

Pantheon Report

Generated at 2017-12-20 01:04:22 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

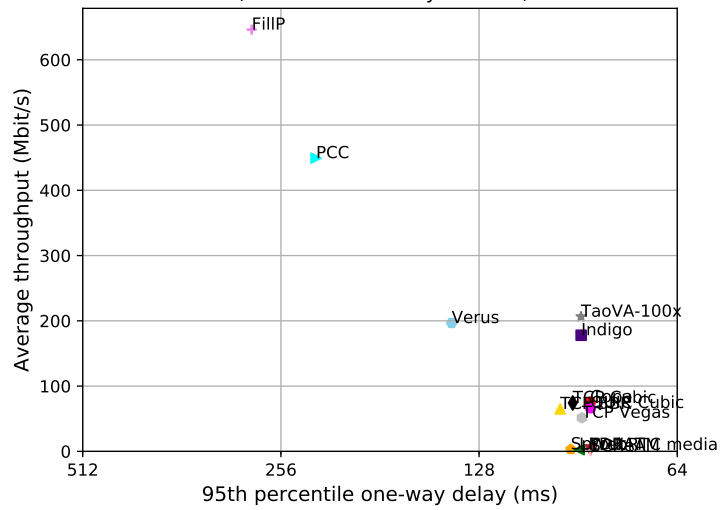
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

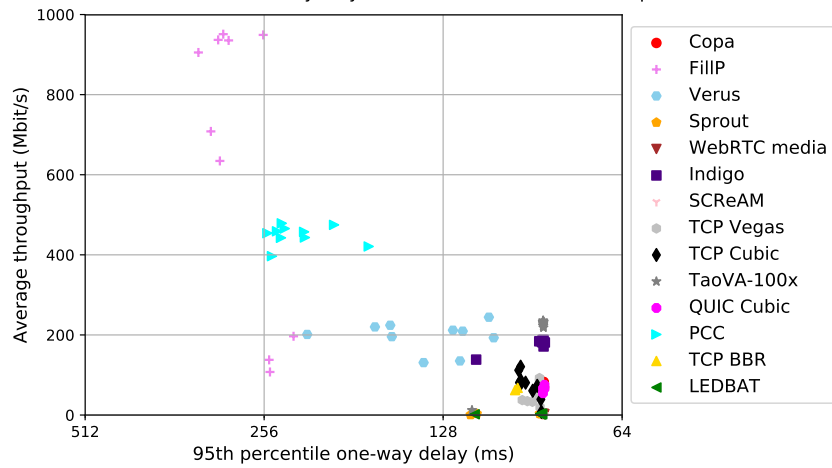
Git summary:

```
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE 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



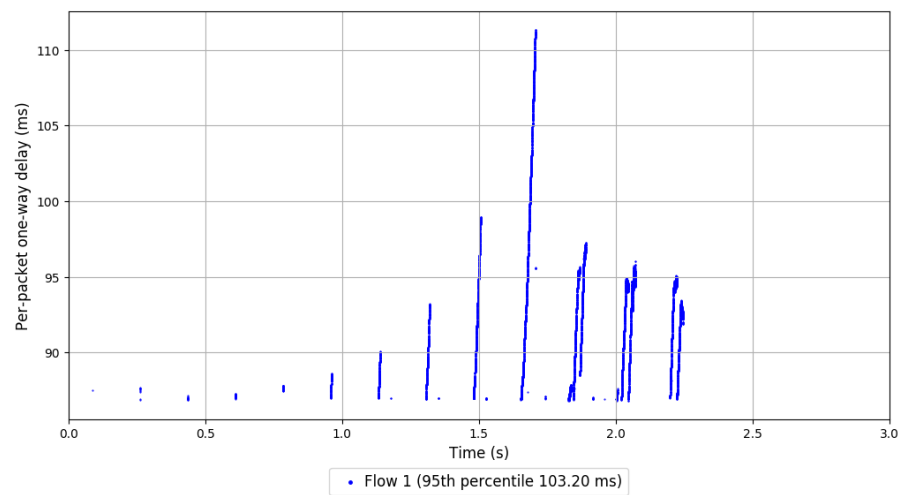
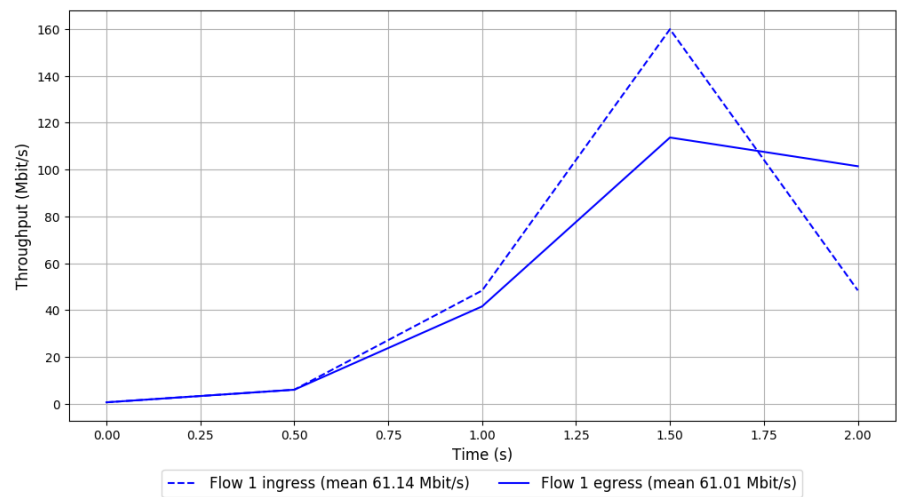
scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	2	65.00	96.39	0.95
TCP Cubic	10	74.12	92.25	0.62
LEDBAT	10	2.46	90.19	0.68
PCC	10	449.27	226.38	1.91
QUIC Cubic	8	66.44	86.66	0.00
SCReAM	10	0.22	86.79	0.00
WebRTC media	10	2.16	86.74	0.00
Sprout	10	3.15	92.87	1.07
TaoVA-100x	10	206.34	89.63	0.02
TCP Vegas	10	51.44	89.33	0.43
Verus	10	196.57	140.88	0.37
Copa	10	75.39	86.81	0.00
FillP	10	646.22	283.51	1.88
Indigo	10	177.90	89.56	0.01

Run 1: Statistics of TCP BBR

Start at: 2017-12-19 21:19:17

End at: 2017-12-19 21:19:47

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-19 21:31:40

End at: 2017-12-19 21:32:10

Run 2: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 3: Statistics of TCP BBR

Start at: 2017-12-19 21:43:43

End at: 2017-12-19 21:44:13

Run 3: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 4: Statistics of TCP BBR

Start at: 2017-12-19 21:55:51

End at: 2017-12-19 21:56:21

Below is generated by plot.py at 2017-12-20 00:17:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.24 Mbit/s

95th percentile per-packet one-way delay: 96.862 ms

Loss rate: 0.72%

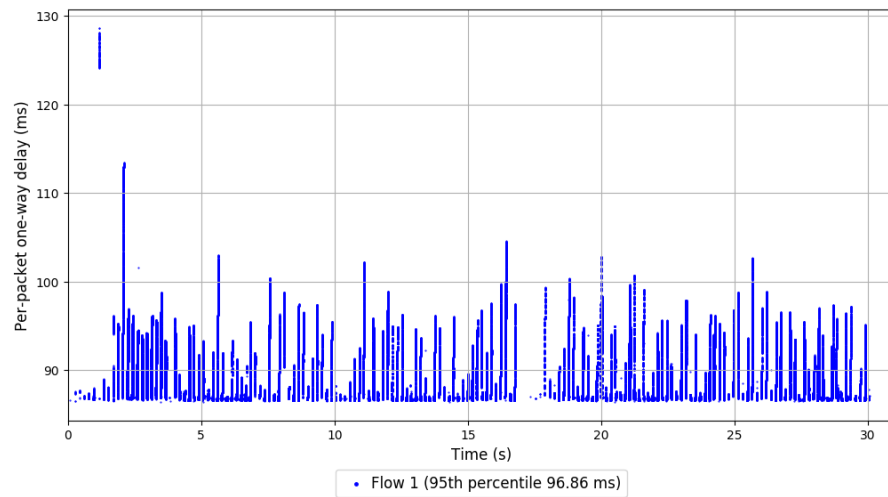
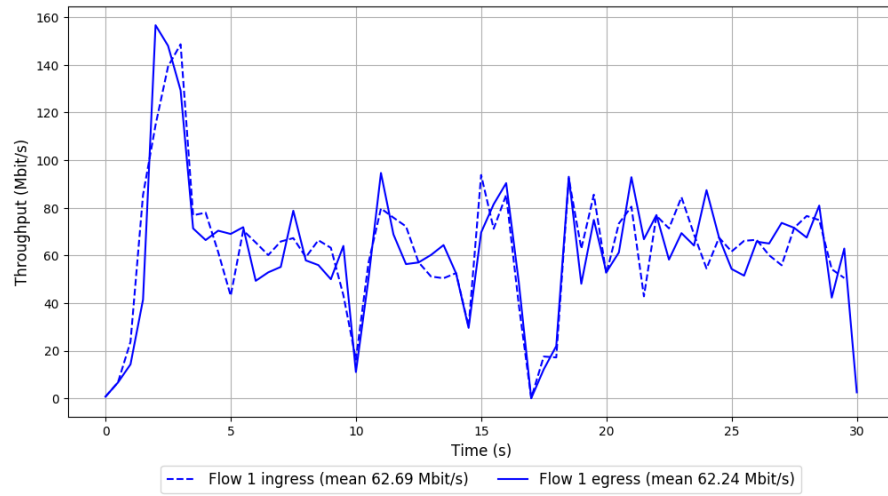
-- Flow 1:

Average throughput: 62.24 Mbit/s

95th percentile per-packet one-way delay: 96.862 ms

Loss rate: 0.72%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-19 22:08:08

End at: 2017-12-19 22:08:38

Run 5: Report of TCP BBR — Data Link

Figure is missing

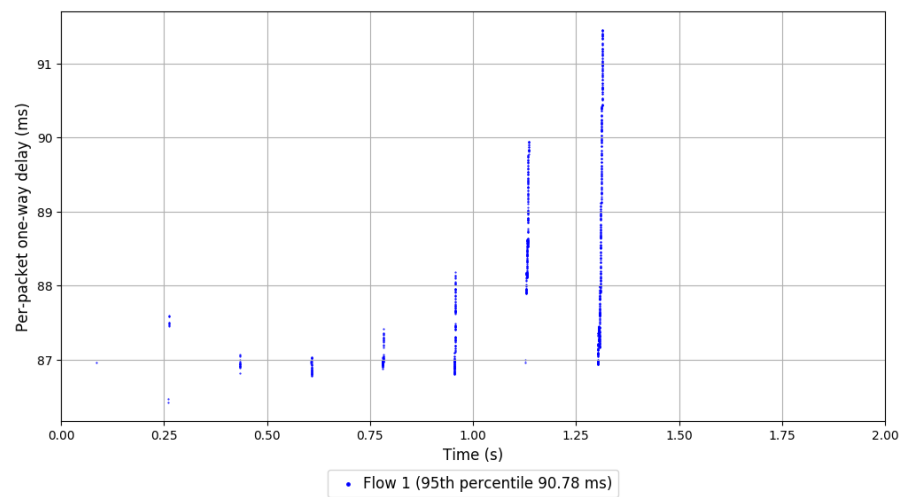
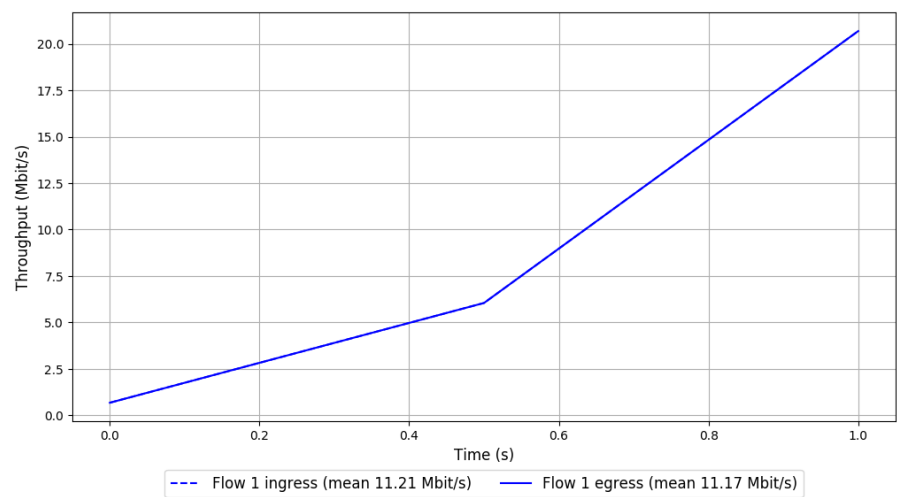
Figure is missing

Run 6: Statistics of TCP BBR

Start at: 2017-12-19 22:19:51

End at: 2017-12-19 22:20:21

Run 6: Report of TCP BBR — Data Link

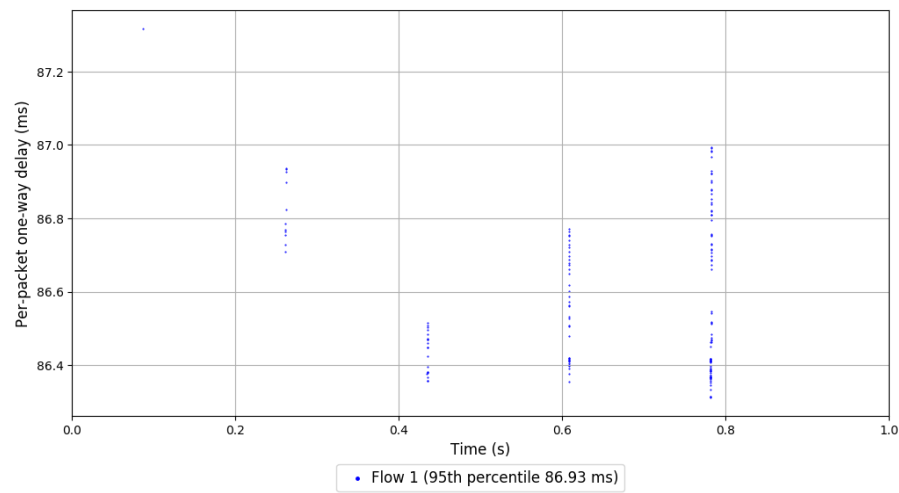
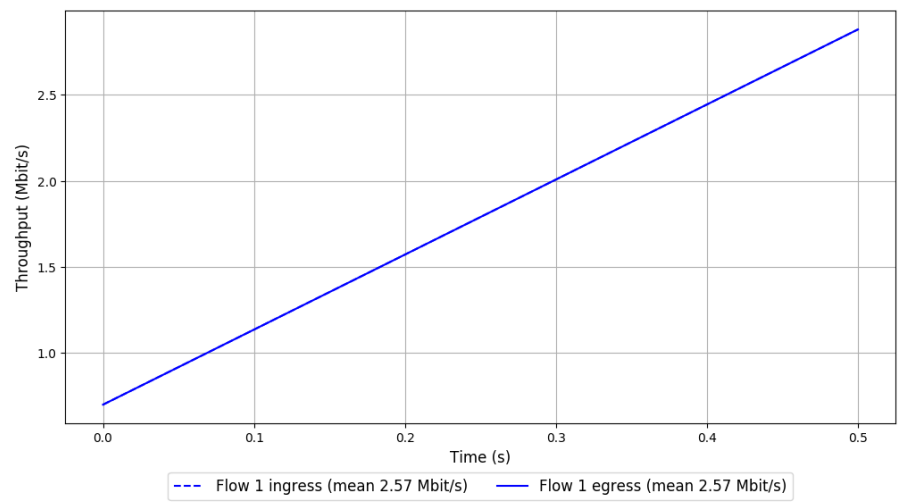


Run 7: Statistics of TCP BBR

Start at: 2017-12-19 22:31:29

End at: 2017-12-19 22:31:59

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-19 22:43:41

End at: 2017-12-19 22:44:11

Run 8: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 9: Statistics of TCP BBR

Start at: 2017-12-19 22:55:49

End at: 2017-12-19 22:56:19

Run 9: Report of TCP BBR — Data Link

Figure is missing

Figure is missing

Run 10: Statistics of TCP BBR

Start at: 2017-12-19 23:07:44

End at: 2017-12-19 23:08:14

Below is generated by plot.py at 2017-12-20 00:17:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.77 Mbit/s

95th percentile per-packet one-way delay: 95.916 ms

Loss rate: 1.19%

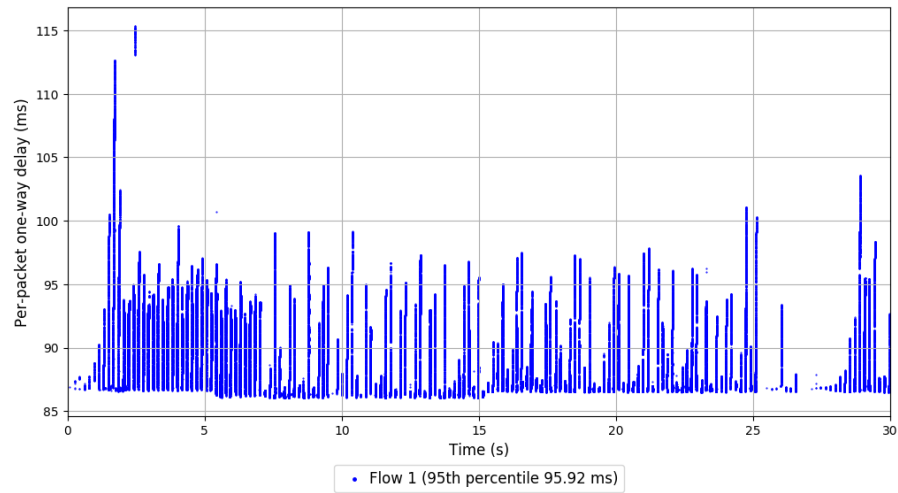
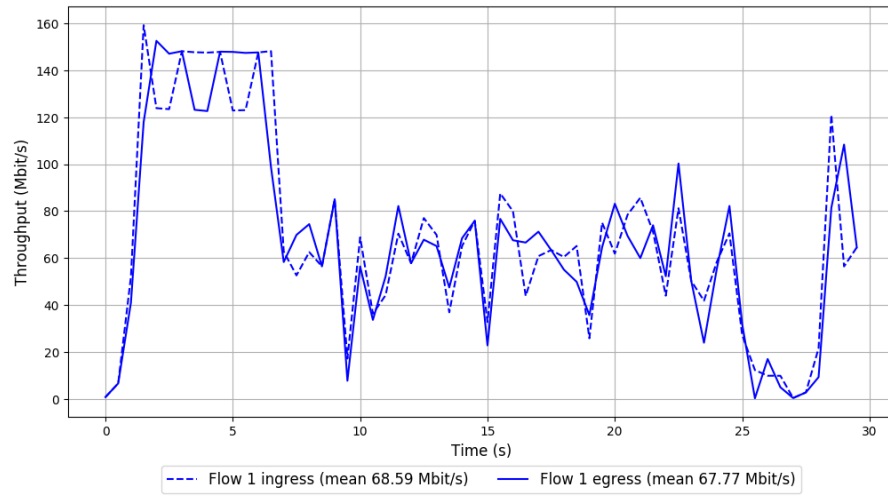
-- Flow 1:

Average throughput: 67.77 Mbit/s

95th percentile per-packet one-way delay: 95.916 ms

Loss rate: 1.19%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-19 21:16:02

End at: 2017-12-19 21:16:32

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 120.77 Mbit/s

95th percentile per-packet one-way delay: 94.818 ms

Loss rate: 0.19%

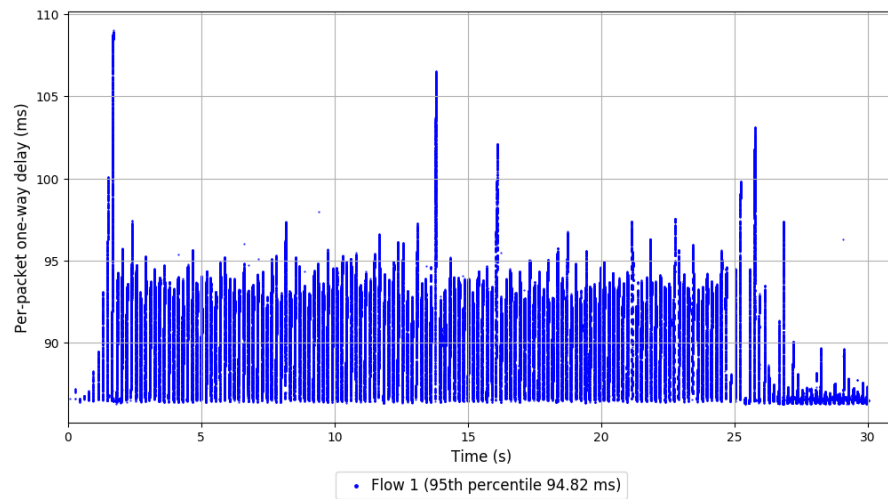
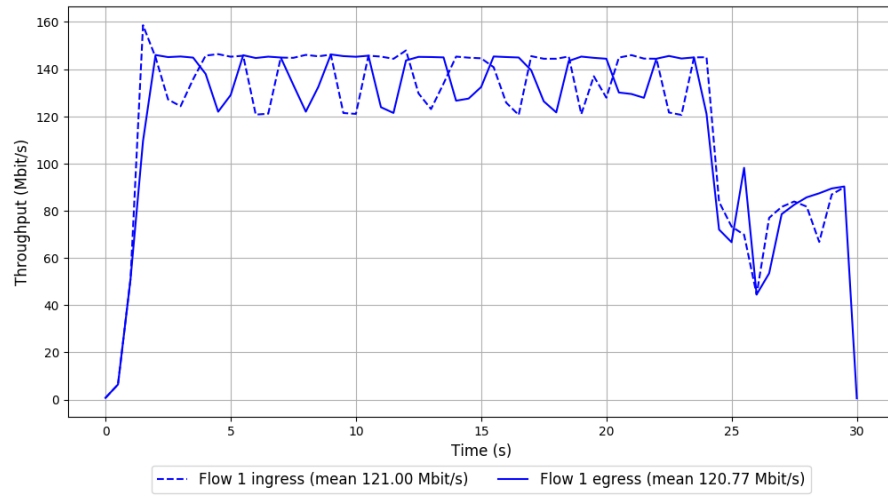
-- Flow 1:

Average throughput: 120.77 Mbit/s

95th percentile per-packet one-way delay: 94.818 ms

Loss rate: 0.19%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-19 21:28:27

End at: 2017-12-19 21:28:57

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.95 Mbit/s

95th percentile per-packet one-way delay: 88.900 ms

Loss rate: 0.00%

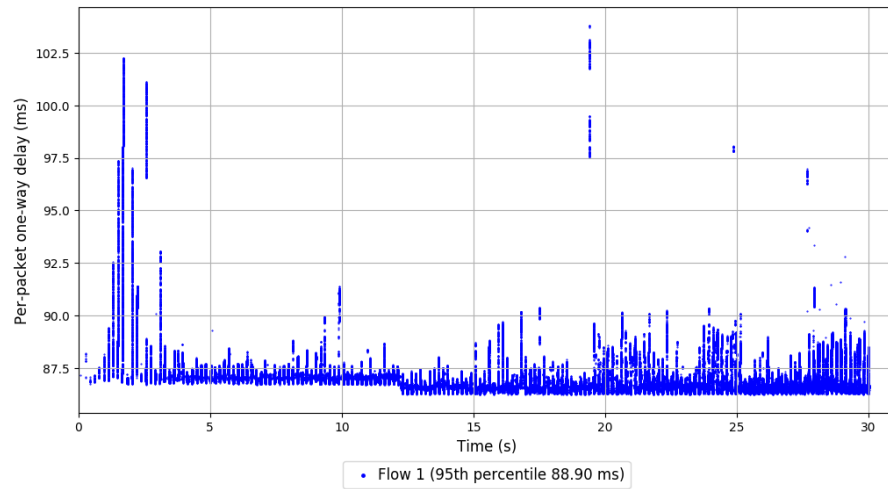
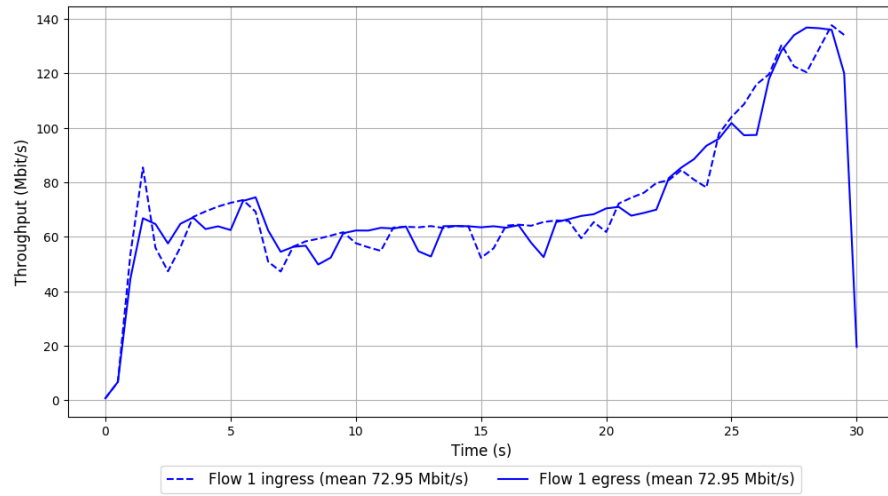
-- Flow 1:

Average throughput: 72.95 Mbit/s

95th percentile per-packet one-way delay: 88.900 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-19 21:40:31

End at: 2017-12-19 21:41:01

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.21 Mbit/s

95th percentile per-packet one-way delay: 94.729 ms

Loss rate: 0.00%

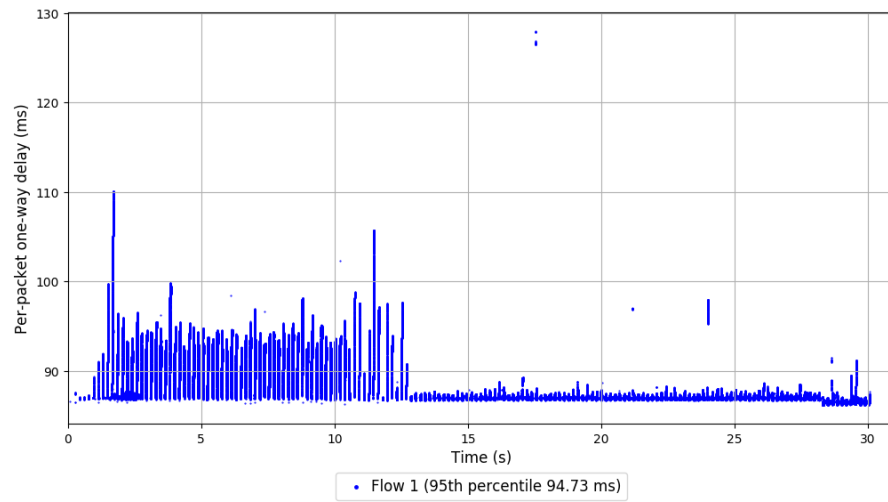
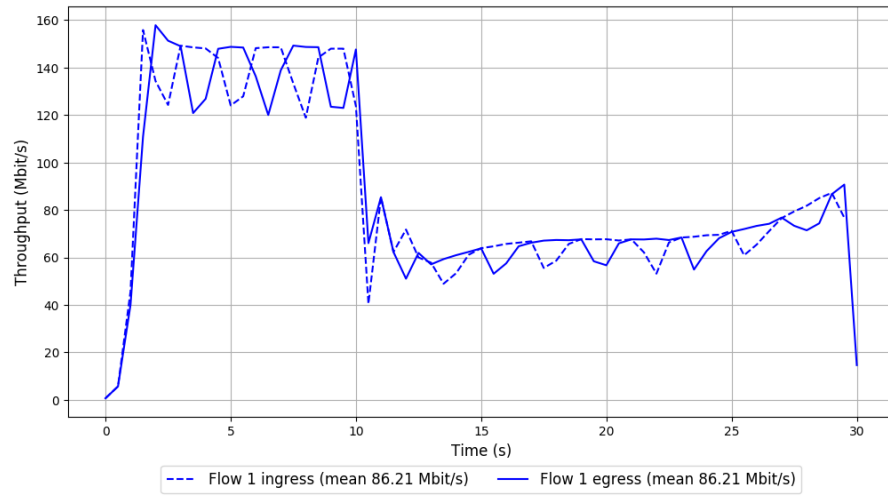
-- Flow 1:

Average throughput: 86.21 Mbit/s

95th percentile per-packet one-way delay: 94.729 ms

Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-19 21:52:47

End at: 2017-12-19 21:53:17

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.03 Mbit/s

95th percentile per-packet one-way delay: 95.253 ms

Loss rate: 0.40%

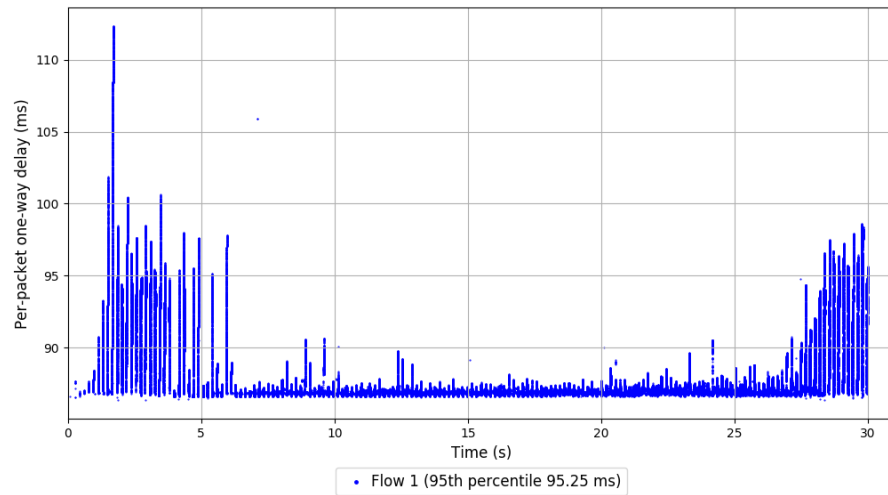
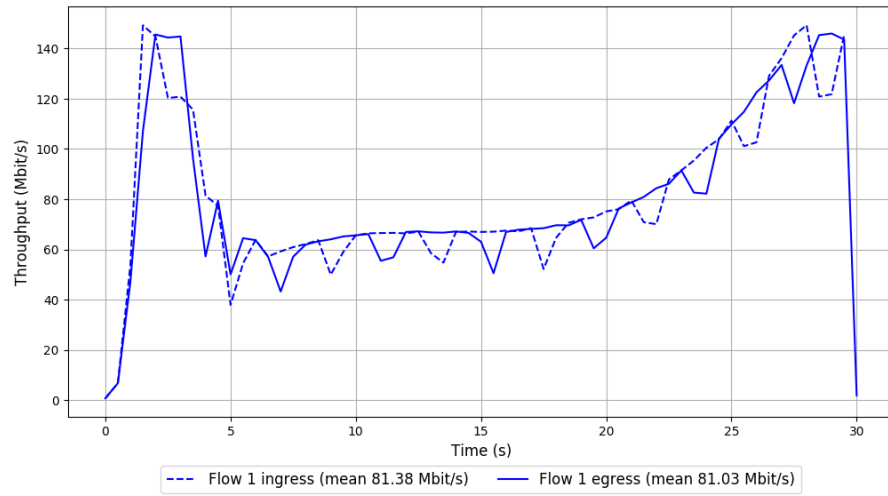
-- Flow 1:

Average throughput: 81.03 Mbit/s

95th percentile per-packet one-way delay: 95.253 ms

Loss rate: 0.40%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-19 22:04:59

End at: 2017-12-19 22:05:29

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 87.487 ms

Loss rate: 3.09%

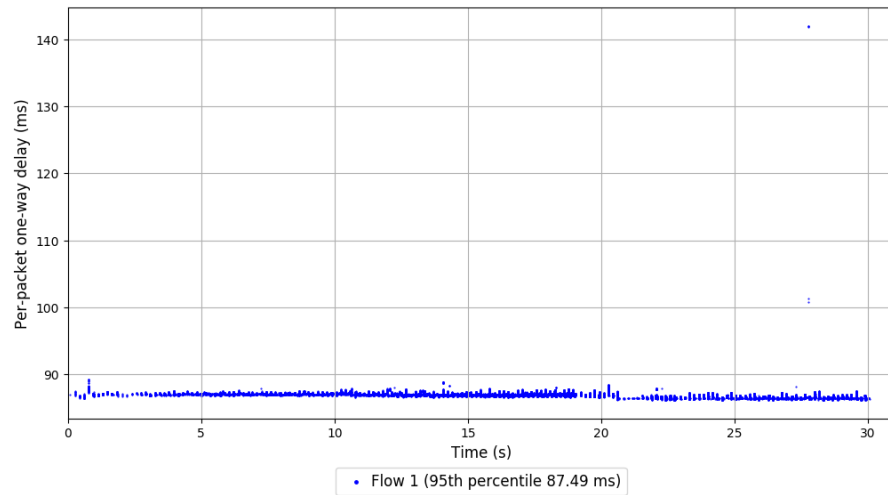
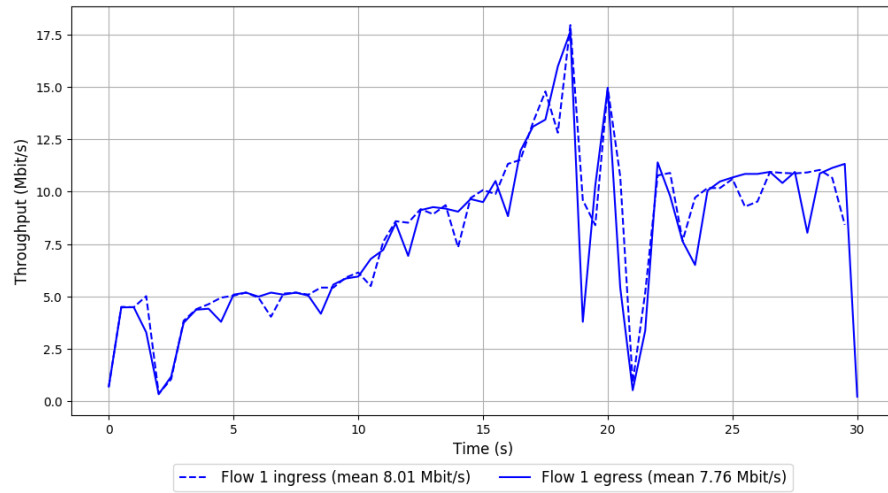
-- Flow 1:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 87.487 ms

Loss rate: 3.09%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-19 22:16:36

End at: 2017-12-19 22:17:06

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 111.84 Mbit/s

95th percentile per-packet one-way delay: 95.525 ms

Loss rate: 0.36%

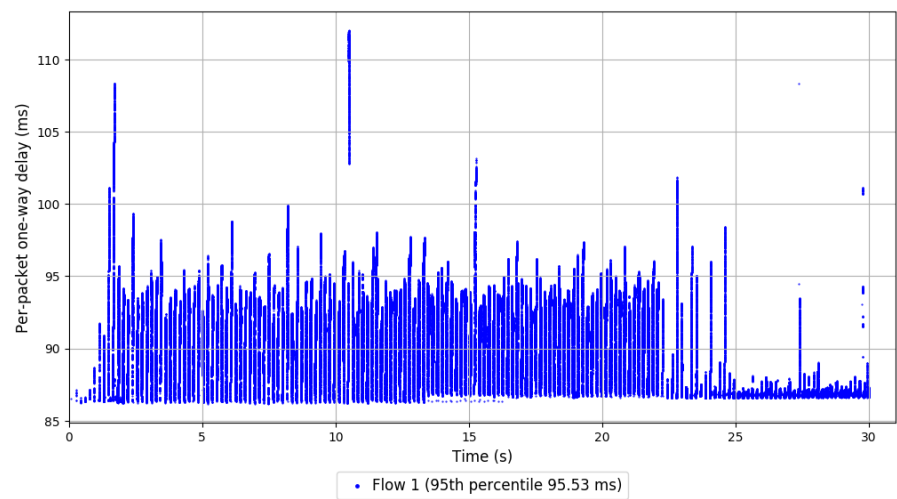
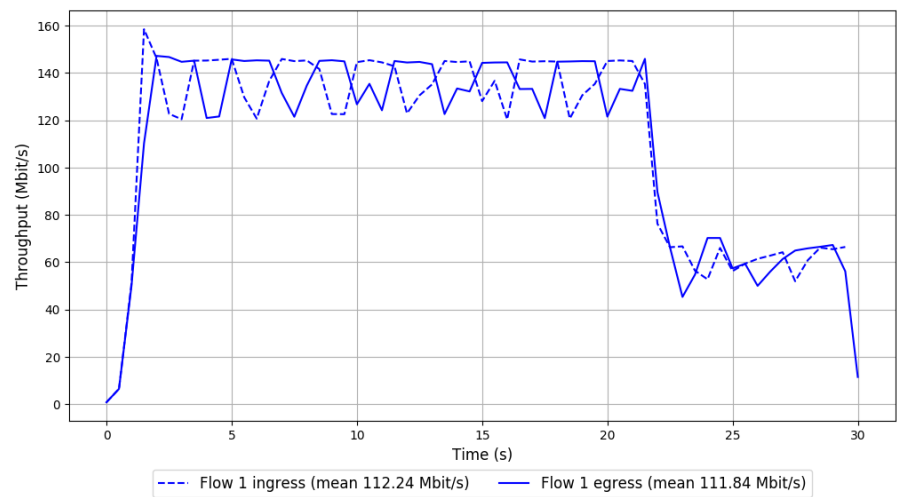
-- Flow 1:

Average throughput: 111.84 Mbit/s

95th percentile per-packet one-way delay: 95.525 ms

Loss rate: 0.36%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-19 22:28:14

End at: 2017-12-19 22:28:44

Below is generated by plot.py at 2017-12-20 00:19:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.12 Mbit/s

95th percentile per-packet one-way delay: 94.572 ms

Loss rate: 0.50%

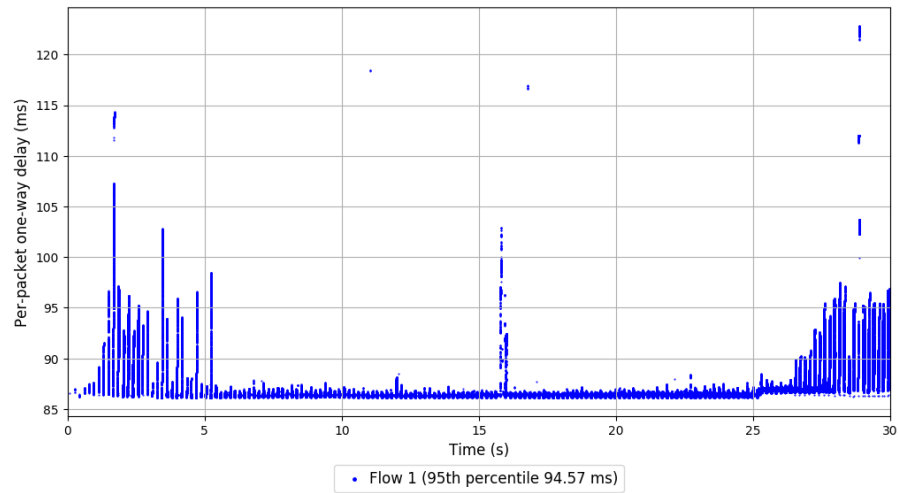
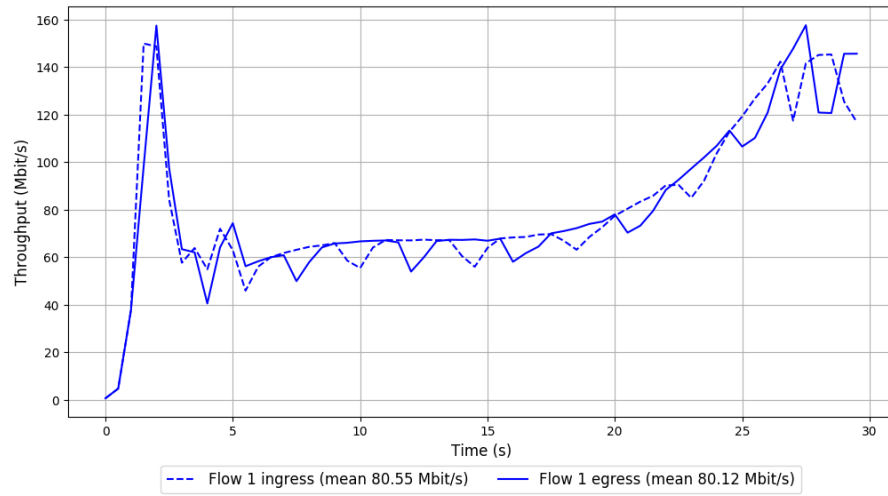
-- Flow 1:

Average throughput: 80.12 Mbit/s

95th percentile per-packet one-way delay: 94.572 ms

Loss rate: 0.50%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-19 22:40:30

End at: 2017-12-19 22:41:00

Below is generated by plot.py at 2017-12-20 00:19:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.68 Mbit/s

95th percentile per-packet one-way delay: 90.483 ms

Loss rate: 0.67%

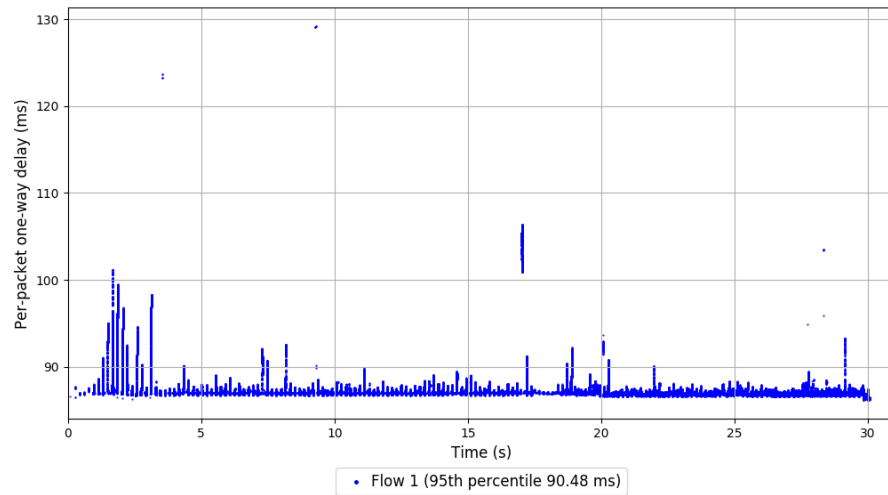
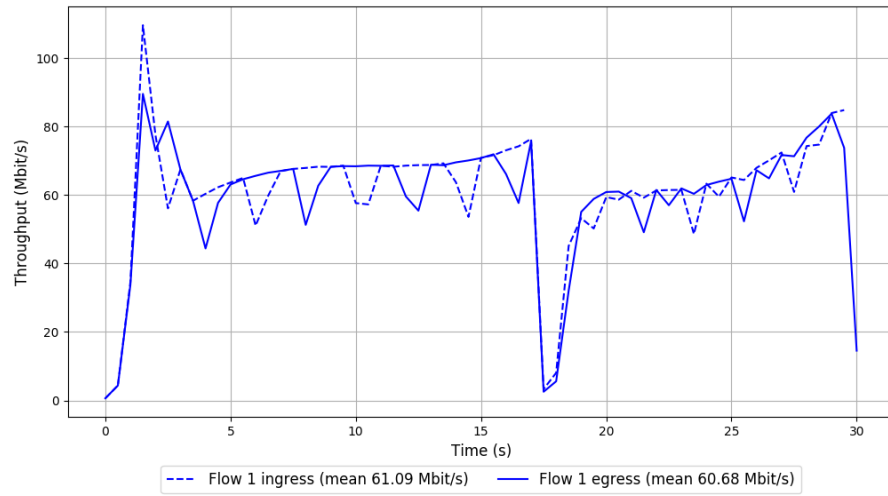
-- Flow 1:

Average throughput: 60.68 Mbit/s

95th percentile per-packet one-way delay: 90.483 ms

Loss rate: 0.67%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-19 22:52:37

End at: 2017-12-19 22:53:07

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.81 Mbit/s

95th percentile per-packet one-way delay: 93.014 ms

Loss rate: 0.00%

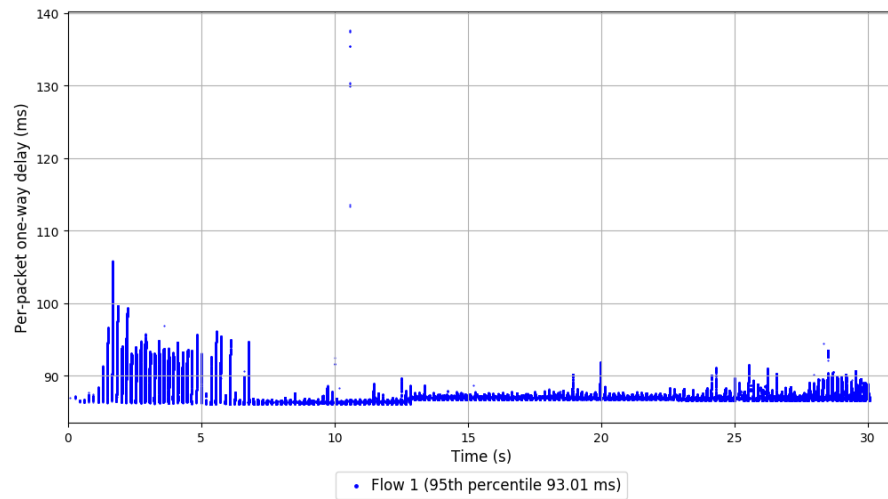
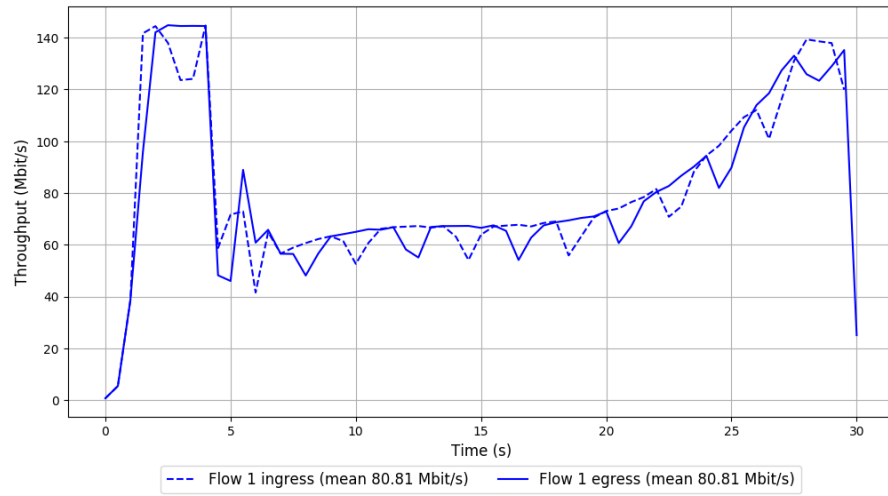
-- Flow 1:

Average throughput: 80.81 Mbit/s

95th percentile per-packet one-way delay: 93.014 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-19 23:04:36

End at: 2017-12-19 23:05:06

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.03 Mbit/s

95th percentile per-packet one-way delay: 87.678 ms

Loss rate: 0.98%

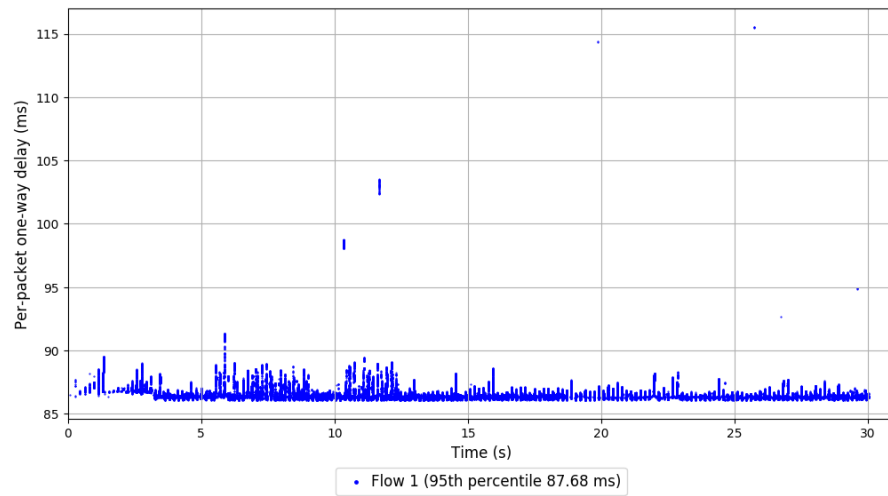
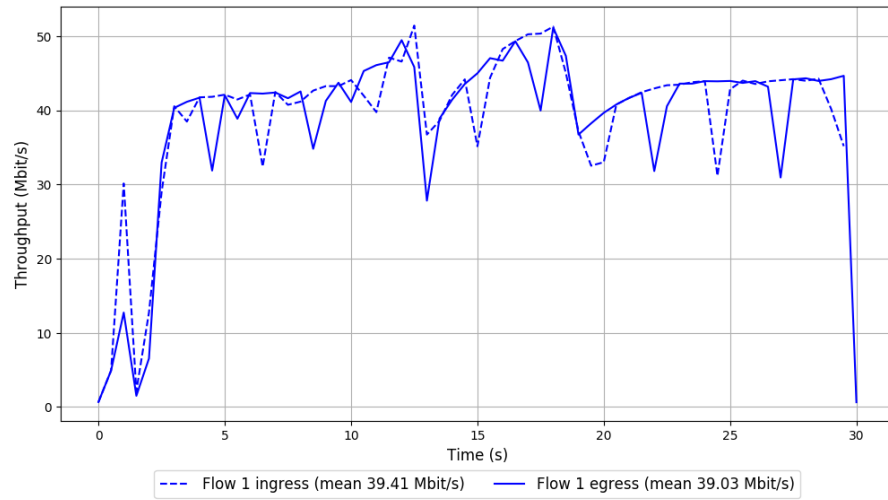
-- Flow 1:

Average throughput: 39.03 Mbit/s

95th percentile per-packet one-way delay: 87.678 ms

Loss rate: 0.98%

Run 10: Report of TCP Cubic — Data Link

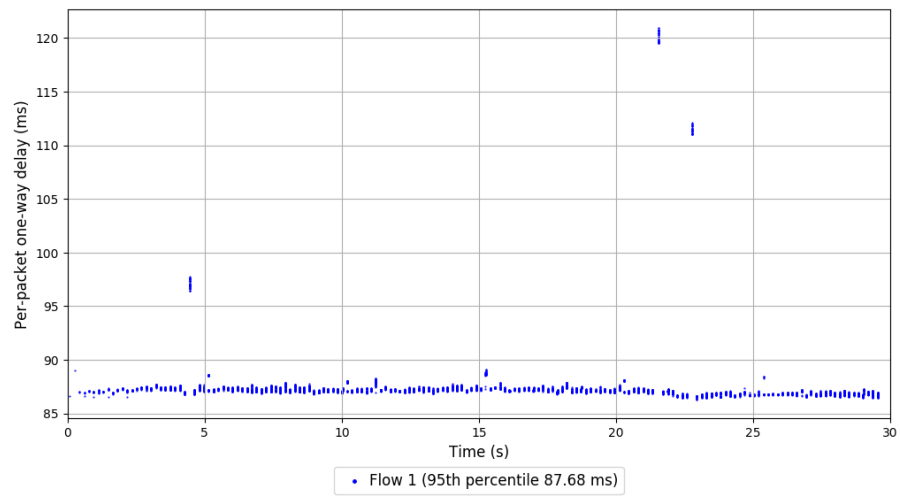
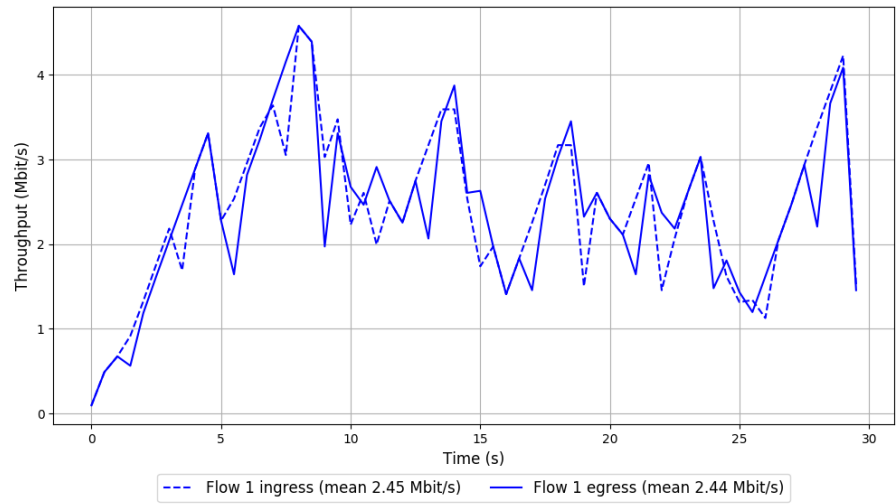


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-19 21:22:08
End at: 2017-12-19 21:22:38

# Below is generated by plot.py at 2017-12-20 00:19:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 87.677 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 87.677 ms
Loss rate: 1.15%
```

