

Pantheon Report

Generated at 2017-08-11 20:06:39 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

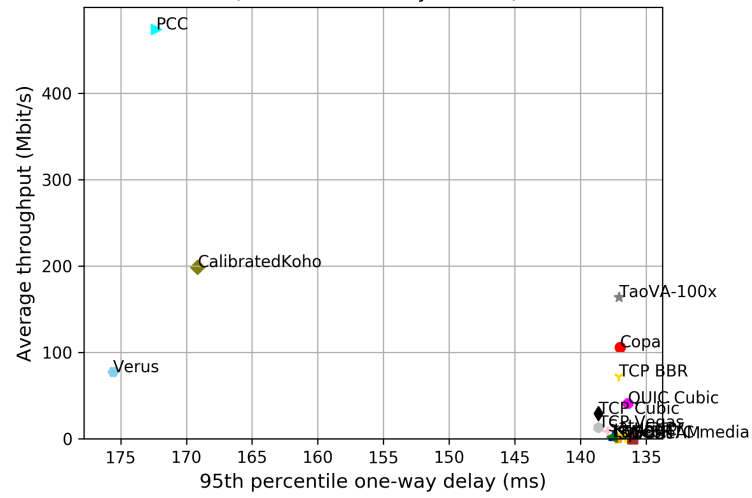
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

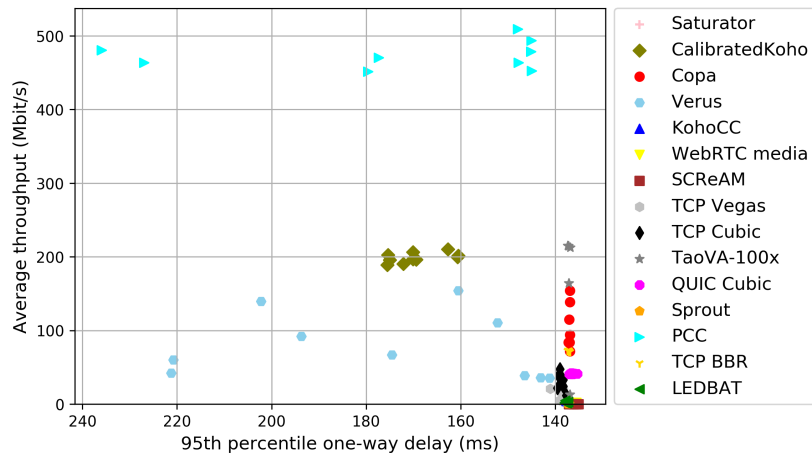
Git summary:

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

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



test from GCE London Ethernet to GCE Sydney 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	72.05	137.09	1.05
CalibratedKoho	10	198.82	169.15	1.75
Copa	7	105.91	136.99	0.91
TCP Cubic	10	29.28	138.66	1.93
KohoCC	10	4.21	137.46	0.97
LEDBAT	10	2.11	137.60	1.43
PCC	9	473.70	172.30	2.66
QUIC Cubic	10	41.23	136.39	0.47
Saturator	10	8.57	137.93	1.27
SCReAM	10	0.22	136.04	0.89
Sprout	10	0.40	137.16	0.95
TaoVA-100x	5	163.94	137.09	1.15
TCP Vegas	10	13.31	138.65	1.14
Verus	10	77.58	175.59	7.22
WebRTC media	10	1.94	136.57	1.34

Run 1: Statistics of TCP BBR

Start at: 2017-08-11 15:28:11

End at: 2017-08-11 15:28:41

Below is generated by plot.py at 2017-08-11 19:44:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.53 Mbit/s

95th percentile per-packet one-way delay: 137.454 ms

Loss rate: 1.29%

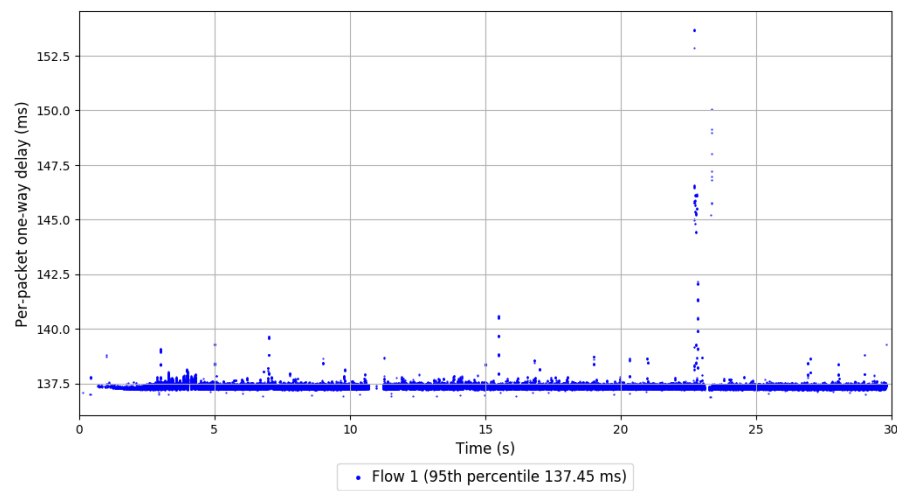
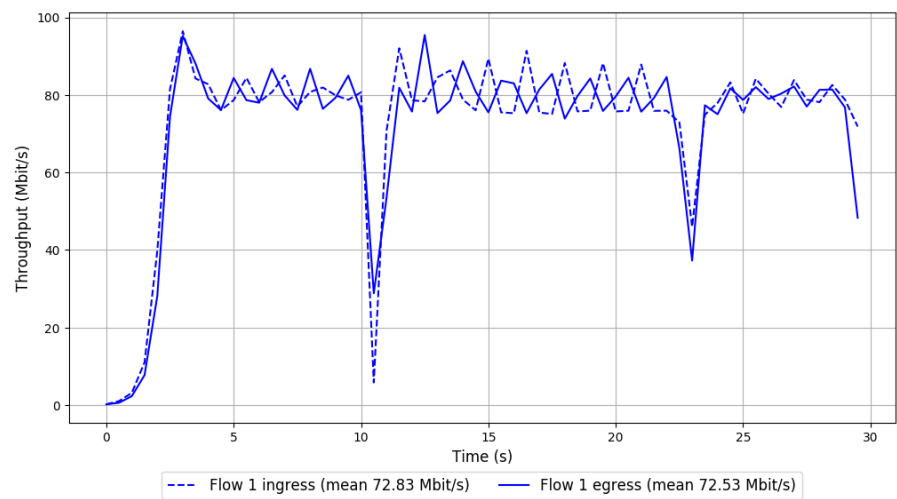
-- Flow 1:

Average throughput: 72.53 Mbit/s

95th percentile per-packet one-way delay: 137.454 ms

Loss rate: 1.29%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-11 15:40:13

End at: 2017-08-11 15:40:43

Below is generated by plot.py at 2017-08-11 19:44:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.30 Mbit/s

95th percentile per-packet one-way delay: 137.028 ms

Loss rate: 1.05%

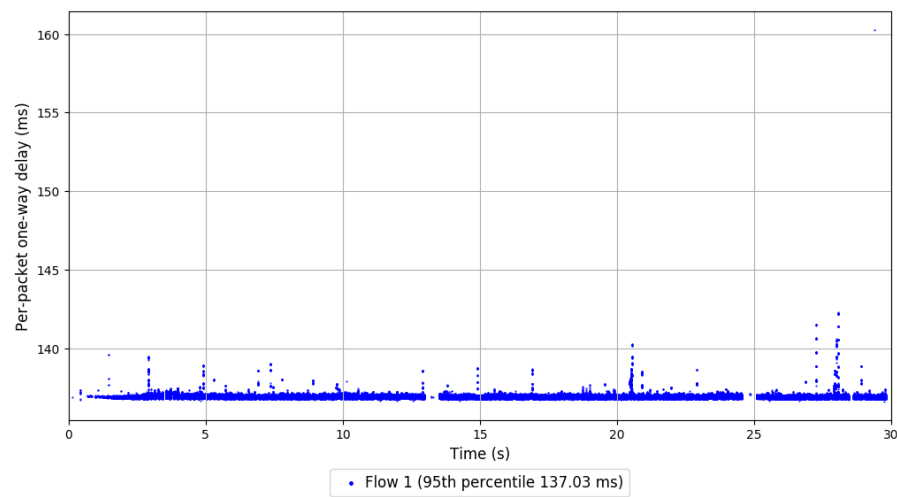
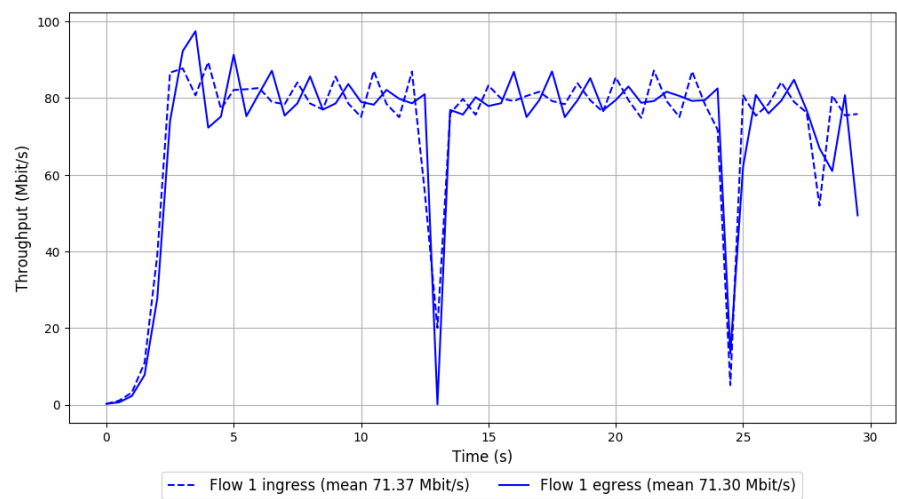
-- Flow 1:

Average throughput: 71.30 Mbit/s

95th percentile per-packet one-way delay: 137.028 ms

Loss rate: 1.05%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-11 15:51:59

End at: 2017-08-11 15:52:29

Below is generated by plot.py at 2017-08-11 19:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.77 Mbit/s

95th percentile per-packet one-way delay: 137.111 ms

Loss rate: 1.10%

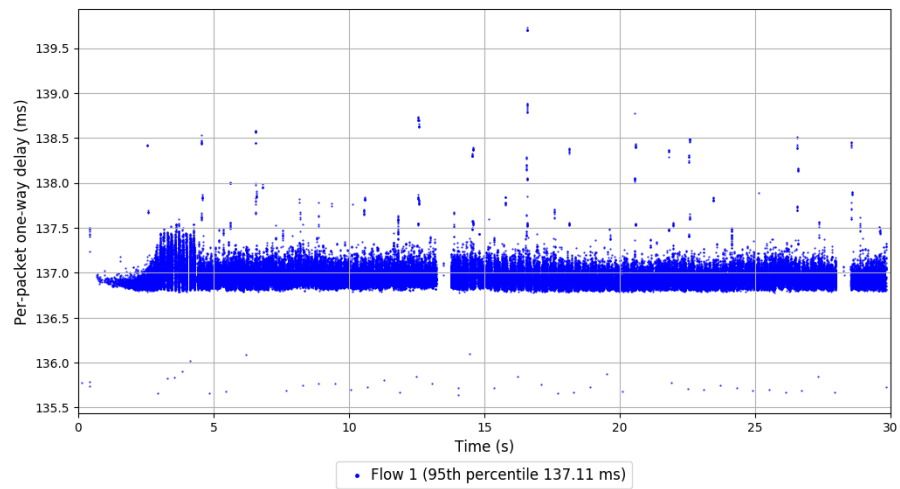
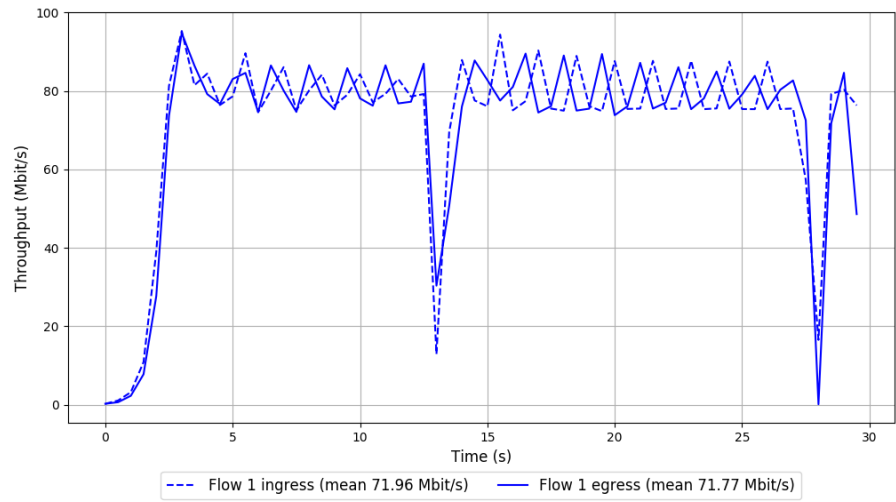
-- Flow 1:

Average throughput: 71.77 Mbit/s

95th percentile per-packet one-way delay: 137.111 ms

Loss rate: 1.10%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-08-11 16:03:58

End at: 2017-08-11 16:04:28

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.40 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 1.03%

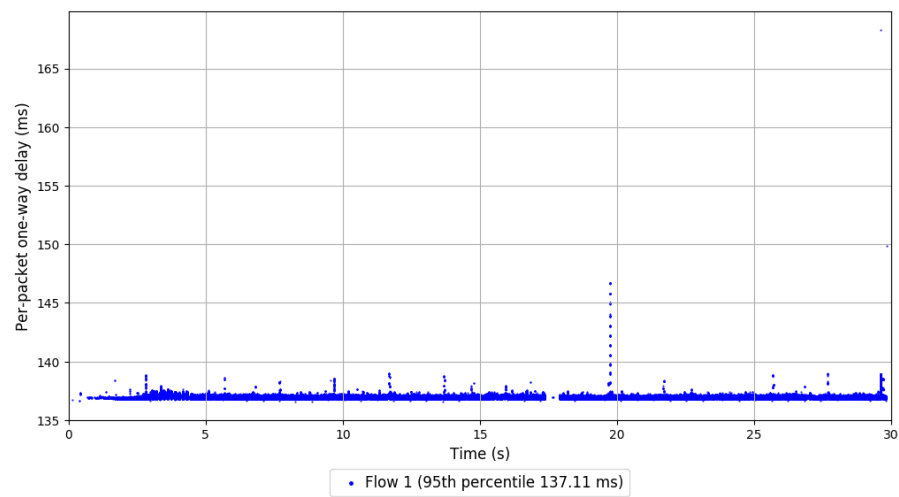
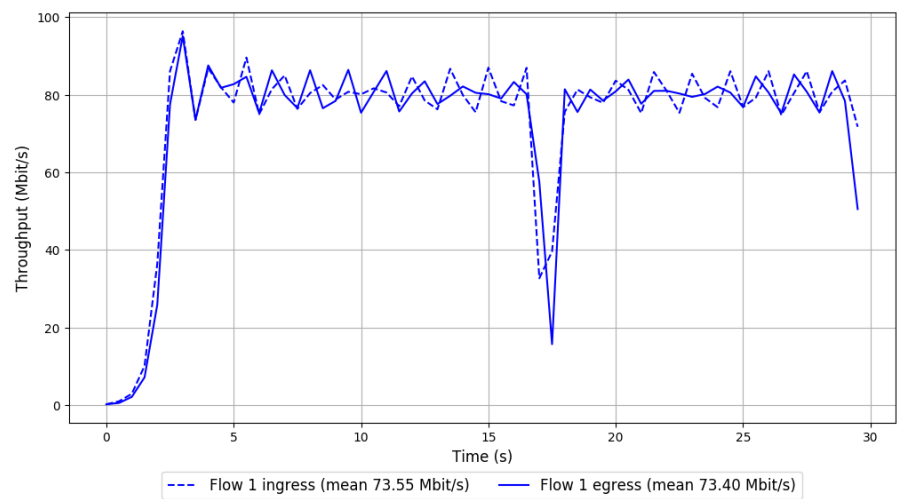
-- Flow 1:

Average throughput: 73.40 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 1.03%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-11 16:15:42

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

Below is generated by plot.py at 2017-08-11 19:45:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.56 Mbit/s

95th percentile per-packet one-way delay: 137.090 ms

Loss rate: 1.03%

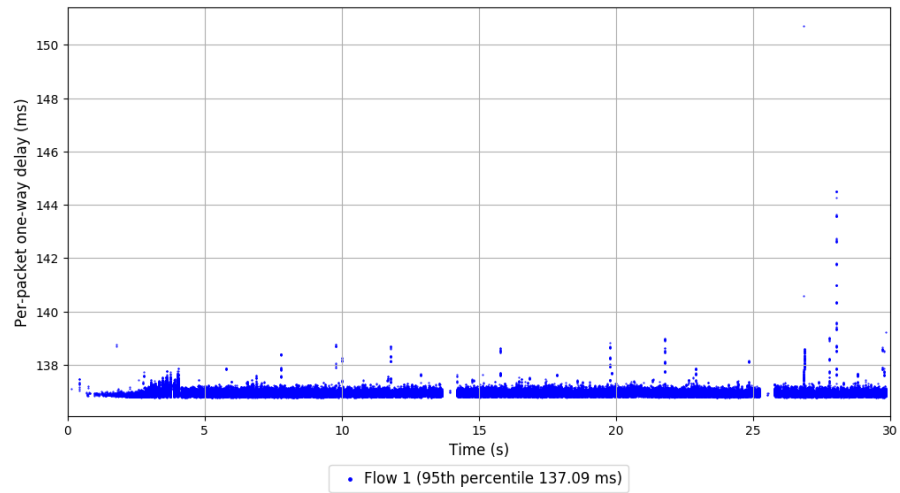
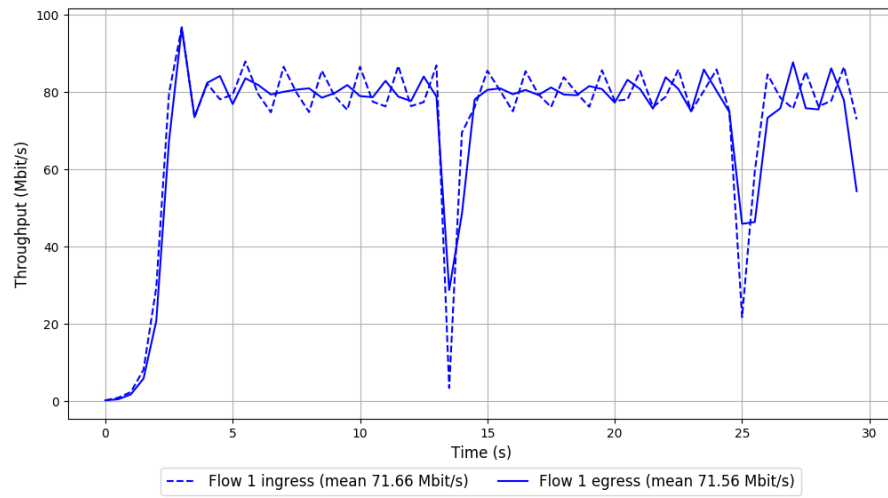
-- Flow 1:

Average throughput: 71.56 Mbit/s

95th percentile per-packet one-way delay: 137.090 ms

Loss rate: 1.03%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-11 16:27:54

End at: 2017-08-11 16:28:24

Below is generated by plot.py at 2017-08-11 19:45:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.10 Mbit/s

95th percentile per-packet one-way delay: 137.064 ms

Loss rate: 1.01%

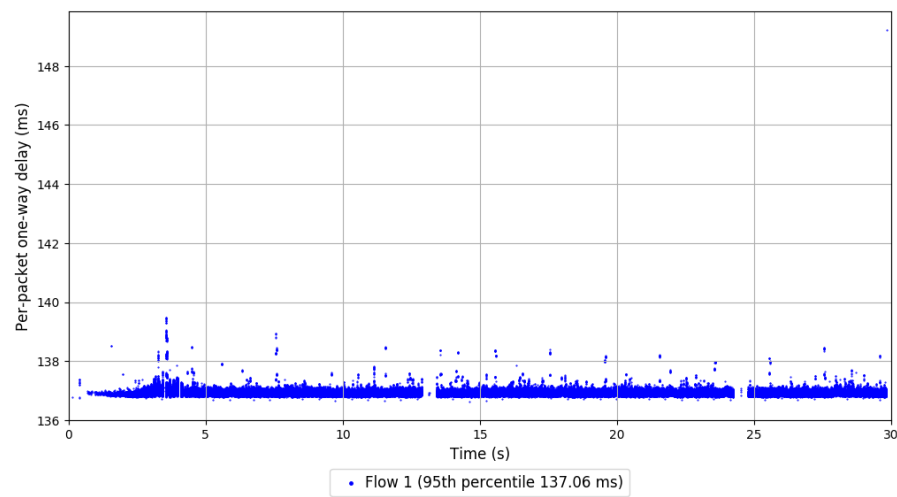
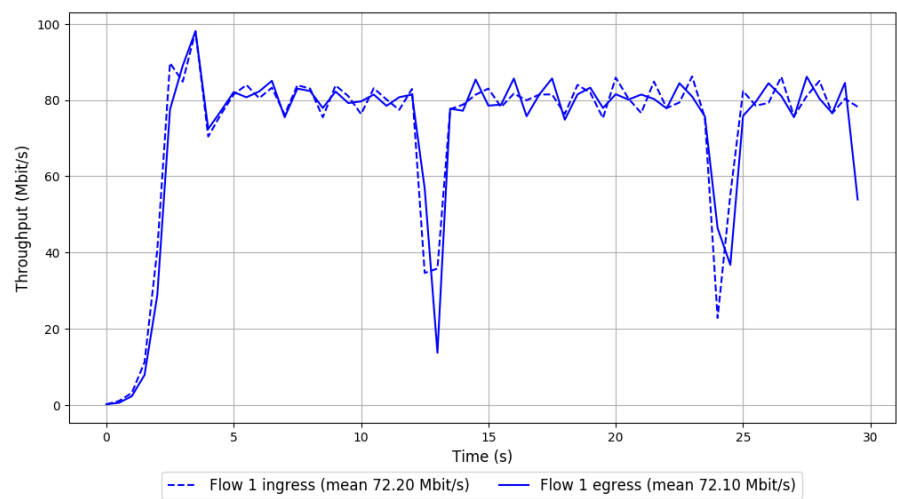
-- Flow 1:

Average throughput: 72.10 Mbit/s

95th percentile per-packet one-way delay: 137.064 ms

Loss rate: 1.01%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-11 16:40:00

End at: 2017-08-11 16:40:30

Below is generated by plot.py at 2017-08-11 19:45:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.42 Mbit/s

95th percentile per-packet one-way delay: 136.929 ms

Loss rate: 1.00%

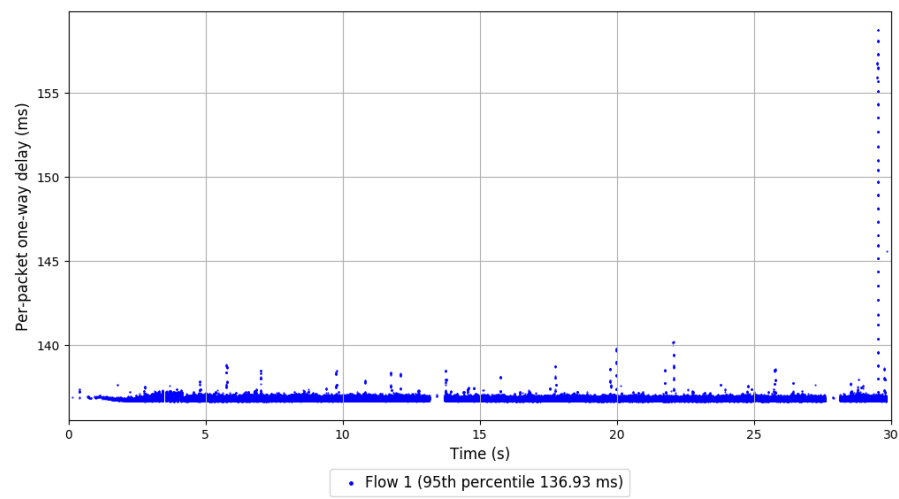
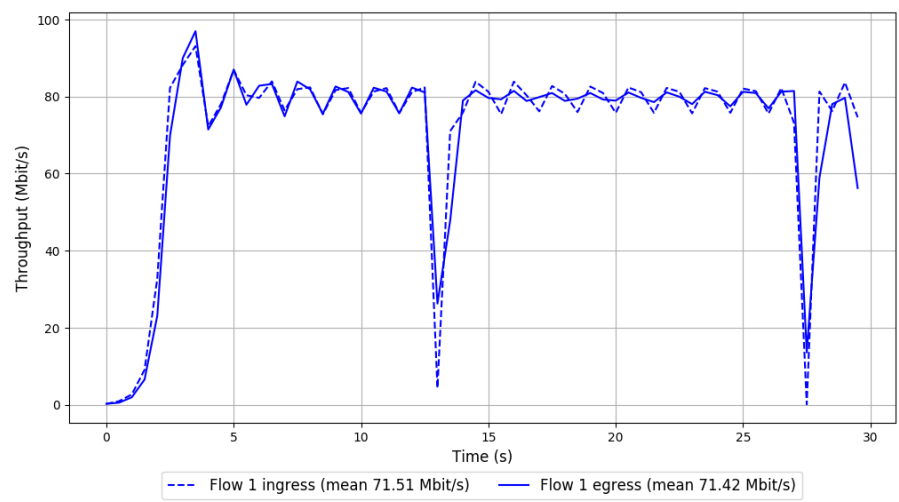
-- Flow 1:

Average throughput: 71.42 Mbit/s

95th percentile per-packet one-way delay: 136.929 ms

Loss rate: 1.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-11 16:52:09

End at: 2017-08-11 16:52:39

Below is generated by plot.py at 2017-08-11 19:45:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.36 Mbit/s

95th percentile per-packet one-way delay: 136.902 ms

Loss rate: 1.02%

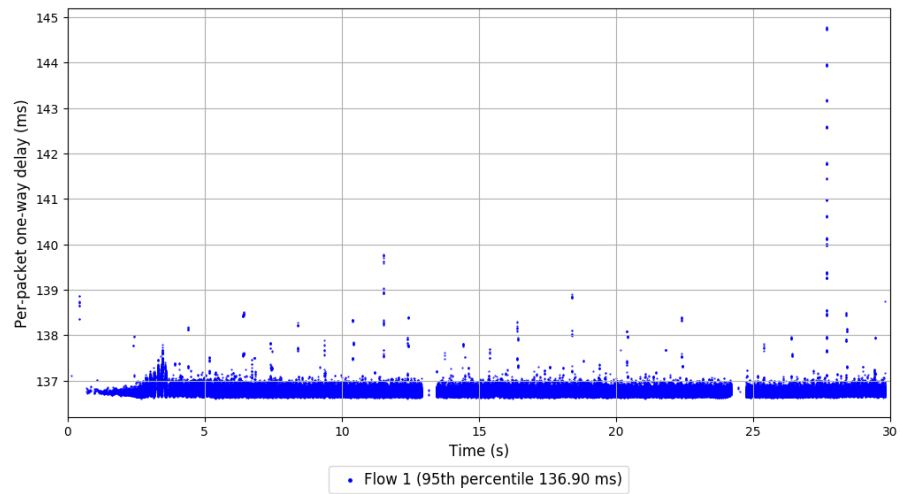
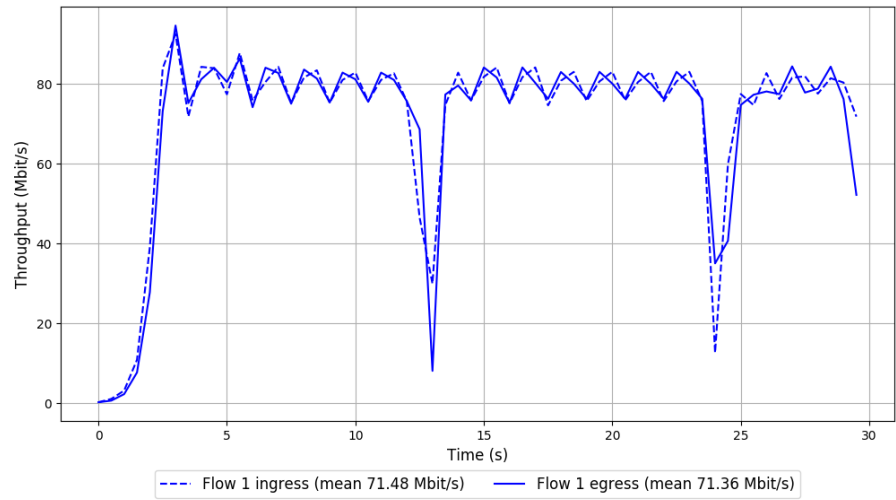
-- Flow 1:

Average throughput: 71.36 Mbit/s

95th percentile per-packet one-way delay: 136.902 ms

Loss rate: 1.02%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-11 17:04:05

End at: 2017-08-11 17:04:35

Below is generated by plot.py at 2017-08-11 19:45:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.20 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.98%

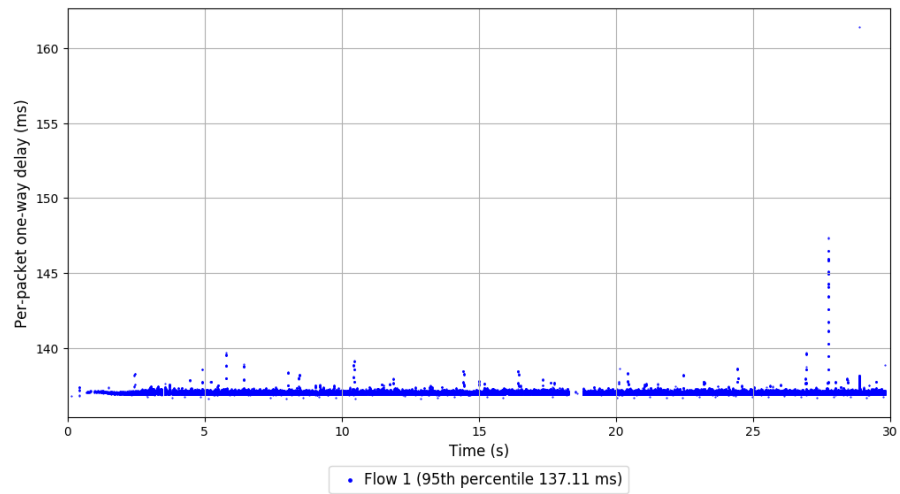
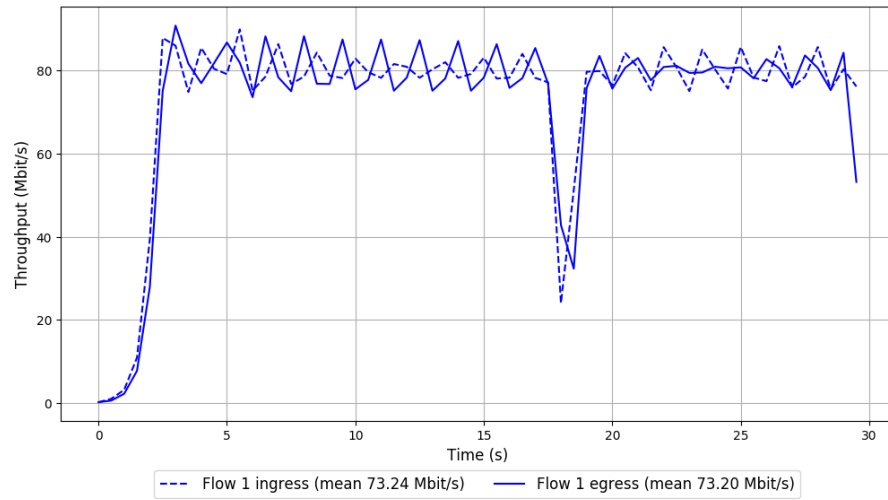
-- Flow 1:

Average throughput: 73.20 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.98%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-11 17:15:37

End at: 2017-08-11 17:16:07

Below is generated by plot.py at 2017-08-11 19:45:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.85 Mbit/s

95th percentile per-packet one-way delay: 137.147 ms

Loss rate: 1.03%

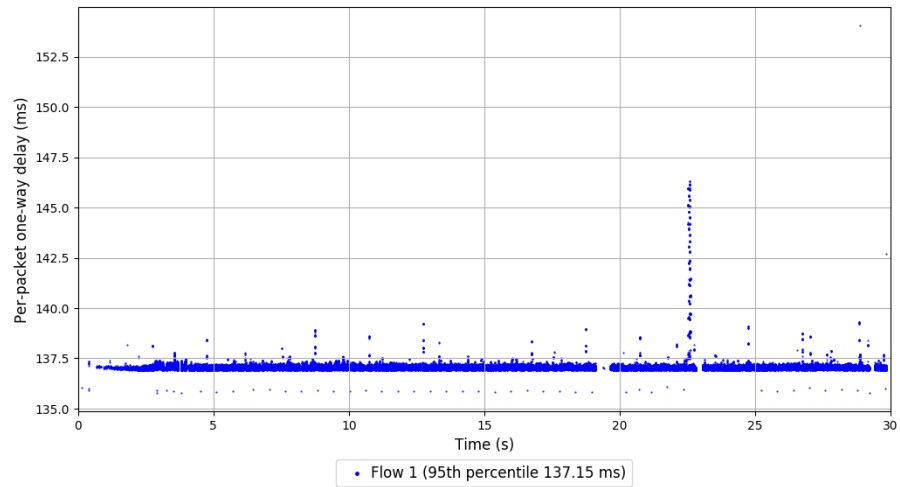
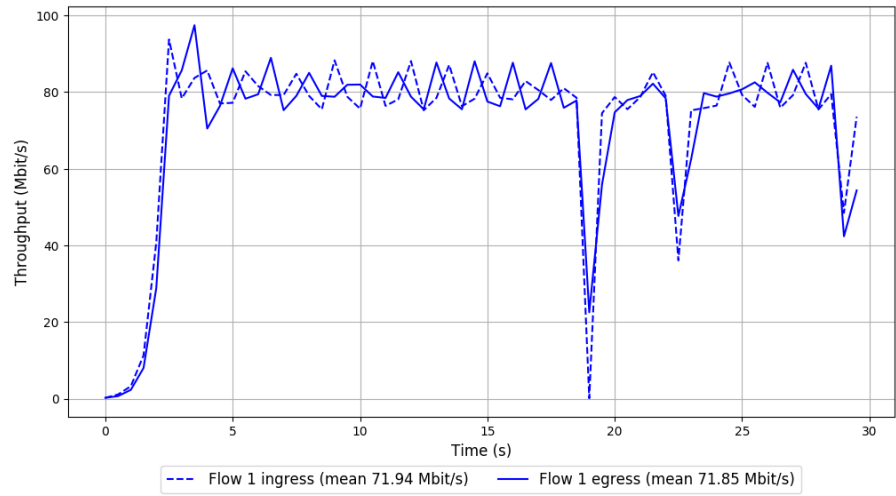
-- Flow 1:

Average throughput: 71.85 Mbit/s

95th percentile per-packet one-way delay: 137.147 ms

Loss rate: 1.03%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-11 15:23:12

End at: 2017-08-11 15:23:42

Below is generated by plot.py at 2017-08-11 19:46:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.23 Mbit/s

95th percentile per-packet one-way delay: 172.123 ms

Loss rate: 1.83%

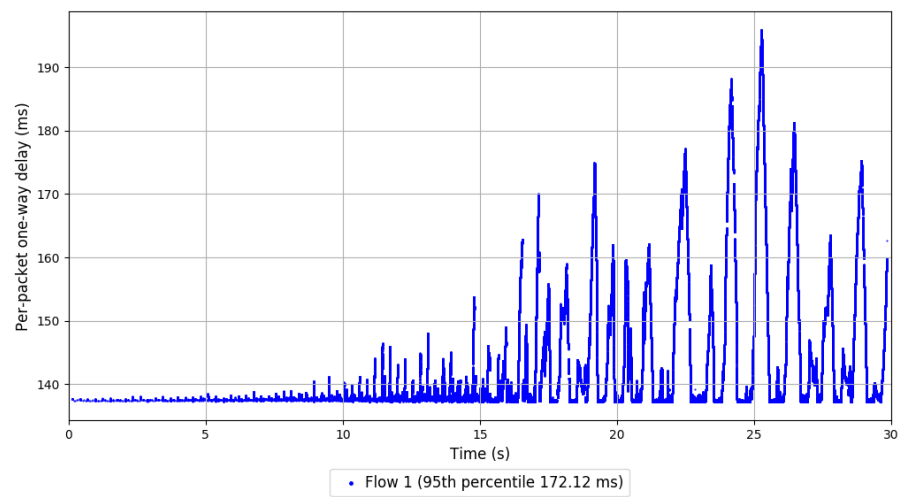
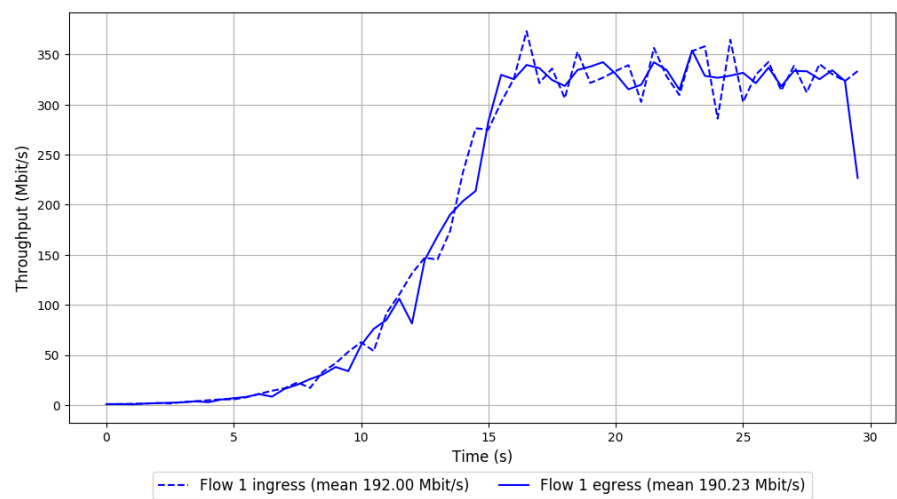
-- Flow 1:

Average throughput: 190.23 Mbit/s

95th percentile per-packet one-way delay: 172.123 ms

Loss rate: 1.83%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

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

End at: 2017-08-11 15:35:38

Below is generated by plot.py at 2017-08-11 19:46:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 196.88 Mbit/s

95th percentile per-packet one-way delay: 170.115 ms

Loss rate: 2.03%

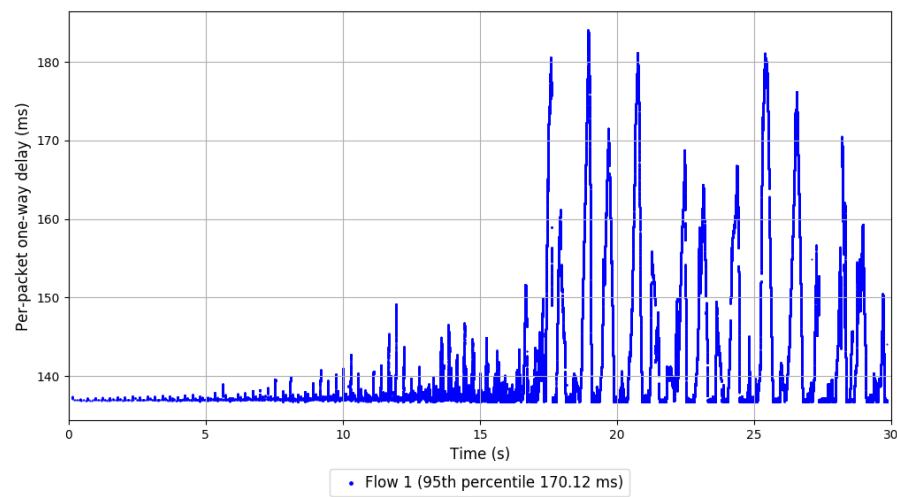
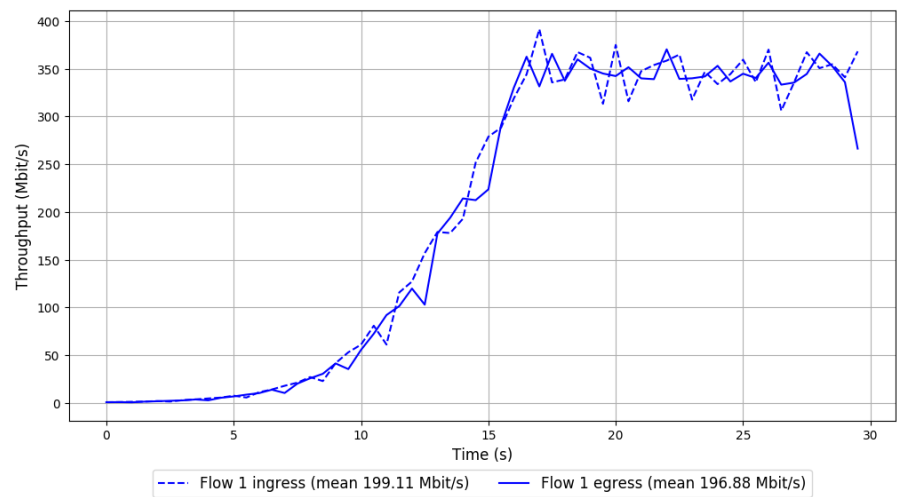
-- Flow 1:

Average throughput: 196.88 Mbit/s

95th percentile per-packet one-way delay: 170.115 ms

Loss rate: 2.03%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-11 15:46:51

End at: 2017-08-11 15:47:21

Below is generated by plot.py at 2017-08-11 19:47:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 201.45 Mbit/s

95th percentile per-packet one-way delay: 160.494 ms

Loss rate: 1.78%

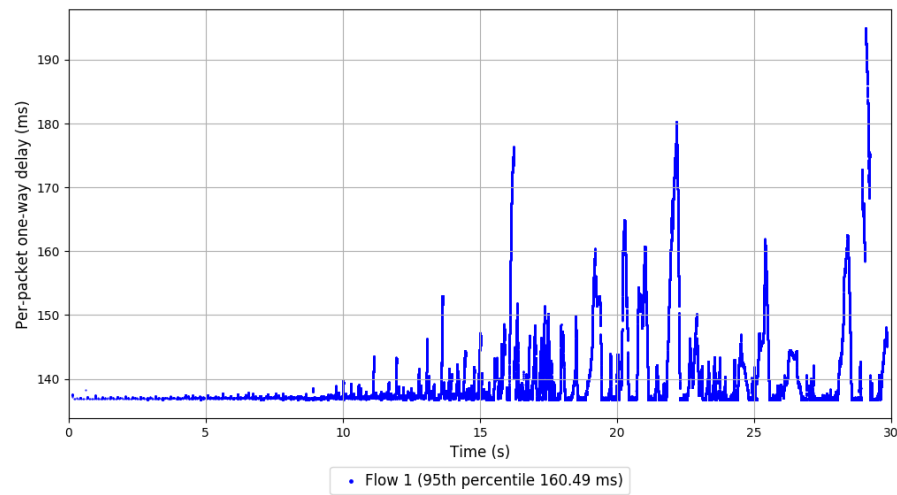
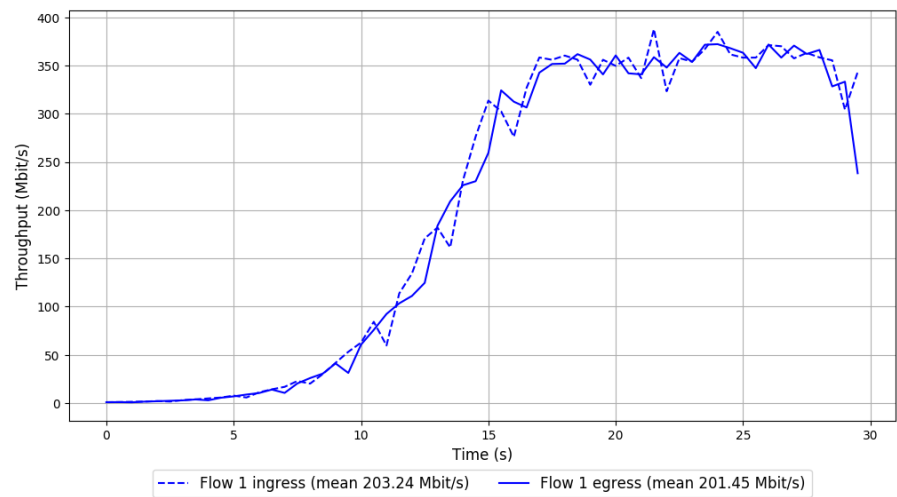
-- Flow 1:

Average throughput: 201.45 Mbit/s

95th percentile per-packet one-way delay: 160.494 ms

Loss rate: 1.78%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-11 15:58:37

End at: 2017-08-11 15:59:07

Below is generated by plot.py at 2017-08-11 19:47:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 206.36 Mbit/s

95th percentile per-packet one-way delay: 170.065 ms

Loss rate: 1.62%

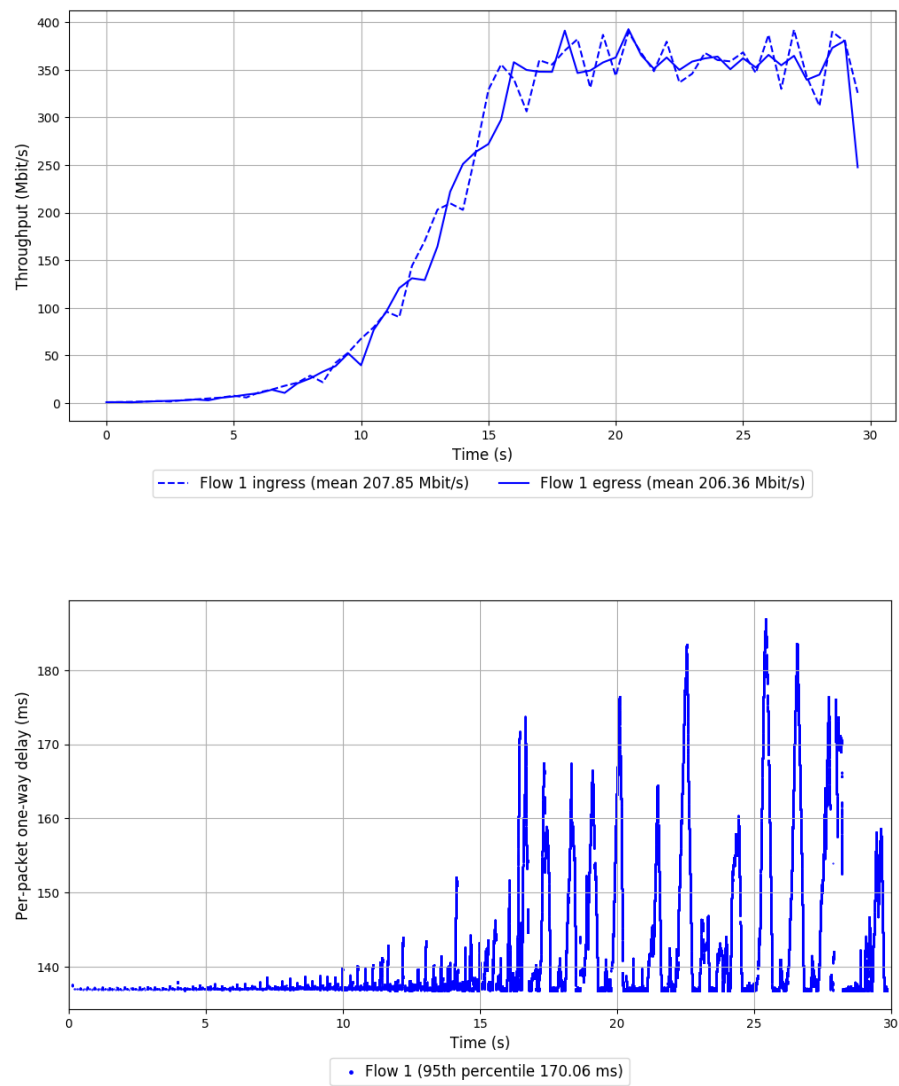
-- Flow 1:

Average throughput: 206.36 Mbit/s

95th percentile per-packet one-way delay: 170.065 ms

Loss rate: 1.62%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-11 16:10:35

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

Below is generated by plot.py at 2017-08-11 19:47:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.50 Mbit/s

95th percentile per-packet one-way delay: 162.705 ms

Loss rate: 1.63%

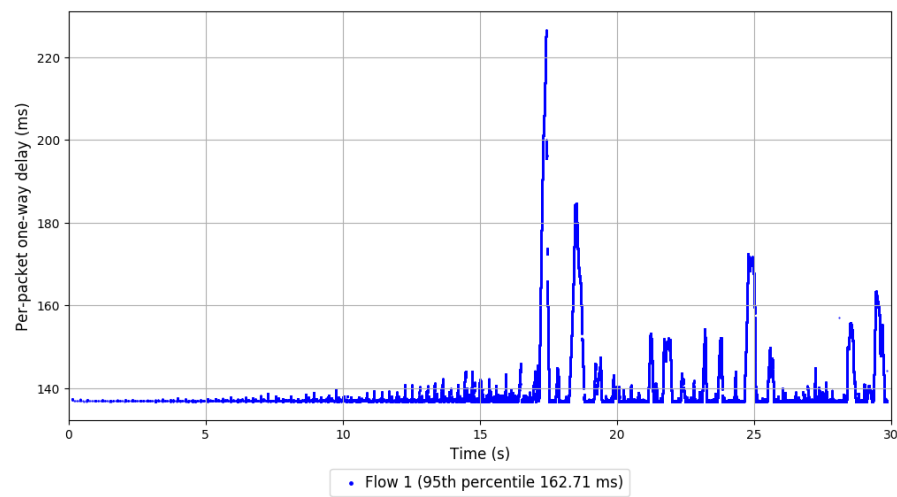
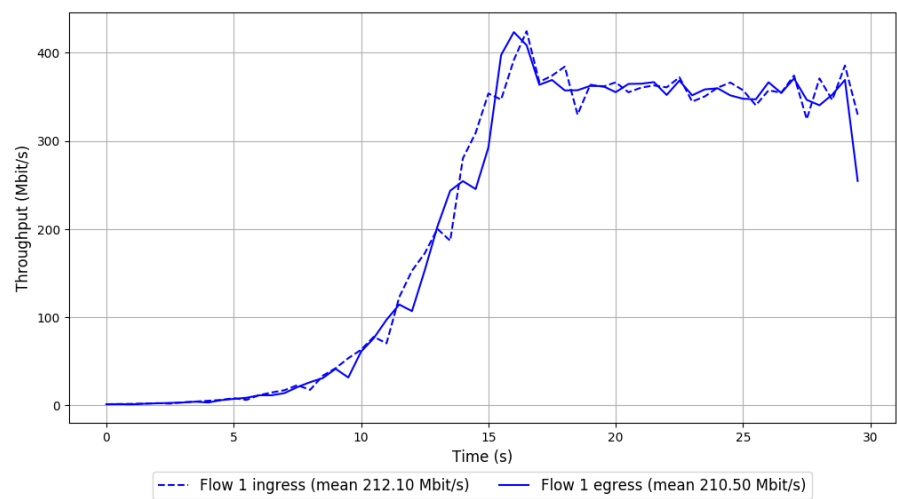
-- Flow 1:

Average throughput: 210.50 Mbit/s

95th percentile per-packet one-way delay: 162.705 ms

Loss rate: 1.63%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-11 16:22:31

End at: 2017-08-11 16:23:01

Below is generated by plot.py at 2017-08-11 19:48:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 202.44 Mbit/s

95th percentile per-packet one-way delay: 175.369 ms

Loss rate: 1.86%

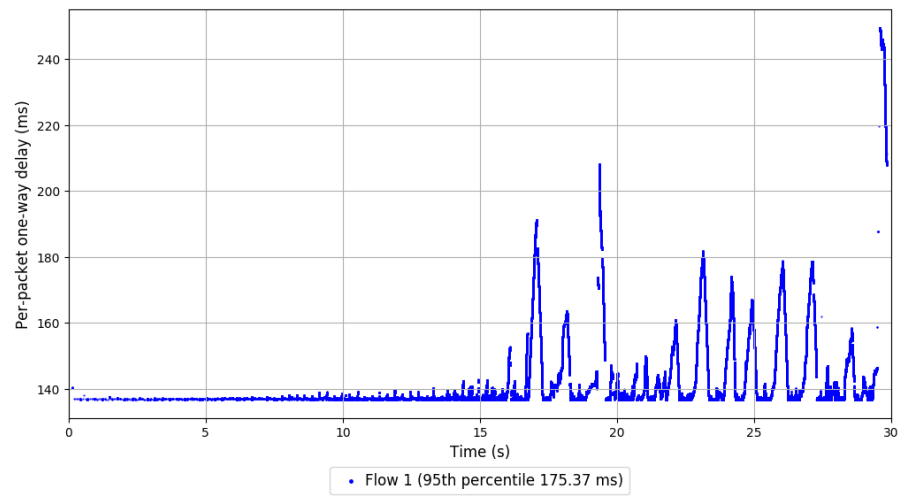
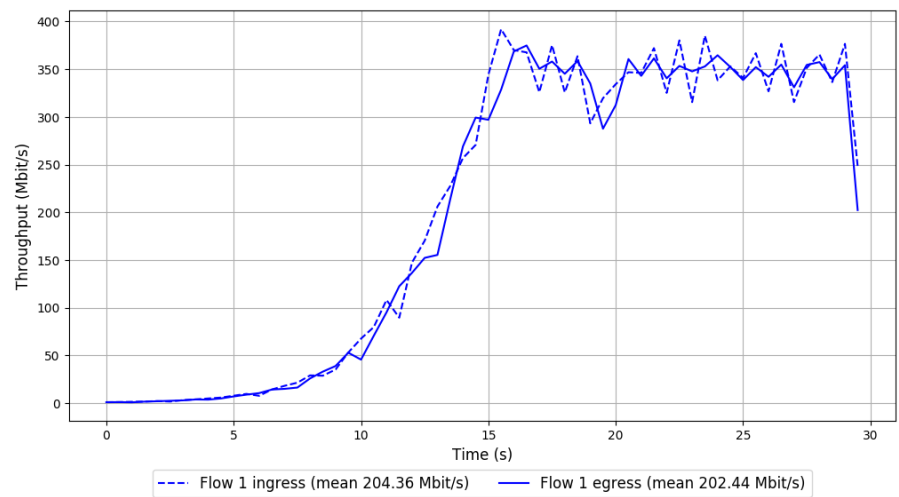
-- Flow 1:

Average throughput: 202.44 Mbit/s

95th percentile per-packet one-way delay: 175.369 ms

Loss rate: 1.86%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-11 16:34:53

End at: 2017-08-11 16:35:23

Below is generated by plot.py at 2017-08-11 19:48:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.84 Mbit/s

95th percentile per-packet one-way delay: 174.983 ms

Loss rate: 1.88%

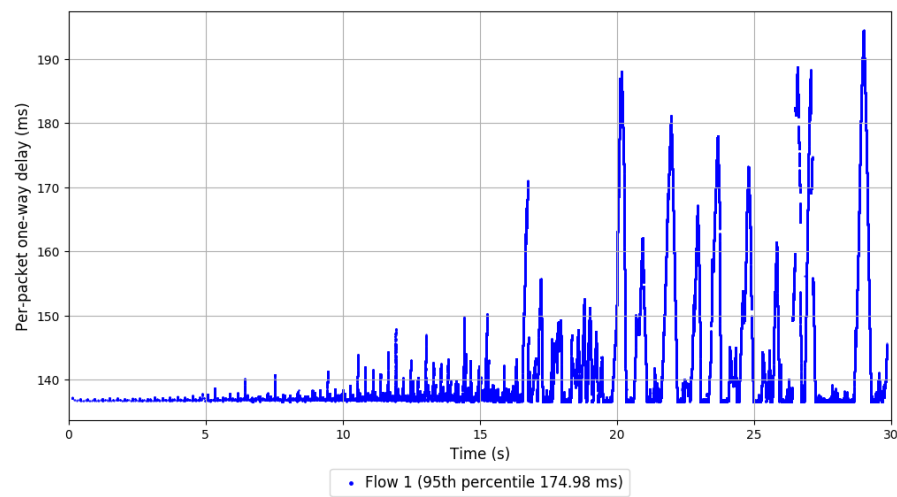
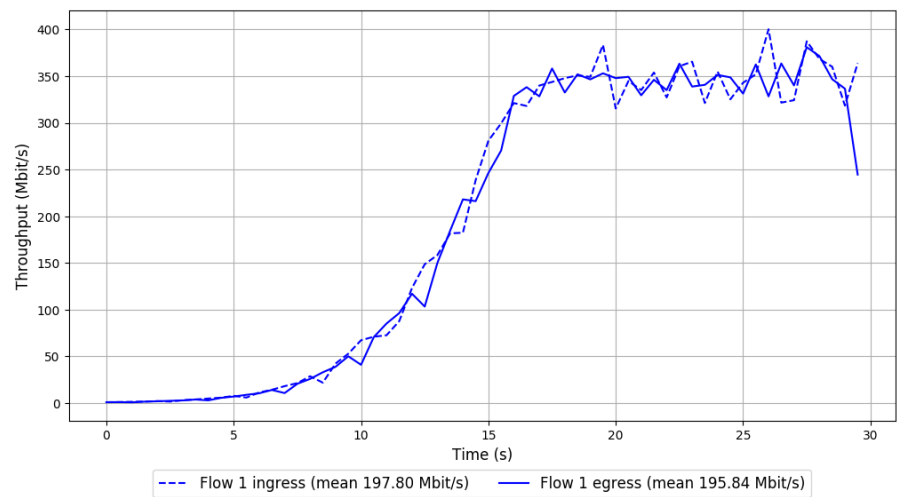
-- Flow 1:

Average throughput: 195.84 Mbit/s

95th percentile per-packet one-way delay: 174.983 ms

Loss rate: 1.88%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-11 16:46:52

End at: 2017-08-11 16:47:22

Below is generated by plot.py at 2017-08-11 19:48:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 196.08 Mbit/s

