

Pantheon Report

Generated at 2017-09-18 02:14:56 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

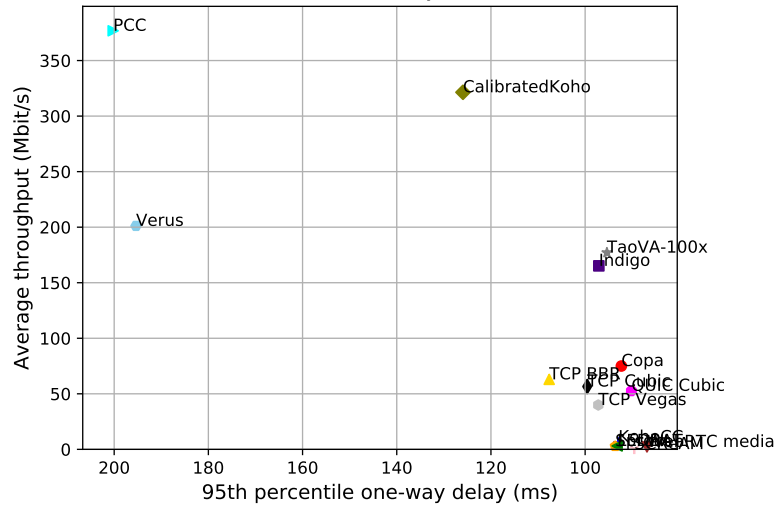
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

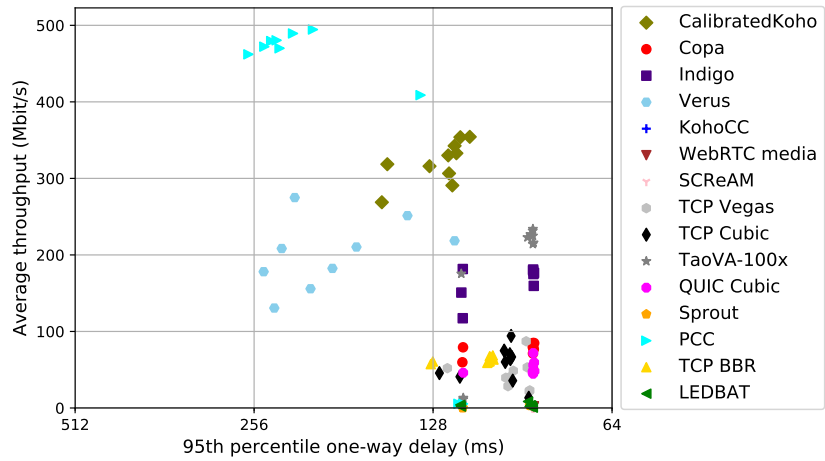
Git summary:

```
branch: master @ 57453dc11f8da93a2e03eea75289fea01b816298
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Iowa 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	63.01	107.63	0.13
CalibratedKoho	10	321.42	125.94	0.08
Copa	10	75.01	92.31	0.03
TCP Cubic	10	56.56	99.56	0.22
Indigo	8	165.18	97.09	0.07
KohoCC	10	6.42	92.96	0.09
LEDBAT	10	3.05	93.21	0.15
PCC	10	376.78	200.21	1.88
QUIC Cubic	8	52.69	90.18	0.02
SCReAM	10	0.22	89.57	0.01
Sprout	9	2.84	93.62	0.30
TaoVA-100x	10	177.06	95.37	0.04
TCP Vegas	10	39.91	97.21	0.12
Verus	9	201.16	195.37	1.94
WebRTC media	10	2.16	86.87	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-09-17 22:50:57

End at: 2017-09-17 22:51:27

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.70 Mbit/s

95th percentile per-packet one-way delay: 101.575 ms

Loss rate: 0.00%

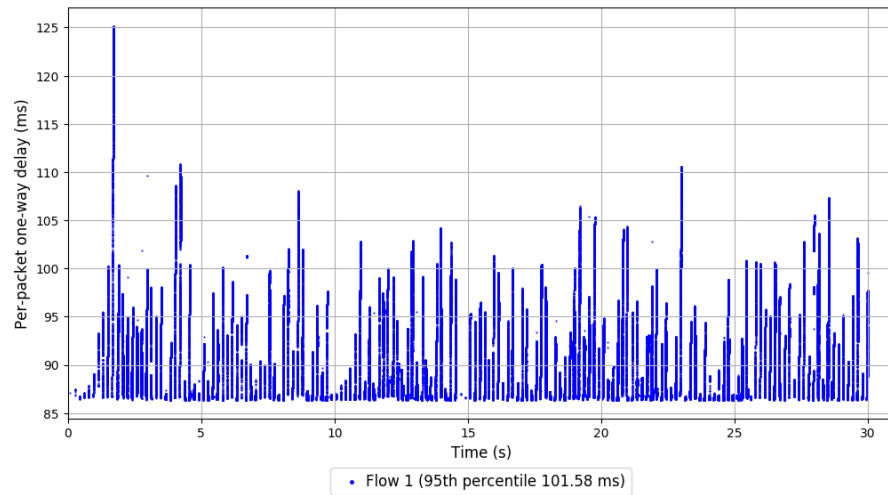
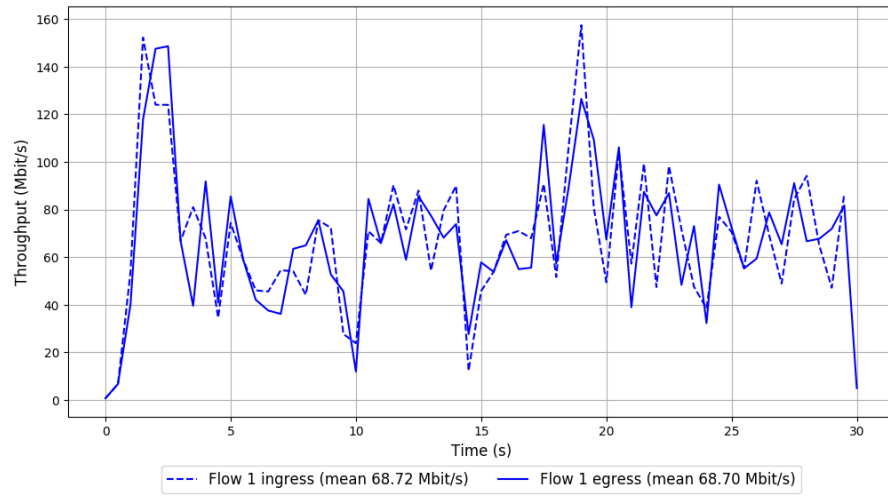
-- Flow 1:

Average throughput: 68.70 Mbit/s

95th percentile per-packet one-way delay: 101.575 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-09-17 23:02:29

End at: 2017-09-17 23:02:59

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.14 Mbit/s

95th percentile per-packet one-way delay: 102.825 ms

Loss rate: 0.41%

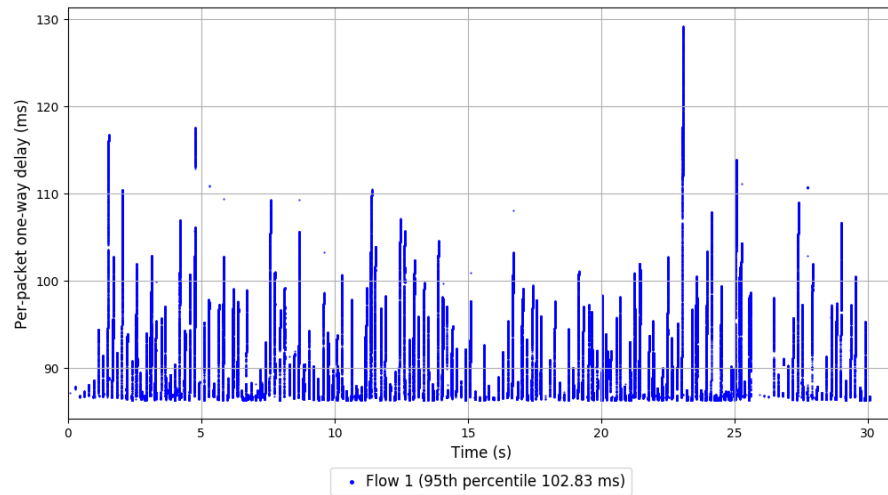
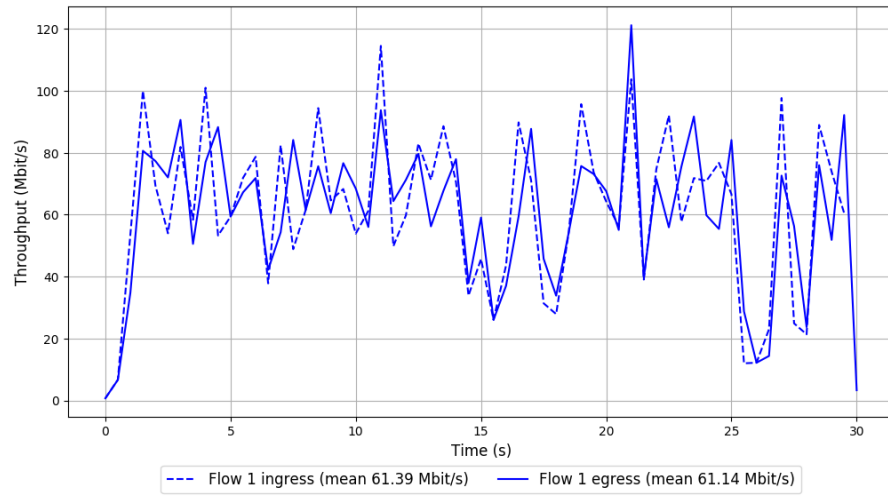
-- Flow 1:

Average throughput: 61.14 Mbit/s

95th percentile per-packet one-way delay: 102.825 ms

Loss rate: 0.41%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-09-17 23:14:15

End at: 2017-09-17 23:14:45

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.72 Mbit/s

95th percentile per-packet one-way delay: 102.776 ms

Loss rate: 0.02%

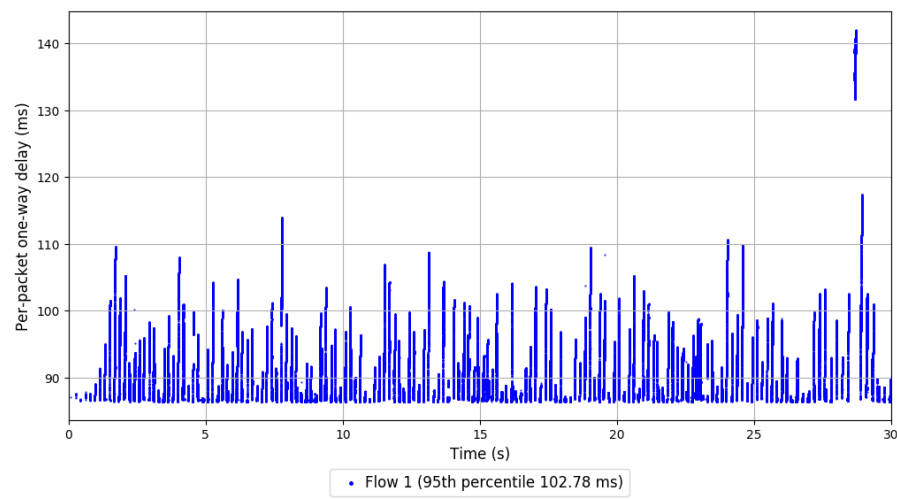
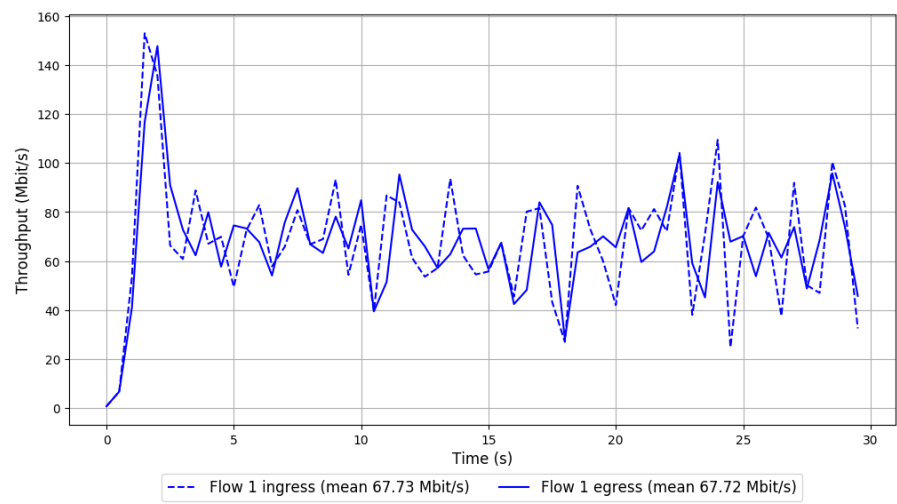
-- Flow 1:

Average throughput: 67.72 Mbit/s

95th percentile per-packet one-way delay: 102.776 ms

Loss rate: 0.02%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-09-17 23:26:05

End at: 2017-09-17 23:26:35

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.62 Mbit/s

95th percentile per-packet one-way delay: 101.773 ms

Loss rate: 0.00%

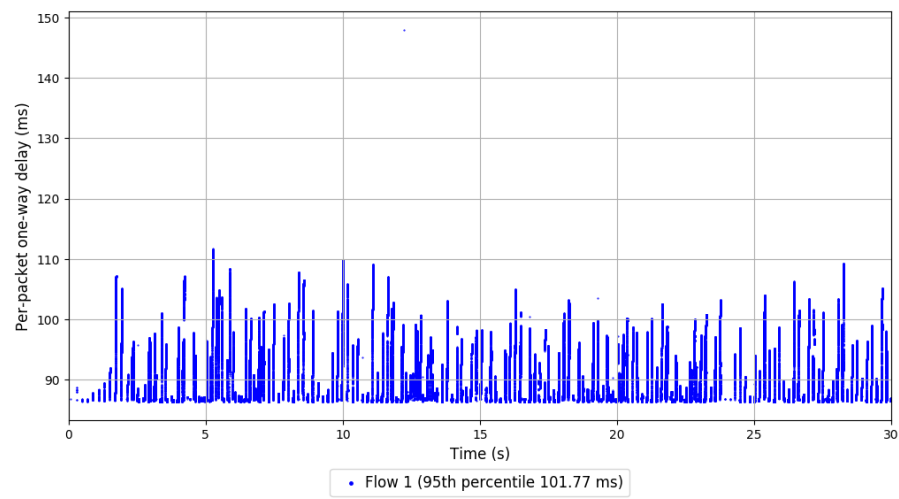
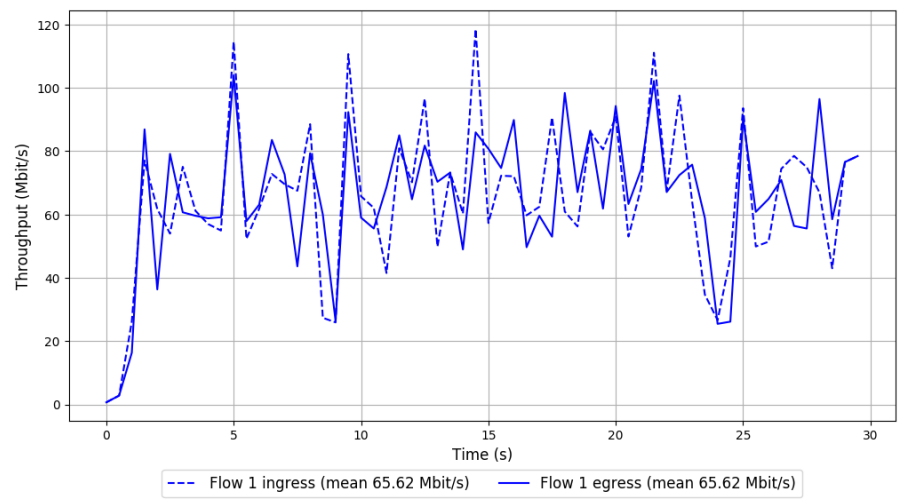
-- Flow 1:

Average throughput: 65.62 Mbit/s

95th percentile per-packet one-way delay: 101.773 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-09-17 23:37:59

End at: 2017-09-17 23:38:29

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.10 Mbit/s

95th percentile per-packet one-way delay: 101.853 ms

Loss rate: 0.01%

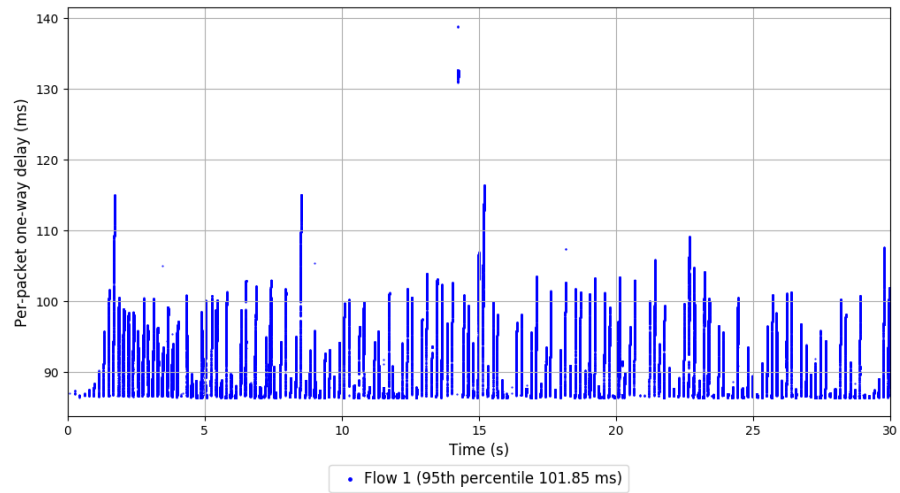
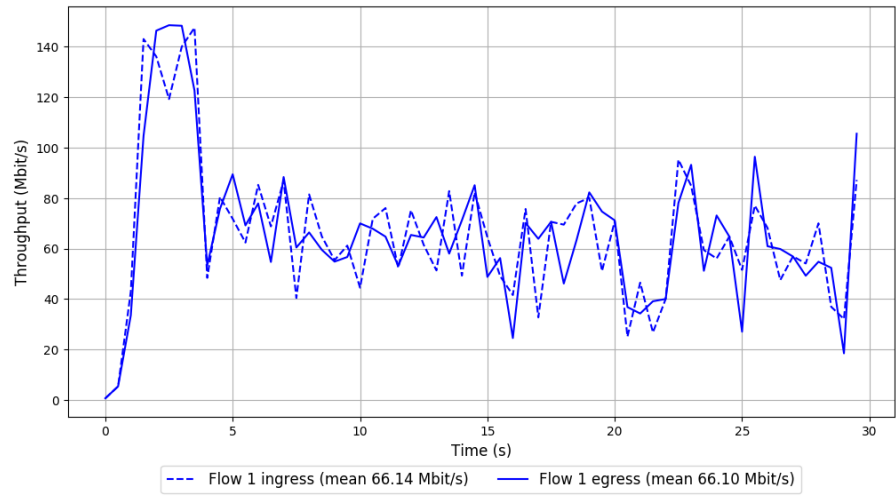
-- Flow 1:

Average throughput: 66.10 Mbit/s

95th percentile per-packet one-way delay: 101.853 ms

Loss rate: 0.01%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-09-17 23:49:57

End at: 2017-09-17 23:50:27

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.30 Mbit/s

95th percentile per-packet one-way delay: 101.280 ms

Loss rate: 0.00%

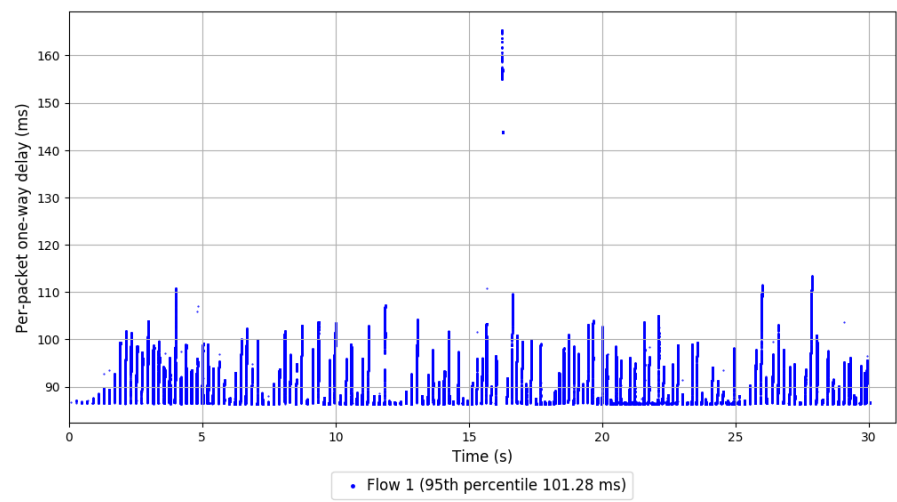
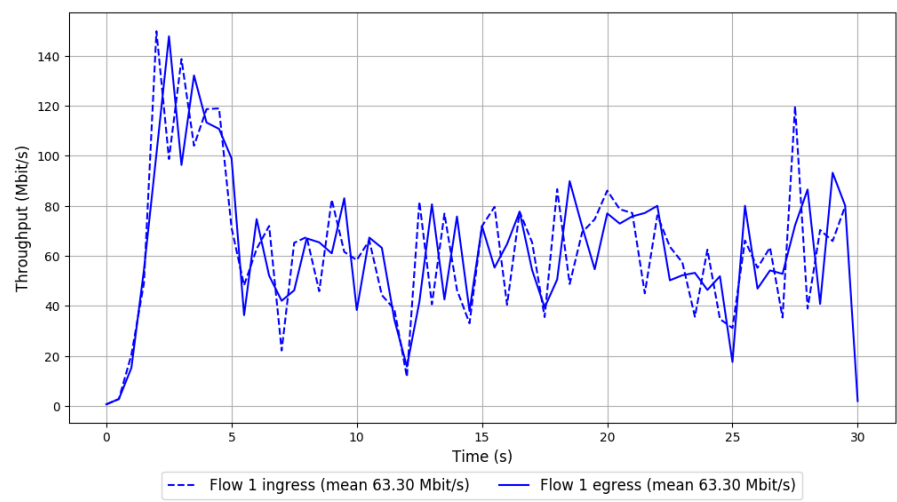
-- Flow 1:

Average throughput: 63.30 Mbit/s

95th percentile per-packet one-way delay: 101.280 ms

Loss rate: 0.00%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-09-18 00:01:43

End at: 2017-09-18 00:02:13

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 103.215 ms

Loss rate: 0.01%

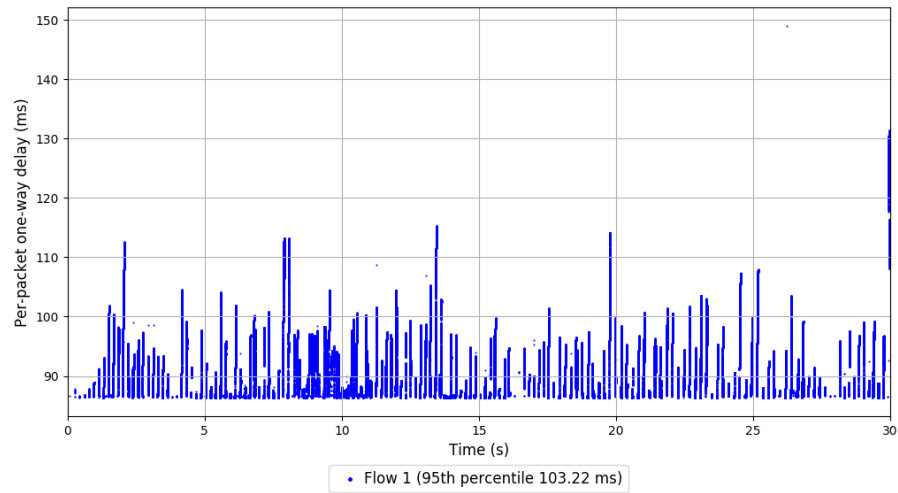
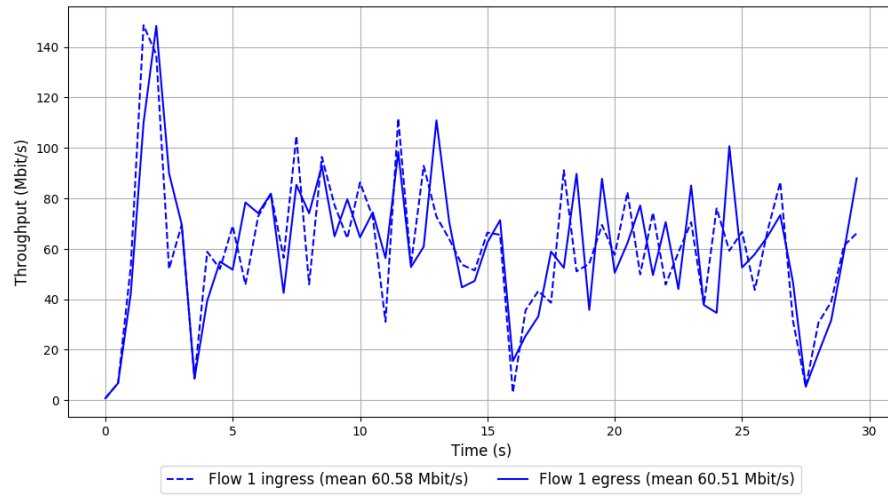
-- Flow 1:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 103.215 ms

Loss rate: 0.01%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-09-18 00:13:13

End at: 2017-09-18 00:13:43

Below is generated by plot.py at 2017-09-18 01:40:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.97 Mbit/s

95th percentile per-packet one-way delay: 103.738 ms

Loss rate: 0.16%

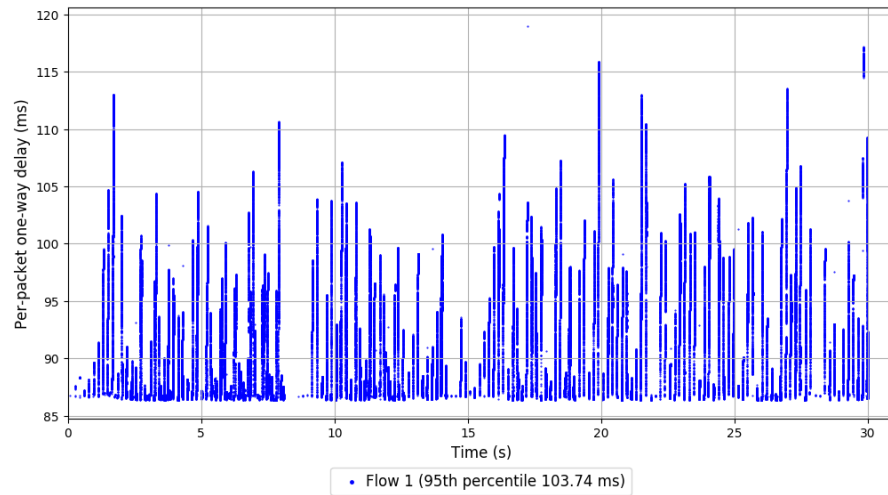
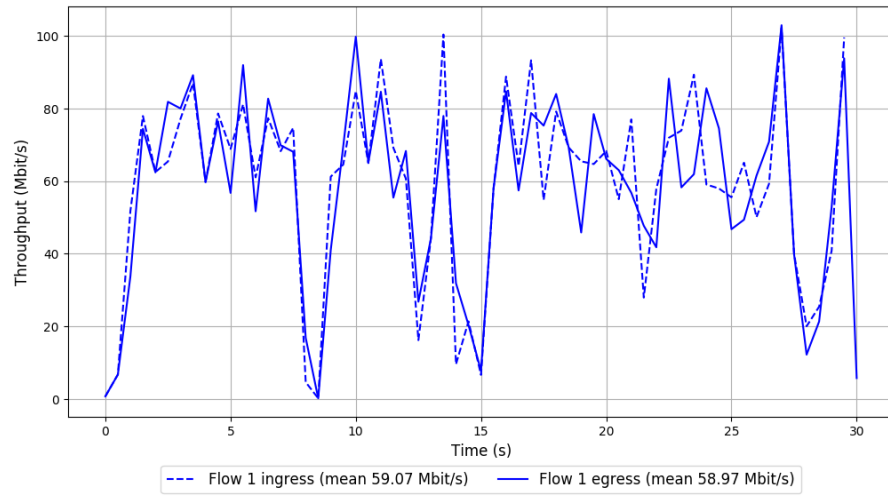
-- Flow 1:

Average throughput: 58.97 Mbit/s

95th percentile per-packet one-way delay: 103.738 ms

Loss rate: 0.16%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-09-18 00:24:24

End at: 2017-09-18 00:24:54

Below is generated by plot.py at 2017-09-18 01:40:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.29 Mbit/s

95th percentile per-packet one-way delay: 129.160 ms

Loss rate: 0.38%

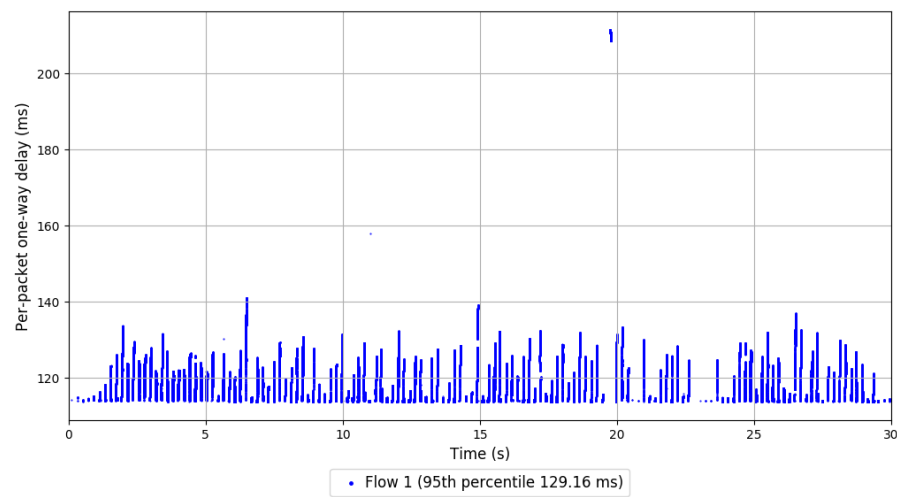
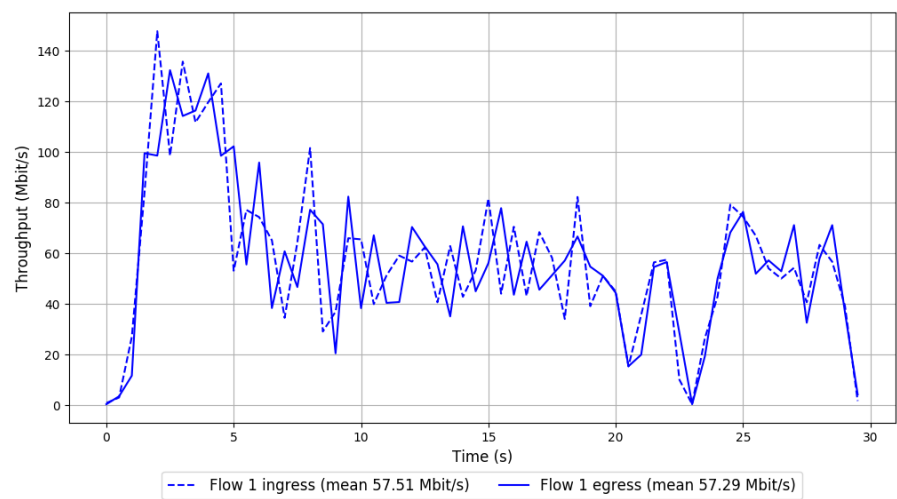
-- Flow 1:

Average throughput: 57.29 Mbit/s

95th percentile per-packet one-way delay: 129.160 ms

Loss rate: 0.38%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-09-18 00:35:45

End at: 2017-09-18 00:36:15

Below is generated by plot.py at 2017-09-18 01:40:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.74 Mbit/s

95th percentile per-packet one-way delay: 128.122 ms

Loss rate: 0.32%

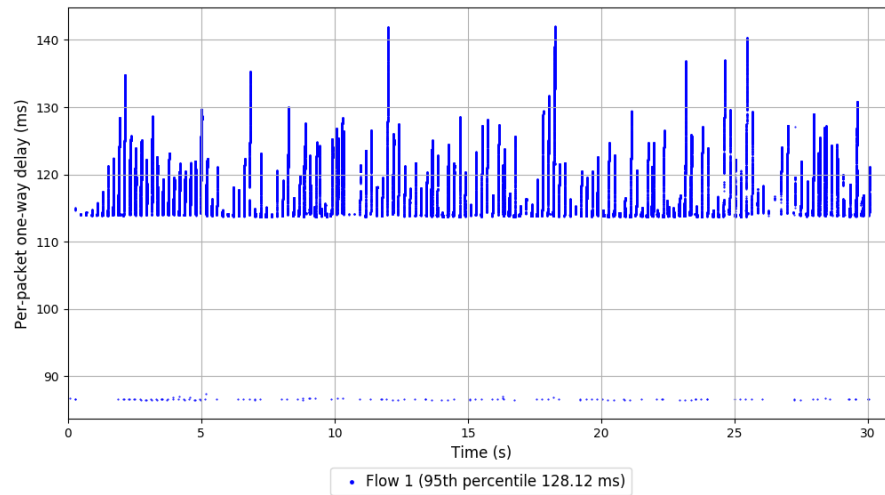
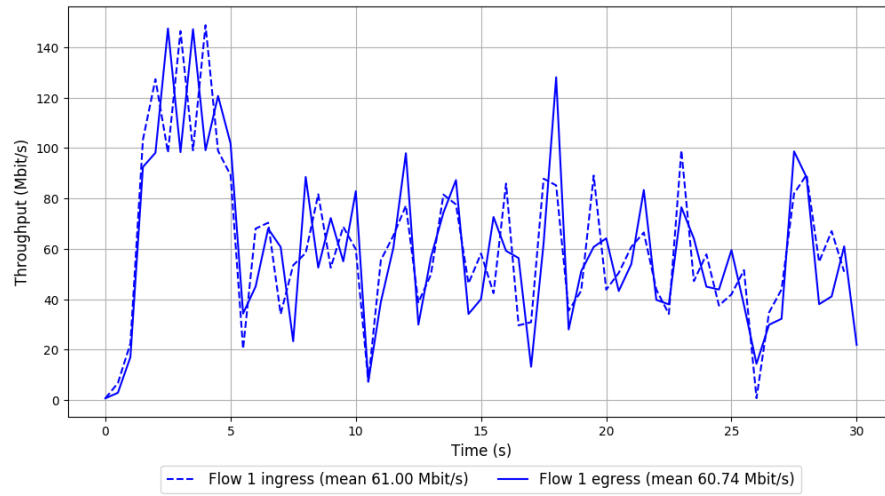
-- Flow 1:

Average throughput: 60.74 Mbit/s

95th percentile per-packet one-way delay: 128.122 ms

Loss rate: 0.32%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-09-17 22:53:02

End at: 2017-09-17 22:53:32

Below is generated by plot.py at 2017-09-18 01:45:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 290.81 Mbit/s

95th percentile per-packet one-way delay: 118.793 ms

Loss rate: 0.30%

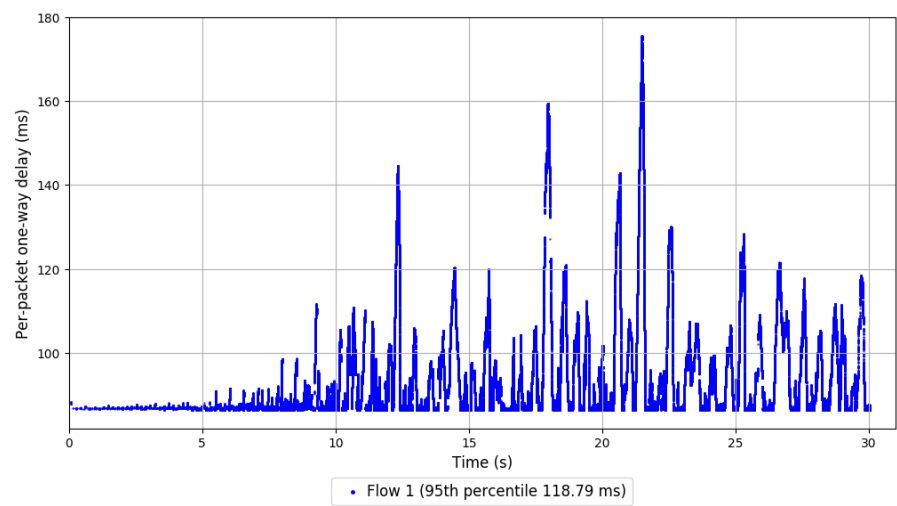
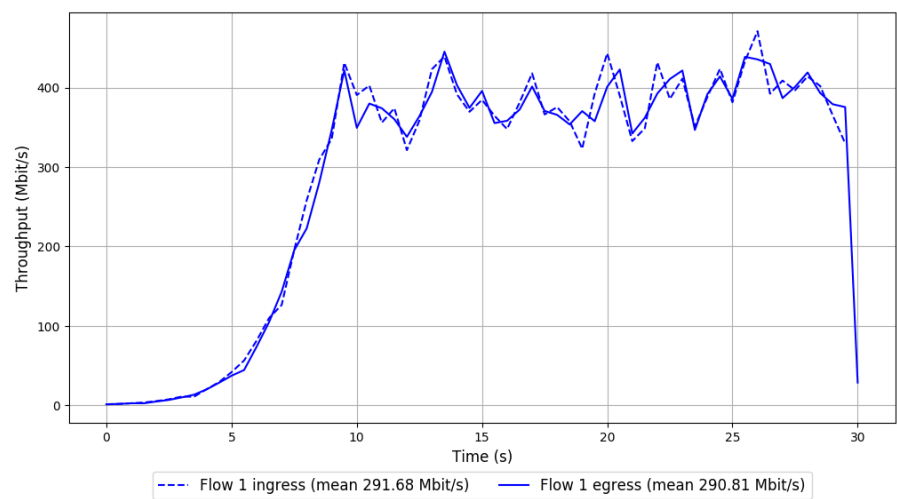
-- Flow 1:

Average throughput: 290.81 Mbit/s

95th percentile per-packet one-way delay: 118.793 ms

Loss rate: 0.30%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-09-17 23:04:36

End at: 2017-09-17 23:05:06

Below is generated by plot.py at 2017-09-18 01:45:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 353.83 Mbit/s

95th percentile per-packet one-way delay: 115.172 ms

Loss rate: 0.00%

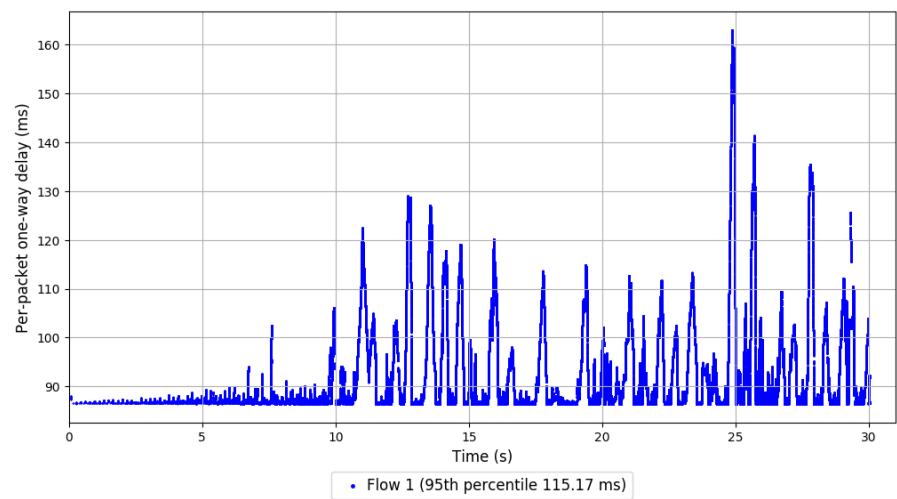
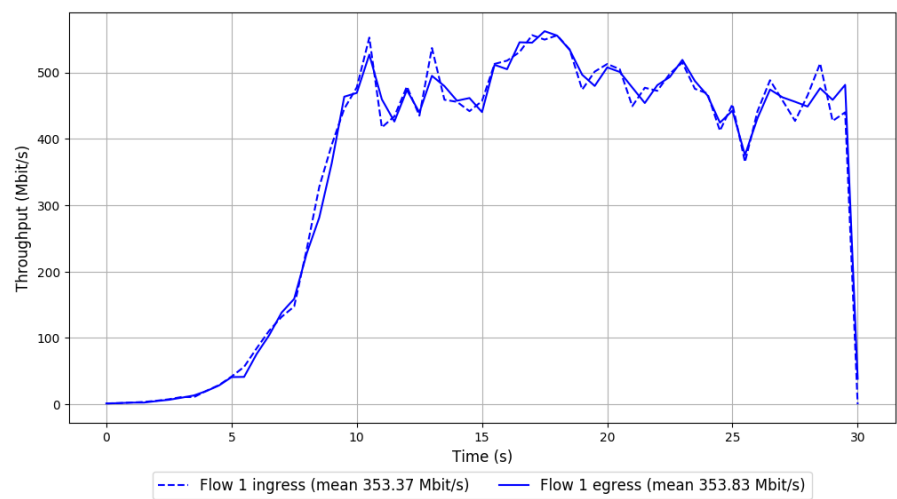
-- Flow 1:

Average throughput: 353.83 Mbit/s

95th percentile per-packet one-way delay: 115.172 ms

Loss rate: 0.00%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-09-17 23:16:22

End at: 2017-09-17 23:16:52

Below is generated by plot.py at 2017-09-18 01:45:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 330.05 Mbit/s

95th percentile per-packet one-way delay: 120.695 ms

Loss rate: 0.04%

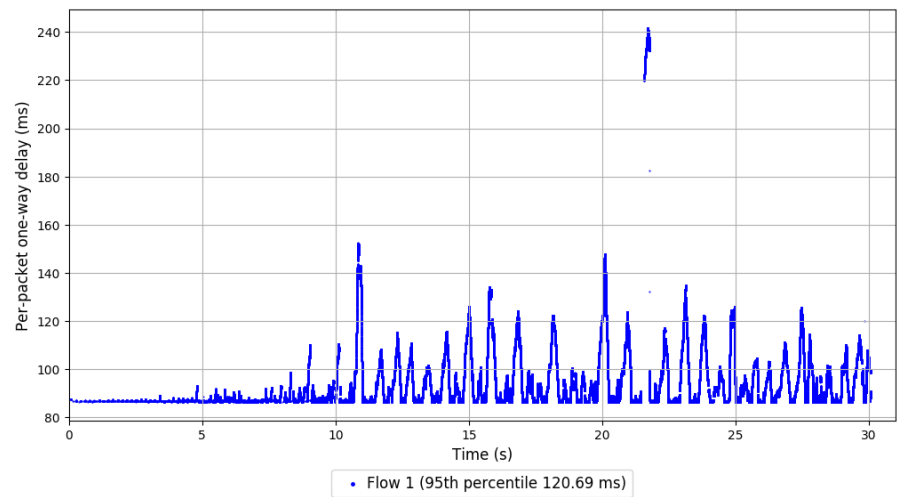
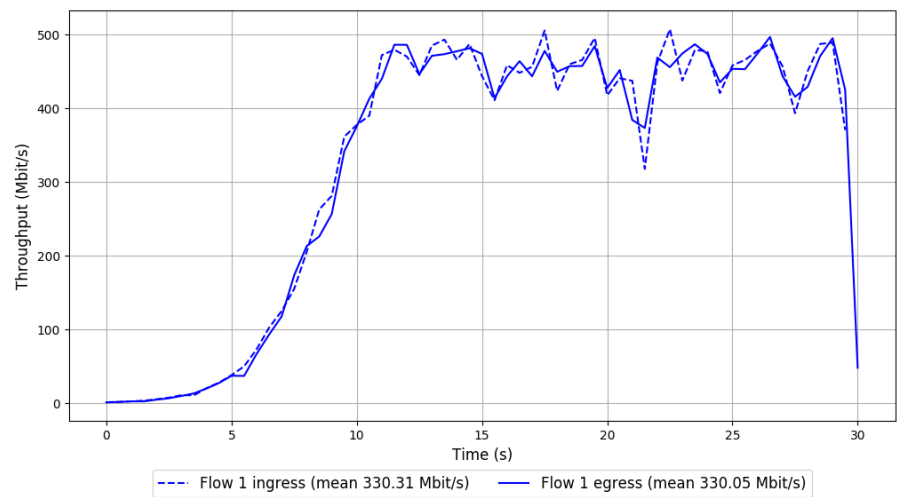
-- Flow 1:

Average throughput: 330.05 Mbit/s

95th percentile per-packet one-way delay: 120.695 ms

Loss rate: 0.04%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-09-17 23:28:10

End at: 2017-09-17 23:28:40

Below is generated by plot.py at 2017-09-18 01:45:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 342.58 Mbit/s

95th percentile per-packet one-way delay: 117.756 ms

Loss rate: 0.04%

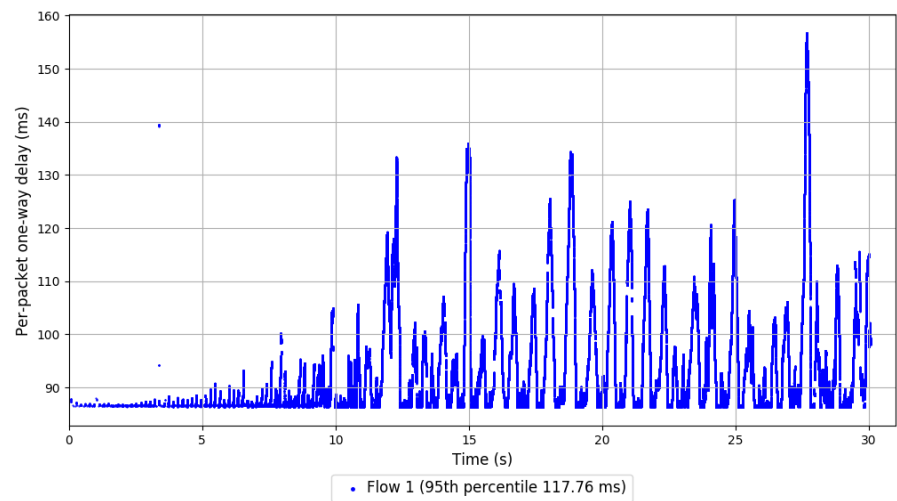
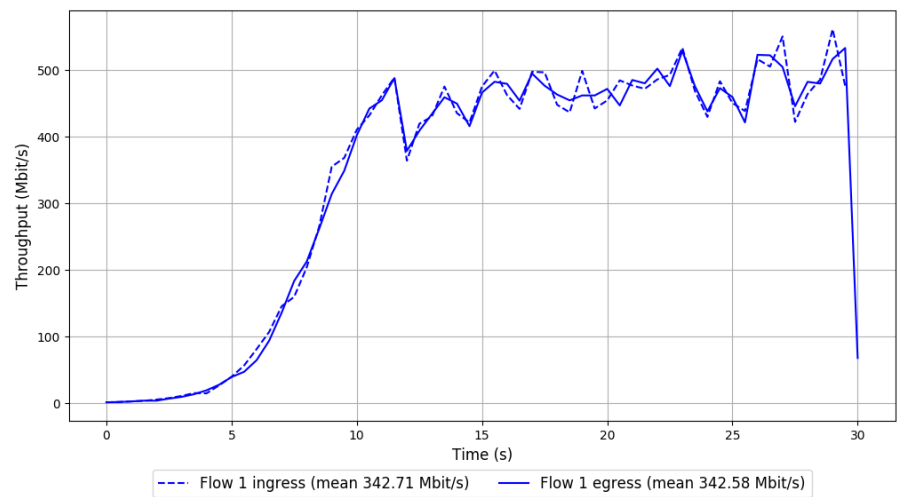
-- Flow 1:

Average throughput: 342.58 Mbit/s

95th percentile per-packet one-way delay: 117.756 ms

Loss rate: 0.04%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-09-17 23:40:13

End at: 2017-09-17 23:40:43

Below is generated by plot.py at 2017-09-18 01:45:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 354.30 Mbit/s

95th percentile per-packet one-way delay: 111.048 ms

Loss rate: 0.00%

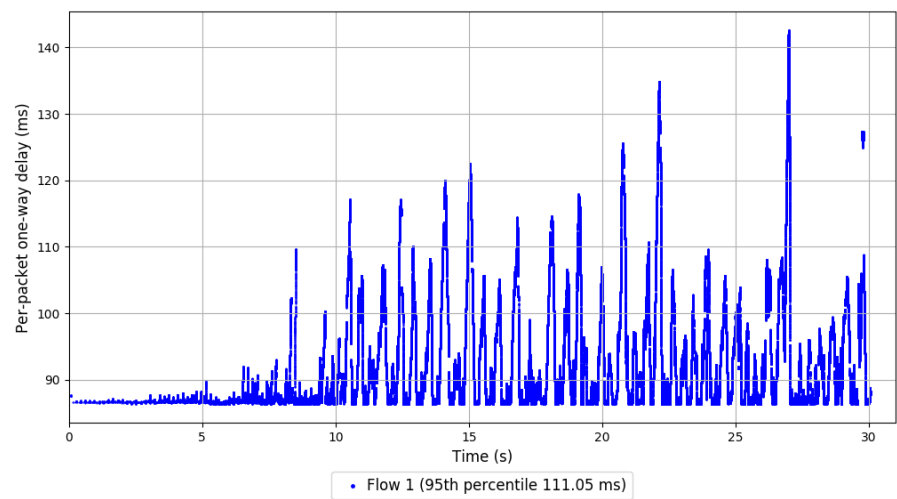
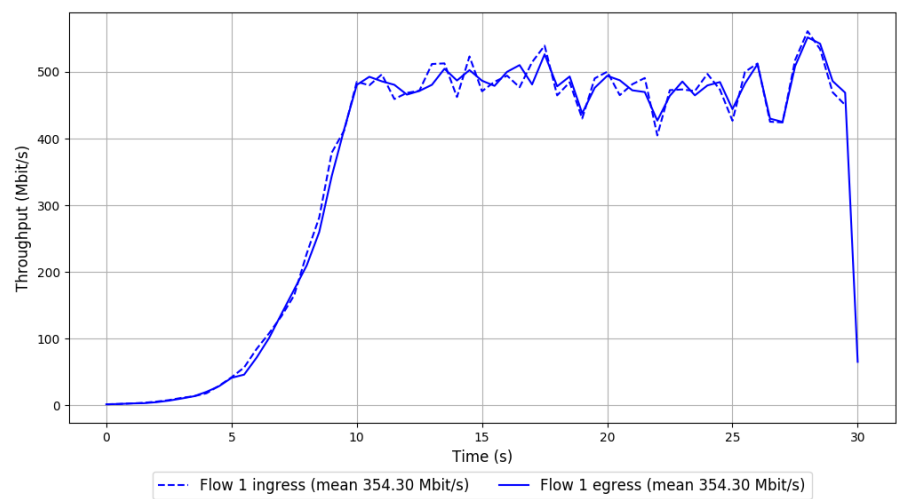
-- Flow 1:

Average throughput: 354.30 Mbit/s

95th percentile per-packet one-way delay: 111.048 ms

Loss rate: 0.00%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-09-17 23:52:05

End at: 2017-09-17 23:52:35

Below is generated by plot.py at 2017-09-18 01:45:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 332.85 Mbit/s

95th percentile per-packet one-way delay: 116.939 ms

Loss rate: 0.07%

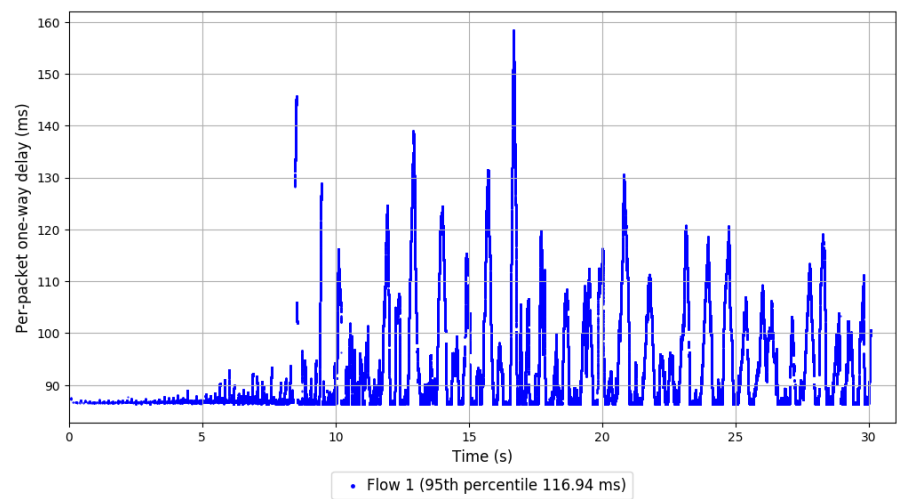
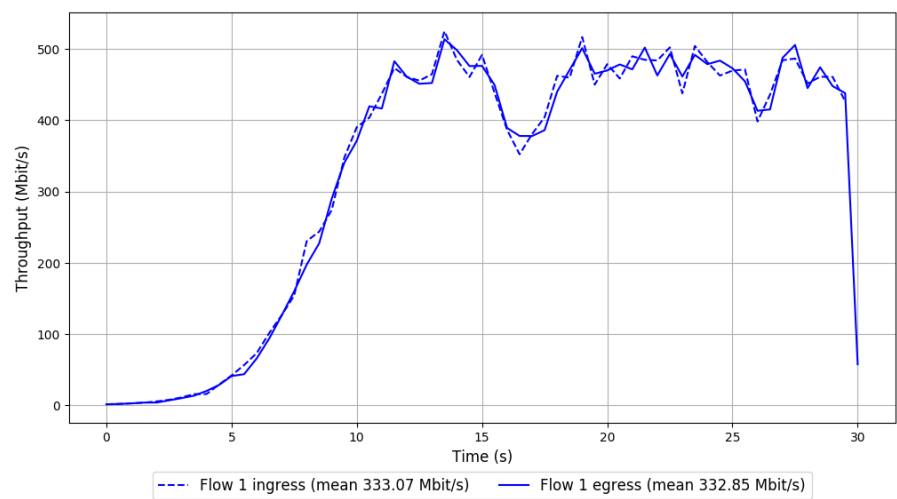
-- Flow 1:

Average throughput: 332.85 Mbit/s

95th percentile per-packet one-way delay: 116.939 ms

Loss rate: 0.07%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-09-18 00:03:49

End at: 2017-09-18 00:04:19

Below is generated by plot.py at 2017-09-18 01:45:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 306.52 Mbit/s

95th percentile per-packet one-way delay: 120.317 ms

Loss rate: 0.13%

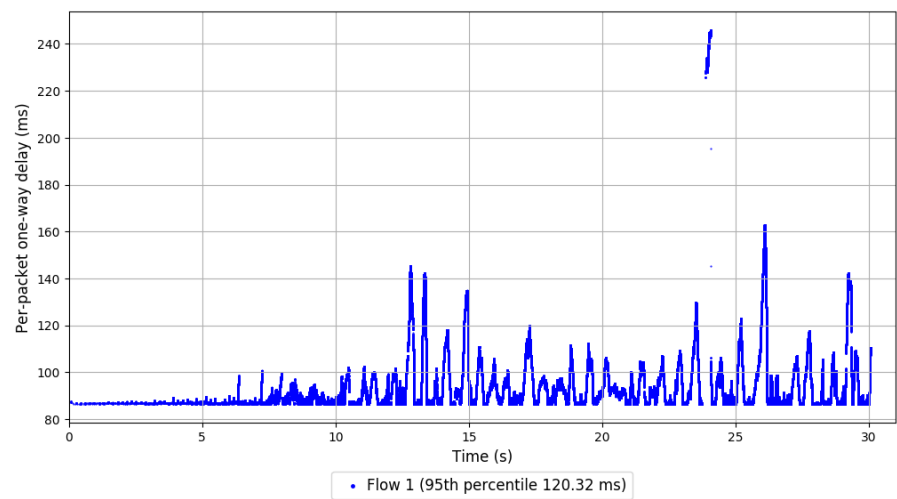
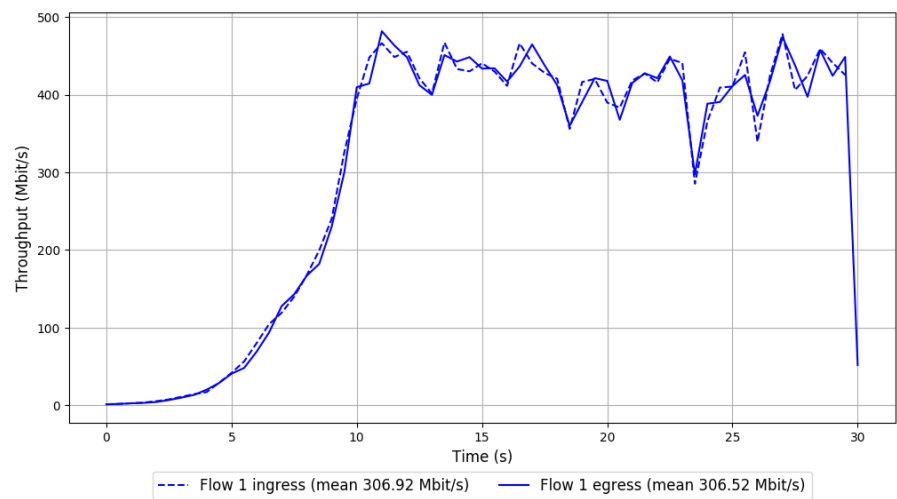
-- Flow 1:

Average throughput: 306.52 Mbit/s

95th percentile per-packet one-way delay: 120.317 ms

Loss rate: 0.13%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-09-18 00:15:18

End at: 2017-09-18 00:15:48

Below is generated by plot.py at 2017-09-18 01:46:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 315.94 Mbit/s

95th percentile per-packet one-way delay: 129.774 ms

Loss rate: 0.00%

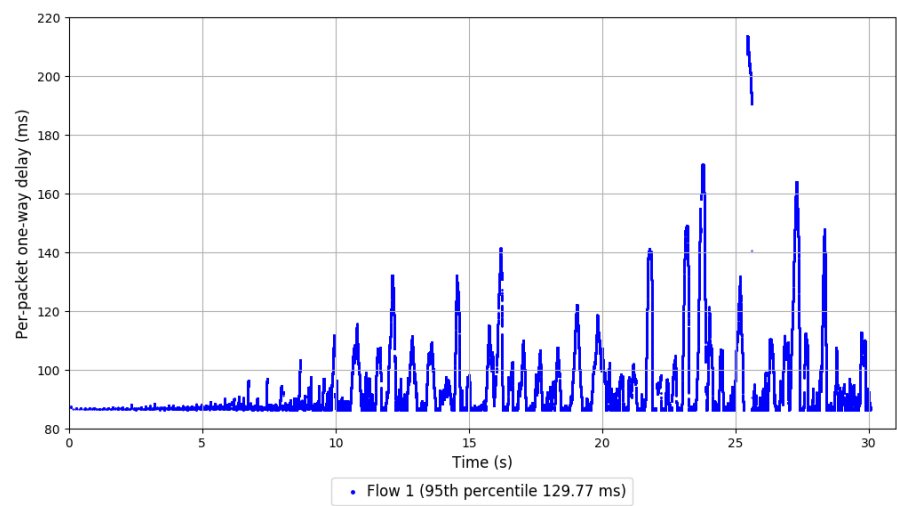
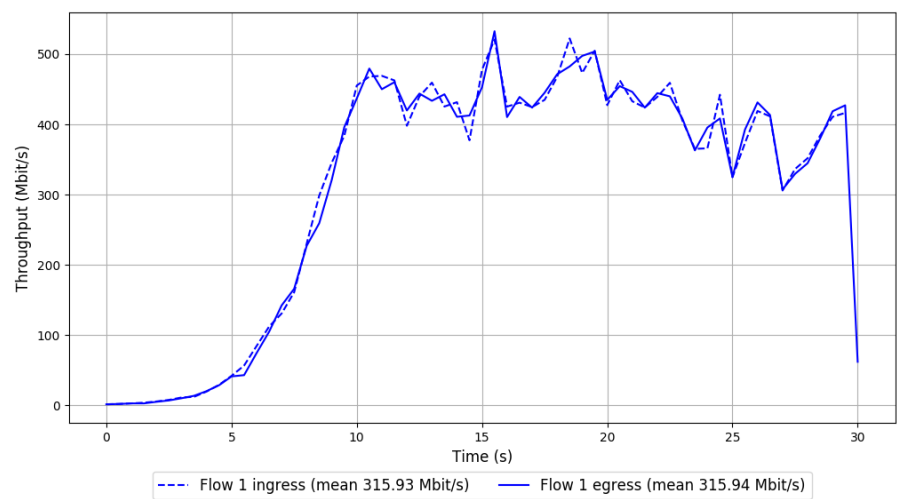
-- Flow 1:

Average throughput: 315.94 Mbit/s

95th percentile per-packet one-way delay: 129.774 ms

Loss rate: 0.00%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-09-18 00:26:30

End at: 2017-09-18 00:27:00

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 318.53 Mbit/s

95th percentile per-packet one-way delay: 152.815 ms

Loss rate: 0.17%

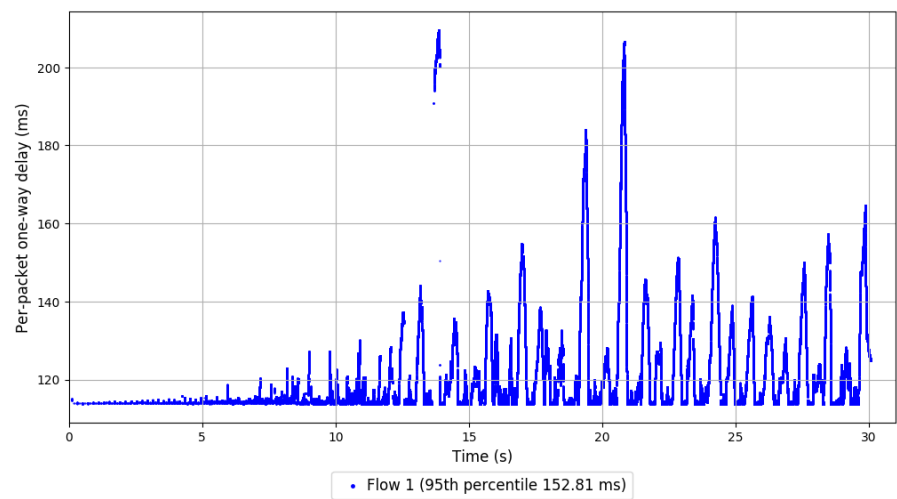
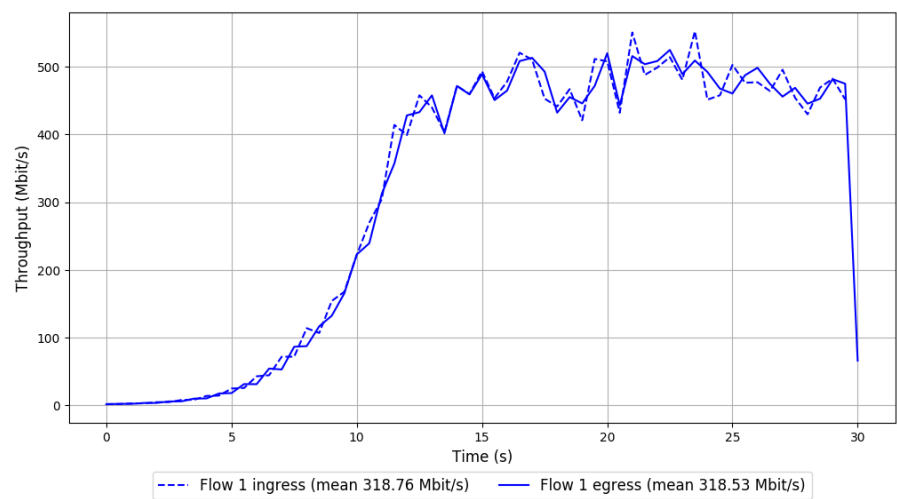
-- Flow 1:

Average throughput: 318.53 Mbit/s

95th percentile per-packet one-way delay: 152.815 ms

Loss rate: 0.17%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-09-18 00:37:50

End at: 2017-09-18 00:38:20

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 268.83 Mbit/s

95th percentile per-packet one-way delay: 156.091 ms

Loss rate: 0.06%

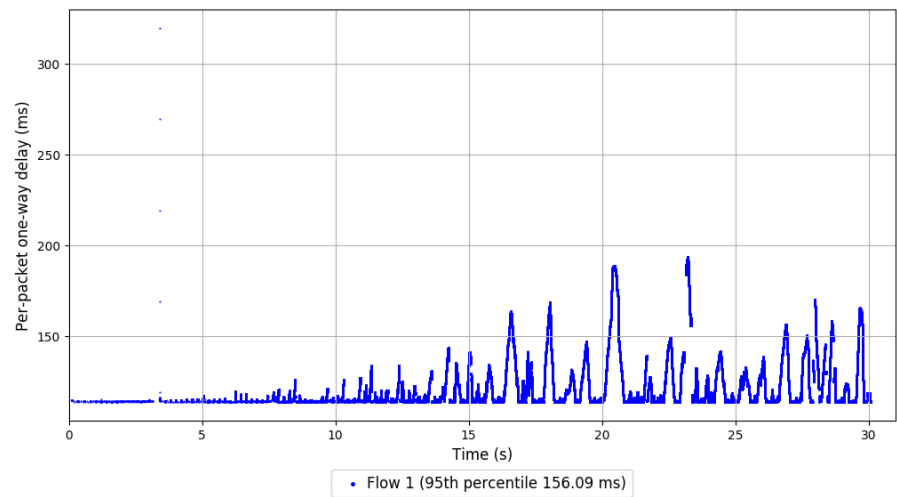
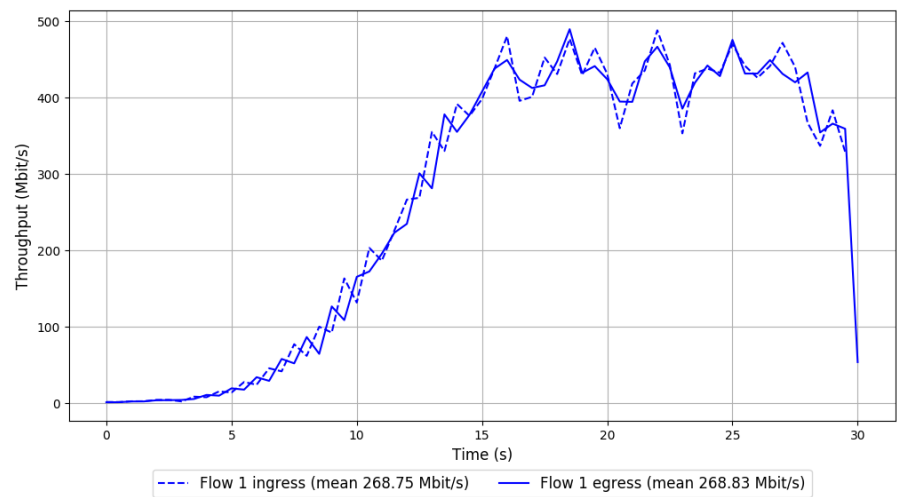
-- Flow 1:

Average throughput: 268.83 Mbit/s

95th percentile per-packet one-way delay: 156.091 ms

Loss rate: 0.06%

Run 10: Report of CalibratedKoho — Data Link

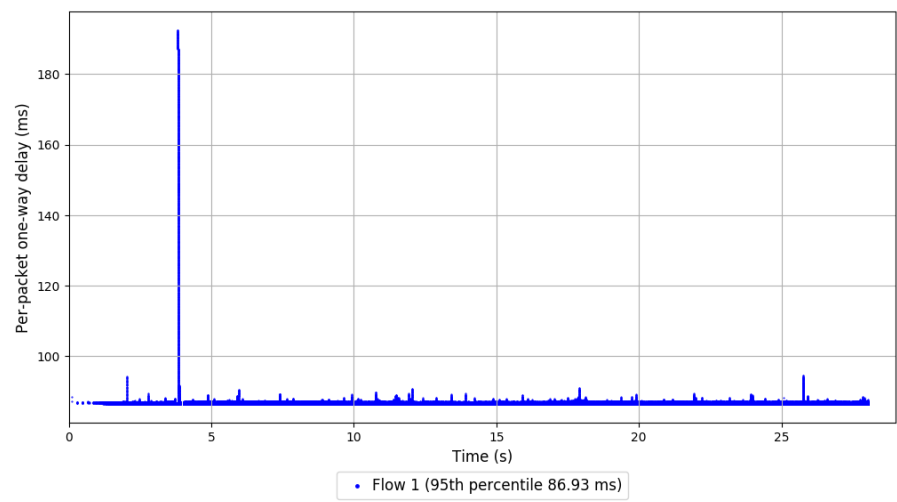
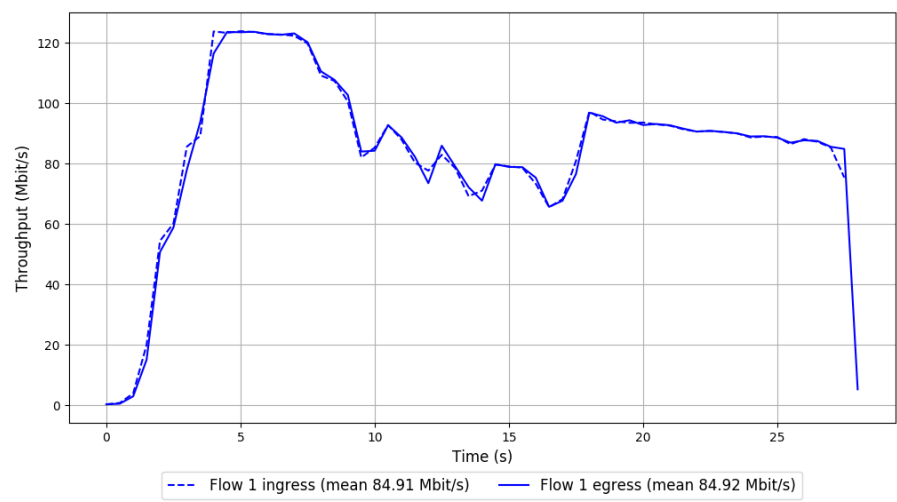


