

Pantheon Report

Generated at 2018-01-08 23:55:53 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

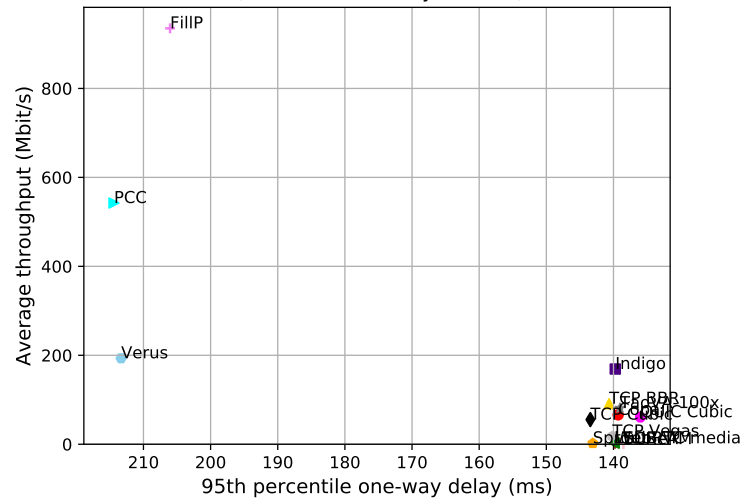
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

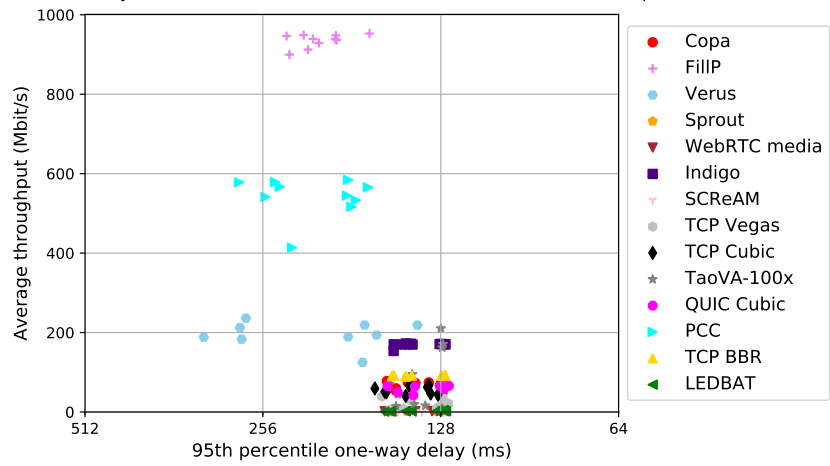
Git summary:

```
branch: master @ 56d1792c316a5efca3f2d21342905405fedffb48
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	91.21	140.65	0.93
TCP Cubic	10	55.38	143.45	1.21
LEDBAT	10	2.24	139.90	1.07
PCC	10	542.35	214.39	2.36
QUIC Cubic	9	60.84	135.99	1.02
SCReAM	10	0.21	138.51	0.77
WebRTC media	10	2.15	139.77	0.90
Sprout	8	2.08	143.08	1.41
TaoVA-100x	10	81.30	139.03	1.23
TCP Vegas	10	17.57	140.17	1.29
Verus	10	193.29	213.33	2.73
Copa	10	66.13	139.31	0.62
FillP	10	935.14	206.04	2.14
Indigo	10	169.11	139.73	0.85

Run 1: Statistics of TCP BBR

Start at: 2018-01-08 18:52:20

End at: 2018-01-08 18:52:50

Below is generated by plot.py at 2018-01-08 23:05:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.08 Mbit/s

95th percentile per-packet one-way delay: 154.848 ms

Loss rate: 0.90%

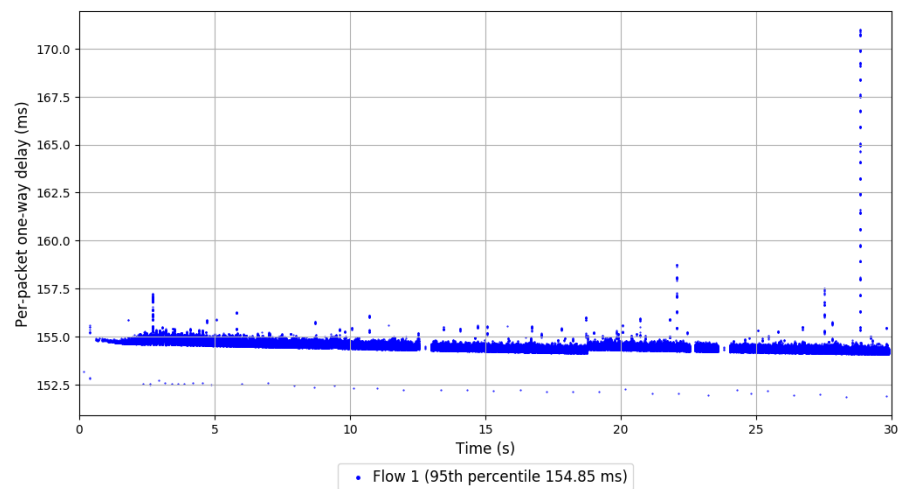
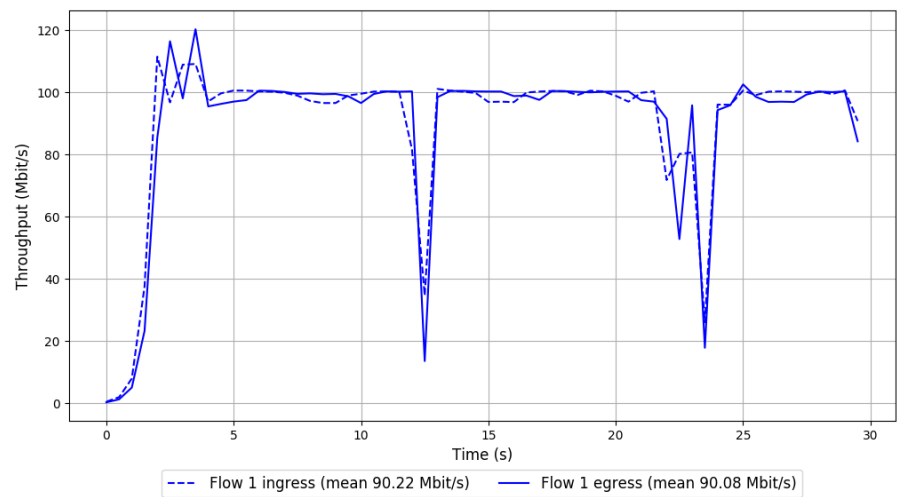
-- Flow 1:

Average throughput: 90.08 Mbit/s

95th percentile per-packet one-way delay: 154.848 ms

Loss rate: 0.90%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-08 19:04:42

End at: 2018-01-08 19:05:12

Below is generated by plot.py at 2018-01-08 23:05:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.62 Mbit/s

95th percentile per-packet one-way delay: 153.488 ms

Loss rate: 1.01%

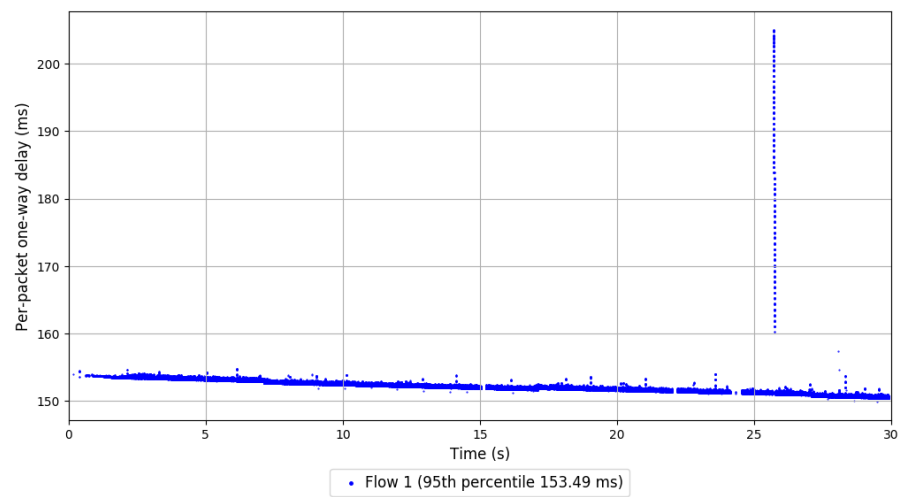
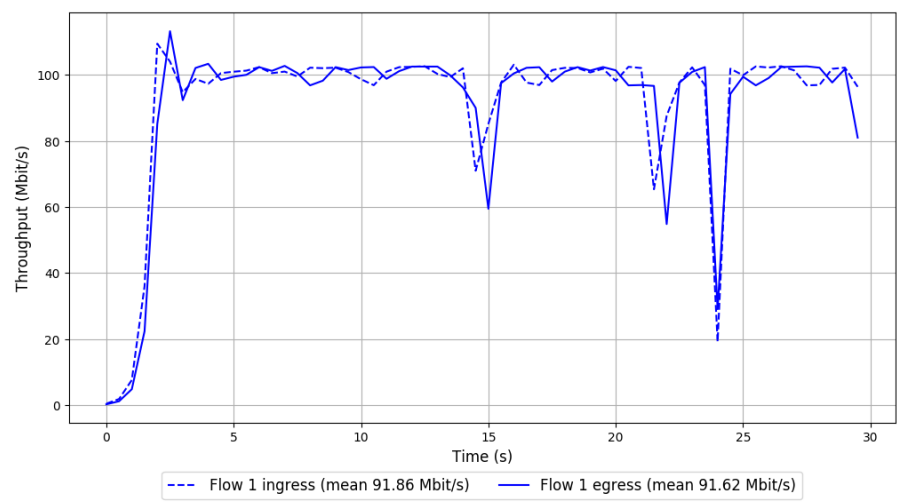
-- Flow 1:

Average throughput: 91.62 Mbit/s

95th percentile per-packet one-way delay: 153.488 ms

Loss rate: 1.01%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-08 19:17:09

End at: 2018-01-08 19:17:39

Below is generated by plot.py at 2018-01-08 23:05:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 143.226 ms

Loss rate: 0.88%

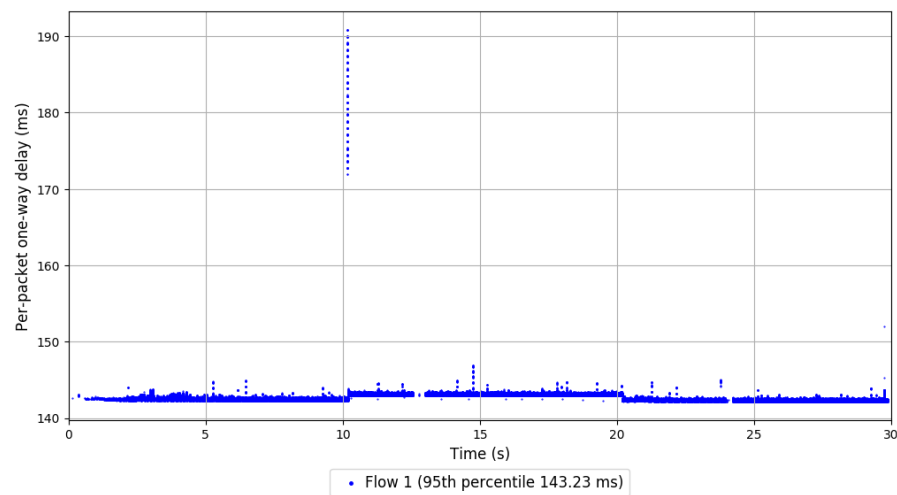
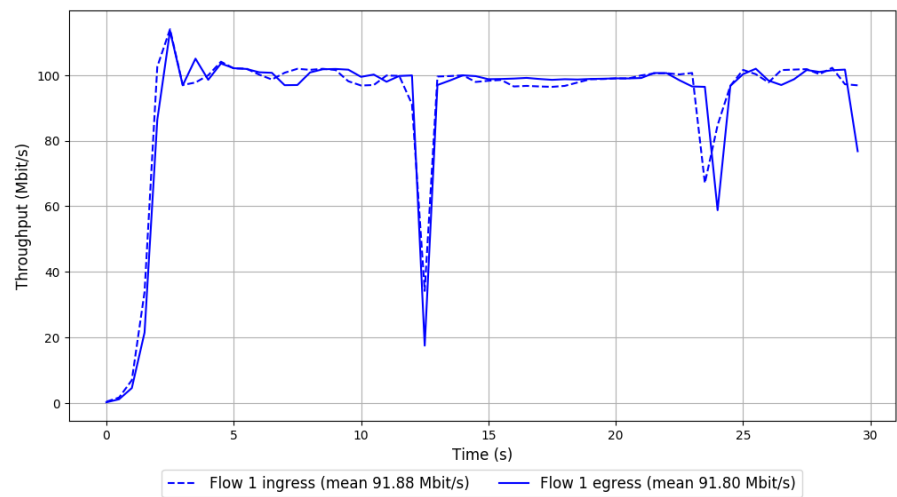
-- Flow 1:

Average throughput: 91.80 Mbit/s

95th percentile per-packet one-way delay: 143.226 ms

Loss rate: 0.88%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-08 19:29:32

End at: 2018-01-08 19:30:02

Below is generated by plot.py at 2018-01-08 23:05:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.84 Mbit/s

95th percentile per-packet one-way delay: 146.525 ms

Loss rate: 1.04%

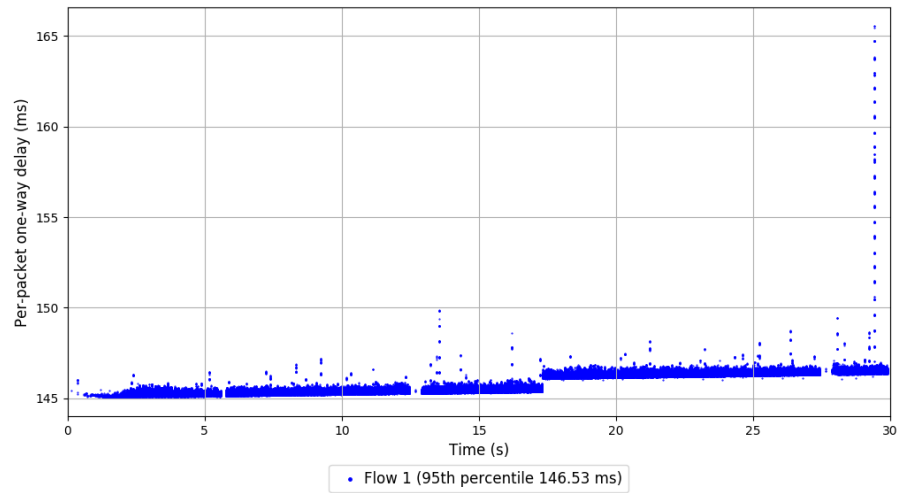
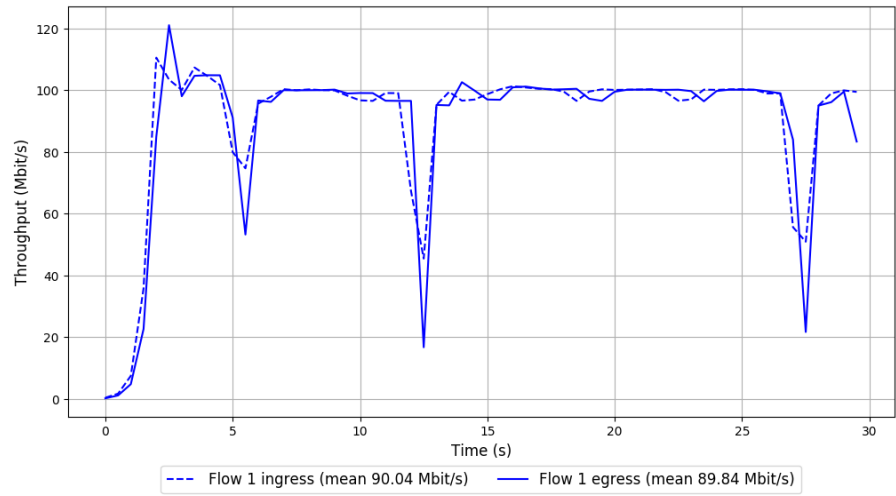
-- Flow 1:

Average throughput: 89.84 Mbit/s

95th percentile per-packet one-way delay: 146.525 ms

Loss rate: 1.04%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-08 19:41:59

End at: 2018-01-08 19:42:29

Below is generated by plot.py at 2018-01-08 23:05:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.72 Mbit/s

95th percentile per-packet one-way delay: 154.459 ms

Loss rate: 0.98%

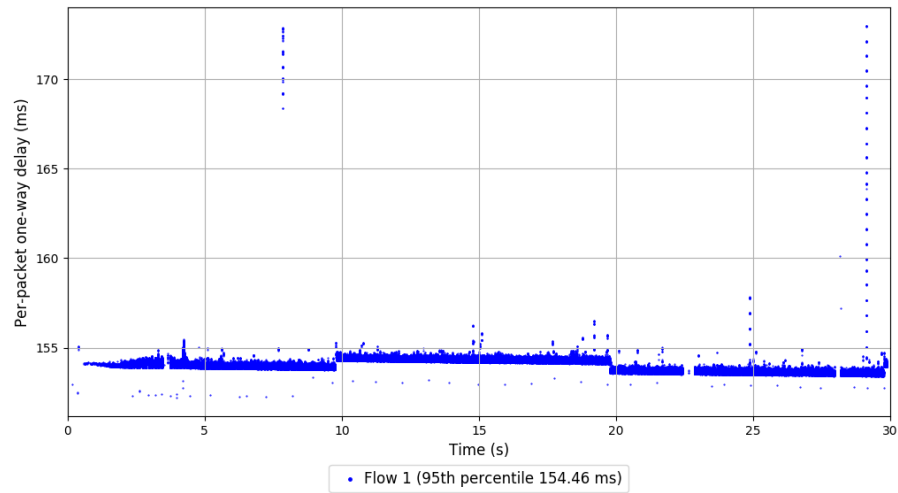
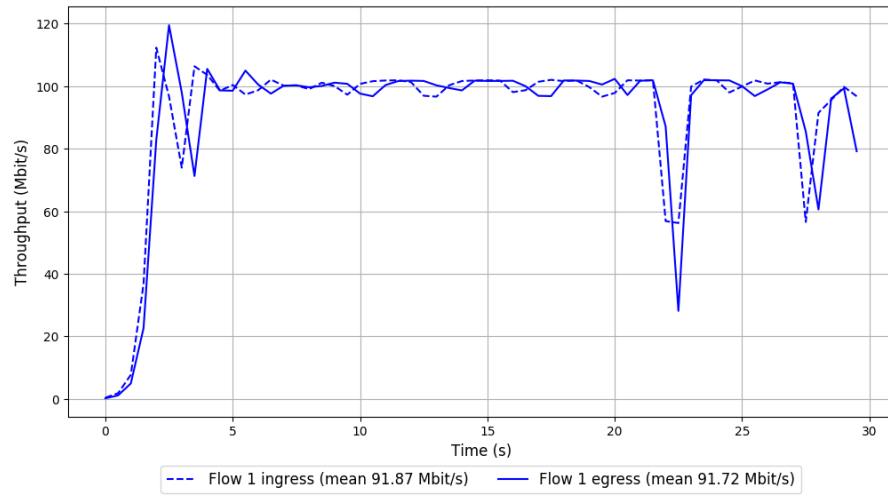
-- Flow 1:

Average throughput: 91.72 Mbit/s

95th percentile per-packet one-way delay: 154.459 ms

Loss rate: 0.98%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-08 19:54:11

End at: 2018-01-08 19:54:41

Below is generated by plot.py at 2018-01-08 23:05:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.09 Mbit/s

95th percentile per-packet one-way delay: 147.039 ms

Loss rate: 1.30%

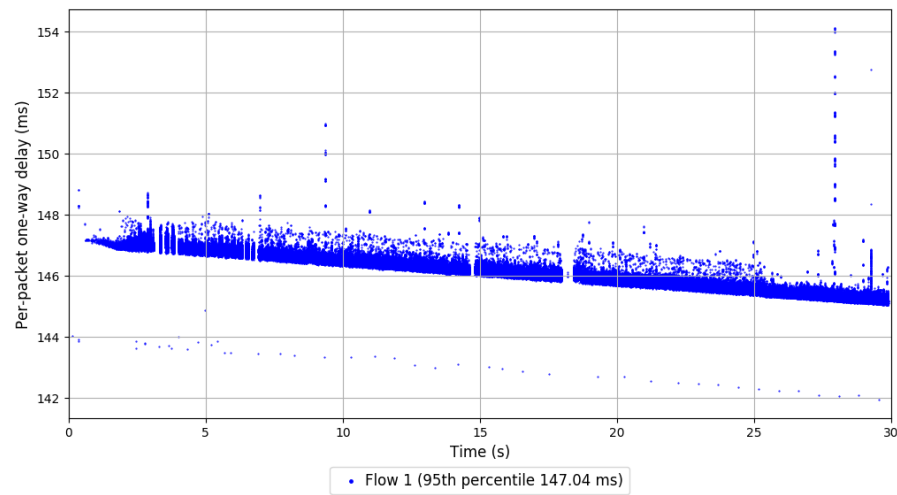
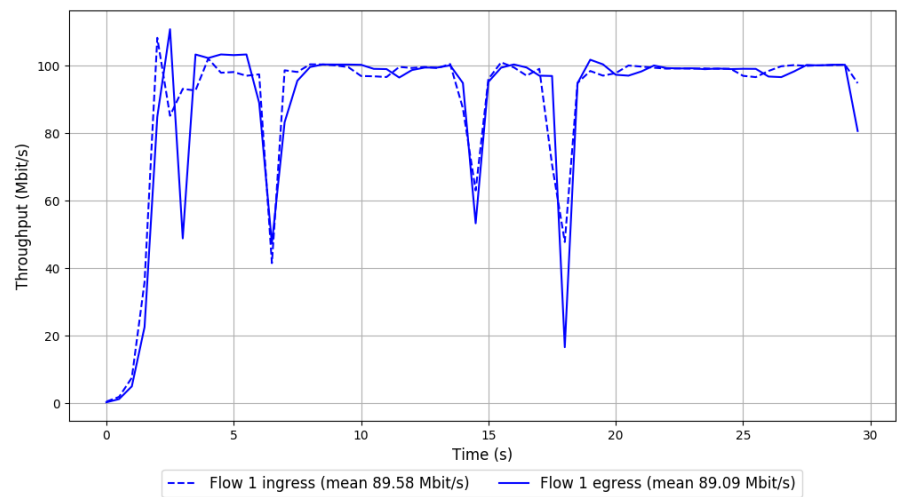
-- Flow 1:

Average throughput: 89.09 Mbit/s

95th percentile per-packet one-way delay: 147.039 ms

Loss rate: 1.30%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-08 20:06:35

End at: 2018-01-08 20:07:05

Below is generated by plot.py at 2018-01-08 23:05:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.09 Mbit/s

95th percentile per-packet one-way delay: 127.646 ms

Loss rate: 0.80%

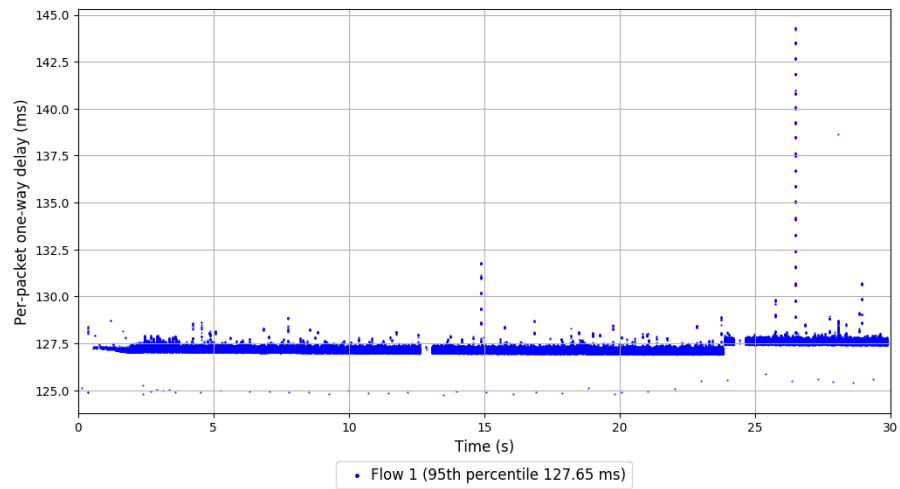
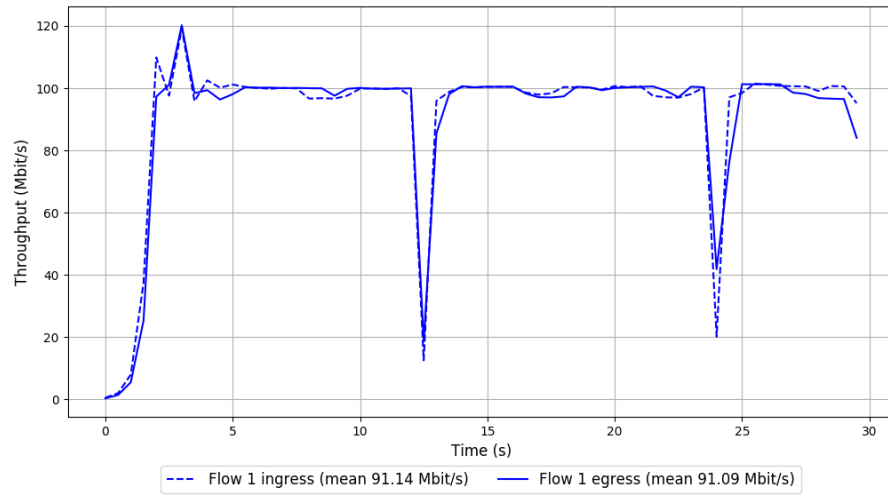
-- Flow 1:

Average throughput: 91.09 Mbit/s

95th percentile per-packet one-way delay: 127.646 ms

Loss rate: 0.80%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-08 20:18:52

End at: 2018-01-08 20:19:22

Below is generated by plot.py at 2018-01-08 23:05:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.76 Mbit/s

95th percentile per-packet one-way delay: 125.752 ms

Loss rate: 0.80%

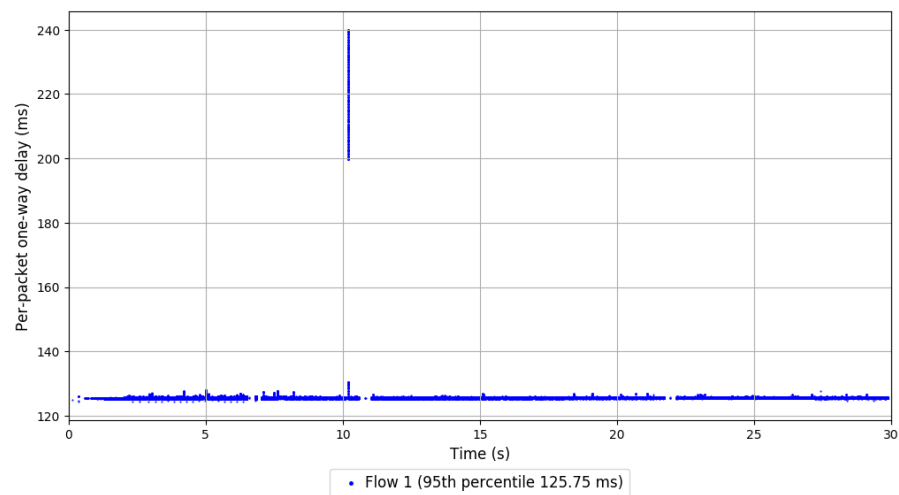
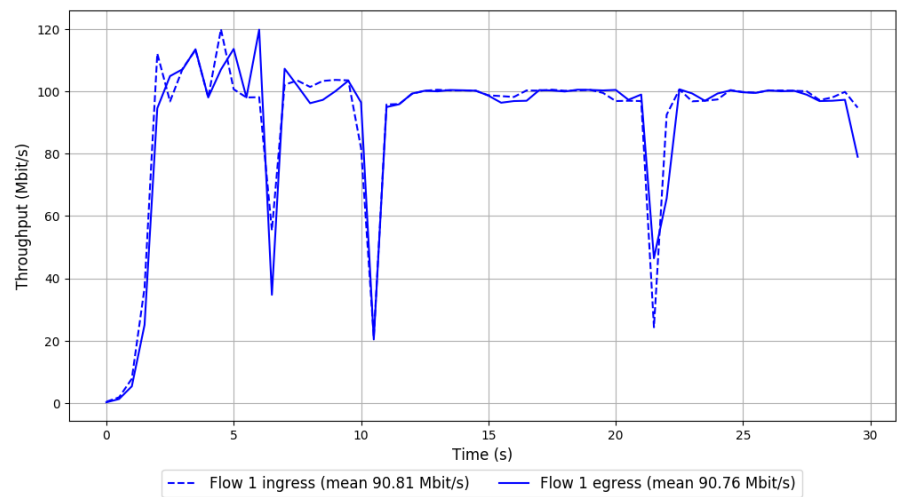
-- Flow 1:

Average throughput: 90.76 Mbit/s

95th percentile per-packet one-way delay: 125.752 ms

Loss rate: 0.80%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-08 20:31:31

End at: 2018-01-08 20:32:01

Below is generated by plot.py at 2018-01-08 23:07:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.51 Mbit/s

95th percentile per-packet one-way delay: 125.901 ms

Loss rate: 0.81%

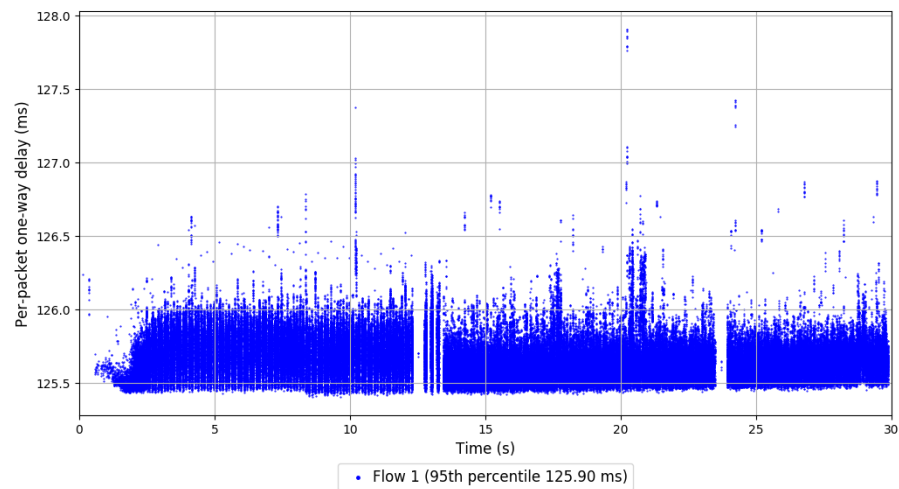
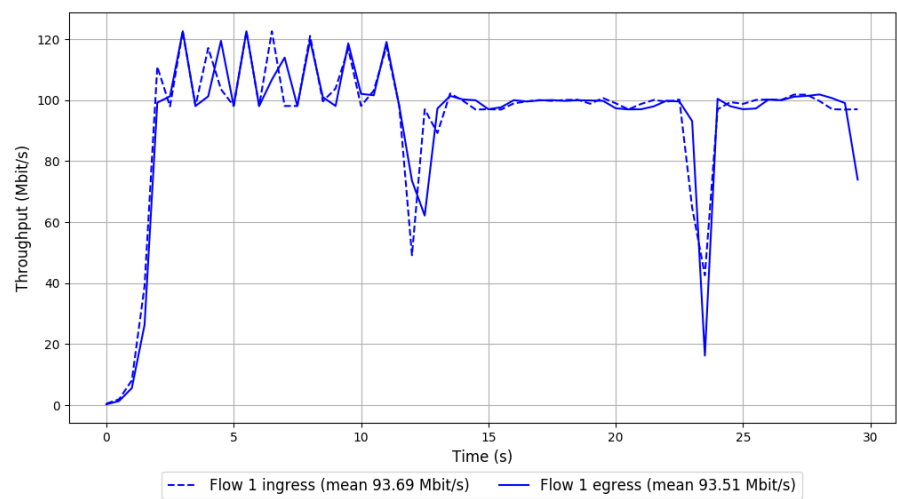
-- Flow 1:

Average throughput: 93.51 Mbit/s

95th percentile per-packet one-way delay: 125.901 ms

Loss rate: 0.81%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-08 20:44:06

End at: 2018-01-08 20:44:36

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.57 Mbit/s

95th percentile per-packet one-way delay: 127.629 ms

Loss rate: 0.78%

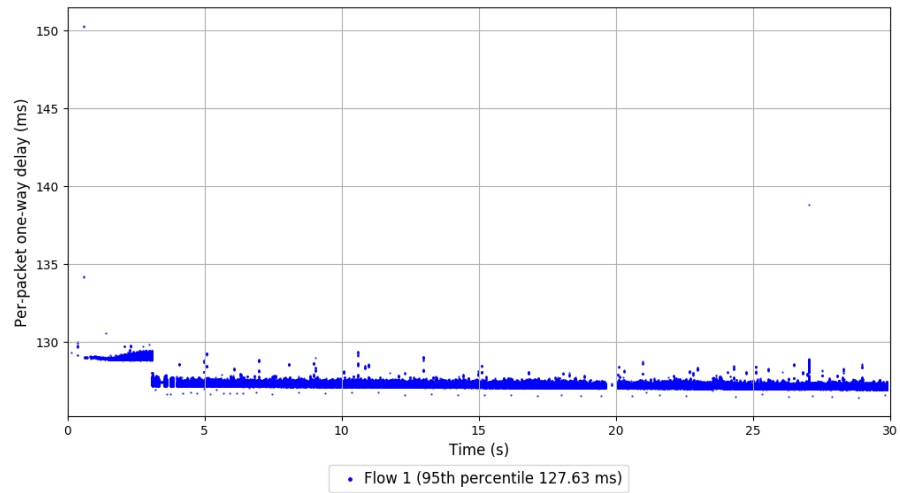
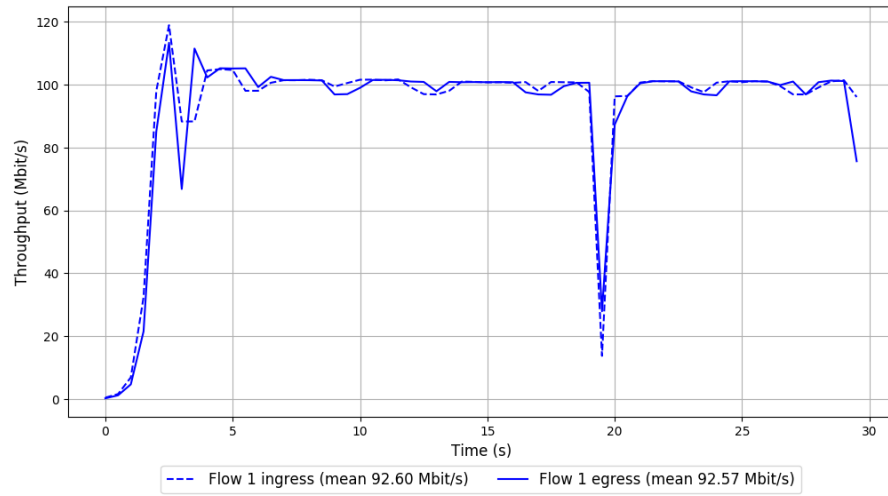
-- Flow 1:

Average throughput: 92.57 Mbit/s

95th percentile per-packet one-way delay: 127.629 ms

Loss rate: 0.78%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-08 18:58:46

End at: 2018-01-08 18:59:16

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.36 Mbit/s

95th percentile per-packet one-way delay: 165.468 ms

Loss rate: 1.29%

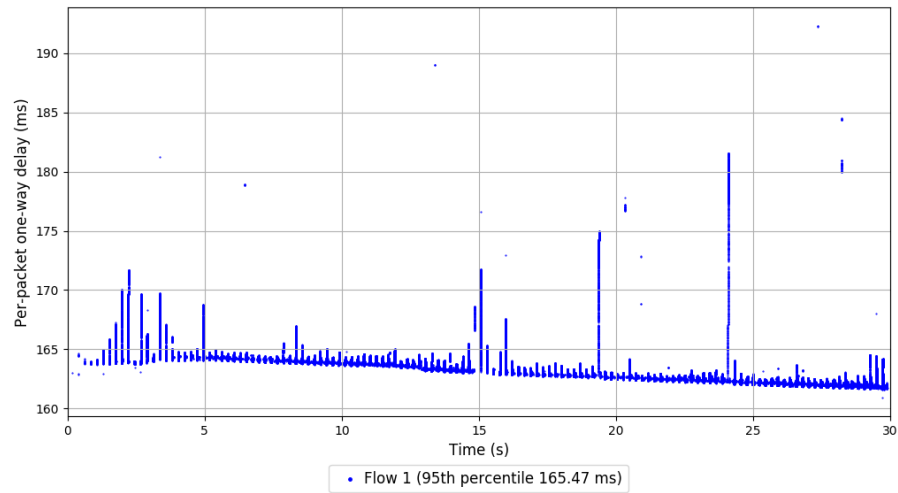
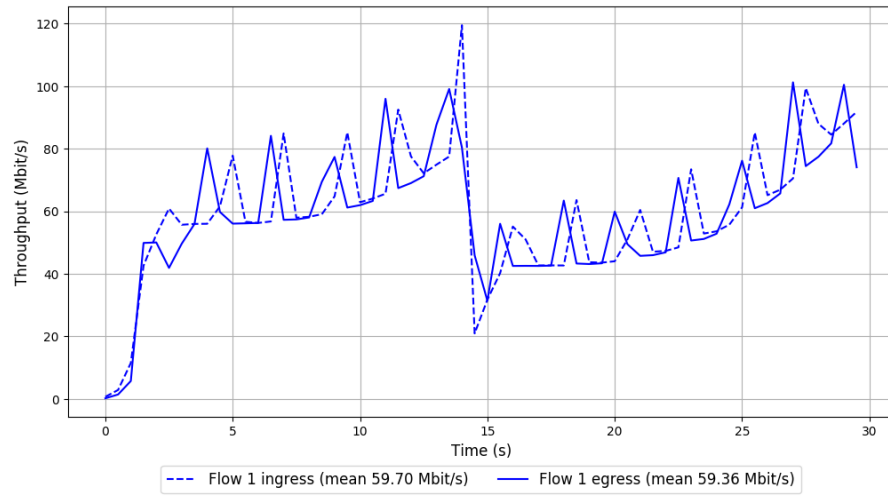
-- Flow 1:

Average throughput: 59.36 Mbit/s

95th percentile per-packet one-way delay: 165.468 ms

Loss rate: 1.29%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-08 19:11:08

End at: 2018-01-08 19:11:38

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.19 Mbit/s

95th percentile per-packet one-way delay: 144.678 ms

Loss rate: 0.96%

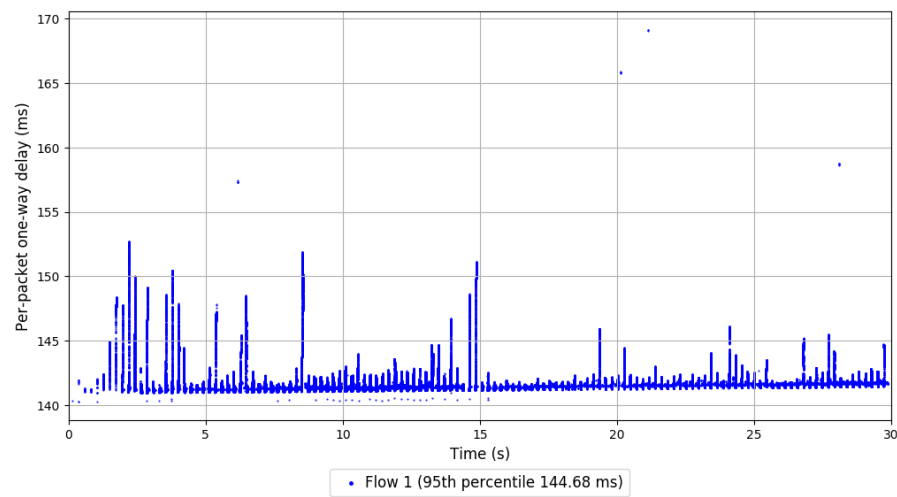
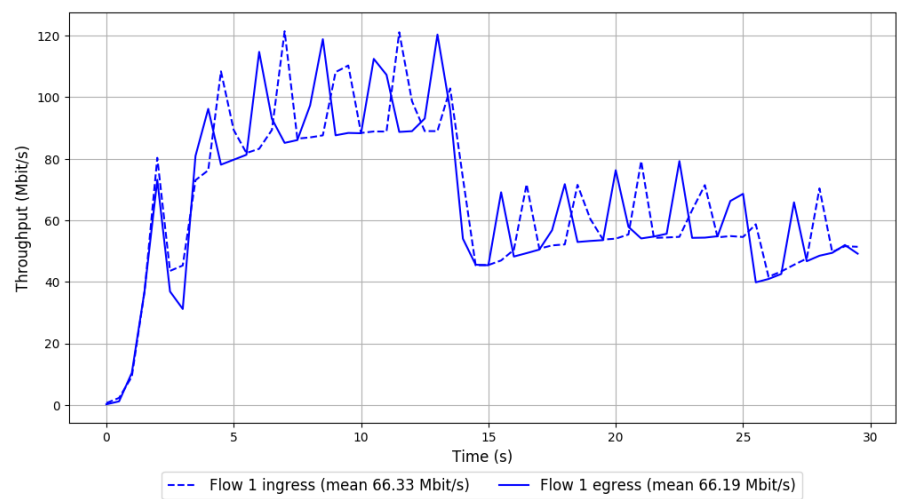
-- Flow 1:

Average throughput: 66.19 Mbit/s

95th percentile per-packet one-way delay: 144.678 ms

Loss rate: 0.96%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-08 19:23:33

End at: 2018-01-08 19:24:03

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 40.44 Mbit/s

95th percentile per-packet one-way delay: 146.717 ms

Loss rate: 2.31%

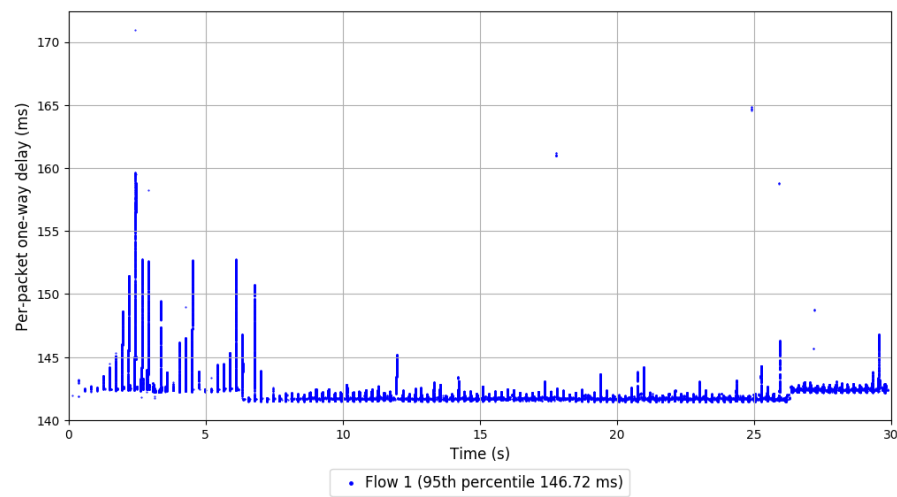
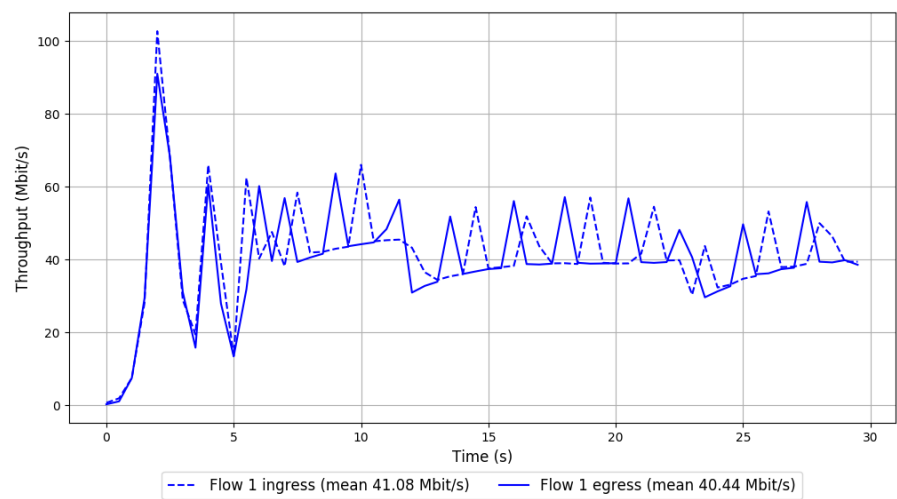
-- Flow 1:

Average throughput: 40.44 Mbit/s

95th percentile per-packet one-way delay: 146.717 ms

Loss rate: 2.31%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-08 19:35:56

End at: 2018-01-08 19:36:26

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 51.16 Mbit/s

95th percentile per-packet one-way delay: 159.177 ms

Loss rate: 1.26%

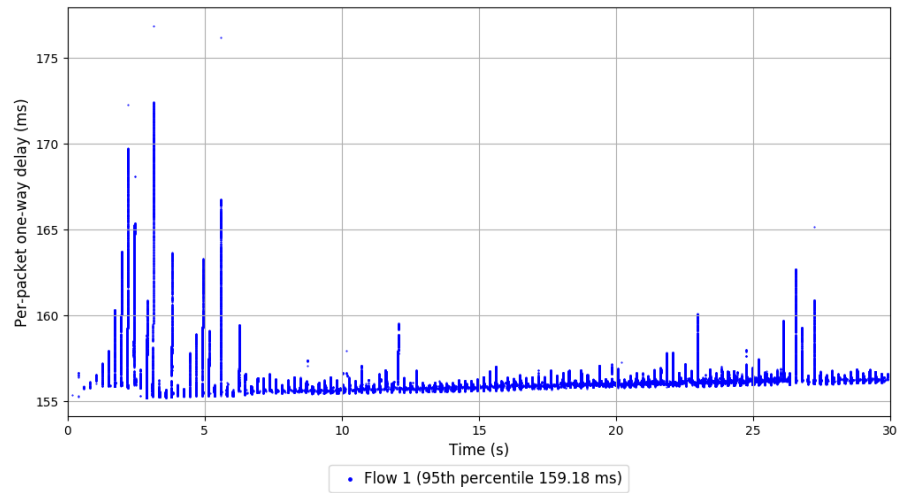
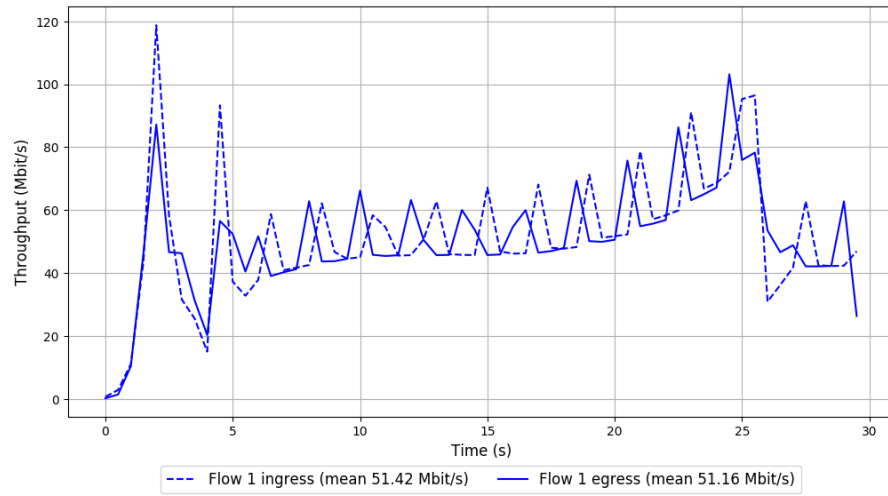
-- Flow 1:

Average throughput: 51.16 Mbit/s

95th percentile per-packet one-way delay: 159.177 ms

Loss rate: 1.26%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-08 19:48:18

End at: 2018-01-08 19:48:48

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.59 Mbit/s

95th percentile per-packet one-way delay: 158.189 ms

Loss rate: 1.17%

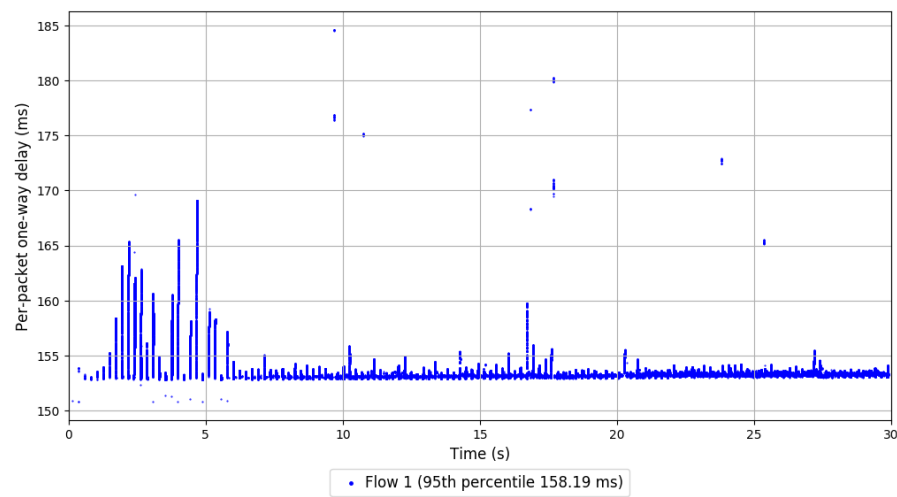
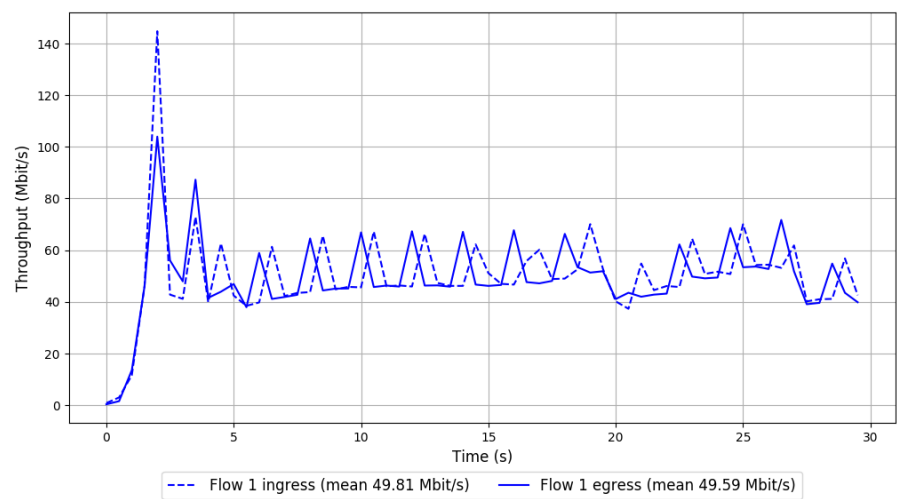
-- Flow 1:

Average throughput: 49.59 Mbit/s

95th percentile per-packet one-way delay: 158.189 ms

Loss rate: 1.17%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-08 20:00:32

End at: 2018-01-08 20:01:02

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.49 Mbit/s

95th percentile per-packet one-way delay: 134.860 ms

Loss rate: 0.87%

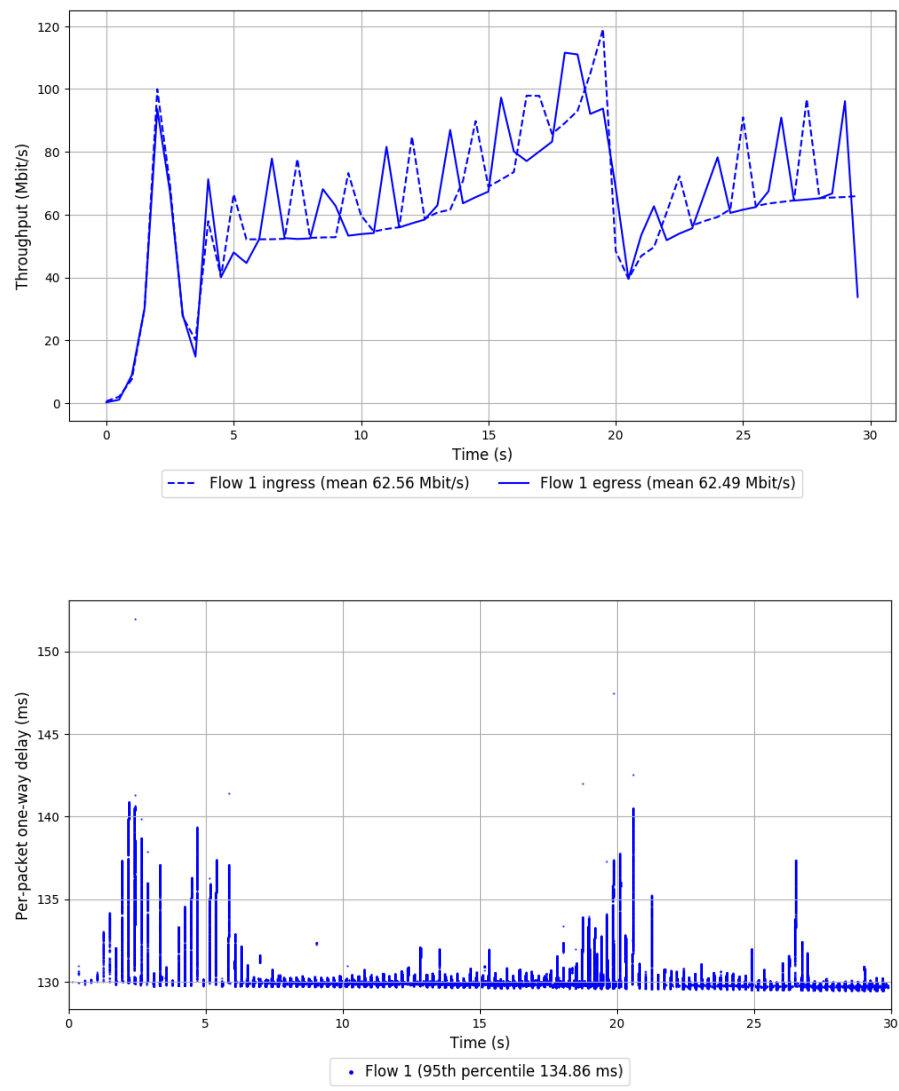
-- Flow 1:

Average throughput: 62.49 Mbit/s

95th percentile per-packet one-way delay: 134.860 ms

Loss rate: 0.87%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-08 20:12:53

End at: 2018-01-08 20:13:23

Below is generated by plot.py at 2018-01-08 23:07:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.55 Mbit/s

95th percentile per-packet one-way delay: 133.147 ms

Loss rate: 0.64%

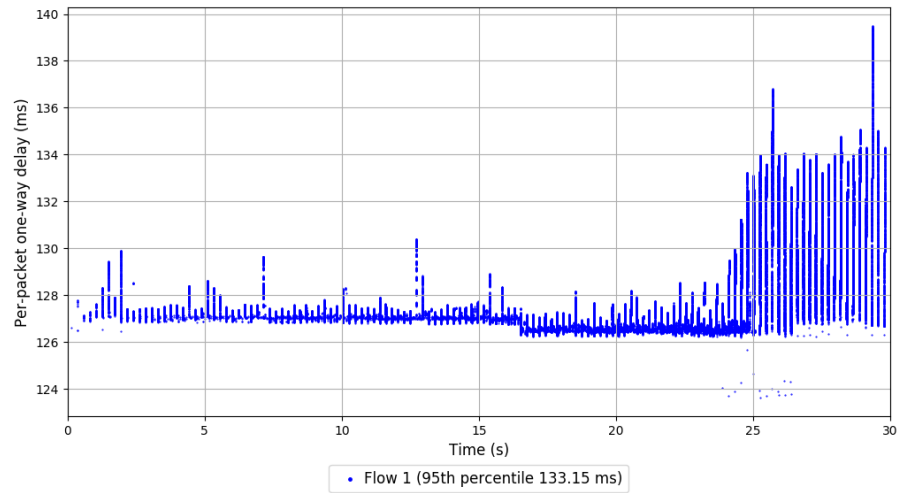
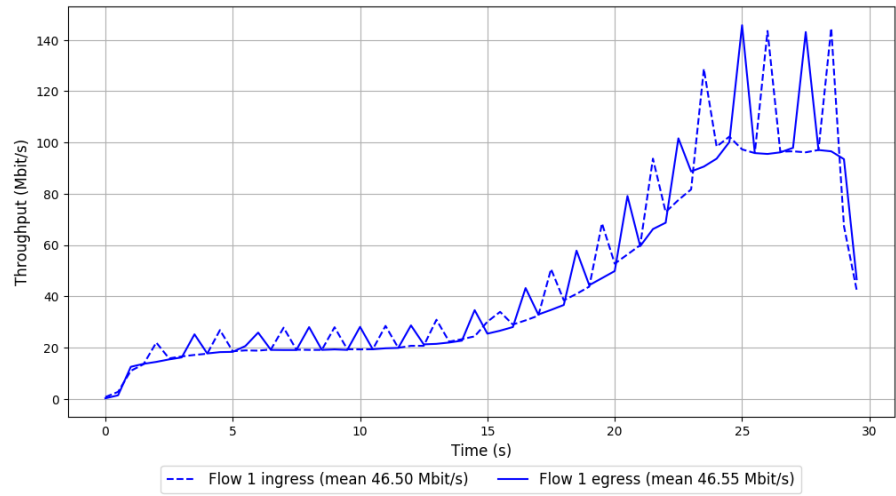
-- Flow 1:

Average throughput: 46.55 Mbit/s

95th percentile per-packet one-way delay: 133.147 ms

Loss rate: 0.64%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-08 20:25:28

End at: 2018-01-08 20:25:58

Below is generated by plot.py at 2018-01-08 23:07:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 129.348 ms

Loss rate: 2.02%

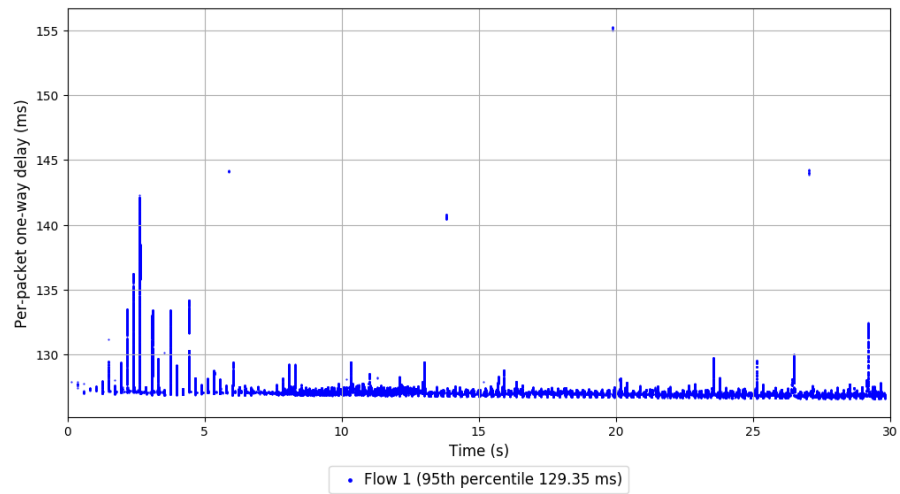
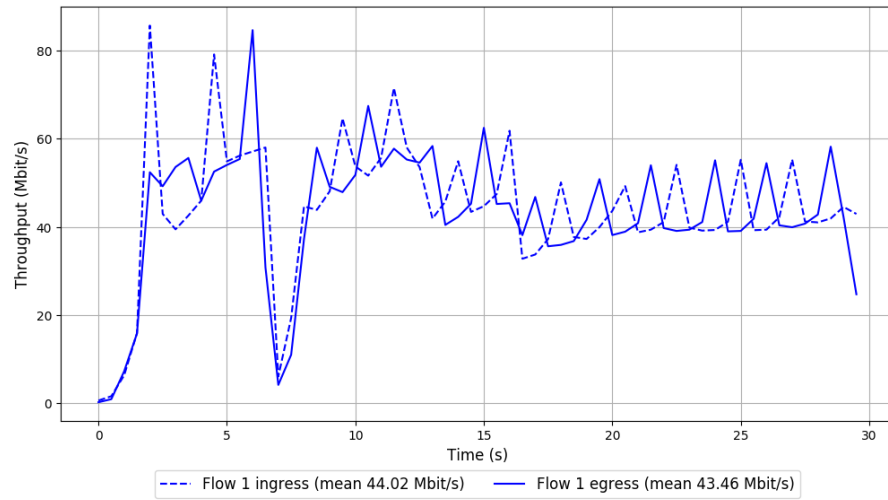
-- Flow 1:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 129.348 ms

Loss rate: 2.02%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-08 20:38:05

End at: 2018-01-08 20:38:35

Below is generated by plot.py at 2018-01-08 23:07:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 66.82 Mbit/s

95th percentile per-packet one-way delay: 134.051 ms

Loss rate: 0.89%

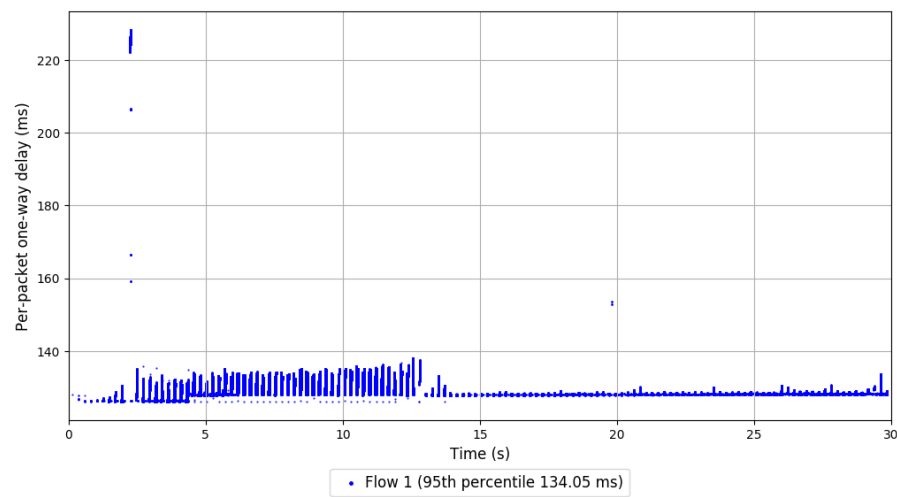
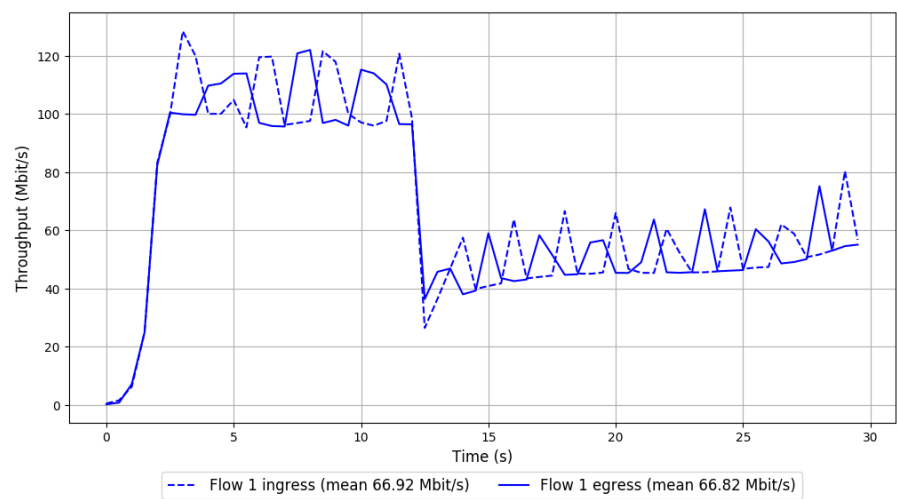
-- Flow 1:

Average throughput: 66.82 Mbit/s

95th percentile per-packet one-way delay: 134.051 ms

Loss rate: 0.89%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-08 20:50:45

End at: 2018-01-08 20:51:15

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.69 Mbit/s

95th percentile per-packet one-way delay: 128.831 ms

Loss rate: 0.68%

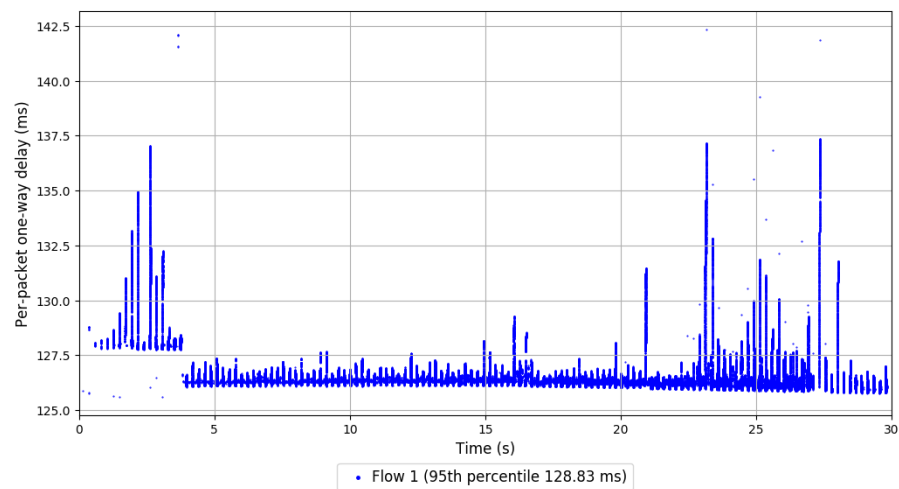
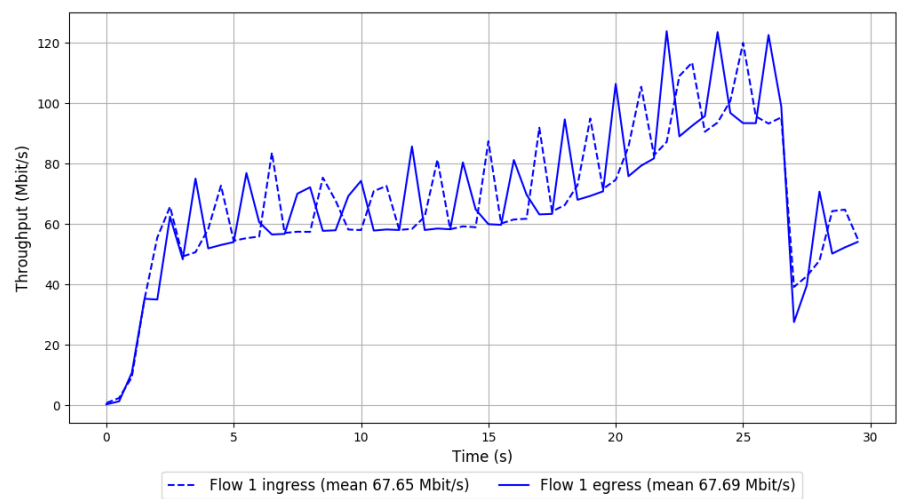
-- Flow 1:

Average throughput: 67.69 Mbit/s

95th percentile per-packet one-way delay: 128.831 ms

Loss rate: 0.68%

Run 10: Report of TCP Cubic — Data Link

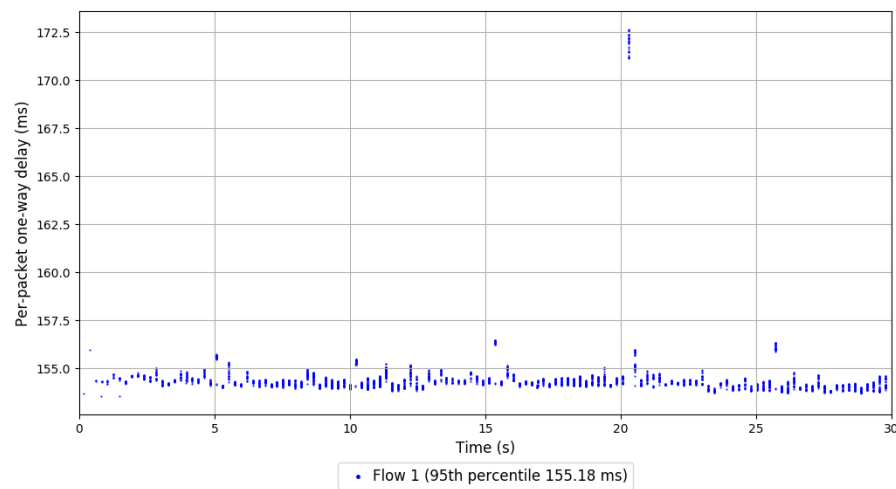
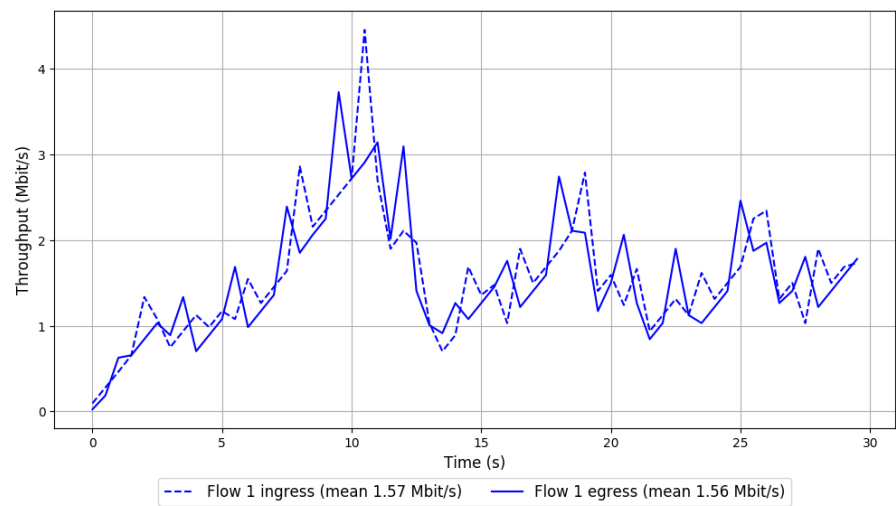


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-08 19:01:56
End at: 2018-01-08 19:02:26

# Below is generated by plot.py at 2018-01-08 23:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 155.177 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 155.177 ms
Loss rate: 1.23%
```

