

Pantheon Report

Generated at 2017-12-20 00:16:53 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

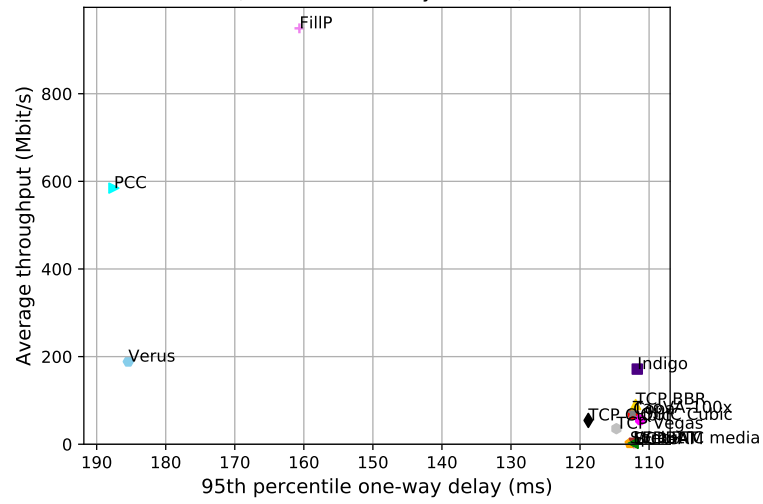
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

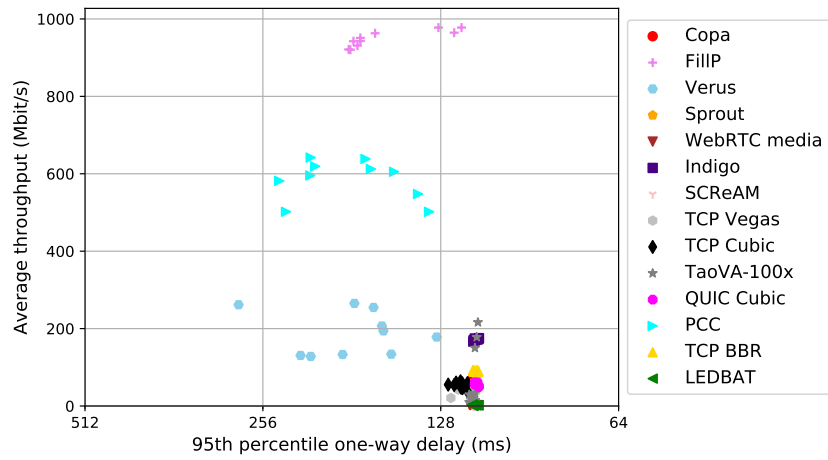
Git summary:

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

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



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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	90.69	111.95	0.99
TCP Cubic	10	54.36	118.80	1.82
LEDBAT	10	1.92	112.31	1.43
PCC	10	584.56	187.50	2.81
QUIC Cubic	6	55.70	111.27	1.07
SCReAM	10	0.17	112.08	0.73
WebRTC media	10	2.14	112.13	0.89
Sprout	10	2.10	112.77	1.93
TaoVA-100x	10	71.72	112.37	1.27
TCP Vegas	10	35.51	114.73	1.32
Verus	10	188.61	185.42	2.15
Copa	9	68.62	112.30	0.71
FillP	10	949.25	160.64	1.91
Indigo	10	171.50	111.71	0.82

Run 1: Statistics of TCP BBR

Start at: 2017-12-19 19:23:51

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

Below is generated by plot.py at 2017-12-19 23:25:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.61 Mbit/s

95th percentile per-packet one-way delay: 112.056 ms

Loss rate: 0.89%

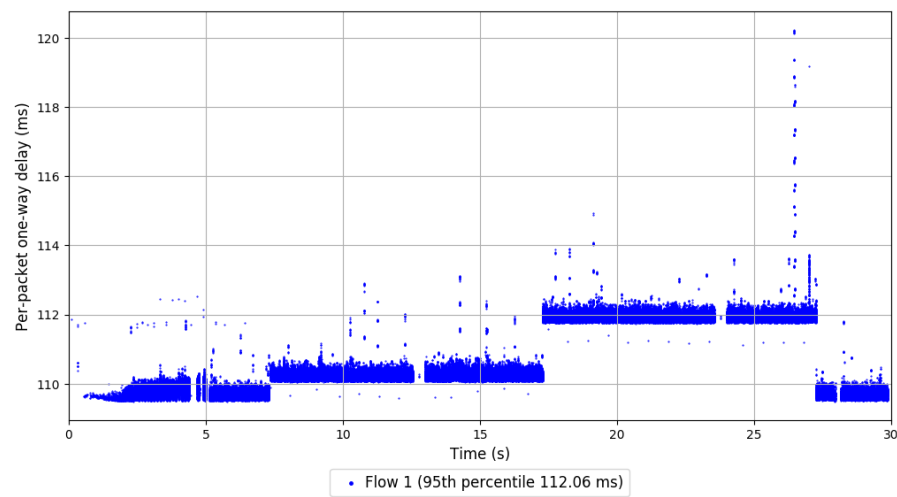
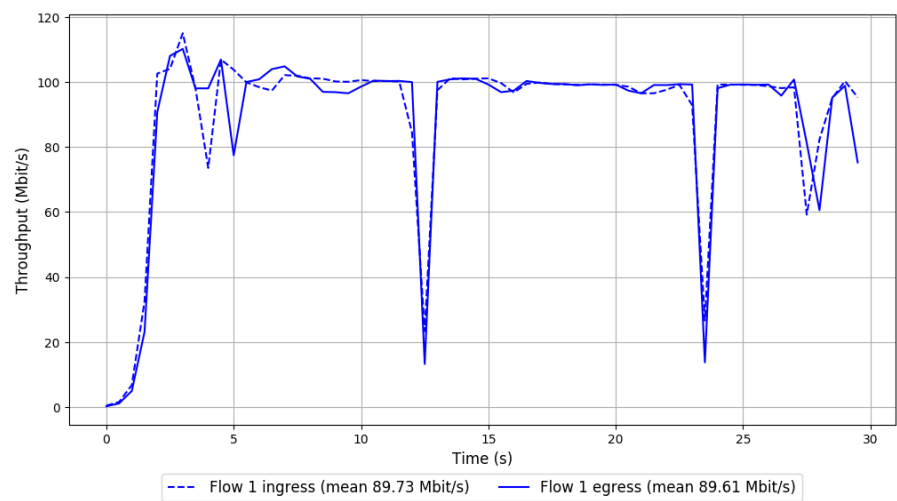
-- Flow 1:

Average throughput: 89.61 Mbit/s

95th percentile per-packet one-way delay: 112.056 ms

Loss rate: 0.89%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-19 19:36:26

End at: 2017-12-19 19:36:56

Below is generated by plot.py at 2017-12-19 23:25:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.01 Mbit/s

95th percentile per-packet one-way delay: 110.690 ms

Loss rate: 0.80%

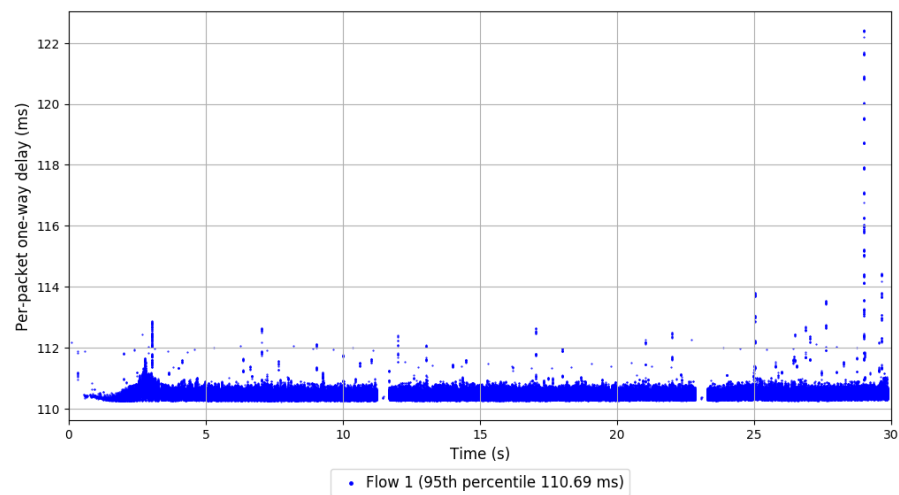
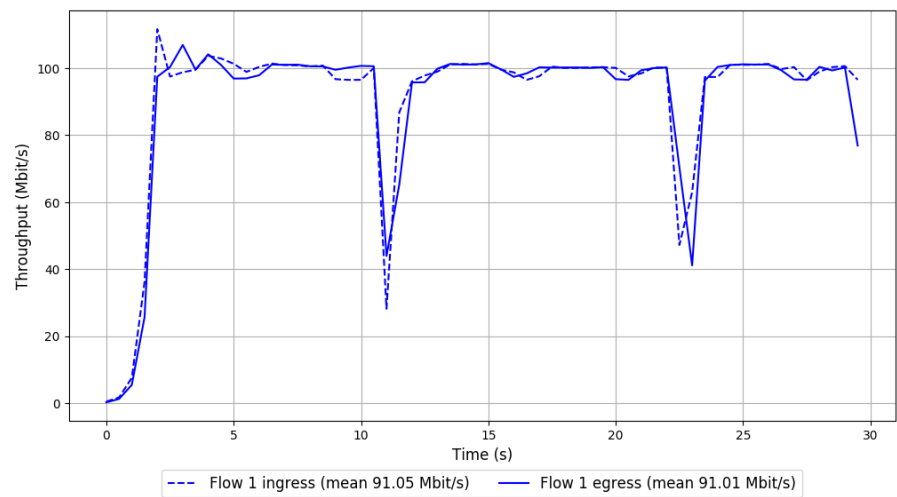
-- Flow 1:

Average throughput: 91.01 Mbit/s

95th percentile per-packet one-way delay: 110.690 ms

Loss rate: 0.80%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-19 19:48:56

End at: 2017-12-19 19:49:26

Below is generated by plot.py at 2017-12-19 23:25:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.02 Mbit/s

95th percentile per-packet one-way delay: 111.210 ms

Loss rate: 0.91%

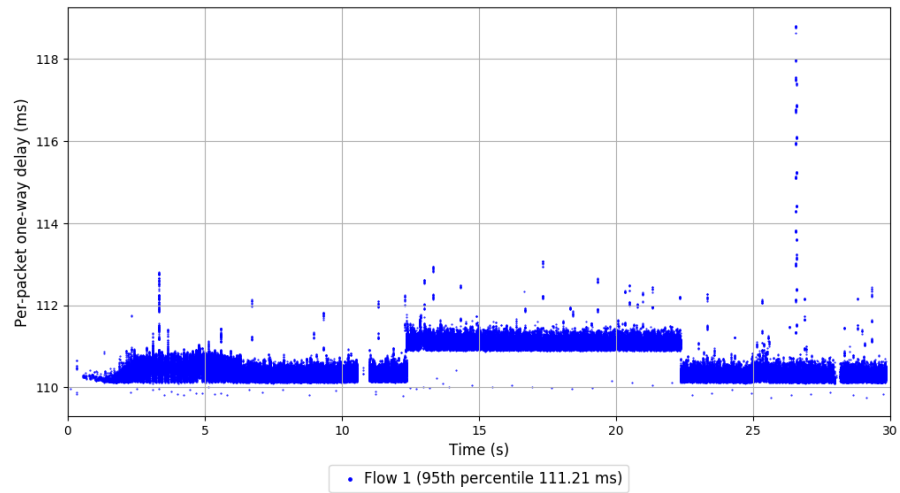
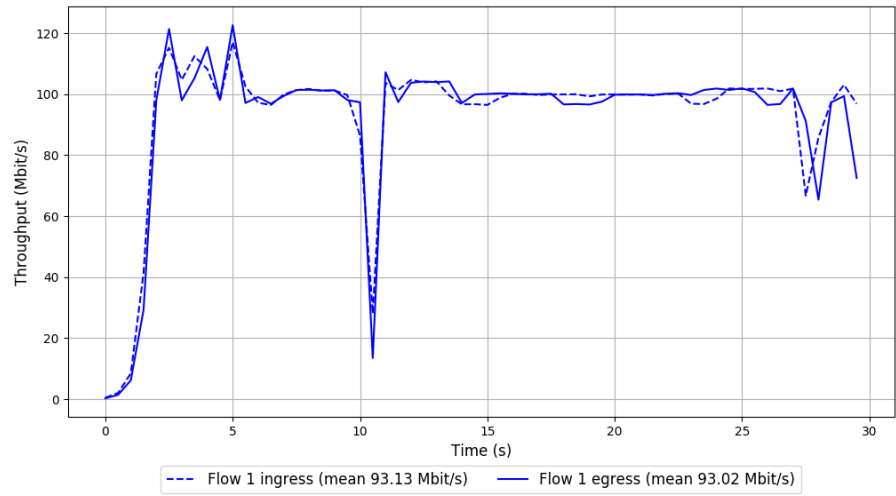
-- Flow 1:

Average throughput: 93.02 Mbit/s

95th percentile per-packet one-way delay: 111.210 ms

Loss rate: 0.91%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-19 20:01:40

End at: 2017-12-19 20:02:10

Below is generated by plot.py at 2017-12-19 23:25:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.86 Mbit/s

95th percentile per-packet one-way delay: 110.476 ms

Loss rate: 1.20%

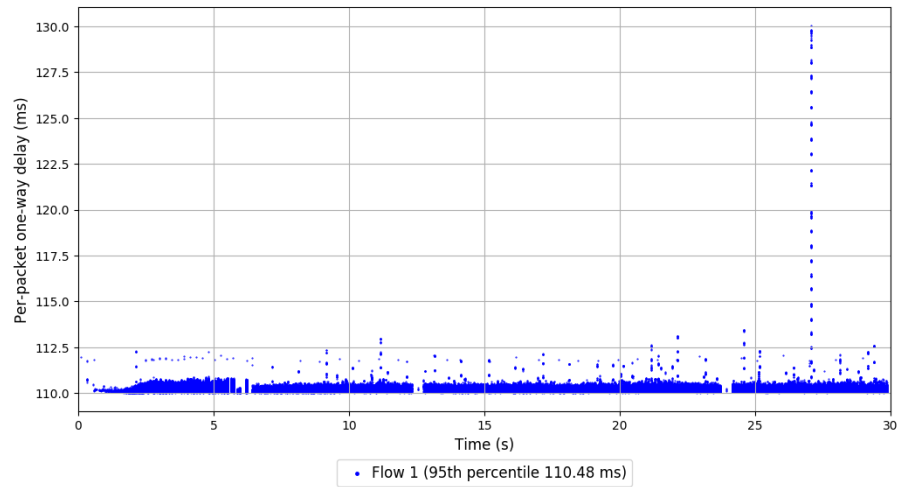
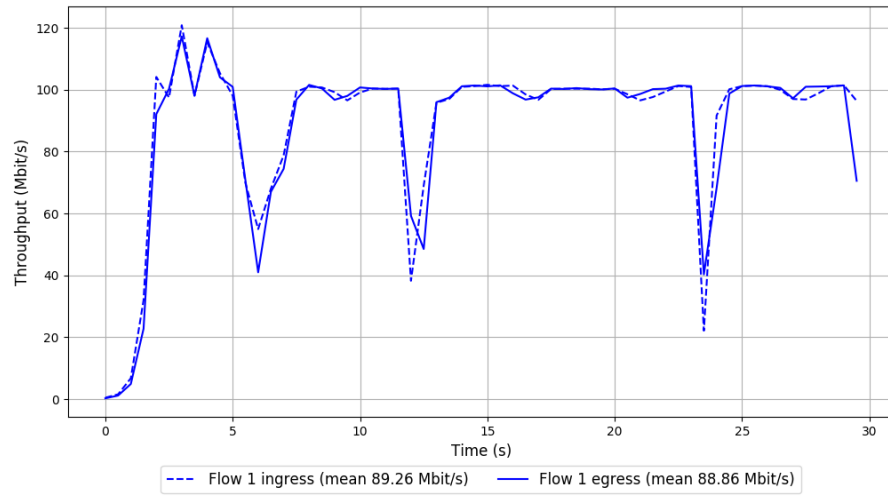
-- Flow 1:

Average throughput: 88.86 Mbit/s

95th percentile per-packet one-way delay: 110.476 ms

Loss rate: 1.20%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-19 20:14:13

End at: 2017-12-19 20:14:43

Below is generated by plot.py at 2017-12-19 23:25:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.67 Mbit/s

95th percentile per-packet one-way delay: 112.236 ms

Loss rate: 1.20%

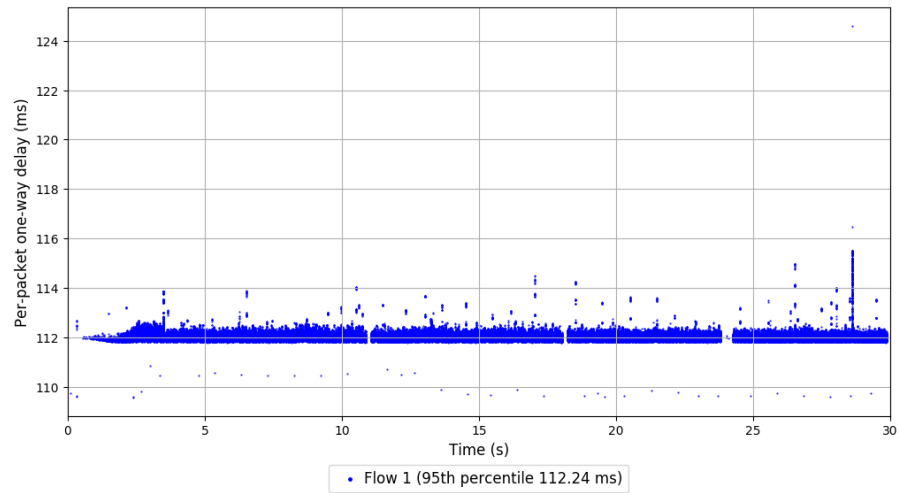
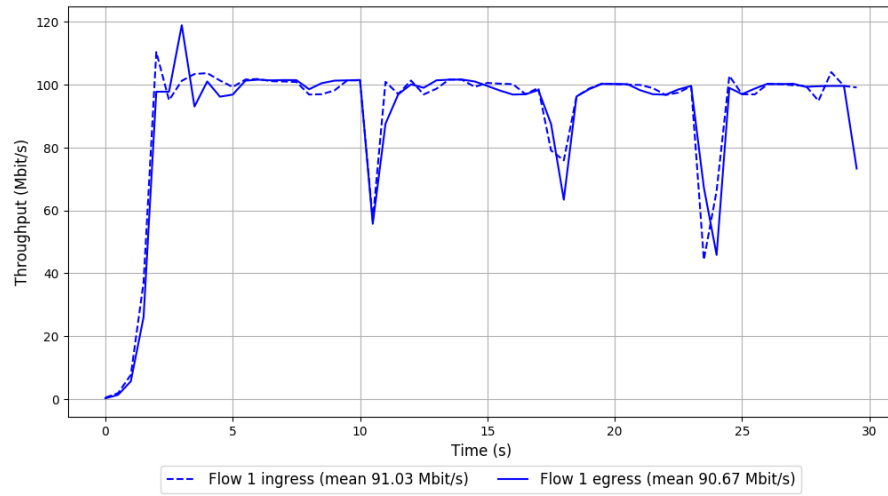
-- Flow 1:

Average throughput: 90.67 Mbit/s

95th percentile per-packet one-way delay: 112.236 ms

Loss rate: 1.20%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-19 20:26:41

End at: 2017-12-19 20:27:11

Below is generated by plot.py at 2017-12-19 23:25:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.74 Mbit/s

95th percentile per-packet one-way delay: 112.761 ms

Loss rate: 1.10%

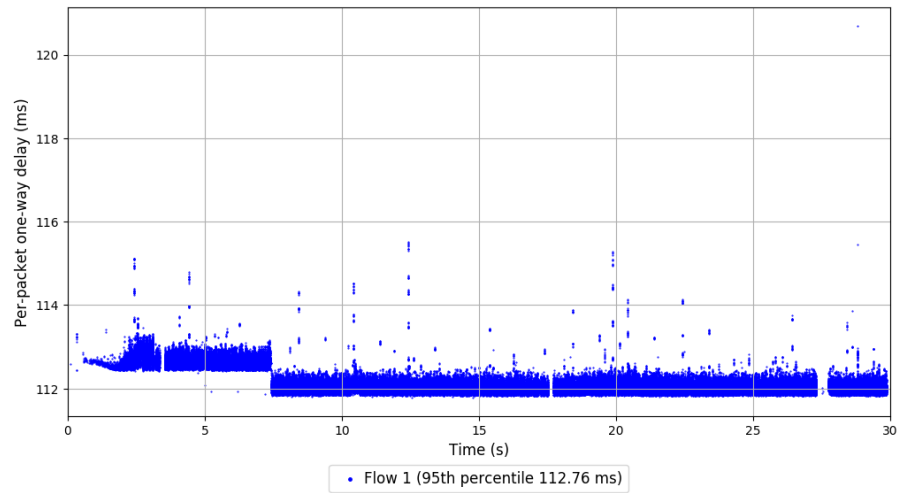
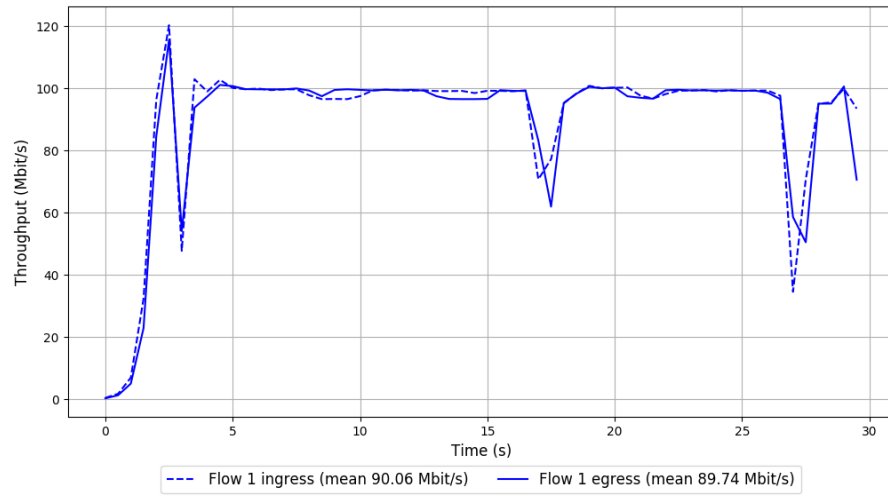
-- Flow 1:

Average throughput: 89.74 Mbit/s

95th percentile per-packet one-way delay: 112.761 ms

Loss rate: 1.10%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-19 20:39:01

End at: 2017-12-19 20:39:31

Below is generated by plot.py at 2017-12-19 23:25:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.68 Mbit/s

95th percentile per-packet one-way delay: 112.536 ms

Loss rate: 0.78%

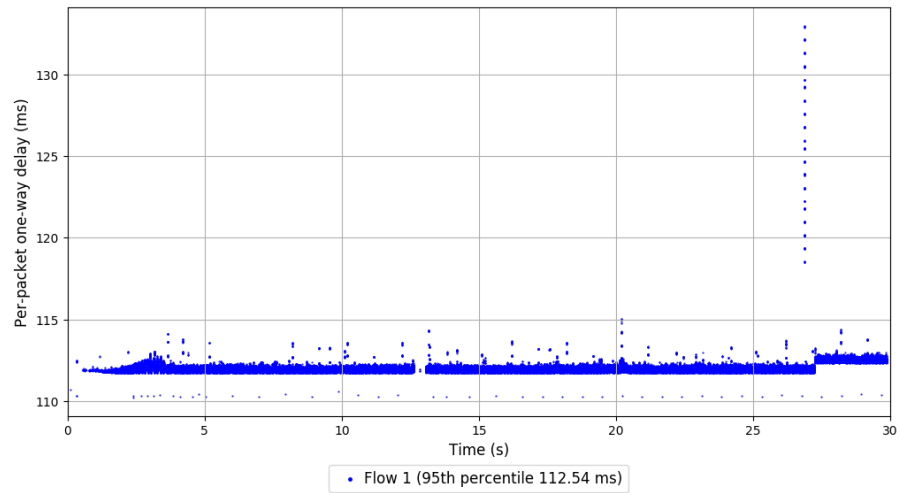
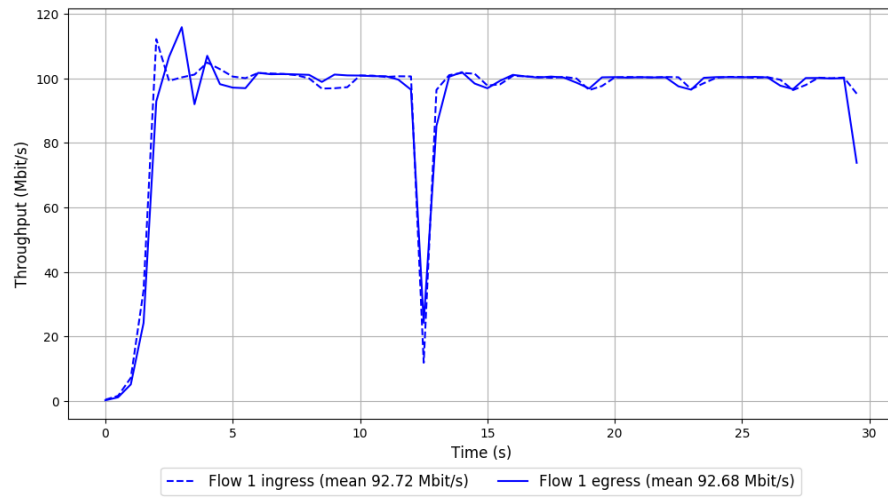
-- Flow 1:

Average throughput: 92.68 Mbit/s

95th percentile per-packet one-way delay: 112.536 ms

Loss rate: 0.78%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-19 20:51:18

End at: 2017-12-19 20:51:48

Below is generated by plot.py at 2017-12-19 23:25:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 112.283 ms

Loss rate: 1.47%

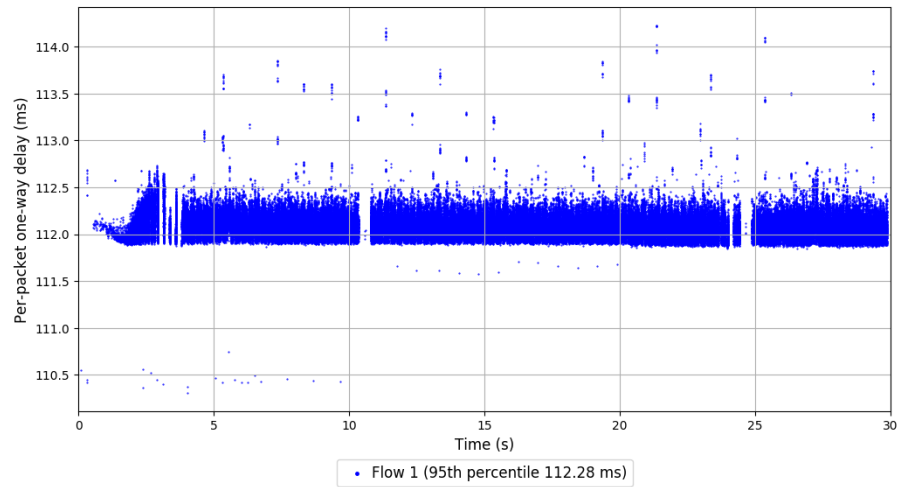
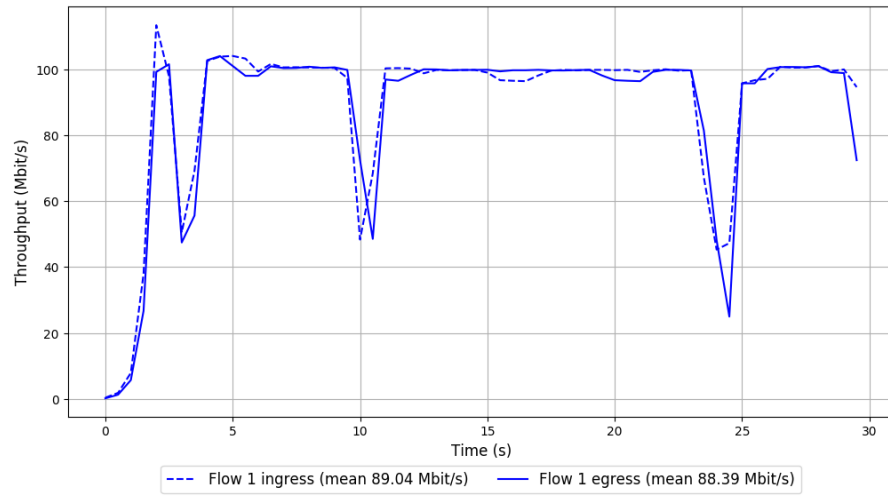
-- Flow 1:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 112.283 ms

Loss rate: 1.47%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-19 21:03:41

End at: 2017-12-19 21:04:11

Below is generated by plot.py at 2017-12-19 23:27:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.25 Mbit/s

95th percentile per-packet one-way delay: 112.368 ms

Loss rate: 0.78%

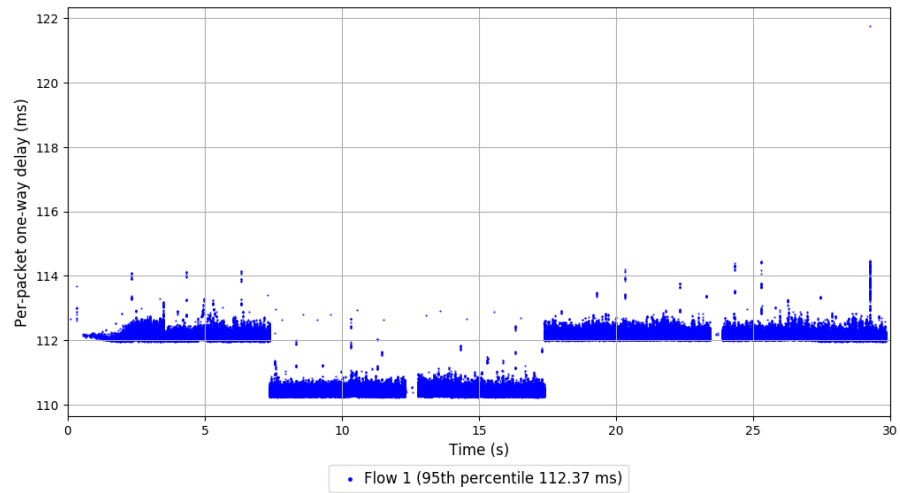
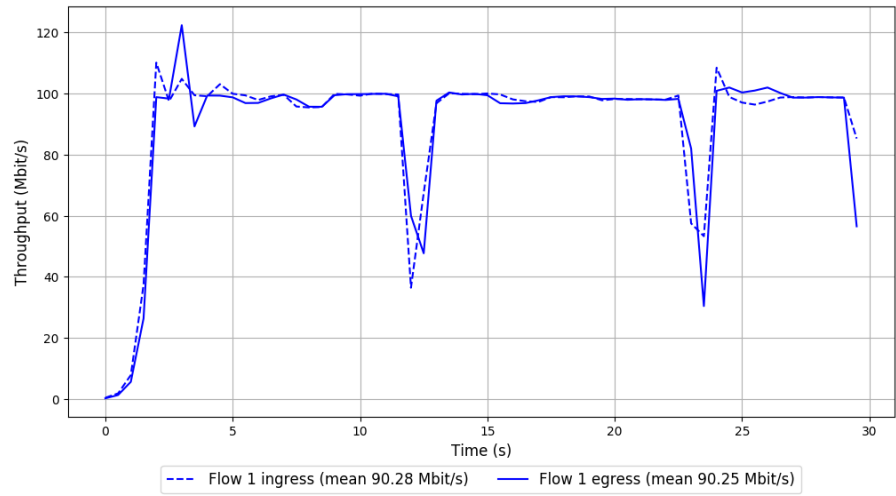
-- Flow 1:

Average throughput: 90.25 Mbit/s

95th percentile per-packet one-way delay: 112.368 ms

Loss rate: 0.78%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-19 21:16:04

End at: 2017-12-19 21:16:34

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.64 Mbit/s

95th percentile per-packet one-way delay: 112.901 ms

Loss rate: 0.81%

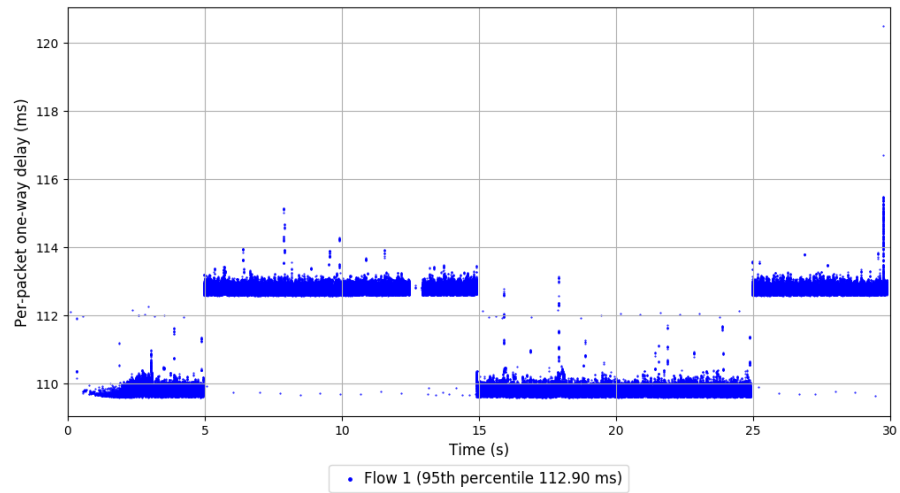
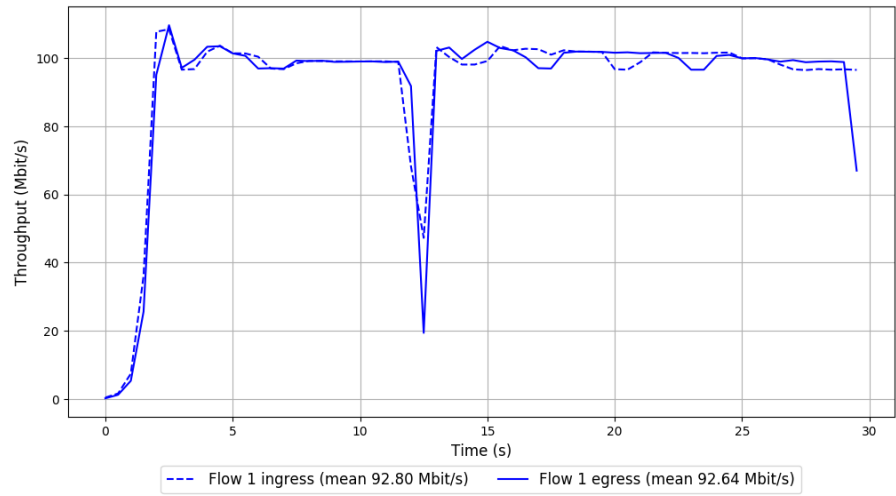
-- Flow 1:

Average throughput: 92.64 Mbit/s

95th percentile per-packet one-way delay: 112.901 ms

Loss rate: 0.81%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-19 19:13:03

End at: 2017-12-19 19:13:33

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.79 Mbit/s

95th percentile per-packet one-way delay: 117.666 ms

Loss rate: 1.44%

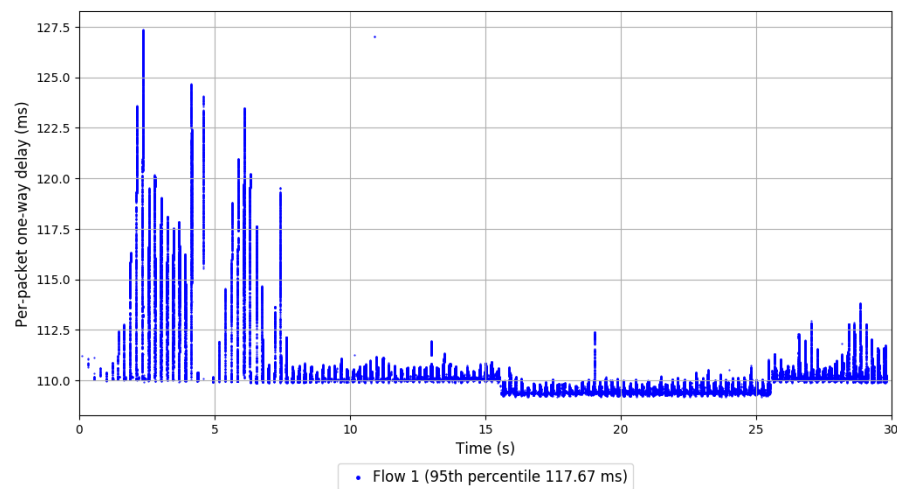
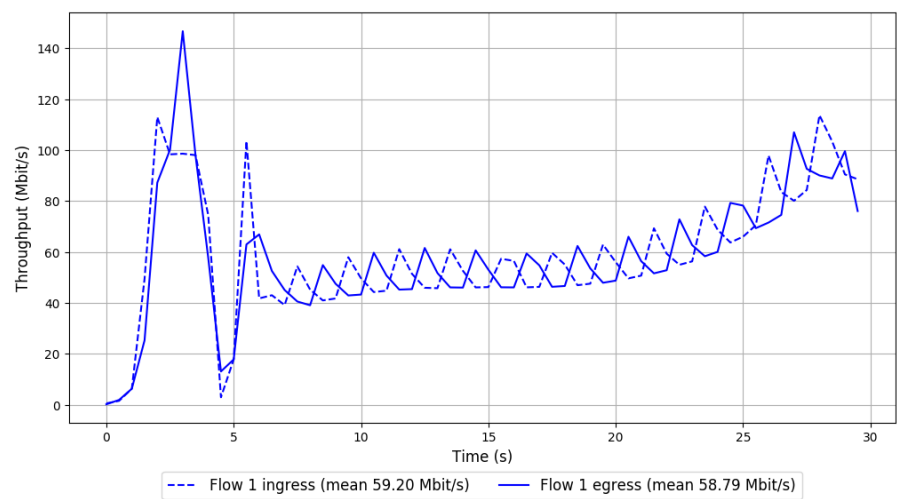
-- Flow 1:

Average throughput: 58.79 Mbit/s

95th percentile per-packet one-way delay: 117.666 ms

Loss rate: 1.44%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-19 19:25:31

End at: 2017-12-19 19:26:01

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.65 Mbit/s

95th percentile per-packet one-way delay: 115.423 ms

Loss rate: 2.39%

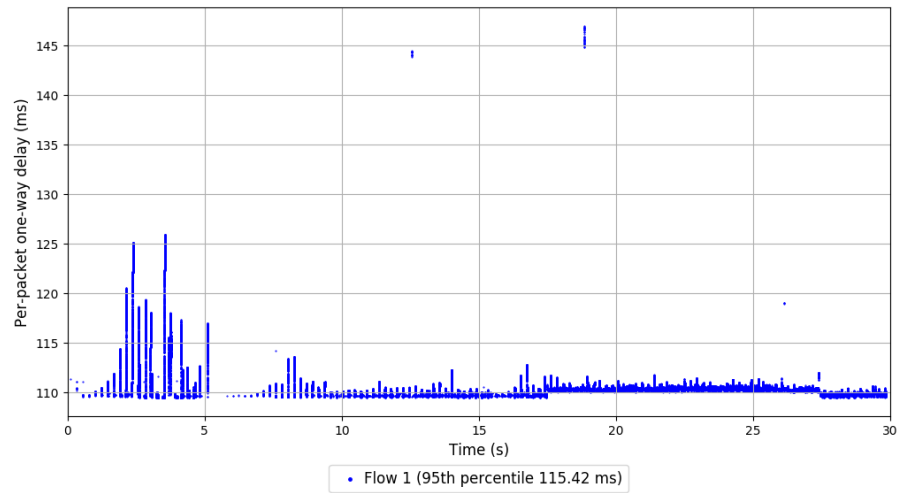
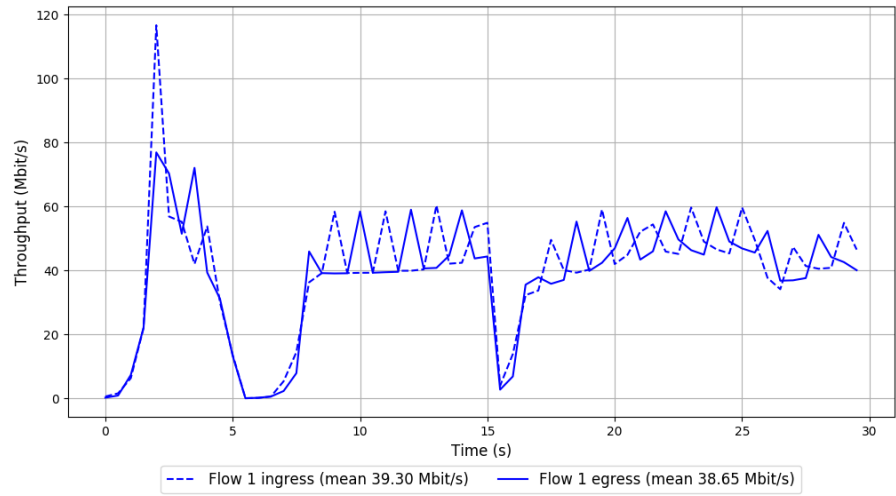
-- Flow 1:

Average throughput: 38.65 Mbit/s

95th percentile per-packet one-way delay: 115.423 ms

Loss rate: 2.39%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

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

End at: 2017-12-19 19:38:36

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 118.840 ms

Loss rate: 1.91%

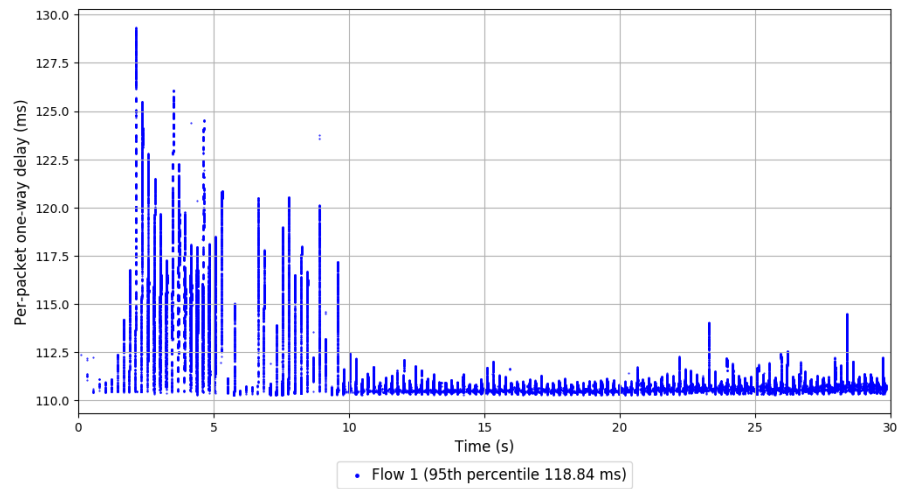
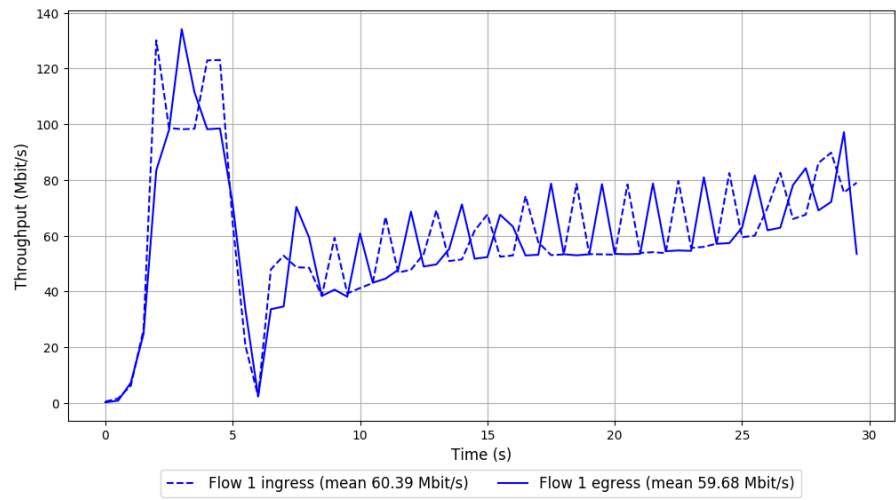
-- Flow 1:

Average throughput: 59.68 Mbit/s

95th percentile per-packet one-way delay: 118.840 ms

Loss rate: 1.91%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-19 19:50:35

End at: 2017-12-19 19:51:05

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 117.603 ms

Loss rate: 1.56%

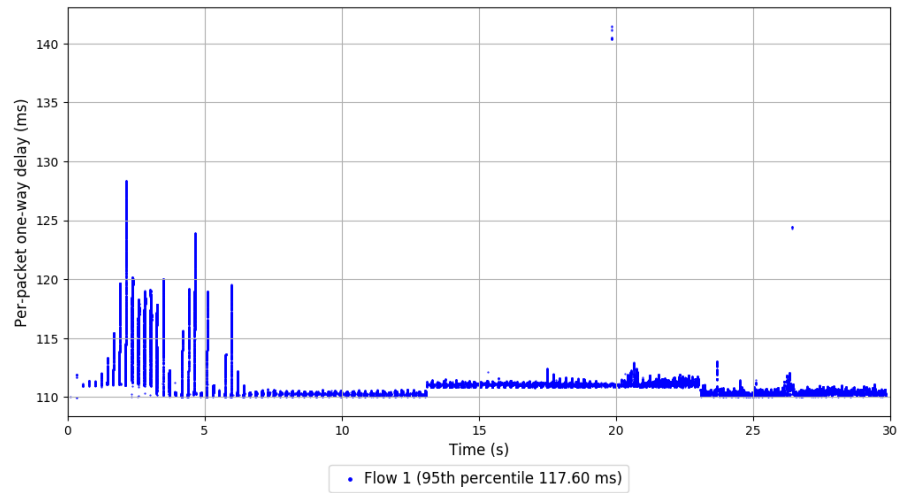
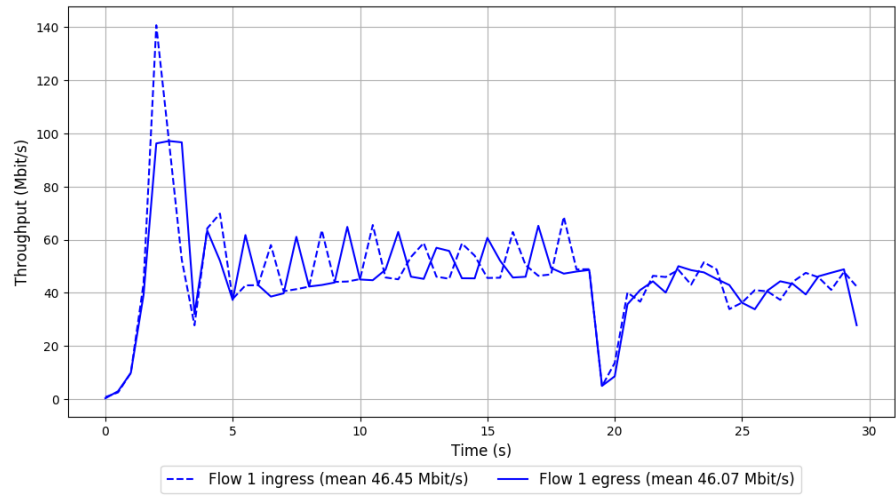
-- Flow 1:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 117.603 ms

Loss rate: 1.56%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-19 20:03:21

End at: 2017-12-19 20:03:51

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 47.29 Mbit/s

95th percentile per-packet one-way delay: 118.255 ms

Loss rate: 2.25%

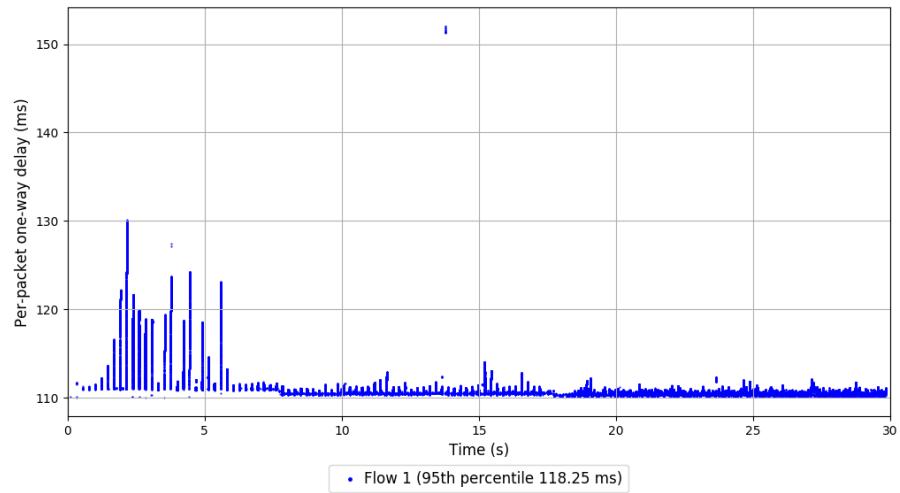
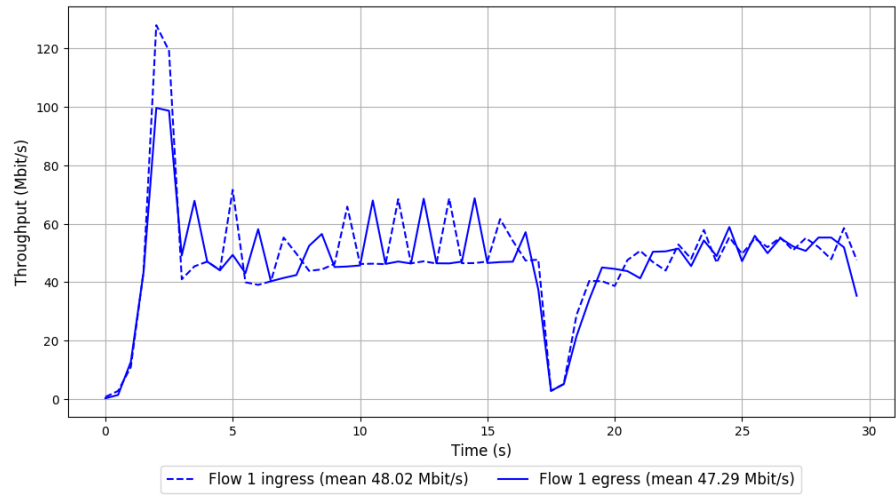
-- Flow 1:

Average throughput: 47.29 Mbit/s

95th percentile per-packet one-way delay: 118.255 ms

Loss rate: 2.25%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-19 20:15:53

End at: 2017-12-19 20:16:23

Below is generated by plot.py at 2017-12-19 23:27:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.89 Mbit/s

95th percentile per-packet one-way delay: 118.506 ms

Loss rate: 2.29%

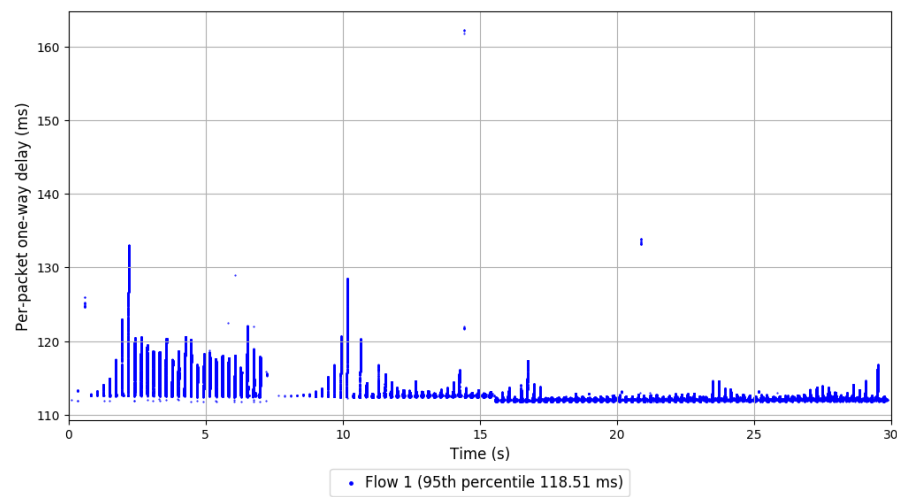
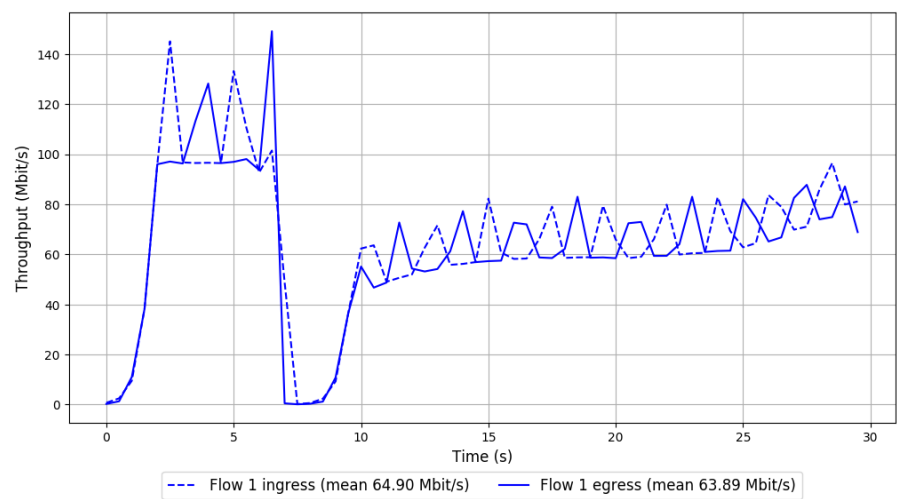
-- Flow 1:

Average throughput: 63.89 Mbit/s

95th percentile per-packet one-way delay: 118.506 ms

Loss rate: 2.29%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-19 20:28:21

End at: 2017-12-19 20:28:51

Below is generated by plot.py at 2017-12-19 23:27:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 115.335 ms