Run 1: Report of LEDBAT — Data Link

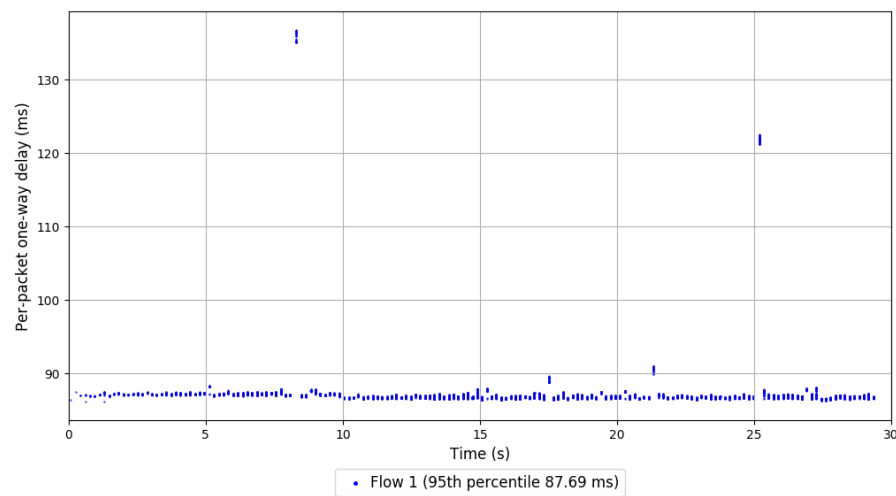
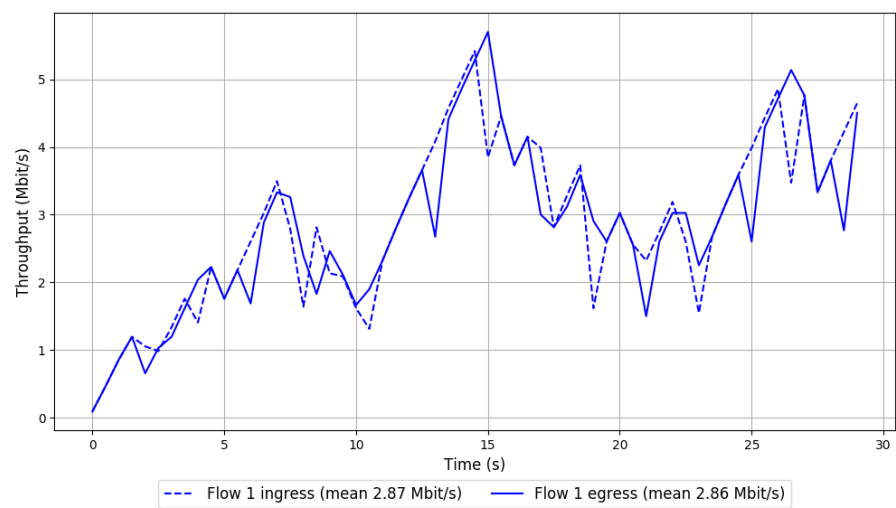


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-19 21:34:30
End at: 2017-12-19 21:35:00

# Below is generated by plot.py at 2017-12-20 00:19:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 87.690 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 87.690 ms
Loss rate: 0.94%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-19 21:46:33

End at: 2017-12-19 21:47:03

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 87.212 ms

Loss rate: 1.26%

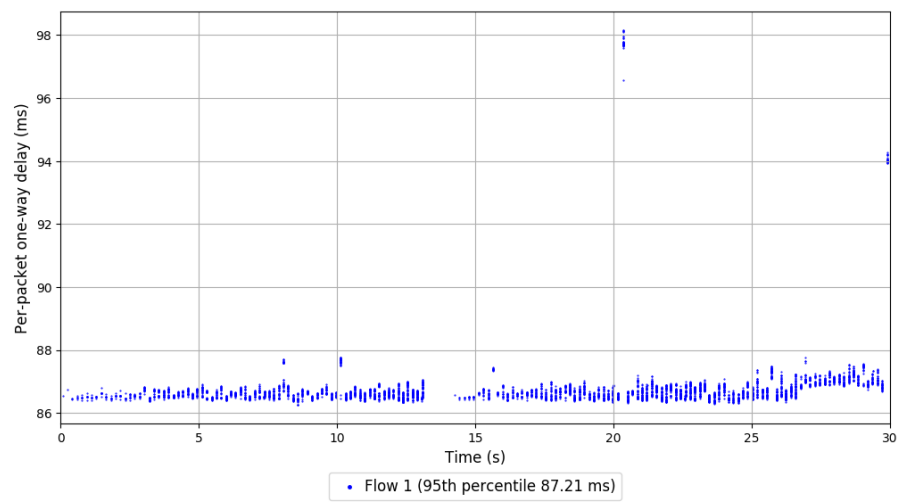
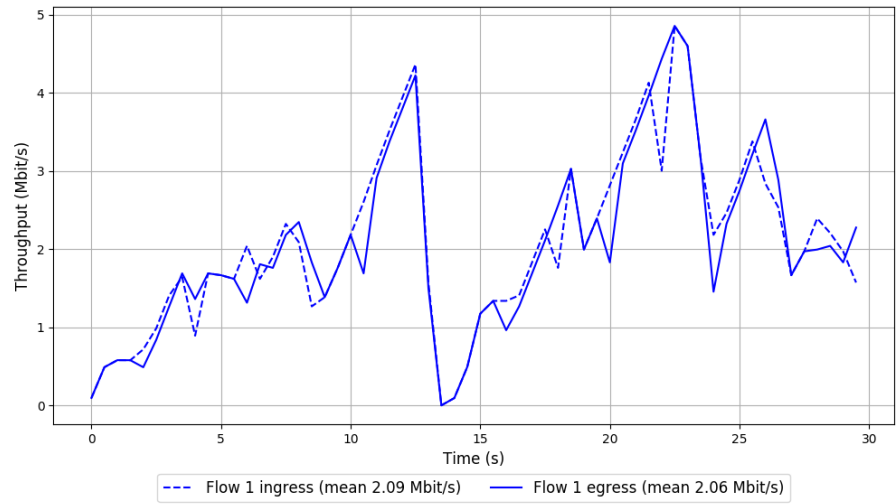
-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 87.212 ms

Loss rate: 1.26%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-19 21:58:46

End at: 2017-12-19 21:59:16

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 87.926 ms

Loss rate: 0.03%

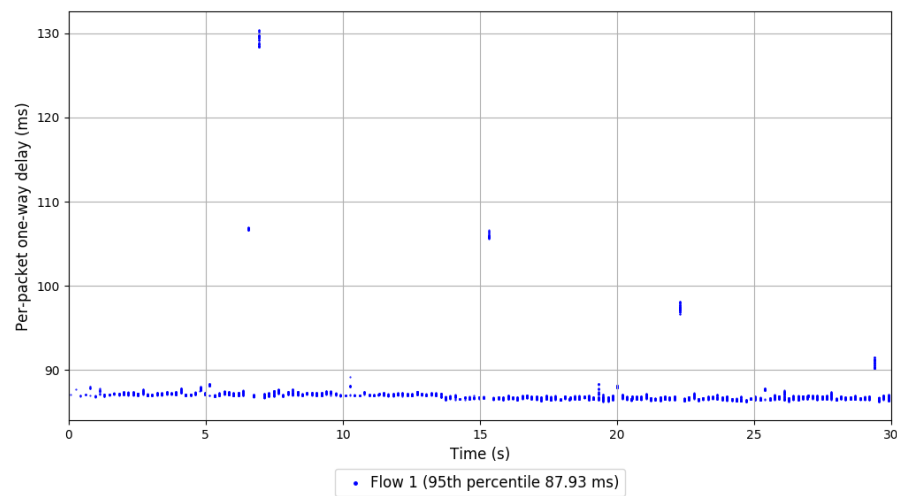
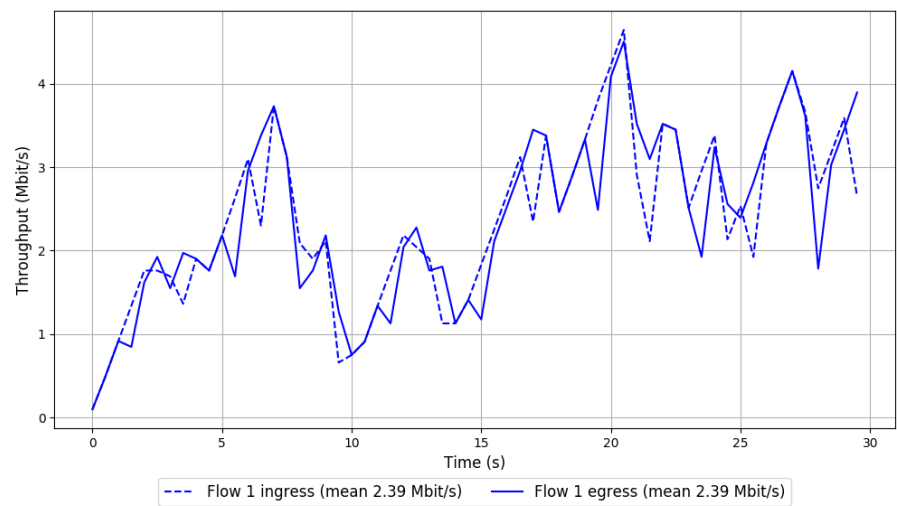
-- Flow 1:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 87.926 ms

Loss rate: 0.03%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-19 22:10:58

End at: 2017-12-19 22:11:28

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 87.804 ms

Loss rate: 1.43%

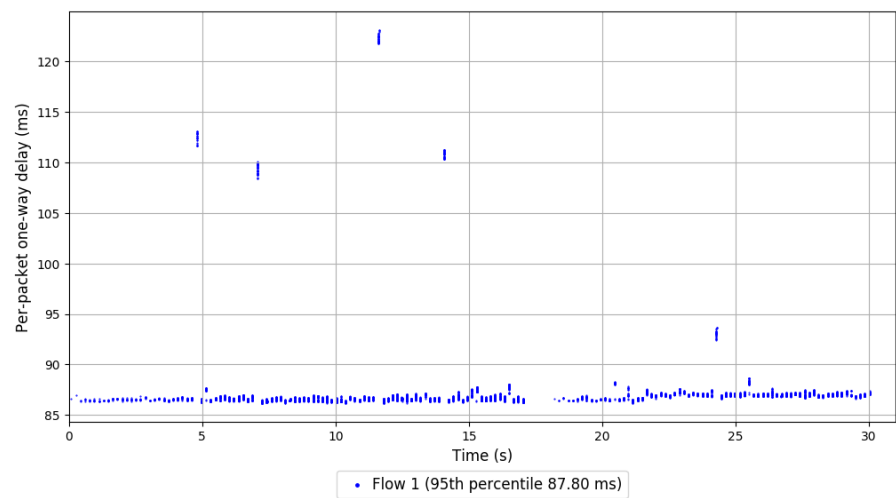
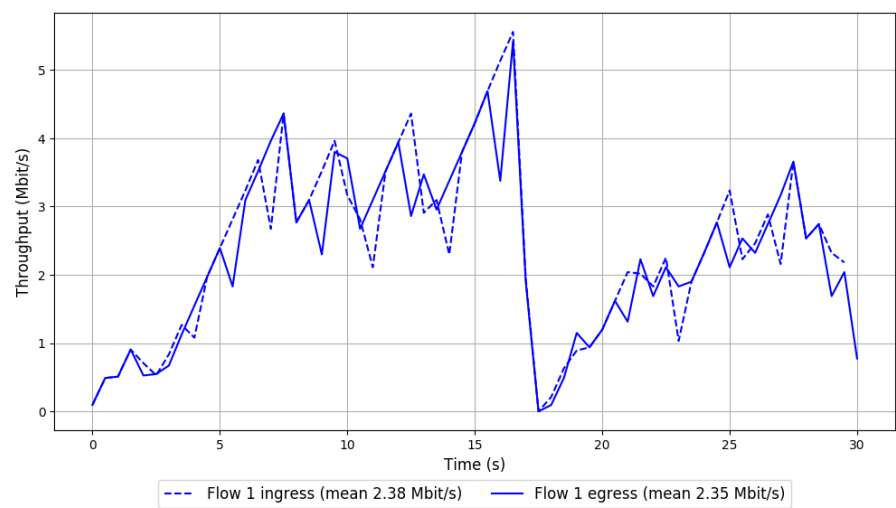
-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 87.804 ms

Loss rate: 1.43%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-19 22:22:41

End at: 2017-12-19 22:23:11

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 87.639 ms

Loss rate: 0.07%

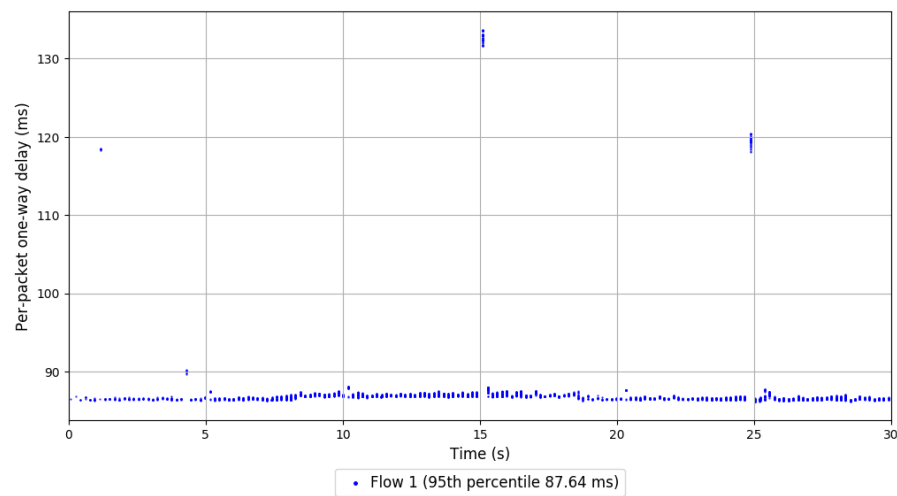
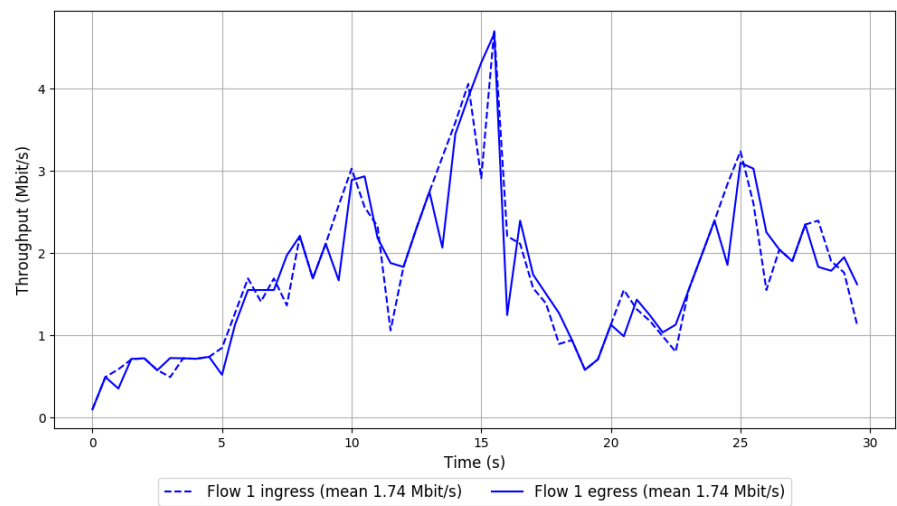
-- Flow 1:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 87.639 ms

Loss rate: 0.07%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-19 22:34:19

End at: 2017-12-19 22:34:49

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 87.434 ms

Loss rate: 0.00%

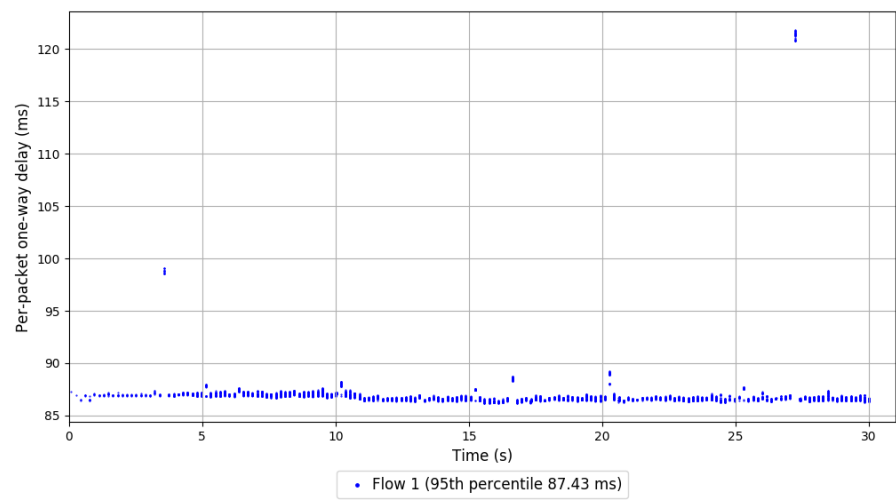
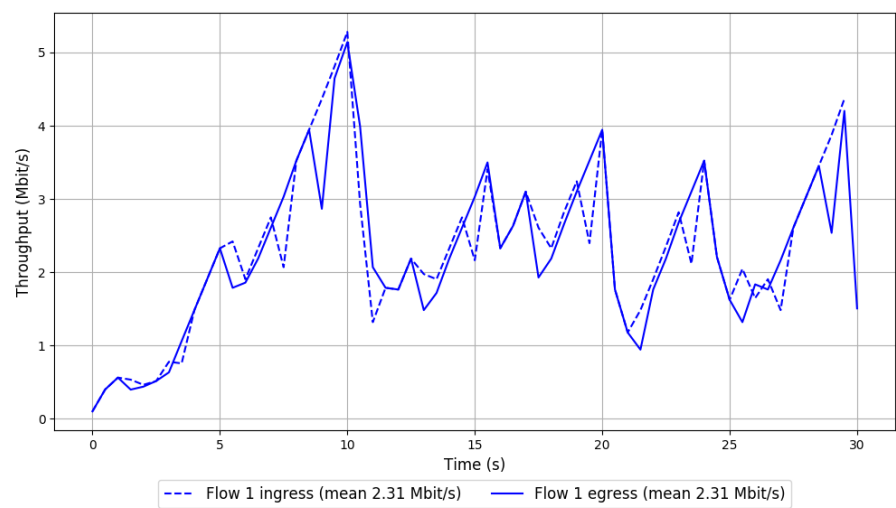
-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 87.434 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-19 22:46:31

End at: 2017-12-19 22:47:02

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 87.326 ms

Loss rate: 0.00%

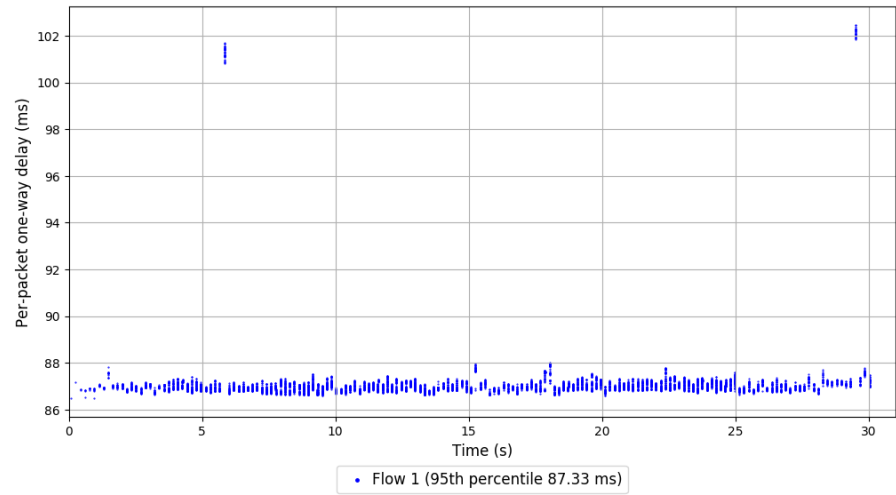
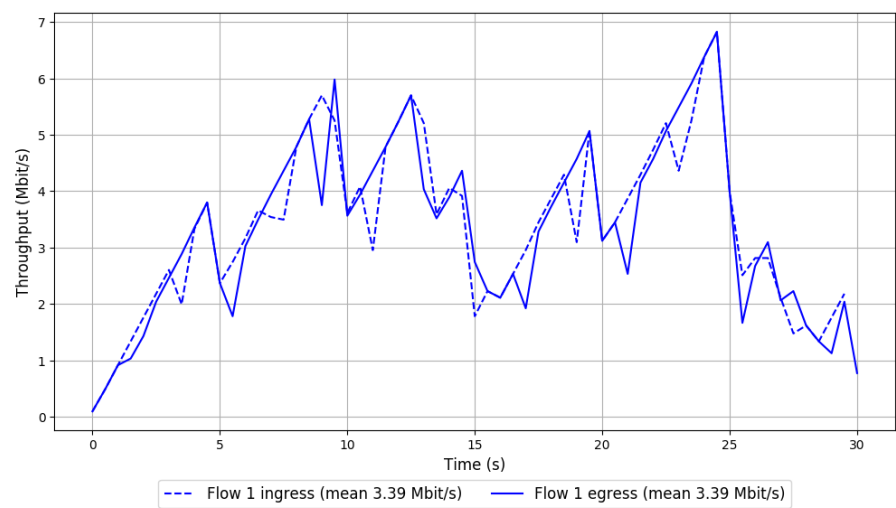
-- Flow 1:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 87.326 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-19 22:58:39

End at: 2017-12-19 22:59:09

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 87.887 ms

Loss rate: 0.34%

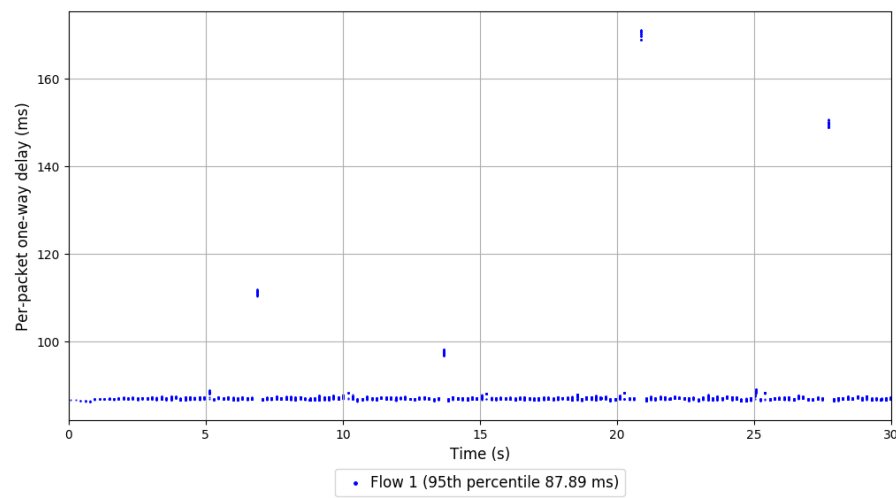
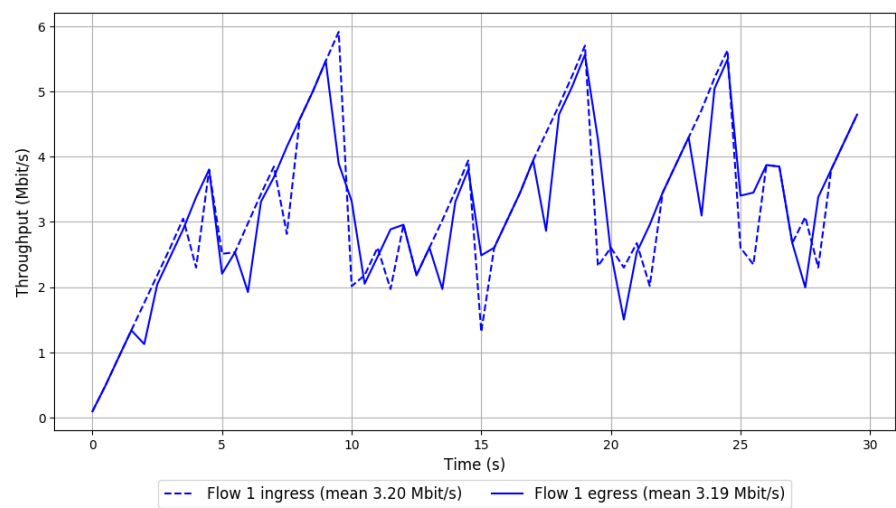
-- Flow 1:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 87.887 ms

Loss rate: 0.34%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-19 23:10:39

End at: 2017-12-19 23:11:09

Below is generated by plot.py at 2017-12-20 00:19:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 113.290 ms

Loss rate: 1.54%

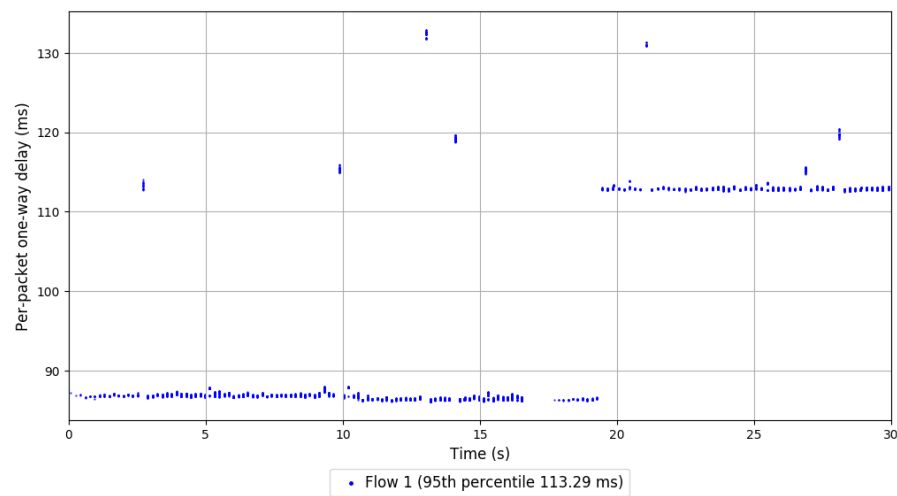
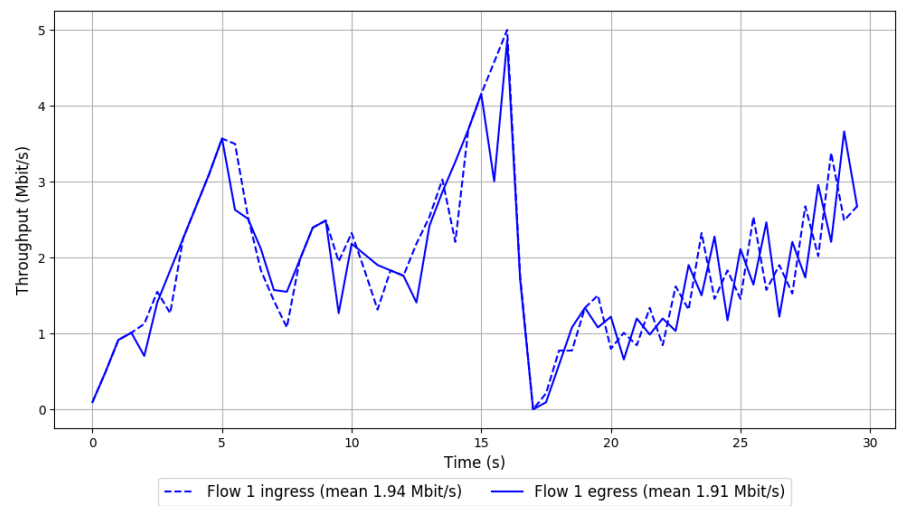
-- Flow 1:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 113.290 ms

