

Pantheon Report

Generated at 2017-12-11 17:18:05 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

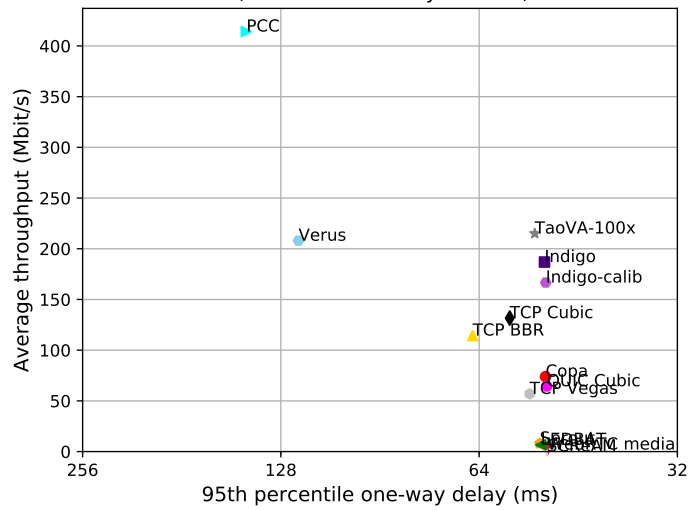
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

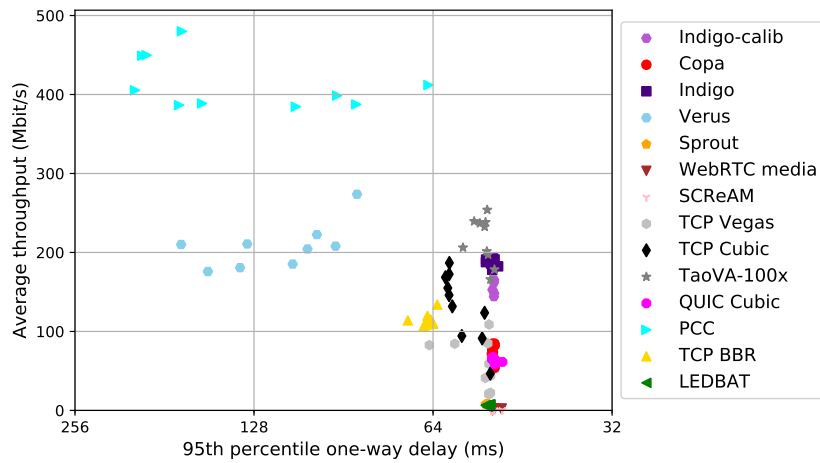
Git summary:

```
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fabbb936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Iowa 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	114.41	65.46	0.07
TCP Cubic	10	131.61	57.51	0.05
LEDBAT	10	6.65	51.61	0.04
PCC	10	414.19	144.39	0.51
QUIC Cubic	10	64.47	50.51	0.00
SCReAM	10	0.22	50.52	0.00
WebRTC media	9	2.00	50.40	0.02
Sprout	10	7.90	51.78	0.13
TaoVA-100x	10	215.03	52.69	0.00
TCP Vegas	10	56.90	53.64	0.06
Verus	9	207.93	120.34	0.62
Copa	10	73.91	50.74	0.00
Indigo	10	186.91	50.93	0.03
Indigo-calib	10	166.69	50.70	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-12-11 14:04:10

End at: 2017-12-11 14:04:40

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 62.967 ms

Loss rate: 0.00%

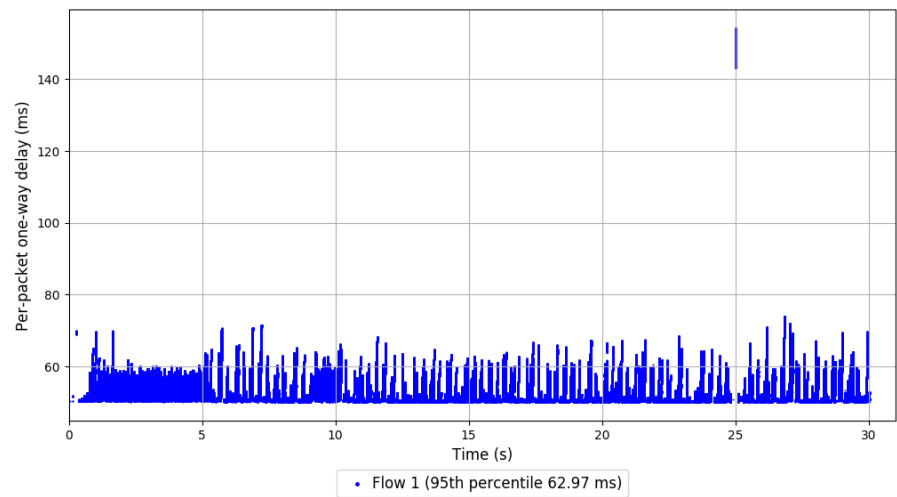
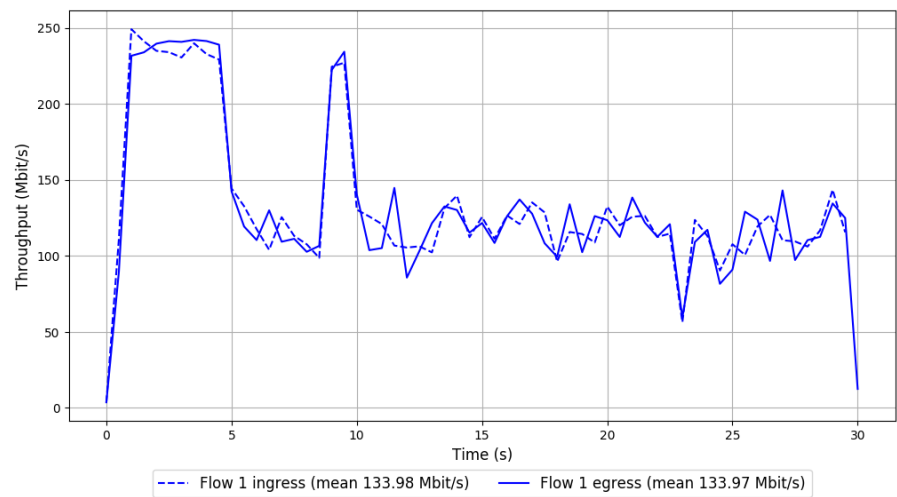
-- Flow 1:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 62.967 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-11 14:14:31

End at: 2017-12-11 14:15:01

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 107.12 Mbit/s

95th percentile per-packet one-way delay: 66.305 ms

Loss rate: 0.14%

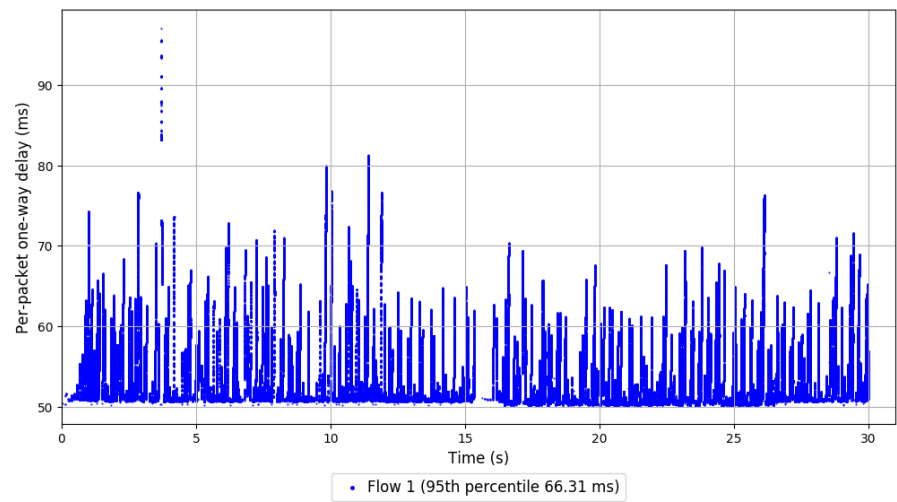
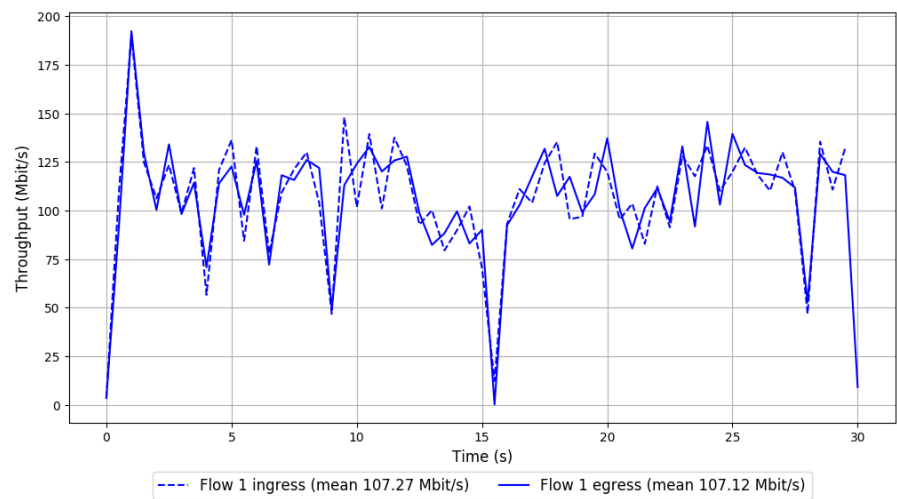
-- Flow 1:

Average throughput: 107.12 Mbit/s

95th percentile per-packet one-way delay: 66.305 ms

Loss rate: 0.14%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-11 14:24:50

End at: 2017-12-11 14:25:20

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 109.85 Mbit/s

95th percentile per-packet one-way delay: 63.946 ms

Loss rate: 0.05%

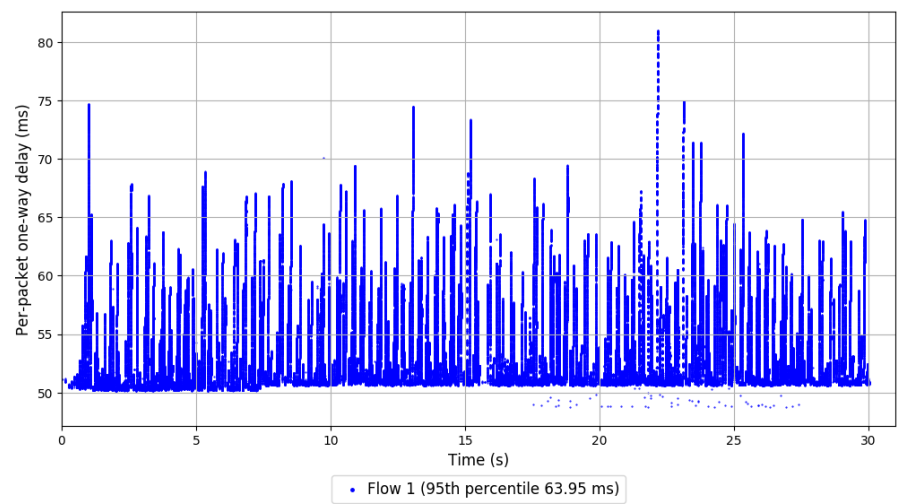
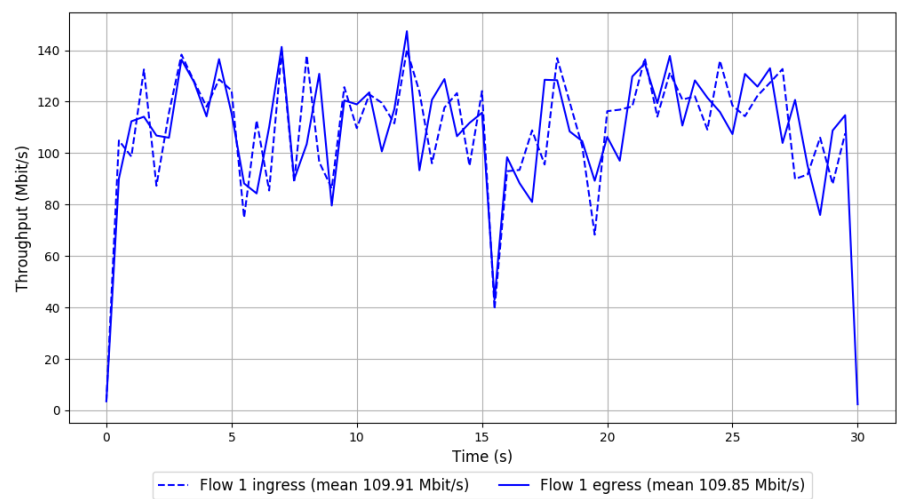
-- Flow 1:

Average throughput: 109.85 Mbit/s

95th percentile per-packet one-way delay: 63.946 ms

Loss rate: 0.05%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-11 14:35:08

End at: 2017-12-11 14:35:38

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 108.60 Mbit/s

95th percentile per-packet one-way delay: 65.586 ms

Loss rate: 0.09%

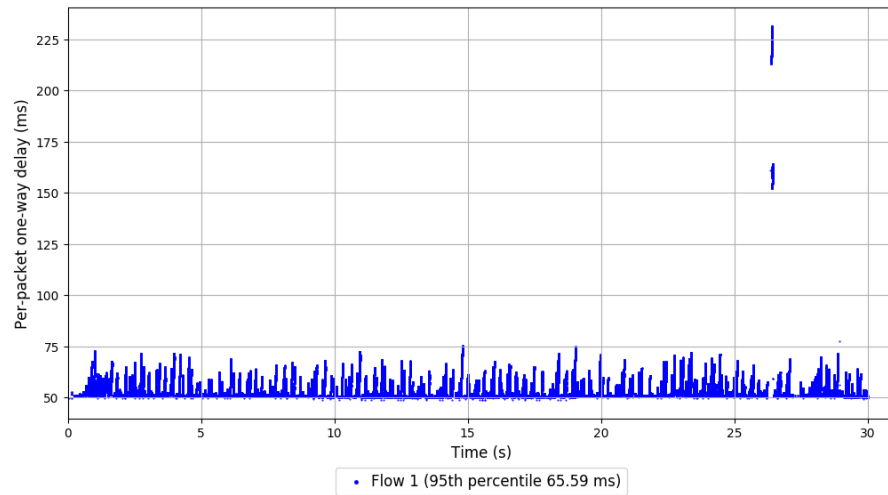
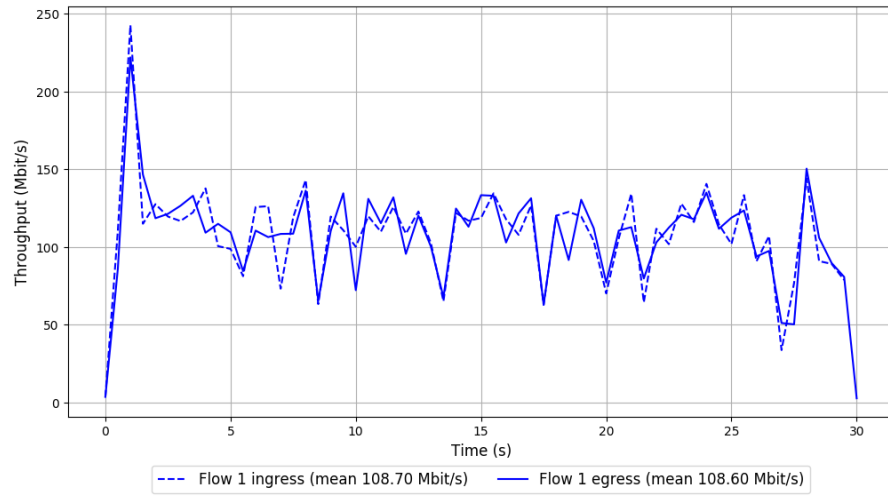
-- Flow 1:

Average throughput: 108.60 Mbit/s

95th percentile per-packet one-way delay: 65.586 ms

Loss rate: 0.09%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-11 14:45:29

End at: 2017-12-11 14:45:59

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 109.74 Mbit/s

95th percentile per-packet one-way delay: 64.332 ms

Loss rate: 0.10%

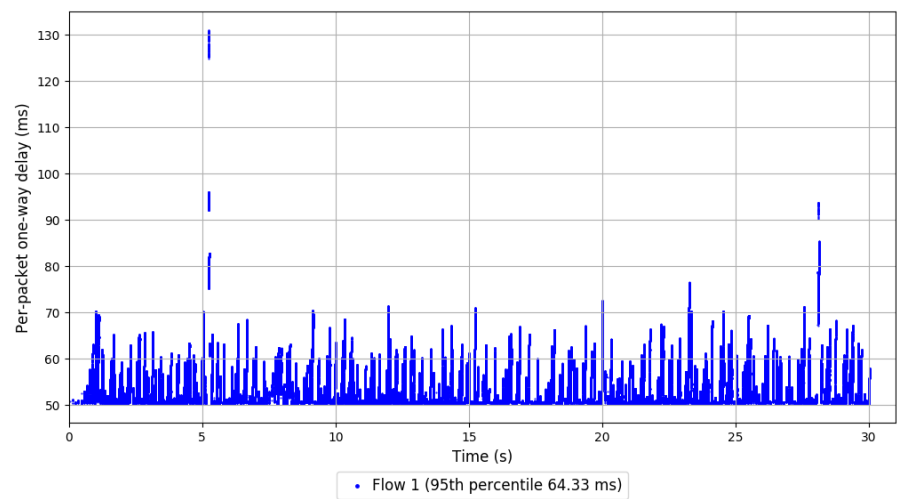
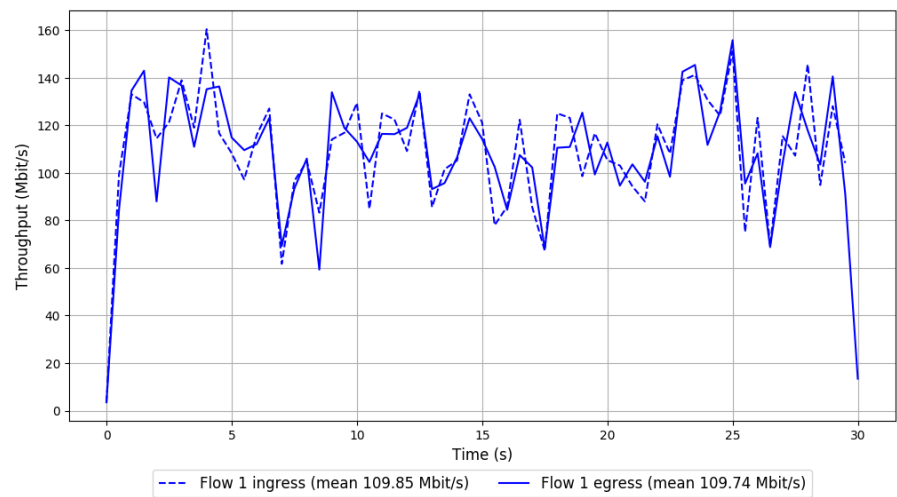
-- Flow 1:

Average throughput: 109.74 Mbit/s

95th percentile per-packet one-way delay: 64.332 ms

Loss rate: 0.10%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-11 14:55:47

End at: 2017-12-11 14:56:17

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 114.97 Mbit/s

95th percentile per-packet one-way delay: 64.561 ms

Loss rate: 0.29%

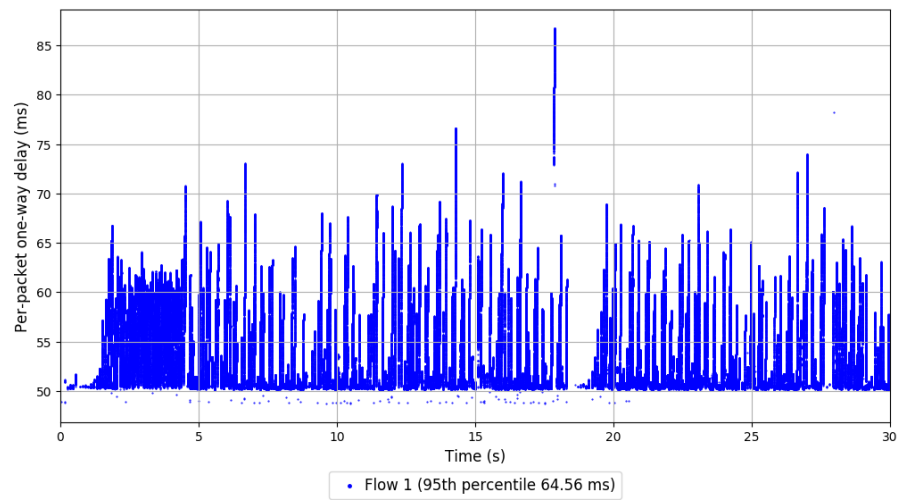
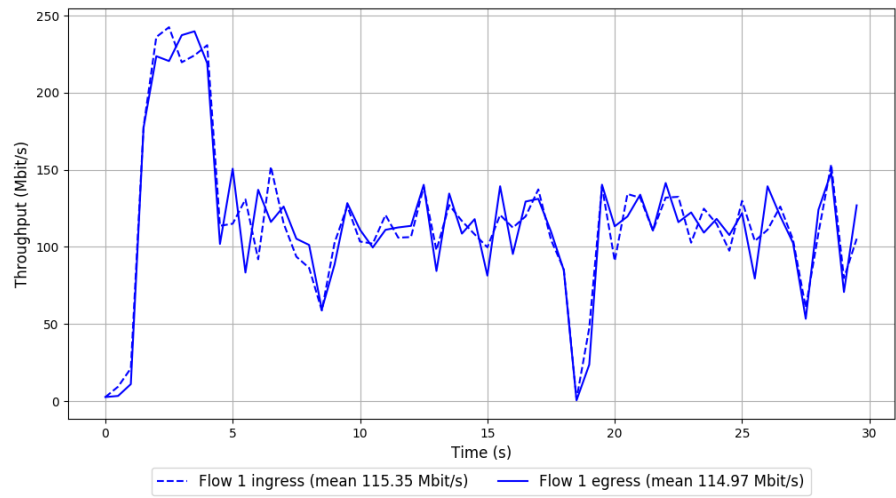
-- Flow 1:

Average throughput: 114.97 Mbit/s

95th percentile per-packet one-way delay: 64.561 ms

Loss rate: 0.29%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-11 15:06:17

End at: 2017-12-11 15:06:48

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 113.72 Mbit/s

95th percentile per-packet one-way delay: 65.260 ms

Loss rate: 0.00%

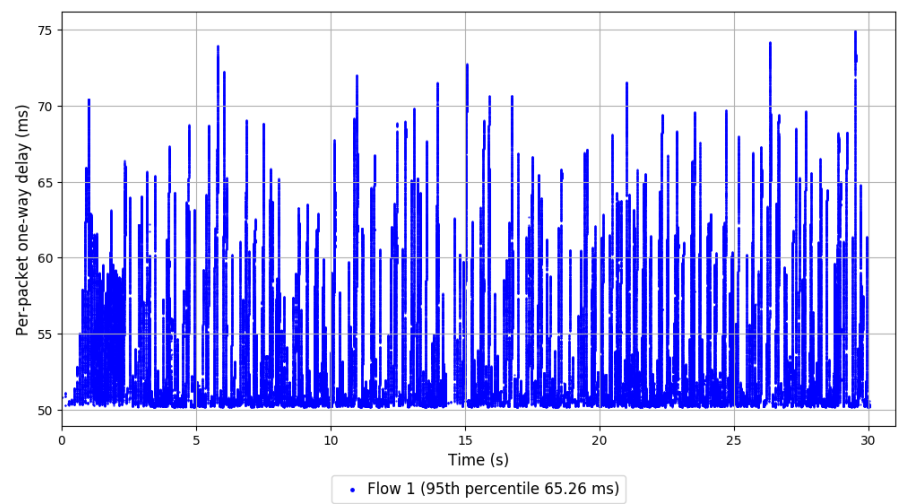
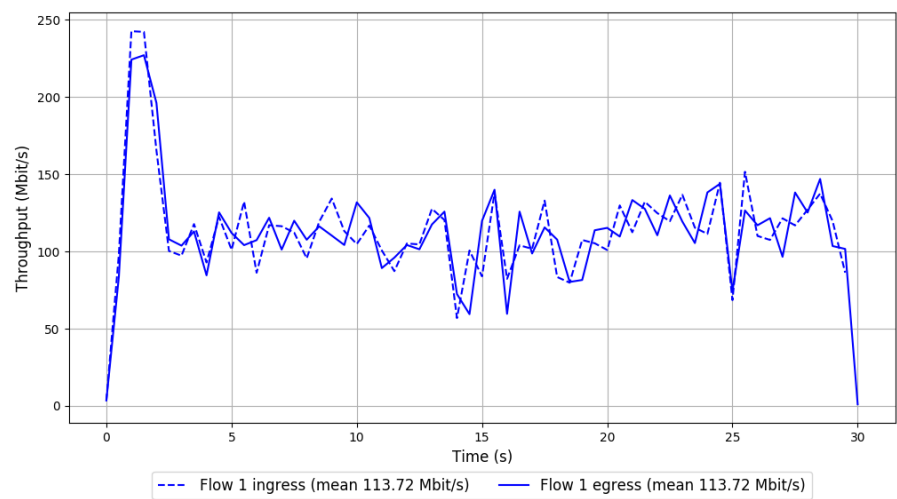
-- Flow 1:

Average throughput: 113.72 Mbit/s

95th percentile per-packet one-way delay: 65.260 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-11 15:16:32

End at: 2017-12-11 15:17:02

Below is generated by plot.py at 2017-12-11 16:37:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 113.99 Mbit/s

95th percentile per-packet one-way delay: 70.572 ms

Loss rate: 0.01%

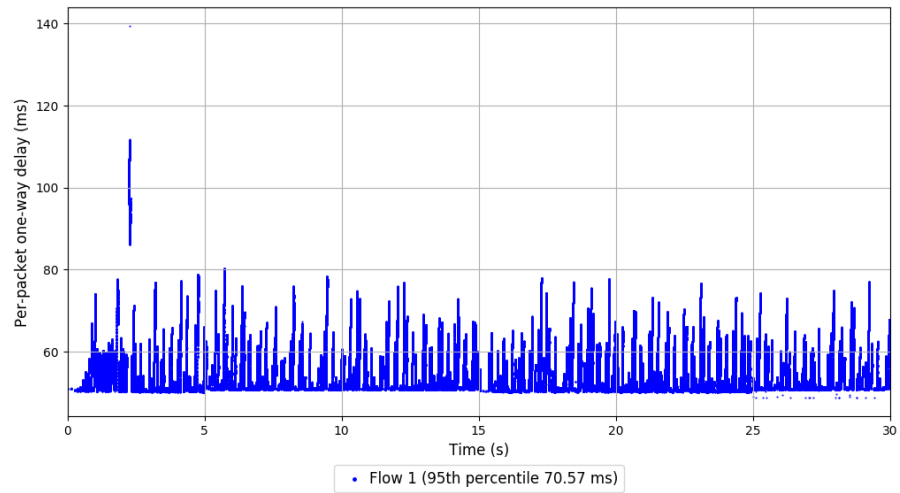
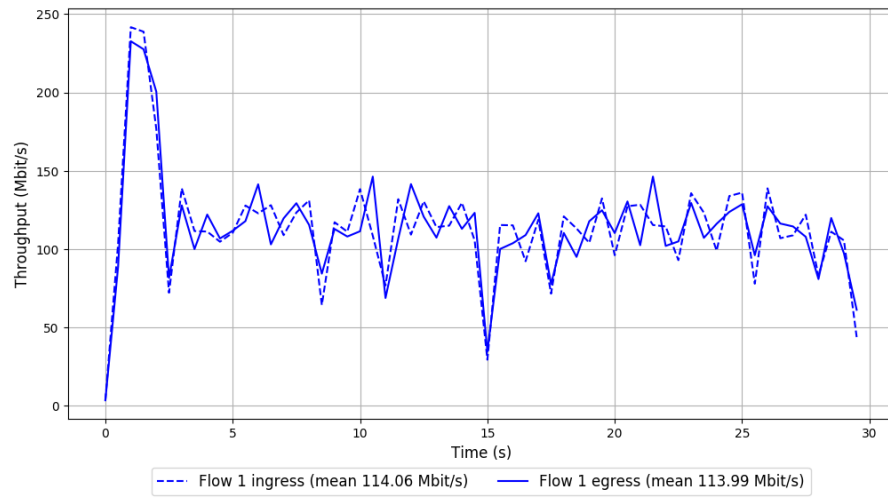
-- Flow 1:

Average throughput: 113.99 Mbit/s

95th percentile per-packet one-way delay: 70.572 ms

Loss rate: 0.01%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-11 15:26:47

End at: 2017-12-11 15:27:17

Below is generated by plot.py at 2017-12-11 16:39:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 112.49 Mbit/s

95th percentile per-packet one-way delay: 65.664 ms

Loss rate: 0.01%

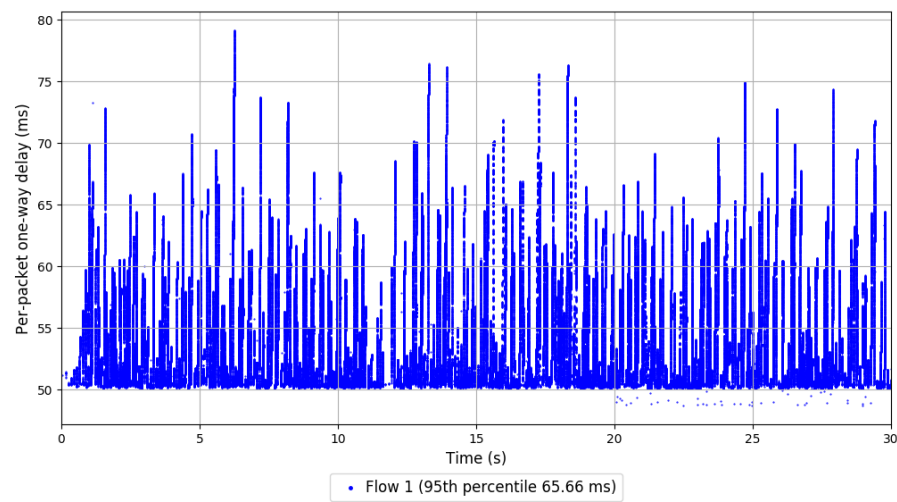
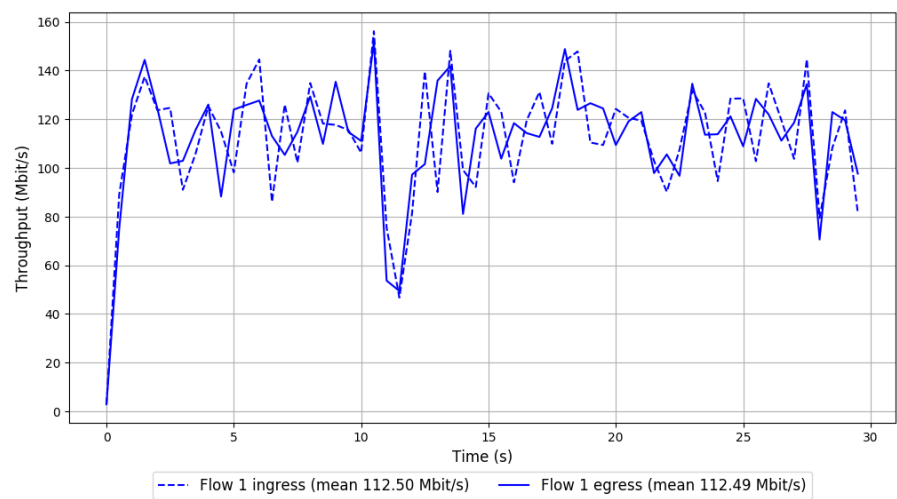
-- Flow 1:

Average throughput: 112.49 Mbit/s

95th percentile per-packet one-way delay: 65.664 ms

Loss rate: 0.01%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-11 15:37:02

End at: 2017-12-11 15:37:32

Below is generated by plot.py at 2017-12-11 16:39:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 119.70 Mbit/s

95th percentile per-packet one-way delay: 65.407 ms

Loss rate: 0.00%

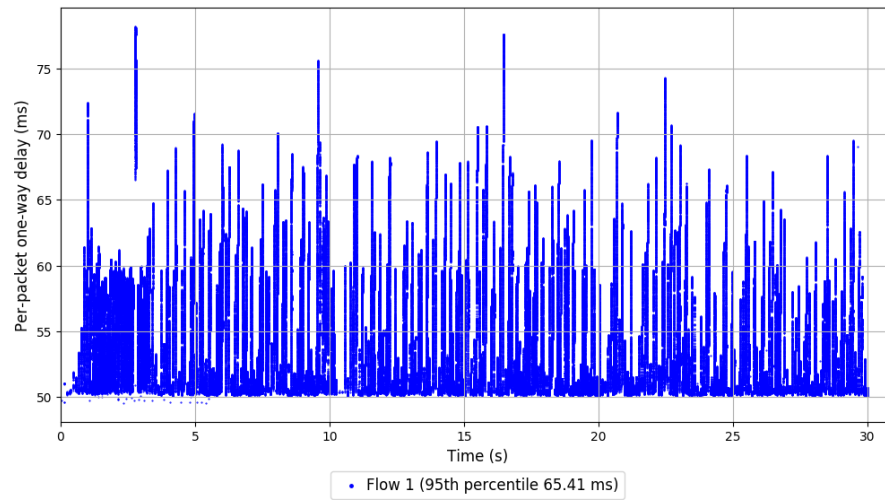
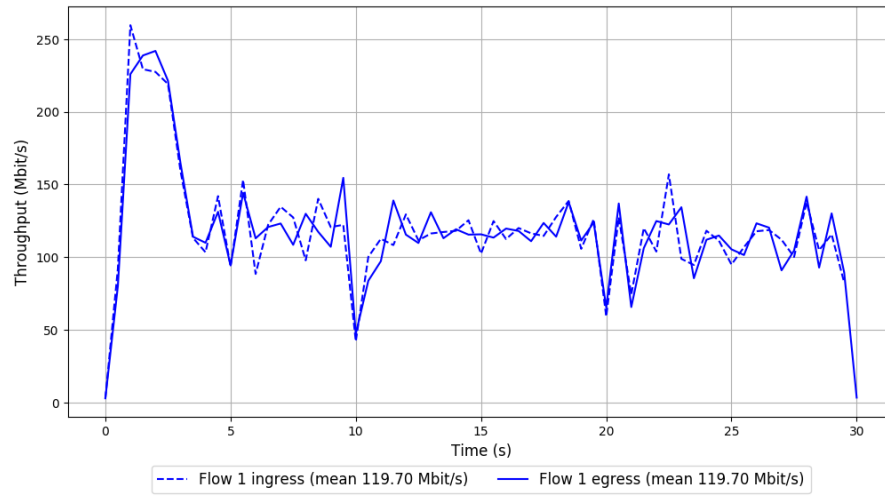
-- Flow 1:

Average throughput: 119.70 Mbit/s

95th percentile per-packet one-way delay: 65.407 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-11 14:01:53

End at: 2017-12-11 14:02:23

Below is generated by plot.py at 2017-12-11 16:39:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 131.73 Mbit/s

95th percentile per-packet one-way delay: 59.393 ms

Loss rate: 0.00%

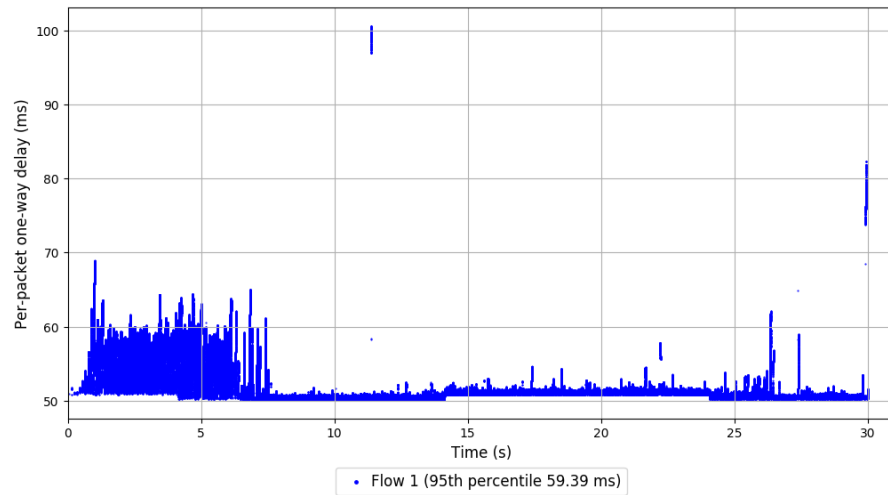
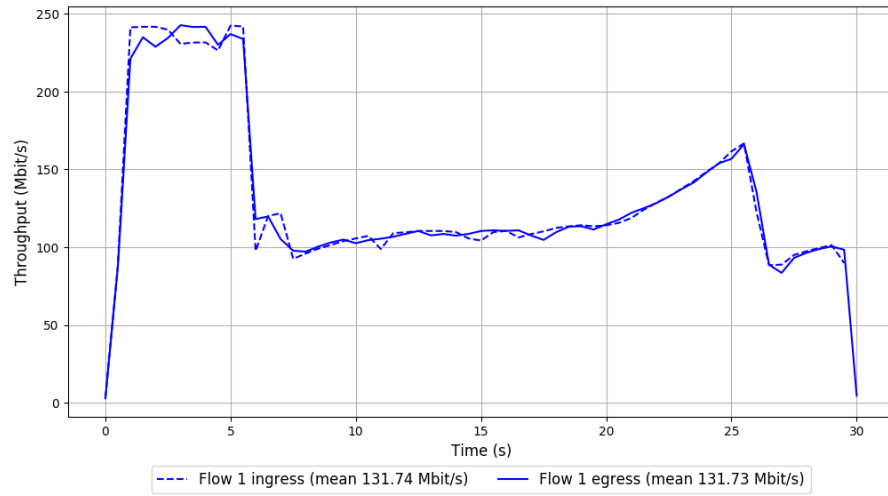
-- Flow 1:

Average throughput: 131.73 Mbit/s

95th percentile per-packet one-way delay: 59.393 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

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

End at: 2017-12-11 14:12:41

Below is generated by plot.py at 2017-12-11 16:40:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 172.47 Mbit/s

95th percentile per-packet one-way delay: 60.127 ms

Loss rate: 0.00%

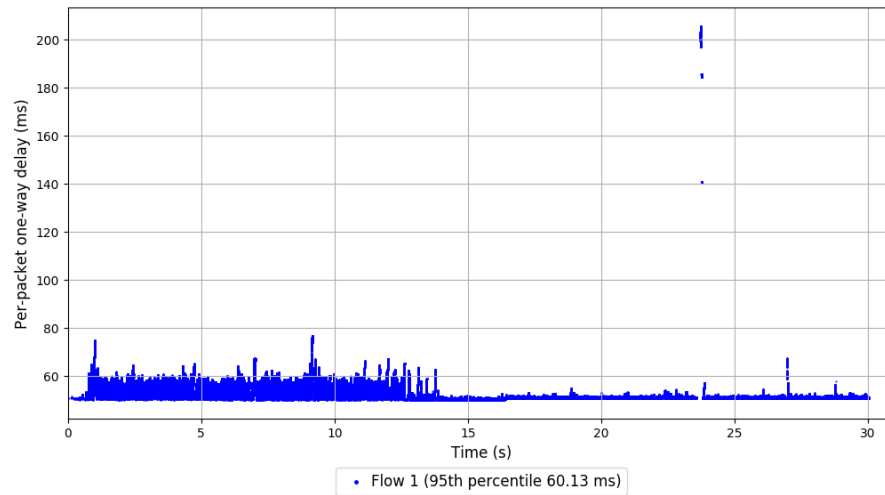
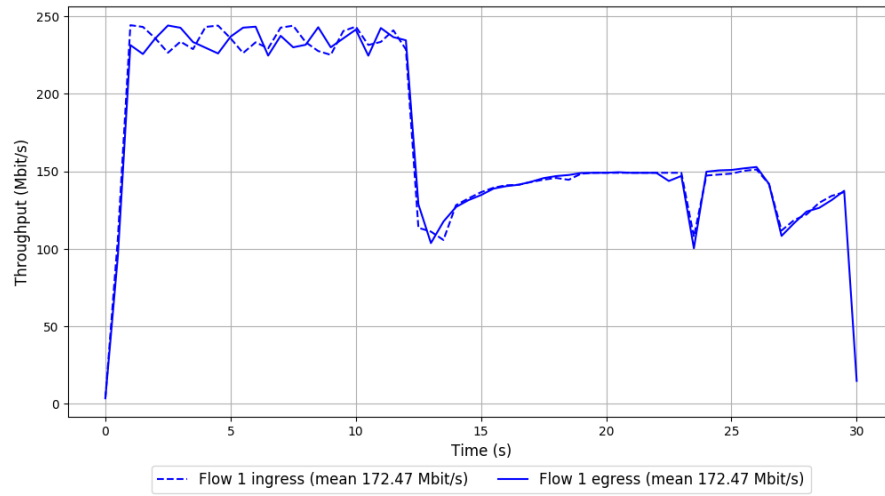
-- Flow 1:

Average throughput: 172.47 Mbit/s

95th percentile per-packet one-way delay: 60.127 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-11 14:22:33

End at: 2017-12-11 14:23:03

Below is generated by plot.py at 2017-12-11 16:40:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.27 Mbit/s

95th percentile per-packet one-way delay: 52.911 ms

Loss rate: 0.12%

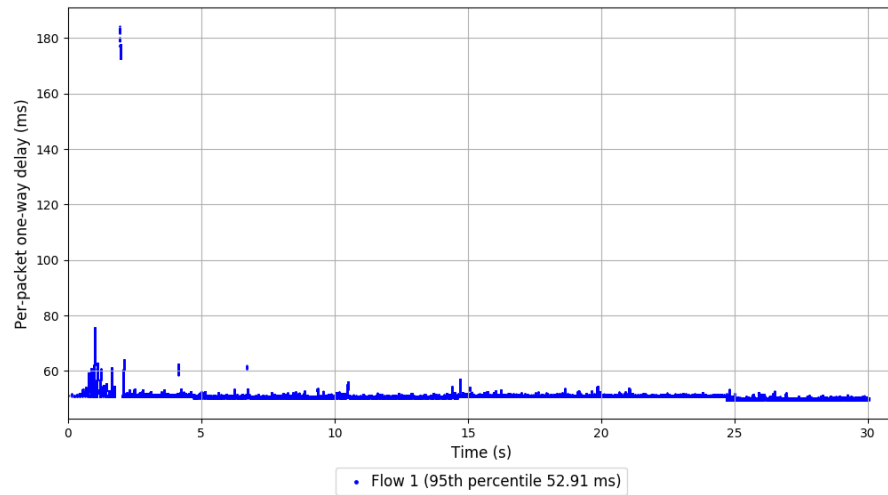
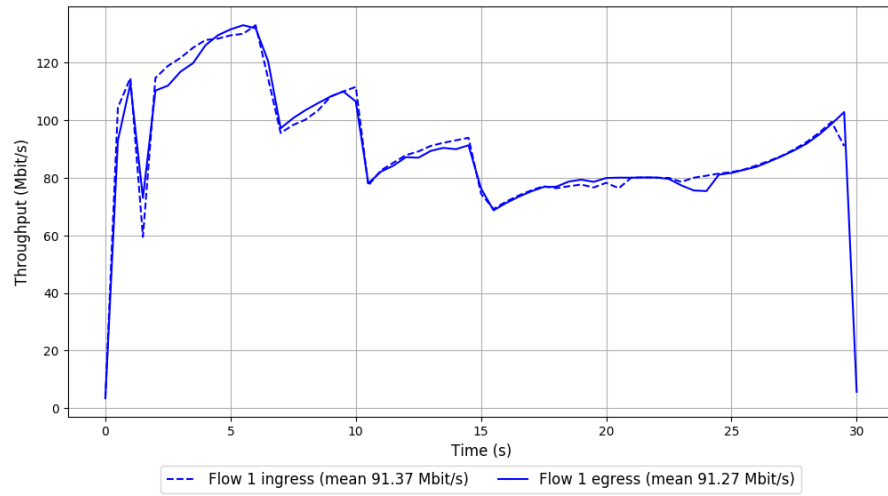
-- Flow 1:

Average throughput: 91.27 Mbit/s

95th percentile per-packet one-way delay: 52.911 ms

Loss rate: 0.12%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-11 14:32:52

End at: 2017-12-11 14:33:23

Below is generated by plot.py at 2017-12-11 16:40:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.22 Mbit/s

95th percentile per-packet one-way delay: 57.248 ms

Loss rate: 0.31%

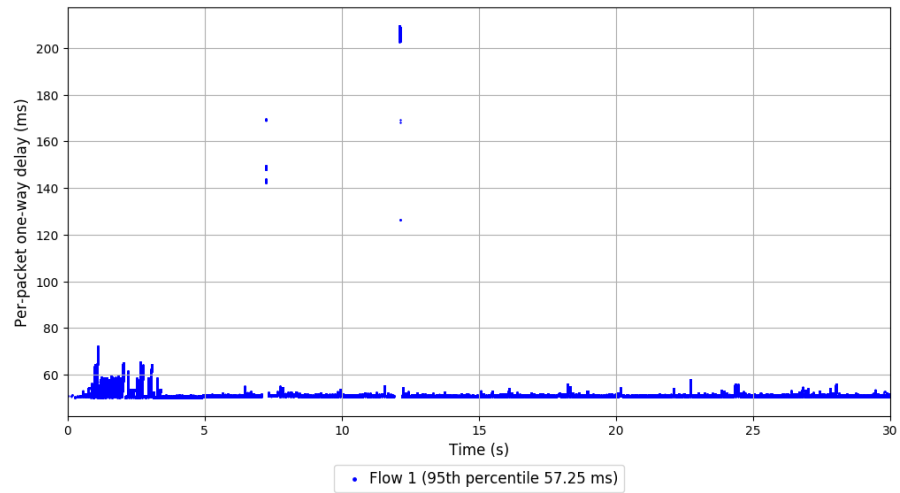
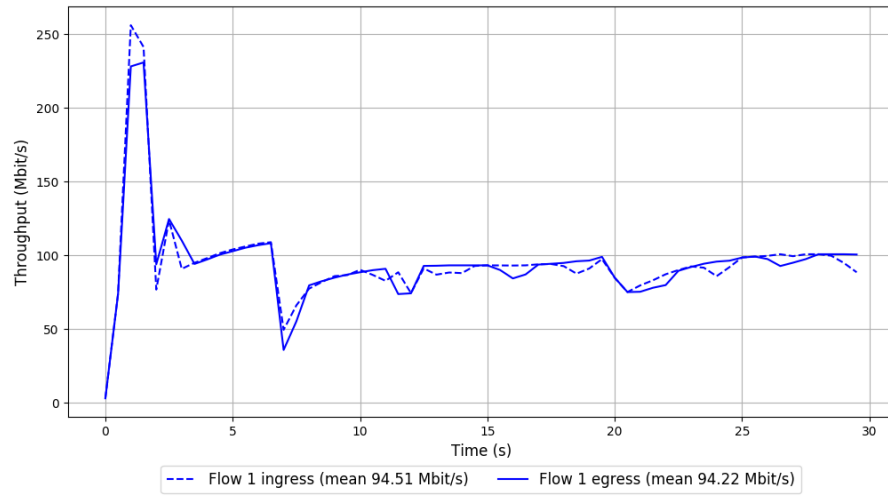
-- Flow 1:

Average throughput: 94.22 Mbit/s

95th percentile per-packet one-way delay: 57.248 ms

Loss rate: 0.31%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-11 14:43:12

End at: 2017-12-11 14:43:42

Below is generated by plot.py at 2017-12-11 16:40:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 123.60 Mbit/s

95th percentile per-packet one-way delay: 52.420 ms

Loss rate: 0.00%

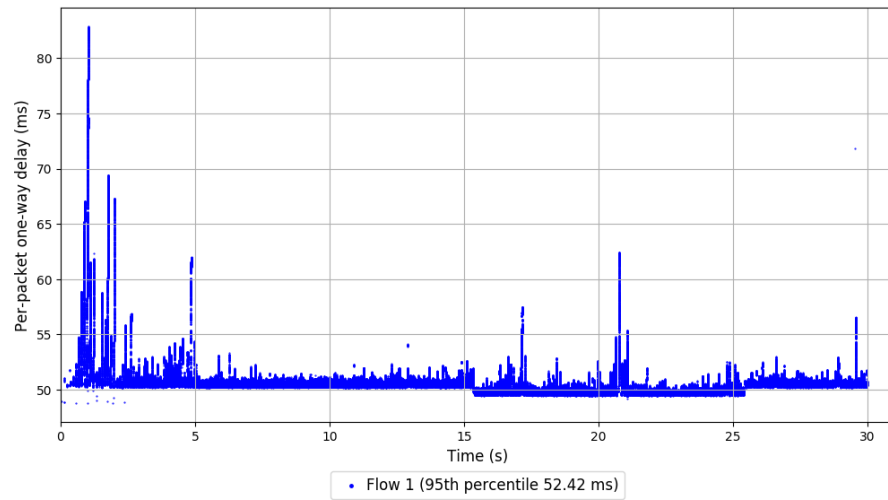
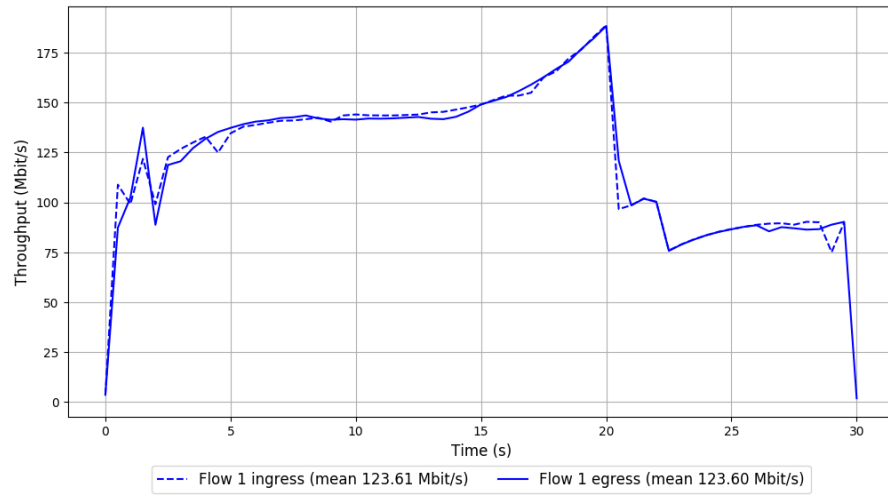
-- Flow 1:

Average throughput: 123.60 Mbit/s

95th percentile per-packet one-way delay: 52.420 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-11 14:53:34

End at: 2017-12-11 14:54:04

Below is generated by plot.py at 2017-12-11 16:40:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.60 Mbit/s

95th percentile per-packet one-way delay: 51.272 ms

Loss rate: 0.01%

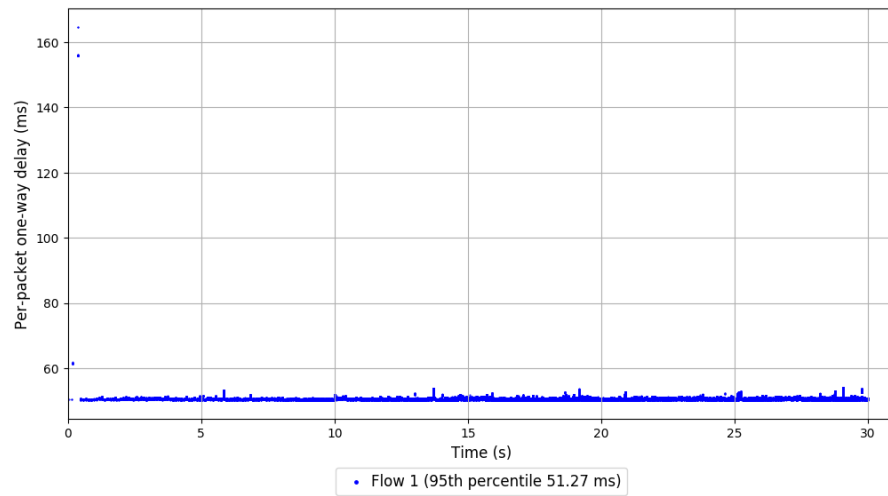
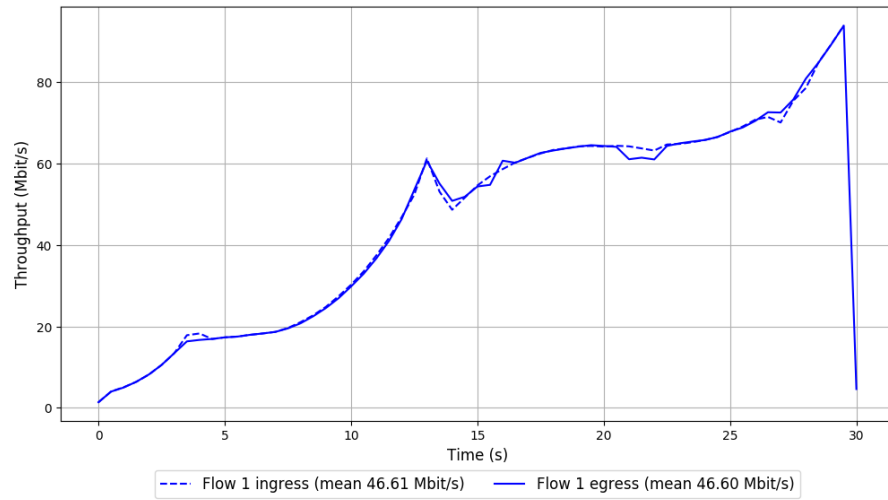
-- Flow 1:

Average throughput: 46.60 Mbit/s

95th percentile per-packet one-way delay: 51.272 ms

Loss rate: 0.01%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-11 15:03:55

End at: 2017-12-11 15:04:25

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 186.71 Mbit/s

95th percentile per-packet one-way delay: 60.078 ms

Loss rate: 0.00%

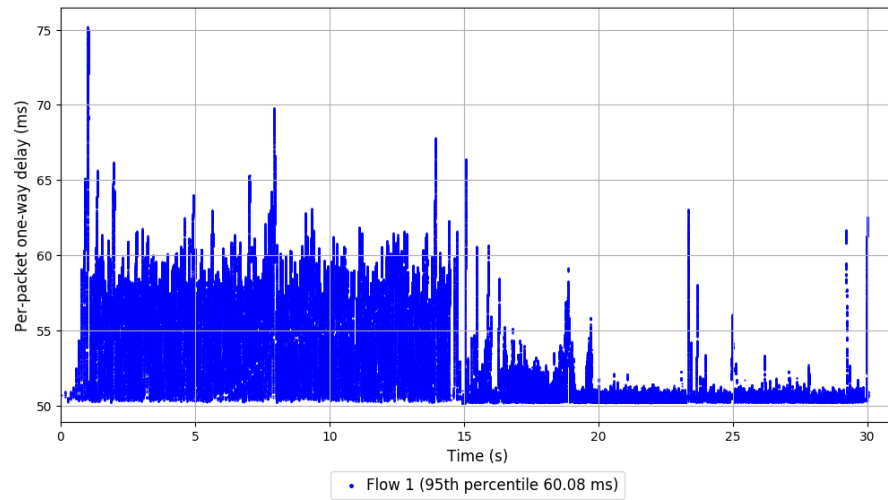
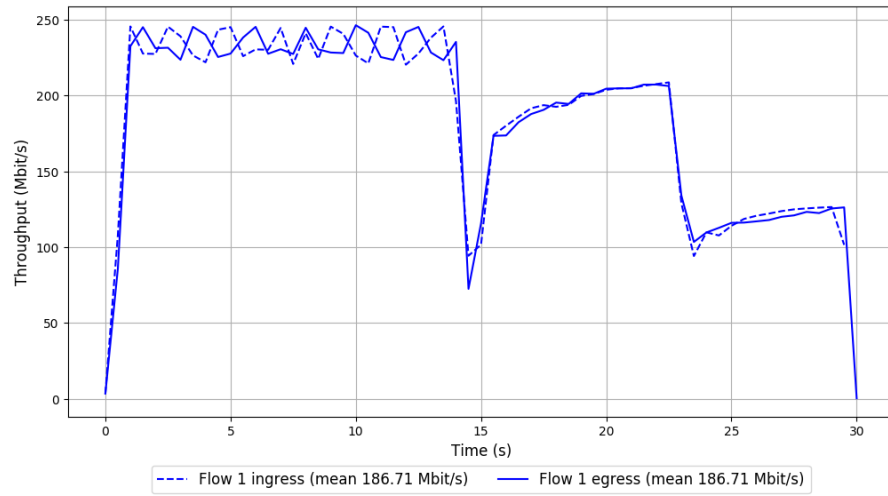
-- Flow 1:

Average throughput: 186.71 Mbit/s

95th percentile per-packet one-way delay: 60.078 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-11 15:14:12

End at: 2017-12-11 15:14:42

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 168.56 Mbit/s

95th percentile per-packet one-way delay: 61.008 ms

Loss rate: 0.04%

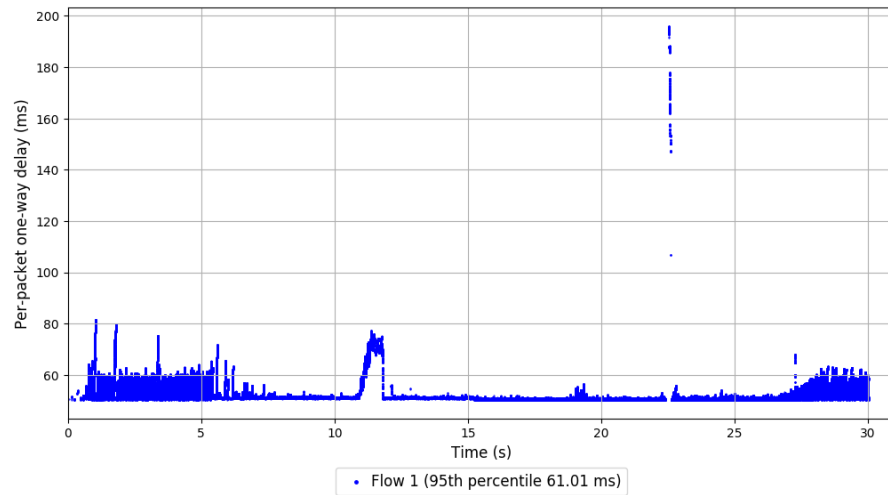
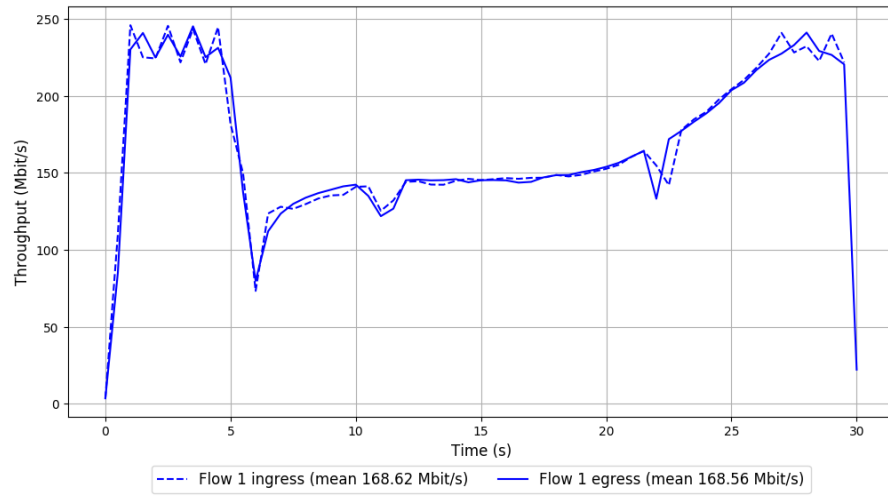
-- Flow 1:

Average throughput: 168.56 Mbit/s

95th percentile per-packet one-way delay: 61.008 ms

Loss rate: 0.04%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-11 15:24:30

End at: 2017-12-11 15:25:00

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 145.98 Mbit/s

95th percentile per-packet one-way delay: 60.153 ms

Loss rate: 0.00%

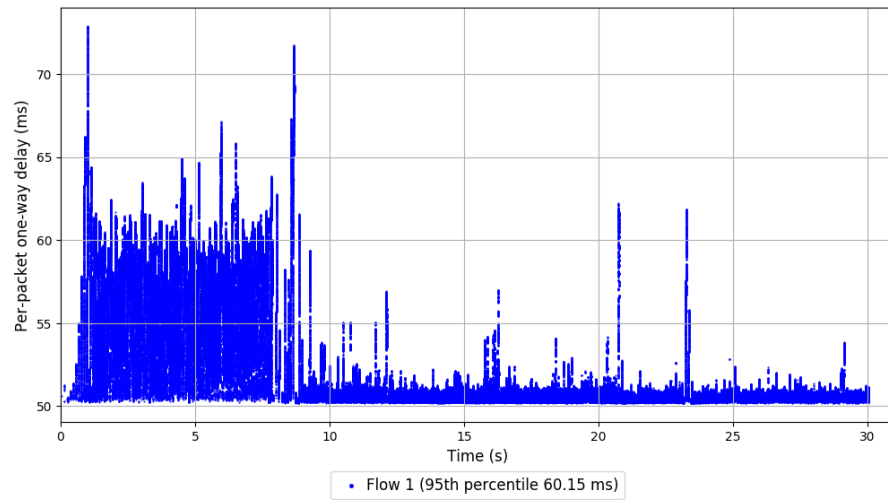
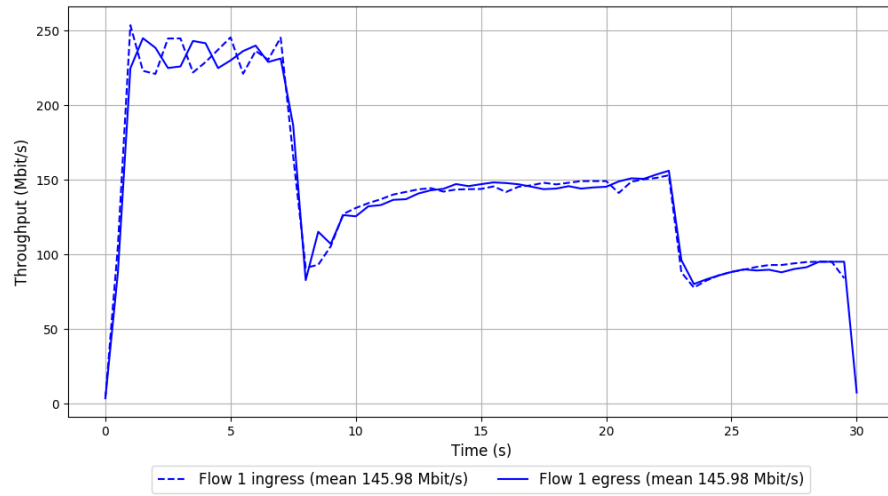
-- Flow 1:

Average throughput: 145.98 Mbit/s

95th percentile per-packet one-way delay: 60.153 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-11 15:34:42

End at: 2017-12-11 15:35:12

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 154.95 Mbit/s

95th percentile per-packet one-way delay: 60.446 ms

Loss rate: 0.00%

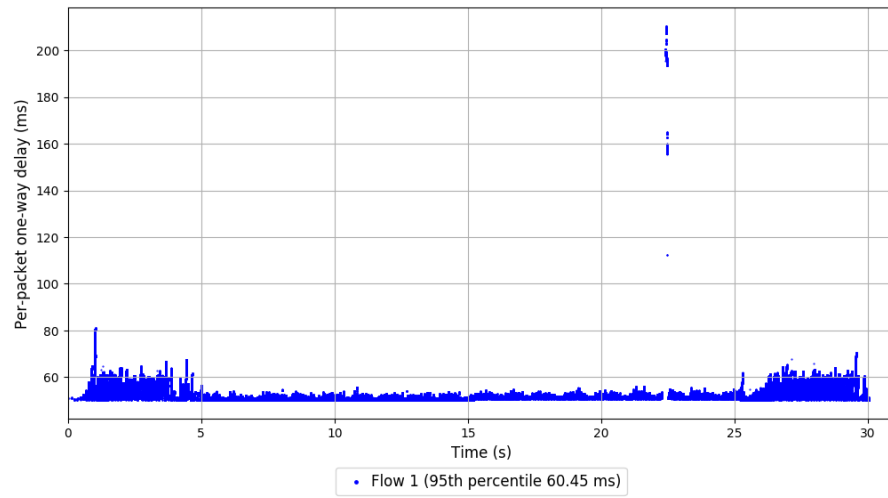
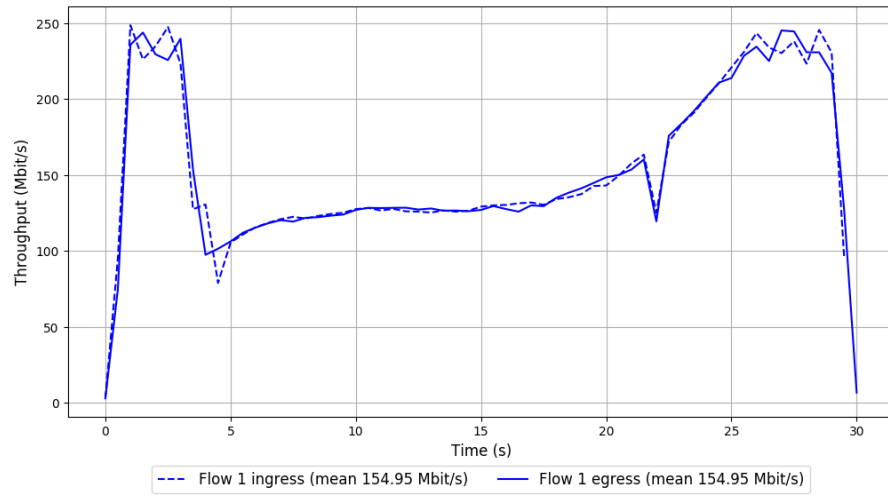
-- Flow 1:

Average throughput: 154.95 Mbit/s

95th percentile per-packet one-way delay: 60.446 ms

Loss rate: 0.00%

Run 10: Report of TCP Cubic — Data Link

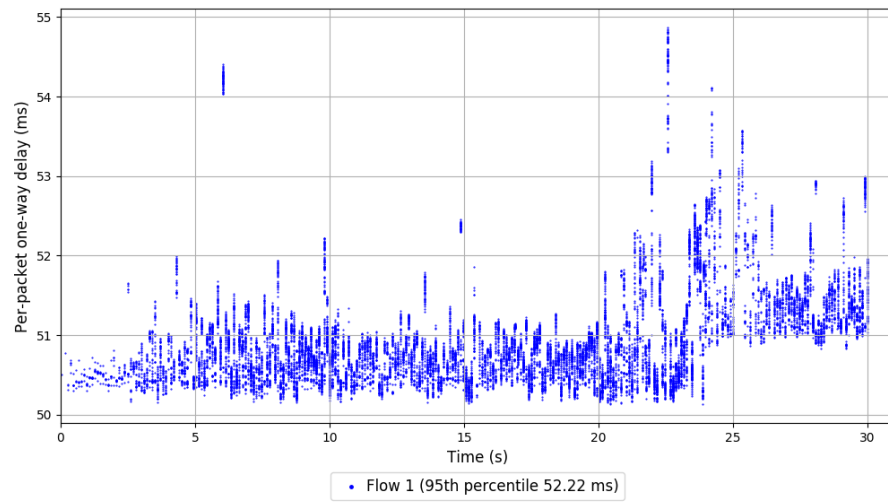
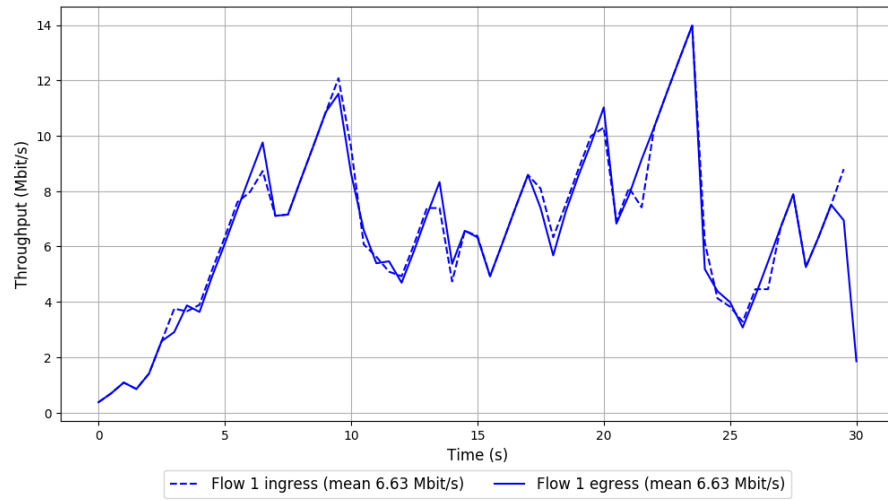


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-11 13:58:23
End at: 2017-12-11 13:58:53

# Below is generated by plot.py at 2017-12-11 16:41:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 52.216 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 6.63 Mbit/s
95th percentile per-packet one-way delay: 52.216 ms
Loss rate: 0.01%
```


Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-12-11 14:08:43

End at: 2017-12-11 14:09:13

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 51.466 ms

Loss rate: 0.05%

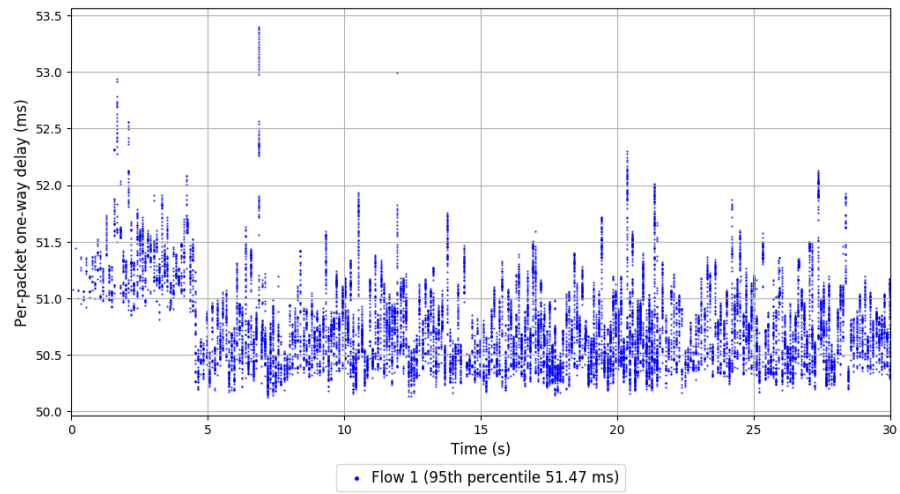
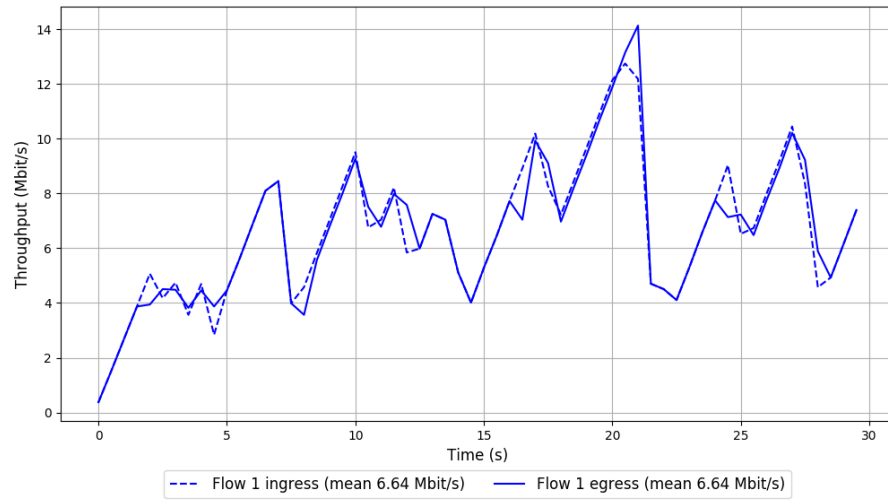
-- Flow 1:

Average throughput: 6.64 Mbit/s

95th percentile per-packet one-way delay: 51.466 ms

Loss rate: 0.05%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-11 14:19:05

End at: 2017-12-11 14:19:35

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.98 Mbit/s

95th percentile per-packet one-way delay: 51.765 ms

Loss rate: 0.00%

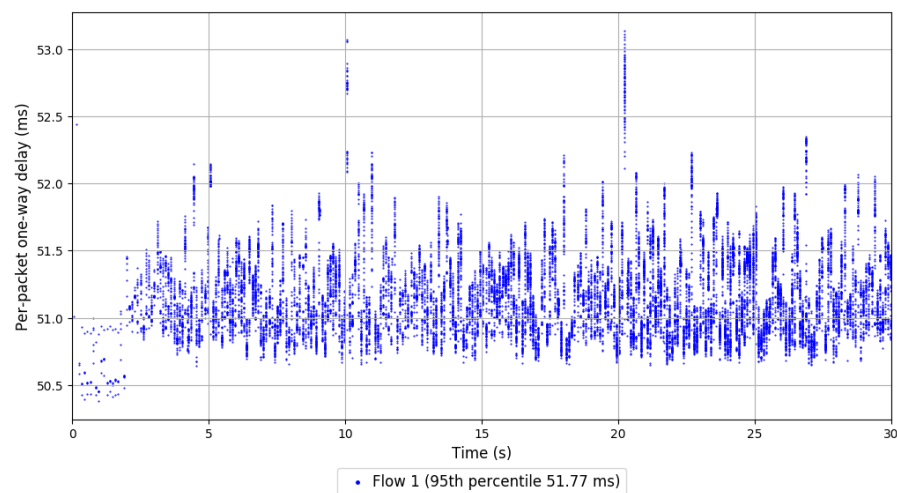
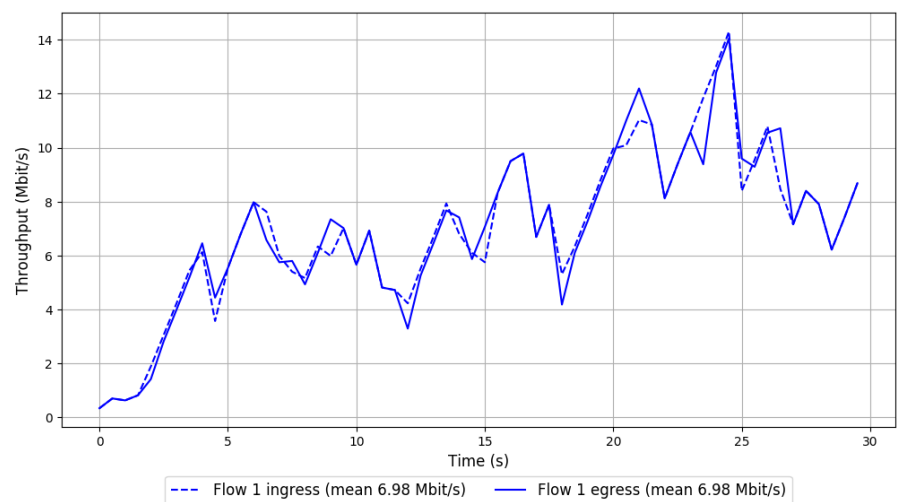
-- Flow 1:

Average throughput: 6.98 Mbit/s

95th percentile per-packet one-way delay: 51.765 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-11 14:29:27

End at: 2017-12-11 14:29:57

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.16 Mbit/s

95th percentile per-packet one-way delay: 51.747 ms

Loss rate: 0.01%

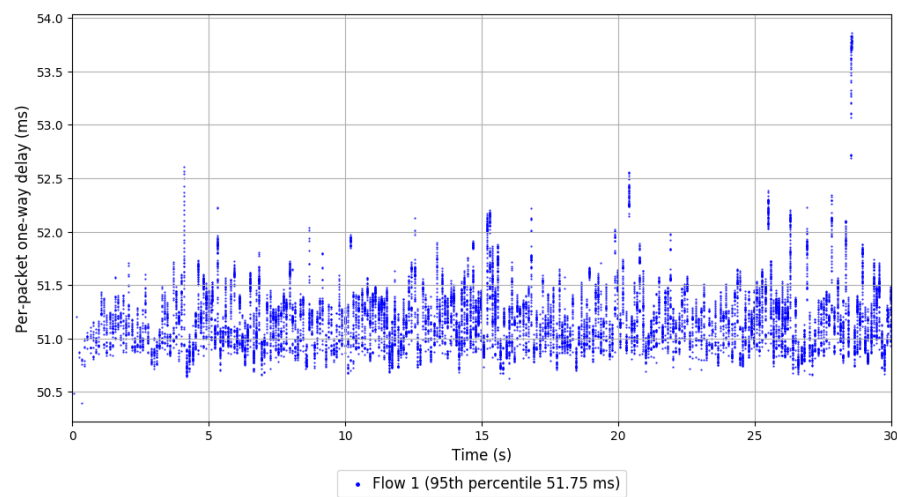
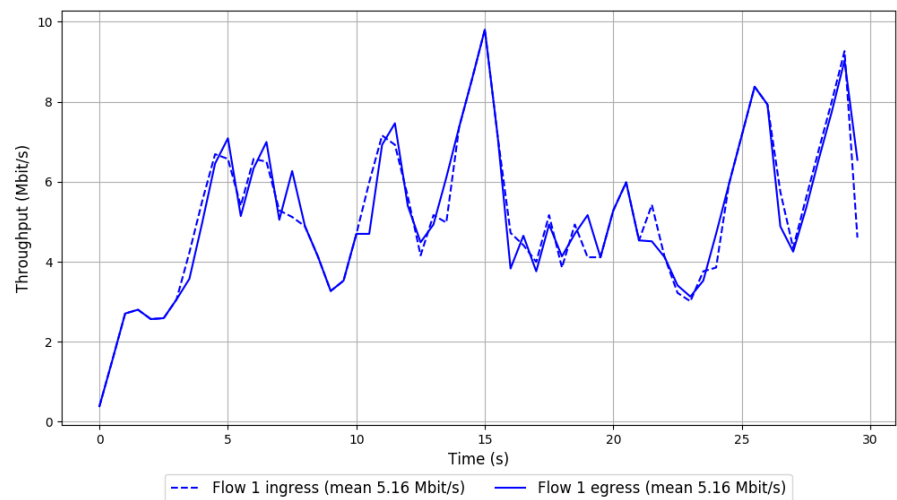
-- Flow 1:

Average throughput: 5.16 Mbit/s

95th percentile per-packet one-way delay: 51.747 ms

Loss rate: 0.01%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-11 14:39:40

End at: 2017-12-11 14:40:10

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.89 Mbit/s

95th percentile per-packet one-way delay: 51.588 ms

Loss rate: 0.06%

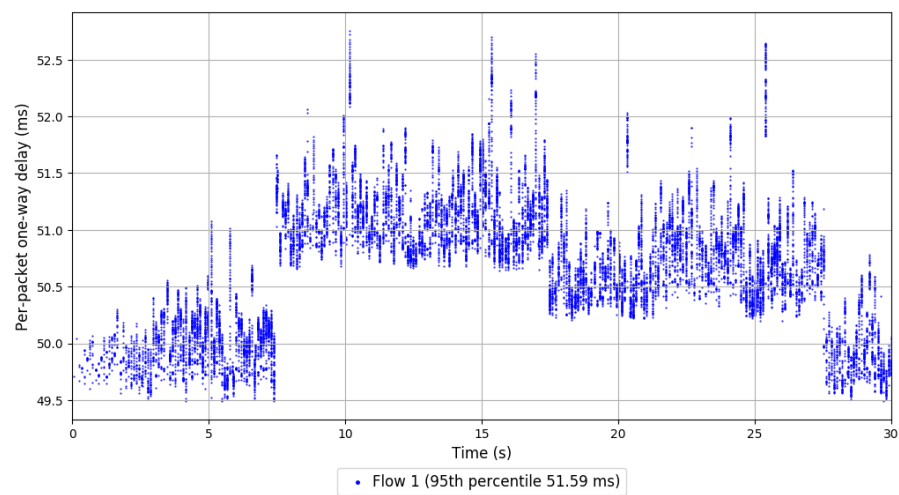
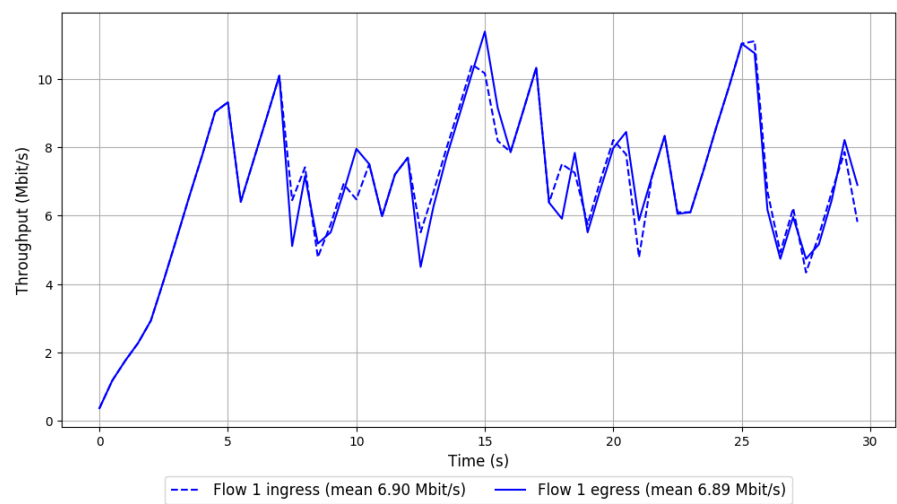
-- Flow 1:

Average throughput: 6.89 Mbit/s

95th percentile per-packet one-way delay: 51.588 ms

Loss rate: 0.06%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-11 14:50:03

End at: 2017-12-11 14:50:33

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 51.318 ms

Loss rate: 0.00%

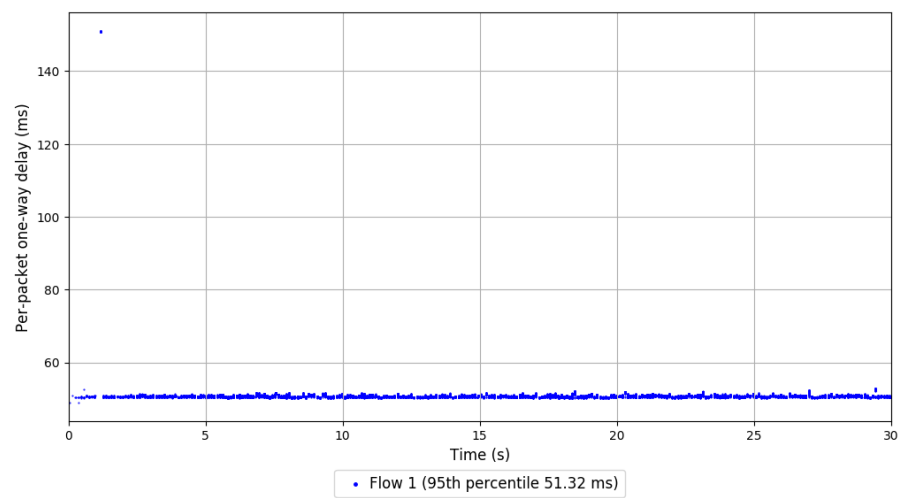
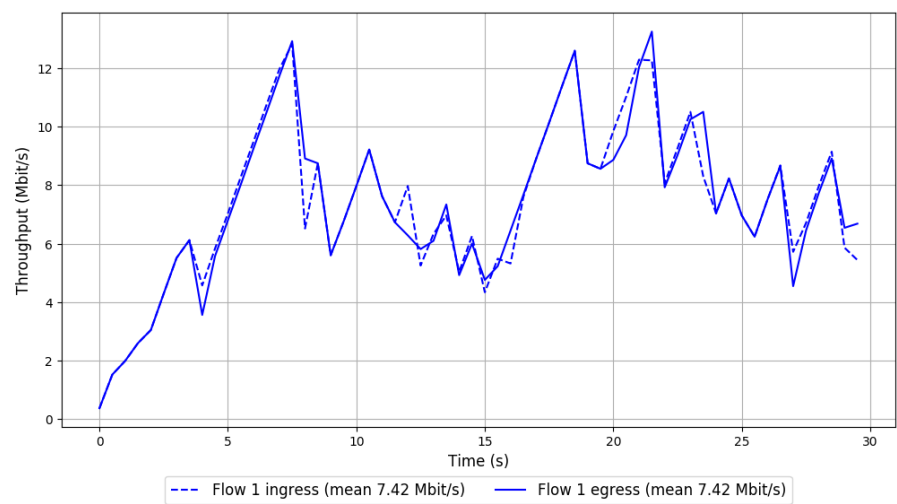
-- Flow 1:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 51.318 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-11 15:00:27

End at: 2017-12-11 15:00:57

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 51.256 ms

Loss rate: 0.02%

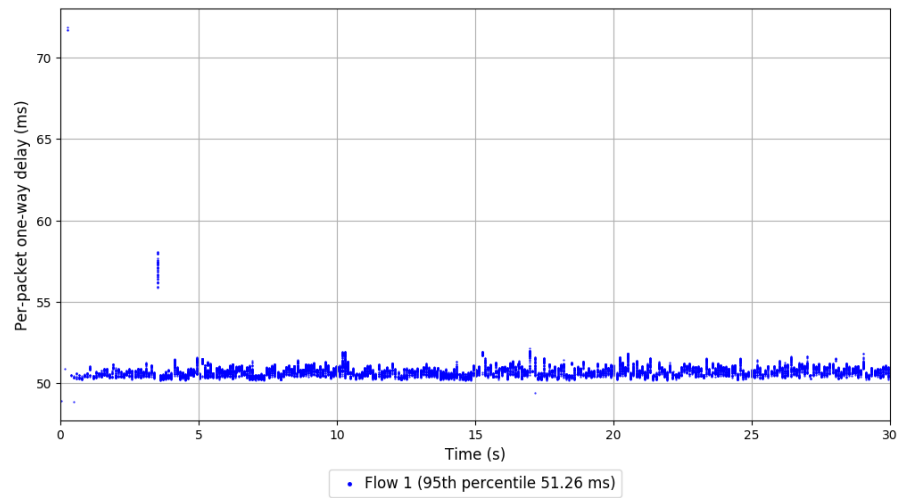
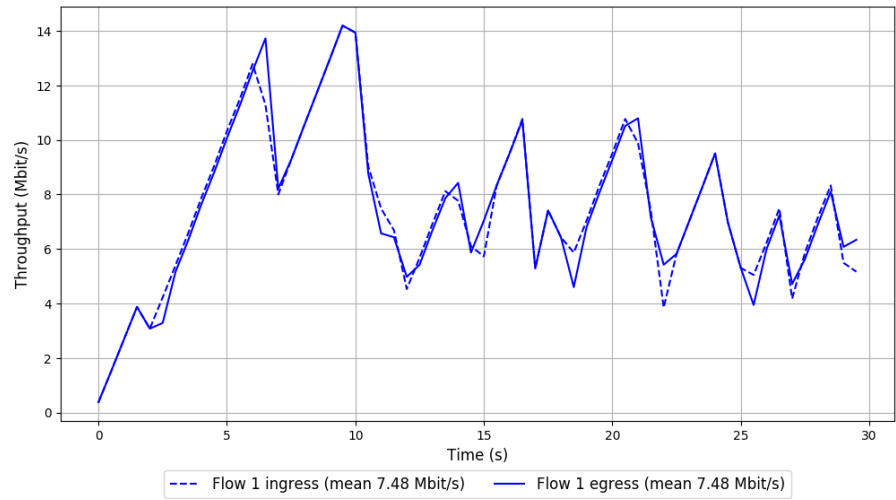
-- Flow 1:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 51.256 ms

Loss rate: 0.02%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-11 15:10:48

End at: 2017-12-11 15:11:18

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 51.312 ms

Loss rate: 0.01%

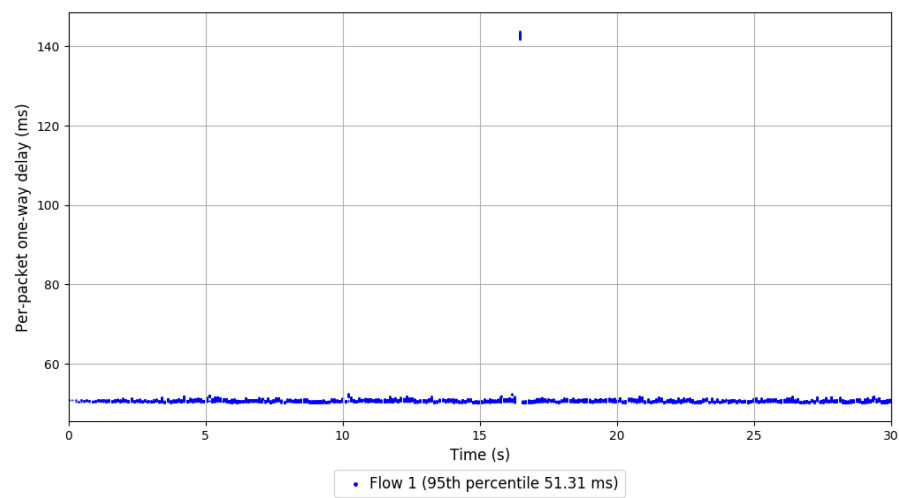
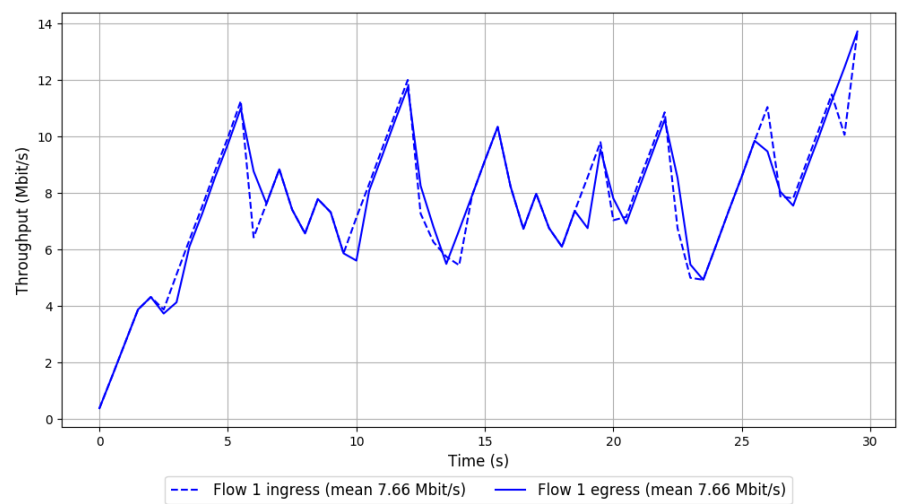
-- Flow 1:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 51.312 ms

Loss rate: 0.01%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-11 15:21:05

End at: 2017-12-11 15:21:35

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 51.821 ms

Loss rate: 0.00%

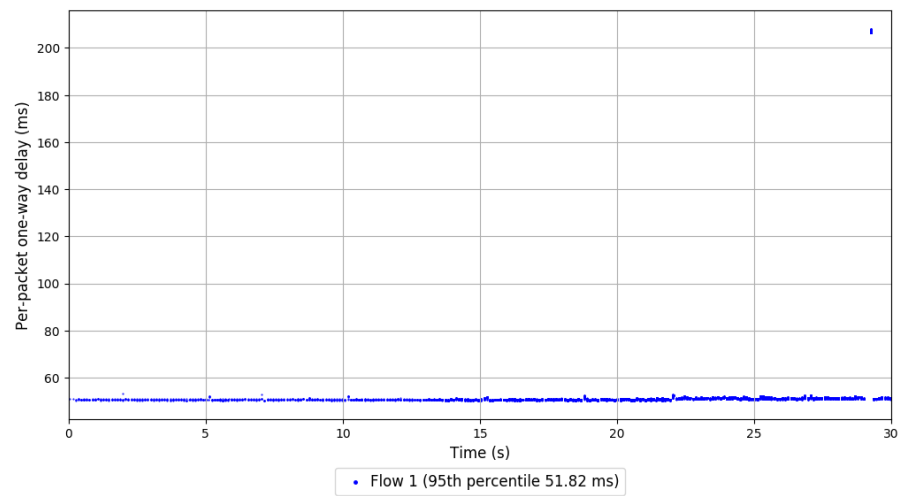
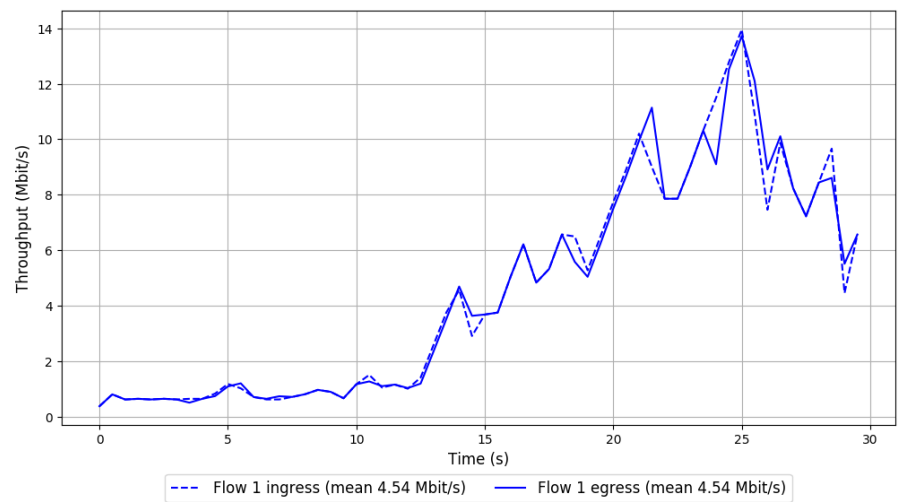
-- Flow 1:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 51.821 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-11 15:31:18

End at: 2017-12-11 15:31:48

Below is generated by plot.py at 2017-12-11 16:41:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 51.639 ms

Loss rate: 0.23%

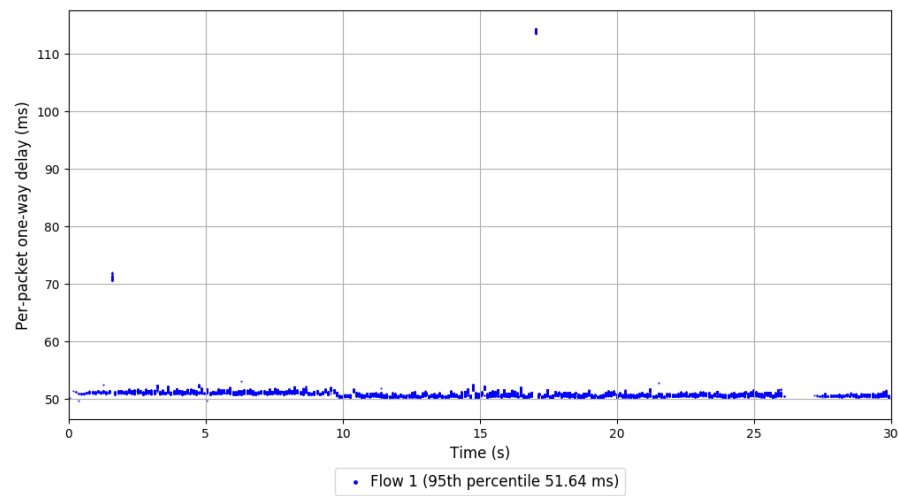
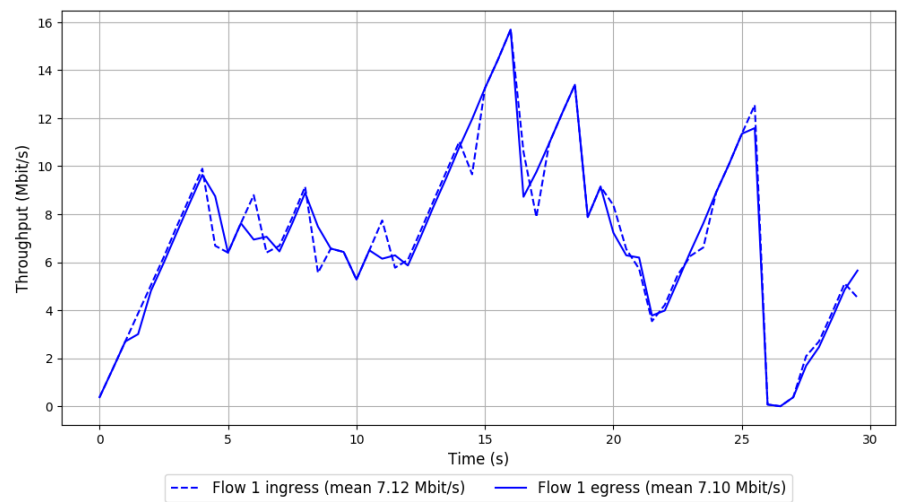
-- Flow 1:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 51.639 ms