Run 1: Report of LEDBAT — Data Link

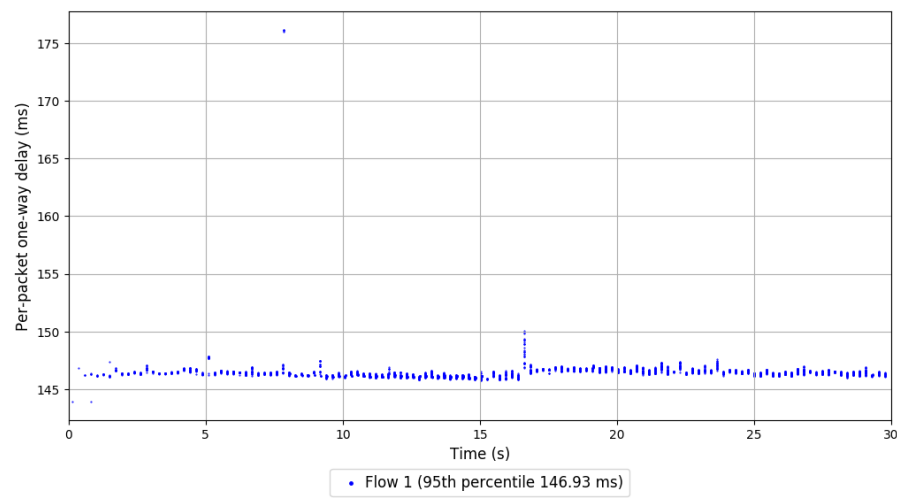
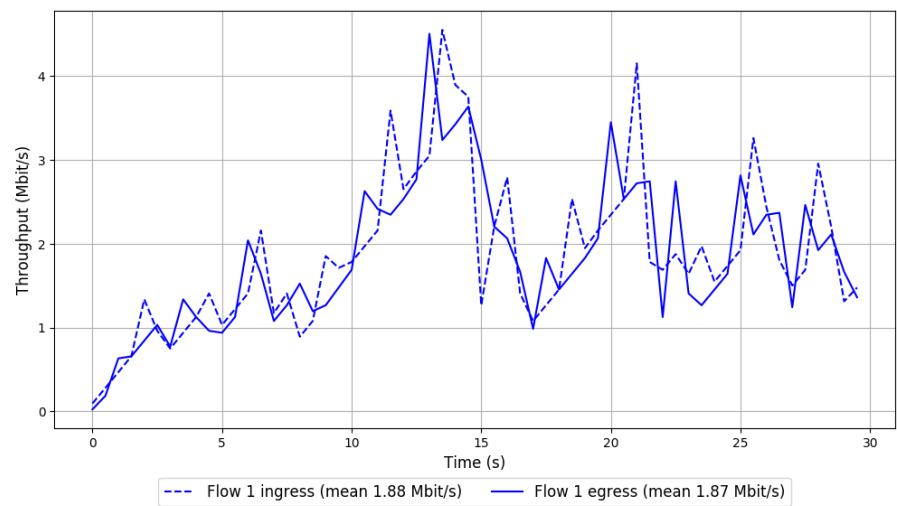


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-08 19:14:23
End at: 2018-01-08 19:14:53

# Below is generated by plot.py at 2018-01-08 23:07:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 146.930 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 146.930 ms
Loss rate: 1.44%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-08 19:26:48

End at: 2018-01-08 19:27:18

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 143.414 ms

Loss rate: 1.40%

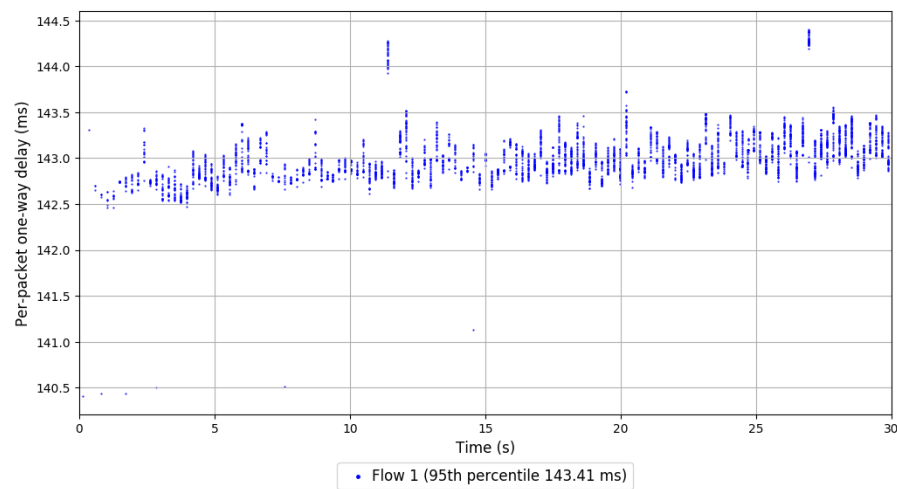
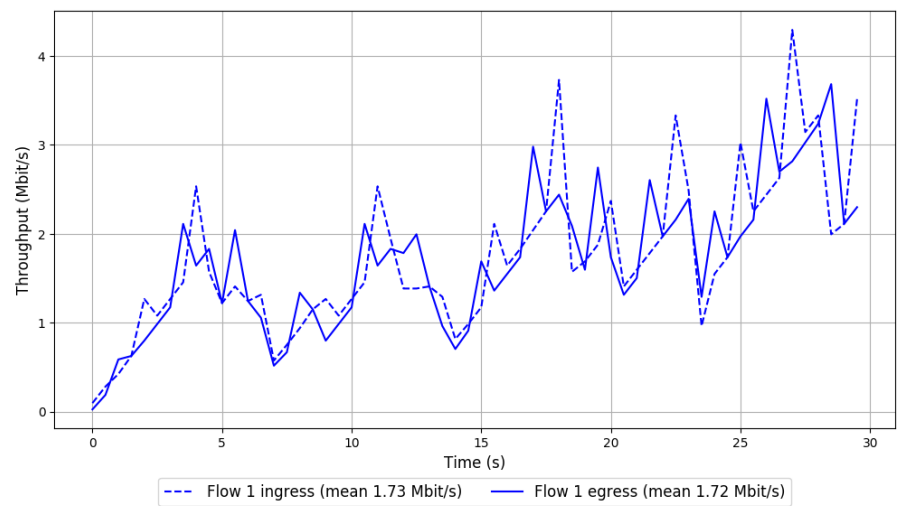
-- Flow 1:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 143.414 ms

Loss rate: 1.40%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-08 19:39:14

End at: 2018-01-08 19:39:44

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 159.530 ms

Loss rate: 1.09%

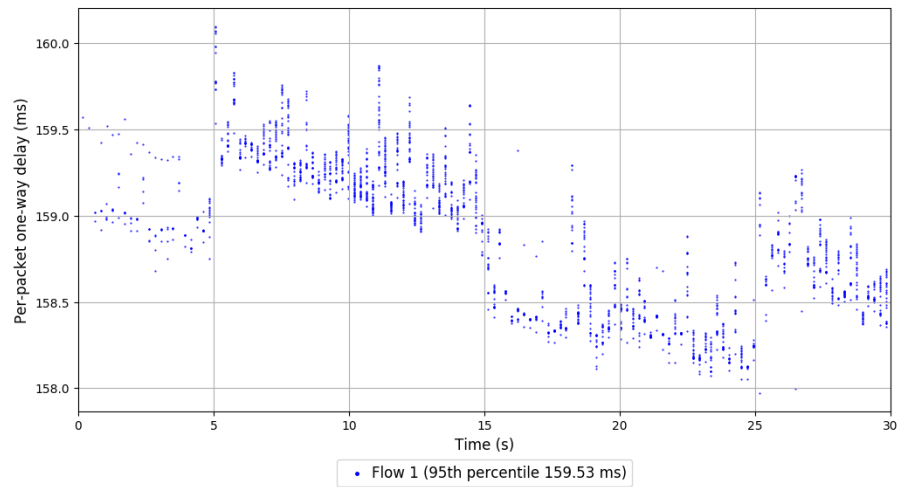
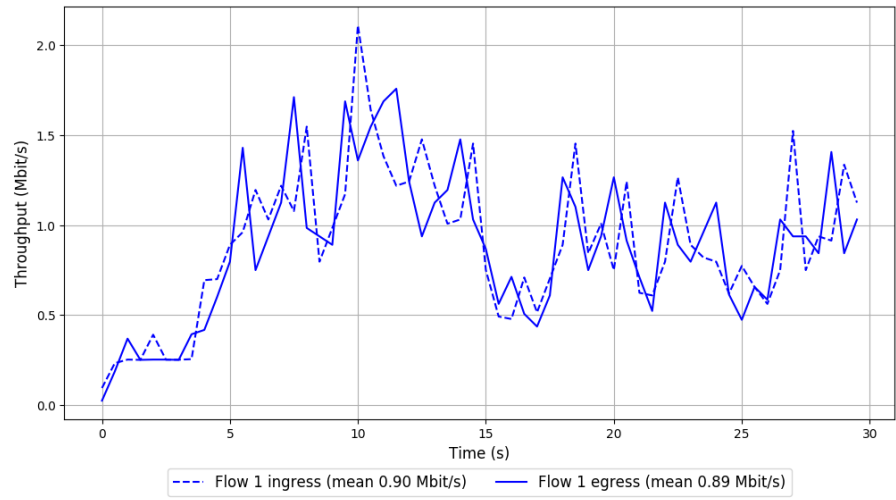
-- Flow 1:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 159.530 ms

Loss rate: 1.09%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-08 19:51:26

End at: 2018-01-08 19:51:56

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 156.071 ms

Loss rate: 1.70%

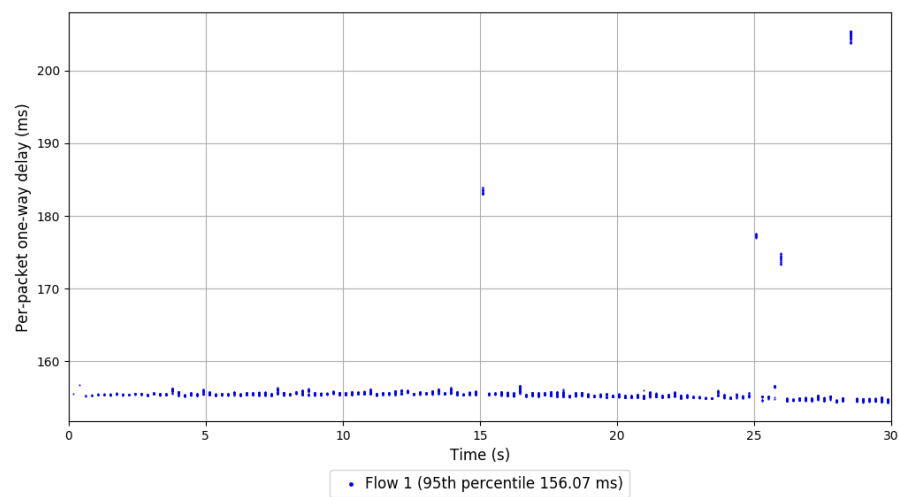
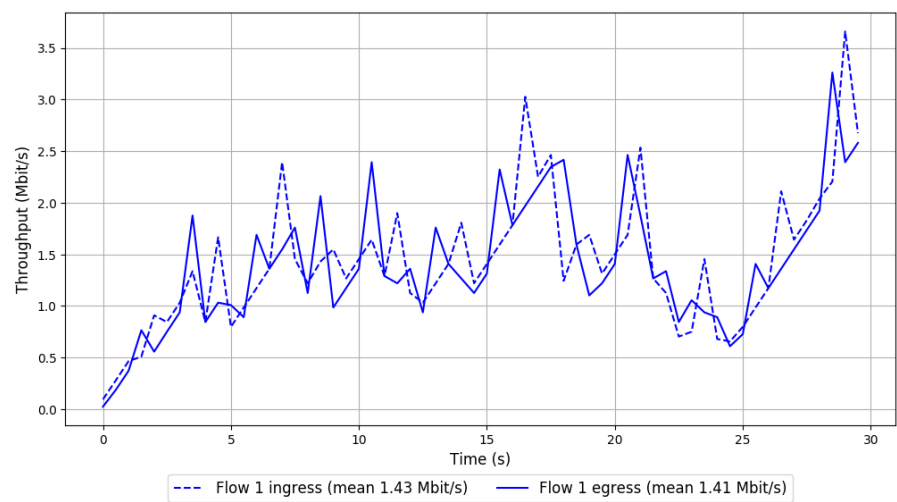
-- Flow 1:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 156.071 ms

Loss rate: 1.70%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-08 20:03:49

End at: 2018-01-08 20:04:19

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 129.397 ms

Loss rate: 0.46%

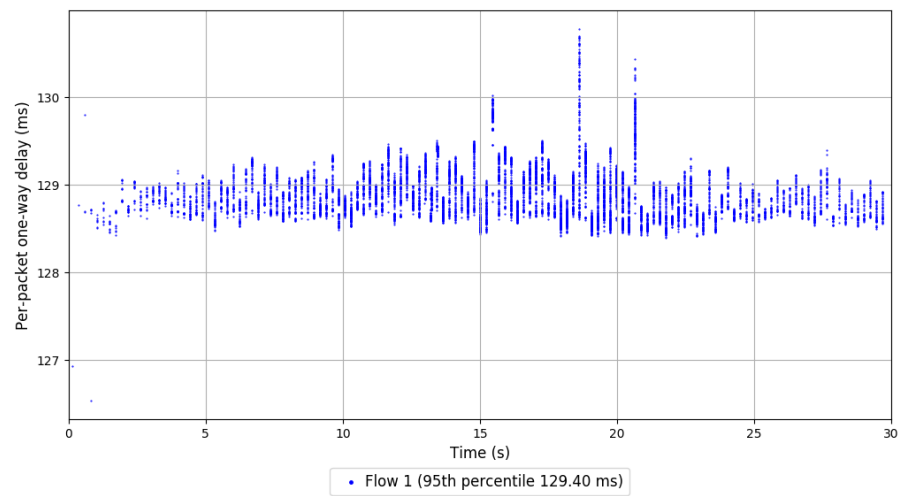
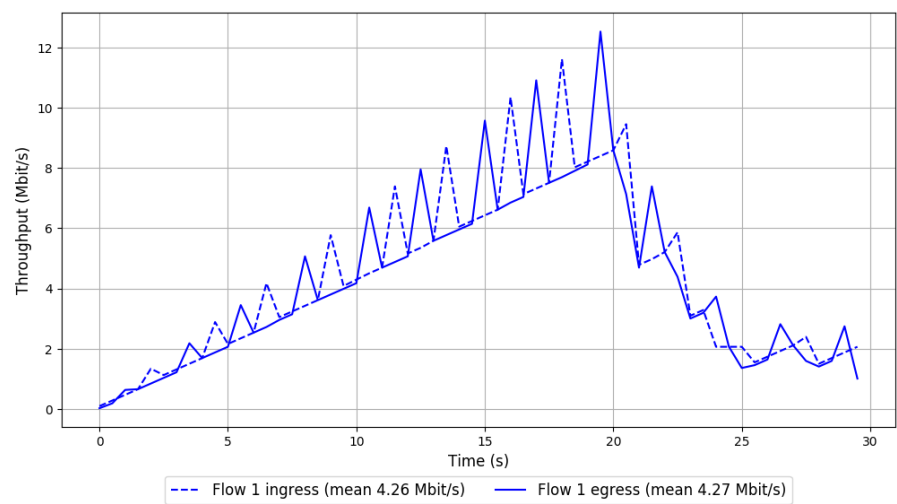
-- Flow 1:

Average throughput: 4.27 Mbit/s

95th percentile per-packet one-way delay: 129.397 ms

Loss rate: 0.46%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-08 20:16:06

End at: 2018-01-08 20:16:36

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 126.281 ms

Loss rate: 1.02%

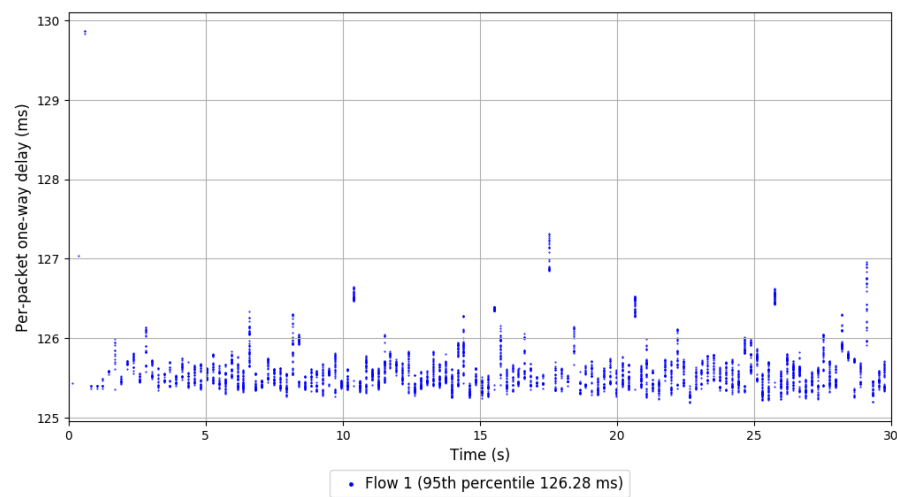
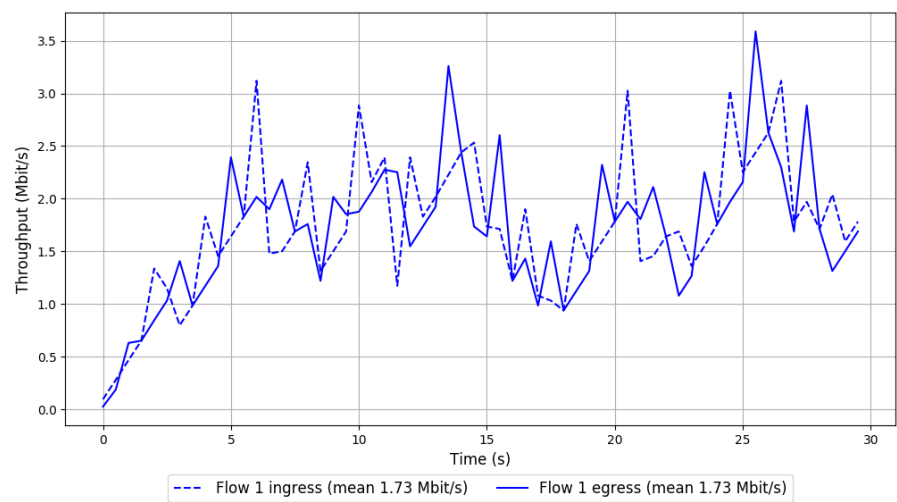
-- Flow 1:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 126.281 ms

Loss rate: 1.02%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-08 20:28:45

End at: 2018-01-08 20:29:15

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.19 Mbit/s

95th percentile per-packet one-way delay: 126.511 ms

Loss rate: 0.28%

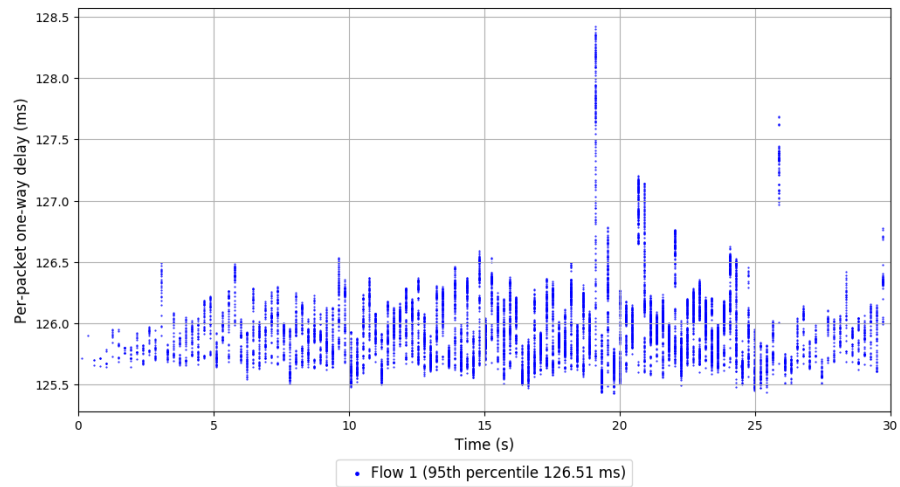
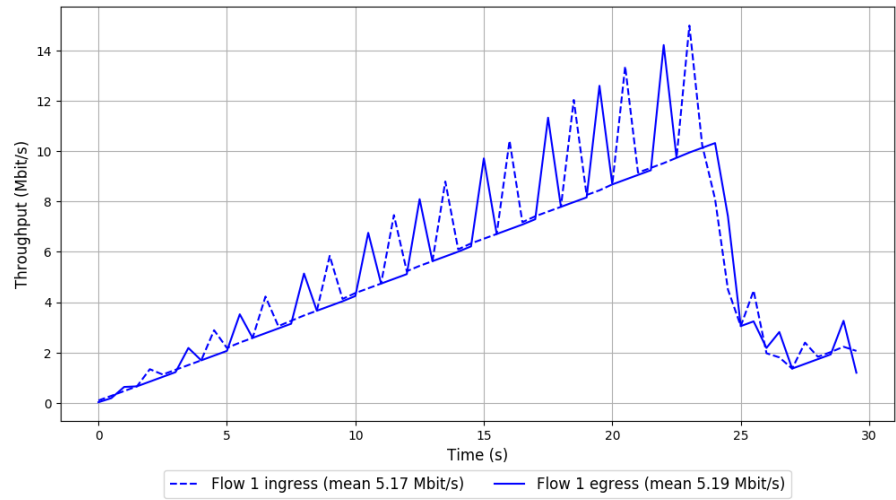
-- Flow 1:

Average throughput: 5.19 Mbit/s

95th percentile per-packet one-way delay: 126.511 ms

Loss rate: 0.28%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-08 20:41:21

End at: 2018-01-08 20:41:51

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 130.247 ms

Loss rate: 1.21%

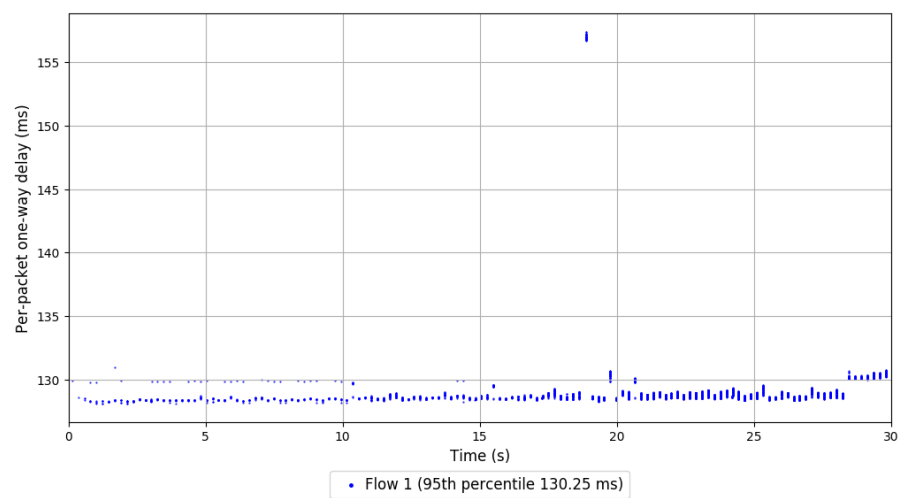
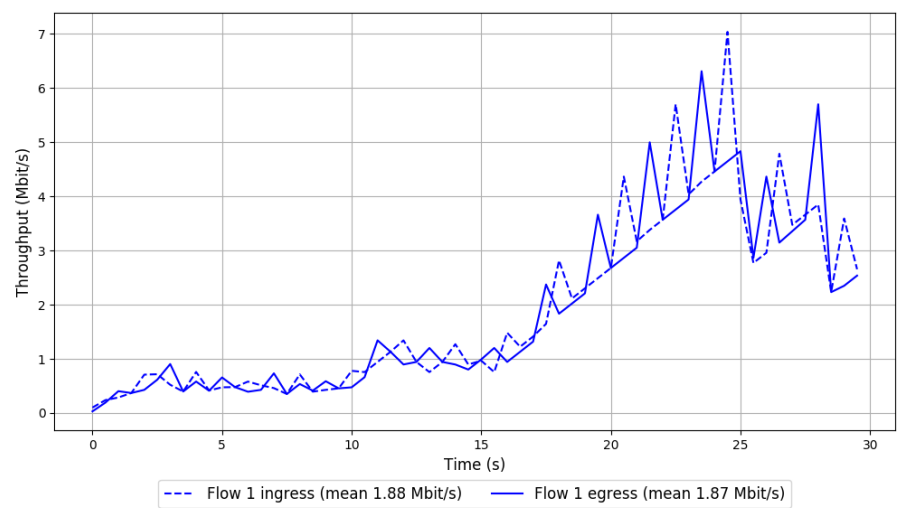
-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 130.247 ms

Loss rate: 1.21%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-01-08 20:54:03

End at: 2018-01-08 20:54:33

Below is generated by plot.py at 2018-01-08 23:07:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 125.397 ms

Loss rate: 0.82%

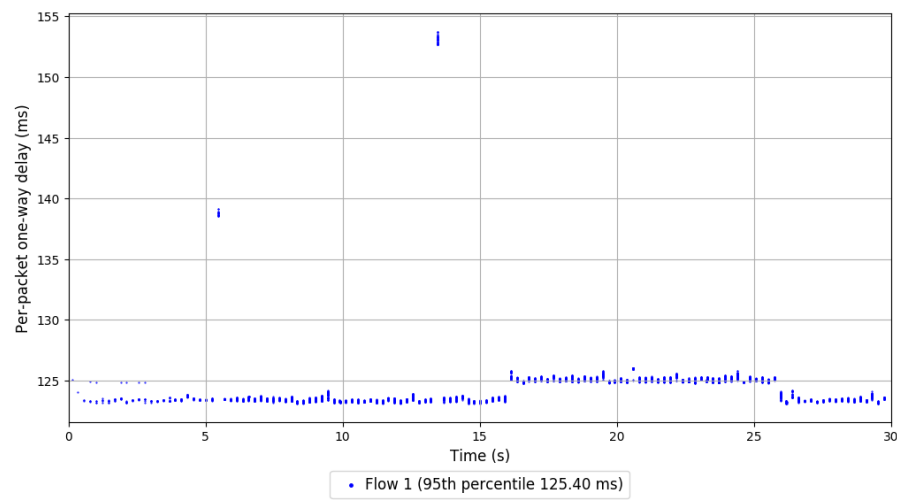
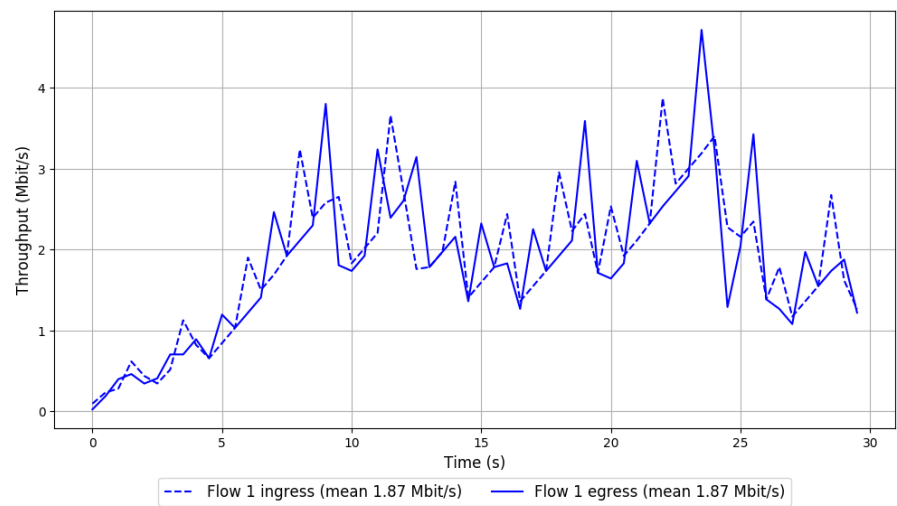
-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 125.397 ms

Loss rate: 0.82%

Run 10: Report of LEDBAT — Data Link

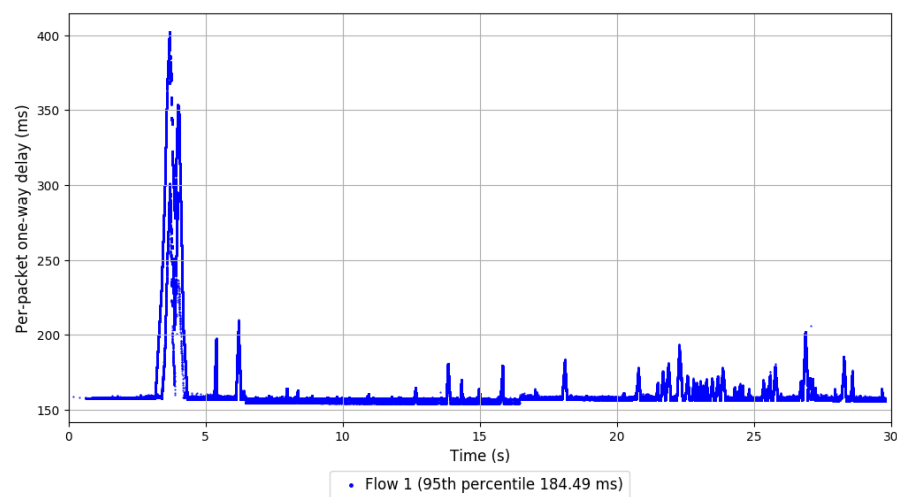
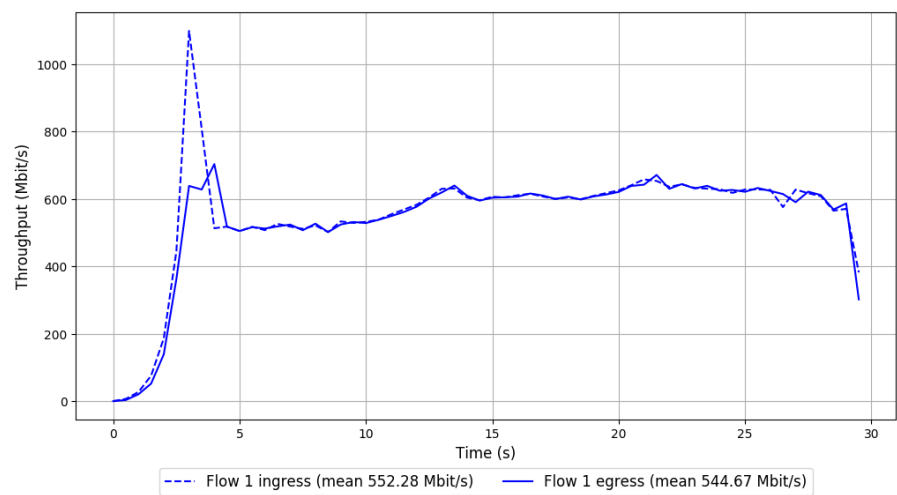


```
Run 1: Statistics of PCC

Start at: 2018-01-08 19:00:11
End at: 2018-01-08 19:00:41

# Below is generated by plot.py at 2018-01-08 23:16:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 544.67 Mbit/s
95th percentile per-packet one-way delay: 184.487 ms
Loss rate: 2.13%
-- Flow 1:
Average throughput: 544.67 Mbit/s
95th percentile per-packet one-way delay: 184.487 ms
Loss rate: 2.13%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-01-08 19:12:37

End at: 2018-01-08 19:13:07

Below is generated by plot.py at 2018-01-08 23:16:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 516.51 Mbit/s

95th percentile per-packet one-way delay: 181.292 ms

Loss rate: 3.26%

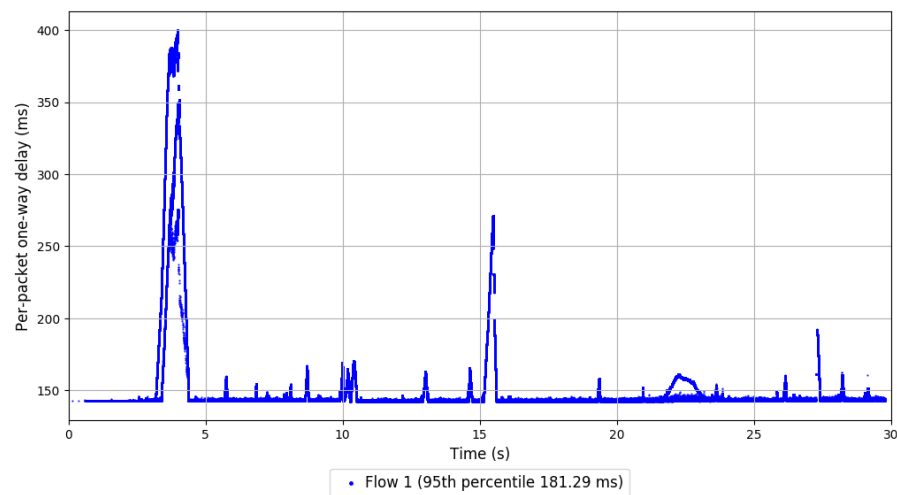
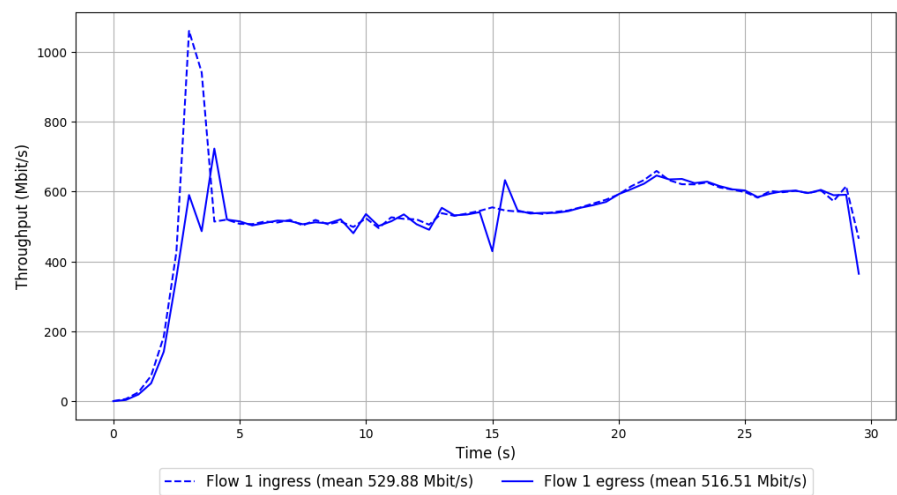
-- Flow 1:

Average throughput: 516.51 Mbit/s

95th percentile per-packet one-way delay: 181.292 ms

Loss rate: 3.26%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-08 19:25:01

End at: 2018-01-08 19:25:31

Below is generated by plot.py at 2018-01-08 23:17:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 541.55 Mbit/s

95th percentile per-packet one-way delay: 253.331 ms

Loss rate: 3.82%

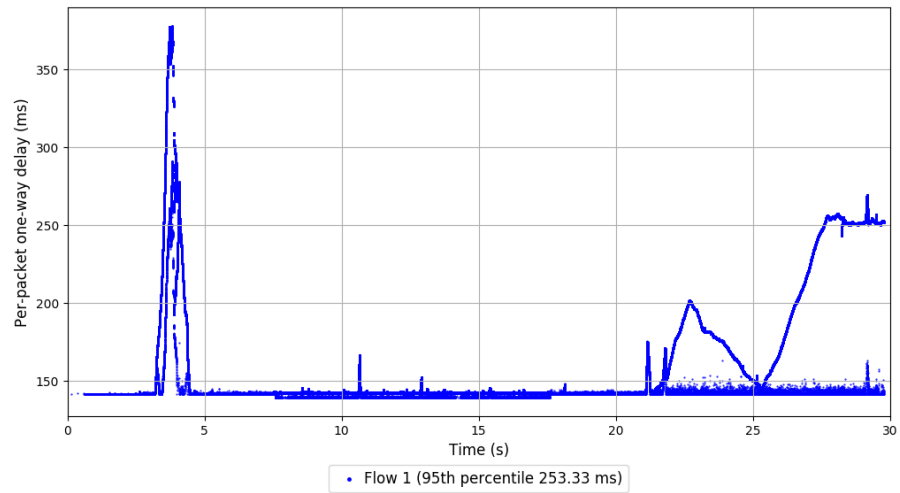
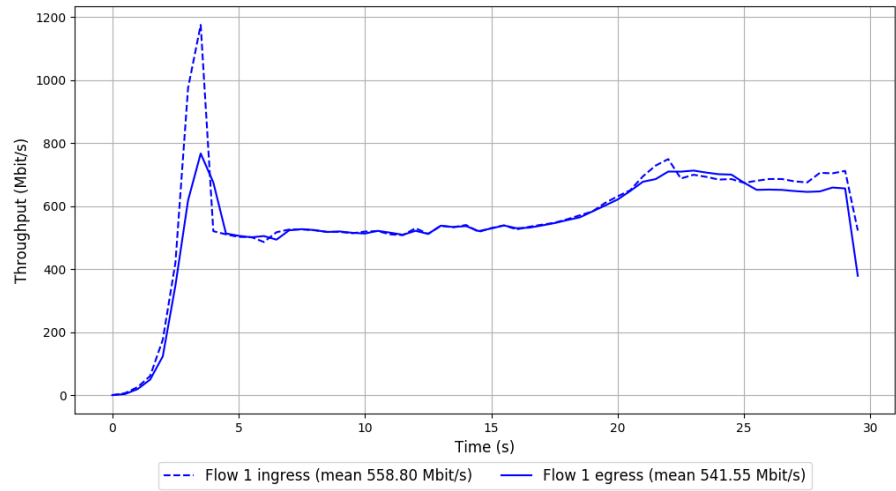
-- Flow 1:

Average throughput: 541.55 Mbit/s

95th percentile per-packet one-way delay: 253.331 ms

Loss rate: 3.82%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-08 19:37:25

End at: 2018-01-08 19:37:55

Below is generated by plot.py at 2018-01-08 23:17:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 578.91 Mbit/s

95th percentile per-packet one-way delay: 244.228 ms

Loss rate: 1.82%

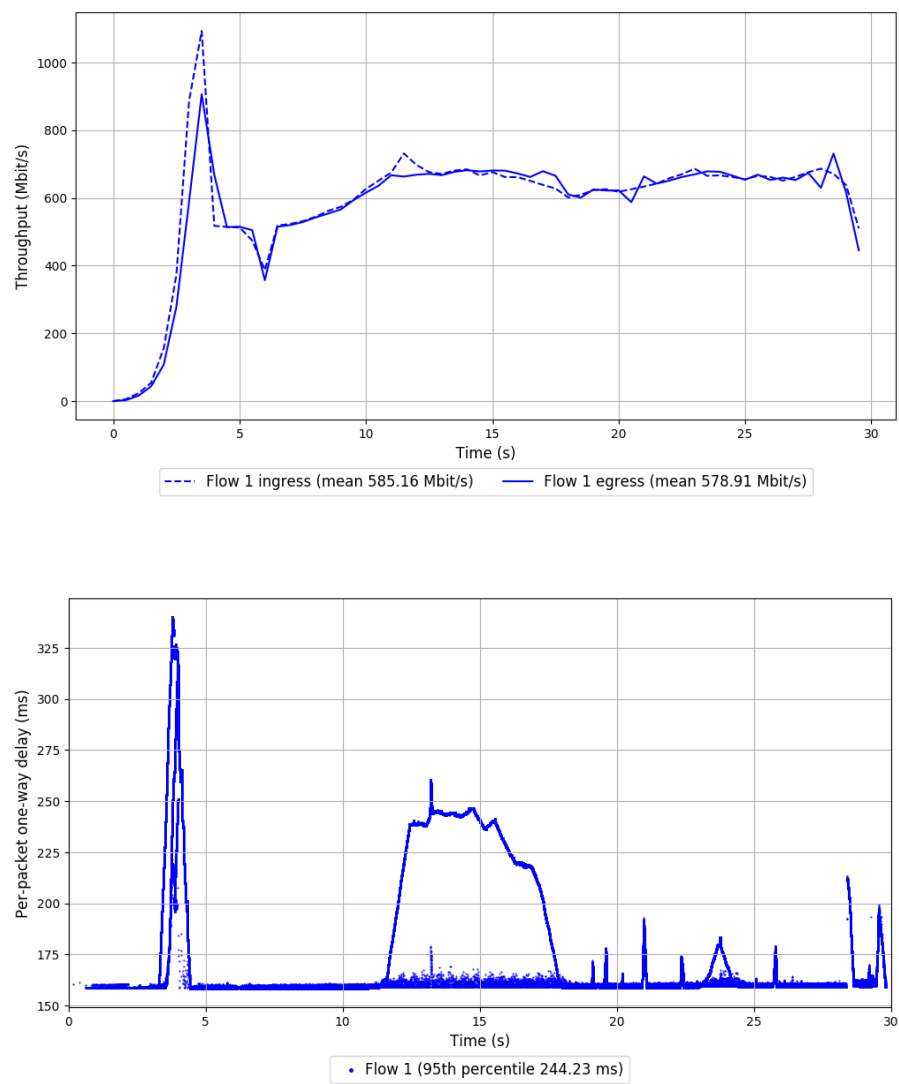
-- Flow 1:

Average throughput: 578.91 Mbit/s

95th percentile per-packet one-way delay: 244.228 ms

Loss rate: 1.82%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-01-08 19:49:46

End at: 2018-01-08 19:50:16

Below is generated by plot.py at 2018-01-08 23:17:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 413.70 Mbit/s

95th percentile per-packet one-way delay: 228.354 ms

Loss rate: 1.54%

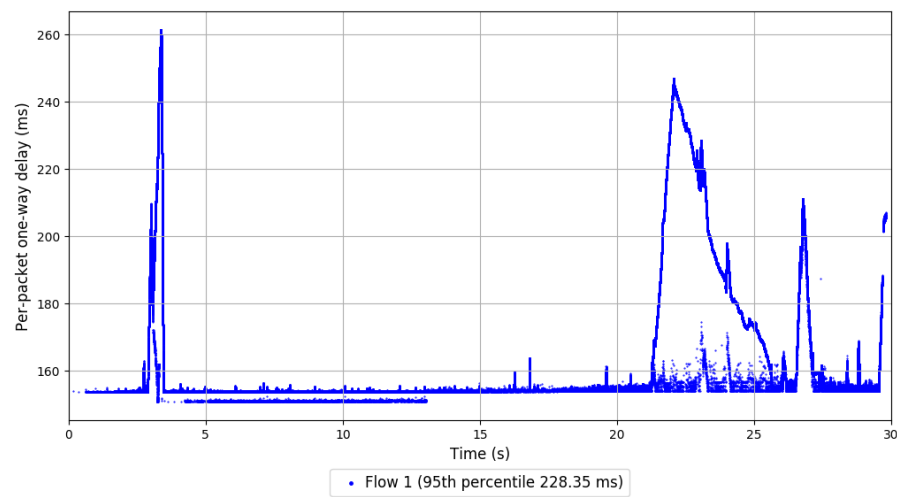
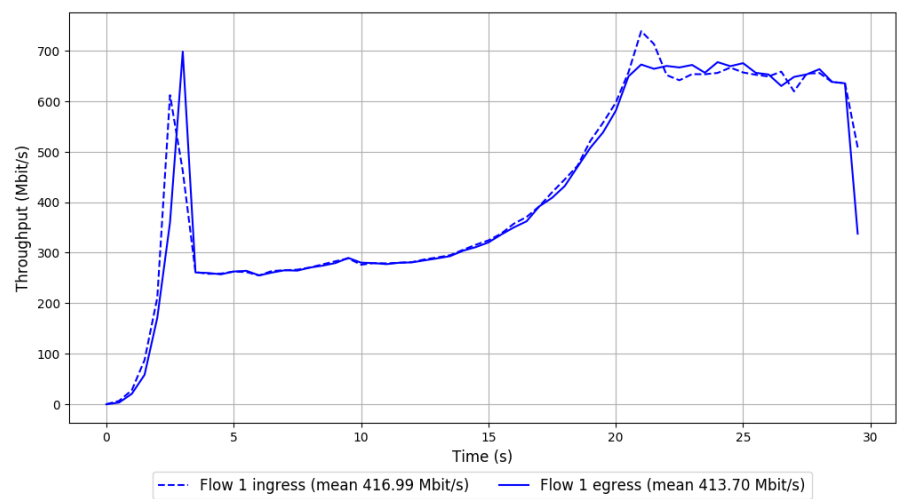
-- Flow 1:

Average throughput: 413.70 Mbit/s

95th percentile per-packet one-way delay: 228.354 ms

Loss rate: 1.54%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-08 20:02:02

End at: 2018-01-08 20:02:32

Below is generated by plot.py at 2018-01-08 23:17:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 578.22 Mbit/s

95th percentile per-packet one-way delay: 280.848 ms

Loss rate: 2.33%

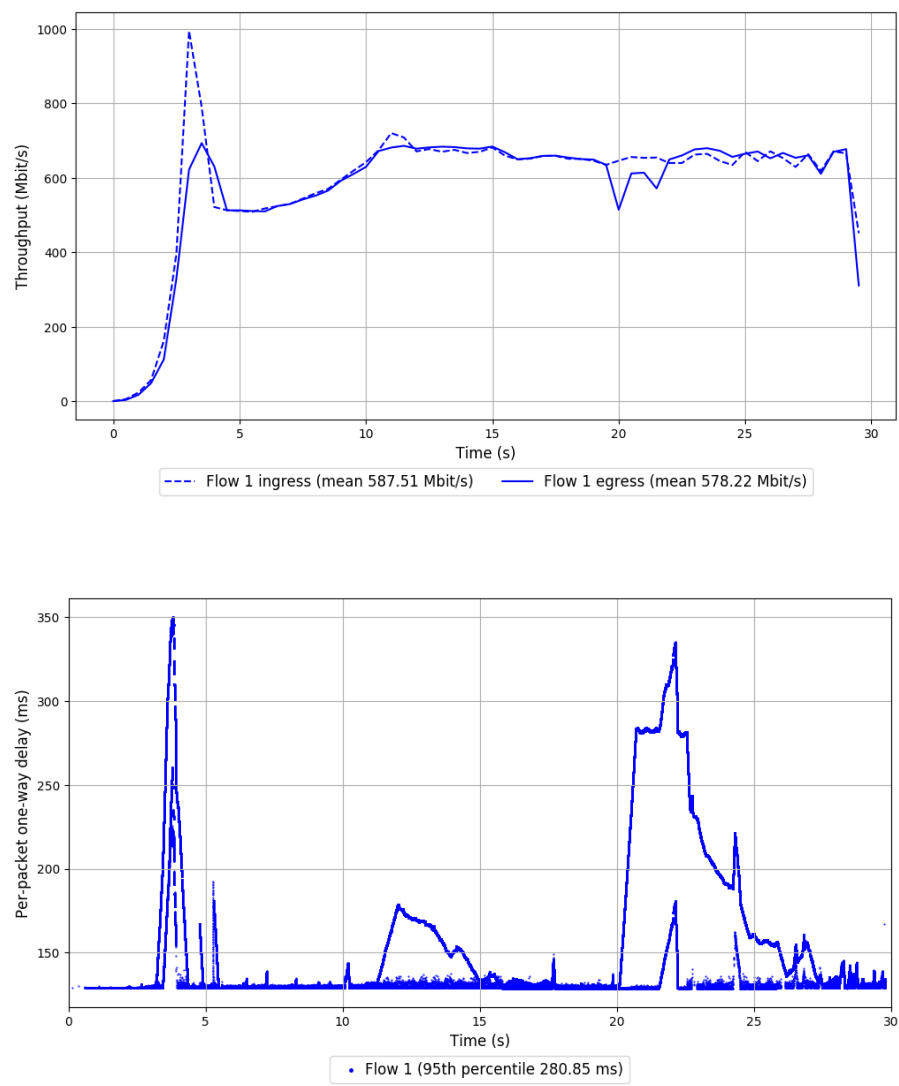
-- Flow 1:

Average throughput: 578.22 Mbit/s

95th percentile per-packet one-way delay: 280.848 ms

Loss rate: 2.33%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-08 20:14:22

End at: 2018-01-08 20:14:52

Below is generated by plot.py at 2018-01-08 23:17:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 533.08 Mbit/s

95th percentile per-packet one-way delay: 178.201 ms

Loss rate: 2.06%

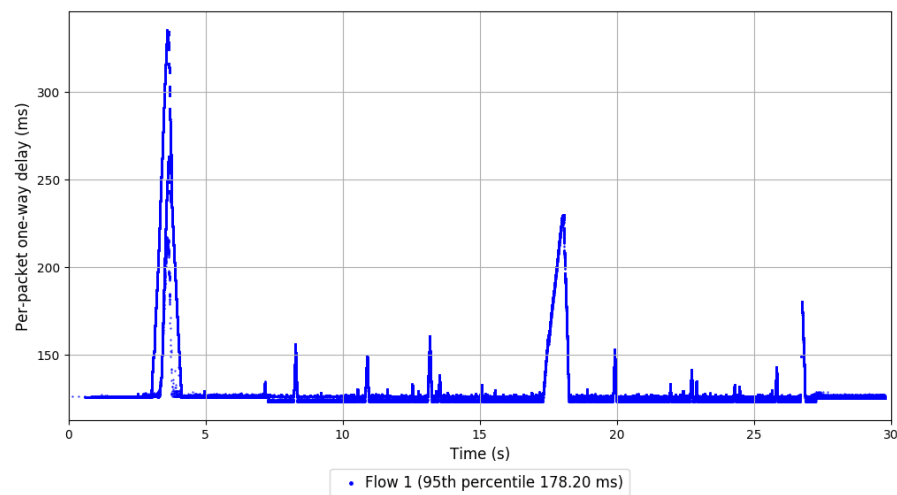
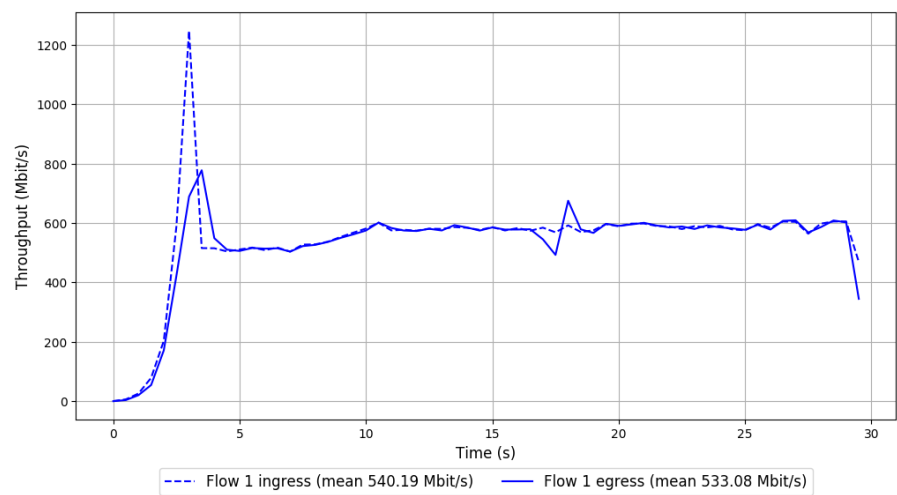
-- Flow 1:

Average throughput: 533.08 Mbit/s

95th percentile per-packet one-way delay: 178.201 ms

Loss rate: 2.06%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-08 20:26:56

End at: 2018-01-08 20:27:26

Below is generated by plot.py at 2018-01-08 23:18:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 584.25 Mbit/s

95th percentile per-packet one-way delay: 183.620 ms

Loss rate: 1.84%

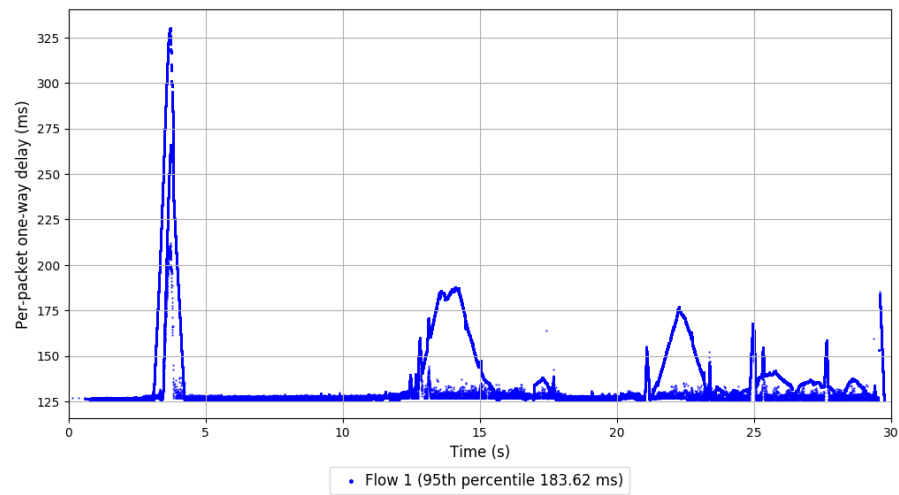
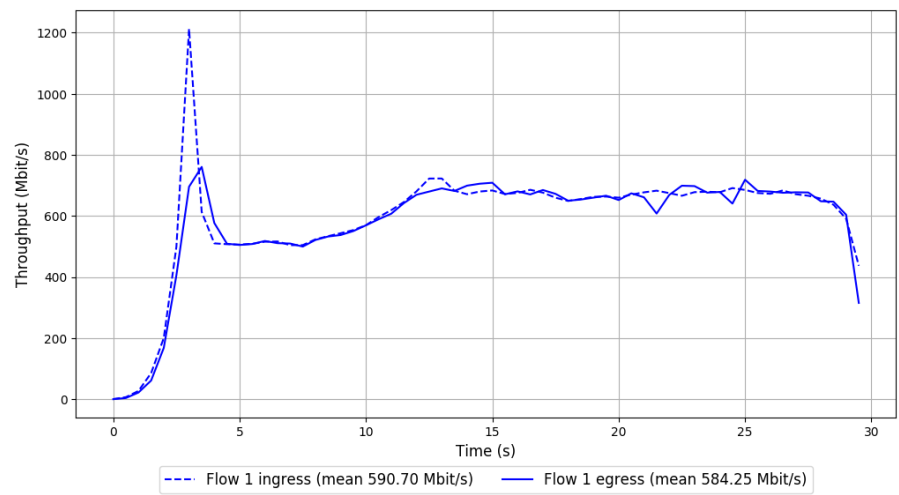
-- Flow 1:

Average throughput: 584.25 Mbit/s

95th percentile per-packet one-way delay: 183.620 ms

Loss rate: 1.84%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-08 20:39:35

End at: 2018-01-08 20:40:05

Below is generated by plot.py at 2018-01-08 23:26:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 567.04 Mbit/s

95th percentile per-packet one-way delay: 239.628 ms

Loss rate: 2.24%

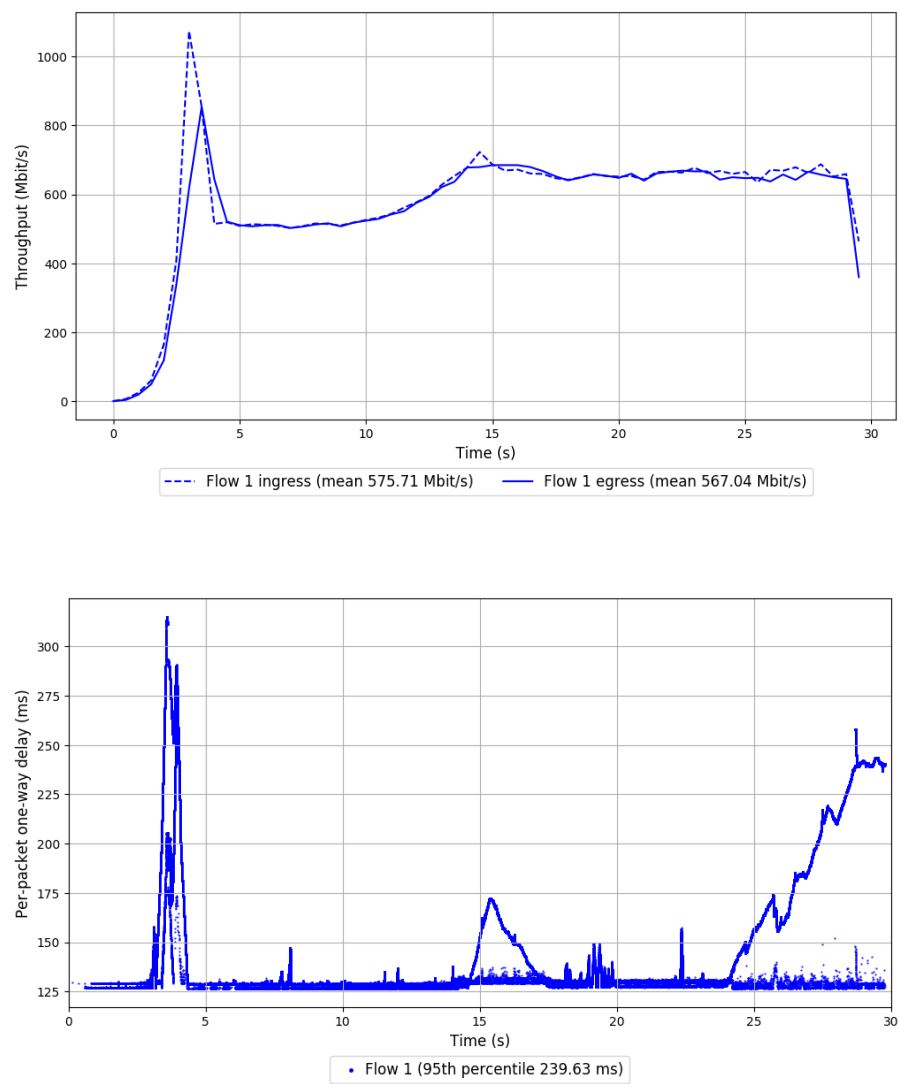
-- Flow 1:

Average throughput: 567.04 Mbit/s

95th percentile per-packet one-way delay: 239.628 ms

Loss rate: 2.24%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-01-08 20:52:16

End at: 2018-01-08 20:52:46

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 565.55 Mbit/s

95th percentile per-packet one-way delay: 169.879 ms

Loss rate: 2.54%

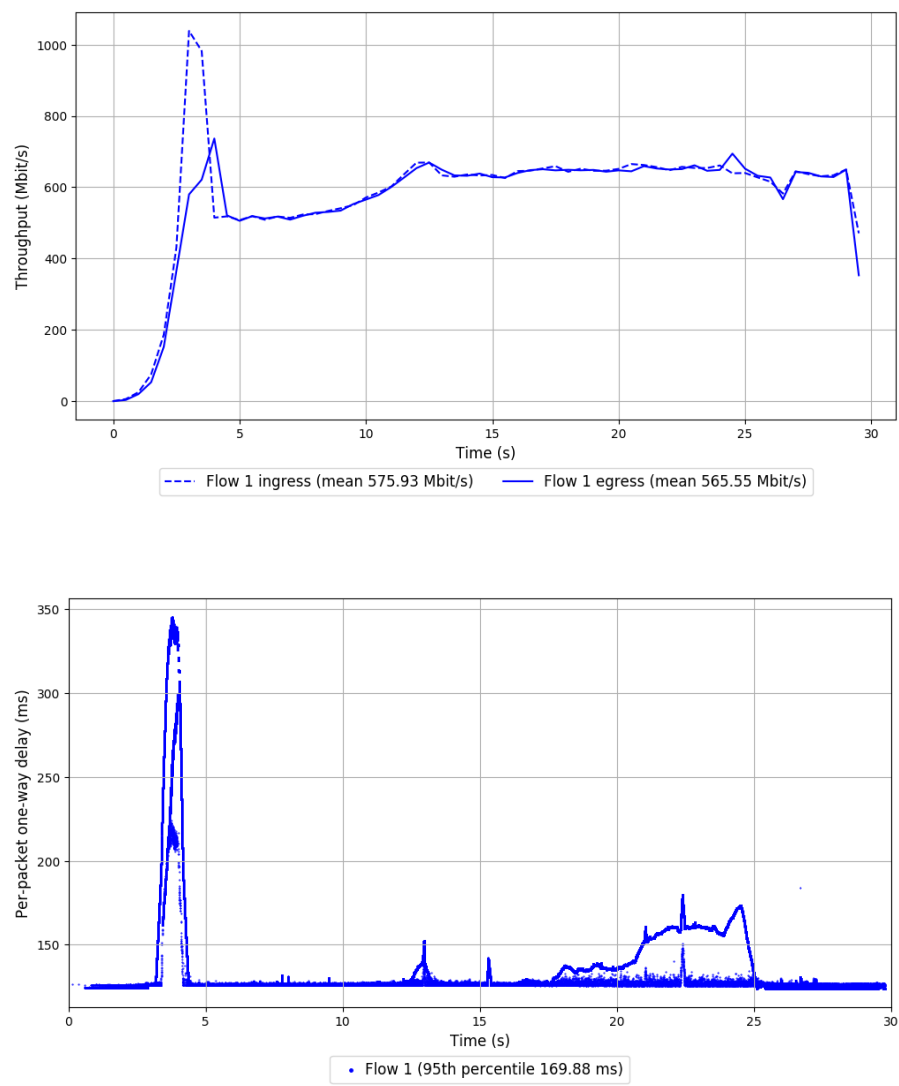
-- Flow 1:

Average throughput: 565.55 Mbit/s

95th percentile per-packet one-way delay: 169.879 ms

Loss rate: 2.54%

Run 10: Report of PCC — Data Link

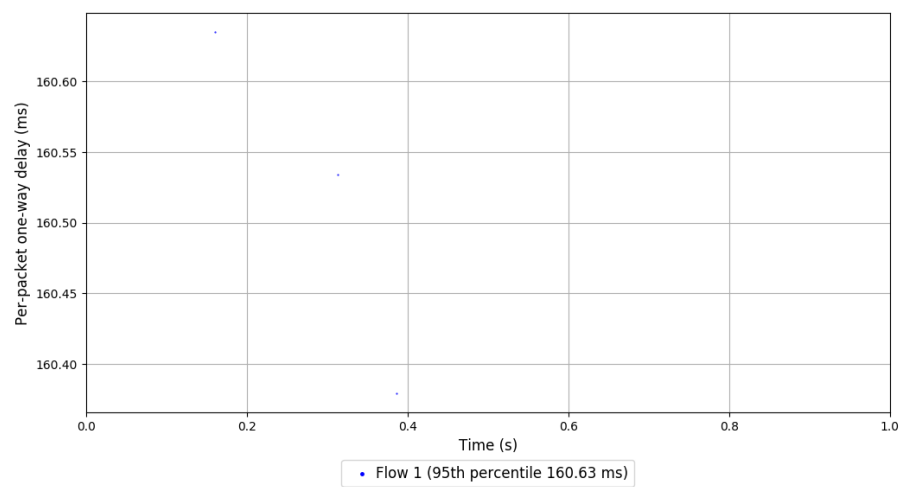
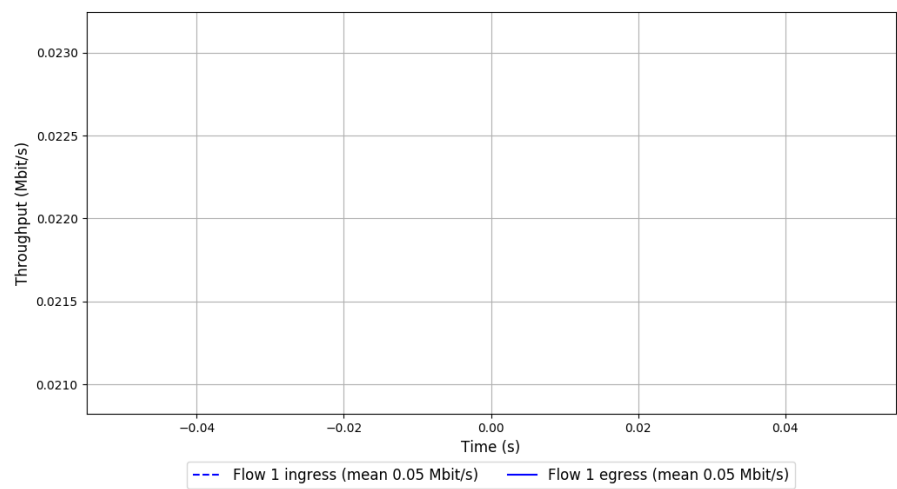


Run 1: Statistics of QUIC Cubic

Start at: 2018-01-08 18:59:31

End at: 2018-01-08 19:00:01

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-08 19:11:54

End at: 2018-01-08 19:12:24

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.23 Mbit/s

95th percentile per-packet one-way delay: 142.419 ms

Loss rate: 1.28%

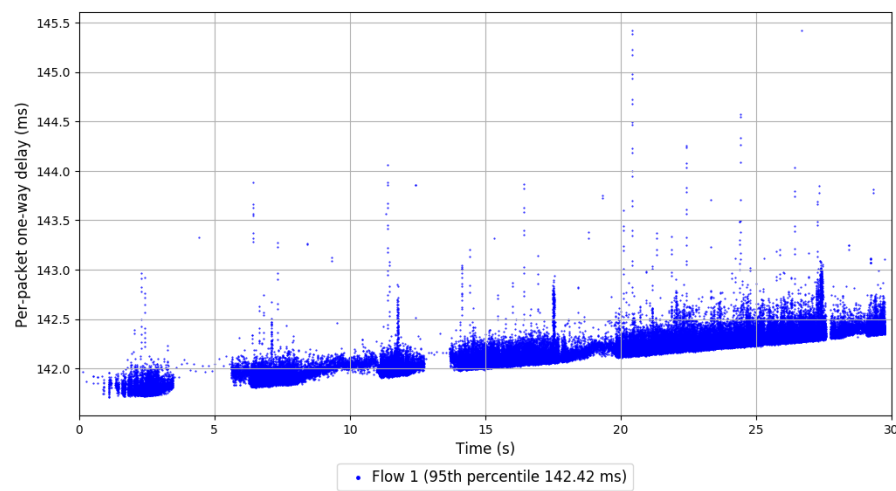
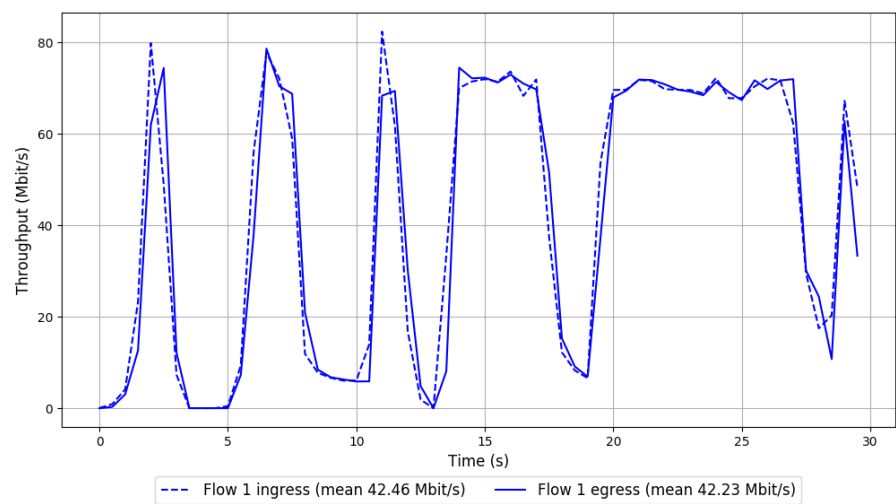
-- Flow 1:

Average throughput: 42.23 Mbit/s

95th percentile per-packet one-way delay: 142.419 ms

Loss rate: 1.28%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-08 19:24:16

End at: 2018-01-08 19:24:46

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.53 Mbit/s

95th percentile per-packet one-way delay: 141.546 ms

Loss rate: 1.03%

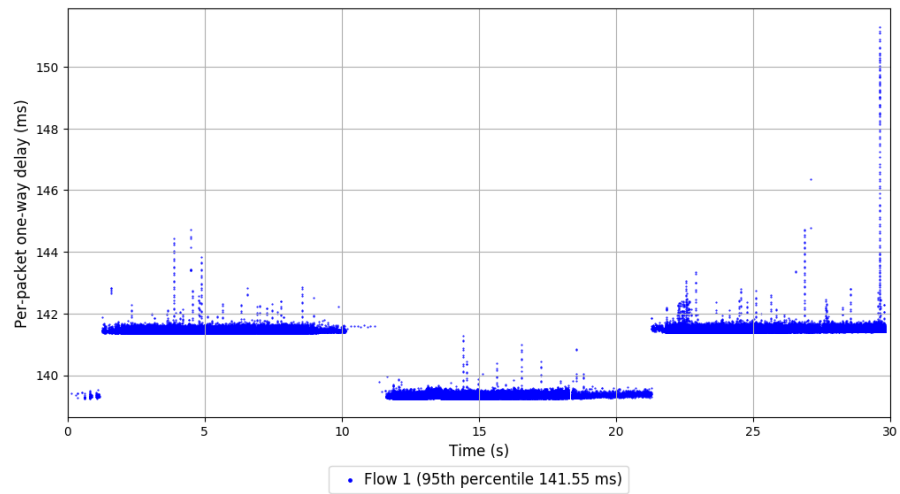
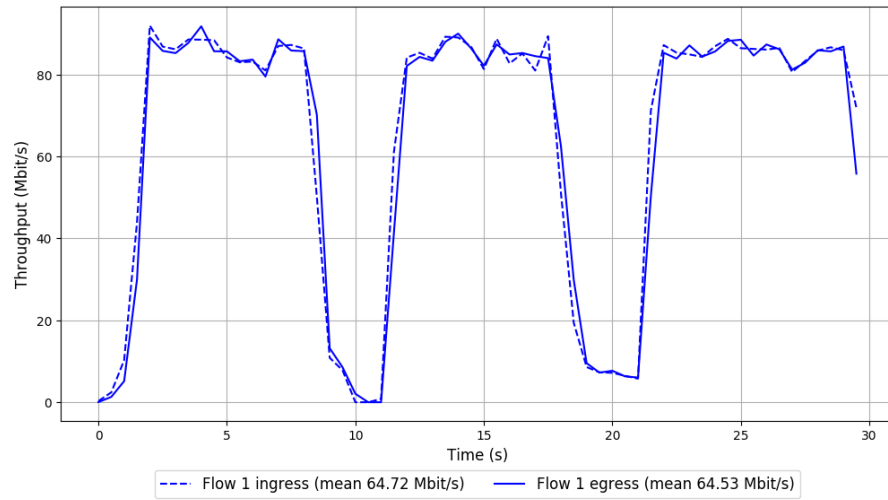
-- Flow 1:

Average throughput: 64.53 Mbit/s

95th percentile per-packet one-way delay: 141.546 ms

Loss rate: 1.03%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-08 19:36:40

End at: 2018-01-08 19:37:10

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.08 Mbit/s

95th percentile per-packet one-way delay: 157.536 ms

Loss rate: 1.00%

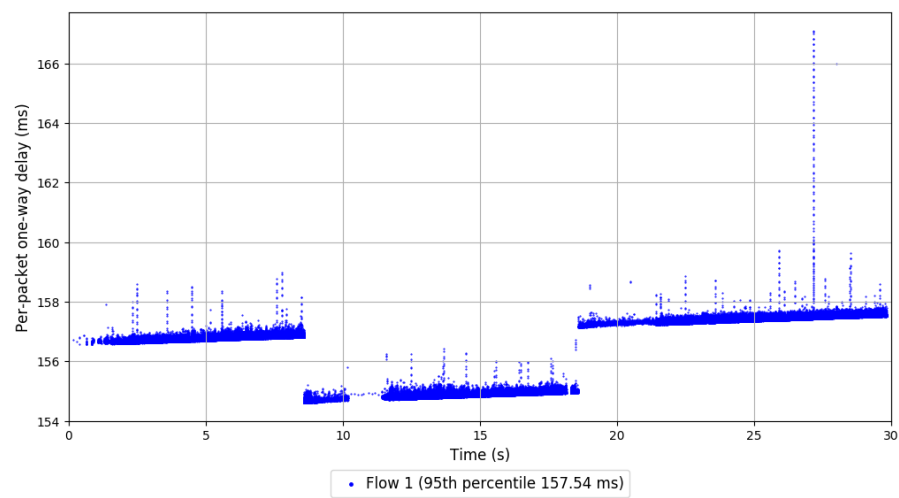
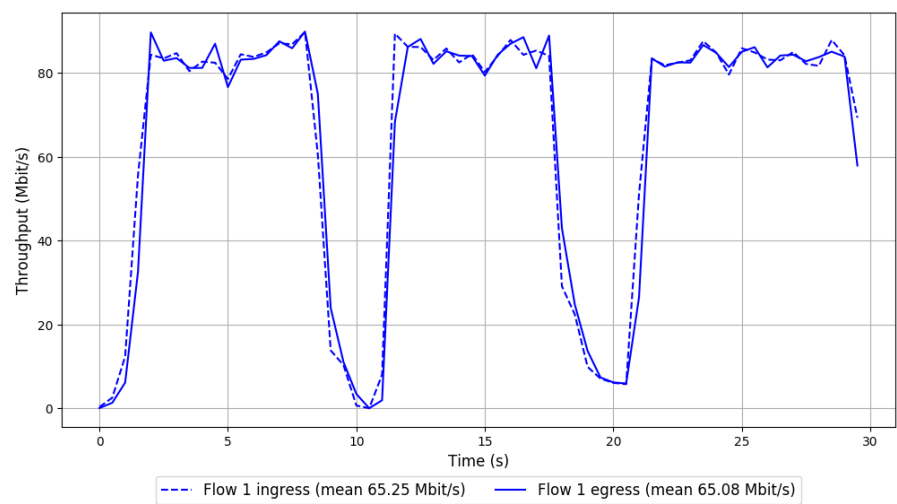
-- Flow 1:

Average throughput: 65.08 Mbit/s

95th percentile per-packet one-way delay: 157.536 ms

Loss rate: 1.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-08 19:49:02

End at: 2018-01-08 19:49:32

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.53 Mbit/s

95th percentile per-packet one-way delay: 151.349 ms

Loss rate: 1.10%

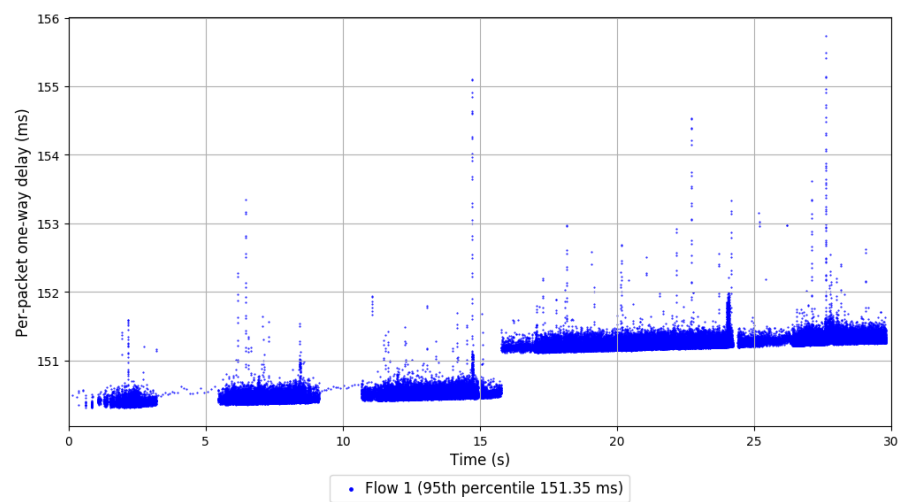
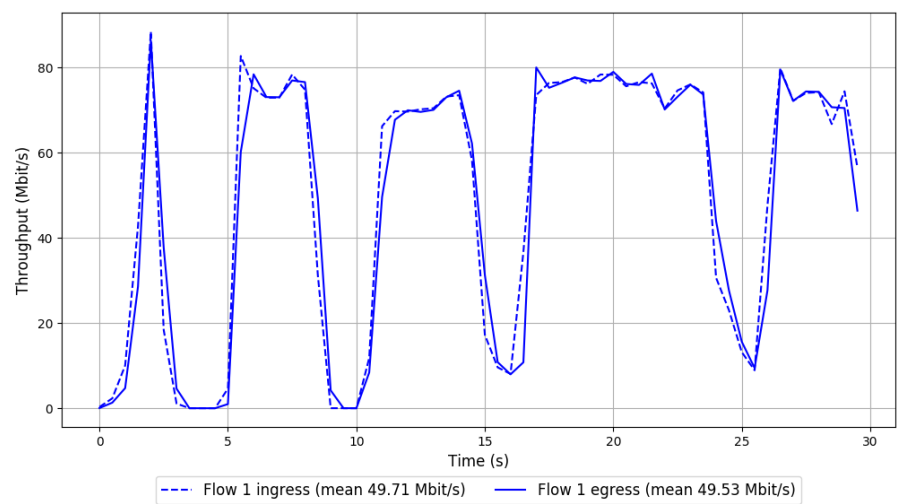
-- Flow 1:

Average throughput: 49.53 Mbit/s

95th percentile per-packet one-way delay: 151.349 ms

Loss rate: 1.10%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-08 20:01:17

End at: 2018-01-08 20:01:47

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.04 Mbit/s

95th percentile per-packet one-way delay: 126.347 ms

Loss rate: 1.07%

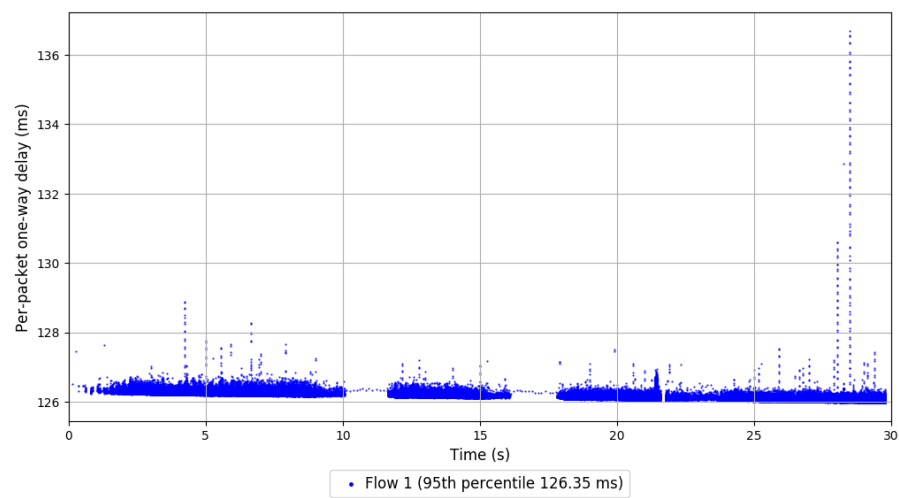
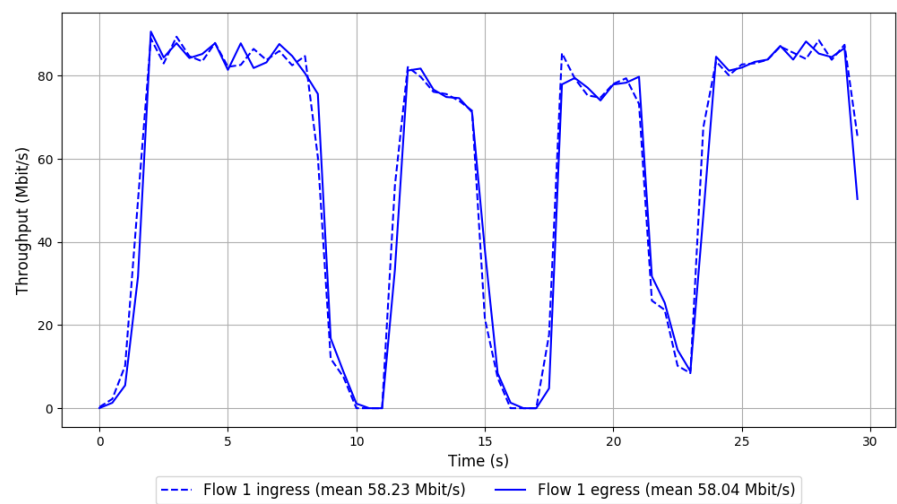
-- Flow 1:

Average throughput: 58.04 Mbit/s

95th percentile per-packet one-way delay: 126.347 ms

Loss rate: 1.07%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-08 20:13:37

End at: 2018-01-08 20:14:07

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.77 Mbit/s

95th percentile per-packet one-way delay: 123.985 ms

Loss rate: 0.94%

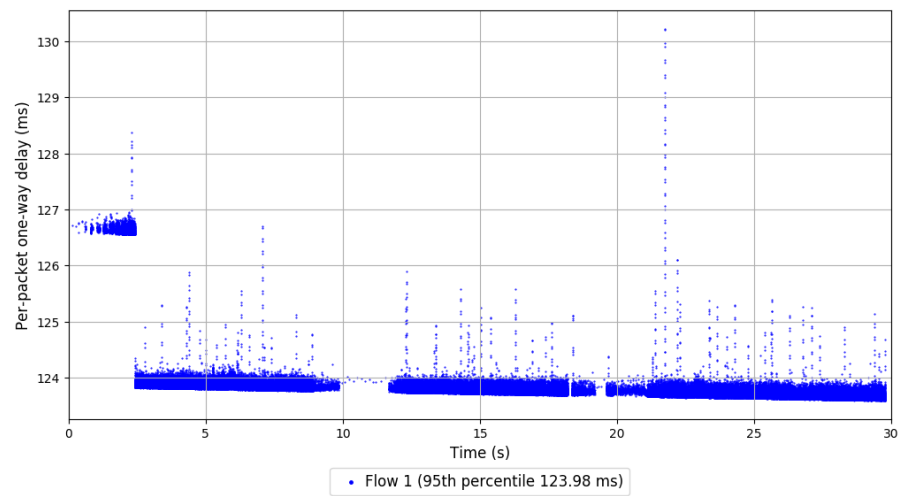
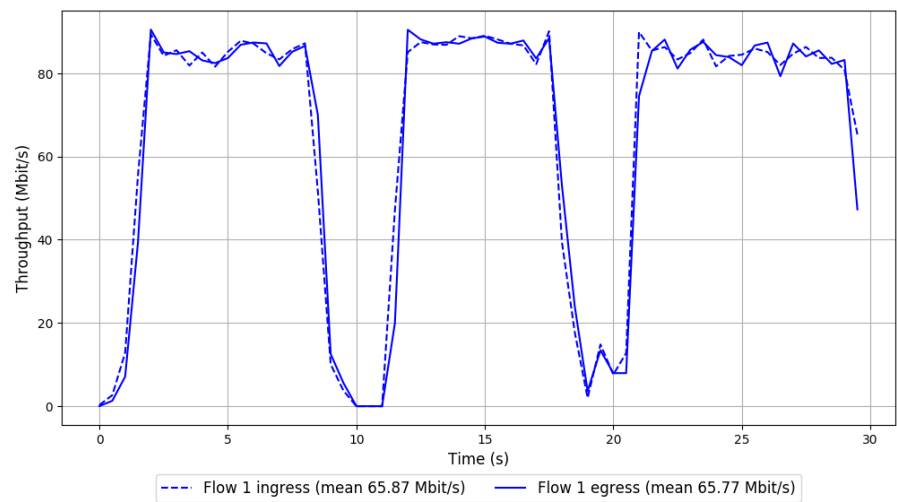
-- Flow 1:

Average throughput: 65.77 Mbit/s

95th percentile per-packet one-way delay: 123.985 ms

Loss rate: 0.94%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-08 20:26:11

End at: 2018-01-08 20:26:41

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.57 Mbit/s

95th percentile per-packet one-way delay: 126.972 ms

Loss rate: 0.89%

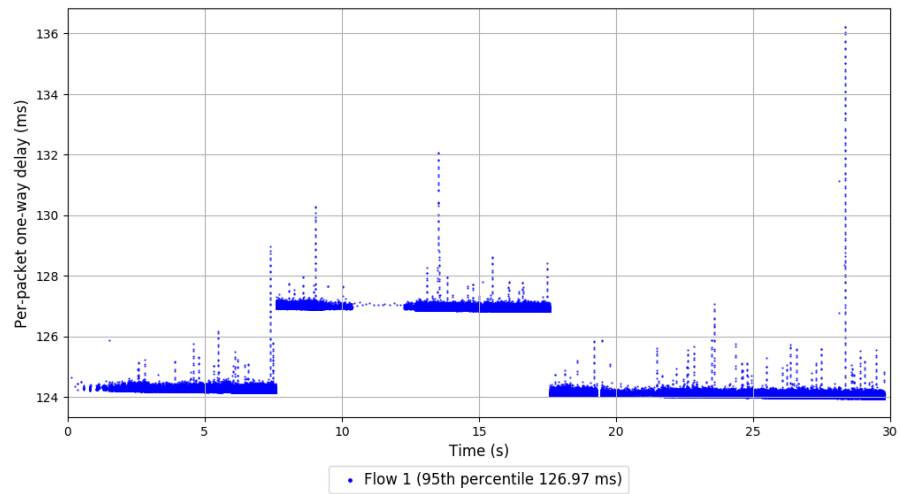
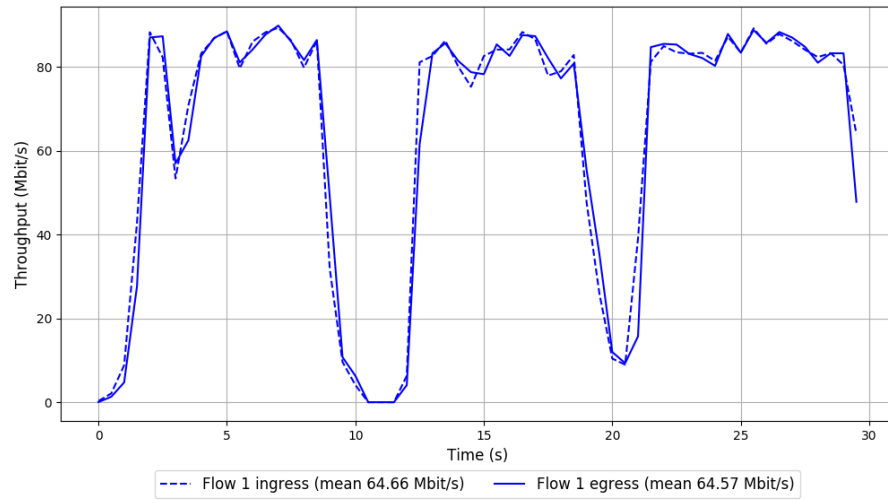
-- Flow 1:

Average throughput: 64.57 Mbit/s

95th percentile per-packet one-way delay: 126.972 ms

Loss rate: 0.89%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-08 20:38:50

End at: 2018-01-08 20:39:20

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.82 Mbit/s

95th percentile per-packet one-way delay: 128.408 ms

Loss rate: 0.98%

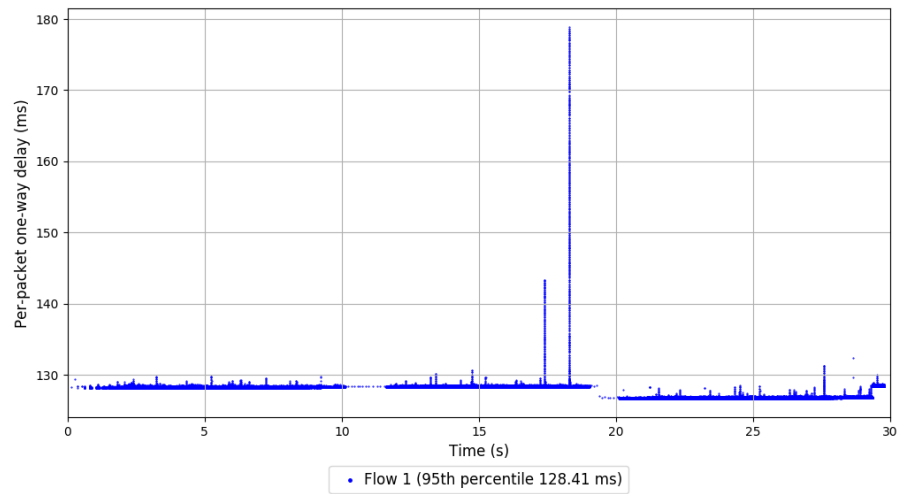
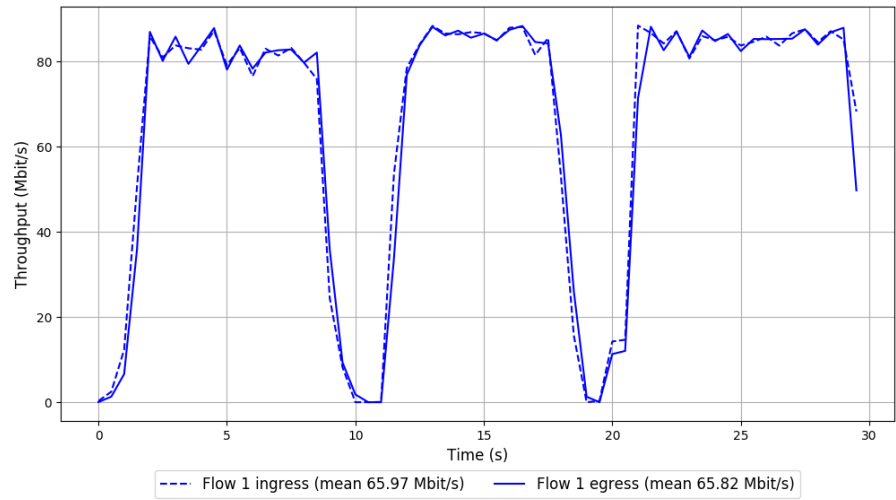
-- Flow 1:

Average throughput: 65.82 Mbit/s

95th percentile per-packet one-way delay: 128.408 ms

Loss rate: 0.98%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-08 20:51:30

End at: 2018-01-08 20:52:00

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.00 Mbit/s

95th percentile per-packet one-way delay: 125.378 ms

Loss rate: 0.93%

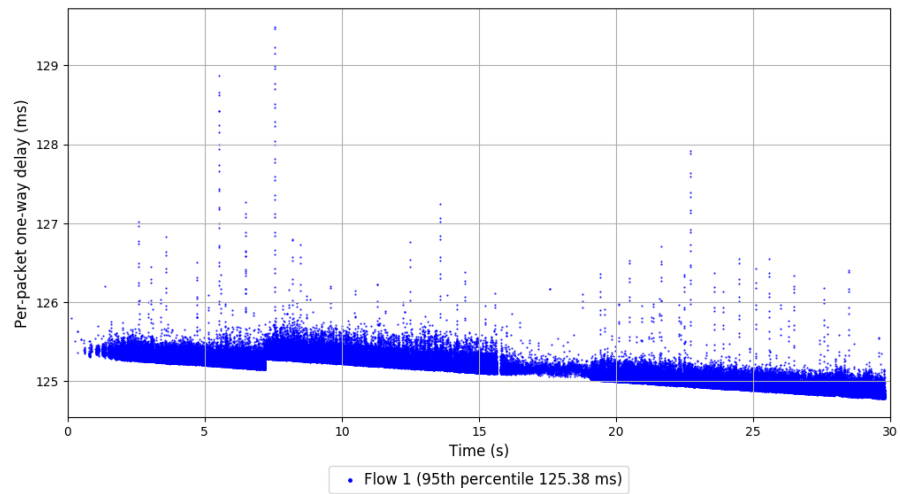
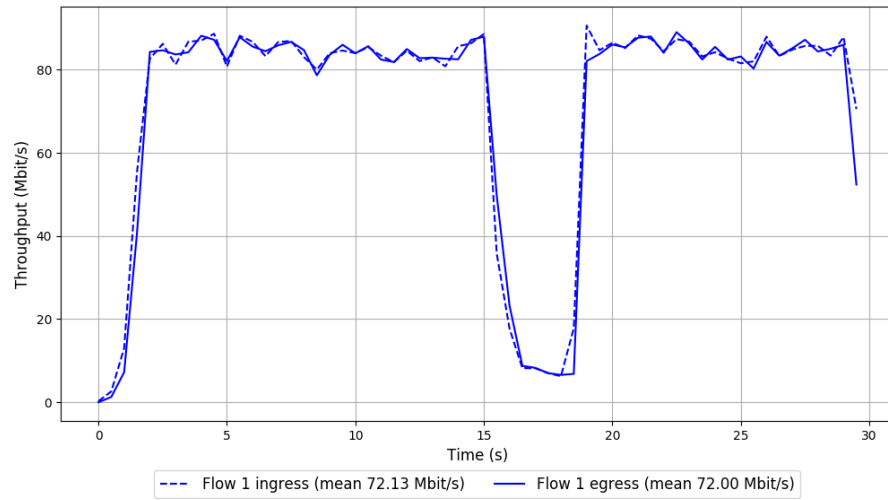
-- Flow 1:

Average throughput: 72.00 Mbit/s

95th percentile per-packet one-way delay: 125.378 ms

Loss rate: 0.93%

Run 10: Report of QUIC Cubic — Data Link

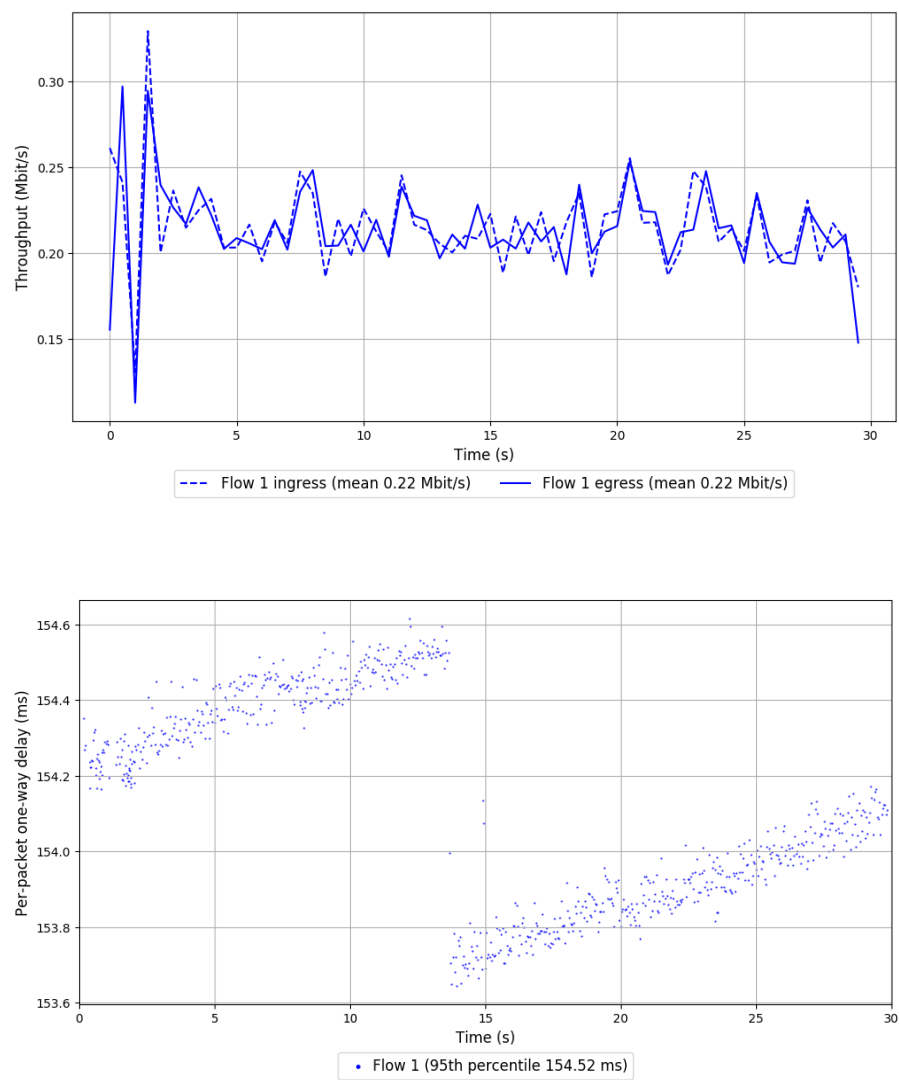


