

Pantheon Report

Generated at 2017-10-10 21:53:58 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

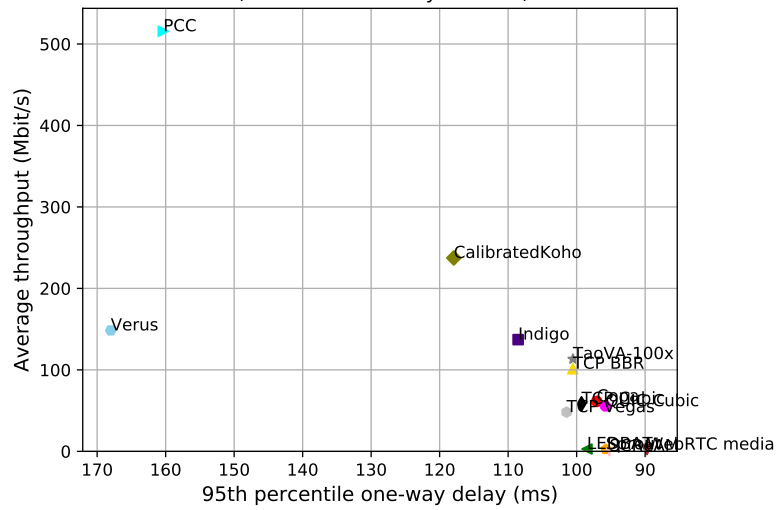
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

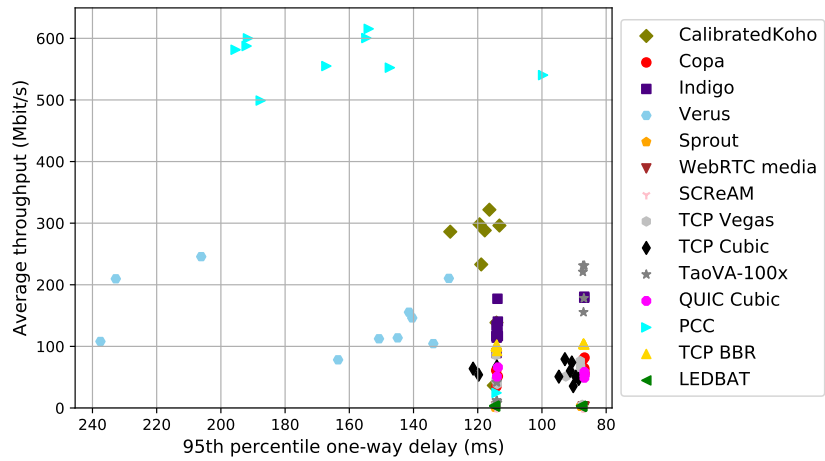
Git summary:

```
branch: indigos @ 45998d6404be7c5106956530acb9cfc43bd06e7d
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
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 GCE Sydney Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



test from GCE Sydney Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	101.41	100.55	0.75
TCP Cubic	10	58.29	99.29	0.78
LEDBAT	10	2.88	98.50	1.04
PCC	10	515.62	160.35	2.90
QUIC Cubic	6	55.42	95.78	0.98
SCReAM	10	0.21	95.22	0.61
WebRTC media	10	2.15	89.74	0.80
Sprout	10	2.63	95.72	1.39
TaoVA-100x	10	113.31	100.54	0.43
TCP Vegas	10	48.10	101.47	0.73
Verus	10	148.43	168.02	1.96
Copa	8	61.27	97.06	0.77
CalibratedKoho	8	237.35	117.94	1.00
Indigo	10	137.14	108.54	0.53

Run 1: Statistics of TCP BBR

Start at: 2017-10-10 17:39:08

End at: 2017-10-10 17:39:38

Below is generated by plot.py at 2017-10-10 21:20:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 100.00 Mbit/s

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

Loss rate: 0.74%

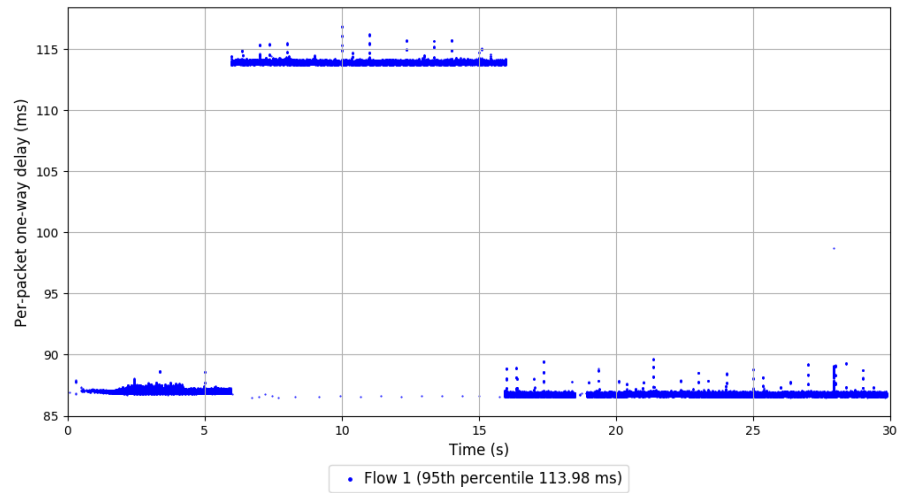
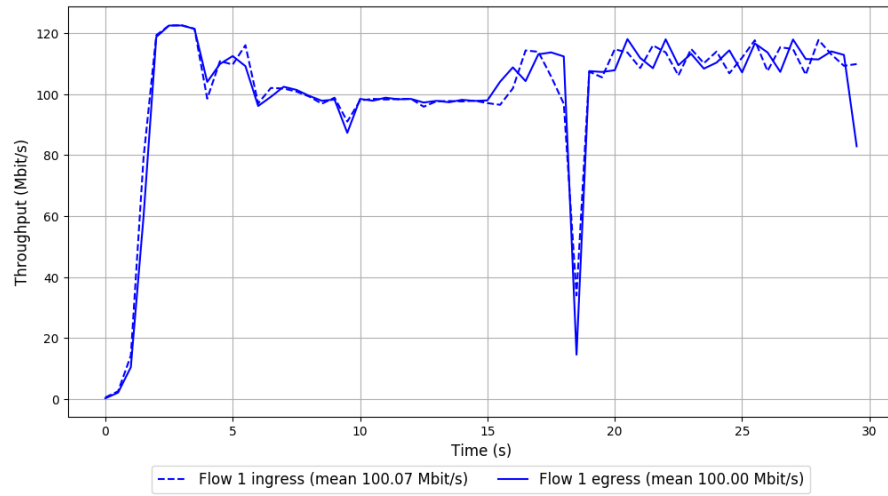
-- Flow 1:

Average throughput: 100.00 Mbit/s

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

Loss rate: 0.74%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-10-10 17:50:06

End at: 2017-10-10 17:50:36

Below is generated by plot.py at 2017-10-10 21:20:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 103.11 Mbit/s

95th percentile per-packet one-way delay: 114.097 ms

Loss rate: 0.75%

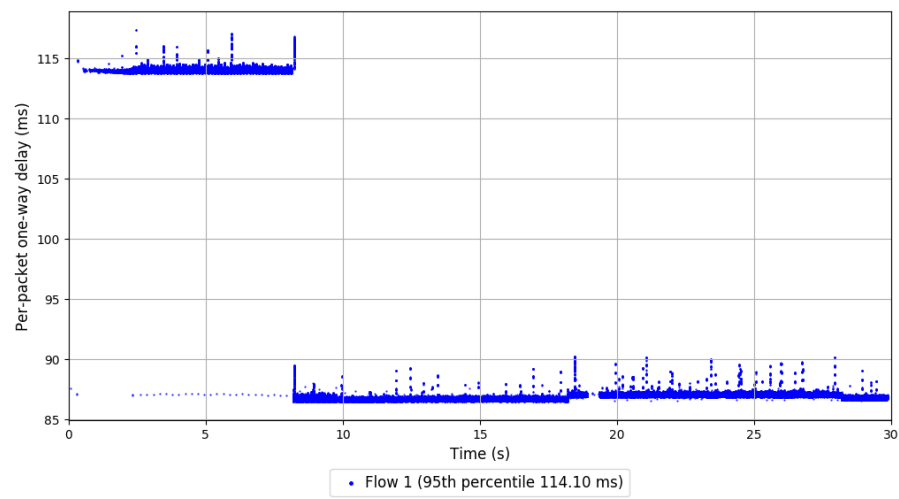
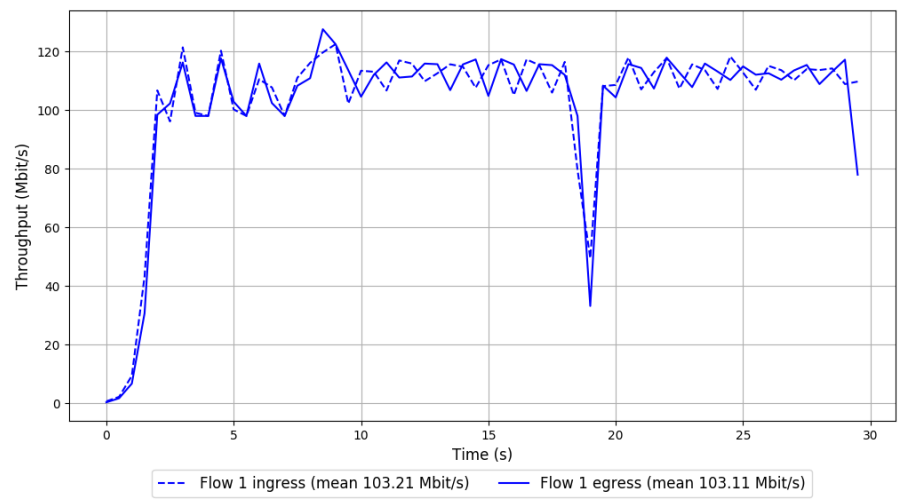
-- Flow 1:

Average throughput: 103.11 Mbit/s

95th percentile per-packet one-way delay: 114.097 ms

Loss rate: 0.75%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-10-10 18:01:22

End at: 2017-10-10 18:01:52

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 104.53 Mbit/s

95th percentile per-packet one-way delay: 87.102 ms

Loss rate: 0.70%

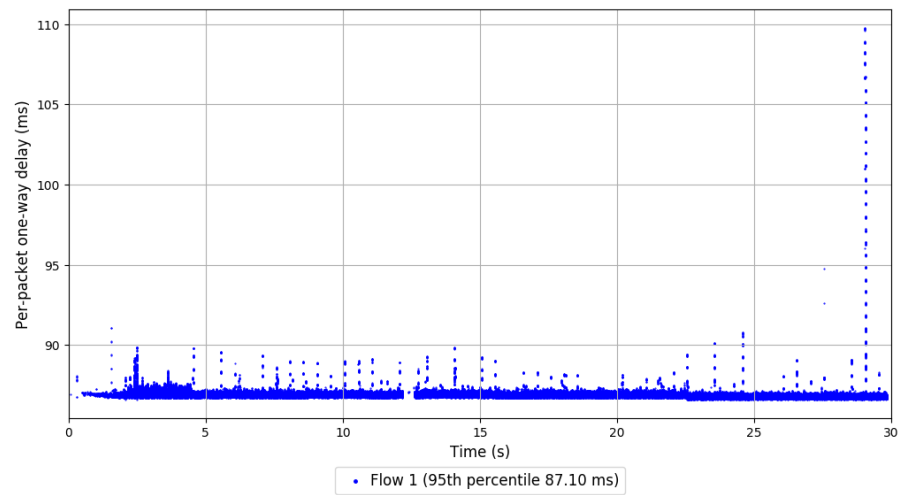
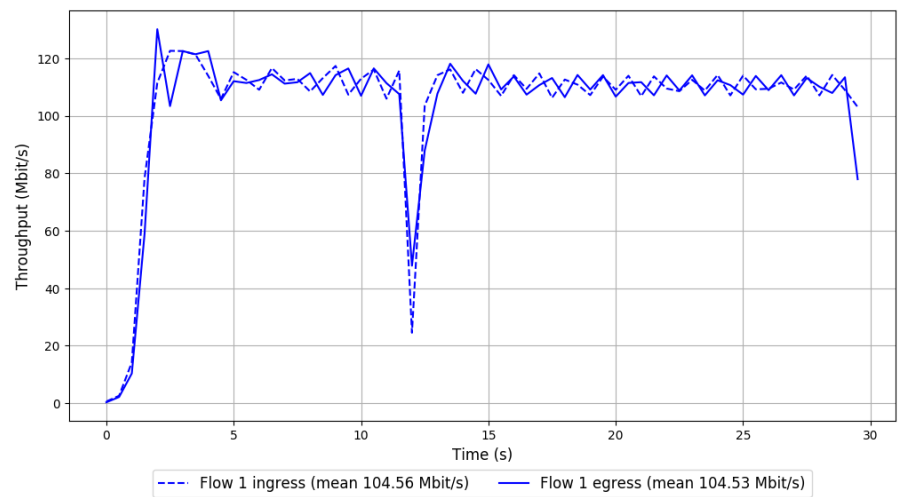
-- Flow 1:

Average throughput: 104.53 Mbit/s

95th percentile per-packet one-way delay: 87.102 ms

Loss rate: 0.70%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-10-10 18:11:57

End at: 2017-10-10 18:12:27

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 100.30 Mbit/s

95th percentile per-packet one-way delay: 114.398 ms

Loss rate: 0.81%

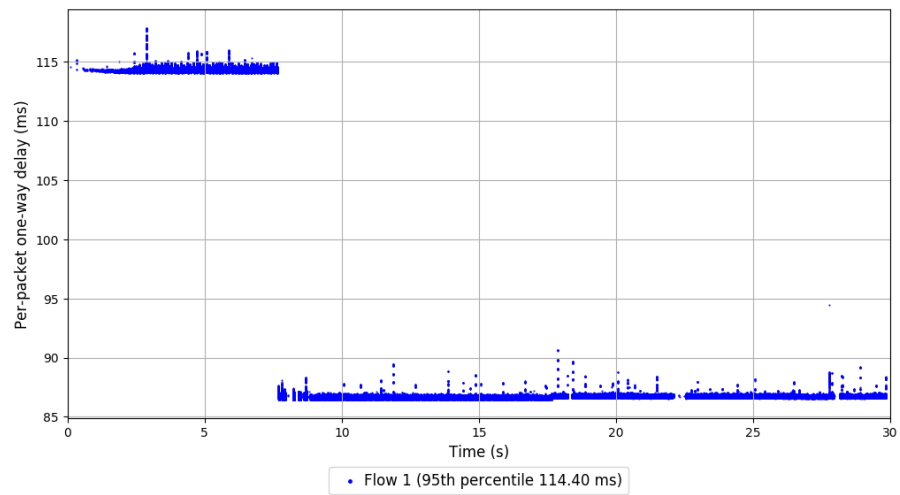
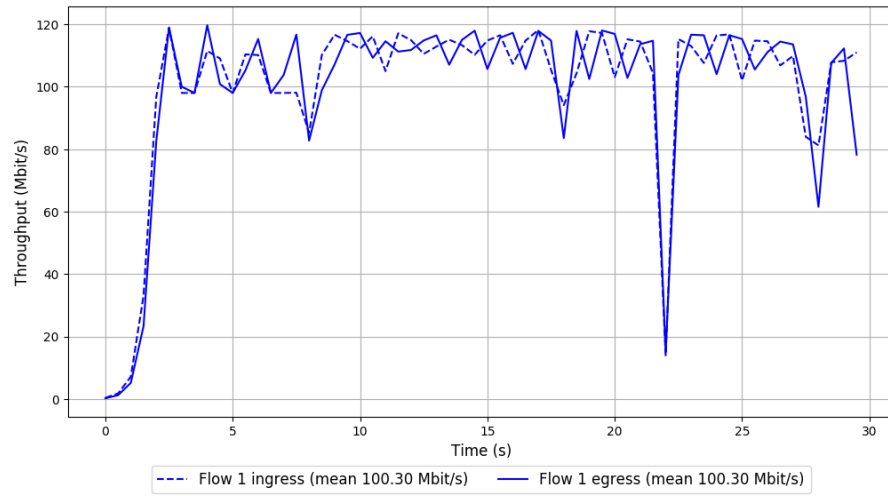
-- Flow 1:

Average throughput: 100.30 Mbit/s

95th percentile per-packet one-way delay: 114.398 ms

Loss rate: 0.81%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-10-10 18:22:43

End at: 2017-10-10 18:23:13

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 98.81 Mbit/s

95th percentile per-packet one-way delay: 114.239 ms

Loss rate: 0.74%

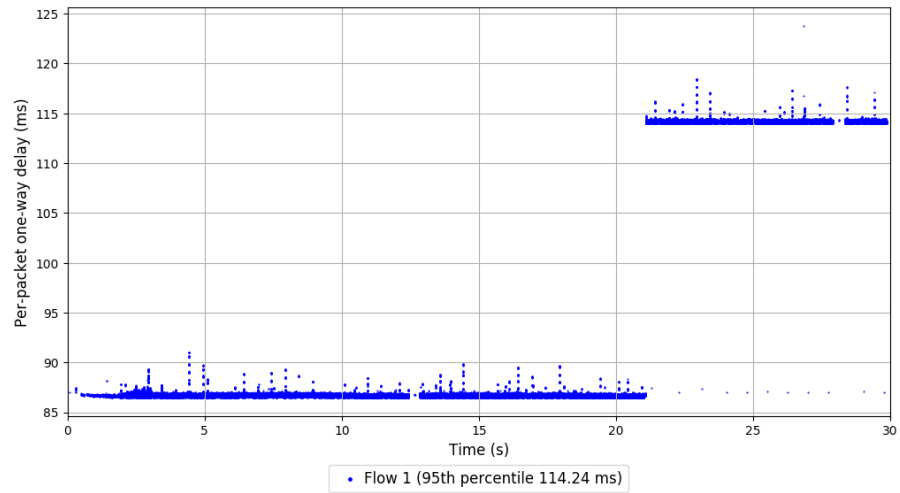
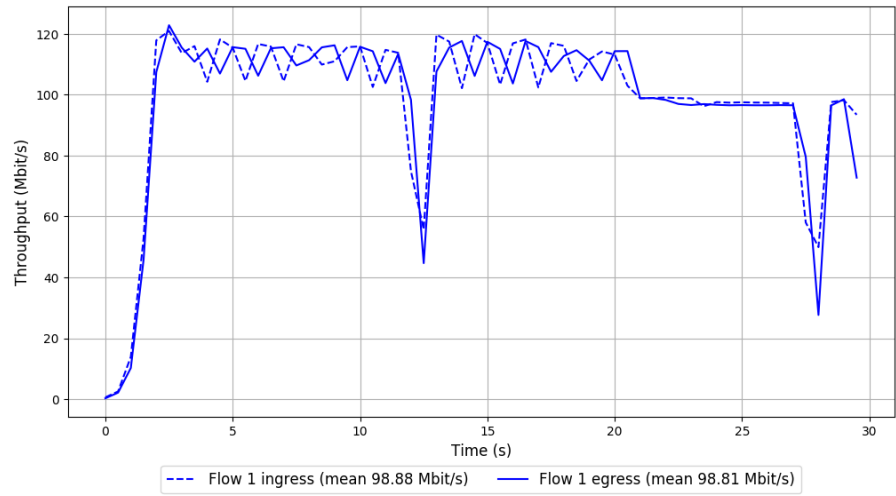
-- Flow 1:

Average throughput: 98.81 Mbit/s

95th percentile per-packet one-way delay: 114.239 ms

Loss rate: 0.74%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-10-10 18:33:30

End at: 2017-10-10 18:34:00

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.62 Mbit/s

95th percentile per-packet one-way delay: 113.953 ms

Loss rate: 0.81%

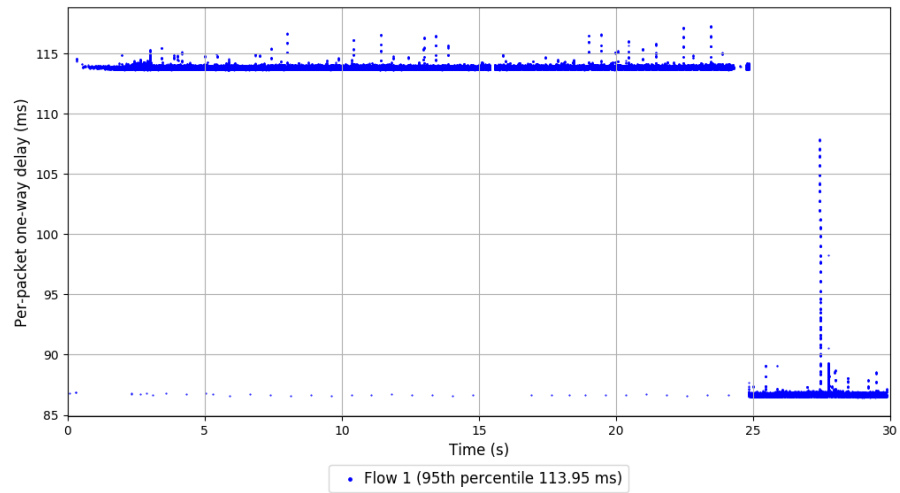
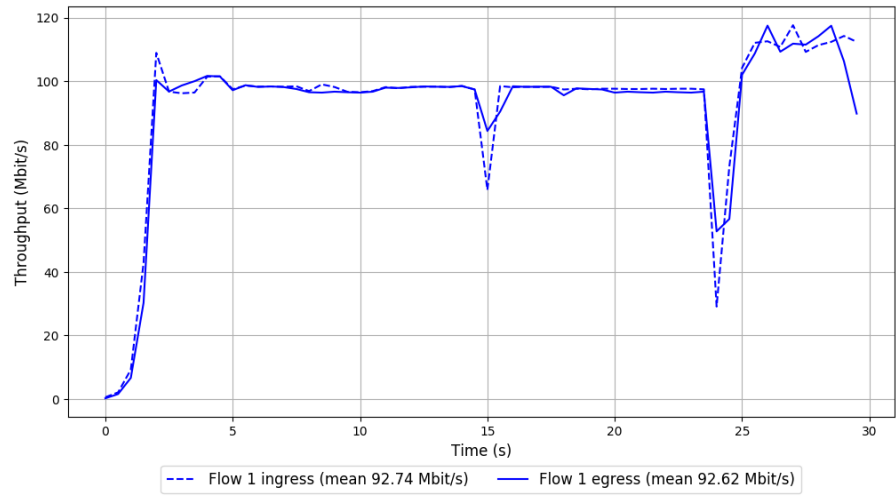
-- Flow 1:

Average throughput: 92.62 Mbit/s

95th percentile per-packet one-way delay: 113.953 ms

Loss rate: 0.81%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-10-10 18:43:55

End at: 2017-10-10 18:44:25

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 103.72 Mbit/s

95th percentile per-packet one-way delay: 86.916 ms

Loss rate: 0.74%

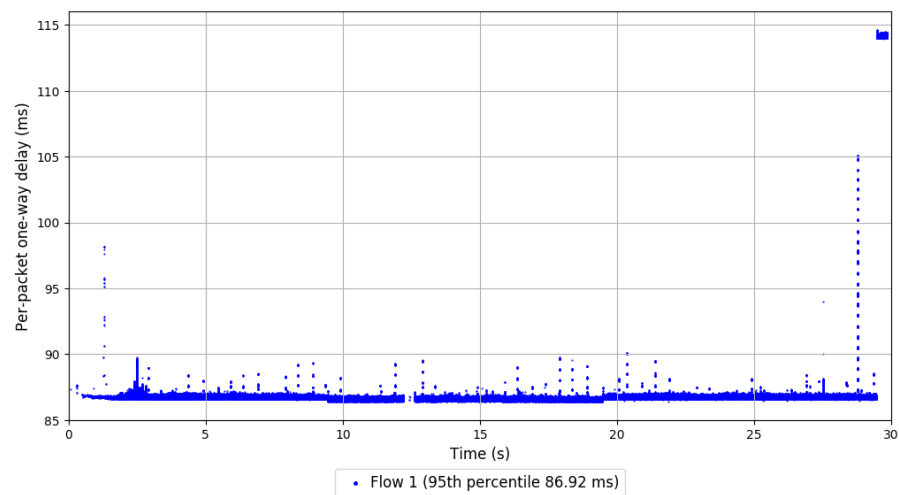
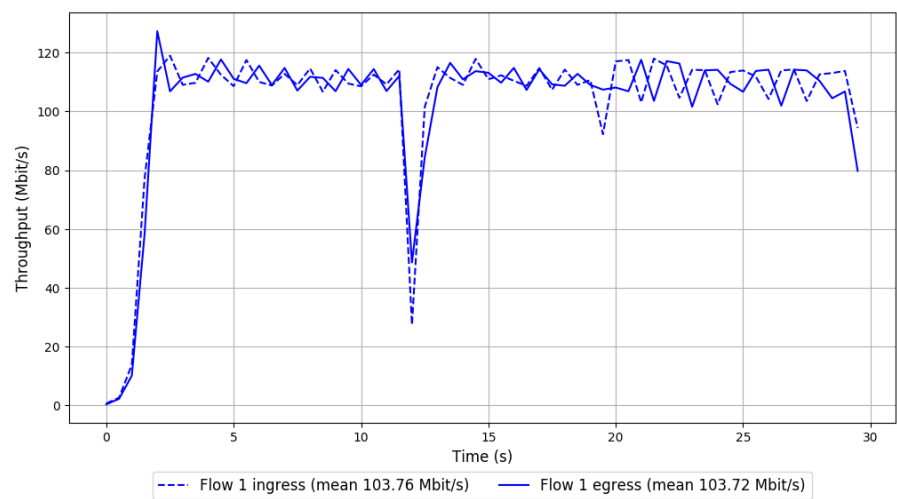
-- Flow 1:

Average throughput: 103.72 Mbit/s

95th percentile per-packet one-way delay: 86.916 ms

Loss rate: 0.74%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-10-10 18:54:43

End at: 2017-10-10 18:55:13

Below is generated by plot.py at 2017-10-10 21:20:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 104.75 Mbit/s

95th percentile per-packet one-way delay: 87.002 ms

Loss rate: 0.70%

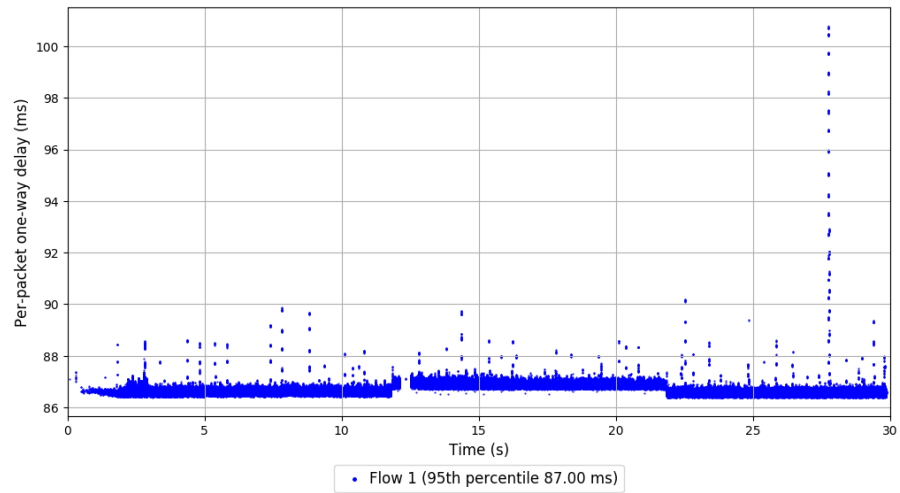
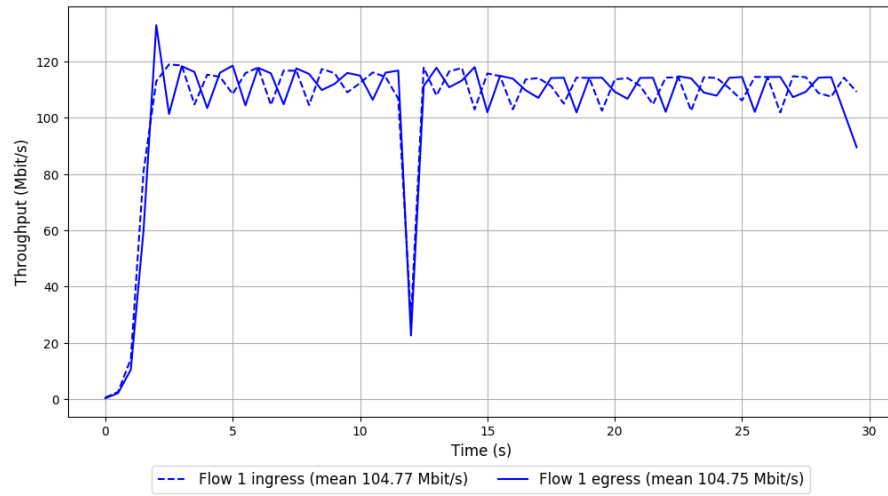
-- Flow 1:

Average throughput: 104.75 Mbit/s

95th percentile per-packet one-way delay: 87.002 ms

Loss rate: 0.70%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-10-10 19:06:01

End at: 2017-10-10 19:06:31

Below is generated by plot.py at 2017-10-10 21:22:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 103.41 Mbit/s

95th percentile per-packet one-way delay: 87.068 ms

Loss rate: 0.70%

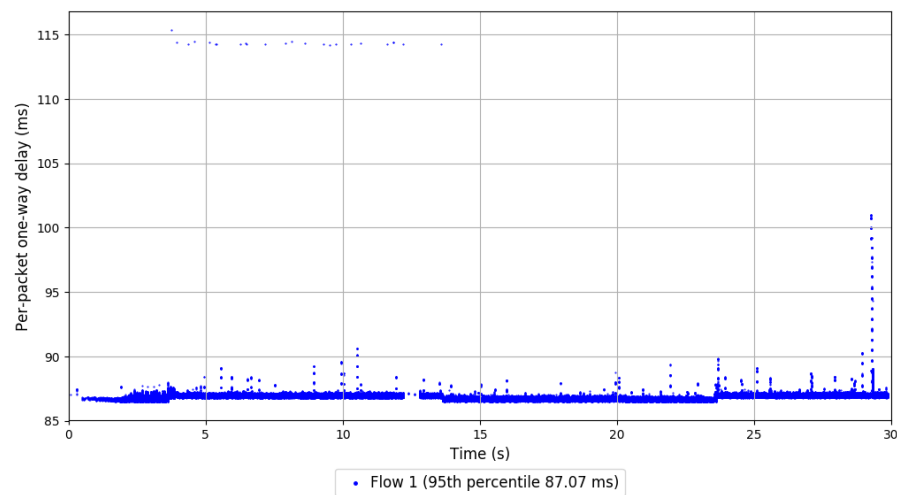
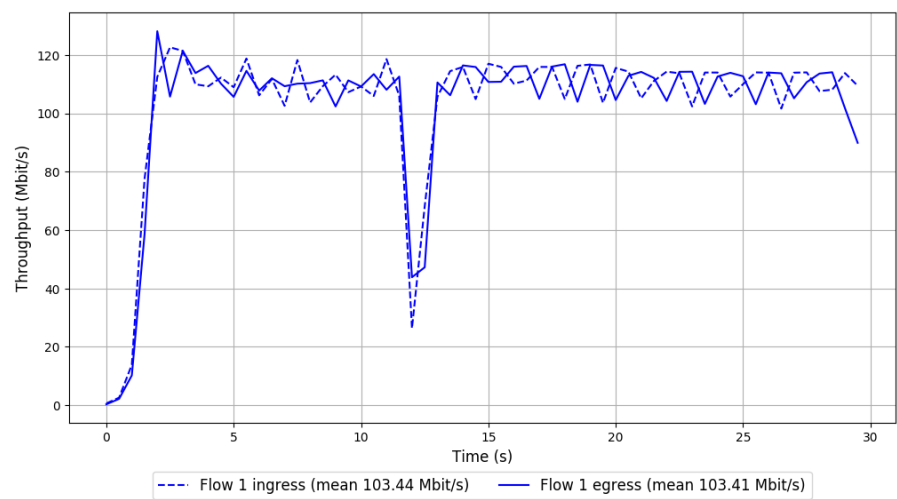
-- Flow 1:

Average throughput: 103.41 Mbit/s

95th percentile per-packet one-way delay: 87.068 ms

Loss rate: 0.70%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-10-10 19:16:54

End at: 2017-10-10 19:17:24

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 102.87 Mbit/s

95th percentile per-packet one-way delay: 86.779 ms

Loss rate: 0.79%

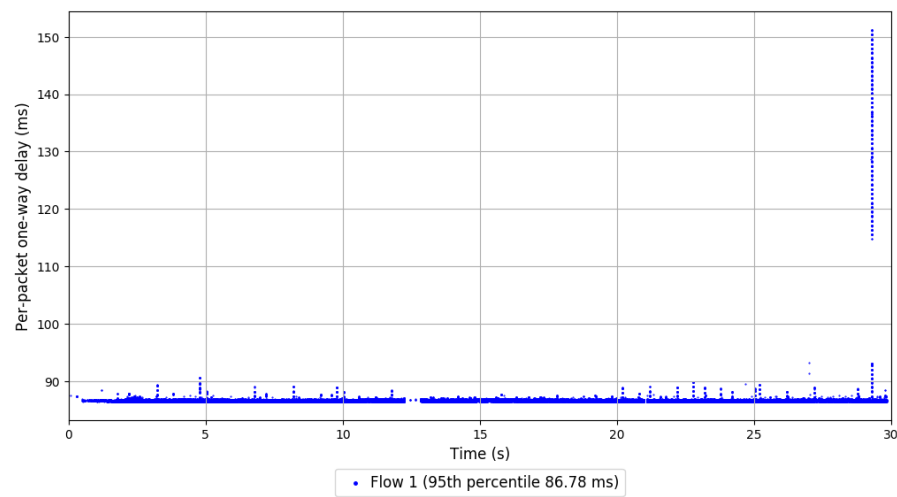
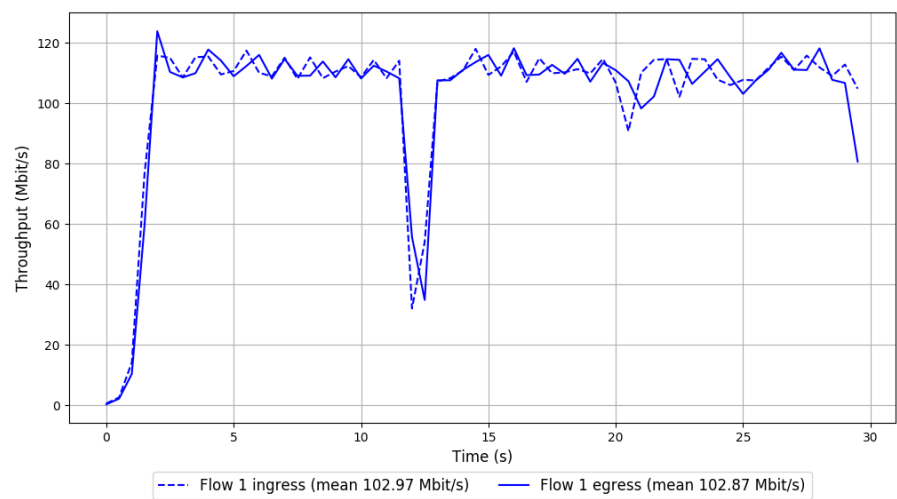
-- Flow 1:

Average throughput: 102.87 Mbit/s

95th percentile per-packet one-way delay: 86.779 ms

Loss rate: 0.79%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-10-10 17:37:04

End at: 2017-10-10 17:37:34

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.86 Mbit/s

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

Loss rate: 0.72%

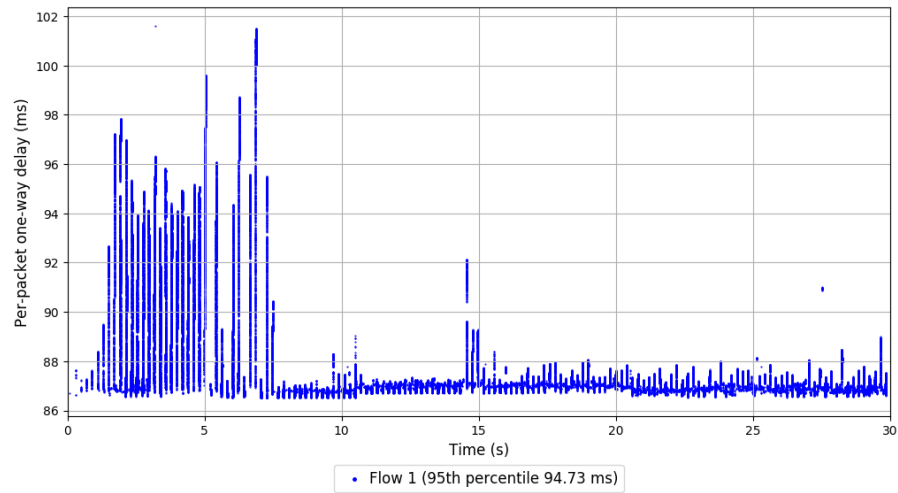
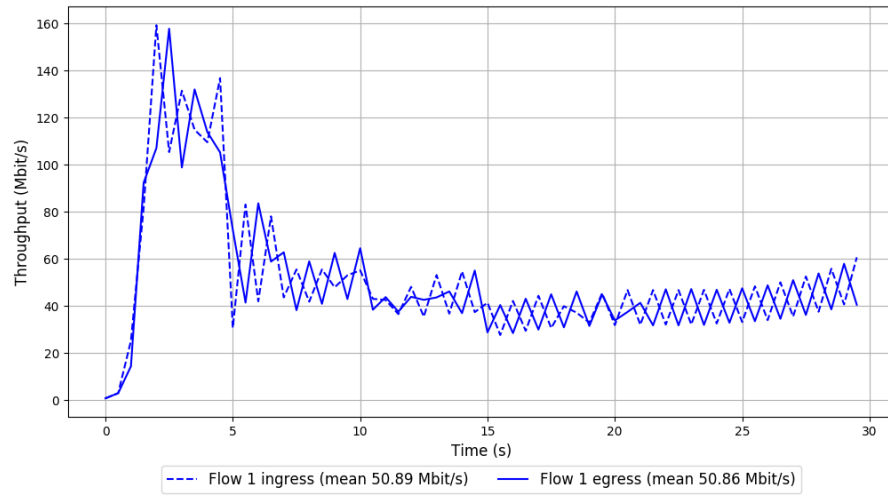
-- Flow 1:

Average throughput: 50.86 Mbit/s

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

Loss rate: 0.72%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-10-10 17:48:00

End at: 2017-10-10 17:48:30

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 121.441 ms

Loss rate: 0.63%

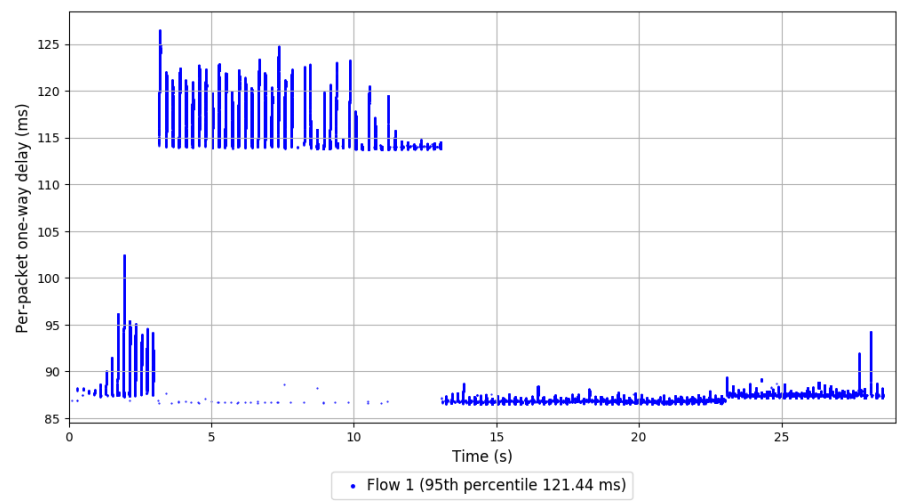
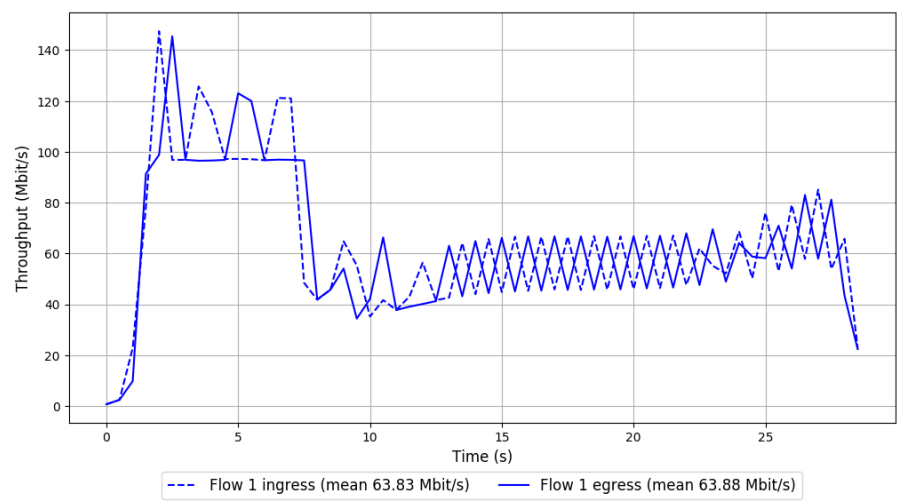
-- Flow 1:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 121.441 ms

Loss rate: 0.63%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-10-10 17:59:16

End at: 2017-10-10 17:59:46

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.88 Mbit/s

95th percentile per-packet one-way delay: 90.695 ms

Loss rate: 0.63%

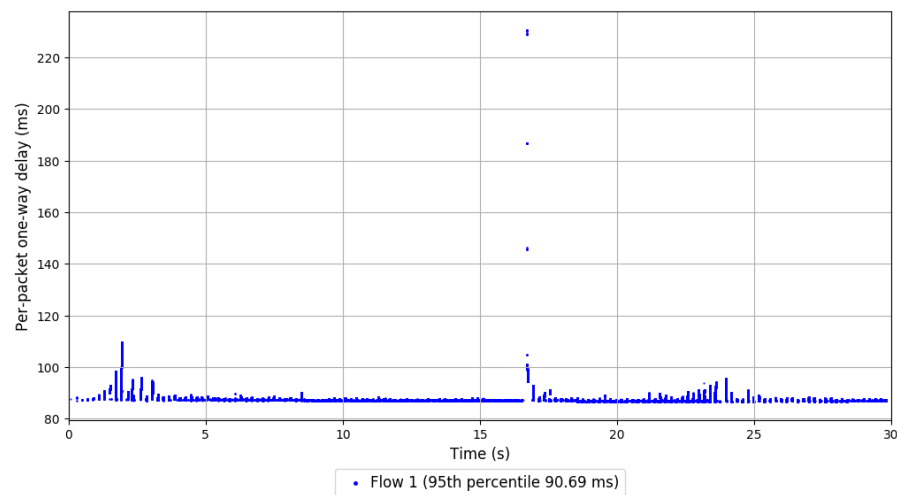
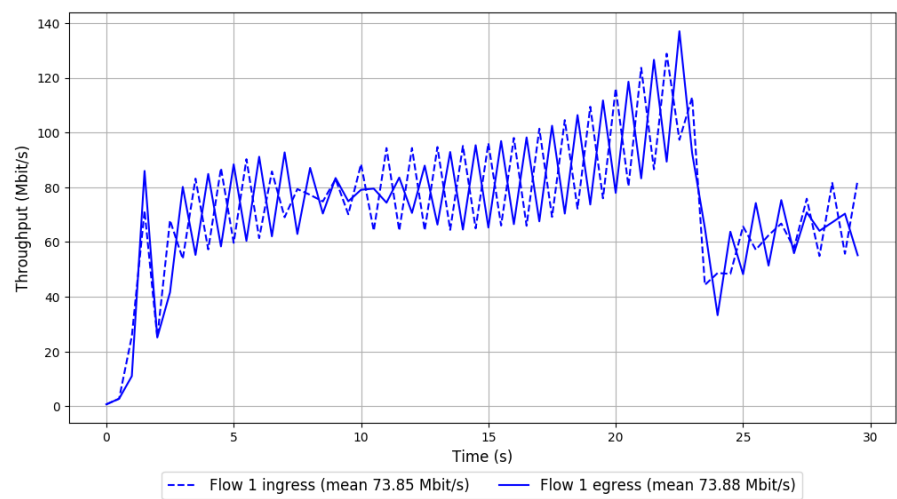
-- Flow 1:

Average throughput: 73.88 Mbit/s

95th percentile per-packet one-way delay: 90.695 ms

Loss rate: 0.63%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-10-10 18:09:51

End at: 2017-10-10 18:10:21

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.30 Mbit/s

95th percentile per-packet one-way delay: 114.036 ms

Loss rate: 0.59%

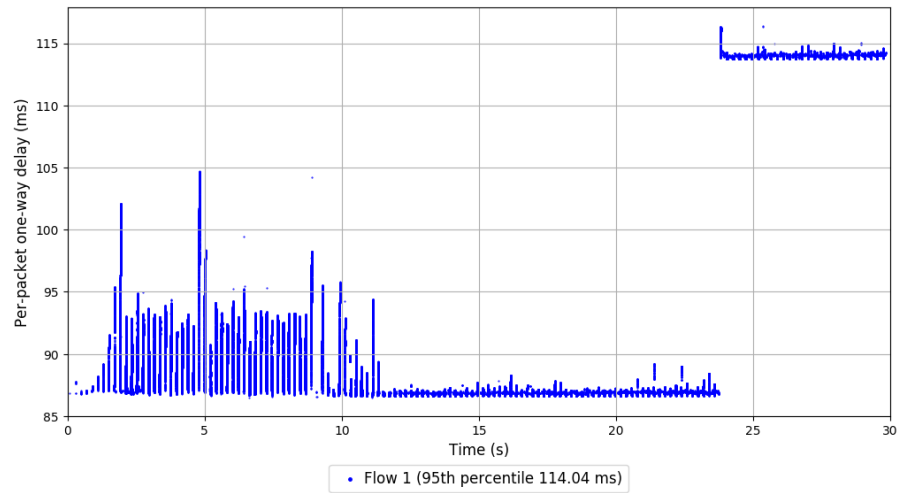
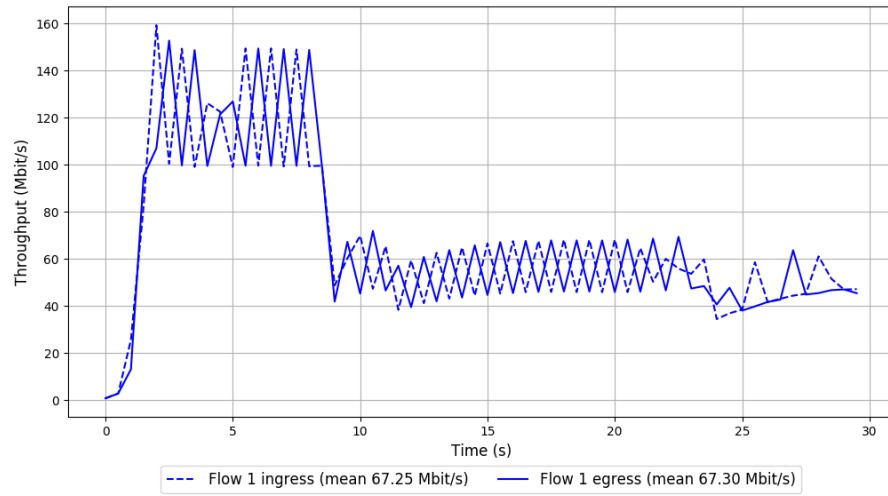
-- Flow 1:

Average throughput: 67.30 Mbit/s

95th percentile per-packet one-way delay: 114.036 ms

Loss rate: 0.59%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-10-10 18:20:38

End at: 2017-10-10 18:21:08

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.94 Mbit/s

95th percentile per-packet one-way delay: 119.717 ms

Loss rate: 0.93%

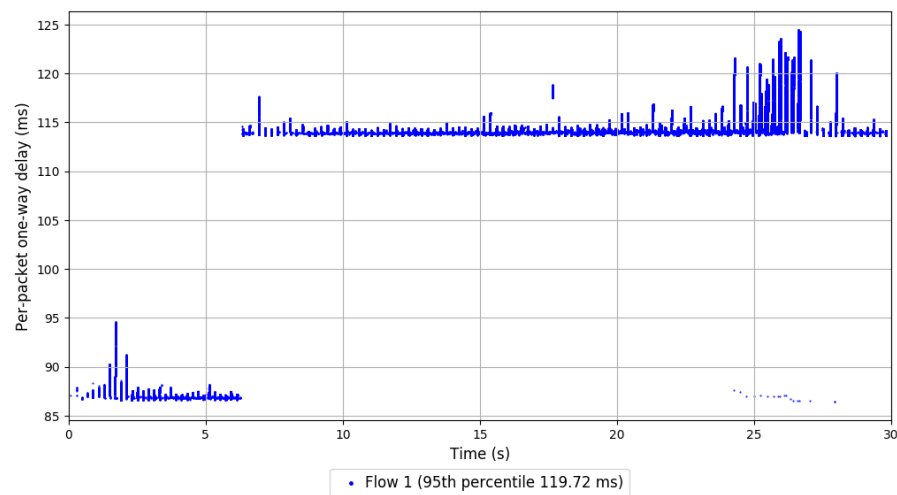
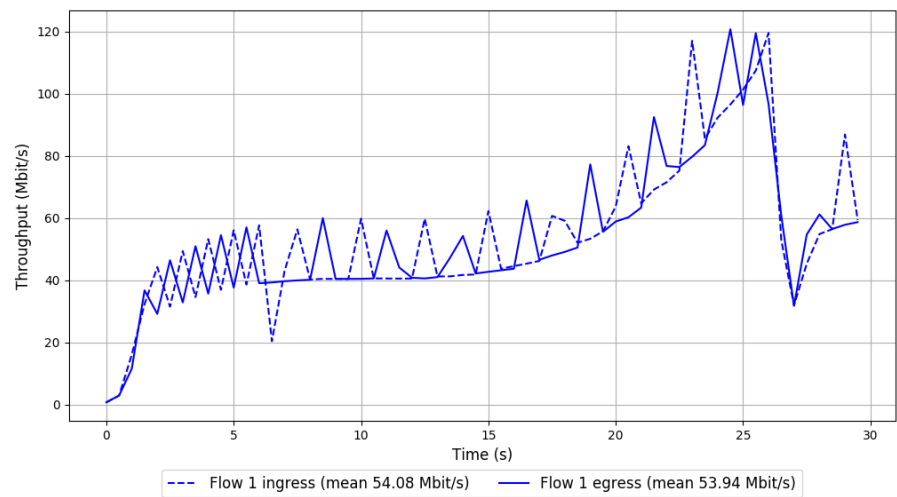
-- Flow 1:

Average throughput: 53.94 Mbit/s

95th percentile per-packet one-way delay: 119.717 ms

Loss rate: 0.93%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-10-10 18:31:26

End at: 2017-10-10 18:31:56

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 47.11 Mbit/s

95th percentile per-packet one-way delay: 88.561 ms

Loss rate: 0.81%

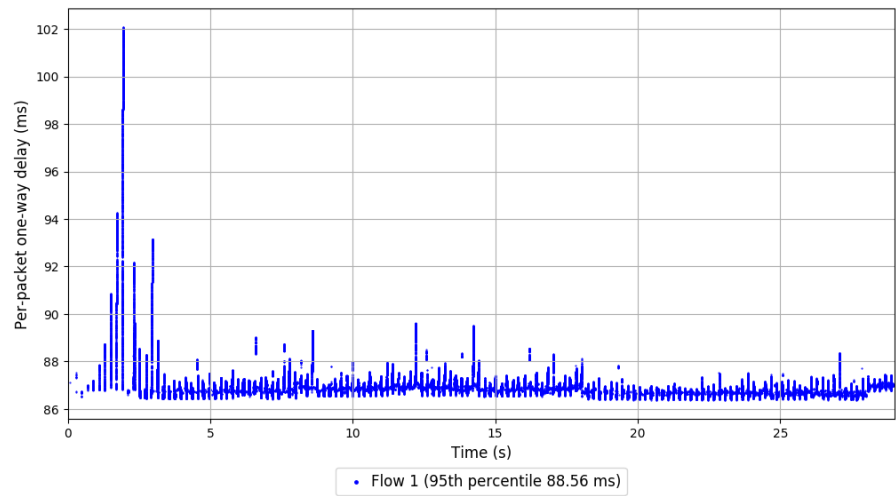
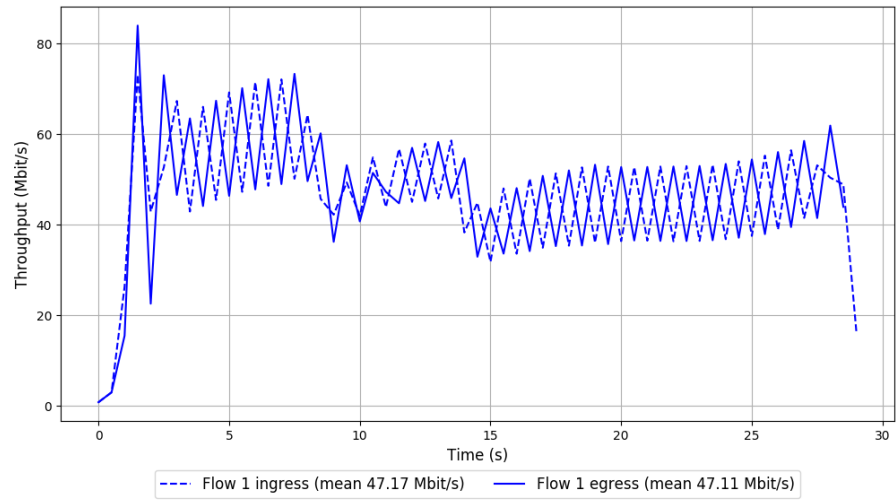
-- Flow 1:

Average throughput: 47.11 Mbit/s

95th percentile per-packet one-way delay: 88.561 ms

Loss rate: 0.81%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-10-10 18:41:51

End at: 2017-10-10 18:42:21

Below is generated by plot.py at 2017-10-10 21:22:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.46 Mbit/s

95th percentile per-packet one-way delay: 90.250 ms

Loss rate: 1.16%

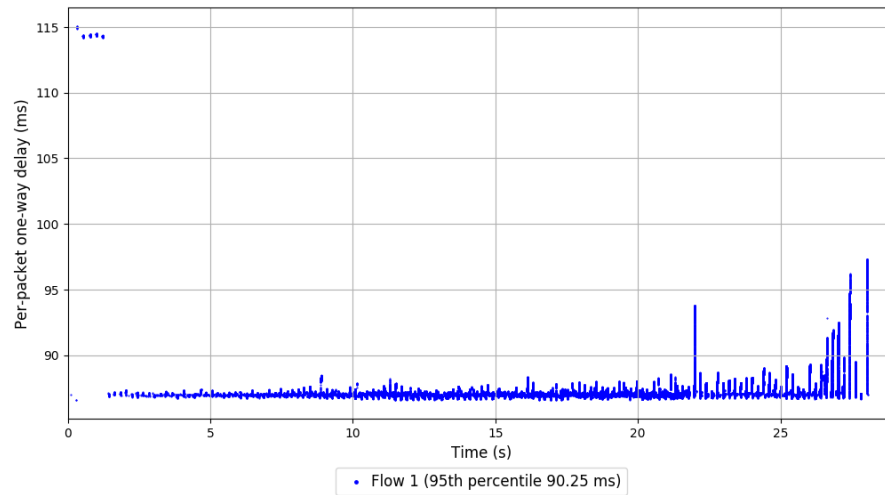
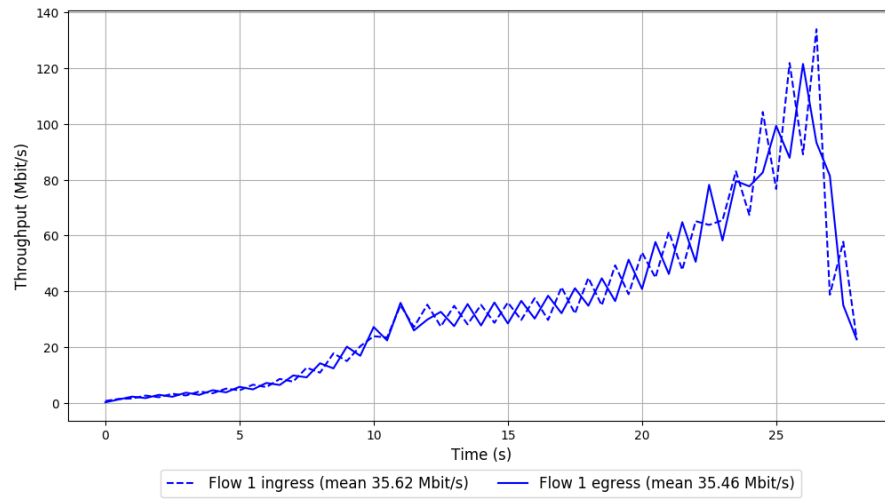
-- Flow 1:

Average throughput: 35.46 Mbit/s

95th percentile per-packet one-way delay: 90.250 ms

Loss rate: 1.16%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-10-10 18:52:36

End at: 2017-10-10 18:53:06

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.29 Mbit/s

95th percentile per-packet one-way delay: 92.845 ms

Loss rate: 0.55%

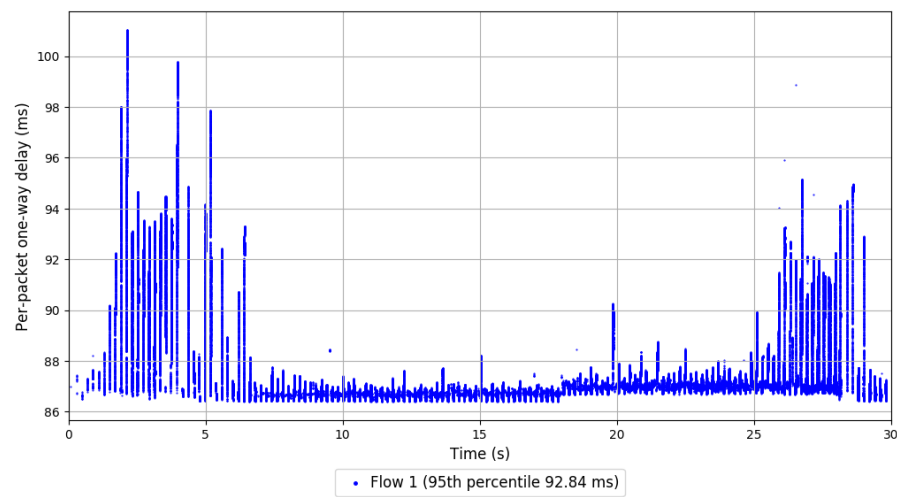
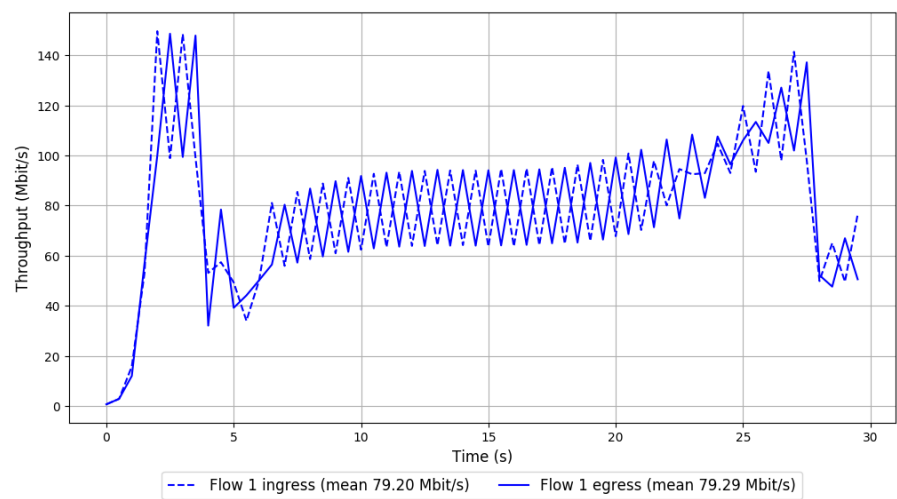
-- Flow 1:

Average throughput: 79.29 Mbit/s

95th percentile per-packet one-way delay: 92.845 ms

Loss rate: 0.55%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-10-10 19:03:56

End at: 2017-10-10 19:04:26

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.38 Mbit/s

95th percentile per-packet one-way delay: 91.168 ms

Loss rate: 0.86%

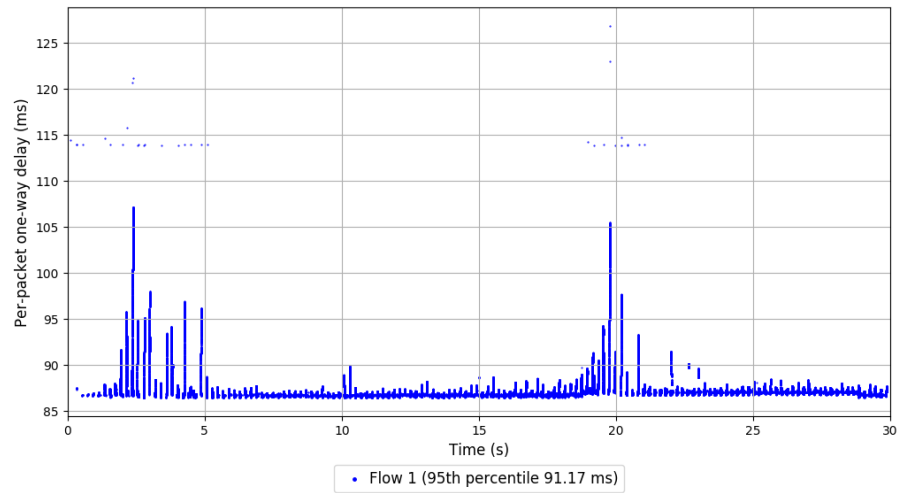
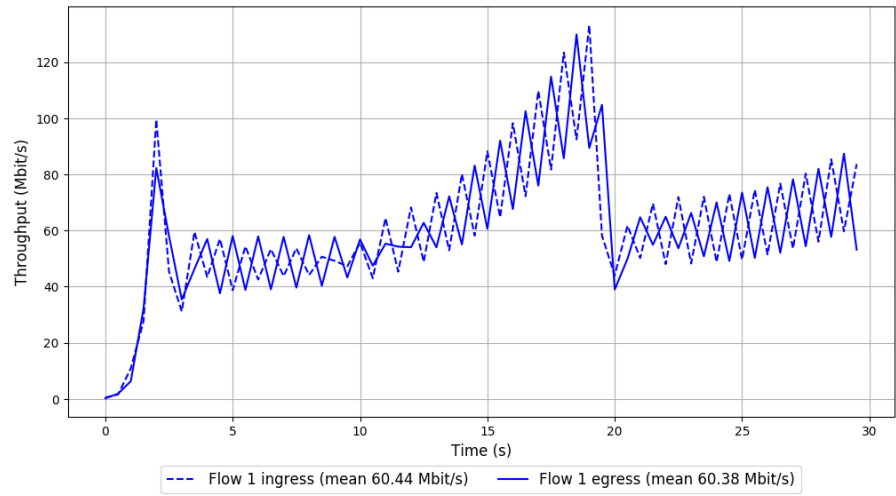
-- Flow 1:

Average throughput: 60.38 Mbit/s

95th percentile per-packet one-way delay: 91.168 ms

Loss rate: 0.86%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-10-10 19:14:49

End at: 2017-10-10 19:15:19

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.84 Mbit/s

95th percentile per-packet one-way delay: 89.474 ms

Loss rate: 0.92%

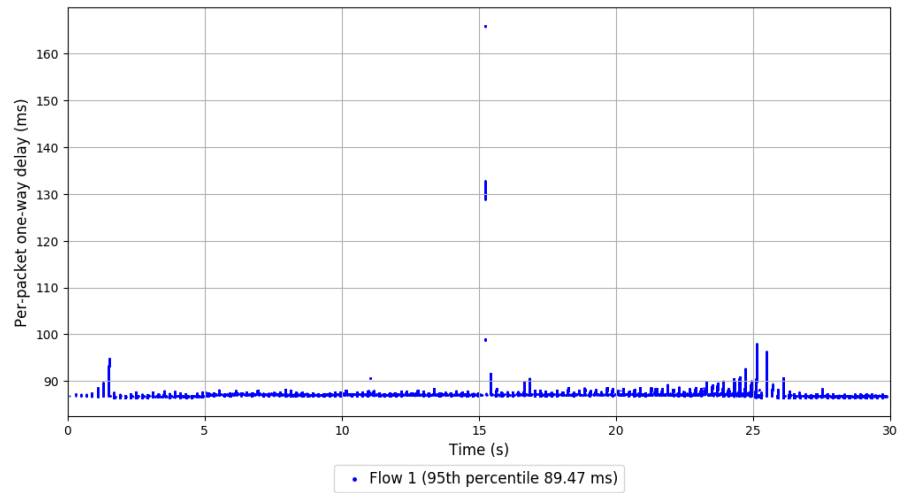
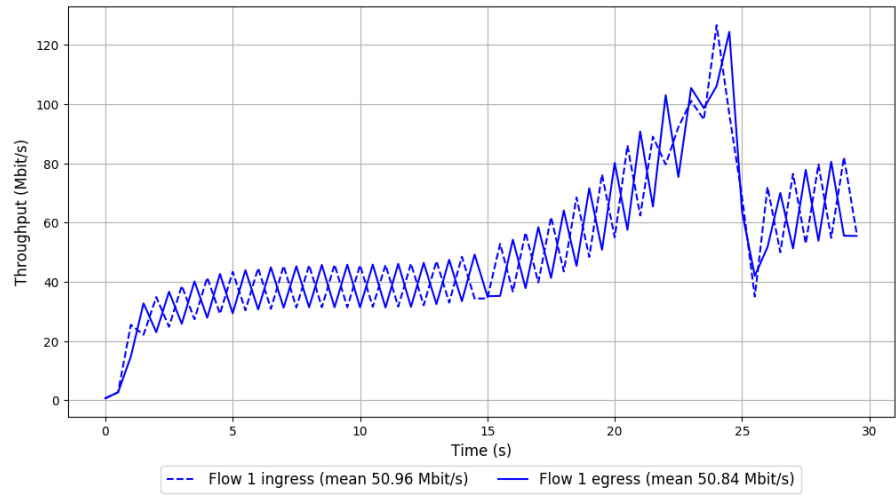
-- Flow 1:

Average throughput: 50.84 Mbit/s

95th percentile per-packet one-way delay: 89.474 ms

Loss rate: 0.92%

Run 10: Report of TCP Cubic — Data Link

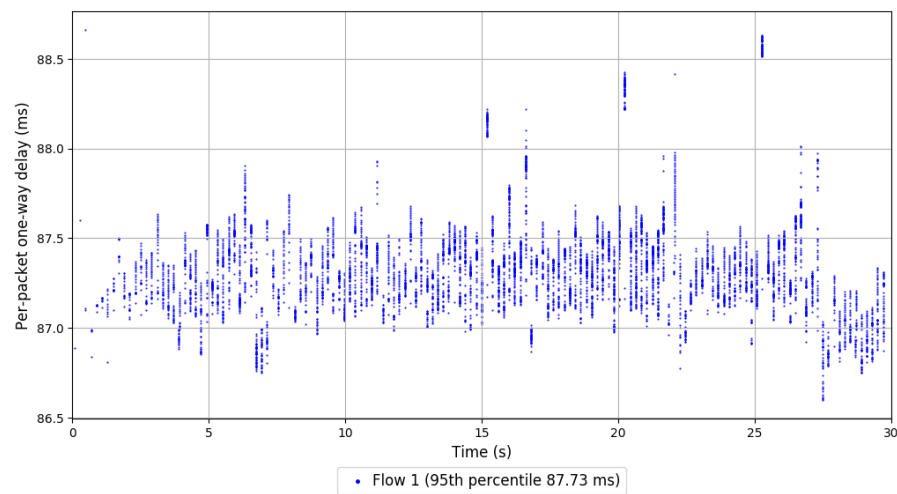
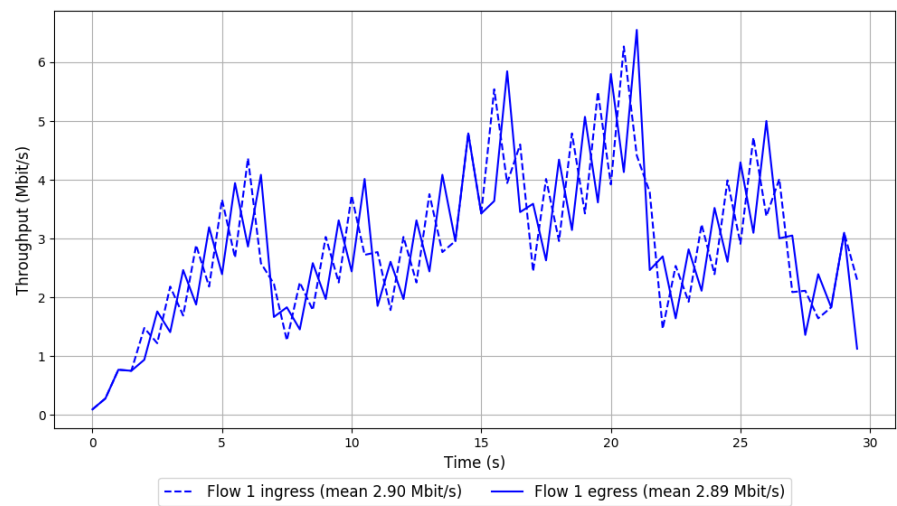