Loss rate: 0.55%

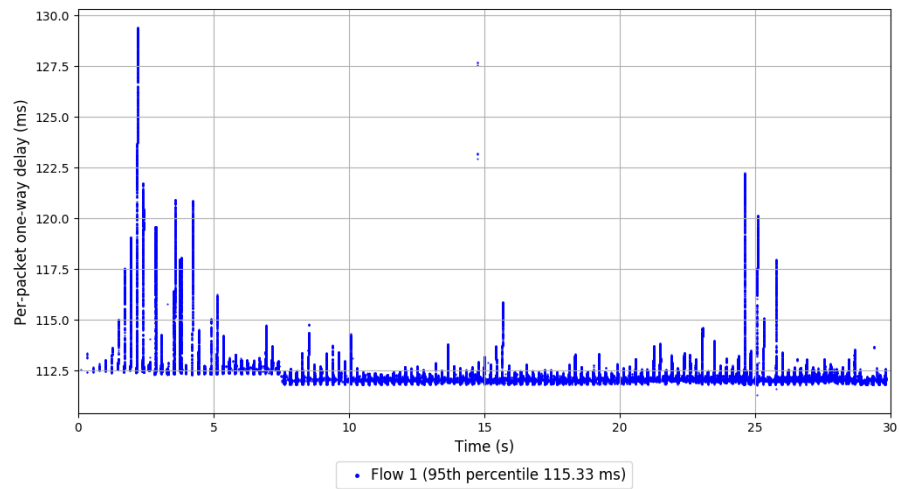
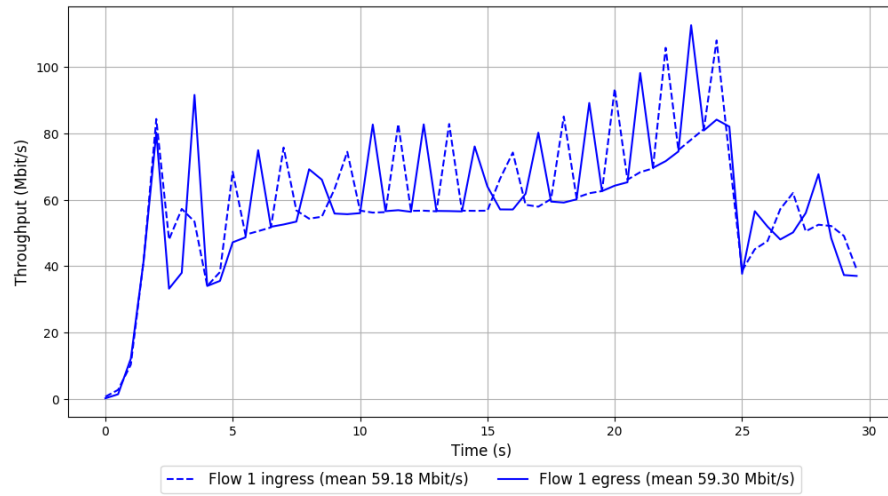
-- Flow 1:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 115.335 ms

Loss rate: 0.55%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-19 20:40:41

End at: 2017-12-19 20:41:11

Below is generated by plot.py at 2017-12-19 23:27:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.09 Mbit/s

95th percentile per-packet one-way delay: 121.481 ms

Loss rate: 2.06%

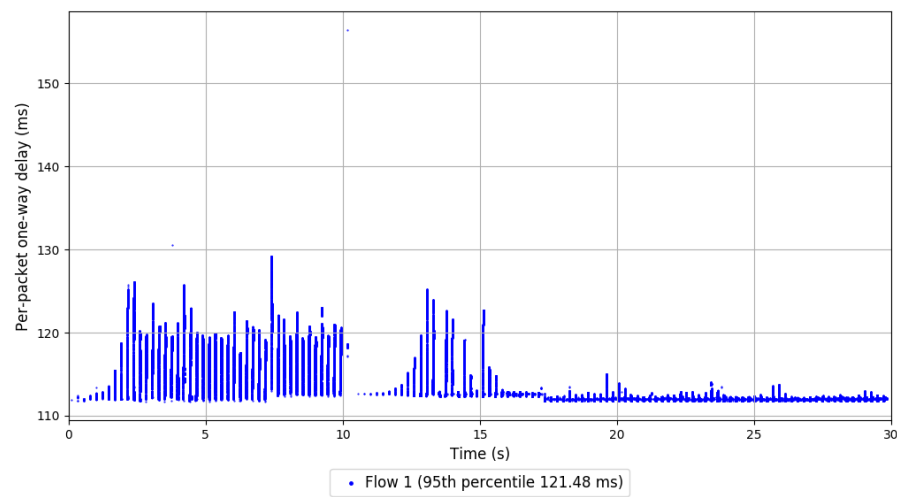
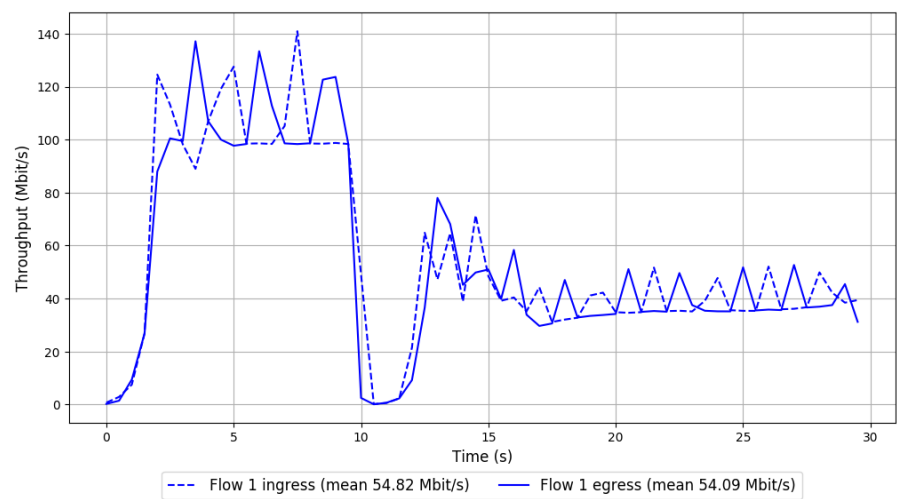
-- Flow 1:

Average throughput: 54.09 Mbit/s

95th percentile per-packet one-way delay: 121.481 ms

Loss rate: 2.06%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-19 20:52:58

End at: 2017-12-19 20:53:28

Below is generated by plot.py at 2017-12-19 23:27:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.23 Mbit/s

95th percentile per-packet one-way delay: 124.323 ms

Loss rate: 2.05%

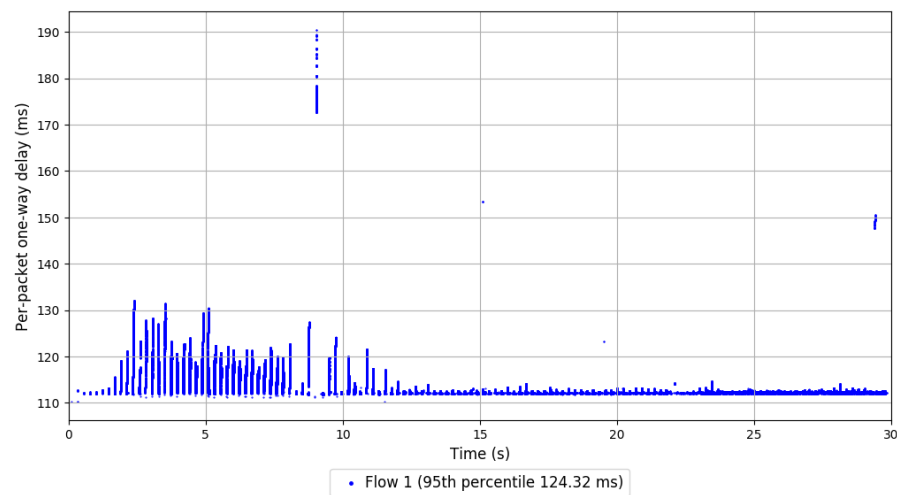
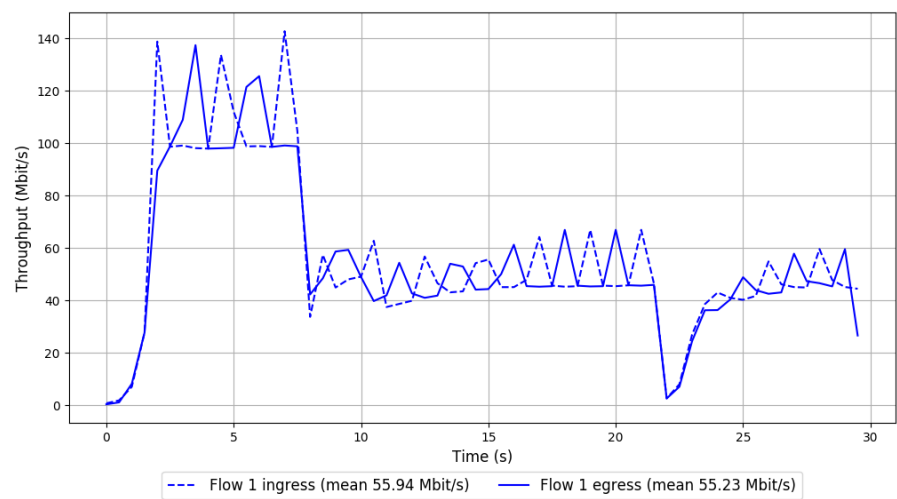
-- Flow 1:

Average throughput: 55.23 Mbit/s

95th percentile per-packet one-way delay: 124.323 ms

Loss rate: 2.05%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-19 21:05:21

End at: 2017-12-19 21:05:51

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.57 Mbit/s

95th percentile per-packet one-way delay: 120.569 ms

Loss rate: 1.75%

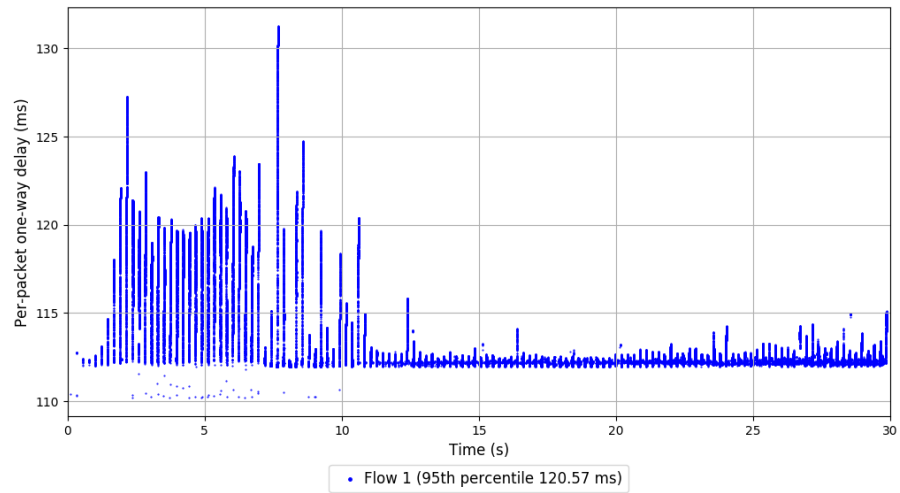
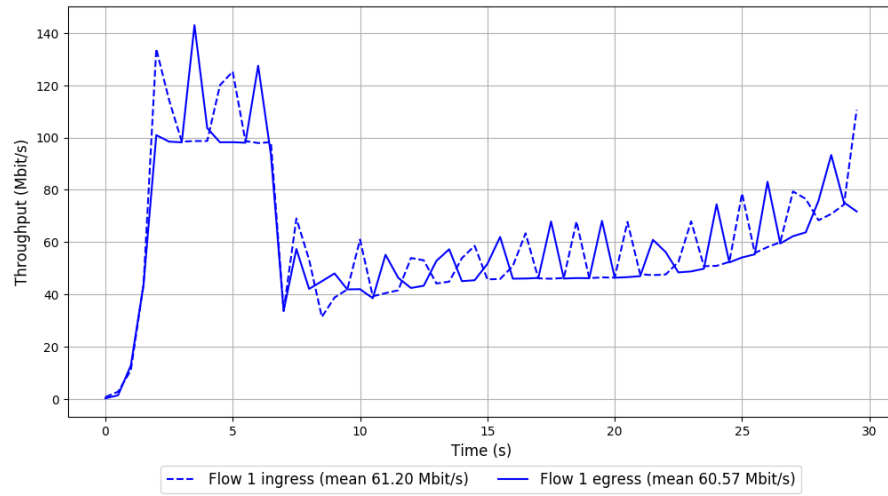
-- Flow 1:

Average throughput: 60.57 Mbit/s

95th percentile per-packet one-way delay: 120.569 ms

Loss rate: 1.75%

Run 10: Report of TCP Cubic — Data Link

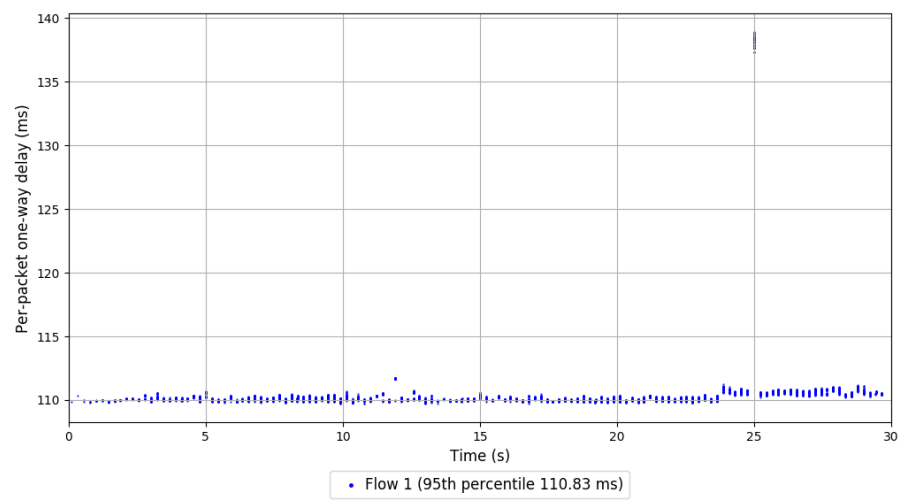
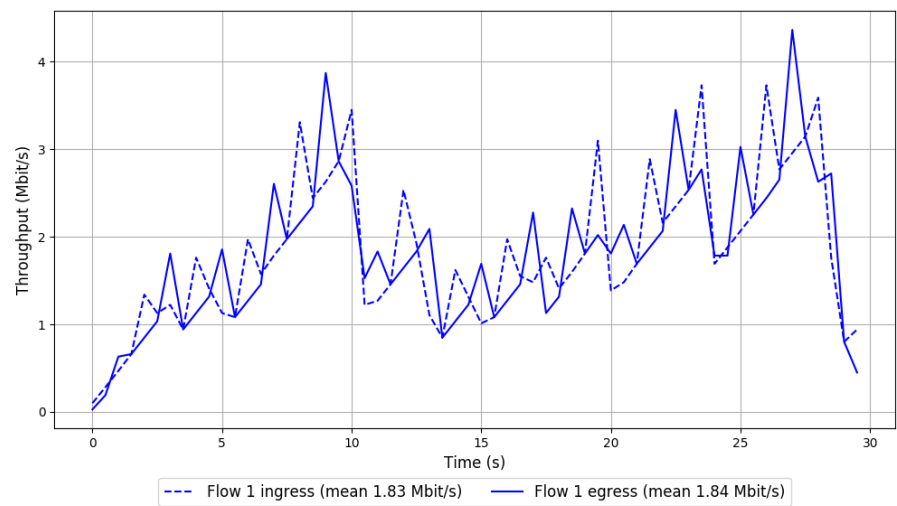


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-19 19:19:15
End at: 2017-12-19 19:19:45

# Below is generated by plot.py at 2017-12-19 23:27:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 110.827 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 1.84 Mbit/s
95th percentile per-packet one-way delay: 110.827 ms
Loss rate: 0.45%
```


Run 1: Report of LEDBAT — Data Link

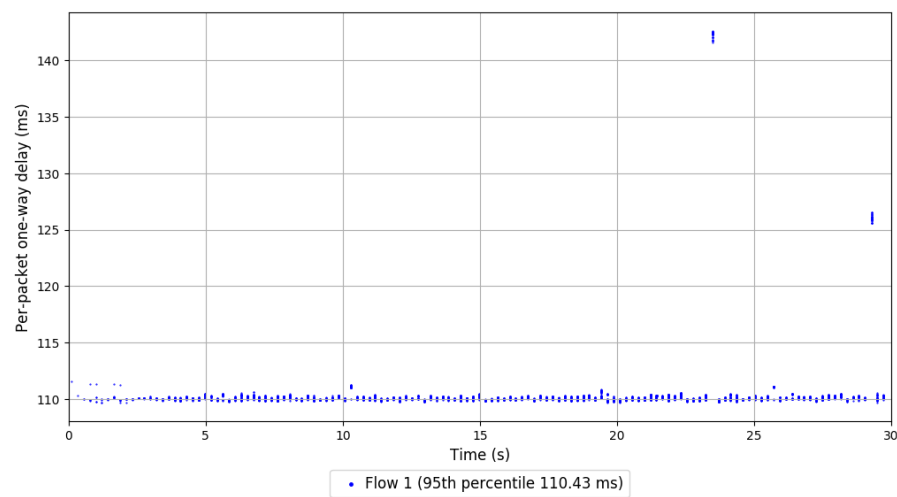
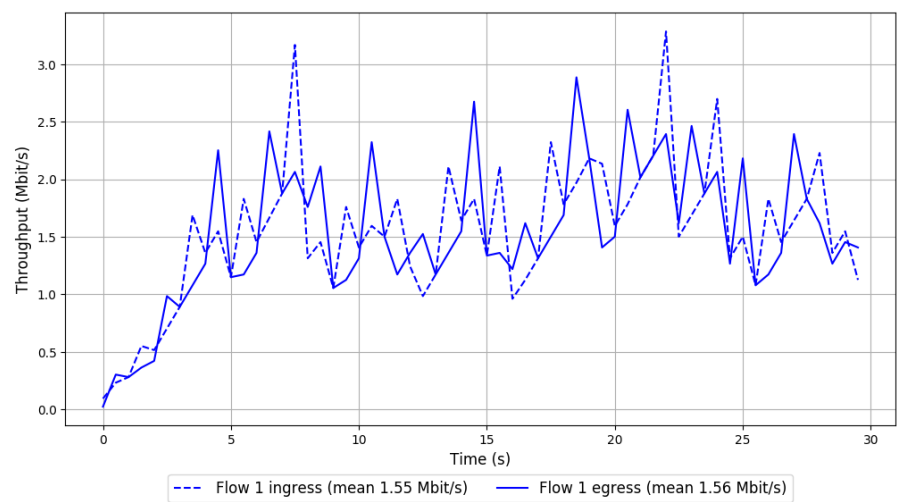


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-19 19:31:32
End at: 2017-12-19 19:32:02

# Below is generated by plot.py at 2017-12-19 23:27:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 110.434 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 110.434 ms
Loss rate: 0.56%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-19 19:44:16

End at: 2017-12-19 19:44:46

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 1.60%

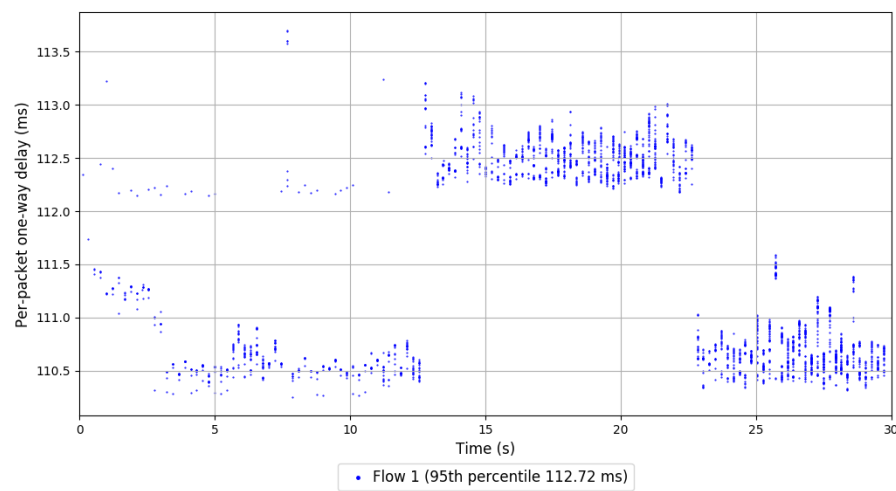
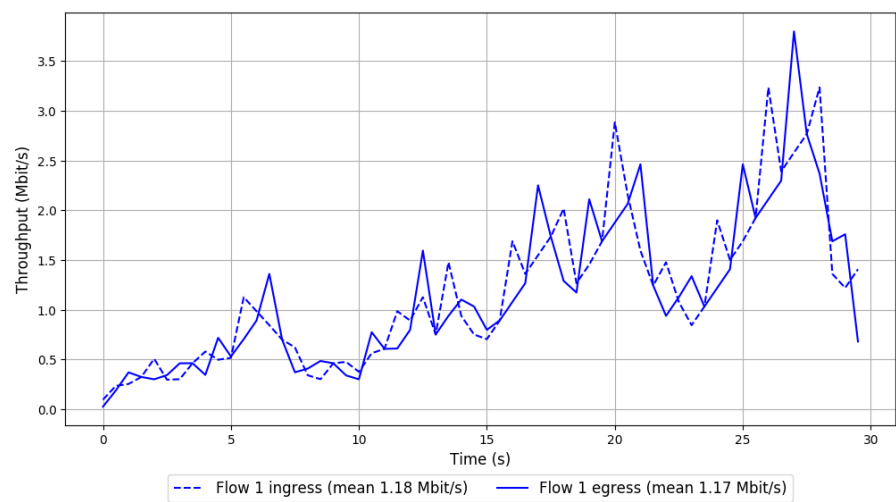
-- Flow 1:

Average throughput: 1.17 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 1.60%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-19 19:56:44

End at: 2017-12-19 19:57:14

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 111.488 ms

Loss rate: 4.48%

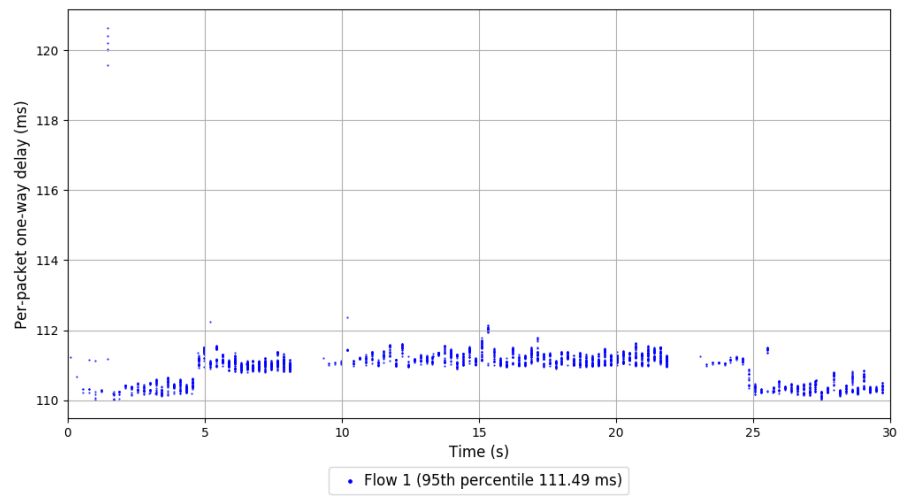
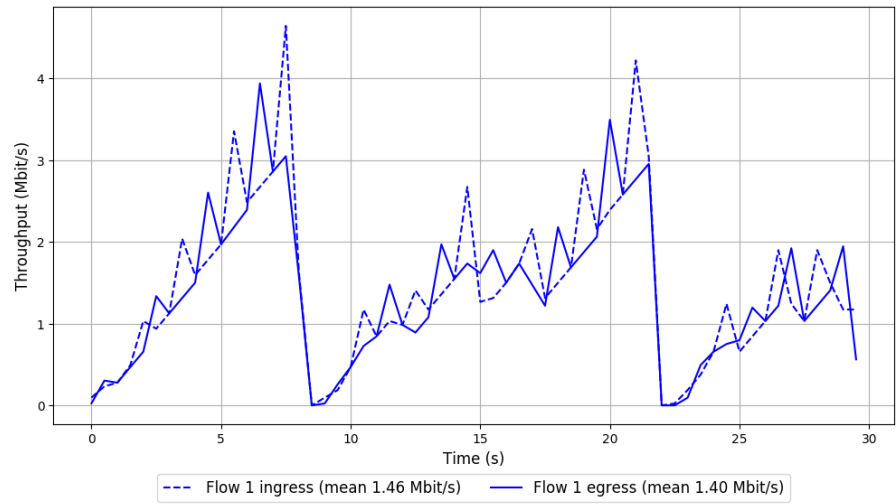
-- Flow 1:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 111.488 ms

Loss rate: 4.48%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-19 20:09:17

End at: 2017-12-19 20:09:47

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 1.05%

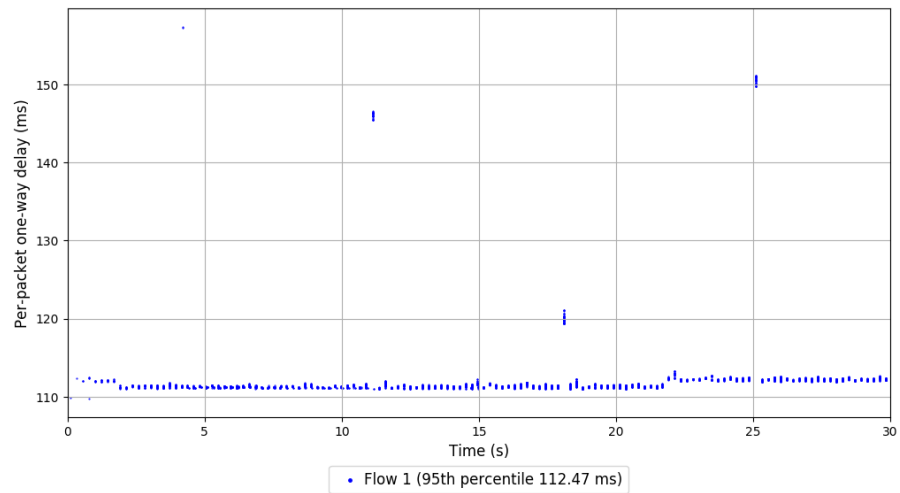
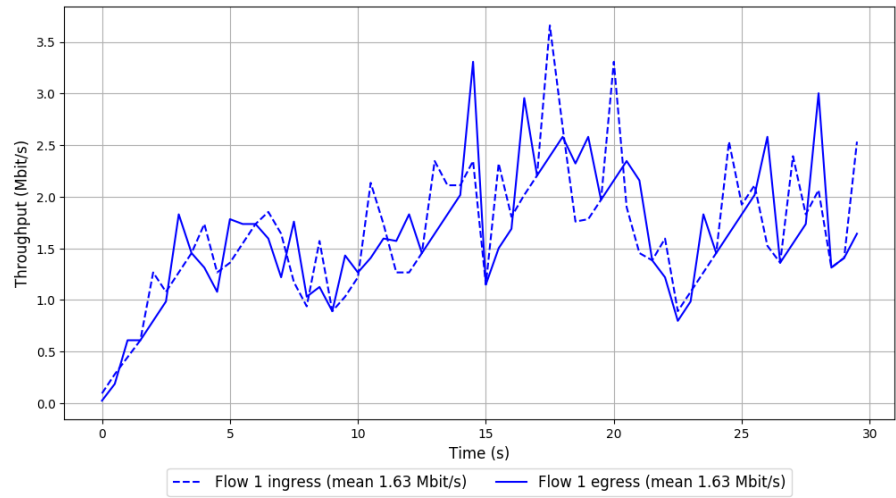
-- Flow 1:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 1.05%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-19 20:21:54

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

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 113.255 ms

Loss rate: 0.88%

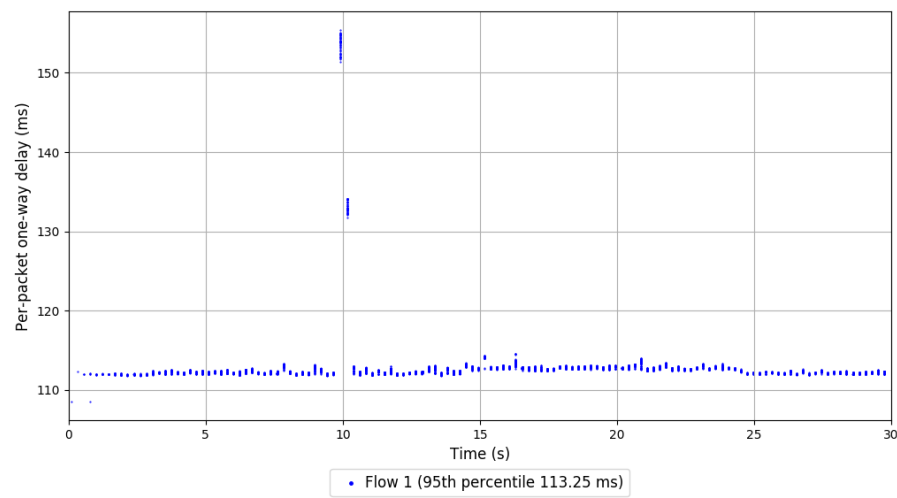
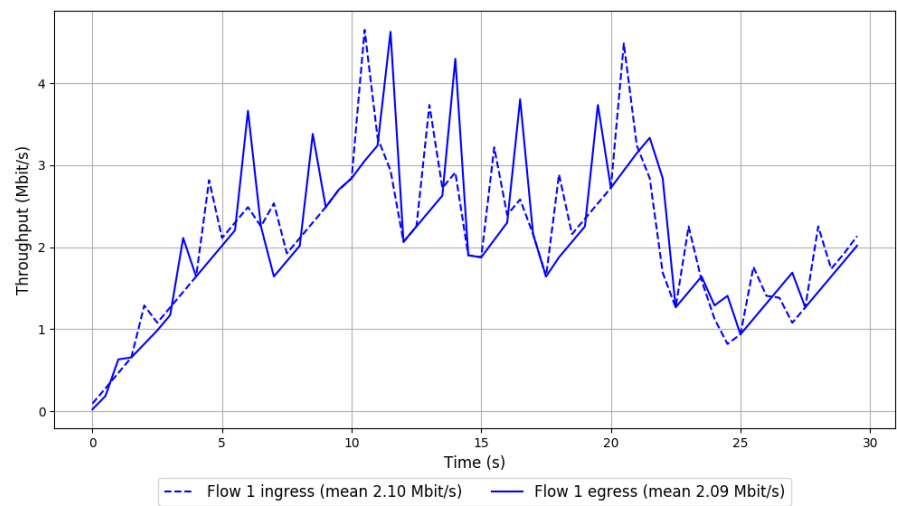
-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 113.255 ms

Loss rate: 0.88%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-19 20:34:17

End at: 2017-12-19 20:34:47

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 113.015 ms

Loss rate: 1.54%

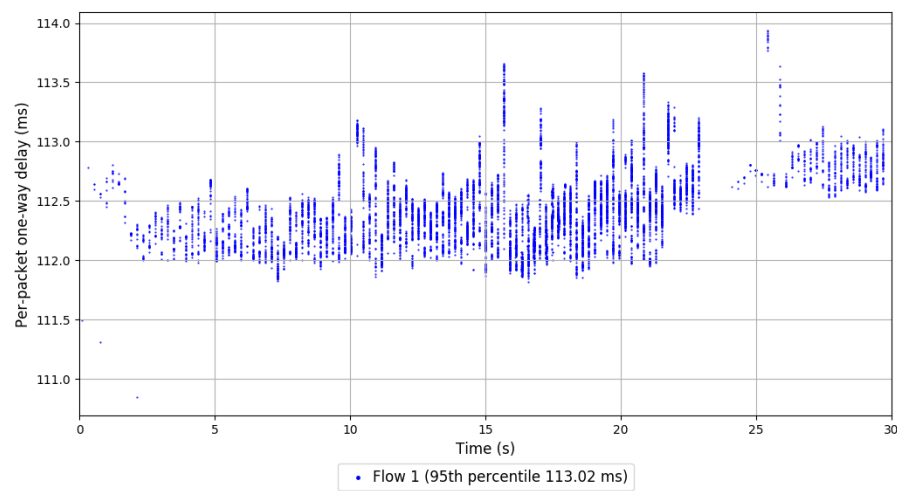
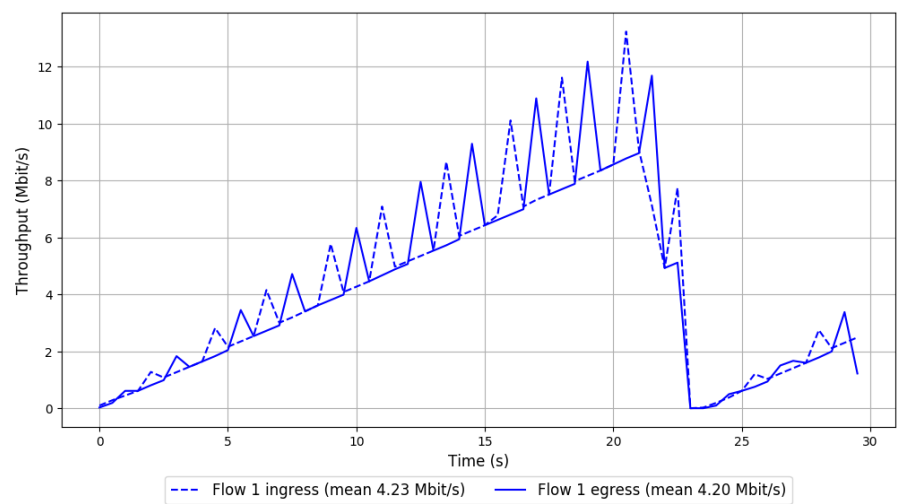
-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 113.015 ms

Loss rate: 1.54%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-19 20:46:35

End at: 2017-12-19 20:47:05

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 0.68%

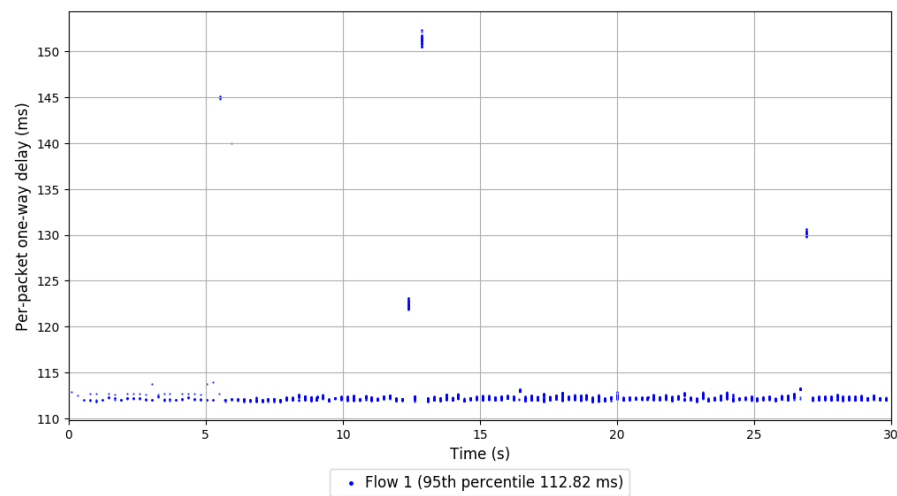
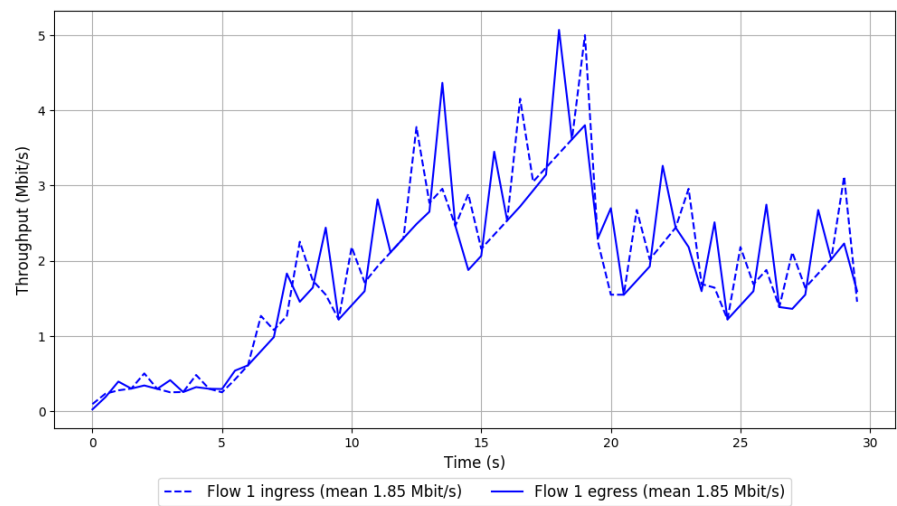
-- Flow 1:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 0.68%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-19 20:58:54

End at: 2017-12-19 20:59:24

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 112.798 ms

Loss rate: 1.07%

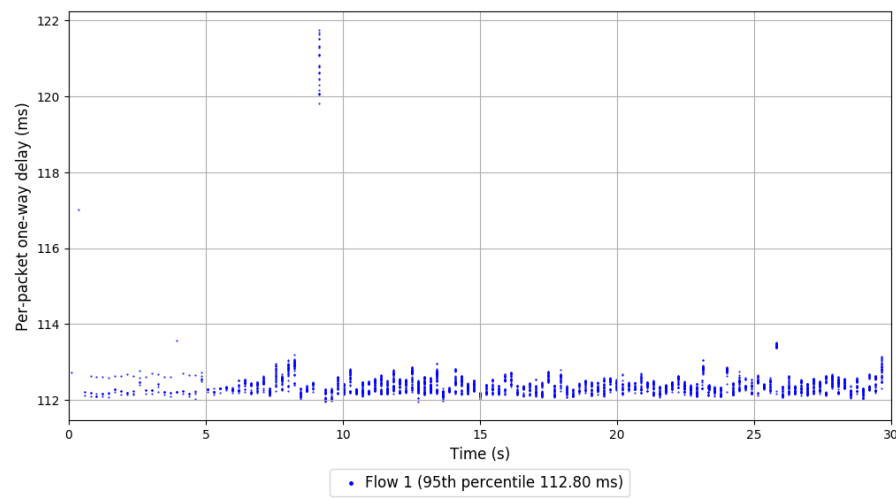
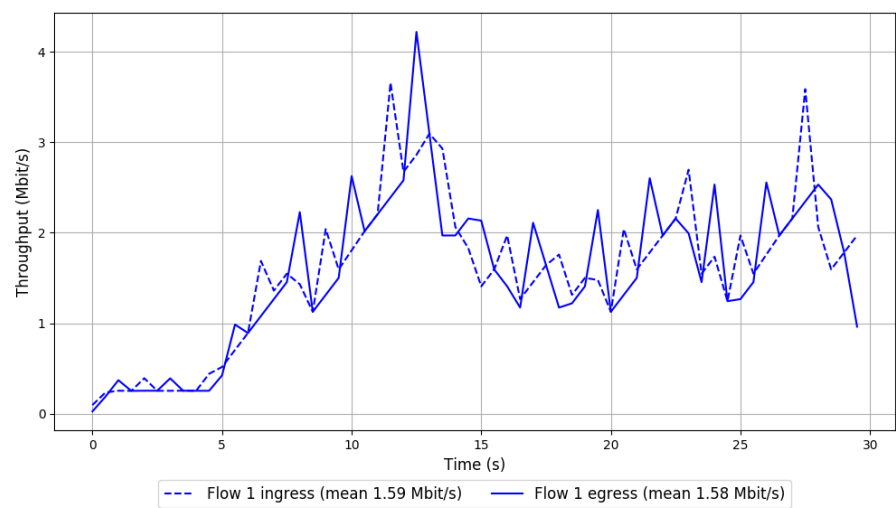
-- Flow 1:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 112.798 ms

Loss rate: 1.07%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-19 21:11:16

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

Below is generated by plot.py at 2017-12-19 23:27:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 113.250 ms

Loss rate: 2.00%

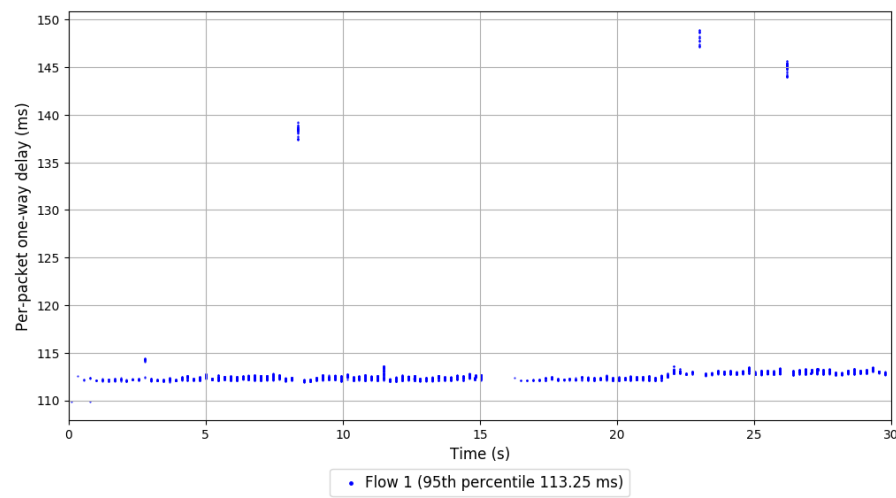
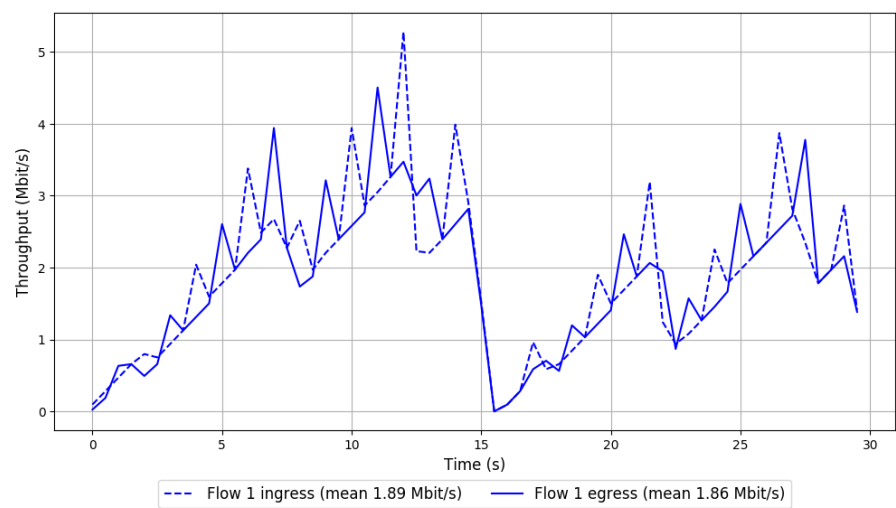
-- Flow 1:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 113.250 ms

Loss rate: 2.00%

Run 10: Report of LEDBAT — Data Link

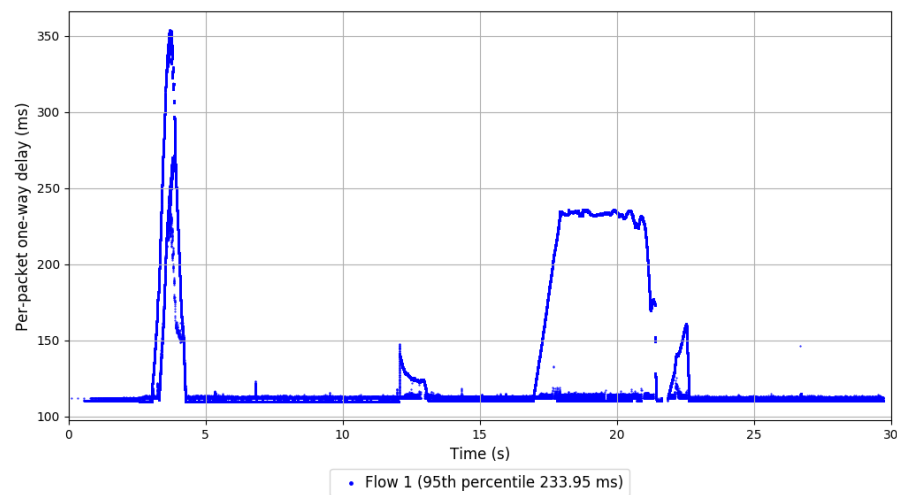
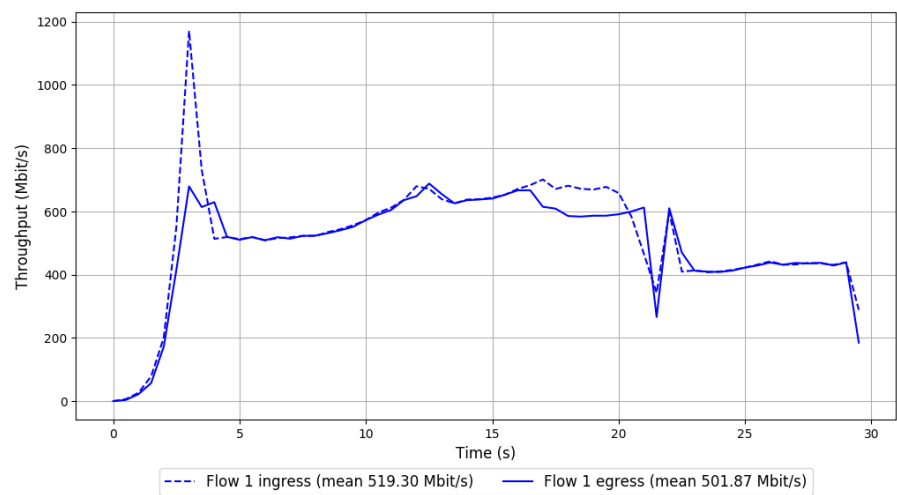


```
Run 1: Statistics of PCC

Start at: 2017-12-19 19:19:56
End at: 2017-12-19 19:20:26

# Below is generated by plot.py at 2017-12-19 23:36:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 501.87 Mbit/s
95th percentile per-packet one-way delay: 233.952 ms
Loss rate: 4.09%
-- Flow 1:
Average throughput: 501.87 Mbit/s
95th percentile per-packet one-way delay: 233.952 ms
Loss rate: 4.09%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

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

End at: 2017-12-19 19:32:42

Below is generated by plot.py at 2017-12-19 23:37:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 638.38 Mbit/s

95th percentile per-packet one-way delay: 171.589 ms

Loss rate: 1.97%

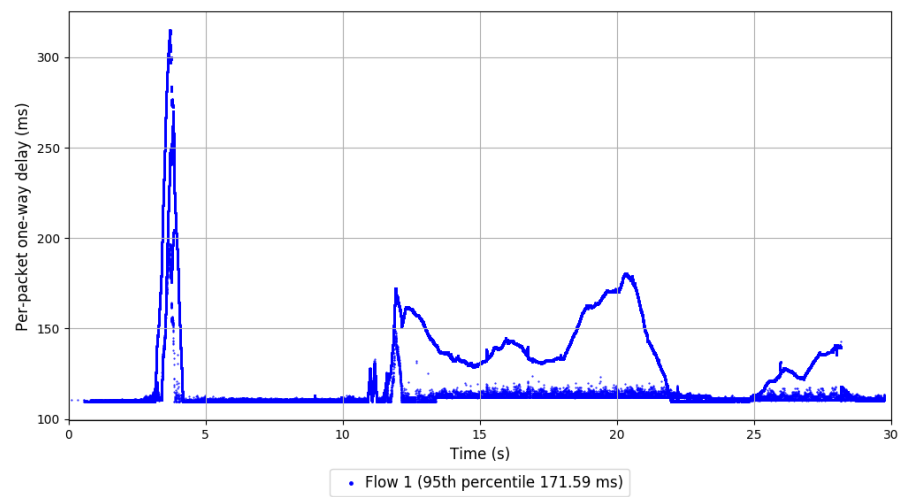
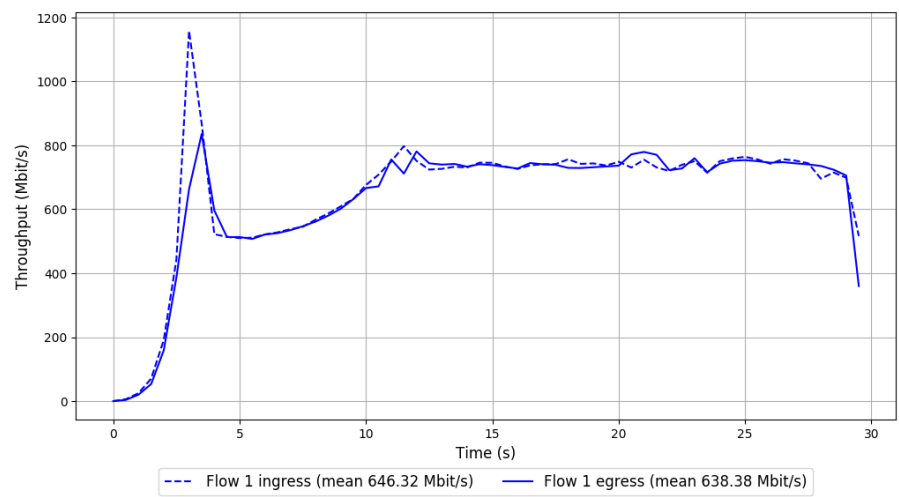
-- Flow 1:

Average throughput: 638.38 Mbit/s

95th percentile per-packet one-way delay: 171.589 ms

Loss rate: 1.97%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-19 19:44:56

End at: 2017-12-19 19:45:26

Below is generated by plot.py at 2017-12-19 23:37:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 501.69 Mbit/s

95th percentile per-packet one-way delay: 133.929 ms

Loss rate: 2.28%

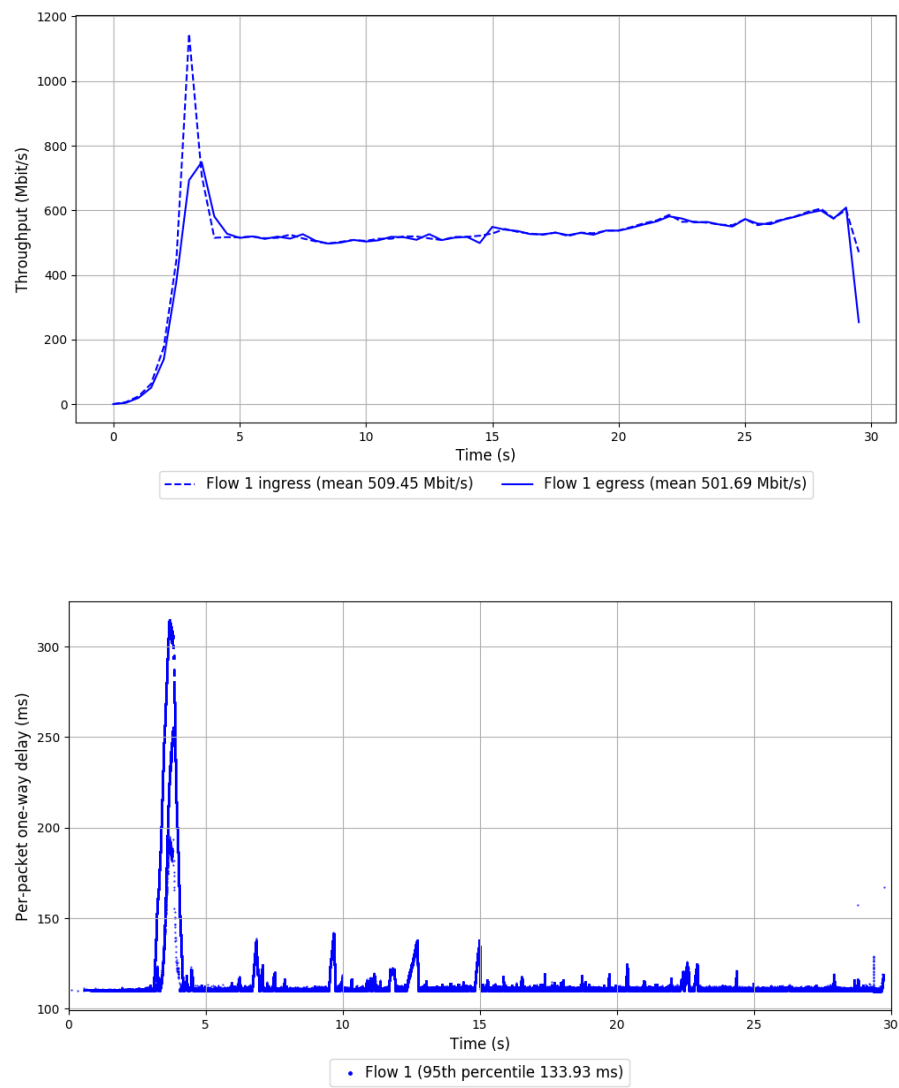
-- Flow 1:

Average throughput: 501.69 Mbit/s

95th percentile per-packet one-way delay: 133.929 ms

Loss rate: 2.28%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-19 19:57:24

End at: 2017-12-19 19:57:55

Below is generated by plot.py at 2017-12-19 23:37:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 619.20 Mbit/s

95th percentile per-packet one-way delay: 208.758 ms

Loss rate: 2.73%

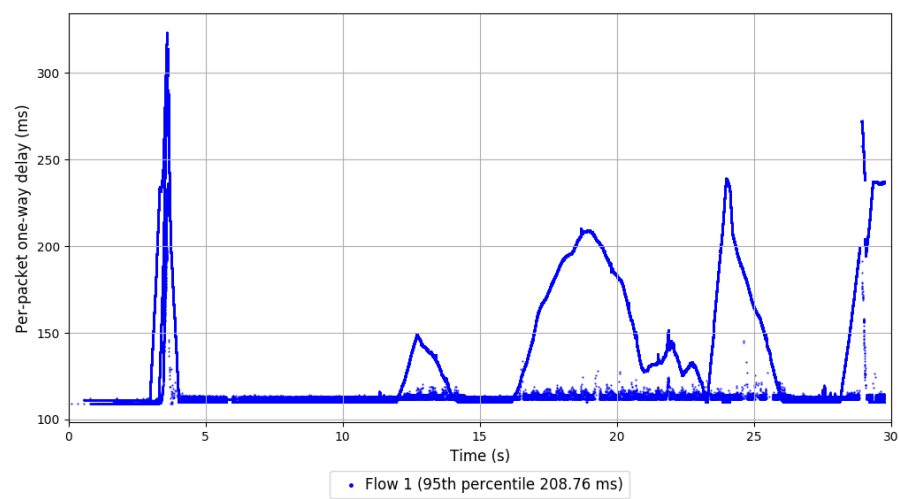
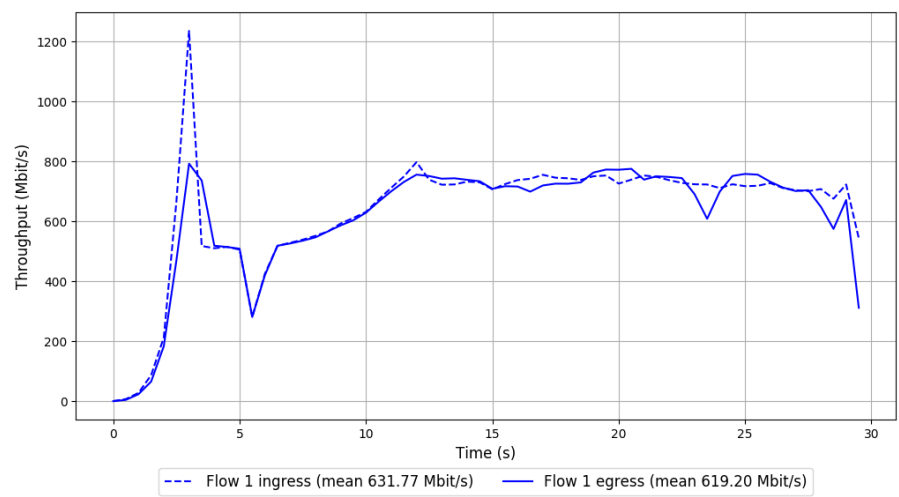
-- Flow 1:

Average throughput: 619.20 Mbit/s

95th percentile per-packet one-way delay: 208.758 ms

Loss rate: 2.73%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-19 20:09:57

