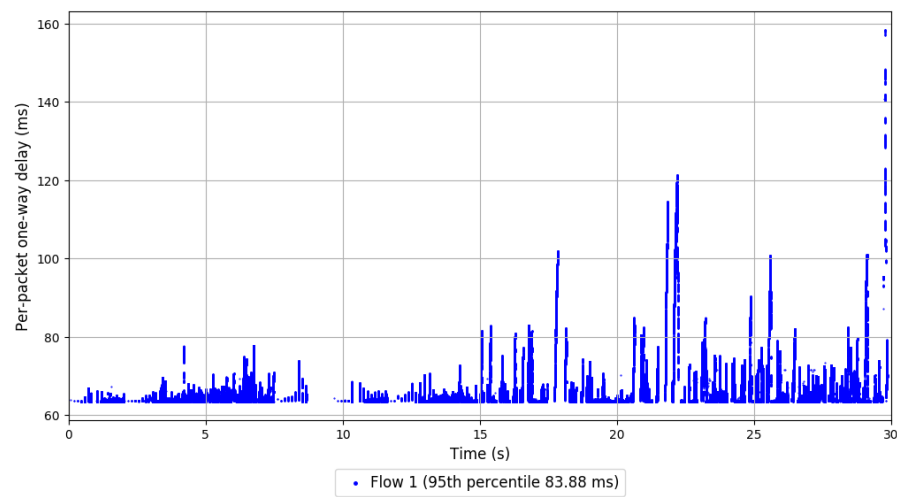
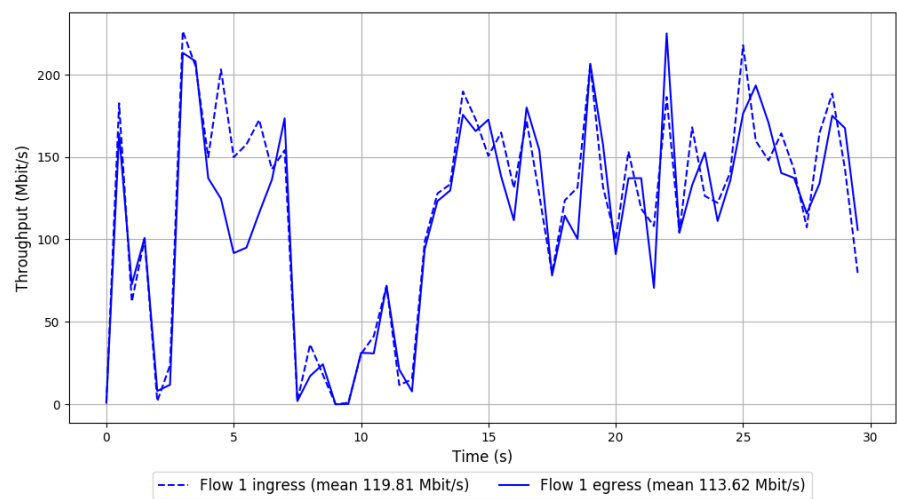
-- Flow 1:

Average throughput: 113.62 Mbit/s

95th percentile per-packet one-way delay: 83.880 ms

Loss rate: 5.14%

Run 10: Report of Verus — Data Link

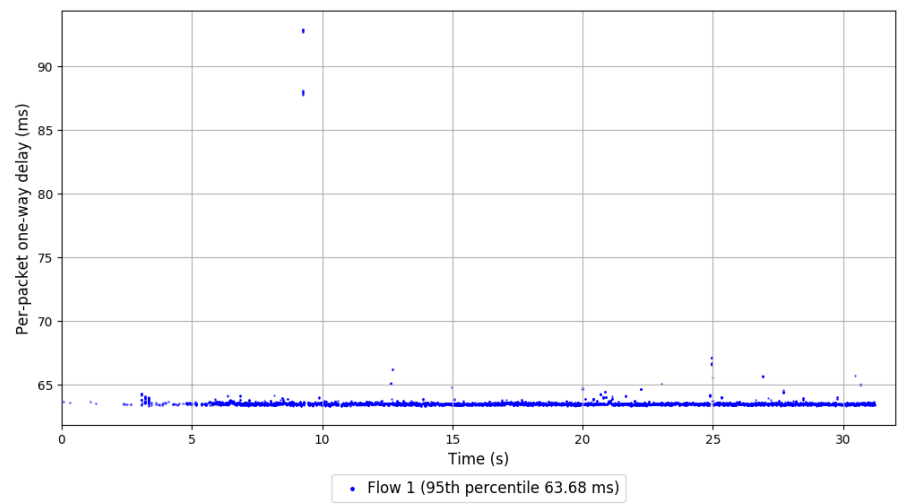
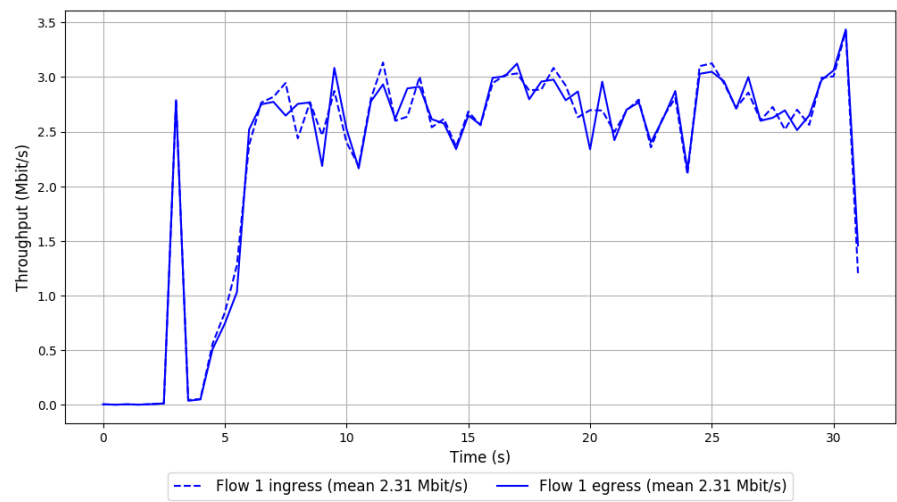


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-11 17:08:16
End at: 2017-08-11 17:08:46

# Below is generated by plot.py at 2017-08-11 20:10:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 63.683 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 63.683 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-11 17:18:50