```
Run 1: Statistics of LEDBAT

Start at: 2017-10-10 17:37:47
End at: 2017-10-10 17:38:17

# Below is generated by plot.py at 2017-10-10 21:22:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 87.731 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 2.89 Mbit/s
95th percentile per-packet one-way delay: 87.731 ms
Loss rate: 0.81%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-10-10 17:48:45

End at: 2017-10-10 17:49:15

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 114.556 ms

Loss rate: 0.71%

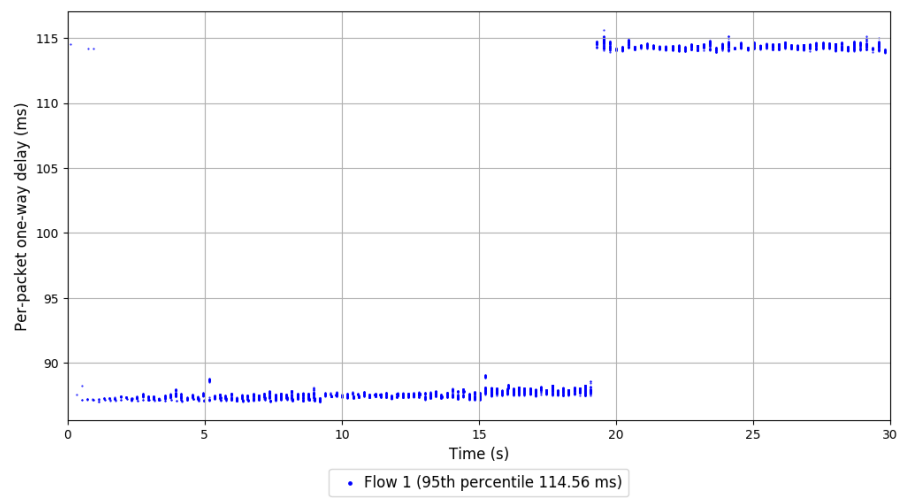
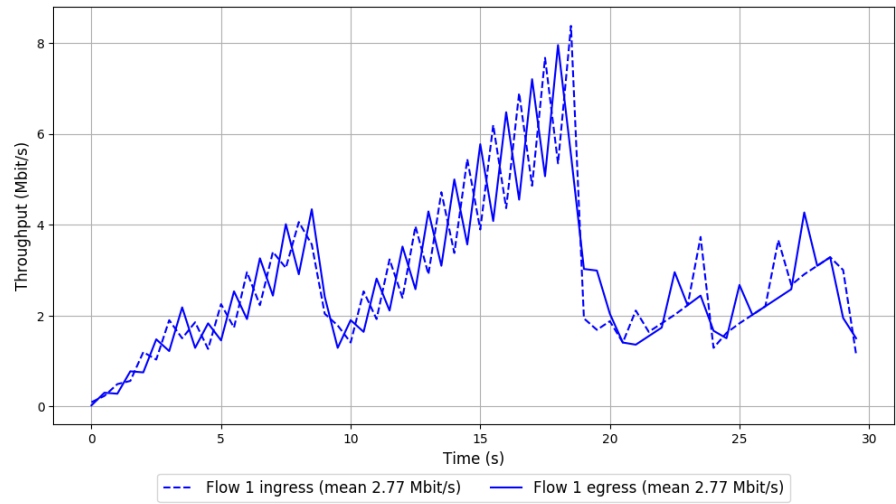
-- Flow 1:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 114.556 ms

Loss rate: 0.71%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-10-10 18:00:01

End at: 2017-10-10 18:00:31

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 87.865 ms

Loss rate: 0.54%

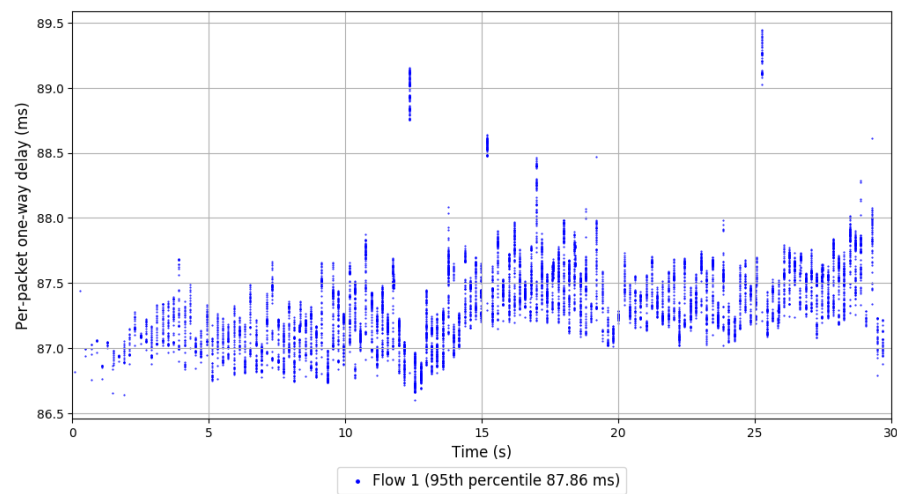
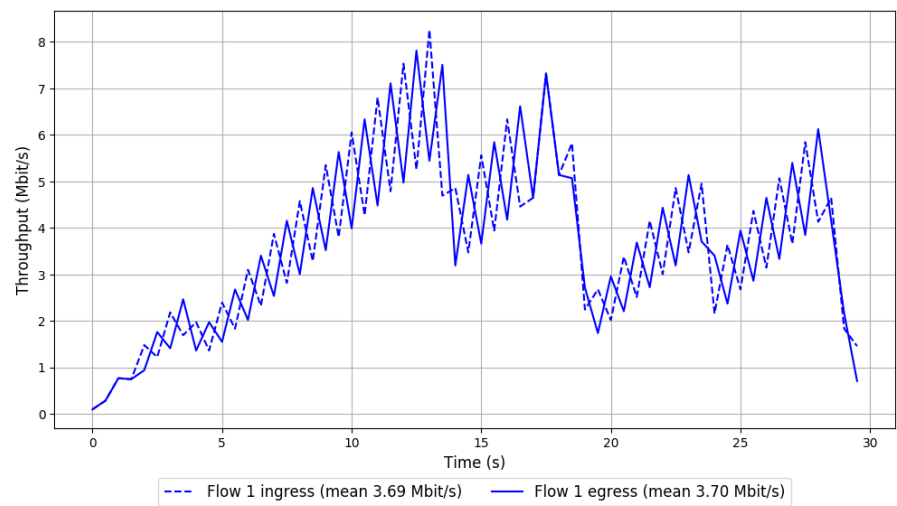
-- Flow 1:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 87.865 ms

Loss rate: 0.54%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-10-10 18:10:36

End at: 2017-10-10 18:11:06

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 114.850 ms

Loss rate: 0.86%

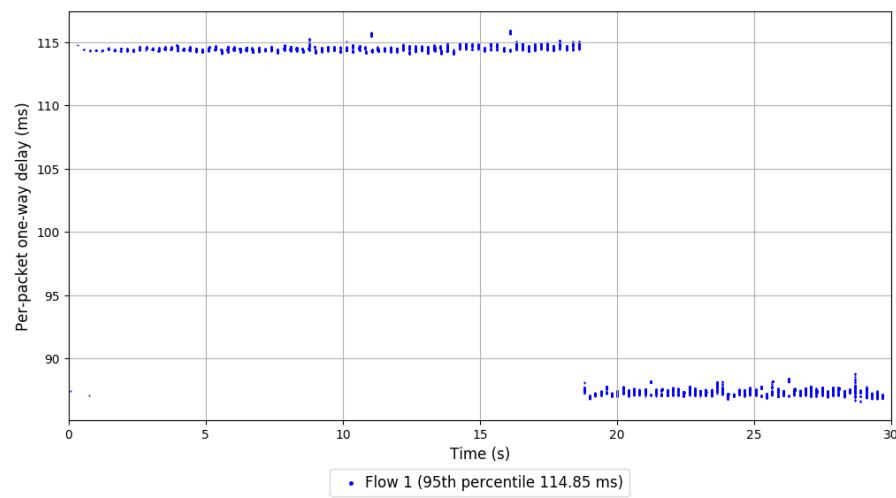
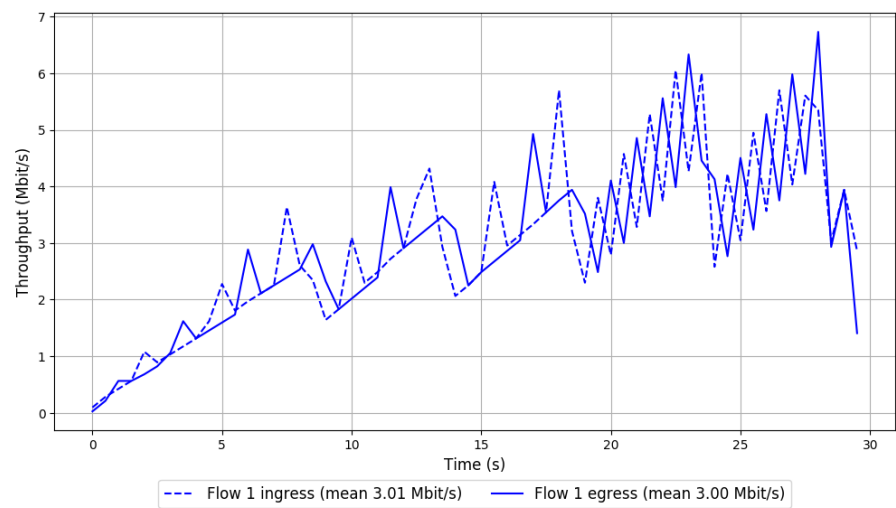
-- Flow 1:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 114.850 ms

Loss rate: 0.86%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-10-10 18:21:22

End at: 2017-10-10 18:21:52

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 114.862 ms

Loss rate: 0.66%

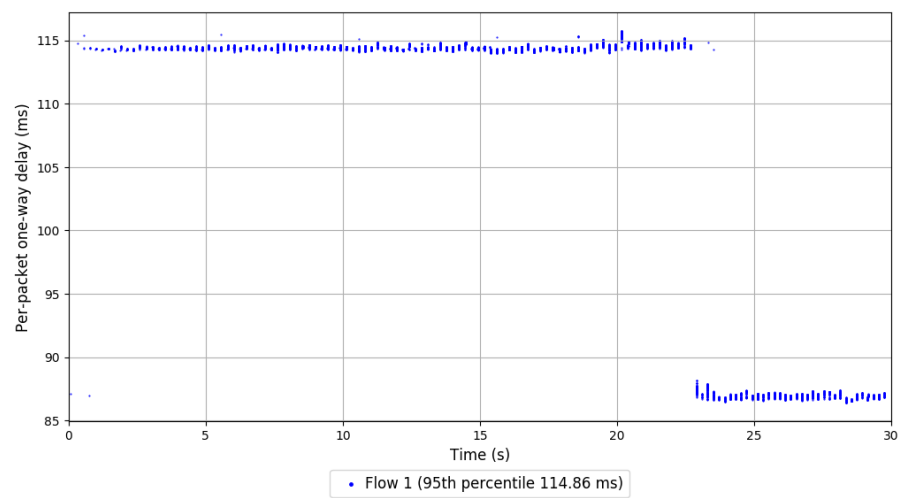
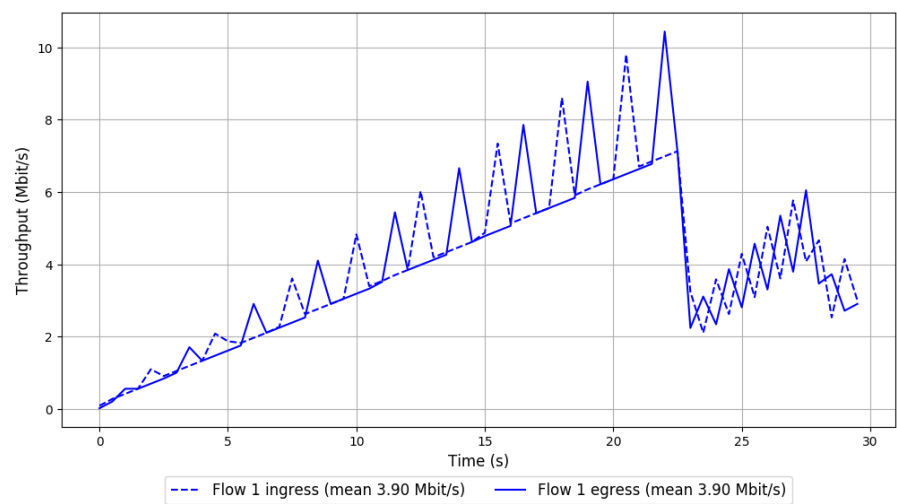
-- Flow 1:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 114.862 ms

Loss rate: 0.66%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-10-10 18:32:09

End at: 2017-10-10 18:32:39

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 114.781 ms

Loss rate: 1.43%

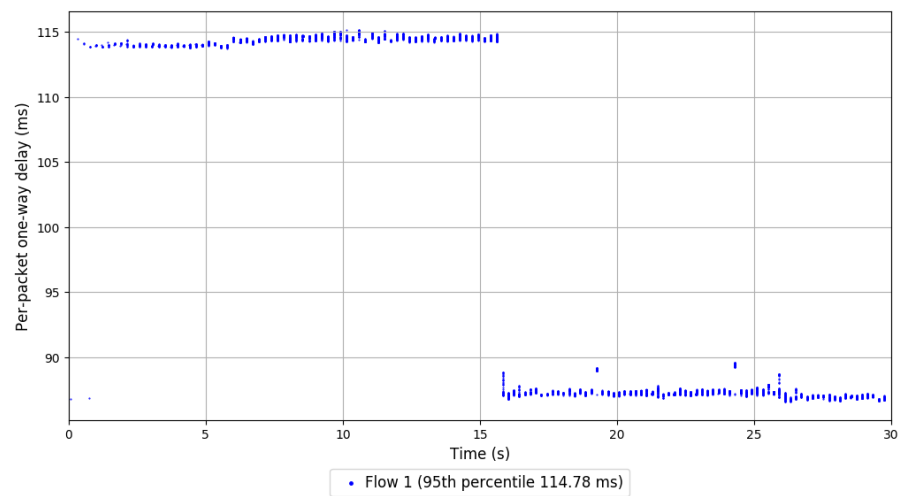
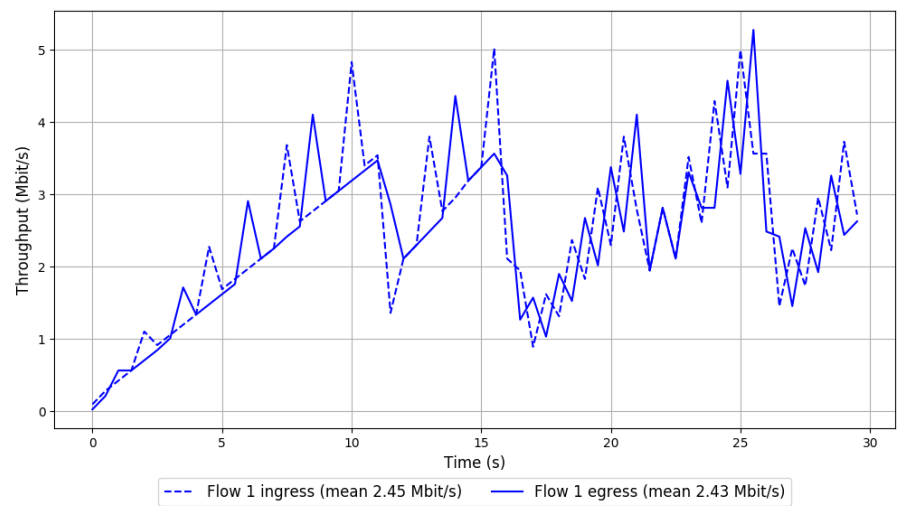
-- Flow 1:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 114.781 ms

Loss rate: 1.43%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-10-10 18:42:34

End at: 2017-10-10 18:43:04

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 87.758 ms

Loss rate: 1.98%

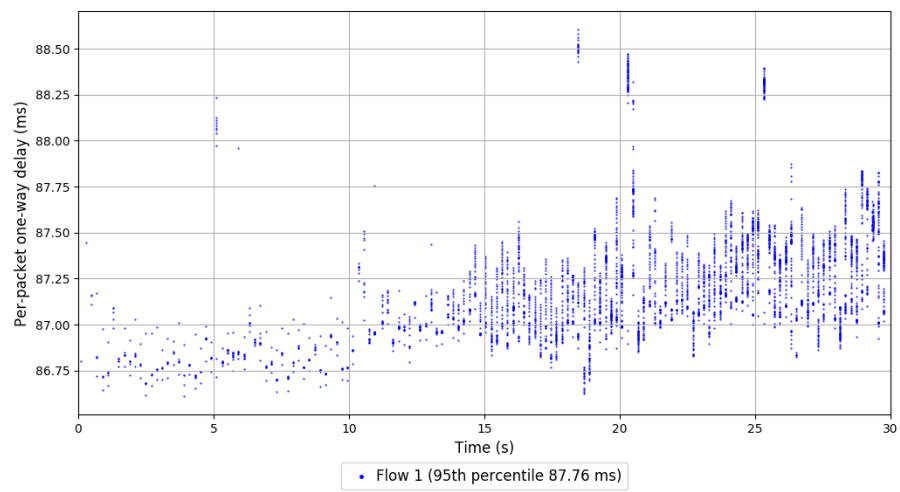
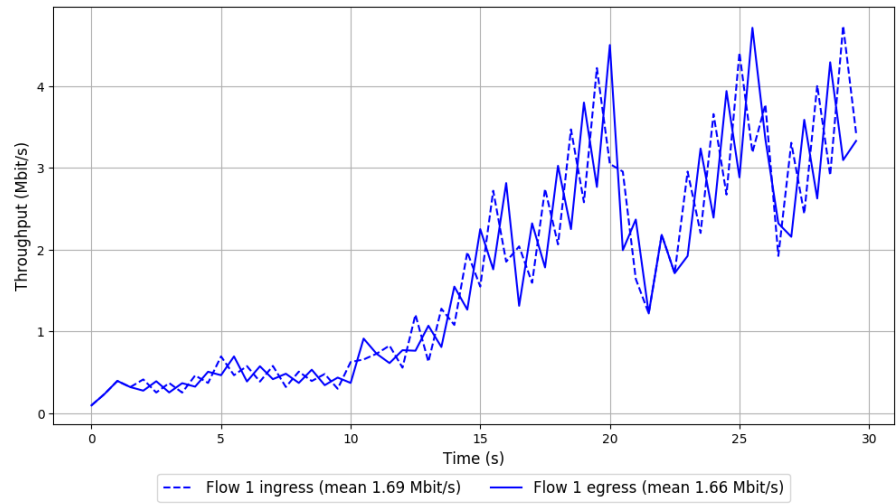
-- Flow 1:

Average throughput: 1.66 Mbit/s

95th percentile per-packet one-way delay: 87.758 ms

Loss rate: 1.98%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-10-10 18:53:22

End at: 2017-10-10 18:53:52

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 87.455 ms

Loss rate: 1.09%

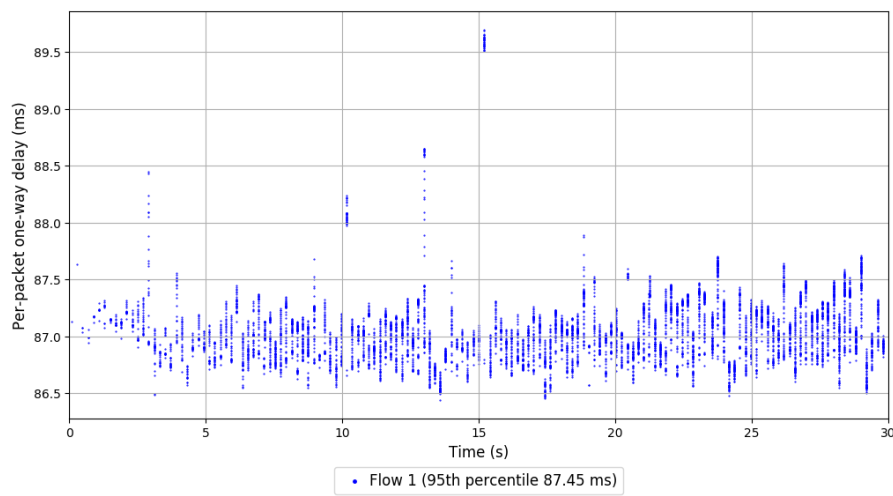
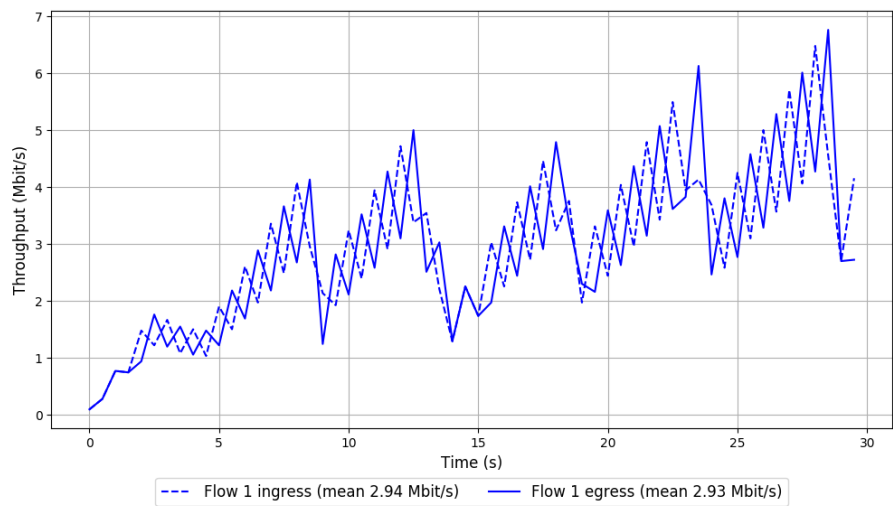
-- Flow 1:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 87.455 ms

Loss rate: 1.09%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-10-10 19:04:40

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

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 87.623 ms

Loss rate: 1.29%

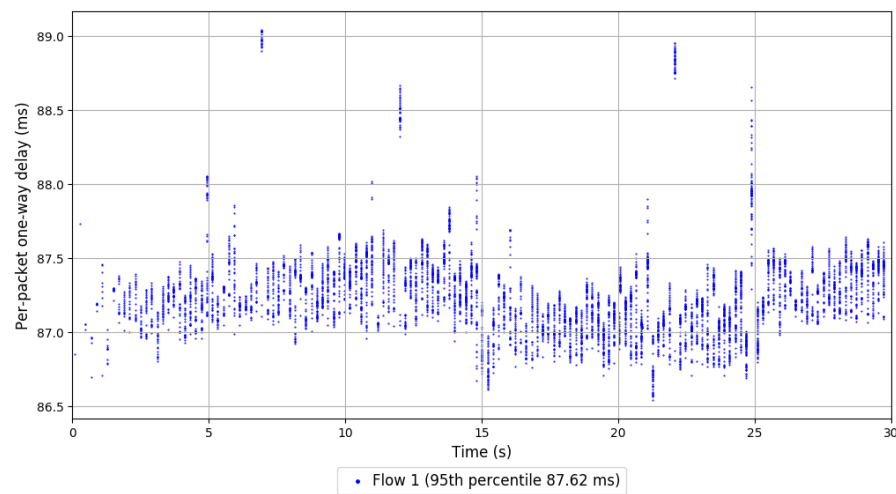
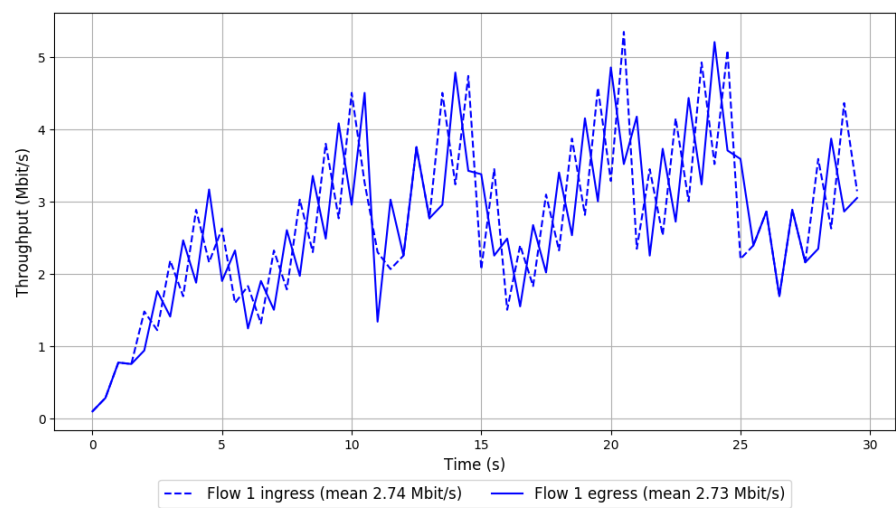
-- Flow 1:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 87.623 ms

Loss rate: 1.29%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-10-10 19:15:33

End at: 2017-10-10 19:16:03

Below is generated by plot.py at 2017-10-10 21:22:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 87.489 ms

Loss rate: 1.05%

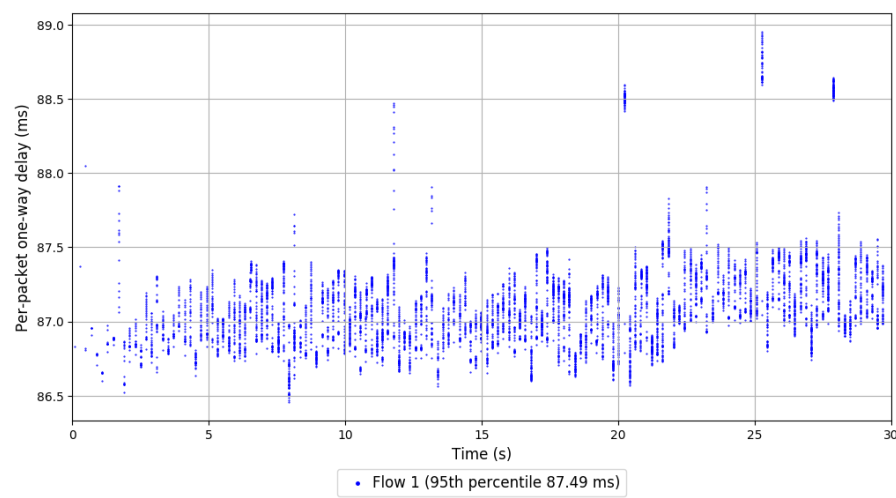
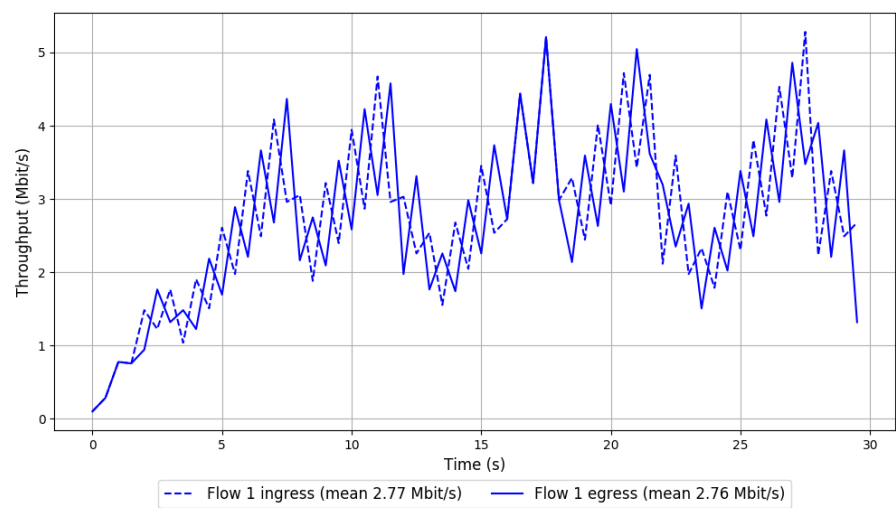
-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 87.489 ms

Loss rate: 1.05%

Run 10: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2017-10-10 17:36:02

End at: 2017-10-10 17:36:32

Below is generated by plot.py at 2017-10-10 21:32:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 540.31 Mbit/s

95th percentile per-packet one-way delay: 99.644 ms

Loss rate: 2.67%

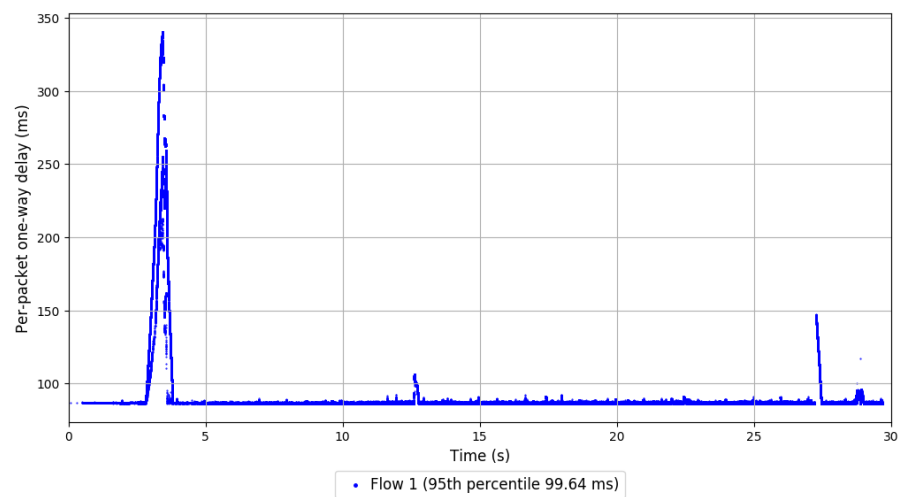
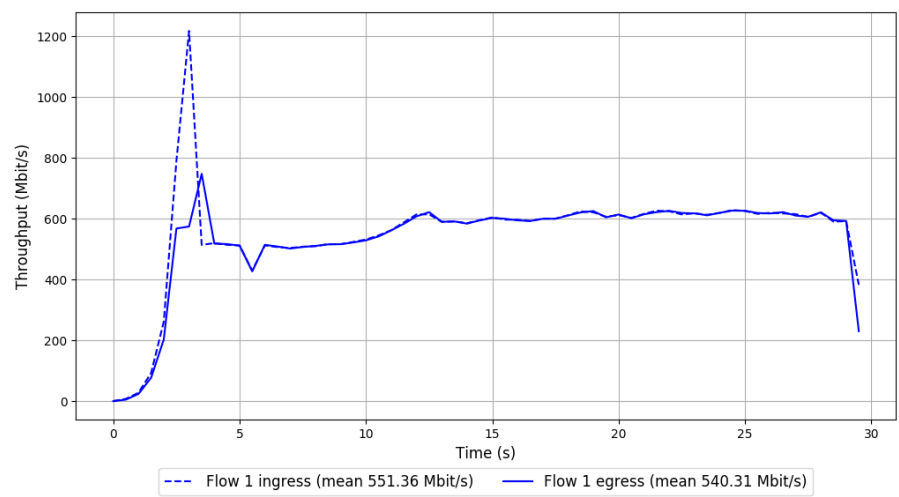
-- Flow 1:

Average throughput: 540.31 Mbit/s

95th percentile per-packet one-way delay: 99.644 ms

Loss rate: 2.67%

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-10-10 17:46:55

End at: 2017-10-10 17:47:25

Below is generated by plot.py at 2017-10-10 21:32:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 600.48 Mbit/s

95th percentile per-packet one-way delay: 154.685 ms

Loss rate: 1.50%

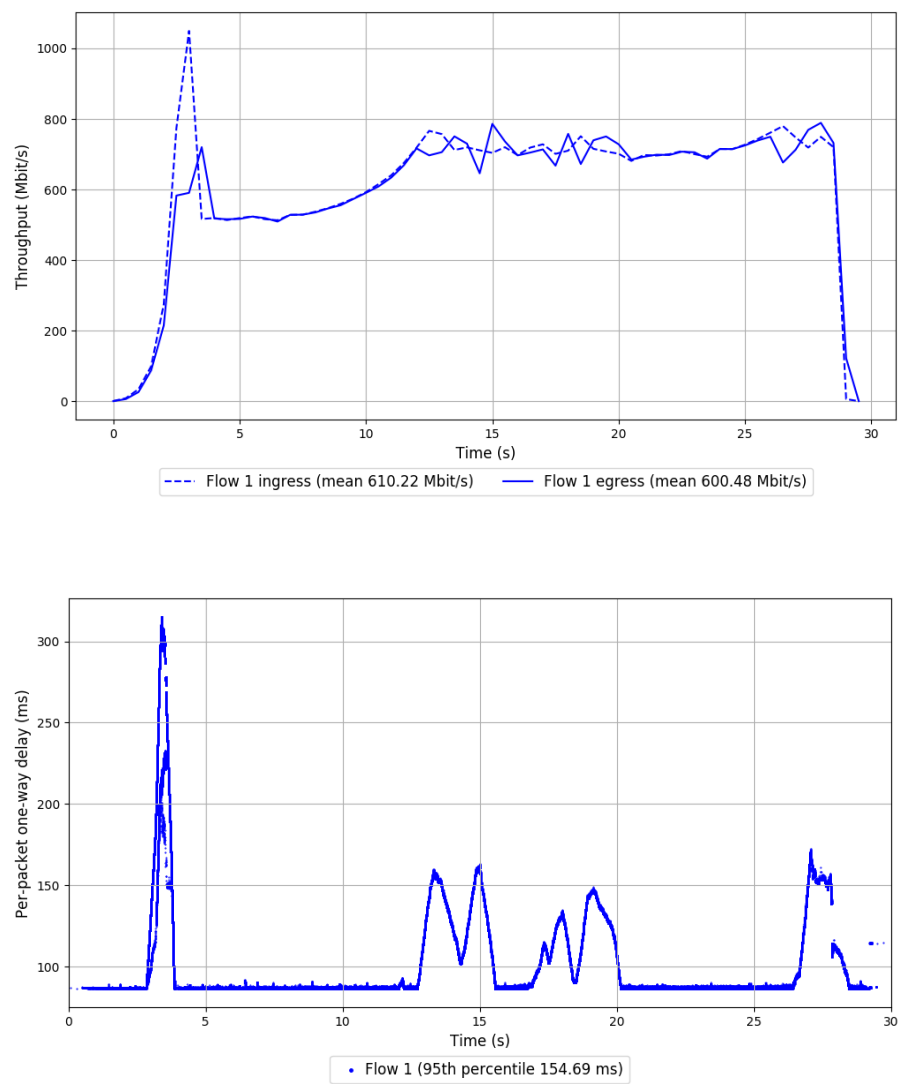
-- Flow 1:

Average throughput: 600.48 Mbit/s

95th percentile per-packet one-way delay: 154.685 ms

Loss rate: 1.50%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-10-10 17:58:10

End at: 2017-10-10 17:58:40

Below is generated by plot.py at 2017-10-10 21:33:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 600.00 Mbit/s

95th percentile per-packet one-way delay: 191.564 ms

Loss rate: 5.39%

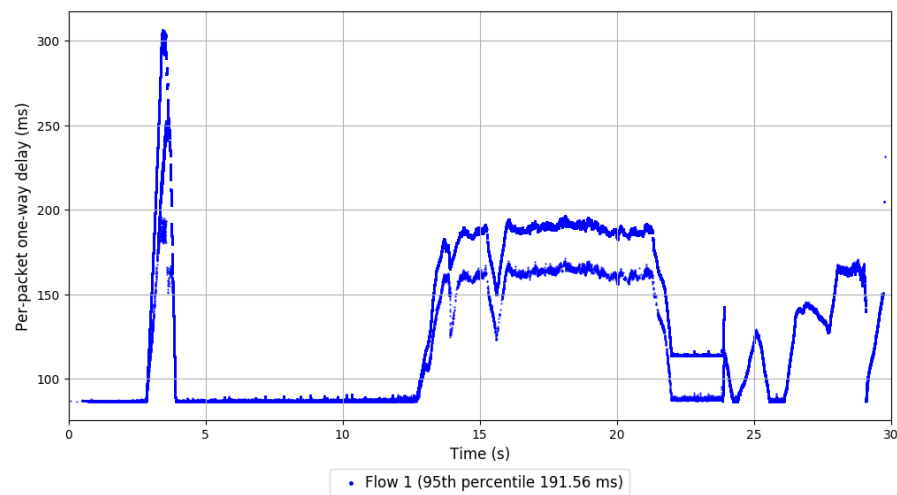
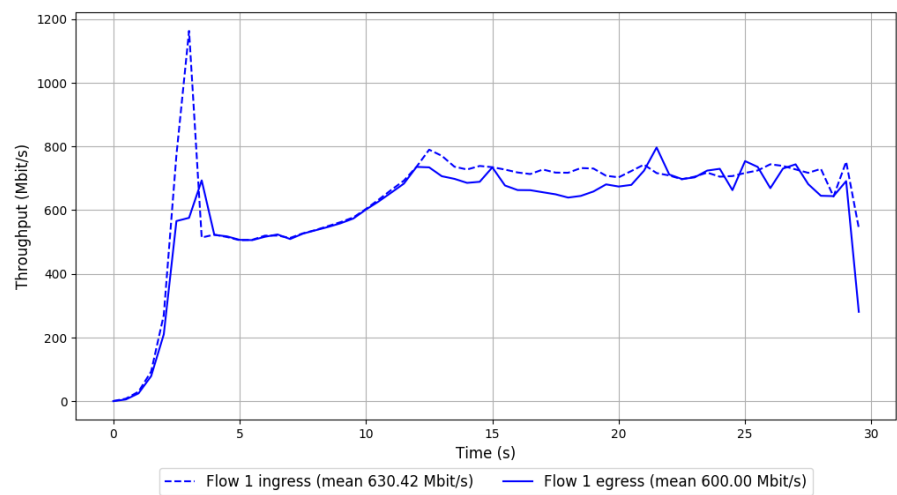
-- Flow 1:

Average throughput: 600.00 Mbit/s

95th percentile per-packet one-way delay: 191.564 ms

Loss rate: 5.39%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

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

End at: 2017-10-10 18:09:39

Below is generated by plot.py at 2017-10-10 21:33:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.58 Mbit/s

95th percentile per-packet one-way delay: 114.119 ms

Loss rate: 2.39%

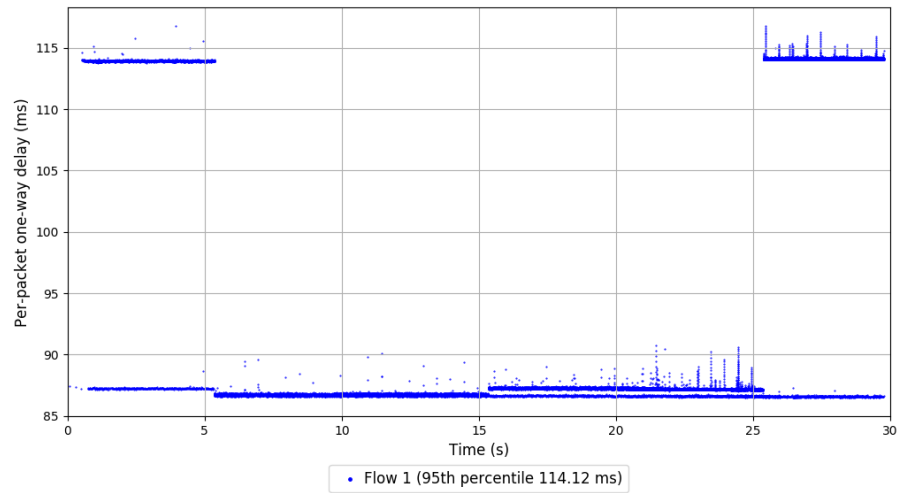
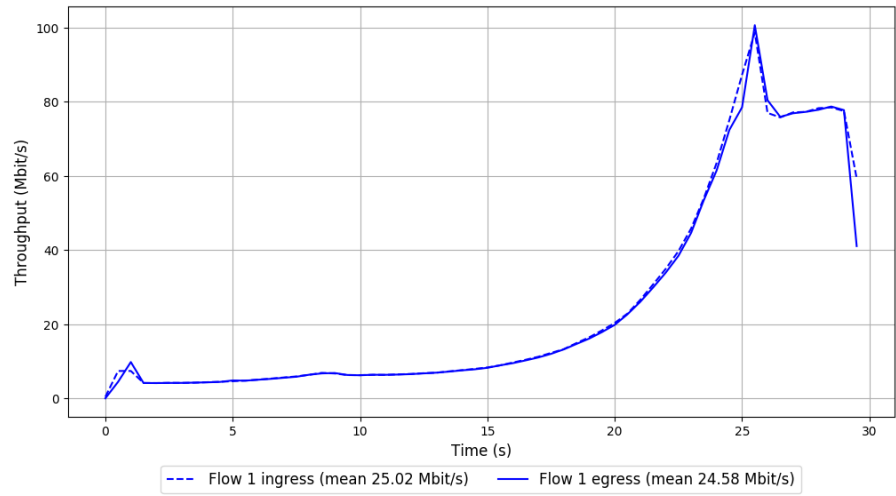
-- Flow 1:

Average throughput: 24.58 Mbit/s

95th percentile per-packet one-way delay: 114.119 ms

Loss rate: 2.39%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-10-10 18:19:34

End at: 2017-10-10 18:20:04

Below is generated by plot.py at 2017-10-10 21:33:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 581.49 Mbit/s

95th percentile per-packet one-way delay: 195.417 ms

Loss rate: 3.07%

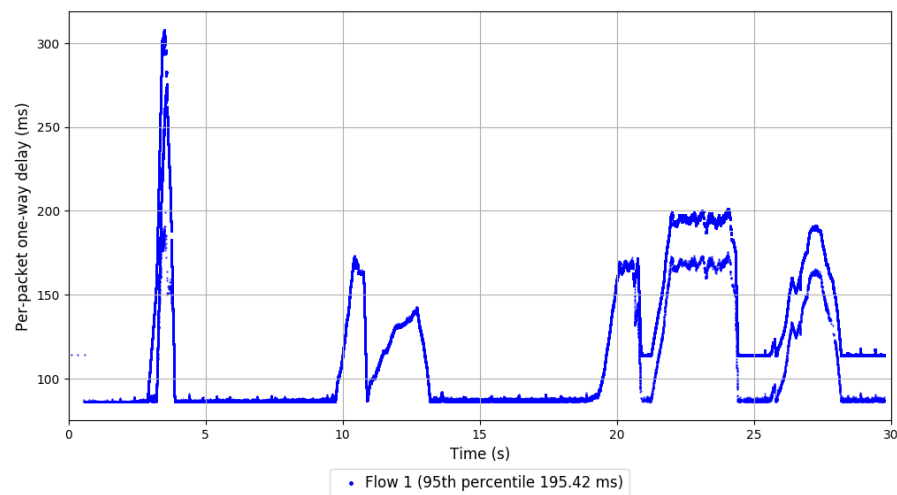
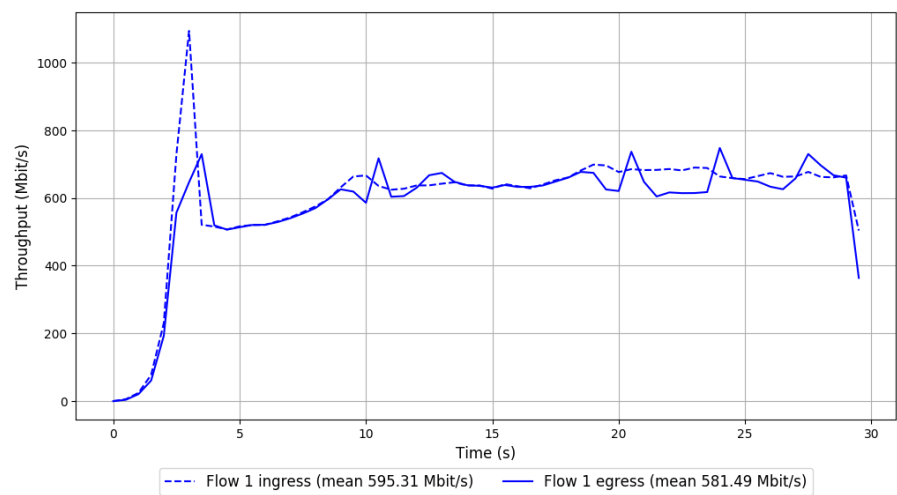
-- Flow 1:

Average throughput: 581.49 Mbit/s

95th percentile per-packet one-way delay: 195.417 ms

Loss rate: 3.07%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-10-10 18:30:21

End at: 2017-10-10 18:30:51

Below is generated by plot.py at 2017-10-10 21:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 587.50 Mbit/s

95th percentile per-packet one-way delay: 191.980 ms

Loss rate: 2.83%

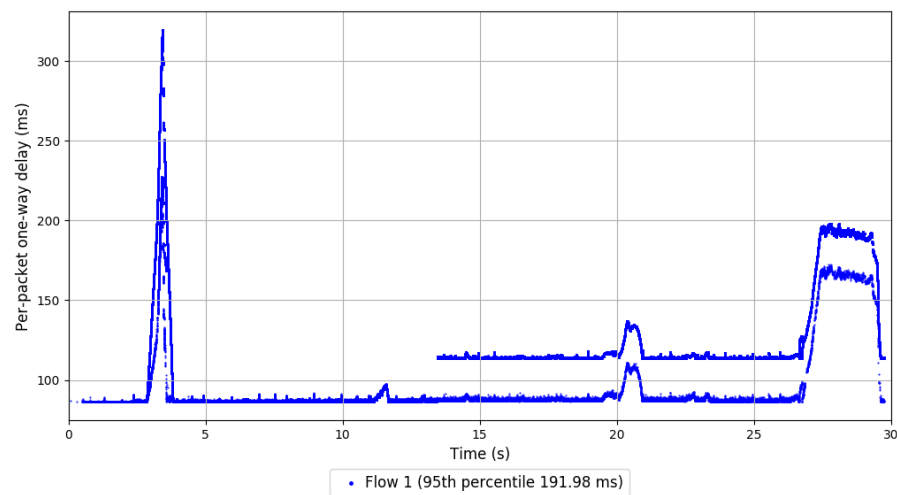
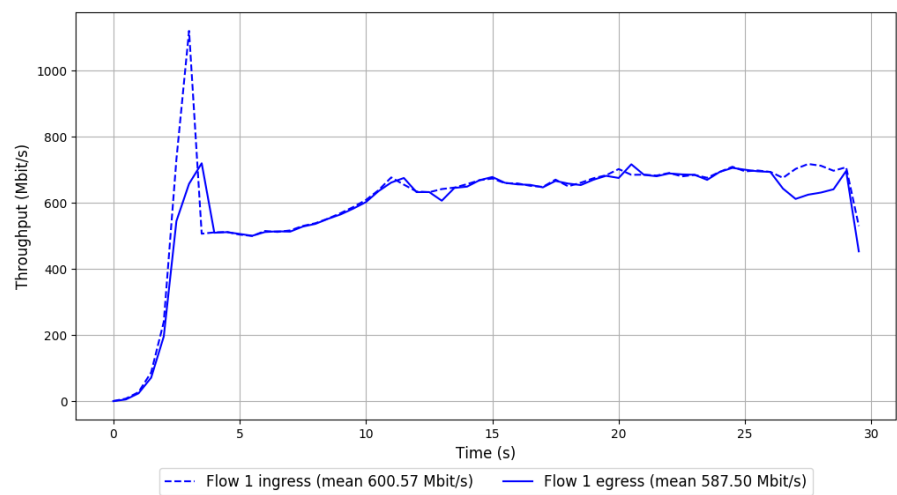
-- Flow 1:

Average throughput: 587.50 Mbit/s

95th percentile per-packet one-way delay: 191.980 ms

Loss rate: 2.83%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-10-10 18:40:50

End at: 2017-10-10 18:41:20

Below is generated by plot.py at 2017-10-10 21:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 499.01 Mbit/s

95th percentile per-packet one-way delay: 187.594 ms

Loss rate: 2.44%

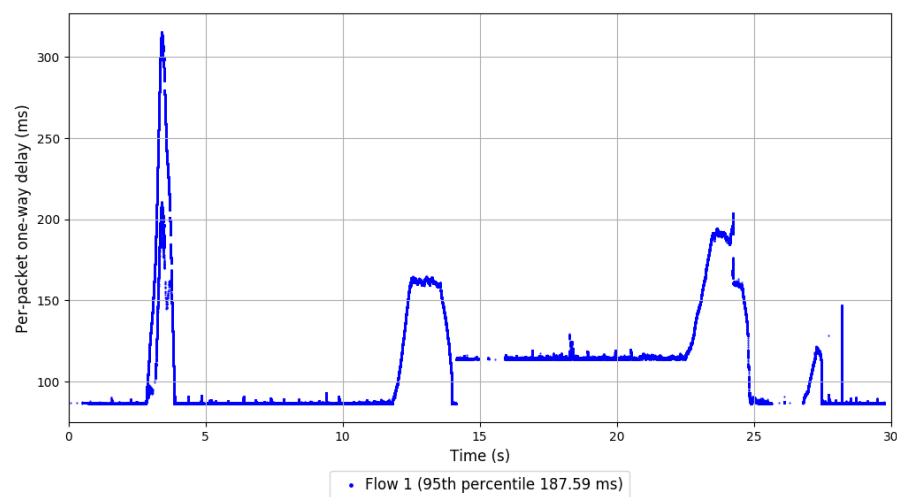
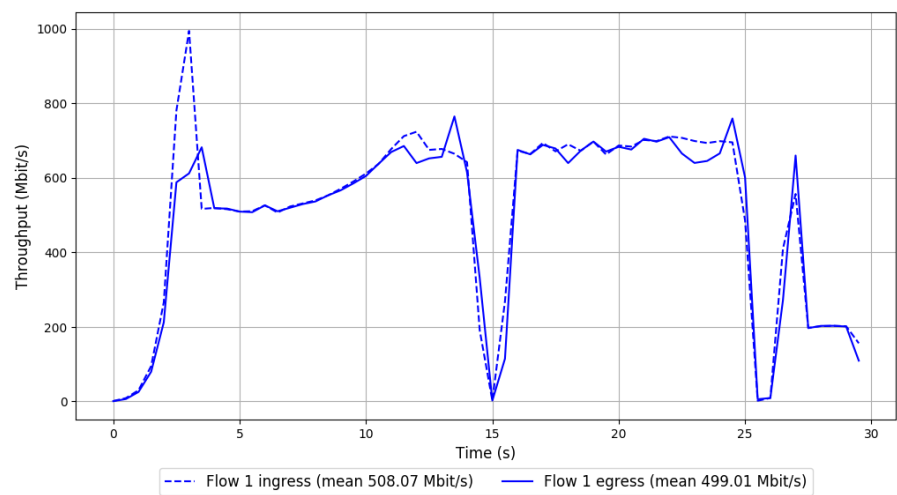
-- Flow 1:

Average throughput: 499.01 Mbit/s

95th percentile per-packet one-way delay: 187.594 ms

Loss rate: 2.44%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-10-10 18:51:33

End at: 2017-10-10 18:52:03

Below is generated by plot.py at 2017-10-10 21:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 552.39 Mbit/s

95th percentile per-packet one-way delay: 147.367 ms

Loss rate: 3.12%

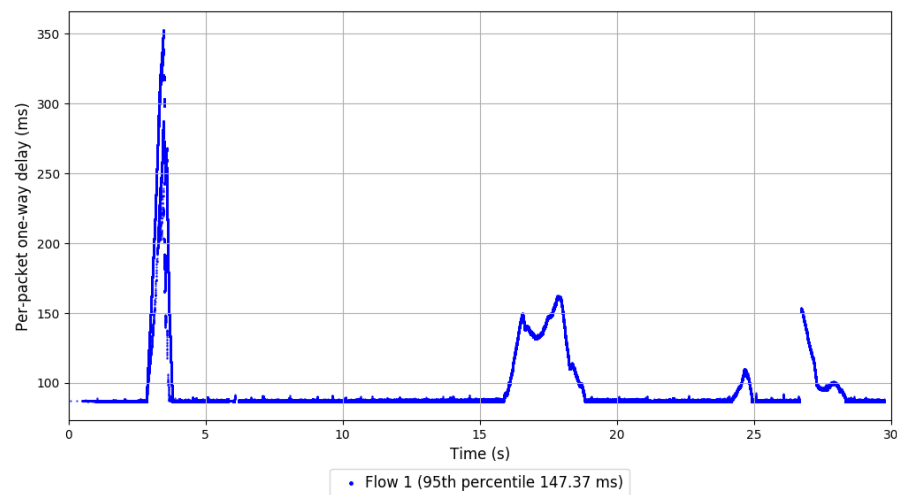
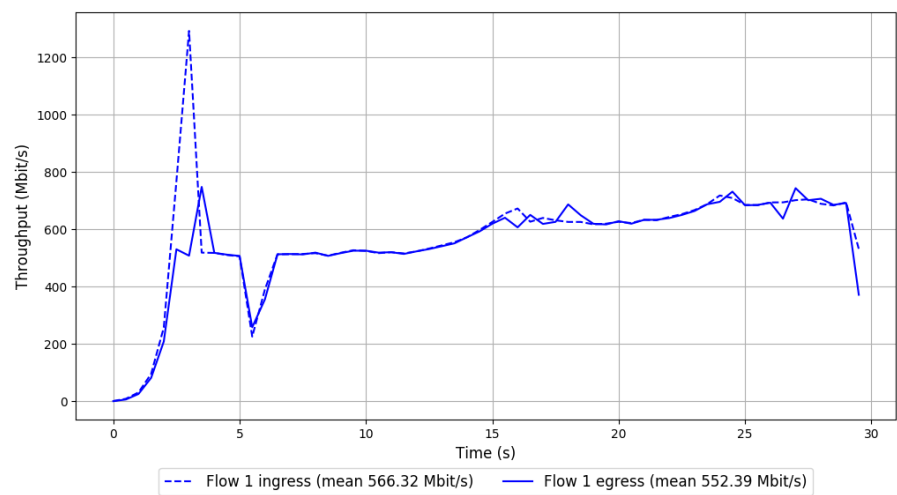
-- Flow 1:

Average throughput: 552.39 Mbit/s

95th percentile per-packet one-way delay: 147.367 ms

Loss rate: 3.12%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-10-10 19:02:52

End at: 2017-10-10 19:03:22

Below is generated by plot.py at 2017-10-10 21:33:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 555.03 Mbit/s

95th percentile per-packet one-way delay: 167.140 ms

Loss rate: 3.56%

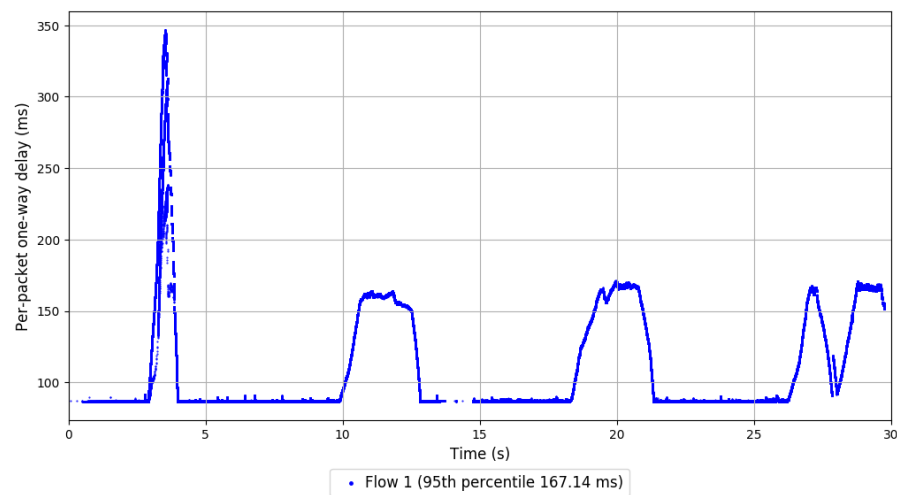
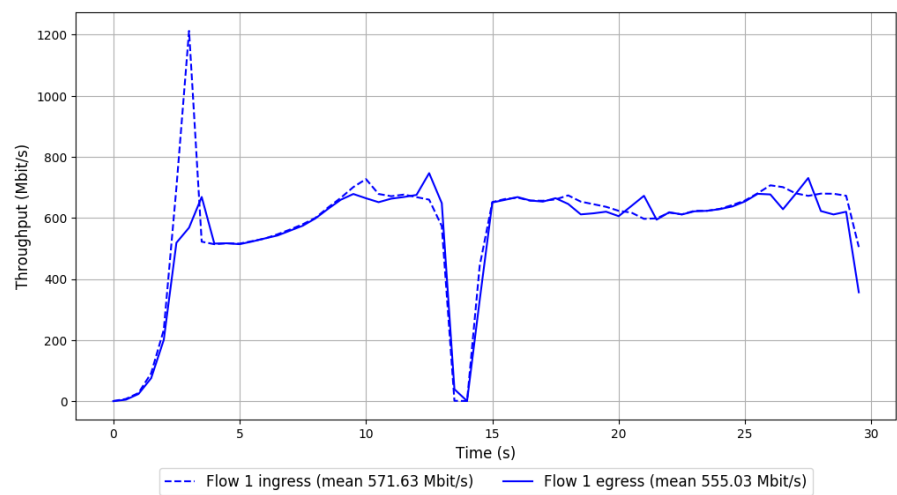
-- Flow 1:

Average throughput: 555.03 Mbit/s

95th percentile per-packet one-way delay: 167.140 ms

Loss rate: 3.56%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-10-10 19:13:43

End at: 2017-10-10 19:14:13

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 615.40 Mbit/s

95th percentile per-packet one-way delay: 153.948 ms

Loss rate: 2.03%

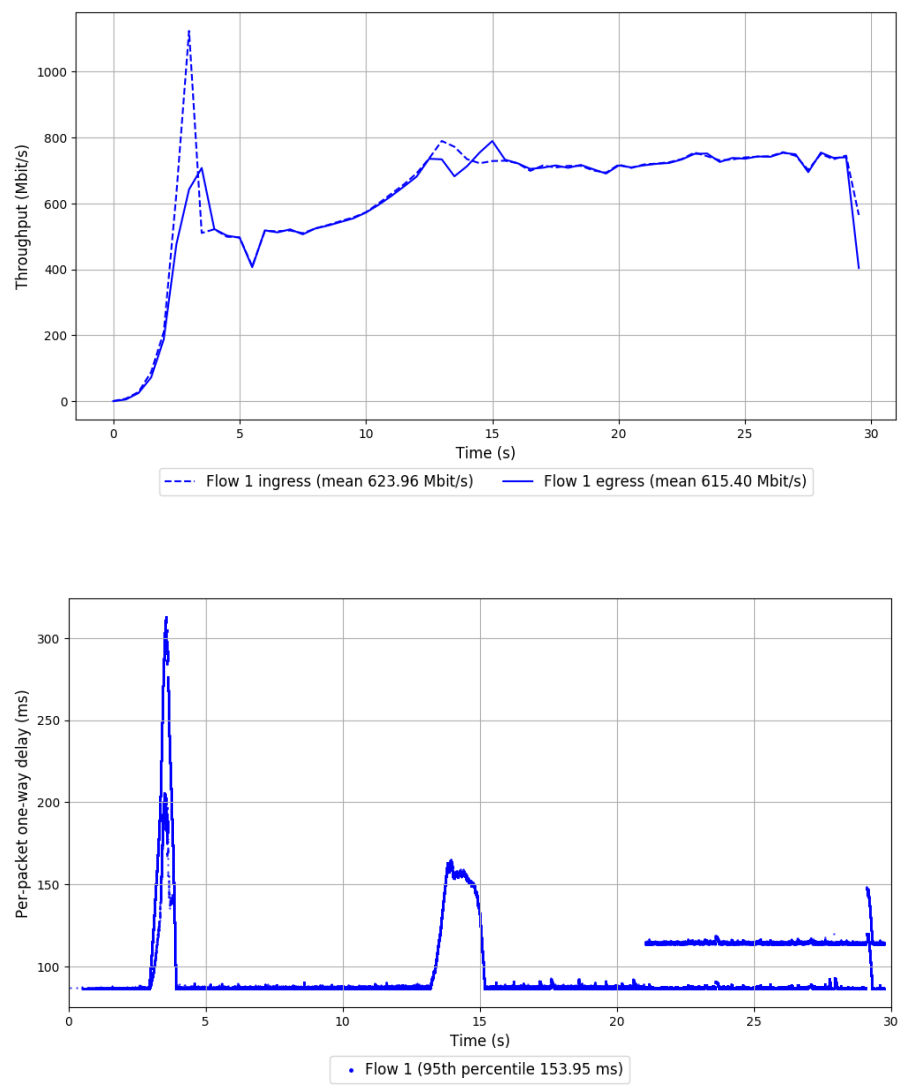
-- Flow 1:

Average throughput: 615.40 Mbit/s

95th percentile per-packet one-way delay: 153.948 ms

Loss rate: 2.03%

Run 10: Report of PCC — Data Link

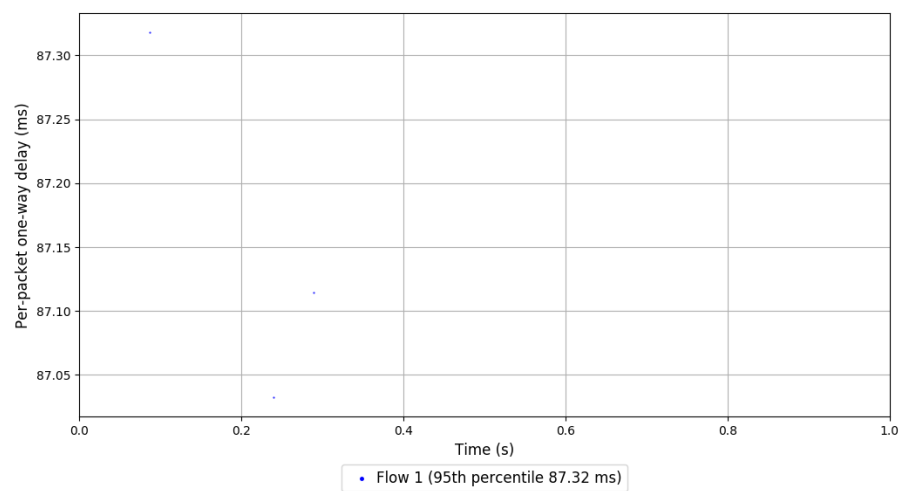
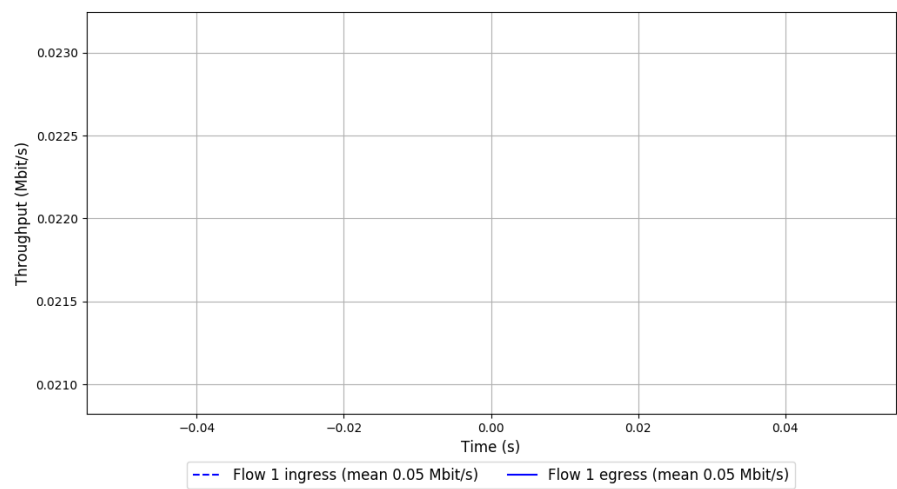


Run 1: Statistics of QUIC Cubic

Start at: 2017-10-10 17:41:45

End at: 2017-10-10 17:42:15

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-10-10 17:52:43

End at: 2017-10-10 17:53:13

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.31 Mbit/s

95th percentile per-packet one-way delay: 86.701 ms

Loss rate: 1.05%

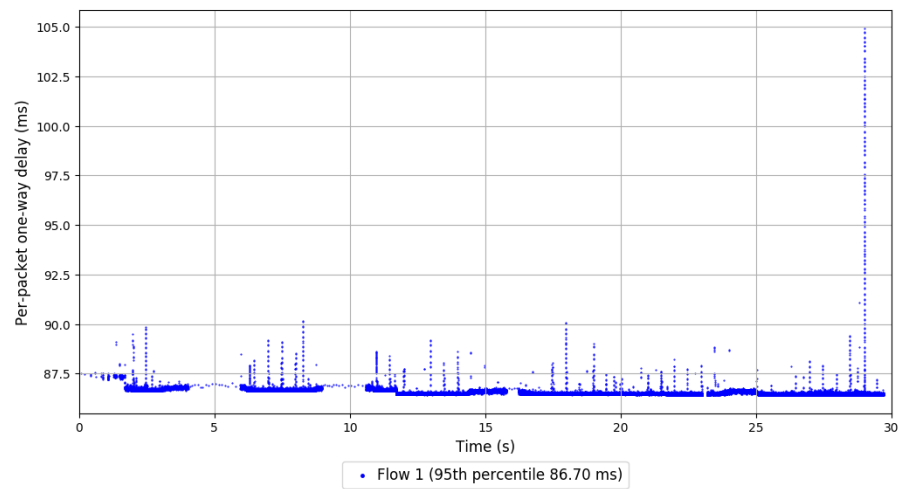
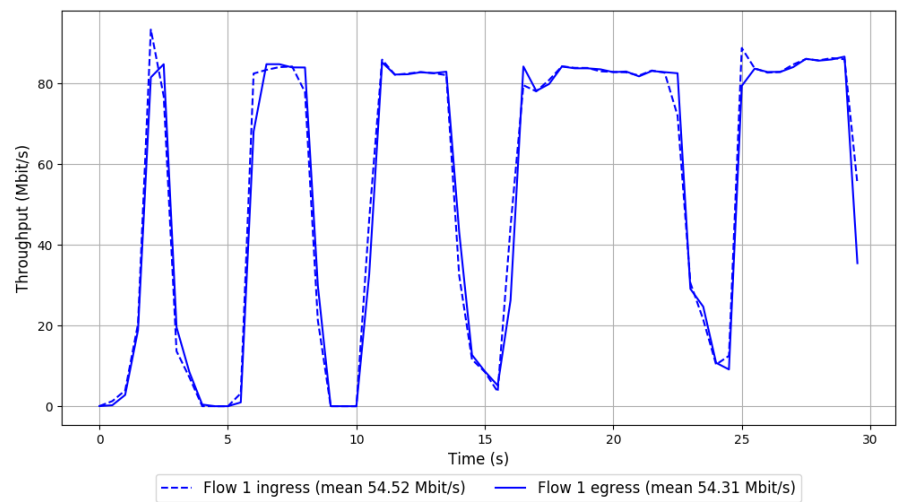
-- Flow 1:

Average throughput: 54.31 Mbit/s

95th percentile per-packet one-way delay: 86.701 ms

Loss rate: 1.05%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-10-10 18:03:39

End at: 2017-10-10 18:04:09

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.77 Mbit/s

95th percentile per-packet one-way delay: 86.716 ms

Loss rate: 1.09%

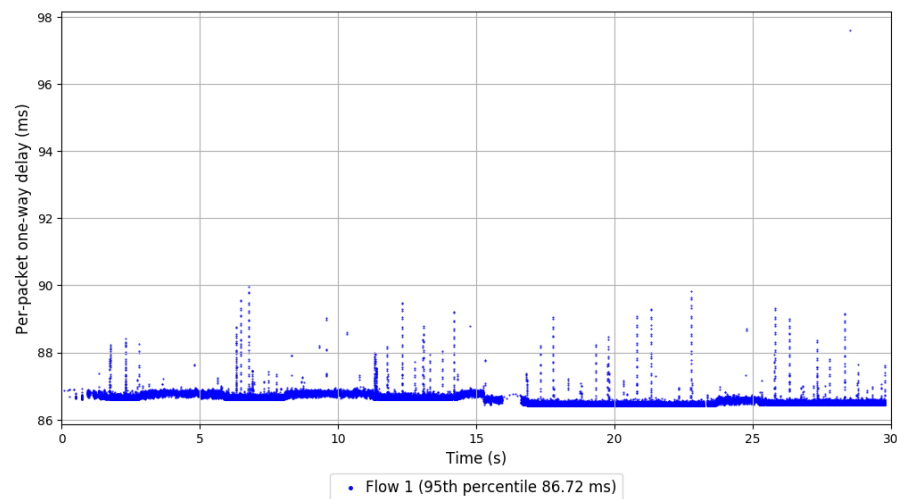
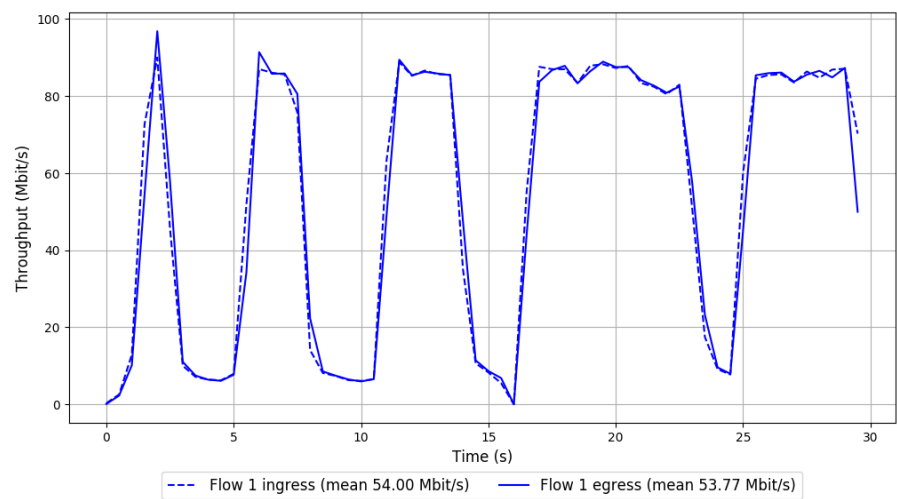
-- Flow 1:

Average throughput: 53.77 Mbit/s

95th percentile per-packet one-way delay: 86.716 ms

Loss rate: 1.09%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-10-10 18:14:33

End at: 2017-10-10 18:15:03

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.93 Mbit/s

95th percentile per-packet one-way delay: 114.020 ms

Loss rate: 0.92%

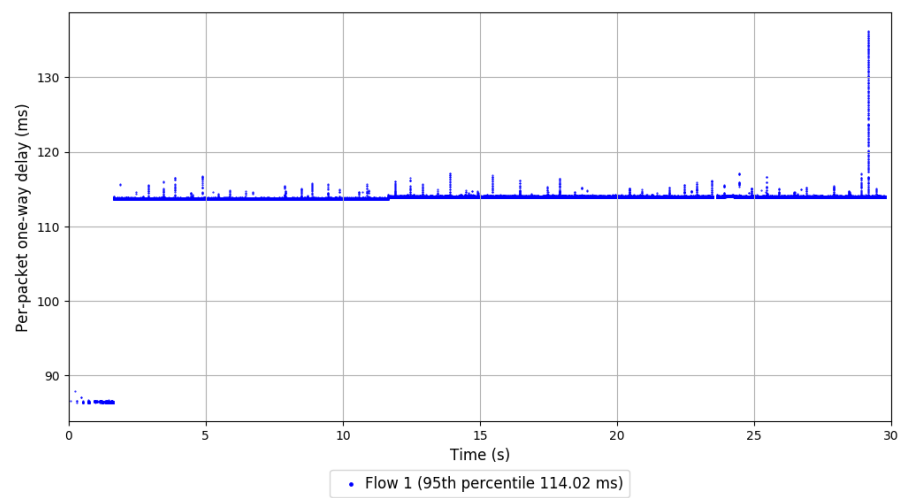
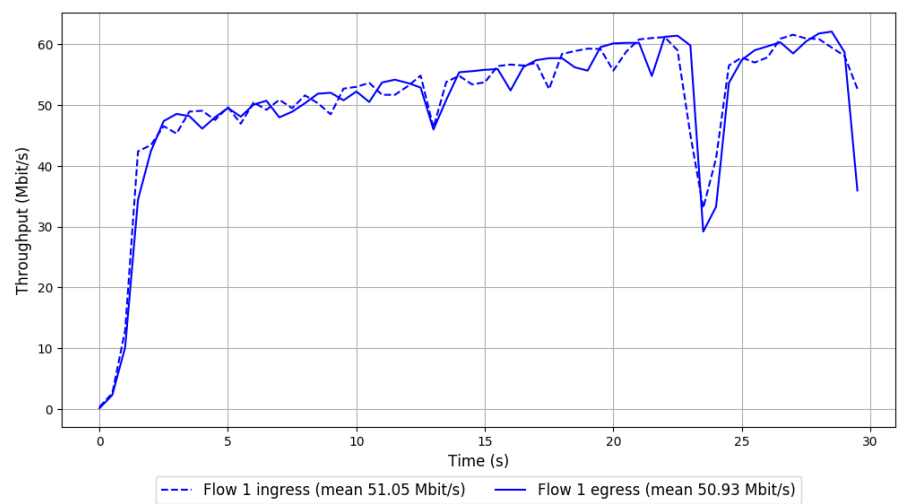
-- Flow 1:

Average throughput: 50.93 Mbit/s

95th percentile per-packet one-way delay: 114.020 ms

Loss rate: 0.92%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-10-10 18:25:00

End at: 2017-10-10 18:25:30

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.95 Mbit/s

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

Loss rate: 0.97%

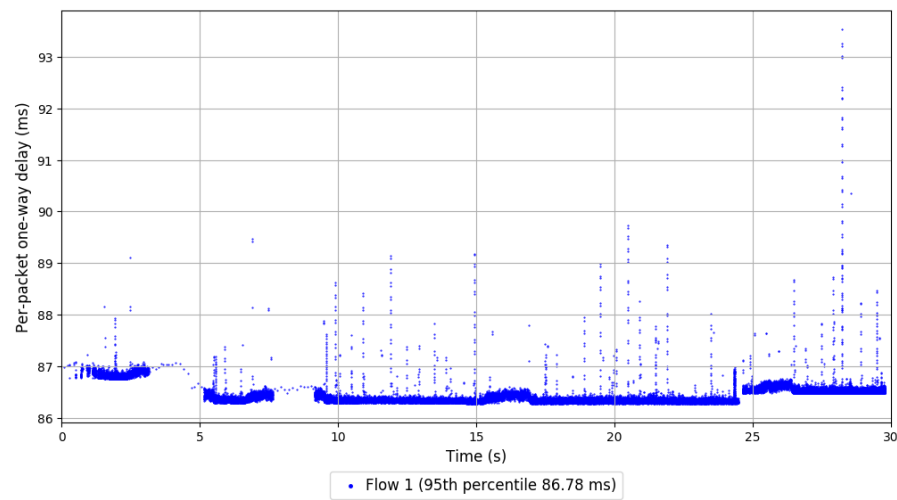
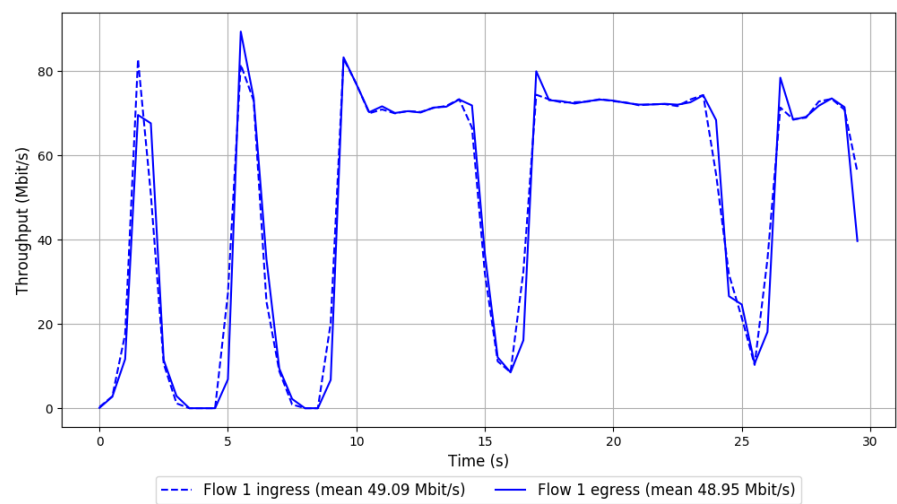
-- Flow 1:

Average throughput: 48.95 Mbit/s

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

Loss rate: 0.97%

Run 5: Report of QUIC Cubic — Data Link

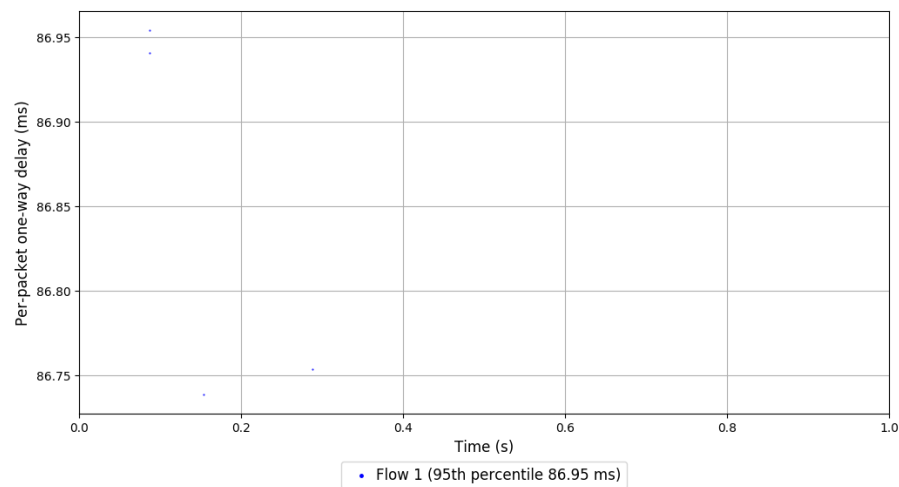
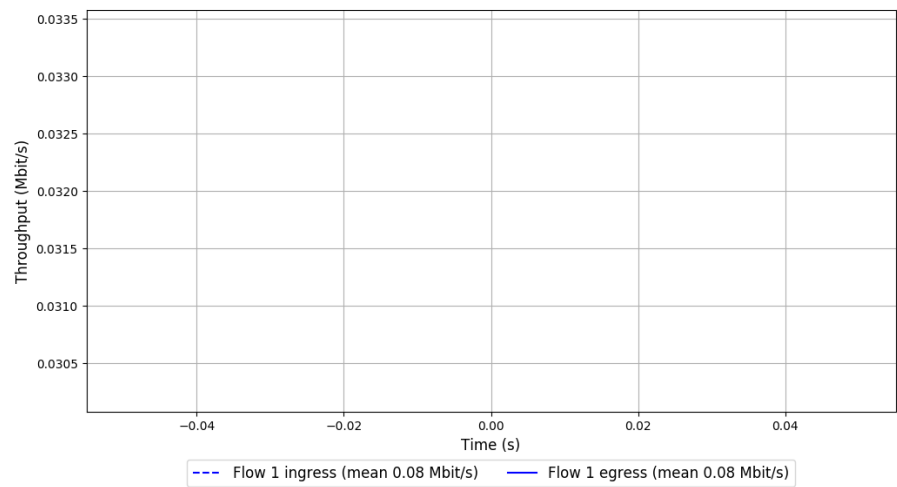


Run 6: Statistics of QUIC Cubic

Start at: 2017-10-10 18:35:56

End at: 2017-10-10 18:36:26

Run 6: Report of QUIC Cubic — Data Link

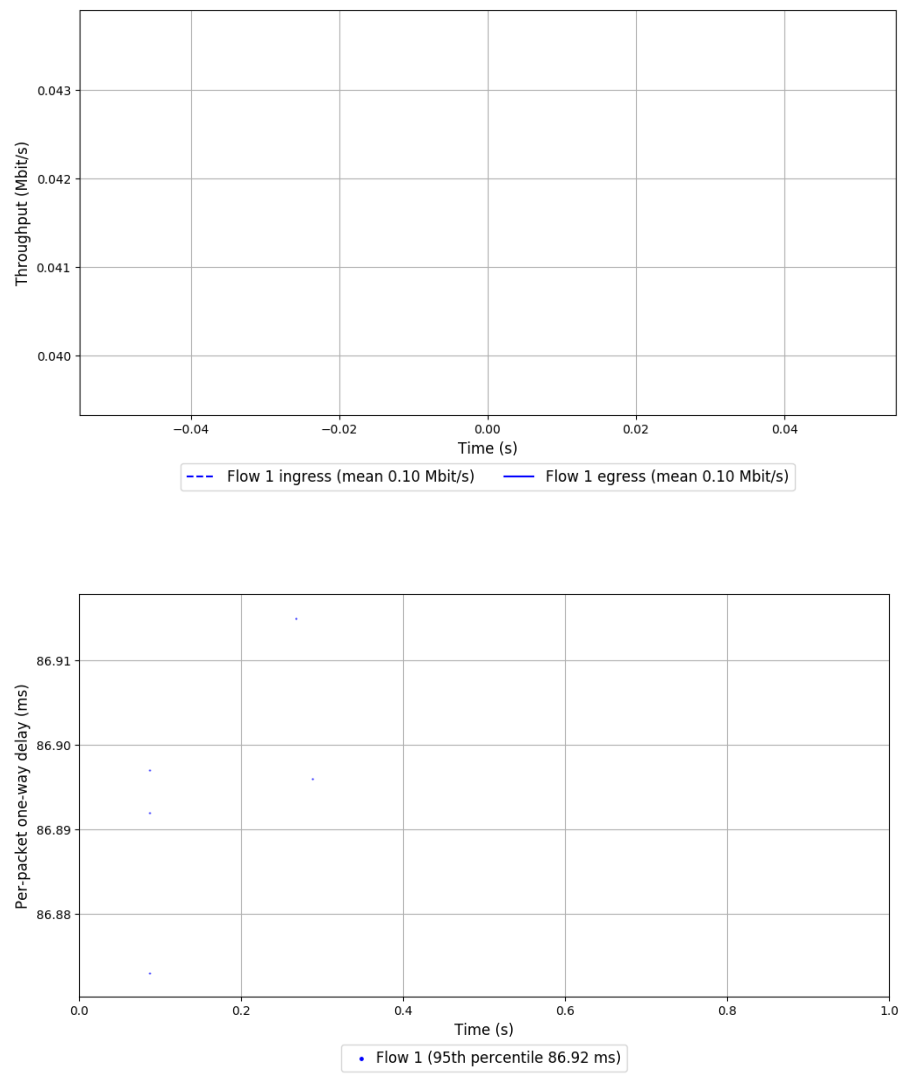


Run 7: Statistics of QUIC Cubic

Start at: 2017-10-10 18:46:23

End at: 2017-10-10 18:46:53

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-10-10 18:57:20

End at: 2017-10-10 18:57:50

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.49 Mbit/s

95th percentile per-packet one-way delay: 86.788 ms

Loss rate: 0.99%

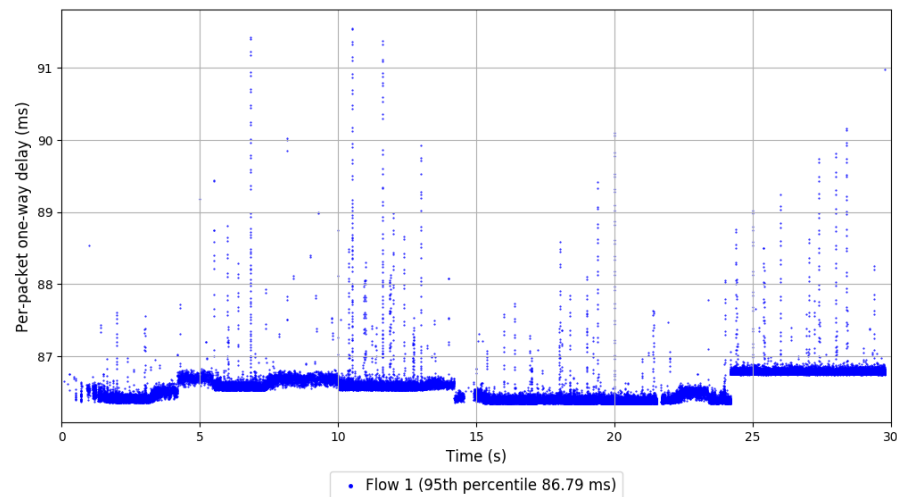
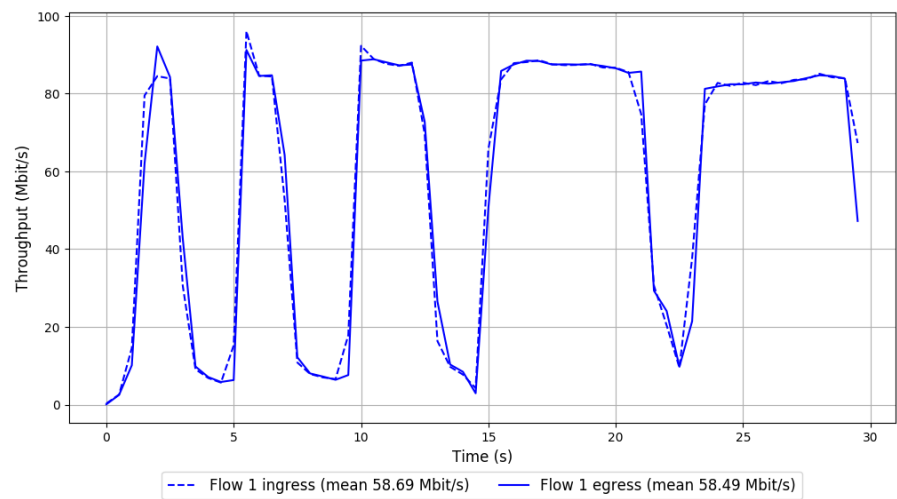
-- Flow 1:

Average throughput: 58.49 Mbit/s

95th percentile per-packet one-way delay: 86.788 ms

Loss rate: 0.99%

Run 8: Report of QUIC Cubic — Data Link

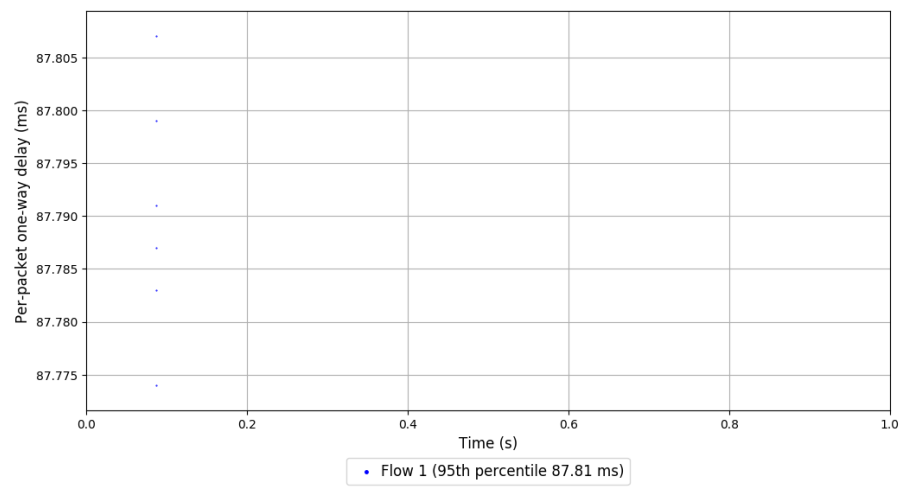
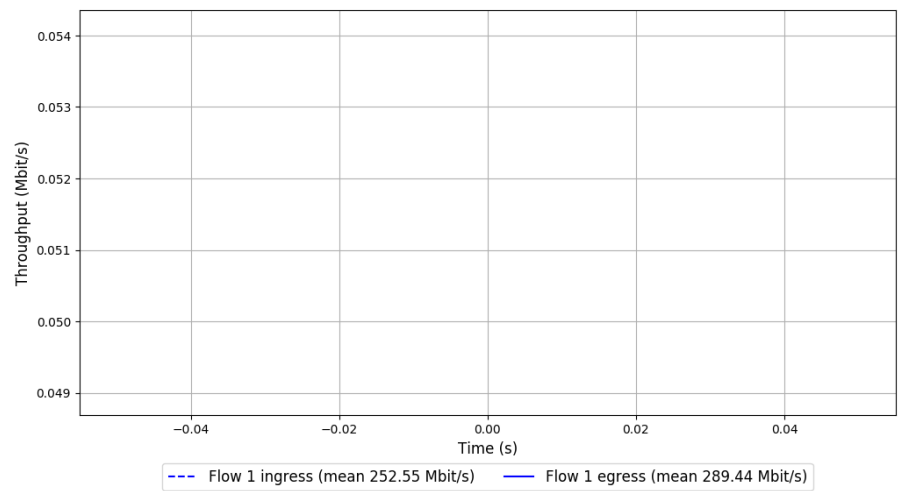


Run 9: Statistics of QUIC Cubic

Start at: 2017-10-10 19:08:23

End at: 2017-10-10 19:08:53

Run 9: Report of QUIC Cubic — Data Link

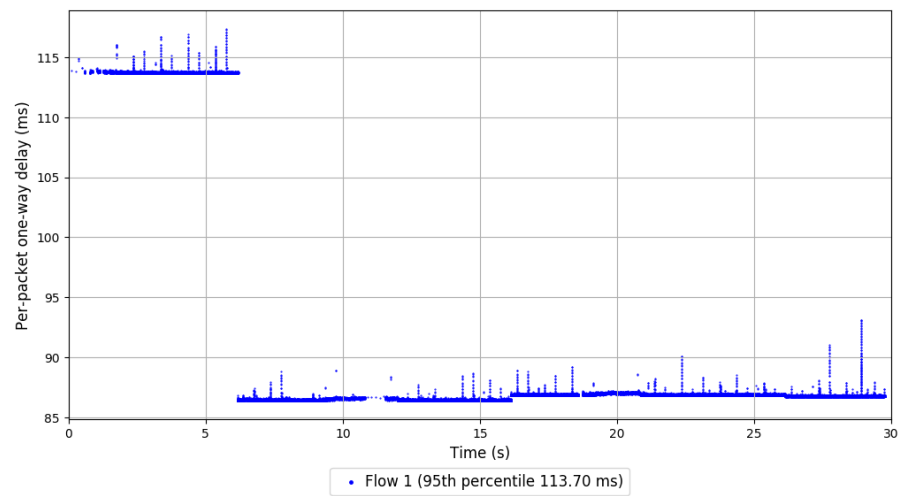
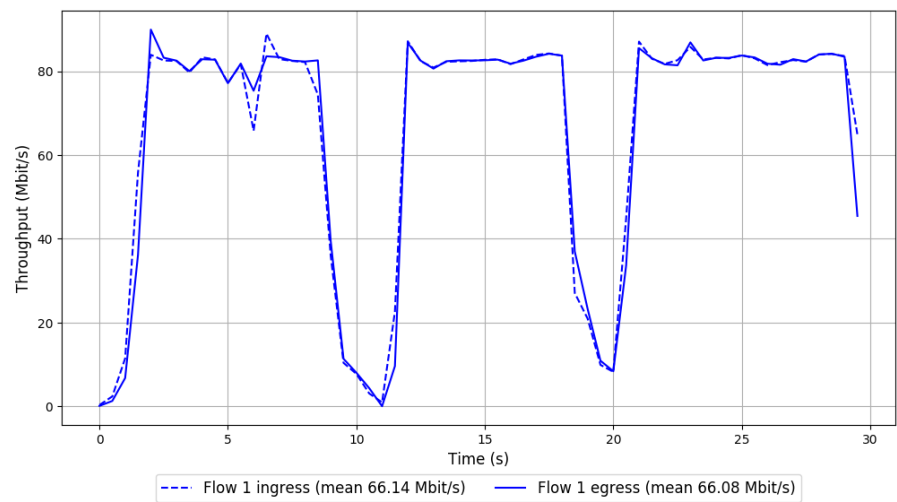


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-10-10 19:19:28
End at: 2017-10-10 19:19:58

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 66.08 Mbit/s
95th percentile per-packet one-way delay: 113.705 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 66.08 Mbit/s
95th percentile per-packet one-way delay: 113.705 ms
Loss rate: 0.86%
```

Run 10: Report of QUIC Cubic — Data Link

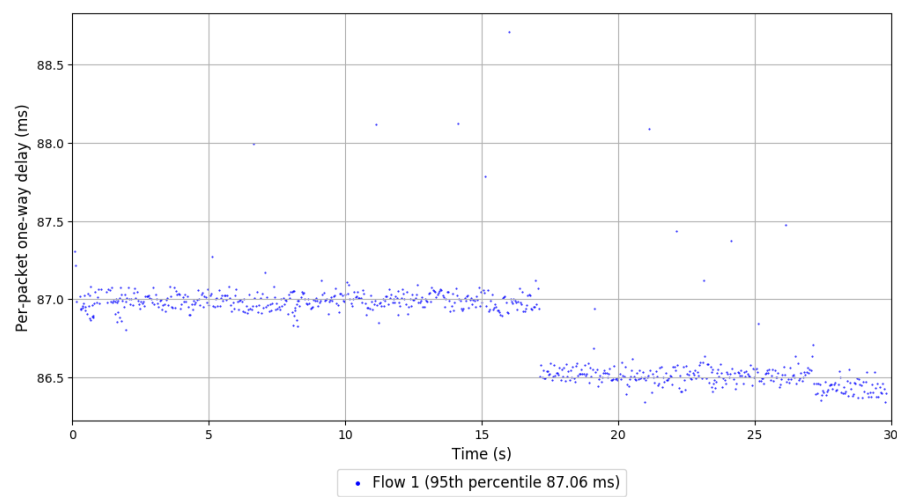
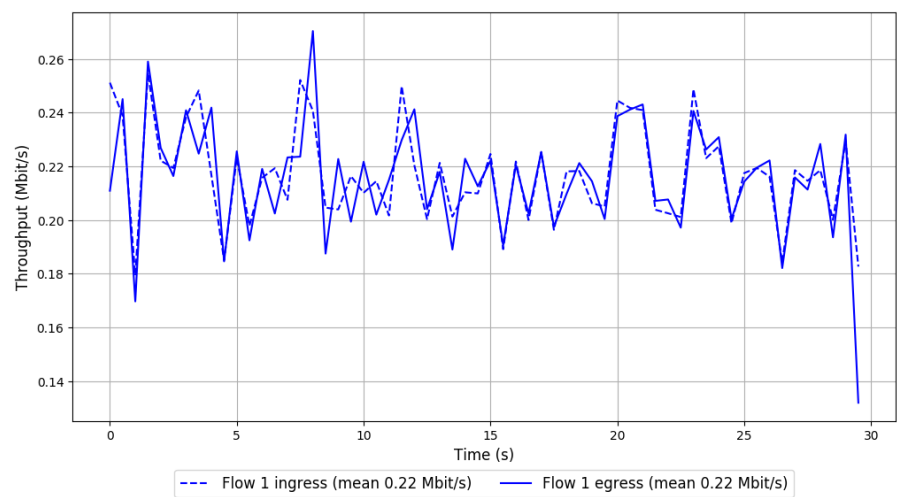