95th percentile per-packet one-way delay: 169.431 ms

Loss rate: 1.66%

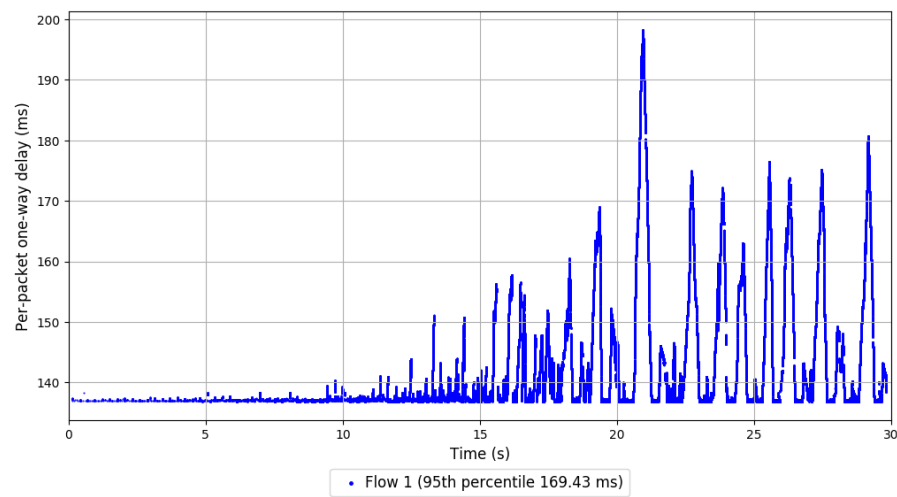
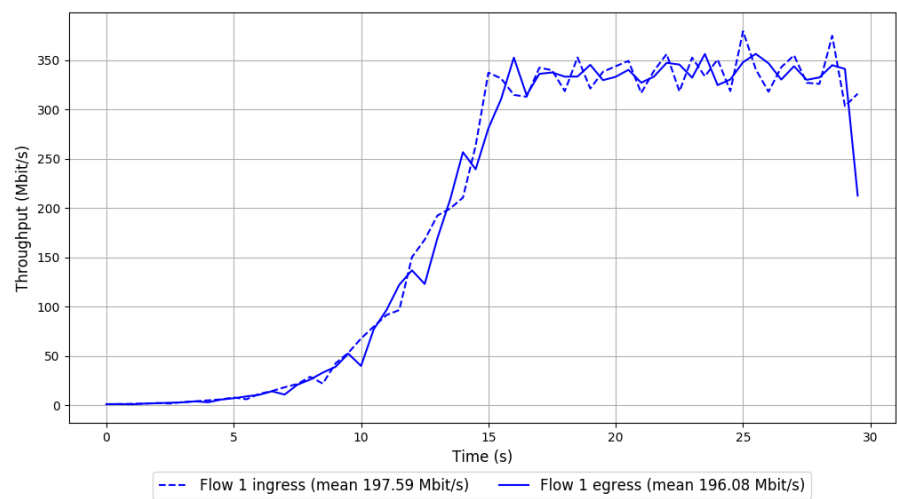
-- Flow 1:

Average throughput: 196.08 Mbit/s

95th percentile per-packet one-way delay: 169.431 ms

Loss rate: 1.66%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-11 16:59:07

End at: 2017-08-11 16:59:37

Below is generated by plot.py at 2017-08-11 19:49:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 199.66 Mbit/s

95th percentile per-packet one-way delay: 160.675 ms

Loss rate: 1.59%

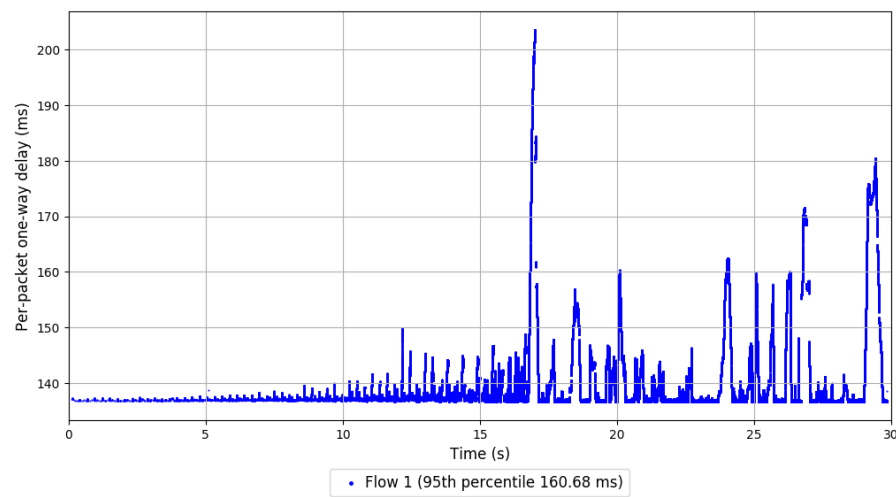
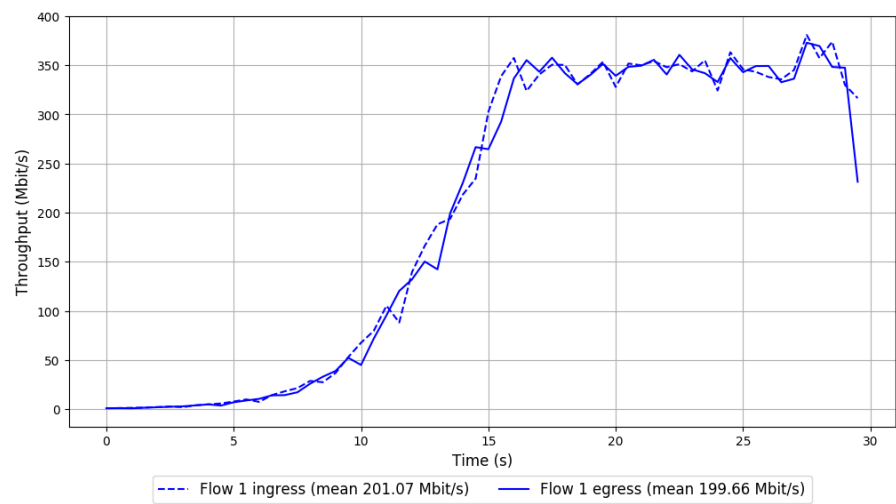
-- Flow 1:

Average throughput: 199.66 Mbit/s

95th percentile per-packet one-way delay: 160.675 ms

Loss rate: 1.59%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

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

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

Below is generated by plot.py at 2017-08-11 19:49:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.72 Mbit/s

95th percentile per-packet one-way delay: 175.546 ms

Loss rate: 1.62%

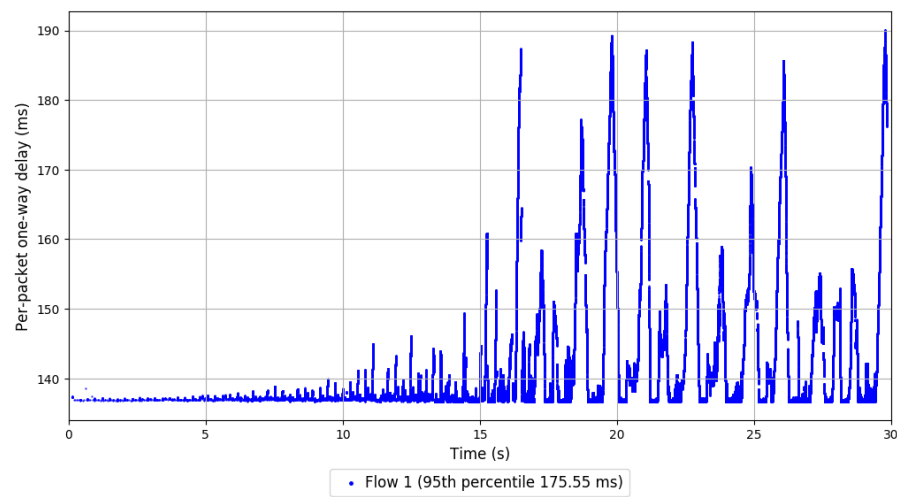
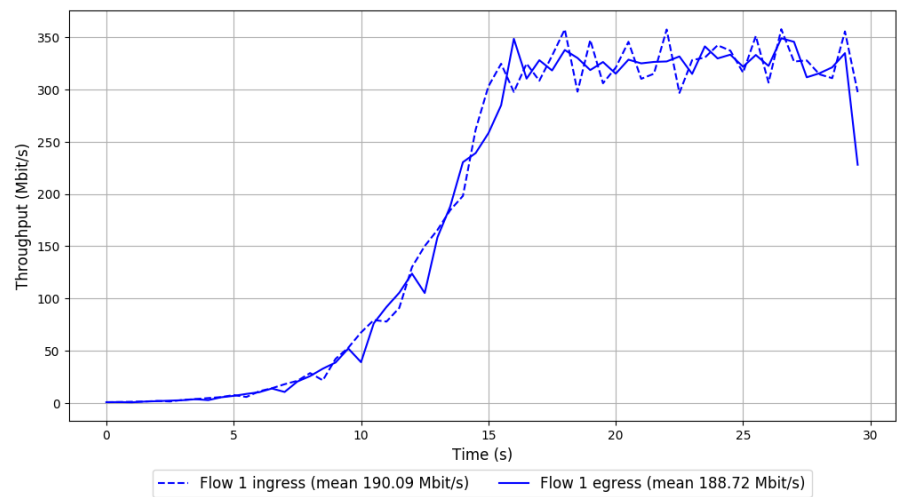
-- Flow 1:

Average throughput: 188.72 Mbit/s

95th percentile per-packet one-way delay: 175.546 ms

Loss rate: 1.62%

Run 10: Report of CalibratedKoho — Data Link

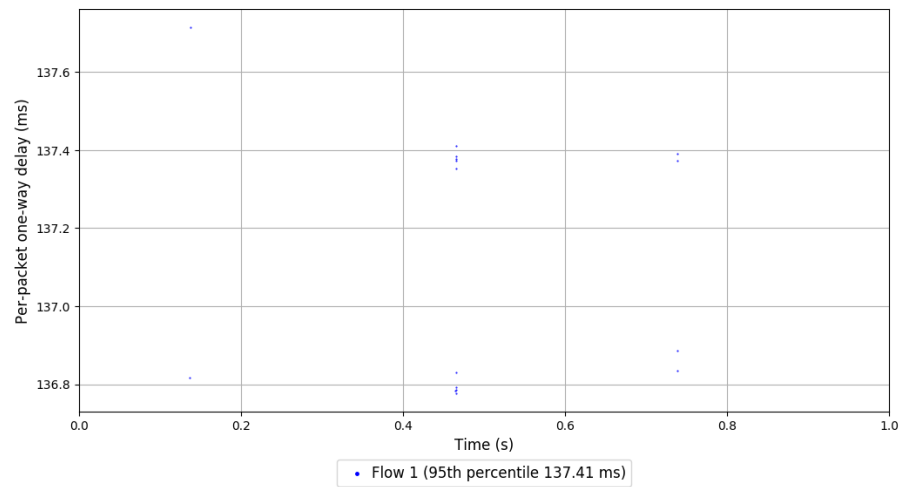
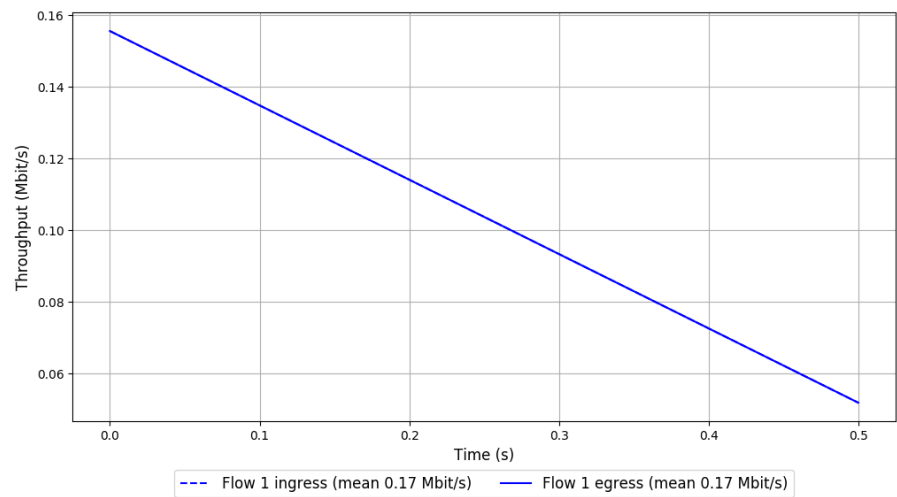


Run 1: Statistics of Copa

Start at: 2017-08-11 15:25:57

End at: 2017-08-11 15:26:27

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-11 15:37:51

End at: 2017-08-11 15:38:21

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 83.79 Mbit/s

95th percentile per-packet one-way delay: 137.181 ms

Loss rate: 0.97%

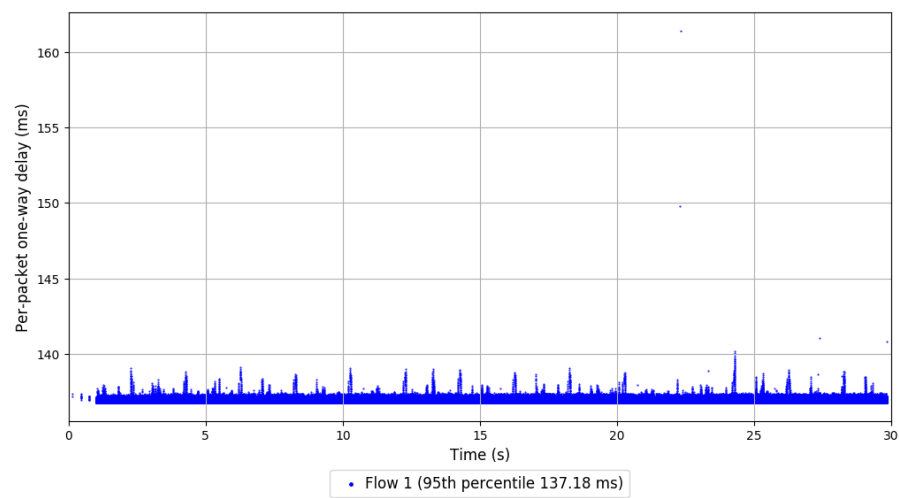
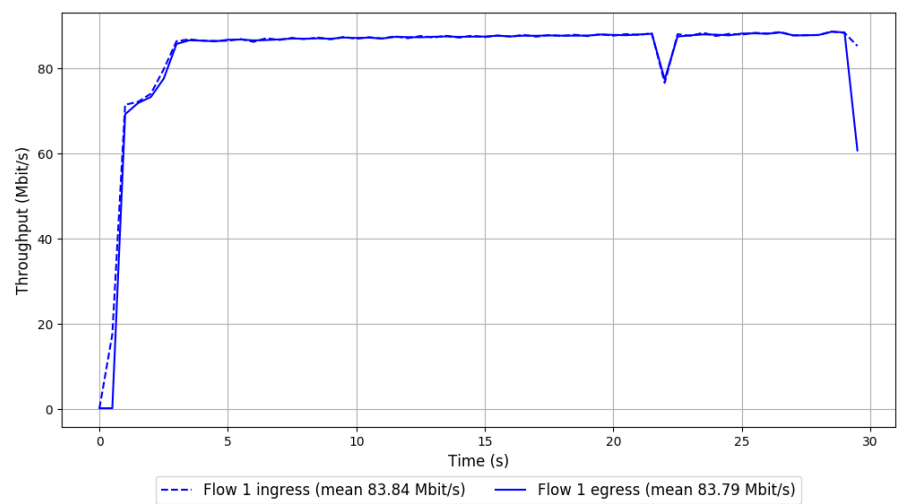
-- Flow 1:

Average throughput: 83.79 Mbit/s

95th percentile per-packet one-way delay: 137.181 ms

Loss rate: 0.97%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-11 15:49:36

End at: 2017-08-11 15:50:06

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 136.916 ms

Loss rate: 0.94%

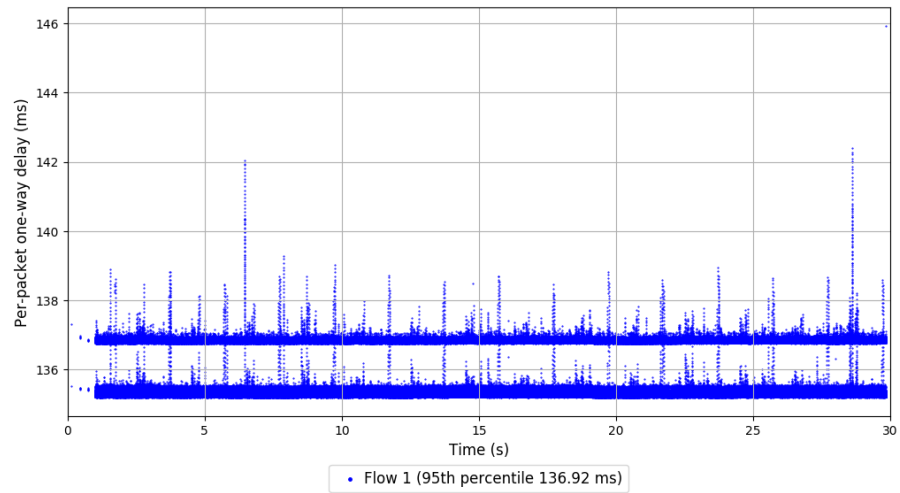
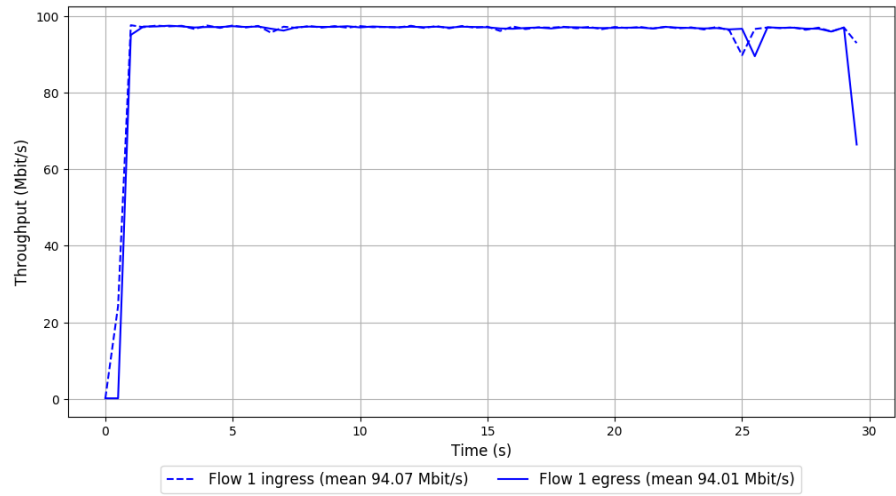
-- Flow 1:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 136.916 ms

Loss rate: 0.94%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-11 16:01:24

End at: 2017-08-11 16:01:54

Below is generated by plot.py at 2017-08-11 19:50:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 138.64 Mbit/s

95th percentile per-packet one-way delay: 136.899 ms

Loss rate: 0.81%

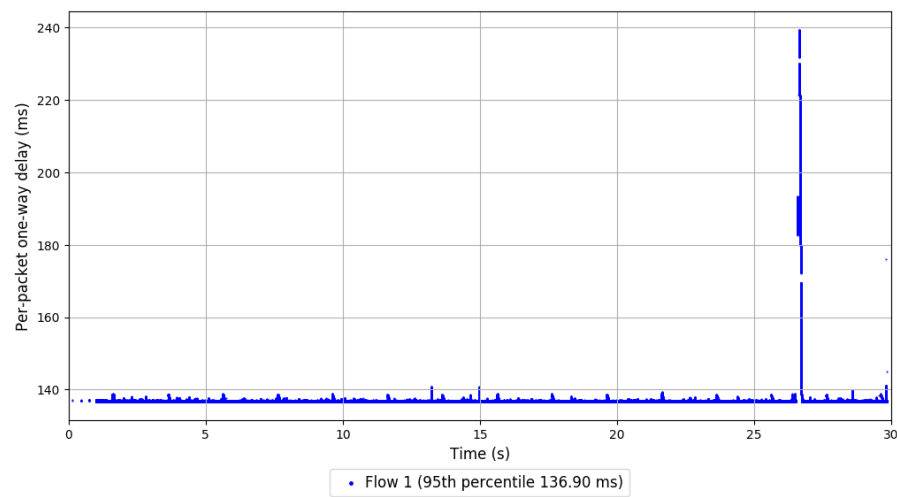
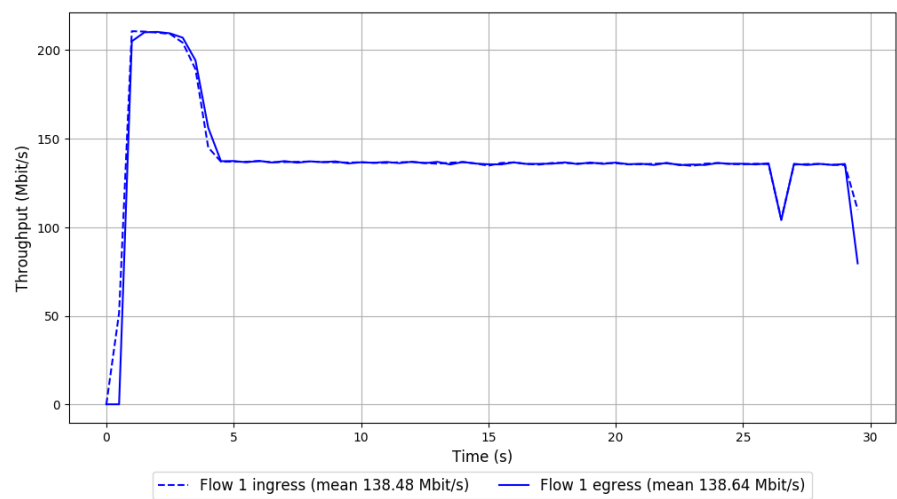
-- Flow 1:

Average throughput: 138.64 Mbit/s

95th percentile per-packet one-way delay: 136.899 ms

Loss rate: 0.81%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-11 16:13:22

End at: 2017-08-11 16:13:52

Below is generated by plot.py at 2017-08-11 19:50:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.67 Mbit/s

95th percentile per-packet one-way delay: 136.935 ms

Loss rate: 0.95%

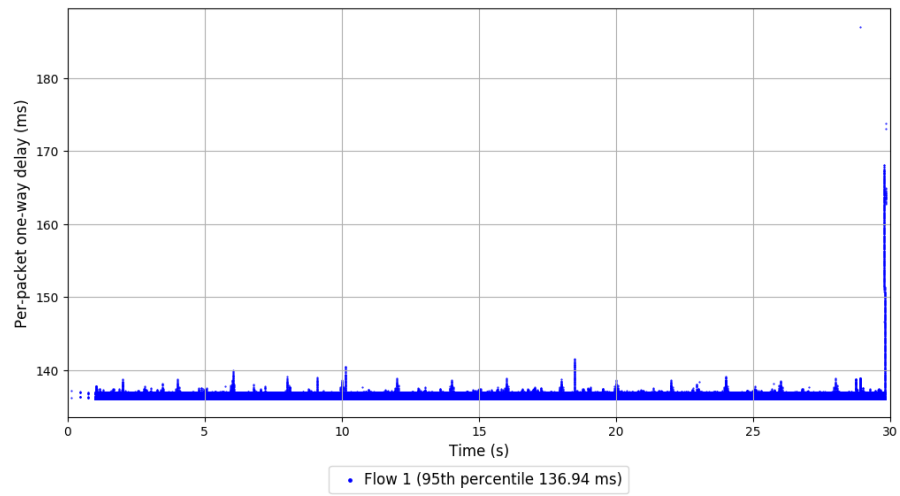
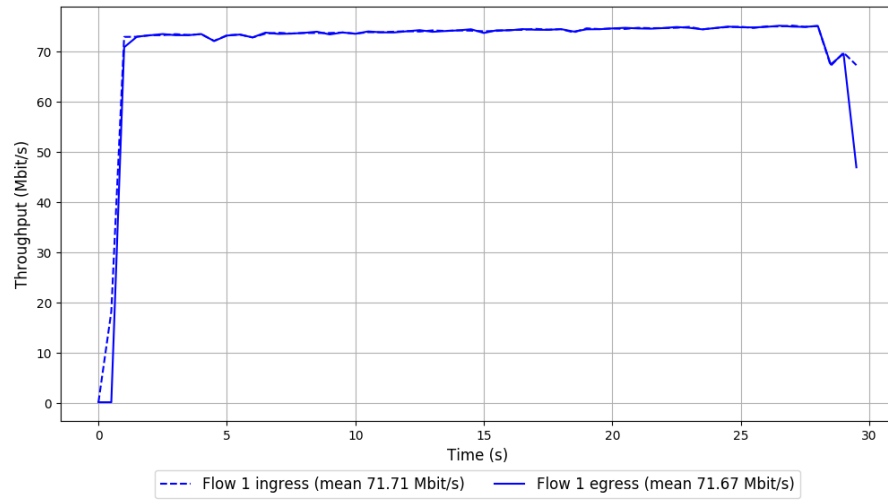
-- Flow 1:

Average throughput: 71.67 Mbit/s

95th percentile per-packet one-way delay: 136.935 ms

Loss rate: 0.95%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-11 16:25:16

End at: 2017-08-11 16:25:46

Below is generated by plot.py at 2017-08-11 19:51:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 154.15 Mbit/s

95th percentile per-packet one-way delay: 136.904 ms

Loss rate: 0.91%

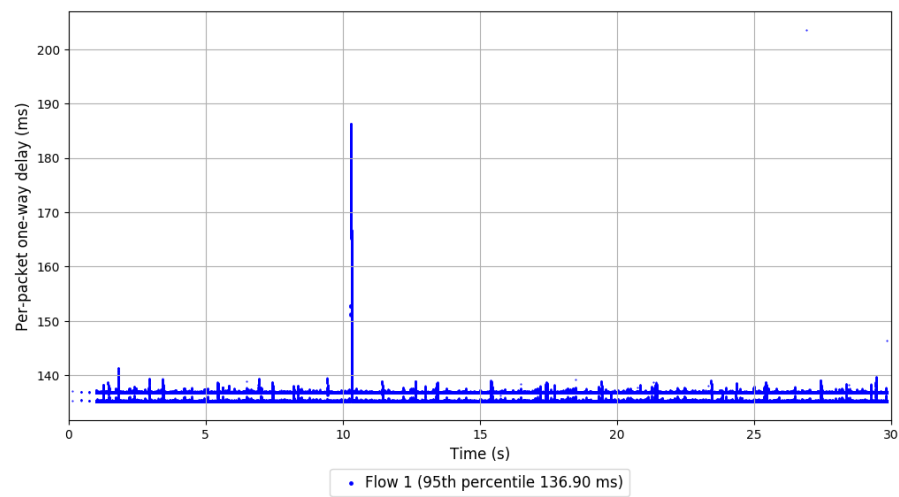
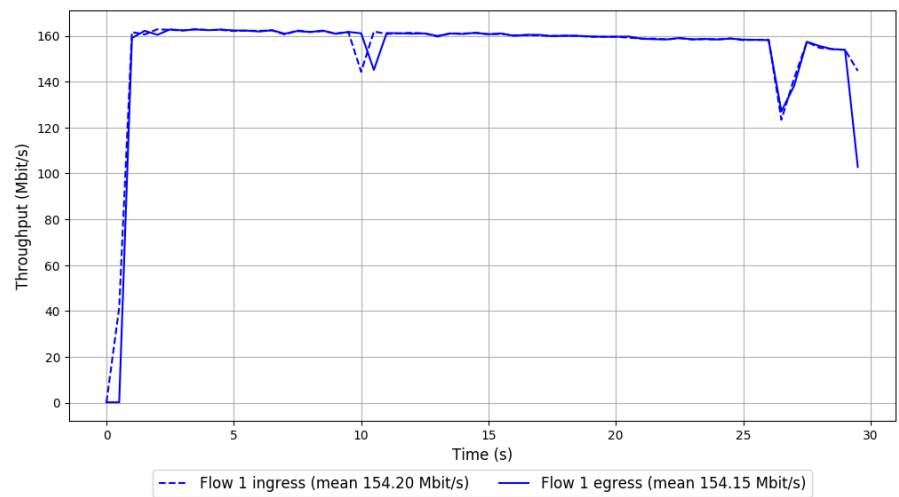
-- Flow 1:

Average throughput: 154.15 Mbit/s

95th percentile per-packet one-way delay: 136.904 ms

Loss rate: 0.91%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-11 16:37:38

End at: 2017-08-11 16:38:08

Below is generated by plot.py at 2017-08-11 19:51:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.03 Mbit/s

95th percentile per-packet one-way delay: 136.982 ms

Loss rate: 1.01%

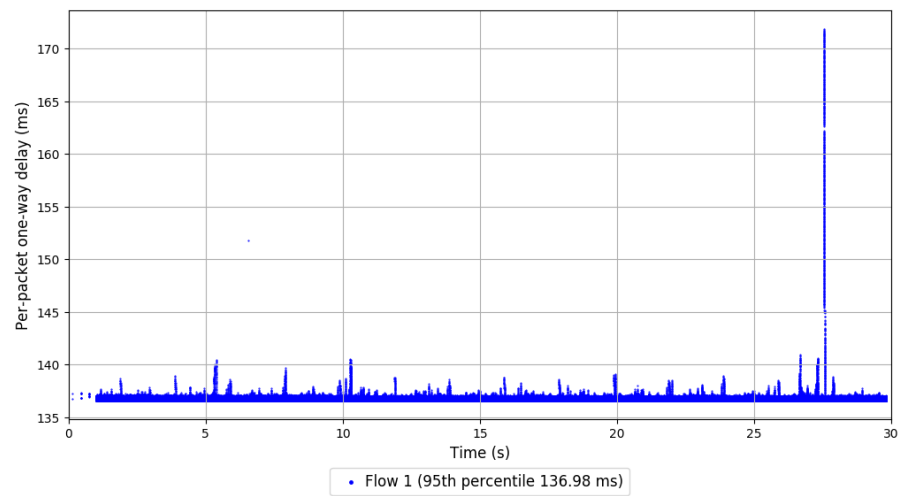
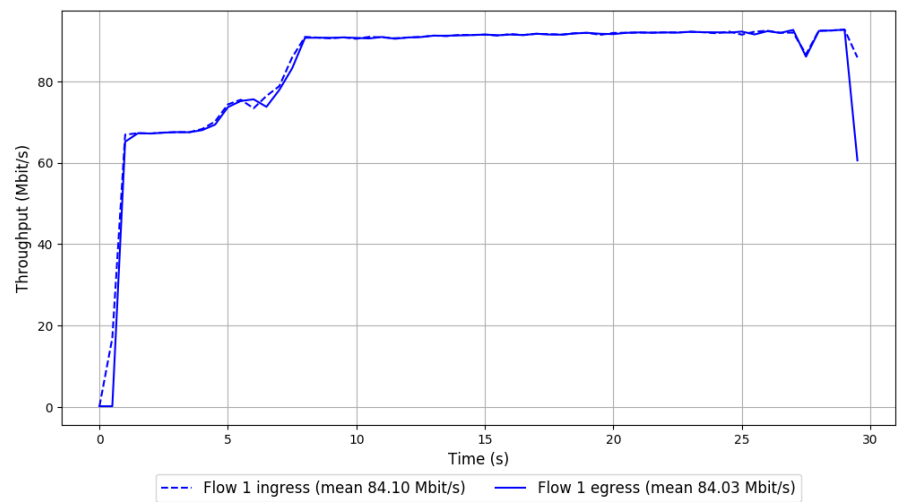
-- Flow 1:

Average throughput: 84.03 Mbit/s

95th percentile per-packet one-way delay: 136.982 ms

Loss rate: 1.01%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-11 16:49:37

End at: 2017-08-11 16:50:07

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 115.10 Mbit/s

95th percentile per-packet one-way delay: 137.089 ms

Loss rate: 0.75%

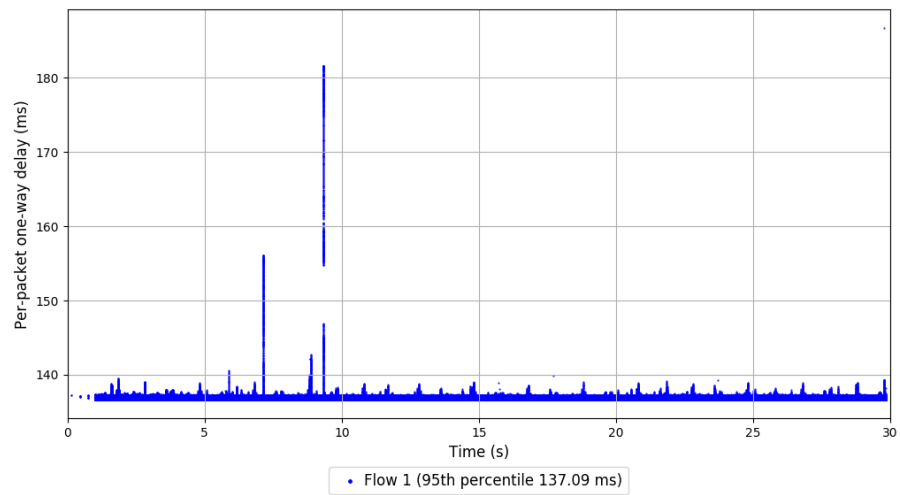
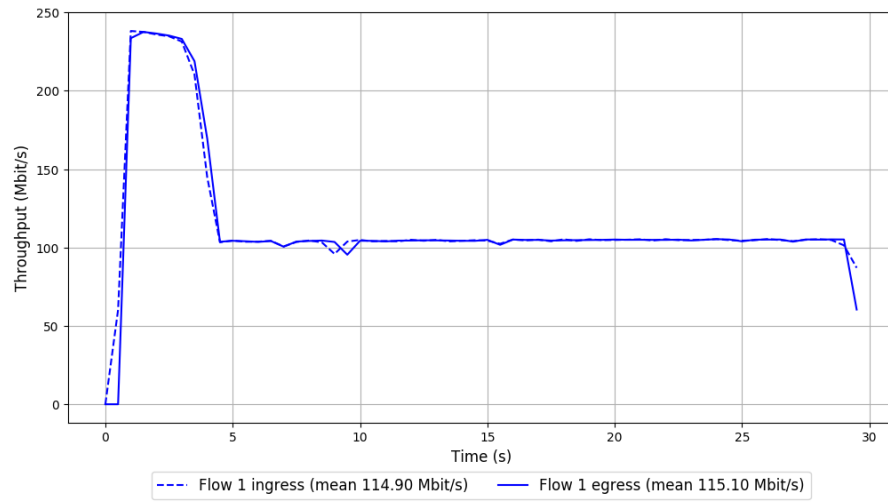
-- Flow 1:

Average throughput: 115.10 Mbit/s

95th percentile per-packet one-way delay: 137.089 ms

Loss rate: 0.75%

Run 8: Report of Copa — Data Link

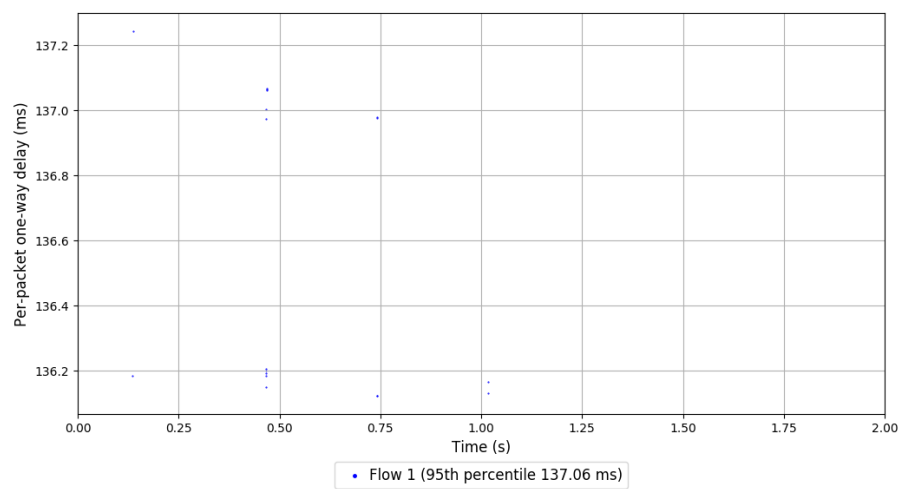
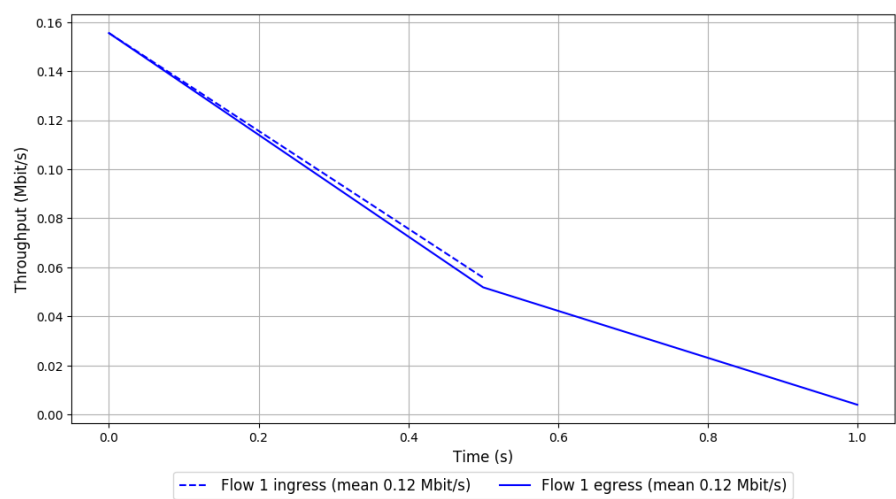


Run 9: Statistics of Copa

Start at: 2017-08-11 17:01:52

End at: 2017-08-11 17:02:22

Run 9: Report of Copa — Data Link

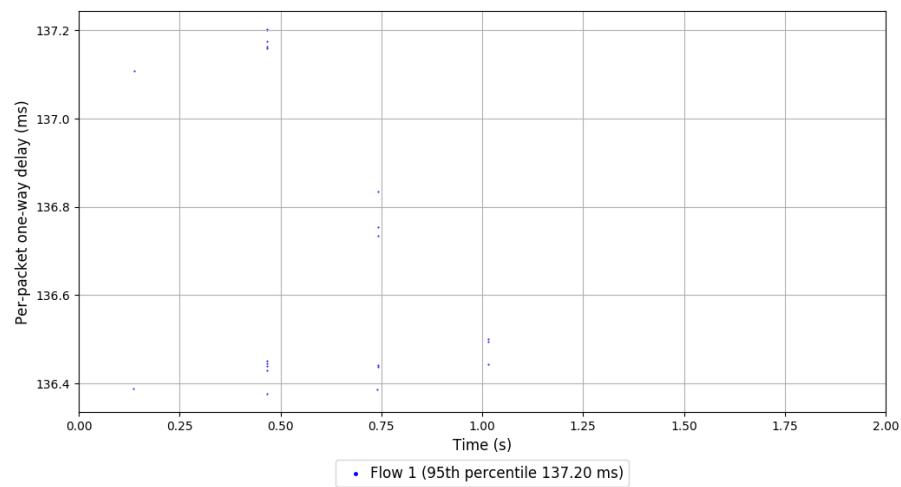
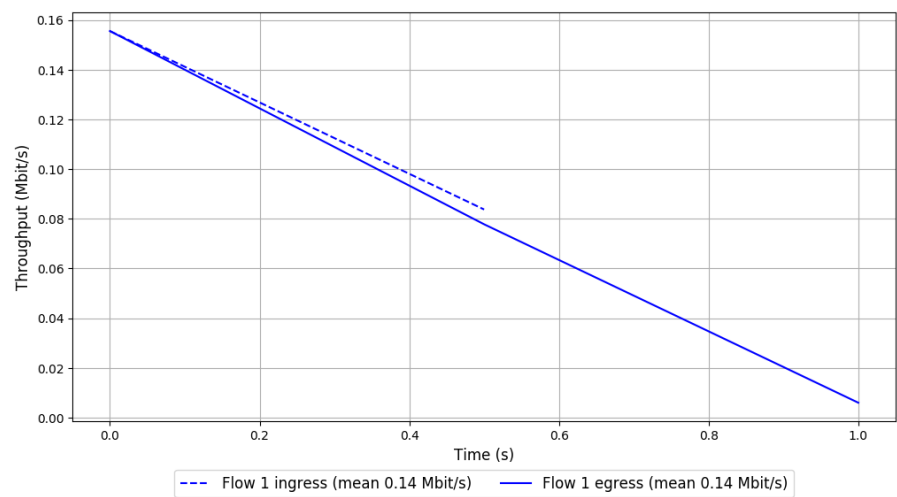


Run 10: Statistics of Copa

Start at: 2017-08-11 17:13:21

End at: 2017-08-11 17:13:52

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-08-11 15:29:44

End at: 2017-08-11 15:30:14

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 137.638 ms

Loss rate: 3.64%

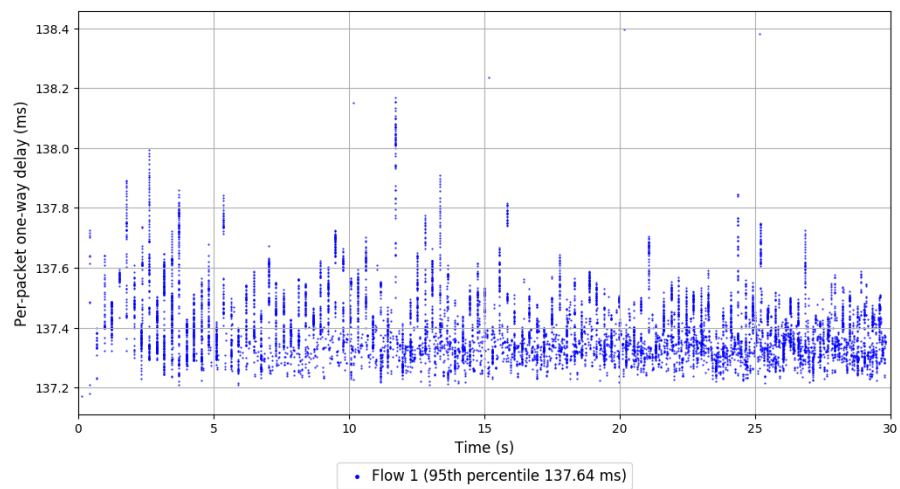
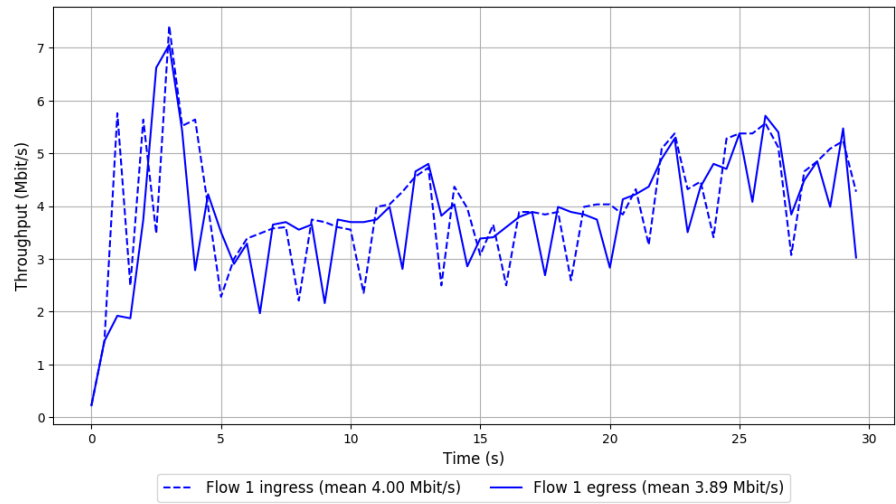
-- Flow 1:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 137.638 ms

Loss rate: 3.64%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-11 15:41:46

End at: 2017-08-11 15:42:16

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.94 Mbit/s

95th percentile per-packet one-way delay: 137.662 ms

Loss rate: 2.64%

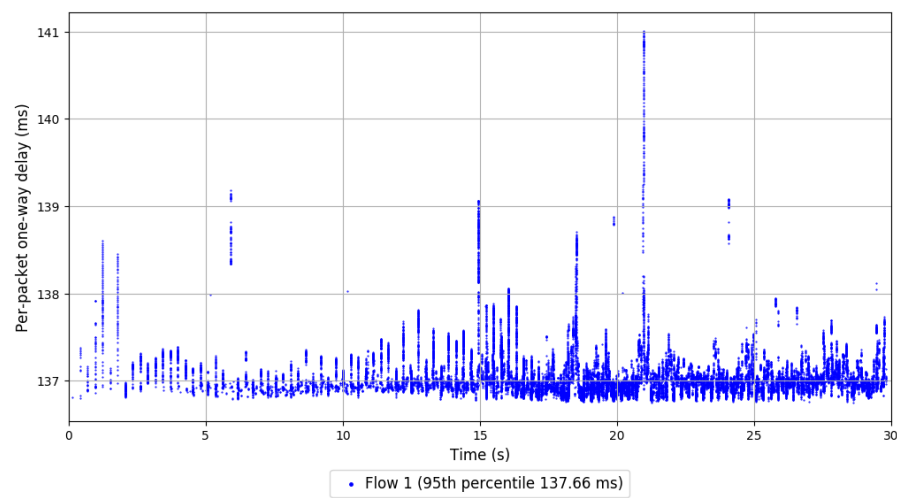
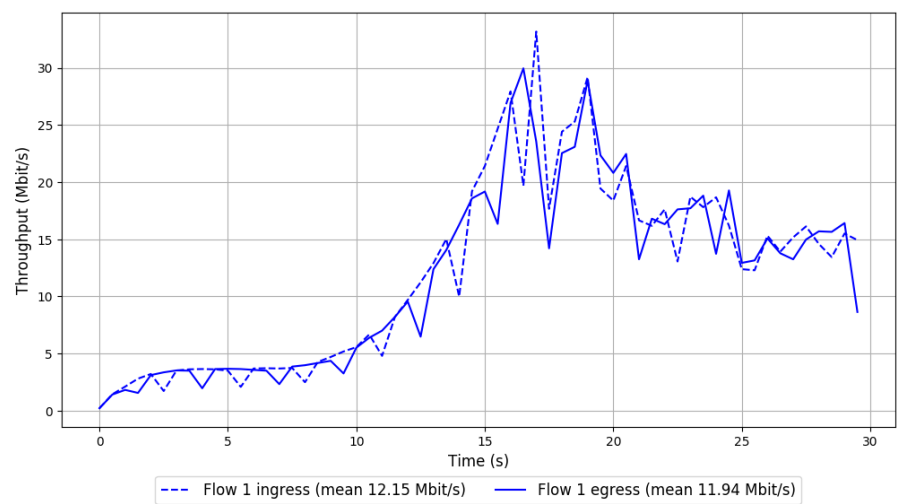
-- Flow 1:

Average throughput: 11.94 Mbit/s

95th percentile per-packet one-way delay: 137.662 ms

Loss rate: 2.64%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-11 15:53:32

End at: 2017-08-11 15:54:02

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 138.364 ms

Loss rate: 1.55%

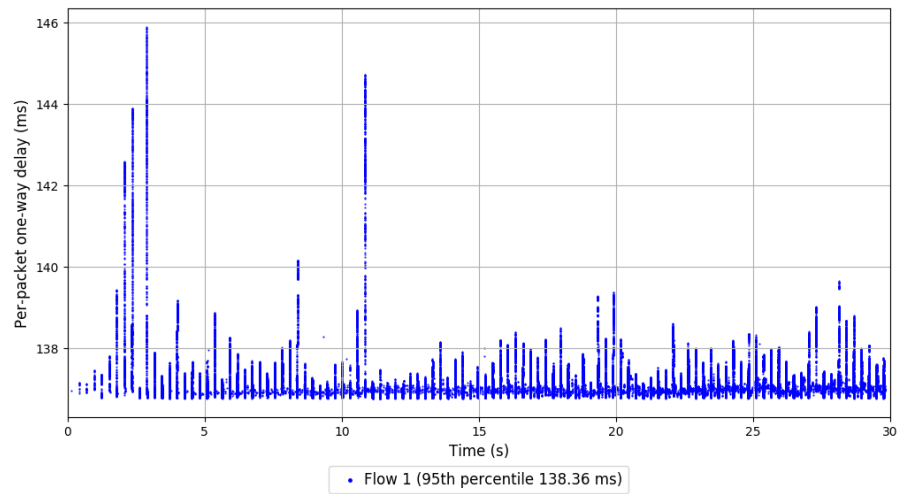
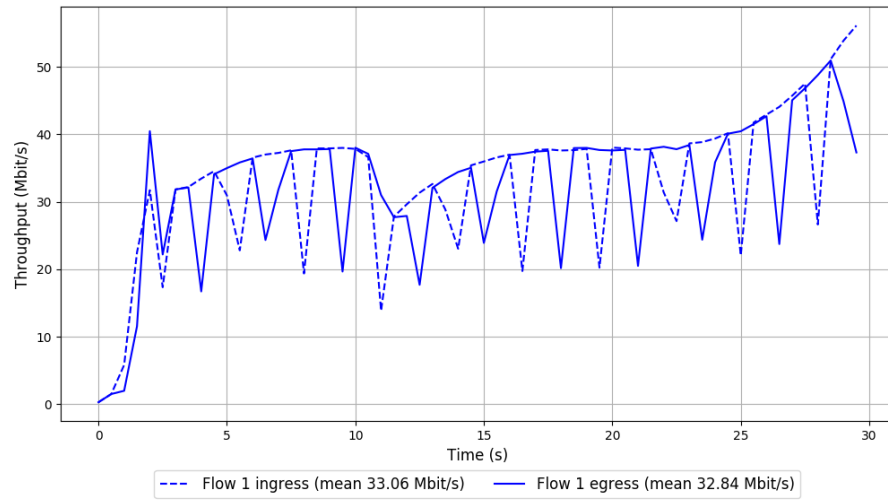
-- Flow 1:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 138.364 ms

Loss rate: 1.55%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-11 16:05:31

End at: 2017-08-11 16:06:01

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.29 Mbit/s

95th percentile per-packet one-way delay: 138.317 ms

Loss rate: 1.29%

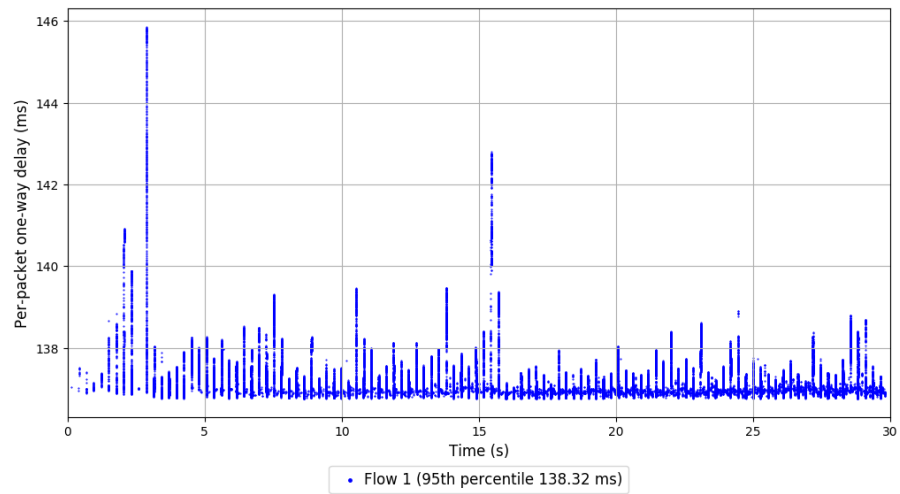
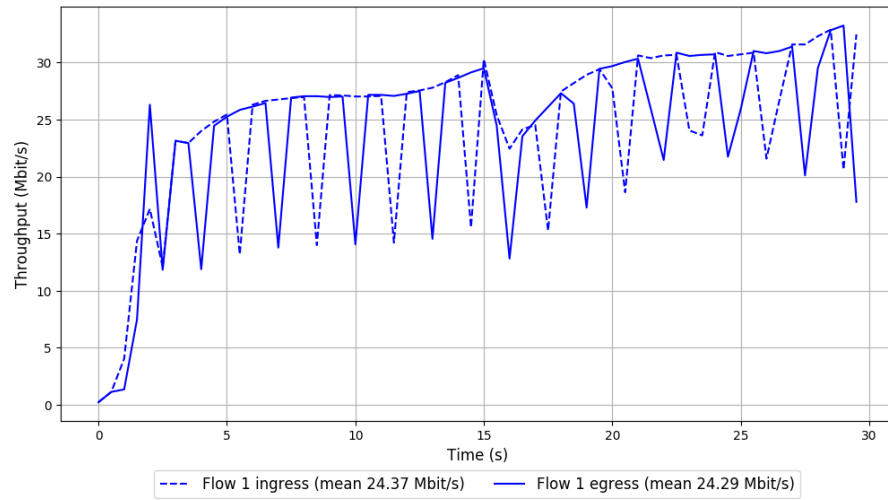
-- Flow 1:

Average throughput: 24.29 Mbit/s

95th percentile per-packet one-way delay: 138.317 ms

Loss rate: 1.29%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-11 16:17:15

End at: 2017-08-11 16:17:45

Below is generated by plot.py at 2017-08-11 19:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.85 Mbit/s

95th percentile per-packet one-way delay: 139.572 ms

Loss rate: 4.88%

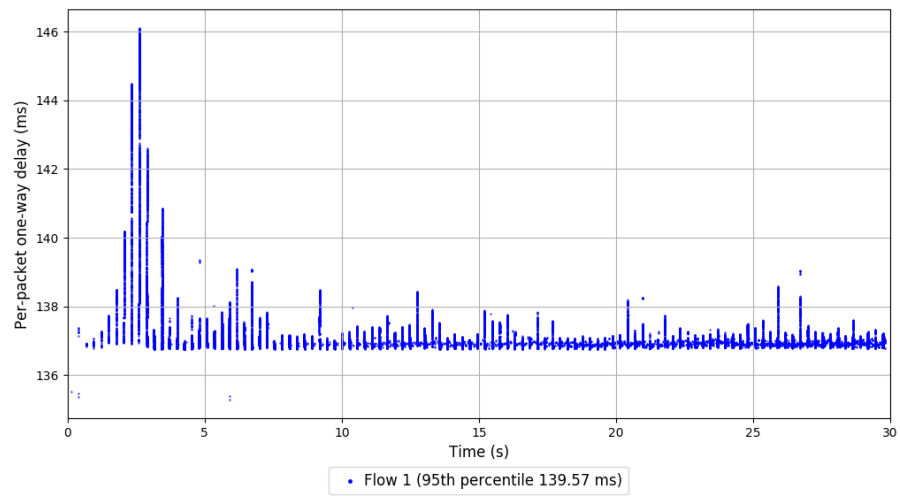
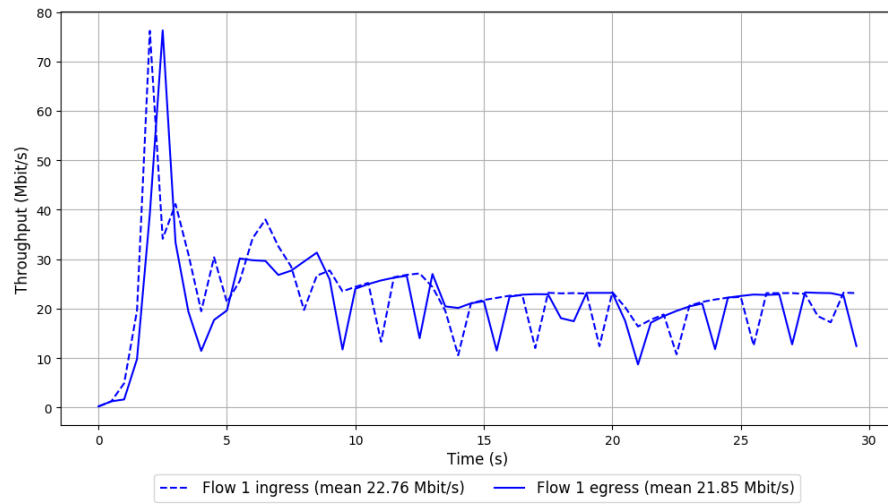
-- Flow 1:

Average throughput: 21.85 Mbit/s

95th percentile per-packet one-way delay: 139.572 ms

Loss rate: 4.88%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-11 16:29:27

End at: 2017-08-11 16:29:57

Below is generated by plot.py at 2017-08-11 19:52:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 139.099 ms

Loss rate: 1.01%

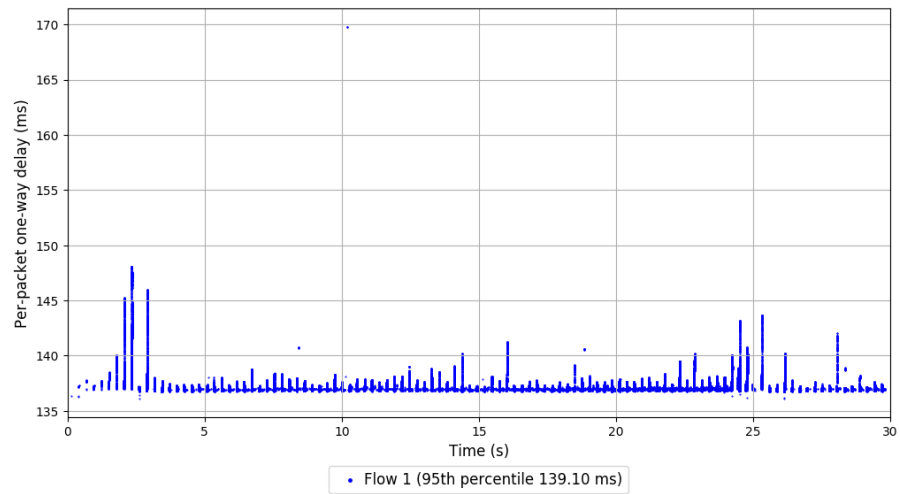
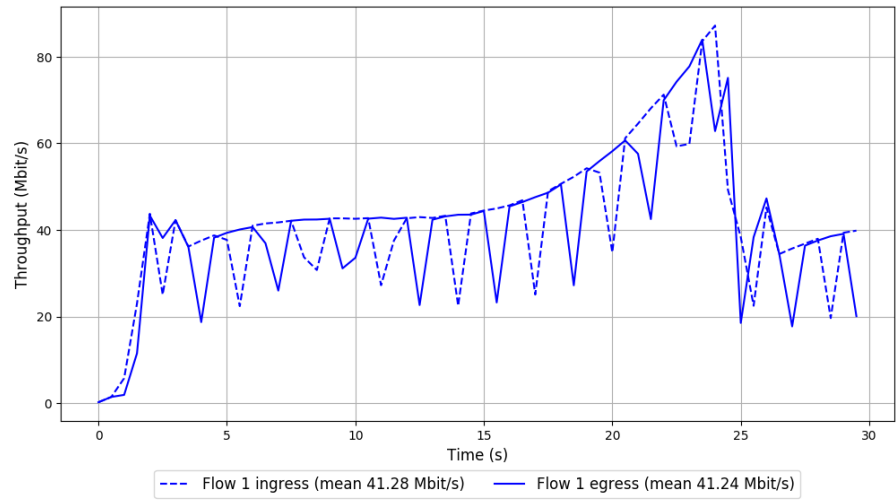
-- Flow 1:

Average throughput: 41.24 Mbit/s

95th percentile per-packet one-way delay: 139.099 ms

Loss rate: 1.01%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-11 16:41:33

End at: 2017-08-11 16:42:03

Below is generated by plot.py at 2017-08-11 19:52:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 36.06 Mbit/s

