

Pantheon Report

Generated at 2017-12-11 17:29:22 (UTC).

Data path: Colombia Ethernet (*remote*) → AWS Brazil 2 Ethernet (*local*).

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

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

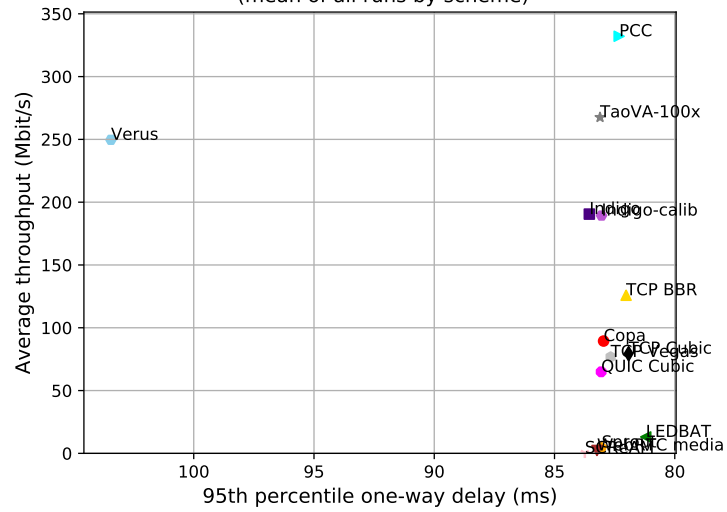
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

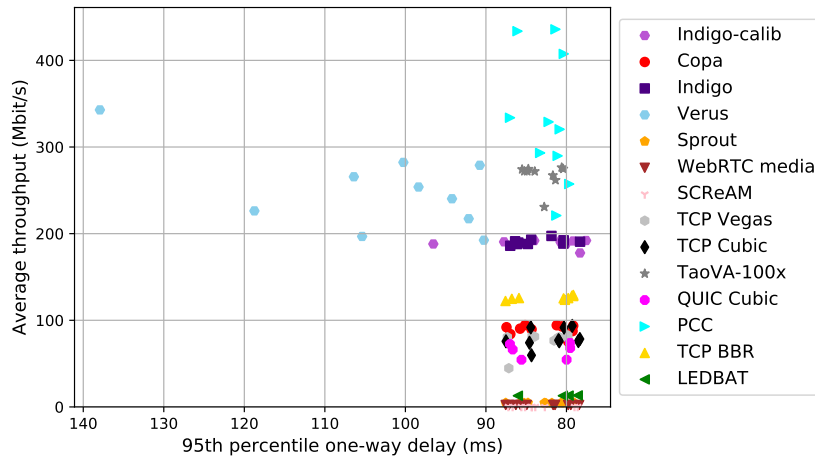
Git summary:

```
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 @ 03455460fd1a8ffbdad86fabb936fdca204b80db
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 Colombia Ethernet to AWS Brazil 2 Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from Colombia Ethernet to AWS Brazil 2 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	9	125.89	82.02	0.61
TCP Cubic	10	79.36	81.92	0.57
LEDBAT	4	13.07	81.21	1.11
PCC	10	332.13	82.31	6.05
QUIC Cubic	6	64.93	83.06	0.79
SCReAM	10	0.22	83.74	0.51
WebRTC media	10	2.28	83.23	0.65
Sprout	10	4.67	83.04	0.63
TaoVA-100x	10	267.56	83.11	0.56
TCP Vegas	10	76.75	82.67	0.62
Verus	10	249.66	103.44	0.75
Copa	10	89.42	82.96	0.62
Indigo	10	190.51	83.55	0.58
Indigo-calib	10	189.34	83.04	0.62

Run 1: Statistics of TCP BBR

Start at: 2017-12-11 10:57:51

End at: 2017-12-11 10:58:21

Local clock offset: -1.007 ms

Remote clock offset: 0.607 ms

Below is generated by plot.py at 2017-12-11 16:55:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 125.59 Mbit/s

95th percentile per-packet one-way delay: 79.784 ms

Loss rate: 0.64%

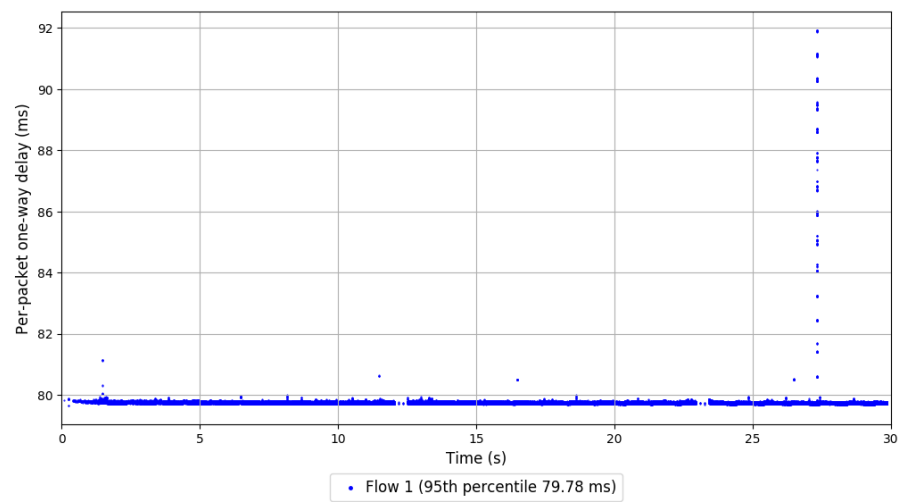
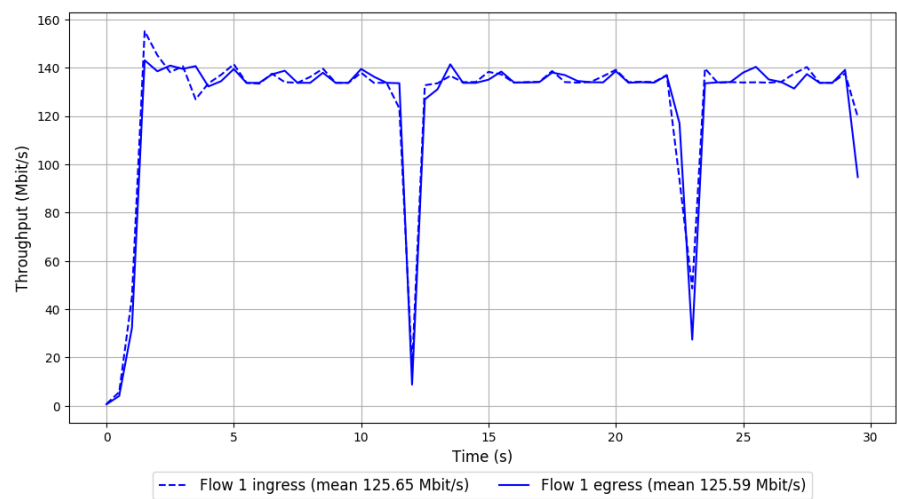
-- Flow 1:

Average throughput: 125.59 Mbit/s

95th percentile per-packet one-way delay: 79.784 ms

Loss rate: 0.64%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

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

End at: 2017-12-11 11:16:28

Local clock offset: -0.169 ms

Remote clock offset: -0.07 ms

Below is generated by plot.py at 2017-12-11 16:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 127.99 Mbit/s

95th percentile per-packet one-way delay: 79.151 ms

Loss rate: 0.58%

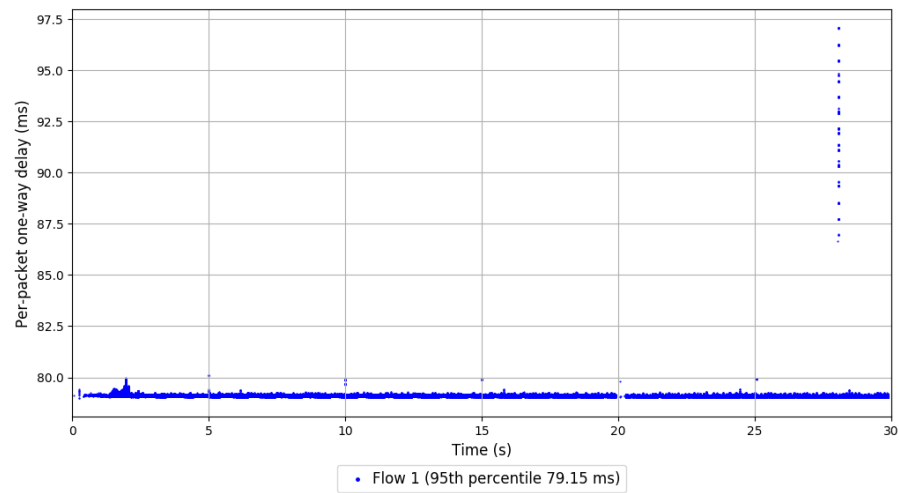
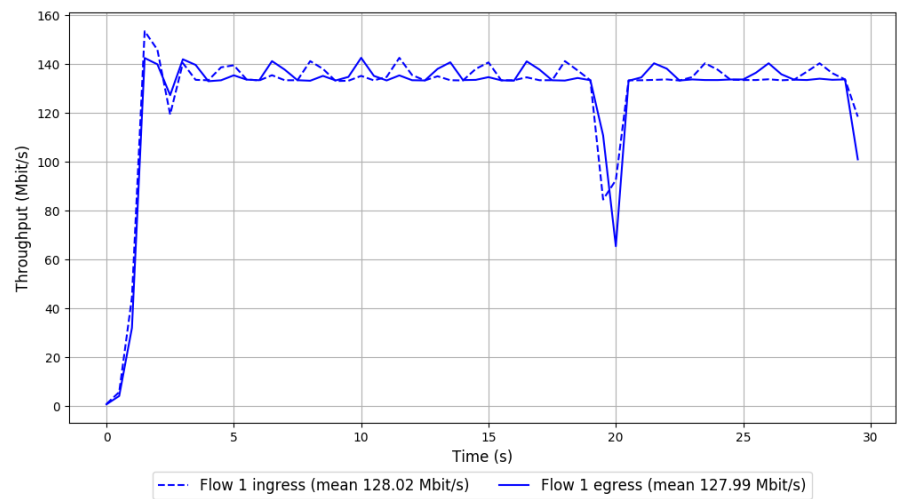
-- Flow 1:

Average throughput: 127.99 Mbit/s

95th percentile per-packet one-way delay: 79.151 ms

Loss rate: 0.58%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-11 11:33:48

End at: 2017-12-11 11:34:18

Local clock offset: 0.245 ms

Remote clock offset: 0.047 ms

Below is generated by plot.py at 2017-12-11 16:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 128.41 Mbit/s

95th percentile per-packet one-way delay: 79.322 ms

Loss rate: 0.60%

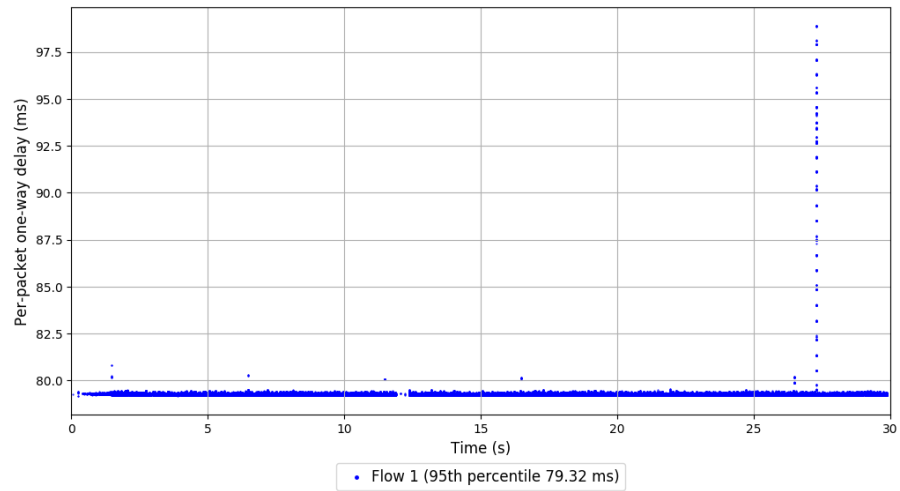
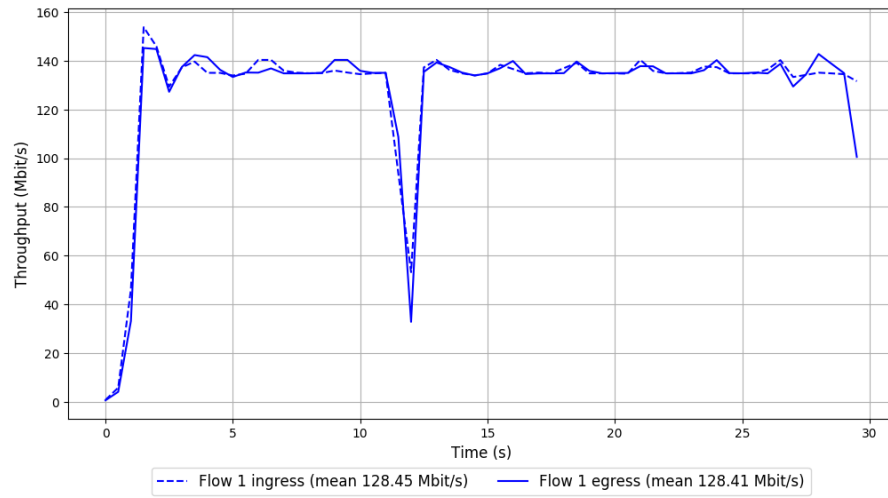
-- Flow 1:

Average throughput: 128.41 Mbit/s

95th percentile per-packet one-way delay: 79.322 ms

Loss rate: 0.60%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-11 11:51:49

End at: 2017-12-11 11:52:19

Local clock offset: 0.171 ms

Remote clock offset: 1.053 ms

Below is generated by plot.py at 2017-12-11 16:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 125.35 Mbit/s

95th percentile per-packet one-way delay: 80.355 ms

Loss rate: 0.64%

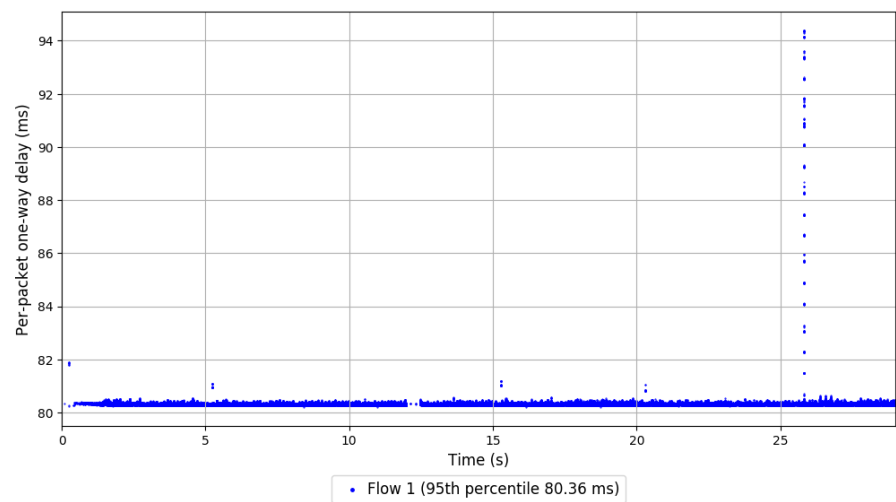
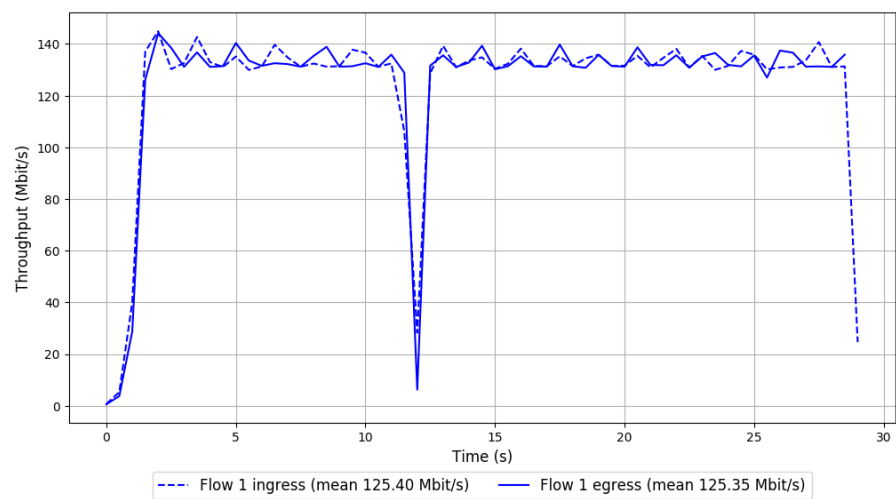
-- Flow 1:

Average throughput: 125.35 Mbit/s

95th percentile per-packet one-way delay: 80.355 ms

Loss rate: 0.64%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

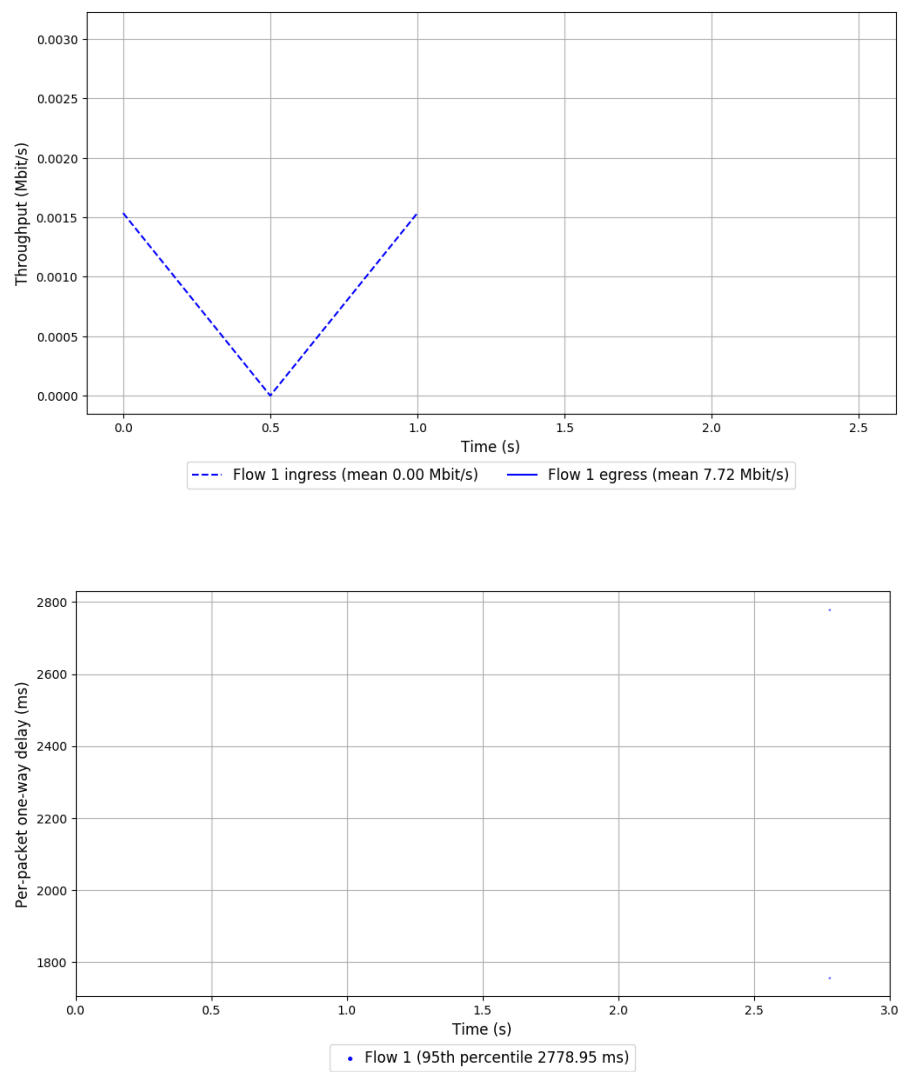
Start at: 2017-12-11 12:09:46

End at: 2017-12-11 12:10:16

Local clock offset: -0.008 ms

Remote clock offset: 1.346 ms

Run 5: Report of TCP BBR — Data Link

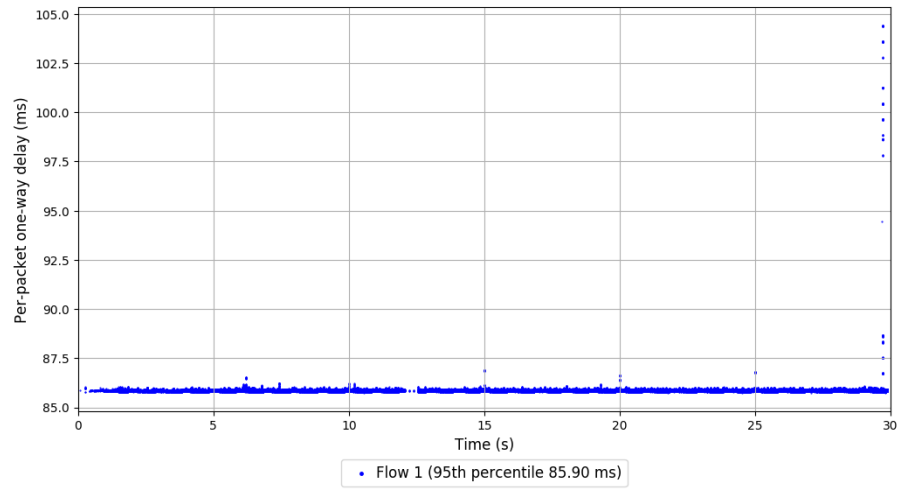
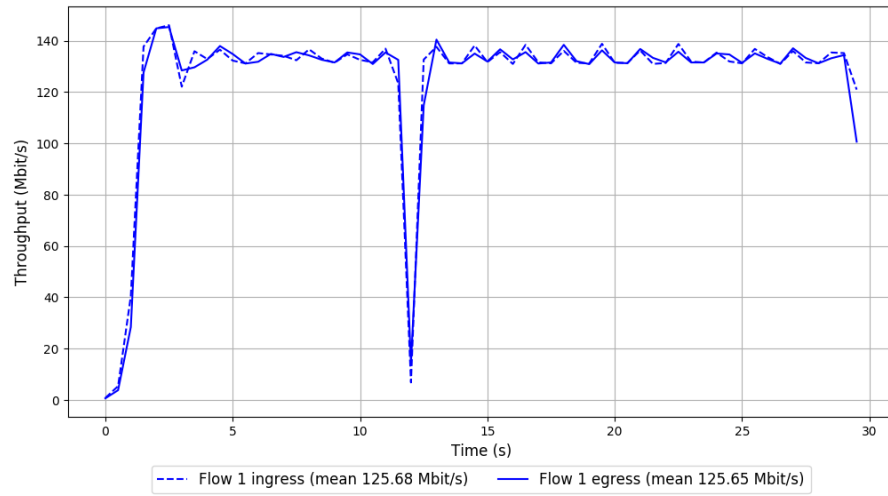


Run 6: Statistics of TCP BBR

Start at: 2017-12-11 12:27:36
End at: 2017-12-11 12:28:06
Local clock offset: -0.109 ms
Remote clock offset: -5.096 ms

Below is generated by plot.py at 2017-12-11 16:55:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 125.65 Mbit/s
95th percentile per-packet one-way delay: 85.899 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 125.65 Mbit/s
95th percentile per-packet one-way delay: 85.899 ms
Loss rate: 0.59%

Run 6: Report of TCP BBR — Data Link

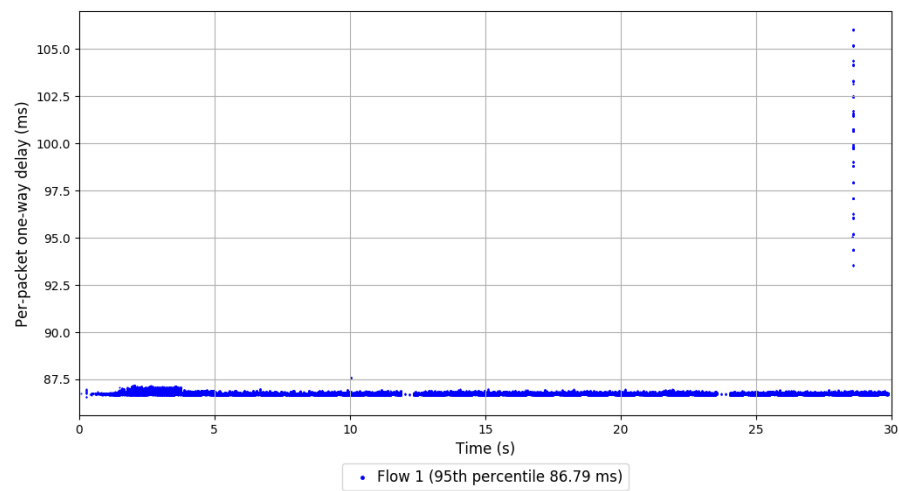
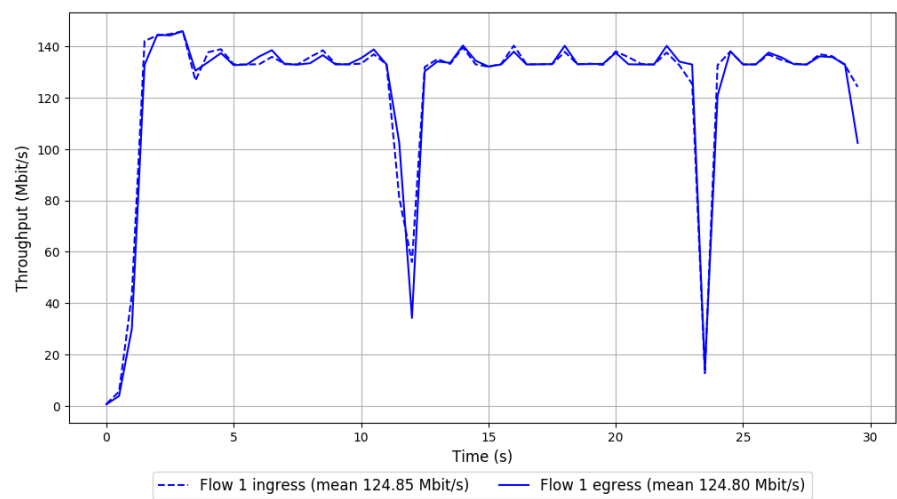


Run 7: Statistics of TCP BBR

Start at: 2017-12-11 12:45:35
End at: 2017-12-11 12:46:05
Local clock offset: -0.19 ms
Remote clock offset: -5.557 ms

Below is generated by plot.py at 2017-12-11 16:55:42
Datalink statistics
-- Total of 1 flow:
Average throughput: 124.80 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 124.80 Mbit/s
95th percentile per-packet one-way delay: 86.790 ms
Loss rate: 0.60%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-11 13:03:40

End at: 2017-12-11 13:04:10

Local clock offset: -0.36 ms

Remote clock offset: 1.777 ms

Below is generated by plot.py at 2017-12-11 16:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 123.64 Mbit/s

95th percentile per-packet one-way delay: 80.188 ms

Loss rate: 0.60%

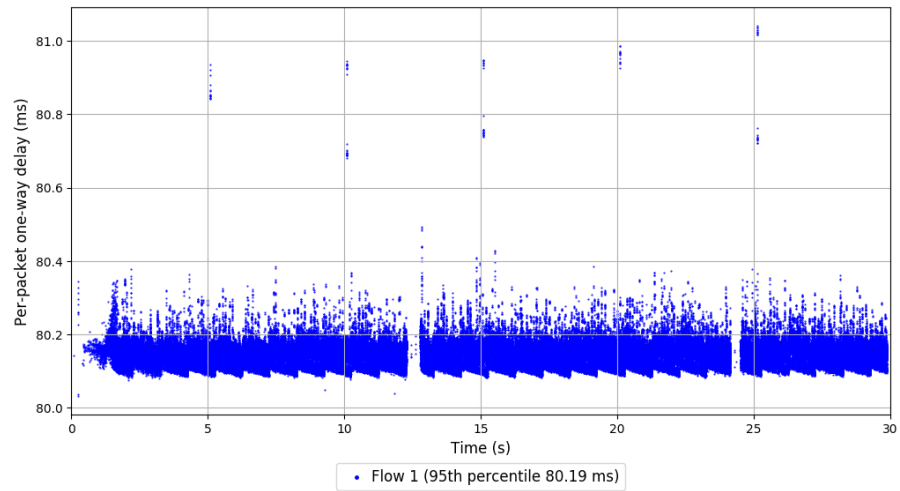
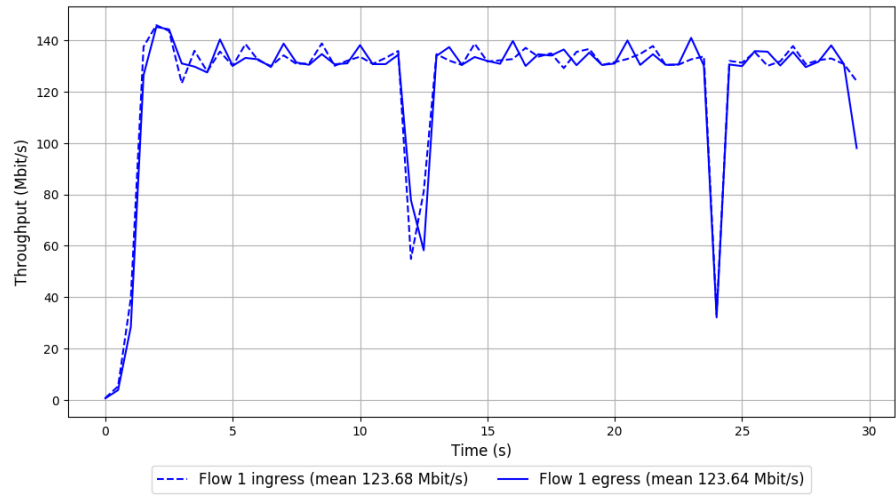
-- Flow 1:

Average throughput: 123.64 Mbit/s

95th percentile per-packet one-way delay: 80.188 ms

Loss rate: 0.60%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-11 13:21:58

End at: 2017-12-11 13:22:29

Local clock offset: -0.239 ms

Remote clock offset: 0.177 ms

Below is generated by plot.py at 2017-12-11 16:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 79.150 ms

Loss rate: 0.58%

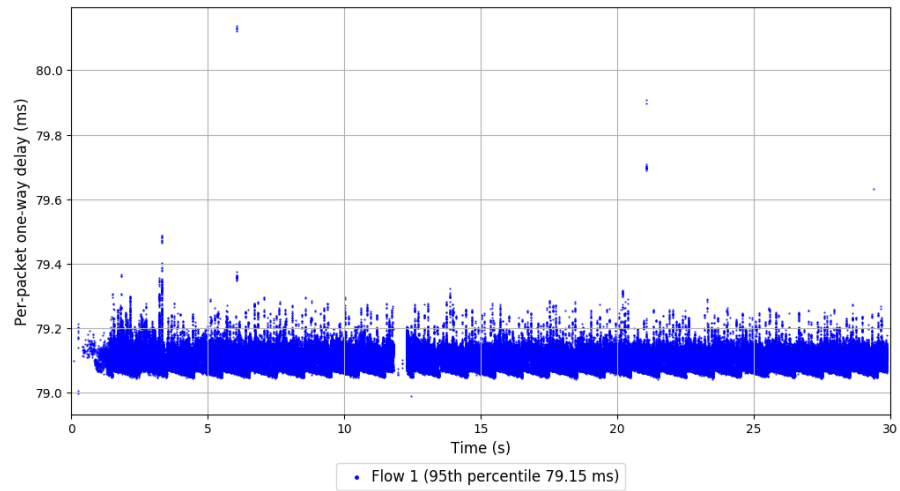
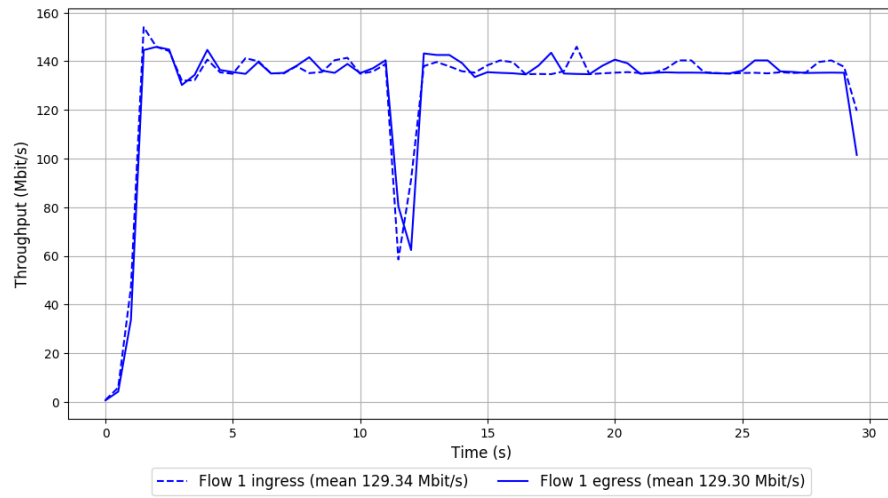
-- Flow 1:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 79.150 ms

Loss rate: 0.58%

Run 9: Report of TCP BBR — Data Link

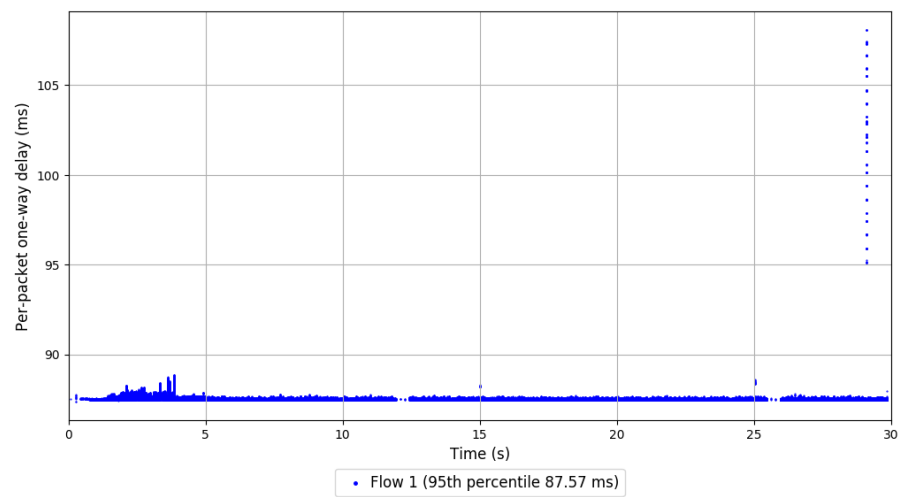
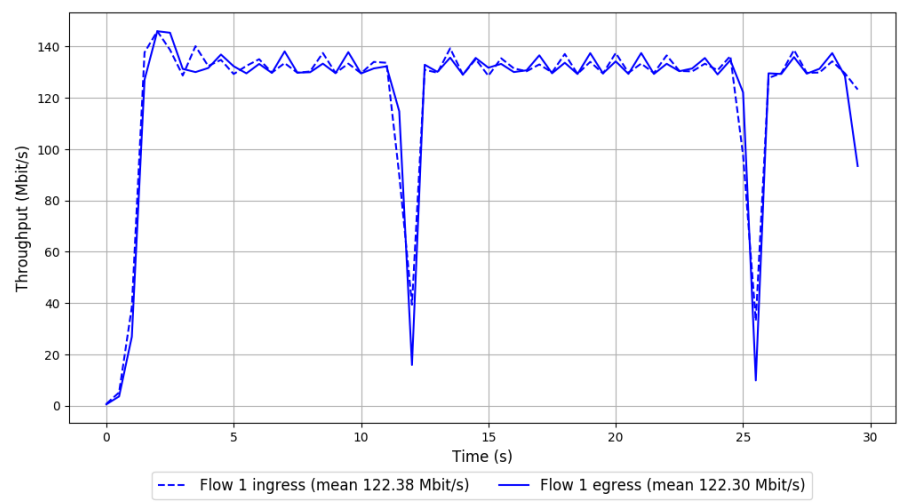


Run 10: Statistics of TCP BBR

Start at: 2017-12-11 13:41:00
End at: 2017-12-11 13:41:30
Local clock offset: -0.28 ms
Remote clock offset: -5.259 ms

Below is generated by plot.py at 2017-12-11 16:57:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 122.30 Mbit/s
95th percentile per-packet one-way delay: 87.571 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 122.30 Mbit/s
95th percentile per-packet one-way delay: 87.571 ms
Loss rate: 0.70%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-11 11:03:16

End at: 2017-12-11 11:03:46

Local clock offset: -0.726 ms

Remote clock offset: 0.253 ms

Below is generated by plot.py at 2017-12-11 16:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.79 Mbit/s

95th percentile per-packet one-way delay: 80.893 ms

Loss rate: 0.51%

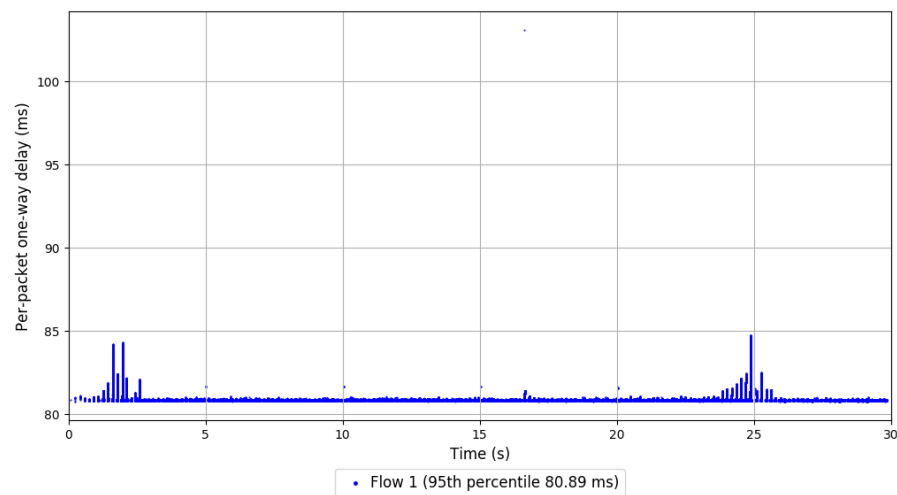
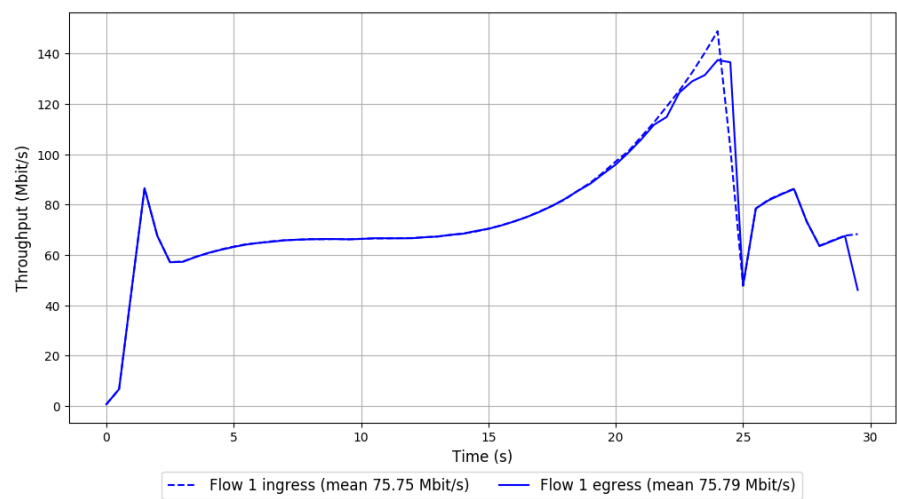
-- Flow 1:

Average throughput: 75.79 Mbit/s

95th percentile per-packet one-way delay: 80.893 ms

Loss rate: 0.51%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

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

End at: 2017-12-11 11:21:44

Local clock offset: 0.114 ms

Remote clock offset: 0.332 ms

Below is generated by plot.py at 2017-12-11 16:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.04 Mbit/s

95th percentile per-packet one-way delay: 80.979 ms

Loss rate: 0.68%

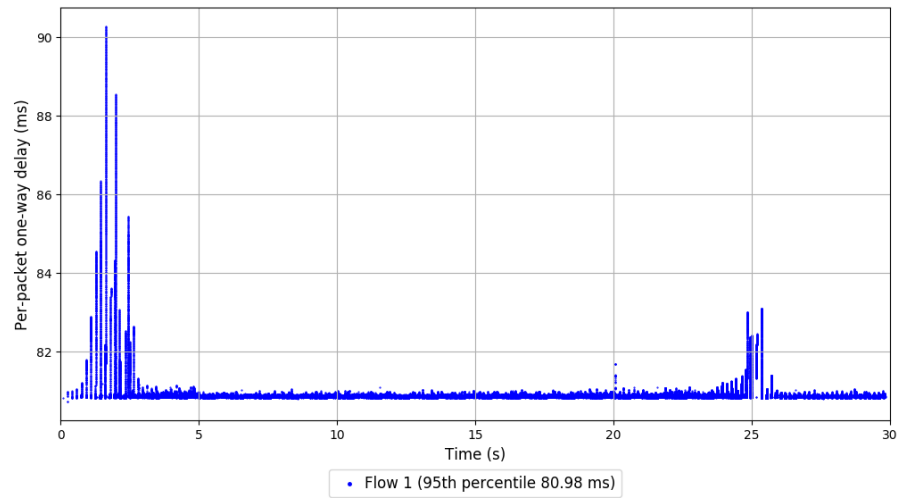
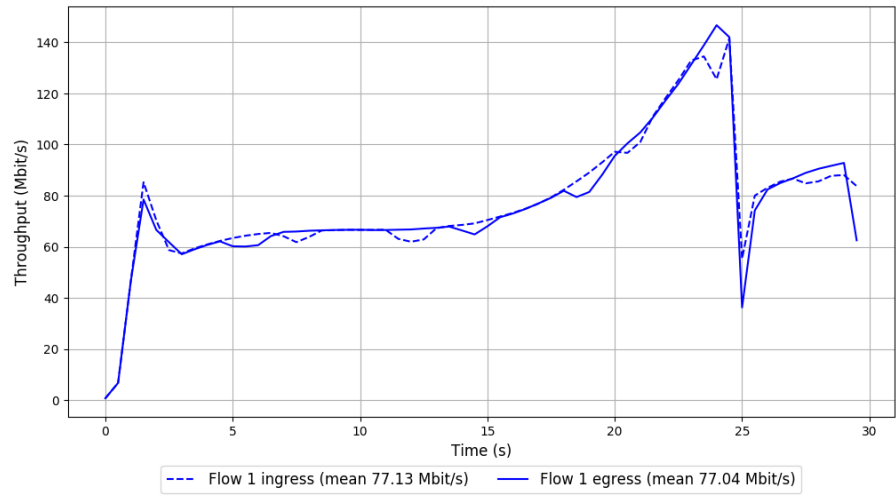
-- Flow 1:

Average throughput: 77.04 Mbit/s

95th percentile per-packet one-way delay: 80.979 ms

Loss rate: 0.68%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

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

End at: 2017-12-11 11:39:38

Local clock offset: 0.35 ms

Remote clock offset: 0.507 ms

Below is generated by plot.py at 2017-12-11 16:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.55 Mbit/s

95th percentile per-packet one-way delay: 79.280 ms

Loss rate: 0.56%

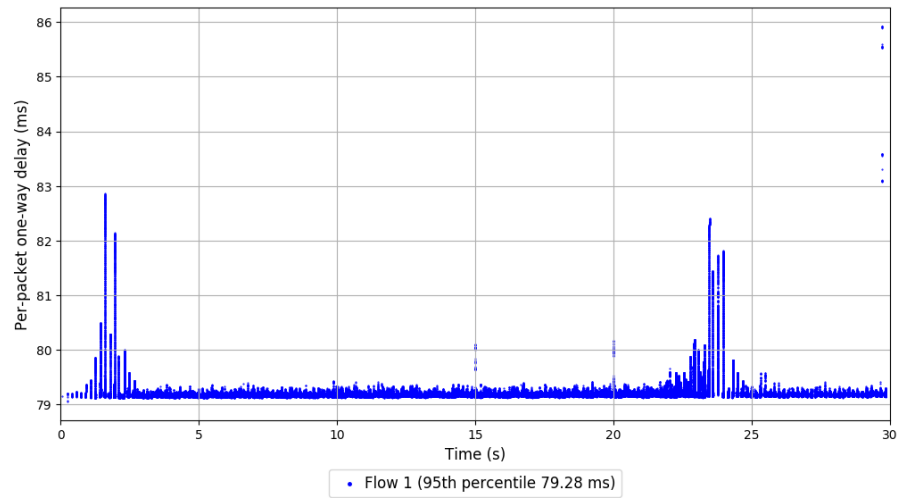
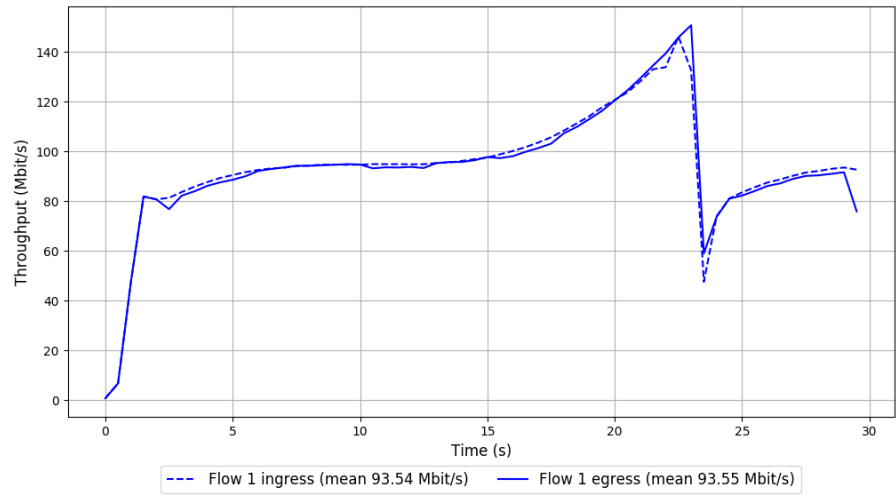