Loss rate: 0.23%

Run 10: Report of LEDBAT — Data Link

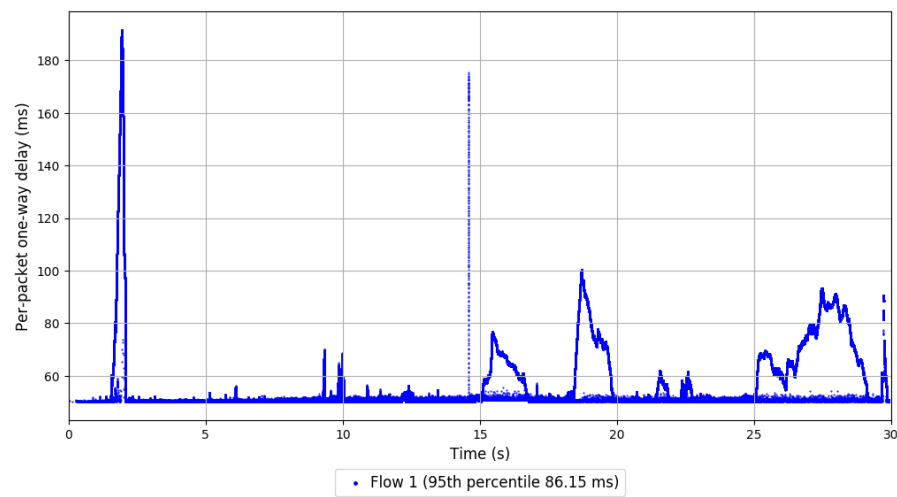
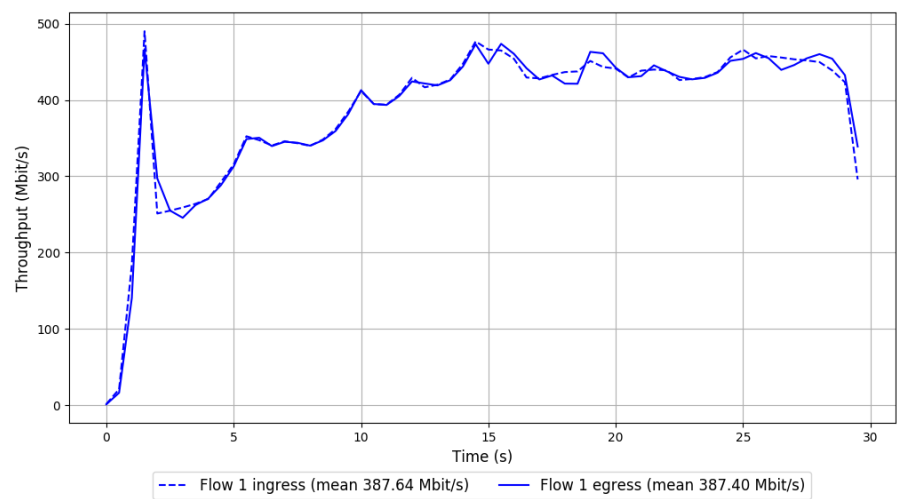


```
Run 1: Statistics of PCC

Start at: 2017-12-11 13:55:50
End at: 2017-12-11 13:56:20

# Below is generated by plot.py at 2017-12-11 16:47:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 387.40 Mbit/s
95th percentile per-packet one-way delay: 86.147 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 387.40 Mbit/s
95th percentile per-packet one-way delay: 86.147 ms
Loss rate: 0.06%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-11 14:06:12

End at: 2017-12-11 14:06:42

Below is generated by plot.py at 2017-12-11 16:48:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 449.12 Mbit/s

95th percentile per-packet one-way delay: 197.325 ms

Loss rate: 1.11%

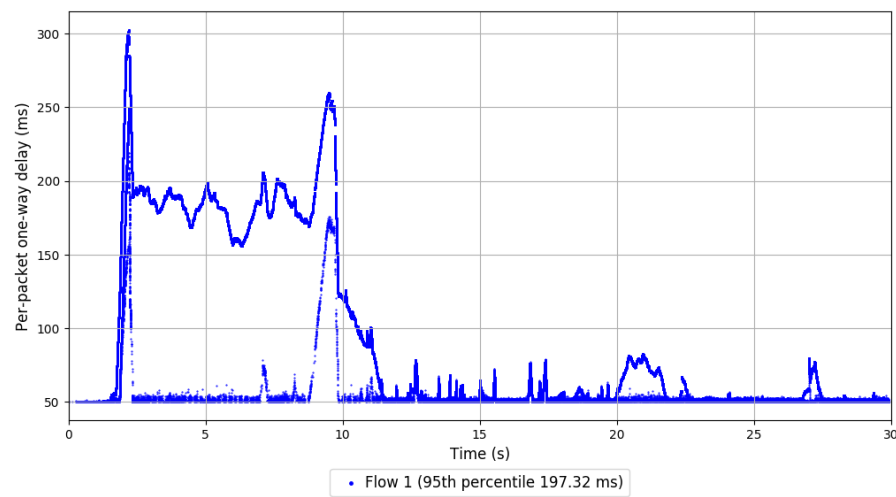
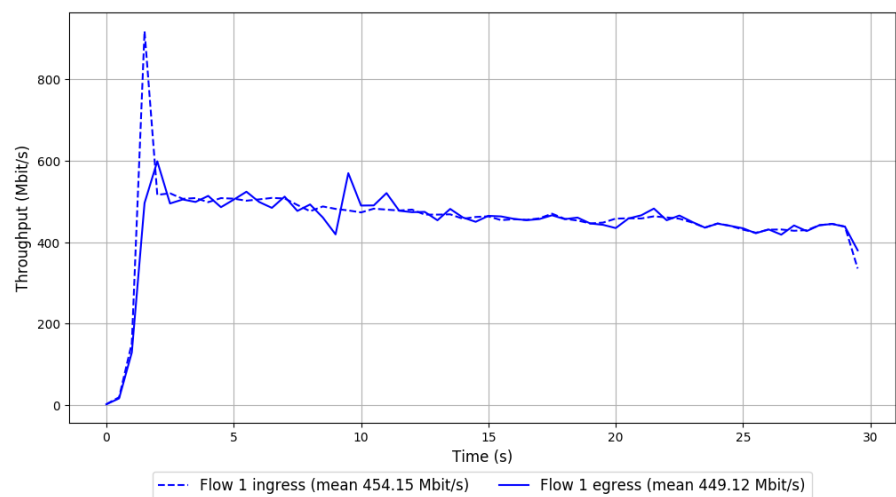
-- Flow 1:

Average throughput: 449.12 Mbit/s

95th percentile per-packet one-way delay: 197.325 ms

Loss rate: 1.11%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-11 14:16:33

End at: 2017-12-11 14:17:03

Below is generated by plot.py at 2017-12-11 16:48:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 411.94 Mbit/s

95th percentile per-packet one-way delay: 65.140 ms

Loss rate: 0.72%

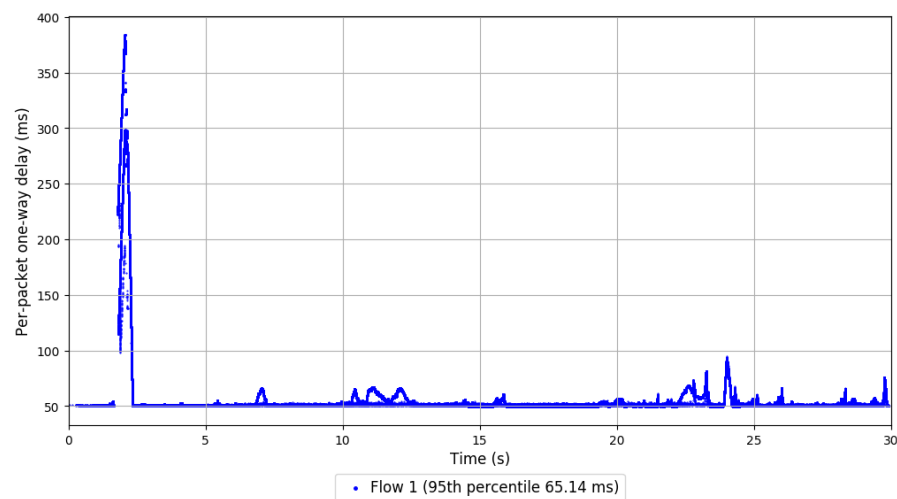
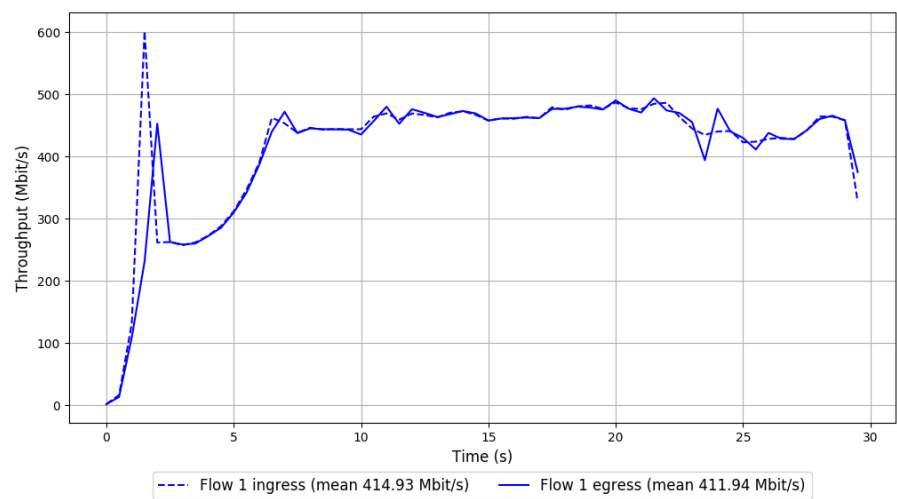
-- Flow 1:

Average throughput: 411.94 Mbit/s

95th percentile per-packet one-way delay: 65.140 ms

Loss rate: 0.72%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-11 14:26:52

End at: 2017-12-11 14:27:22

Below is generated by plot.py at 2017-12-11 16:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 480.02 Mbit/s

95th percentile per-packet one-way delay: 169.204 ms

Loss rate: 0.59%

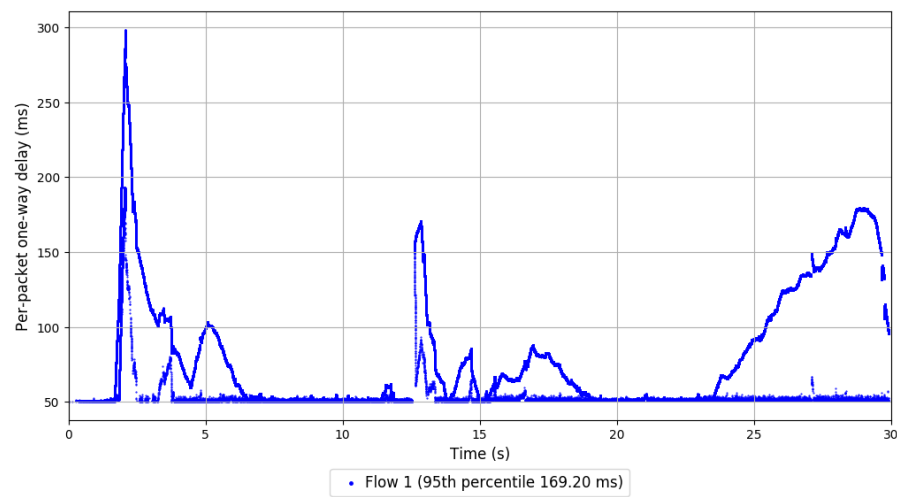
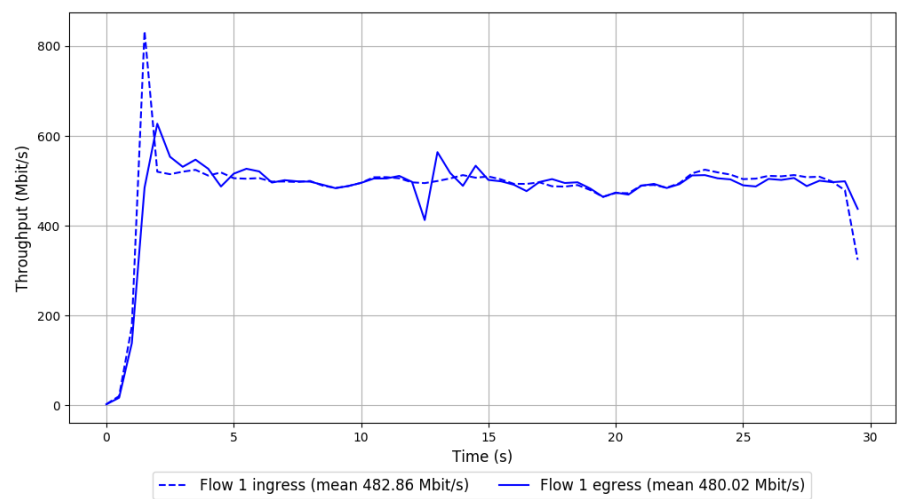
-- Flow 1:

Average throughput: 480.02 Mbit/s

95th percentile per-packet one-way delay: 169.204 ms

Loss rate: 0.59%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-11 14:37:10

End at: 2017-12-11 14:37:40

Below is generated by plot.py at 2017-12-11 16:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 386.53 Mbit/s

95th percentile per-packet one-way delay: 171.103 ms

Loss rate: 0.38%

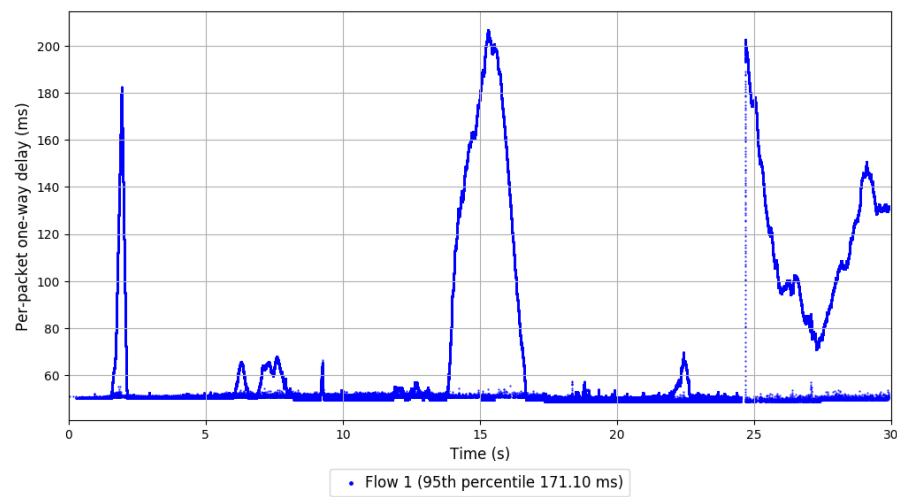
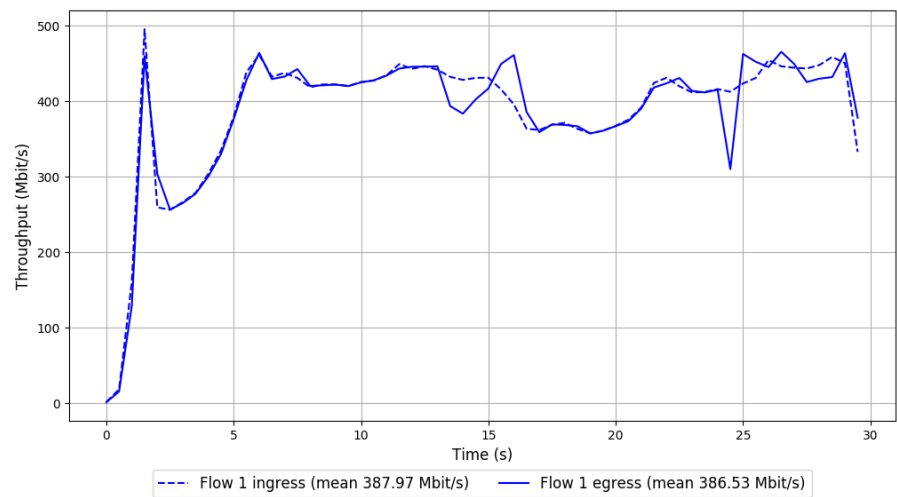
-- Flow 1:

Average throughput: 386.53 Mbit/s

95th percentile per-packet one-way delay: 171.103 ms

Loss rate: 0.38%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-11 14:47:31

End at: 2017-12-11 14:48:01

Below is generated by plot.py at 2017-12-11 16:49:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 398.62 Mbit/s

95th percentile per-packet one-way delay: 92.766 ms

Loss rate: 0.06%

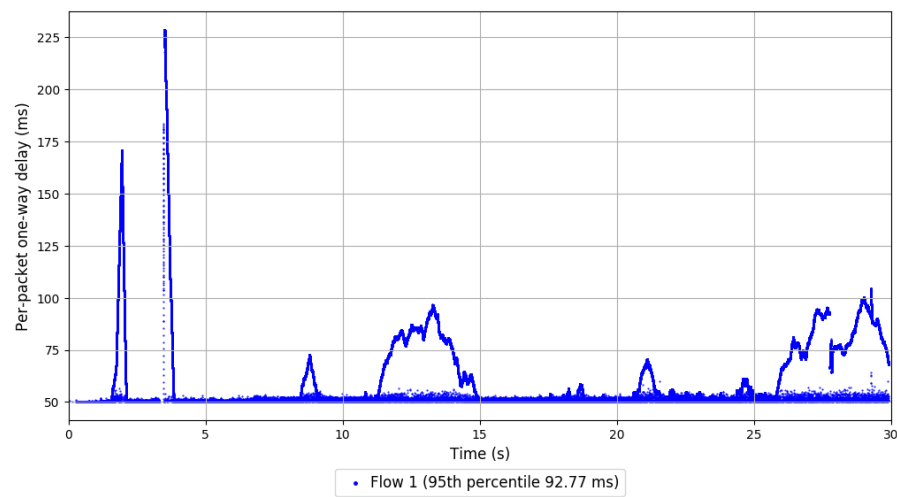
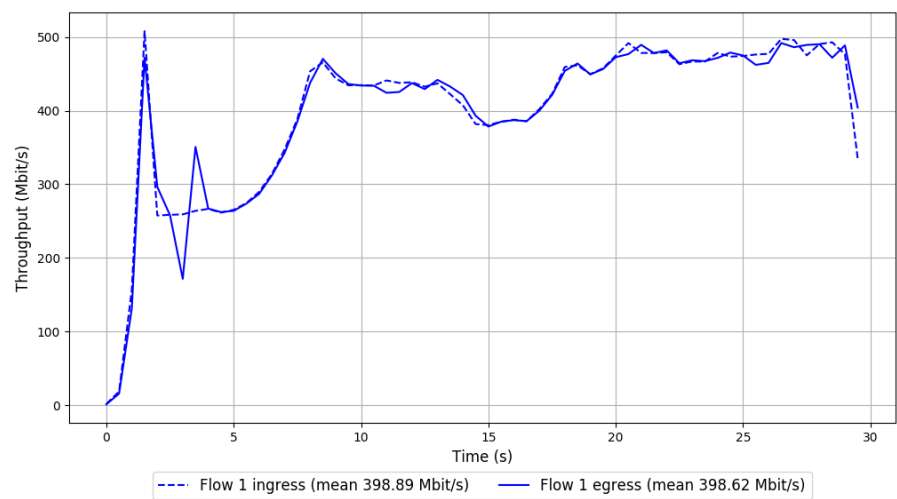
-- Flow 1:

Average throughput: 398.62 Mbit/s

95th percentile per-packet one-way delay: 92.766 ms

Loss rate: 0.06%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-11 14:57:48

End at: 2017-12-11 14:58:18

Below is generated by plot.py at 2017-12-11 16:50:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 449.81 Mbit/s

95th percentile per-packet one-way delay: 193.985 ms

Loss rate: 1.61%

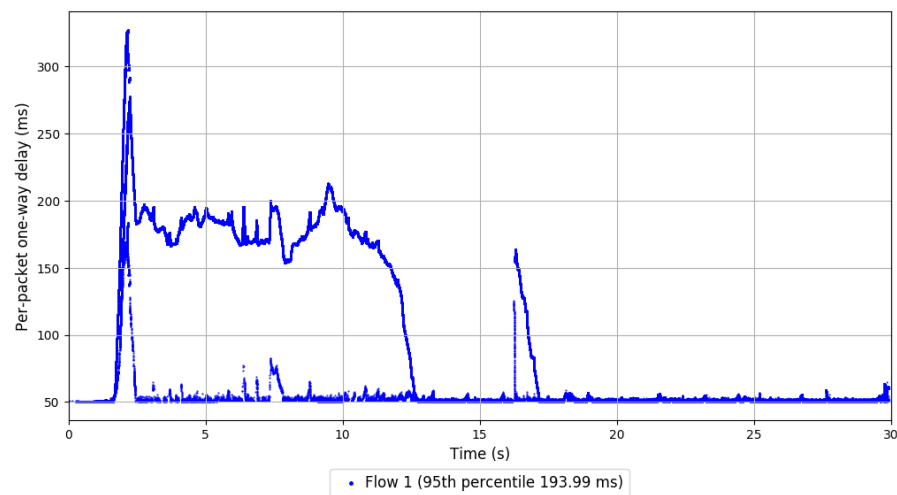
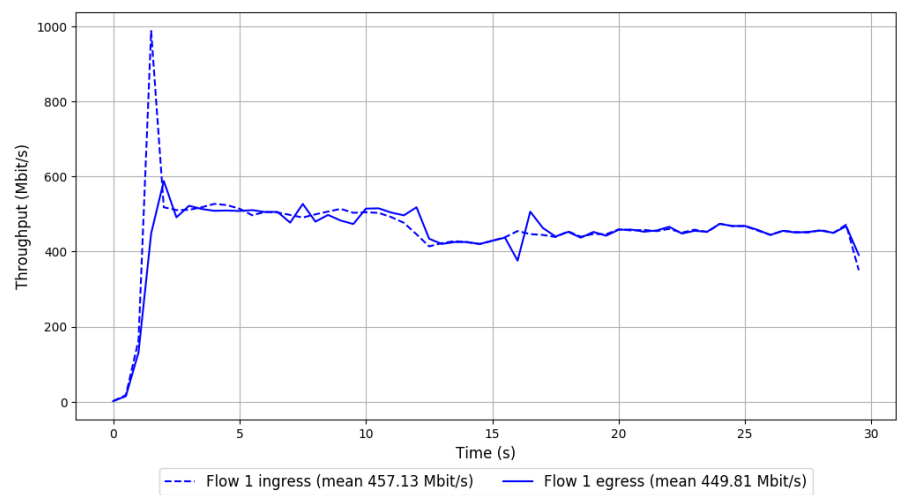
-- Flow 1:

Average throughput: 449.81 Mbit/s

95th percentile per-packet one-way delay: 193.985 ms

Loss rate: 1.61%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-11 15:08:19

End at: 2017-12-11 15:08:49

Below is generated by plot.py at 2017-12-11 16:50:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 384.56 Mbit/s

95th percentile per-packet one-way delay: 108.847 ms

Loss rate: 0.00%

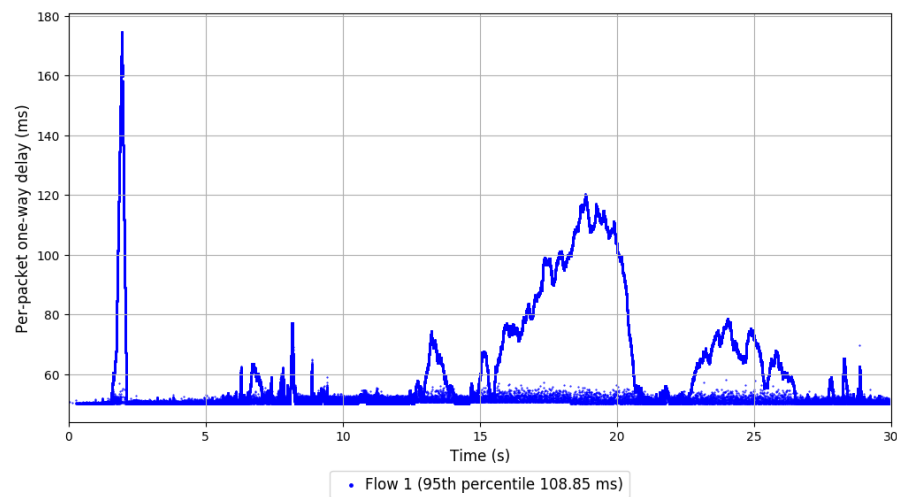
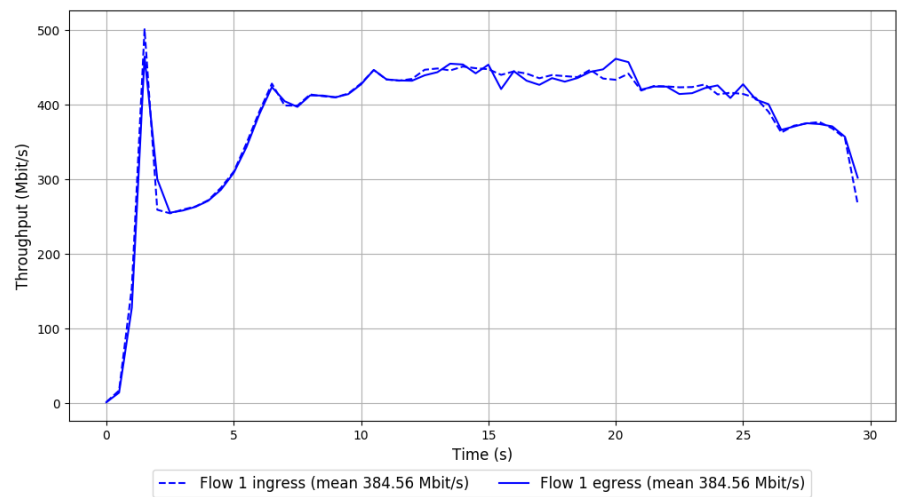
-- Flow 1:

Average throughput: 384.56 Mbit/s

95th percentile per-packet one-way delay: 108.847 ms

Loss rate: 0.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-11 15:18:34

End at: 2017-12-11 15:19:04

Below is generated by plot.py at 2017-12-11 16:54:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 388.60 Mbit/s

95th percentile per-packet one-way delay: 156.469 ms

Loss rate: 0.01%

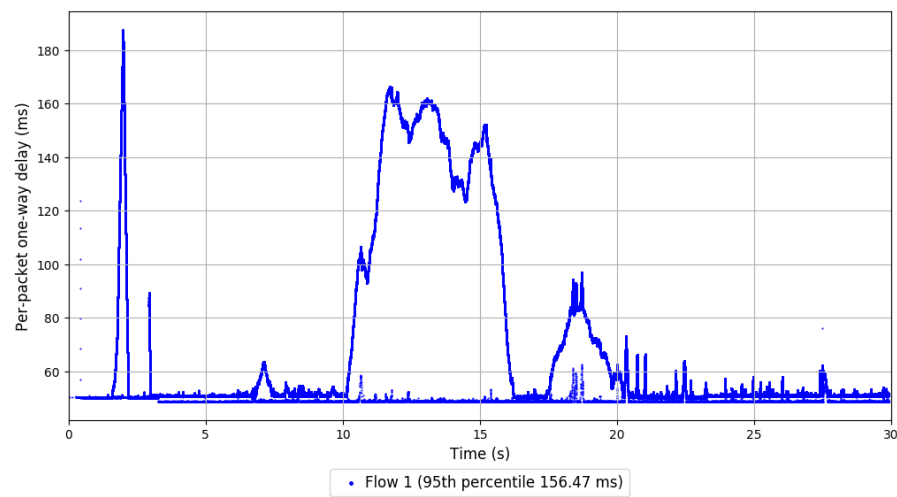
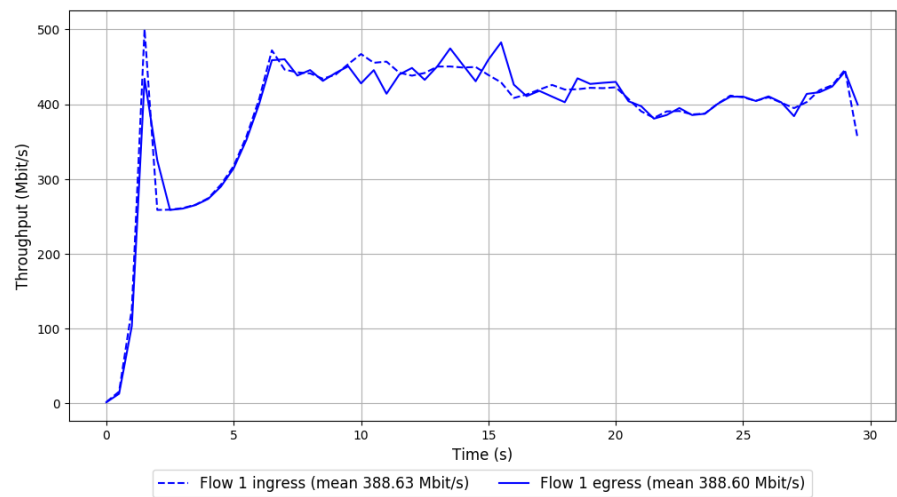
-- Flow 1:

Average throughput: 388.60 Mbit/s

95th percentile per-packet one-way delay: 156.469 ms

Loss rate: 0.01%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-11 15:28:49

End at: 2017-12-11 15:29:19

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 405.33 Mbit/s

95th percentile per-packet one-way delay: 202.901 ms

Loss rate: 0.54%

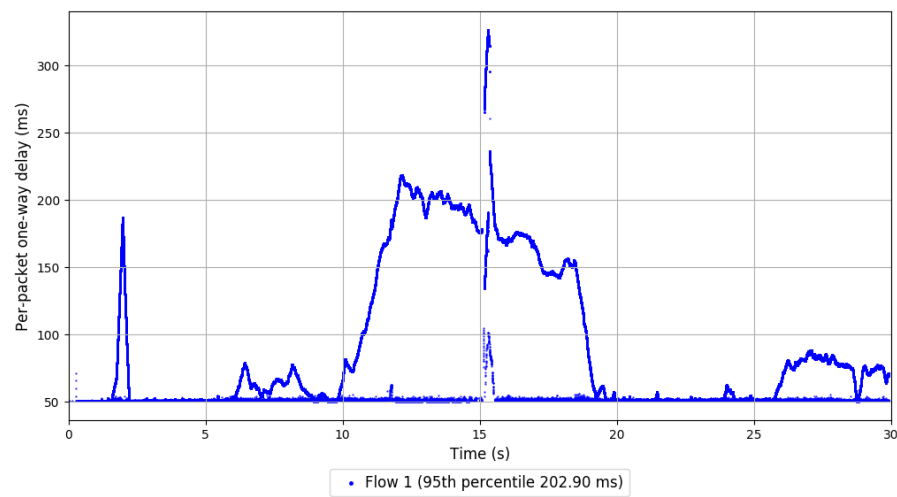
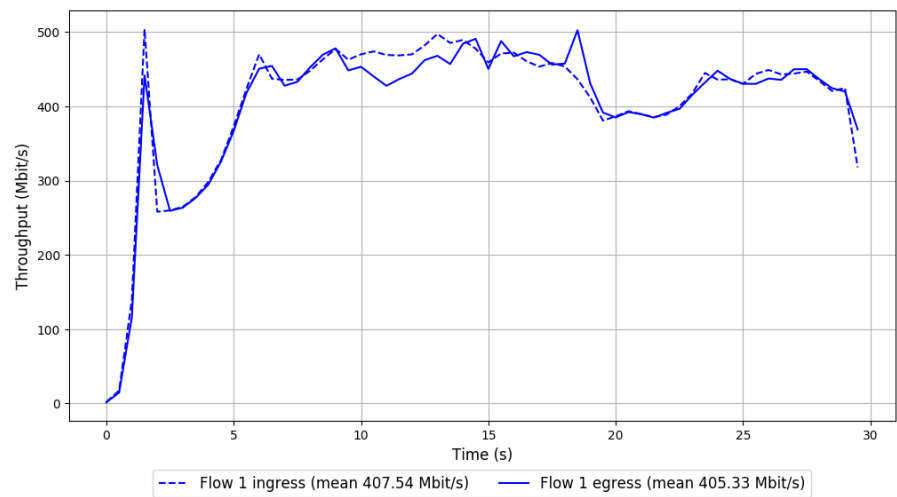
-- Flow 1:

Average throughput: 405.33 Mbit/s

95th percentile per-packet one-way delay: 202.901 ms

Loss rate: 0.54%

Run 10: Report of PCC — Data Link

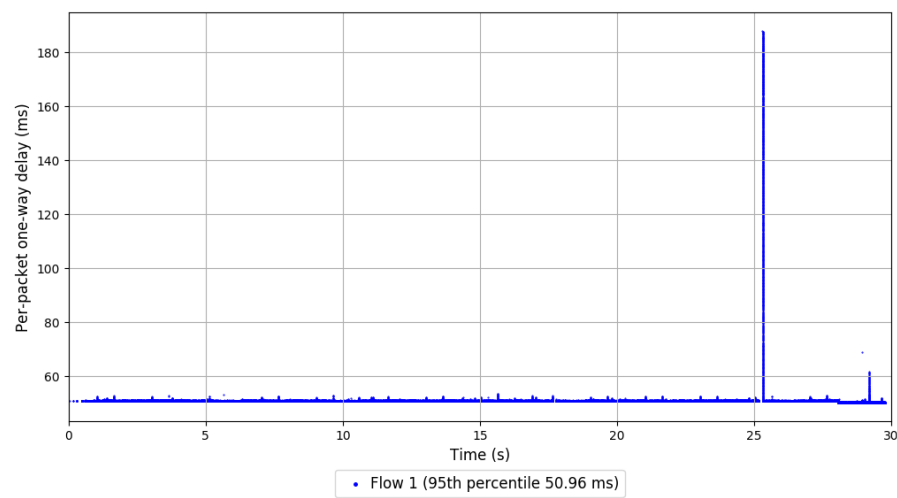
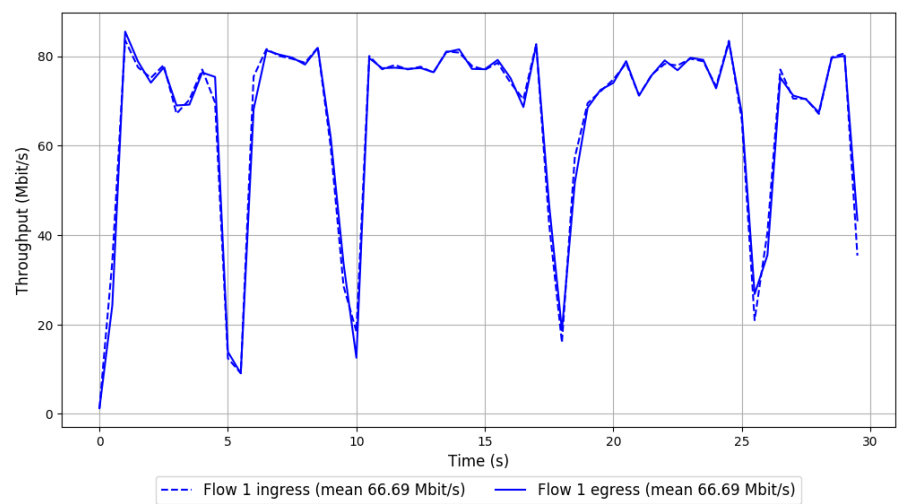


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-11 13:55:09
End at: 2017-12-11 13:55:39

# Below is generated by plot.py at 2017-12-11 16:55:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.69 Mbit/s
95th percentile per-packet one-way delay: 50.961 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 66.69 Mbit/s
95th percentile per-packet one-way delay: 50.961 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-11 14:05:32

End at: 2017-12-11 14:06:02

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.61 Mbit/s

95th percentile per-packet one-way delay: 50.920 ms

Loss rate: 0.00%

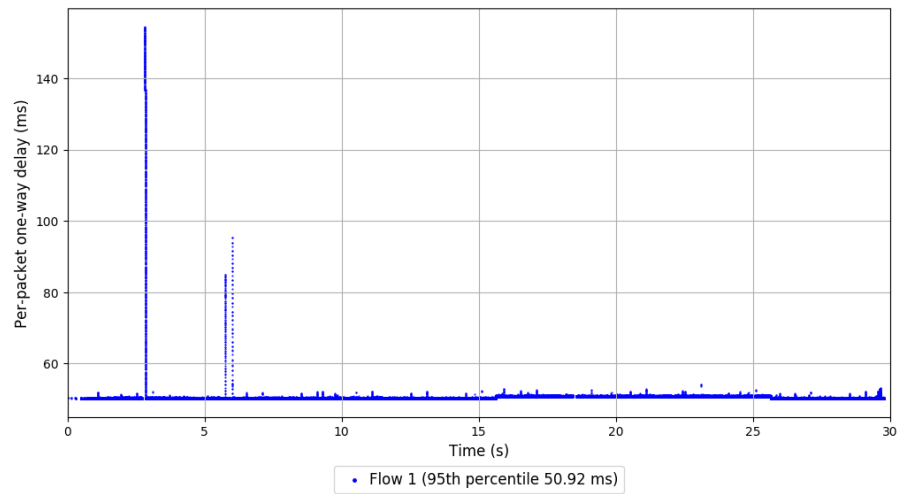
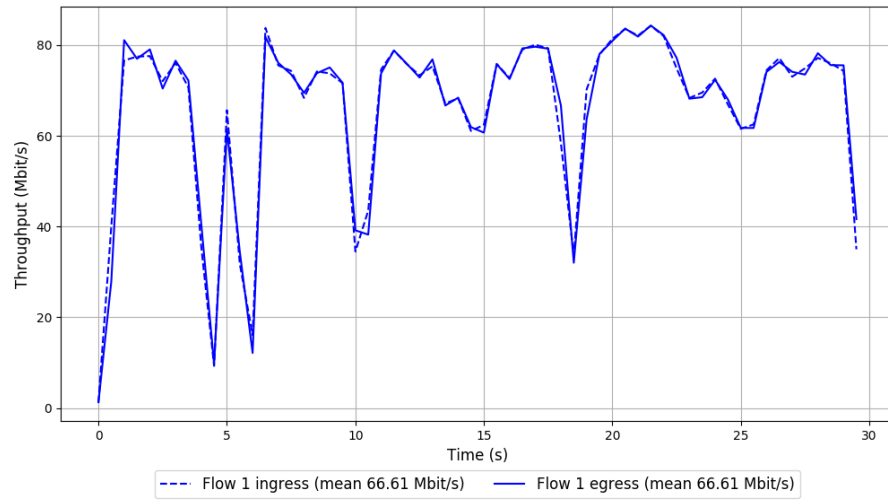
-- Flow 1:

Average throughput: 66.61 Mbit/s

95th percentile per-packet one-way delay: 50.920 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-11 14:15:52

End at: 2017-12-11 14:16:22

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 50.719 ms

Loss rate: 0.00%

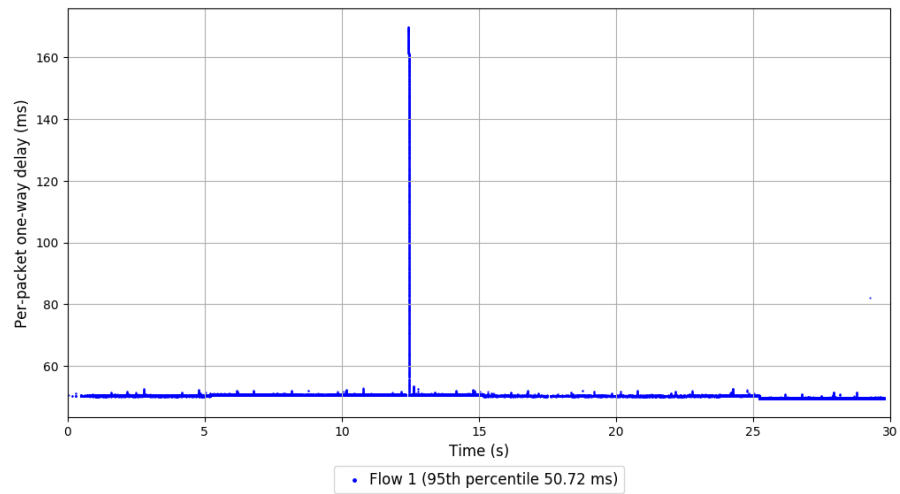
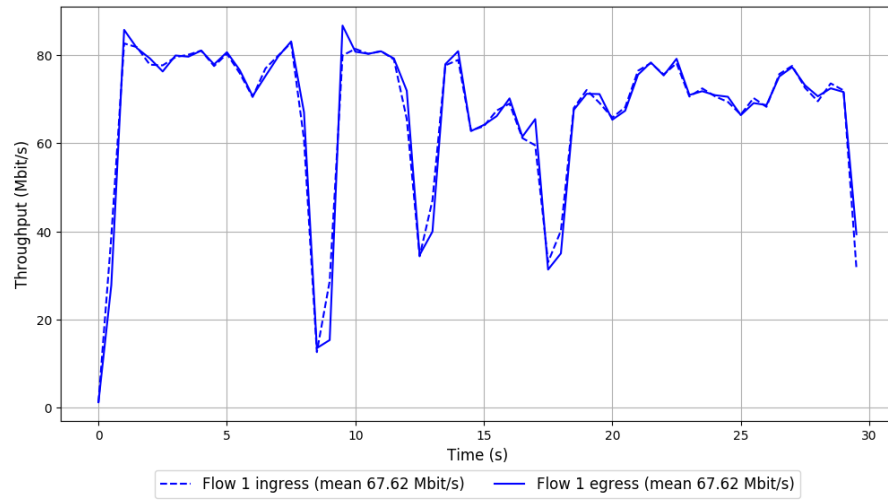
-- Flow 1:

Average throughput: 67.62 Mbit/s

95th percentile per-packet one-way delay: 50.719 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-11 14:26:11

End at: 2017-12-11 14:26:41

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.25 Mbit/s

95th percentile per-packet one-way delay: 50.409 ms

Loss rate: 0.00%

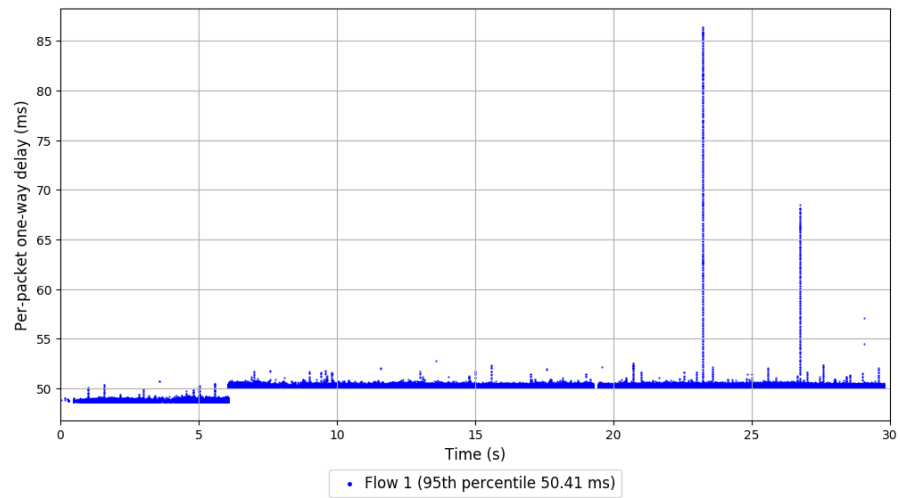
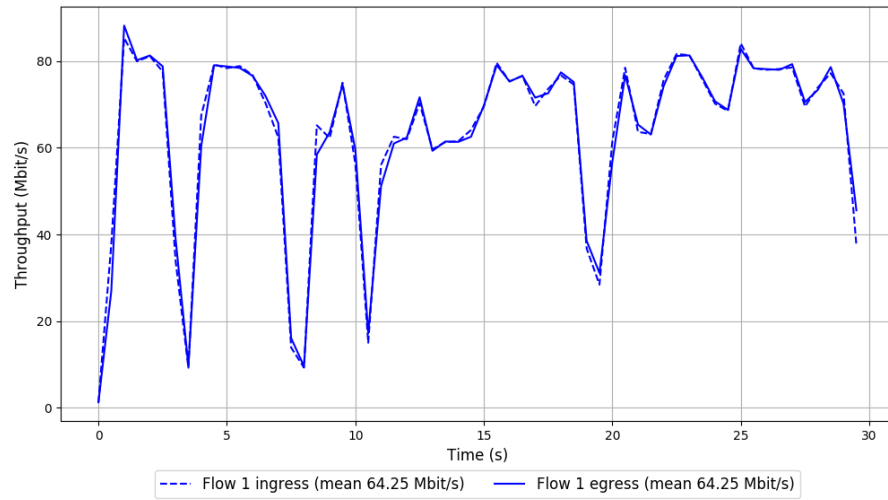
-- Flow 1:

Average throughput: 64.25 Mbit/s

95th percentile per-packet one-way delay: 50.409 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-11 14:36:29

End at: 2017-12-11 14:36:59

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.48 Mbit/s

95th percentile per-packet one-way delay: 50.663 ms

Loss rate: 0.00%

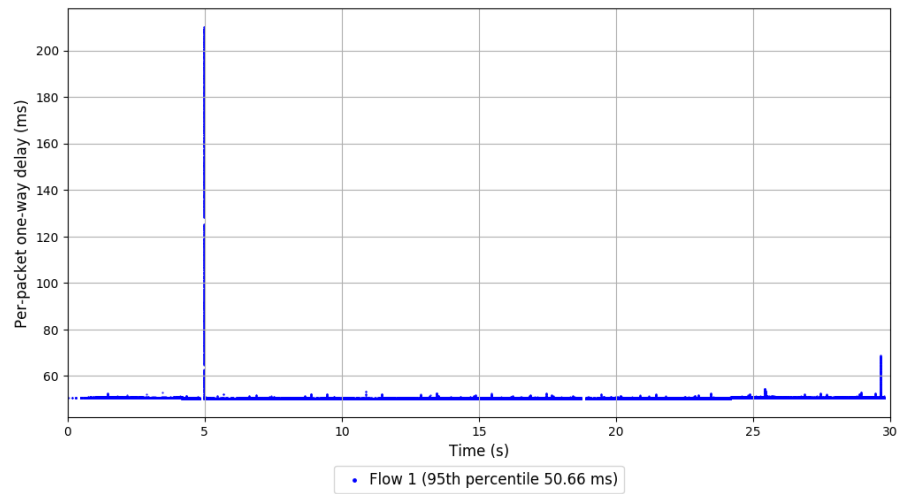
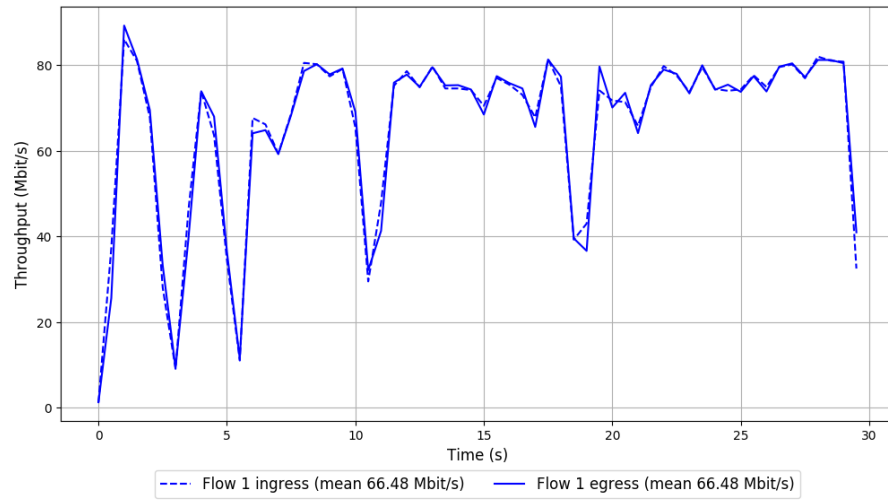
-- Flow 1:

Average throughput: 66.48 Mbit/s

95th percentile per-packet one-way delay: 50.663 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-11 14:46:50

End at: 2017-12-11 14:47:20

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.58 Mbit/s

95th percentile per-packet one-way delay: 50.915 ms

Loss rate: 0.00%

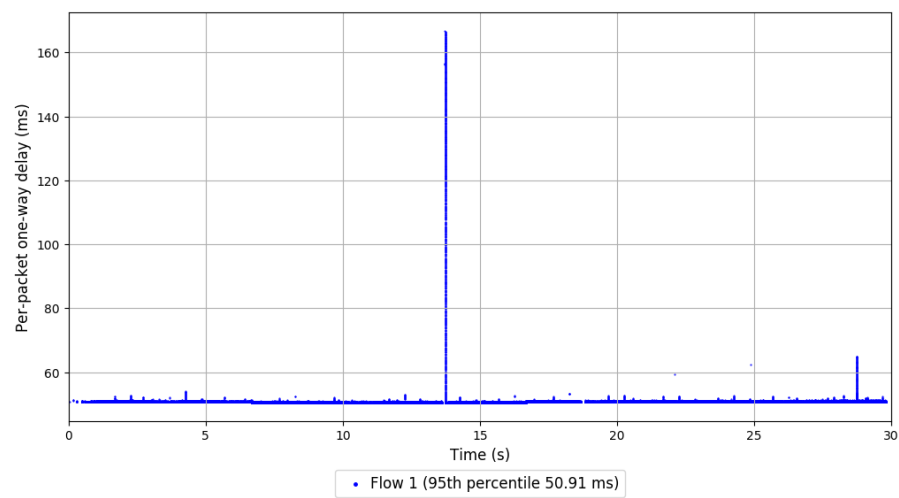
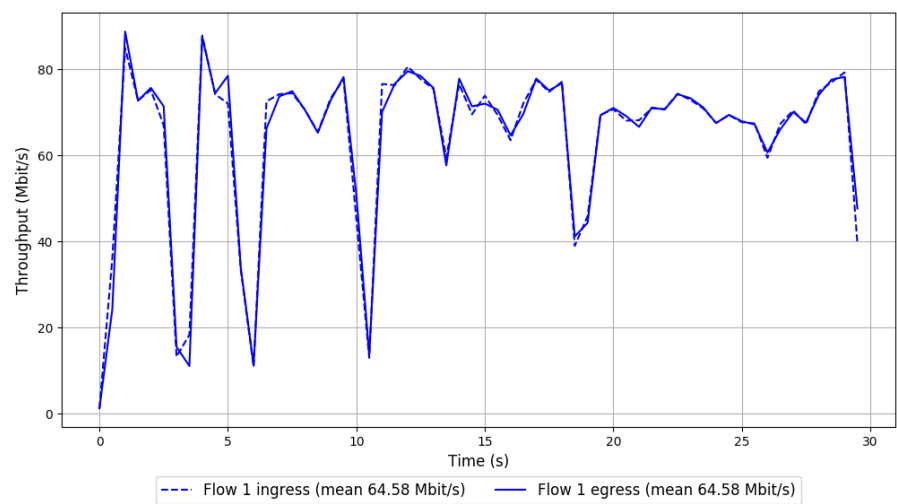
-- Flow 1:

Average throughput: 64.58 Mbit/s

95th percentile per-packet one-way delay: 50.915 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-11 14:57:08

End at: 2017-12-11 14:57:38

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.38 Mbit/s

95th percentile per-packet one-way delay: 48.912 ms

Loss rate: 0.00%

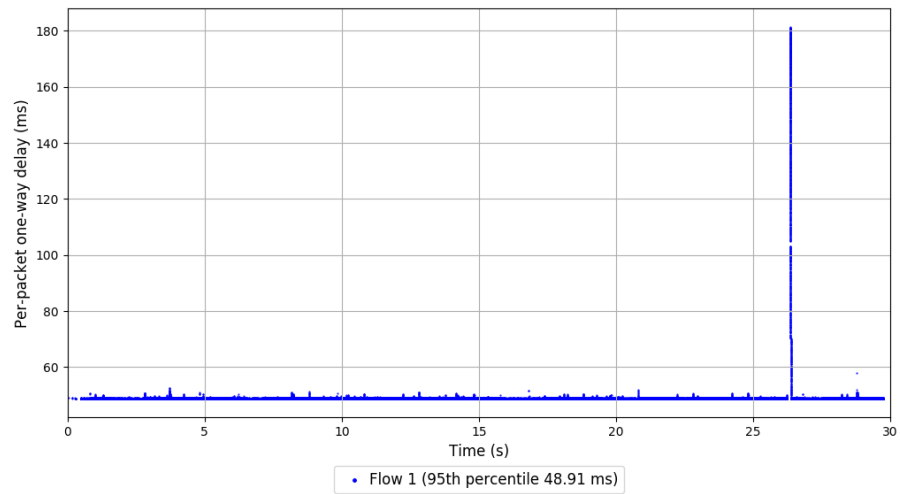
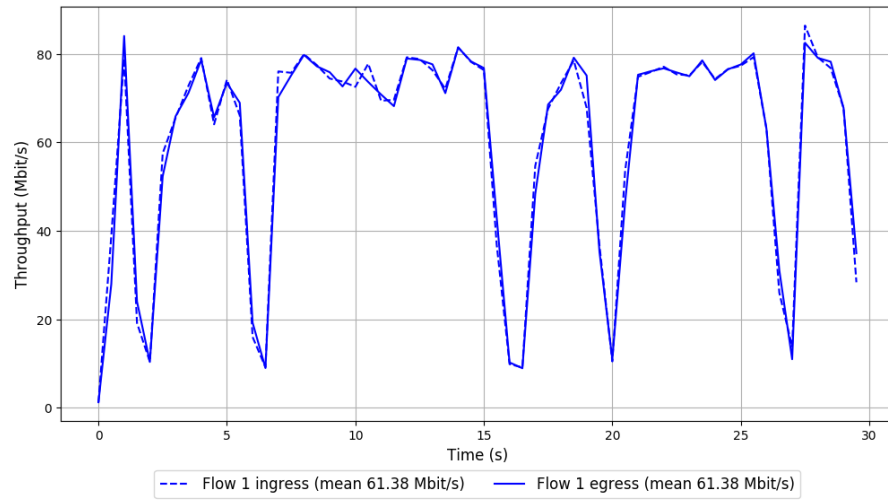
-- Flow 1:

Average throughput: 61.38 Mbit/s

95th percentile per-packet one-way delay: 48.912 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-11 15:07:39

End at: 2017-12-11 15:08:09

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.17 Mbit/s

95th percentile per-packet one-way delay: 50.388 ms

Loss rate: 0.00%

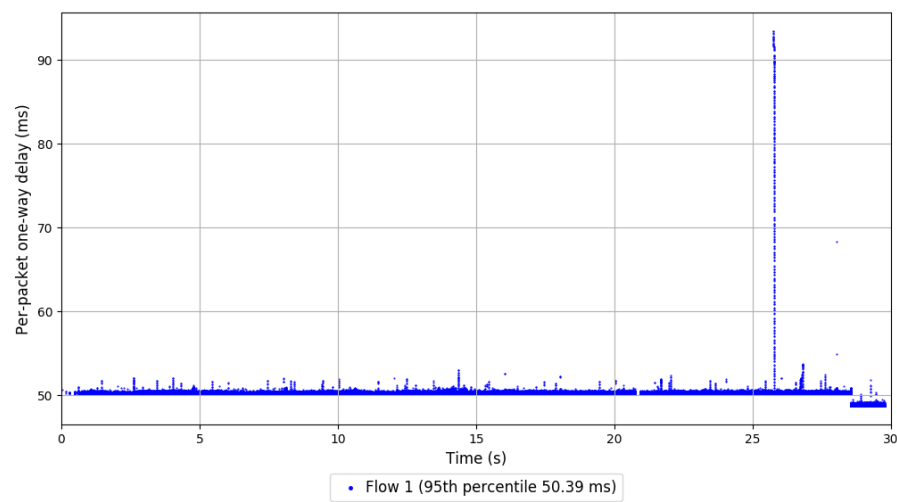
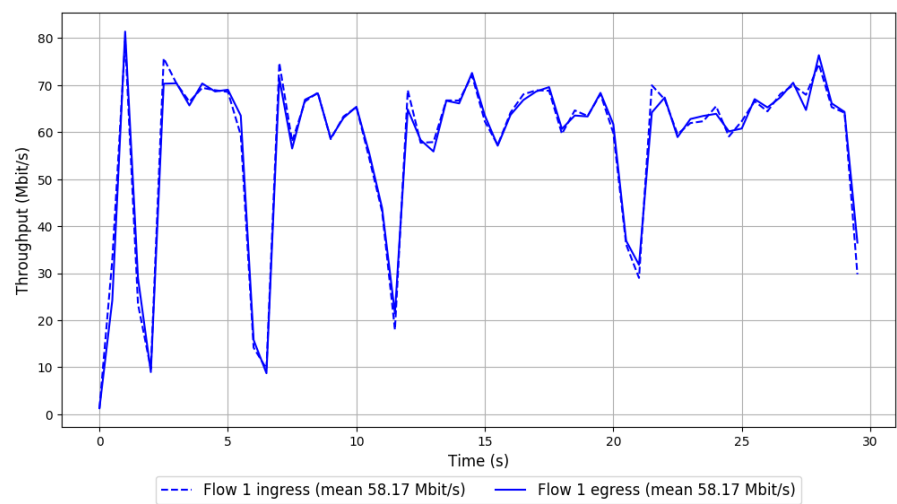
-- Flow 1:

Average throughput: 58.17 Mbit/s

95th percentile per-packet one-way delay: 50.388 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-11 15:17:53

End at: 2017-12-11 15:18:23

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.70 Mbit/s

95th percentile per-packet one-way delay: 50.368 ms

Loss rate: 0.00%

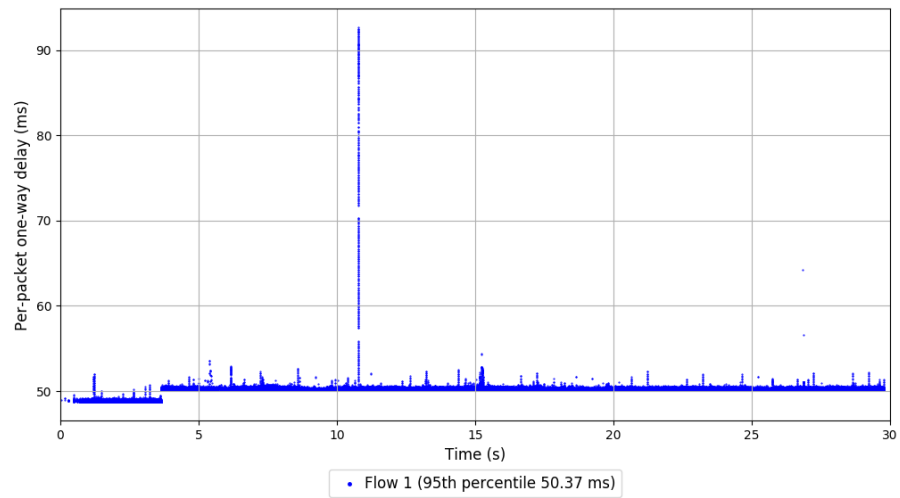
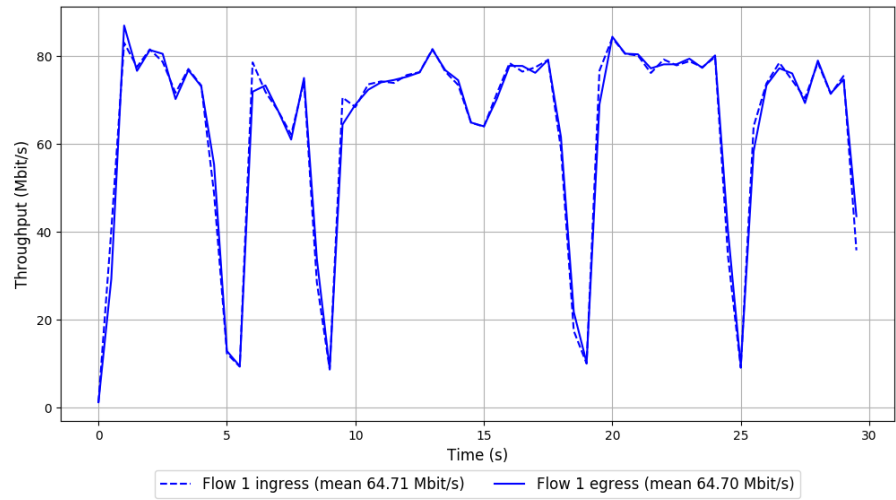
-- Flow 1:

Average throughput: 64.70 Mbit/s

95th percentile per-packet one-way delay: 50.368 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-11 15:28:09

End at: 2017-12-11 15:28:39

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.17 Mbit/s

95th percentile per-packet one-way delay: 50.857 ms

Loss rate: 0.00%

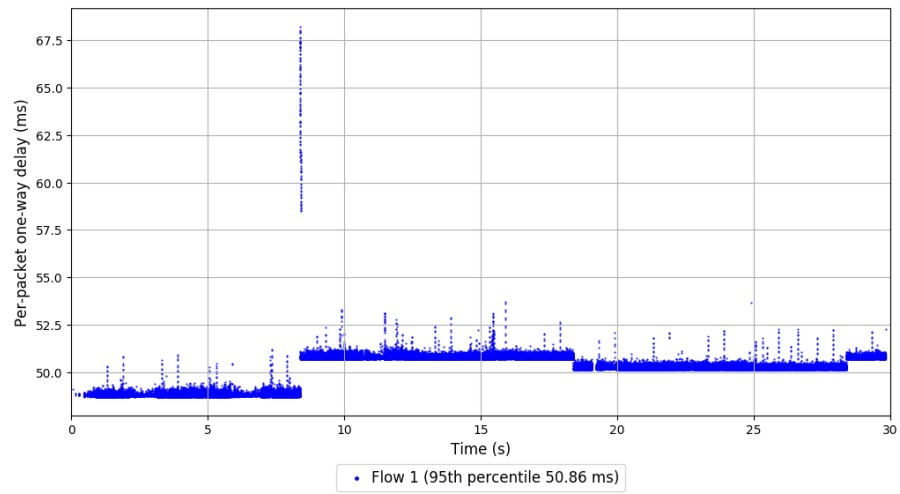
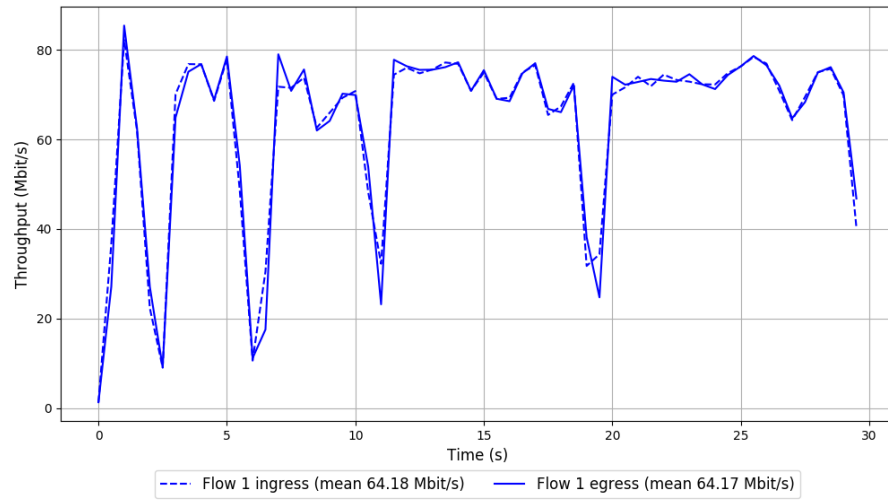
-- Flow 1:

Average throughput: 64.17 Mbit/s

95th percentile per-packet one-way delay: 50.857 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

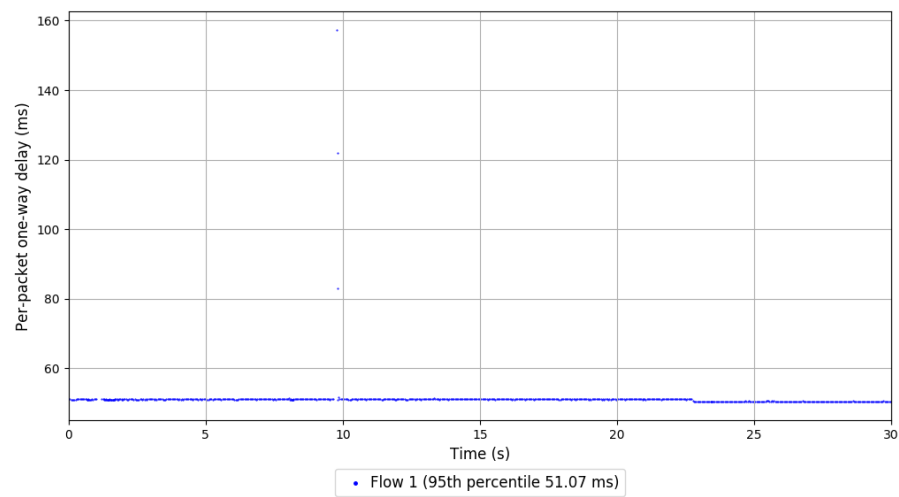
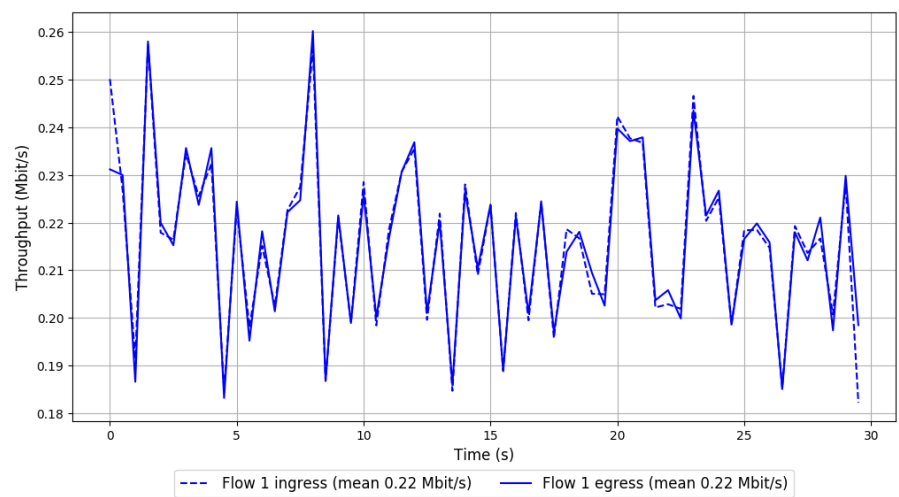


```
Run 1: Statistics of SCReAM

Start at: 2017-12-11 14:04:54
End at: 2017-12-11 14:05:25

# Below is generated by plot.py at 2017-12-11 16:55:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.071 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.071 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