```
Run 1: Statistics of Copa

Start at: 2017-09-17 22:49:30
End at: 2017-09-17 22:50:00

# Below is generated by plot.py at 2017-09-18 01:50:21
# Datalink statistics
-- Total of 1 flow:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 86.926 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 84.92 Mbit/s
95th percentile per-packet one-way delay: 86.926 ms
Loss rate: 0.00%
```


Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-09-17 23:01:04

End at: 2017-09-17 23:01:34

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.23 Mbit/s

95th percentile per-packet one-way delay: 86.937 ms

Loss rate: 0.00%

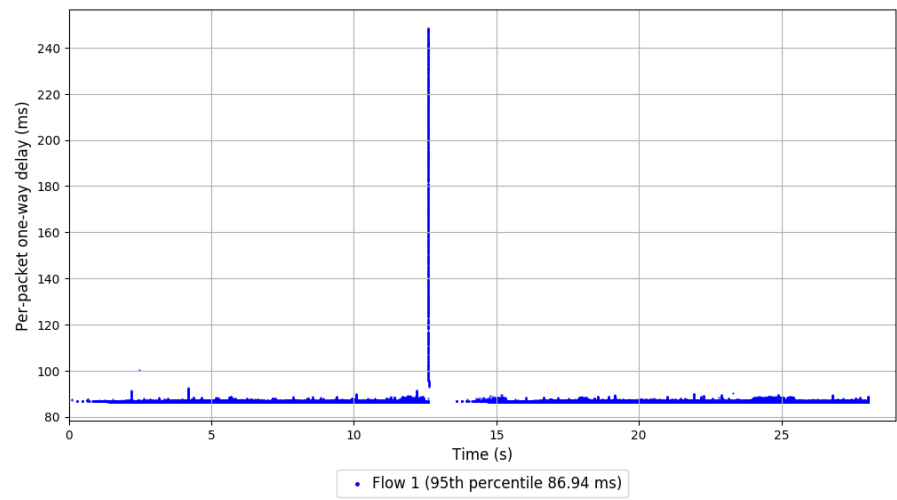
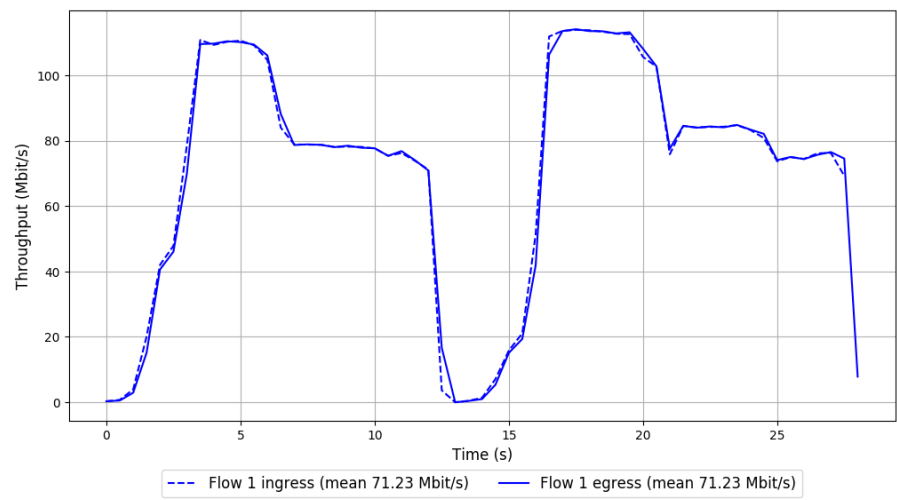
-- Flow 1:

Average throughput: 71.23 Mbit/s

95th percentile per-packet one-way delay: 86.937 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-09-17 23:12:48

End at: 2017-09-17 23:13:18

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.33 Mbit/s

95th percentile per-packet one-way delay: 86.884 ms

Loss rate: 0.00%

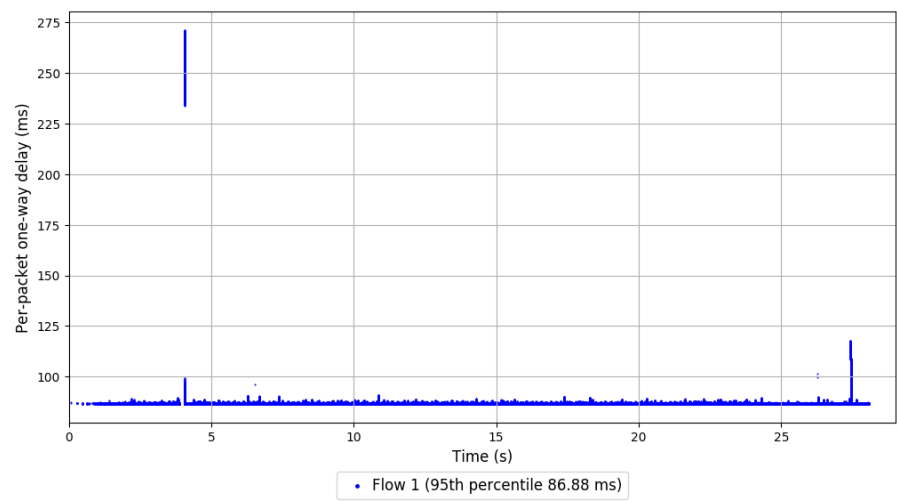
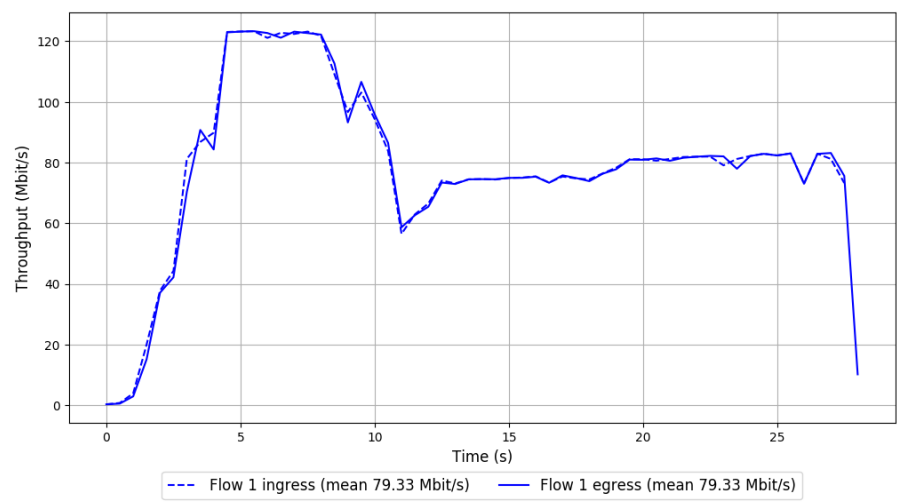
-- Flow 1:

Average throughput: 79.33 Mbit/s

95th percentile per-packet one-way delay: 86.884 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-09-17 23:24:38

End at: 2017-09-17 23:25:08

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.75 Mbit/s

95th percentile per-packet one-way delay: 86.651 ms

Loss rate: 0.00%

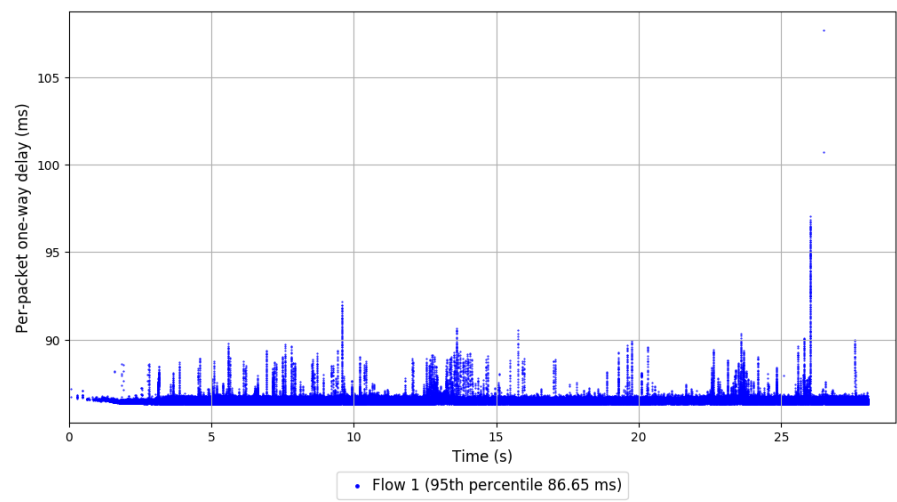
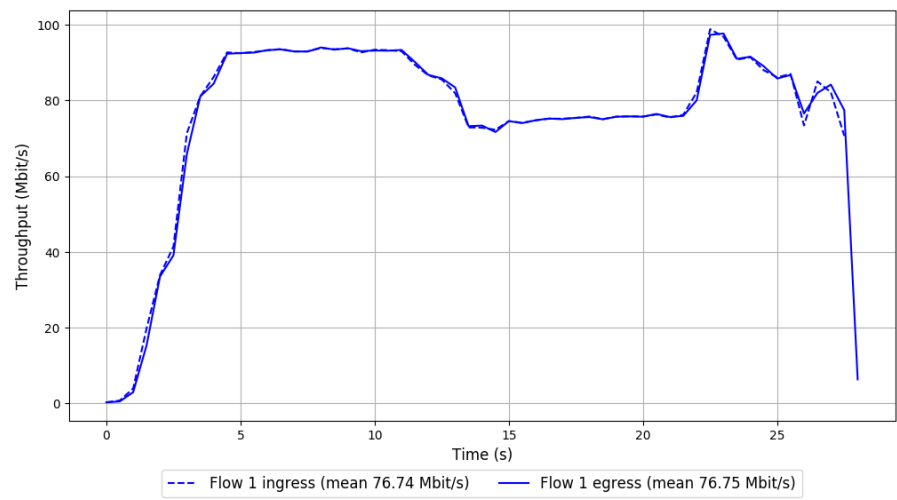
-- Flow 1:

Average throughput: 76.75 Mbit/s

95th percentile per-packet one-way delay: 86.651 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-09-17 23:36:32

End at: 2017-09-17 23:37:02

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.94 Mbit/s

95th percentile per-packet one-way delay: 86.950 ms

Loss rate: 0.00%

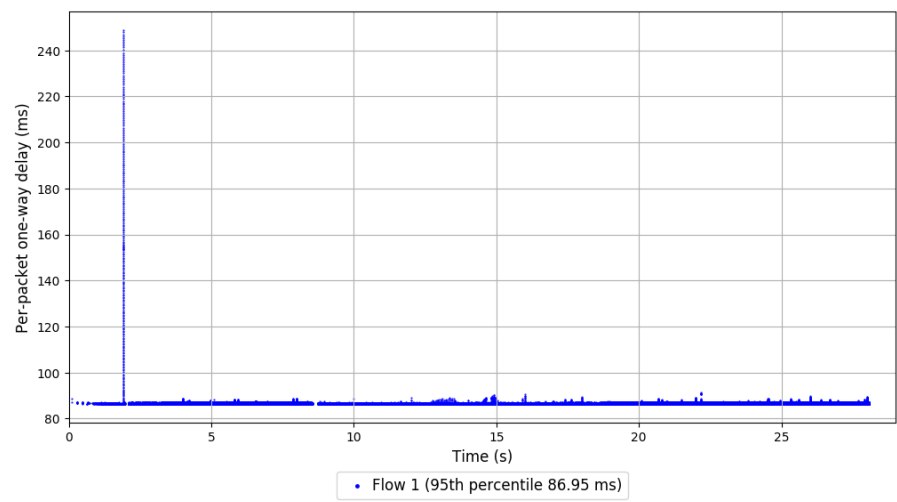
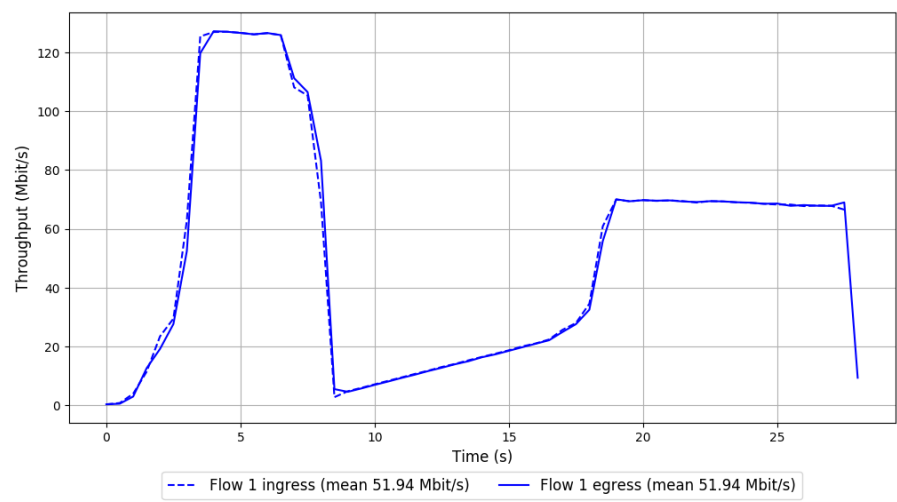
-- Flow 1:

Average throughput: 51.94 Mbit/s

95th percentile per-packet one-way delay: 86.950 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-09-17 23:48:30

End at: 2017-09-17 23:49:00

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.86 Mbit/s

95th percentile per-packet one-way delay: 86.523 ms

Loss rate: 0.00%

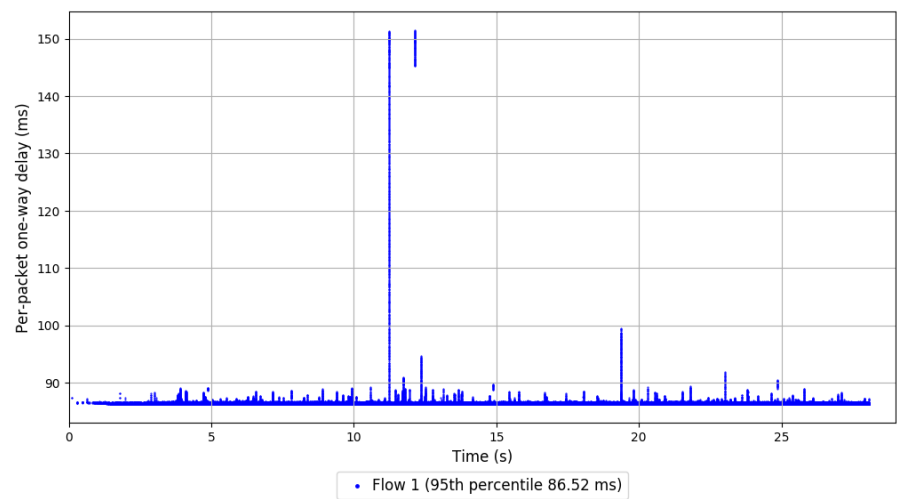
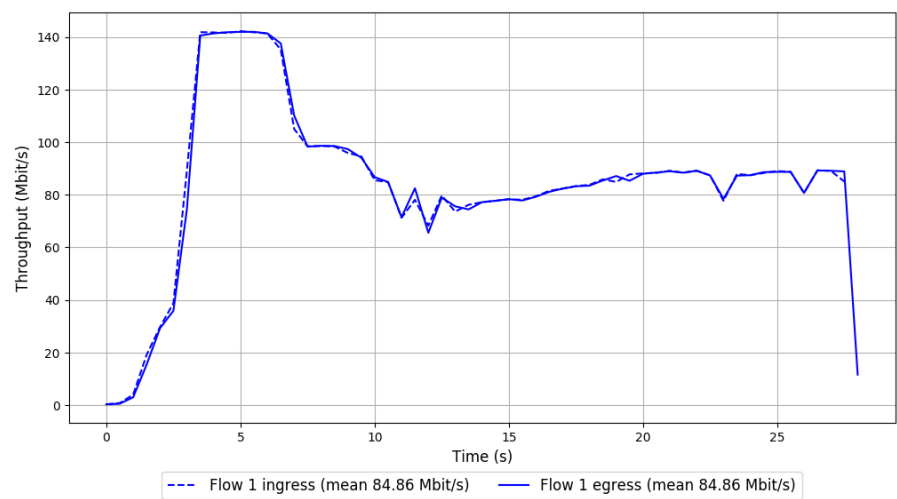
-- Flow 1:

Average throughput: 84.86 Mbit/s

95th percentile per-packet one-way delay: 86.523 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-09-18 00:00:15

End at: 2017-09-18 00:00:45

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.75 Mbit/s

95th percentile per-packet one-way delay: 87.014 ms

Loss rate: 0.00%

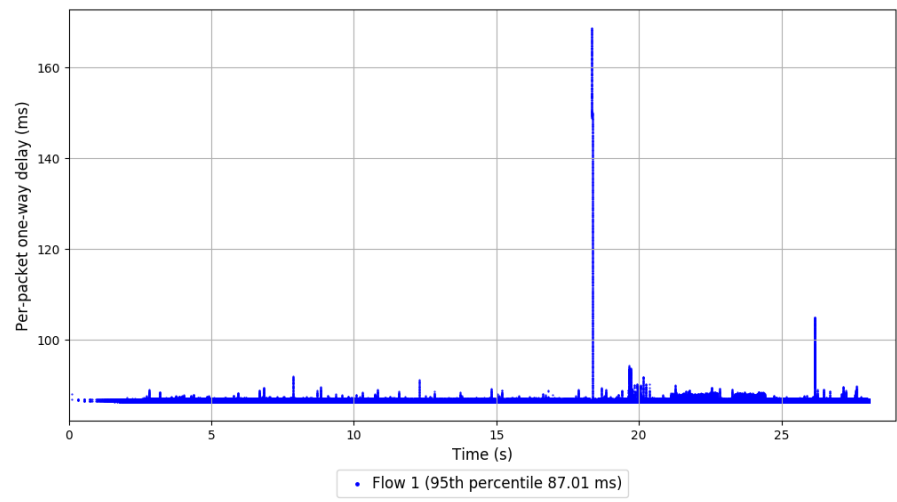
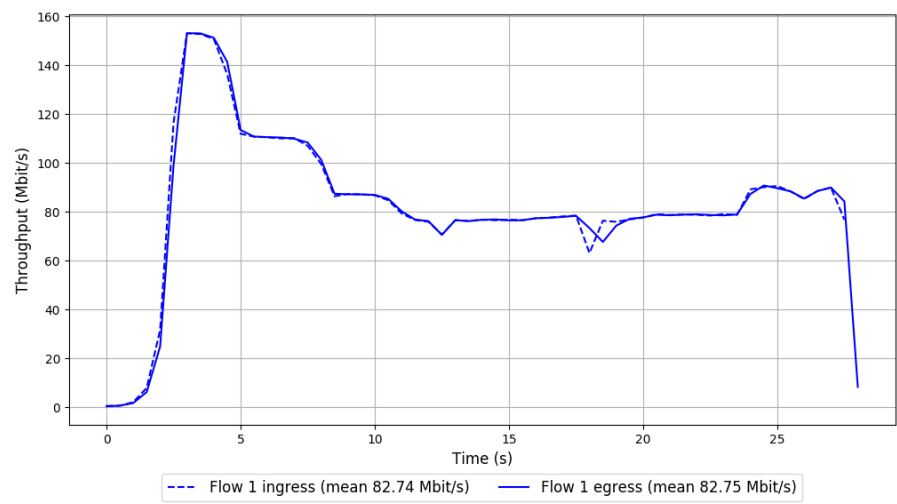
-- Flow 1:

Average throughput: 82.75 Mbit/s

95th percentile per-packet one-way delay: 87.014 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-09-18 00:11:47

End at: 2017-09-18 00:12:17

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.28 Mbit/s

95th percentile per-packet one-way delay: 86.966 ms

Loss rate: 0.01%

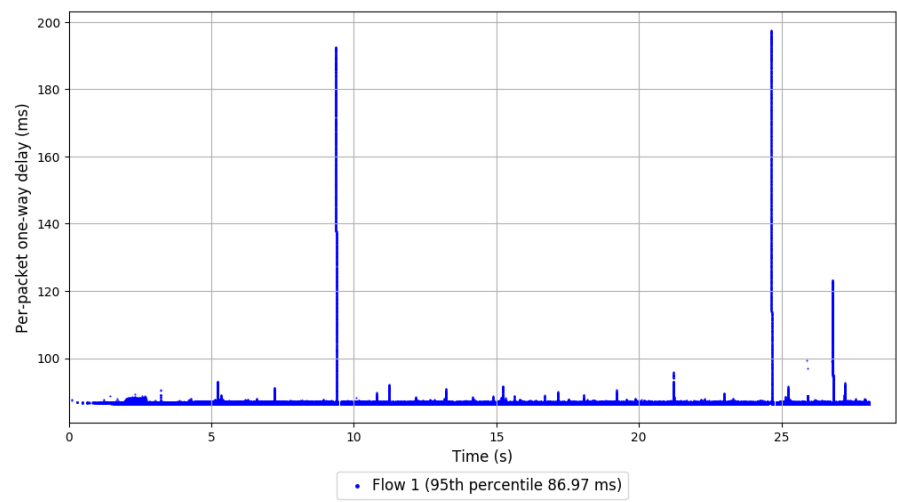
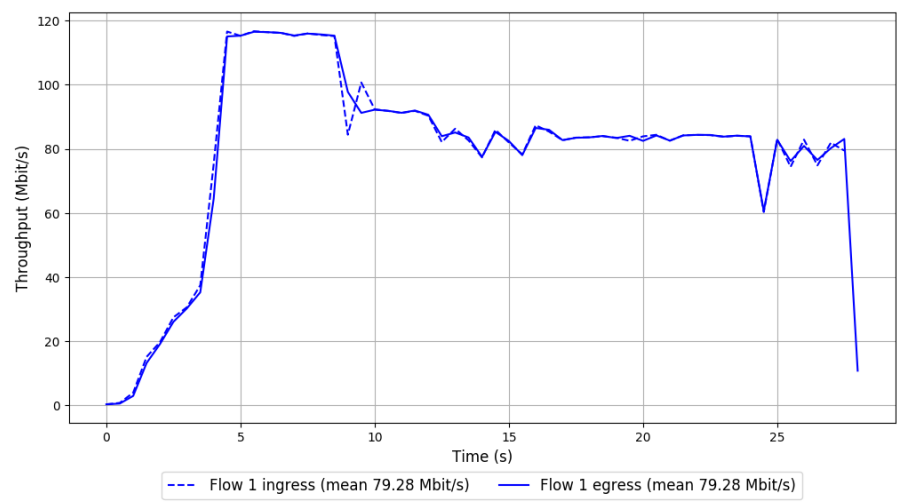
-- Flow 1:

Average throughput: 79.28 Mbit/s

95th percentile per-packet one-way delay: 86.966 ms

Loss rate: 0.01%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-09-18 00:22:58

End at: 2017-09-18 00:23:28

Below is generated by plot.py at 2017-09-18 01:50:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.73 Mbit/s

95th percentile per-packet one-way delay: 114.269 ms

Loss rate: 0.16%

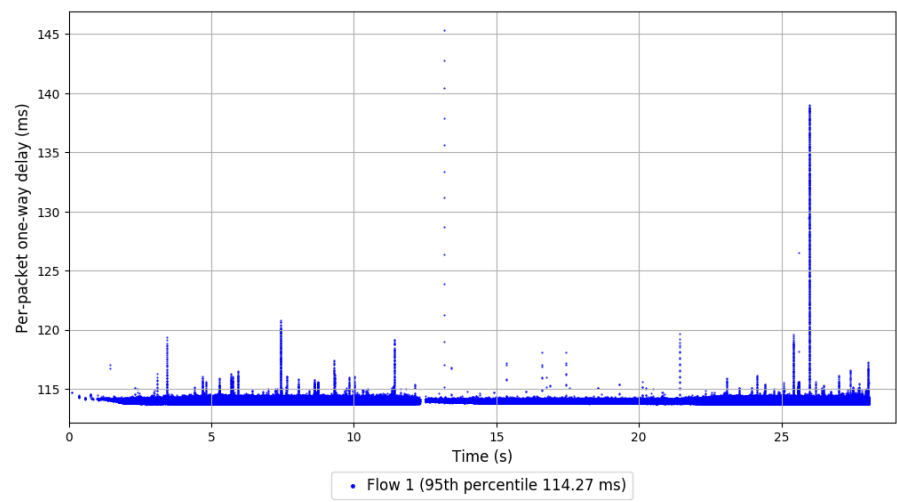
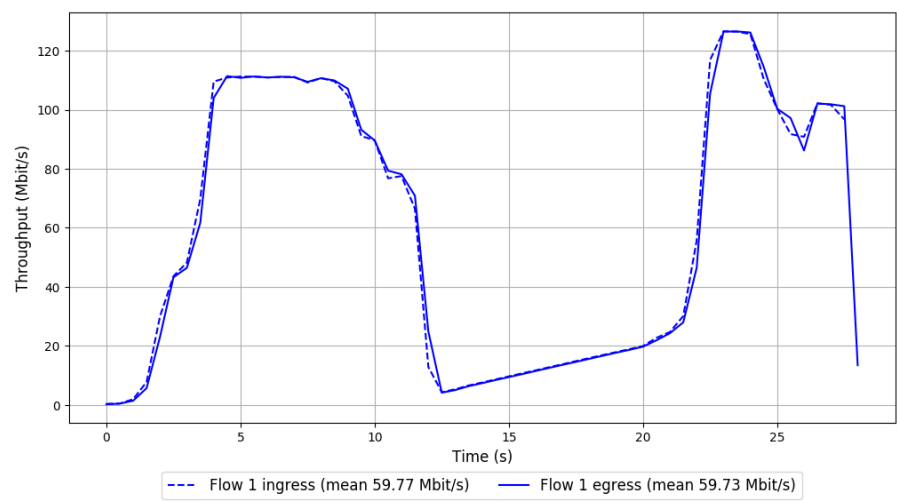
-- Flow 1:

Average throughput: 59.73 Mbit/s

95th percentile per-packet one-way delay: 114.269 ms

Loss rate: 0.16%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-09-18 00:34:18

End at: 2017-09-18 00:34:48

Below is generated by plot.py at 2017-09-18 01:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.29 Mbit/s

95th percentile per-packet one-way delay: 113.979 ms

Loss rate: 0.10%

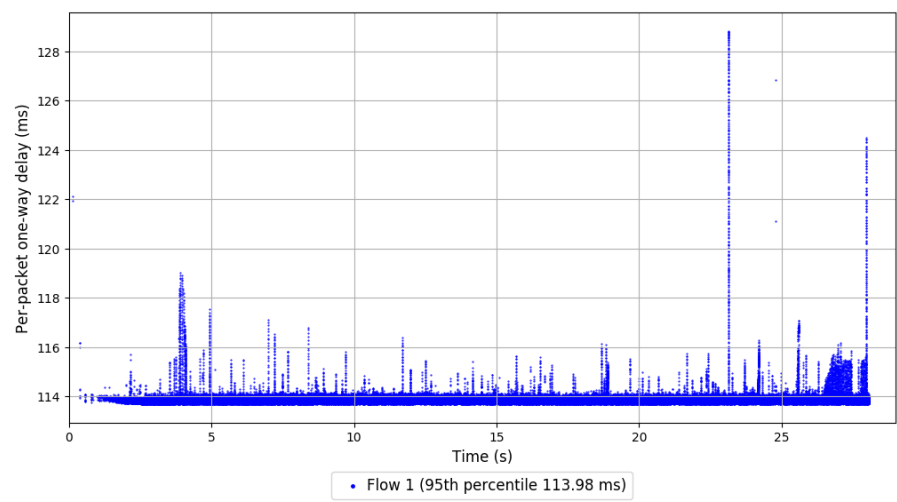
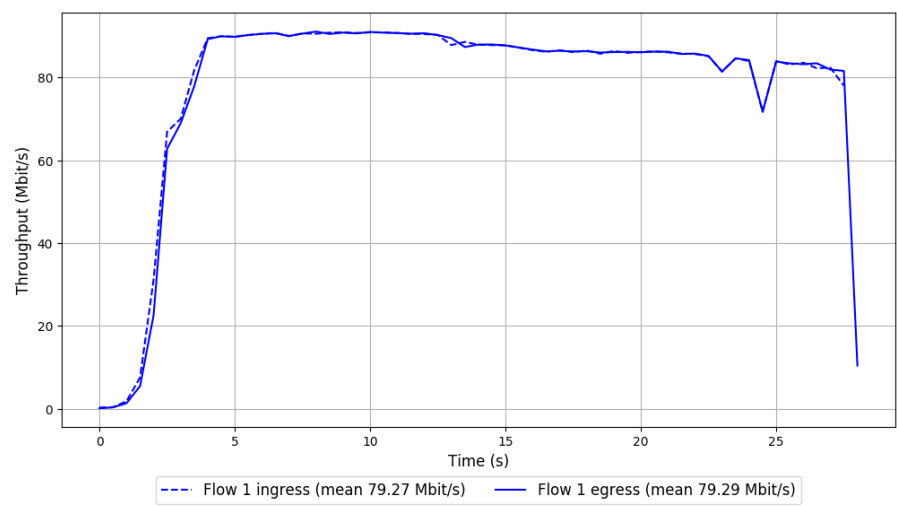
-- Flow 1:

Average throughput: 79.29 Mbit/s

95th percentile per-packet one-way delay: 113.979 ms

Loss rate: 0.10%

Run 10: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-09-17 22:48:07

End at: 2017-09-17 22:48:37

Below is generated by plot.py at 2017-09-18 01:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.71 Mbit/s

95th percentile per-packet one-way delay: 94.405 ms

Loss rate: 0.01%

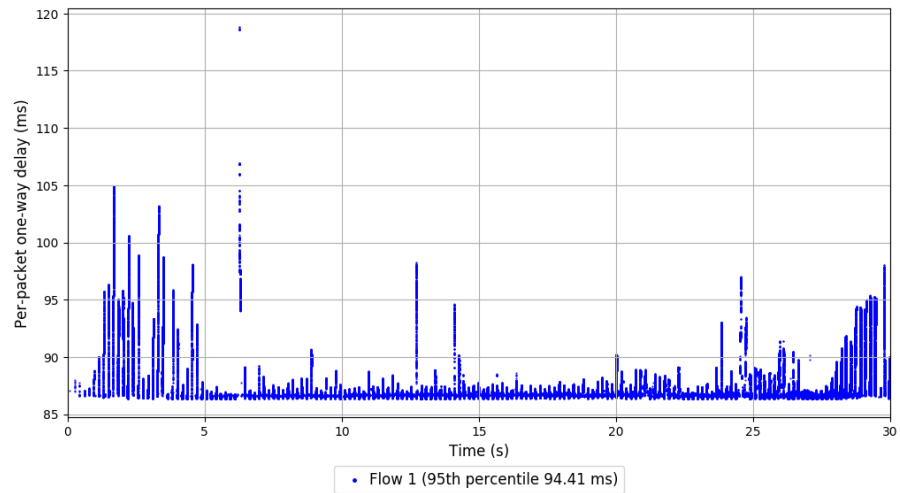
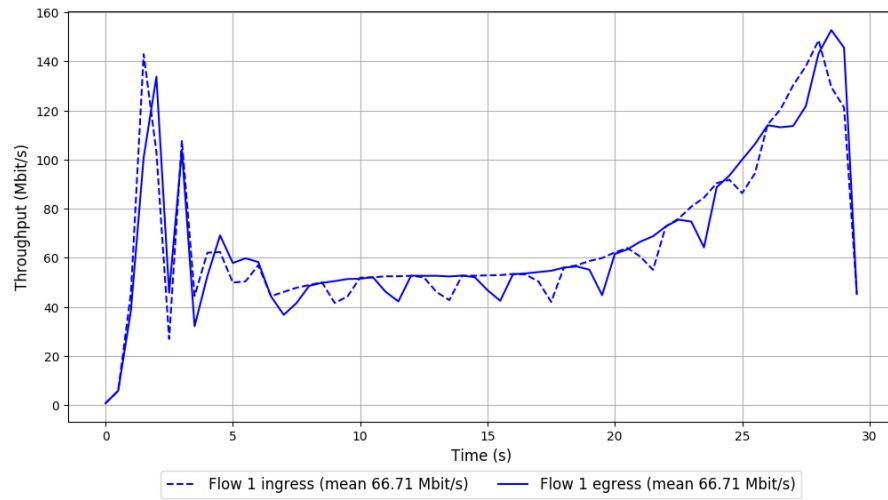
-- Flow 1:

Average throughput: 66.71 Mbit/s

95th percentile per-packet one-way delay: 94.405 ms

Loss rate: 0.01%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-09-17 22:59:42

End at: 2017-09-17 23:00:12

Below is generated by plot.py at 2017-09-18 01:50:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.72 Mbit/s

95th percentile per-packet one-way delay: 94.024 ms

Loss rate: 0.18%

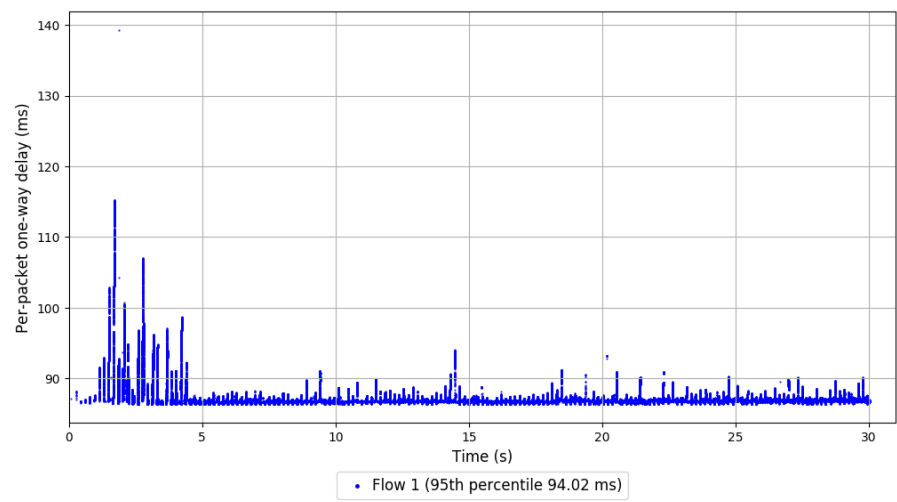
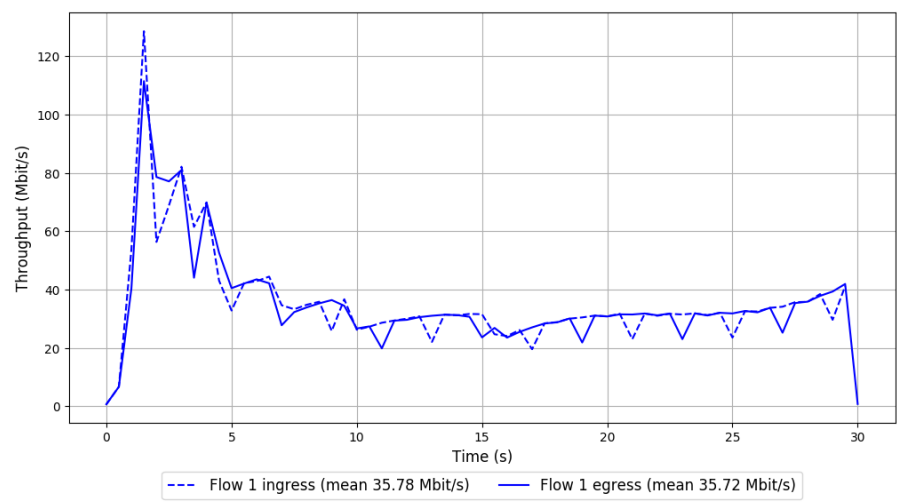
-- Flow 1:

Average throughput: 35.72 Mbit/s

95th percentile per-packet one-way delay: 94.024 ms

Loss rate: 0.18%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-09-17 23:11:23

End at: 2017-09-17 23:11:53

Below is generated by plot.py at 2017-09-18 01:50:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.94 Mbit/s

95th percentile per-packet one-way delay: 97.182 ms

Loss rate: 0.01%

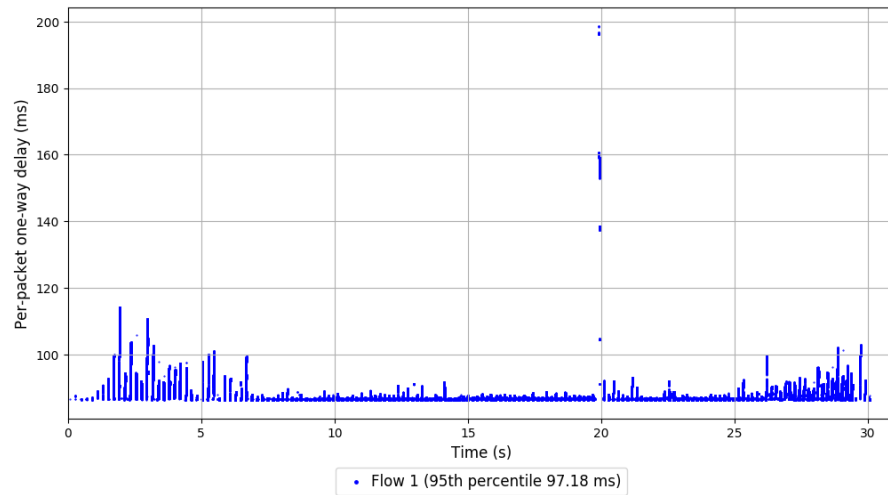
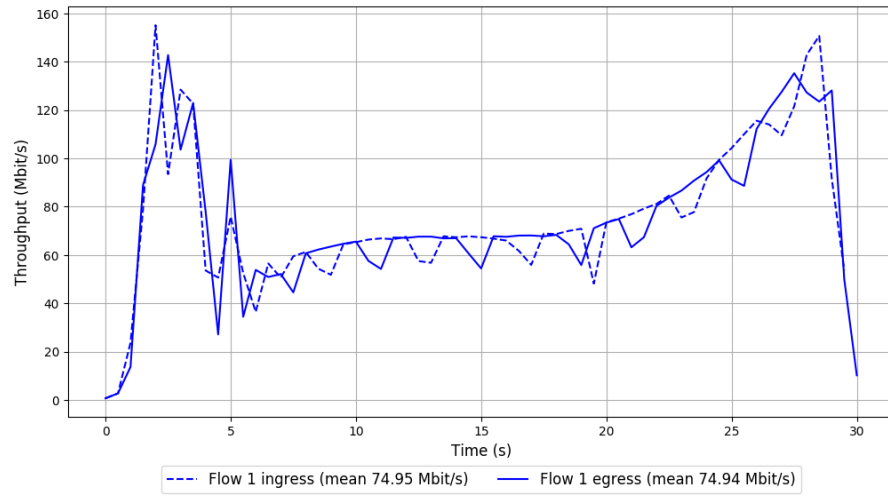
-- Flow 1:

Average throughput: 74.94 Mbit/s

95th percentile per-packet one-way delay: 97.182 ms

Loss rate: 0.01%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-09-17 23:23:14

End at: 2017-09-17 23:23:45

Below is generated by plot.py at 2017-09-18 01:50:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 94.870 ms

Loss rate: 0.00%

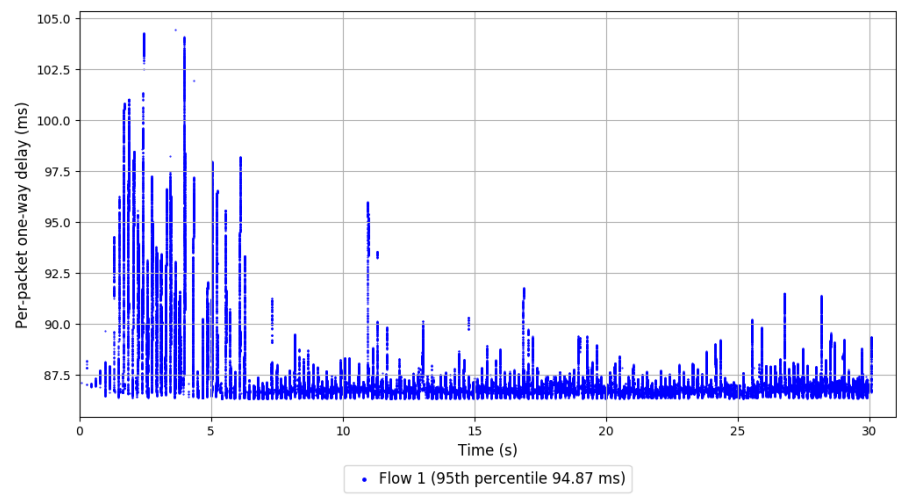
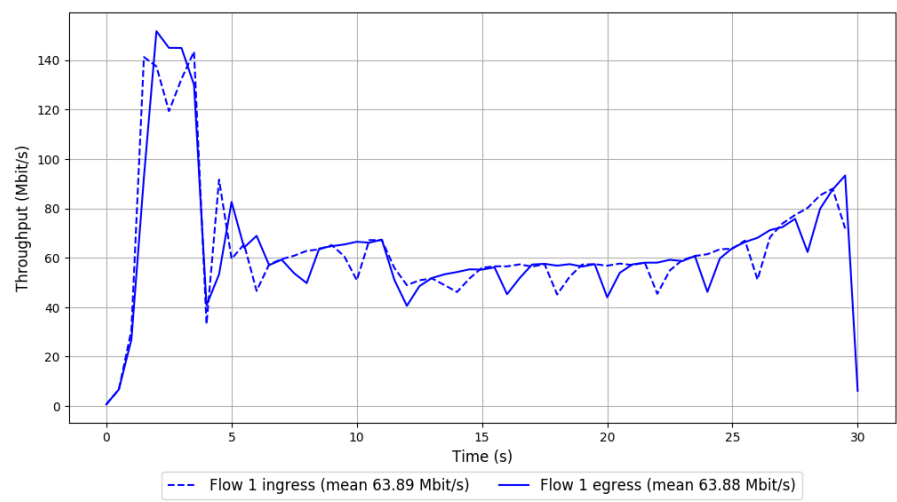
-- Flow 1:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 94.870 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-09-17 23:35:09

End at: 2017-09-17 23:35:39

Below is generated by plot.py at 2017-09-18 01:51:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.26 Mbit/s

95th percentile per-packet one-way delay: 95.073 ms

Loss rate: 0.01%

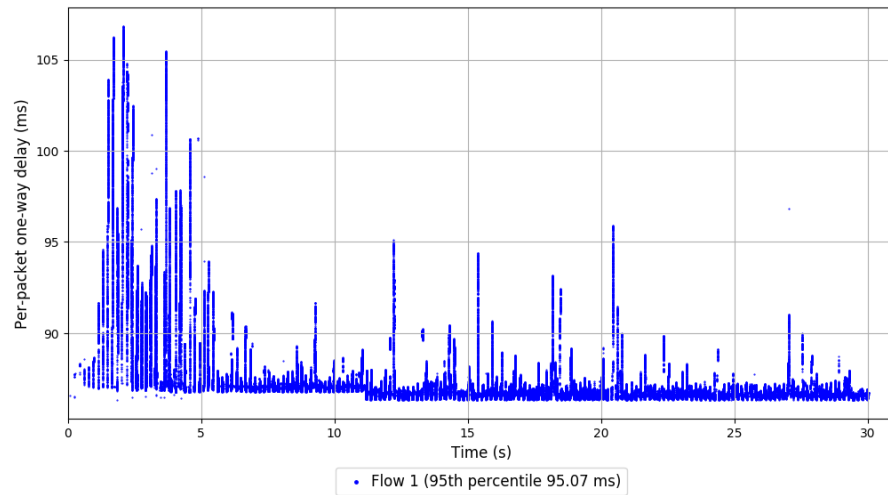
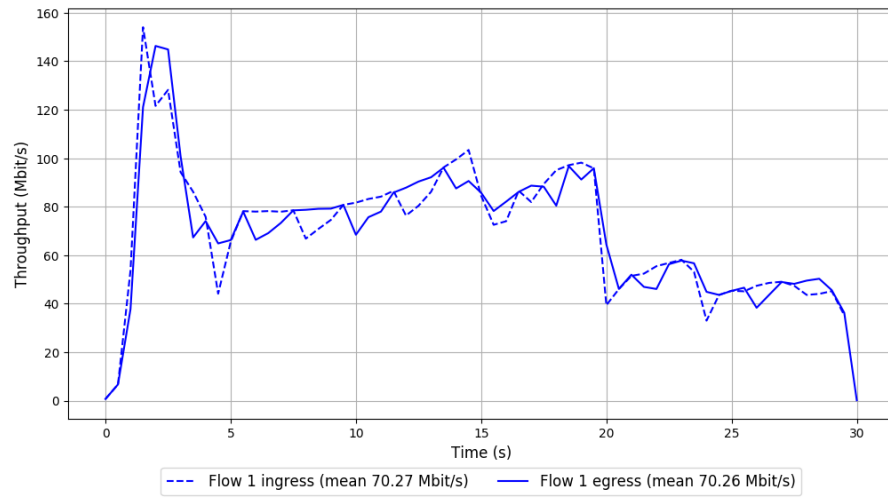
-- Flow 1:

Average throughput: 70.26 Mbit/s

95th percentile per-packet one-way delay: 95.073 ms

Loss rate: 0.01%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-09-17 23:47:06

End at: 2017-09-17 23:47:36

Below is generated by plot.py at 2017-09-18 01:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.18 Mbit/s

95th percentile per-packet one-way delay: 94.614 ms

Loss rate: 0.00%

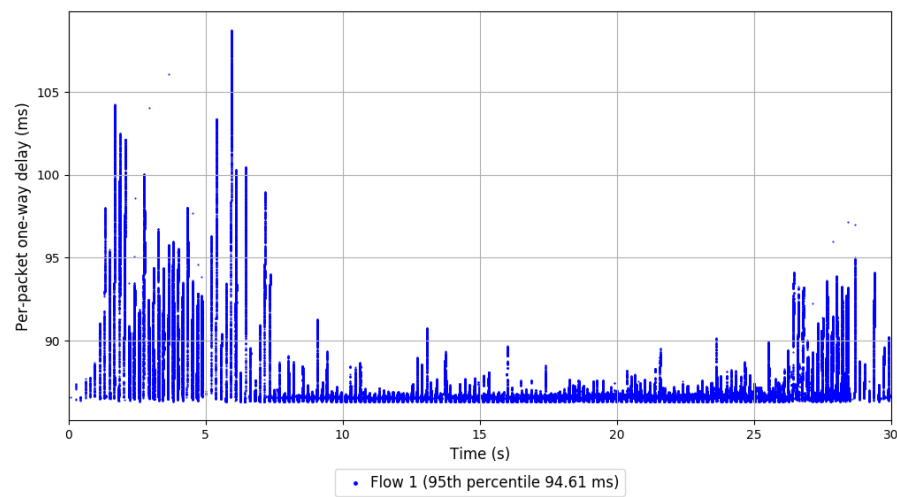
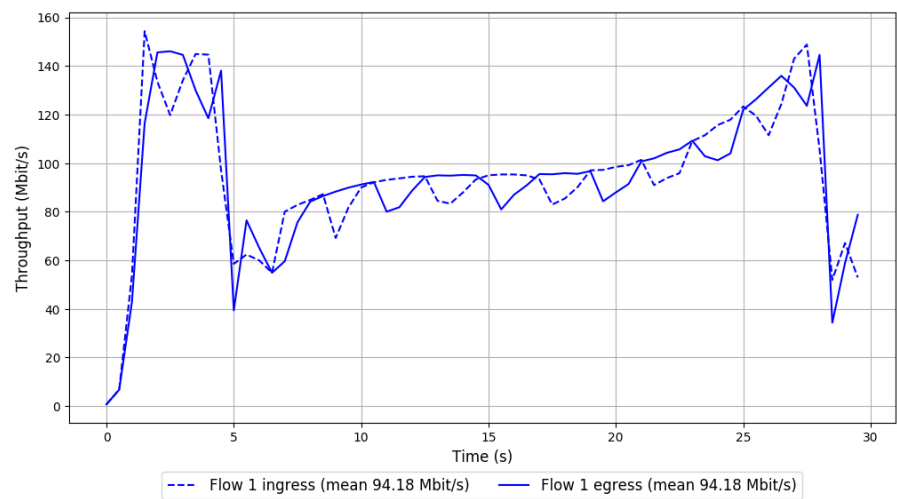
-- Flow 1:

Average throughput: 94.18 Mbit/s

95th percentile per-packet one-way delay: 94.614 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-09-17 23:58:52

End at: 2017-09-17 23:59:22

Below is generated by plot.py at 2017-09-18 01:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.13 Mbit/s

95th percentile per-packet one-way delay: 96.787 ms

Loss rate: 0.01%

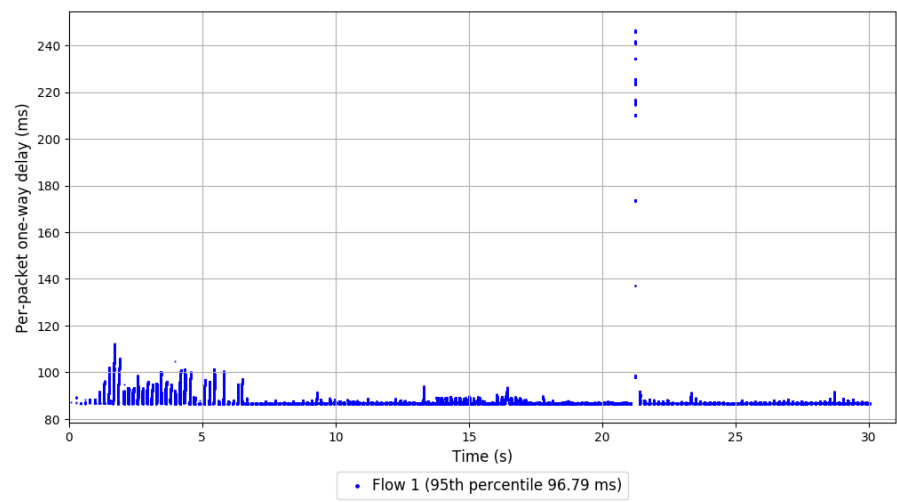
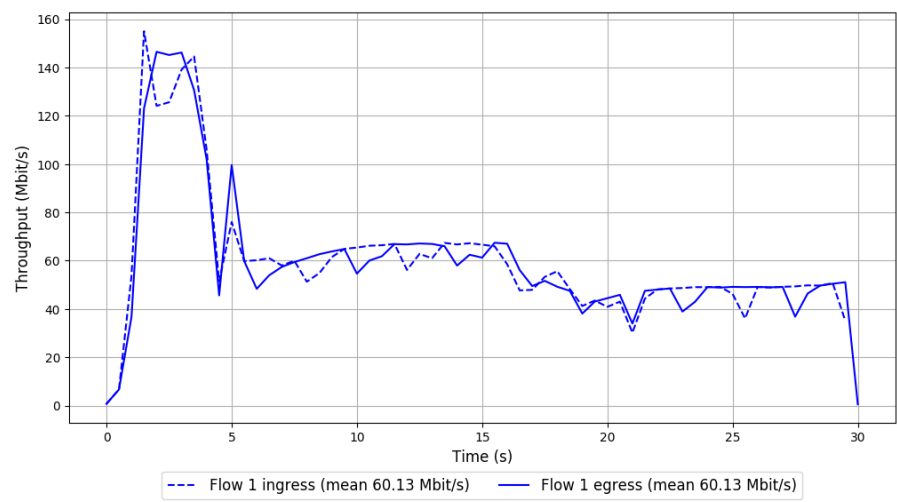
-- Flow 1:

Average throughput: 60.13 Mbit/s

95th percentile per-packet one-way delay: 96.787 ms

Loss rate: 0.01%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-09-18 00:10:26

End at: 2017-09-18 00:10:56

Below is generated by plot.py at 2017-09-18 01:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.32 Mbit/s

95th percentile per-packet one-way delay: 88.370 ms

Loss rate: 0.94%

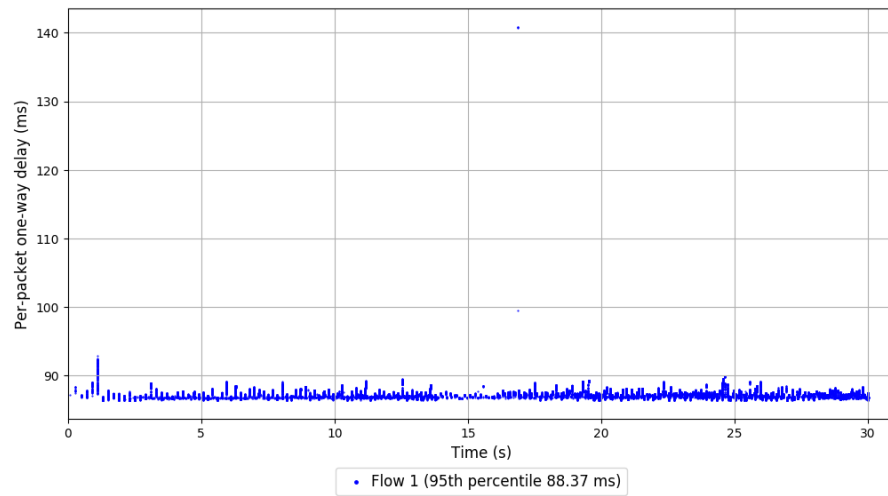
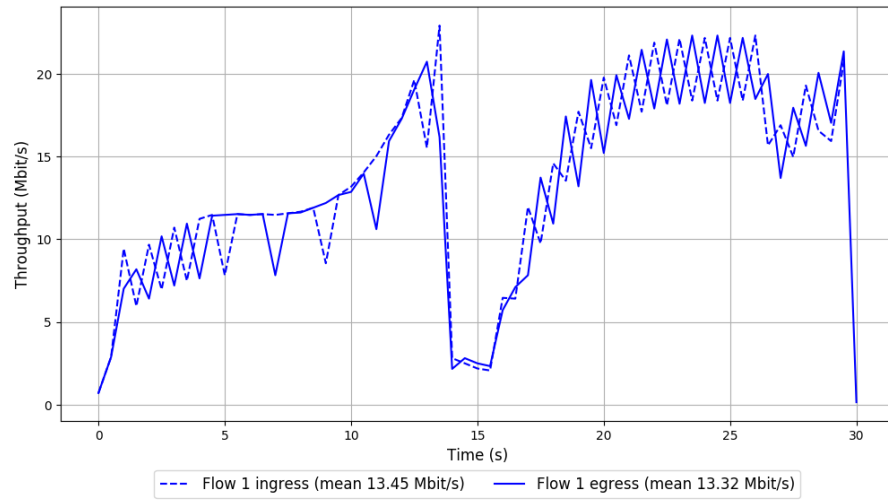
-- Flow 1:

Average throughput: 13.32 Mbit/s

95th percentile per-packet one-way delay: 88.370 ms

Loss rate: 0.94%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-09-18 00:21:36

End at: 2017-09-18 00:22:06

Below is generated by plot.py at 2017-09-18 01:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 45.60 Mbit/s

95th percentile per-packet one-way delay: 124.891 ms

Loss rate: 0.09%

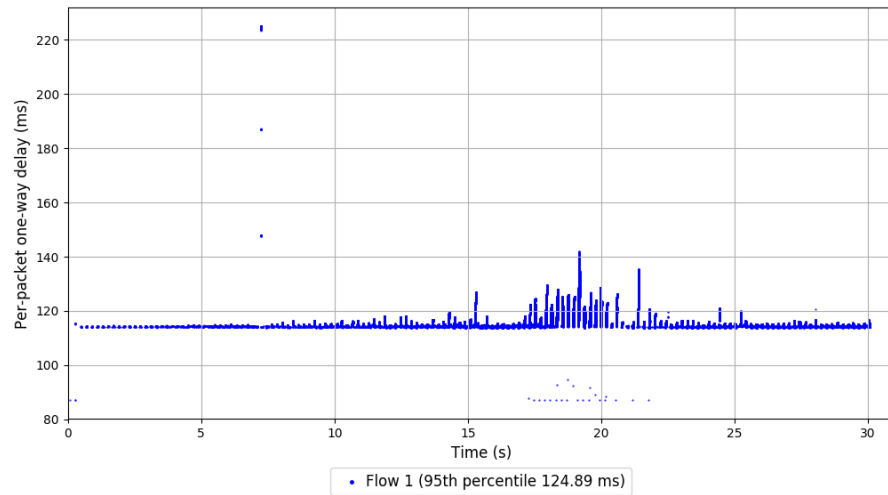
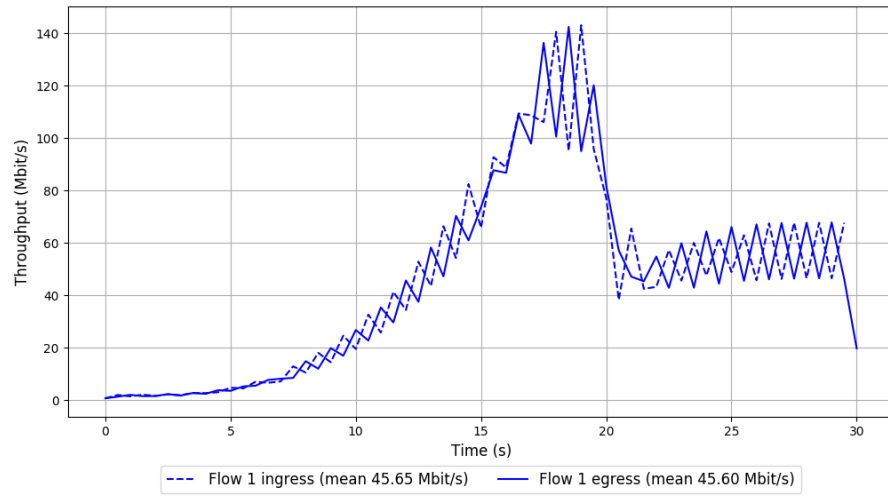
-- Flow 1:

Average throughput: 45.60 Mbit/s

95th percentile per-packet one-way delay: 124.891 ms

Loss rate: 0.09%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-09-18 00:32:57

End at: 2017-09-18 00:33:27

Below is generated by plot.py at 2017-09-18 01:51:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.83 Mbit/s

95th percentile per-packet one-way delay: 115.381 ms

Loss rate: 0.95%

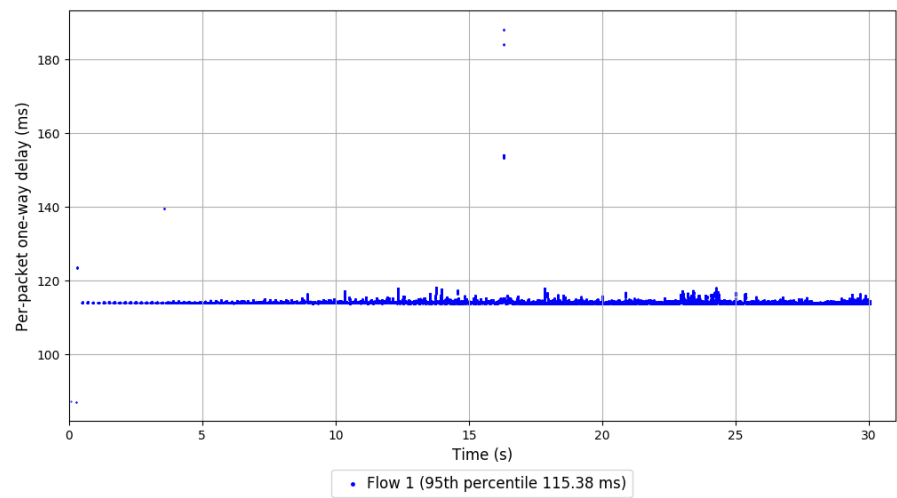
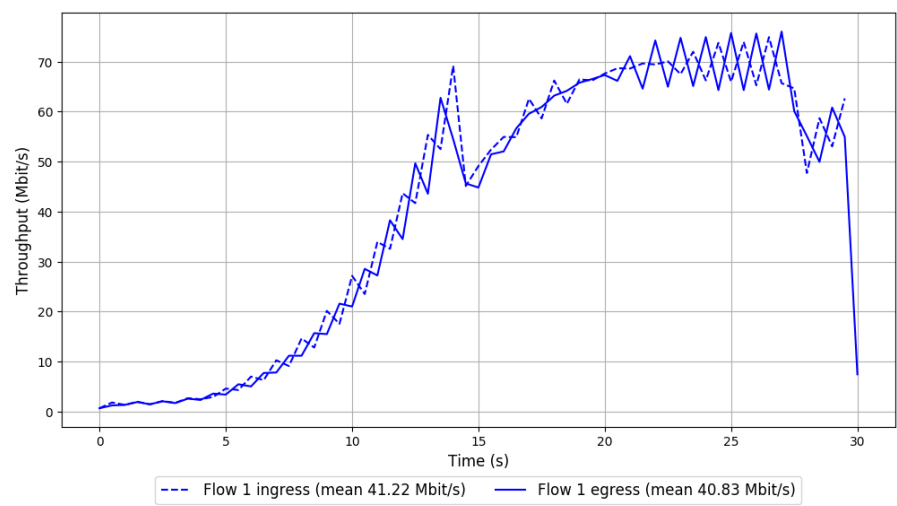
-- Flow 1:

Average throughput: 40.83 Mbit/s

95th percentile per-packet one-way delay: 115.381 ms

Loss rate: 0.95%

Run 10: Report of TCP Cubic — Data Link

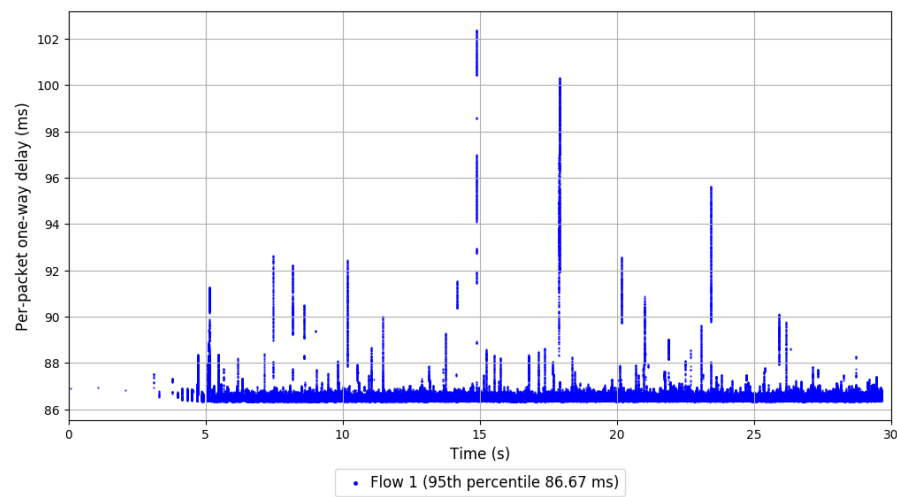
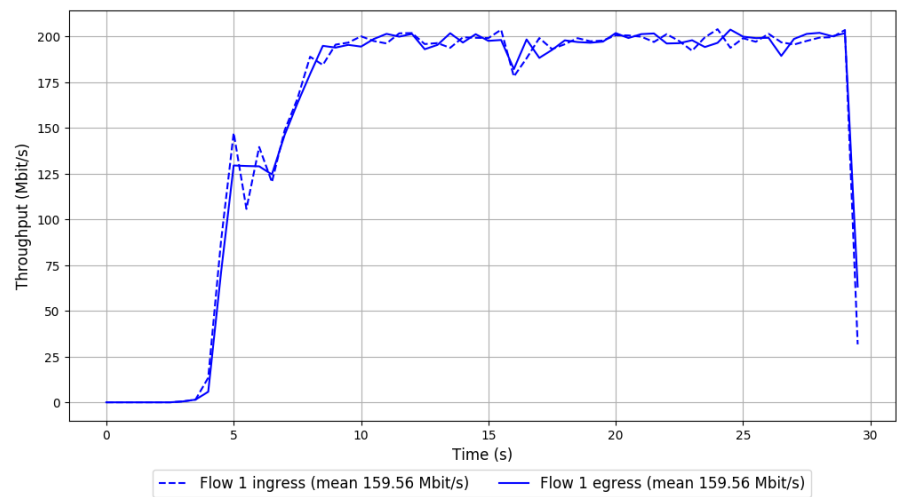