95th percentile per-packet one-way delay: 138.738 ms

Loss rate: 1.51%

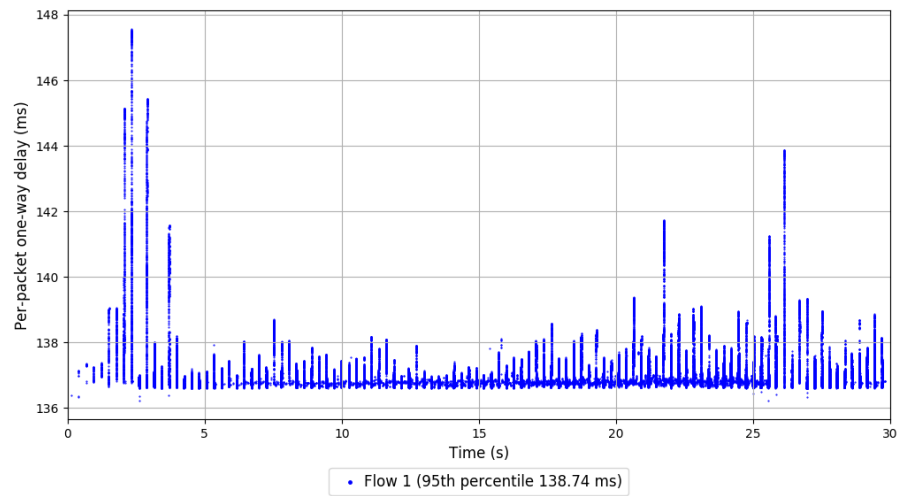
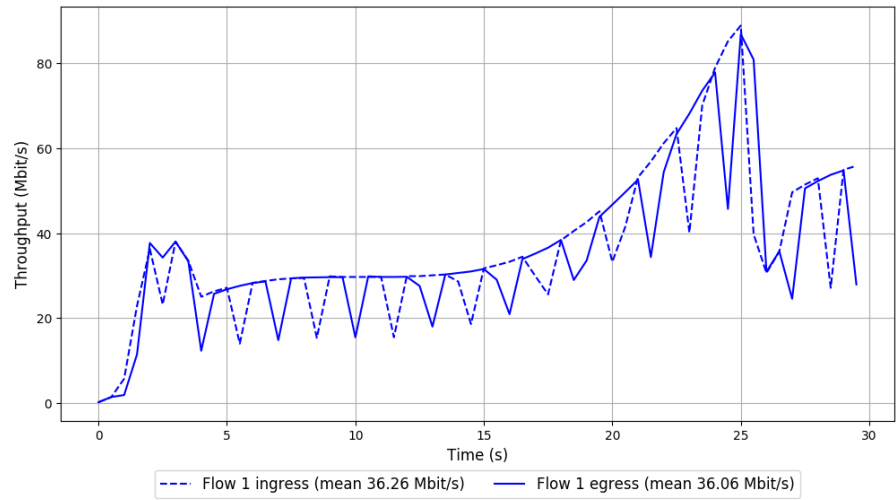
-- Flow 1:

Average throughput: 36.06 Mbit/s

95th percentile per-packet one-way delay: 138.738 ms

Loss rate: 1.51%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-11 16:53:42

End at: 2017-08-11 16:54:12

Below is generated by plot.py at 2017-08-11 19:52:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.20 Mbit/s

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

Loss rate: 1.12%

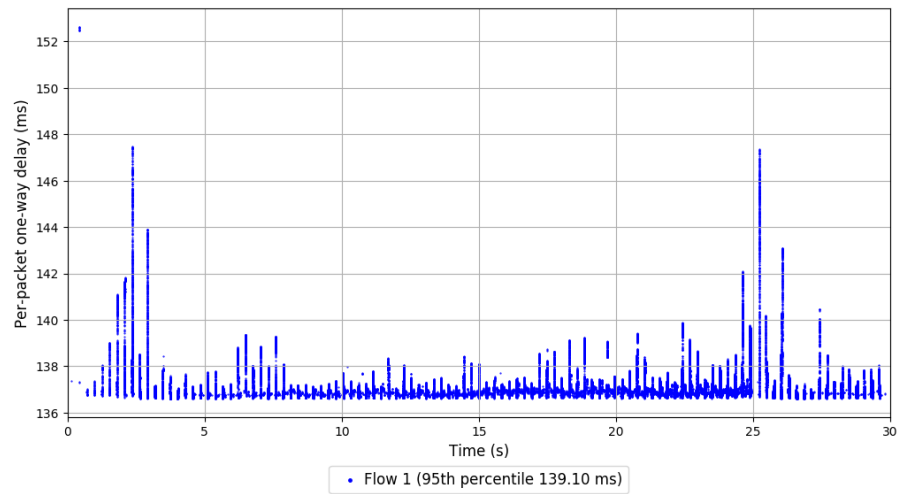
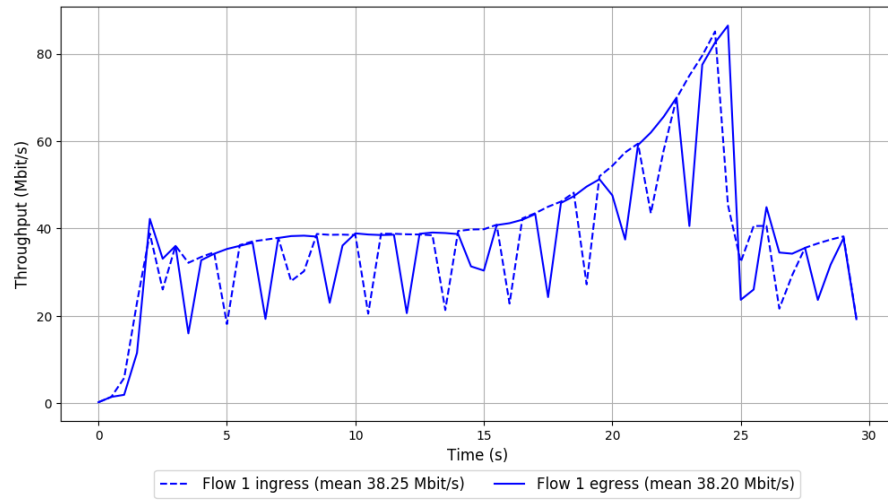
-- Flow 1:

Average throughput: 38.20 Mbit/s

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

Loss rate: 1.12%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-11 17:05:38

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

Below is generated by plot.py at 2017-08-11 19:52:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 47.58 Mbit/s

95th percentile per-packet one-way delay: 139.051 ms

Loss rate: 0.73%

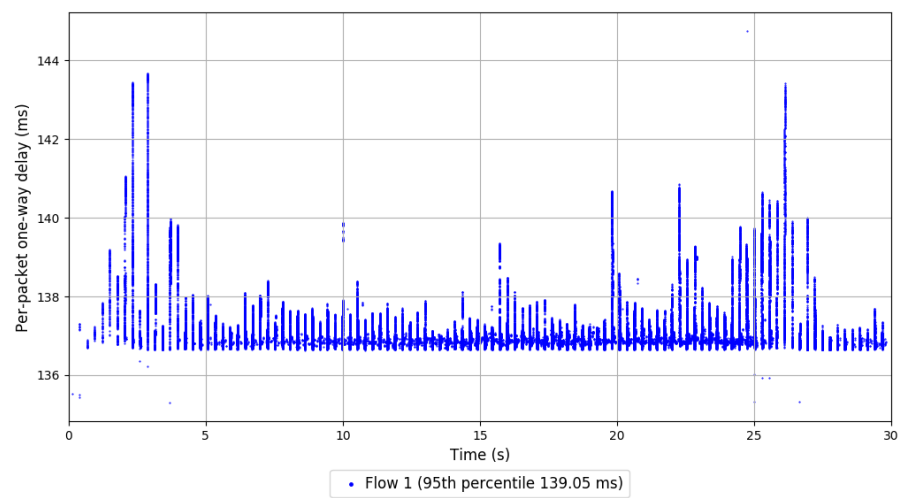
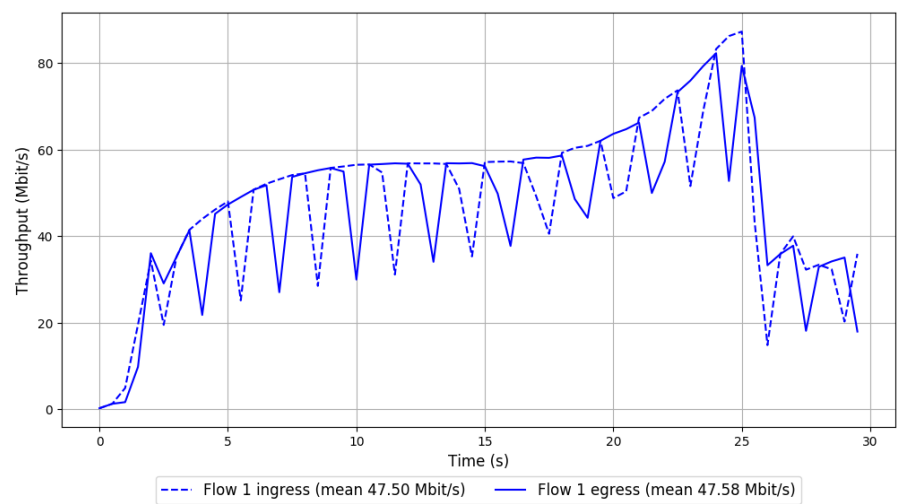
-- Flow 1:

Average throughput: 47.58 Mbit/s

95th percentile per-packet one-way delay: 139.051 ms

Loss rate: 0.73%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

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

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

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.91 Mbit/s

95th percentile per-packet one-way delay: 139.018 ms

Loss rate: 0.96%

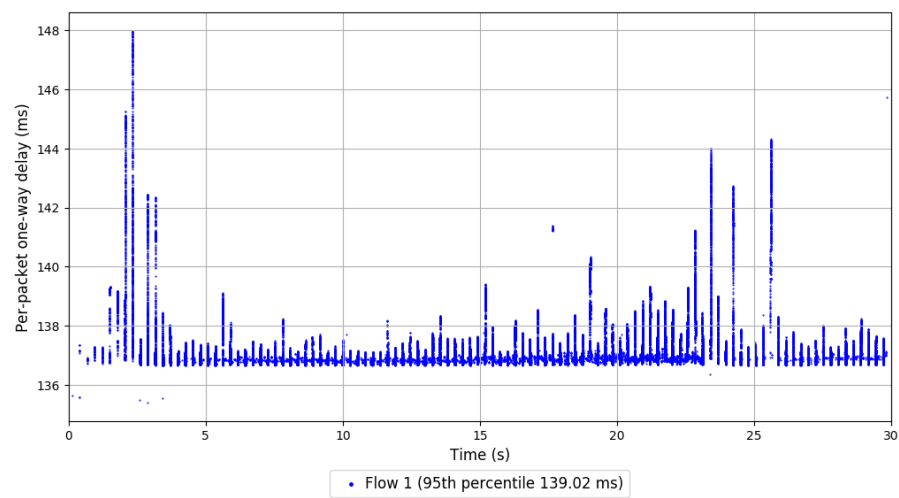
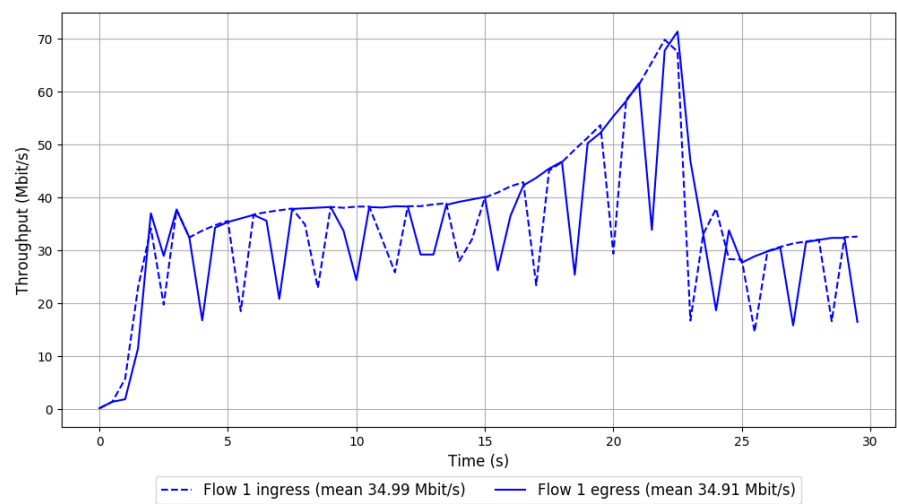
-- Flow 1:

Average throughput: 34.91 Mbit/s

95th percentile per-packet one-way delay: 139.018 ms

Loss rate: 0.96%

Run 10: Report of TCP Cubic — Data Link

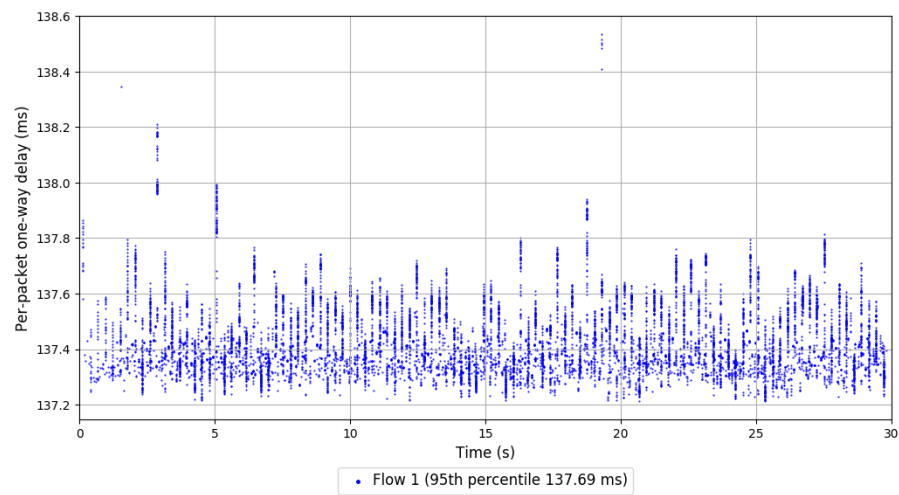
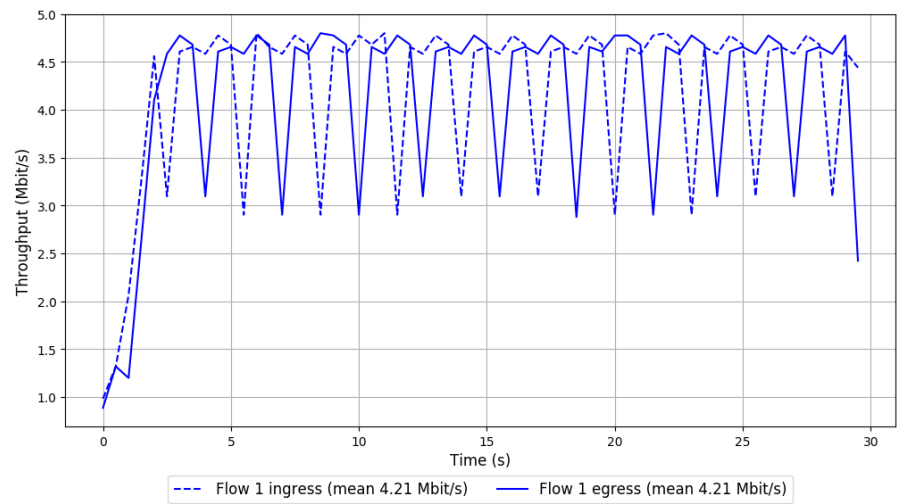


```
Run 1: Statistics of KohoCC

Start at: 2017-08-11 15:25:14
End at: 2017-08-11 15:25:44

# Below is generated by plot.py at 2017-08-11 19:52:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 137.690 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 4.21 Mbit/s
95th percentile per-packet one-way delay: 137.690 ms
Loss rate: 0.96%
```


Run 1: Report of KohoCC — Data Link

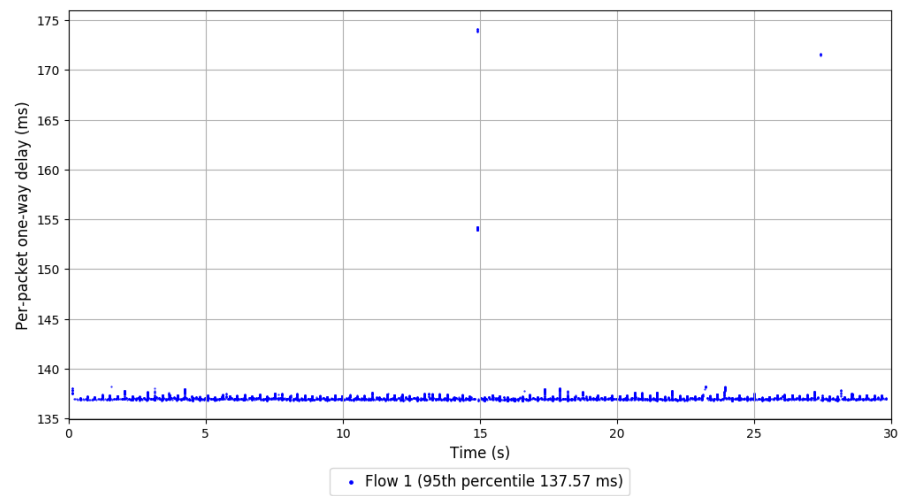
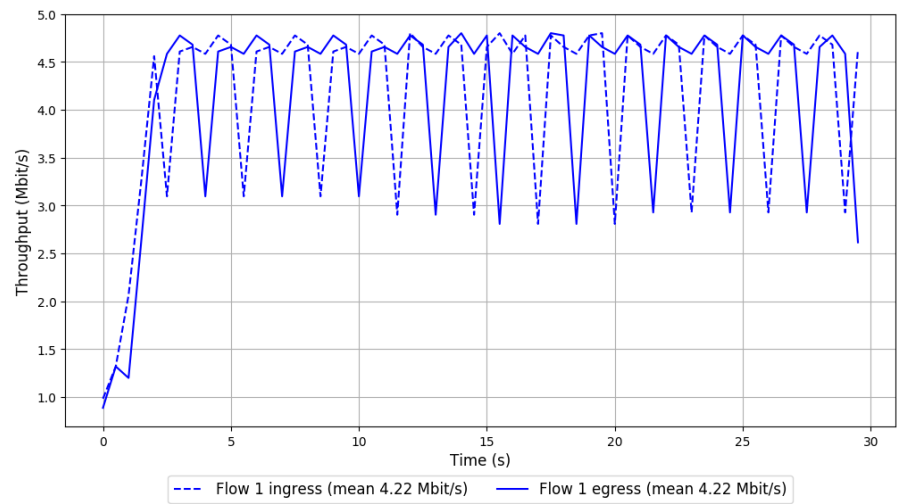


```
Run 2: Statistics of KohoCC

Start at: 2017-08-11 15:37:08
End at: 2017-08-11 15:37:38

# Below is generated by plot.py at 2017-08-11 19:52:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 137.572 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 137.572 ms
Loss rate: 0.95%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-11 15:48:53

End at: 2017-08-11 15:49:23

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.563 ms

Loss rate: 0.95%

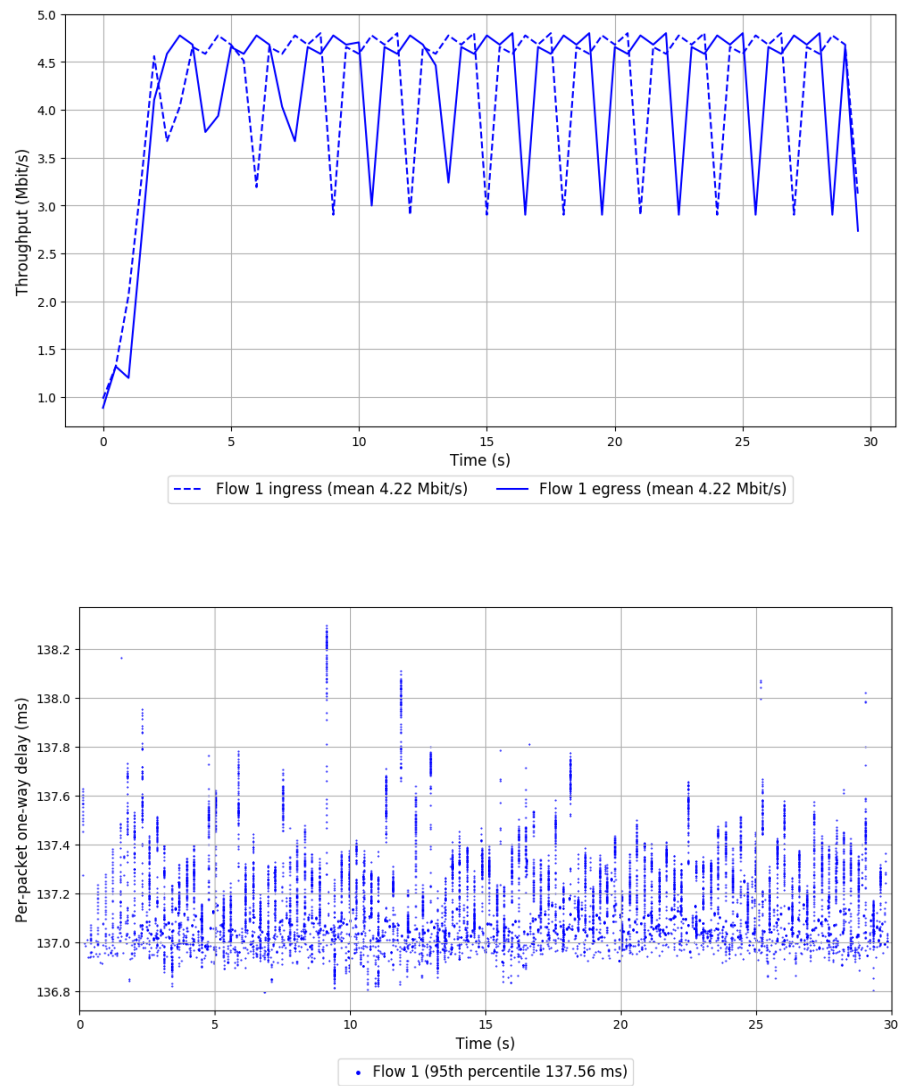
-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.563 ms

Loss rate: 0.95%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-11 16:00:41

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

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.465 ms

Loss rate: 0.95%

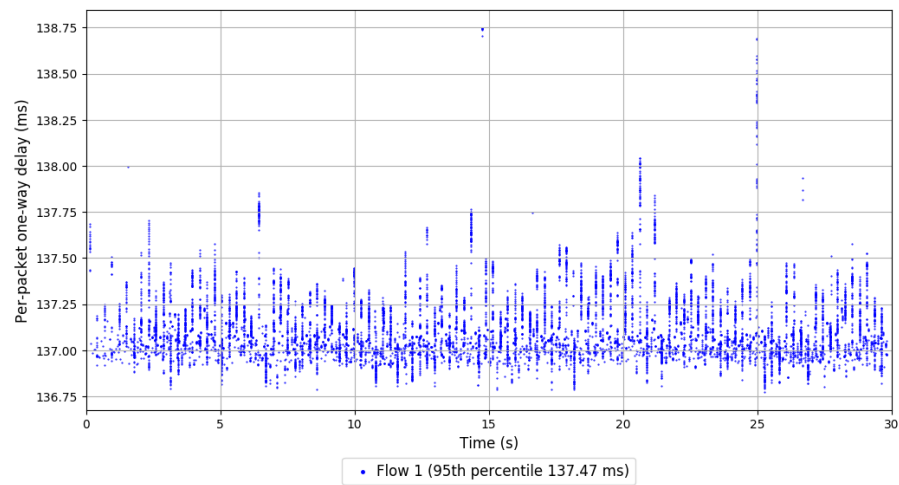
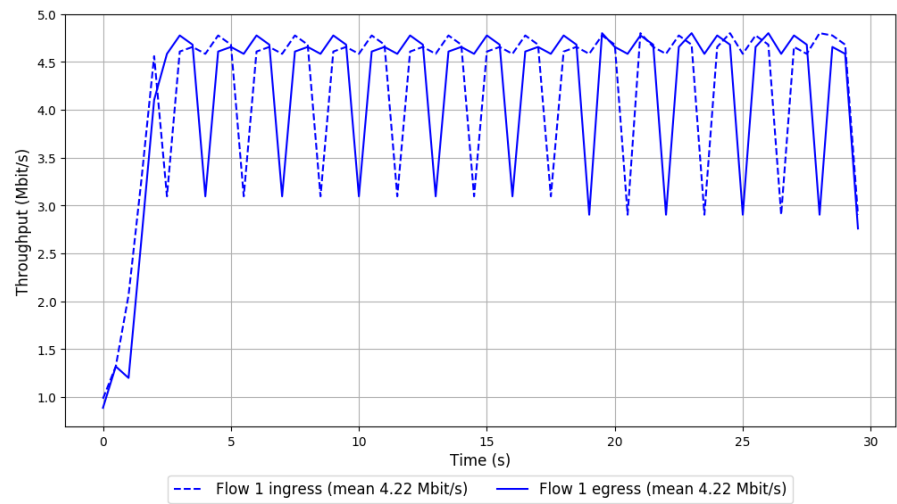
-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.465 ms

Loss rate: 0.95%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-11 16:12:39

End at: 2017-08-11 16:13:09

Below is generated by plot.py at 2017-08-11 19:52:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.499 ms

Loss rate: 0.95%

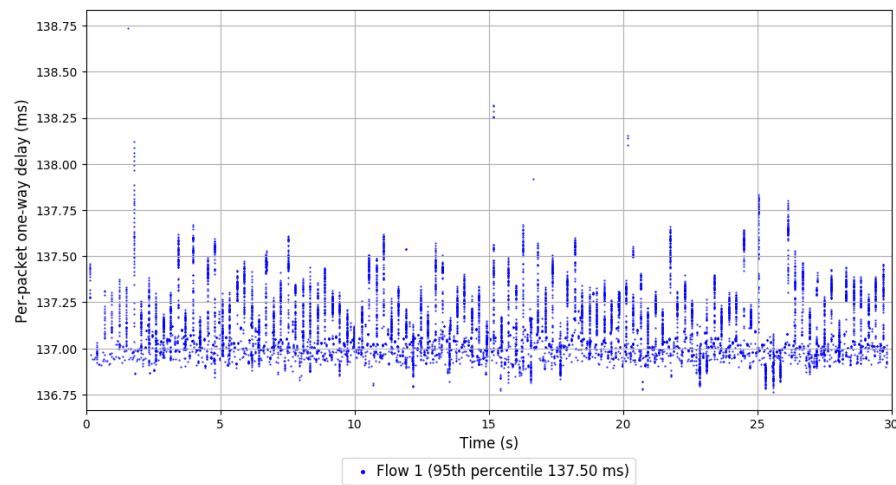
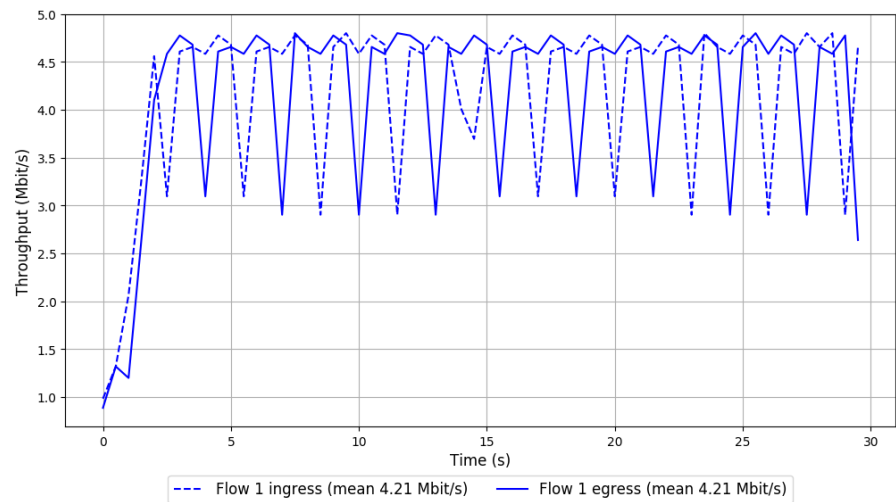
-- Flow 1:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.499 ms

Loss rate: 0.95%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-11 16:24:33

End at: 2017-08-11 16:25:03

Below is generated by plot.py at 2017-08-11 19:52:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.208 ms

Loss rate: 0.97%

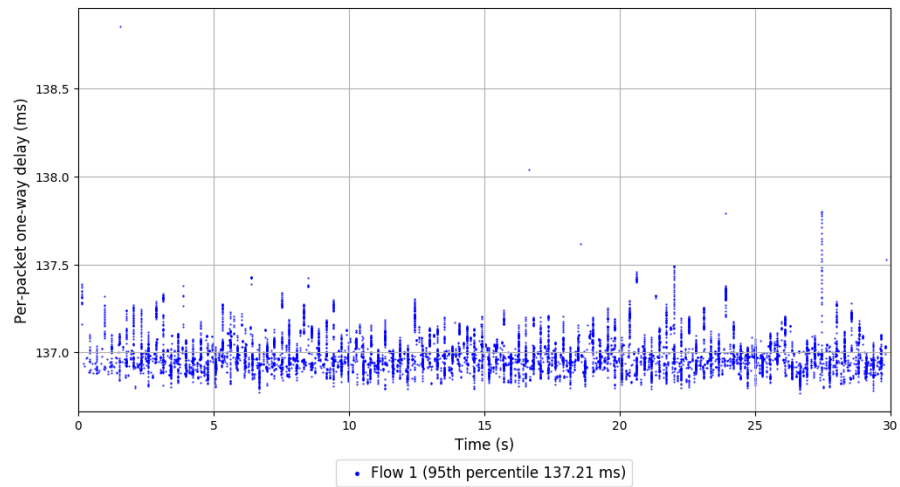
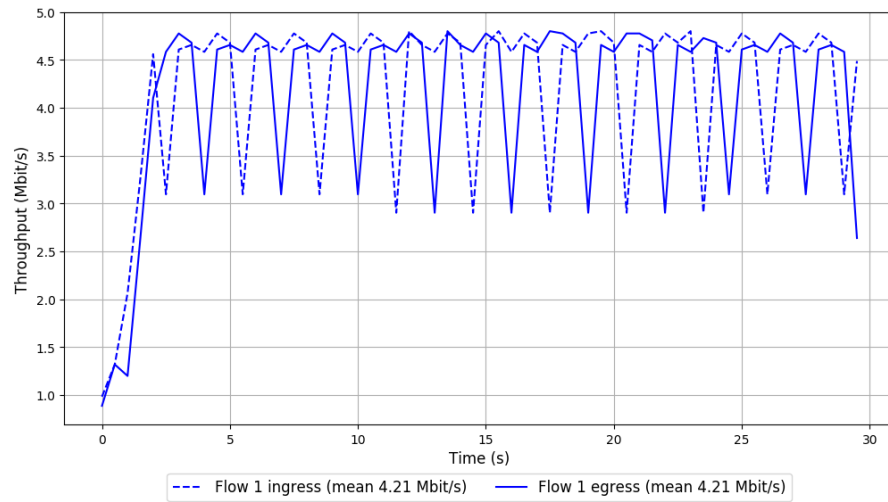
-- Flow 1:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.208 ms

Loss rate: 0.97%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-11 16:36:55

End at: 2017-08-11 16:37:25

Below is generated by plot.py at 2017-08-11 19:52:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.275 ms

Loss rate: 0.95%

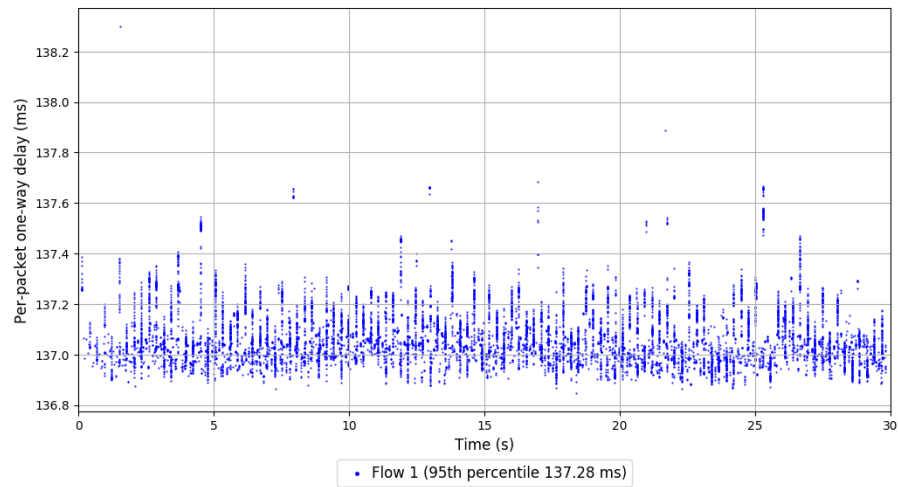
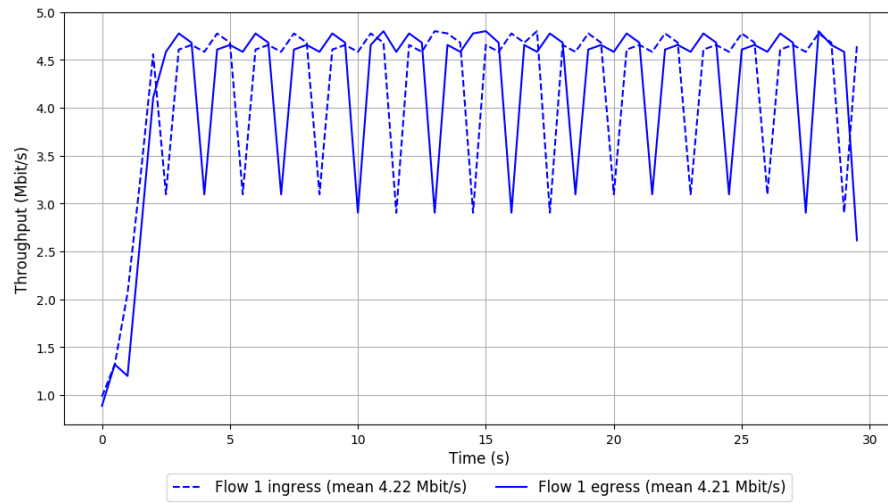
-- Flow 1:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 137.275 ms

Loss rate: 0.95%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-11 16:48:54

End at: 2017-08-11 16:49:24

Below is generated by plot.py at 2017-08-11 19:52:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.410 ms

Loss rate: 0.95%

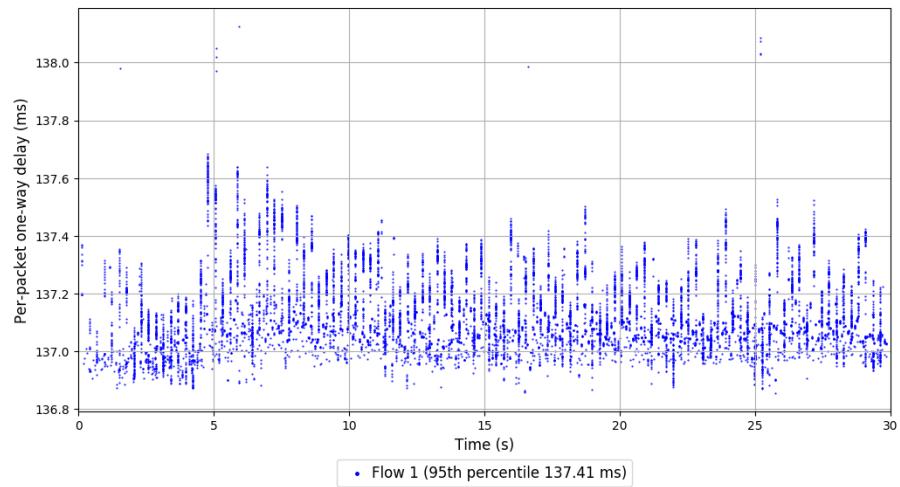
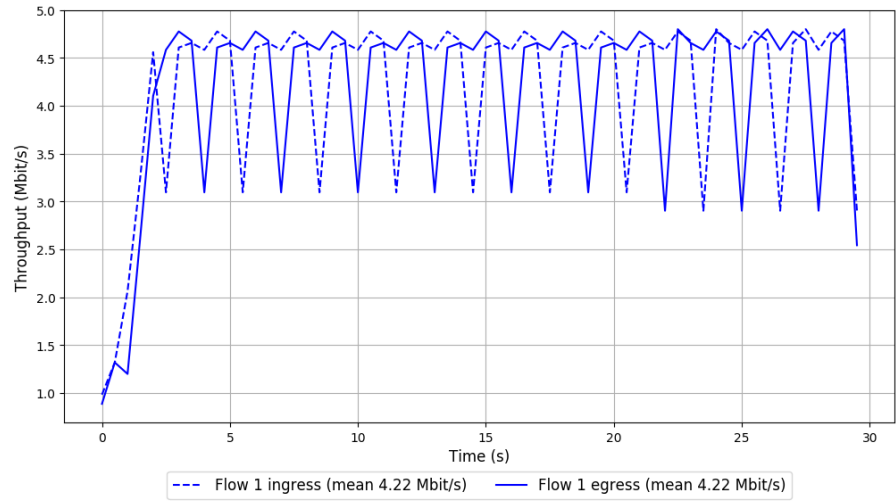
-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.410 ms

Loss rate: 0.95%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-11 17:01:09

End at: 2017-08-11 17:01:39

Below is generated by plot.py at 2017-08-11 19:52:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.376 ms

Loss rate: 0.95%

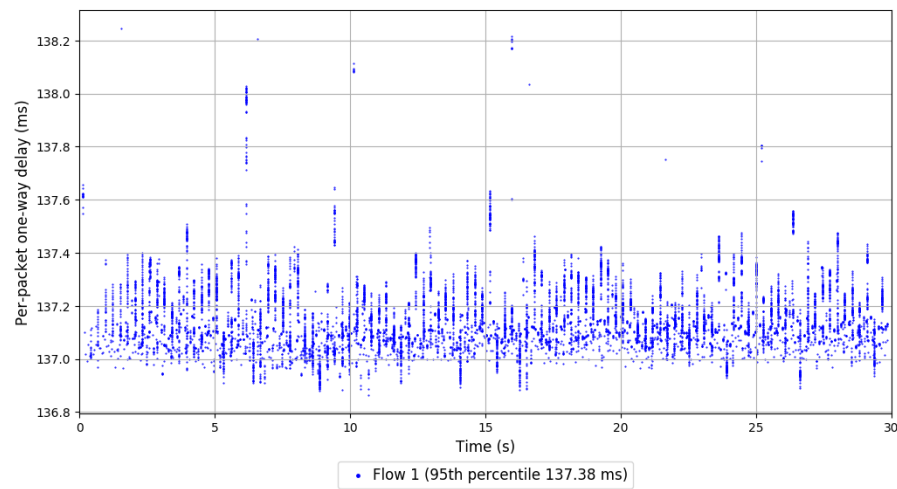
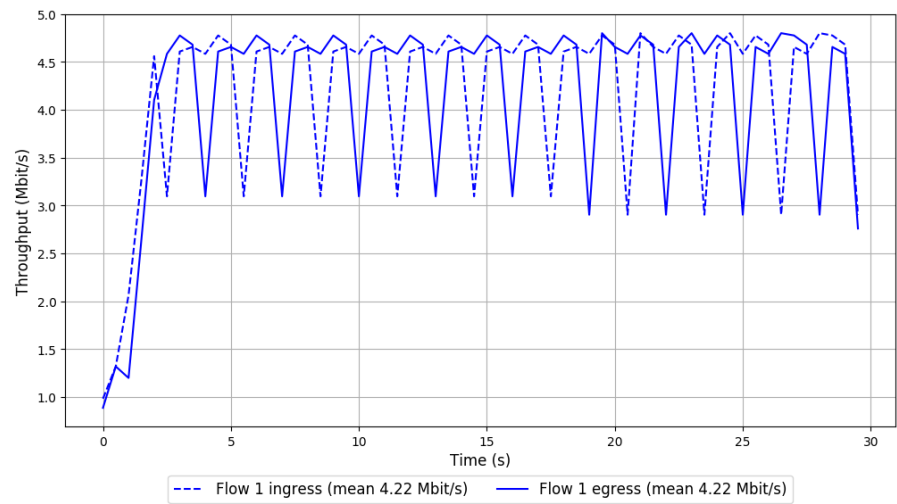
-- Flow 1:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 137.376 ms

Loss rate: 0.95%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-11 17:12:38

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

Below is generated by plot.py at 2017-08-11 19:52:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 137.589 ms

Loss rate: 1.13%

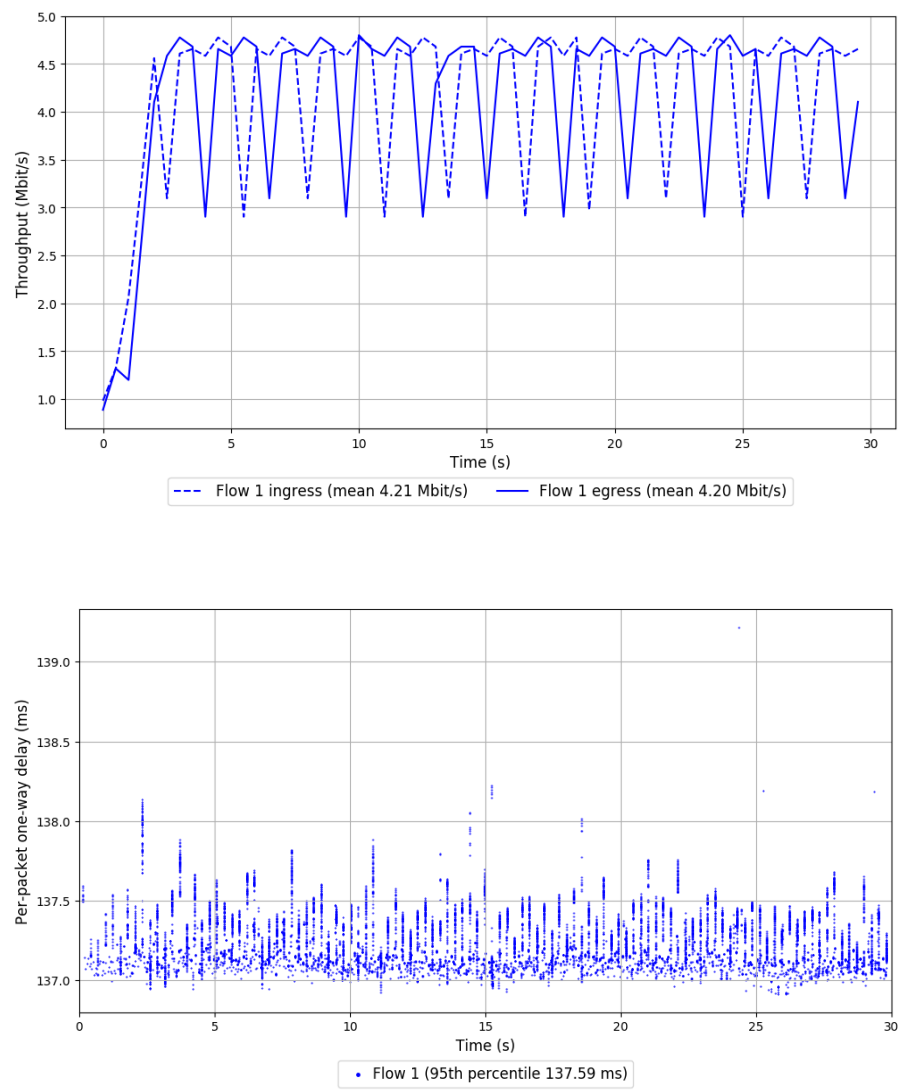
-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 137.589 ms

Loss rate: 1.13%

Run 10: Report of KohoCC — Data Link

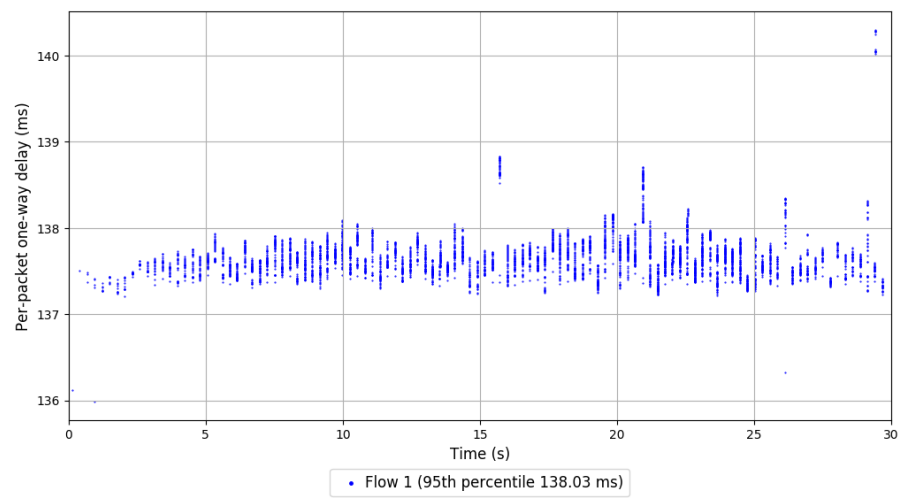
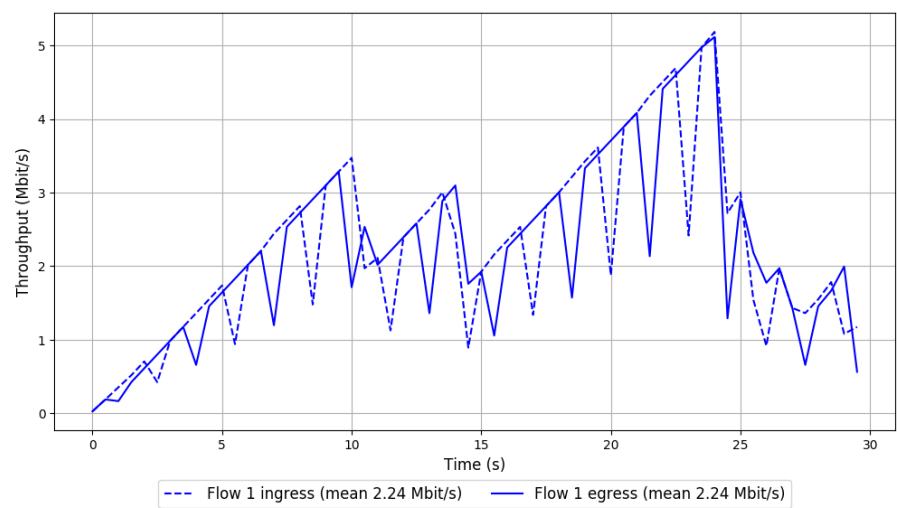


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-11 15:21:45
End at: 2017-08-11 15:22:15

# Below is generated by plot.py at 2017-08-11 19:52:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 138.027 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 2.24 Mbit/s
95th percentile per-packet one-way delay: 138.027 ms
Loss rate: 0.69%
```

Run 1: Report of LEDBAT — Data Link

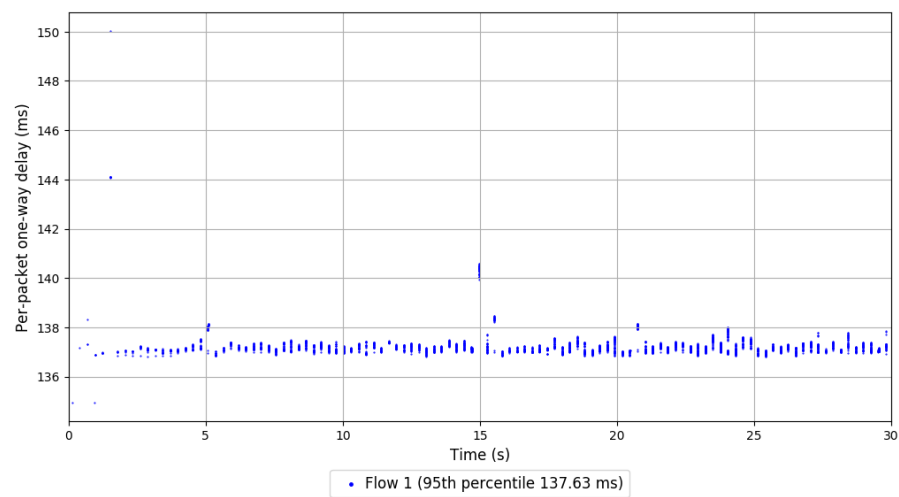
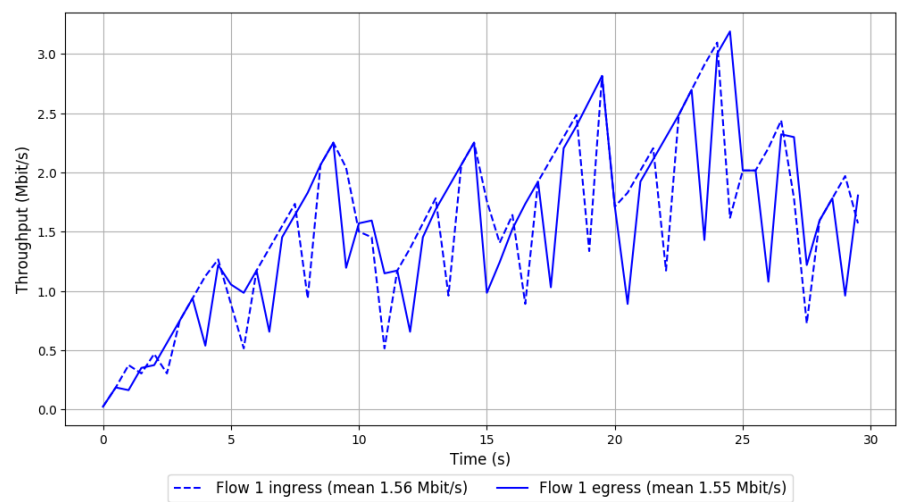


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-11 15:33:41
End at: 2017-08-11 15:34:11

# Below is generated by plot.py at 2017-08-11 19:52:28
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 137.627 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 137.627 ms
Loss rate: 1.31%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-11 15:45:24

End at: 2017-08-11 15:45:54

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 137.290 ms

Loss rate: 0.95%

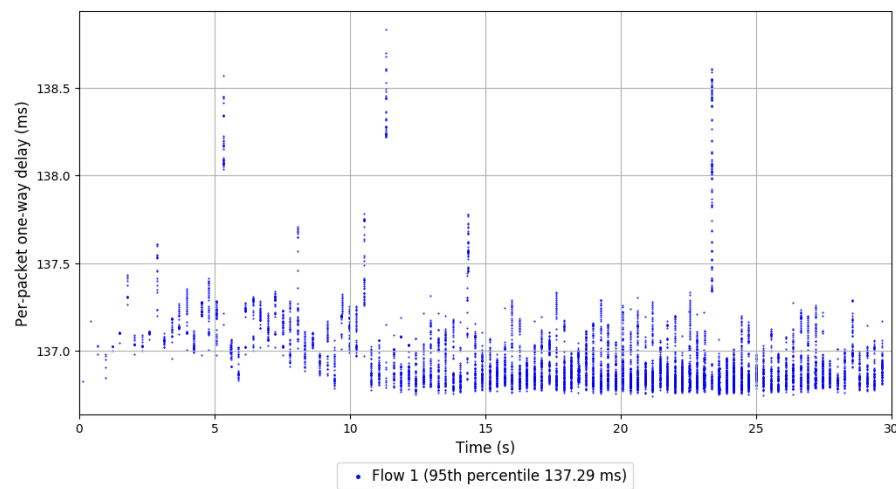
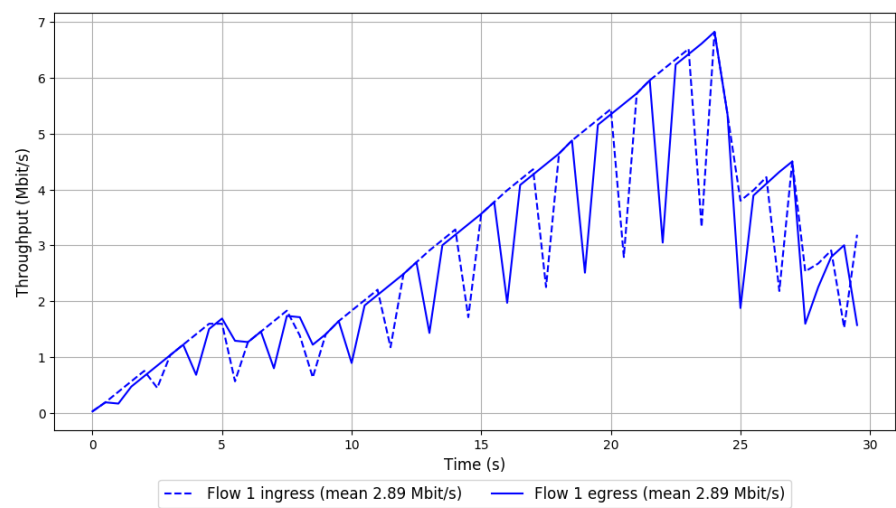
-- Flow 1:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 137.290 ms

Loss rate: 0.95%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-11 15:57:10

End at: 2017-08-11 15:57:40

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 137.534 ms

Loss rate: 1.16%

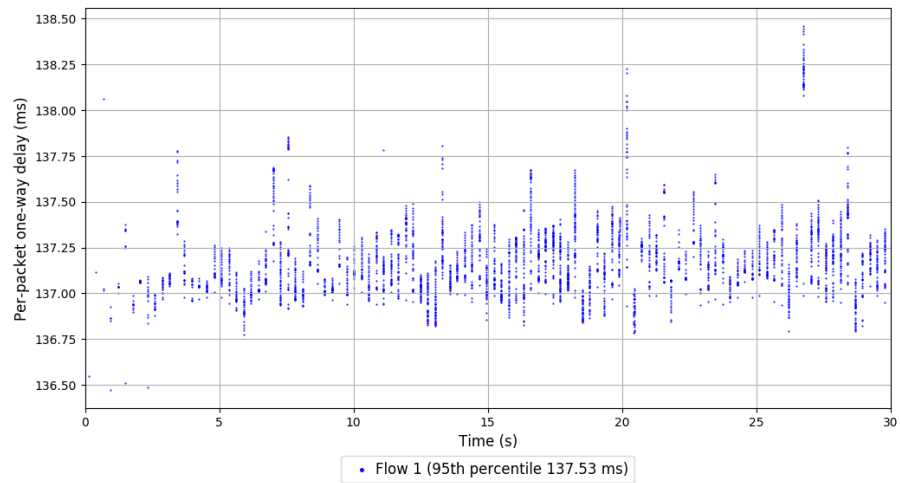
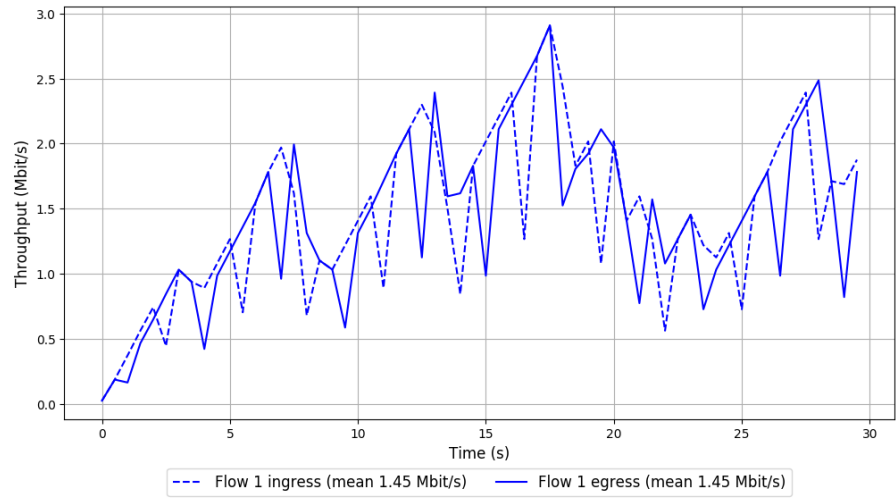
-- Flow 1:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 137.534 ms

Loss rate: 1.16%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-11 16:09:08

End at: 2017-08-11 16:09:38

Below is generated by plot.py at 2017-08-11 19:52:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 137.531 ms

Loss rate: 1.31%

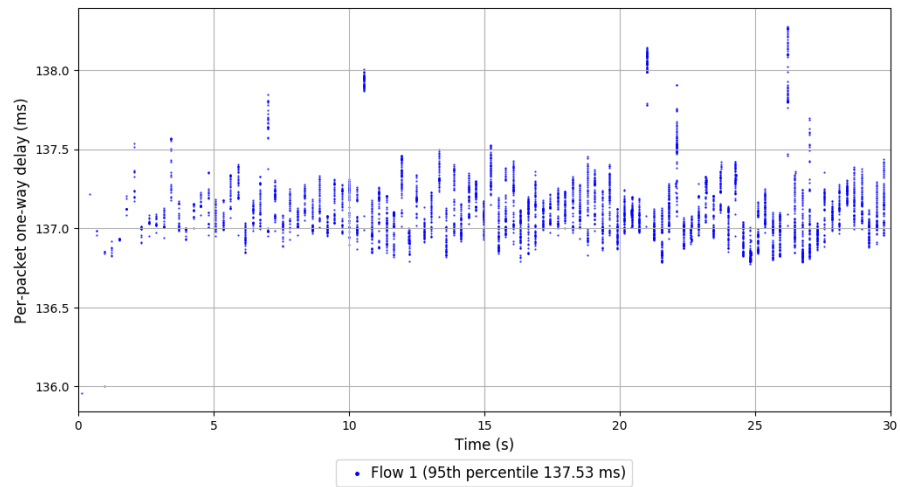
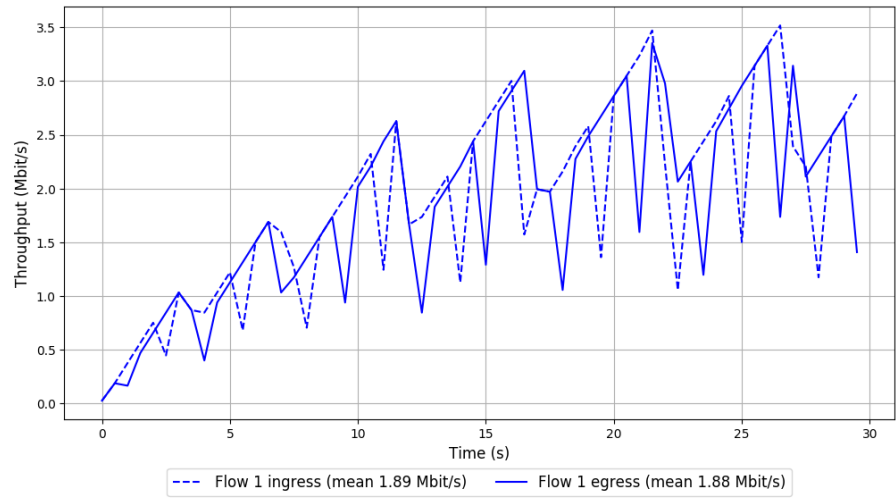
-- Flow 1:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 137.531 ms

Loss rate: 1.31%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-11 16:21:05

End at: 2017-08-11 16:21:35

Below is generated by plot.py at 2017-08-11 19:52:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 137.479 ms