End at: 2017-12-19 20:10:28

Below is generated by plot.py at 2017-12-19 23:38:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 641.87 Mbit/s

95th percentile per-packet one-way delay: 212.455 ms

Loss rate: 2.77%

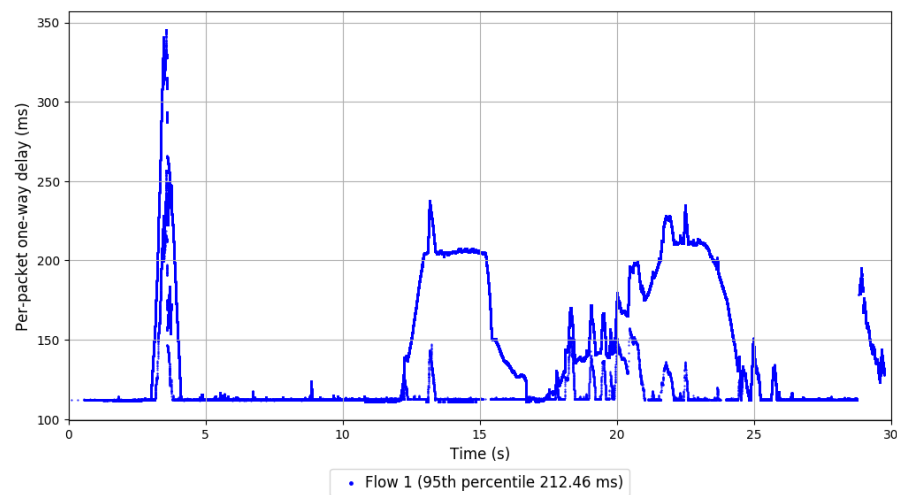
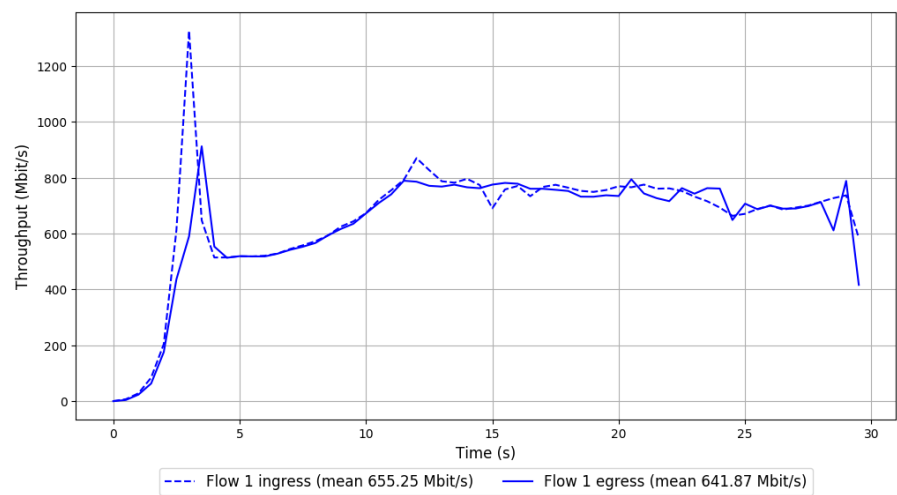
-- Flow 1:

Average throughput: 641.87 Mbit/s

95th percentile per-packet one-way delay: 212.455 ms

Loss rate: 2.77%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-19 20:22:35

End at: 2017-12-19 20:23:05

Below is generated by plot.py at 2017-12-19 23:38:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 547.64 Mbit/s

95th percentile per-packet one-way delay: 139.825 ms

Loss rate: 2.36%

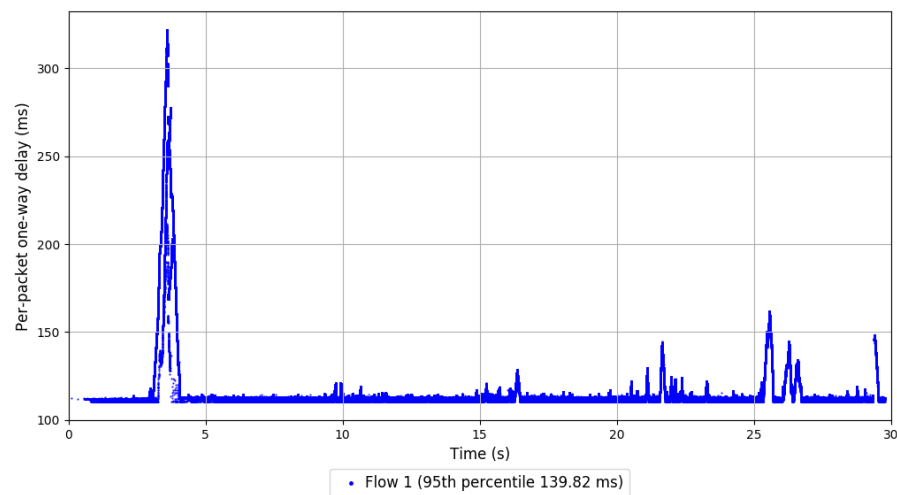
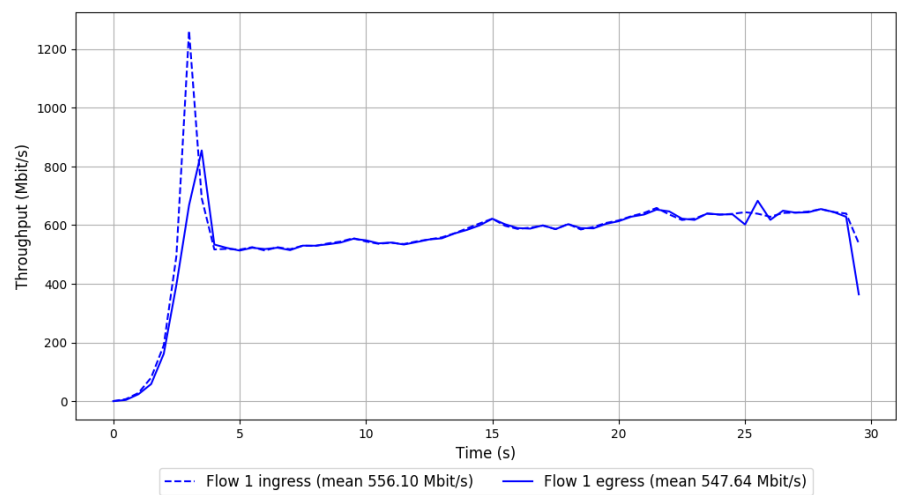
-- Flow 1:

Average throughput: 547.64 Mbit/s

95th percentile per-packet one-way delay: 139.825 ms

Loss rate: 2.36%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-19 20:34:58

End at: 2017-12-19 20:35:28

Below is generated by plot.py at 2017-12-19 23:38:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 612.33 Mbit/s

95th percentile per-packet one-way delay: 168.021 ms

Loss rate: 1.78%

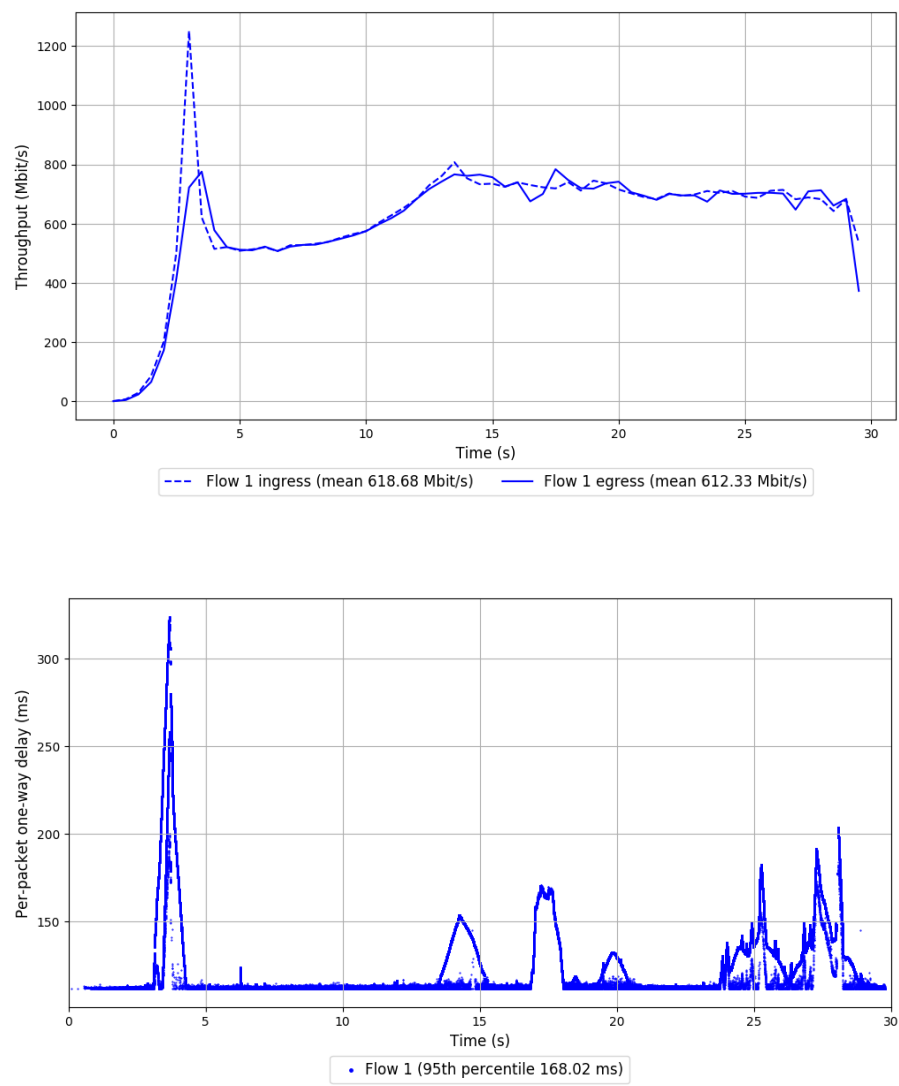
-- Flow 1:

Average throughput: 612.33 Mbit/s

95th percentile per-packet one-way delay: 168.021 ms

Loss rate: 1.78%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-19 20:47:16

End at: 2017-12-19 20:47:46

Below is generated by plot.py at 2017-12-19 23:38:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 605.22 Mbit/s

95th percentile per-packet one-way delay: 153.508 ms

Loss rate: 1.96%

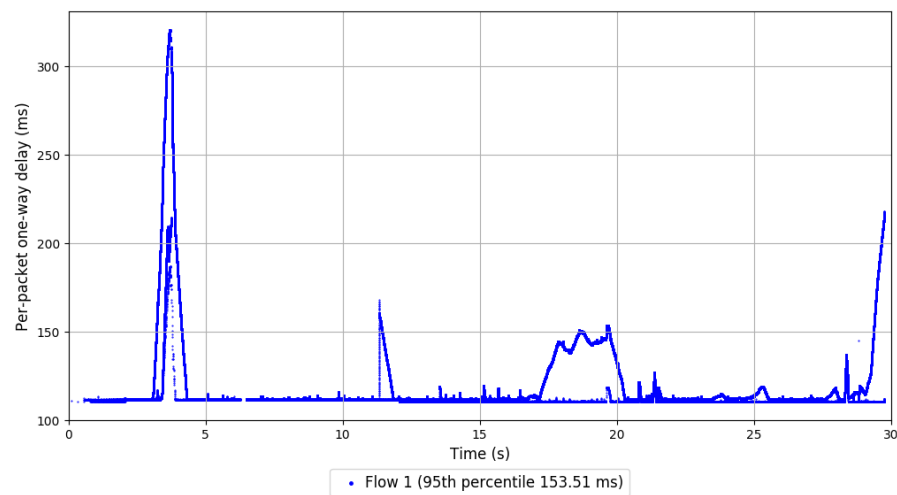
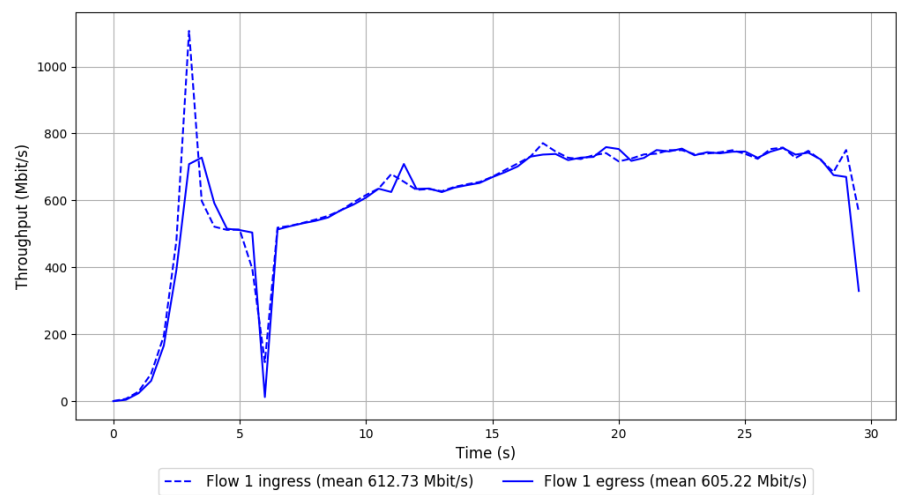
-- Flow 1:

Average throughput: 605.22 Mbit/s

95th percentile per-packet one-way delay: 153.508 ms

Loss rate: 1.96%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-19 20:59:34

End at: 2017-12-19 21:00:04

Below is generated by plot.py at 2017-12-19 23:46:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 581.71 Mbit/s

95th percentile per-packet one-way delay: 240.188 ms

Loss rate: 5.44%

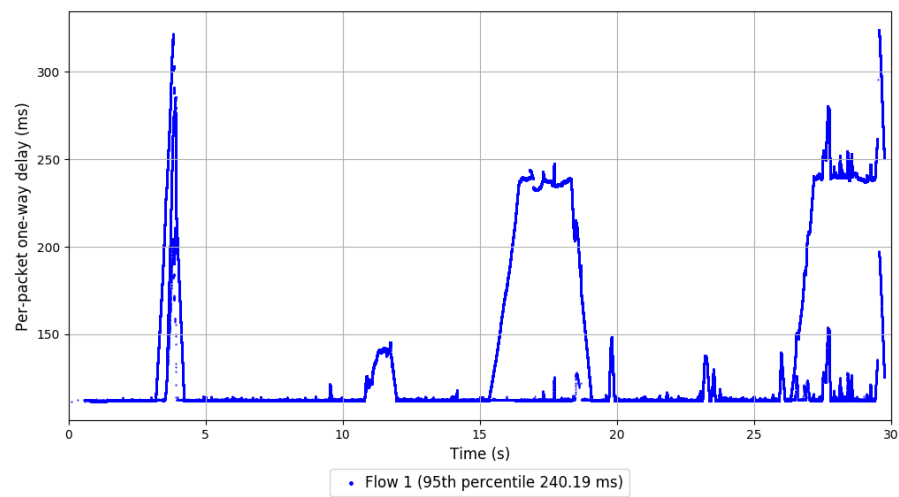
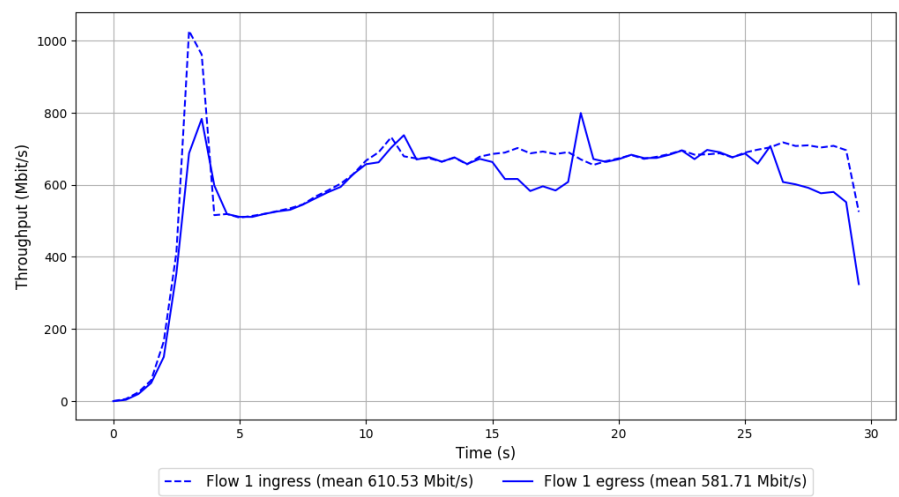
-- Flow 1:

Average throughput: 581.71 Mbit/s

95th percentile per-packet one-way delay: 240.188 ms

Loss rate: 5.44%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-19 21:11:57

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

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 595.68 Mbit/s

95th percentile per-packet one-way delay: 212.775 ms

Loss rate: 2.76%

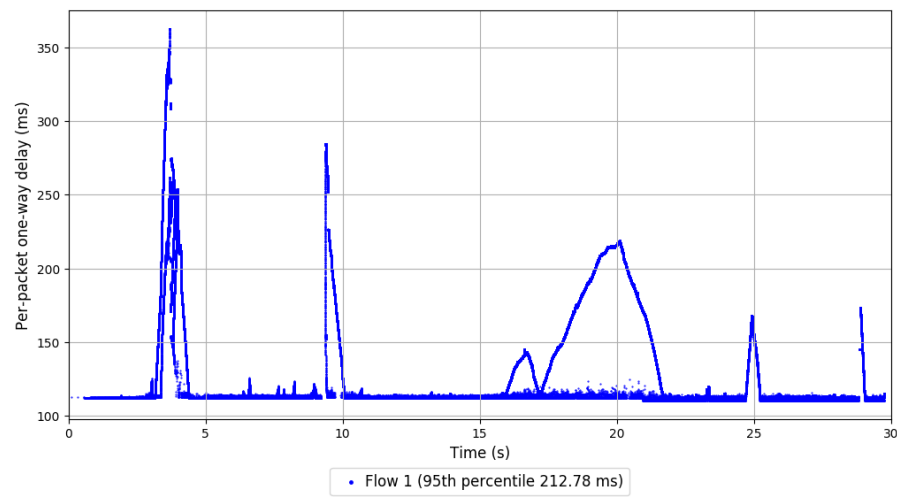
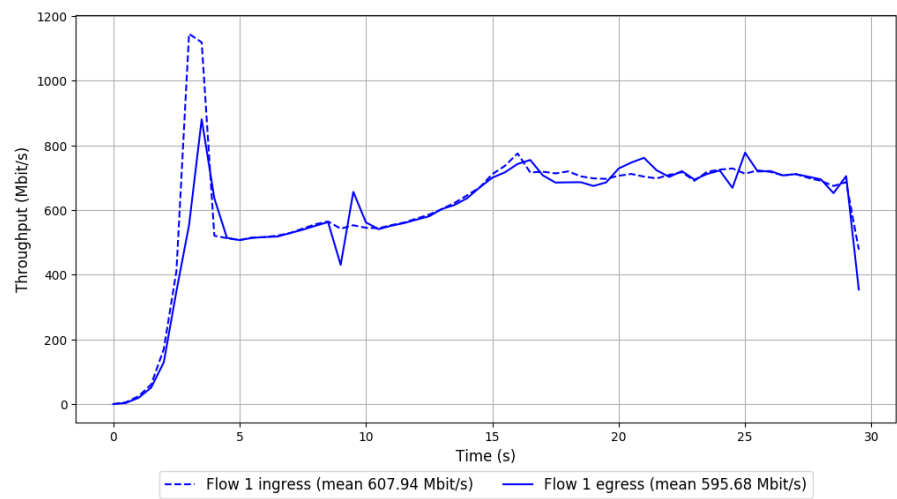
-- Flow 1:

Average throughput: 595.68 Mbit/s

95th percentile per-packet one-way delay: 212.775 ms

Loss rate: 2.76%

Run 10: Report of PCC — Data Link

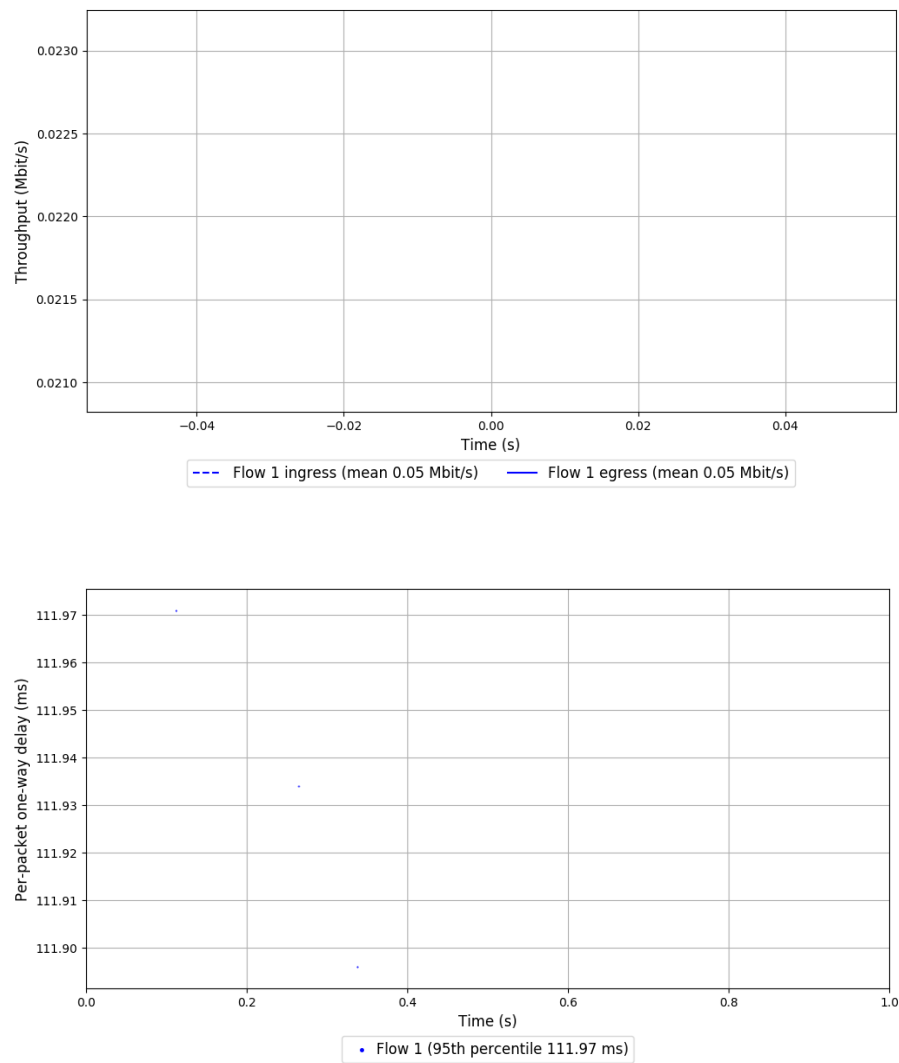


Run 1: Statistics of QUIC Cubic

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

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

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-19 19:34:20

End at: 2017-12-19 19:34:50

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.03 Mbit/s

95th percentile per-packet one-way delay: 112.151 ms

Loss rate: 0.92%

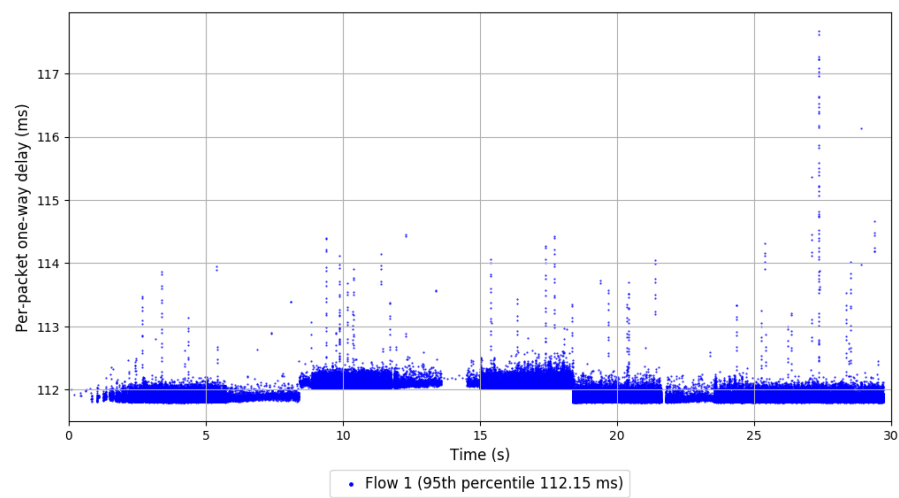
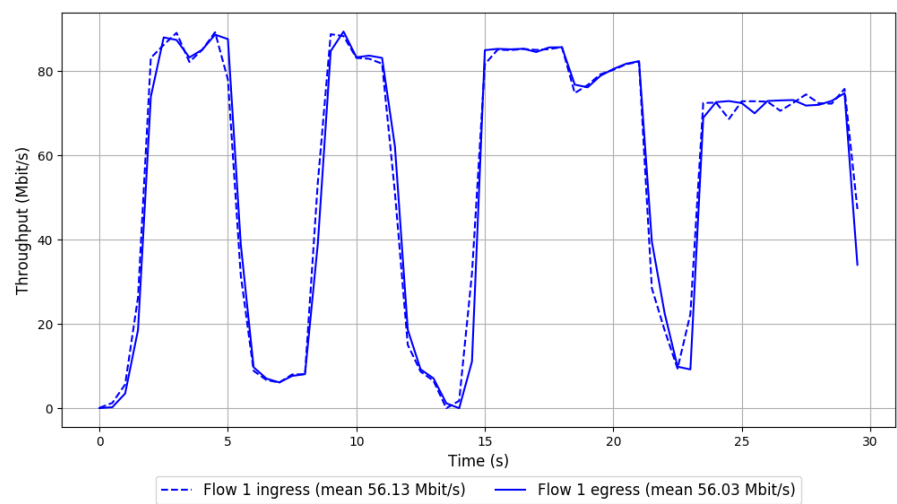
-- Flow 1:

Average throughput: 56.03 Mbit/s

95th percentile per-packet one-way delay: 112.151 ms

Loss rate: 0.92%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

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

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

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.16 Mbit/s

95th percentile per-packet one-way delay: 112.012 ms

Loss rate: 1.13%

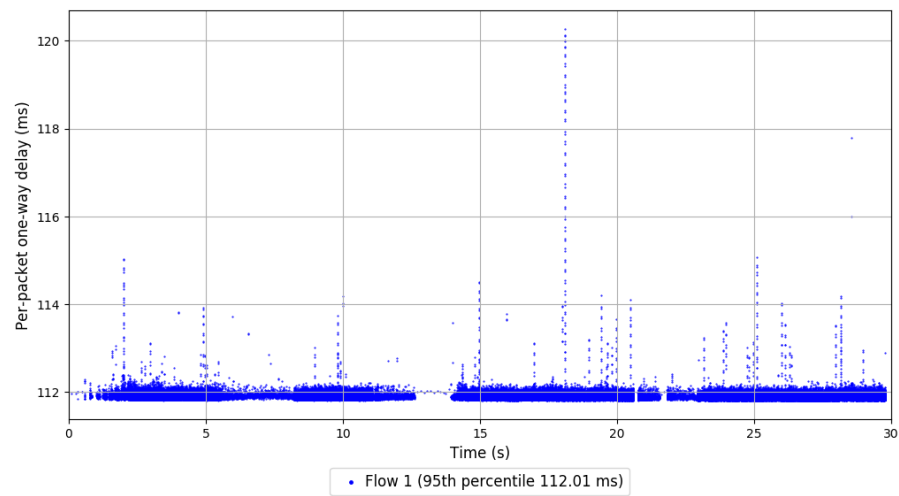
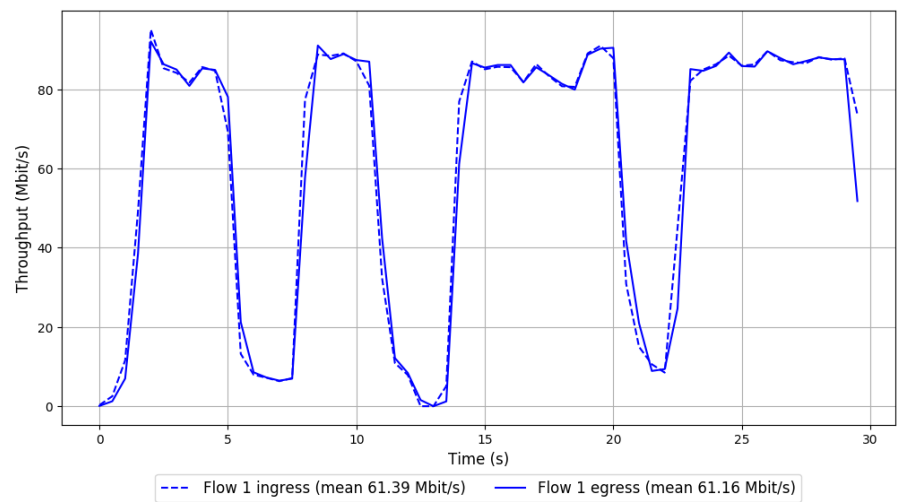
-- Flow 1:

Average throughput: 61.16 Mbit/s

95th percentile per-packet one-way delay: 112.012 ms

Loss rate: 1.13%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-19 19:59:33

End at: 2017-12-19 20:00:03

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.69 Mbit/s

95th percentile per-packet one-way delay: 110.890 ms

Loss rate: 0.95%

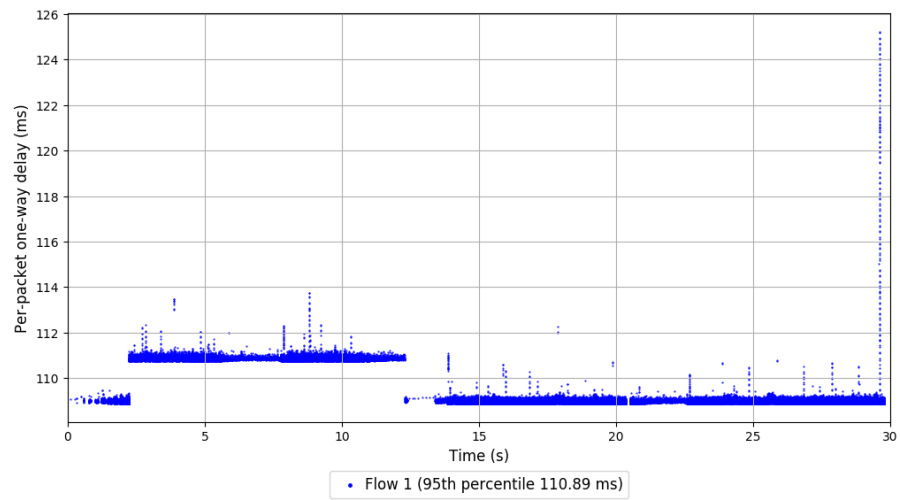
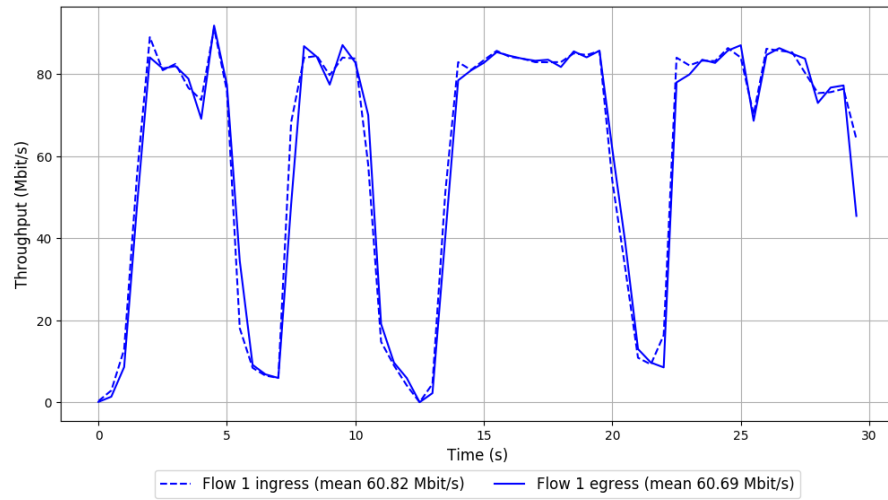
-- Flow 1:

Average throughput: 60.69 Mbit/s

95th percentile per-packet one-way delay: 110.890 ms

Loss rate: 0.95%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-19 20:12:07

End at: 2017-12-19 20:12:37

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.65 Mbit/s

95th percentile per-packet one-way delay: 110.310 ms

Loss rate: 1.26%

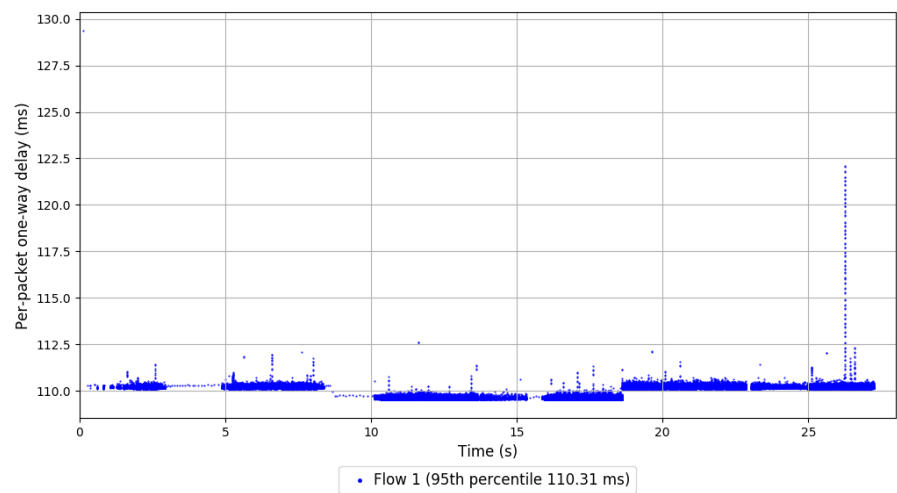
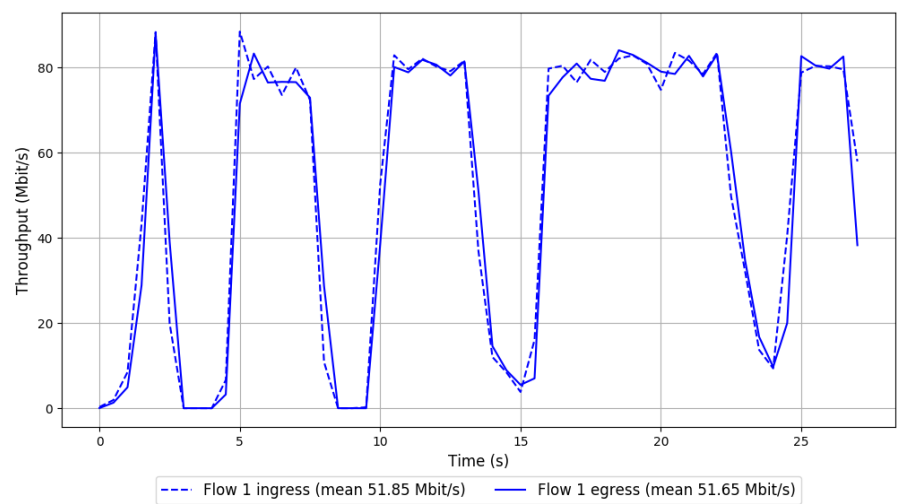
-- Flow 1:

Average throughput: 51.65 Mbit/s

95th percentile per-packet one-way delay: 110.310 ms

Loss rate: 1.26%

Run 5: Report of QUIC Cubic — Data Link

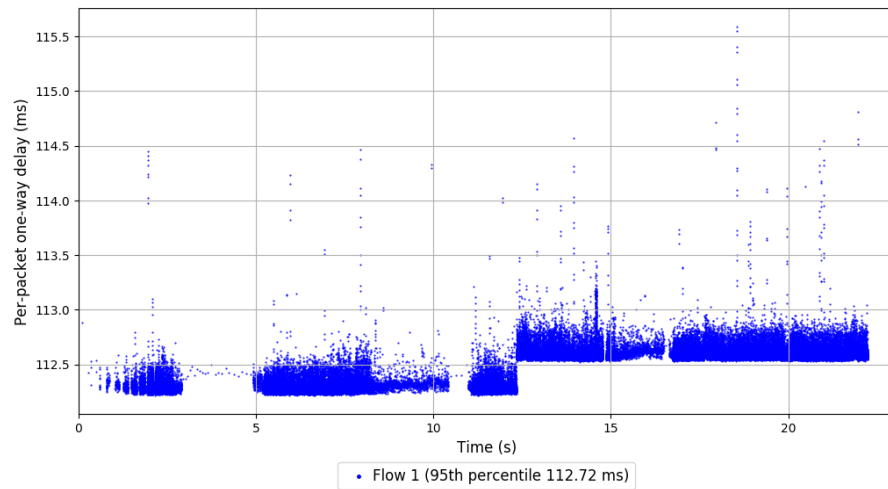
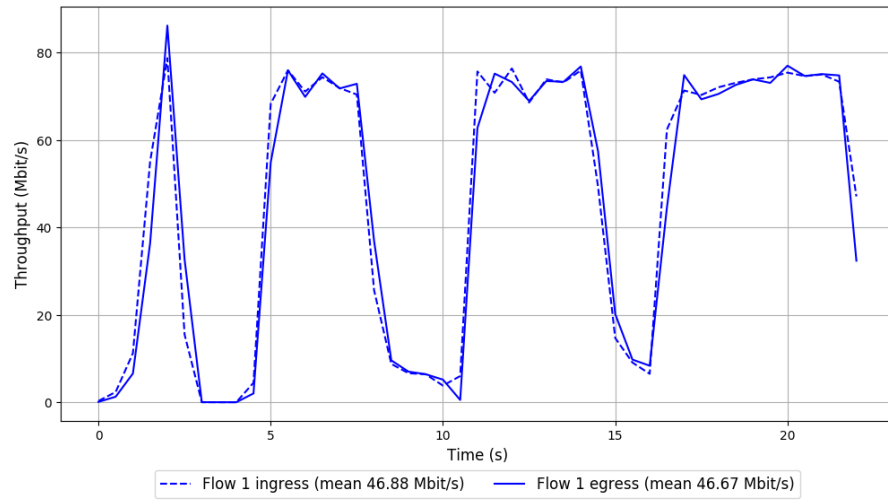


Run 6: Statistics of QUIC Cubic

Start at: 2017-12-19 20:24:36

End at: 2017-12-19 20:25:06

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-19 20:36:55

End at: 2017-12-19 20:37:25

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.81 Mbit/s

95th percentile per-packet one-way delay: 111.886 ms

Loss rate: 1.12%

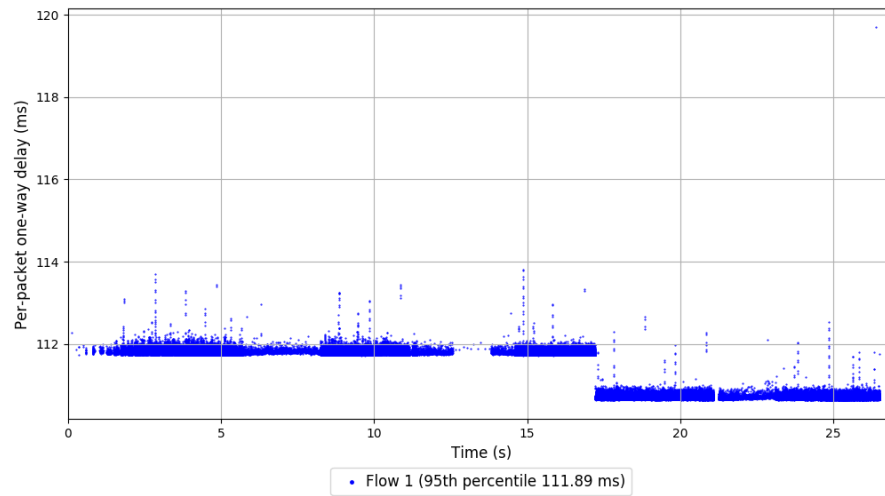
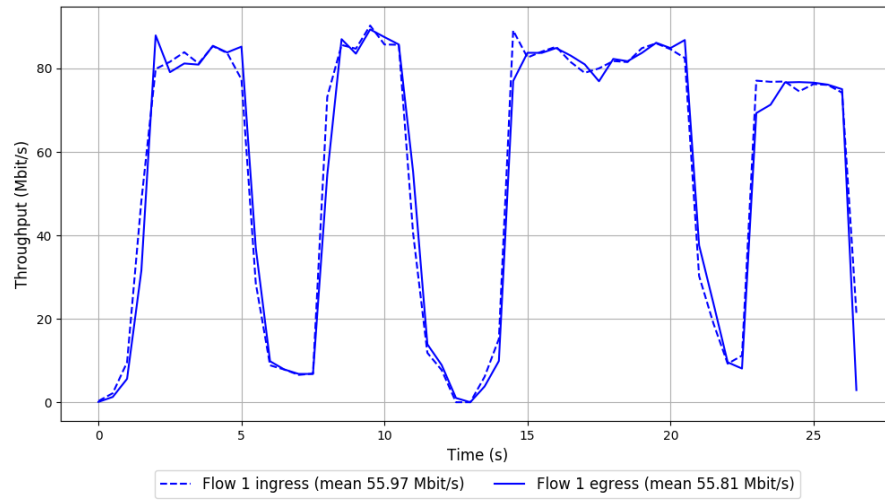
-- Flow 1:

Average throughput: 55.81 Mbit/s

95th percentile per-packet one-way delay: 111.886 ms

Loss rate: 1.12%

Run 7: Report of QUIC Cubic — Data Link

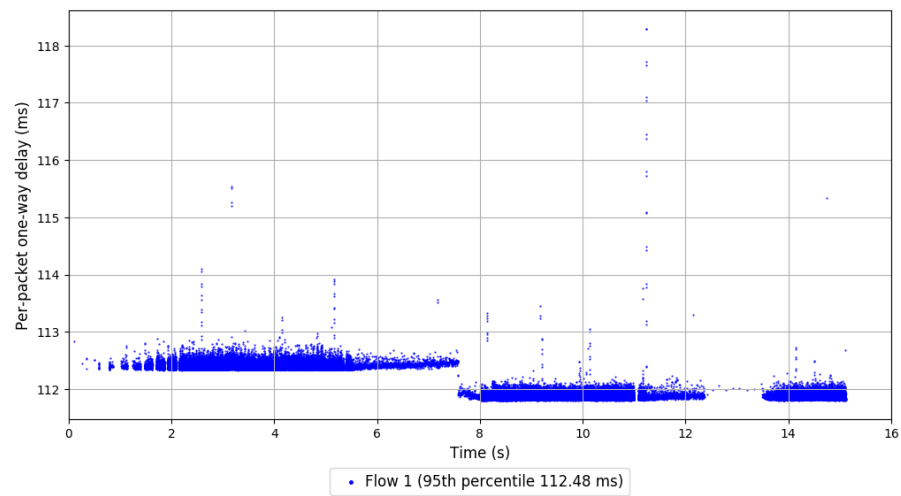
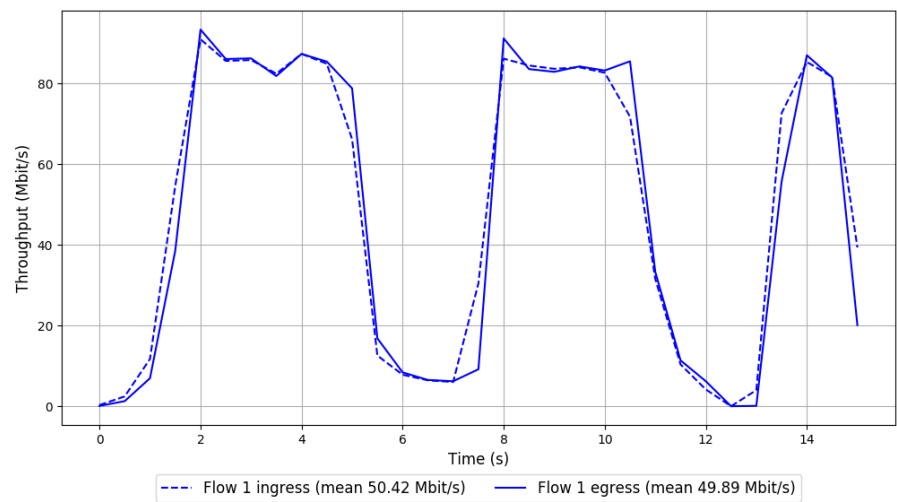


Run 8: Statistics of QUIC Cubic

Start at: 2017-12-19 20:49:13

End at: 2017-12-19 20:49:44

Run 8: Report of QUIC Cubic — Data Link

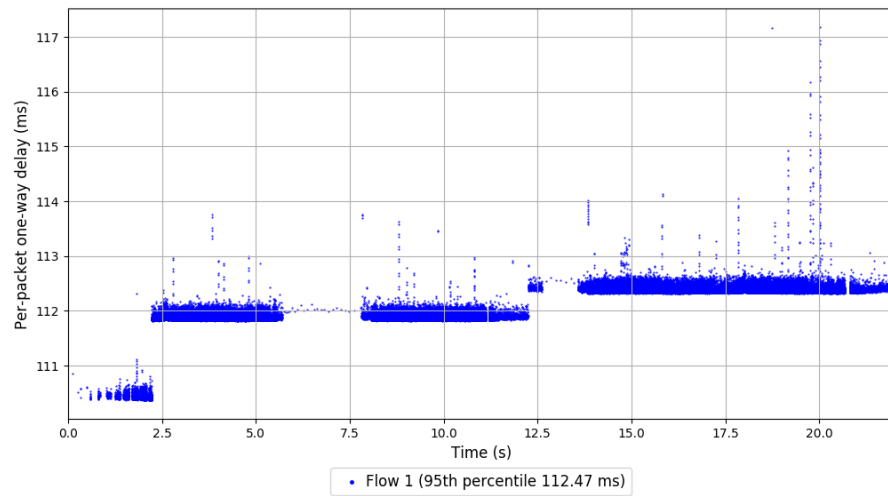
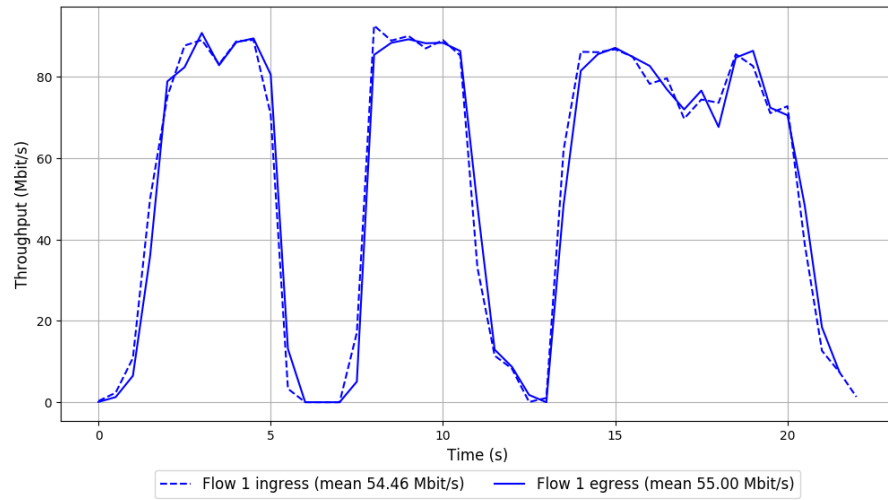


Run 9: Statistics of QUIC Cubic

Start at: 2017-12-19 21:01:36

End at: 2017-12-19 21:02:06

Run 9: Report of QUIC Cubic — Data Link

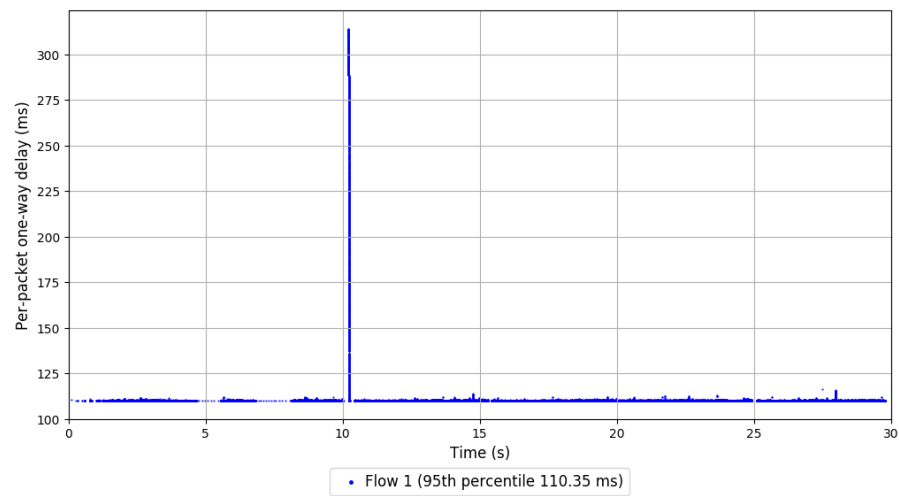
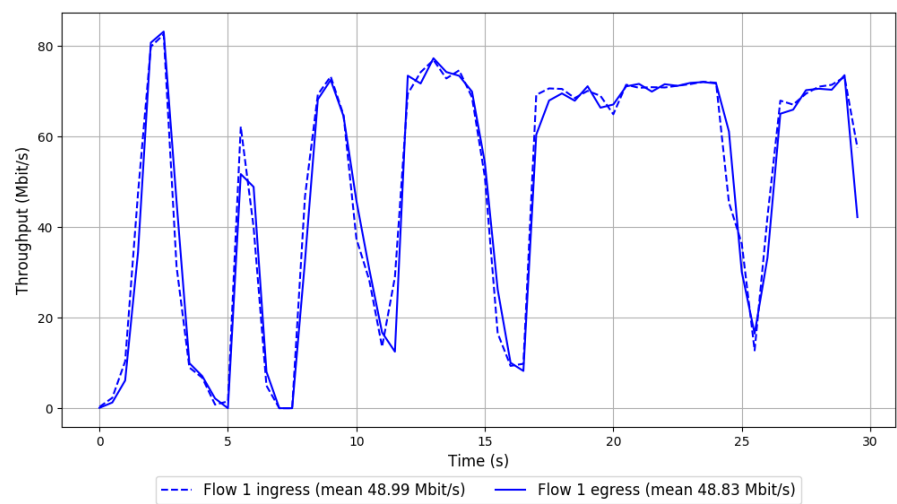


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-19 21:13:58
End at: 2017-12-19 21:14:28

# Below is generated by plot.py at 2017-12-19 23:47:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 110.354 ms
Loss rate: 1.07%
-- Flow 1:
Average throughput: 48.83 Mbit/s
95th percentile per-packet one-way delay: 110.354 ms
Loss rate: 1.07%
```

Run 10: Report of QUIC Cubic — Data Link

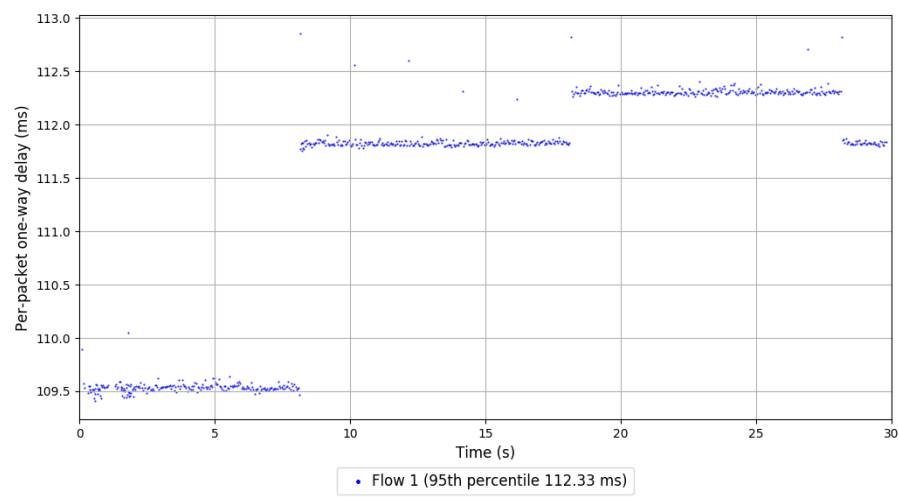
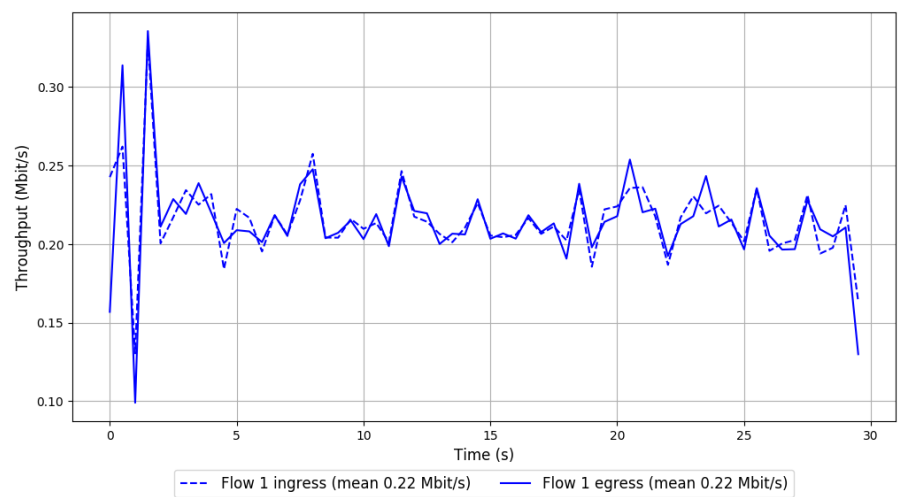


```
Run 1: Statistics of SCReAM

Start at: 2017-12-19 19:23:10
End at: 2017-12-19 19:23:40

# Below is generated by plot.py at 2017-12-19 23:47:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.334 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.334 ms
Loss rate: 0.63%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2017-12-19 19:35:45