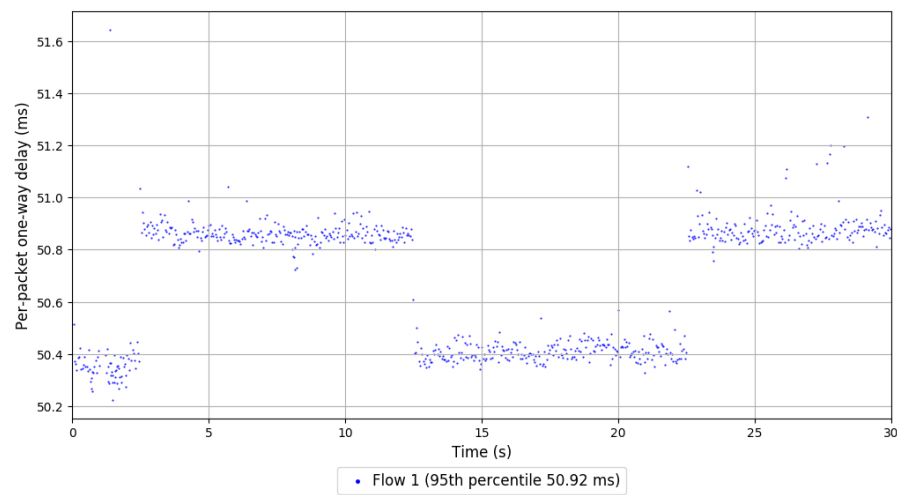
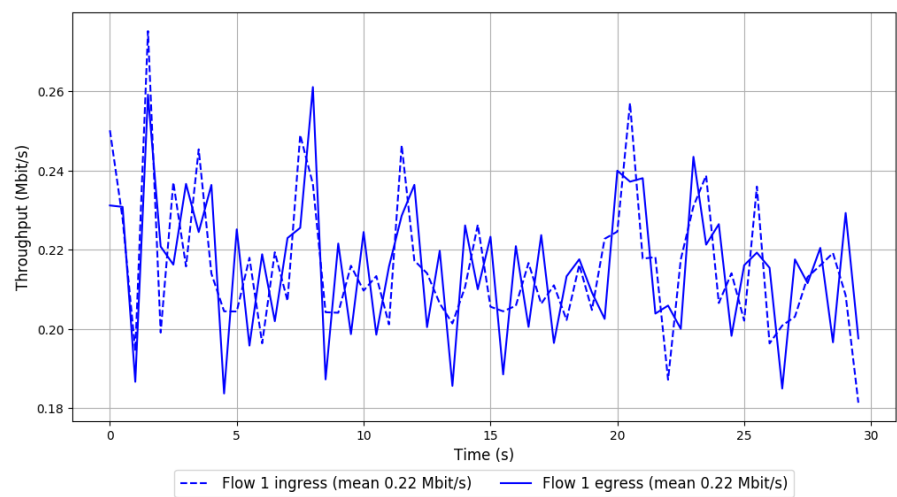


```
Run 2: Statistics of SCReAM

Start at: 2017-12-11 14:15:15
End at: 2017-12-11 14:15:45

# Below is generated by plot.py at 2017-12-11 16:55:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.920 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.920 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-11 14:25:34

End at: 2017-12-11 14:26:04

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.901 ms

Loss rate: 0.00%

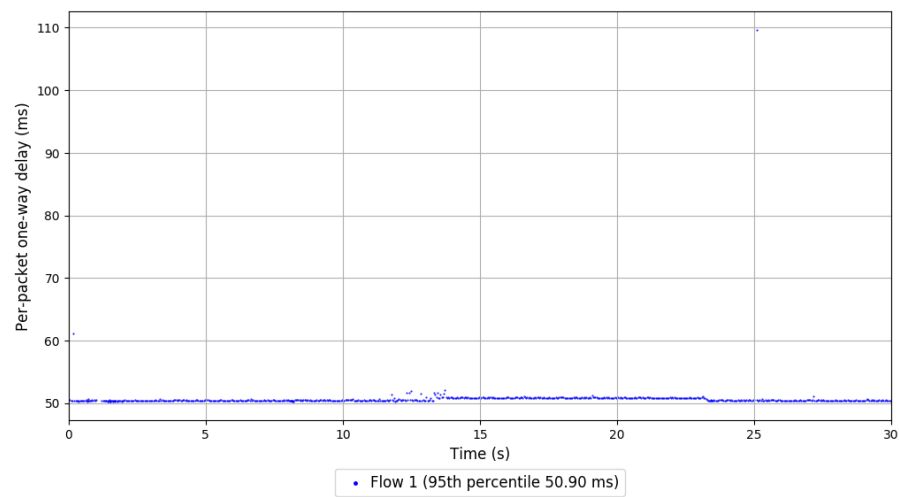
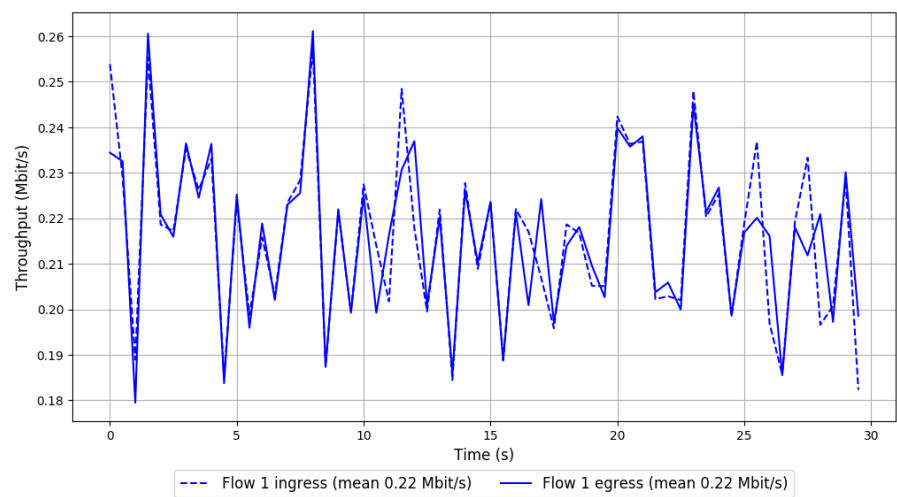
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.901 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-11 14:35:52

End at: 2017-12-11 14:36:22

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.980 ms

Loss rate: 0.00%

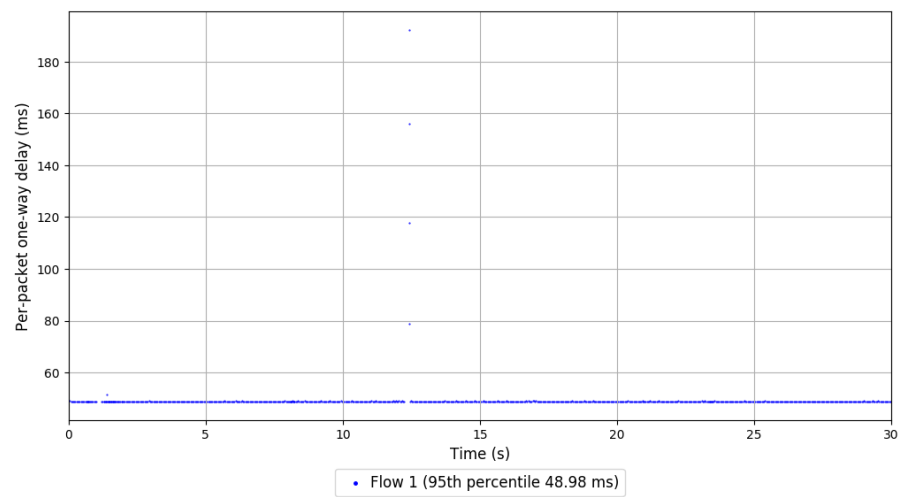
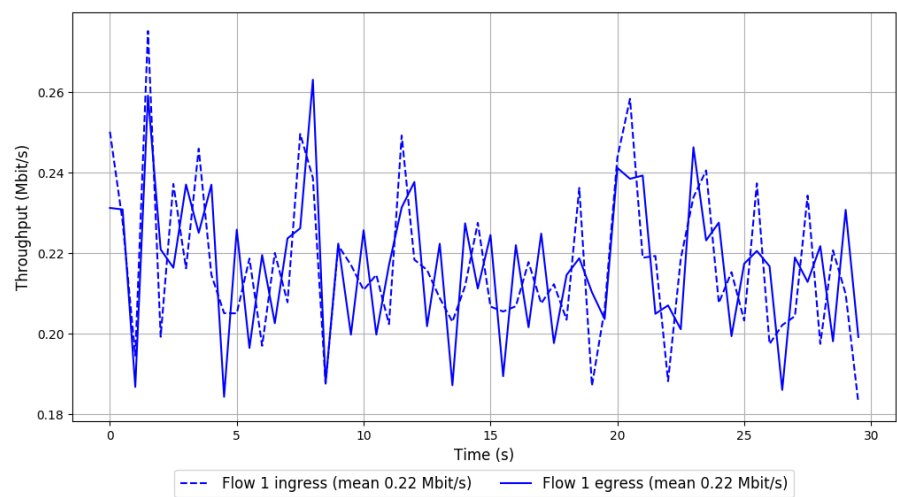
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.980 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-11 14:46:13

End at: 2017-12-11 14:46:43

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.991 ms

Loss rate: 0.00%

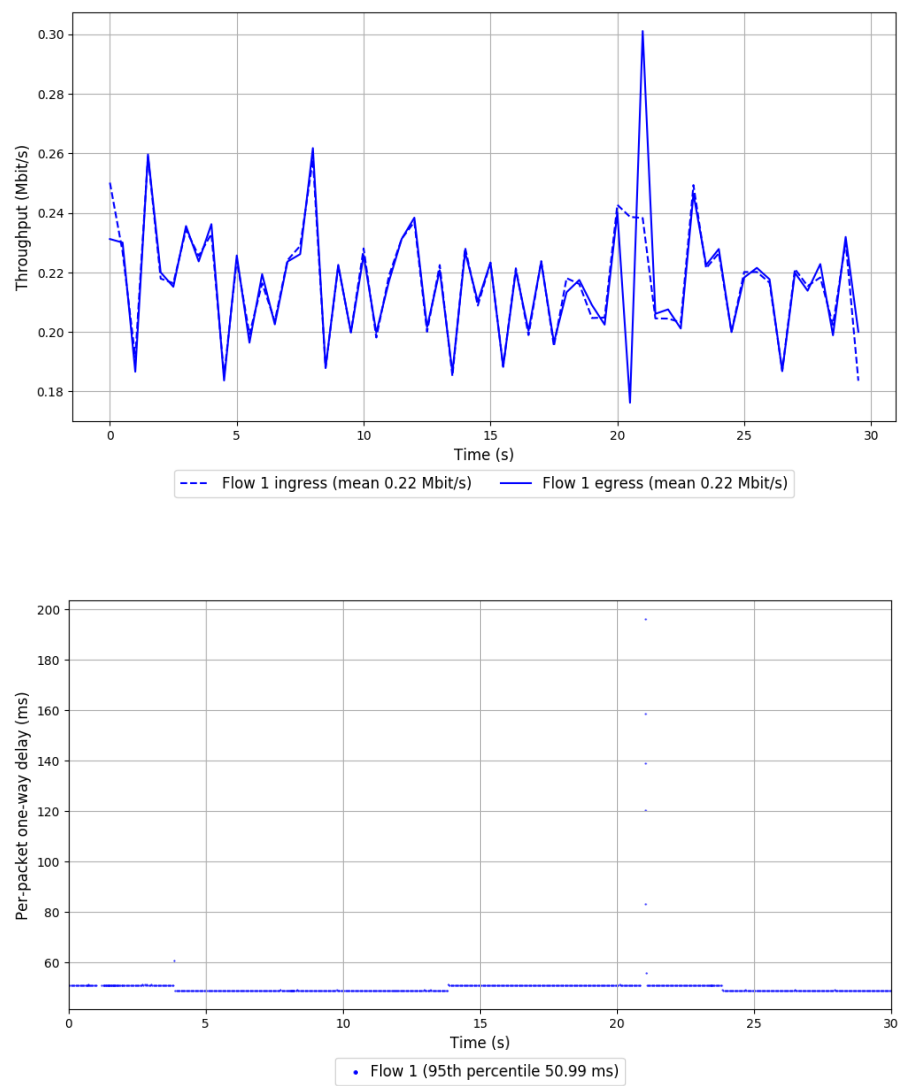
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.991 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-11 14:56:31

End at: 2017-12-11 14:57:01

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.895 ms

Loss rate: 0.00%

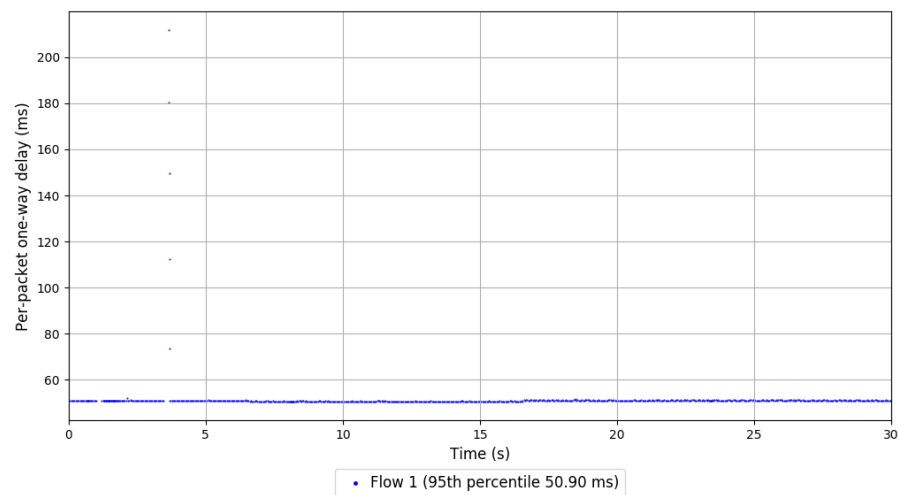
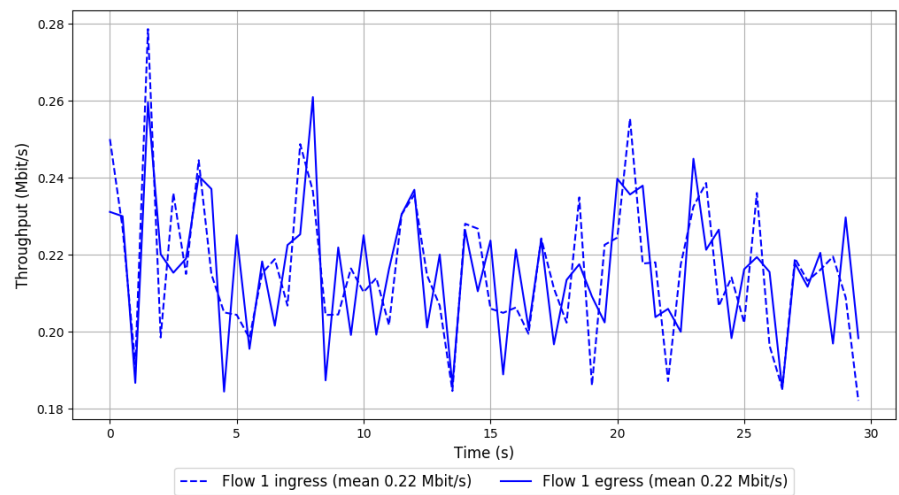
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.895 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-11 15:07:01

End at: 2017-12-11 15:07:32

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.927 ms

Loss rate: 0.00%

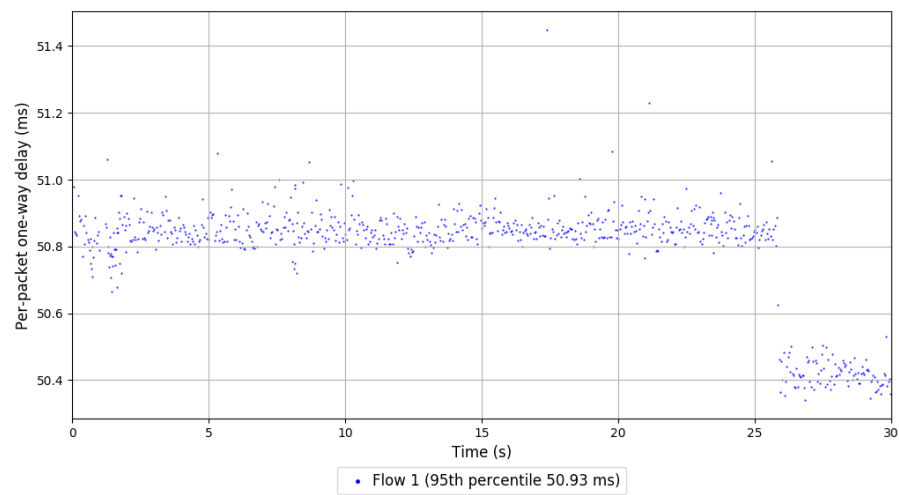
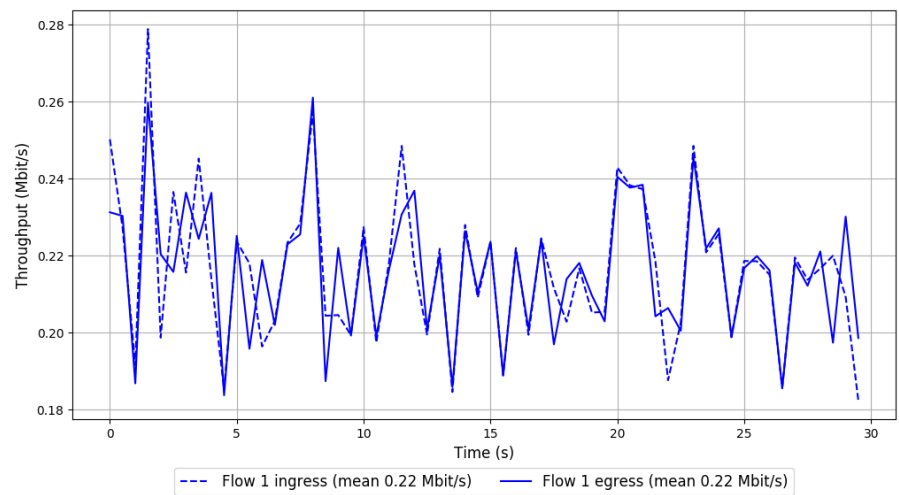
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.927 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-11 15:17:16

End at: 2017-12-11 15:17:46

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.105 ms

Loss rate: 0.00%

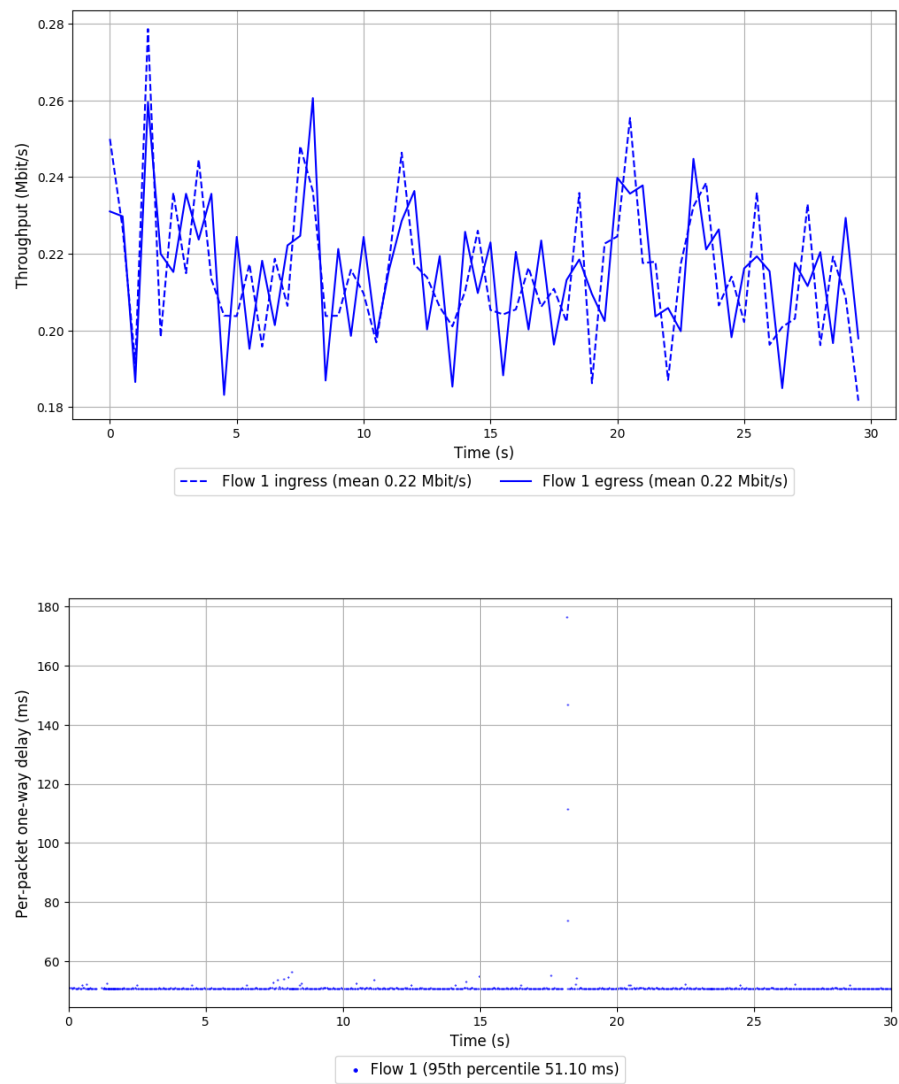
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.105 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-11 15:27:32

End at: 2017-12-11 15:28:02

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.441 ms

Loss rate: 0.00%

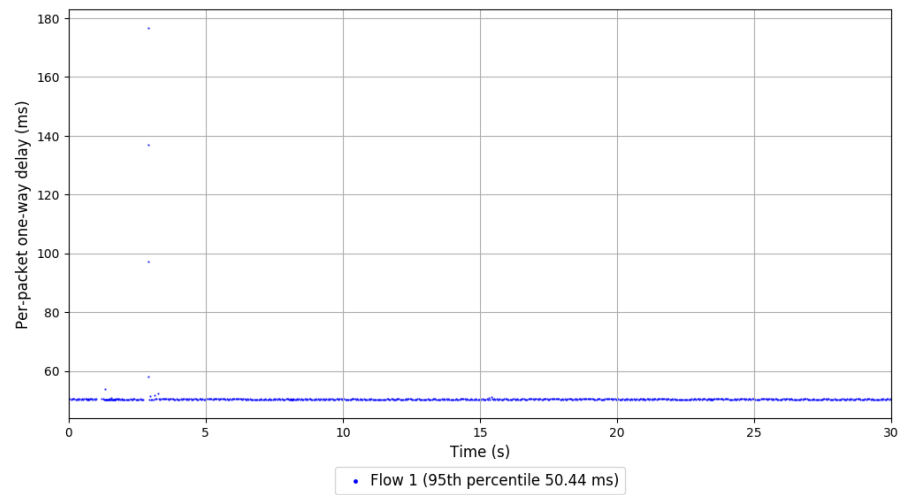
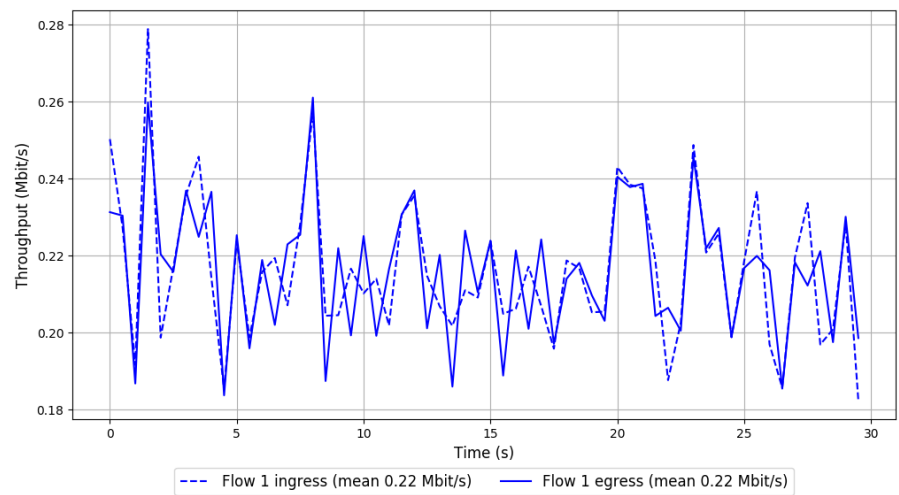
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.441 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-11 15:37:46

End at: 2017-12-11 15:38:16

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.962 ms

Loss rate: 0.00%

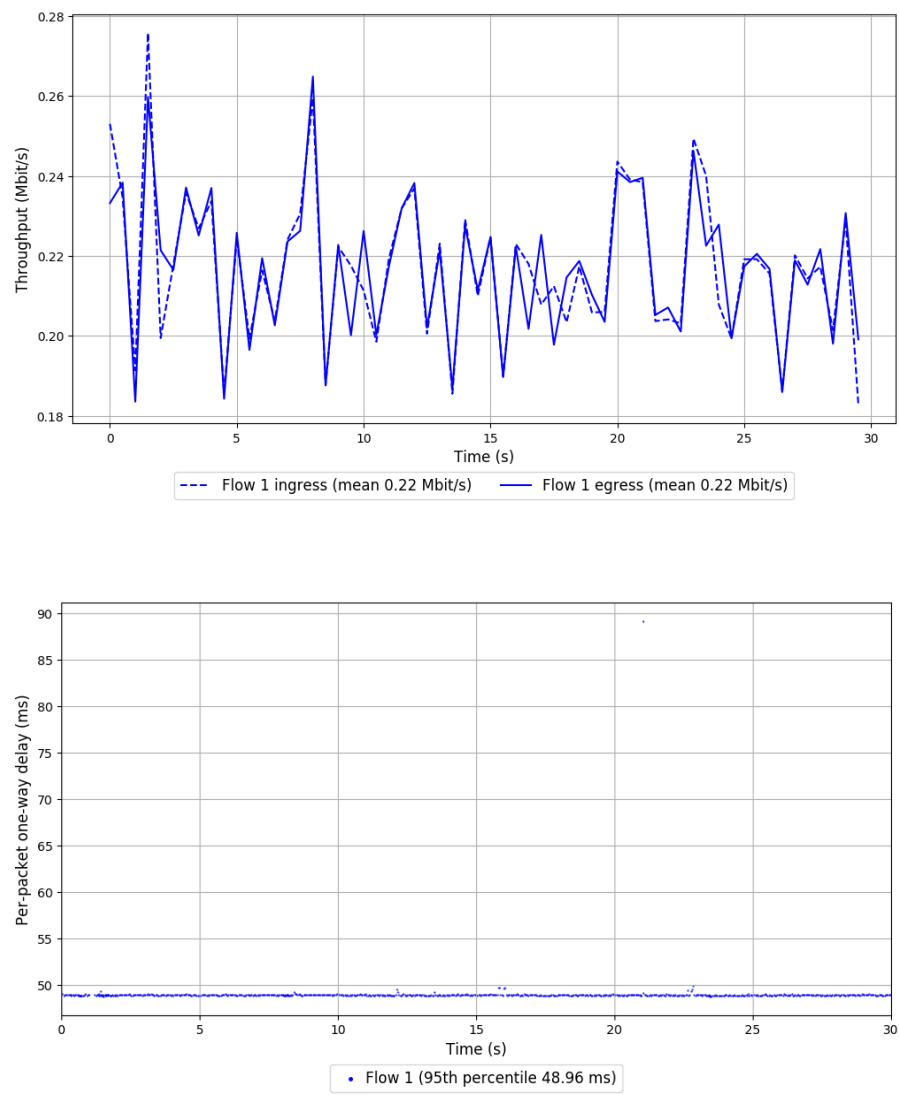
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.962 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link

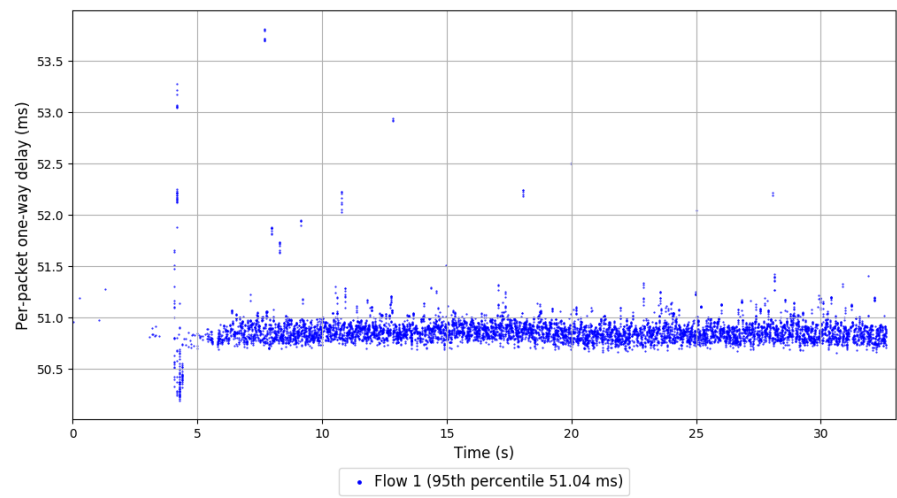
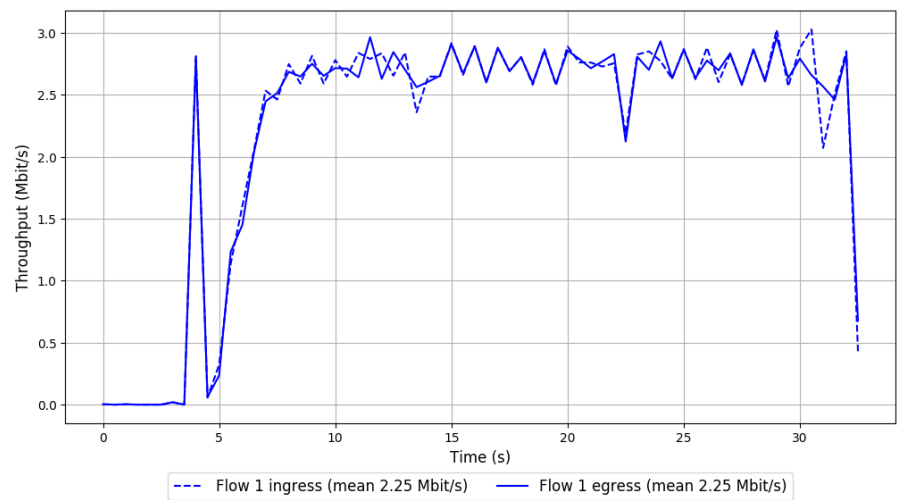


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-11 13:59:01
End at: 2017-12-11 13:59:31

# Below is generated by plot.py at 2017-12-11 16:55:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 51.043 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 51.043 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link

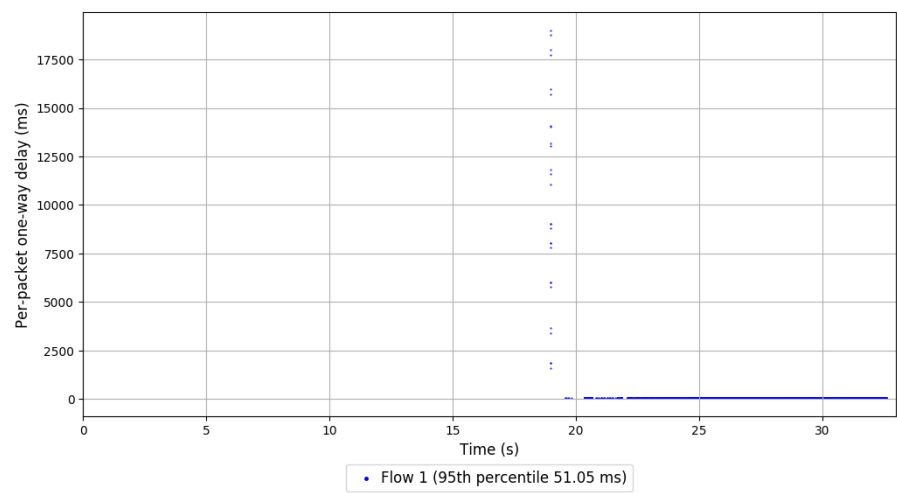
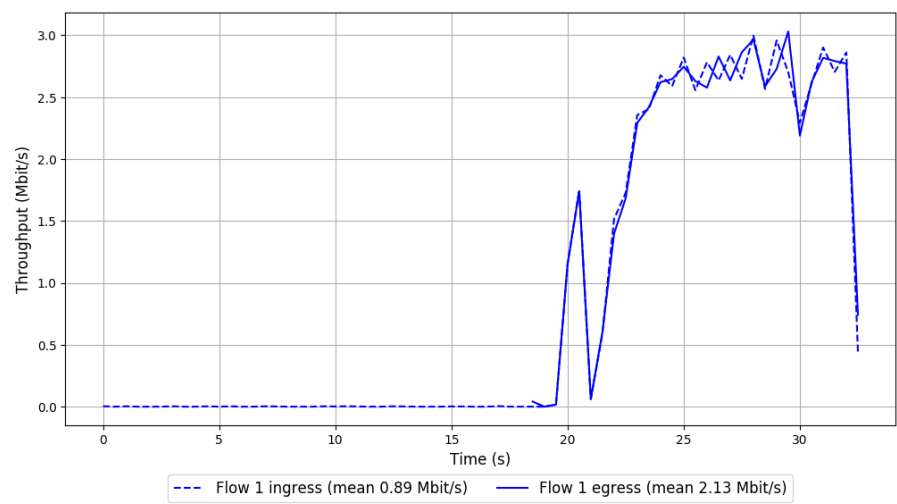


Run 2: Statistics of WebRTC media

Start at: 2017-12-11 14:09:20

End at: 2017-12-11 14:09:50

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-11 14:19:43

End at: 2017-12-11 14:20:13

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.00%

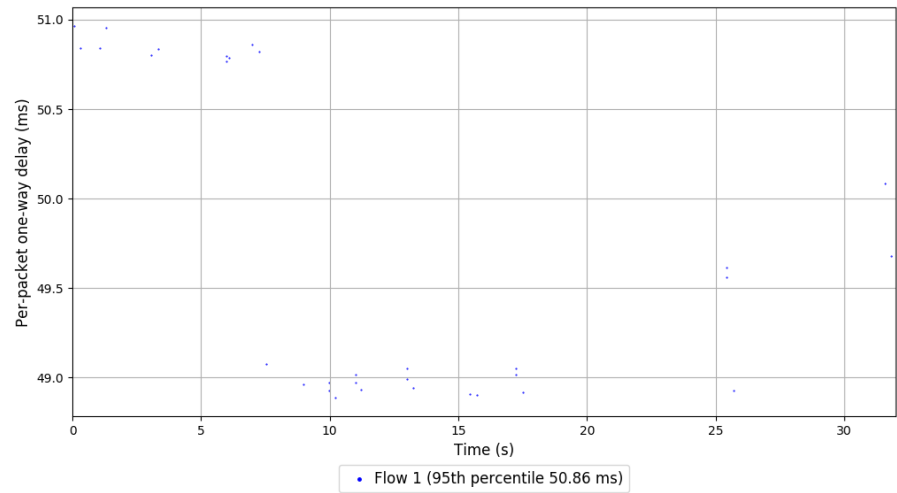
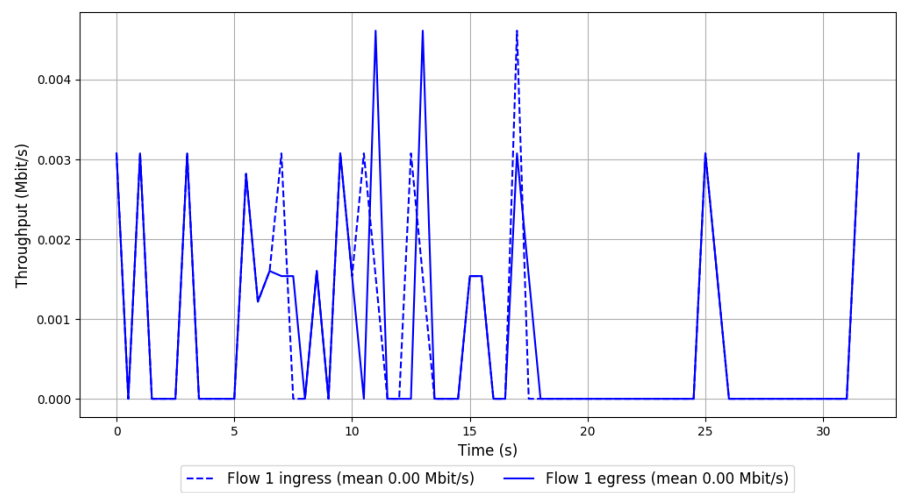
-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.859 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-11 14:30:04

End at: 2017-12-11 14:30:34

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 50.868 ms

Loss rate: 0.00%

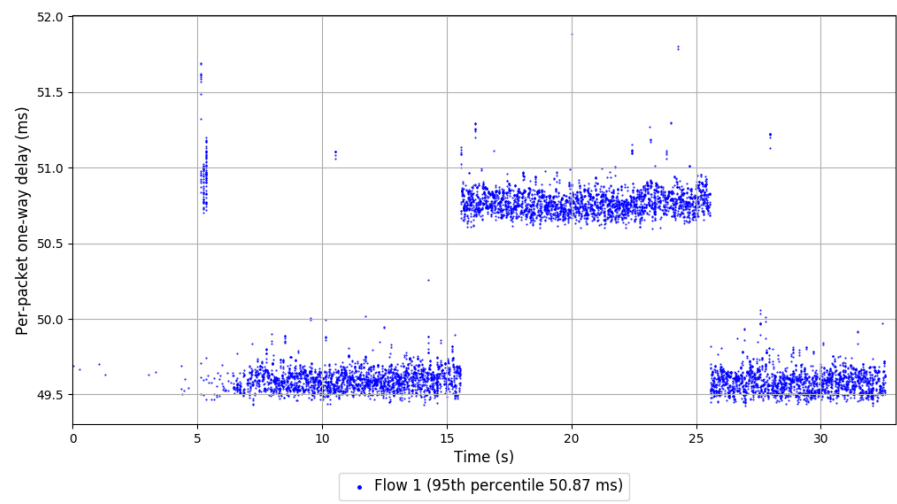
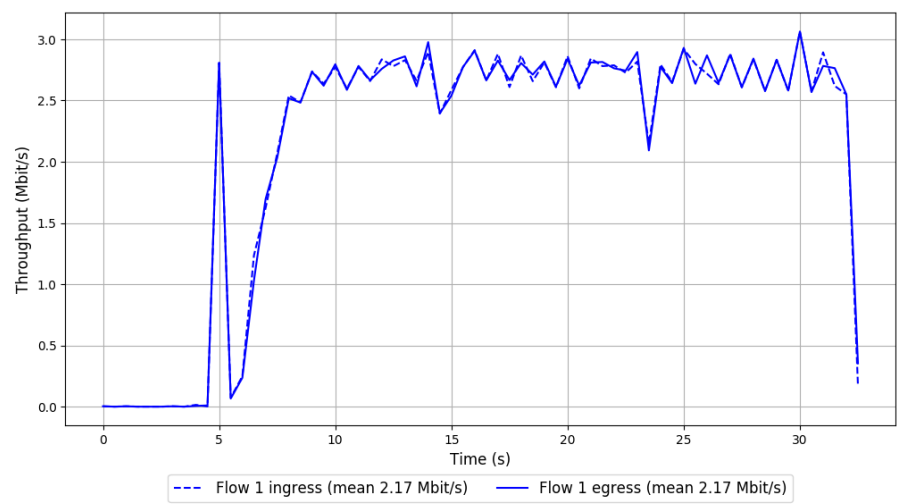
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 50.868 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-11 14:40:17

End at: 2017-12-11 14:40:47

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.00%

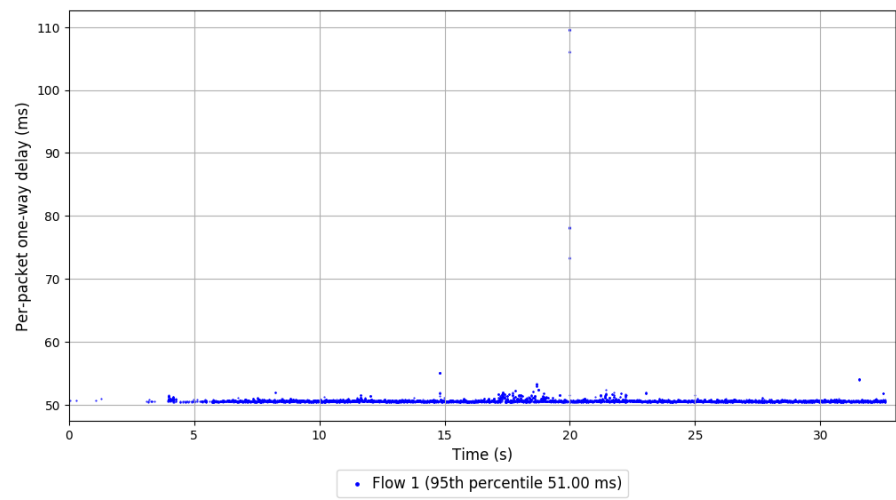
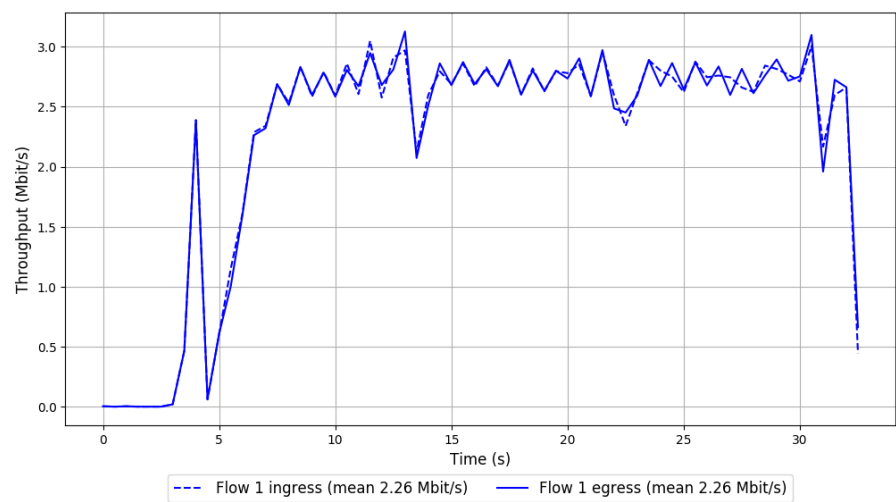
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-11 14:50:41

End at: 2017-12-11 14:51:11

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.610 ms

Loss rate: 0.00%

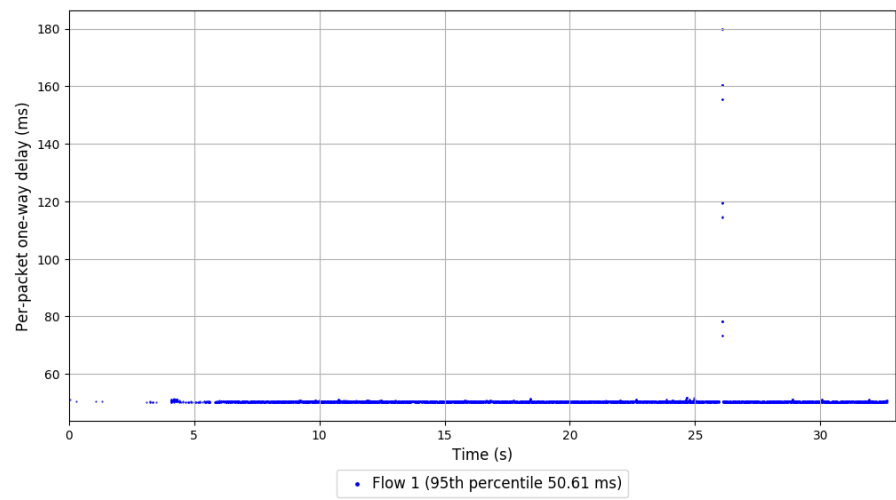
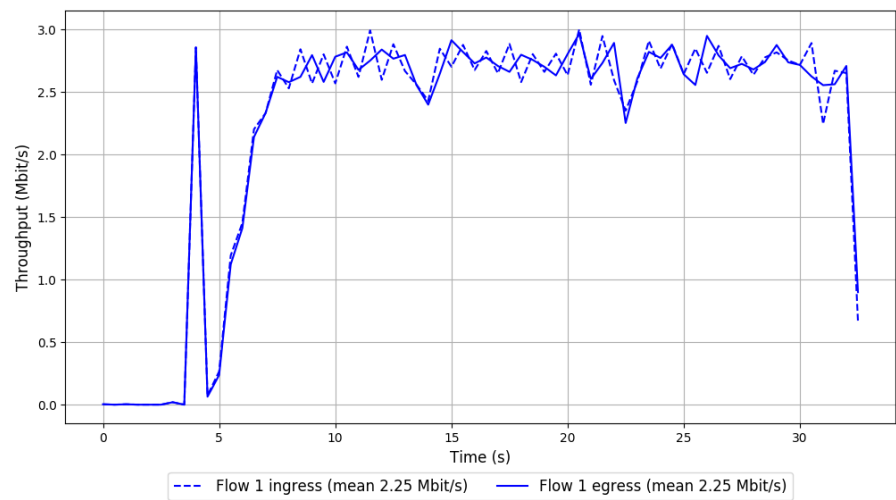
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.610 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-11 15:01:04

End at: 2017-12-11 15:01:35

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 50.526 ms

Loss rate: 0.15%

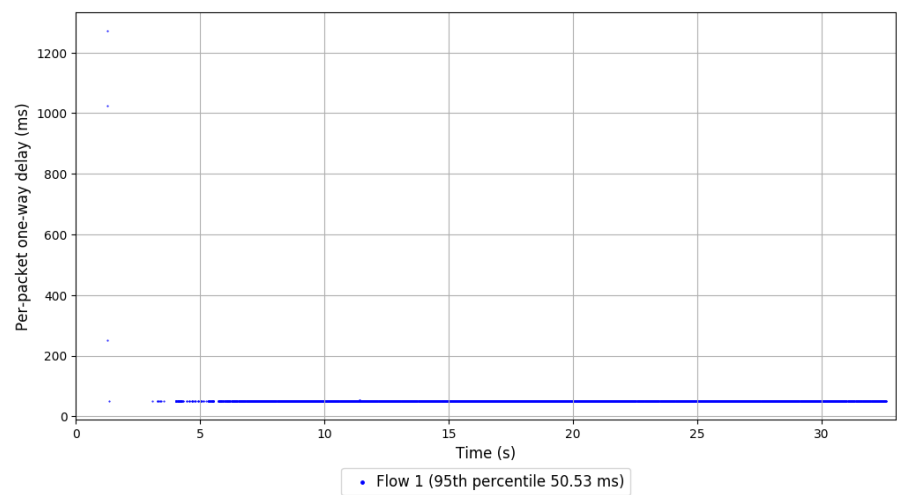
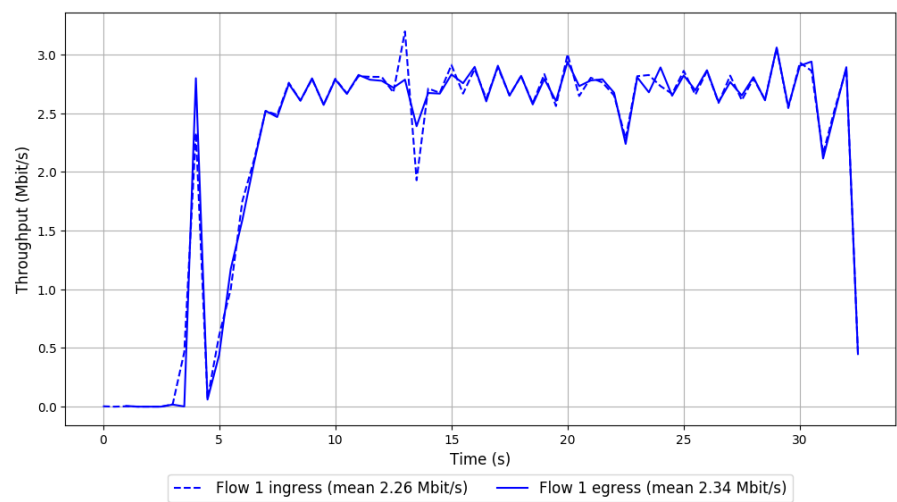
-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 50.526 ms

Loss rate: 0.15%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-11 15:11:26

End at: 2017-12-11 15:11:56

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.136 ms

Loss rate: 0.00%

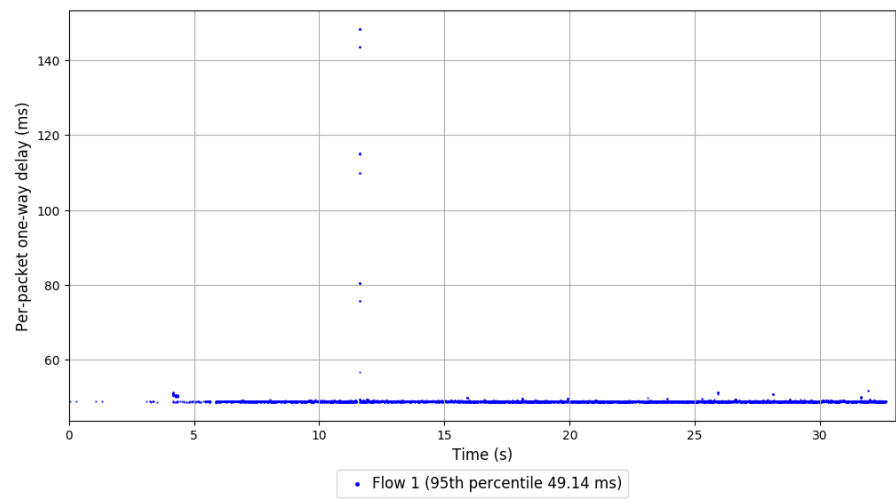
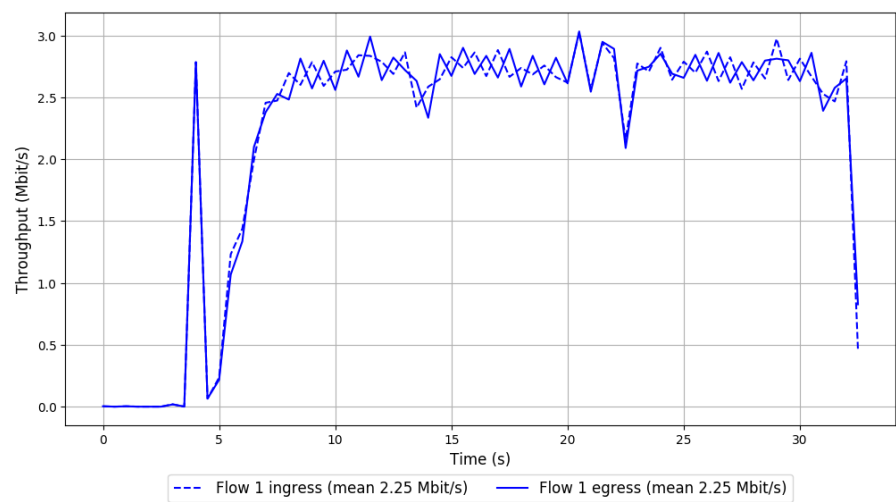
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.136 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-11 15:21:43

End at: 2017-12-11 15:22:13

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.433 ms

Loss rate: 0.00%

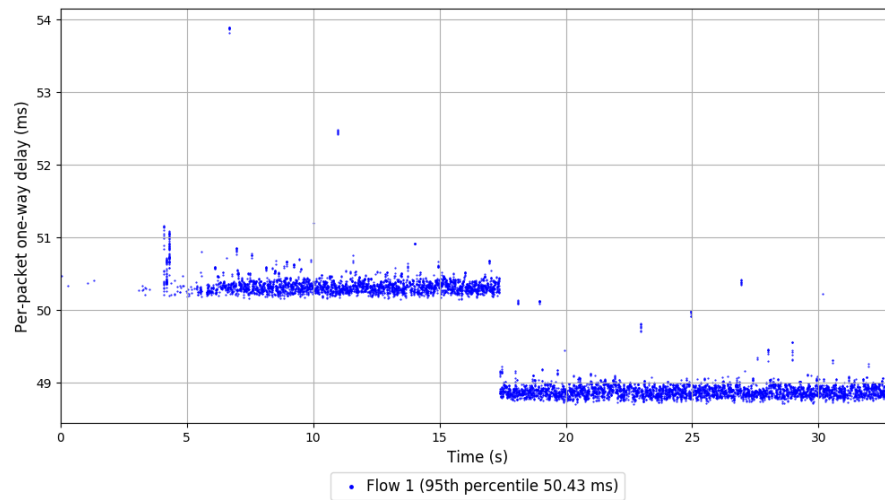
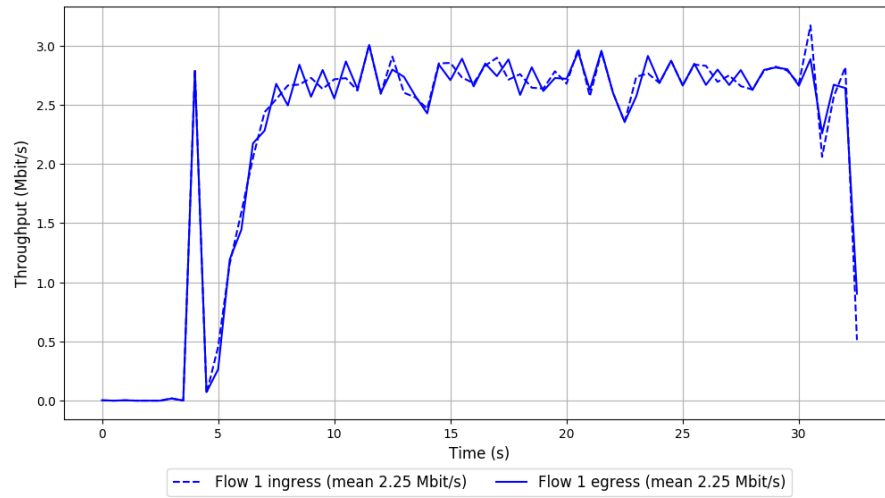
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 50.433 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-11 15:31:55

End at: 2017-12-11 15:32:25

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.080 ms

Loss rate: 0.00%

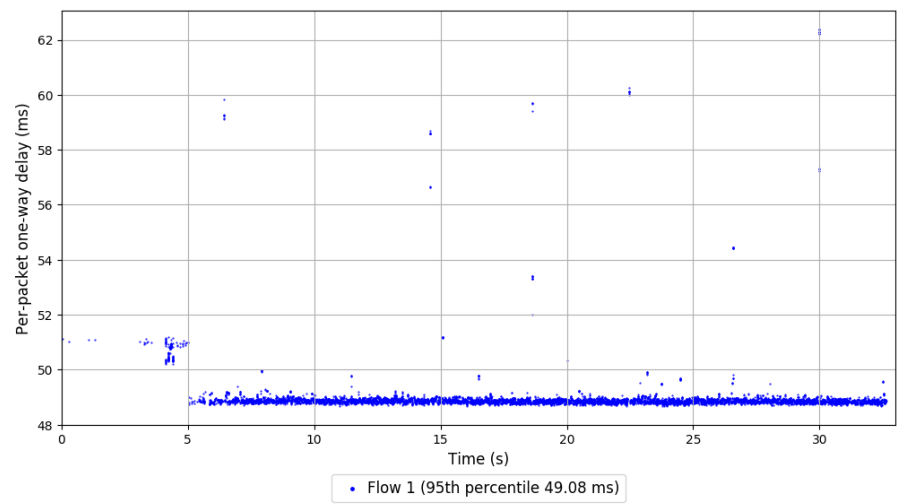
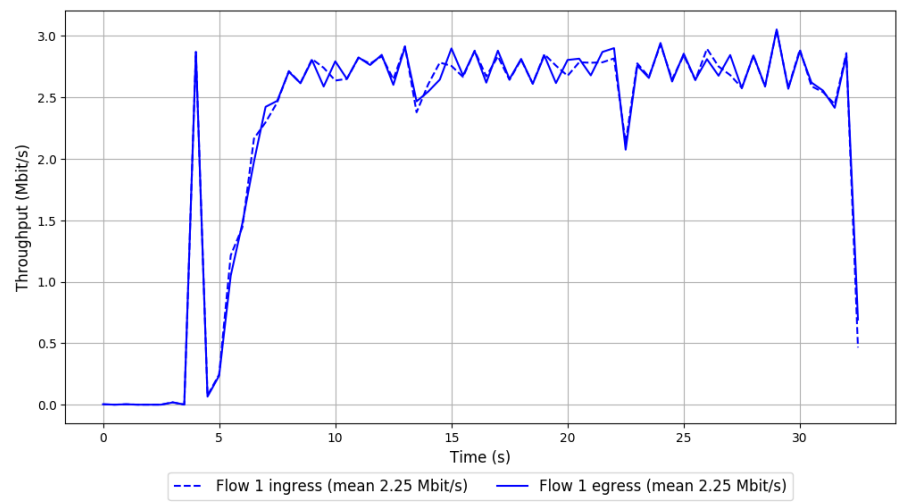
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 49.080 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-11 13:59:38

End at: 2017-12-11 14:00:08

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.593 ms

Loss rate: 0.02%

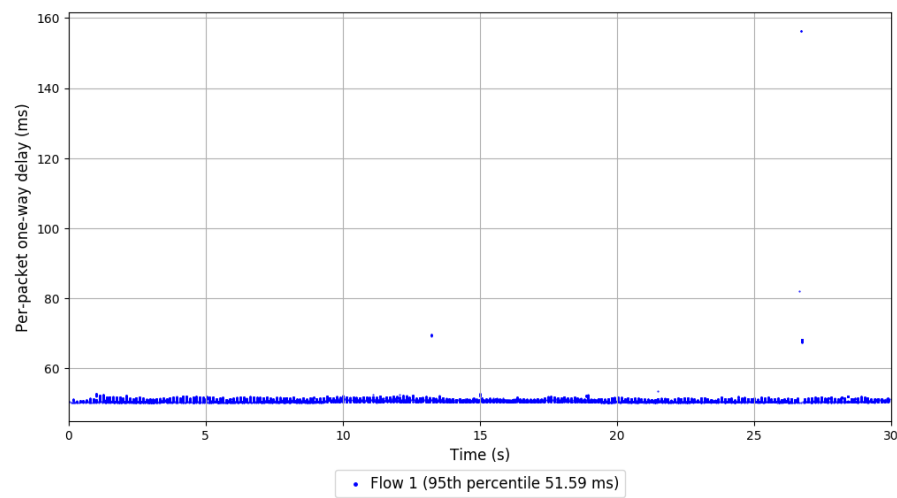
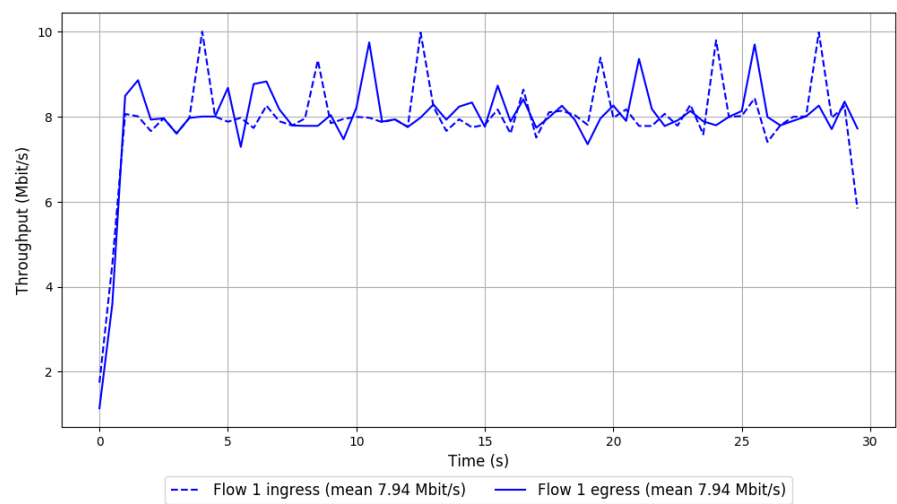
-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.593 ms

Loss rate: 0.02%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-11 14:09:57

End at: 2017-12-11 14:10:27

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.663 ms

Loss rate: 0.00%

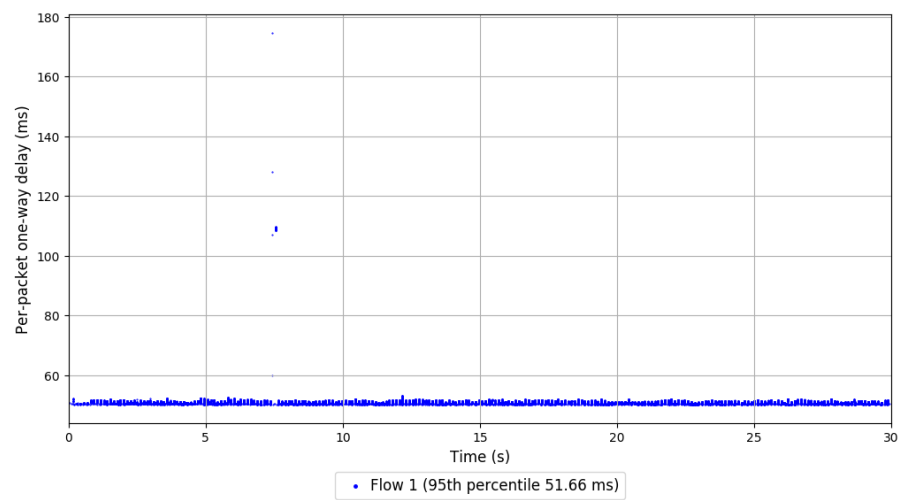
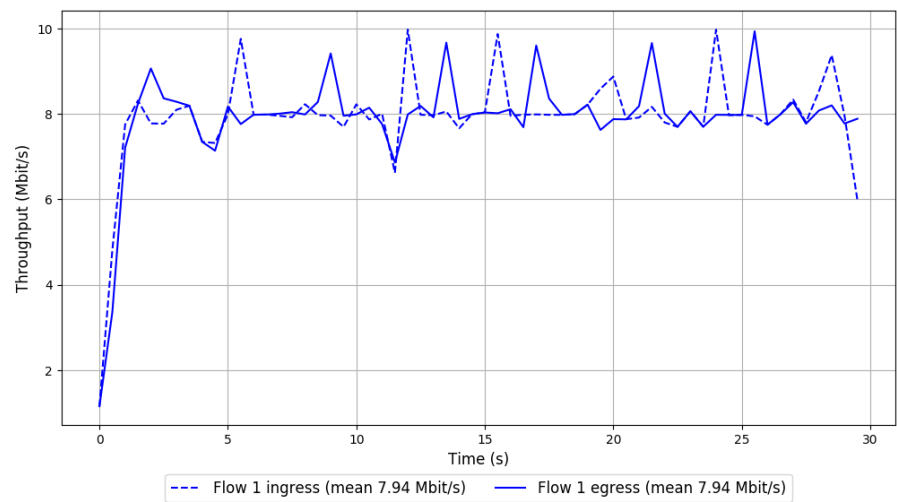
-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 51.663 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-11 14:20:19

End at: 2017-12-11 14:20:49

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.917 ms

Loss rate: 0.00%

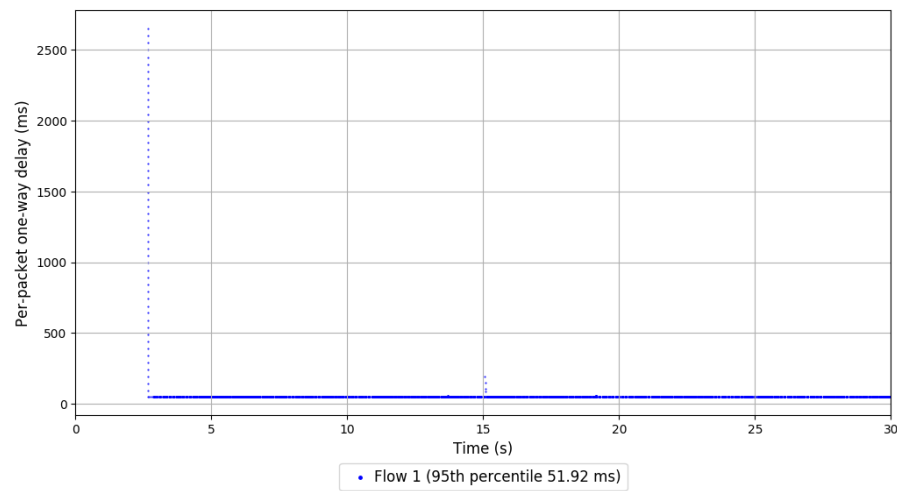
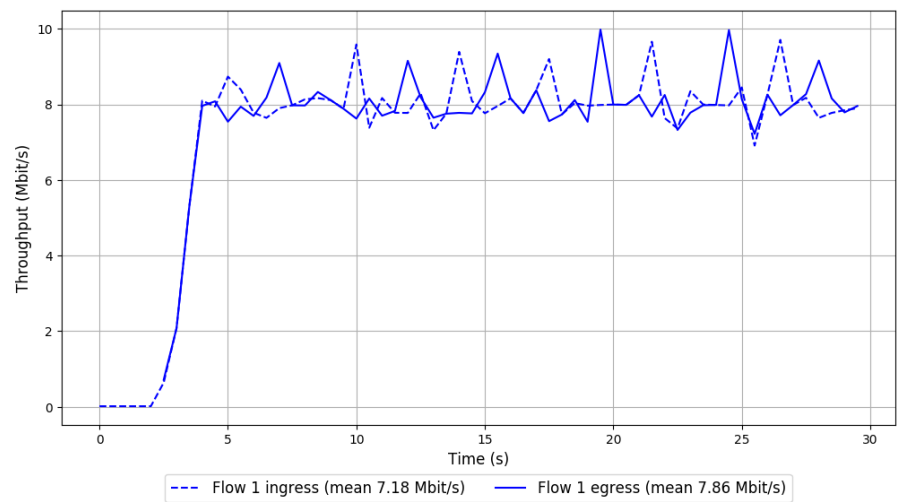
-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 51.917 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-11 14:30:41

End at: 2017-12-11 14:31:11

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.685 ms

Loss rate: 0.00%

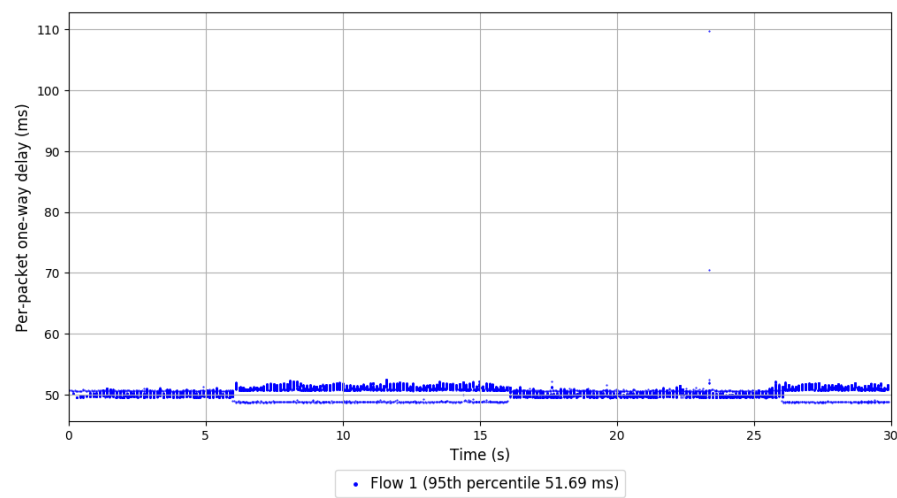
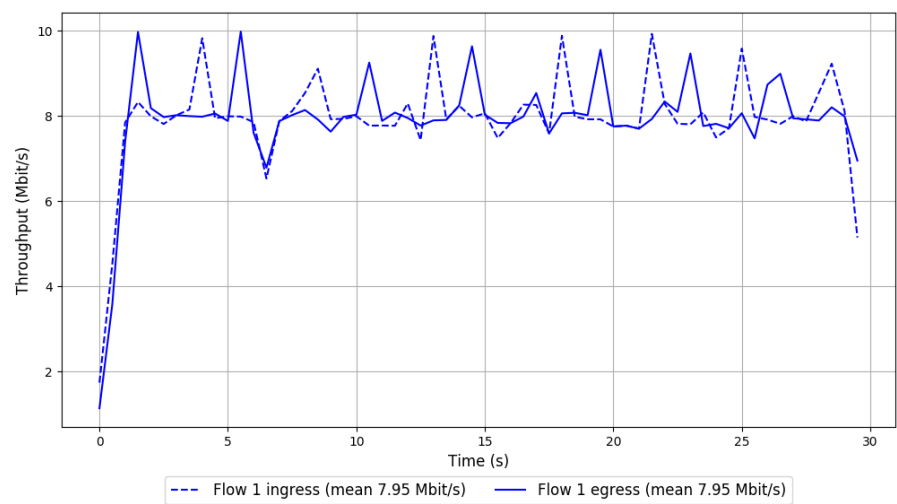
-- Flow 1:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.685 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-11 14:40:54

End at: 2017-12-11 14:41:24

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 51.993 ms

Loss rate: 0.41%

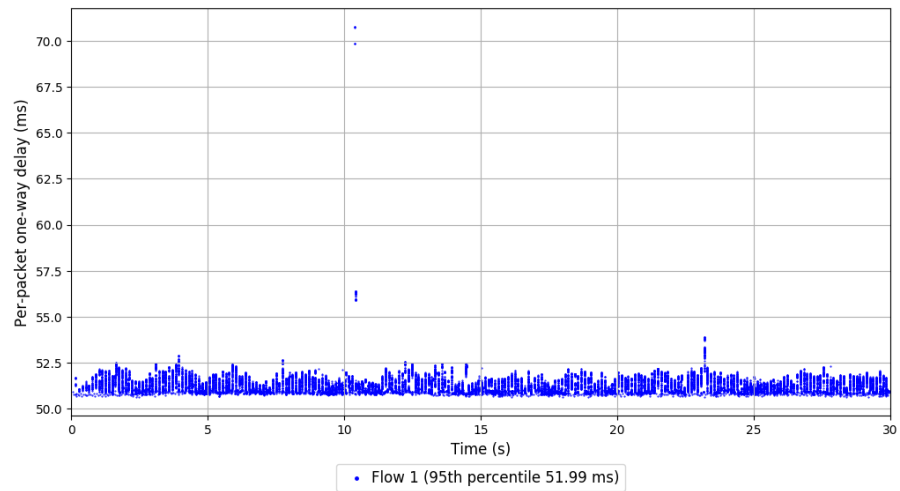
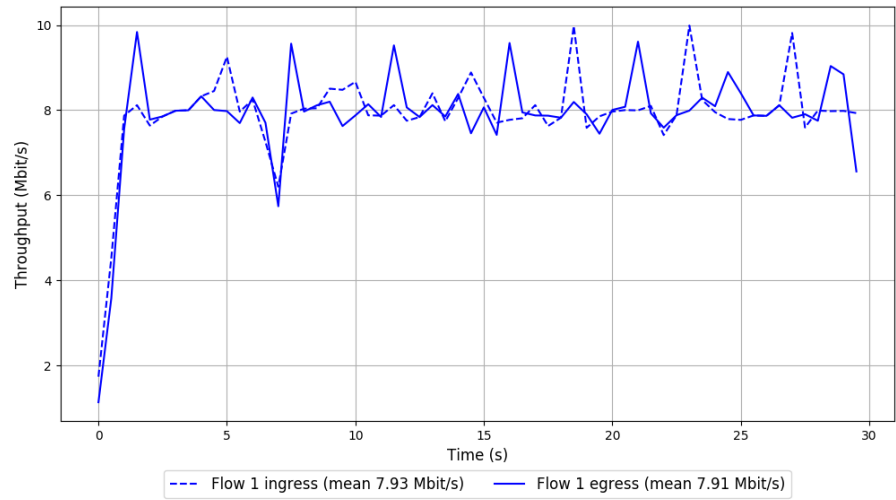
-- Flow 1:

Average throughput: 7.91 Mbit/s

95th percentile per-packet one-way delay: 51.993 ms

Loss rate: 0.41%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-11 14:51:18

End at: 2017-12-11 14:51:48

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 51.613 ms

Loss rate: 0.01%

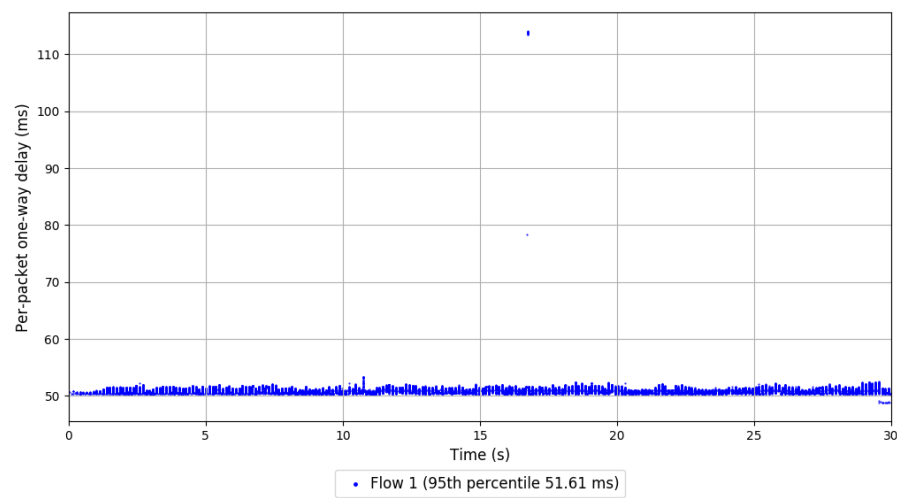
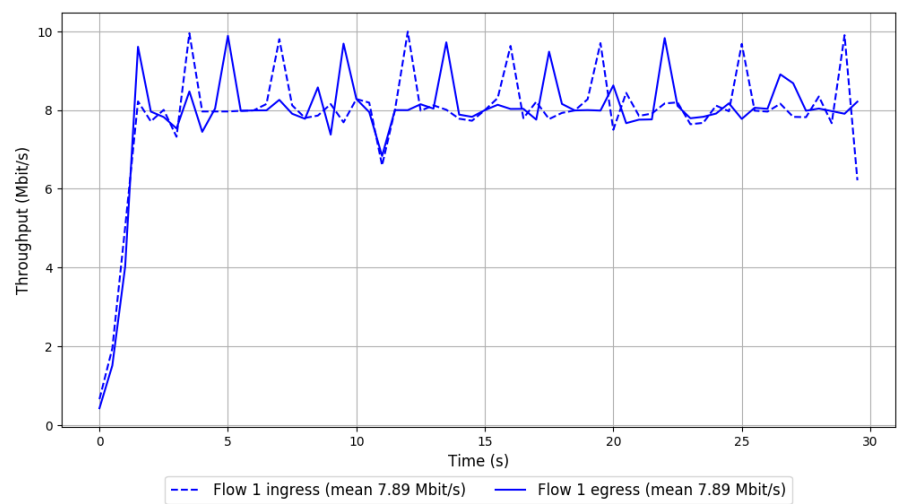
-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 51.613 ms

Loss rate: 0.01%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-11 15:01:41

End at: 2017-12-11 15:02:11

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 51.682 ms

Loss rate: 0.40%

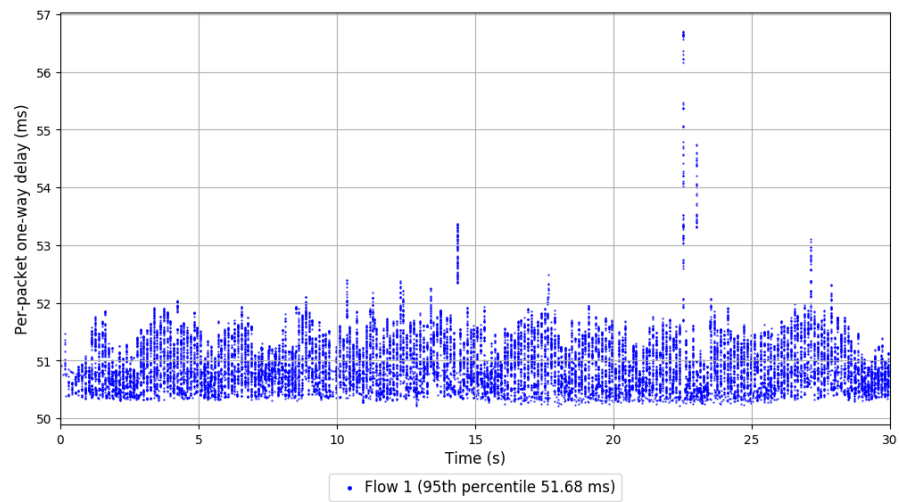
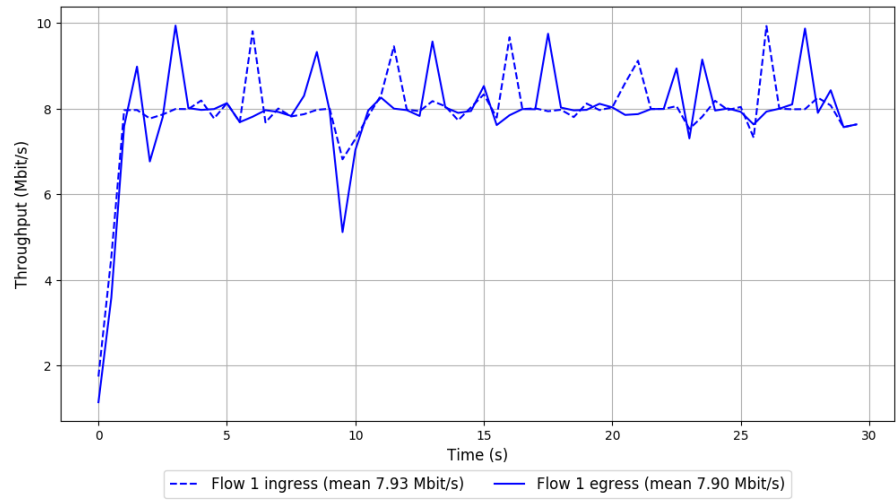
-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 51.682 ms

Loss rate: 0.40%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-11 15:12:03

End at: 2017-12-11 15:12:33

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 51.556 ms

Loss rate: 0.05%

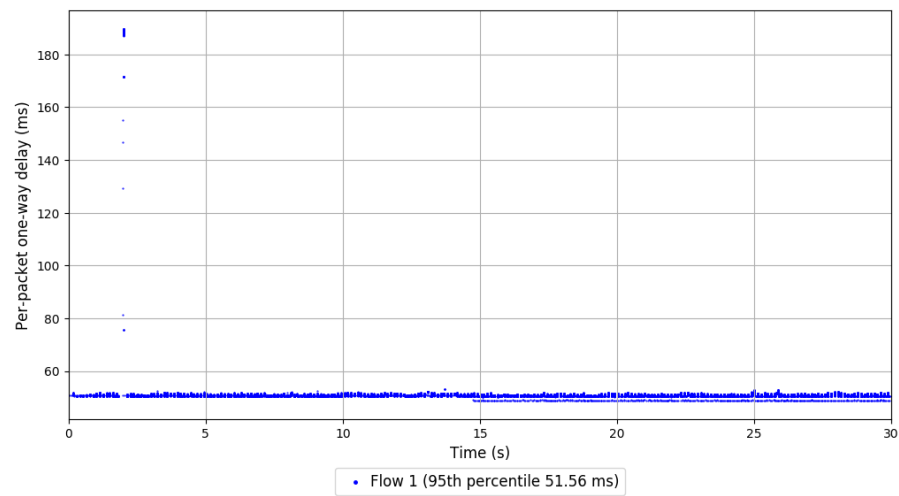
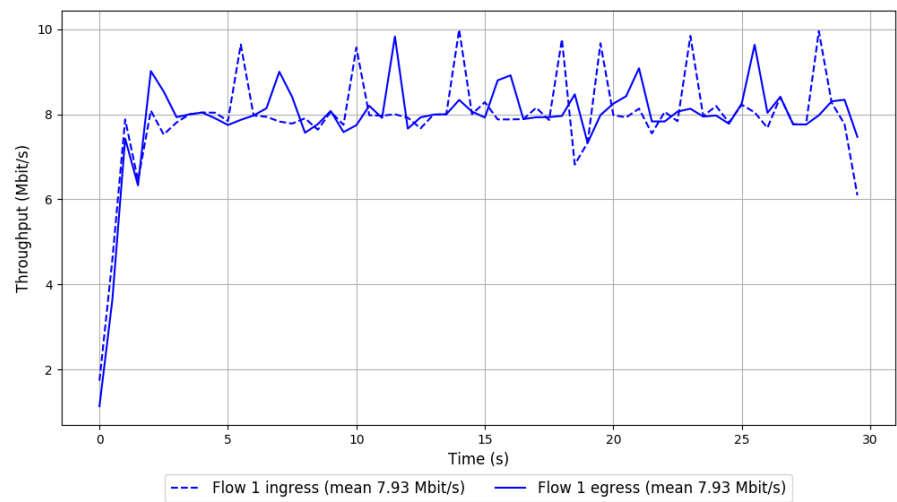
-- Flow 1:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 51.556 ms

Loss rate: 0.05%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-11 15:22:19

End at: 2017-12-11 15:22:50

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 52.236 ms

Loss rate: 0.37%

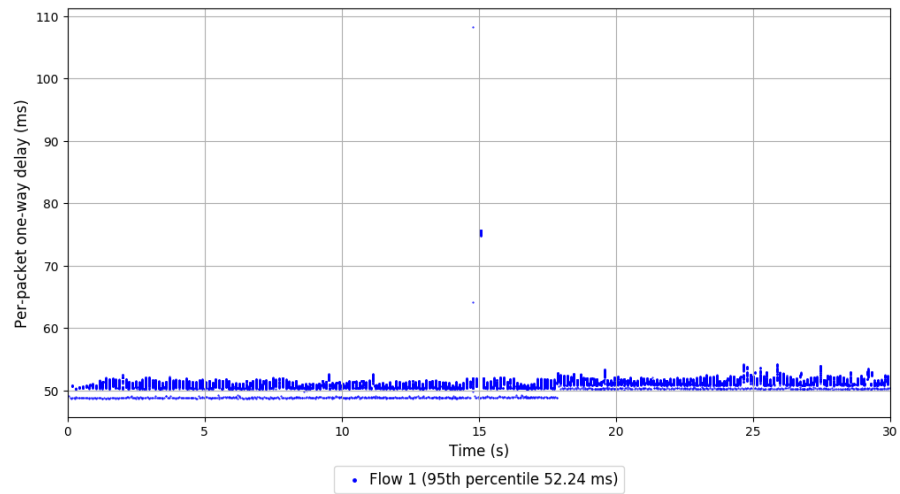
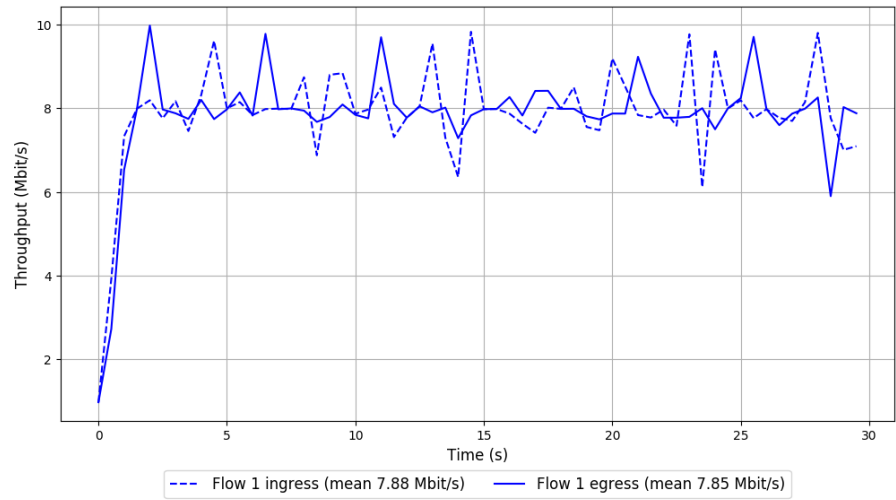
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 52.236 ms

Loss rate: 0.37%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-11 15:32:32

End at: 2017-12-11 15:33:02

Below is generated by plot.py at 2017-12-11 16:55:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 51.856 ms

Loss rate: 0.08%

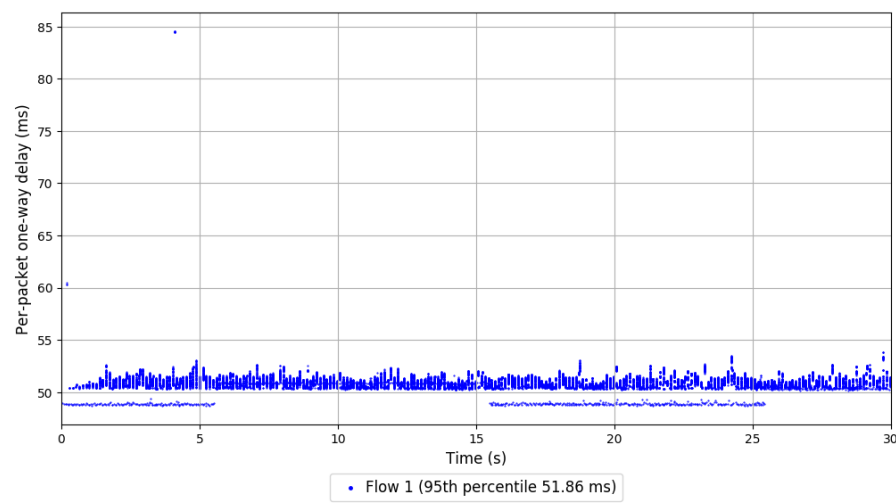
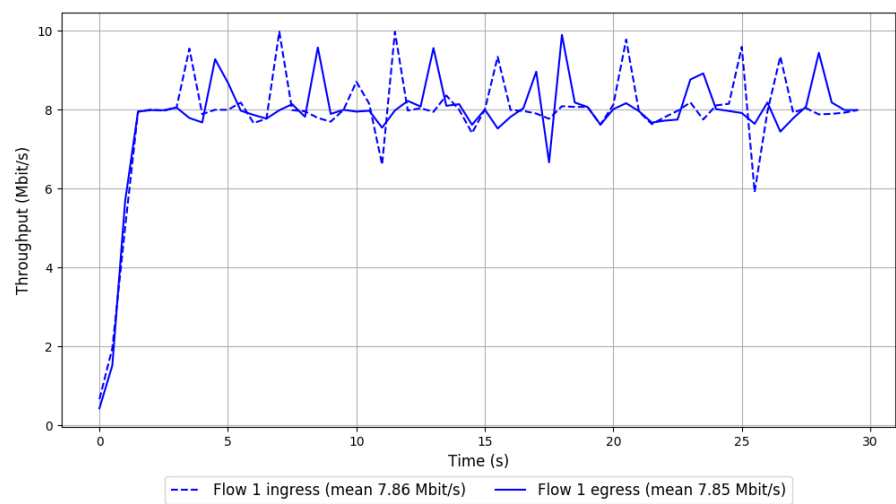
-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 51.856 ms

Loss rate: 0.08%

Run 10: Report of Sprout — Data Link

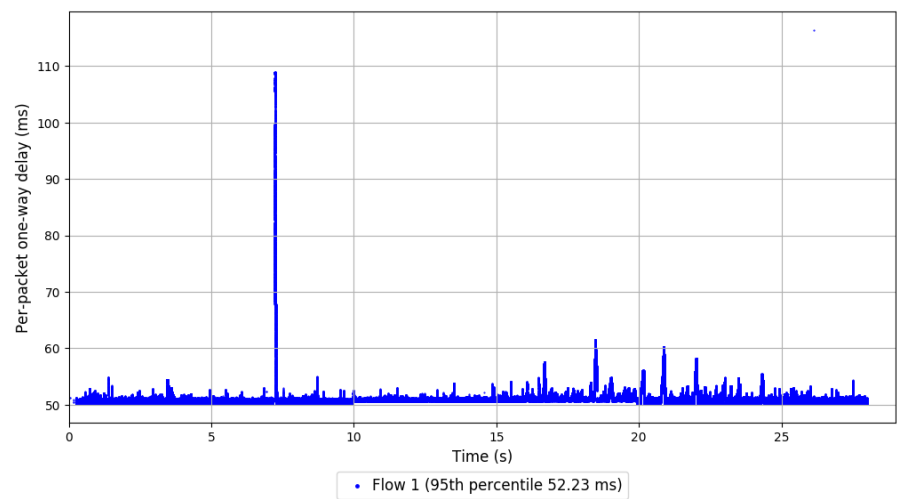
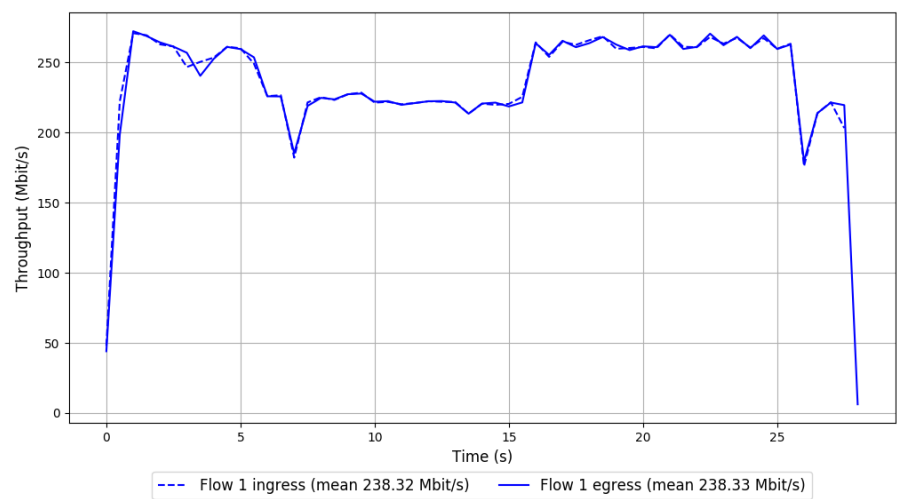


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-11 14:00:55
End at: 2017-12-11 14:01:25

# Below is generated by plot.py at 2017-12-11 16:59:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 238.33 Mbit/s
95th percentile per-packet one-way delay: 52.235 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 238.33 Mbit/s
95th percentile per-packet one-way delay: 52.235 ms
Loss rate: 0.00%
```