Loss rate: 1.34%

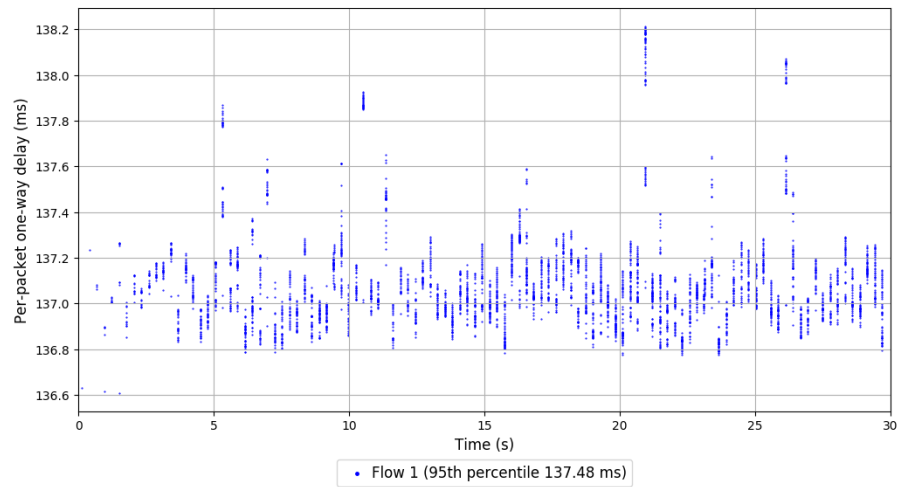
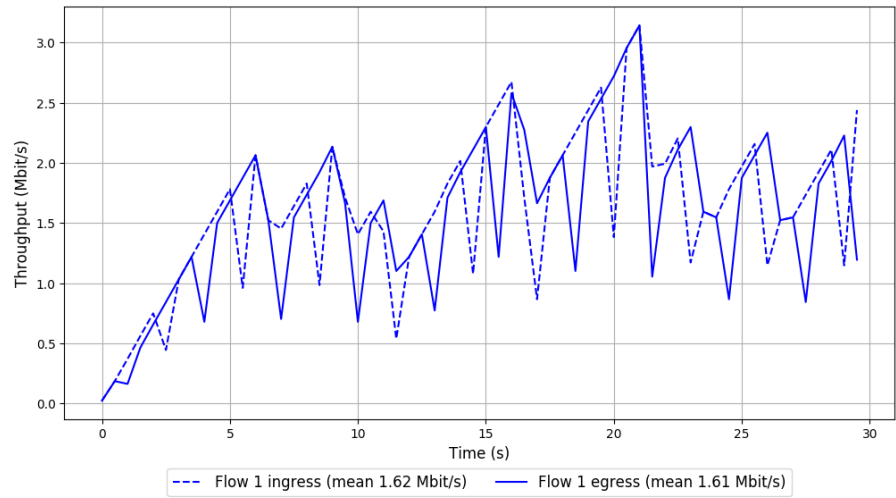
-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 137.479 ms

Loss rate: 1.34%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-11 16:33:27

End at: 2017-08-11 16:33:57

Below is generated by plot.py at 2017-08-11 19:52:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 137.915 ms

Loss rate: 1.84%

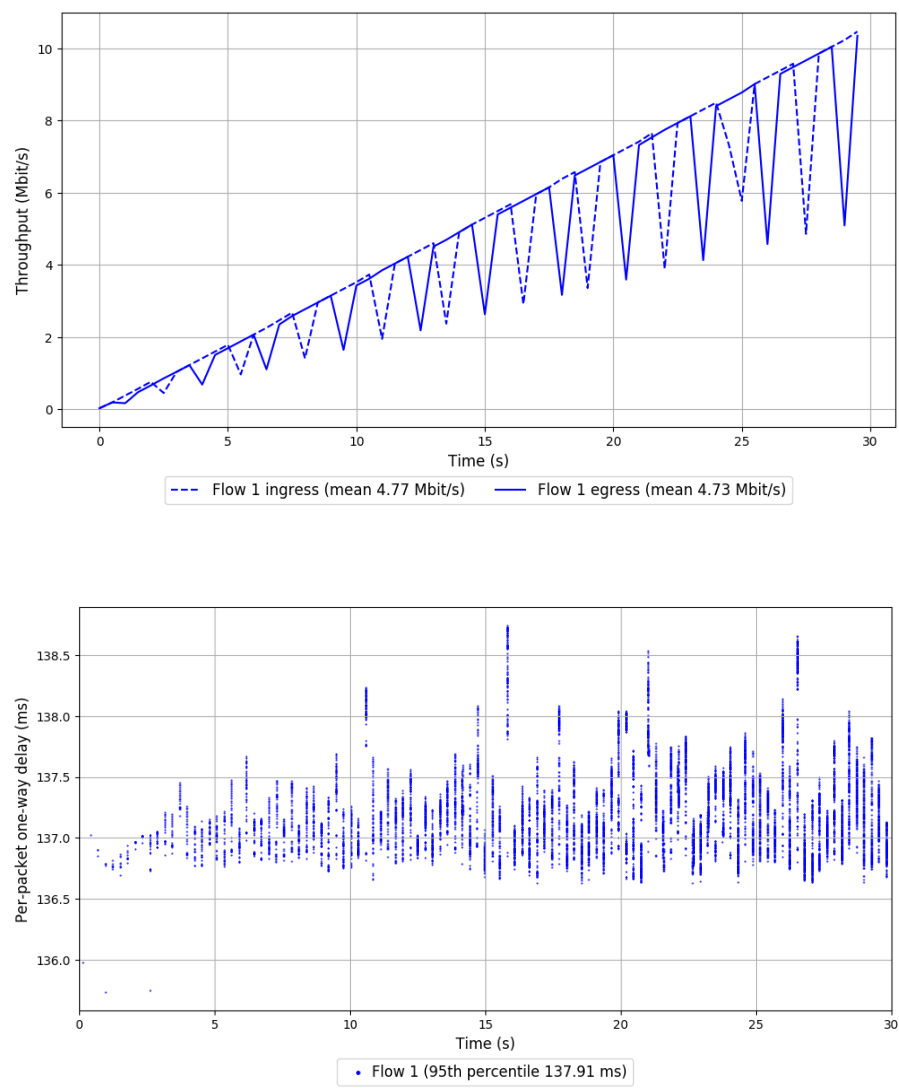
-- Flow 1:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 137.915 ms

Loss rate: 1.84%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-11 16:45:25

End at: 2017-08-11 16:45:55

Below is generated by plot.py at 2017-08-11 19:52:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 137.484 ms

Loss rate: 2.26%

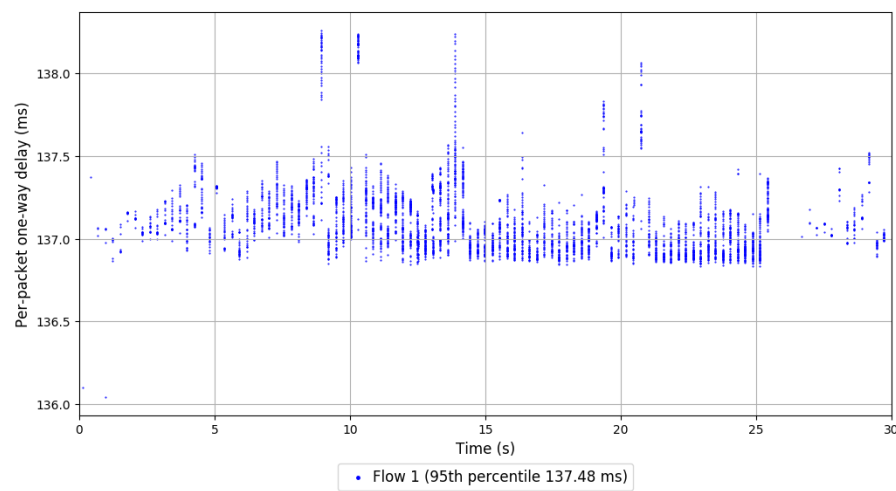
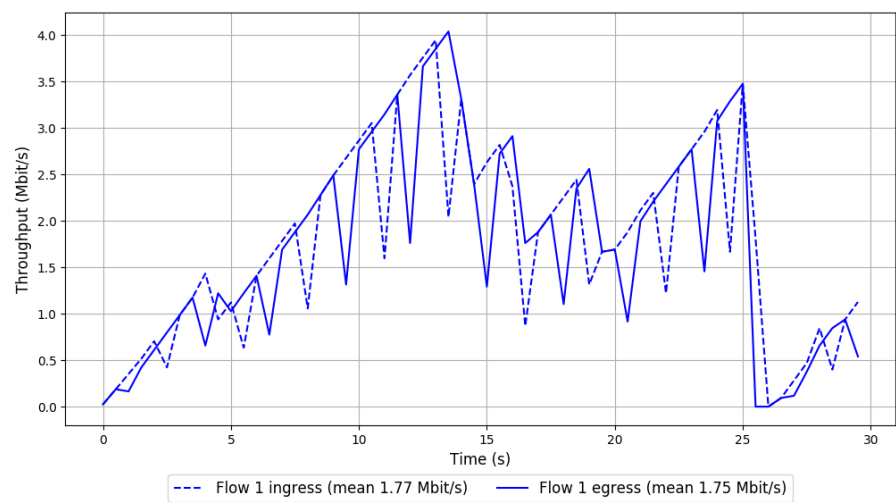
-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 137.484 ms

Loss rate: 2.26%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-11 16:57:41

End at: 2017-08-11 16:58:11

Below is generated by plot.py at 2017-08-11 19:52:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.566 ms

Loss rate: 2.54%

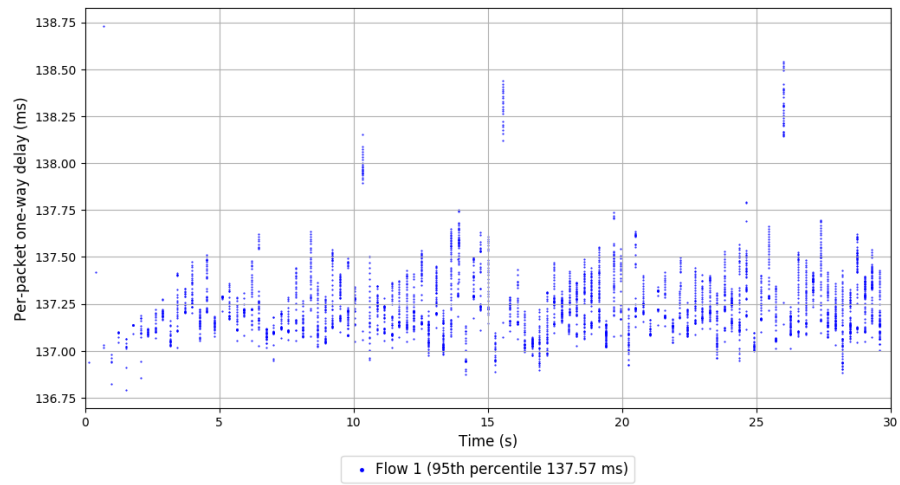
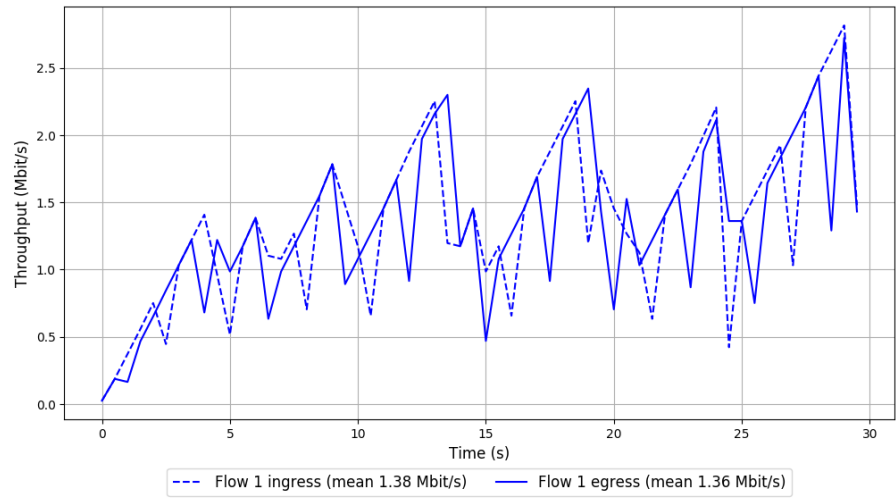
-- Flow 1:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.566 ms

Loss rate: 2.54%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-08-11 17:09:33

End at: 2017-08-11 17:10:03

Below is generated by plot.py at 2017-08-11 19:52:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 137.542 ms

Loss rate: 0.91%

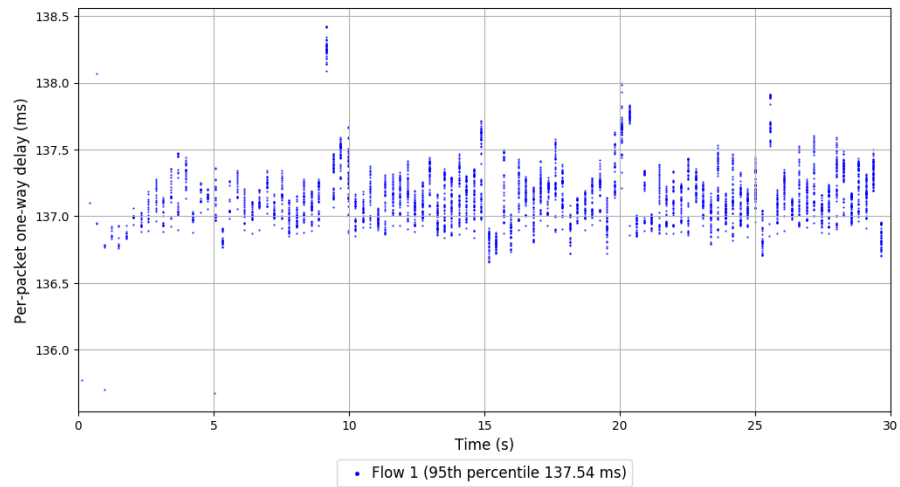
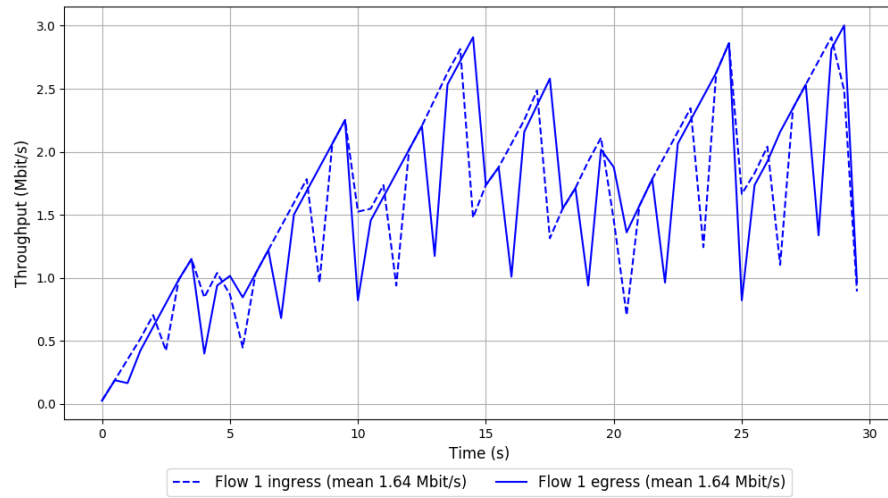
-- Flow 1:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 137.542 ms

Loss rate: 0.91%

Run 10: Report of LEDBAT — Data Link

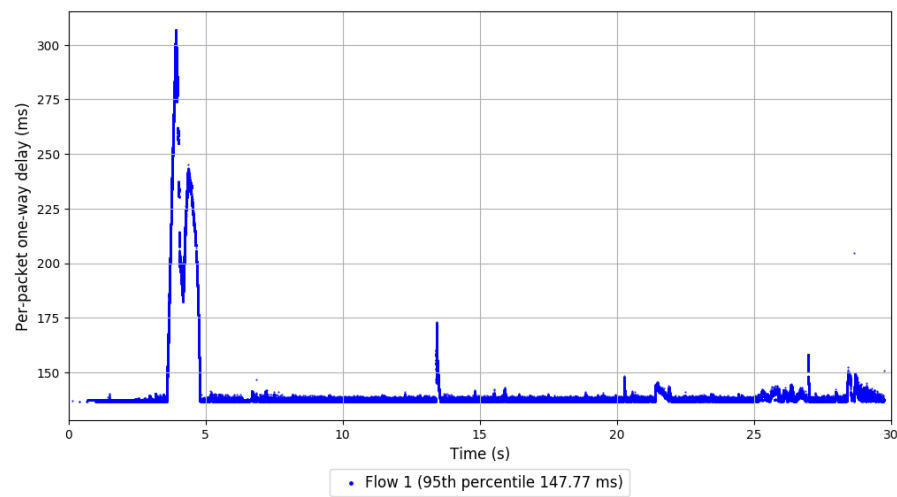
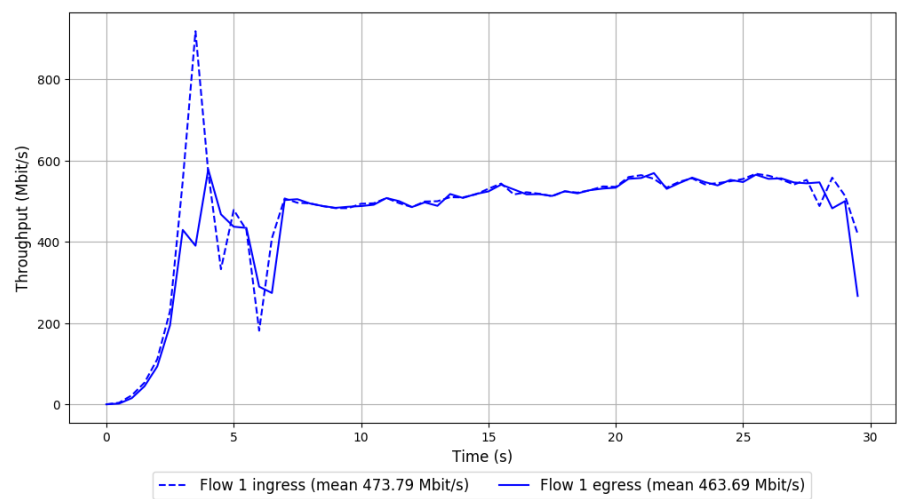


```
Run 1: Statistics of PCC

Start at: 2017-08-11 15:24:10
End at: 2017-08-11 15:24:40

# Below is generated by plot.py at 2017-08-11 19:54:16
# Datalink statistics
-- Total of 1 flow:
Average throughput: 463.69 Mbit/s
95th percentile per-packet one-way delay: 147.768 ms
Loss rate: 3.01%
-- Flow 1:
Average throughput: 463.69 Mbit/s
95th percentile per-packet one-way delay: 147.768 ms
Loss rate: 3.01%
```


Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-08-11 15:36:06

End at: 2017-08-11 15:36:36

Below is generated by plot.py at 2017-08-11 19:54:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 451.63 Mbit/s

95th percentile per-packet one-way delay: 179.579 ms

Loss rate: 3.12%

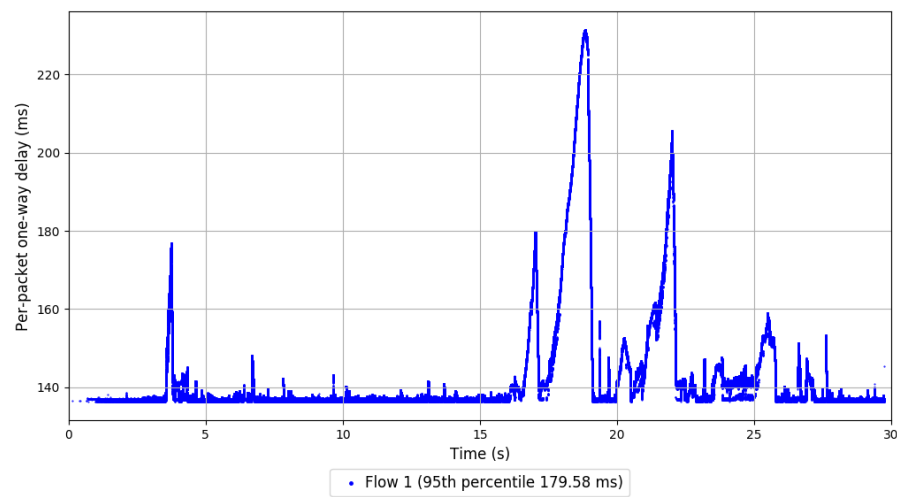
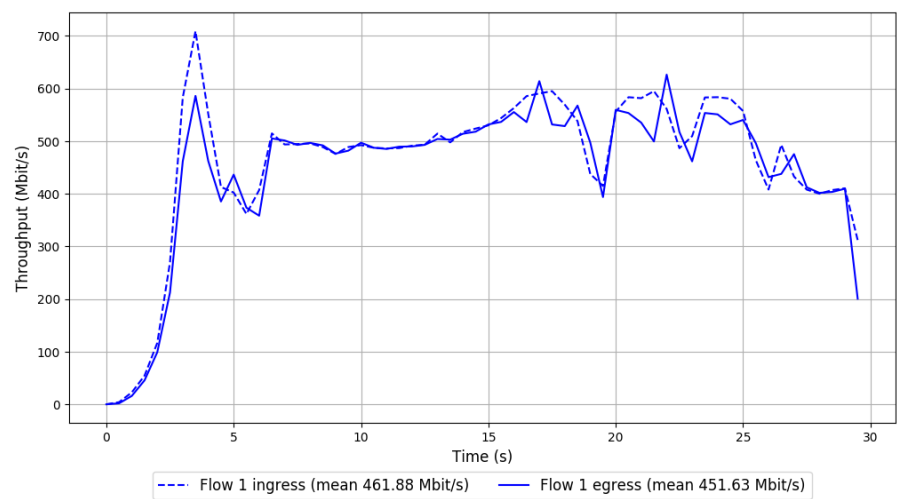
-- Flow 1:

Average throughput: 451.63 Mbit/s

95th percentile per-packet one-way delay: 179.579 ms

Loss rate: 3.12%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-11 15:47:49

End at: 2017-08-11 15:48:19

Below is generated by plot.py at 2017-08-11 19:55:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 470.34 Mbit/s

95th percentile per-packet one-way delay: 177.361 ms

Loss rate: 1.48%

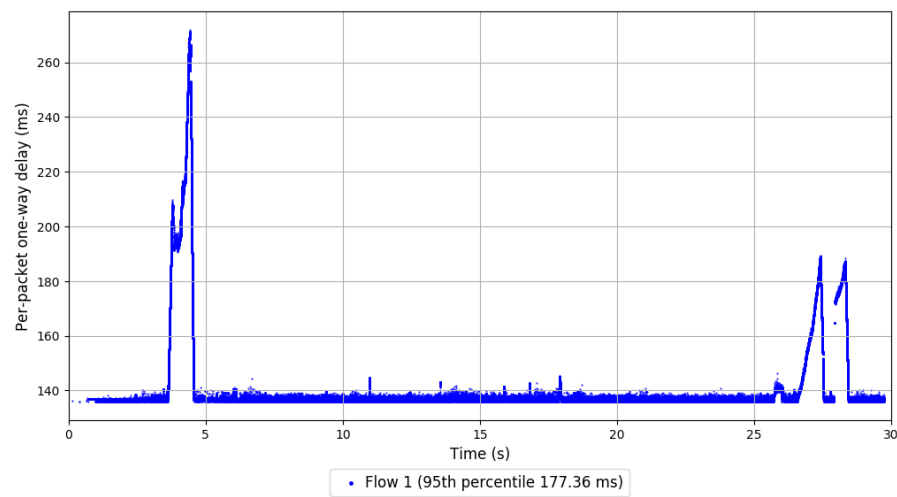
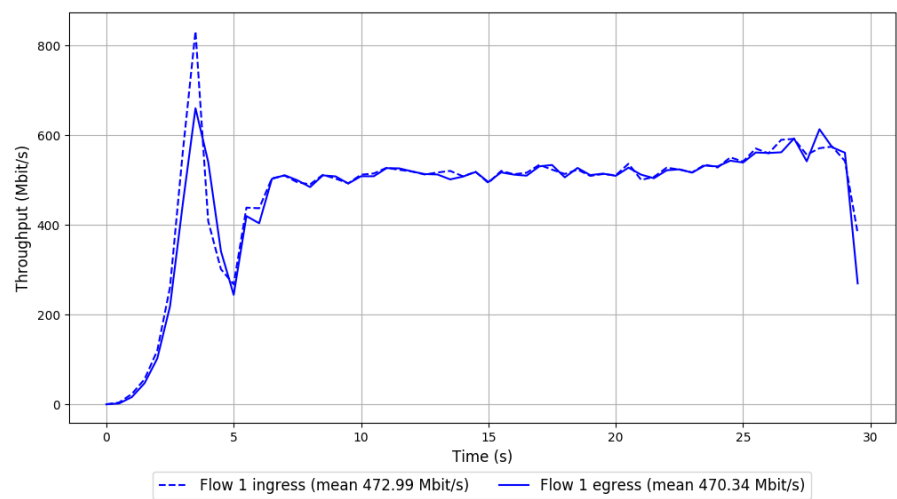
-- Flow 1:

Average throughput: 470.34 Mbit/s

95th percentile per-packet one-way delay: 177.361 ms

Loss rate: 1.48%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-11 15:59:36

End at: 2017-08-11 16:00:06

Below is generated by plot.py at 2017-08-11 19:56:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 509.31 Mbit/s

95th percentile per-packet one-way delay: 147.944 ms

Loss rate: 1.72%

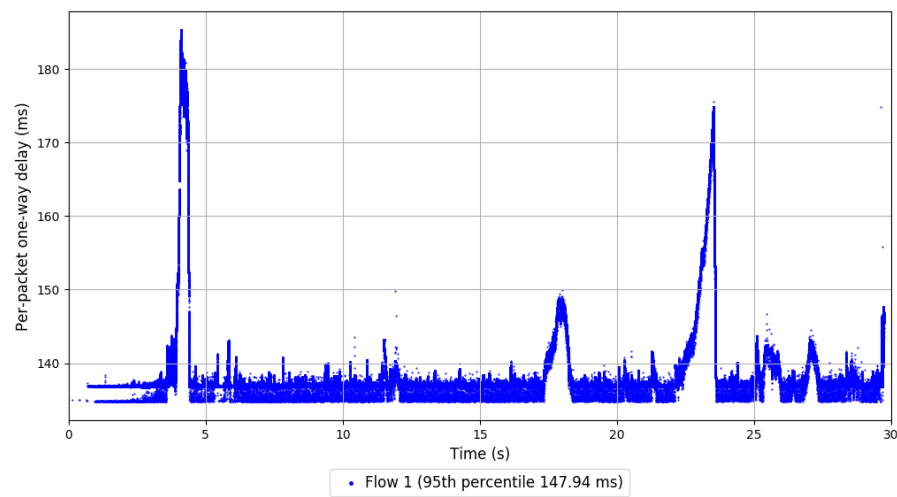
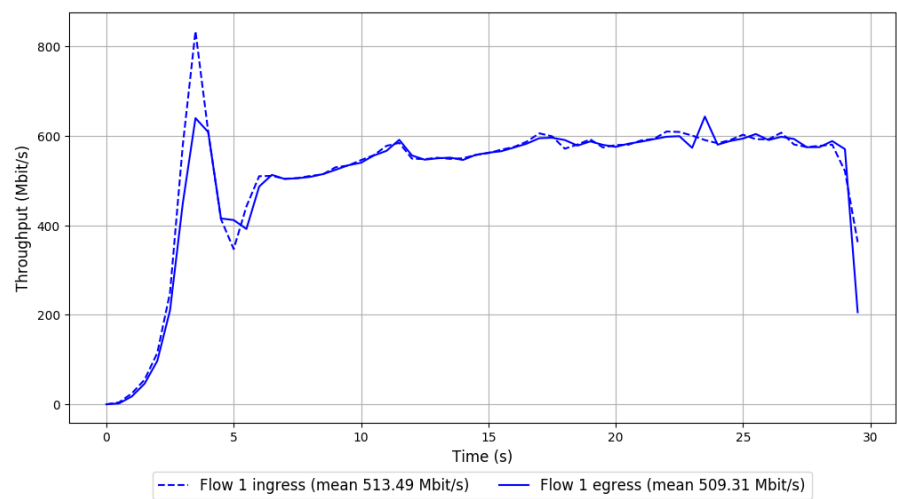
-- Flow 1:

Average throughput: 509.31 Mbit/s

95th percentile per-packet one-way delay: 147.944 ms

Loss rate: 1.72%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-11 16:11:35

End at: 2017-08-11 16:12:05

Below is generated by plot.py at 2017-08-11 19:56:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 493.79 Mbit/s

95th percentile per-packet one-way delay: 145.026 ms

Loss rate: 1.38%

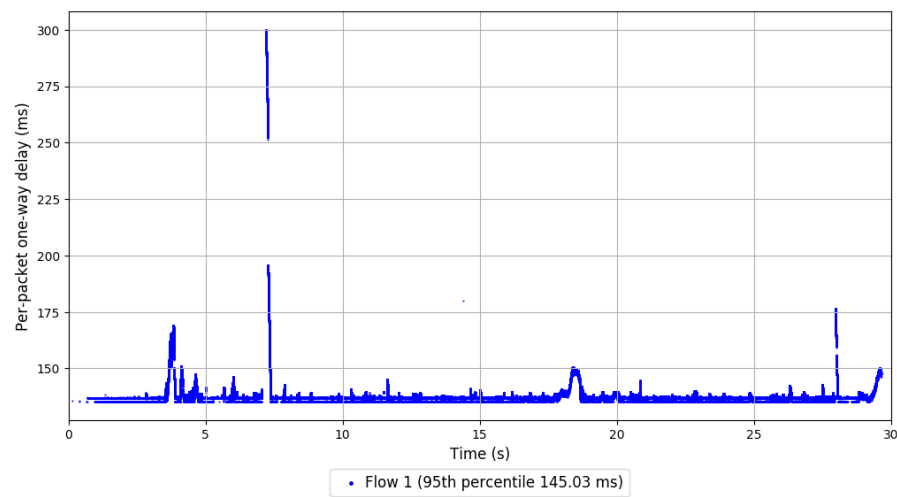
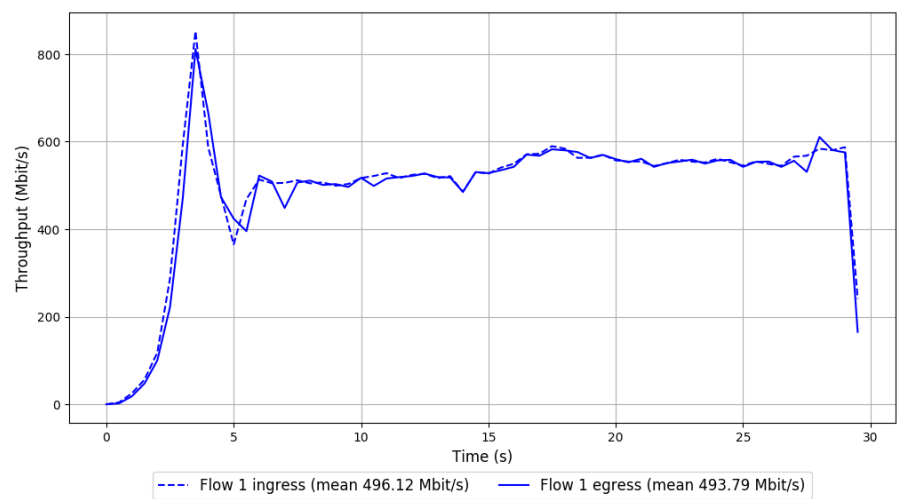
-- Flow 1:

Average throughput: 493.79 Mbit/s

95th percentile per-packet one-way delay: 145.026 ms

Loss rate: 1.38%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-11 16:23:30

End at: 2017-08-11 16:24:00

Below is generated by plot.py at 2017-08-11 19:58:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 463.37 Mbit/s

95th percentile per-packet one-way delay: 226.962 ms

Loss rate: 3.00%

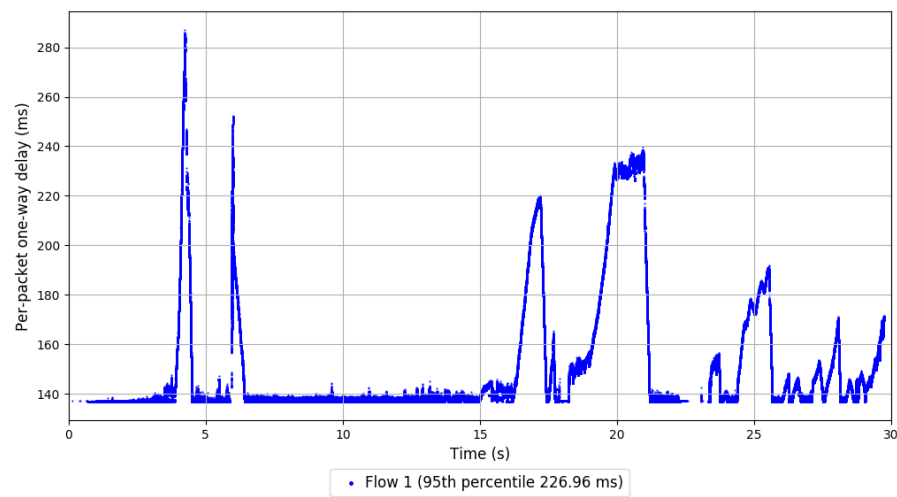
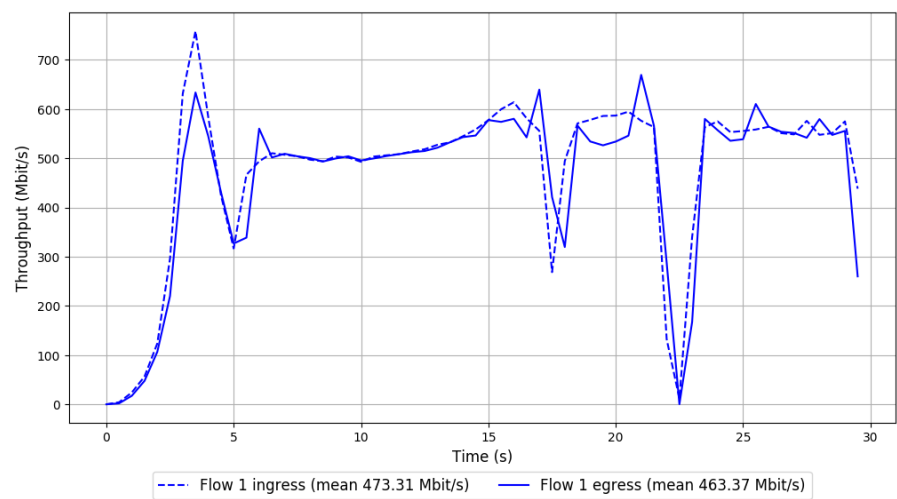
-- Flow 1:

Average throughput: 463.37 Mbit/s

95th percentile per-packet one-way delay: 226.962 ms

Loss rate: 3.00%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-11 16:35:51

End at: 2017-08-11 16:36:21

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 478.41 Mbit/s

95th percentile per-packet one-way delay: 145.130 ms

Loss rate: 2.26%

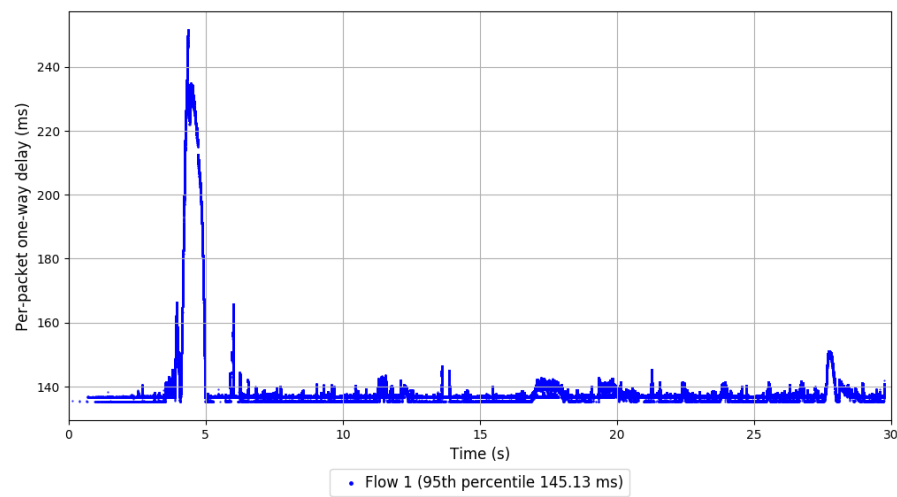
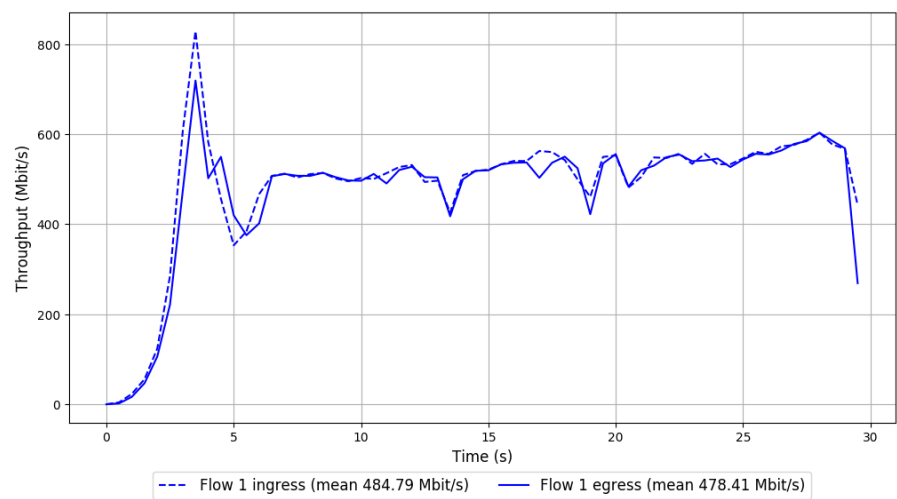
-- Flow 1:

Average throughput: 478.41 Mbit/s

95th percentile per-packet one-way delay: 145.130 ms

Loss rate: 2.26%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-11 16:47:50

End at: 2017-08-11 16:48:20

Below is generated by plot.py at 2017-08-11 19:59:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 480.62 Mbit/s

95th percentile per-packet one-way delay: 235.949 ms

Loss rate: 4.39%

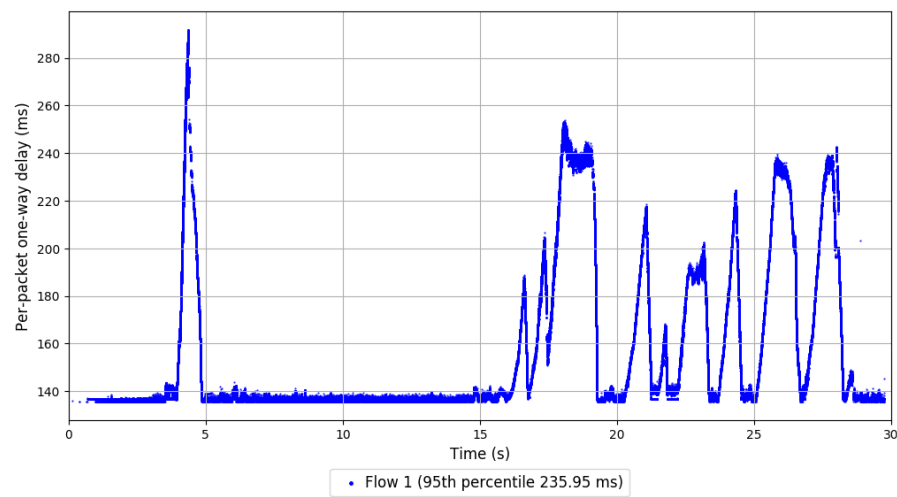
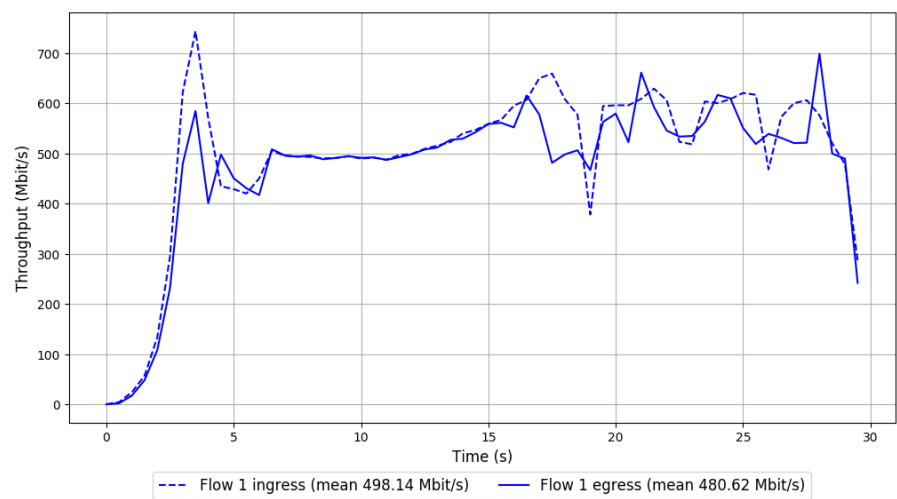
-- Flow 1:

Average throughput: 480.62 Mbit/s

95th percentile per-packet one-way delay: 235.949 ms

Loss rate: 4.39%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-11 17:00:06

End at: 2017-08-11 17:00:36

Below is generated by plot.py at 2017-08-11 19:59:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 452.18 Mbit/s

95th percentile per-packet one-way delay: 145.011 ms

Loss rate: 3.60%

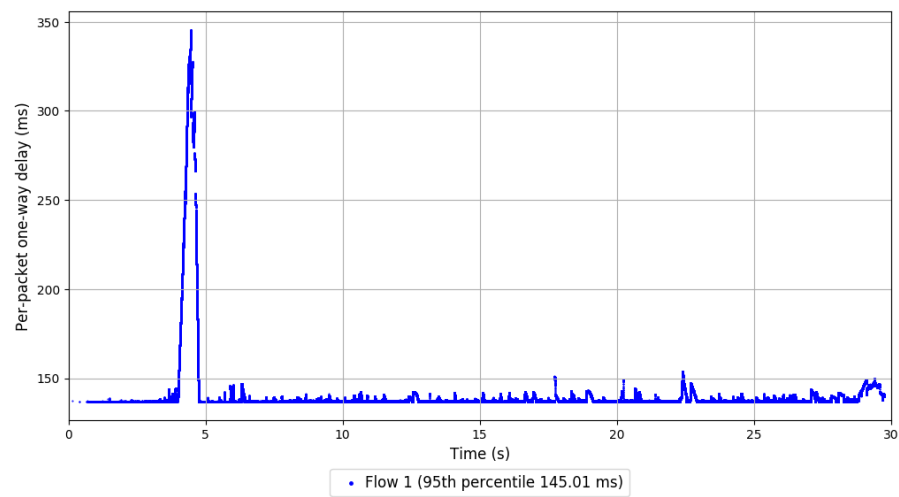
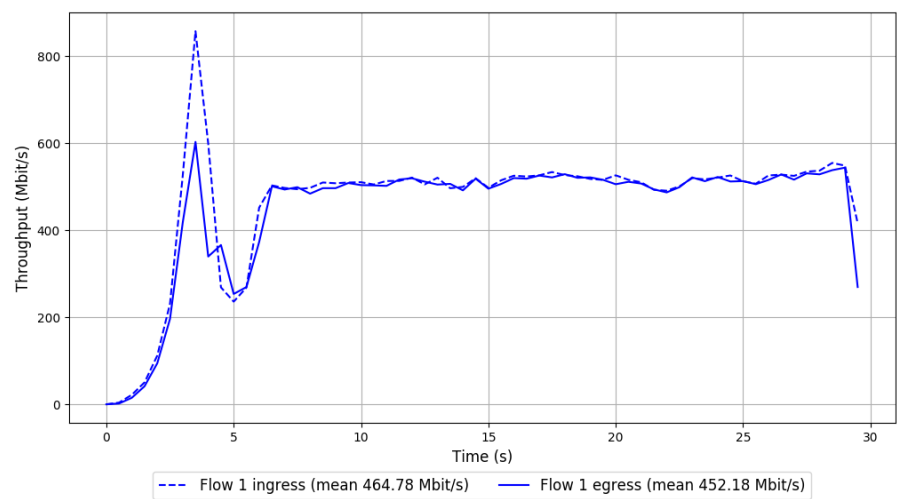
-- Flow 1:

Average throughput: 452.18 Mbit/s

95th percentile per-packet one-way delay: 145.011 ms

Loss rate: 3.60%

Run 9: Report of PCC — Data Link

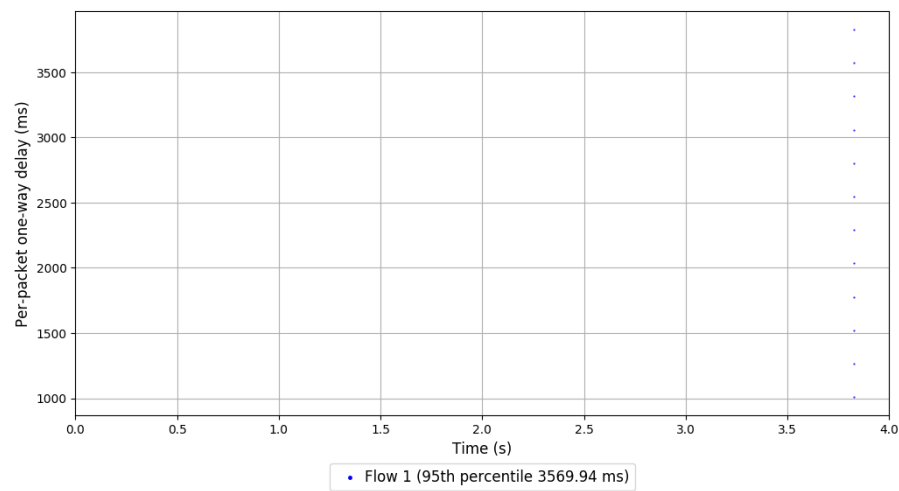
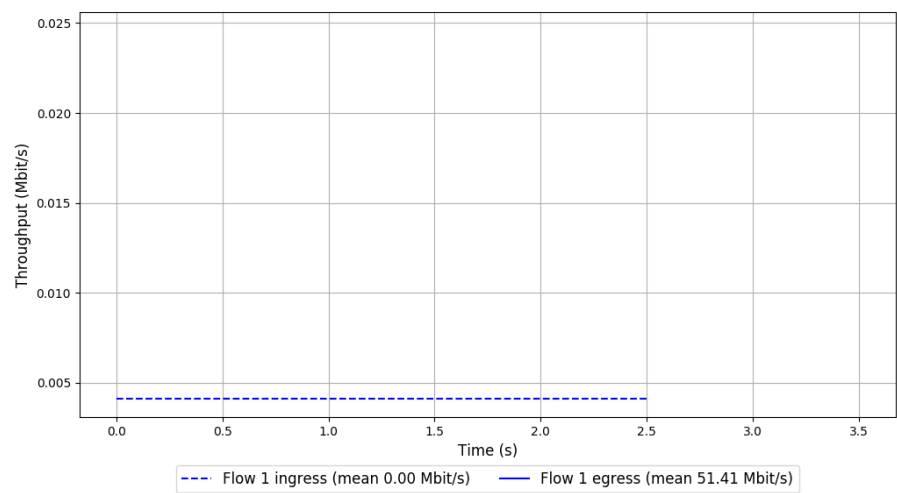


Run 10: Statistics of PCC

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

End at: 2017-08-11 17:12:27

Run 10: Report of PCC — Data Link

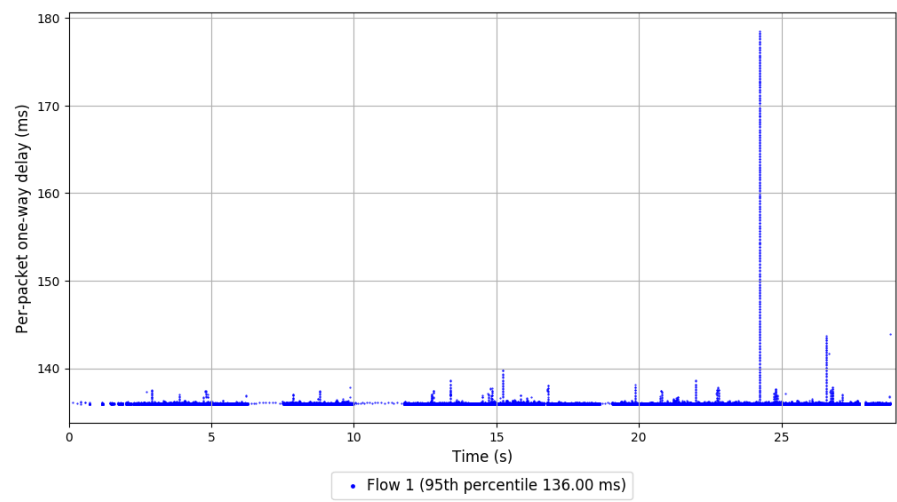
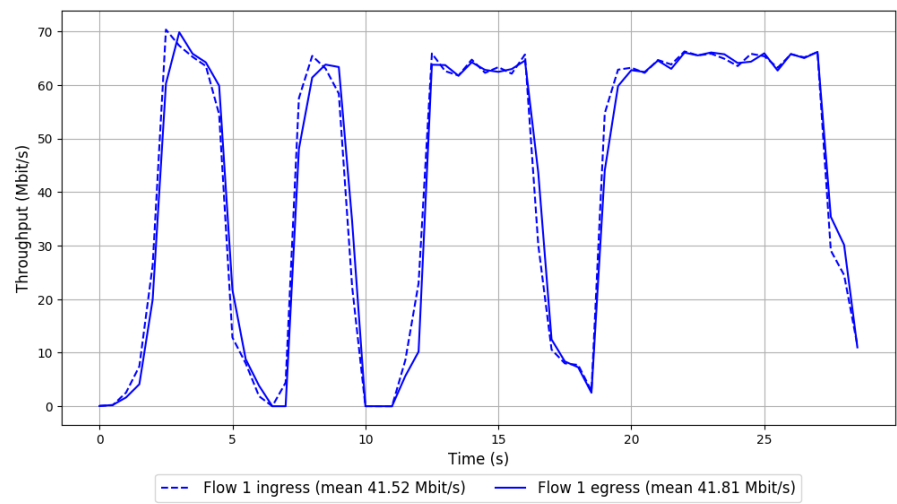


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-11 15:28:58
End at: 2017-08-11 15:29:28

# Below is generated by plot.py at 2017-08-11 19:59:49
# Datalink statistics
-- Total of 1 flow:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 136.002 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 41.81 Mbit/s
95th percentile per-packet one-way delay: 136.002 ms
Loss rate: 0.26%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-11 15:41:00

End at: 2017-08-11 15:41:30

Below is generated by plot.py at 2017-08-11 19:59:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.12 Mbit/s

95th percentile per-packet one-way delay: 136.646 ms

Loss rate: 1.38%

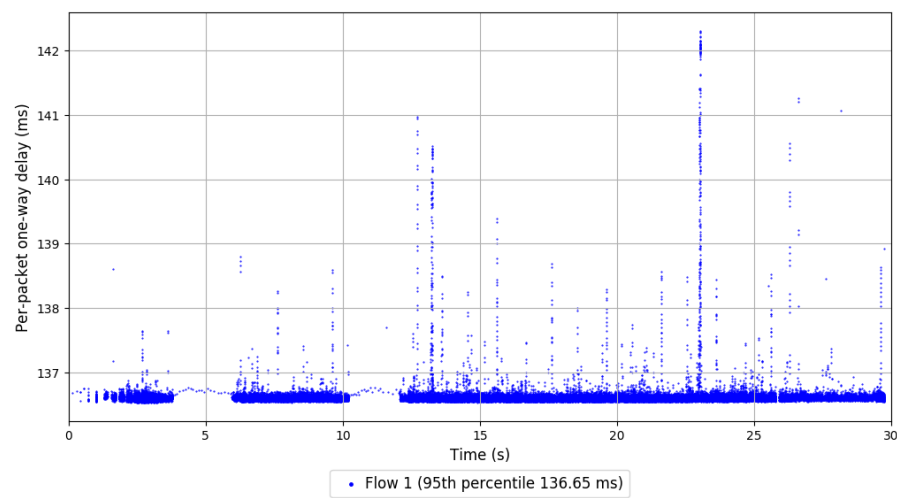
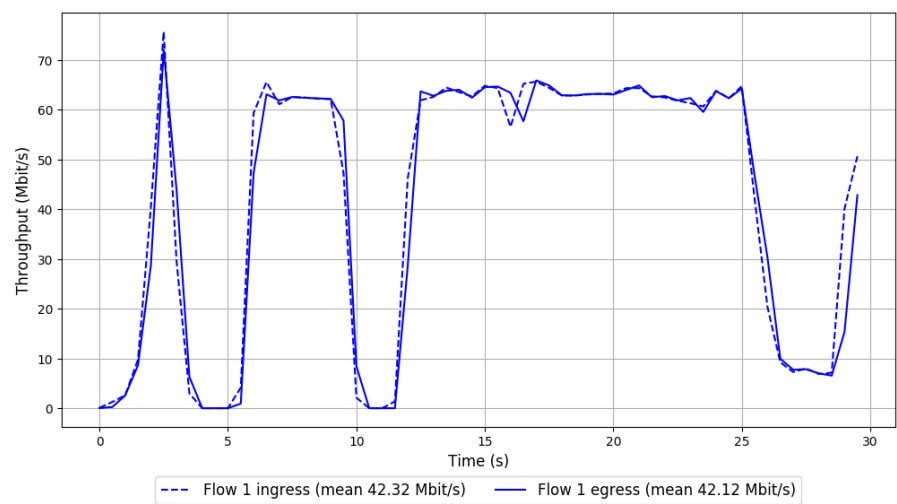
-- Flow 1:

Average throughput: 42.12 Mbit/s

95th percentile per-packet one-way delay: 136.646 ms

Loss rate: 1.38%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-11 15:52:47

End at: 2017-08-11 15:53:17

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.36 Mbit/s

95th percentile per-packet one-way delay: 135.339 ms

Loss rate: 0.26%

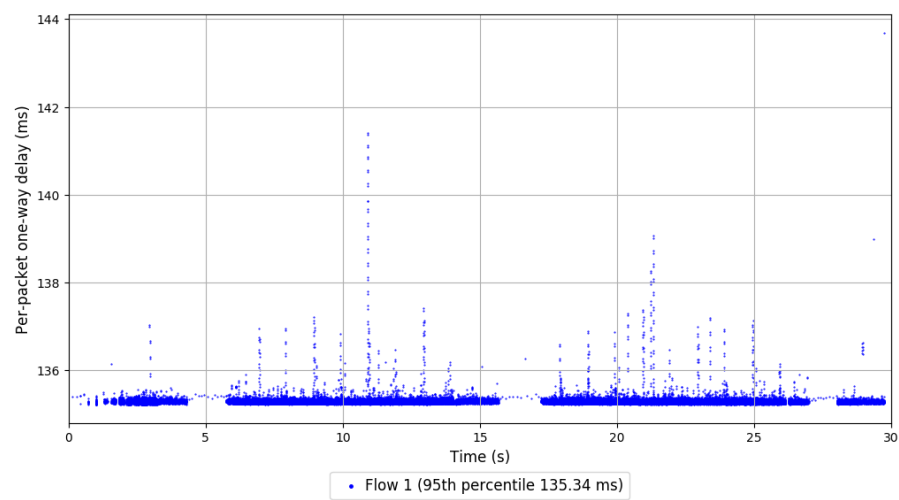
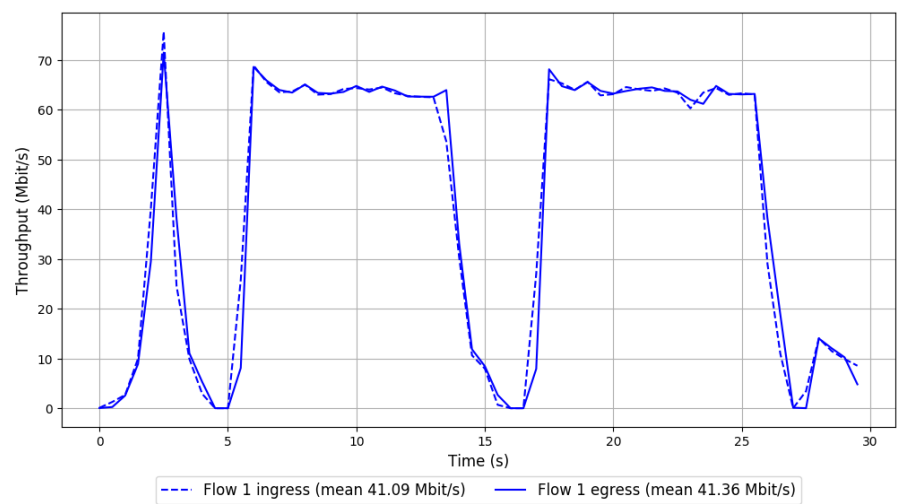
-- Flow 1:

Average throughput: 41.36 Mbit/s

95th percentile per-packet one-way delay: 135.339 ms

Loss rate: 0.26%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-11 16:04:46

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

Below is generated by plot.py at 2017-08-11 20:00:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.63 Mbit/s

95th percentile per-packet one-way delay: 136.188 ms

Loss rate: 0.19%

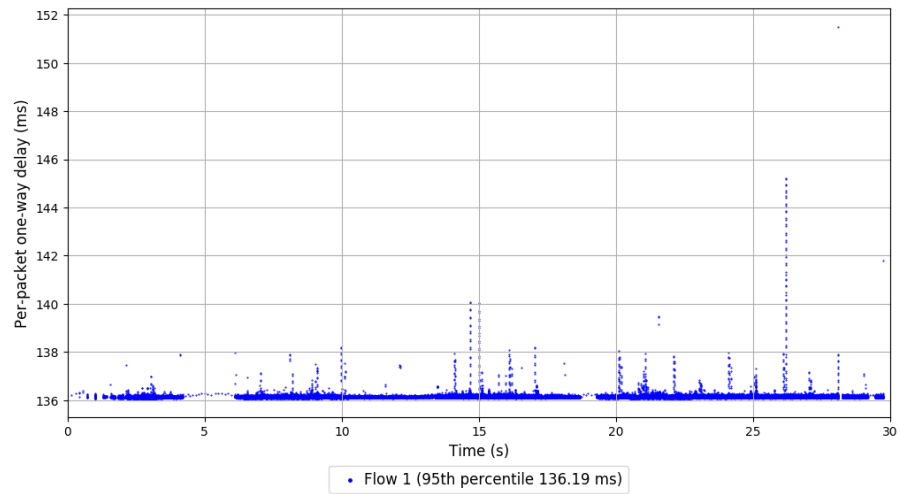
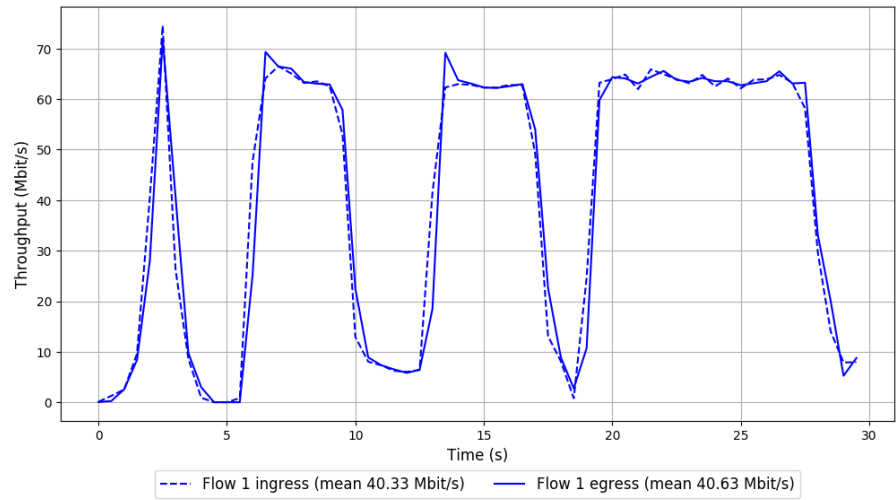
-- Flow 1:

Average throughput: 40.63 Mbit/s

95th percentile per-packet one-way delay: 136.188 ms

Loss rate: 0.19%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-11 16:16:29

End at: 2017-08-11 16:16:59

Below is generated by plot.py at 2017-08-11 20:00:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.66 Mbit/s

95th percentile per-packet one-way delay: 136.250 ms

Loss rate: 0.20%

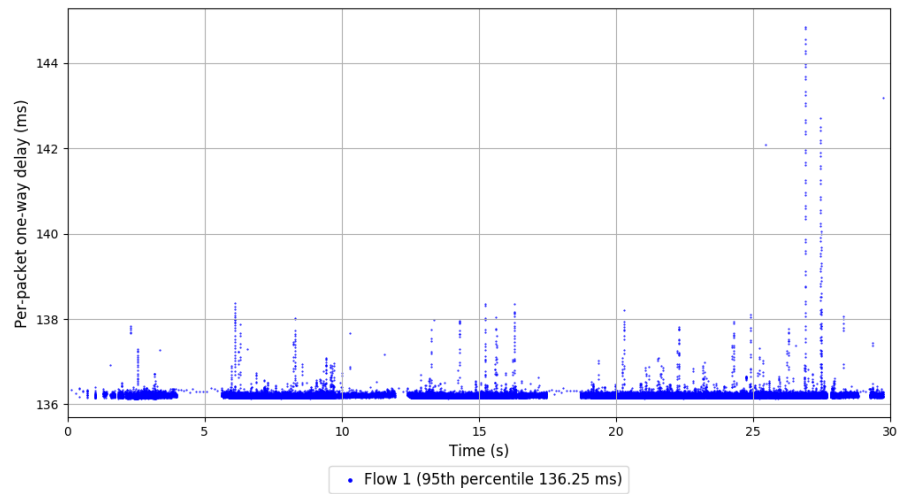
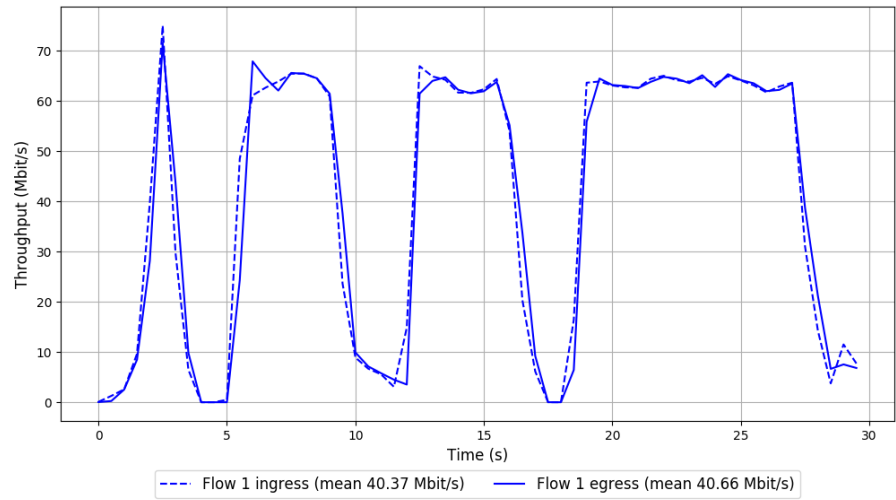
-- Flow 1:

Average throughput: 40.66 Mbit/s

95th percentile per-packet one-way delay: 136.250 ms

Loss rate: 0.20%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-11 16:28:42

End at: 2017-08-11 16:29:12

Below is generated by plot.py at 2017-08-11 20:00:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.24 Mbit/s

95th percentile per-packet one-way delay: 136.428 ms

Loss rate: 1.45%

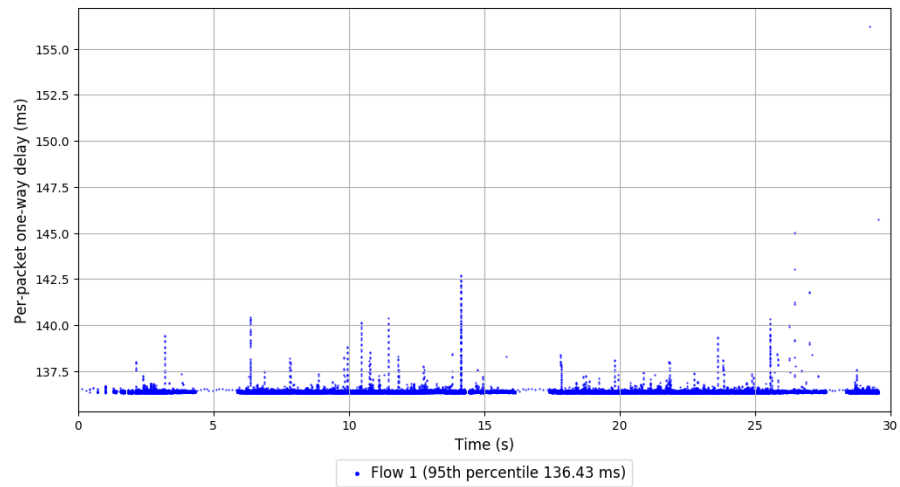
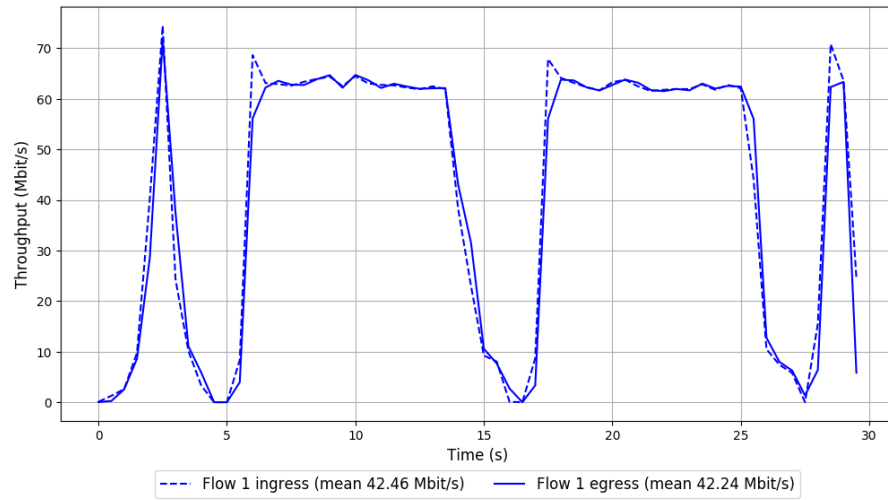
-- Flow 1:

Average throughput: 42.24 Mbit/s

95th percentile per-packet one-way delay: 136.428 ms

Loss rate: 1.45%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-11 16:40:47

End at: 2017-08-11 16:41:17

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.19 Mbit/s

95th percentile per-packet one-way delay: 136.633 ms

Loss rate: 0.17%

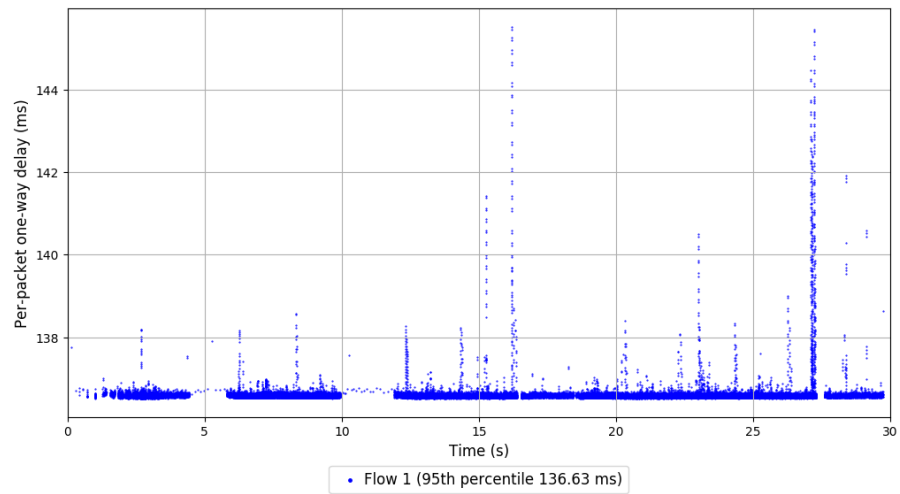
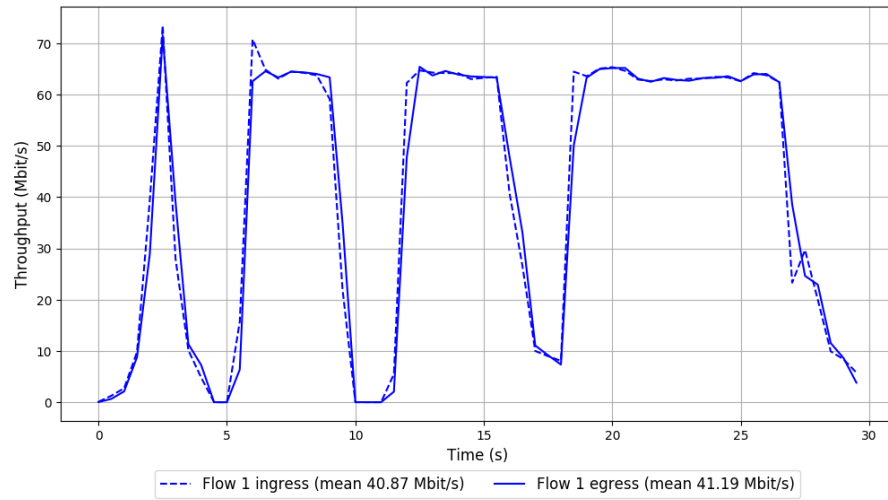
-- Flow 1:

Average throughput: 41.19 Mbit/s

95th percentile per-packet one-way delay: 136.633 ms

Loss rate: 0.17%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-11 16:52:57

End at: 2017-08-11 16:53:27

Below is generated by plot.py at 2017-08-11 20:00:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 136.587 ms

Loss rate: 0.35%

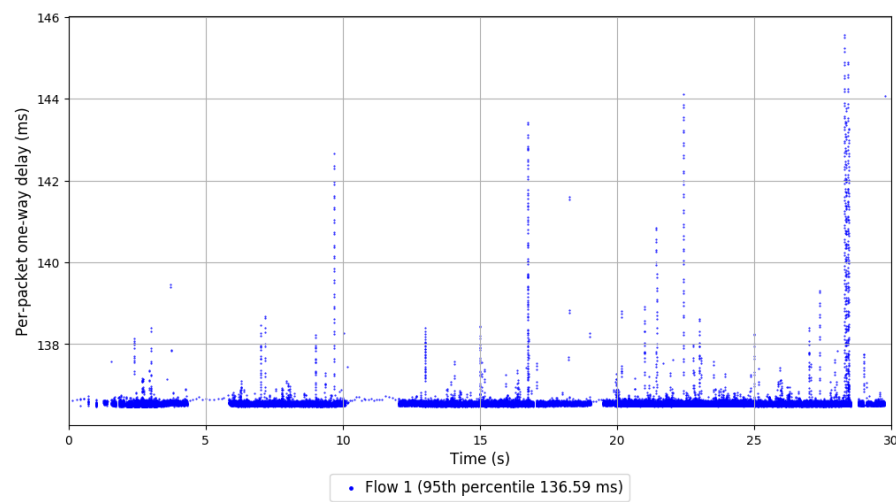
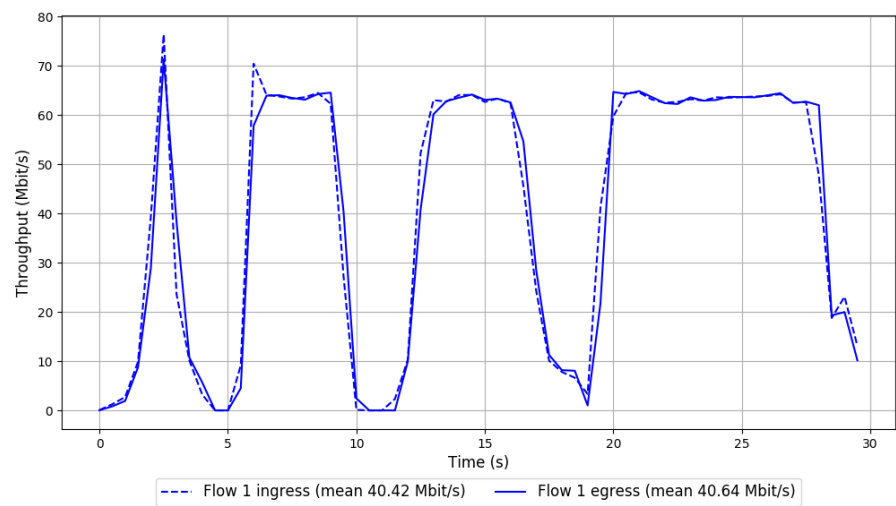
-- Flow 1:

Average throughput: 40.64 Mbit/s

95th percentile per-packet one-way delay: 136.587 ms

Loss rate: 0.35%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-11 17:04:53

End at: 2017-08-11 17:05:23

Below is generated by plot.py at 2017-08-11 20:00:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.88 Mbit/s

95th percentile per-packet one-way delay: 137.085 ms

Loss rate: 0.19%

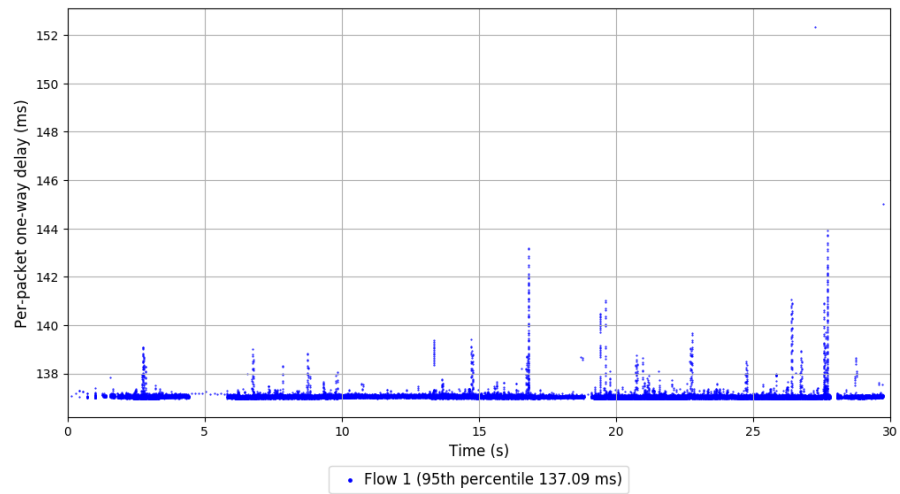
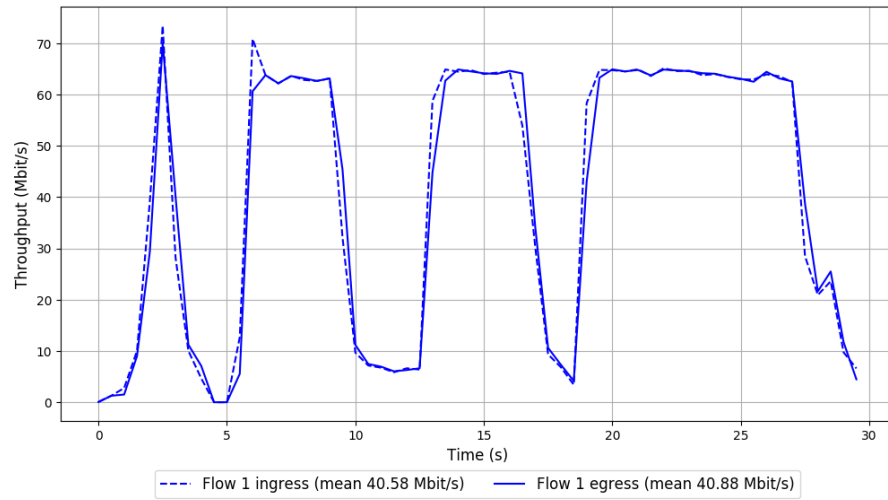
-- Flow 1:

Average throughput: 40.88 Mbit/s

95th percentile per-packet one-way delay: 137.085 ms

Loss rate: 0.19%

Run 9: Report of QUIC Cubic — Data Link

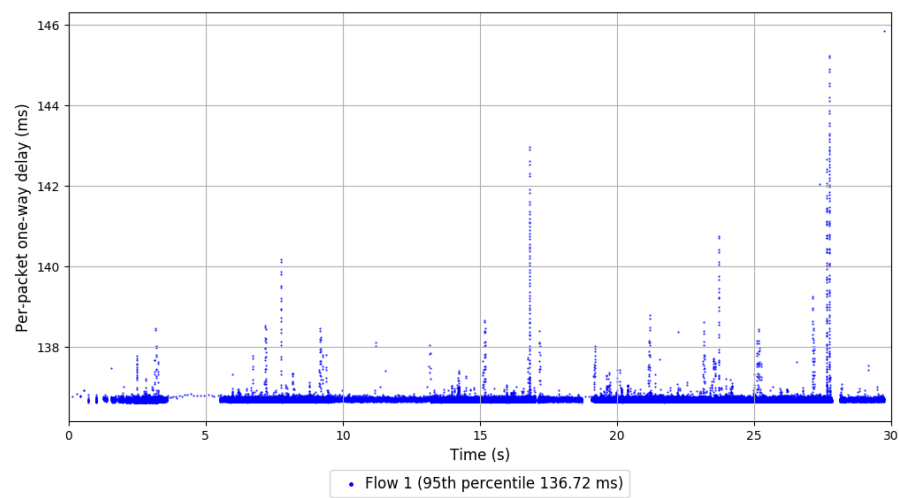
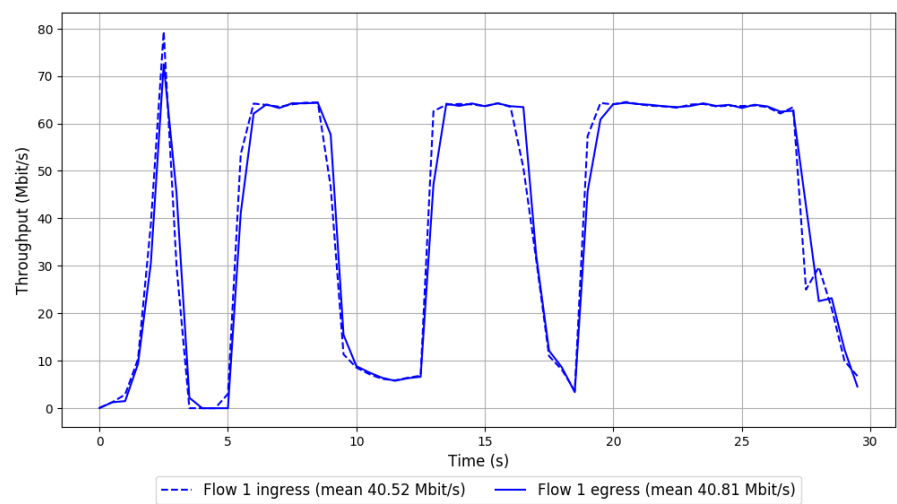


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-11 17:16:24
End at: 2017-08-11 17:16:54

# Below is generated by plot.py at 2017-08-11 20:00:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 136.725 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 40.81 Mbit/s
95th percentile per-packet one-way delay: 136.725 ms
Loss rate: 0.20%
```

Run 10: Report of QUIC Cubic — Data Link



Run 1: Statistics of Saturator

Start at: 2017-08-11 15:22:28

End at: 2017-08-11 15:22:58

Below is generated by plot.py at 2017-08-11 20:00:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.63 Mbit/s

95th percentile per-packet one-way delay: 138.521 ms

Loss rate: 0.93%

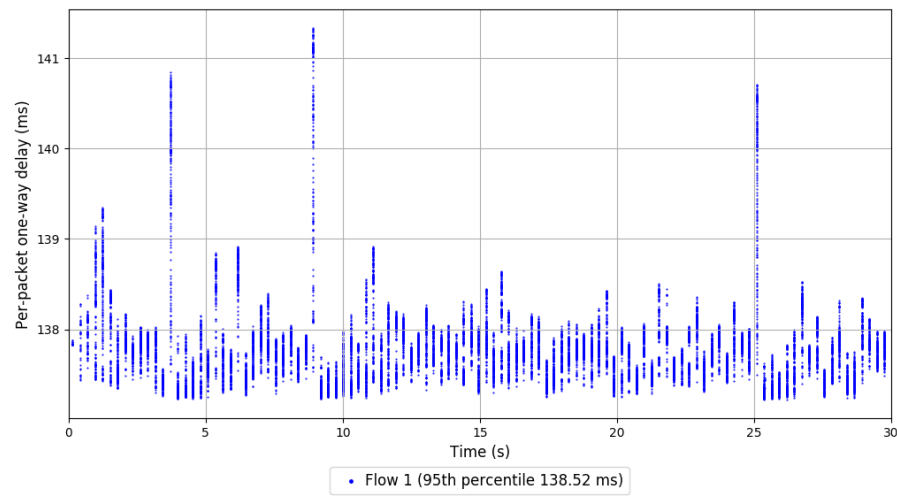
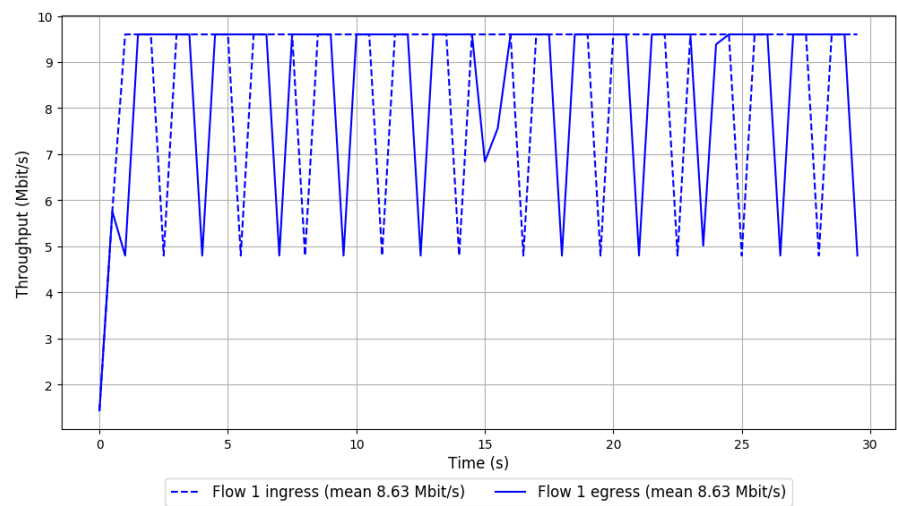
-- Flow 1:

Average throughput: 8.63 Mbit/s

95th percentile per-packet one-way delay: 138.521 ms

Loss rate: 0.93%

Run 1: Report of Saturator — Data Link



Run 2: Statistics of Saturator

Start at: 2017-08-11 15:34:23

End at: 2017-08-11 15:34:53

Below is generated by plot.py at 2017-08-11 20:00:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.56 Mbit/s

95th percentile per-packet one-way delay: 137.766 ms

Loss rate: 1.26%

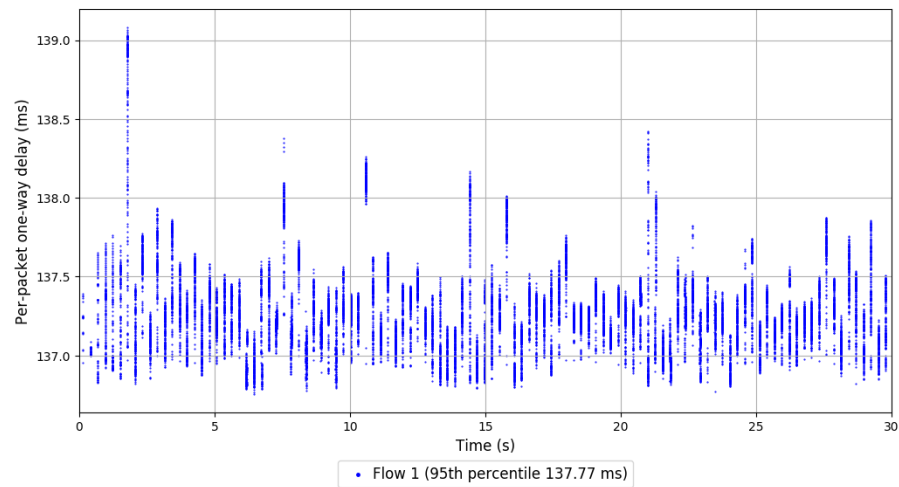
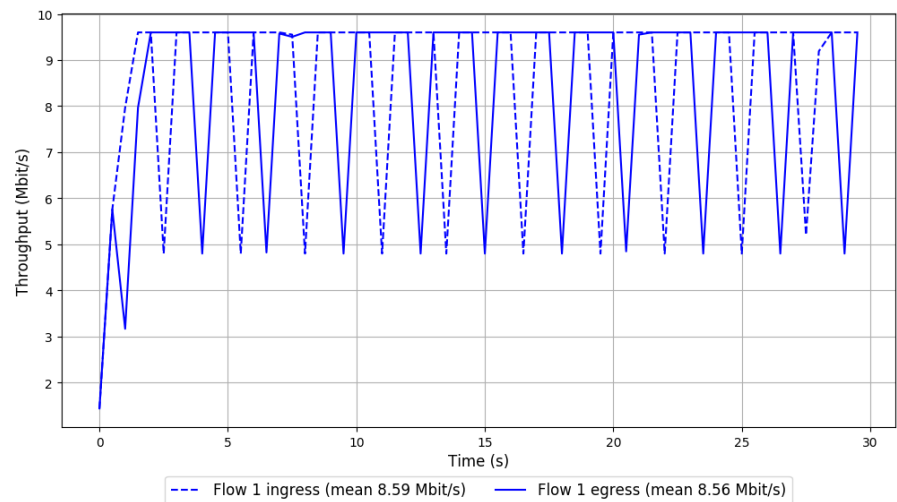
-- Flow 1:

Average throughput: 8.56 Mbit/s

95th percentile per-packet one-way delay: 137.766 ms

Loss rate: 1.26%

Run 2: Report of Saturator — Data Link



Run 3: Statistics of Saturator

Start at: 2017-08-11 15:46:07

End at: 2017-08-11 15:46:37

Below is generated by plot.py at 2017-08-11 20:00:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.64 Mbit/s

95th percentile per-packet one-way delay: 137.866 ms

Loss rate: 0.93%

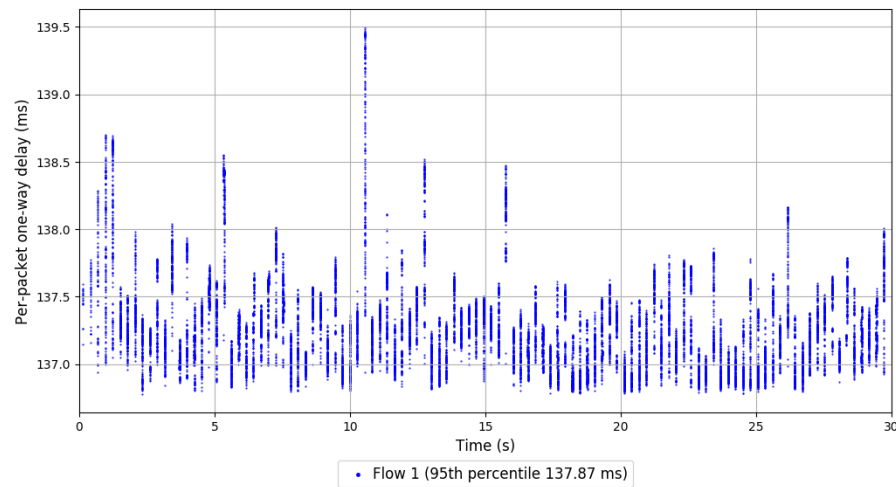
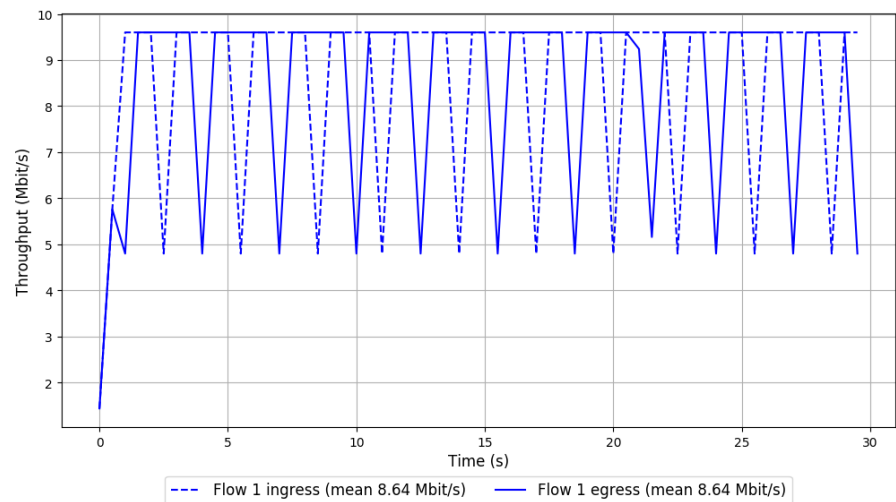
-- Flow 1:

Average throughput: 8.64 Mbit/s

95th percentile per-packet one-way delay: 137.866 ms

Loss rate: 0.93%

Run 3: Report of Saturator — Data Link



Run 4: Statistics of Saturator

Start at: 2017-08-11 15:57:53

End at: 2017-08-11 15:58:23

Below is generated by plot.py at 2017-08-11 20:00:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.60 Mbit/s

95th percentile per-packet one-way delay: 137.991 ms

Loss rate: 1.03%

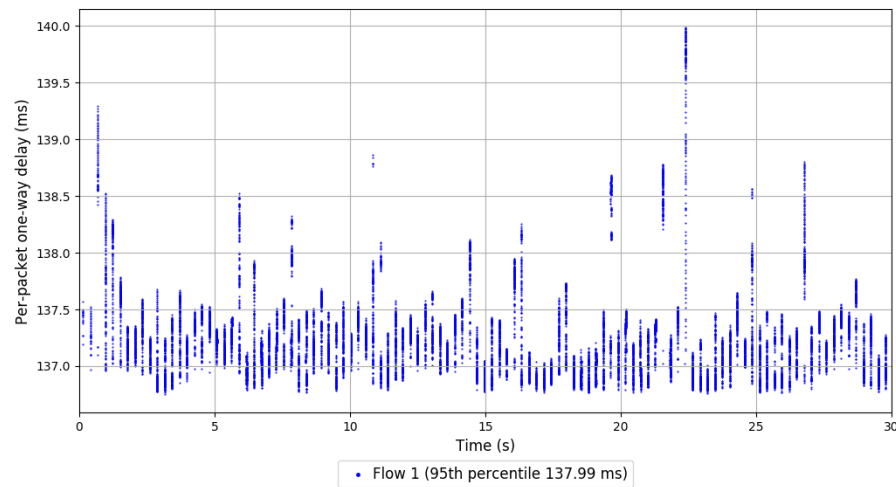
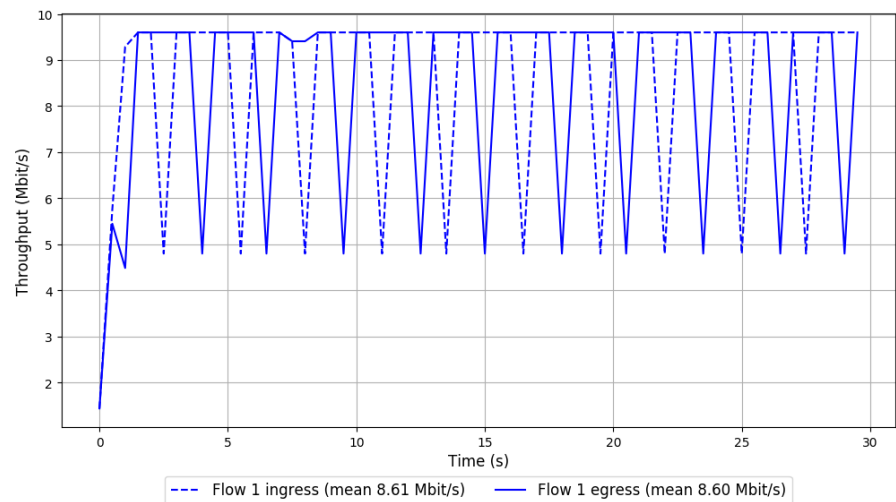
-- Flow 1:

Average throughput: 8.60 Mbit/s

95th percentile per-packet one-way delay: 137.991 ms

Loss rate: 1.03%

Run 4: Report of Saturator — Data Link



Run 5: Statistics of Saturator

Start at: 2017-08-11 16:09:51

End at: 2017-08-11 16:10:21

Below is generated by plot.py at 2017-08-11 20:00:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 137.735 ms

Loss rate: 0.96%

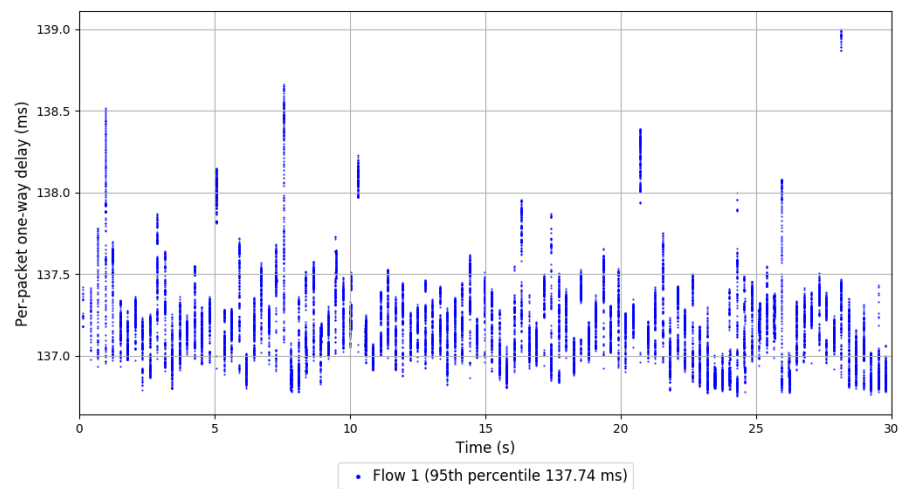
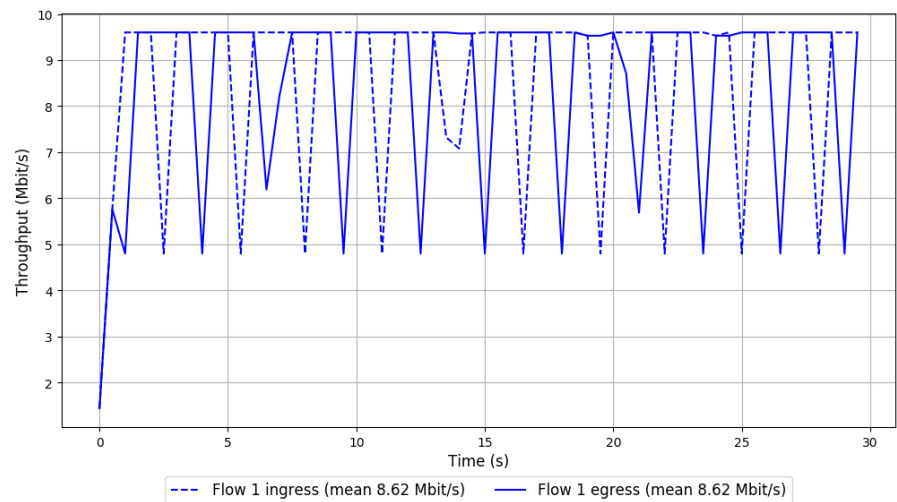
-- Flow 1:

Average throughput: 8.62 Mbit/s

95th percentile per-packet one-way delay: 137.735 ms

Loss rate: 0.96%

Run 5: Report of Saturator — Data Link



Run 6: Statistics of Saturator

Start at: 2017-08-11 16:21:48

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

Below is generated by plot.py at 2017-08-11 20:00:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.45 Mbit/s

95th percentile per-packet one-way delay: 137.573 ms

Loss rate: 1.87%

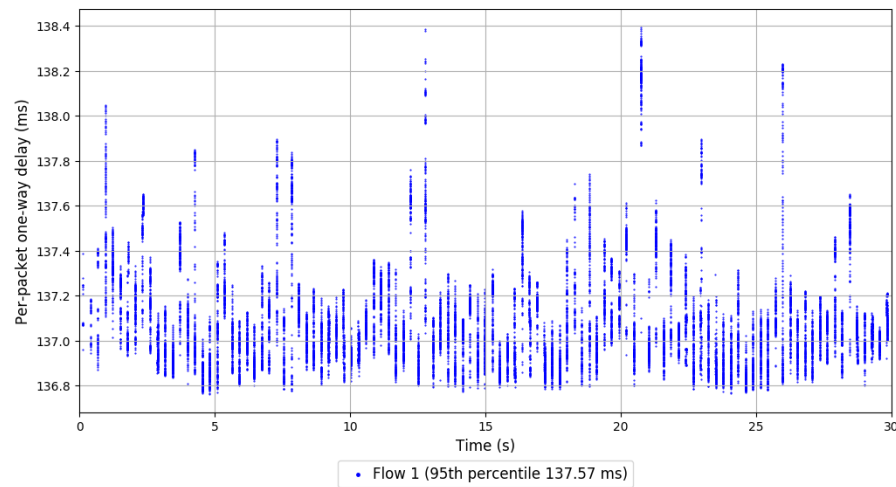
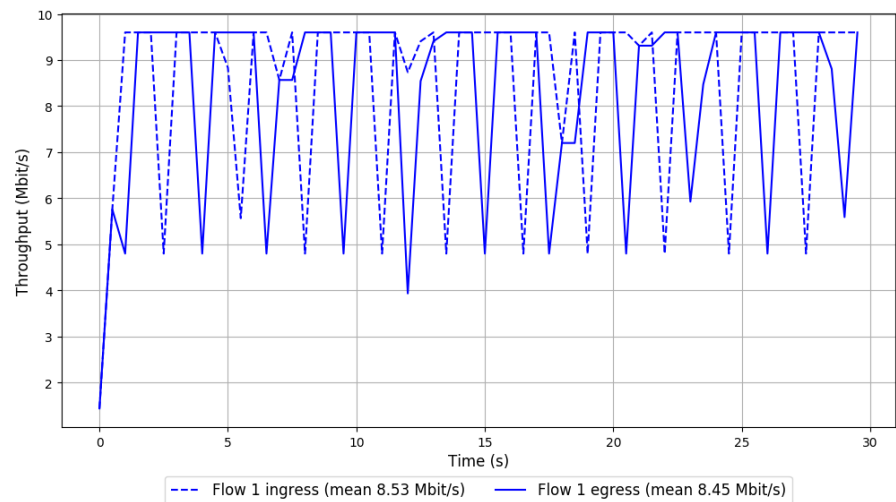
-- Flow 1:

Average throughput: 8.45 Mbit/s

95th percentile per-packet one-way delay: 137.573 ms

Loss rate: 1.87%

Run 6: Report of Saturator — Data Link



Run 7: Statistics of Saturator

Start at: 2017-08-11 16:34:10

End at: 2017-08-11 16:34:40

Below is generated by plot.py at 2017-08-11 20:00:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 137.956 ms

Loss rate: 1.87%

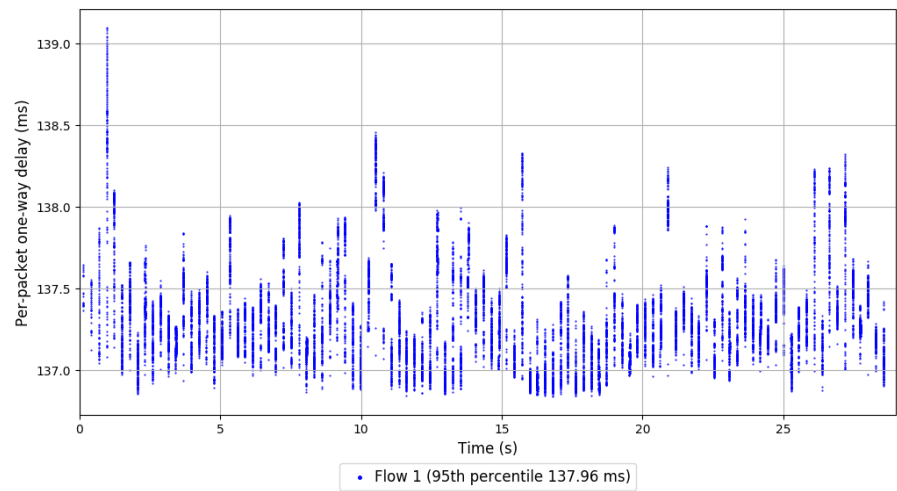
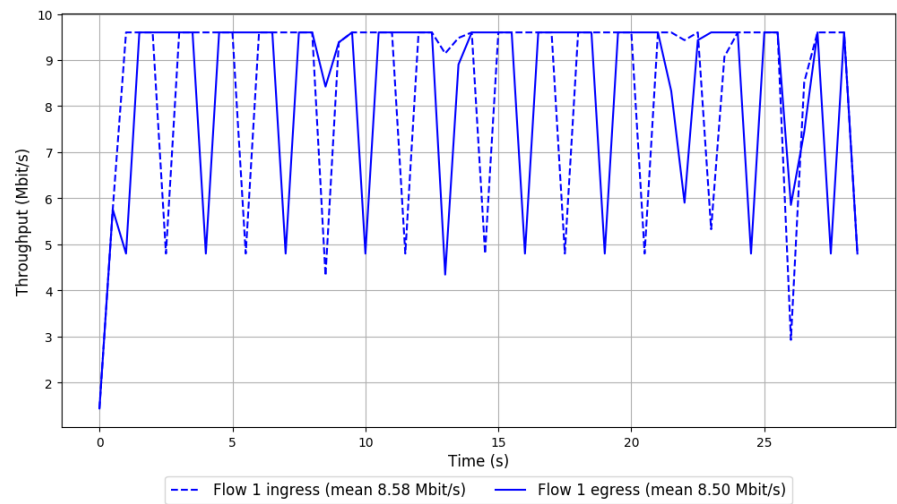
-- Flow 1:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 137.956 ms

Loss rate: 1.87%

Run 7: Report of Saturator — Data Link



Run 8: Statistics of Saturator

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

End at: 2017-08-11 16:46:38

Below is generated by plot.py at 2017-08-11 20:00:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 137.991 ms

Loss rate: 1.47%

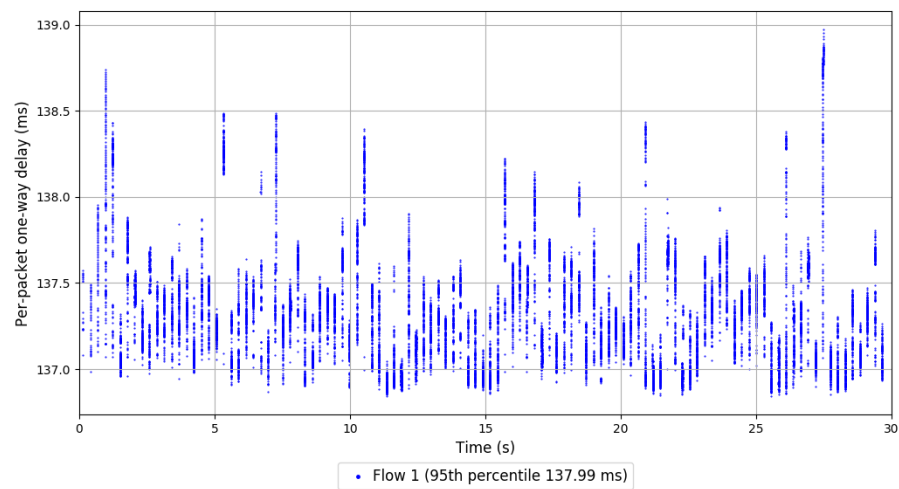
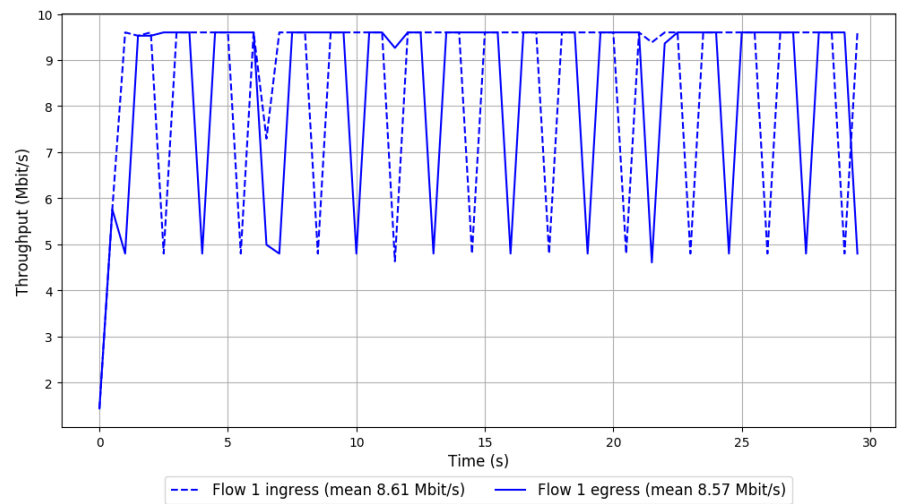
-- Flow 1:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 137.991 ms

Loss rate: 1.47%

Run 8: Report of Saturator — Data Link



Run 9: Statistics of Saturator

Start at: 2017-08-11 16:58:24

End at: 2017-08-11 16:58:54

Below is generated by plot.py at 2017-08-11 20:00:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.61 Mbit/s

95th percentile per-packet one-way delay: 137.862 ms

Loss rate: 1.11%

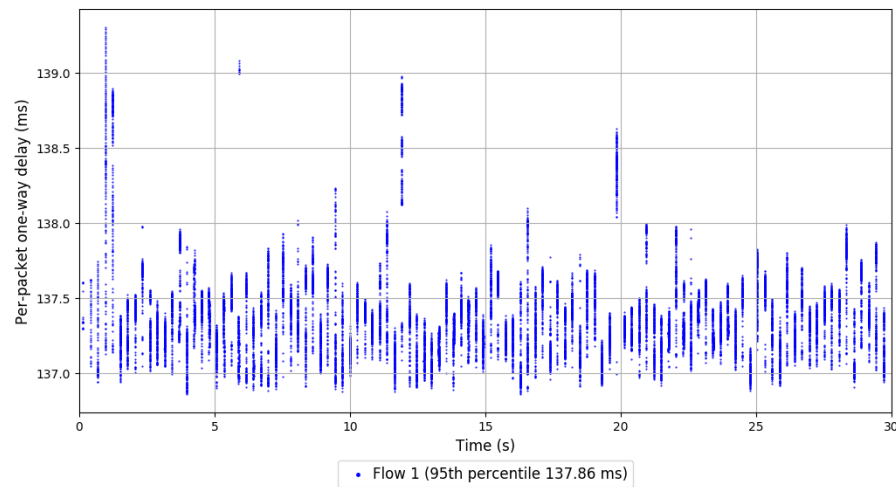
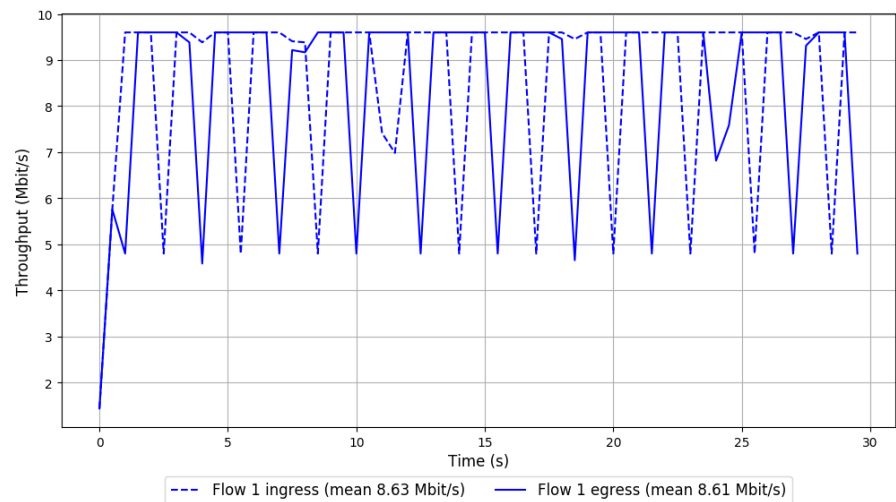
-- Flow 1:

Average throughput: 8.61 Mbit/s

95th percentile per-packet one-way delay: 137.862 ms

Loss rate: 1.11%

Run 9: Report of Saturator — Data Link



Run 10: Statistics of Saturator

Start at: 2017-08-11 17:10:15

End at: 2017-08-11 17:10:45

Below is generated by plot.py at 2017-08-11 20:00:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.55 Mbit/s

95th percentile per-packet one-way delay: 138.046 ms

Loss rate: 1.27%

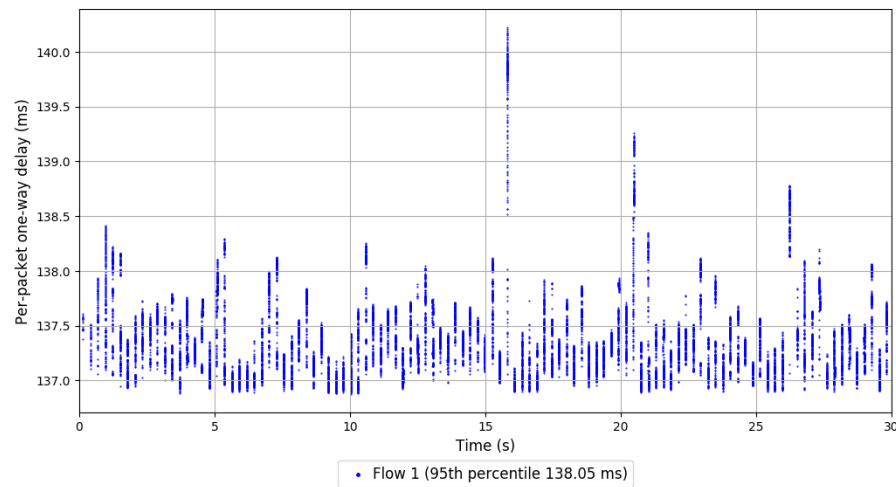
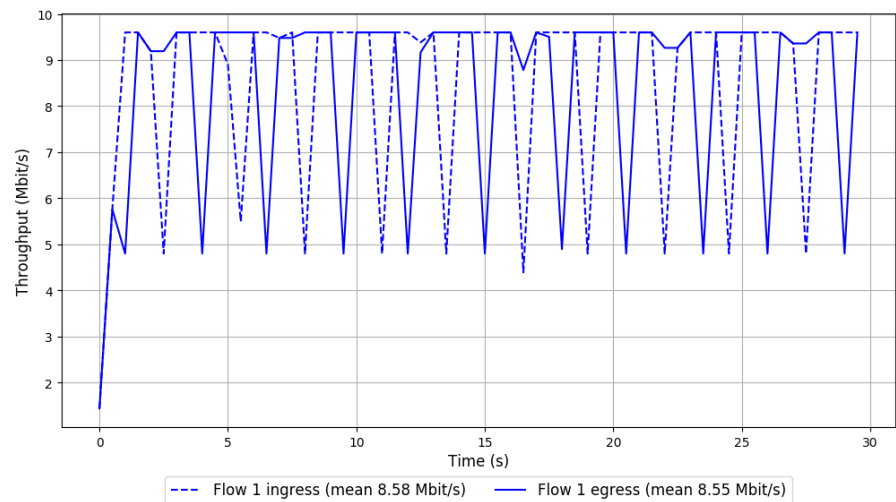
-- Flow 1:

Average throughput: 8.55 Mbit/s

95th percentile per-packet one-way delay: 138.046 ms

Loss rate: 1.27%

Run 10: Report of Saturator — Data Link

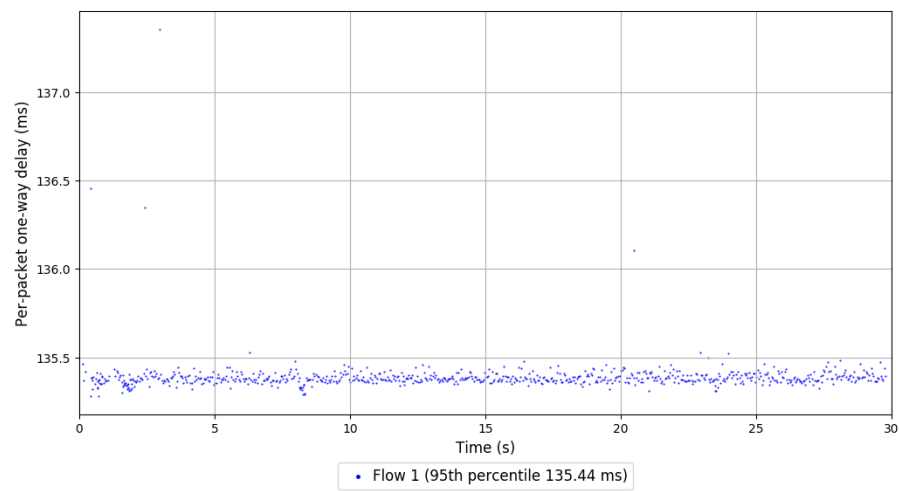
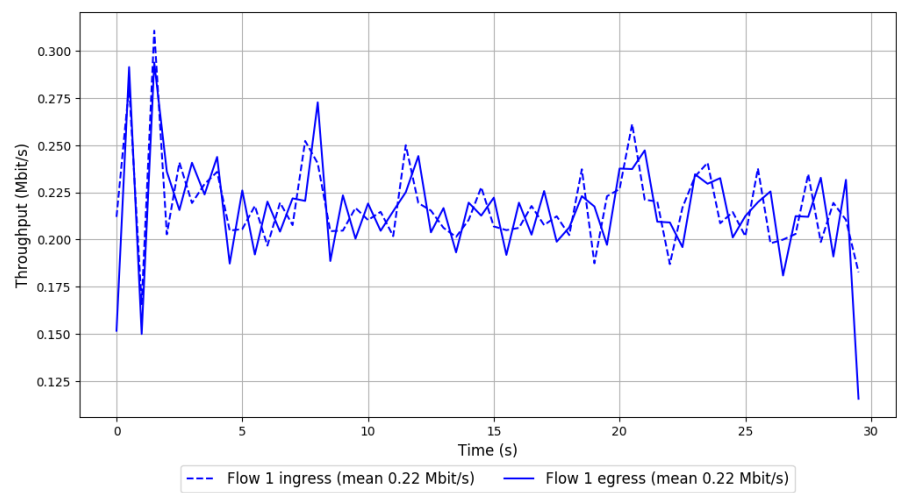


```
Run 1: Statistics of SCReAM

Start at: 2017-08-11 15:21:03
End at: 2017-08-11 15:21:33

# Below is generated by plot.py at 2017-08-11 20:00:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.440 ms
Loss rate: 0.89%
```

Run 1: Report of SCRaM — Data Link

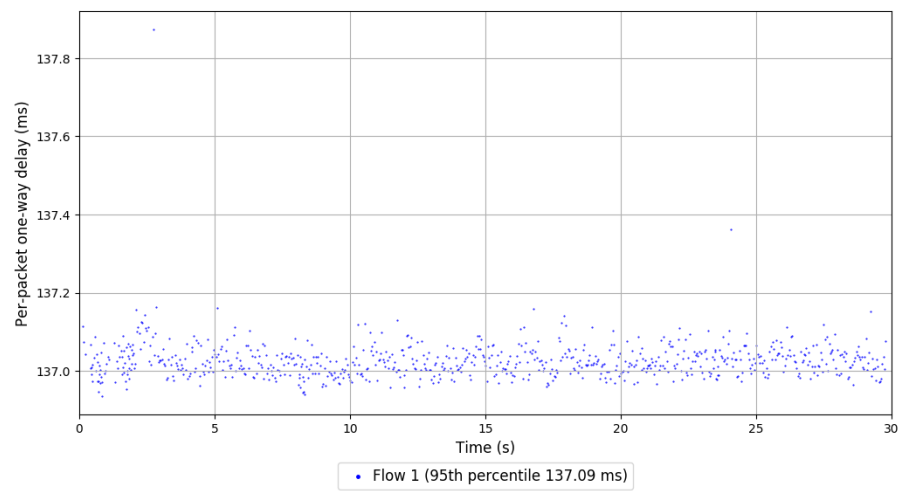
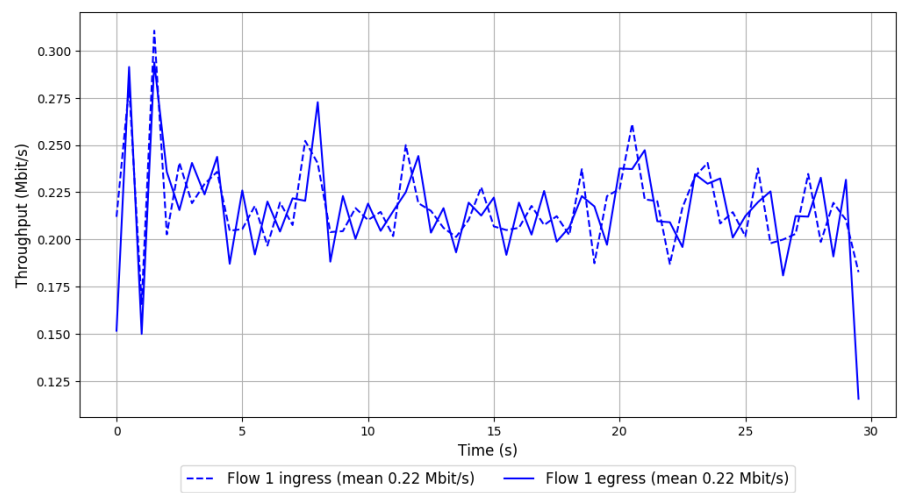