```
Run 1: Statistics of Indigo

Start at: 2017-09-17 22:57:11
End at: 2017-09-17 22:57:41

# Below is generated by plot.py at 2017-09-18 01:53:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 159.56 Mbit/s
95th percentile per-packet one-way delay: 86.668 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 159.56 Mbit/s
95th percentile per-packet one-way delay: 86.668 ms
Loss rate: 0.00%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-09-17 23:08:52

End at: 2017-09-17 23:09:22

Below is generated by plot.py at 2017-09-18 01:53:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 179.66 Mbit/s

95th percentile per-packet one-way delay: 86.895 ms

Loss rate: 0.00%

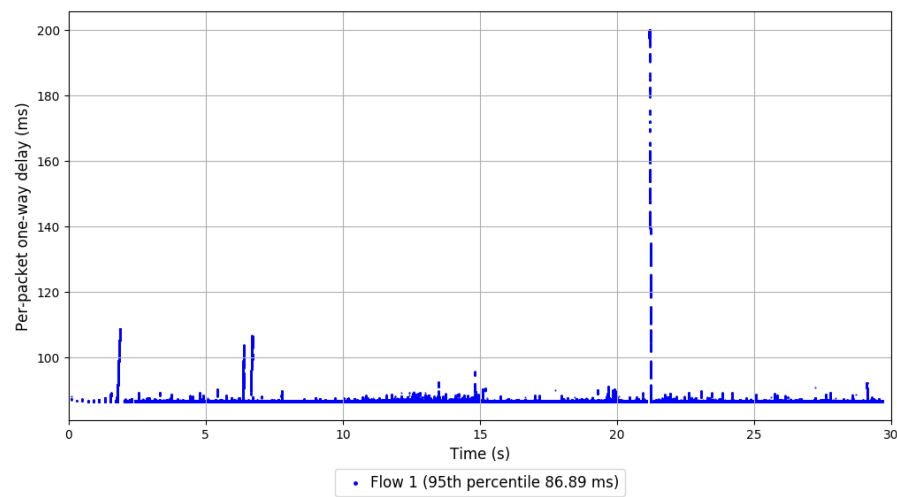
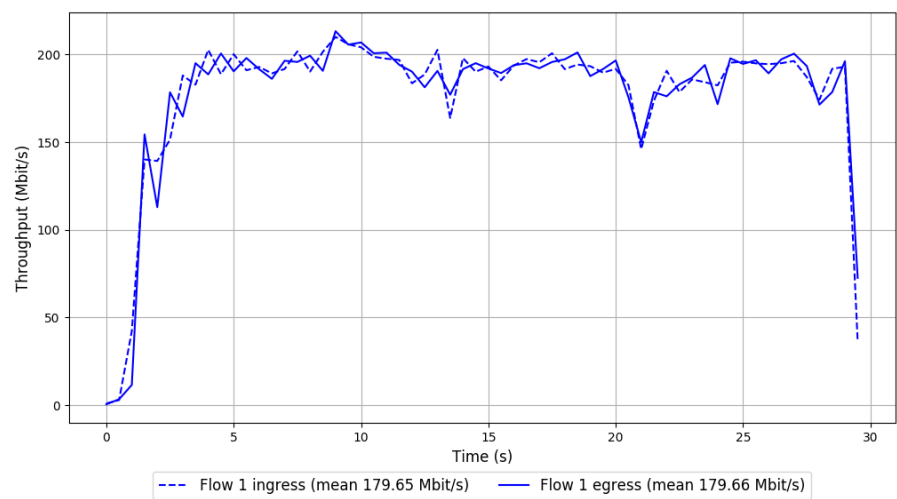
-- Flow 1:

Average throughput: 179.66 Mbit/s

95th percentile per-packet one-way delay: 86.895 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-09-17 23:20:43

End at: 2017-09-17 23:21:13

Below is generated by plot.py at 2017-09-18 01:53:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 174.99 Mbit/s

95th percentile per-packet one-way delay: 86.775 ms

Loss rate: 0.00%

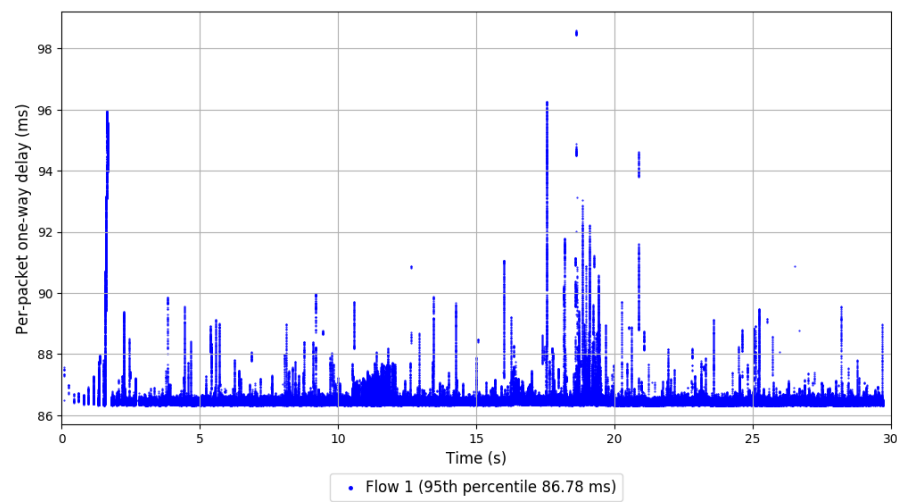
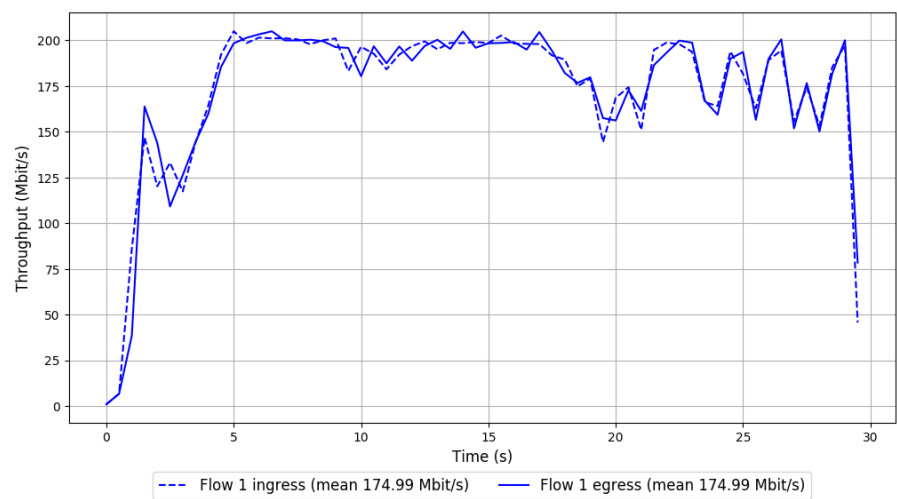
-- Flow 1:

Average throughput: 174.99 Mbit/s

95th percentile per-packet one-way delay: 86.775 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-09-17 23:32:34

End at: 2017-09-17 23:33:04

Below is generated by plot.py at 2017-09-18 01:54:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 176.59 Mbit/s

95th percentile per-packet one-way delay: 86.576 ms

Loss rate: 0.01%

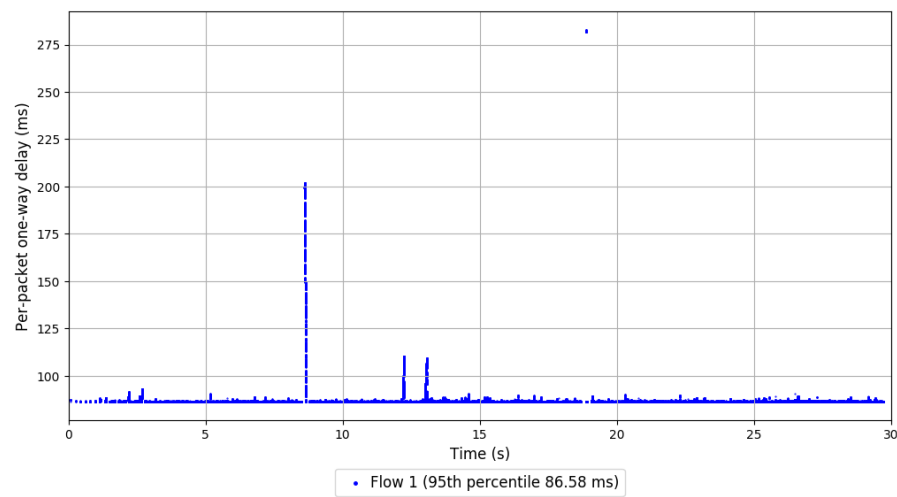
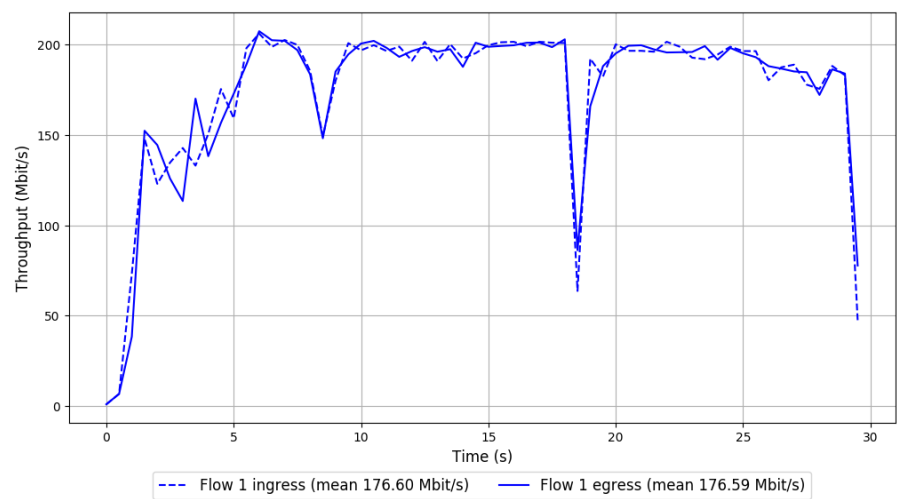
-- Flow 1:

Average throughput: 176.59 Mbit/s

95th percentile per-packet one-way delay: 86.576 ms

Loss rate: 0.01%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-09-17 23:44:32

End at: 2017-09-17 23:45:02

Below is generated by plot.py at 2017-09-18 01:54:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 180.95 Mbit/s

95th percentile per-packet one-way delay: 86.875 ms

Loss rate: 0.00%

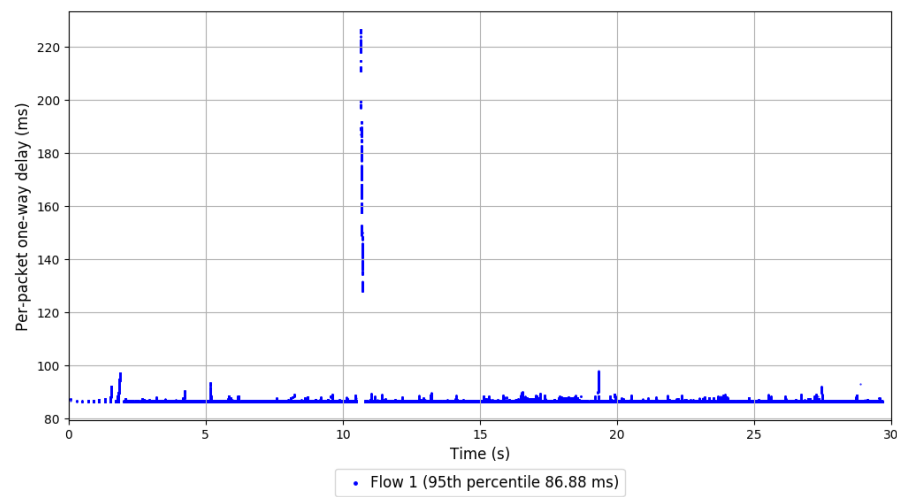
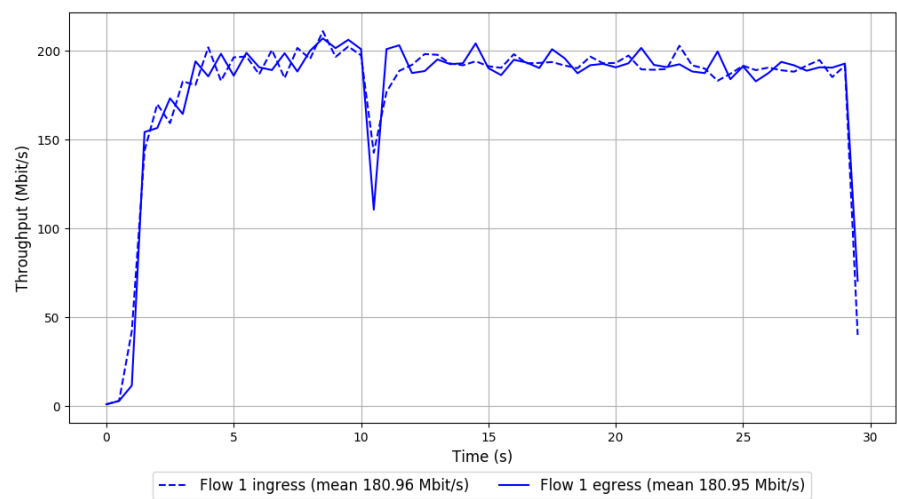
-- Flow 1:

Average throughput: 180.95 Mbit/s

95th percentile per-packet one-way delay: 86.875 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

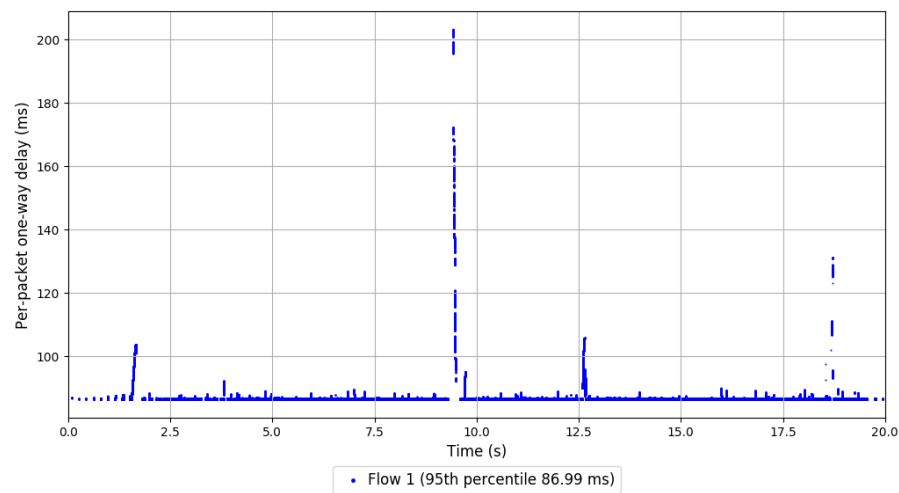
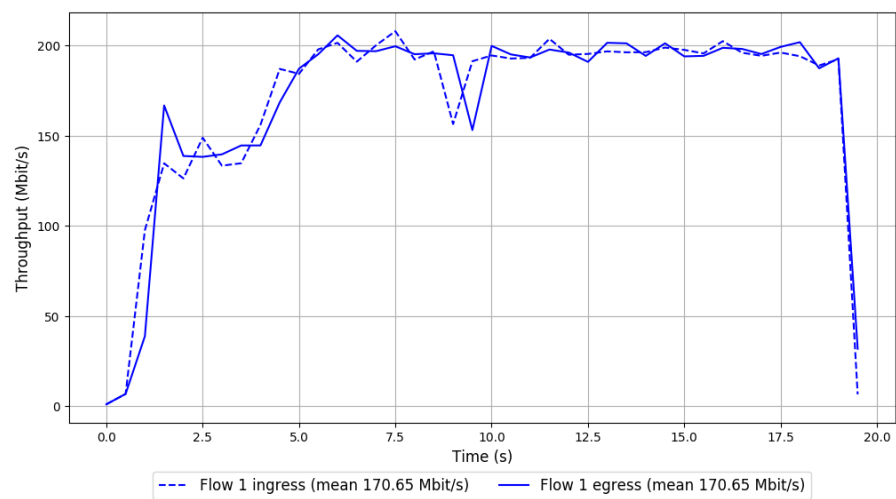


Run 6: Statistics of Indigo

Start at: 2017-09-17 23:56:24

End at: 2017-09-17 23:56:54

Run 6: Report of Indigo — Data Link

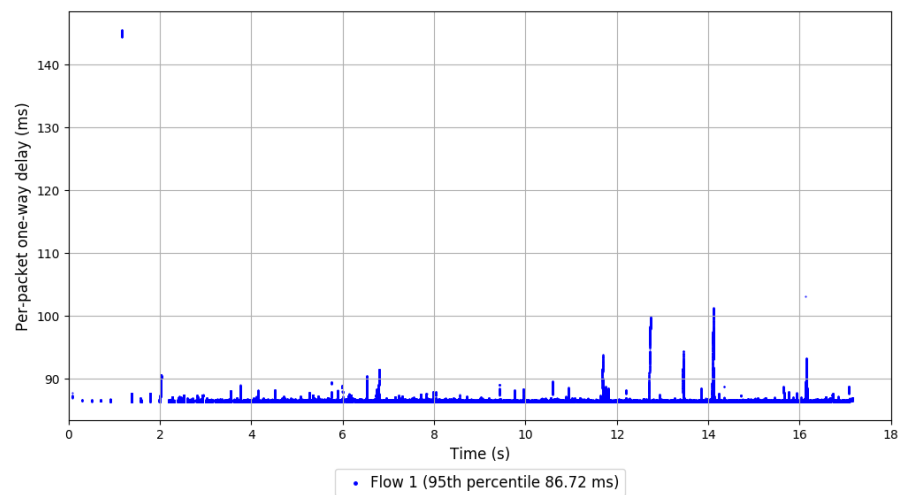
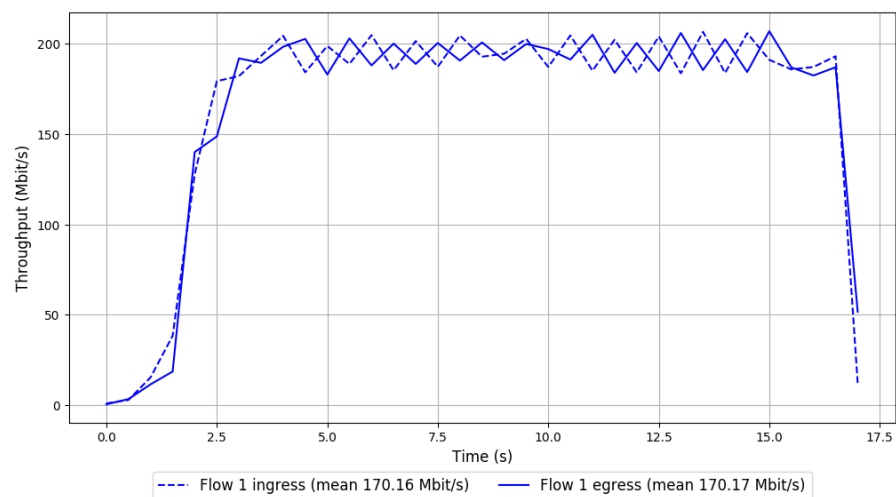


Run 7: Statistics of Indigo

Start at: 2017-09-18 00:07:59

End at: 2017-09-18 00:08:29

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-09-18 00:19:11

End at: 2017-09-18 00:19:41

Below is generated by plot.py at 2017-09-18 01:54:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 150.81 Mbit/s

95th percentile per-packet one-way delay: 114.728 ms

Loss rate: 0.01%

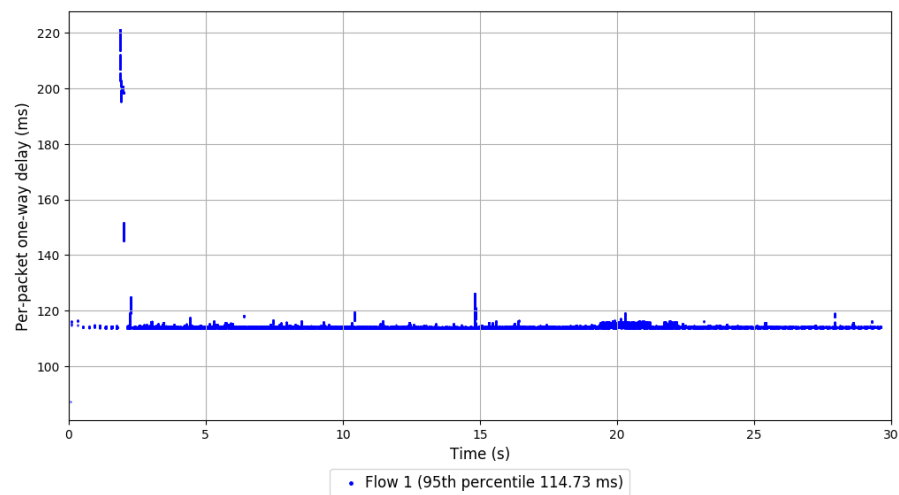
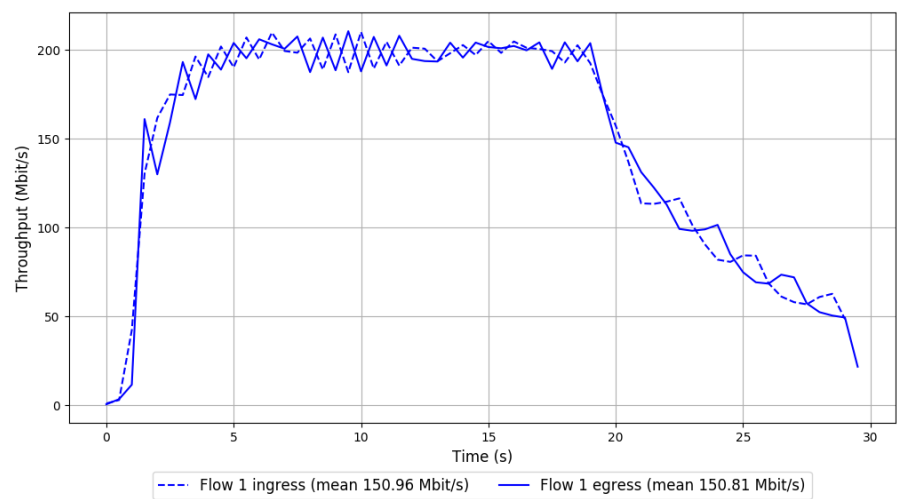
-- Flow 1:

Average throughput: 150.81 Mbit/s

95th percentile per-packet one-way delay: 114.728 ms

Loss rate: 0.01%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-09-18 00:30:48

End at: 2017-09-18 00:31:18

Below is generated by plot.py at 2017-09-18 01:54:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 117.29 Mbit/s

95th percentile per-packet one-way delay: 114.106 ms

Loss rate: 0.42%

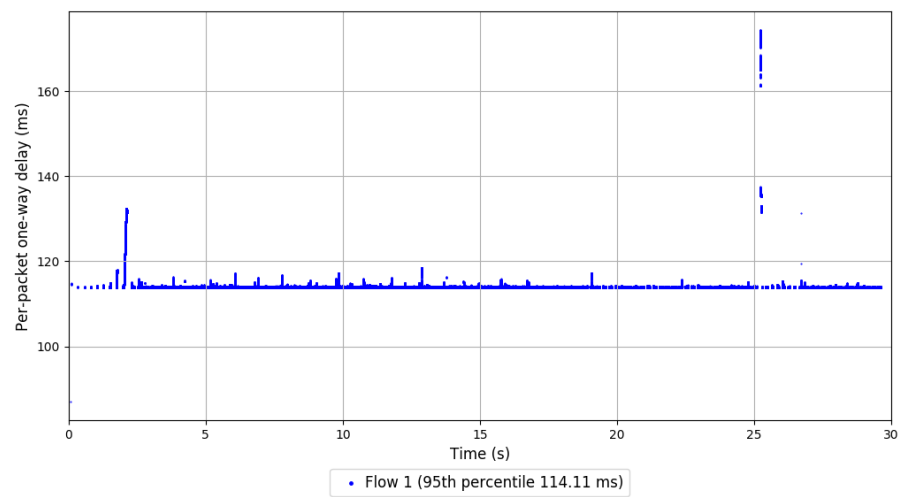
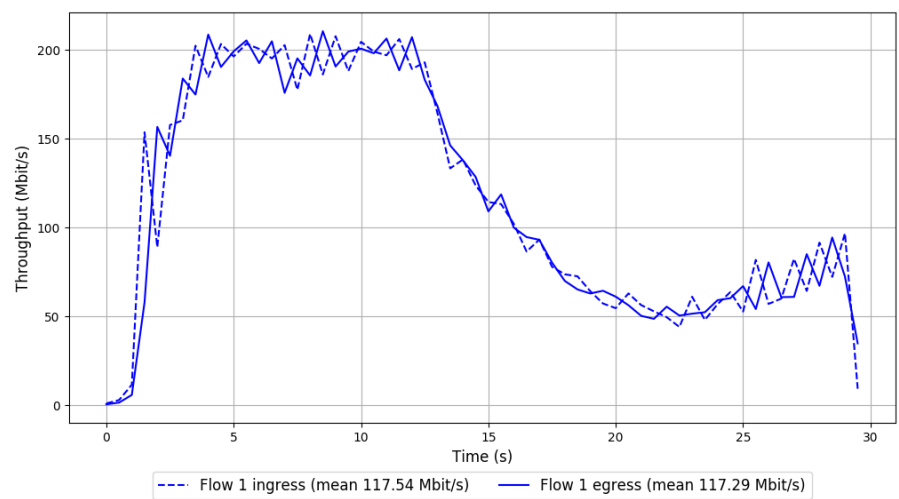
-- Flow 1:

Average throughput: 117.29 Mbit/s

95th percentile per-packet one-way delay: 114.106 ms

Loss rate: 0.42%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-09-18 00:41:45

End at: 2017-09-18 00:42:15

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 181.59 Mbit/s

95th percentile per-packet one-way delay: 114.086 ms

Loss rate: 0.11%

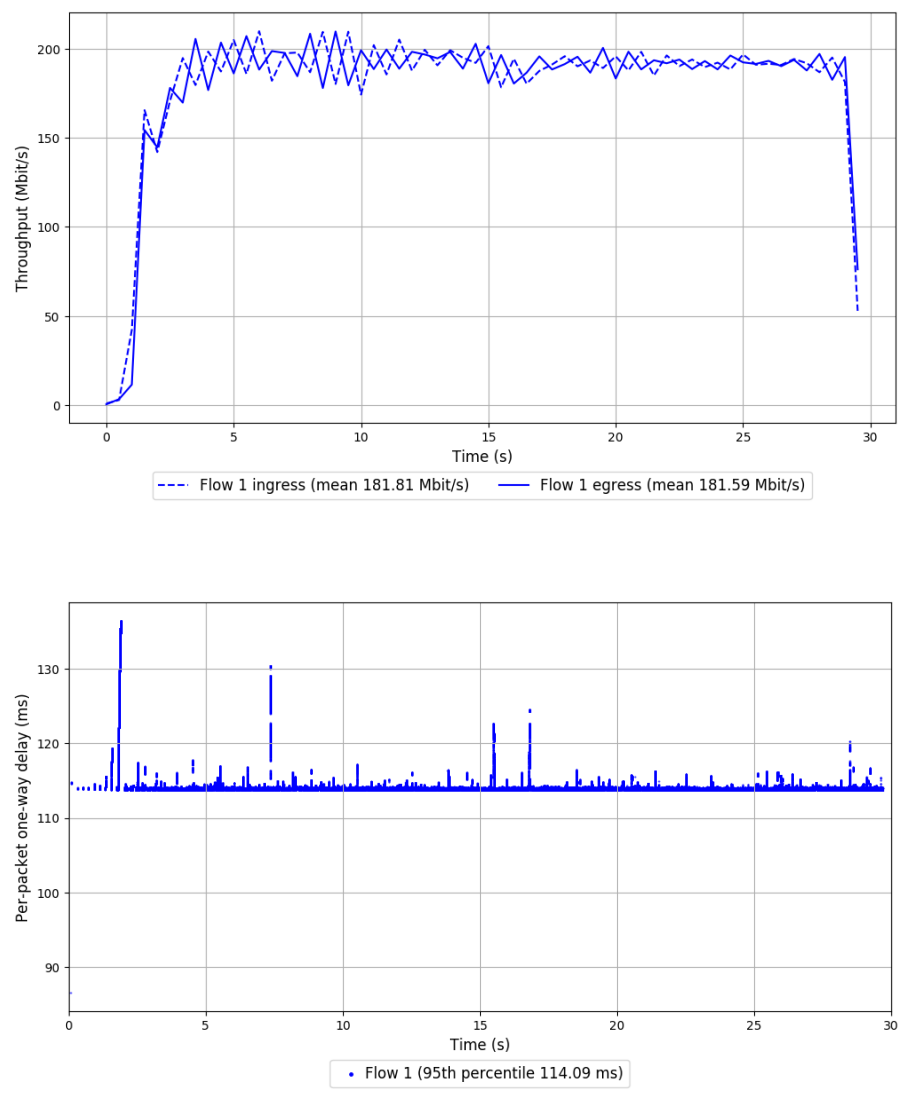
-- Flow 1:

Average throughput: 181.59 Mbit/s

95th percentile per-packet one-way delay: 114.086 ms

Loss rate: 0.11%

Run 10: Report of Indigo — Data Link

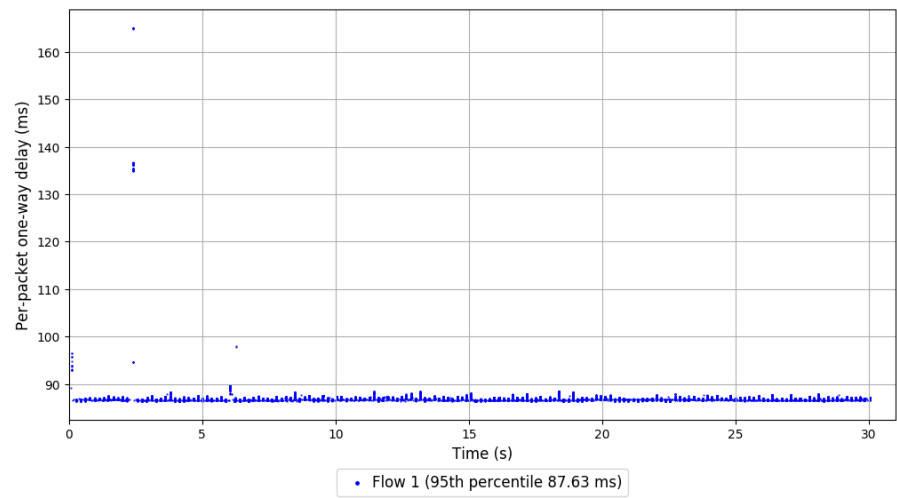
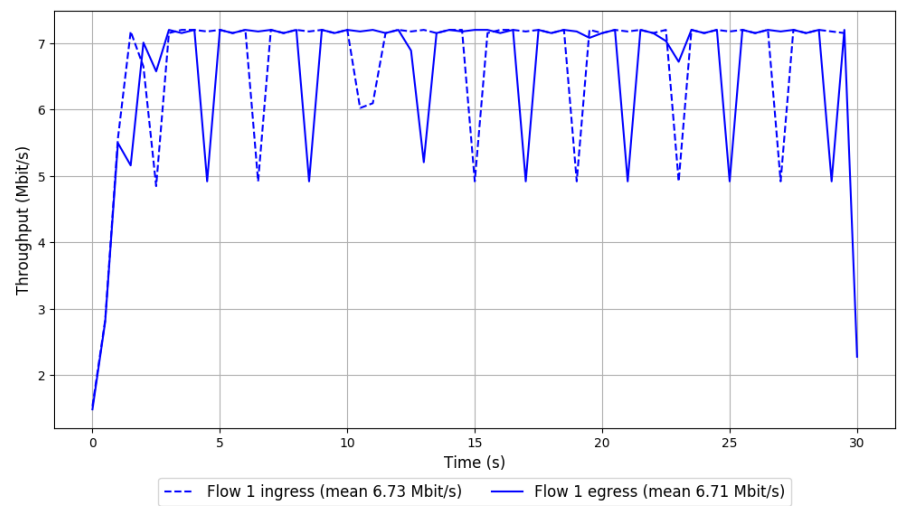


```
Run 1: Statistics of KohoCC

Start at: 2017-09-17 22:51:41
End at: 2017-09-17 22:52:11

# Below is generated by plot.py at 2017-09-18 01:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 87.626 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 6.71 Mbit/s
95th percentile per-packet one-way delay: 87.626 ms
Loss rate: 0.19%
```