End at: 2017-12-19 19:36:16

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 112.023 ms

Loss rate: 0.73%

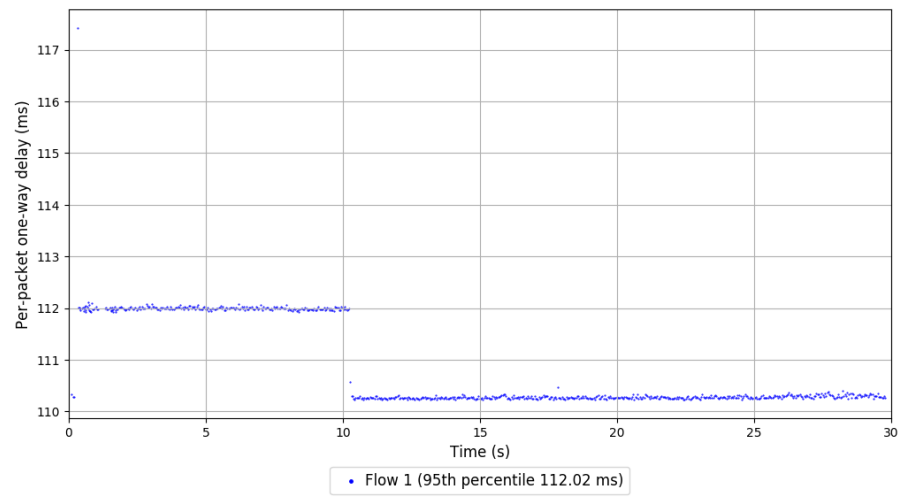
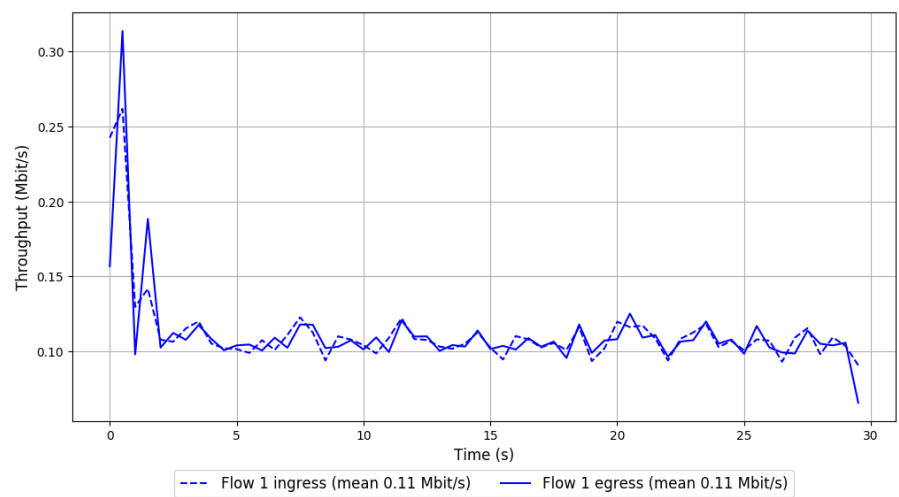
-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 112.023 ms

Loss rate: 0.73%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-19 19:48:15

End at: 2017-12-19 19:48:45

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 111.974 ms

Loss rate: 0.73%

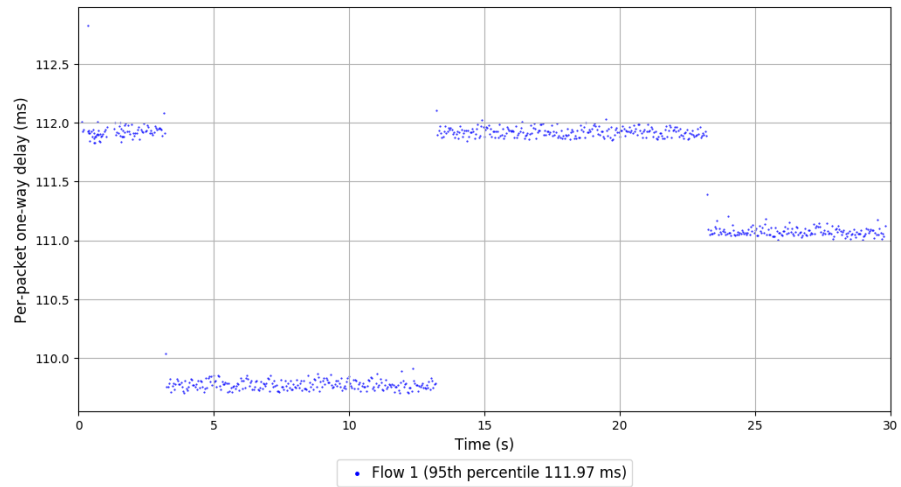
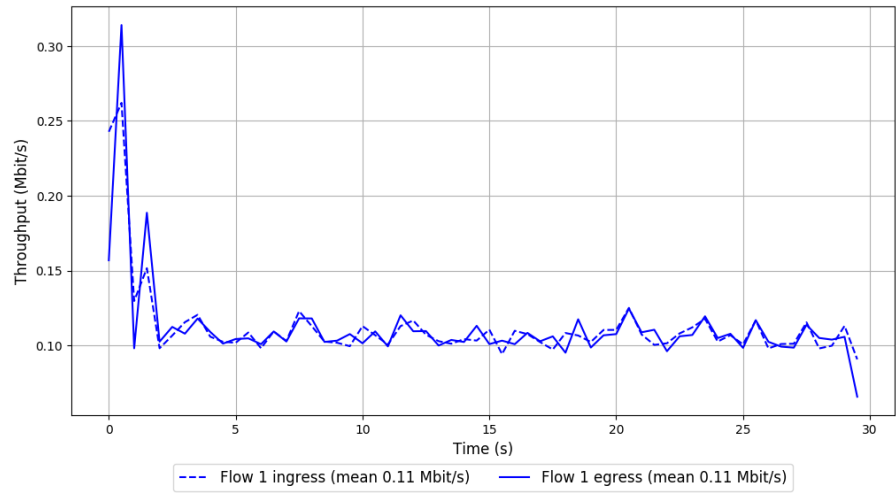
-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 111.974 ms

Loss rate: 0.73%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-19 20:00:59

End at: 2017-12-19 20:01:29

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.521 ms

Loss rate: 0.76%

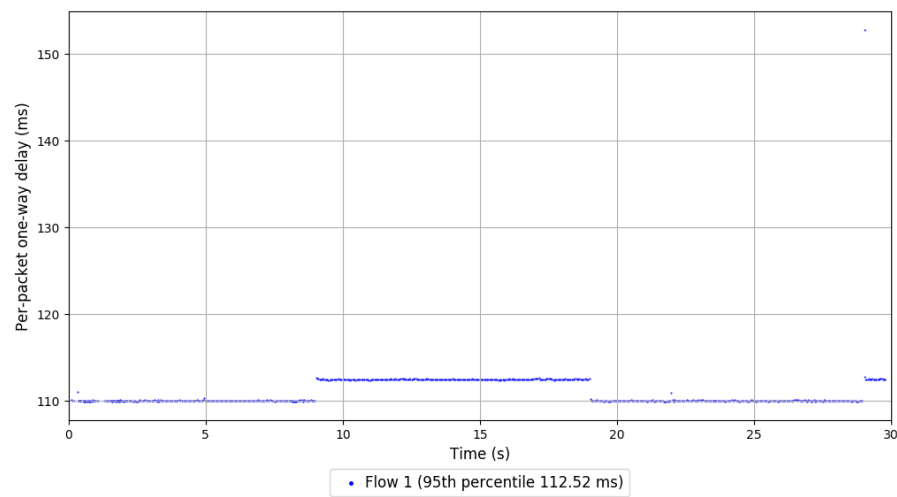
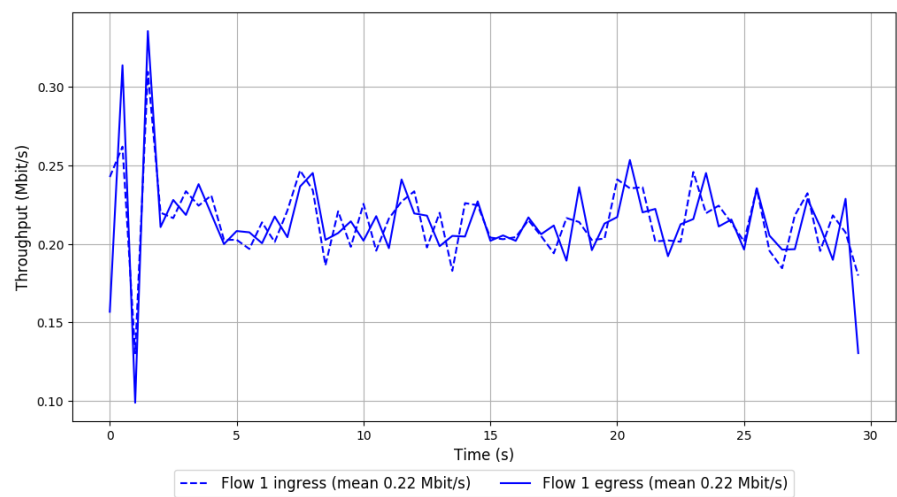
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.521 ms

Loss rate: 0.76%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-19 20:13:32

End at: 2017-12-19 20:14:02

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 111.941 ms

Loss rate: 0.73%

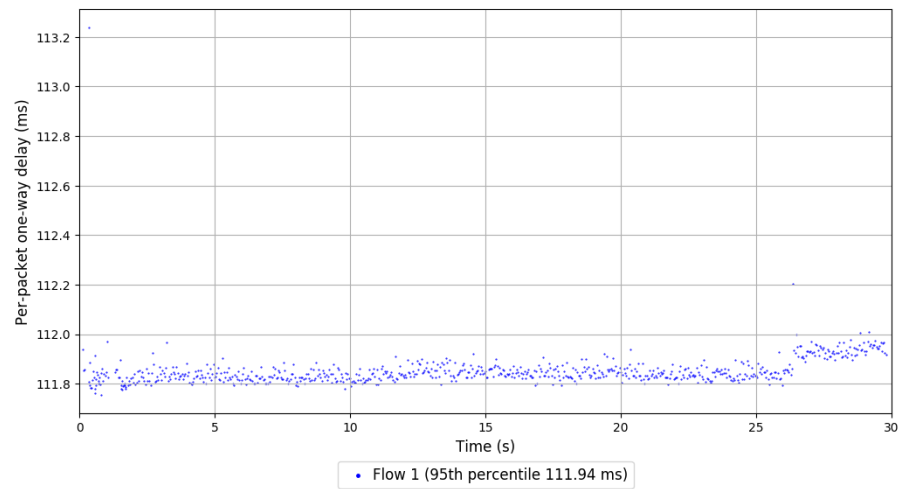
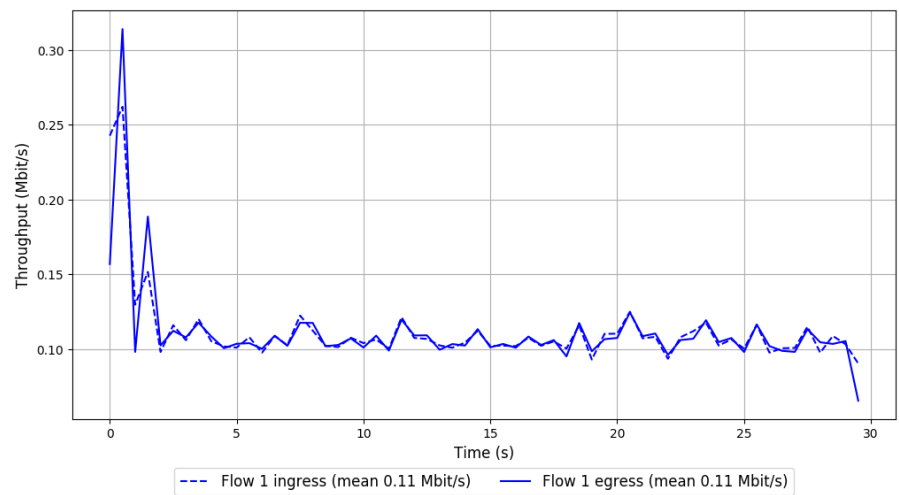
-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 111.941 ms

Loss rate: 0.73%

Run 5: Report of SReAM — Data Link

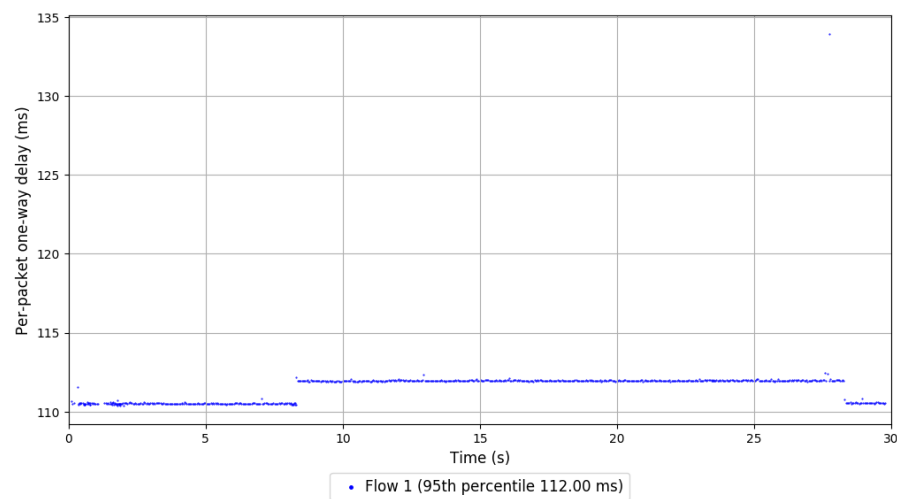
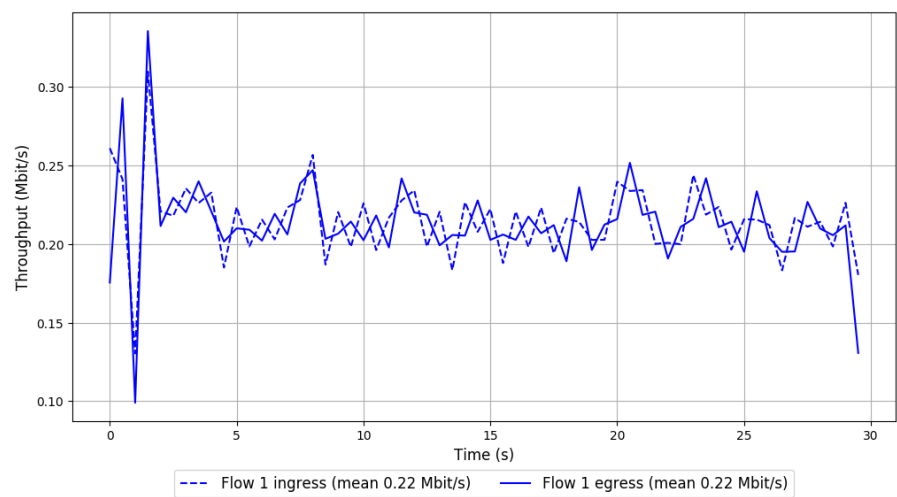


```
Run 6: Statistics of SCReAM

Start at: 2017-12-19 20:26:00
End at: 2017-12-19 20:26:30

# Below is generated by plot.py at 2017-12-19 23:47:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.001 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.001 ms
Loss rate: 0.76%
```

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-19 20:38:20

End at: 2017-12-19 20:38:50

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.77%

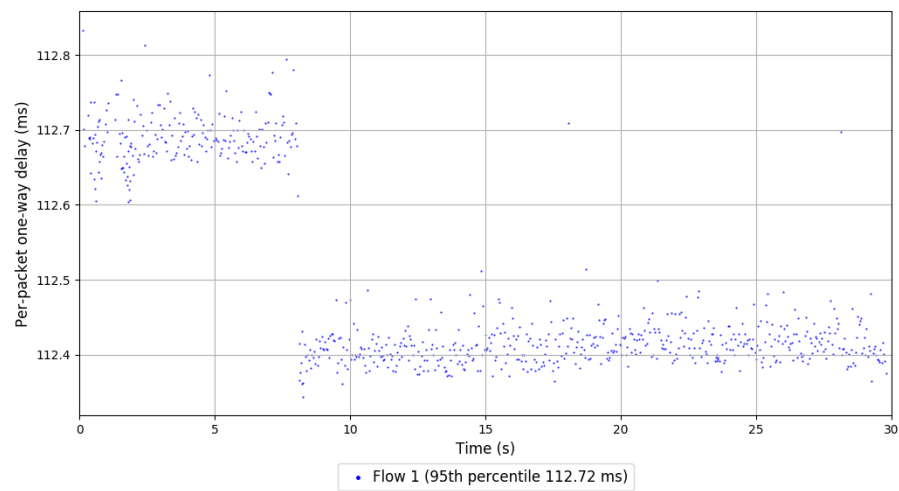
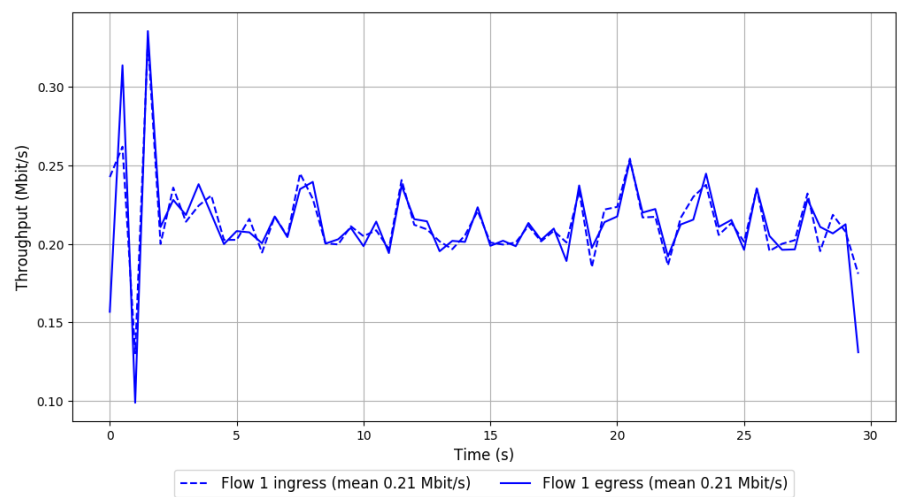
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.716 ms

Loss rate: 0.77%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-19 20:50:37

End at: 2017-12-19 20:51:07

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 112.073 ms

Loss rate: 0.74%

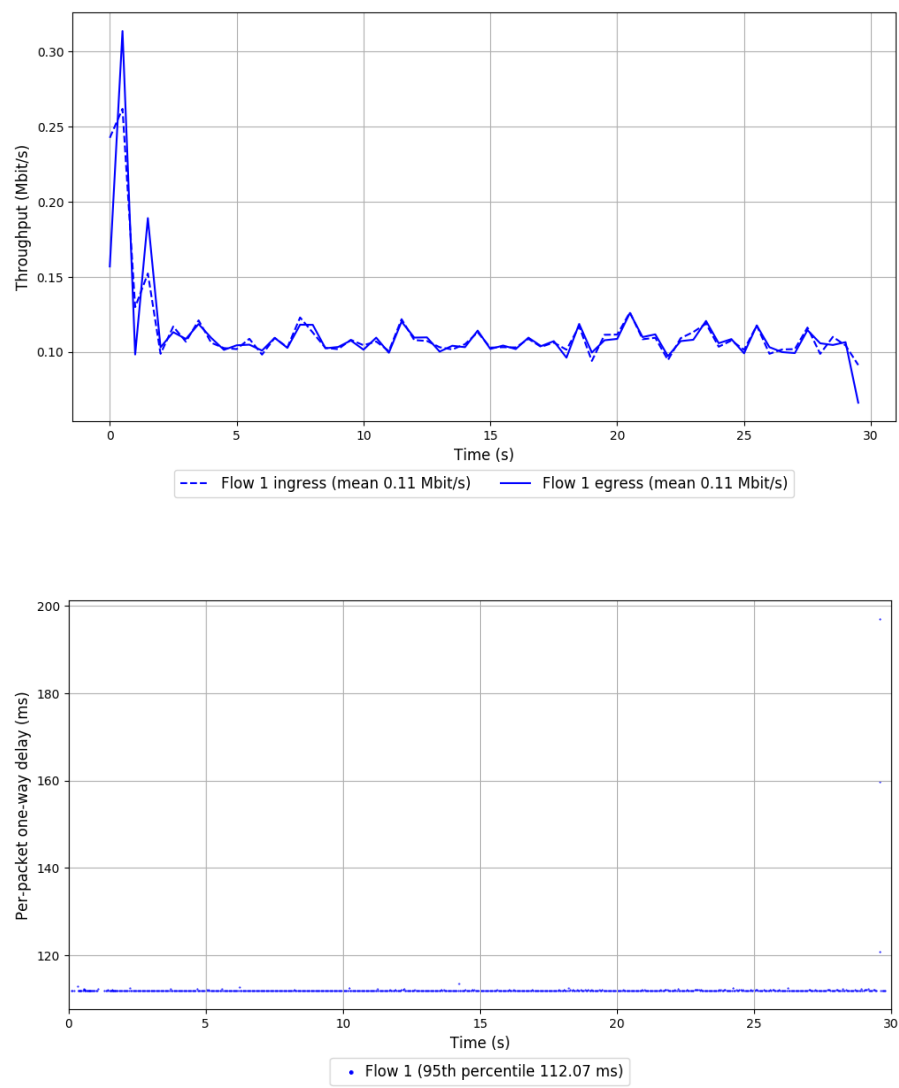
-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 112.073 ms

Loss rate: 0.74%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-19 21:03:00

End at: 2017-12-19 21:03:30

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.528 ms

Loss rate: 0.64%

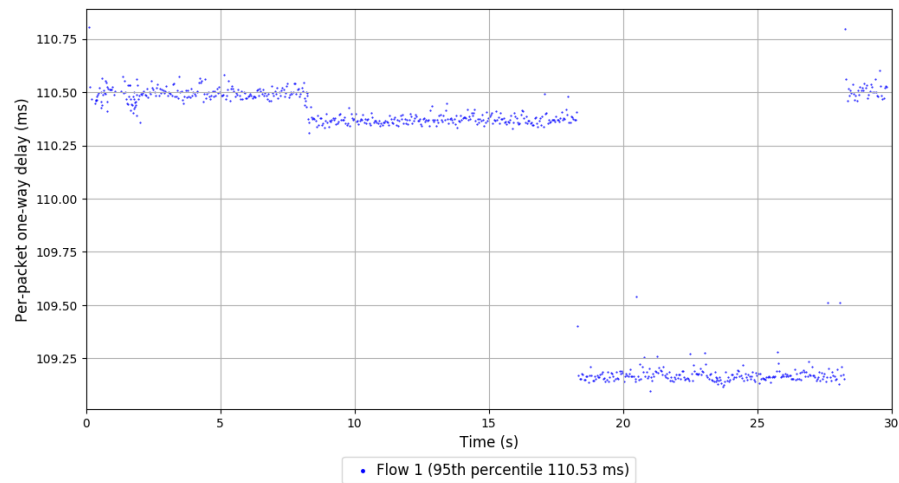
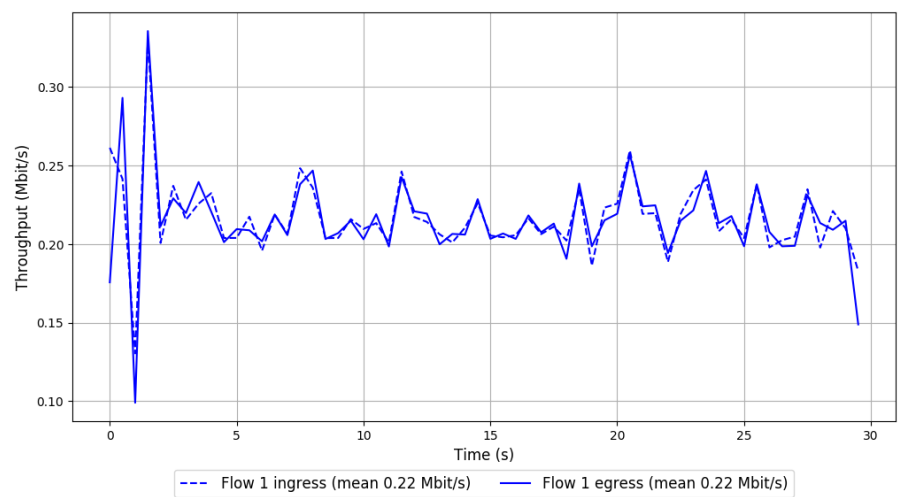
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.528 ms

Loss rate: 0.64%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-19 21:15:23

End at: 2017-12-19 21:15:53

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.673 ms

Loss rate: 0.77%

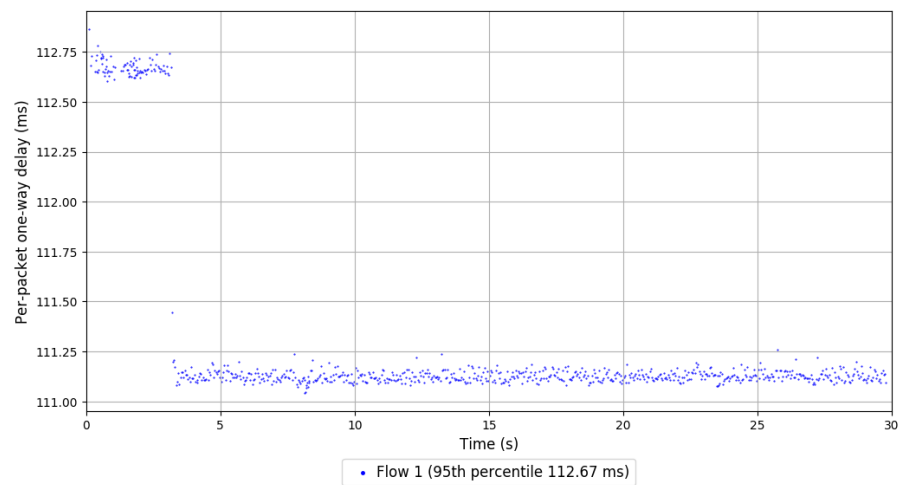
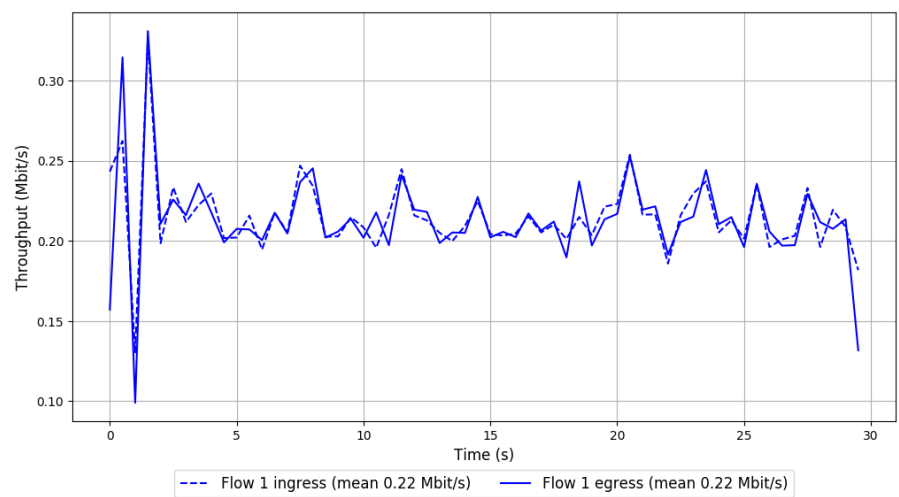
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.673 ms

Loss rate: 0.77%

Run 10: Report of SReAM — Data Link

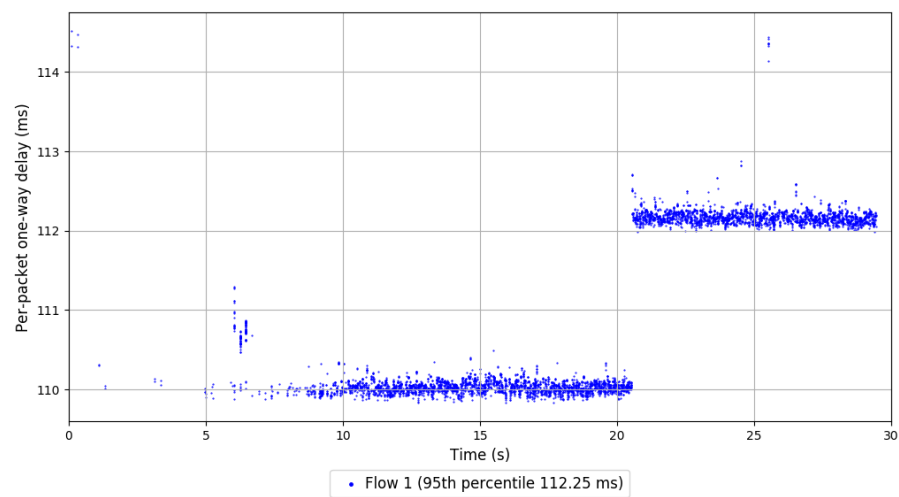
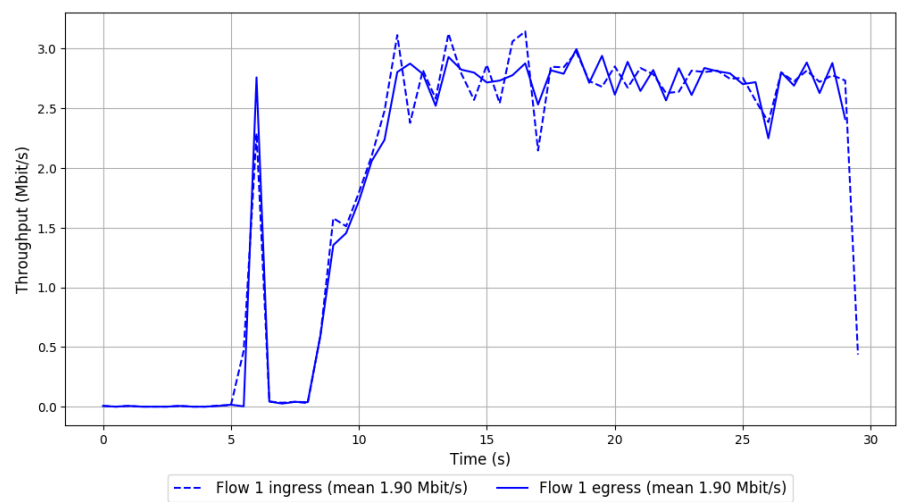


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-19 19:13:48
End at: 2017-12-19 19:14:18

# Below is generated by plot.py at 2017-12-19 23:47:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 112.247 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 112.247 ms
Loss rate: 1.19%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-19 19:26:15

End at: 2017-12-19 19:26:45

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 114.179 ms

Loss rate: 0.76%

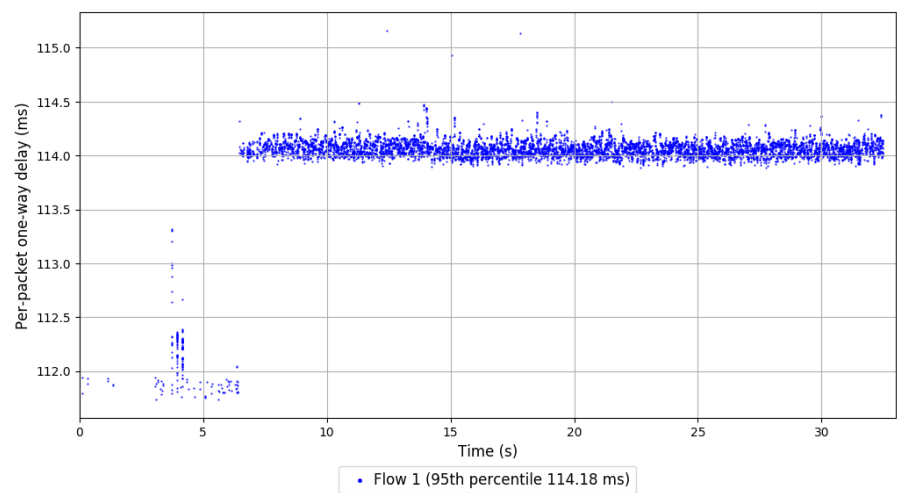
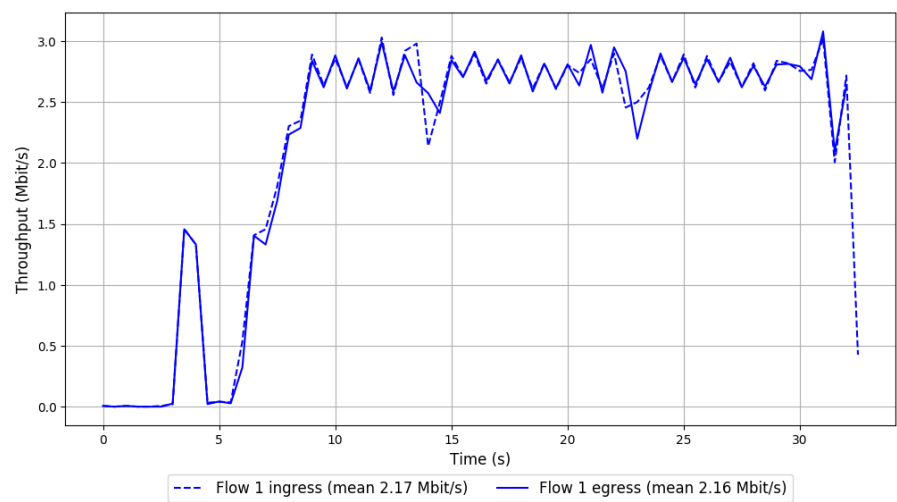
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 114.179 ms

Loss rate: 0.76%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-19 19:38:51

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

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.315 ms

Loss rate: 0.81%

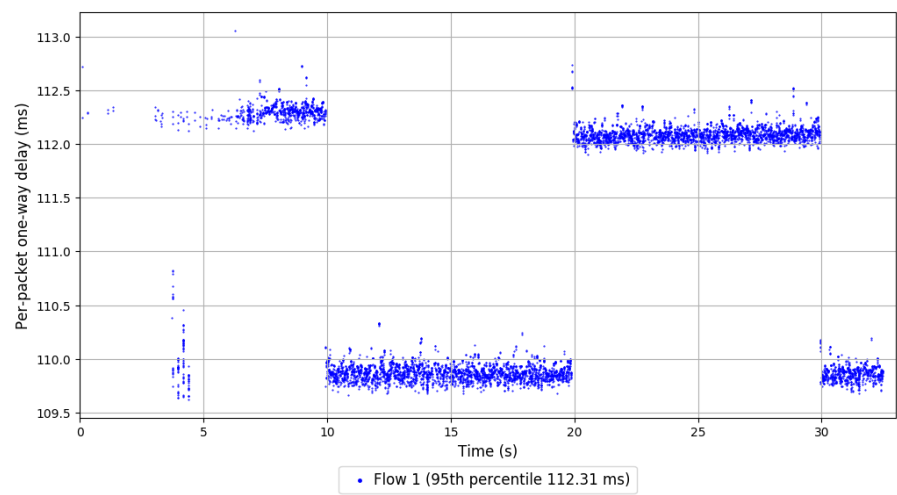
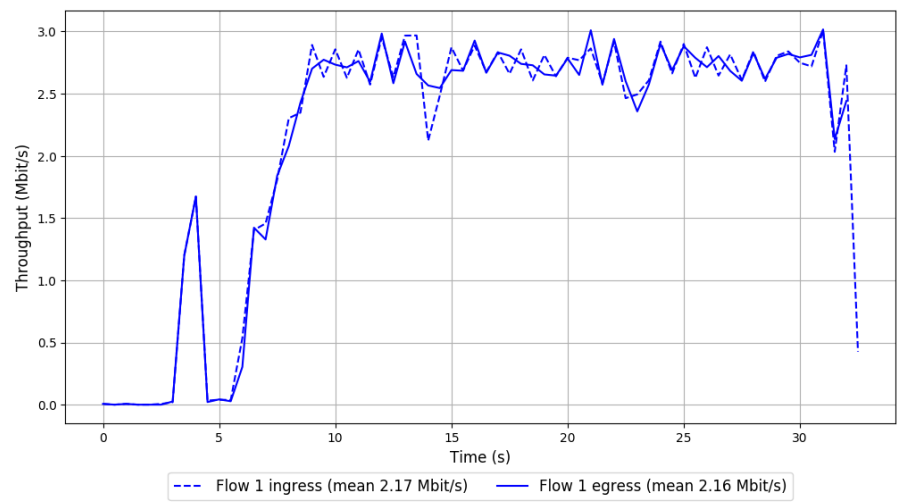
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.315 ms

Loss rate: 0.81%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

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

End at: 2017-12-19 19:51:49

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 112.083 ms

Loss rate: 0.77%

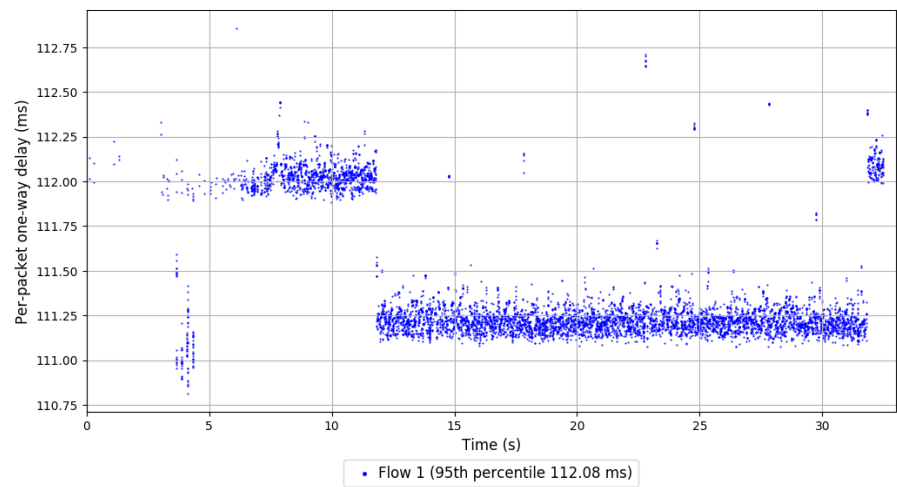
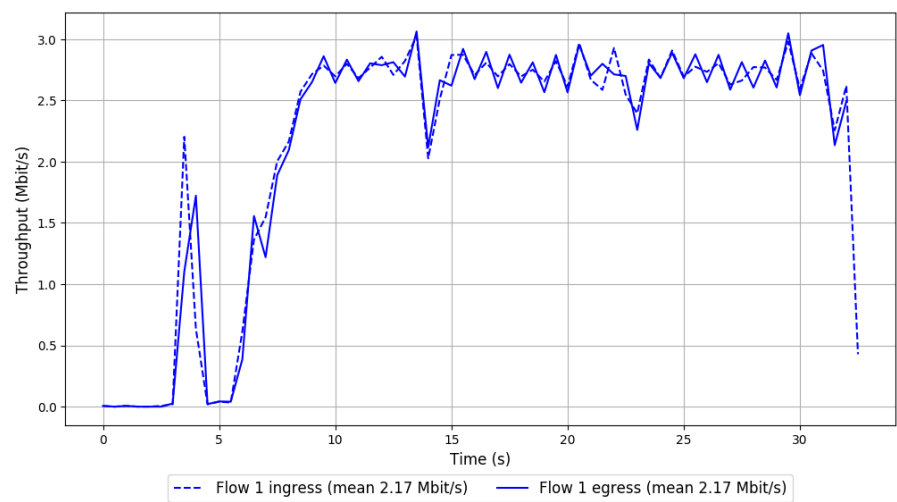
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 112.083 ms

Loss rate: 0.77%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-19 20:04:05

End at: 2017-12-19 20:04:35

Below is generated by plot.py at 2017-12-19 23:47:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.669 ms

Loss rate: 0.92%

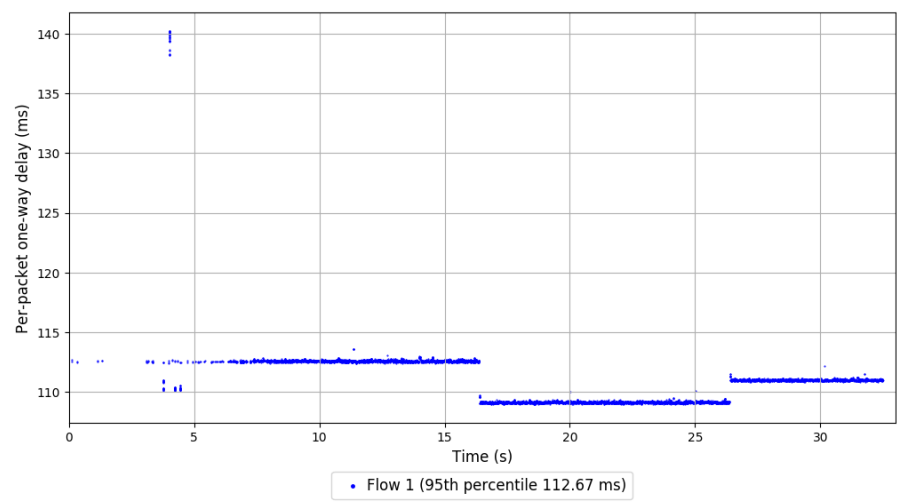
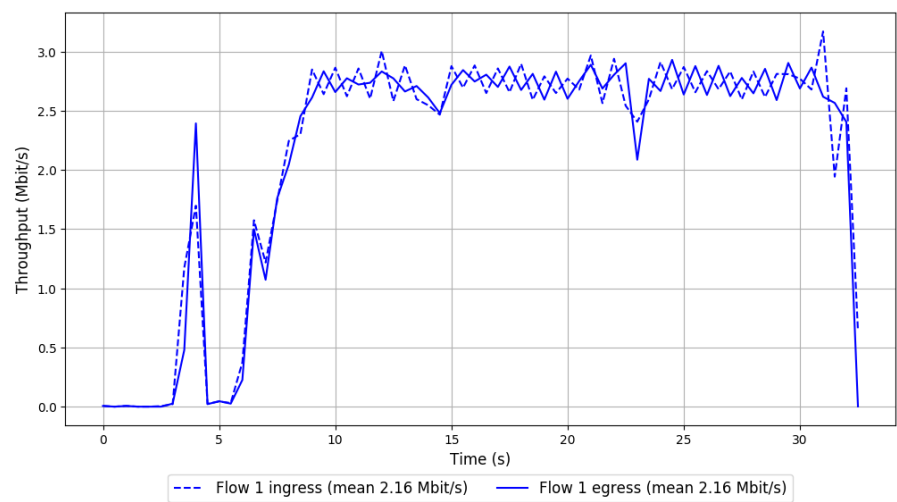
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.669 ms

Loss rate: 0.92%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-19 20:16:38

End at: 2017-12-19 20:17:08

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.980 ms

Loss rate: 0.77%

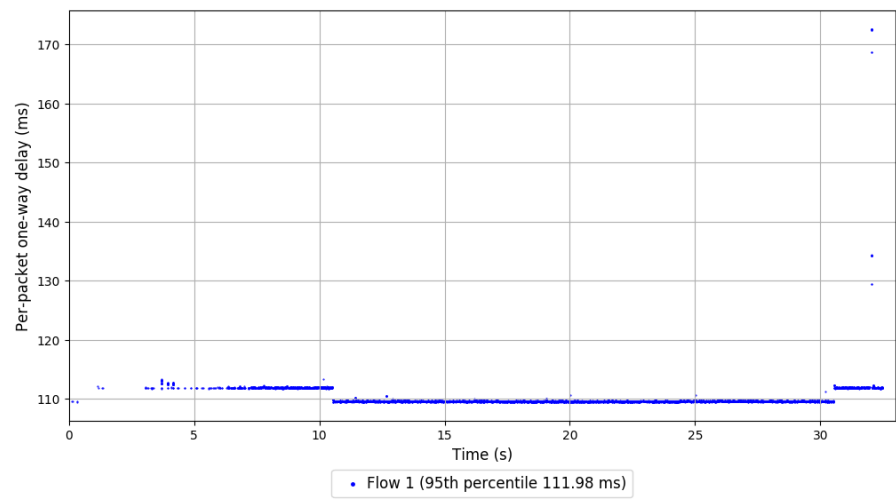
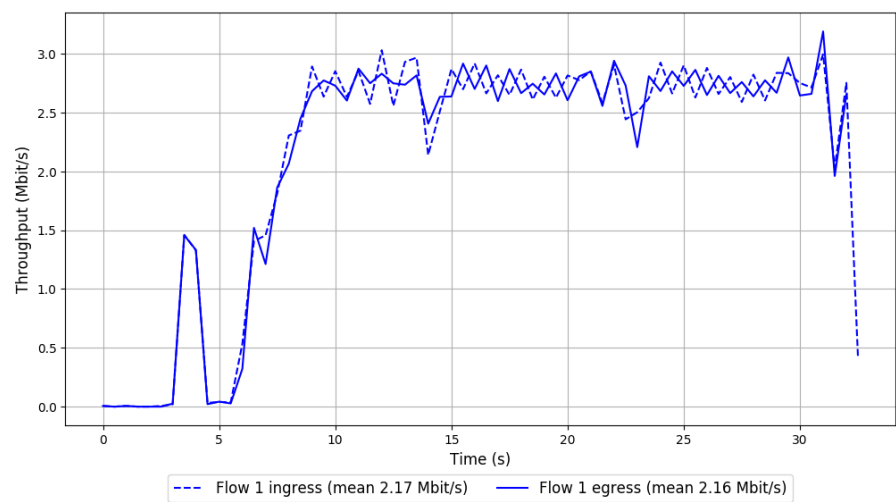
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.980 ms

Loss rate: 0.77%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-19 20:29:06

End at: 2017-12-19 20:29:36

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 0.92%

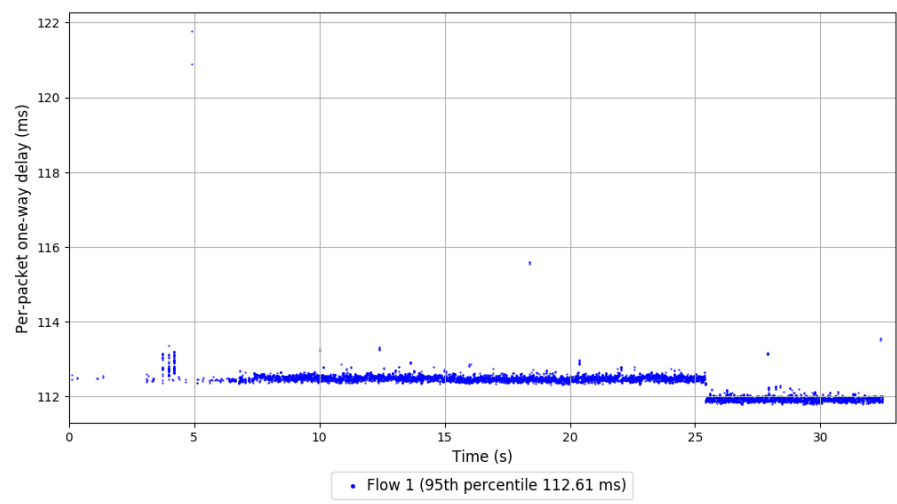
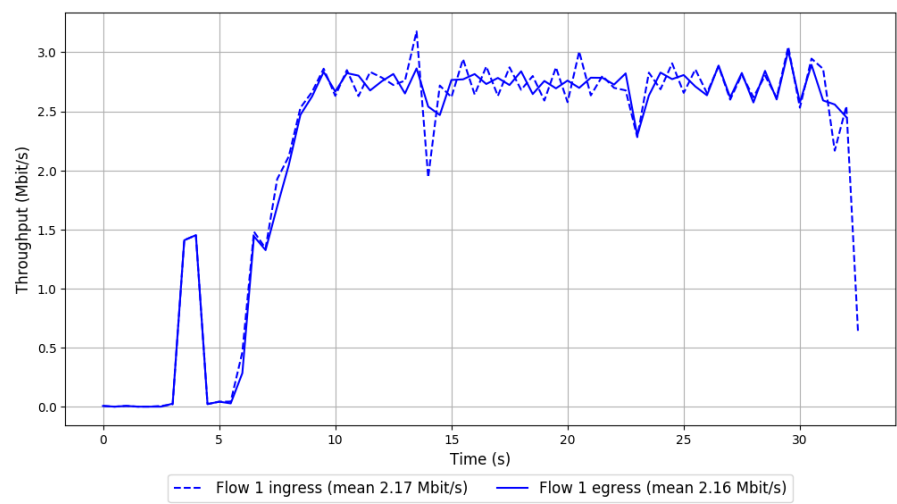
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 0.92%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-19 20:41:25

End at: 2017-12-19 20:41:55

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 110.372 ms

Loss rate: 0.93%

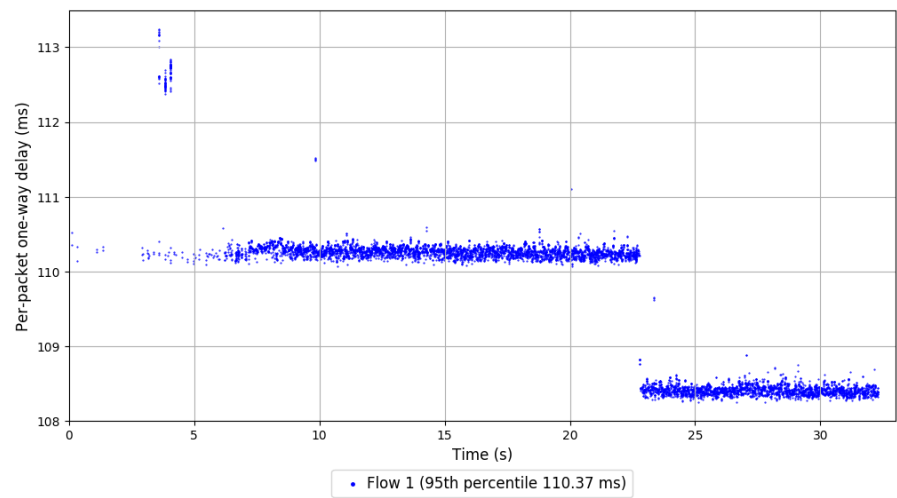
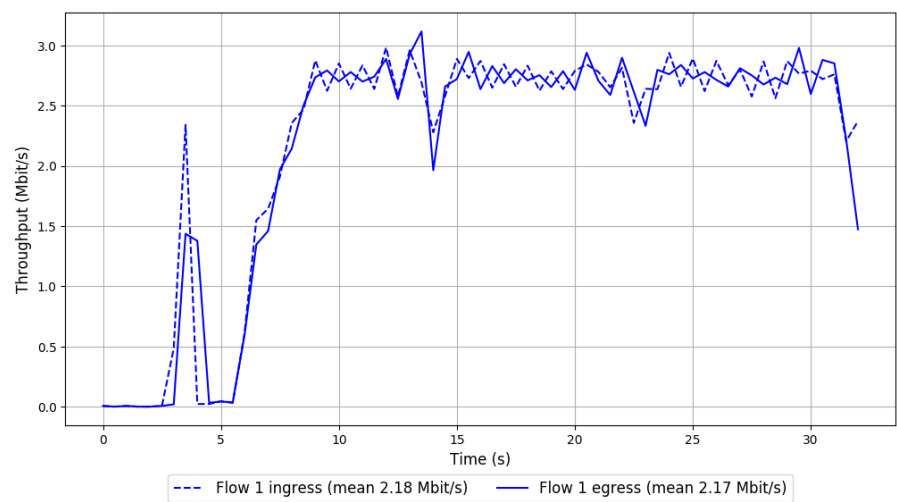
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 110.372 ms

Loss rate: 0.93%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-19 20:53:42

End at: 2017-12-19 20:54:12

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 110.569 ms

Loss rate: 0.92%

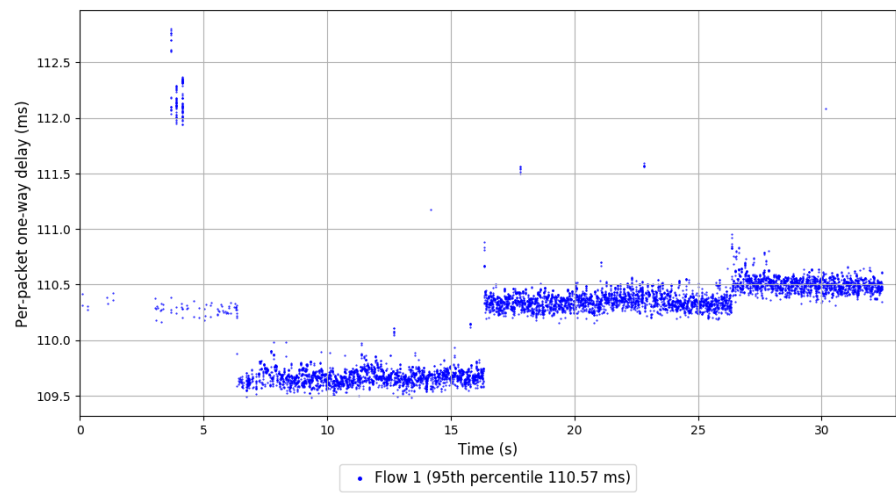
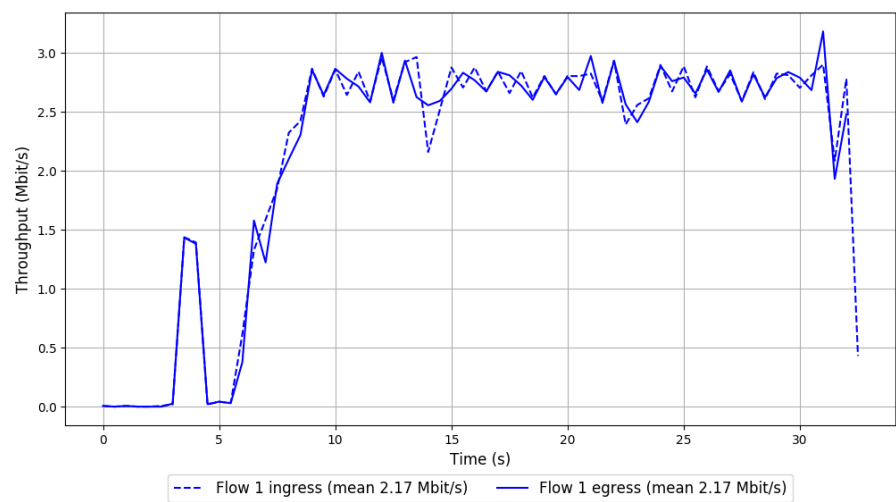
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 110.569 ms

Loss rate: 0.92%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-19 21:06:06

End at: 2017-12-19 21:06:36

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.291 ms

Loss rate: 0.92%

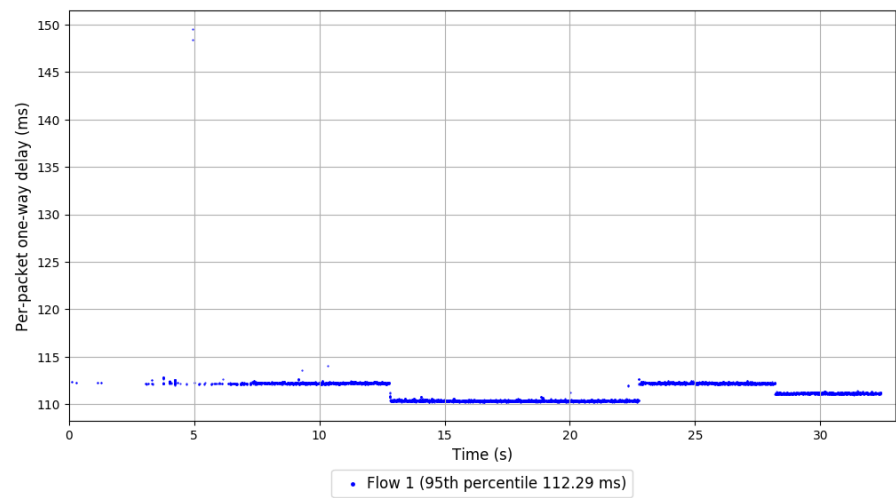
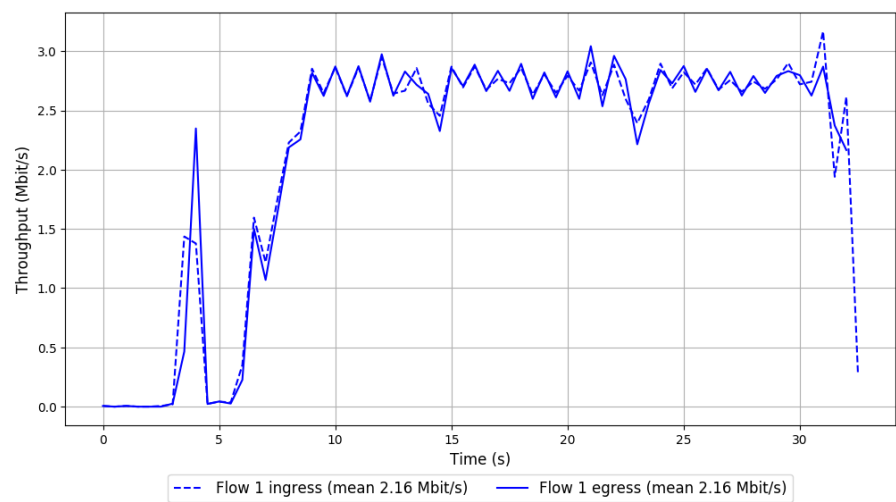
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.291 ms