```
Run 2: Statistics of SCReAM

Start at: 2017-08-11 15:32:59
End at: 2017-08-11 15:33:29

# Below is generated by plot.py at 2017-08-11 20:00:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.095 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.095 ms
Loss rate: 0.89%
```

Run 2: Report of SCRaM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-08-11 15:44:42

End at: 2017-08-11 15:45:12

Below is generated by plot.py at 2017-08-11 20:00:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.465 ms

Loss rate: 0.89%

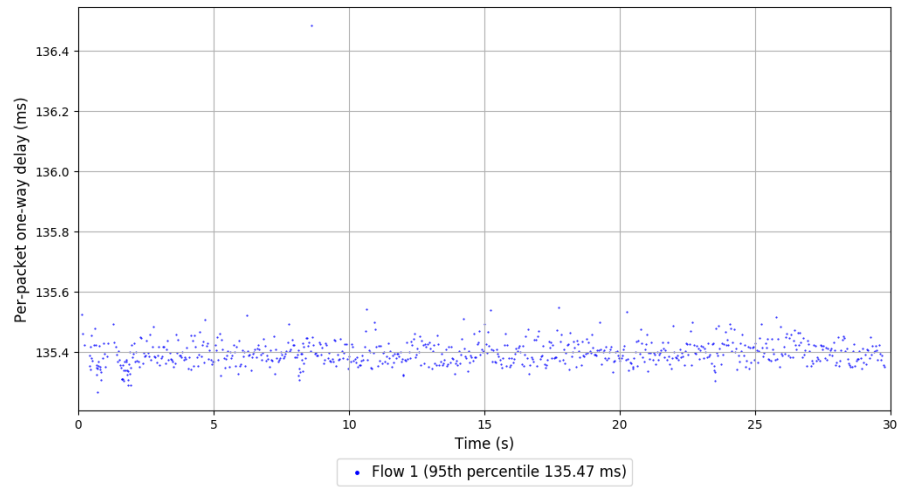
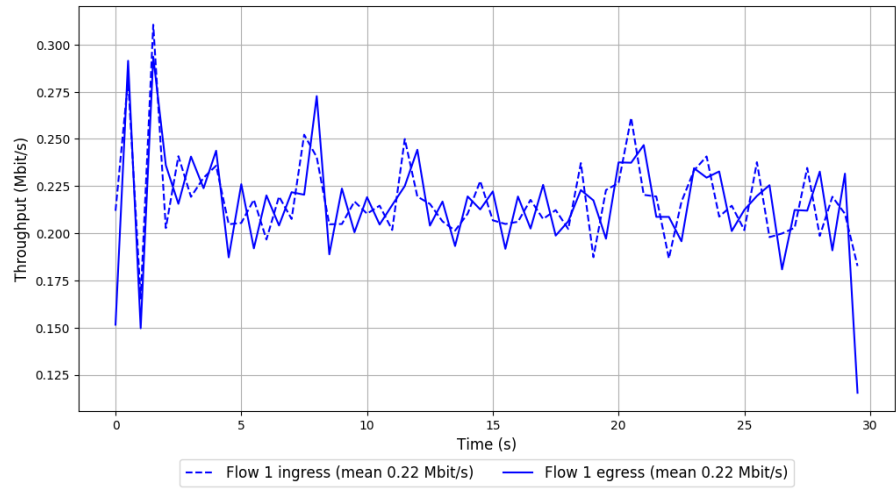
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.465 ms

Loss rate: 0.89%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-08-11 15:56:28

End at: 2017-08-11 15:56:58

Below is generated by plot.py at 2017-08-11 20:00:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.024 ms

Loss rate: 0.89%

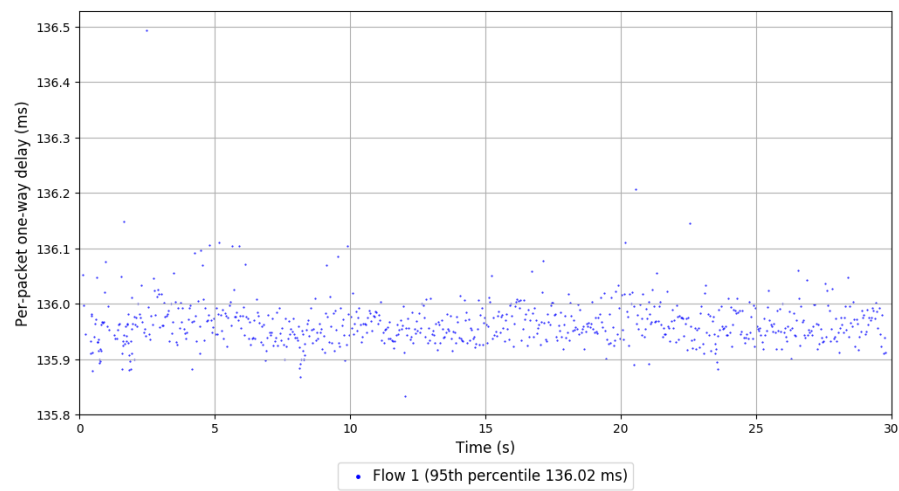
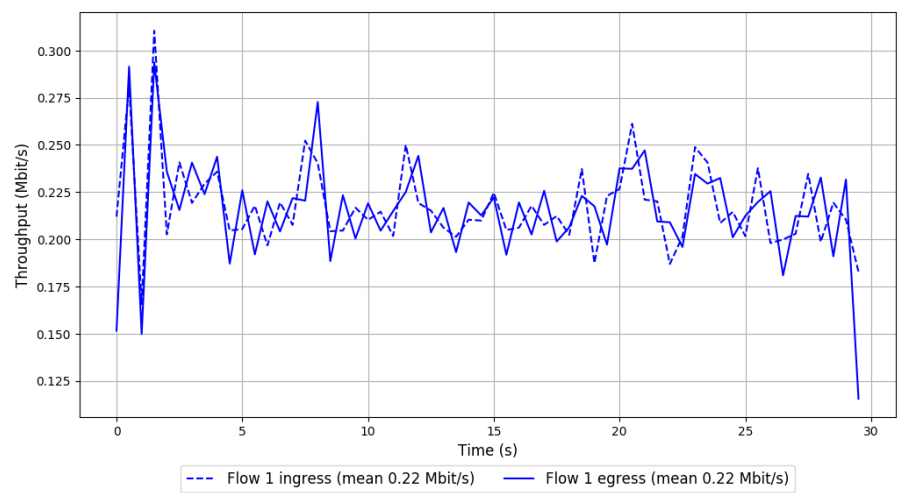
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.024 ms

Loss rate: 0.89%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-11 16:08:26

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

Below is generated by plot.py at 2017-08-11 20:00:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.121 ms

Loss rate: 0.89%

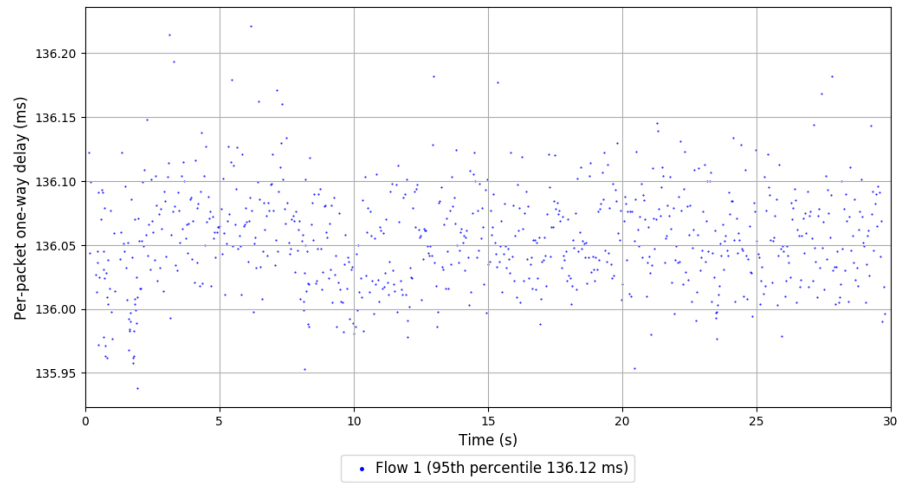
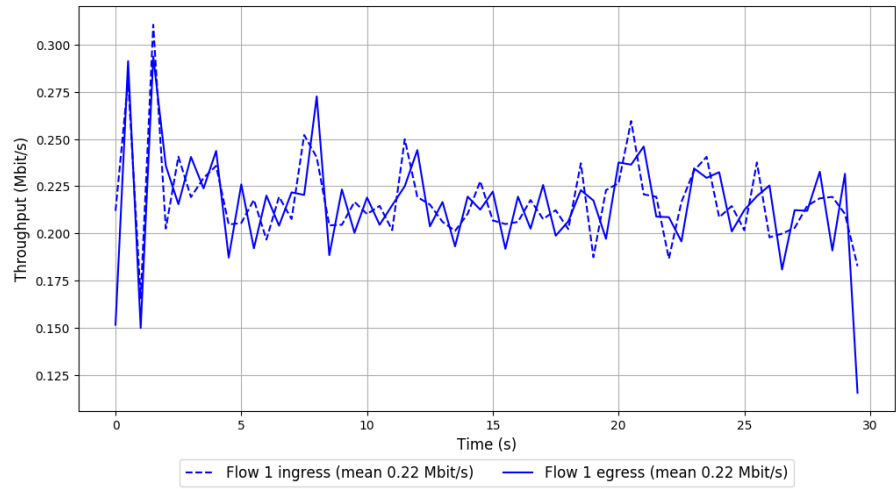
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.121 ms

Loss rate: 0.89%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-11 16:20:23

End at: 2017-08-11 16:20:53

Below is generated by plot.py at 2017-08-11 20:00:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.536 ms

Loss rate: 0.89%

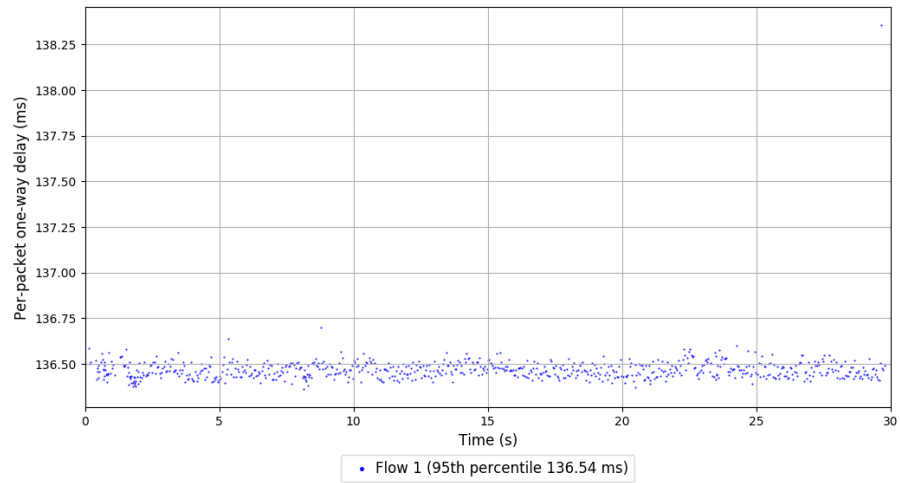
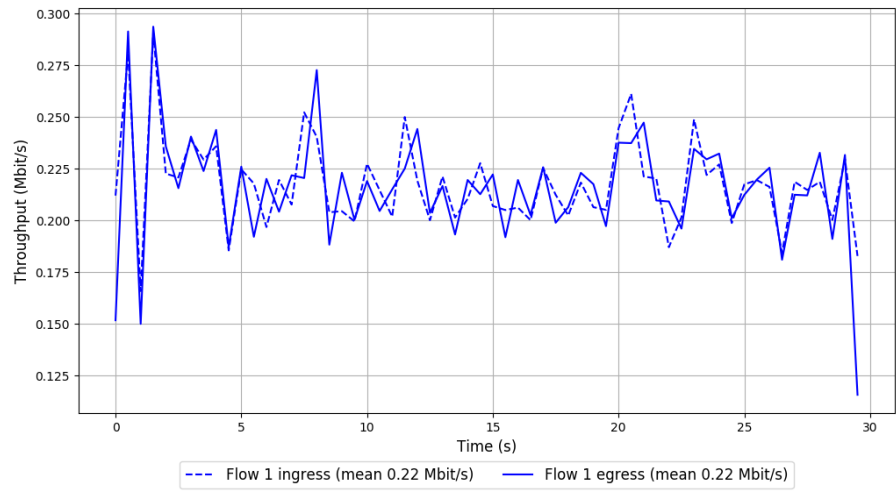
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.536 ms

Loss rate: 0.89%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-08-11 16:32:45

End at: 2017-08-11 16:33:15

Below is generated by plot.py at 2017-08-11 20:00:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.484 ms

Loss rate: 0.89%

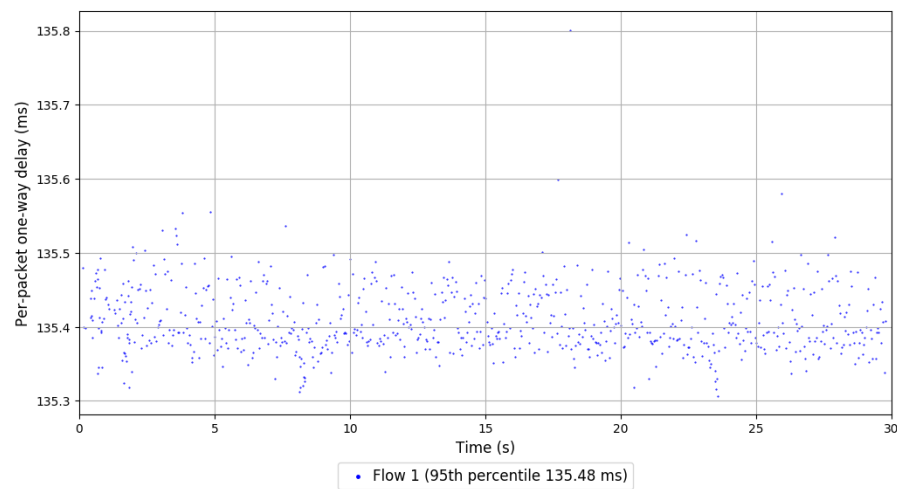
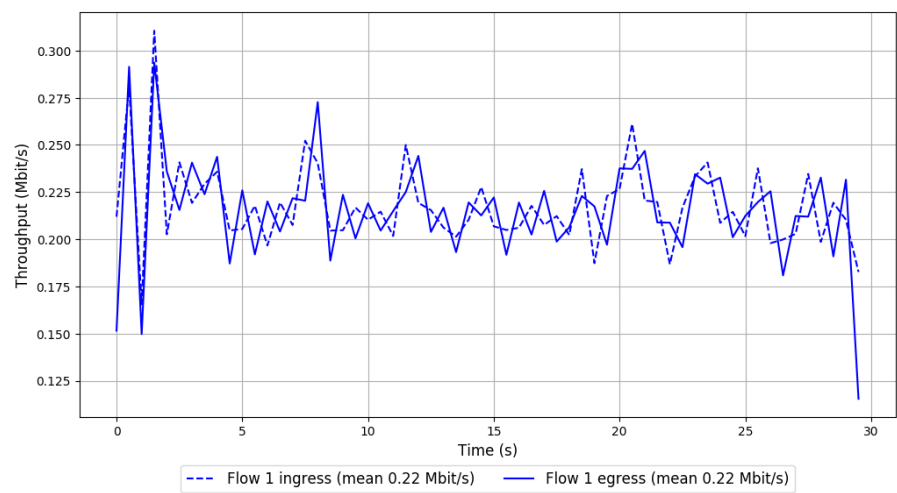
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.484 ms

Loss rate: 0.89%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-11 16:44:43

End at: 2017-08-11 16:45:13

Below is generated by plot.py at 2017-08-11 20:00:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.071 ms

Loss rate: 0.90%

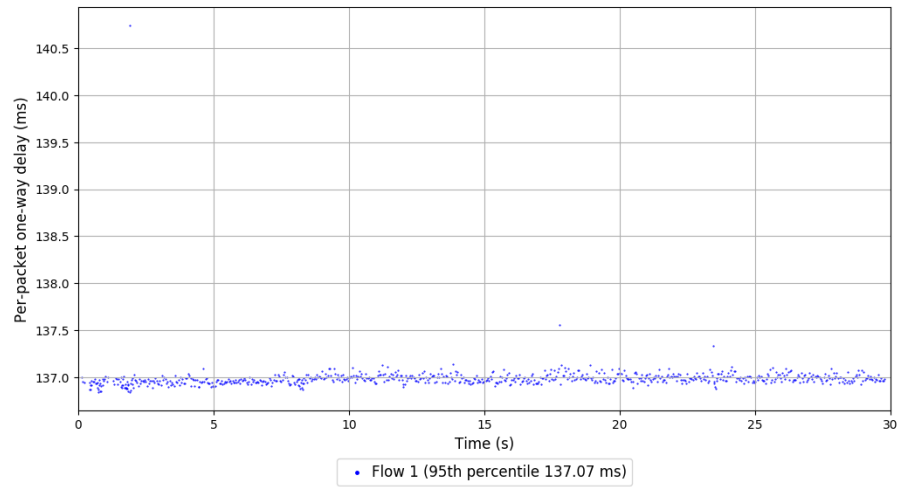
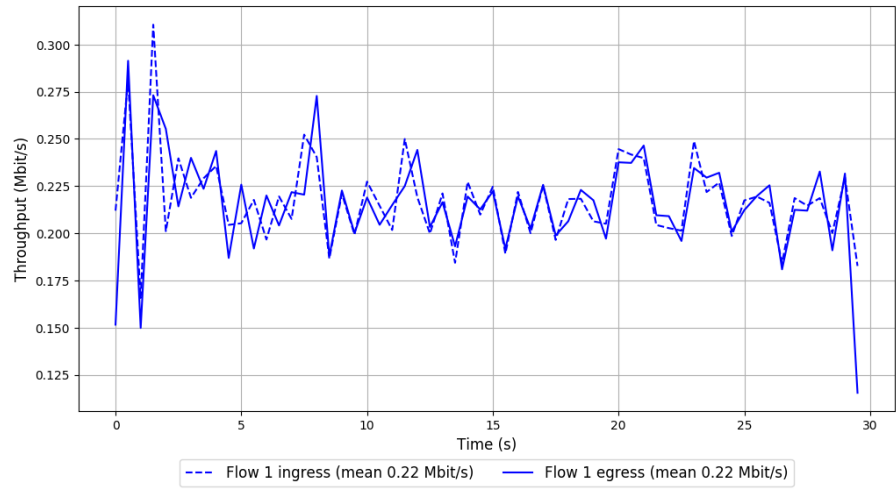
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.071 ms

Loss rate: 0.90%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-08-11 16:56:59

End at: 2017-08-11 16:57:29

Below is generated by plot.py at 2017-08-11 20:00:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.055 ms

Loss rate: 0.89%

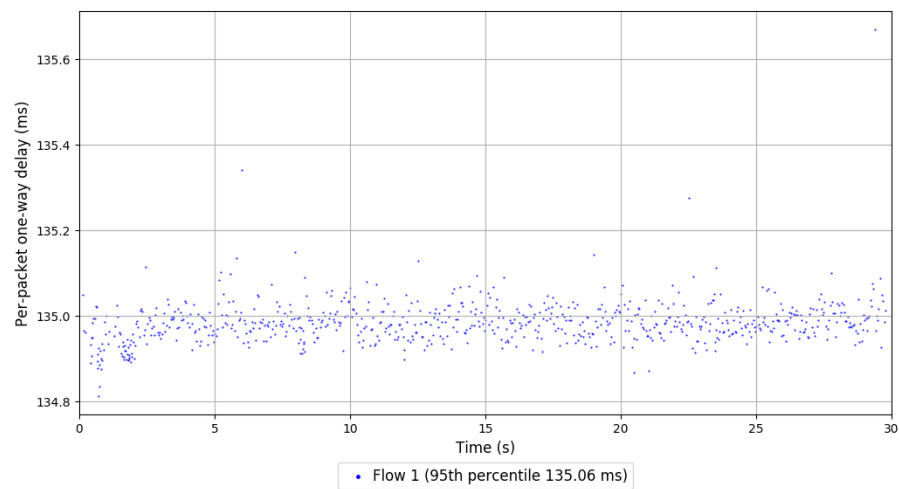
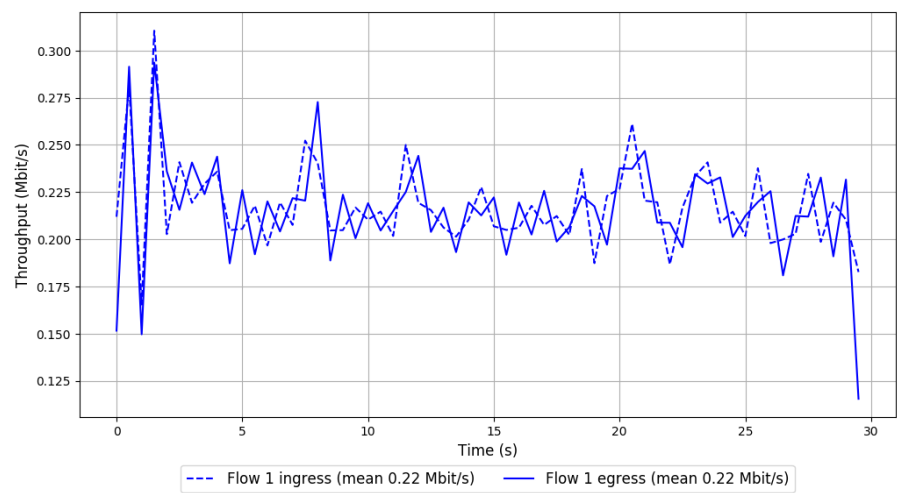
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.055 ms

Loss rate: 0.89%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

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

End at: 2017-08-11 17:09:21

Below is generated by plot.py at 2017-08-11 20:00:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.072 ms

Loss rate: 0.89%

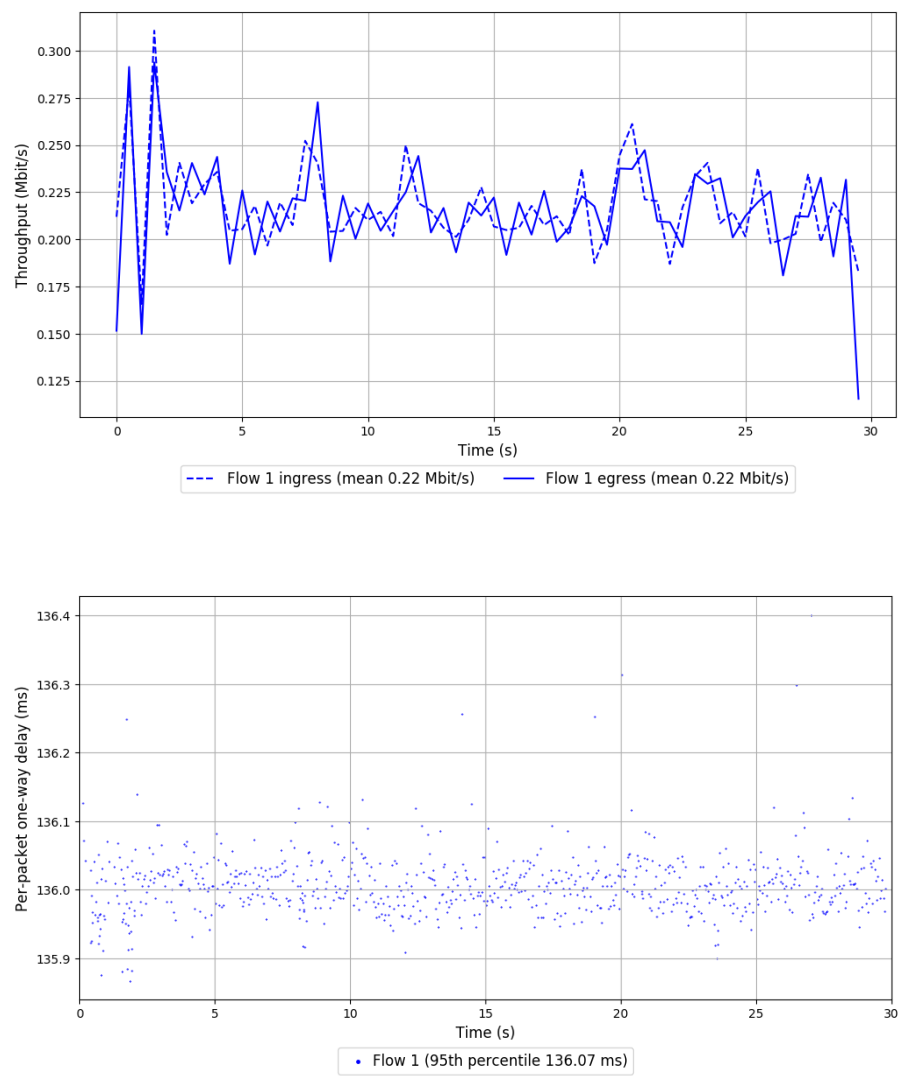
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.072 ms

Loss rate: 0.89%

Run 10: Report of SReAM — Data Link

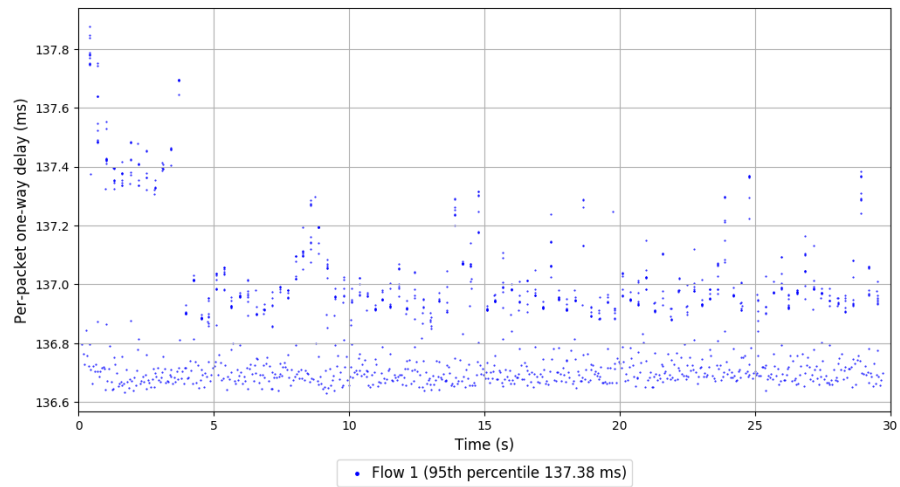
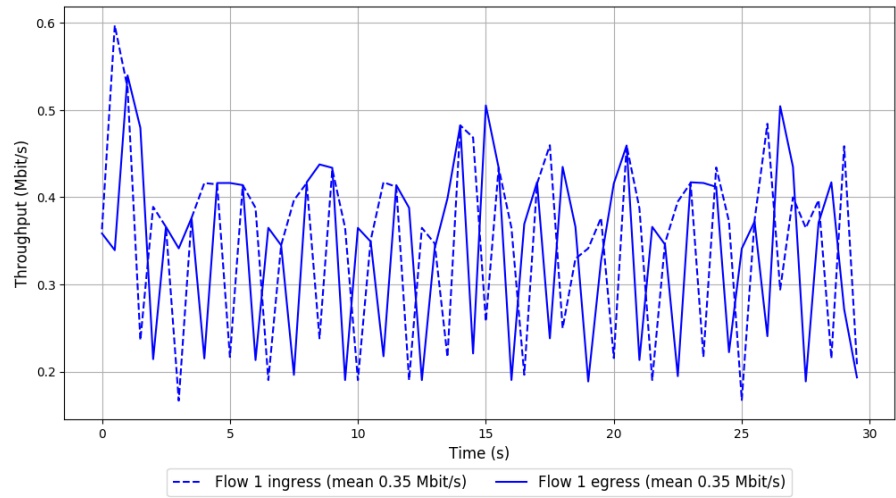


```
Run 1: Statistics of Sprout

Start at: 2017-08-11 15:32:17
End at: 2017-08-11 15:32:47

# Below is generated by plot.py at 2017-08-11 20:00:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 137.379 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 137.379 ms
Loss rate: 0.98%
```


Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-11 15:44:00

End at: 2017-08-11 15:44:30

Below is generated by plot.py at 2017-08-11 20:01:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.86%

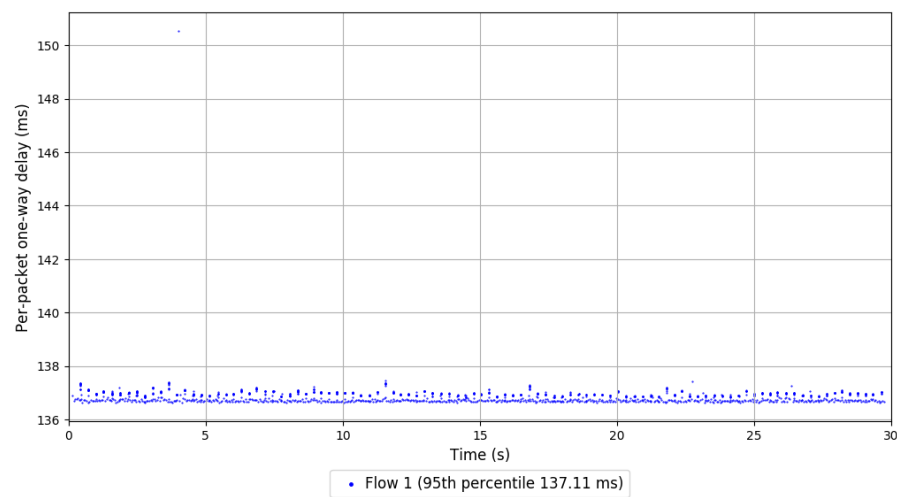
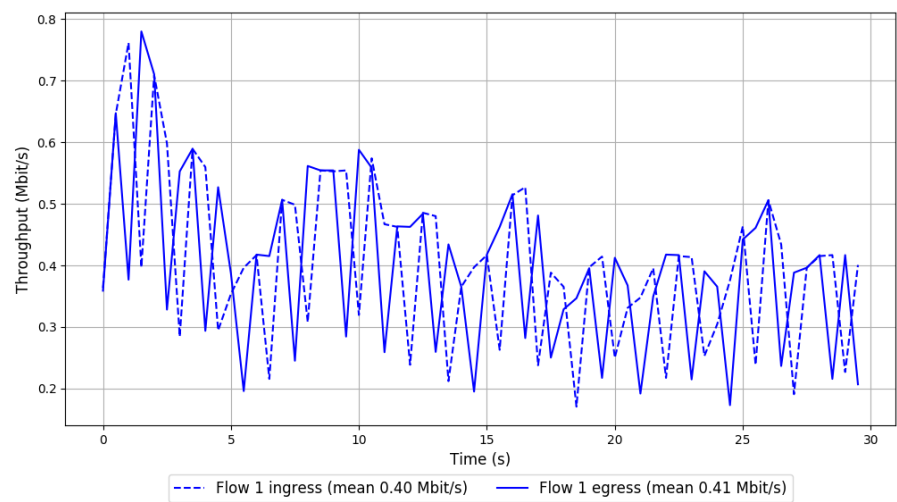
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.86%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-11 15:55:46

End at: 2017-08-11 15:56:16

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 137.099 ms

Loss rate: 1.65%

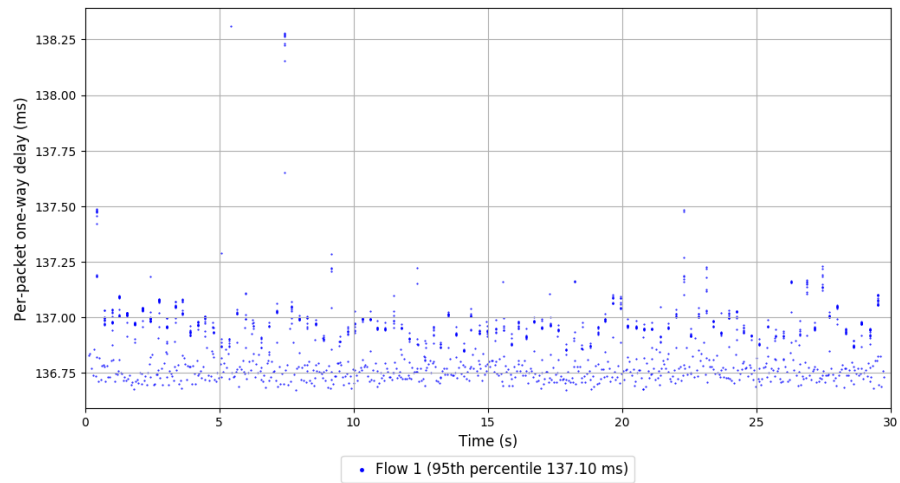
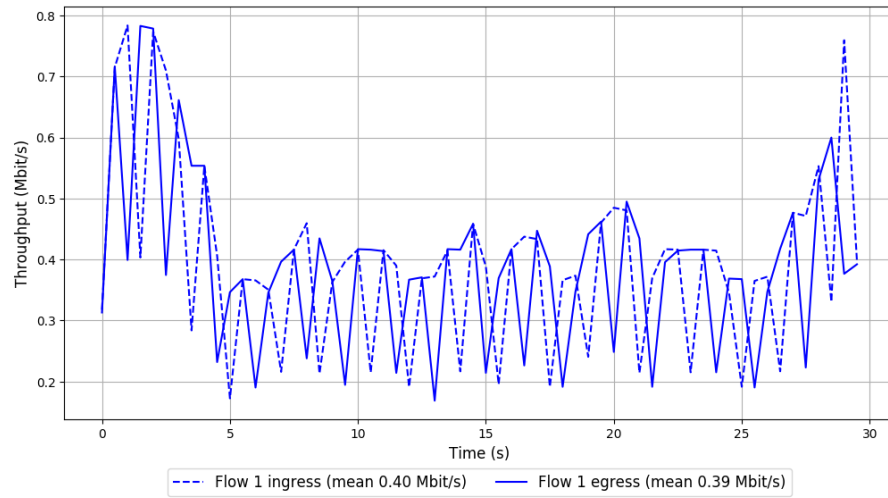
-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 137.099 ms

Loss rate: 1.65%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-11 16:07:44

End at: 2017-08-11 16:08:14

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.182 ms

Loss rate: 0.83%

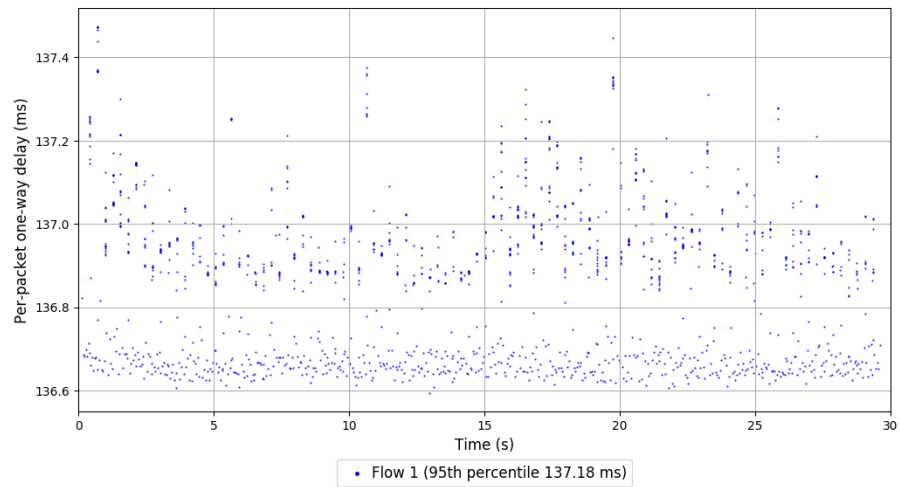
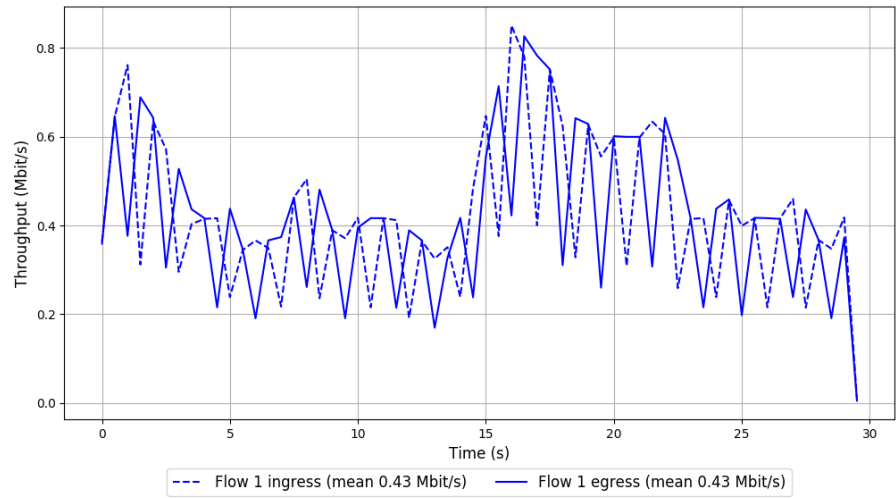
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.182 ms

Loss rate: 0.83%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-11 16:19:41

End at: 2017-08-11 16:20:11

Below is generated by plot.py at 2017-08-11 20:01:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 137.080 ms

Loss rate: 0.99%

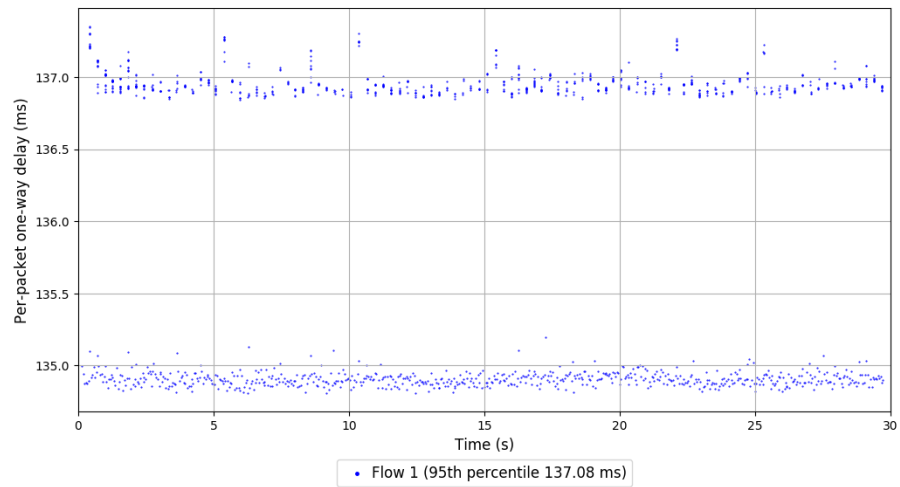
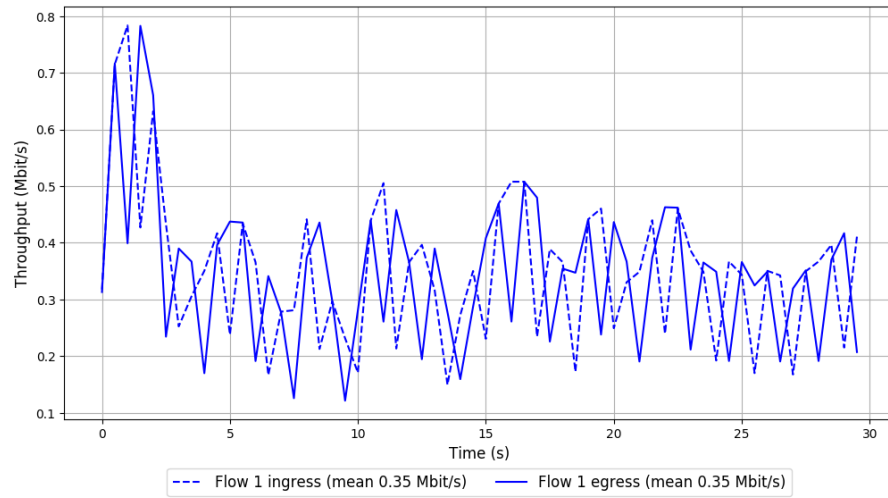
-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 137.080 ms

Loss rate: 0.99%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-11 16:32:02

End at: 2017-08-11 16:32:32

Below is generated by plot.py at 2017-08-11 20:01:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.142 ms

Loss rate: 0.76%

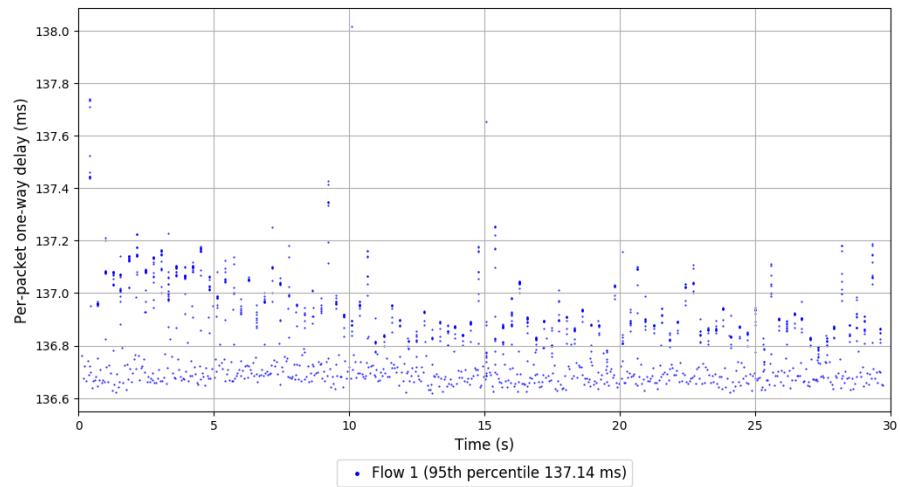
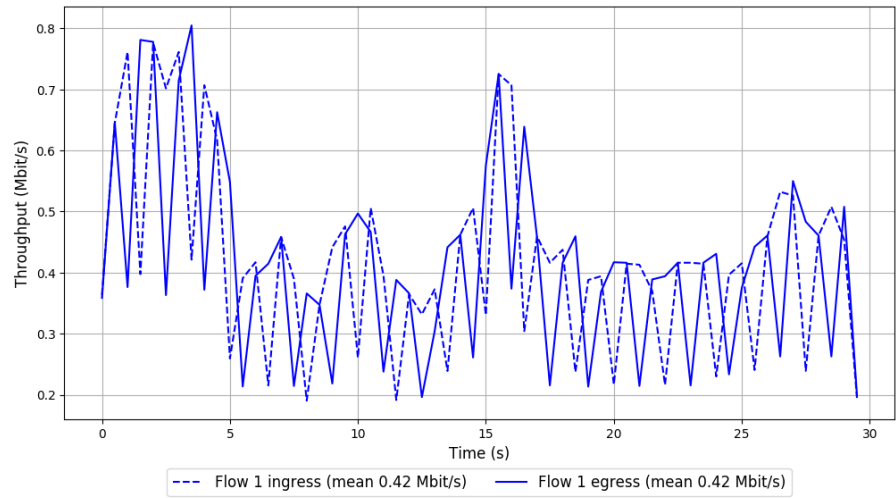
-- Flow 1:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.142 ms

Loss rate: 0.76%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-11 16:44:01

End at: 2017-08-11 16:44:31

Below is generated by plot.py at 2017-08-11 20:01:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.123 ms

Loss rate: 1.16%

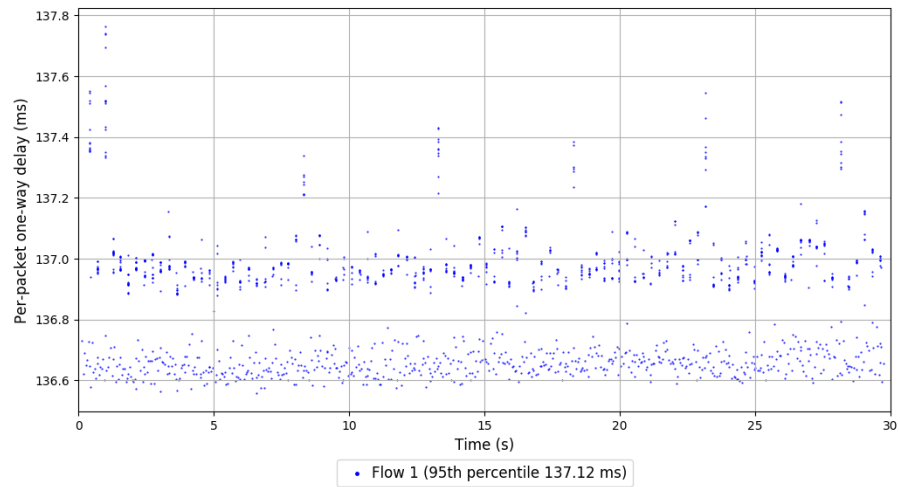
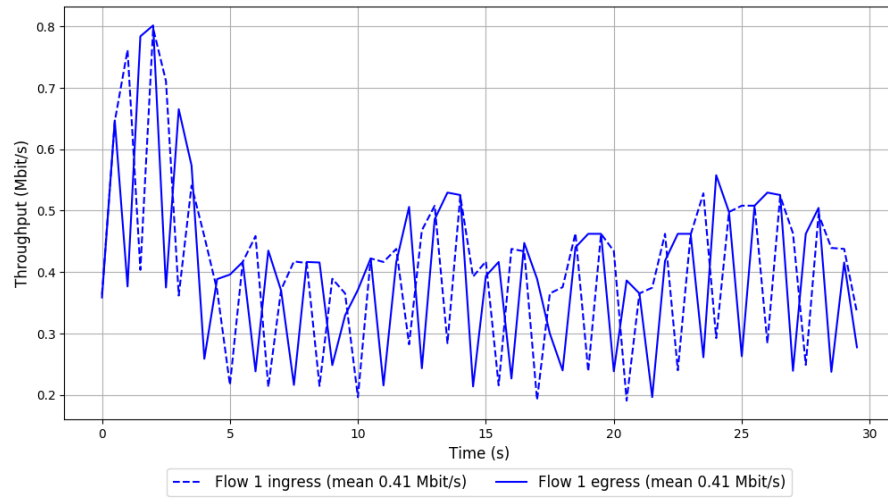
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.123 ms

Loss rate: 1.16%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-11 16:56:17

End at: 2017-08-11 16:56:47

Below is generated by plot.py at 2017-08-11 20:01:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 137.033 ms

Loss rate: 0.69%

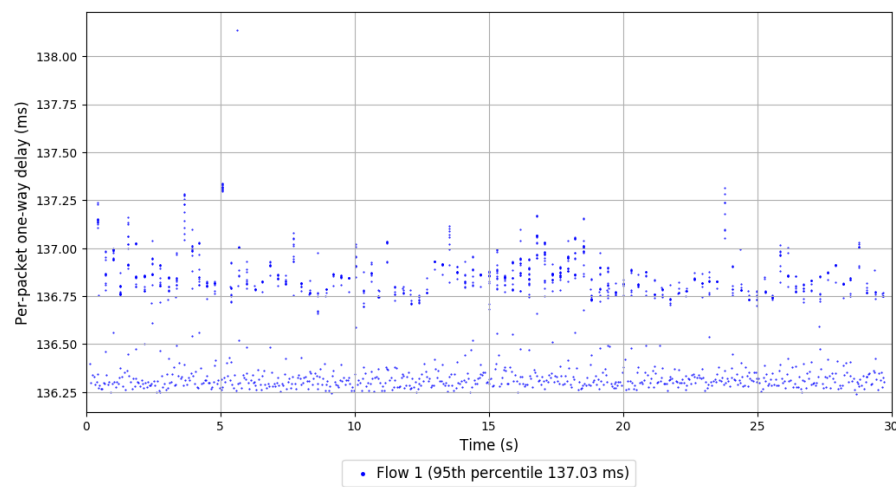
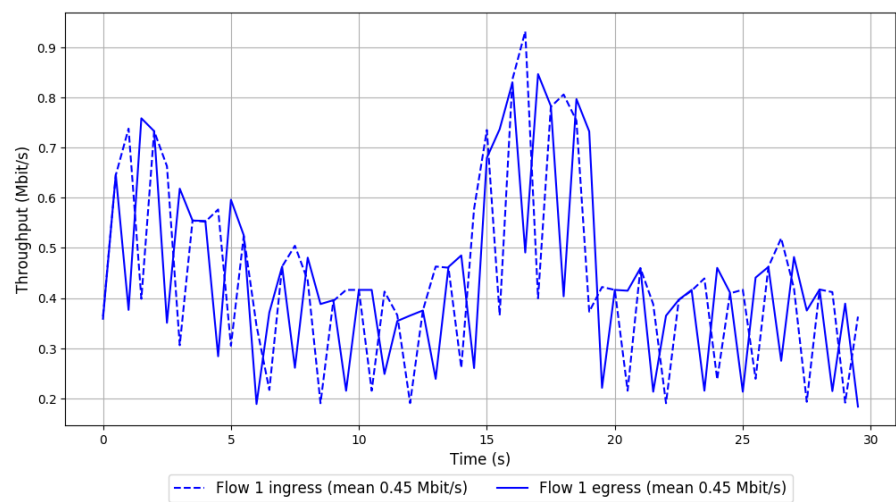
-- Flow 1:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 137.033 ms

Loss rate: 0.69%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

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

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

Below is generated by plot.py at 2017-08-11 20:01:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.199 ms

Loss rate: 0.81%

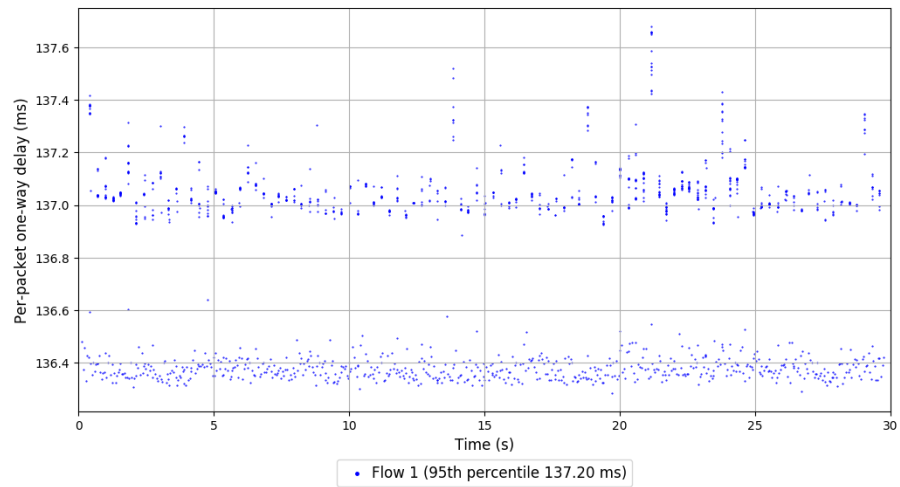
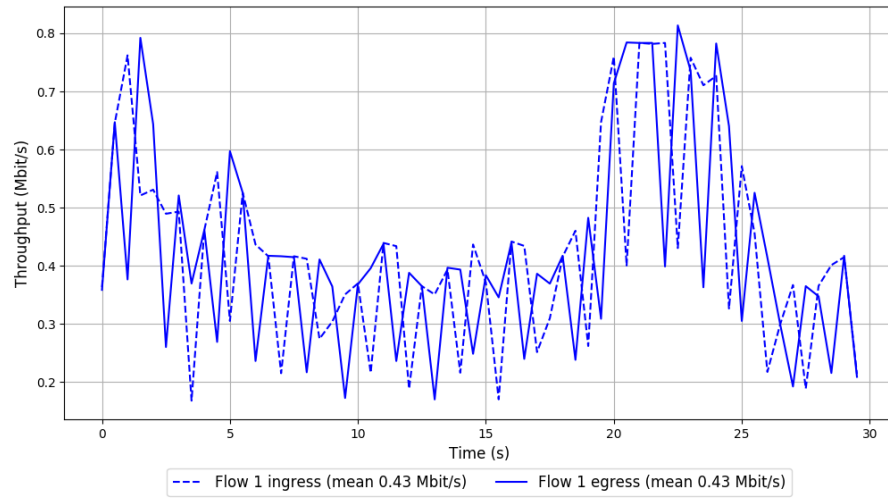
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.199 ms

Loss rate: 0.81%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-11 17:19:23

End at: 2017-08-11 17:19:53

Below is generated by plot.py at 2017-08-11 20:01:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 137.237 ms

Loss rate: 0.78%

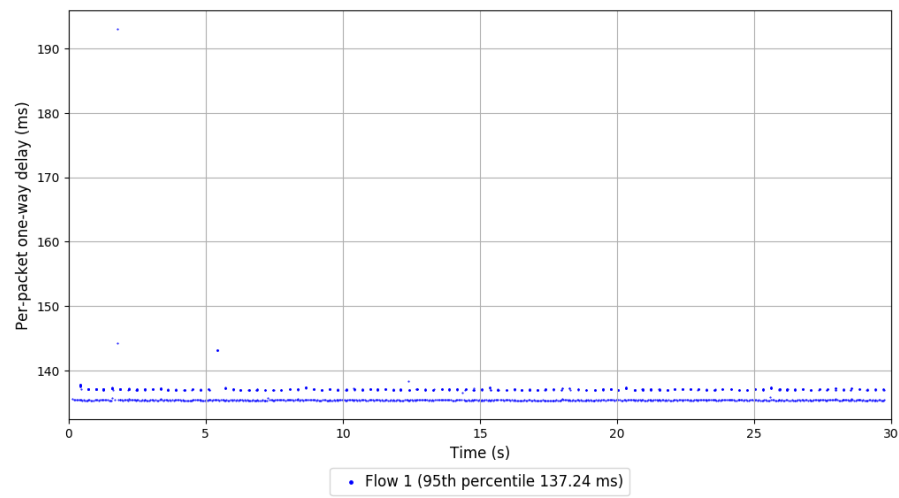
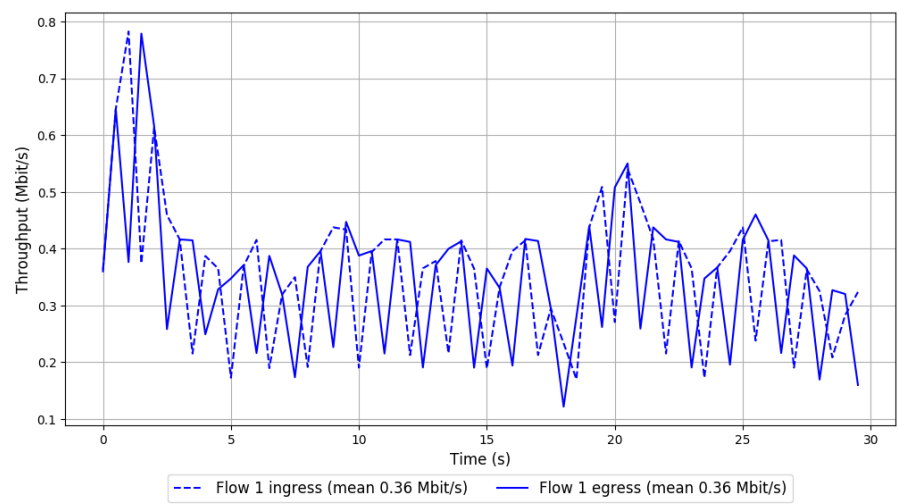
-- Flow 1:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 137.237 ms

Loss rate: 0.78%

Run 10: Report of Sprout — Data Link

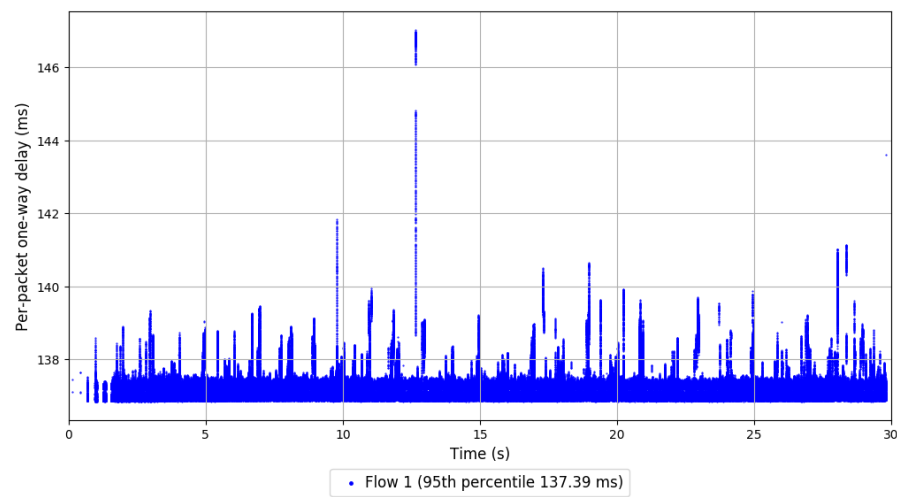
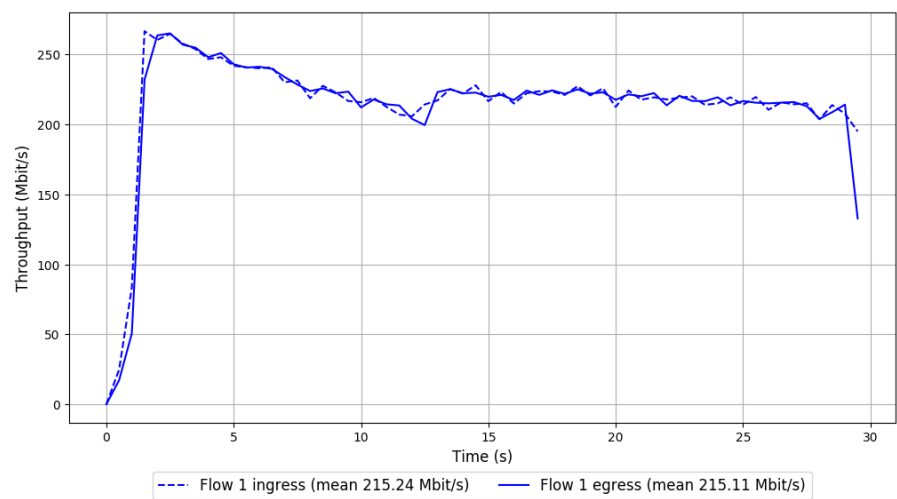


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-11 15:30:27
End at: 2017-08-11 15:30:57

# Below is generated by plot.py at 2017-08-11 20:02:22
# Datalink statistics
-- Total of 1 flow:
Average throughput: 215.11 Mbit/s
95th percentile per-packet one-way delay: 137.386 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 215.11 Mbit/s
95th percentile per-packet one-way delay: 137.386 ms
Loss rate: 0.95%
```