Run 1: Report of KohoCC — Data Link

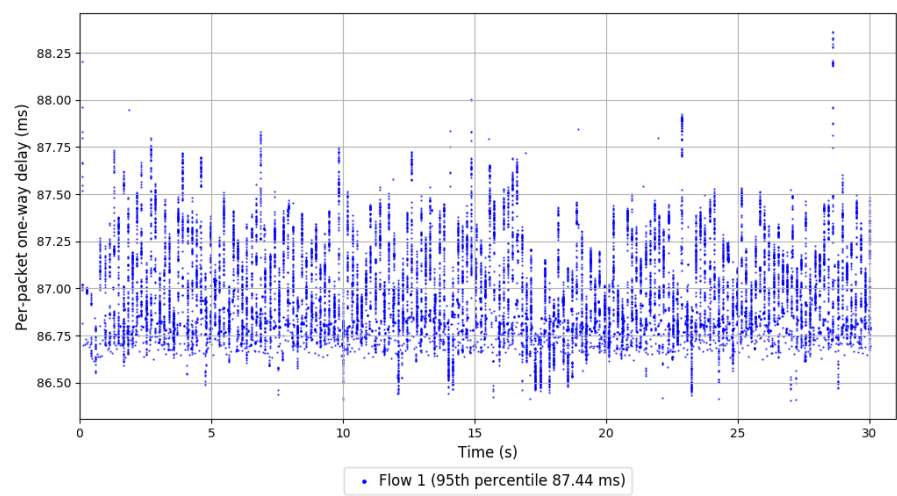
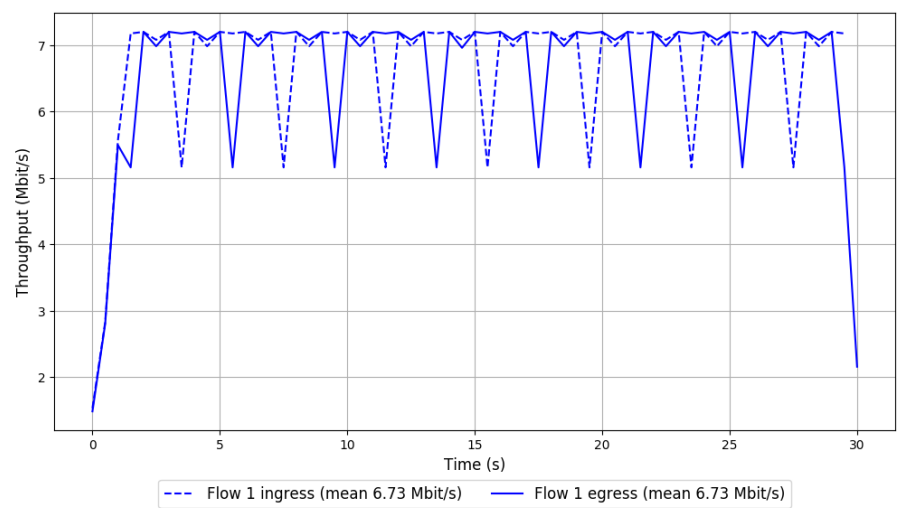


```
Run 2: Statistics of KohoCC

Start at: 2017-09-17 23:03:13
End at: 2017-09-17 23:03:43

# Below is generated by plot.py at 2017-09-18 01:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 87.439 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.73 Mbit/s
95th percentile per-packet one-way delay: 87.439 ms
Loss rate: 0.01%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-09-17 23:14:59

End at: 2017-09-17 23:15:29

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 87.690 ms

Loss rate: 0.07%

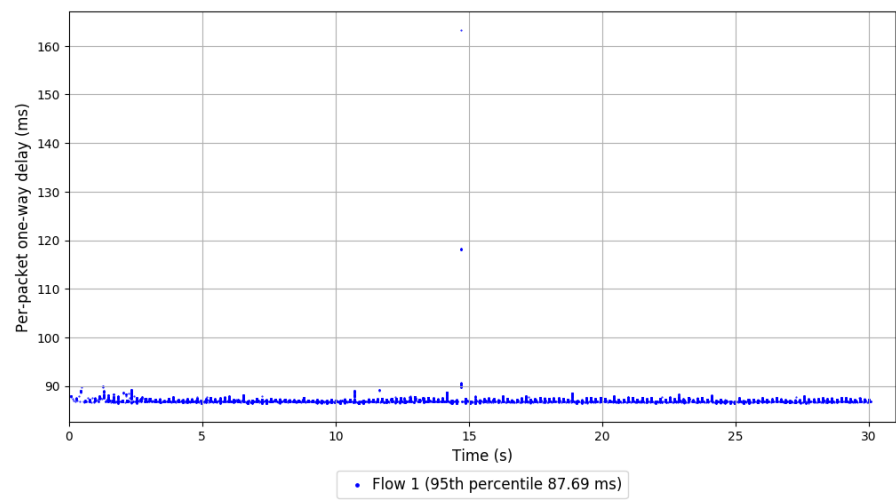
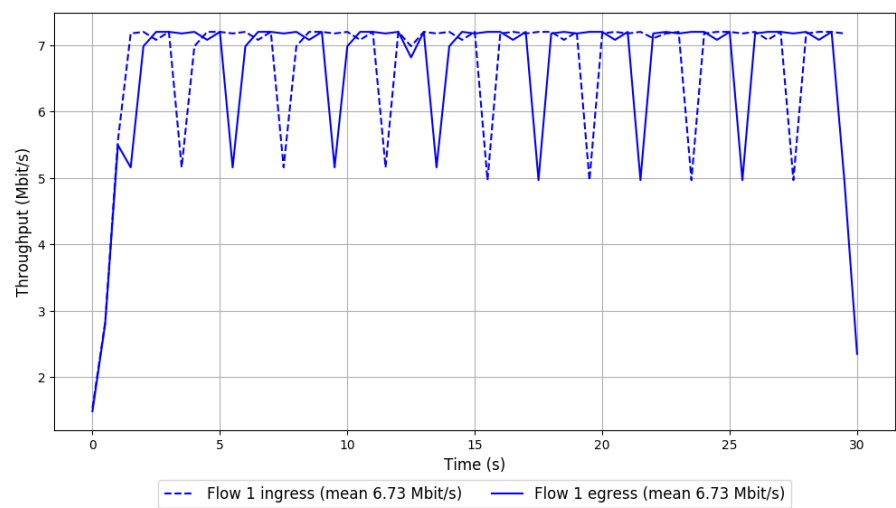
-- Flow 1:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 87.690 ms

Loss rate: 0.07%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-09-17 23:26:48

End at: 2017-09-17 23:27:18

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.534 ms

Loss rate: 0.02%

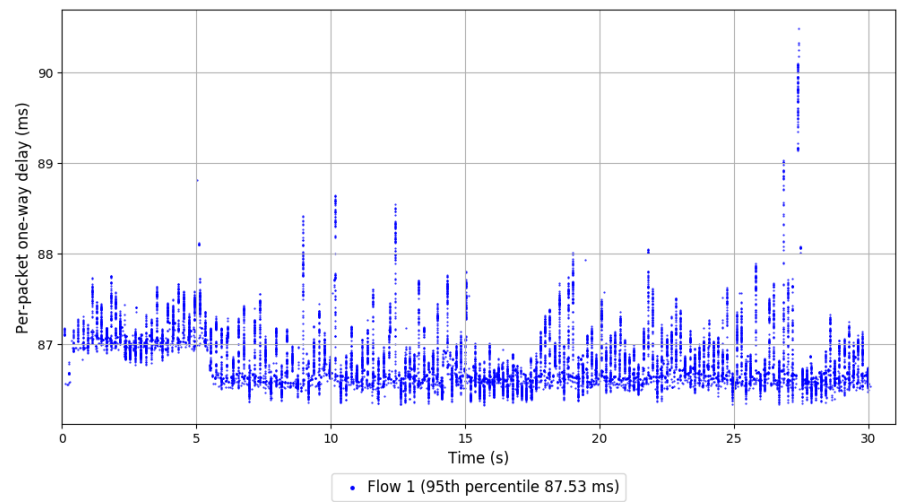
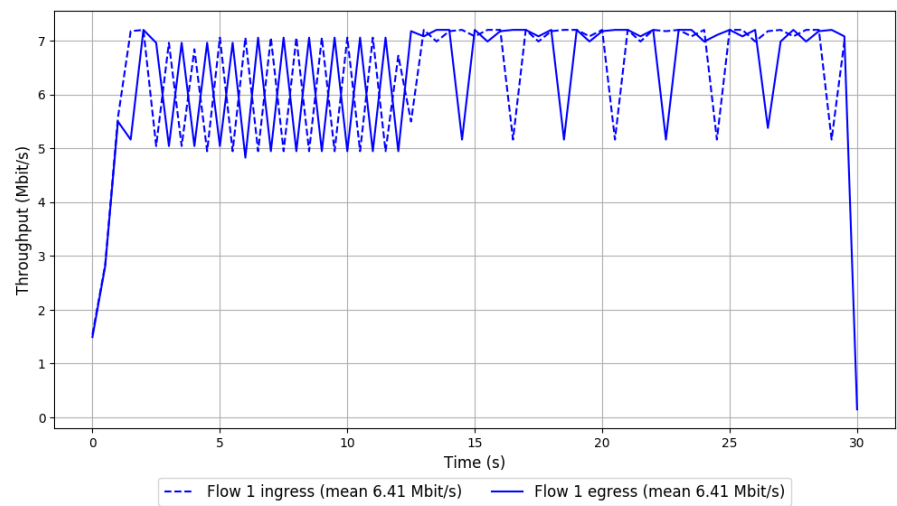
-- Flow 1:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 87.534 ms

Loss rate: 0.02%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-09-17 23:38:51

End at: 2017-09-17 23:39:21

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 87.452 ms

Loss rate: 0.00%

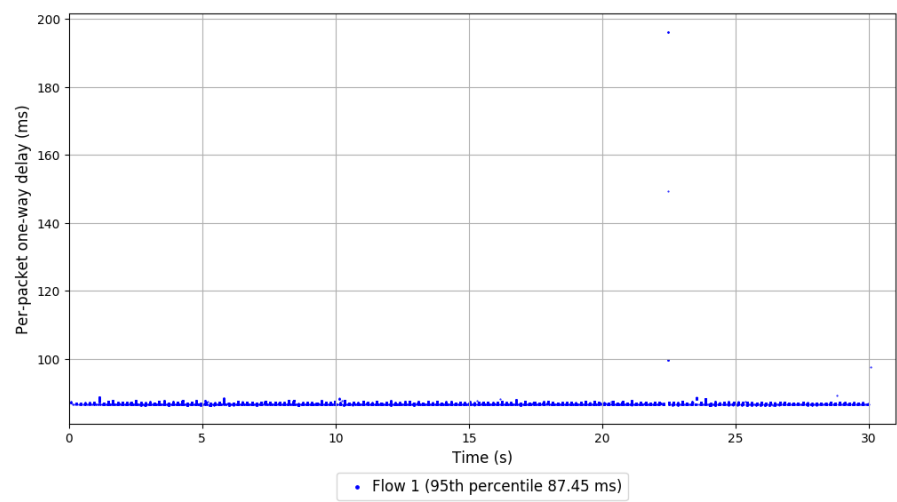
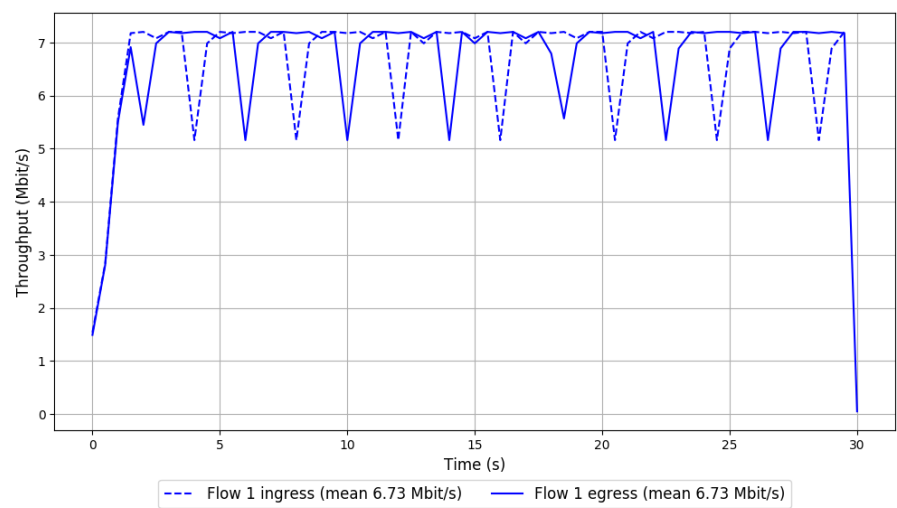
-- Flow 1:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 87.452 ms

Loss rate: 0.00%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-09-17 23:50:40

End at: 2017-09-17 23:51:11

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 87.394 ms

Loss rate: 0.00%

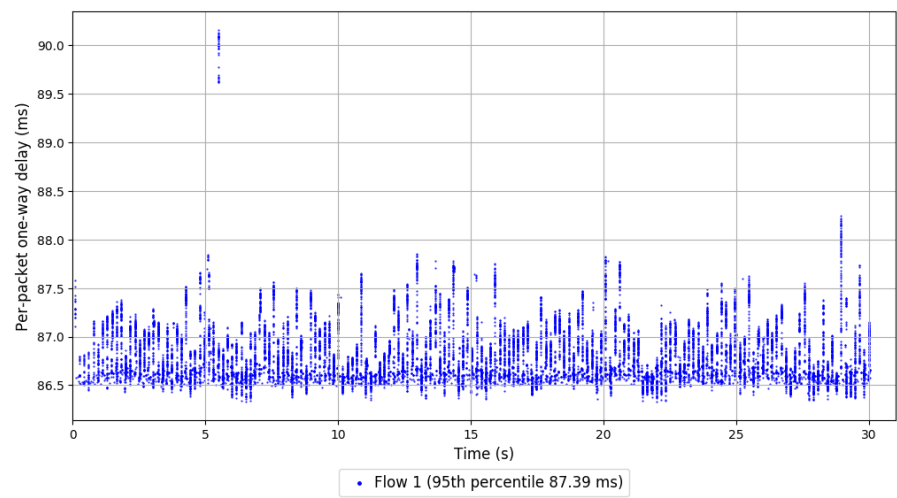
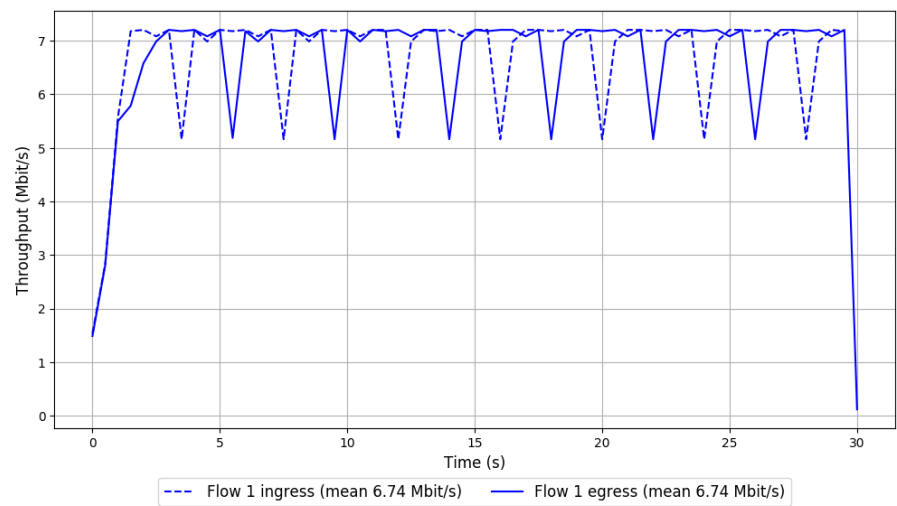
-- Flow 1:

Average throughput: 6.74 Mbit/s

95th percentile per-packet one-way delay: 87.394 ms

Loss rate: 0.00%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-09-18 00:02:27

End at: 2017-09-18 00:02:57

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 87.418 ms

Loss rate: 0.00%

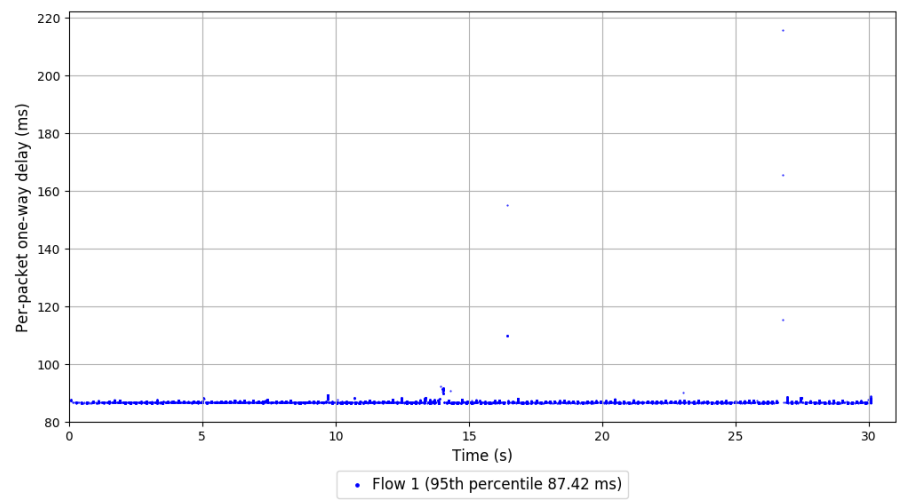
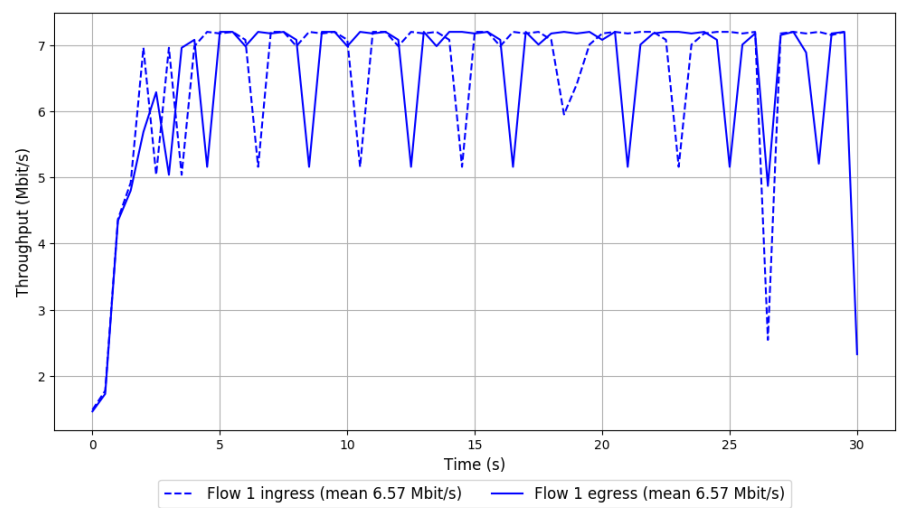
-- Flow 1:

Average throughput: 6.57 Mbit/s

95th percentile per-packet one-way delay: 87.418 ms

Loss rate: 0.00%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-09-18 00:13:56

End at: 2017-09-18 00:14:26

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 87.599 ms

Loss rate: 0.00%

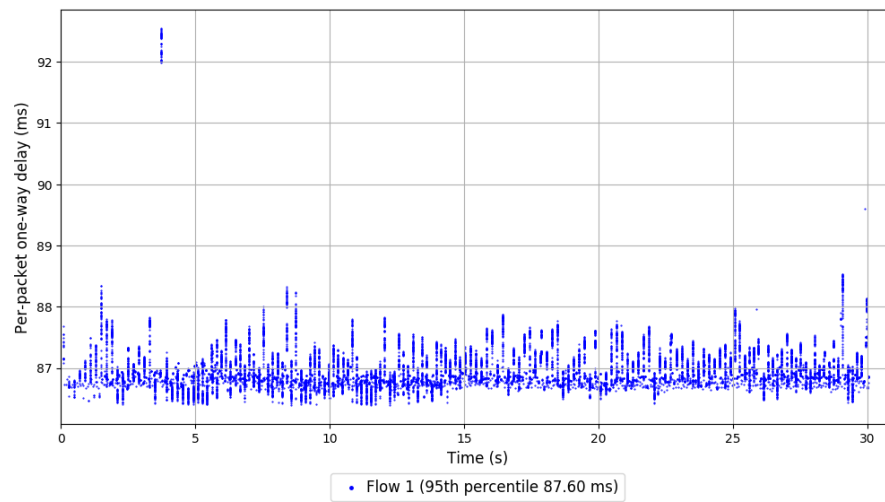
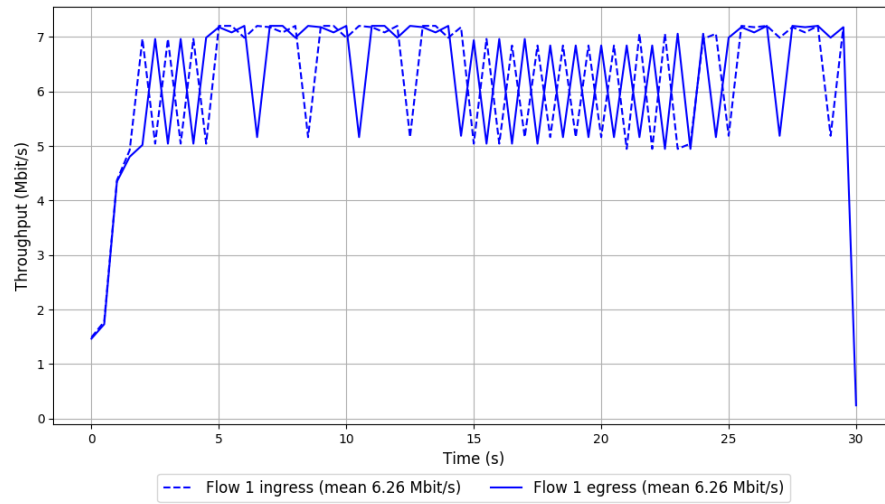
-- Flow 1:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 87.599 ms

Loss rate: 0.00%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-09-18 00:25:07

End at: 2017-09-18 00:25:37

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.54 Mbit/s

95th percentile per-packet one-way delay: 114.678 ms

Loss rate: 0.00%

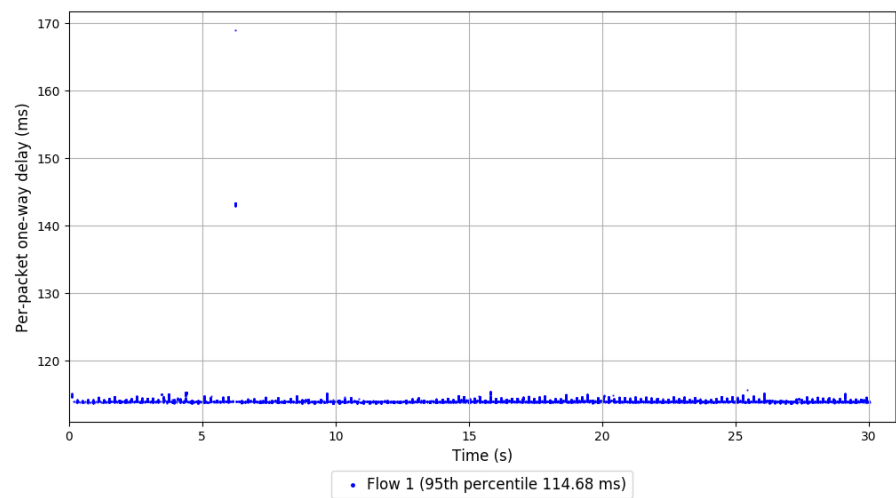
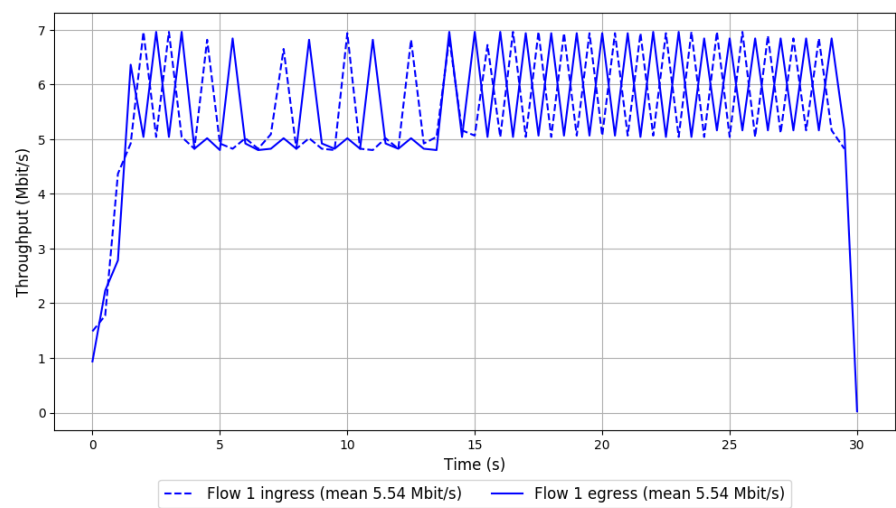
-- Flow 1:

Average throughput: 5.54 Mbit/s

95th percentile per-packet one-way delay: 114.678 ms

Loss rate: 0.00%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-09-18 00:36:30

End at: 2017-09-18 00:37:00

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 114.790 ms

Loss rate: 0.59%

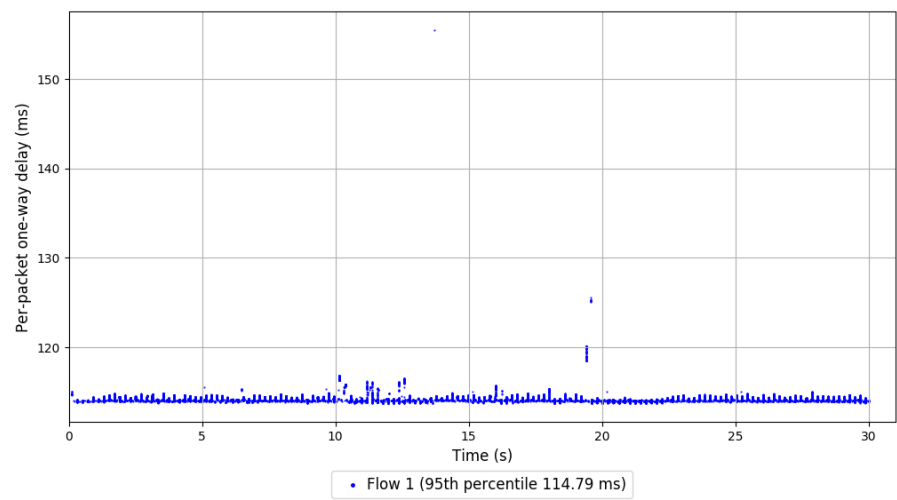
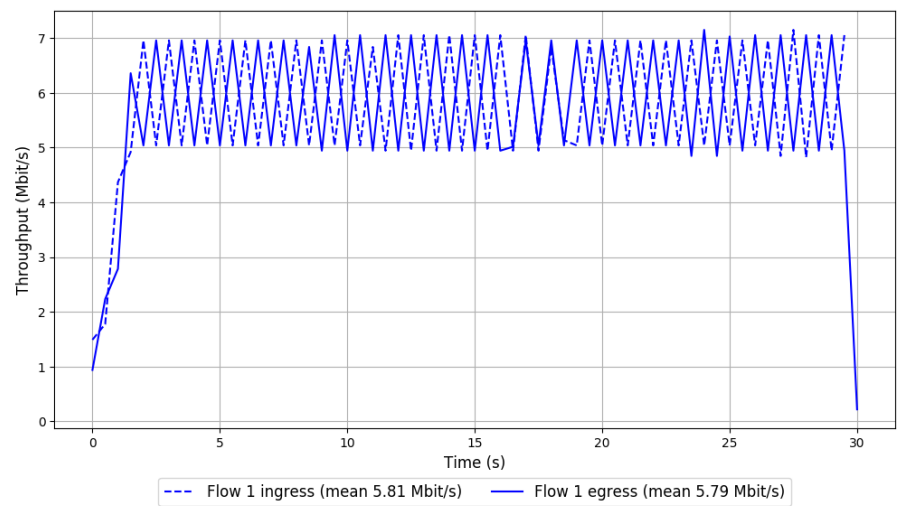
-- Flow 1:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 114.790 ms

Loss rate: 0.59%

Run 10: Report of KohoCC — Data Link

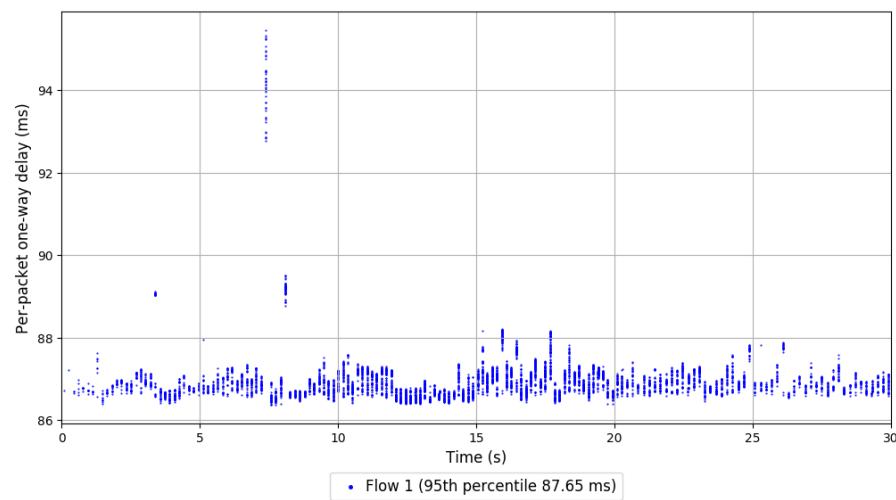
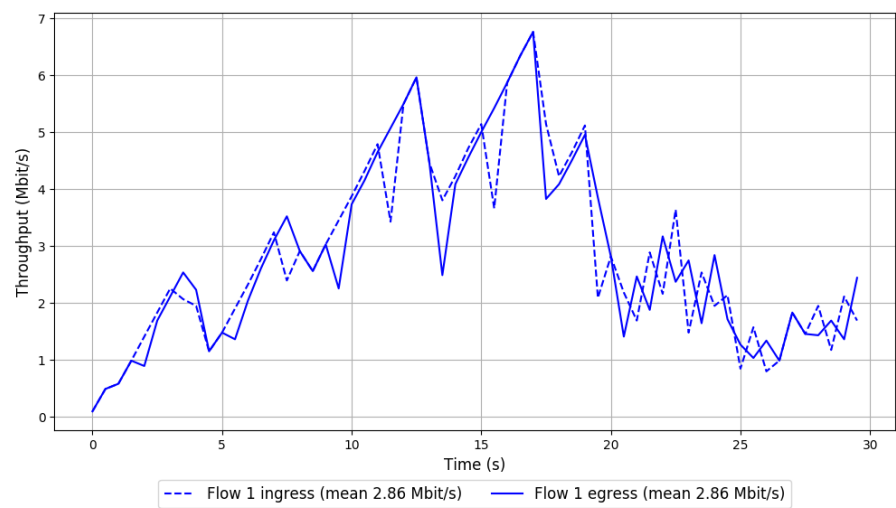


```
Run 1: Statistics of LEDBAT

Start at: 2017-09-17 22:48:50
End at: 2017-09-17 22:49:20

# Below is generated by plot.py at 2017-09-18 01:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 87.652 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 87.652 ms
Loss rate: 0.03%
```


Run 1: Report of LEDBAT — Data Link

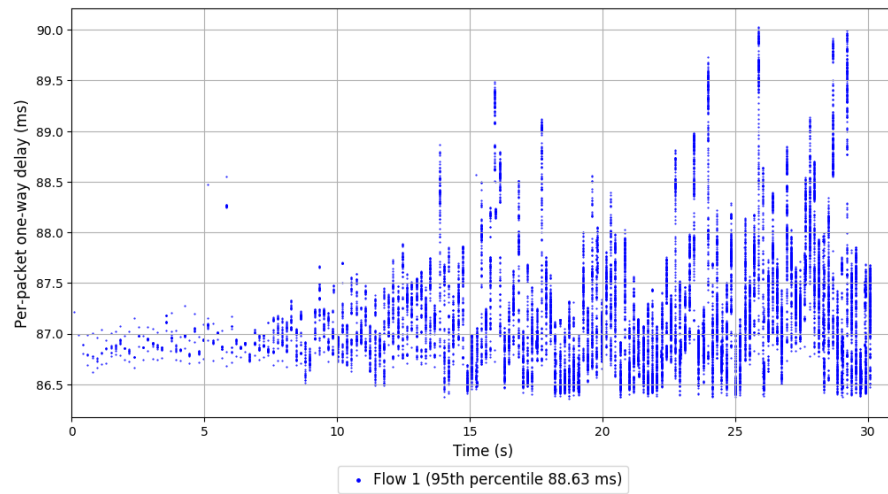
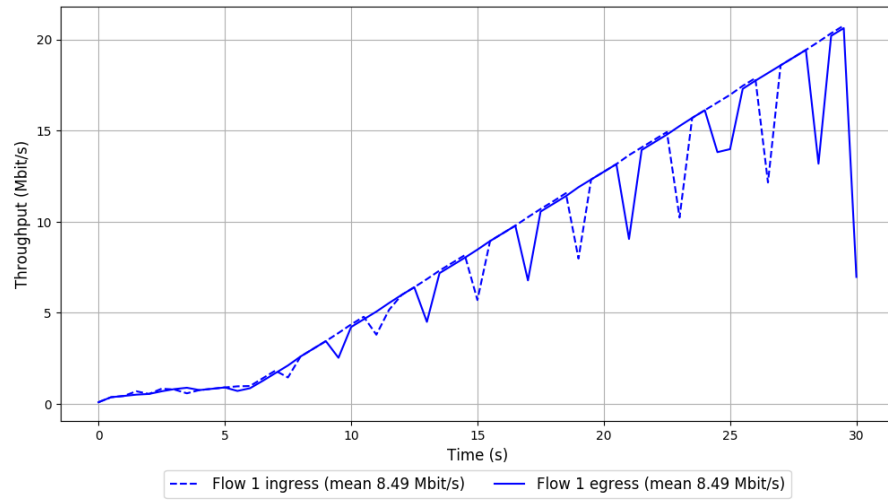


```
Run 2: Statistics of LEDBAT

Start at: 2017-09-17 23:00:24
End at: 2017-09-17 23:00:54

# Below is generated by plot.py at 2017-09-18 01:55:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.49 Mbit/s
95th percentile per-packet one-way delay: 88.633 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 8.49 Mbit/s
95th percentile per-packet one-way delay: 88.633 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-09-17 23:12:08

End at: 2017-09-17 23:12:38

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 87.486 ms

Loss rate: 0.20%

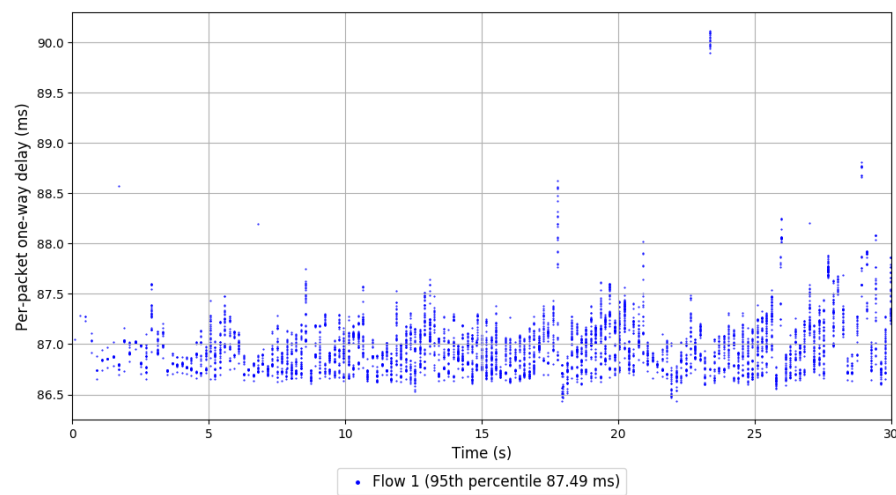
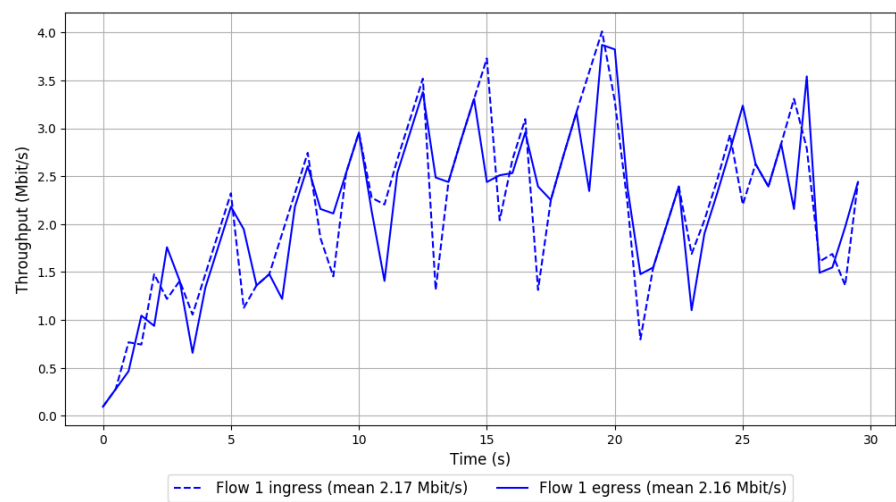
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 87.486 ms

Loss rate: 0.20%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-09-17 23:23:58

End at: 2017-09-17 23:24:28

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 87.764 ms

Loss rate: 0.00%

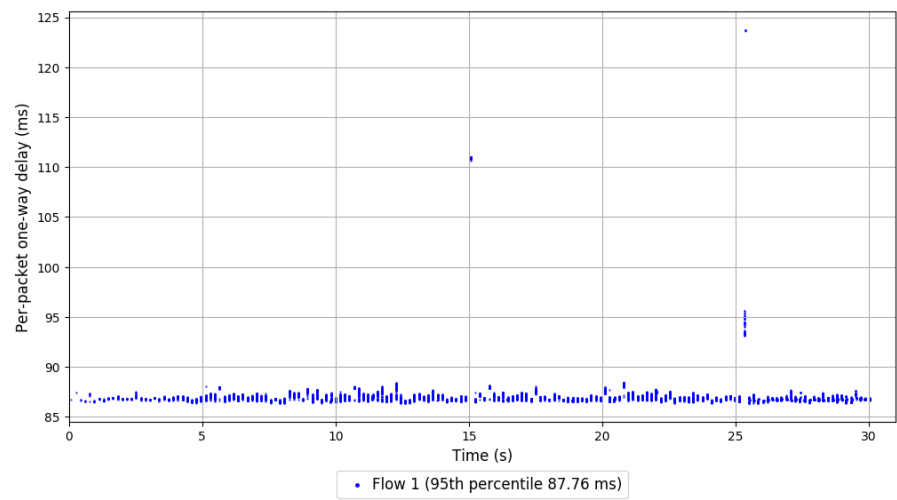
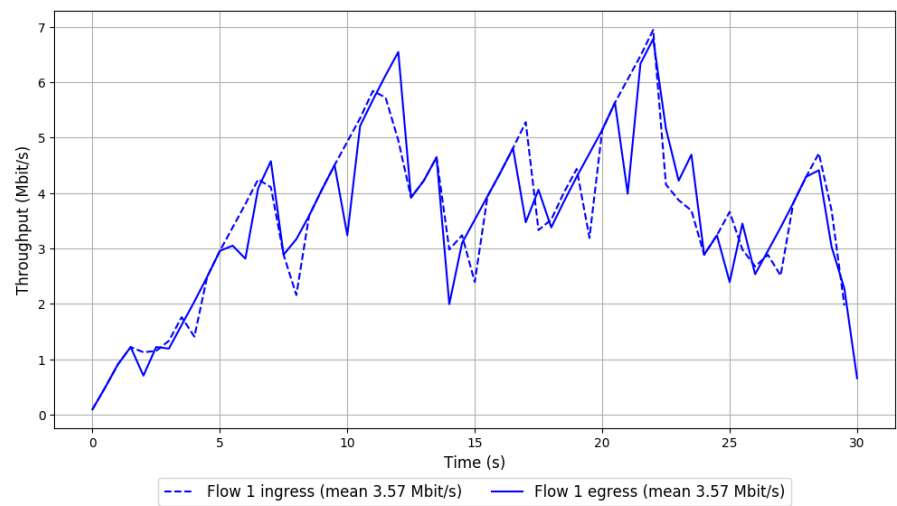
-- Flow 1:

Average throughput: 3.57 Mbit/s

95th percentile per-packet one-way delay: 87.764 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-09-17 23:35:52

End at: 2017-09-17 23:36:22

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.462 ms

Loss rate: 0.08%

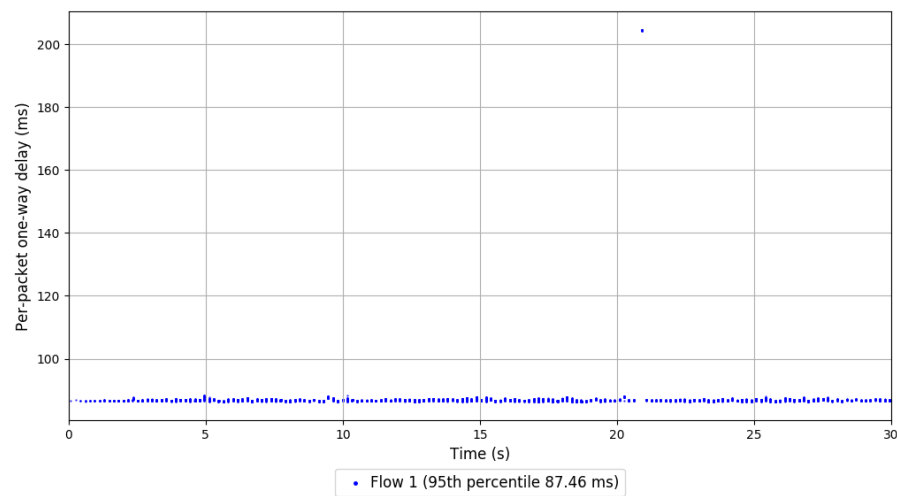
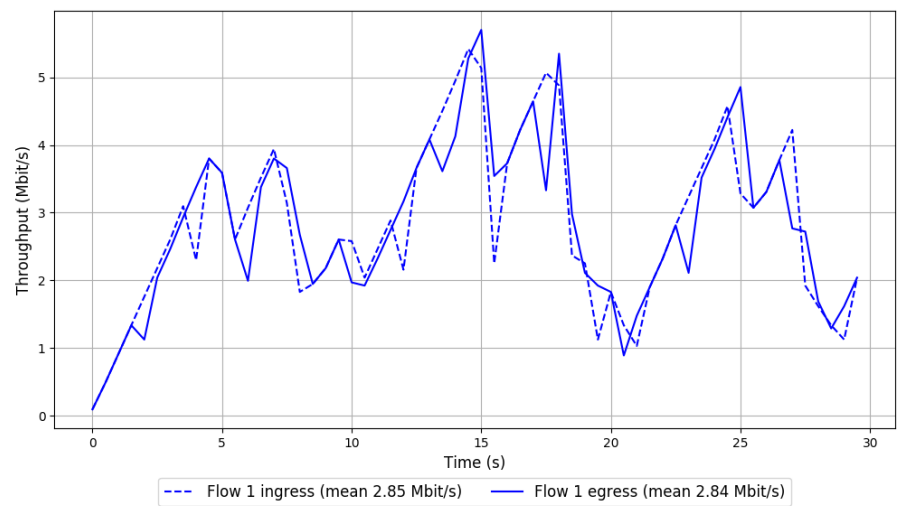
-- Flow 1:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.462 ms

Loss rate: 0.08%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-09-17 23:47:51

End at: 2017-09-17 23:48:21

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 86.979 ms

Loss rate: 0.00%

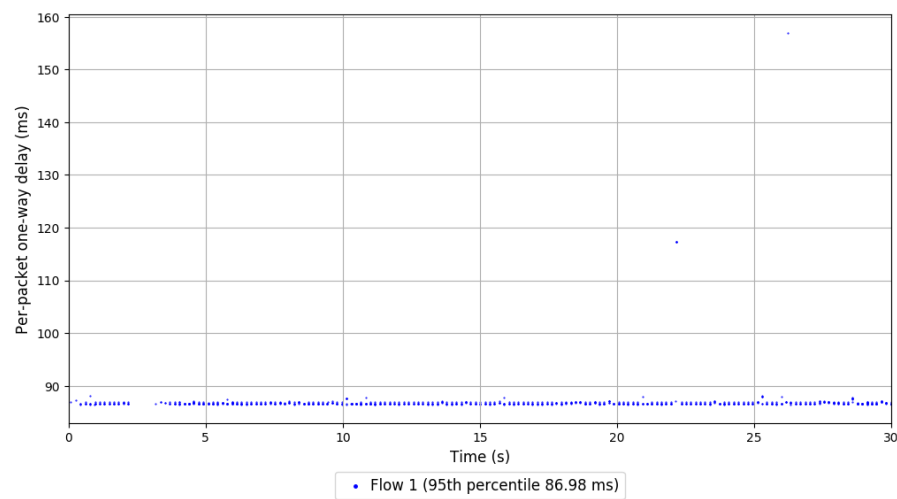
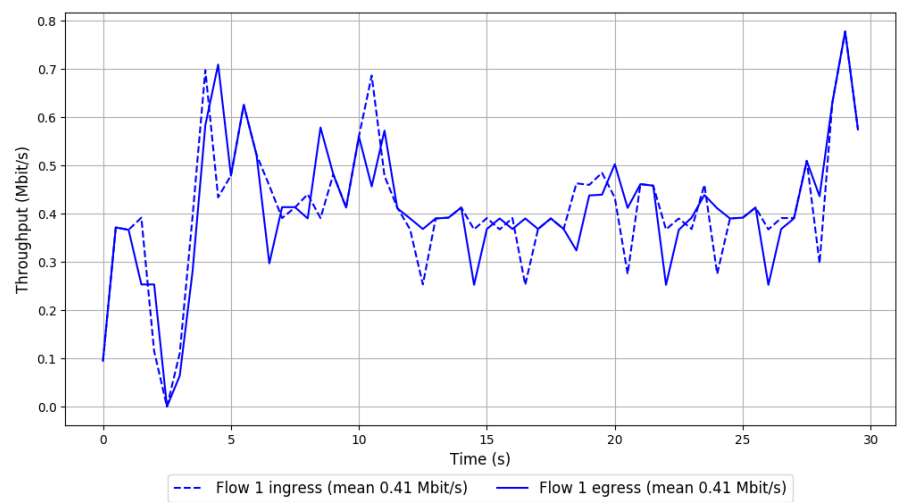
-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 86.979 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-09-17 23:59:35

End at: 2017-09-18 00:00:05

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 87.898 ms

Loss rate: 0.00%

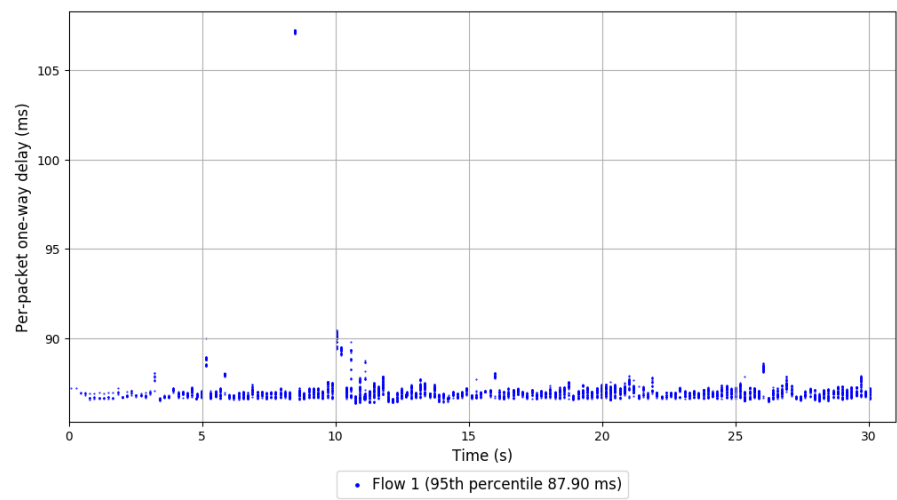
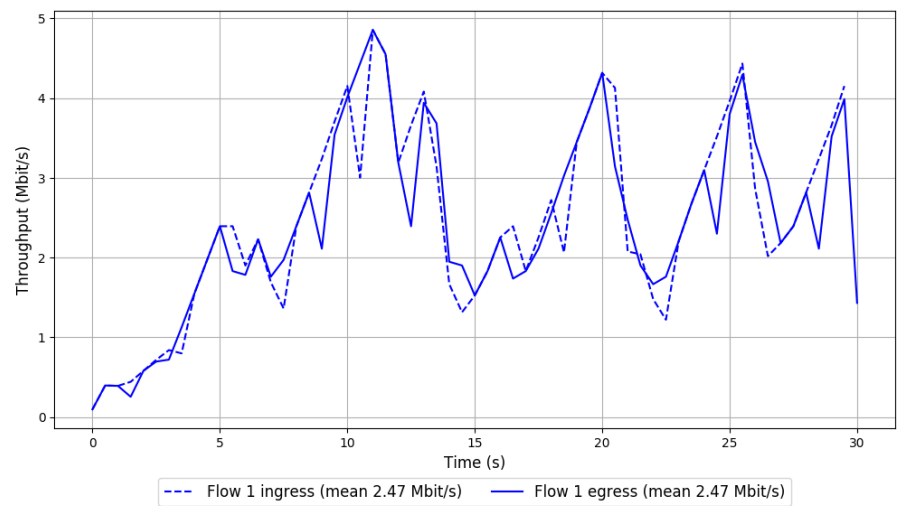
-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 87.898 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-09-18 00:11:07

End at: 2017-09-18 00:11:37

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 88.111 ms

Loss rate: 0.73%

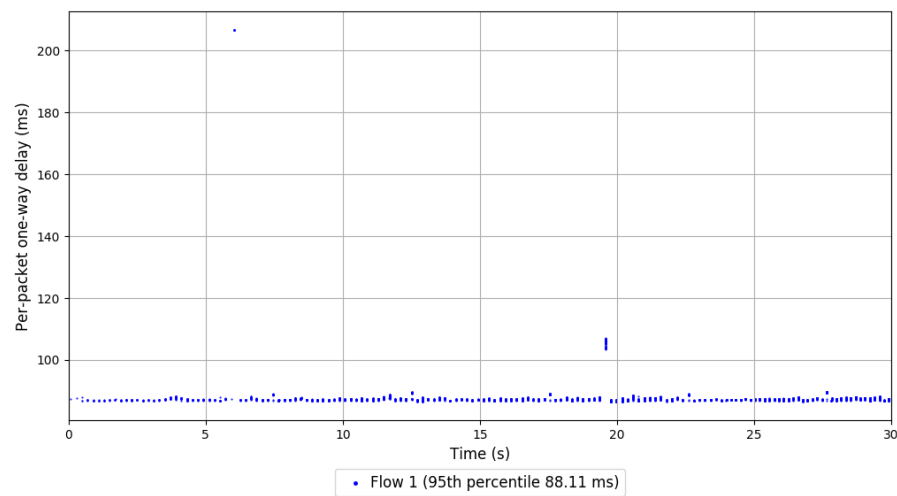
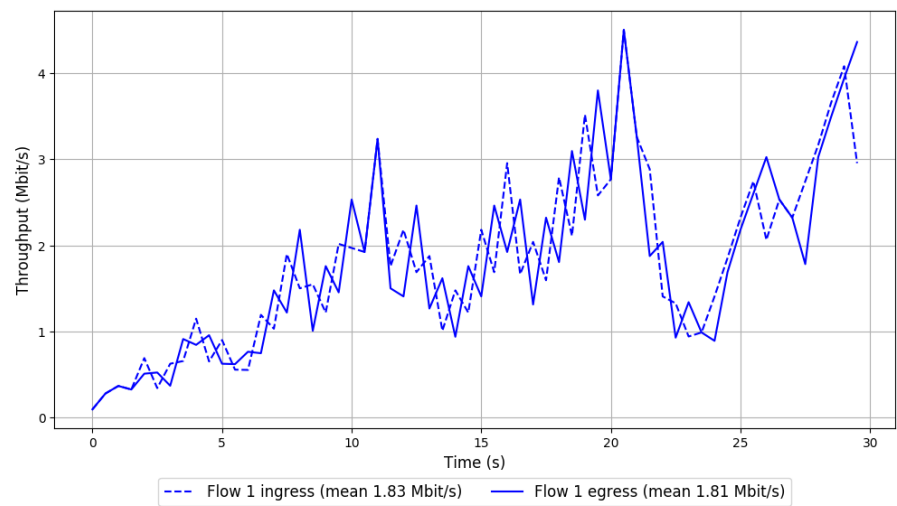
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 88.111 ms

Loss rate: 0.73%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-09-18 00:22:19

End at: 2017-09-18 00:22:49

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 115.207 ms

Loss rate: 0.31%

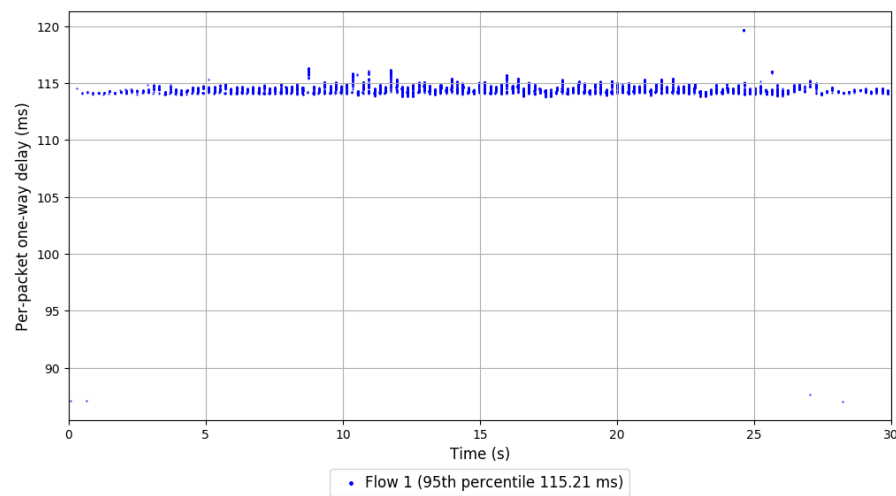
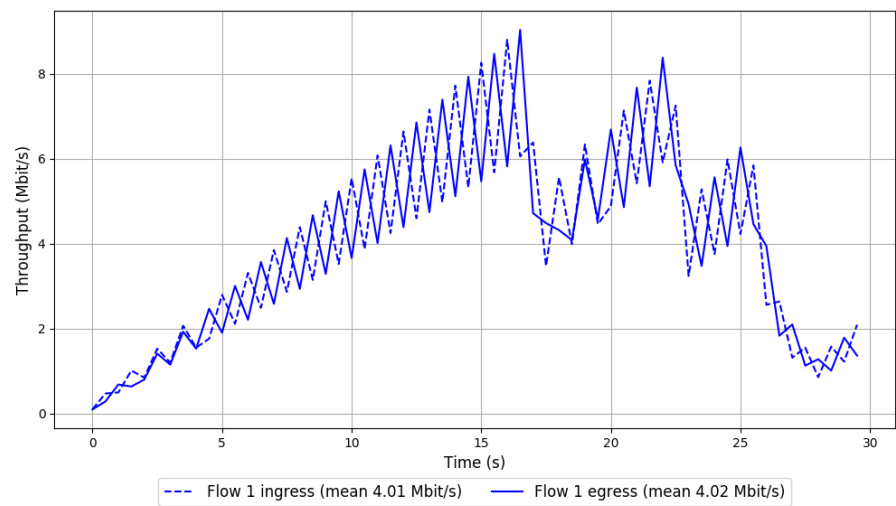
-- Flow 1:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 115.207 ms

Loss rate: 0.31%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-09-18 00:33:39

End at: 2017-09-18 00:34:09

Below is generated by plot.py at 2017-09-18 01:55:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 114.902 ms

Loss rate: 0.17%

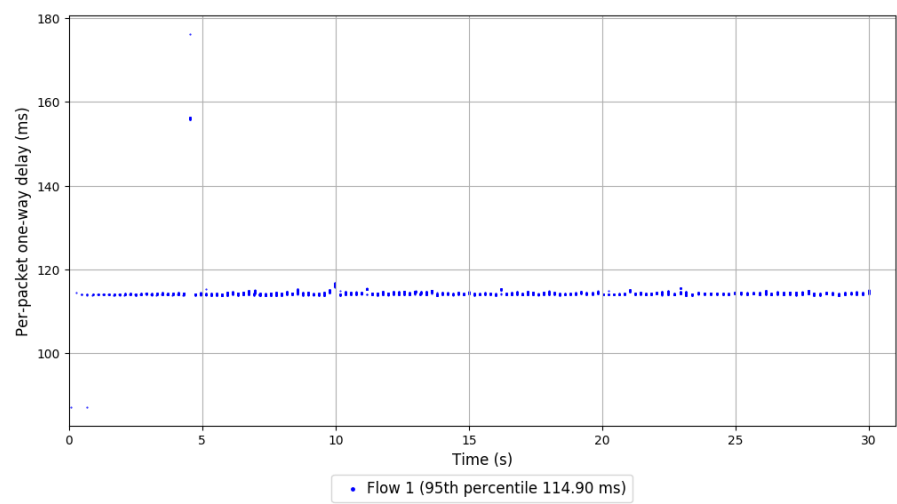
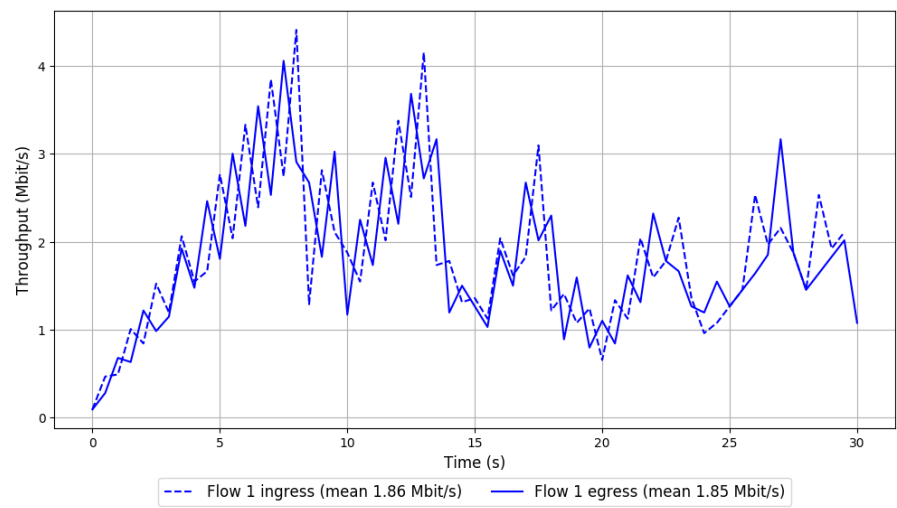
-- Flow 1:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 114.902 ms