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

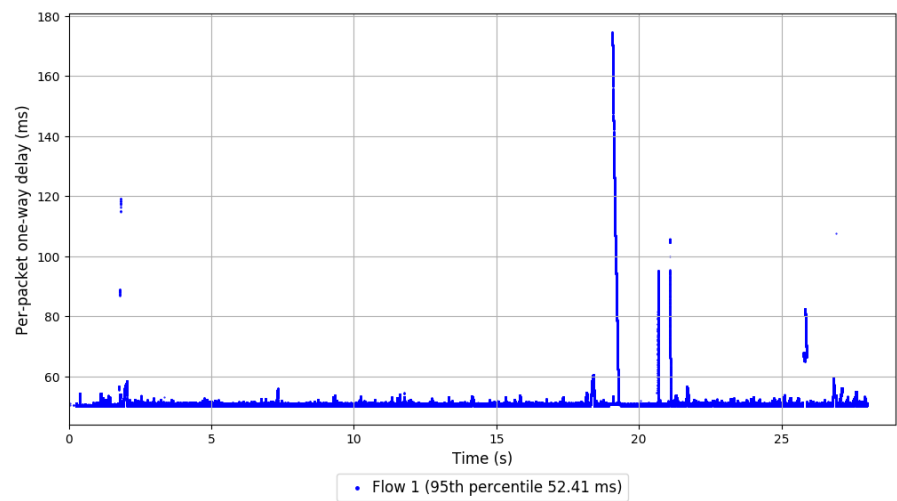
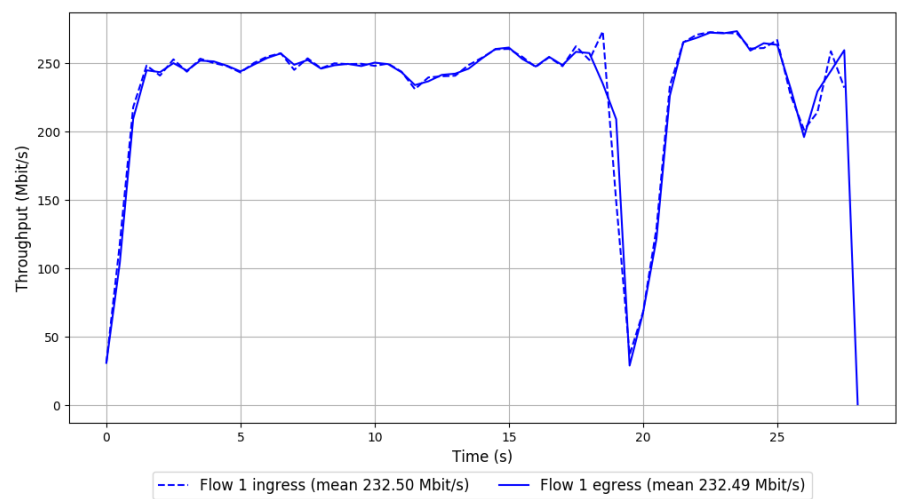


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-11 14:11:14
End at: 2017-12-11 14:11:44

# Below is generated by plot.py at 2017-12-11 16:59:24
# Datalink statistics
-- Total of 1 flow:
Average throughput: 232.49 Mbit/s
95th percentile per-packet one-way delay: 52.414 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 232.49 Mbit/s
95th percentile per-packet one-way delay: 52.414 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-12-11 14:21:35

End at: 2017-12-11 14:22:05

Below is generated by plot.py at 2017-12-11 16:59:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 239.48 Mbit/s

95th percentile per-packet one-way delay: 54.587 ms

Loss rate: 0.00%

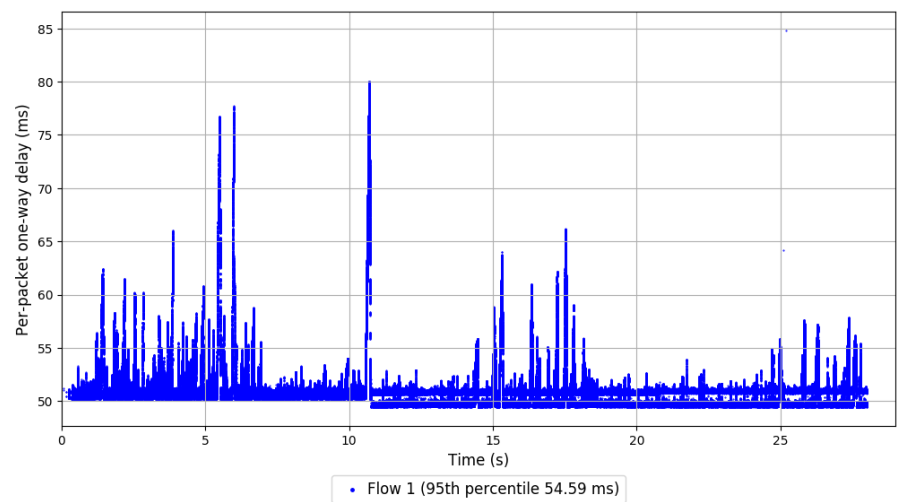
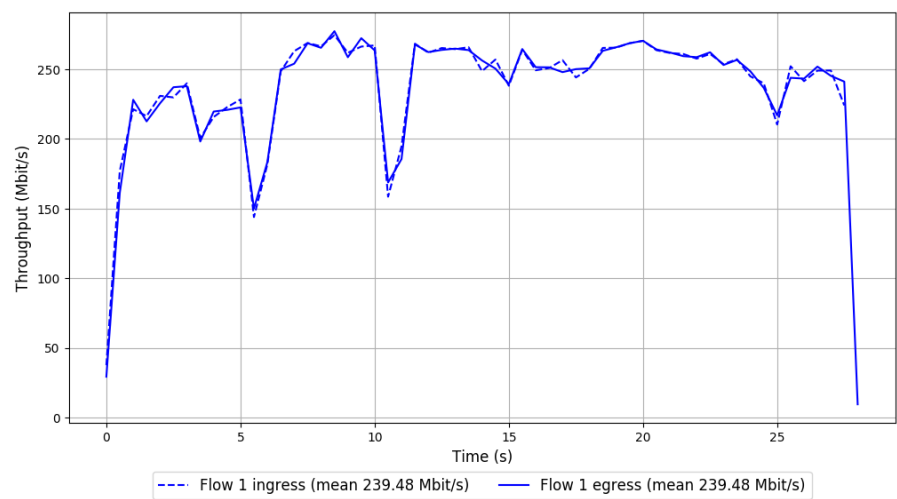
-- Flow 1:

Average throughput: 239.48 Mbit/s

95th percentile per-packet one-way delay: 54.587 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-11 14:31:57

End at: 2017-12-11 14:32:27

Below is generated by plot.py at 2017-12-11 16:59:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 206.14 Mbit/s

95th percentile per-packet one-way delay: 56.994 ms

Loss rate: 0.03%

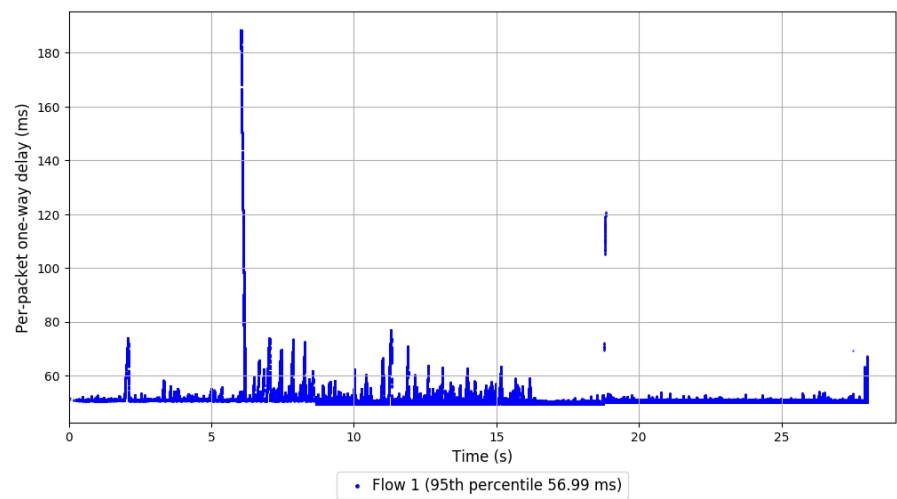
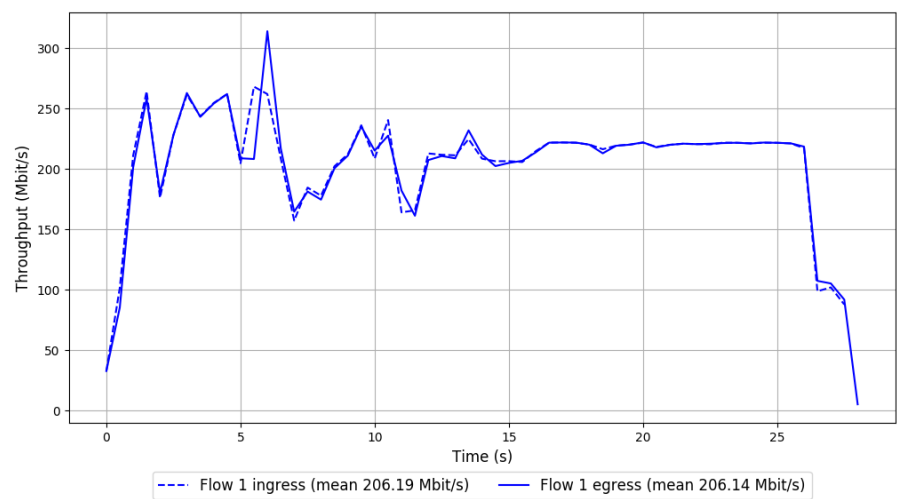
-- Flow 1:

Average throughput: 206.14 Mbit/s

95th percentile per-packet one-way delay: 56.994 ms

Loss rate: 0.03%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-11 14:42:14

End at: 2017-12-11 14:42:44

Below is generated by plot.py at 2017-12-11 16:59:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 237.00 Mbit/s

95th percentile per-packet one-way delay: 53.377 ms

Loss rate: 0.00%

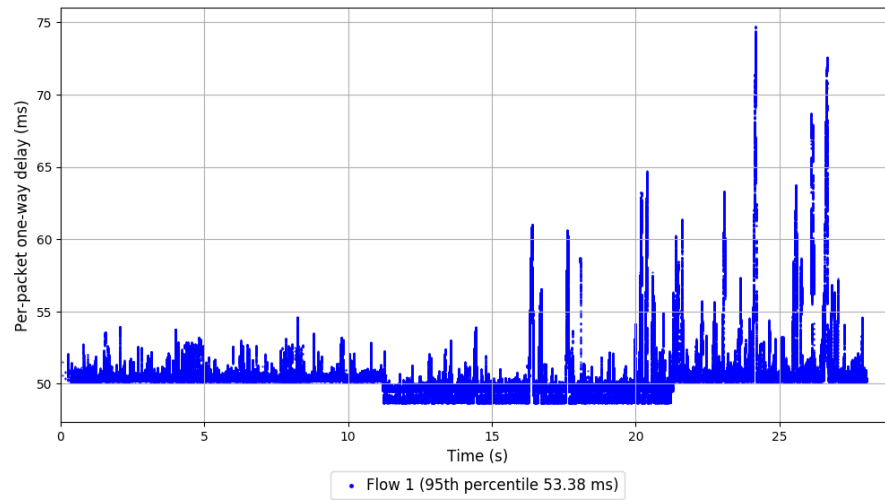
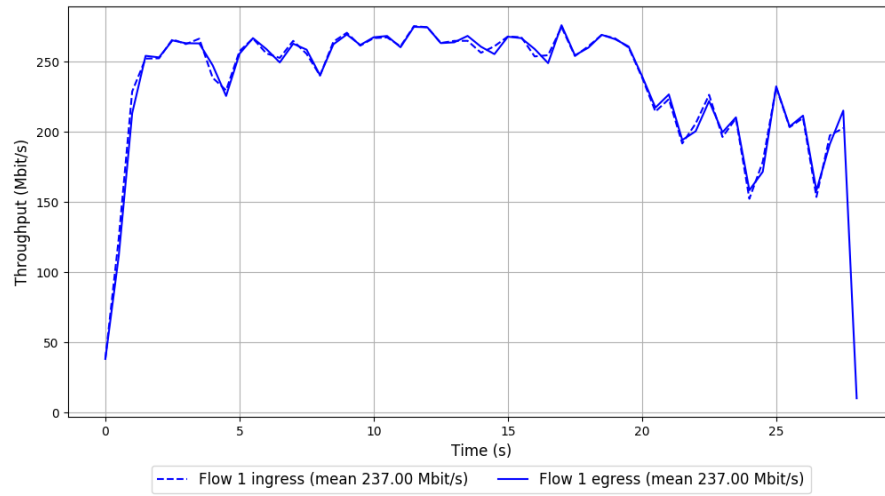
-- Flow 1:

Average throughput: 237.00 Mbit/s

95th percentile per-packet one-way delay: 53.377 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-11 14:52:34

End at: 2017-12-11 14:53:04

Below is generated by plot.py at 2017-12-11 17:00:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 253.95 Mbit/s

95th percentile per-packet one-way delay: 51.889 ms

Loss rate: 0.00%

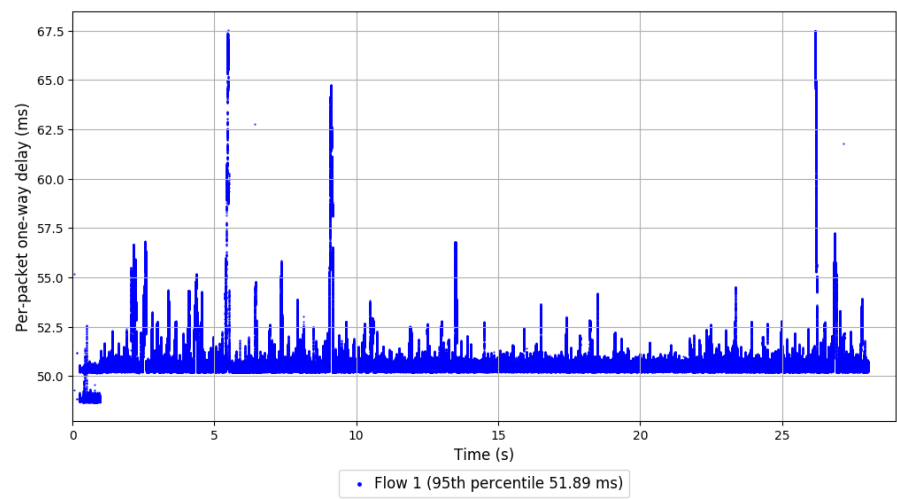
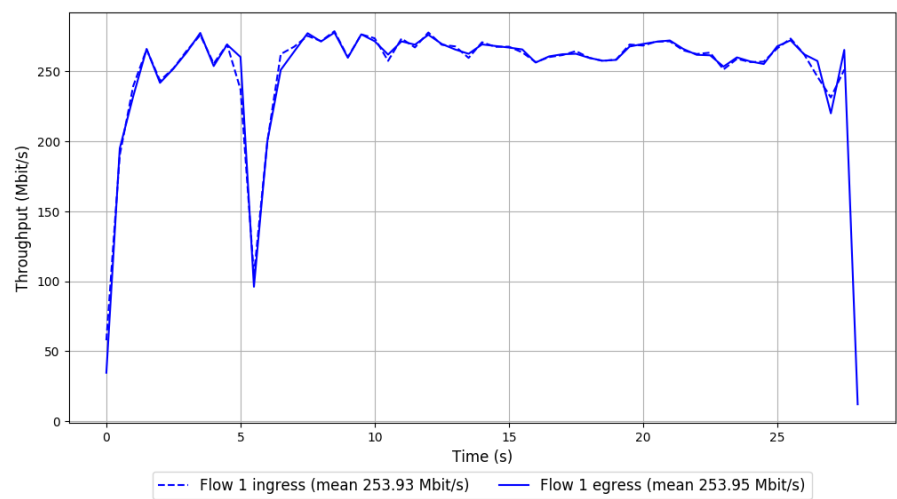
-- Flow 1:

Average throughput: 253.95 Mbit/s

95th percentile per-packet one-way delay: 51.889 ms

Loss rate: 0.00%

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

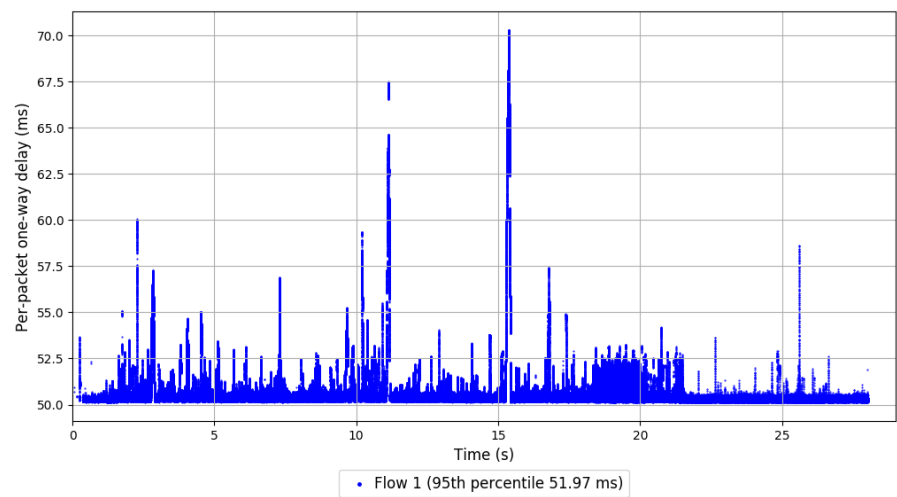
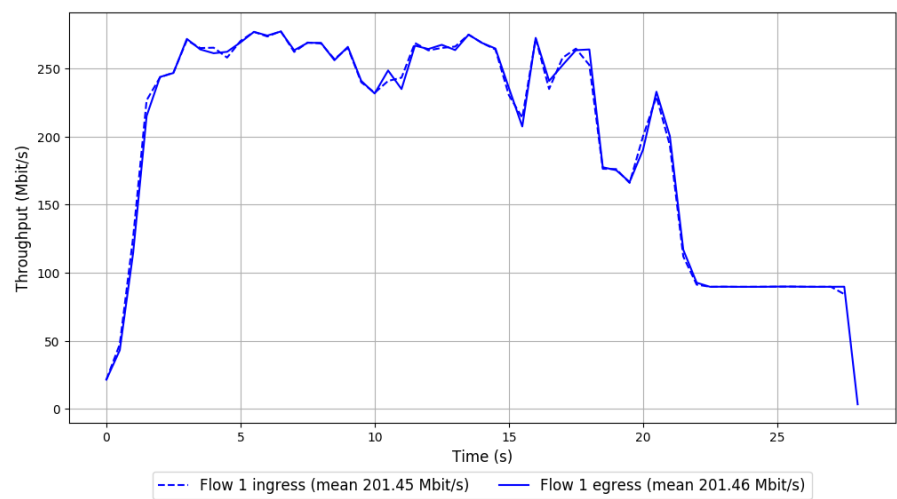


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-12-11 15:03:00
End at: 2017-12-11 15:03:30

# Below is generated by plot.py at 2017-12-11 17:01:12
# Datalink statistics
-- Total of 1 flow:
Average throughput: 201.46 Mbit/s
95th percentile per-packet one-way delay: 51.968 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 201.46 Mbit/s
95th percentile per-packet one-way delay: 51.968 ms
Loss rate: 0.00%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-11 15:13:18

End at: 2017-12-11 15:13:48

Below is generated by plot.py at 2017-12-11 17:02:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 197.25 Mbit/s