Loss rate: 1.54%

Run 10: Report of LEDBAT — Data Link

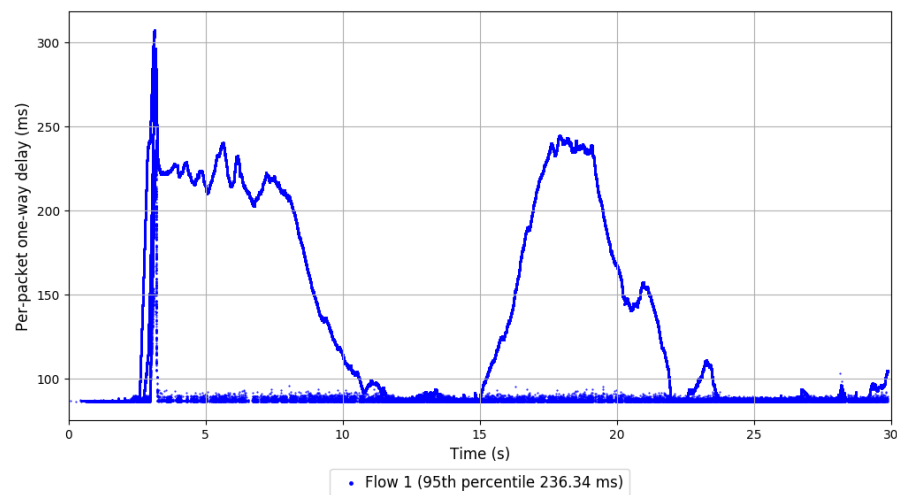
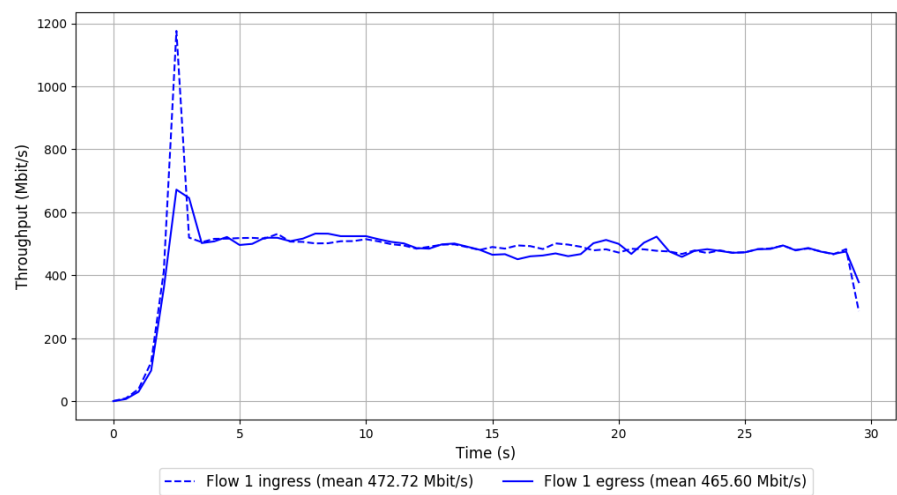


```
Run 1: Statistics of PCC

Start at: 2017-12-19 21:16:49
End at: 2017-12-19 21:17:19

# Below is generated by plot.py at 2017-12-20 00:26:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 465.60 Mbit/s
95th percentile per-packet one-way delay: 236.341 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 465.60 Mbit/s
95th percentile per-packet one-way delay: 236.341 ms
Loss rate: 1.45%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-19 21:29:11

End at: 2017-12-19 21:29:41

Below is generated by plot.py at 2017-12-20 00:26:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 474.83 Mbit/s

95th percentile per-packet one-way delay: 195.265 ms

Loss rate: 0.57%

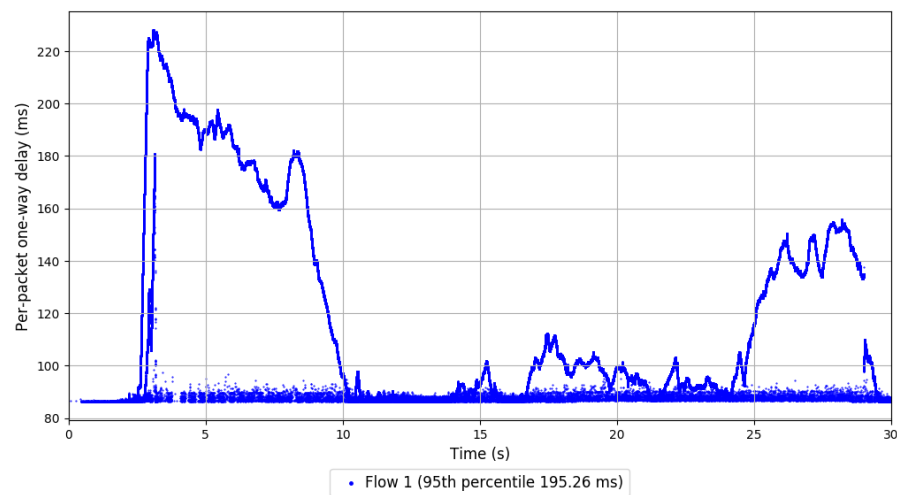
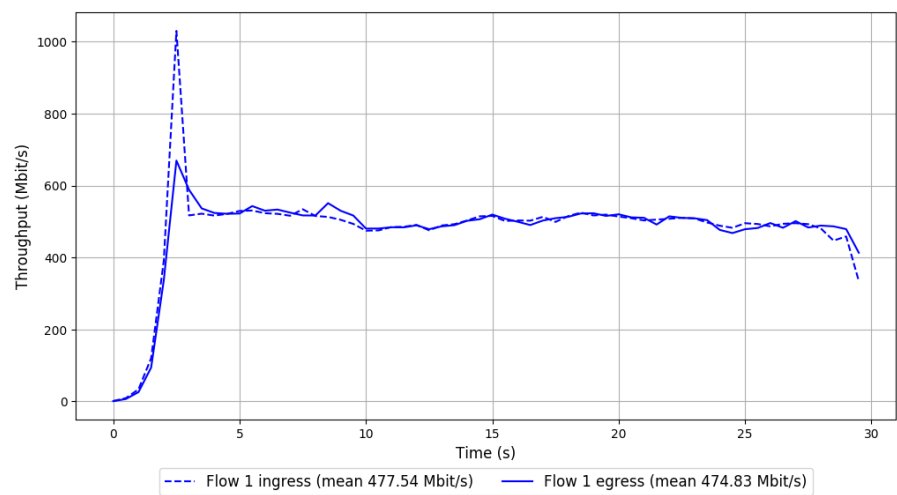
-- Flow 1:

Average throughput: 474.83 Mbit/s

95th percentile per-packet one-way delay: 195.265 ms

Loss rate: 0.57%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-19 21:41:15

End at: 2017-12-19 21:41:45

Below is generated by plot.py at 2017-12-20 00:26:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 442.49 Mbit/s

95th percentile per-packet one-way delay: 239.843 ms

Loss rate: 1.50%

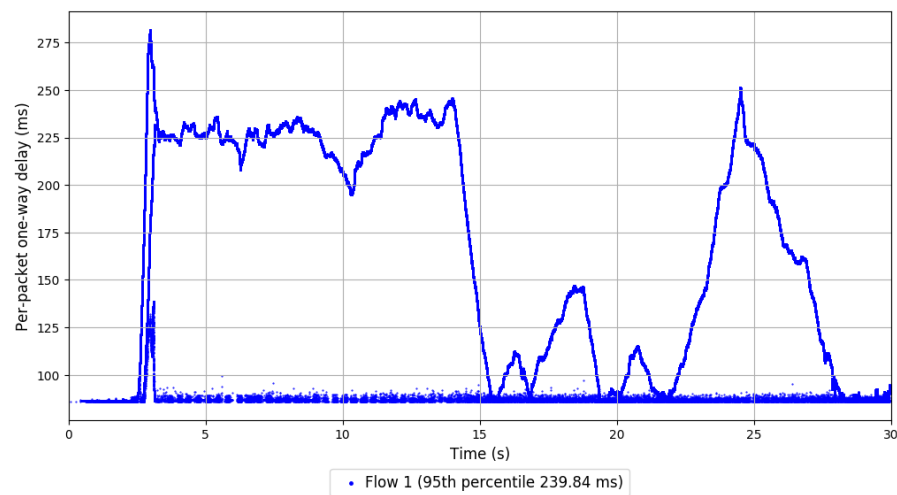
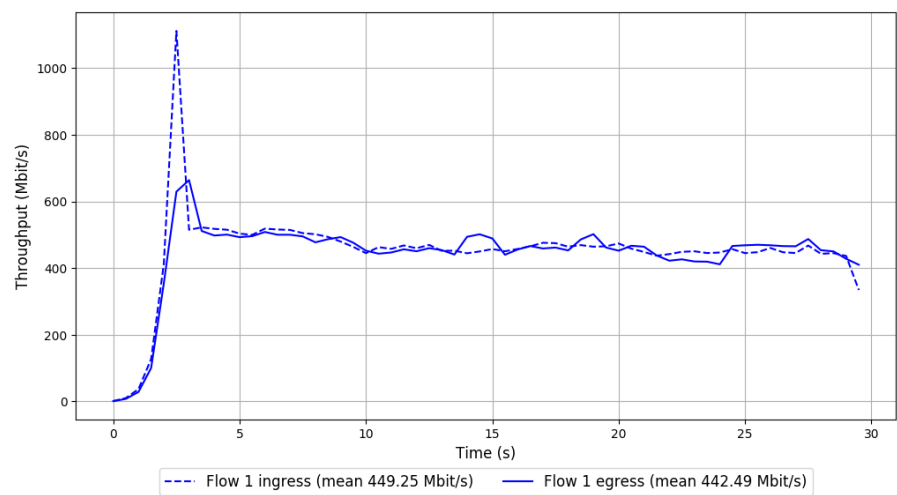
-- Flow 1:

Average throughput: 442.49 Mbit/s

95th percentile per-packet one-way delay: 239.843 ms

Loss rate: 1.50%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-19 21:53:31

End at: 2017-12-19 21:54:01

Below is generated by plot.py at 2017-12-20 00:26:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 396.70 Mbit/s

95th percentile per-packet one-way delay: 248.346 ms

Loss rate: 1.05%

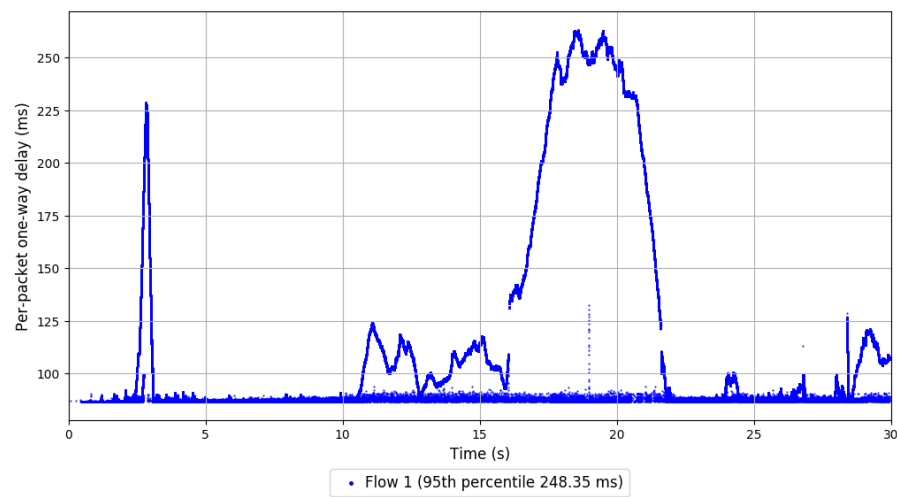
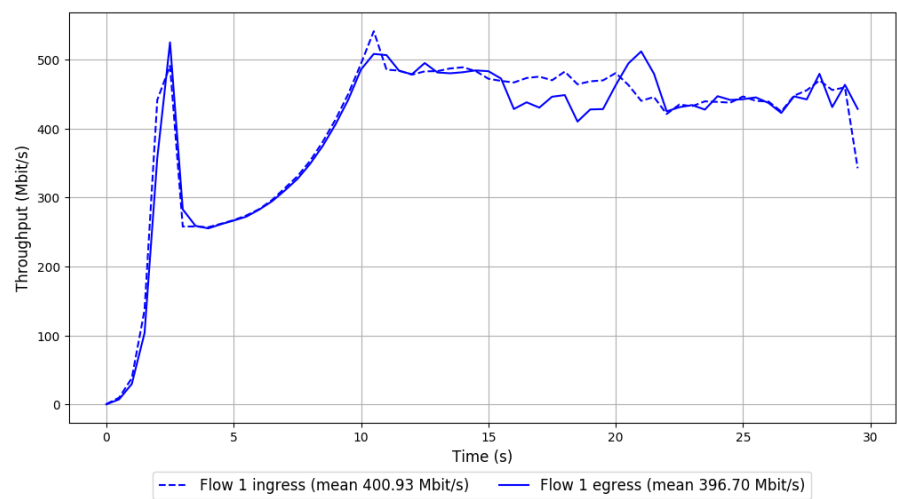
-- Flow 1:

Average throughput: 396.70 Mbit/s

95th percentile per-packet one-way delay: 248.346 ms

Loss rate: 1.05%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-19 22:05:39

End at: 2017-12-19 22:06:09

Below is generated by plot.py at 2017-12-20 00:26:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 458.78 Mbit/s

95th percentile per-packet one-way delay: 243.544 ms

Loss rate: 3.50%

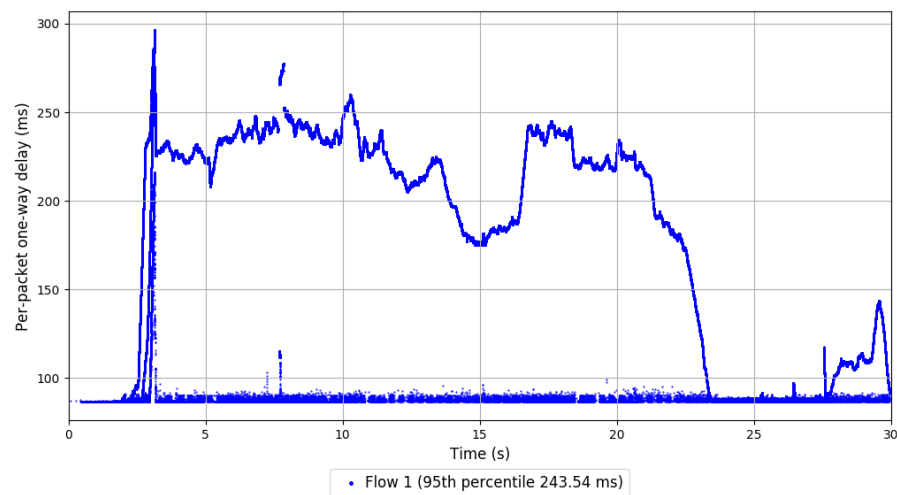
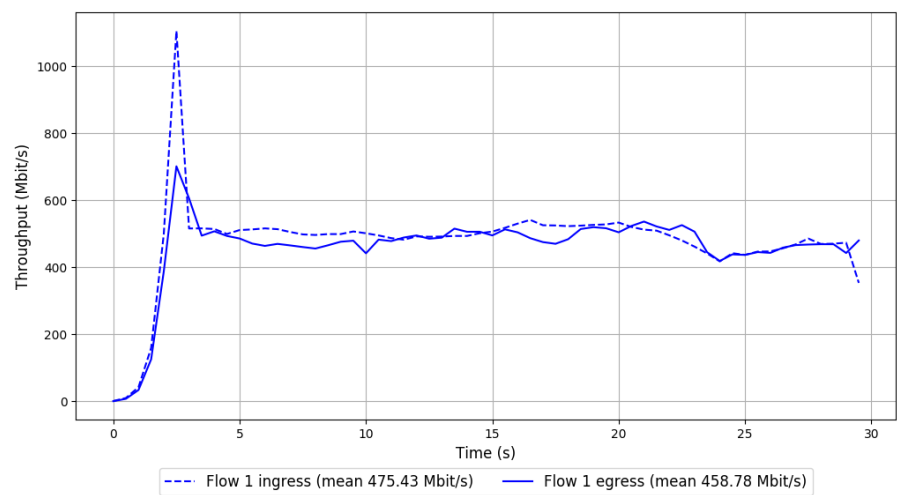
-- Flow 1:

Average throughput: 458.78 Mbit/s

95th percentile per-packet one-way delay: 243.544 ms

Loss rate: 3.50%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-19 22:17:22

End at: 2017-12-19 22:17:52

Below is generated by plot.py at 2017-12-20 00:26:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 454.06 Mbit/s

95th percentile per-packet one-way delay: 252.787 ms

Loss rate: 4.05%

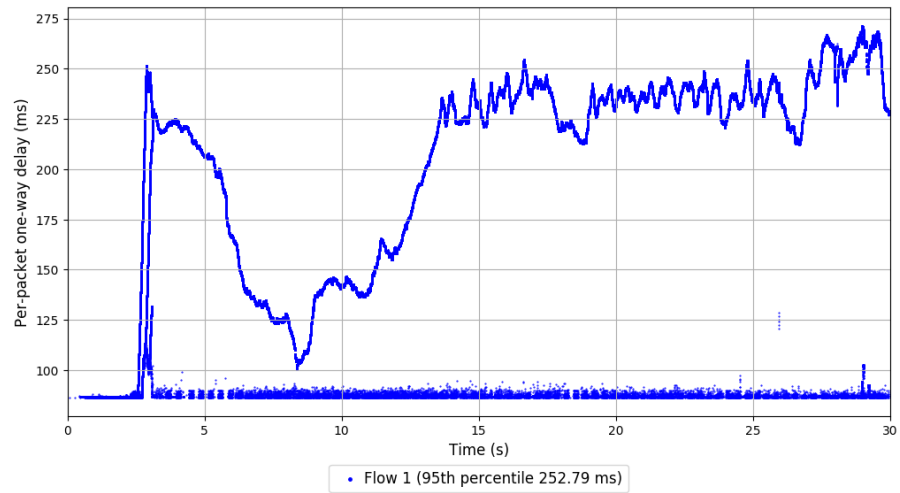
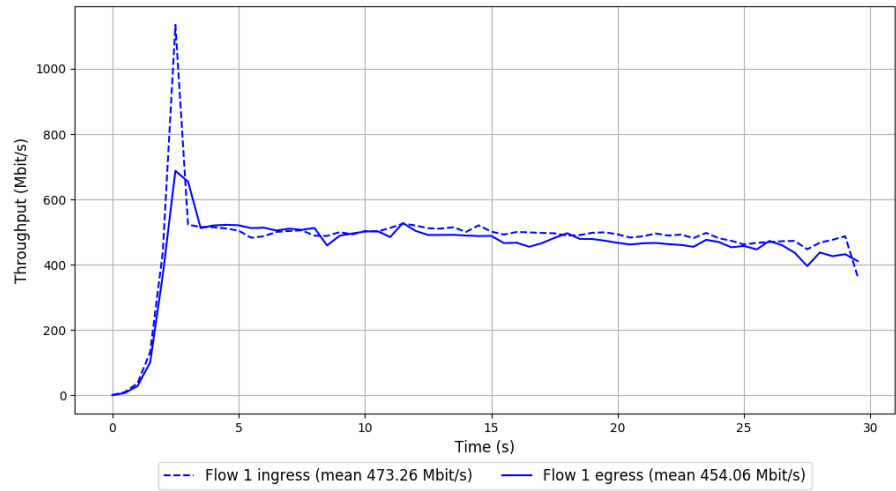
-- Flow 1:

Average throughput: 454.06 Mbit/s

95th percentile per-packet one-way delay: 252.787 ms

Loss rate: 4.05%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-19 22:29:00

End at: 2017-12-19 22:29:30

Below is generated by plot.py at 2017-12-20 00:27:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 478.68 Mbit/s

95th percentile per-packet one-way delay: 239.063 ms

Loss rate: 3.92%

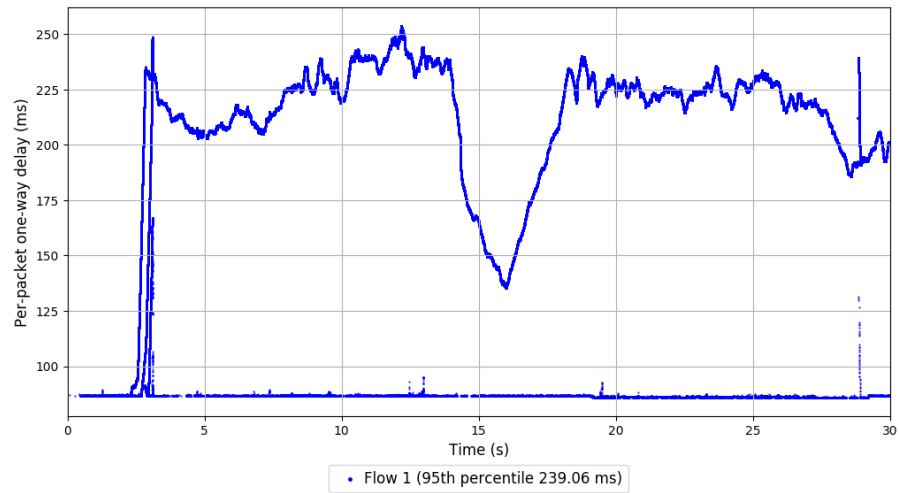
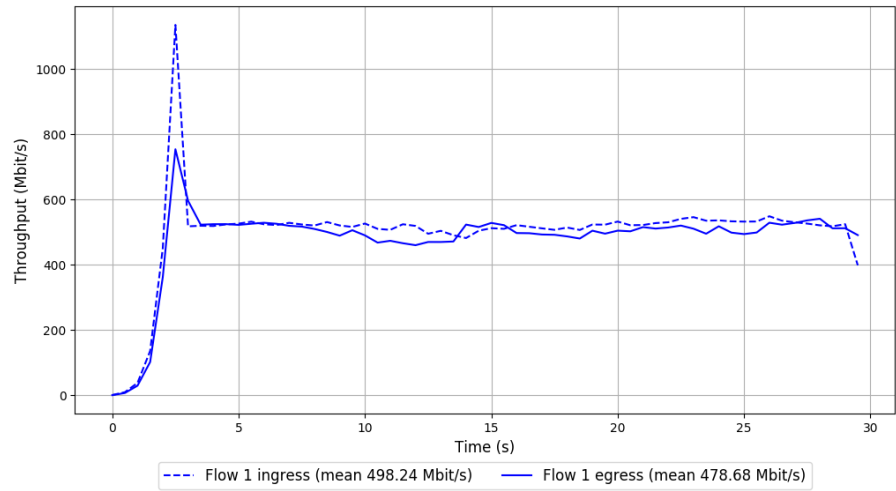
-- Flow 1:

Average throughput: 478.68 Mbit/s

95th percentile per-packet one-way delay: 239.063 ms

Loss rate: 3.92%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-19 22:41:13

End at: 2017-12-19 22:41:43

Below is generated by plot.py at 2017-12-20 00:27:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 443.24 Mbit/s

95th percentile per-packet one-way delay: 218.615 ms

Loss rate: 0.65%

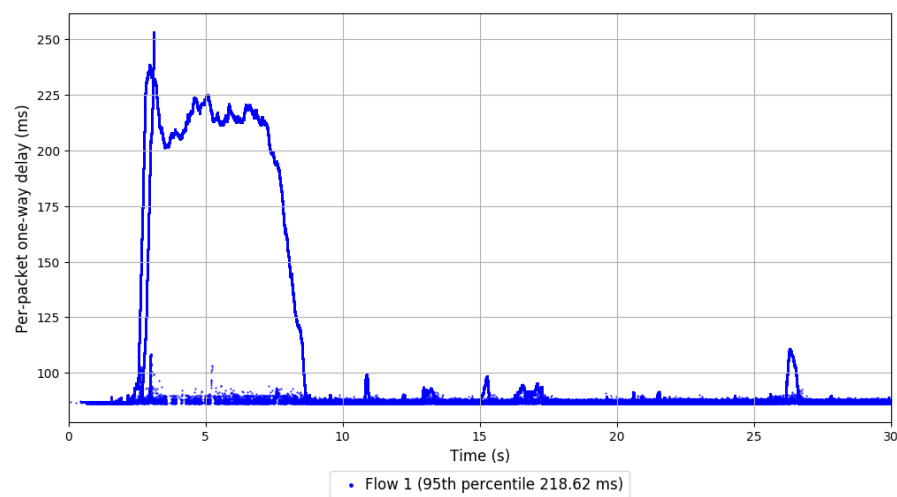
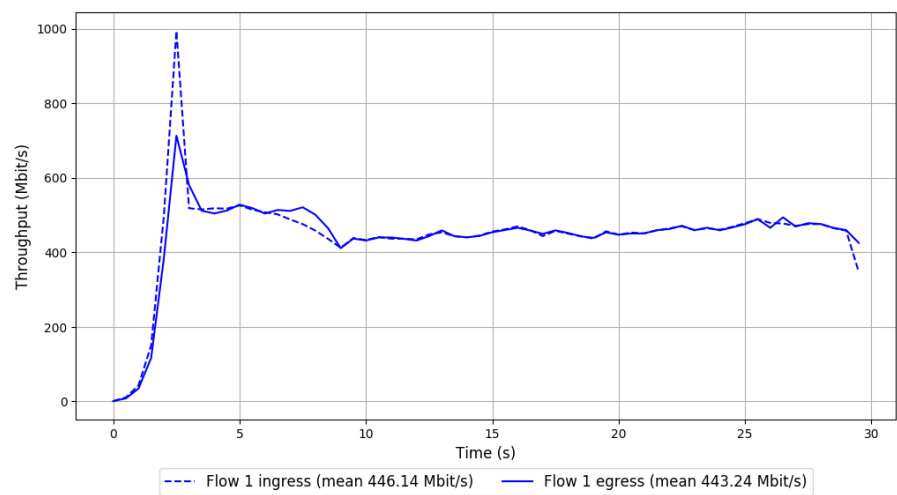
-- Flow 1:

Average throughput: 443.24 Mbit/s

95th percentile per-packet one-way delay: 218.615 ms

Loss rate: 0.65%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-19 22:53:21

End at: 2017-12-19 22:53:51

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 457.42 Mbit/s

95th percentile per-packet one-way delay: 219.301 ms

Loss rate: 2.18%

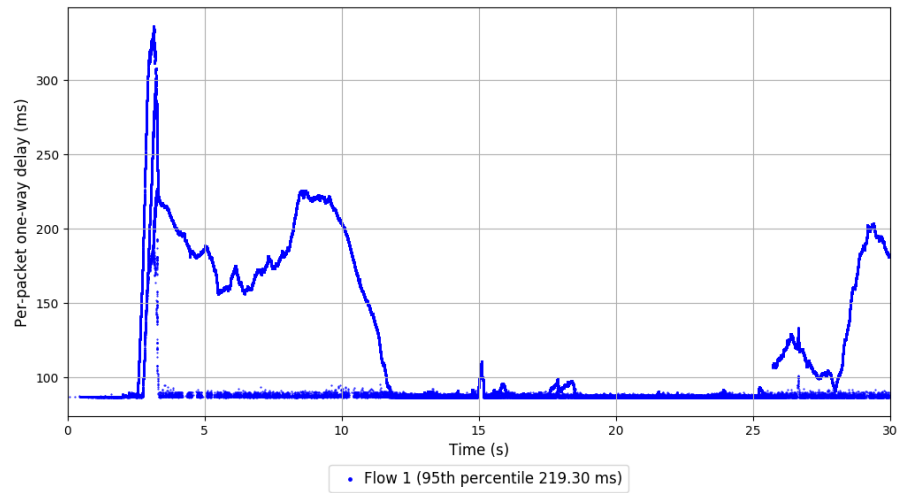
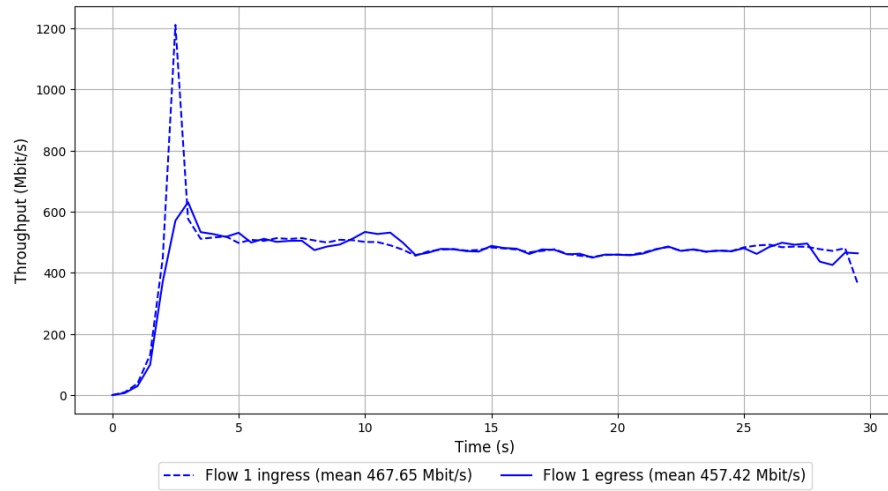
-- Flow 1:

Average throughput: 457.42 Mbit/s

95th percentile per-packet one-way delay: 219.301 ms

Loss rate: 2.18%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-19 23:05:18

End at: 2017-12-19 23:05:48

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 420.92 Mbit/s

95th percentile per-packet one-way delay: 170.743 ms

Loss rate: 0.20%

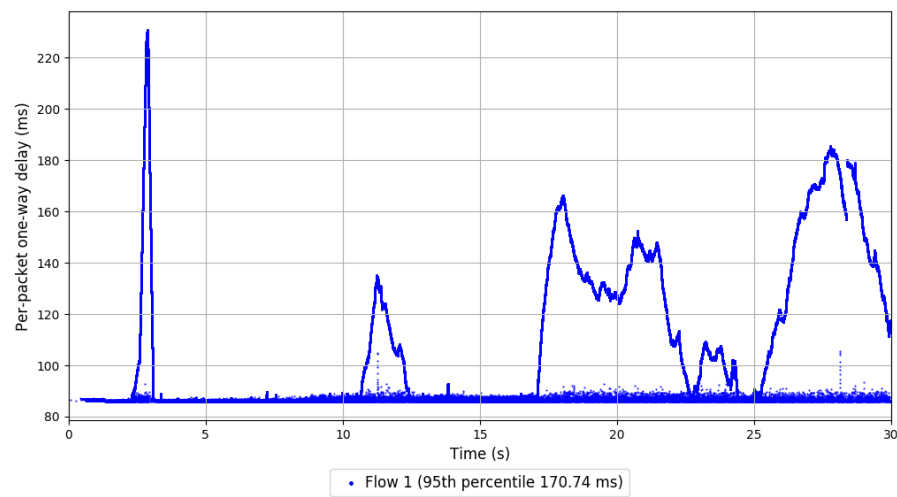
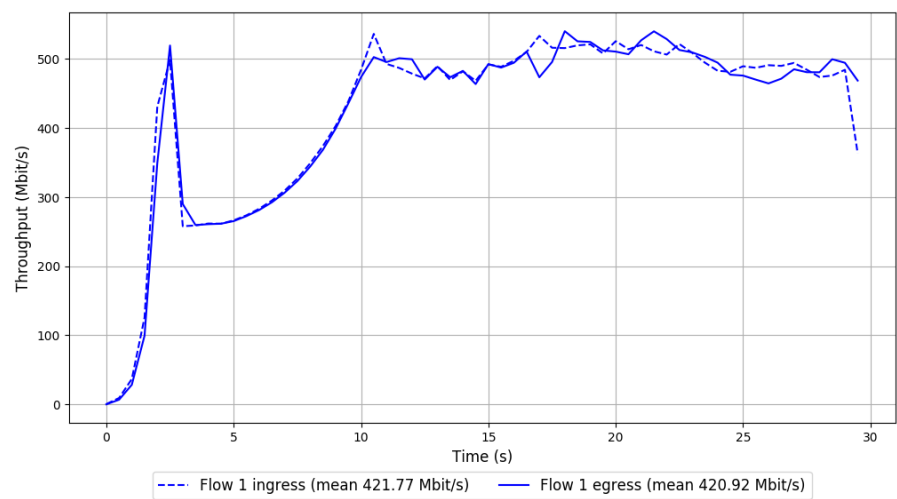
-- Flow 1:

Average throughput: 420.92 Mbit/s

95th percentile per-packet one-way delay: 170.743 ms

Loss rate: 0.20%

Run 10: Report of PCC — Data Link

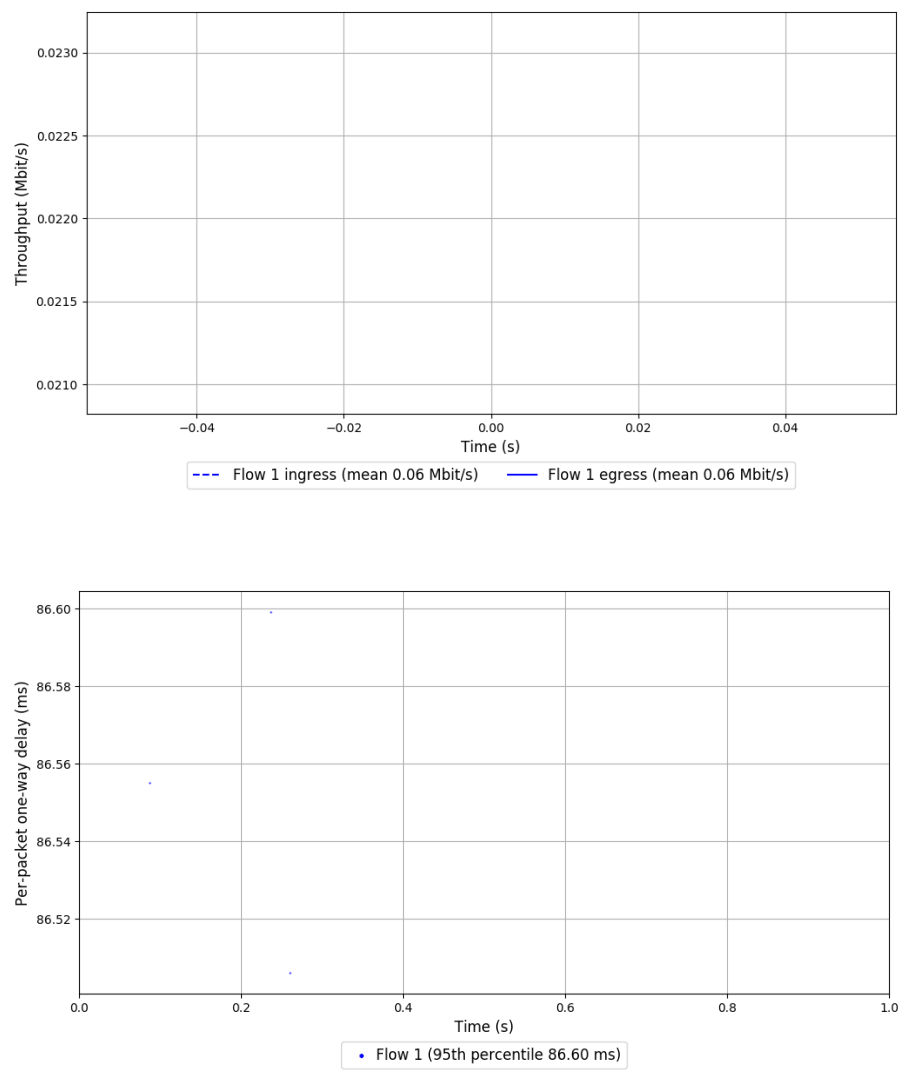


Run 1: Statistics of QUIC Cubic

Start at: 2017-12-19 21:18:37

End at: 2017-12-19 21:19:07

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-19 21:30:56

End at: 2017-12-19 21:31:26

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.54 Mbit/s

95th percentile per-packet one-way delay: 86.481 ms

Loss rate: 0.00%

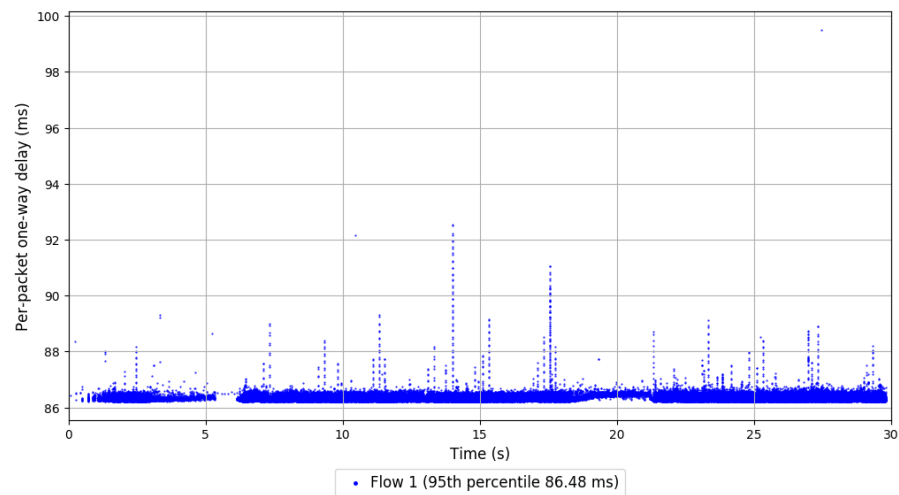
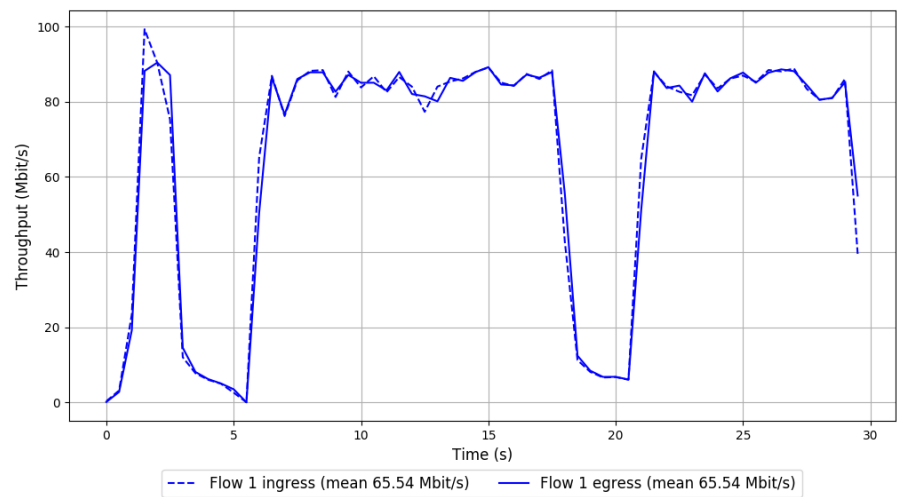
-- Flow 1:

Average throughput: 65.54 Mbit/s

95th percentile per-packet one-way delay: 86.481 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-19 21:42:59

End at: 2017-12-19 21:43:29

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.35 Mbit/s

95th percentile per-packet one-way delay: 86.448 ms

Loss rate: 0.00%

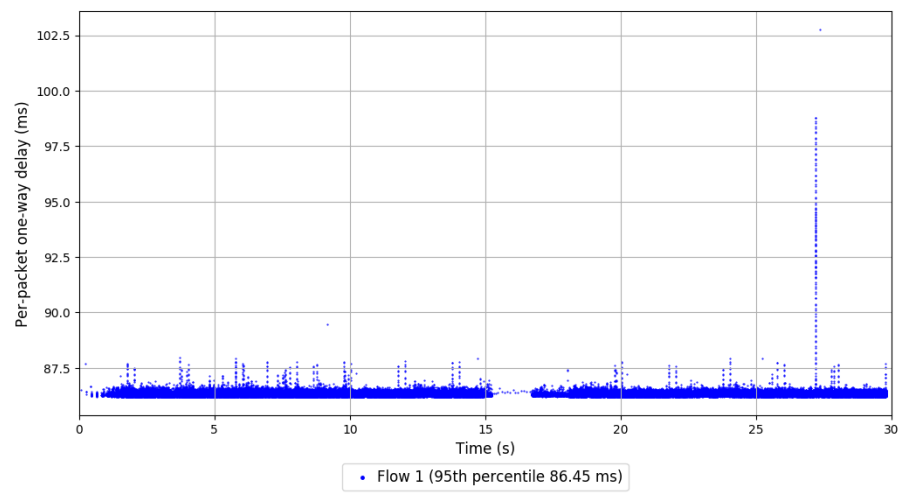
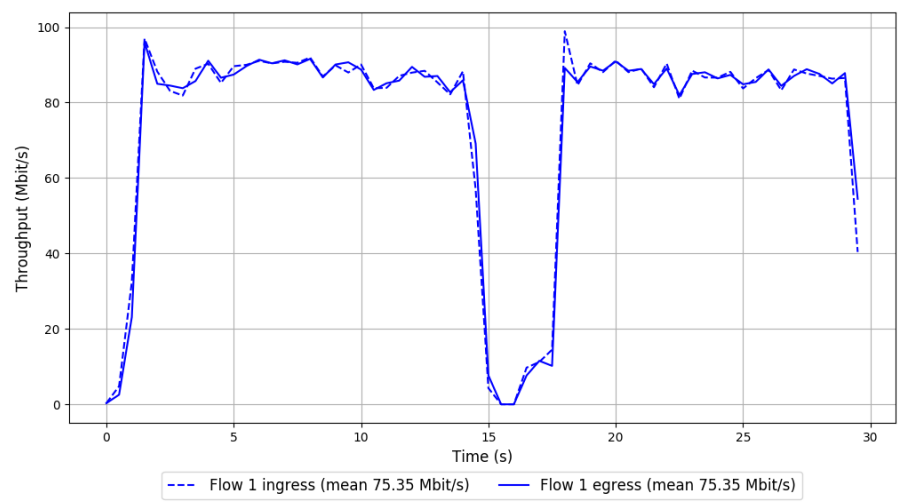
-- Flow 1:

Average throughput: 75.35 Mbit/s

95th percentile per-packet one-way delay: 86.448 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link

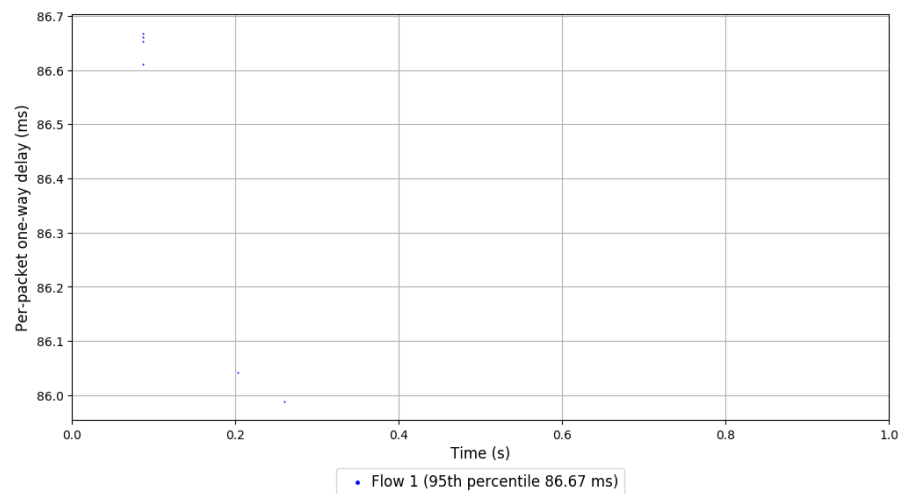
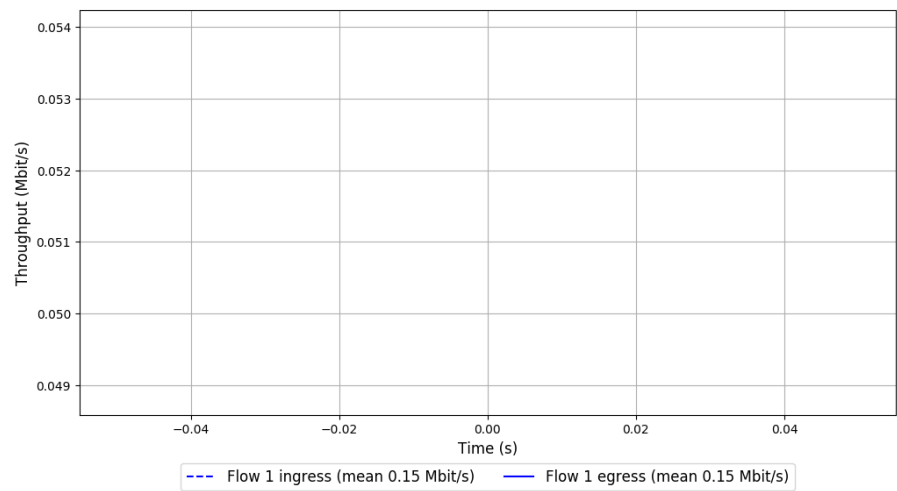


Run 4: Statistics of QUIC Cubic

Start at: 2017-12-19 21:55:12

End at: 2017-12-19 21:55:42

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-19 22:07:25

End at: 2017-12-19 22:07:55

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 86.955 ms

Loss rate: 0.00%

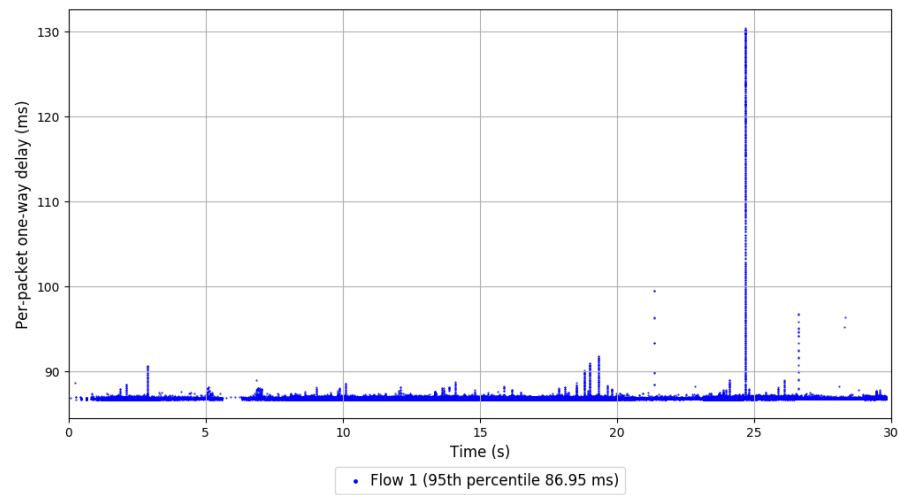
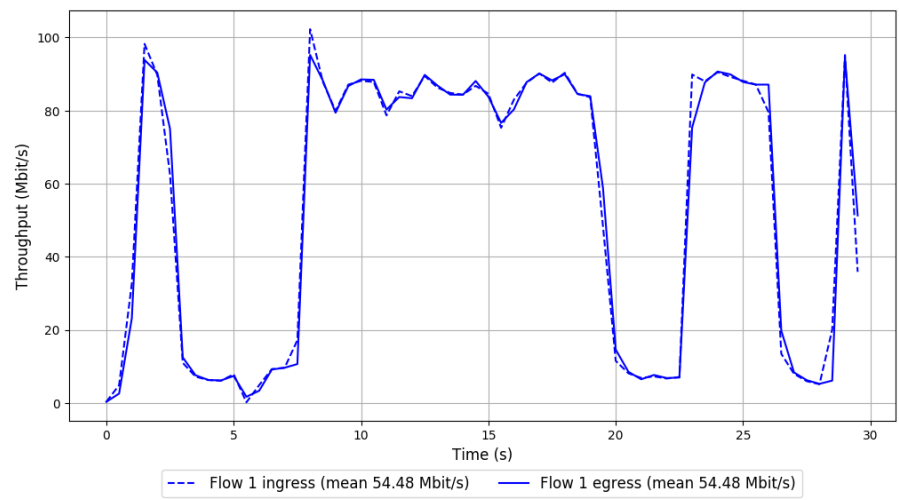
-- Flow 1:

Average throughput: 54.48 Mbit/s

95th percentile per-packet one-way delay: 86.955 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-19 22:19:07

End at: 2017-12-19 22:19:37

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.36 Mbit/s

95th percentile per-packet one-way delay: 86.512 ms

Loss rate: 0.00%

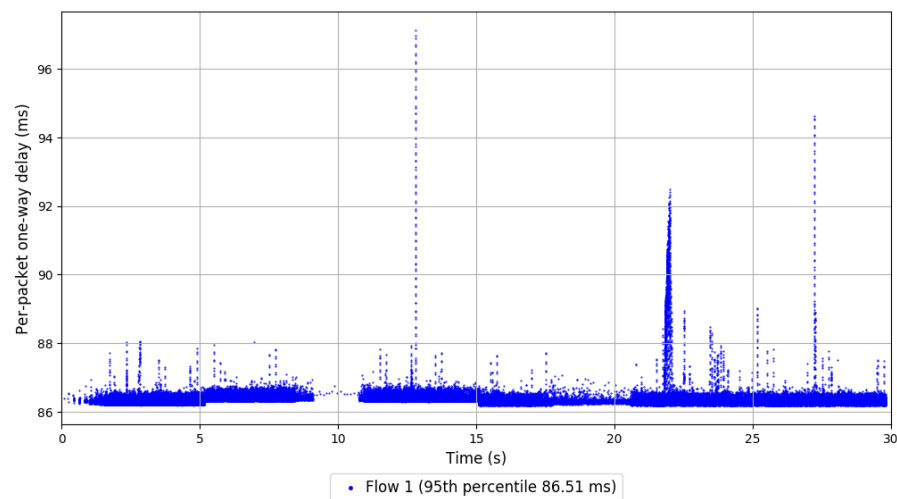
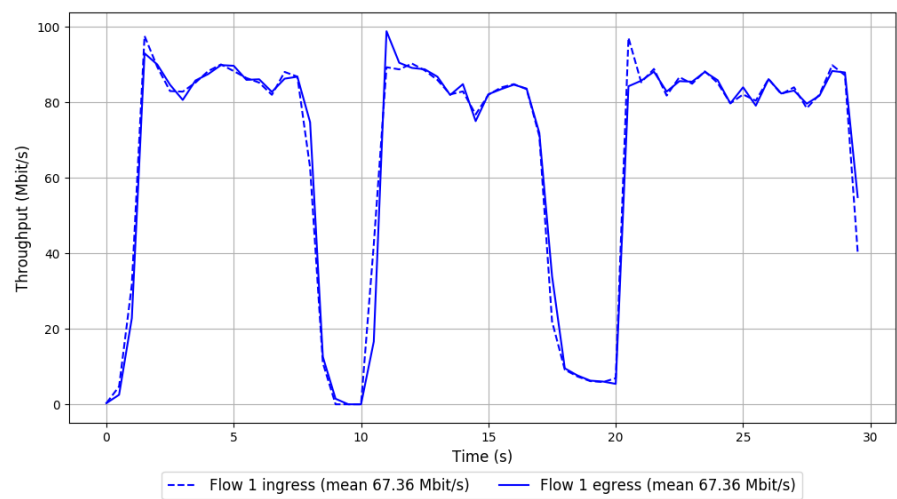
-- Flow 1:

Average throughput: 67.36 Mbit/s

95th percentile per-packet one-way delay: 86.512 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-19 22:30:45

End at: 2017-12-19 22:31:15

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.08 Mbit/s

95th percentile per-packet one-way delay: 86.946 ms

Loss rate: 0.00%

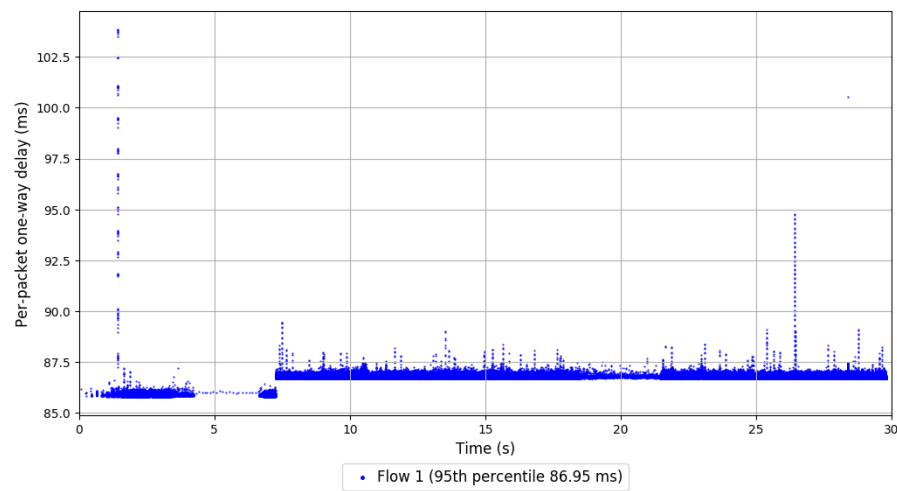
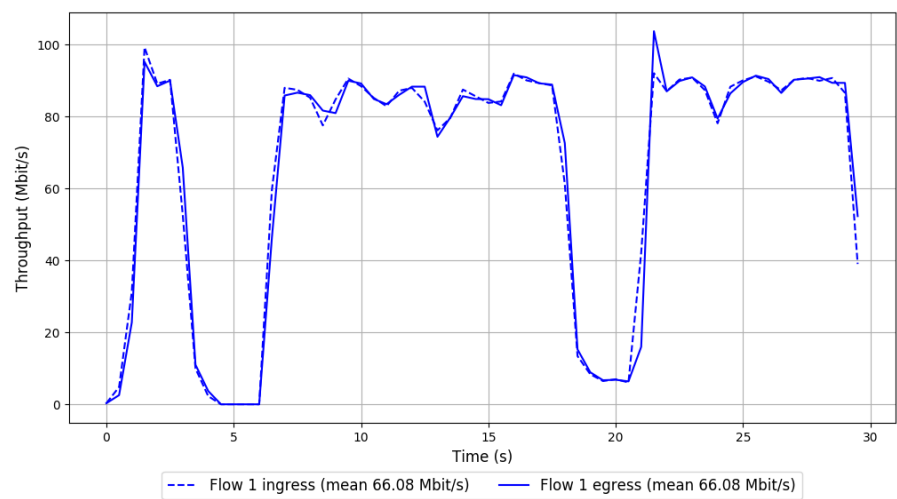
-- Flow 1:

Average throughput: 66.08 Mbit/s

95th percentile per-packet one-way delay: 86.946 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-19 22:42:57

End at: 2017-12-19 22:43:27

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.65 Mbit/s

95th percentile per-packet one-way delay: 86.703 ms

Loss rate: 0.00%

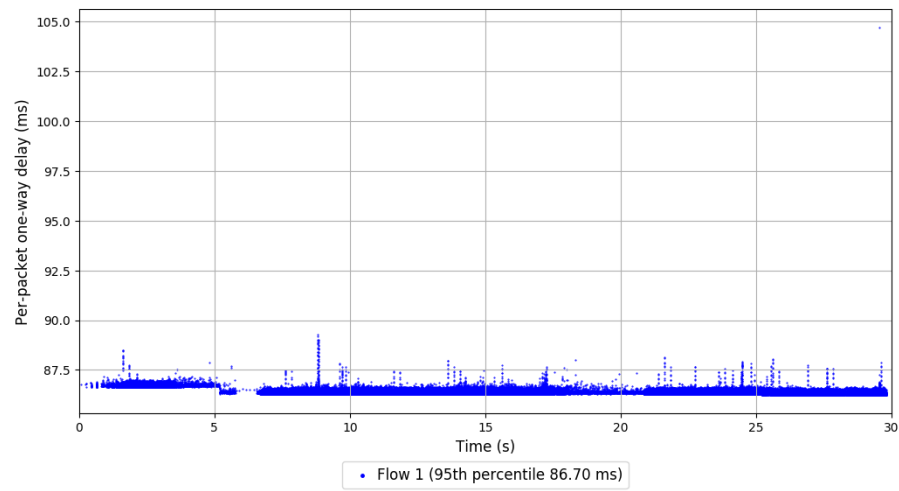
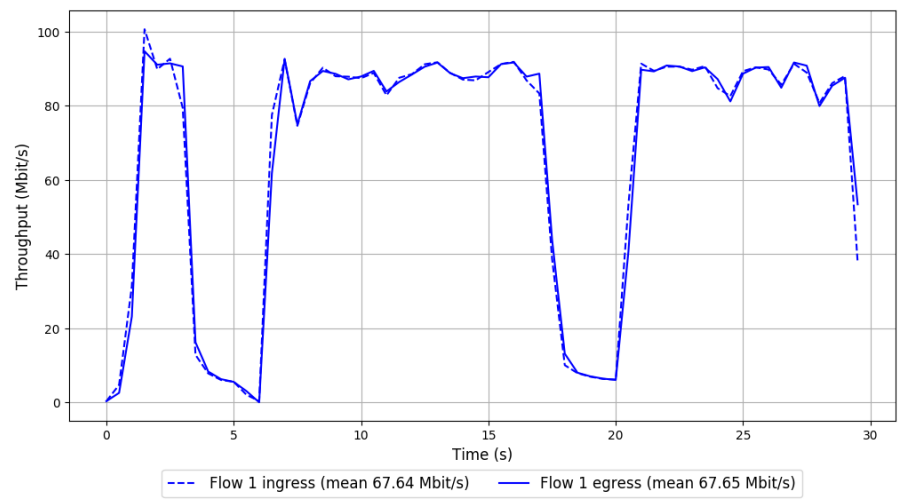
-- Flow 1:

Average throughput: 67.65 Mbit/s

95th percentile per-packet one-way delay: 86.703 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-19 22:55:05

End at: 2017-12-19 22:55:35

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.15 Mbit/s

95th percentile per-packet one-way delay: 86.617 ms

Loss rate: 0.00%

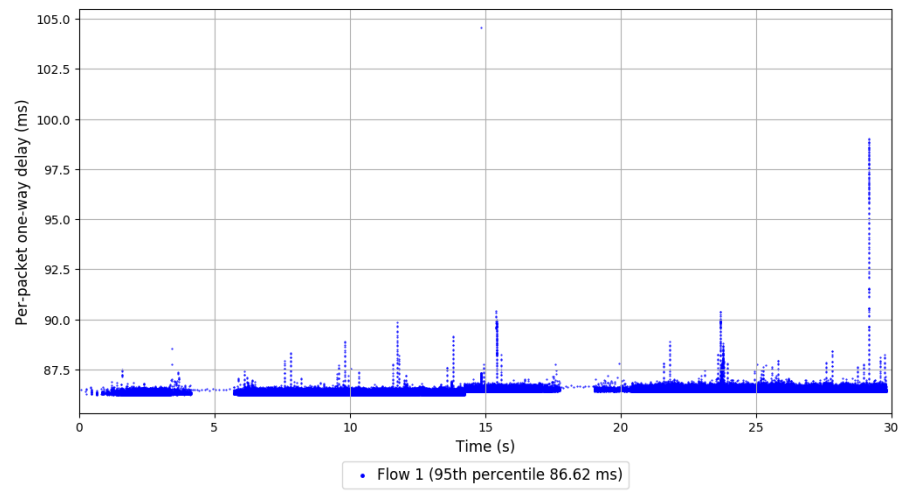
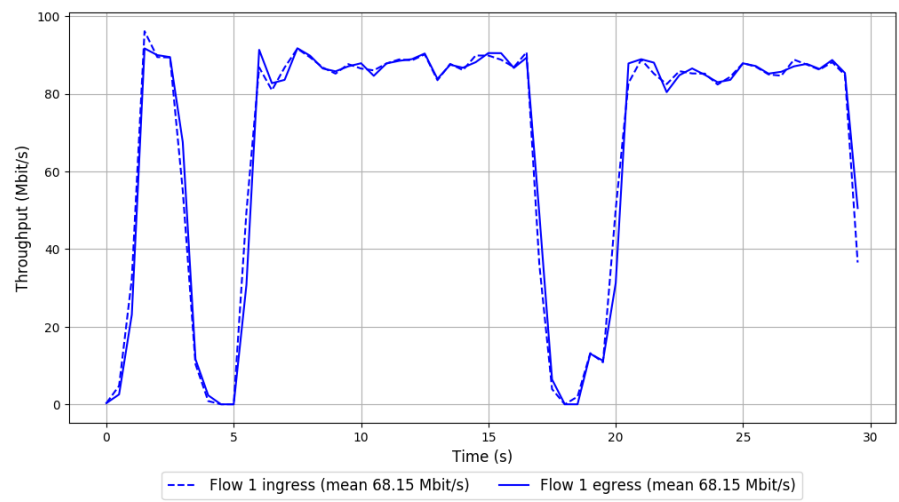
-- Flow 1:

Average throughput: 68.15 Mbit/s

95th percentile per-packet one-way delay: 86.617 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

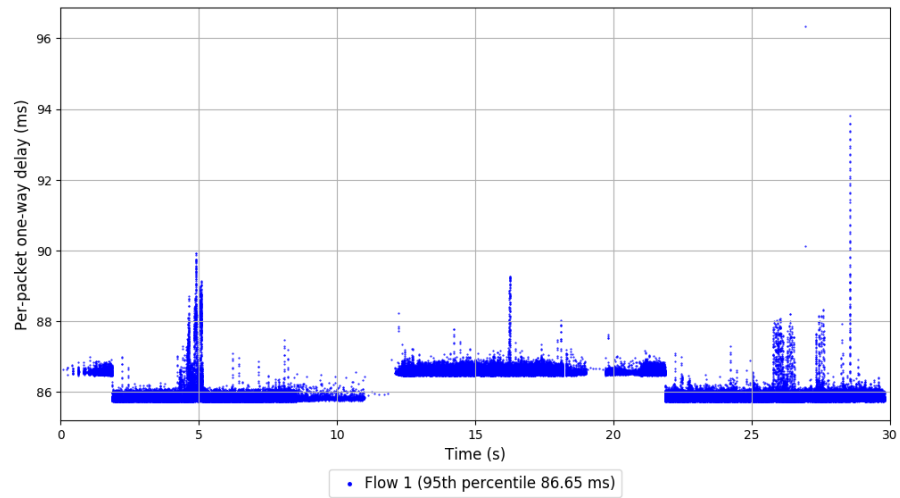
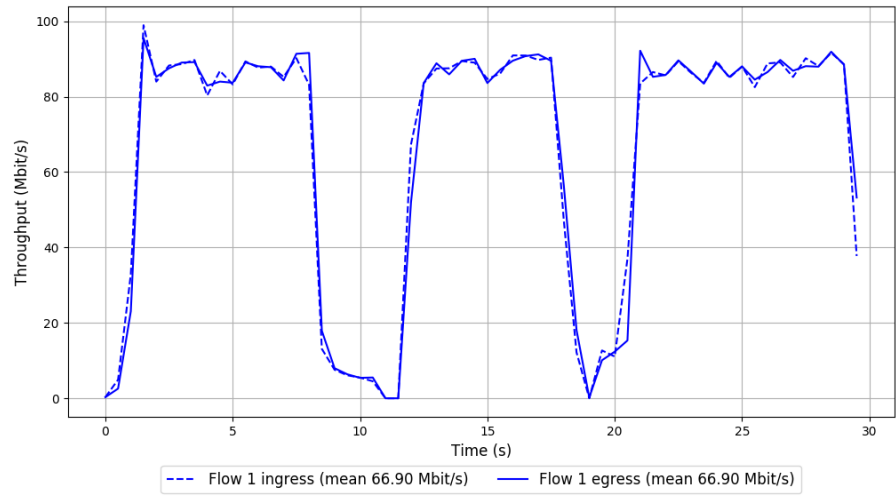


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-19 23:07:01
End at: 2017-12-19 23:07:31

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.90 Mbit/s
95th percentile per-packet one-way delay: 86.650 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.90 Mbit/s
95th percentile per-packet one-way delay: 86.650 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

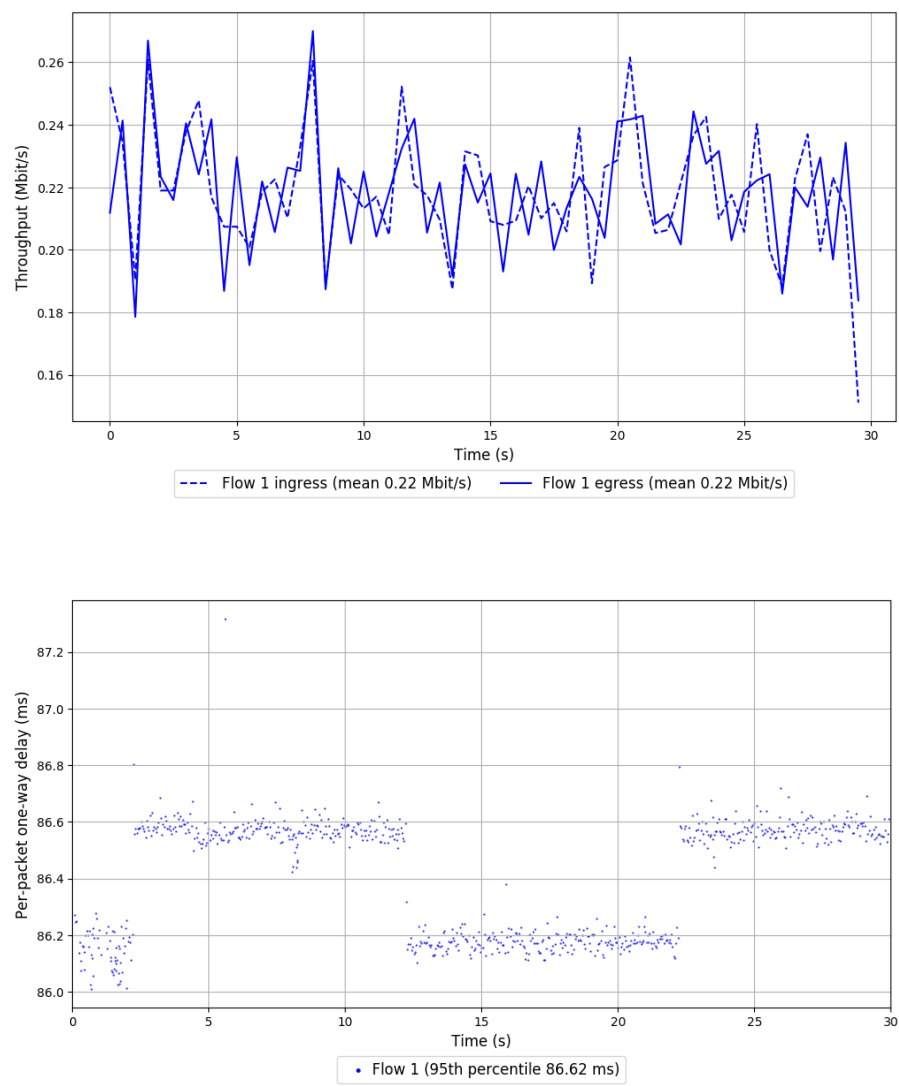


```
Run 1: Statistics of SCReAM

Start at: 2017-12-19 21:19:57
End at: 2017-12-19 21:20:27

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.618 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.618 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