```
Run 1: Statistics of SCReAM

Start at: 2018-01-08 18:54:55
End at: 2018-01-08 18:55:25

# Below is generated by plot.py at 2018-01-08 23:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 154.518 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 154.518 ms
Loss rate: 0.76%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2018-01-08 19:07:22

End at: 2018-01-08 19:07:52

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.677 ms

Loss rate: 0.77%

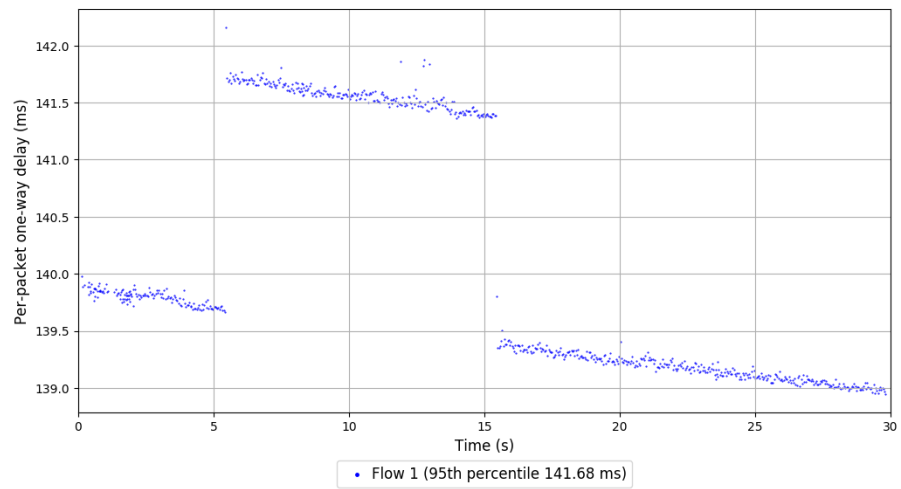
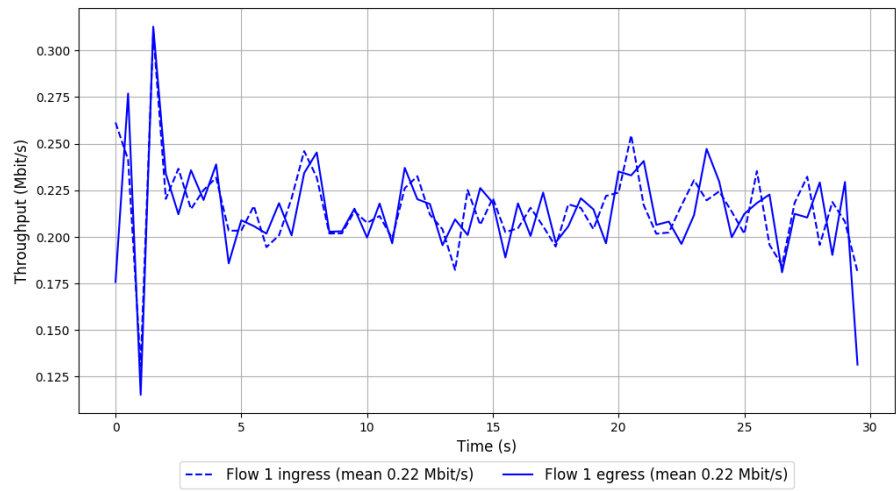
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.677 ms

Loss rate: 0.77%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-08 19:19:40

End at: 2018-01-08 19:20:10

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 140.723 ms

Loss rate: 0.76%

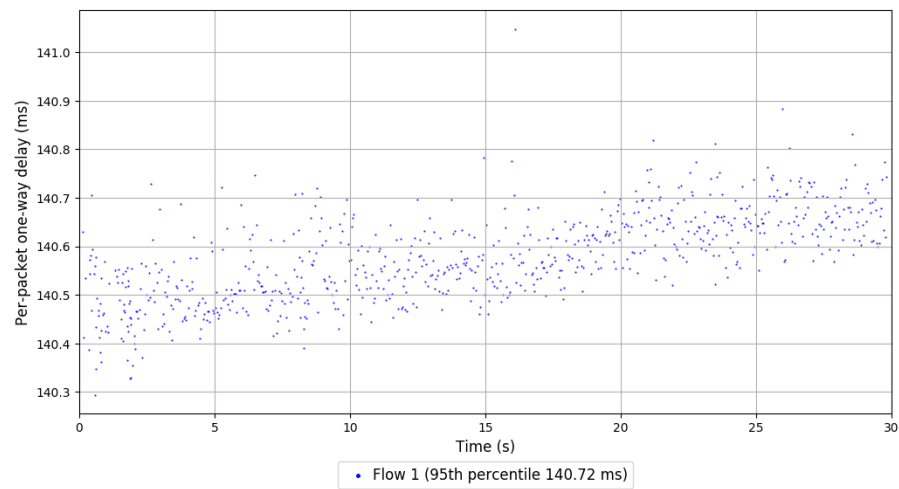
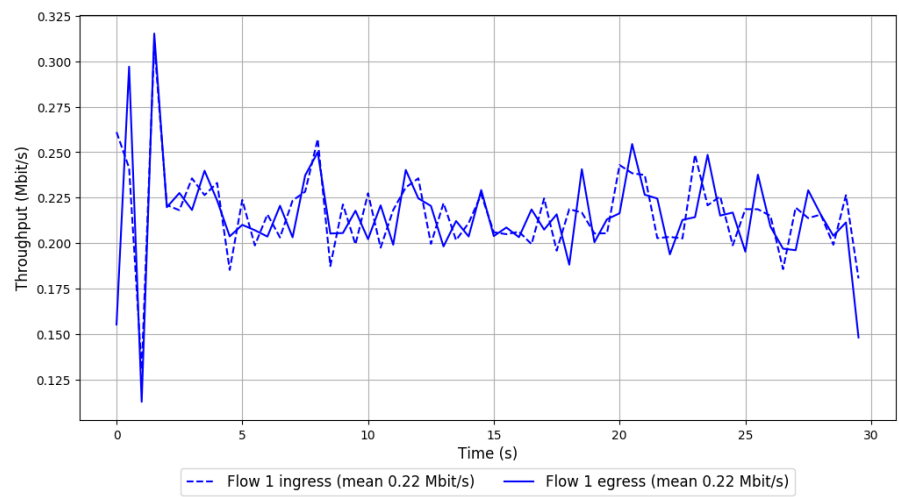
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 140.723 ms

Loss rate: 0.76%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-01-08 19:32:10

End at: 2018-01-08 19:32:40

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 151.285 ms

Loss rate: 0.77%

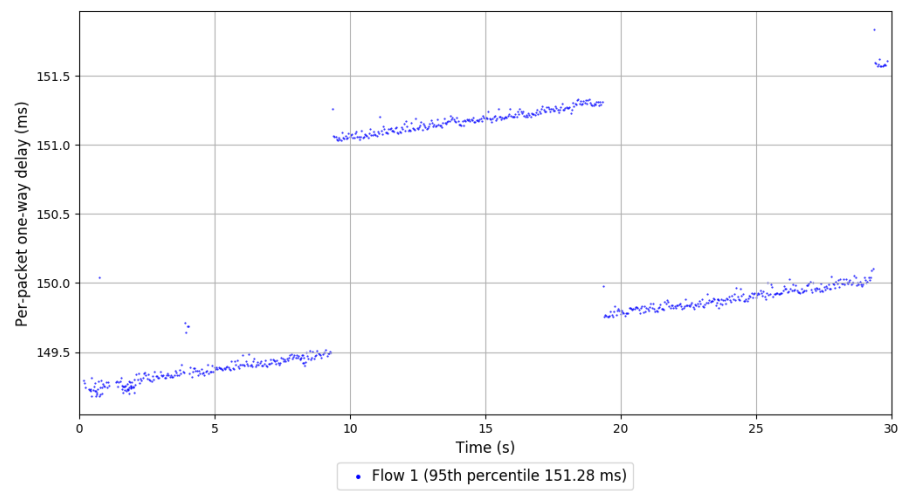
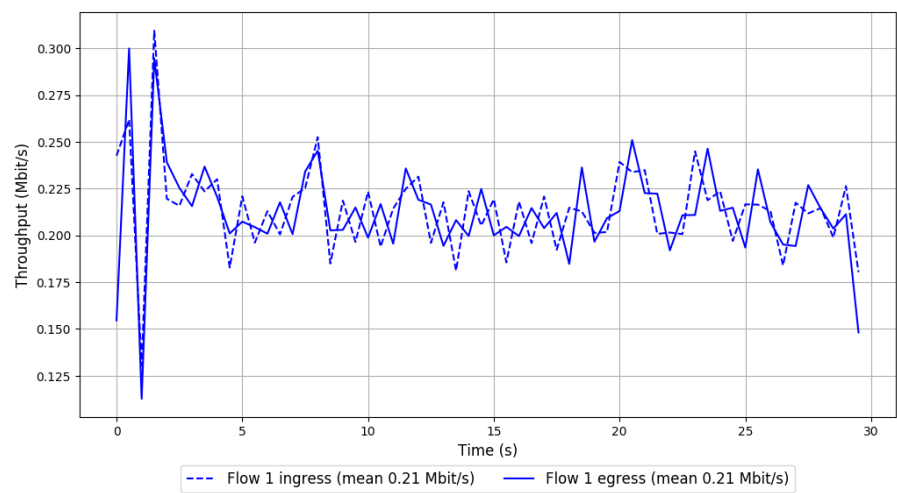
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 151.285 ms

Loss rate: 0.77%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-01-08 19:44:35

End at: 2018-01-08 19:45:05

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 152.237 ms

Loss rate: 0.77%

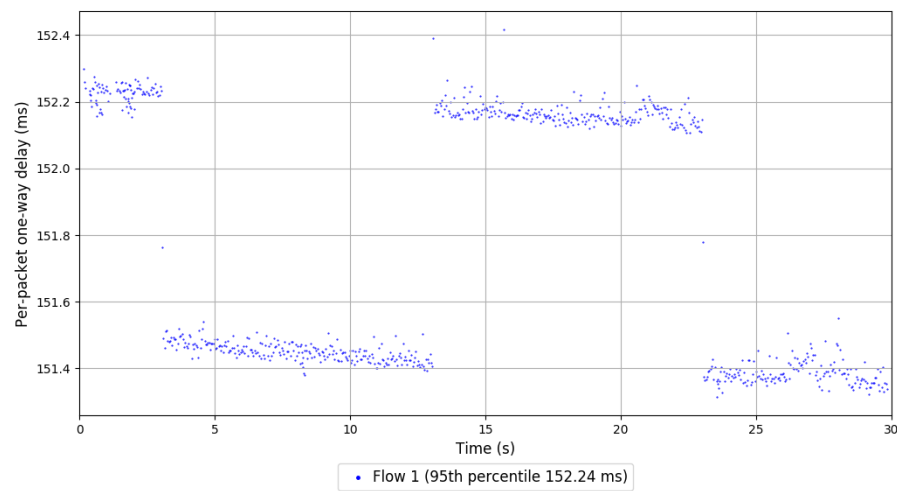
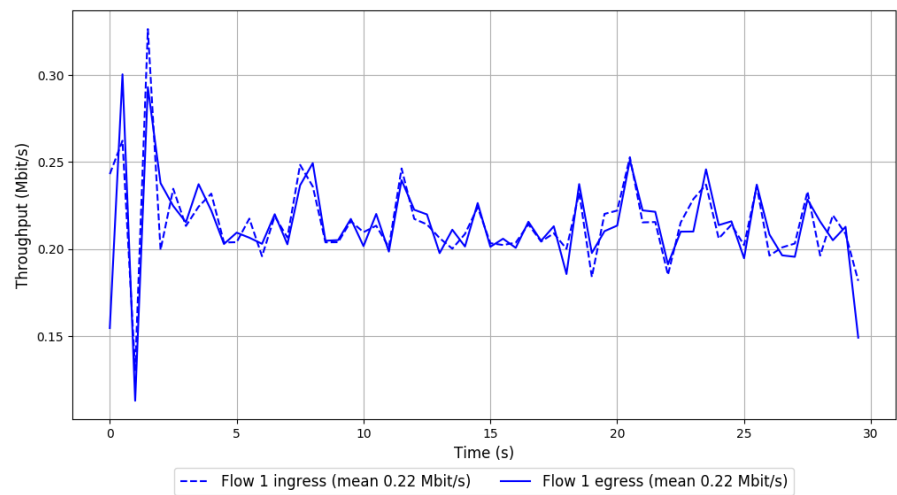
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 152.237 ms

Loss rate: 0.77%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-08 19:56:47

End at: 2018-01-08 19:57:17

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 137.658 ms

Loss rate: 0.77%

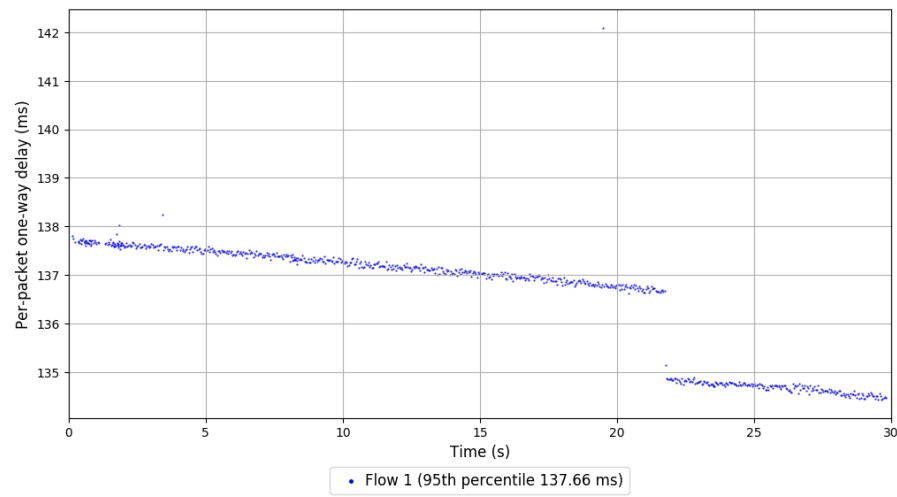
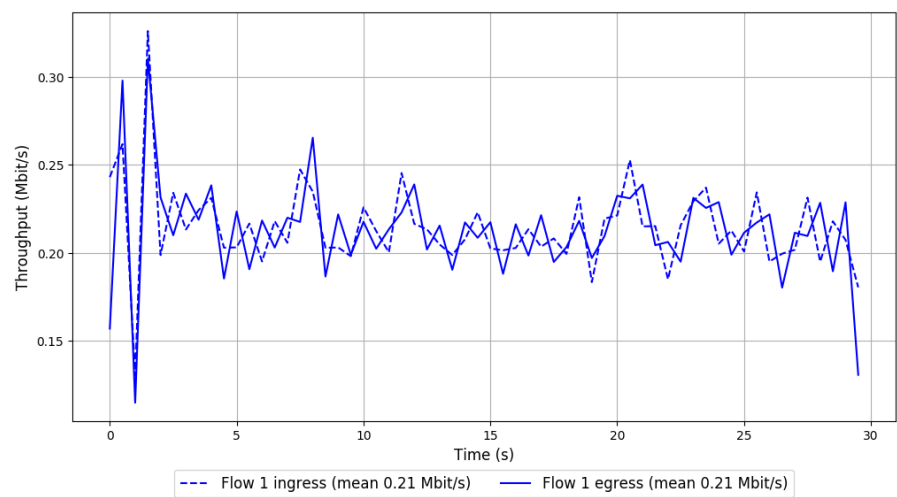
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 137.658 ms

Loss rate: 0.77%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-01-08 20:09:10