Loss rate: 0.17%

Run 10: Report of LEDBAT — Data Link

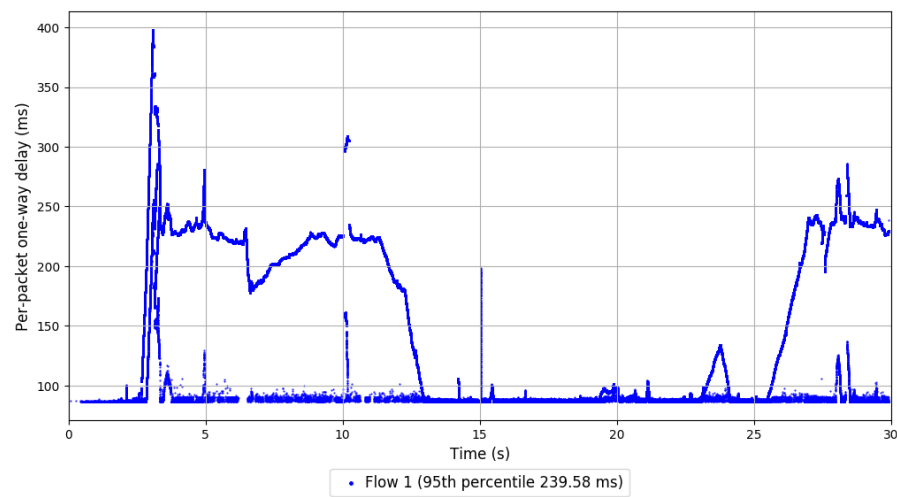
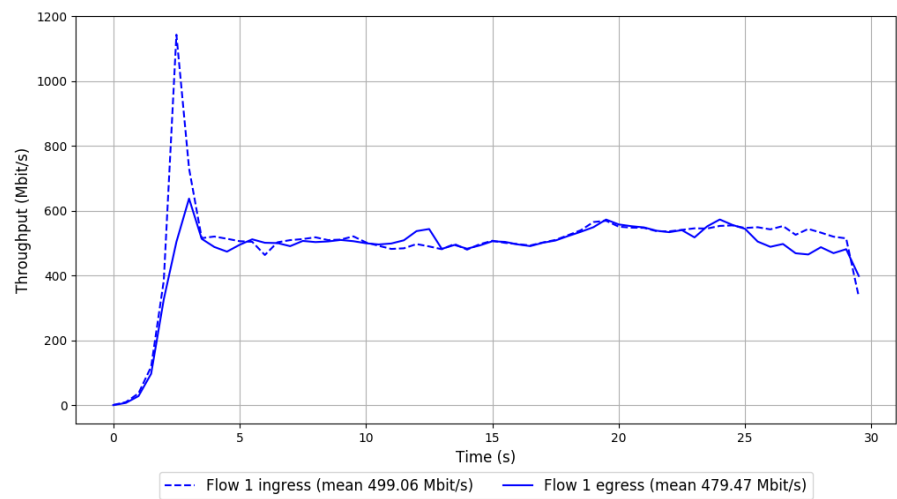


```
Run 1: Statistics of PCC

Start at: 2017-09-17 22:55:33
End at: 2017-09-17 22:56:03

# Below is generated by plot.py at 2017-09-18 02:02:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 479.47 Mbit/s
95th percentile per-packet one-way delay: 239.578 ms
Loss rate: 3.90%
-- Flow 1:
Average throughput: 479.47 Mbit/s
95th percentile per-packet one-way delay: 239.578 ms
Loss rate: 3.90%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-09-17 23:07:13

End at: 2017-09-17 23:07:43

Below is generated by plot.py at 2017-09-18 02:02:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 489.37 Mbit/s

95th percentile per-packet one-way delay: 220.160 ms

Loss rate: 0.87%

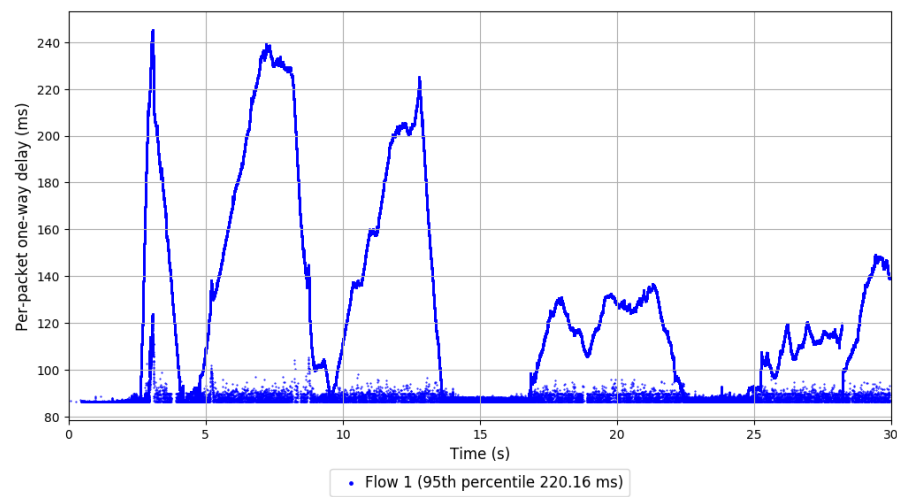
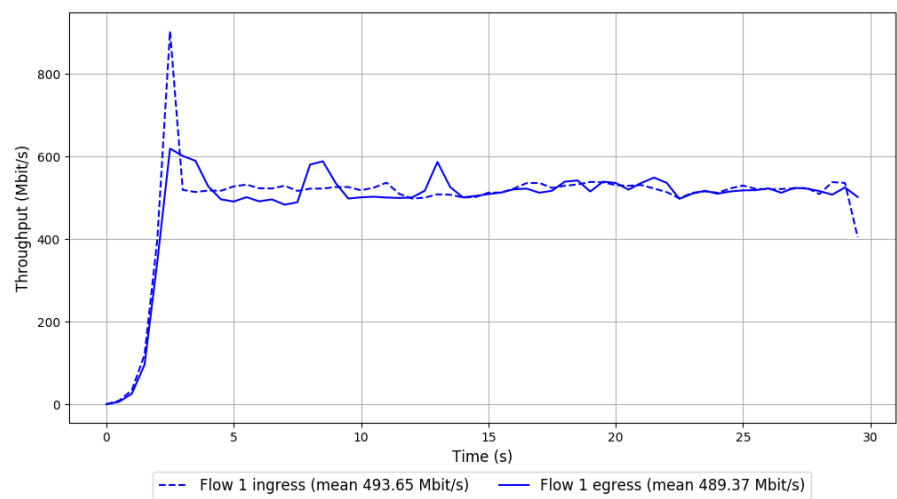
-- Flow 1:

Average throughput: 489.37 Mbit/s

95th percentile per-packet one-way delay: 220.160 ms

Loss rate: 0.87%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-09-17 23:19:03

End at: 2017-09-17 23:19:33

Below is generated by plot.py at 2017-09-18 02:02:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 494.51 Mbit/s

95th percentile per-packet one-way delay: 203.813 ms

Loss rate: 1.37%

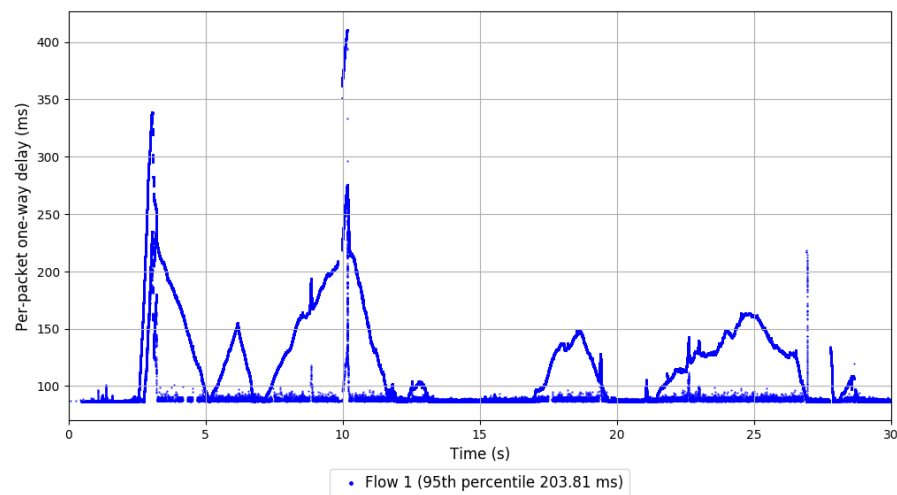
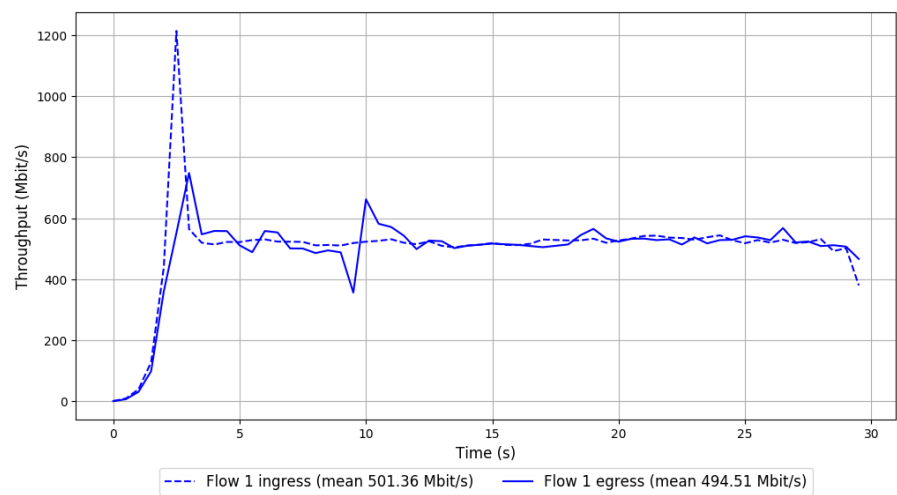
-- Flow 1:

Average throughput: 494.51 Mbit/s

95th percentile per-packet one-way delay: 203.813 ms

Loss rate: 1.37%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-09-17 23:30:55

End at: 2017-09-17 23:31:25

Below is generated by plot.py at 2017-09-18 02:02:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 472.14 Mbit/s

95th percentile per-packet one-way delay: 246.014 ms

Loss rate: 3.98%

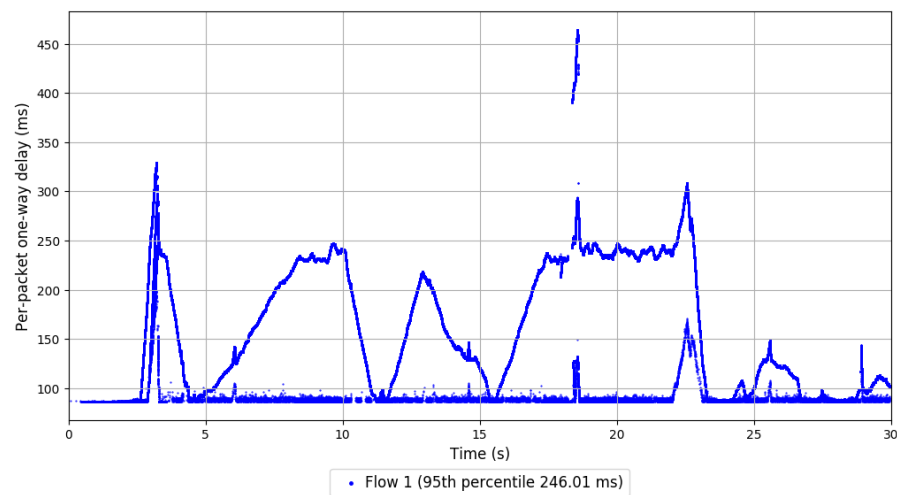
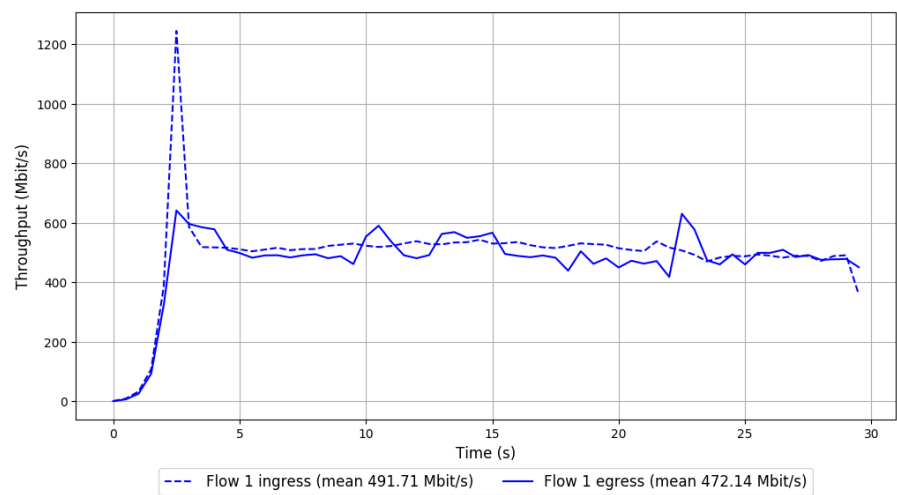
-- Flow 1:

Average throughput: 472.14 Mbit/s

95th percentile per-packet one-way delay: 246.014 ms

Loss rate: 3.98%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-09-17 23:42:53

End at: 2017-09-17 23:43:23

Below is generated by plot.py at 2017-09-18 02:02:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 480.43 Mbit/s

95th percentile per-packet one-way delay: 234.599 ms

Loss rate: 3.13%

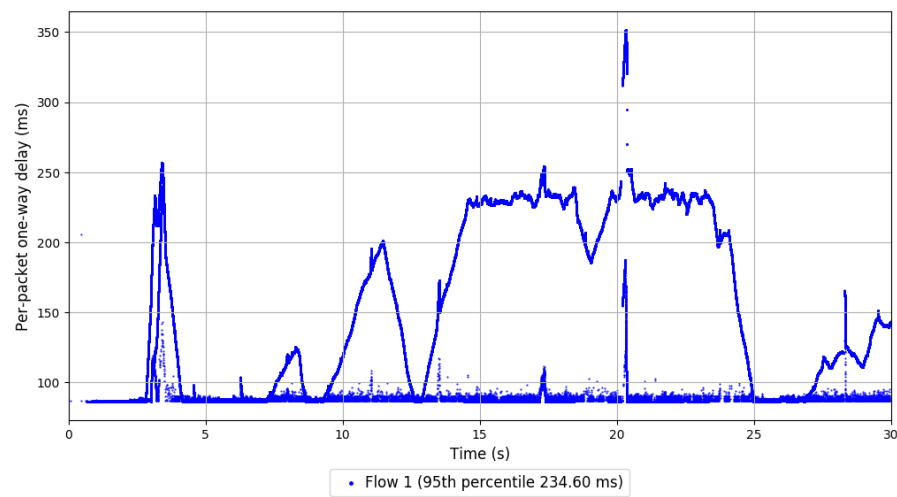
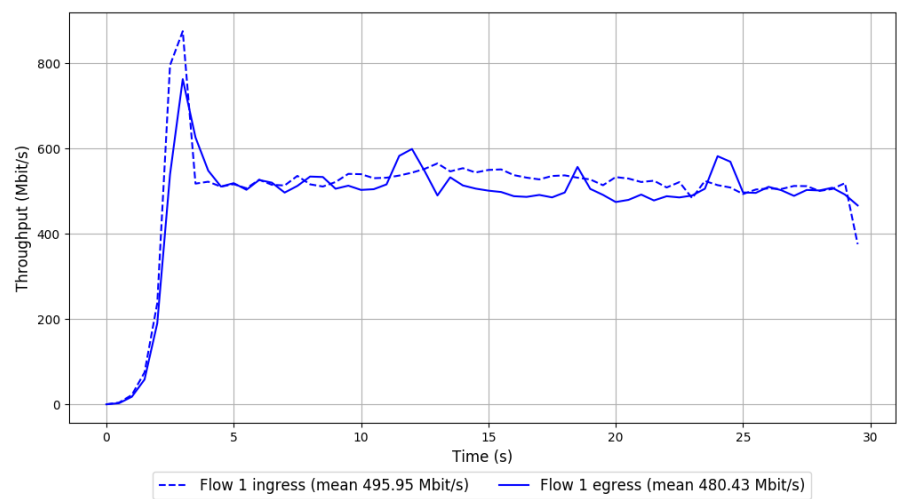
-- Flow 1:

Average throughput: 480.43 Mbit/s

95th percentile per-packet one-way delay: 234.599 ms

Loss rate: 3.13%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-09-17 23:54:47

End at: 2017-09-17 23:55:17

Below is generated by plot.py at 2017-09-18 02:02:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 408.79 Mbit/s

95th percentile per-packet one-way delay: 134.345 ms

Loss rate: 0.45%

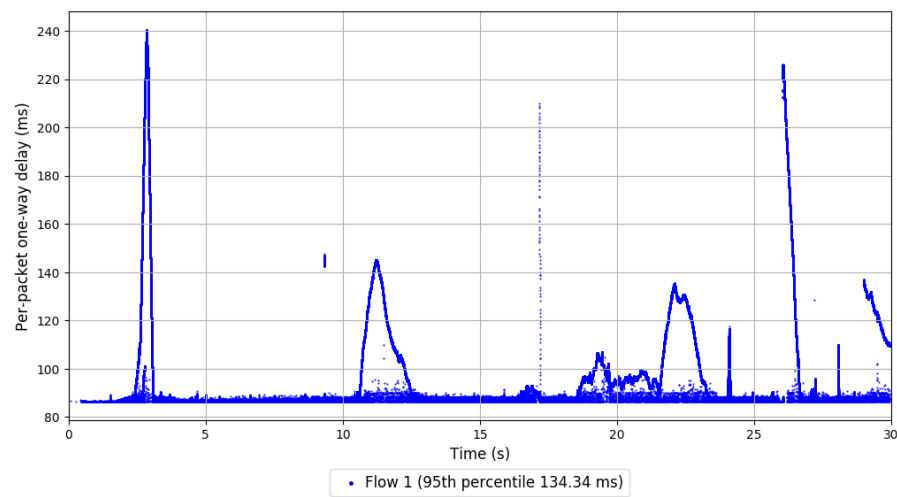
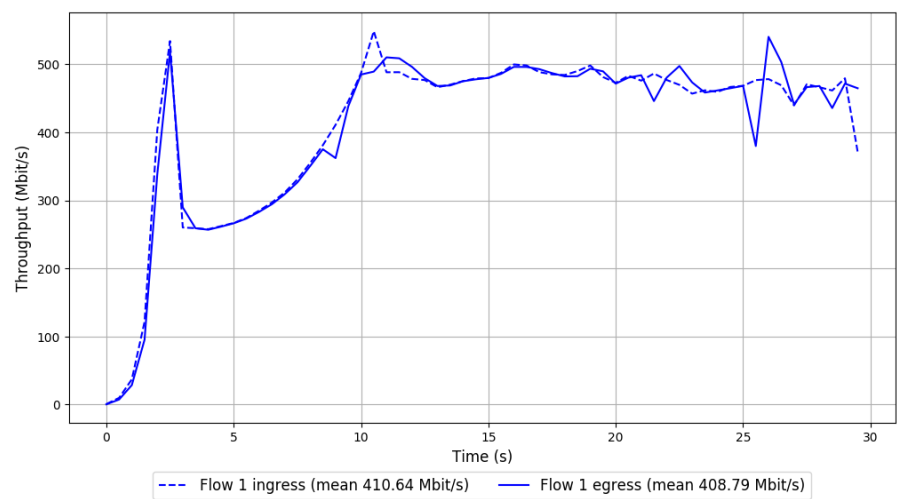
-- Flow 1:

Average throughput: 408.79 Mbit/s

95th percentile per-packet one-way delay: 134.345 ms

Loss rate: 0.45%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-09-18 00:06:21

End at: 2017-09-18 00:06:51

Below is generated by plot.py at 2017-09-18 02:03:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 470.01 Mbit/s

95th percentile per-packet one-way delay: 231.929 ms

Loss rate: 2.09%

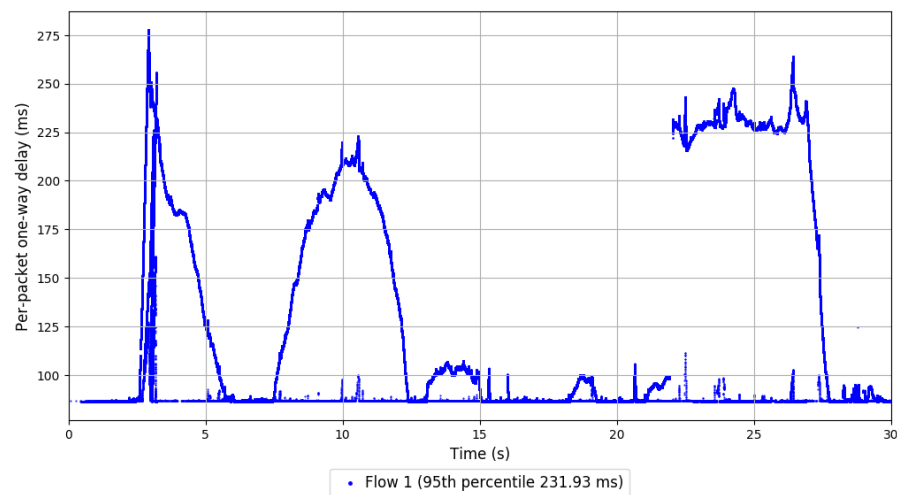
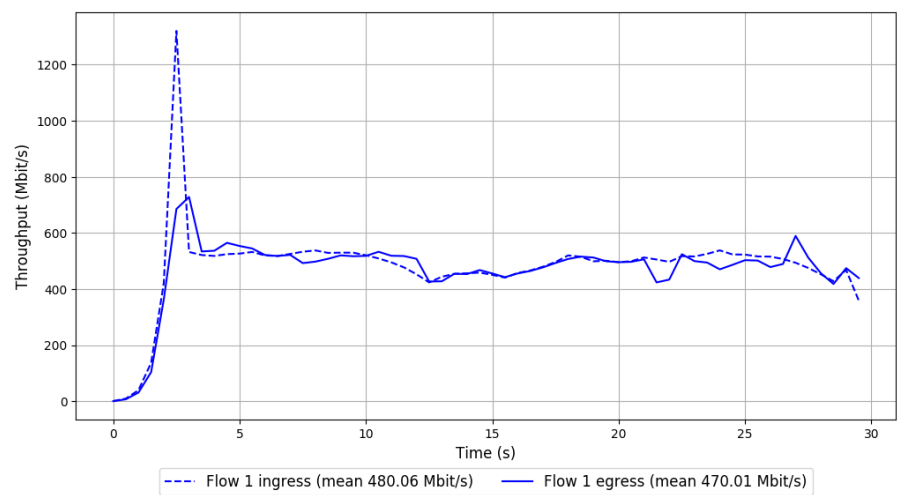
-- Flow 1:

Average throughput: 470.01 Mbit/s

95th percentile per-packet one-way delay: 231.929 ms

Loss rate: 2.09%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-09-18 00:17:52

End at: 2017-09-18 00:18:22

Below is generated by plot.py at 2017-09-18 02:03:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 116.015 ms

Loss rate: 0.12%

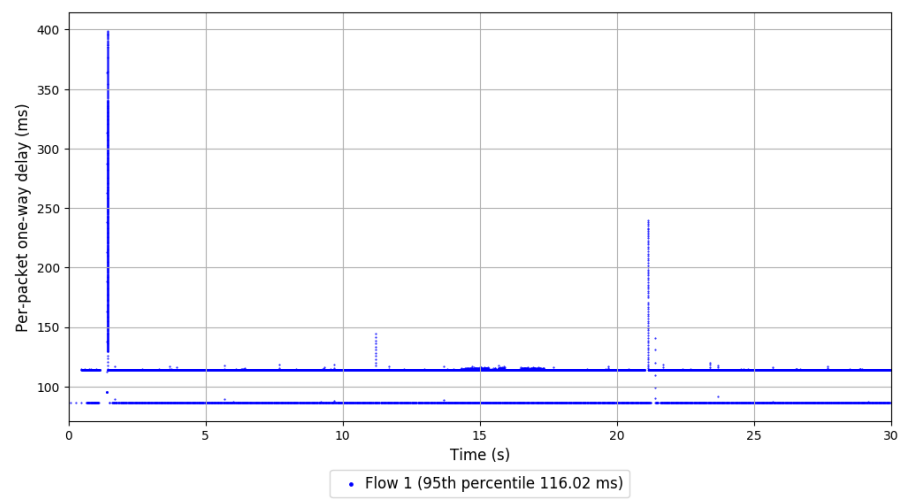
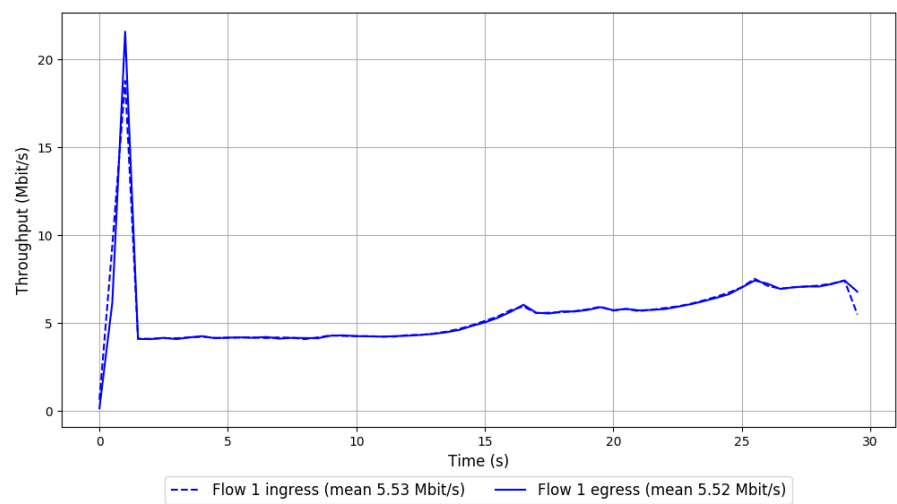
-- Flow 1:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 116.015 ms

Loss rate: 0.12%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-09-18 00:29:10

End at: 2017-09-18 00:29:40

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 462.11 Mbit/s

95th percentile per-packet one-way delay: 261.683 ms

Loss rate: 2.74%

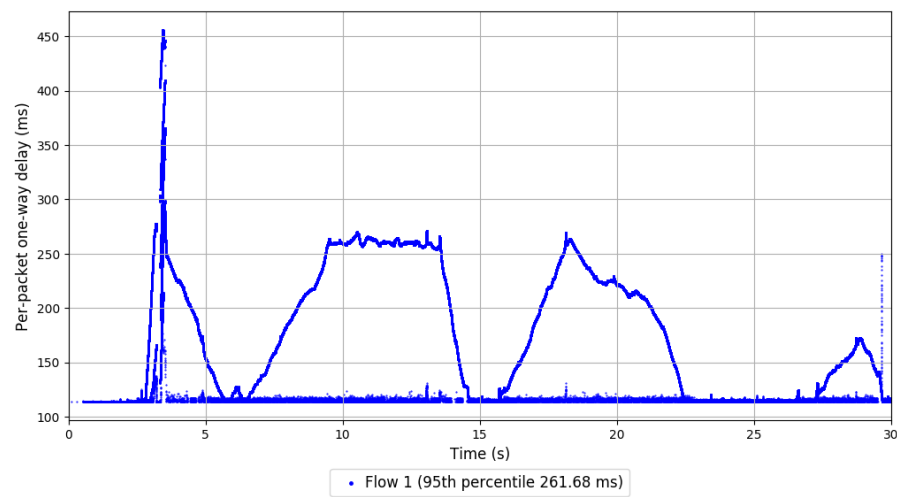
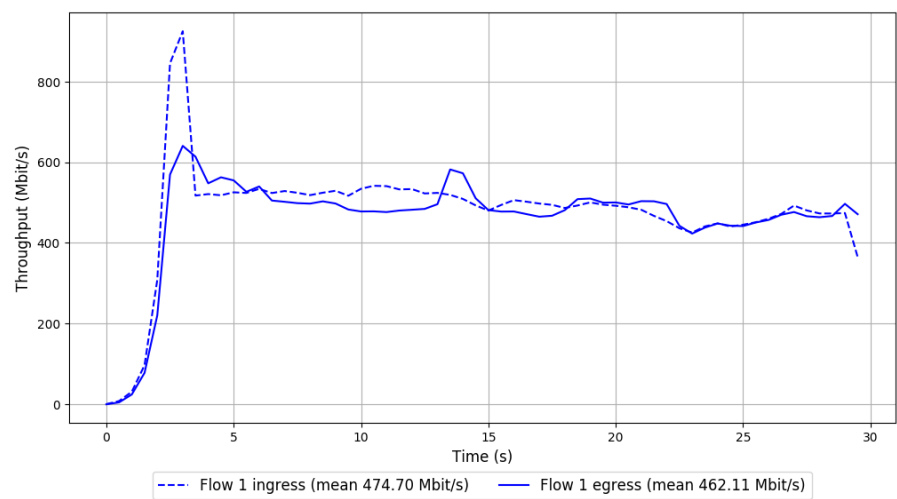
-- Flow 1:

Average throughput: 462.11 Mbit/s

95th percentile per-packet one-way delay: 261.683 ms

Loss rate: 2.74%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-09-18 00:40:25

End at: 2017-09-18 00:40:55

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.45 Mbit/s

95th percentile per-packet one-way delay: 113.978 ms

Loss rate: 0.11%

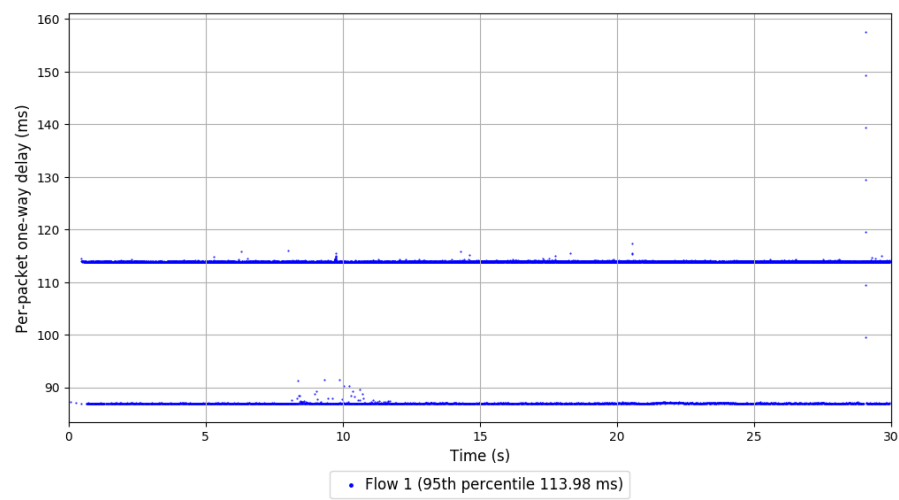
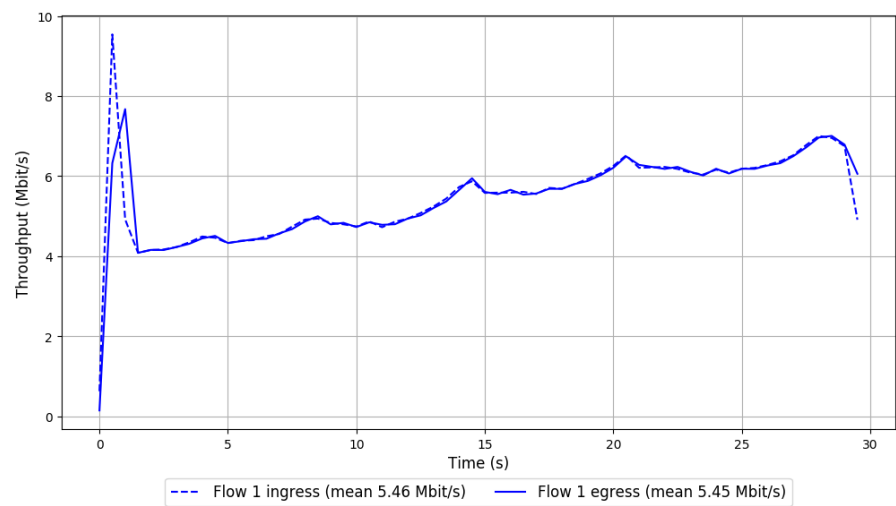
-- Flow 1:

Average throughput: 5.45 Mbit/s

95th percentile per-packet one-way delay: 113.978 ms

Loss rate: 0.11%

Run 10: Report of PCC — Data Link

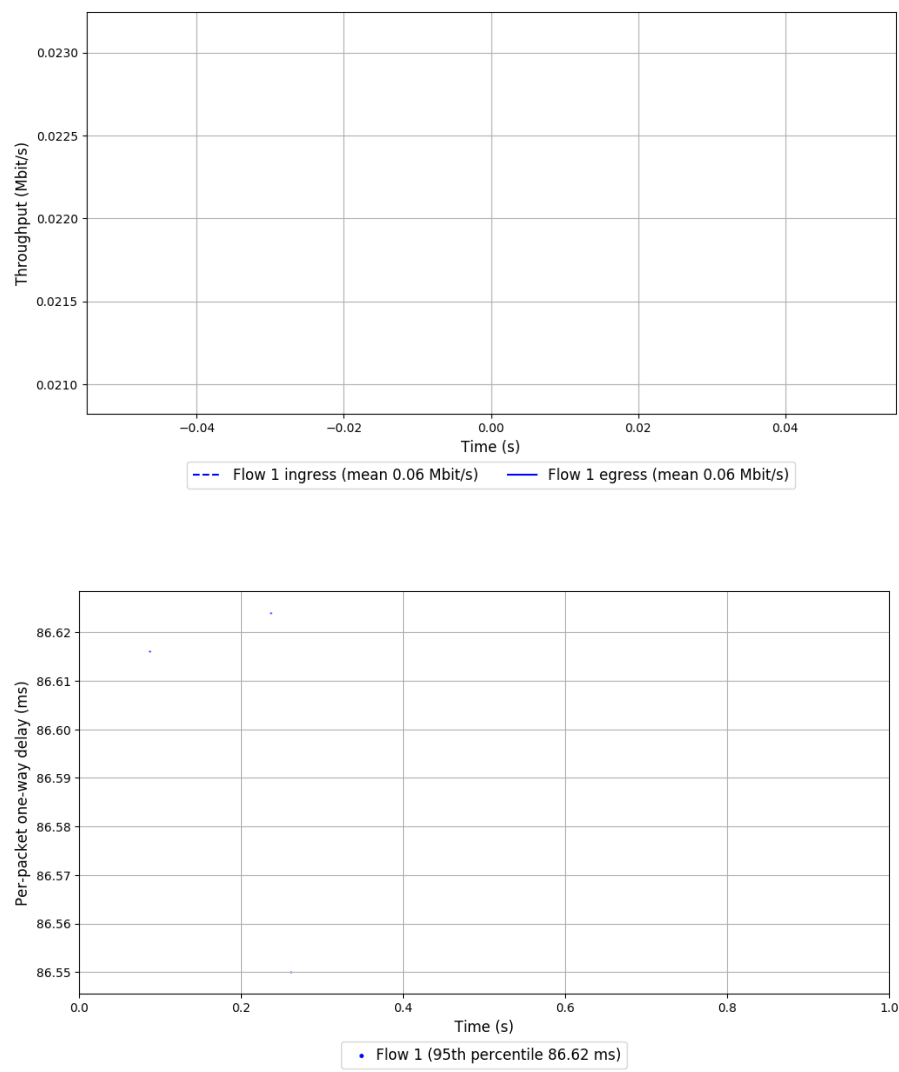


Run 1: Statistics of QUIC Cubic

Start at: 2017-09-17 22:54:54

End at: 2017-09-17 22:55:24

Run 1: Report of QUIC Cubic — Data Link

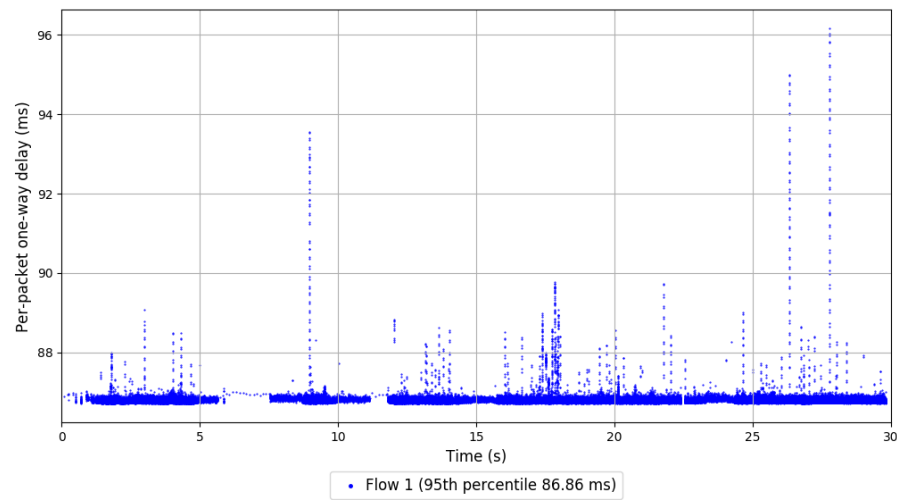
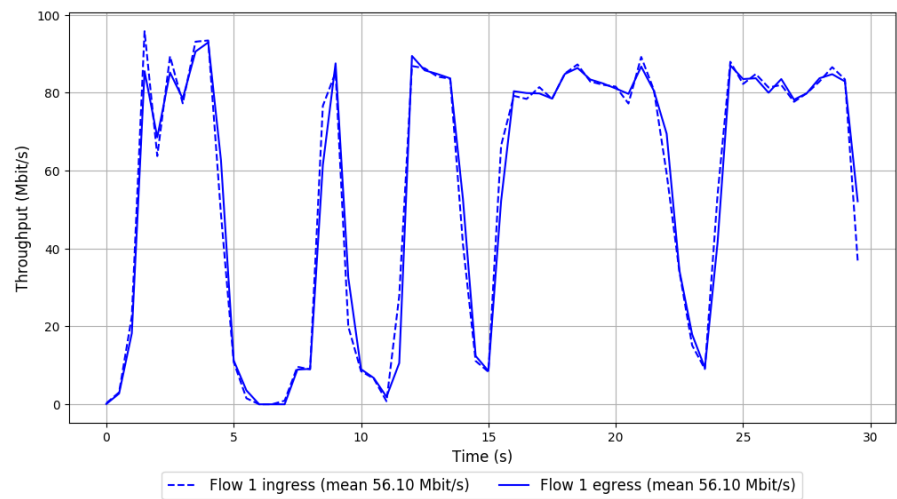


```
Run 2: Statistics of QUIC Cubic

Start at: 2017-09-17 23:06:30
End at: 2017-09-17 23:07:00

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 86.857 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.10 Mbit/s
95th percentile per-packet one-way delay: 86.857 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-09-17 23:18:21

End at: 2017-09-17 23:18:51

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.65 Mbit/s

95th percentile per-packet one-way delay: 86.880 ms

Loss rate: 0.00%

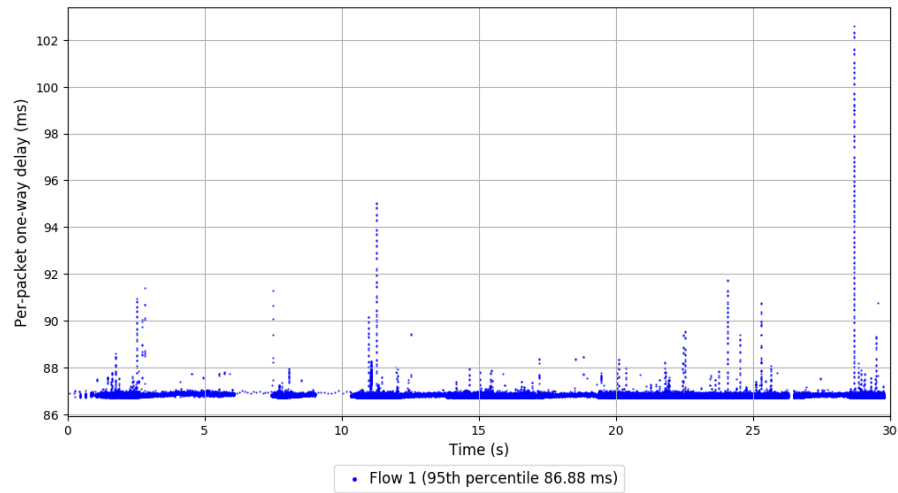
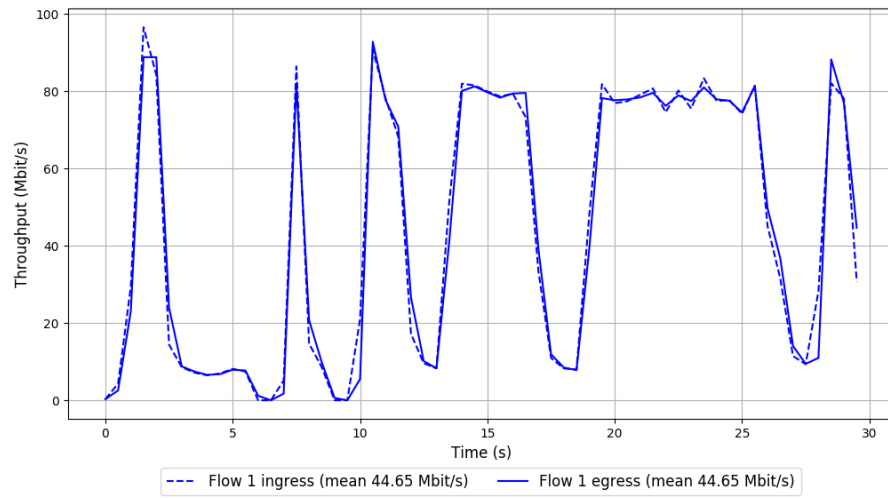
-- Flow 1:

Average throughput: 44.65 Mbit/s

95th percentile per-packet one-way delay: 86.880 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-09-17 23:30:12

End at: 2017-09-17 23:30:42

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.61 Mbit/s

95th percentile per-packet one-way delay: 86.917 ms

Loss rate: 0.00%

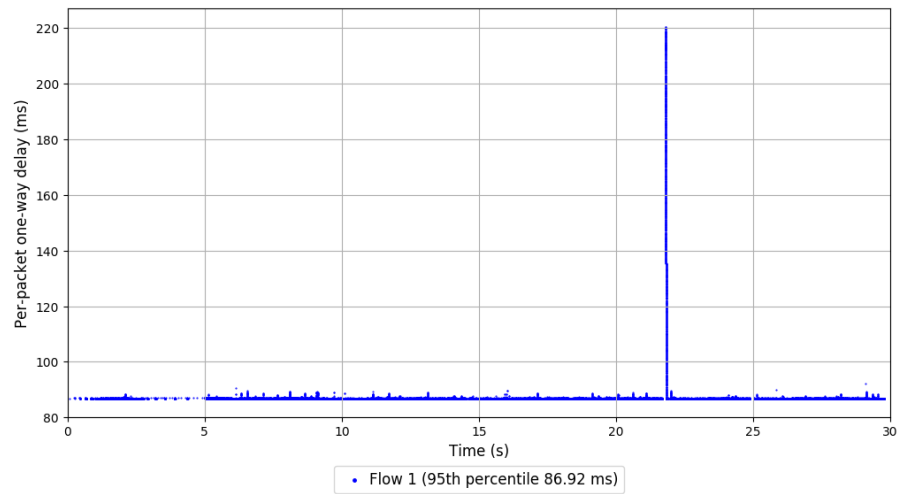
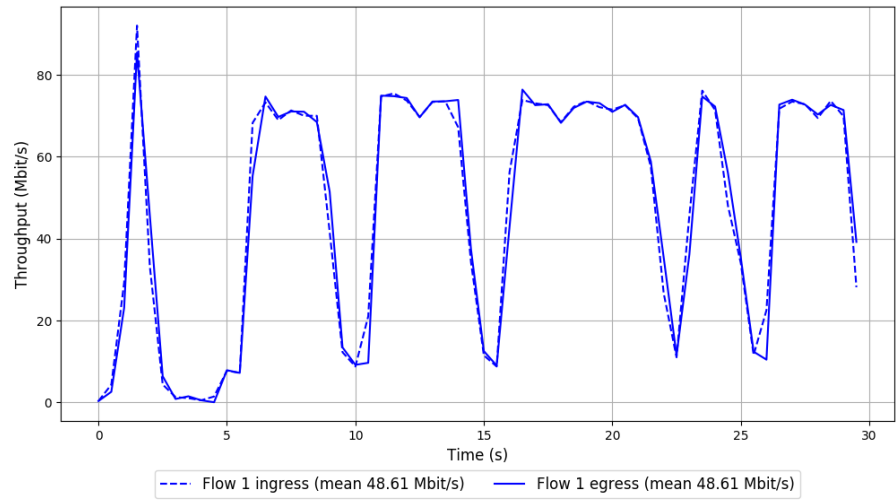
-- Flow 1:

Average throughput: 48.61 Mbit/s

95th percentile per-packet one-way delay: 86.917 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-09-17 23:42:09

End at: 2017-09-17 23:42:39

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.82 Mbit/s

95th percentile per-packet one-way delay: 86.842 ms

Loss rate: 0.00%

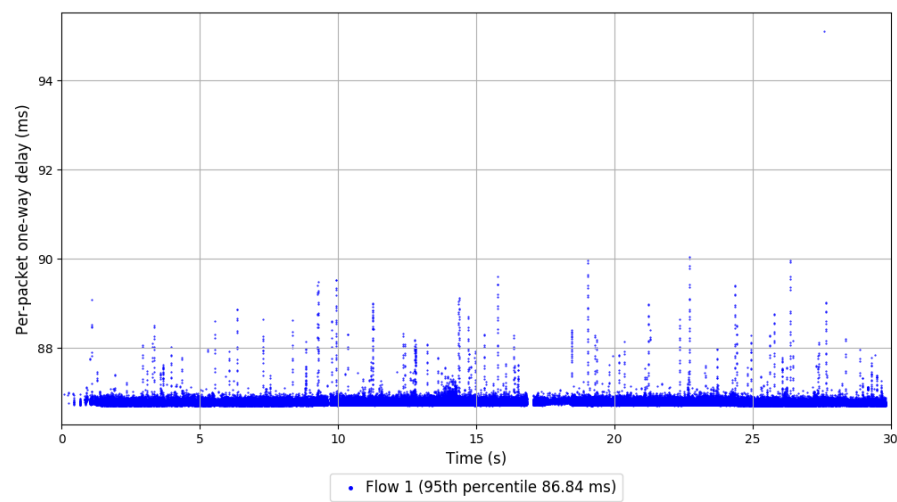
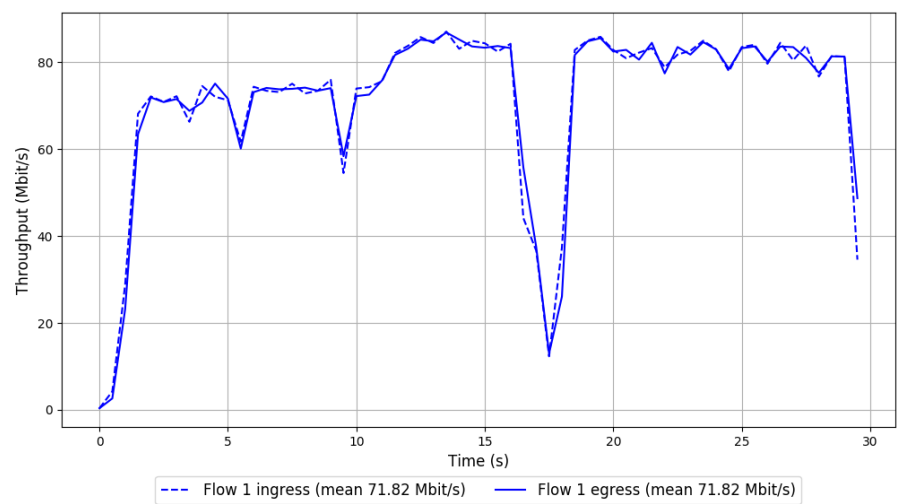
-- Flow 1:

Average throughput: 71.82 Mbit/s

95th percentile per-packet one-way delay: 86.842 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-09-17 23:54:05

End at: 2017-09-17 23:54:35

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.09 Mbit/s

95th percentile per-packet one-way delay: 86.426 ms

Loss rate: 0.00%

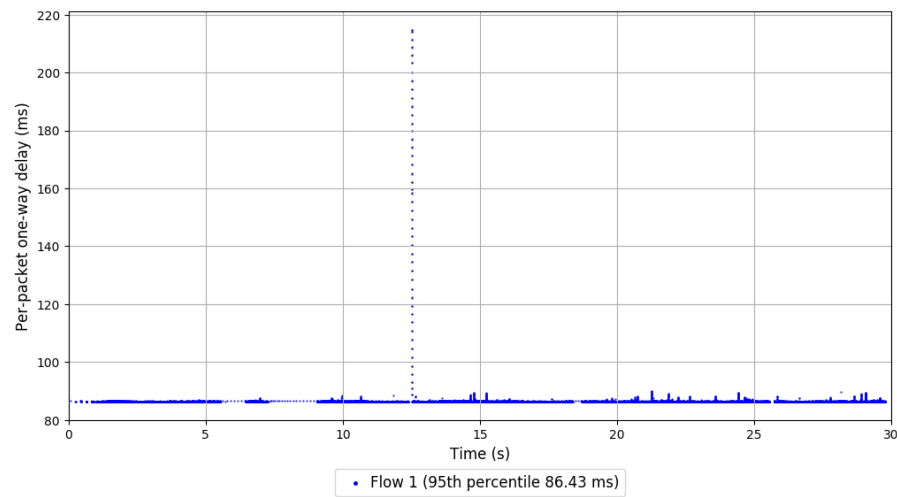
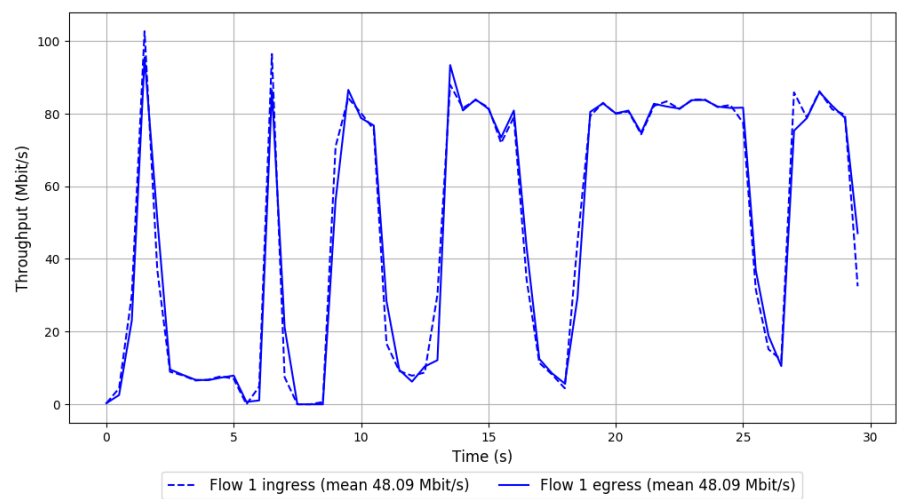
-- Flow 1:

Average throughput: 48.09 Mbit/s

95th percentile per-packet one-way delay: 86.426 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link

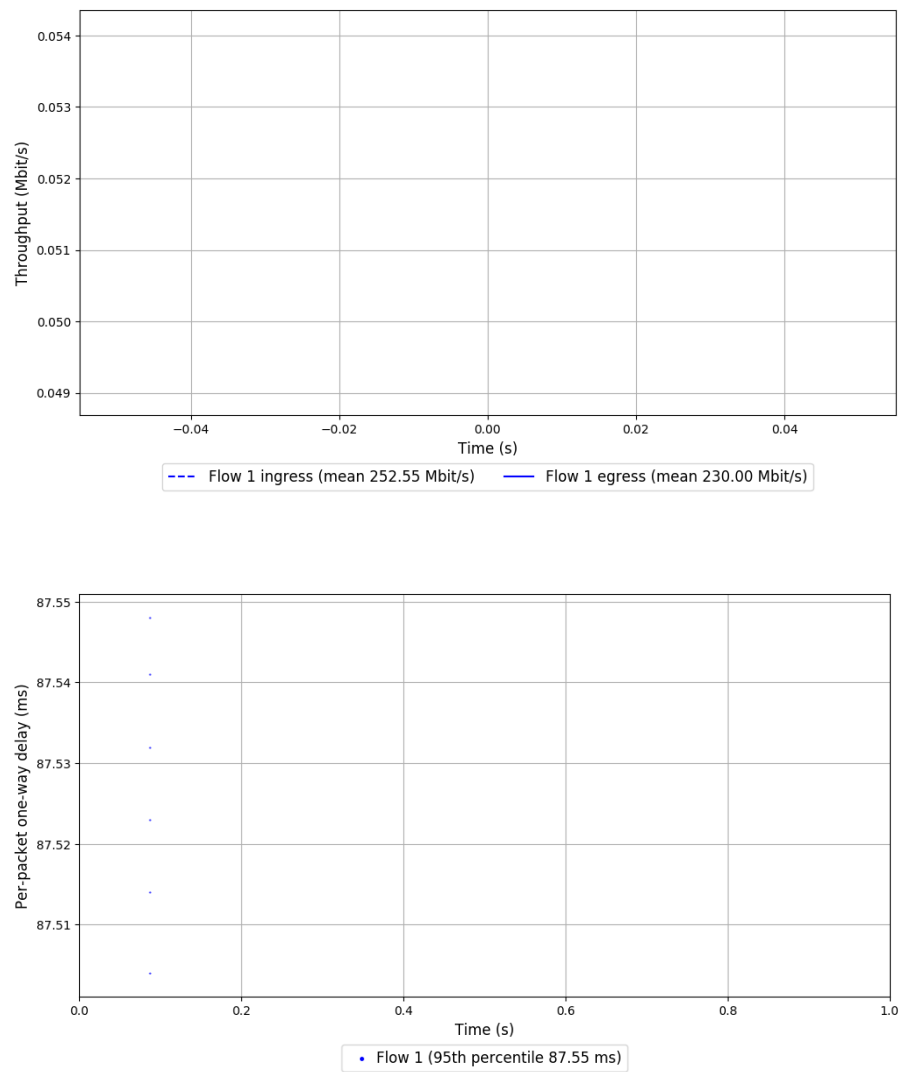


Run 7: Statistics of QUIC Cubic

Start at: 2017-09-18 00:05:42

End at: 2017-09-18 00:06:12

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-09-18 00:17:10

End at: 2017-09-18 00:17:40

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.71 Mbit/s

95th percentile per-packet one-way delay: 87.066 ms

Loss rate: 0.00%

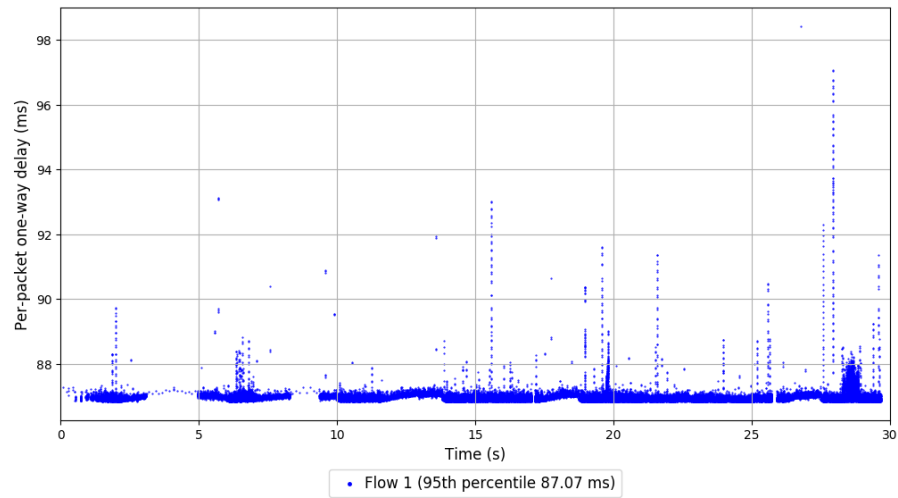
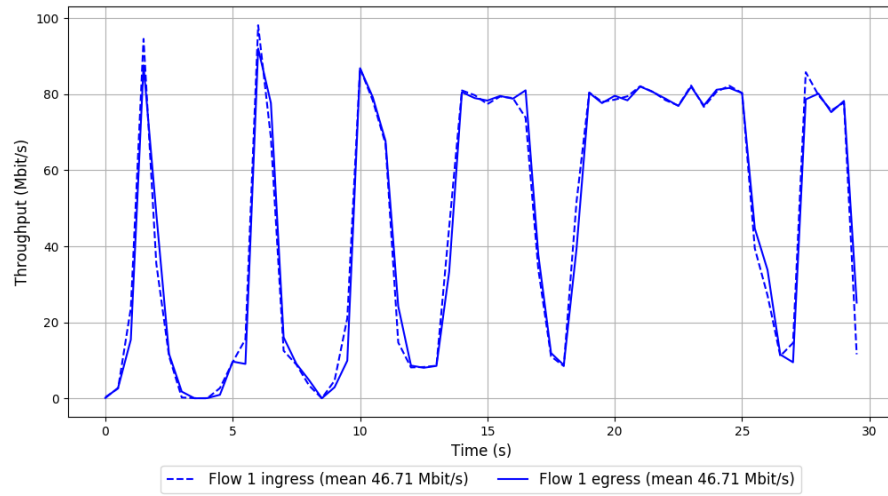
-- Flow 1:

Average throughput: 46.71 Mbit/s

95th percentile per-packet one-way delay: 87.066 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-09-18 00:28:27

End at: 2017-09-18 00:28:57

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.53 Mbit/s

95th percentile per-packet one-way delay: 86.538 ms

Loss rate: 0.00%

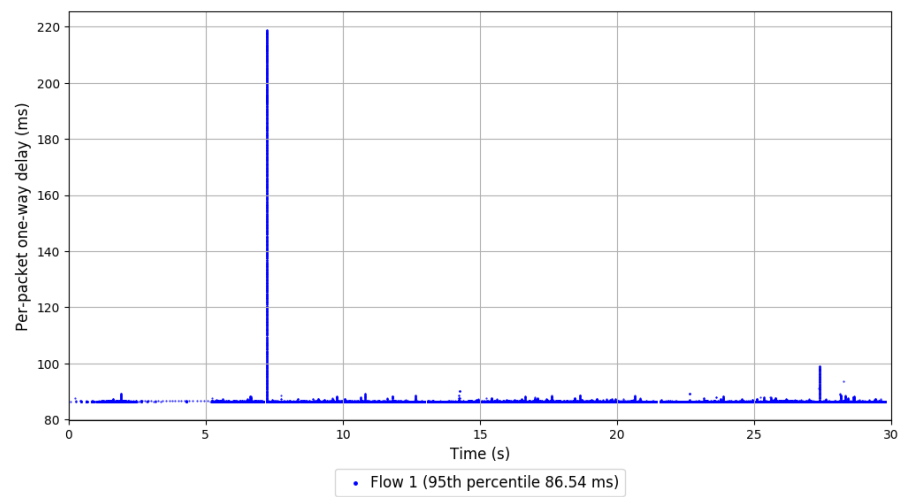
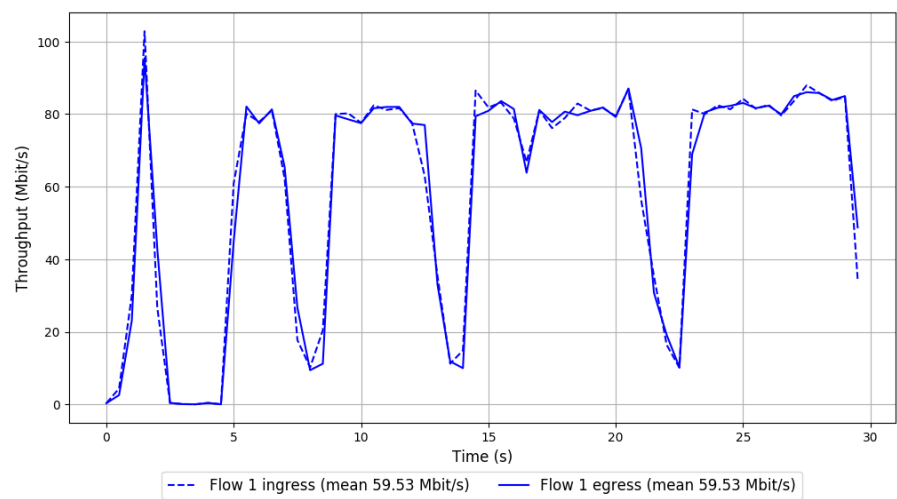
-- Flow 1:

Average throughput: 59.53 Mbit/s

95th percentile per-packet one-way delay: 86.538 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

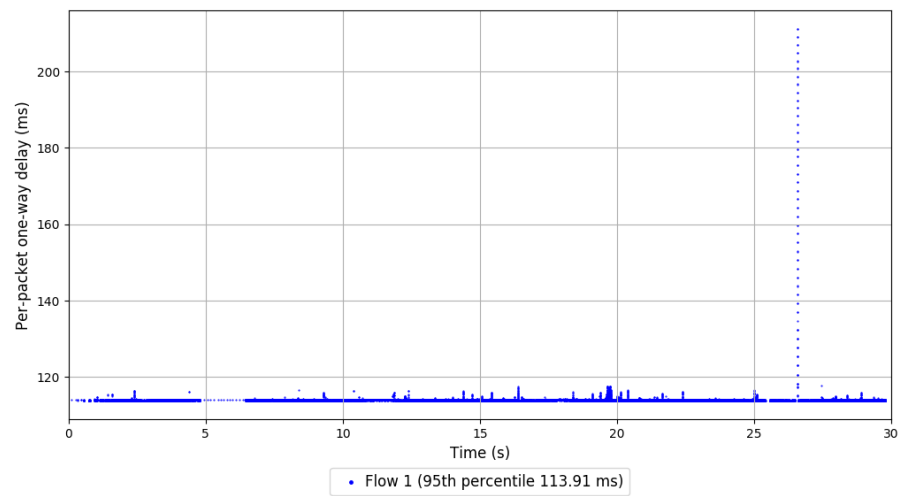
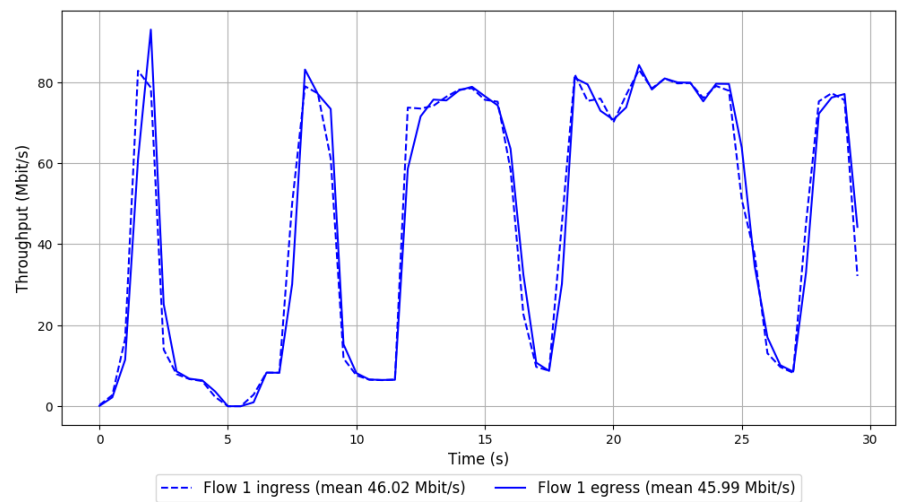


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-09-18 00:39:43
End at: 2017-09-18 00:40:13

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 45.99 Mbit/s
95th percentile per-packet one-way delay: 113.907 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 45.99 Mbit/s
95th percentile per-packet one-way delay: 113.907 ms
Loss rate: 0.16%
```

Run 10: Report of QUIC Cubic — Data Link

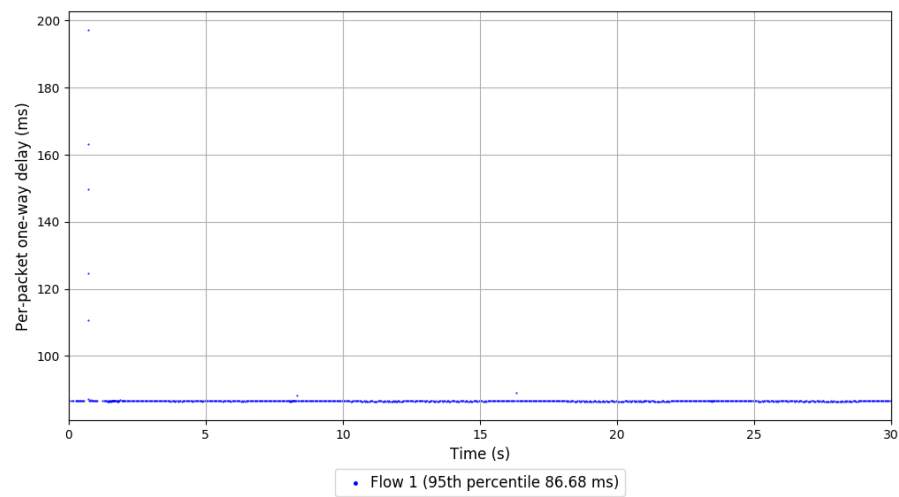
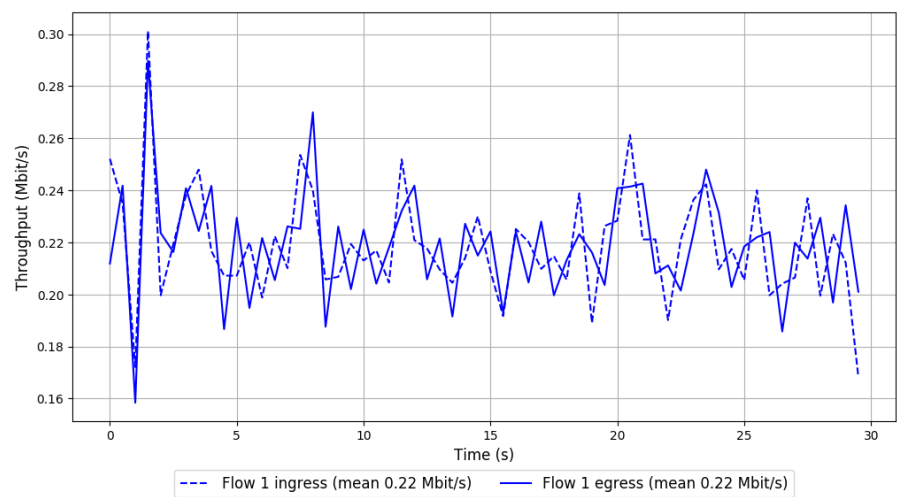


```
Run 1: Statistics of SCReAM

Start at: 2017-09-17 22:50:17
End at: 2017-09-17 22:50:47

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.681 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.681 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