```
Run 1: Statistics of SCReAM

Start at: 2017-10-10 17:33:07
End at: 2017-10-10 17:33:37

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.065 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 87.065 ms
Loss rate: 0.64%
```

Run 1: Report of SReAM — Data Link

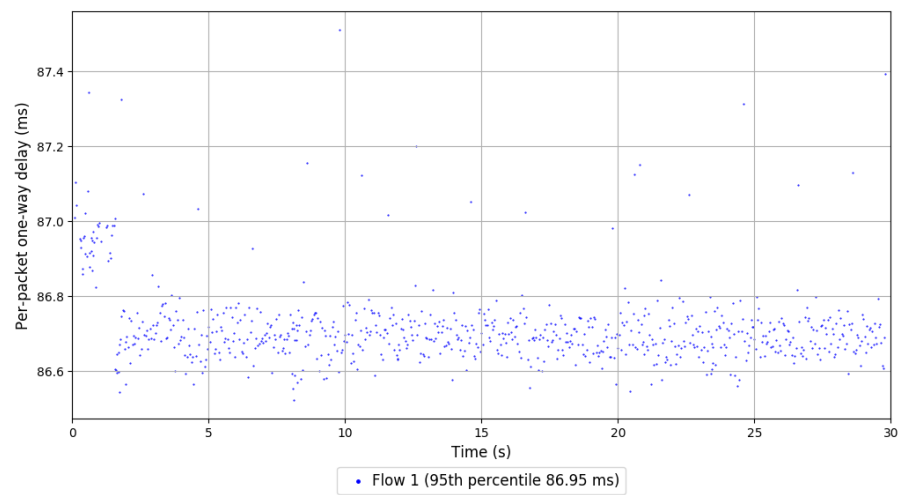
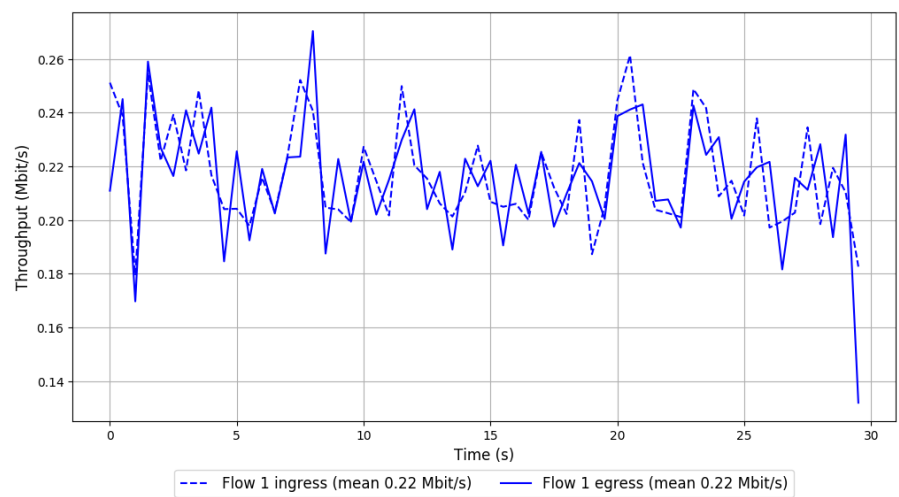


```
Run 2: Statistics of SCReAM

Start at: 2017-10-10 17:43:53
End at: 2017-10-10 17:44:23

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.953 ms
Loss rate: 0.64%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.953 ms
Loss rate: 0.64%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-10-10 17:55:06

End at: 2017-10-10 17:55:36

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.410 ms

Loss rate: 0.64%

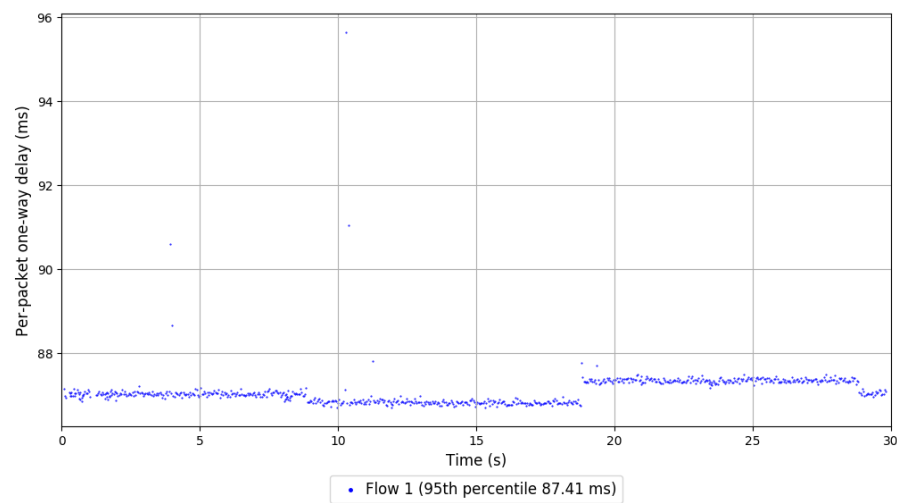
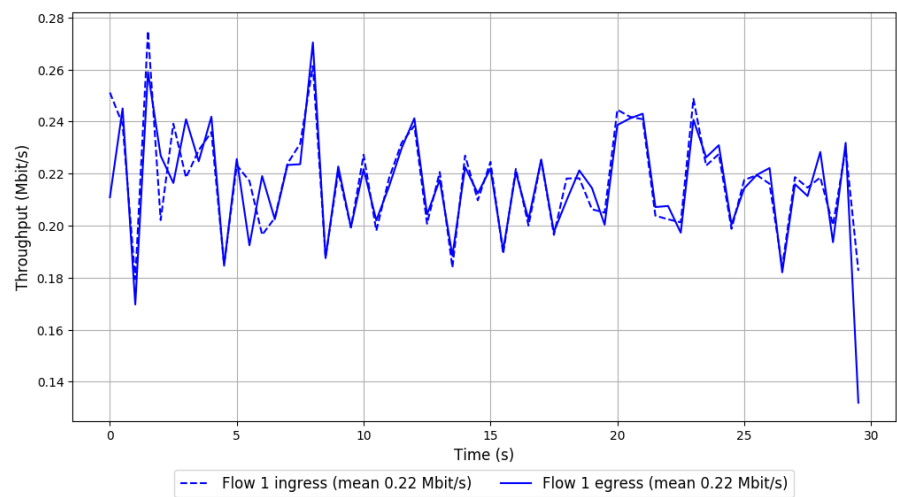
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.410 ms

Loss rate: 0.64%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-10-10 18:06:01

End at: 2017-10-10 18:06:31

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 0.64%

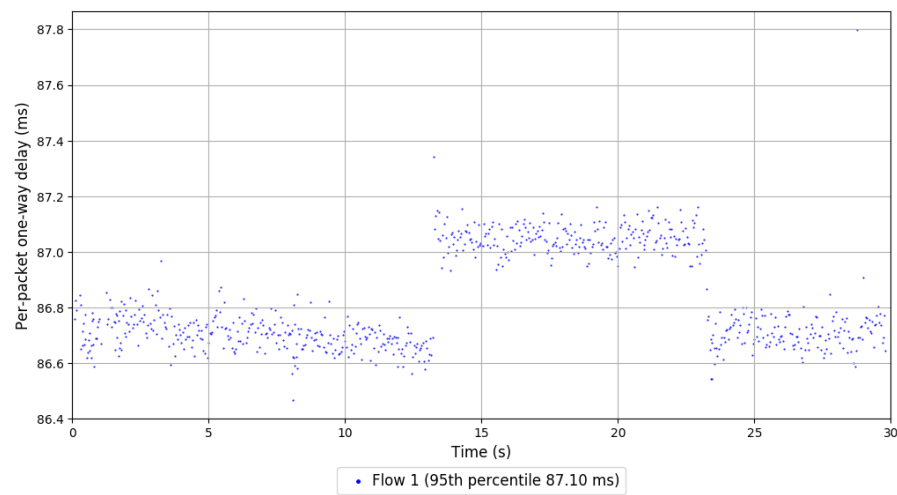
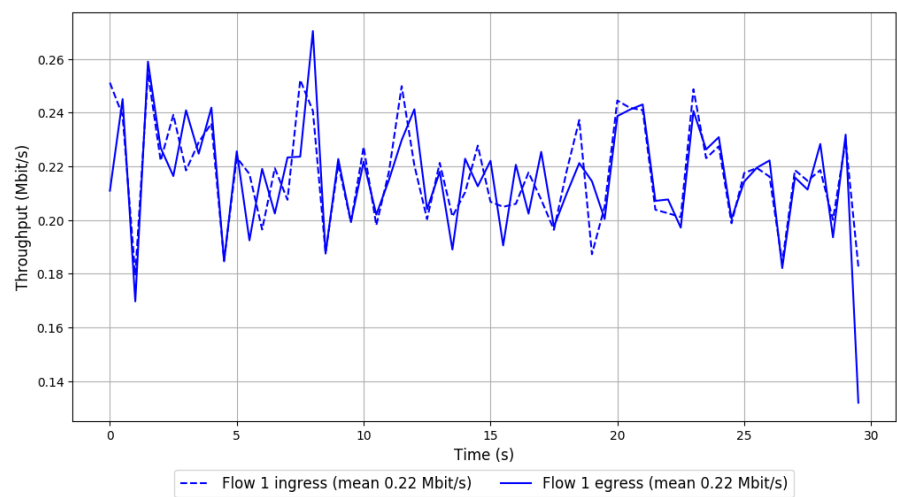
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.103 ms

Loss rate: 0.64%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-10-10 18:16:52

End at: 2017-10-10 18:17:22

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 114.497 ms

Loss rate: 0.74%

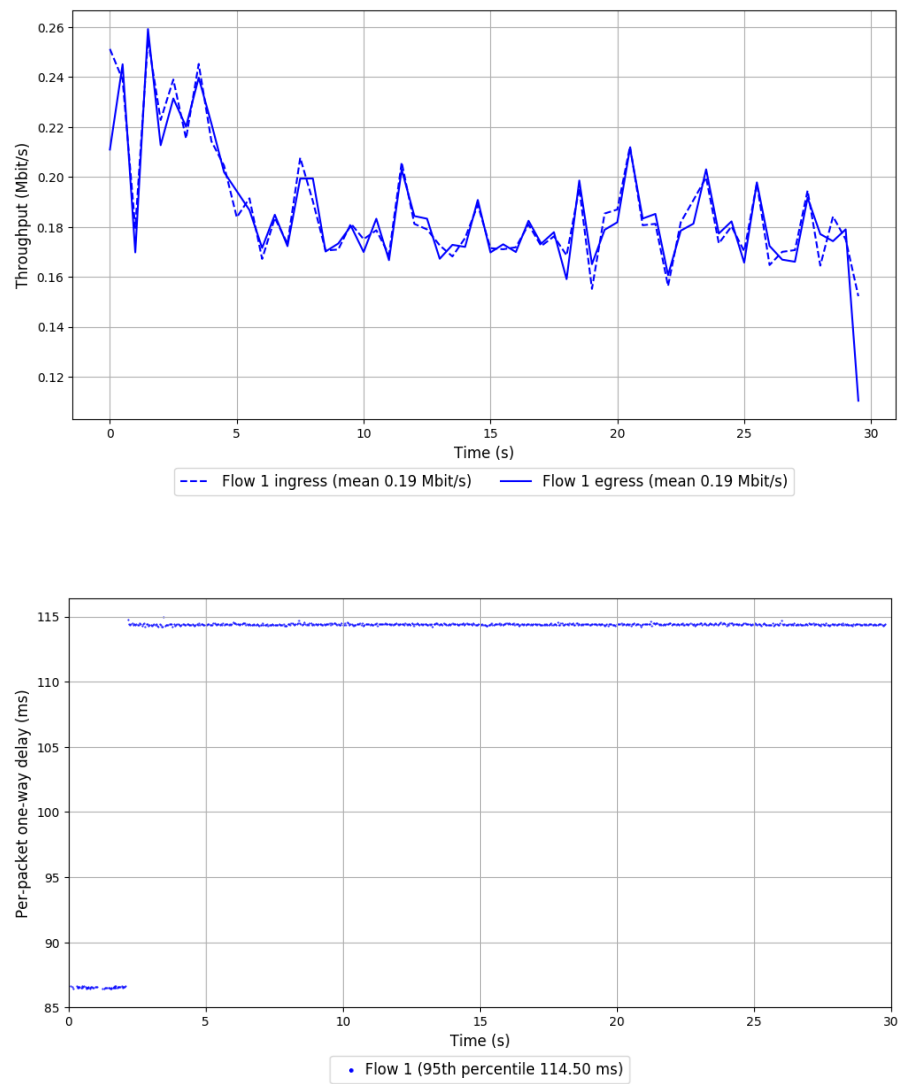
-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 114.497 ms

Loss rate: 0.74%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-10-10 18:27:21

End at: 2017-10-10 18:27:51

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.077 ms

Loss rate: 0.64%

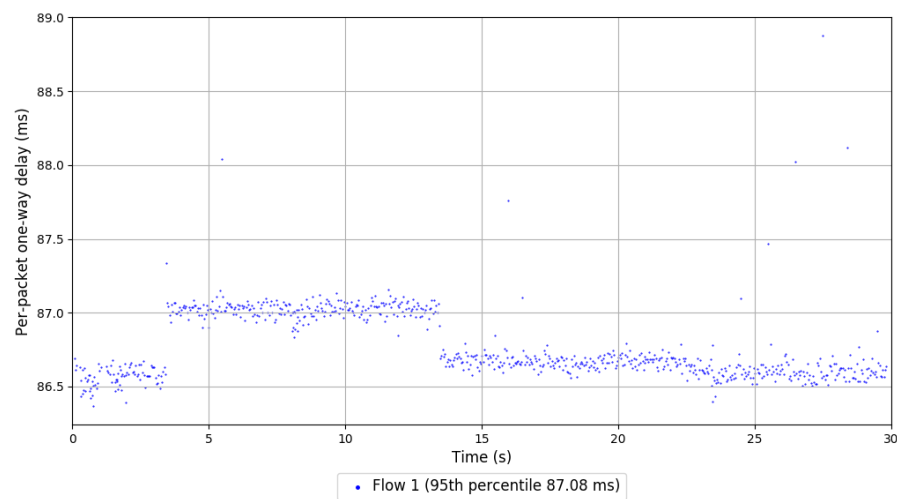
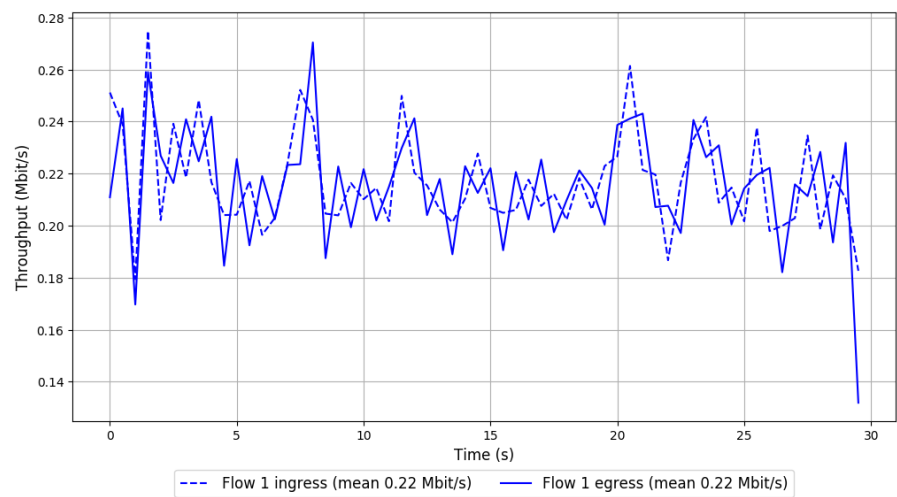
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.077 ms

Loss rate: 0.64%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-10-10 18:38:07

End at: 2017-10-10 18:38:37

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 113.957 ms

Loss rate: 0.43%

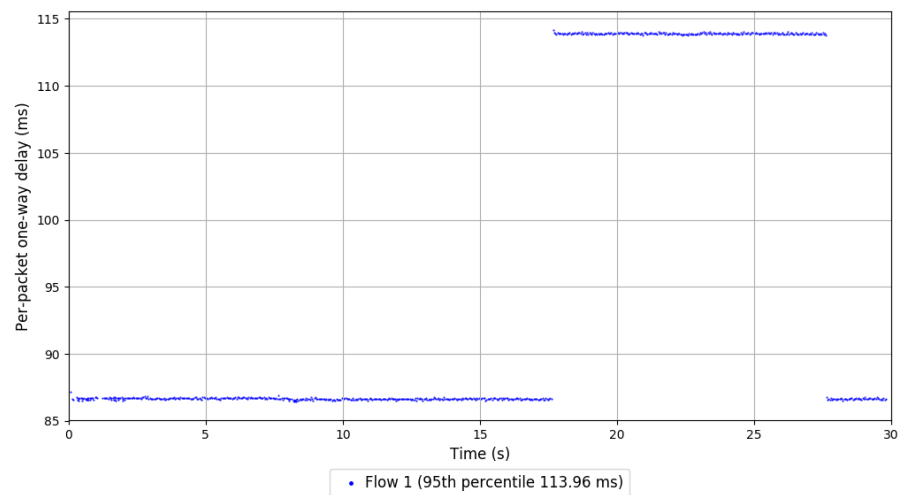
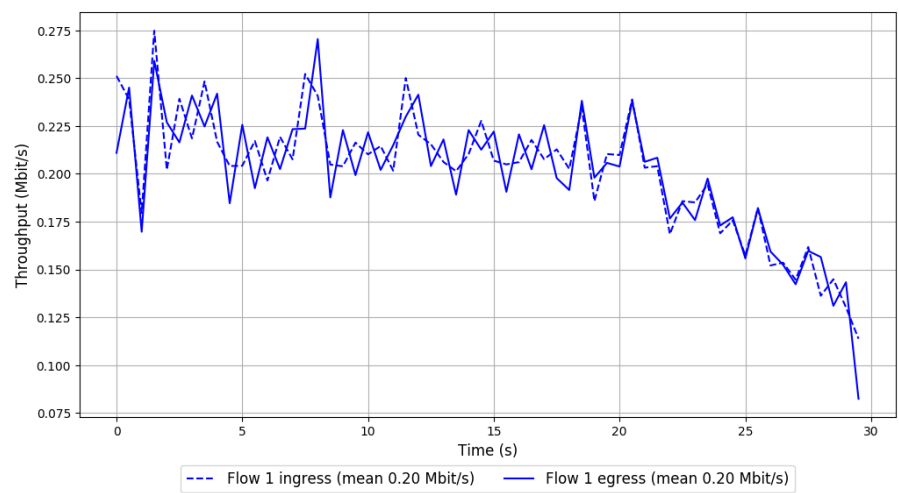
-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 113.957 ms

Loss rate: 0.43%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-10-10 18:48:45

End at: 2017-10-10 18:49:15

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.383 ms

Loss rate: 0.64%

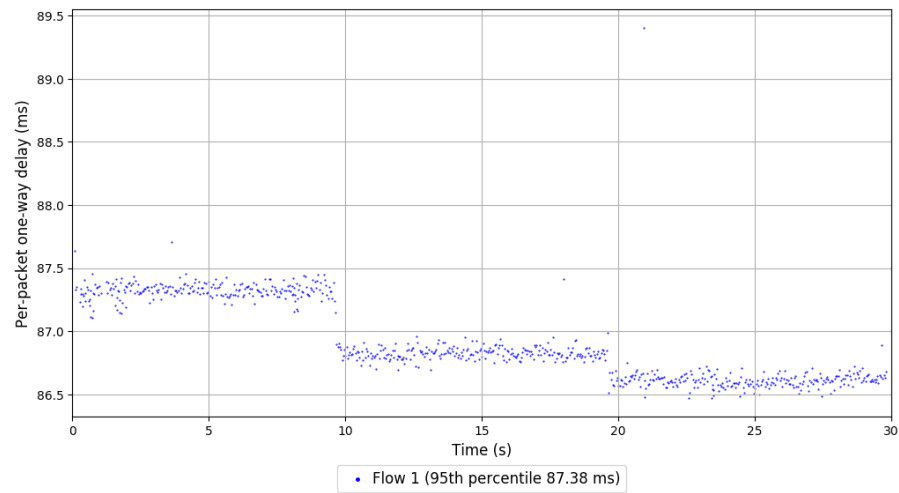
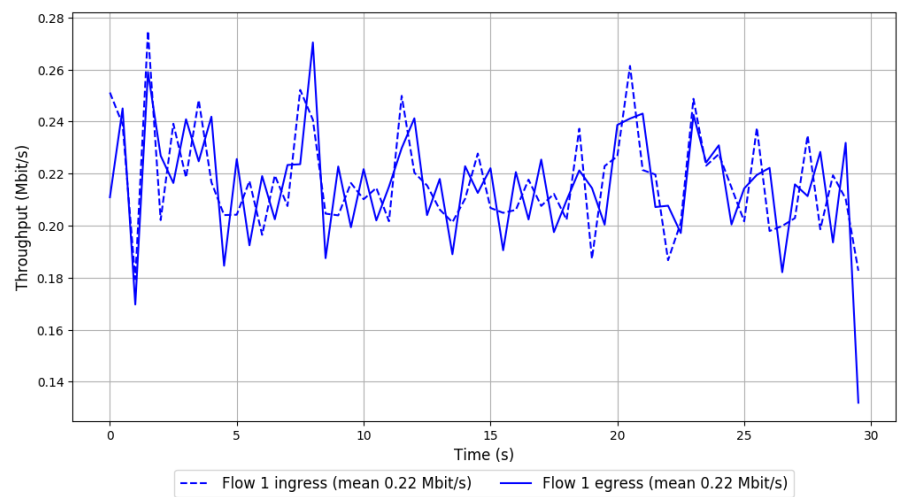
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 87.383 ms

Loss rate: 0.64%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-10-10 18:59:44

End at: 2017-10-10 19:00:14

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.745 ms

Loss rate: 0.64%

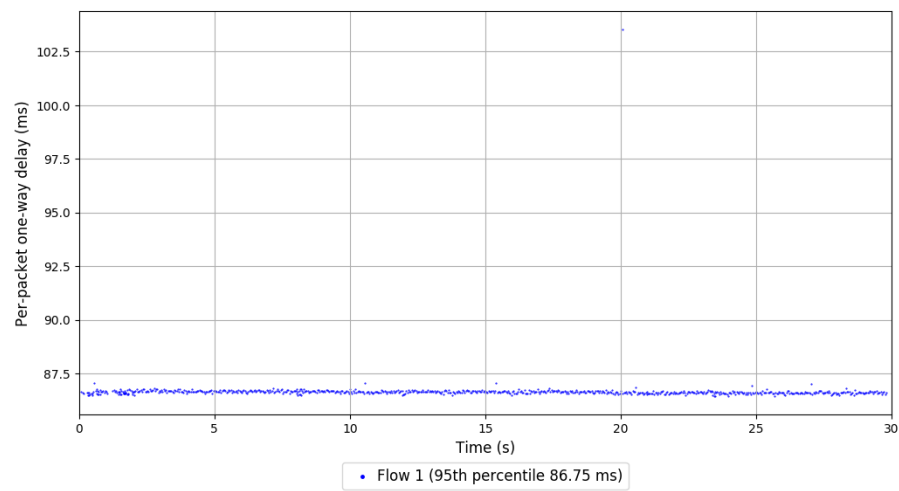
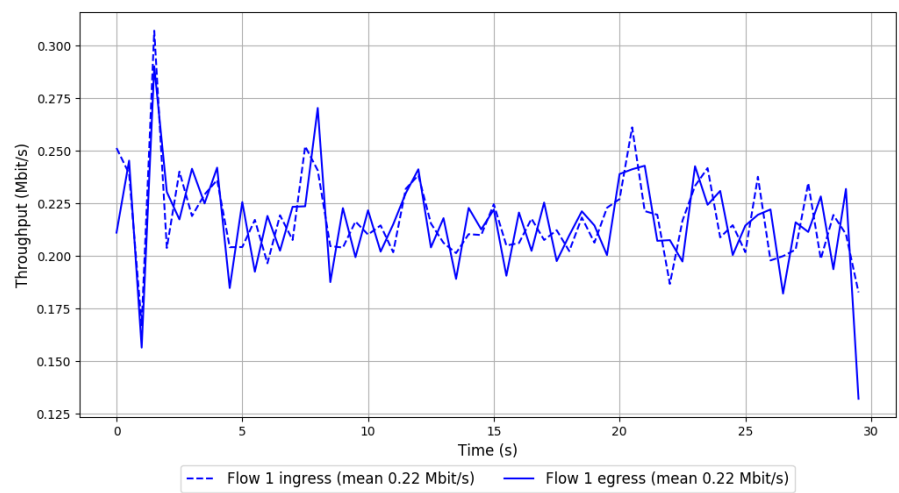
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 86.745 ms

Loss rate: 0.64%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-10-10 19:10:37

End at: 2017-10-10 19:11:07

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 113.964 ms

Loss rate: 0.42%

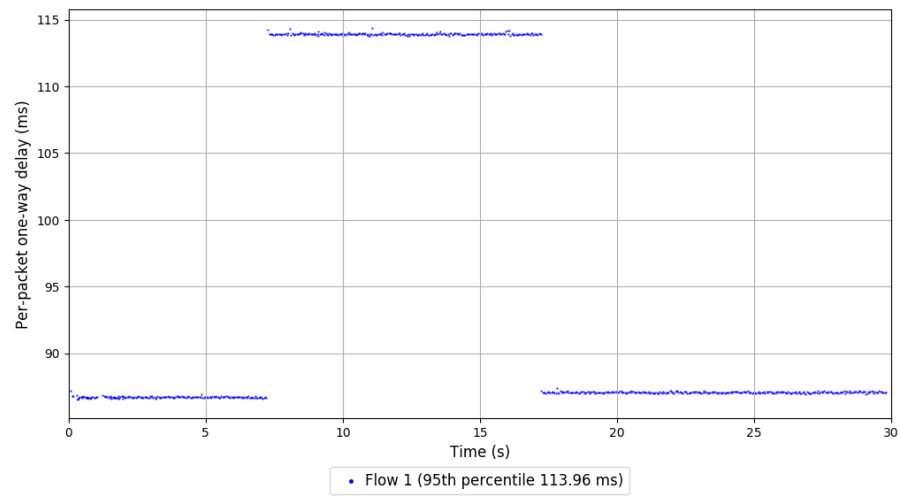
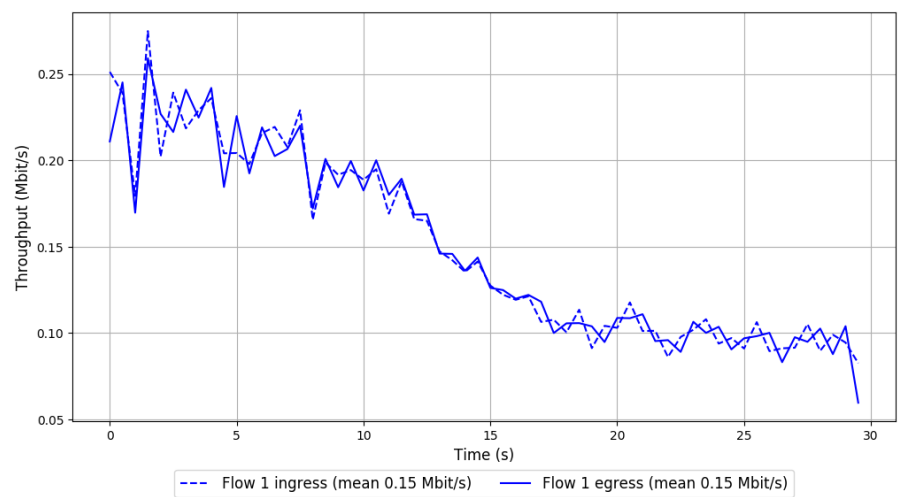
-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 113.964 ms