End at: 2018-01-08 20:09:40

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 125.235 ms

Loss rate: 0.77%

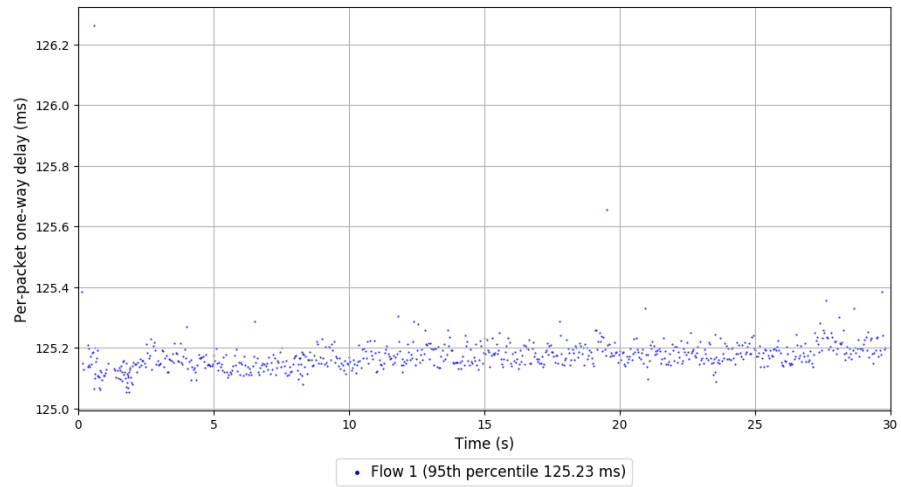
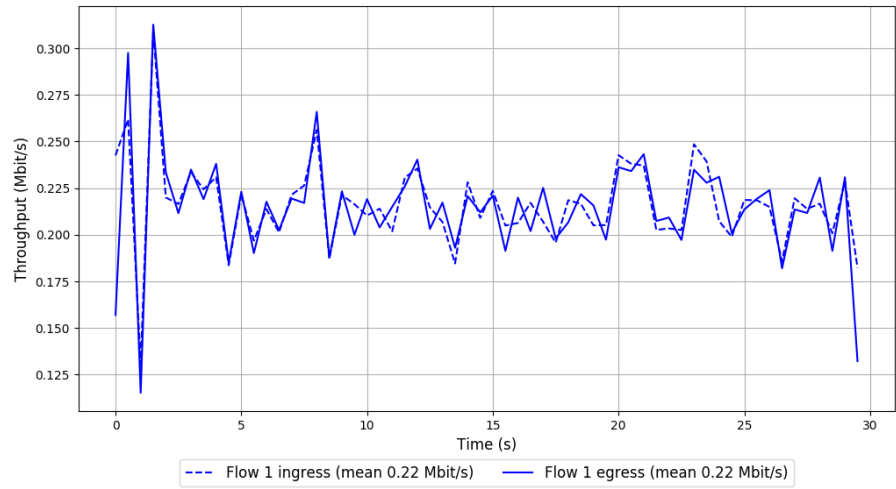
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 125.235 ms

Loss rate: 0.77%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-08 20:21:29

End at: 2018-01-08 20:21:59

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 127.036 ms

Loss rate: 0.77%

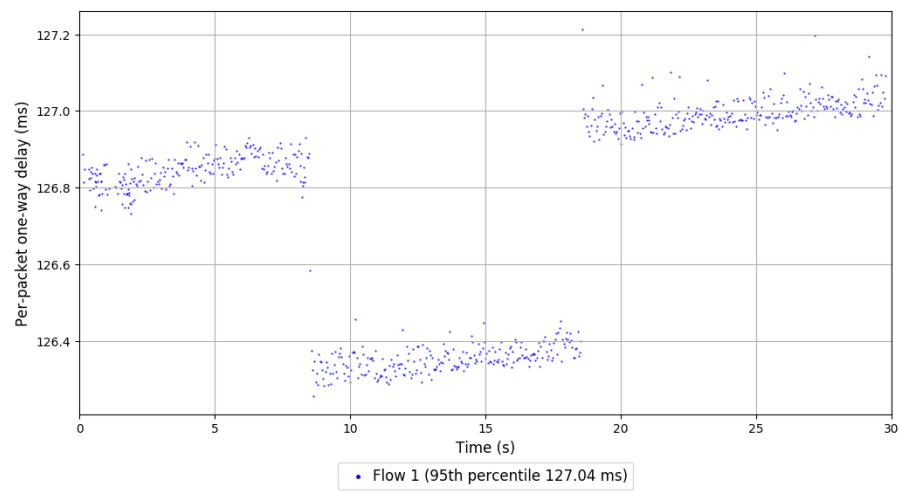
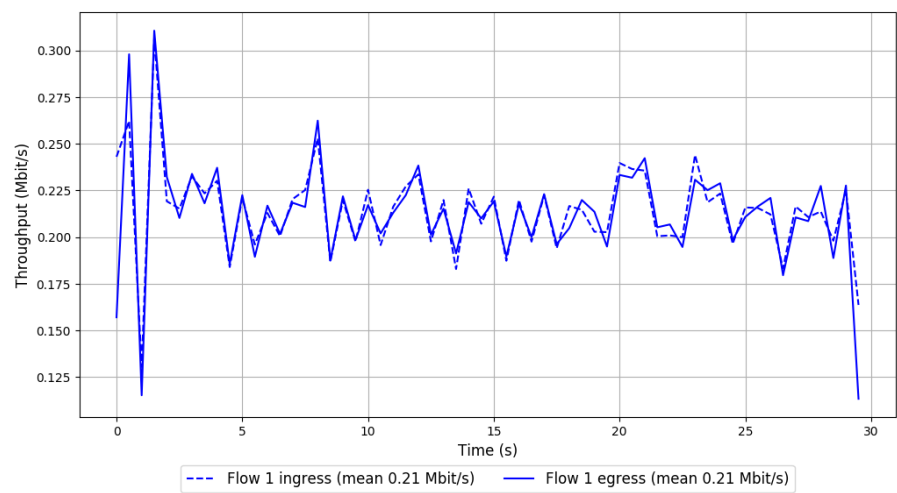
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 127.036 ms

Loss rate: 0.77%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-01-08 20:34:07

End at: 2018-01-08 20:34:37

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 126.149 ms

Loss rate: 0.76%

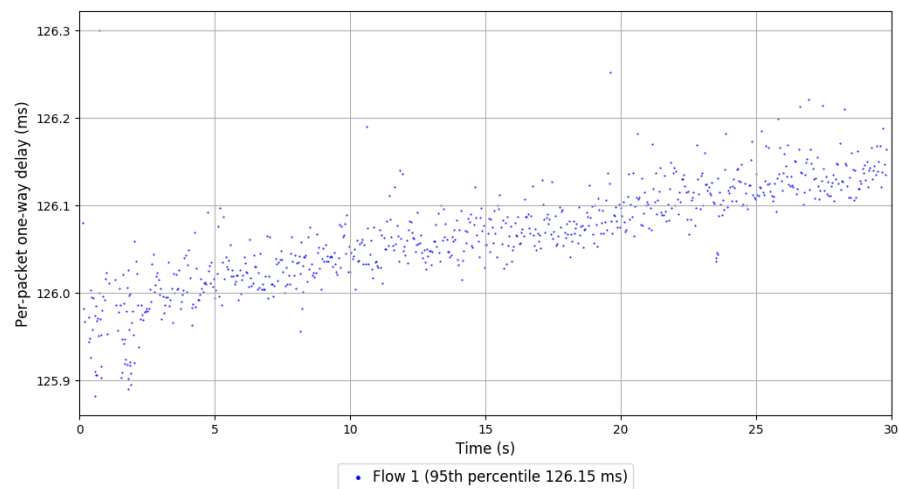
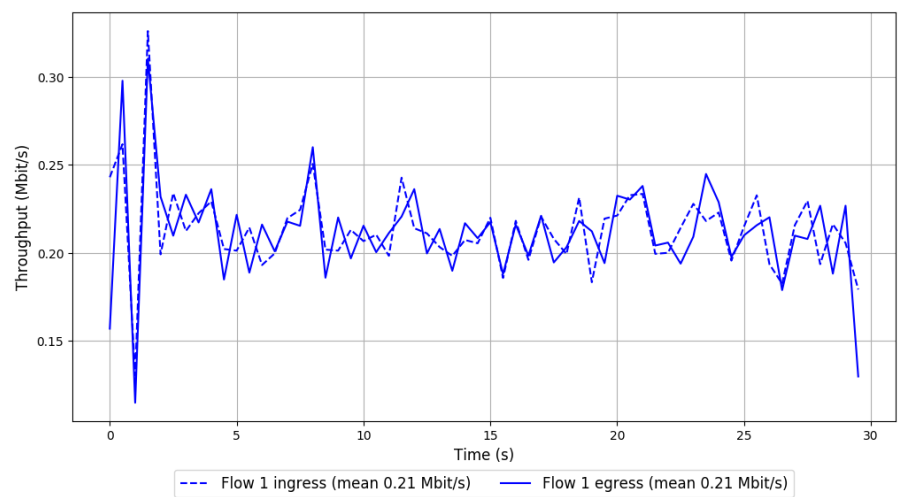
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 126.149 ms

Loss rate: 0.76%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2018-01-08 20:46:42

End at: 2018-01-08 20:47:12

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 128.574 ms

Loss rate: 0.77%

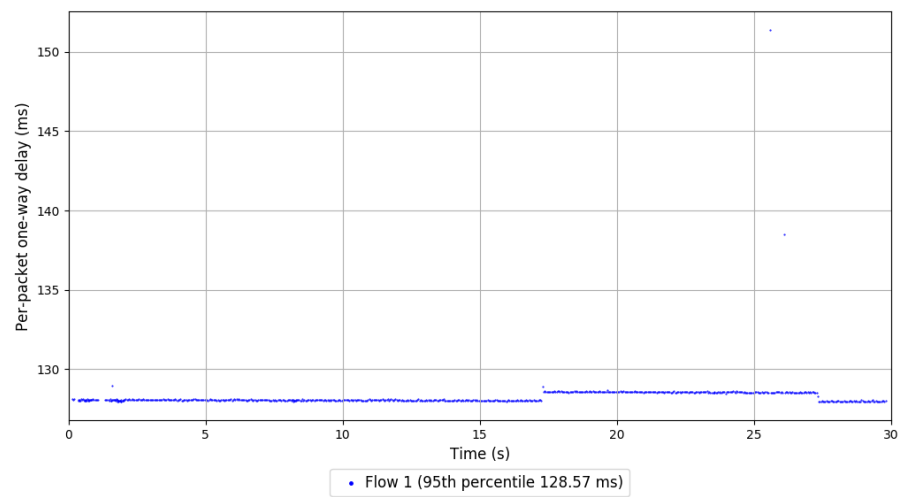
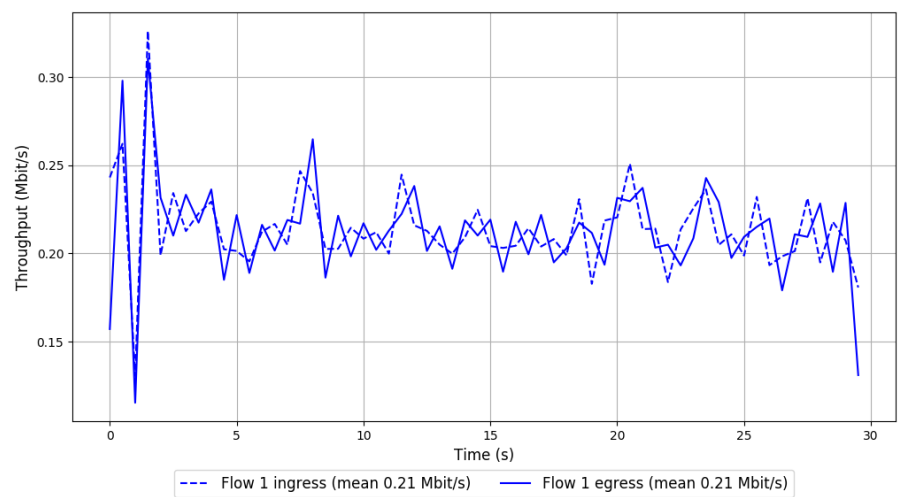
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 128.574 ms

Loss rate: 0.77%

Run 10: Report of SReAM — Data Link

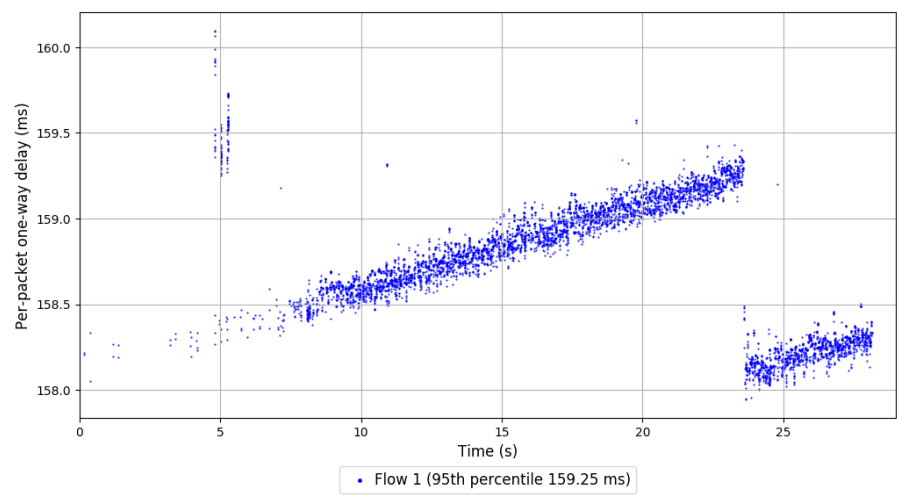
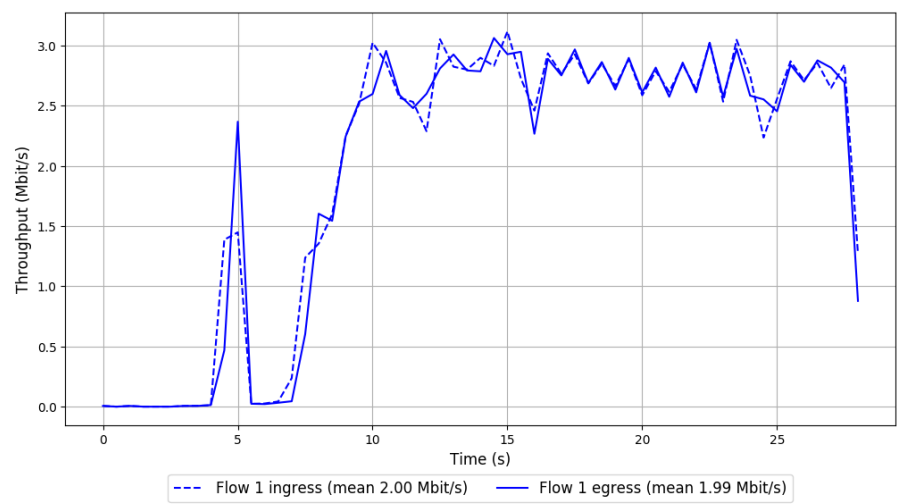


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-08 18:57:12
End at: 2018-01-08 18:57:42

# Below is generated by plot.py at 2018-01-08 23:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 159.253 ms
Loss rate: 1.13%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 159.253 ms
Loss rate: 1.13%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-08 19:09:34

End at: 2018-01-08 19:10:05

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 141.265 ms

Loss rate: 0.77%

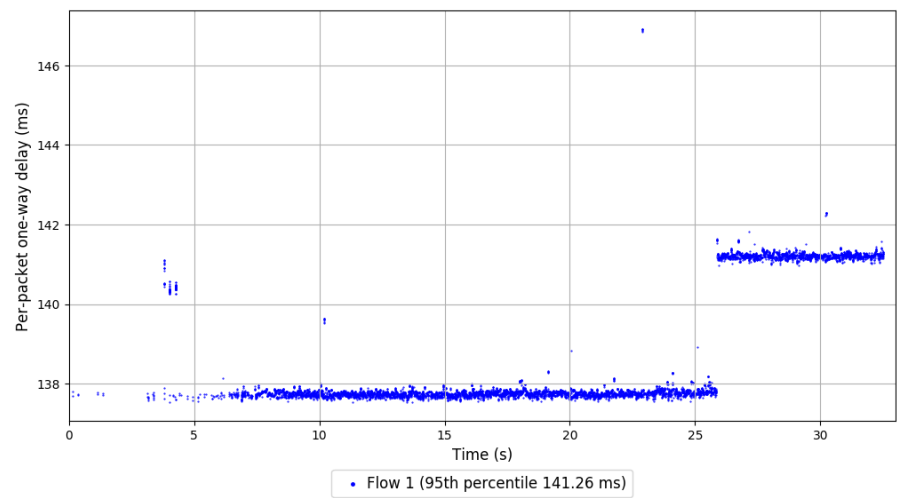
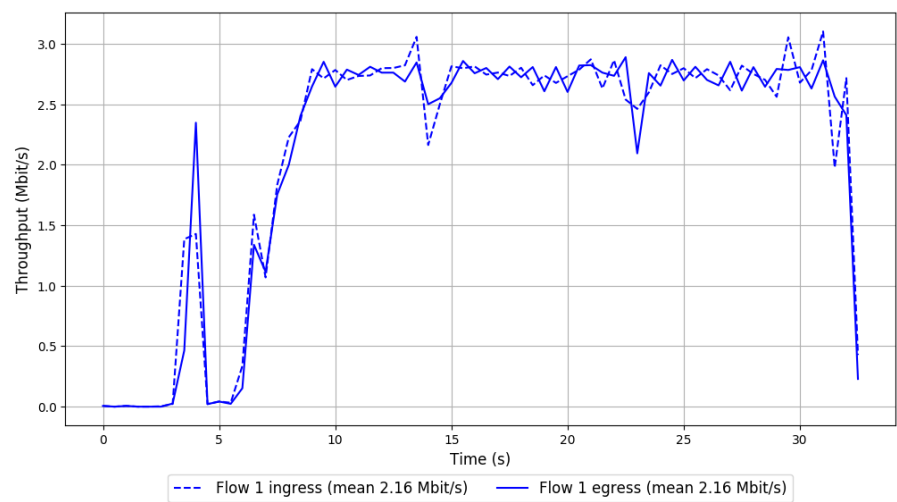
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 141.265 ms

Loss rate: 0.77%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-08 19:22:00

End at: 2018-01-08 19:22:30

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 144.415 ms

Loss rate: 0.93%

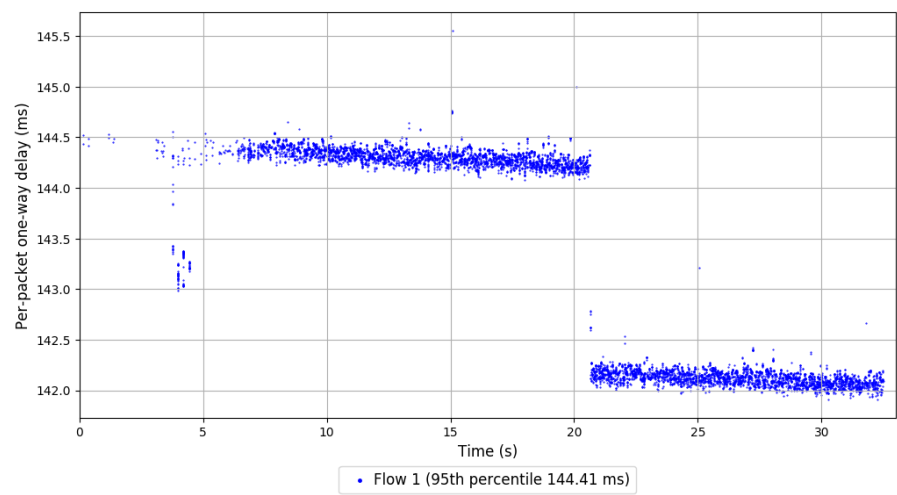
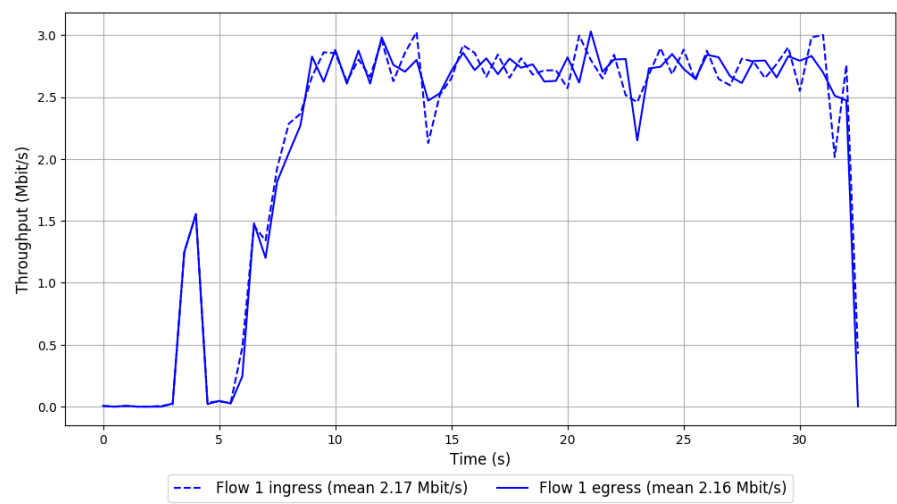
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 144.415 ms

Loss rate: 0.93%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-08 19:34:23

End at: 2018-01-08 19:34:53

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 155.214 ms

Loss rate: 0.92%

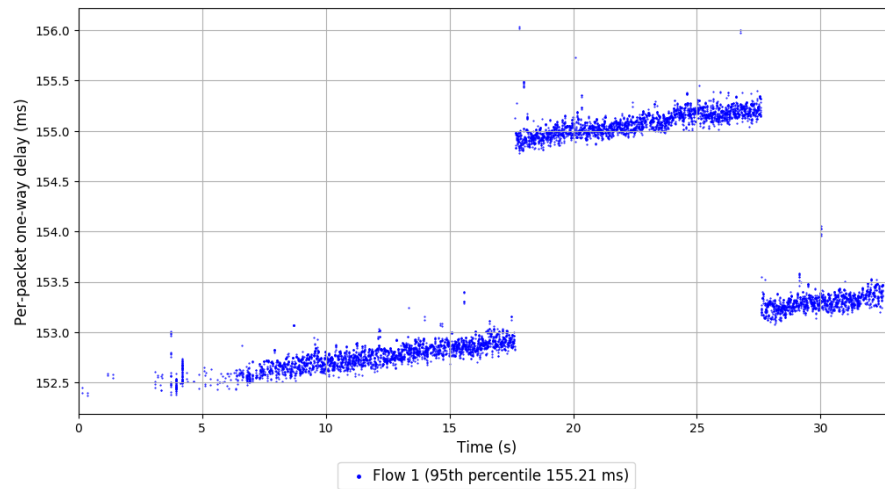
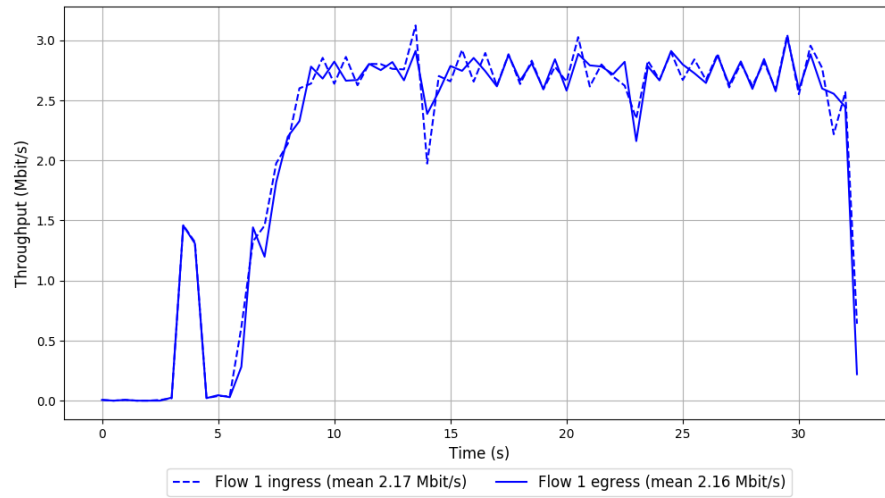
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 155.214 ms

Loss rate: 0.92%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-08 19:46:44

End at: 2018-01-08 19:47:14

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 151.571 ms

Loss rate: 0.78%

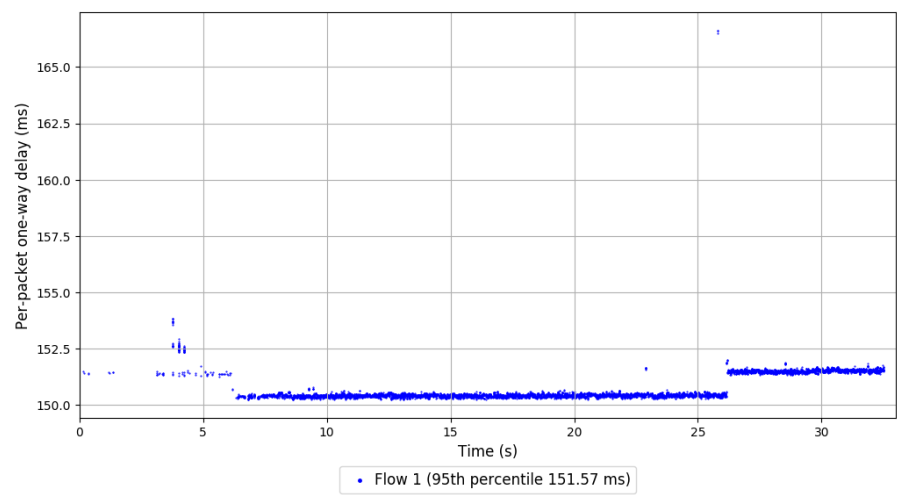
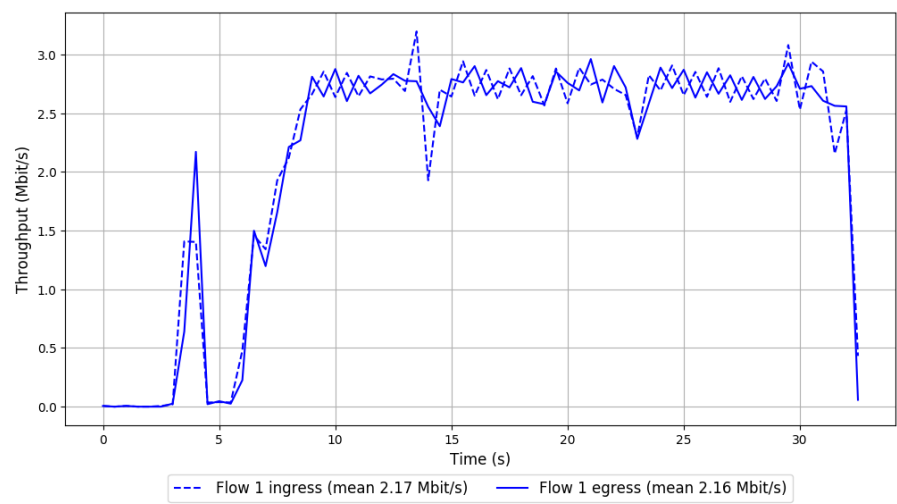
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 151.571 ms

Loss rate: 0.78%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-08 19:58:59

End at: 2018-01-08 19:59:29

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 132.419 ms

Loss rate: 0.93%

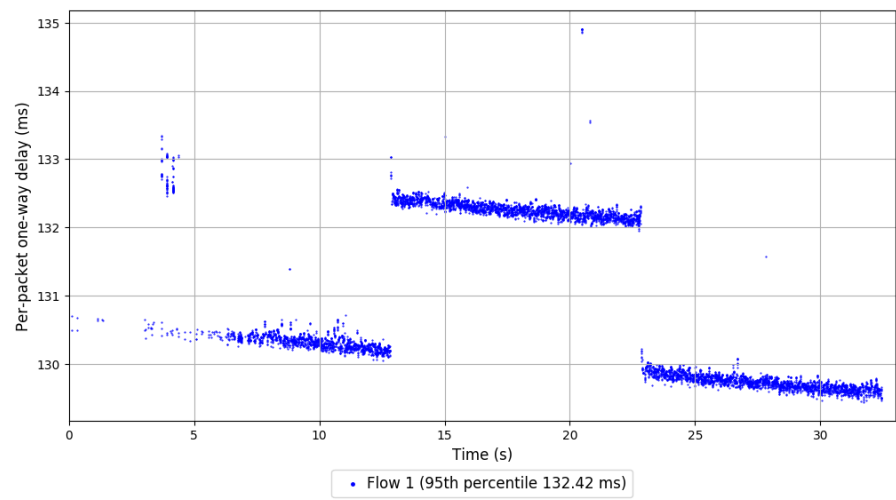
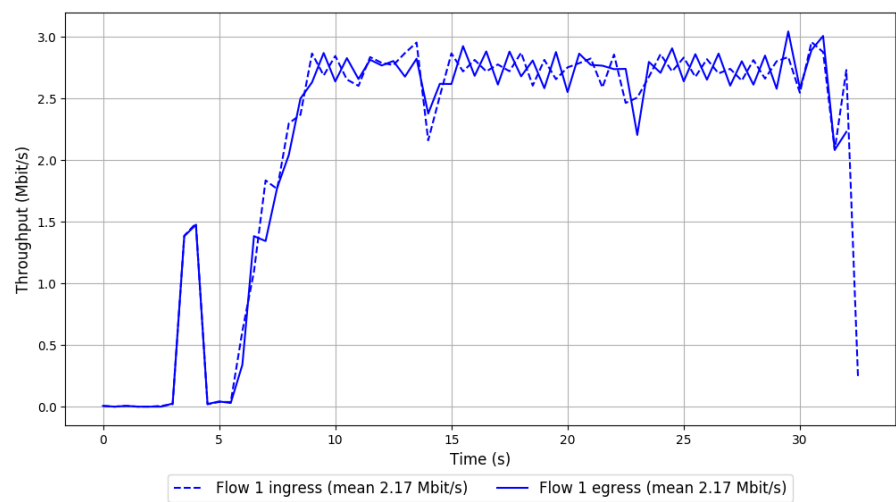
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 132.419 ms

Loss rate: 0.93%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-08 20:11:19

End at: 2018-01-08 20:11:49

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 127.760 ms

Loss rate: 0.92%

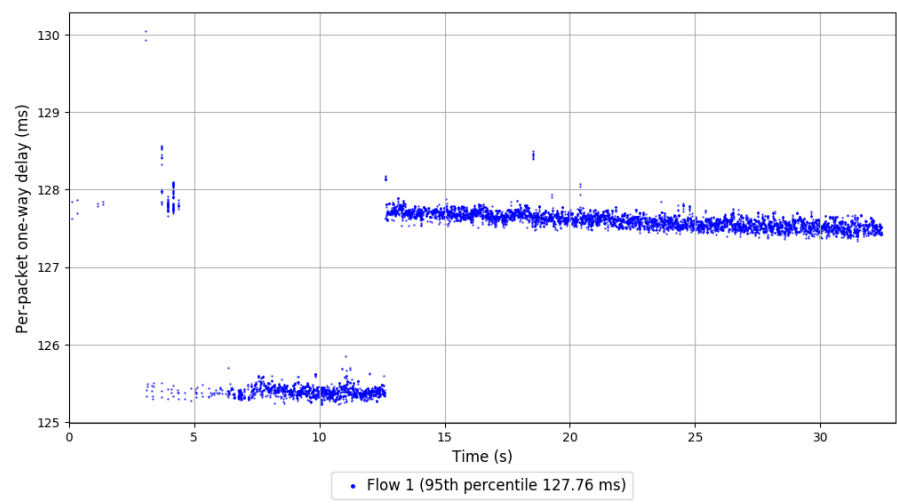
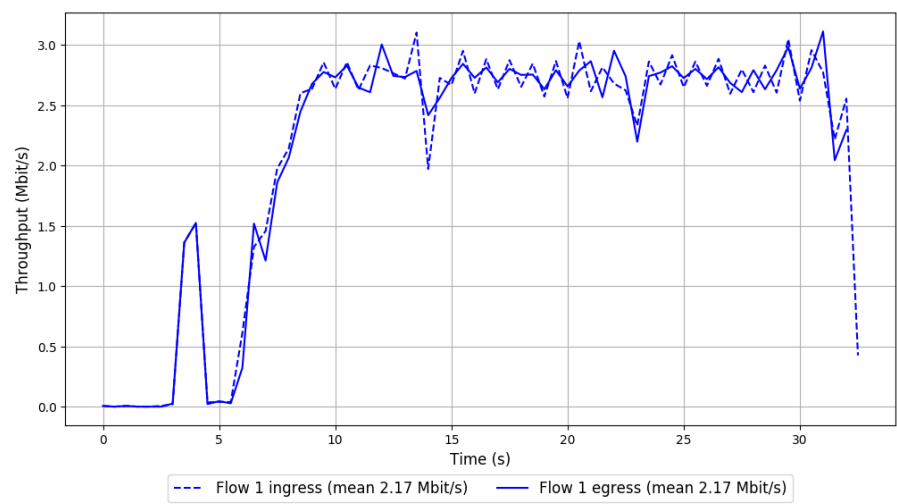
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 127.760 ms

Loss rate: 0.92%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-08 20:23:54

End at: 2018-01-08 20:24:24

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 127.792 ms

Loss rate: 0.92%

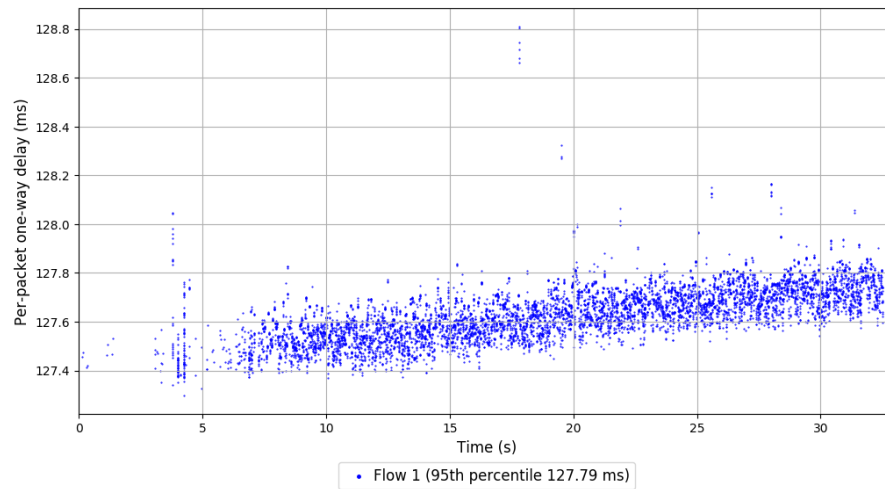
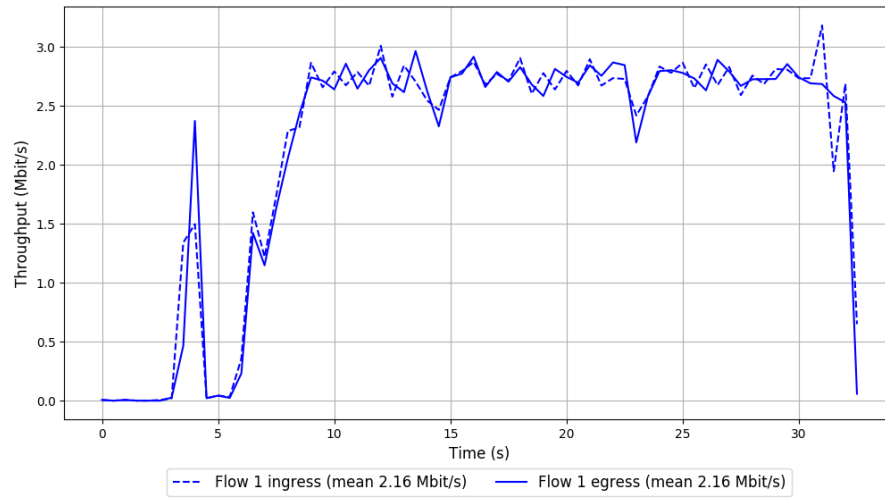
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 127.792 ms

Loss rate: 0.92%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-08 20:36:31

End at: 2018-01-08 20:37:01

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 129.909 ms

Loss rate: 0.77%

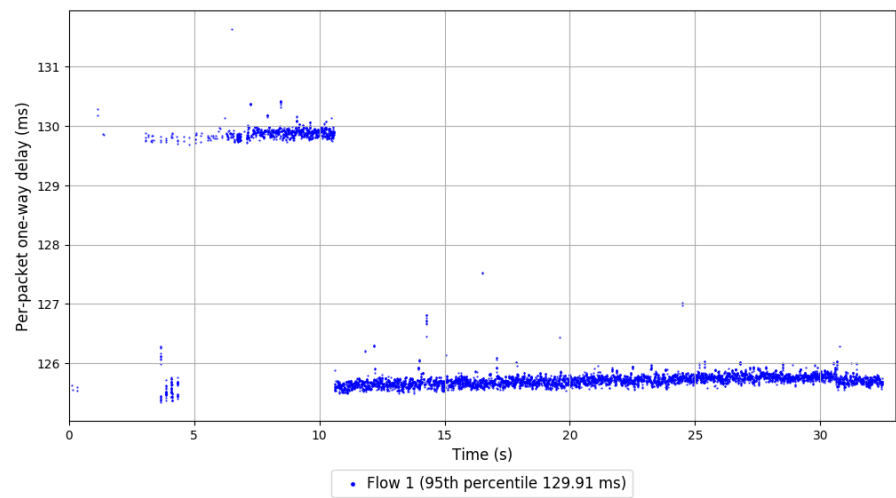
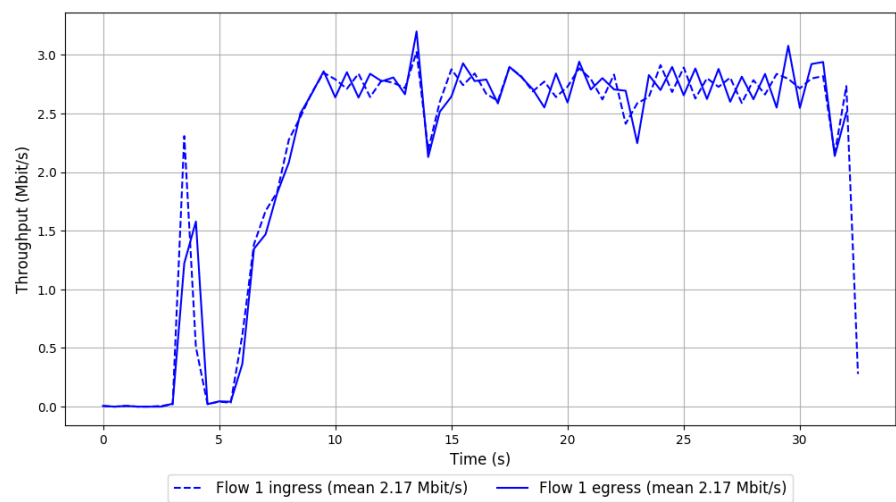
-- Flow 1:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 129.909 ms

Loss rate: 0.77%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-08 20:49:12

End at: 2018-01-08 20:49:42

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 128.056 ms

Loss rate: 0.91%

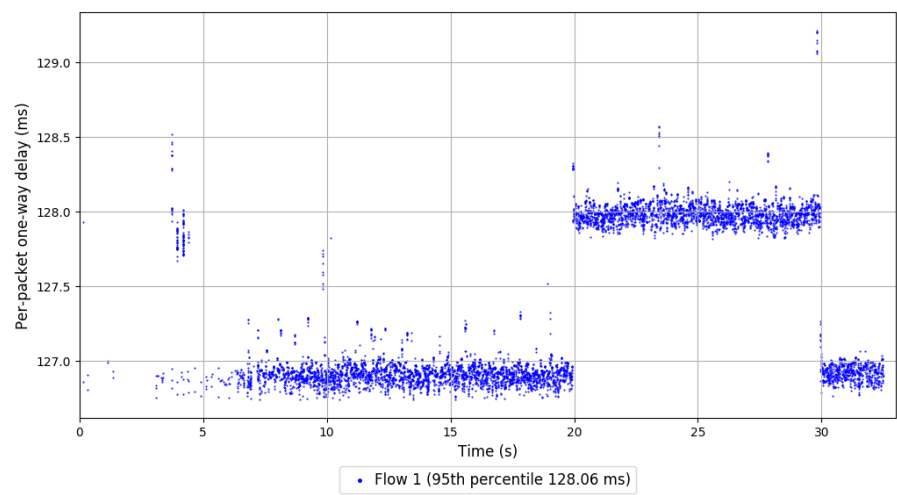
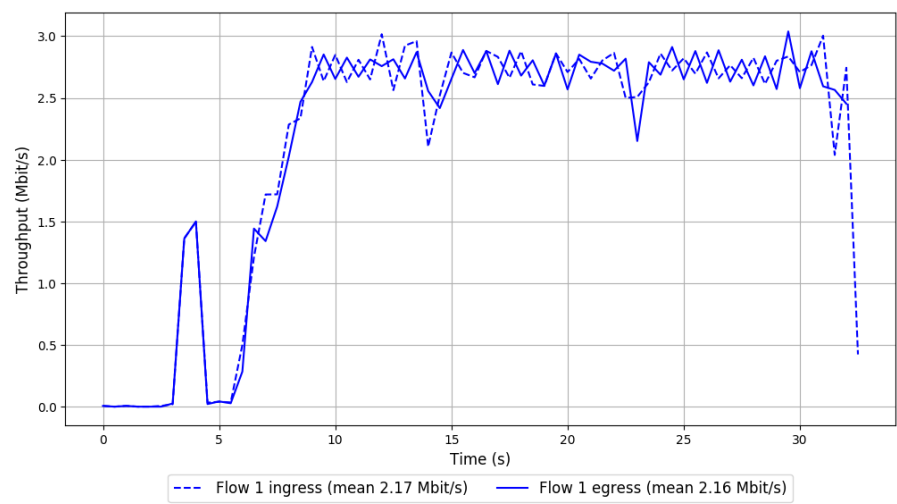
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 128.056 ms

Loss rate: 0.91%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-08 18:50:17

End at: 2018-01-08 18:50:47

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 158.131 ms

Loss rate: 1.55%

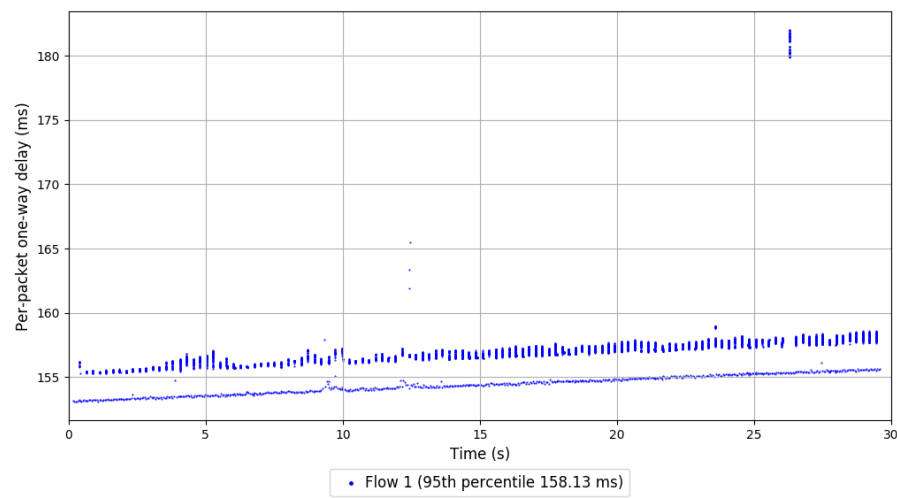
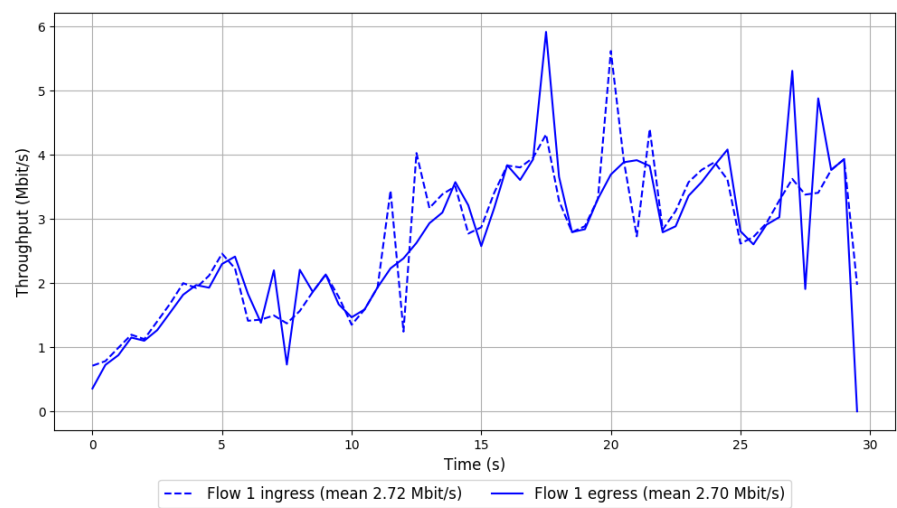
-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 158.131 ms

Loss rate: 1.55%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-08 19:02:38