End at: 2017-08-11 17:19:20

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 63.659 ms

Loss rate: 0.00%

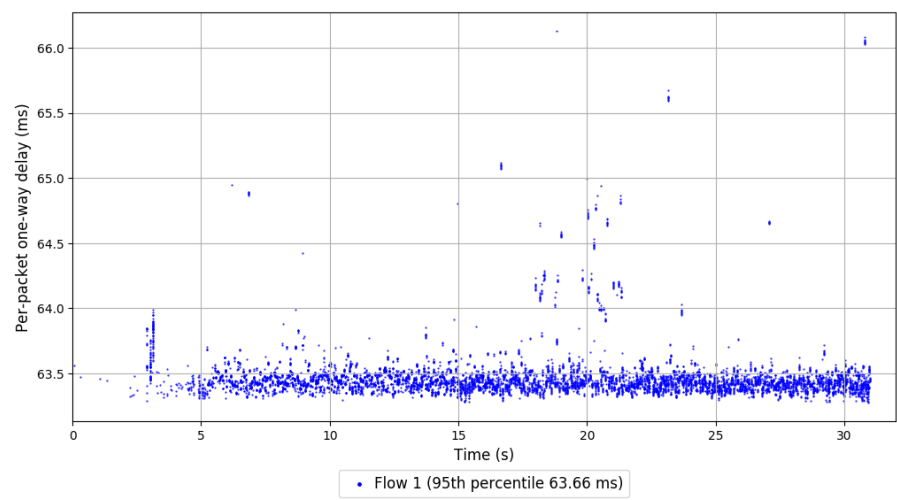
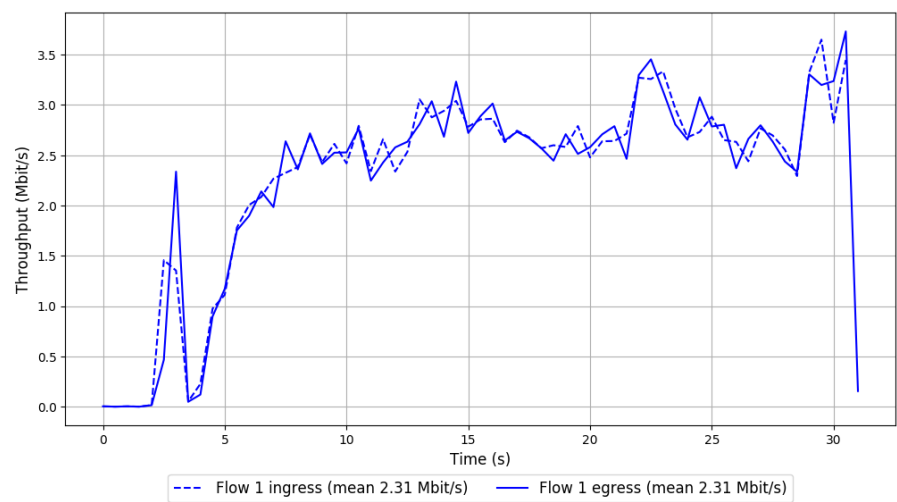
-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 63.659 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-11 17:29:21

End at: 2017-08-11 17:29:51

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.648 ms

Loss rate: 0.00%

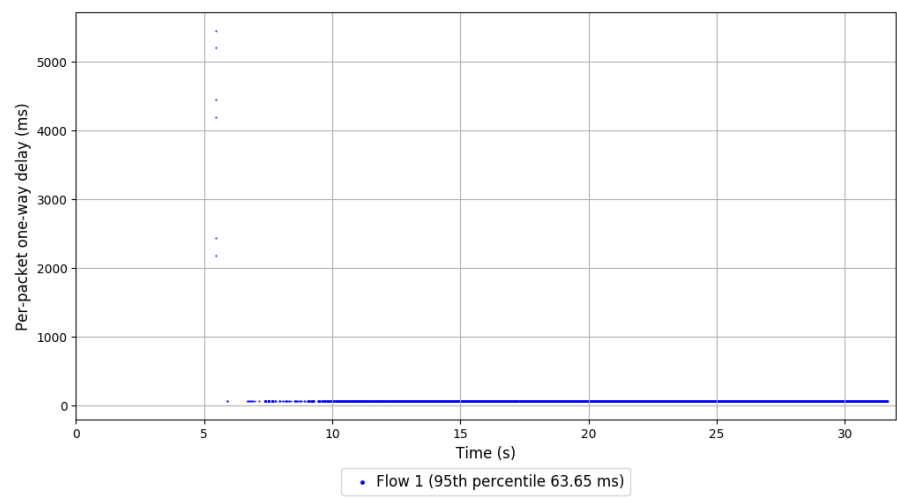
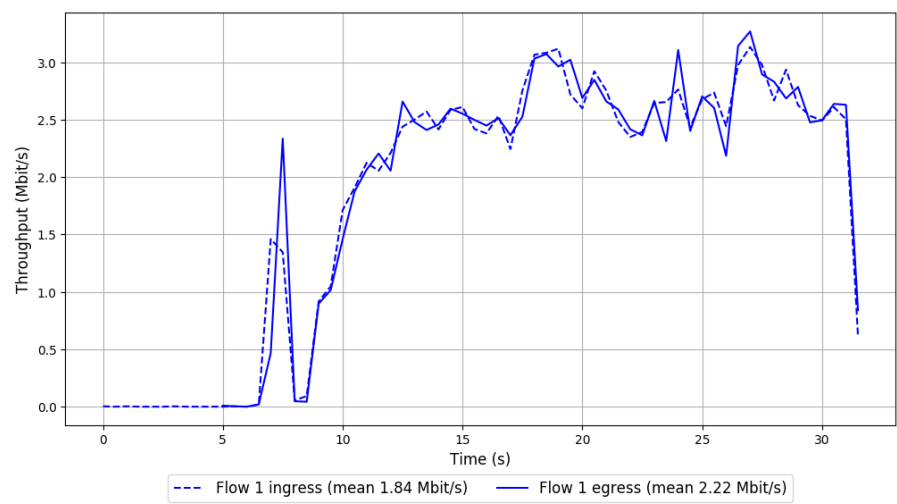
-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.648 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link