Loss rate: 0.42%

Run 10: Report of SReAM — Data Link

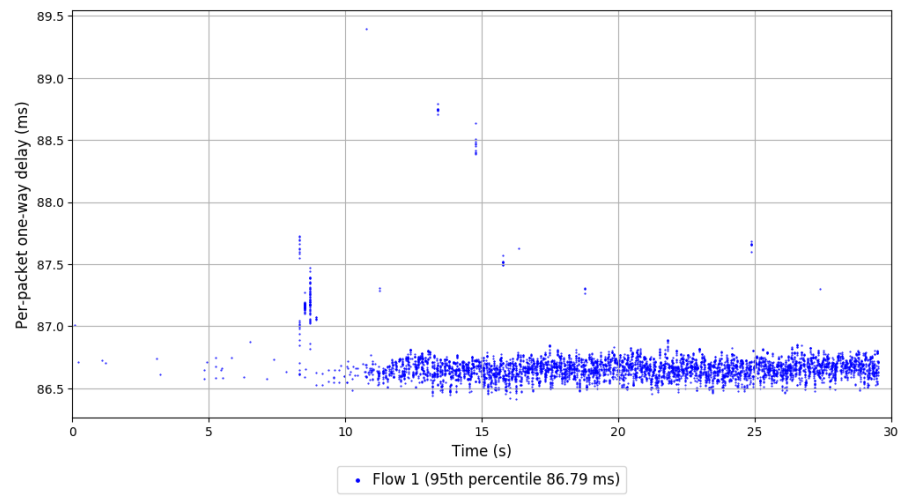
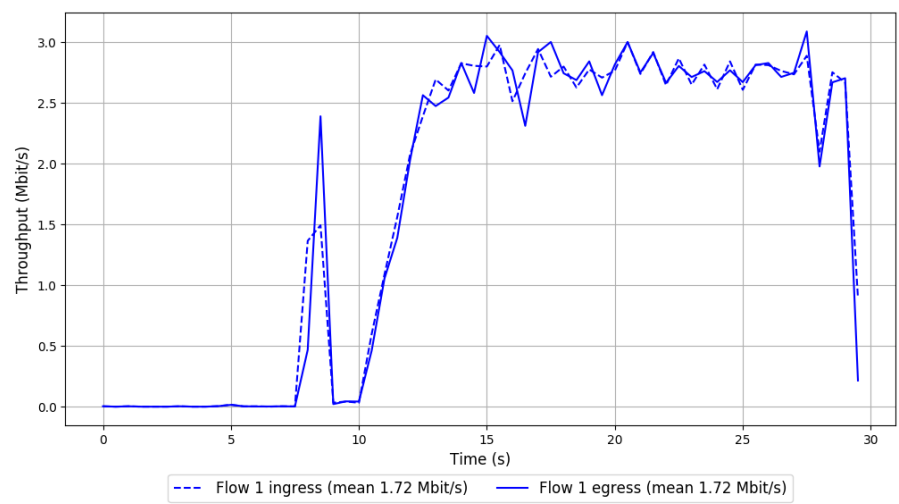


```
Run 1: Statistics of WebRTC media

Start at: 2017-10-10 17:38:28
End at: 2017-10-10 17:38:58

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 86.793 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 1.72 Mbit/s
95th percentile per-packet one-way delay: 86.793 ms
Loss rate: 1.09%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-10-10 17:49:25

End at: 2017-10-10 17:49:56

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.912 ms

Loss rate: 0.76%

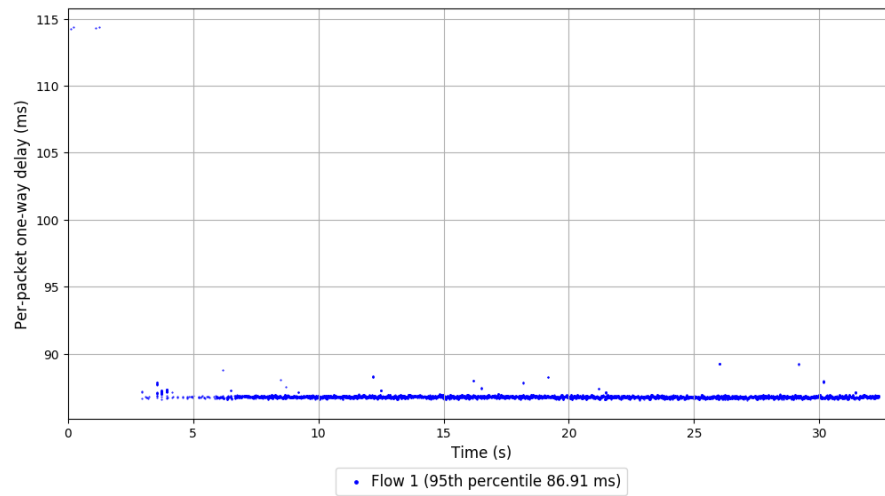
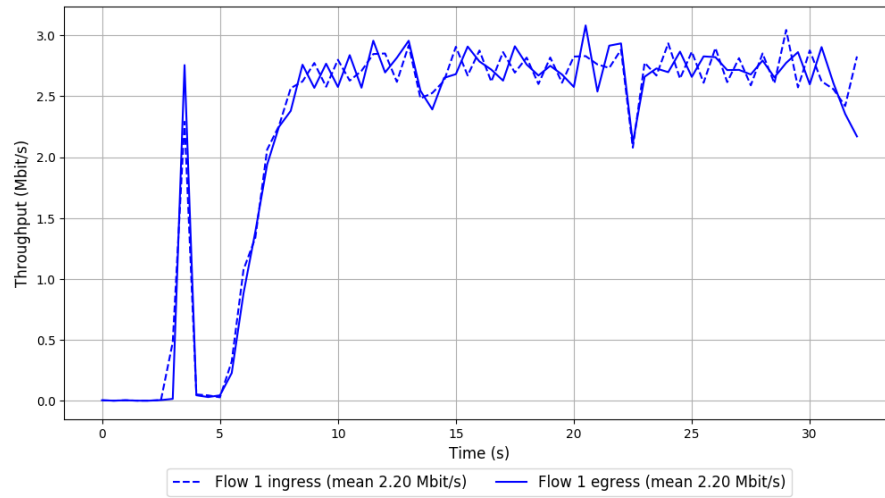
-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.912 ms

Loss rate: 0.76%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-10-10 18:00:41

End at: 2017-10-10 18:01:11

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.197 ms

Loss rate: 0.77%

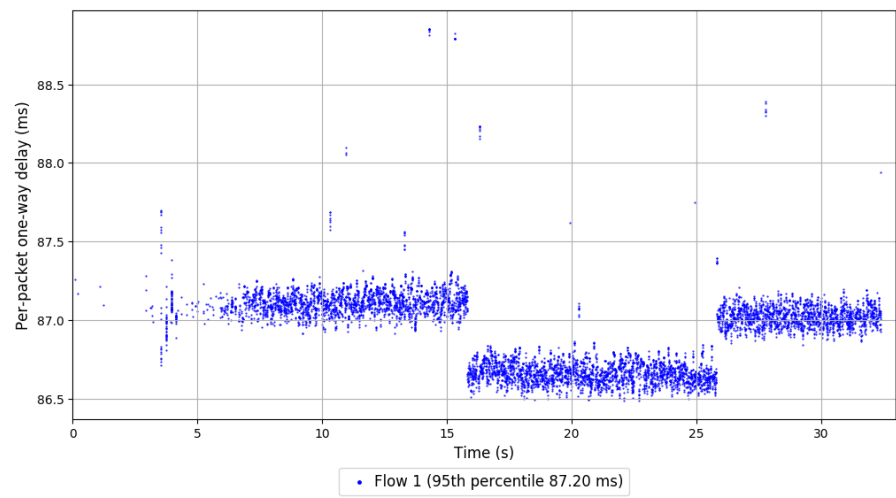
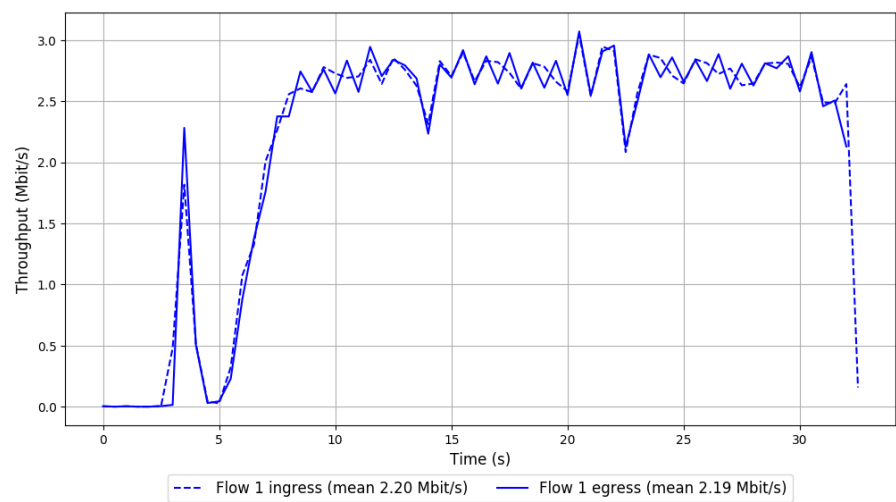
-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.197 ms

Loss rate: 0.77%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-10-10 18:11:16

End at: 2017-10-10 18:11:46

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 86.835 ms

Loss rate: 0.78%

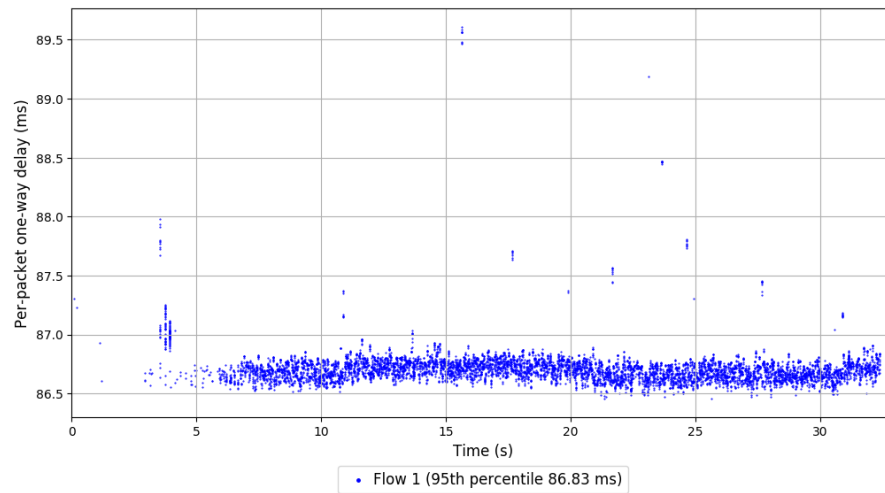
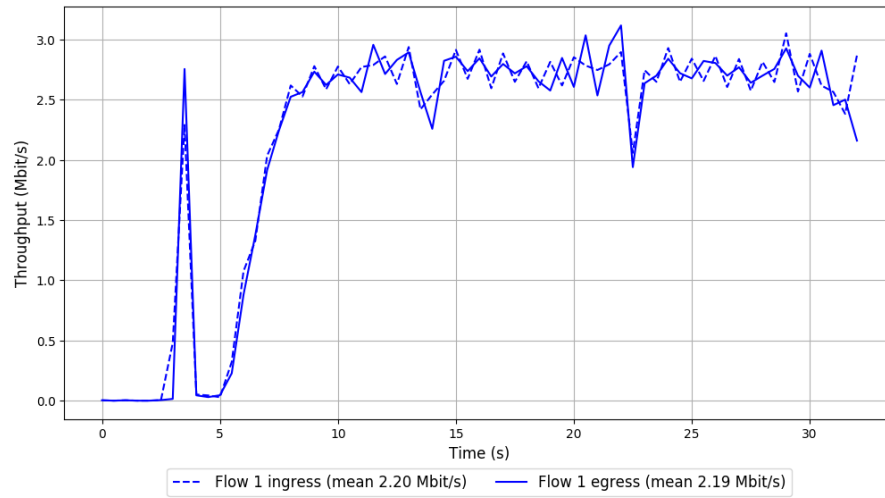
-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 86.835 ms

Loss rate: 0.78%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-10-10 18:22:03

End at: 2017-10-10 18:22:33

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.257 ms

Loss rate: 0.77%

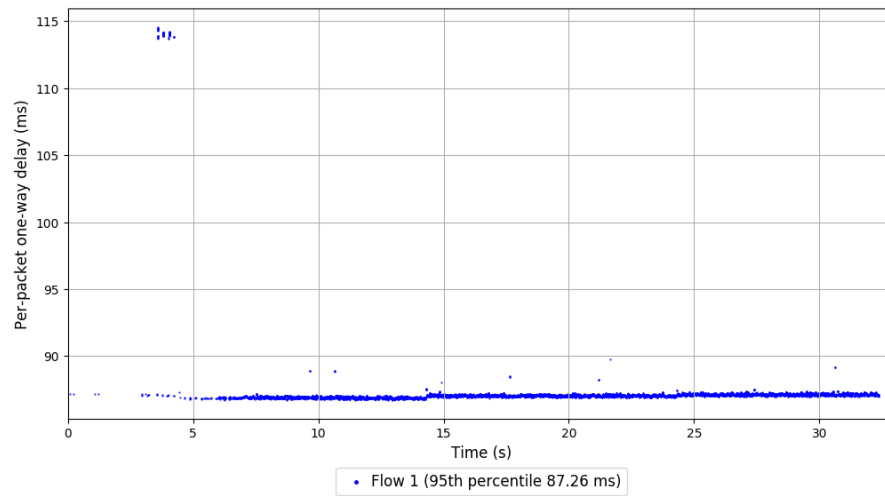
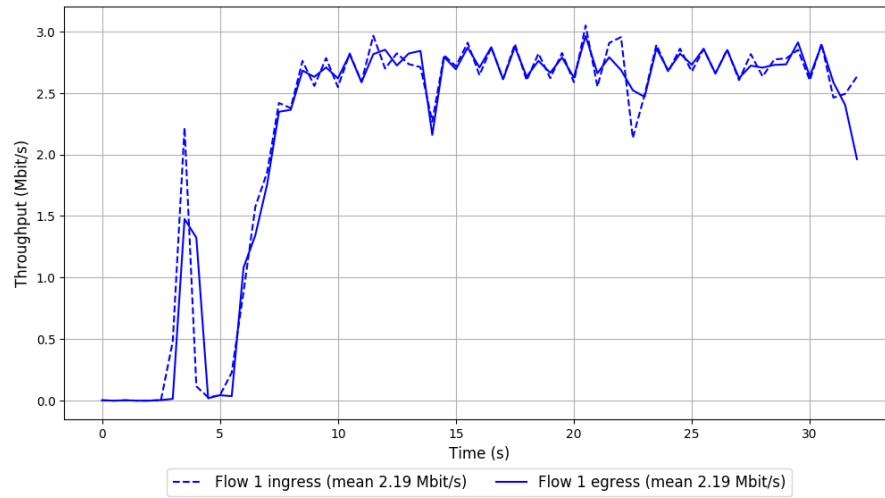
-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.257 ms

Loss rate: 0.77%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-10-10 18:32:49

End at: 2017-10-10 18:33:19

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 87.072 ms

Loss rate: 0.77%

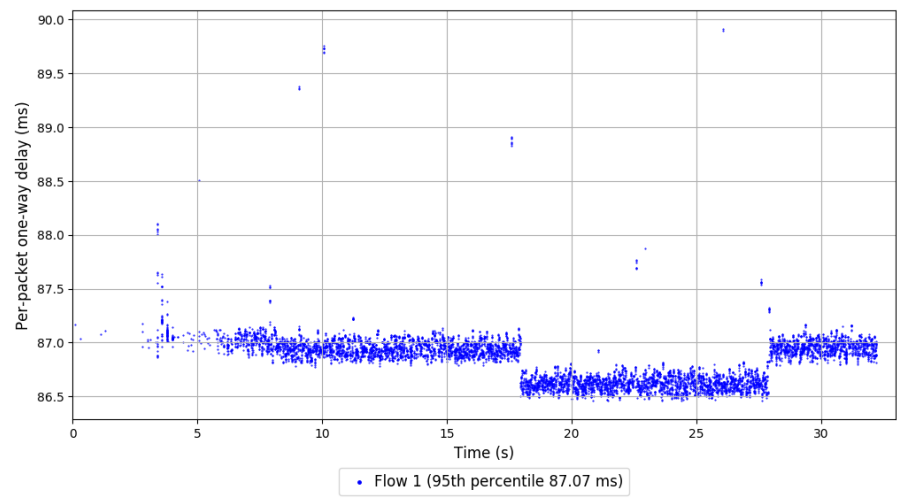
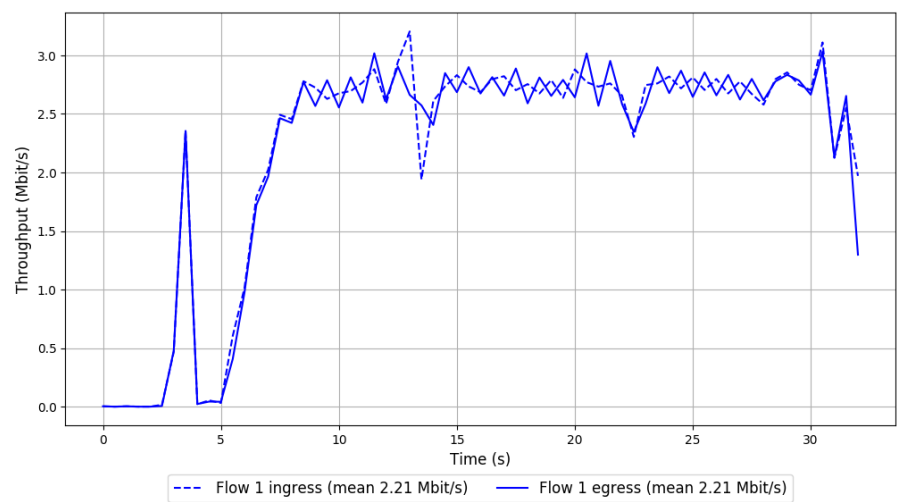
-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 87.072 ms

Loss rate: 0.77%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-10-10 18:43:14

End at: 2017-10-10 18:43:44

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 87.043 ms

Loss rate: 0.78%

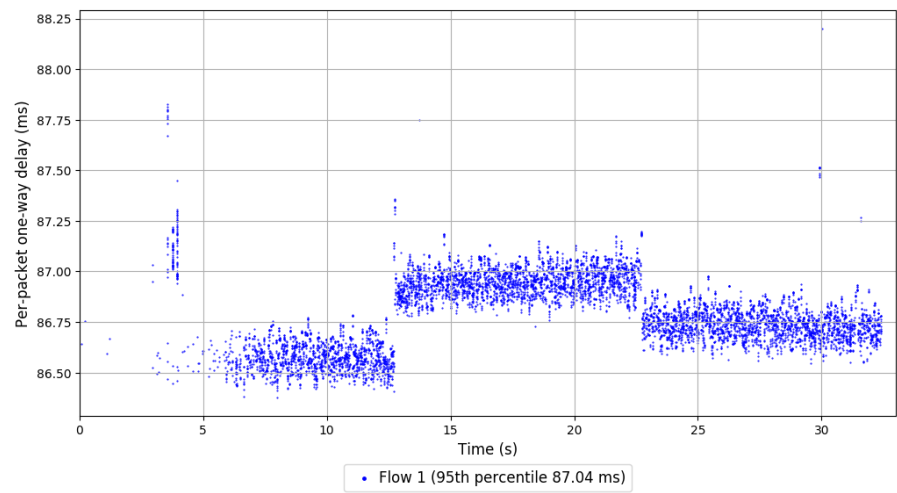
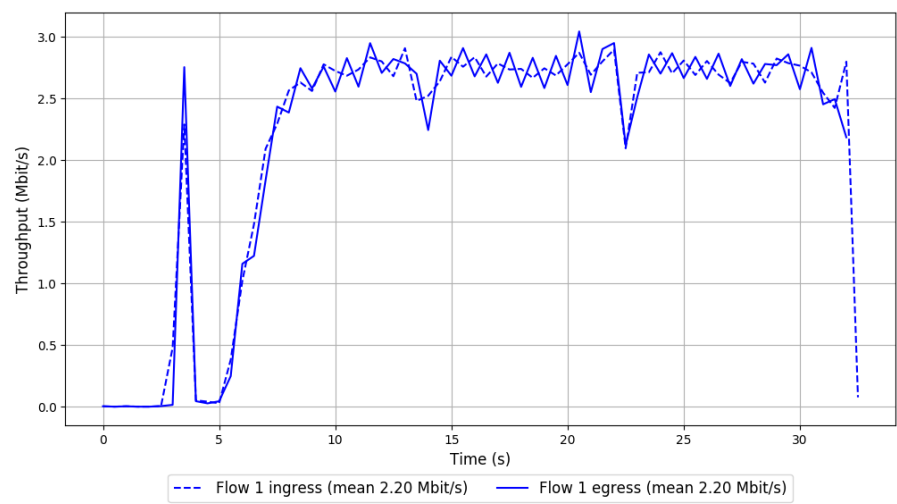
-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 87.043 ms

Loss rate: 0.78%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-10-10 18:54:02

End at: 2017-10-10 18:54:32

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.784 ms

Loss rate: 0.77%

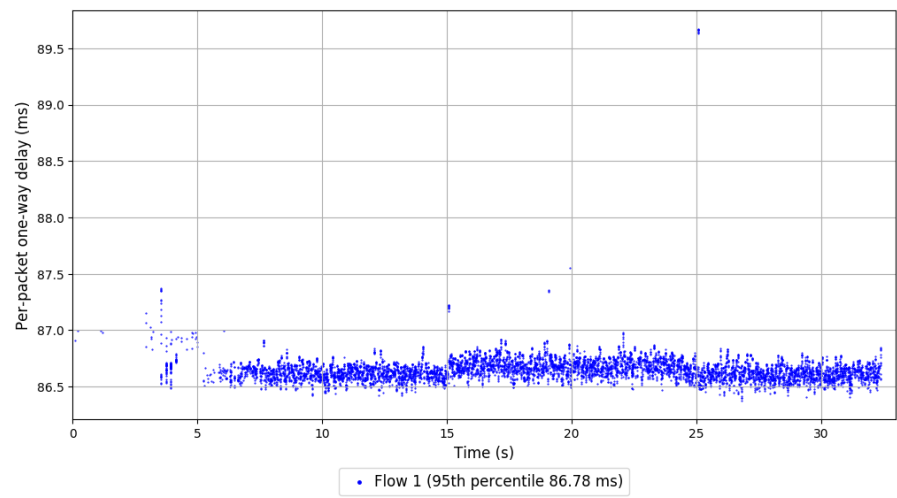
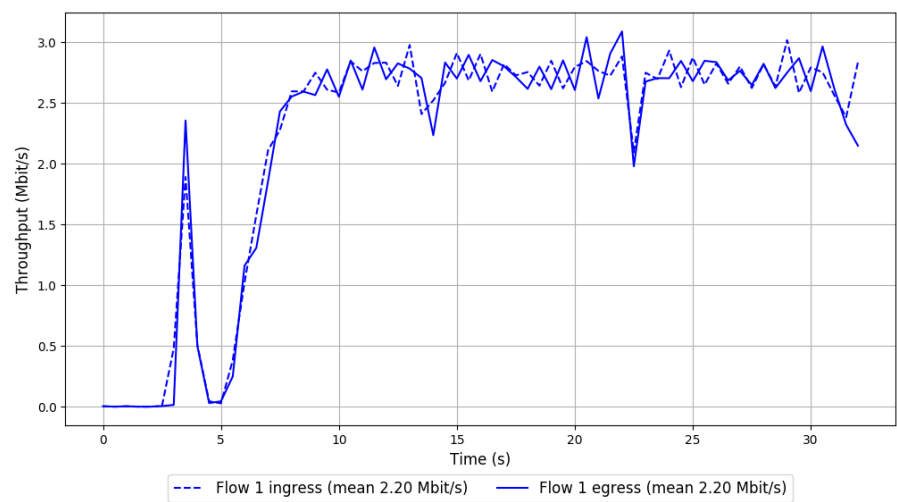
-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 86.784 ms

Loss rate: 0.77%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-10-10 19:05:20

End at: 2017-10-10 19:05:50

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.230 ms

Loss rate: 0.76%

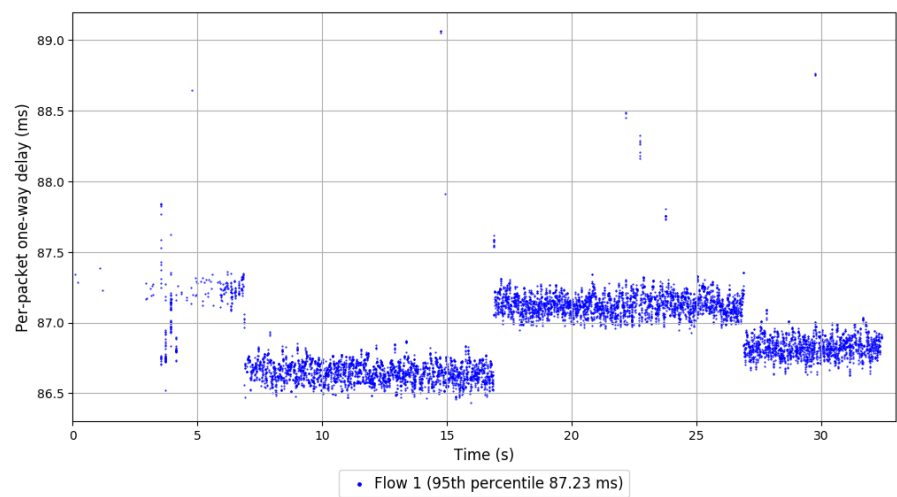
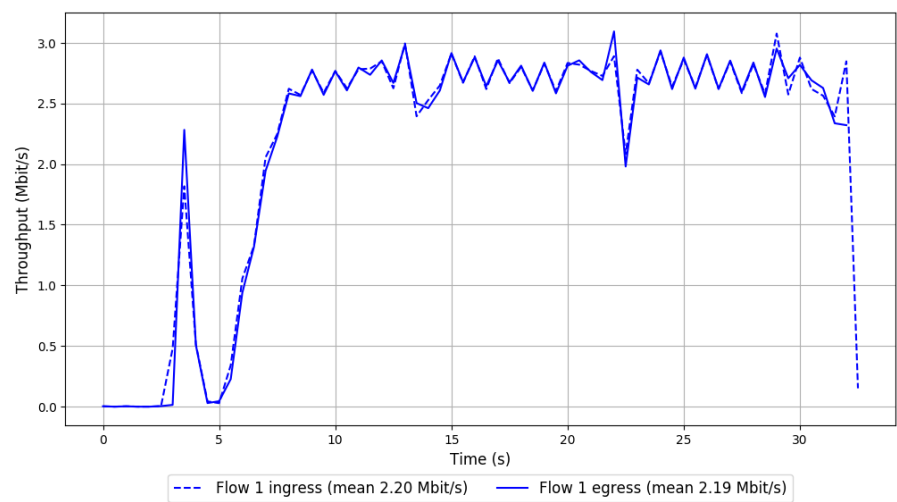
-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 87.230 ms

Loss rate: 0.76%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-10-10 19:16:13

End at: 2017-10-10 19:16:43

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 114.294 ms

Loss rate: 0.78%

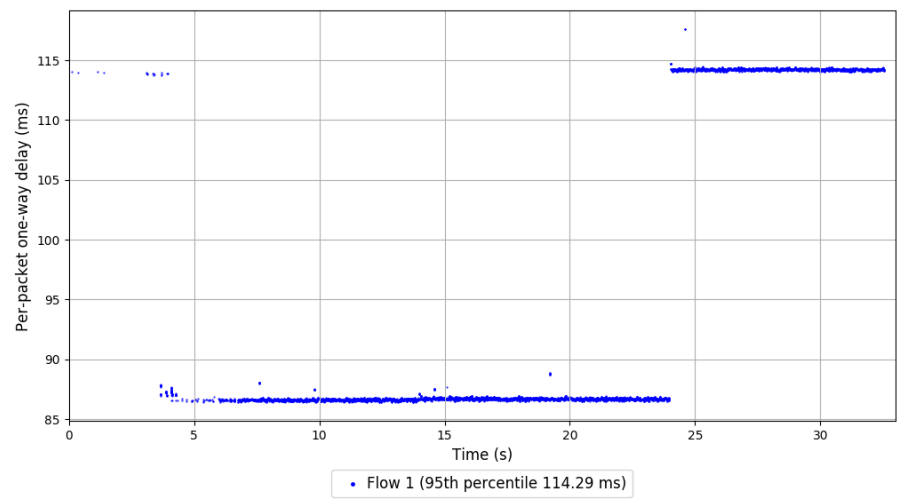
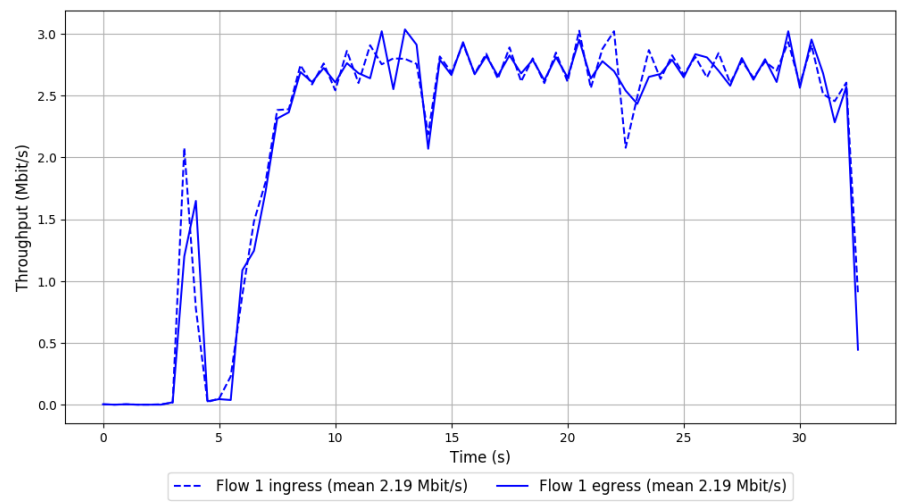
-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 114.294 ms

Loss rate: 0.78%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-10-10 17:35:21

End at: 2017-10-10 17:35:51

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 87.457 ms

Loss rate: 1.08%

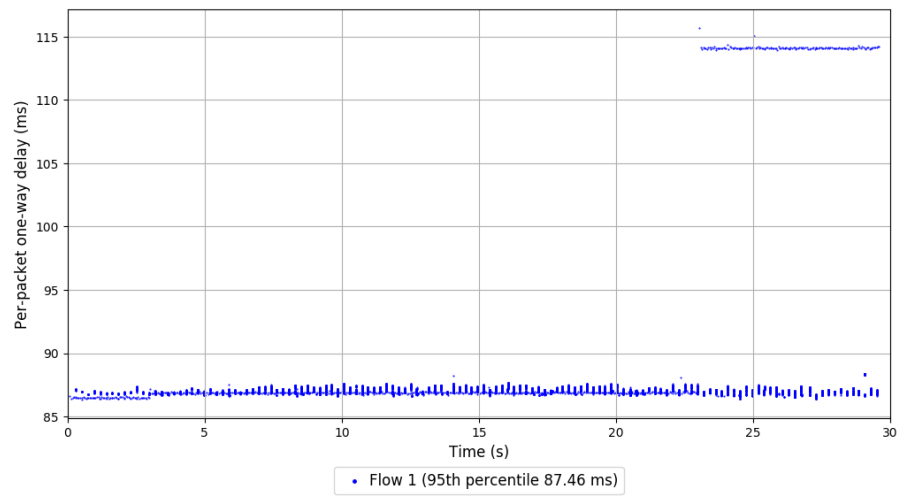
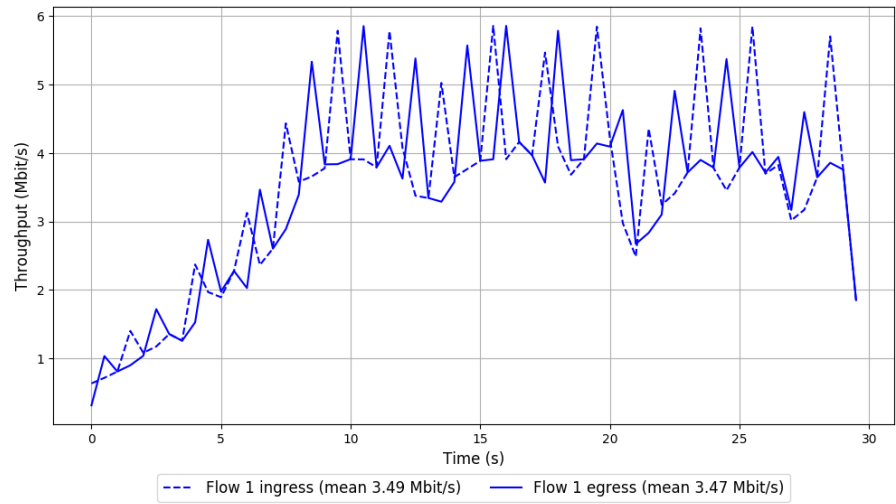
-- Flow 1:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 87.457 ms

Loss rate: 1.08%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-10-10 17:46:15

End at: 2017-10-10 17:46:45

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 87.828 ms

Loss rate: 1.16%

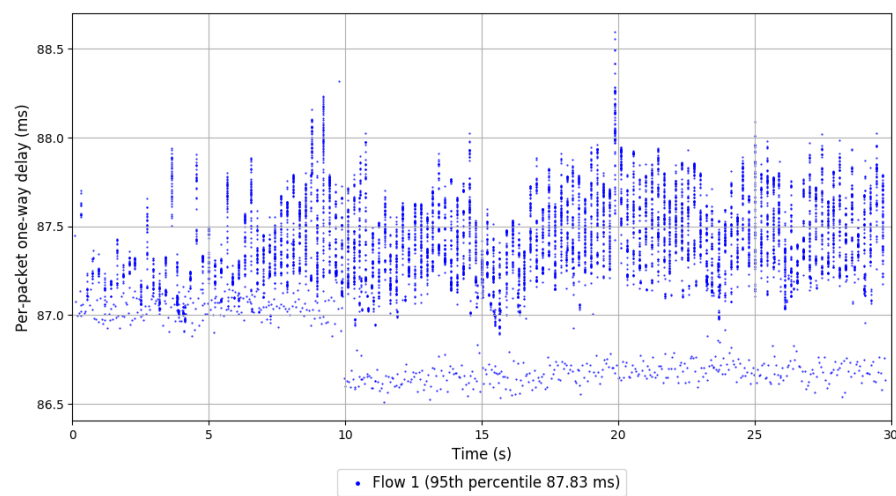
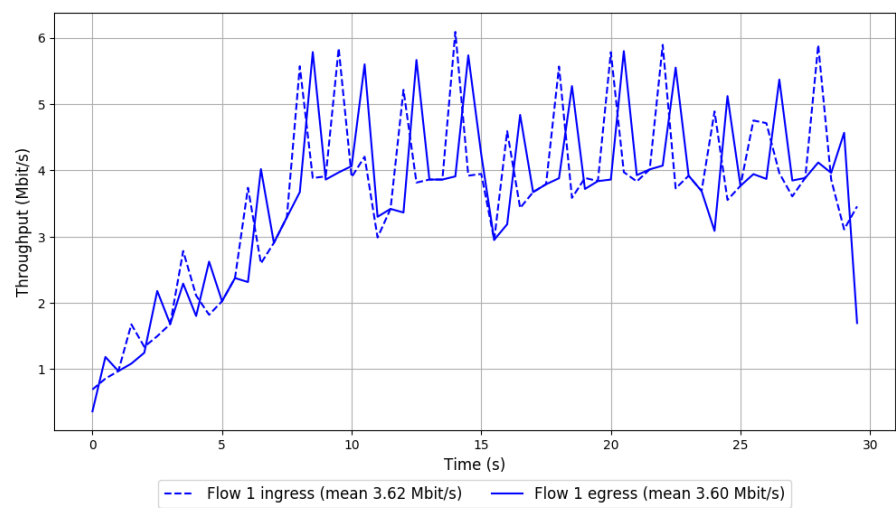
-- Flow 1:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 87.828 ms

Loss rate: 1.16%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-10-10 17:57:30

End at: 2017-10-10 17:58:00

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.835 ms

Loss rate: 1.57%

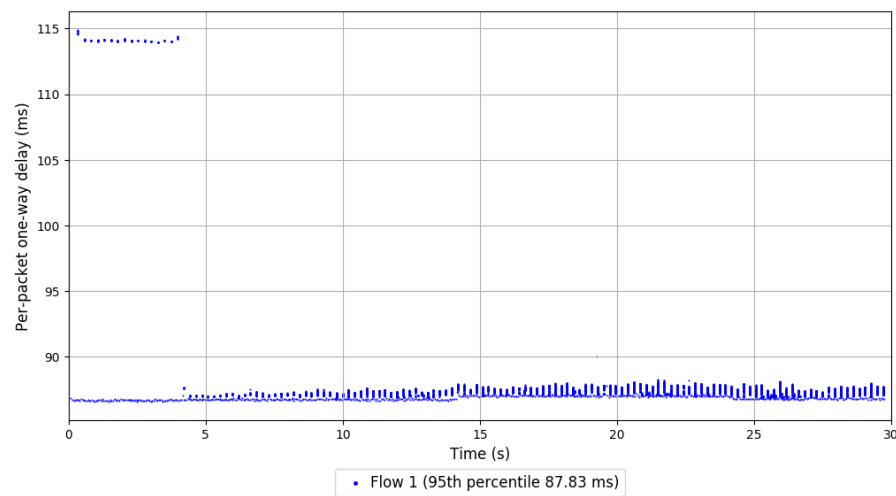
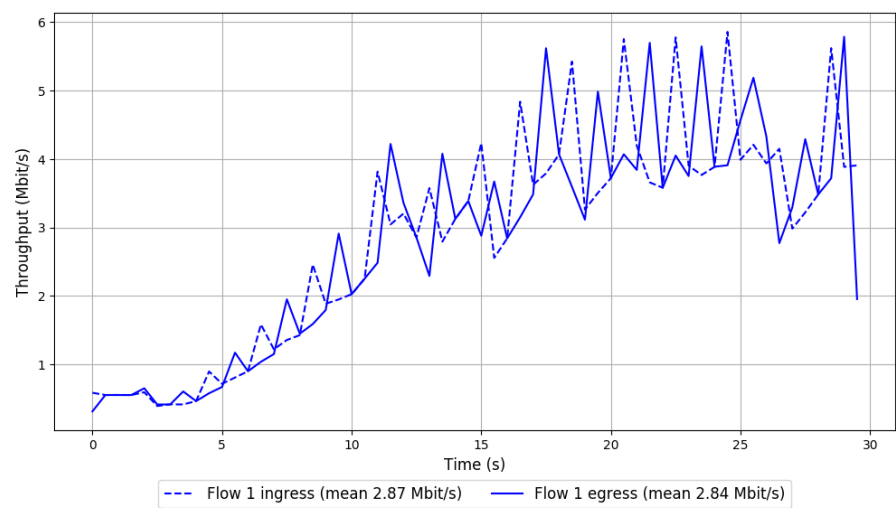
-- Flow 1:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 87.835 ms

Loss rate: 1.57%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-10-10 18:08:29

End at: 2017-10-10 18:08:59

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 114.640 ms

Loss rate: 0.01%

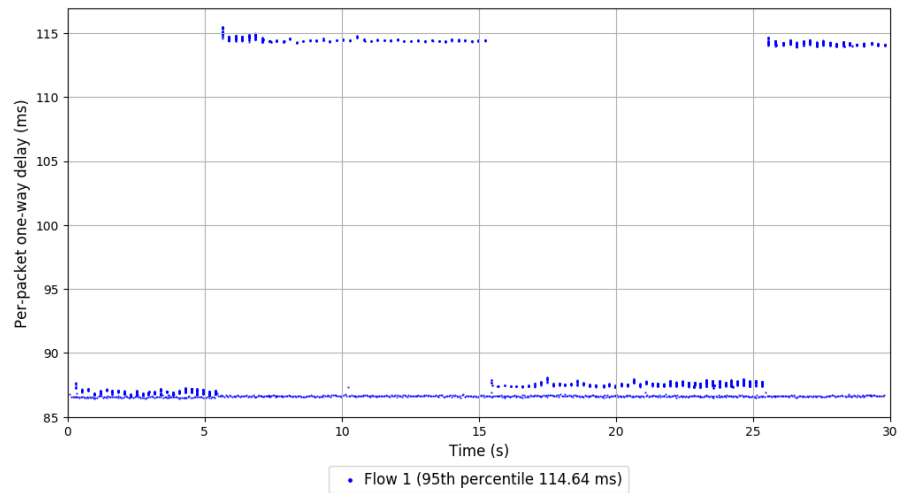
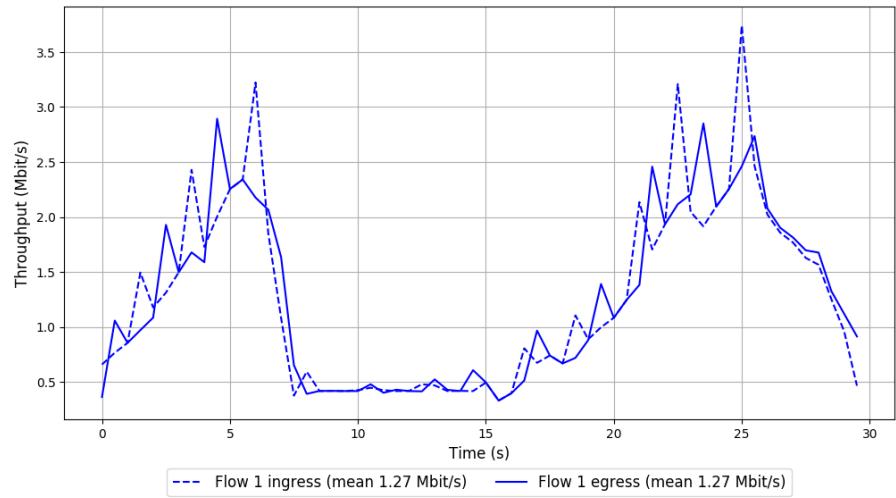
-- Flow 1:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 114.640 ms

Loss rate: 0.01%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-10-10 18:18:53

End at: 2017-10-10 18:19:23

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 87.595 ms

Loss rate: 1.23%

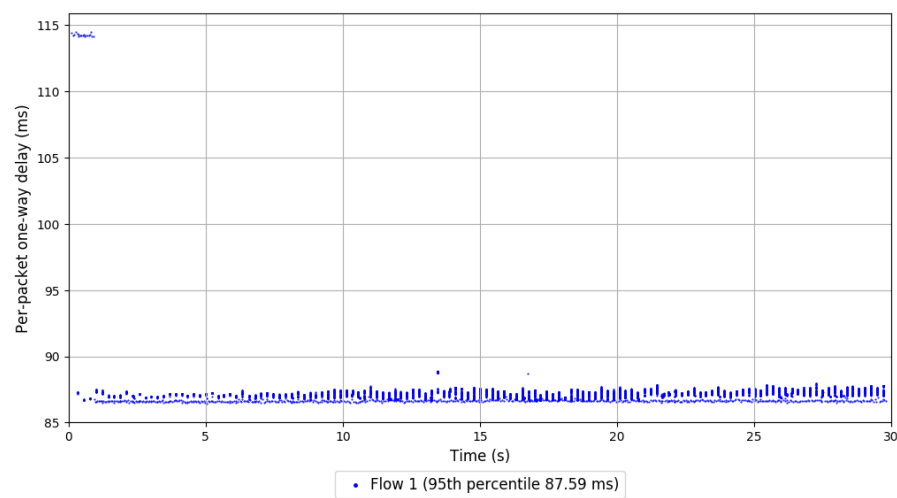
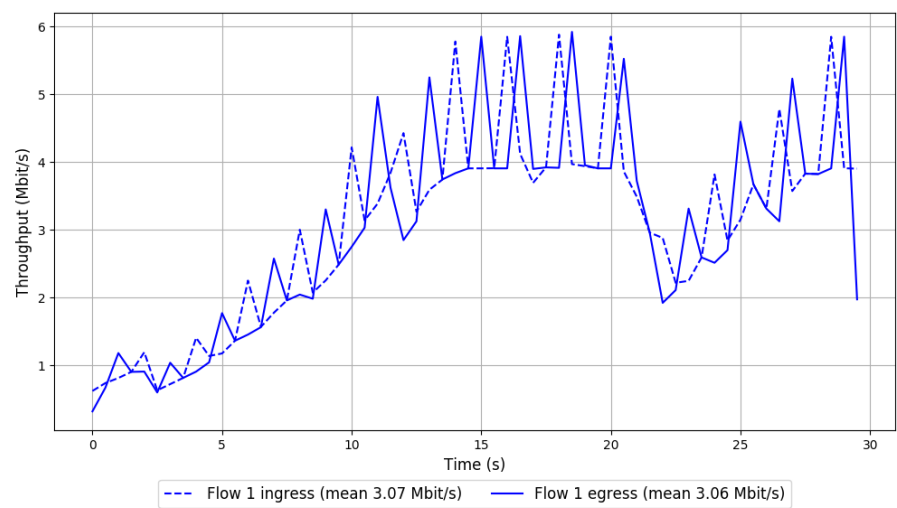
-- Flow 1:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 87.595 ms

Loss rate: 1.23%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-10-10 18:29:41

End at: 2017-10-10 18:30:11

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 114.371 ms

Loss rate: 3.09%

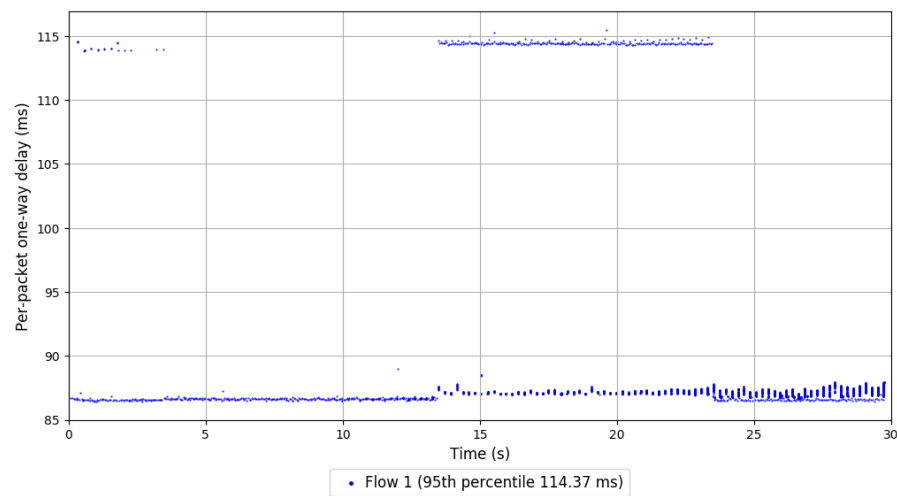
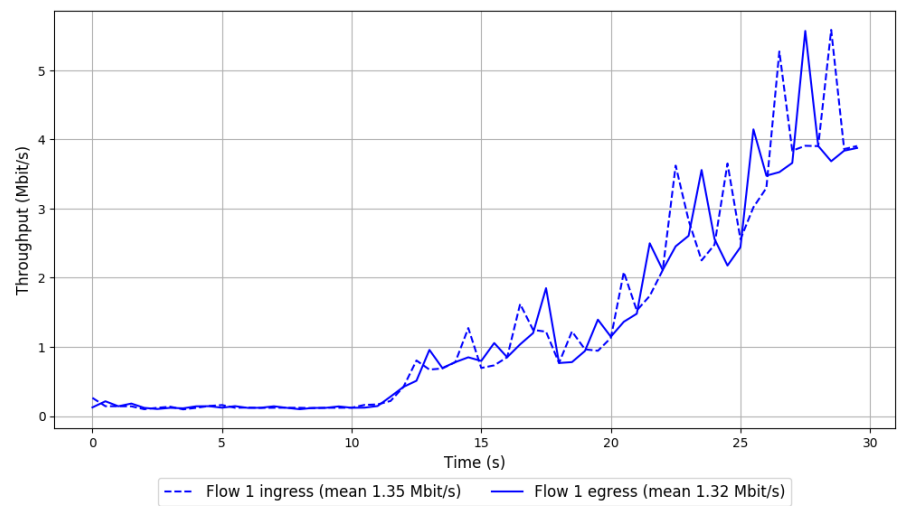
-- Flow 1:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 114.371 ms

Loss rate: 3.09%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-10-10 18:40:10

End at: 2017-10-10 18:40:40

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 114.408 ms

Loss rate: 2.30%

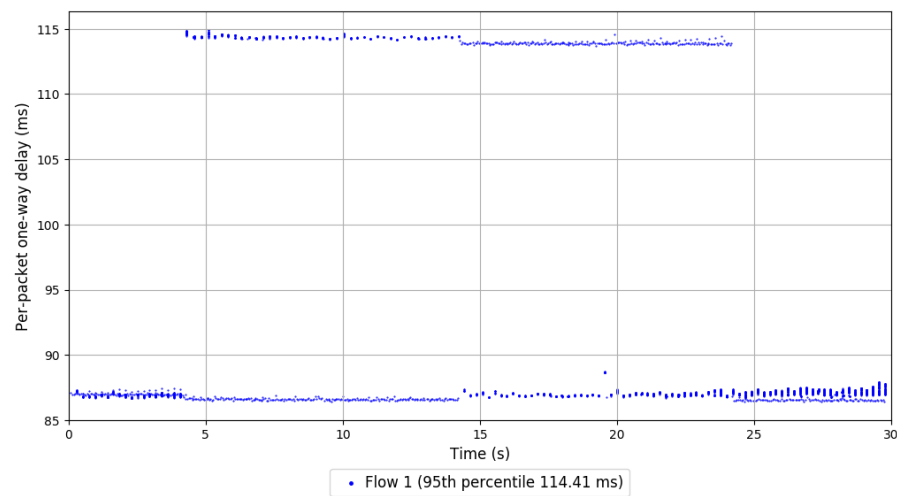
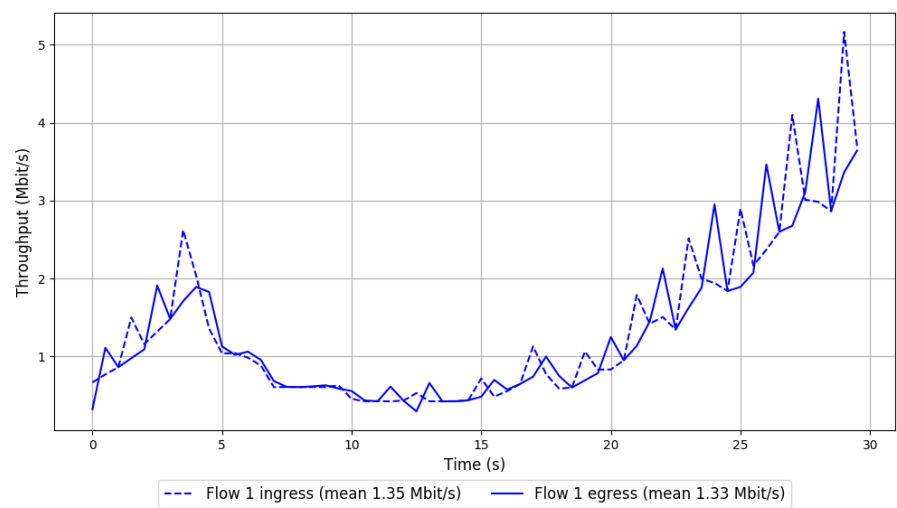
-- Flow 1:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 114.408 ms

Loss rate: 2.30%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-10-10 18:50:53

End at: 2017-10-10 18:51:23

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 87.698 ms

Loss rate: 1.09%

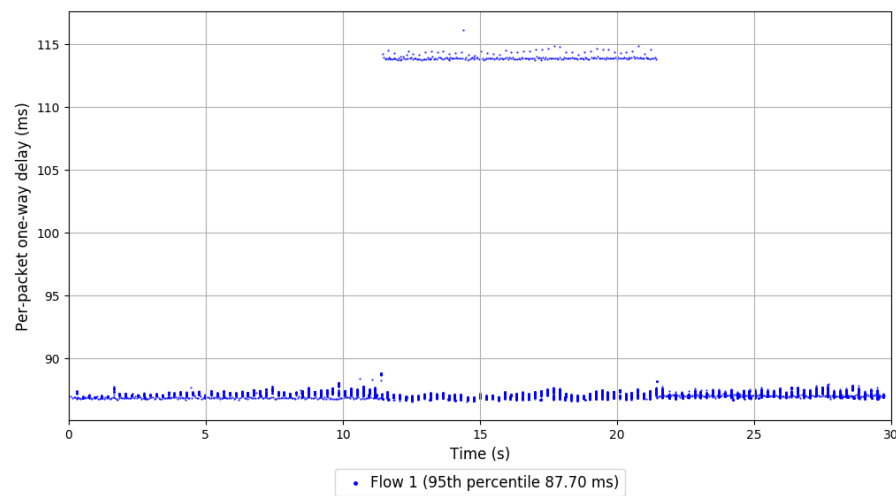
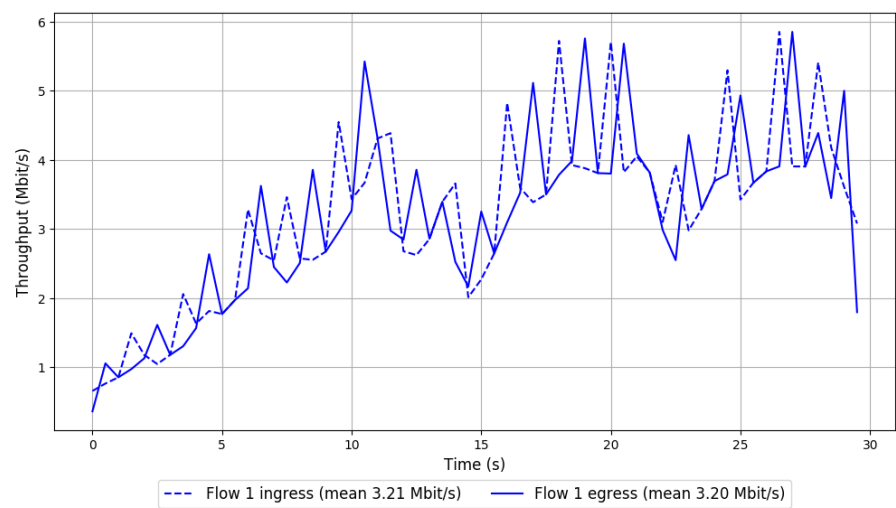
-- Flow 1:

Average throughput: 3.20 Mbit/s

95th percentile per-packet one-way delay: 87.698 ms

Loss rate: 1.09%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-10-10 19:02:11

End at: 2017-10-10 19:02:41

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 87.650 ms

Loss rate: 1.00%

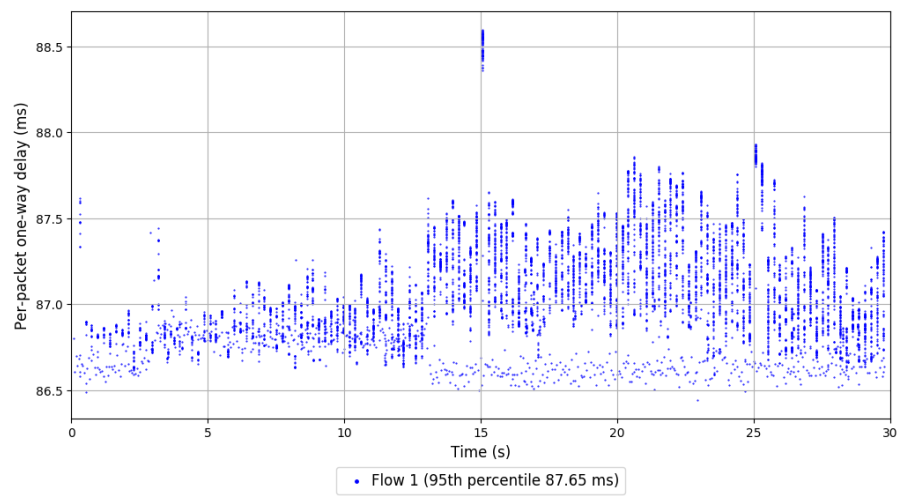
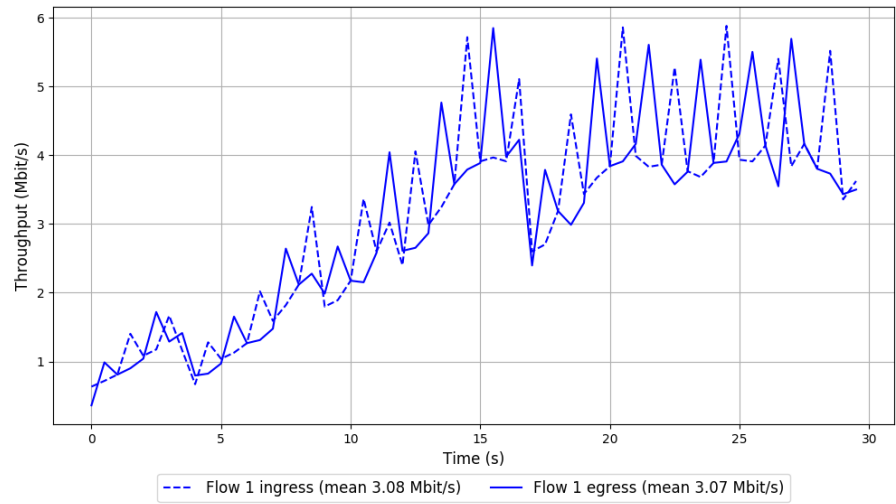
-- Flow 1:

Average throughput: 3.07 Mbit/s

95th percentile per-packet one-way delay: 87.650 ms

Loss rate: 1.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-10-10 19:13:03

End at: 2017-10-10 19:13:33

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 87.736 ms

Loss rate: 1.35%

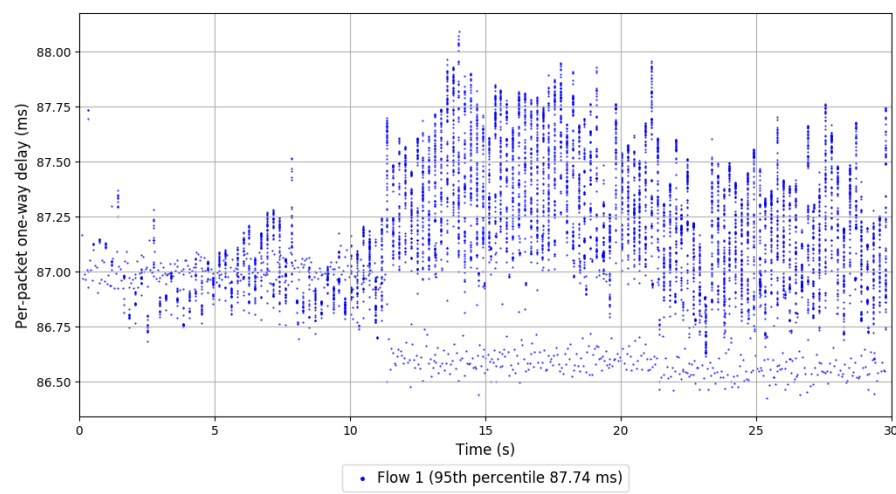
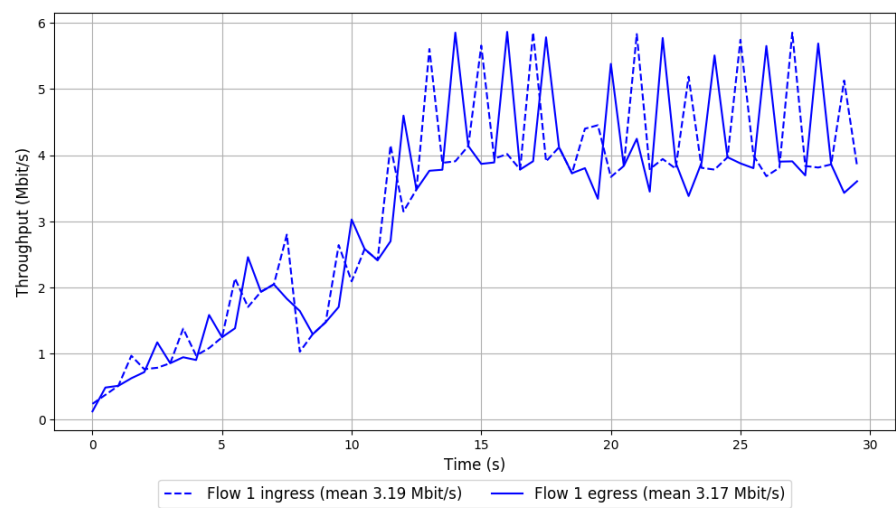
-- Flow 1:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 87.736 ms

Loss rate: 1.35%

Run 10: Report of Sprout — Data Link

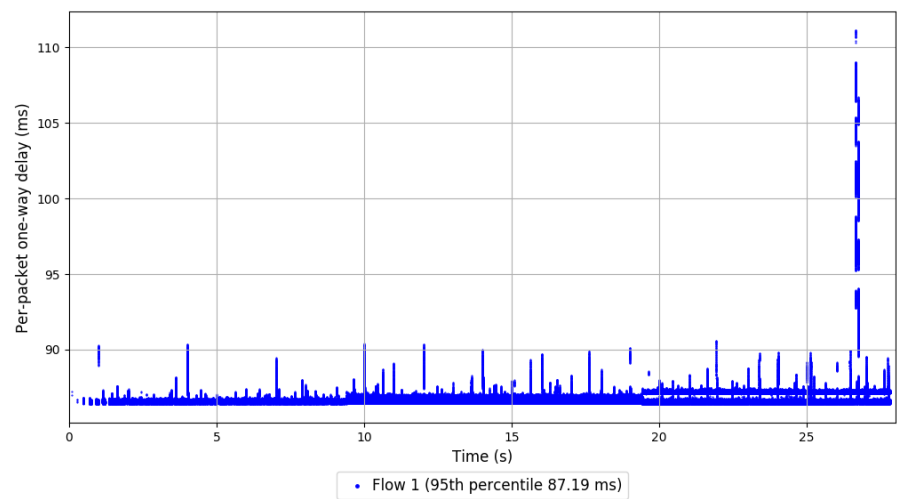
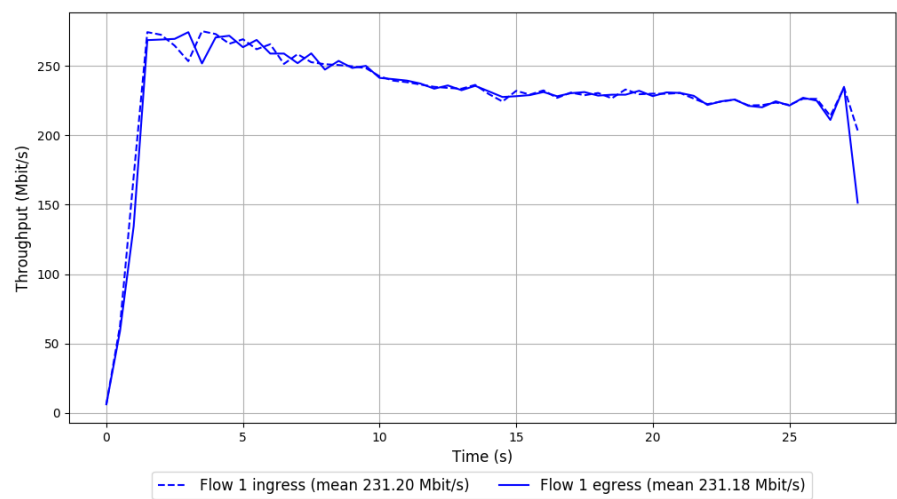


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-10-10 17:40:43
End at: 2017-10-10 17:41:13

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 231.18 Mbit/s
95th percentile per-packet one-way delay: 87.195 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 231.18 Mbit/s
95th percentile per-packet one-way delay: 87.195 ms
Loss rate: 0.73%
```

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

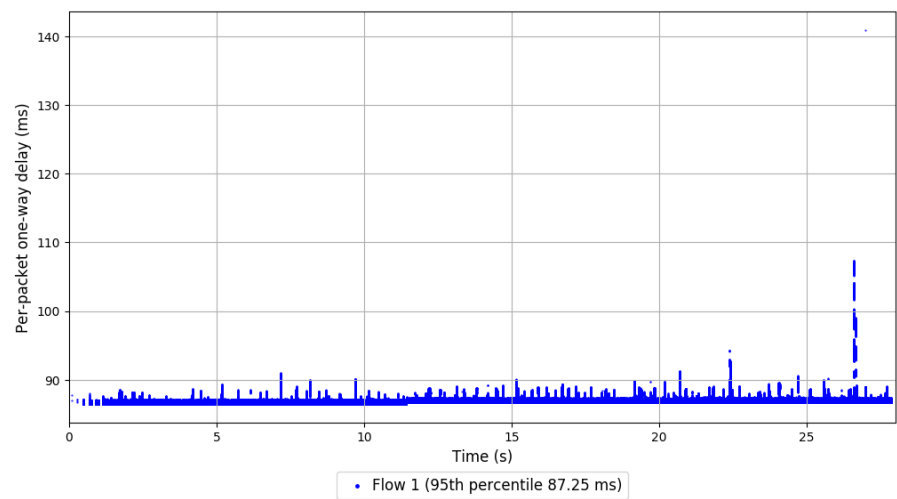
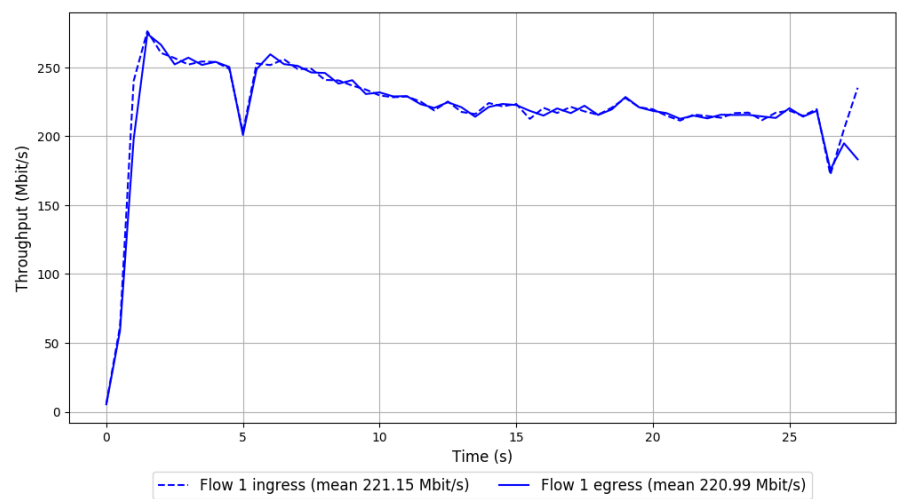


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-10-10 17:51:41
End at: 2017-10-10 17:52:11