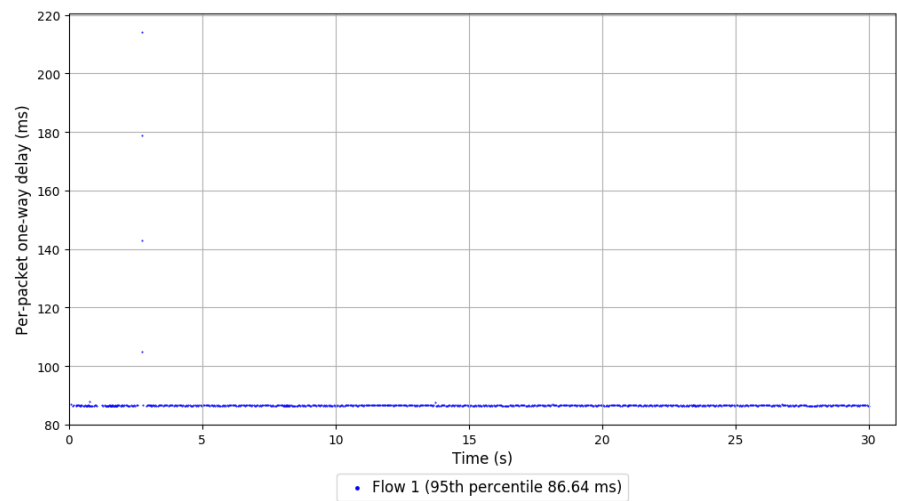
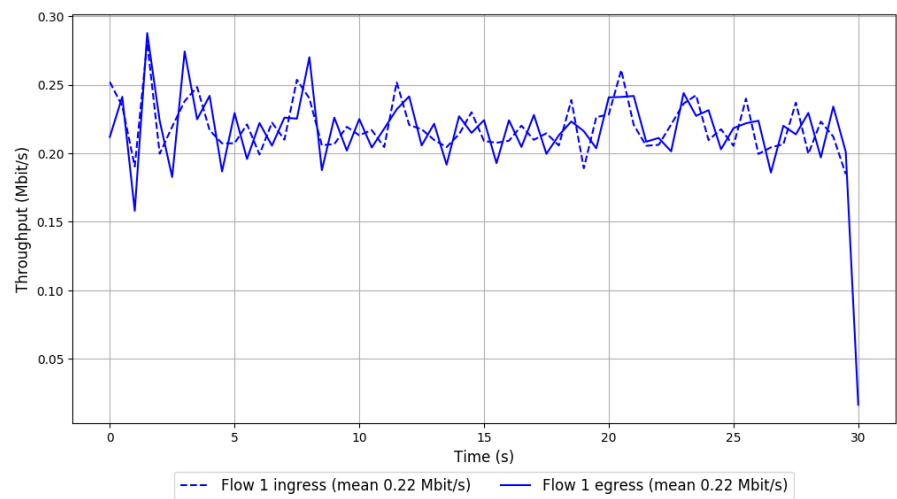


```
Run 2: Statistics of SCReAM

Start at: 2017-09-17 23:01:50
End at: 2017-09-17 23:02:20

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.640 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-09-17 23:13:34

End at: 2017-09-17 23:14:04

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.660 ms

Loss rate: 0.00%

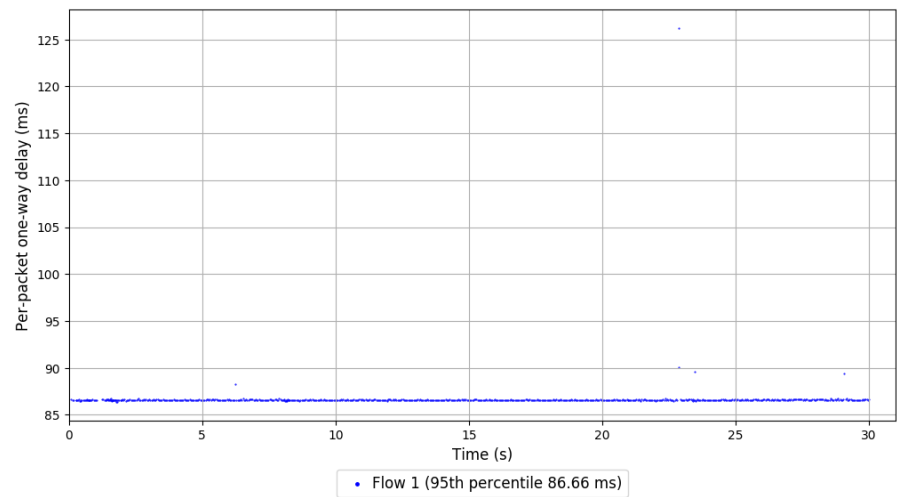
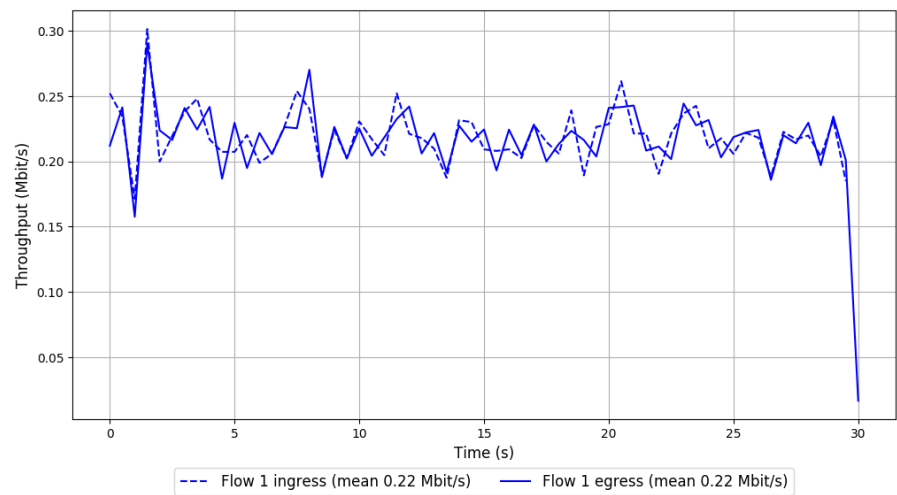
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.660 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-09-17 23:25:25

End at: 2017-09-17 23:25:55

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.625 ms

Loss rate: 0.00%

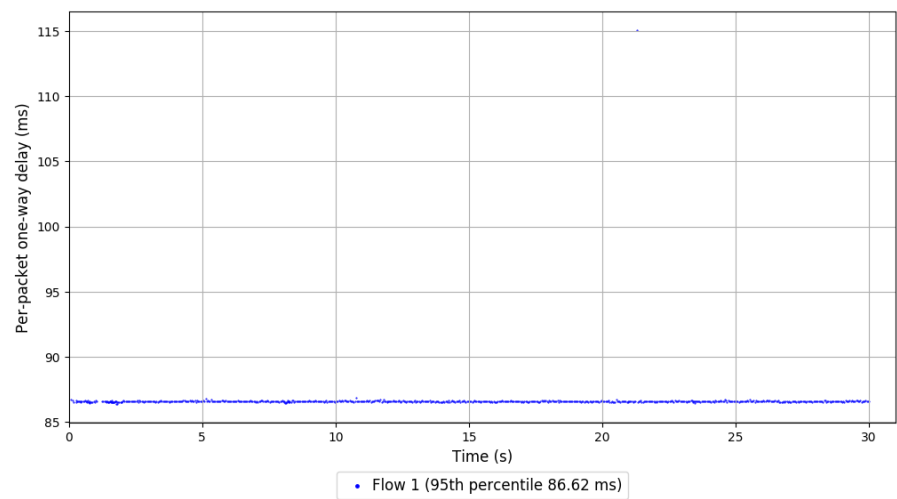
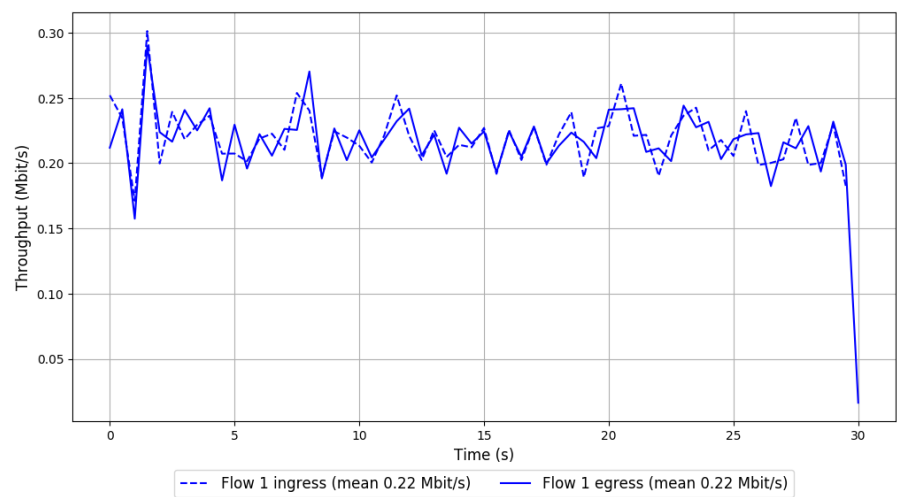
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.625 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-09-17 23:37:18

End at: 2017-09-17 23:37:48

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.613 ms

Loss rate: 0.00%

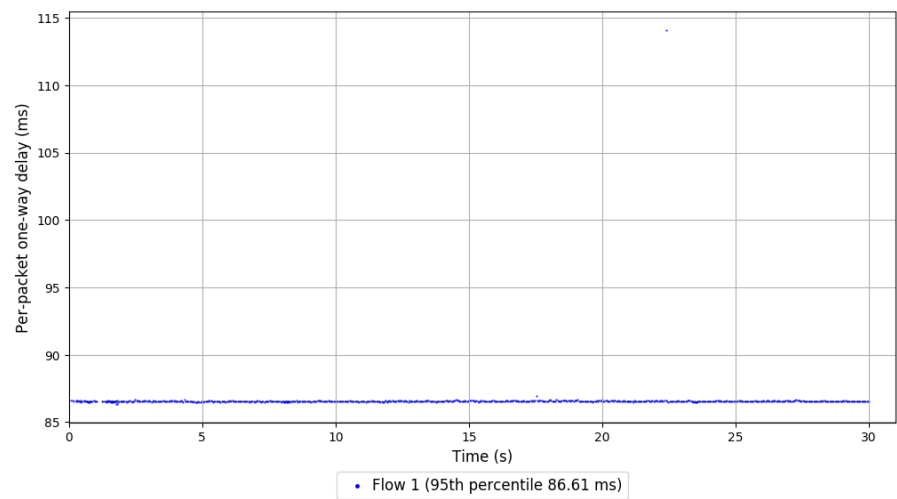
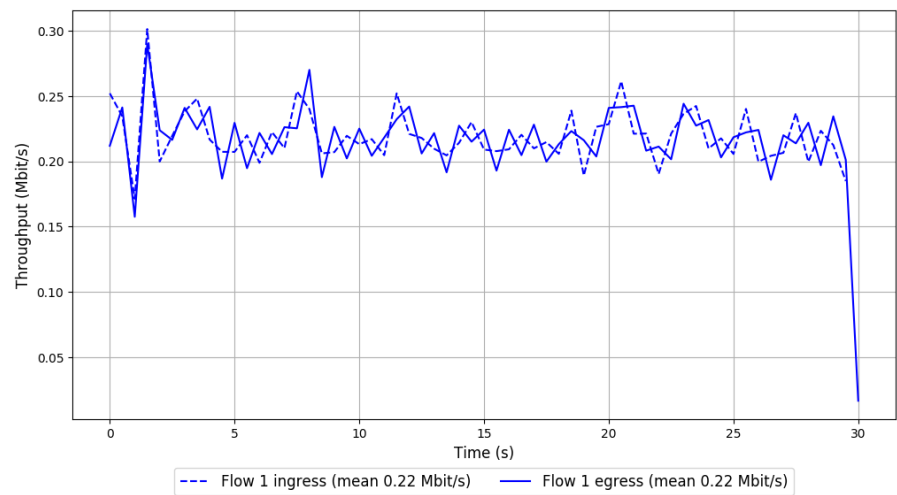
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.613 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-09-17 23:49:17

End at: 2017-09-17 23:49:47

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.044 ms

Loss rate: 0.00%

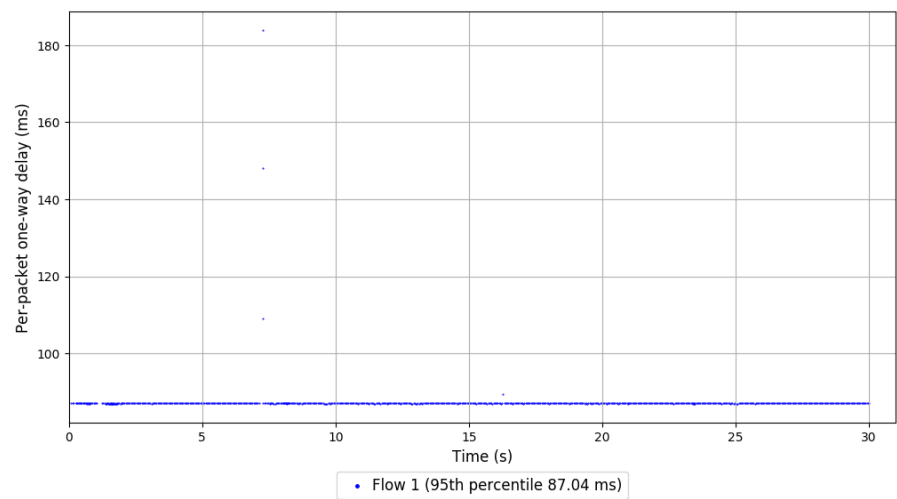
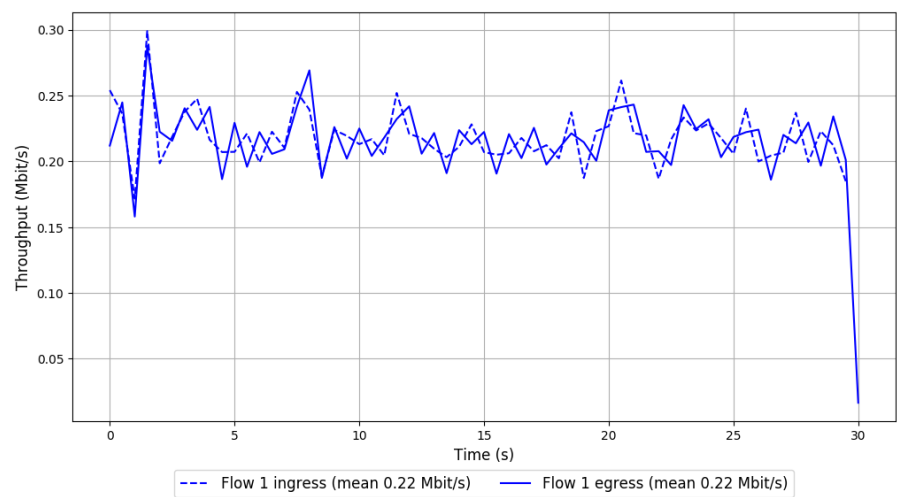
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.044 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-09-18 00:01:03

End at: 2017-09-18 00:01:33

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.007 ms

Loss rate: 0.00%

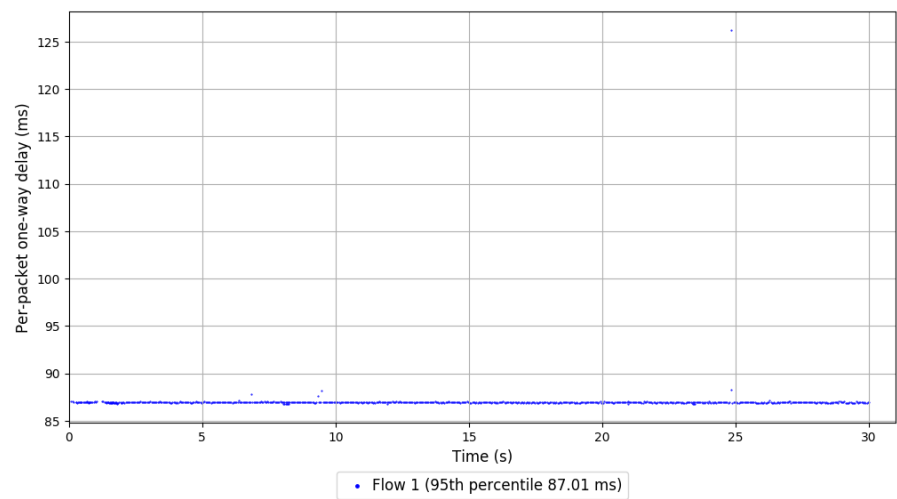
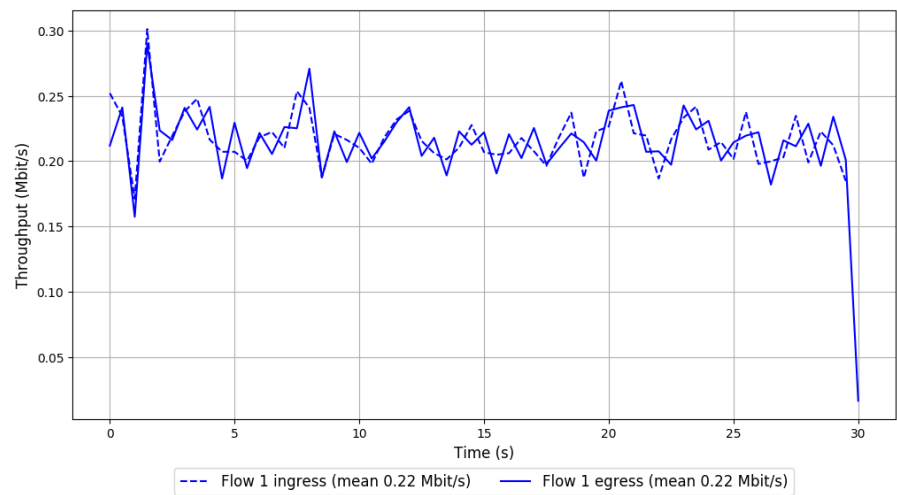
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.007 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-09-18 00:12:33

End at: 2017-09-18 00:13:03

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.155 ms

Loss rate: 0.00%

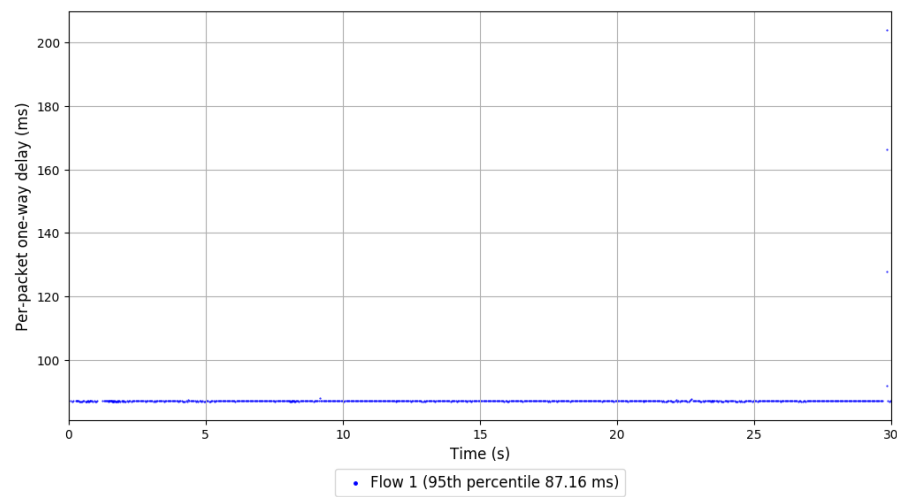
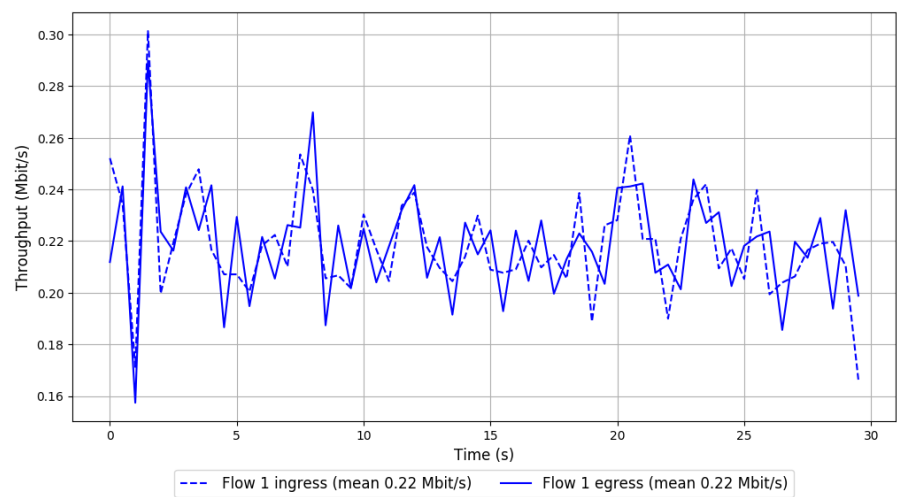
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.155 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-09-18 00:23:44

End at: 2017-09-18 00:24:14

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.121 ms

Loss rate: 0.13%

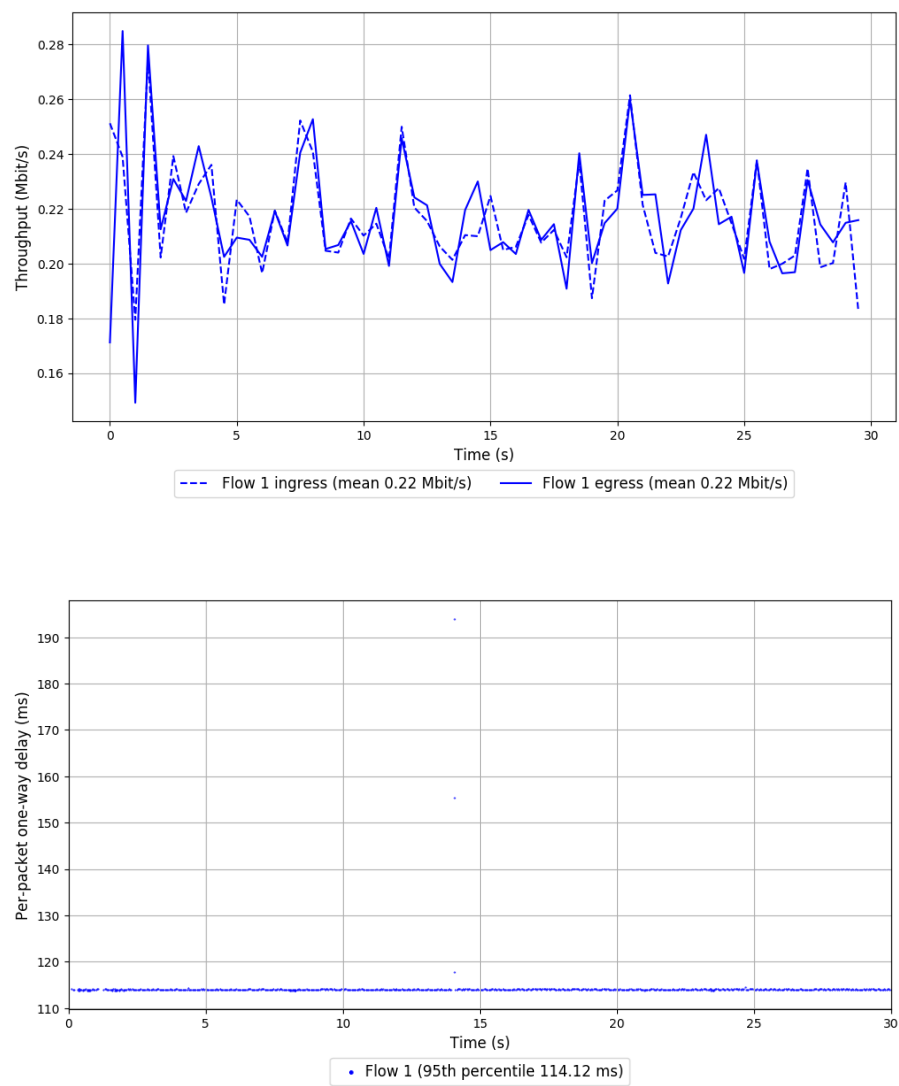
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.121 ms

Loss rate: 0.13%

Run 9: Report of SReAM — Data Link

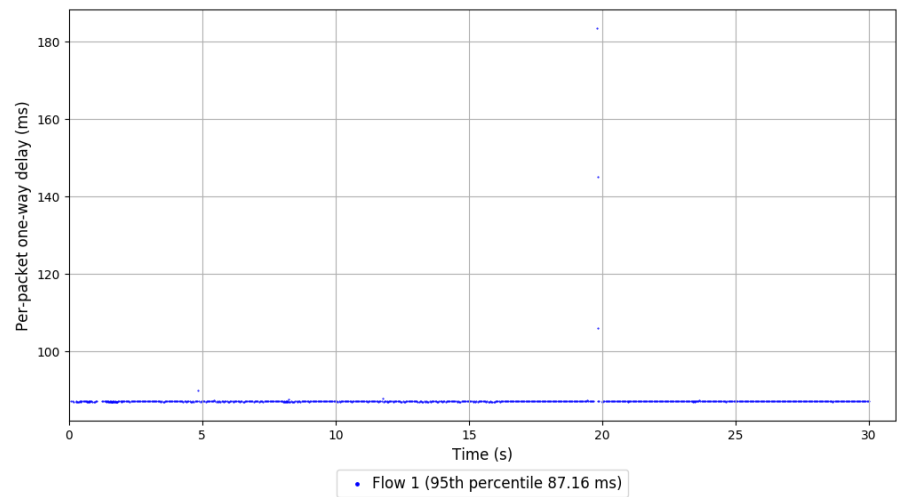
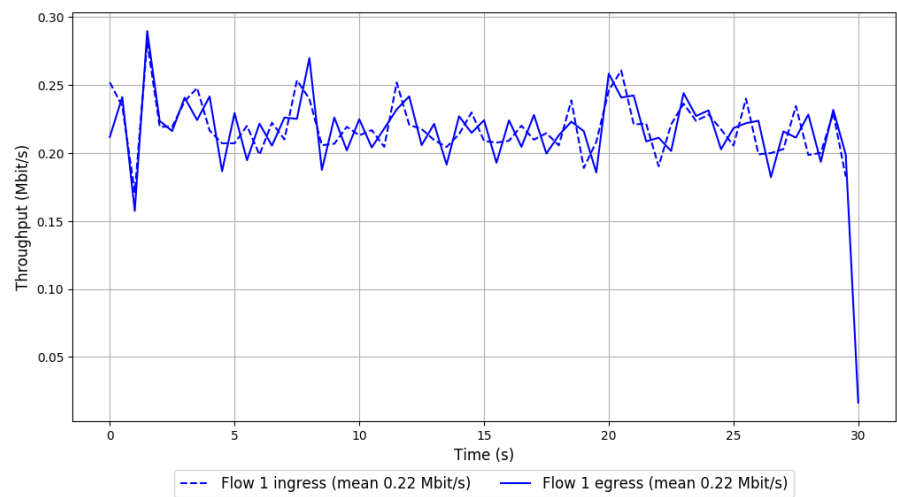


```
Run 10: Statistics of SReAM

Start at: 2017-09-18 00:35:05
End at: 2017-09-18 00:35:35

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.155 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.155 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

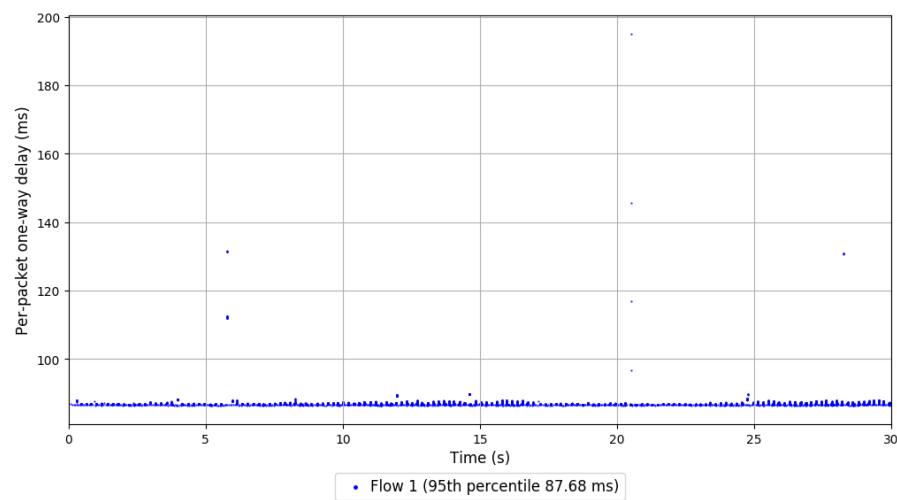
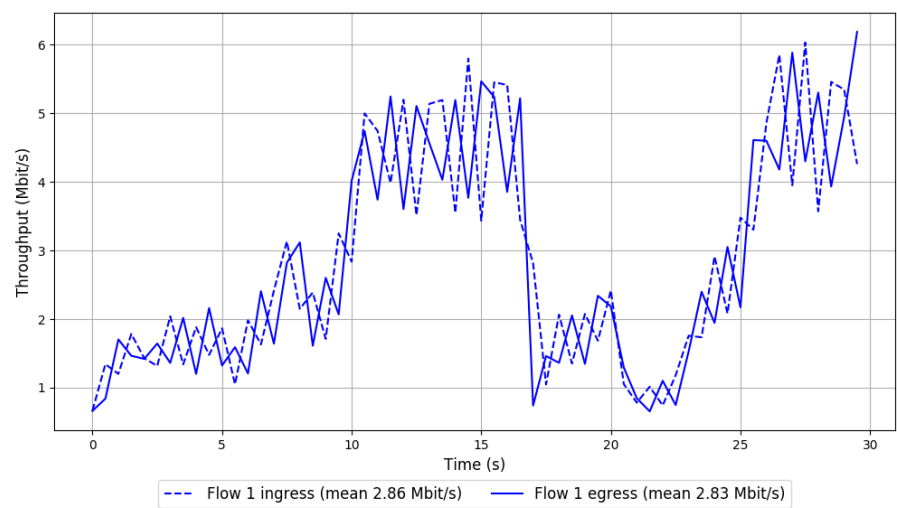


```
Run 1: Statistics of Sprout

Start at: 2017-09-17 22:56:32
End at: 2017-09-17 22:57:02

# Below is generated by plot.py at 2017-09-18 02:04:53
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 87.681 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 87.681 ms
Loss rate: 1.02%
```


Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-09-17 23:08:12

End at: 2017-09-17 23:08:42

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.40 Mbit/s

95th percentile per-packet one-way delay: 88.035 ms

Loss rate: 0.07%

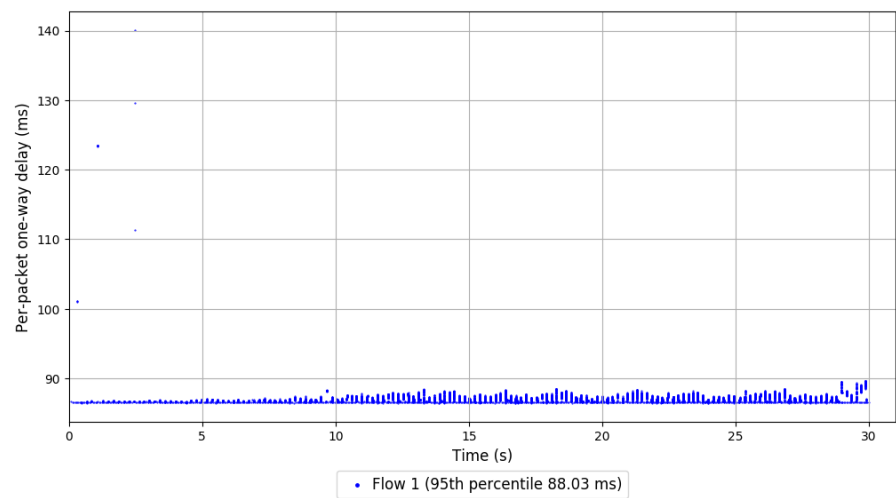
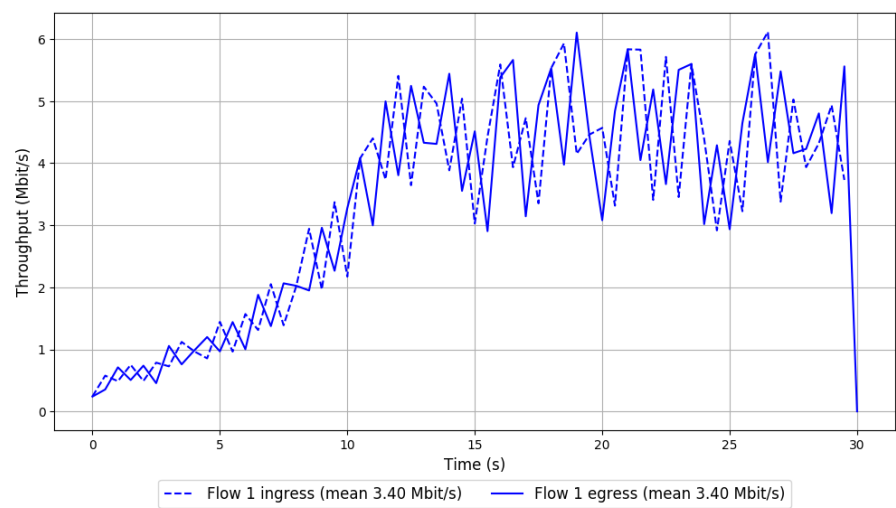
-- Flow 1:

Average throughput: 3.40 Mbit/s

95th percentile per-packet one-way delay: 88.035 ms

Loss rate: 0.07%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-09-17 23:20:04

End at: 2017-09-17 23:20:34

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 87.720 ms

Loss rate: 0.15%

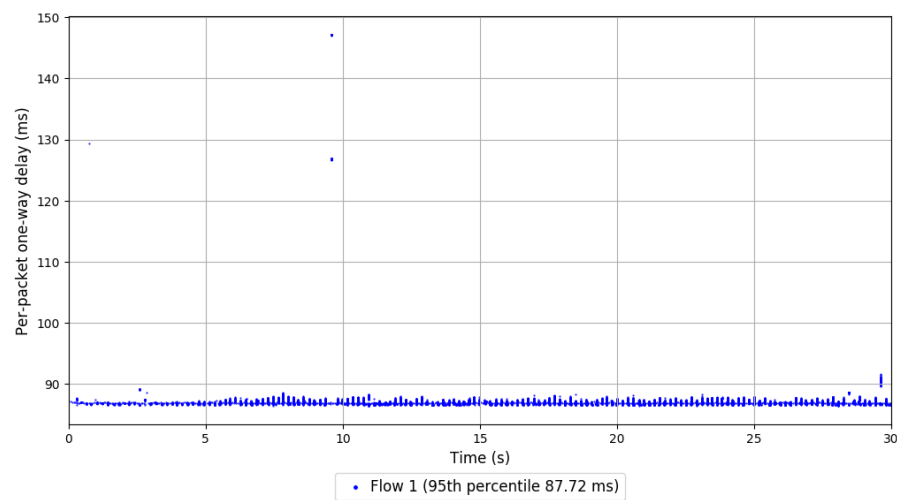
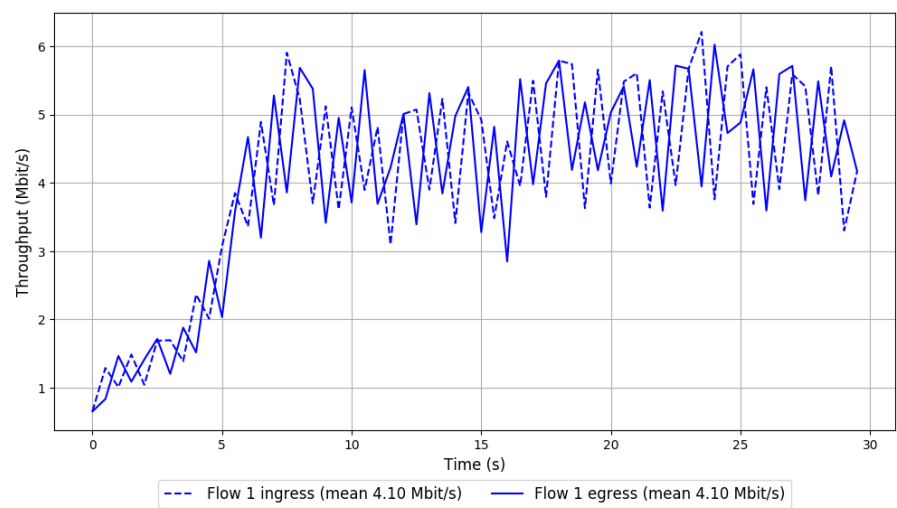
-- Flow 1:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 87.720 ms

Loss rate: 0.15%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-09-17 23:31:54

End at: 2017-09-17 23:32:24

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 87.744 ms

Loss rate: 0.08%

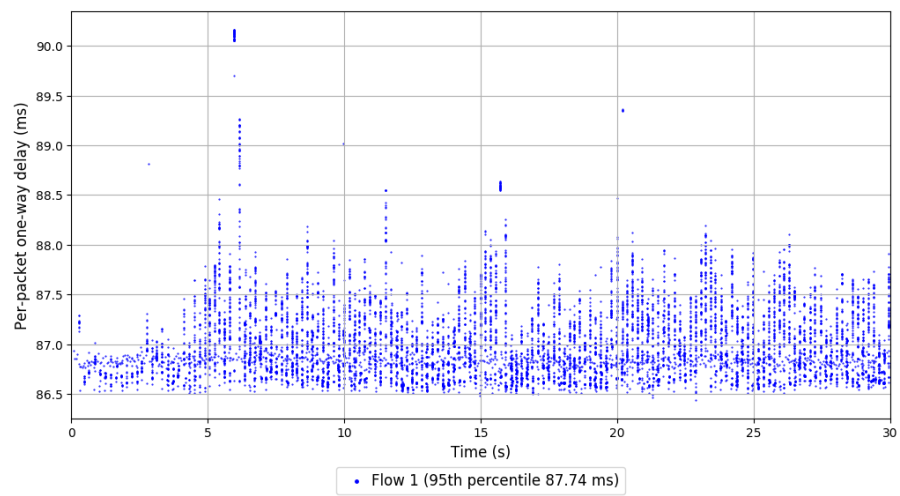
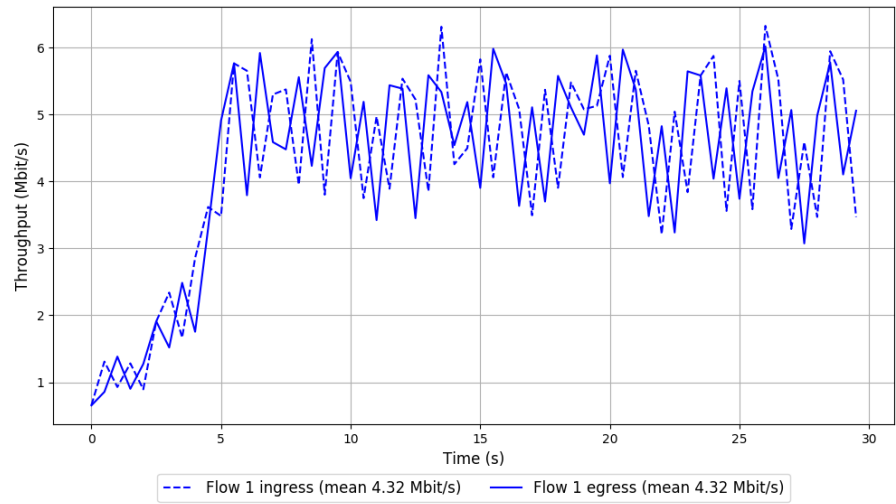
-- Flow 1:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 87.744 ms

Loss rate: 0.08%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-09-17 23:43:52

End at: 2017-09-17 23:44:22

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 87.674 ms

Loss rate: 0.97%

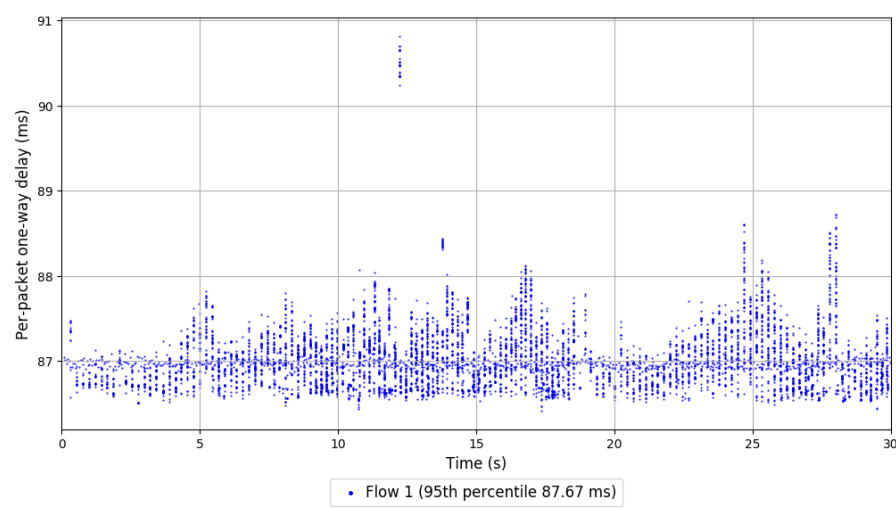
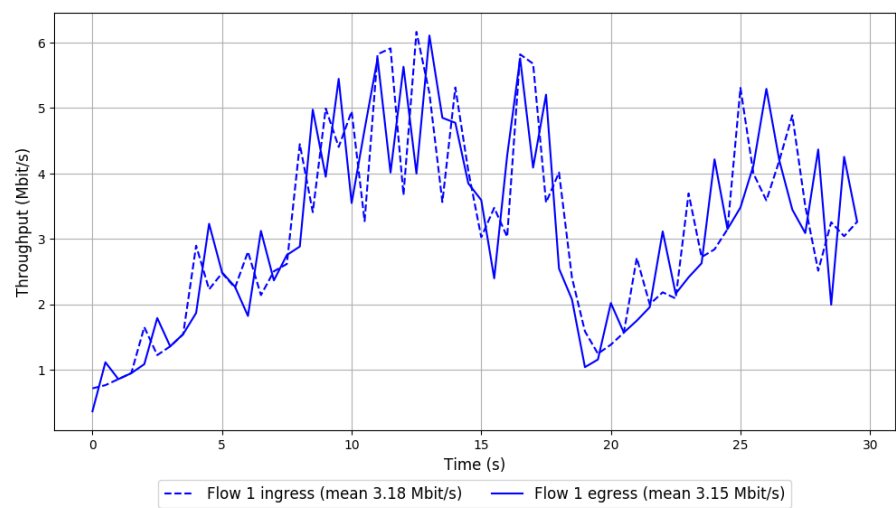
-- Flow 1:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 87.674 ms

Loss rate: 0.97%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-09-17 23:55:43

End at: 2017-09-17 23:56:13

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 87.632 ms

Loss rate: 0.00%

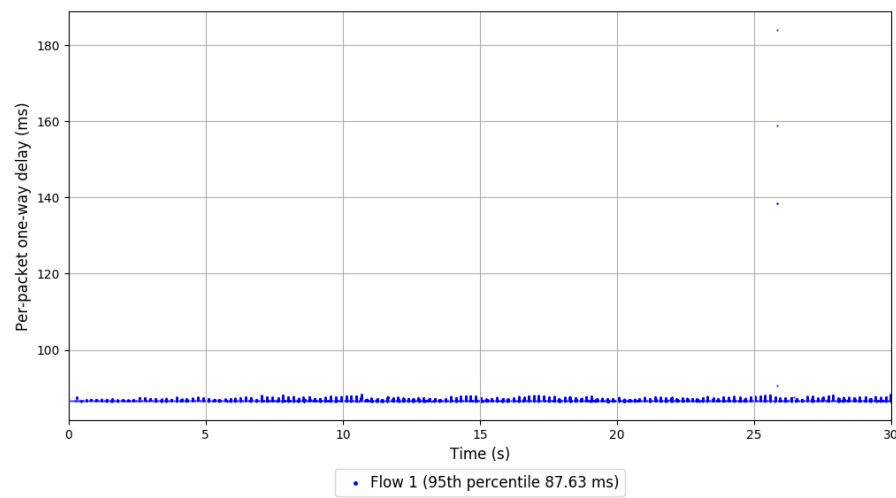
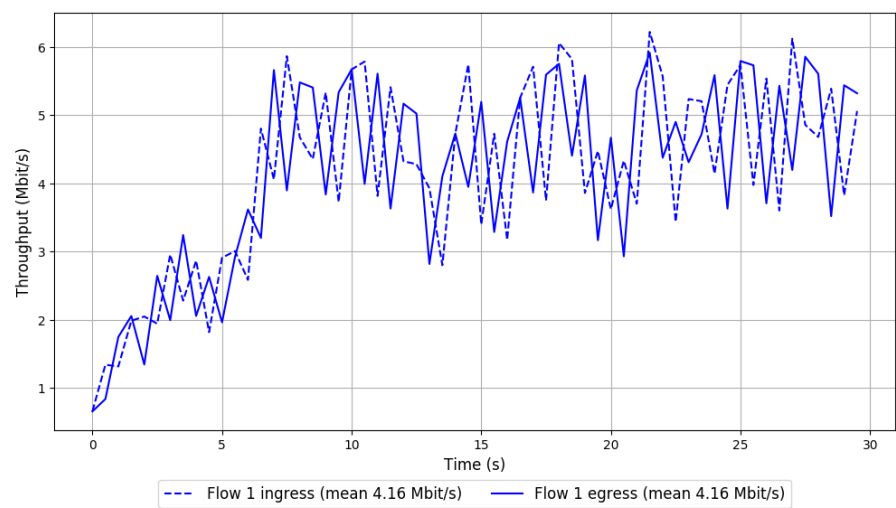
-- Flow 1:

Average throughput: 4.16 Mbit/s

95th percentile per-packet one-way delay: 87.632 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-09-18 00:07:20

End at: 2017-09-18 00:07:50

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.22 Mbit/s

95th percentile per-packet one-way delay: 87.872 ms

Loss rate: 0.18%

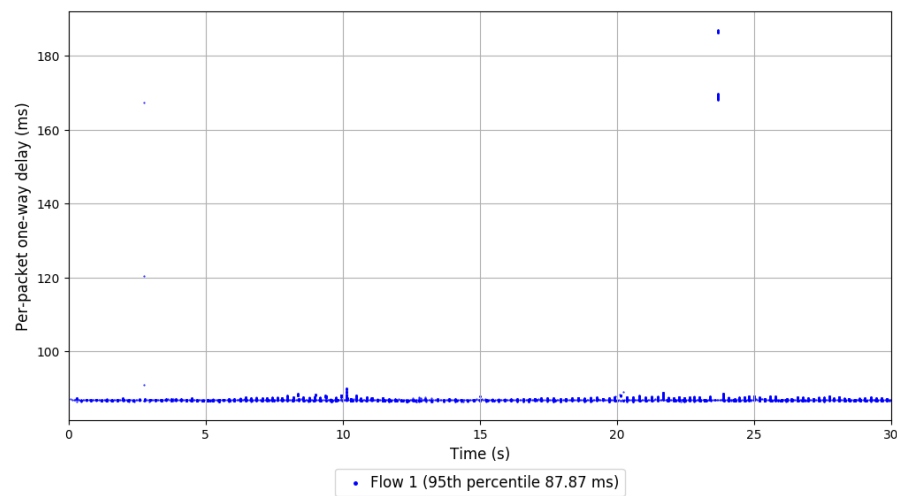
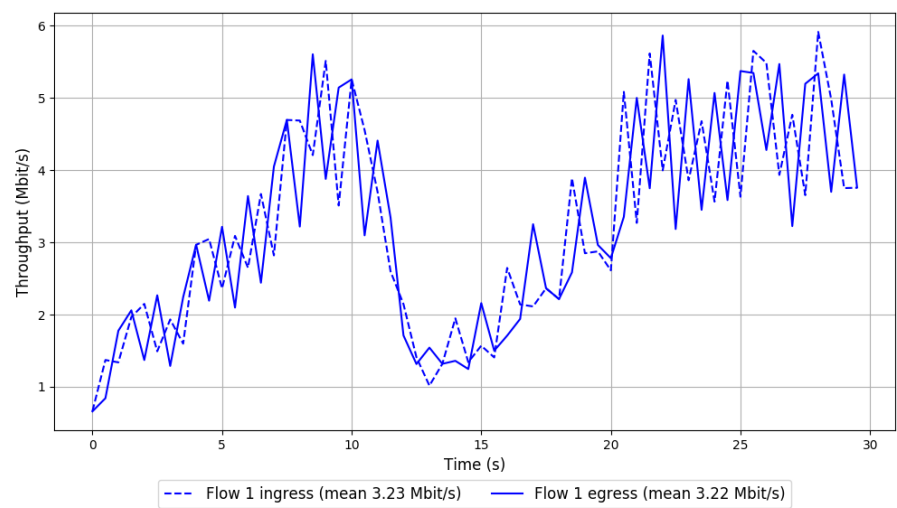
-- Flow 1:

Average throughput: 3.22 Mbit/s

95th percentile per-packet one-way delay: 87.872 ms

Loss rate: 0.18%

Run 7: Report of Sprout — Data Link

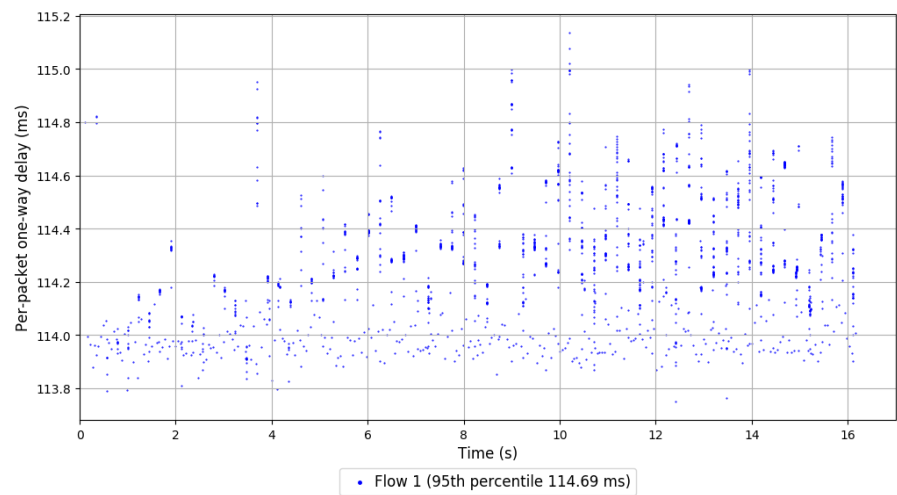
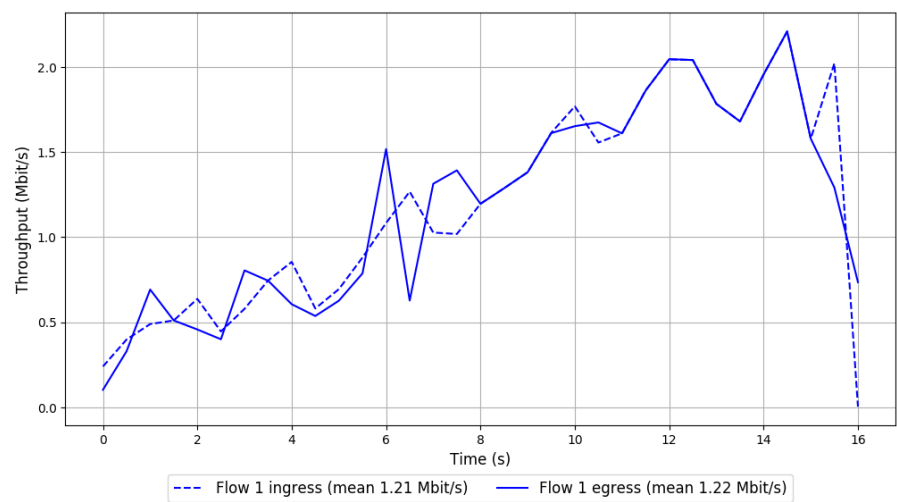


Run 8: Statistics of Sprout

Start at: 2017-09-18 00:18:32

End at: 2017-09-18 00:19:02

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-09-18 00:30:08

End at: 2017-09-18 00:30:38

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 114.126 ms

Loss rate: 0.00%

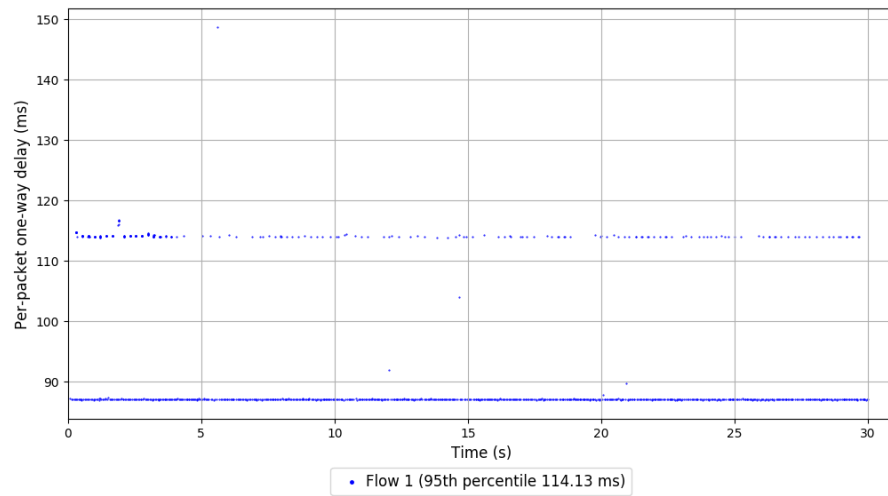
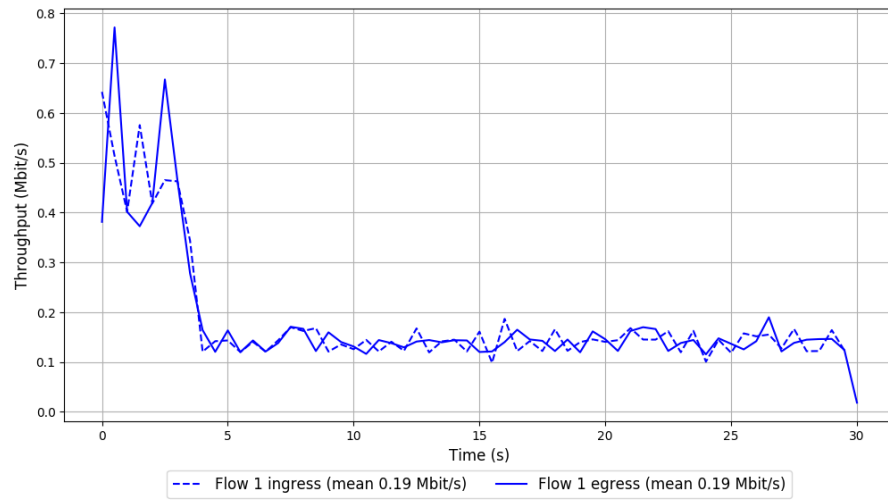
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 114.126 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-09-18 00:41:06

End at: 2017-09-18 00:41:36

Below is generated by plot.py at 2017-09-18 02:04:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.078 ms

Loss rate: 0.26%

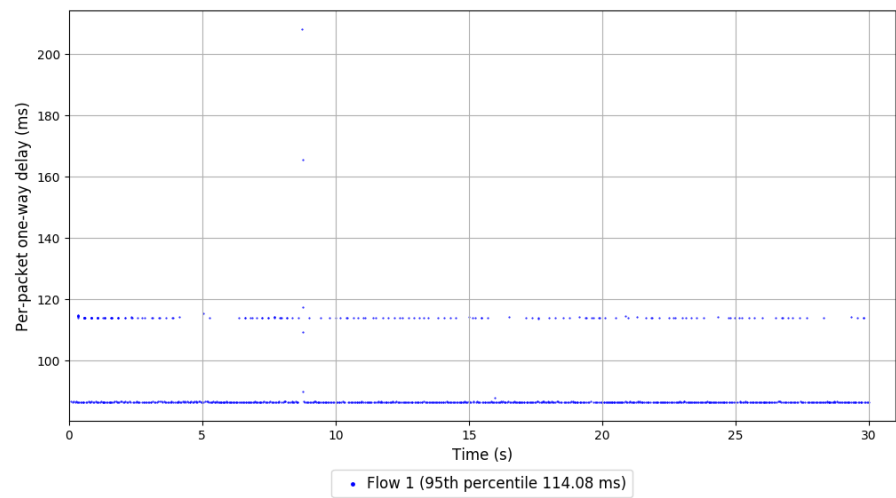
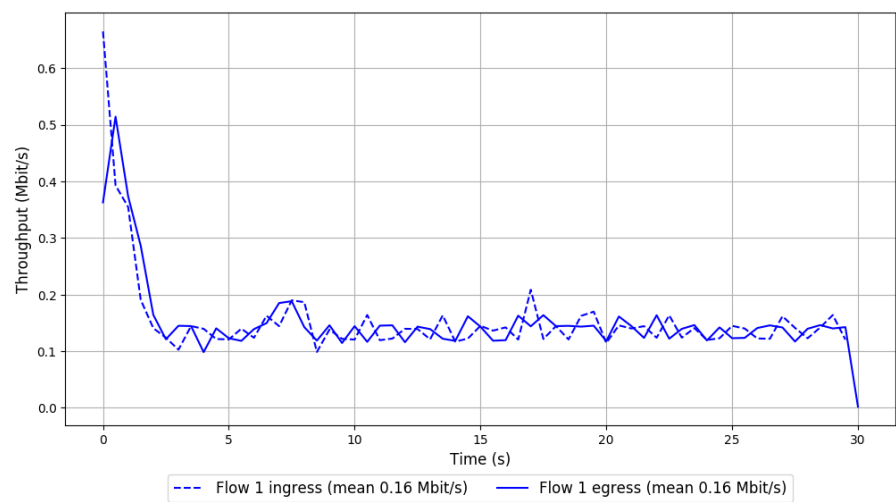
-- Flow 1:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 114.078 ms

Loss rate: 0.26%

Run 10: Report of Sprout — Data Link

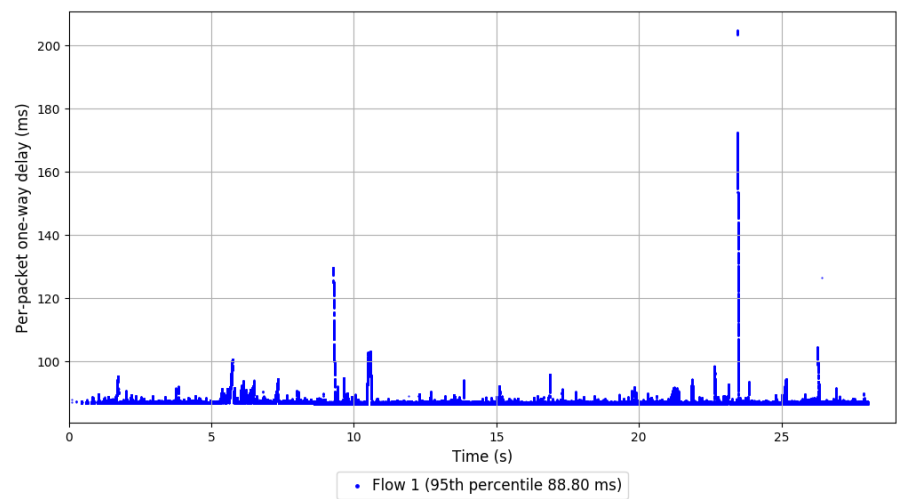
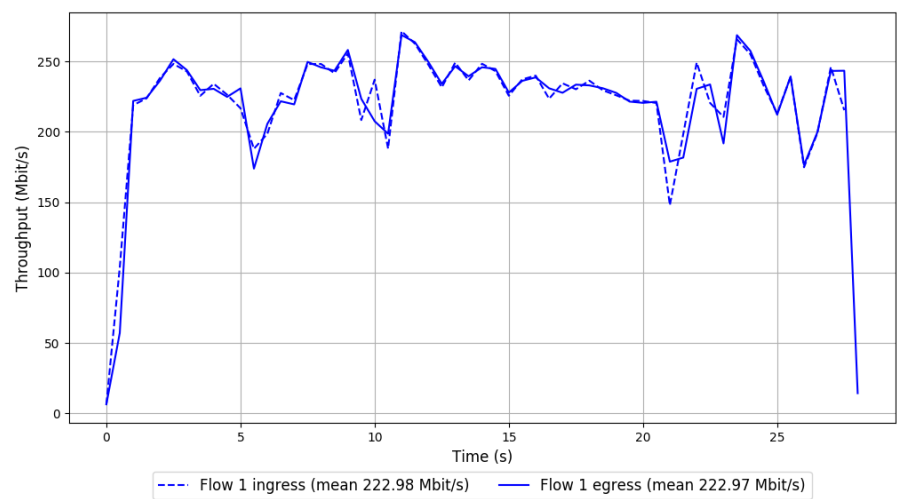


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-09-17 22:58:02
End at: 2017-09-17 22:58:32