Loss rate: 0.92%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

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

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.693 ms

Loss rate: 1.76%

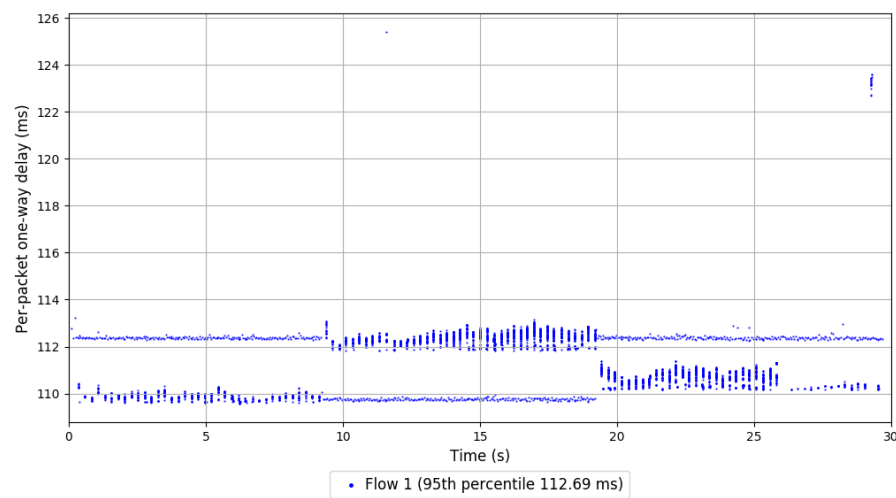
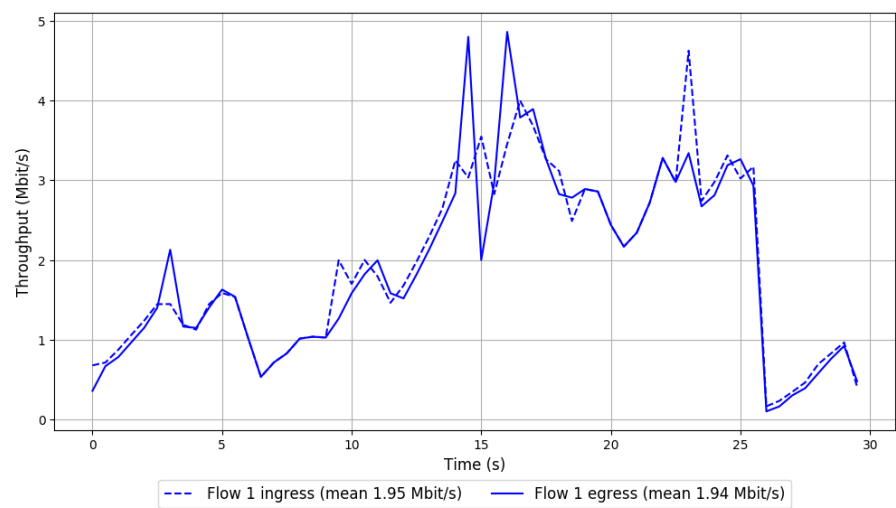
-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.693 ms

Loss rate: 1.76%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-19 19:35:04

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 112.546 ms

Loss rate: 0.80%

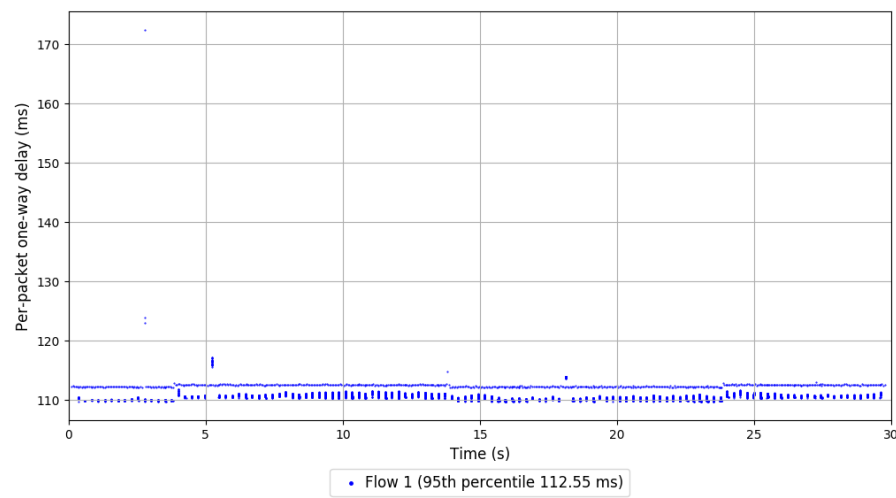
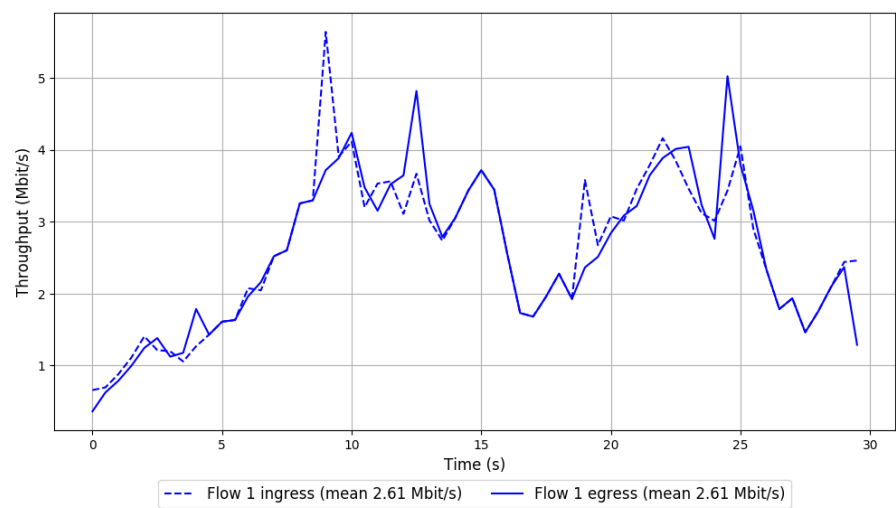
-- Flow 1:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 112.546 ms

Loss rate: 0.80%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-19 19:47:34

End at: 2017-12-19 19:48:04

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 112.173 ms

Loss rate: 4.23%

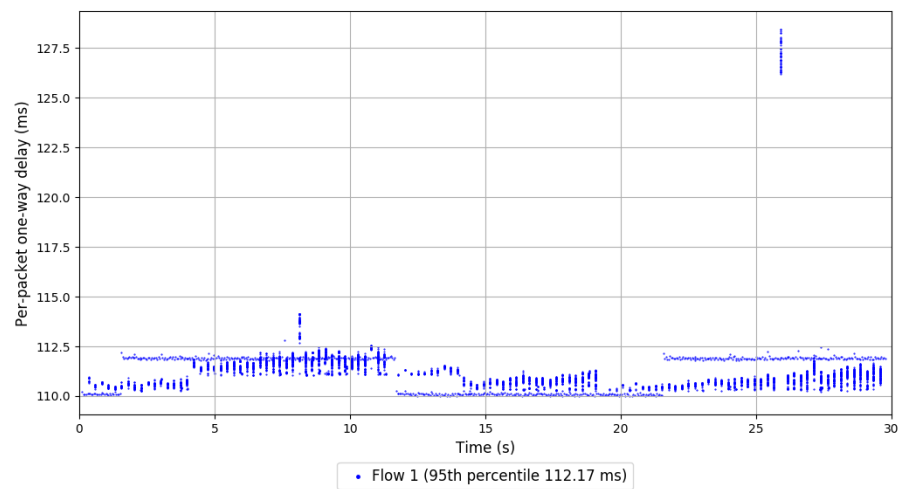
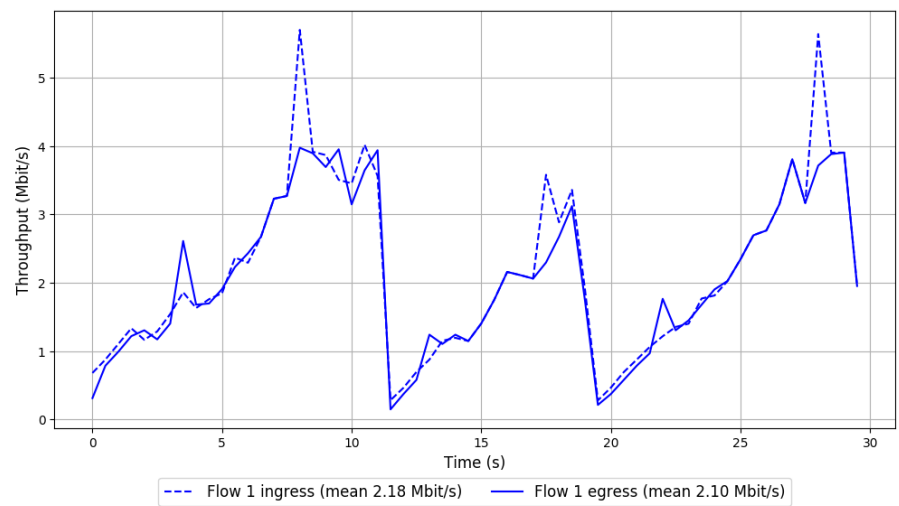
-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 112.173 ms

Loss rate: 4.23%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-19 20:00:18

End at: 2017-12-19 20:00:48

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 111.542 ms

Loss rate: 0.79%

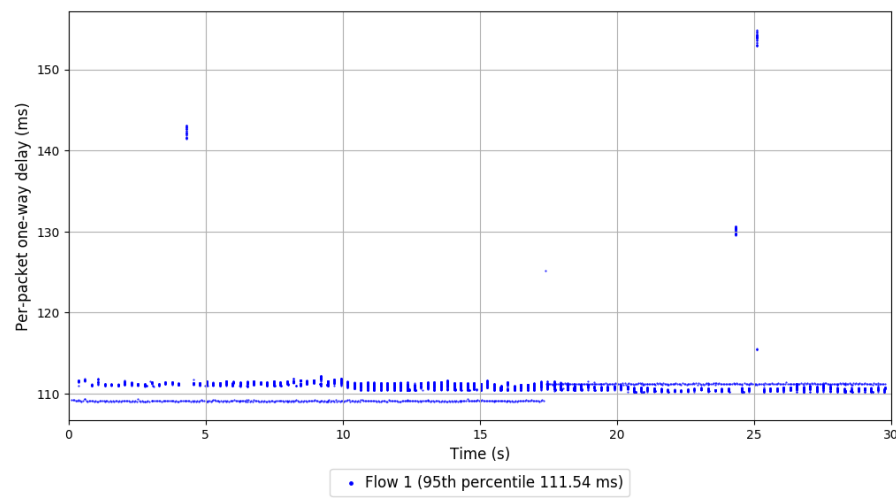
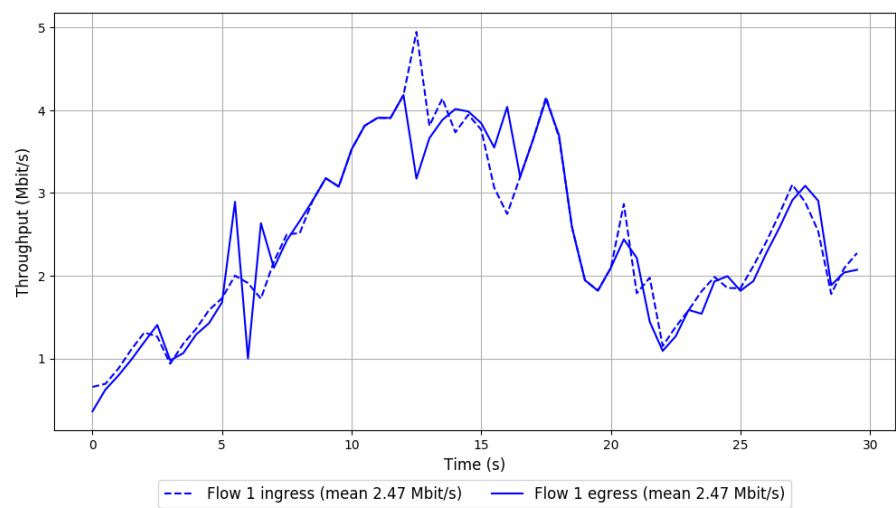
-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 111.542 ms

Loss rate: 0.79%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-19 20:12:51

End at: 2017-12-19 20:13:21

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 112.791 ms

Loss rate: 4.18%

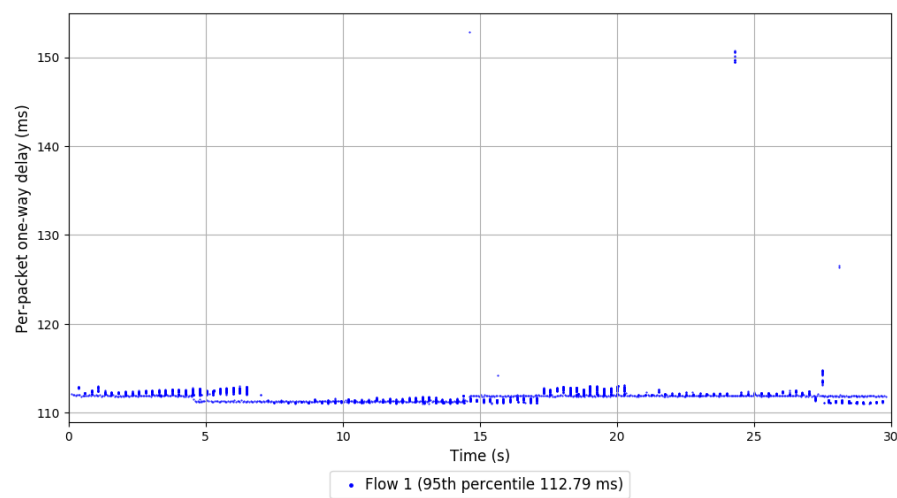
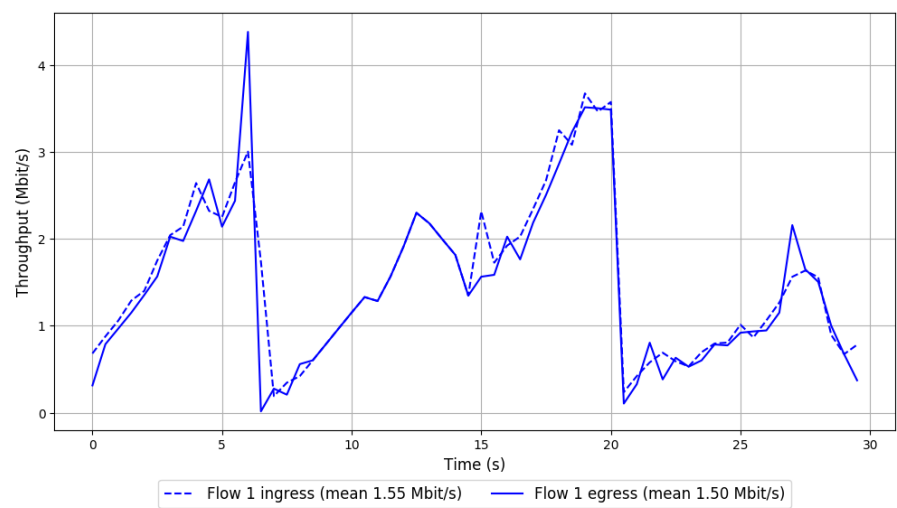
-- Flow 1:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 112.791 ms

Loss rate: 4.18%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-19 20:25:19

End at: 2017-12-19 20:25:49

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 113.506 ms

Loss rate: 0.86%

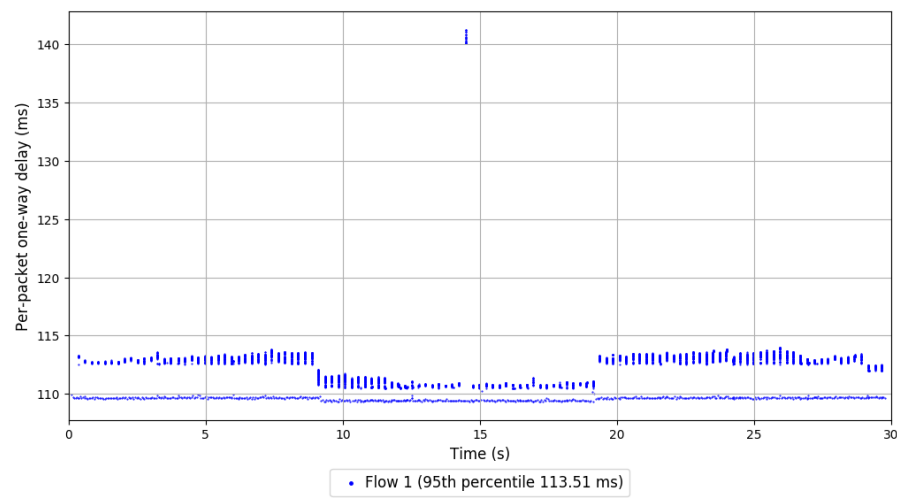
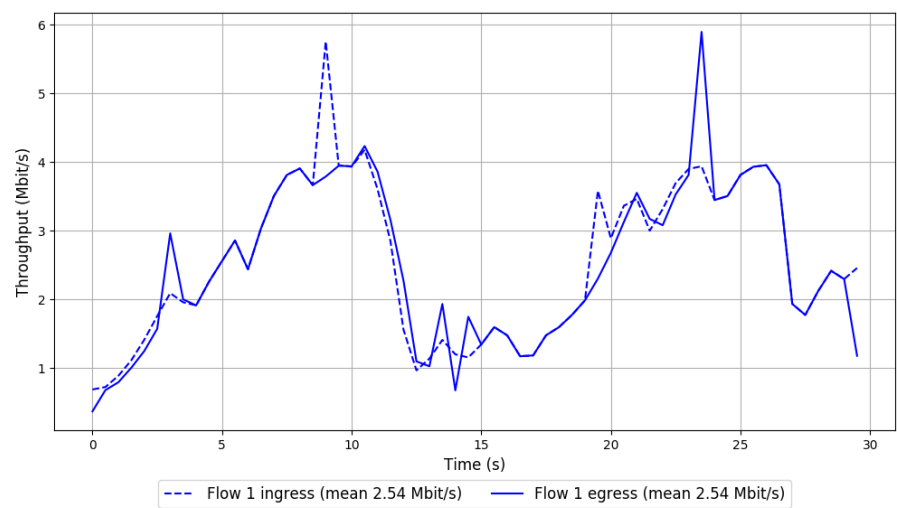
-- Flow 1:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 113.506 ms

Loss rate: 0.86%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-19 20:37:39

End at: 2017-12-19 20:38:09

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 113.380 ms

Loss rate: 0.23%

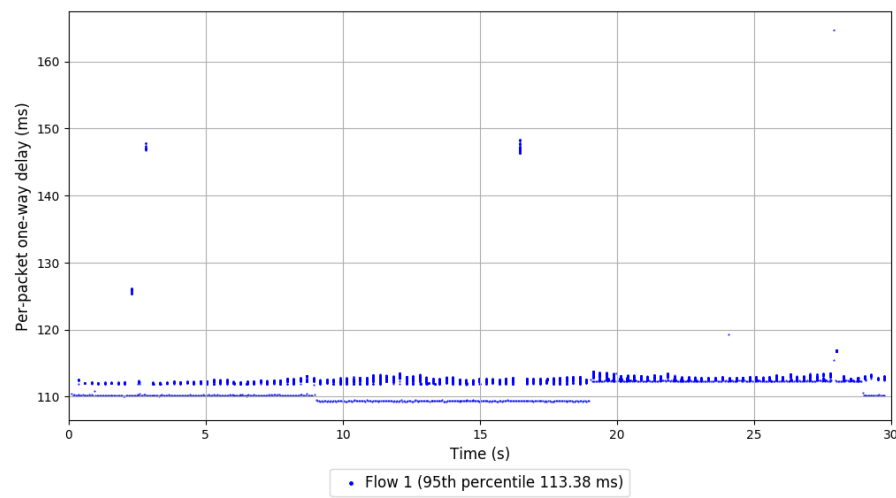
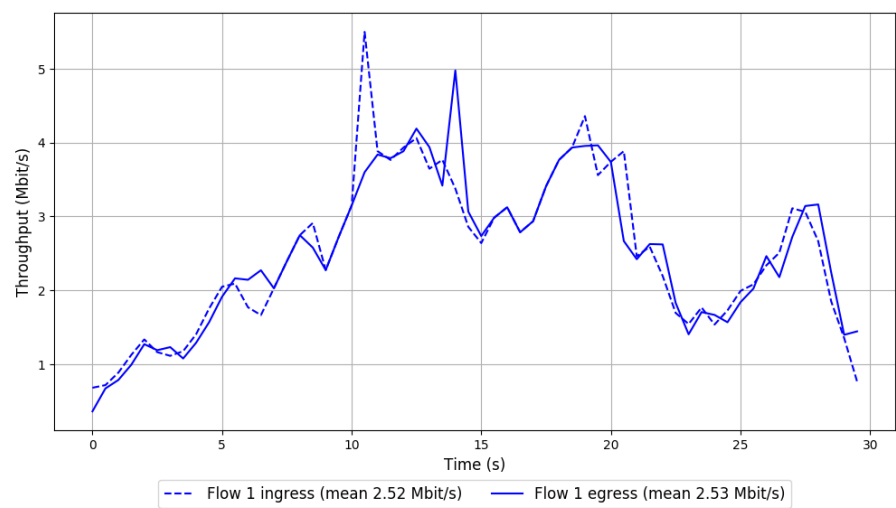
-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 113.380 ms

Loss rate: 0.23%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-19 20:49:56

End at: 2017-12-19 20:50:26

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 112.981 ms

Loss rate: 0.54%

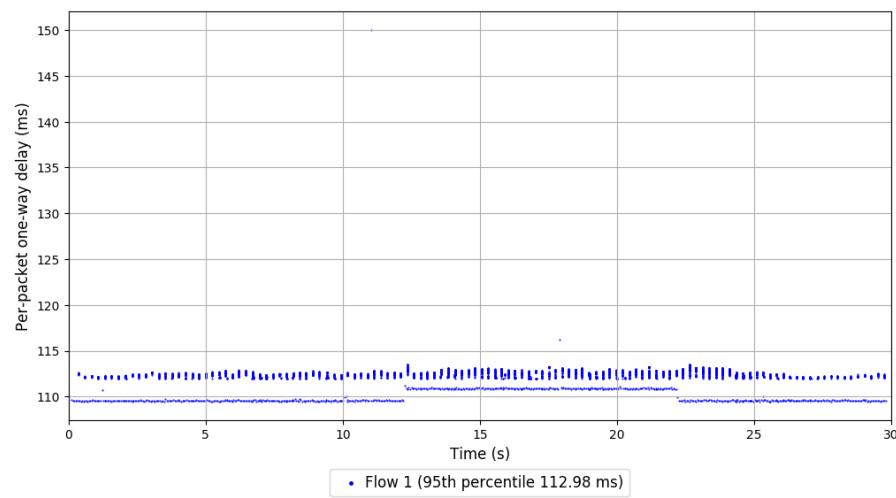
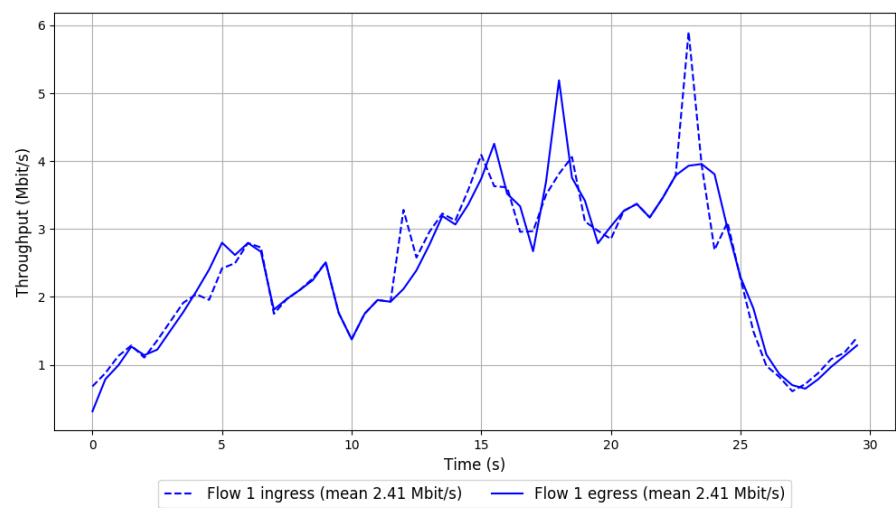
-- Flow 1:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 112.981 ms

Loss rate: 0.54%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

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

End at: 2017-12-19 21:02:50

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 112.820 ms

Loss rate: 3.36%

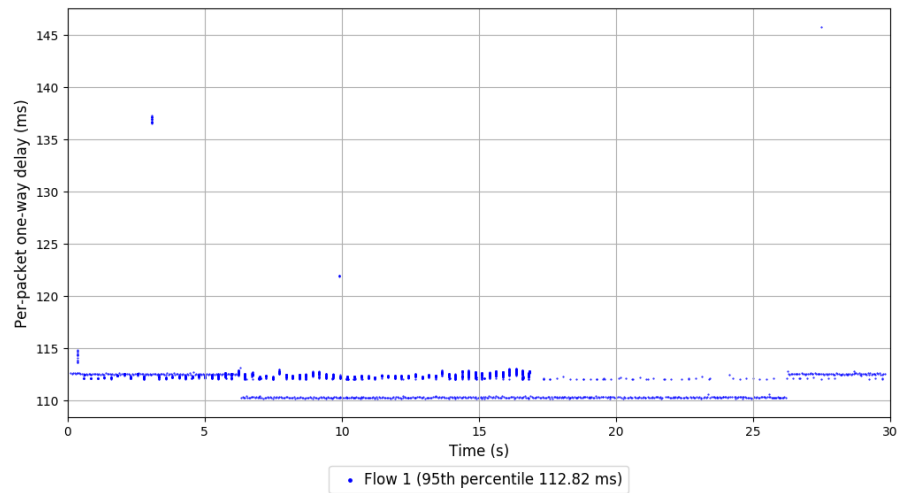
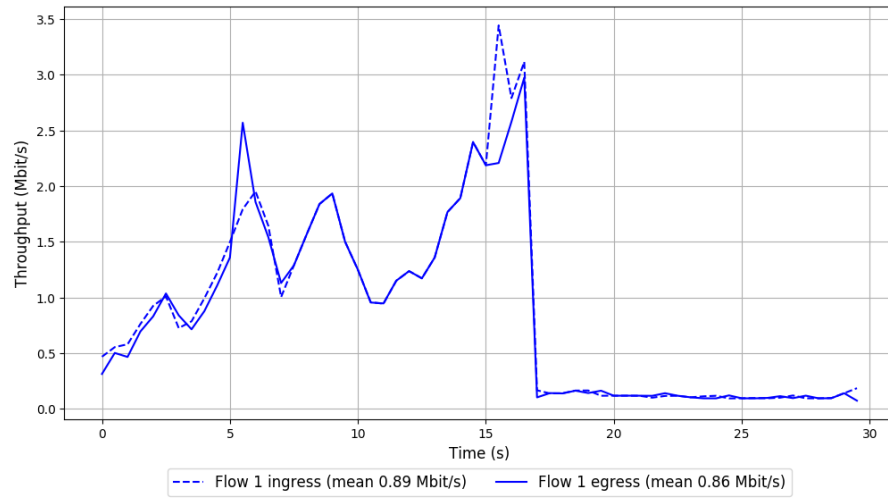
-- Flow 1:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 112.820 ms

Loss rate: 3.36%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-19 21:14:42

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 113.260 ms

Loss rate: 2.54%

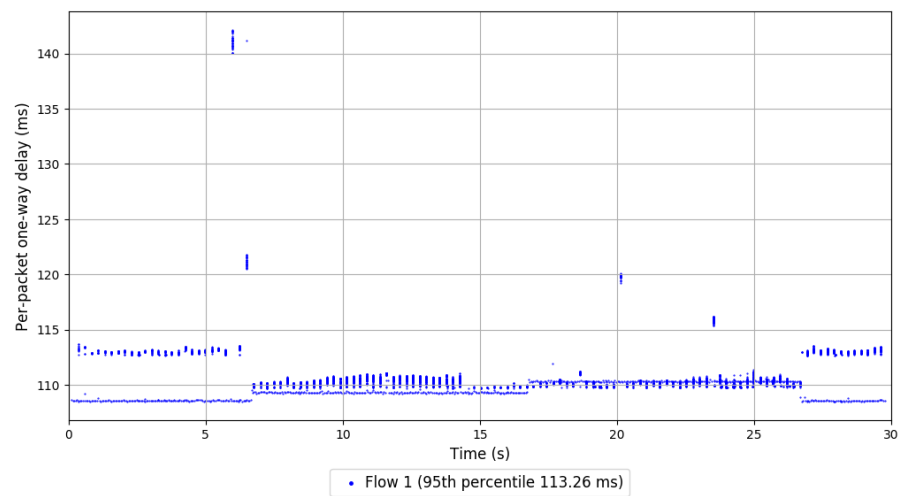
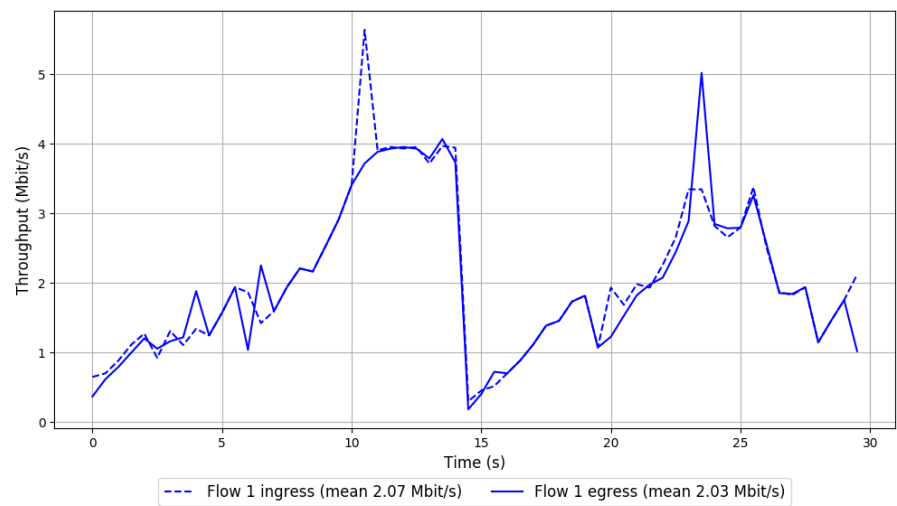
-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 113.260 ms

Loss rate: 2.54%

Run 10: Report of Sprout — Data Link

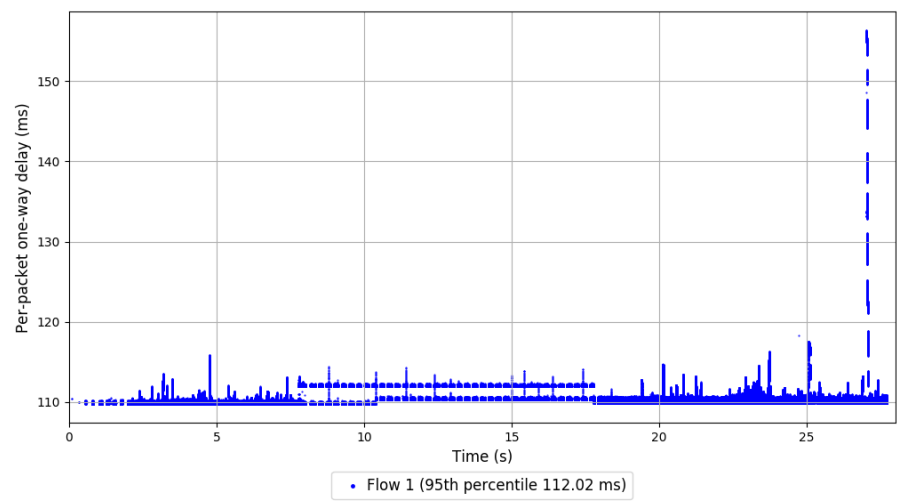
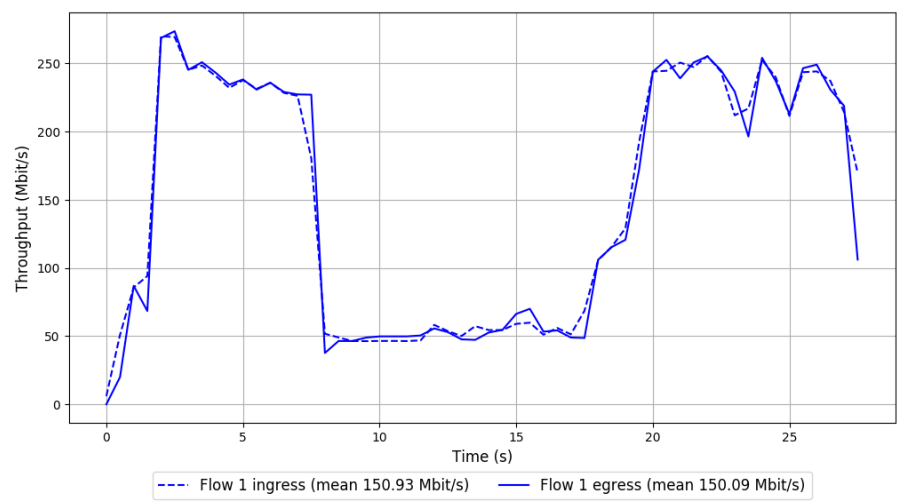


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-19 19:16:36
End at: 2017-12-19 19:17:06

# Below is generated by plot.py at 2017-12-19 23:47:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 150.09 Mbit/s
95th percentile per-packet one-way delay: 112.018 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 150.09 Mbit/s
95th percentile per-packet one-way delay: 112.018 ms
Loss rate: 1.36%
```


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

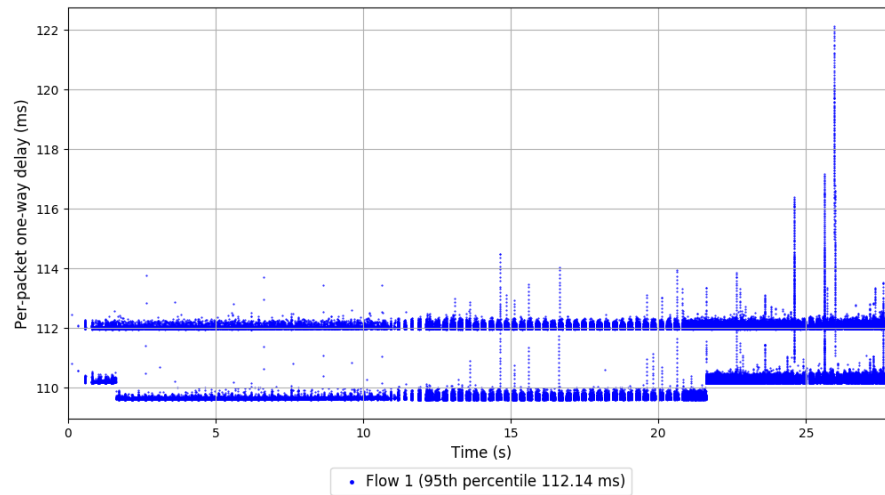
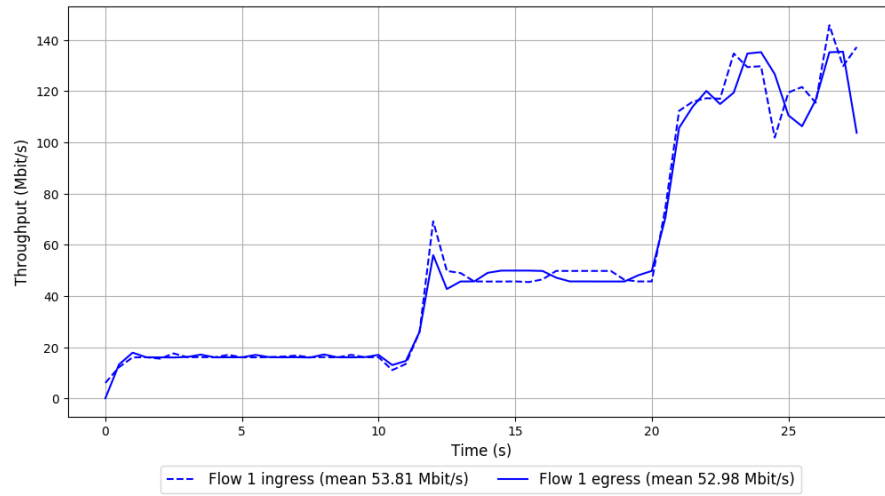


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-19 19:29:05
End at: 2017-12-19 19:29:35

# Below is generated by plot.py at 2017-12-19 23:47:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 52.98 Mbit/s
95th percentile per-packet one-way delay: 112.143 ms
Loss rate: 2.32%
-- Flow 1:
Average throughput: 52.98 Mbit/s
95th percentile per-packet one-way delay: 112.143 ms
Loss rate: 2.32%
```

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

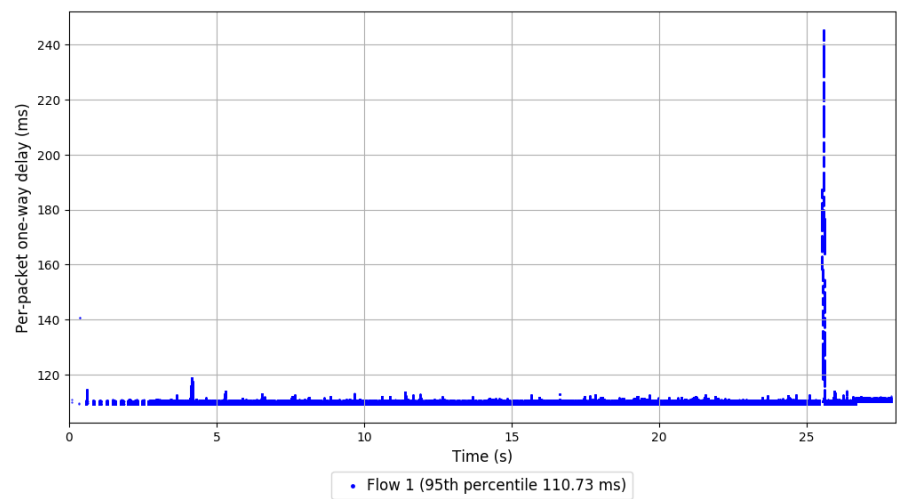
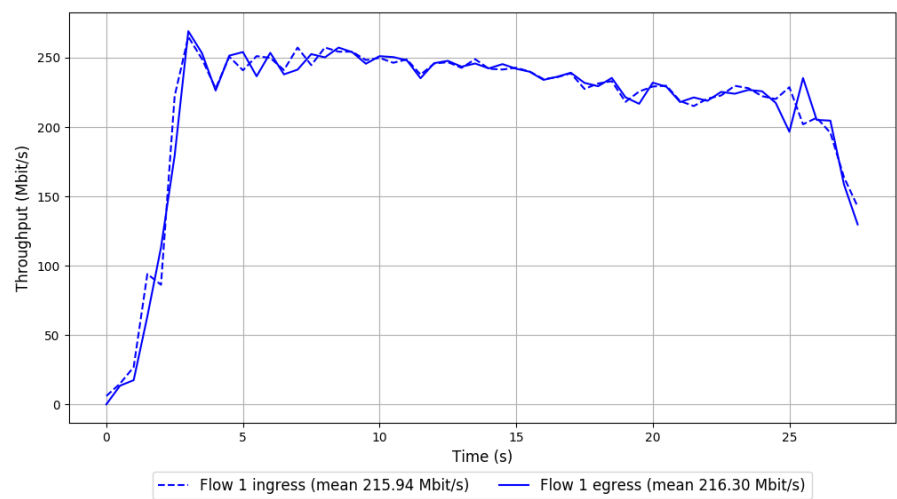


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-19 19:41:40
End at: 2017-12-19 19:42:10

# Below is generated by plot.py at 2017-12-19 23:47:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 110.727 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 216.30 Mbit/s
95th percentile per-packet one-way delay: 110.727 ms
Loss rate: 0.62%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-19 19:54:06

End at: 2017-12-19 19:54:36

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.00 Mbit/s

95th percentile per-packet one-way delay: 111.261 ms

Loss rate: 0.78%

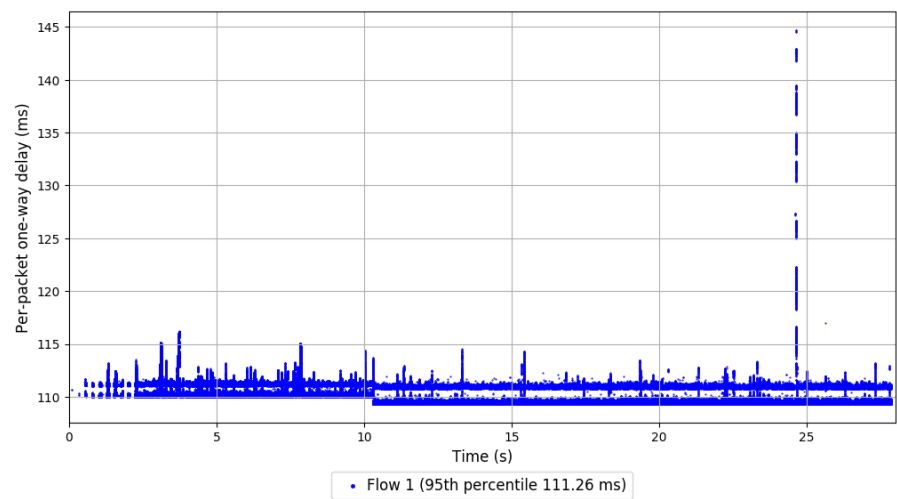
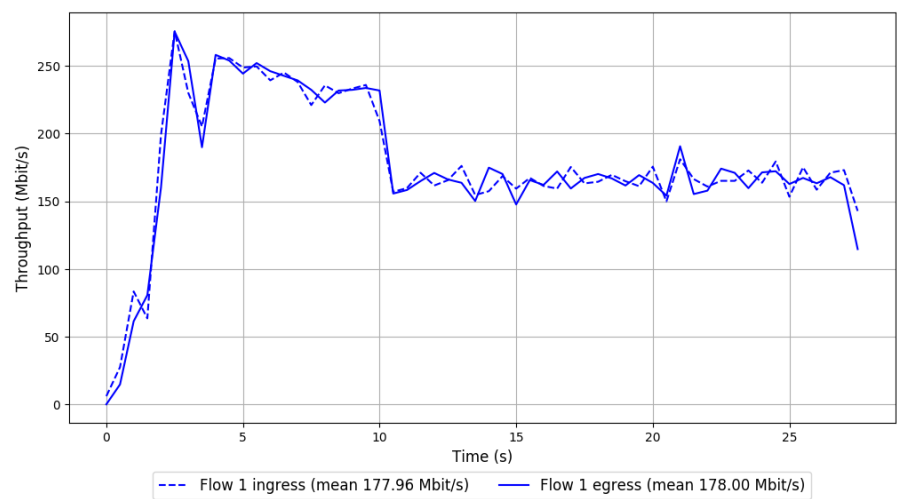
-- Flow 1:

Average throughput: 178.00 Mbit/s

95th percentile per-packet one-way delay: 111.261 ms

Loss rate: 0.78%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-19 20:06:50

End at: 2017-12-19 20:07:20

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 29.49 Mbit/s

95th percentile per-packet one-way delay: 114.493 ms

Loss rate: 3.18%

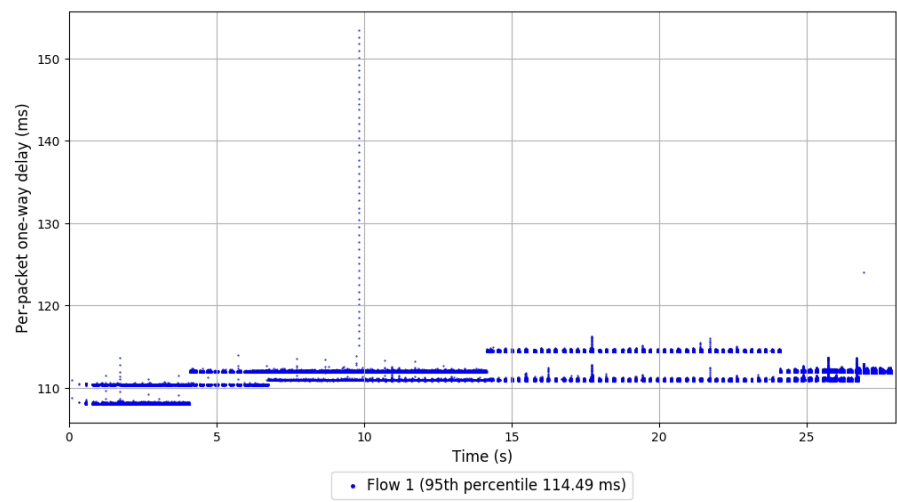
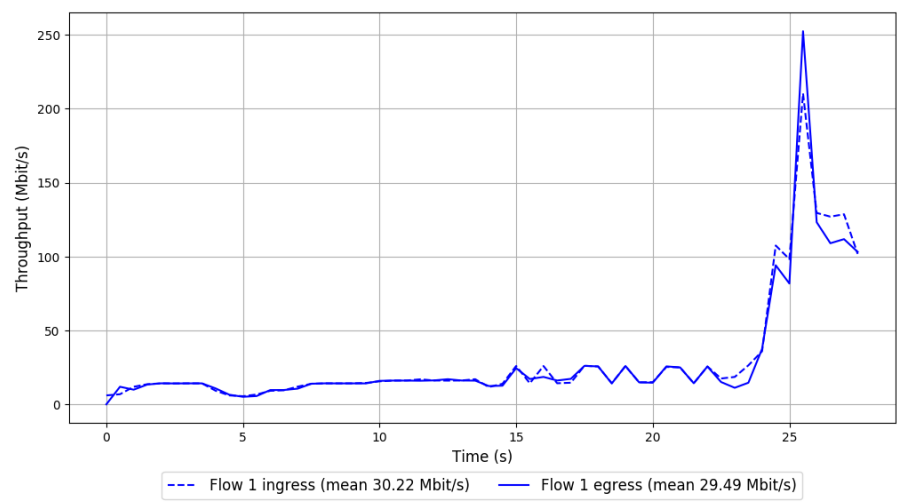
-- Flow 1:

Average throughput: 29.49 Mbit/s

95th percentile per-packet one-way delay: 114.493 ms

Loss rate: 3.18%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-19 20:19:26

End at: 2017-12-19 20:19:56

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.66 Mbit/s

95th percentile per-packet one-way delay: 111.990 ms

Loss rate: 1.32%

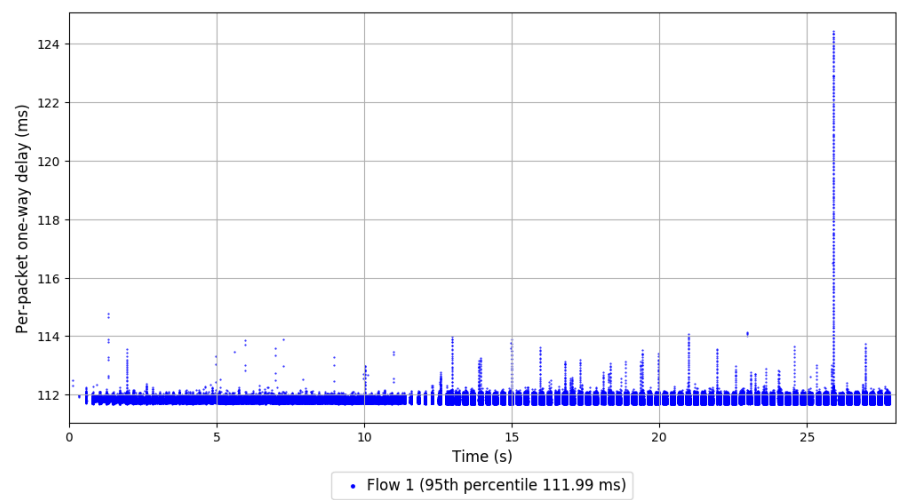
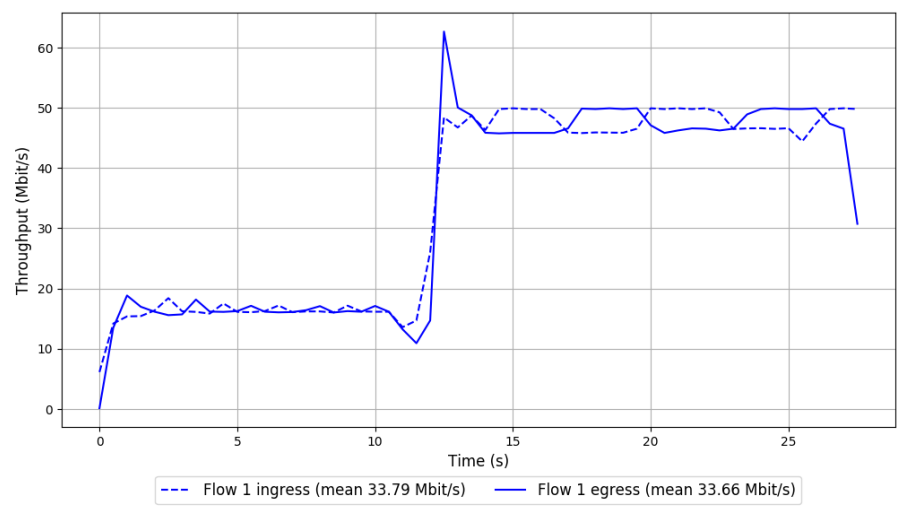
-- Flow 1:

Average throughput: 33.66 Mbit/s

95th percentile per-packet one-way delay: 111.990 ms

Loss rate: 1.32%

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

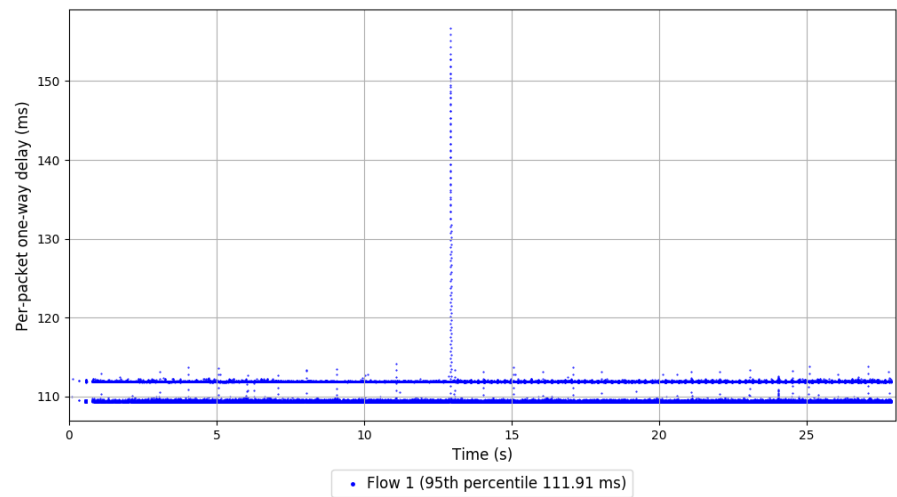
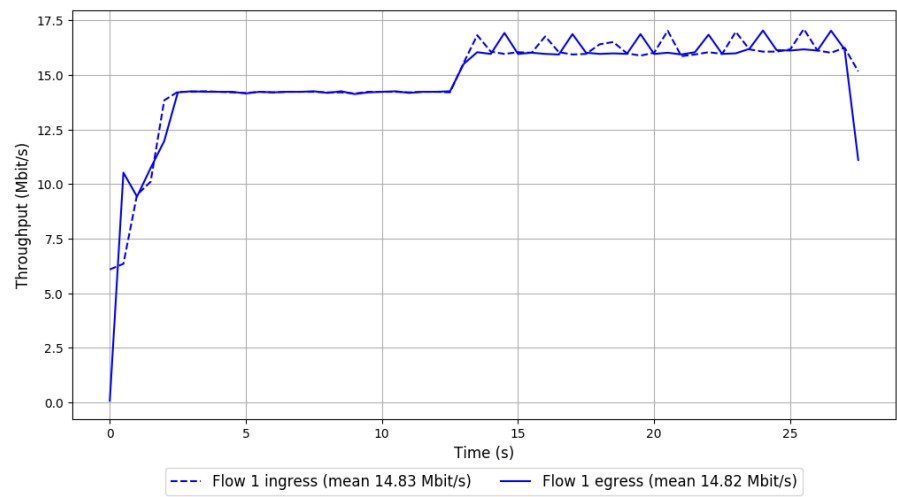


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-12-19 20:31:52
End at: 2017-12-19 20:32:22