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 220.99 Mbit/s
95th percentile per-packet one-way delay: 87.245 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 220.99 Mbit/s
95th percentile per-packet one-way delay: 87.245 ms
Loss rate: 0.79%
```

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

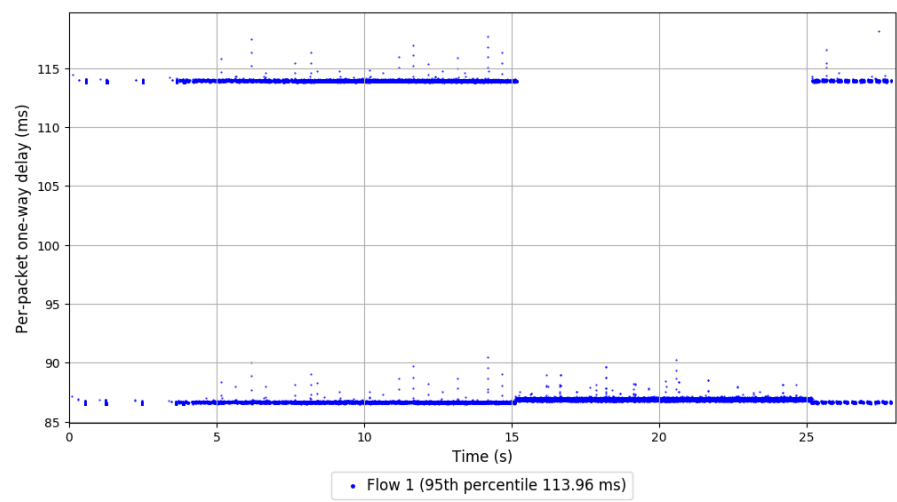
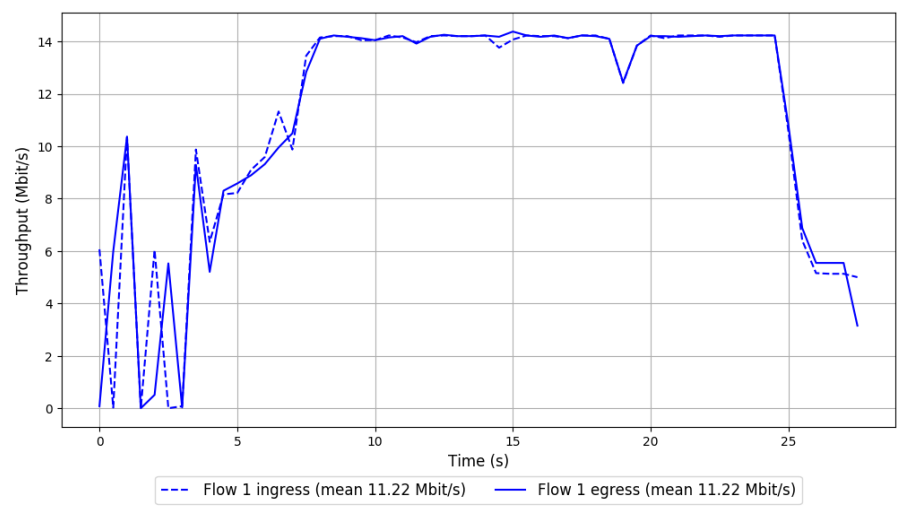


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-10-10 18:02:57
End at: 2017-10-10 18:03:27

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 113.961 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 113.961 ms
Loss rate: 0.38%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-10-10 18:13:30

End at: 2017-10-10 18:14:00

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 231.24 Mbit/s

95th percentile per-packet one-way delay: 86.793 ms

Loss rate: 0.69%

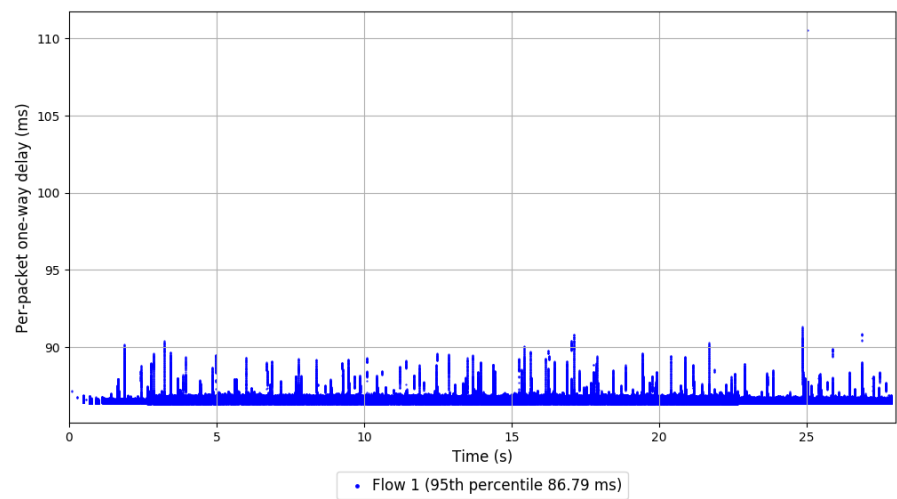
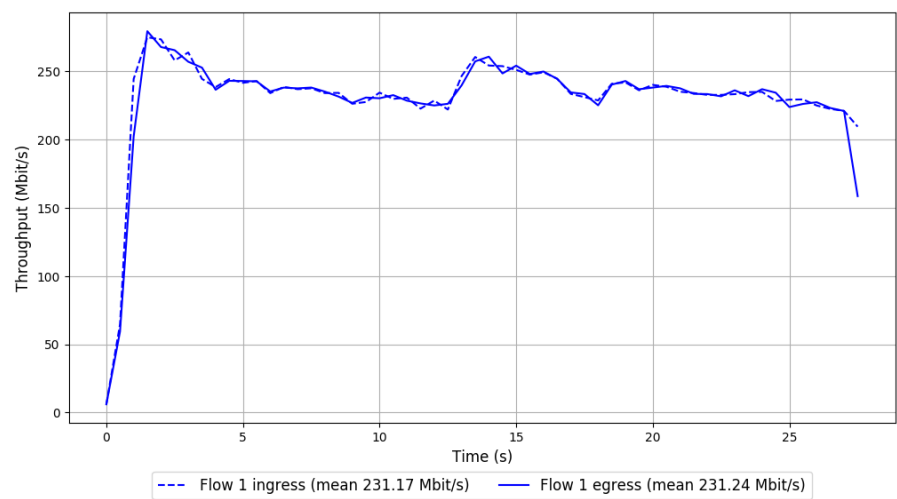
-- Flow 1:

Average throughput: 231.24 Mbit/s

95th percentile per-packet one-way delay: 86.793 ms

Loss rate: 0.69%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-10-10 18:24:19

End at: 2017-10-10 18:24:49

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.38 Mbit/s

95th percentile per-packet one-way delay: 113.915 ms

Loss rate: 0.45%

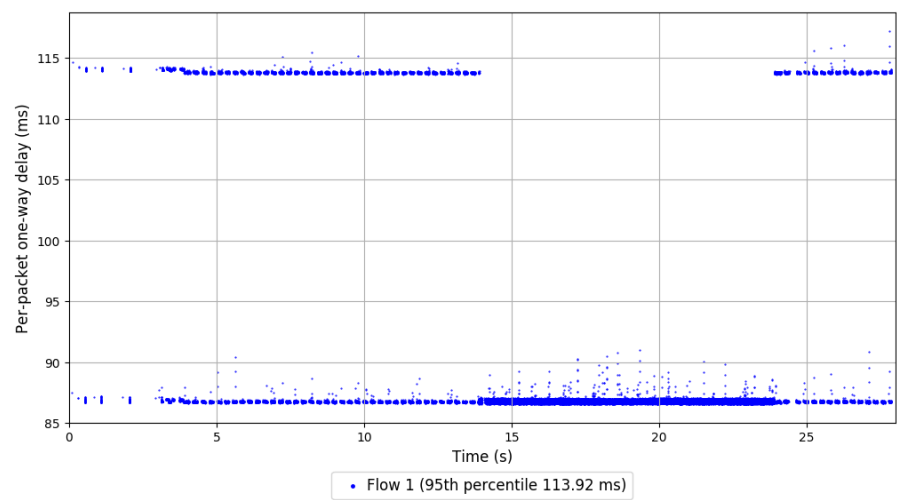
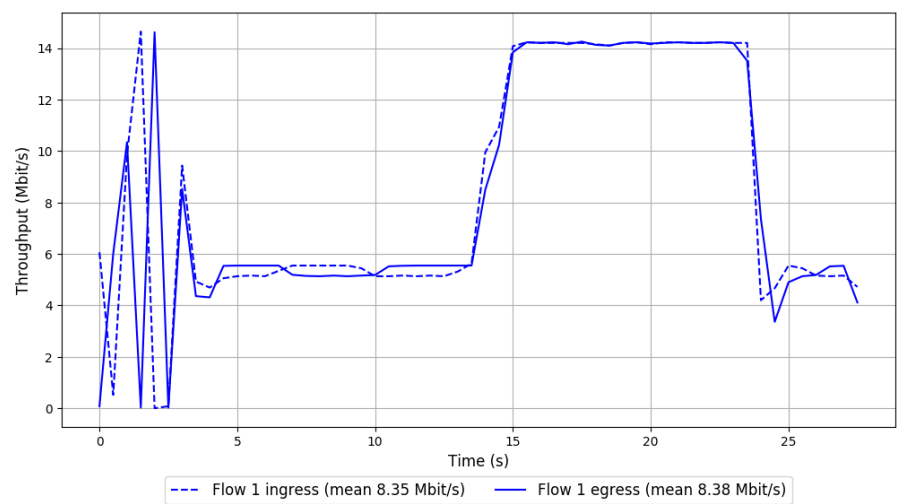
-- Flow 1:

Average throughput: 8.38 Mbit/s

95th percentile per-packet one-way delay: 113.915 ms

Loss rate: 0.45%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-10-10 18:35:14

End at: 2017-10-10 18:35:44

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.44 Mbit/s

95th percentile per-packet one-way delay: 114.145 ms

Loss rate: 0.93%

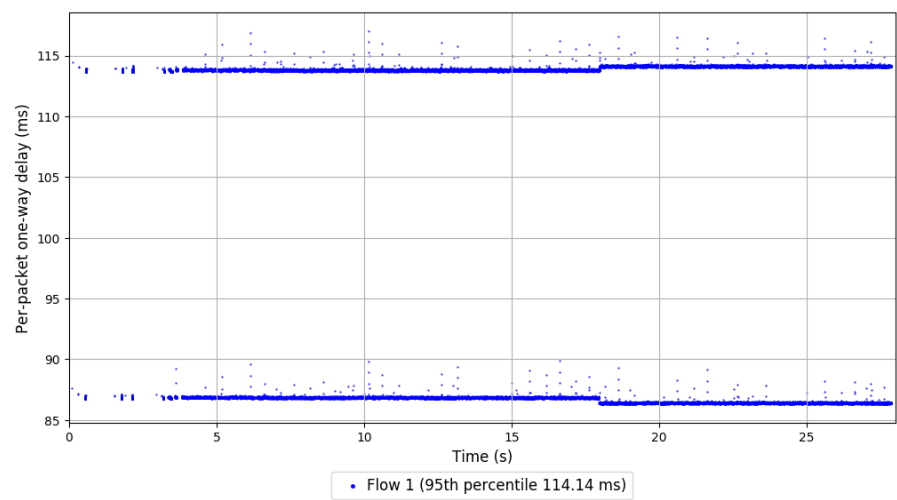
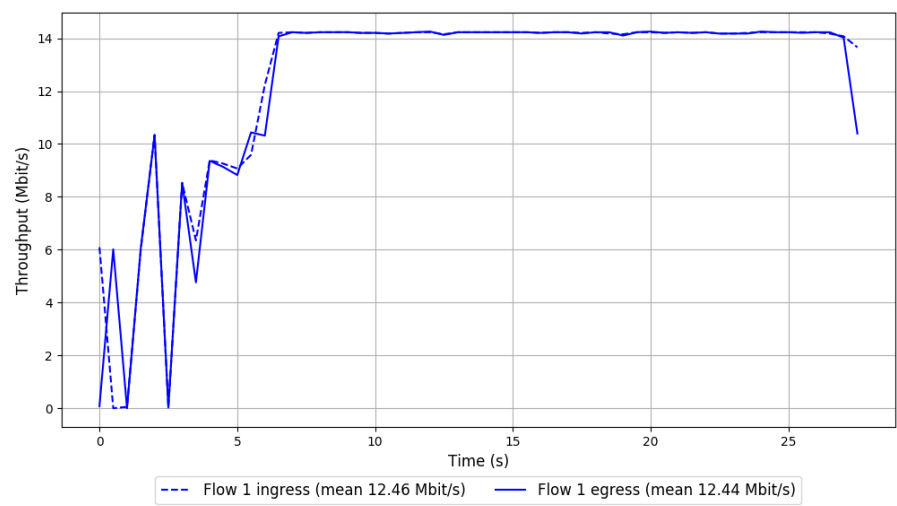
-- Flow 1:

Average throughput: 12.44 Mbit/s

95th percentile per-packet one-way delay: 114.145 ms

Loss rate: 0.93%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-10-10 18:45:38

End at: 2017-10-10 18:46:08

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.34 Mbit/s

95th percentile per-packet one-way delay: 114.028 ms

Loss rate: 0.12%

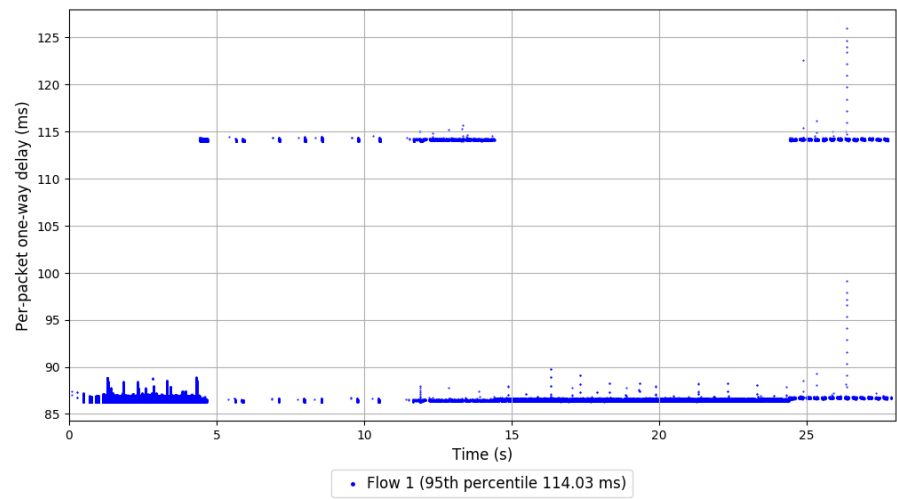
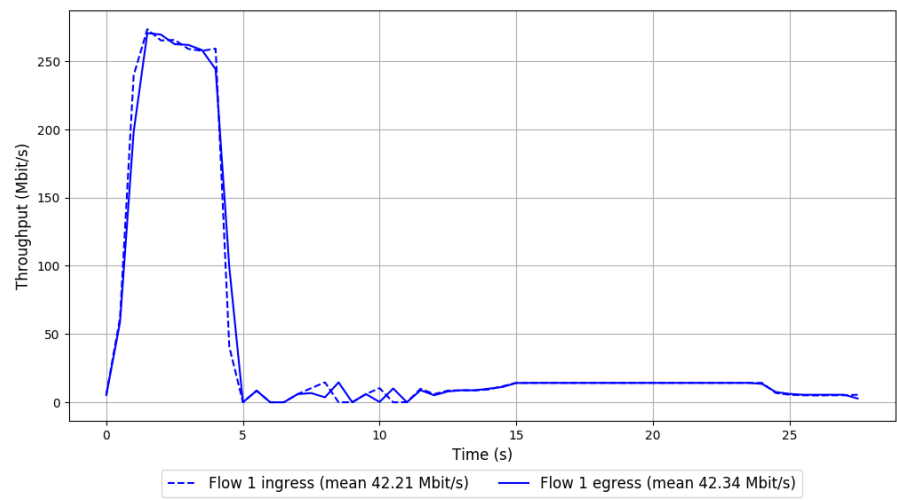
-- Flow 1:

Average throughput: 42.34 Mbit/s

95th percentile per-packet one-way delay: 114.028 ms

Loss rate: 0.12%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-10-10 18:56:25

End at: 2017-10-10 18:56:55

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 155.54 Mbit/s

95th percentile per-packet one-way delay: 87.059 ms

Loss rate: 0.16%

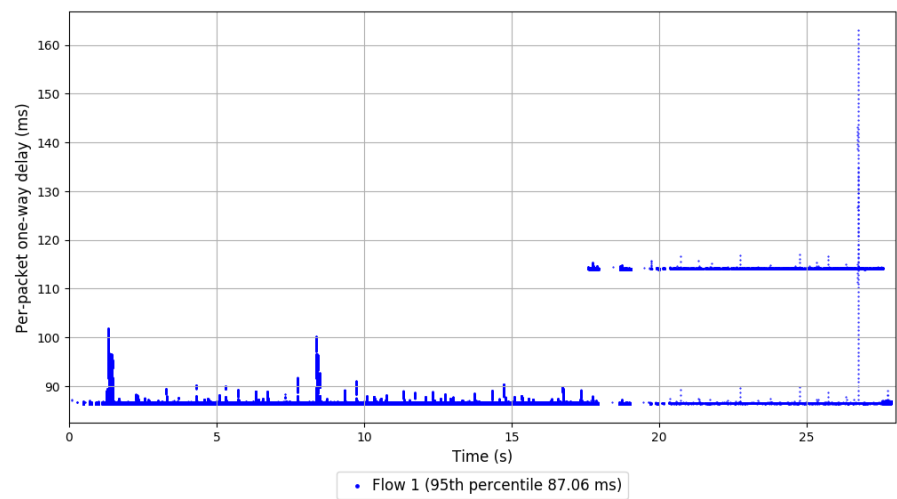
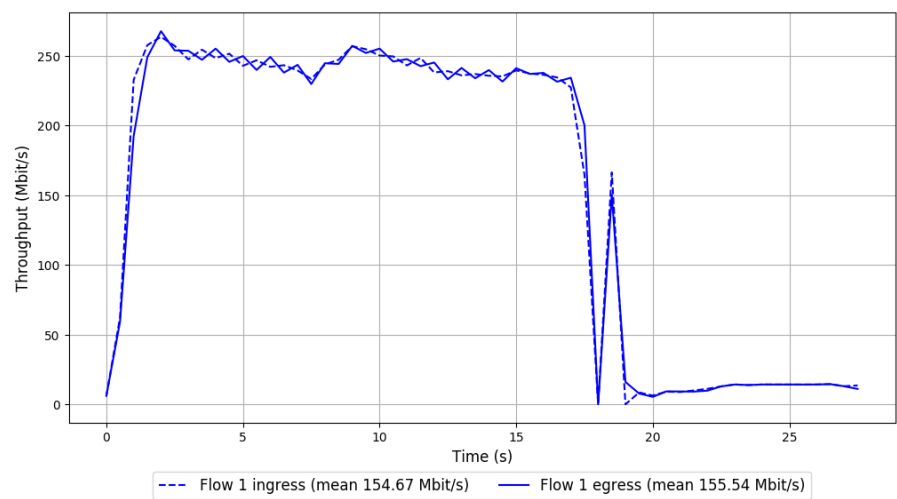
-- Flow 1:

Average throughput: 155.54 Mbit/s

95th percentile per-packet one-way delay: 87.059 ms

Loss rate: 0.16%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-10-10 19:07:39

End at: 2017-10-10 19:08:09

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.56 Mbit/s

95th percentile per-packet one-way delay: 114.170 ms

Loss rate: 0.10%

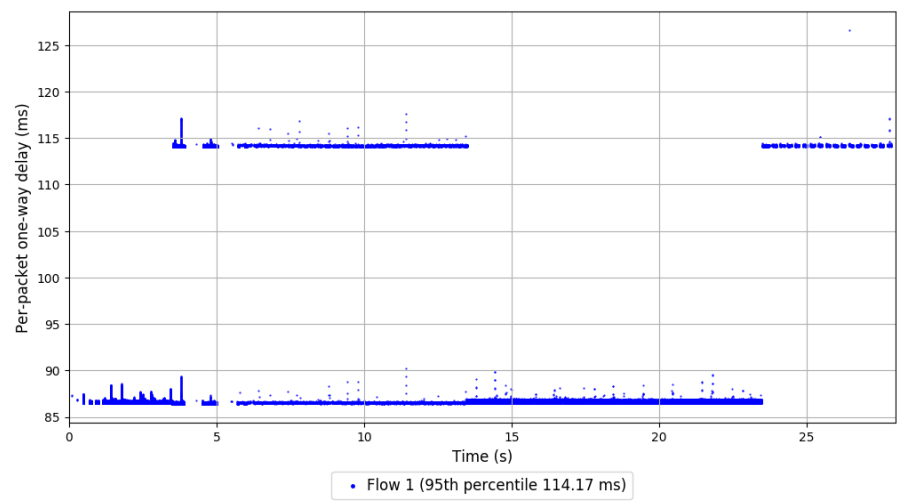
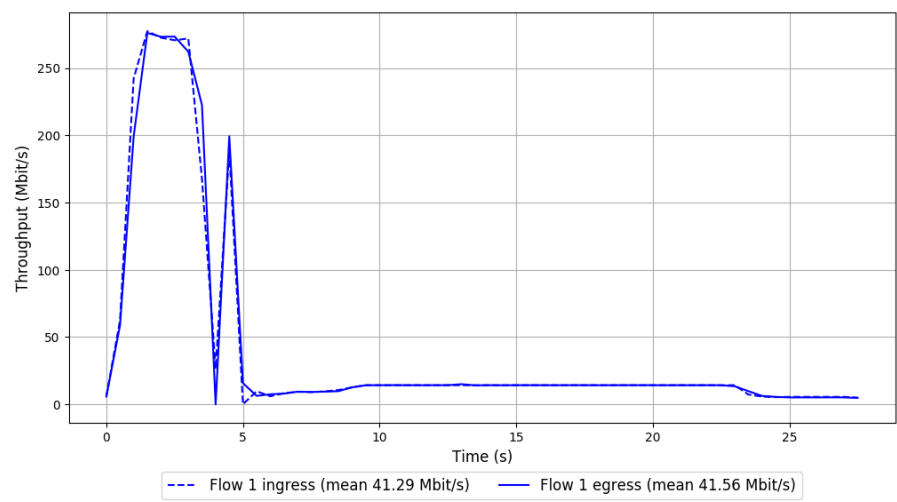
-- Flow 1:

Average throughput: 41.56 Mbit/s

95th percentile per-packet one-way delay: 114.170 ms

Loss rate: 0.10%

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

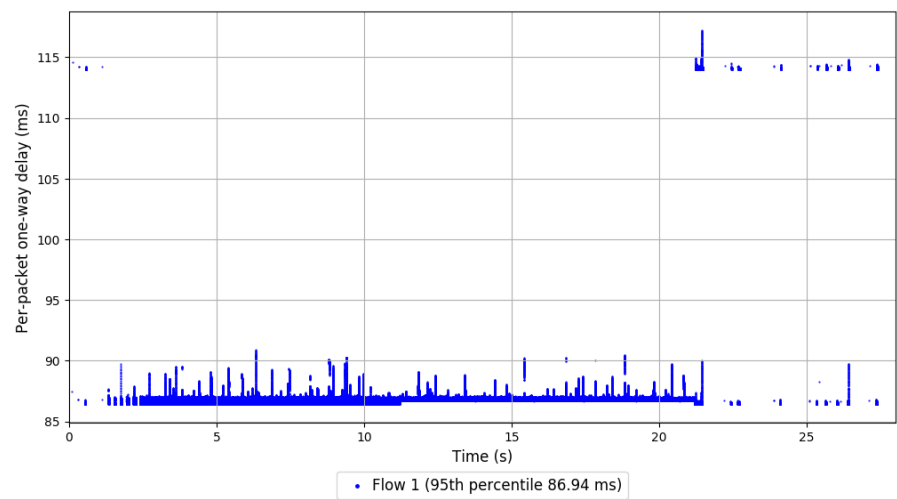
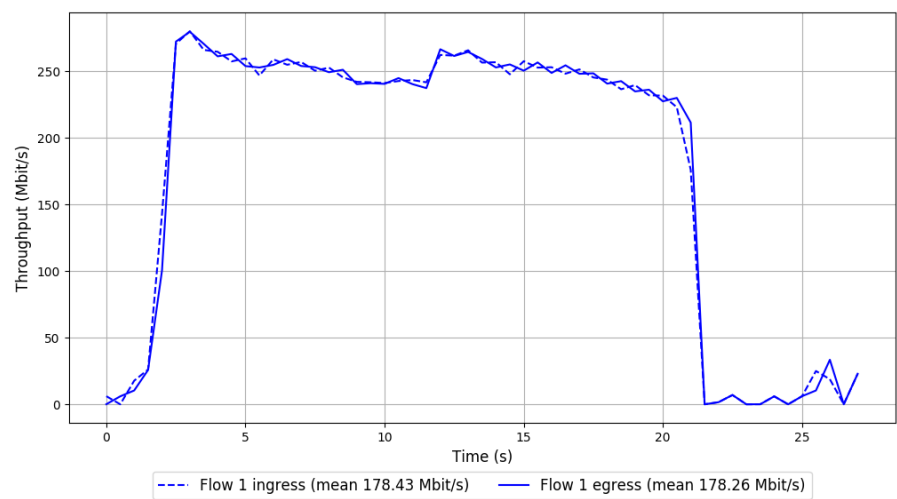


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-10-10 19:18:31
End at: 2017-10-10 19:19:01

# Below is generated by plot.py at 2017-10-10 21:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 178.26 Mbit/s
95th percentile per-packet one-way delay: 86.936 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 178.26 Mbit/s
95th percentile per-packet one-way delay: 86.936 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-10-10 17:34:38

End at: 2017-10-10 17:35:08

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.29 Mbit/s

95th percentile per-packet one-way delay: 114.238 ms

Loss rate: 0.75%

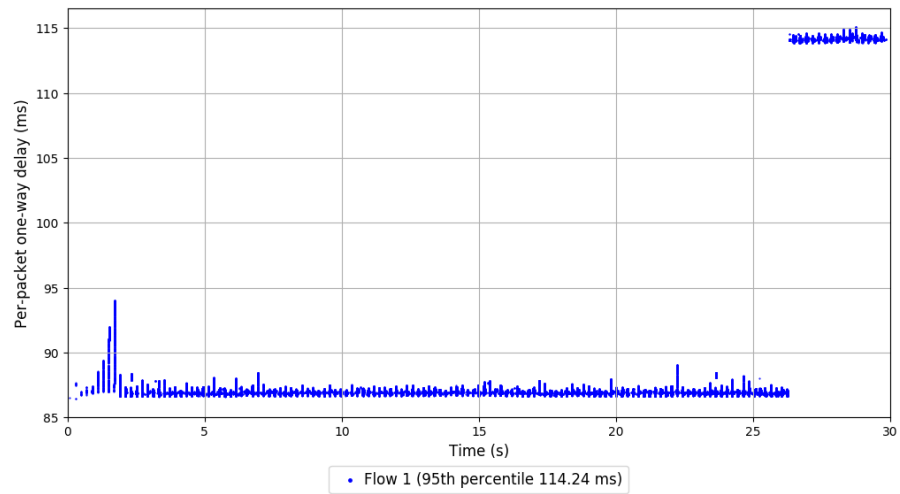
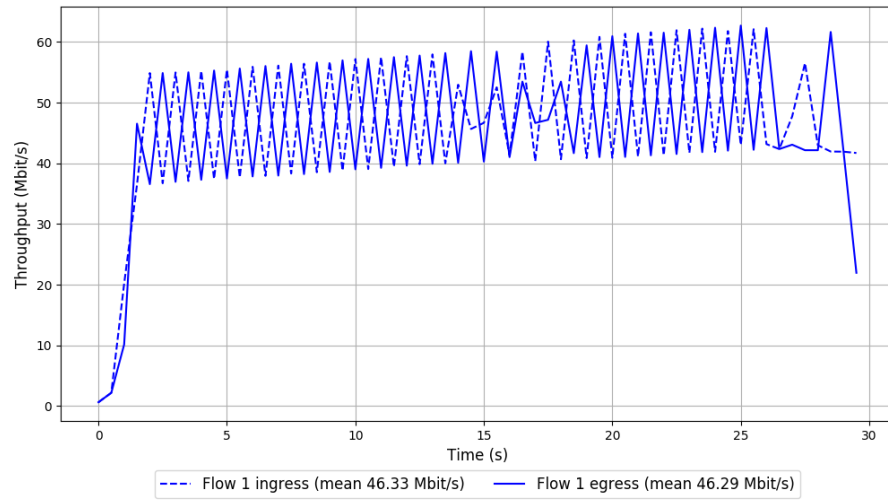
-- Flow 1:

Average throughput: 46.29 Mbit/s

95th percentile per-packet one-way delay: 114.238 ms

Loss rate: 0.75%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-10-10 17:45:34

End at: 2017-10-10 17:46:04

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 87.425 ms

Loss rate: 1.24%

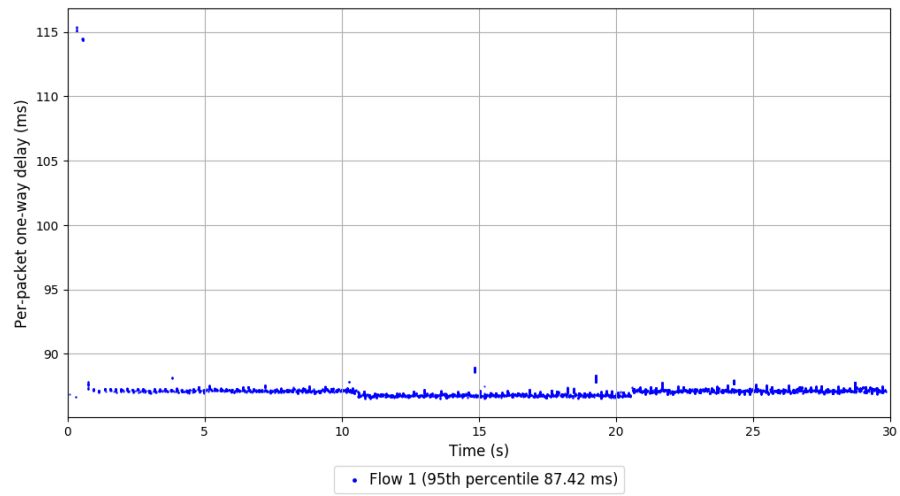
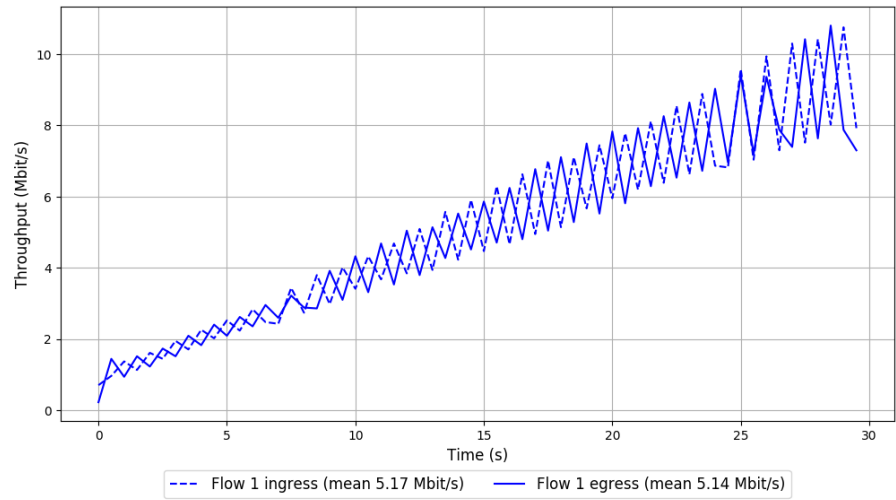
-- Flow 1:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 87.425 ms

Loss rate: 1.24%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-10-10 17:56:47

End at: 2017-10-10 17:57:17

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.80 Mbit/s

95th percentile per-packet one-way delay: 114.229 ms

Loss rate: 0.71%

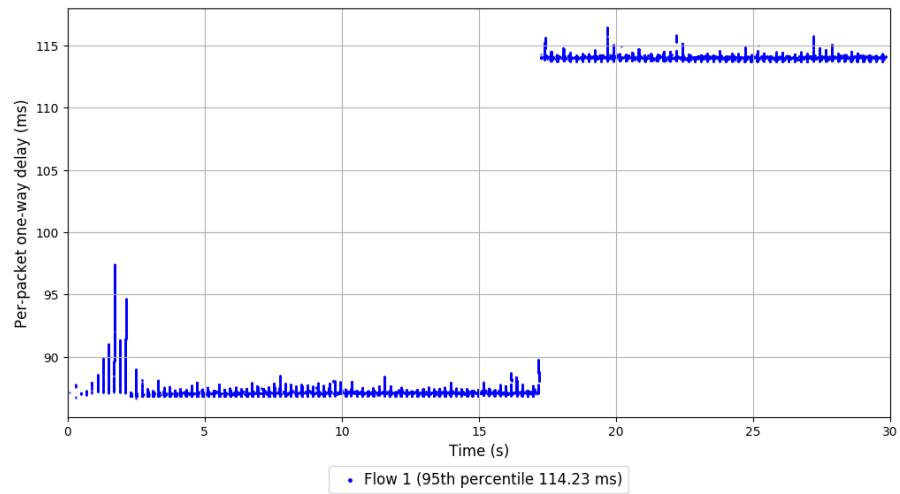
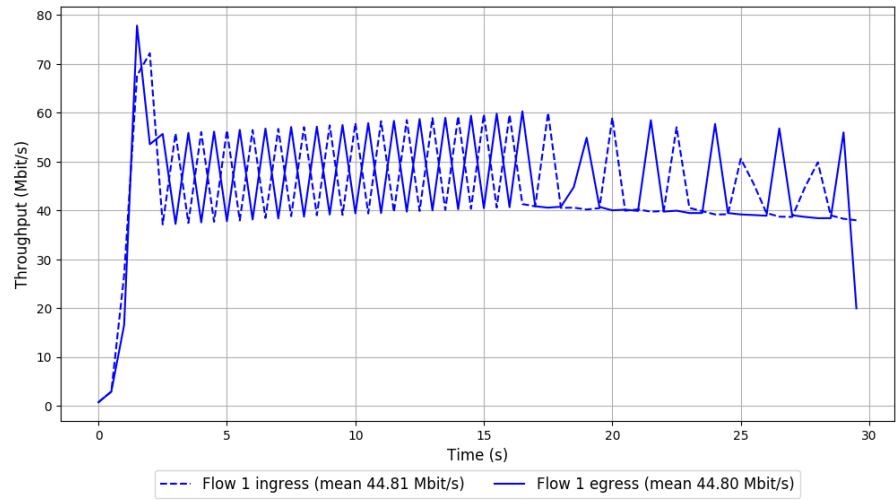
-- Flow 1:

Average throughput: 44.80 Mbit/s

95th percentile per-packet one-way delay: 114.229 ms

Loss rate: 0.71%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-10-10 18:07:44

End at: 2017-10-10 18:08:14

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 114.315 ms

Loss rate: 0.74%

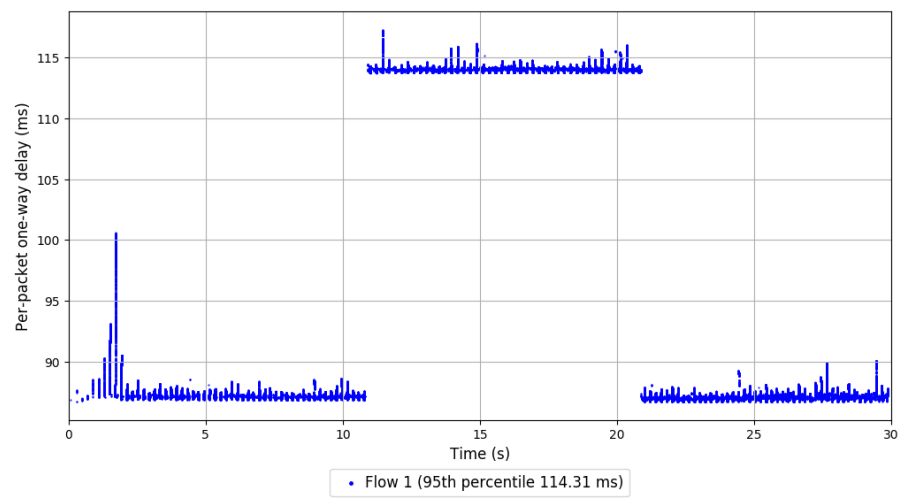
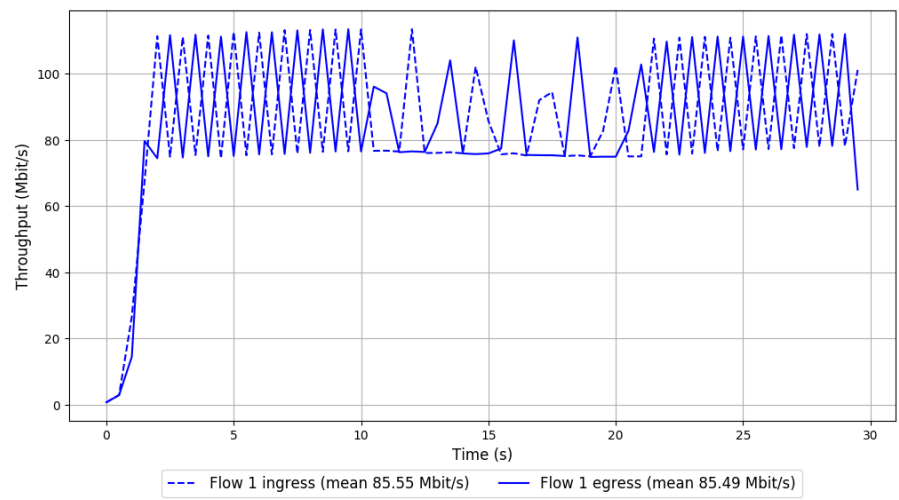
-- Flow 1:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 114.315 ms

Loss rate: 0.74%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-10-10 18:18:12

End at: 2017-10-10 18:18:42

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 114.403 ms

Loss rate: 0.81%

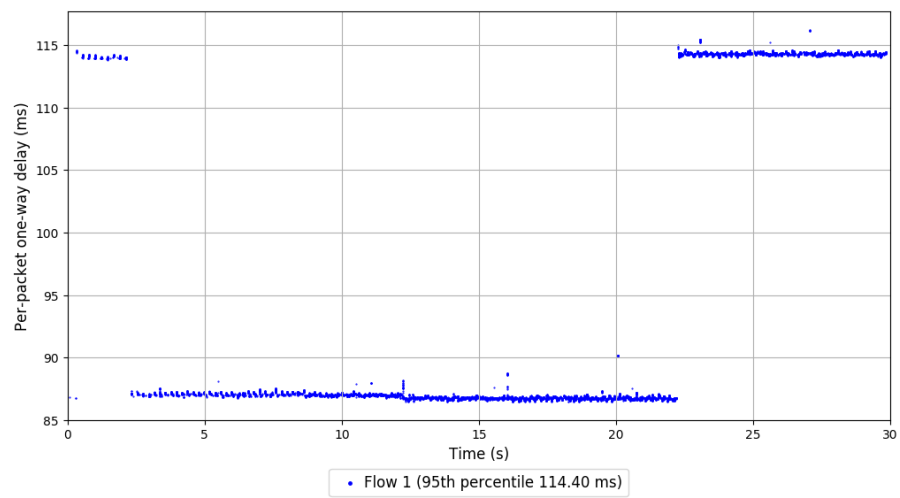
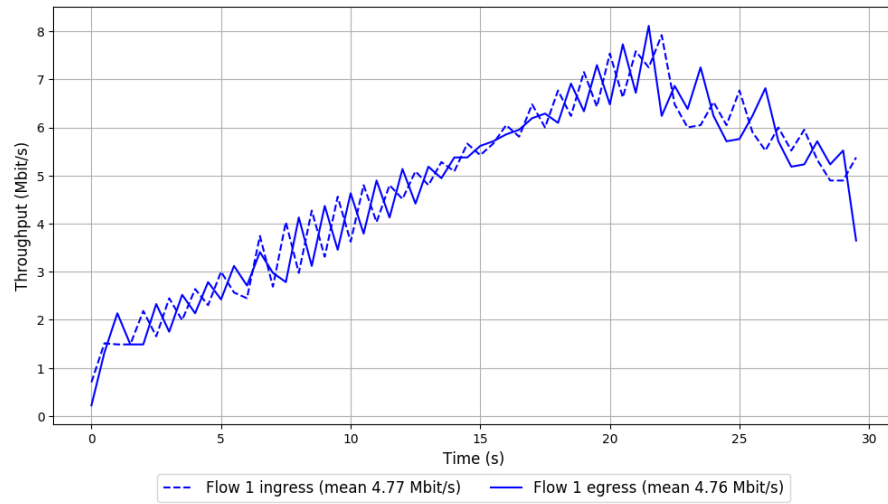
-- Flow 1:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 114.403 ms

Loss rate: 0.81%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-10-10 18:28:58

End at: 2017-10-10 18:29:28

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.82 Mbit/s

95th percentile per-packet one-way delay: 113.912 ms

Loss rate: 0.78%

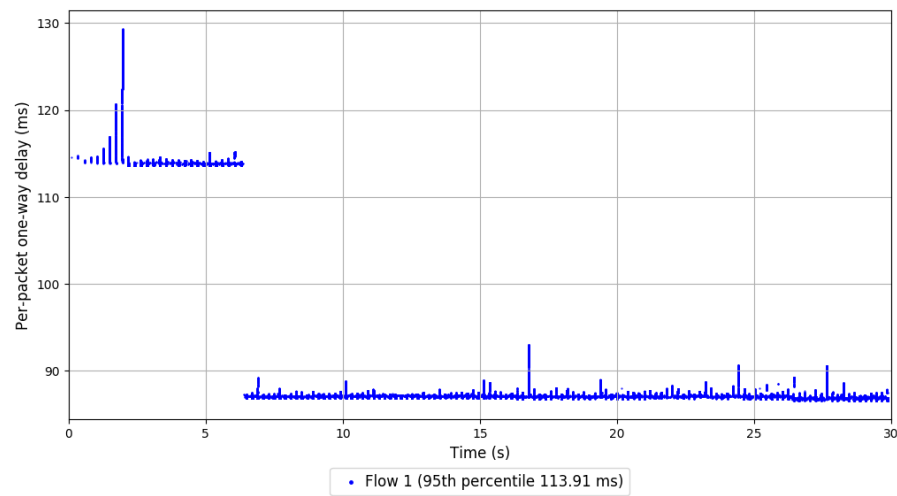
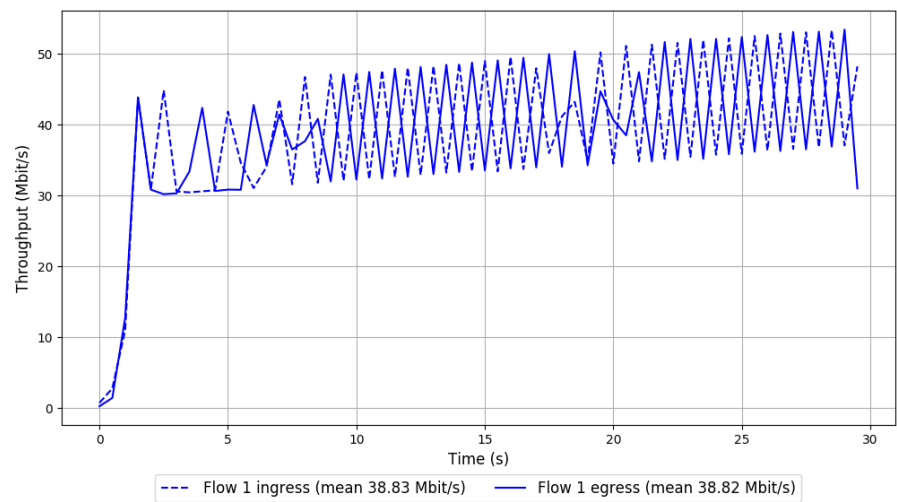
-- Flow 1:

Average throughput: 38.82 Mbit/s

95th percentile per-packet one-way delay: 113.912 ms

Loss rate: 0.78%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-10-10 18:39:27

End at: 2017-10-10 18:39:57

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.14 Mbit/s

95th percentile per-packet one-way delay: 92.576 ms

Loss rate: 0.49%

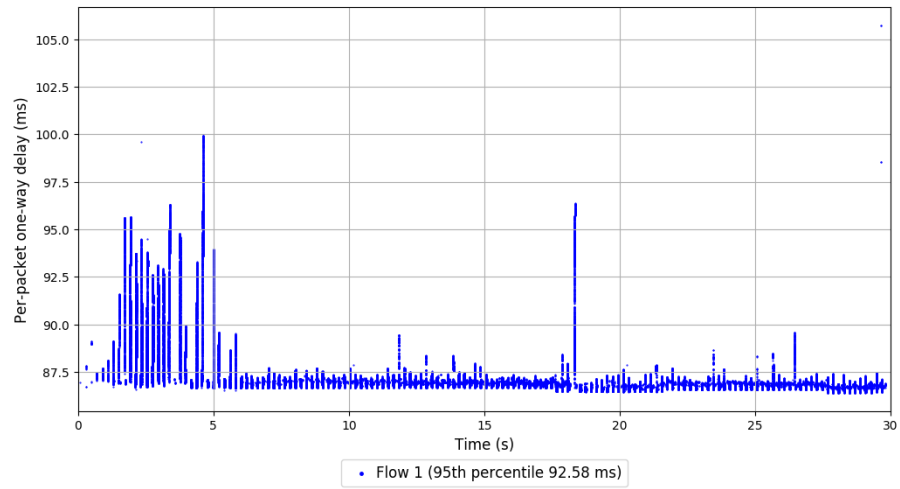
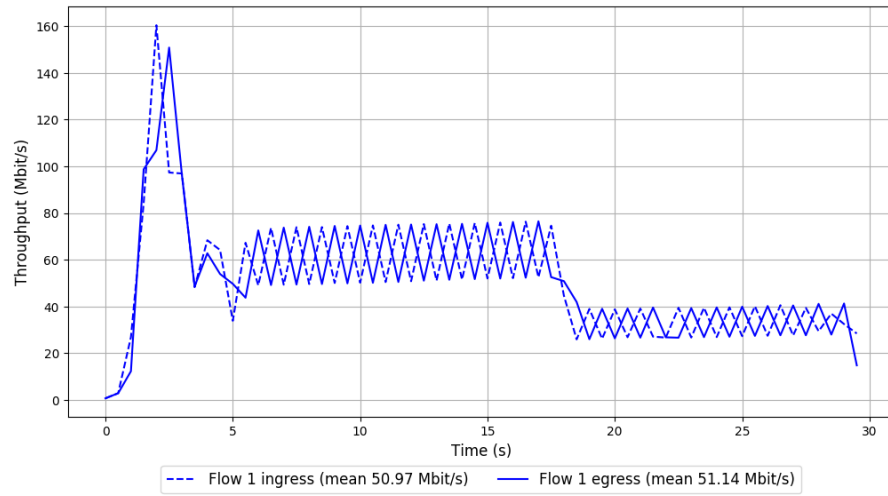
-- Flow 1:

Average throughput: 51.14 Mbit/s

95th percentile per-packet one-way delay: 92.576 ms

Loss rate: 0.49%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-10-10 18:50:08

End at: 2017-10-10 18:50:38

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 88.057 ms

Loss rate: 0.74%

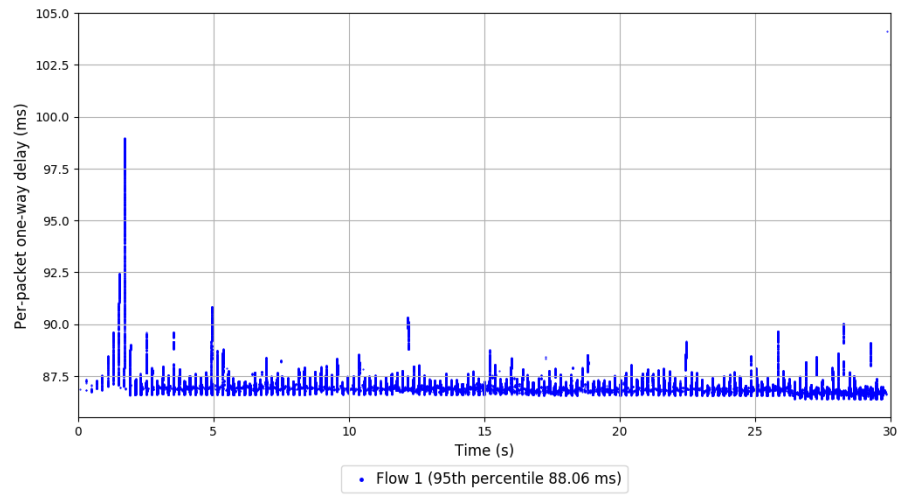
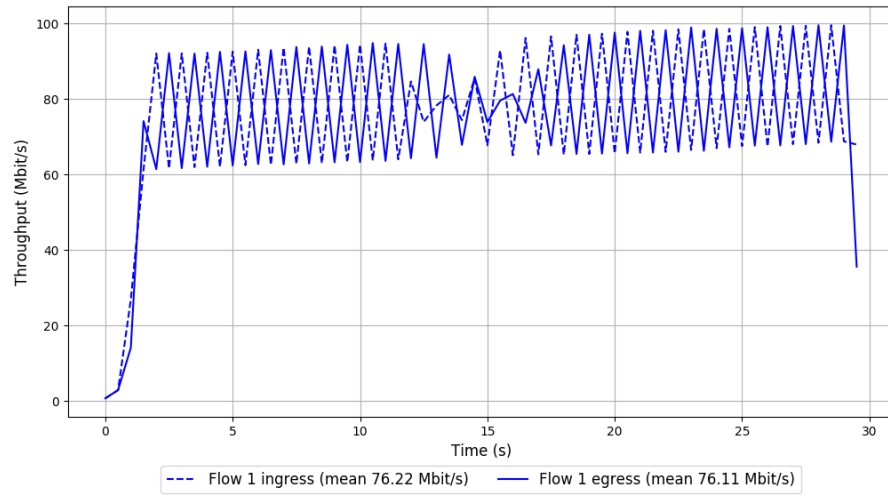
-- Flow 1:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 88.057 ms

Loss rate: 0.74%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-10-10 19:01:27

End at: 2017-10-10 19:01:57

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.62 Mbit/s

95th percentile per-packet one-way delay: 87.633 ms

Loss rate: 0.29%

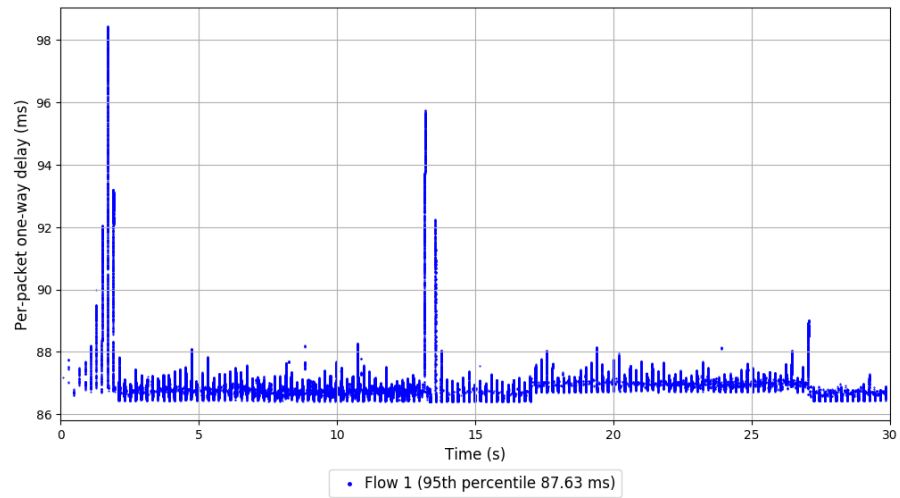
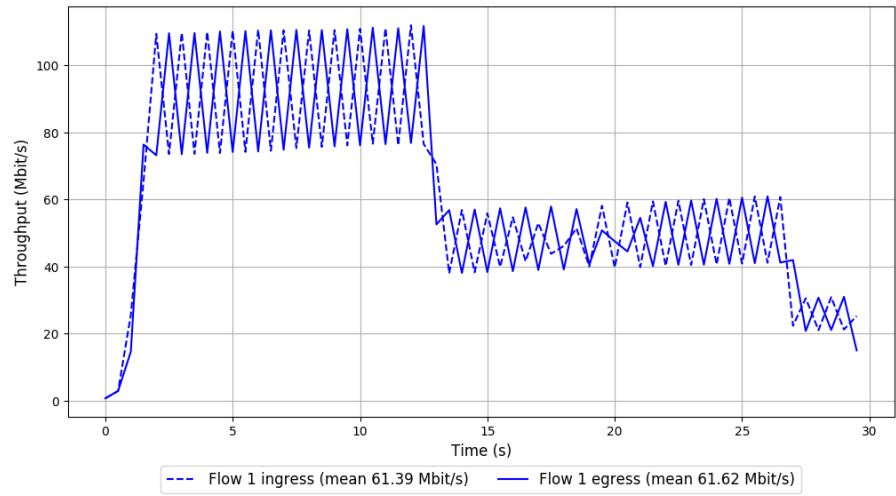
-- Flow 1:

Average throughput: 61.62 Mbit/s

95th percentile per-packet one-way delay: 87.633 ms

Loss rate: 0.29%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

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

End at: 2017-10-10 19:12:49

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.84 Mbit/s

95th percentile per-packet one-way delay: 87.945 ms

Loss rate: 0.72%

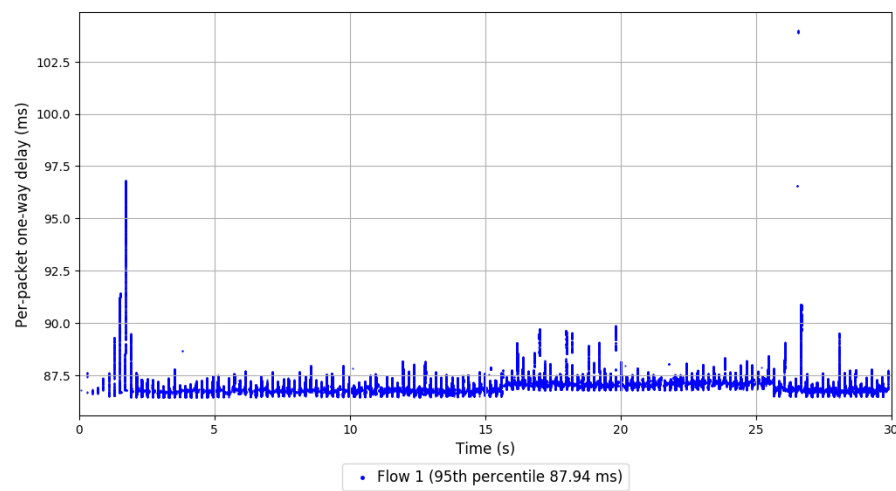
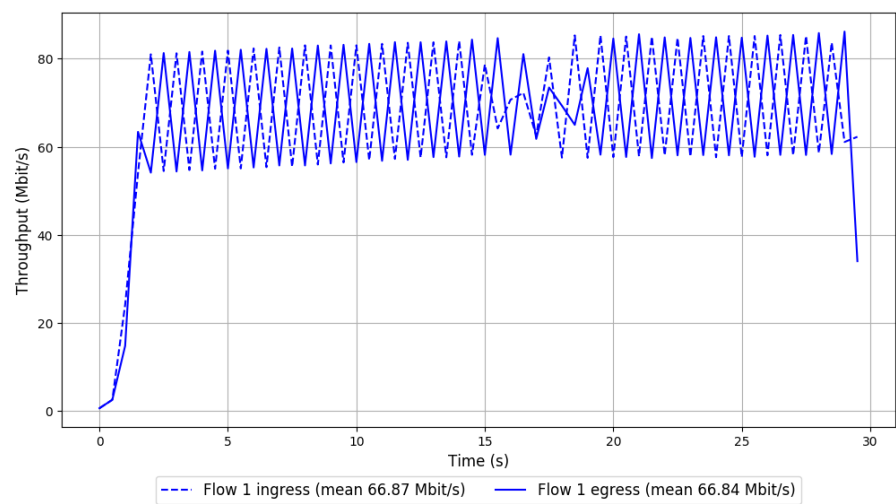
-- Flow 1:

Average throughput: 66.84 Mbit/s

95th percentile per-packet one-way delay: 87.945 ms

Loss rate: 0.72%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-10-10 17:39:55

End at: 2017-10-10 17:40:25

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 113.85 Mbit/s

95th percentile per-packet one-way delay: 144.938 ms

Loss rate: 2.27%

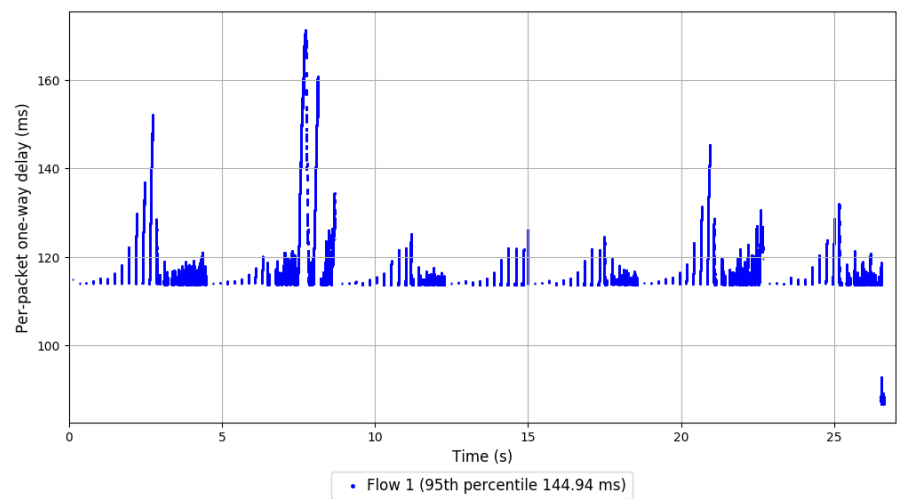
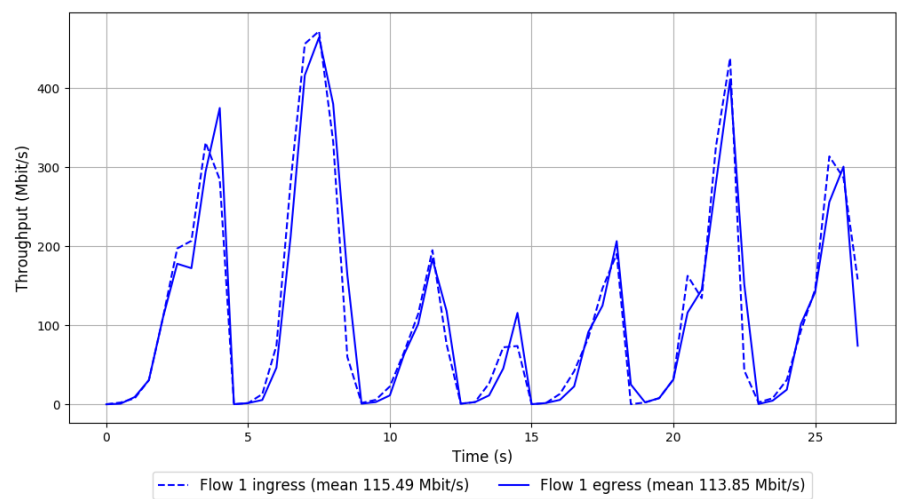
-- Flow 1:

Average throughput: 113.85 Mbit/s

95th percentile per-packet one-way delay: 144.938 ms

Loss rate: 2.27%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-10-10 17:50:52

End at: 2017-10-10 17:51:22

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 107.99 Mbit/s

95th percentile per-packet one-way delay: 237.519 ms

Loss rate: 5.05%

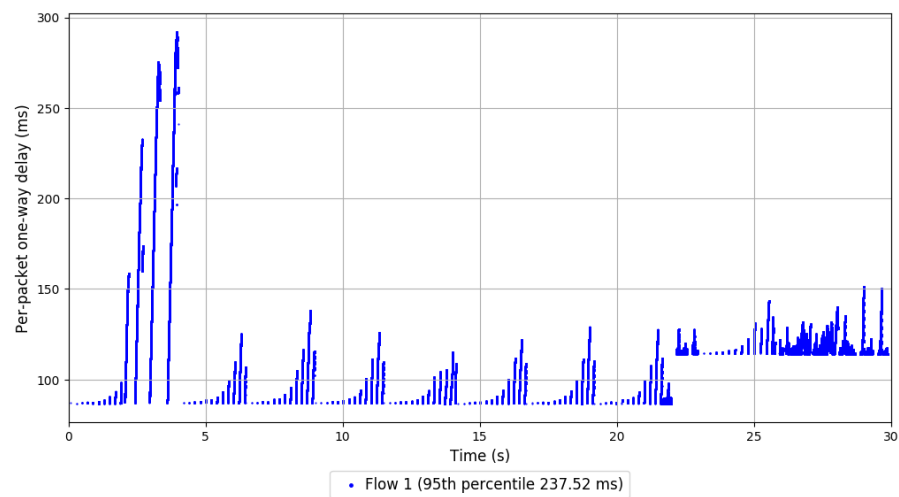
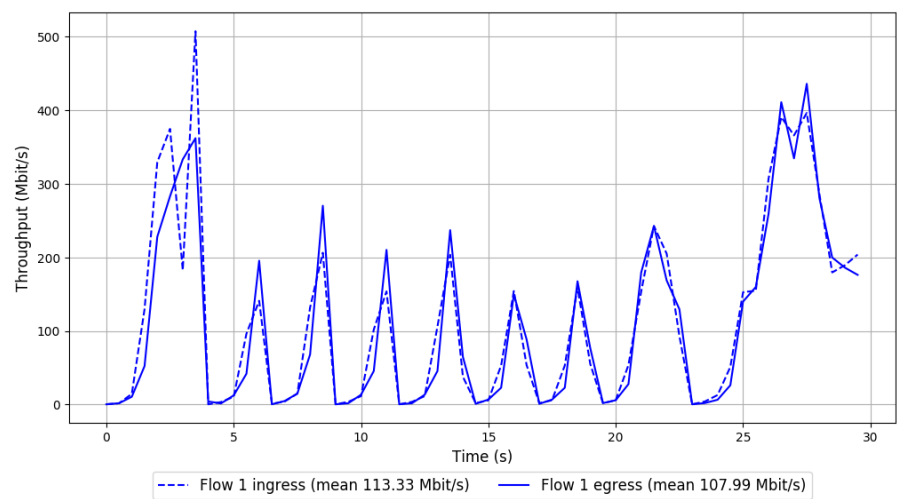
-- Flow 1:

Average throughput: 107.99 Mbit/s

95th percentile per-packet one-way delay: 237.519 ms

Loss rate: 5.05%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-10-10 18:02:08

End at: 2017-10-10 18:02:38

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 112.36 Mbit/s

95th percentile per-packet one-way delay: 150.756 ms

Loss rate: 2.24%

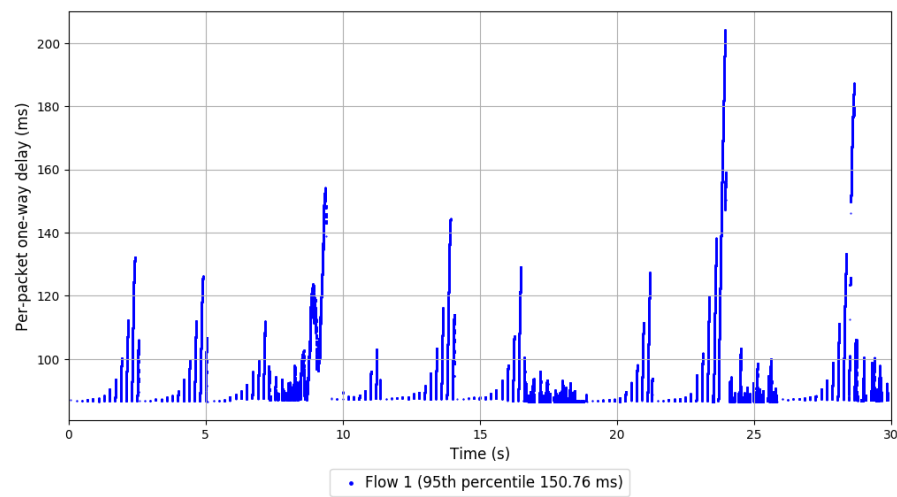
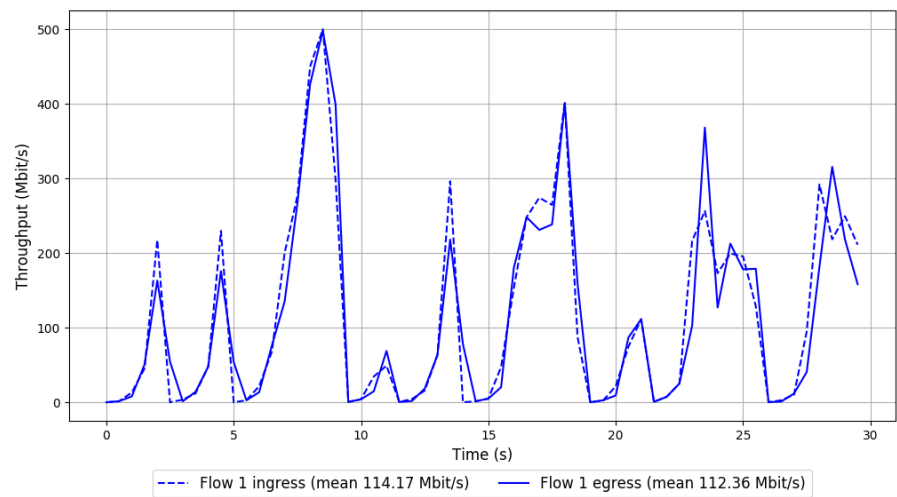
-- Flow 1:

Average throughput: 112.36 Mbit/s

95th percentile per-packet one-way delay: 150.756 ms

Loss rate: 2.24%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-10-10 18:12:43

End at: 2017-10-10 18:13:13

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.20 Mbit/s

95th percentile per-packet one-way delay: 163.492 ms

Loss rate: 0.04%

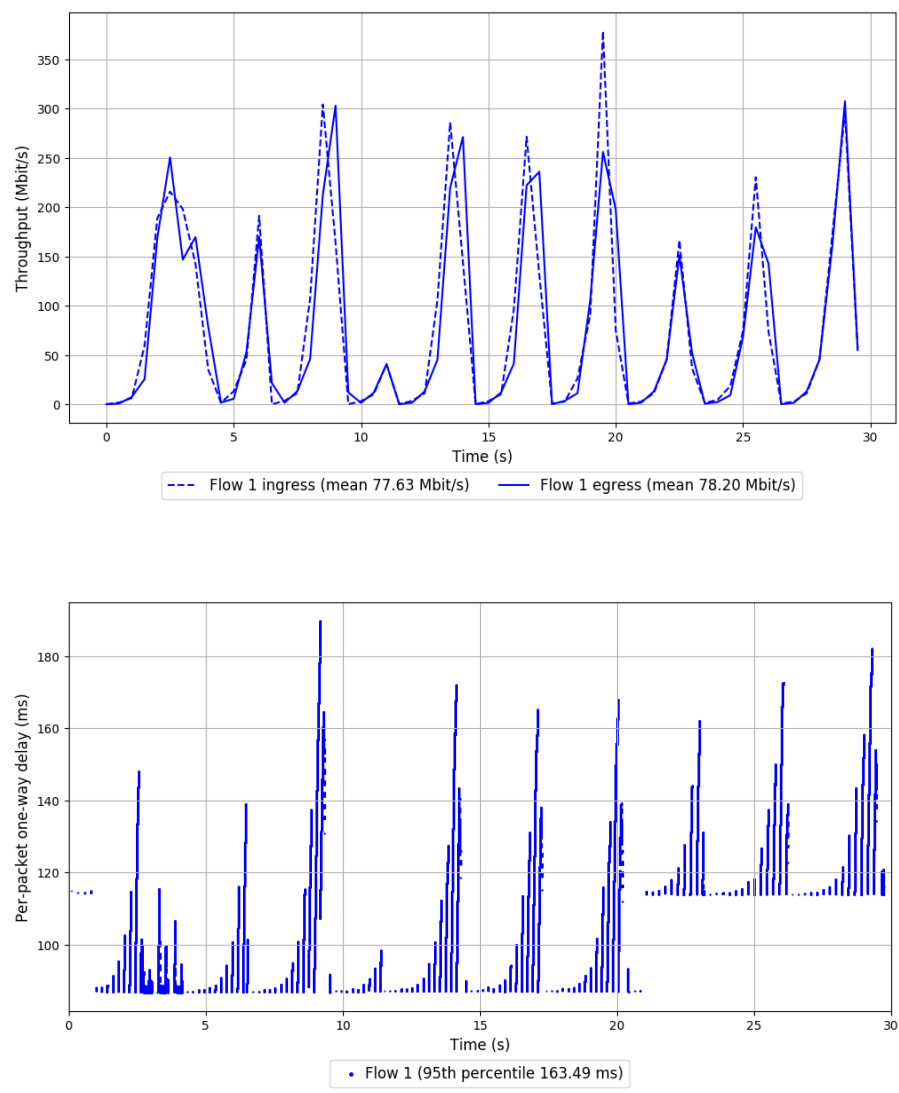
-- Flow 1:

Average throughput: 78.20 Mbit/s

95th percentile per-packet one-way delay: 163.492 ms

Loss rate: 0.04%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-10-10 18:23:30

End at: 2017-10-10 18:24:00

Below is generated by plot.py at 2017-10-10 21:44:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 104.46 Mbit/s

95th percentile per-packet one-way delay: 133.838 ms

Loss rate: 1.29%

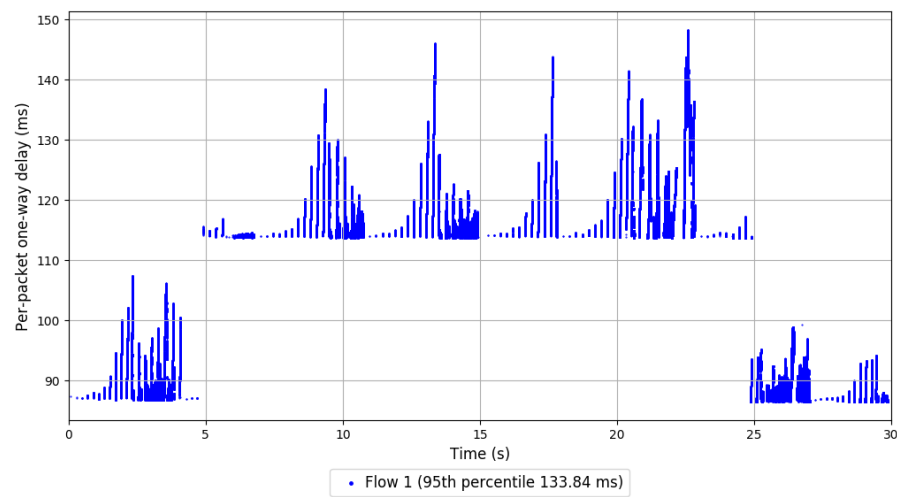
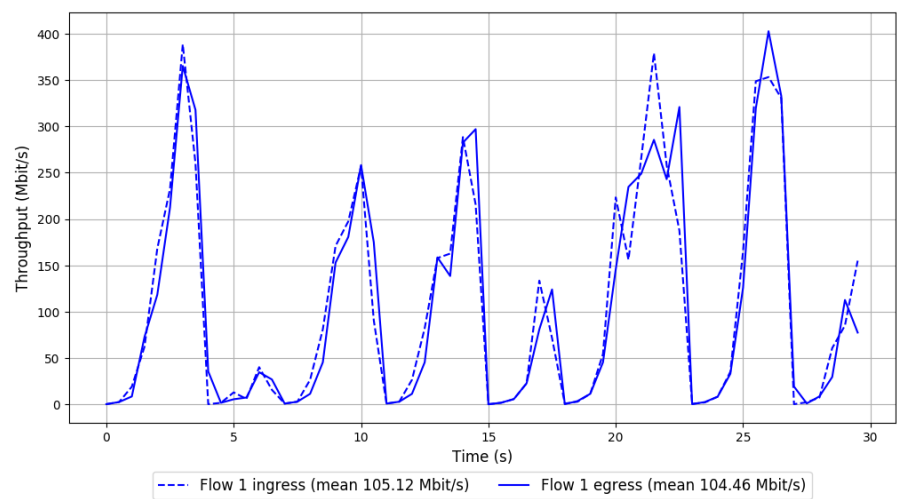
-- Flow 1:

Average throughput: 104.46 Mbit/s

95th percentile per-packet one-way delay: 133.838 ms

Loss rate: 1.29%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-10-10 18:34:16

End at: 2017-10-10 18:34:46

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 245.67 Mbit/s

95th percentile per-packet one-way delay: 206.130 ms

Loss rate: 3.62%

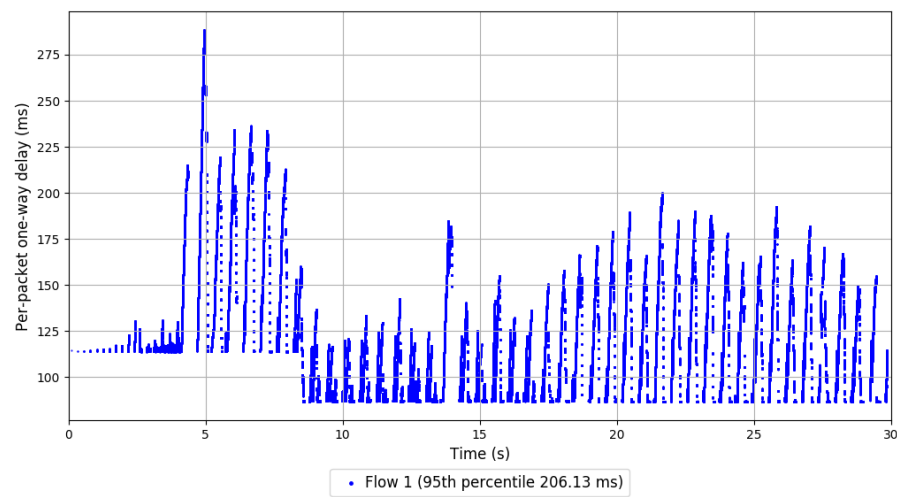
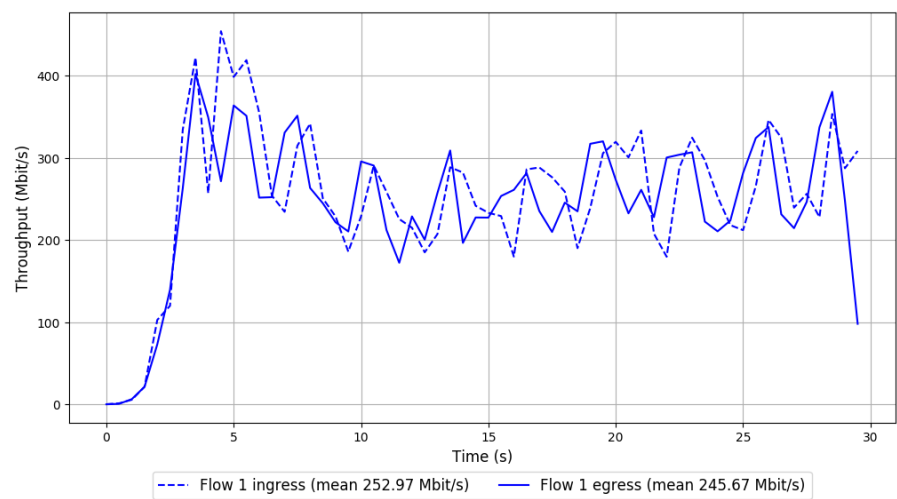
-- Flow 1:

Average throughput: 245.67 Mbit/s

95th percentile per-packet one-way delay: 206.130 ms