-- Flow 1:

Average throughput: 93.55 Mbit/s

95th percentile per-packet one-way delay: 79.280 ms

Loss rate: 0.56%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

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

End at: 2017-12-11 11:57:39

Local clock offset: 0.058 ms

Remote clock offset: 1.077 ms

Below is generated by plot.py at 2017-12-11 16:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.03 Mbit/s

95th percentile per-packet one-way delay: 78.522 ms

Loss rate: 0.49%

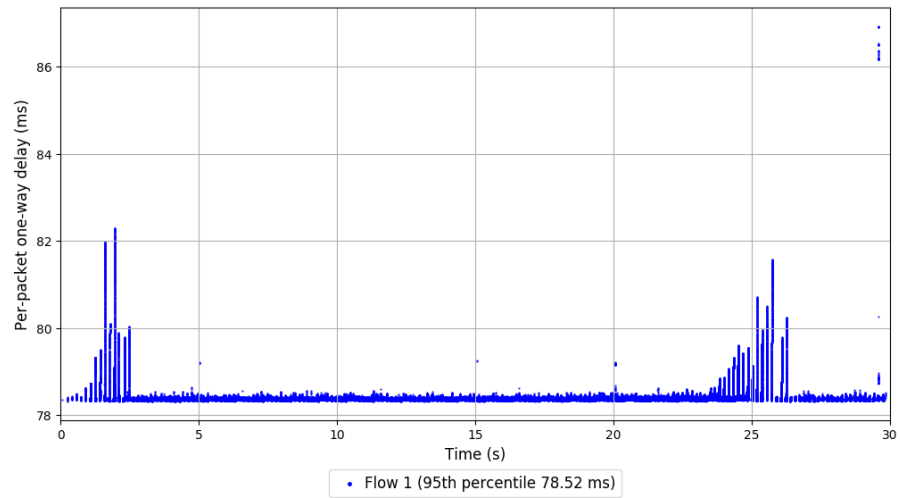
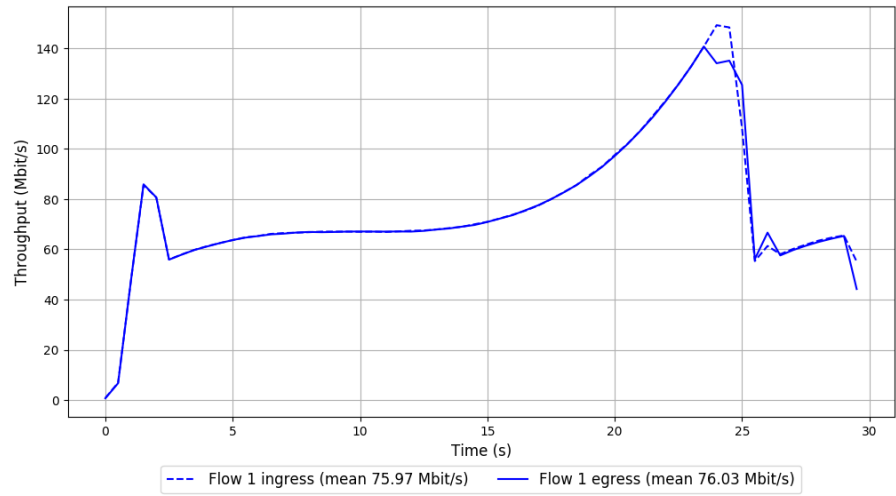
-- Flow 1:

Average throughput: 76.03 Mbit/s

95th percentile per-packet one-way delay: 78.522 ms

Loss rate: 0.49%

Run 4: Report of TCP Cubic — Data Link

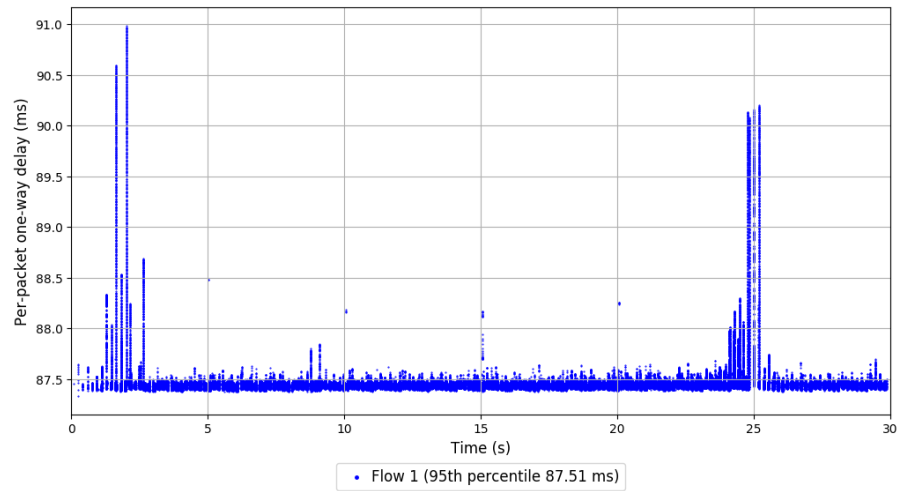
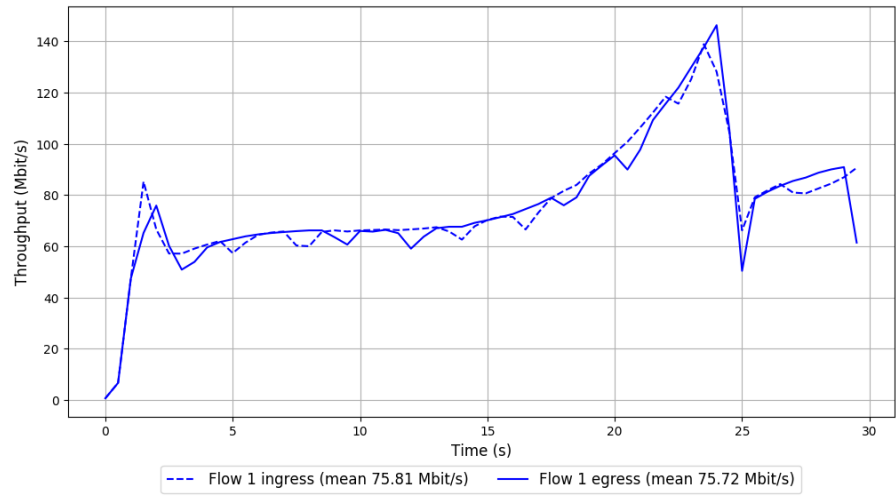


Run 5: Statistics of TCP Cubic

Start at: 2017-12-11 12:14:53
End at: 2017-12-11 12:15:23
Local clock offset: -0.029 ms
Remote clock offset: -5.435 ms

Below is generated by plot.py at 2017-12-11 16:57:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 87.511 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 75.72 Mbit/s
95th percentile per-packet one-way delay: 87.511 ms
Loss rate: 0.67%

Run 5: Report of TCP Cubic — Data Link

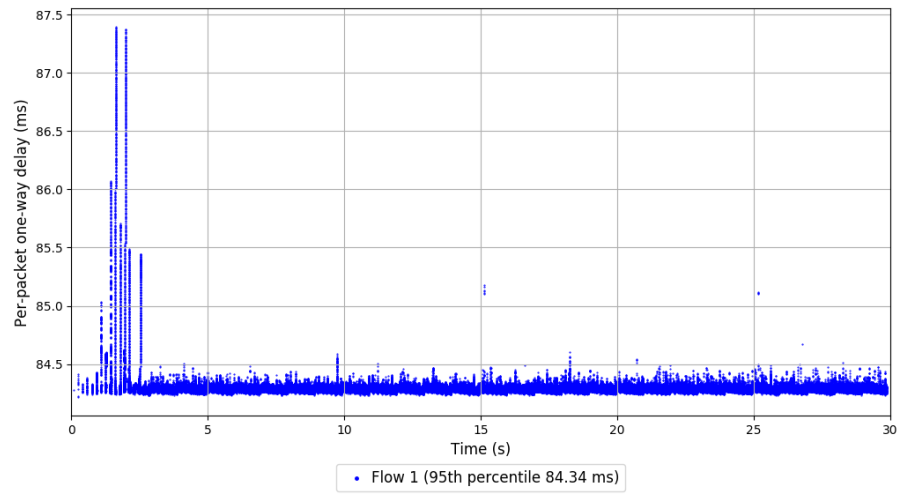
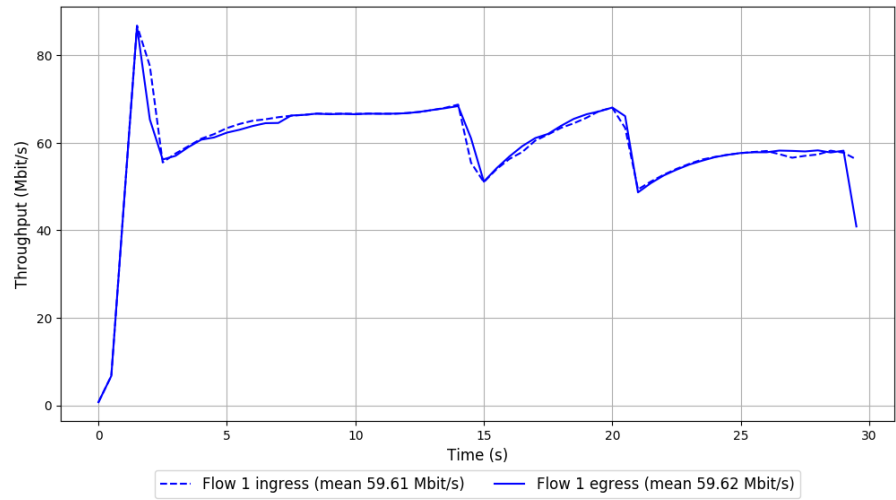


Run 6: Statistics of TCP Cubic

Start at: 2017-12-11 12:32:49
End at: 2017-12-11 12:33:19
Local clock offset: -0.134 ms
Remote clock offset: -4.561 ms

Below is generated by plot.py at 2017-12-11 16:57:26
Datalink statistics
-- Total of 1 flow:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 84.342 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 59.62 Mbit/s
95th percentile per-packet one-way delay: 84.342 ms
Loss rate: 0.55%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-11 12:50:53

End at: 2017-12-11 12:51:24

Local clock offset: -0.337 ms

Remote clock offset: 1.326 ms

Below is generated by plot.py at 2017-12-11 16:57:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.37 Mbit/s

95th percentile per-packet one-way delay: 78.338 ms

Loss rate: 0.65%

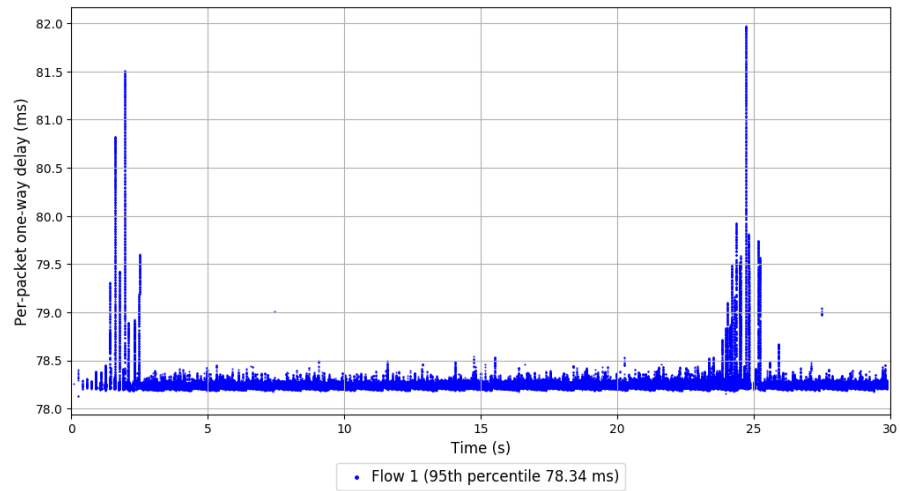
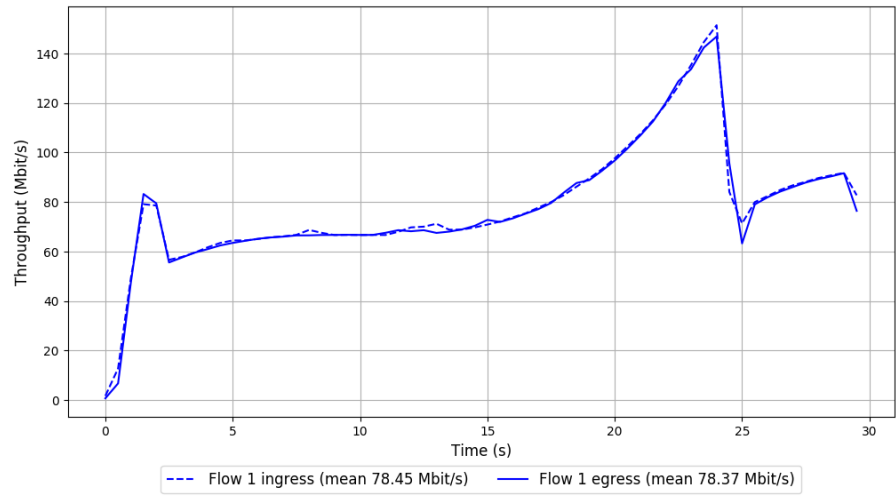
-- Flow 1:

Average throughput: 78.37 Mbit/s

95th percentile per-packet one-way delay: 78.338 ms

Loss rate: 0.65%

Run 7: Report of TCP Cubic — Data Link

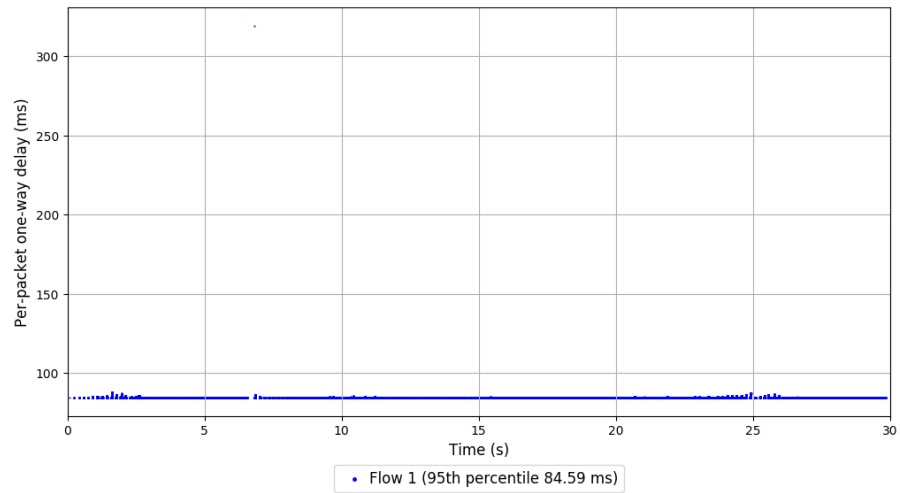
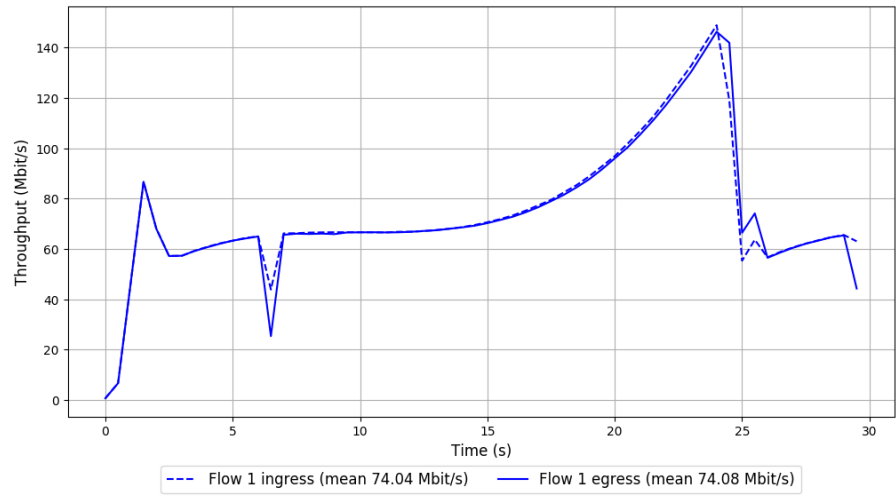


Run 8: Statistics of TCP Cubic

Start at: 2017-12-11 13:08:56
End at: 2017-12-11 13:09:27
Local clock offset: -0.246 ms
Remote clock offset: -4.744 ms

Below is generated by plot.py at 2017-12-11 16:57:40
Datalink statistics
-- Total of 1 flow:
Average throughput: 74.08 Mbit/s
95th percentile per-packet one-way delay: 84.592 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 74.08 Mbit/s
95th percentile per-packet one-way delay: 84.592 ms
Loss rate: 0.50%

Run 8: Report of TCP Cubic — Data Link

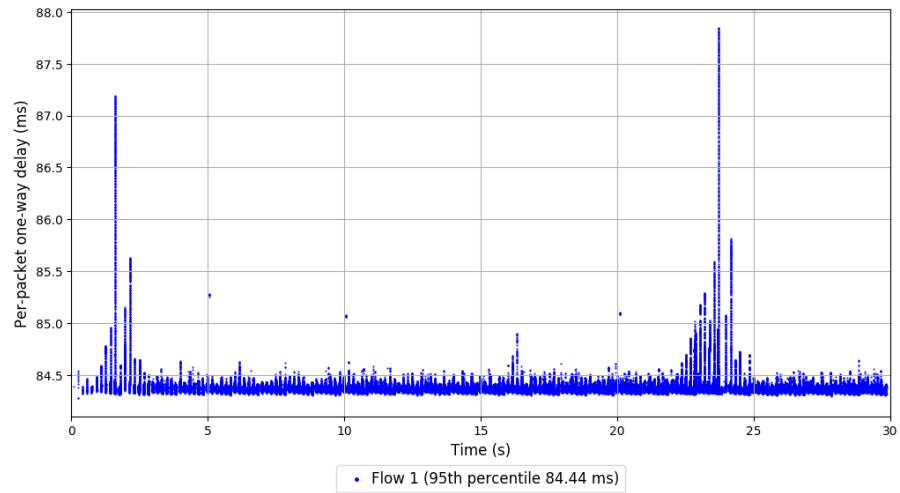
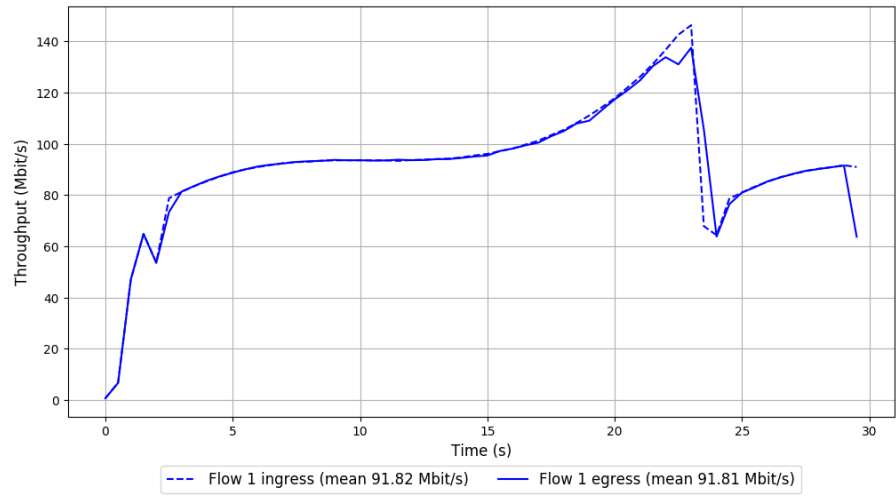


Run 9: Statistics of TCP Cubic

Start at: 2017-12-11 13:27:13
End at: 2017-12-11 13:27:43
Local clock offset: -0.253 ms
Remote clock offset: -5.137 ms

Below is generated by plot.py at 2017-12-11 16:58:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.81 Mbit/s
95th percentile per-packet one-way delay: 84.435 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 91.81 Mbit/s
95th percentile per-packet one-way delay: 84.435 ms
Loss rate: 0.56%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-11 13:46:21

End at: 2017-12-11 13:46:51

Local clock offset: -0.38 ms

Remote clock offset: 1.53 ms

Below is generated by plot.py at 2017-12-11 16:58:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.57 Mbit/s

95th percentile per-packet one-way delay: 80.299 ms

Loss rate: 0.58%

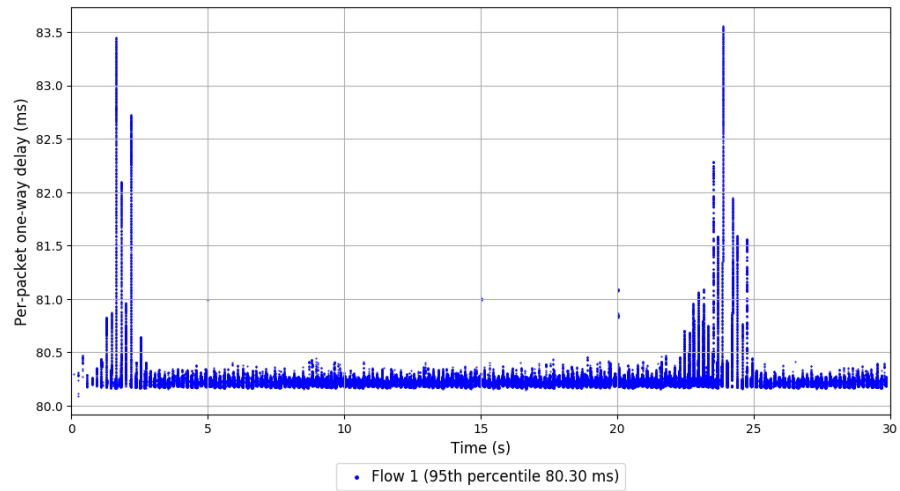
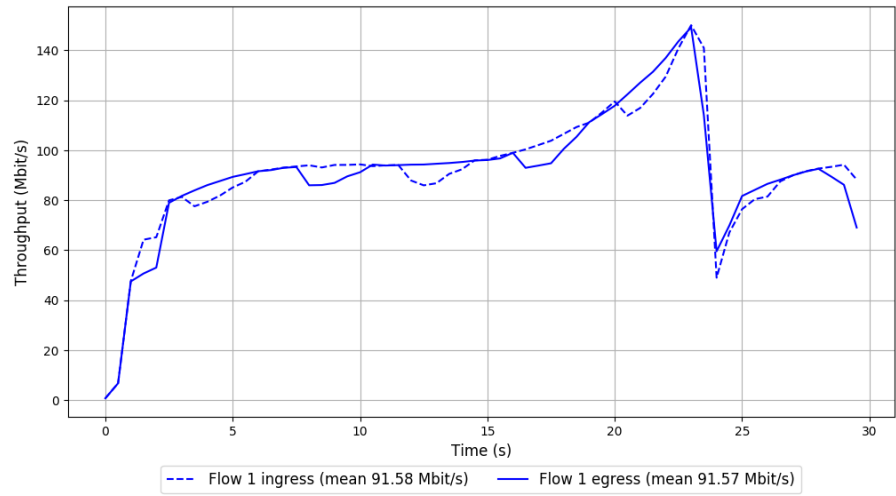
-- Flow 1:

Average throughput: 91.57 Mbit/s

95th percentile per-packet one-way delay: 80.299 ms

Loss rate: 0.58%

Run 10: Report of TCP Cubic — Data Link

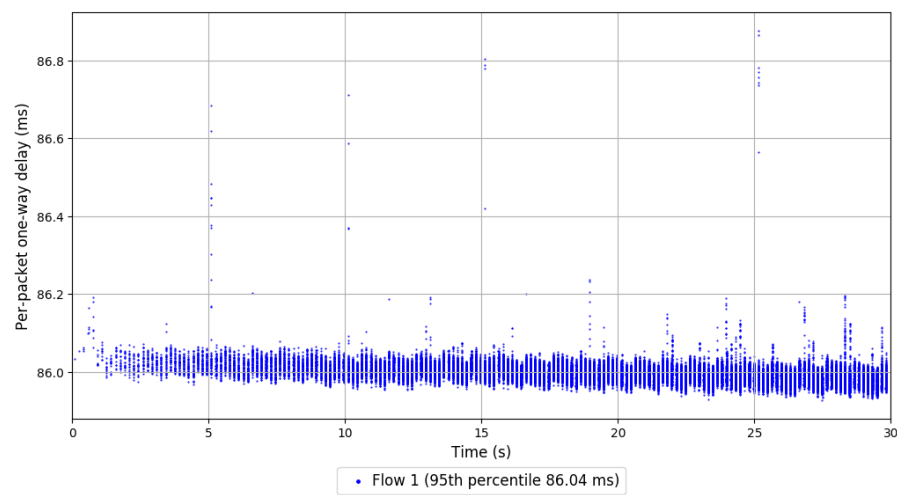
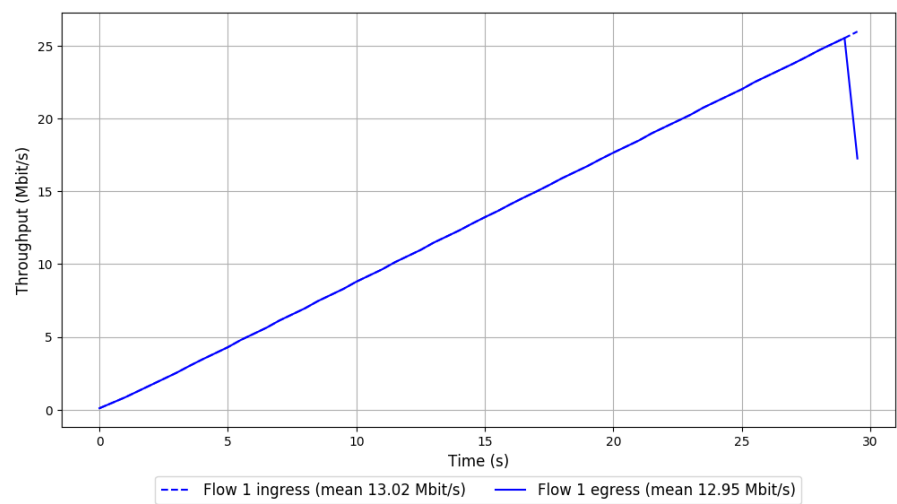


Run 1: Statistics of LEDBAT

Start at: 2017-12-11 10:49:49
End at: 2017-12-11 10:50:19
Local clock offset: -1.548 ms
Remote clock offset: -5.059 ms

Below is generated by plot.py at 2017-12-11 16:58:07
Datalink statistics
-- Total of 1 flow:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 86.036 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 86.036 ms
Loss rate: 1.12%

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

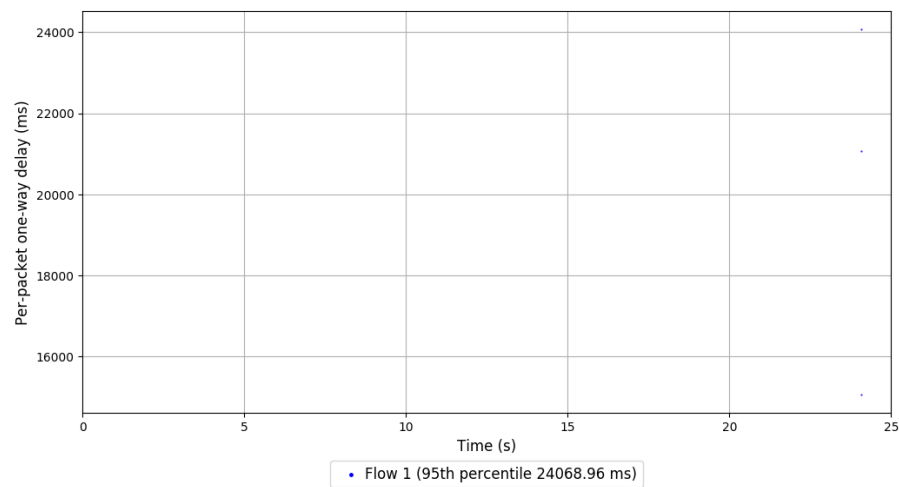
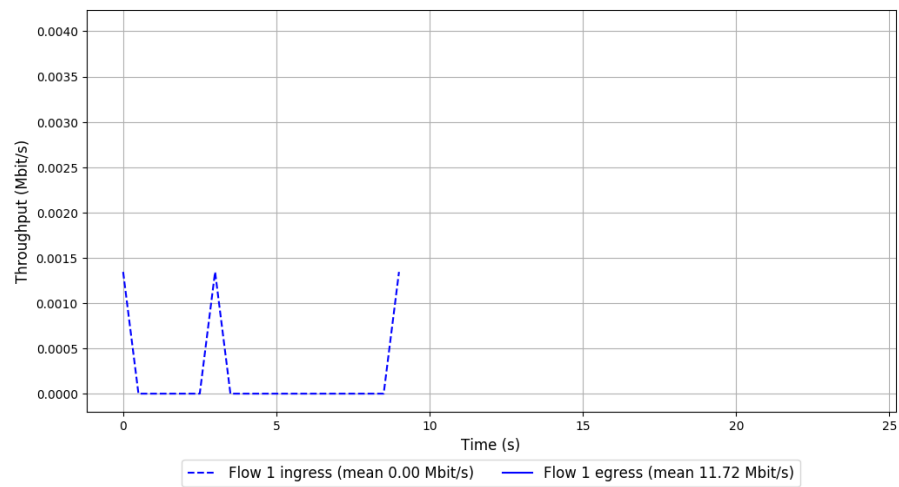
Start at: 2017-12-11 11:08:13

End at: 2017-12-11 11:08:43

Local clock offset: -0.615 ms

Remote clock offset: 0.323 ms

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

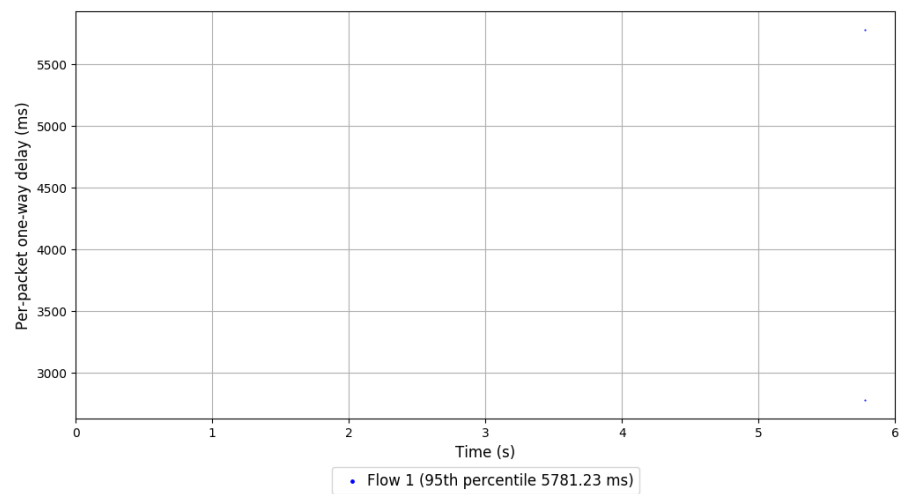
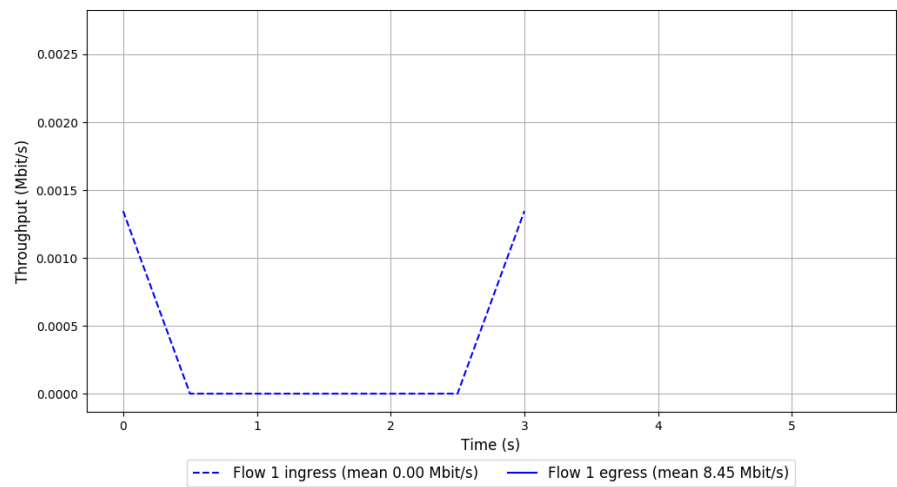
Start at: 2017-12-11 11:26:04

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

Local clock offset: 0.199 ms

Remote clock offset: -4.006 ms

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-11 11:44:00

End at: 2017-12-11 11:44:30

Local clock offset: 0.247 ms

Remote clock offset: -4.674 ms

Run 4: Report of LEDBAT — Data Link

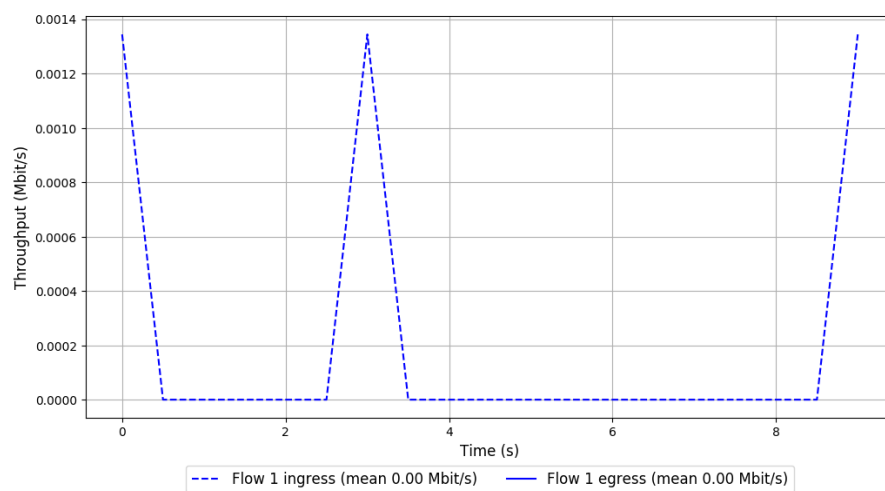


Figure is missing

Run 5: Statistics of LEDBAT

Start at: 2017-12-11 12:02:01

End at: 2017-12-11 12:02:31

Local clock offset: -0.009 ms

Remote clock offset: 0.515 ms

Run 5: Report of LEDBAT — Data Link

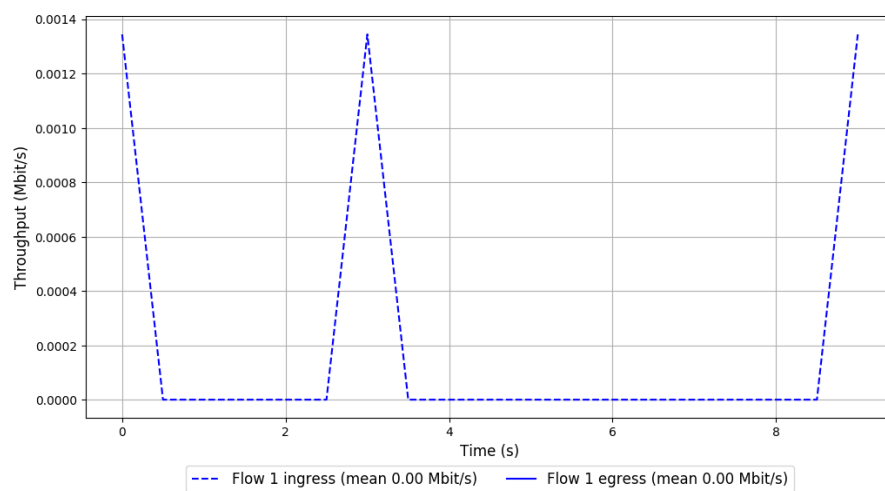


Figure is missing

Run 6: Statistics of LEDBAT

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

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

Local clock offset: -0.033 ms

Remote clock offset: 0.564 ms

Below is generated by plot.py at 2017-12-11 16:58:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 80.455 ms

Loss rate: 1.11%

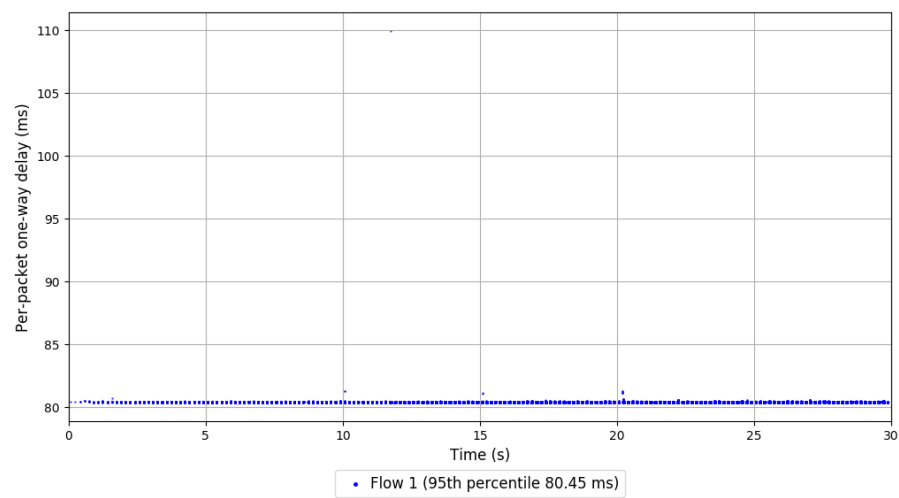
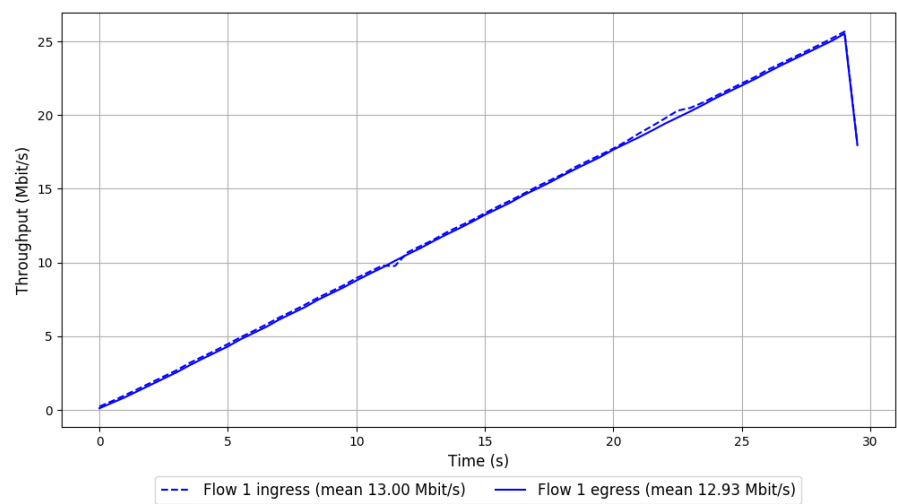
-- Flow 1:

Average throughput: 12.93 Mbit/s

95th percentile per-packet one-way delay: 80.455 ms

Loss rate: 1.11%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

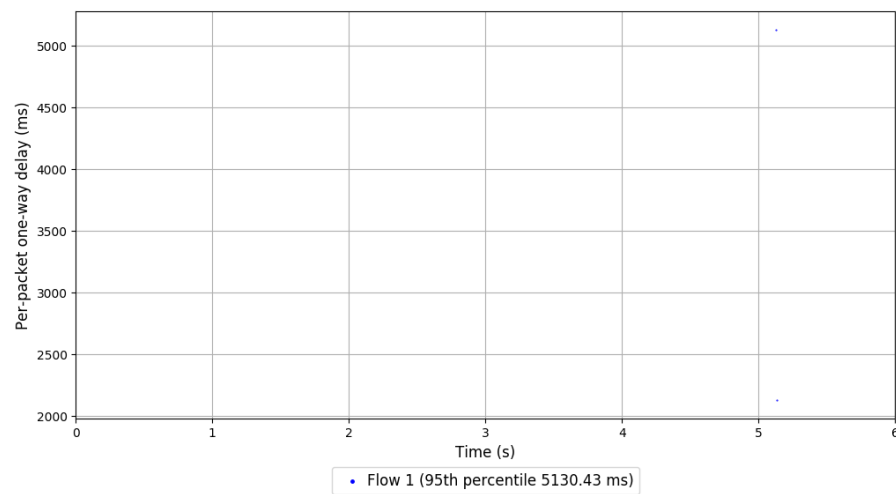
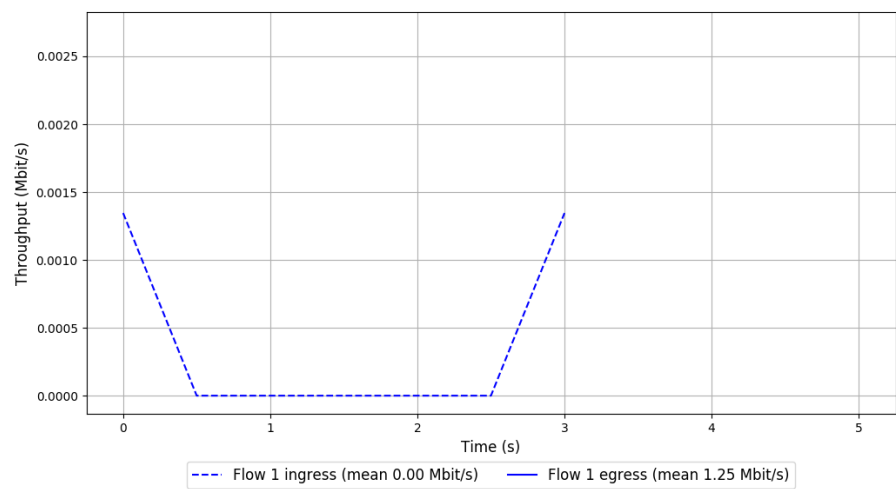
Start at: 2017-12-11 12:37:39

End at: 2017-12-11 12:38:09

Local clock offset: -0.147 ms

Remote clock offset: 0.129 ms

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-11 12:55:44

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

Local clock offset: -0.983 ms

Remote clock offset: 0.192 ms

Below is generated by plot.py at 2017-12-11 16:58:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.31 Mbit/s

95th percentile per-packet one-way delay: 78.600 ms

Loss rate: 1.10%

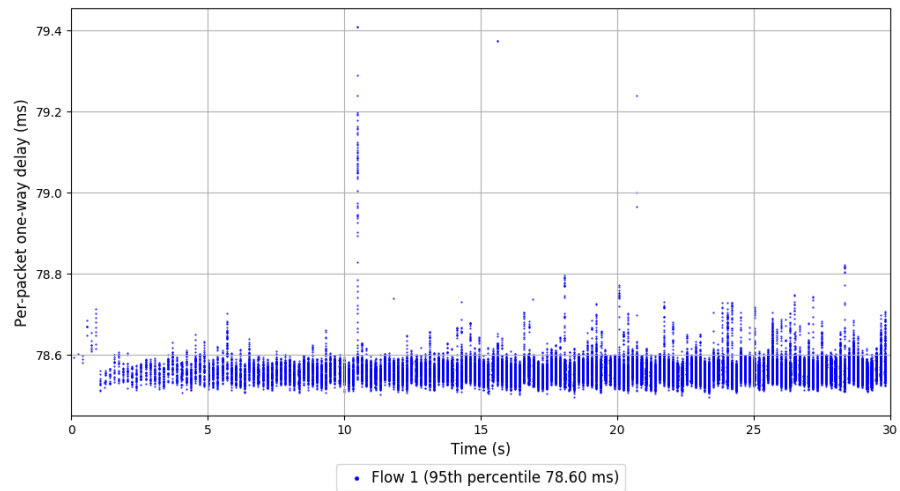
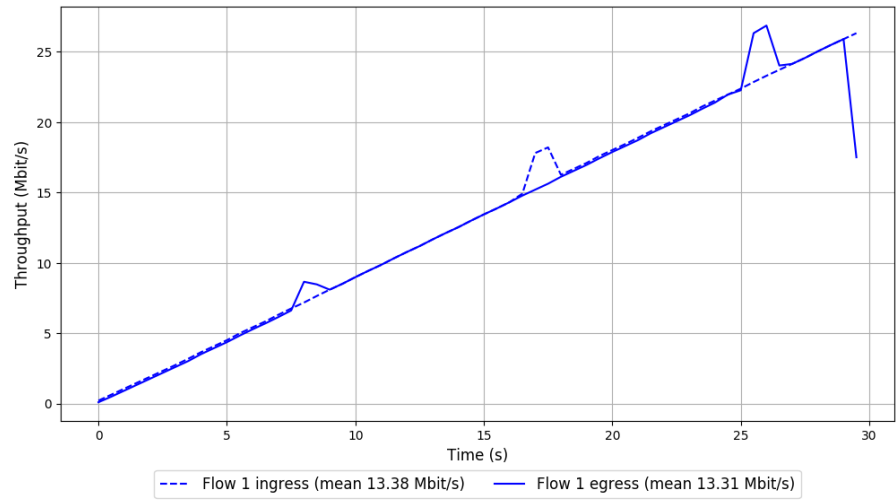
-- Flow 1:

Average throughput: 13.31 Mbit/s

95th percentile per-packet one-way delay: 78.600 ms

Loss rate: 1.10%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

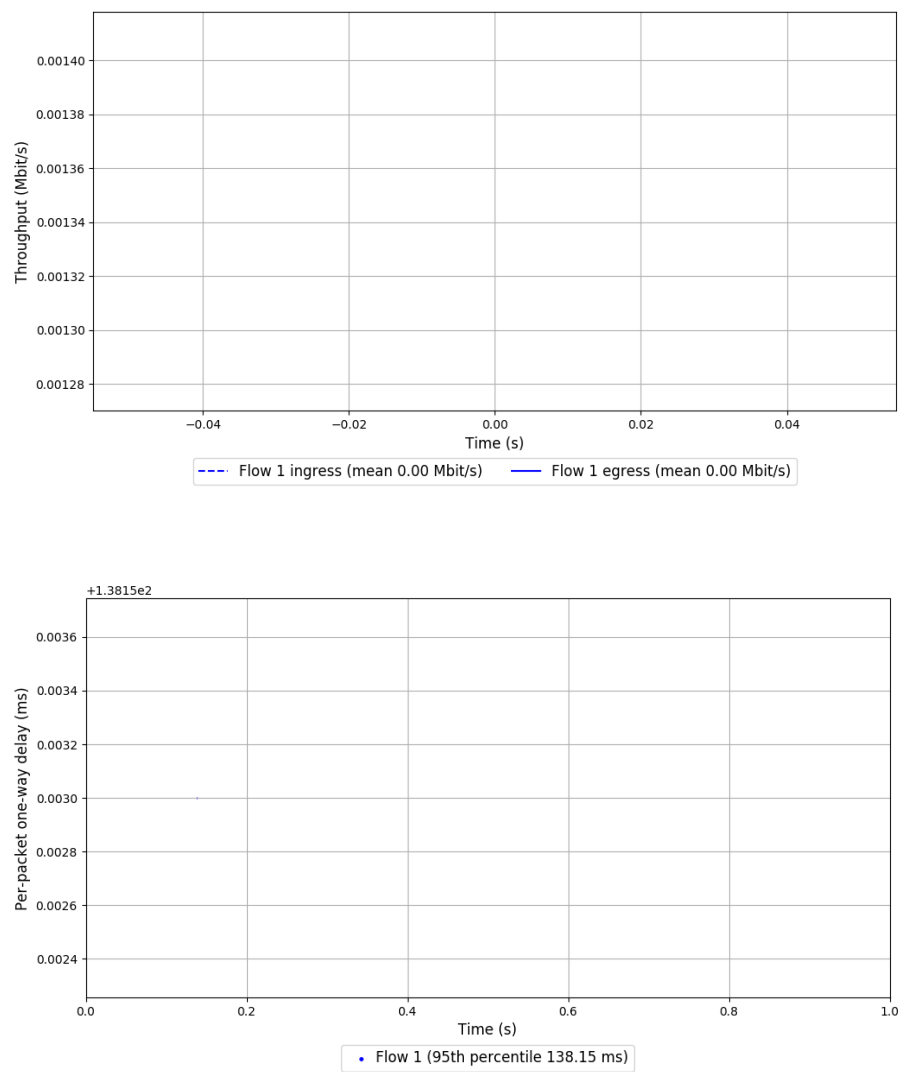
Start at: 2017-12-11 13:13:53

End at: 2017-12-11 13:14:23

Local clock offset: -0.263 ms

Remote clock offset: -4.28 ms

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-11 13:32:05

End at: 2017-12-11 13:32:35

Local clock offset: -0.248 ms

Remote clock offset: 0.532 ms

Below is generated by plot.py at 2017-12-11 16:58:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.10 Mbit/s

95th percentile per-packet one-way delay: 79.738 ms

Loss rate: 1.11%

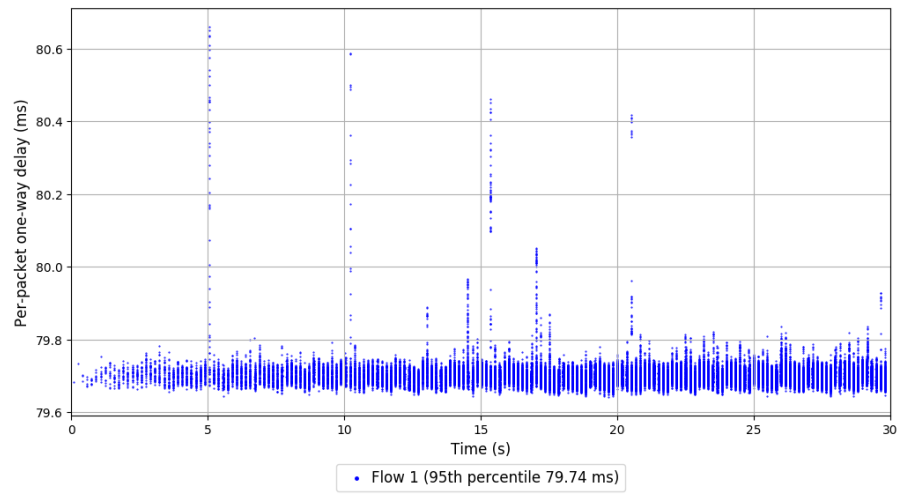
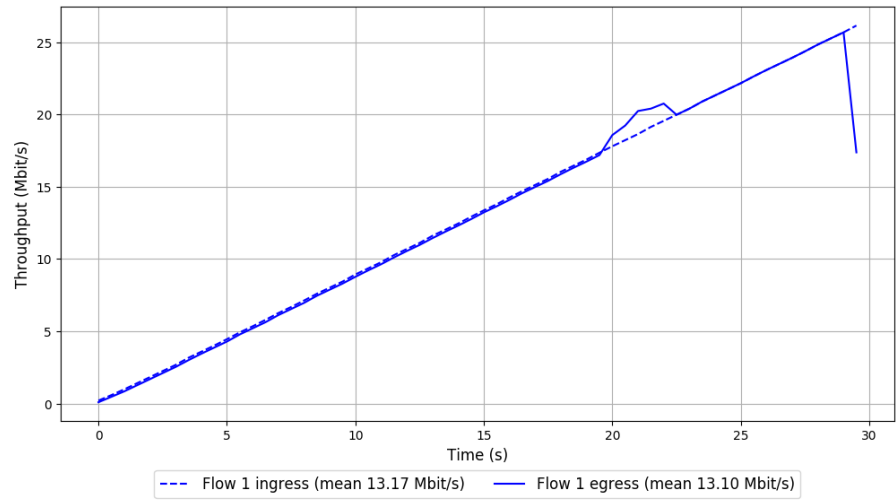
-- Flow 1:

Average throughput: 13.10 Mbit/s

95th percentile per-packet one-way delay: 79.738 ms

Loss rate: 1.11%

Run 10: Report of LEDBAT — Data Link

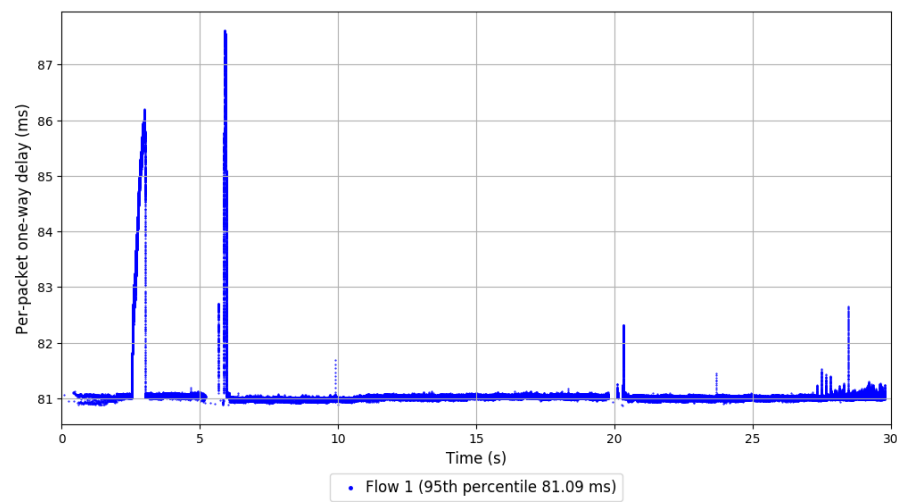
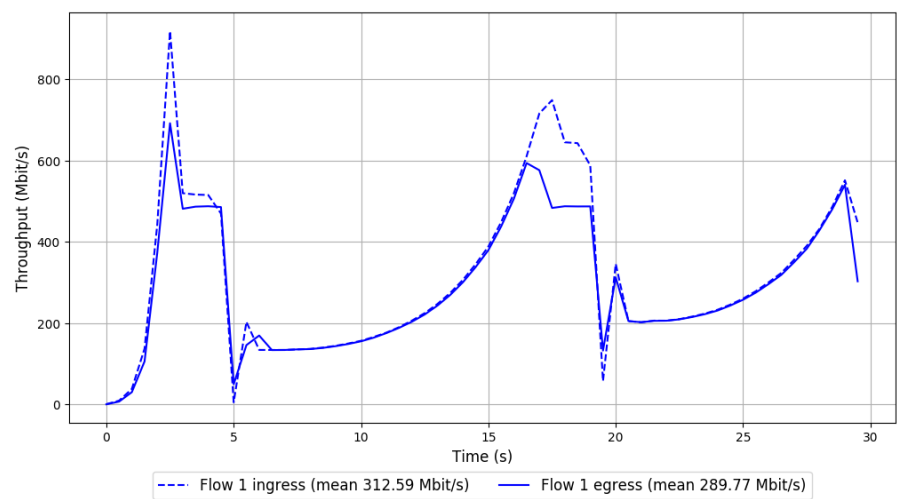