# Below is generated by plot.py at 2017-12-19 23:47:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.82 Mbit/s
95th percentile per-packet one-way delay: 111.906 ms
Loss rate: 0.87%
-- Flow 1:
Average throughput: 14.82 Mbit/s
95th percentile per-packet one-way delay: 111.906 ms
Loss rate: 0.87%
```

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



Run 8: Statistics of TaoVA-100x

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

End at: 2017-12-19 20:44:42

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.30 Mbit/s

95th percentile per-packet one-way delay: 111.955 ms

Loss rate: 0.40%

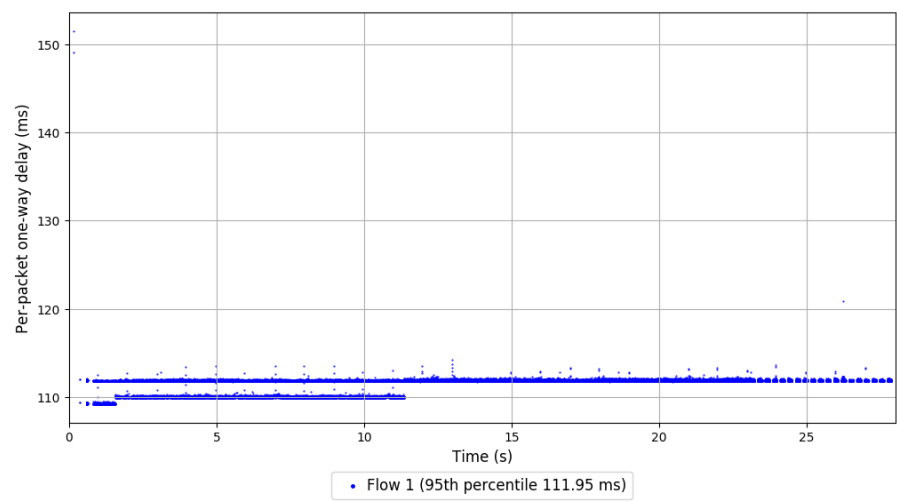
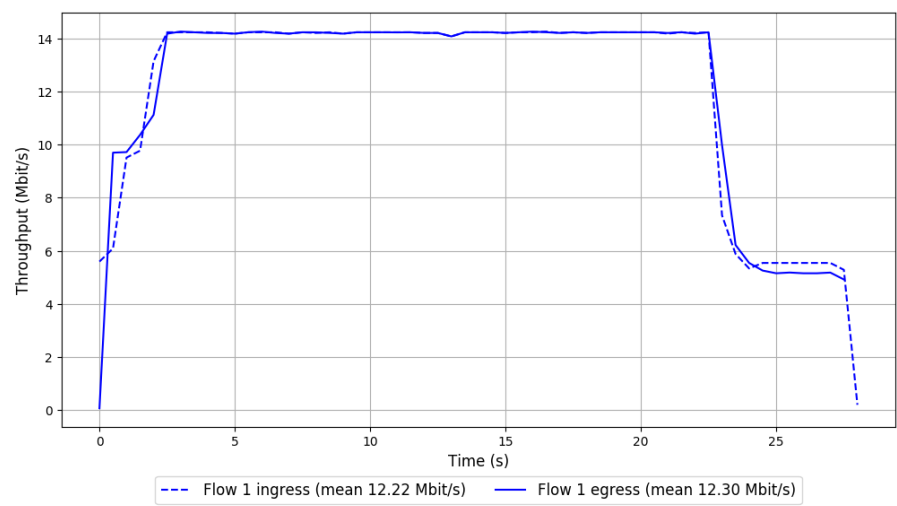
-- Flow 1:

Average throughput: 12.30 Mbit/s

95th percentile per-packet one-way delay: 111.955 ms

Loss rate: 0.40%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-19 20:56:29

End at: 2017-12-19 20:56:59

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.15 Mbit/s

95th percentile per-packet one-way delay: 114.535 ms

Loss rate: 0.46%

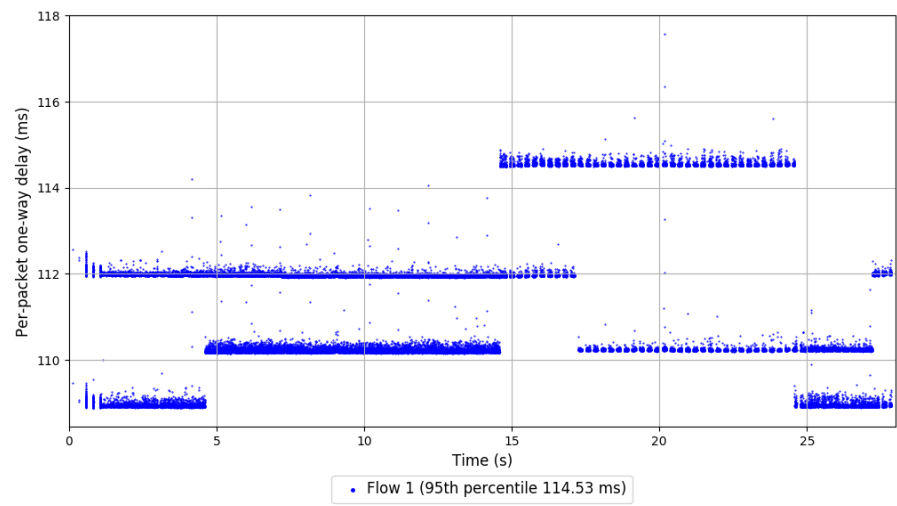
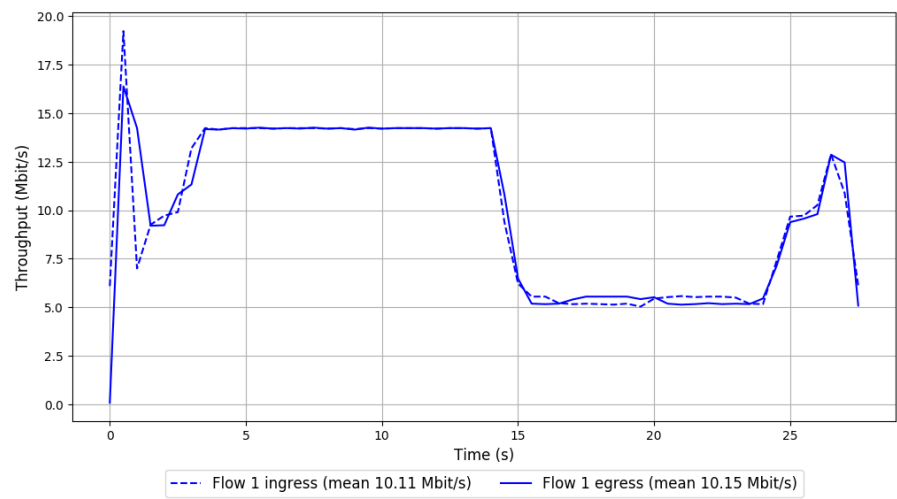
-- Flow 1:

Average throughput: 10.15 Mbit/s

95th percentile per-packet one-way delay: 114.535 ms

Loss rate: 0.46%

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

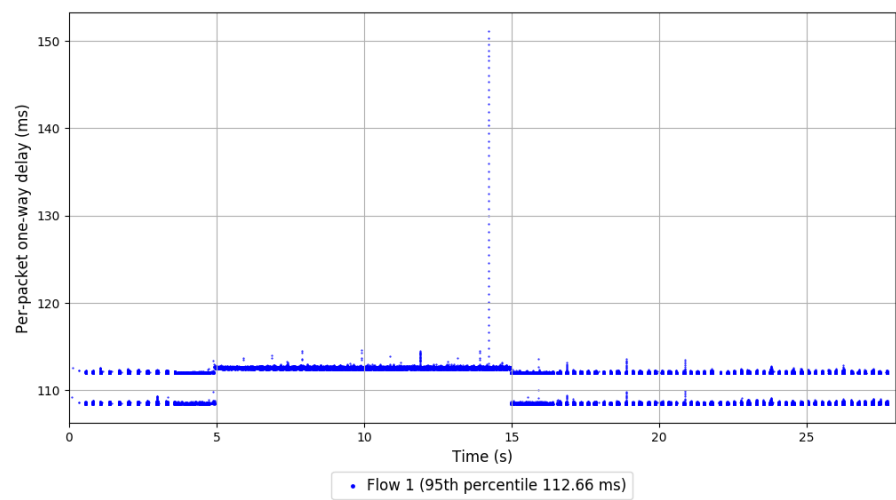
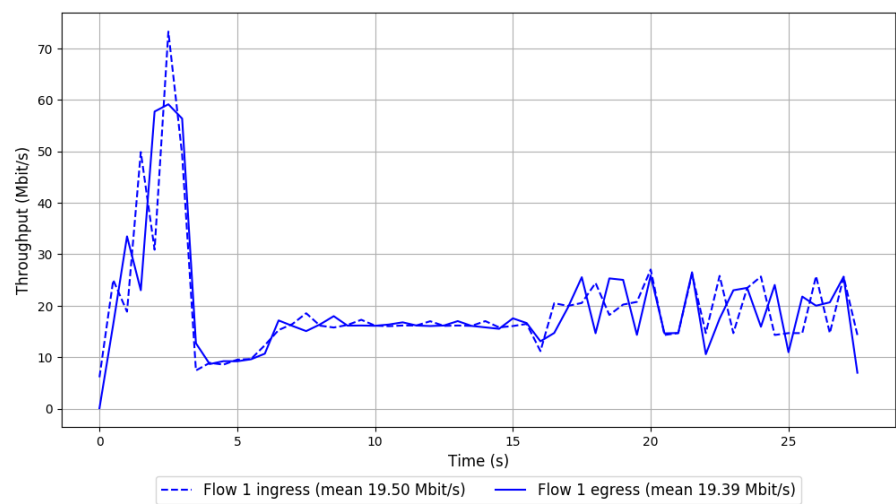


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-19 21:08:51
End at: 2017-12-19 21:09:22

# Below is generated by plot.py at 2017-12-19 23:47:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.39 Mbit/s
95th percentile per-packet one-way delay: 112.658 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 19.39 Mbit/s
95th percentile per-packet one-way delay: 112.658 ms
Loss rate: 1.36%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-19 19:15:52

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.80 Mbit/s

95th percentile per-packet one-way delay: 115.301 ms

Loss rate: 1.01%

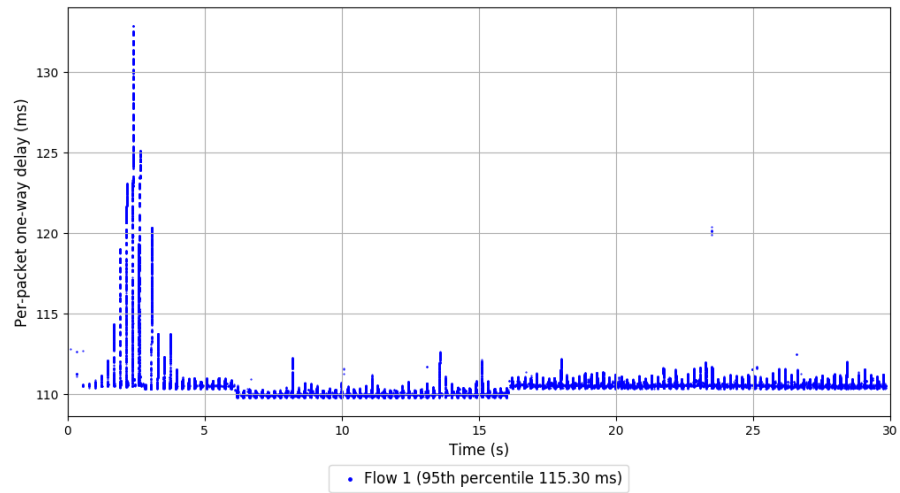
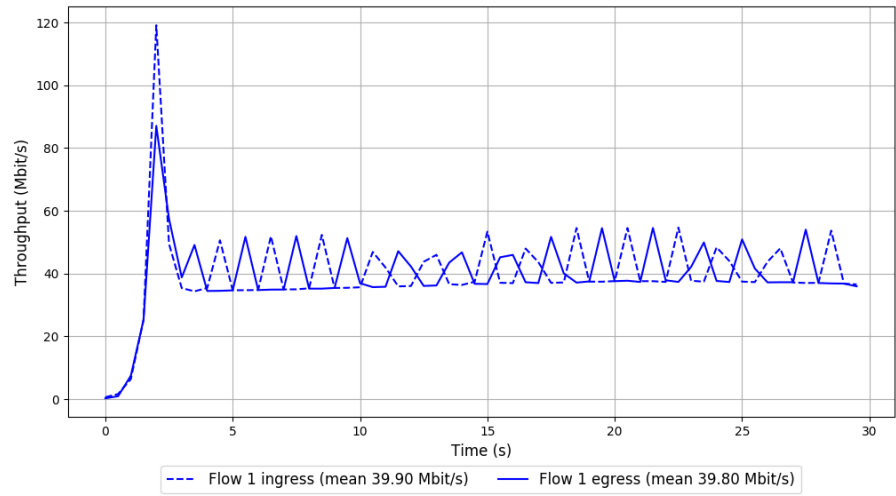
-- Flow 1:

Average throughput: 39.80 Mbit/s

95th percentile per-packet one-way delay: 115.301 ms

Loss rate: 1.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-19 19:28:20

End at: 2017-12-19 19:28:50

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.88 Mbit/s

95th percentile per-packet one-way delay: 111.130 ms

Loss rate: 0.80%

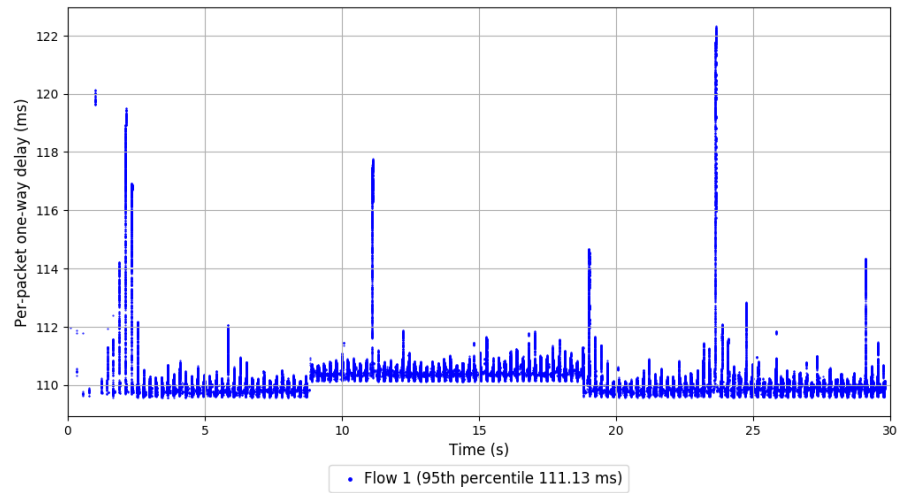
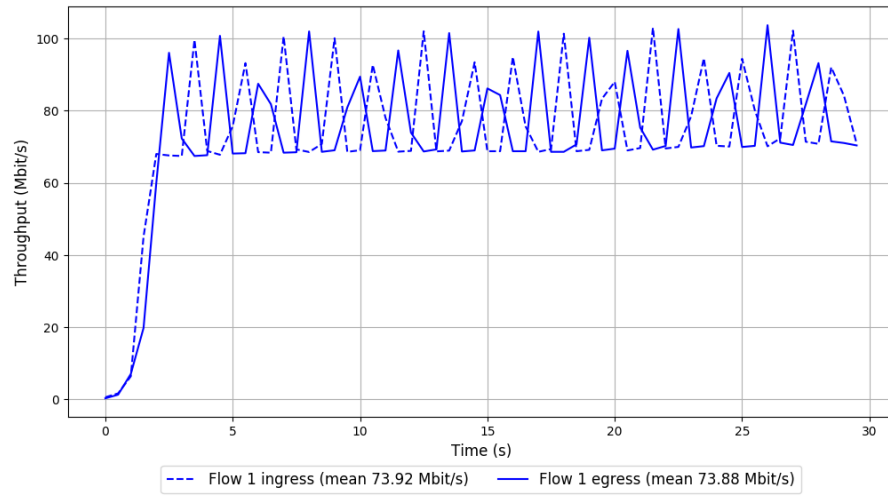
-- Flow 1:

Average throughput: 73.88 Mbit/s

95th percentile per-packet one-way delay: 111.130 ms

Loss rate: 0.80%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-19 19:40:55

End at: 2017-12-19 19:41:25

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.45 Mbit/s

95th percentile per-packet one-way delay: 112.425 ms

Loss rate: 0.82%

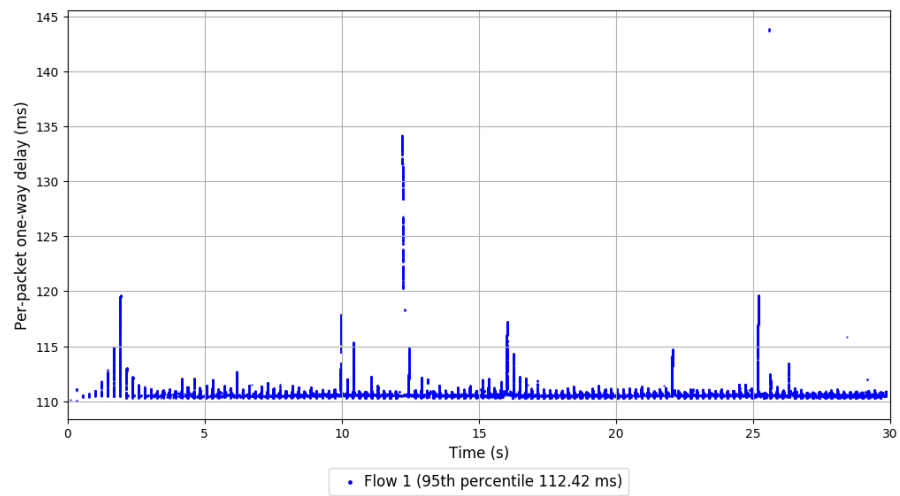
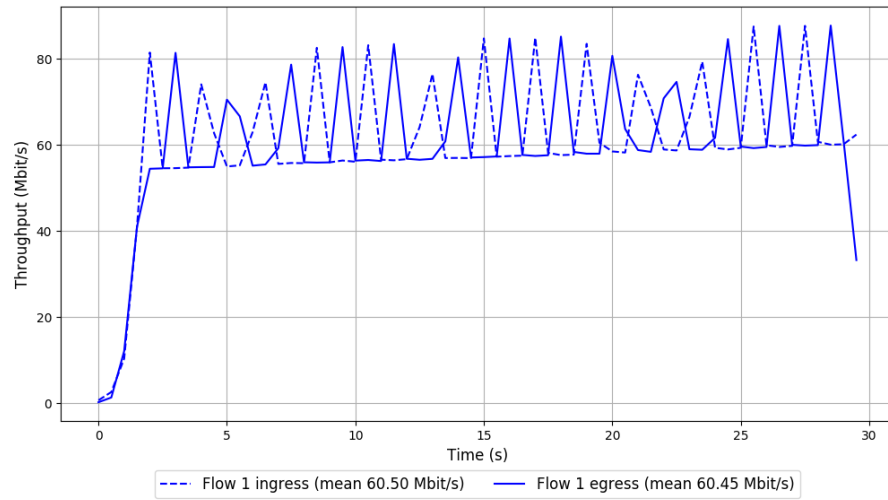
-- Flow 1:

Average throughput: 60.45 Mbit/s

95th percentile per-packet one-way delay: 112.425 ms

Loss rate: 0.82%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-19 19:53:23

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.64 Mbit/s

95th percentile per-packet one-way delay: 111.666 ms

Loss rate: 0.67%

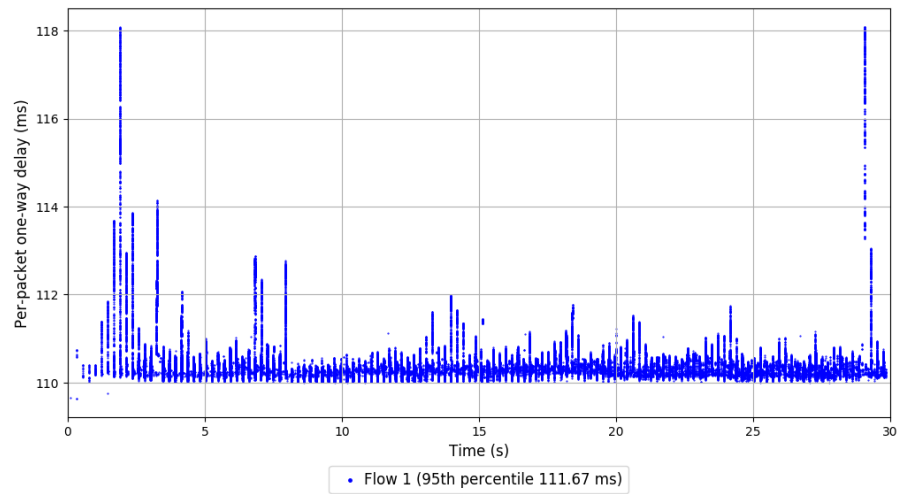
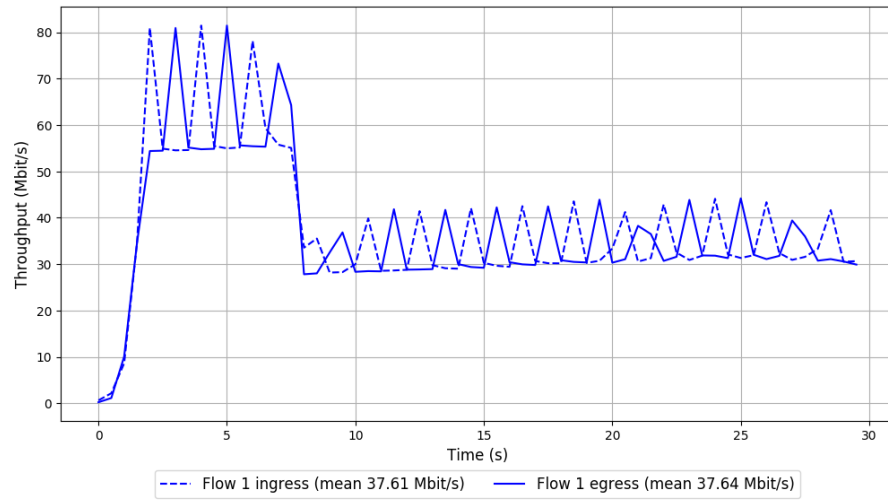
-- Flow 1:

Average throughput: 37.64 Mbit/s

95th percentile per-packet one-way delay: 111.666 ms

Loss rate: 0.67%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-19 20:06:08

End at: 2017-12-19 20:06:38

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 113.613 ms

Loss rate: 3.15%

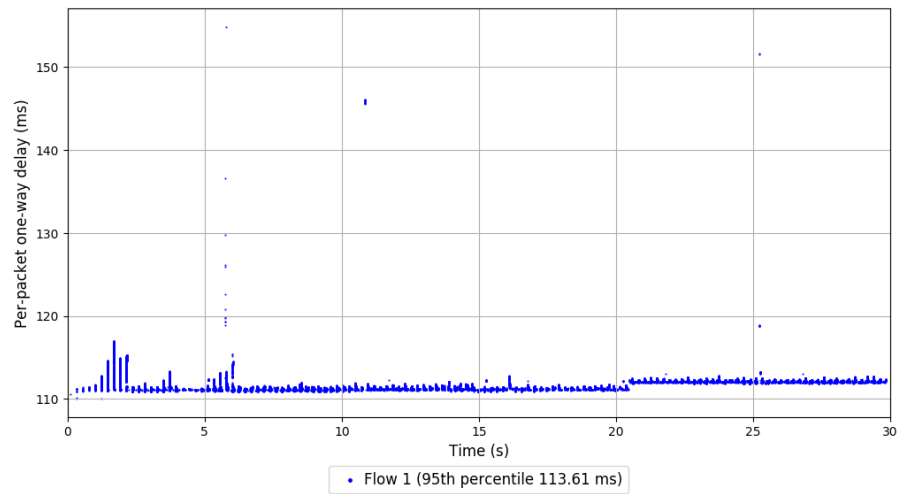
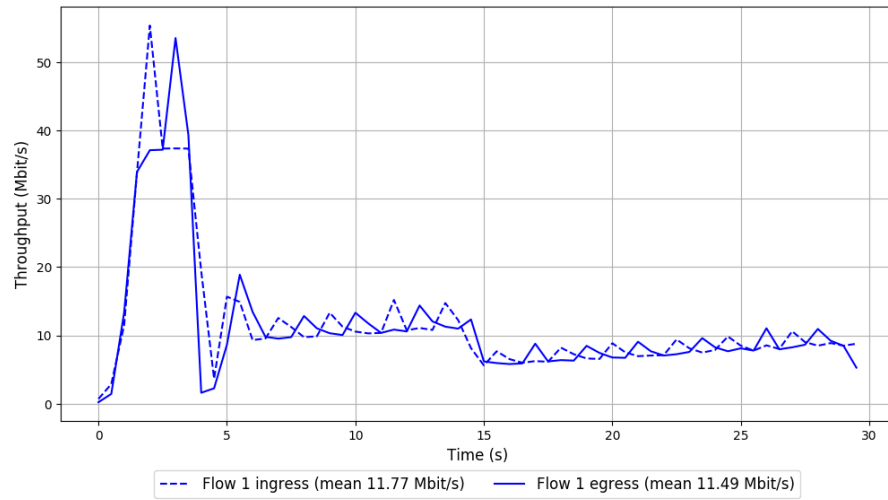
-- Flow 1:

Average throughput: 11.49 Mbit/s

95th percentile per-packet one-way delay: 113.613 ms

Loss rate: 3.15%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-19 20:18:44

End at: 2017-12-19 20:19:14

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.81 Mbit/s

95th percentile per-packet one-way delay: 123.050 ms

Loss rate: 0.38%

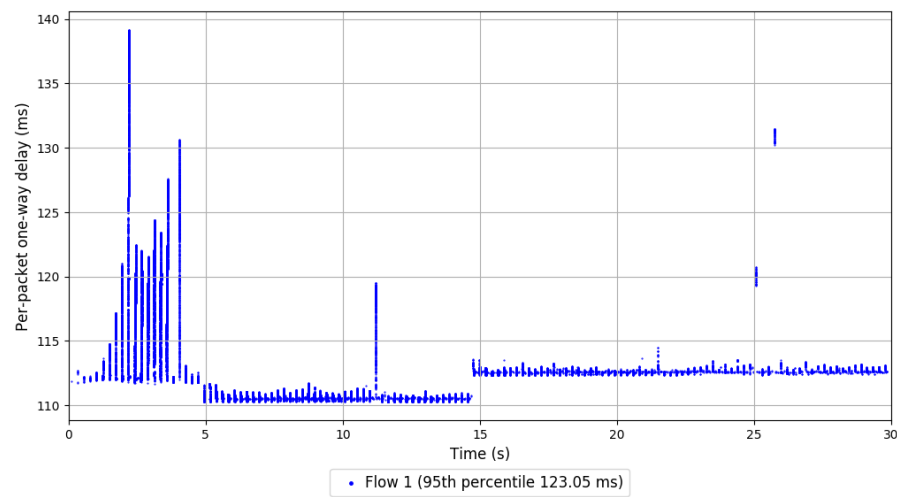
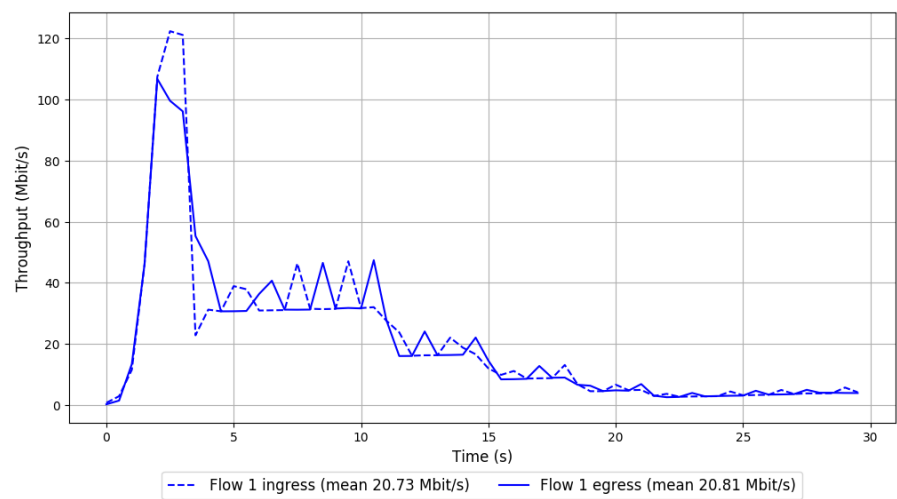
-- Flow 1:

Average throughput: 20.81 Mbit/s

95th percentile per-packet one-way delay: 123.050 ms

Loss rate: 0.38%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-19 20:31:10

End at: 2017-12-19 20:31:40

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.89 Mbit/s

95th percentile per-packet one-way delay: 113.632 ms

Loss rate: 3.01%

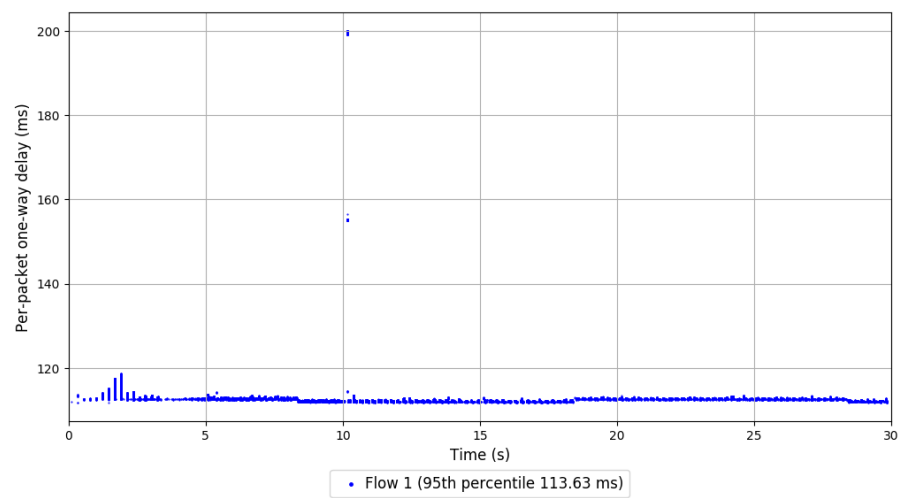
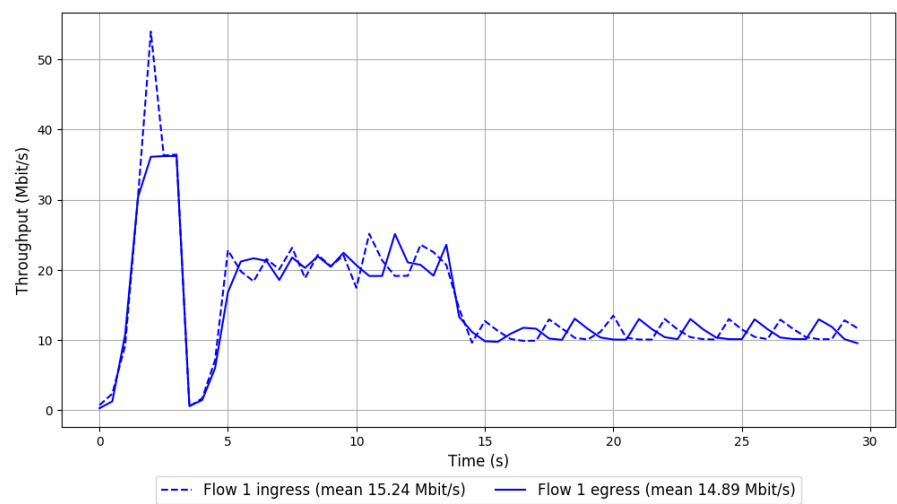
-- Flow 1:

Average throughput: 14.89 Mbit/s

95th percentile per-packet one-way delay: 113.632 ms

Loss rate: 3.01%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-19 20:43:29

End at: 2017-12-19 20:43:59

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.39 Mbit/s

95th percentile per-packet one-way delay: 119.590 ms

Loss rate: 0.78%

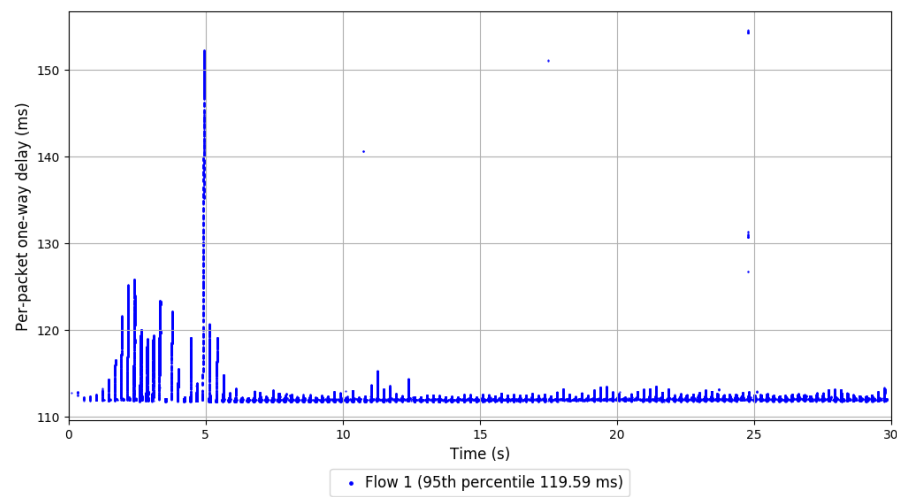
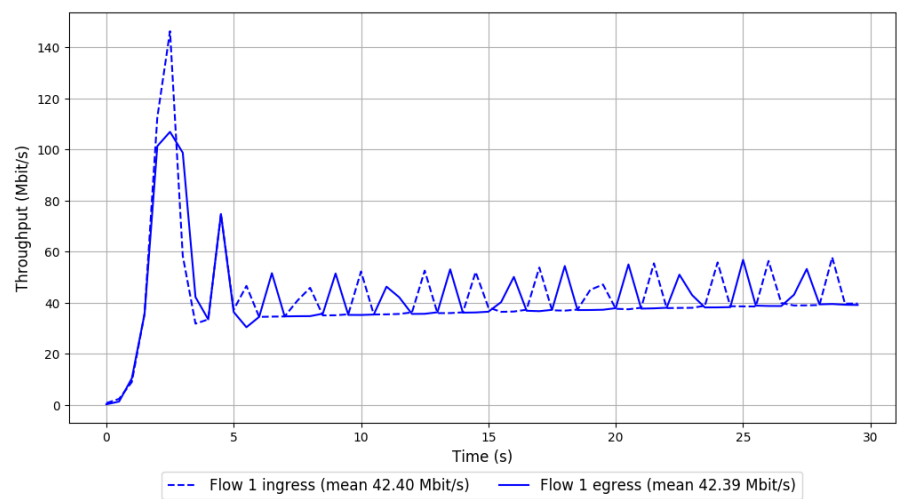
-- Flow 1:

Average throughput: 42.39 Mbit/s

95th percentile per-packet one-way delay: 119.590 ms

Loss rate: 0.78%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-19 20:55:46

End at: 2017-12-19 20:56:16

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.26 Mbit/s

95th percentile per-packet one-way delay: 113.330 ms

Loss rate: 0.61%

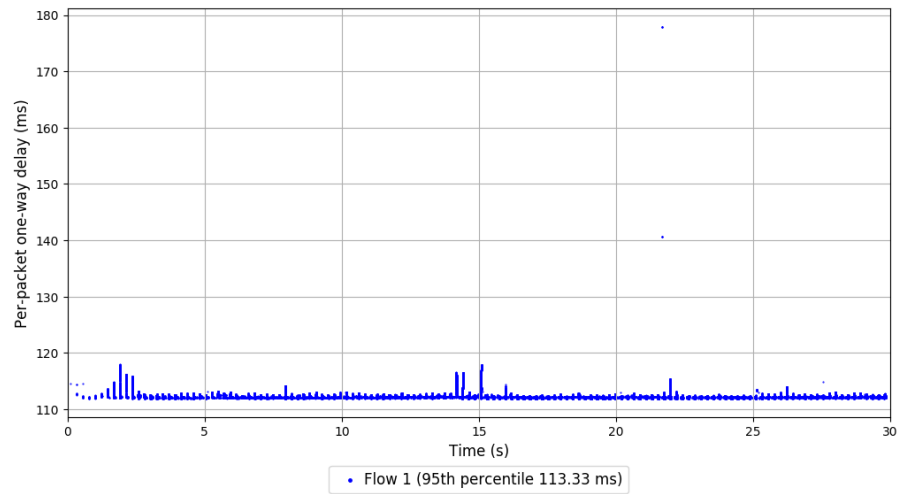
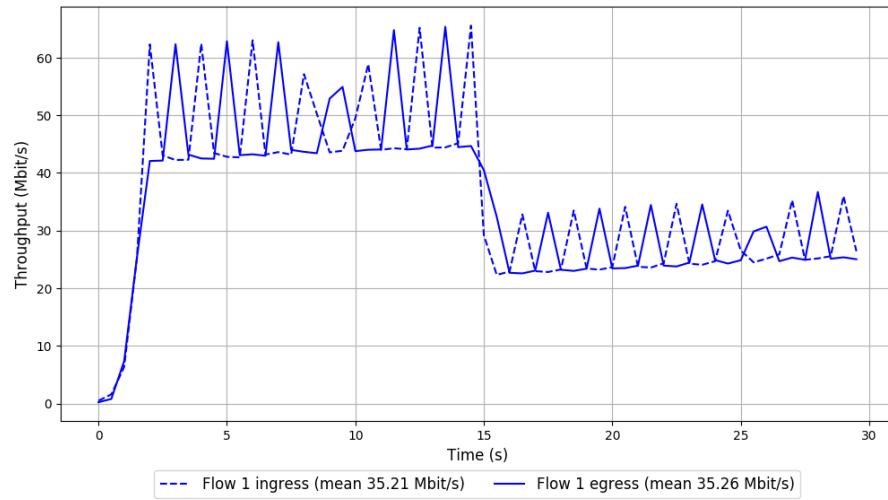
-- Flow 1:

Average throughput: 35.26 Mbit/s

95th percentile per-packet one-way delay: 113.330 ms

Loss rate: 0.61%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-19 21:08:09

End at: 2017-12-19 21:08:39

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 113.609 ms

Loss rate: 1.96%

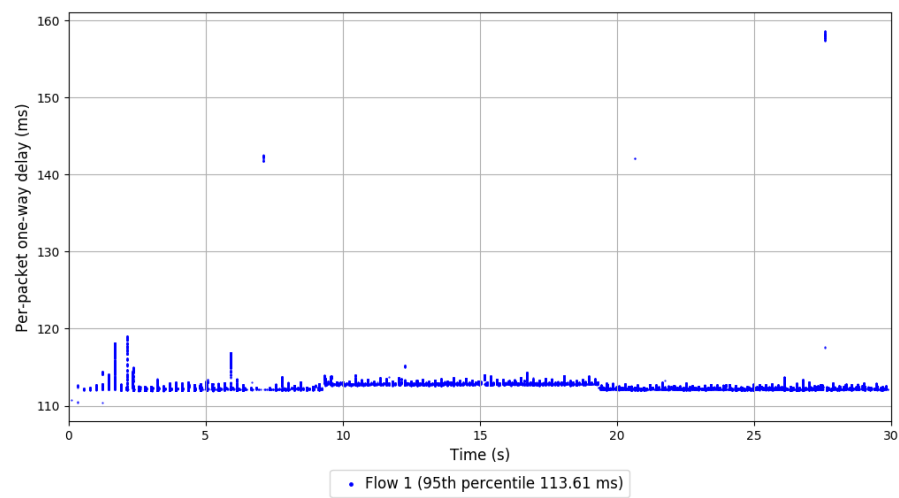
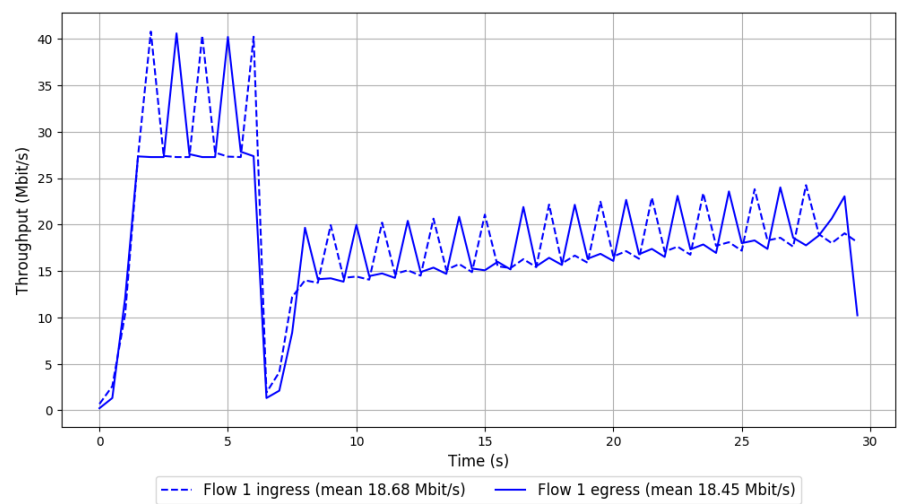
-- Flow 1:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 113.609 ms

Loss rate: 1.96%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-19 19:20:58

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

Below is generated by plot.py at 2017-12-19 23:47:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 133.08 Mbit/s

95th percentile per-packet one-way delay: 187.605 ms

Loss rate: 1.75%

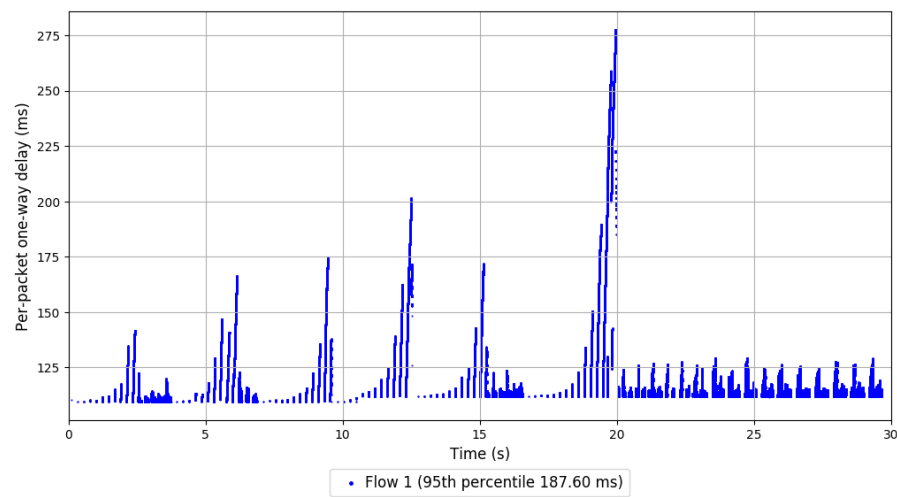
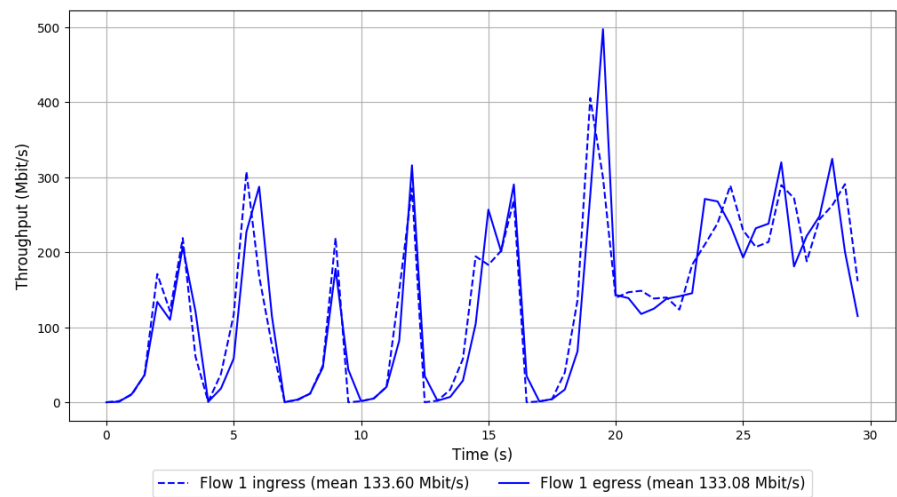
-- Flow 1:

Average throughput: 133.08 Mbit/s

95th percentile per-packet one-way delay: 187.605 ms

Loss rate: 1.75%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

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

End at: 2017-12-19 19:33:49

Below is generated by plot.py at 2017-12-19 23:48:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 254.65 Mbit/s

95th percentile per-packet one-way delay: 166.309 ms

Loss rate: 1.53%

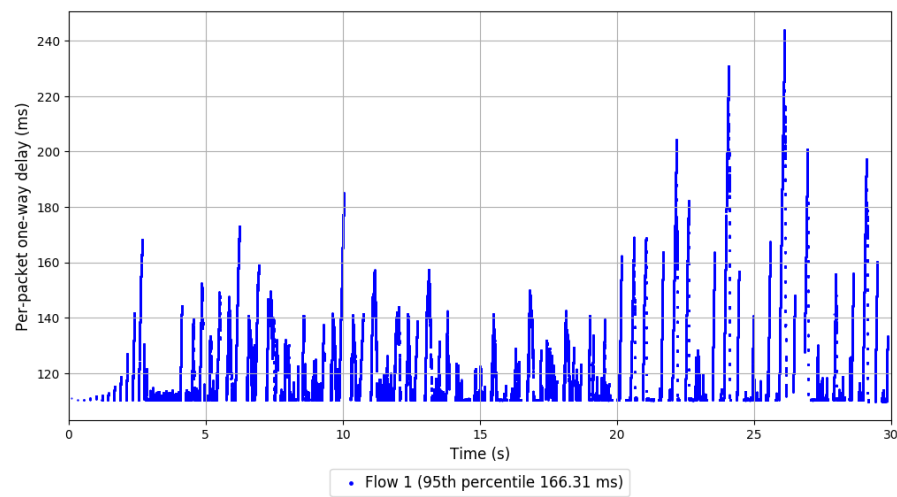
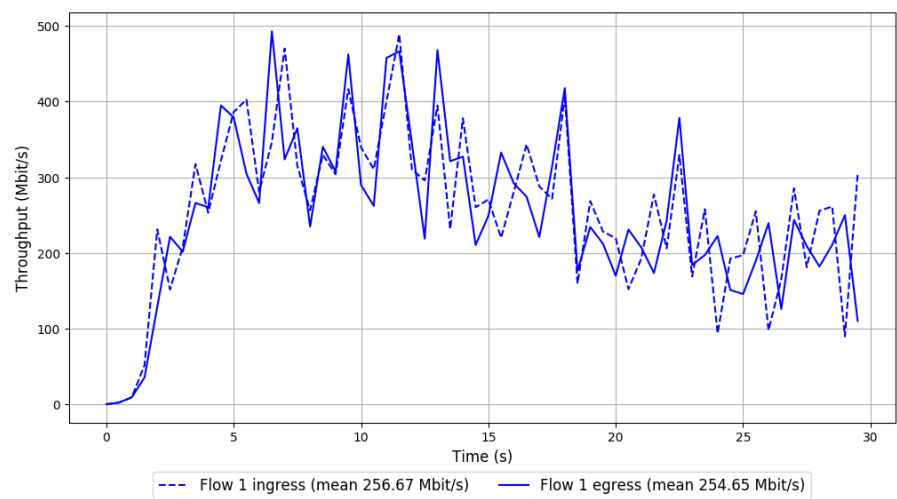
-- Flow 1:

Average throughput: 254.65 Mbit/s

95th percentile per-packet one-way delay: 166.309 ms

Loss rate: 1.53%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-19 19:45:58

End at: 2017-12-19 19:46:28

Below is generated by plot.py at 2017-12-19 23:48:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 133.87 Mbit/s

95th percentile per-packet one-way delay: 155.210 ms

Loss rate: 0.01%

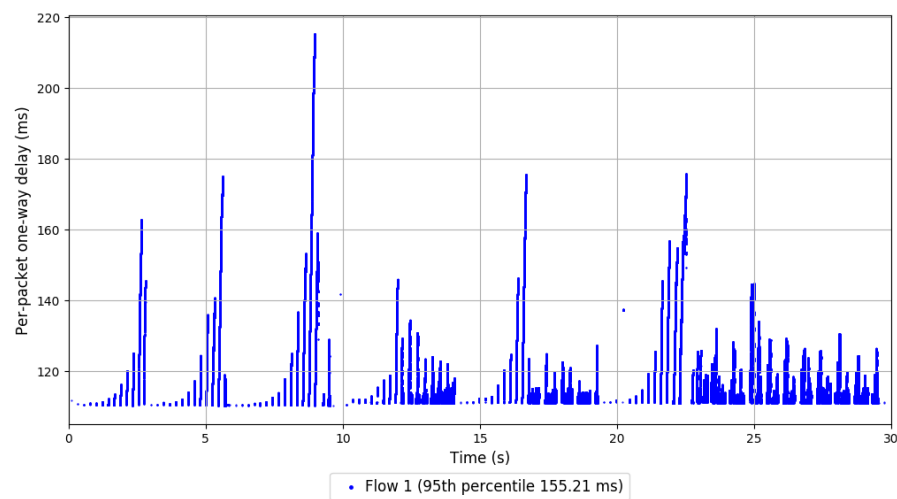
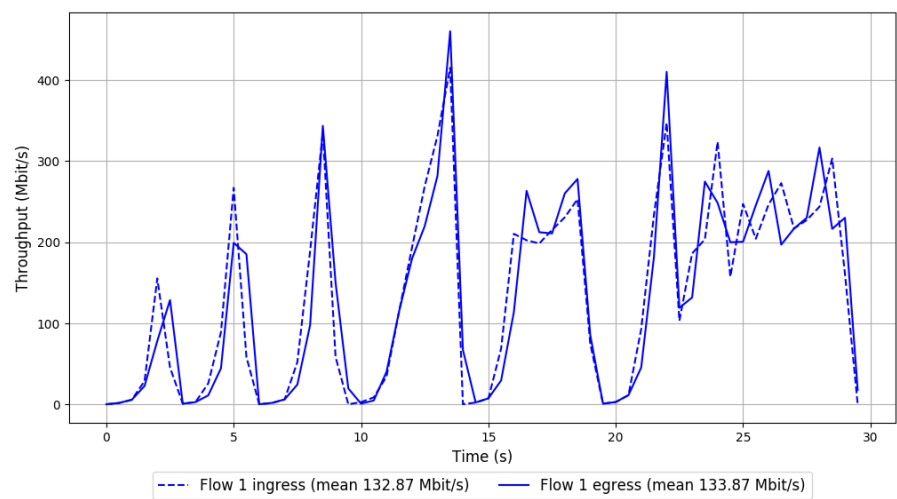
-- Flow 1:

Average throughput: 133.87 Mbit/s

95th percentile per-packet one-way delay: 155.210 ms

Loss rate: 0.01%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-19 19:58:33

End at: 2017-12-19 19:59:03

Below is generated by plot.py at 2017-12-19 23:48:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 265.11 Mbit/s

95th percentile per-packet one-way delay: 179.199 ms

Loss rate: 1.79%

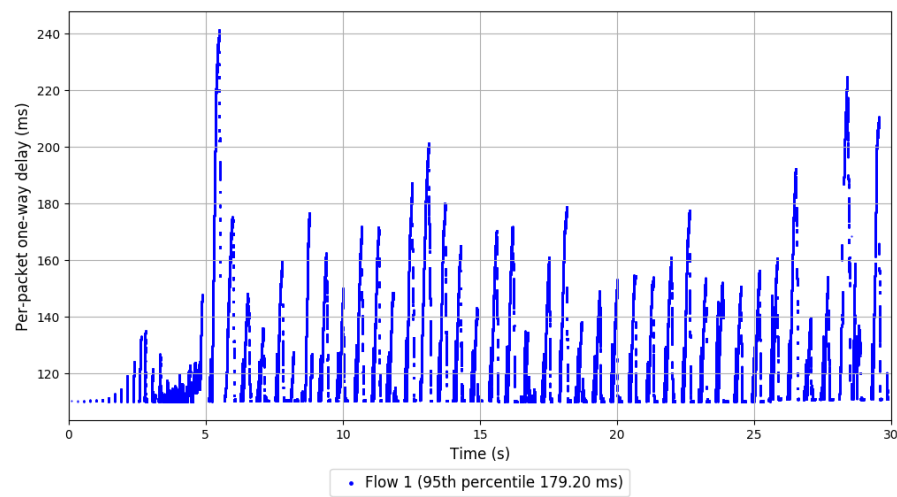
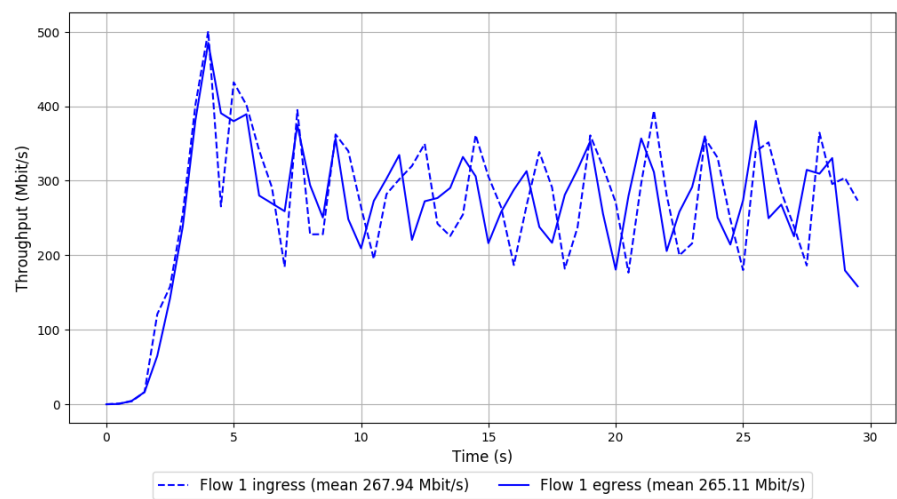
-- Flow 1:

Average throughput: 265.11 Mbit/s

95th percentile per-packet one-way delay: 179.199 ms

Loss rate: 1.79%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-19 20:11:06

End at: 2017-12-19 20:11:36

Below is generated by plot.py at 2017-12-19 23:49:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 261.68 Mbit/s

95th percentile per-packet one-way delay: 281.382 ms

Loss rate: 6.96%

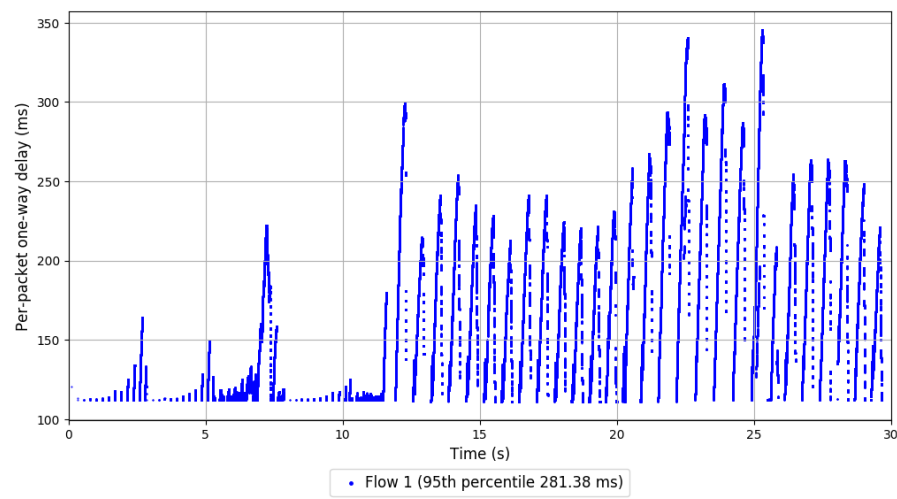
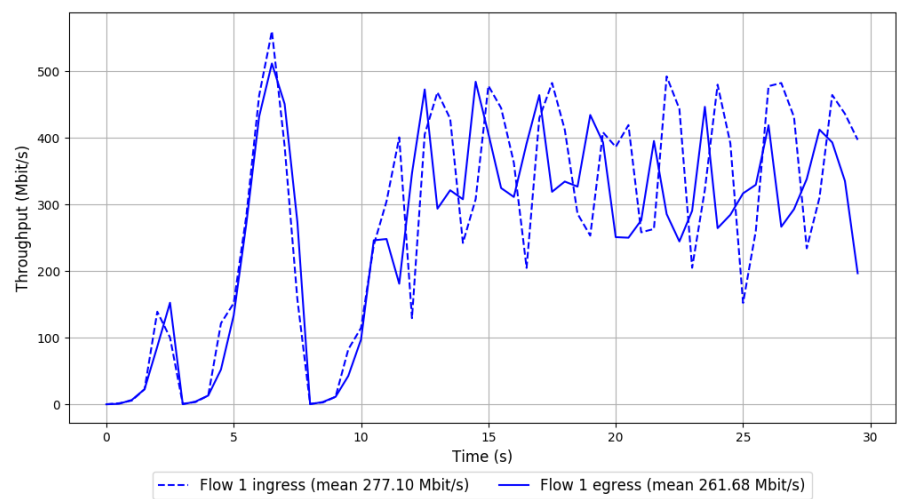
-- Flow 1:

Average throughput: 261.68 Mbit/s

95th percentile per-packet one-way delay: 281.382 ms

Loss rate: 6.96%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-19 20:23:39

End at: 2017-12-19 20:24:09

Below is generated by plot.py at 2017-12-19 23:49:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 206.76 Mbit/s

95th percentile per-packet one-way delay: 160.983 ms

Loss rate: 0.98%

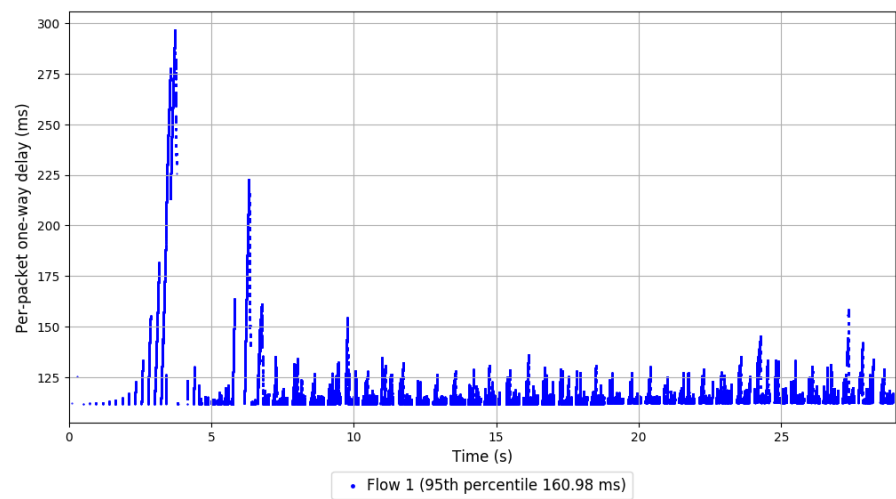
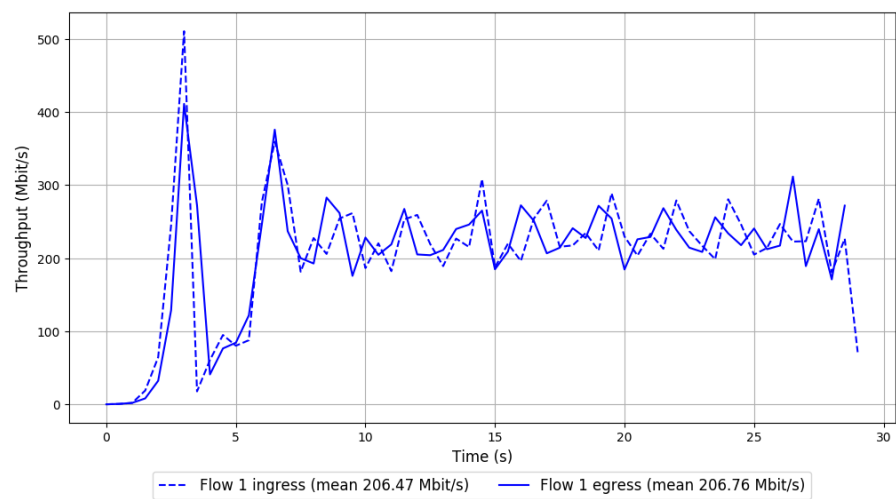
-- Flow 1:

Average throughput: 206.76 Mbit/s

95th percentile per-packet one-way delay: 160.983 ms

Loss rate: 0.98%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-19 20:36:04

End at: 2017-12-19 20:36:34

Below is generated by plot.py at 2017-12-19 23:49:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 130.66 Mbit/s

95th percentile per-packet one-way delay: 221.025 ms

Loss rate: 2.85%

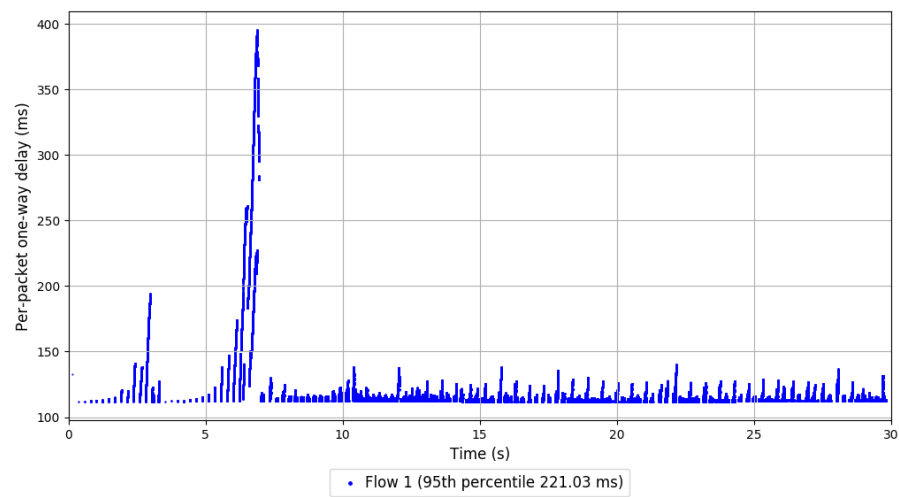
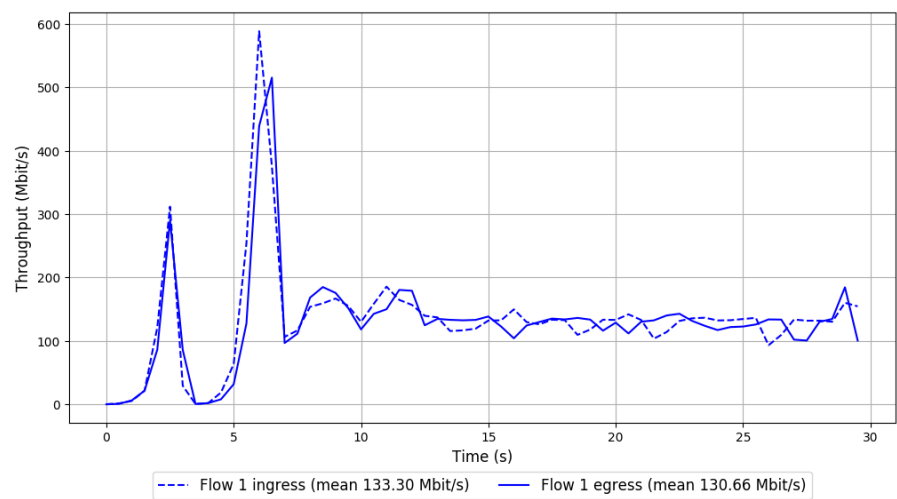
-- Flow 1:

Average throughput: 130.66 Mbit/s

95th percentile per-packet one-way delay: 221.025 ms

Loss rate: 2.85%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-19 20:48:23

End at: 2017-12-19 20:48:53

Below is generated by plot.py at 2017-12-19 23:49:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 128.07 Mbit/s

95th percentile per-packet one-way delay: 212.432 ms

Loss rate: 4.58%

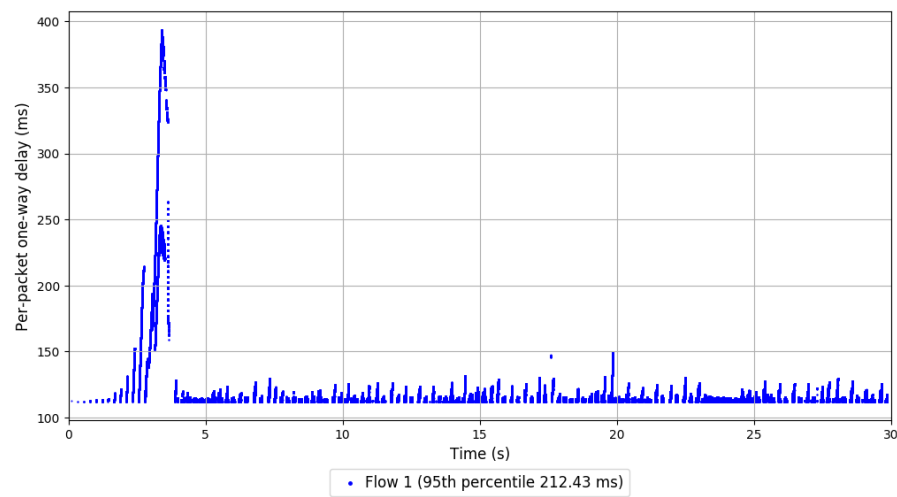
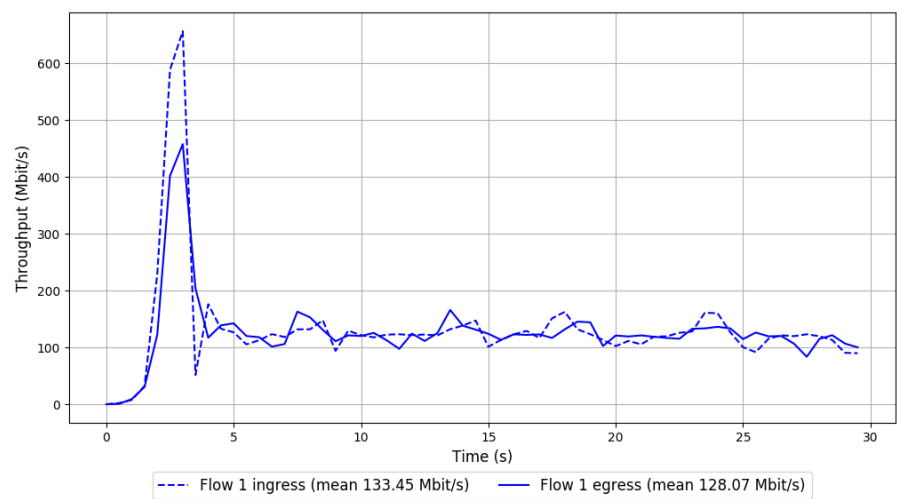
-- Flow 1:

Average throughput: 128.07 Mbit/s

95th percentile per-packet one-way delay: 212.432 ms

Loss rate: 4.58%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-19 21:00:40

End at: 2017-12-19 21:01:10

Below is generated by plot.py at 2017-12-19 23:50:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.06 Mbit/s

95th percentile per-packet one-way delay: 160.023 ms

Loss rate: 0.56%

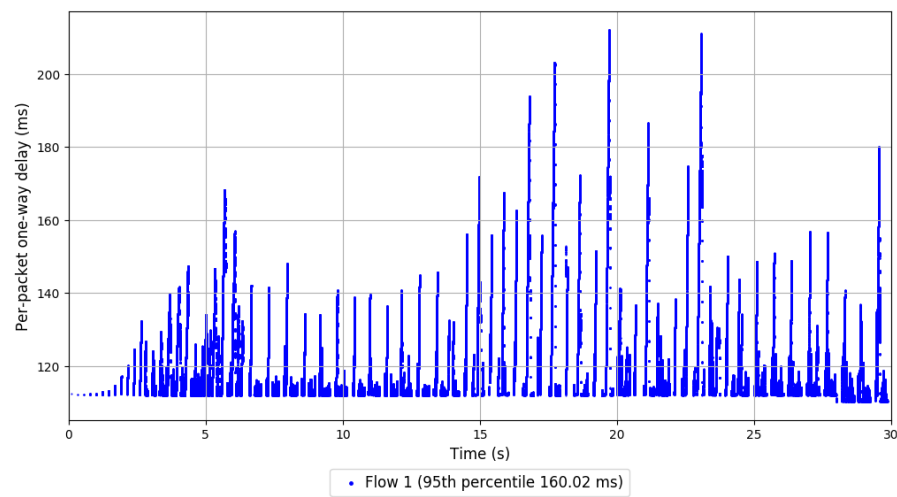
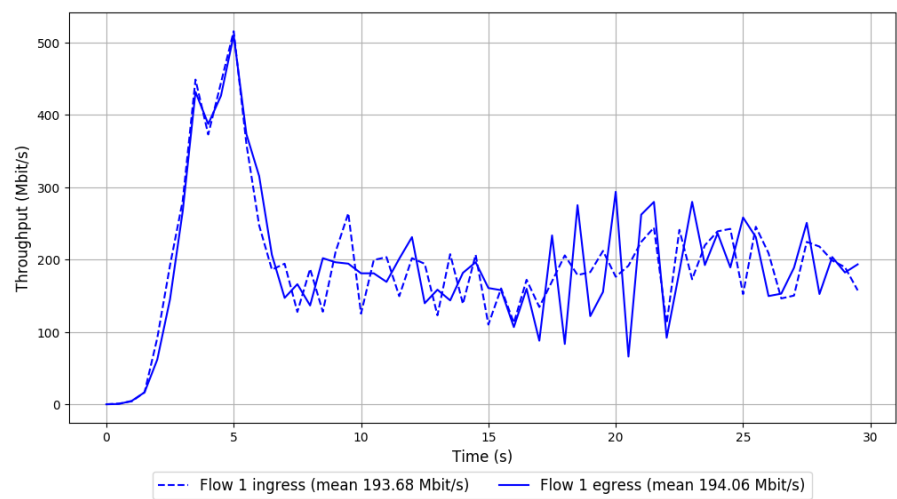
-- Flow 1:

Average throughput: 194.06 Mbit/s

95th percentile per-packet one-way delay: 160.023 ms

Loss rate: 0.56%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-19 21:13:03

End at: 2017-12-19 21:13:33

Below is generated by plot.py at 2017-12-19 23:50:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.19 Mbit/s

95th percentile per-packet one-way delay: 130.062 ms

Loss rate: 0.50%

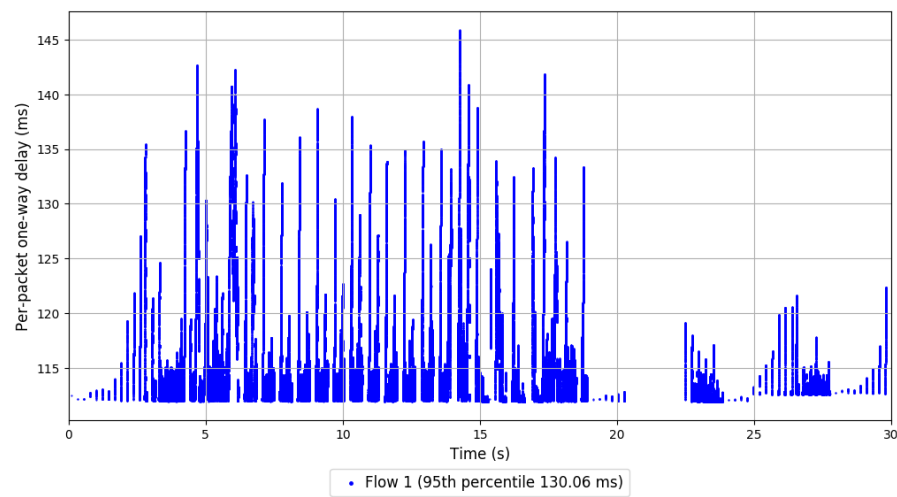
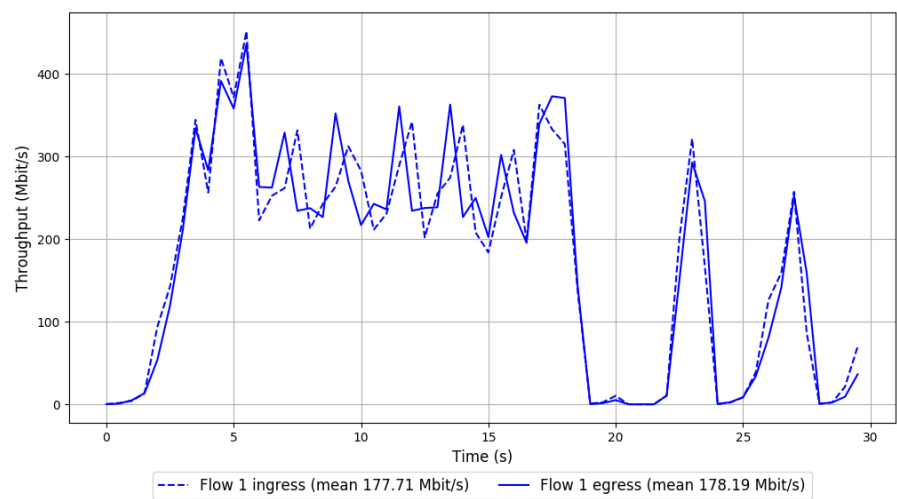
-- Flow 1:

Average throughput: 178.19 Mbit/s

95th percentile per-packet one-way delay: 130.062 ms

Loss rate: 0.50%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-19 19:18:26

End at: 2017-12-19 19:18:56

Below is generated by plot.py at 2017-12-19 23:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.22 Mbit/s

95th percentile per-packet one-way delay: 111.926 ms

Loss rate: 0.85%

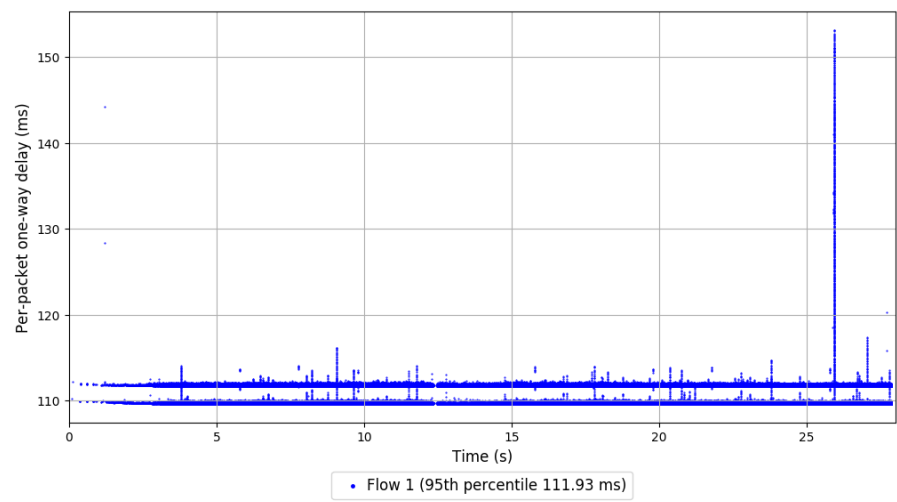
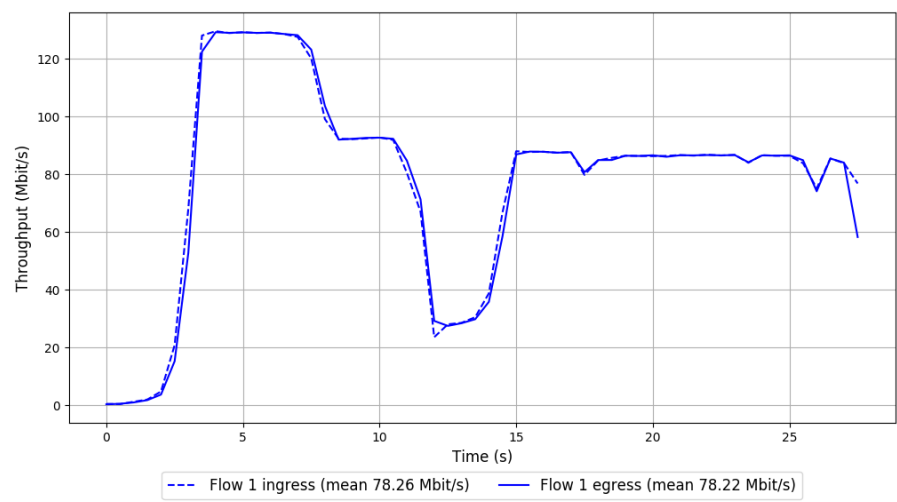
-- Flow 1:

Average throughput: 78.22 Mbit/s

95th percentile per-packet one-way delay: 111.926 ms

Loss rate: 0.85%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

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

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

Below is generated by plot.py at 2017-12-19 23:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.61 Mbit/s

95th percentile per-packet one-way delay: 111.907 ms

Loss rate: 0.19%

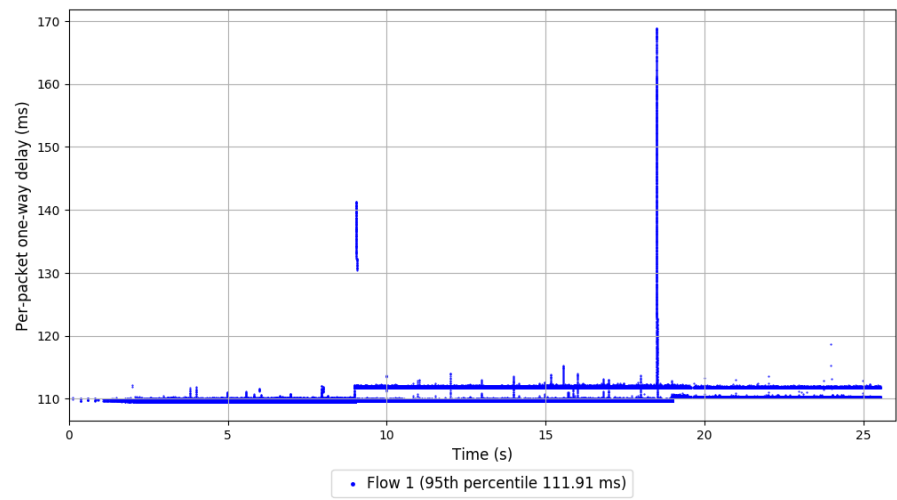
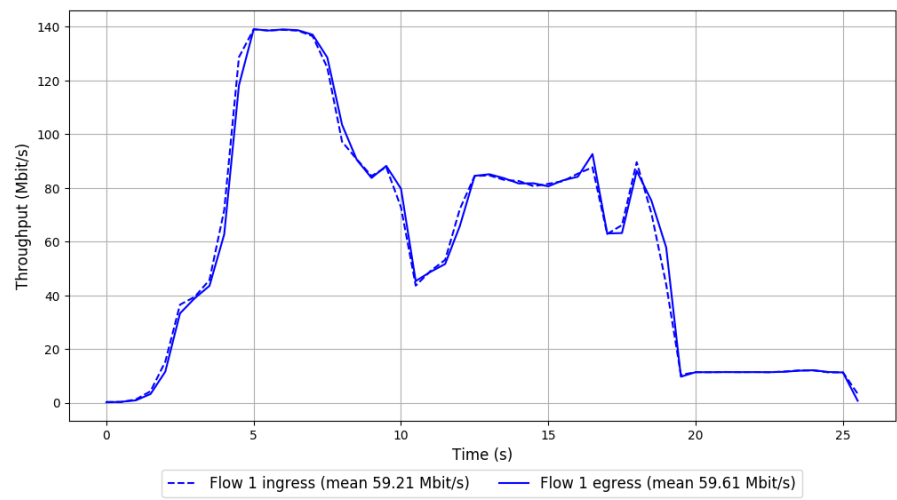
-- Flow 1:

Average throughput: 59.61 Mbit/s

95th percentile per-packet one-way delay: 111.907 ms

Loss rate: 0.19%

Run 2: Report of Copa — Data Link

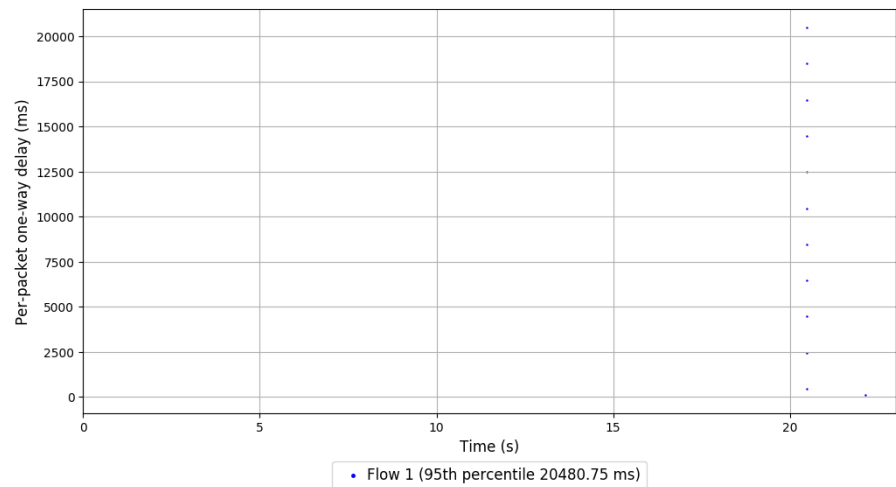
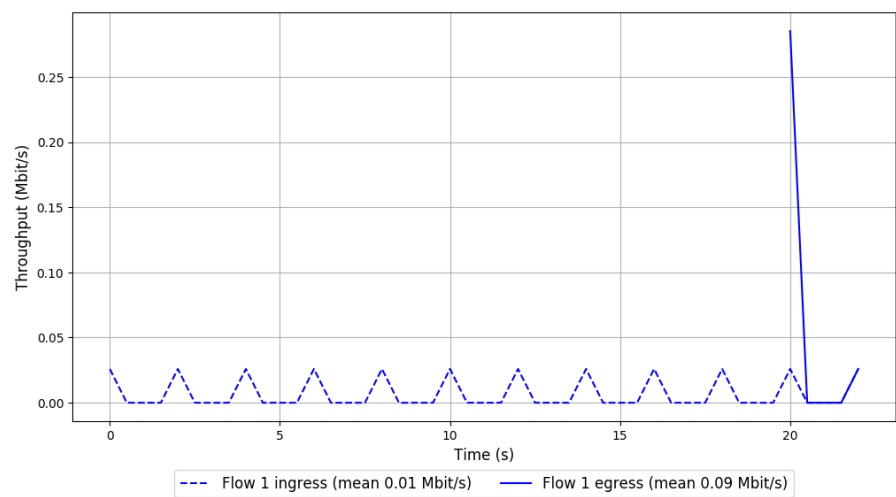


Run 3: Statistics of Copa

Start at: 2017-12-19 19:43:35

End at: 2017-12-19 19:44:05

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-19 19:55:58

End at: 2017-12-19 19:56:28

Below is generated by plot.py at 2017-12-19 23:50:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.53 Mbit/s

95th percentile per-packet one-way delay: 111.774 ms

Loss rate: 1.00%

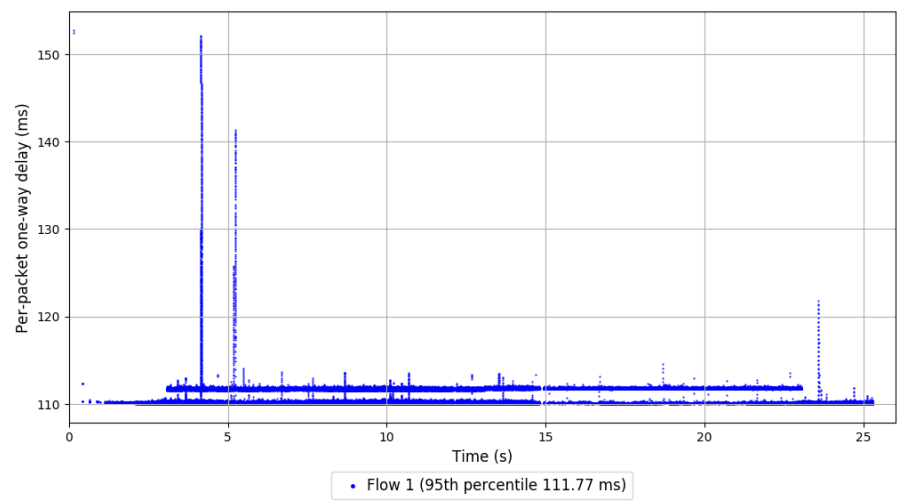
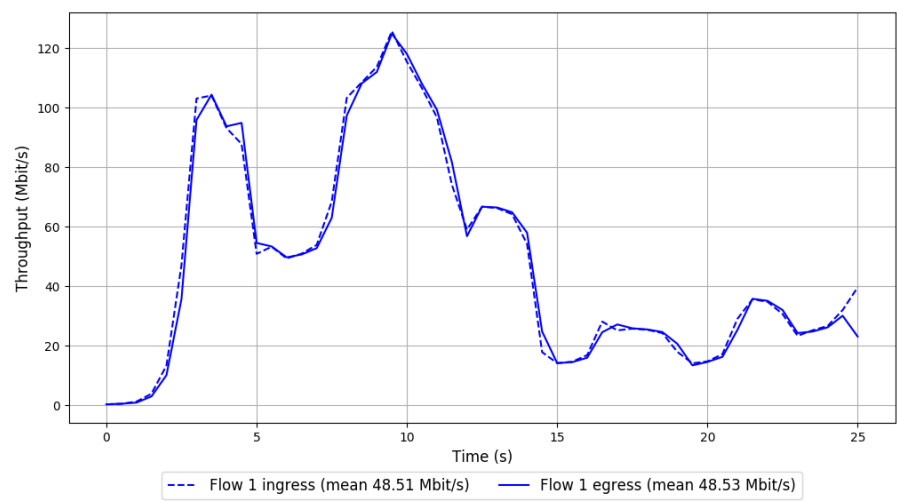
-- Flow 1:

Average throughput: 48.53 Mbit/s

95th percentile per-packet one-way delay: 111.774 ms

Loss rate: 1.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-19 20:08:28

End at: 2017-12-19 20:08:58

Below is generated by plot.py at 2017-12-19 23:51:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.76 Mbit/s

95th percentile per-packet one-way delay: 112.546 ms

Loss rate: 0.86%

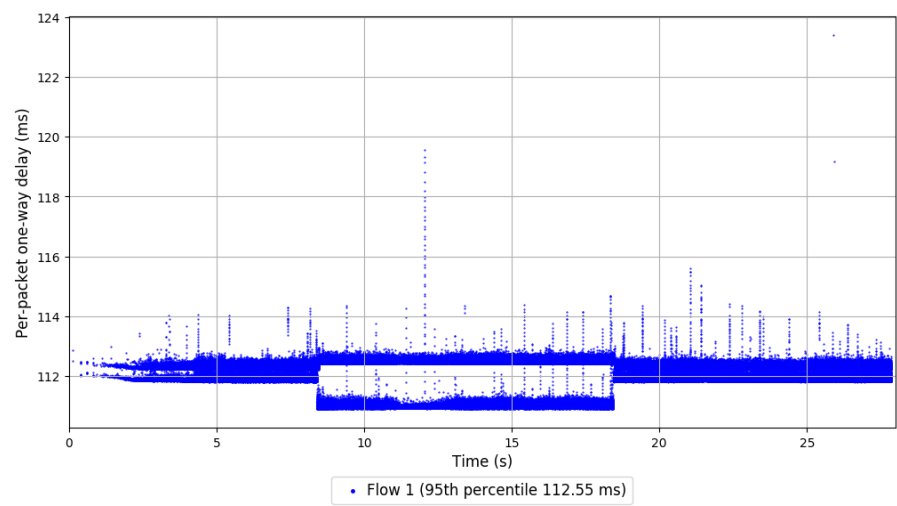
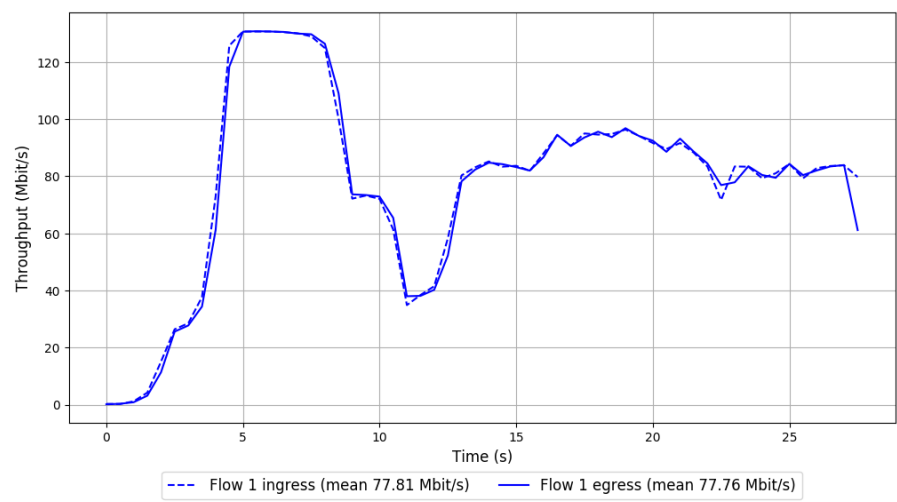
-- Flow 1:

Average throughput: 77.76 Mbit/s

95th percentile per-packet one-way delay: 112.546 ms

Loss rate: 0.86%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-19 20:21:06

End at: 2017-12-19 20:21:36

Below is generated by plot.py at 2017-12-19 23:51:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.90 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 0.79%

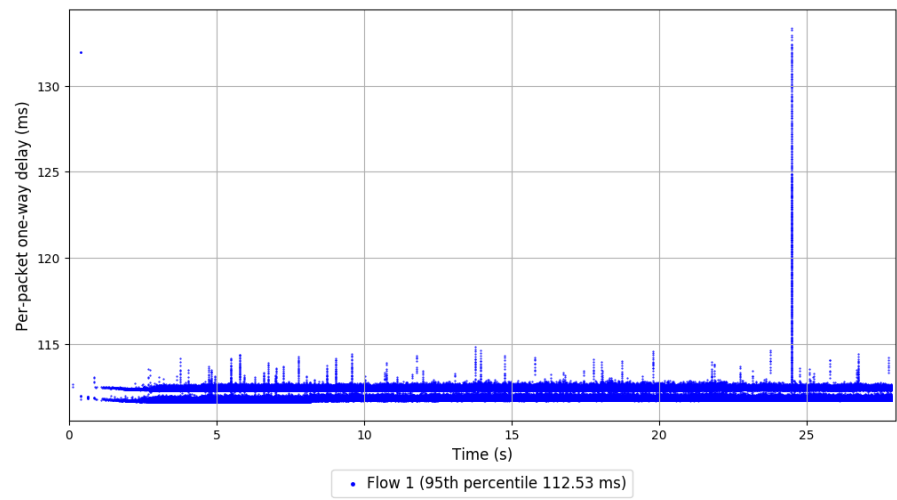
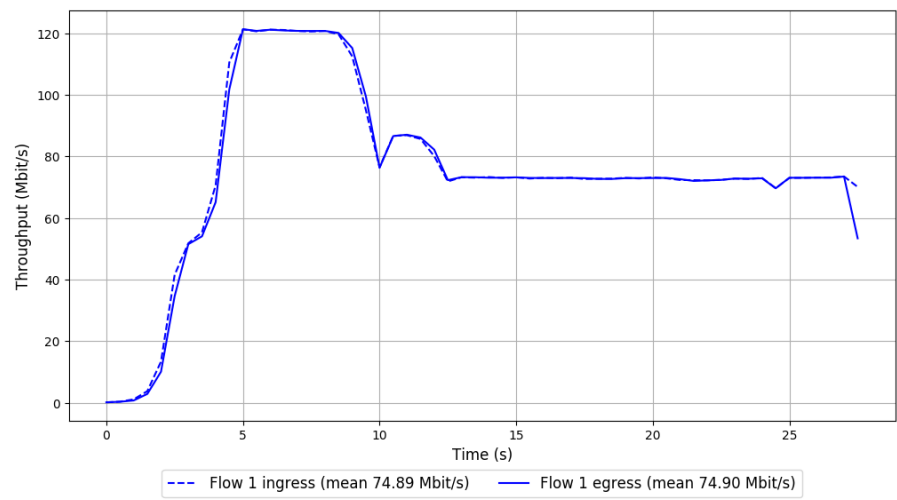
-- Flow 1:

Average throughput: 74.90 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 0.79%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-19 20:33:28

End at: 2017-12-19 20:33:58

Below is generated by plot.py at 2017-12-19 23:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.90 Mbit/s

95th percentile per-packet one-way delay: 112.587 ms

Loss rate: 0.93%

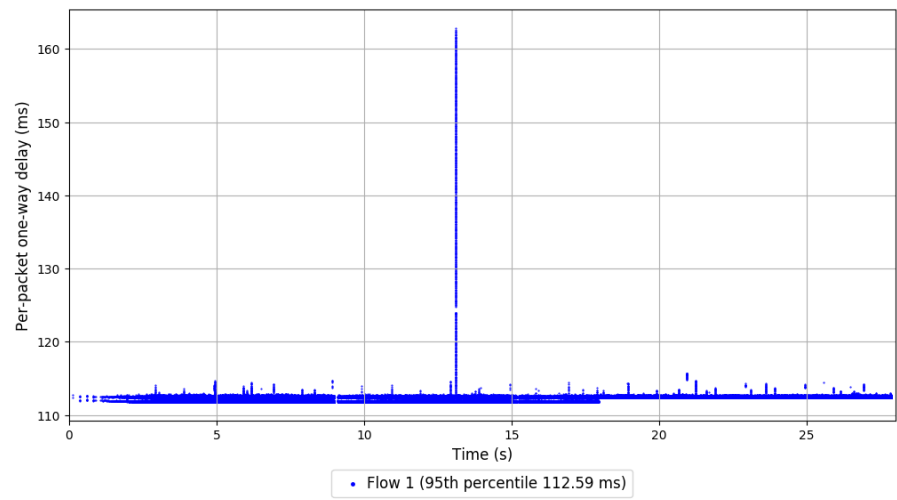
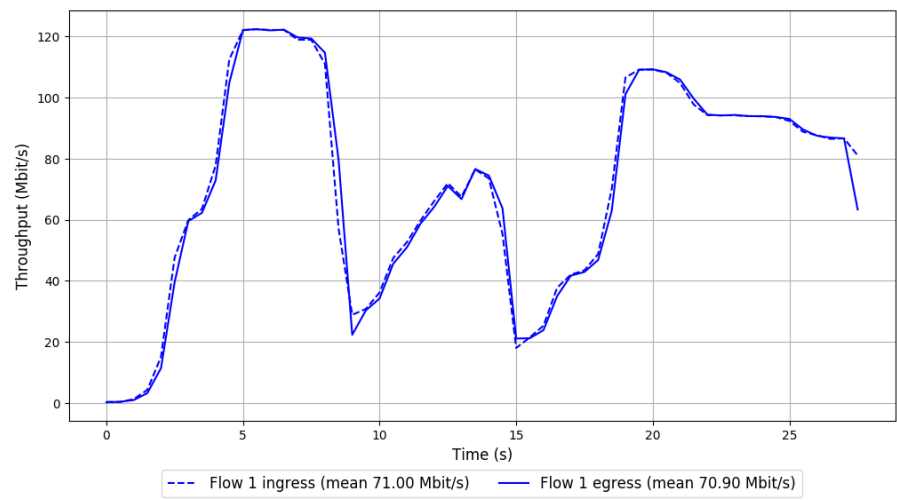
-- Flow 1:

Average throughput: 70.90 Mbit/s

95th percentile per-packet one-way delay: 112.587 ms

Loss rate: 0.93%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-19 20:45:48

End at: 2017-12-19 20:46:19

Below is generated by plot.py at 2017-12-19 23:51:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.70 Mbit/s

95th percentile per-packet one-way delay: 112.509 ms

Loss rate: 0.55%

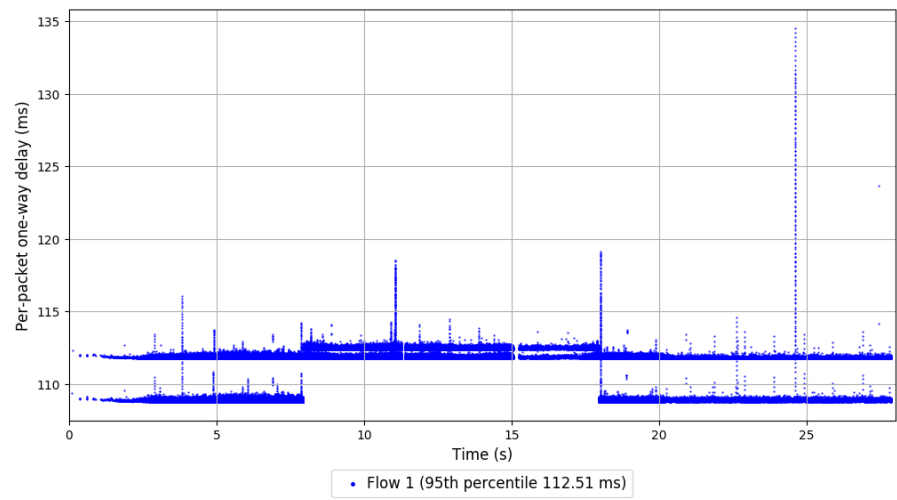
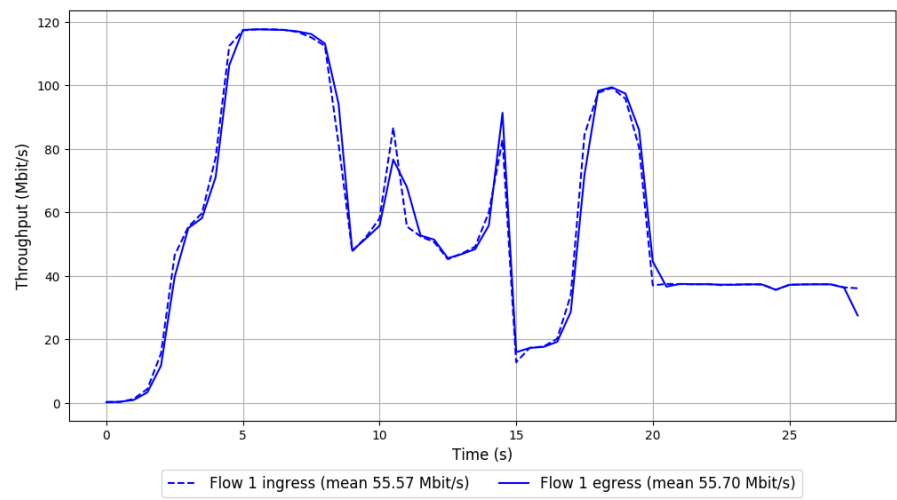
-- Flow 1:

Average throughput: 55.70 Mbit/s

95th percentile per-packet one-way delay: 112.509 ms

Loss rate: 0.55%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-19 20:58:05

End at: 2017-12-19 20:58:35

Below is generated by plot.py at 2017-12-19 23:52:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.91 Mbit/s

95th percentile per-packet one-way delay: 112.129 ms

Loss rate: 0.38%

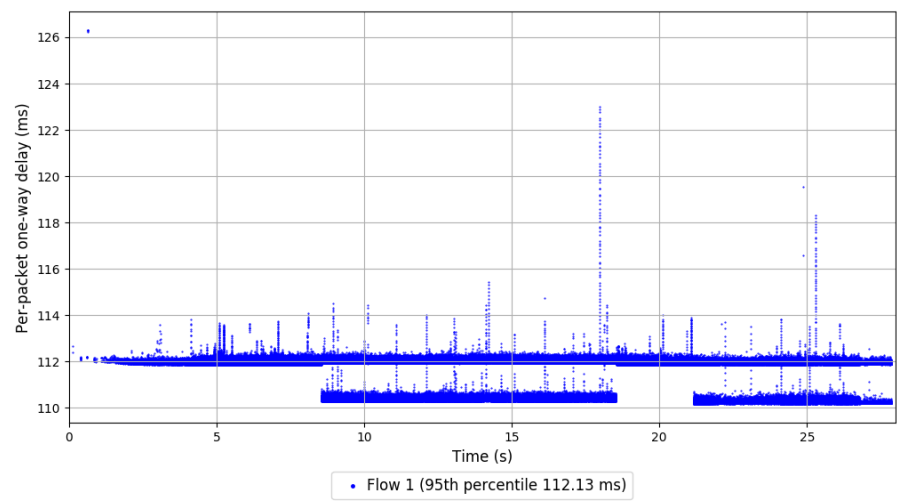
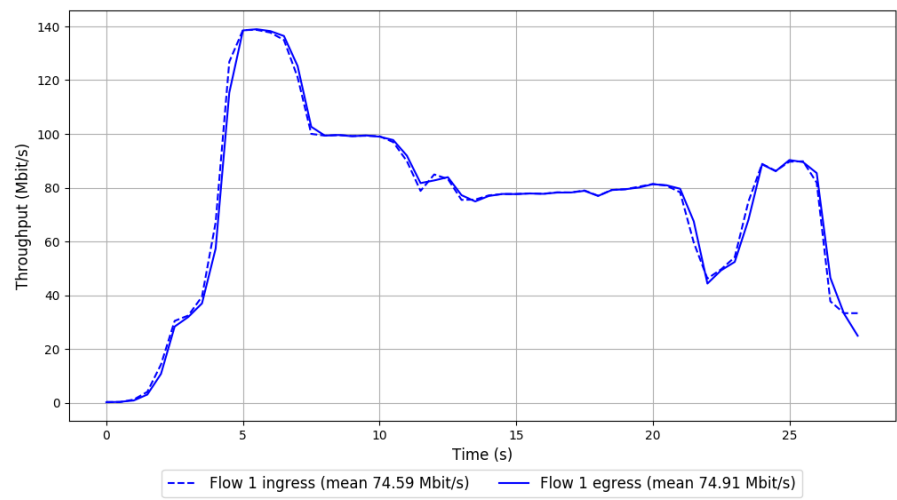
-- Flow 1:

Average throughput: 74.91 Mbit/s

95th percentile per-packet one-way delay: 112.129 ms

Loss rate: 0.38%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-19 21:10:28

End at: 2017-12-19 21:10:58

Below is generated by plot.py at 2017-12-19 23:52:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.05 Mbit/s

95th percentile per-packet one-way delay: 112.753 ms

Loss rate: 0.87%

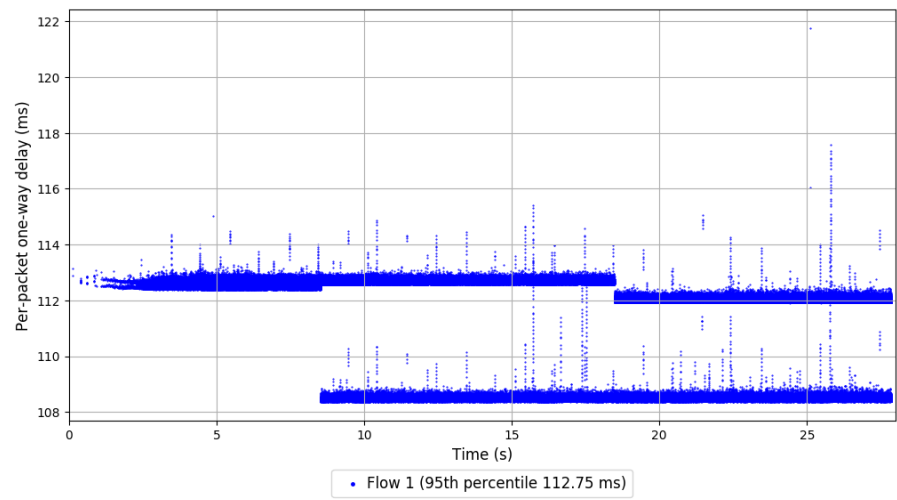
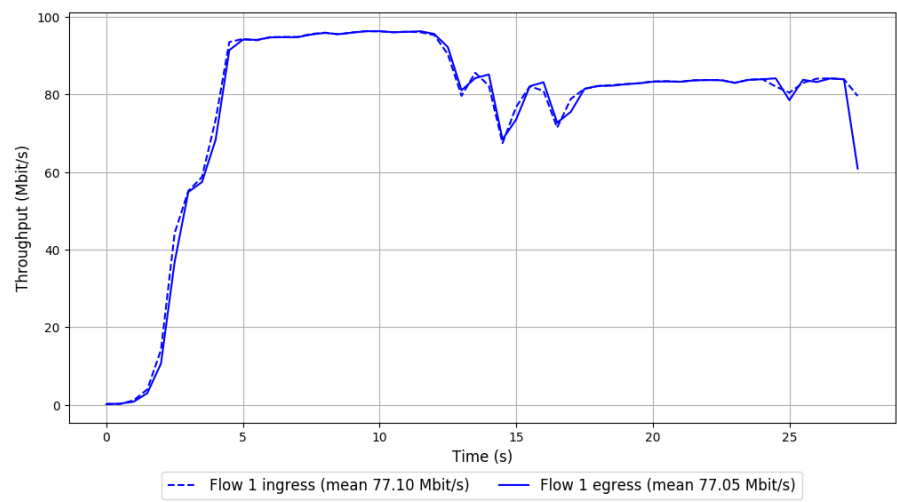
-- Flow 1:

Average throughput: 77.05 Mbit/s

95th percentile per-packet one-way delay: 112.753 ms

Loss rate: 0.87%

Run 10: Report of Copa — Data Link

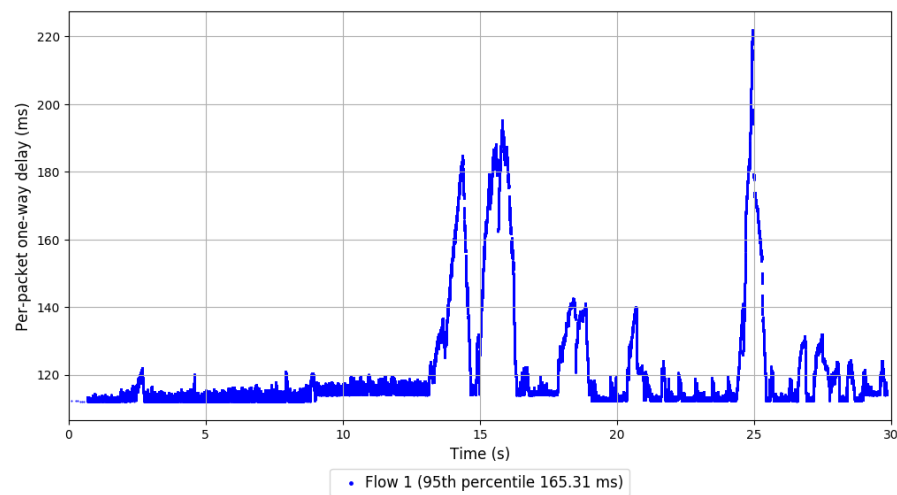
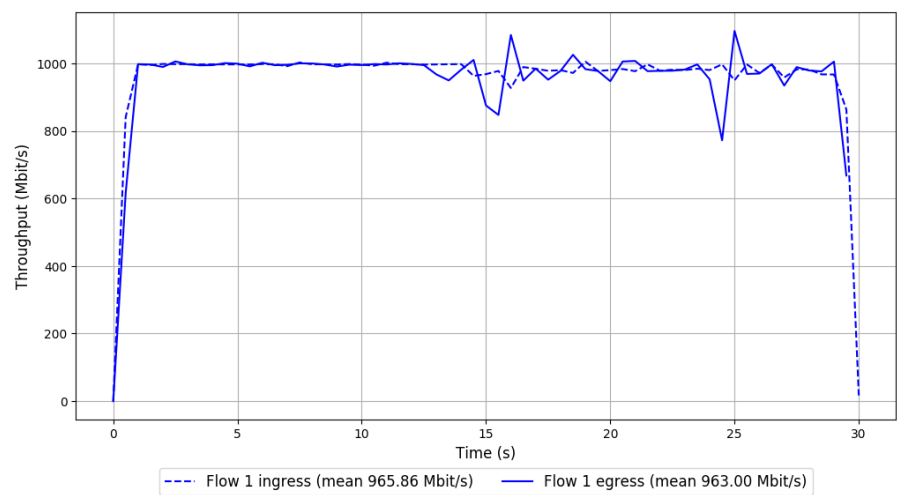