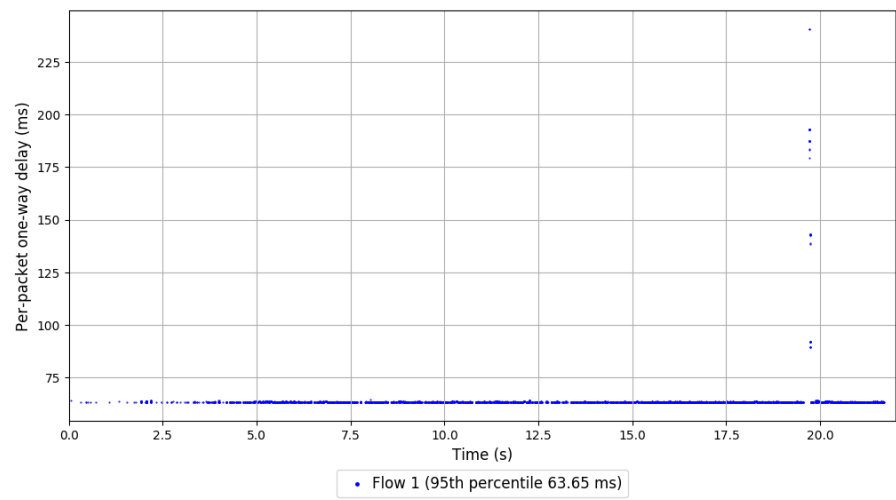
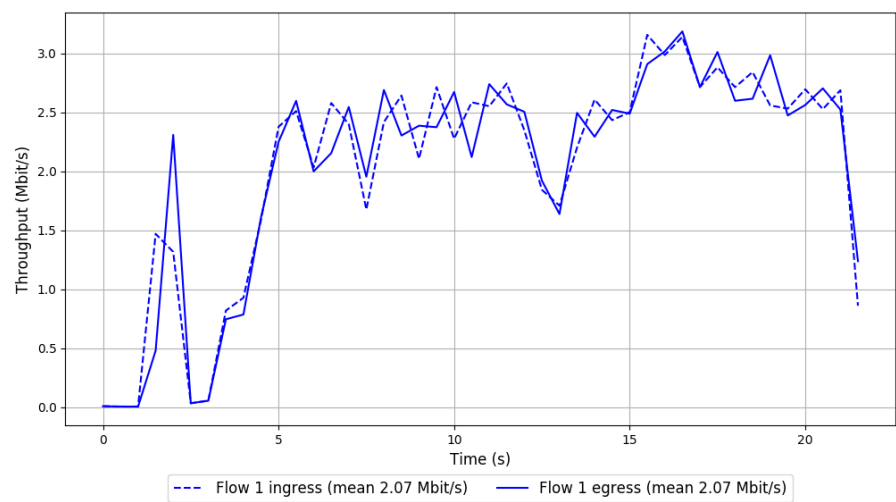