```
Run 1: Statistics of PCC

Start at: 2017-12-11 10:52:11
End at: 2017-12-11 10:52:41
Local clock offset: -1.429 ms
Remote clock offset: 0.654 ms

# Below is generated by plot.py at 2017-12-11 17:01:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 289.77 Mbit/s
95th percentile per-packet one-way delay: 81.093 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 289.77 Mbit/s
95th percentile per-packet one-way delay: 81.093 ms
Loss rate: 7.82%
```

Run 1: Report of PCC — Data Link

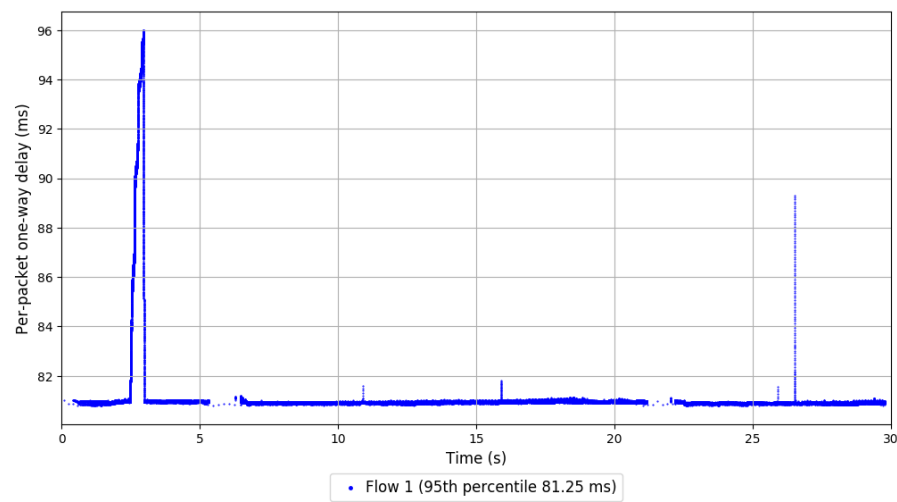
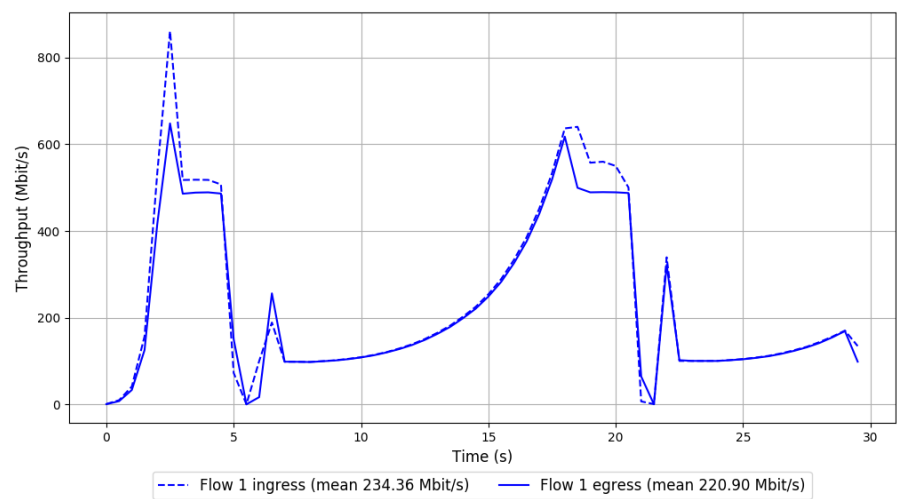


Run 2: Statistics of PCC

Start at: 2017-12-11 11:10:32
End at: 2017-12-11 11:11:02
Local clock offset: -0.441 ms
Remote clock offset: -0.096 ms

Below is generated by plot.py at 2017-12-11 17:01:20
Datalink statistics
-- Total of 1 flow:
Average throughput: 220.90 Mbit/s
95th percentile per-packet one-way delay: 81.255 ms
Loss rate: 6.28%
-- Flow 1:
Average throughput: 220.90 Mbit/s
95th percentile per-packet one-way delay: 81.255 ms
Loss rate: 6.28%

Run 2: Report of PCC — Data Link

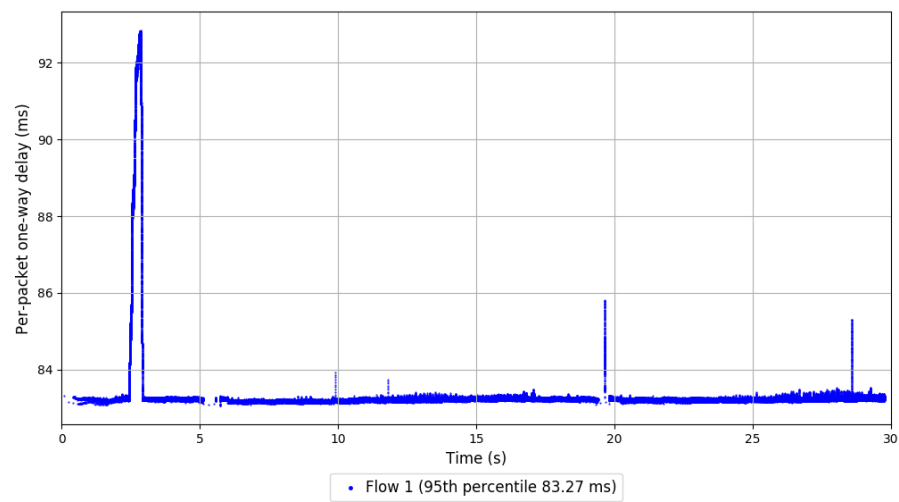
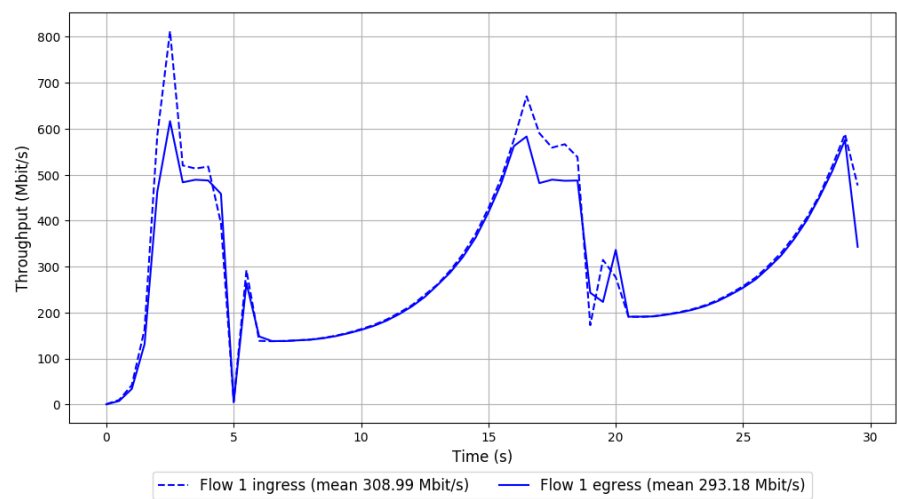


Run 3: Statistics of PCC

Start at: 2017-12-11 11:28:23
End at: 2017-12-11 11:28:53
Local clock offset: 0.225 ms
Remote clock offset: -4.076 ms

Below is generated by plot.py at 2017-12-11 17:01:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 293.18 Mbit/s
95th percentile per-packet one-way delay: 83.268 ms
Loss rate: 5.65%
-- Flow 1:
Average throughput: 293.18 Mbit/s
95th percentile per-packet one-way delay: 83.268 ms
Loss rate: 5.65%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-11 11:46:19

End at: 2017-12-11 11:46:49

Local clock offset: 0.225 ms

Remote clock offset: 0.216 ms

Below is generated by plot.py at 2017-12-11 17:01:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 328.96 Mbit/s

95th percentile per-packet one-way delay: 82.216 ms

Loss rate: 6.10%

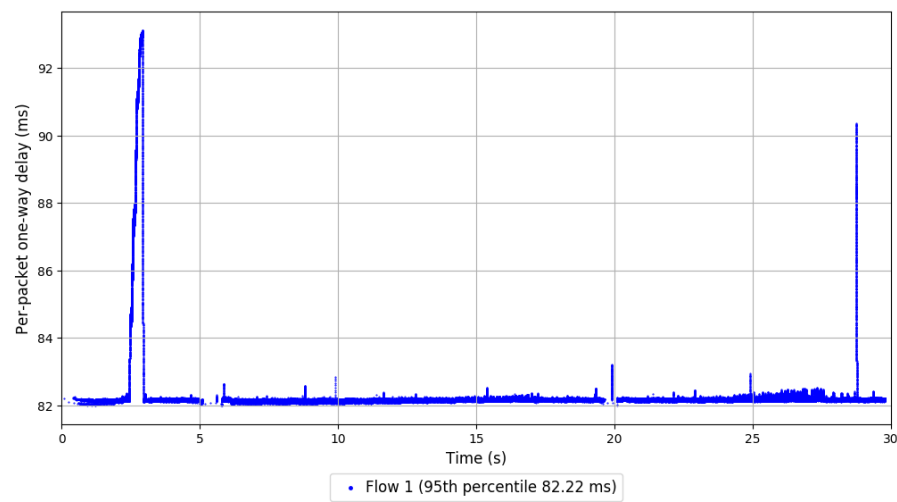
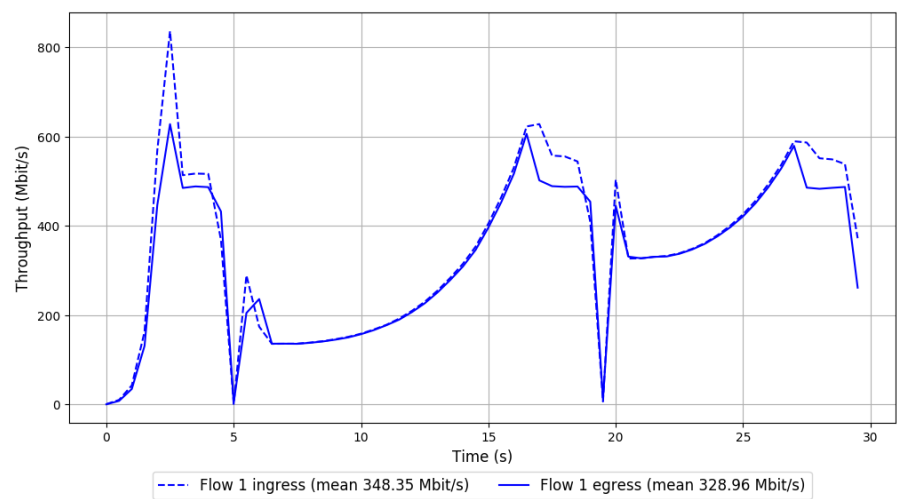
-- Flow 1:

Average throughput: 328.96 Mbit/s

95th percentile per-packet one-way delay: 82.216 ms

Loss rate: 6.10%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-11 12:04:20

End at: 2017-12-11 12:04:50

Local clock offset: 0.062 ms

Remote clock offset: 1.39 ms

Below is generated by plot.py at 2017-12-11 17:02:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 320.42 Mbit/s

95th percentile per-packet one-way delay: 80.842 ms

Loss rate: 9.62%

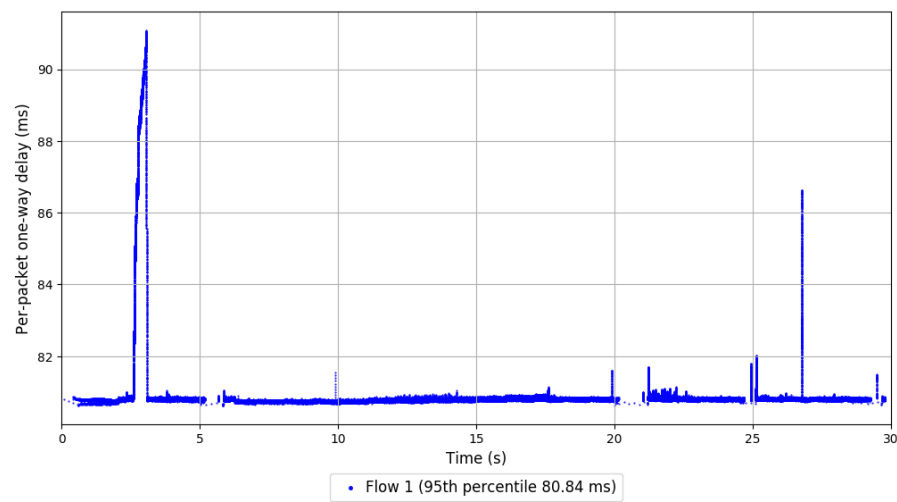
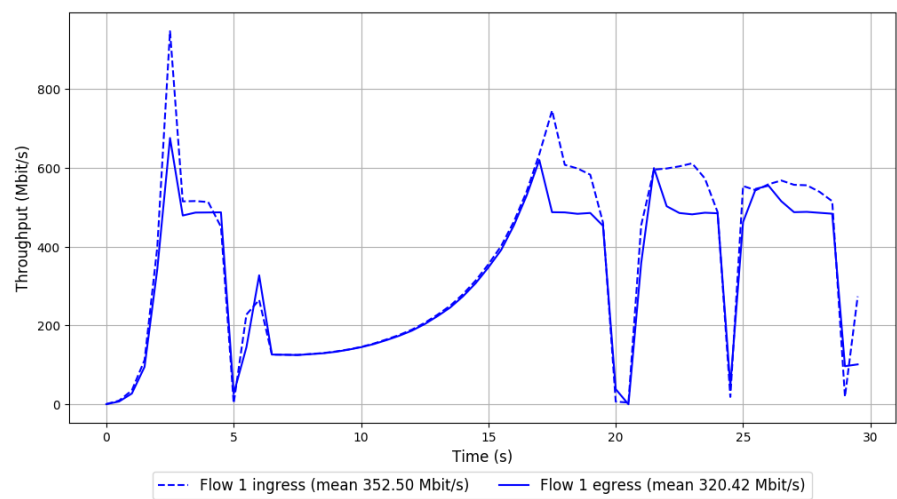
-- Flow 1:

Average throughput: 320.42 Mbit/s

95th percentile per-packet one-way delay: 80.842 ms

Loss rate: 9.62%

Run 5: Report of PCC — Data Link

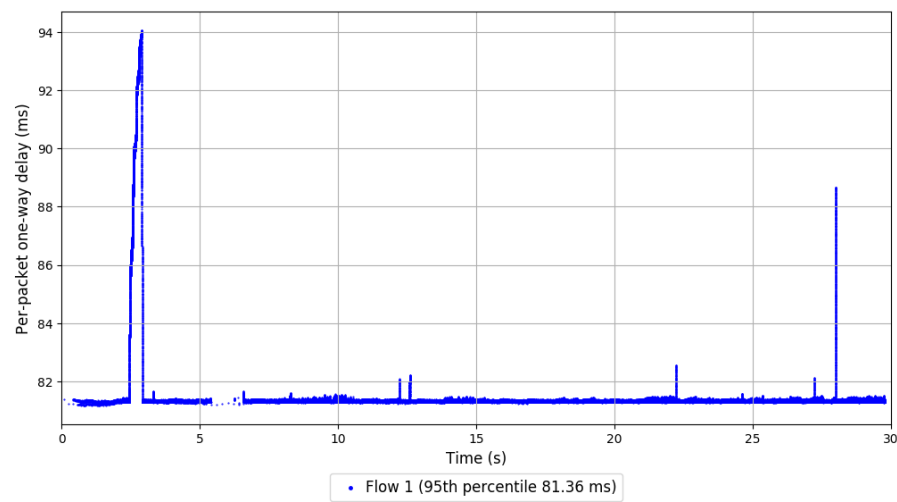
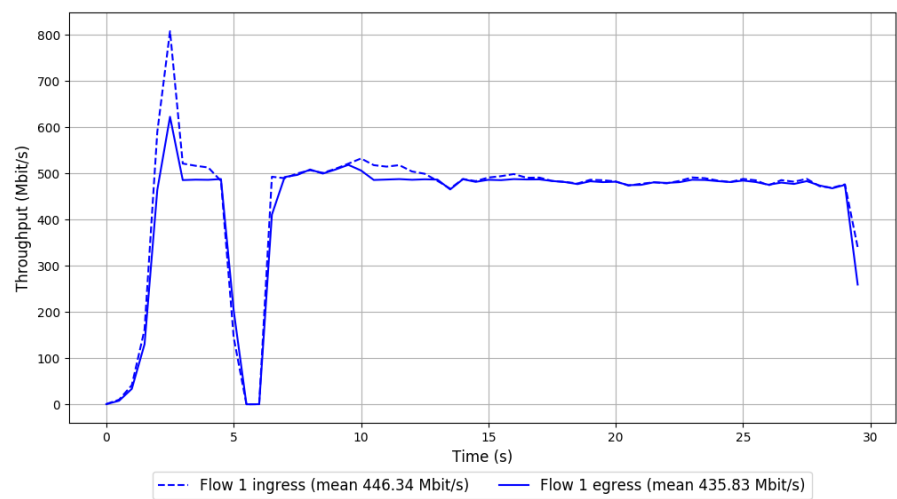


Run 6: Statistics of PCC

Start at: 2017-12-11 12:22:04
End at: 2017-12-11 12:22:34
Local clock offset: -0.046 ms
Remote clock offset: -0.598 ms

Below is generated by plot.py at 2017-12-11 17:04:25
Datalink statistics
-- Total of 1 flow:
Average throughput: 435.83 Mbit/s
95th percentile per-packet one-way delay: 81.365 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 435.83 Mbit/s
95th percentile per-packet one-way delay: 81.365 ms
Loss rate: 2.91%

Run 6: Report of PCC — Data Link

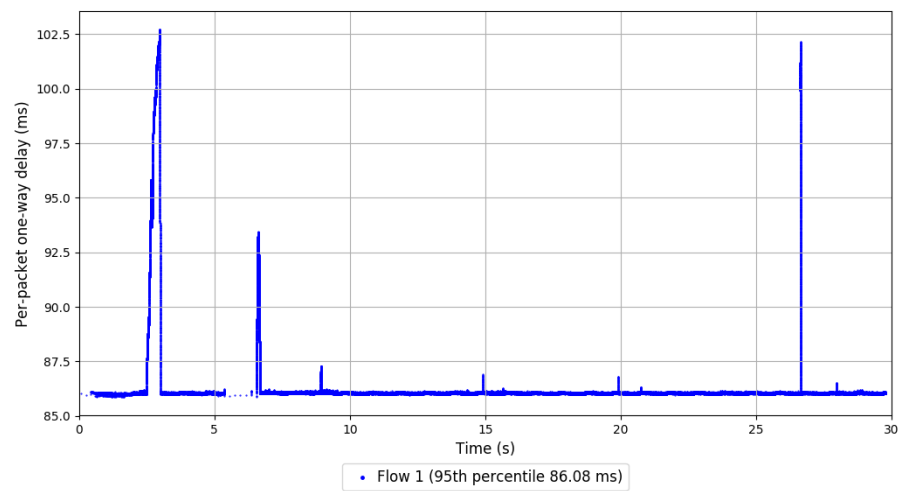
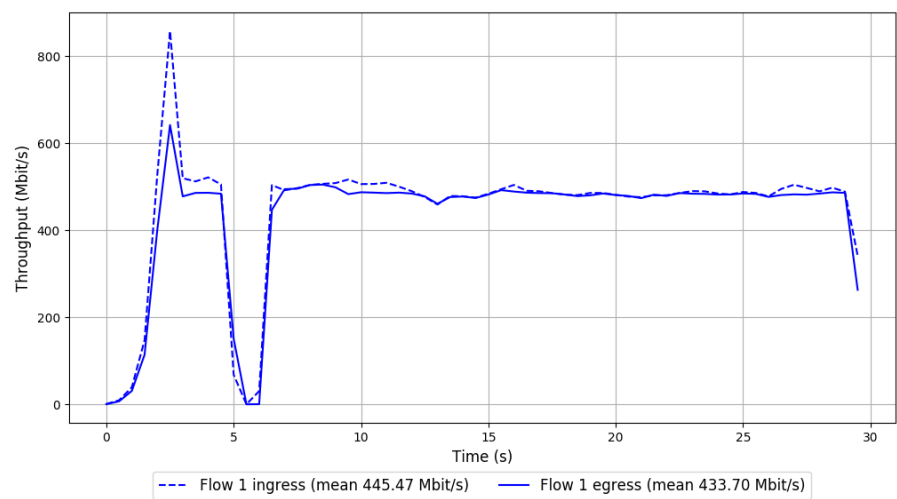


Run 7: Statistics of PCC

Start at: 2017-12-11 12:39:58
End at: 2017-12-11 12:40:28
Local clock offset: -0.178 ms
Remote clock offset: -5.116 ms

Below is generated by plot.py at 2017-12-11 17:04:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 433.70 Mbit/s
95th percentile per-packet one-way delay: 86.078 ms
Loss rate: 3.19%
-- Flow 1:
Average throughput: 433.70 Mbit/s
95th percentile per-packet one-way delay: 86.078 ms
Loss rate: 3.19%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-11 12:58:05

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

Local clock offset: -0.355 ms

Remote clock offset: 0.61 ms

Below is generated by plot.py at 2017-12-11 17:04:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 257.28 Mbit/s

95th percentile per-packet one-way delay: 79.660 ms

Loss rate: 5.11%

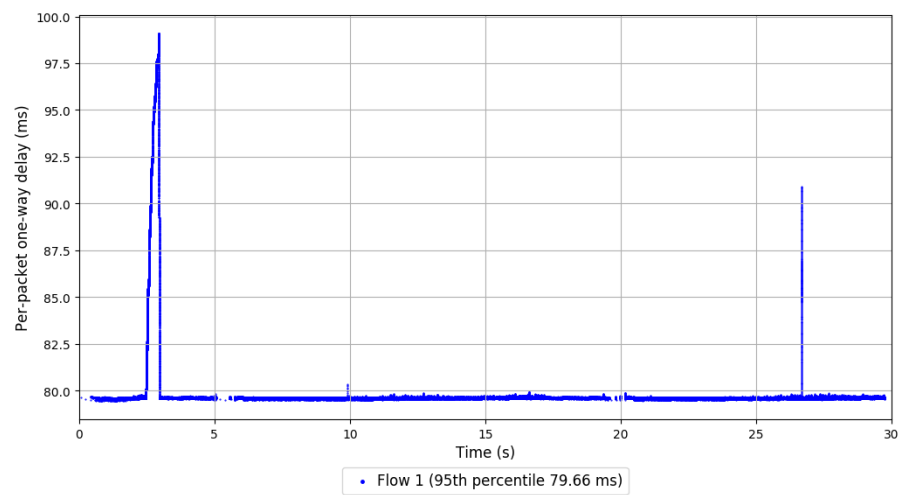
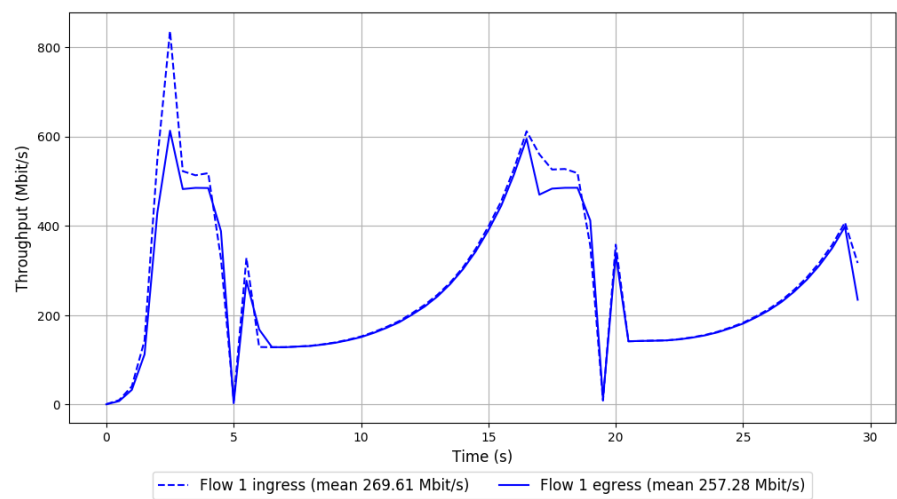
-- Flow 1:

Average throughput: 257.28 Mbit/s

95th percentile per-packet one-way delay: 79.660 ms

Loss rate: 5.11%

Run 8: Report of PCC — Data Link

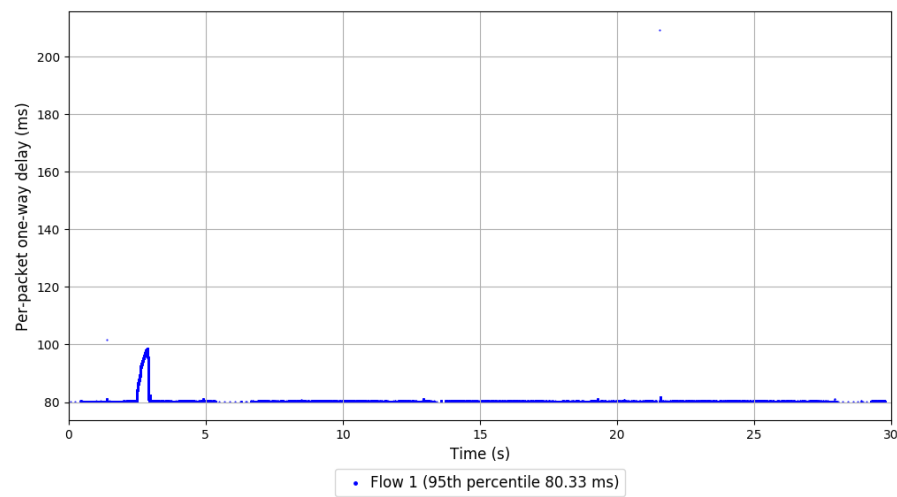
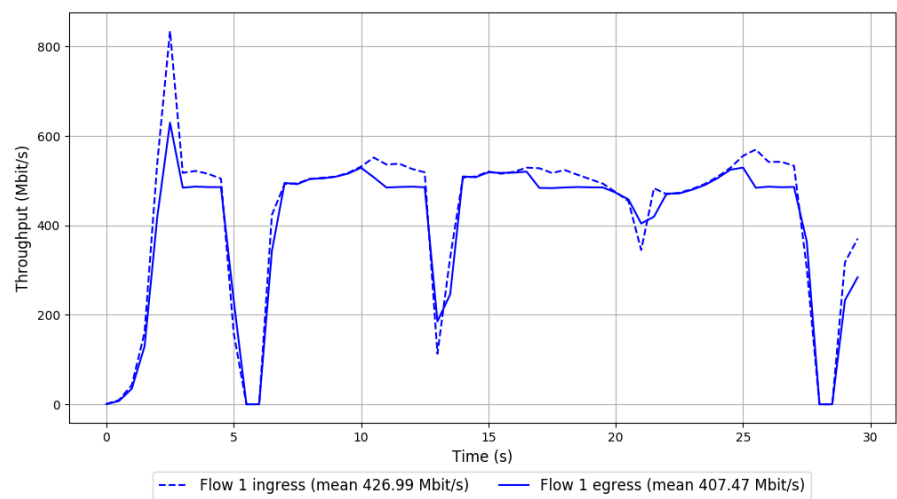


Run 9: Statistics of PCC

Start at: 2017-12-11 13:16:12
End at: 2017-12-11 13:16:42
Local clock offset: -0.343 ms
Remote clock offset: -0.718 ms

Below is generated by plot.py at 2017-12-11 17:06:30
Datalink statistics
-- Total of 1 flow:
Average throughput: 407.47 Mbit/s
95th percentile per-packet one-way delay: 80.333 ms
Loss rate: 5.11%
-- Flow 1:
Average throughput: 407.47 Mbit/s
95th percentile per-packet one-way delay: 80.333 ms
Loss rate: 5.11%

Run 9: Report of PCC — Data Link

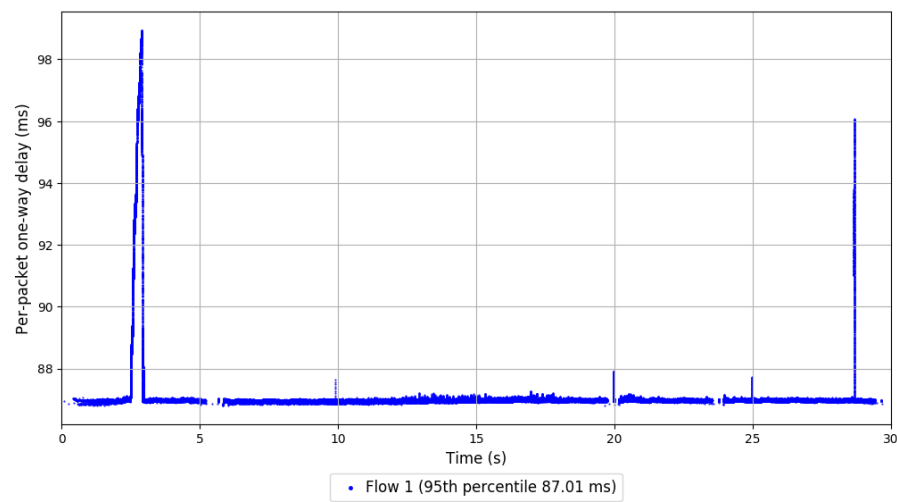
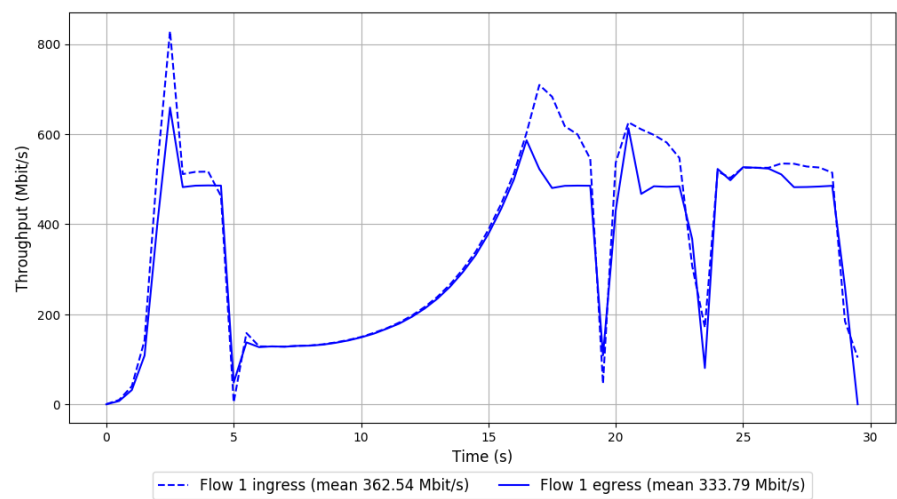


Run 10: Statistics of PCC

Start at: 2017-12-11 13:34:26
End at: 2017-12-11 13:34:56
Local clock offset: -0.346 ms
Remote clock offset: -4.788 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 333.79 Mbit/s
95th percentile per-packet one-way delay: 87.009 ms
Loss rate: 8.76%
-- Flow 1:
Average throughput: 333.79 Mbit/s
95th percentile per-packet one-way delay: 87.009 ms
Loss rate: 8.76%

Run 10: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2017-12-11 11:02:03

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

Local clock offset: -0.78 ms

Remote clock offset: 0.239 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.52 Mbit/s

95th percentile per-packet one-way delay: 79.979 ms

Loss rate: 0.77%

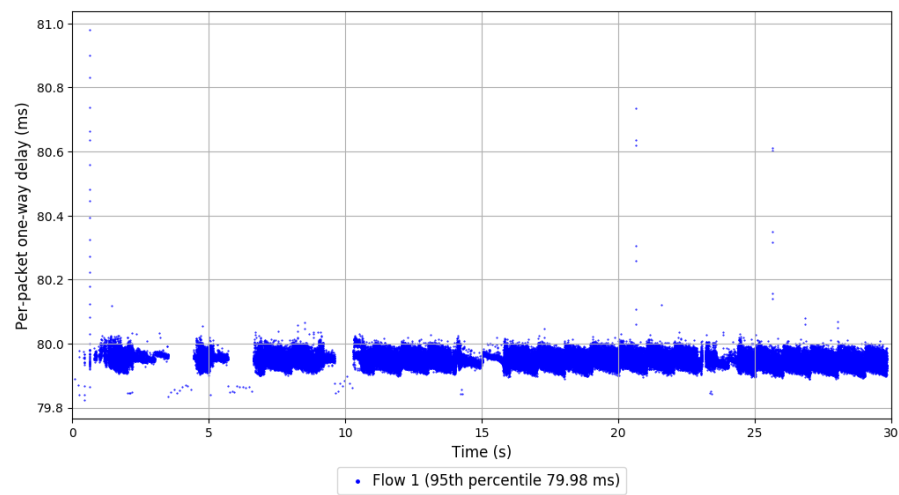
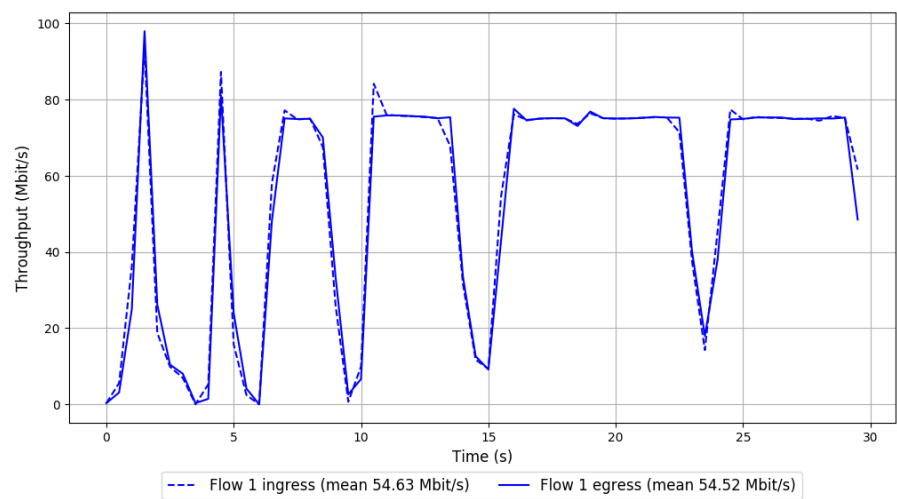
-- Flow 1:

Average throughput: 54.52 Mbit/s

95th percentile per-packet one-way delay: 79.979 ms

Loss rate: 0.77%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-11 11:20:01

End at: 2017-12-11 11:20:31

Local clock offset: 0.065 ms

Remote clock offset: -5.718 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.27 Mbit/s

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

Loss rate: 0.85%

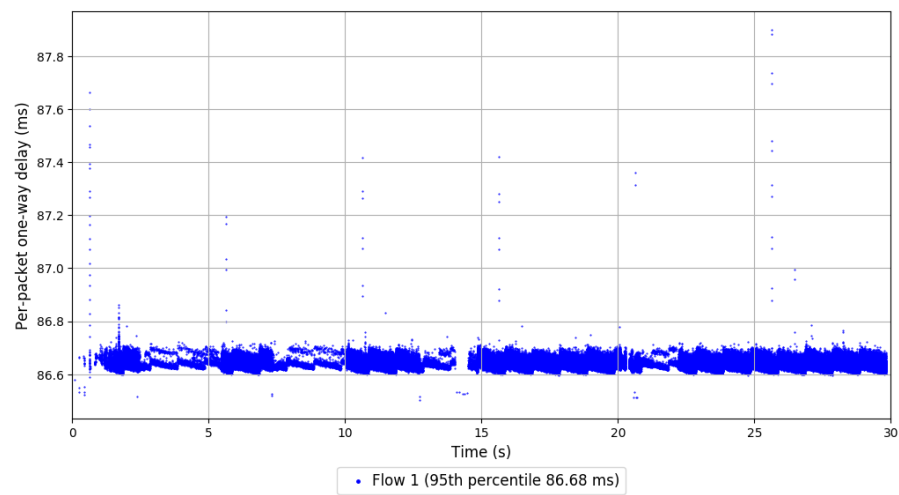
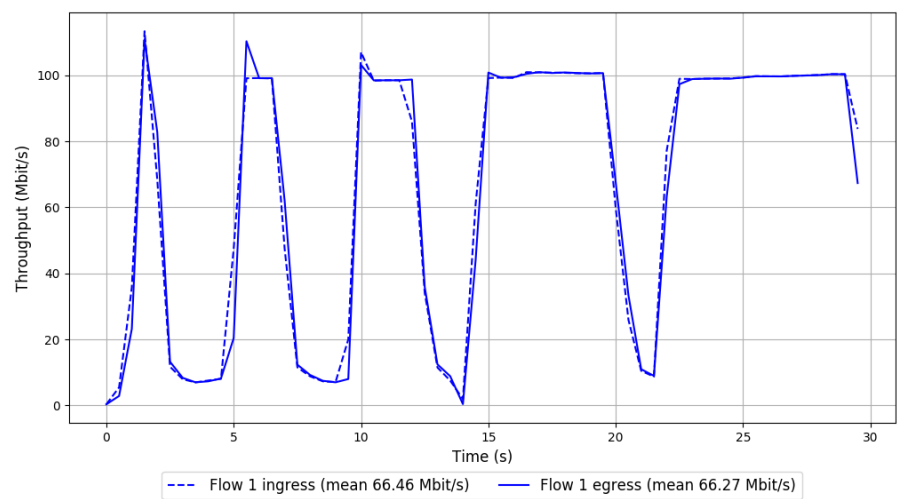
-- Flow 1:

Average throughput: 66.27 Mbit/s

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

Loss rate: 0.85%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-11 11:37:56

End at: 2017-12-11 11:38:26

Local clock offset: 0.376 ms

Remote clock offset: -4.43 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.46 Mbit/s

95th percentile per-packet one-way delay: 85.586 ms

Loss rate: 0.77%

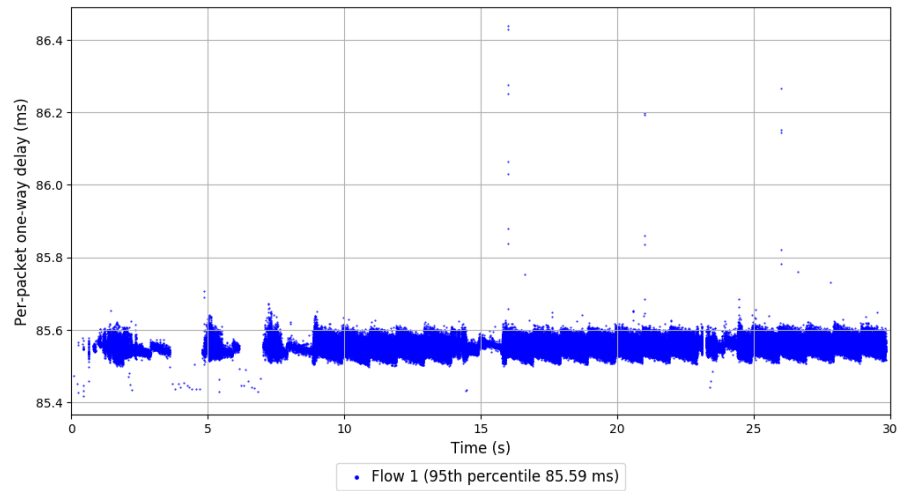
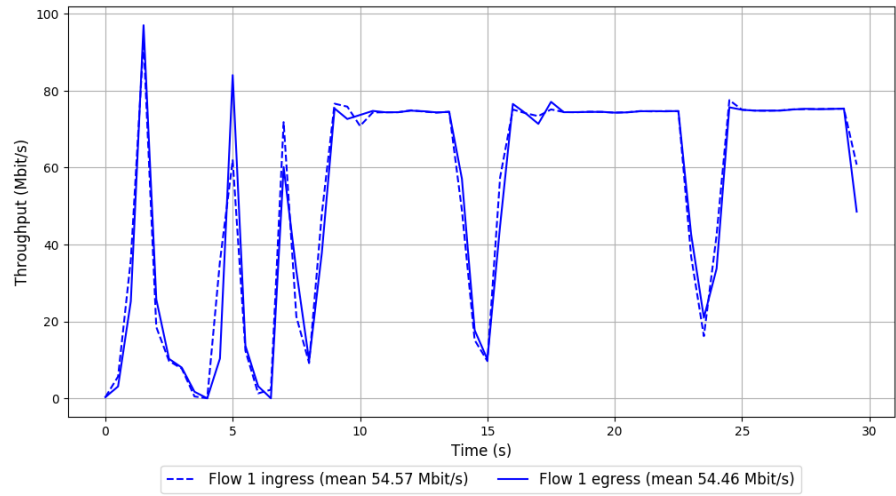
-- Flow 1:

Average throughput: 54.46 Mbit/s

95th percentile per-packet one-way delay: 85.586 ms

Loss rate: 0.77%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

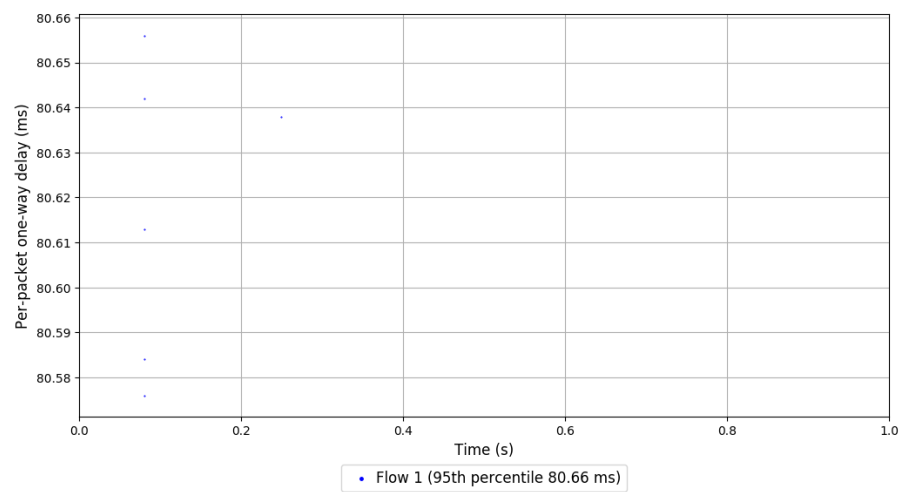
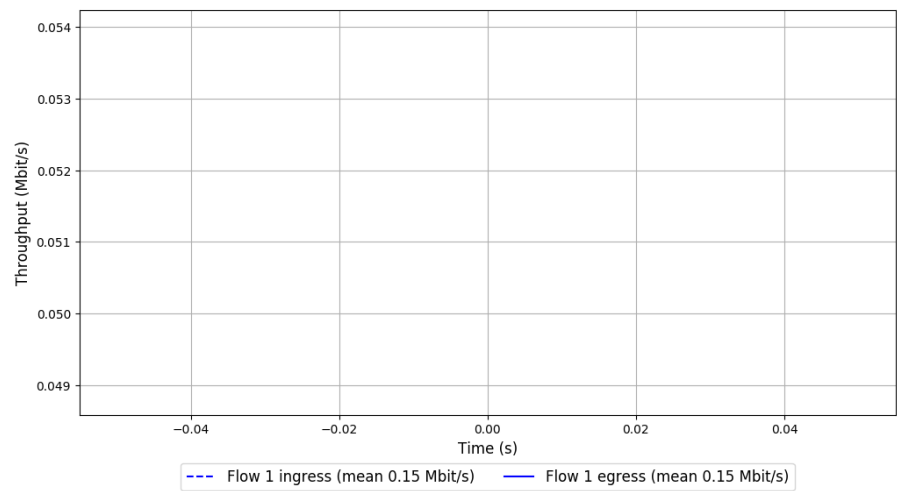
Start at: 2017-12-11 11:56:00

End at: 2017-12-11 11:56:30

Local clock offset: 0.144 ms

Remote clock offset: 0.493 ms

Run 4: Report of QUIC Cubic — Data Link

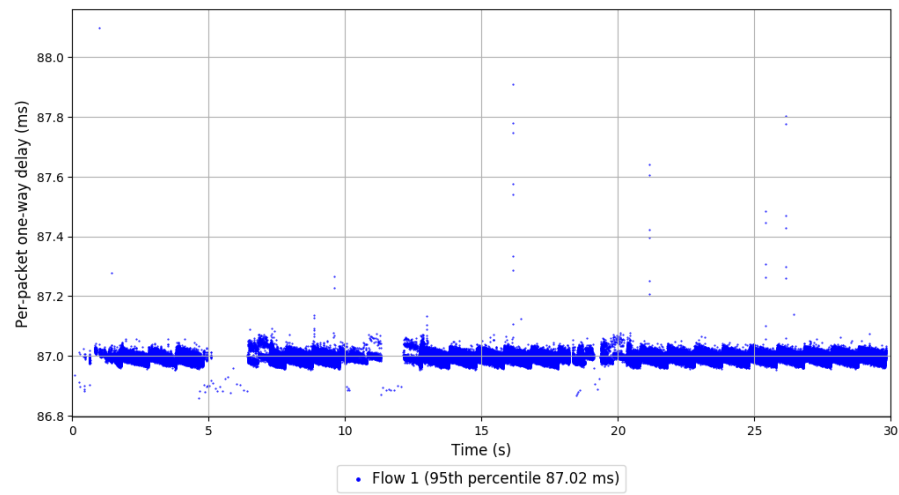
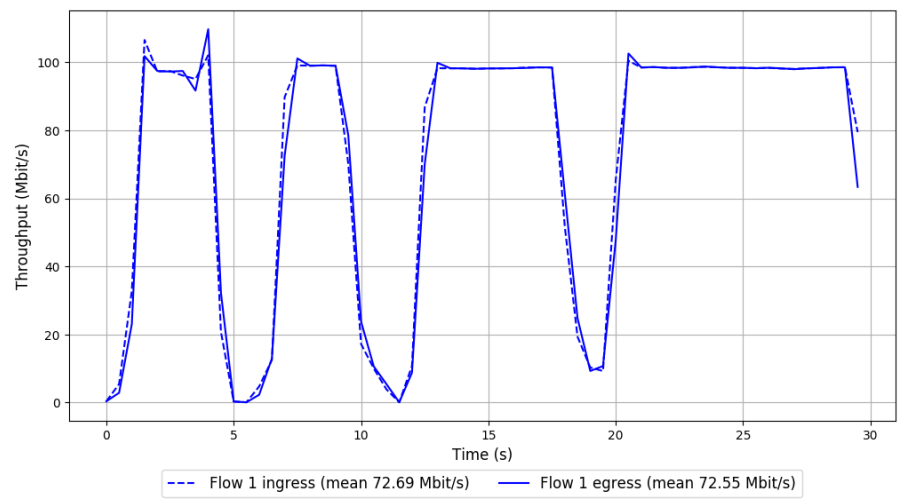


Run 5: Statistics of QUIC Cubic

Start at: 2017-12-11 12:13:39
End at: 2017-12-11 12:14:09
Local clock offset: -0.029 ms
Remote clock offset: -4.642 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 72.55 Mbit/s
95th percentile per-packet one-way delay: 87.016 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 72.55 Mbit/s
95th percentile per-packet one-way delay: 87.016 ms
Loss rate: 0.77%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

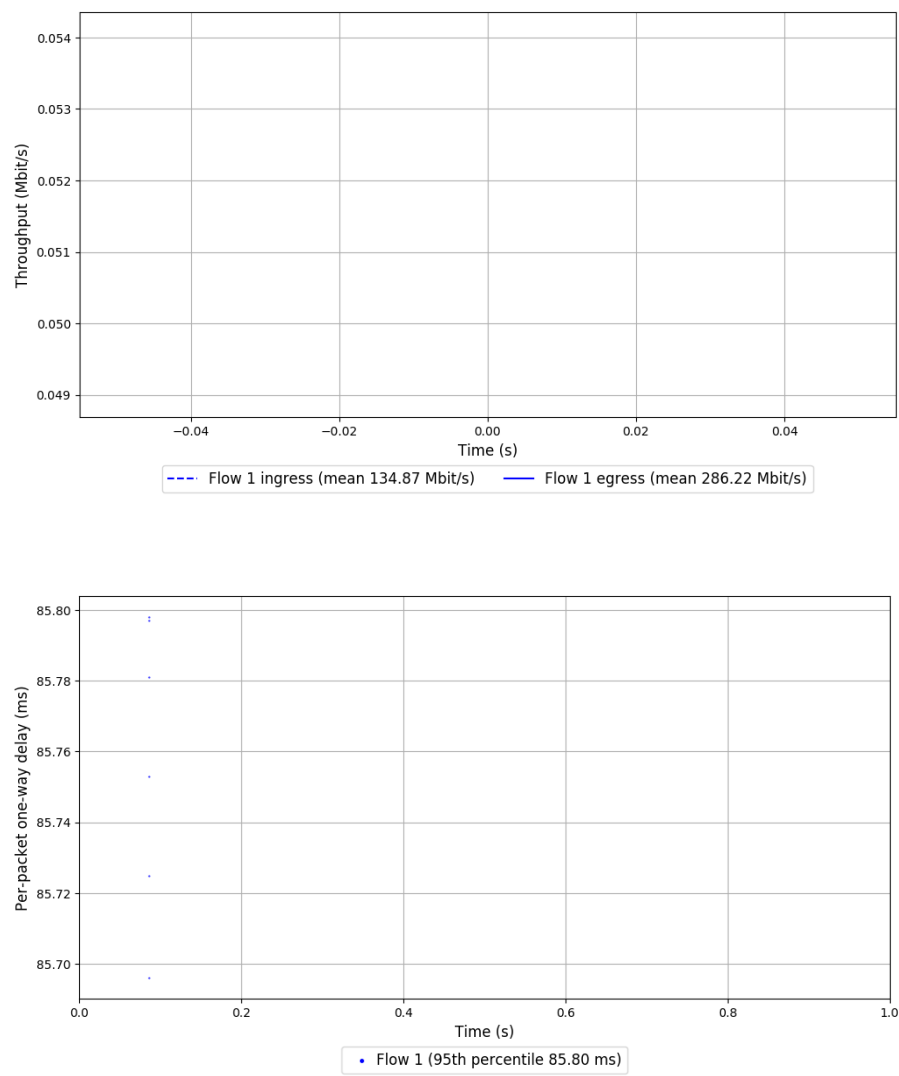
Start at: 2017-12-11 12:31:40

End at: 2017-12-11 12:32:10

Local clock offset: -0.128 ms

Remote clock offset: -5.453 ms

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-11 12:49:40

End at: 2017-12-11 12:50:10

Local clock offset: -0.317 ms

Remote clock offset: 0.878 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.97 Mbit/s

95th percentile per-packet one-way delay: 79.536 ms

Loss rate: 0.82%

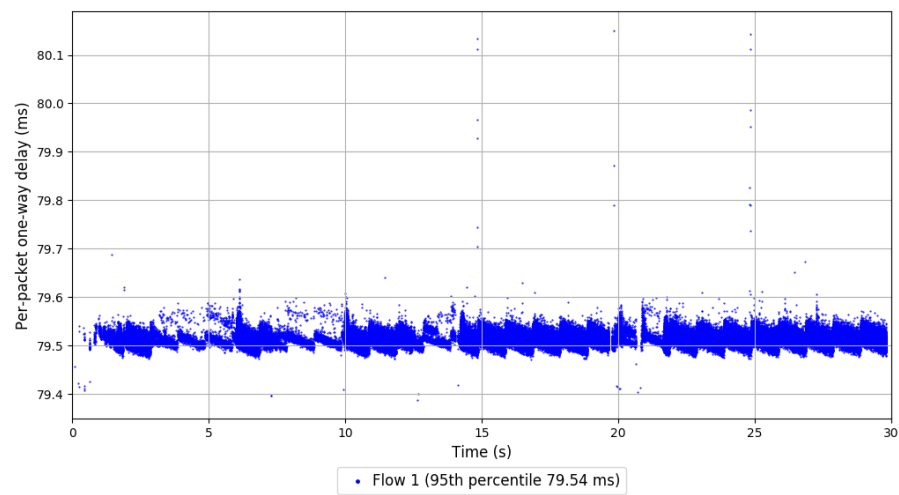
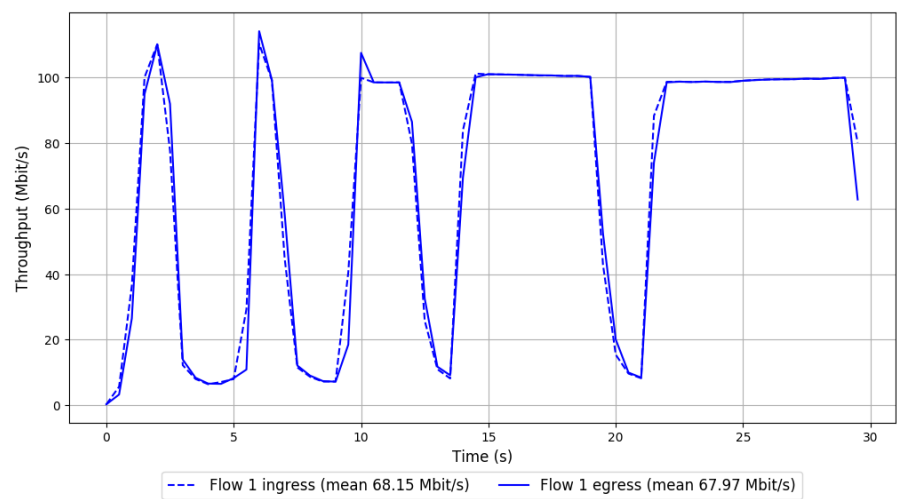
-- Flow 1:

Average throughput: 67.97 Mbit/s

95th percentile per-packet one-way delay: 79.536 ms

Loss rate: 0.82%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

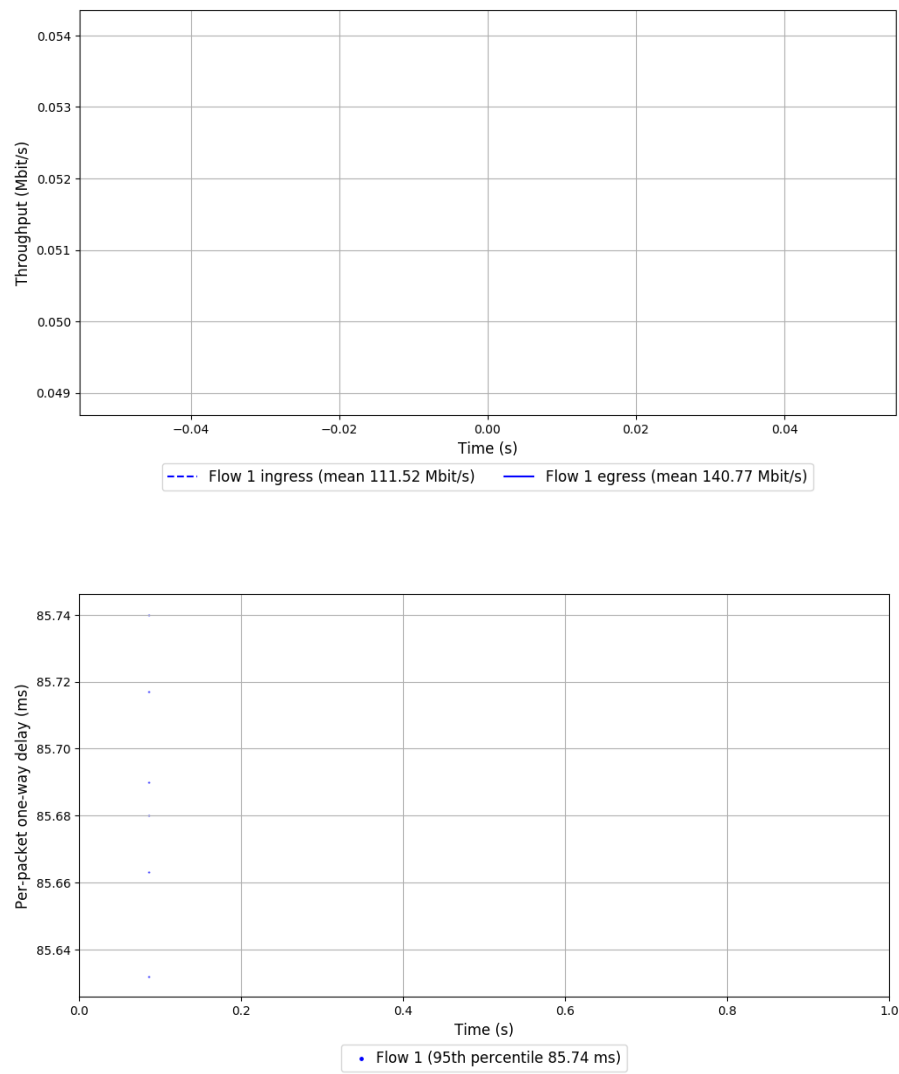
Start at: 2017-12-11 13:07:47

End at: 2017-12-11 13:08:17

Local clock offset: -0.267 ms

Remote clock offset: -5.095 ms

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

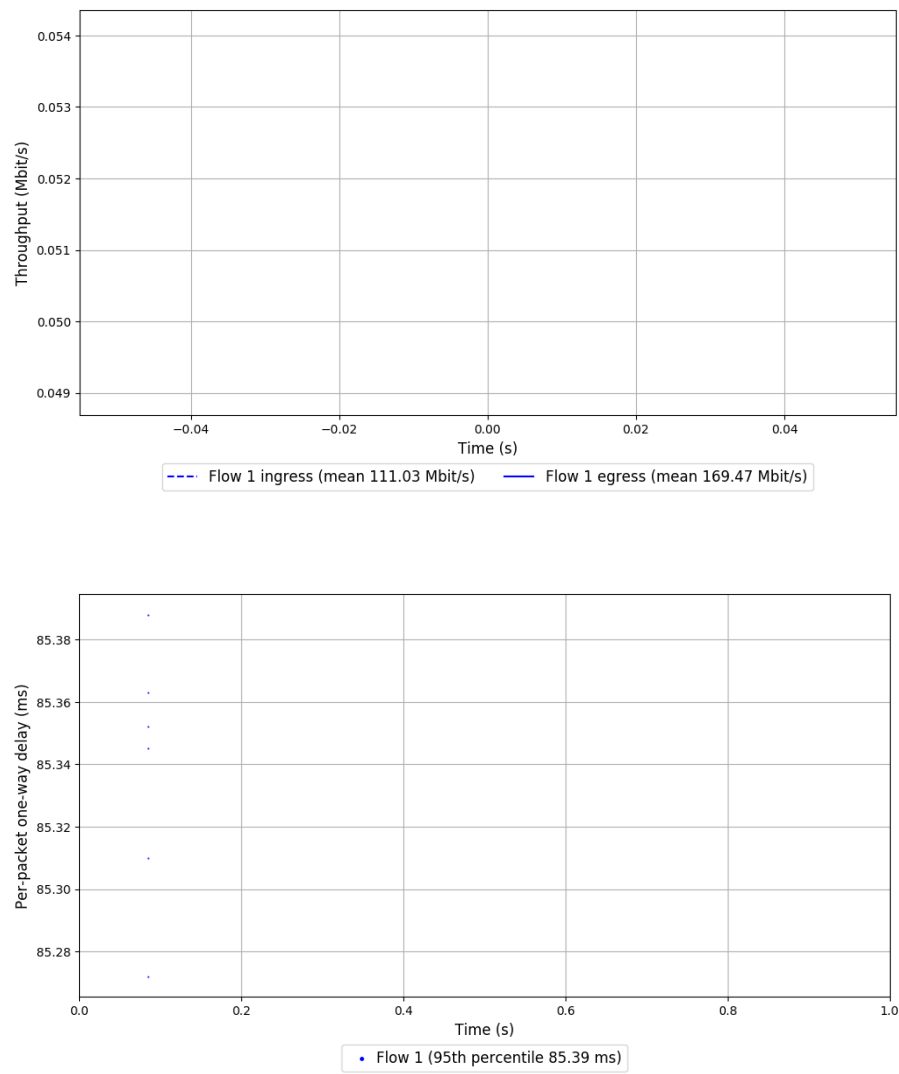
Start at: 2017-12-11 13:26:04

End at: 2017-12-11 13:26:34

Local clock offset: -0.331 ms

Remote clock offset: -4.698 ms

Run 9: Report of QUIC Cubic — Data Link

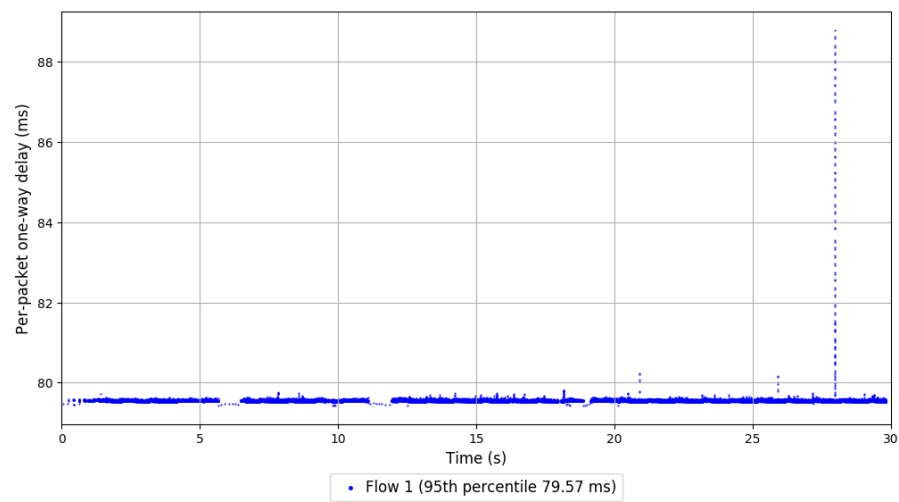
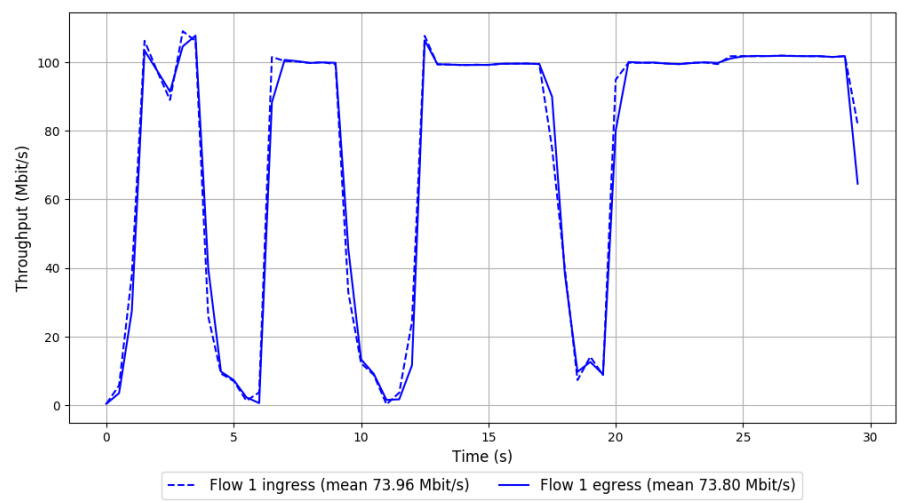


Run 10: Statistics of QUIC Cubic

Start at: 2017-12-11 13:45:07
End at: 2017-12-11 13:45:37
Local clock offset: -0.279 ms
Remote clock offset: -0.454 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 79.573 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 73.80 Mbit/s
95th percentile per-packet one-way delay: 79.573 ms
Loss rate: 0.76%

Run 10: Report of QUIC Cubic — Data Link

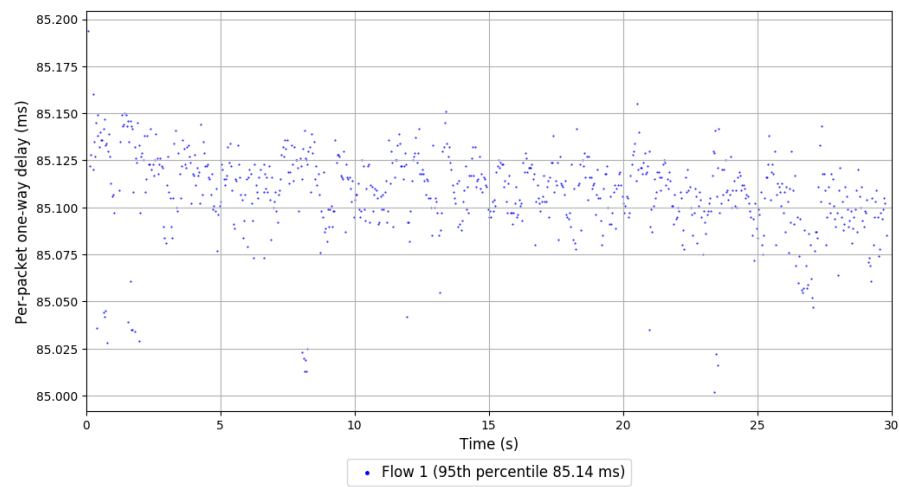
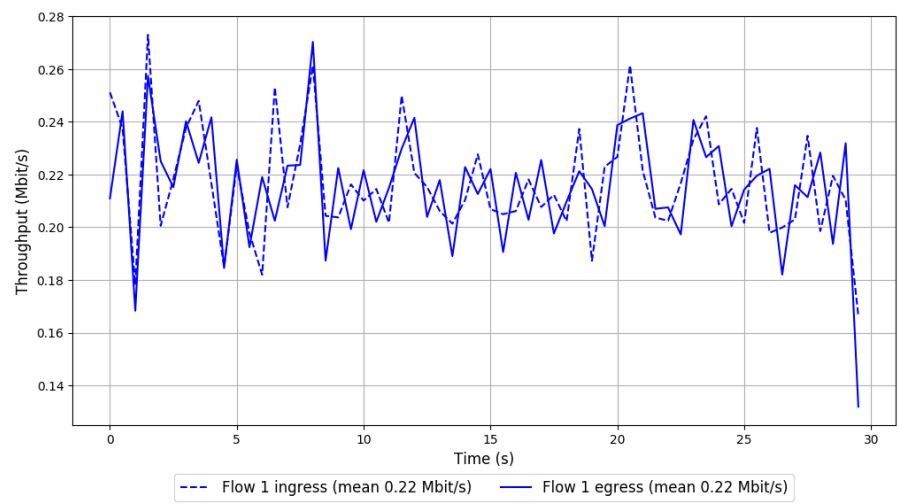


```
Run 1: Statistics of SCReAM

Start at: 2017-12-11 11:04:30
End at: 2017-12-11 11:05:00
Local clock offset: -0.683 ms
Remote clock offset: -4.882 ms