```
Run 1: Statistics of FillP

Start at: 2017-12-19 19:14:29
End at: 2017-12-19 19:14:59

# Below is generated by plot.py at 2017-12-20 00:08:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 963.00 Mbit/s
95th percentile per-packet one-way delay: 165.309 ms
Loss rate: 1.19%
-- Flow 1:
Average throughput: 963.00 Mbit/s
95th percentile per-packet one-way delay: 165.309 ms
Loss rate: 1.19%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-19 19:26:57

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

Below is generated by plot.py at 2017-12-20 00:09:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 977.72 Mbit/s

95th percentile per-packet one-way delay: 118.046 ms

Loss rate: 0.77%

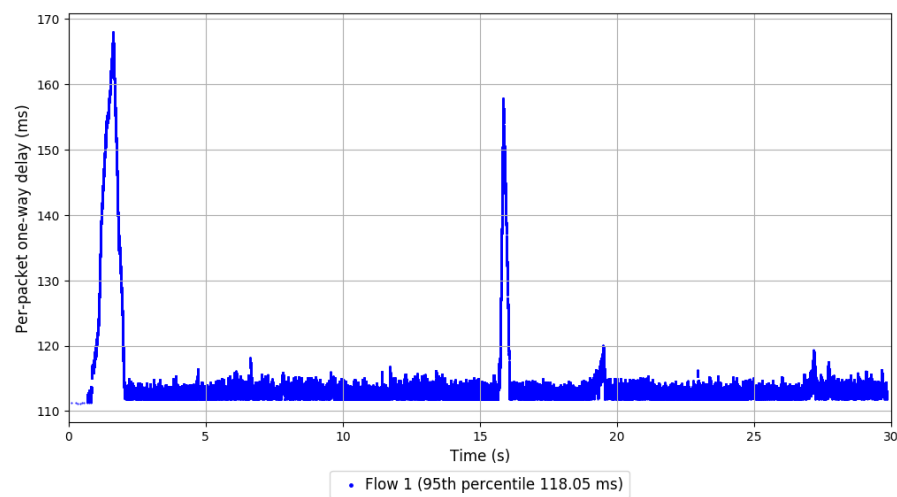
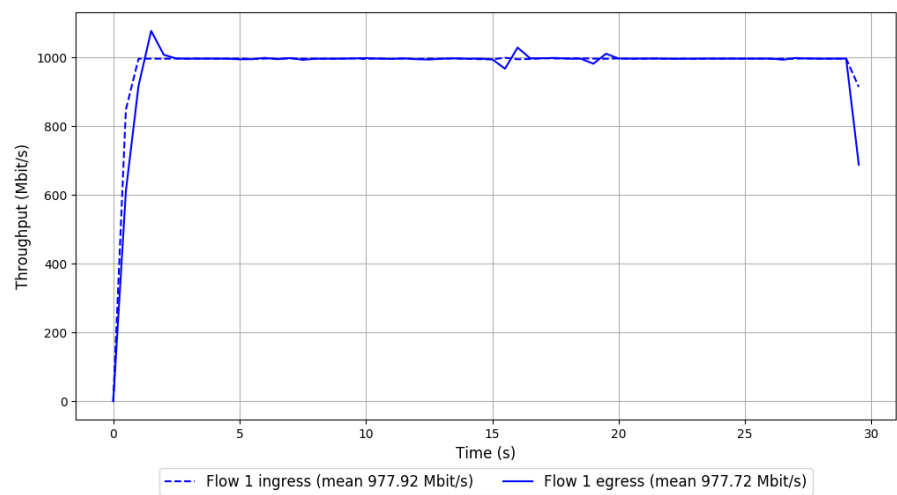
-- Flow 1:

Average throughput: 977.72 Mbit/s

95th percentile per-packet one-way delay: 118.046 ms

Loss rate: 0.77%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2017-12-19 19:39:33