End at: 2018-01-08 19:03:08

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 154.661 ms

Loss rate: 1.27%

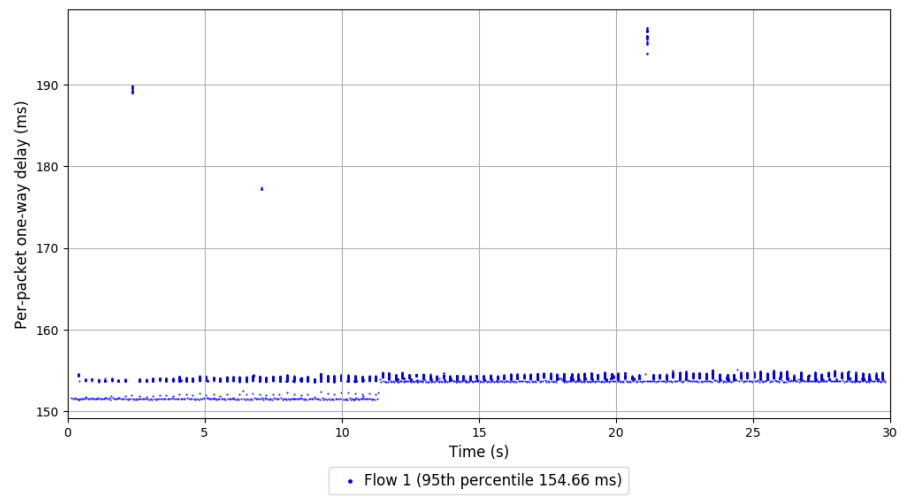
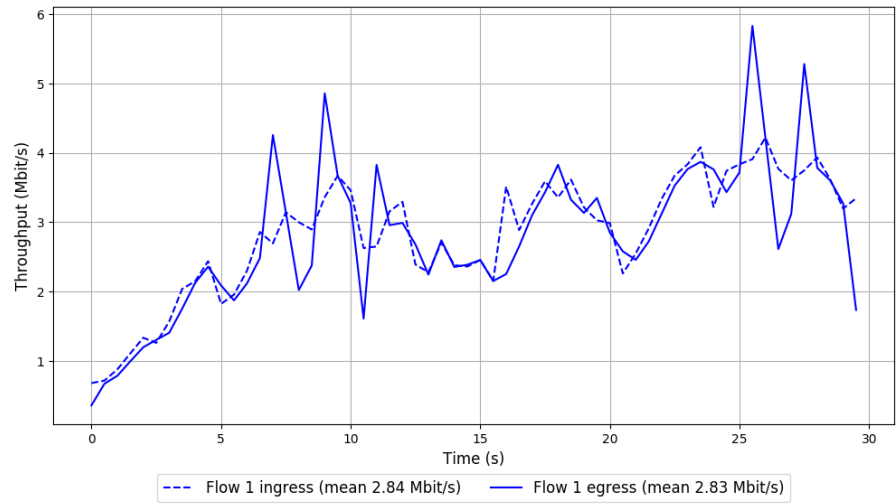
-- Flow 1:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 154.661 ms

Loss rate: 1.27%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-08 19:15:04

End at: 2018-01-08 19:15:34

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 145.871 ms

Loss rate: 2.96%

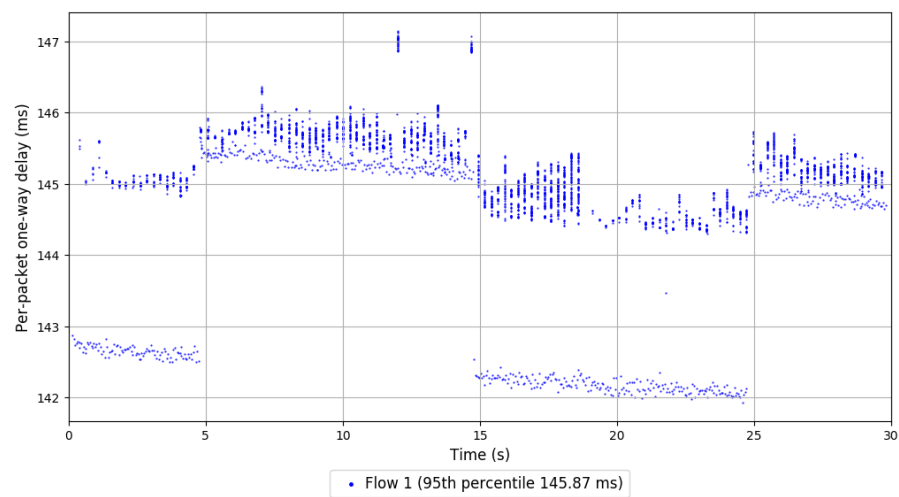
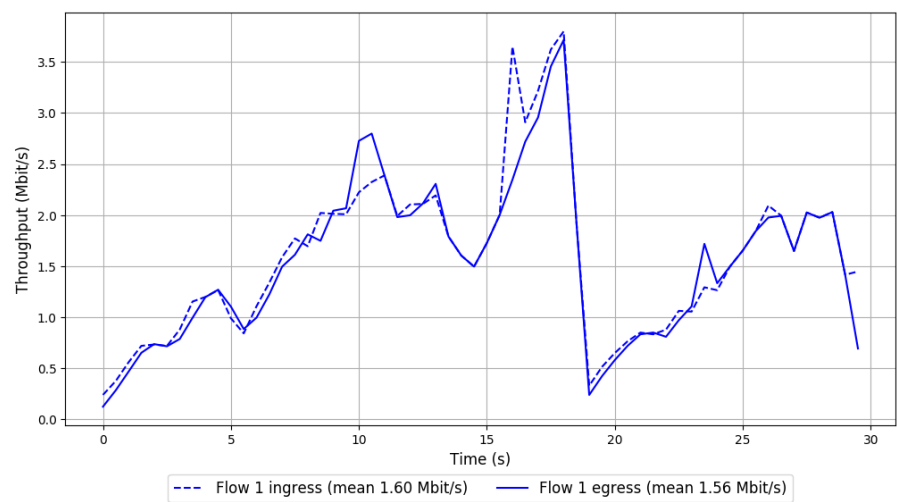
-- Flow 1:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 145.871 ms

Loss rate: 2.96%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-08 19:27:29

End at: 2018-01-08 19:27:59

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 145.819 ms

Loss rate: 1.12%

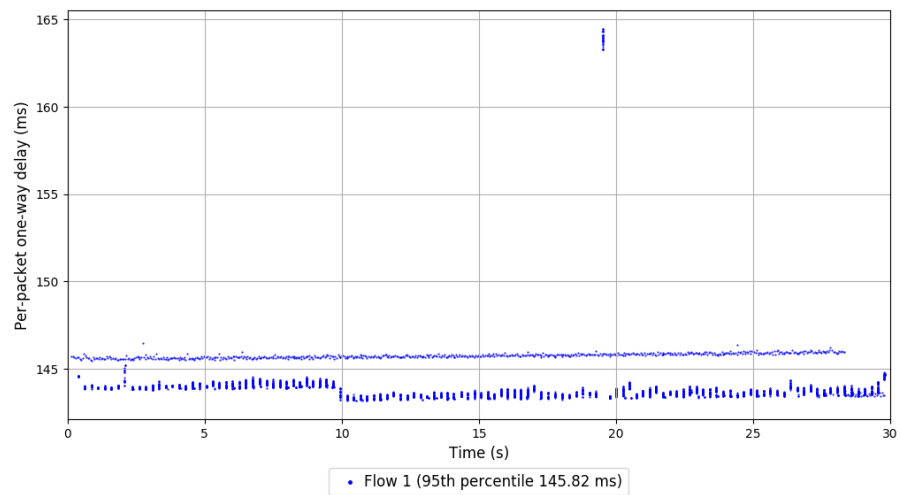
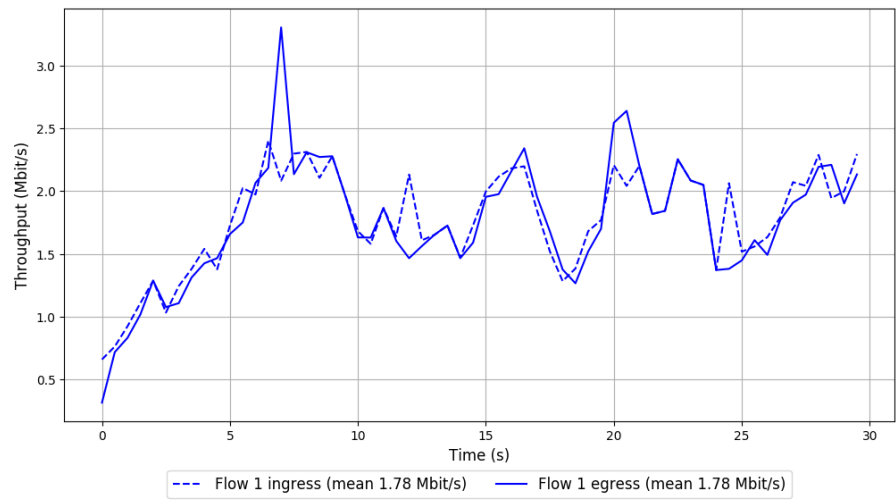
-- Flow 1:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 145.819 ms

Loss rate: 1.12%

Run 4: Report of Sprout — Data Link

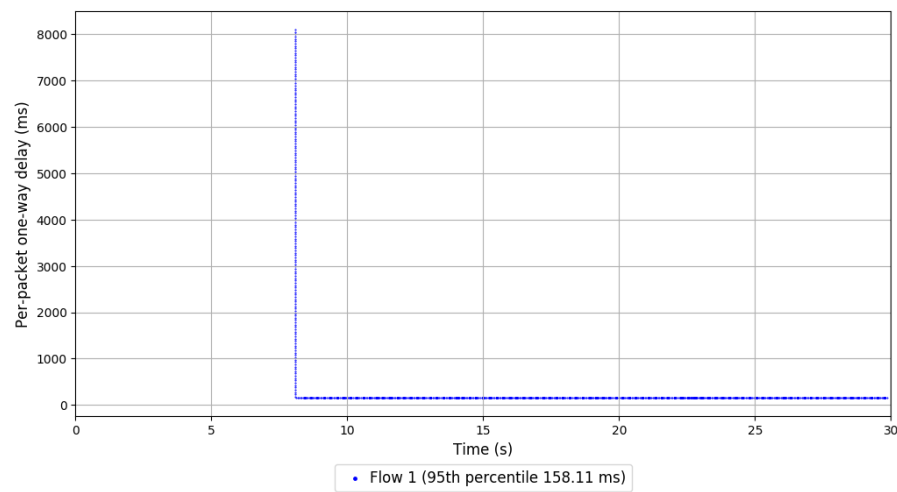
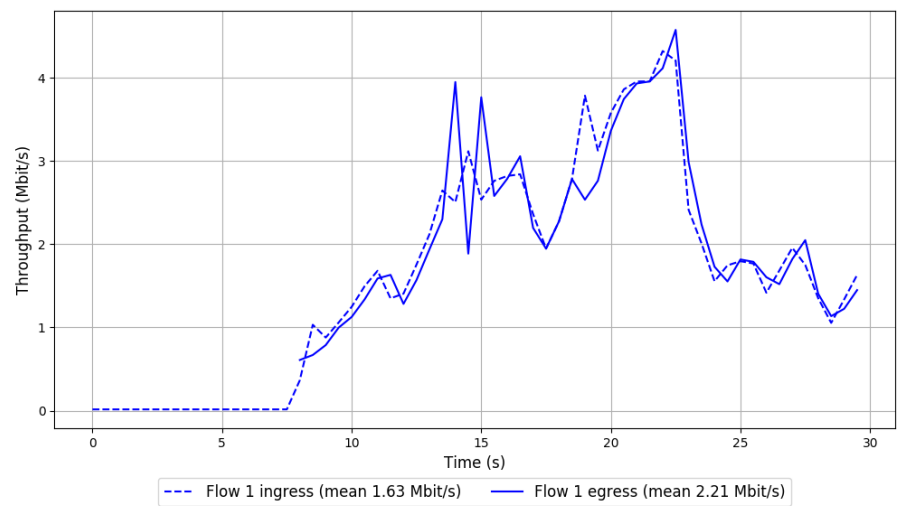


Run 5: Statistics of Sprout

Start at: 2018-01-08 19:39:55

End at: 2018-01-08 19:40:25

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-08 19:52:07

End at: 2018-01-08 19:52:37

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 153.975 ms

Loss rate: 1.19%

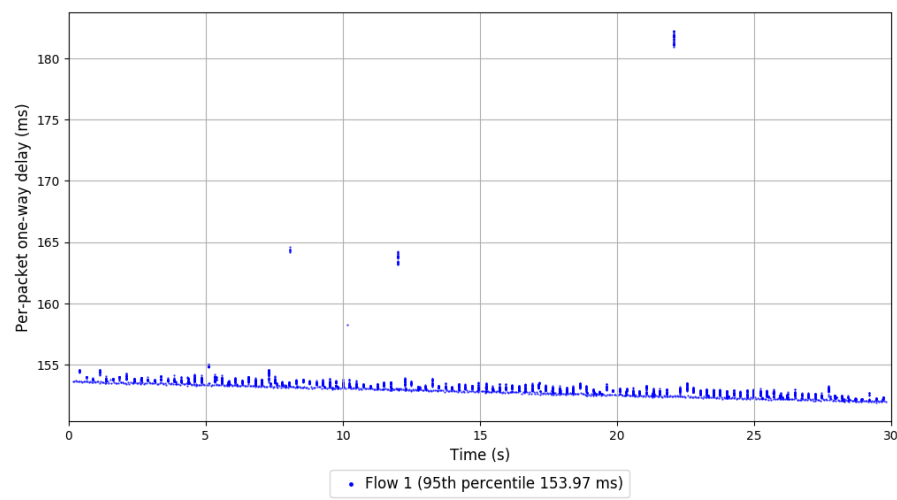
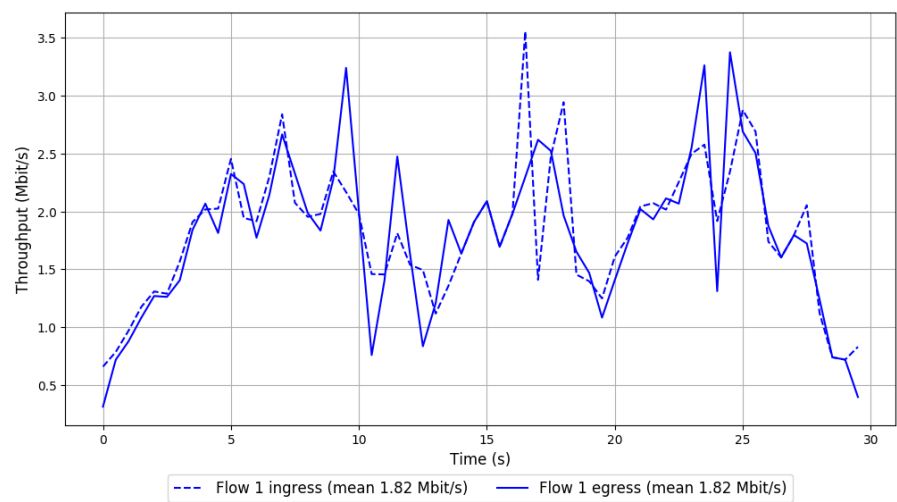
-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 153.975 ms

Loss rate: 1.19%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-08 20:04:31

End at: 2018-01-08 20:05:01

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 129.242 ms

Loss rate: 2.20%

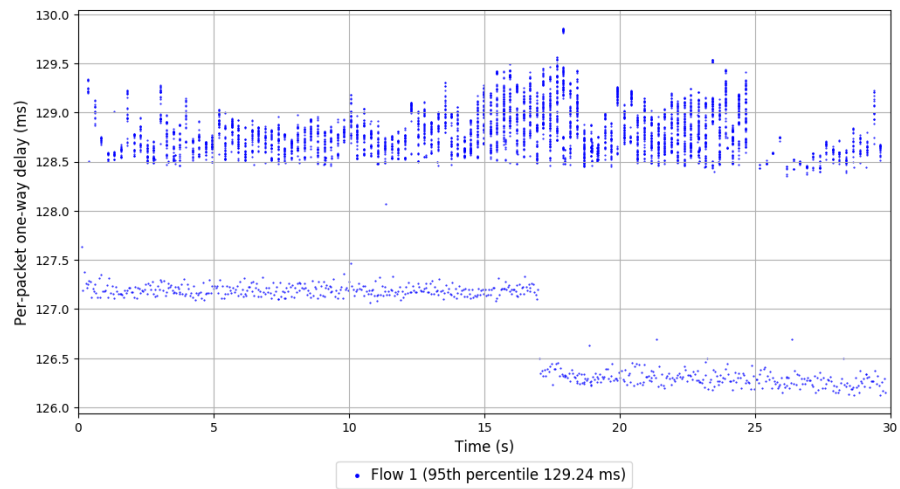
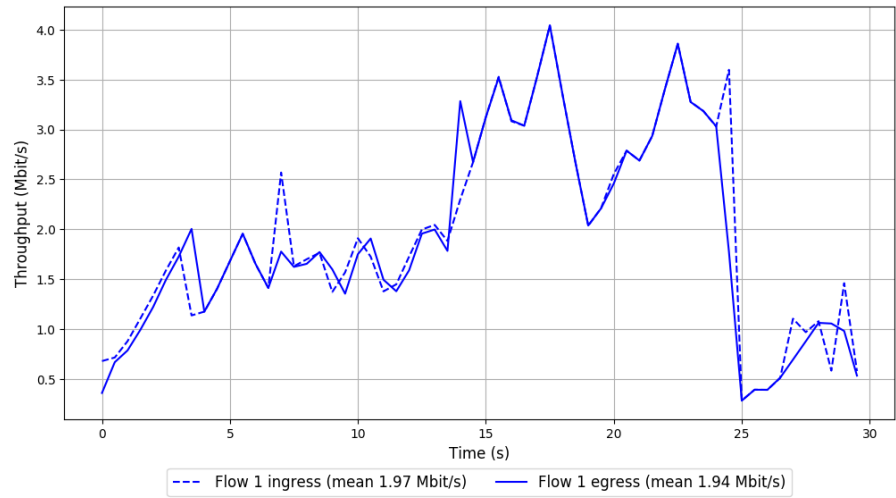
-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 129.242 ms

Loss rate: 2.20%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-08 20:16:48

End at: 2018-01-08 20:17:18

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 126.013 ms

Loss rate: 0.55%

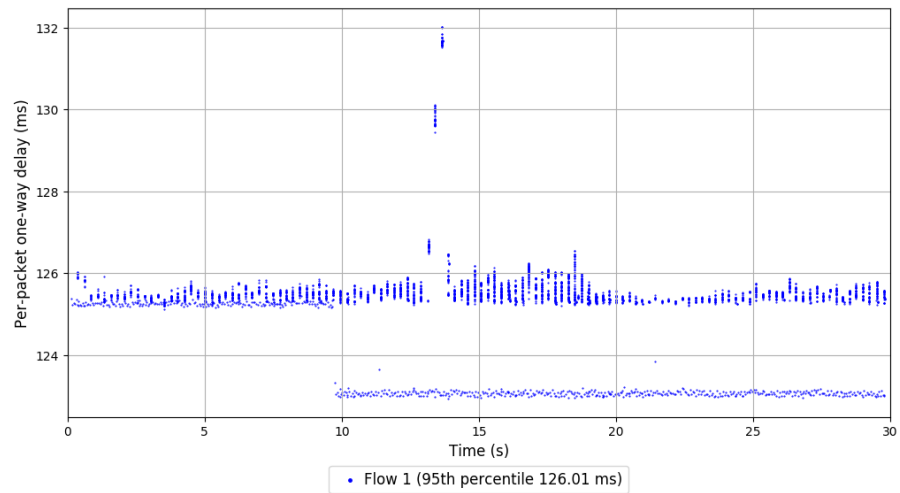
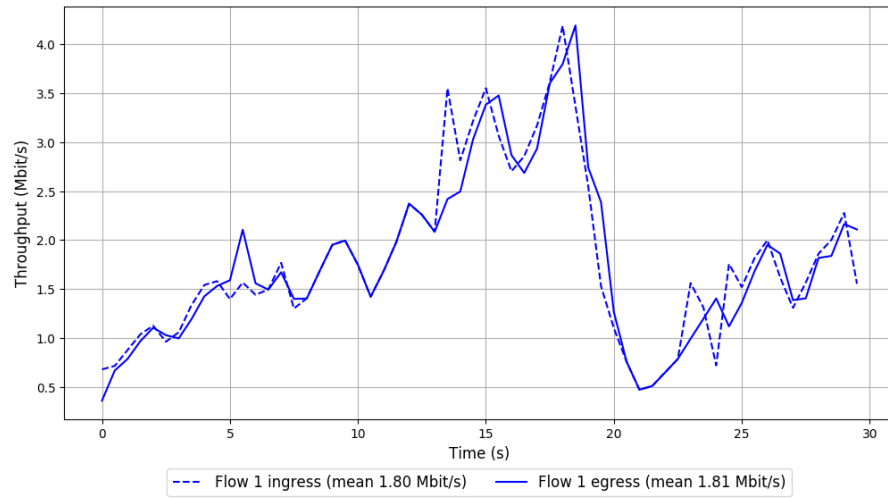
-- Flow 1:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 126.013 ms

Loss rate: 0.55%

Run 8: Report of Sprout — Data Link

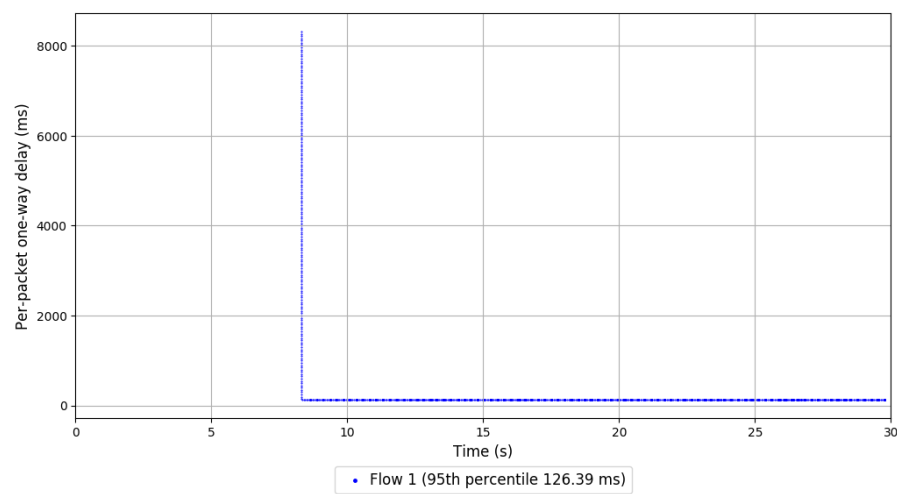
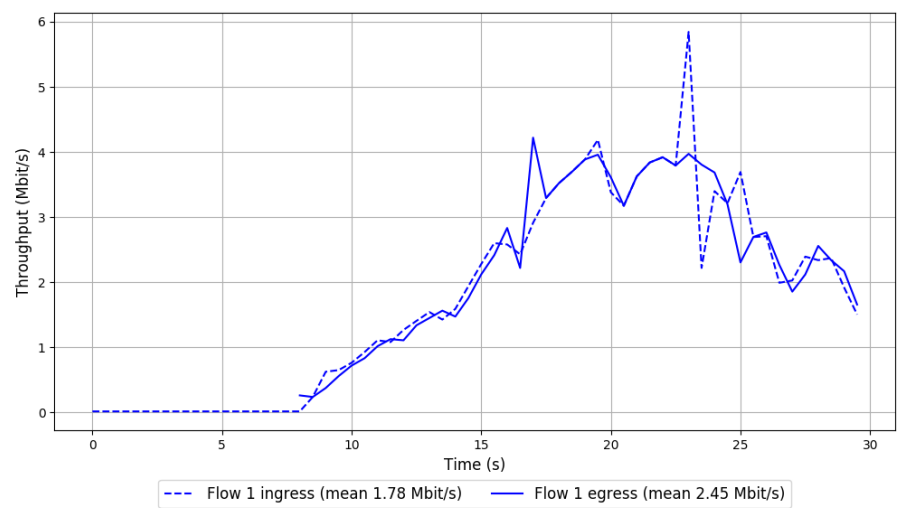


Run 9: Statistics of Sprout

Start at: 2018-01-08 20:29:27

End at: 2018-01-08 20:29:57

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-08 20:42:02

End at: 2018-01-08 20:42:32

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 130.918 ms

Loss rate: 0.42%

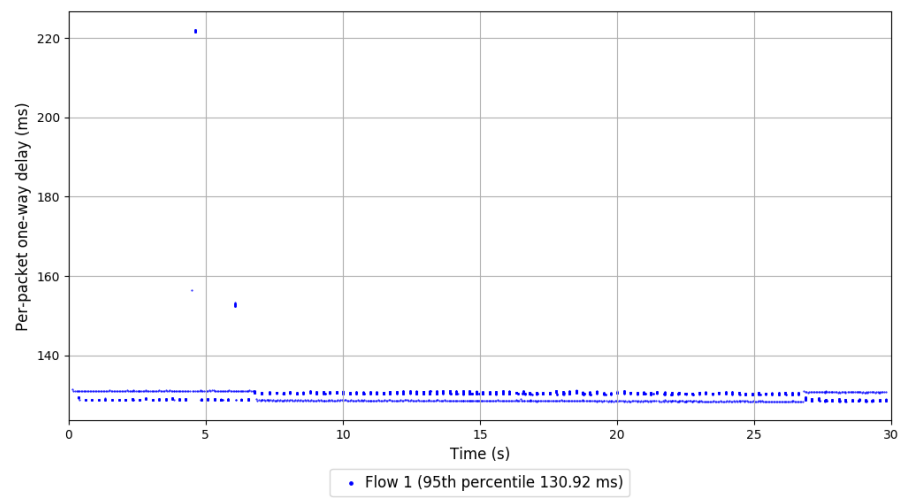
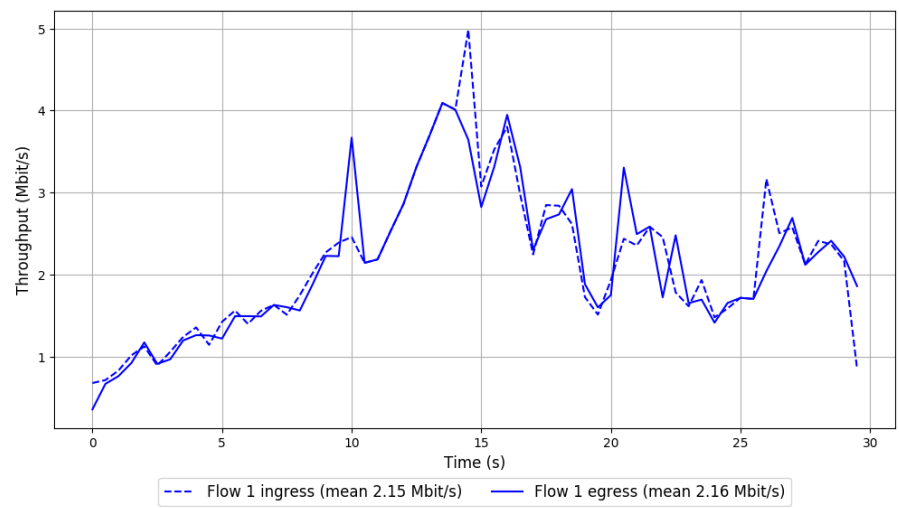
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 130.918 ms

Loss rate: 0.42%

Run 10: Report of Sprout — Data Link

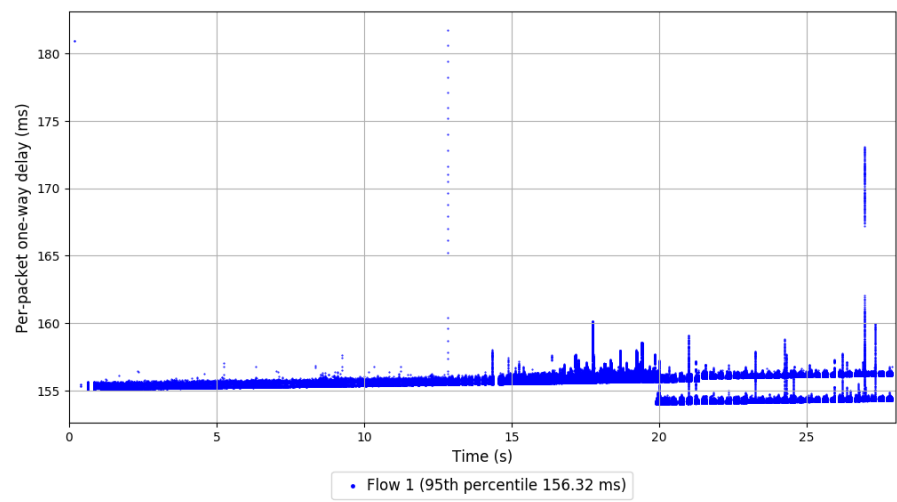
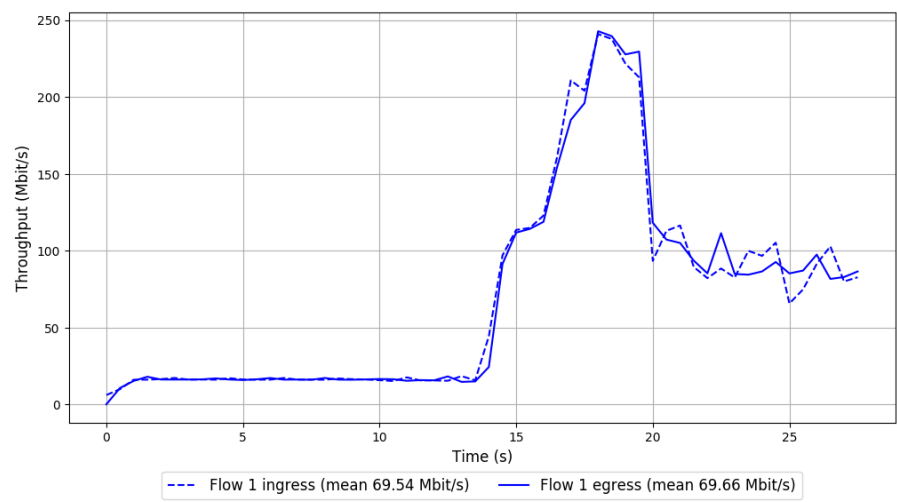


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-08 18:55:36
End at: 2018-01-08 18:56:06