Run 4: Statistics of WebRTC media

Start at: 2017-08-11 17:39:56

End at: 2017-08-11 17:40:26

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-11 17:50:32

End at: 2017-08-11 17:51:02

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 64.280 ms

Loss rate: 0.00%

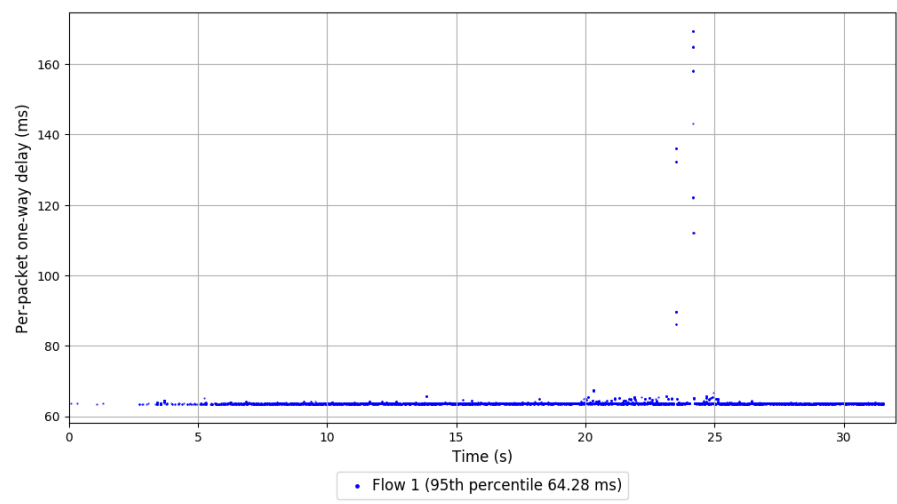
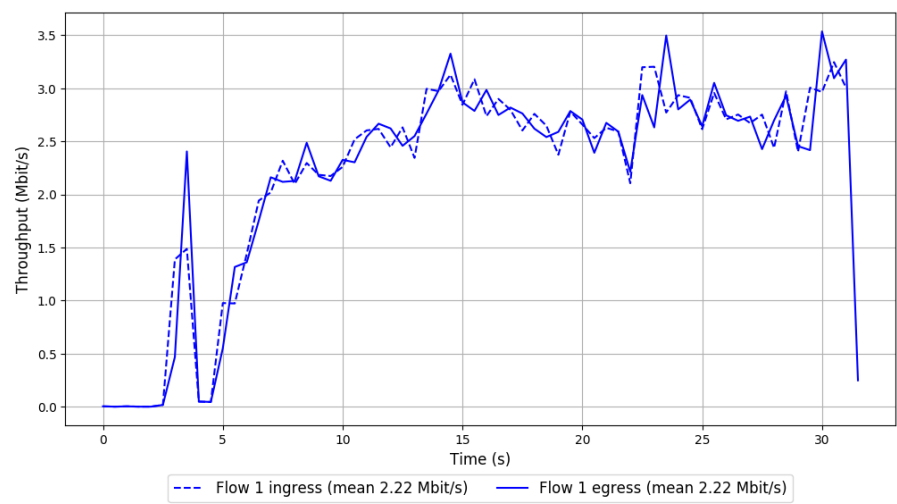
-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 64.280 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-11 18:00:31