95th percentile per-packet one-way delay: 51.717 ms

Loss rate: 0.01%

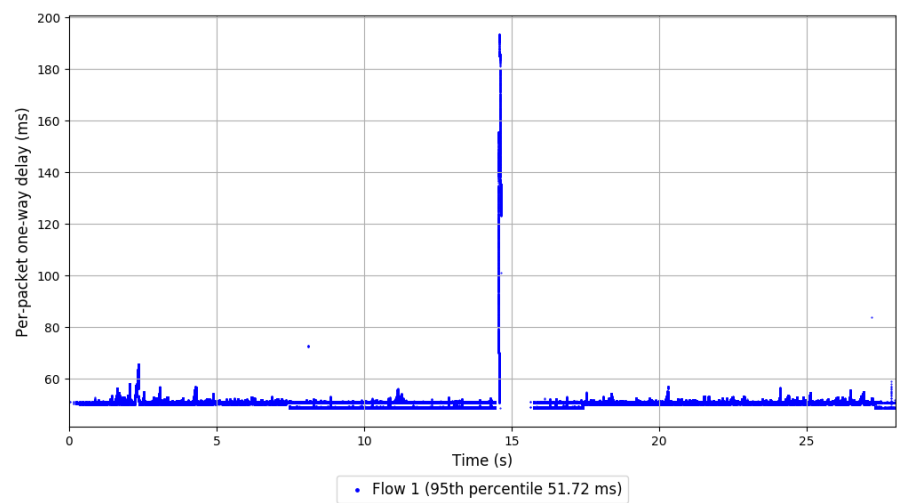
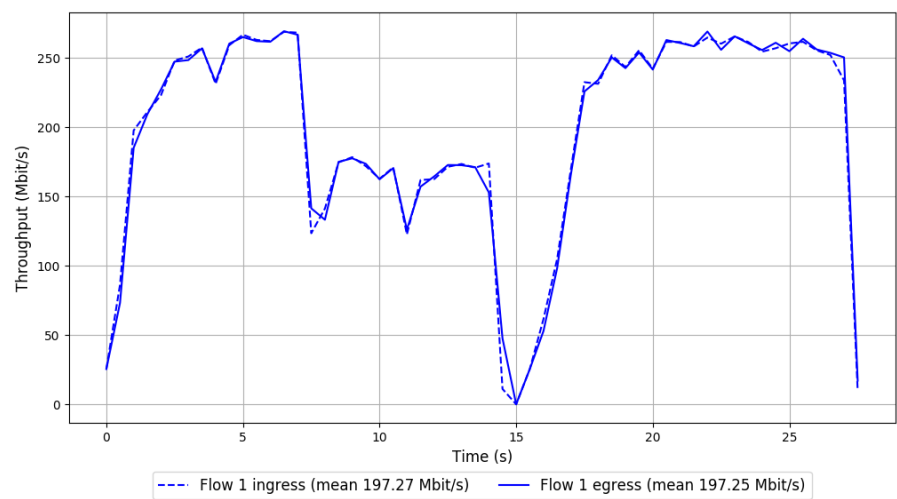
-- Flow 1:

Average throughput: 197.25 Mbit/s

95th percentile per-packet one-way delay: 51.717 ms

Loss rate: 0.01%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-11 15:23:38

End at: 2017-12-11 15:24:09

Below is generated by plot.py at 2017-12-11 17:04:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.40 Mbit/s

95th percentile per-packet one-way delay: 50.455 ms

Loss rate: 0.00%

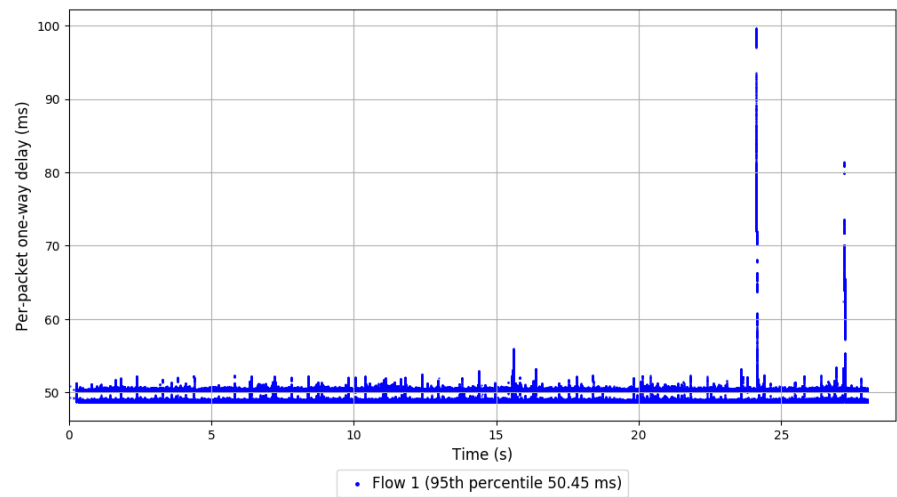
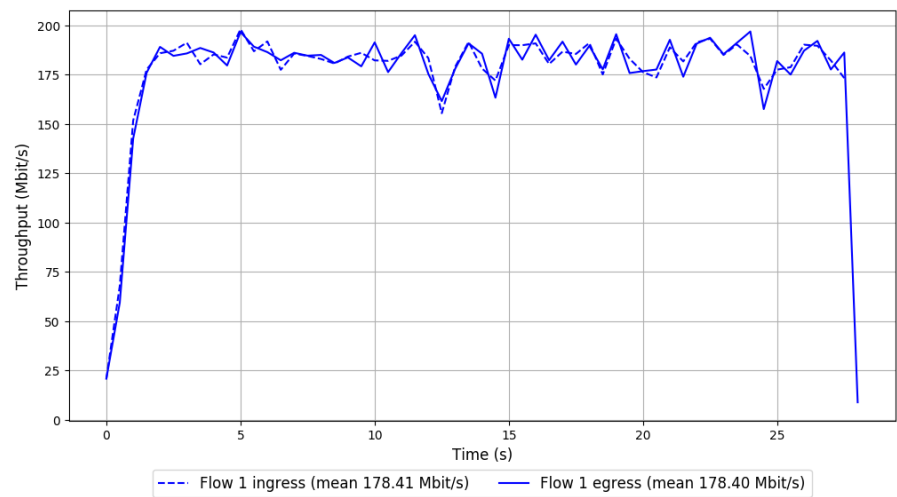
-- Flow 1:

Average throughput: 178.40 Mbit/s

95th percentile per-packet one-way delay: 50.455 ms

Loss rate: 0.00%

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

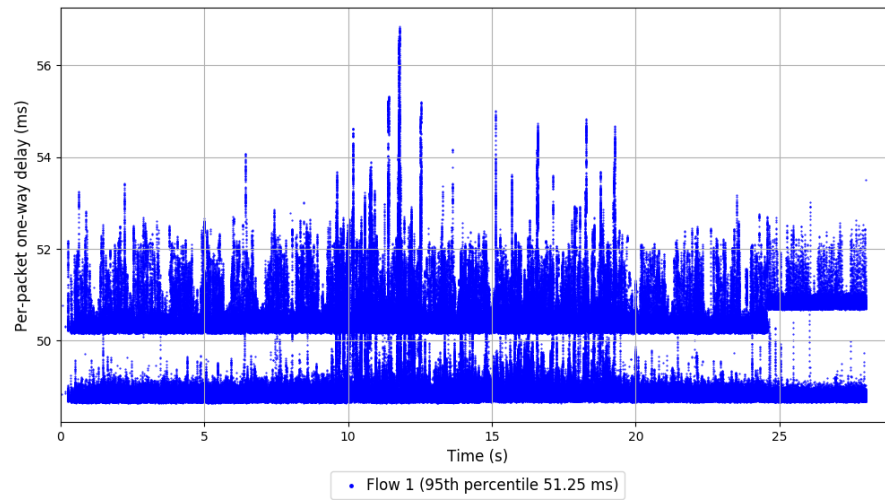
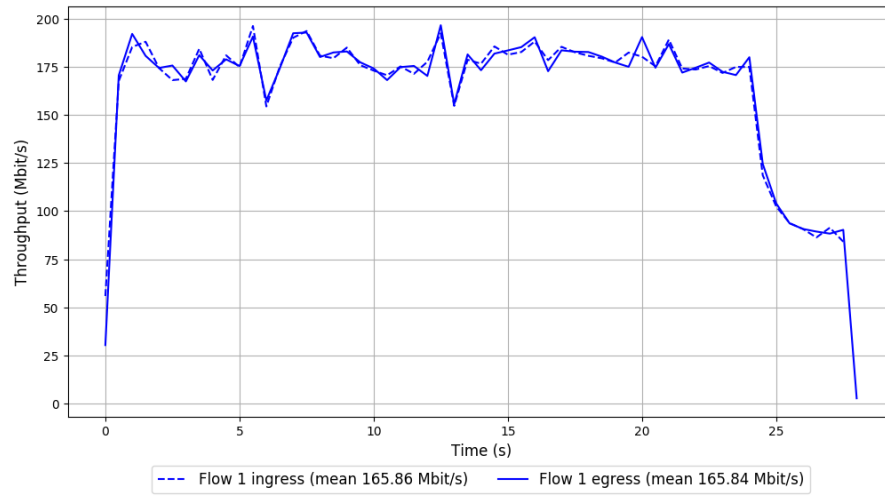


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-11 15:33:51
End at: 2017-12-11 15:34:21

# Below is generated by plot.py at 2017-12-11 17:04:55
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.84 Mbit/s
95th percentile per-packet one-way delay: 51.250 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 165.84 Mbit/s
95th percentile per-packet one-way delay: 51.250 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-11 14:00:15

End at: 2017-12-11 14:00:45

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.89 Mbit/s

95th percentile per-packet one-way delay: 51.544 ms

Loss rate: 0.00%

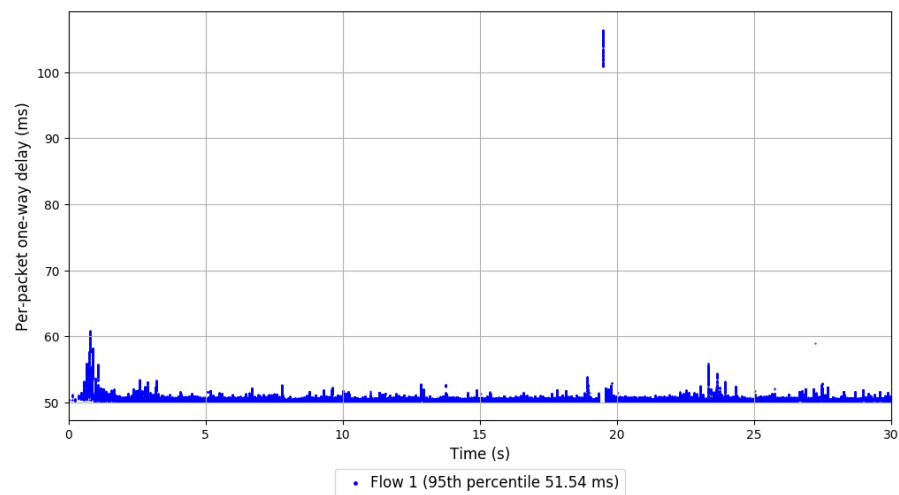
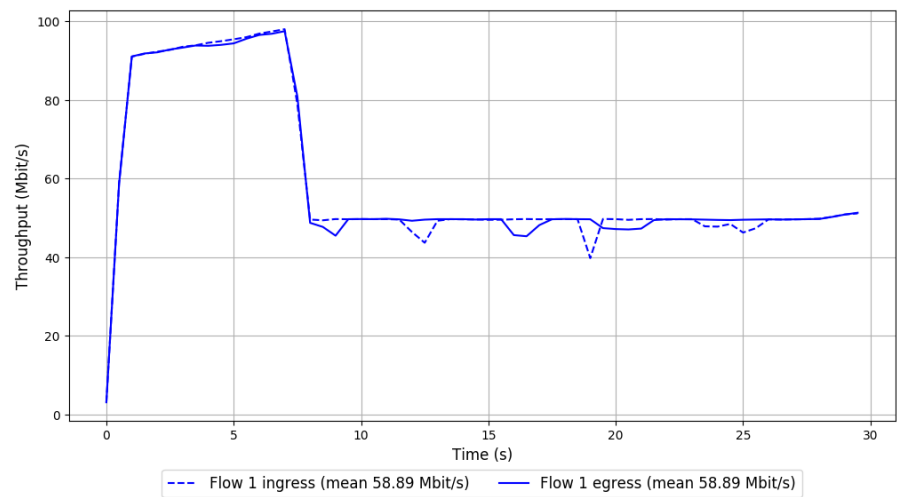
-- Flow 1:

Average throughput: 58.89 Mbit/s

95th percentile per-packet one-way delay: 51.544 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-11 14:10:34

End at: 2017-12-11 14:11:04

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.15 Mbit/s

95th percentile per-packet one-way delay: 52.257 ms

Loss rate: 0.31%

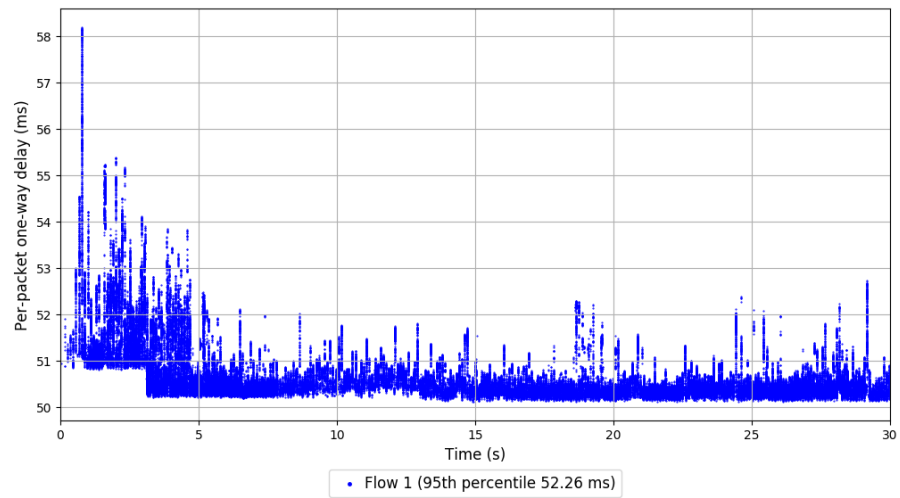
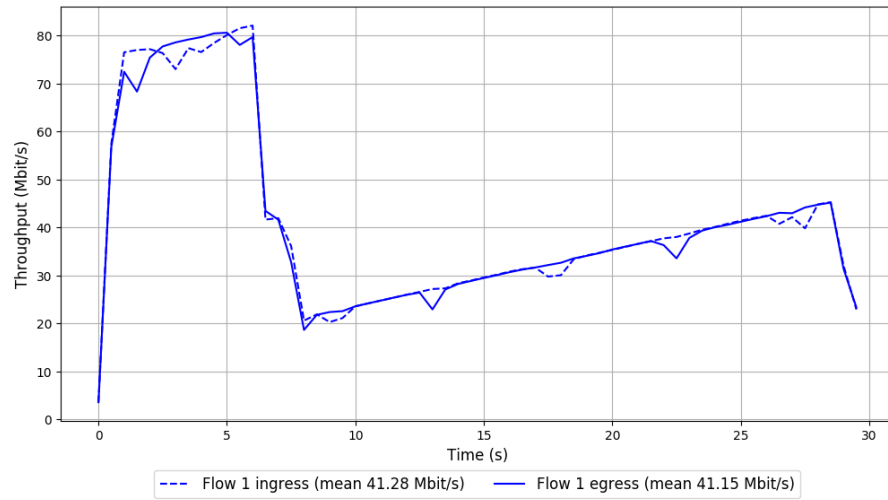
-- Flow 1:

Average throughput: 41.15 Mbit/s

95th percentile per-packet one-way delay: 52.257 ms

Loss rate: 0.31%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-11 14:20:56

End at: 2017-12-11 14:21:27

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.30 Mbit/s

95th percentile per-packet one-way delay: 51.548 ms

Loss rate: 0.01%

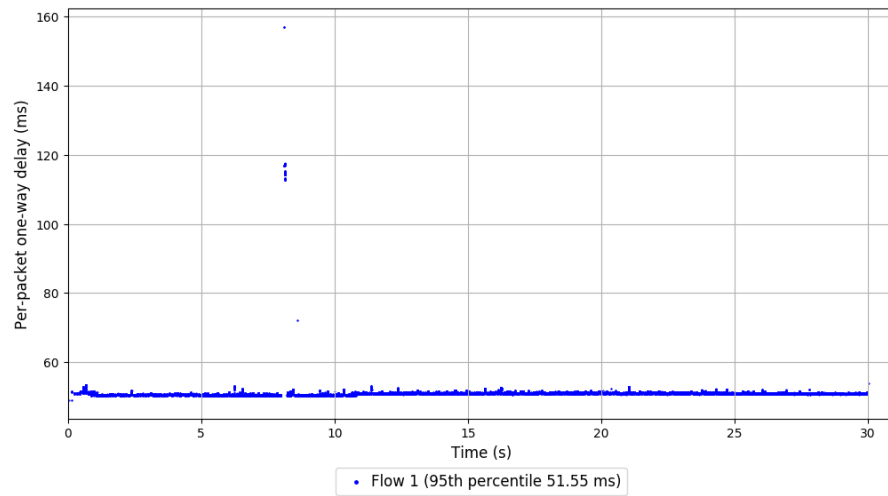
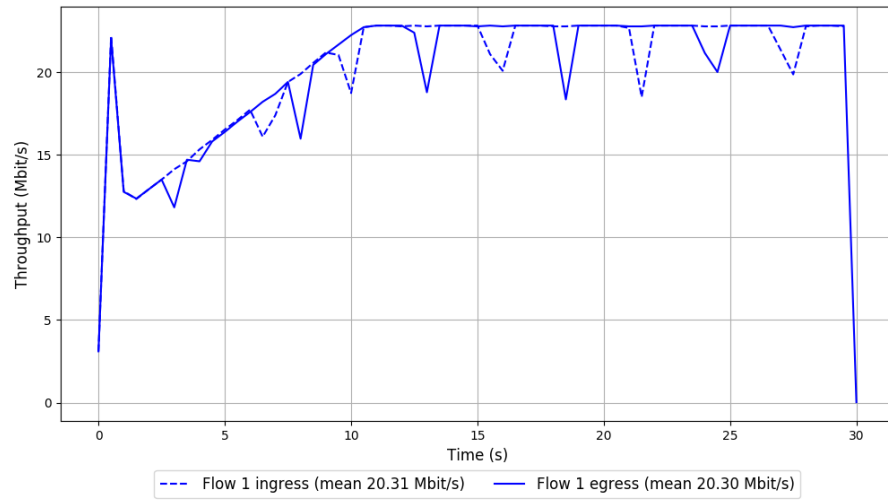
-- Flow 1:

Average throughput: 20.30 Mbit/s

95th percentile per-packet one-way delay: 51.548 ms

Loss rate: 0.01%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-11 14:31:18

End at: 2017-12-11 14:31:48

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.65 Mbit/s

95th percentile per-packet one-way delay: 51.535 ms

Loss rate: 0.08%

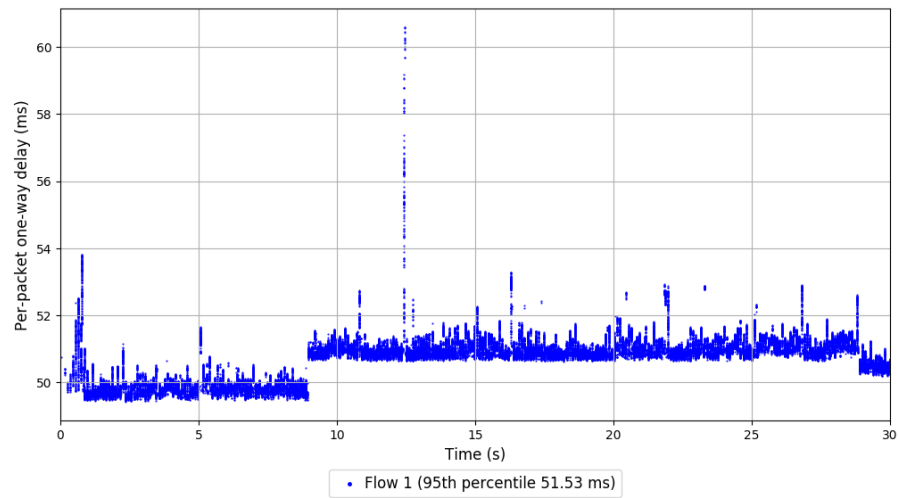
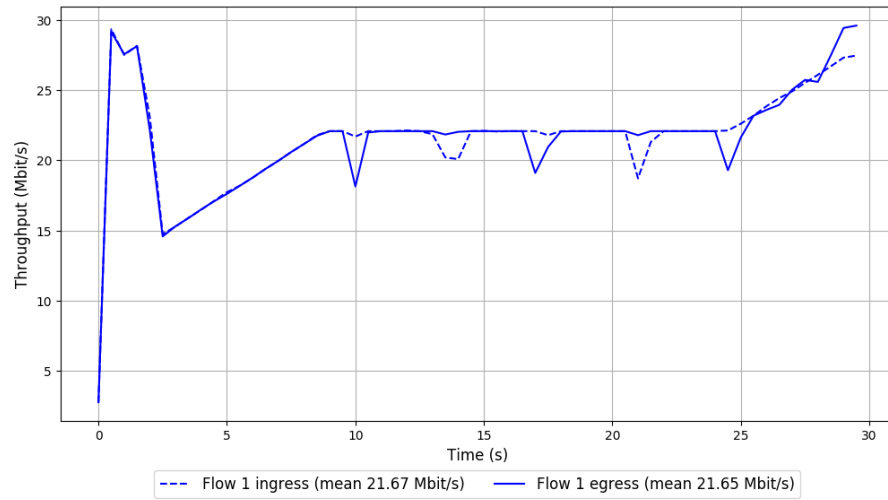
-- Flow 1:

Average throughput: 21.65 Mbit/s

95th percentile per-packet one-way delay: 51.535 ms

Loss rate: 0.08%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-11 14:41:31

End at: 2017-12-11 14:42:01

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 108.78 Mbit/s

95th percentile per-packet one-way delay: 51.523 ms

Loss rate: 0.03%

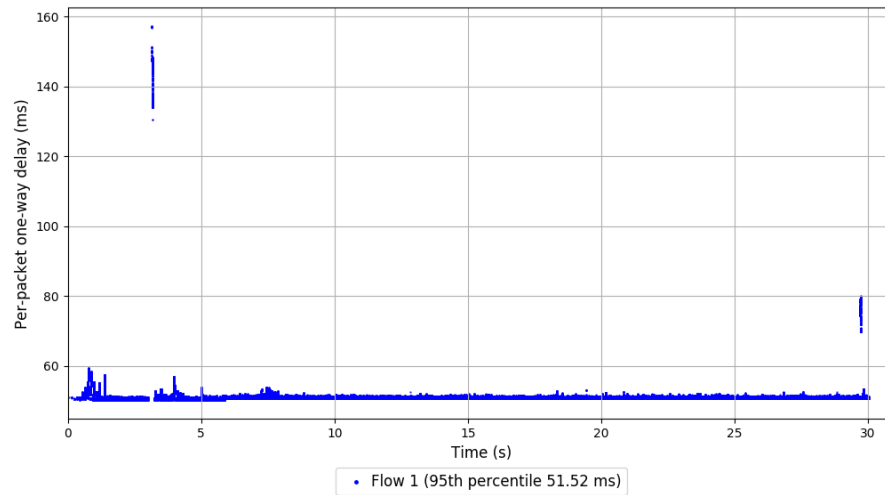
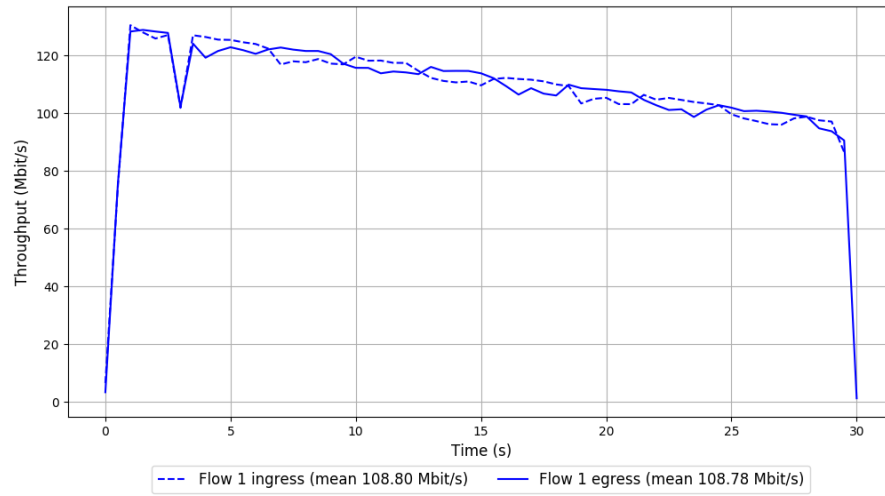
-- Flow 1:

Average throughput: 108.78 Mbit/s

95th percentile per-packet one-way delay: 51.523 ms

Loss rate: 0.03%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-11 14:51:55

End at: 2017-12-11 14:52:25

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.99 Mbit/s

95th percentile per-packet one-way delay: 51.210 ms

Loss rate: 0.13%

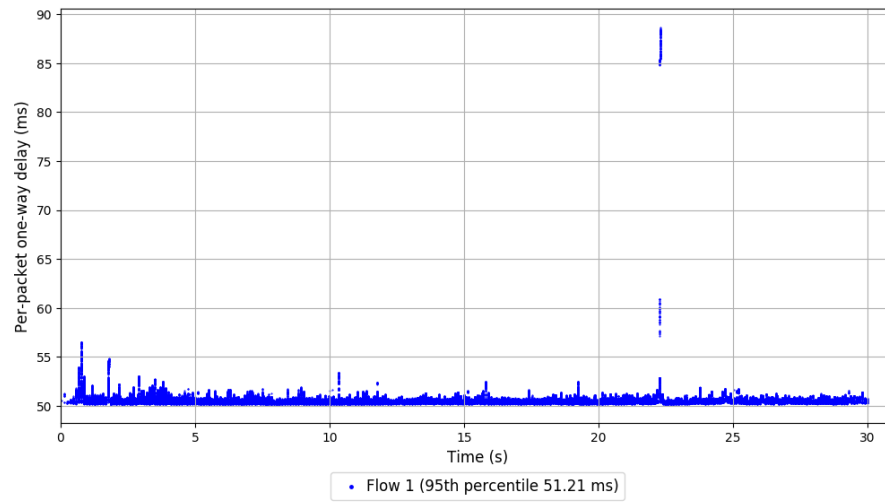
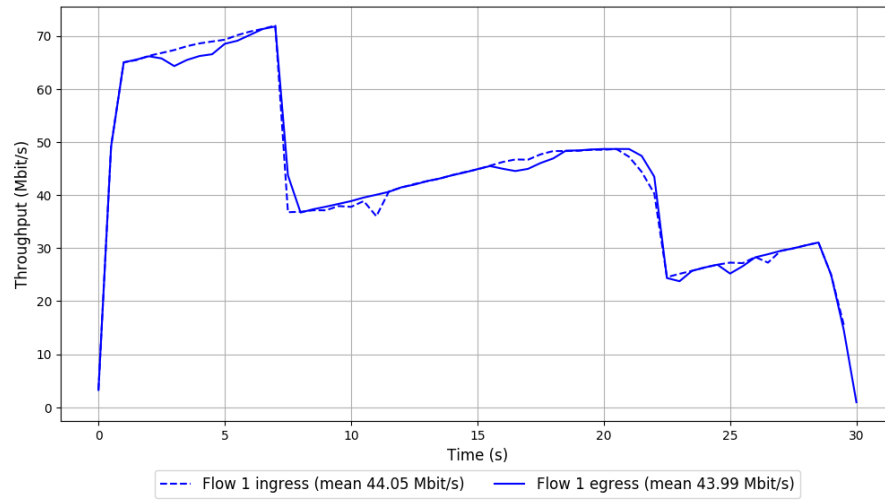
-- Flow 1:

Average throughput: 43.99 Mbit/s

95th percentile per-packet one-way delay: 51.210 ms

Loss rate: 0.13%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-11 15:02:19

End at: 2017-12-11 15:02:49

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.36 Mbit/s

95th percentile per-packet one-way delay: 58.837 ms

Loss rate: 0.00%

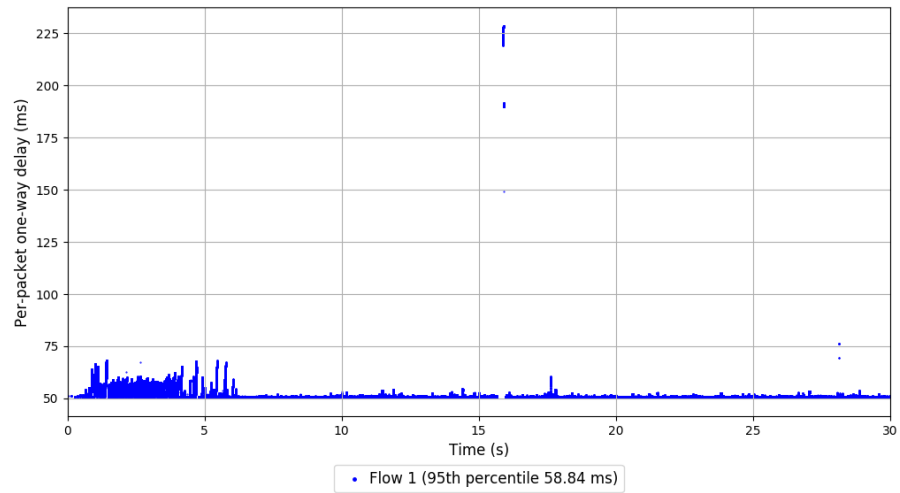
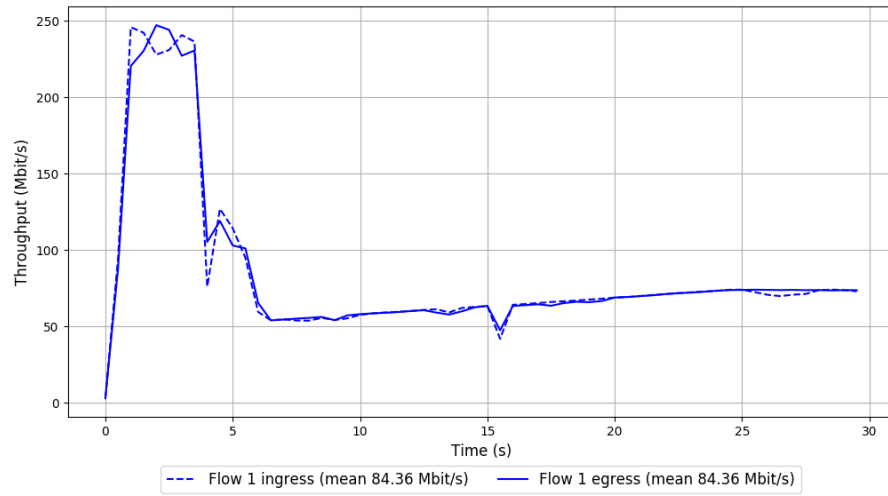
-- Flow 1:

Average throughput: 84.36 Mbit/s

95th percentile per-packet one-way delay: 58.837 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-11 15:12:40

End at: 2017-12-11 15:13:10

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 22.29 Mbit/s

95th percentile per-packet one-way delay: 51.241 ms

Loss rate: 0.00%

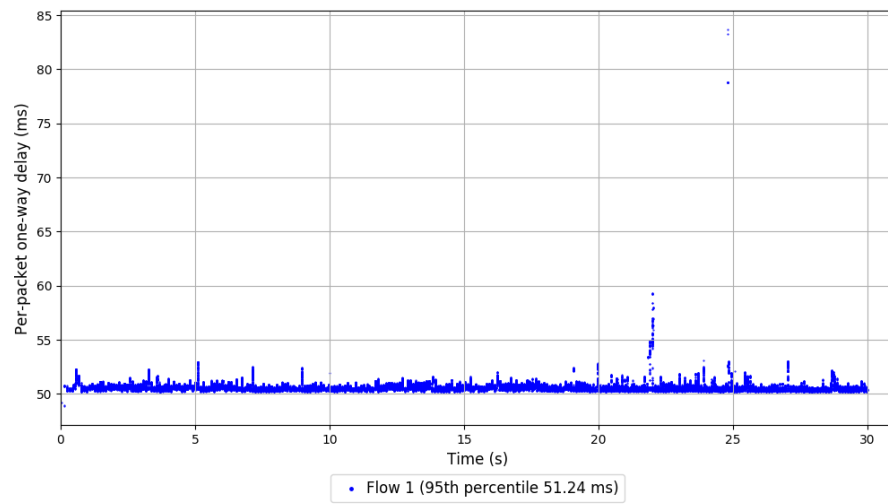
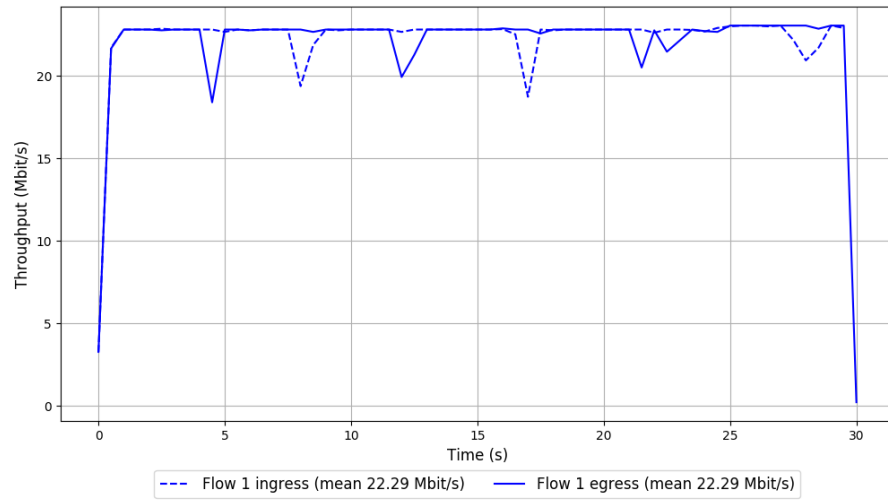
-- Flow 1:

Average throughput: 22.29 Mbit/s

95th percentile per-packet one-way delay: 51.241 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-11 15:22:57

End at: 2017-12-11 15:23:27

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.91 Mbit/s

95th percentile per-packet one-way delay: 51.775 ms

Loss rate: 0.00%

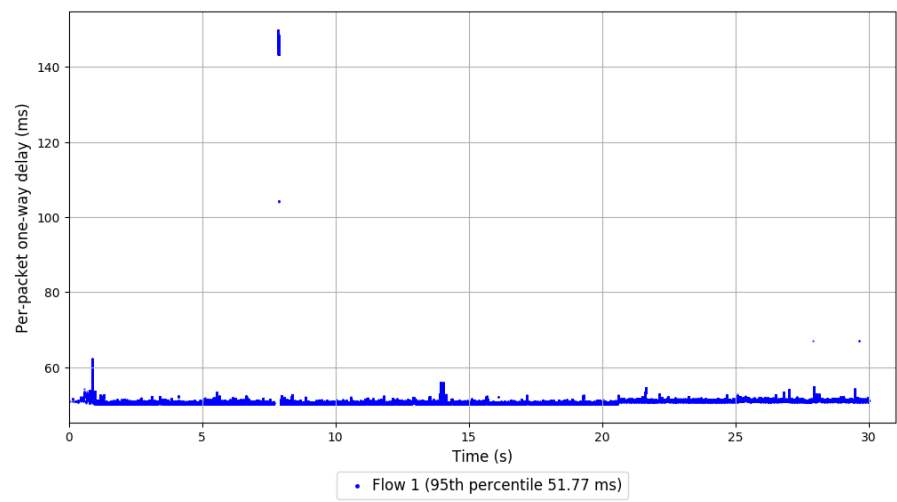
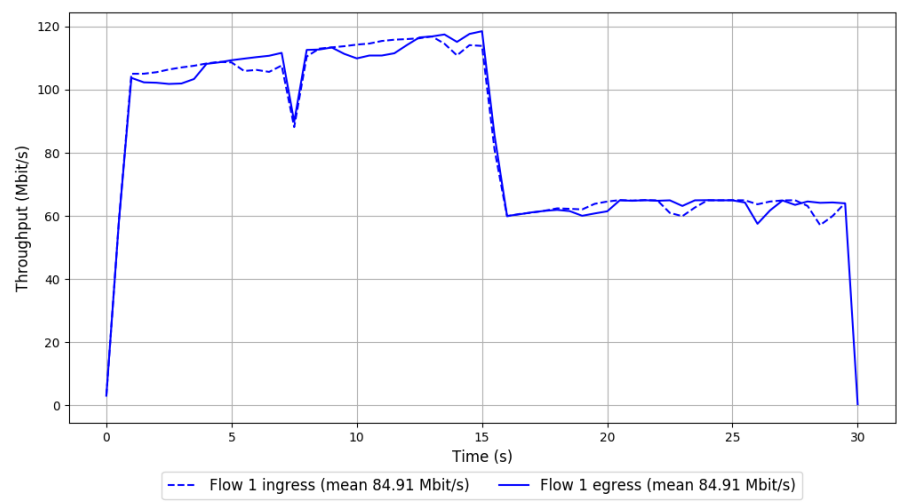
-- Flow 1:

Average throughput: 84.91 Mbit/s

95th percentile per-packet one-way delay: 51.775 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-11 15:33:09

End at: 2017-12-11 15:33:39

Below is generated by plot.py at 2017-12-11 17:04:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.68 Mbit/s

95th percentile per-packet one-way delay: 64.926 ms

Loss rate: 0.00%

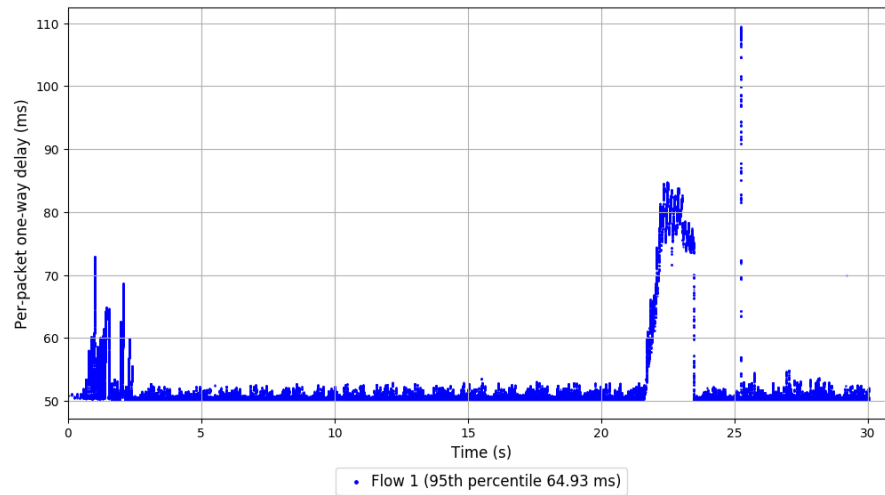
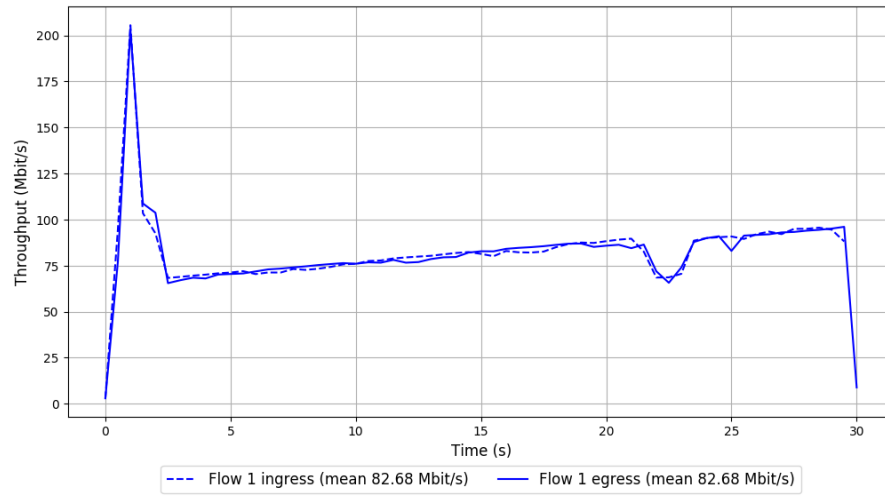
-- Flow 1:

Average throughput: 82.68 Mbit/s

95th percentile per-packet one-way delay: 64.926 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-11 13:57:31

End at: 2017-12-11 13:58:01

Below is generated by plot.py at 2017-12-11 17:05:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.75 Mbit/s

95th percentile per-packet one-way delay: 131.398 ms

Loss rate: 3.14%

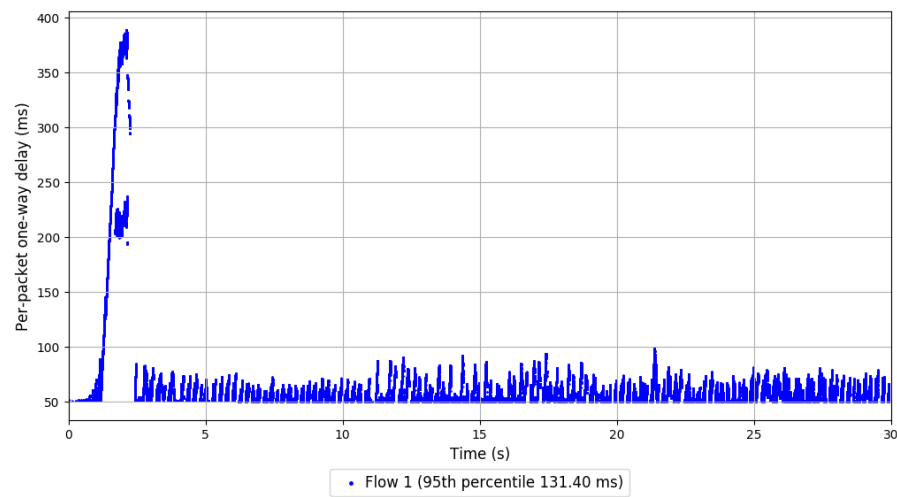
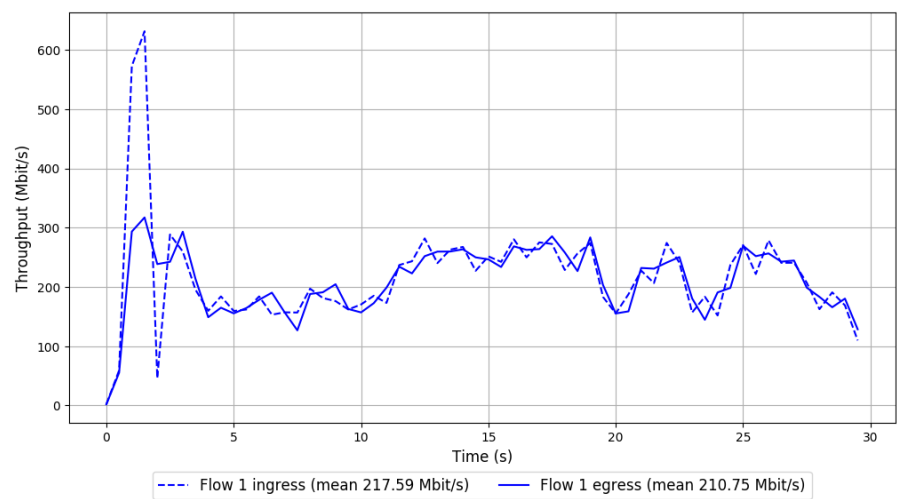
-- Flow 1:

Average throughput: 210.75 Mbit/s

95th percentile per-packet one-way delay: 131.398 ms

Loss rate: 3.14%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-11 14:07:54

End at: 2017-12-11 14:08:24

Below is generated by plot.py at 2017-12-11 17:05:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 175.83 Mbit/s

95th percentile per-packet one-way delay: 153.022 ms

Loss rate: 0.56%

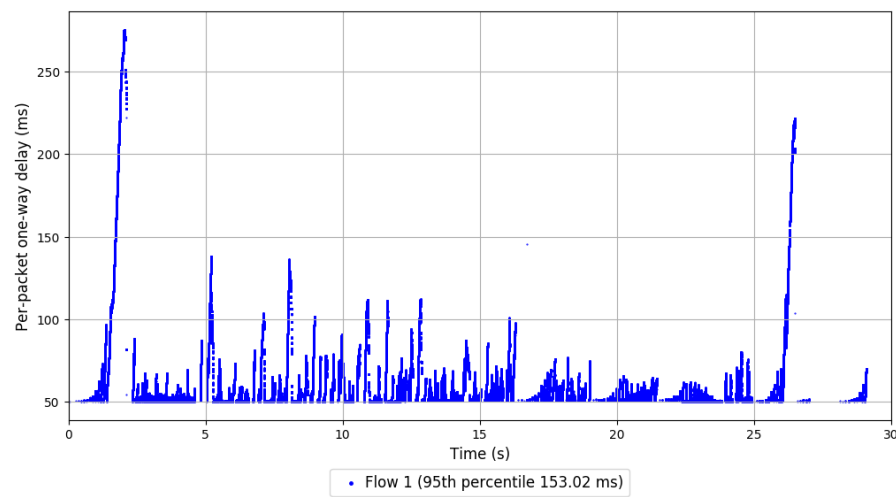
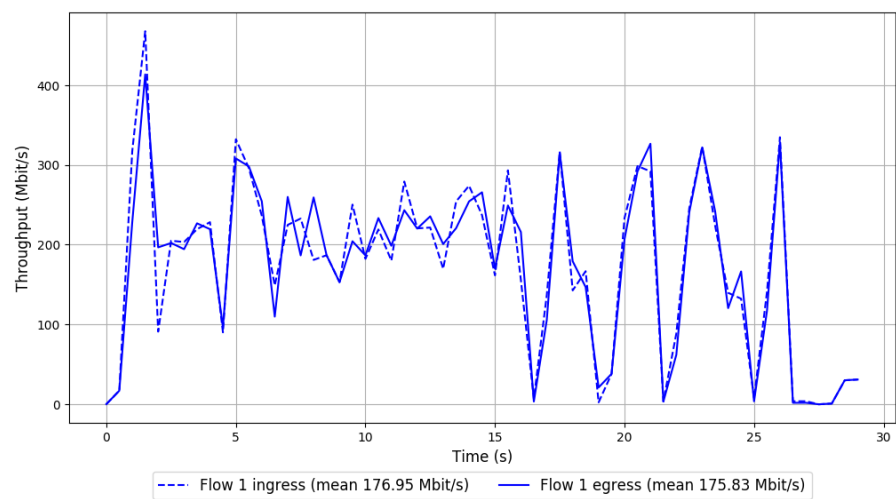
-- Flow 1:

Average throughput: 175.83 Mbit/s

95th percentile per-packet one-way delay: 153.022 ms

Loss rate: 0.56%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-11 14:18:14

End at: 2017-12-11 14:18:44

Below is generated by plot.py at 2017-12-11 17:05:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 207.93 Mbit/s

95th percentile per-packet one-way delay: 93.347 ms

Loss rate: 0.01%

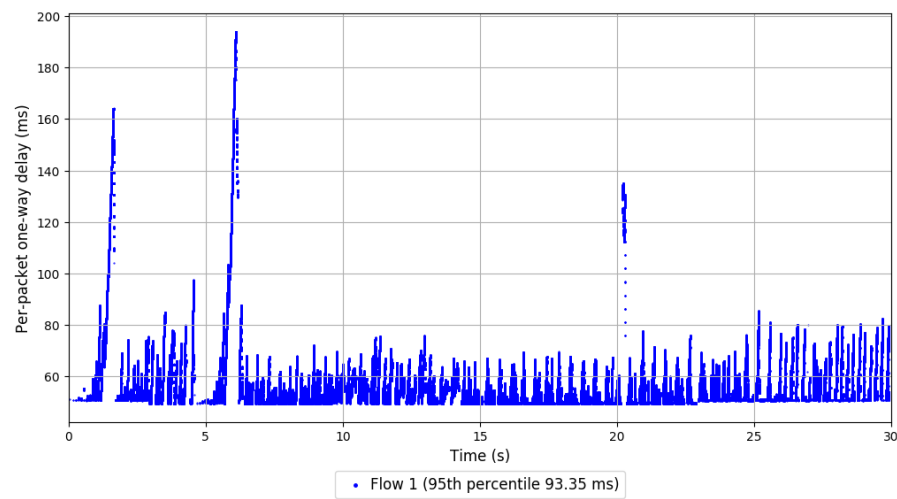
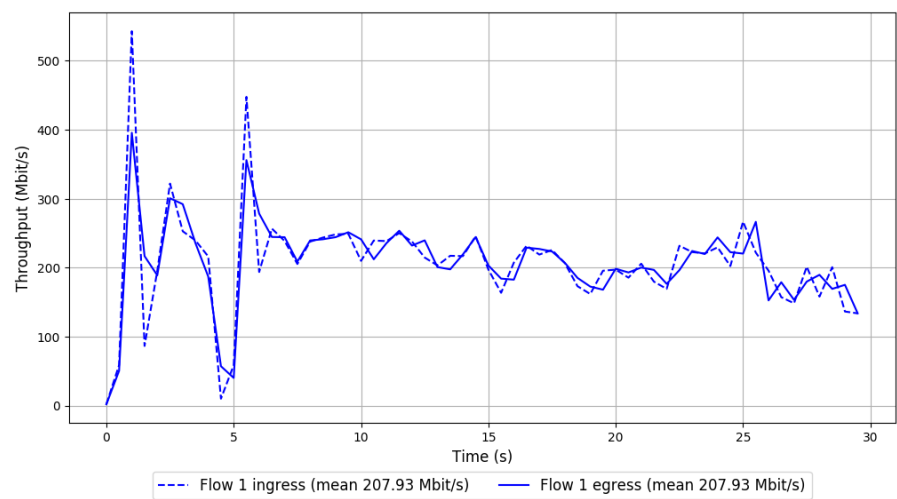
-- Flow 1:

Average throughput: 207.93 Mbit/s

95th percentile per-packet one-way delay: 93.347 ms

Loss rate: 0.01%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-11 14:28:36

End at: 2017-12-11 14:29:06

Below is generated by plot.py at 2017-12-11 17:05:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 204.45 Mbit/s

95th percentile per-packet one-way delay: 104.069 ms

Loss rate: 0.15%

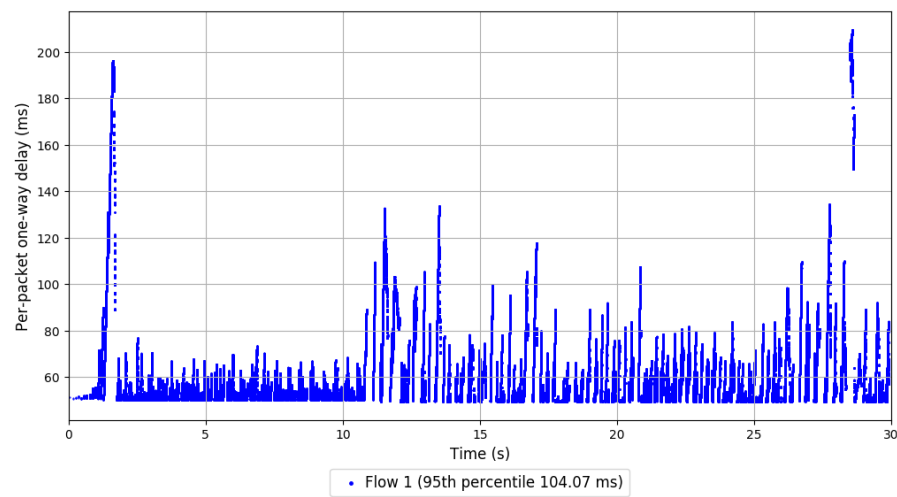
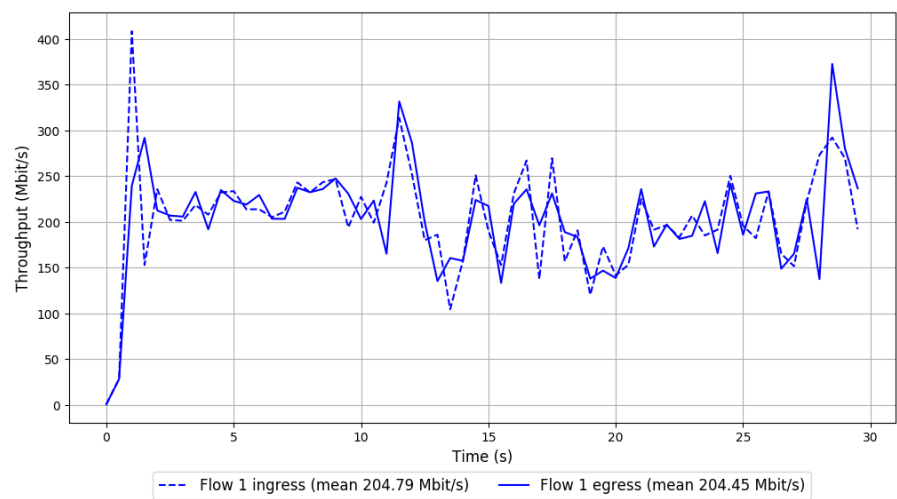
-- Flow 1:

Average throughput: 204.45 Mbit/s

95th percentile per-packet one-way delay: 104.069 ms

Loss rate: 0.15%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-11 14:38:50

End at: 2017-12-11 14:39:20

Below is generated by plot.py at 2017-12-11 17:05:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.58 Mbit/s

95th percentile per-packet one-way delay: 100.341 ms

Loss rate: 0.15%

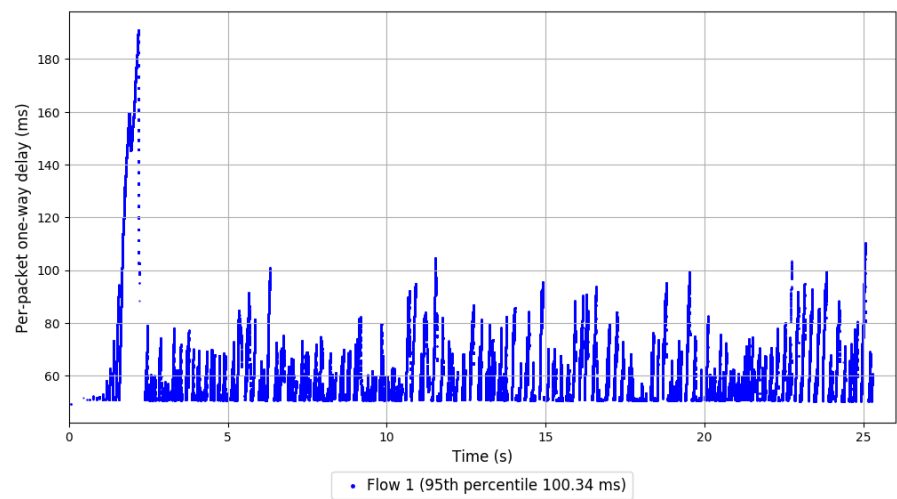
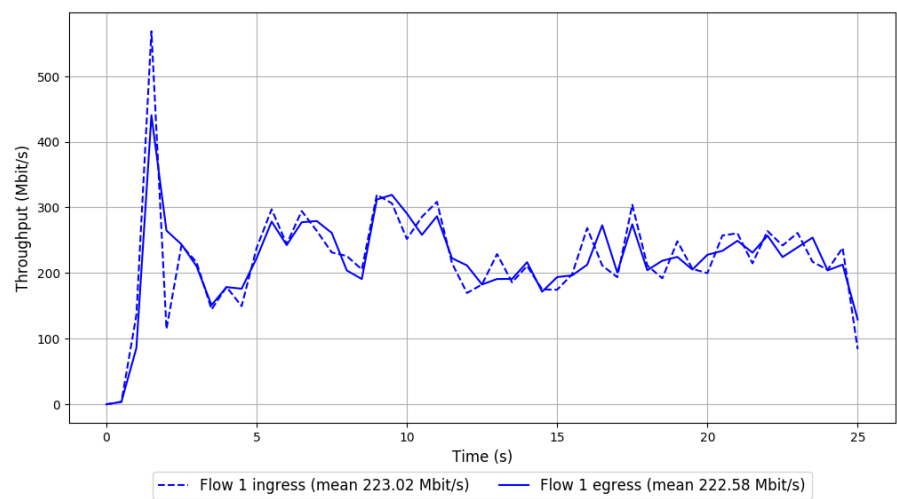
-- Flow 1:

Average throughput: 222.58 Mbit/s

95th percentile per-packet one-way delay: 100.341 ms

Loss rate: 0.15%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-11 14:49:12

End at: 2017-12-11 14:49:42

Below is generated by plot.py at 2017-12-11 17:06:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.10 Mbit/s

95th percentile per-packet one-way delay: 169.721 ms

Loss rate: 1.12%

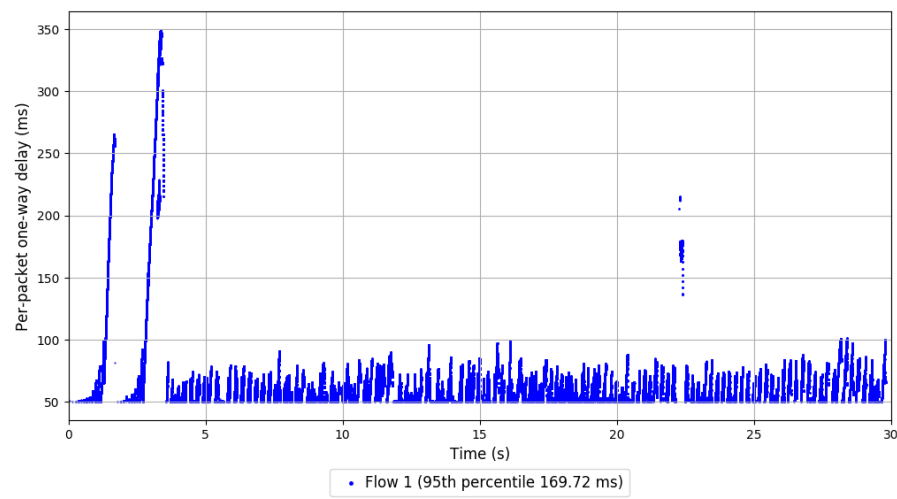
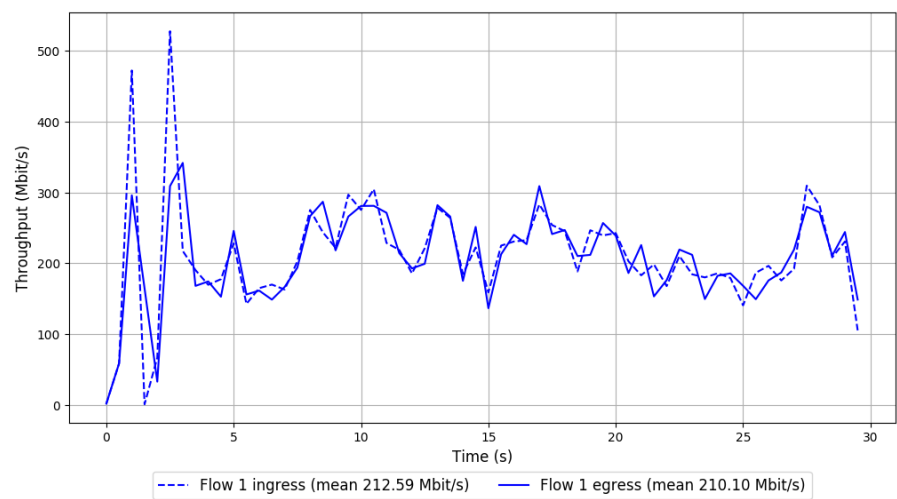
-- Flow 1:

Average throughput: 210.10 Mbit/s

95th percentile per-packet one-way delay: 169.721 ms

Loss rate: 1.12%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-11 14:59:31

End at: 2017-12-11 15:00:01

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 273.72 Mbit/s

95th percentile per-packet one-way delay: 85.901 ms

Loss rate: 0.14%

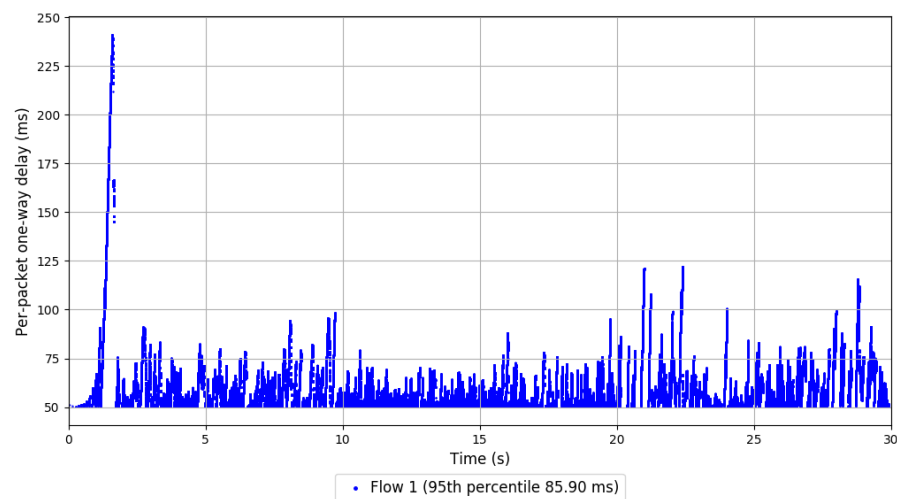
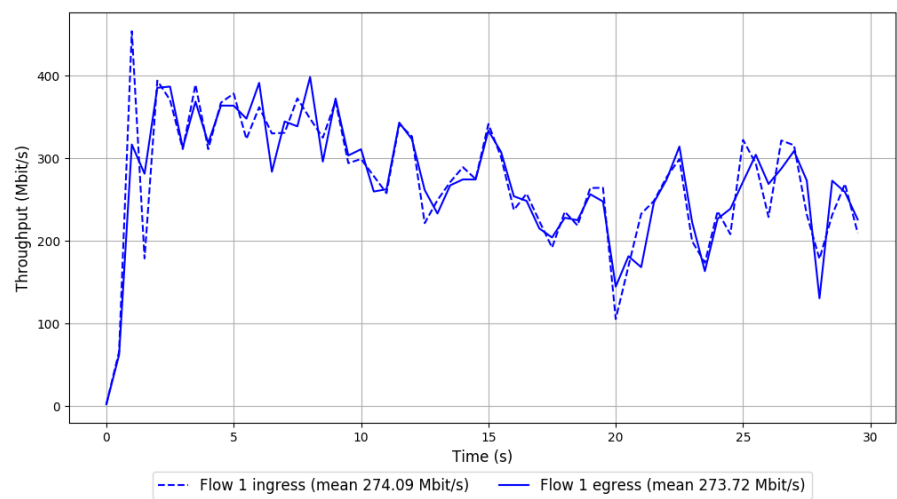
-- Flow 1:

Average throughput: 273.72 Mbit/s

95th percentile per-packet one-way delay: 85.901 ms

Loss rate: 0.14%

Run 7: Report of Verus — Data Link

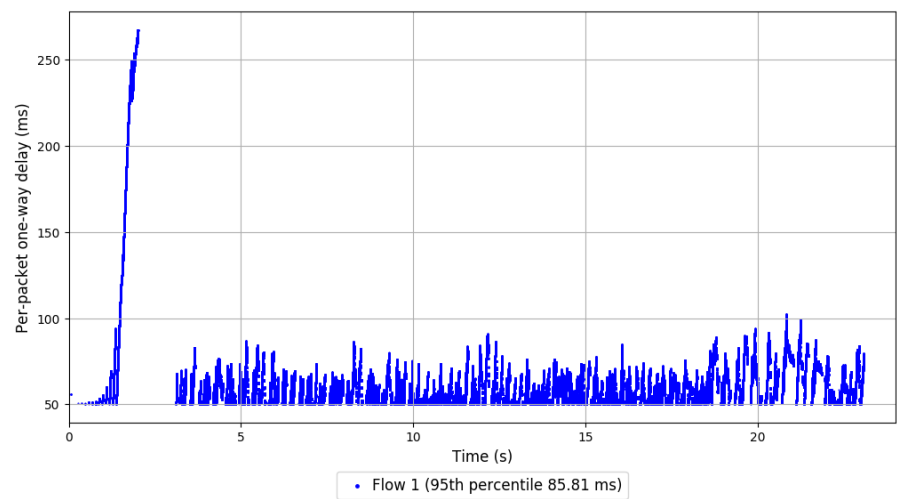
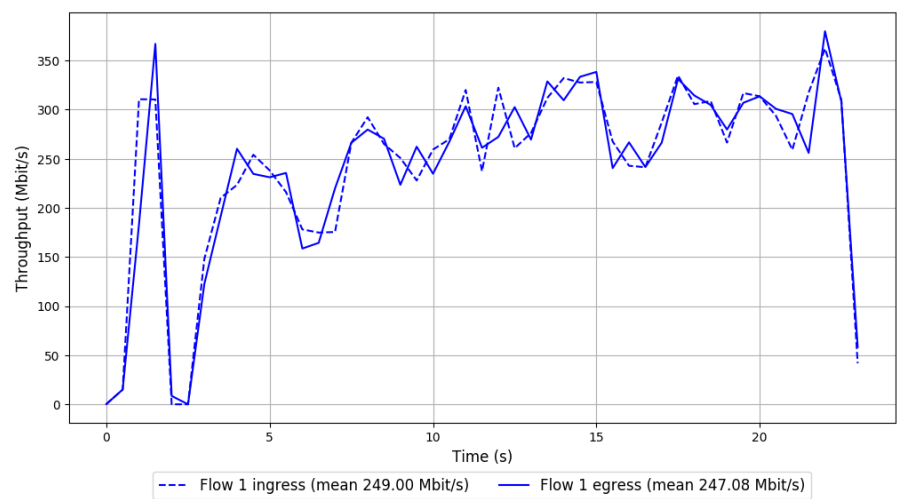


Run 8: Statistics of Verus

Start at: 2017-12-11 15:09:57

End at: 2017-12-11 15:10:27

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-11 15:20:15

End at: 2017-12-11 15:20:45

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.26 Mbit/s

95th percentile per-packet one-way delay: 110.203 ms

Loss rate: 0.15%

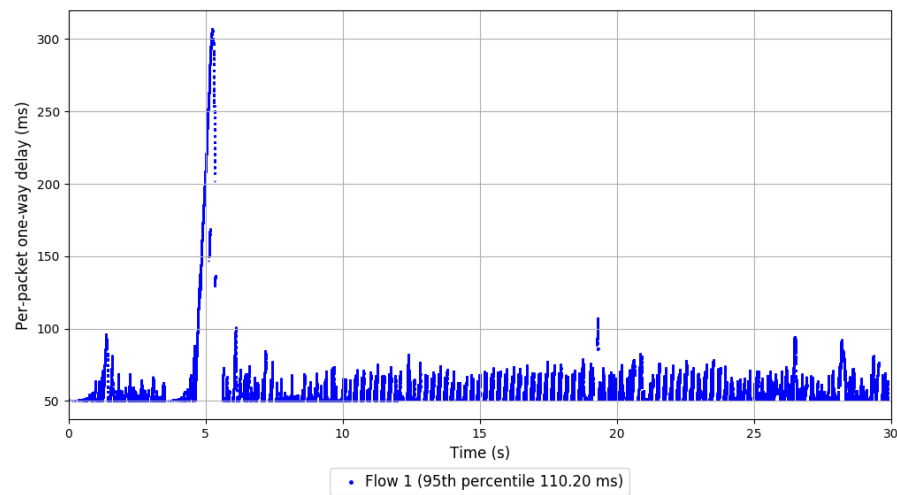
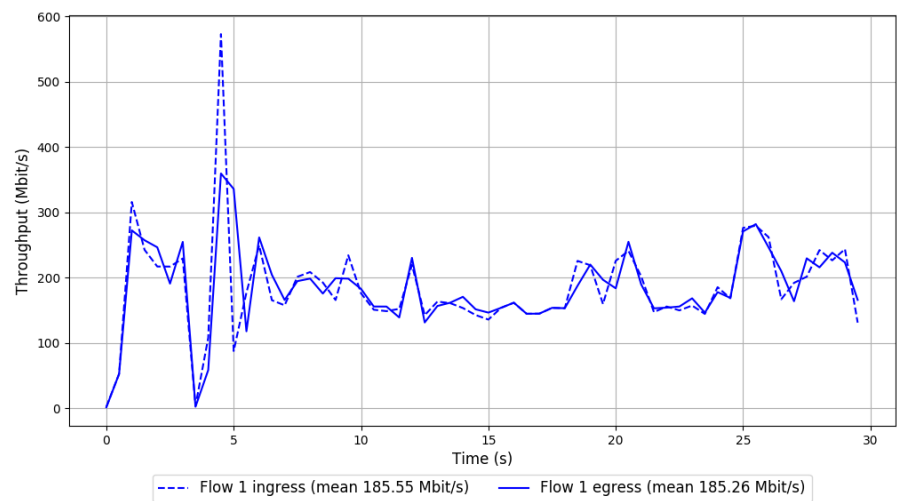
-- Flow 1:

Average throughput: 185.26 Mbit/s

95th percentile per-packet one-way delay: 110.203 ms

Loss rate: 0.15%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-11 15:30:29

End at: 2017-12-11 15:30:59

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 180.73 Mbit/s

95th percentile per-packet one-way delay: 135.094 ms

Loss rate: 0.18%

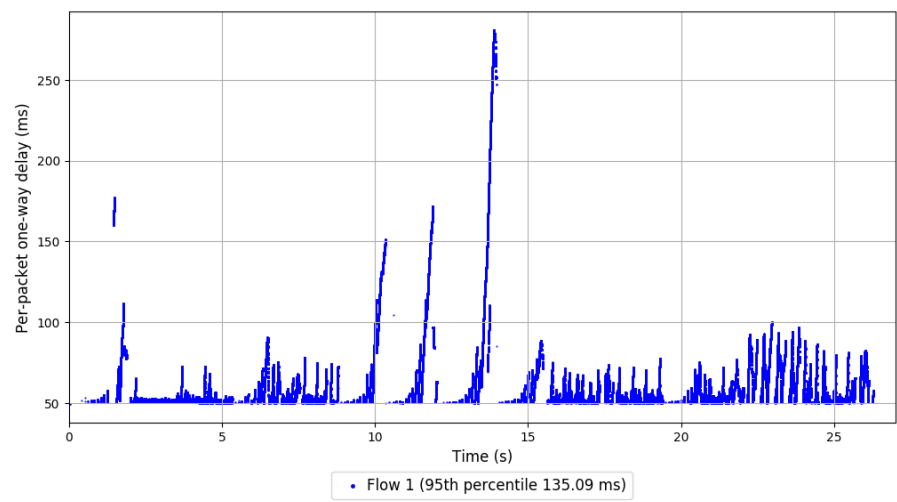
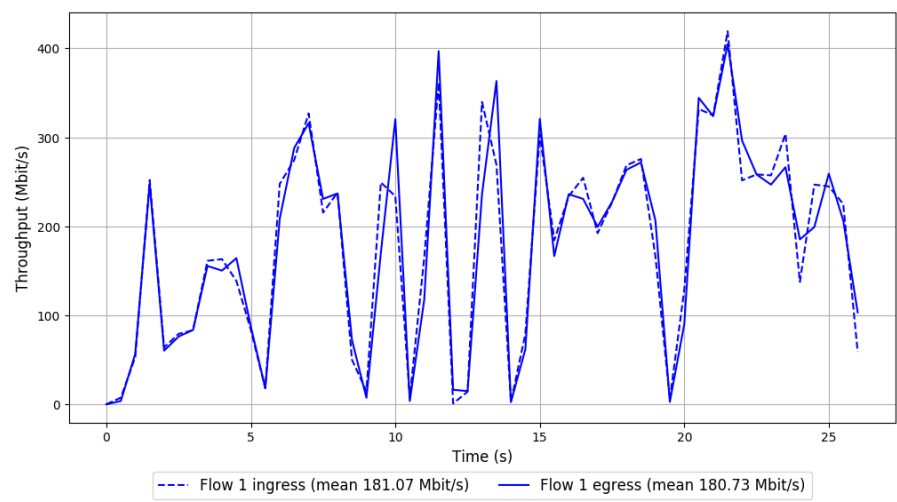
-- Flow 1:

Average throughput: 180.73 Mbit/s

95th percentile per-packet one-way delay: 135.094 ms

Loss rate: 0.18%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-11 14:03:27

End at: 2017-12-11 14:03:57

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.78 Mbit/s

95th percentile per-packet one-way delay: 50.432 ms

Loss rate: 0.00%

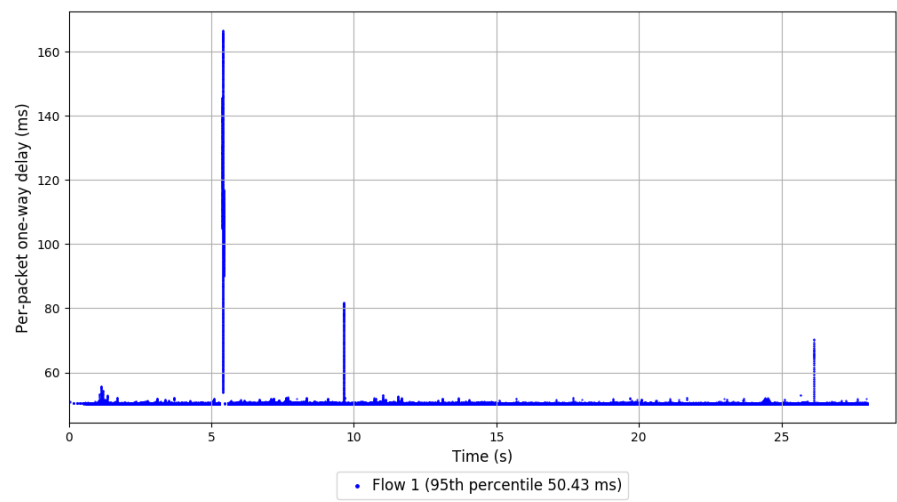
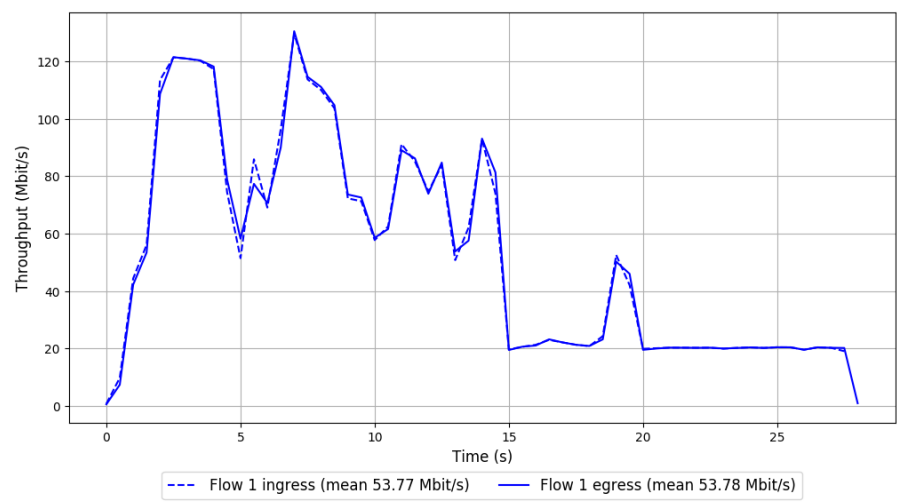
-- Flow 1:

Average throughput: 53.78 Mbit/s

95th percentile per-packet one-way delay: 50.432 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-11 14:13:46

End at: 2017-12-11 14:14:16

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.23 Mbit/s

95th percentile per-packet one-way delay: 50.900 ms

Loss rate: 0.00%

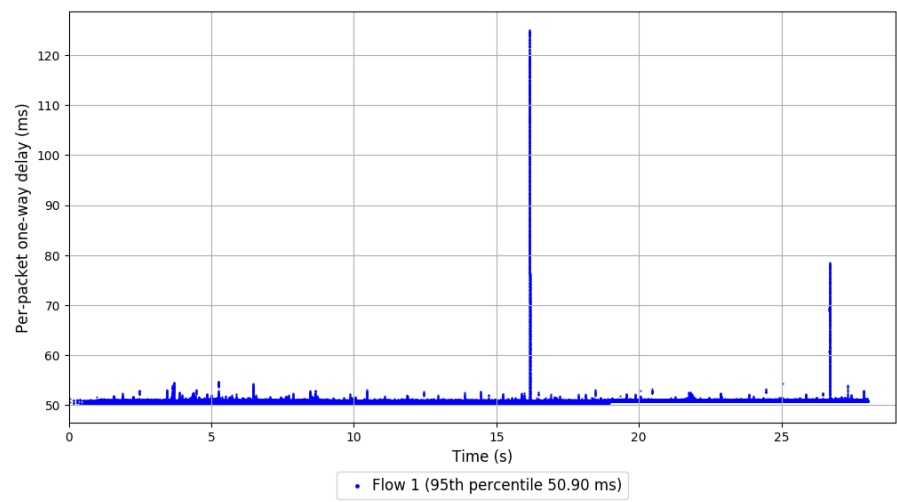
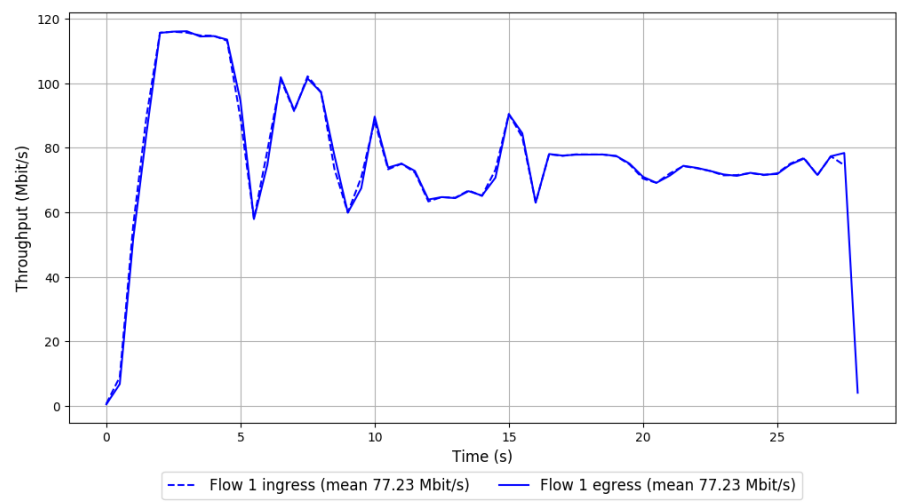
-- Flow 1:

Average throughput: 77.23 Mbit/s

95th percentile per-packet one-way delay: 50.900 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-11 14:24:05

End at: 2017-12-11 14:24:35

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 50.871 ms

Loss rate: 0.00%

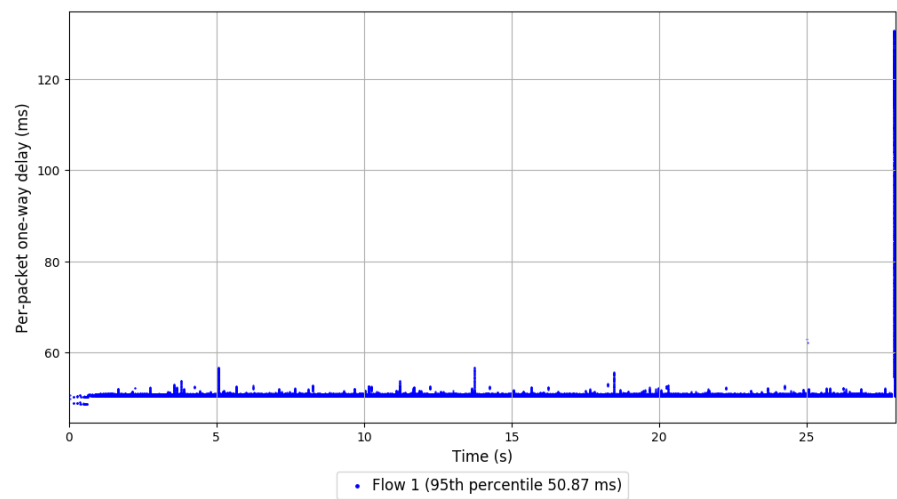
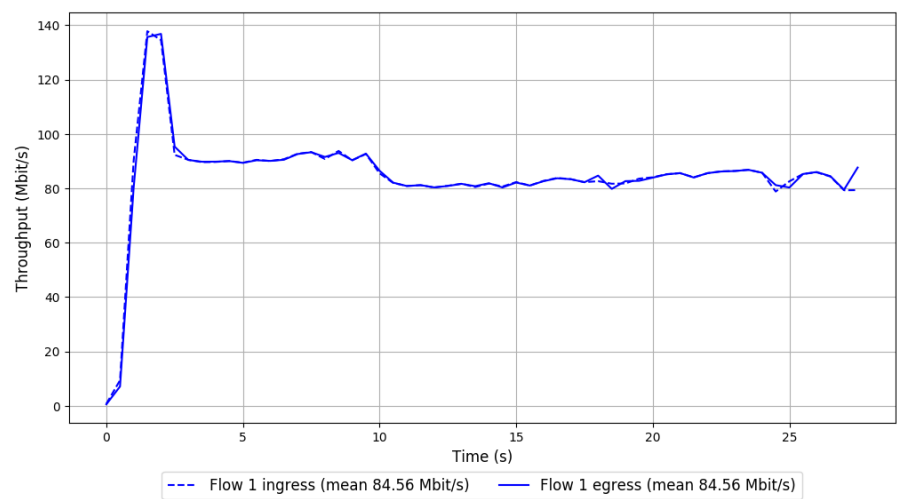
-- Flow 1:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 50.871 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-11 14:34:24

End at: 2017-12-11 14:34:54

Below is generated by plot.py at 2017-12-11 17:09:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.54 Mbit/s

95th percentile per-packet one-way delay: 50.750 ms

Loss rate: 0.01%

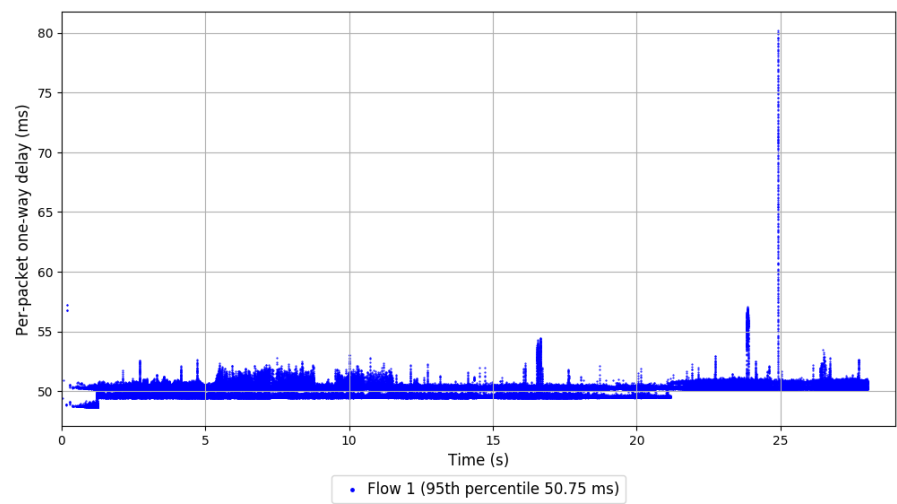
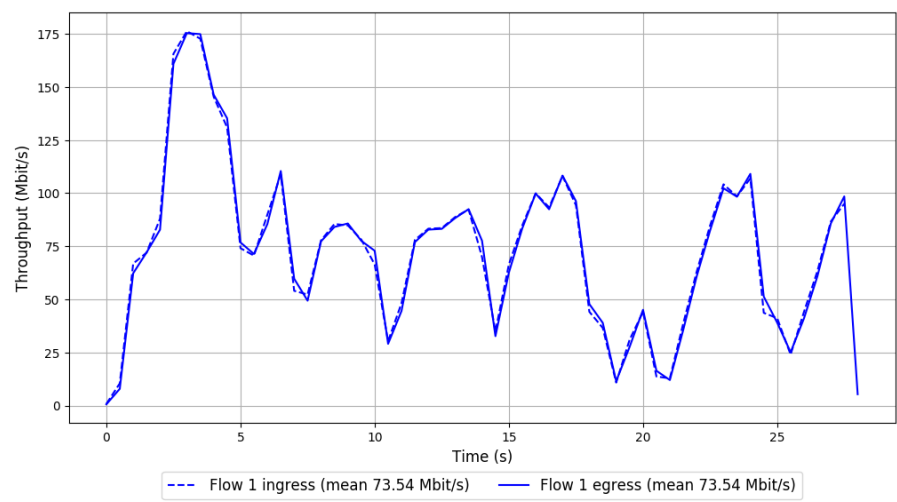
-- Flow 1:

Average throughput: 73.54 Mbit/s

95th percentile per-packet one-way delay: 50.750 ms

Loss rate: 0.01%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-11 14:44:45

End at: 2017-12-11 14:45:15

Below is generated by plot.py at 2017-12-11 17:10:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.59 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.00%

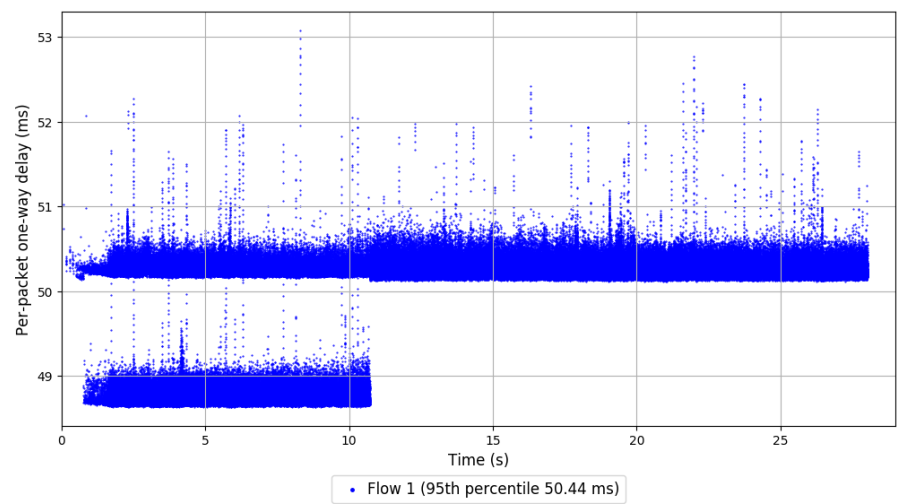
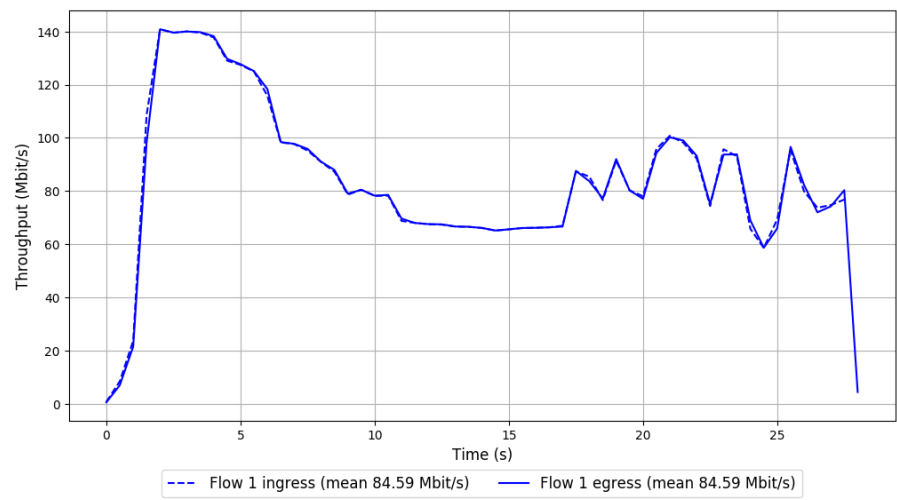
-- Flow 1:

Average throughput: 84.59 Mbit/s

95th percentile per-packet one-way delay: 50.438 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-11 14:55:04

End at: 2017-12-11 14:55:34

Below is generated by plot.py at 2017-12-11 17:10:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.35 Mbit/s

95th percentile per-packet one-way delay: 50.772 ms

Loss rate: 0.00%

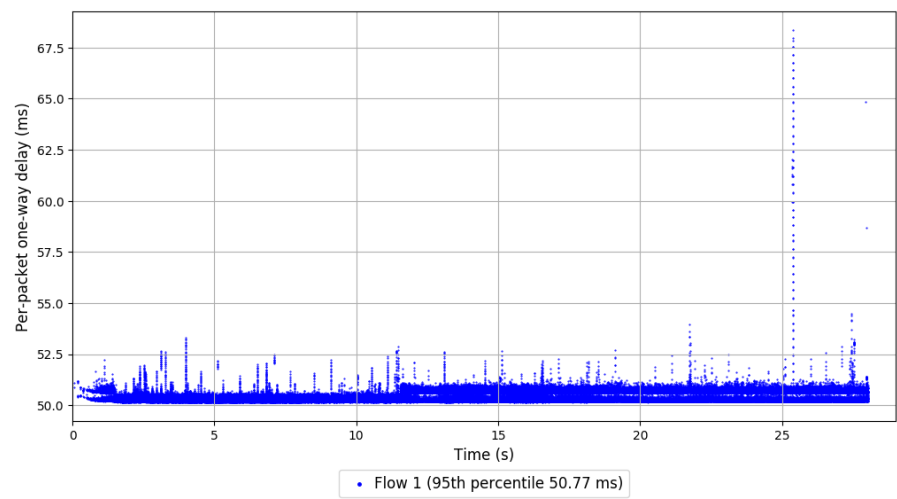
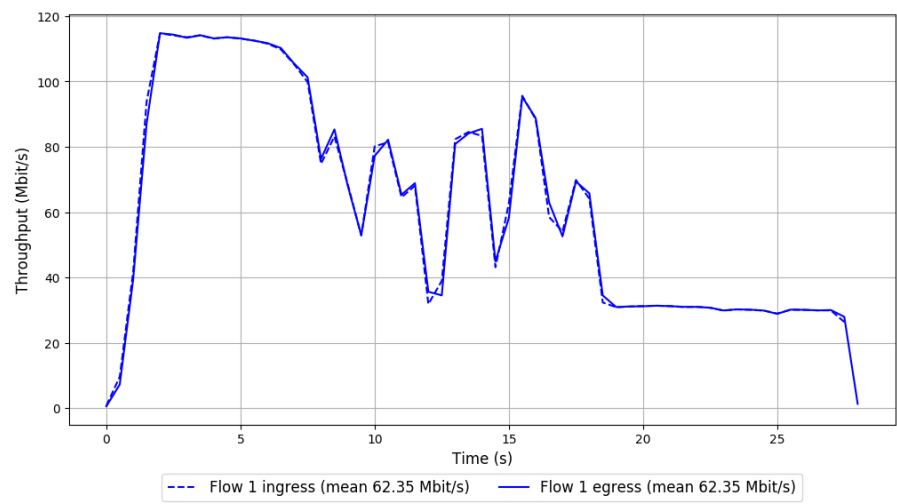
-- Flow 1:

Average throughput: 62.35 Mbit/s

95th percentile per-packet one-way delay: 50.772 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-11 15:05:33

End at: 2017-12-11 15:06:03

Below is generated by plot.py at 2017-12-11 17:10:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.03 Mbit/s

95th percentile per-packet one-way delay: 50.411 ms

Loss rate: 0.00%

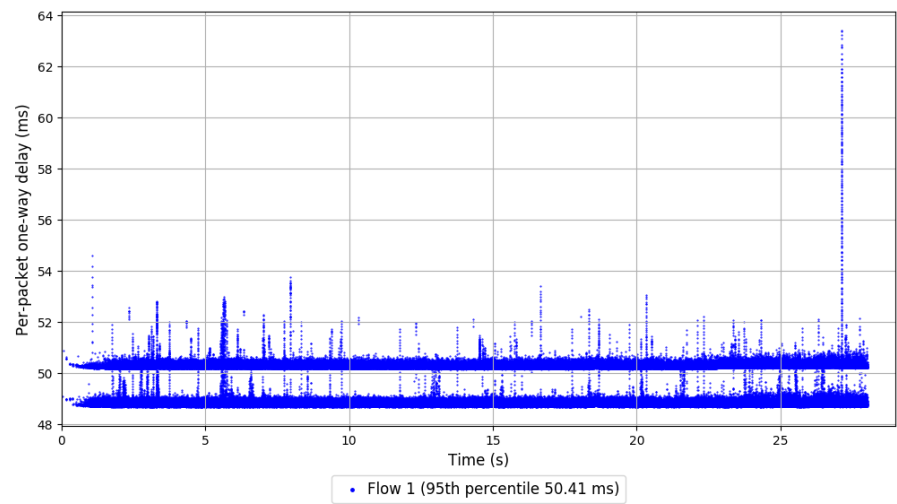
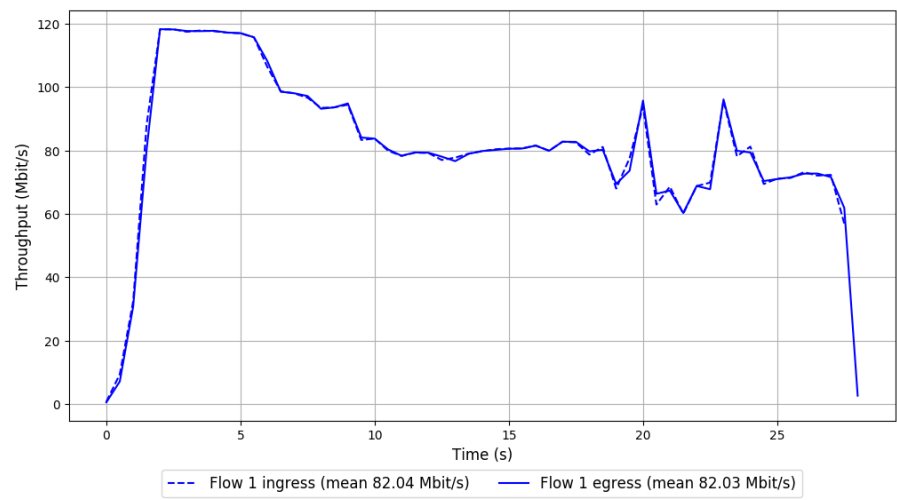
-- Flow 1:

Average throughput: 82.03 Mbit/s

95th percentile per-packet one-way delay: 50.411 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-11 15:15:48

End at: 2017-12-11 15:16:18

Below is generated by plot.py at 2017-12-11 17:10:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.00 Mbit/s

95th percentile per-packet one-way delay: 50.925 ms

Loss rate: 0.00%

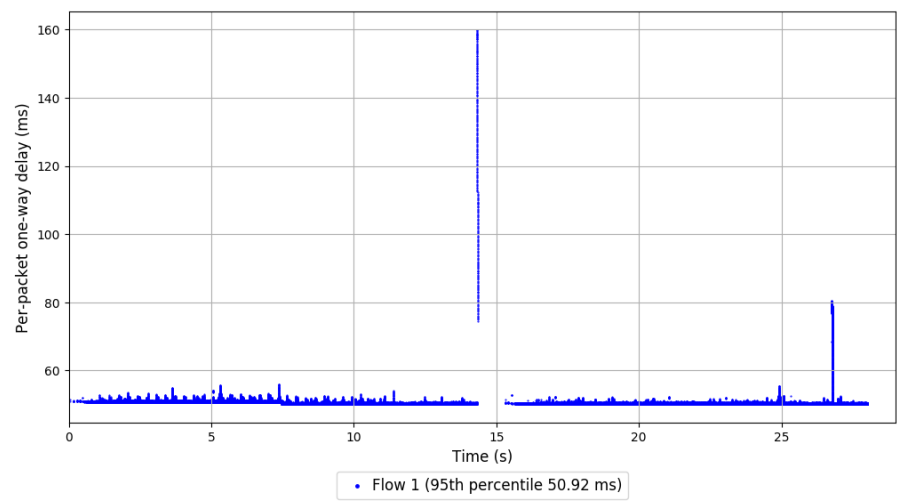
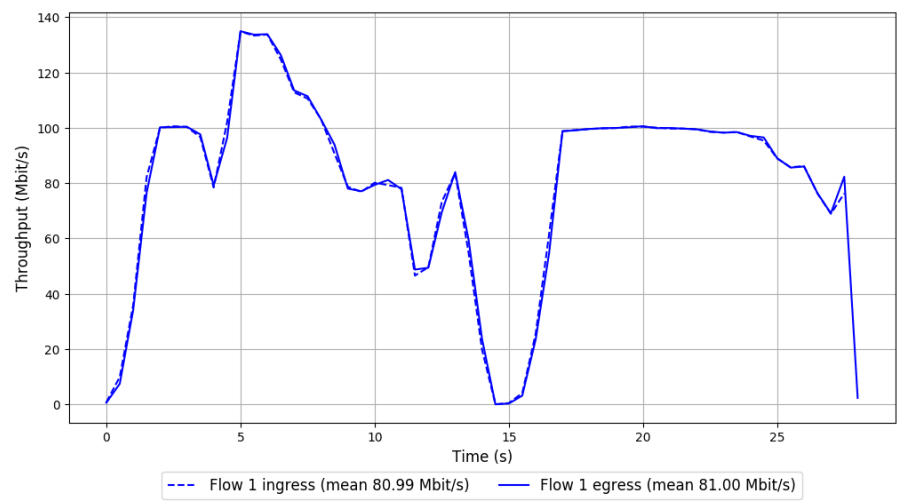
-- Flow 1:

Average throughput: 81.00 Mbit/s

95th percentile per-packet one-way delay: 50.925 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-11 15:26:04

End at: 2017-12-11 15:26:34

Below is generated by plot.py at 2017-12-11 17:10:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.24 Mbit/s

95th percentile per-packet one-way delay: 50.890 ms

Loss rate: 0.00%

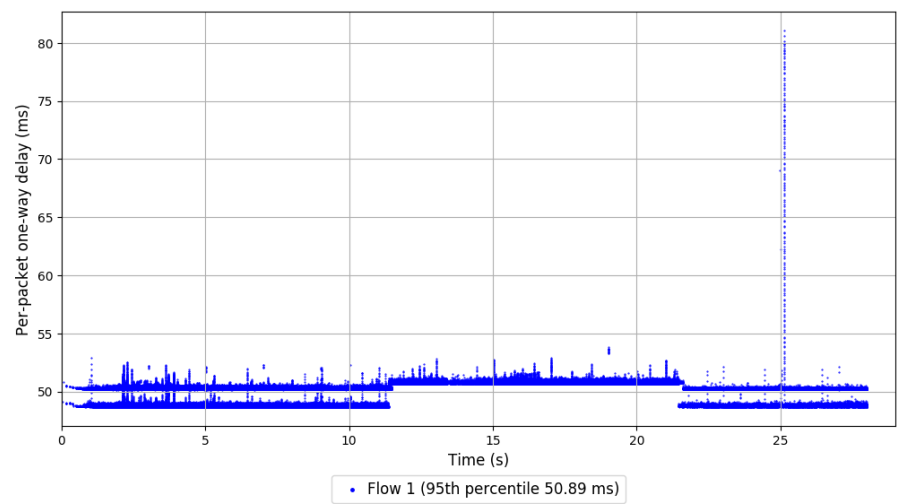
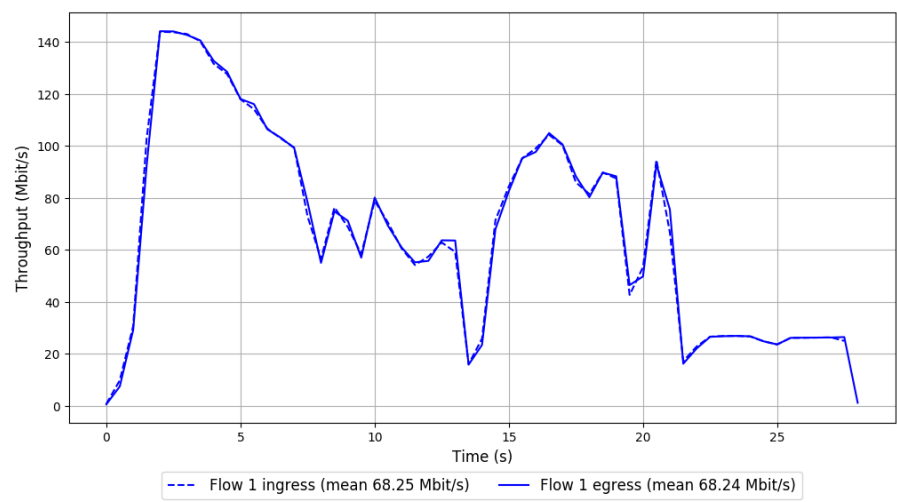
-- Flow 1:

Average throughput: 68.24 Mbit/s

95th percentile per-packet one-way delay: 50.890 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-11 15:36:18

End at: 2017-12-11 15:36:48

Below is generated by plot.py at 2017-12-11 17:10:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.75 Mbit/s

95th percentile per-packet one-way delay: 50.964 ms

Loss rate: 0.00%

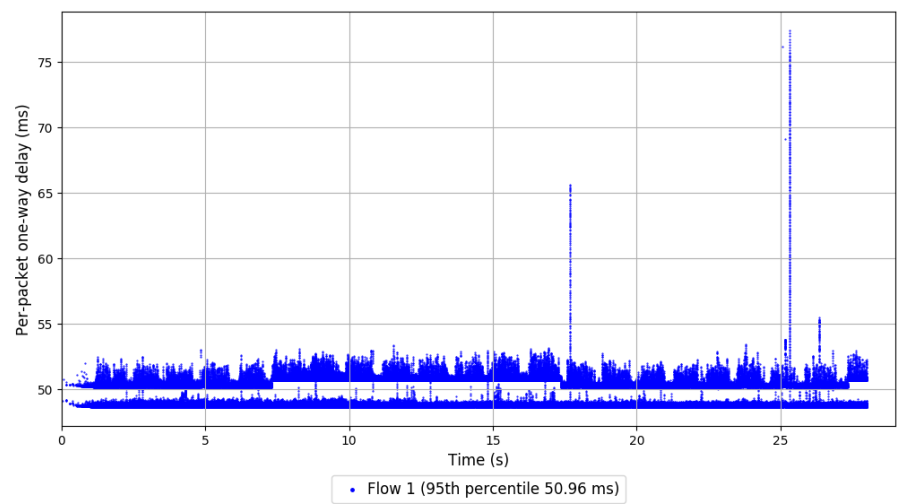
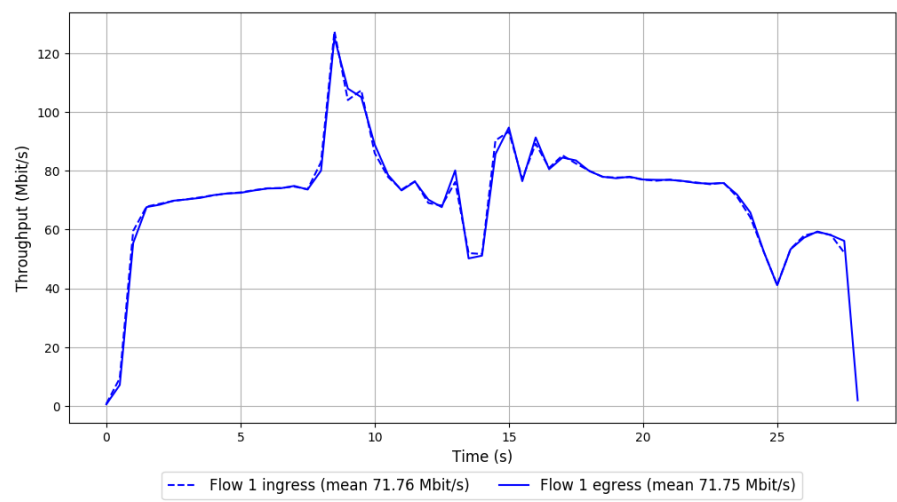
-- Flow 1:

Average throughput: 71.75 Mbit/s

95th percentile per-packet one-way delay: 50.964 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