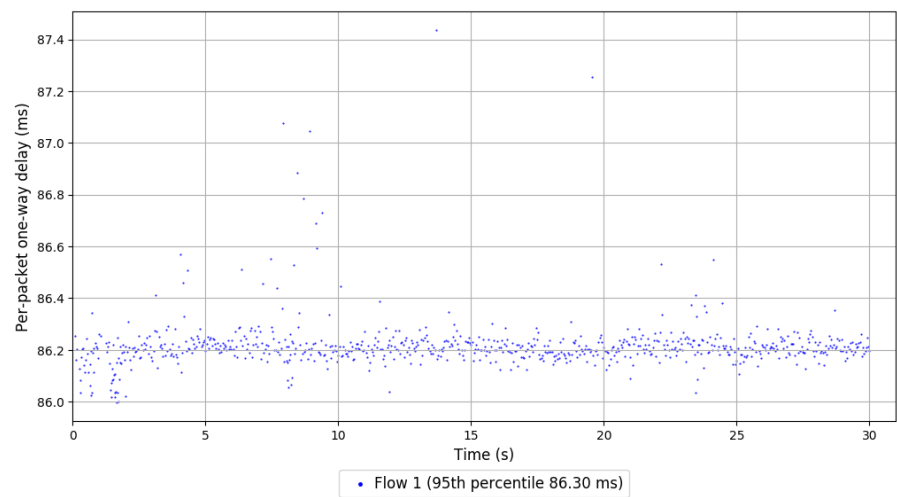
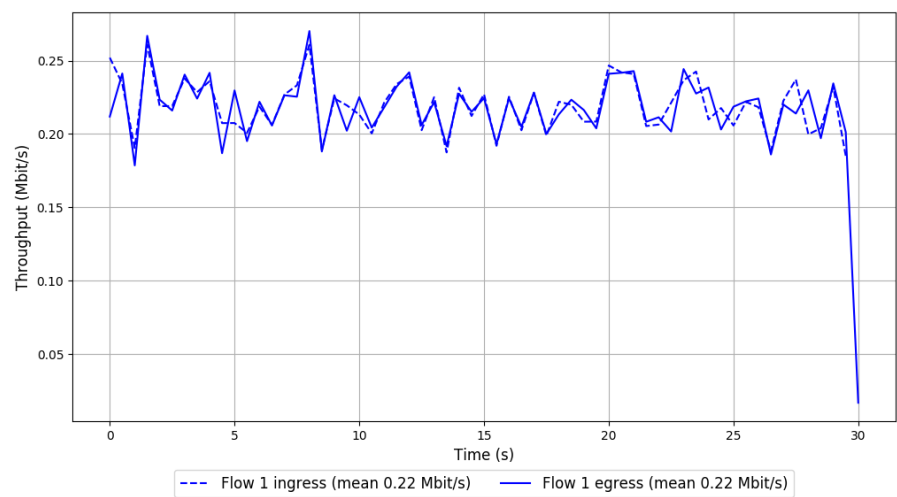


```
Run 2: Statistics of SCReAM

Start at: 2017-12-19 21:32:18
End at: 2017-12-19 21:32:48

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.300 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-19 21:44:22

End at: 2017-12-19 21:44:52

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.924 ms

Loss rate: 0.00%

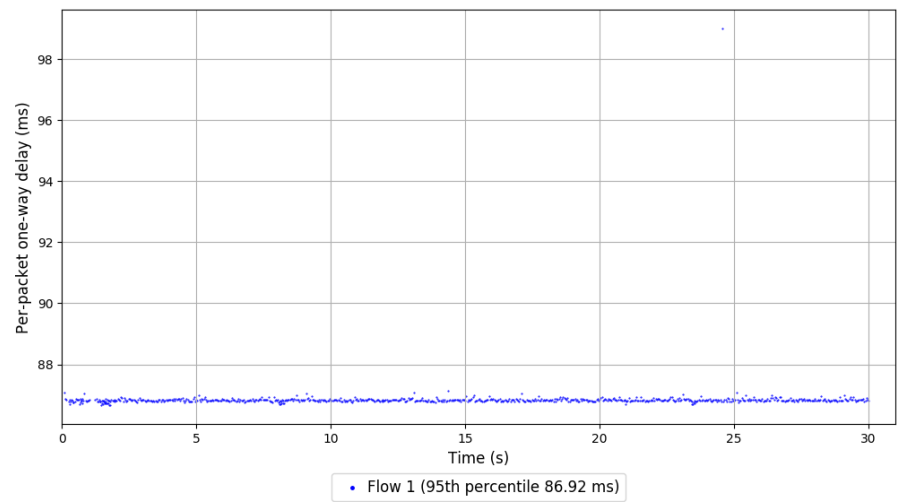
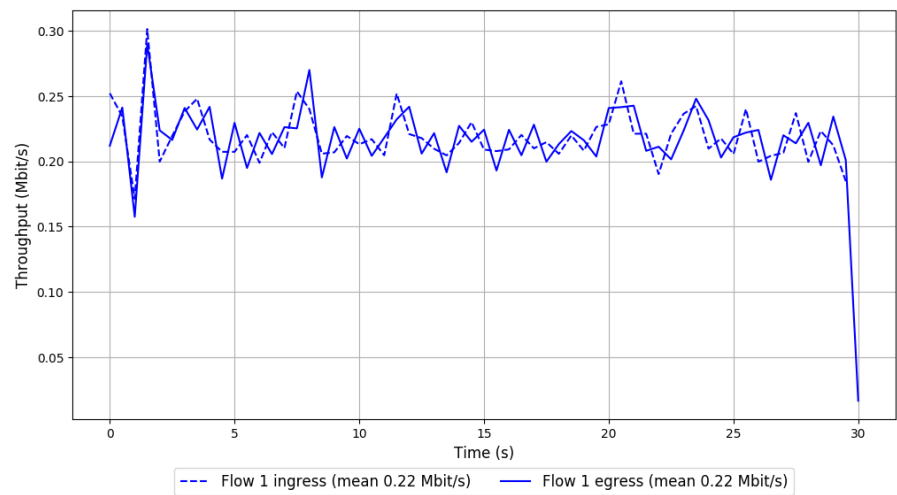
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.924 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-19 21:56:35

End at: 2017-12-19 21:57:05

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.975 ms

Loss rate: 0.00%

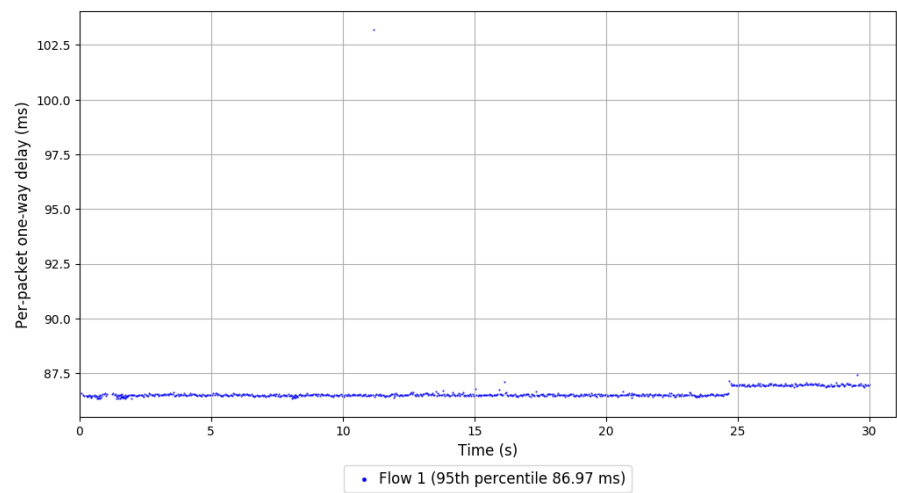
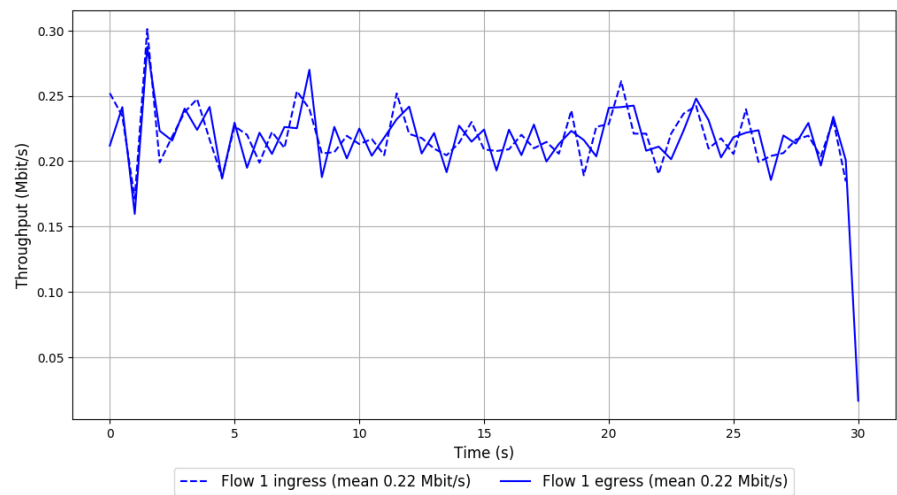
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.975 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-19 22:08:47

End at: 2017-12-19 22:09:17

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.588 ms

Loss rate: 0.00%

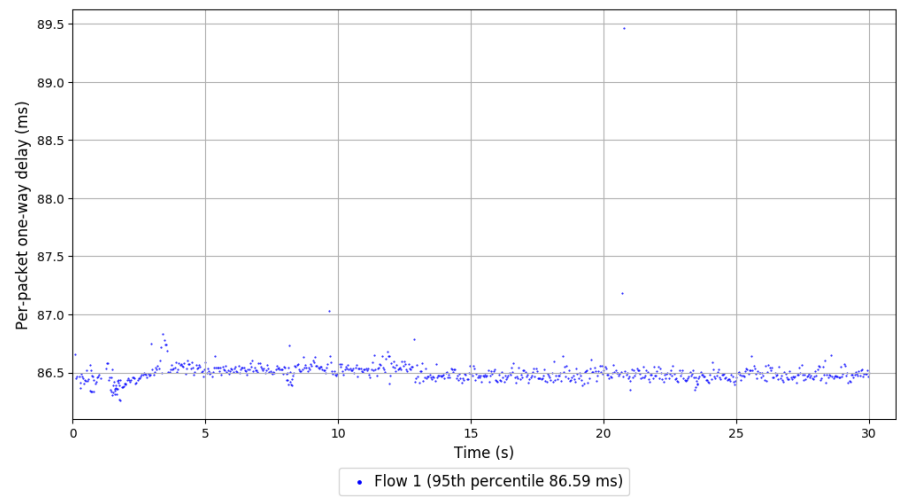
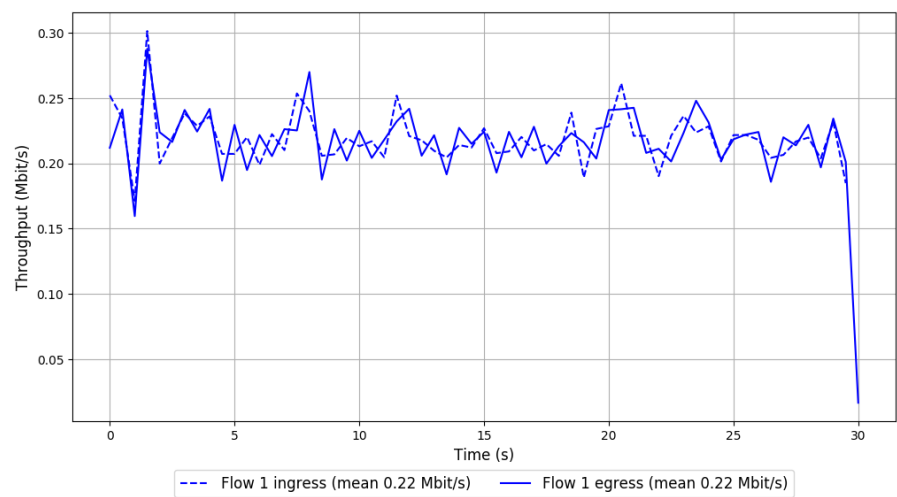
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.588 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-19 22:20:30

End at: 2017-12-19 22:21:00

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.535 ms

Loss rate: 0.00%

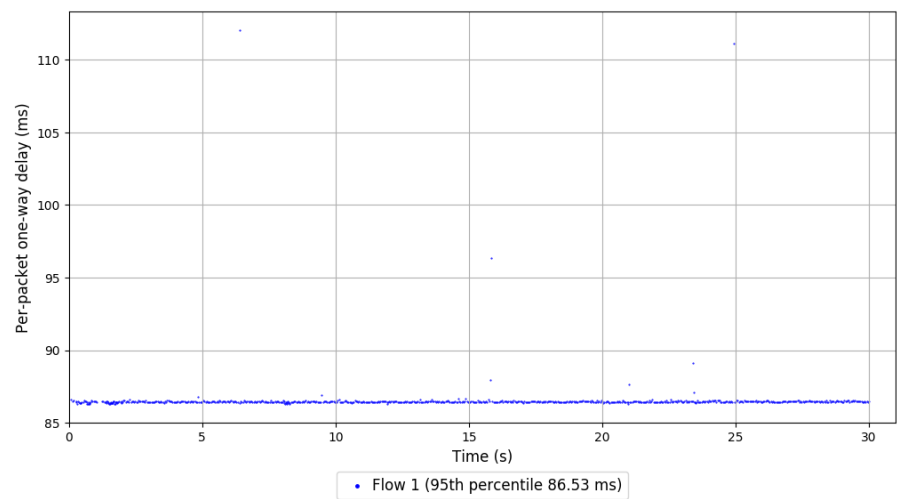
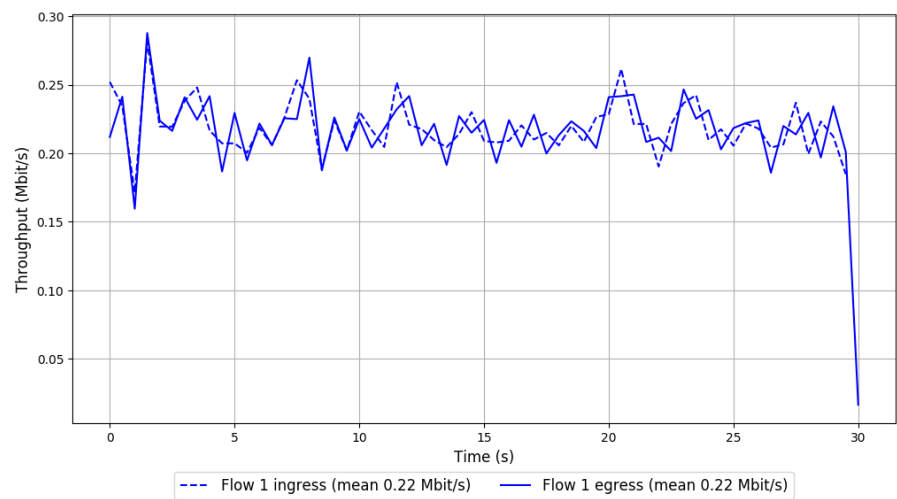
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.535 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-19 22:32:08

End at: 2017-12-19 22:32:38

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.982 ms

Loss rate: 0.00%

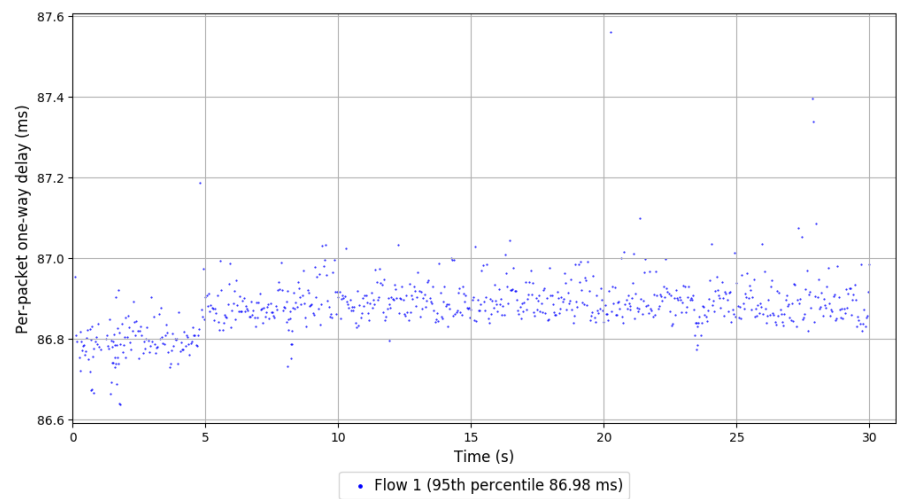
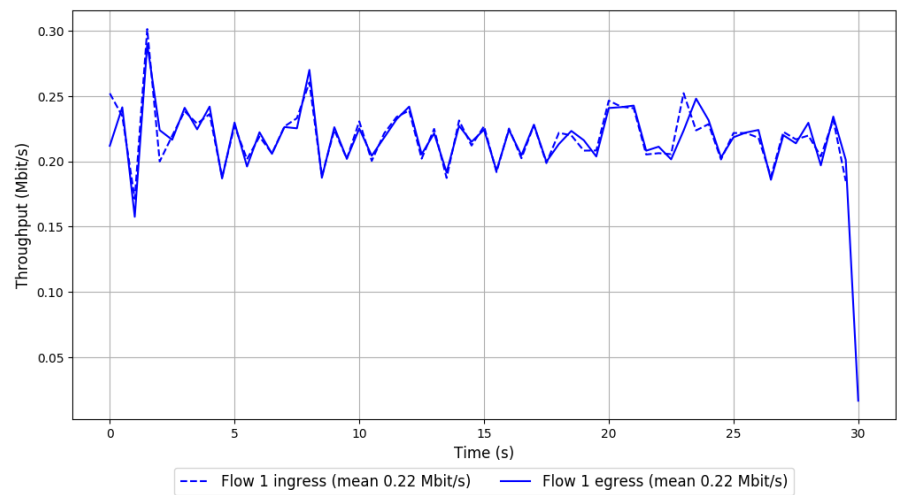
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.982 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-19 22:44:20

End at: 2017-12-19 22:44:50

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.984 ms

Loss rate: 0.00%

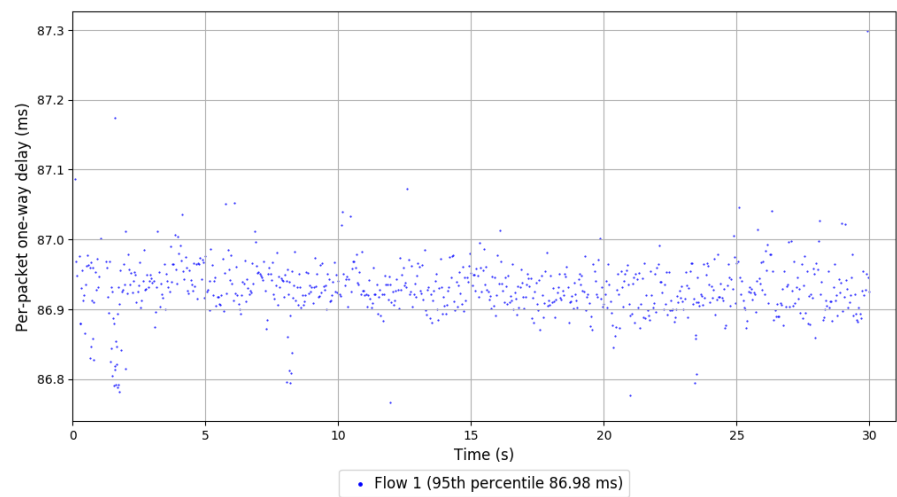
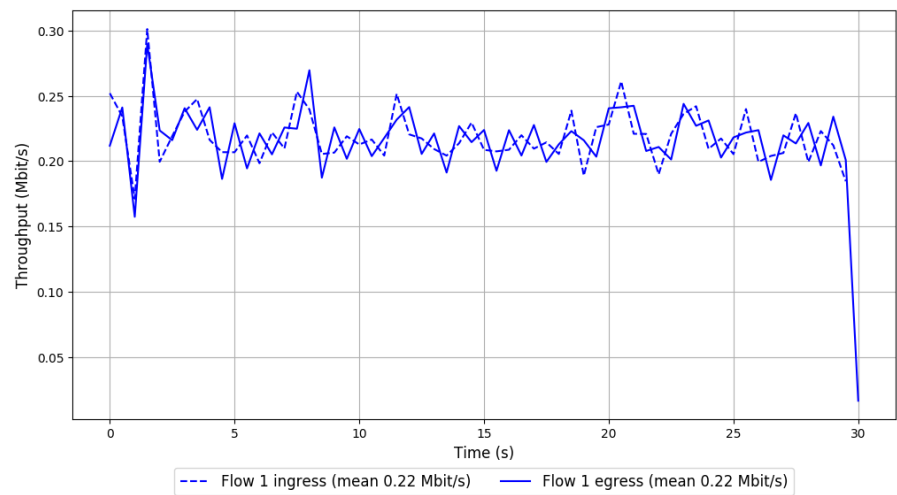
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.984 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-19 22:56:28

End at: 2017-12-19 22:56:58

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.062 ms

Loss rate: 0.00%

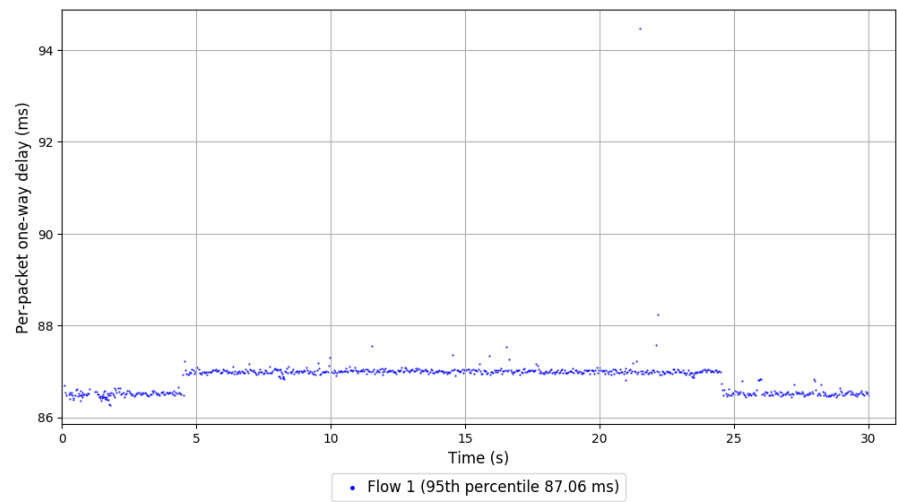
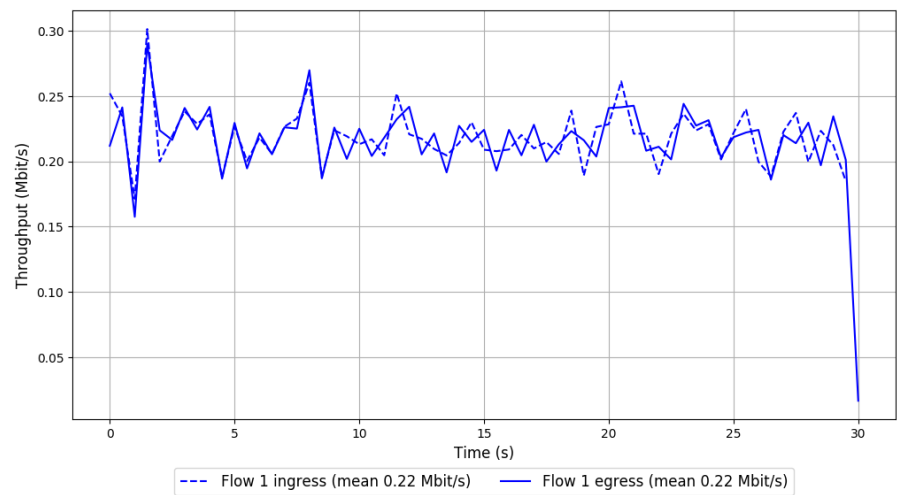
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.062 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

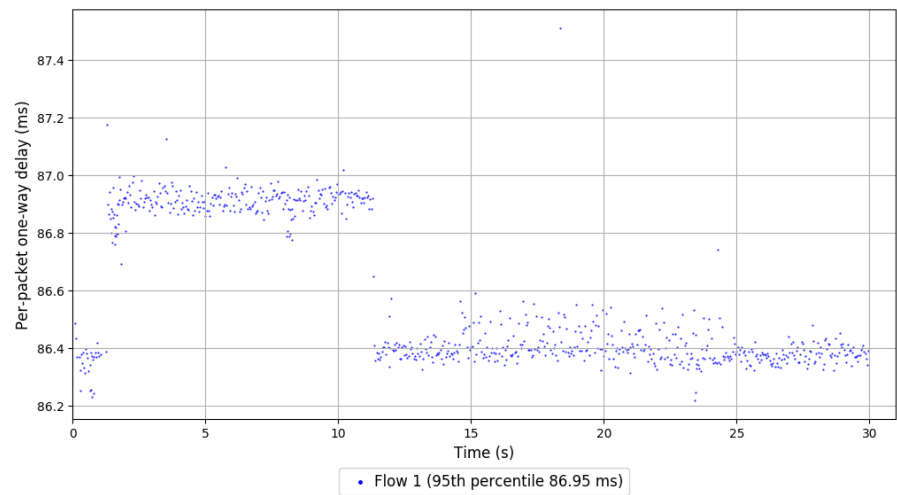
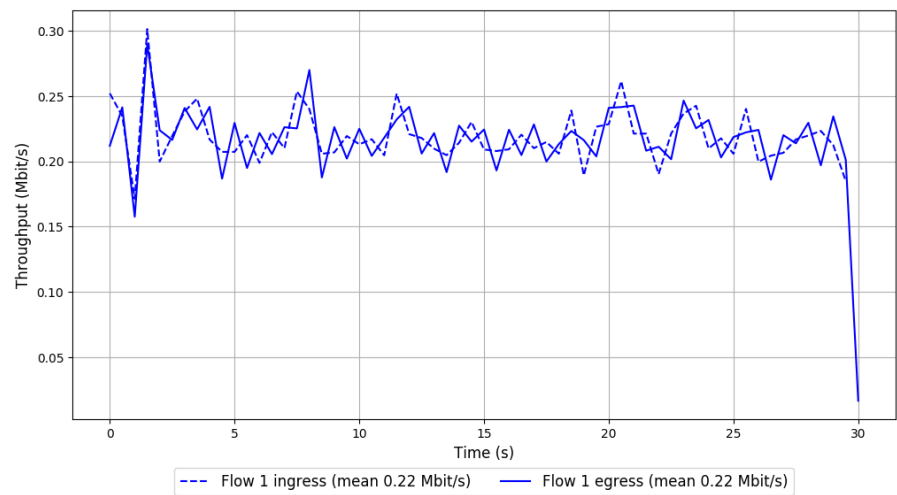


```
Run 10: Statistics of SReAM

Start at: 2017-12-19 23:08:28
End at: 2017-12-19 23:08:58

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.948 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.948 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

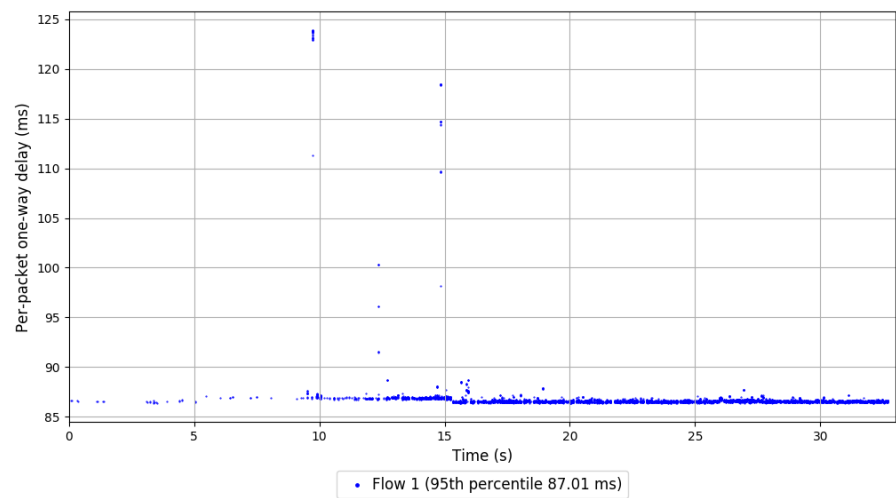
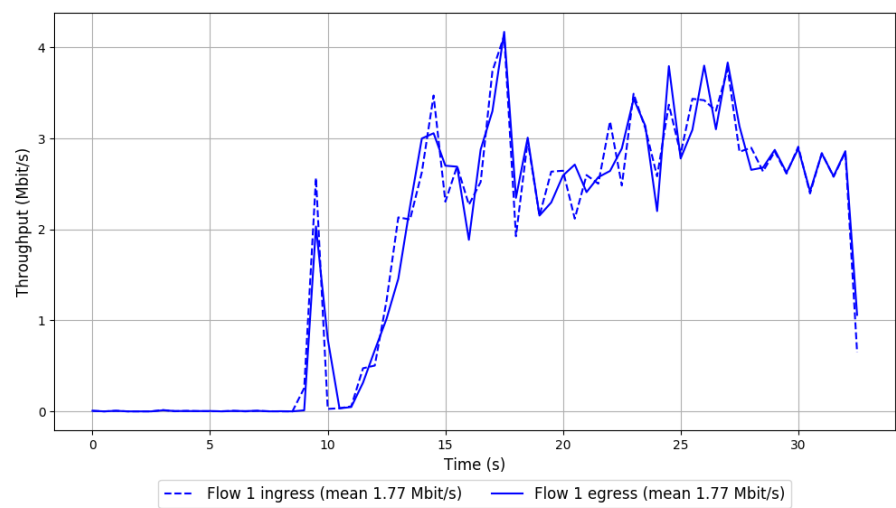


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-19 21:20:37
End at: 2017-12-19 21:21:07

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 87.012 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 87.012 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link

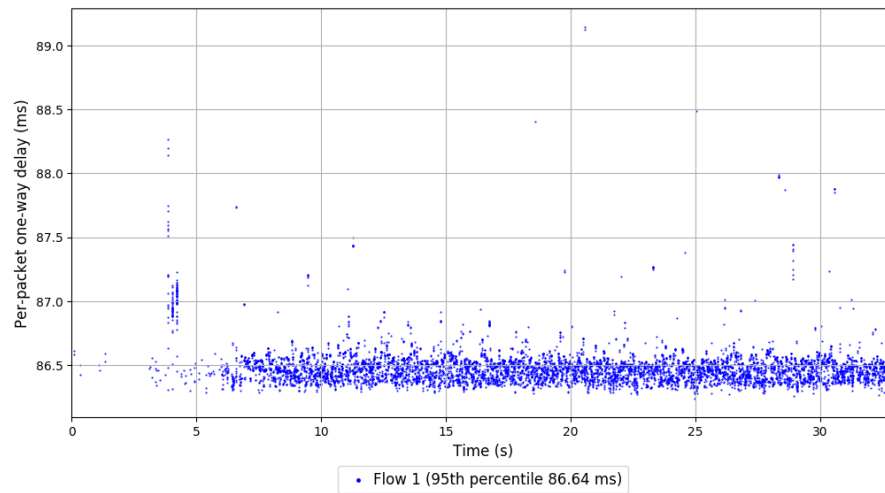
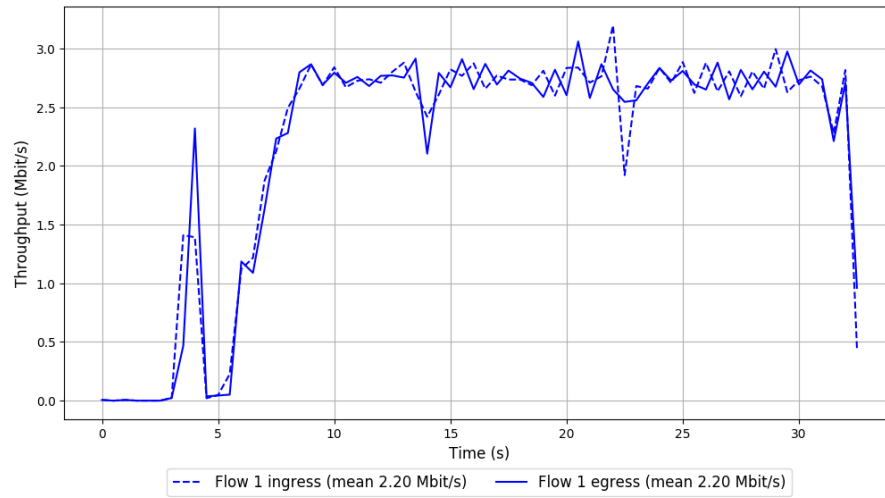


```
Run 2: Statistics of WebRTC media

Start at: 2017-12-19 21:32:57
End at: 2017-12-19 21:33:27

# Below is generated by plot.py at 2017-12-20 00:34:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 86.643 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 86.643 ms
Loss rate: 0.00%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-19 21:45:01

End at: 2017-12-19 21:45:31

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

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

Loss rate: 0.00%

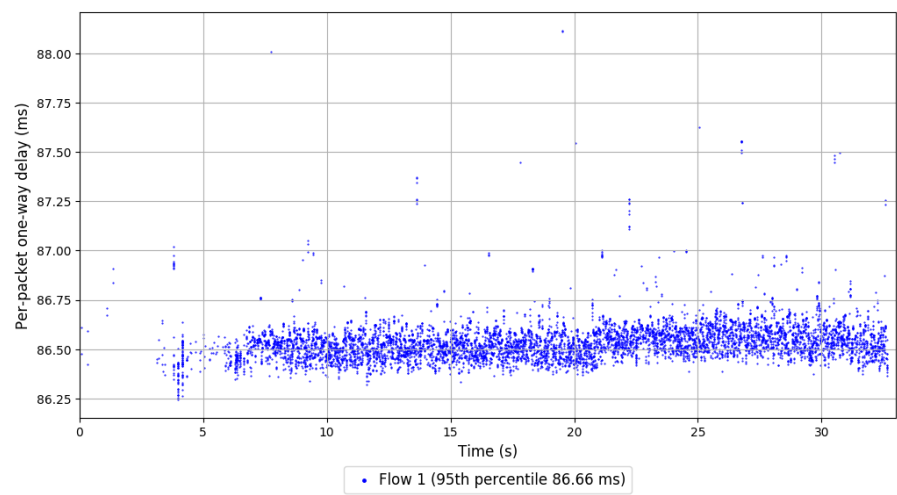
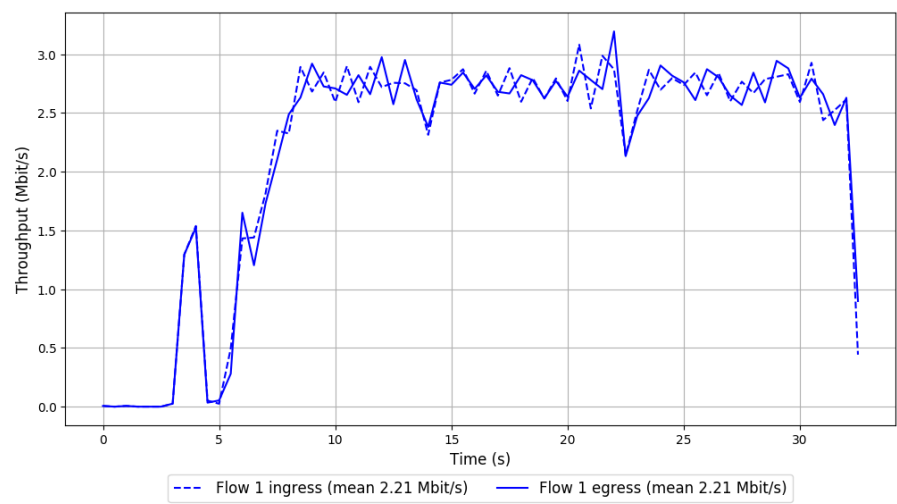
-- Flow 1:

Average throughput: 2.21 Mbit/s

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

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-19 21:57:14

End at: 2017-12-19 21:57:44

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.676 ms

Loss rate: 0.00%

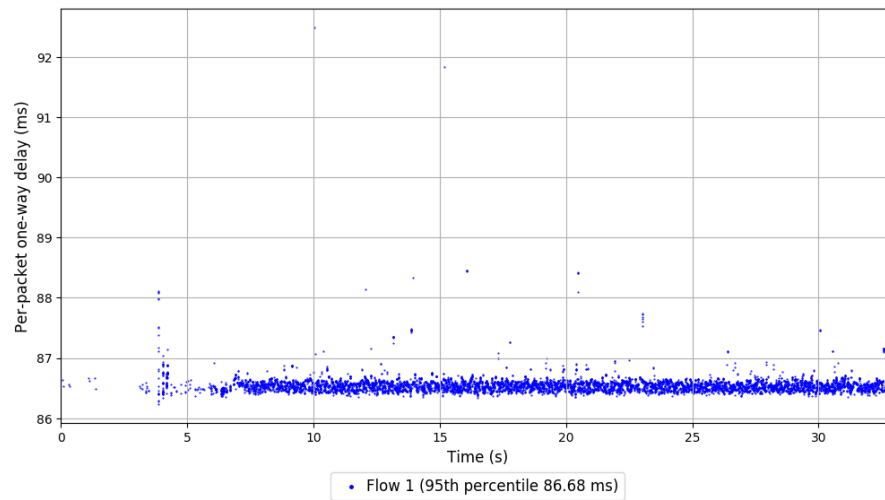
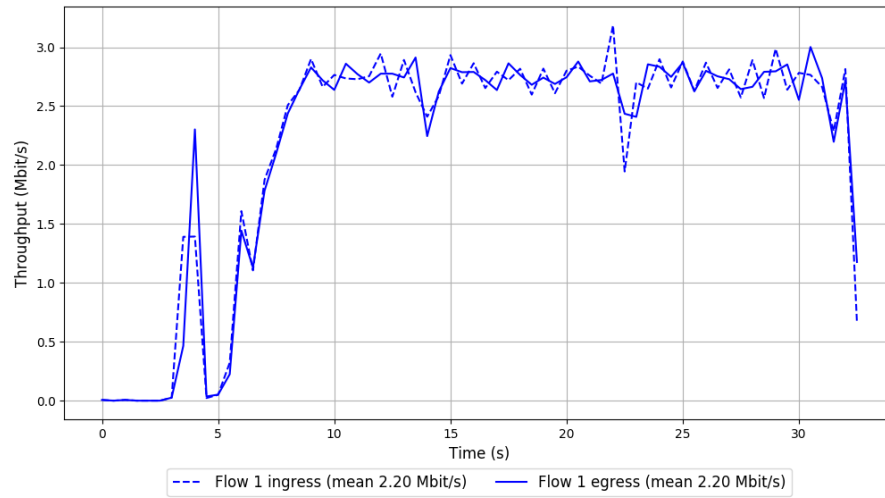
-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.676 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-19 22:09:26

End at: 2017-12-19 22:09:56

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.612 ms

Loss rate: 0.00%

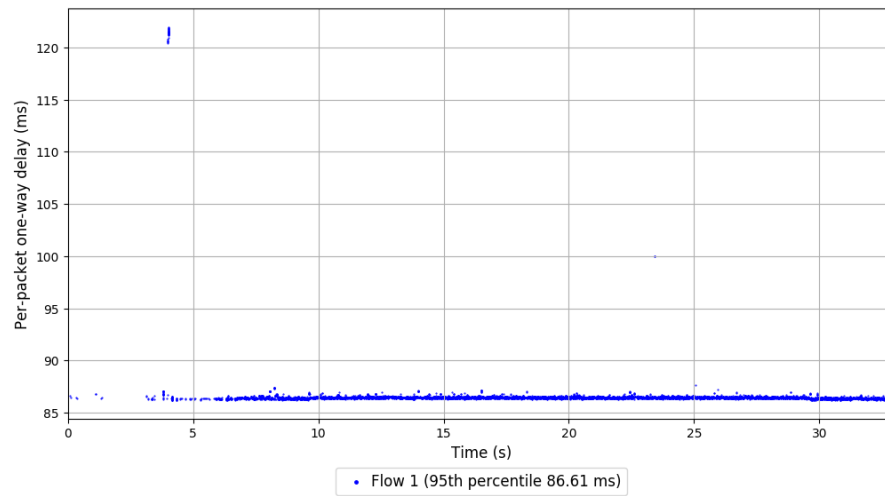
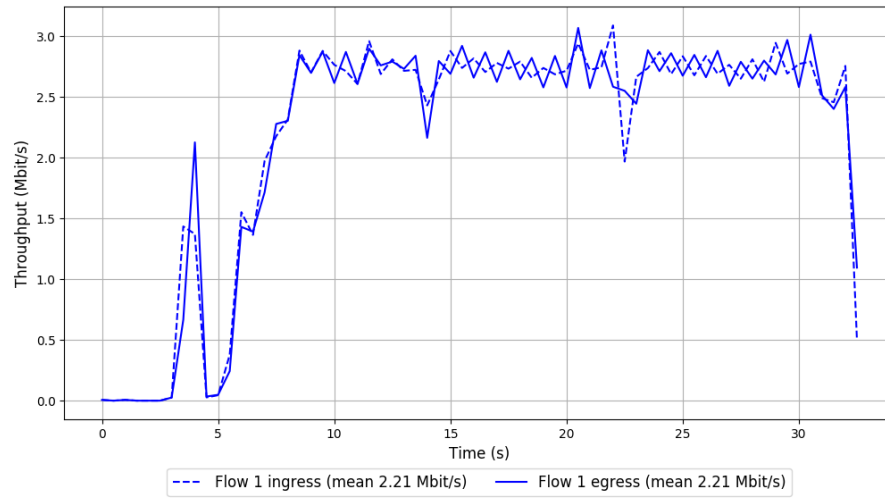
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.612 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-19 22:21:09

End at: 2017-12-19 22:21:39

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.509 ms

Loss rate: 0.00%

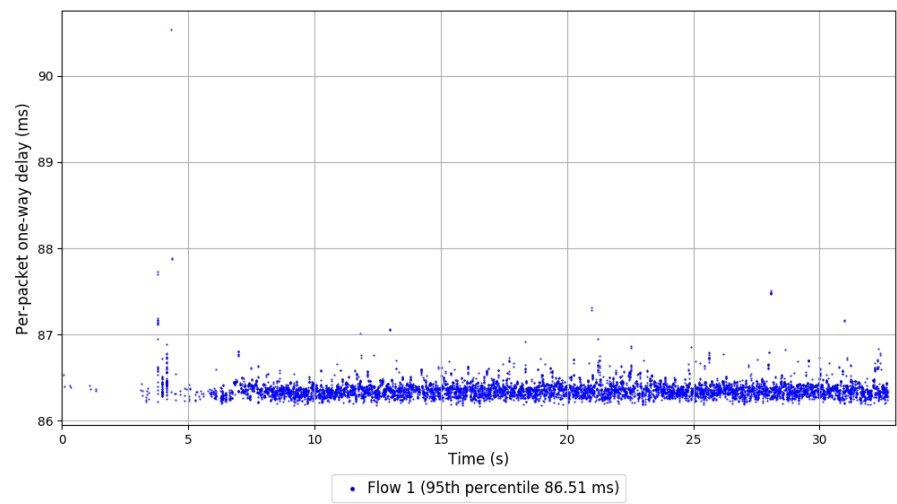
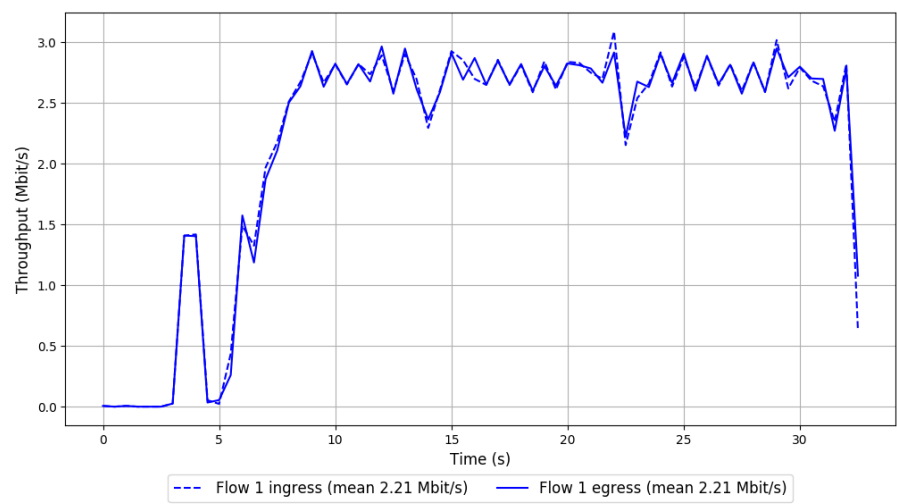
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.509 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-19 22:32:47

End at: 2017-12-19 22:33:17

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

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

Loss rate: 0.00%

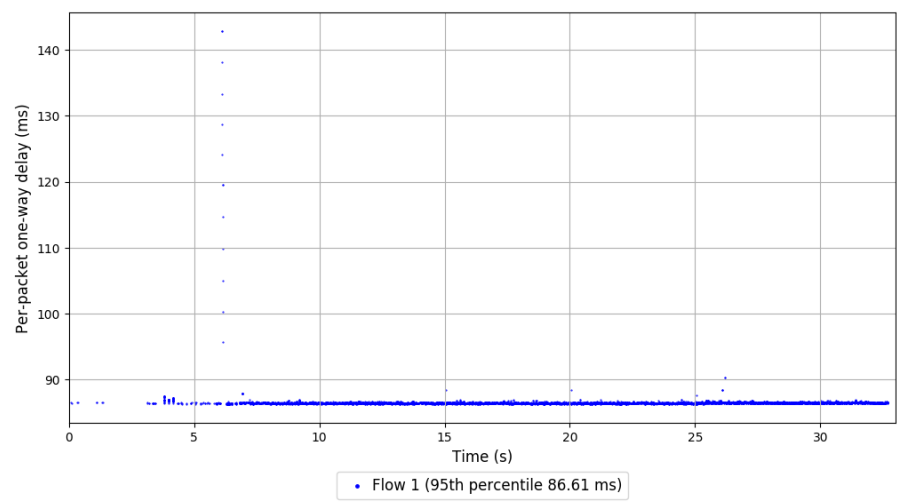
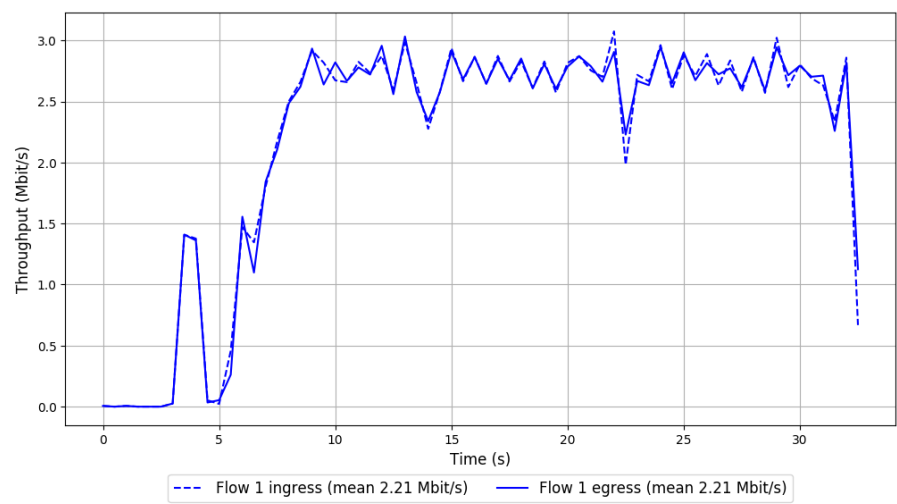
-- Flow 1:

Average throughput: 2.21 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-19 22:44:59

End at: 2017-12-19 22:45:29

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.903 ms

Loss rate: 0.00%

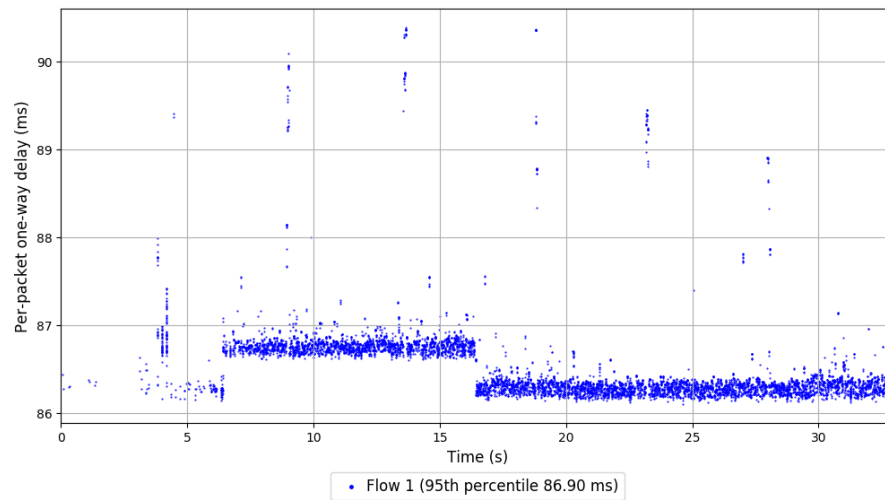
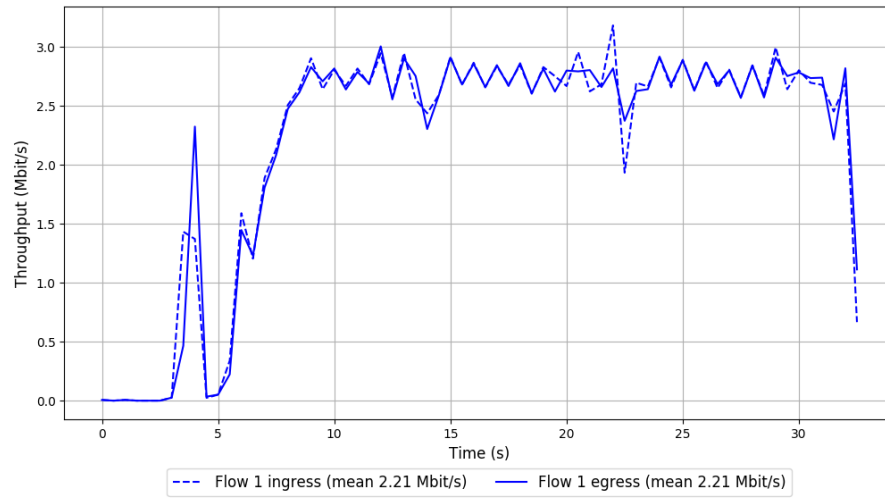
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.903 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-19 22:57:07

End at: 2017-12-19 22:57:37

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 87.024 ms

Loss rate: 0.00%

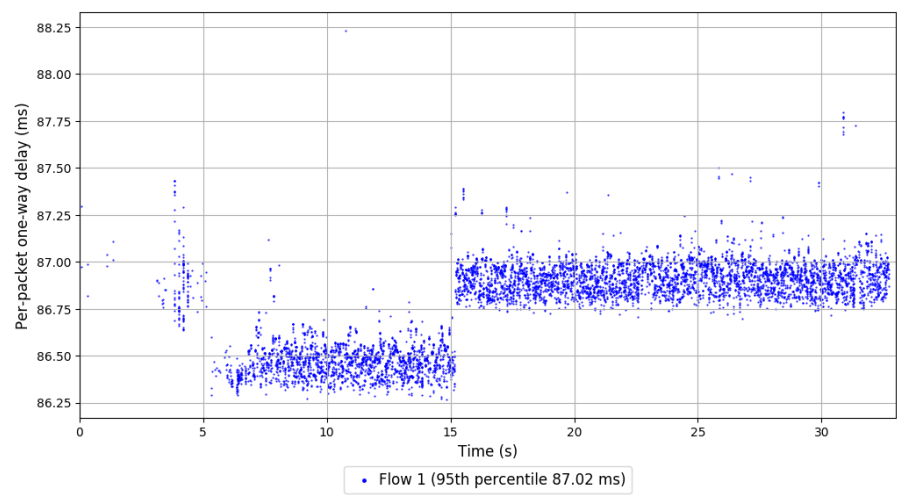
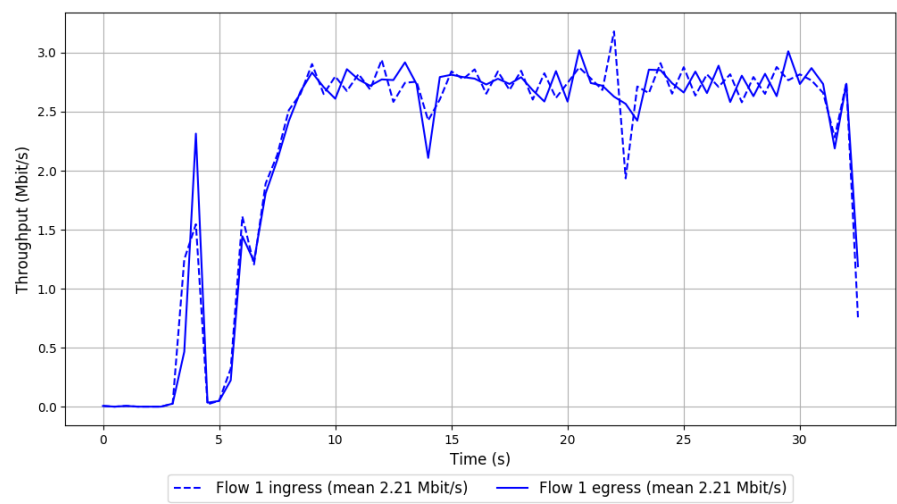
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 87.024 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-19 23:09:07

End at: 2017-12-19 23:09:37

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.00%

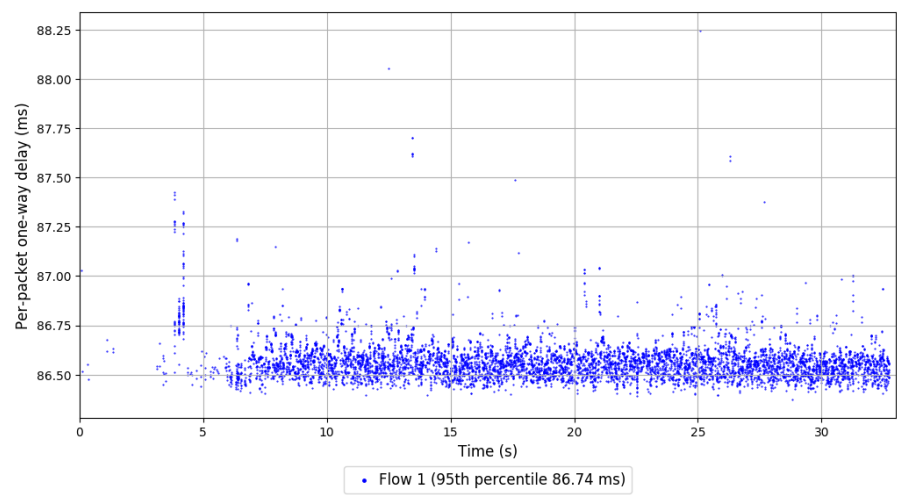
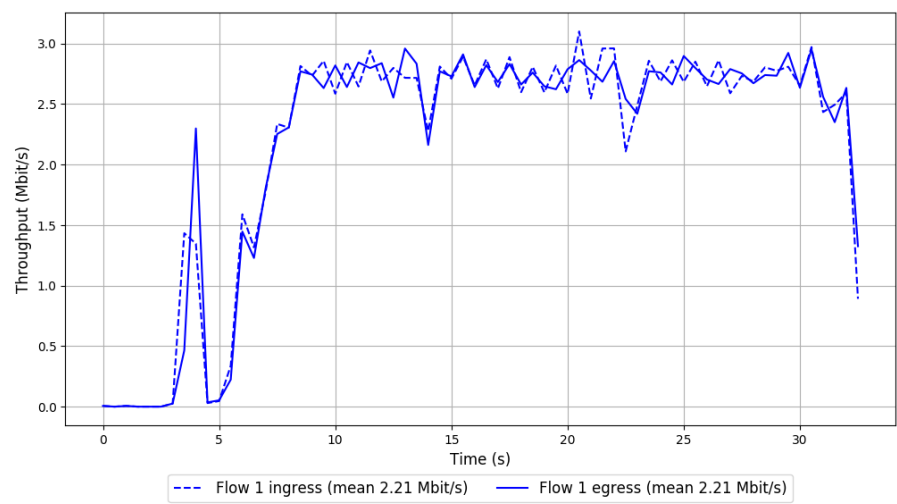
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 86.737 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-19 21:23:50

End at: 2017-12-19 21:24:20

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 87.488 ms

Loss rate: 0.25%

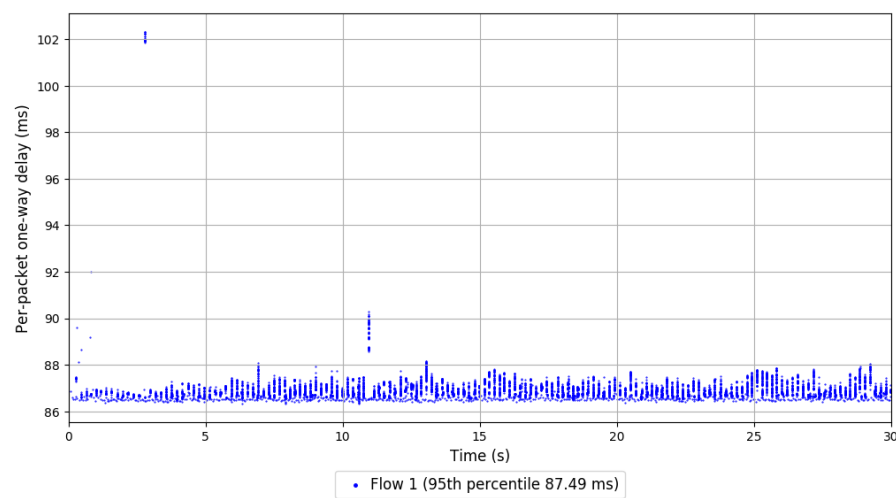
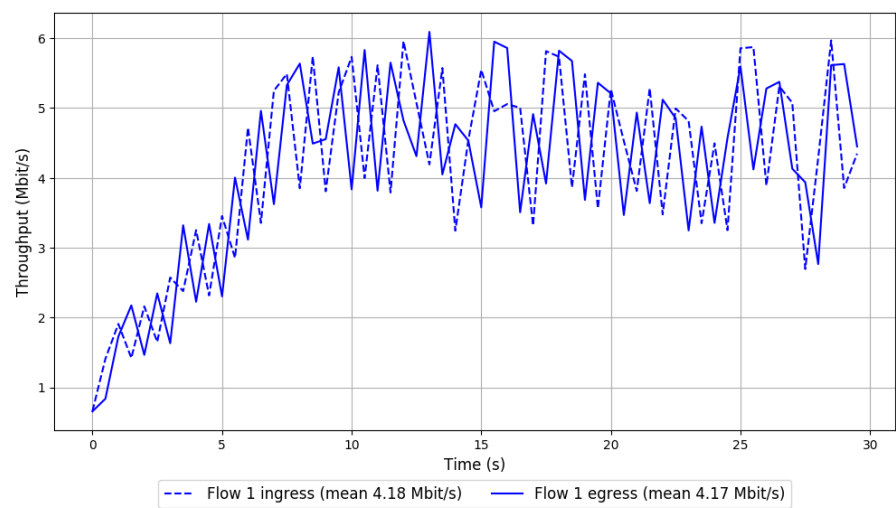
-- Flow 1:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 87.488 ms

Loss rate: 0.25%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-19 21:36:10

End at: 2017-12-19 21:36:40

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 88.080 ms

Loss rate: 1.49%

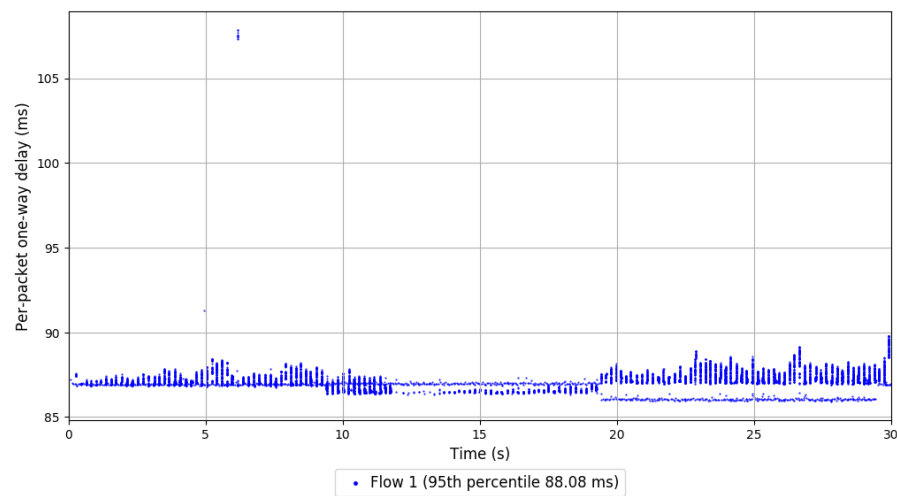
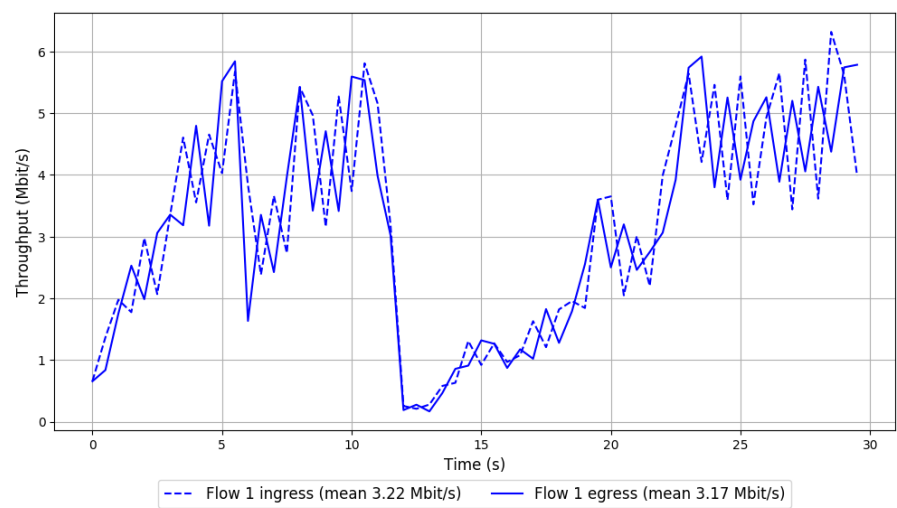
-- Flow 1:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 88.080 ms

Loss rate: 1.49%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-19 21:48:13

End at: 2017-12-19 21:48:43

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.27 Mbit/s

95th percentile per-packet one-way delay: 87.718 ms

Loss rate: 0.82%

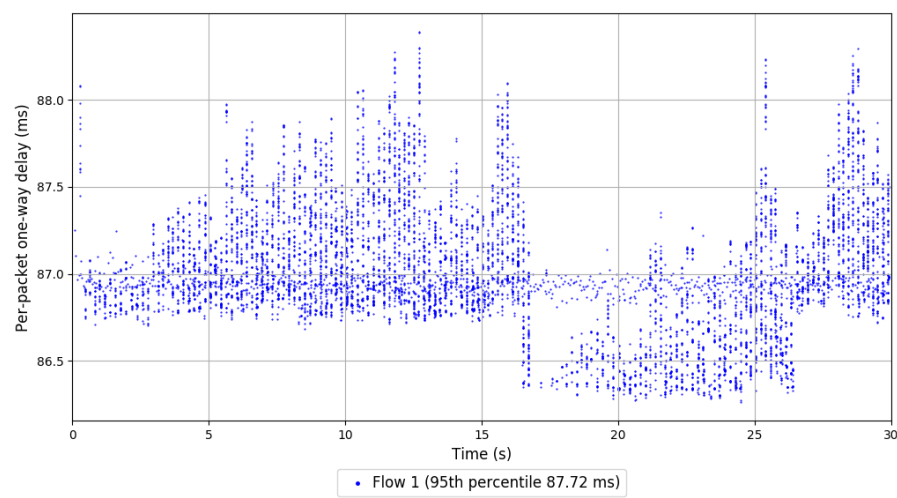
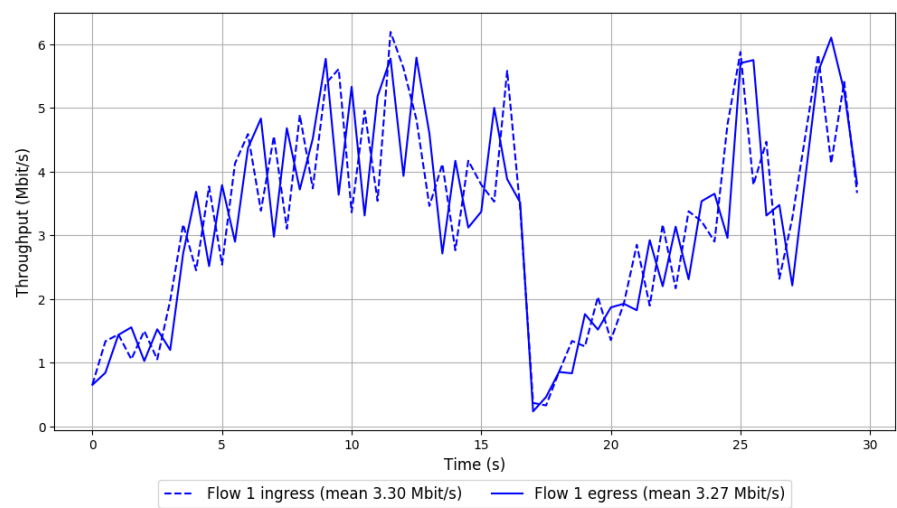
-- Flow 1:

Average throughput: 3.27 Mbit/s

95th percentile per-packet one-way delay: 87.718 ms

Loss rate: 0.82%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-19 22:00:26

End at: 2017-12-19 22:00:56

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 87.591 ms

Loss rate: 1.88%

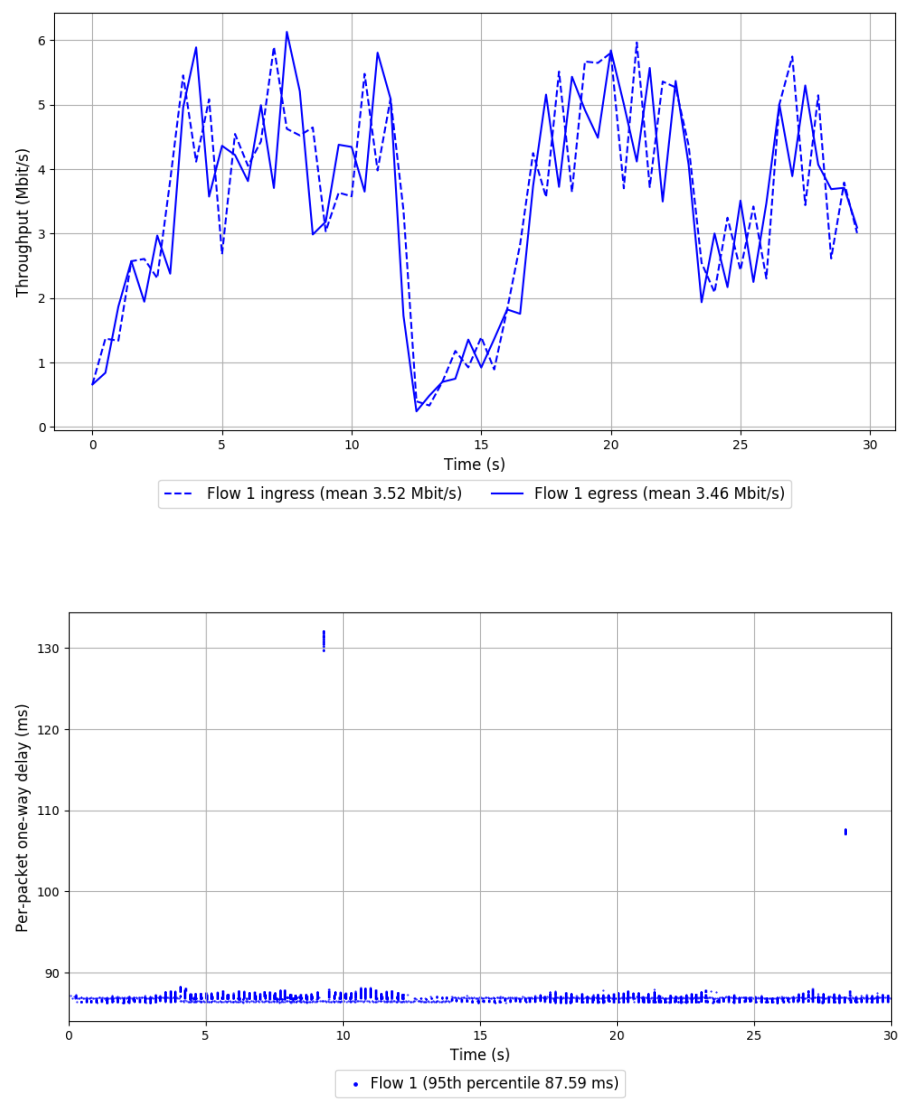
-- Flow 1:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 87.591 ms

Loss rate: 1.88%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-19 22:12:38

End at: 2017-12-19 22:13:08

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 87.771 ms

Loss rate: 1.80%

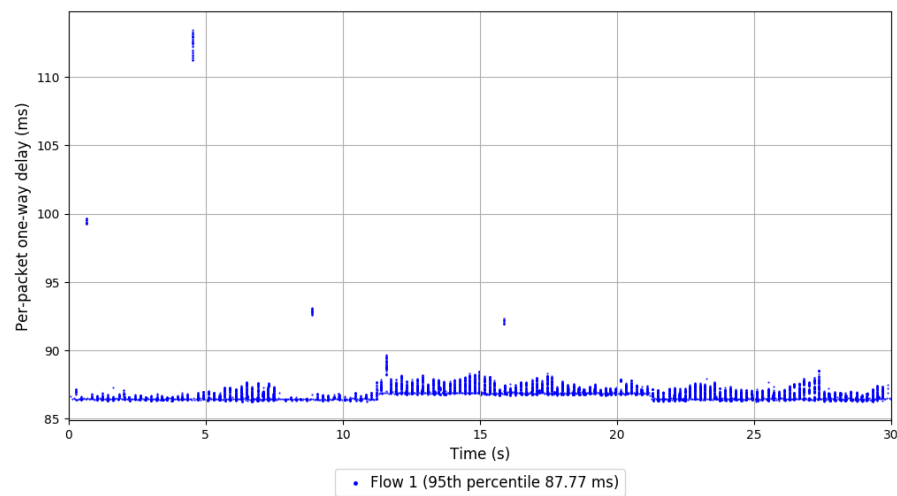
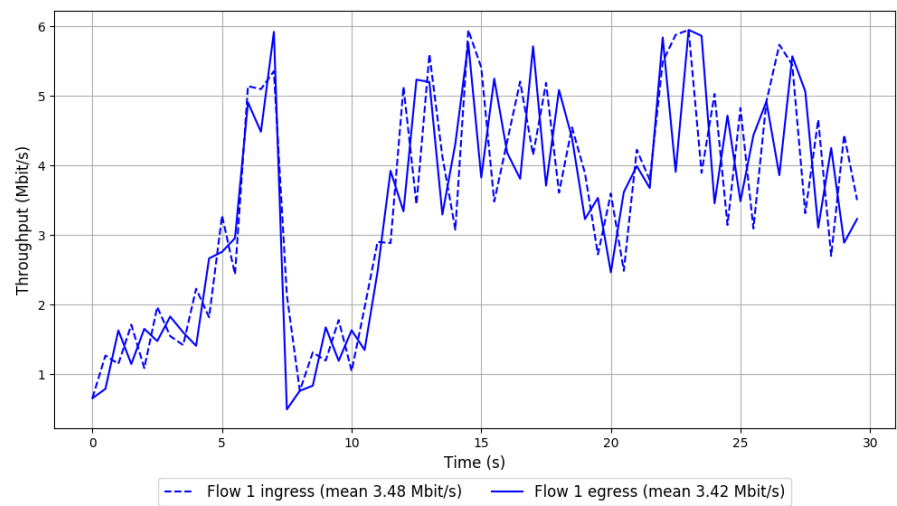
-- Flow 1:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 87.771 ms

Loss rate: 1.80%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-19 22:24:20

End at: 2017-12-19 22:24:50

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 87.819 ms

Loss rate: 1.69%

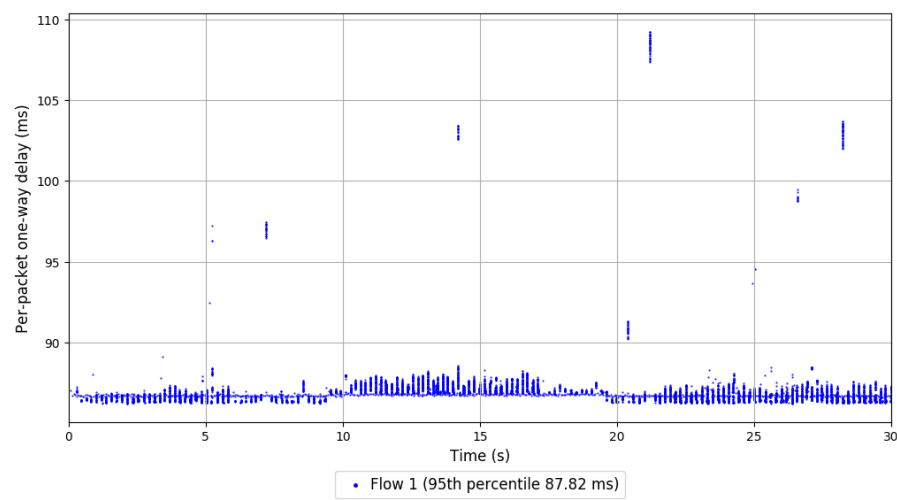
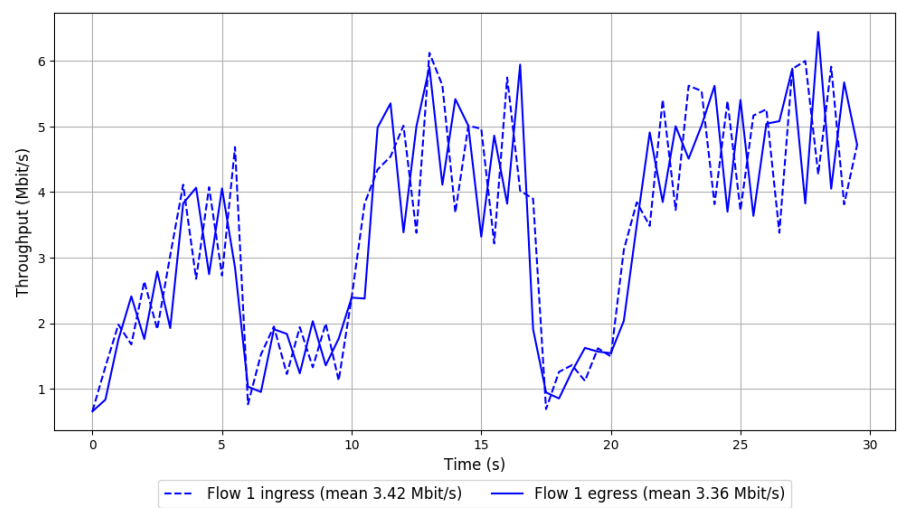
-- Flow 1:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 87.819 ms

Loss rate: 1.69%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-19 22:35:59

End at: 2017-12-19 22:36:29

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 87.547 ms

Loss rate: 1.67%

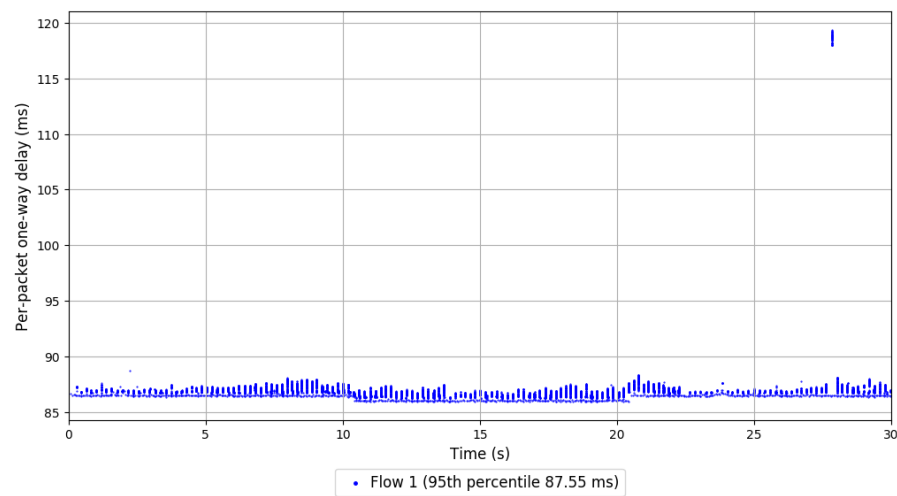
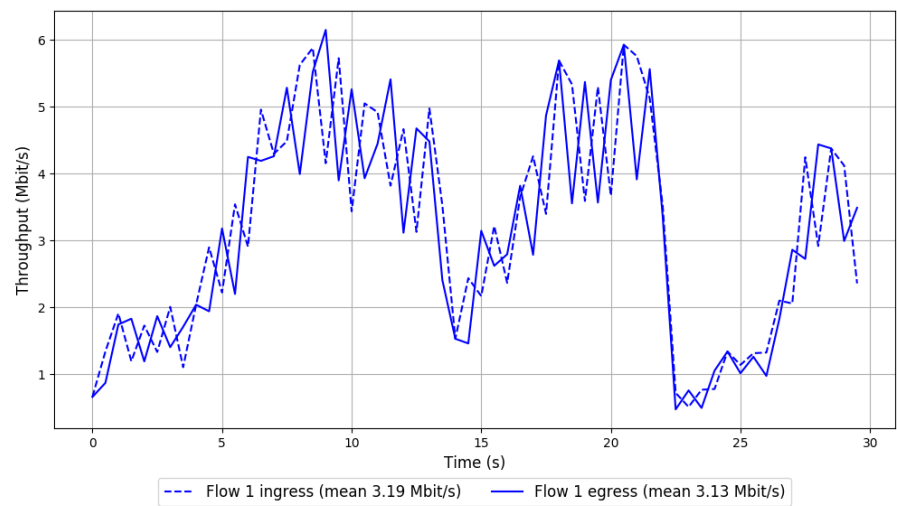
-- Flow 1:

Average throughput: 3.13 Mbit/s

95th percentile per-packet one-way delay: 87.547 ms

Loss rate: 1.67%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-19 22:48:11

End at: 2017-12-19 22:48:41

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 112.322 ms

Loss rate: 0.00%

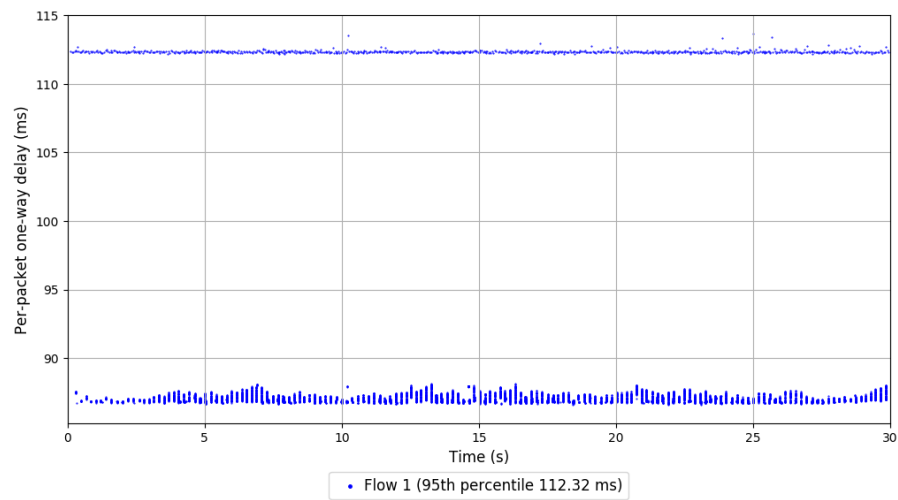
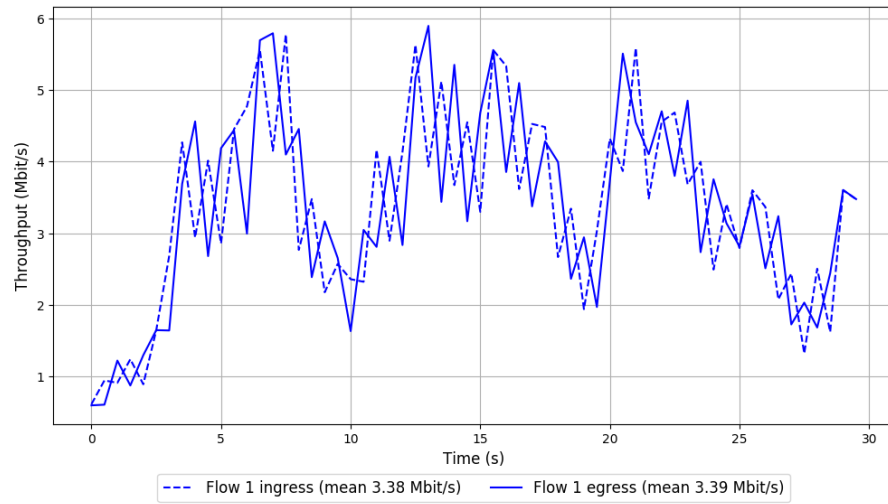
-- Flow 1:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 112.322 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-19 23:00:19

End at: 2017-12-19 23:00:49

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 87.293 ms

Loss rate: 1.15%

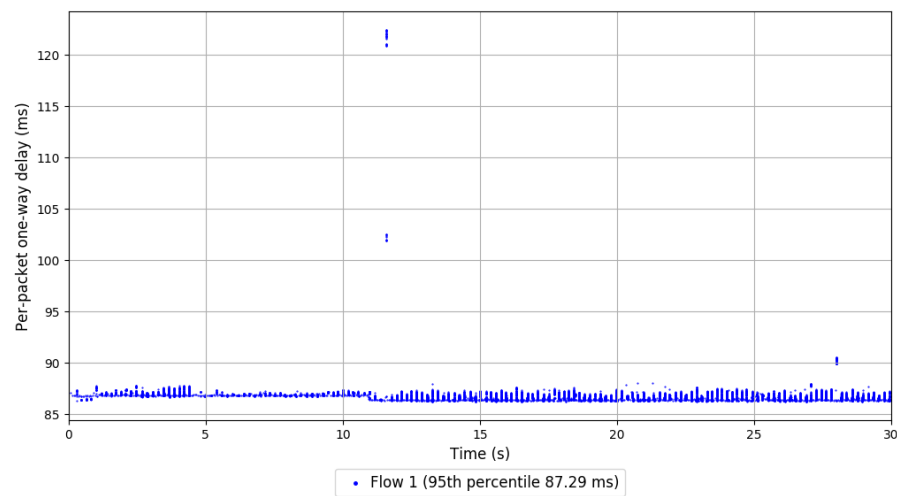
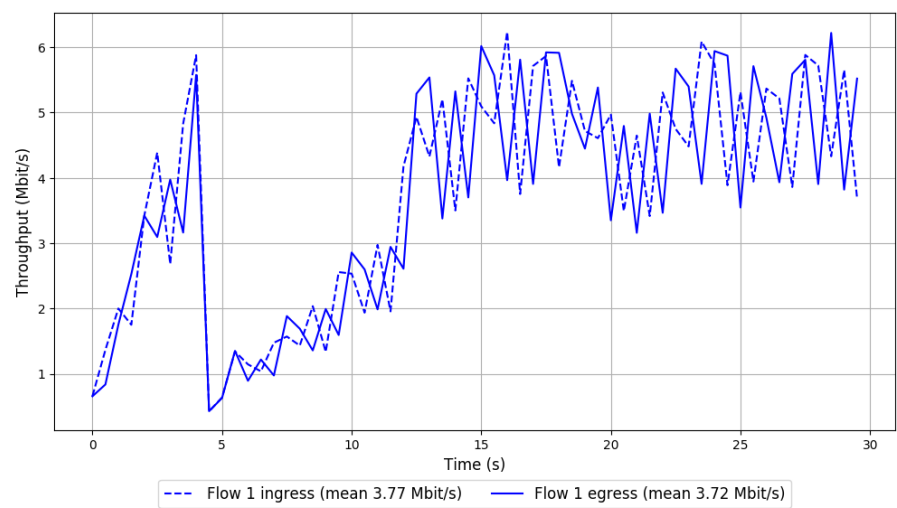
-- Flow 1:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 87.293 ms

Loss rate: 1.15%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-19 23:11:59

End at: 2017-12-19 23:12:29

Below is generated by plot.py at 2017-12-20 00:34:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 115.119 ms

Loss rate: 0.00%

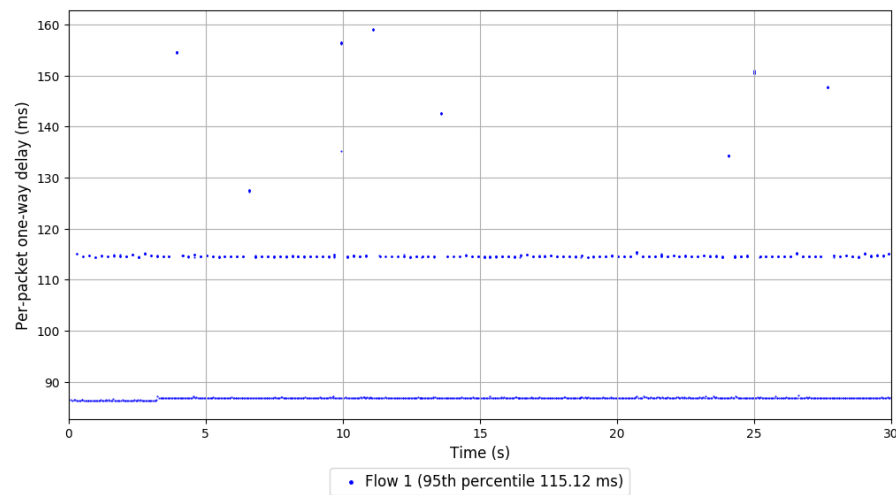
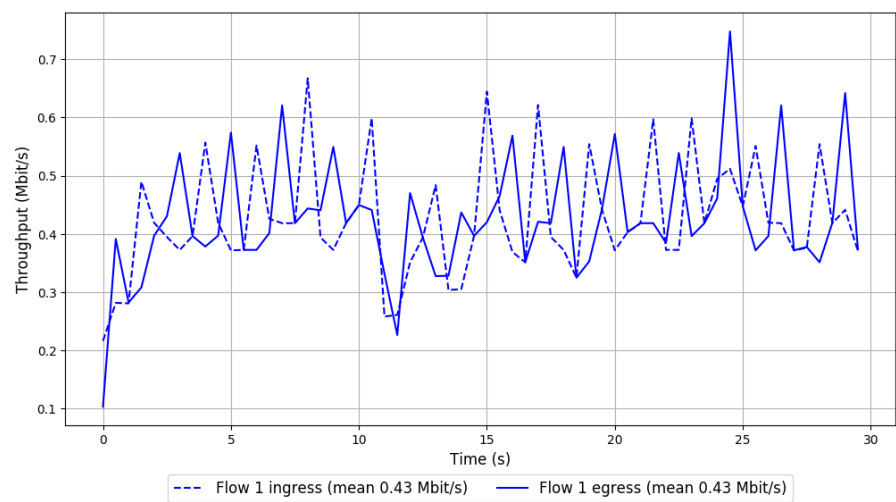
-- Flow 1:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 115.119 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

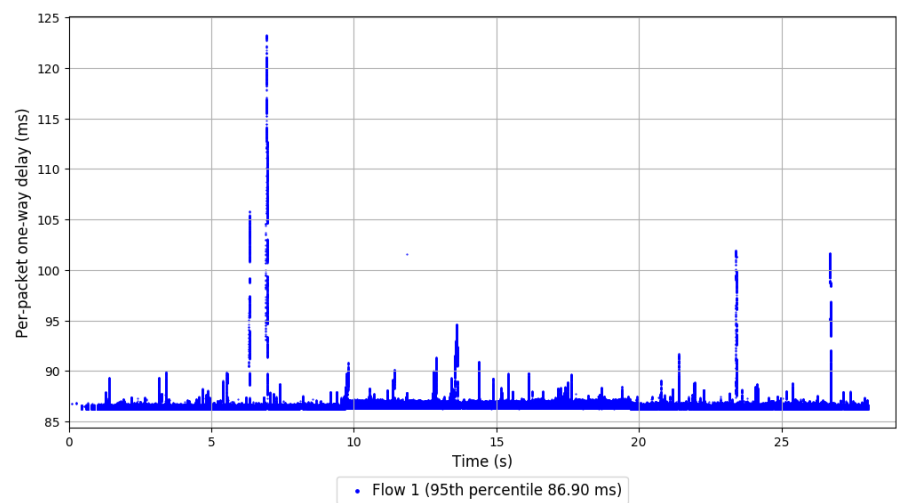
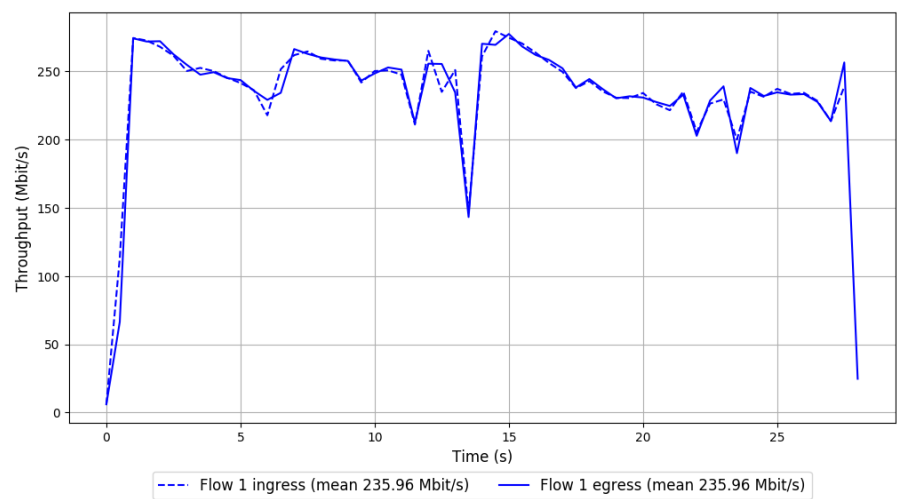


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-19 21:22:48
End at: 2017-12-19 21:23:18

# Below is generated by plot.py at 2017-12-20 00:35:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 235.96 Mbit/s
95th percentile per-packet one-way delay: 86.898 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 235.96 Mbit/s
95th percentile per-packet one-way delay: 86.898 ms
Loss rate: 0.00%
```