Loss rate: 3.62%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-10-10 18:44:41

End at: 2017-10-10 18:45:11

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 209.72 Mbit/s

95th percentile per-packet one-way delay: 232.729 ms

Loss rate: 3.41%

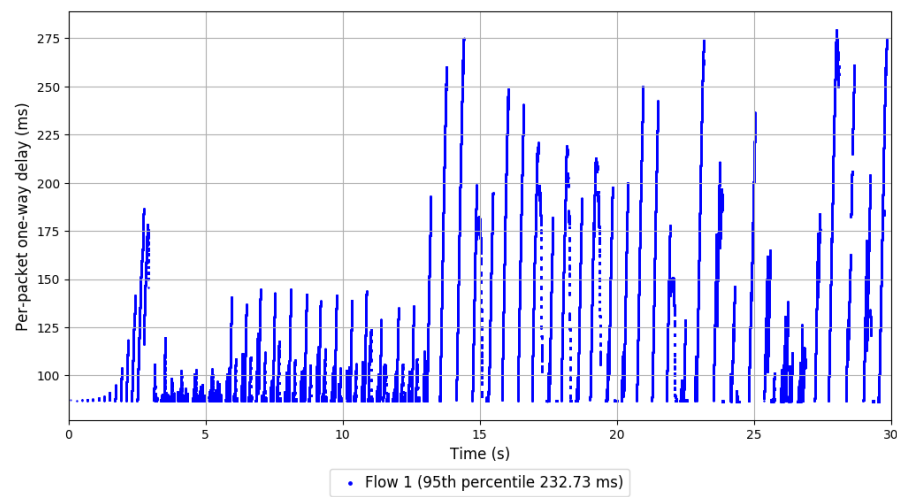
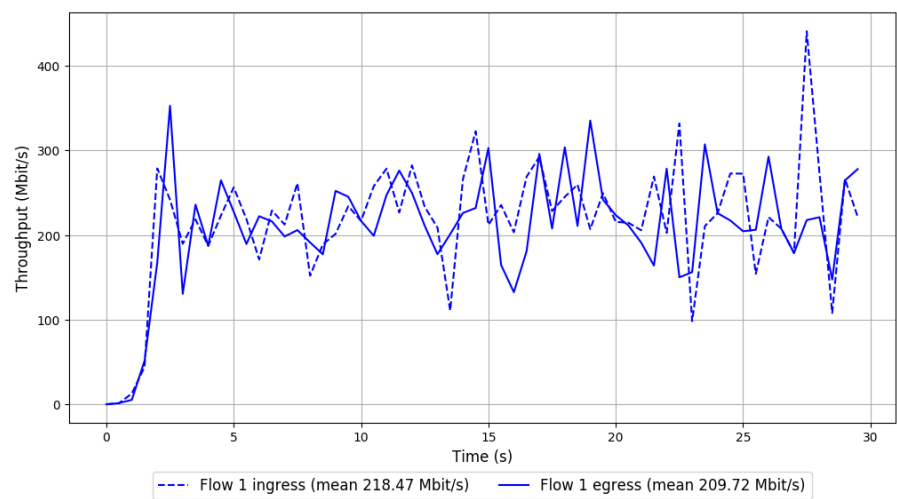
-- Flow 1:

Average throughput: 209.72 Mbit/s

95th percentile per-packet one-way delay: 232.729 ms

Loss rate: 3.41%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-10-10 18:55:29

End at: 2017-10-10 18:55:59

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 210.40 Mbit/s

95th percentile per-packet one-way delay: 128.997 ms

Loss rate: 1.38%

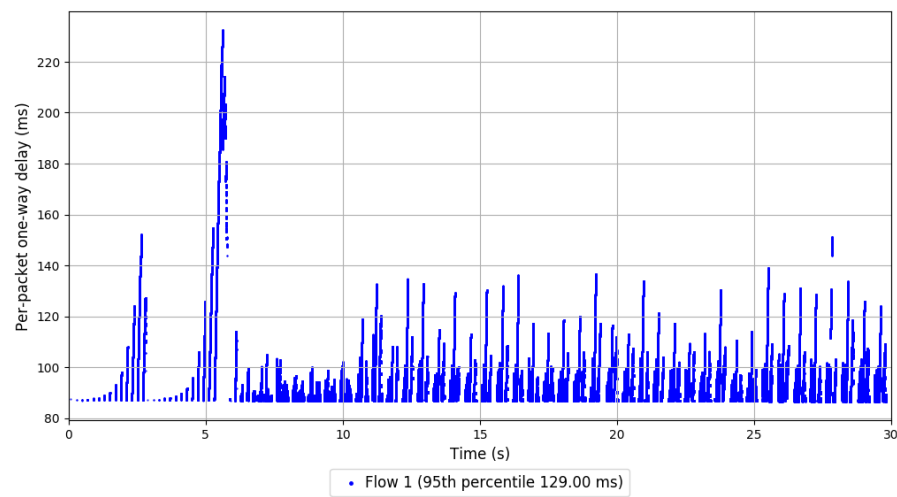
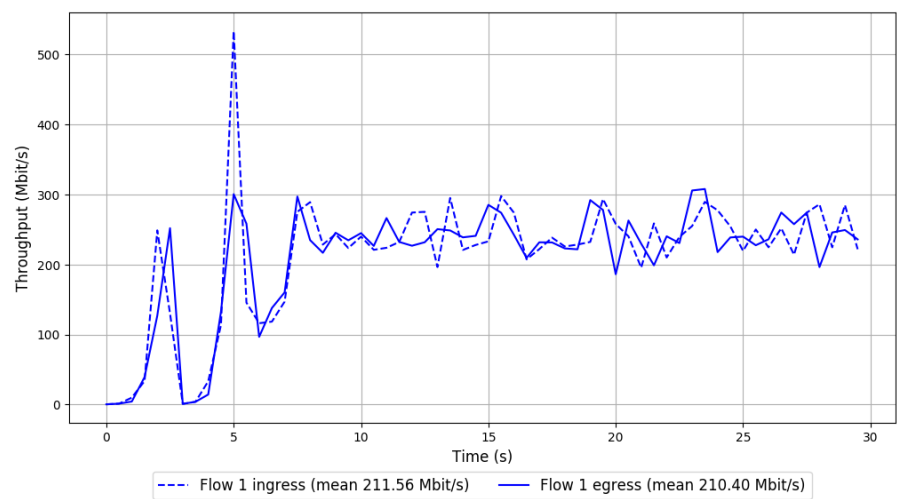
-- Flow 1:

Average throughput: 210.40 Mbit/s

95th percentile per-packet one-way delay: 128.997 ms

Loss rate: 1.38%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-10-10 19:06:47

End at: 2017-10-10 19:07:17

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 155.46 Mbit/s

95th percentile per-packet one-way delay: 141.416 ms

Loss rate: 0.20%

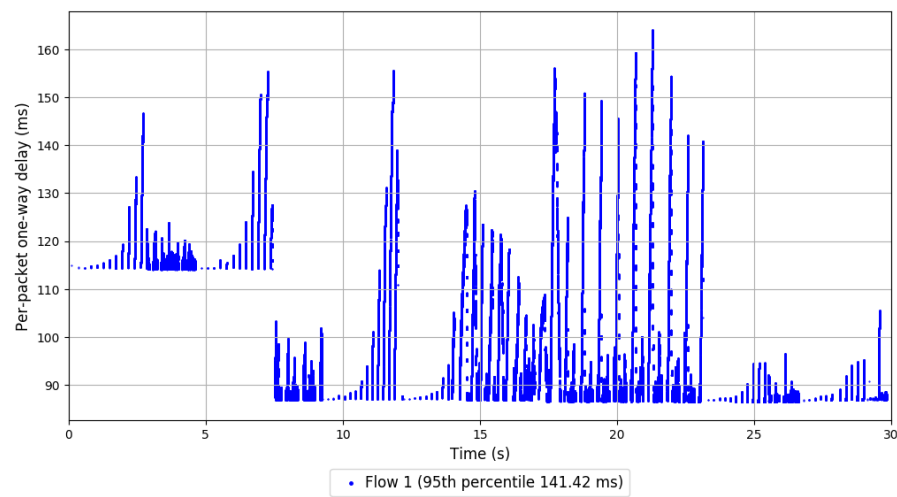
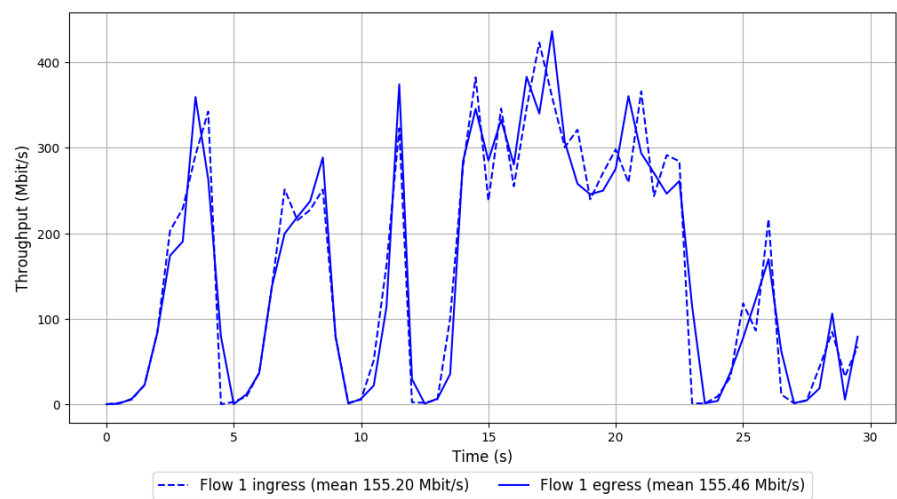
-- Flow 1:

Average throughput: 155.46 Mbit/s

95th percentile per-packet one-way delay: 141.416 ms

Loss rate: 0.20%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-10-10 19:17:40

End at: 2017-10-10 19:18:10

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 146.21 Mbit/s

95th percentile per-packet one-way delay: 140.408 ms

Loss rate: 0.09%

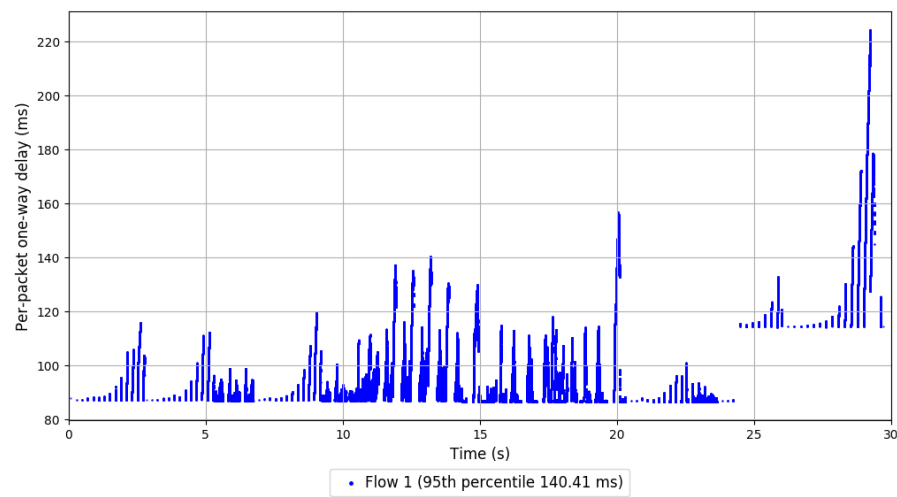
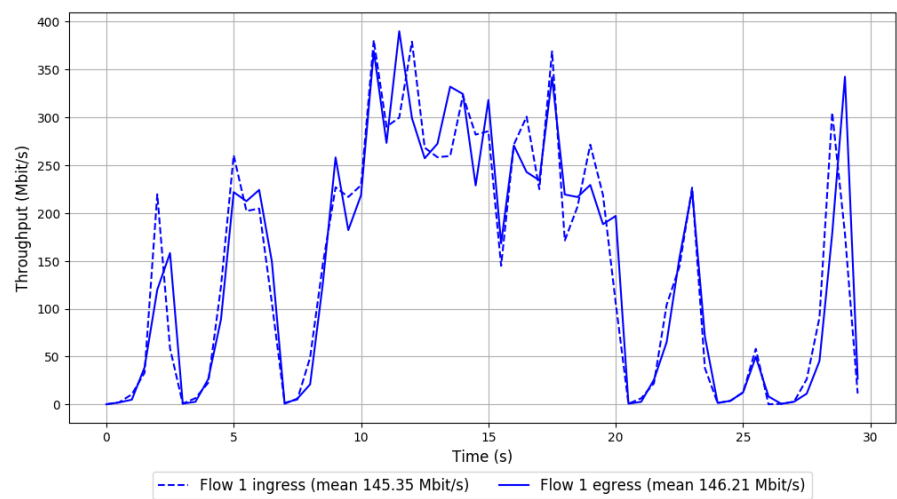
-- Flow 1:

Average throughput: 146.21 Mbit/s

95th percentile per-packet one-way delay: 140.408 ms

Loss rate: 0.09%

Run 10: Report of Verus — Data Link

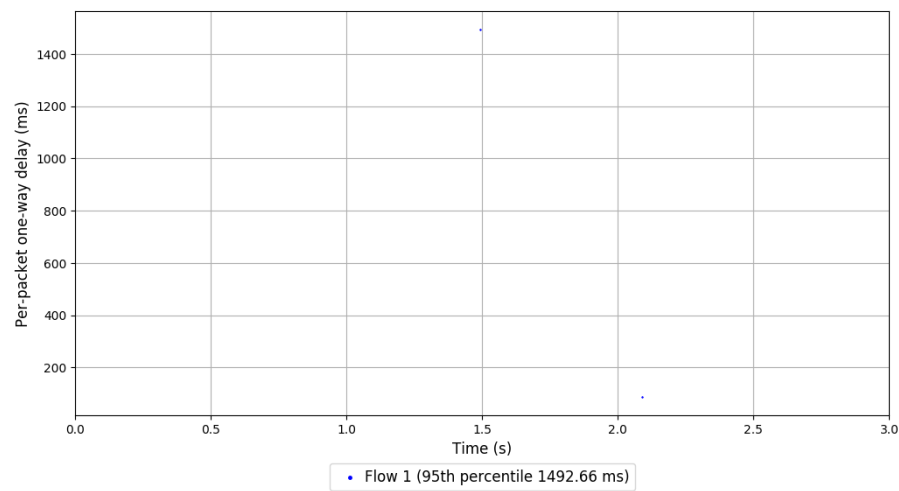
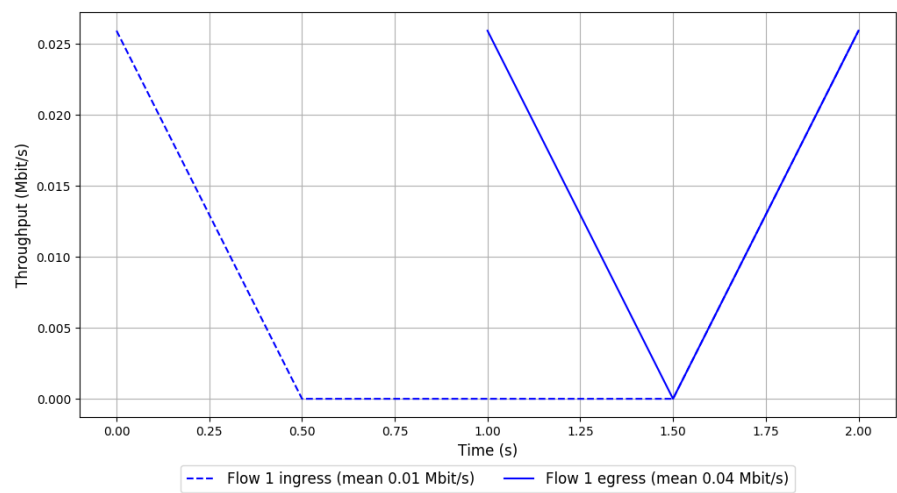


Run 1: Statistics of Copa

Start at: 2017-10-10 17:42:24

End at: 2017-10-10 17:42:54

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-10-10 17:53:27

End at: 2017-10-10 17:53:57

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.47 Mbit/s

95th percentile per-packet one-way delay: 113.742 ms

Loss rate: 1.23%

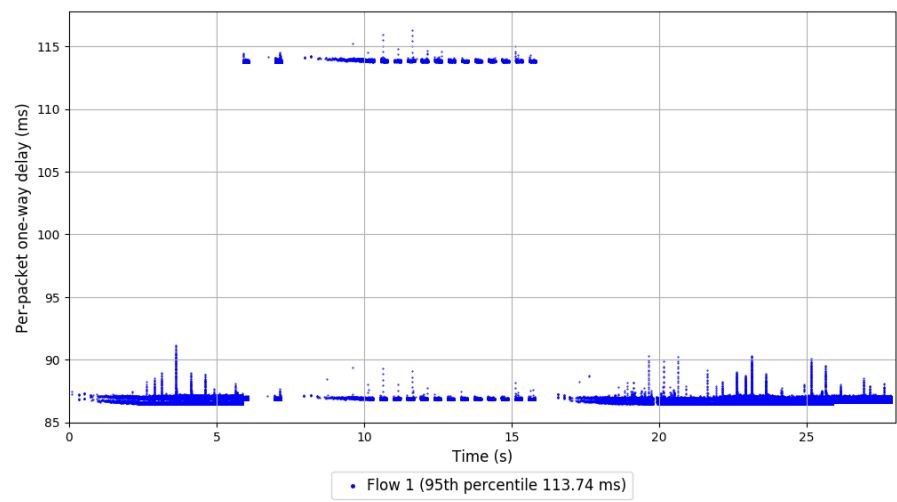
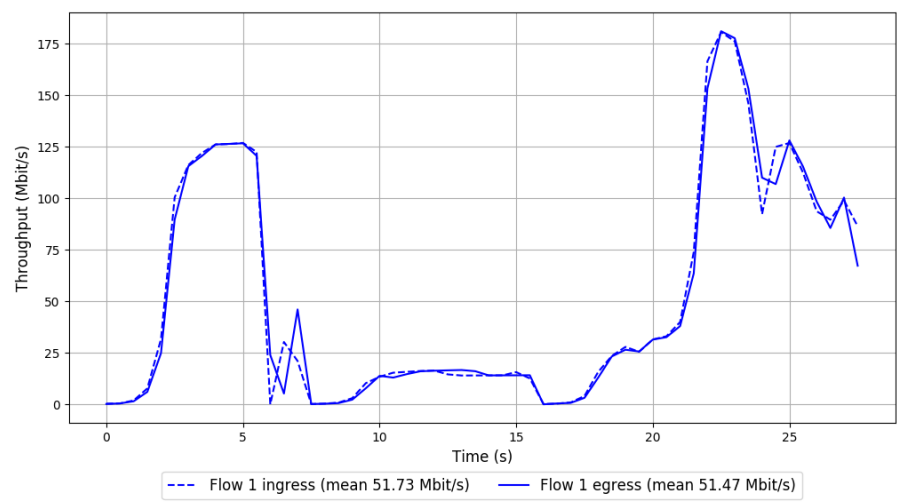
-- Flow 1:

Average throughput: 51.47 Mbit/s

95th percentile per-packet one-way delay: 113.742 ms

Loss rate: 1.23%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-10-10 18:04:23

End at: 2017-10-10 18:04:53

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.22 Mbit/s

95th percentile per-packet one-way delay: 87.229 ms

Loss rate: 0.85%

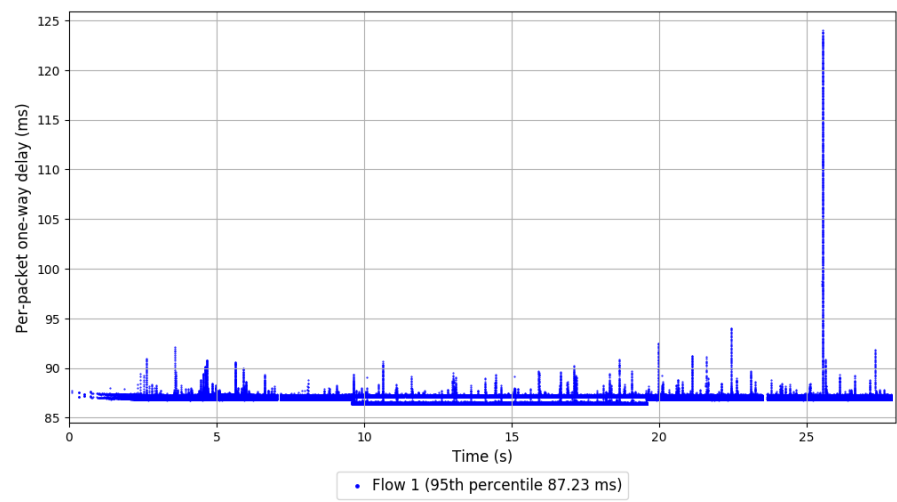
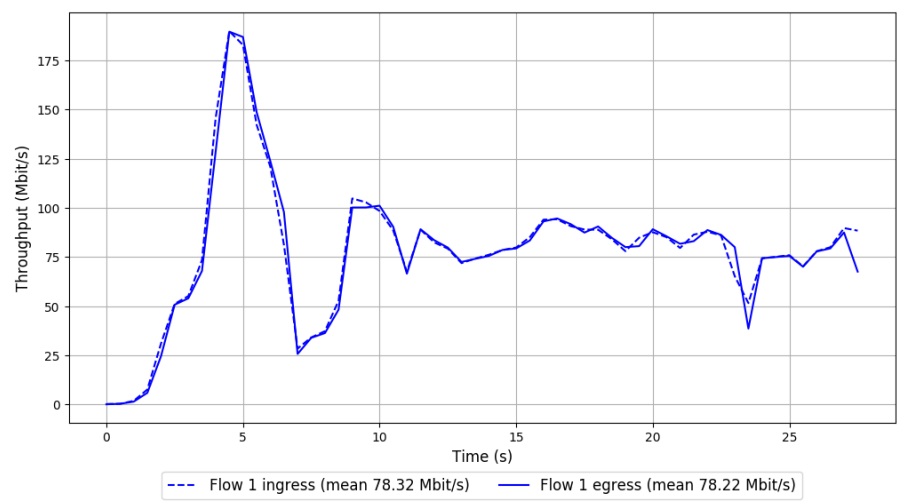
-- Flow 1:

Average throughput: 78.22 Mbit/s

95th percentile per-packet one-way delay: 87.229 ms

Loss rate: 0.85%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-10-10 18:15:16

End at: 2017-10-10 18:15:46

Below is generated by plot.py at 2017-10-10 21:46:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.94 Mbit/s

95th percentile per-packet one-way delay: 114.244 ms

Loss rate: 0.00%

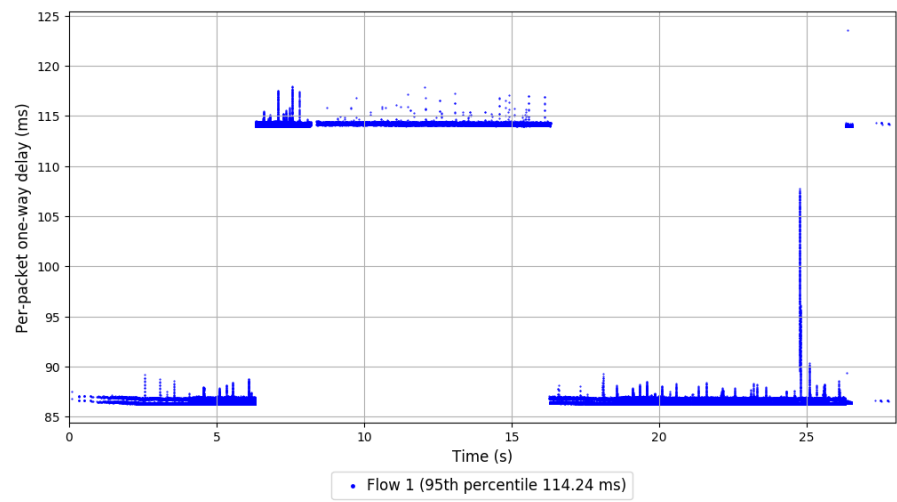
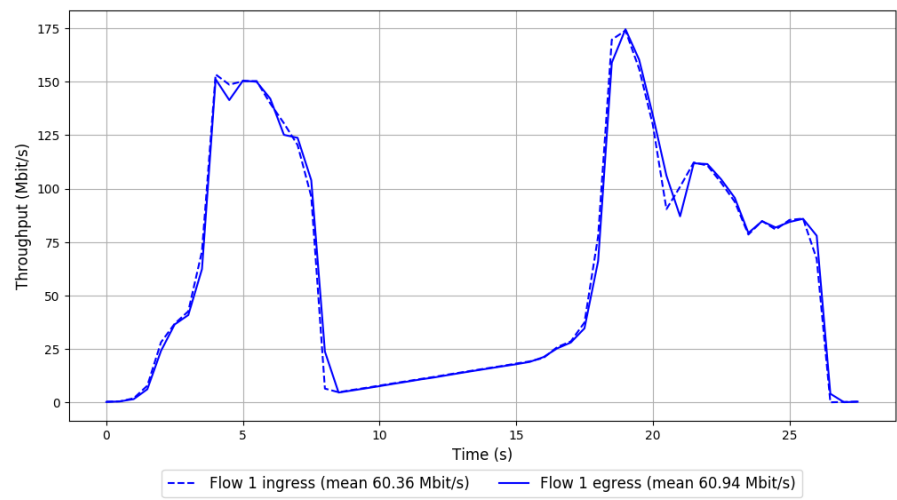
-- Flow 1:

Average throughput: 60.94 Mbit/s

95th percentile per-packet one-way delay: 114.244 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-10-10 18:25:44

End at: 2017-10-10 18:26:14

Below is generated by plot.py at 2017-10-10 21:46:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.87 Mbit/s

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

Loss rate: 0.97%

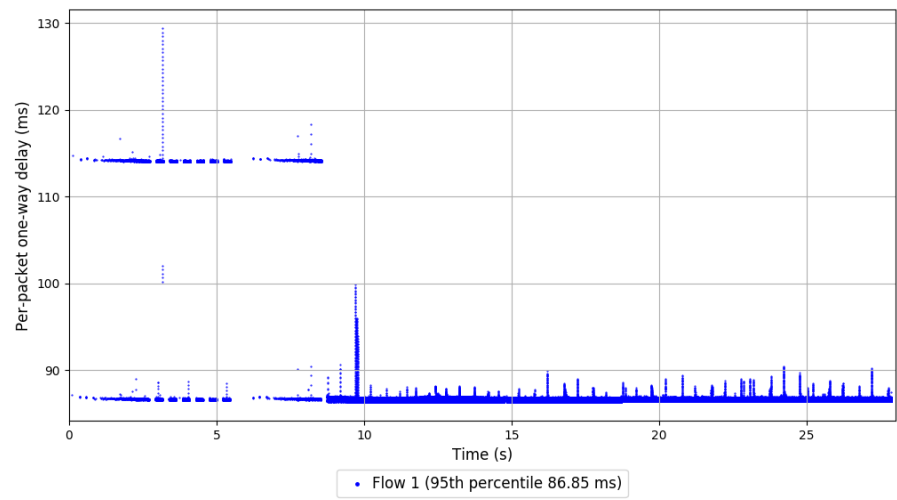
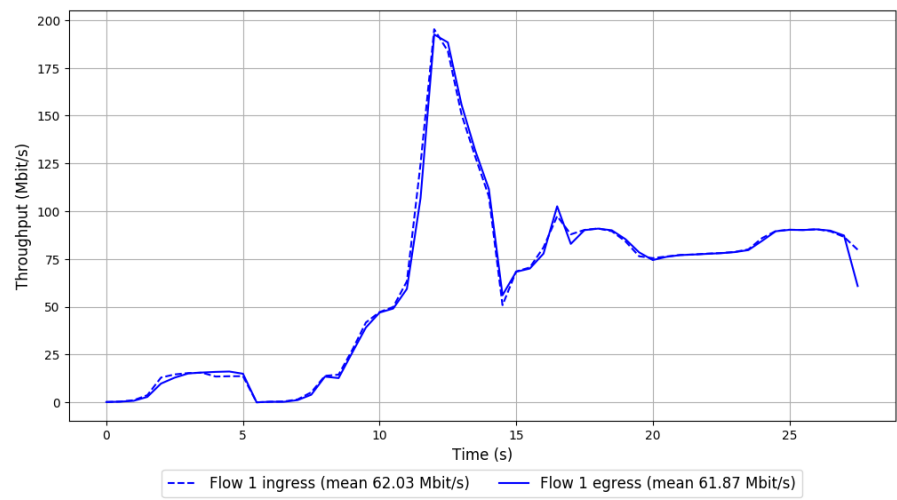
-- Flow 1:

Average throughput: 61.87 Mbit/s

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

Loss rate: 0.97%

Run 5: Report of Copa — Data Link

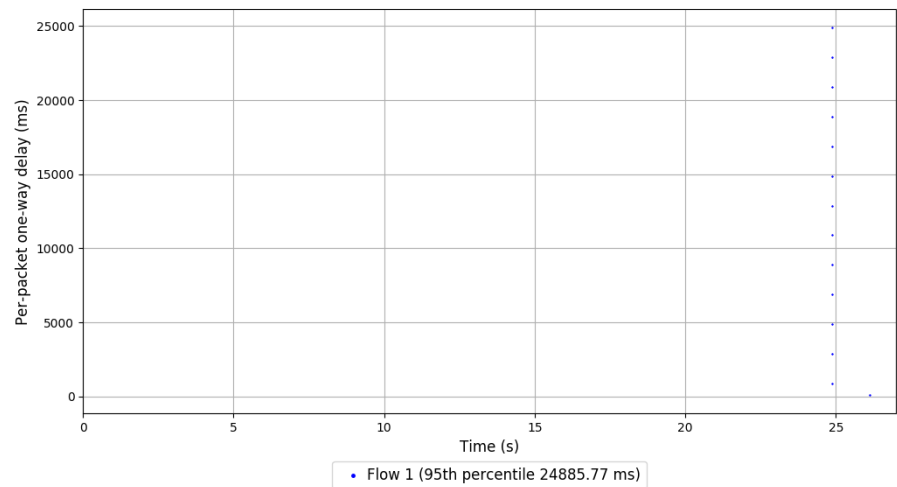
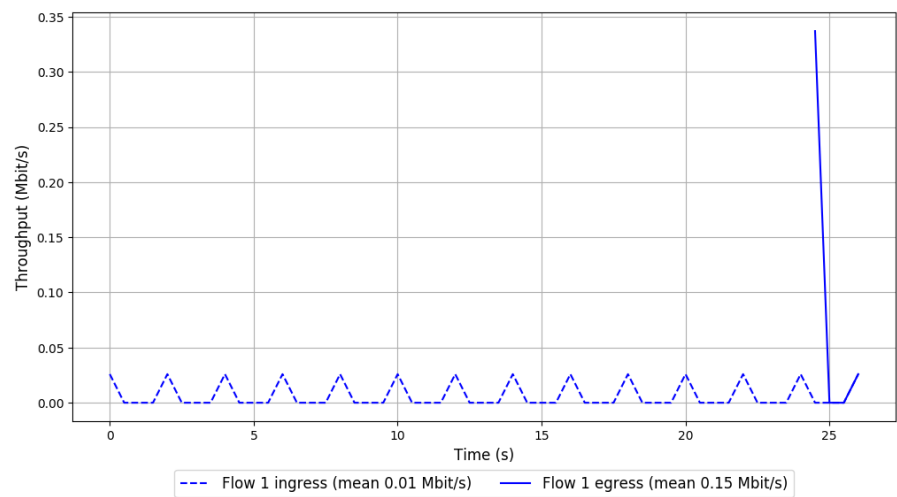


Run 6: Statistics of Copa

Start at: 2017-10-10 18:36:36

End at: 2017-10-10 18:37:06

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-10-10 18:47:02

End at: 2017-10-10 18:47:32

Below is generated by plot.py at 2017-10-10 21:47:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.81 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 0.77%

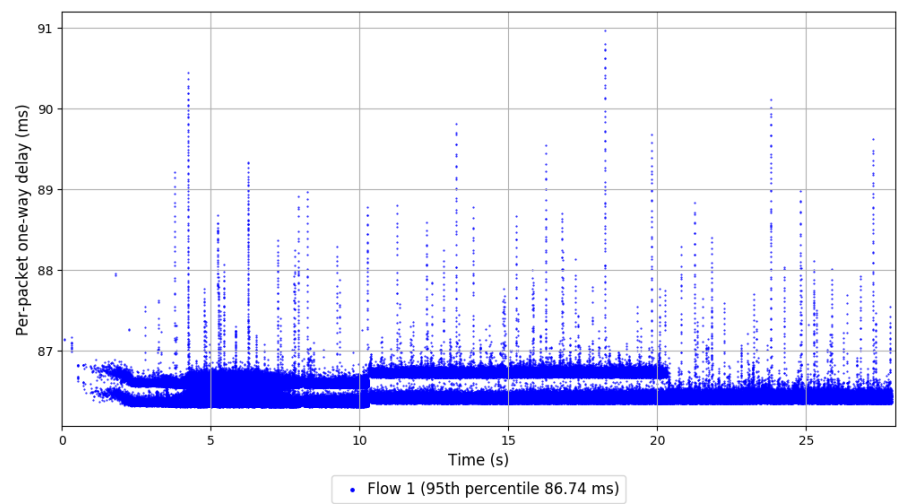
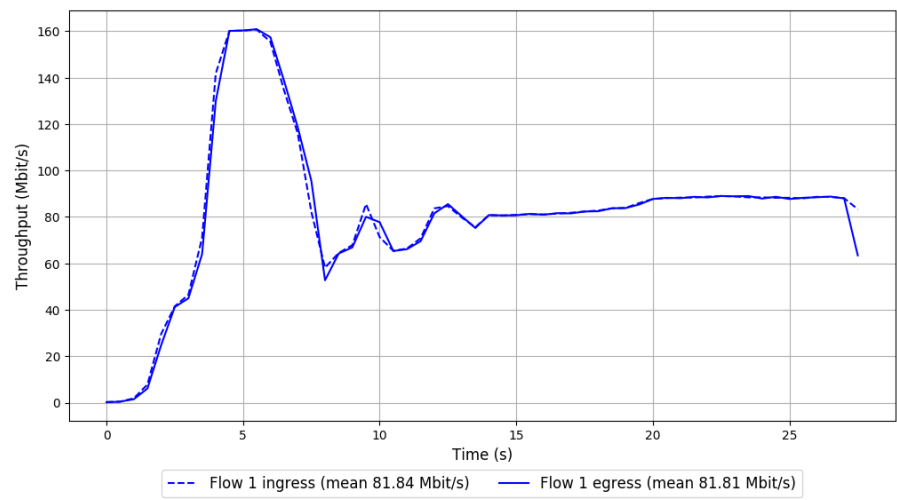
-- Flow 1:

Average throughput: 81.81 Mbit/s

95th percentile per-packet one-way delay: 86.739 ms

Loss rate: 0.77%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-10-10 18:58:04

End at: 2017-10-10 18:58:34

Below is generated by plot.py at 2017-10-10 21:47:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.43 Mbit/s

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

Loss rate: 1.16%

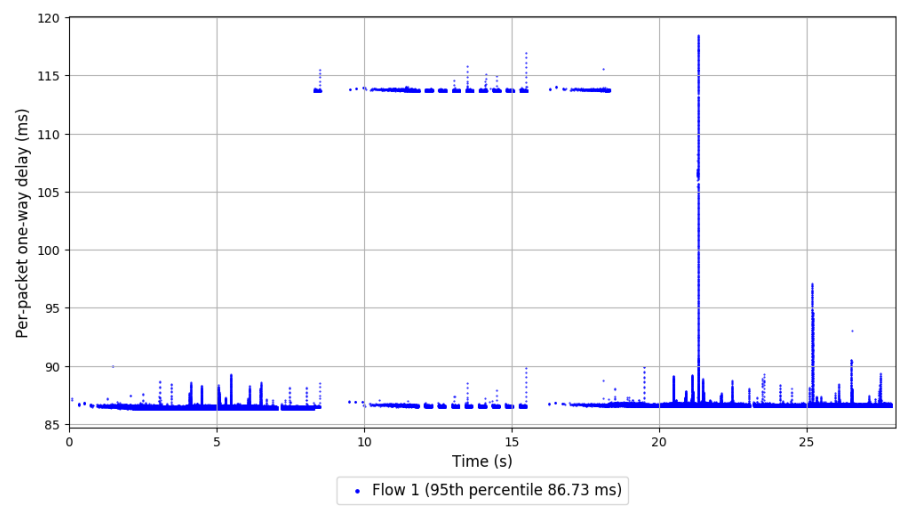
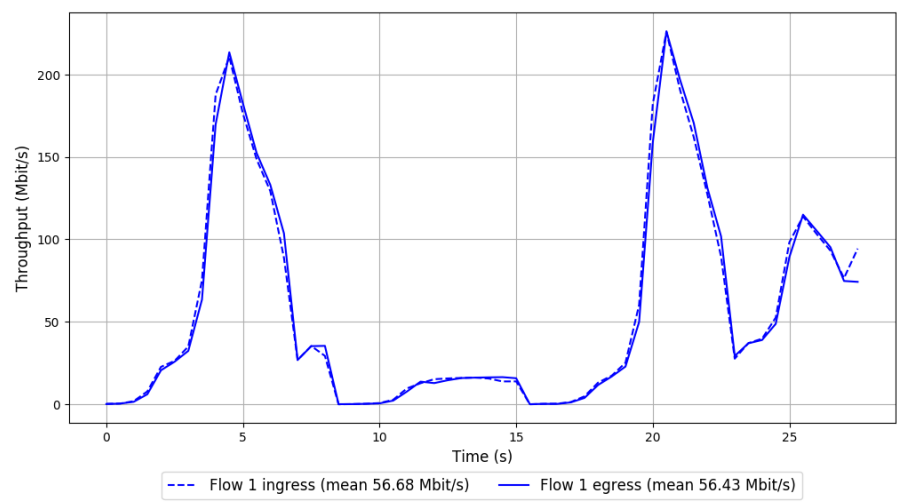
-- Flow 1:

Average throughput: 56.43 Mbit/s

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

Loss rate: 1.16%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-10-10 19:09:03

End at: 2017-10-10 19:09:33

Below is generated by plot.py at 2017-10-10 21:47:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.00 Mbit/s

95th percentile per-packet one-way delay: 114.155 ms

Loss rate: 0.18%

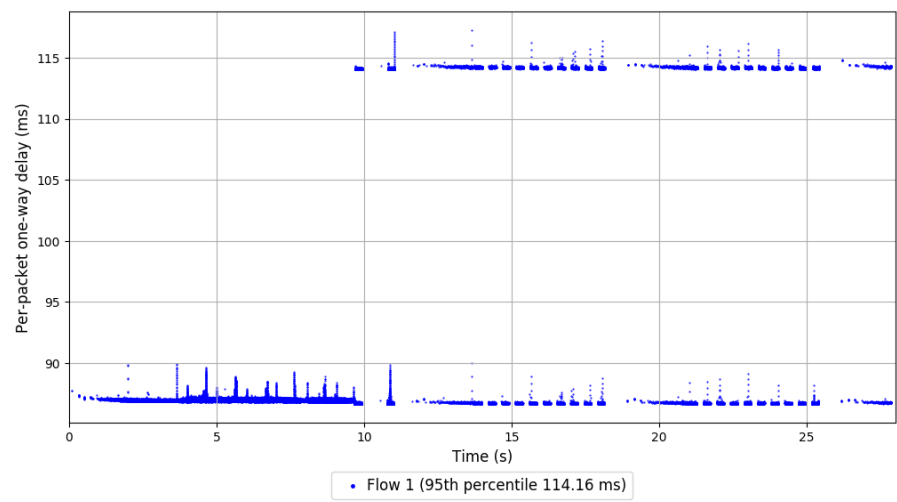
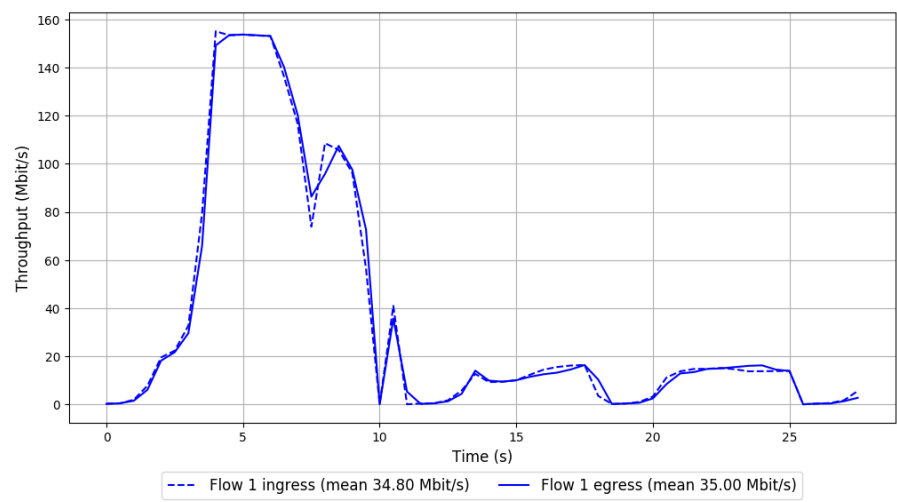
-- Flow 1:

Average throughput: 35.00 Mbit/s

95th percentile per-packet one-way delay: 114.155 ms

Loss rate: 0.18%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-10-10 19:20:13

End at: 2017-10-10 19:20:43

Below is generated by plot.py at 2017-10-10 21:47:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.42 Mbit/s

95th percentile per-packet one-way delay: 86.815 ms

Loss rate: 0.99%

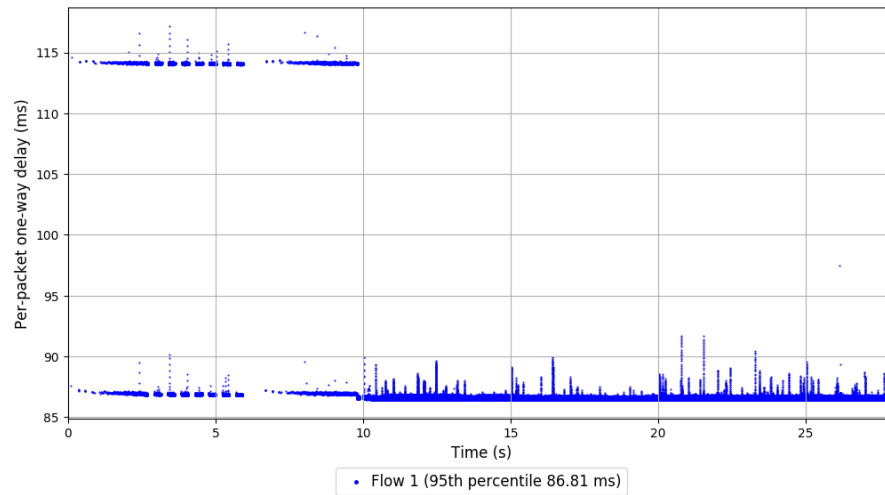
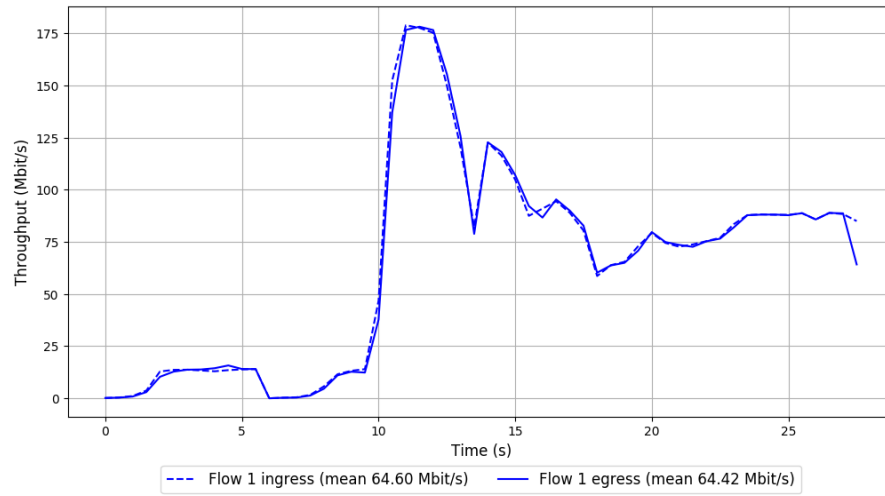
-- Flow 1:

Average throughput: 64.42 Mbit/s

95th percentile per-packet one-way delay: 86.815 ms

Loss rate: 0.99%

Run 10: Report of Copa — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-10-10 17:33:47

End at: 2017-10-10 17:34:17

Below is generated by plot.py at 2017-10-10 21:48:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 138.63 Mbit/s

95th percentile per-packet one-way delay: 114.161 ms

Loss rate: 0.03%

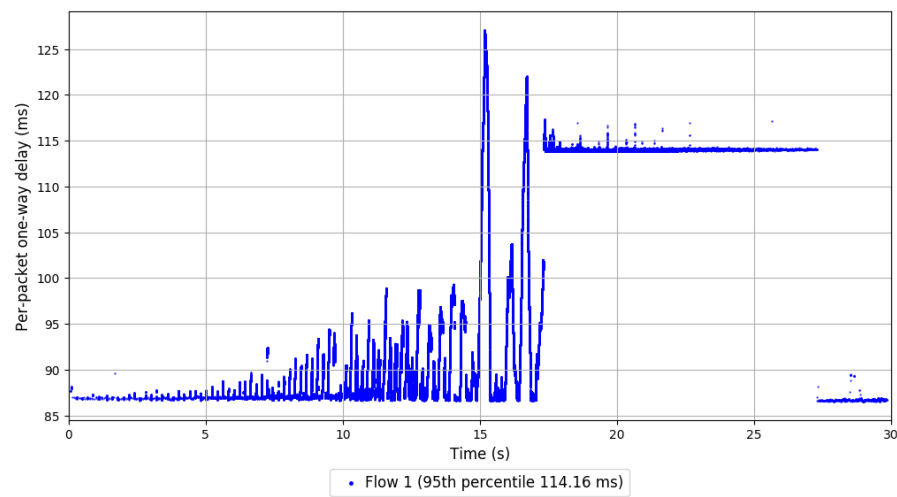
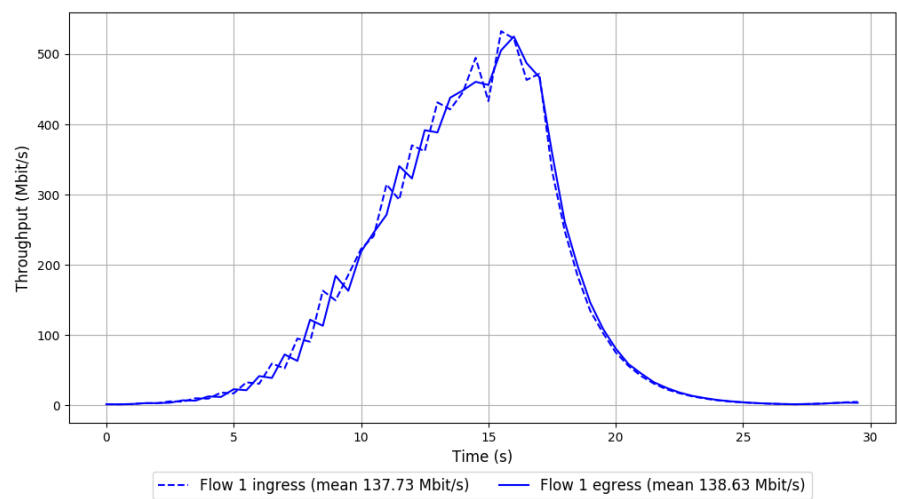
-- Flow 1:

Average throughput: 138.63 Mbit/s

95th percentile per-packet one-way delay: 114.161 ms

Loss rate: 0.03%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-10-10 17:44:33

End at: 2017-10-10 17:45:03

Below is generated by plot.py at 2017-10-10 21:51:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 286.13 Mbit/s

95th percentile per-packet one-way delay: 128.561 ms

Loss rate: 1.18%

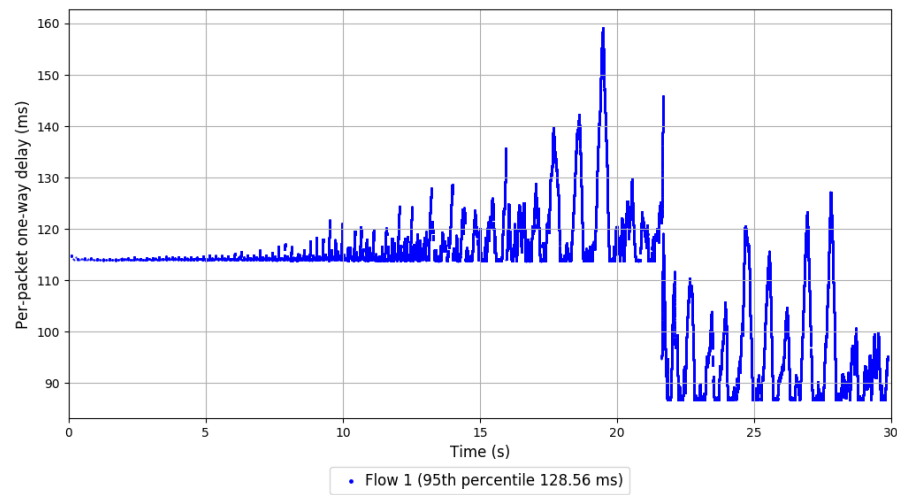
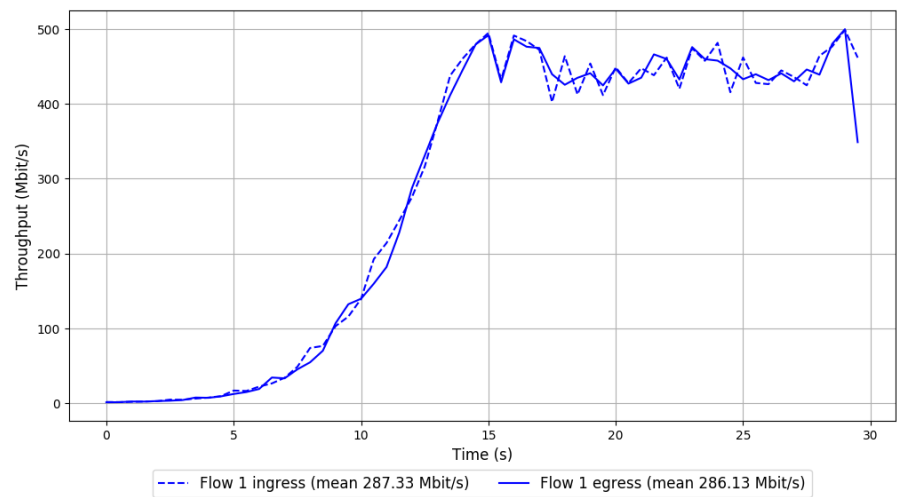
-- Flow 1:

Average throughput: 286.13 Mbit/s

95th percentile per-packet one-way delay: 128.561 ms

Loss rate: 1.18%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-10-10 17:55:45

End at: 2017-10-10 17:56:15

Below is generated by plot.py at 2017-10-10 21:51:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 296.16 Mbit/s

95th percentile per-packet one-way delay: 113.244 ms

Loss rate: 0.96%

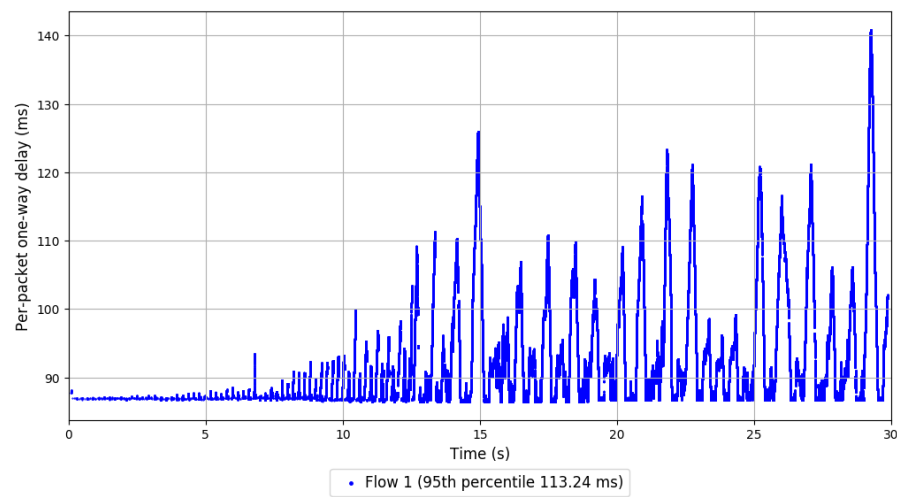
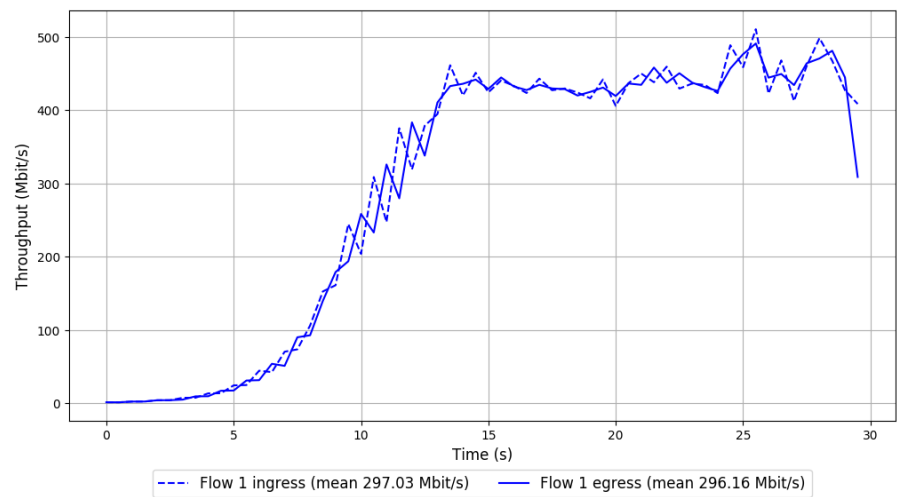
-- Flow 1:

Average throughput: 296.16 Mbit/s

95th percentile per-packet one-way delay: 113.244 ms

Loss rate: 0.96%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-10-10 18:06:41

End at: 2017-10-10 18:07:11

Below is generated by plot.py at 2017-10-10 21:51:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 298.18 Mbit/s

95th percentile per-packet one-way delay: 119.429 ms

Loss rate: 1.05%

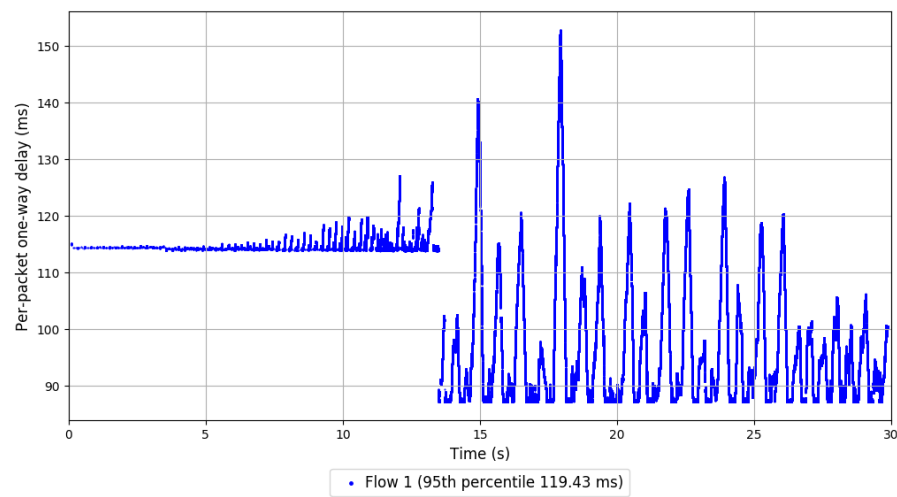
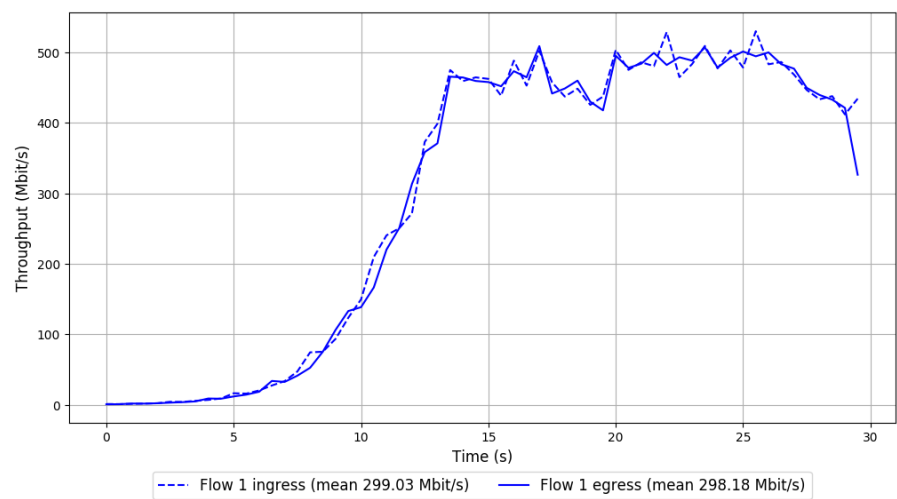
-- Flow 1:

Average throughput: 298.18 Mbit/s

95th percentile per-packet one-way delay: 119.429 ms

Loss rate: 1.05%

Run 4: Report of CalibratedKoho — Data Link

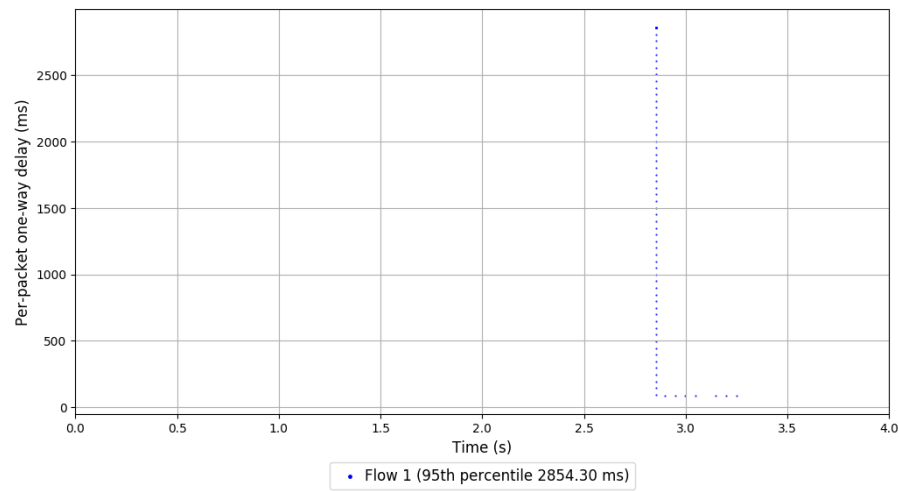
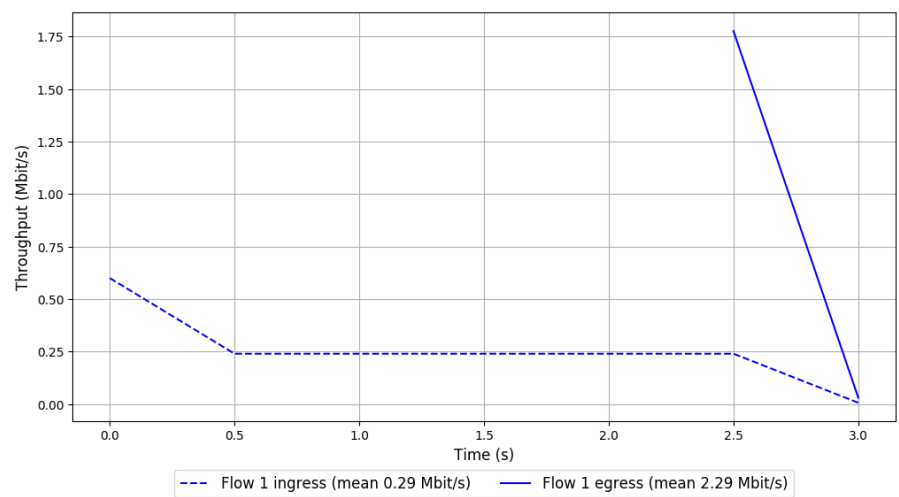


Run 5: Statistics of CalibratedKoho

Start at: 2017-10-10 18:17:33

End at: 2017-10-10 18:18:03

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-10-10 18:28:01

End at: 2017-10-10 18:28:31

Below is generated by plot.py at 2017-10-10 21:51:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.01 Mbit/s

95th percentile per-packet one-way delay: 118.911 ms

Loss rate: 0.04%

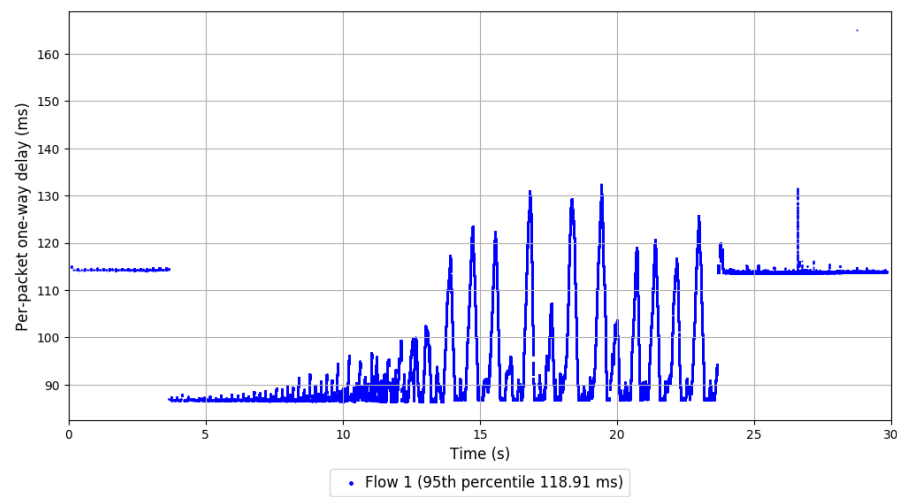
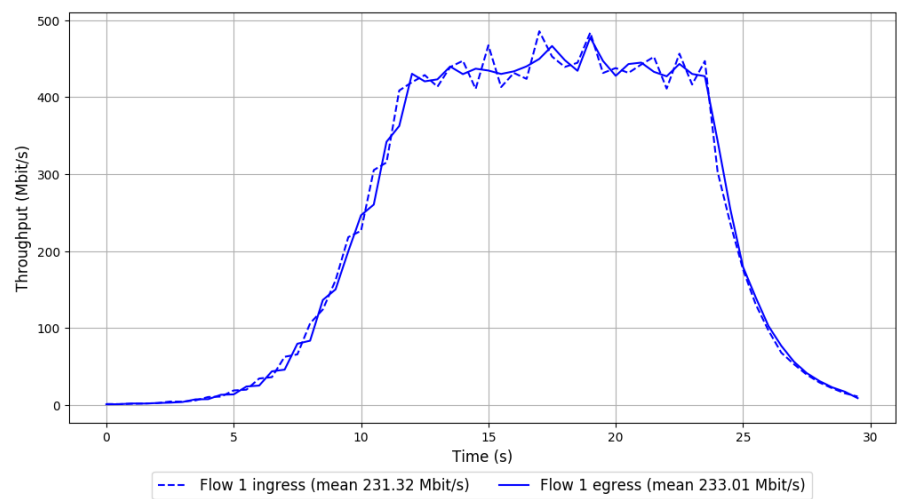
-- Flow 1:

Average throughput: 233.01 Mbit/s

95th percentile per-packet one-way delay: 118.911 ms

Loss rate: 0.04%

Run 6: Report of CalibratedKoho — Data Link

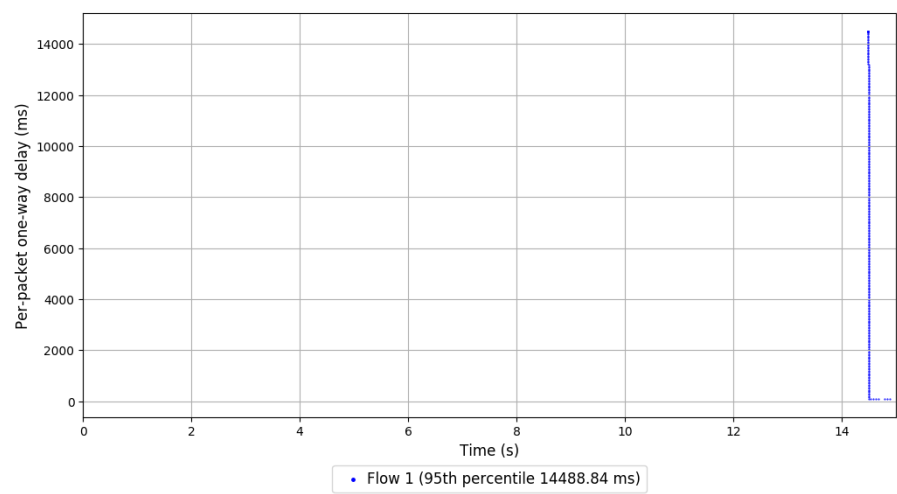
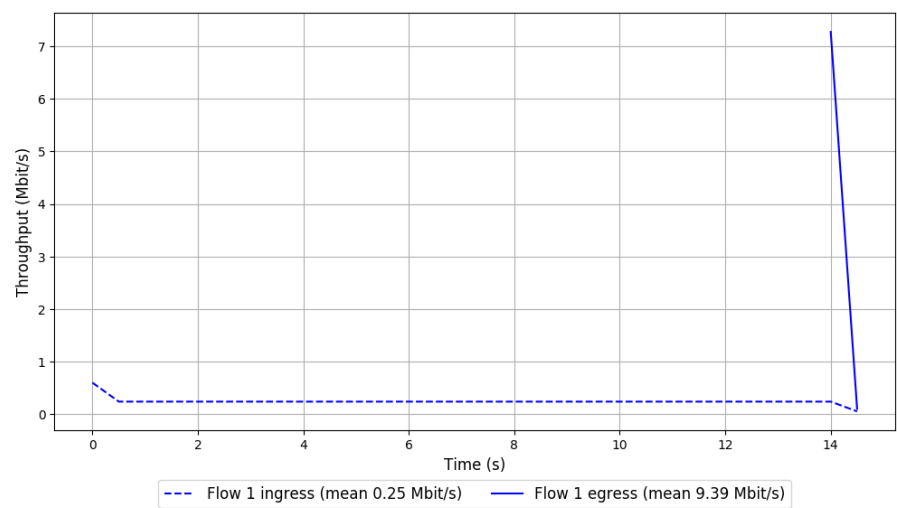


Run 7: Statistics of CalibratedKoho

Start at: 2017-10-10 18:38:47

End at: 2017-10-10 18:39:17

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-10-10 18:49:25

End at: 2017-10-10 18:49:55

Below is generated by plot.py at 2017-10-10 21:51:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 36.61 Mbit/s

95th percentile per-packet one-way delay: 114.992 ms

Loss rate: 3.39%

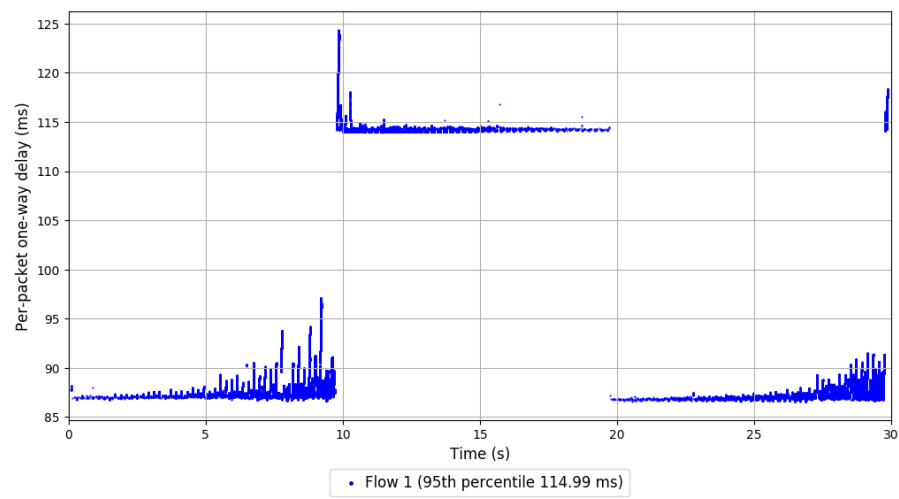
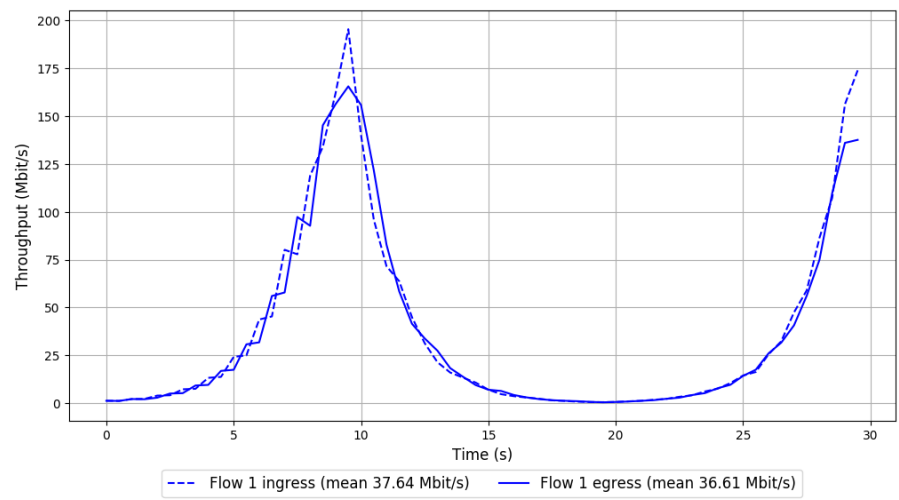
-- Flow 1:

Average throughput: 36.61 Mbit/s

95th percentile per-packet one-way delay: 114.992 ms

Loss rate: 3.39%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-10-10 19:00:24

End at: 2017-10-10 19:00:54

Below is generated by plot.py at 2017-10-10 21:53:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 321.83 Mbit/s

95th percentile per-packet one-way delay: 116.370 ms

Loss rate: 1.03%

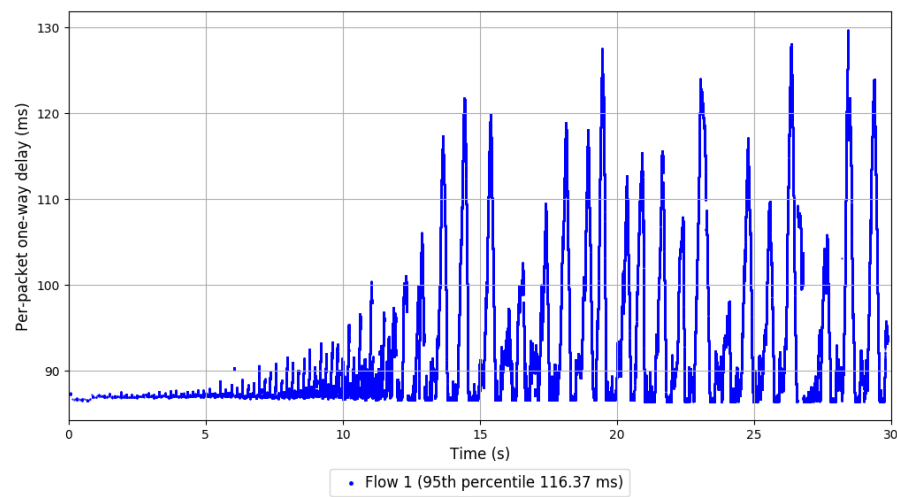
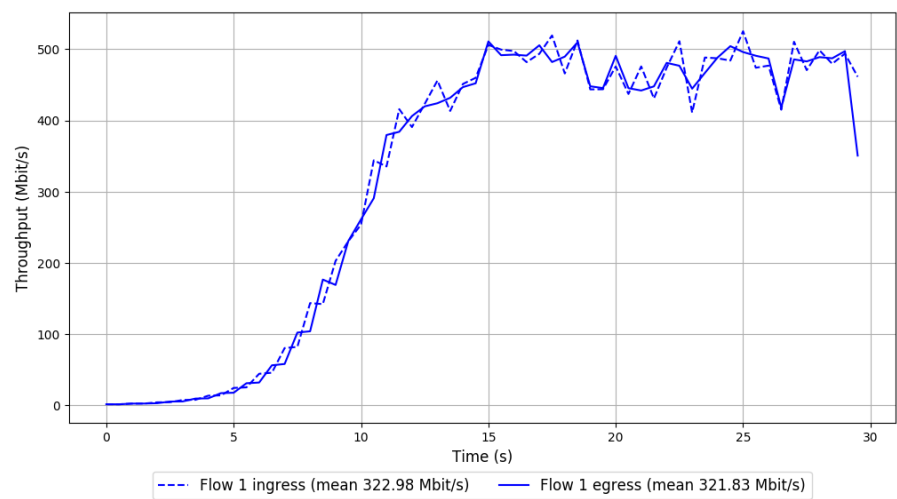
-- Flow 1:

Average throughput: 321.83 Mbit/s

95th percentile per-packet one-way delay: 116.370 ms

Loss rate: 1.03%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-10-10 19:11:17

End at: 2017-10-10 19:11:47

Below is generated by plot.py at 2017-10-10 21:53:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 288.26 Mbit/s

95th percentile per-packet one-way delay: 117.818 ms

Loss rate: 0.33%

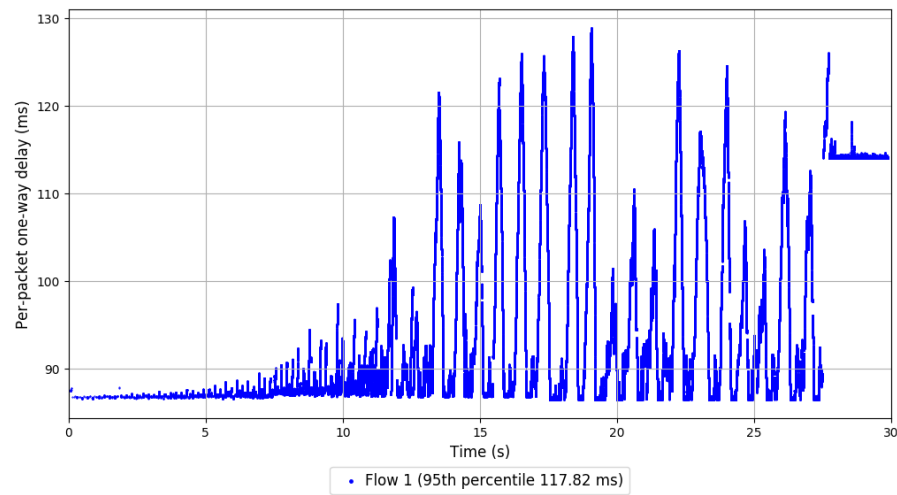
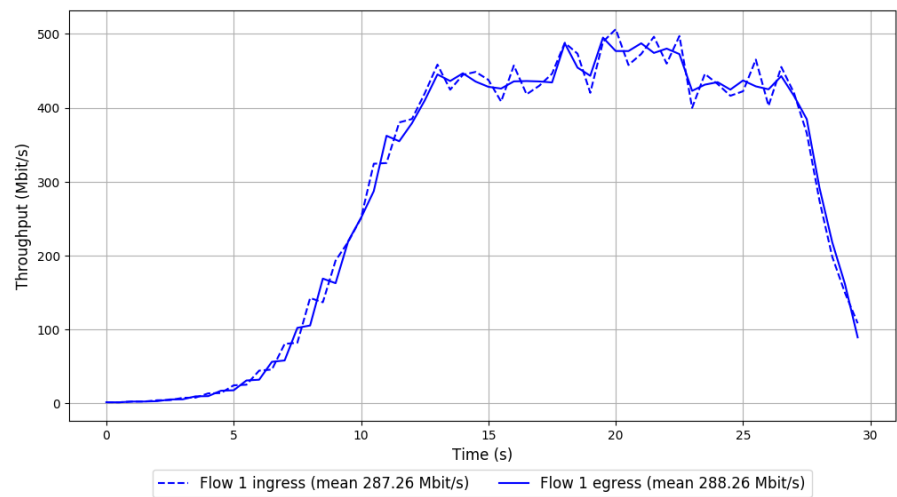
-- Flow 1:

Average throughput: 288.26 Mbit/s

95th percentile per-packet one-way delay: 117.818 ms

Loss rate: 0.33%

Run 10: Report of CalibratedKoho — Data Link

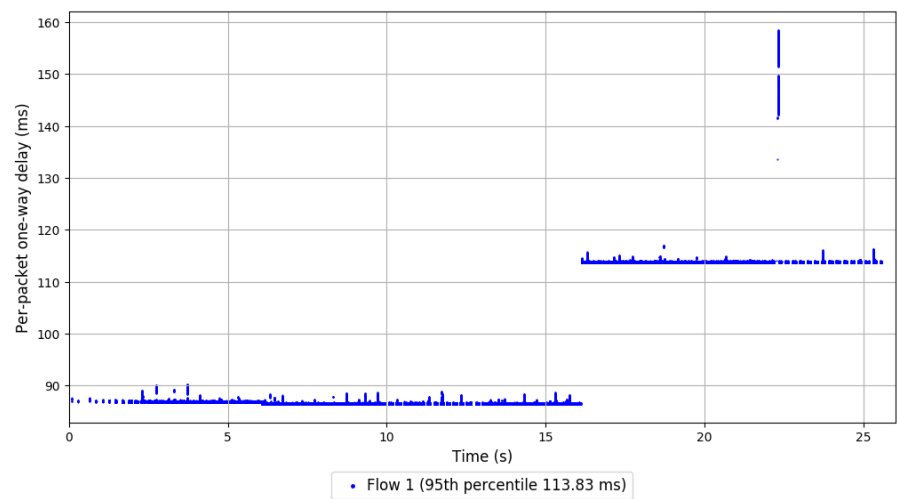
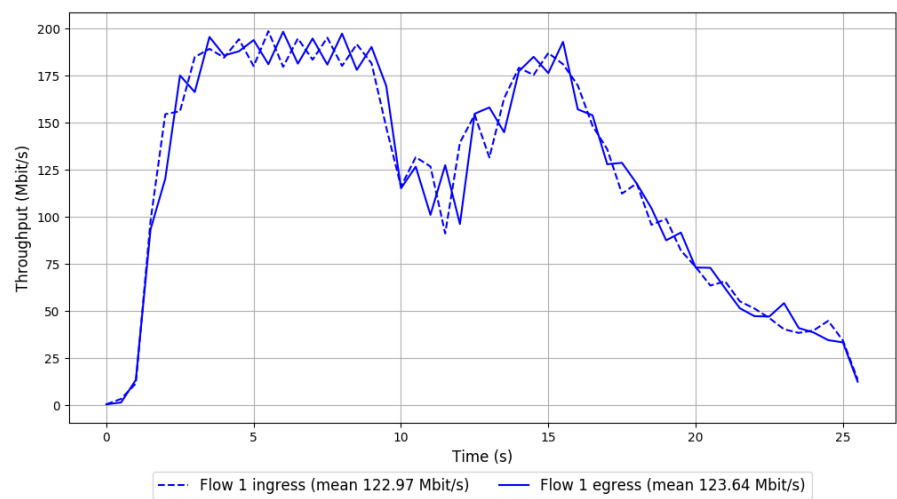