# Below is generated by plot.py at 2017-12-11 17:06:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.138 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.138 ms
Loss rate: 0.51%
```

Run 1: Report of SCRaM — Data Link

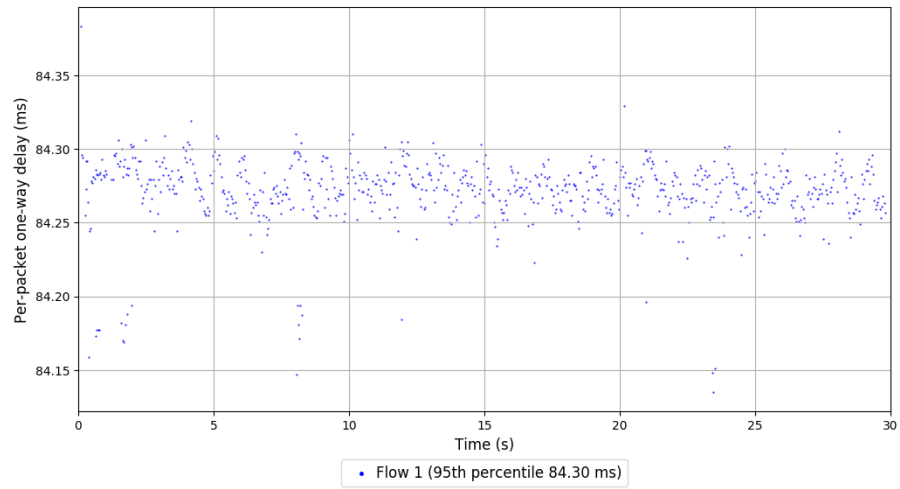
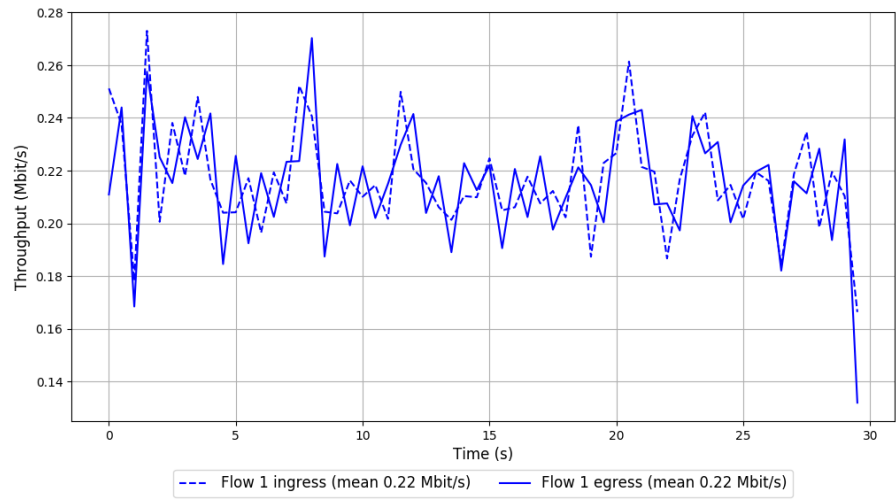


Run 2: Statistics of SCReAM

Start at: 2017-12-11 11:22:28
End at: 2017-12-11 11:22:58
Local clock offset: 0.137 ms
Remote clock offset: -4.087 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.298 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.298 ms
Loss rate: 0.51%

Run 2: Report of SReAM — Data Link

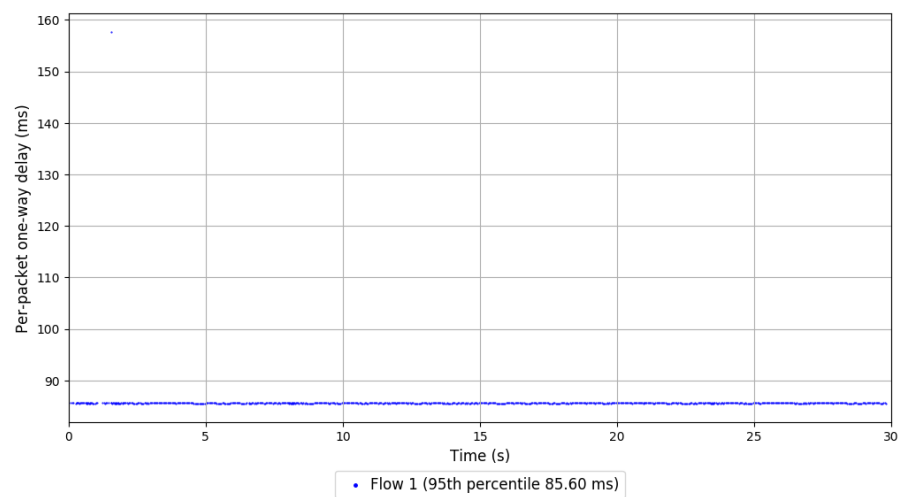
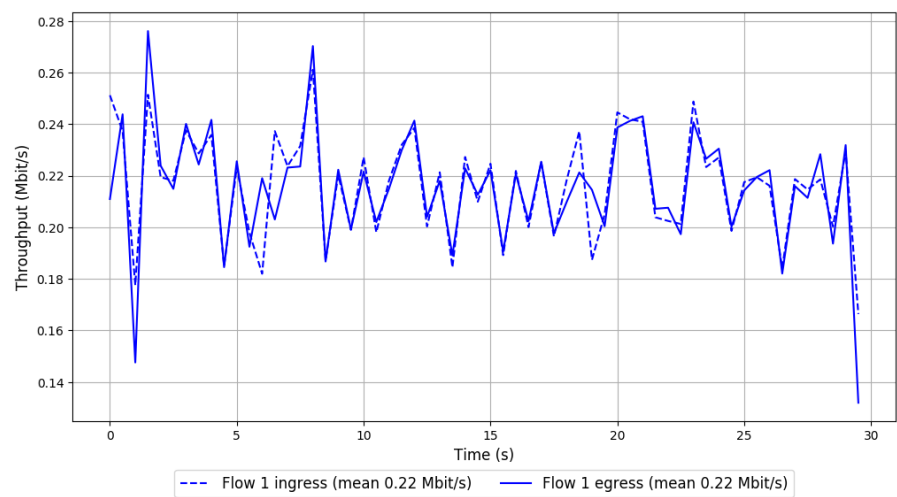


Run 3: Statistics of SCReAM

Start at: 2017-12-11 11:40:23
End at: 2017-12-11 11:40:53
Local clock offset: 0.243 ms
Remote clock offset: -4.287 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.603 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.603 ms
Loss rate: 0.51%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-11 11:58:23

End at: 2017-12-11 11:58:53

Local clock offset: 0.05 ms

Remote clock offset: 0.684 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 78.605 ms

Loss rate: 0.51%

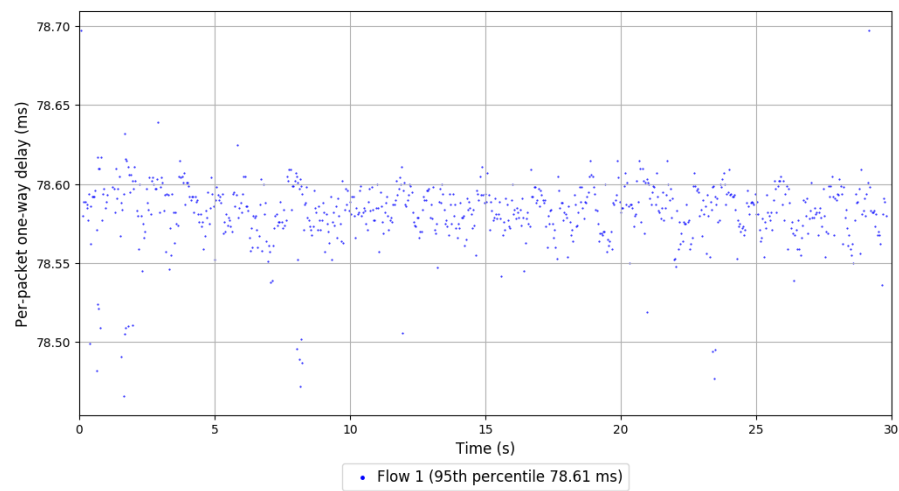
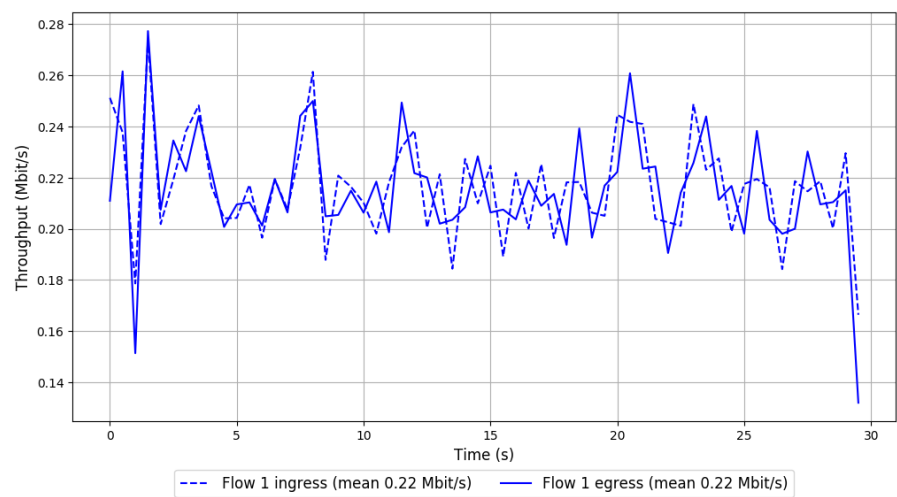
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 78.605 ms

Loss rate: 0.51%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-11 12:16:06

End at: 2017-12-11 12:16:36

Local clock offset: -0.038 ms

Remote clock offset: 0.521 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 78.998 ms

Loss rate: 0.51%

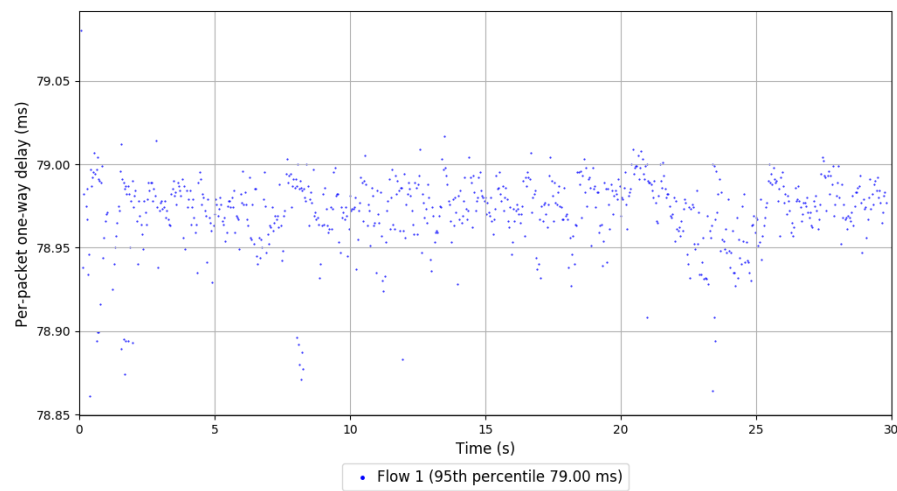
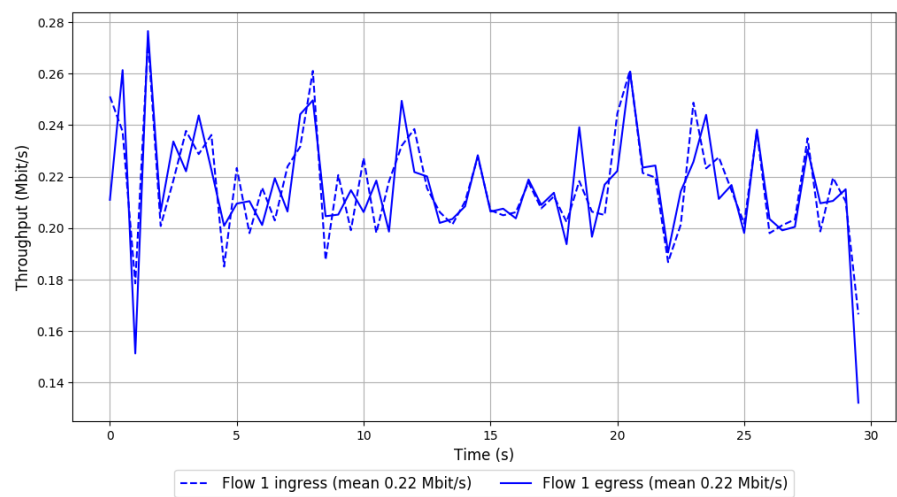
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 78.998 ms

Loss rate: 0.51%

Run 5: Report of SReAM — Data Link

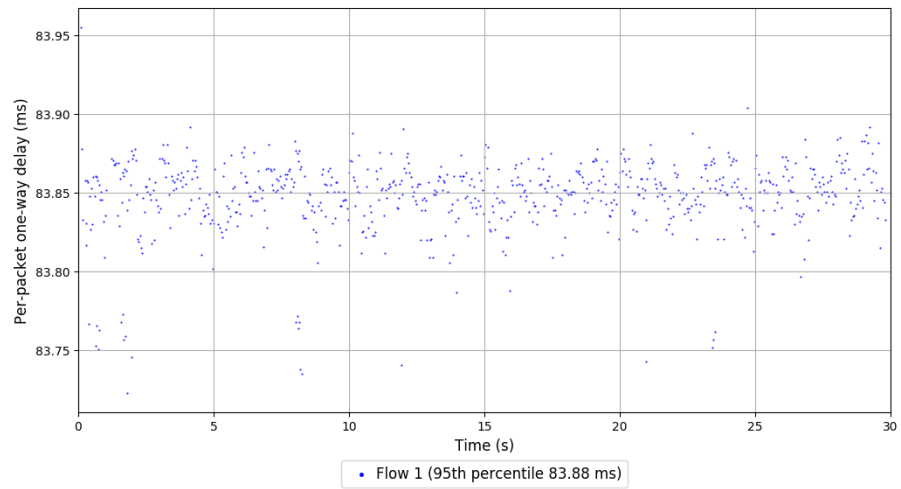
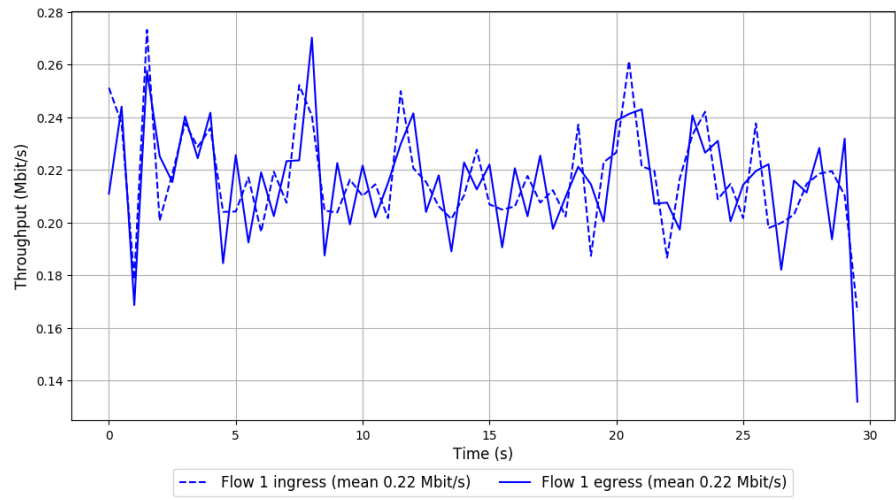


Run 6: Statistics of SCReAM

Start at: 2017-12-11 12:34:02
End at: 2017-12-11 12:34:32
Local clock offset: -0.135 ms
Remote clock offset: -4.355 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.875 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 83.875 ms
Loss rate: 0.51%

Run 6: Report of SReAM — Data Link

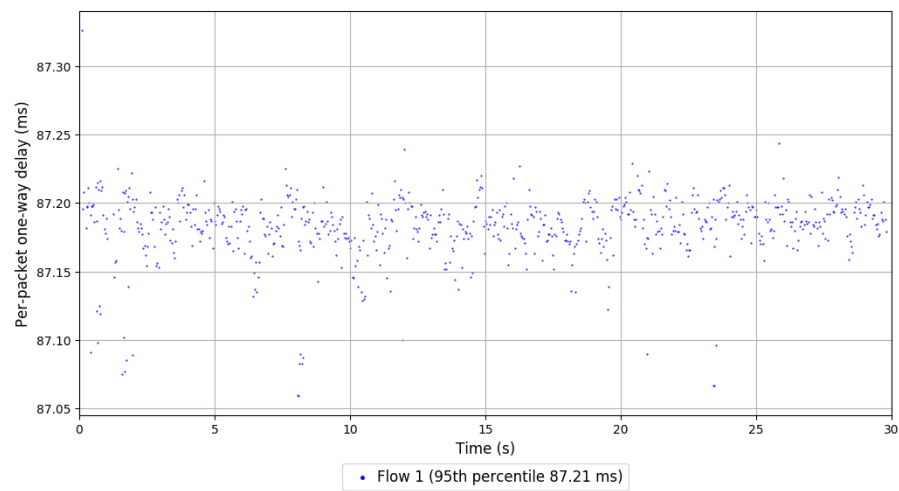
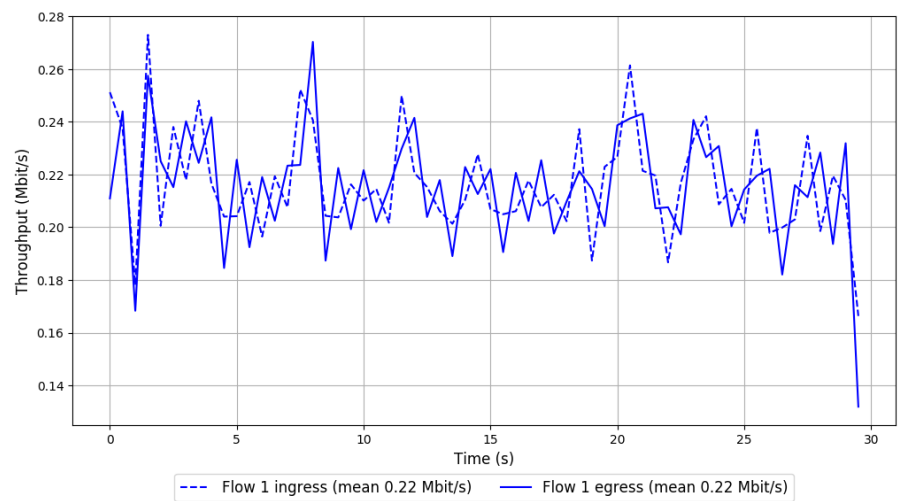


Run 7: Statistics of SCReAM

Start at: 2017-12-11 12:52:07
End at: 2017-12-11 12:52:37
Local clock offset: -0.23 ms
Remote clock offset: -4.782 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.210 ms
Loss rate: 0.51%

Run 7: Report of SReAM — Data Link

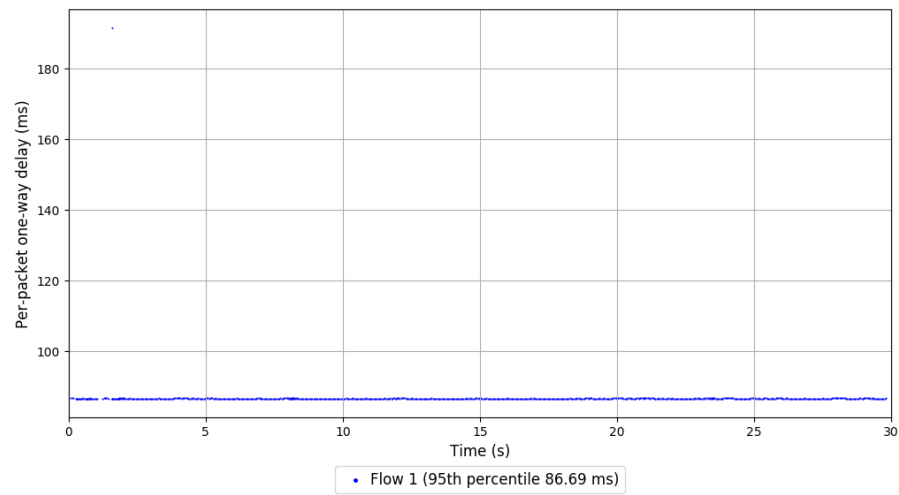
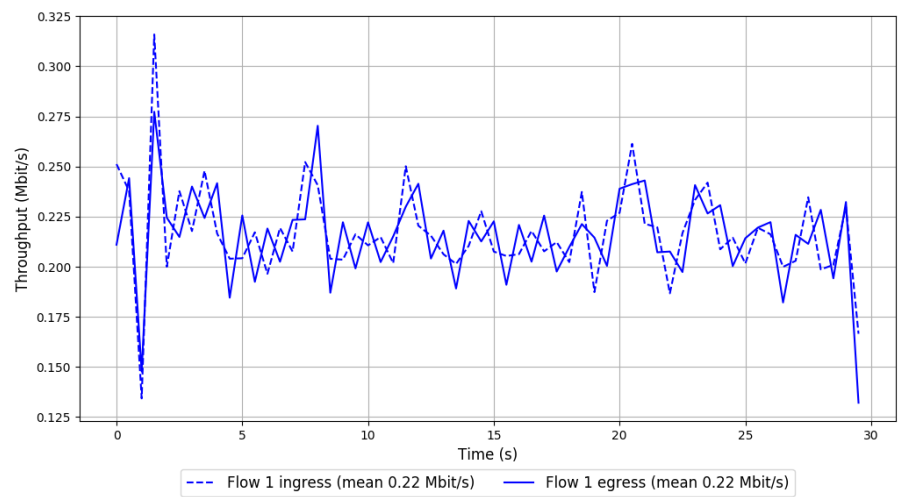


Run 8: Statistics of SCReAM

Start at: 2017-12-11 13:10:10
End at: 2017-12-11 13:10:40
Local clock offset: -0.339 ms
Remote clock offset: -4.319 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.685 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.685 ms
Loss rate: 0.52%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-11 13:28:28

End at: 2017-12-11 13:28:58

Local clock offset: -0.232 ms

Remote clock offset: -3.99 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 84.294 ms

Loss rate: 0.51%

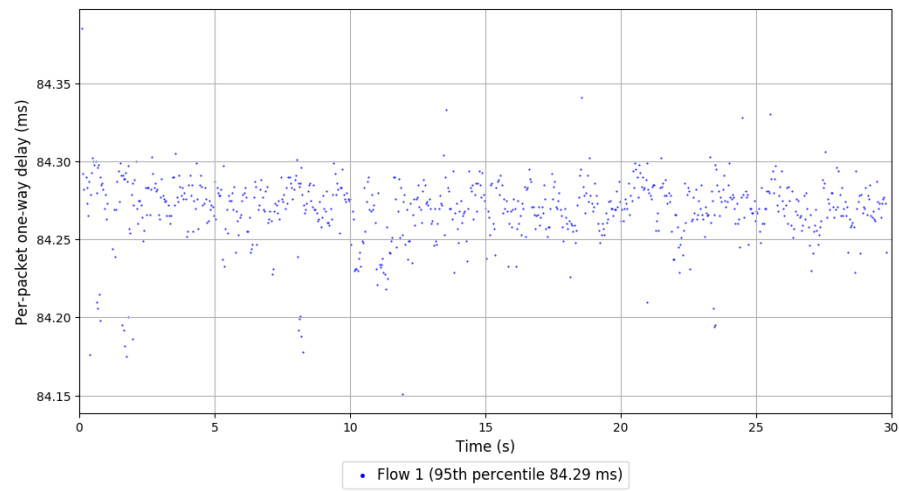
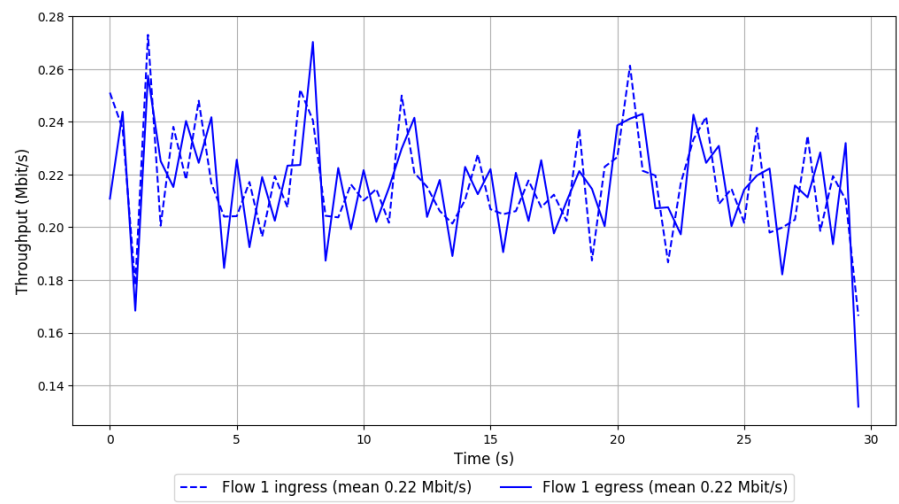
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 84.294 ms

Loss rate: 0.51%

Run 9: Report of SReAM — Data Link

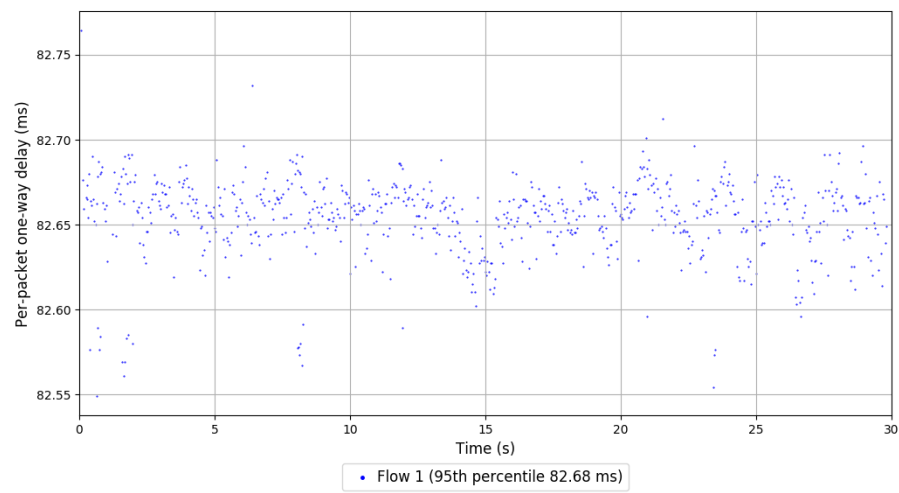
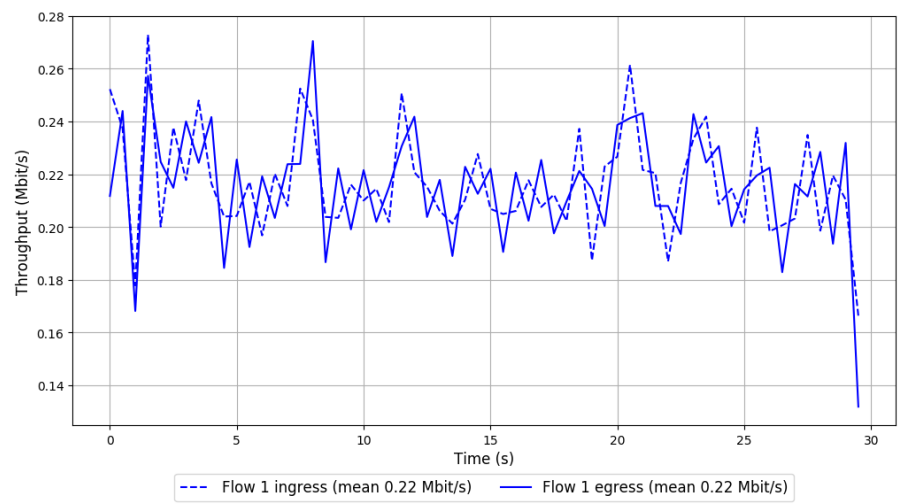


Run 10: Statistics of SReAM

Start at: 2017-12-11 13:47:36
End at: 2017-12-11 13:48:06
Local clock offset: -0.309 ms
Remote clock offset: -0.459 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.684 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 82.684 ms
Loss rate: 0.51%

Run 10: Report of SReAM — Data Link

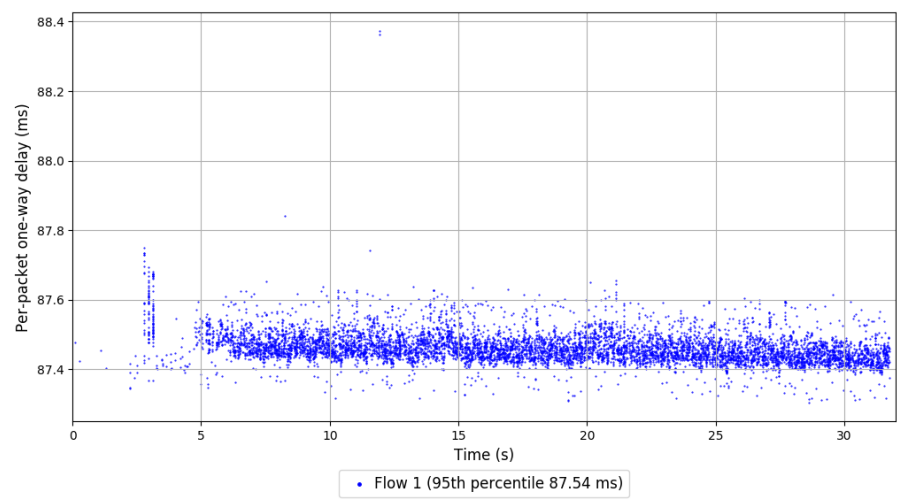
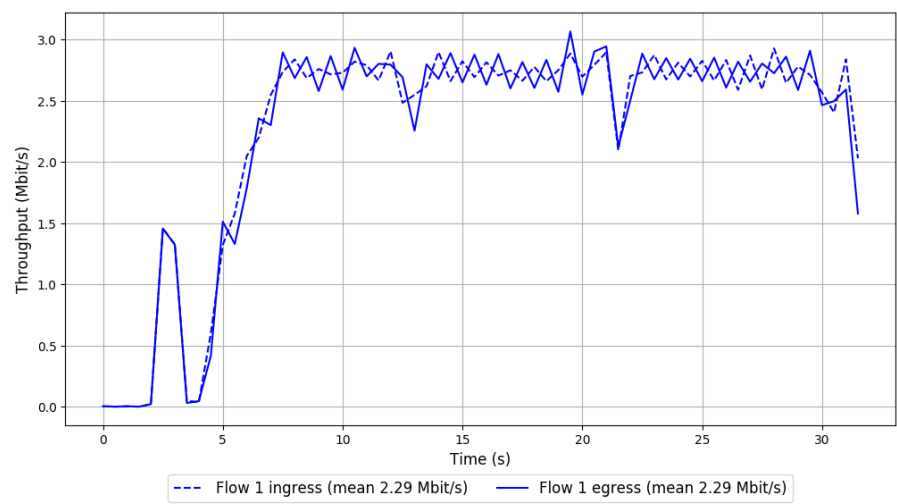


Run 1: Statistics of WebRTC media

Start at: 2017-12-11 10:51:01
End at: 2017-12-11 10:51:31
Local clock offset: -1.48 ms
Remote clock offset: -5.555 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 87.541 ms
Loss rate: 0.77%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 87.541 ms
Loss rate: 0.77%

Run 1: Report of WebRTC media — Data Link

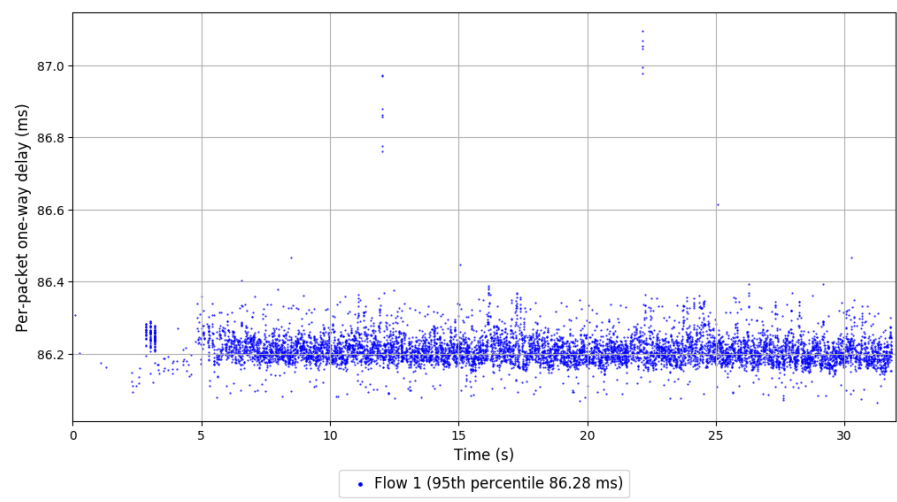
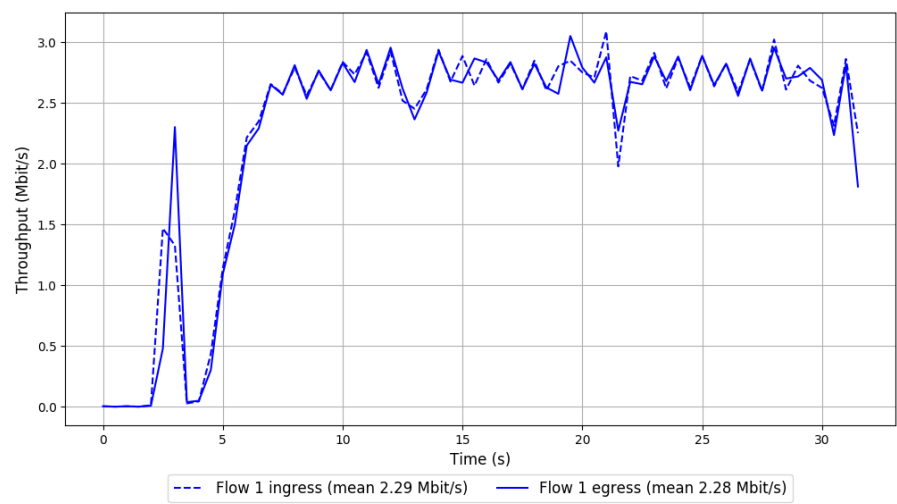


Run 2: Statistics of WebRTC media

Start at: 2017-12-11 11:09:22
End at: 2017-12-11 11:09:52
Local clock offset: -0.487 ms
Remote clock offset: -5.795 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 86.285 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 86.285 ms
Loss rate: 0.62%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-11 11:27:13

End at: 2017-12-11 11:27:43

Local clock offset: 0.157 ms

Remote clock offset: 0.417 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 79.786 ms

Loss rate: 0.62%

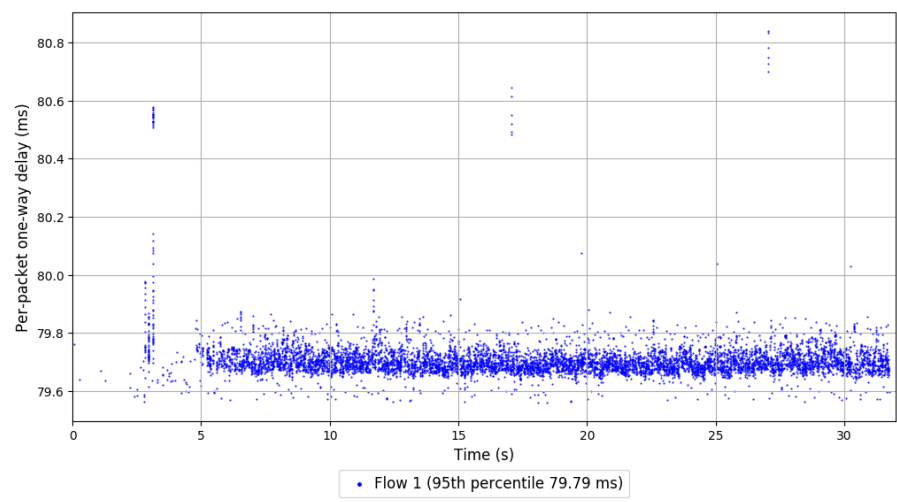
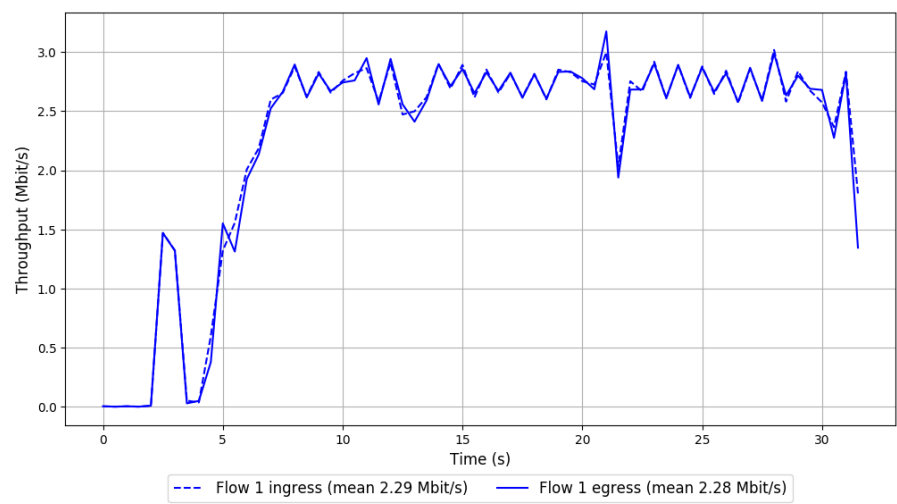
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 79.786 ms

Loss rate: 0.62%

Run 3: Report of WebRTC media — Data Link

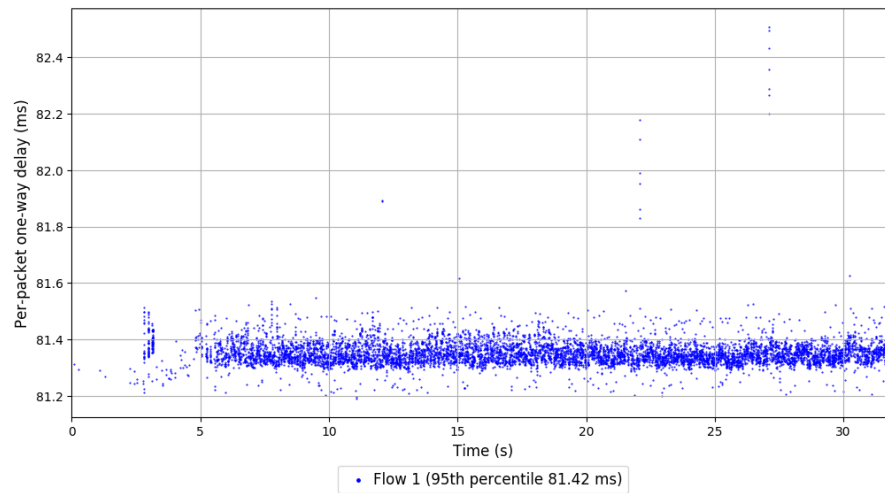
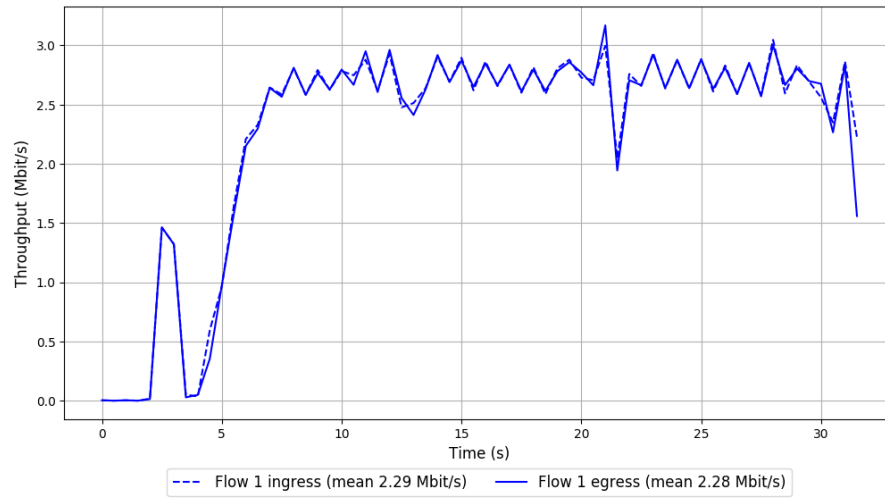


Run 4: Statistics of WebRTC media

Start at: 2017-12-11 11:45:09
End at: 2017-12-11 11:45:40
Local clock offset: 0.185 ms
Remote clock offset: -0.272 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.421 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 81.421 ms
Loss rate: 0.76%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-11 12:03:10

End at: 2017-12-11 12:03:40

Local clock offset: 0.081 ms

Remote clock offset: 0.923 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 78.427 ms

Loss rate: 0.62%

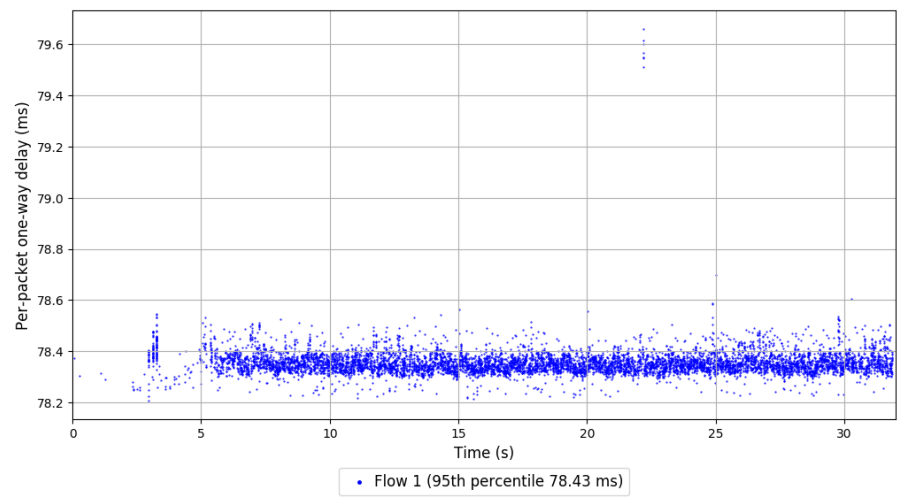
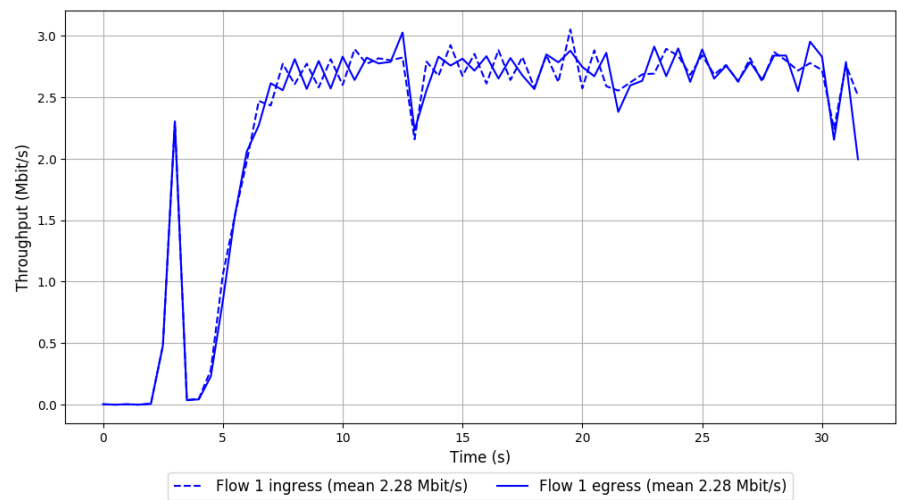
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 78.427 ms

Loss rate: 0.62%

Run 5: Report of WebRTC media — Data Link

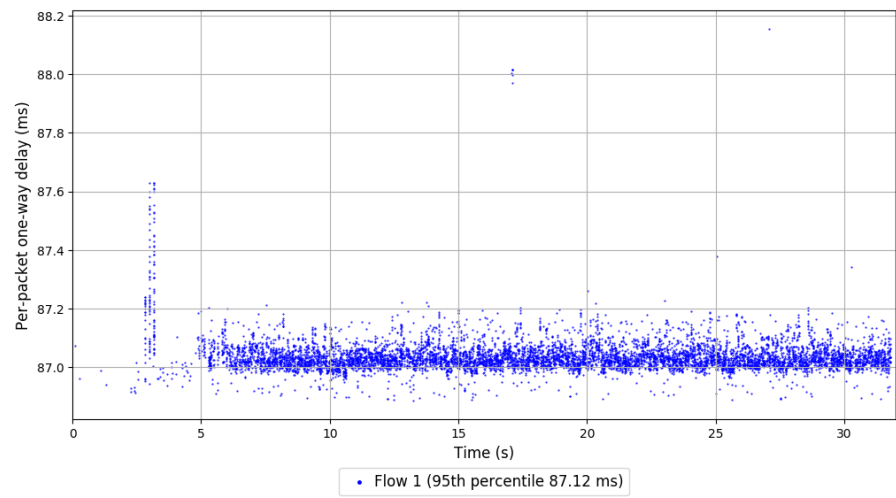
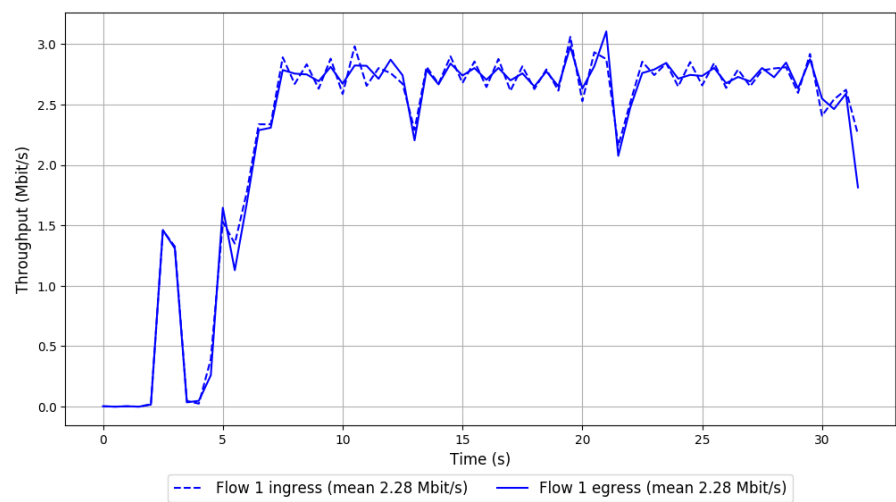


Run 6: Statistics of WebRTC media

Start at: 2017-12-11 12:20:54
End at: 2017-12-11 12:21:24
Local clock offset: -0.049 ms
Remote clock offset: -4.645 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.124 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 87.124 ms
Loss rate: 0.61%

Run 6: Report of WebRTC media — Data Link

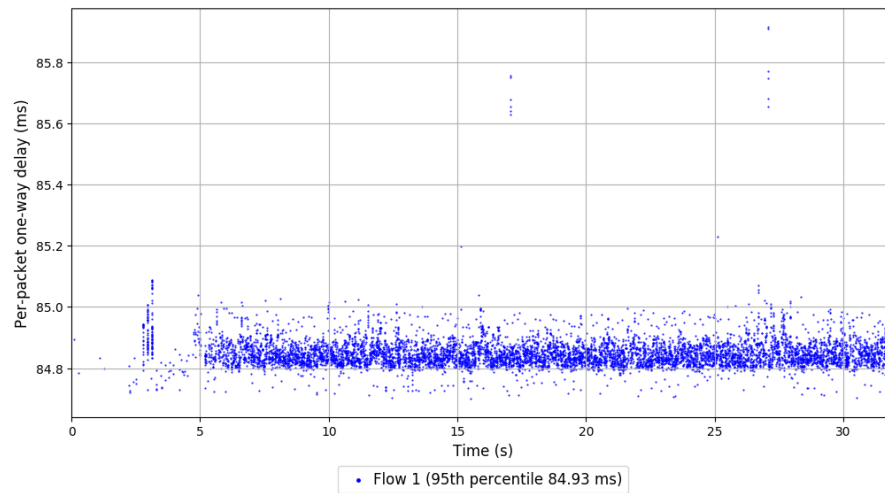
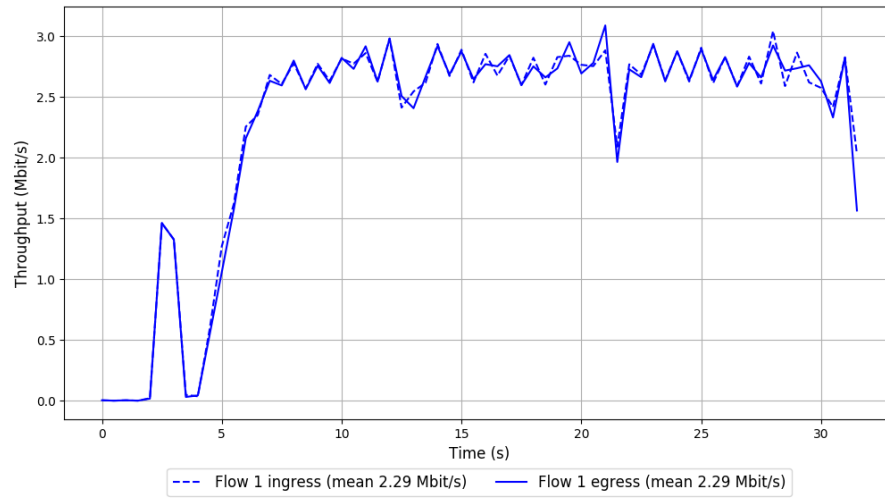


Run 7: Statistics of WebRTC media

Start at: 2017-12-11 12:38:48
End at: 2017-12-11 12:39:18
Local clock offset: -0.167 ms
Remote clock offset: -5.207 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 84.931 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 84.931 ms
Loss rate: 0.62%

Run 7: Report of WebRTC media — Data Link

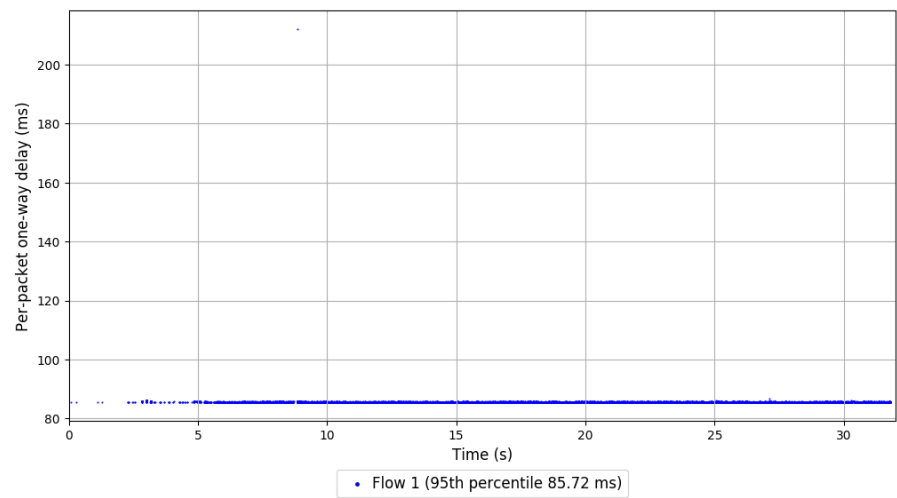
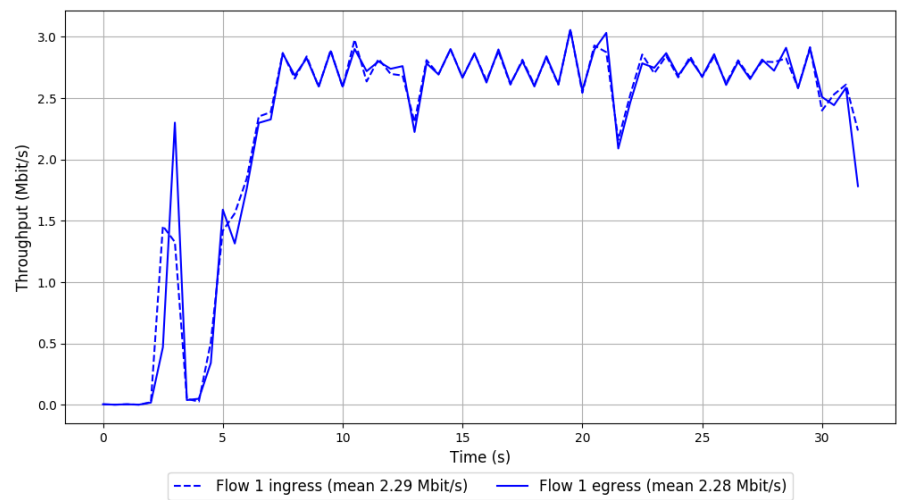


Run 8: Statistics of WebRTC media

Start at: 2017-12-11 12:56:55
End at: 2017-12-11 12:57:25
Local clock offset: -0.3 ms
Remote clock offset: -4.353 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 85.718 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 85.718 ms
Loss rate: 0.62%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-11 13:15:02

End at: 2017-12-11 13:15:32

Local clock offset: -0.263 ms

Remote clock offset: 0.097 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 79.459 ms

Loss rate: 0.67%

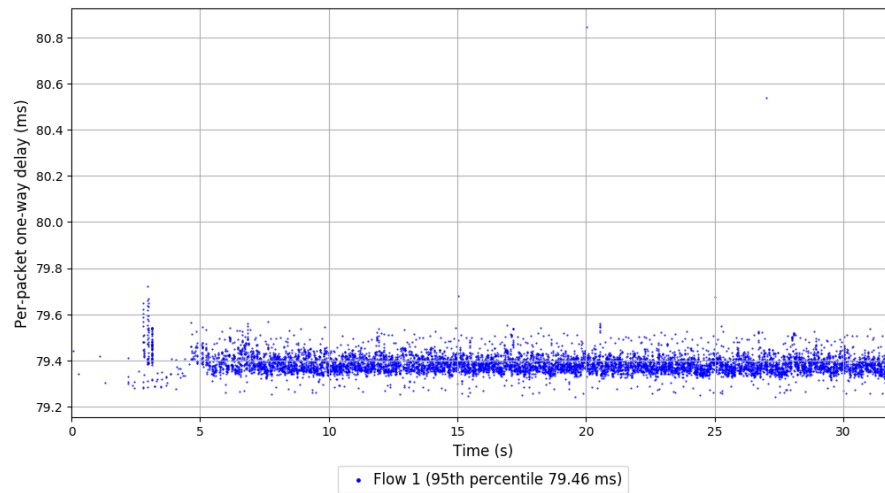
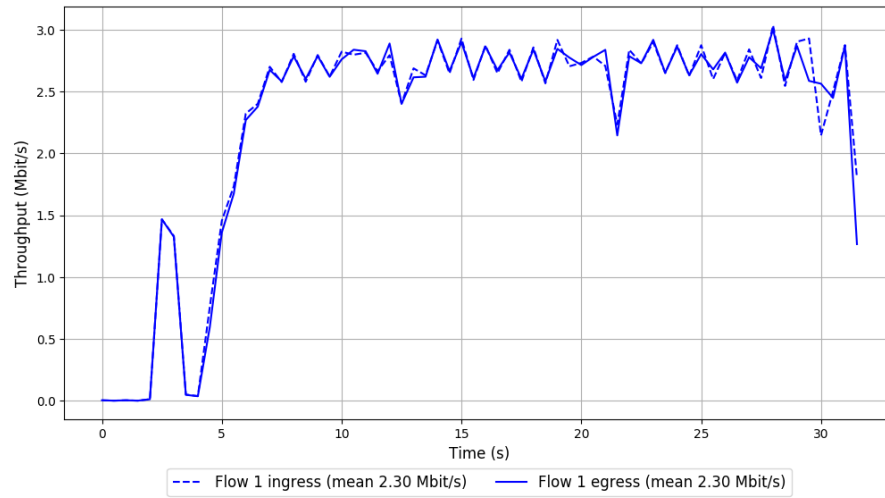
-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 79.459 ms

Loss rate: 0.67%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-11 13:33:16

End at: 2017-12-11 13:33:46

Local clock offset: -0.257 ms

Remote clock offset: 0.499 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 81.654 ms

Loss rate: 0.62%

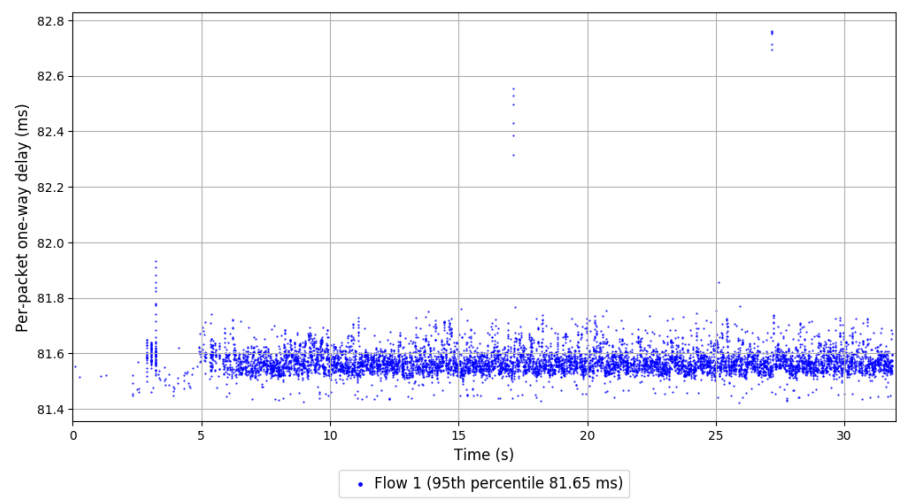
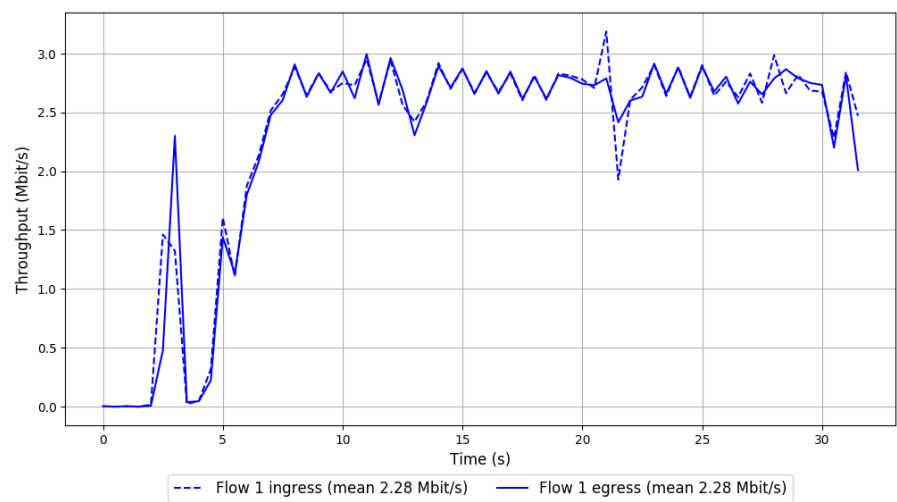
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 81.654 ms

Loss rate: 0.62%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-11 11:05:40

End at: 2017-12-11 11:06:10

Local clock offset: -0.616 ms

Remote clock offset: 0.622 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 81.811 ms

Loss rate: 0.75%

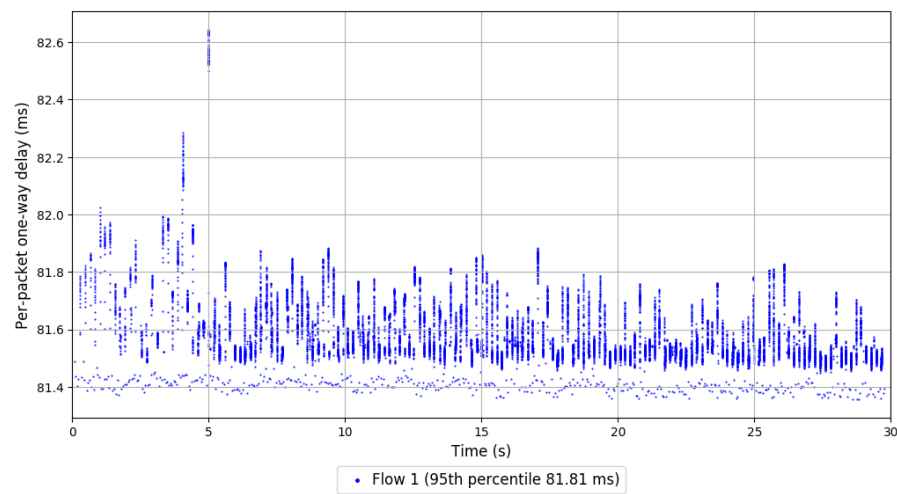
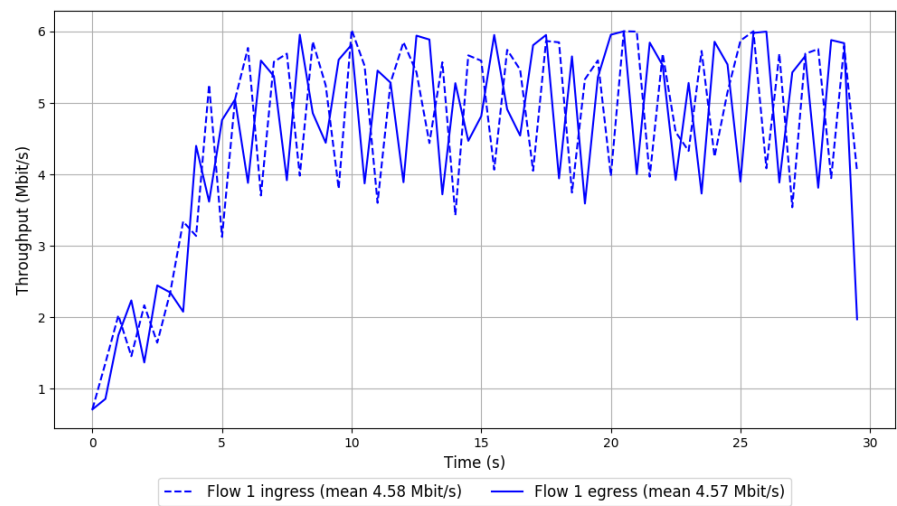
-- Flow 1:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 81.811 ms

Loss rate: 0.75%

Run 1: Report of Sprout — Data Link

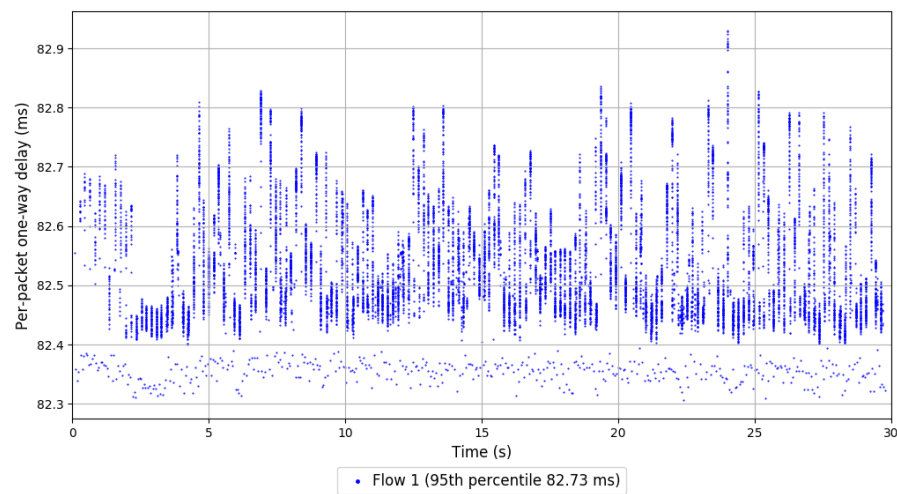
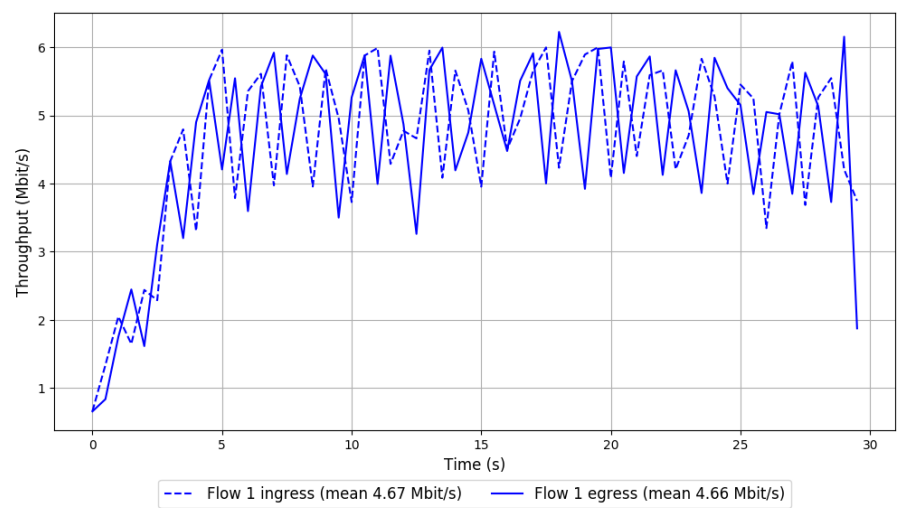


Run 2: Statistics of Sprout

Start at: 2017-12-11 11:23:37
End at: 2017-12-11 11:24:07
Local clock offset: 0.184 ms
Remote clock offset: -0.378 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 82.733 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 4.66 Mbit/s
95th percentile per-packet one-way delay: 82.733 ms
Loss rate: 0.67%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-11 11:41:32

End at: 2017-12-11 11:42:02

Local clock offset: 0.235 ms

Remote clock offset: 1.395 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.70 Mbit/s

95th percentile per-packet one-way delay: 80.278 ms

Loss rate: 0.71%

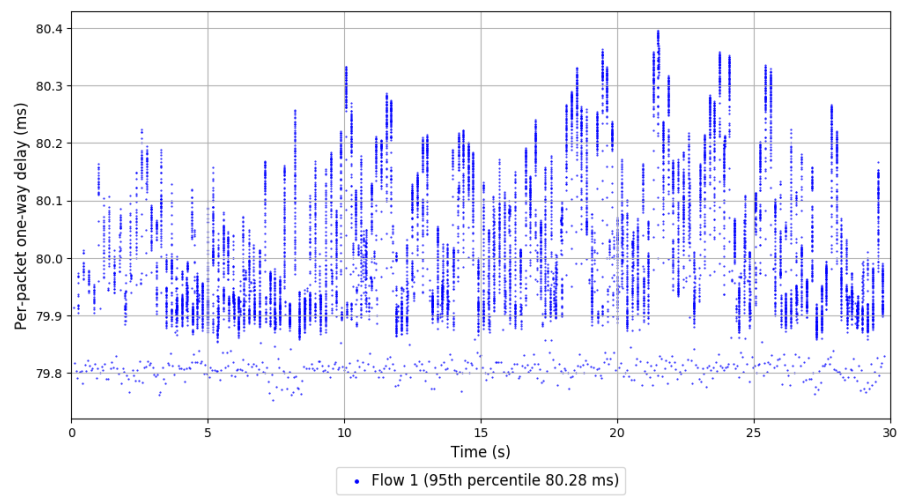
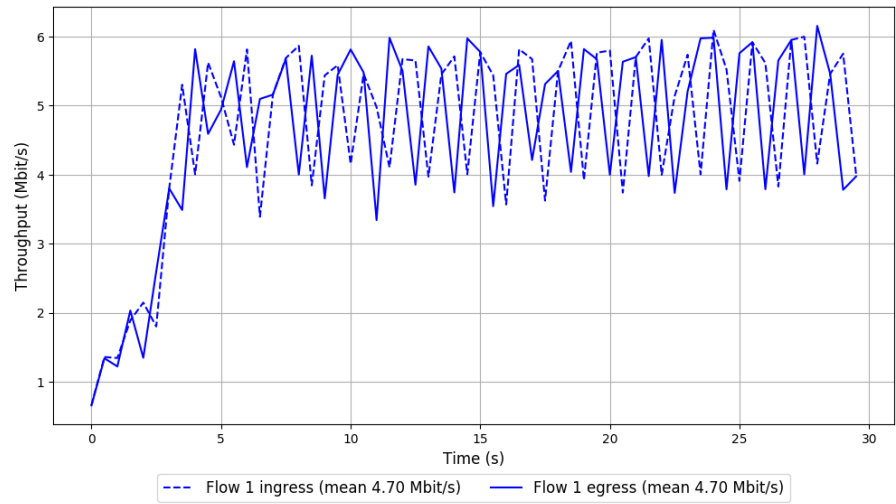
-- Flow 1:

Average throughput: 4.70 Mbit/s

95th percentile per-packet one-way delay: 80.278 ms

Loss rate: 0.71%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-11 11:59:32

End at: 2017-12-11 12:00:02

Local clock offset: 0.024 ms

Remote clock offset: 1.007 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.63 Mbit/s

95th percentile per-packet one-way delay: 80.674 ms

Loss rate: 0.70%

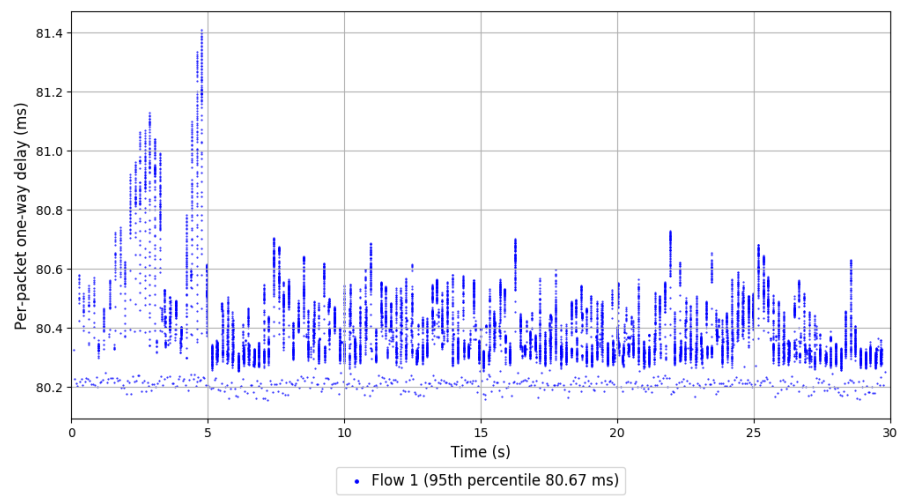
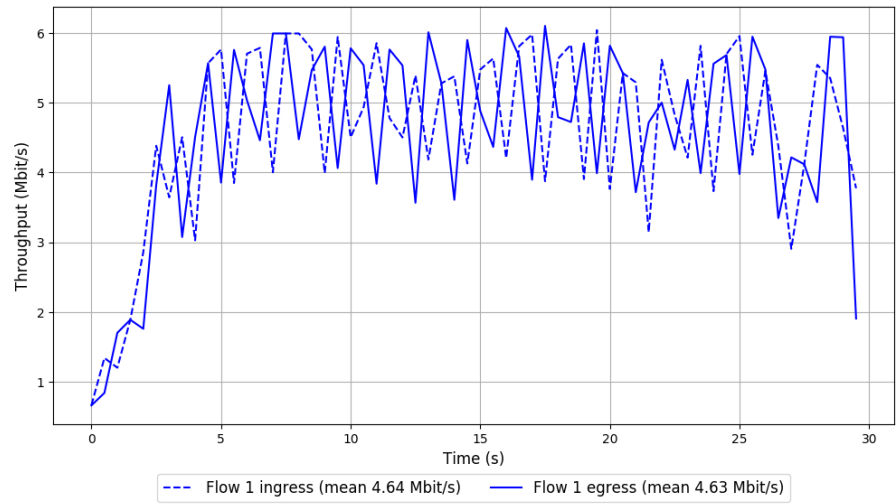
-- Flow 1:

Average throughput: 4.63 Mbit/s

95th percentile per-packet one-way delay: 80.674 ms

Loss rate: 0.70%

Run 4: Report of Sprout — Data Link

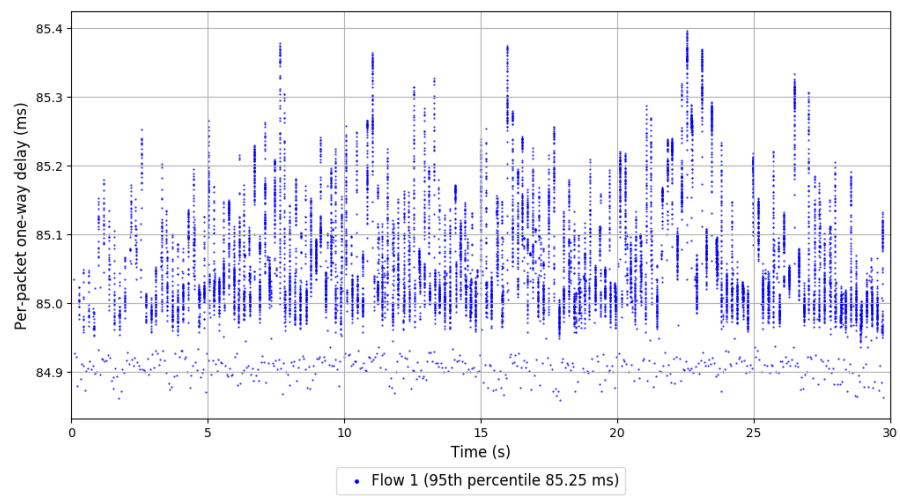
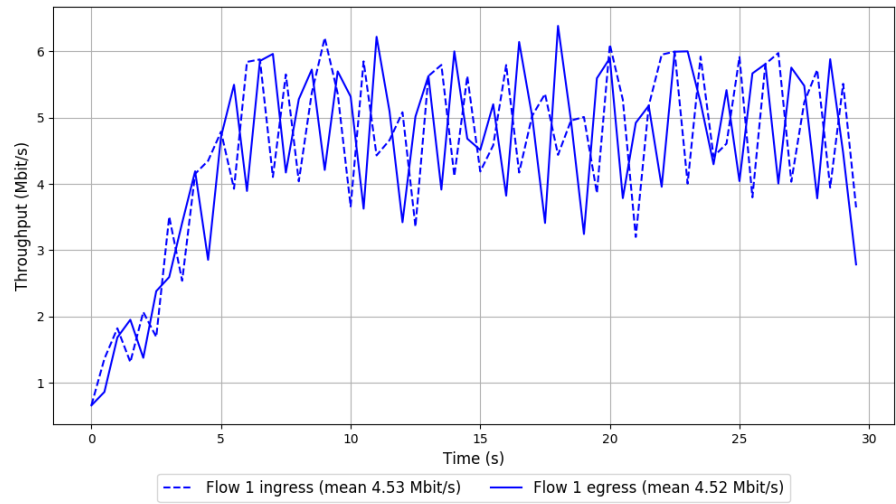


Run 5: Statistics of Sprout

Start at: 2017-12-11 12:17:16
End at: 2017-12-11 12:17:46
Local clock offset: -0.036 ms
Remote clock offset: -4.252 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 85.255 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 85.255 ms
Loss rate: 0.70%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

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

End at: 2017-12-11 12:35:41

Local clock offset: -0.171 ms

Remote clock offset: 0.085 ms

Below is generated by plot.py at 2017-12-11 17:06:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.47 Mbit/s

95th percentile per-packet one-way delay: 82.578 ms

Loss rate: 0.65%

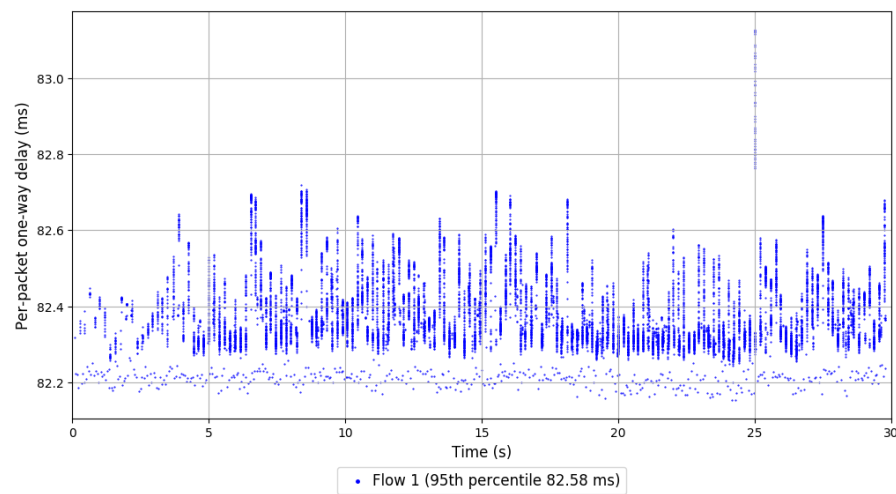
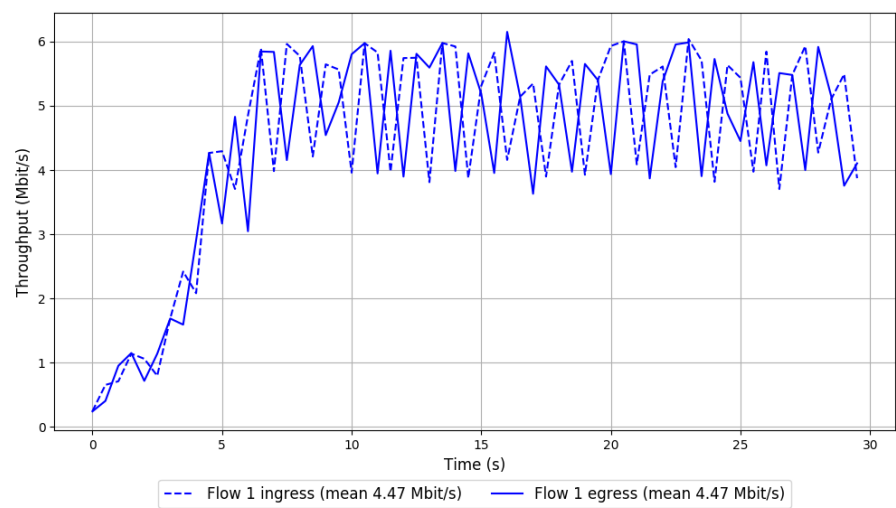
-- Flow 1:

Average throughput: 4.47 Mbit/s

95th percentile per-packet one-way delay: 82.578 ms

Loss rate: 0.65%

Run 6: Report of Sprout — Data Link

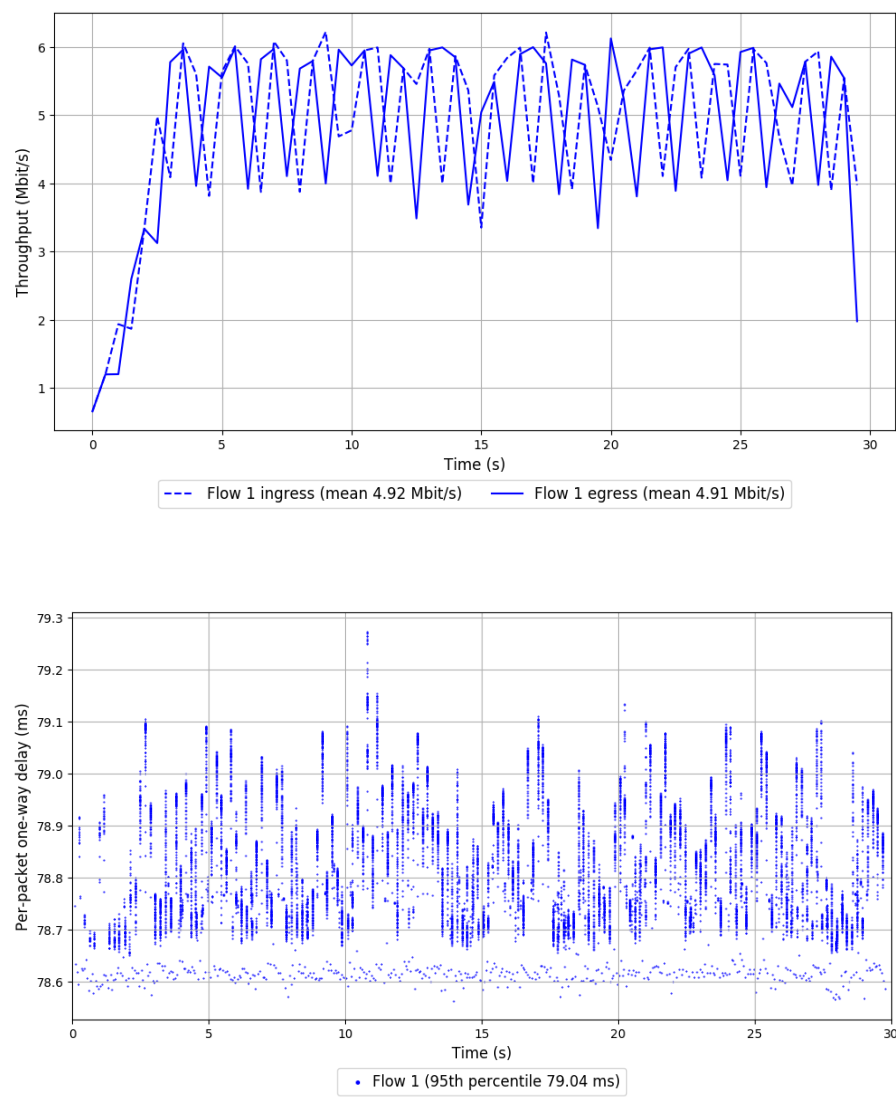


Run 7: Statistics of Sprout

Start at: 2017-12-11 12:53:17
End at: 2017-12-11 12:53:47
Local clock offset: -0.351 ms
Remote clock offset: 0.493 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 79.042 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 79.042 ms
Loss rate: 0.68%

Run 7: Report of Sprout — Data Link

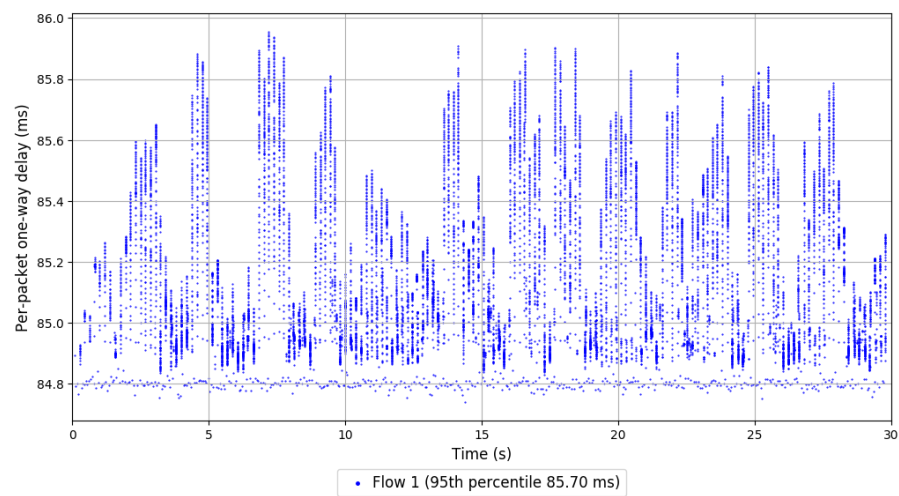
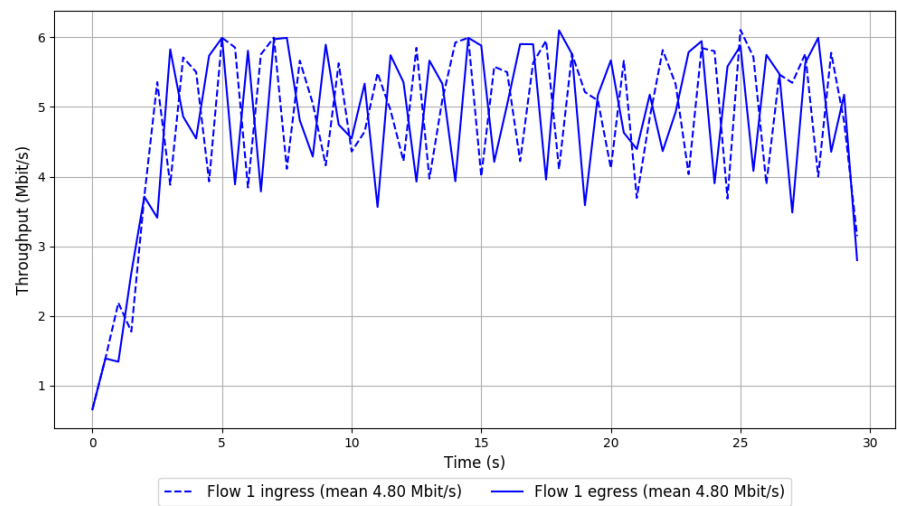


Run 8: Statistics of Sprout

Start at: 2017-12-11 13:11:20
End at: 2017-12-11 13:11:50
Local clock offset: -0.335 ms
Remote clock offset: -5.452 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 85.704 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 4.80 Mbit/s
95th percentile per-packet one-way delay: 85.704 ms
Loss rate: 0.48%

Run 8: Report of Sprout — Data Link

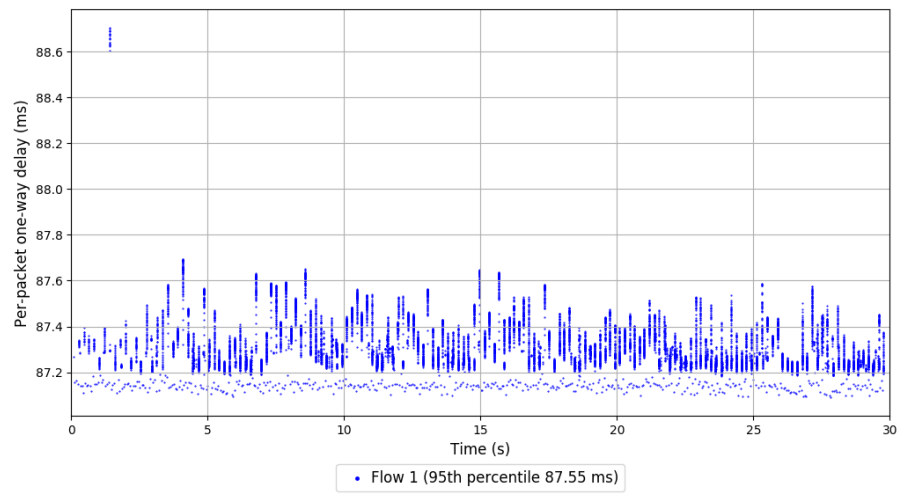
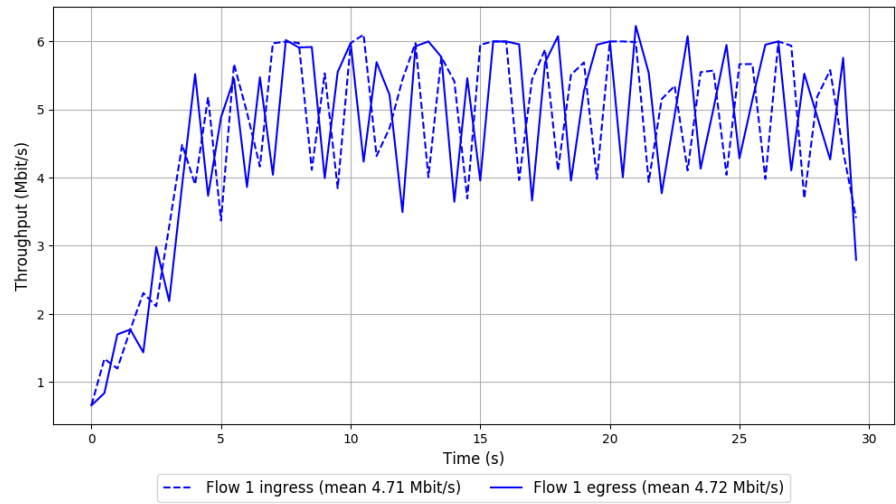


Run 9: Statistics of Sprout

Start at: 2017-12-11 13:29:37
End at: 2017-12-11 13:30:07
Local clock offset: -0.27 ms
Remote clock offset: -4.928 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 87.547 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 87.547 ms
Loss rate: 0.30%

Run 9: Report of Sprout — Data Link

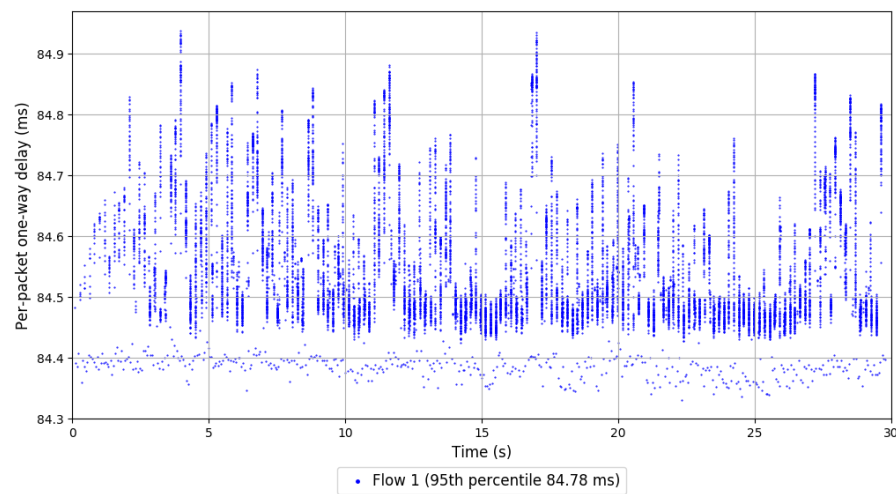
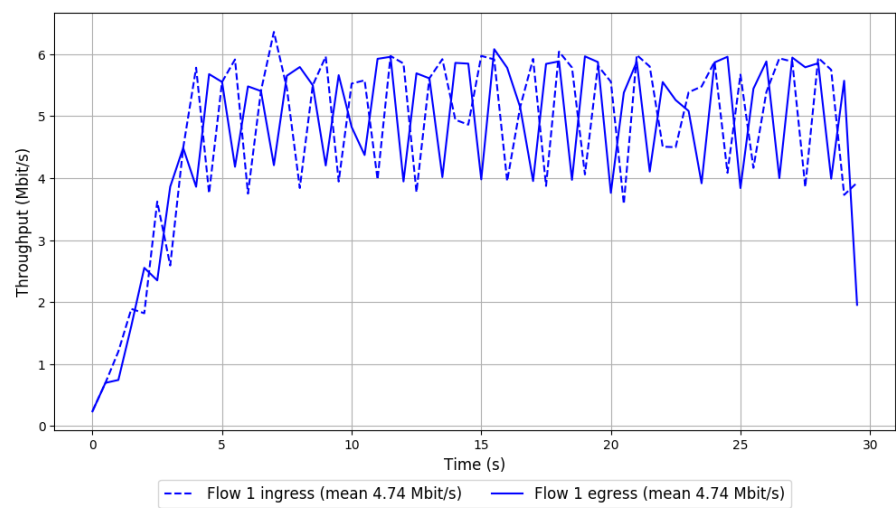


Run 10: Statistics of Sprout

Start at: 2017-12-11 13:48:46
End at: 2017-12-11 13:49:16
Local clock offset: -0.311 ms
Remote clock offset: -5.391 ms

Below is generated by plot.py at 2017-12-11 17:06:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 84.782 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 4.74 Mbit/s
95th percentile per-packet one-way delay: 84.782 ms
Loss rate: 0.70%

Run 10: Report of Sprout — Data Link

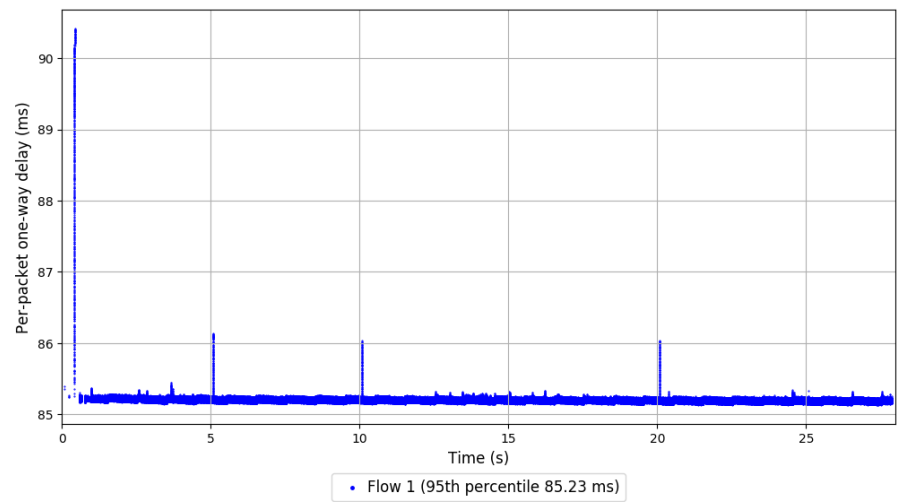
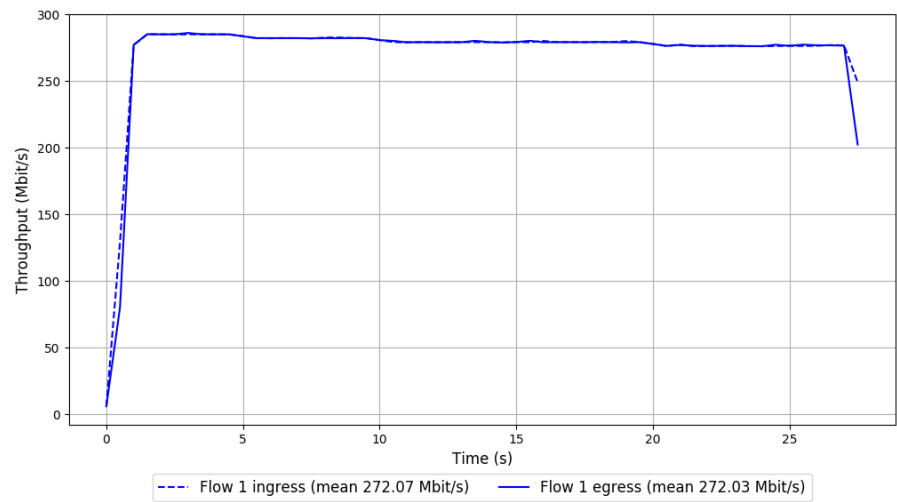


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-11 10:56:15
End at: 2017-12-11 10:56:45
Local clock offset: -1.067 ms
Remote clock offset: -5.039 ms

# Below is generated by plot.py at 2017-12-11 17:10:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 272.03 Mbit/s
95th percentile per-packet one-way delay: 85.233 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 272.03 Mbit/s
95th percentile per-packet one-way delay: 85.233 ms
Loss rate: 0.61%
```