End at: 2017-08-11 18:01:02

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 61.453 ms

Loss rate: 0.00%

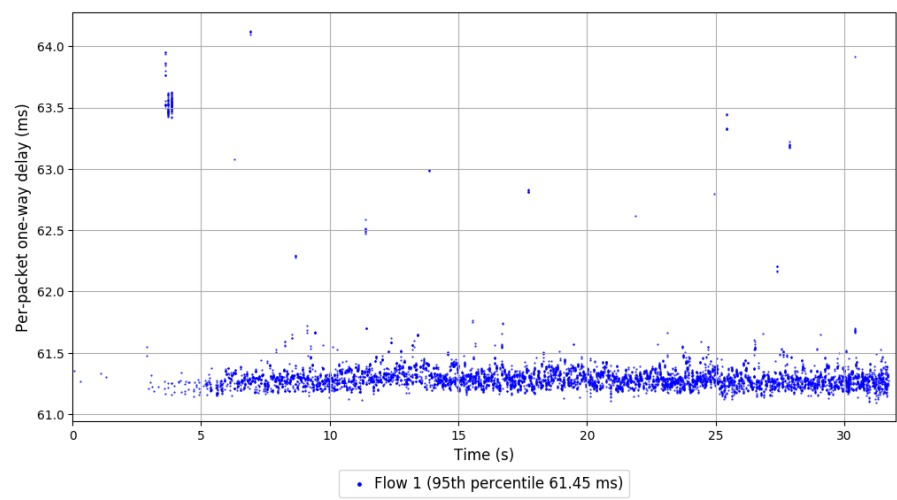
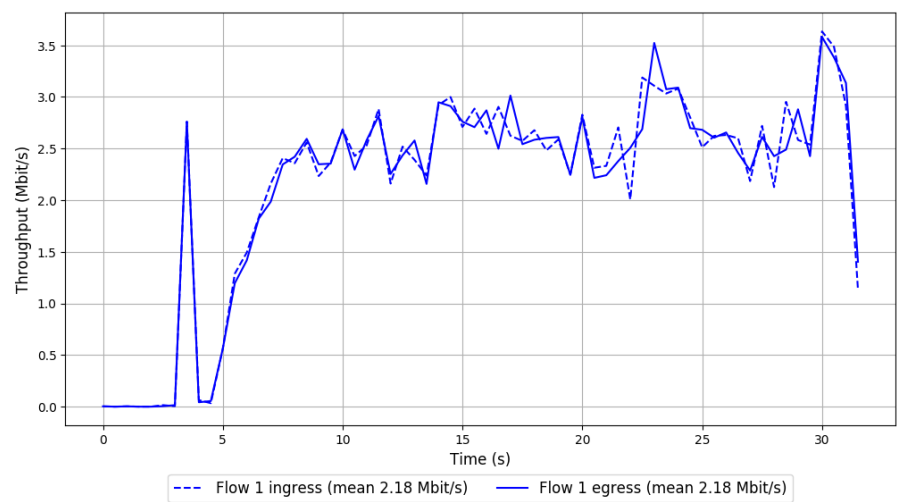
-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 61.453 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-11 18:10:33

End at: 2017-08-11 18:11:03

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 63.765 ms

Loss rate: 0.00%

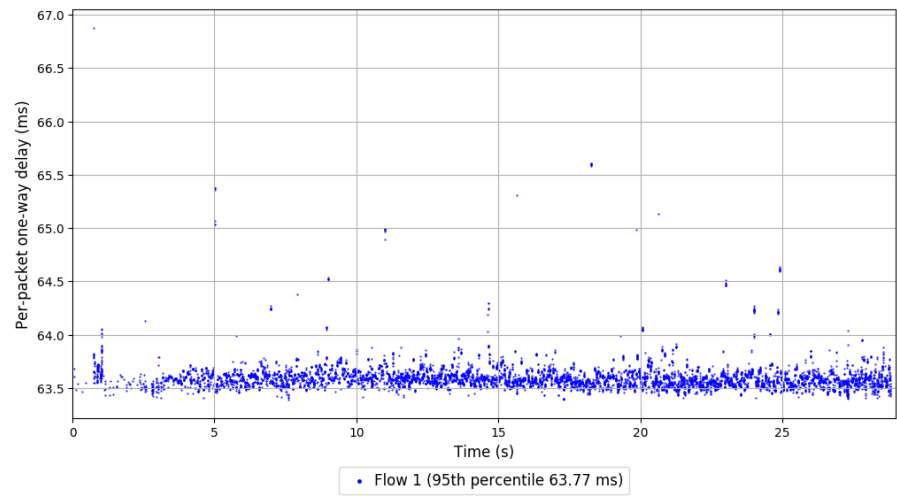
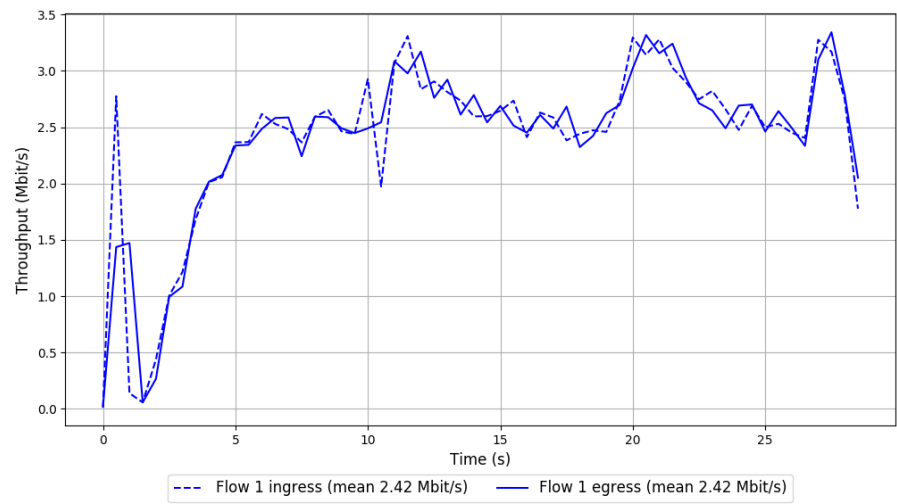
-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 63.765 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-11 18:21:02