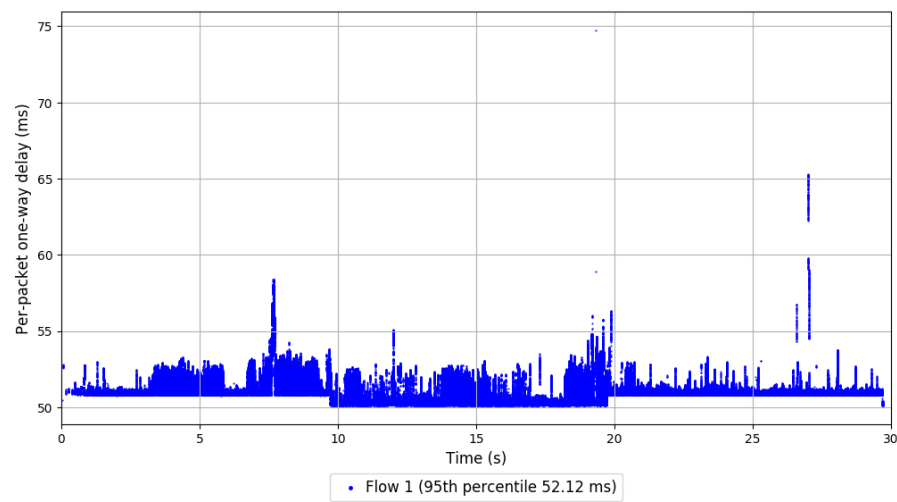
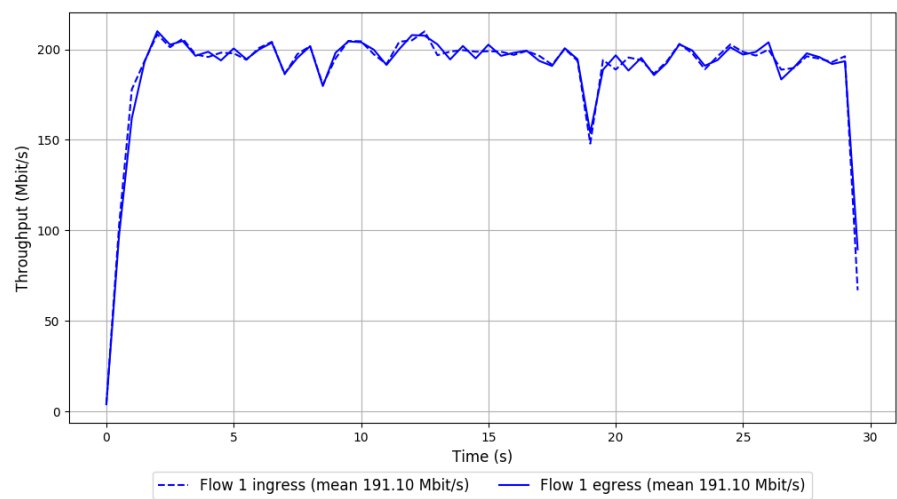


```
Run 1: Statistics of Indigo

Start at: 2017-12-11 14:02:37
End at: 2017-12-11 14:03:07

# Below is generated by plot.py at 2017-12-11 17:12:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.10 Mbit/s
95th percentile per-packet one-way delay: 52.115 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.10 Mbit/s
95th percentile per-packet one-way delay: 52.115 ms
Loss rate: 0.00%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-12-11 14:12:57

End at: 2017-12-11 14:13:27

Below is generated by plot.py at 2017-12-11 17:12:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.91 Mbit/s

95th percentile per-packet one-way delay: 51.140 ms

Loss rate: 0.00%

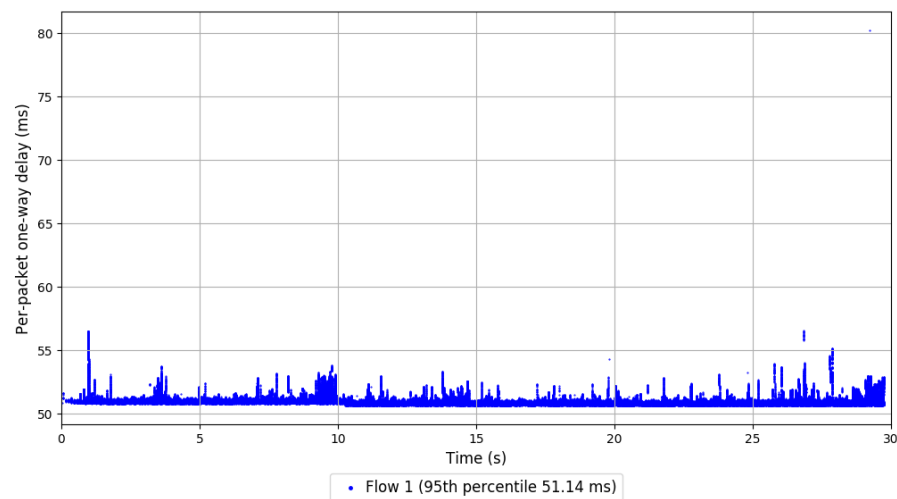
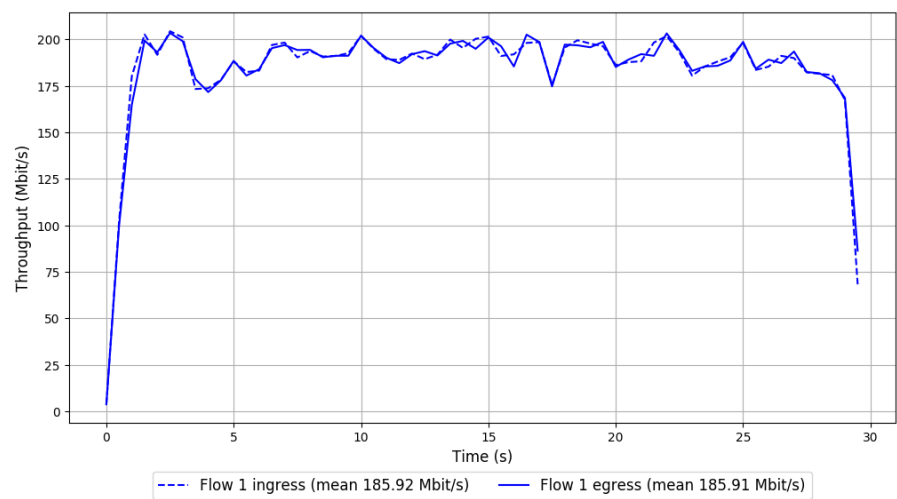
-- Flow 1:

Average throughput: 185.91 Mbit/s

95th percentile per-packet one-way delay: 51.140 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-11 14:23:15

End at: 2017-12-11 14:23:45

Below is generated by plot.py at 2017-12-11 17:13:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.11 Mbit/s

95th percentile per-packet one-way delay: 50.430 ms

Loss rate: 0.00%

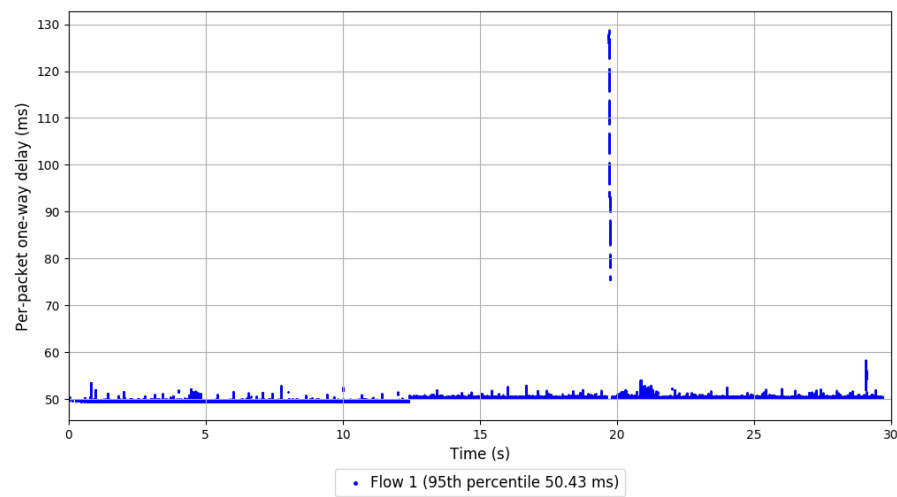
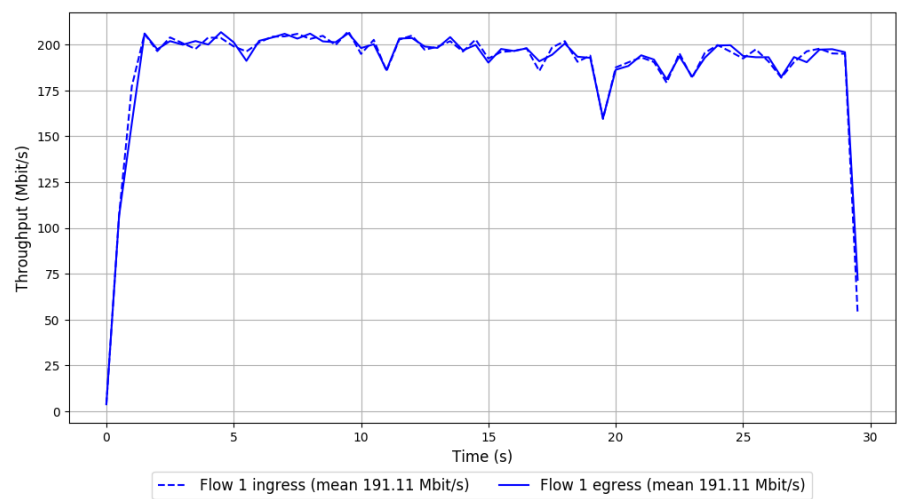
-- Flow 1:

Average throughput: 191.11 Mbit/s

95th percentile per-packet one-way delay: 50.430 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-11 14:33:35

End at: 2017-12-11 14:34:05

Below is generated by plot.py at 2017-12-11 17:13:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 182.42 Mbit/s

95th percentile per-packet one-way delay: 49.748 ms

Loss rate: 0.24%

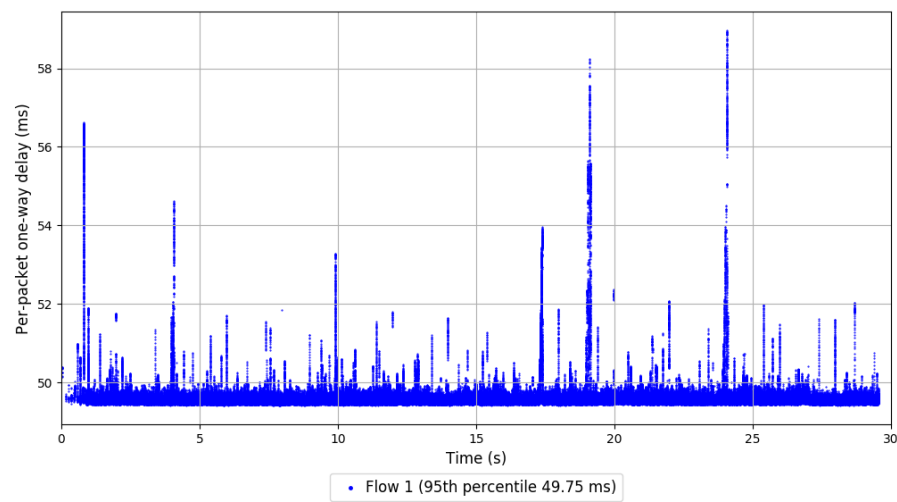
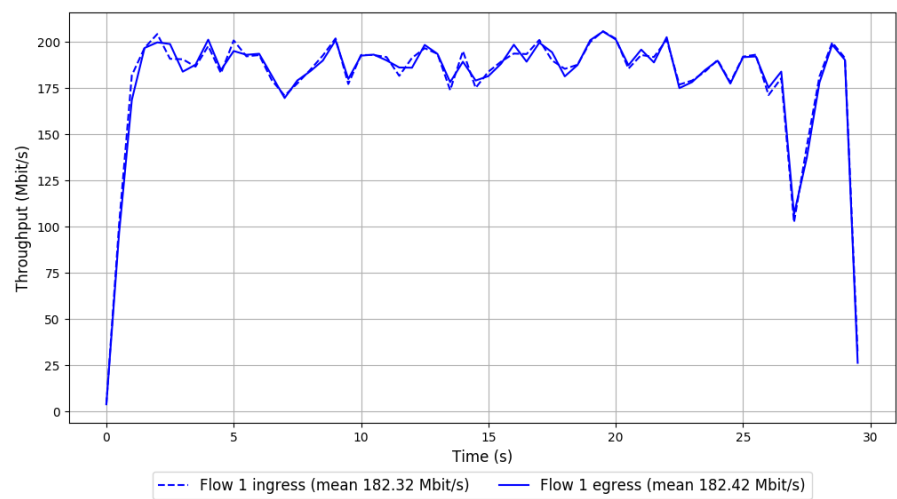
-- Flow 1:

Average throughput: 182.42 Mbit/s

95th percentile per-packet one-way delay: 49.748 ms

Loss rate: 0.24%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-11 14:43:55

End at: 2017-12-11 14:44:25

Below is generated by plot.py at 2017-12-11 17:13:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 183.45 Mbit/s

95th percentile per-packet one-way delay: 50.506 ms

Loss rate: 0.00%

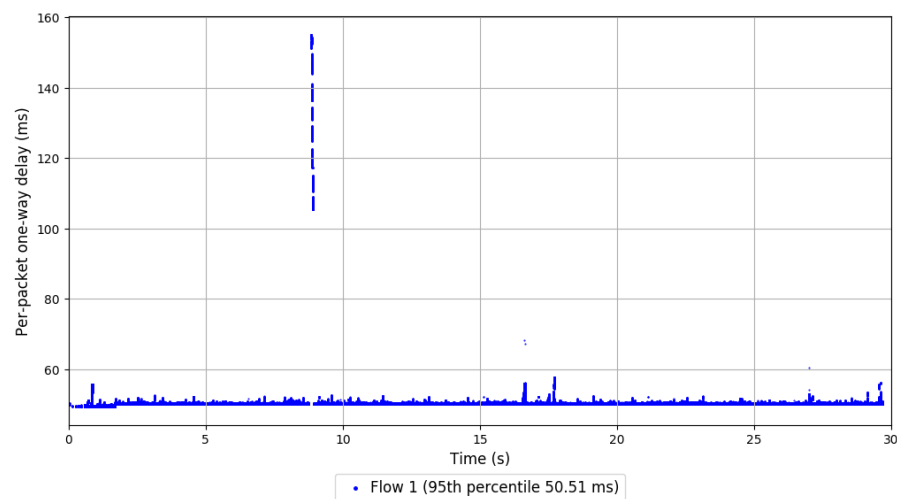
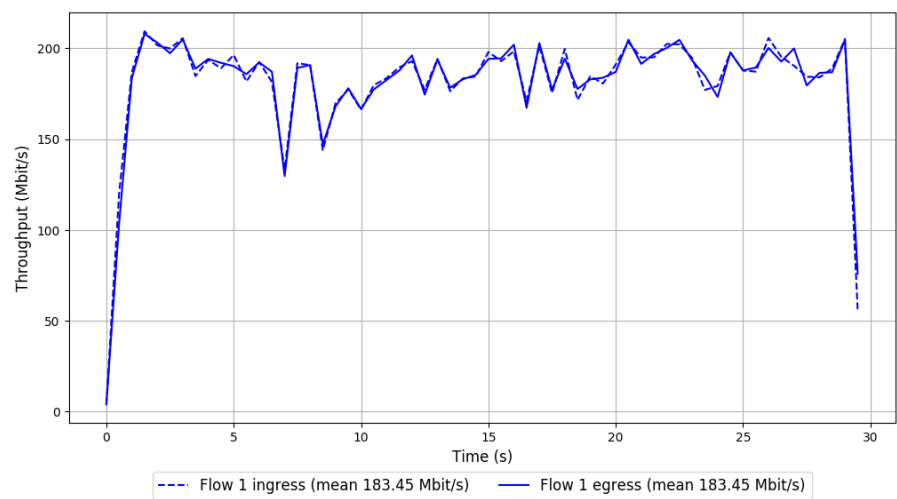
-- Flow 1:

Average throughput: 183.45 Mbit/s

95th percentile per-packet one-way delay: 50.506 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-11 14:54:14

End at: 2017-12-11 14:54:44

Below is generated by plot.py at 2017-12-11 17:14:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.41 Mbit/s

95th percentile per-packet one-way delay: 50.726 ms

Loss rate: 0.00%

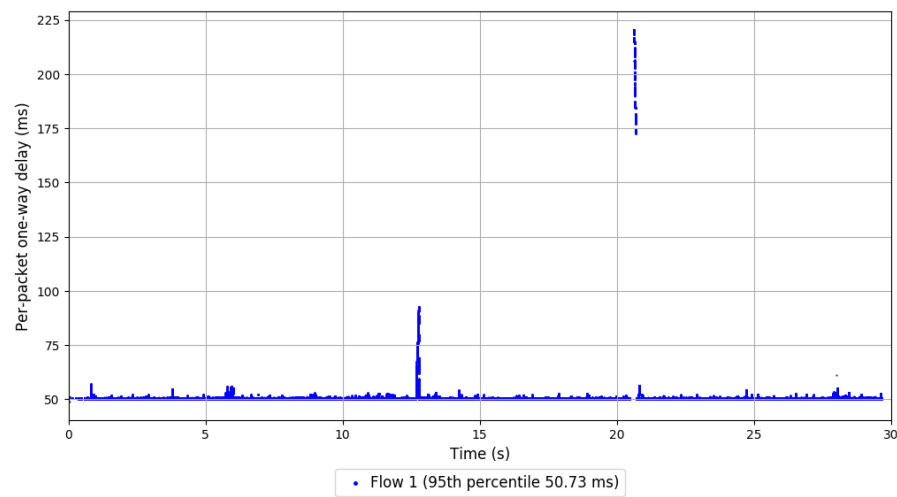
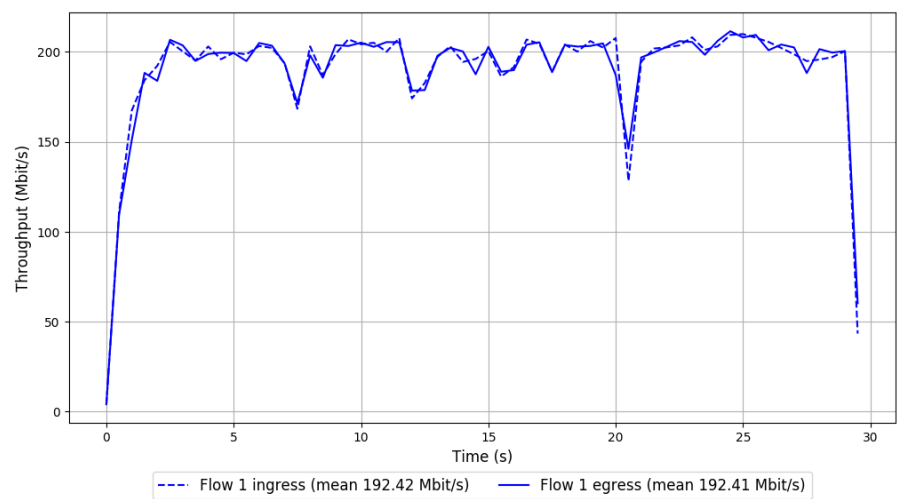
-- Flow 1:

Average throughput: 192.41 Mbit/s

95th percentile per-packet one-way delay: 50.726 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-11 15:04:42

End at: 2017-12-11 15:05:12

Below is generated by plot.py at 2017-12-11 17:14:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.09 Mbit/s

95th percentile per-packet one-way delay: 50.603 ms

Loss rate: 0.00%

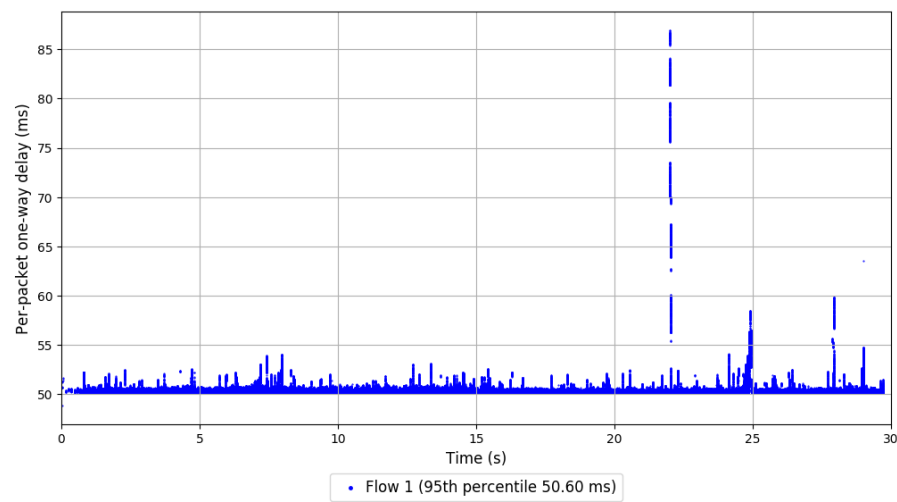
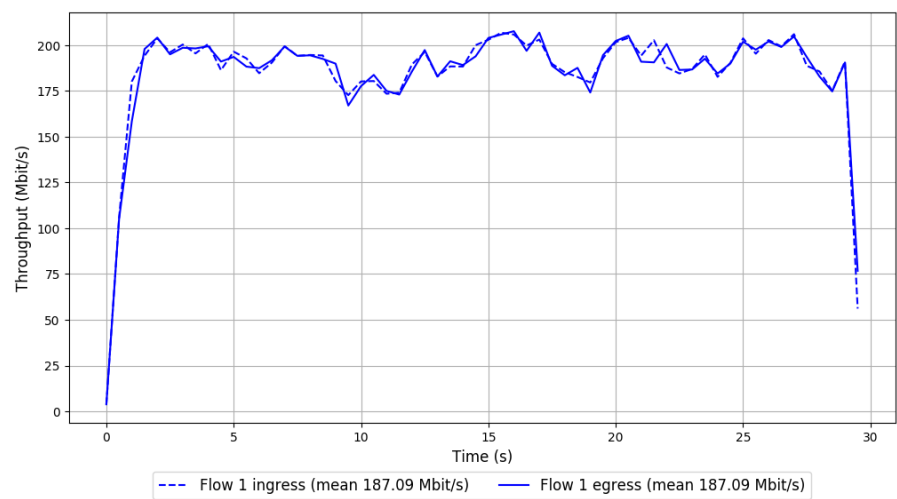
-- Flow 1:

Average throughput: 187.09 Mbit/s

95th percentile per-packet one-way delay: 50.603 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-11 15:14:58

End at: 2017-12-11 15:15:28

Below is generated by plot.py at 2017-12-11 17:14:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 189.84 Mbit/s

95th percentile per-packet one-way delay: 50.953 ms

Loss rate: 0.00%

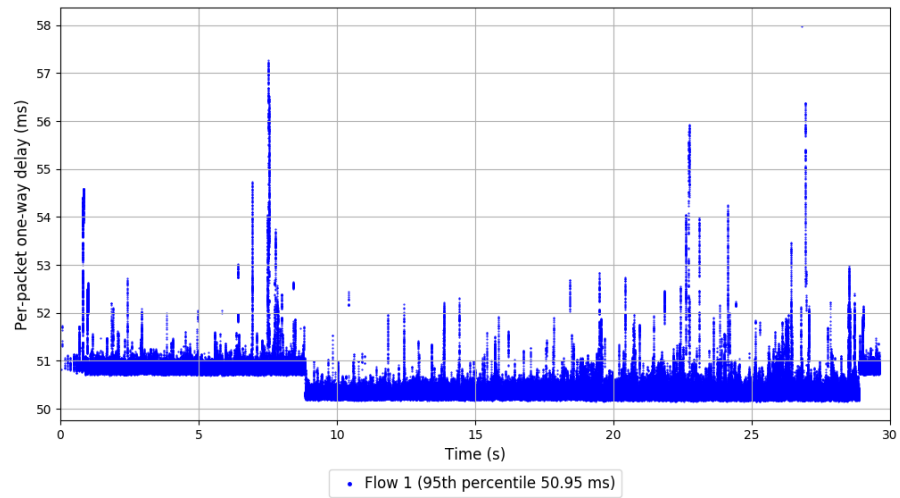
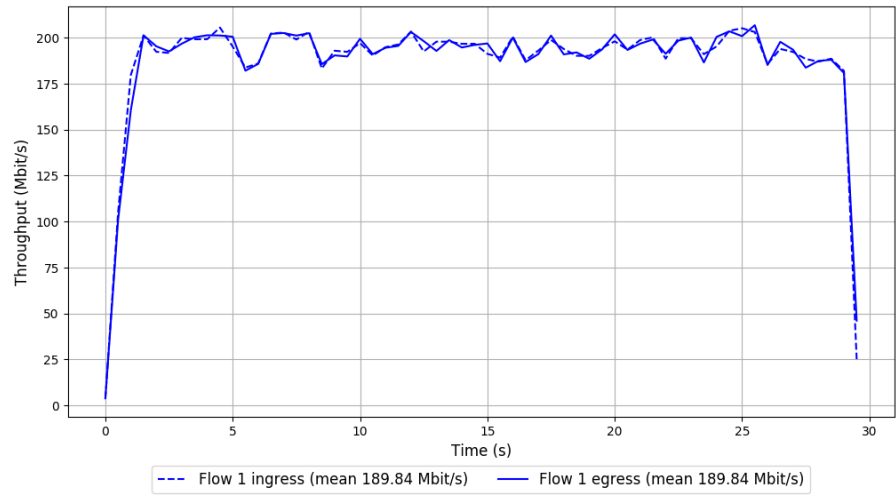
-- Flow 1:

Average throughput: 189.84 Mbit/s

95th percentile per-packet one-way delay: 50.953 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-11 15:25:15

End at: 2017-12-11 15:25:45

Below is generated by plot.py at 2017-12-11 17:15:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.06 Mbit/s

95th percentile per-packet one-way delay: 50.896 ms

Loss rate: 0.01%

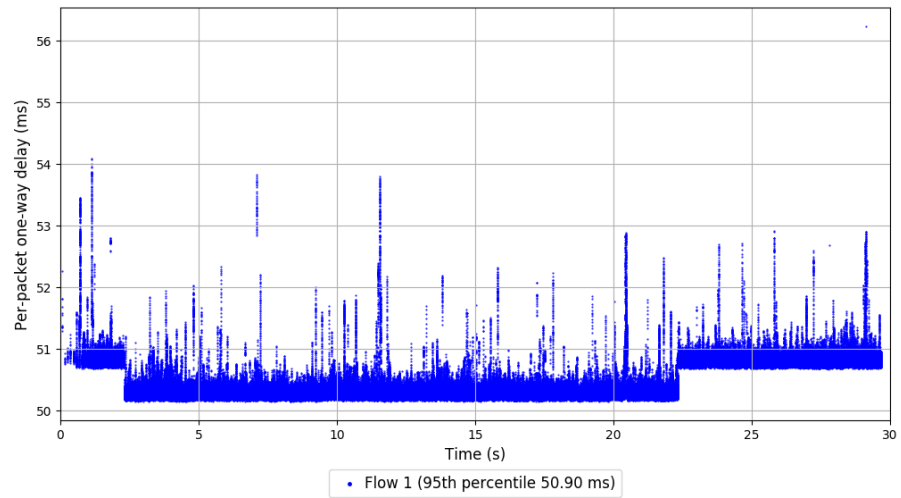
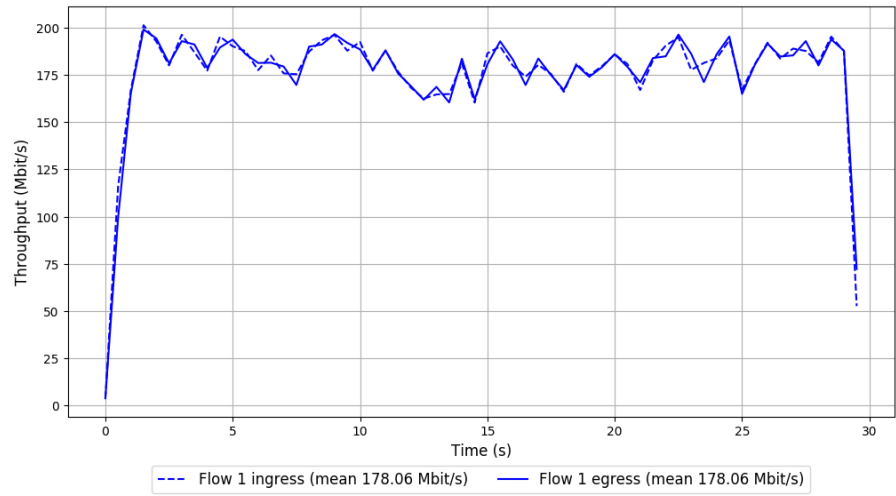
-- Flow 1:

Average throughput: 178.06 Mbit/s

95th percentile per-packet one-way delay: 50.896 ms

Loss rate: 0.01%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-11 15:35:28

End at: 2017-12-11 15:35:58

Below is generated by plot.py at 2017-12-11 17:16:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.76 Mbit/s

95th percentile per-packet one-way delay: 52.149 ms

Loss rate: 0.00%

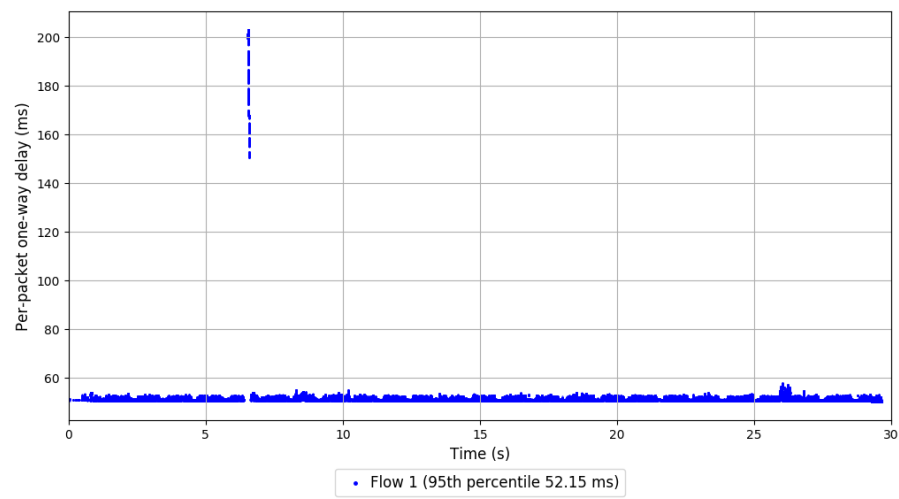
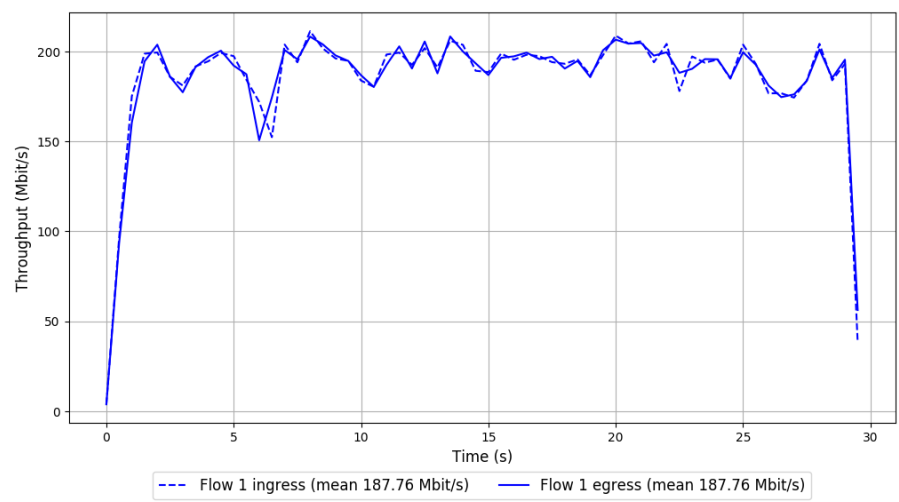
-- Flow 1:

Average throughput: 187.76 Mbit/s

95th percentile per-packet one-way delay: 52.149 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

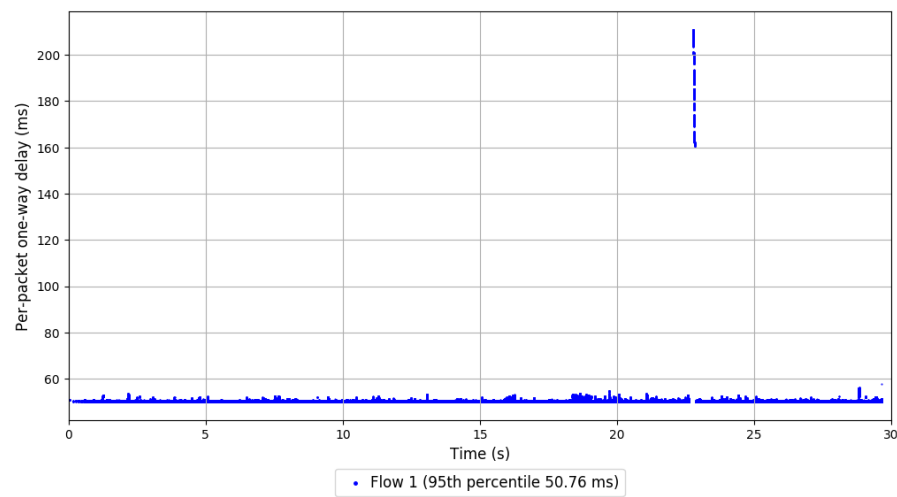
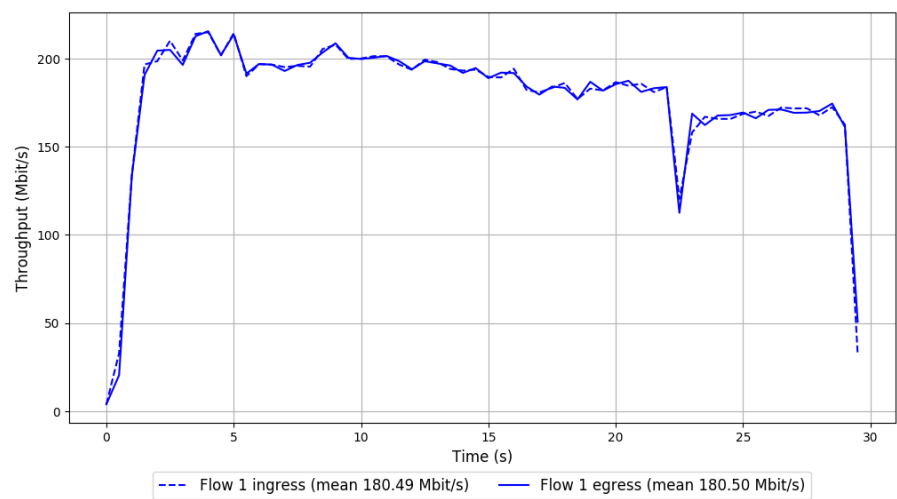


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-11 13:56:41
End at: 2017-12-11 13:57:11

# Below is generated by plot.py at 2017-12-11 17:16:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 180.50 Mbit/s
95th percentile per-packet one-way delay: 50.758 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 180.50 Mbit/s
95th percentile per-packet one-way delay: 50.758 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-calib — Data Link

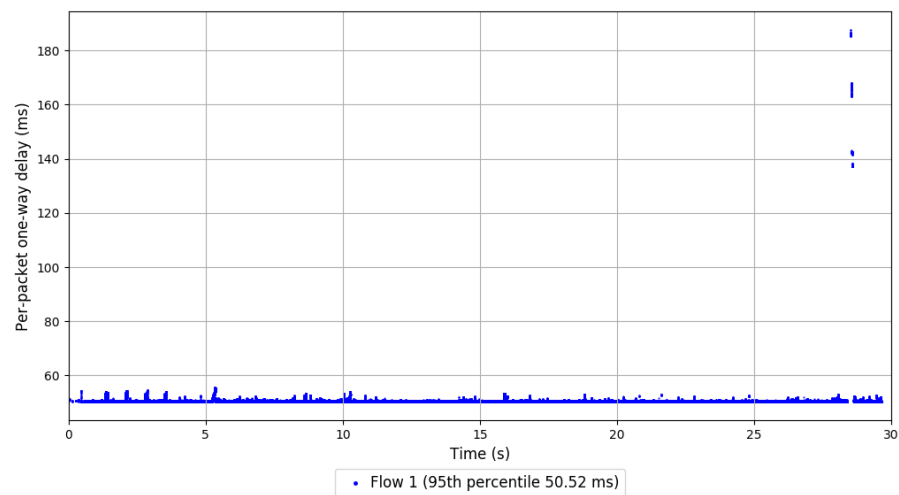
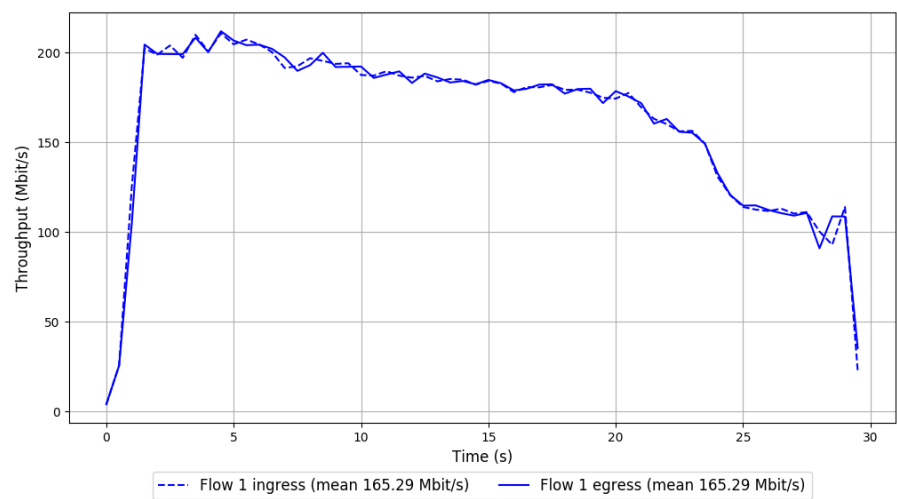


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-11 14:07:06
End at: 2017-12-11 14:07:36

# Below is generated by plot.py at 2017-12-11 17:16:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 165.29 Mbit/s
95th percentile per-packet one-way delay: 50.521 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 165.29 Mbit/s
95th percentile per-packet one-way delay: 50.521 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-calib — Data Link

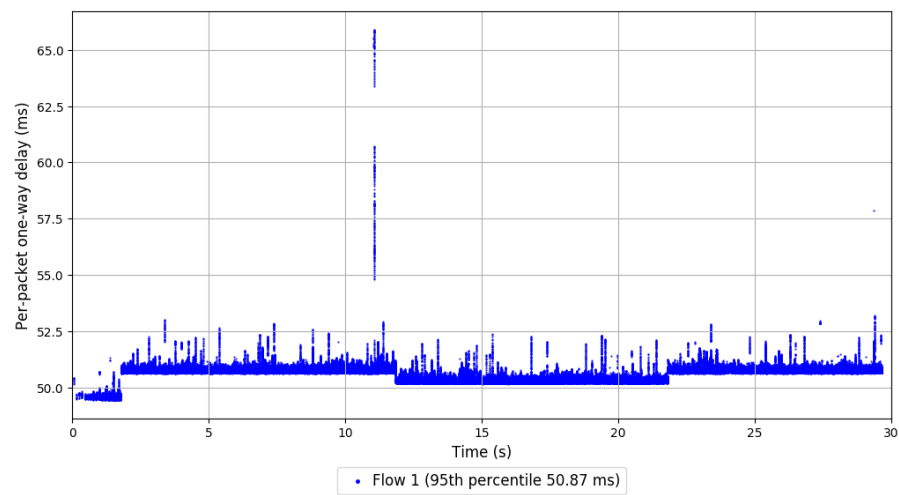
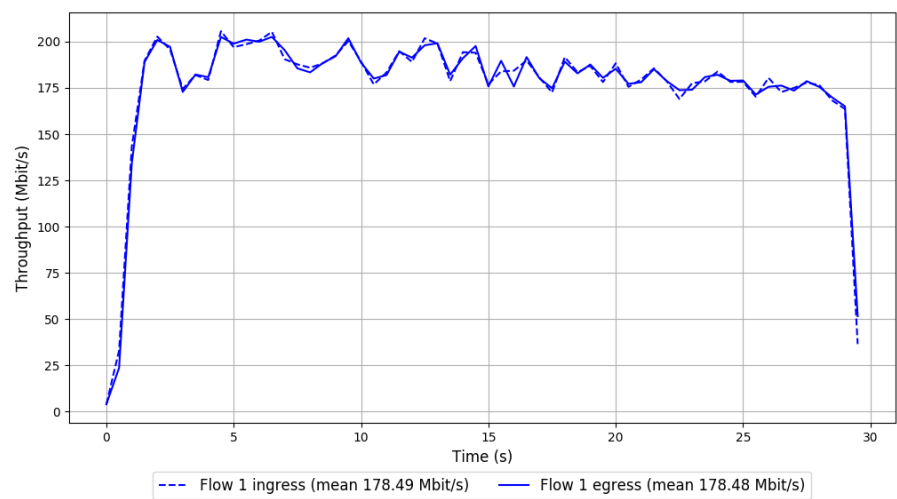


```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-11 14:17:25
End at: 2017-12-11 14:17:55

# Below is generated by plot.py at 2017-12-11 17:17:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.48 Mbit/s
95th percentile per-packet one-way delay: 50.869 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 178.48 Mbit/s
95th percentile per-packet one-way delay: 50.869 ms
Loss rate: 0.01%
```


Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-12-11 14:27:47

End at: 2017-12-11 14:28:17

Below is generated by plot.py at 2017-12-11 17:17:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 177.73 Mbit/s

95th percentile per-packet one-way delay: 50.824 ms

Loss rate: 0.00%

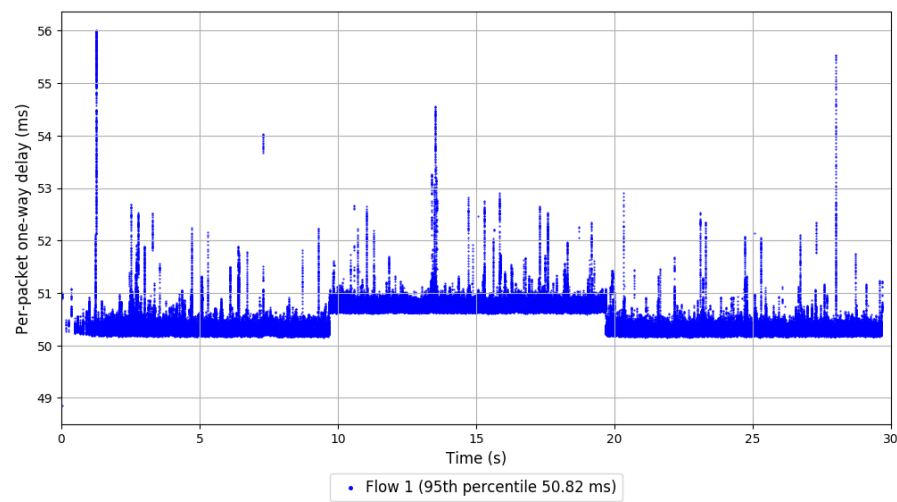
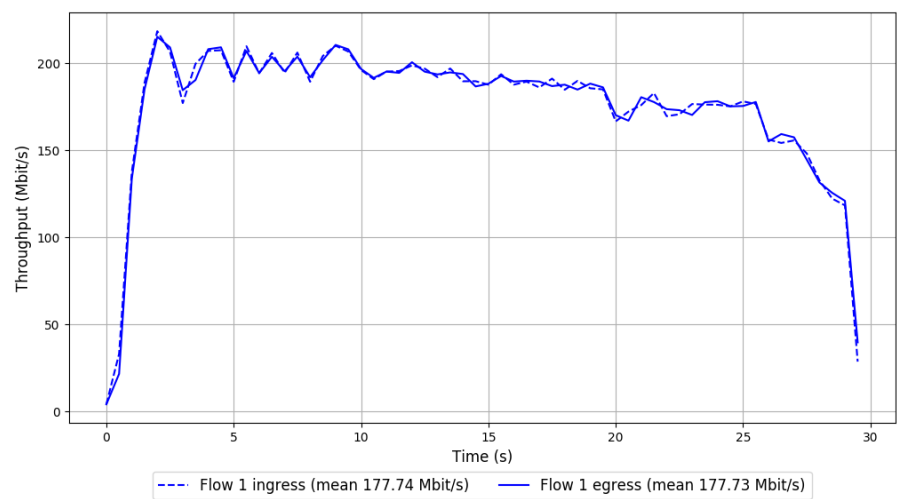
-- Flow 1:

Average throughput: 177.73 Mbit/s

95th percentile per-packet one-way delay: 50.824 ms

Loss rate: 0.00%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-11 14:38:02

End at: 2017-12-11 14:38:32

Below is generated by plot.py at 2017-12-11 17:17:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 152.80 Mbit/s

95th percentile per-packet one-way delay: 50.845 ms

Loss rate: 0.00%

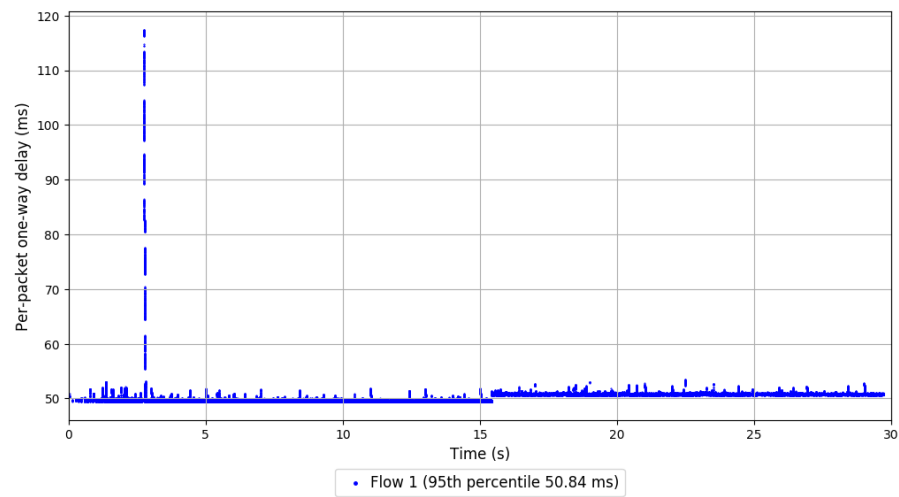
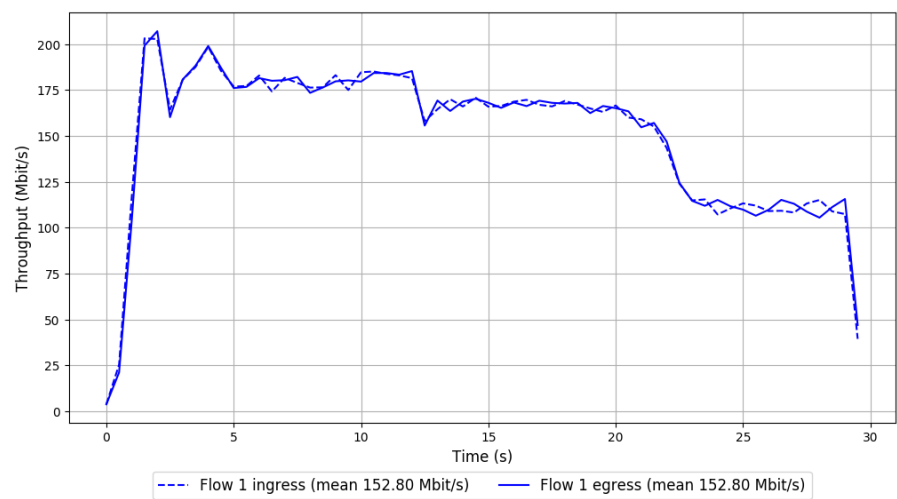
-- Flow 1:

Average throughput: 152.80 Mbit/s

95th percentile per-packet one-way delay: 50.845 ms

Loss rate: 0.00%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-12-11 14:48:23

End at: 2017-12-11 14:48:53

Below is generated by plot.py at 2017-12-11 17:17:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 179.50 Mbit/s

95th percentile per-packet one-way delay: 50.576 ms

Loss rate: 0.00%

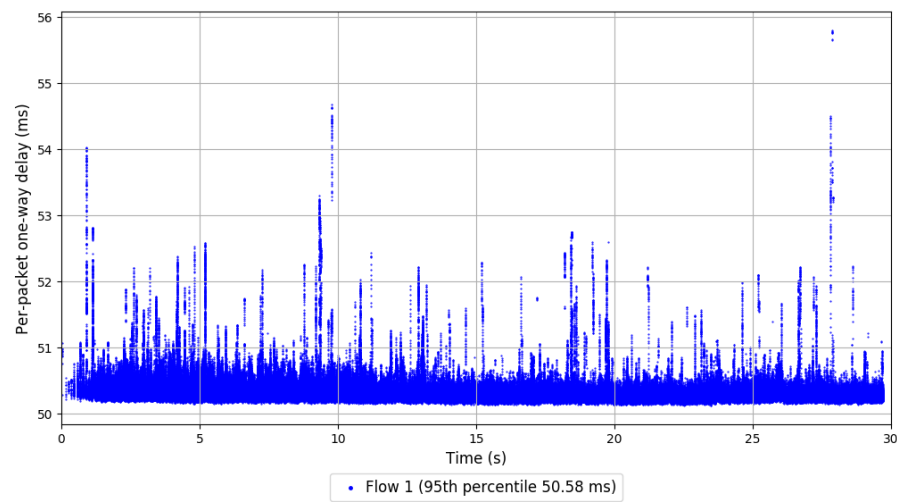
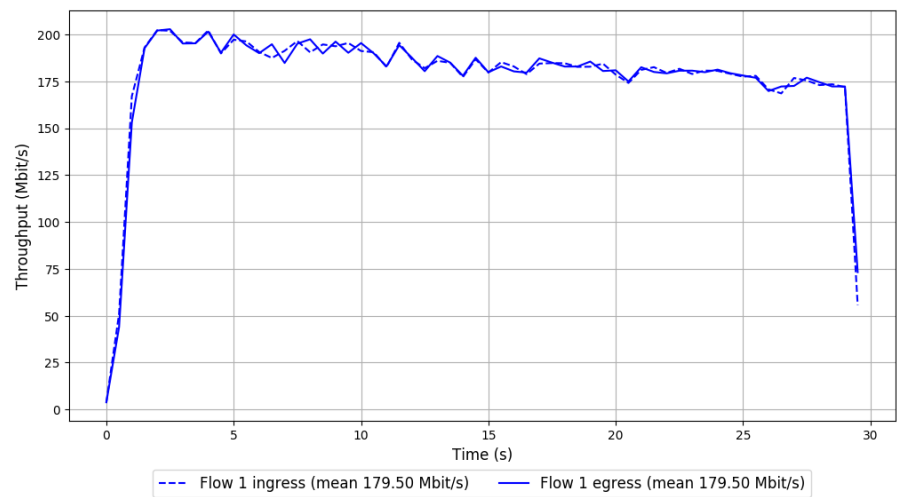
-- Flow 1:

Average throughput: 179.50 Mbit/s

95th percentile per-packet one-way delay: 50.576 ms

Loss rate: 0.00%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-12-11 14:58:43

End at: 2017-12-11 14:59:13

Below is generated by plot.py at 2017-12-11 17:17:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 161.84 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 0.00%

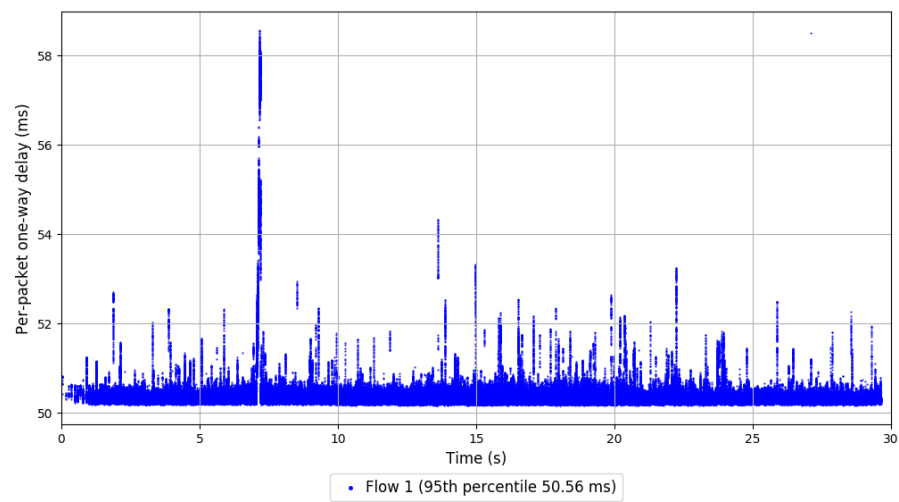
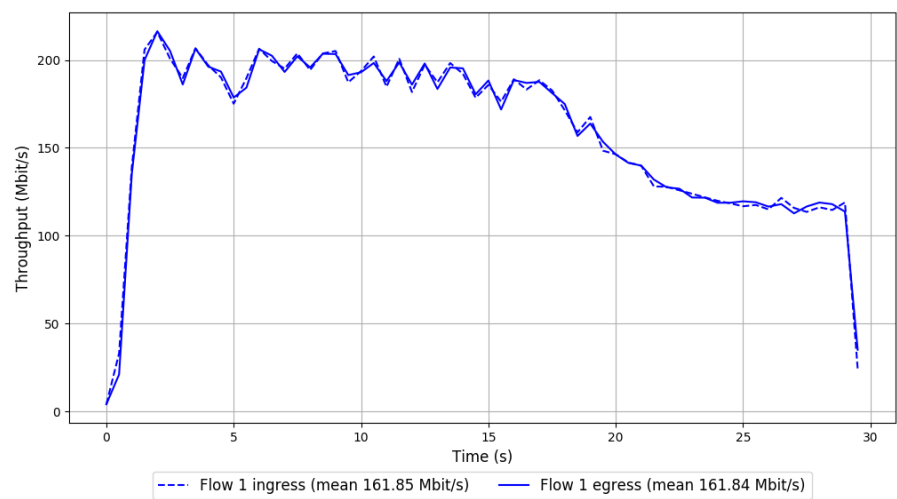
-- Flow 1:

Average throughput: 161.84 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 0.00%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-12-11 15:09:11

End at: 2017-12-11 15:09:41

Below is generated by plot.py at 2017-12-11 17:17:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 144.05 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 0.00%

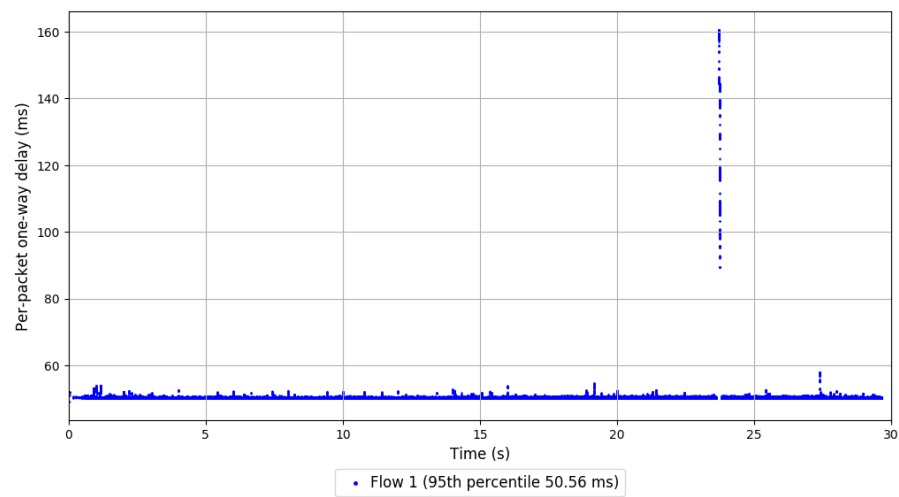
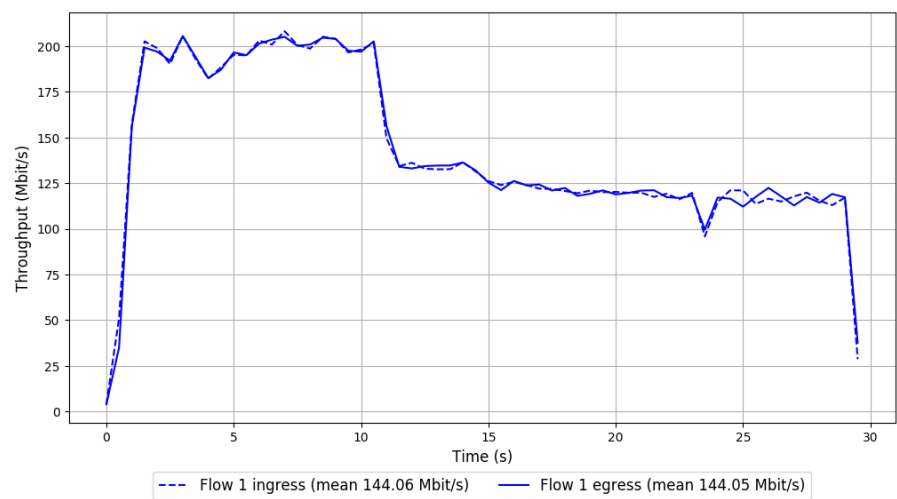
-- Flow 1:

Average throughput: 144.05 Mbit/s

95th percentile per-packet one-way delay: 50.565 ms

Loss rate: 0.00%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-12-11 15:19:26

End at: 2017-12-11 15:19:56

Below is generated by plot.py at 2017-12-11 17:18:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.31 Mbit/s

95th percentile per-packet one-way delay: 50.937 ms

Loss rate: 0.00%

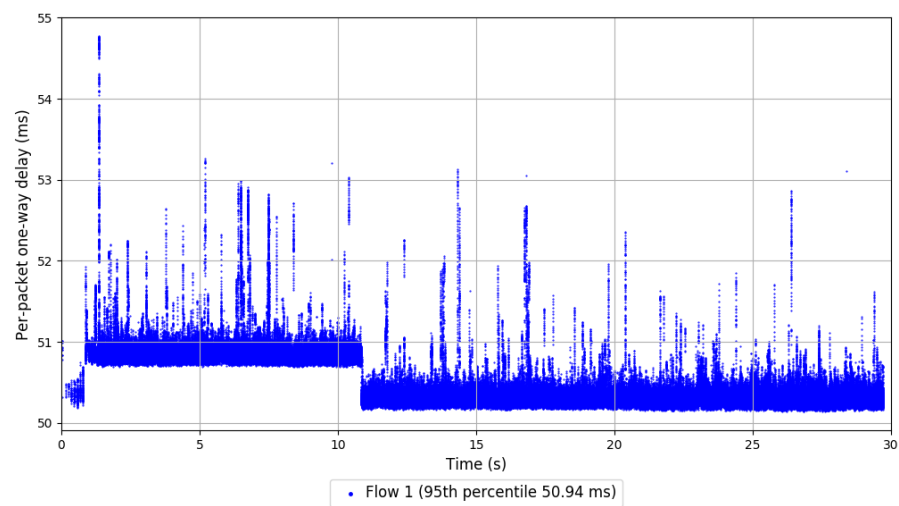
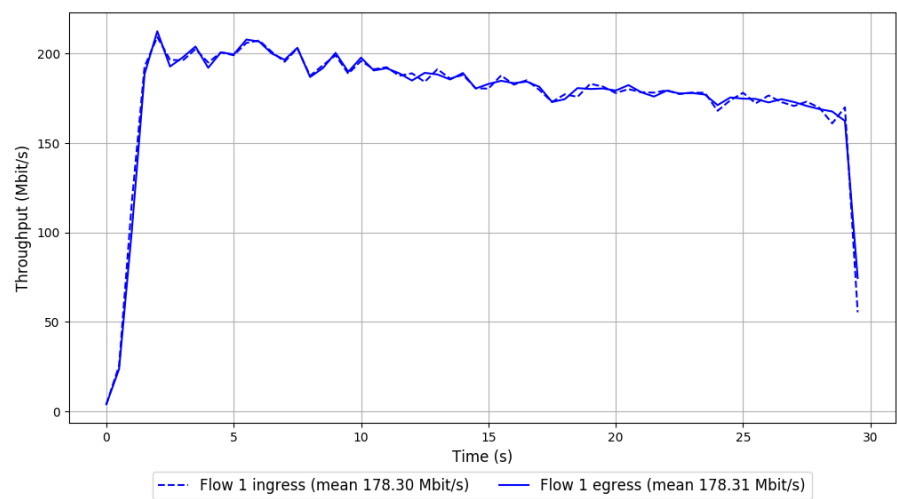
-- Flow 1:

Average throughput: 178.31 Mbit/s

95th percentile per-packet one-way delay: 50.937 ms

Loss rate: 0.00%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-11 15:29:42

End at: 2017-12-11 15:30:12

Below is generated by plot.py at 2017-12-11 17:18:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 148.39 Mbit/s

95th percentile per-packet one-way delay: 50.504 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 148.39 Mbit/s

95th percentile per-packet one-way delay: 50.504 ms

Loss rate: 0.00%

Run 10: Report of Indigo-calib — Data Link