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

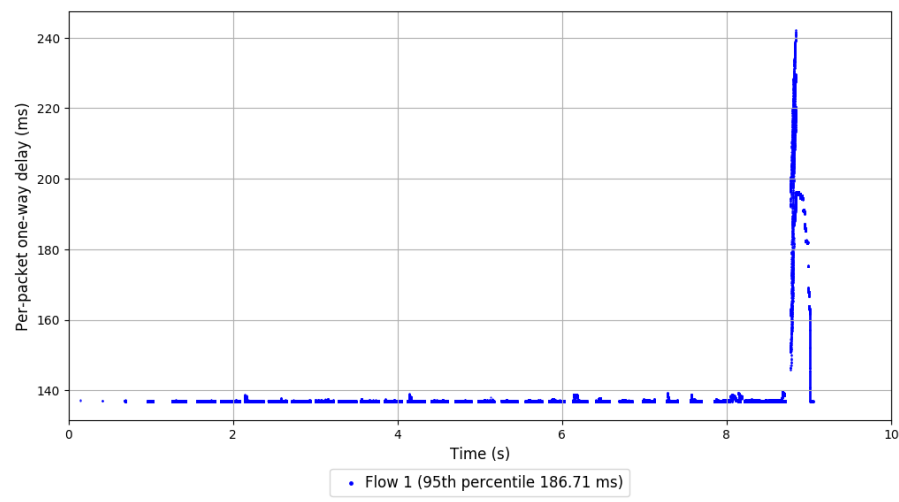
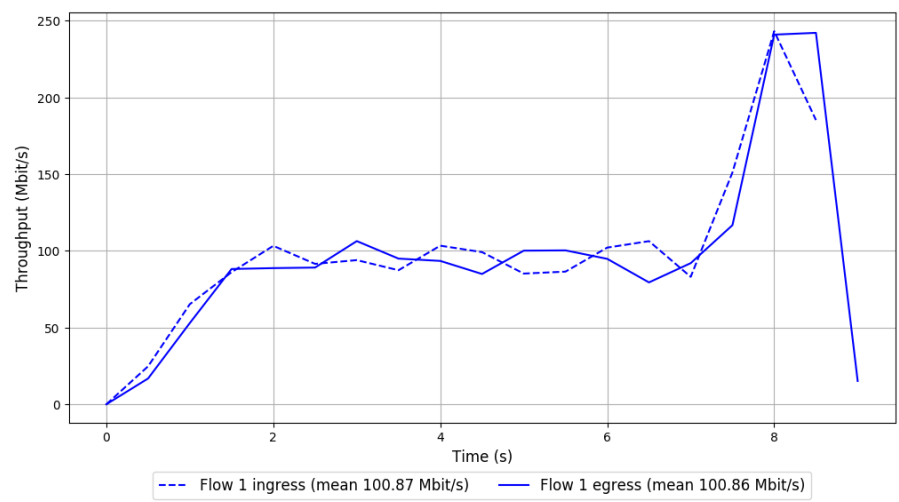


Run 2: Statistics of TaoVA-100x

Start at: 2017-08-11 15:42:30

End at: 2017-08-11 15:43:00

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-11 15:54:18

End at: 2017-08-11 15:54:48

Below is generated by plot.py at 2017-08-11 20:02:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.99 Mbit/s

95th percentile per-packet one-way delay: 136.884 ms

Loss rate: 0.94%

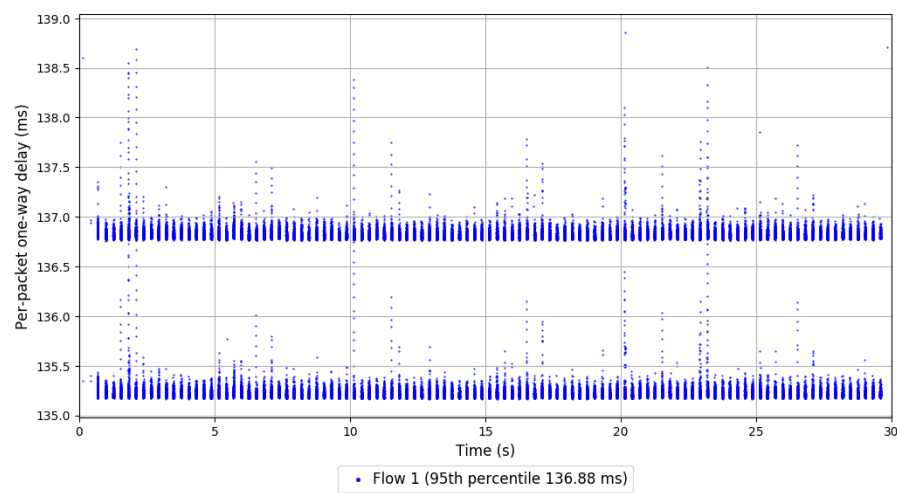
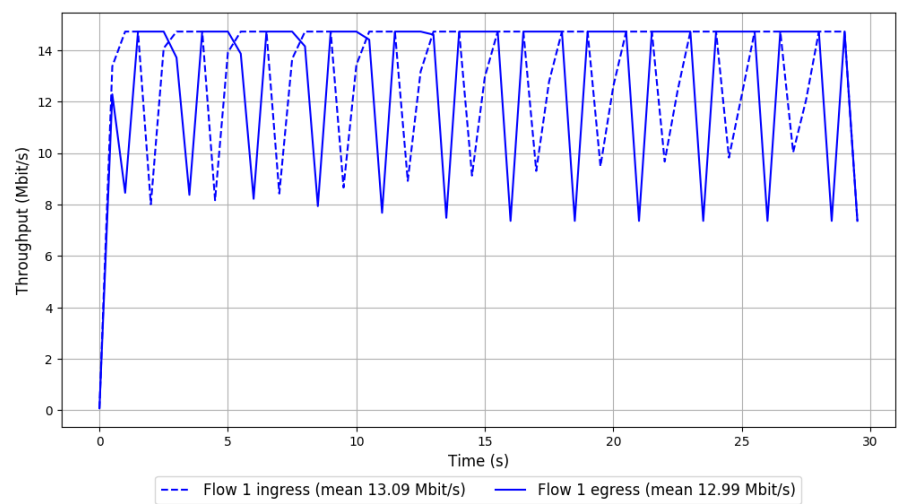
-- Flow 1:

Average throughput: 12.99 Mbit/s

95th percentile per-packet one-way delay: 136.884 ms

Loss rate: 0.94%

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

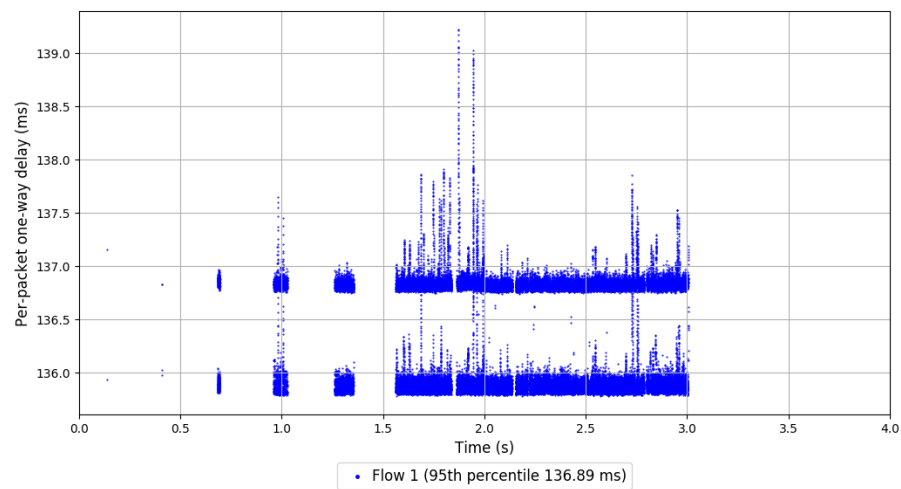
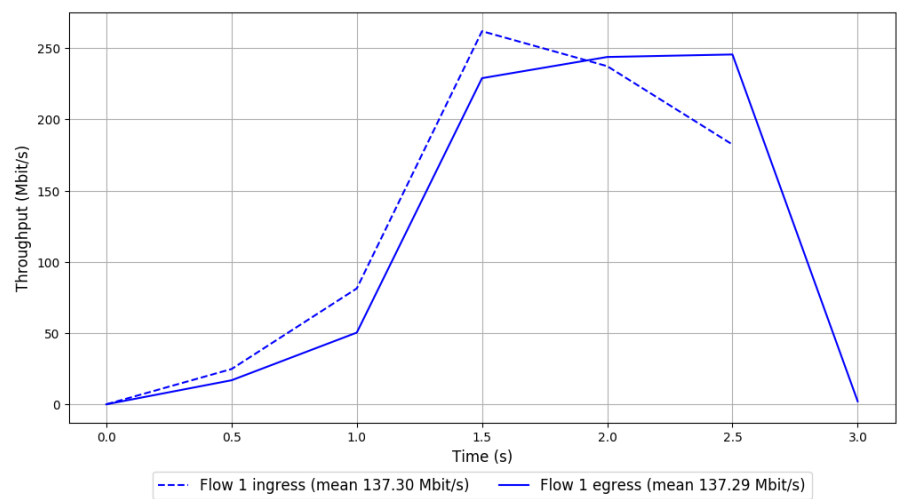


Run 4: Statistics of TaoVA-100x

Start at: 2017-08-11 16:06:16

End at: 2017-08-11 16:06:46

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

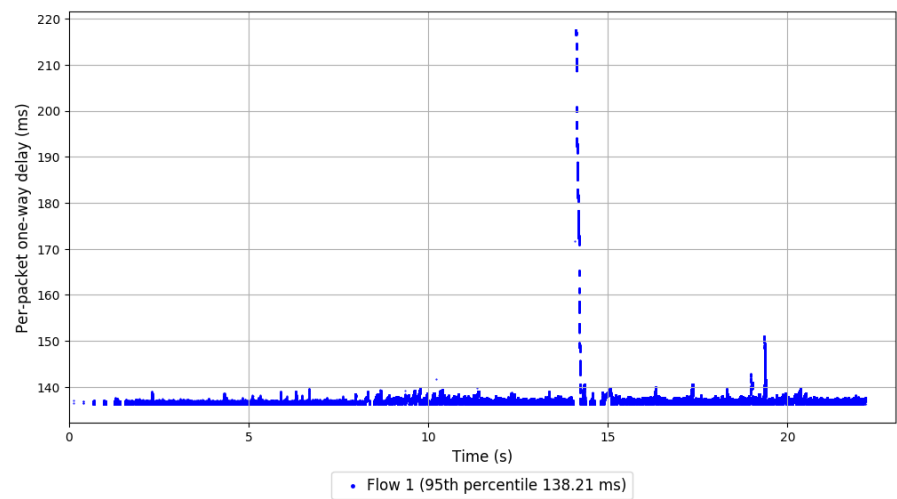
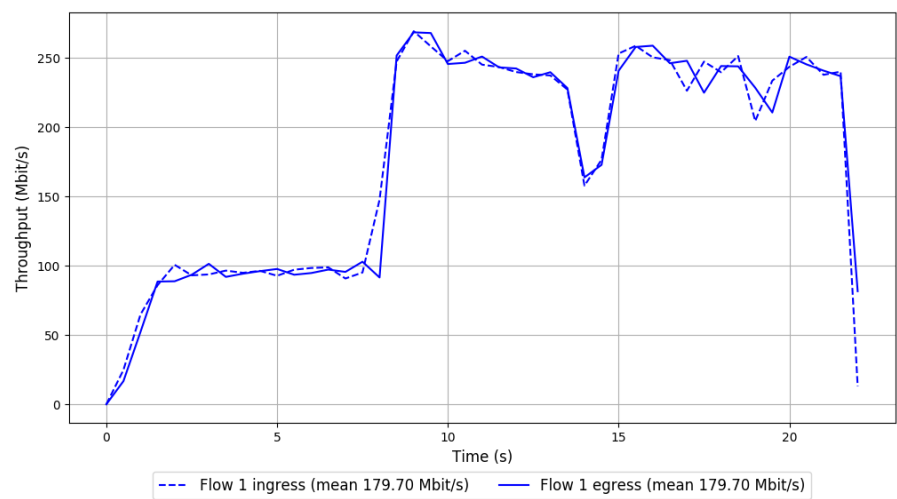


Run 5: Statistics of TaoVA-100x

Start at: 2017-08-11 16:17:59

End at: 2017-08-11 16:18:29

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-11 16:30:13

End at: 2017-08-11 16:30:43

Below is generated by plot.py at 2017-08-11 20:03:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 214.65 Mbit/s

95th percentile per-packet one-way delay: 137.216 ms

Loss rate: 1.31%

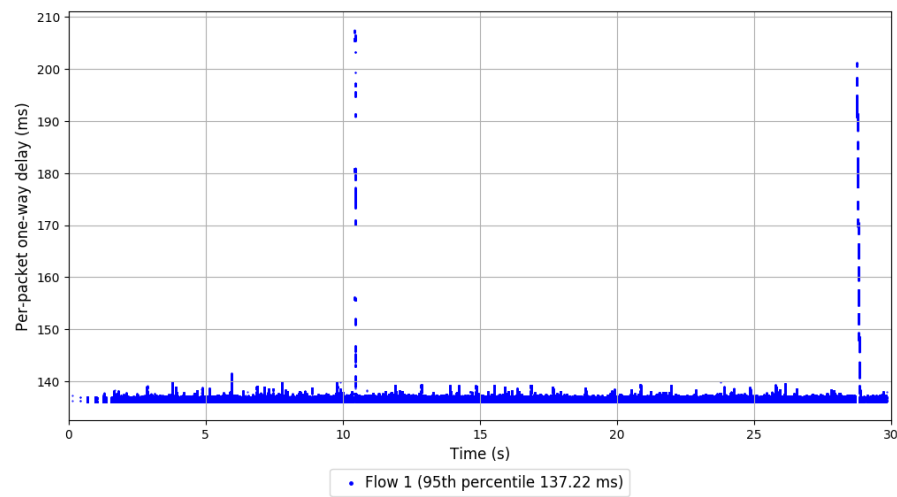
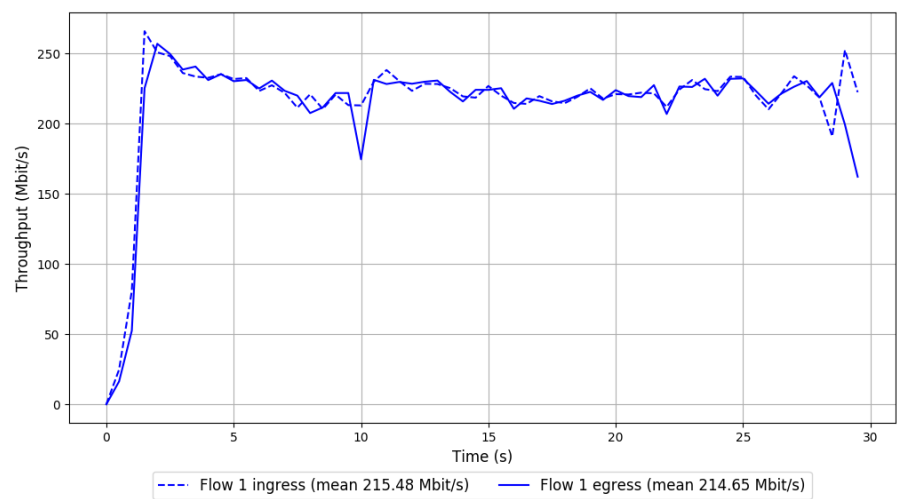
-- Flow 1:

Average throughput: 214.65 Mbit/s

95th percentile per-packet one-way delay: 137.216 ms

Loss rate: 1.31%

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

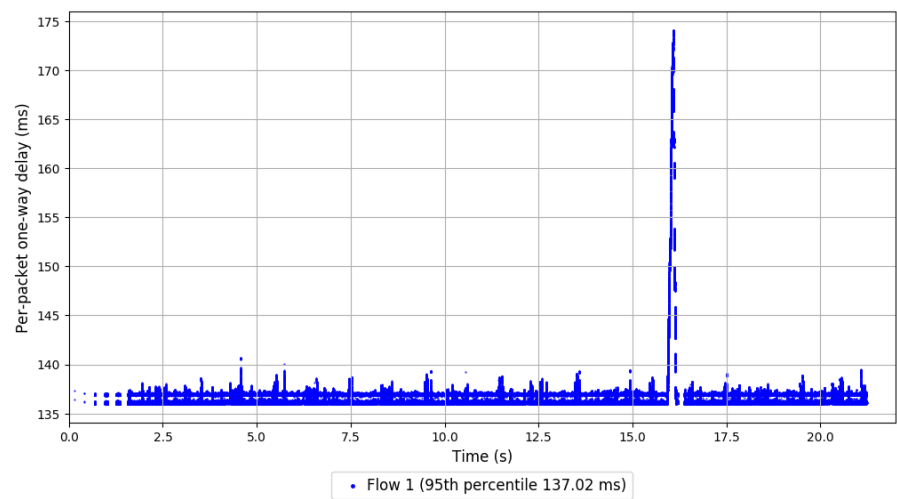
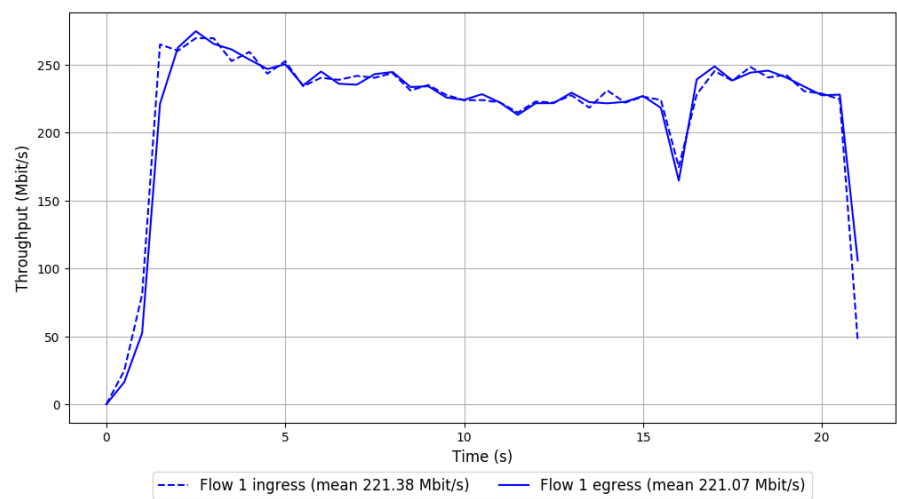


Run 7: Statistics of TaoVA-100x

Start at: 2017-08-11 16:42:18

End at: 2017-08-11 16:42:48

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-11 16:54:28

End at: 2017-08-11 16:54:58

Below is generated by plot.py at 2017-08-11 20:04:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 212.73 Mbit/s

95th percentile per-packet one-way delay: 136.856 ms

Loss rate: 1.08%

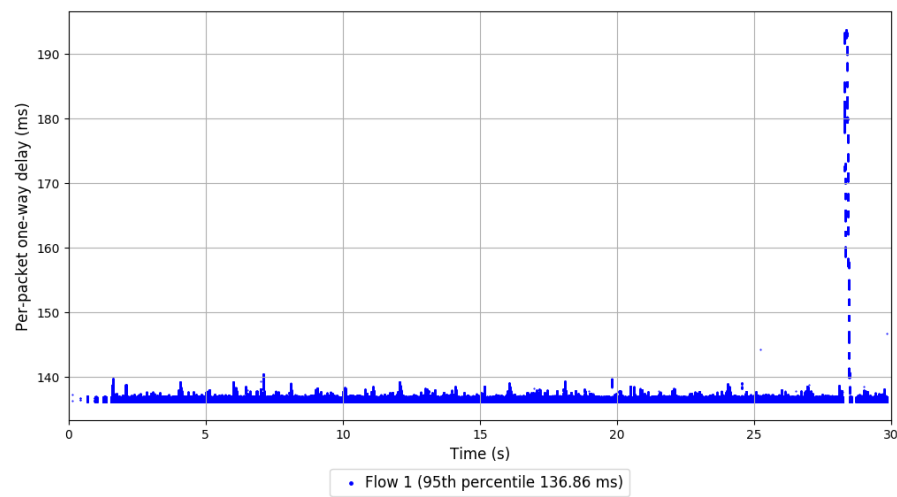
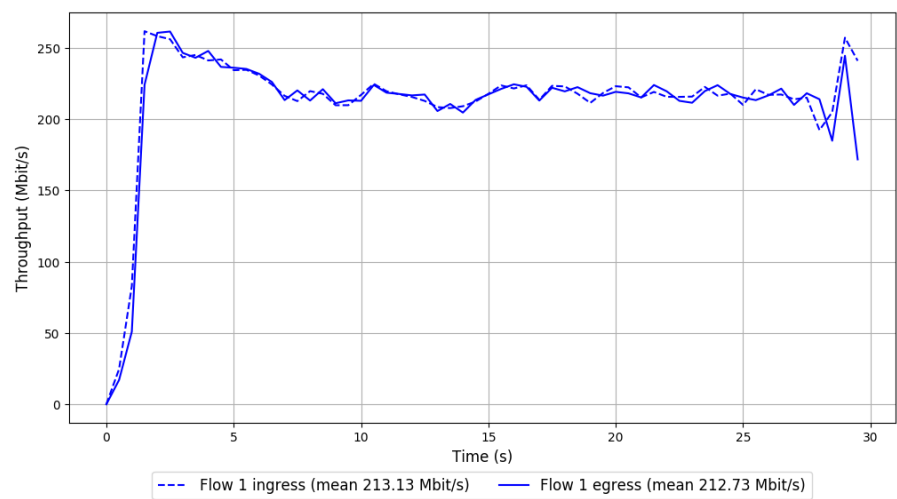
-- Flow 1:

Average throughput: 212.73 Mbit/s

95th percentile per-packet one-way delay: 136.856 ms

Loss rate: 1.08%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-11 17:06:24

End at: 2017-08-11 17:06:54

Below is generated by plot.py at 2017-08-11 20:04:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 164.20 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 1.47%

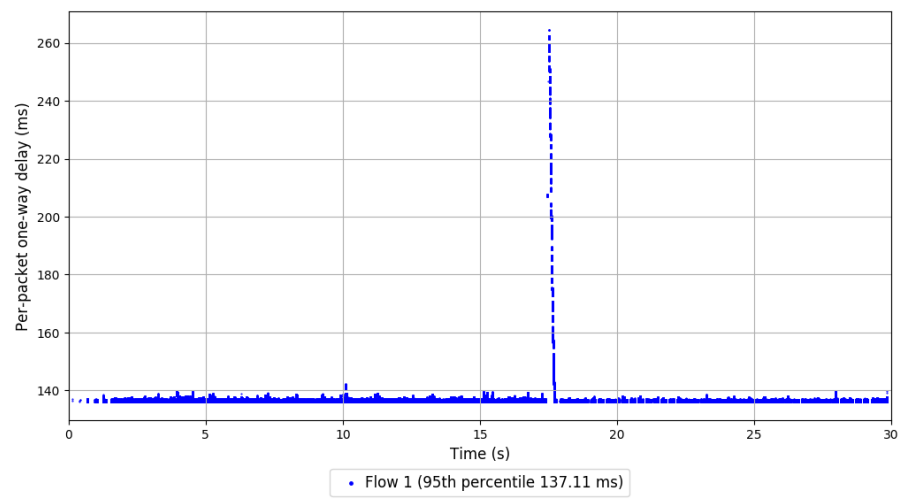
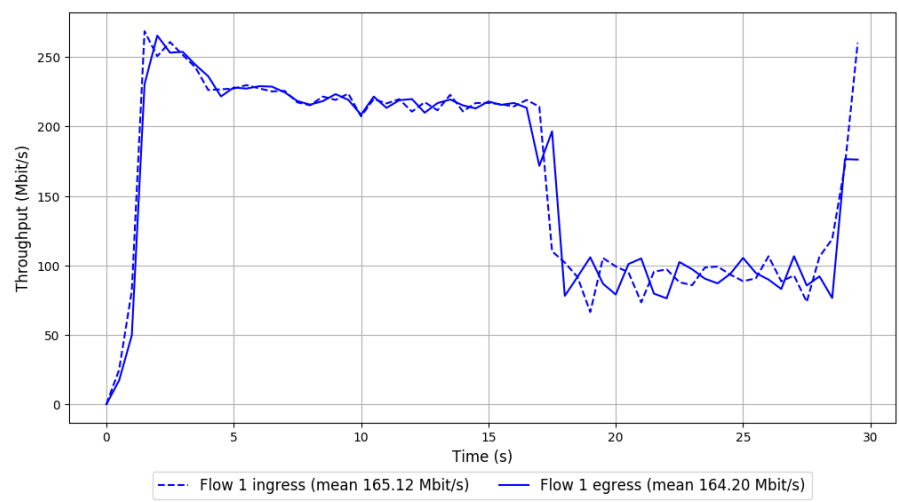
-- Flow 1:

Average throughput: 164.20 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 1.47%

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

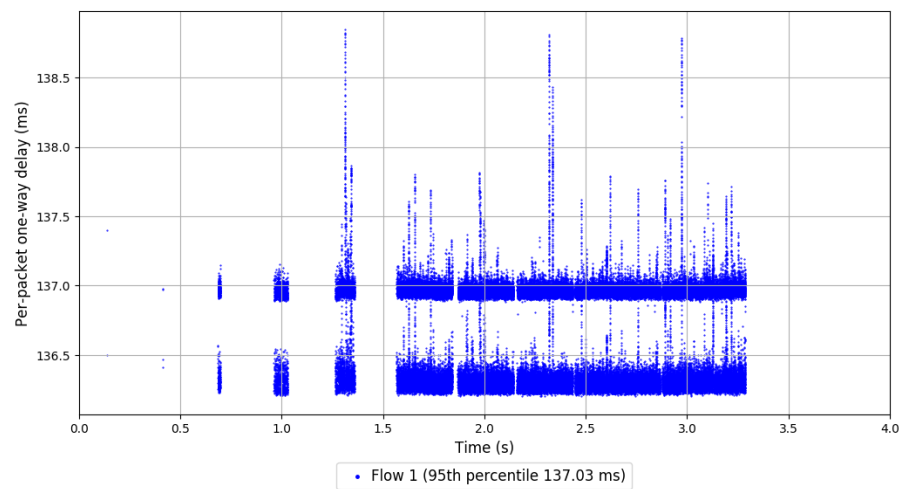
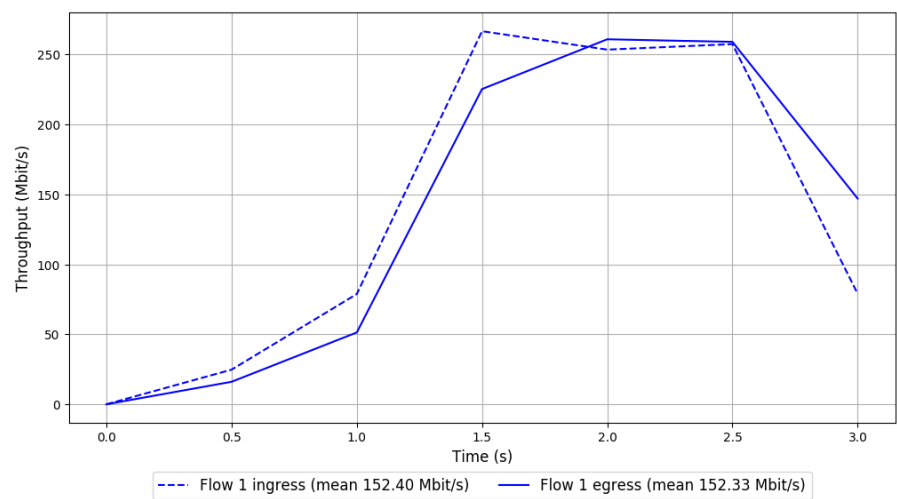


Run 10: Statistics of TaoVA-100x

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

End at: 2017-08-11 17:18:25

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-11 15:31:33

End at: 2017-08-11 15:32:03

Below is generated by plot.py at 2017-08-11 20:04:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.17 Mbit/s

95th percentile per-packet one-way delay: 138.493 ms

Loss rate: 1.02%

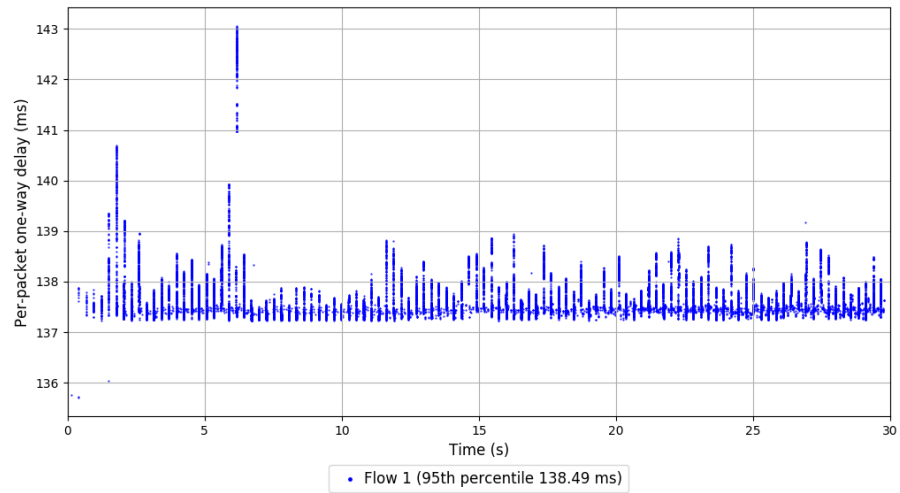
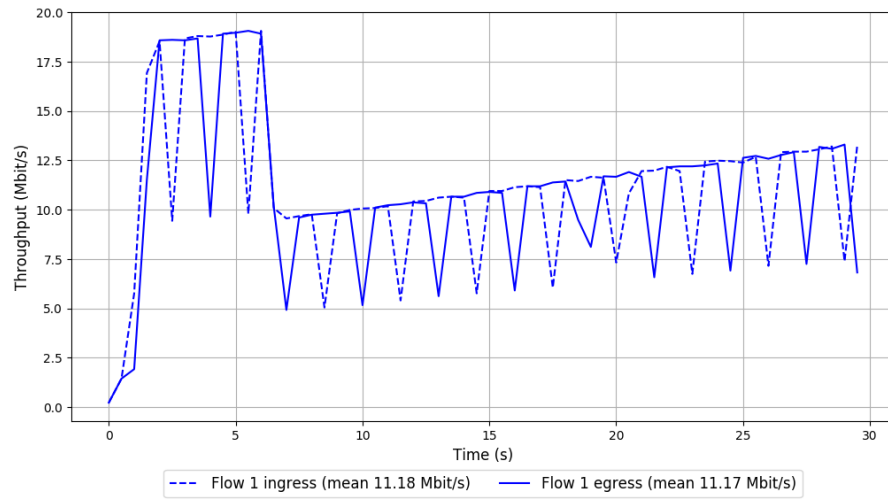
-- Flow 1:

Average throughput: 11.17 Mbit/s

95th percentile per-packet one-way delay: 138.493 ms

Loss rate: 1.02%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-11 15:43:16

End at: 2017-08-11 15:43:46

Below is generated by plot.py at 2017-08-11 20:04:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.00 Mbit/s

95th percentile per-packet one-way delay: 141.071 ms

Loss rate: 1.52%

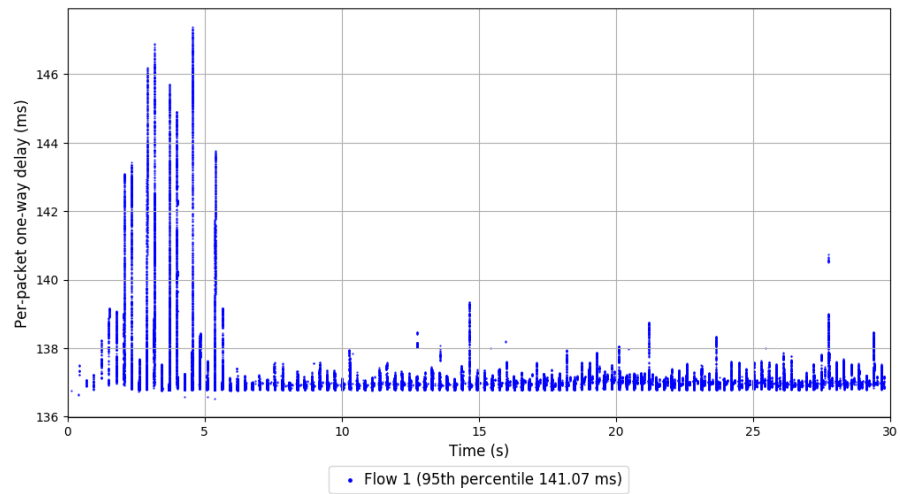
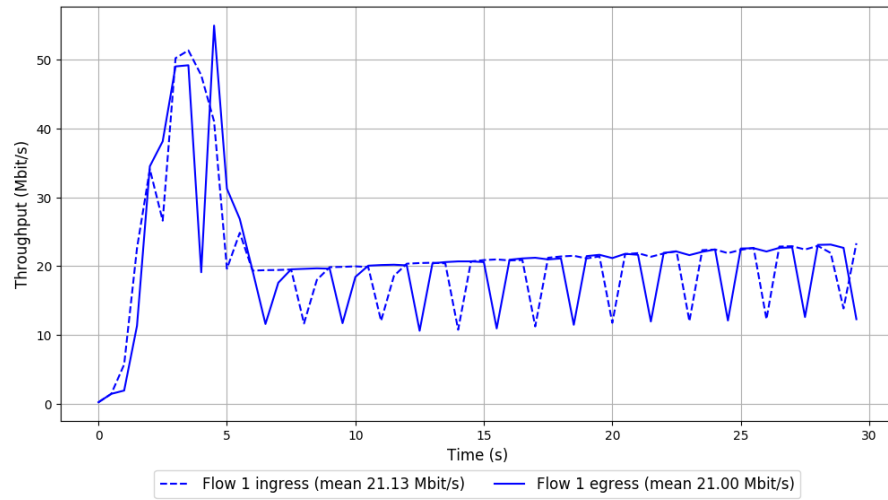
-- Flow 1:

Average throughput: 21.00 Mbit/s

95th percentile per-packet one-way delay: 141.071 ms

Loss rate: 1.52%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-11 15:55:02

End at: 2017-08-11 15:55:32

Below is generated by plot.py at 2017-08-11 20:04:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.11 Mbit/s

95th percentile per-packet one-way delay: 138.324 ms

Loss rate: 1.05%

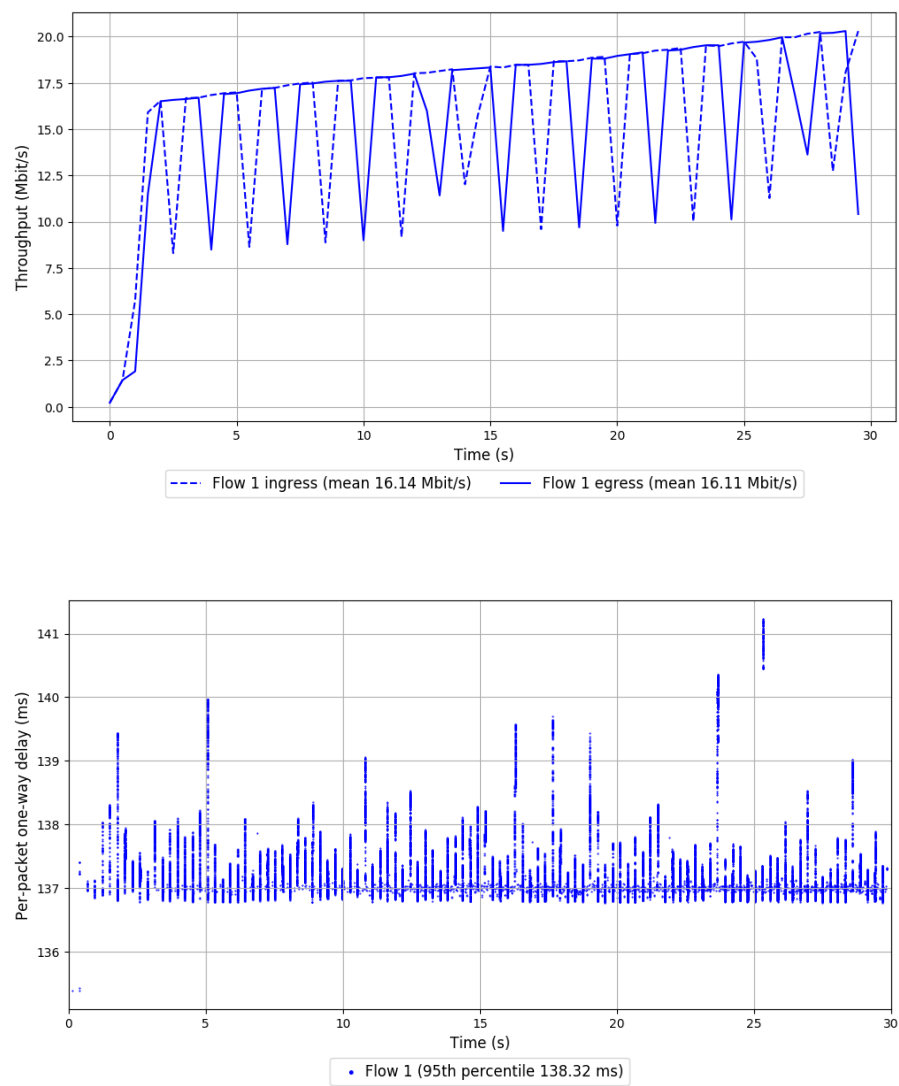
-- Flow 1:

Average throughput: 16.11 Mbit/s

95th percentile per-packet one-way delay: 138.324 ms

Loss rate: 1.05%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-11 16:07:00

End at: 2017-08-11 16:07:30

Below is generated by plot.py at 2017-08-11 20:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.75 Mbit/s

95th percentile per-packet one-way delay: 138.324 ms

Loss rate: 1.07%

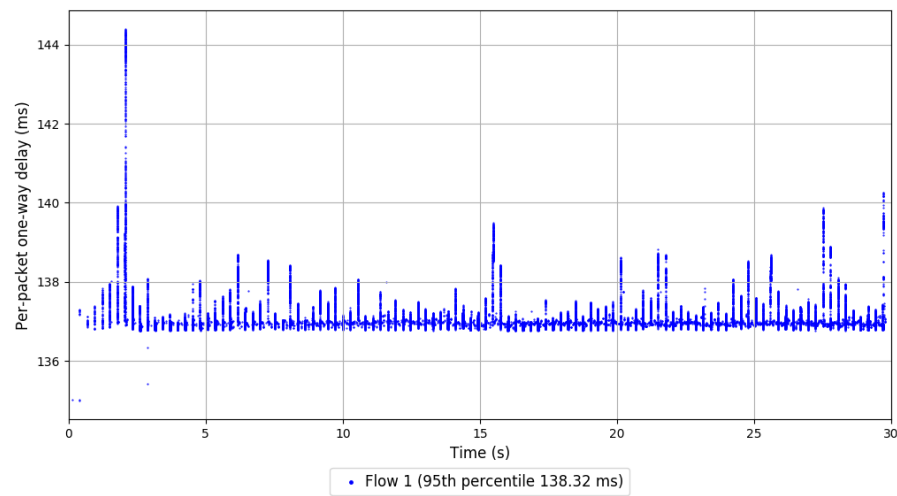
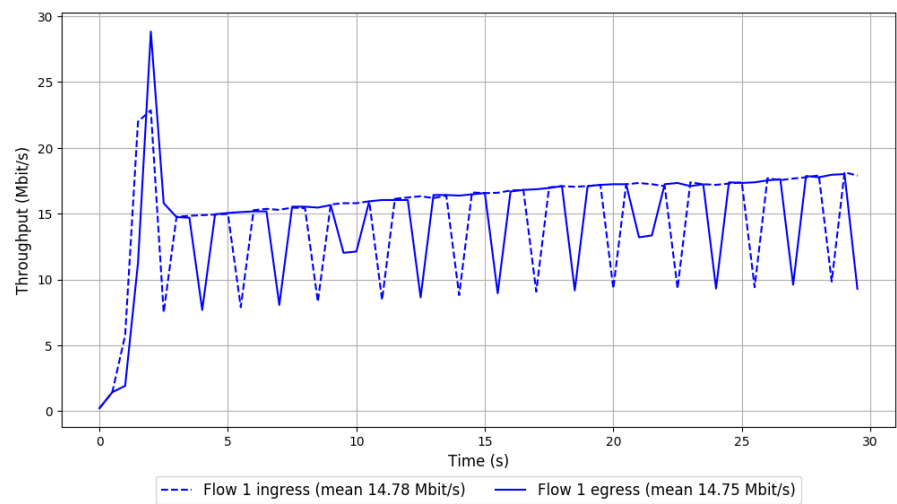
-- Flow 1:

Average throughput: 14.75 Mbit/s

95th percentile per-packet one-way delay: 138.324 ms

Loss rate: 1.07%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-11 16:18:57

End at: 2017-08-11 16:19:27

Below is generated by plot.py at 2017-08-11 20:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.14 Mbit/s

95th percentile per-packet one-way delay: 138.269 ms

Loss rate: 1.23%

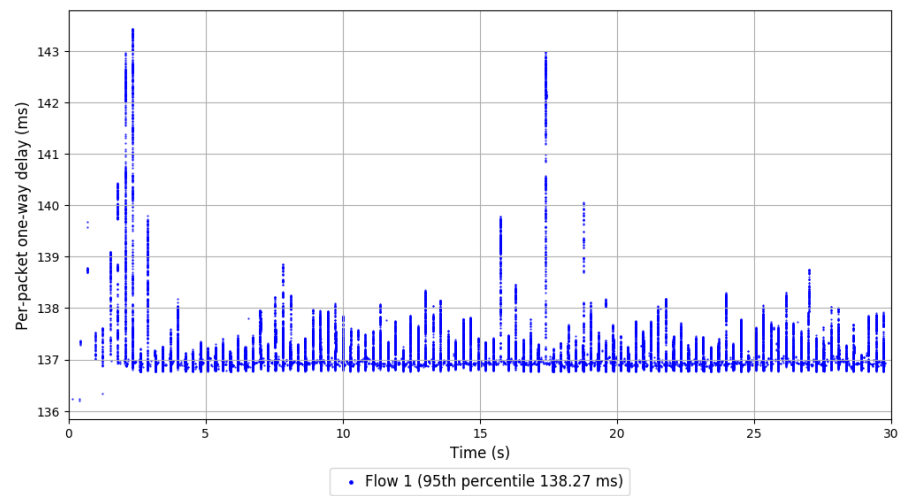
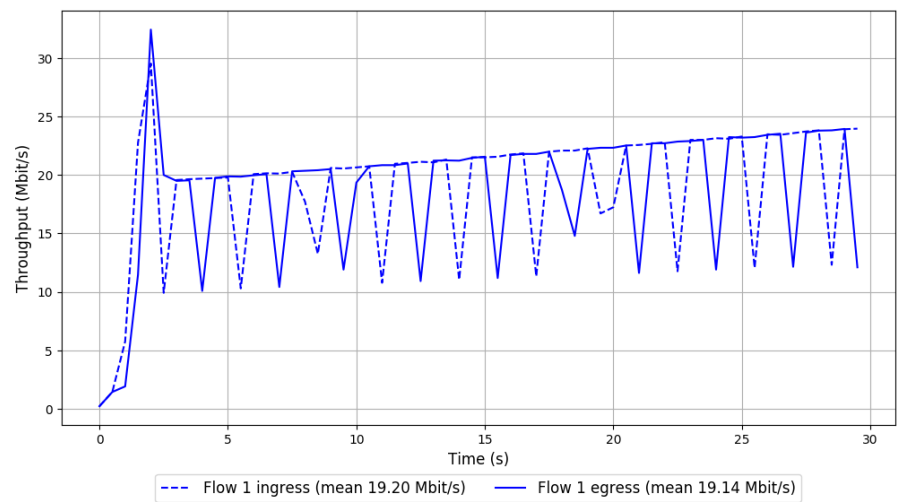
-- Flow 1:

Average throughput: 19.14 Mbit/s

95th percentile per-packet one-way delay: 138.269 ms

Loss rate: 1.23%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-11 16:31:19

End at: 2017-08-11 16:31:49

Below is generated by plot.py at 2017-08-11 20:05:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.23 Mbit/s

95th percentile per-packet one-way delay: 138.231 ms

Loss rate: 0.98%

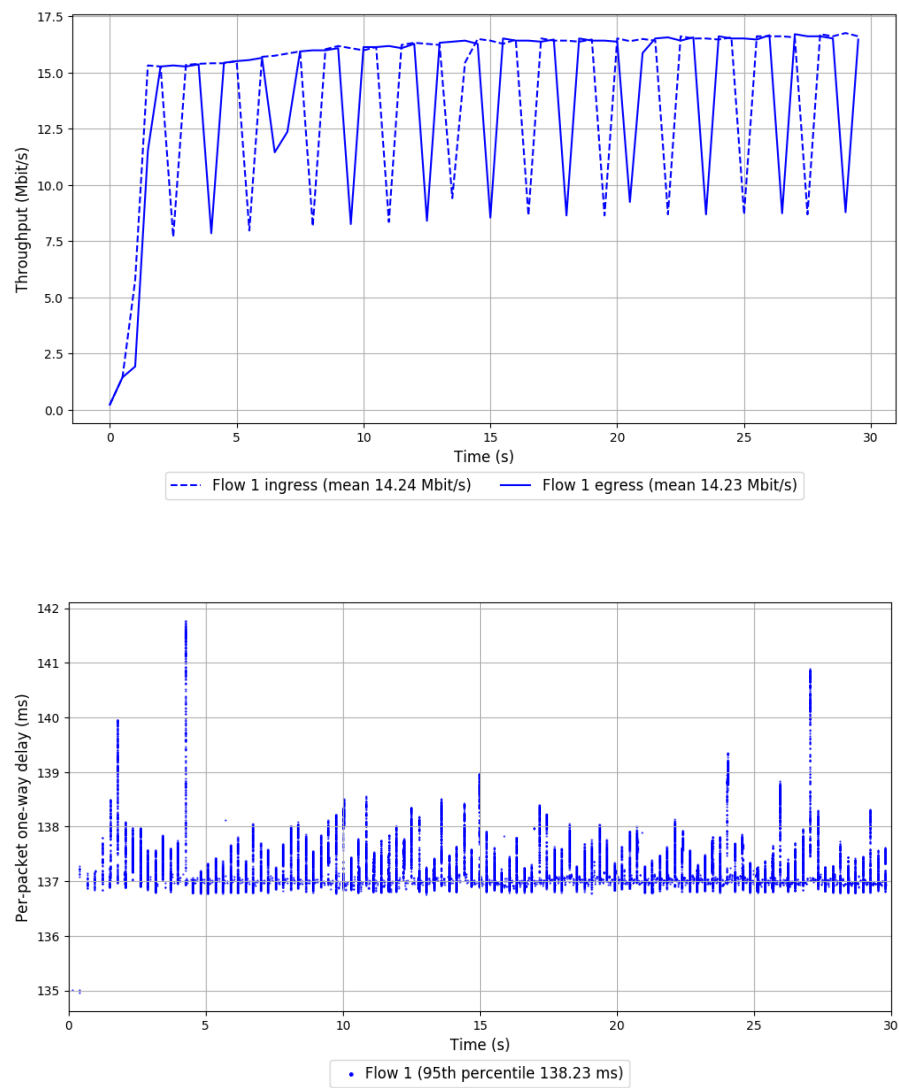
-- Flow 1:

Average throughput: 14.23 Mbit/s

95th percentile per-packet one-way delay: 138.231 ms

Loss rate: 0.98%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-11 16:43:18

End at: 2017-08-11 16:43:48

Below is generated by plot.py at 2017-08-11 20:05:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 139.000 ms

Loss rate: 1.10%

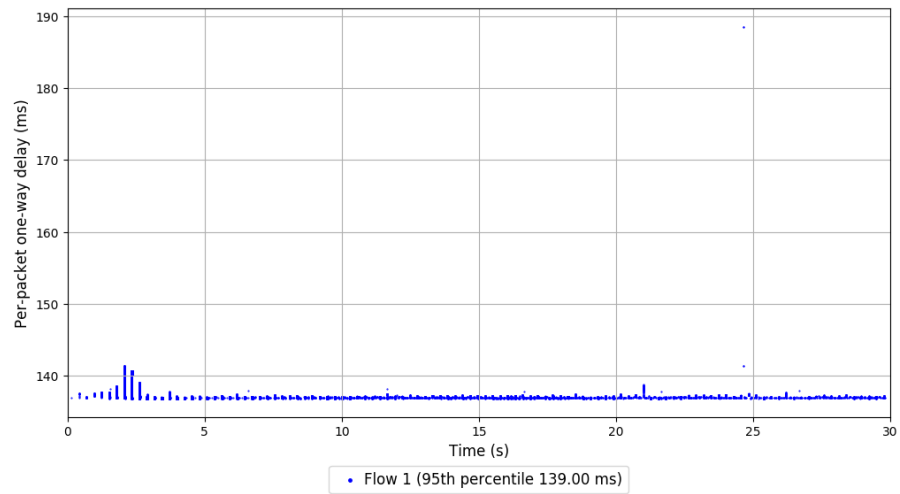
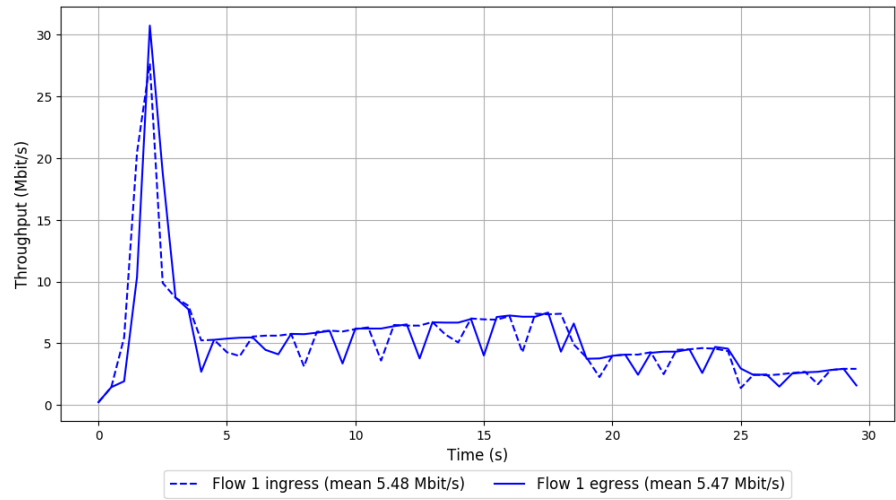
-- Flow 1:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 139.000 ms

Loss rate: 1.10%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-11 16:55:33

End at: 2017-08-11 16:56:03

Below is generated by plot.py at 2017-08-11 20:05:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.33 Mbit/s

95th percentile per-packet one-way delay: 138.844 ms

Loss rate: 1.18%

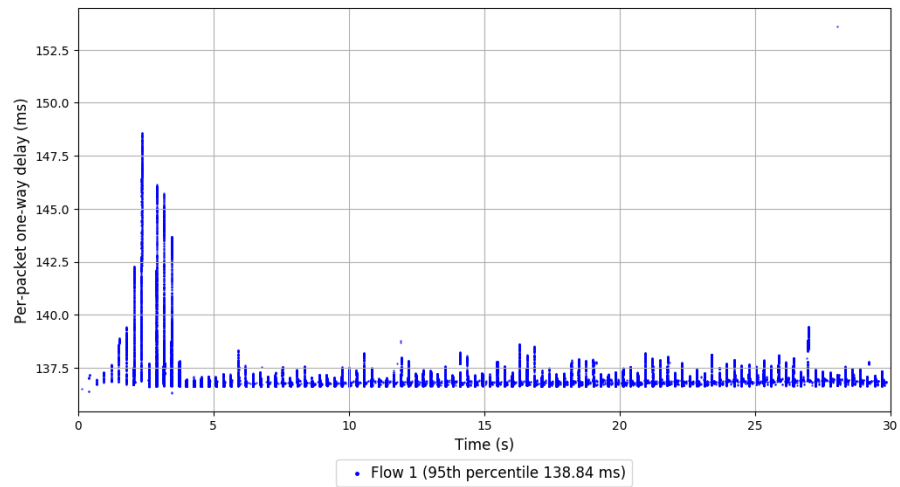
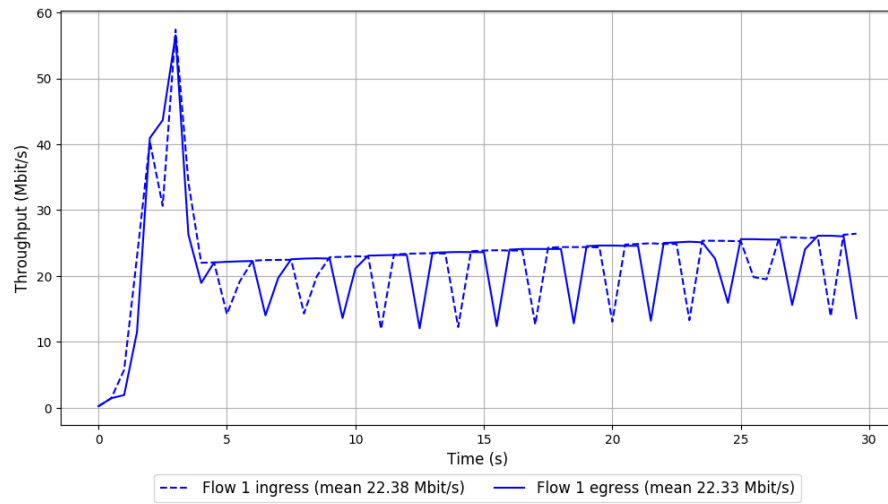
-- Flow 1:

Average throughput: 22.33 Mbit/s

95th percentile per-packet one-way delay: 138.844 ms

Loss rate: 1.18%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-11 17:07:26

End at: 2017-08-11 17:07:56

Below is generated by plot.py at 2017-08-11 20:05:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 137.633 ms

Loss rate: 1.11%

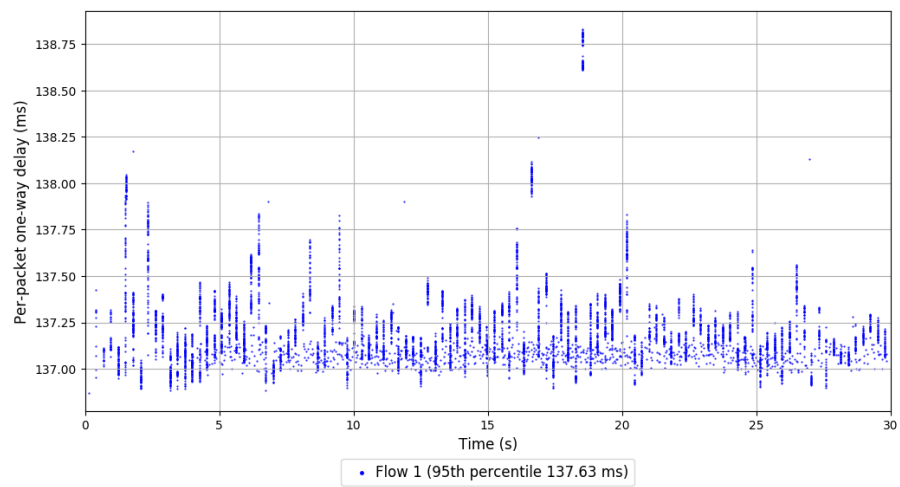
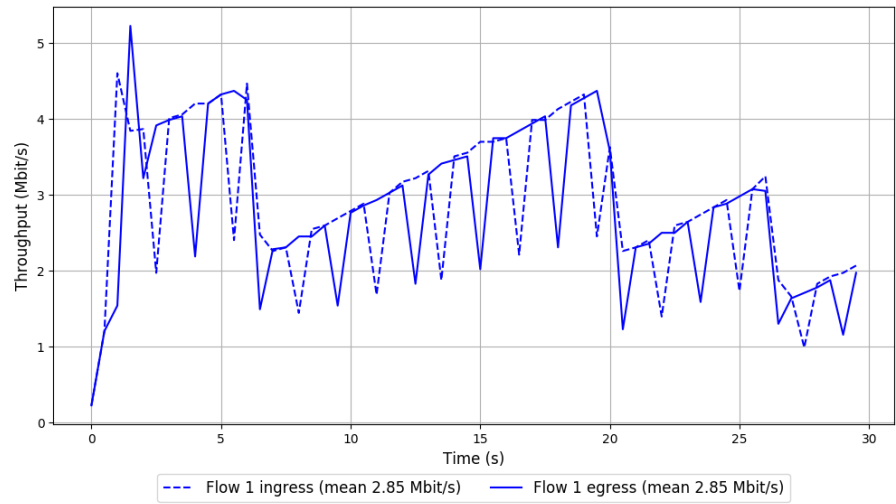
-- Flow 1:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 137.633 ms

Loss rate: 1.11%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-11 17:18:40

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

Below is generated by plot.py at 2017-08-11 20:05:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 138.271 ms

Loss rate: 1.18%

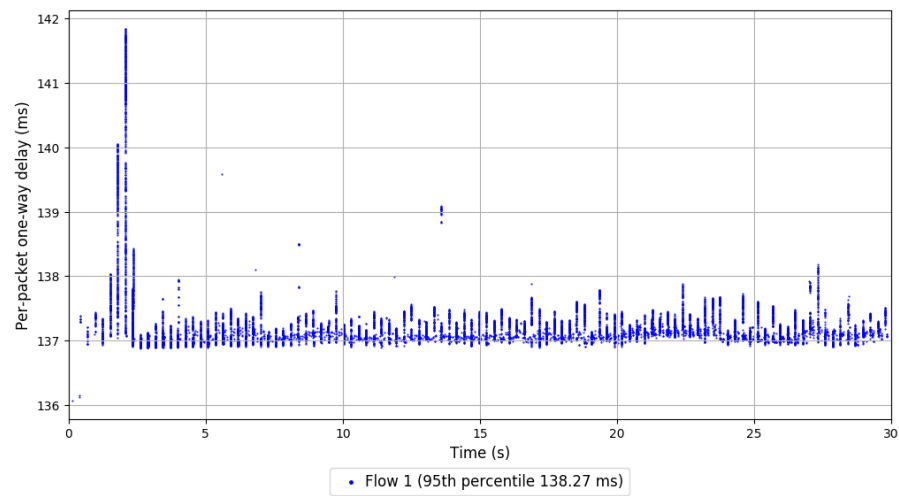
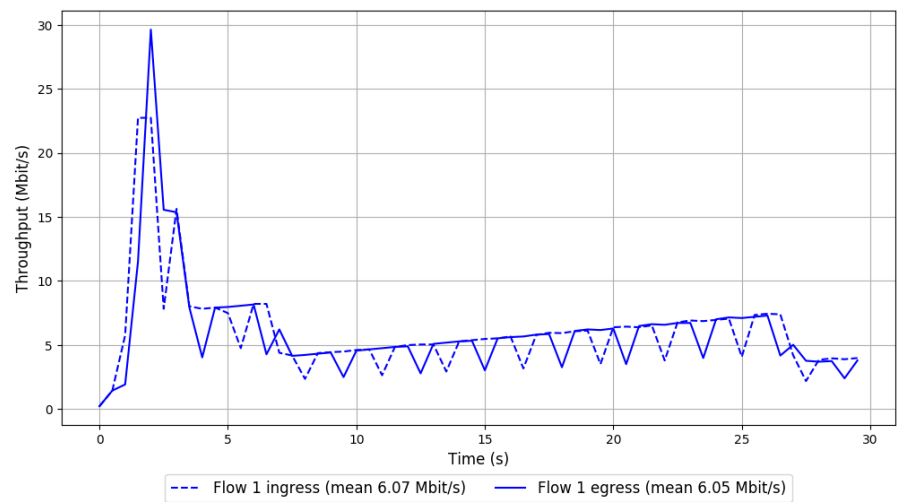
-- Flow 1:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 138.271 ms

Loss rate: 1.18%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-08-11 15:26:39