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



Run 2: Statistics of TaoVA-100x

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

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

Local clock offset: -0.21 ms

Remote clock offset: -5.39 ms

Below is generated by plot.py at 2017-12-11 17:10:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 272.02 Mbit/s

95th percentile per-packet one-way delay: 84.870 ms

Loss rate: 0.59%

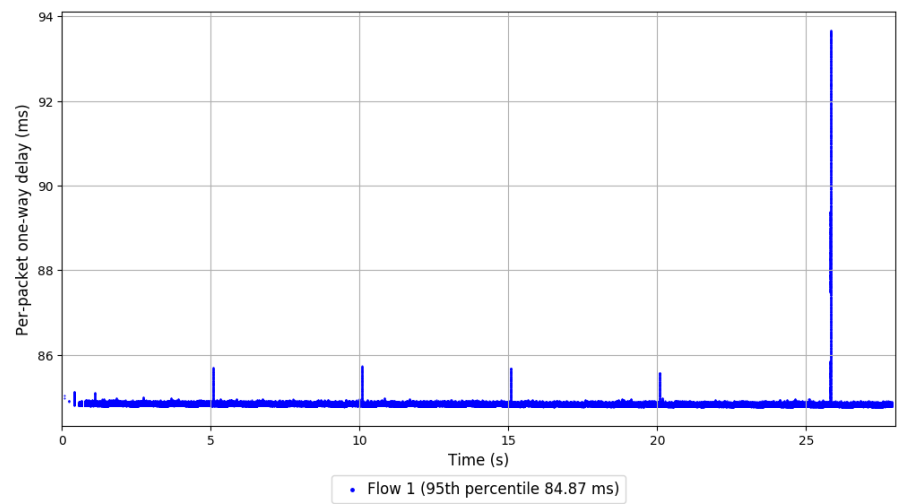
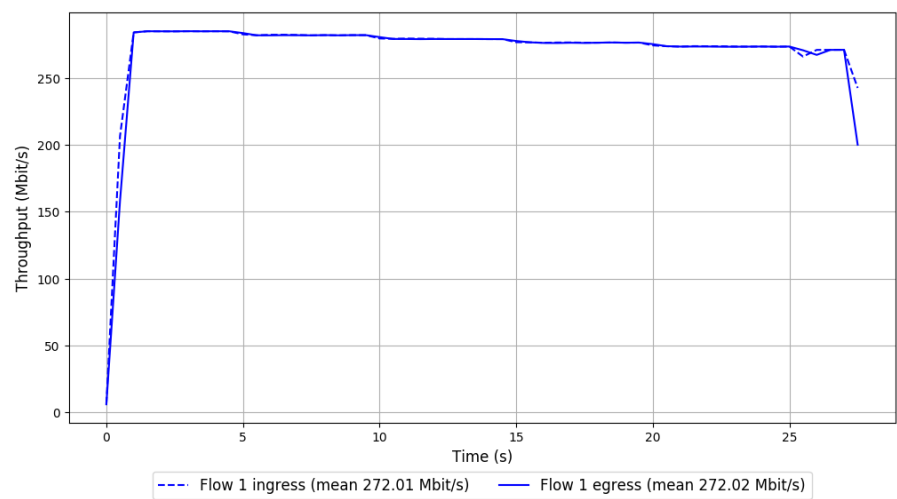
-- Flow 1:

Average throughput: 272.02 Mbit/s

95th percentile per-packet one-way delay: 84.870 ms

Loss rate: 0.59%

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

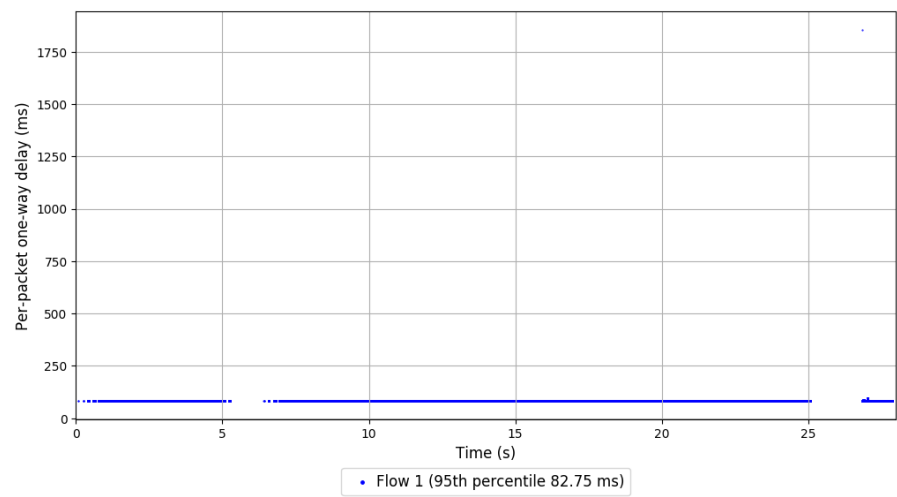
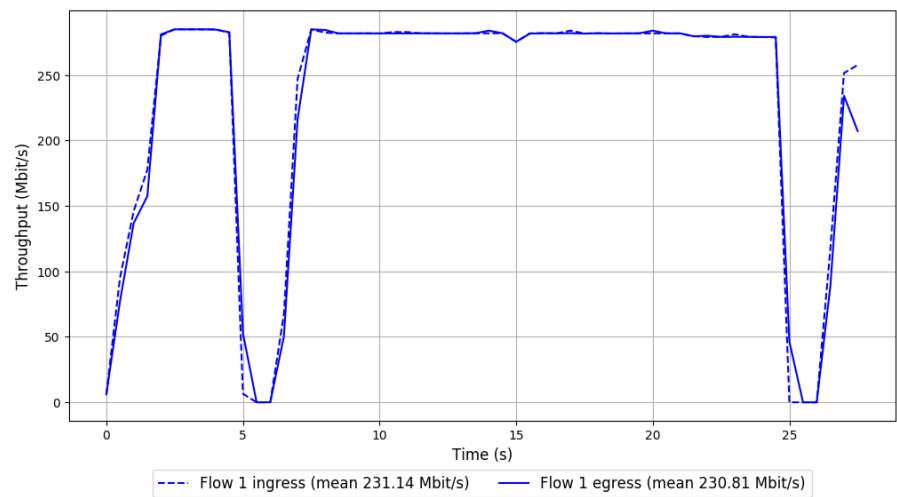


Run 3: Statistics of TaoVA-100x

Start at: 2017-12-11 11:32:19
End at: 2017-12-11 11:32:49
Local clock offset: 0.304 ms
Remote clock offset: -0.418 ms

Below is generated by plot.py at 2017-12-11 17:10:52
Datalink statistics
-- Total of 1 flow:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 82.755 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 230.81 Mbit/s
95th percentile per-packet one-way delay: 82.755 ms
Loss rate: 0.75%

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

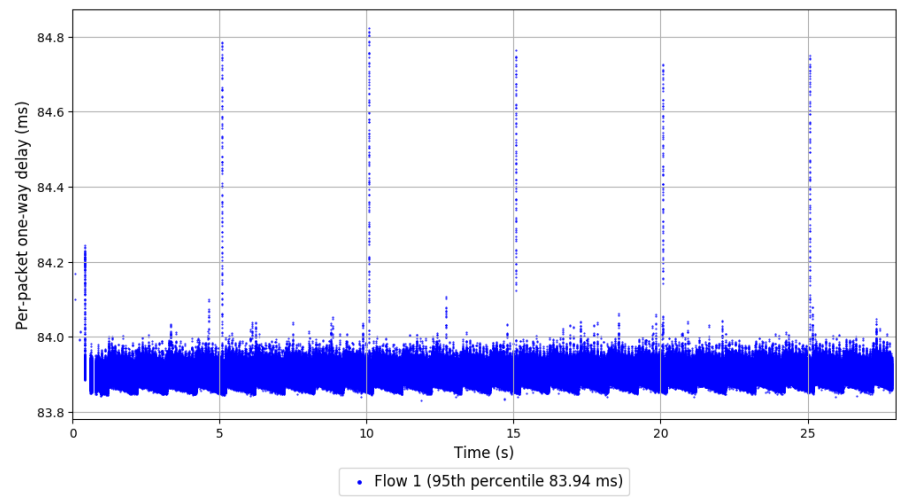
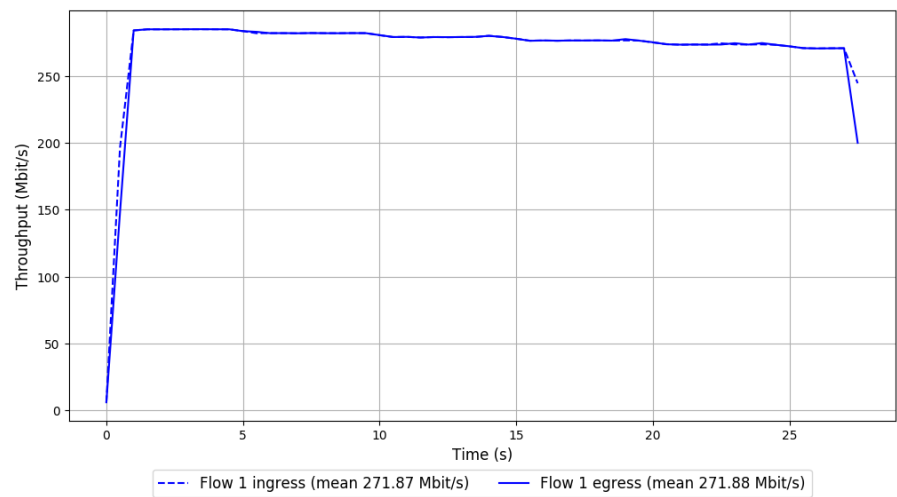


Run 4: Statistics of TaoVA-100x

Start at: 2017-12-11 11:50:17
End at: 2017-12-11 11:50:47
Local clock offset: 0.151 ms
Remote clock offset: -4.629 ms

Below is generated by plot.py at 2017-12-11 17:11:09
Datalink statistics
-- Total of 1 flow:
Average throughput: 271.88 Mbit/s
95th percentile per-packet one-way delay: 83.938 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 271.88 Mbit/s
95th percentile per-packet one-way delay: 83.938 ms
Loss rate: 0.59%

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



Run 5: Statistics of TaoVA-100x

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

End at: 2017-12-11 12:08:48

Local clock offset: 0.025 ms

Remote clock offset: 0.573 ms

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 261.78 Mbit/s

95th percentile per-packet one-way delay: 81.365 ms

Loss rate: 0.00%

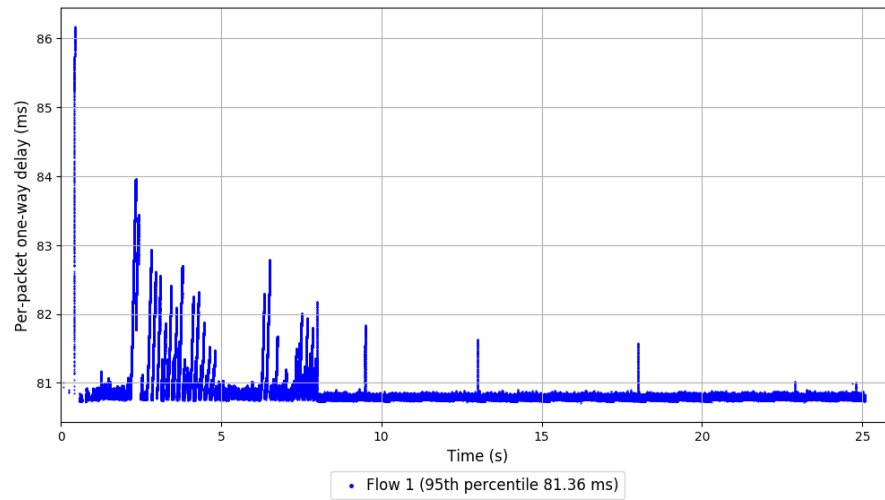
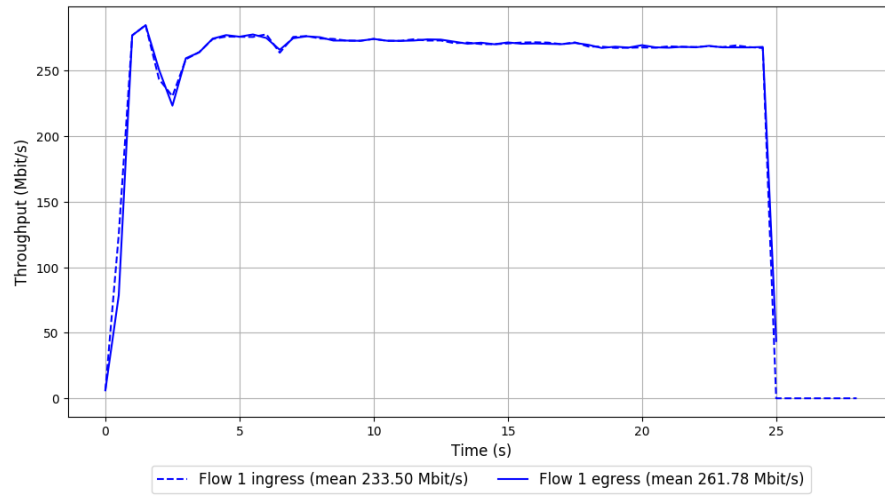
-- Flow 1:

Average throughput: 261.78 Mbit/s

95th percentile per-packet one-way delay: 81.365 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

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

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

Local clock offset: -0.08 ms

Remote clock offset: -5.182 ms

Below is generated by plot.py at 2017-12-11 17:11:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 274.59 Mbit/s

95th percentile per-packet one-way delay: 84.731 ms

Loss rate: 0.59%

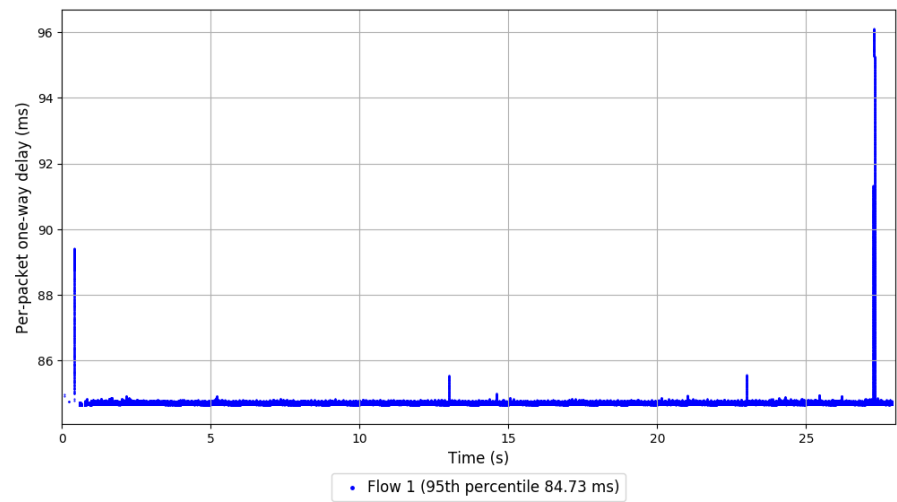
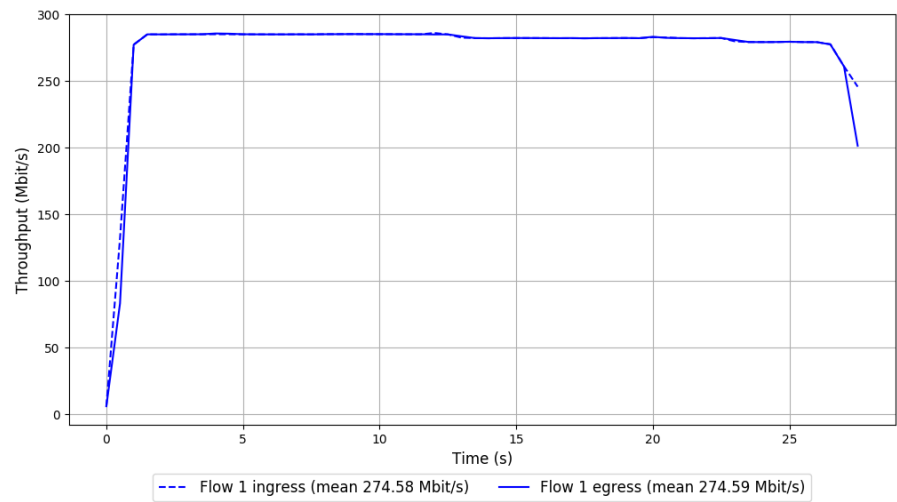
-- Flow 1:

Average throughput: 274.59 Mbit/s

95th percentile per-packet one-way delay: 84.731 ms

Loss rate: 0.59%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-11 12:44:01

End at: 2017-12-11 12:44:31

Local clock offset: -0.264 ms

Remote clock offset: 0.07 ms

Below is generated by plot.py at 2017-12-11 17:13:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 276.31 Mbit/s

95th percentile per-packet one-way delay: 80.594 ms

Loss rate: 0.62%

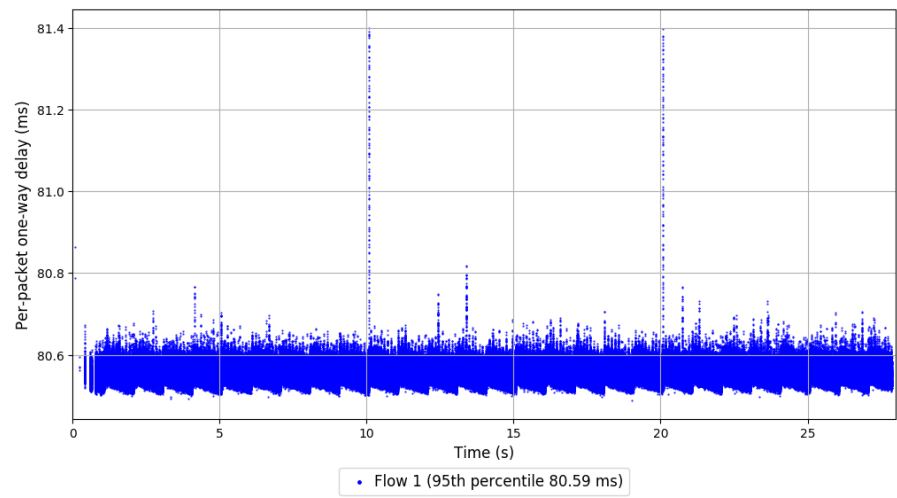
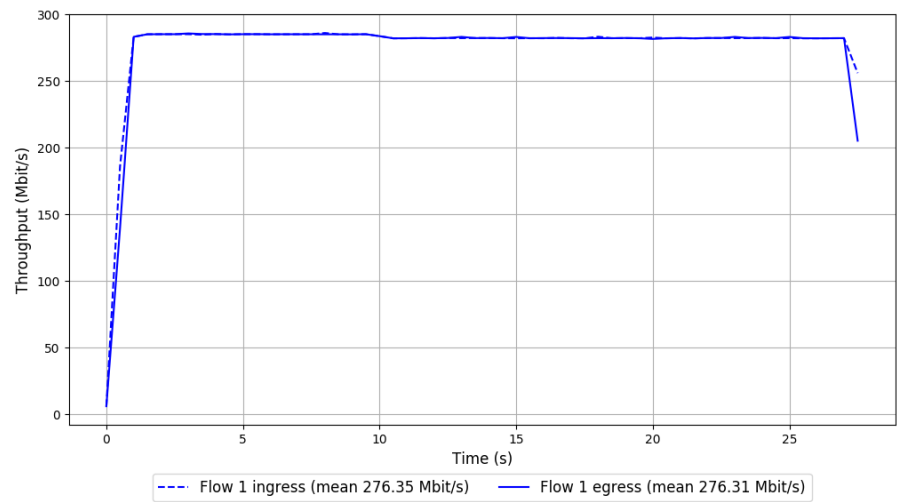
-- Flow 1:

Average throughput: 276.31 Mbit/s

95th percentile per-packet one-way delay: 80.594 ms

Loss rate: 0.62%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-11 13:02:04

End at: 2017-12-11 13:02:34

Local clock offset: -0.286 ms

Remote clock offset: 0.524 ms

Below is generated by plot.py at 2017-12-11 17:13:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 267.21 Mbit/s

95th percentile per-packet one-way delay: 81.687 ms

Loss rate: 0.61%

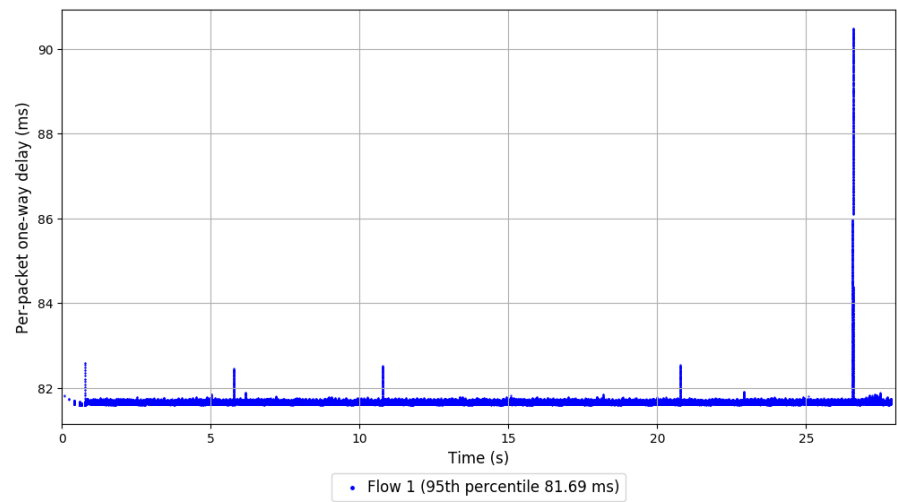
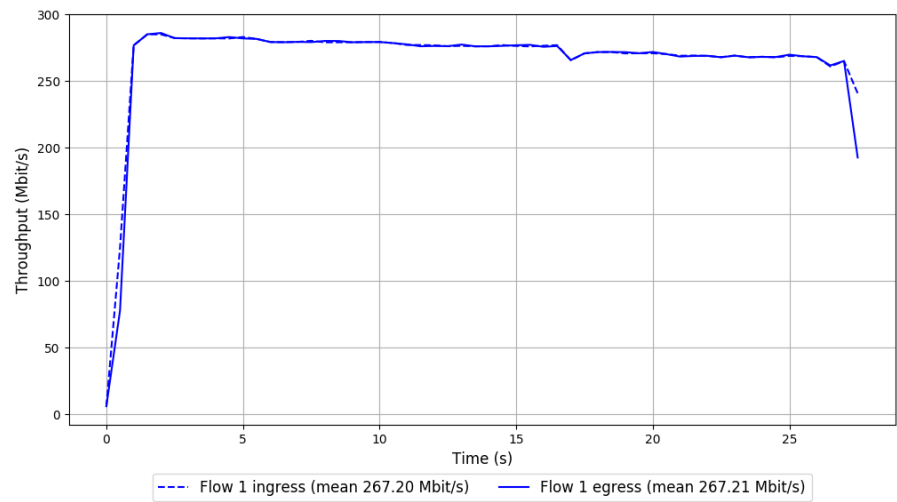
-- Flow 1:

Average throughput: 267.21 Mbit/s

95th percentile per-packet one-way delay: 81.687 ms

Loss rate: 0.61%

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

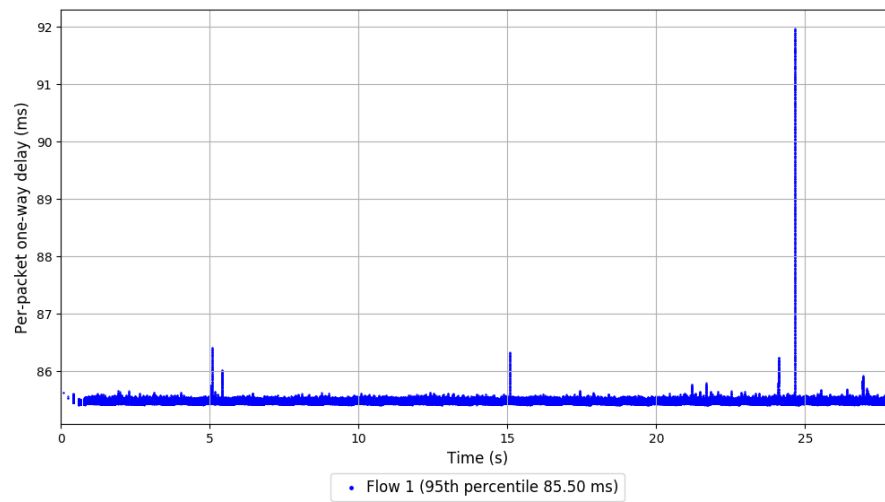
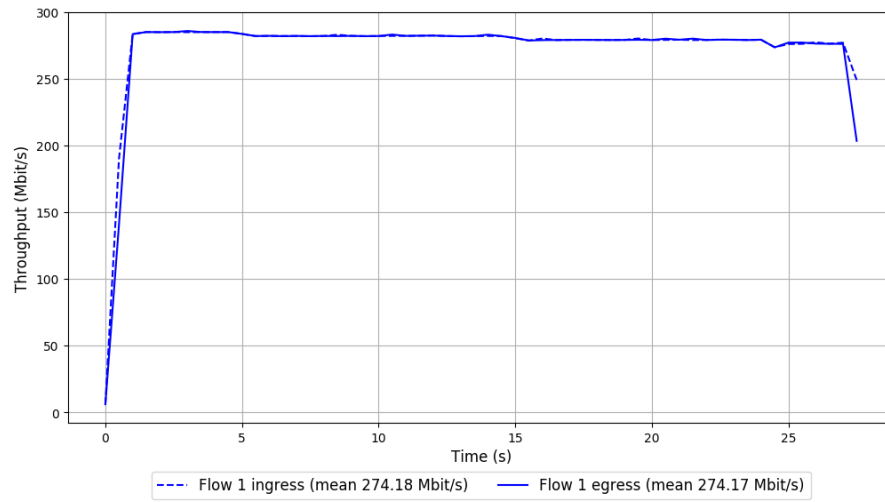


Run 9: Statistics of TaoVA-100x

Start at: 2017-12-11 13:20:20
End at: 2017-12-11 13:20:50
Local clock offset: -0.236 ms
Remote clock offset: -5.149 ms

Below is generated by plot.py at 2017-12-11 17:16:53
Datalink statistics
-- Total of 1 flow:
Average throughput: 274.17 Mbit/s
95th percentile per-packet one-way delay: 85.505 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 274.17 Mbit/s
95th percentile per-packet one-way delay: 85.505 ms
Loss rate: 0.61%

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



Run 10: Statistics of TaoVA-100x

Start at: 2017-12-11 13:39:26

End at: 2017-12-11 13:39:56

Local clock offset: -0.268 ms

Remote clock offset: 0.443 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 274.80 Mbit/s

95th percentile per-packet one-way delay: 80.402 ms

Loss rate: 0.66%

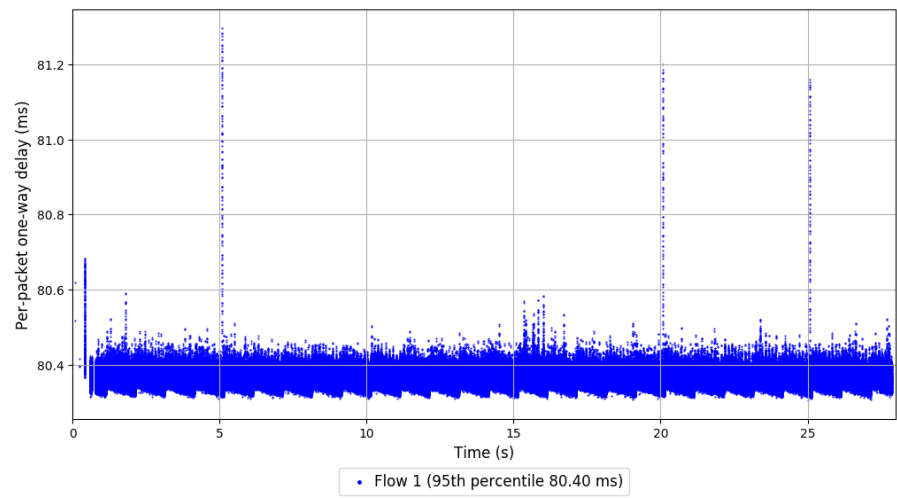
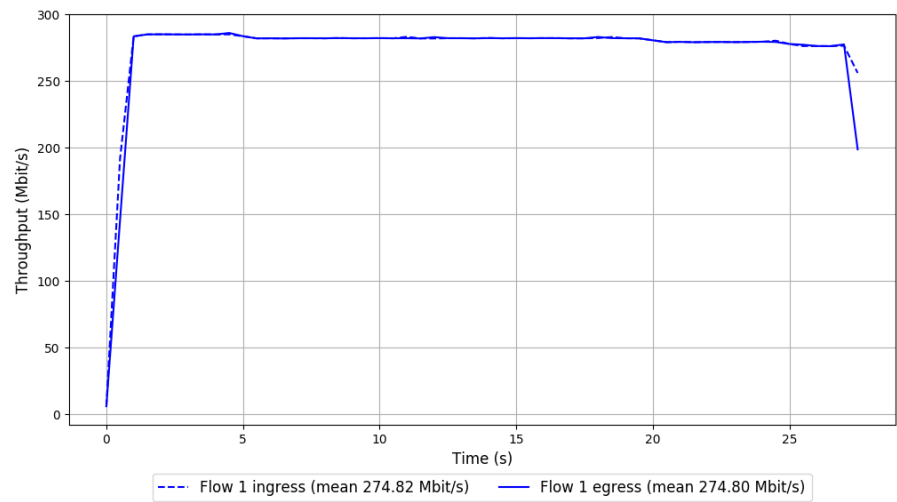
-- Flow 1:

Average throughput: 274.80 Mbit/s

95th percentile per-packet one-way delay: 80.402 ms

Loss rate: 0.66%

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

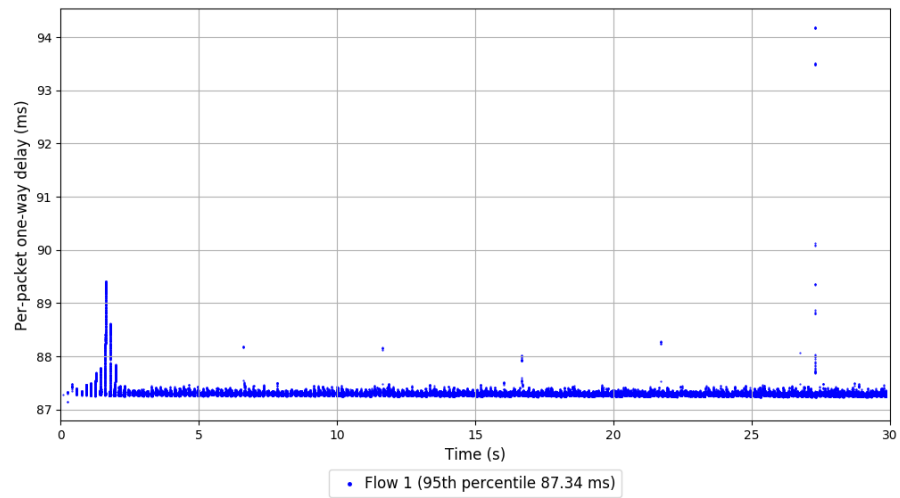
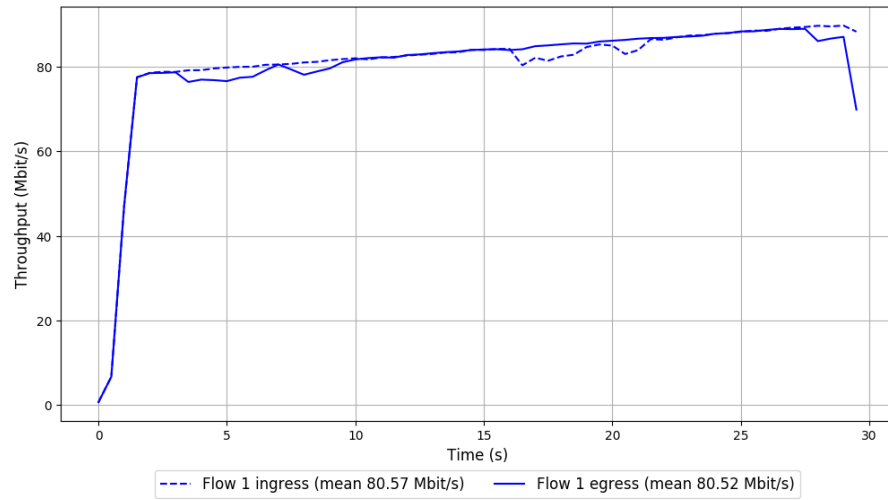


Run 1: Statistics of TCP Vegas

Start at: 2017-12-11 10:55:01
End at: 2017-12-11 10:55:31
Local clock offset: -1.16 ms
Remote clock offset: -5.488 ms

Below is generated by plot.py at 2017-12-11 17:17:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 87.340 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 80.52 Mbit/s
95th percentile per-packet one-way delay: 87.340 ms
Loss rate: 0.62%

Run 1: Report of TCP Vegas — Data Link

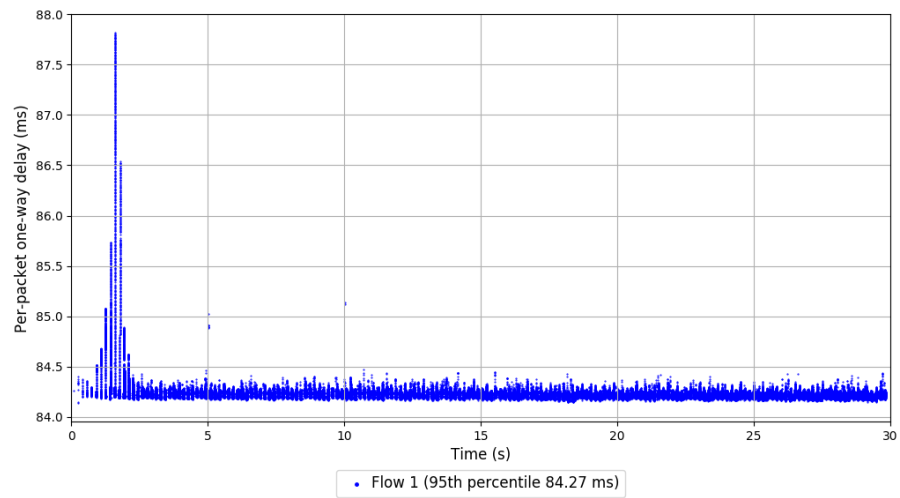
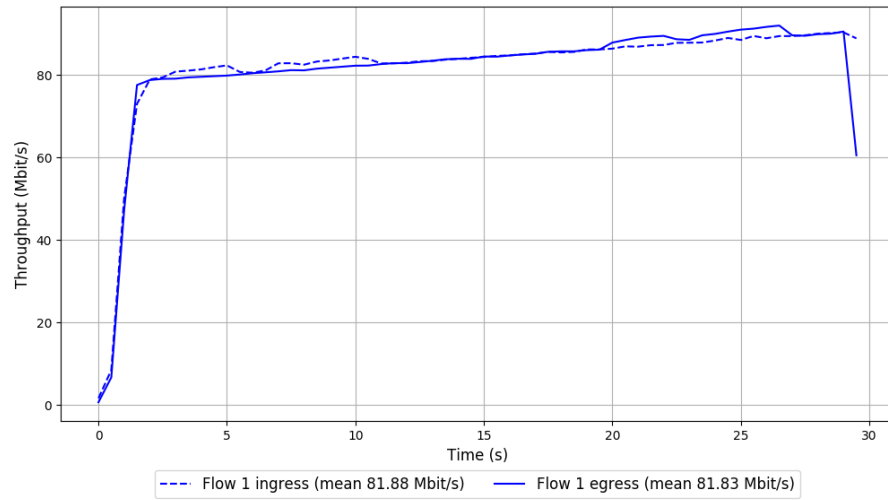


Run 2: Statistics of TCP Vegas

Start at: 2017-12-11 11:13:12
End at: 2017-12-11 11:13:42
Local clock offset: -0.353 ms
Remote clock offset: -4.857 ms

Below is generated by plot.py at 2017-12-11 17:17:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.83 Mbit/s
95th percentile per-packet one-way delay: 84.267 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 81.83 Mbit/s
95th percentile per-packet one-way delay: 84.267 ms
Loss rate: 0.62%

Run 2: Report of TCP Vegas — Data Link

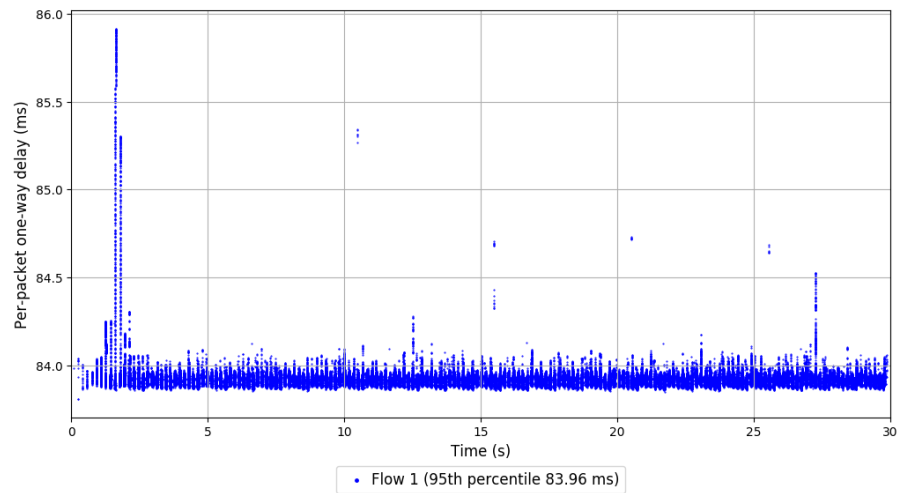
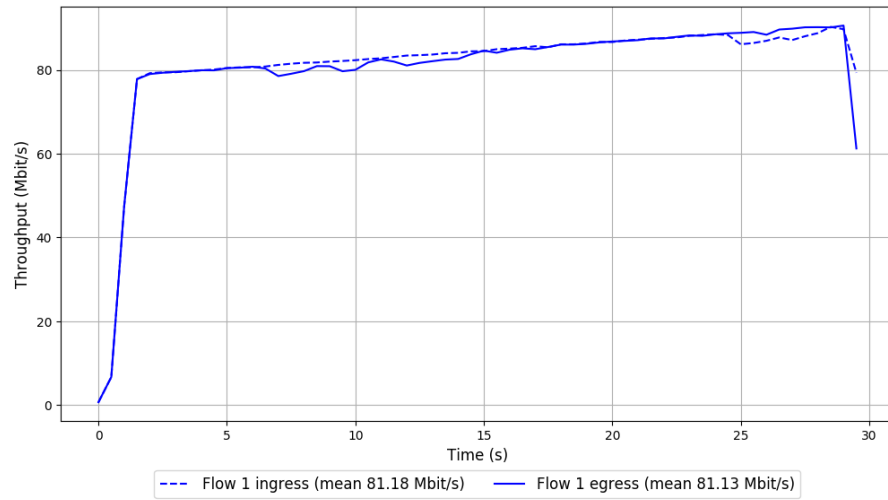


Run 3: Statistics of TCP Vegas

Start at: 2017-12-11 11:31:05
End at: 2017-12-11 11:31:35
Local clock offset: 0.289 ms
Remote clock offset: -4.726 ms

Below is generated by plot.py at 2017-12-11 17:17:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 81.13 Mbit/s
95th percentile per-packet one-way delay: 83.962 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 81.13 Mbit/s
95th percentile per-packet one-way delay: 83.962 ms
Loss rate: 0.62%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-11 11:49:04

End at: 2017-12-11 11:49:34

Local clock offset: 0.196 ms

Remote clock offset: 1.445 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.06 Mbit/s

95th percentile per-packet one-way delay: 81.010 ms

Loss rate: 0.62%

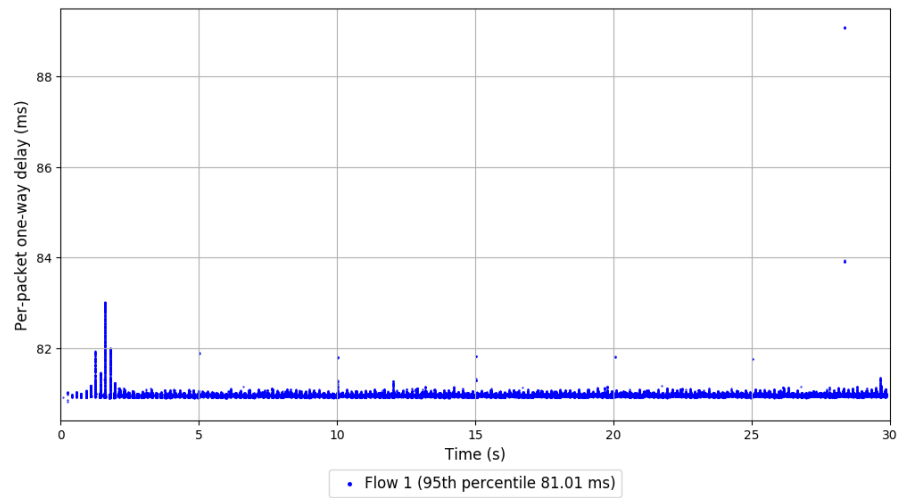
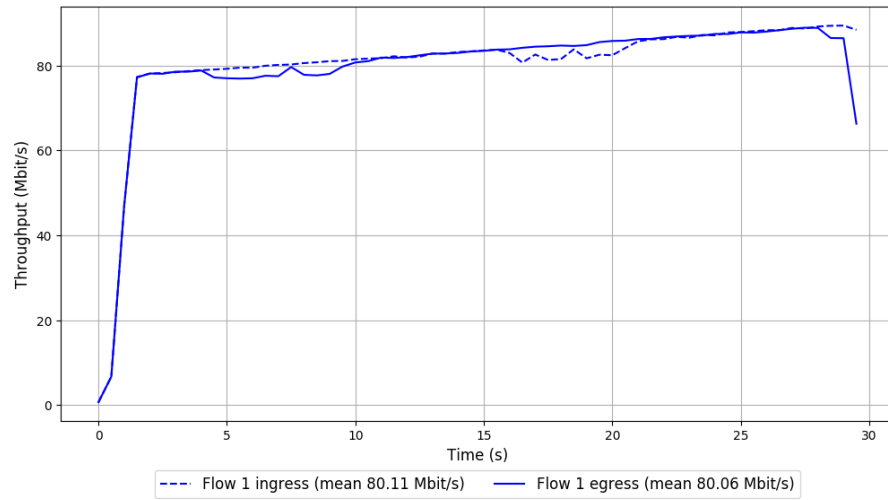
-- Flow 1:

Average throughput: 80.06 Mbit/s

95th percentile per-packet one-way delay: 81.010 ms

Loss rate: 0.62%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-11 12:07:04

End at: 2017-12-11 12:07:34

Local clock offset: -0.036 ms

Remote clock offset: 0.863 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 82.56 Mbit/s

95th percentile per-packet one-way delay: 79.829 ms

Loss rate: 0.62%

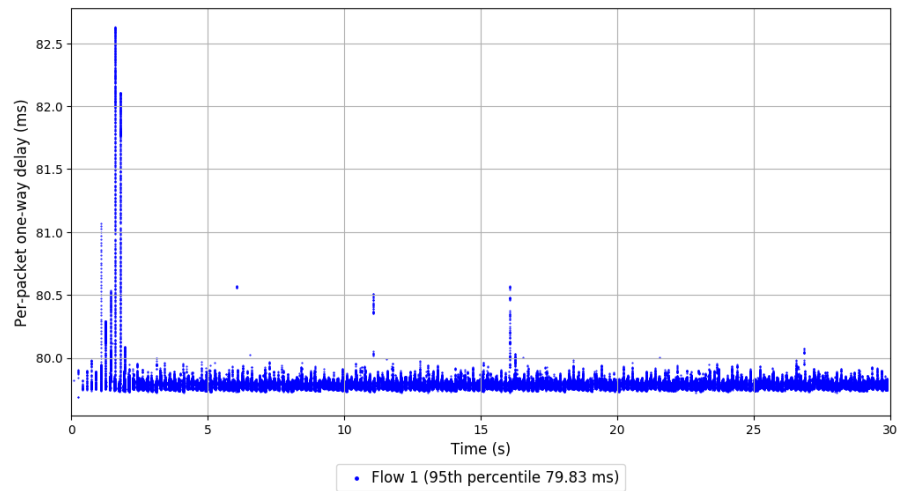
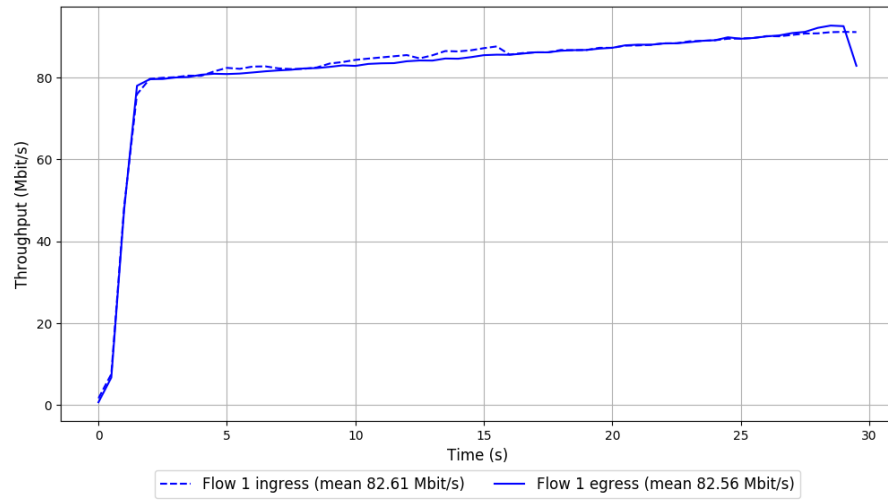
-- Flow 1:

Average throughput: 82.56 Mbit/s

95th percentile per-packet one-way delay: 79.829 ms

Loss rate: 0.62%

Run 5: Report of TCP Vegas — Data Link

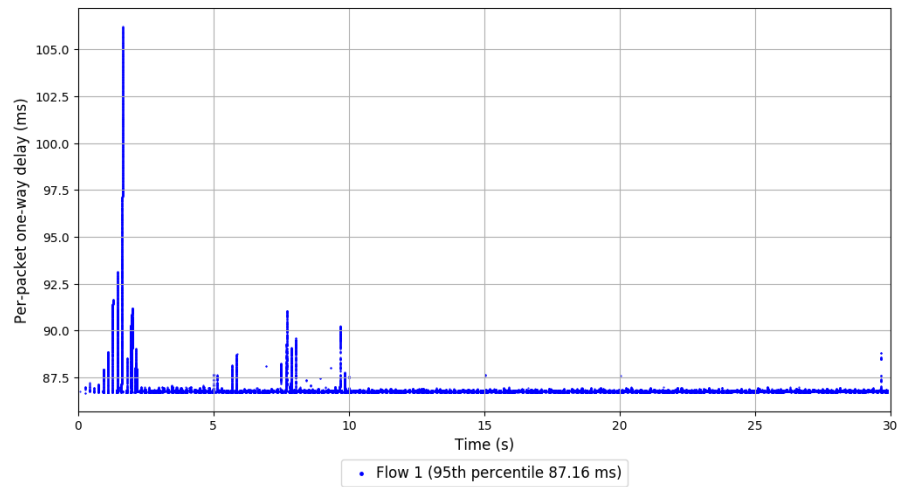
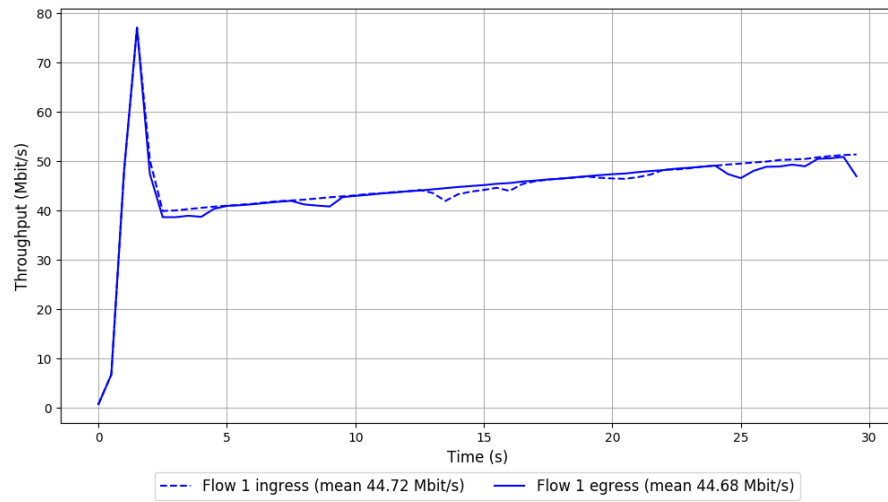


Run 6: Statistics of TCP Vegas

Start at: 2017-12-11 12:24:52
End at: 2017-12-11 12:25:22
Local clock offset: -0.093 ms
Remote clock offset: -4.564 ms

Below is generated by plot.py at 2017-12-11 17:17:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 44.68 Mbit/s
95th percentile per-packet one-way delay: 87.158 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 44.68 Mbit/s
95th percentile per-packet one-way delay: 87.158 ms
Loss rate: 0.64%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-11 12:42:47

End at: 2017-12-11 12:43:17

Local clock offset: -0.271 ms

Remote clock offset: 0.519 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.31 Mbit/s

95th percentile per-packet one-way delay: 79.954 ms

Loss rate: 0.62%

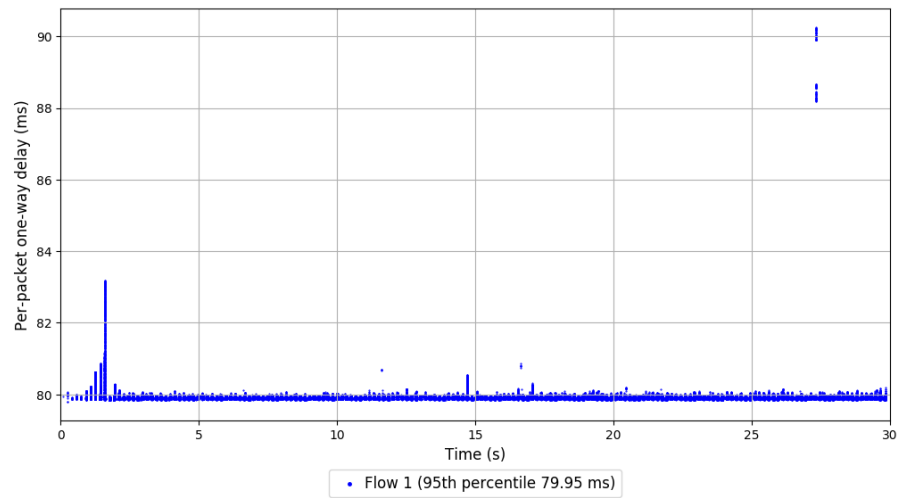
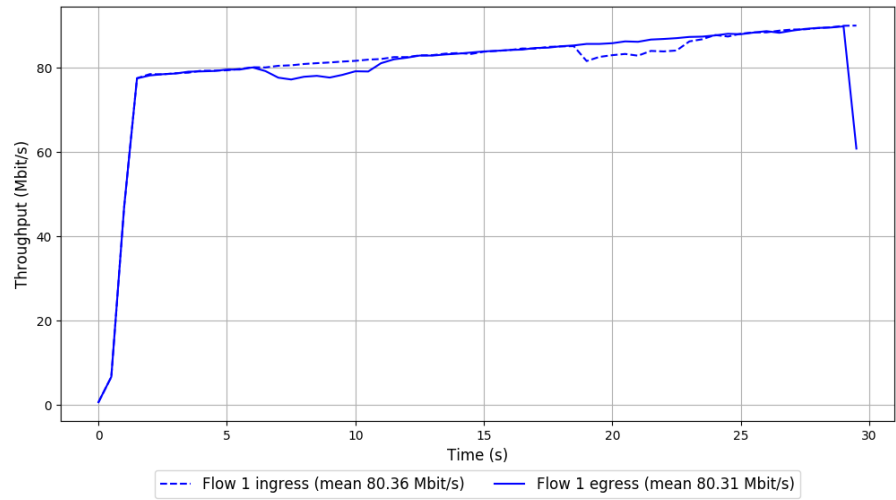
-- Flow 1:

Average throughput: 80.31 Mbit/s

95th percentile per-packet one-way delay: 79.954 ms

Loss rate: 0.62%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-11 13:00:50

End at: 2017-12-11 13:01:20

Local clock offset: -0.353 ms

Remote clock offset: 0.212 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.44 Mbit/s

95th percentile per-packet one-way delay: 80.723 ms

Loss rate: 0.63%

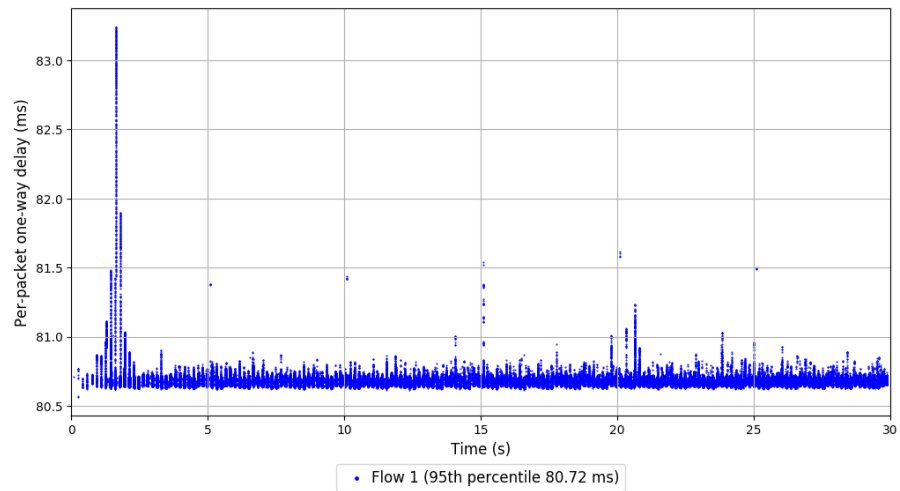
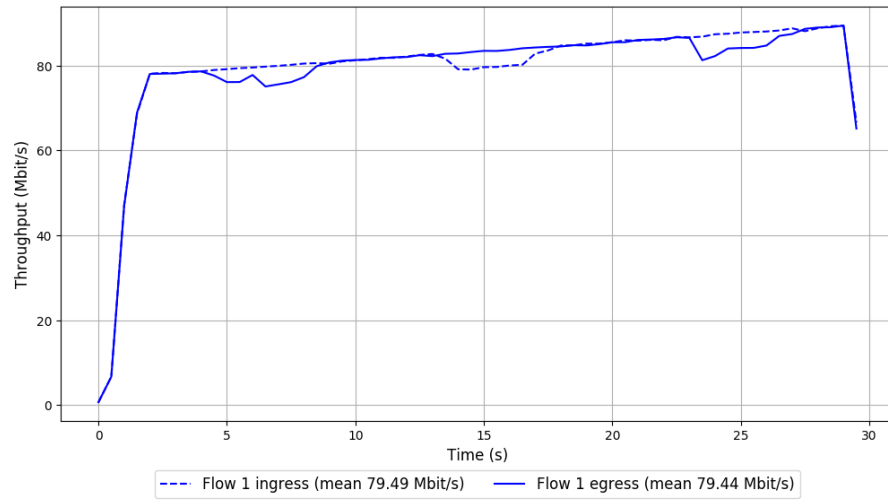
-- Flow 1:

Average throughput: 79.44 Mbit/s

95th percentile per-packet one-way delay: 80.723 ms

Loss rate: 0.63%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-11 13:19:06

End at: 2017-12-11 13:19:36

Local clock offset: -0.267 ms

Remote clock offset: 0.509 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.36 Mbit/s

95th percentile per-packet one-way delay: 80.879 ms

Loss rate: 0.63%

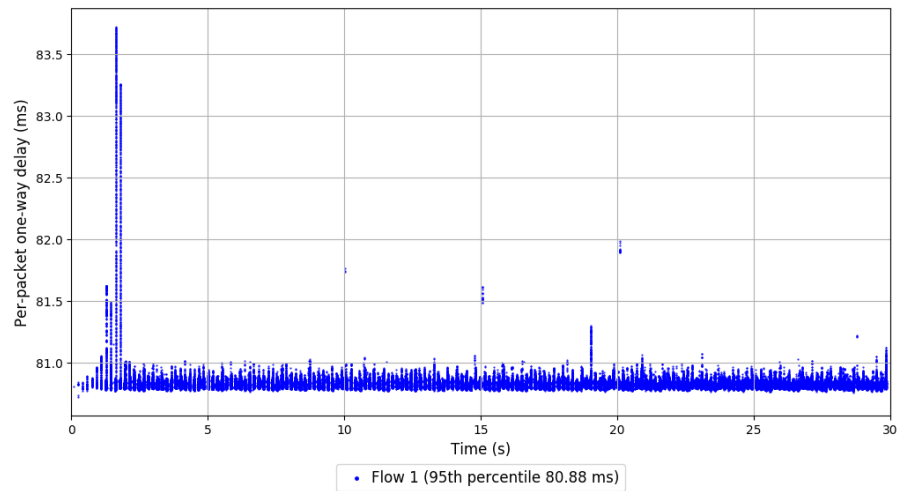
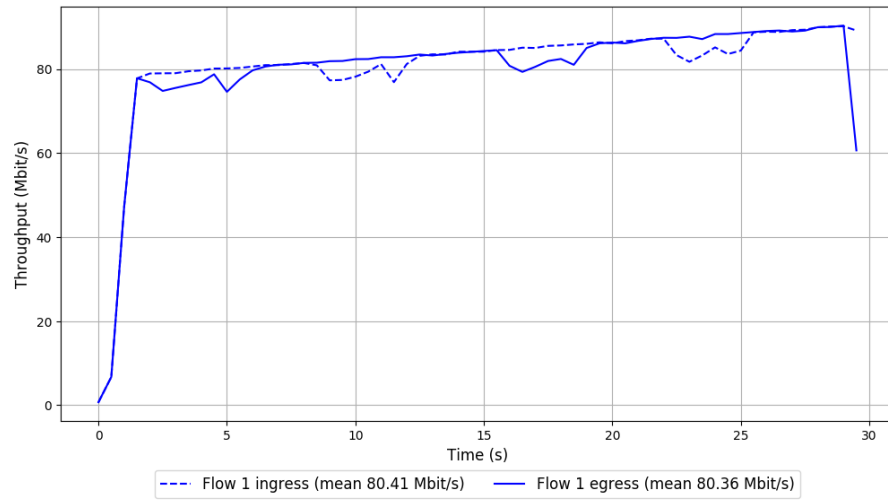
-- Flow 1:

Average throughput: 80.36 Mbit/s

95th percentile per-packet one-way delay: 80.879 ms

Loss rate: 0.63%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-11 13:38:01

End at: 2017-12-11 13:38:31

Local clock offset: -0.335 ms

Remote clock offset: 0.722 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.58 Mbit/s

95th percentile per-packet one-way delay: 81.537 ms

Loss rate: 0.59%

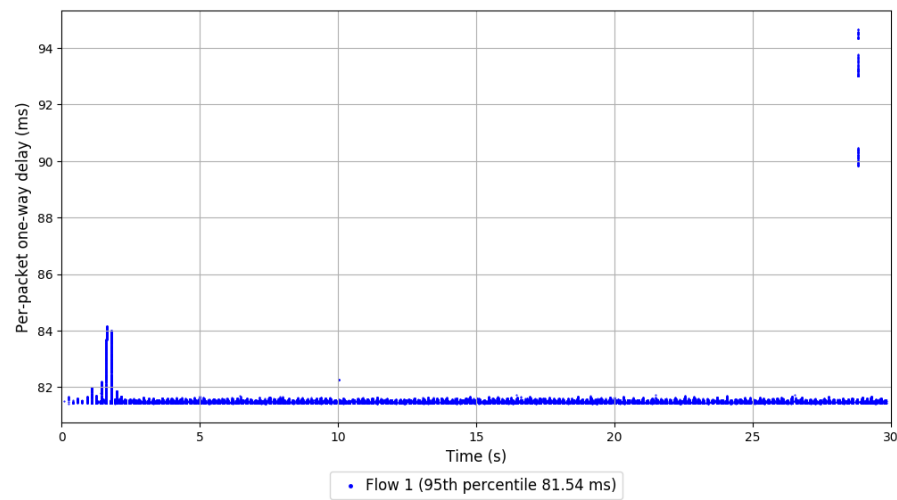
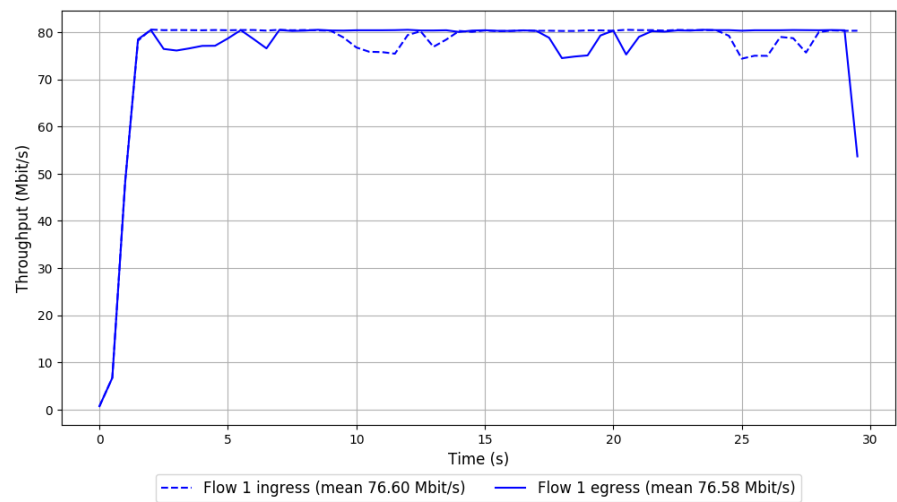
-- Flow 1:

Average throughput: 76.58 Mbit/s

95th percentile per-packet one-way delay: 81.537 ms

Loss rate: 0.59%

Run 10: Report of TCP Vegas — Data Link

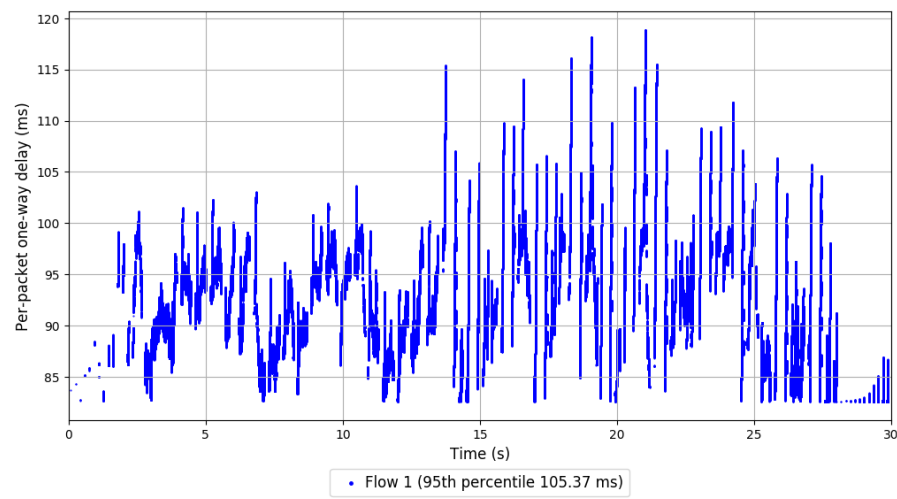
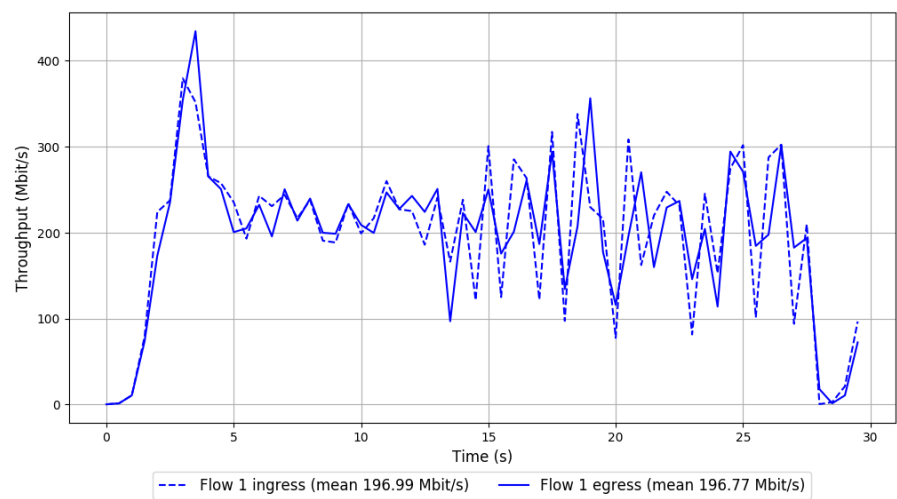


Run 1: Statistics of Verus

Start at: 2017-12-11 11:00:35
End at: 2017-12-11 11:01:05
Local clock offset: -0.866 ms
Remote clock offset: -0.986 ms

Below is generated by plot.py at 2017-12-11 17:17:32
Datalink statistics
-- Total of 1 flow:
Average throughput: 196.77 Mbit/s
95th percentile per-packet one-way delay: 105.373 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 196.77 Mbit/s
95th percentile per-packet one-way delay: 105.373 ms
Loss rate: 0.70%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

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

End at: 2017-12-11 11:19:06

Local clock offset: -0.068 ms

Remote clock offset: 1.153 ms

Below is generated by plot.py at 2017-12-11 17:17:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 240.29 Mbit/s

95th percentile per-packet one-way delay: 94.211 ms

Loss rate: 1.03%

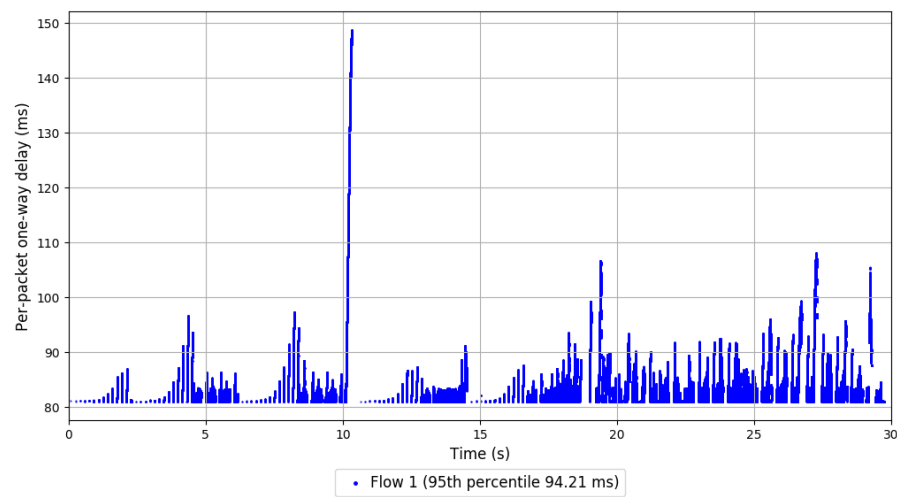
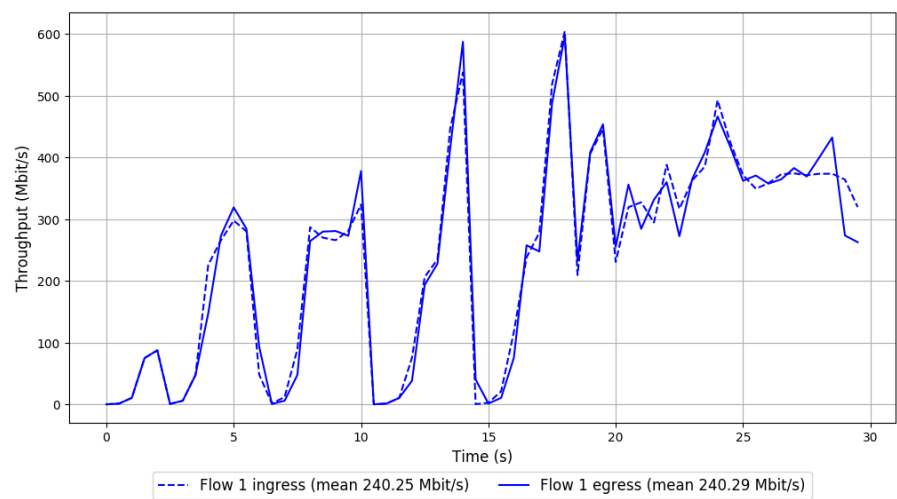
-- Flow 1:

Average throughput: 240.29 Mbit/s

95th percentile per-packet one-way delay: 94.211 ms

Loss rate: 1.03%

Run 2: Report of Verus — Data Link

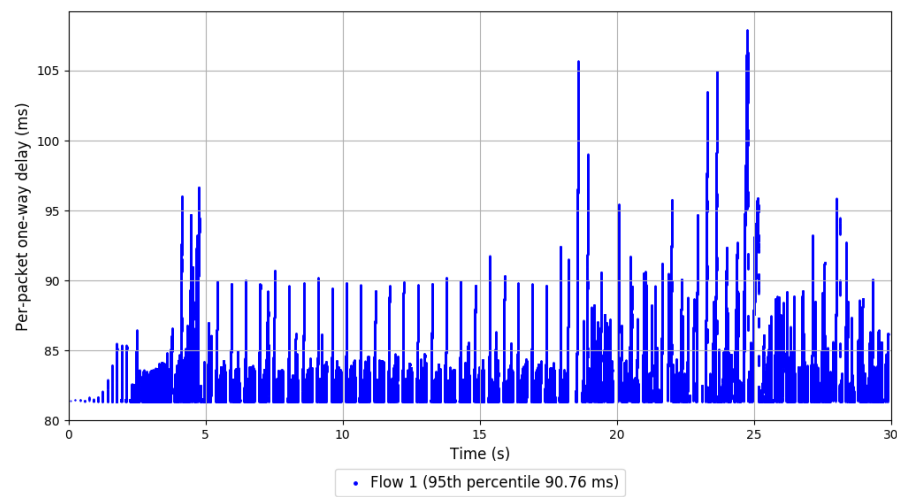
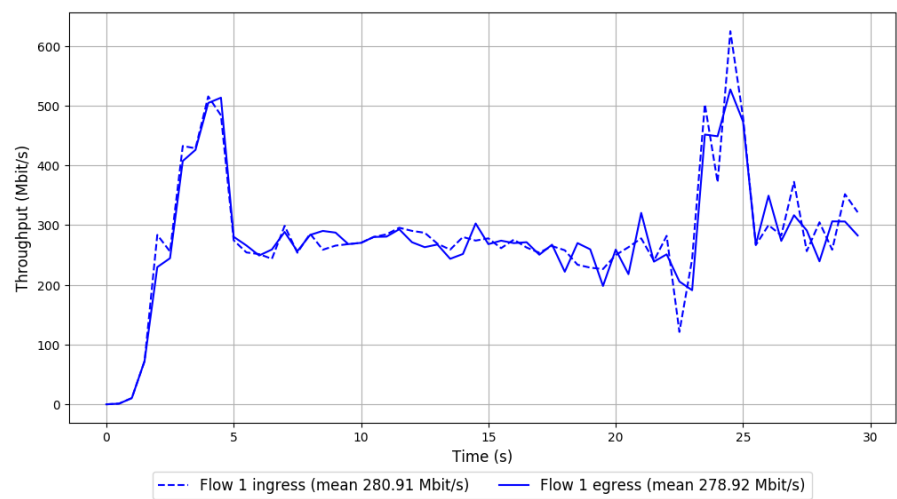


Run 3: Statistics of Verus

Start at: 2017-12-11 11:36:26
End at: 2017-12-11 11:36:56
Local clock offset: 0.287 ms
Remote clock offset: -0.398 ms

Below is generated by plot.py at 2017-12-11 17:17:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 278.92 Mbit/s
95th percentile per-packet one-way delay: 90.762 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 278.92 Mbit/s
95th percentile per-packet one-way delay: 90.762 ms
Loss rate: 1.26%

Run 3: Report of Verus — Data Link

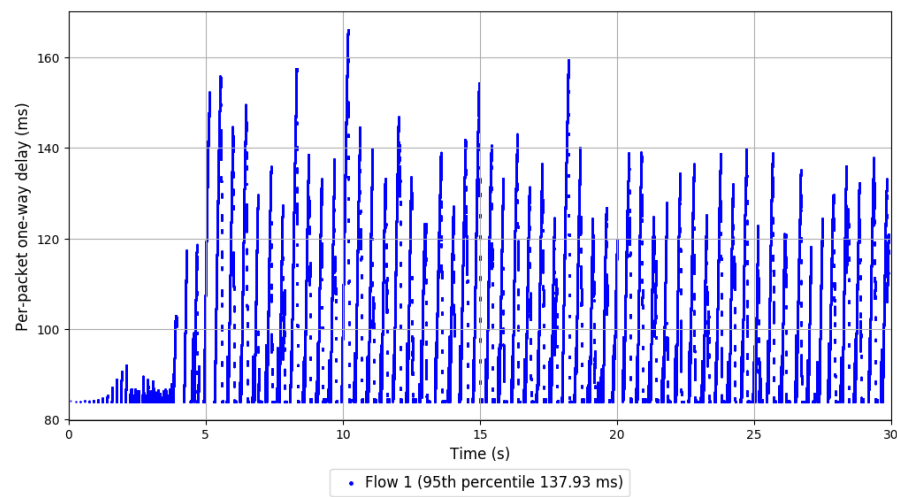
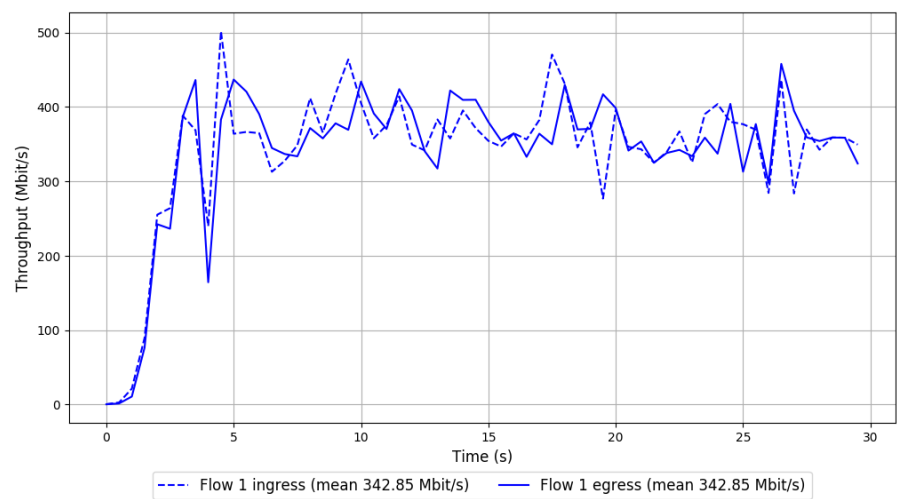


Run 4: Statistics of Verus

Start at: 2017-12-11 11:54:27
End at: 2017-12-11 11:54:57
Local clock offset: 0.144 ms
Remote clock offset: -4.302 ms

Below is generated by plot.py at 2017-12-11 17:19:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 342.85 Mbit/s
95th percentile per-packet one-way delay: 137.934 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 342.85 Mbit/s
95th percentile per-packet one-way delay: 137.934 ms
Loss rate: 0.14%

Run 4: Report of Verus — Data Link

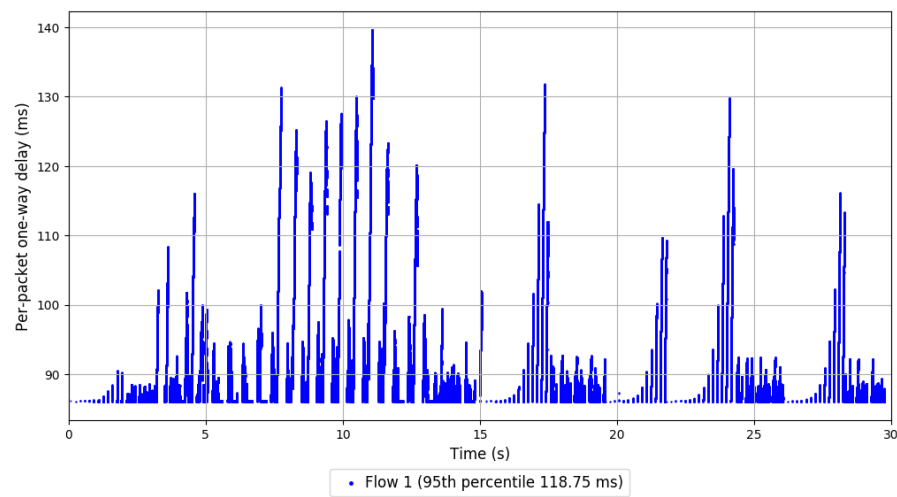
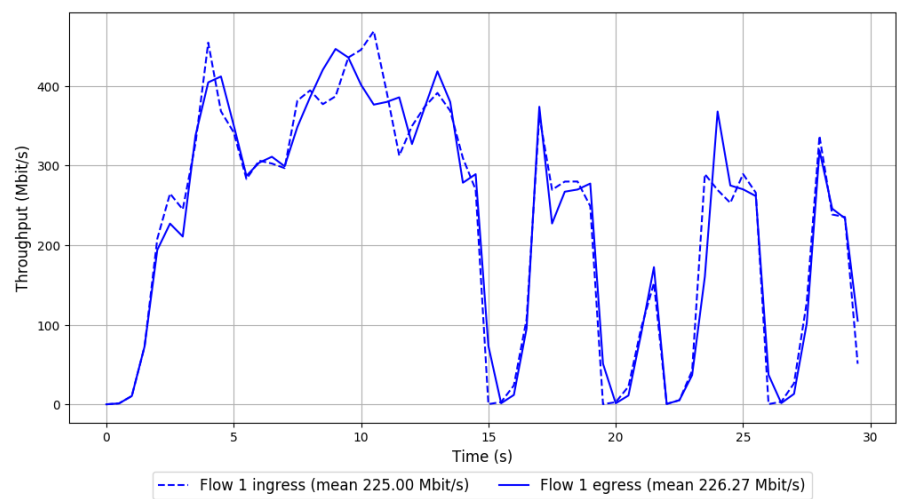


Run 5: Statistics of Verus

Start at: 2017-12-11 12:12:15
End at: 2017-12-11 12:12:45
Local clock offset: 0.001 ms
Remote clock offset: -5.114 ms

Below is generated by plot.py at 2017-12-11 17:19:04
Datalink statistics
-- Total of 1 flow:
Average throughput: 226.27 Mbit/s
95th percentile per-packet one-way delay: 118.749 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 226.27 Mbit/s
95th percentile per-packet one-way delay: 118.749 ms
Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

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

End at: 2017-12-11 12:30:44

Local clock offset: -0.122 ms

Remote clock offset: 0.575 ms

Below is generated by plot.py at 2017-12-11 17:19:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 253.84 Mbit/s