# Below is generated by plot.py at 2017-09-18 02:09:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 222.97 Mbit/s
95th percentile per-packet one-way delay: 88.803 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 222.97 Mbit/s
95th percentile per-packet one-way delay: 88.803 ms
Loss rate: 0.00%
```

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

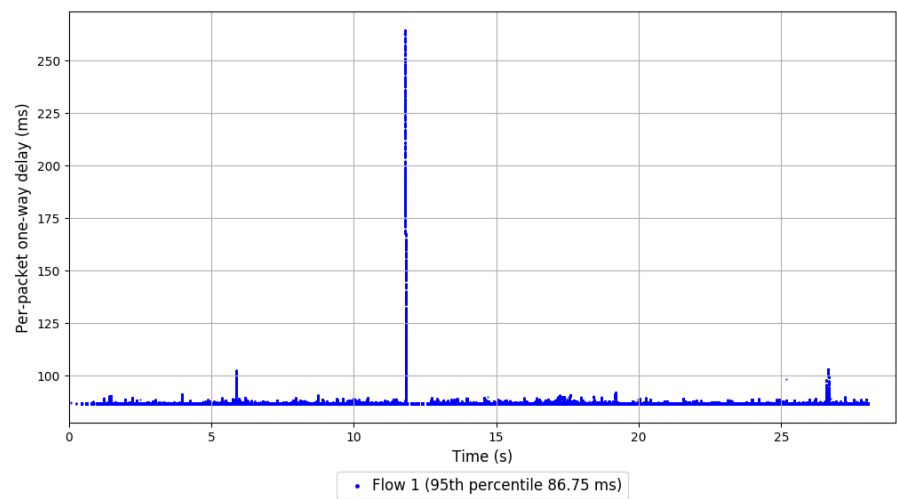
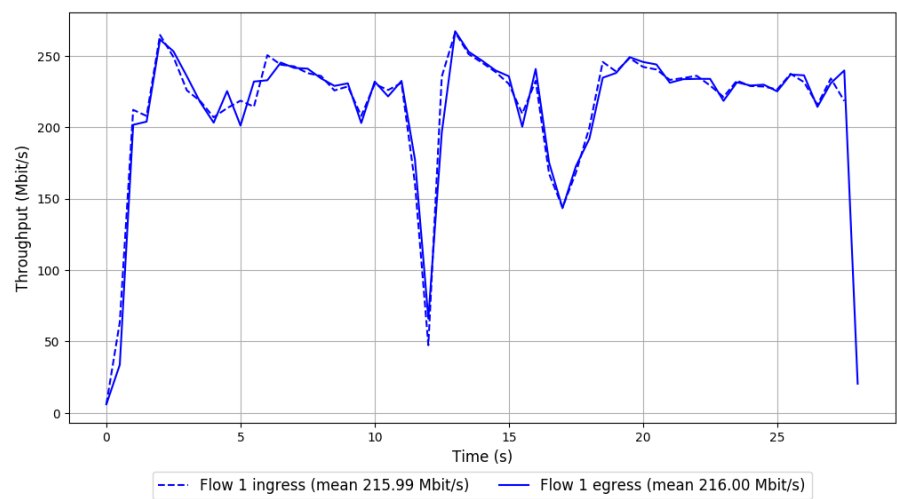


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-09-17 23:09:44
End at: 2017-09-17 23:10:14

# Below is generated by plot.py at 2017-09-18 02:09:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.00 Mbit/s
95th percentile per-packet one-way delay: 86.747 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 216.00 Mbit/s
95th percentile per-packet one-way delay: 86.747 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-09-17 23:21:36

End at: 2017-09-17 23:22:06

Below is generated by plot.py at 2017-09-18 02:09:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 214.22 Mbit/s

95th percentile per-packet one-way delay: 86.971 ms

Loss rate: 0.00%

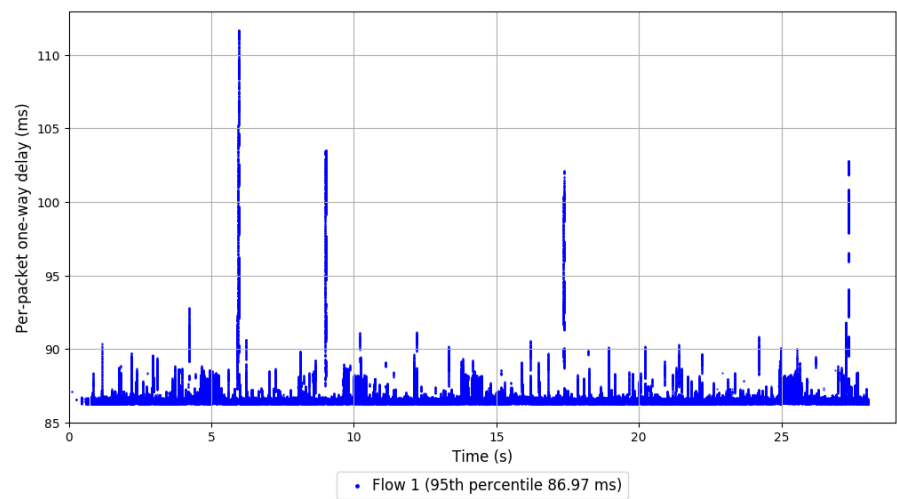
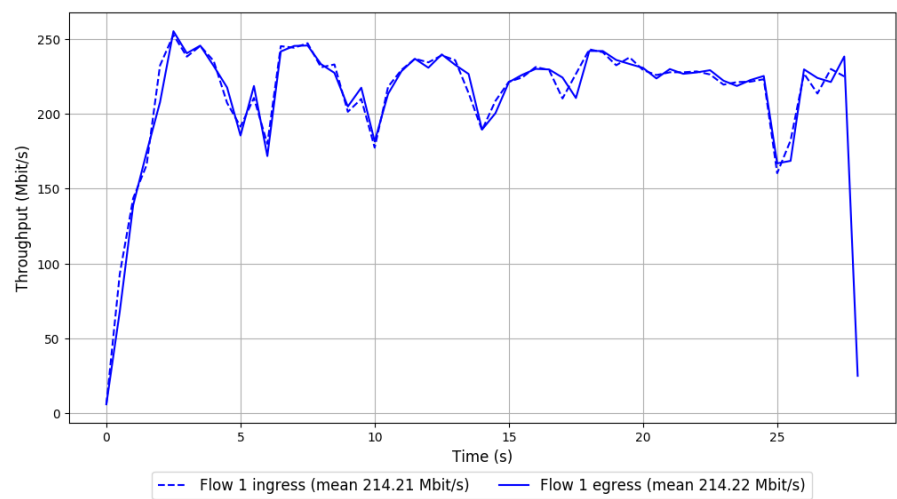
-- Flow 1:

Average throughput: 214.22 Mbit/s

95th percentile per-packet one-way delay: 86.971 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-09-17 23:33:27

End at: 2017-09-17 23:33:57

Below is generated by plot.py at 2017-09-18 02:10:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.91 Mbit/s

95th percentile per-packet one-way delay: 86.954 ms

Loss rate: 0.00%

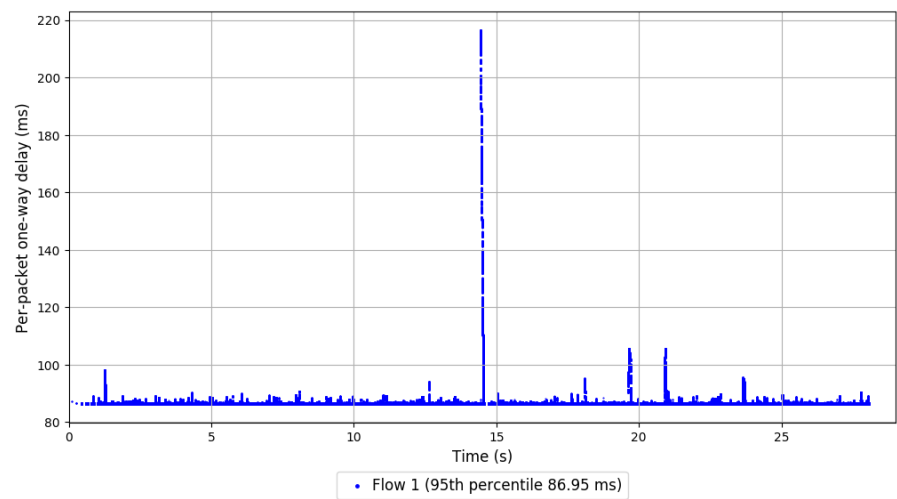
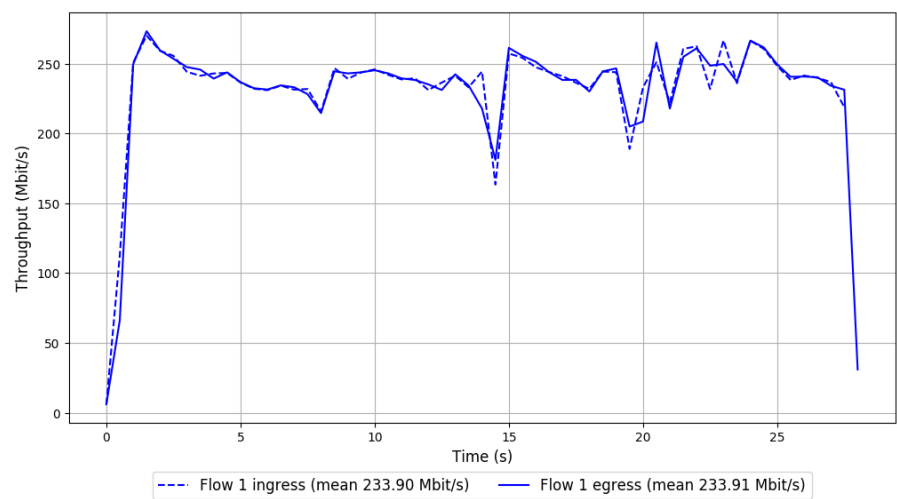
-- Flow 1:

Average throughput: 233.91 Mbit/s

95th percentile per-packet one-way delay: 86.954 ms

Loss rate: 0.00%

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

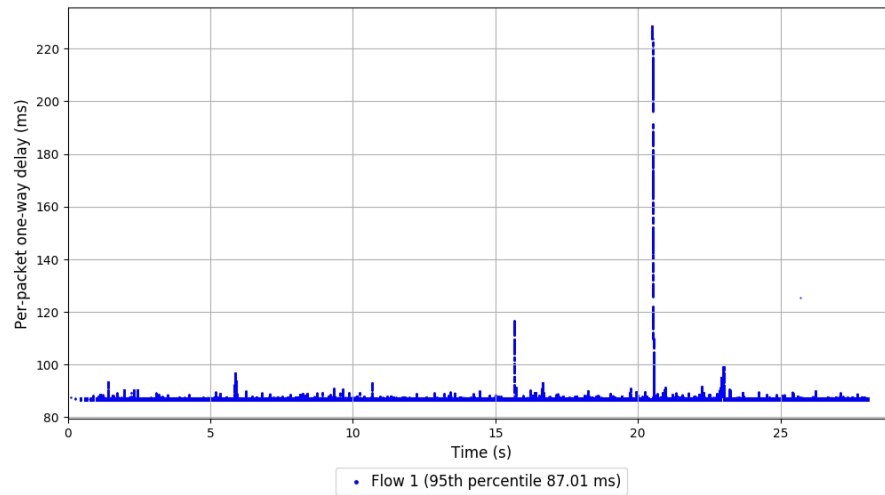
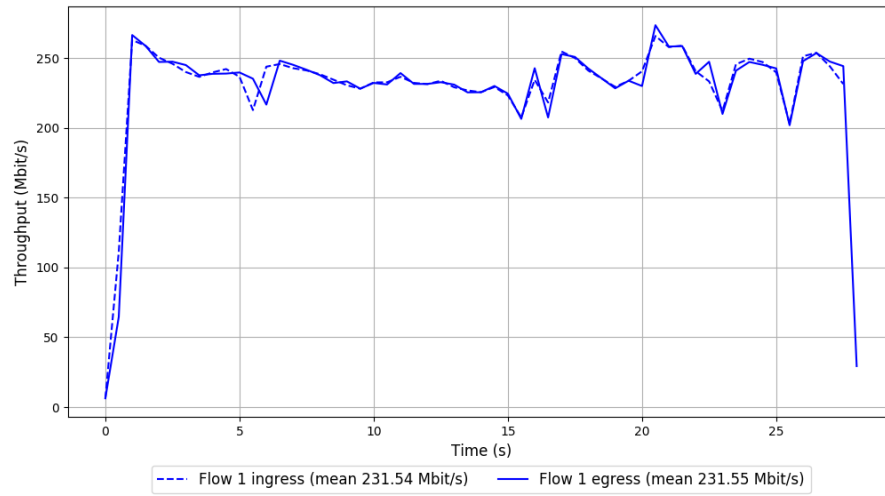


```
Run 5: Statistics of TaoVA-100x

Start at: 2017-09-17 23:45:26
End at: 2017-09-17 23:45:56

# Below is generated by plot.py at 2017-09-18 02:10:11
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.55 Mbit/s
95th percentile per-packet one-way delay: 87.008 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 231.55 Mbit/s
95th percentile per-packet one-way delay: 87.008 ms
Loss rate: 0.00%
```

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-09-17 23:57:11

End at: 2017-09-17 23:57:41

Below is generated by plot.py at 2017-09-18 02:10:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 225.08 Mbit/s

95th percentile per-packet one-way delay: 86.938 ms

Loss rate: 0.00%

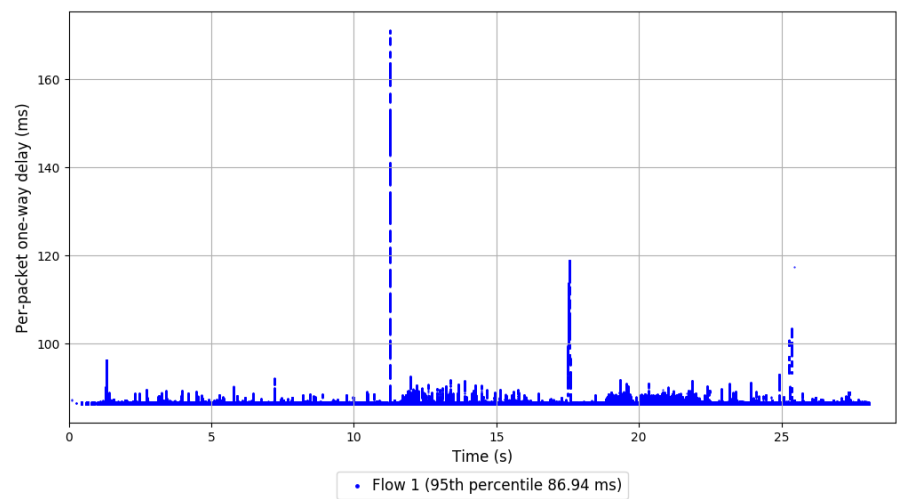
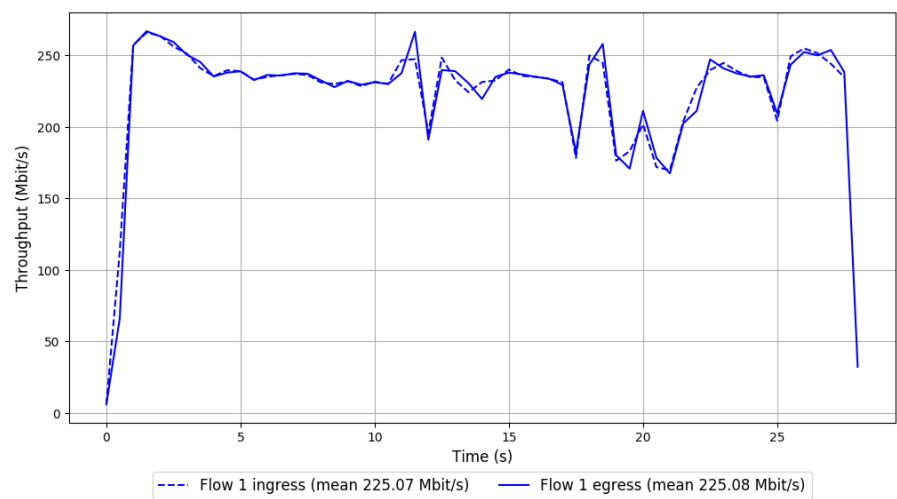
-- Flow 1:

Average throughput: 225.08 Mbit/s

95th percentile per-packet one-way delay: 86.938 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-09-18 00:08:45

End at: 2017-09-18 00:09:15

Below is generated by plot.py at 2017-09-18 02:10:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 226.93 Mbit/s

95th percentile per-packet one-way delay: 87.782 ms

Loss rate: 0.00%

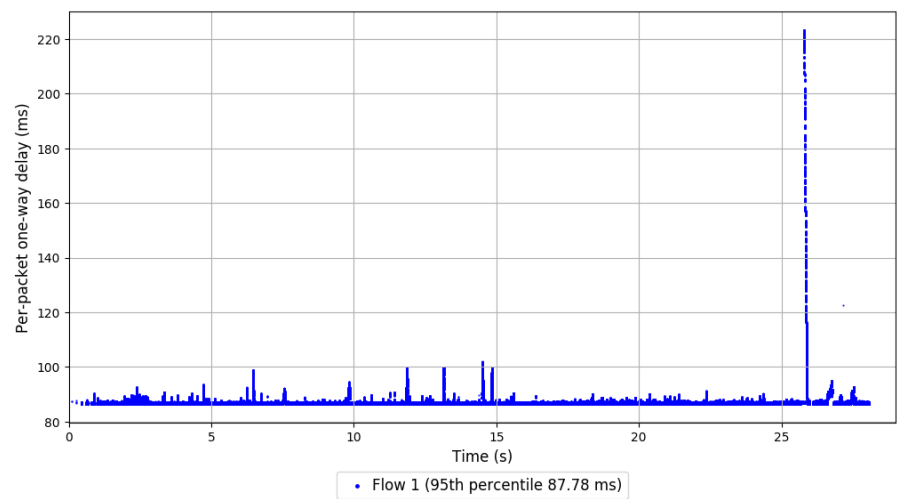
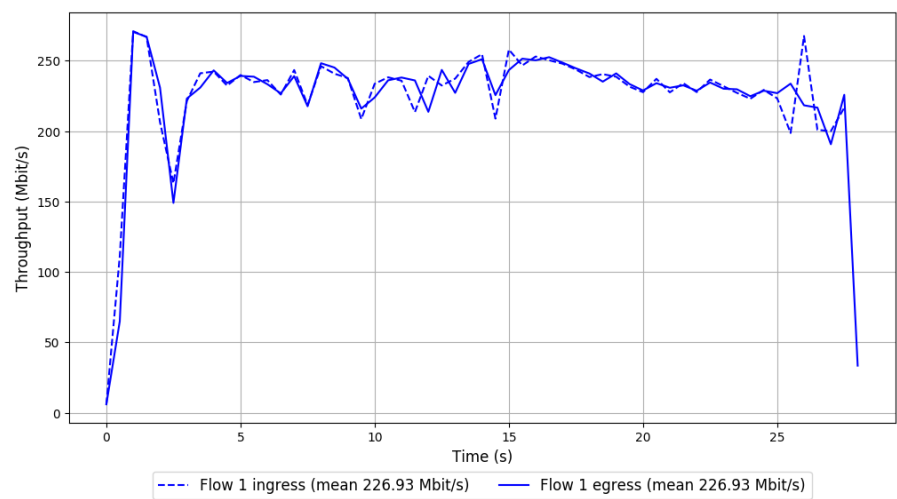
-- Flow 1:

Average throughput: 226.93 Mbit/s

95th percentile per-packet one-way delay: 87.782 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-09-18 00:20:01

End at: 2017-09-18 00:20:31

Below is generated by plot.py at 2017-09-18 02:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 175.46 Mbit/s

95th percentile per-packet one-way delay: 114.754 ms

Loss rate: 0.20%

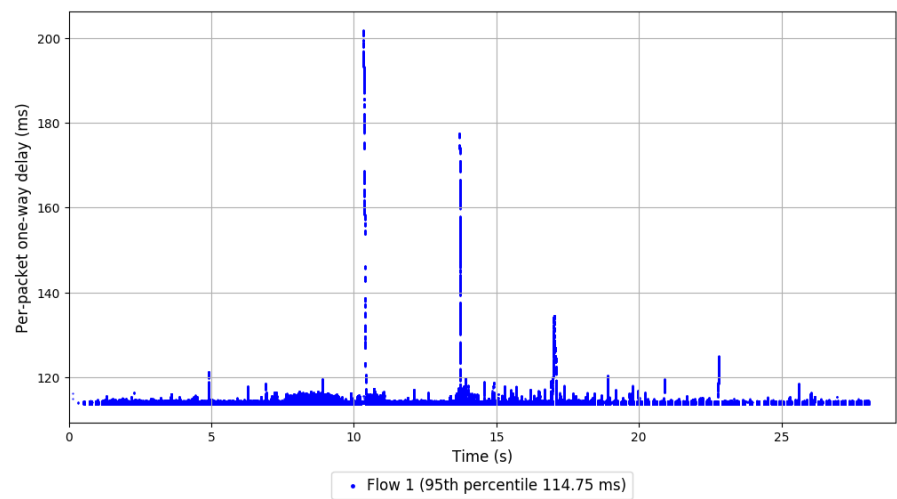
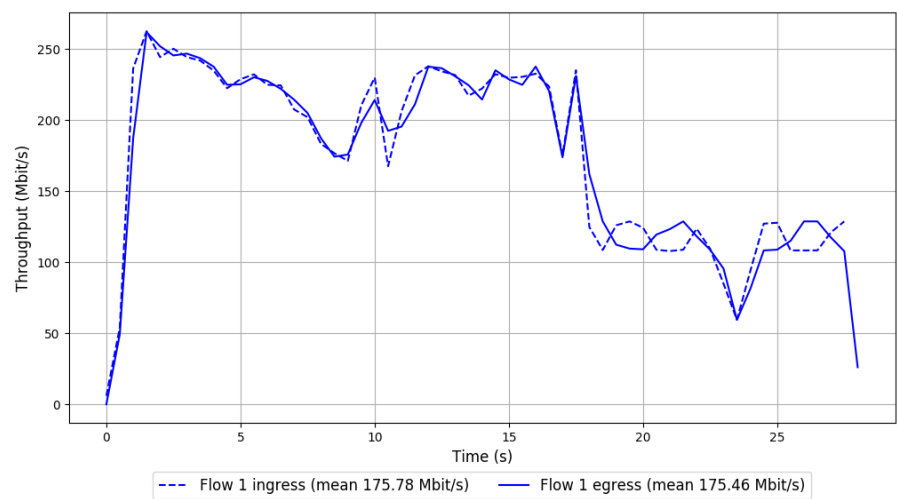
-- Flow 1:

Average throughput: 175.46 Mbit/s

95th percentile per-packet one-way delay: 114.754 ms

Loss rate: 0.20%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-09-18 00:31:35

End at: 2017-09-18 00:32:05

Below is generated by plot.py at 2017-09-18 02:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.22 Mbit/s

95th percentile per-packet one-way delay: 113.871 ms

Loss rate: 0.09%

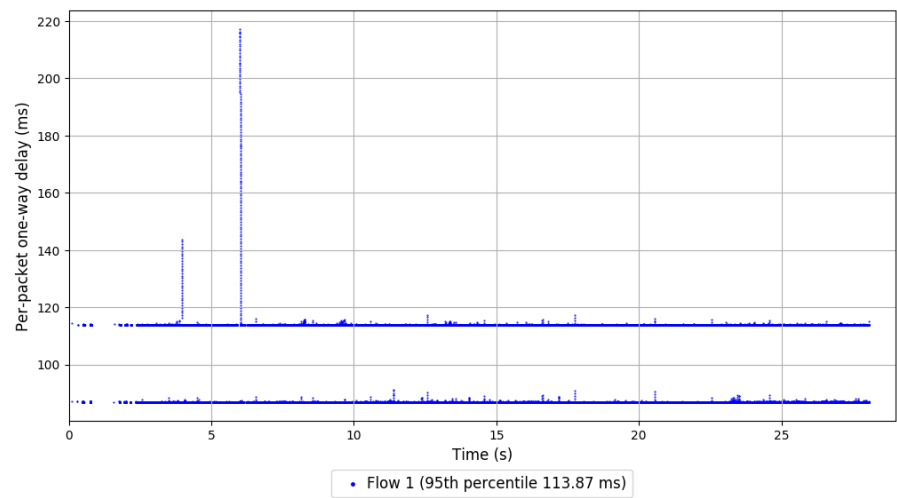
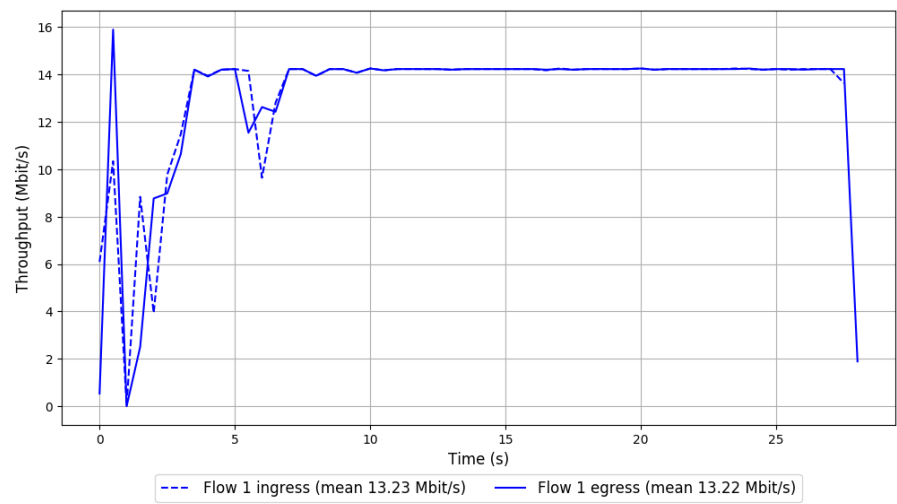
-- Flow 1:

Average throughput: 13.22 Mbit/s

95th percentile per-packet one-way delay: 113.871 ms

Loss rate: 0.09%

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

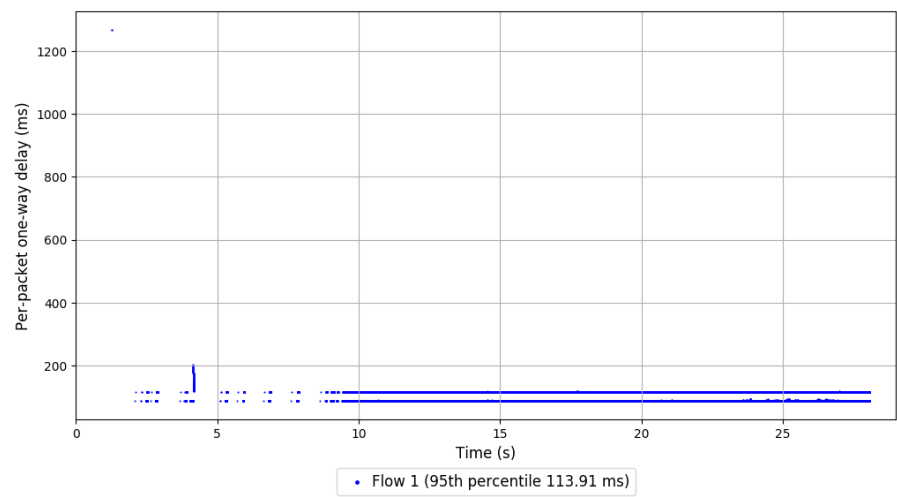
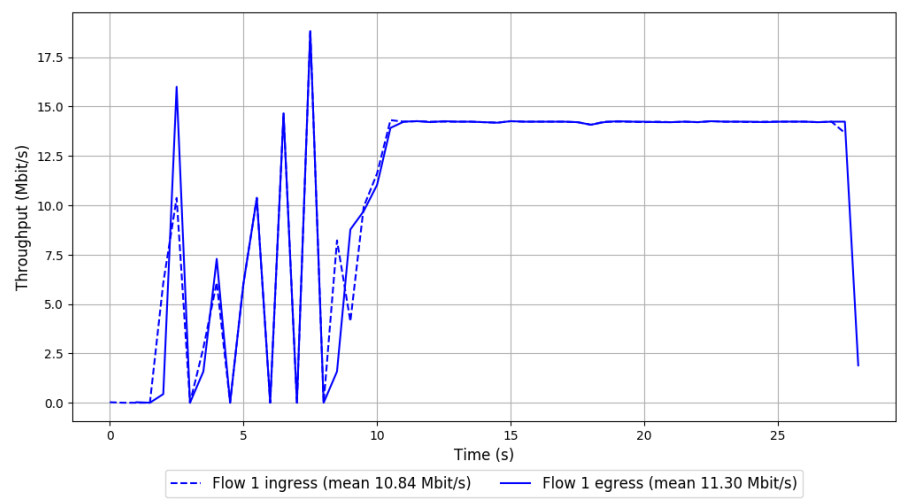


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-09-18 00:42:37
End at: 2017-09-18 00:43:07

# Below is generated by plot.py at 2017-09-18 02:10:19
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 113.908 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 11.30 Mbit/s
95th percentile per-packet one-way delay: 113.908 ms
Loss rate: 0.12%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-09-17 22:52:21

End at: 2017-09-17 22:52:51

Below is generated by plot.py at 2017-09-18 02:10:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 88.014 ms

Loss rate: 0.01%

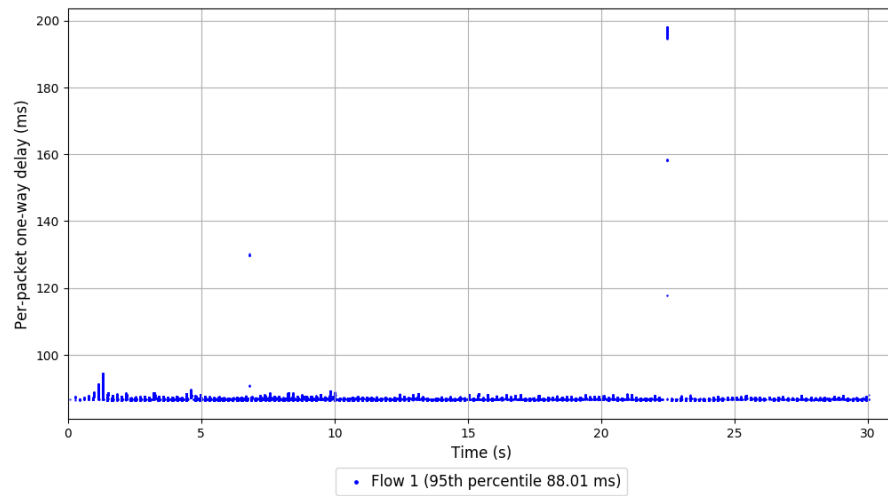
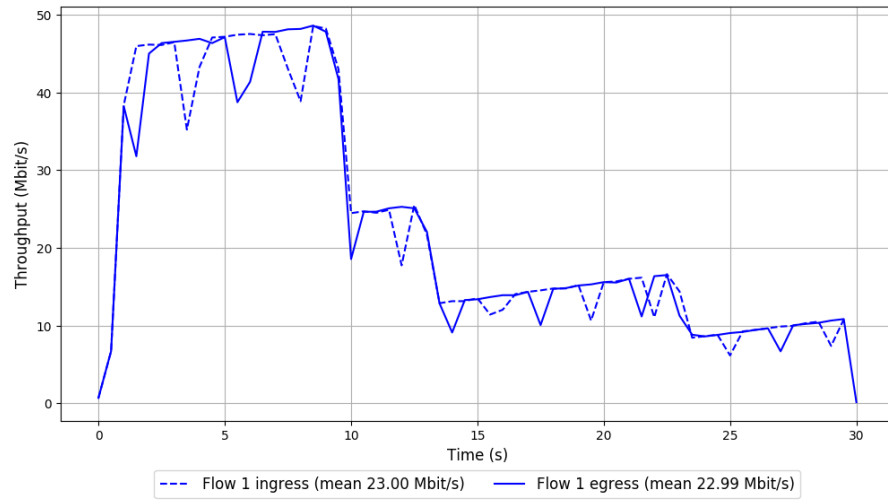
-- Flow 1:

Average throughput: 22.99 Mbit/s

95th percentile per-packet one-way delay: 88.014 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-09-17 23:03:53

End at: 2017-09-17 23:04:23

Below is generated by plot.py at 2017-09-18 02:10:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.74 Mbit/s

95th percentile per-packet one-way delay: 95.467 ms

Loss rate: 0.03%

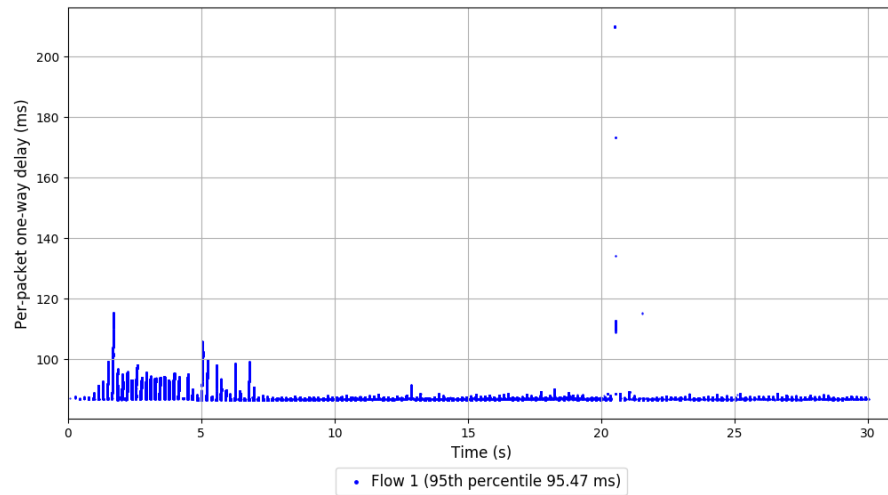
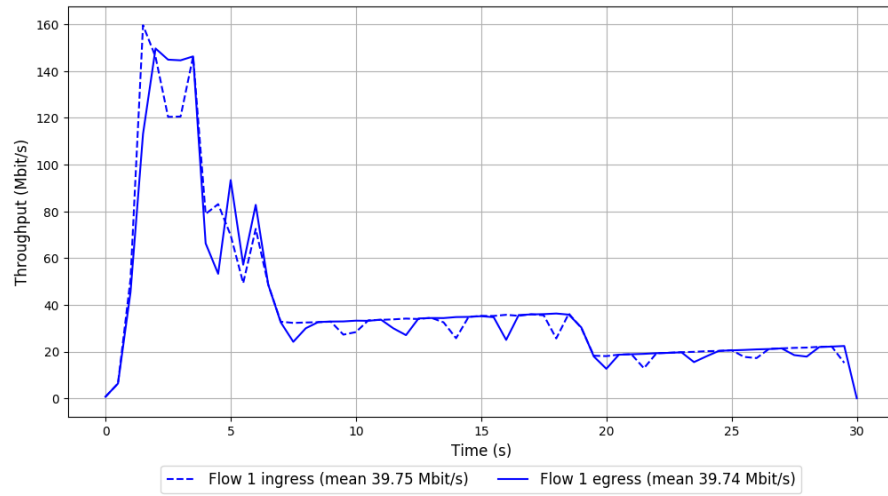
-- Flow 1:

Average throughput: 39.74 Mbit/s

95th percentile per-packet one-way delay: 95.467 ms

Loss rate: 0.03%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-09-17 23:15:38

End at: 2017-09-17 23:16:08

Below is generated by plot.py at 2017-09-18 02:10:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.06 Mbit/s

95th percentile per-packet one-way delay: 88.888 ms

Loss rate: 0.00%

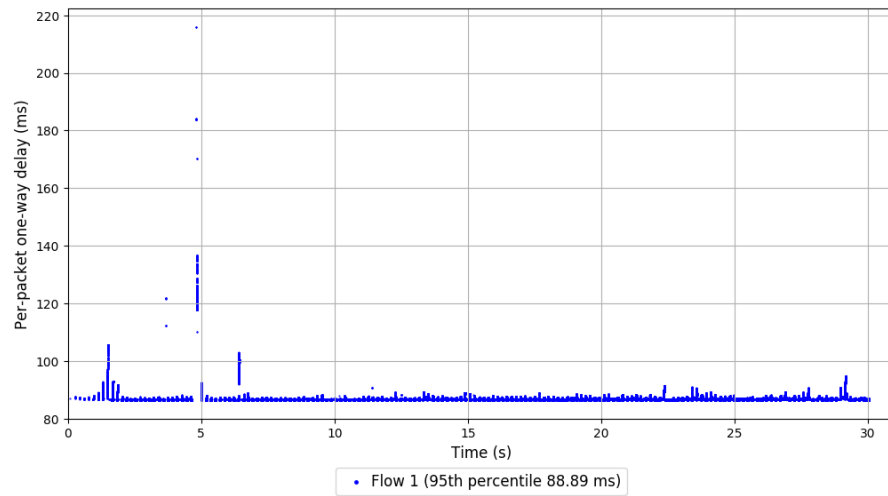
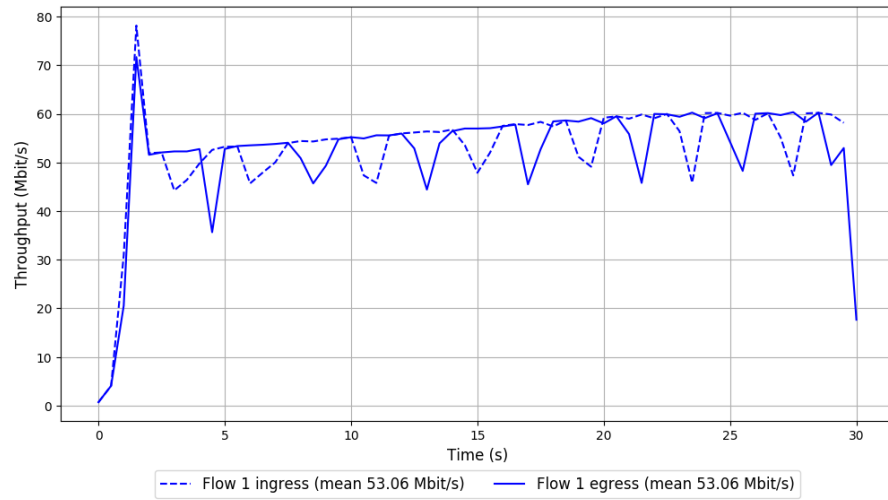
-- Flow 1:

Average throughput: 53.06 Mbit/s

95th percentile per-packet one-way delay: 88.888 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-09-17 23:27:29

End at: 2017-09-17 23:27:59

Below is generated by plot.py at 2017-09-18 02:10:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 28.45 Mbit/s

95th percentile per-packet one-way delay: 95.762 ms

Loss rate: 0.40%

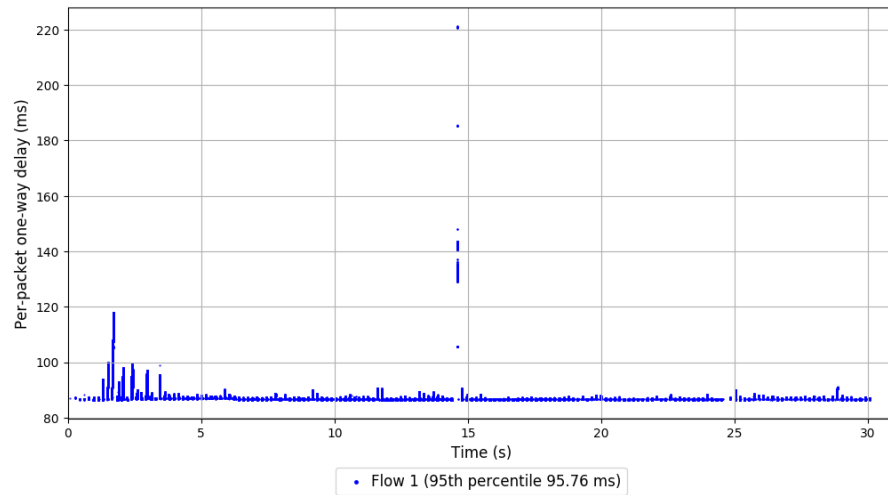
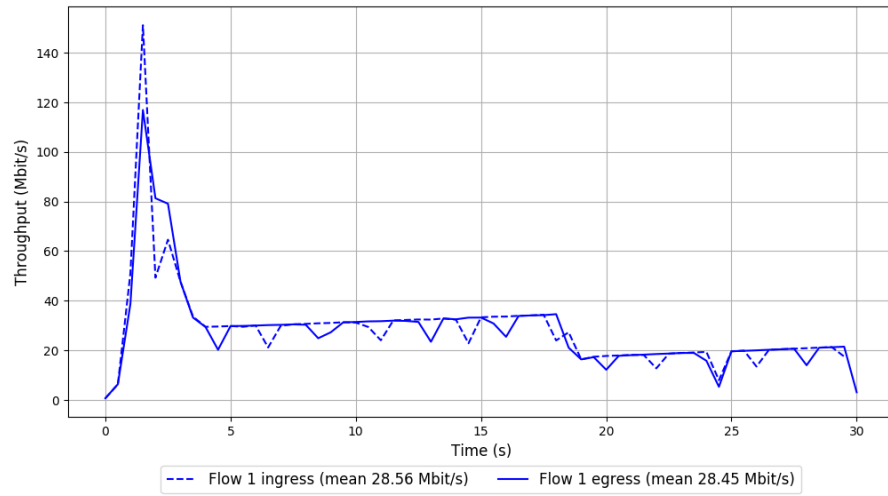
-- Flow 1:

Average throughput: 28.45 Mbit/s

95th percentile per-packet one-way delay: 95.762 ms

Loss rate: 0.40%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-09-17 23:39:31

End at: 2017-09-17 23:40:01

Below is generated by plot.py at 2017-09-18 02:10:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.91 Mbit/s

95th percentile per-packet one-way delay: 88.209 ms

Loss rate: 0.00%

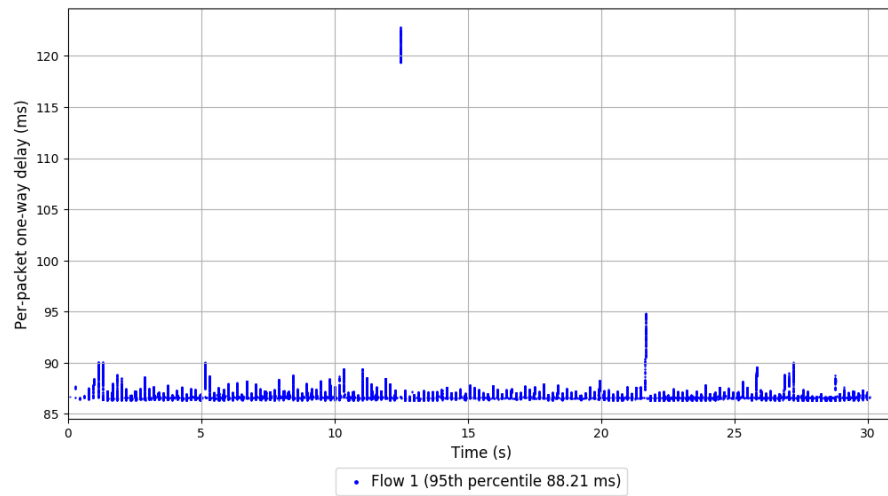
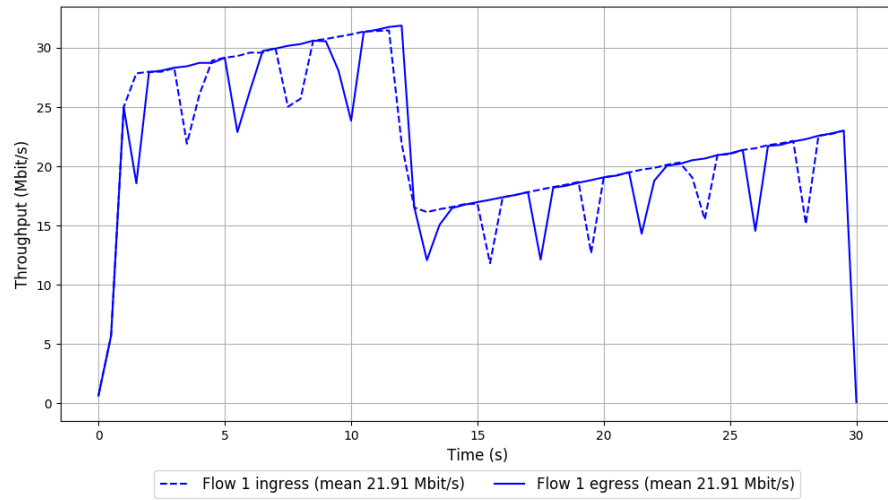
-- Flow 1:

Average throughput: 21.91 Mbit/s

95th percentile per-packet one-way delay: 88.209 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-09-17 23:51:21

End at: 2017-09-17 23:51:51

Below is generated by plot.py at 2017-09-18 02:11:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.19 Mbit/s

95th percentile per-packet one-way delay: 89.250 ms

Loss rate: 0.00%

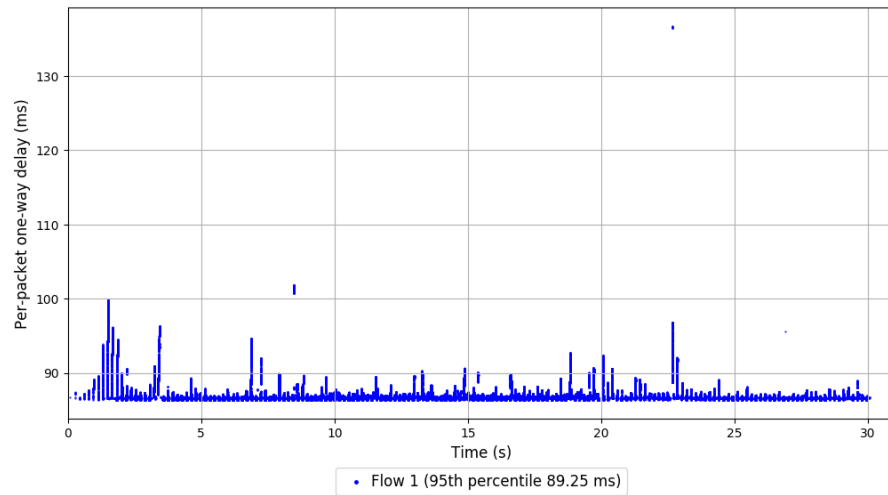
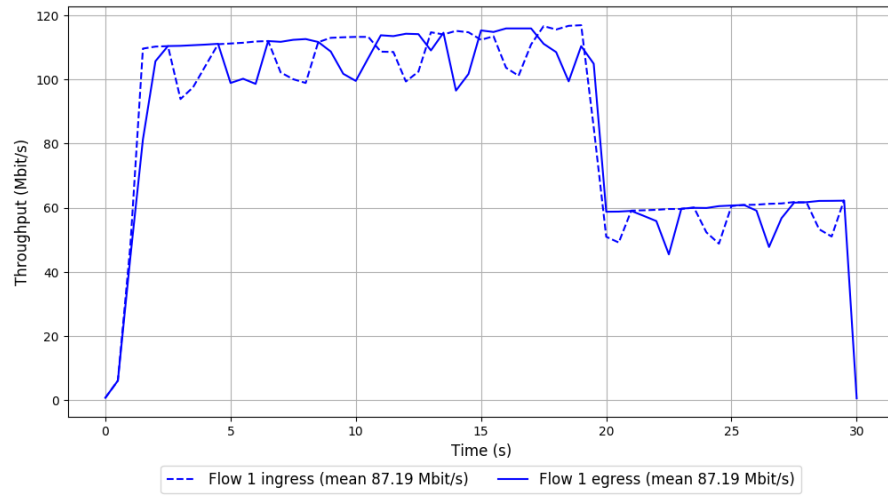
-- Flow 1:

Average throughput: 87.19 Mbit/s

95th percentile per-packet one-way delay: 89.250 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-09-18 00:03:07

End at: 2017-09-18 00:03:37

Below is generated by plot.py at 2017-09-18 02:11:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.60 Mbit/s

95th percentile per-packet one-way delay: 93.813 ms

Loss rate: 0.00%

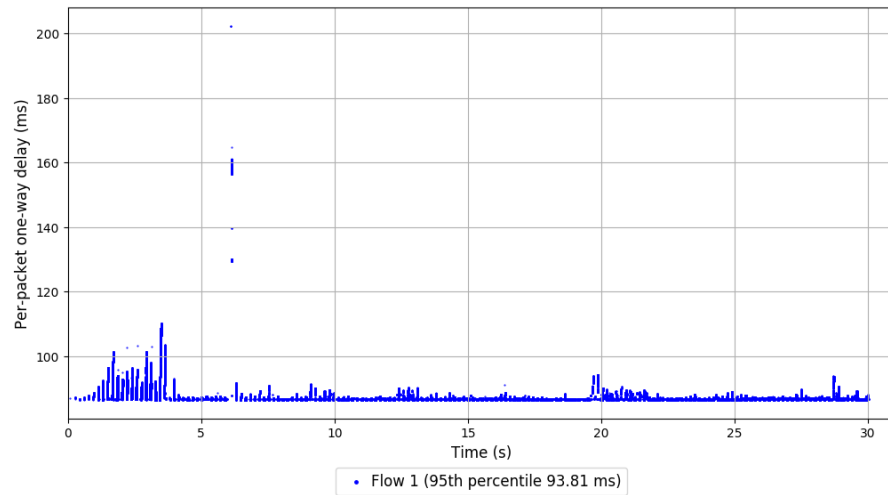
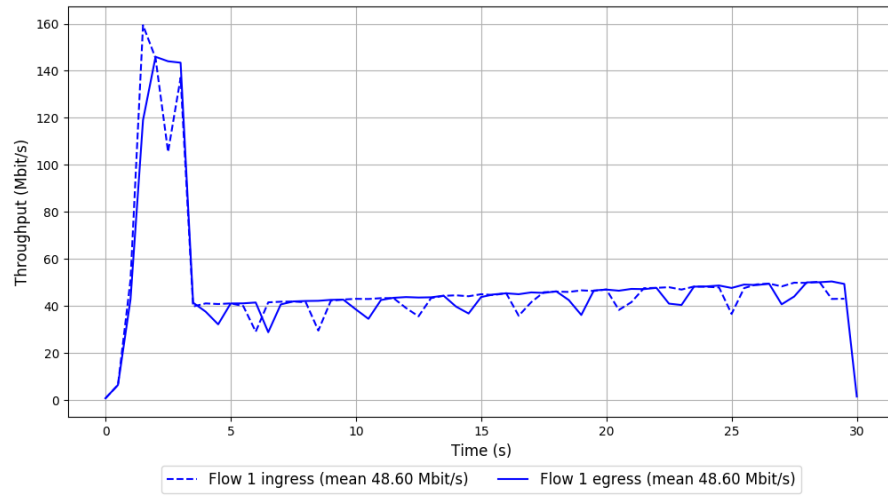
-- Flow 1:

Average throughput: 48.60 Mbit/s

95th percentile per-packet one-way delay: 93.813 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-09-18 00:14:36

End at: 2017-09-18 00:15:06

Below is generated by plot.py at 2017-09-18 02:11:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.51 Mbit/s

95th percentile per-packet one-way delay: 96.582 ms

Loss rate: 0.28%

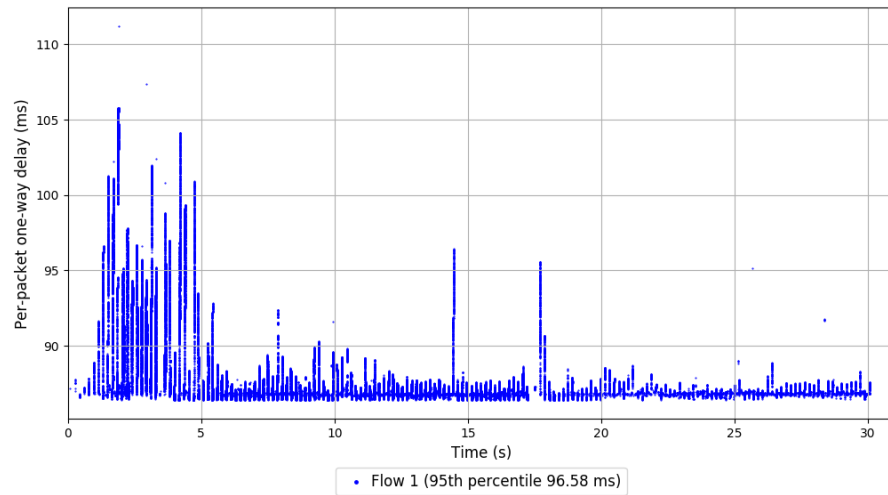
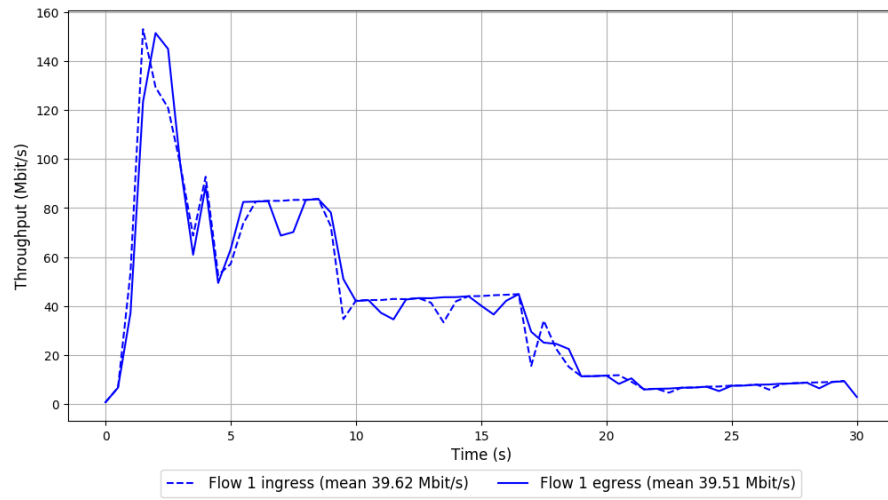
-- Flow 1:

Average throughput: 39.51 Mbit/s

95th percentile per-packet one-way delay: 96.582 ms

Loss rate: 0.28%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-09-18 00:25:47

End at: 2017-09-18 00:26:17

Below is generated by plot.py at 2017-09-18 02:11:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.01 Mbit/s

95th percentile per-packet one-way delay: 121.104 ms

Loss rate: 0.01%

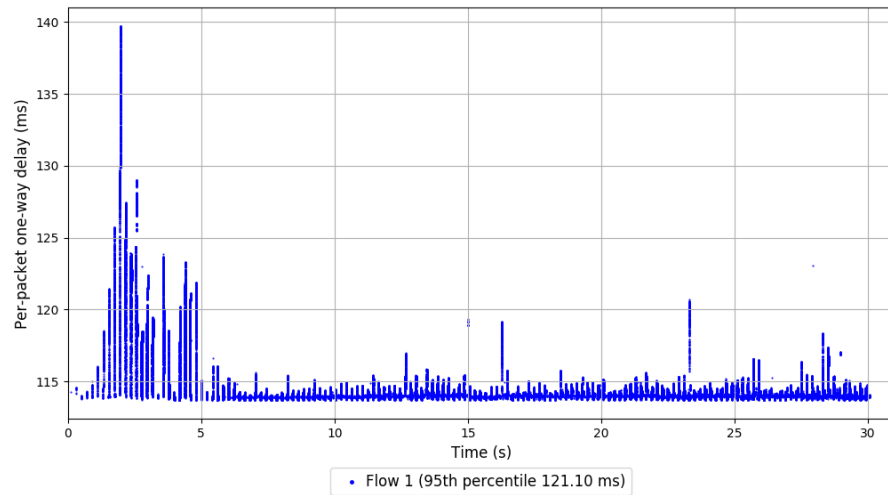
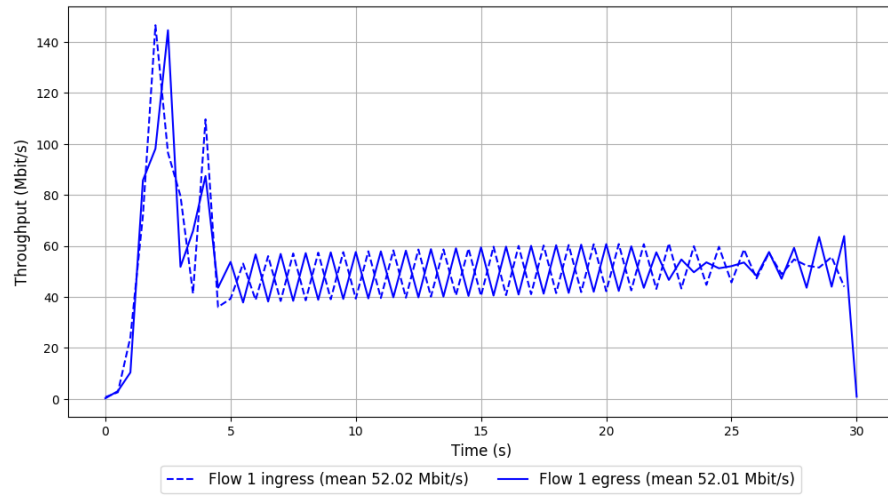
-- Flow 1:

Average throughput: 52.01 Mbit/s

95th percentile per-packet one-way delay: 121.104 ms

Loss rate: 0.01%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-09-18 00:37:10

End at: 2017-09-18 00:37:40

Below is generated by plot.py at 2017-09-18 02:11:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.67 Mbit/s

95th percentile per-packet one-way delay: 114.993 ms

Loss rate: 0.50%

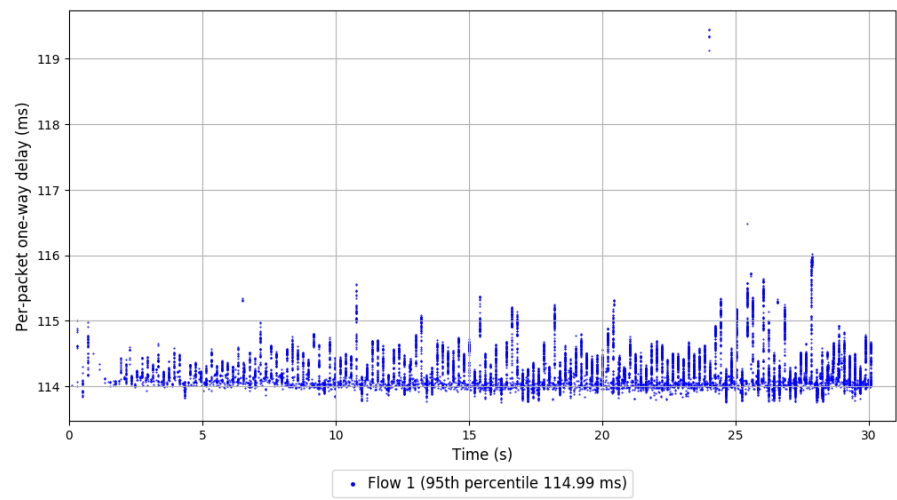
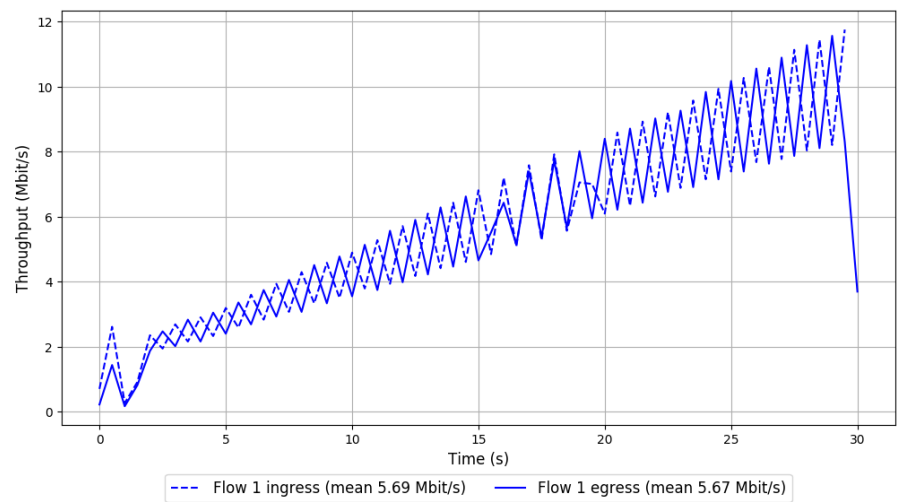
-- Flow 1:

Average throughput: 5.67 Mbit/s

95th percentile per-packet one-way delay: 114.993 ms

Loss rate: 0.50%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-09-17 22:54:02

End at: 2017-09-17 22:54:32

Below is generated by plot.py at 2017-09-18 02:13:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 182.41 Mbit/s

95th percentile per-packet one-way delay: 188.998 ms

Loss rate: 1.83%

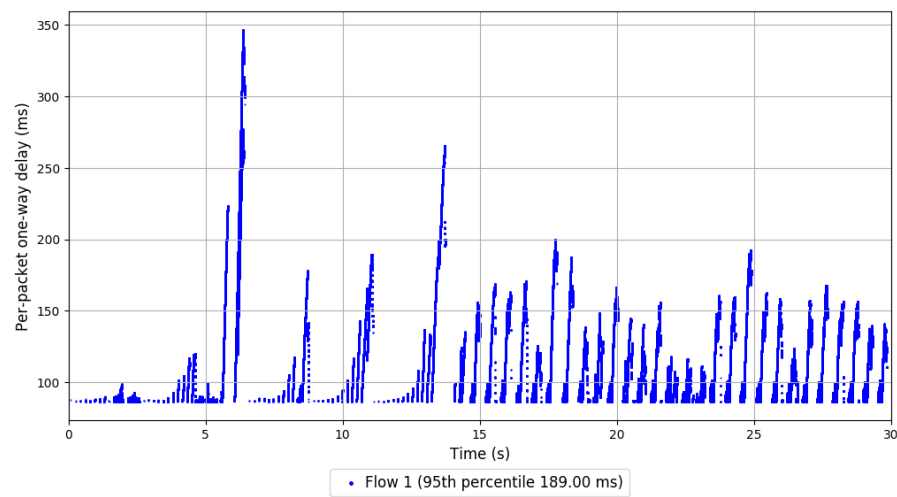
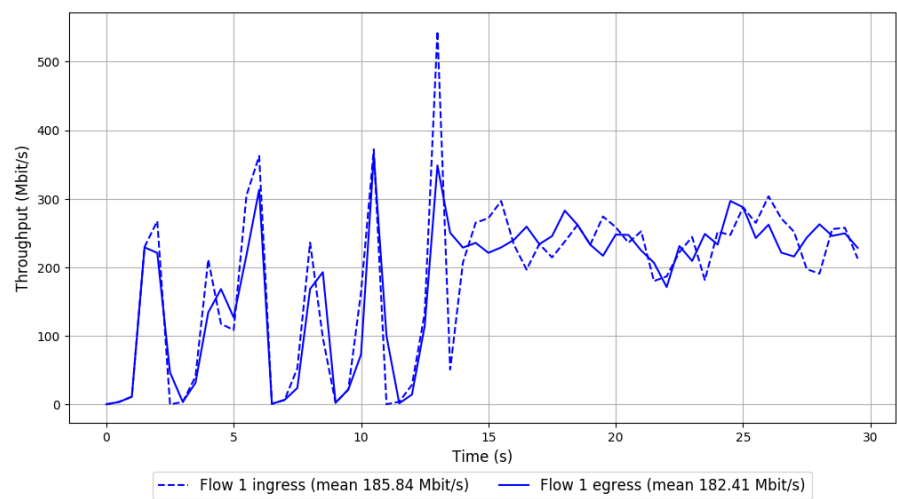
-- Flow 1:

Average throughput: 182.41 Mbit/s

95th percentile per-packet one-way delay: 188.998 ms

Loss rate: 1.83%

Run 1: Report of Verus — Data Link

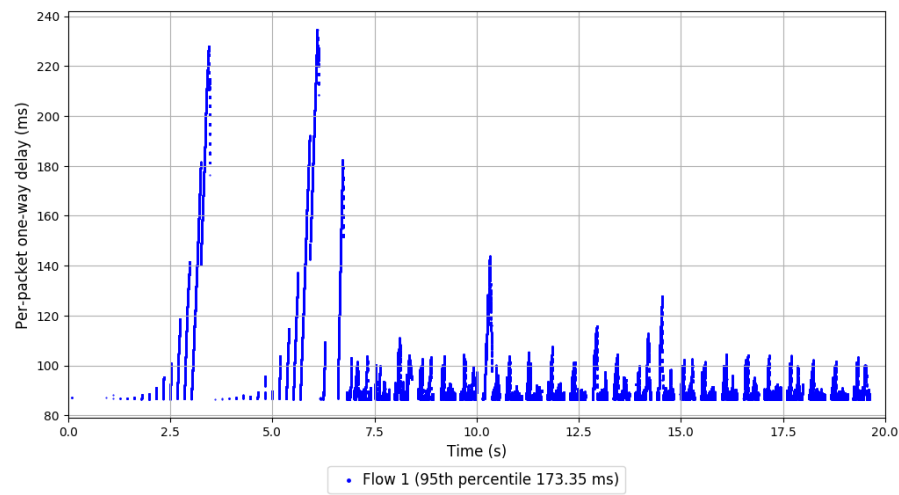
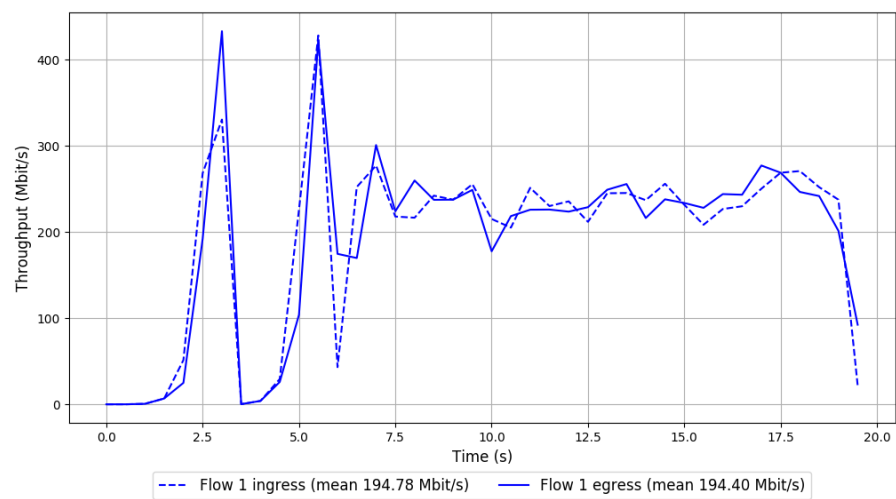


Run 2: Statistics of Verus

Start at: 2017-09-17 23:05:41

End at: 2017-09-17 23:06:11

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-09-17 23:17:25

End at: 2017-09-17 23:17:55

Below is generated by plot.py at 2017-09-18 02:14:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.47 Mbit/s

95th percentile per-packet one-way delay: 117.772 ms

Loss rate: 0.63%

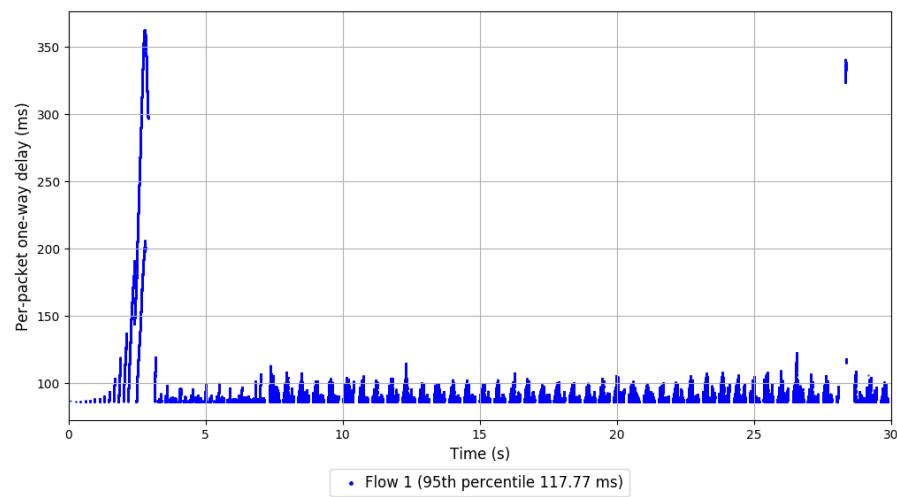
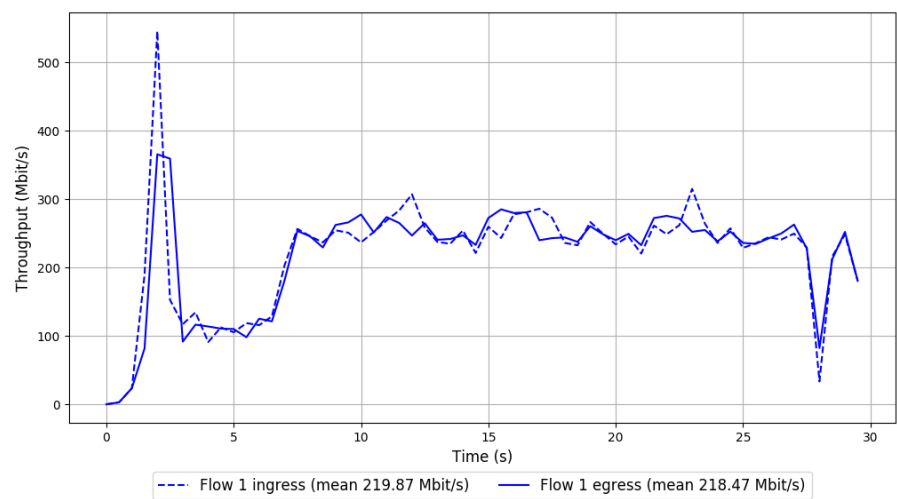
-- Flow 1:

Average throughput: 218.47 Mbit/s

95th percentile per-packet one-way delay: 117.772 ms

Loss rate: 0.63%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-09-17 23:29:13

End at: 2017-09-17 23:29:43

Below is generated by plot.py at 2017-09-18 02:14:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 274.94 Mbit/s

95th percentile per-packet one-way delay: 218.725 ms

Loss rate: 1.79%

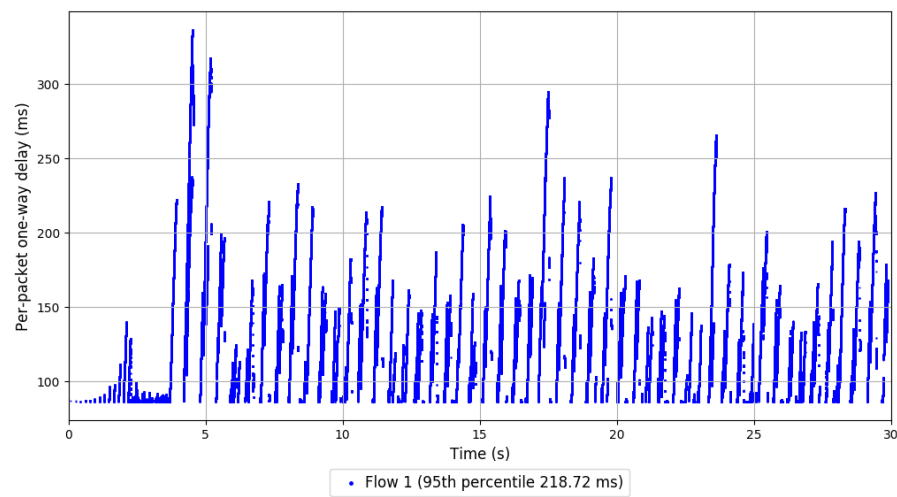
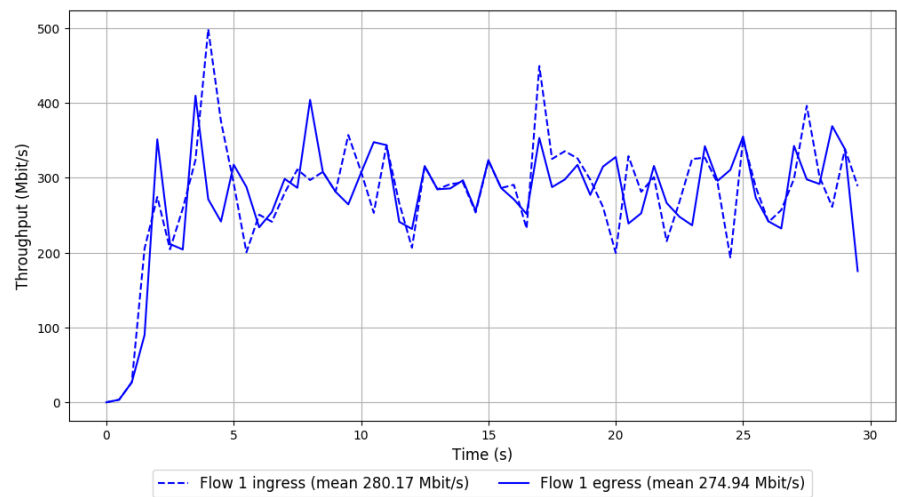
-- Flow 1:

Average throughput: 274.94 Mbit/s

95th percentile per-packet one-way delay: 218.725 ms

Loss rate: 1.79%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-09-17 23:41:18

End at: 2017-09-17 23:41:48

Below is generated by plot.py at 2017-09-18 02:14:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 155.82 Mbit/s

95th percentile per-packet one-way delay: 205.744 ms

Loss rate: 1.16%

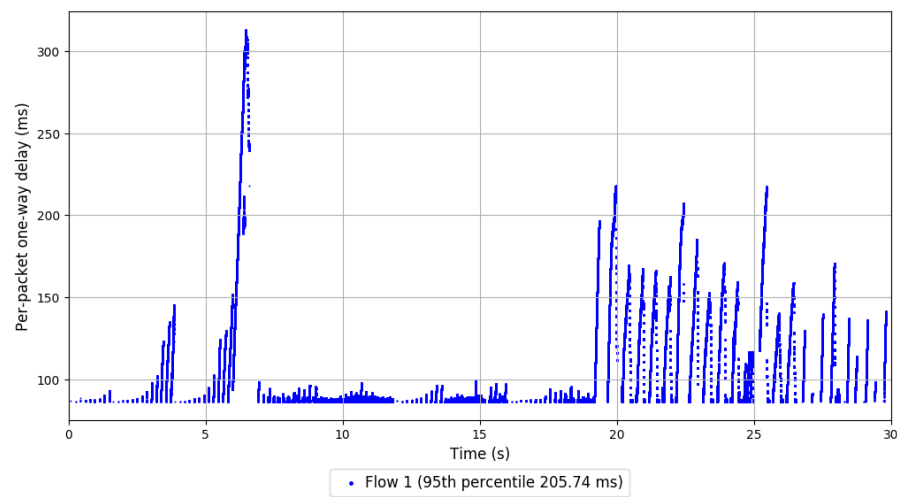
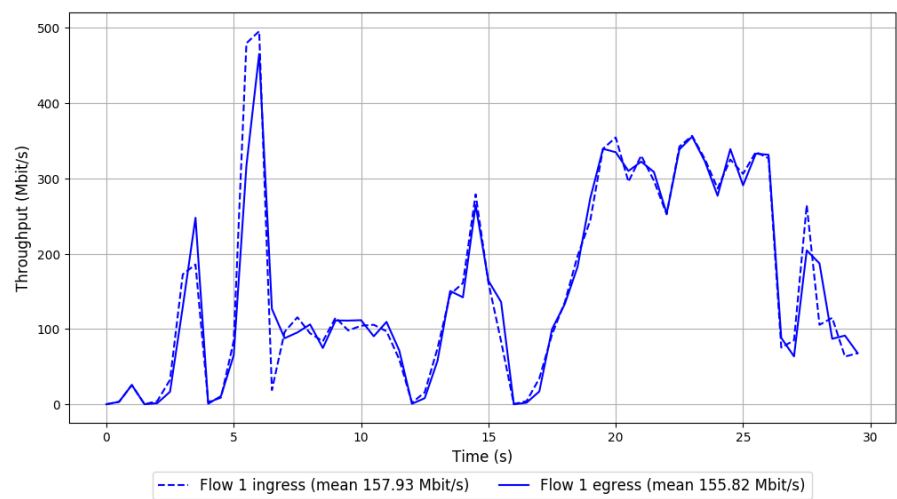
-- Flow 1:

Average throughput: 155.82 Mbit/s

95th percentile per-packet one-way delay: 205.744 ms

Loss rate: 1.16%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-09-17 23:53:07

End at: 2017-09-17 23:53:37

Below is generated by plot.py at 2017-09-18 02:14:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 251.32 Mbit/s

95th percentile per-packet one-way delay: 141.348 ms

Loss rate: 2.89%

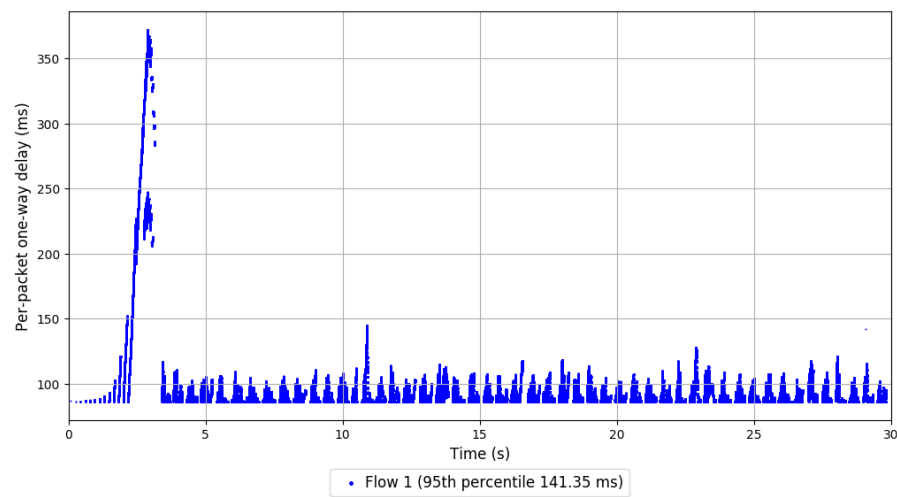
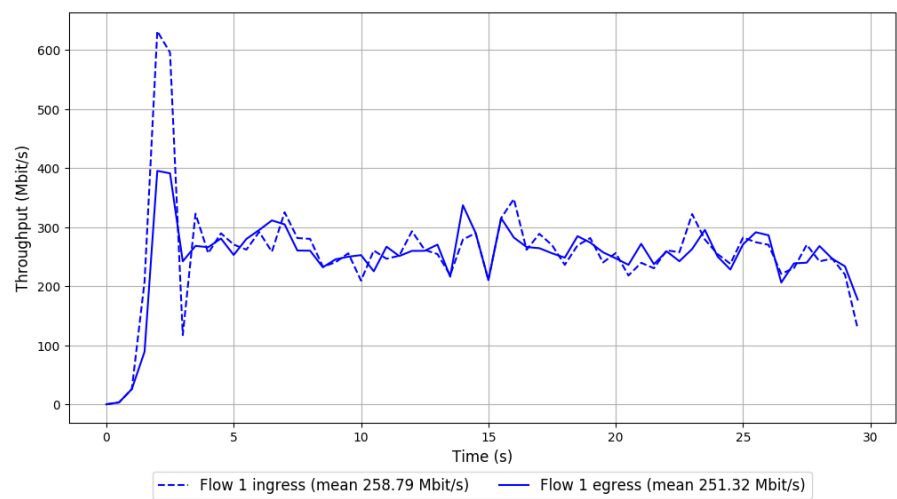
-- Flow 1:

Average throughput: 251.32 Mbit/s

95th percentile per-packet one-way delay: 141.348 ms

Loss rate: 2.89%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-09-18 00:04:50

End at: 2017-09-18 00:05:20

Below is generated by plot.py at 2017-09-18 02:14:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.09 Mbit/s

95th percentile per-packet one-way delay: 246.710 ms

Loss rate: 3.25%

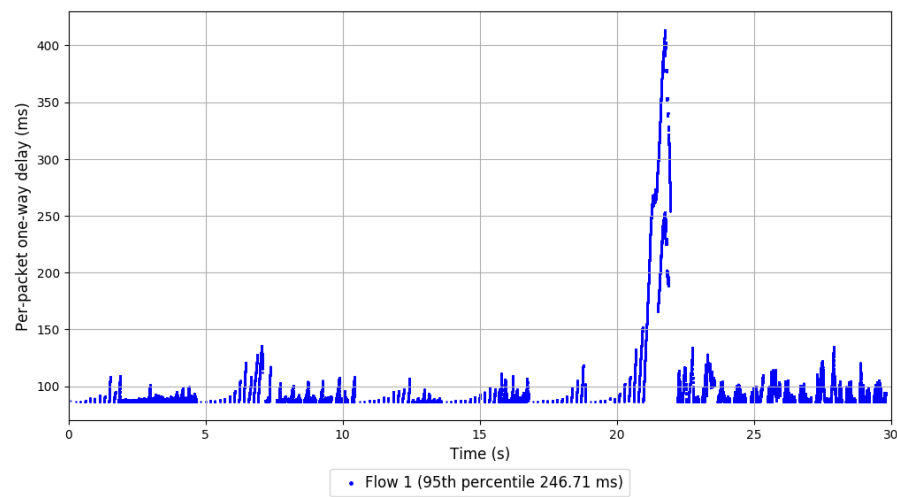
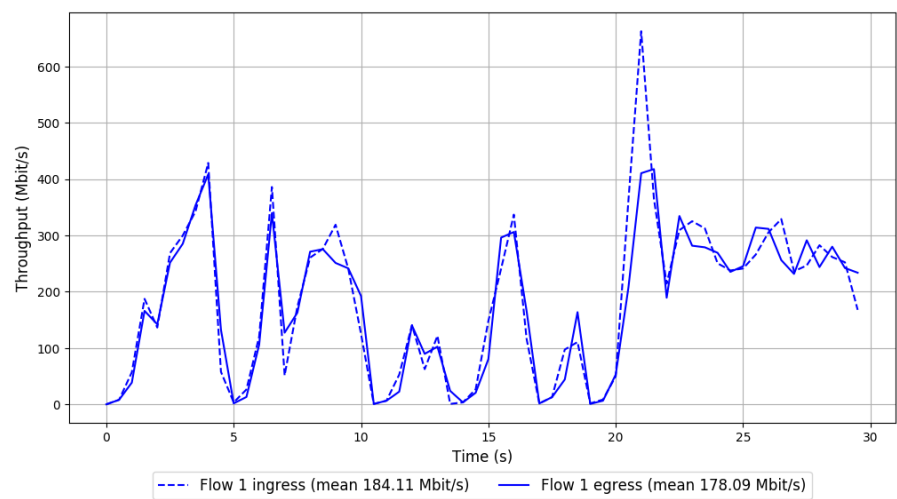
-- Flow 1:

Average throughput: 178.09 Mbit/s

95th percentile per-packet one-way delay: 246.710 ms

Loss rate: 3.25%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-09-18 00:16:20

End at: 2017-09-18 00:16:51

Below is generated by plot.py at 2017-09-18 02:14:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 130.61 Mbit/s

95th percentile per-packet one-way delay: 236.747 ms

Loss rate: 2.43%

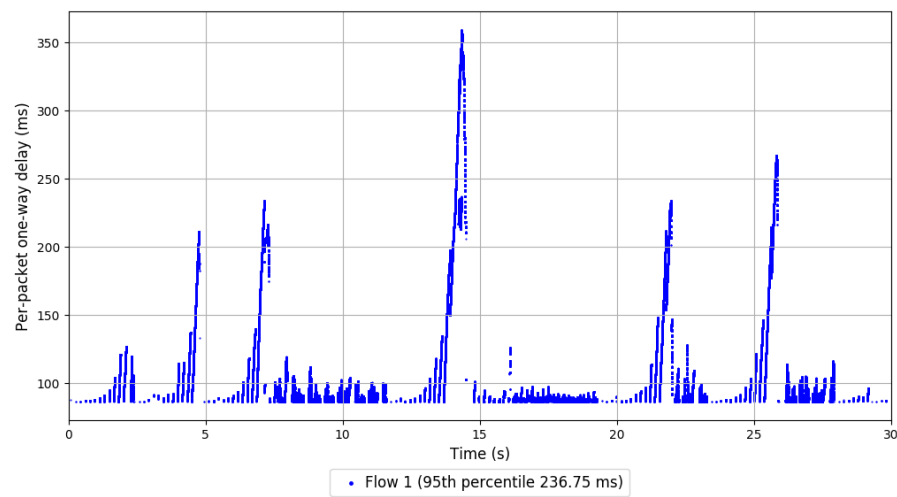
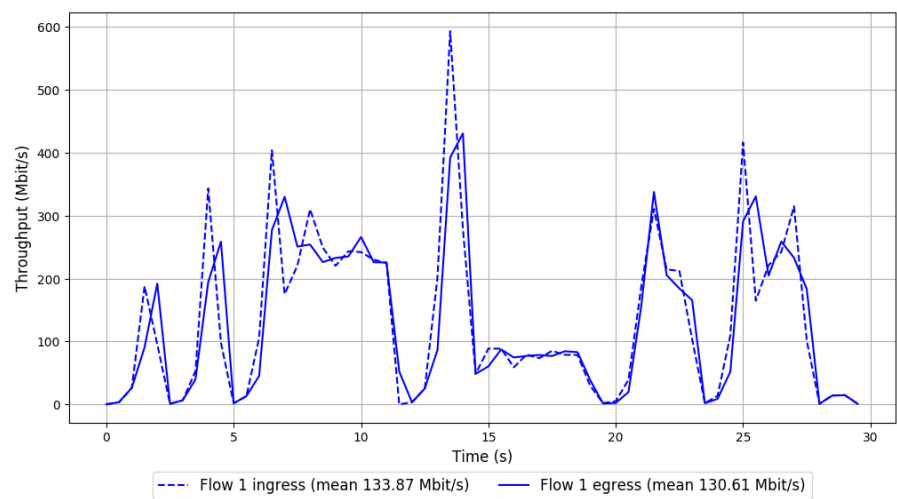
-- Flow 1:

Average throughput: 130.61 Mbit/s

95th percentile per-packet one-way delay: 236.747 ms

Loss rate: 2.43%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-09-18 00:27:32

End at: 2017-09-18 00:28:02

Below is generated by plot.py at 2017-09-18 02:14:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.35 Mbit/s

95th percentile per-packet one-way delay: 172.217 ms

Loss rate: 2.34%

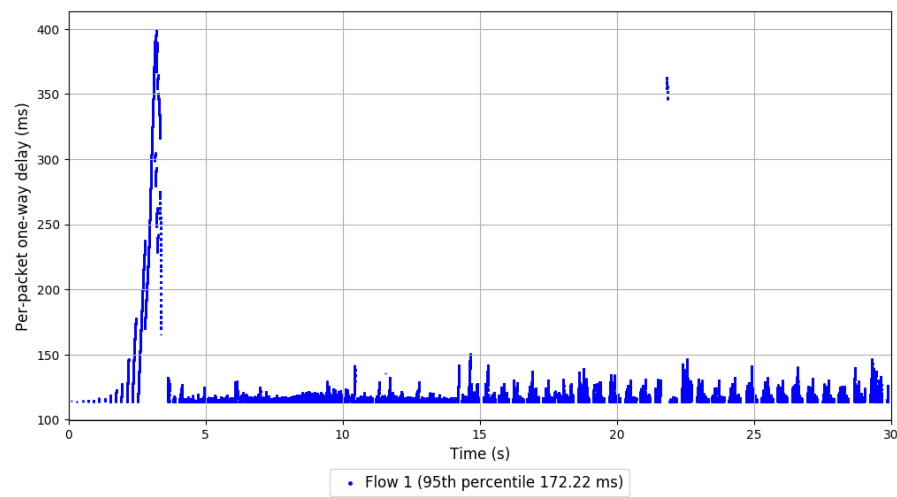
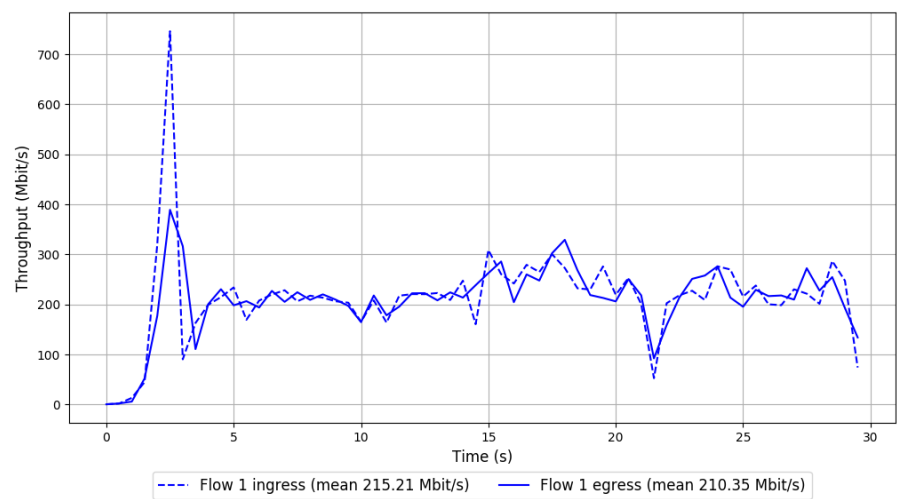
-- Flow 1:

Average throughput: 210.35 Mbit/s

95th percentile per-packet one-way delay: 172.217 ms

Loss rate: 2.34%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-09-18 00:38:49

End at: 2017-09-18 00:39:19

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 208.39 Mbit/s

95th percentile per-packet one-way delay: 230.026 ms

Loss rate: 1.16%

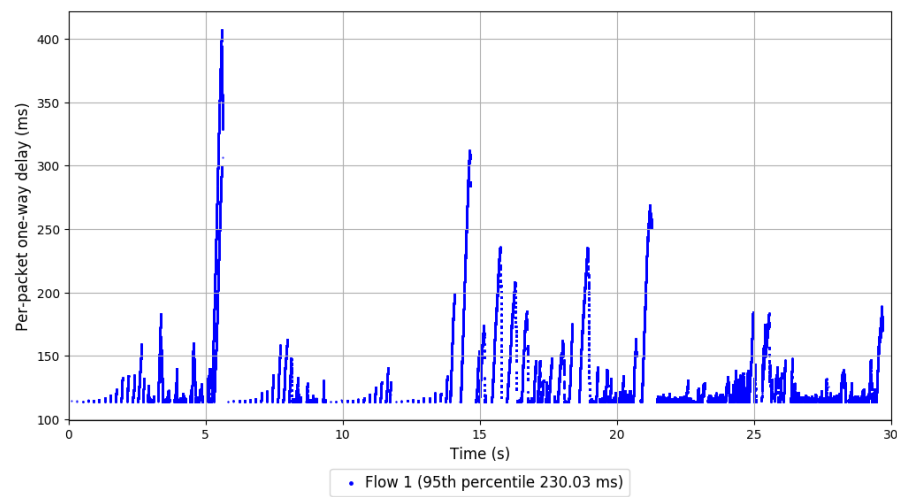
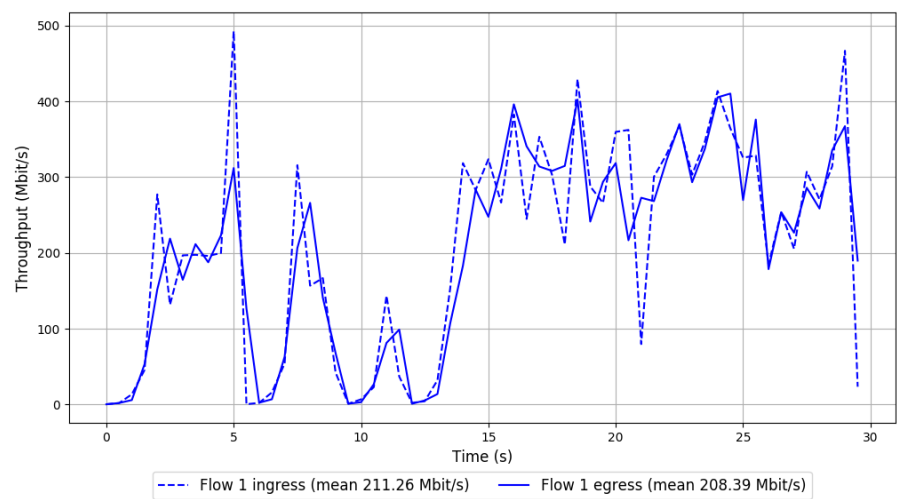
-- Flow 1:

Average throughput: 208.39 Mbit/s

95th percentile per-packet one-way delay: 230.026 ms

Loss rate: 1.16%

Run 10: Report of Verus — Data Link

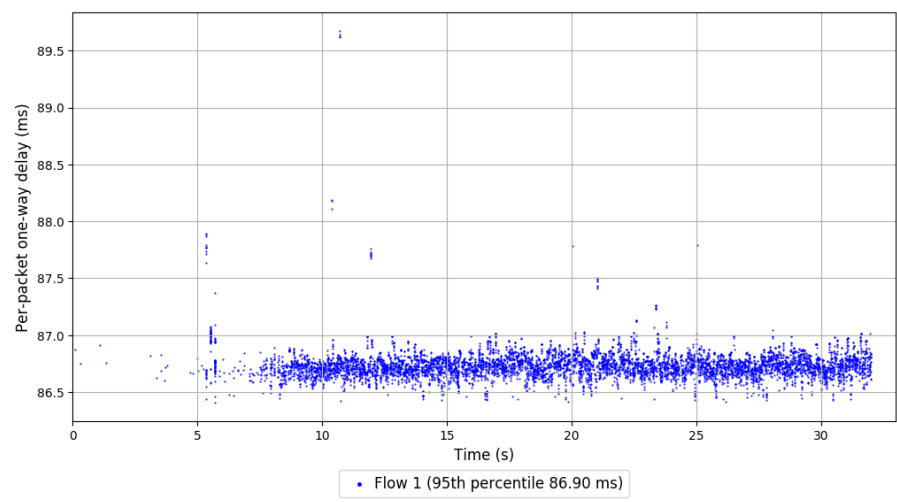
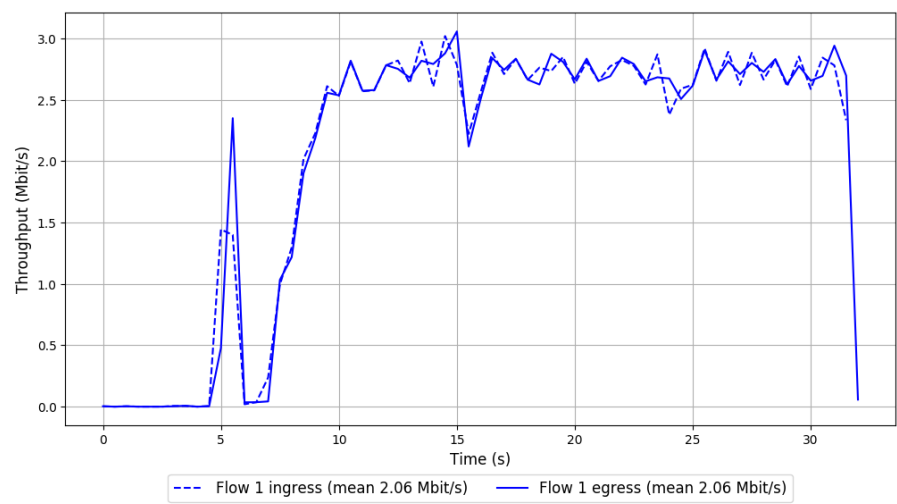