End at: 2017-08-11 15:27:09

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.18 Mbit/s

95th percentile per-packet one-way delay: 220.758 ms

Loss rate: 36.59%

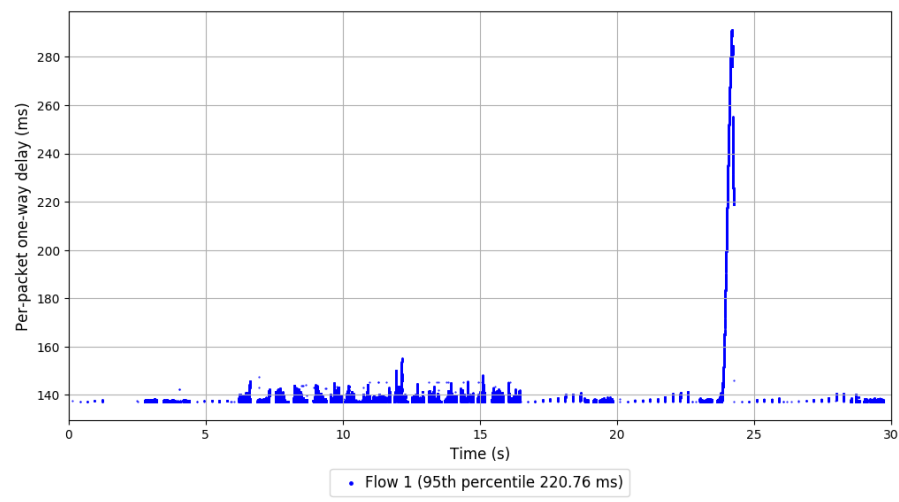
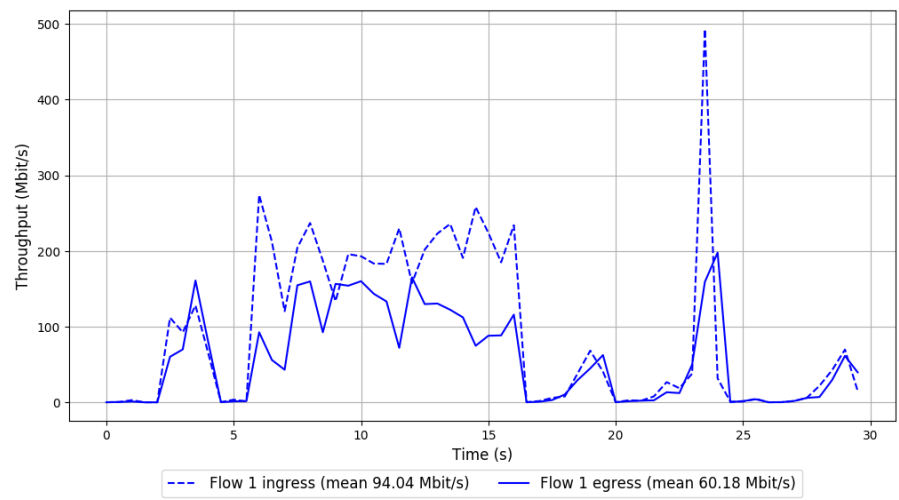
-- Flow 1:

Average throughput: 60.18 Mbit/s

95th percentile per-packet one-way delay: 220.758 ms

Loss rate: 36.59%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-11 15:38:43

End at: 2017-08-11 15:39:13

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.67 Mbit/s

95th percentile per-packet one-way delay: 141.167 ms

Loss rate: 1.46%

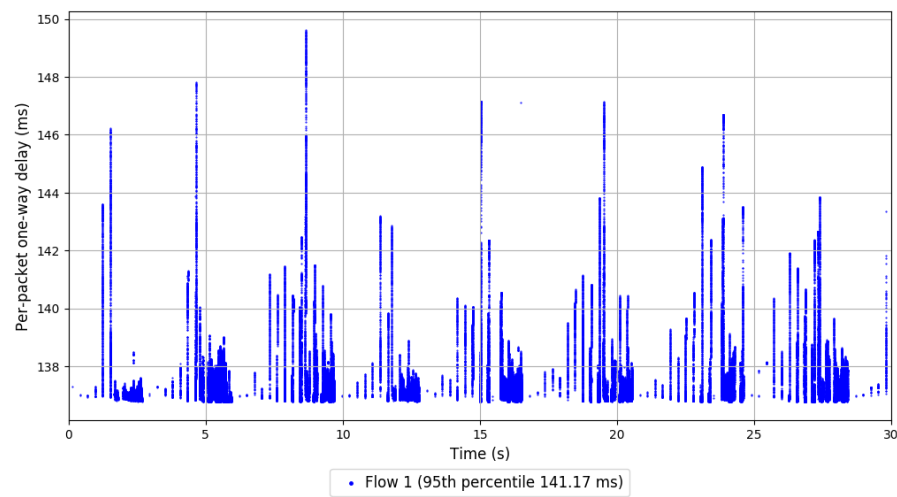
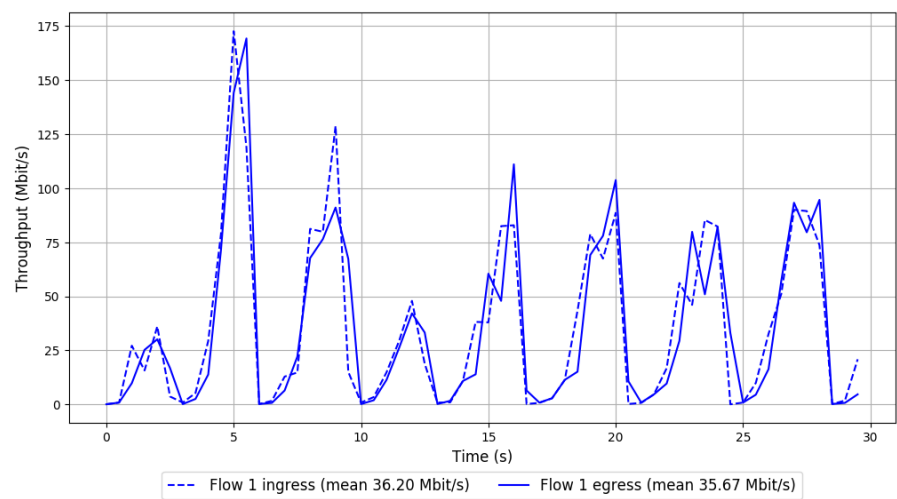
-- Flow 1:

Average throughput: 35.67 Mbit/s

95th percentile per-packet one-way delay: 141.167 ms

Loss rate: 1.46%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-11 15:50:29

End at: 2017-08-11 15:50:59

Below is generated by plot.py at 2017-08-11 20:05:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.33 Mbit/s

95th percentile per-packet one-way delay: 221.216 ms

Loss rate: 3.74%

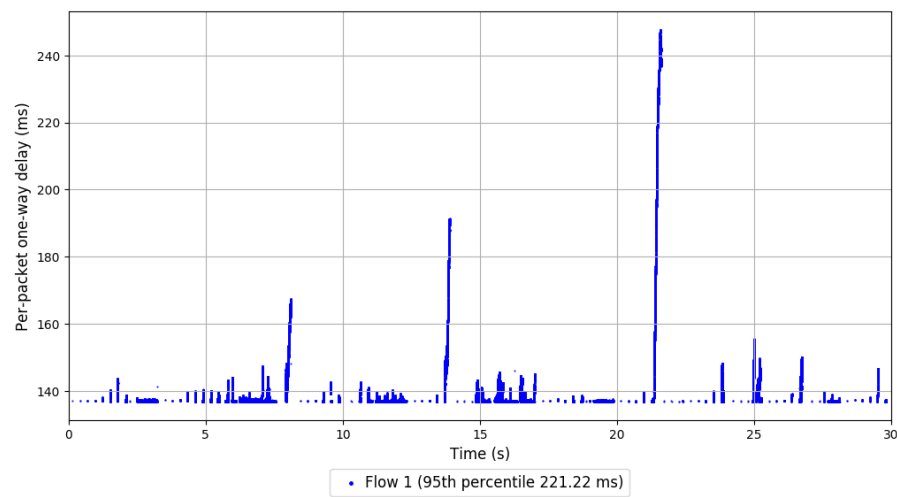
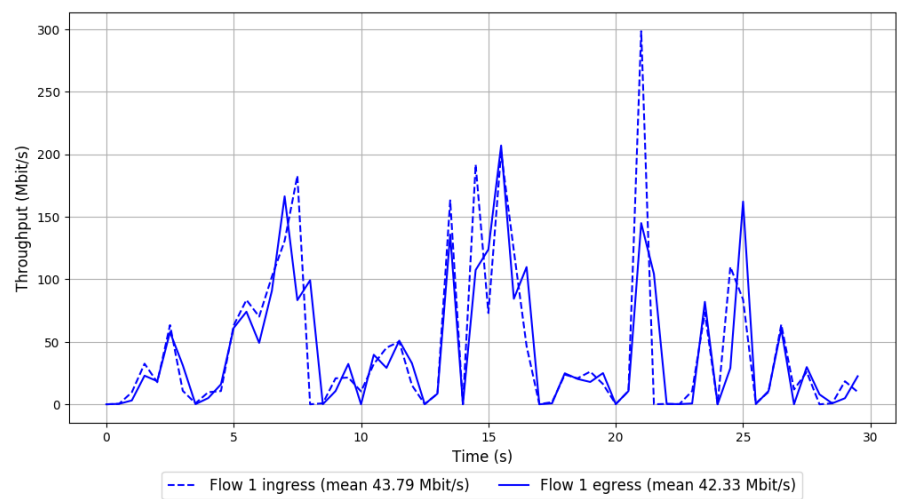
-- Flow 1:

Average throughput: 42.33 Mbit/s

95th percentile per-packet one-way delay: 221.216 ms

Loss rate: 3.74%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-11 16:02:23

End at: 2017-08-11 16:02:53

Below is generated by plot.py at 2017-08-11 20:05:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 110.35 Mbit/s

95th percentile per-packet one-way delay: 152.214 ms

Loss rate: 2.69%

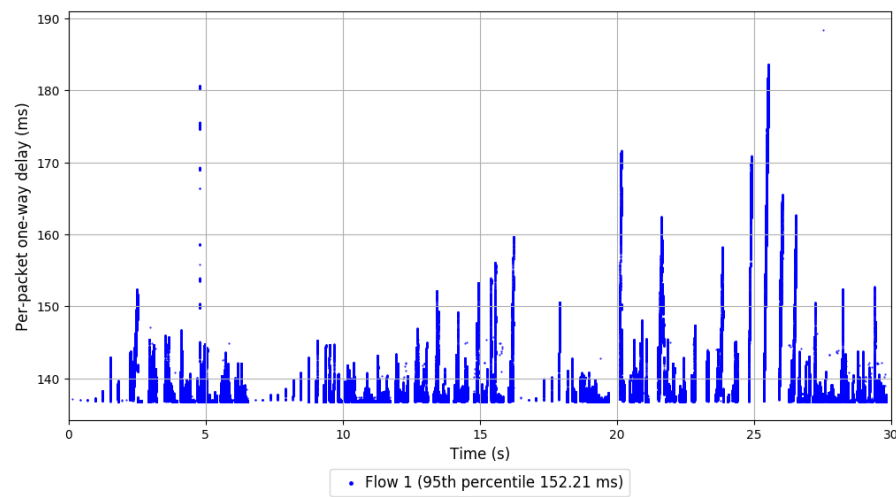
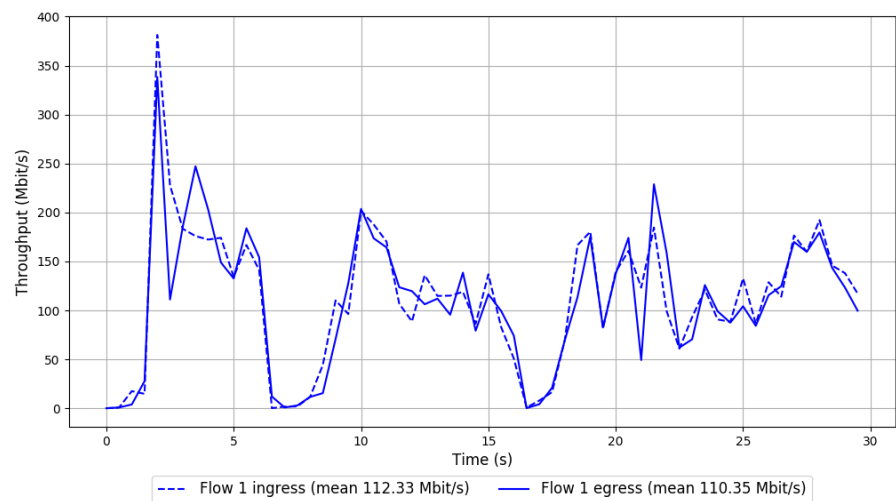
-- Flow 1:

Average throughput: 110.35 Mbit/s

95th percentile per-packet one-way delay: 152.214 ms

Loss rate: 2.69%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-11 16:14:13

End at: 2017-08-11 16:14:43

Below is generated by plot.py at 2017-08-11 20:05:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.73 Mbit/s

95th percentile per-packet one-way delay: 143.051 ms

Loss rate: 1.12%

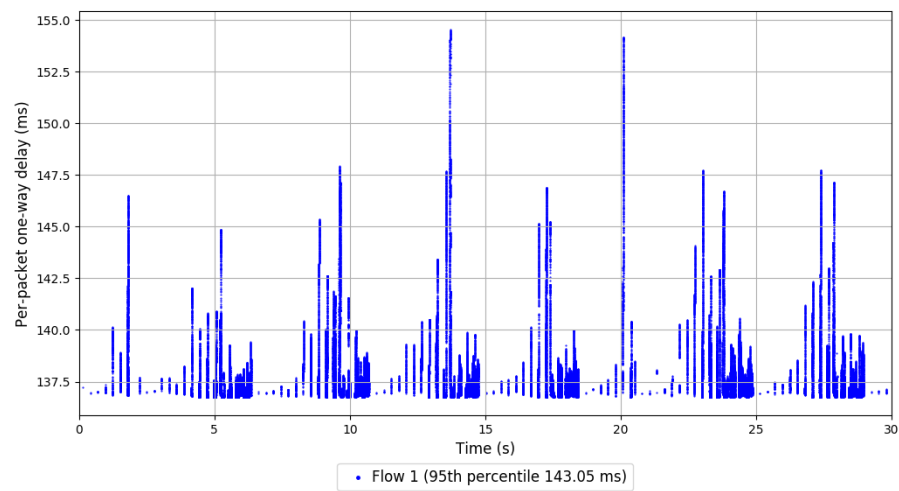
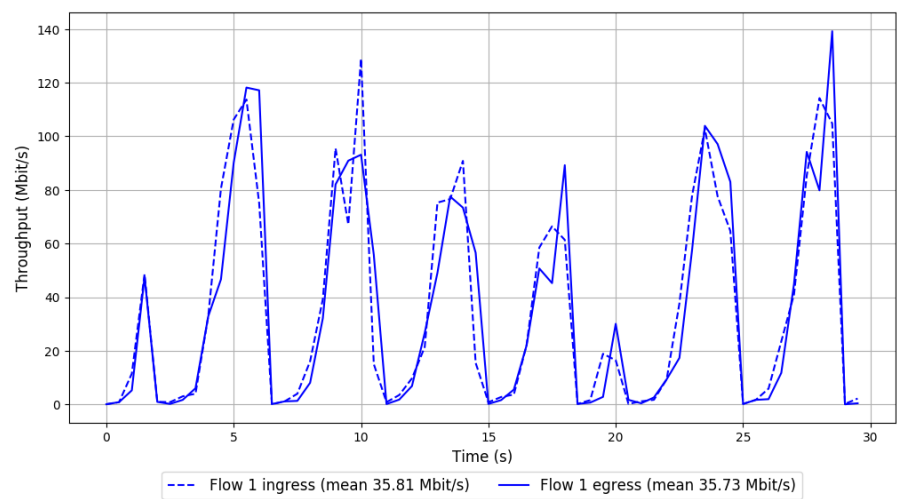
-- Flow 1:

Average throughput: 35.73 Mbit/s

95th percentile per-packet one-way delay: 143.051 ms

Loss rate: 1.12%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-11 16:26:16

End at: 2017-08-11 16:26:46

Below is generated by plot.py at 2017-08-11 20:06:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 154.00 Mbit/s

95th percentile per-packet one-way delay: 160.528 ms

Loss rate: 8.36%

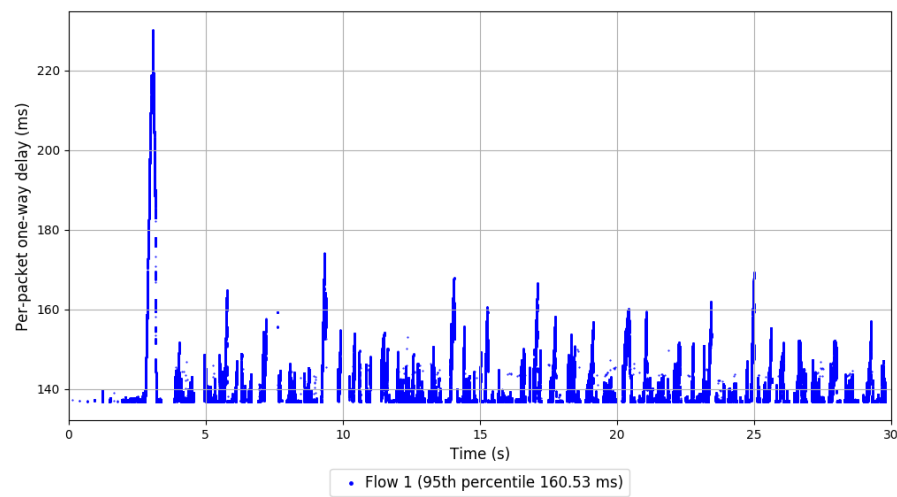
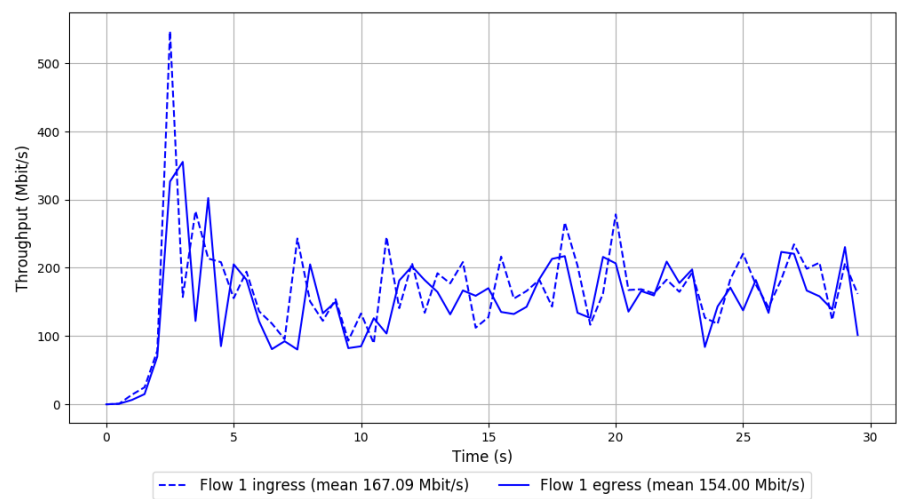
-- Flow 1:

Average throughput: 154.00 Mbit/s

95th percentile per-packet one-way delay: 160.528 ms

Loss rate: 8.36%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-11 16:38:30

End at: 2017-08-11 16:39:00

Below is generated by plot.py at 2017-08-11 20:06:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.75 Mbit/s

95th percentile per-packet one-way delay: 146.490 ms

Loss rate: 2.43%

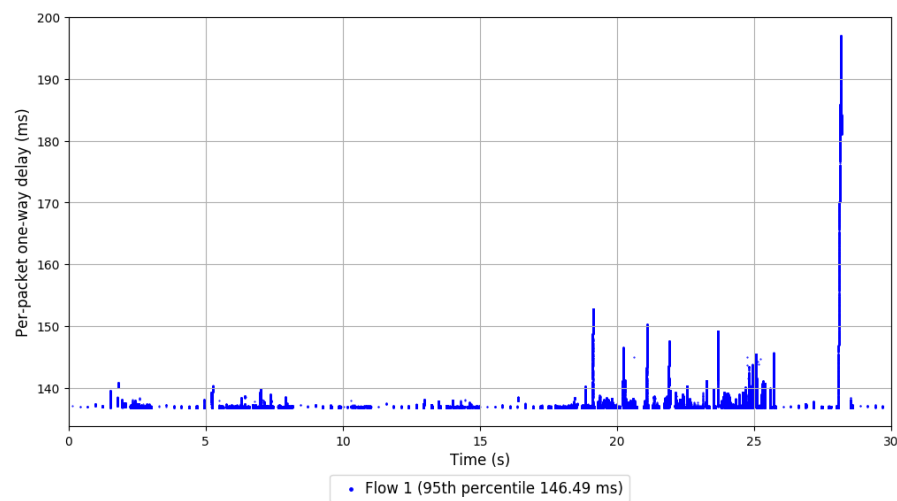
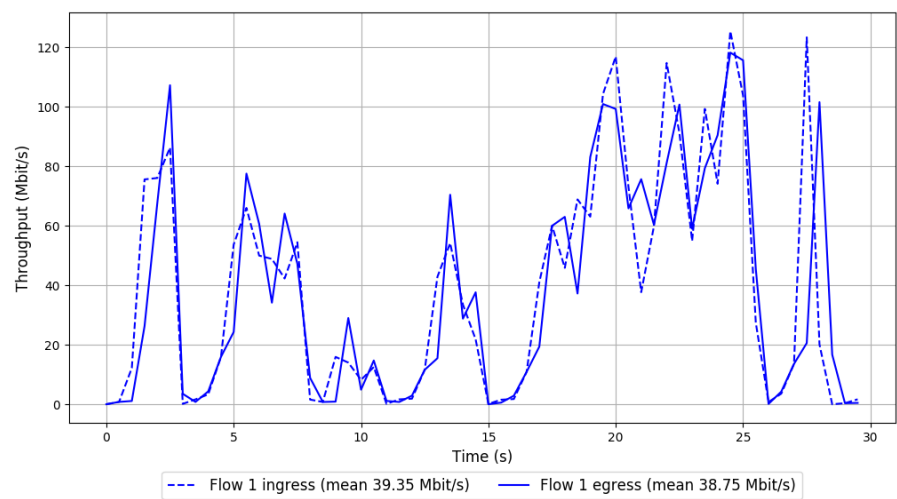
-- Flow 1:

Average throughput: 38.75 Mbit/s

95th percentile per-packet one-way delay: 146.490 ms

Loss rate: 2.43%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-11 16:50:32

End at: 2017-08-11 16:51:02

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 139.75 Mbit/s

95th percentile per-packet one-way delay: 202.260 ms

Loss rate: 3.09%

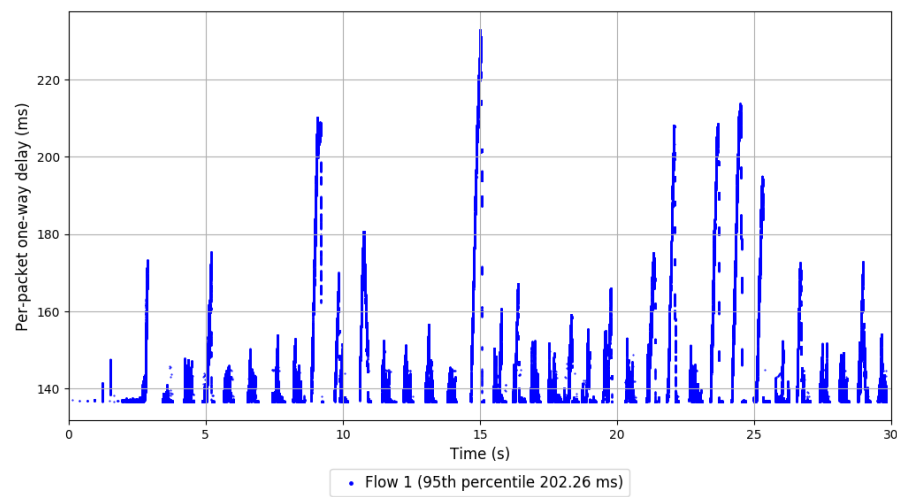
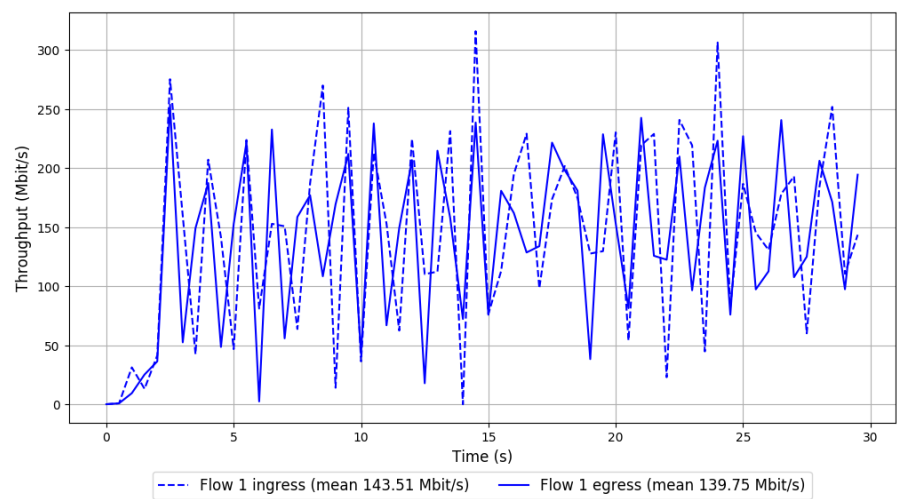
-- Flow 1:

Average throughput: 139.75 Mbit/s

95th percentile per-packet one-way delay: 202.260 ms

Loss rate: 3.09%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-11 17:02:33

End at: 2017-08-11 17:03:03

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.06 Mbit/s

95th percentile per-packet one-way delay: 174.520 ms

Loss rate: 2.94%

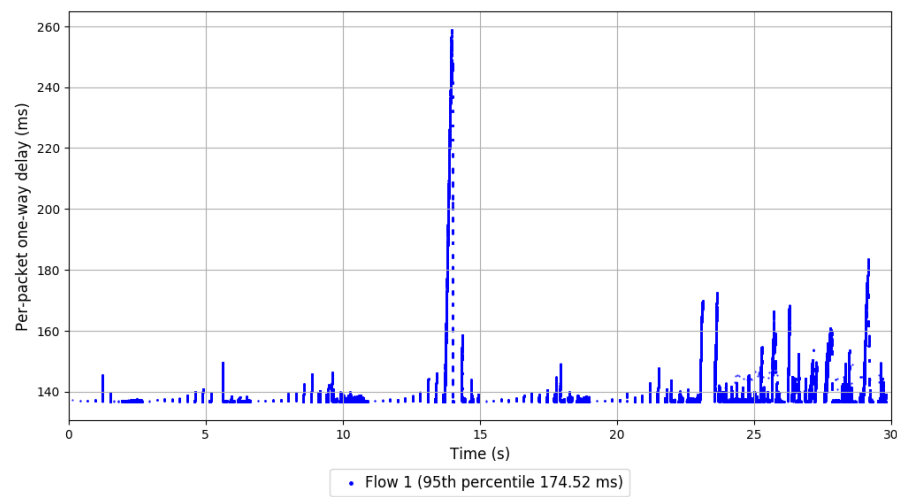
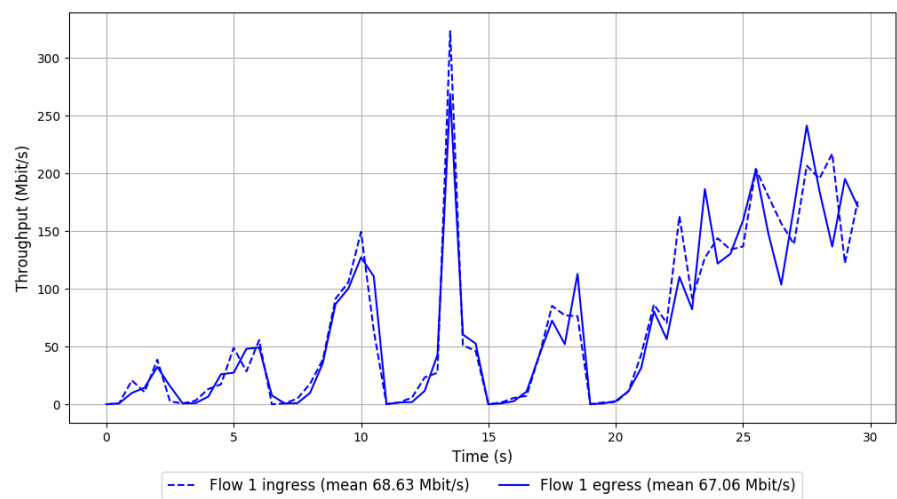
-- Flow 1:

Average throughput: 67.06 Mbit/s

95th percentile per-packet one-way delay: 174.520 ms

Loss rate: 2.94%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-11 17:14:03

End at: 2017-08-11 17:14:33

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.02 Mbit/s

95th percentile per-packet one-way delay: 193.693 ms

Loss rate: 9.75%

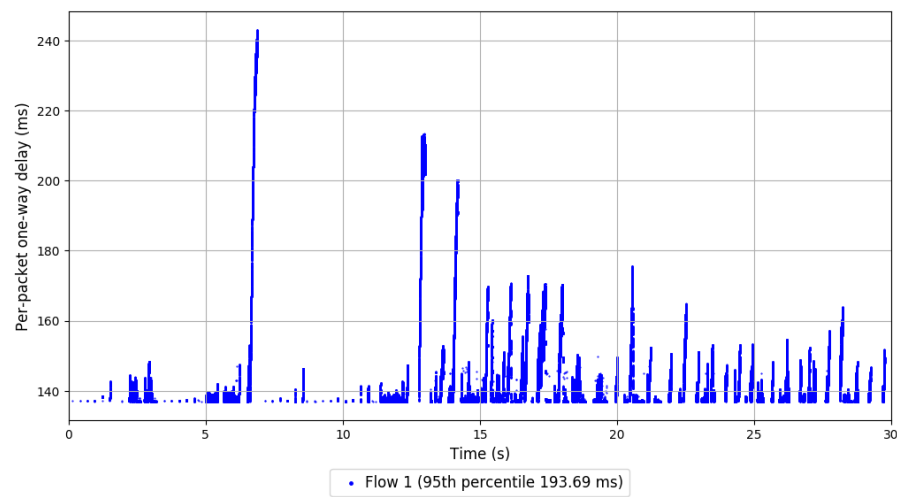
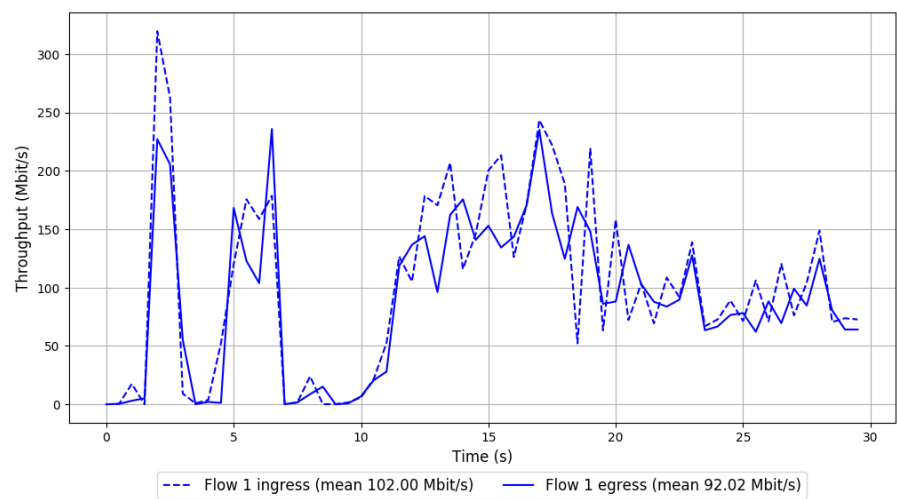
-- Flow 1:

Average throughput: 92.02 Mbit/s

95th percentile per-packet one-way delay: 193.693 ms

Loss rate: 9.75%

Run 10: Report of Verus — Data Link



Run 1: Statistics of WebRTC media

Start at: 2017-08-11 15:27:27

End at: 2017-08-11 15:27:57

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 136.690 ms

Loss rate: 1.76%

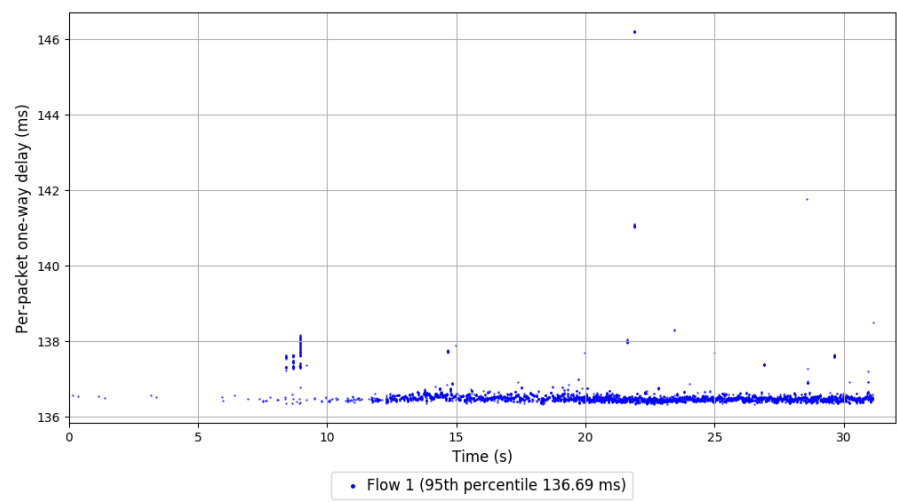
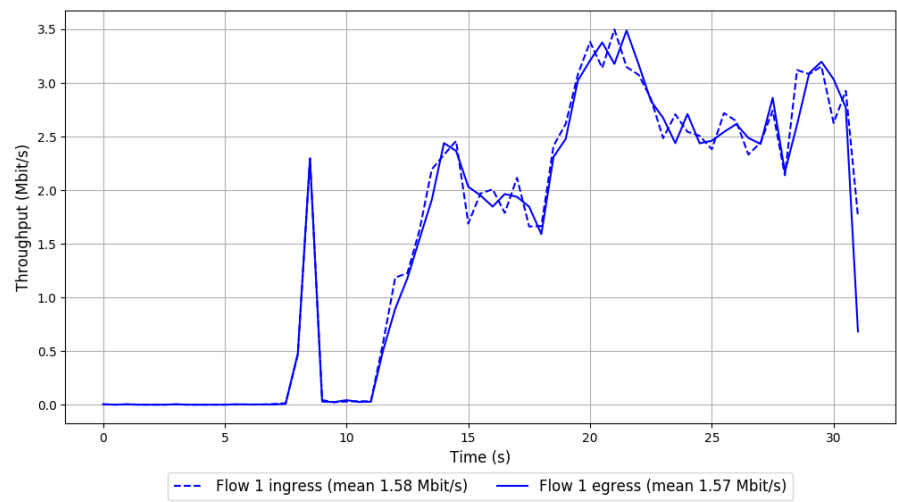
-- Flow 1:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 136.690 ms

Loss rate: 1.76%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-08-11 15:39:29

End at: 2017-08-11 15:39:59

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 136.626 ms

Loss rate: 1.23%

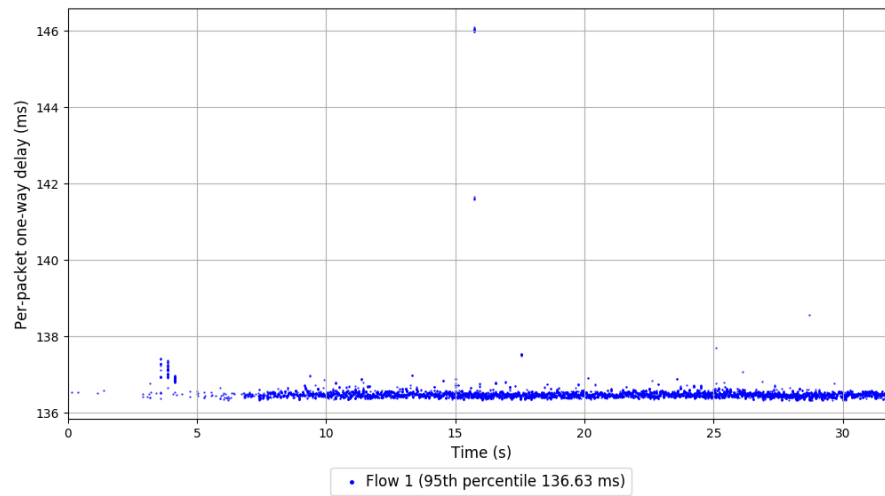
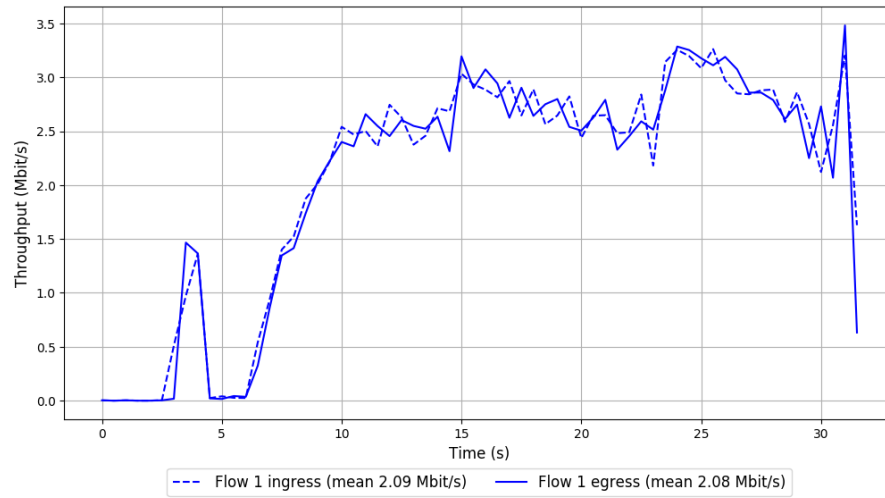
-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 136.626 ms

Loss rate: 1.23%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-11 15:51:16

End at: 2017-08-11 15:51:46

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 137.018 ms

Loss rate: 1.37%

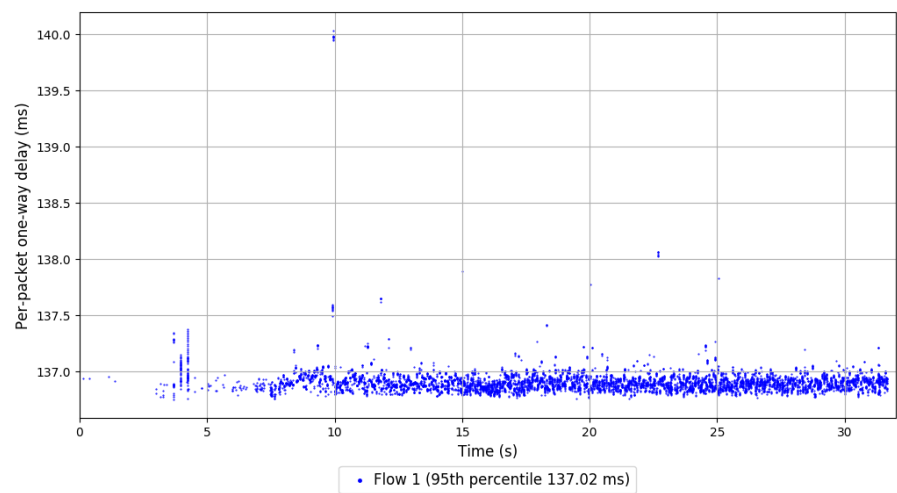
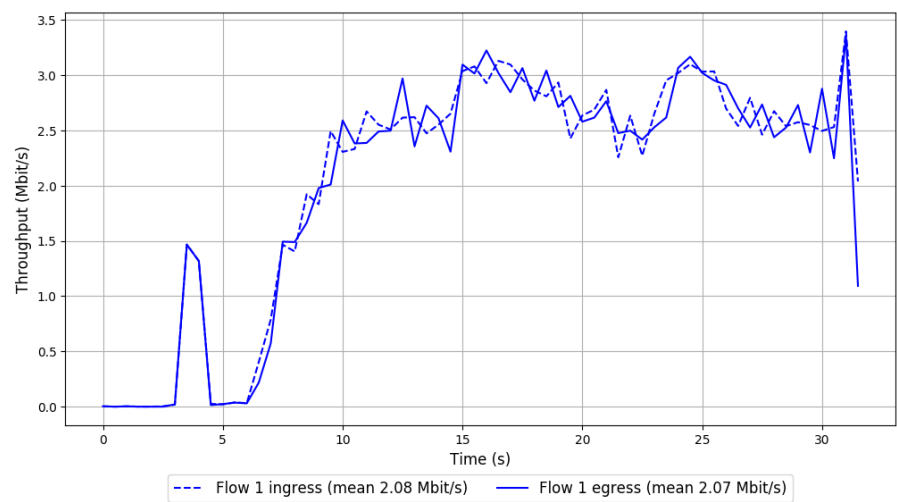
-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 137.018 ms

Loss rate: 1.37%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-11 16:03:15

End at: 2017-08-11 16:03:45

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 136.857 ms

Loss rate: 1.35%

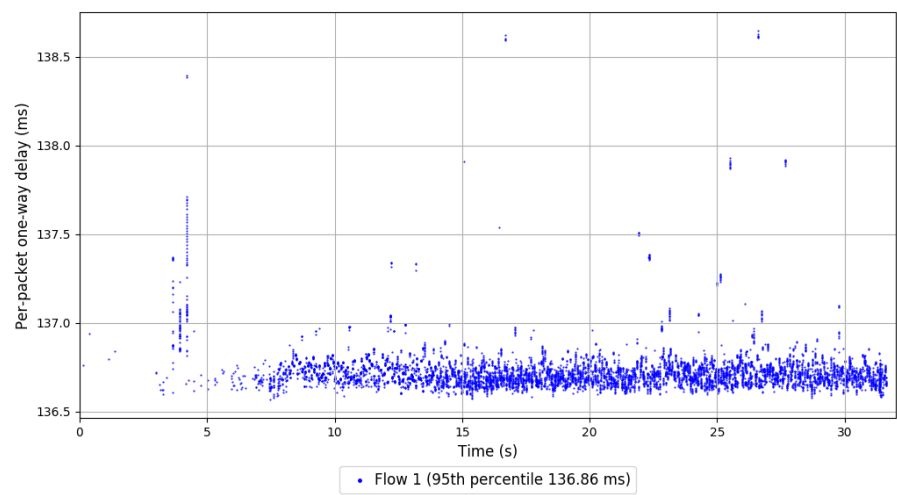
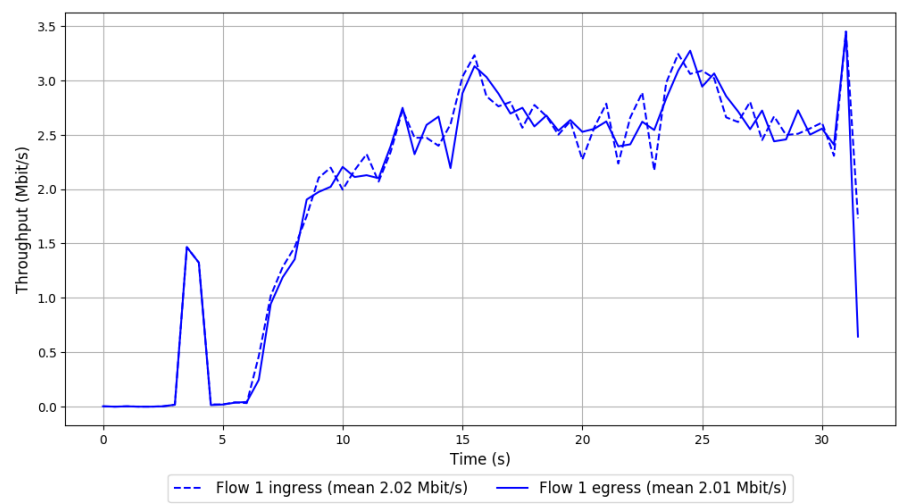
-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 136.857 ms

Loss rate: 1.35%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-11 16:14:59

End at: 2017-08-11 16:15:29

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 136.096 ms

Loss rate: 1.34%

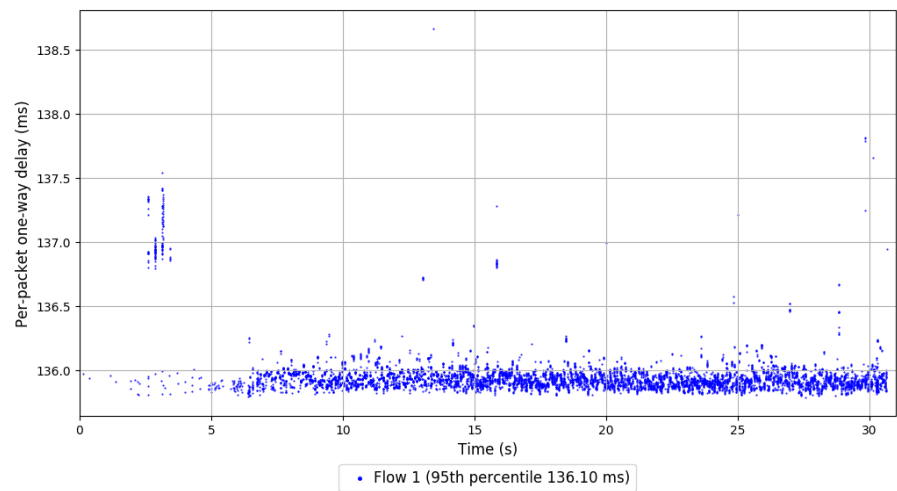
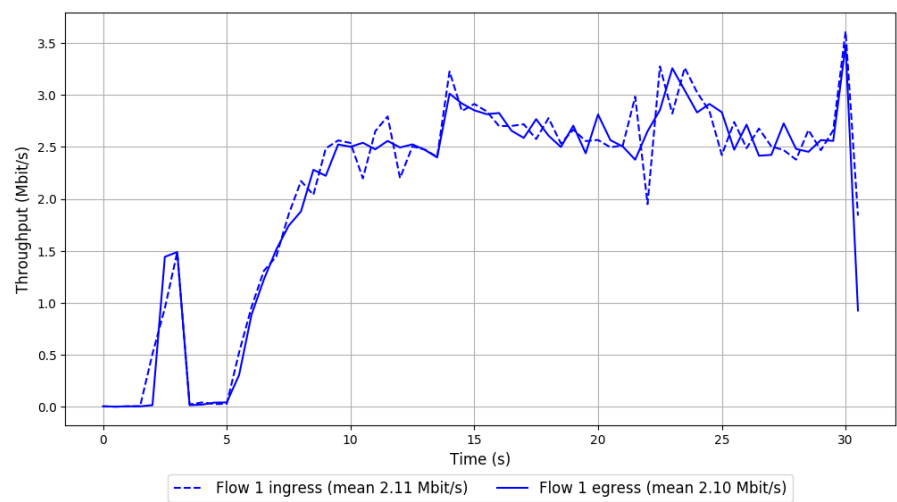
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 136.096 ms

Loss rate: 1.34%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-11 16:27:11

End at: 2017-08-11 16:27:41

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 137.036 ms

Loss rate: 1.04%

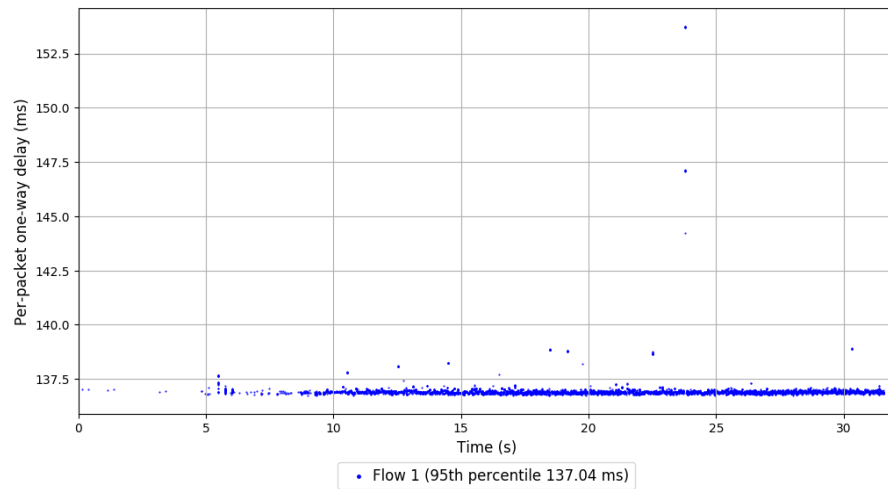
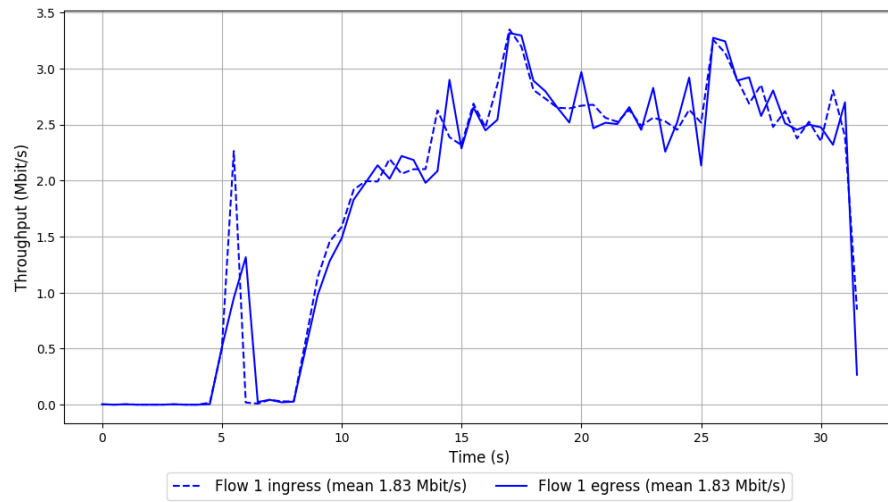
-- Flow 1:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 137.036 ms

Loss rate: 1.04%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-11 16:39:17

End at: 2017-08-11 16:39:47

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 136.426 ms

Loss rate: 1.36%

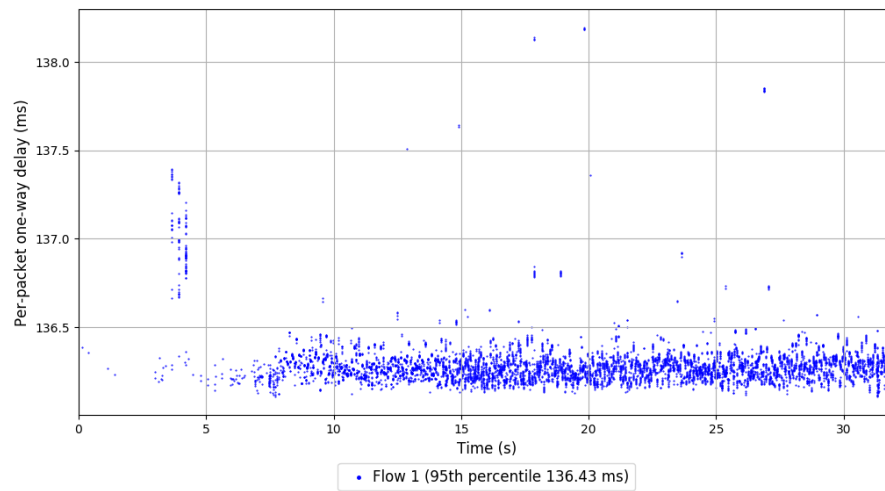
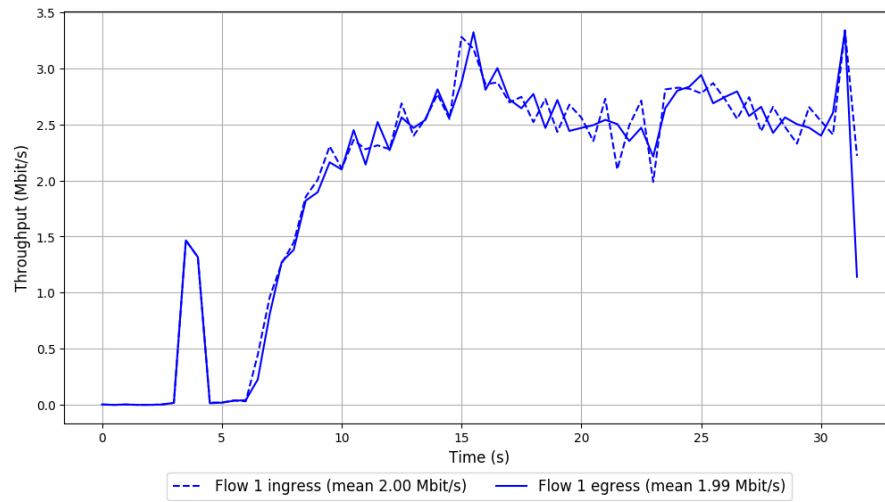
-- Flow 1:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 136.426 ms

Loss rate: 1.36%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-11 16:51:26

End at: 2017-08-11 16:51:56

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 135.521 ms

Loss rate: 1.30%

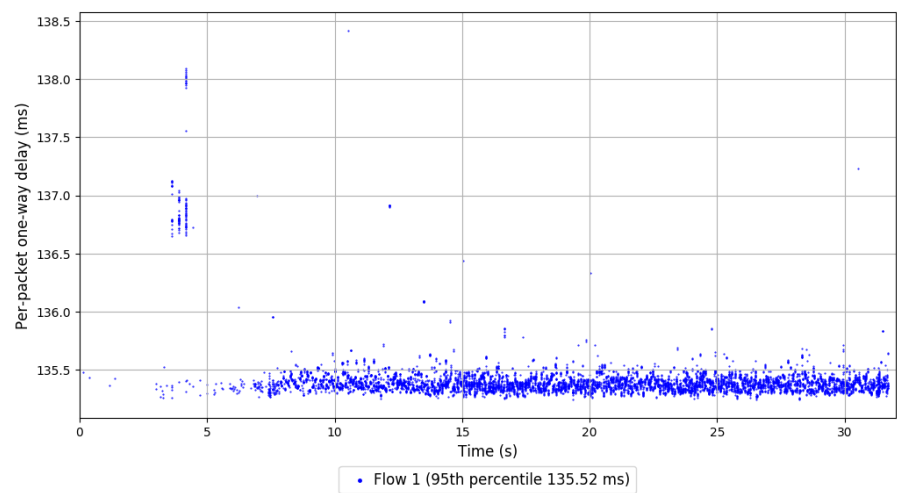
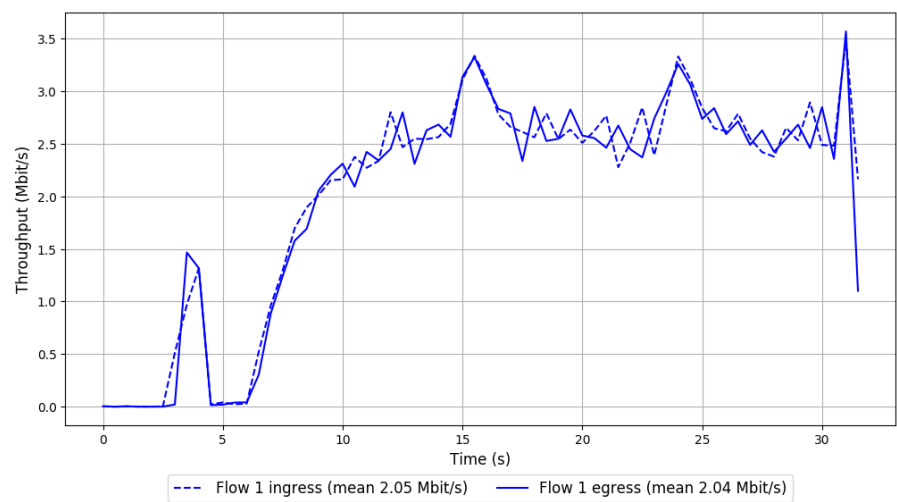
-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 135.521 ms

Loss rate: 1.30%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-11 17:03:22

End at: 2017-08-11 17:03:52

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 136.484 ms

Loss rate: 1.51%

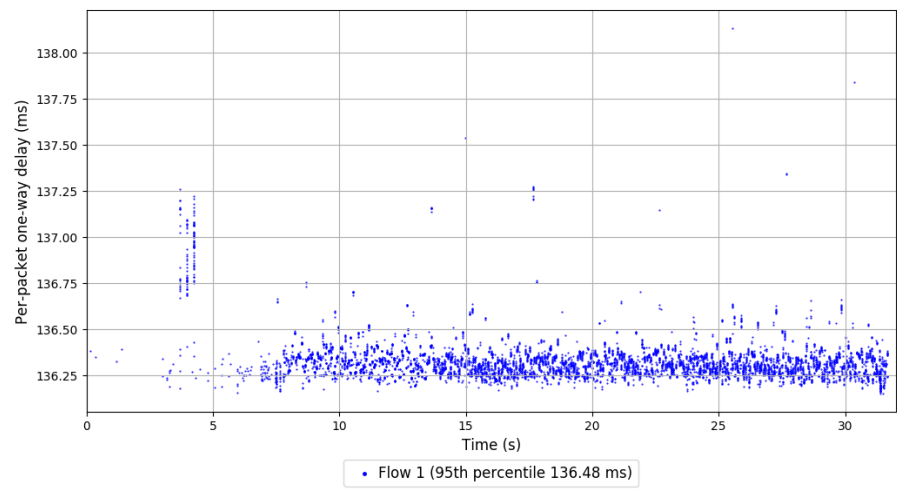
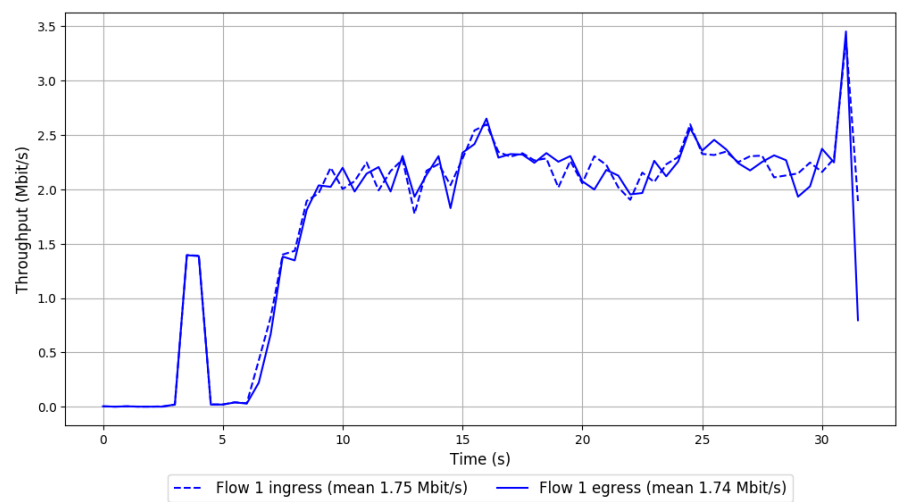
-- Flow 1:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 136.484 ms

Loss rate: 1.51%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-11 17:14:54

End at: 2017-08-11 17:15:24

Below is generated by plot.py at 2017-08-11 20:06:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 136.904 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 136.904 ms

Loss rate: 1.14%

Run 10: Report of WebRTC media — Data Link