End at: 2017-08-11 18:21:32

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.894 ms

Loss rate: 0.00%

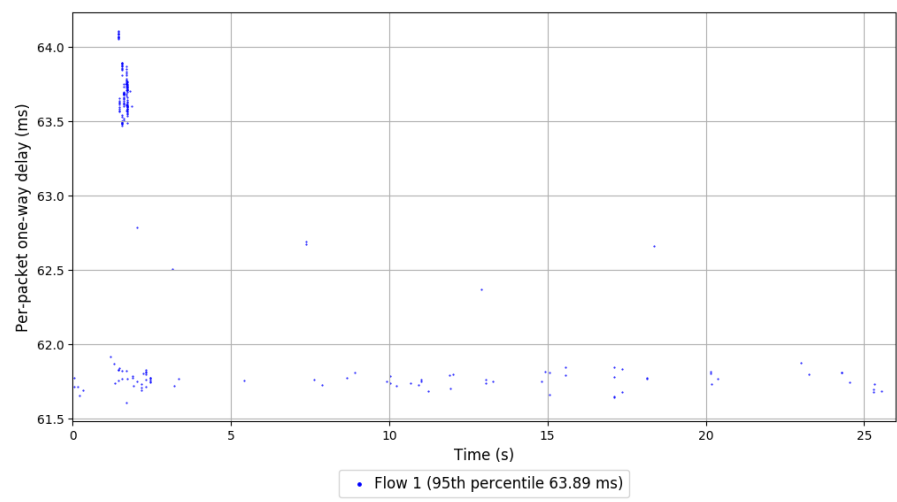
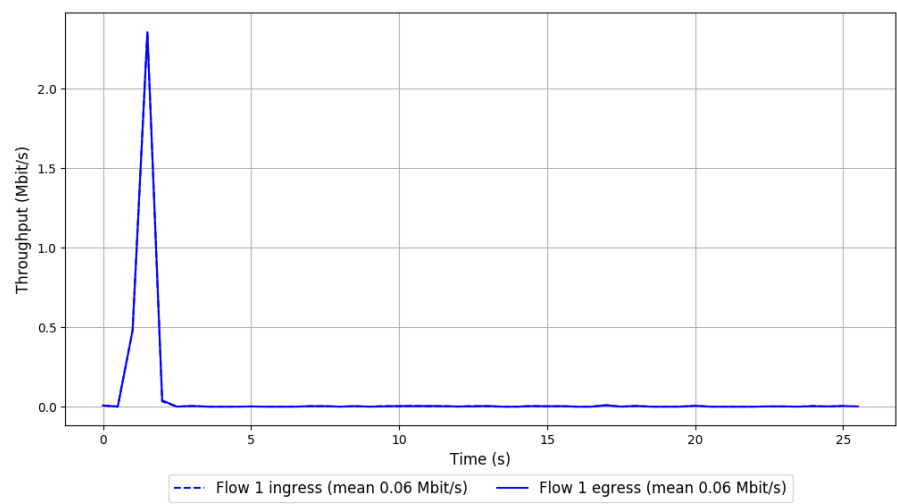
-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 63.894 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-11 18:31:23