```
Run 1: Statistics of WebRTC media

Start at: 2017-09-17 22:59:02
End at: 2017-09-17 22:59:32

# Below is generated by plot.py at 2017-09-18 02:14:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 86.897 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 86.897 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-09-17 23:10:43

End at: 2017-09-17 23:11:13

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 86.735 ms

Loss rate: 0.00%

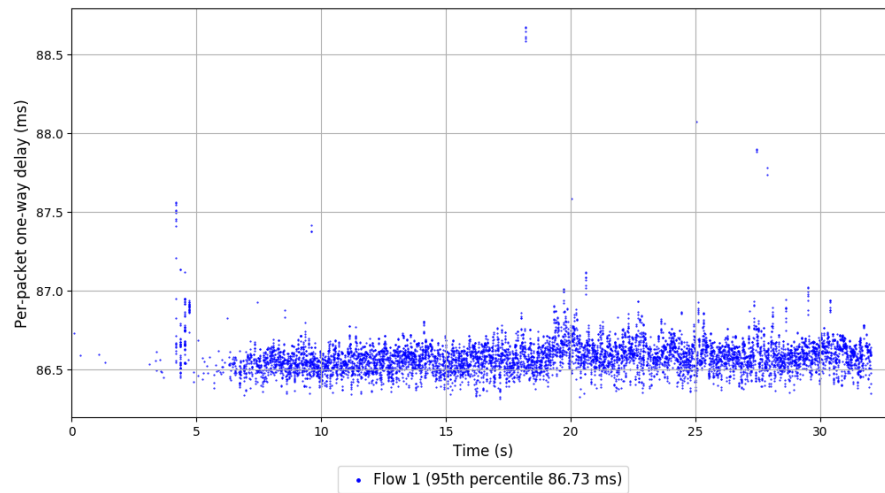
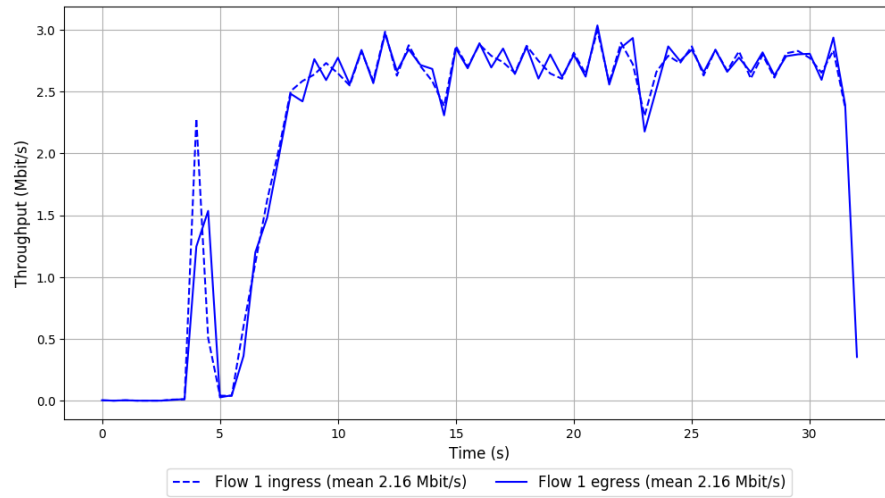
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 86.735 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-09-17 23:22:35

End at: 2017-09-17 23:23:05

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.816 ms

Loss rate: 0.00%

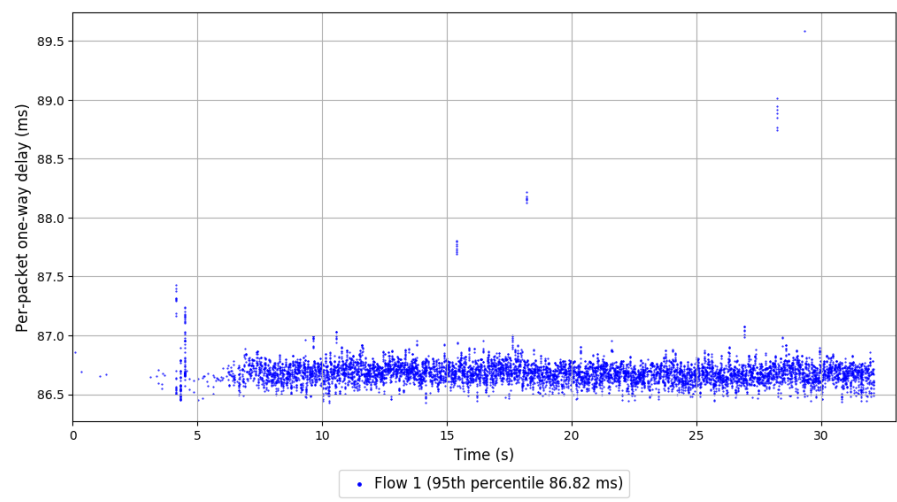
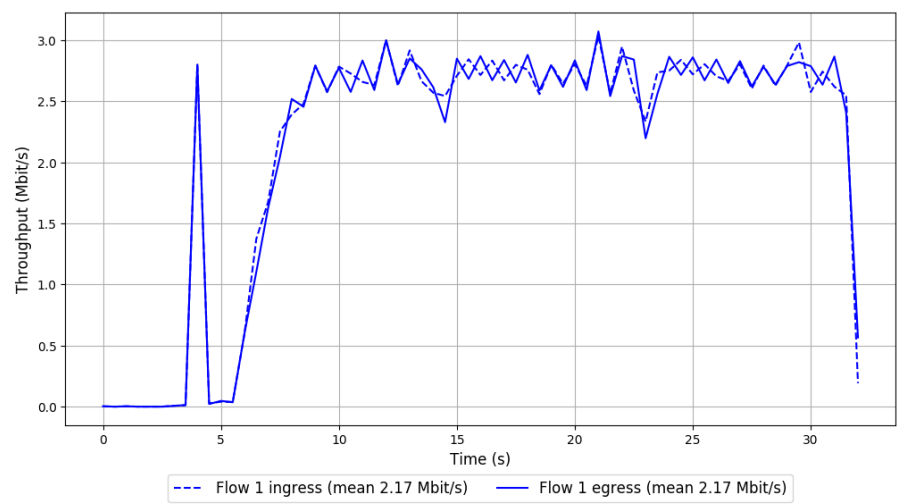
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.816 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-09-17 23:34:28

End at: 2017-09-17 23:34:58

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.960 ms

Loss rate: 0.00%

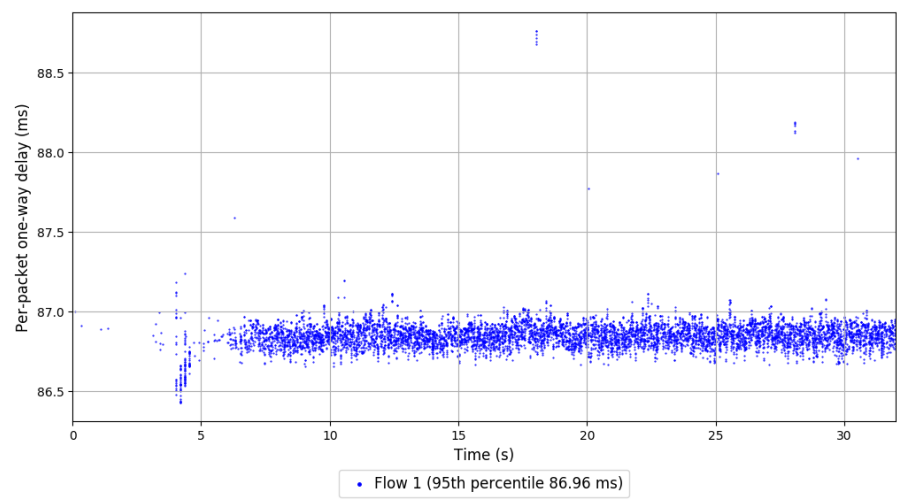
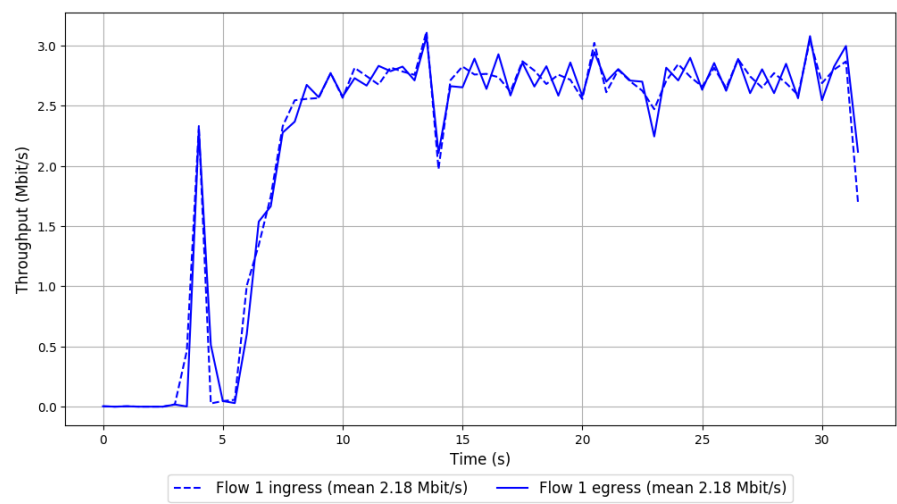
-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.960 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-09-17 23:46:26

End at: 2017-09-17 23:46:56

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.743 ms

Loss rate: 0.00%

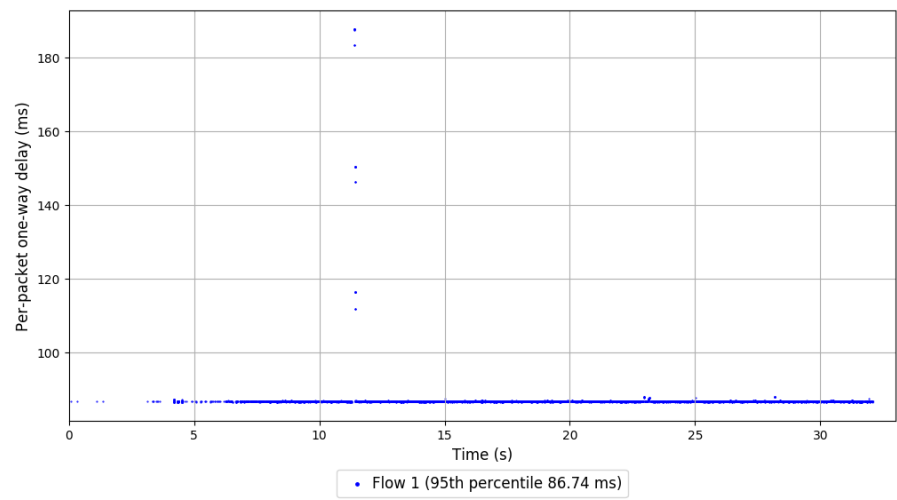
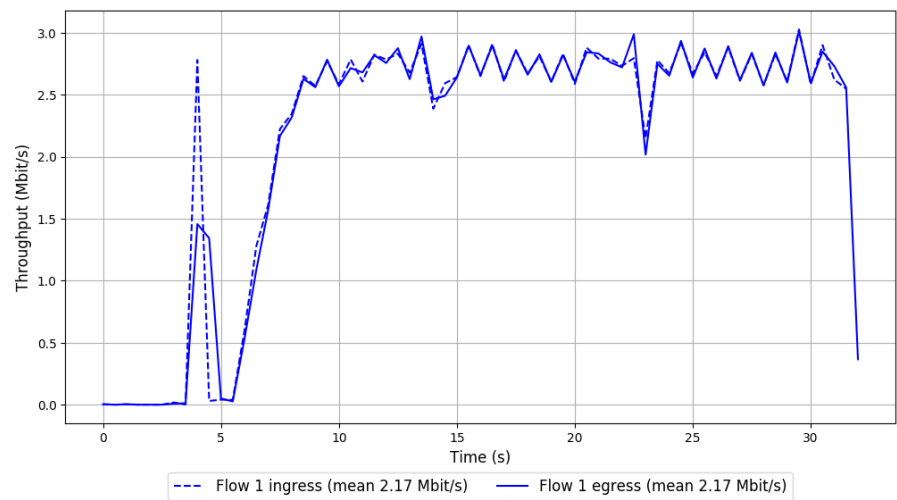
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.743 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-09-17 23:58:12

End at: 2017-09-17 23:58:42

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.615 ms

Loss rate: 0.00%

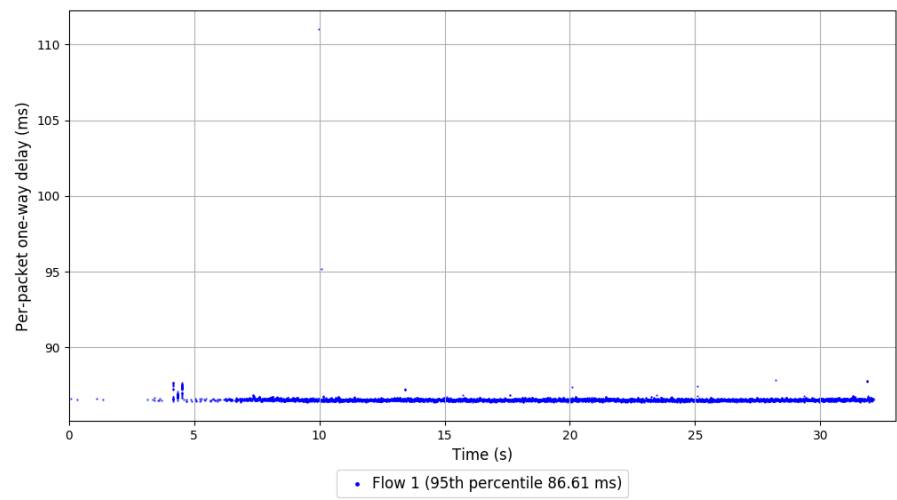
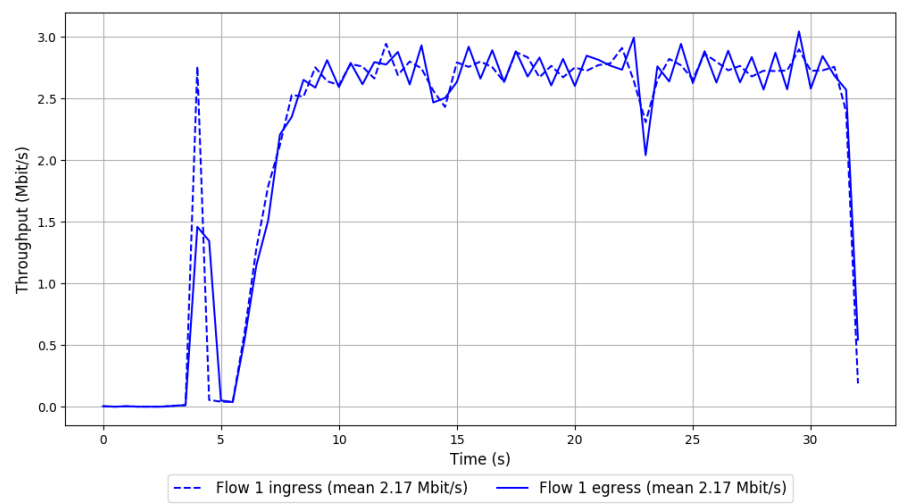
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.615 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-09-18 00:09:46

End at: 2017-09-18 00:10:16

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.695 ms

Loss rate: 0.00%

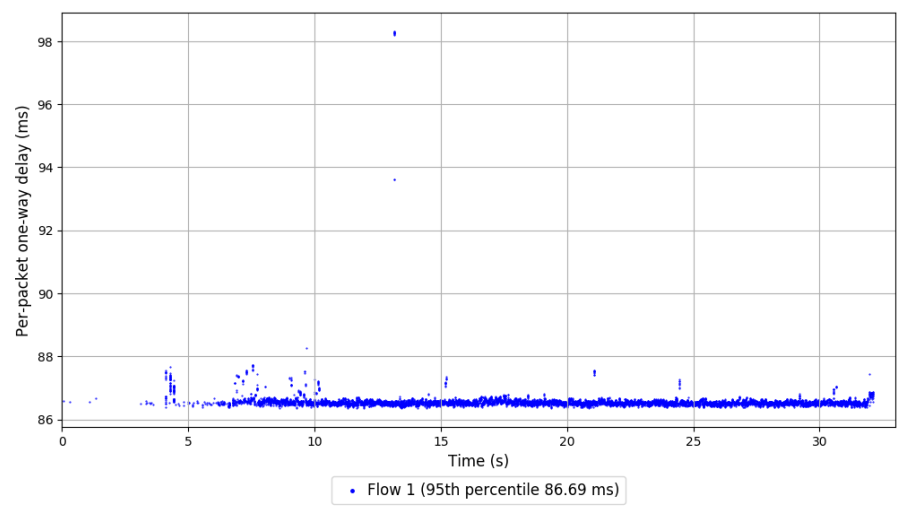
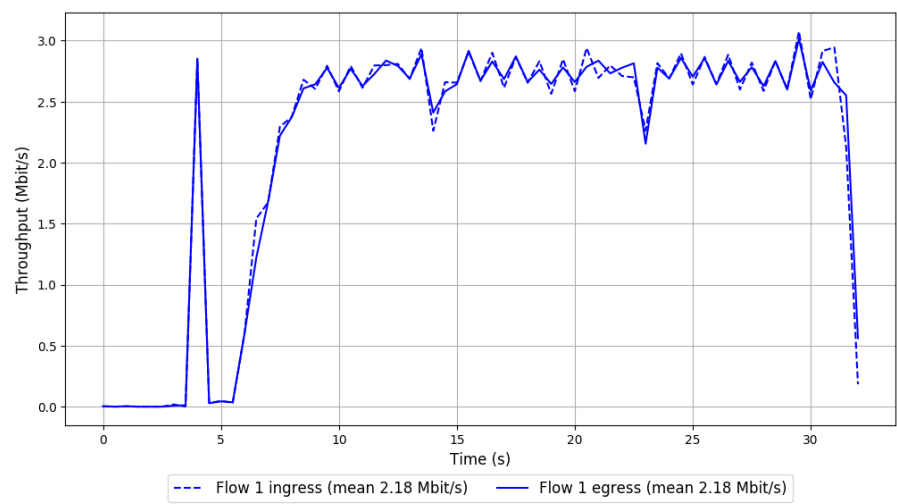
-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 86.695 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-09-18 00:20:56

End at: 2017-09-18 00:21:26

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 87.285 ms

Loss rate: 0.00%

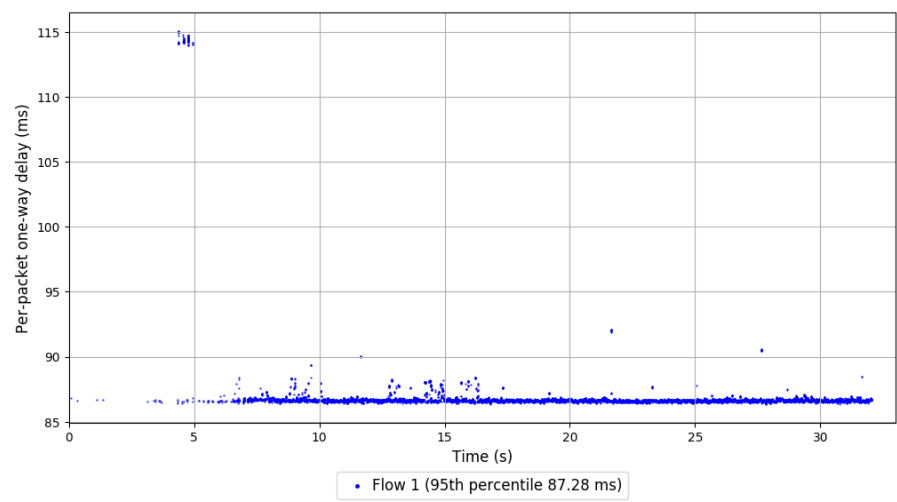
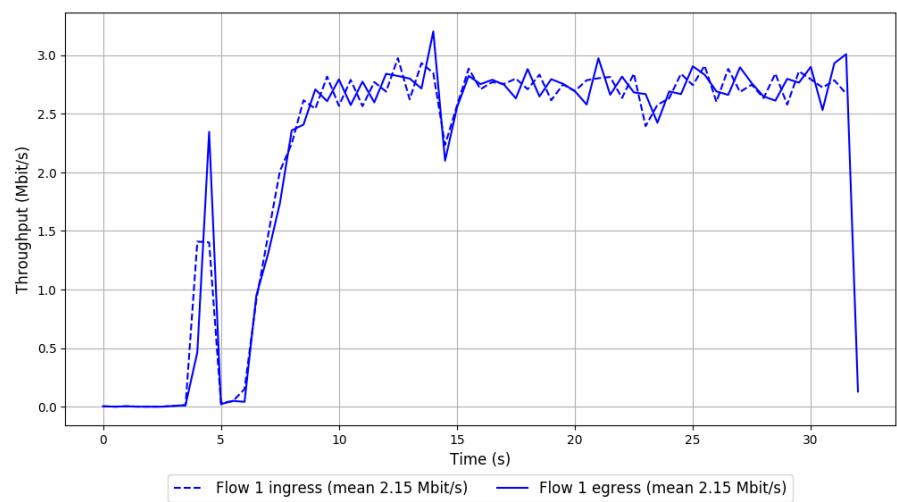
-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 87.285 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-09-18 00:32:17

End at: 2017-09-18 00:32:47

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.748 ms

Loss rate: 0.00%

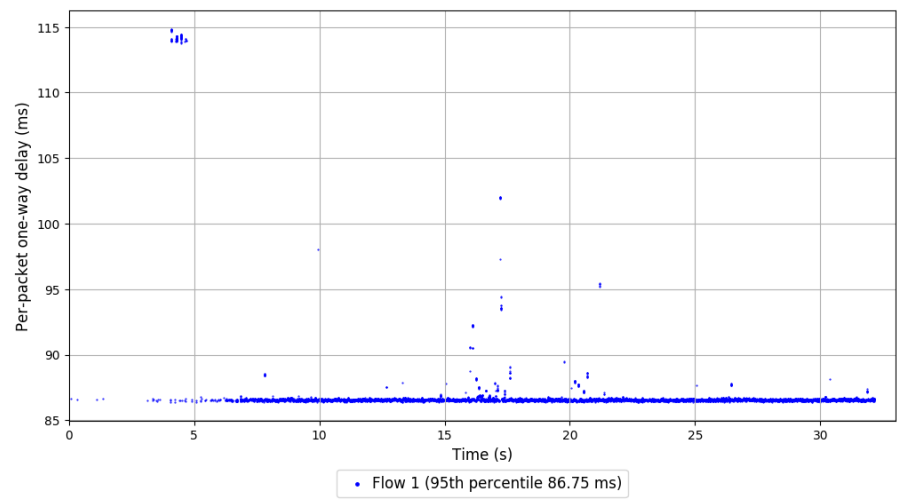
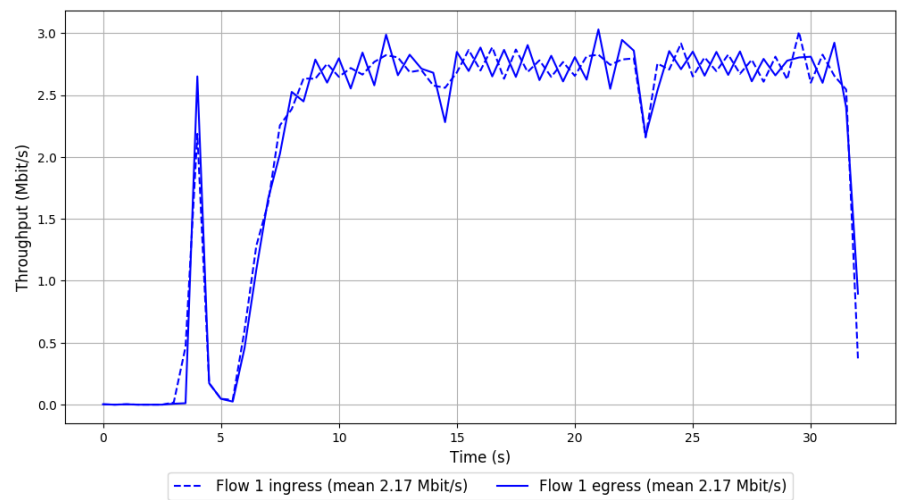
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 86.748 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-09-18 00:43:18

End at: 2017-09-18 00:43:48

Below is generated by plot.py at 2017-09-18 02:14:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 87.171 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 87.171 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