End at: 2017-12-19 19:40:03

Below is generated by plot.py at 2017-12-20 00:09:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 920.57 Mbit/s

95th percentile per-packet one-way delay: 182.022 ms

Loss rate: 3.62%

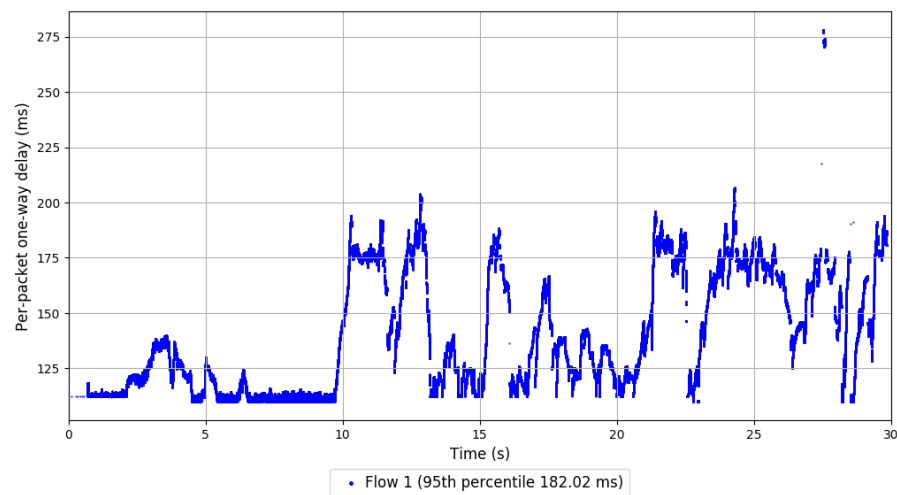
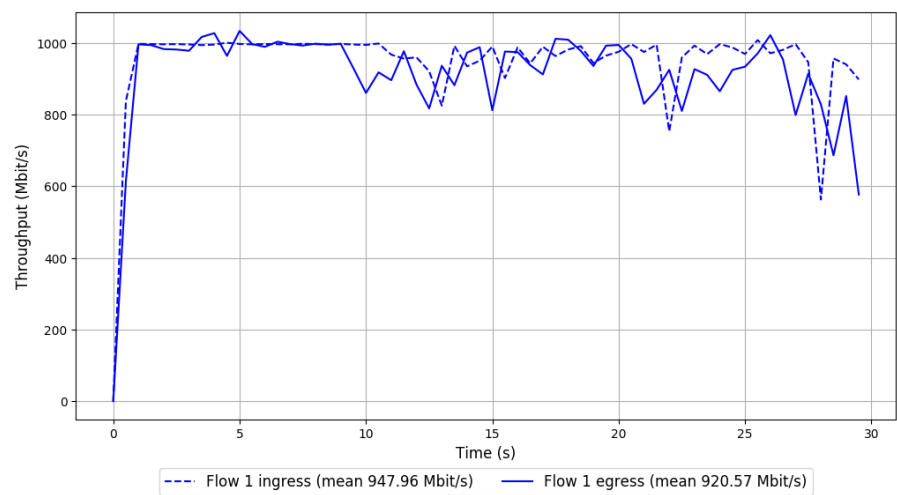
-- Flow 1:

Average throughput: 920.57 Mbit/s

95th percentile per-packet one-way delay: 182.022 ms

Loss rate: 3.62%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

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

End at: 2017-12-19 19:52:31

Below is generated by plot.py at 2017-12-20 00:09:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 964.62 Mbit/s

95th percentile per-packet one-way delay: 121.467 ms

Loss rate: 0.84%

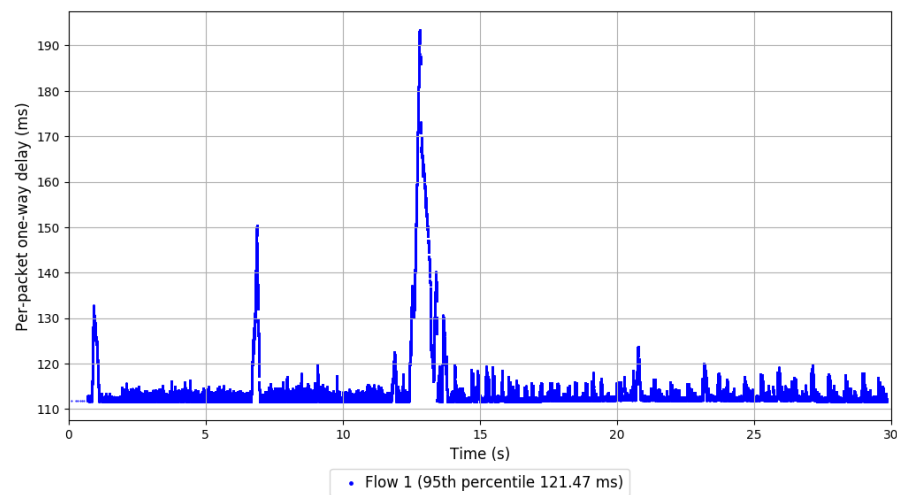
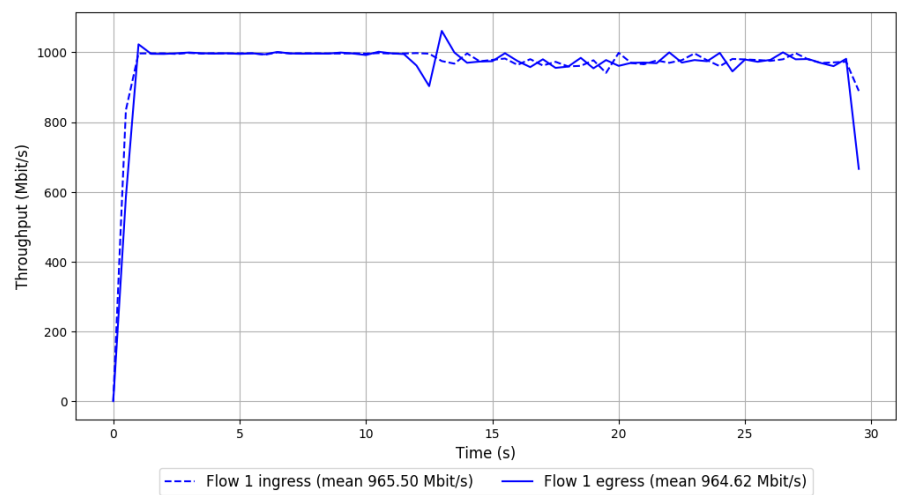
-- Flow 1:

Average throughput: 964.62 Mbit/s

95th percentile per-packet one-way delay: 121.467 ms

Loss rate: 0.84%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2017-12-19 20:04:47

End at: 2017-12-19 20:05:17

Below is generated by plot.py at 2017-12-20 00:09:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 951.13 Mbit/s

95th percentile per-packet one-way delay: 175.109 ms

Loss rate: 1.85%

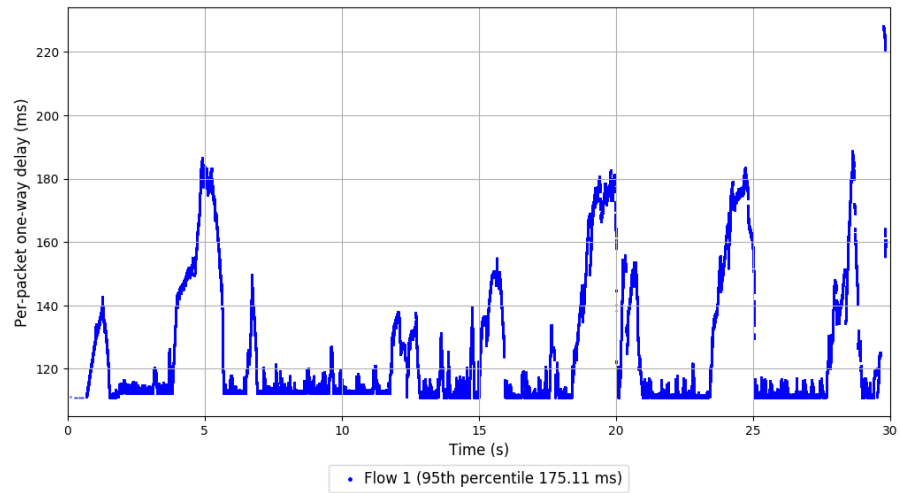
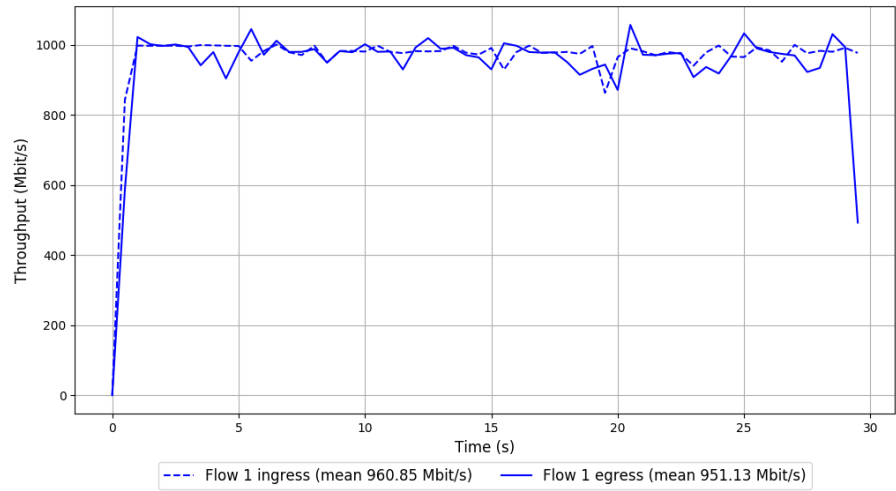
-- Flow 1:

Average throughput: 951.13 Mbit/s

95th percentile per-packet one-way delay: 175.109 ms

Loss rate: 1.85%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-19 20:17:20

End at: 2017-12-19 20:17:50

Below is generated by plot.py at 2017-12-20 00:09:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 942.44 Mbit/s

95th percentile per-packet one-way delay: 179.876 ms

Loss rate: 2.27%

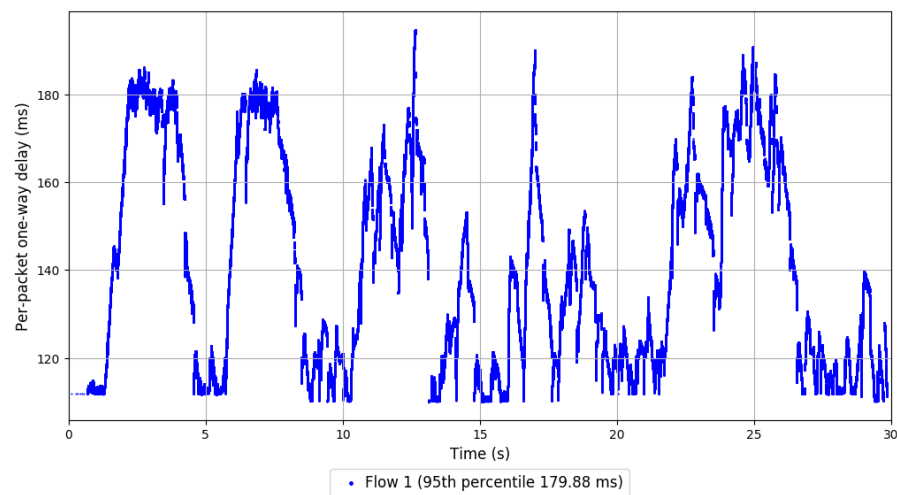
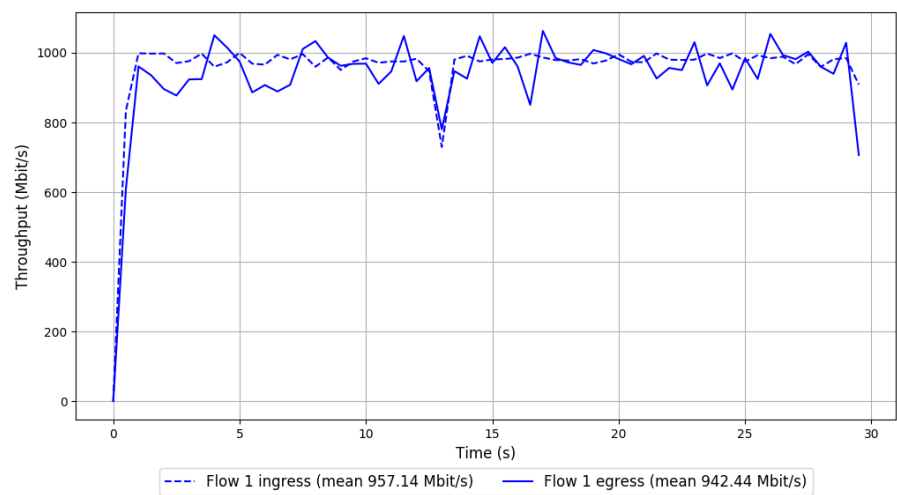
-- Flow 1:

Average throughput: 942.44 Mbit/s

95th percentile per-packet one-way delay: 179.876 ms

Loss rate: 2.27%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2017-12-19 20:29:48

End at: 2017-12-19 20:30:18

Below is generated by plot.py at 2017-12-20 00:10:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 942.96 Mbit/s

95th percentile per-packet one-way delay: 175.095 ms

Loss rate: 1.94%

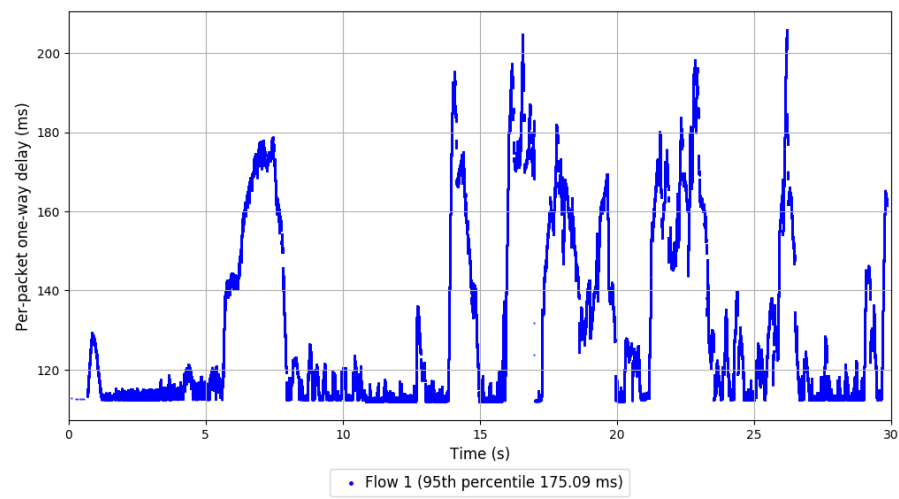
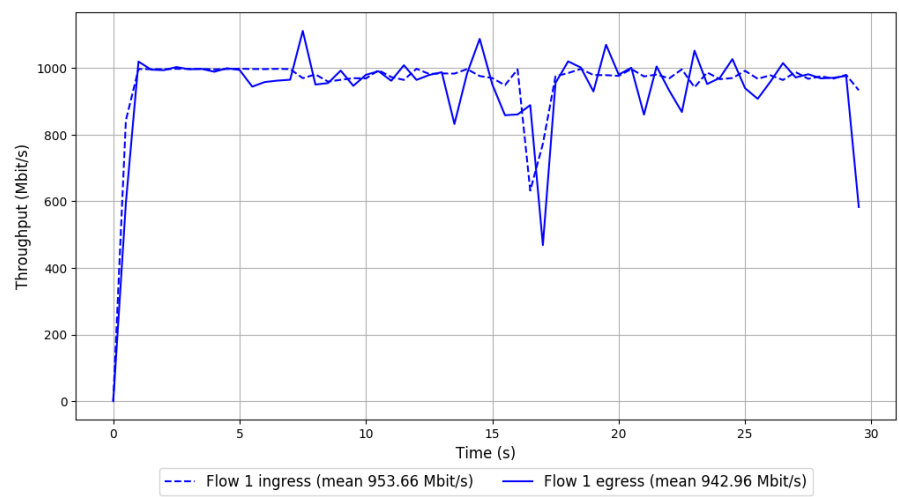
-- Flow 1:

Average throughput: 942.96 Mbit/s

95th percentile per-packet one-way delay: 175.095 ms

Loss rate: 1.94%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2017-12-19 20:42:07

End at: 2017-12-19 20:42:37

Below is generated by plot.py at 2017-12-20 00:10:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 921.22 Mbit/s

95th percentile per-packet one-way delay: 183.252 ms

Loss rate: 3.60%

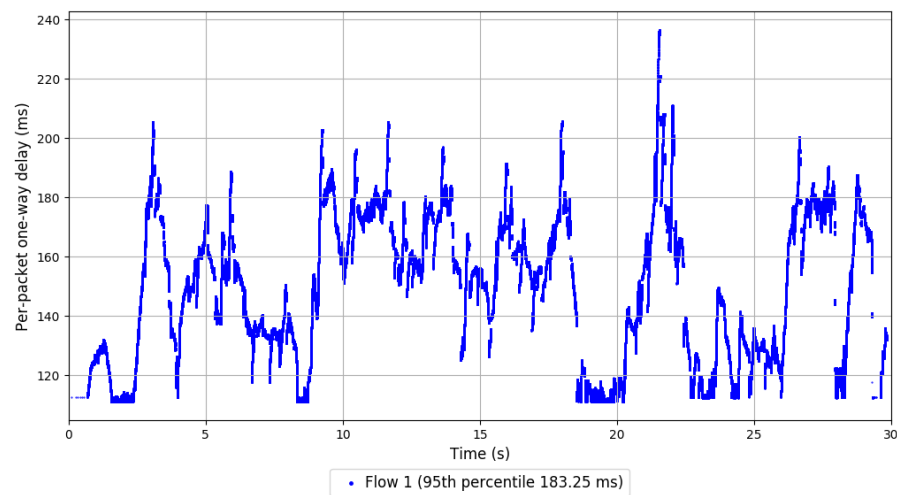
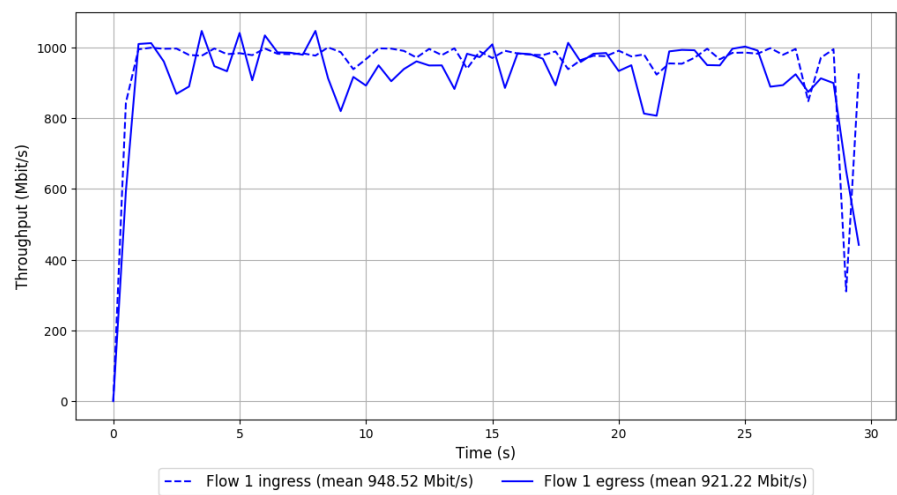
-- Flow 1:

Average throughput: 921.22 Mbit/s

95th percentile per-packet one-way delay: 183.252 ms

Loss rate: 3.60%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-19 20:54:24

End at: 2017-12-19 20:54:54

Below is generated by plot.py at 2017-12-20 00:16:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 931.15 Mbit/s

95th percentile per-packet one-way delay: 177.075 ms

Loss rate: 2.21%

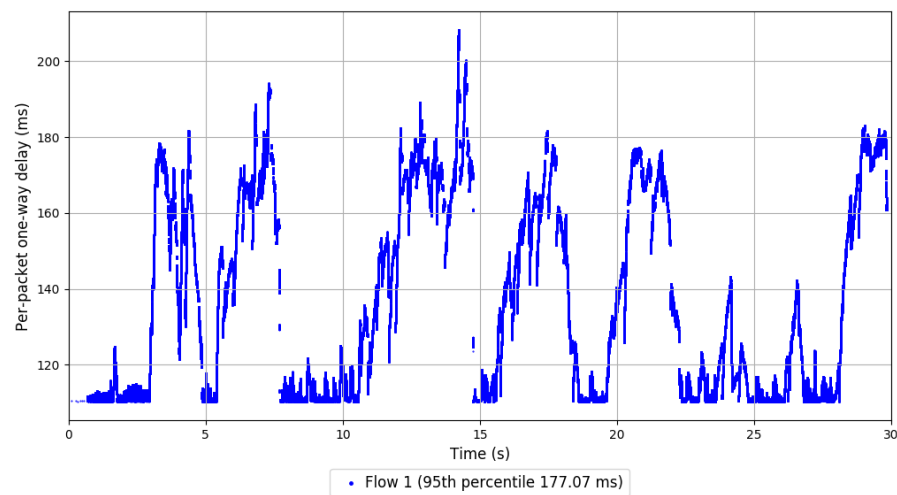
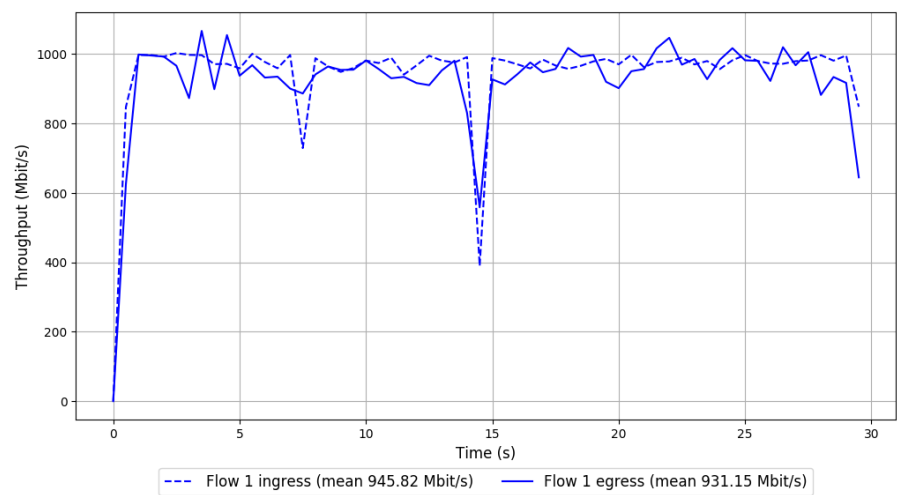
-- Flow 1:

Average throughput: 931.15 Mbit/s

95th percentile per-packet one-way delay: 177.075 ms

Loss rate: 2.21%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2017-12-19 21:06:48

End at: 2017-12-19 21:07:18

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 977.66 Mbit/s

95th percentile per-packet one-way delay: 129.154 ms

Loss rate: 0.77%

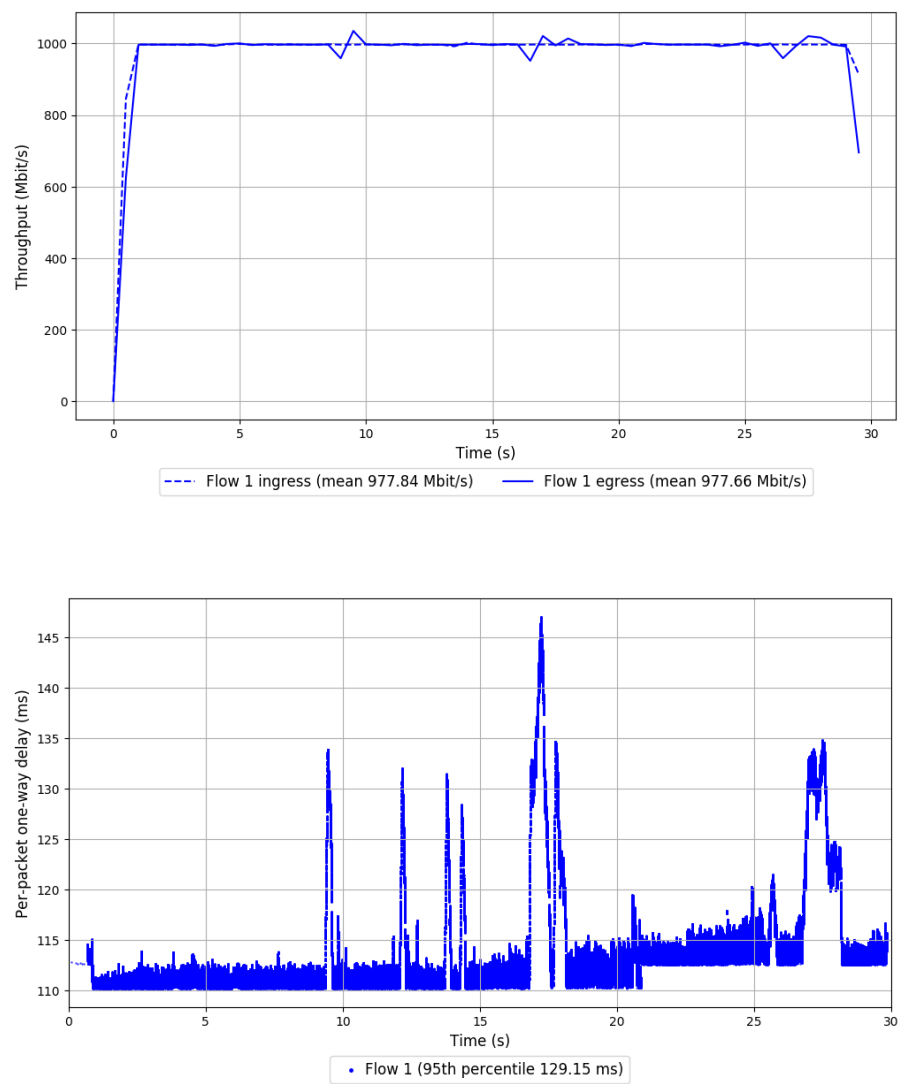
-- Flow 1:

Average throughput: 977.66 Mbit/s

95th percentile per-packet one-way delay: 129.154 ms

Loss rate: 0.77%

Run 10: Report of FillP — Data Link

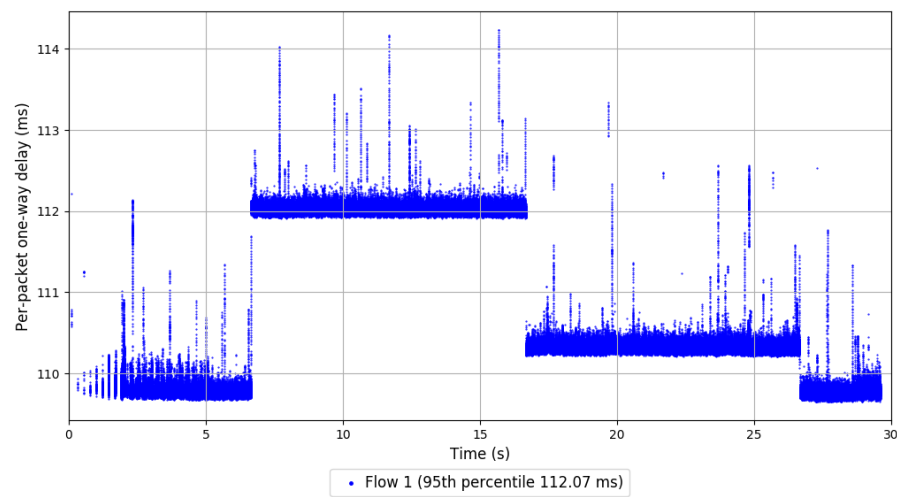
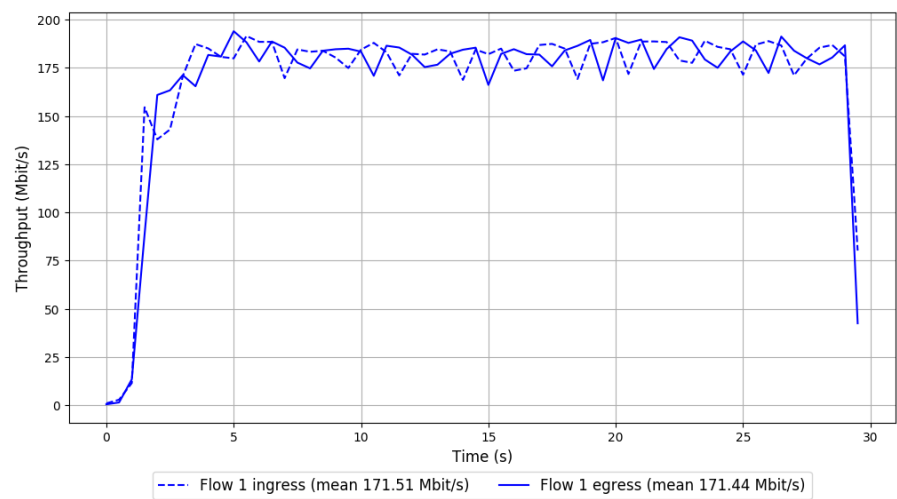


```
Run 1: Statistics of Indigo

Start at: 2017-12-19 19:17:31
End at: 2017-12-19 19:18:01

# Below is generated by plot.py at 2017-12-20 00:16:51
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.44 Mbit/s
95th percentile per-packet one-way delay: 112.071 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 171.44 Mbit/s
95th percentile per-packet one-way delay: 112.071 ms
Loss rate: 0.79%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-12-19 19:29:51

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

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 175.37 Mbit/s

95th percentile per-packet one-way delay: 110.290 ms

Loss rate: 0.79%

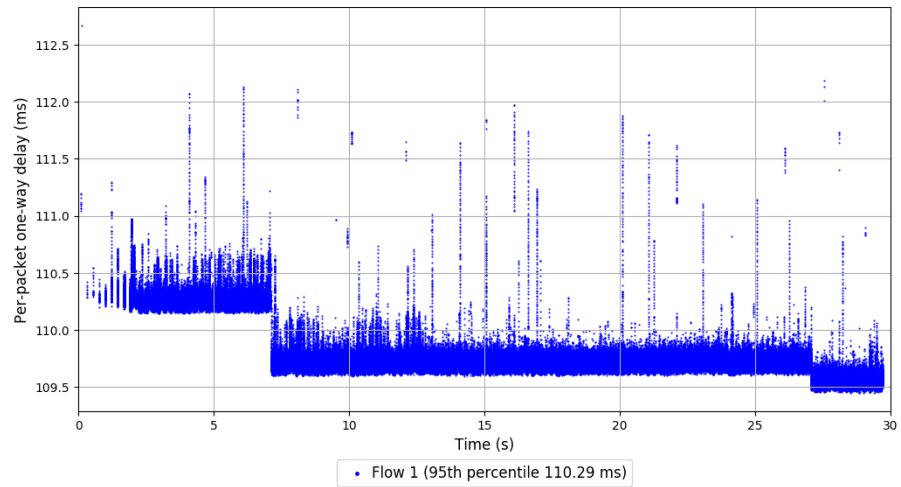
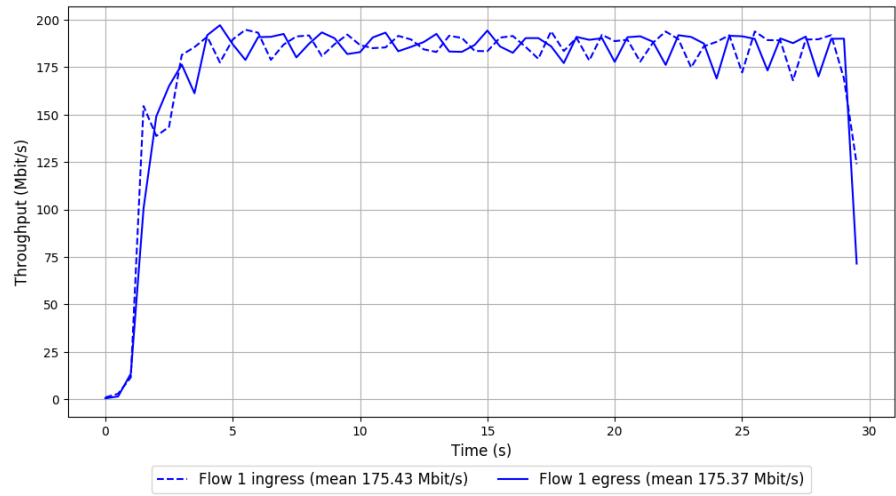
-- Flow 1:

Average throughput: 175.37 Mbit/s

95th percentile per-packet one-way delay: 110.290 ms

Loss rate: 0.79%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-19 19:42:41

End at: 2017-12-19 19:43:11

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 173.20 Mbit/s

95th percentile per-packet one-way delay: 110.483 ms

Loss rate: 0.77%

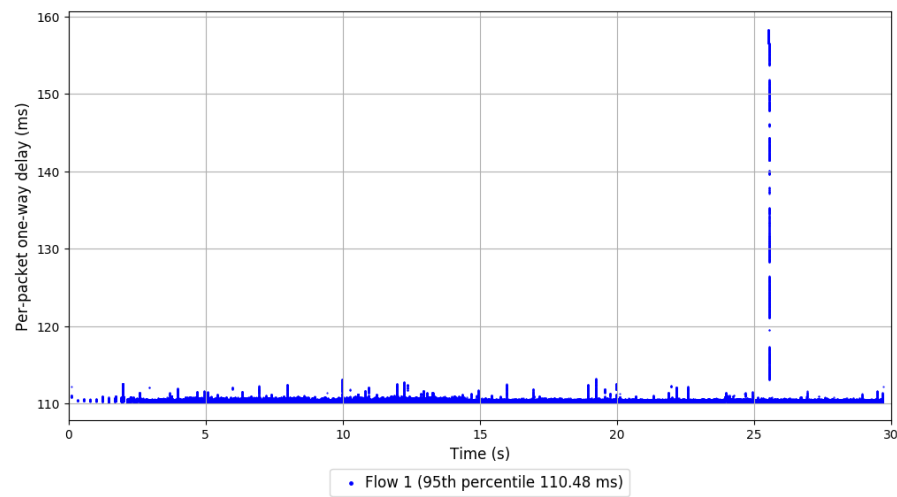
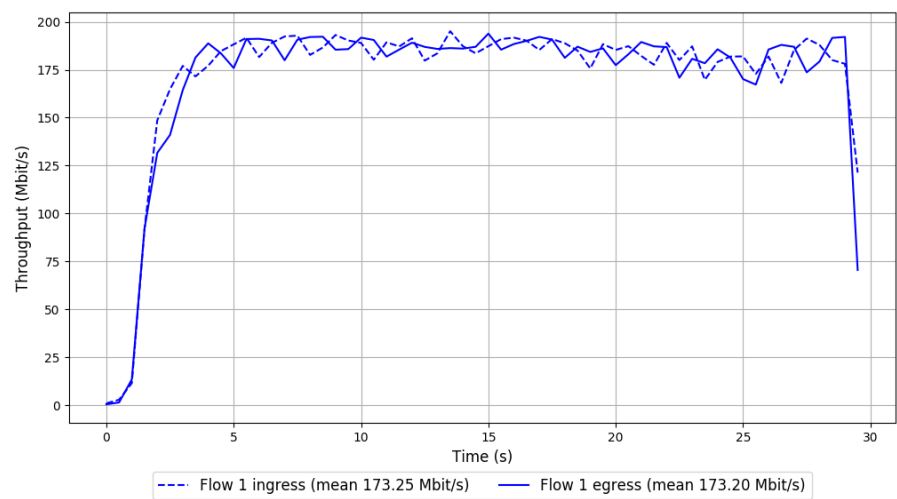
-- Flow 1:

Average throughput: 173.20 Mbit/s

95th percentile per-packet one-way delay: 110.483 ms

Loss rate: 0.77%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-19 19:55:04

End at: 2017-12-19 19:55:34

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.63 Mbit/s

95th percentile per-packet one-way delay: 110.960 ms

Loss rate: 0.85%

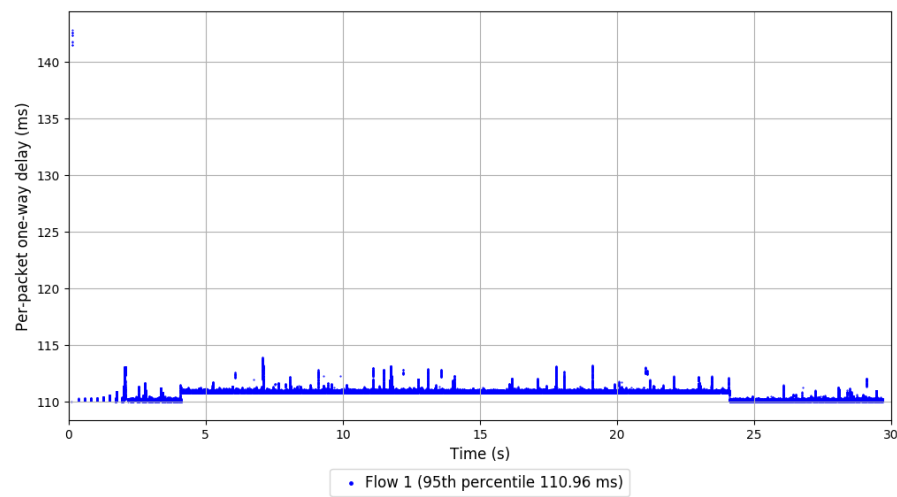
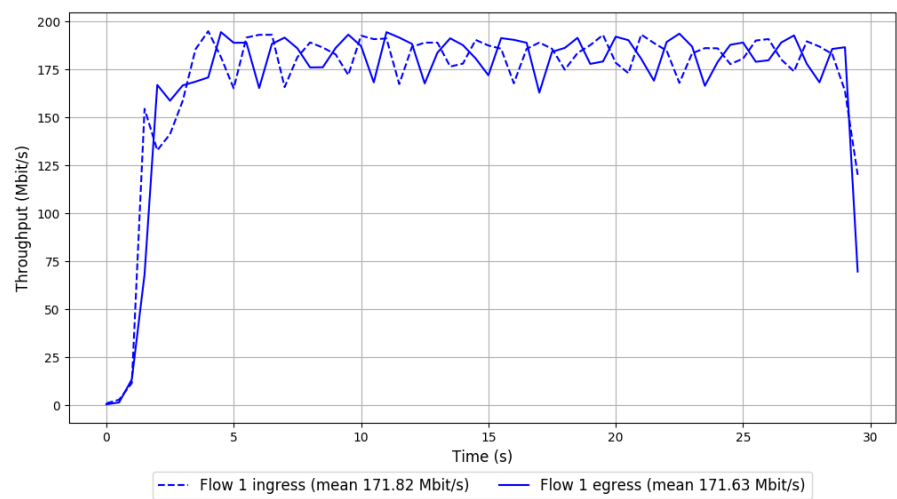
-- Flow 1:

Average throughput: 171.63 Mbit/s

95th percentile per-packet one-way delay: 110.960 ms

Loss rate: 0.85%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-19 20:07:34

End at: 2017-12-19 20:08:04

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 172.00 Mbit/s

95th percentile per-packet one-way delay: 111.966 ms

Loss rate: 0.81%

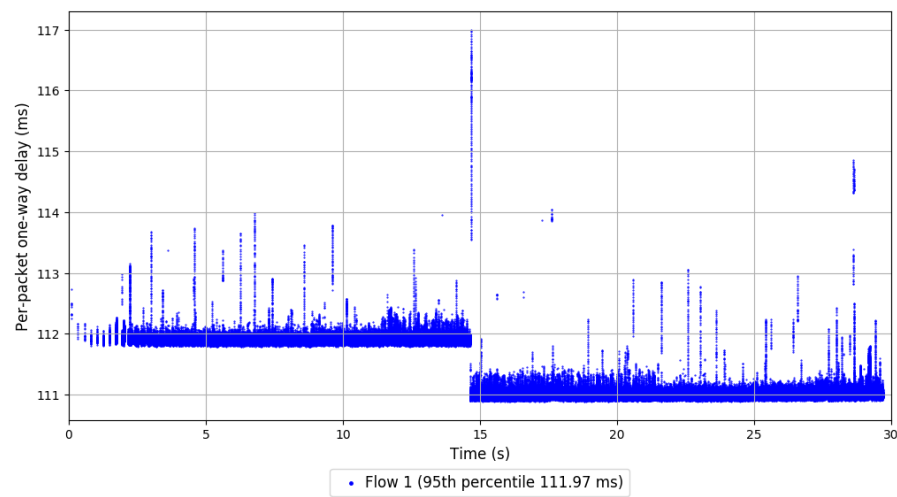
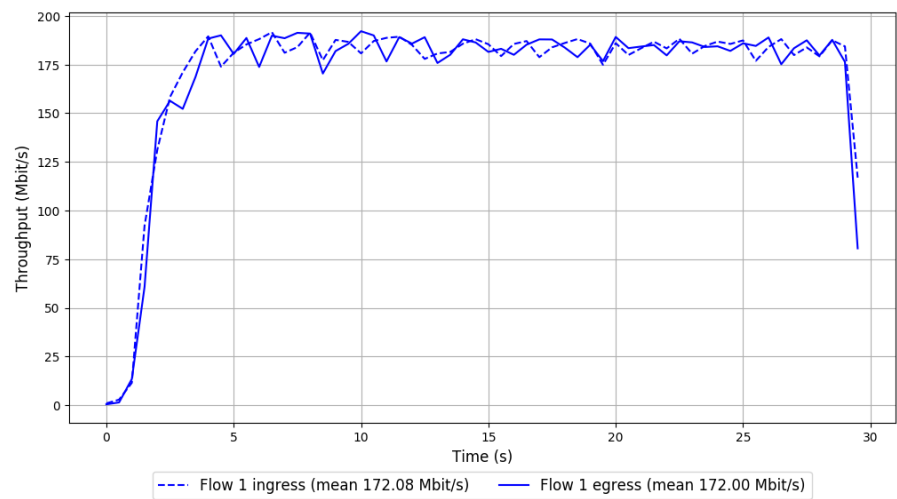
-- Flow 1:

Average throughput: 172.00 Mbit/s

95th percentile per-packet one-way delay: 111.966 ms

Loss rate: 0.81%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

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

End at: 2017-12-19 20:20:42

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.14 Mbit/s

95th percentile per-packet one-way delay: 111.933 ms

Loss rate: 0.80%

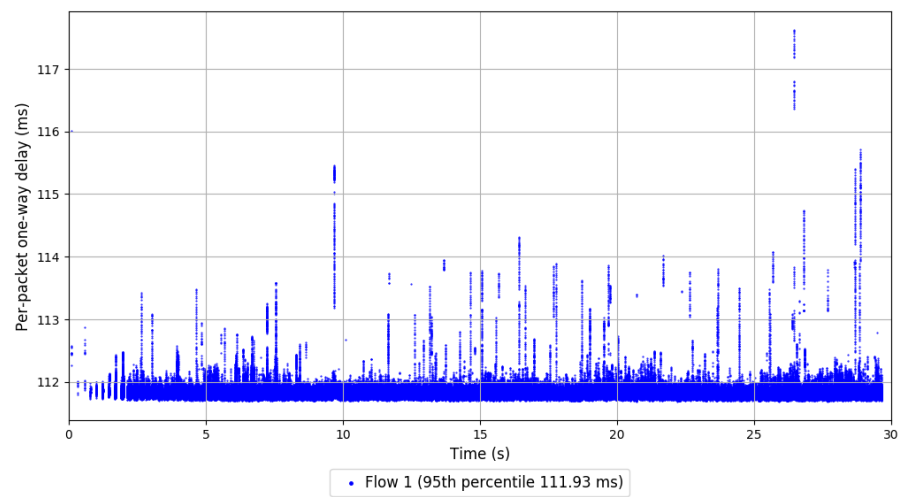
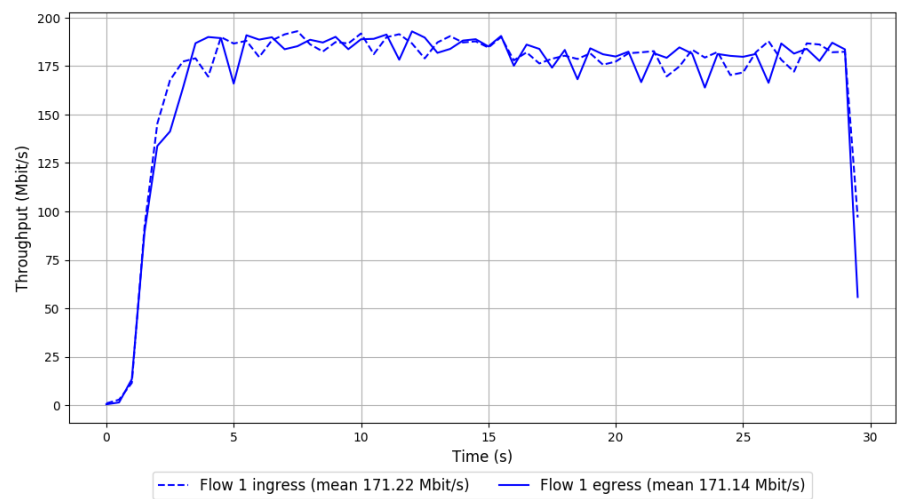
-- Flow 1:

Average throughput: 171.14 Mbit/s

95th percentile per-packet one-way delay: 111.933 ms

Loss rate: 0.80%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-19 20:32:35

End at: 2017-12-19 20:33:05

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.99 Mbit/s

95th percentile per-packet one-way delay: 112.581 ms

Loss rate: 0.82%

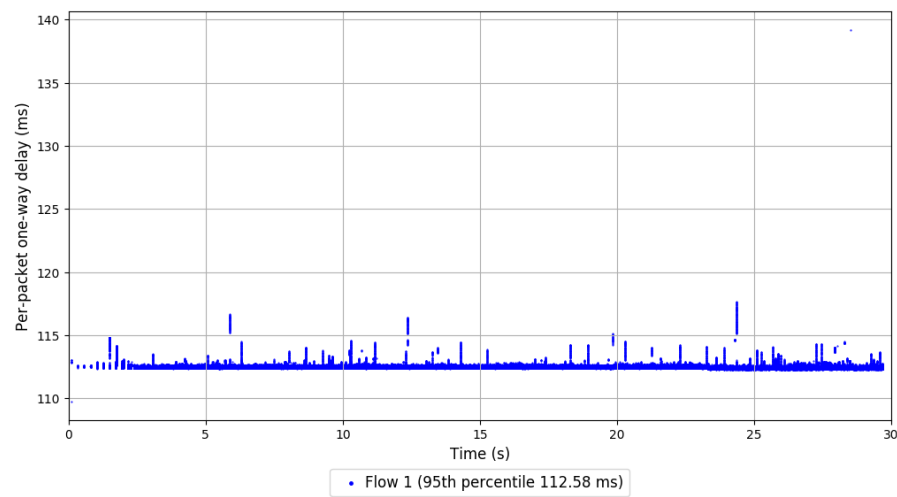
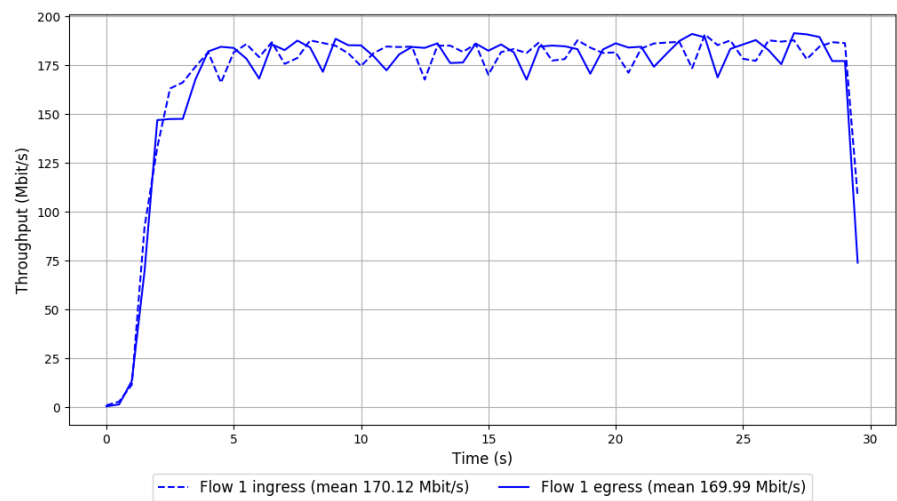
-- Flow 1:

Average throughput: 169.99 Mbit/s

95th percentile per-packet one-way delay: 112.581 ms

Loss rate: 0.82%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-19 20:44:55

End at: 2017-12-19 20:45:25

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.47 Mbit/s

95th percentile per-packet one-way delay: 111.963 ms

Loss rate: 0.81%

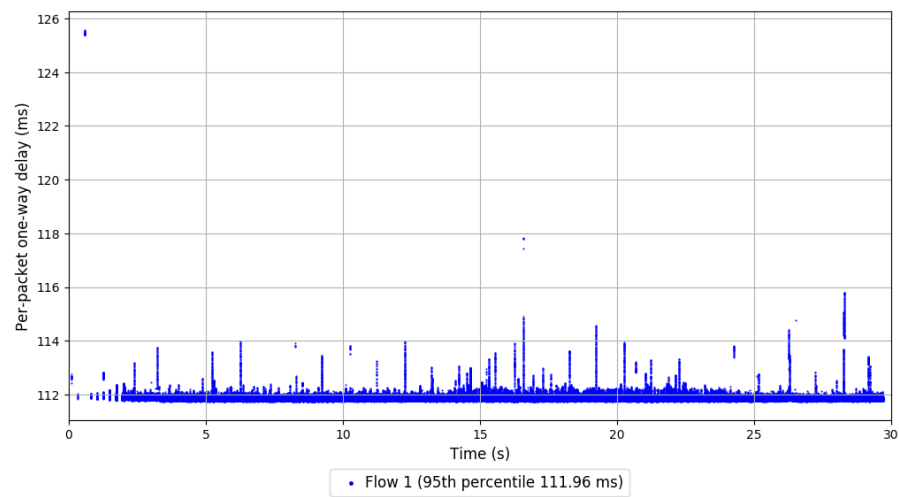
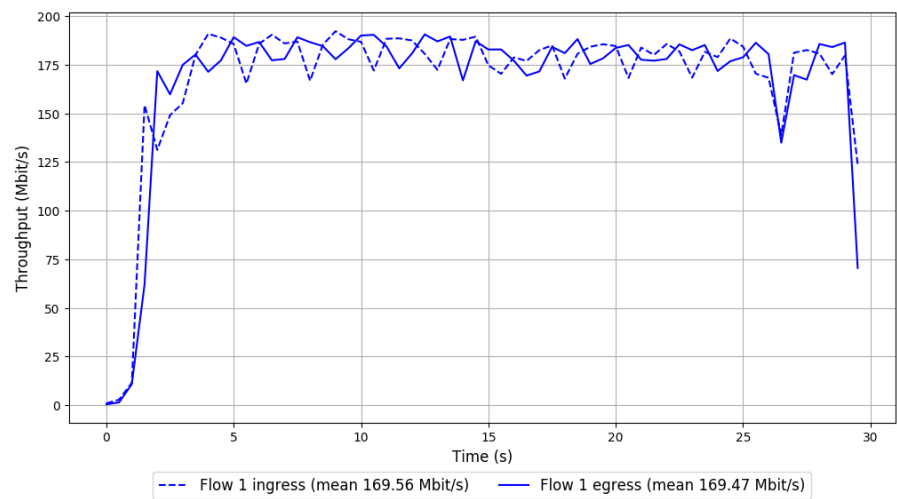
-- Flow 1:

Average throughput: 169.47 Mbit/s

95th percentile per-packet one-way delay: 111.963 ms

Loss rate: 0.81%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-19 20:57:12

End at: 2017-12-19 20:57:42

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 174.43 Mbit/s

95th percentile per-packet one-way delay: 112.107 ms

Loss rate: 0.81%

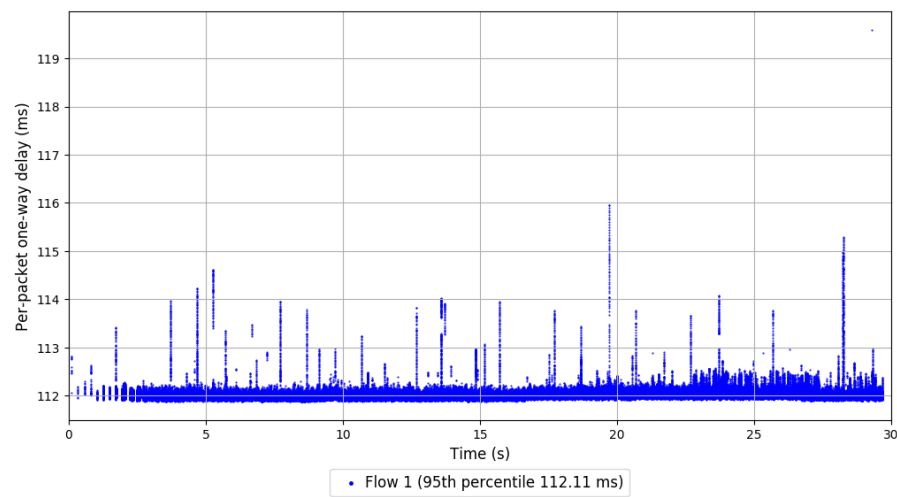
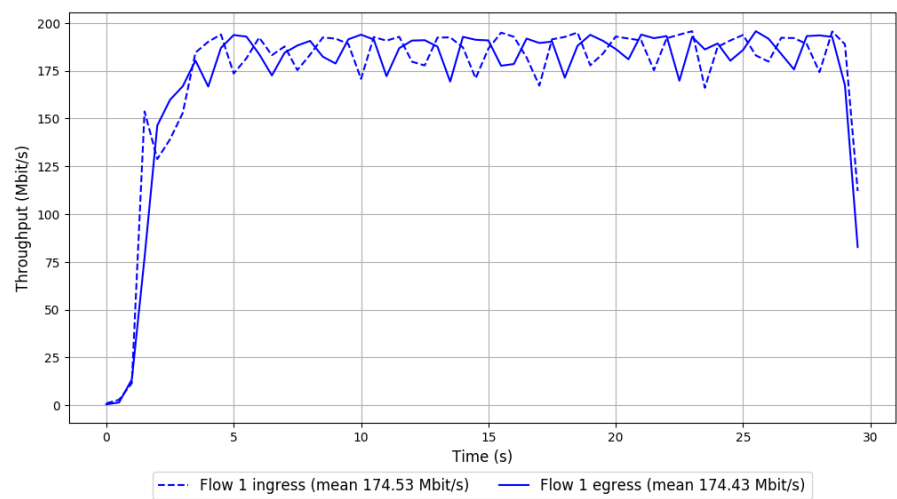
-- Flow 1:

Average throughput: 174.43 Mbit/s

95th percentile per-packet one-way delay: 112.107 ms

Loss rate: 0.81%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

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

End at: 2017-12-19 21:10:05

Below is generated by plot.py at 2017-12-20 00:16:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 166.37 Mbit/s

95th percentile per-packet one-way delay: 112.765 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 166.37 Mbit/s

95th percentile per-packet one-way delay: 112.765 ms

Loss rate: 0.96%

Run 10: Report of Indigo — Data Link