# Below is generated by plot.py at 2018-01-08 23:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 156.319 ms
Loss rate: 0.71%
-- Flow 1:
Average throughput: 69.66 Mbit/s
95th percentile per-packet one-way delay: 156.319 ms
Loss rate: 0.71%
```

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

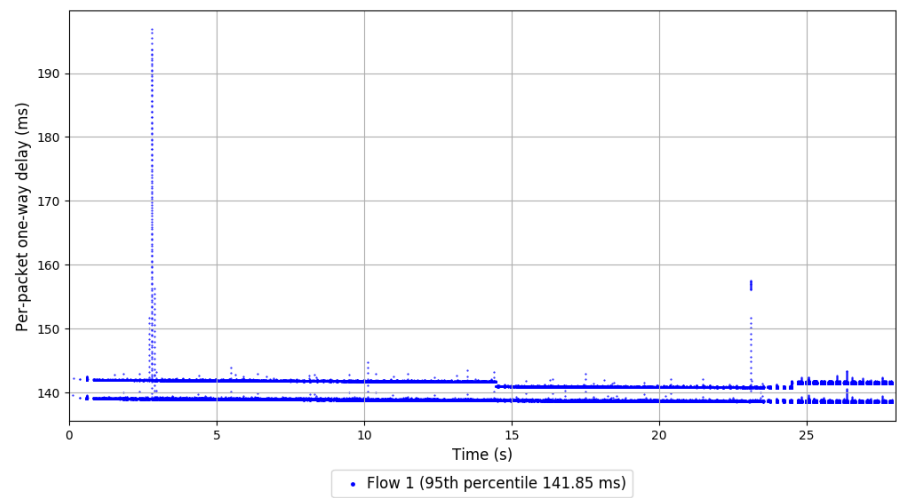
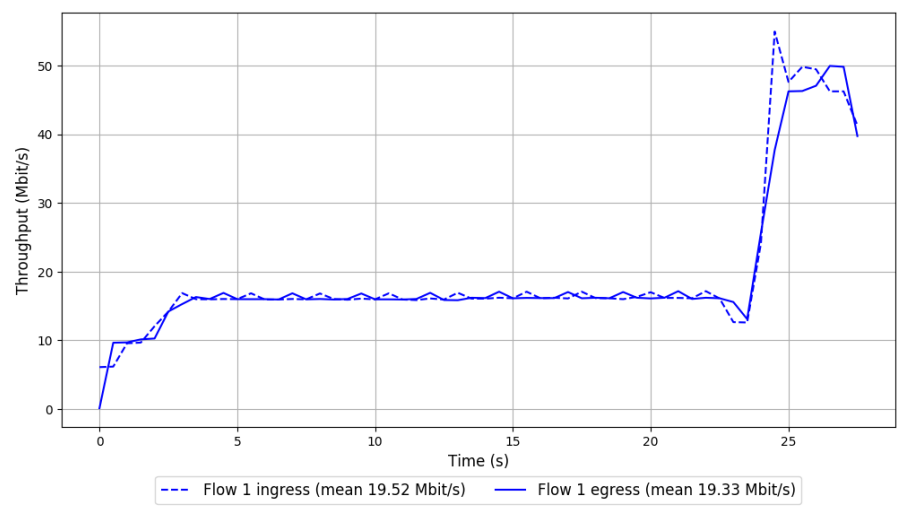


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-08 19:08:03
End at: 2018-01-08 19:08:33

# Below is generated by plot.py at 2018-01-08 23:26:47
# Datalink statistics
-- Total of 1 flow:
Average throughput: 19.33 Mbit/s
95th percentile per-packet one-way delay: 141.852 ms
Loss rate: 1.72%
-- Flow 1:
Average throughput: 19.33 Mbit/s
95th percentile per-packet one-way delay: 141.852 ms
Loss rate: 1.72%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-01-08 19:20:21

End at: 2018-01-08 19:20:51

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 94.77 Mbit/s

95th percentile per-packet one-way delay: 142.969 ms

Loss rate: 2.04%

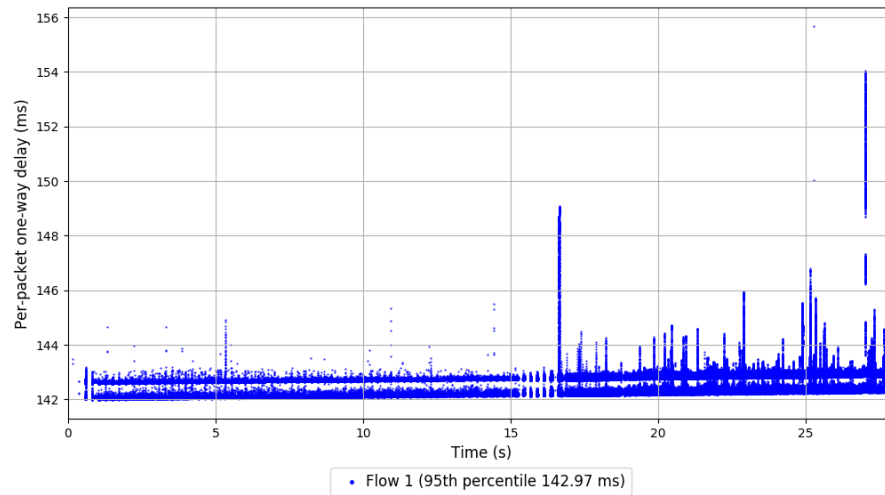
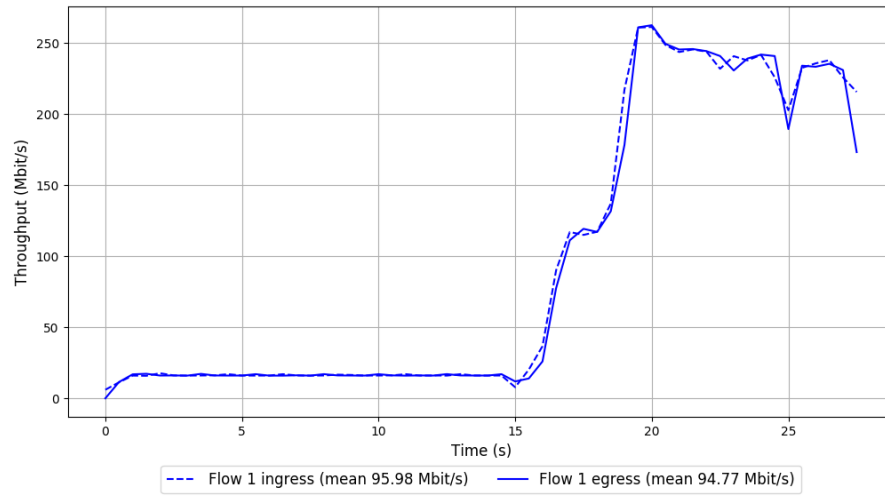
-- Flow 1:

Average throughput: 94.77 Mbit/s

95th percentile per-packet one-way delay: 142.969 ms

Loss rate: 2.04%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-08 19:32:50

End at: 2018-01-08 19:33:20

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 151.226 ms

Loss rate: 3.42%

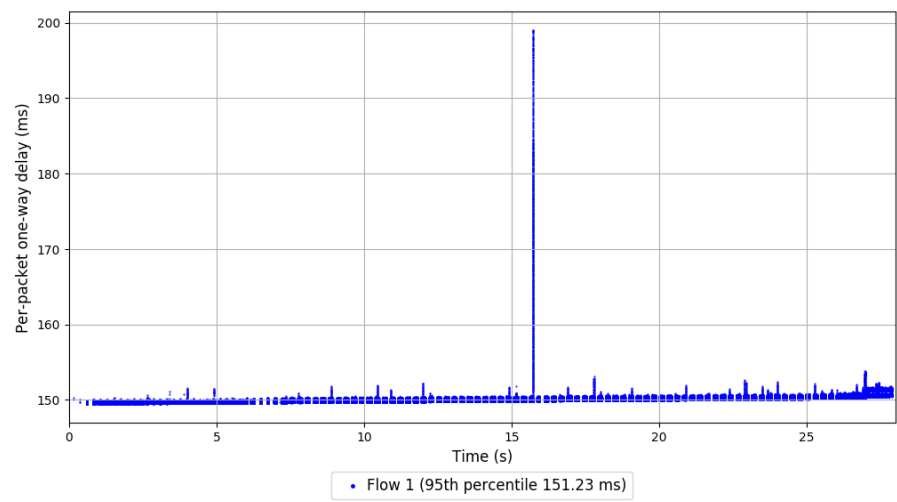
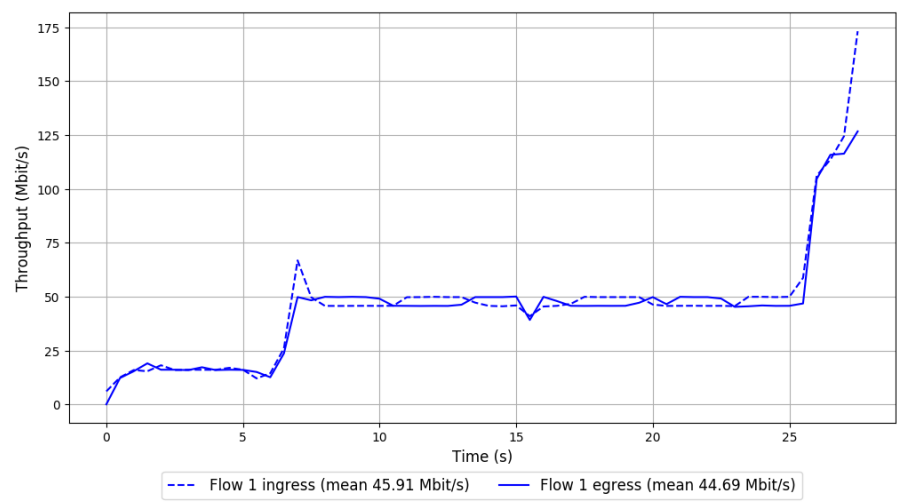
-- Flow 1:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 151.226 ms

Loss rate: 3.42%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-08 19:45:15

End at: 2018-01-08 19:45:45

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.68 Mbit/s

95th percentile per-packet one-way delay: 152.375 ms

Loss rate: 0.78%

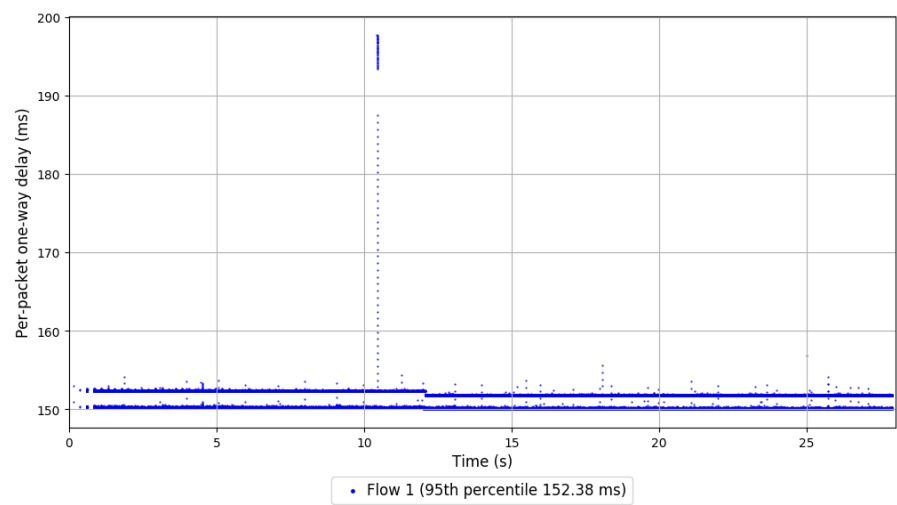
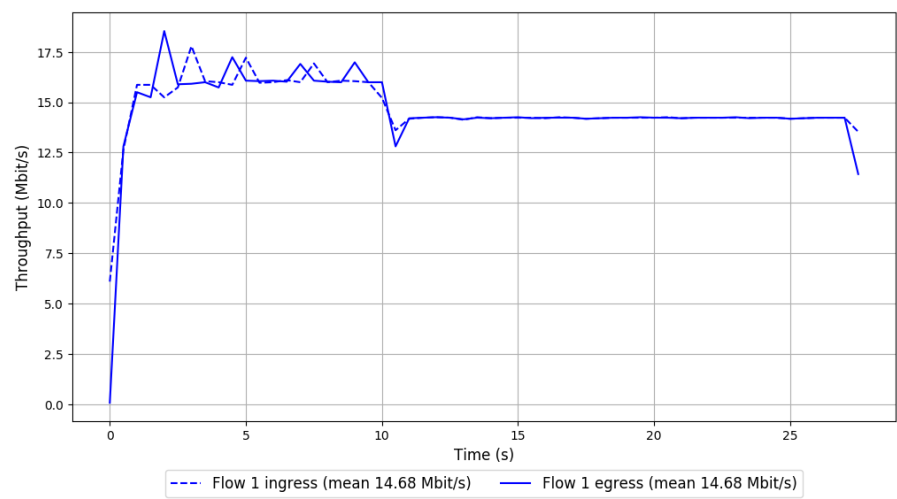
-- Flow 1:

Average throughput: 14.68 Mbit/s

95th percentile per-packet one-way delay: 152.375 ms

Loss rate: 0.78%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-08 19:57:28

End at: 2018-01-08 19:57:58

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 16.09 Mbit/s

95th percentile per-packet one-way delay: 135.936 ms

Loss rate: 0.83%

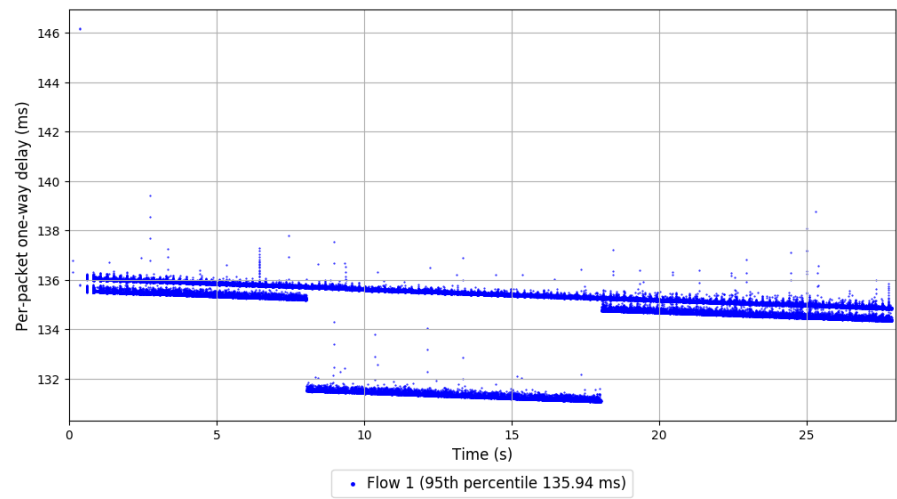
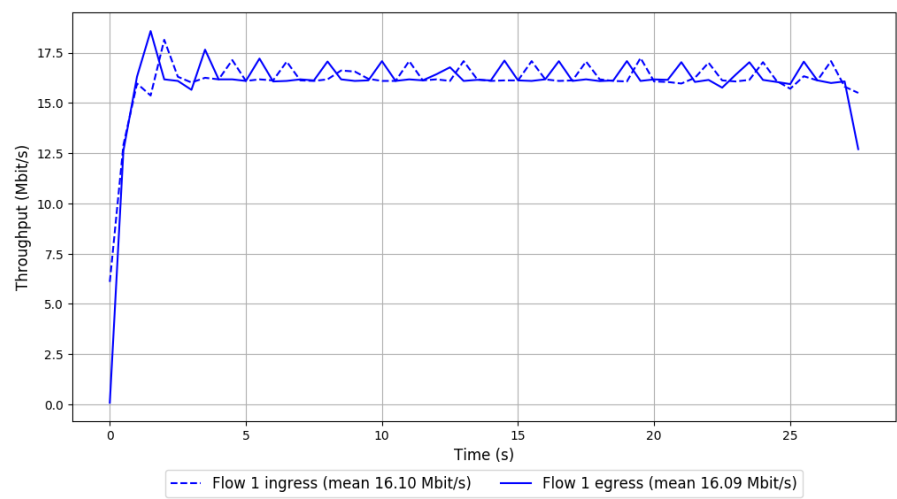
-- Flow 1:

Average throughput: 16.09 Mbit/s

95th percentile per-packet one-way delay: 135.936 ms

Loss rate: 0.83%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-08 20:09:51

End at: 2018-01-08 20:10:21

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.40 Mbit/s

95th percentile per-packet one-way delay: 127.578 ms

Loss rate: 1.25%

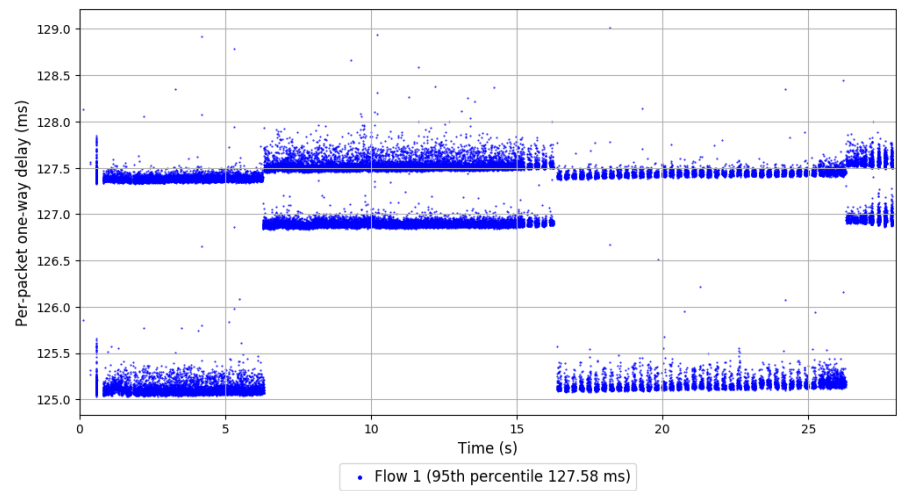
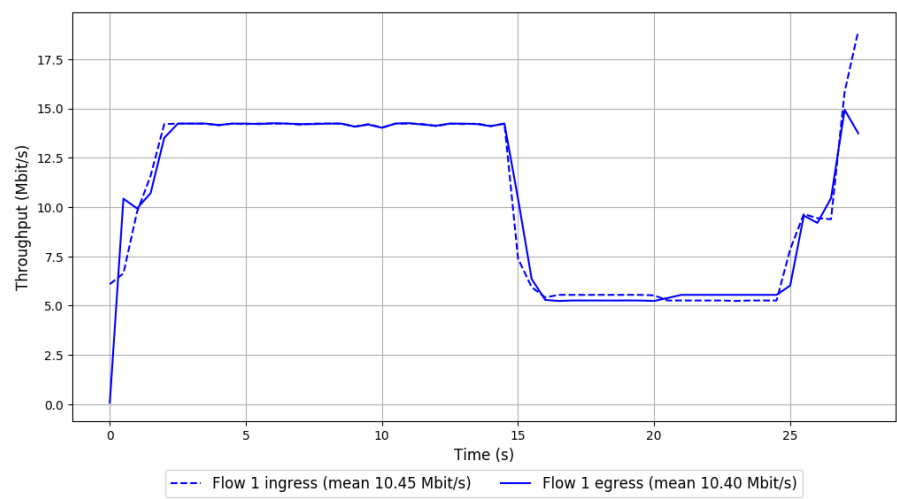
-- Flow 1:

Average throughput: 10.40 Mbit/s

95th percentile per-packet one-way delay: 127.578 ms

Loss rate: 1.25%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-08 20:22:09

End at: 2018-01-08 20:22:39

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.80 Mbit/s

95th percentile per-packet one-way delay: 126.876 ms

Loss rate: 0.68%

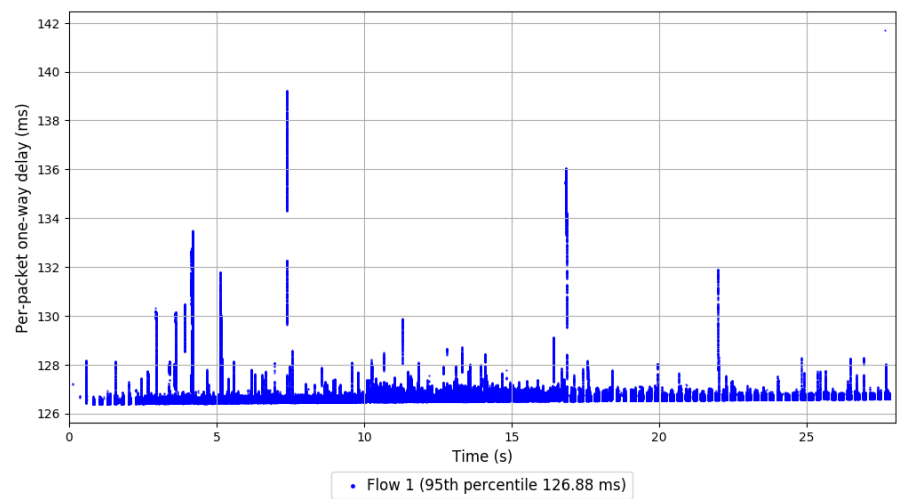
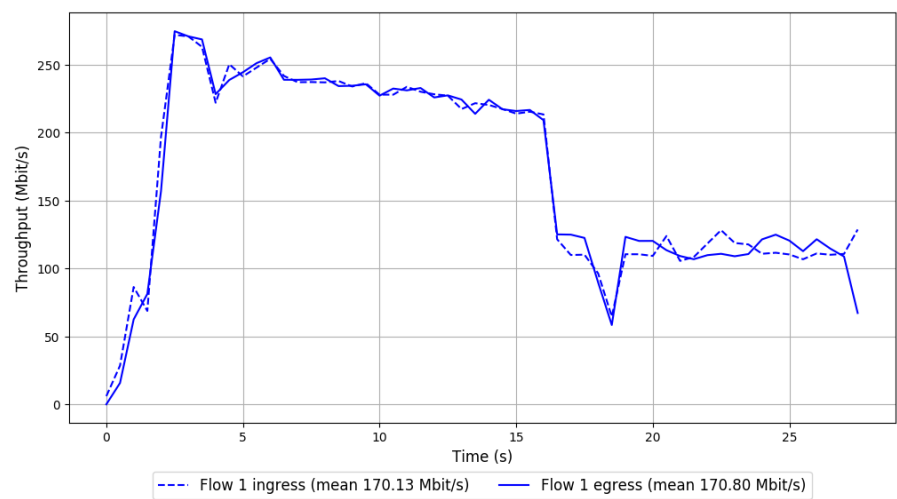
-- Flow 1:

Average throughput: 170.80 Mbit/s

95th percentile per-packet one-way delay: 126.876 ms

Loss rate: 0.68%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-01-08 20:34:47

End at: 2018-01-08 20:35:17

Below is generated by plot.py at 2018-01-08 23:26:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 162.26 Mbit/s

95th percentile per-packet one-way delay: 127.287 ms

Loss rate: 0.08%

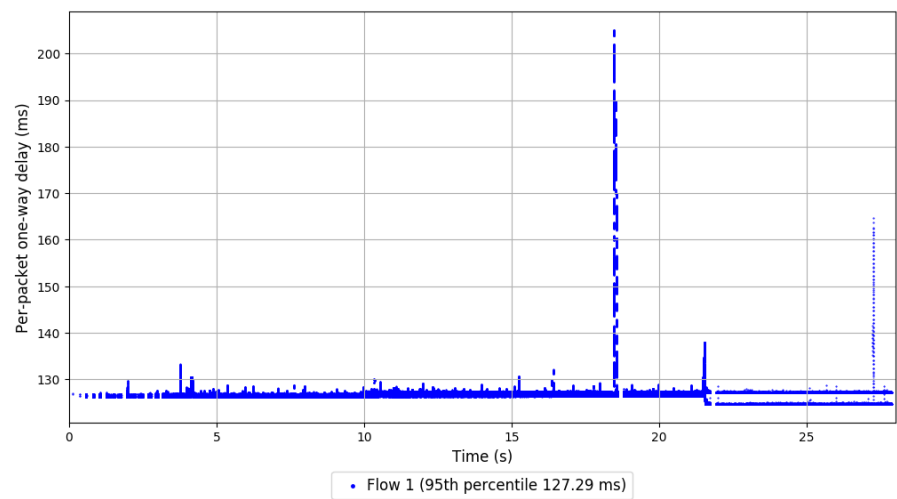
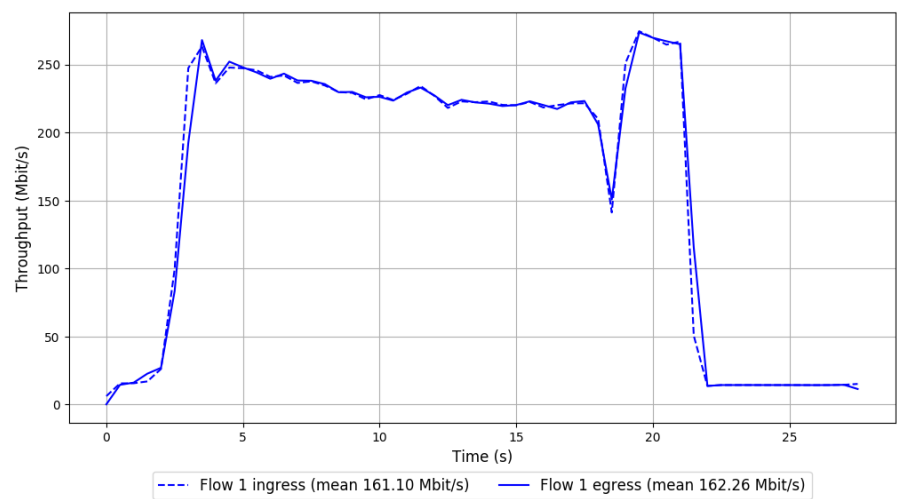
-- Flow 1:

Average throughput: 162.26 Mbit/s

95th percentile per-packet one-way delay: 127.287 ms

Loss rate: 0.08%

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

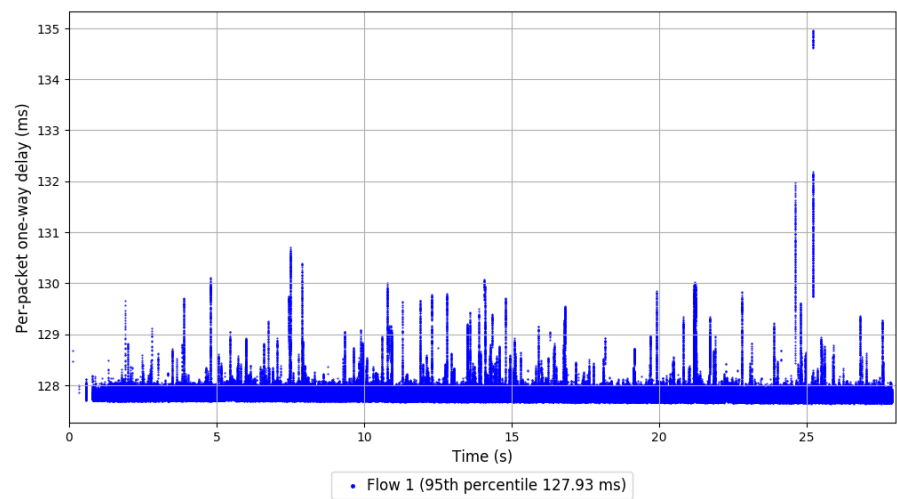
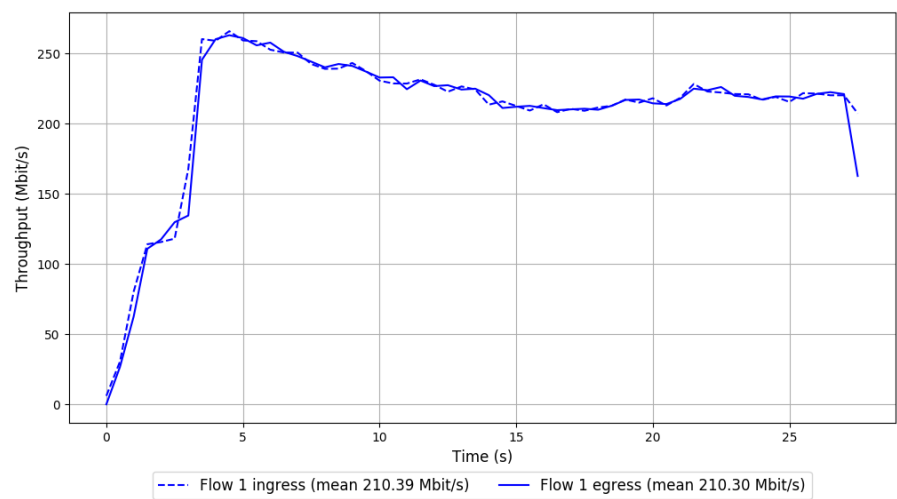


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-08 20:47:22
End at: 2018-01-08 20:47:52

# Below is generated by plot.py at 2018-01-08 23:26:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 210.30 Mbit/s
95th percentile per-packet one-way delay: 127.931 ms
Loss rate: 0.84%
-- Flow 1:
Average throughput: 210.30 Mbit/s
95th percentile per-packet one-way delay: 127.931 ms
Loss rate: 0.84%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-08 19:01:15

End at: 2018-01-08 19:01:45

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.85 Mbit/s

95th percentile per-packet one-way delay: 156.003 ms

Loss rate: 1.76%

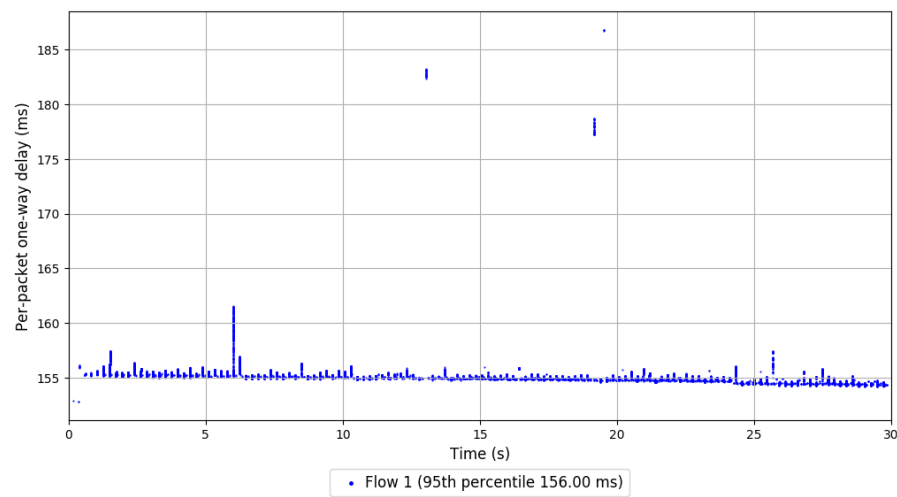
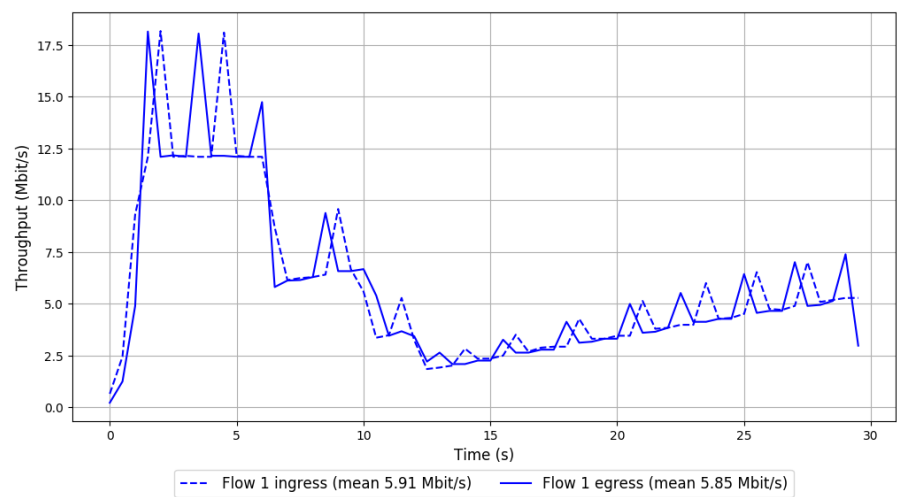
-- Flow 1:

Average throughput: 5.85 Mbit/s

95th percentile per-packet one-way delay: 156.003 ms

Loss rate: 1.76%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-08 19:13:41

End at: 2018-01-08 19:14:11

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 148.019 ms

Loss rate: 2.91%

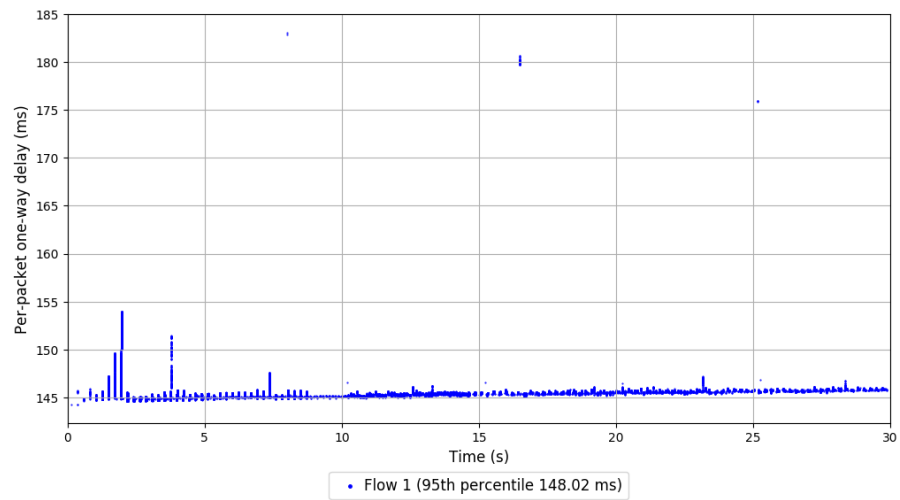
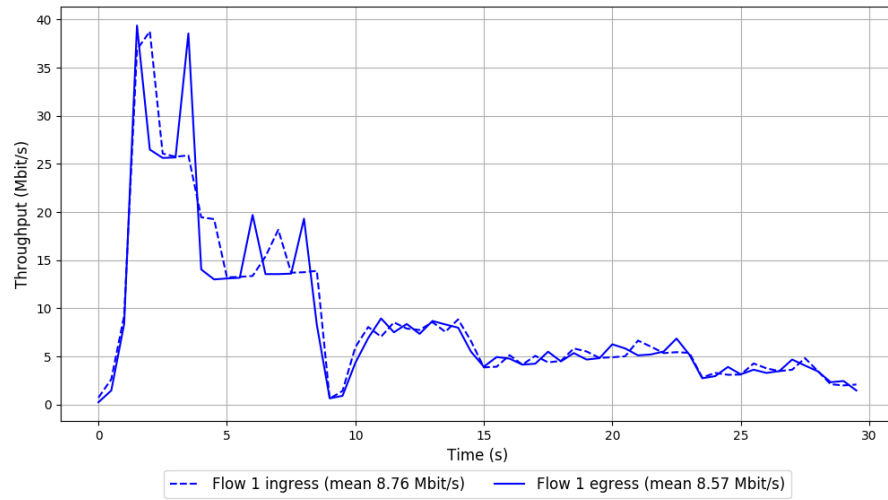
-- Flow 1:

Average throughput: 8.57 Mbit/s

95th percentile per-packet one-way delay: 148.019 ms

Loss rate: 2.91%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-08 19:26:05

End at: 2018-01-08 19:26:35

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 29.53 Mbit/s

95th percentile per-packet one-way delay: 144.162 ms

Loss rate: 0.63%

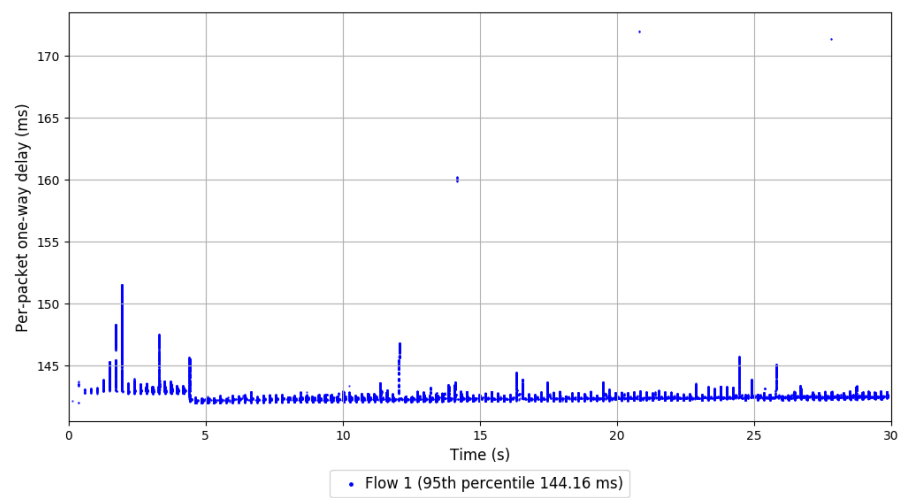
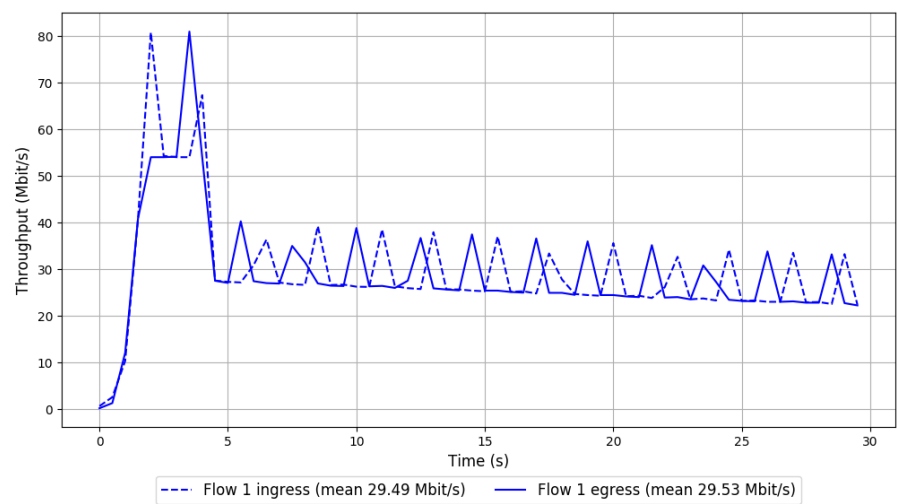
-- Flow 1:

Average throughput: 29.53 Mbit/s

95th percentile per-packet one-way delay: 144.162 ms

Loss rate: 0.63%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-08 19:38:31

End at: 2018-01-08 19:39:01

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 39.22 Mbit/s

95th percentile per-packet one-way delay: 161.099 ms

Loss rate: 1.52%

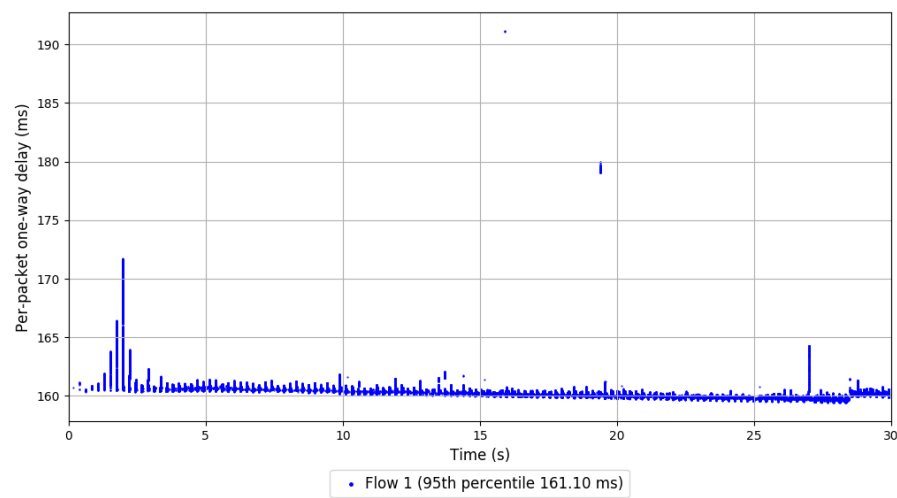
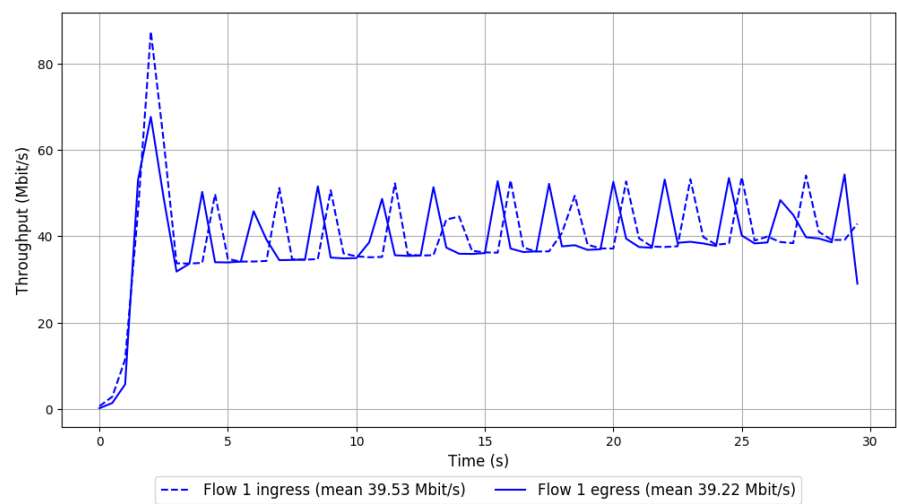
-- Flow 1:

Average throughput: 39.22 Mbit/s

95th percentile per-packet one-way delay: 161.099 ms

Loss rate: 1.52%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-08 19:50:44

End at: 2018-01-08 19:51:14

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 155.438 ms

Loss rate: 1.49%

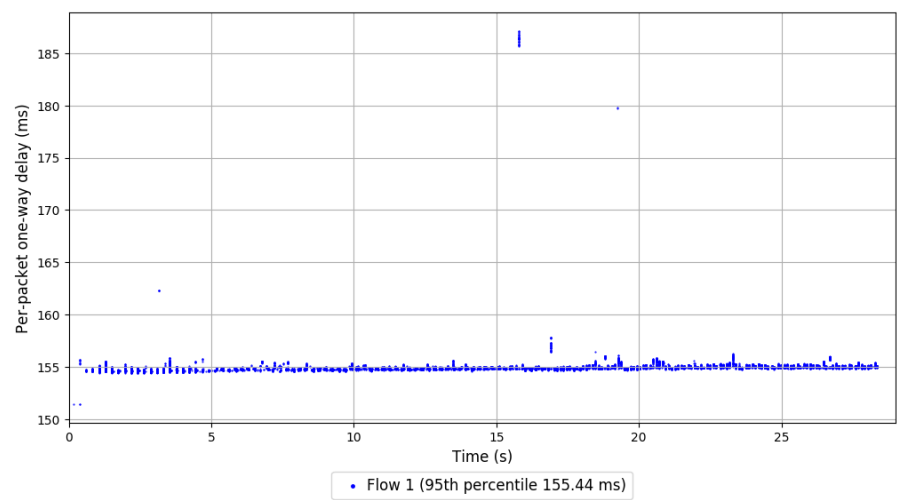
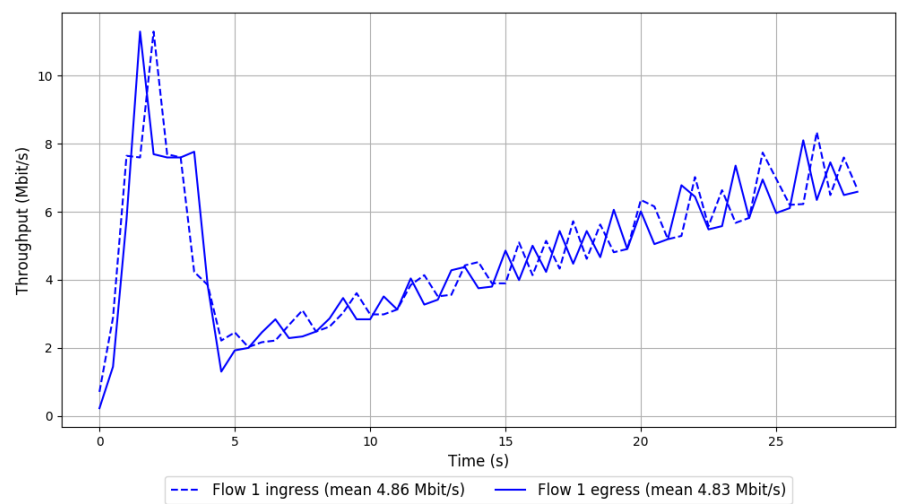
-- Flow 1:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 155.438 ms

Loss rate: 1.49%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-08 20:03:07

End at: 2018-01-08 20:03:37

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 129.251 ms

Loss rate: 0.81%

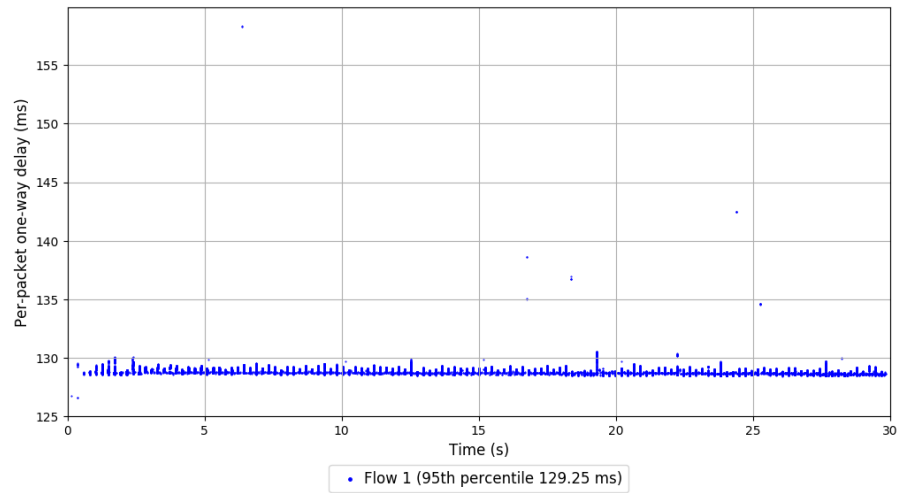
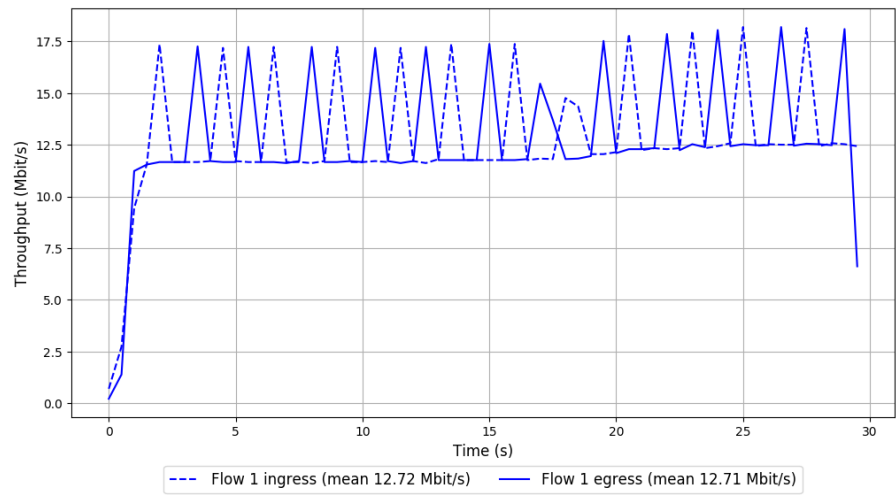
-- Flow 1:

Average throughput: 12.71 Mbit/s

95th percentile per-packet one-way delay: 129.251 ms

Loss rate: 0.81%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-08 20:15:25

End at: 2018-01-08 20:15:55

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.97 Mbit/s

95th percentile per-packet one-way delay: 126.512 ms

Loss rate: 0.34%

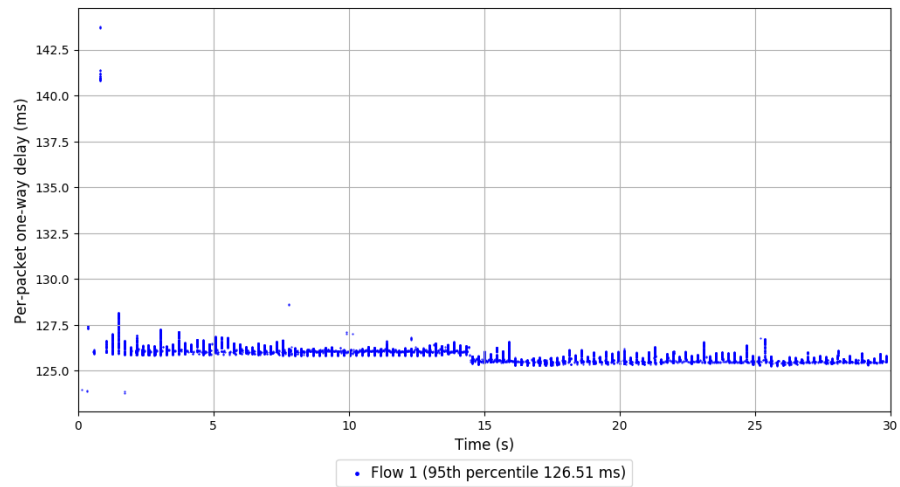
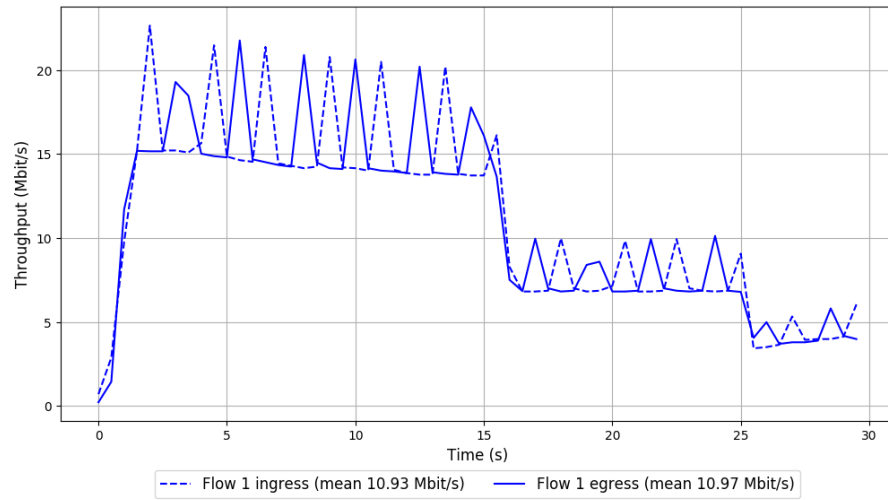
-- Flow 1:

Average throughput: 10.97 Mbit/s

95th percentile per-packet one-way delay: 126.512 ms

Loss rate: 0.34%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-08 20:28:02

End at: 2018-01-08 20:28:32

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 35.79 Mbit/s

95th percentile per-packet one-way delay: 126.915 ms

Loss rate: 0.84%

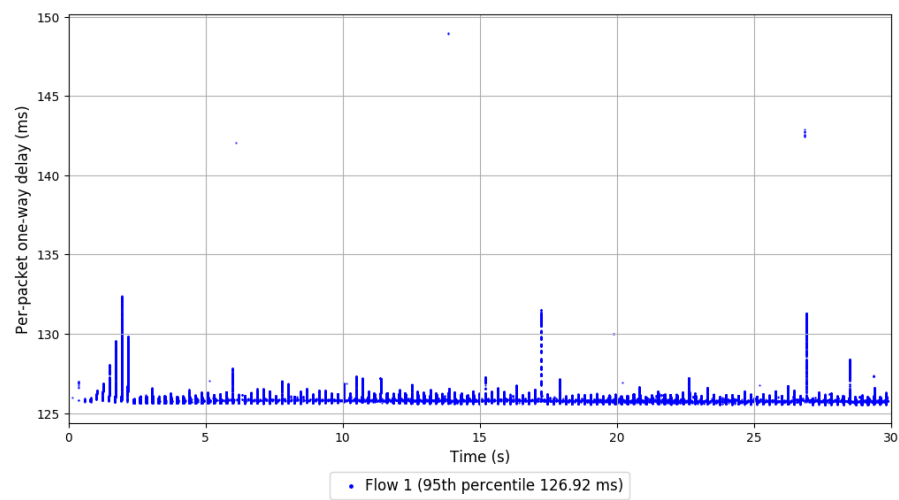
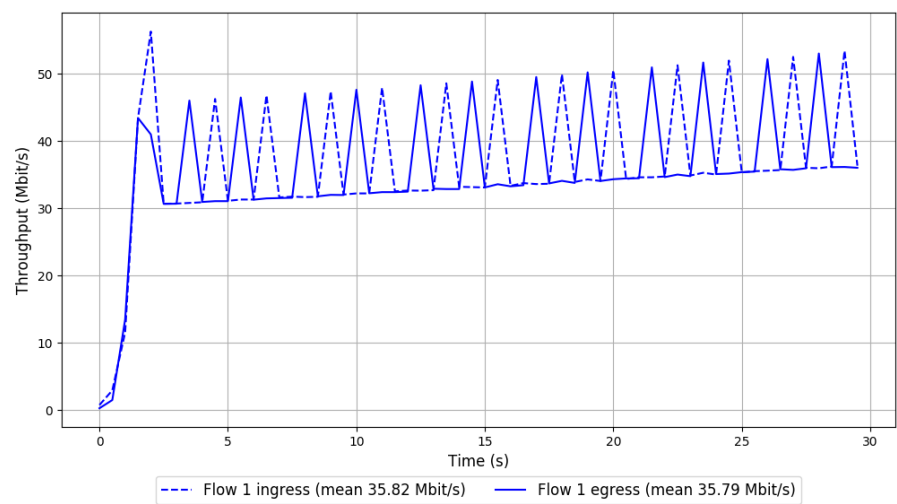
-- Flow 1:

Average throughput: 35.79 Mbit/s

95th percentile per-packet one-way delay: 126.915 ms

Loss rate: 0.84%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-08 20:40:39

End at: 2018-01-08 20:41:09