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

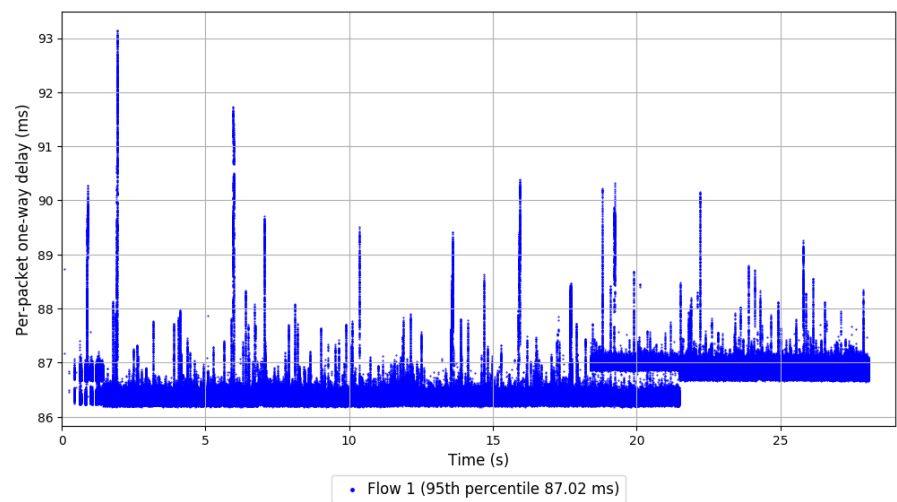
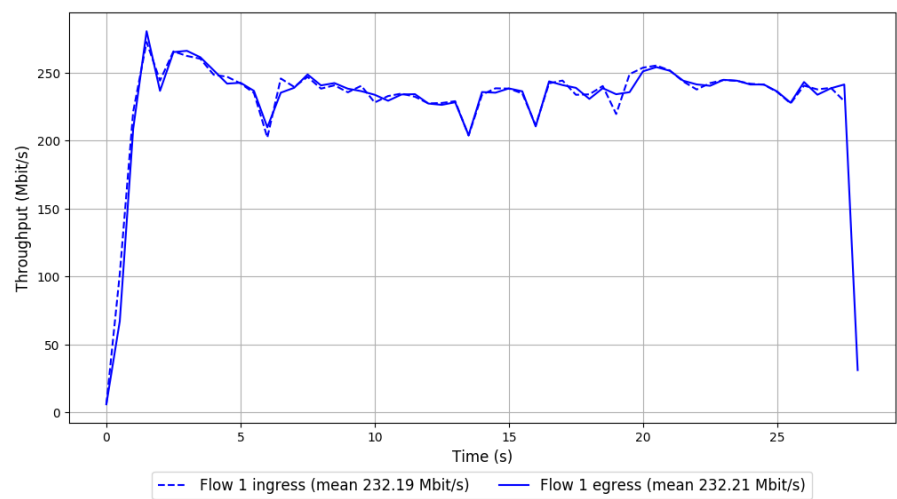


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-19 21:35:09
End at: 2017-12-19 21:35:39