95th percentile per-packet one-way delay: 98.365 ms

Loss rate: 1.02%

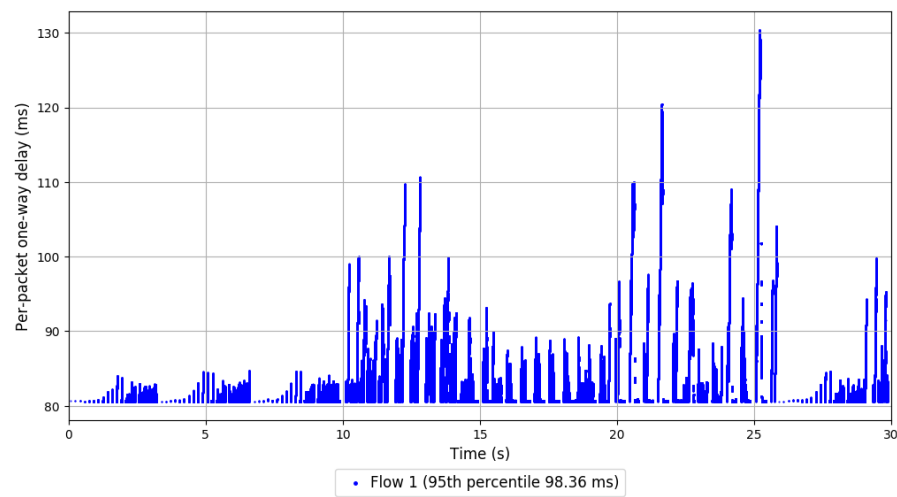
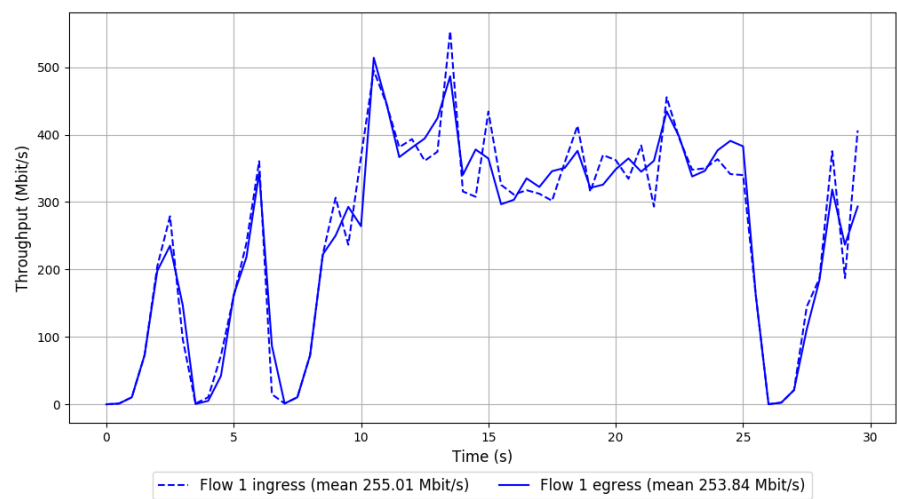
-- Flow 1:

Average throughput: 253.84 Mbit/s

95th percentile per-packet one-way delay: 98.365 ms

Loss rate: 1.02%

Run 6: Report of Verus — Data Link

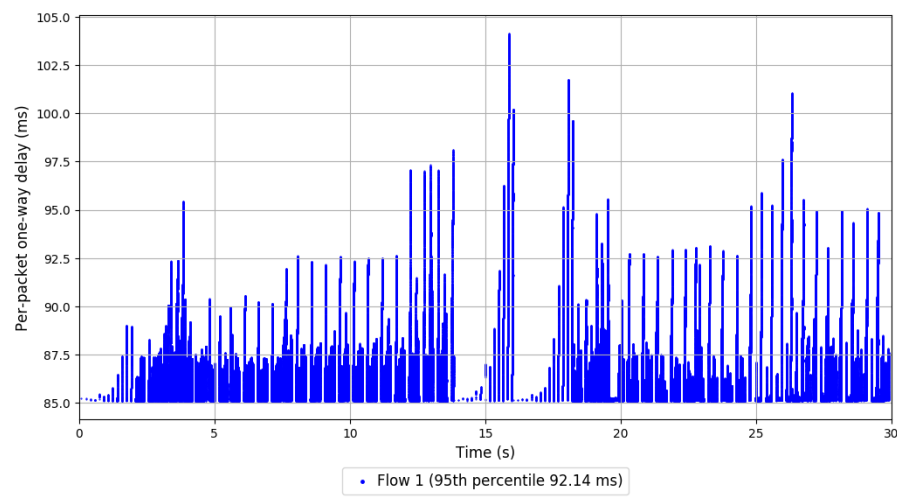
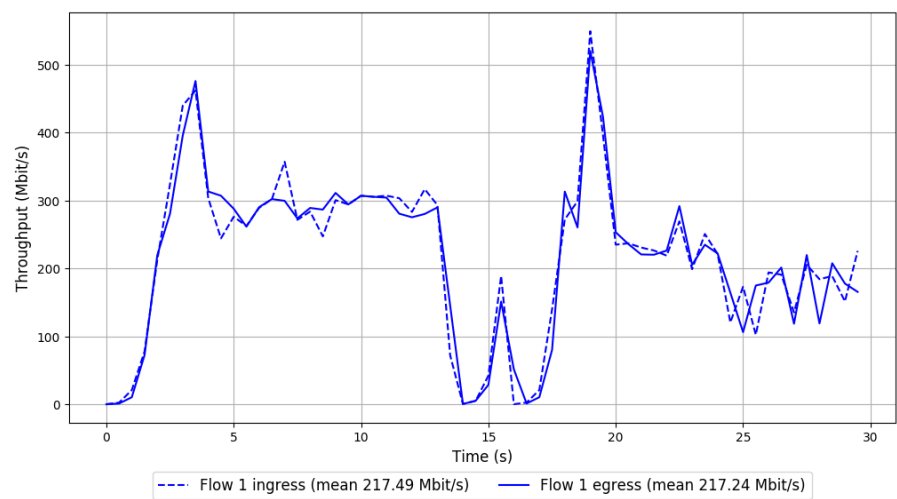


Run 7: Statistics of Verus

Start at: 2017-12-11 12:48:16
End at: 2017-12-11 12:48:46
Local clock offset: -0.226 ms
Remote clock offset: -5.476 ms

Below is generated by plot.py at 2017-12-11 17:19:45
Datalink statistics
-- Total of 1 flow:
Average throughput: 217.24 Mbit/s
95th percentile per-packet one-way delay: 92.137 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 217.24 Mbit/s
95th percentile per-packet one-way delay: 92.137 ms
Loss rate: 0.67%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-11 13:06:22

End at: 2017-12-11 13:06:52

Local clock offset: -0.255 ms

Remote clock offset: 1.012 ms

Below is generated by plot.py at 2017-12-11 17:19:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.45 Mbit/s

95th percentile per-packet one-way delay: 90.254 ms

Loss rate: 1.06%

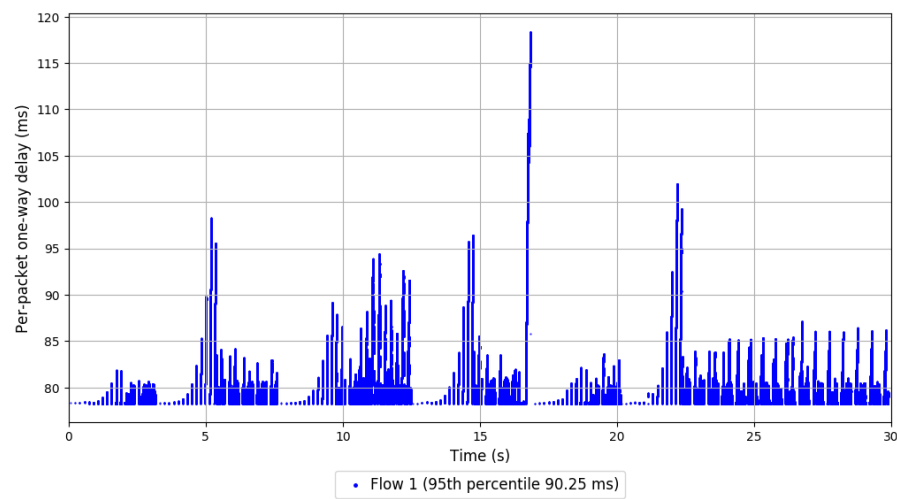
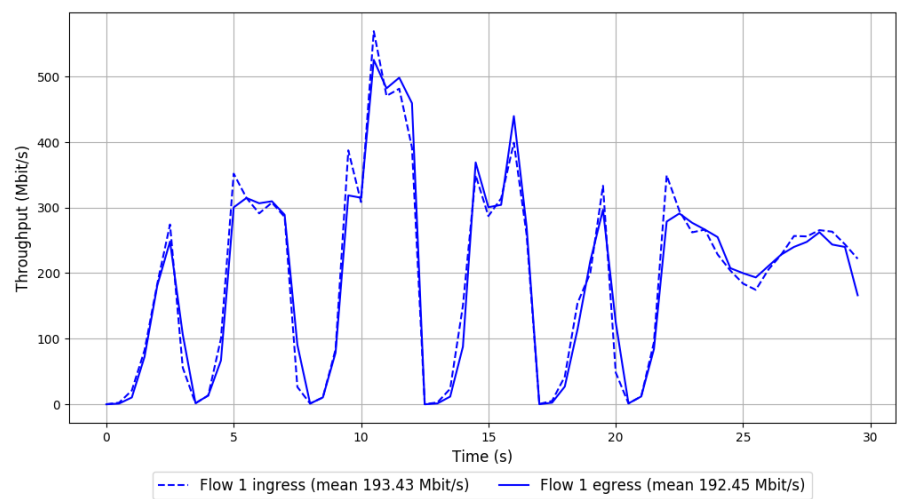
-- Flow 1:

Average throughput: 192.45 Mbit/s

95th percentile per-packet one-way delay: 90.254 ms

Loss rate: 1.06%

Run 8: Report of Verus — Data Link

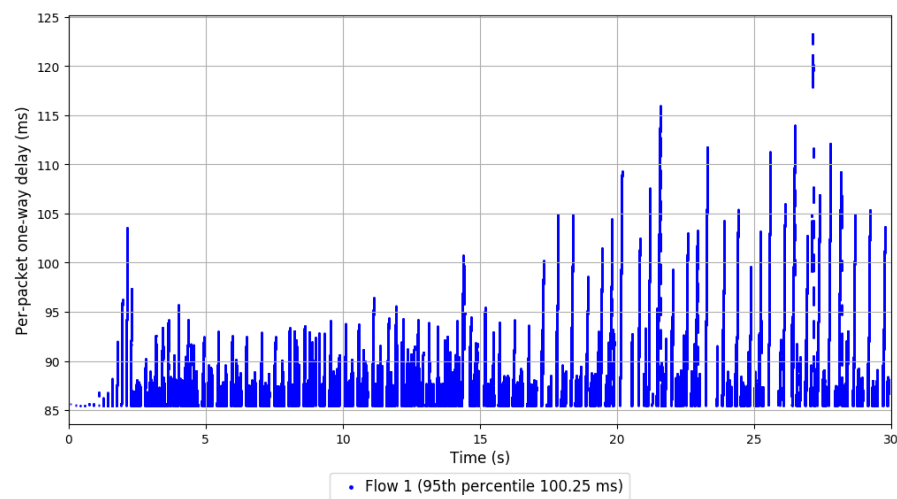
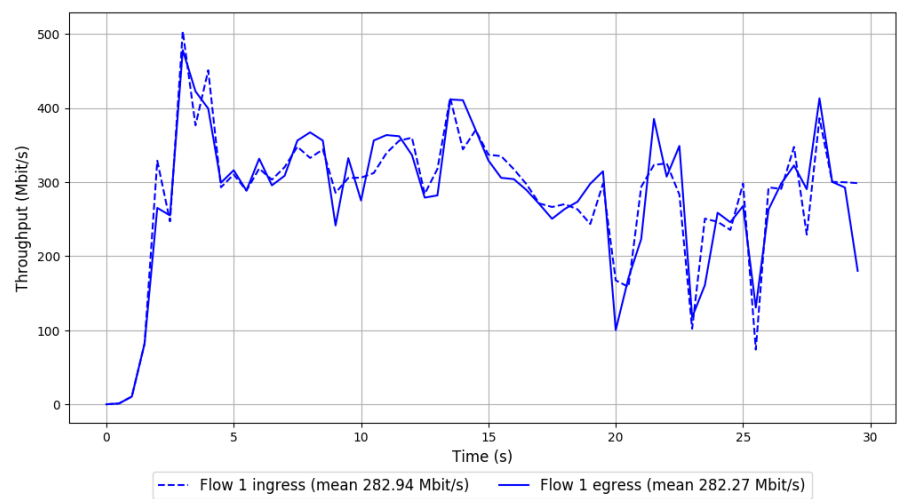


Run 9: Statistics of Verus

Start at: 2017-12-11 13:24:36
End at: 2017-12-11 13:25:06
Local clock offset: -0.259 ms
Remote clock offset: -5.246 ms

Below is generated by plot.py at 2017-12-11 17:21:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 282.27 Mbit/s
95th percentile per-packet one-way delay: 100.250 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 282.27 Mbit/s
95th percentile per-packet one-way delay: 100.250 ms
Loss rate: 0.74%

Run 9: Report of Verus — Data Link

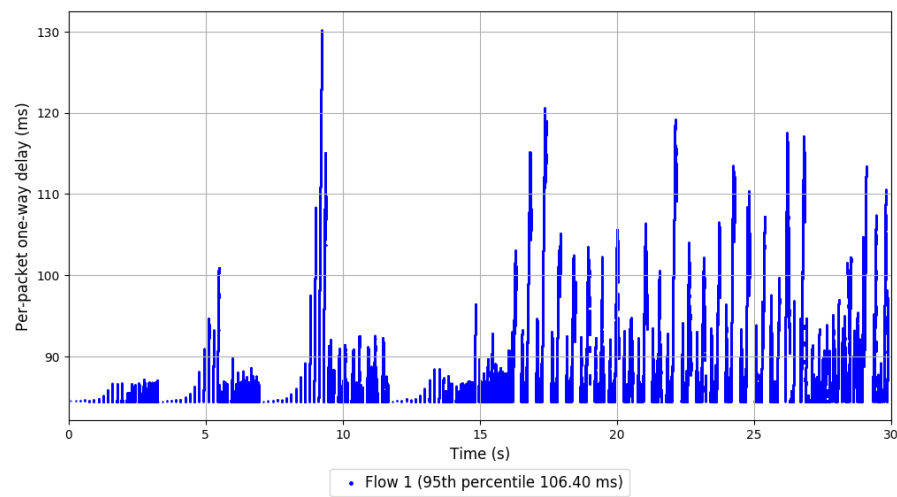
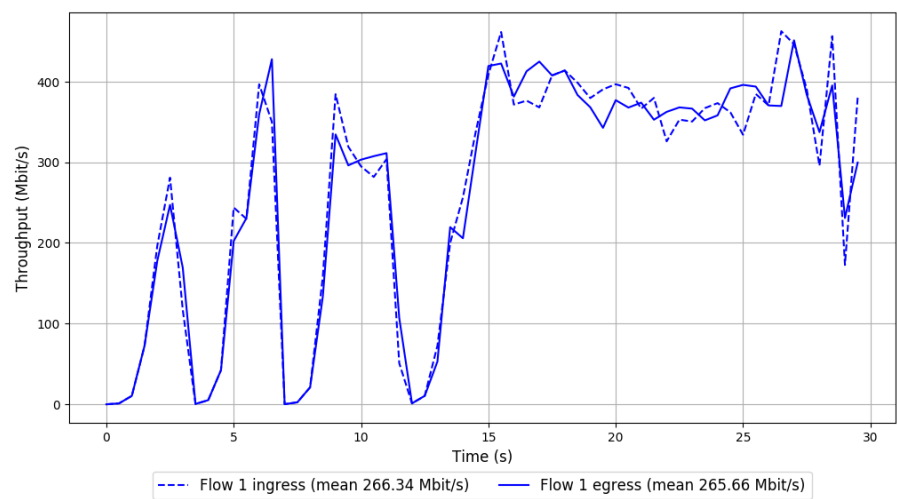


Run 10: Statistics of Verus

Start at: 2017-12-11 13:43:39
End at: 2017-12-11 13:44:09
Local clock offset: -0.296 ms
Remote clock offset: -4.968 ms

Below is generated by plot.py at 2017-12-11 17:21:36
Datalink statistics
-- Total of 1 flow:
Average throughput: 265.66 Mbit/s
95th percentile per-packet one-way delay: 106.398 ms
Loss rate: 0.85%
-- Flow 1:
Average throughput: 265.66 Mbit/s
95th percentile per-packet one-way delay: 106.398 ms
Loss rate: 0.85%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-11 11:06:54

End at: 2017-12-11 11:07:24

Local clock offset: -0.589 ms

Remote clock offset: -0.54 ms

Below is generated by plot.py at 2017-12-11 17:21:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 81.208 ms

Loss rate: 0.64%

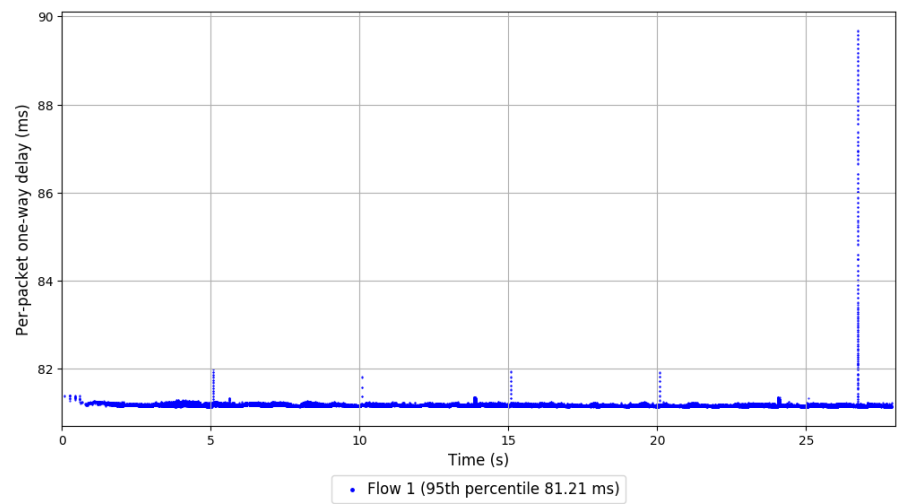
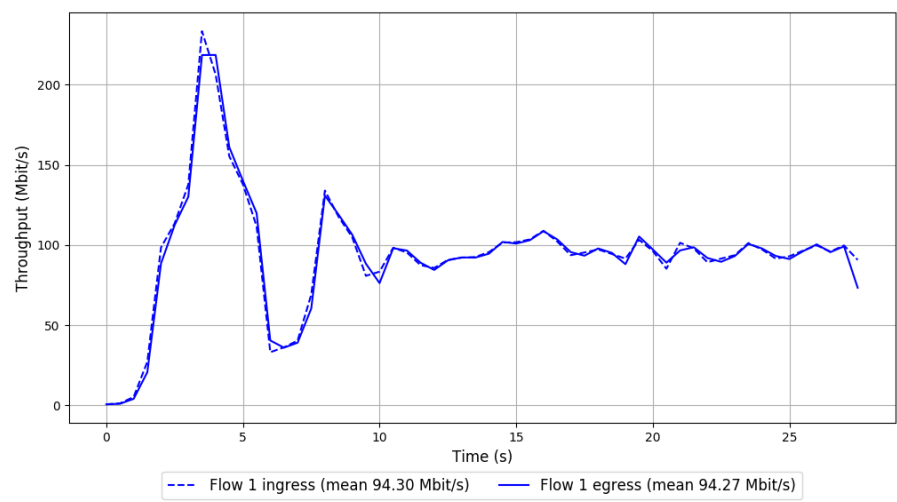
-- Flow 1:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 81.208 ms

Loss rate: 0.64%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-11 11:24:47

End at: 2017-12-11 11:25:17

Local clock offset: 0.114 ms

Remote clock offset: 0.776 ms

Below is generated by plot.py at 2017-12-11 17:21:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.40 Mbit/s

95th percentile per-packet one-way delay: 79.779 ms

Loss rate: 0.44%

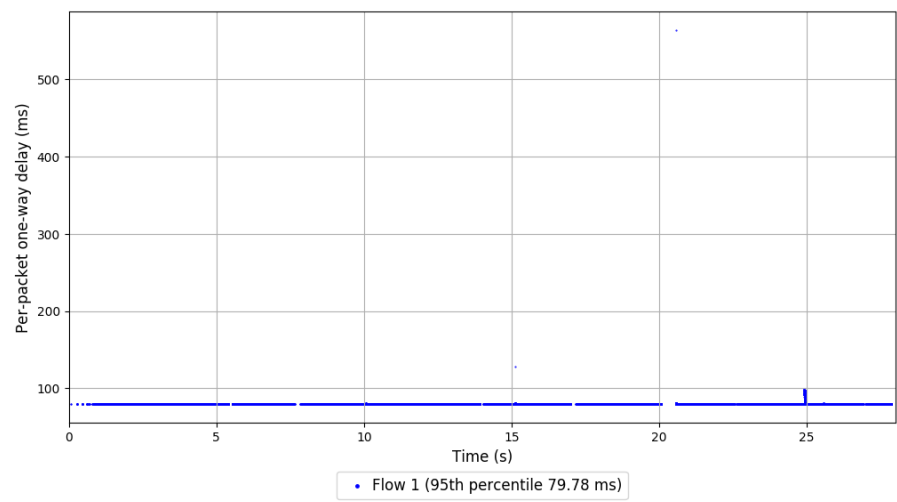
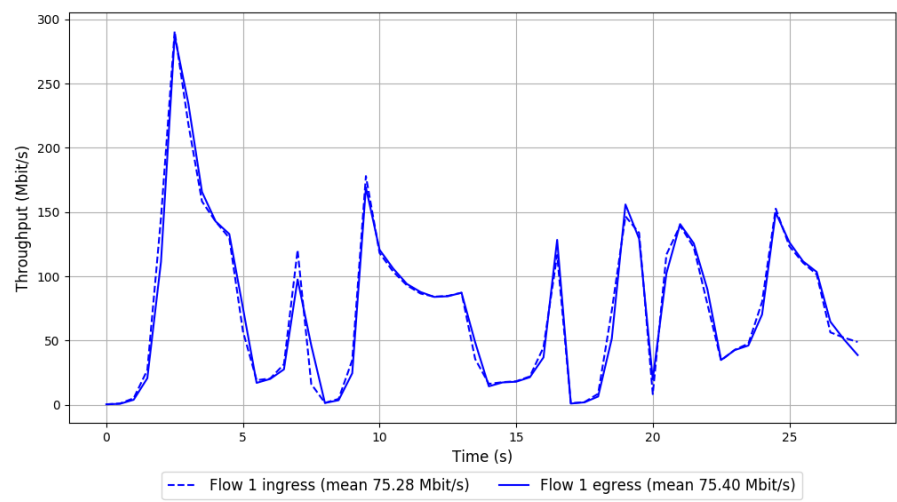
-- Flow 1:

Average throughput: 75.40 Mbit/s

95th percentile per-packet one-way delay: 79.779 ms

Loss rate: 0.44%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

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

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

Local clock offset: 0.299 ms

Remote clock offset: 0.185 ms

Below is generated by plot.py at 2017-12-11 17:21:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 80.572 ms

Loss rate: 0.64%

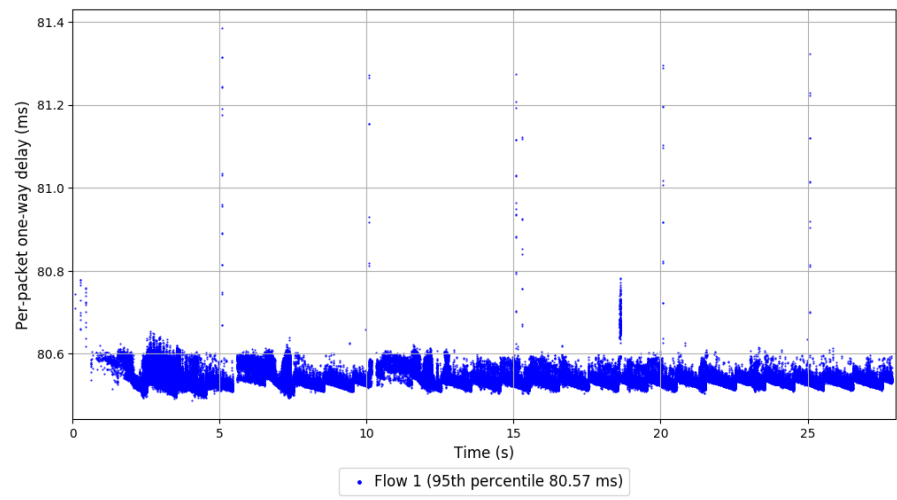
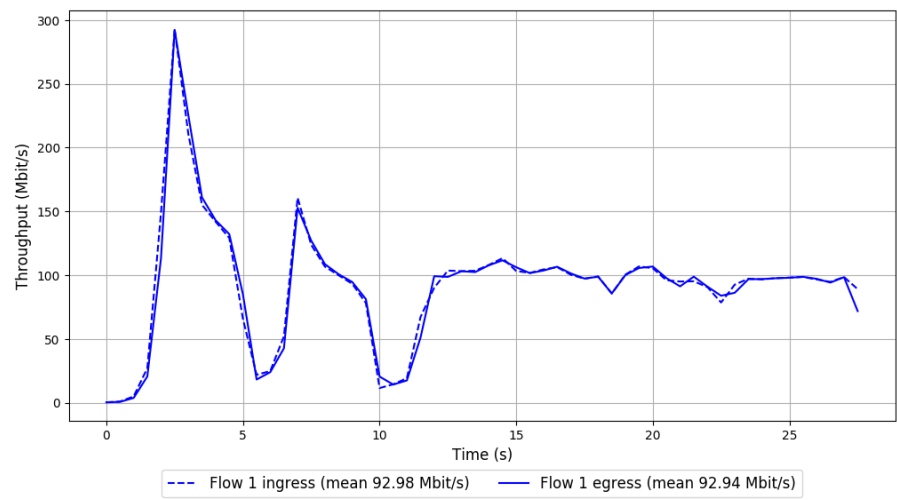
-- Flow 1:

Average throughput: 92.94 Mbit/s

95th percentile per-packet one-way delay: 80.572 ms

Loss rate: 0.64%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-11 12:00:42

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

Local clock offset: 0.008 ms

Remote clock offset: 1.135 ms

Below is generated by plot.py at 2017-12-11 17:21:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.67 Mbit/s

95th percentile per-packet one-way delay: 79.164 ms

Loss rate: 0.63%

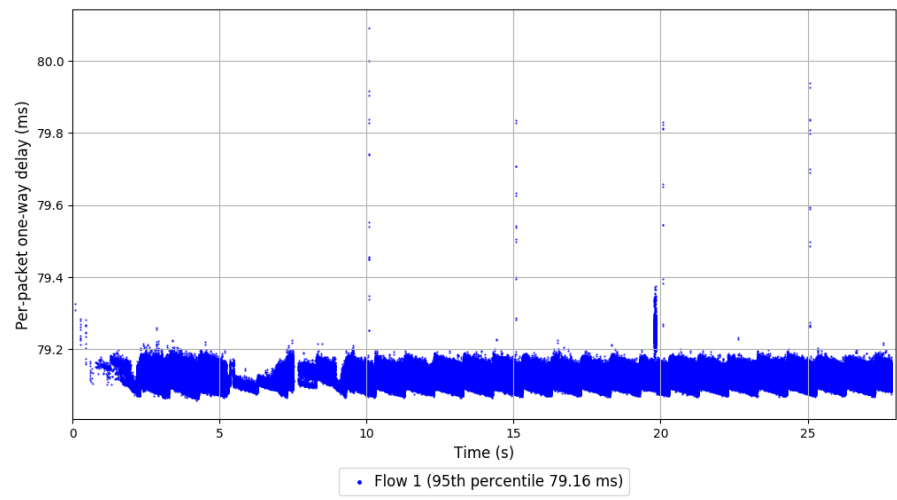
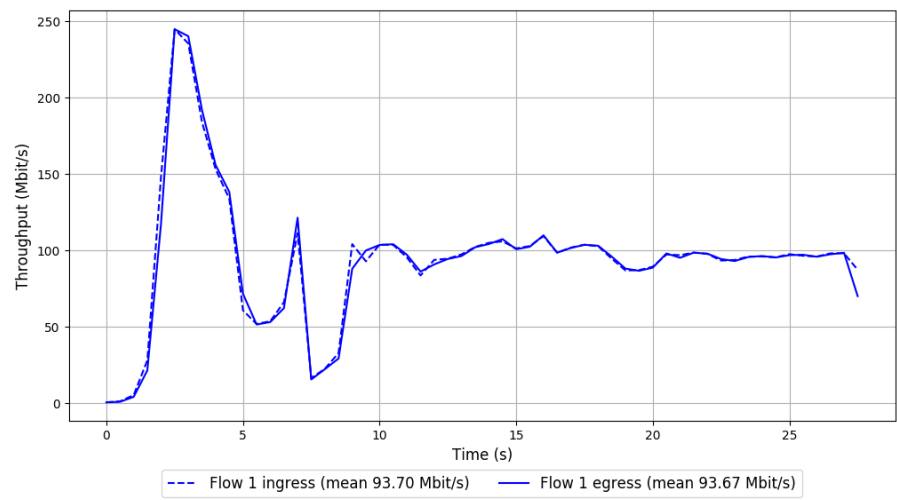
-- Flow 1:

Average throughput: 93.67 Mbit/s

95th percentile per-packet one-way delay: 79.164 ms

Loss rate: 0.63%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-11 12:18:26

End at: 2017-12-11 12:18:56

Local clock offset: -0.019 ms

Remote clock offset: 0.499 ms

Below is generated by plot.py at 2017-12-11 17:22:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.57 Mbit/s

95th percentile per-packet one-way delay: 79.242 ms

Loss rate: 0.63%

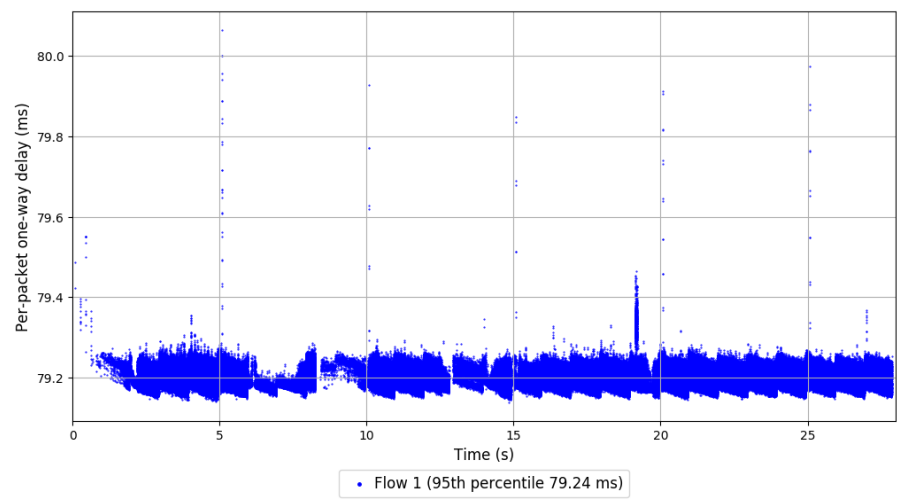
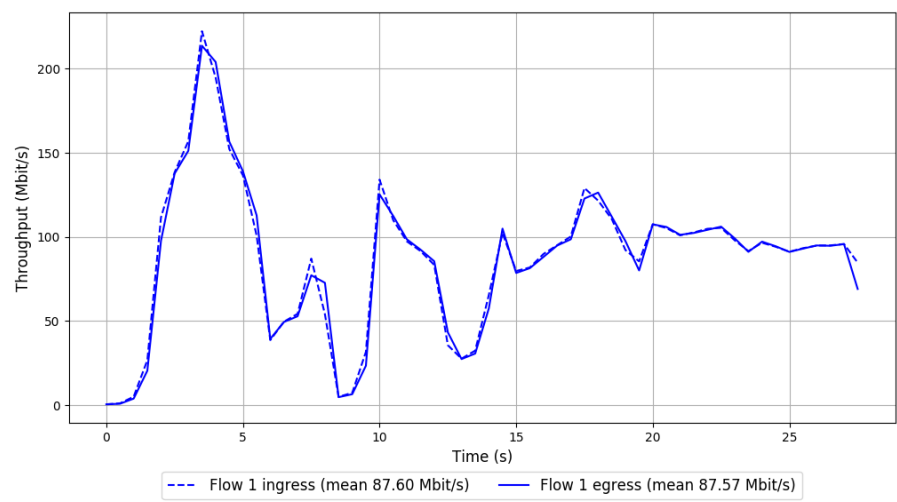
-- Flow 1:

Average throughput: 87.57 Mbit/s

95th percentile per-packet one-way delay: 79.242 ms

Loss rate: 0.63%

Run 5: Report of Copa — Data Link

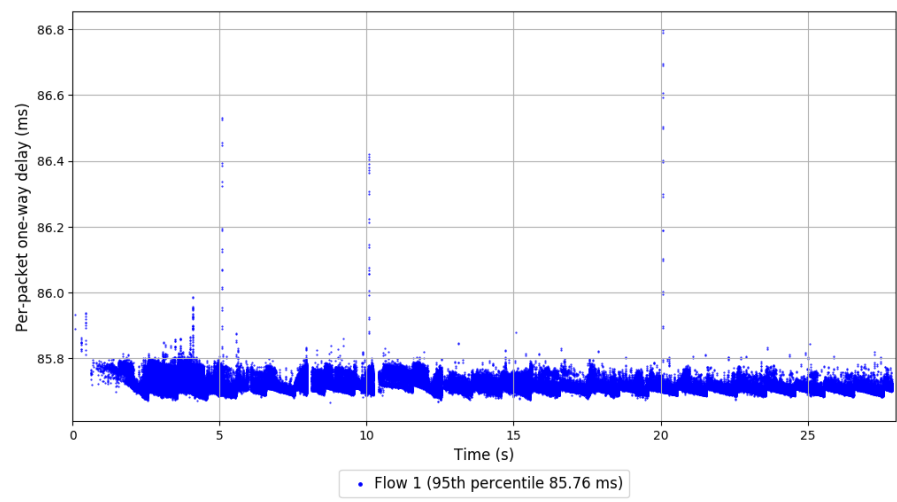
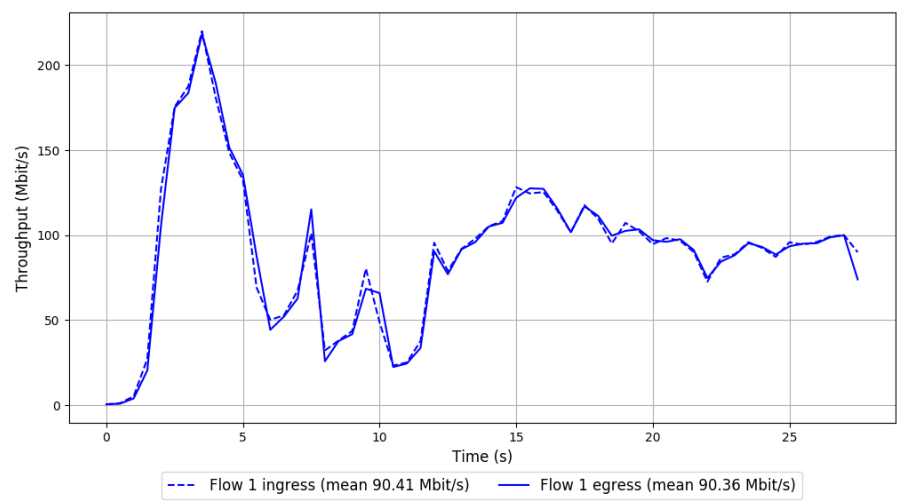


Run 6: Statistics of Copa

Start at: 2017-12-11 12:36:21
End at: 2017-12-11 12:36:51
Local clock offset: -0.145 ms
Remote clock offset: -4.599 ms

Below is generated by plot.py at 2017-12-11 17:22:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 90.36 Mbit/s
95th percentile per-packet one-way delay: 85.757 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 90.36 Mbit/s
95th percentile per-packet one-way delay: 85.757 ms
Loss rate: 0.66%

Run 6: Report of Copa — Data Link

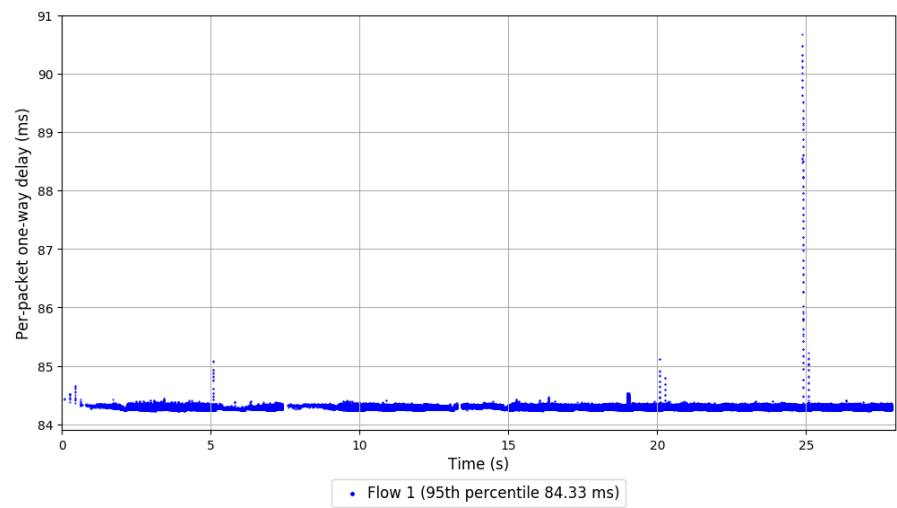
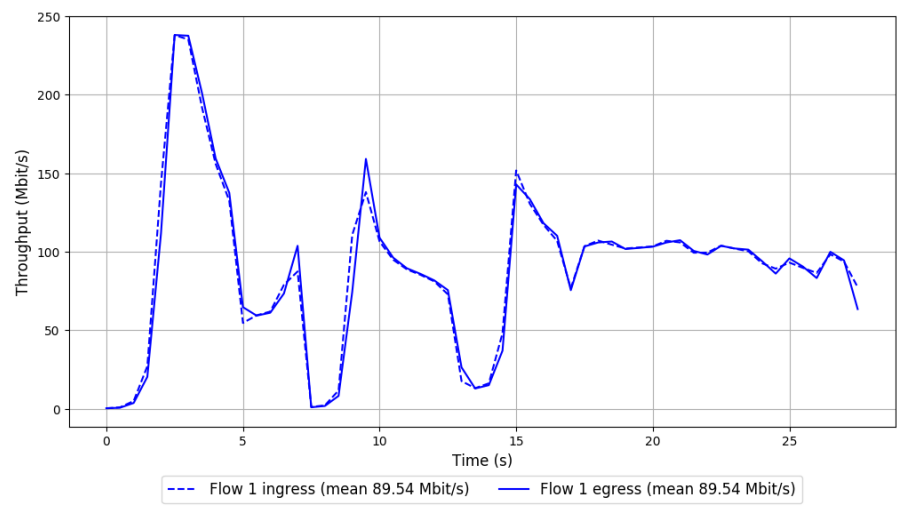


Run 7: Statistics of Copa

Start at: 2017-12-11 12:54:27
End at: 2017-12-11 12:54:57
Local clock offset: -0.279 ms
Remote clock offset: -4.851 ms

Below is generated by plot.py at 2017-12-11 17:22:17
Datalink statistics
-- Total of 1 flow:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 84.333 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 89.54 Mbit/s
95th percentile per-packet one-way delay: 84.333 ms
Loss rate: 0.59%

Run 7: Report of Copa — Data Link

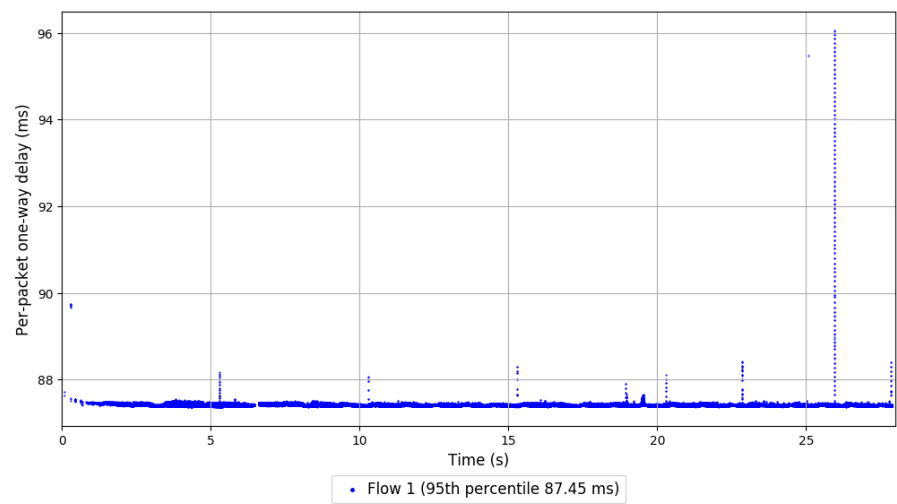
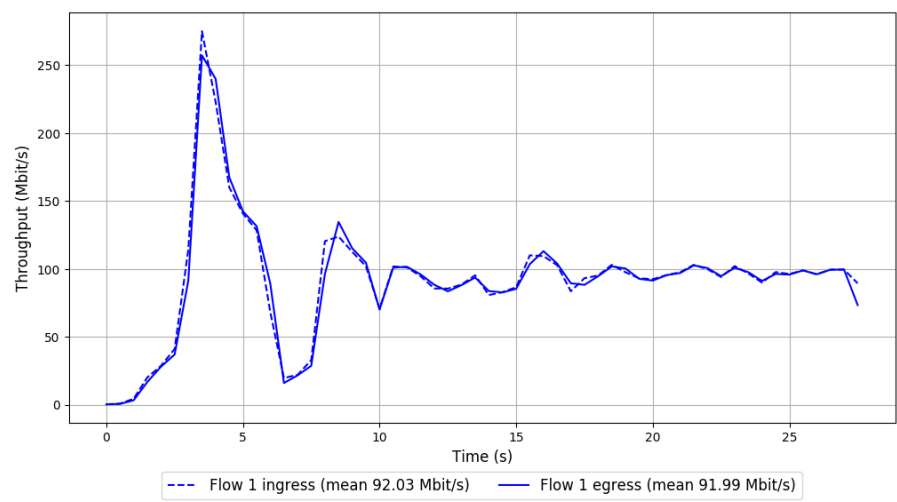


Run 8: Statistics of Copa

Start at: 2017-12-11 13:12:30
End at: 2017-12-11 13:13:00
Local clock offset: -0.293 ms
Remote clock offset: -5.453 ms

Below is generated by plot.py at 2017-12-11 17:22:24
Datalink statistics
-- Total of 1 flow:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 87.447 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 91.99 Mbit/s
95th percentile per-packet one-way delay: 87.447 ms
Loss rate: 0.65%

Run 8: Report of Copa — Data Link

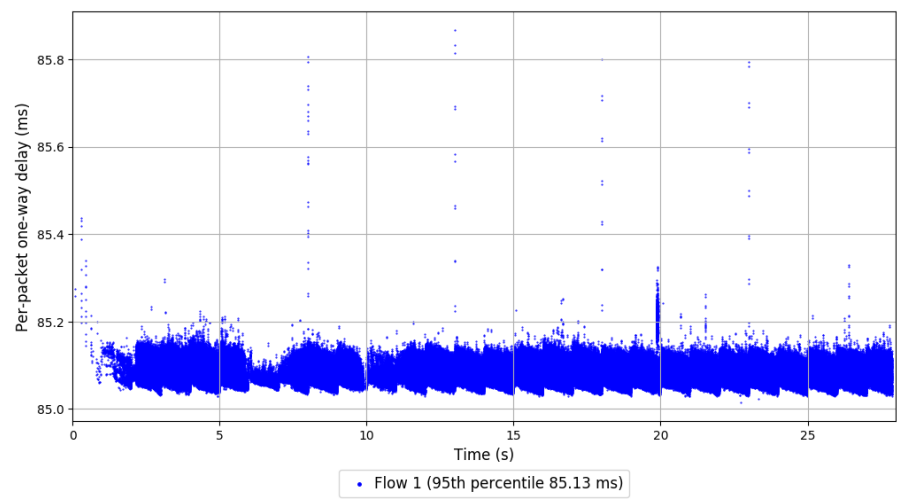
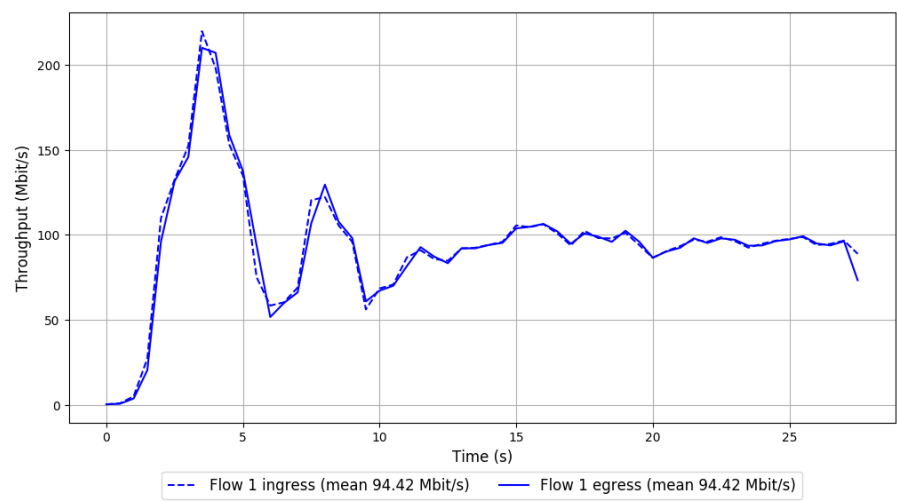


Run 9: Statistics of Copa

Start at: 2017-12-11 13:30:47
End at: 2017-12-11 13:31:17
Local clock offset: -0.315 ms
Remote clock offset: -4.304 ms

Below is generated by plot.py at 2017-12-11 17:23:00
Datalink statistics
-- Total of 1 flow:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 85.127 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 94.42 Mbit/s
95th percentile per-packet one-way delay: 85.127 ms
Loss rate: 0.61%

Run 9: Report of Copa — Data Link

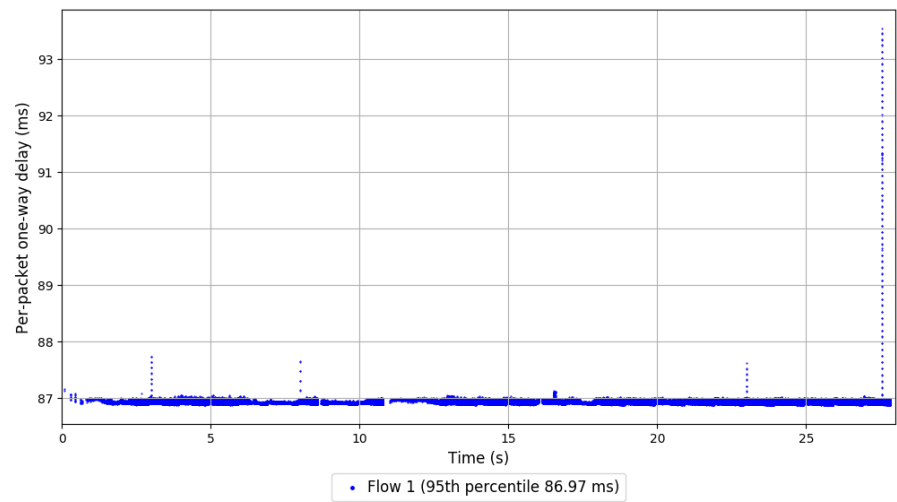
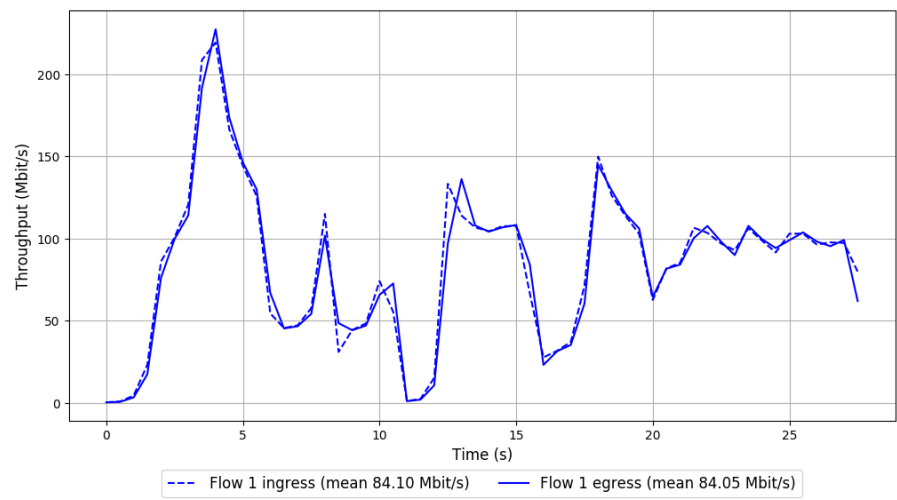


Run 10: Statistics of Copa

Start at: 2017-12-11 13:49:57
End at: 2017-12-11 13:50:27
Local clock offset: -0.316 ms
Remote clock offset: -4.973 ms

Below is generated by plot.py at 2017-12-11 17:23:28
Datalink statistics
-- Total of 1 flow:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 86.969 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 84.05 Mbit/s
95th percentile per-packet one-way delay: 86.969 ms
Loss rate: 0.73%

Run 10: Report of Copa — Data Link

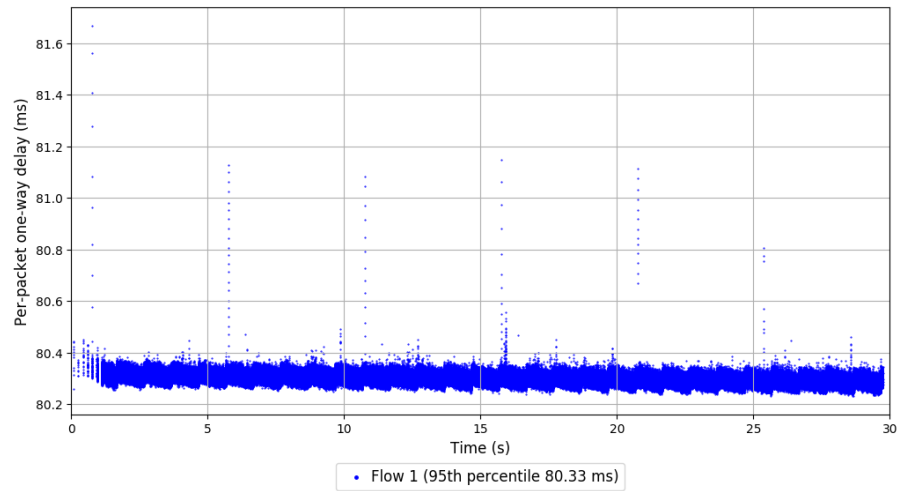
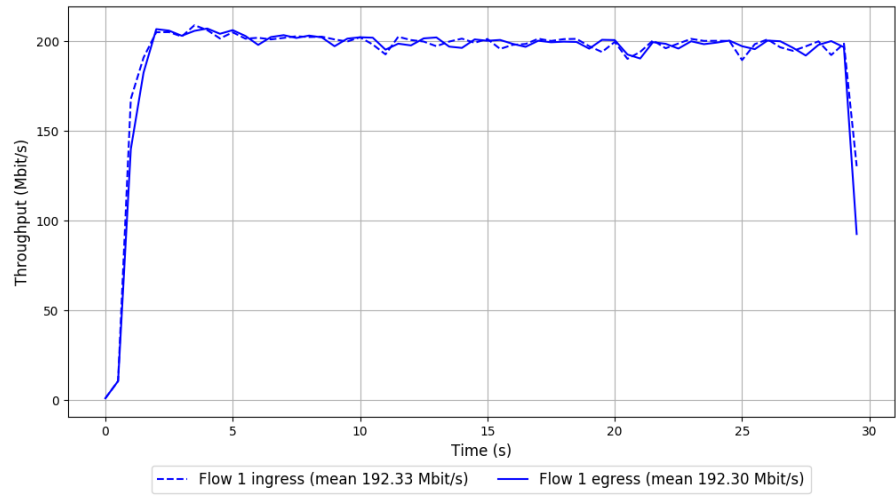


```
Run 1: Statistics of Indigo

Start at: 2017-12-11 10:53:35
End at: 2017-12-11 10:54:05
Local clock offset: -1.233 ms
Remote clock offset: -1.014 ms

# Below is generated by plot.py at 2017-12-11 17:24:25
# Datalink statistics
-- Total of 1 flow:
Average throughput: 192.30 Mbit/s
95th percentile per-packet one-way delay: 80.335 ms
Loss rate: 0.57%
-- Flow 1:
Average throughput: 192.30 Mbit/s
95th percentile per-packet one-way delay: 80.335 ms
Loss rate: 0.57%
```


Run 1: Report of Indigo — Data Link

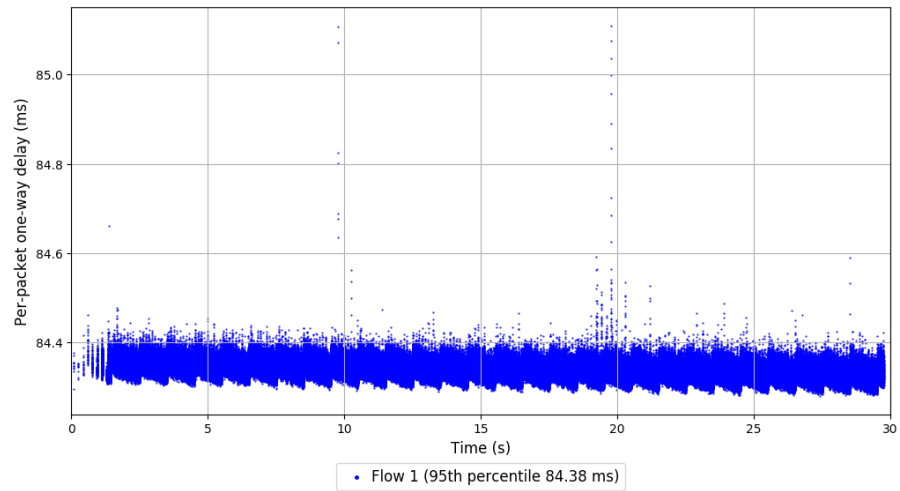
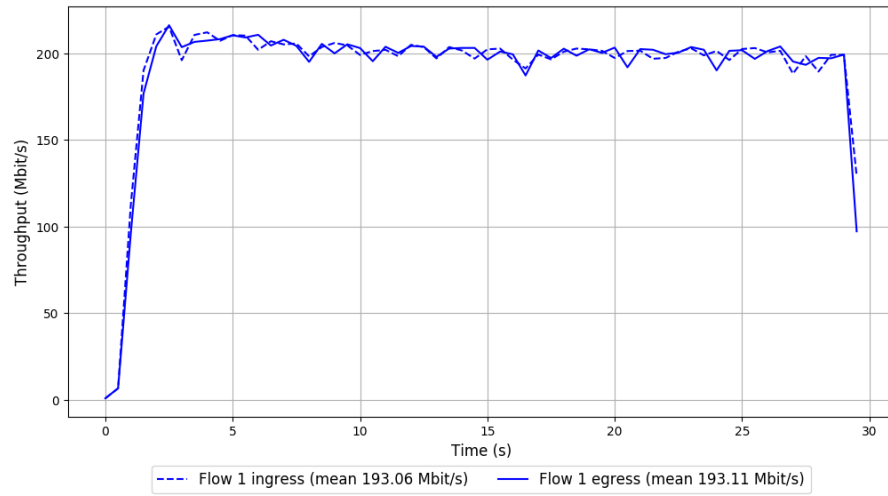


Run 2: Statistics of Indigo

Start at: 2017-12-11 11:11:50
End at: 2017-12-11 11:12:20
Local clock offset: -0.371 ms
Remote clock offset: -4.954 ms

Below is generated by plot.py at 2017-12-11 17:24:33
Datalink statistics
-- Total of 1 flow:
Average throughput: 193.11 Mbit/s
95th percentile per-packet one-way delay: 84.376 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 193.11 Mbit/s
95th percentile per-packet one-way delay: 84.376 ms
Loss rate: 0.53%