```
Run 1: Statistics of Indigo

Start at: 2017-10-10 17:43:04
End at: 2017-10-10 17:43:34

# Below is generated by plot.py at 2017-10-10 21:53:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 123.64 Mbit/s
95th percentile per-packet one-way delay: 113.832 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 123.64 Mbit/s
95th percentile per-packet one-way delay: 113.832 ms
Loss rate: 0.25%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-10-10 17:54:12

End at: 2017-10-10 17:54:42

Below is generated by plot.py at 2017-10-10 21:53:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 177.30 Mbit/s

95th percentile per-packet one-way delay: 113.859 ms

Loss rate: 0.72%

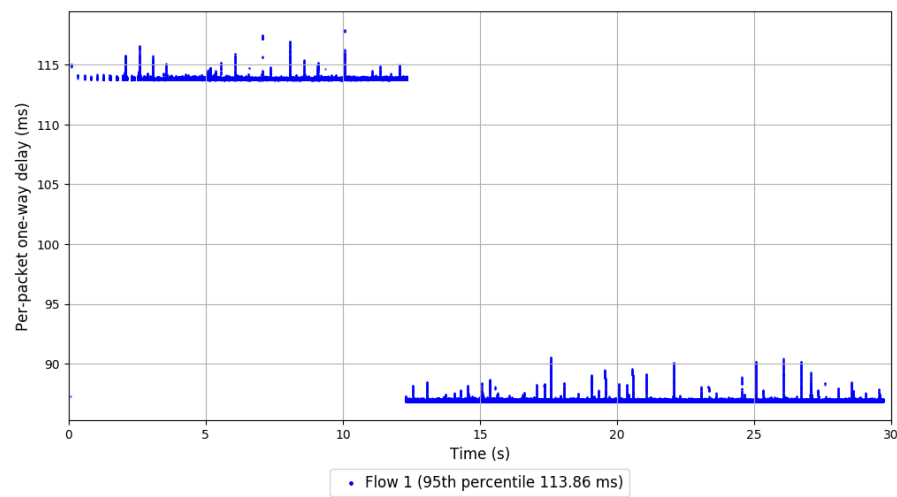
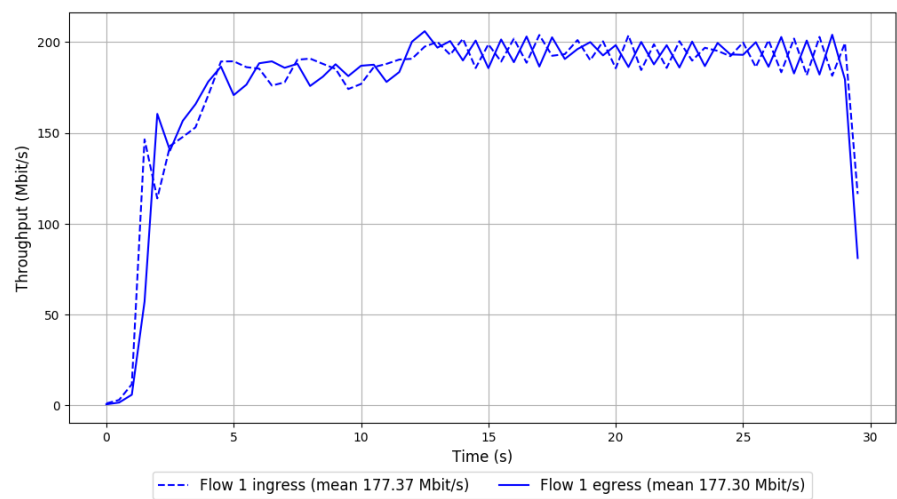
-- Flow 1:

Average throughput: 177.30 Mbit/s

95th percentile per-packet one-way delay: 113.859 ms

Loss rate: 0.72%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-10-10 18:05:11

End at: 2017-10-10 18:05:41

Below is generated by plot.py at 2017-10-10 21:53:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 116.81 Mbit/s

95th percentile per-packet one-way delay: 114.208 ms

Loss rate: 0.57%

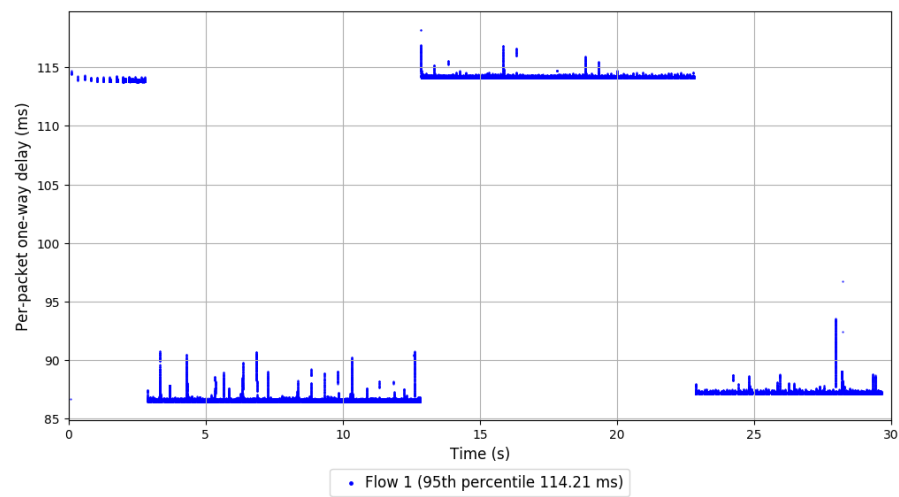
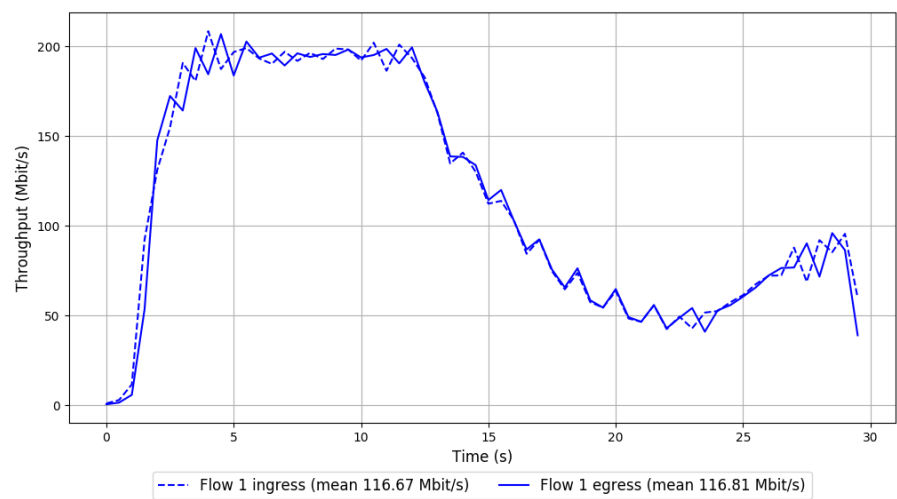
-- Flow 1:

Average throughput: 116.81 Mbit/s

95th percentile per-packet one-way delay: 114.208 ms

Loss rate: 0.57%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-10-10 18:16:03

End at: 2017-10-10 18:16:33

Below is generated by plot.py at 2017-10-10 21:53:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 114.21 Mbit/s

95th percentile per-packet one-way delay: 114.098 ms

Loss rate: 0.62%

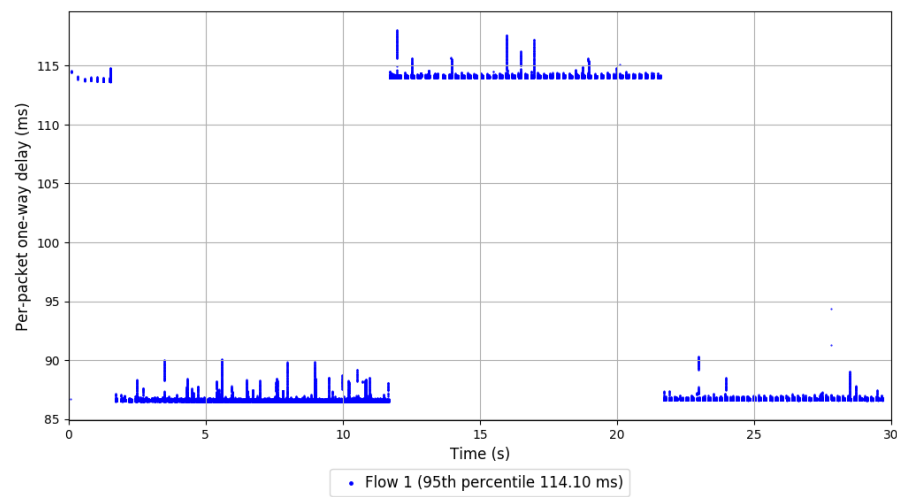
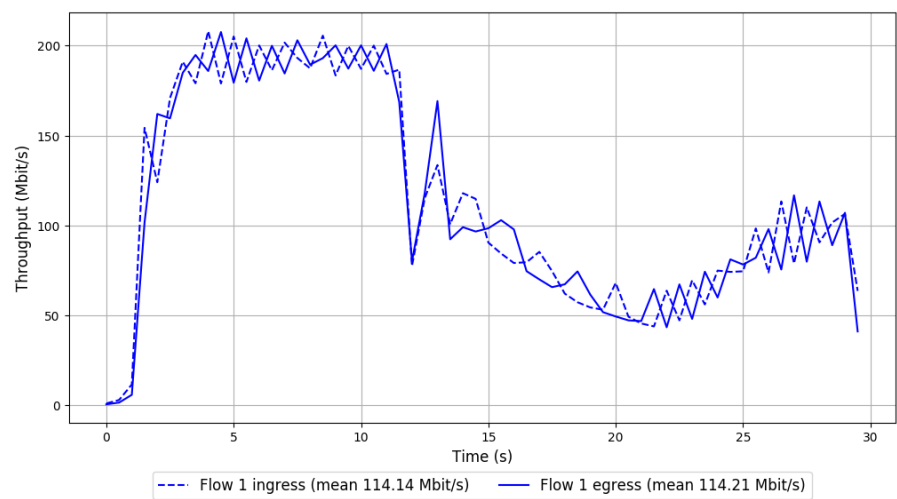
-- Flow 1:

Average throughput: 114.21 Mbit/s

95th percentile per-packet one-way delay: 114.098 ms

Loss rate: 0.62%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-10-10 18:26:31

End at: 2017-10-10 18:27:01

Below is generated by plot.py at 2017-10-10 21:53:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 116.70 Mbit/s

95th percentile per-packet one-way delay: 113.736 ms

Loss rate: 0.54%

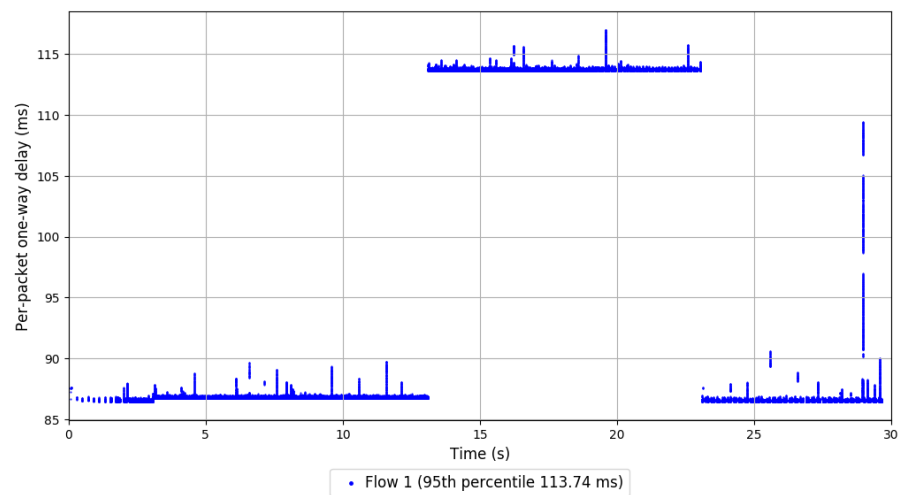
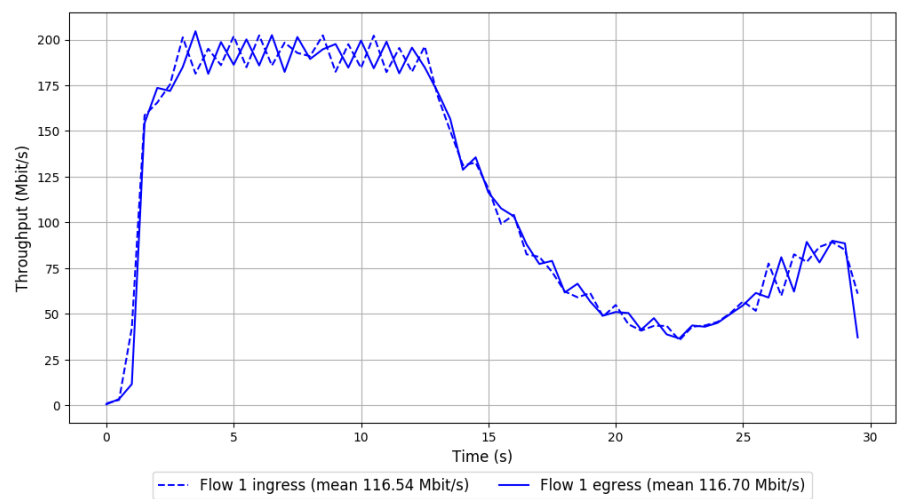
-- Flow 1:

Average throughput: 116.70 Mbit/s

95th percentile per-packet one-way delay: 113.736 ms

Loss rate: 0.54%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-10-10 18:37:15

End at: 2017-10-10 18:37:45

Below is generated by plot.py at 2017-10-10 21:53:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 140.24 Mbit/s

95th percentile per-packet one-way delay: 113.737 ms

Loss rate: 0.19%

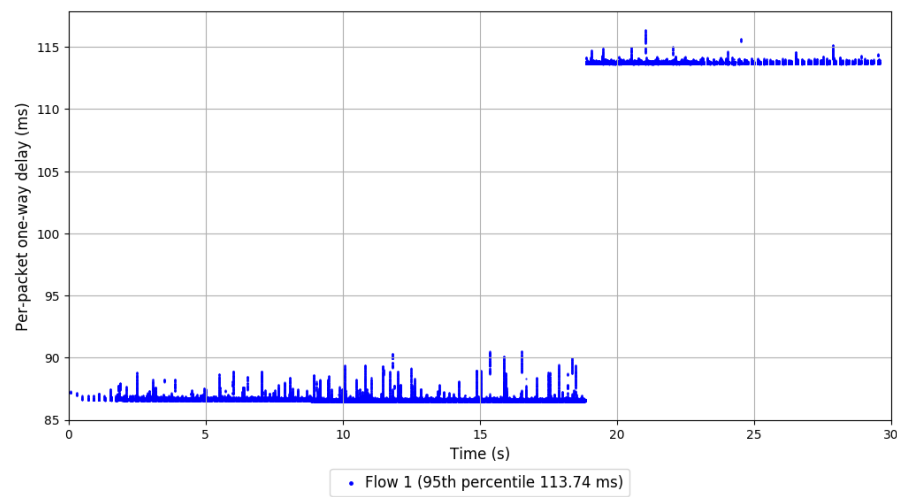
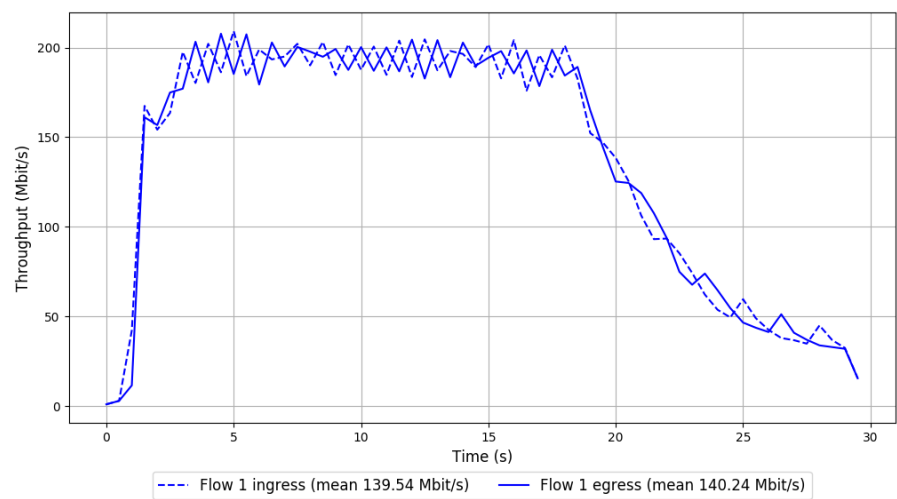
-- Flow 1:

Average throughput: 140.24 Mbit/s

95th percentile per-packet one-way delay: 113.737 ms

Loss rate: 0.19%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-10-10 18:47:51

End at: 2017-10-10 18:48:21

Below is generated by plot.py at 2017-10-10 21:53:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 180.63 Mbit/s

95th percentile per-packet one-way delay: 86.814 ms

Loss rate: 0.71%

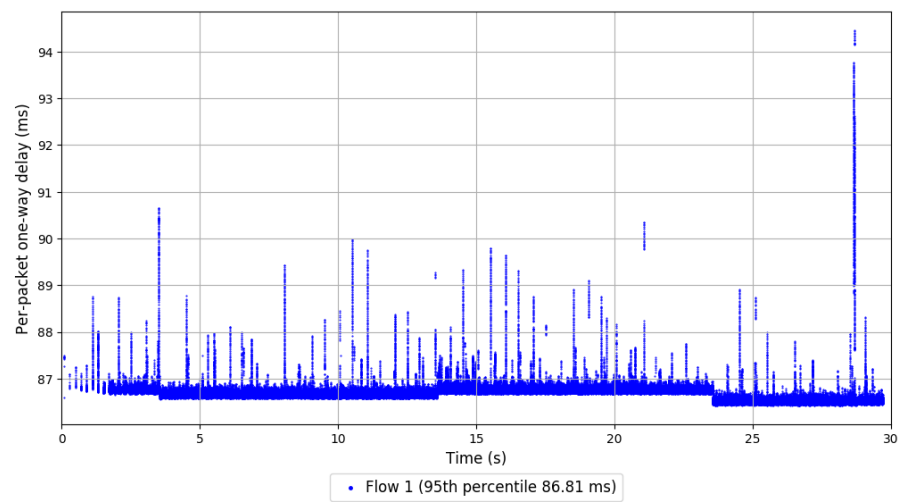
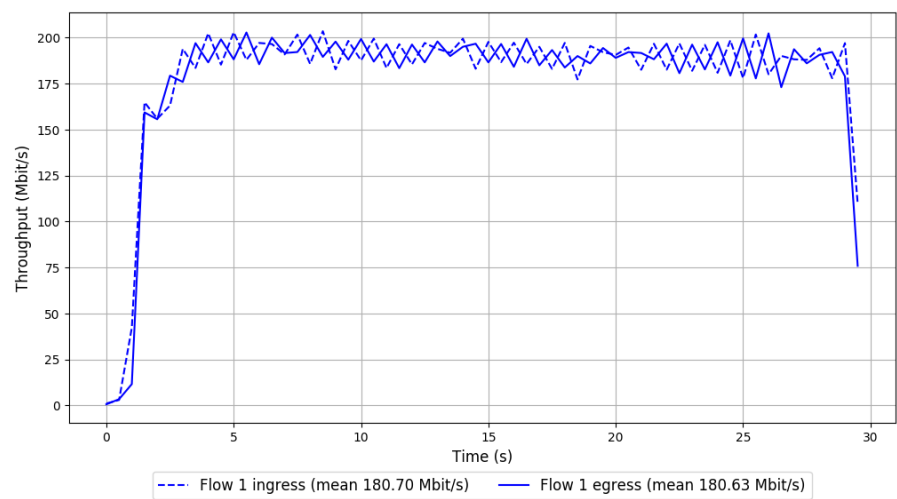
-- Flow 1:

Average throughput: 180.63 Mbit/s

95th percentile per-packet one-way delay: 86.814 ms

Loss rate: 0.71%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-10-10 18:58:50

End at: 2017-10-10 18:59:20

Below is generated by plot.py at 2017-10-10 21:53:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 178.99 Mbit/s

95th percentile per-packet one-way delay: 86.832 ms

Loss rate: 0.71%

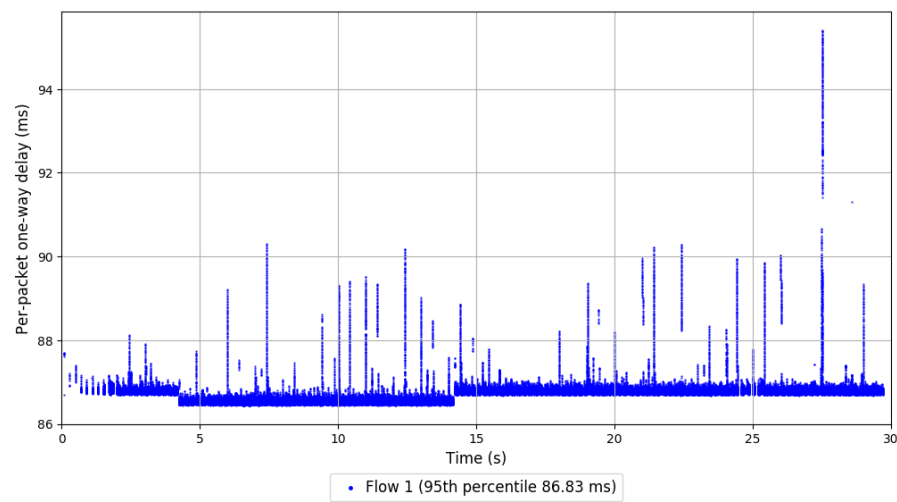
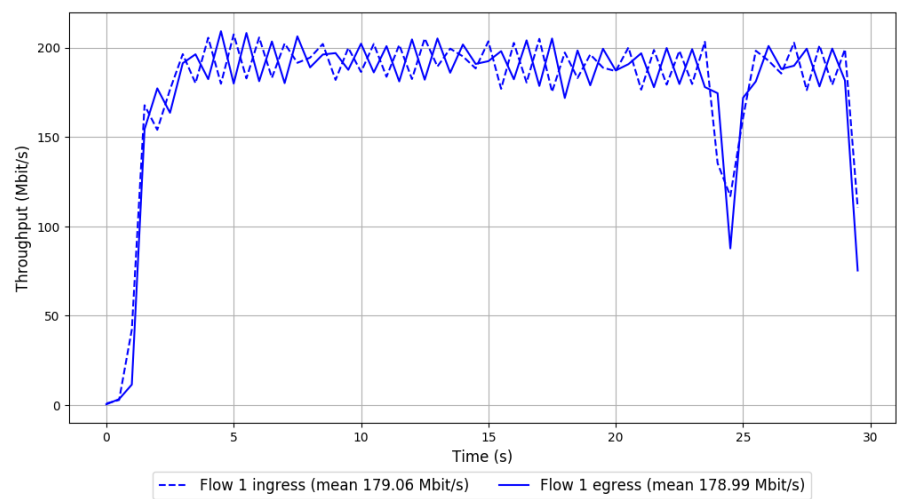
-- Flow 1:

Average throughput: 178.99 Mbit/s

95th percentile per-packet one-way delay: 86.832 ms

Loss rate: 0.71%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-10-10 19:09:47

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

Below is generated by plot.py at 2017-10-10 21:53:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 133.67 Mbit/s

95th percentile per-packet one-way delay: 114.154 ms

Loss rate: 0.18%

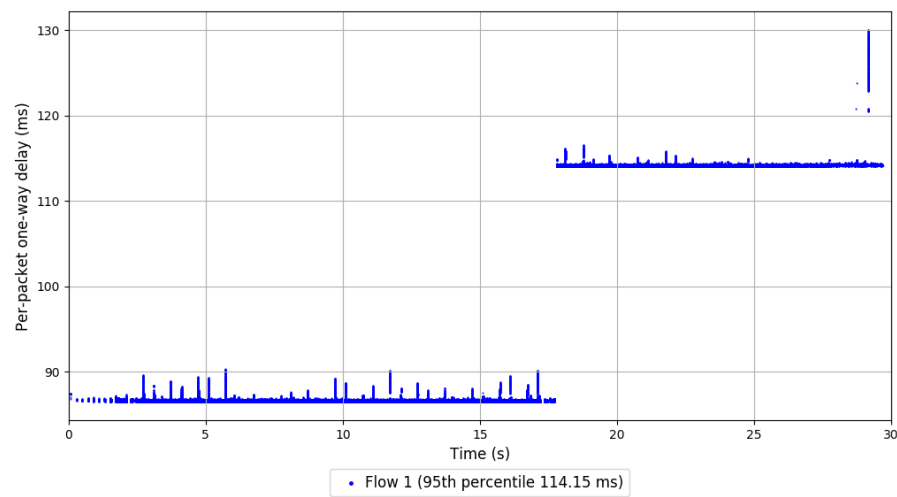
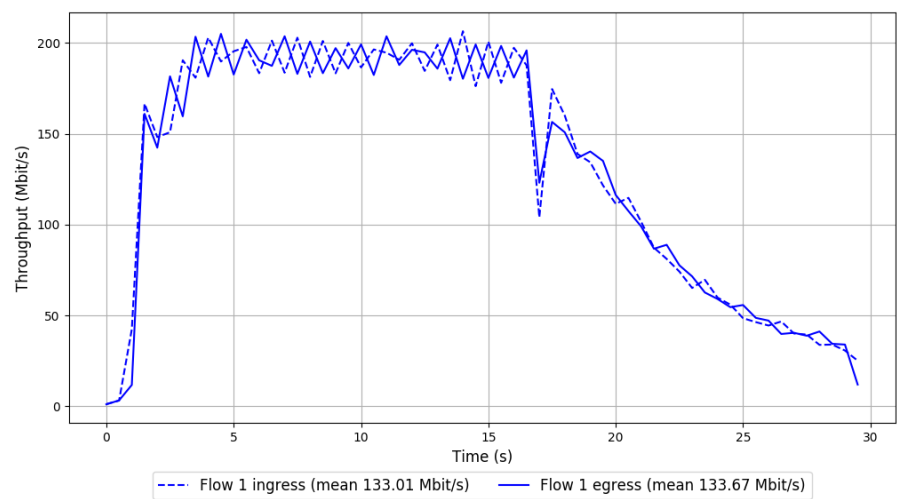
-- Flow 1:

Average throughput: 133.67 Mbit/s

95th percentile per-packet one-way delay: 114.154 ms

Loss rate: 0.18%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-10-10 19:20:59

End at: 2017-10-10 19:21:29

Below is generated by plot.py at 2017-10-10 21:53:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.18 Mbit/s

95th percentile per-packet one-way delay: 114.140 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 89.18 Mbit/s

95th percentile per-packet one-way delay: 114.140 ms

Loss rate: 0.82%

Run 10: Report of Indigo — Data Link