End at: 2017-08-11 18:31:53

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 63.744 ms

Loss rate: 0.00%

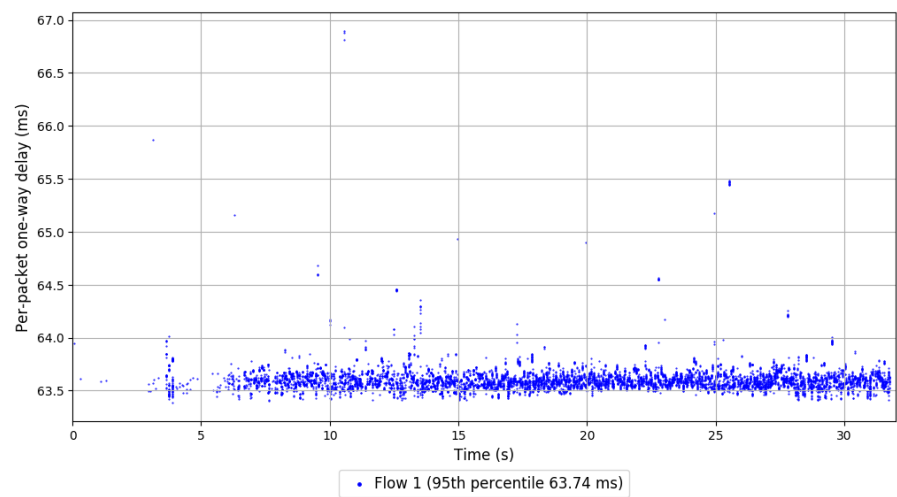
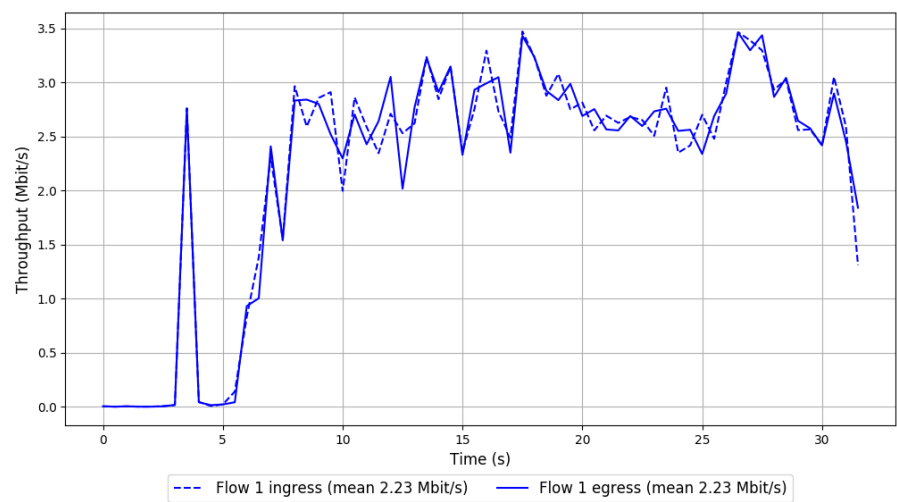
-- Flow 1:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 63.744 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-11 18:41:41

End at: 2017-08-11 18:42:11

Below is generated by plot.py at 2017-08-11 20:10:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 63.671 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 63.671 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