# Below is generated by plot.py at 2017-12-20 00:35:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.21 Mbit/s
95th percentile per-packet one-way delay: 87.017 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.21 Mbit/s
95th percentile per-packet one-way delay: 87.017 ms
Loss rate: 0.00%
```

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

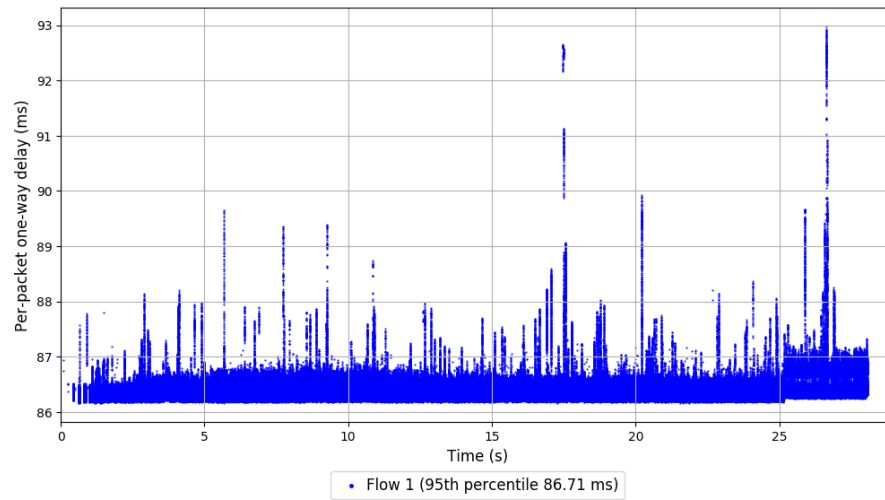
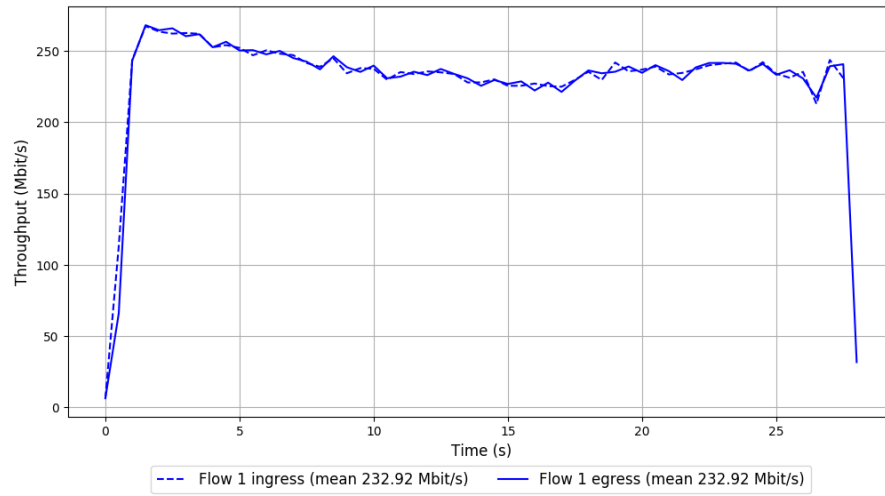


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-19 21:47:12
End at: 2017-12-19 21:47:42

# Below is generated by plot.py at 2017-12-20 00:35:29
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.92 Mbit/s
95th percentile per-packet one-way delay: 86.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.92 Mbit/s
95th percentile per-packet one-way delay: 86.707 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-19 21:59:26

End at: 2017-12-19 21:59:56

Below is generated by plot.py at 2017-12-20 00:35:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 223.09 Mbit/s

95th percentile per-packet one-way delay: 86.876 ms

Loss rate: 0.00%

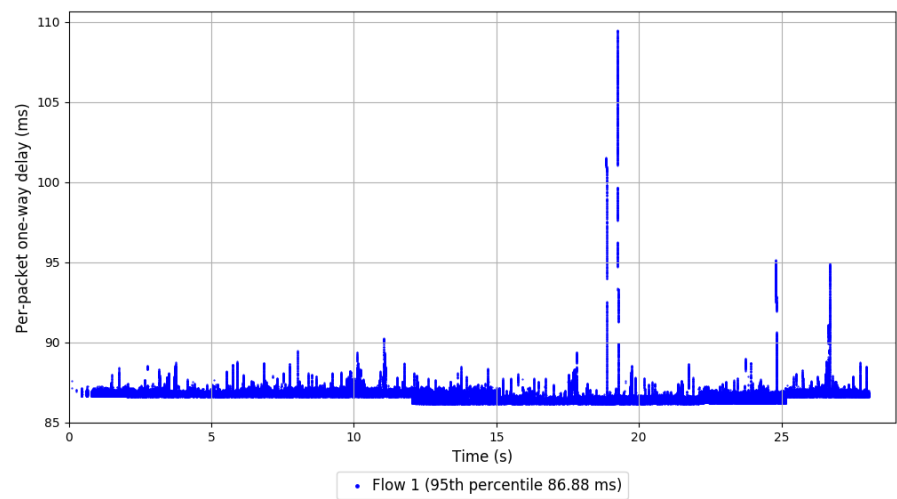
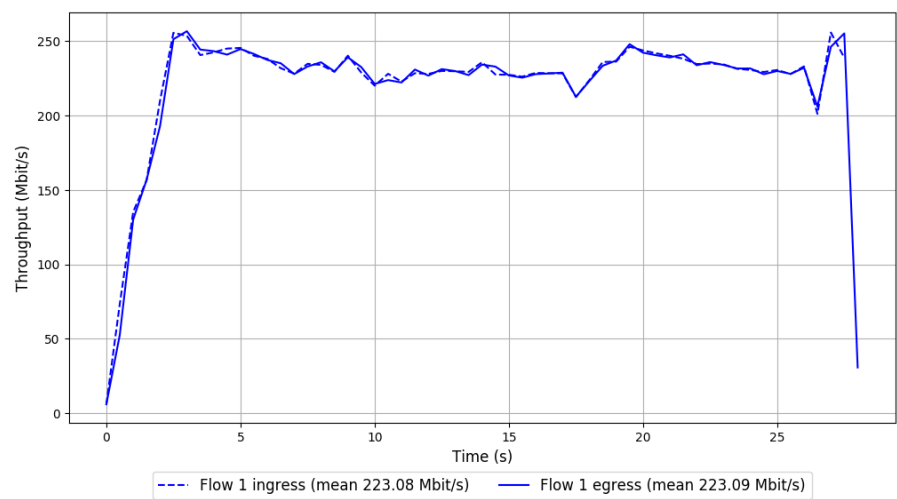
-- Flow 1:

Average throughput: 223.09 Mbit/s

95th percentile per-packet one-way delay: 86.876 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-19 22:11:37

End at: 2017-12-19 22:12:07

Below is generated by plot.py at 2017-12-20 00:35:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 229.20 Mbit/s

95th percentile per-packet one-way delay: 86.904 ms

Loss rate: 0.00%

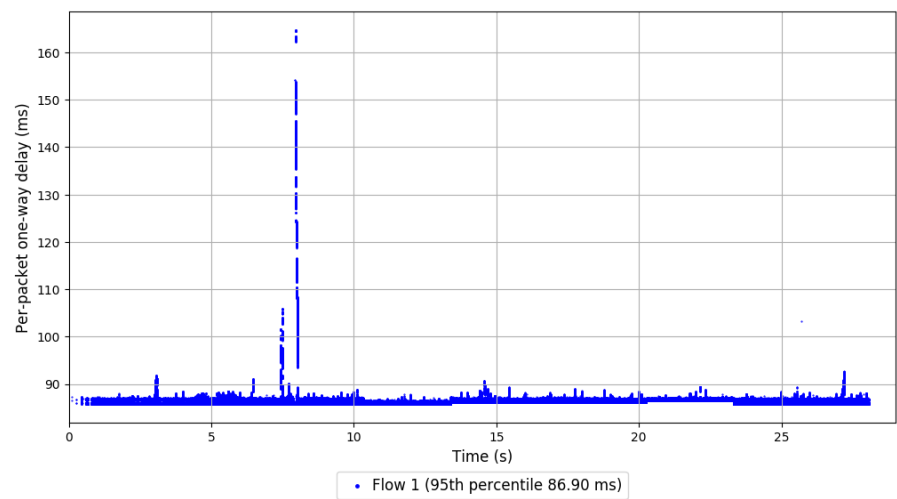
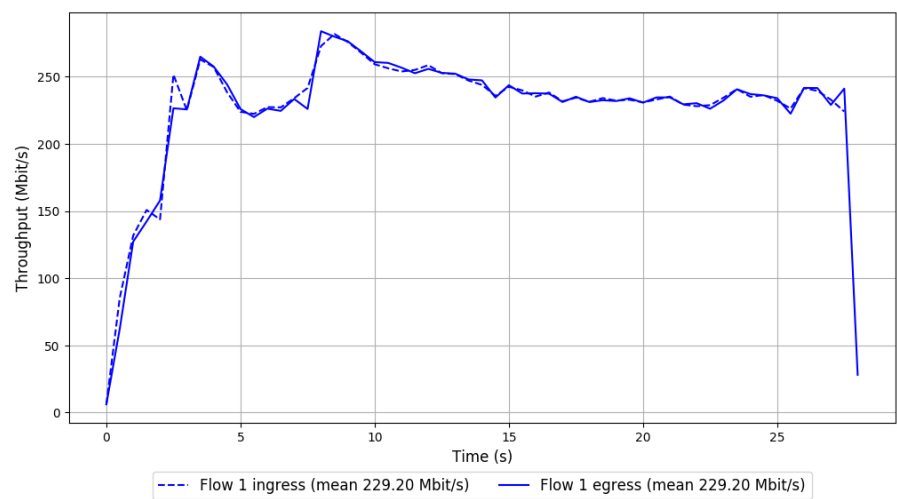
-- Flow 1:

Average throughput: 229.20 Mbit/s

95th percentile per-packet one-way delay: 86.904 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-19 22:23:21

End at: 2017-12-19 22:23:51

Below is generated by plot.py at 2017-12-20 00:35:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.26 Mbit/s

95th percentile per-packet one-way delay: 86.795 ms

Loss rate: 0.00%

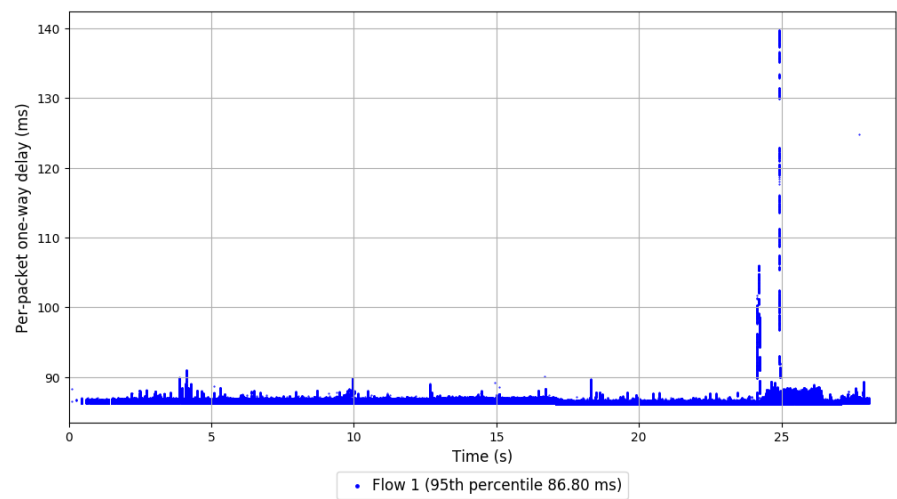
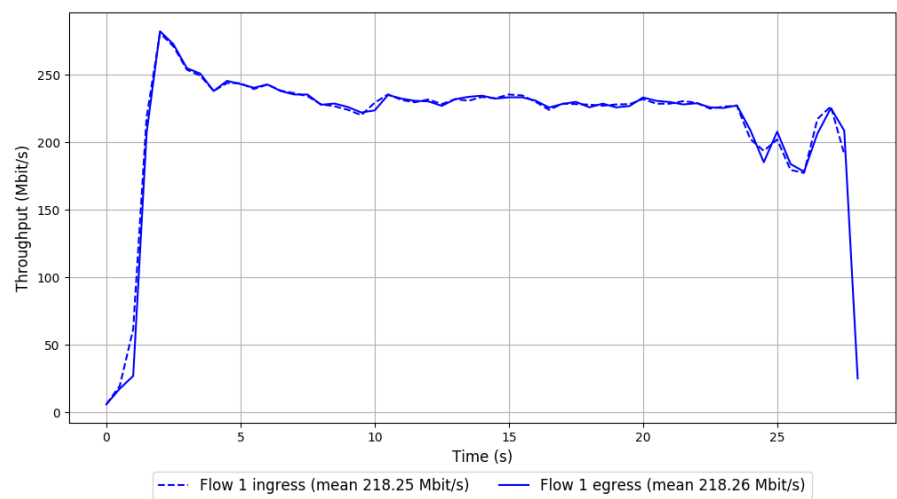
-- Flow 1:

Average throughput: 218.26 Mbit/s

95th percentile per-packet one-way delay: 86.795 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-19 22:34:58

End at: 2017-12-19 22:35:28

Below is generated by plot.py at 2017-12-20 00:40:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 226.64 Mbit/s

95th percentile per-packet one-way delay: 86.869 ms

Loss rate: 0.00%

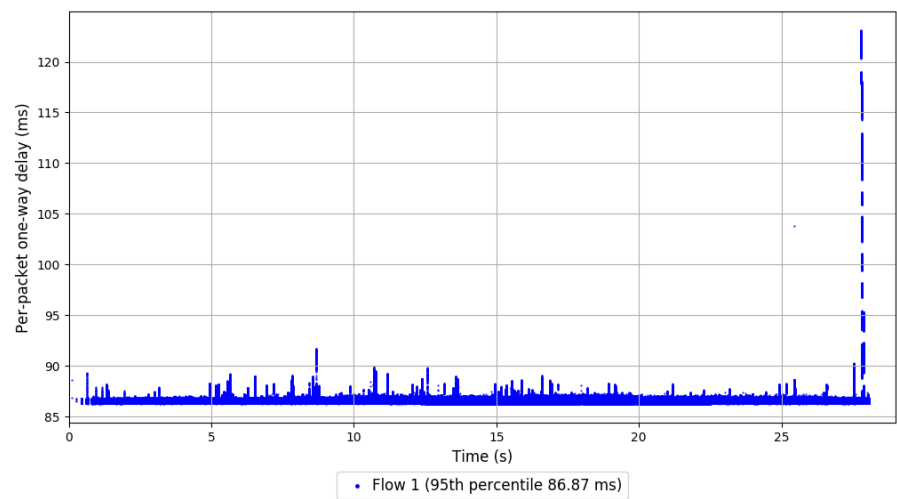
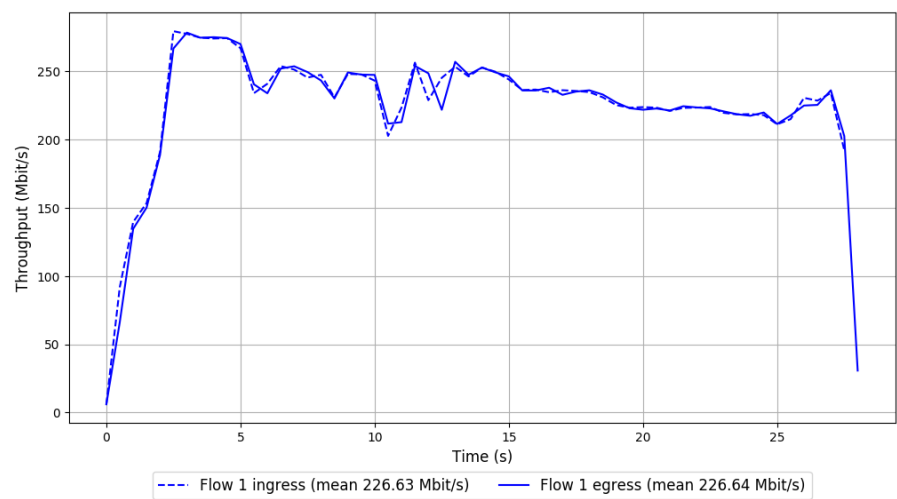
-- Flow 1:

Average throughput: 226.64 Mbit/s

95th percentile per-packet one-way delay: 86.869 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-19 22:47:11

End at: 2017-12-19 22:47:41

Below is generated by plot.py at 2017-12-20 00:41:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.99 Mbit/s

95th percentile per-packet one-way delay: 86.881 ms

Loss rate: 0.00%

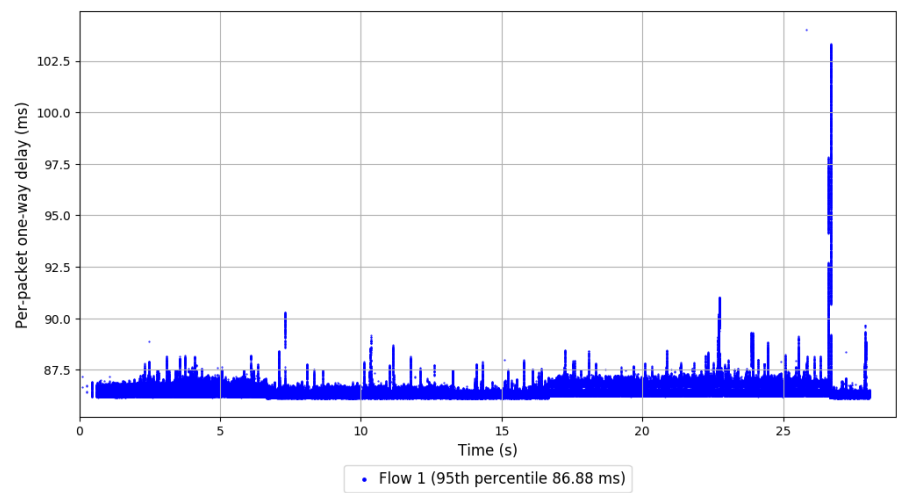
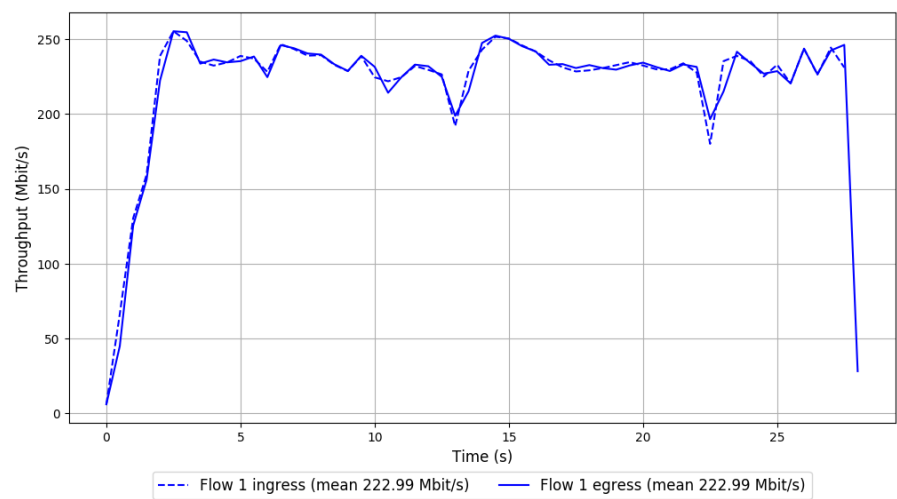
-- Flow 1:

Average throughput: 222.99 Mbit/s

95th percentile per-packet one-way delay: 86.881 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-19 22:59:18

End at: 2017-12-19 22:59:48

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 230.02 Mbit/s

95th percentile per-packet one-way delay: 86.849 ms

Loss rate: 0.14%

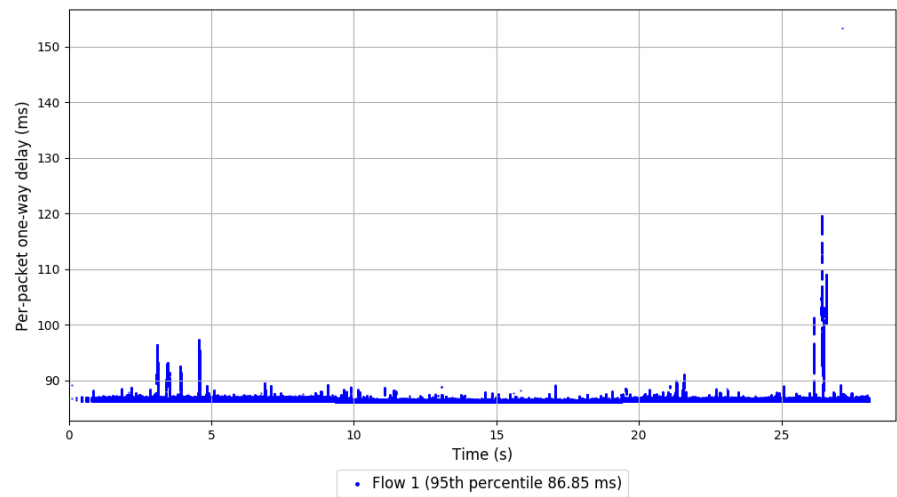
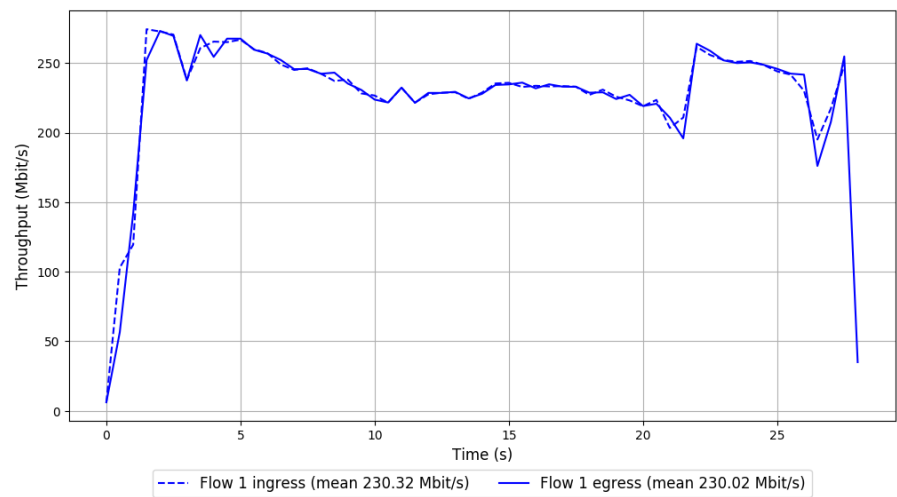
-- Flow 1:

Average throughput: 230.02 Mbit/s

95th percentile per-packet one-way delay: 86.849 ms

Loss rate: 0.14%

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

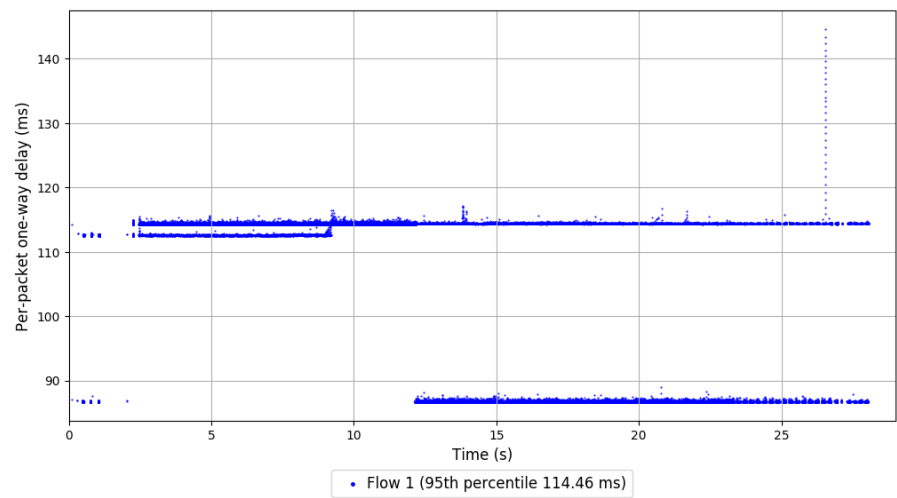
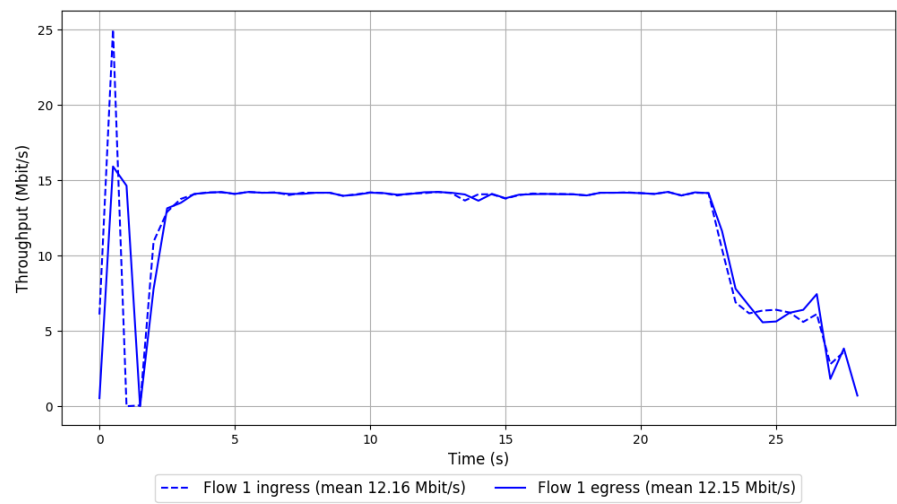


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-19 23:11:19
End at: 2017-12-19 23:11:49

# Below is generated by plot.py at 2017-12-20 00:41:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 114.461 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 12.15 Mbit/s
95th percentile per-packet one-way delay: 114.461 ms
Loss rate: 0.01%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-19 21:15:19

End at: 2017-12-19 21:15:49

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 90.579 ms

Loss rate: 0.46%

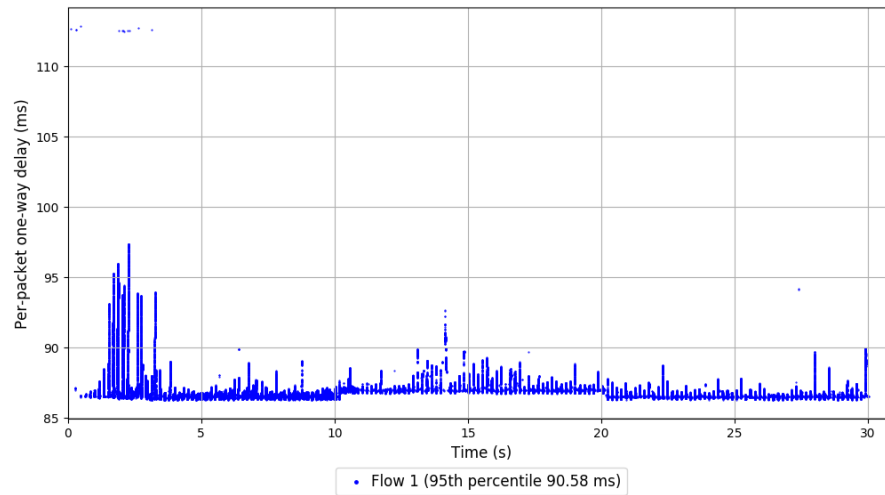
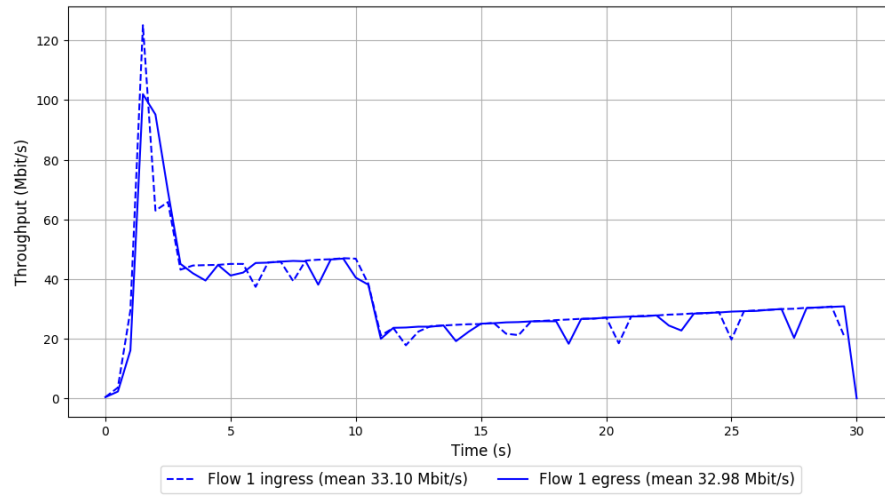
-- Flow 1:

Average throughput: 32.98 Mbit/s

95th percentile per-packet one-way delay: 90.579 ms

Loss rate: 0.46%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-19 21:27:45

End at: 2017-12-19 21:28:15

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.69 Mbit/s

95th percentile per-packet one-way delay: 92.373 ms

Loss rate: 0.02%

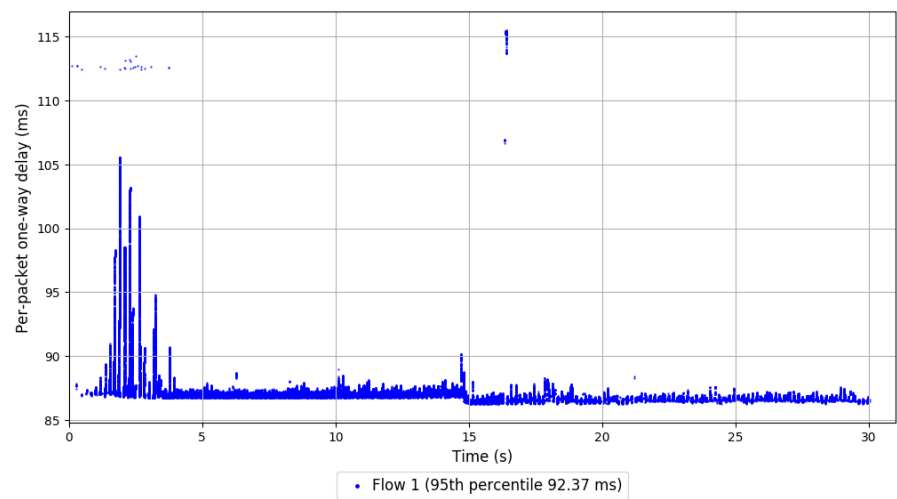
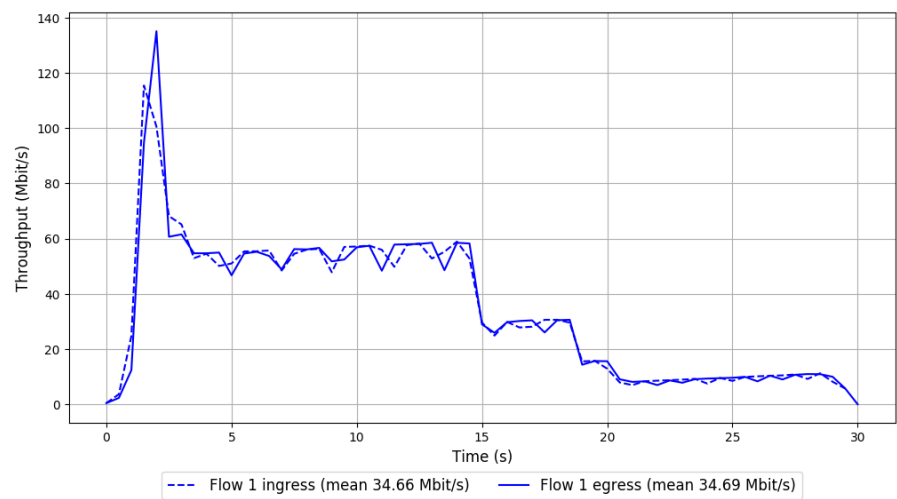
-- Flow 1:

Average throughput: 34.69 Mbit/s

95th percentile per-packet one-way delay: 92.373 ms

Loss rate: 0.02%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-19 21:39:49

End at: 2017-12-19 21:40:19

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.29 Mbit/s

95th percentile per-packet one-way delay: 94.216 ms

Loss rate: 2.75%

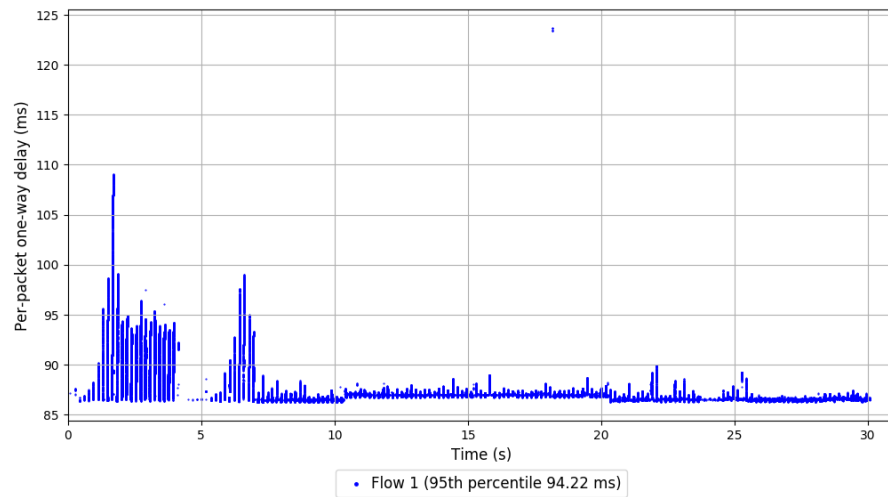
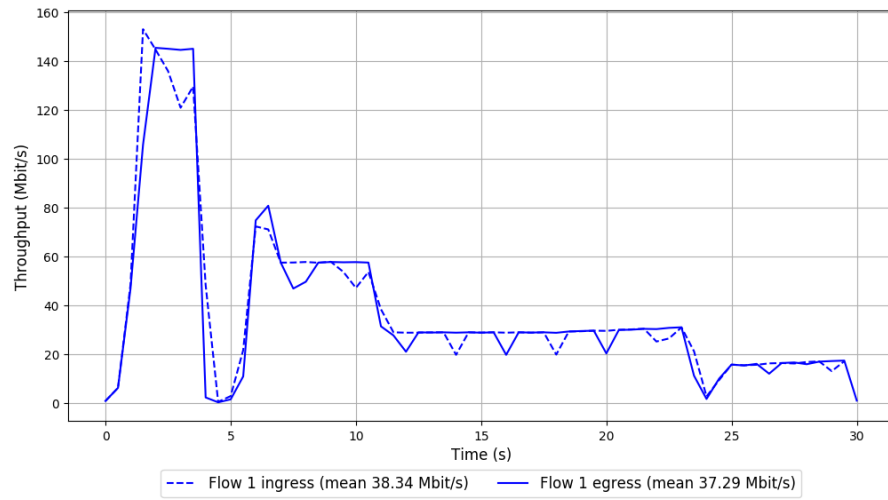
-- Flow 1:

Average throughput: 37.29 Mbit/s

95th percentile per-packet one-way delay: 94.216 ms

Loss rate: 2.75%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-19 21:52:04

End at: 2017-12-19 21:52:34

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.15 Mbit/s

95th percentile per-packet one-way delay: 87.717 ms

Loss rate: 0.00%

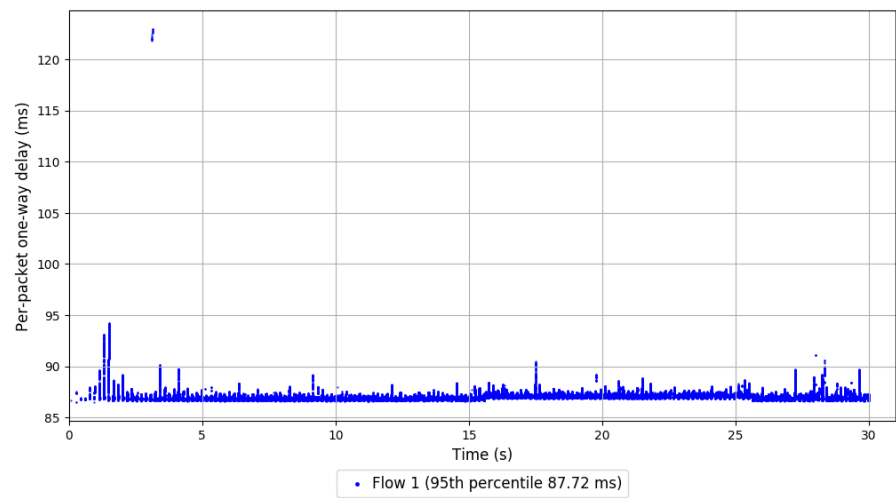
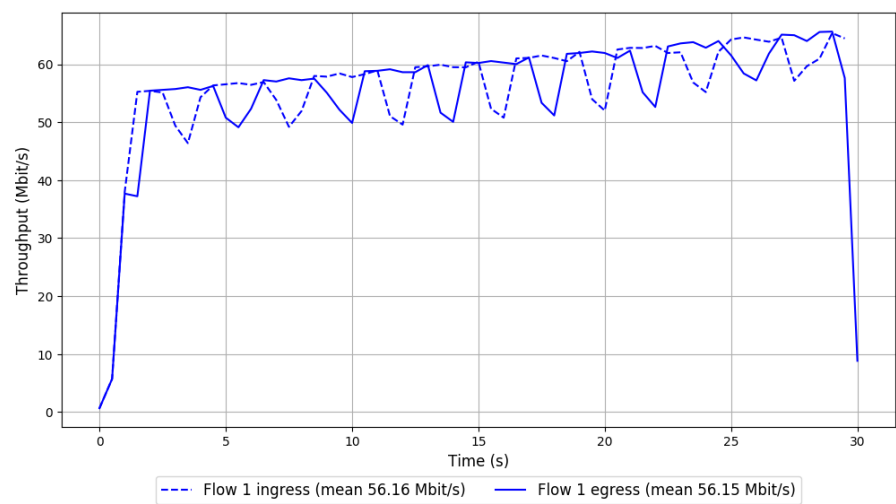
-- Flow 1:

Average throughput: 56.15 Mbit/s

95th percentile per-packet one-way delay: 87.717 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-19 22:04:15

End at: 2017-12-19 22:04:45

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.64 Mbit/s

95th percentile per-packet one-way delay: 88.137 ms

Loss rate: 0.00%

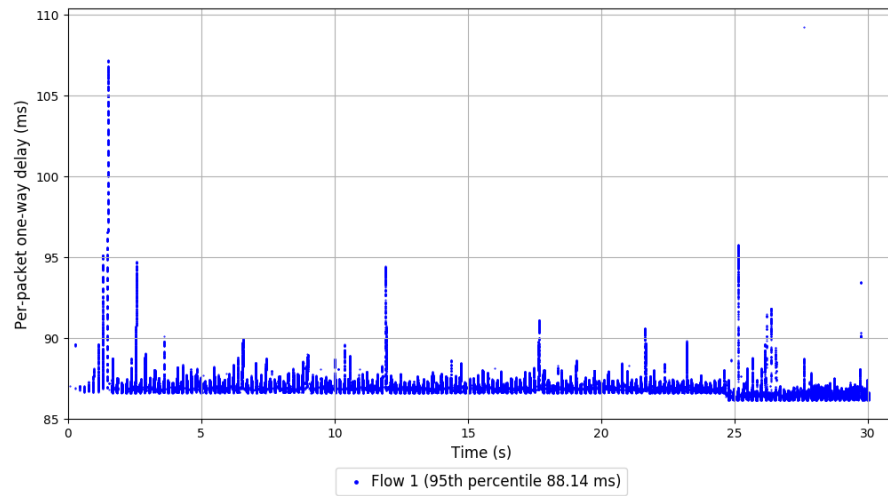
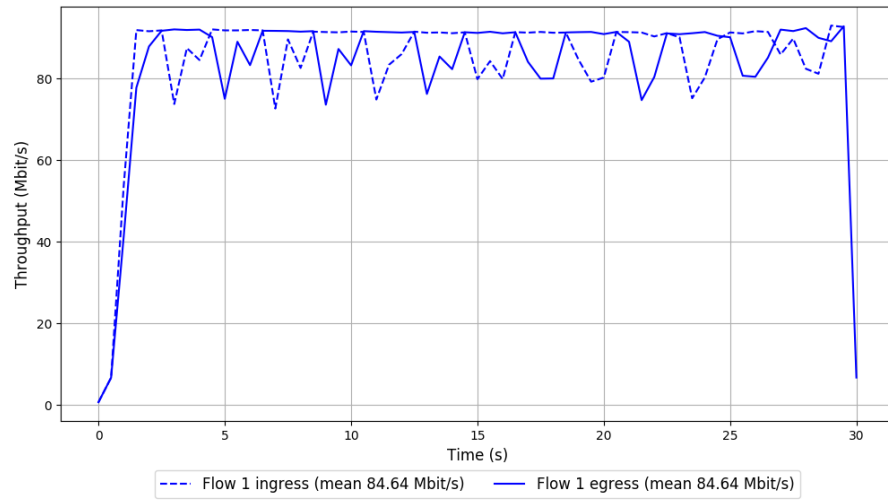
-- Flow 1:

Average throughput: 84.64 Mbit/s

95th percentile per-packet one-way delay: 88.137 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-19 22:15:56

End at: 2017-12-19 22:16:26

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 19.46 Mbit/s

95th percentile per-packet one-way delay: 87.946 ms

Loss rate: 0.05%

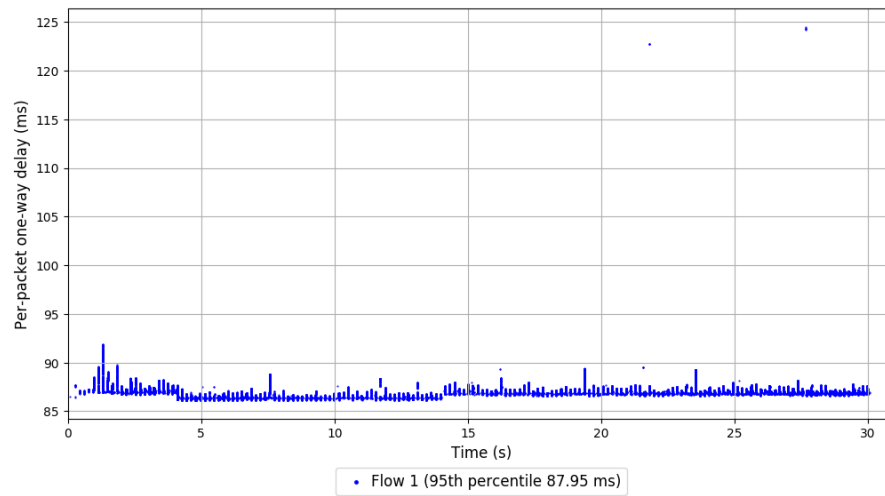
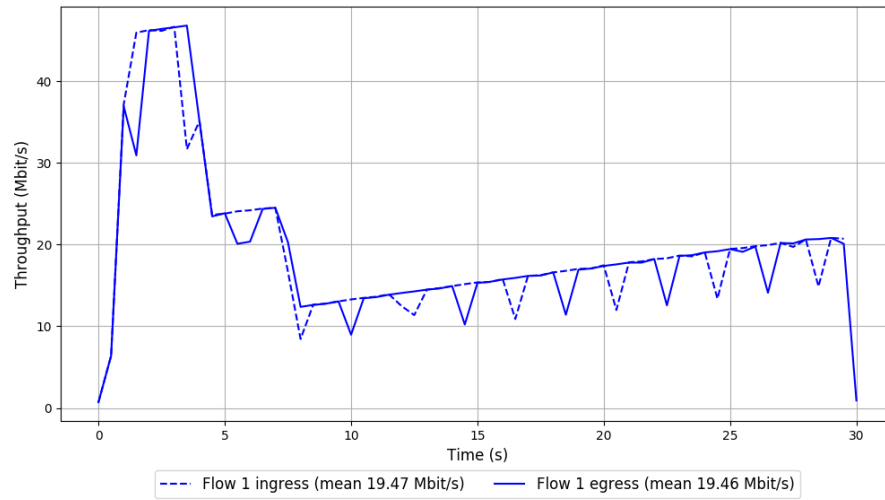
-- Flow 1:

Average throughput: 19.46 Mbit/s

95th percentile per-packet one-way delay: 87.946 ms

Loss rate: 0.05%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-19 22:27:30

End at: 2017-12-19 22:28:00

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.28 Mbit/s

95th percentile per-packet one-way delay: 88.138 ms

Loss rate: 0.59%

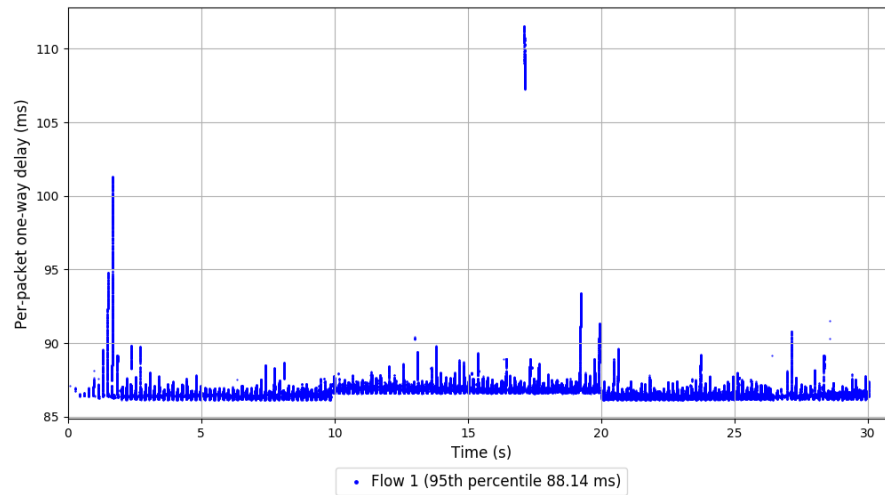
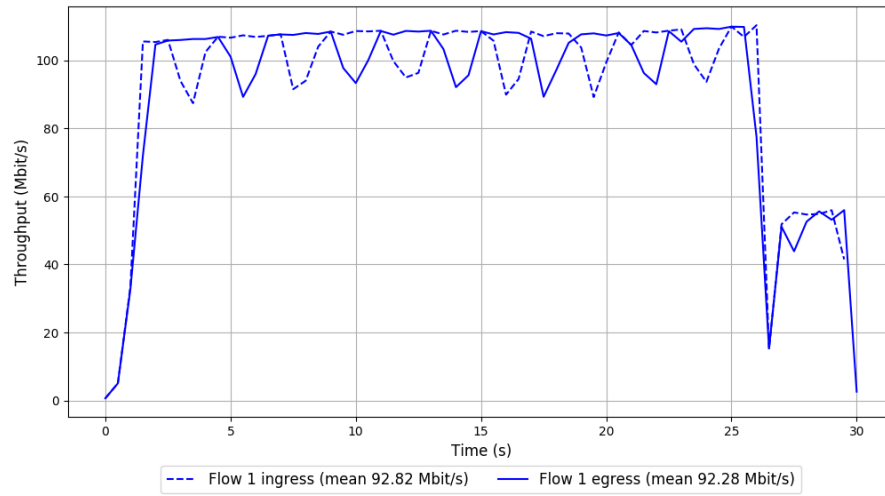
-- Flow 1:

Average throughput: 92.28 Mbit/s

95th percentile per-packet one-way delay: 88.138 ms

Loss rate: 0.59%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-19 22:39:46

End at: 2017-12-19 22:40:16

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.84 Mbit/s

95th percentile per-packet one-way delay: 87.642 ms

Loss rate: 0.00%

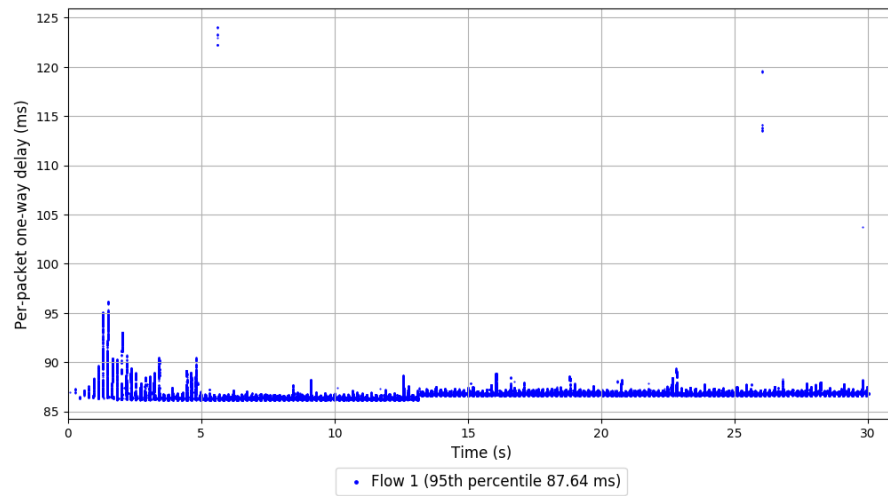
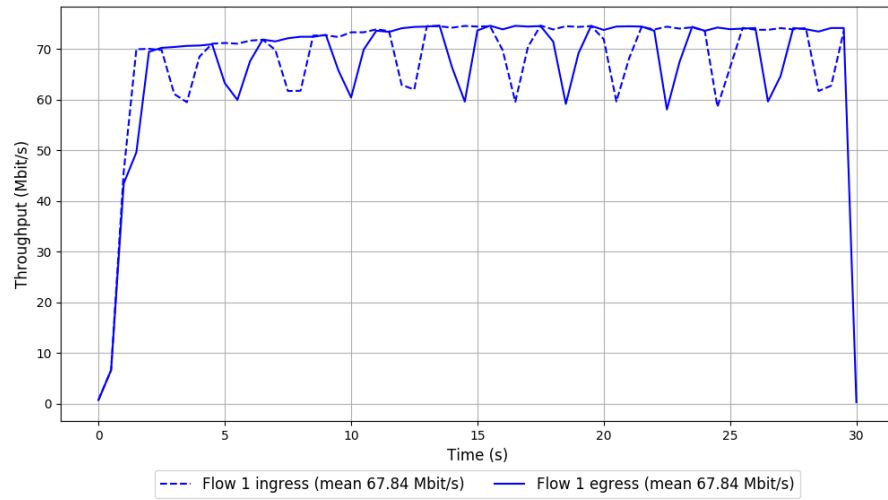
-- Flow 1:

Average throughput: 67.84 Mbit/s

95th percentile per-packet one-way delay: 87.642 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-19 22:51:55

End at: 2017-12-19 22:52:25

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.23 Mbit/s

95th percentile per-packet one-way delay: 88.286 ms

Loss rate: 0.00%

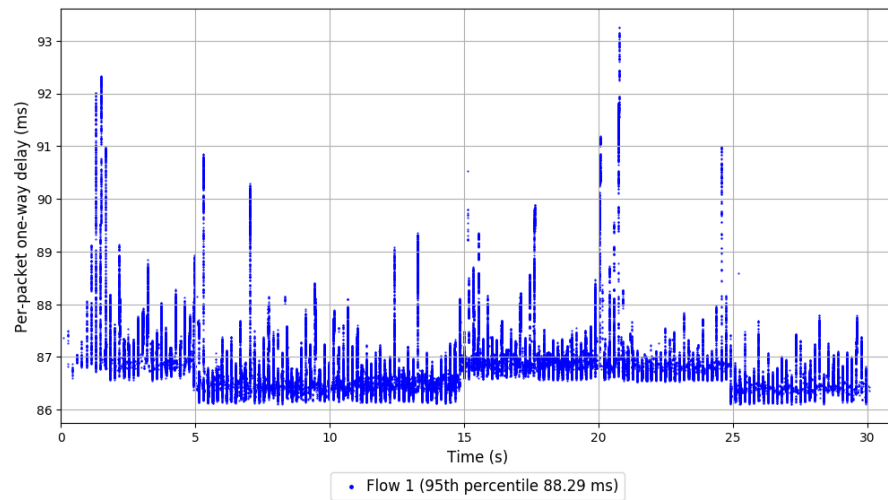
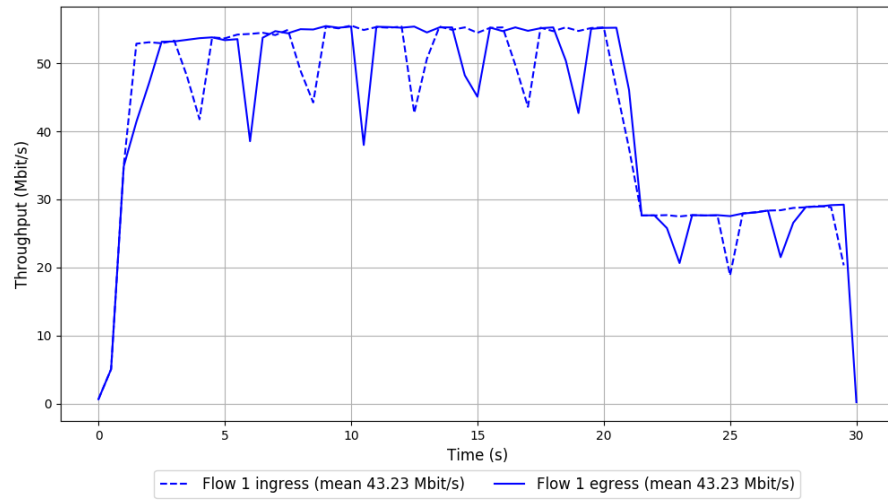
-- Flow 1:

Average throughput: 43.23 Mbit/s

95th percentile per-packet one-way delay: 88.286 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-19 23:03:54

End at: 2017-12-19 23:04:24

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 45.83 Mbit/s

95th percentile per-packet one-way delay: 88.238 ms

Loss rate: 0.40%

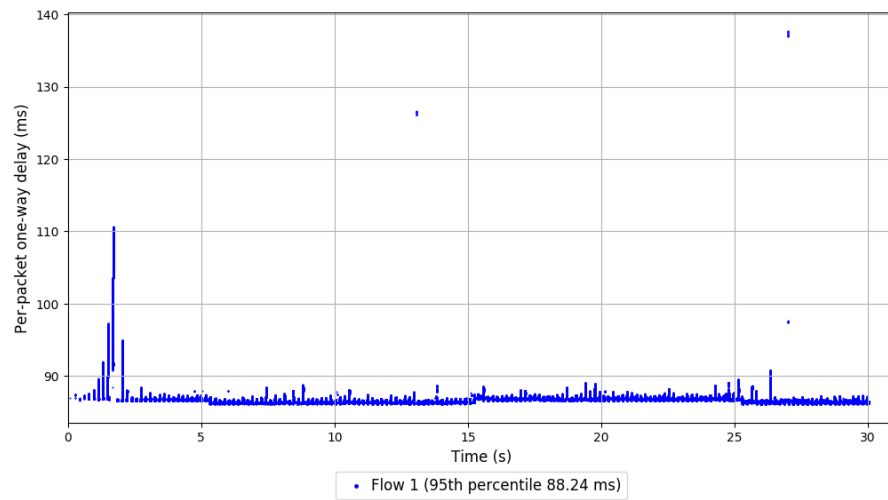
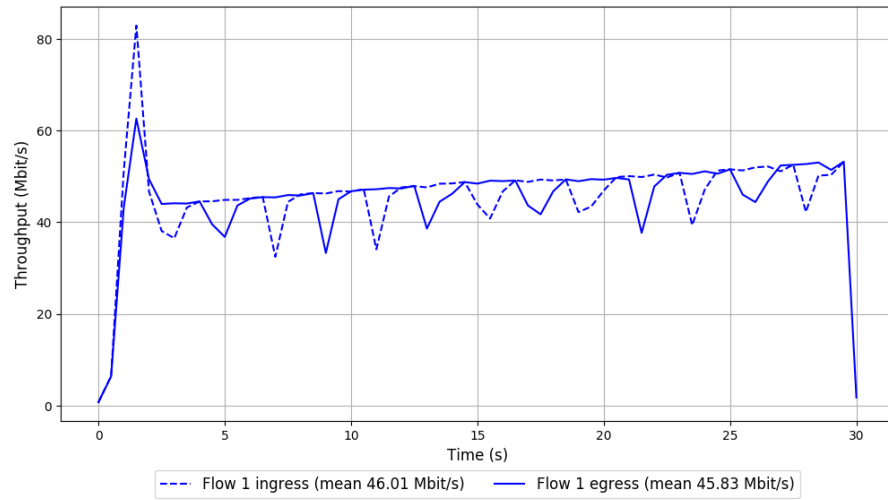
-- Flow 1:

Average throughput: 45.83 Mbit/s

95th percentile per-packet one-way delay: 88.238 ms

Loss rate: 0.40%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-19 21:26:48

End at: 2017-12-19 21:27:18

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 209.42 Mbit/s

95th percentile per-packet one-way delay: 118.652 ms

Loss rate: 0.51%

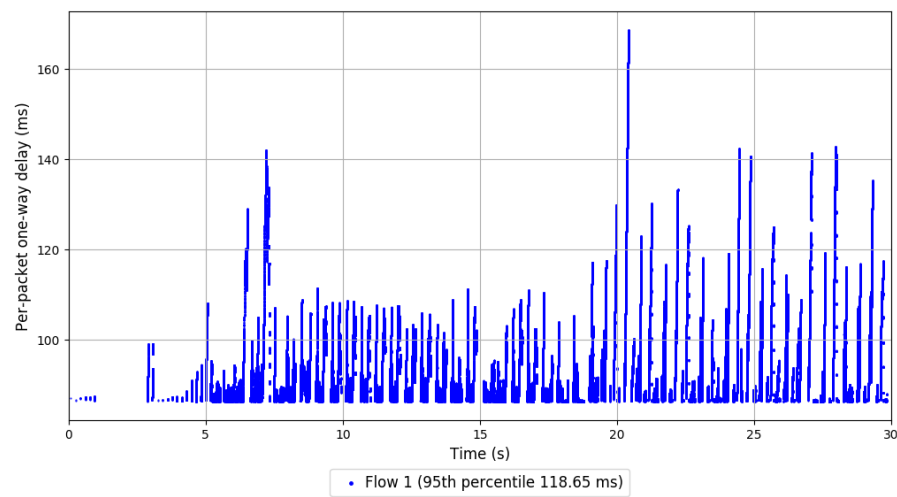
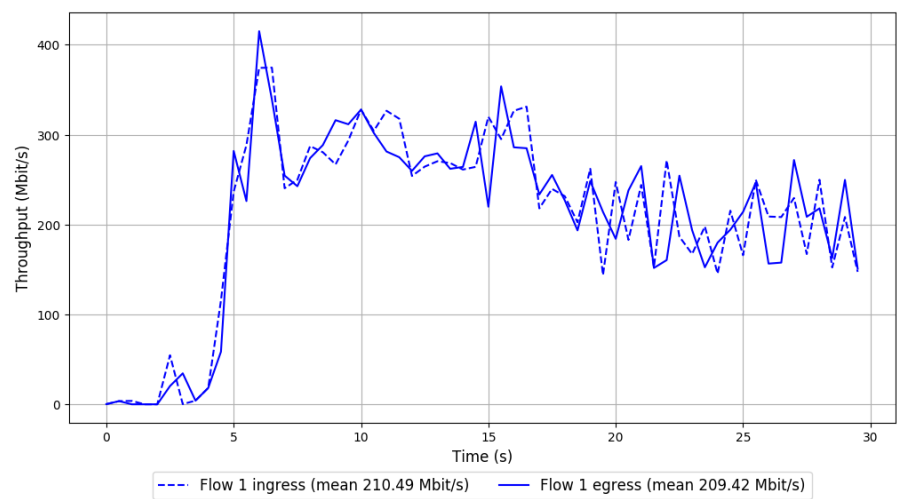
-- Flow 1:

Average throughput: 209.42 Mbit/s

95th percentile per-packet one-way delay: 118.652 ms

Loss rate: 0.51%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-19 21:38:55

End at: 2017-12-19 21:39:25

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.97 Mbit/s

95th percentile per-packet one-way delay: 105.225 ms

Loss rate: 0.00%

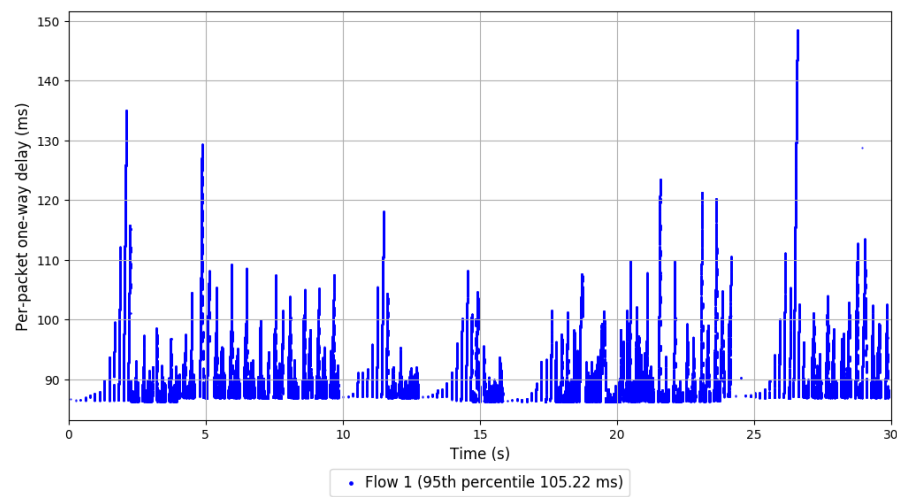
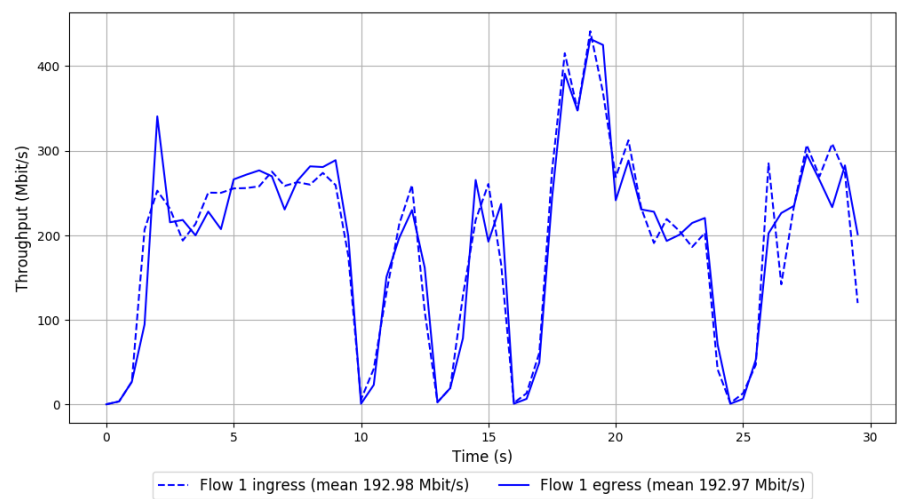
-- Flow 1:

Average throughput: 192.97 Mbit/s

95th percentile per-packet one-way delay: 105.225 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-19 21:51:07

End at: 2017-12-19 21:51:37

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 244.27 Mbit/s

95th percentile per-packet one-way delay: 107.216 ms

Loss rate: 0.11%

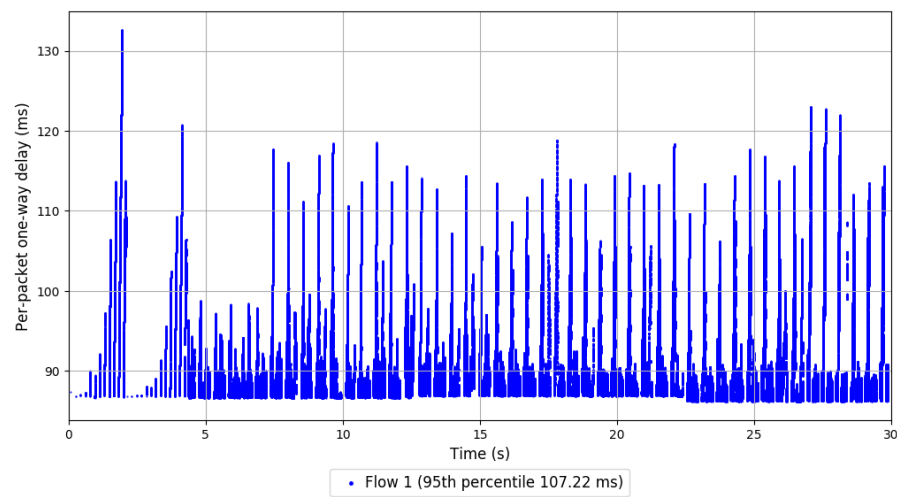
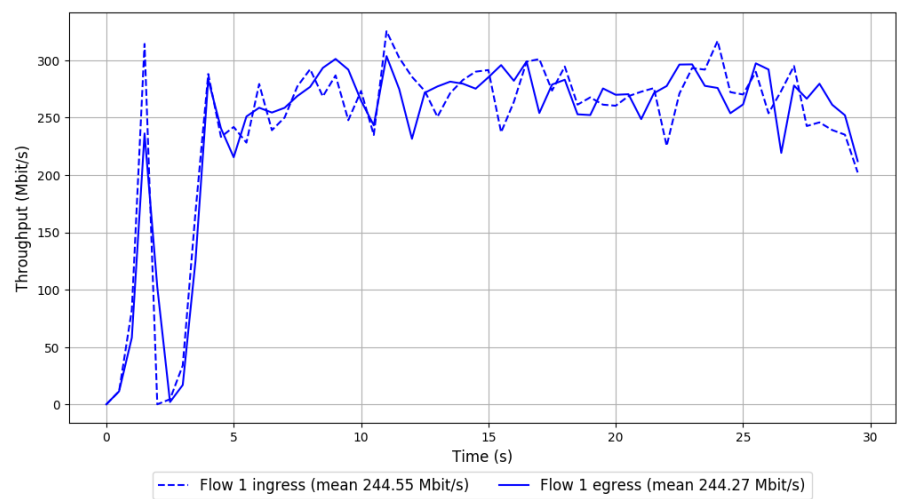
-- Flow 1:

Average throughput: 244.27 Mbit/s

95th percentile per-packet one-way delay: 107.216 ms

Loss rate: 0.11%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-19 22:03:20

End at: 2017-12-19 22:03:50

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 211.80 Mbit/s

95th percentile per-packet one-way delay: 123.227 ms

Loss rate: 0.10%

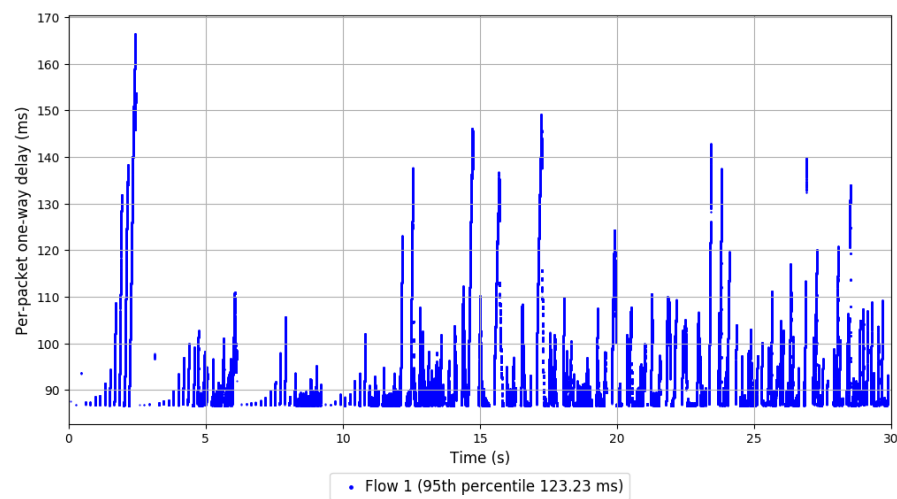
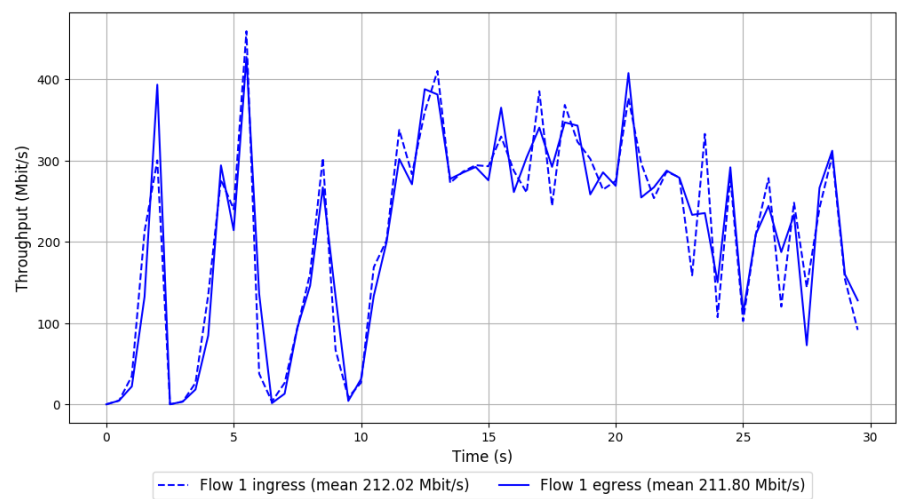
-- Flow 1:

Average throughput: 211.80 Mbit/s

95th percentile per-packet one-way delay: 123.227 ms

Loss rate: 0.10%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-19 22:14:59

End at: 2017-12-19 22:15:29

Below is generated by plot.py at 2017-12-20 00:41:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 224.19 Mbit/s

95th percentile per-packet one-way delay: 157.082 ms

Loss rate: 0.25%

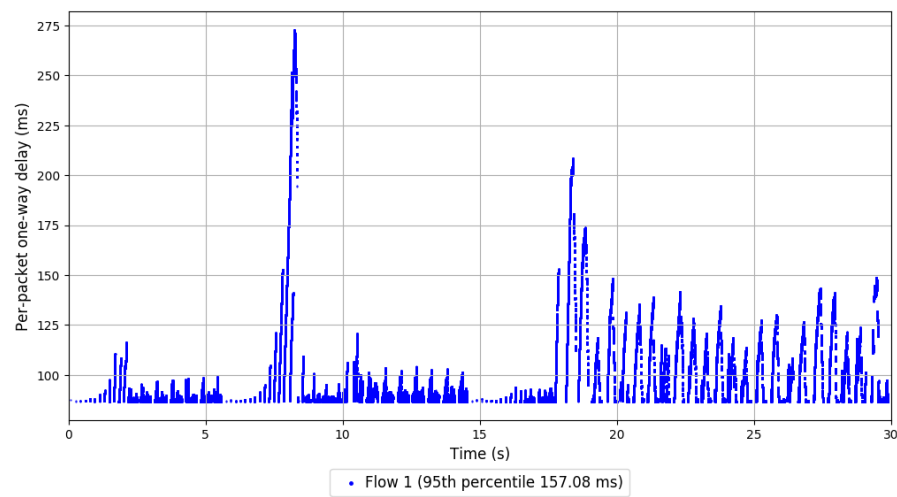
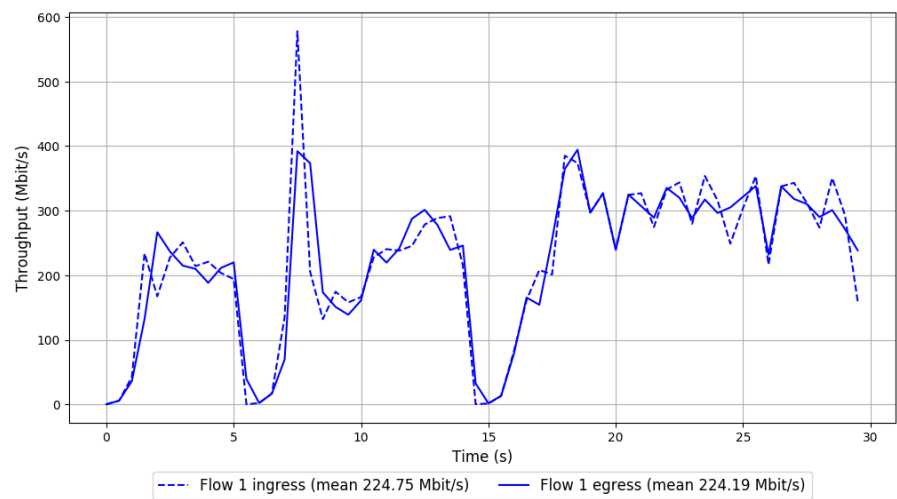
-- Flow 1:

Average throughput: 224.19 Mbit/s

95th percentile per-packet one-way delay: 157.082 ms

Loss rate: 0.25%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-19 22:26:40

End at: 2017-12-19 22:27:10

Below is generated by plot.py at 2017-12-20 00:42:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 135.11 Mbit/s

95th percentile per-packet one-way delay: 119.906 ms

Loss rate: 0.31%

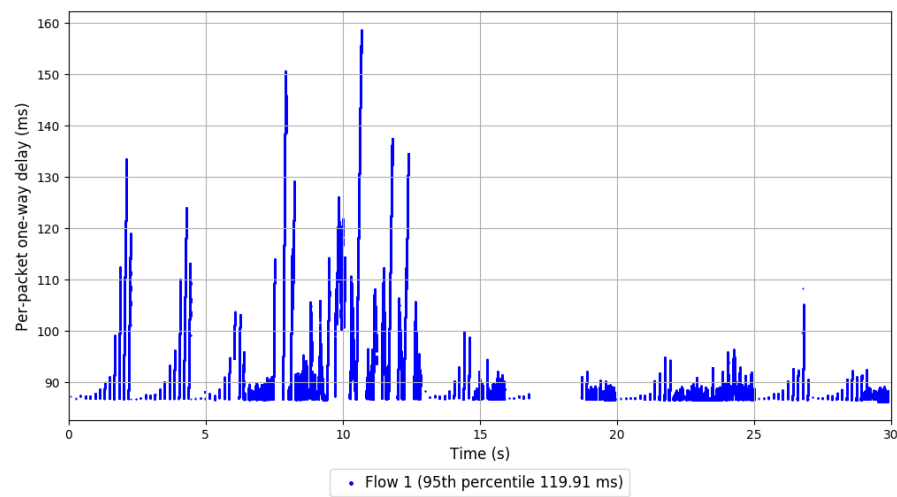
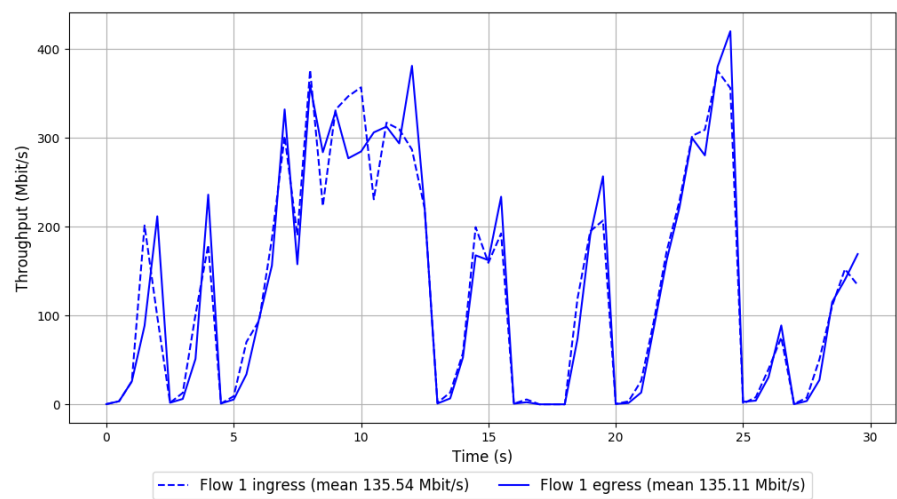
-- Flow 1:

Average throughput: 135.11 Mbit/s

95th percentile per-packet one-way delay: 119.906 ms

Loss rate: 0.31%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-19 22:38:52

End at: 2017-12-19 22:39:22

Below is generated by plot.py at 2017-12-20 00:44:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.71 Mbit/s

95th percentile per-packet one-way delay: 156.122 ms

Loss rate: 0.33%

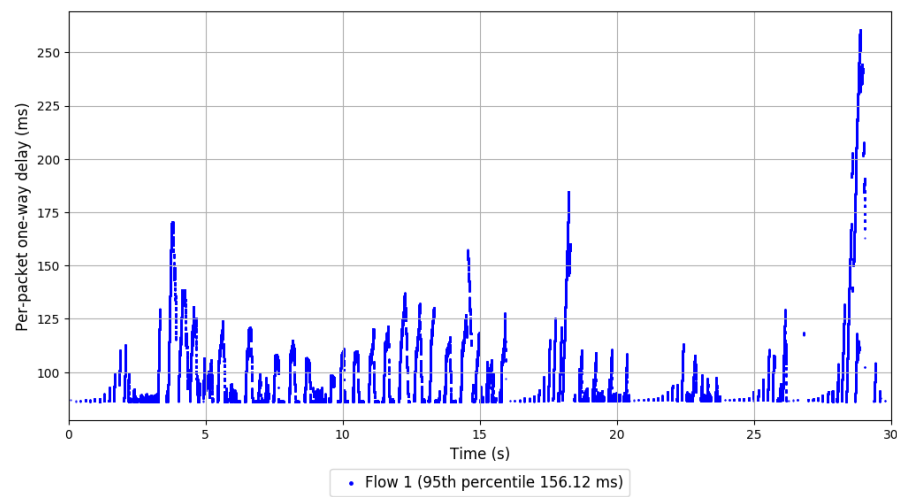
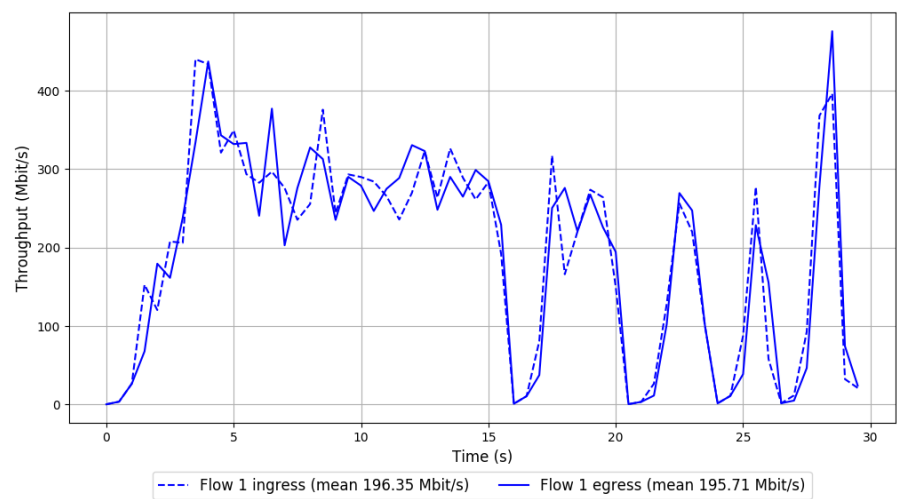
-- Flow 1:

Average throughput: 195.71 Mbit/s

95th percentile per-packet one-way delay: 156.122 ms

Loss rate: 0.33%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-19 22:51:05

End at: 2017-12-19 22:51:35

Below is generated by plot.py at 2017-12-20 00:44:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 130.89 Mbit/s

95th percentile per-packet one-way delay: 138.054 ms

Loss rate: 0.89%

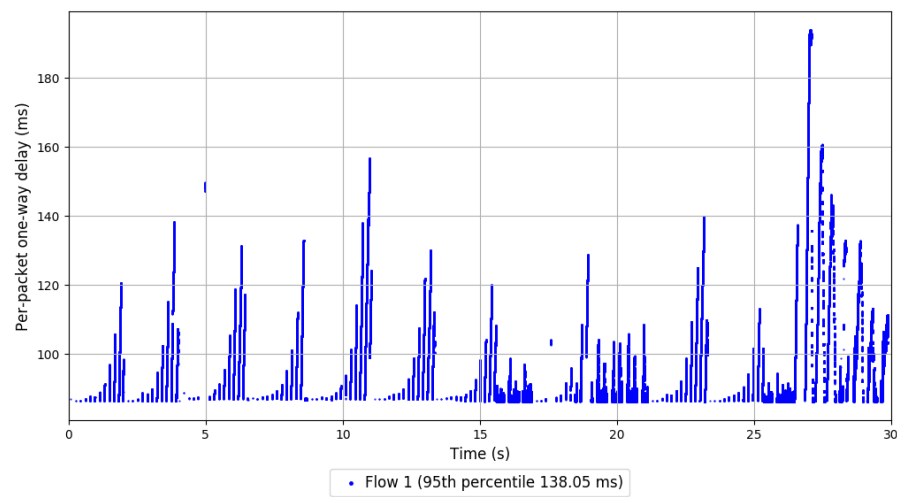
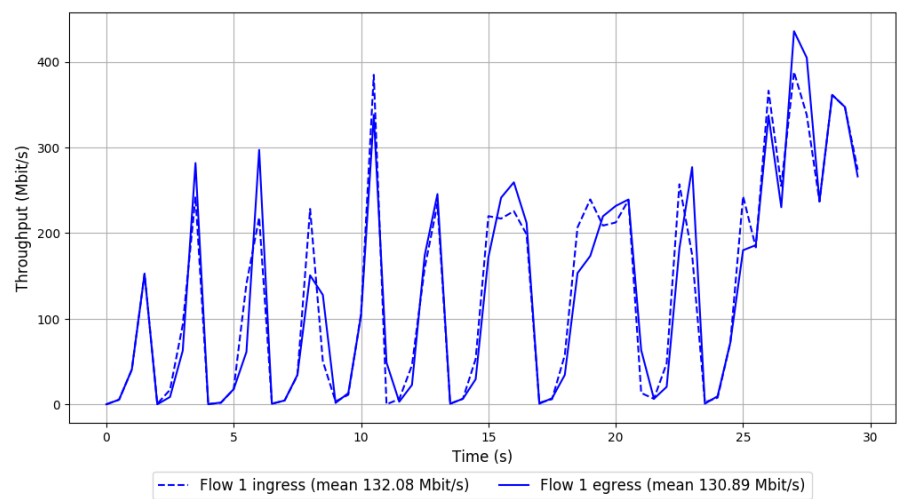
-- Flow 1:

Average throughput: 130.89 Mbit/s

95th percentile per-packet one-way delay: 138.054 ms

Loss rate: 0.89%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-19 23:03:00

End at: 2017-12-19 23:03:30

Below is generated by plot.py at 2017-12-20 00:44:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 201.27 Mbit/s

95th percentile per-packet one-way delay: 216.662 ms

Loss rate: 1.06%

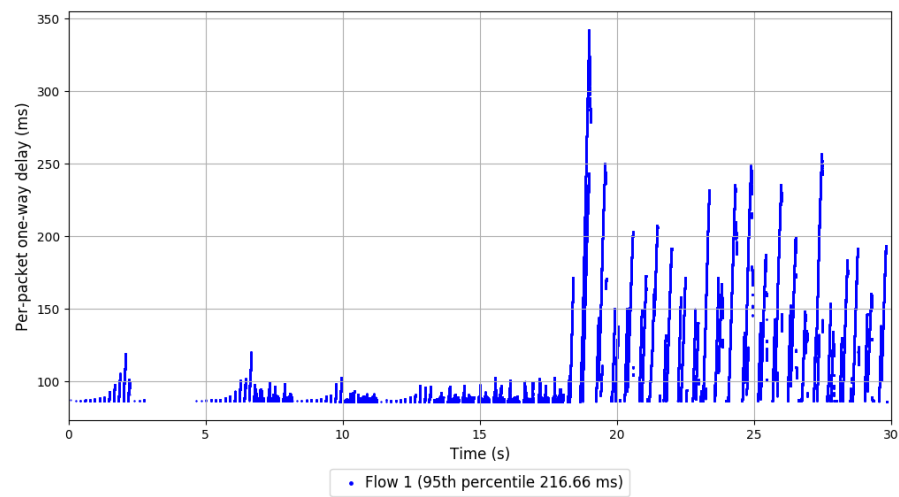
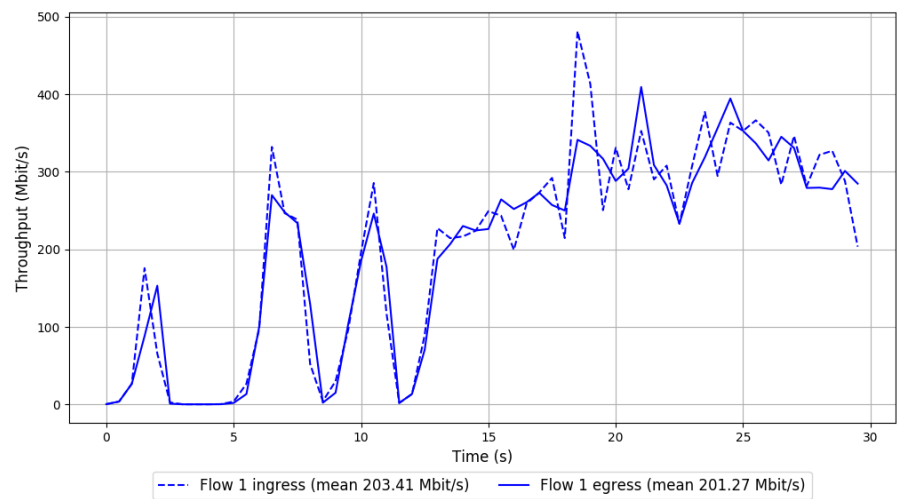
-- Flow 1:

Average throughput: 201.27 Mbit/s

95th percentile per-packet one-way delay: 216.662 ms

Loss rate: 1.06%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-19 23:14:09

End at: 2017-12-19 23:14:39

Below is generated by plot.py at 2017-12-20 00:44:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 220.05 Mbit/s

95th percentile per-packet one-way delay: 166.684 ms

Loss rate: 0.14%

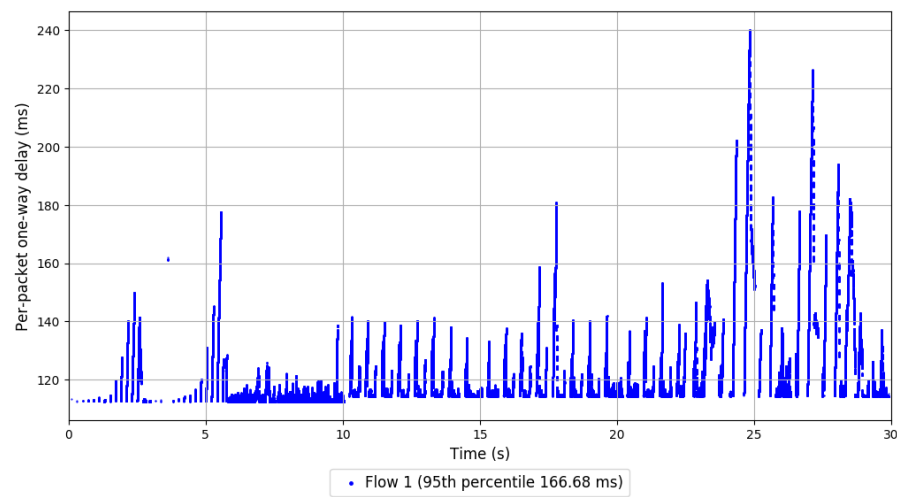
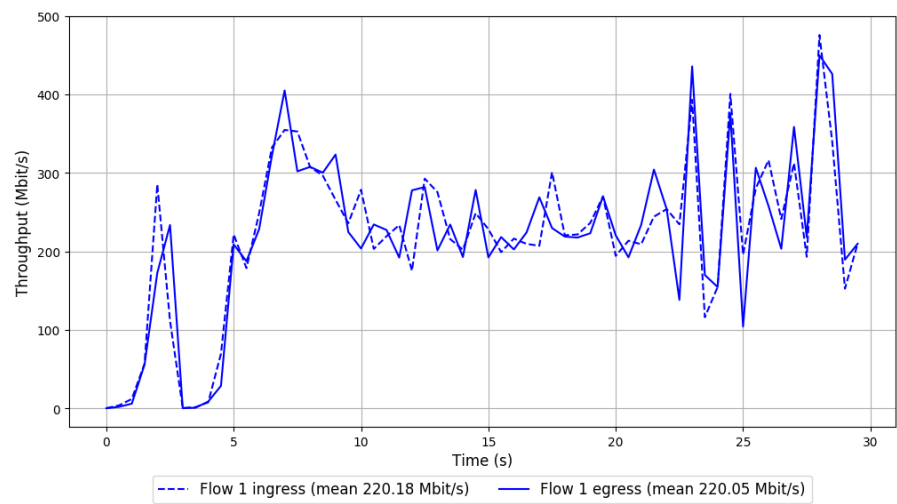
-- Flow 1:

Average throughput: 220.05 Mbit/s

95th percentile per-packet one-way delay: 166.684 ms

Loss rate: 0.14%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-19 21:17:48

End at: 2017-12-19 21:18:18

Below is generated by plot.py at 2017-12-20 00:44:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.27 Mbit/s

95th percentile per-packet one-way delay: 86.852 ms

Loss rate: 0.00%

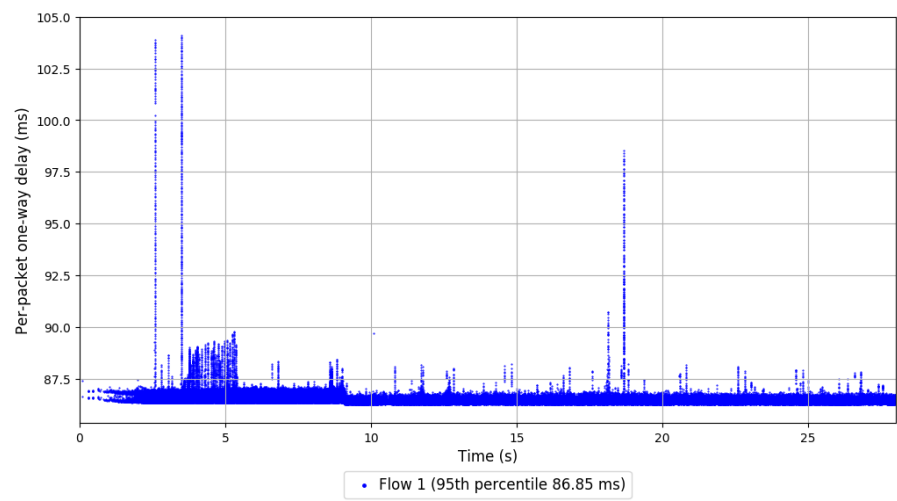
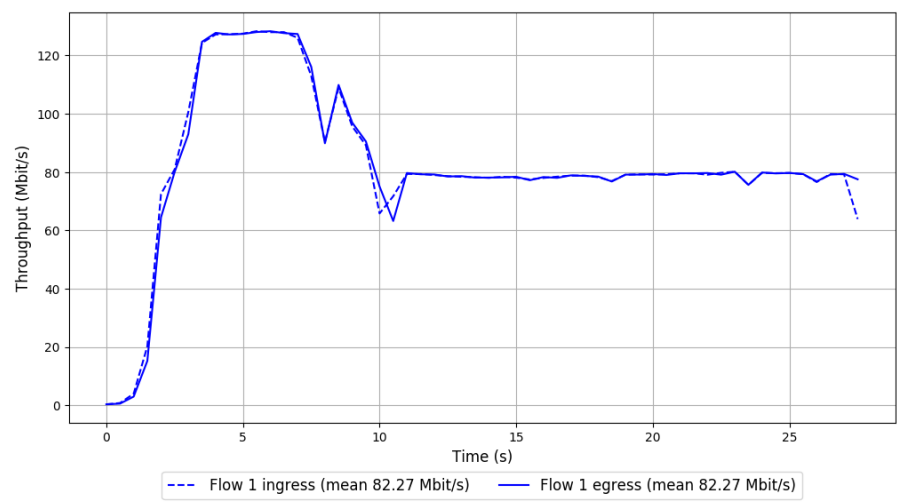
-- Flow 1:

Average throughput: 82.27 Mbit/s

95th percentile per-packet one-way delay: 86.852 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-19 21:30:09

End at: 2017-12-19 21:30:39

Below is generated by plot.py at 2017-12-20 00:44:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.65 Mbit/s

95th percentile per-packet one-way delay: 86.863 ms

Loss rate: 0.00%

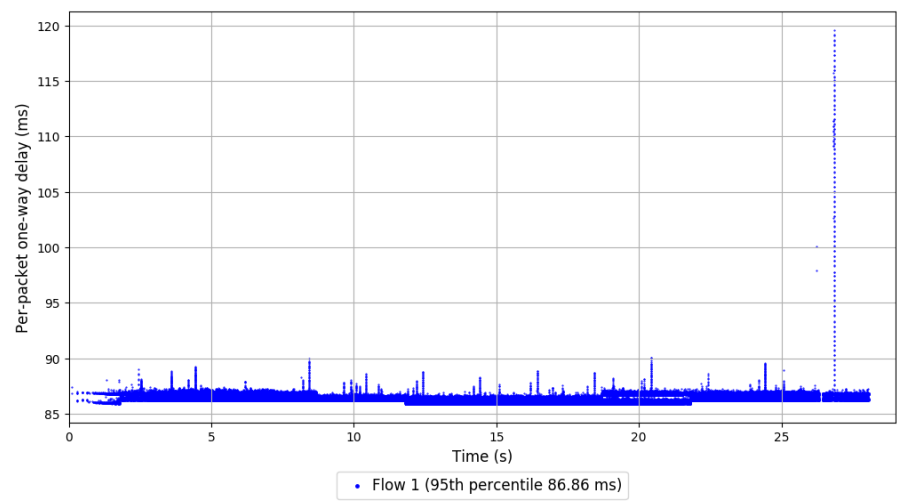
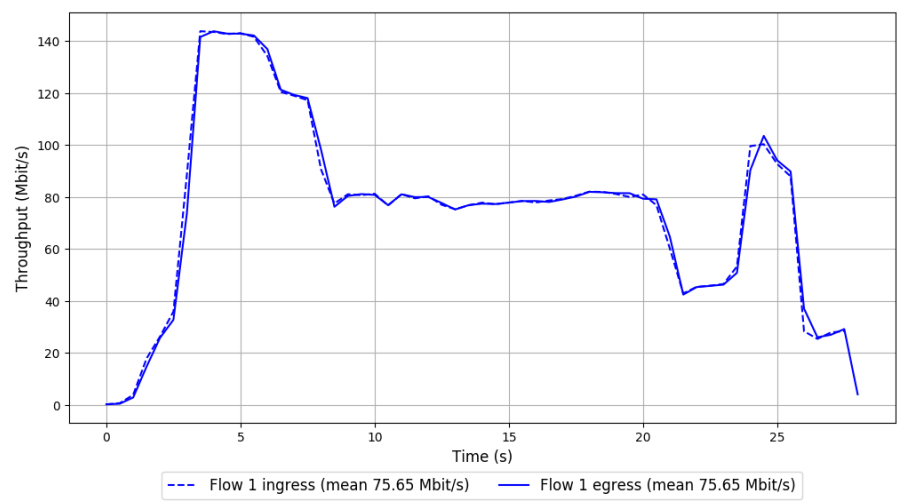
-- Flow 1:

Average throughput: 75.65 Mbit/s

95th percentile per-packet one-way delay: 86.863 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-19 21:42:12

End at: 2017-12-19 21:42:42

Below is generated by plot.py at 2017-12-20 00:44:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.67 Mbit/s

95th percentile per-packet one-way delay: 86.776 ms

Loss rate: 0.00%

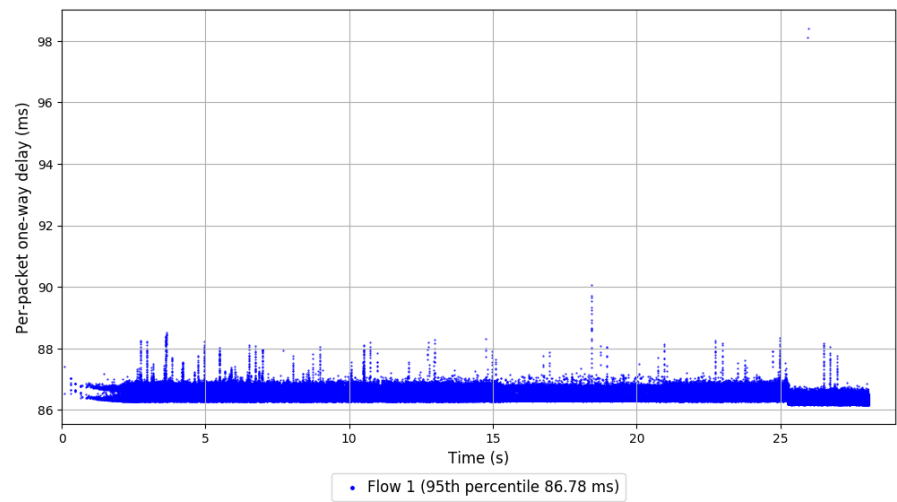
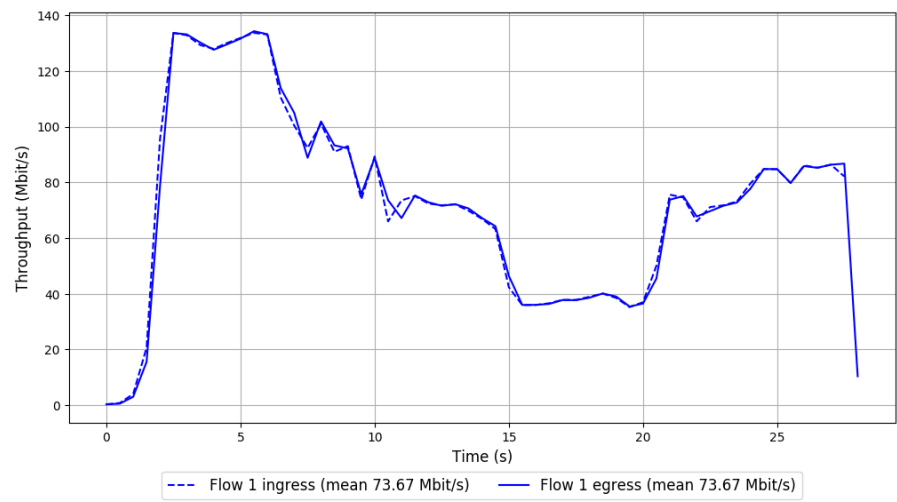
-- Flow 1:

Average throughput: 73.67 Mbit/s

95th percentile per-packet one-way delay: 86.776 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-19 21:54:26

End at: 2017-12-19 21:54:56

Below is generated by plot.py at 2017-12-20 00:44:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.69 Mbit/s

95th percentile per-packet one-way delay: 87.012 ms

Loss rate: 0.00%

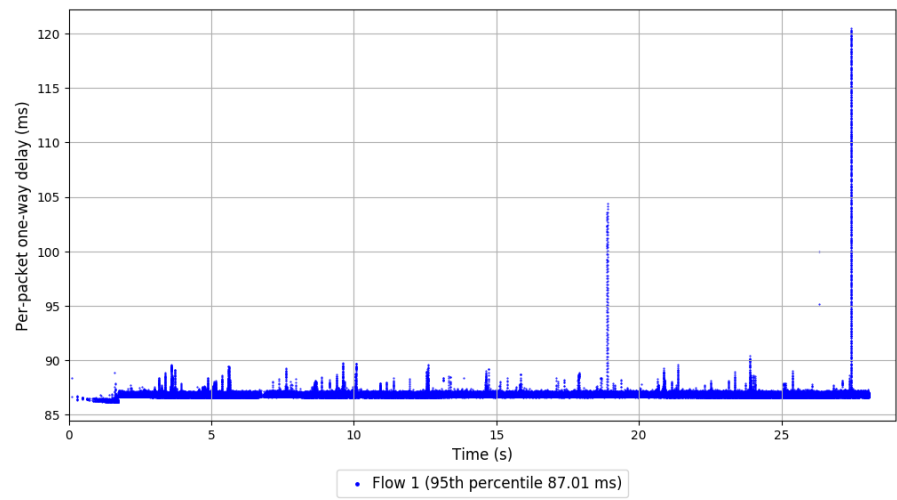
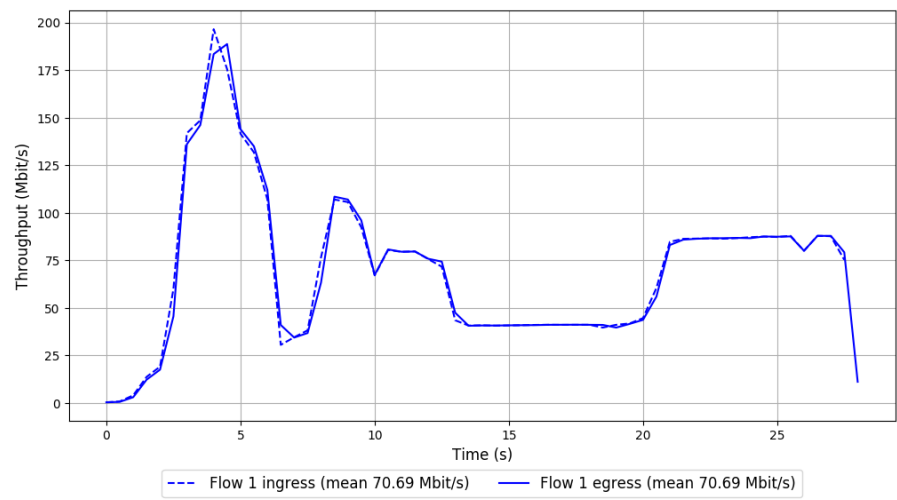
-- Flow 1:

Average throughput: 70.69 Mbit/s

95th percentile per-packet one-way delay: 87.012 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-19 22:06:38

End at: 2017-12-19 22:07:08

Below is generated by plot.py at 2017-12-20 00:45:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.60 Mbit/s

95th percentile per-packet one-way delay: 86.698 ms

Loss rate: 0.00%

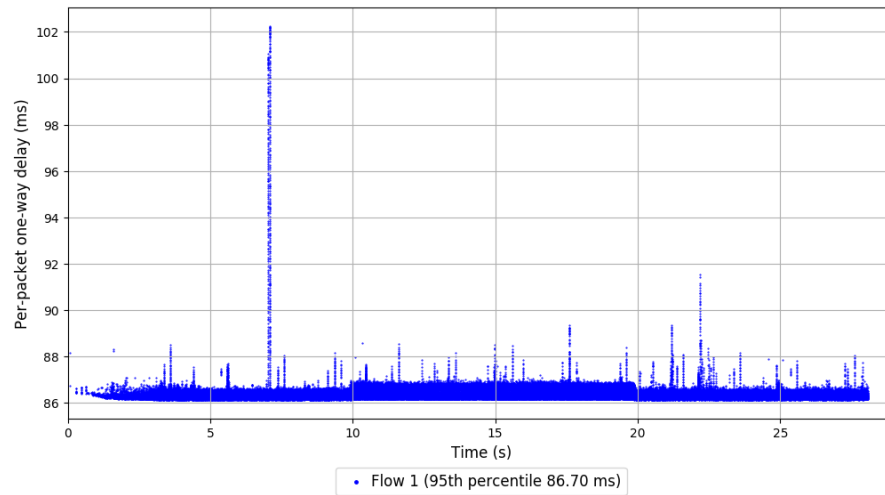
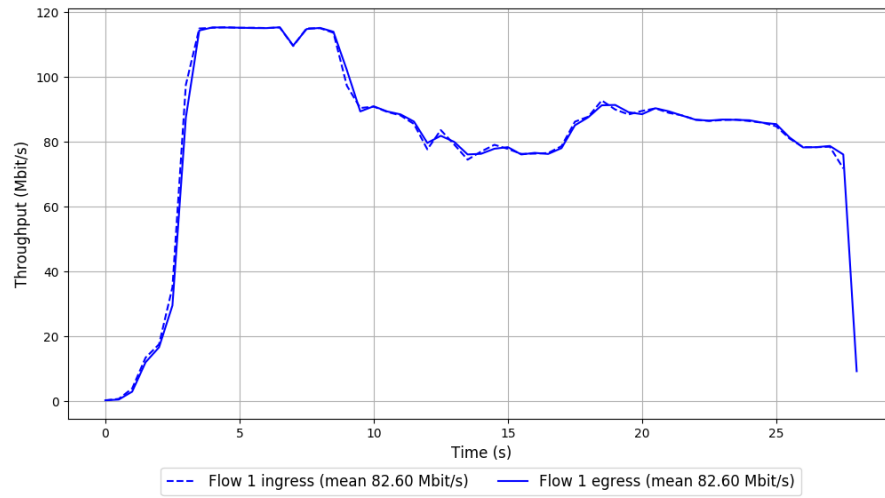
-- Flow 1:

Average throughput: 82.60 Mbit/s

95th percentile per-packet one-way delay: 86.698 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-19 22:18:21

End at: 2017-12-19 22:18:51

Below is generated by plot.py at 2017-12-20 00:46:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.48 Mbit/s

95th percentile per-packet one-way delay: 86.824 ms

Loss rate: 0.00%

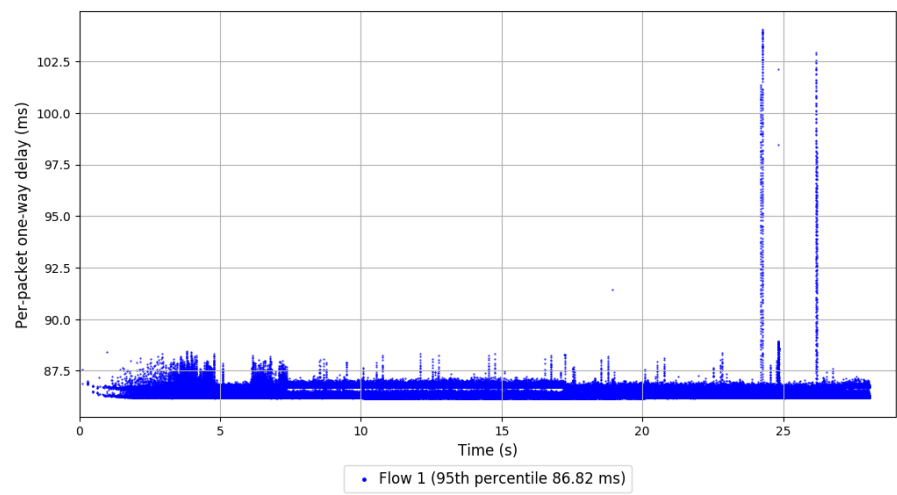
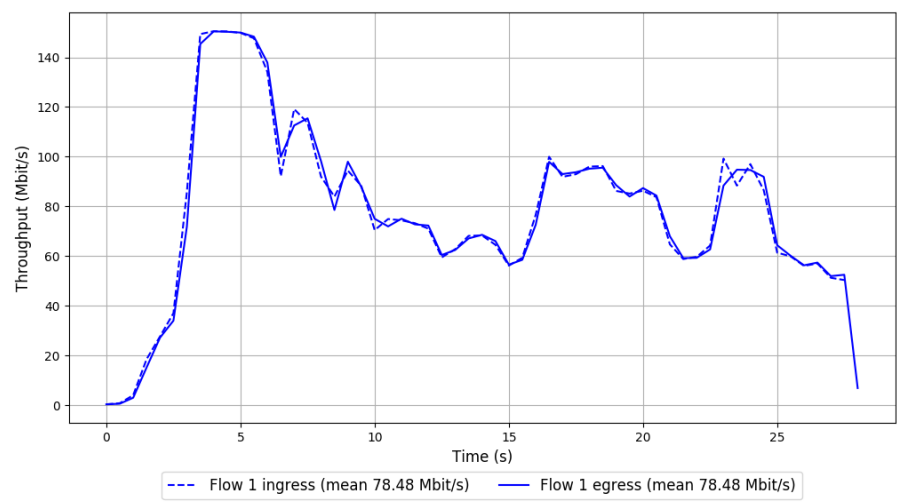
-- Flow 1:

Average throughput: 78.48 Mbit/s

95th percentile per-packet one-way delay: 86.824 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-19 22:29:59

End at: 2017-12-19 22:30:29

Below is generated by plot.py at 2017-12-20 00:46:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.23 Mbit/s

95th percentile per-packet one-way delay: 86.859 ms

Loss rate: 0.00%

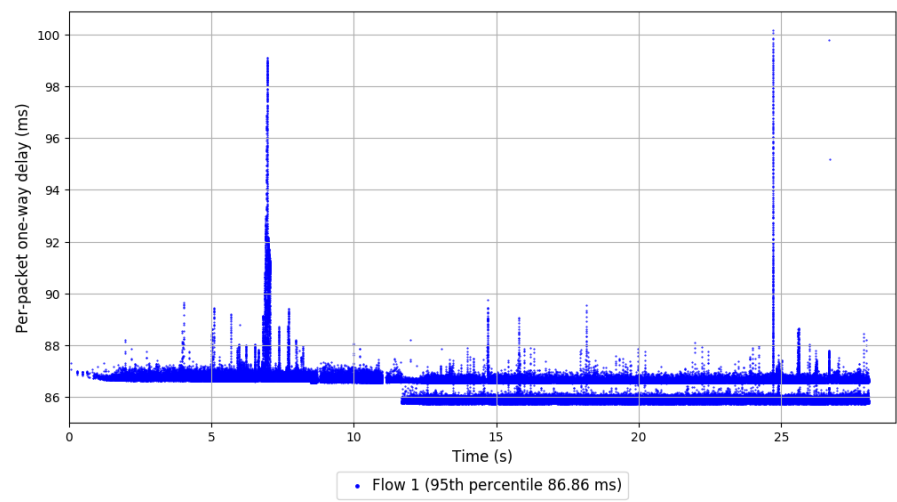
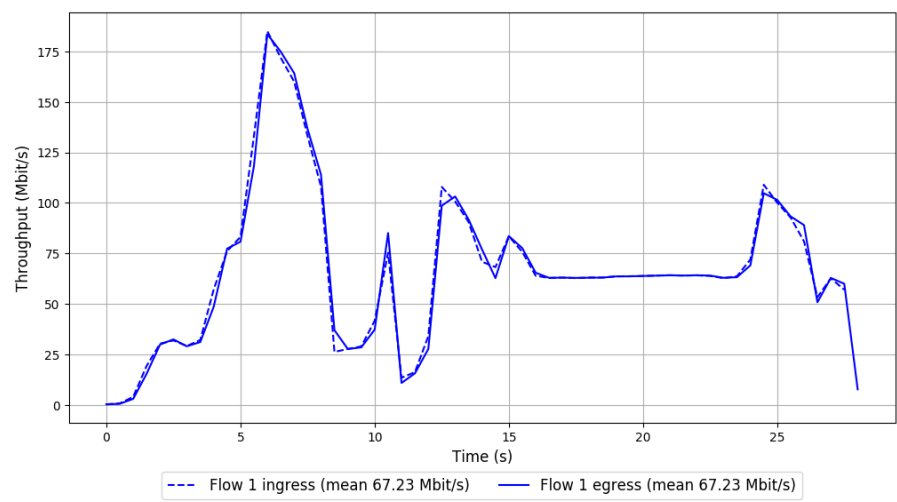
-- Flow 1:

Average throughput: 67.23 Mbit/s

95th percentile per-packet one-way delay: 86.859 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-19 22:42:10

End at: 2017-12-19 22:42:40

Below is generated by plot.py at 2017-12-20 00:46:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.15 Mbit/s

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

Loss rate: 0.00%

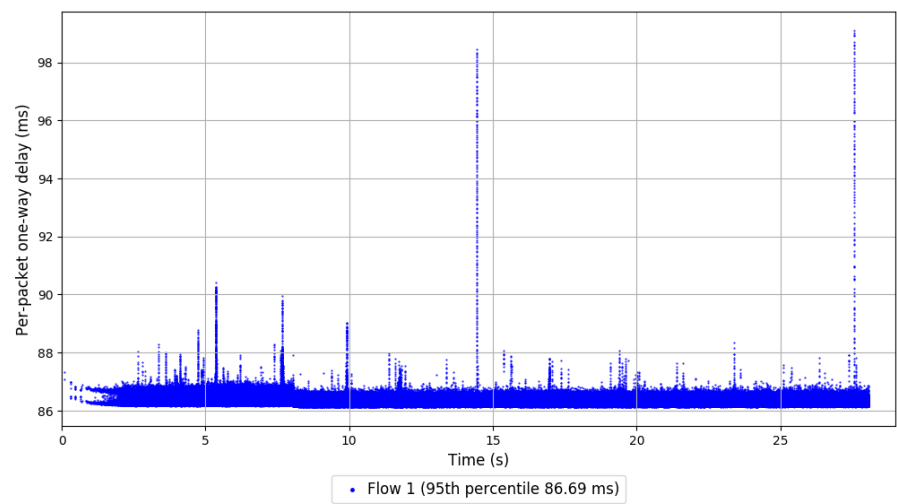
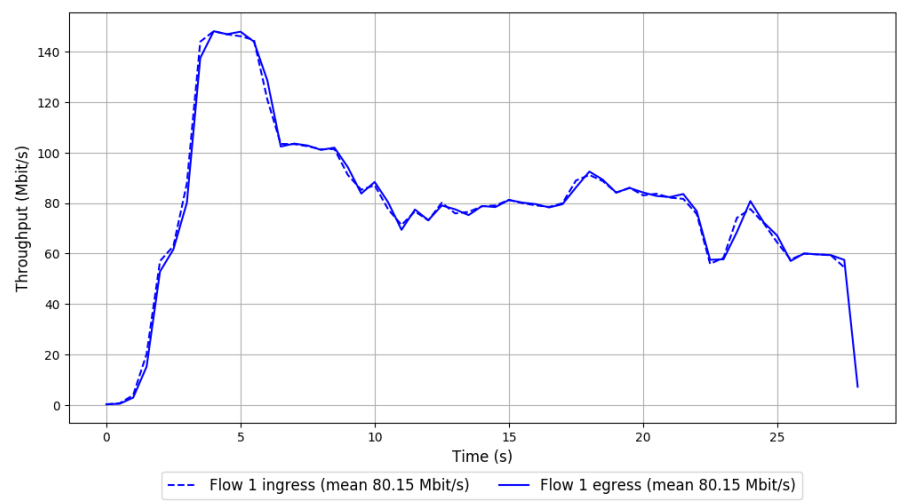
-- Flow 1:

Average throughput: 80.15 Mbit/s

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

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-19 22:54:19

End at: 2017-12-19 22:54:49

Below is generated by plot.py at 2017-12-20 00:46:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.09 Mbit/s

95th percentile per-packet one-way delay: 86.933 ms

Loss rate: 0.00%

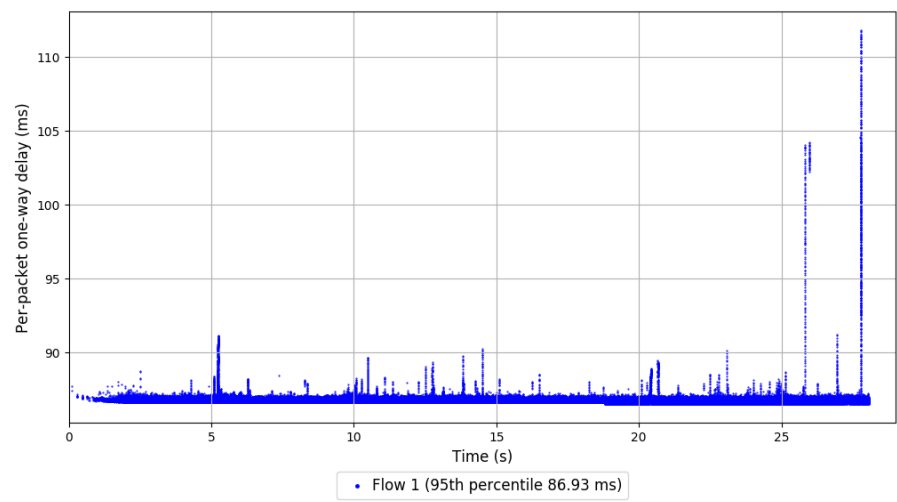
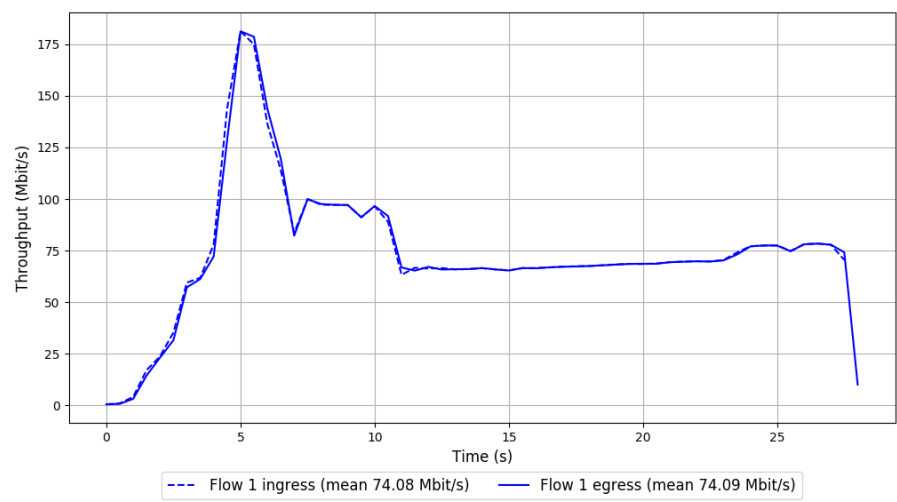
-- Flow 1:

Average throughput: 74.09 Mbit/s

95th percentile per-packet one-way delay: 86.933 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-19 23:06:15

End at: 2017-12-19 23:06:45

Below is generated by plot.py at 2017-12-20 00:46:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.06 Mbit/s

95th percentile per-packet one-way delay: 86.628 ms

Loss rate: 0.00%

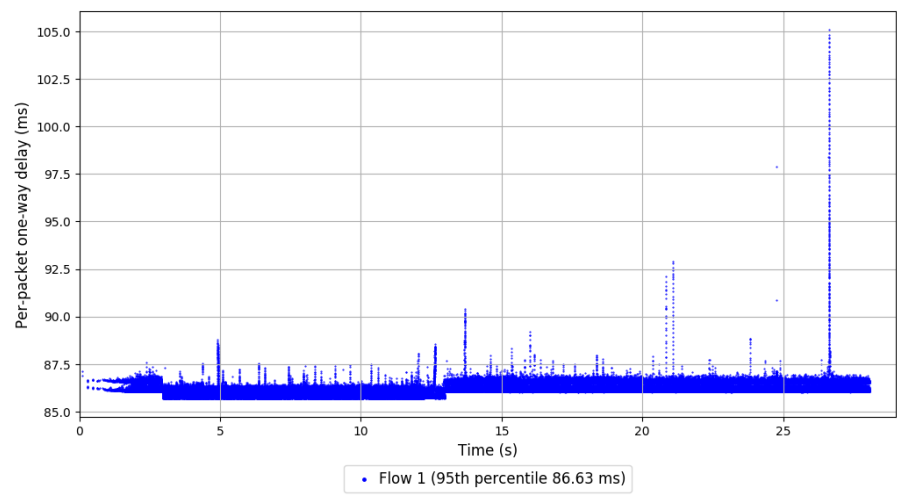
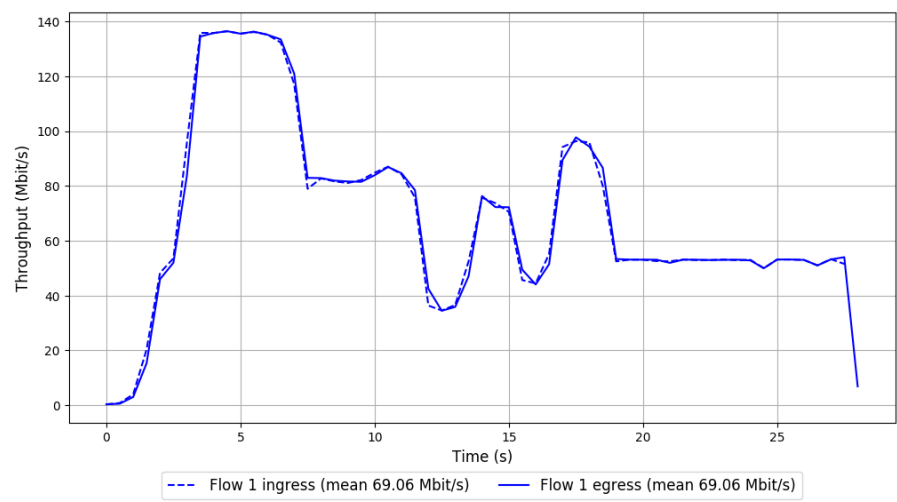
-- Flow 1:

Average throughput: 69.06 Mbit/s

95th percentile per-packet one-way delay: 86.628 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

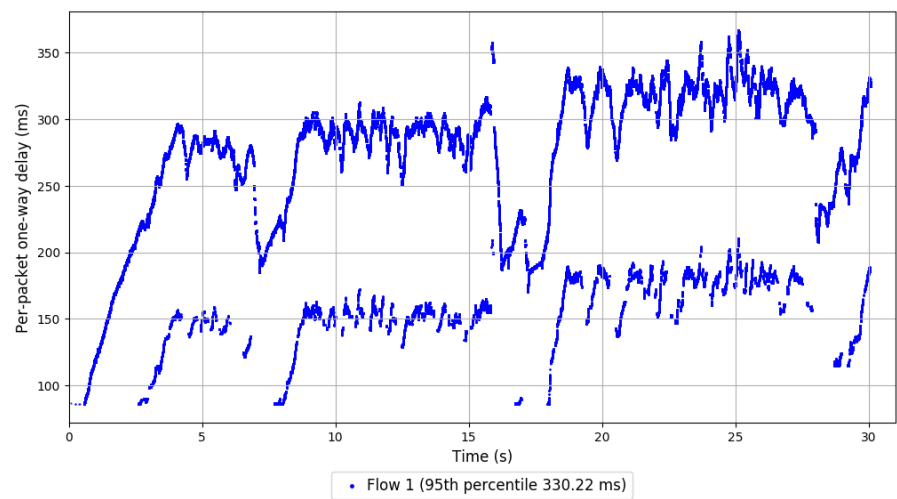
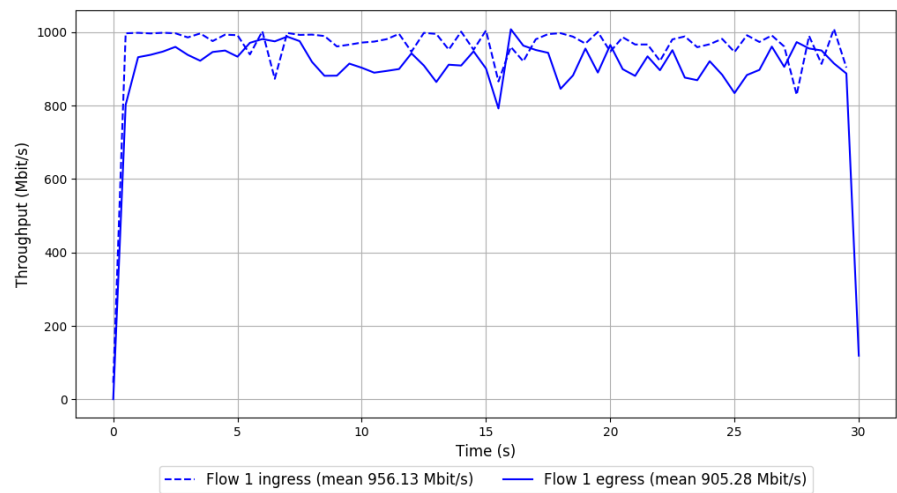