Run 2: Report of Indigo — Data Link

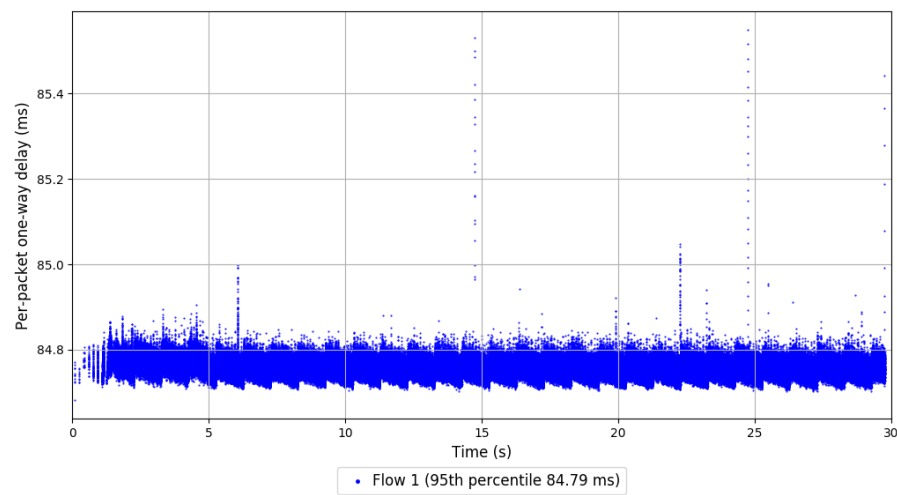
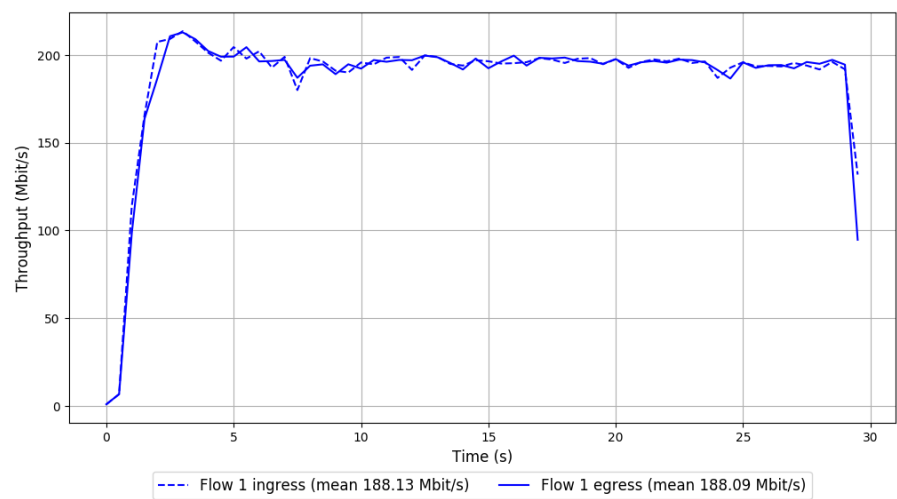


Run 3: Statistics of Indigo

Start at: 2017-12-11 11:29:43
End at: 2017-12-11 11:30:13
Local clock offset: 0.243 ms
Remote clock offset: -5.225 ms

Below is generated by plot.py at 2017-12-11 17:24:54
Datalink statistics
-- Total of 1 flow:
Average throughput: 188.09 Mbit/s
95th percentile per-packet one-way delay: 84.792 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 188.09 Mbit/s
95th percentile per-packet one-way delay: 84.792 ms
Loss rate: 0.58%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-11 11:47:41

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

Local clock offset: 0.235 ms

Remote clock offset: 0.189 ms

Below is generated by plot.py at 2017-12-11 17:25:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 197.38 Mbit/s

95th percentile per-packet one-way delay: 81.861 ms

Loss rate: 0.59%

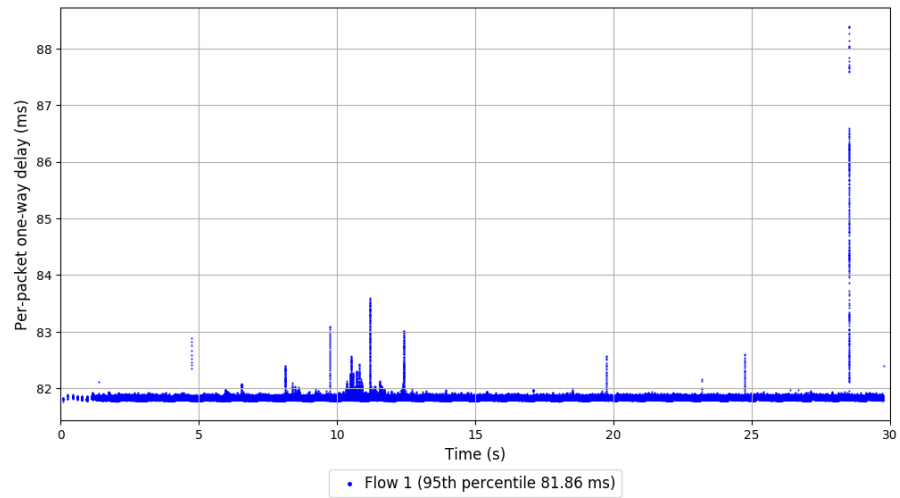
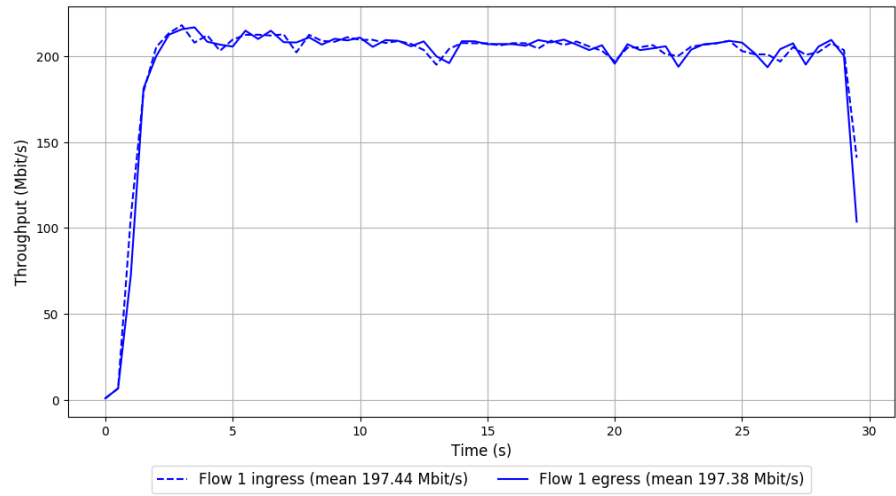
-- Flow 1:

Average throughput: 197.38 Mbit/s

95th percentile per-packet one-way delay: 81.861 ms

Loss rate: 0.59%

Run 4: Report of Indigo — Data Link

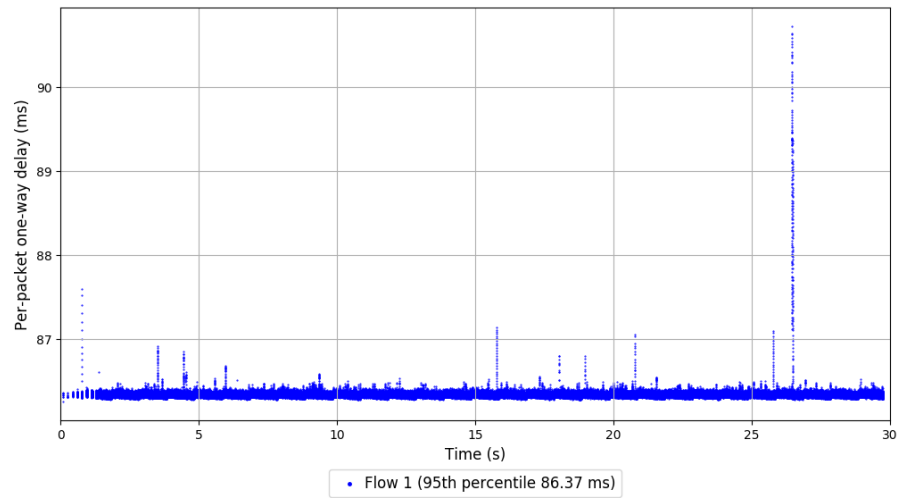
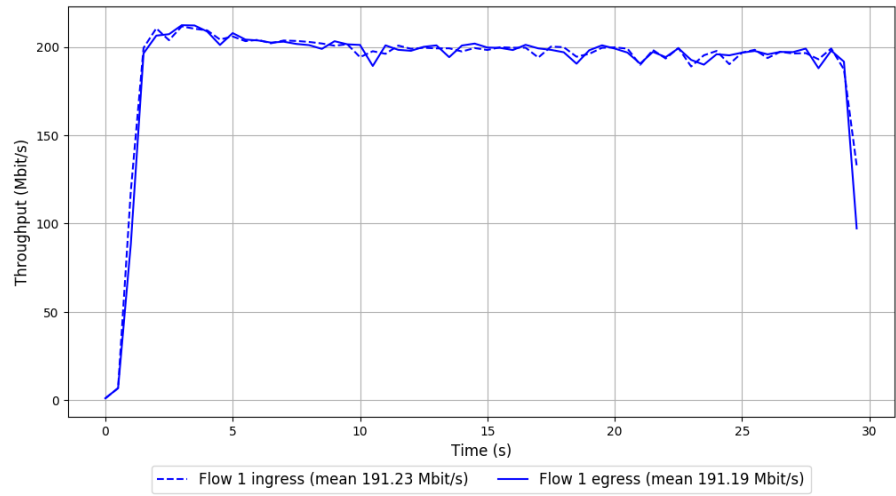


Run 5: Statistics of Indigo

Start at: 2017-12-11 12:05:42
End at: 2017-12-11 12:06:12
Local clock offset: 0.033 ms
Remote clock offset: -4.358 ms

Below is generated by plot.py at 2017-12-11 17:25:08
Datalink statistics
-- Total of 1 flow:
Average throughput: 191.19 Mbit/s
95th percentile per-packet one-way delay: 86.374 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 191.19 Mbit/s
95th percentile per-packet one-way delay: 86.374 ms
Loss rate: 0.58%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-11 12:23:29

End at: 2017-12-11 12:23:59

Local clock offset: -0.066 ms

Remote clock offset: 0.171 ms

Below is generated by plot.py at 2017-12-11 17:25:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.54 Mbit/s

95th percentile per-packet one-way delay: 80.385 ms

Loss rate: 0.58%

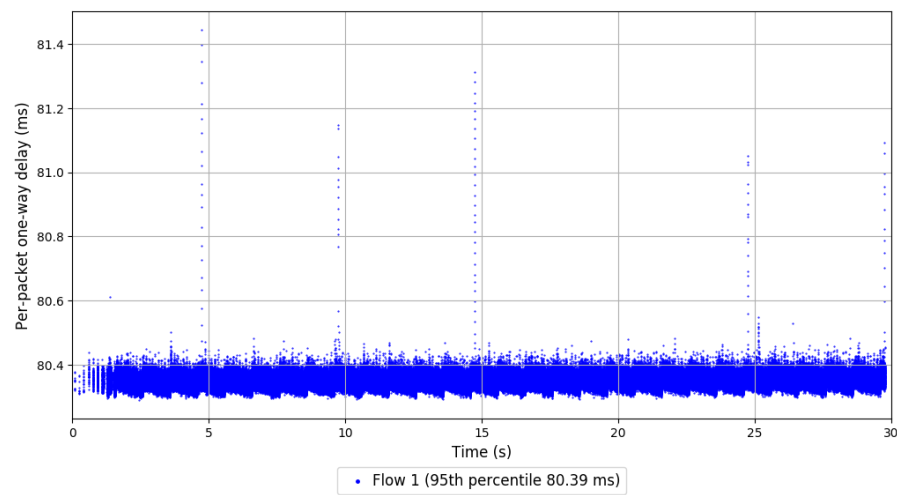
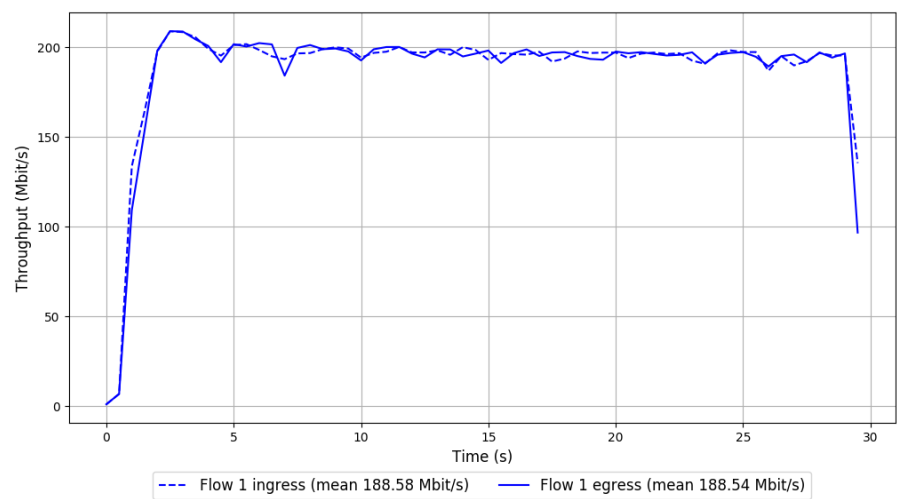
-- Flow 1:

Average throughput: 188.54 Mbit/s

95th percentile per-packet one-way delay: 80.385 ms

Loss rate: 0.58%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-11 12:41:23

End at: 2017-12-11 12:41:53

Local clock offset: -0.243 ms

Remote clock offset: 1.306 ms

Below is generated by plot.py at 2017-12-11 17:25:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.73 Mbit/s

95th percentile per-packet one-way delay: 78.312 ms

Loss rate: 0.56%

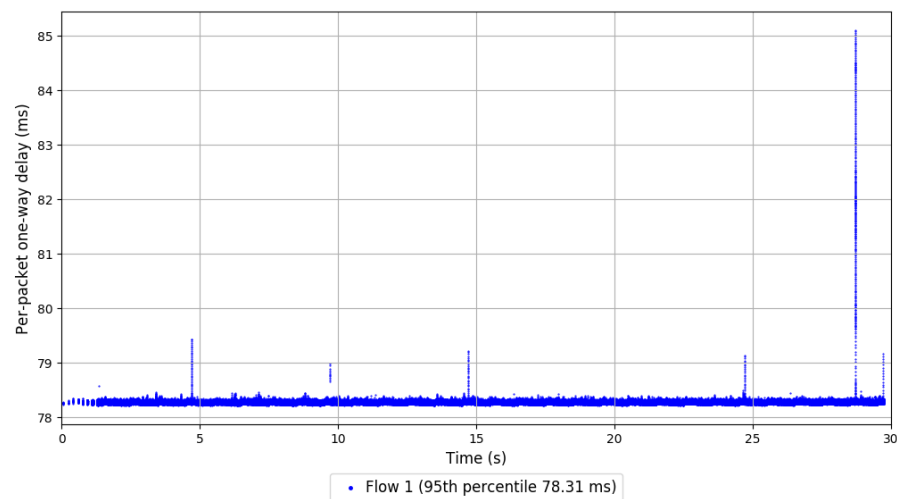
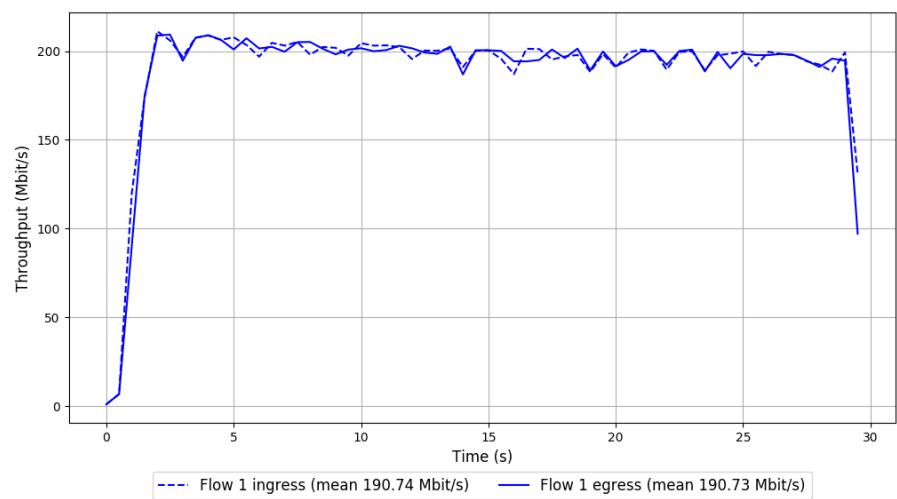
-- Flow 1:

Average throughput: 190.73 Mbit/s

95th percentile per-packet one-way delay: 78.312 ms

Loss rate: 0.56%

Run 7: Report of Indigo — Data Link

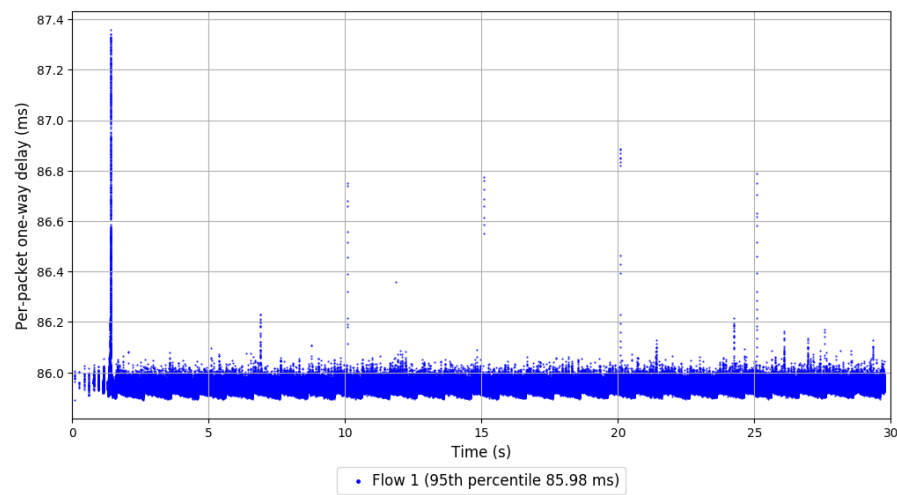
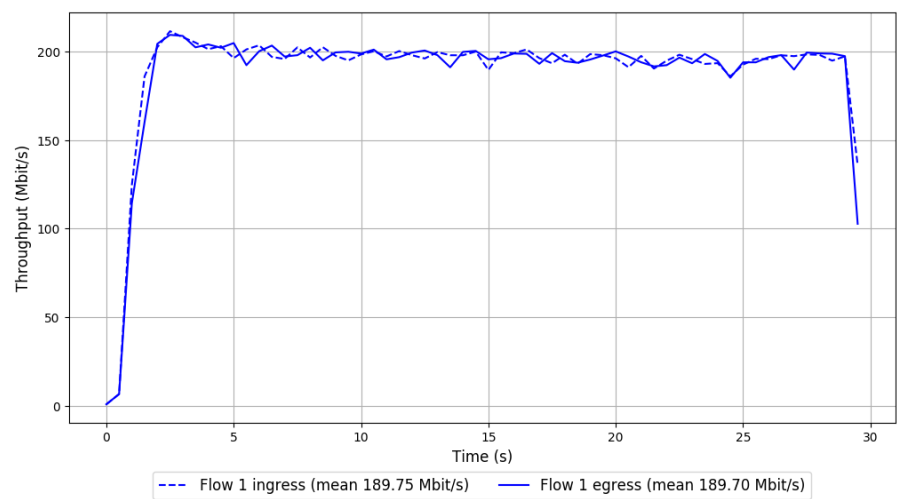


Run 8: Statistics of Indigo

Start at: 2017-12-11 12:59:28
End at: 2017-12-11 12:59:58
Local clock offset: -0.284 ms
Remote clock offset: -4.638 ms

Below is generated by plot.py at 2017-12-11 17:26:15
Datalink statistics
-- Total of 1 flow:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 85.981 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 189.70 Mbit/s
95th percentile per-packet one-way delay: 85.981 ms
Loss rate: 0.59%

Run 8: Report of Indigo — Data Link

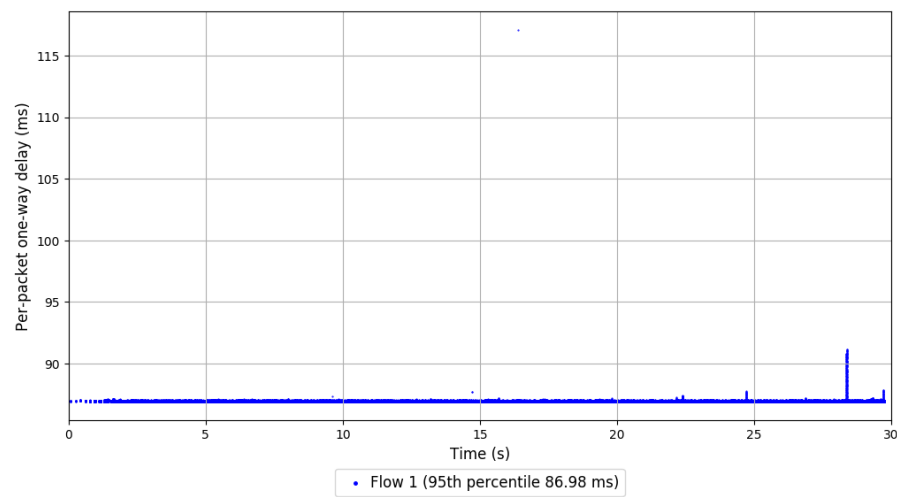
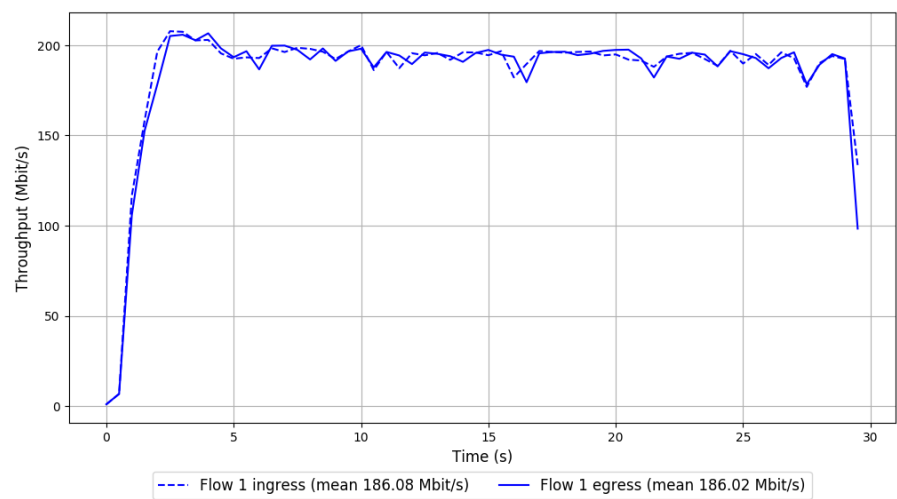


Run 9: Statistics of Indigo

Start at: 2017-12-11 13:17:45
End at: 2017-12-11 13:18:15
Local clock offset: -0.326 ms
Remote clock offset: -4.651 ms

Below is generated by plot.py at 2017-12-11 17:27:06
Datalink statistics
-- Total of 1 flow:
Average throughput: 186.02 Mbit/s
95th percentile per-packet one-way delay: 86.983 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 186.02 Mbit/s
95th percentile per-packet one-way delay: 86.983 ms
Loss rate: 0.59%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-11 13:35:48

End at: 2017-12-11 13:36:18

Local clock offset: -0.256 ms

Remote clock offset: -5.256 ms

Below is generated by plot.py at 2017-12-11 17:27:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.02 Mbit/s

95th percentile per-packet one-way delay: 86.122 ms

Loss rate: 0.61%

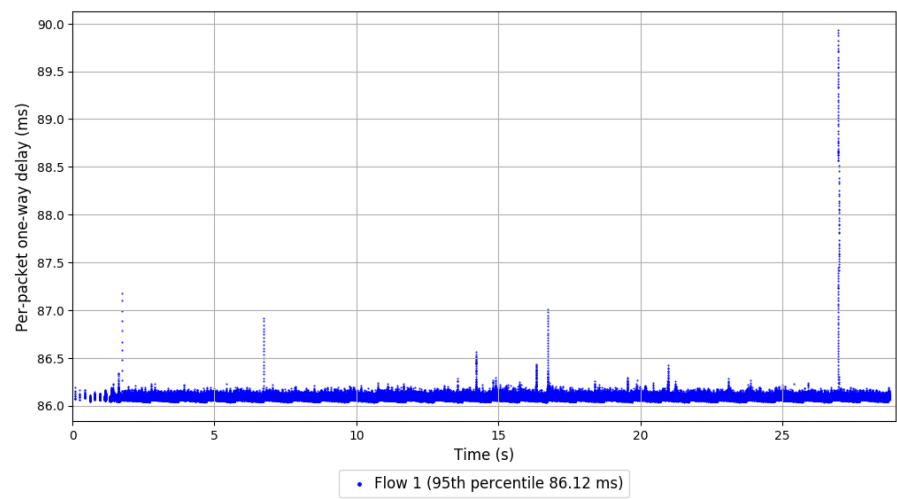
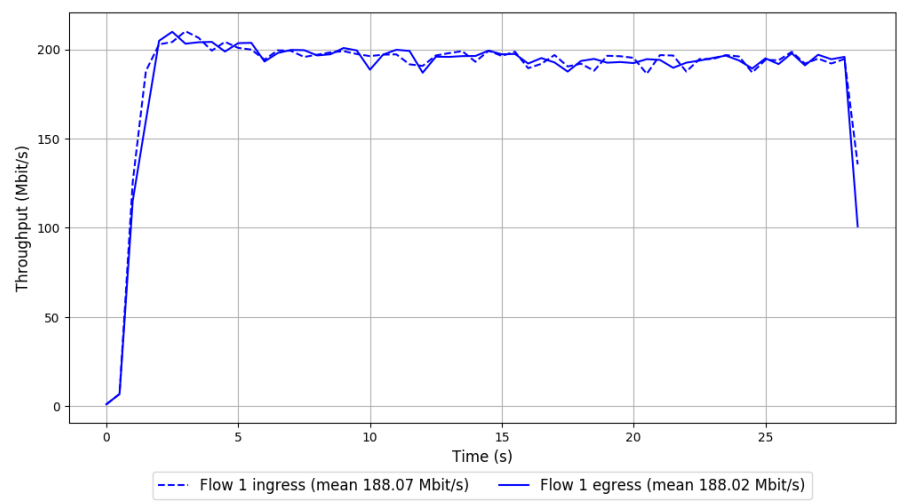
-- Flow 1:

Average throughput: 188.02 Mbit/s

95th percentile per-packet one-way delay: 86.122 ms

Loss rate: 0.61%

Run 10: Report of Indigo — Data Link

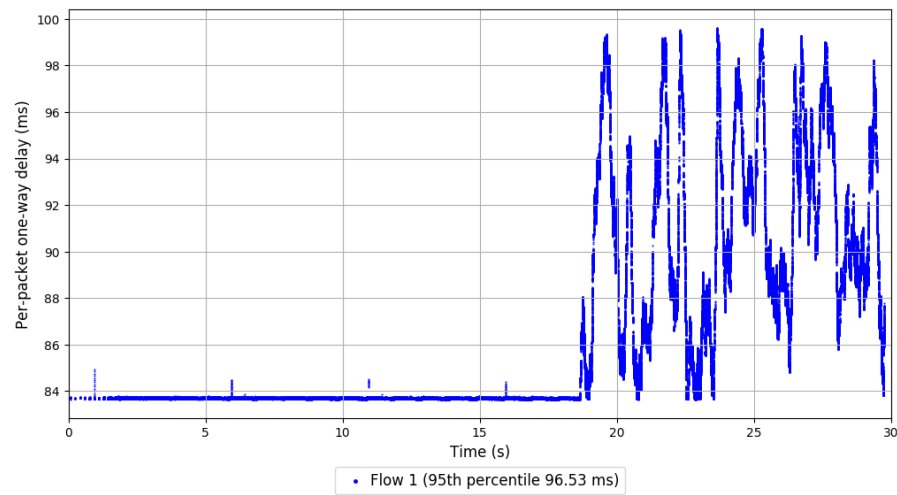
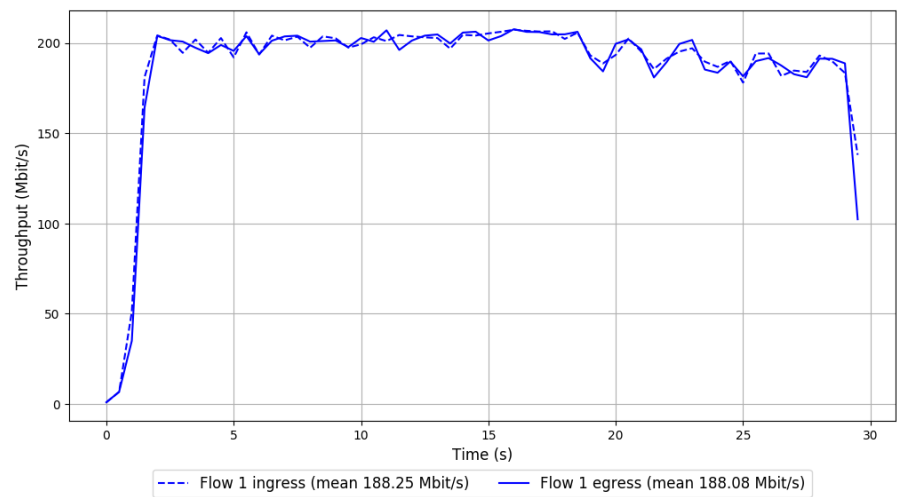


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-11 10:59:09
End at: 2017-12-11 10:59:39
Local clock offset: -1.013 ms
Remote clock offset: -4.676 ms

# Below is generated by plot.py at 2017-12-11 17:27:45
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.08 Mbit/s
95th percentile per-packet one-way delay: 96.531 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 188.08 Mbit/s
95th percentile per-packet one-way delay: 96.531 ms
Loss rate: 0.64%
```

Run 1: Report of Indigo-calib — Data Link

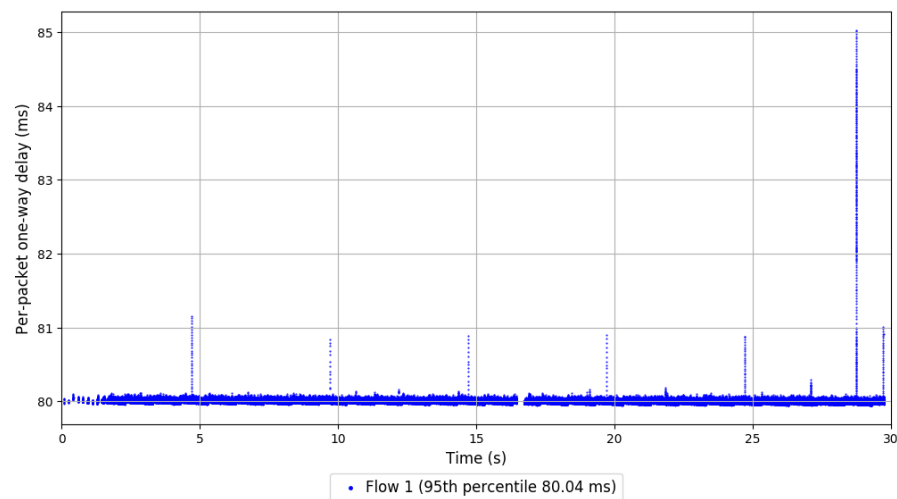
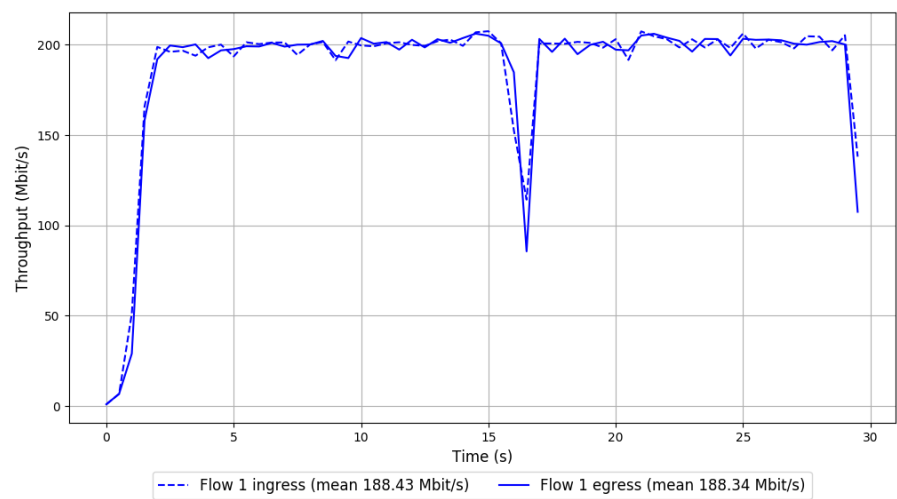


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-11 11:17:14
End at: 2017-12-11 11:17:44
Local clock offset: -0.135 ms
Remote clock offset: 0.644 ms

# Below is generated by plot.py at 2017-12-11 17:27:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.34 Mbit/s
95th percentile per-packet one-way delay: 80.038 ms
Loss rate: 0.61%
-- Flow 1:
Average throughput: 188.34 Mbit/s
95th percentile per-packet one-way delay: 80.038 ms
Loss rate: 0.61%
```

Run 2: Report of Indigo-calib — Data Link



Run 3: Statistics of Indigo-calib

Start at: 2017-12-11 11:35:04

End at: 2017-12-11 11:35:34

Local clock offset: 0.347 ms

Remote clock offset: -5.593 ms

Below is generated by plot.py at 2017-12-11 17:28:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.54 Mbit/s

95th percentile per-packet one-way delay: 87.750 ms

Loss rate: 0.59%

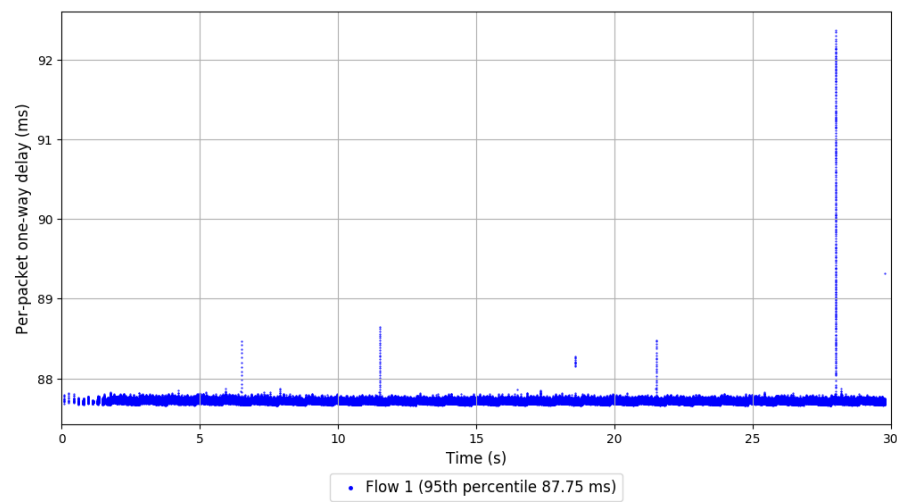
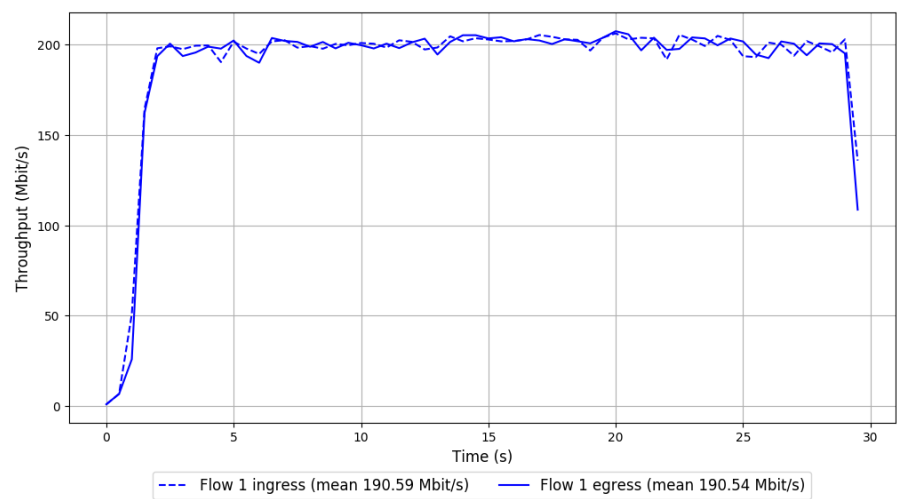
-- Flow 1:

Average throughput: 190.54 Mbit/s

95th percentile per-packet one-way delay: 87.750 ms

Loss rate: 0.59%

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-12-11 11:53:05

End at: 2017-12-11 11:53:35

Local clock offset: 0.158 ms

Remote clock offset: 0.573 ms

Below is generated by plot.py at 2017-12-11 17:28:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 193.05 Mbit/s

95th percentile per-packet one-way delay: 80.634 ms

Loss rate: 0.59%

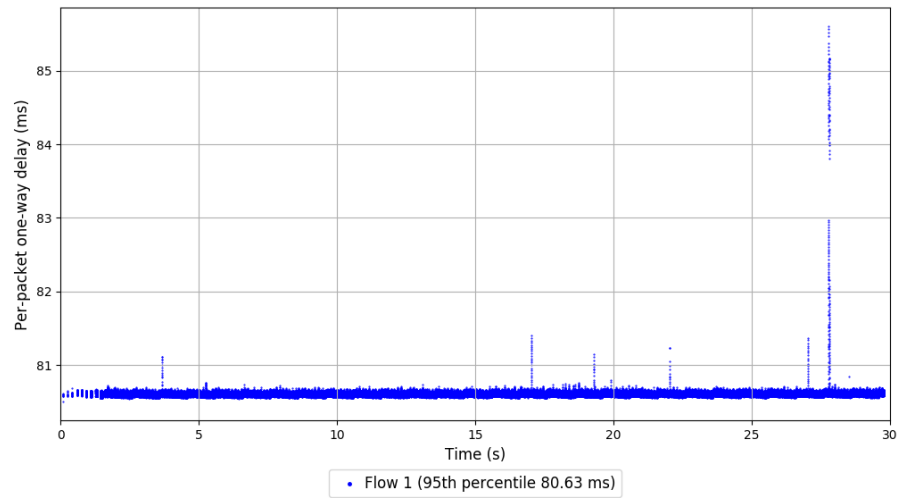
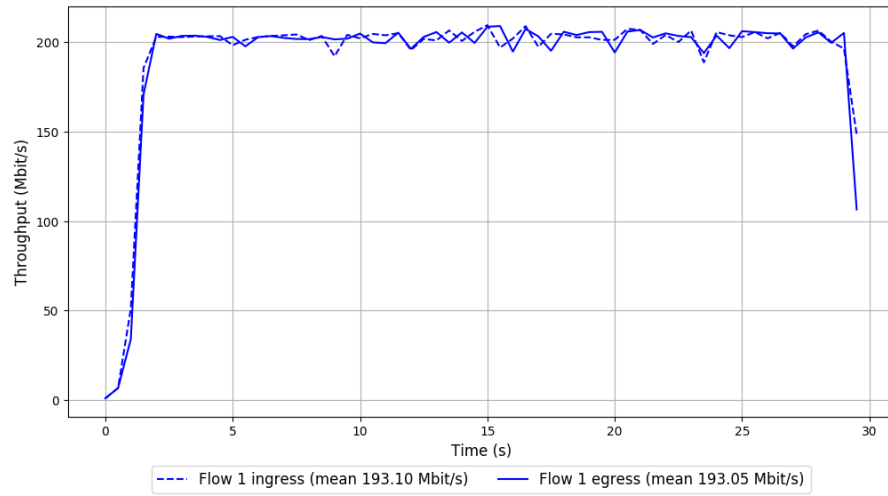
-- Flow 1:

Average throughput: 193.05 Mbit/s

95th percentile per-packet one-way delay: 80.634 ms

Loss rate: 0.59%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-11 12:10:56

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

Local clock offset: -0.003 ms

Remote clock offset: 1.361 ms

Below is generated by plot.py at 2017-12-11 17:28:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 177.71 Mbit/s

95th percentile per-packet one-way delay: 78.312 ms

Loss rate: 0.71%

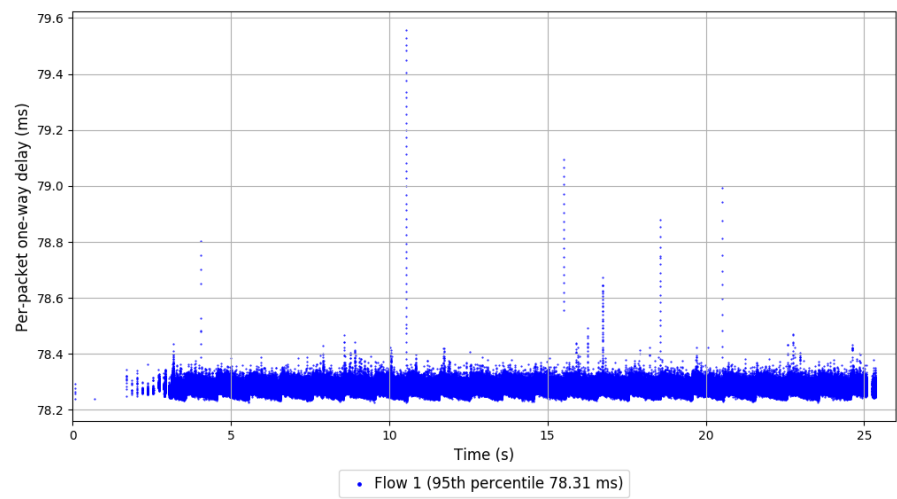
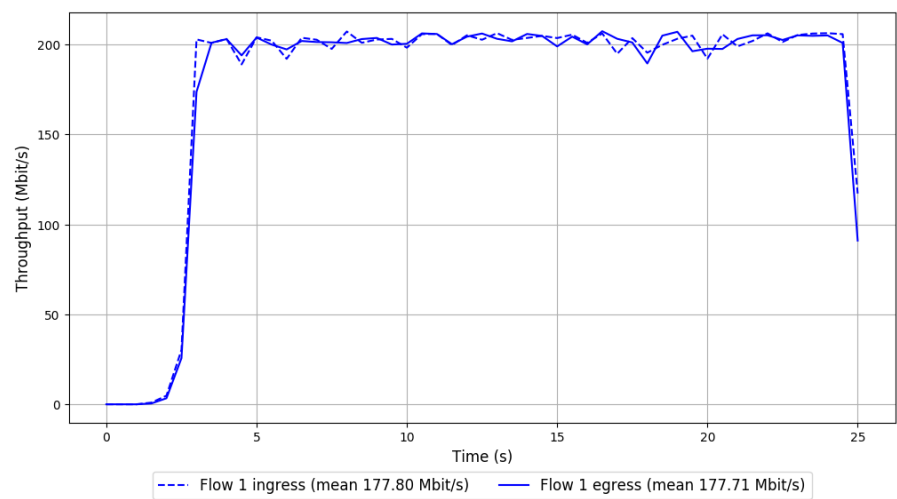
-- Flow 1:

Average throughput: 177.71 Mbit/s

95th percentile per-packet one-way delay: 78.312 ms

Loss rate: 0.71%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-12-11 12:28:52

End at: 2017-12-11 12:29:22

Local clock offset: -0.1 ms

Remote clock offset: 0.28 ms

Below is generated by plot.py at 2017-12-11 17:28:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 190.28 Mbit/s

95th percentile per-packet one-way delay: 80.730 ms

Loss rate: 0.60%

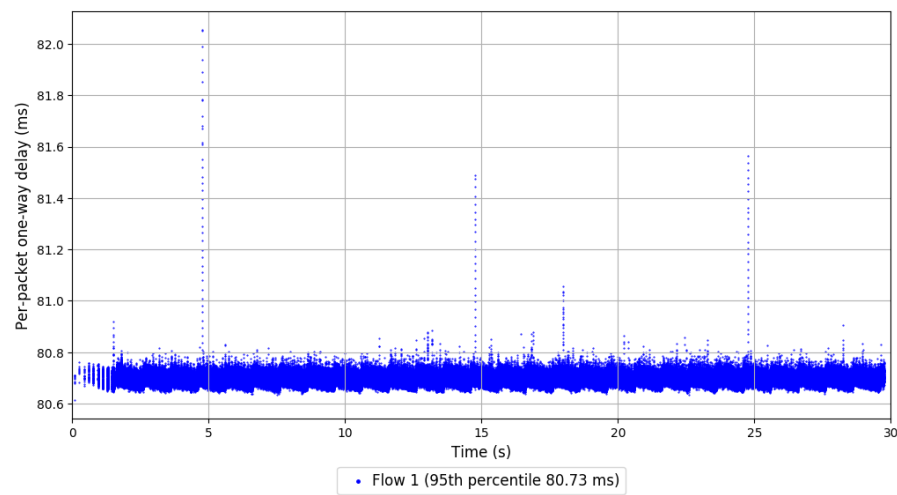
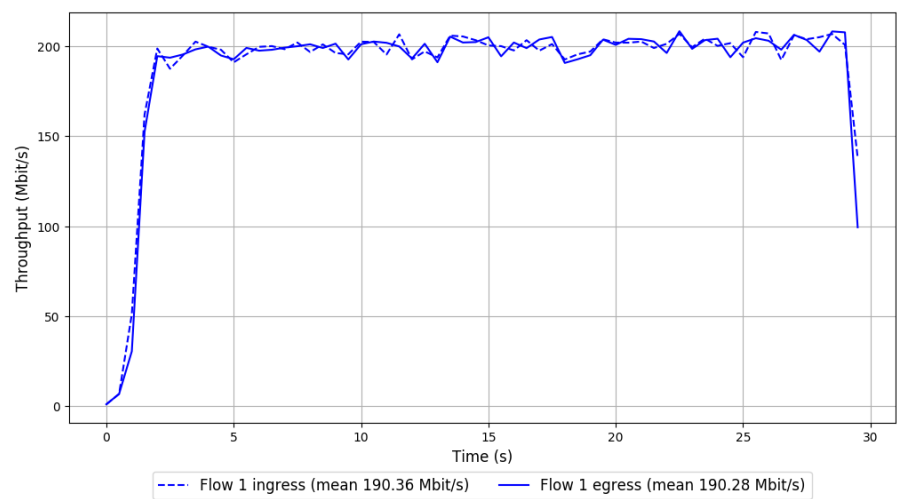
-- Flow 1:

Average throughput: 190.28 Mbit/s

95th percentile per-packet one-way delay: 80.730 ms

Loss rate: 0.60%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-12-11 12:46:51

End at: 2017-12-11 12:47:21

Local clock offset: -0.215 ms

Remote clock offset: 1.373 ms

Below is generated by plot.py at 2017-12-11 17:29:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.56 Mbit/s

95th percentile per-packet one-way delay: 79.163 ms

Loss rate: 0.64%

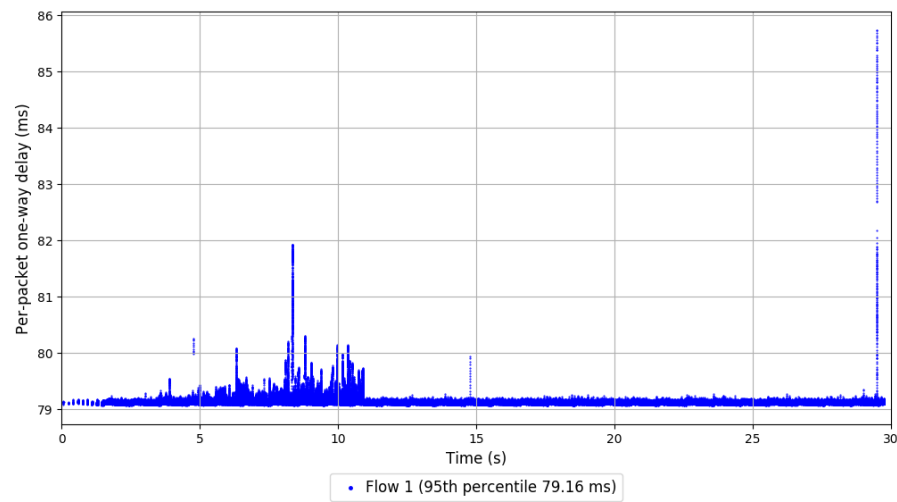
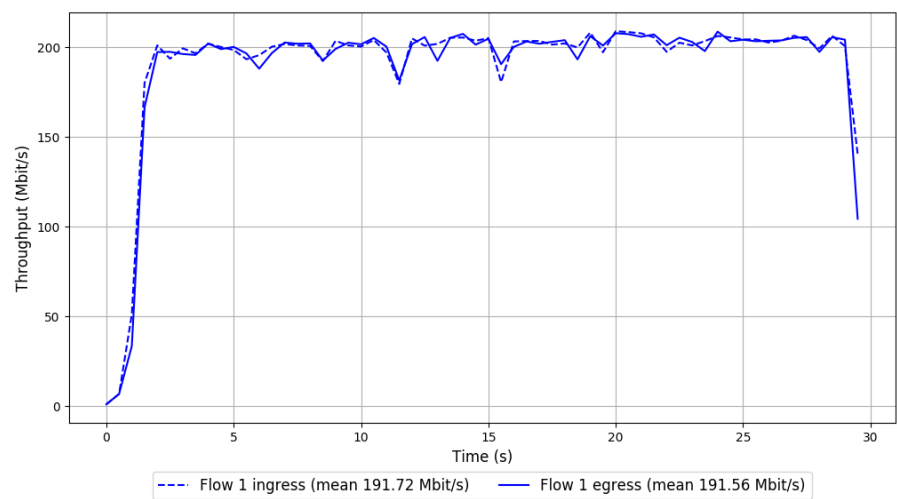
-- Flow 1:

Average throughput: 191.56 Mbit/s

95th percentile per-packet one-way delay: 79.163 ms

Loss rate: 0.64%

Run 7: Report of Indigo-calib — Data Link

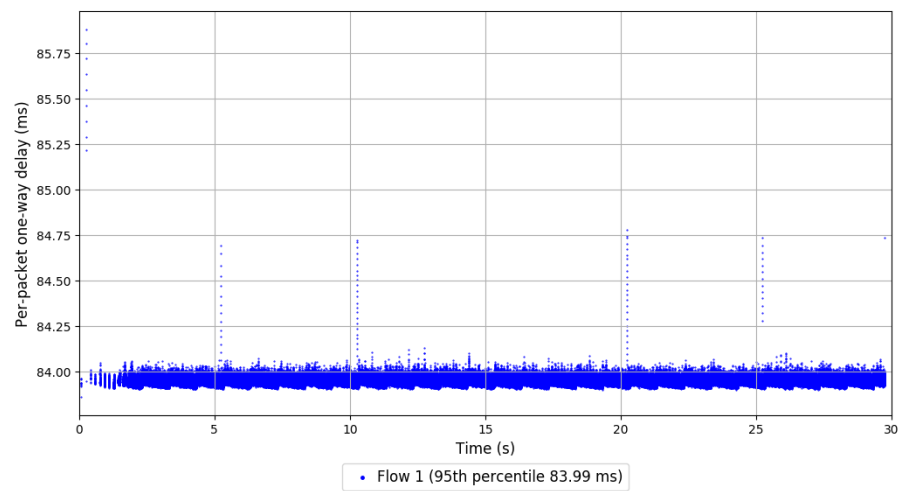
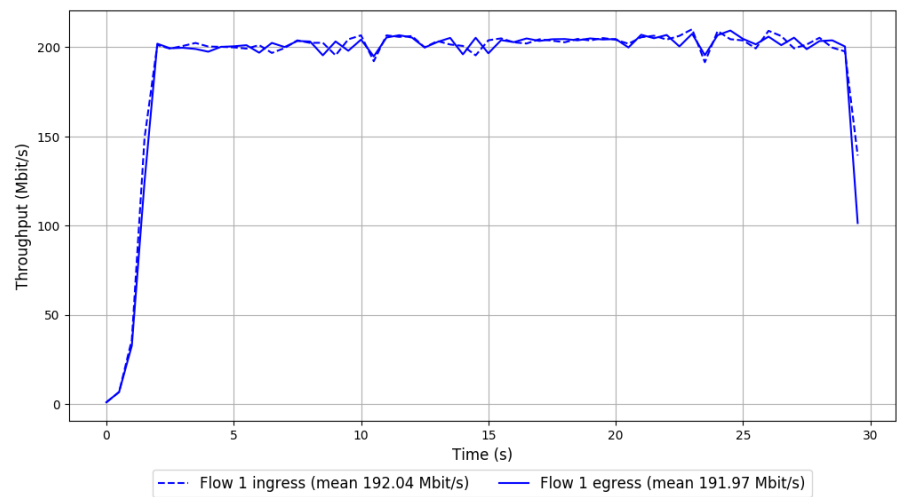


Run 8: Statistics of Indigo-calib

Start at: 2017-12-11 13:04:56
End at: 2017-12-11 13:05:26
Local clock offset: -0.285 ms
Remote clock offset: -4.303 ms

Below is generated by plot.py at 2017-12-11 17:29:18
Datalink statistics
-- Total of 1 flow:
Average throughput: 191.97 Mbit/s
95th percentile per-packet one-way delay: 83.989 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 191.97 Mbit/s
95th percentile per-packet one-way delay: 83.989 ms
Loss rate: 0.59%

Run 8: Report of Indigo-calib — Data Link

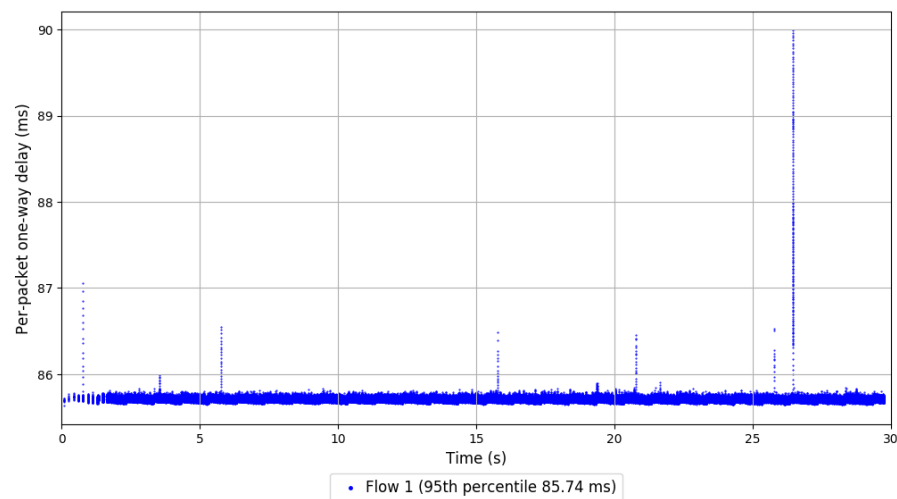
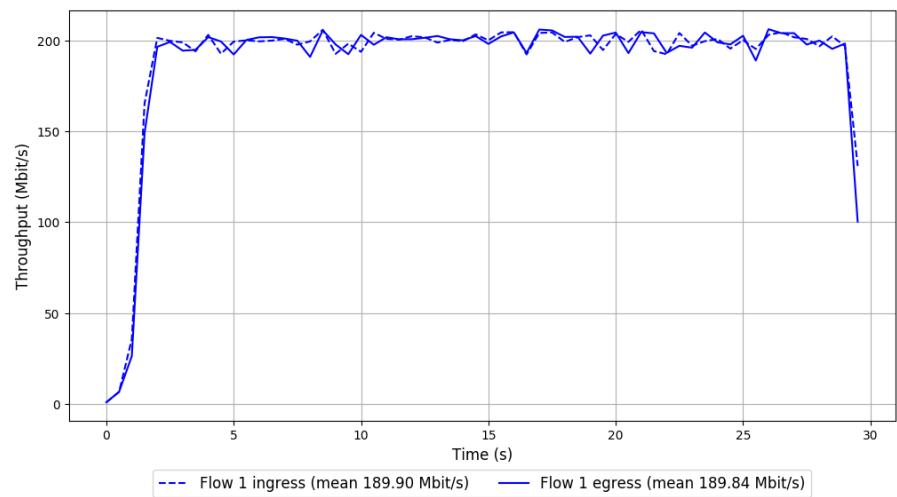


Run 9: Statistics of Indigo-calib

Start at: 2017-12-11 13:23:15
End at: 2017-12-11 13:23:45
Local clock offset: -0.238 ms
Remote clock offset: -4.376 ms

Below is generated by plot.py at 2017-12-11 17:29:21
Datalink statistics
-- Total of 1 flow:
Average throughput: 189.84 Mbit/s
95th percentile per-packet one-way delay: 85.741 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 189.84 Mbit/s
95th percentile per-packet one-way delay: 85.741 ms
Loss rate: 0.60%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-11 13:42:16

End at: 2017-12-11 13:42:46

Local clock offset: -0.285 ms

Remote clock offset: 1.59 ms

Below is generated by plot.py at 2017-12-11 17:29:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.08 Mbit/s

95th percentile per-packet one-way delay: 77.559 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 192.08 Mbit/s

95th percentile per-packet one-way delay: 77.559 ms

Loss rate: 0.59%

Run 10: Report of Indigo-calib — Data Link