```
Run 1: Statistics of FillP

Start at: 2017-12-19 21:25:24
End at: 2017-12-19 21:25:54

# Below is generated by plot.py at 2017-12-20 01:01:59
# Datalink statistics
-- Total of 1 flow:
Average throughput: 905.28 Mbit/s
95th percentile per-packet one-way delay: 330.217 ms
Loss rate: 5.23%
-- Flow 1:
Average throughput: 905.28 Mbit/s
95th percentile per-packet one-way delay: 330.217 ms
Loss rate: 5.23%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-19 21:37:43

End at: 2017-12-19 21:38:13

Below is generated by plot.py at 2017-12-20 01:01:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 708.22 Mbit/s

95th percentile per-packet one-way delay: 314.660 ms

Loss rate: 3.03%

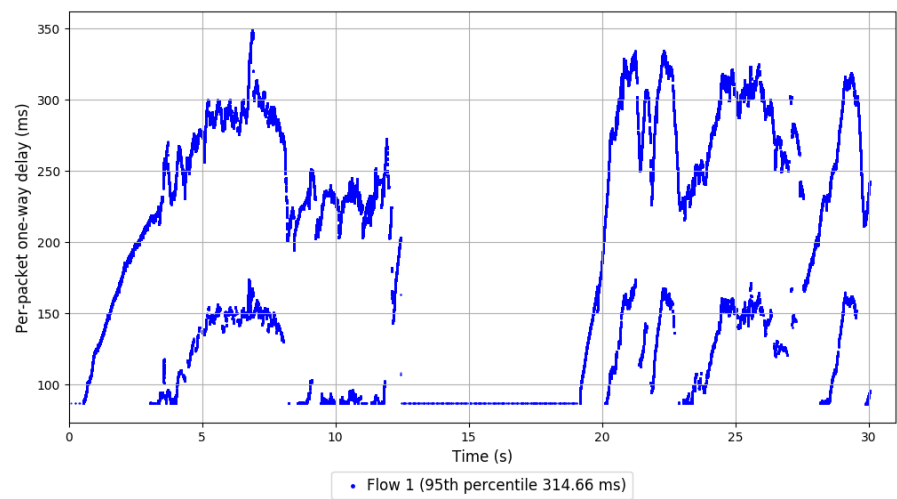
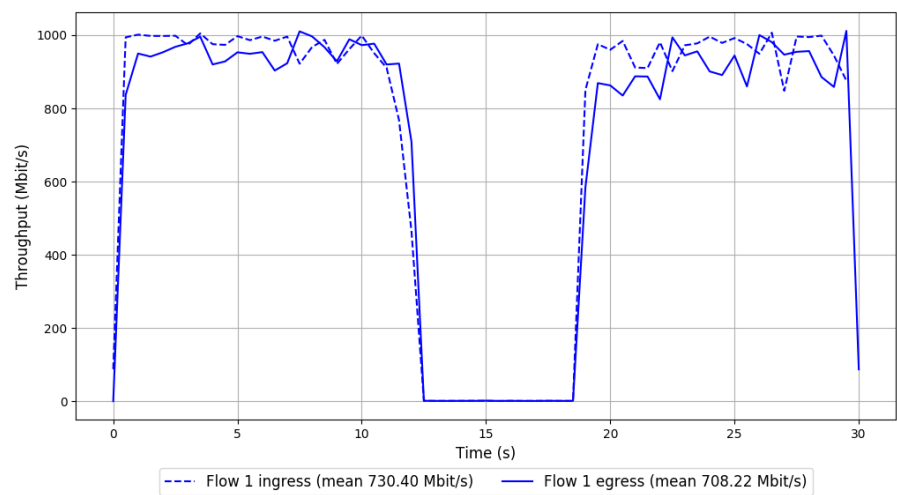
-- Flow 1:

Average throughput: 708.22 Mbit/s

95th percentile per-packet one-way delay: 314.660 ms

Loss rate: 3.03%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2017-12-19 21:49:46

End at: 2017-12-19 21:50:16

Below is generated by plot.py at 2017-12-20 01:02:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 935.39 Mbit/s

95th percentile per-packet one-way delay: 293.750 ms

Loss rate: 2.34%

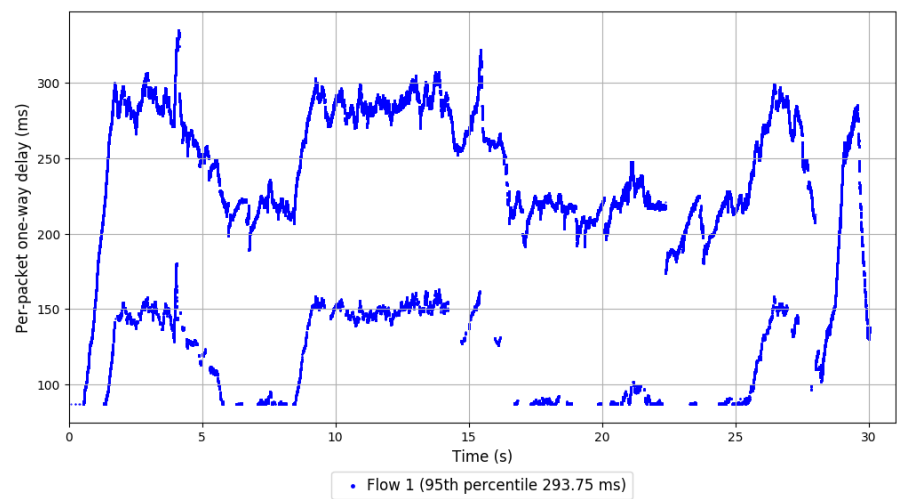
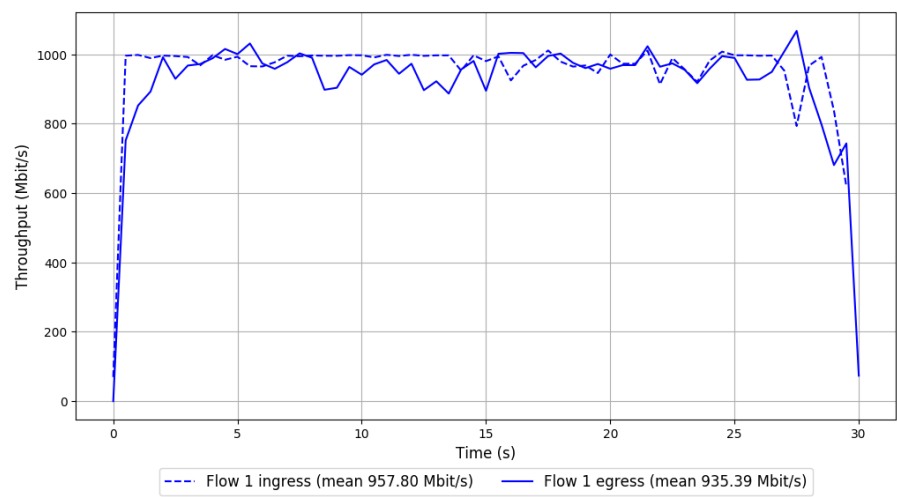
-- Flow 1:

Average throughput: 935.39 Mbit/s

95th percentile per-packet one-way delay: 293.750 ms

Loss rate: 2.34%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2017-12-19 22:01:58

End at: 2017-12-19 22:02:28

Below is generated by plot.py at 2017-12-20 01:03:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 949.13 Mbit/s

95th percentile per-packet one-way delay: 256.936 ms

Loss rate: 0.41%

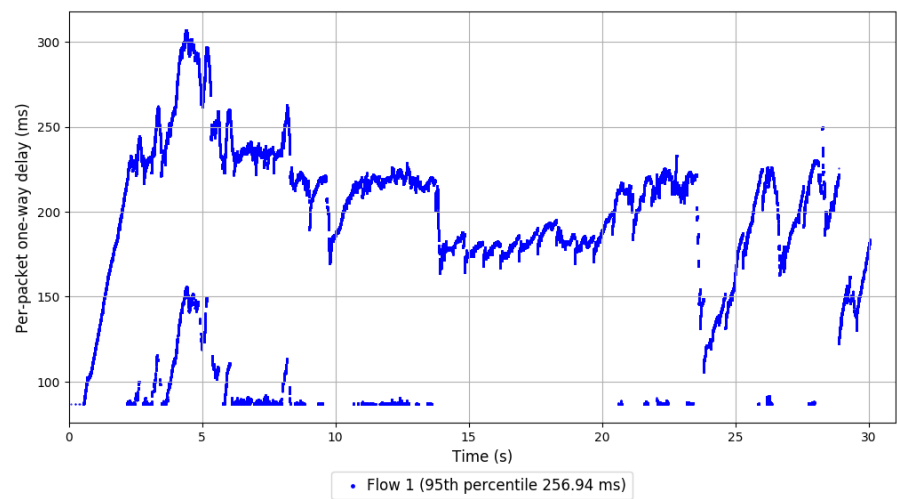
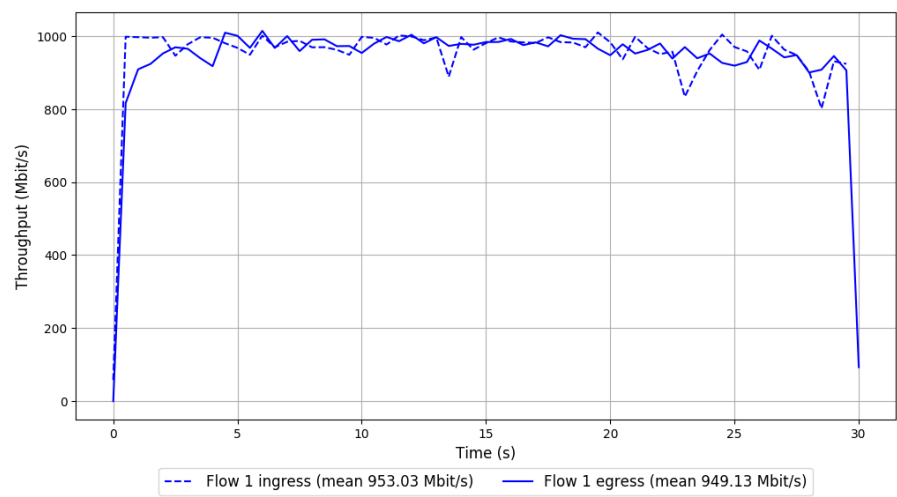
-- Flow 1:

Average throughput: 949.13 Mbit/s

95th percentile per-packet one-way delay: 256.936 ms

Loss rate: 0.41%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2017-12-19 22:14:11

End at: 2017-12-19 22:14:41

Below is generated by plot.py at 2017-12-20 01:03:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 196.65 Mbit/s

95th percentile per-packet one-way delay: 228.449 ms

Loss rate: 0.83%

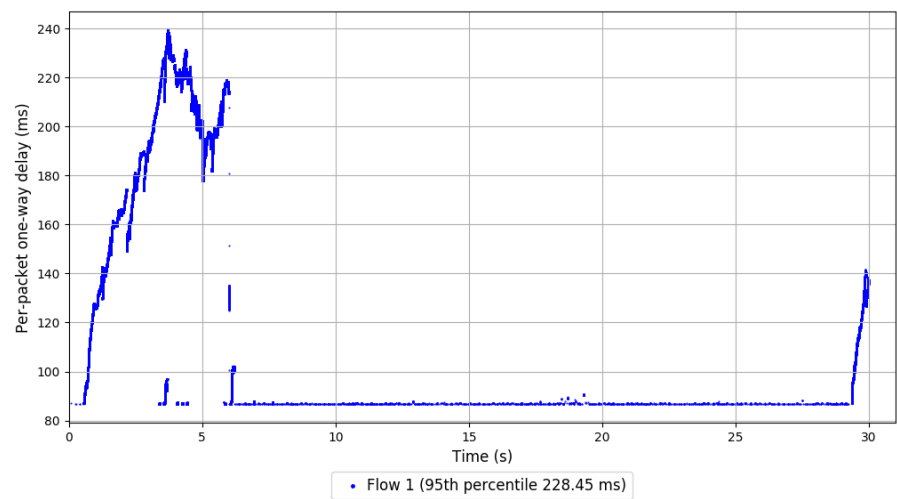
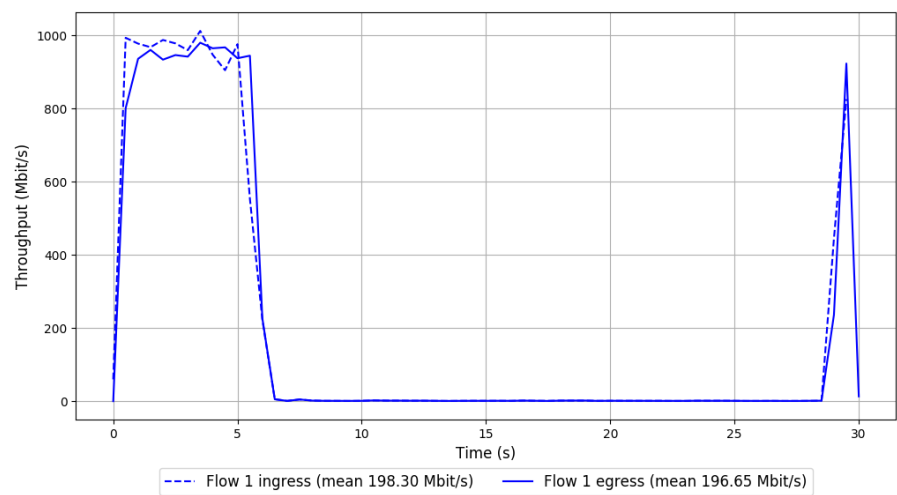
-- Flow 1:

Average throughput: 196.65 Mbit/s

95th percentile per-packet one-way delay: 228.449 ms

Loss rate: 0.83%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-19 22:25:53

End at: 2017-12-19 22:26:23

Below is generated by plot.py at 2017-12-20 01:03:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 137.81 Mbit/s

95th percentile per-packet one-way delay: 251.102 ms

Loss rate: 0.00%

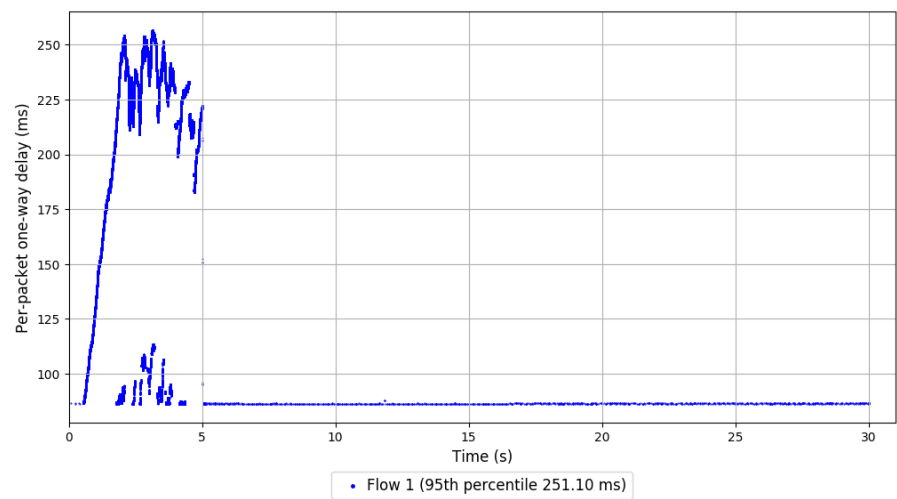
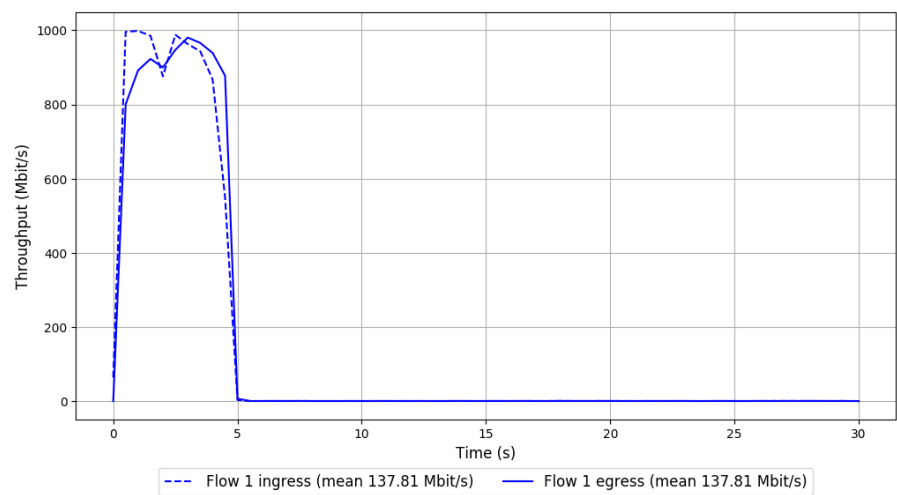
-- Flow 1:

Average throughput: 137.81 Mbit/s

95th percentile per-packet one-way delay: 251.102 ms

Loss rate: 0.00%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2017-12-19 22:37:32

End at: 2017-12-19 22:38:02

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 950.98 Mbit/s

95th percentile per-packet one-way delay: 299.930 ms

Loss rate: 1.75%

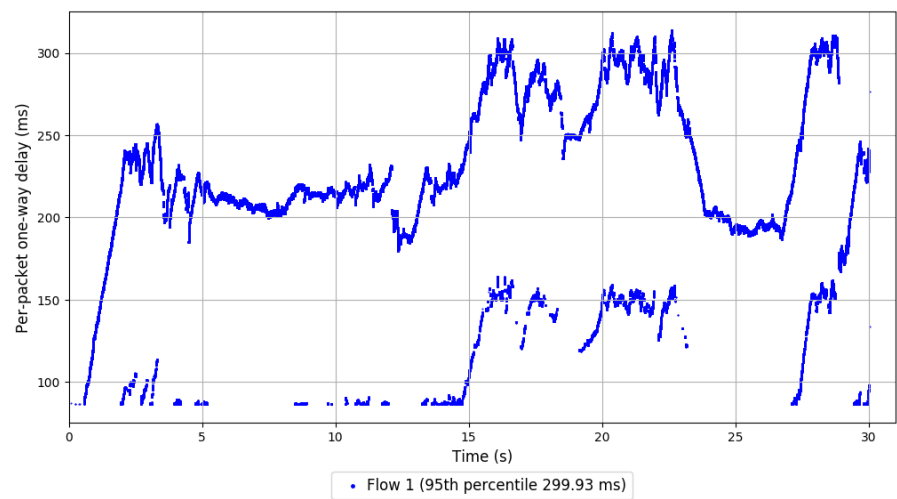
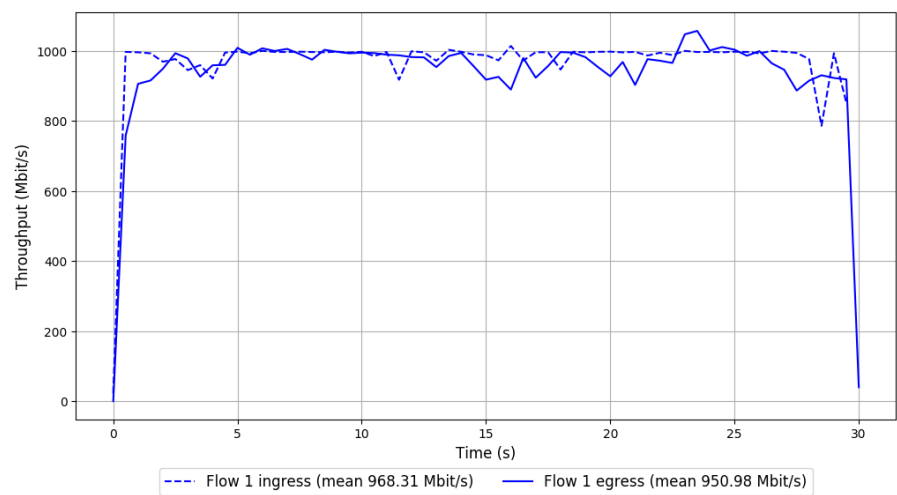
-- Flow 1:

Average throughput: 950.98 Mbit/s

95th percentile per-packet one-way delay: 299.930 ms

Loss rate: 1.75%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2017-12-19 22:49:44

End at: 2017-12-19 22:50:14

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 936.73 Mbit/s

95th percentile per-packet one-way delay: 305.876 ms

Loss rate: 3.55%

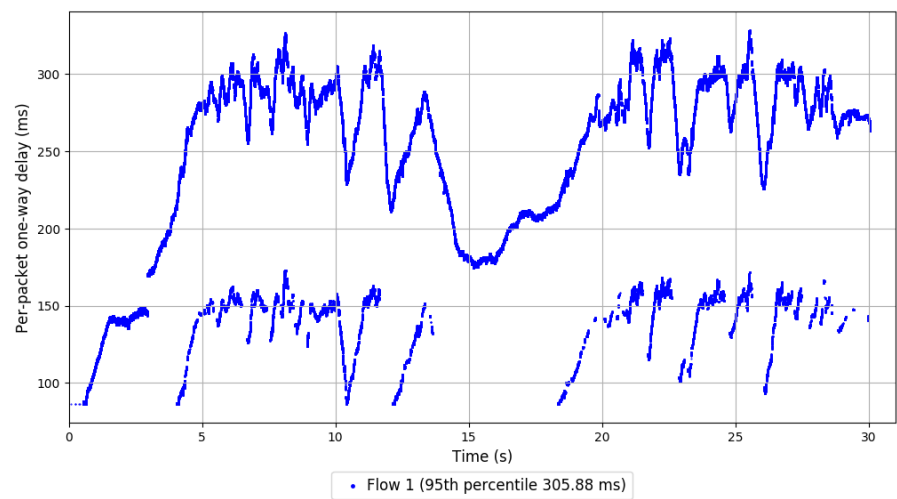
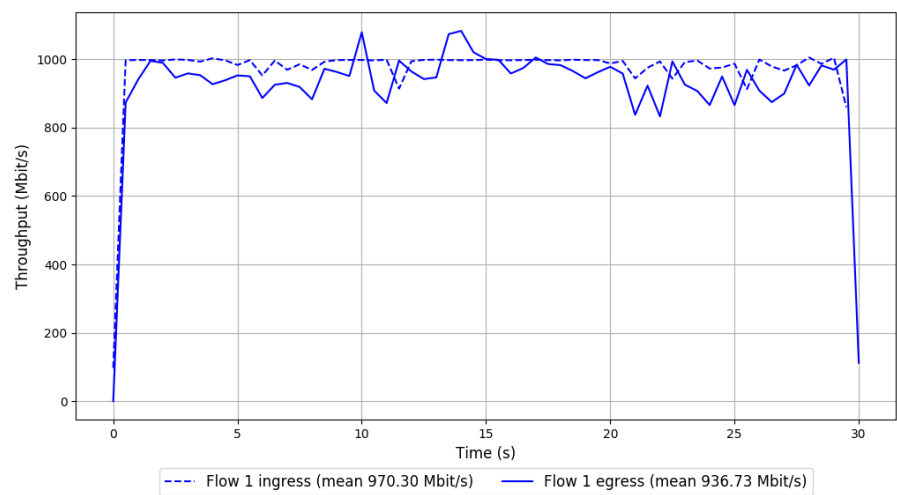
-- Flow 1:

Average throughput: 936.73 Mbit/s

95th percentile per-packet one-way delay: 305.876 ms

Loss rate: 3.55%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-19 23:01:52

End at: 2017-12-19 23:02:22

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 634.46 Mbit/s

95th percentile per-packet one-way delay: 303.870 ms

Loss rate: 1.70%

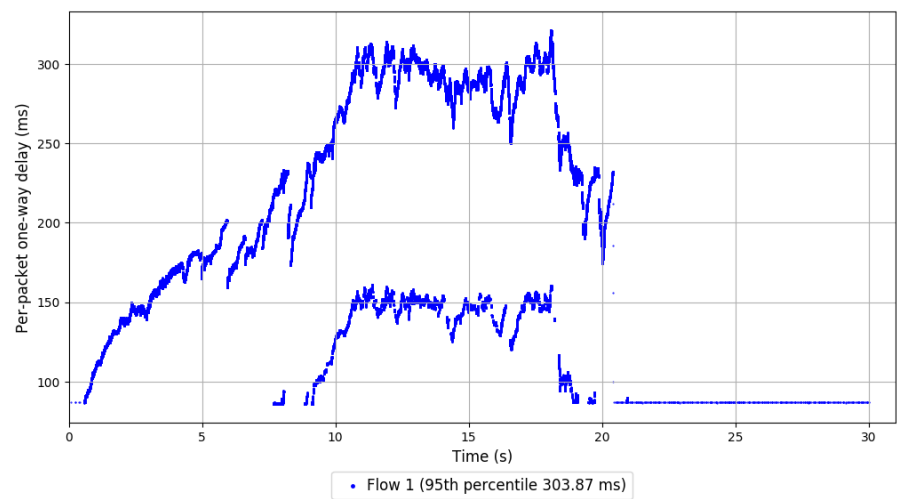
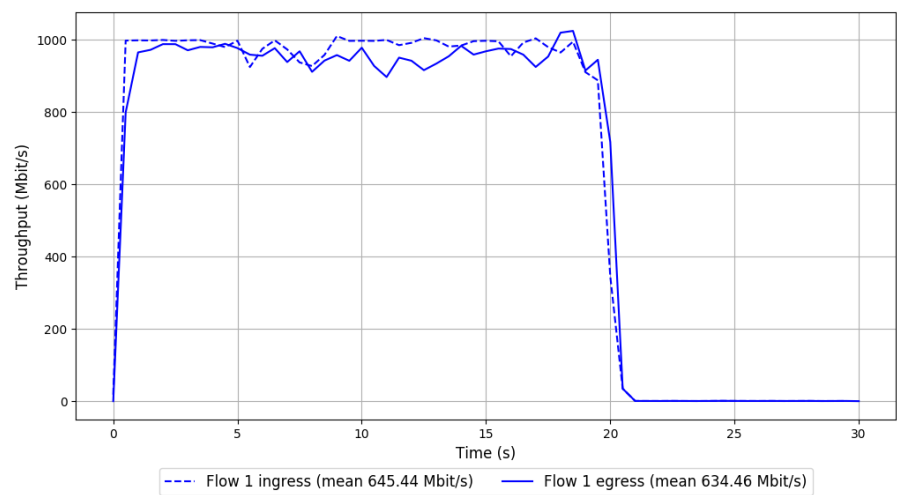
-- Flow 1:

Average throughput: 634.46 Mbit/s

95th percentile per-packet one-way delay: 303.870 ms

Loss rate: 1.70%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2017-12-19 23:13:24

End at: 2017-12-19 23:13:54

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 107.53 Mbit/s

95th percentile per-packet one-way delay: 250.290 ms

Loss rate: 0.00%

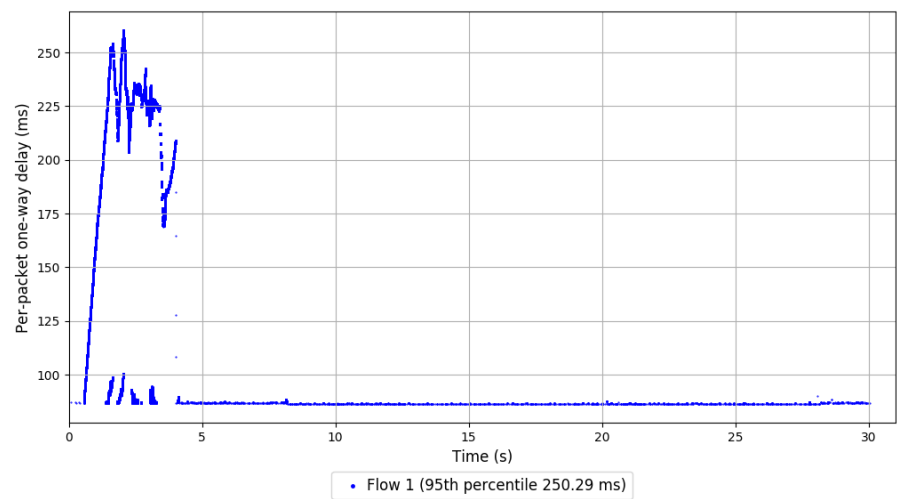
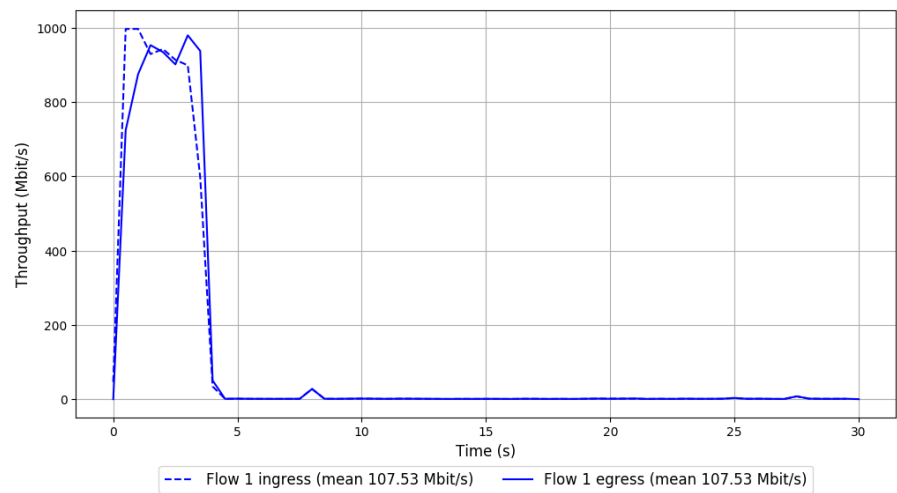
-- Flow 1:

Average throughput: 107.53 Mbit/s

95th percentile per-packet one-way delay: 250.290 ms

Loss rate: 0.00%

Run 10: Report of FillP — Data Link

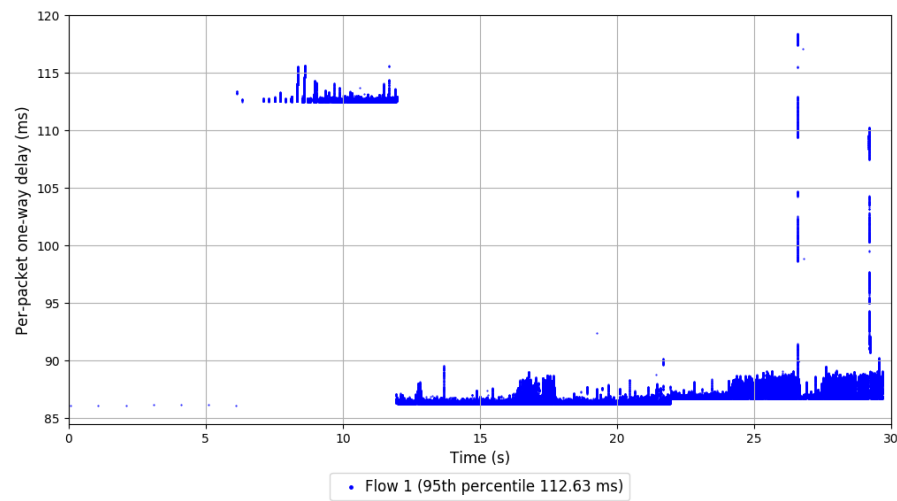
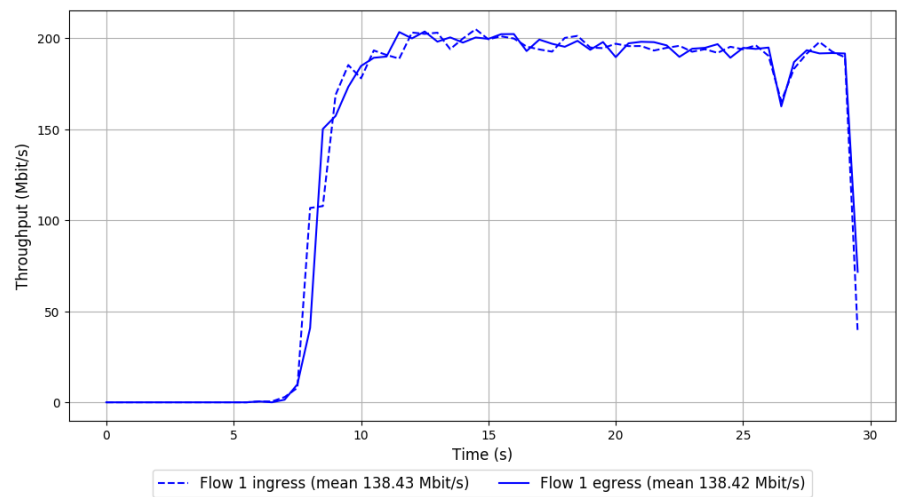


```
Run 1: Statistics of Indigo

Start at: 2017-12-19 21:21:17
End at: 2017-12-19 21:21:47

# Below is generated by plot.py at 2017-12-20 01:03:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 138.42 Mbit/s
95th percentile per-packet one-way delay: 112.630 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 138.42 Mbit/s
95th percentile per-packet one-way delay: 112.630 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

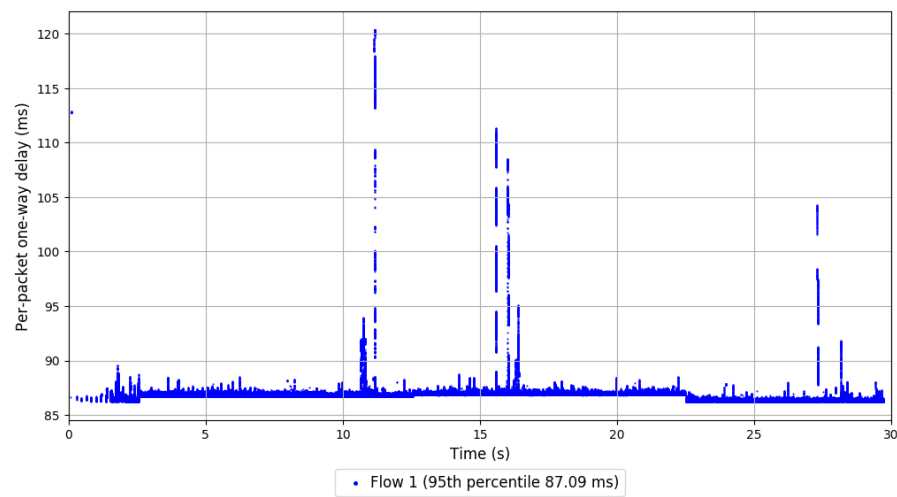
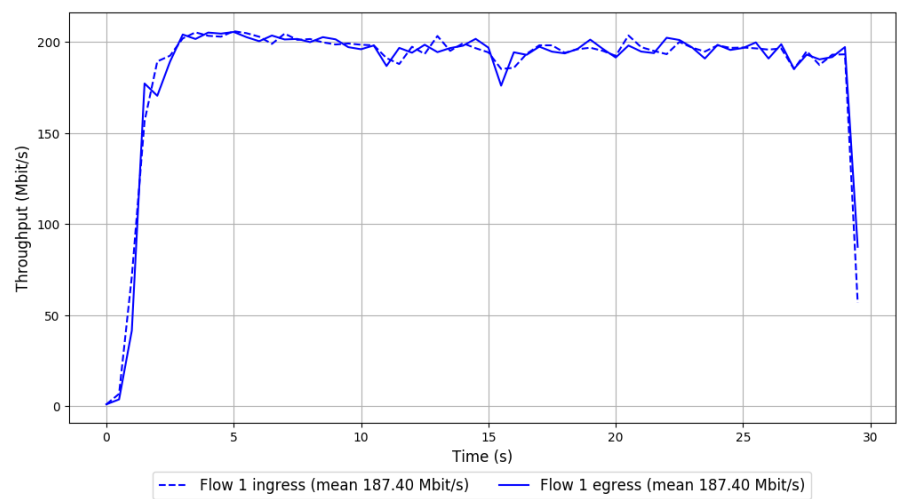


```
Run 2: Statistics of Indigo

Start at: 2017-12-19 21:33:37
End at: 2017-12-19 21:34:07

# Below is generated by plot.py at 2017-12-20 01:03:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 187.40 Mbit/s
95th percentile per-packet one-way delay: 87.089 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 187.40 Mbit/s
95th percentile per-packet one-way delay: 87.089 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-19 21:45:41

End at: 2017-12-19 21:46:11

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 182.06 Mbit/s

95th percentile per-packet one-way delay: 87.307 ms

Loss rate: 0.00%

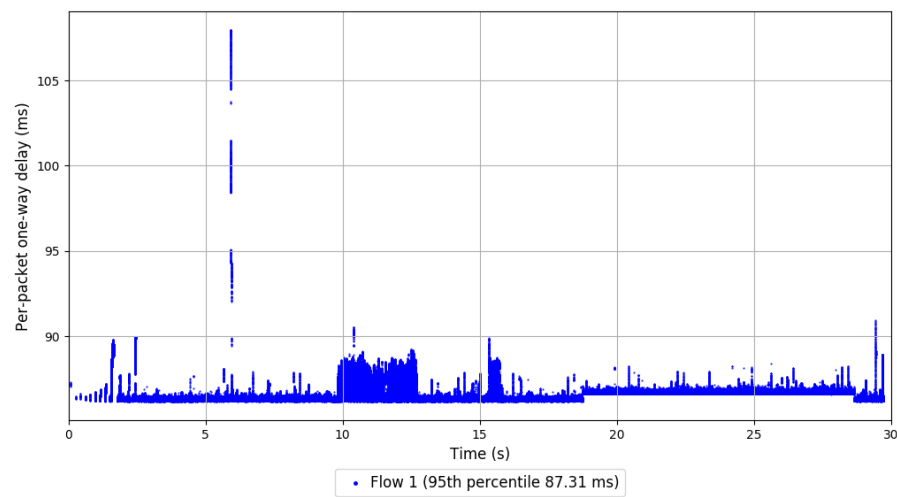
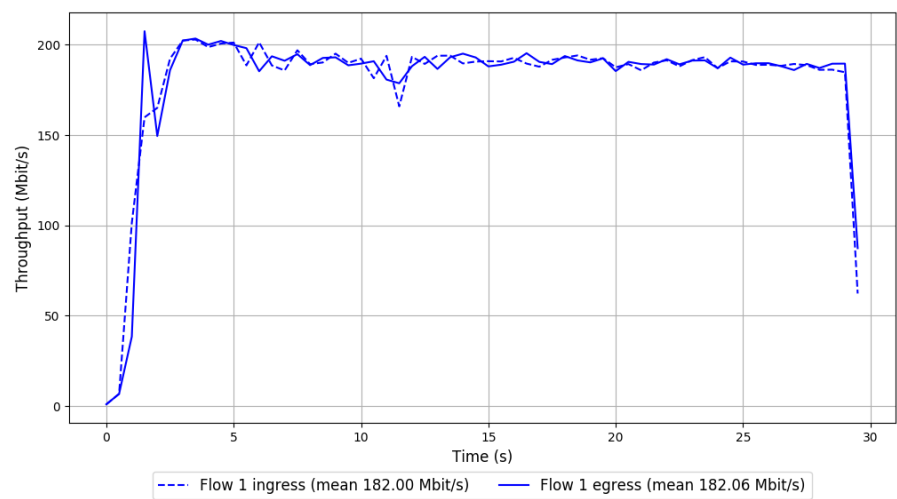
-- Flow 1:

Average throughput: 182.06 Mbit/s

95th percentile per-packet one-way delay: 87.307 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-19 21:57:53

End at: 2017-12-19 21:58:23

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 183.25 Mbit/s

95th percentile per-packet one-way delay: 86.834 ms

Loss rate: 0.00%

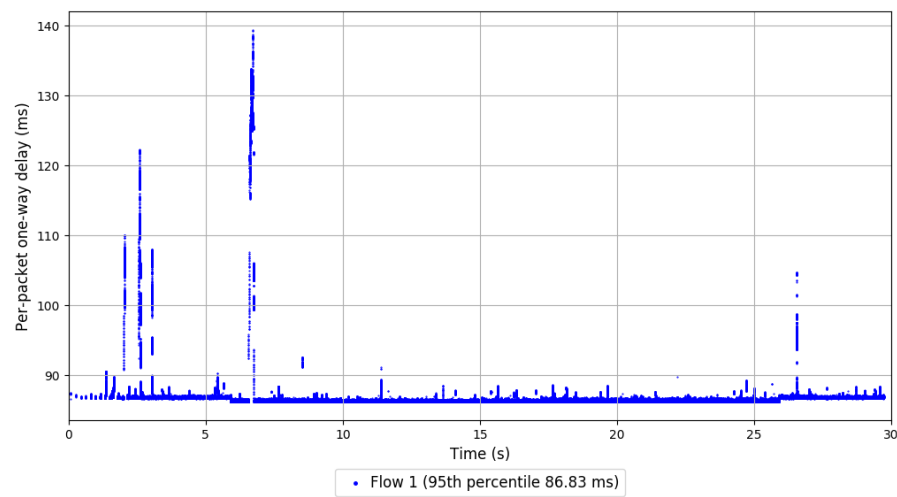
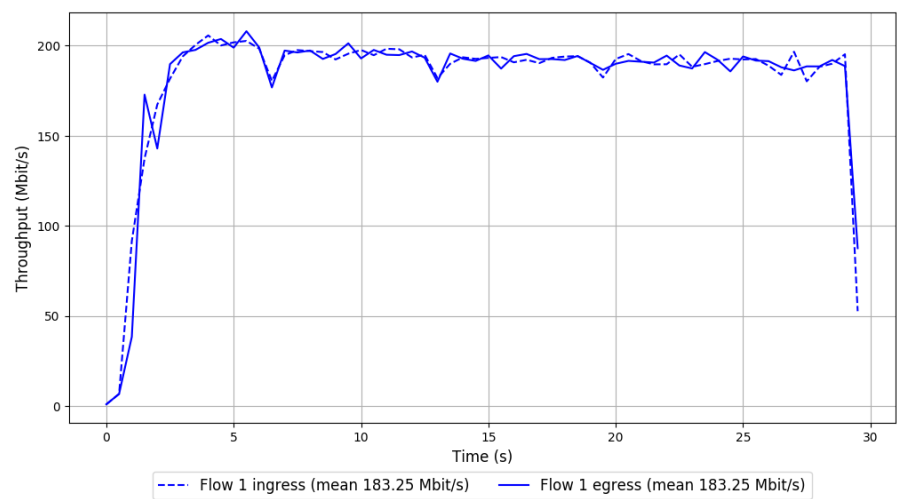
-- Flow 1:

Average throughput: 183.25 Mbit/s

95th percentile per-packet one-way delay: 86.834 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-19 22:10:05

End at: 2017-12-19 22:10:35

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 184.10 Mbit/s

95th percentile per-packet one-way delay: 88.222 ms

Loss rate: 0.00%

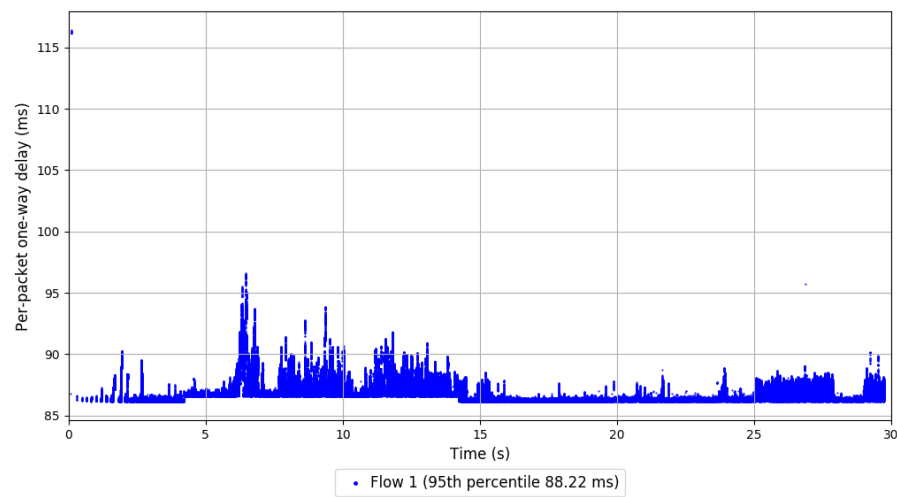
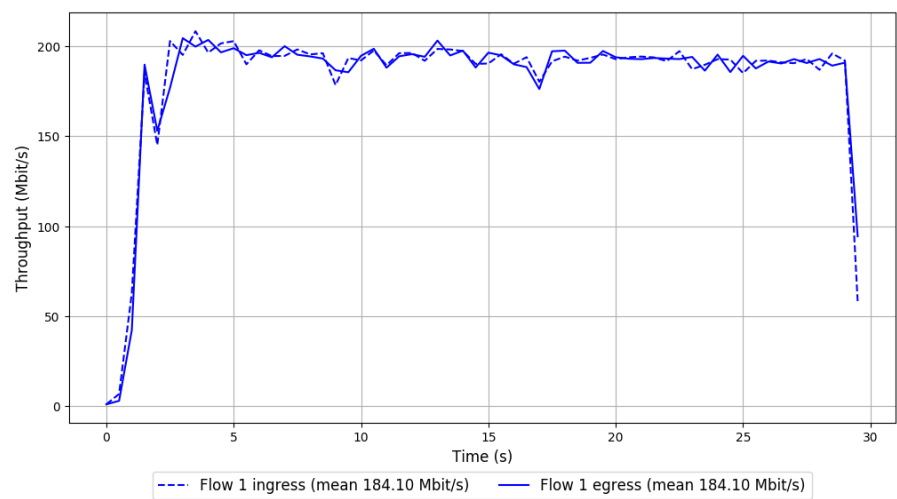
-- Flow 1:

Average throughput: 184.10 Mbit/s

95th percentile per-packet one-way delay: 88.222 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-19 22:21:48

End at: 2017-12-19 22:22:18

Below is generated by plot.py at 2017-12-20 01:03:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 181.12 Mbit/s

95th percentile per-packet one-way delay: 86.782 ms

Loss rate: 0.00%

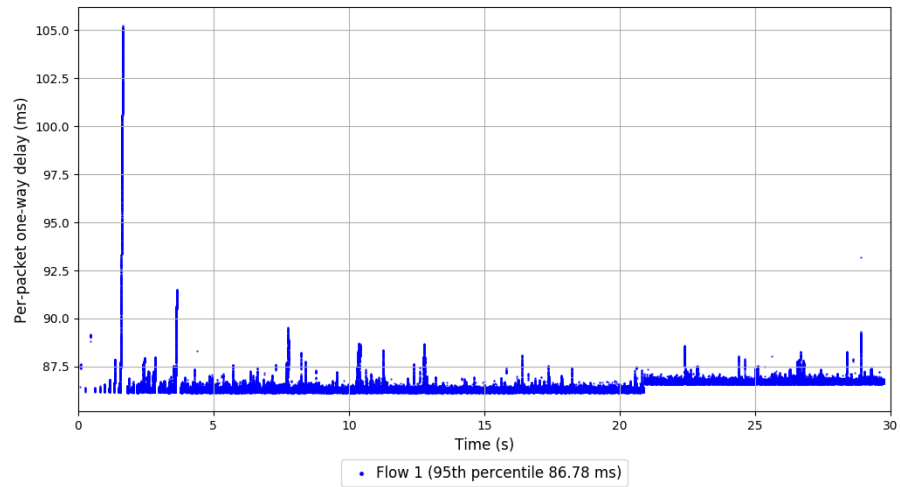
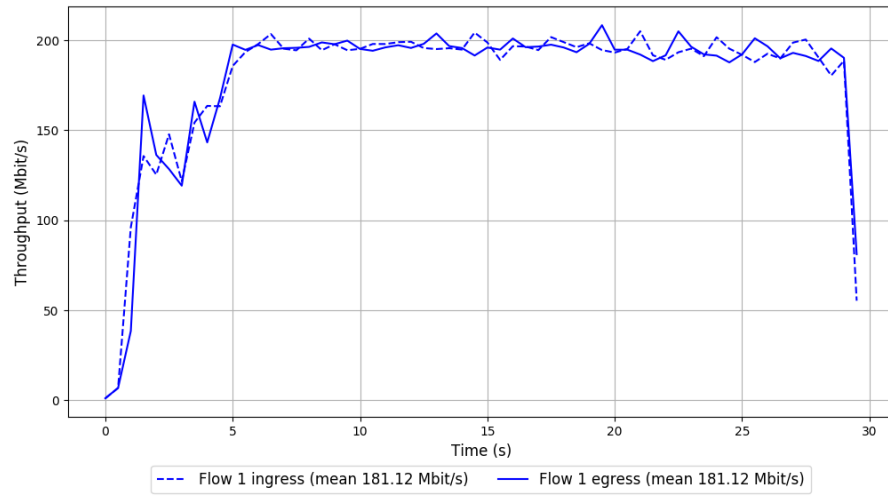
-- Flow 1:

Average throughput: 181.12 Mbit/s

95th percentile per-packet one-way delay: 86.782 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-19 22:33:26

End at: 2017-12-19 22:33:56

Below is generated by plot.py at 2017-12-20 01:04:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 182.44 Mbit/s

95th percentile per-packet one-way delay: 86.942 ms

Loss rate: 0.00%

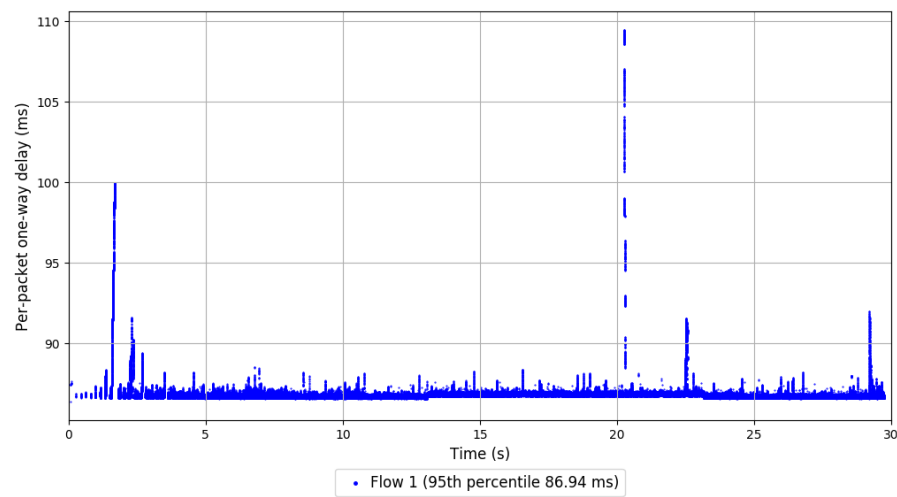
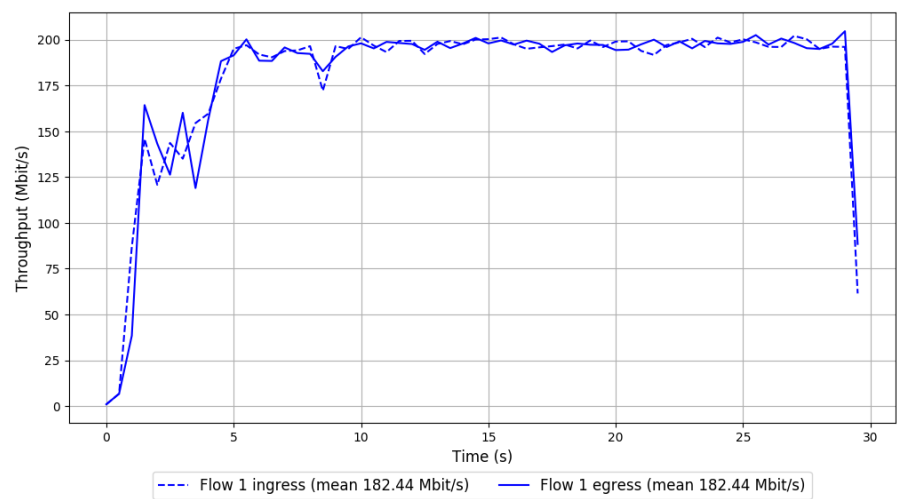
-- Flow 1:

Average throughput: 182.44 Mbit/s

95th percentile per-packet one-way delay: 86.942 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-19 22:45:38

End at: 2017-12-19 22:46:08

Below is generated by plot.py at 2017-12-20 01:04:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.87 Mbit/s

95th percentile per-packet one-way delay: 86.763 ms

Loss rate: 0.00%

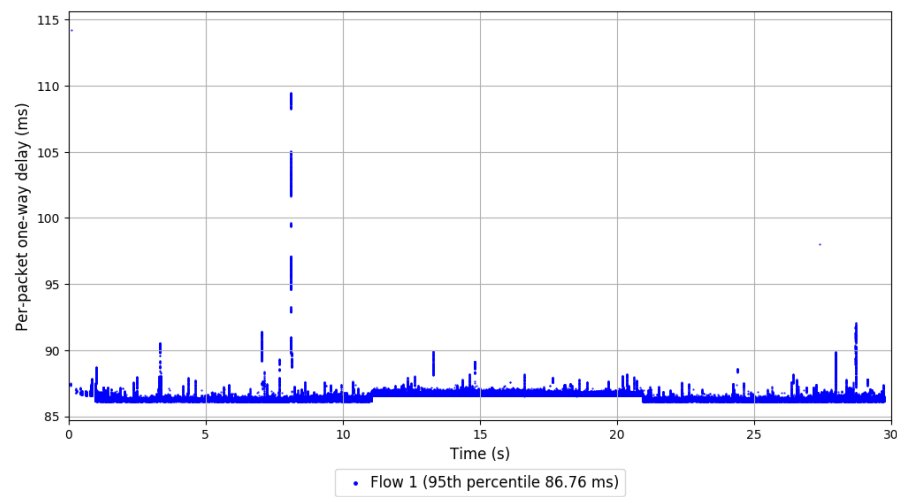
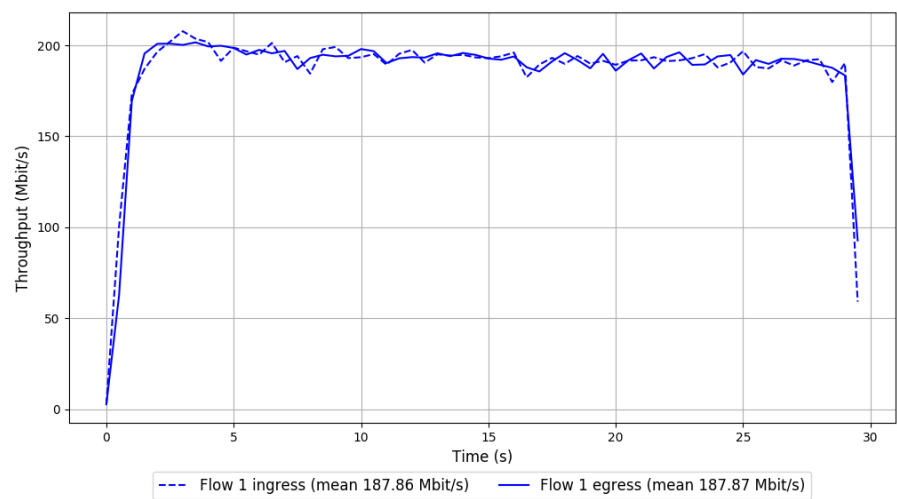
-- Flow 1:

Average throughput: 187.87 Mbit/s

95th percentile per-packet one-way delay: 86.763 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-19 22:57:47

End at: 2017-12-19 22:58:17

Below is generated by plot.py at 2017-12-20 01:04:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.18 Mbit/s

95th percentile per-packet one-way delay: 86.755 ms

Loss rate: 0.08%

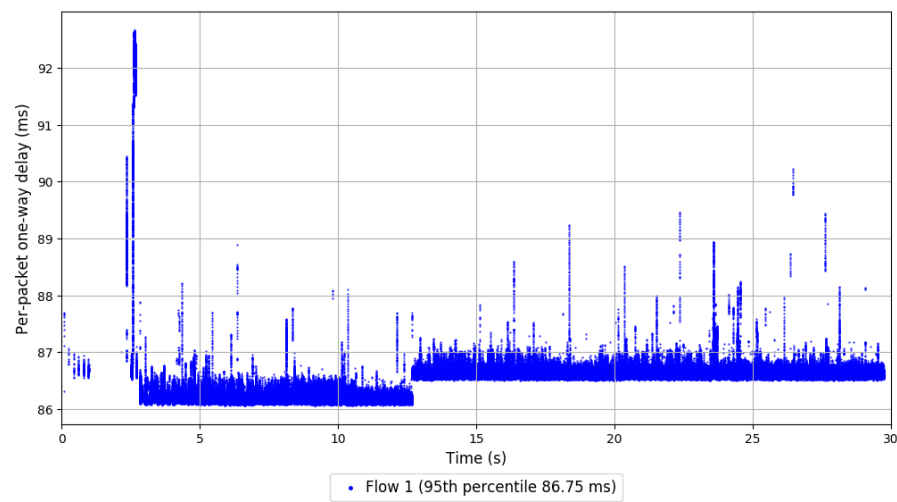
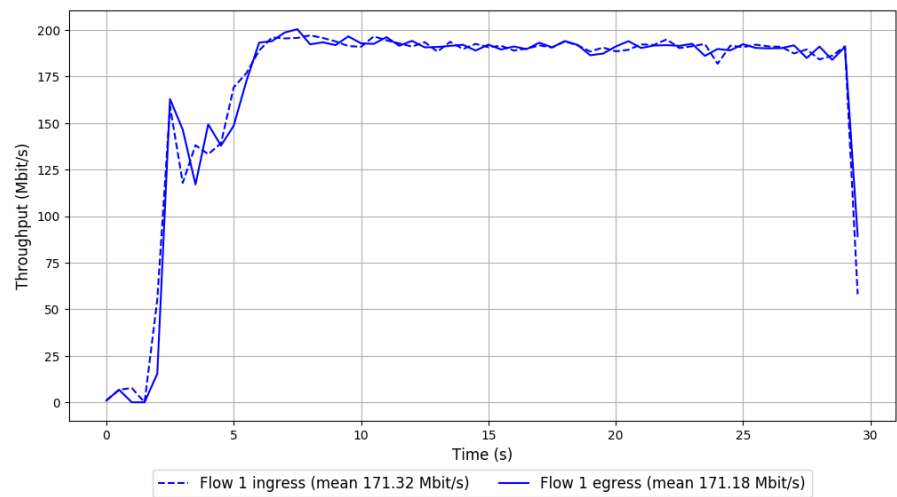
-- Flow 1:

Average throughput: 171.18 Mbit/s

95th percentile per-packet one-way delay: 86.755 ms

Loss rate: 0.08%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-19 23:09:47

End at: 2017-12-19 23:10:17

Below is generated by plot.py at 2017-12-20 01:04:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 181.16 Mbit/s

95th percentile per-packet one-way delay: 86.322 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 181.16 Mbit/s

95th percentile per-packet one-way delay: 86.322 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