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 130.072 ms

Loss rate: 1.96%

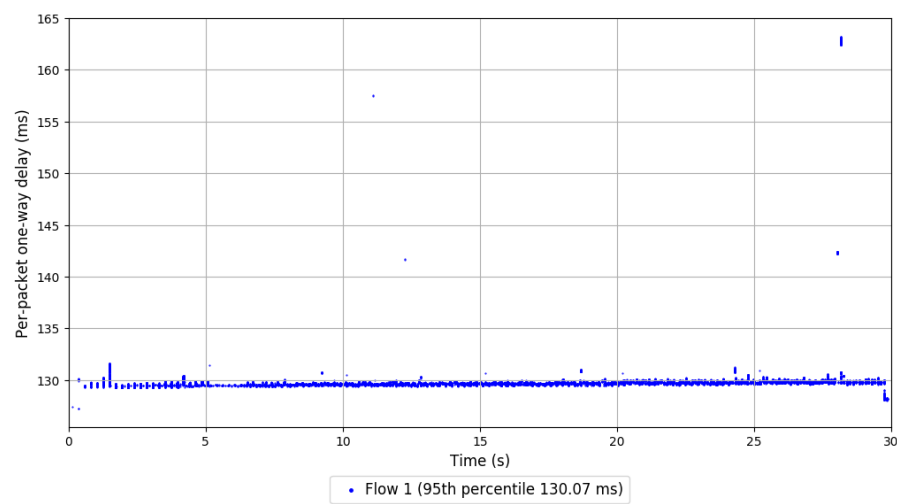
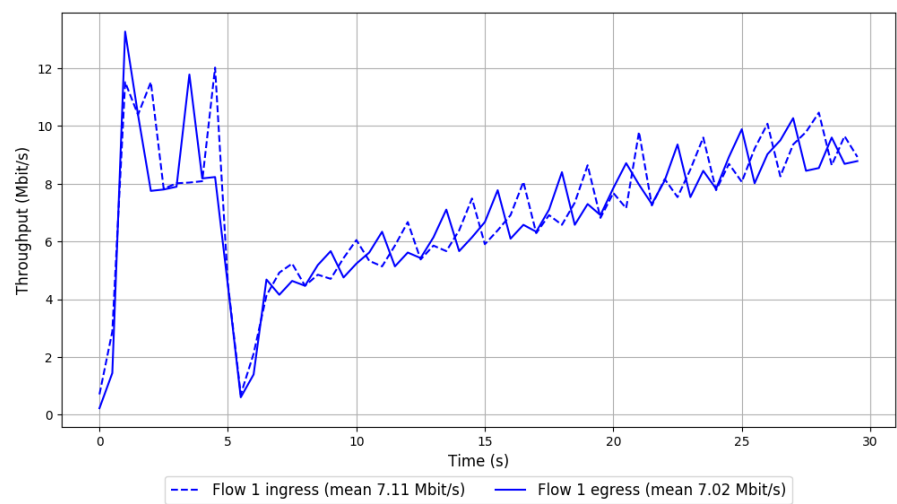
-- Flow 1:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 130.072 ms

Loss rate: 1.96%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-08 20:53:21

End at: 2018-01-08 20:53:51

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 124.227 ms

Loss rate: 0.67%

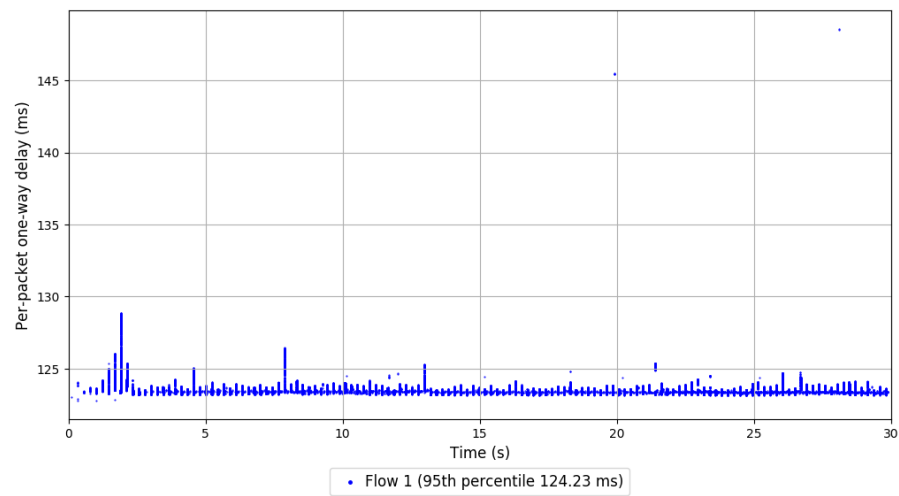
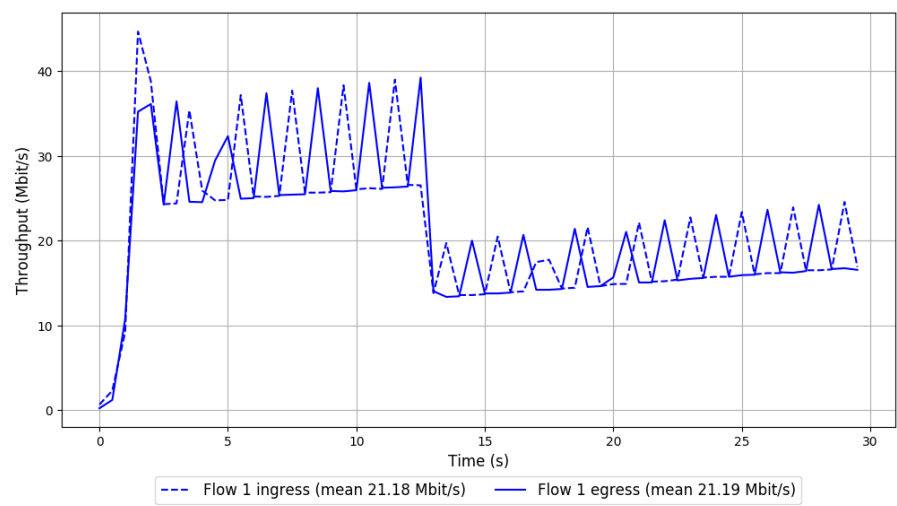
-- Flow 1:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 124.227 ms

Loss rate: 0.67%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-08 18:53:58

End at: 2018-01-08 18:54:28

Below is generated by plot.py at 2018-01-08 23:26:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 212.26 Mbit/s

95th percentile per-packet one-way delay: 279.856 ms

Loss rate: 4.40%

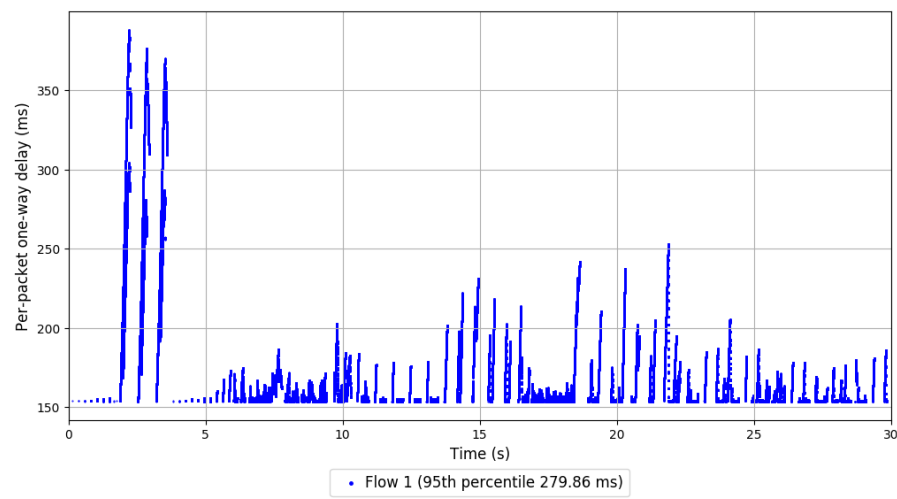
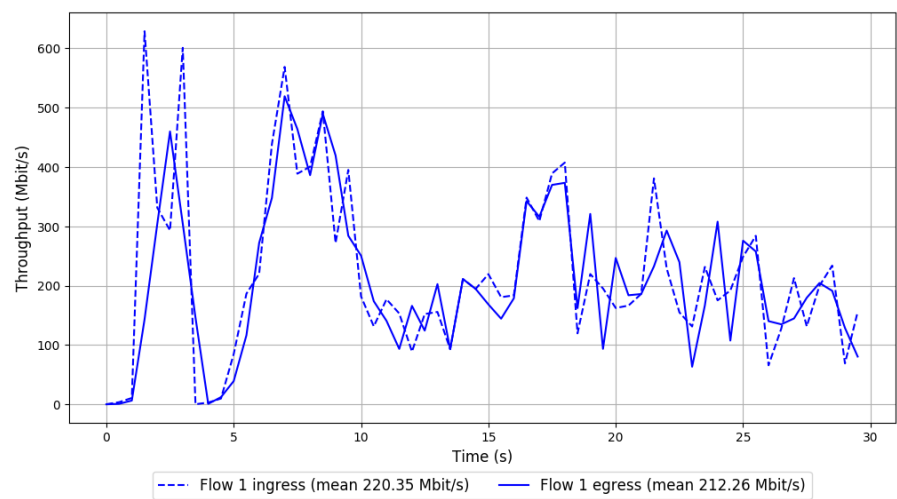
-- Flow 1:

Average throughput: 212.26 Mbit/s

95th percentile per-packet one-way delay: 279.856 ms

Loss rate: 4.40%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-08 19:06:23

End at: 2018-01-08 19:06:53

Below is generated by plot.py at 2018-01-08 23:27:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 236.09 Mbit/s

95th percentile per-packet one-way delay: 273.509 ms

Loss rate: 3.06%

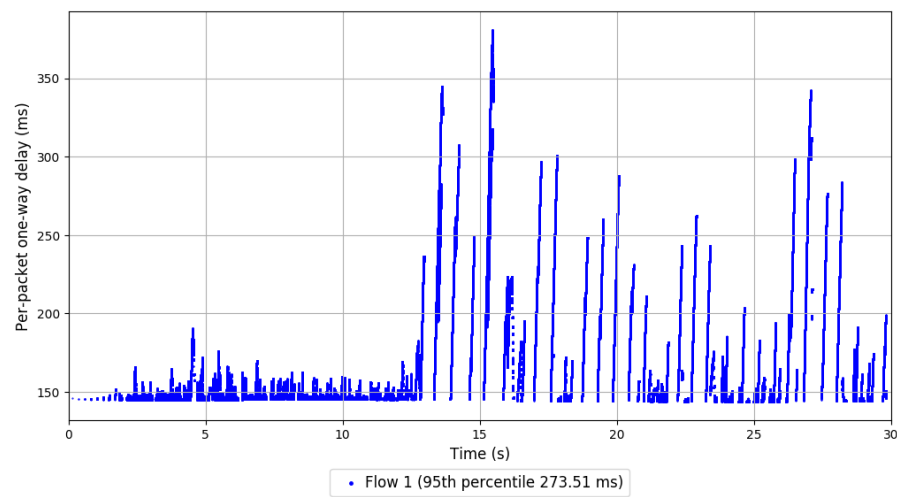
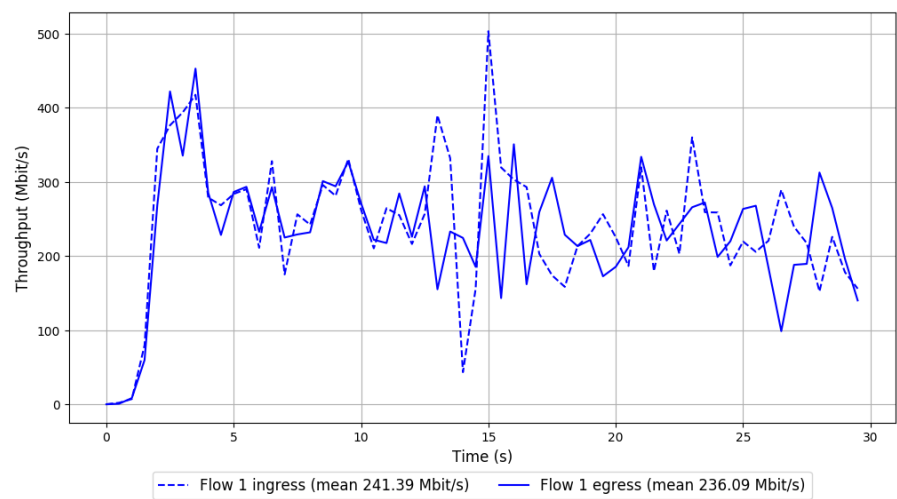
-- Flow 1:

Average throughput: 236.09 Mbit/s

95th percentile per-packet one-way delay: 273.509 ms

Loss rate: 3.06%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-08 19:18:49

End at: 2018-01-08 19:19:19

Below is generated by plot.py at 2018-01-08 23:27:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 124.99 Mbit/s

95th percentile per-packet one-way delay: 173.585 ms

Loss rate: 2.28%

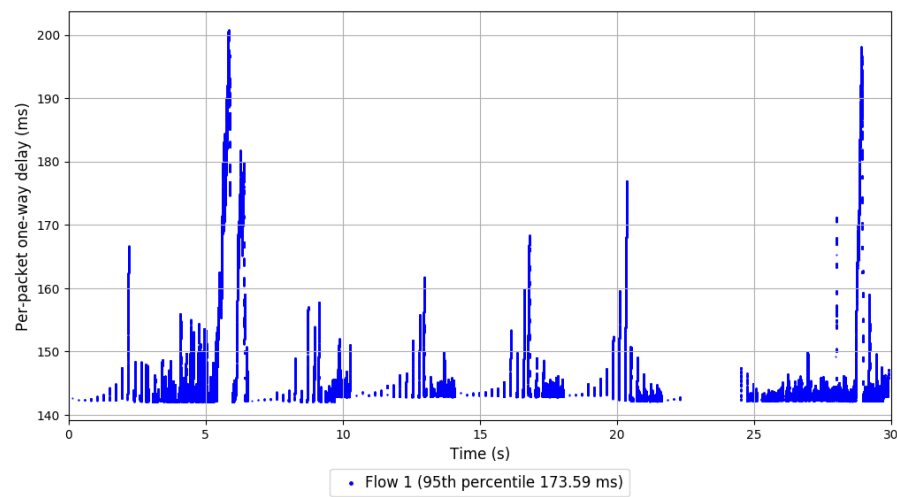
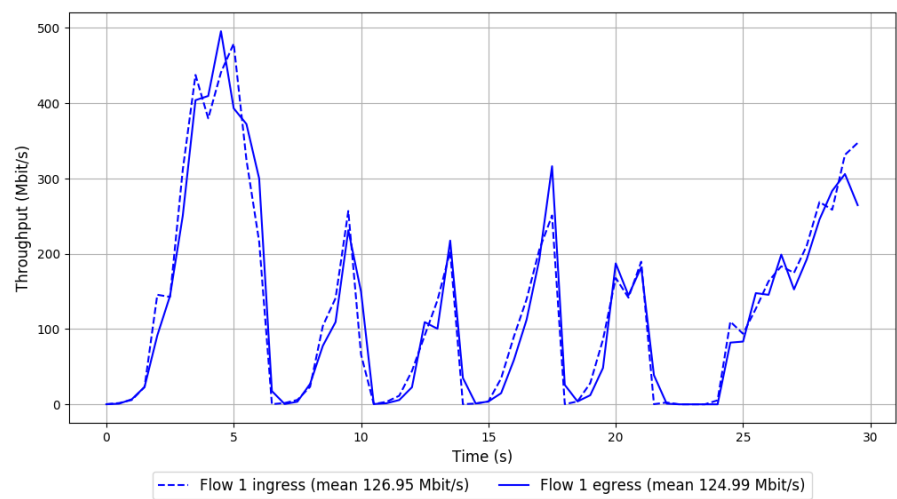
-- Flow 1:

Average throughput: 124.99 Mbit/s

95th percentile per-packet one-way delay: 173.585 ms

Loss rate: 2.28%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-08 19:31:12

End at: 2018-01-08 19:31:42

Below is generated by plot.py at 2018-01-08 23:29:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.03 Mbit/s

95th percentile per-packet one-way delay: 172.202 ms

Loss rate: 1.09%

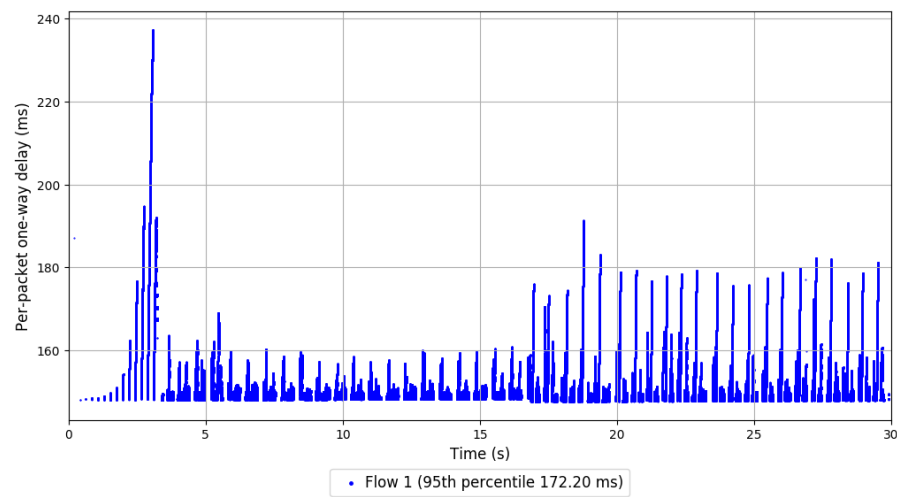
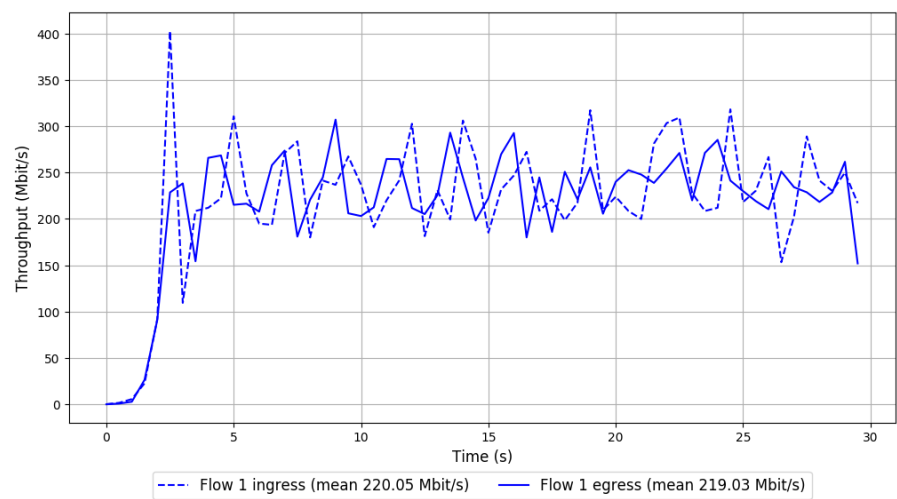
-- Flow 1:

Average throughput: 219.03 Mbit/s

95th percentile per-packet one-way delay: 172.202 ms

Loss rate: 1.09%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-08 19:43:39

End at: 2018-01-08 19:44:10

Below is generated by plot.py at 2018-01-08 23:29:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 183.36 Mbit/s

95th percentile per-packet one-way delay: 278.046 ms

Loss rate: 4.97%

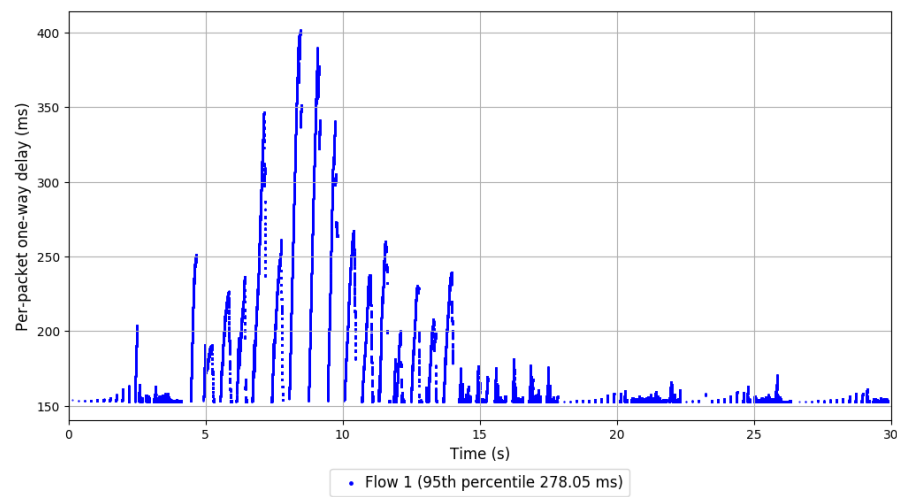
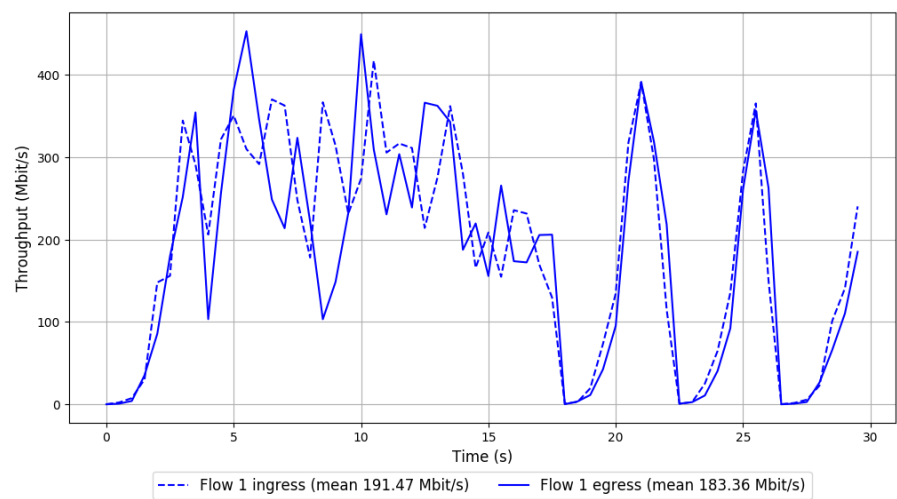
-- Flow 1:

Average throughput: 183.36 Mbit/s

95th percentile per-packet one-way delay: 278.046 ms

Loss rate: 4.97%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-08 19:55:52

End at: 2018-01-08 19:56:22

Below is generated by plot.py at 2018-01-08 23:29:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.27 Mbit/s

95th percentile per-packet one-way delay: 322.267 ms

Loss rate: 6.26%

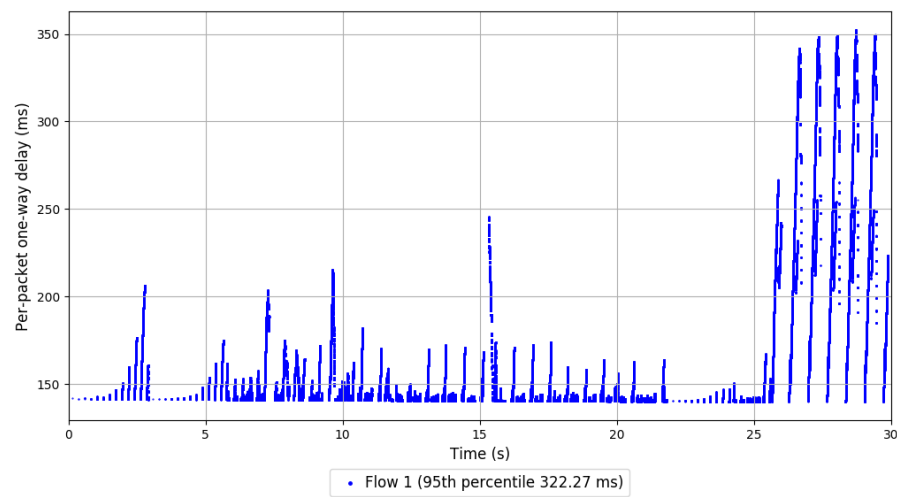
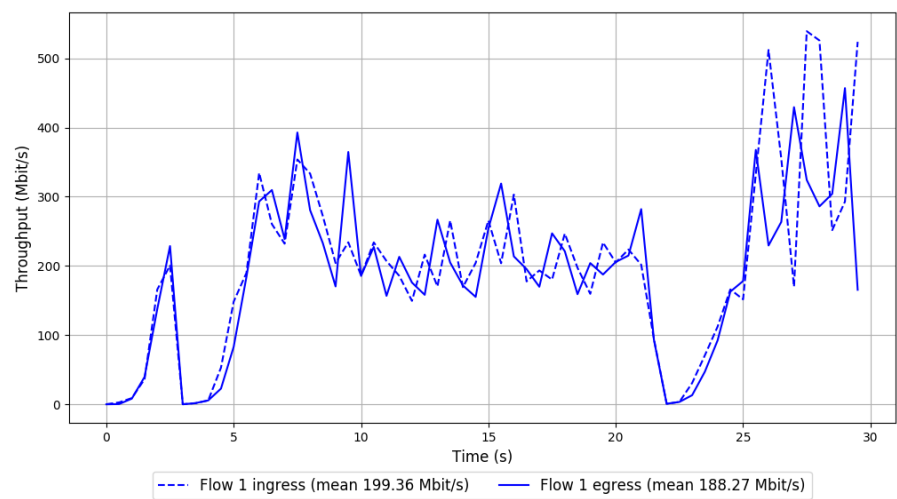
-- Flow 1:

Average throughput: 188.27 Mbit/s

95th percentile per-packet one-way delay: 322.267 ms

Loss rate: 6.26%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-08 20:08:16

End at: 2018-01-08 20:08:46

Below is generated by plot.py at 2018-01-08 23:29:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 167.20 Mbit/s

95th percentile per-packet one-way delay: 145.731 ms

Loss rate: 1.69%

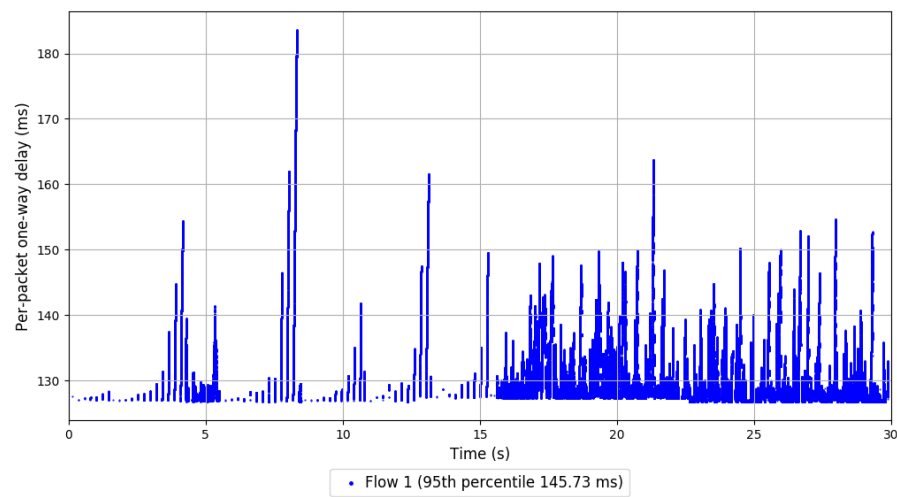
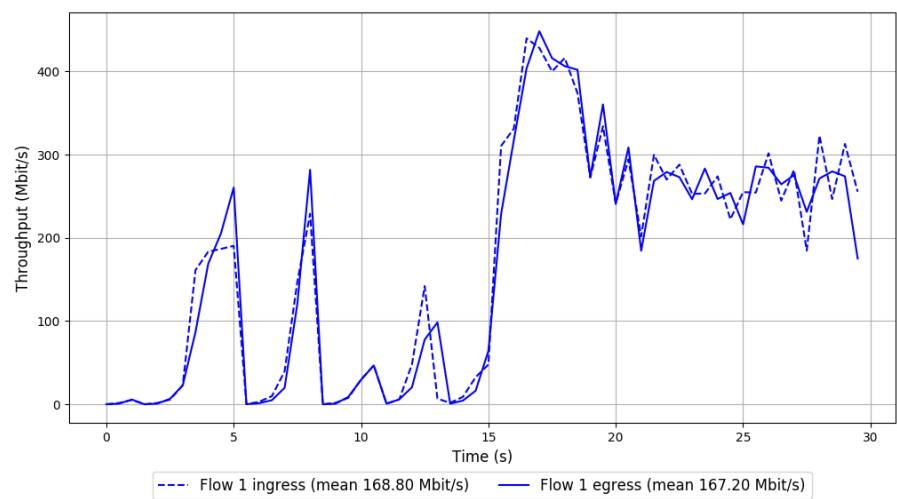
-- Flow 1:

Average throughput: 167.20 Mbit/s

95th percentile per-packet one-way delay: 145.731 ms

Loss rate: 1.69%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-08 20:20:32

End at: 2018-01-08 20:21:02

Below is generated by plot.py at 2018-01-08 23:30:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 218.73 Mbit/s

95th percentile per-packet one-way delay: 140.156 ms

Loss rate: 0.96%

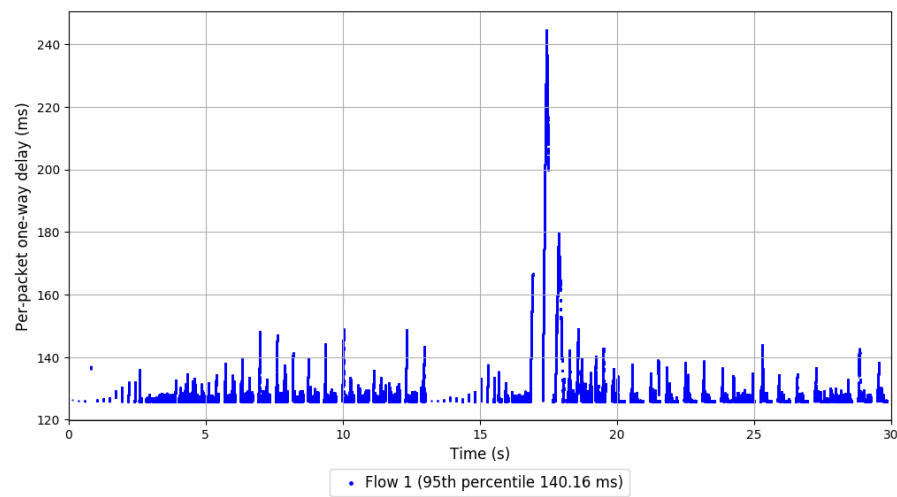
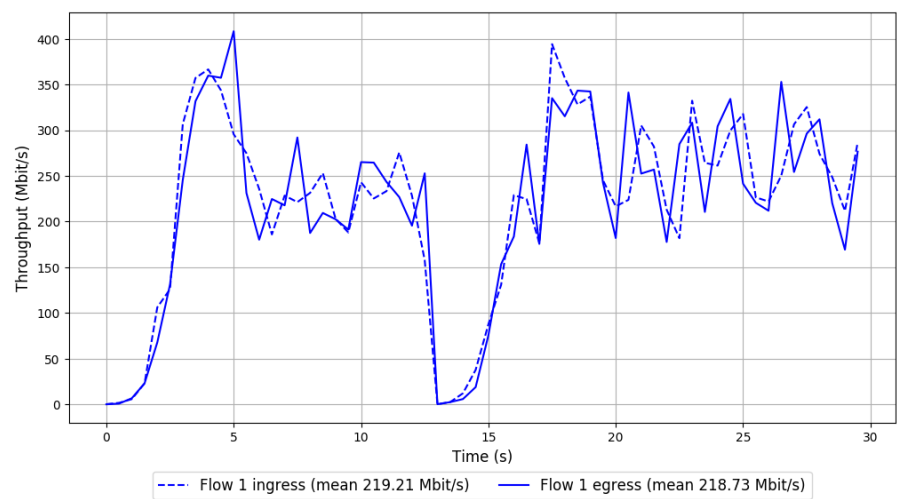
-- Flow 1:

Average throughput: 218.73 Mbit/s

95th percentile per-packet one-way delay: 140.156 ms

Loss rate: 0.96%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-08 20:33:11

End at: 2018-01-08 20:33:41

Below is generated by plot.py at 2018-01-08 23:30:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 193.73 Mbit/s

95th percentile per-packet one-way delay: 164.356 ms

Loss rate: 1.67%

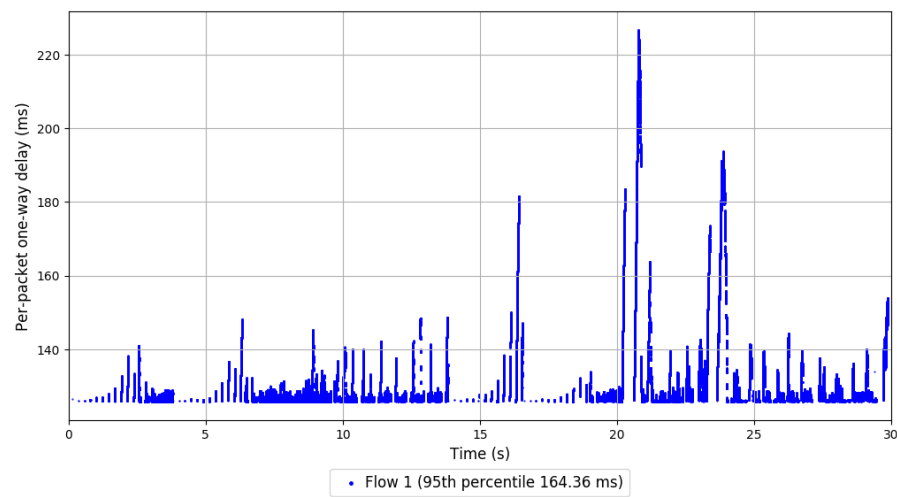
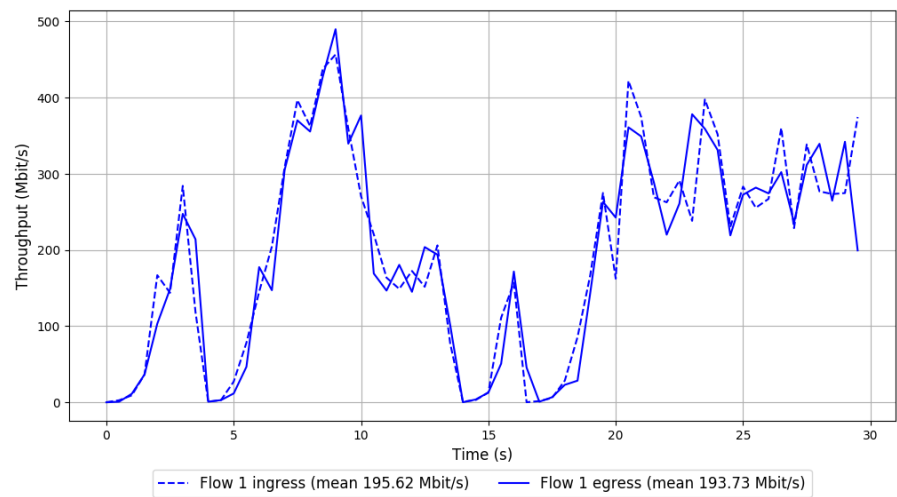
-- Flow 1:

Average throughput: 193.73 Mbit/s

95th percentile per-packet one-way delay: 164.356 ms

Loss rate: 1.67%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-08 20:45:47

End at: 2018-01-08 20:46:17

Below is generated by plot.py at 2018-01-08 23:30:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 189.26 Mbit/s

95th percentile per-packet one-way delay: 183.592 ms

Loss rate: 0.87%

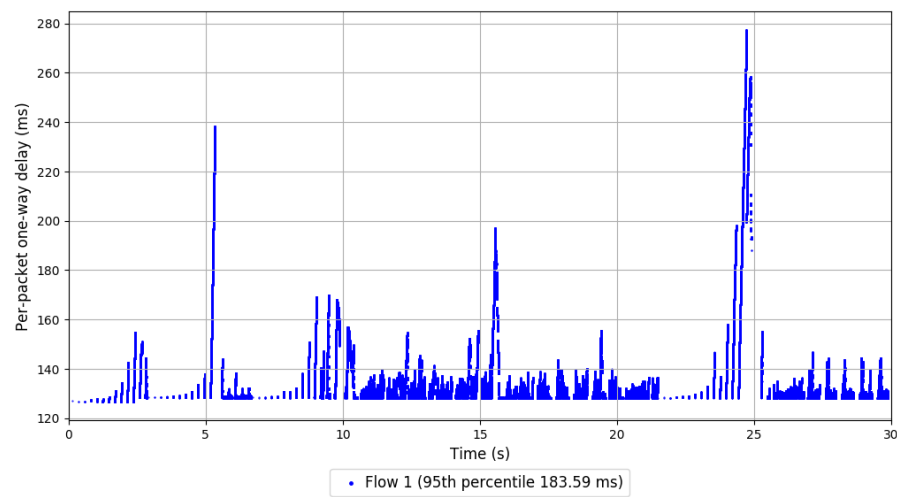
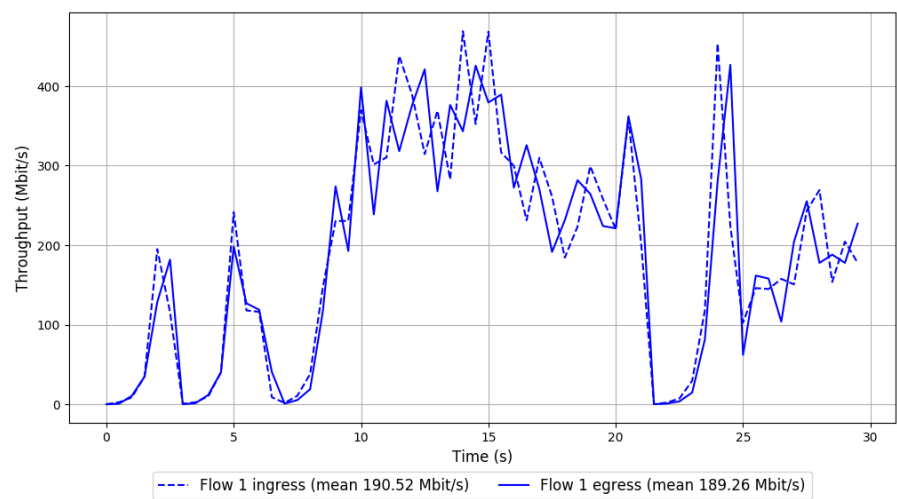
-- Flow 1:

Average throughput: 189.26 Mbit/s

95th percentile per-packet one-way delay: 183.592 ms

Loss rate: 0.87%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-08 18:56:23

End at: 2018-01-08 18:56:53

Below is generated by plot.py at 2018-01-08 23:30:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.95 Mbit/s

95th percentile per-packet one-way delay: 157.924 ms

Loss rate: 0.83%

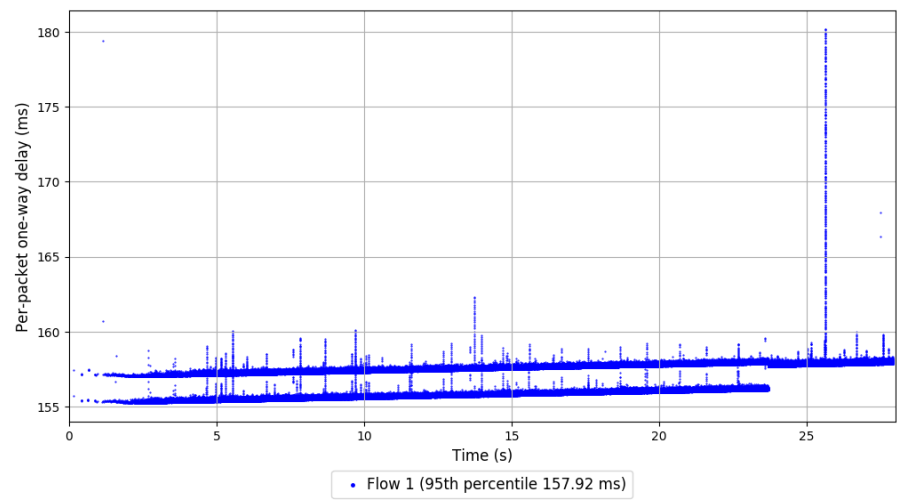
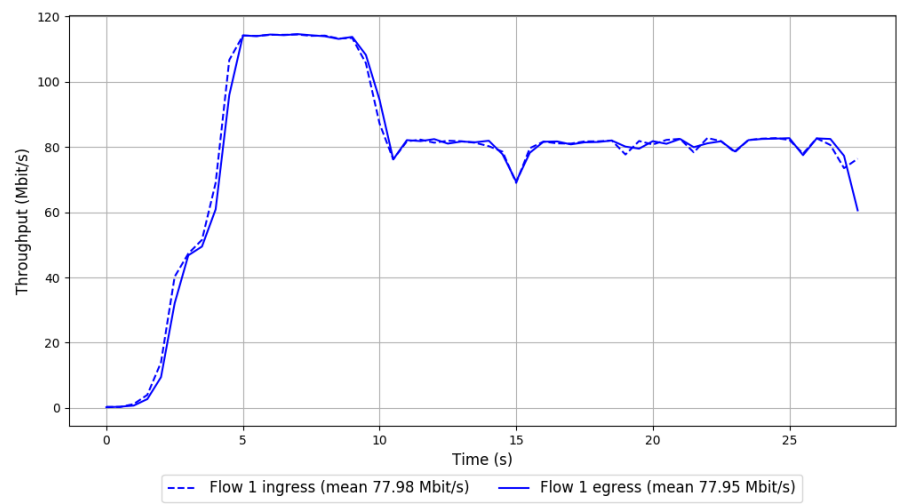
-- Flow 1:

Average throughput: 77.95 Mbit/s

95th percentile per-packet one-way delay: 157.924 ms

Loss rate: 0.83%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-08 19:08:46

End at: 2018-01-08 19:09:16

Below is generated by plot.py at 2018-01-08 23:30:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.89 Mbit/s

95th percentile per-packet one-way delay: 141.249 ms

Loss rate: 0.94%

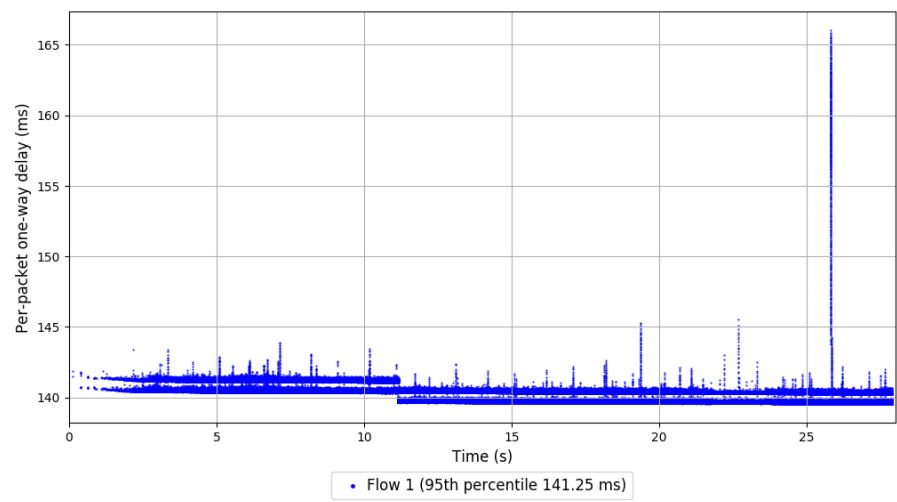
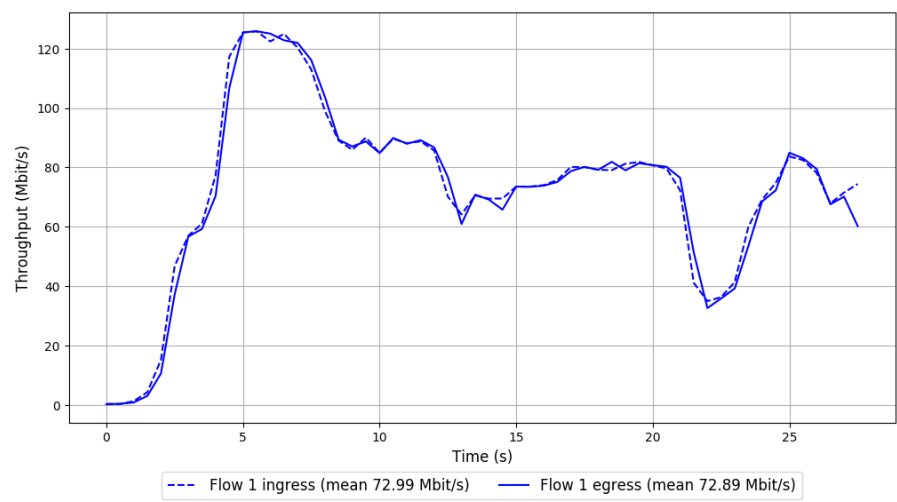
-- Flow 1:

Average throughput: 72.89 Mbit/s

95th percentile per-packet one-way delay: 141.249 ms

Loss rate: 0.94%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-08 19:21:11

End at: 2018-01-08 19:21:41

Below is generated by plot.py at 2018-01-08 23:31:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.37 Mbit/s

95th percentile per-packet one-way delay: 145.491 ms

Loss rate: 0.42%

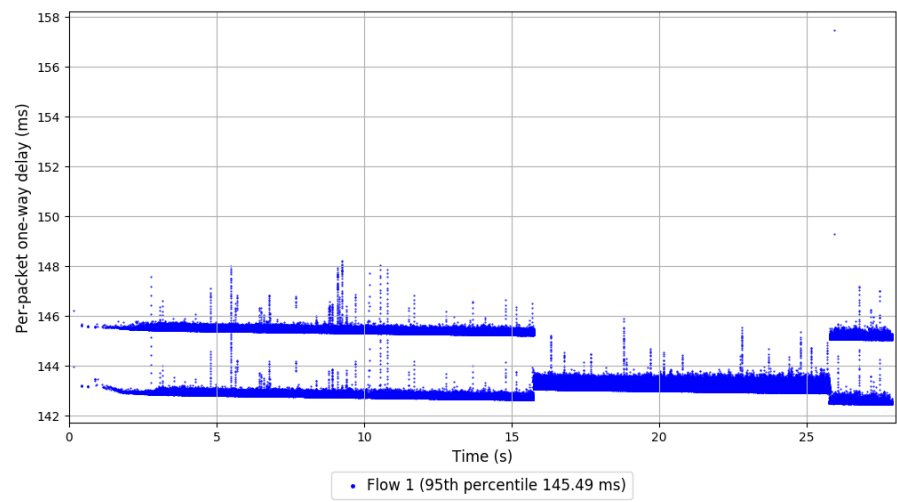
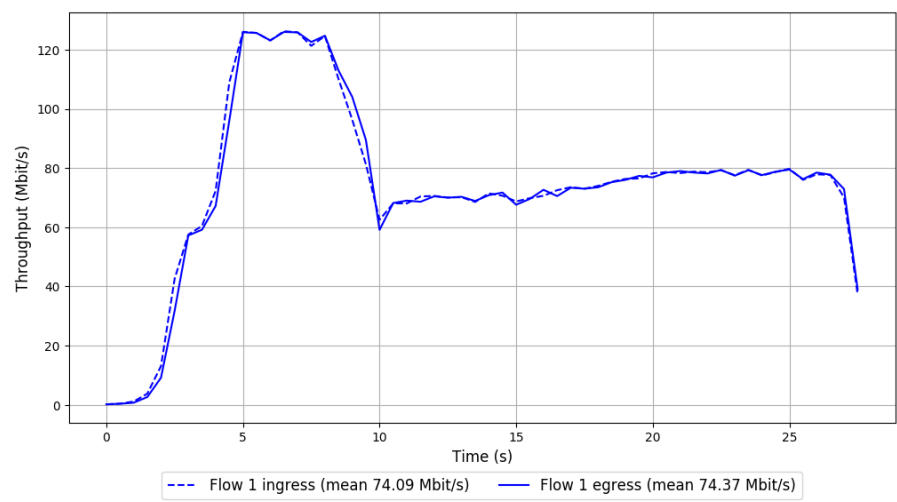
-- Flow 1:

Average throughput: 74.37 Mbit/s

95th percentile per-packet one-way delay: 145.491 ms

Loss rate: 0.42%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-08 19:33:36

End at: 2018-01-08 19:34:06

Below is generated by plot.py at 2018-01-08 23:31:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.59 Mbit/s

95th percentile per-packet one-way delay: 152.375 ms

Loss rate: 0.13%

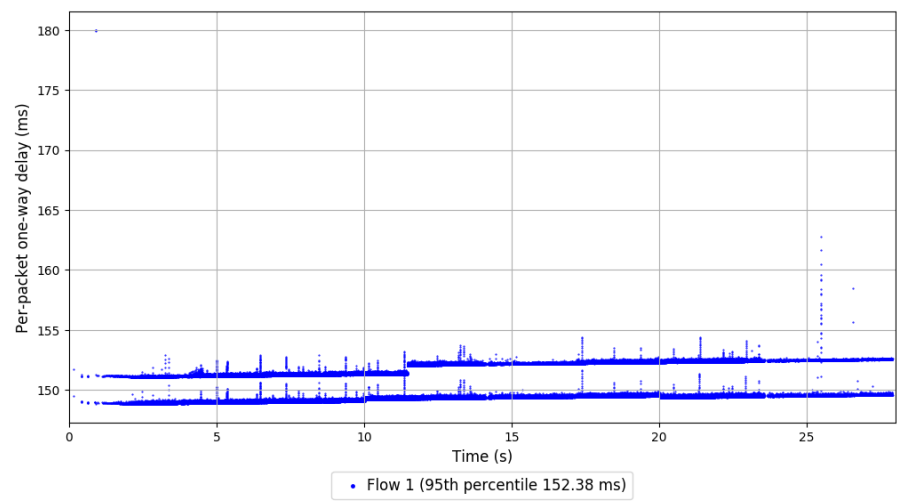
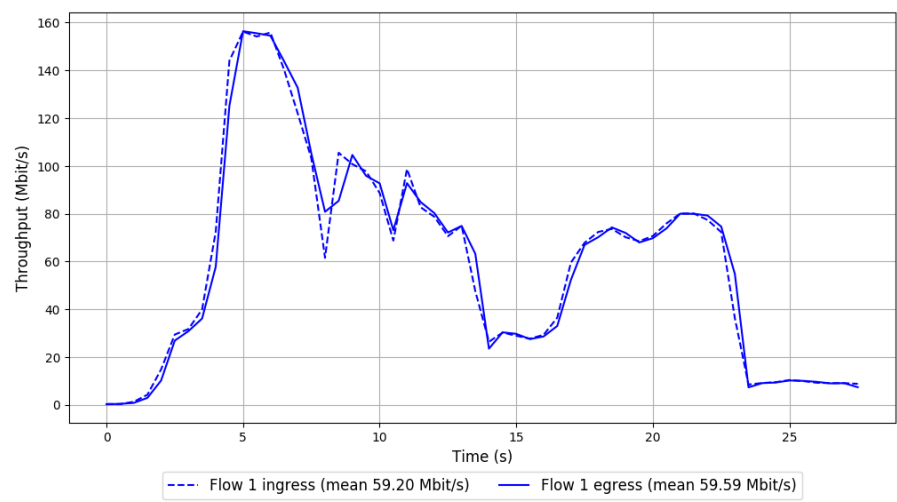
-- Flow 1:

Average throughput: 59.59 Mbit/s

95th percentile per-packet one-way delay: 152.375 ms

Loss rate: 0.13%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-08 19:45:58

End at: 2018-01-08 19:46:28

Below is generated by plot.py at 2018-01-08 23:31:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.49 Mbit/s

95th percentile per-packet one-way delay: 152.437 ms

Loss rate: 0.57%

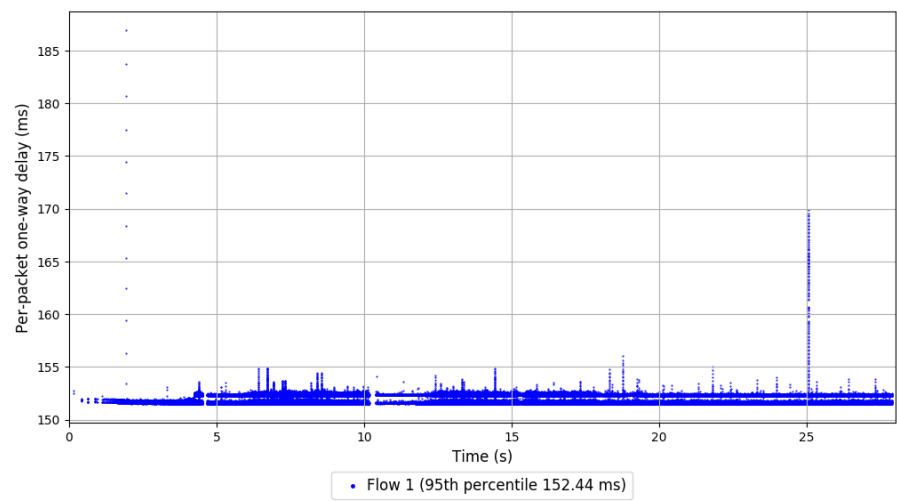
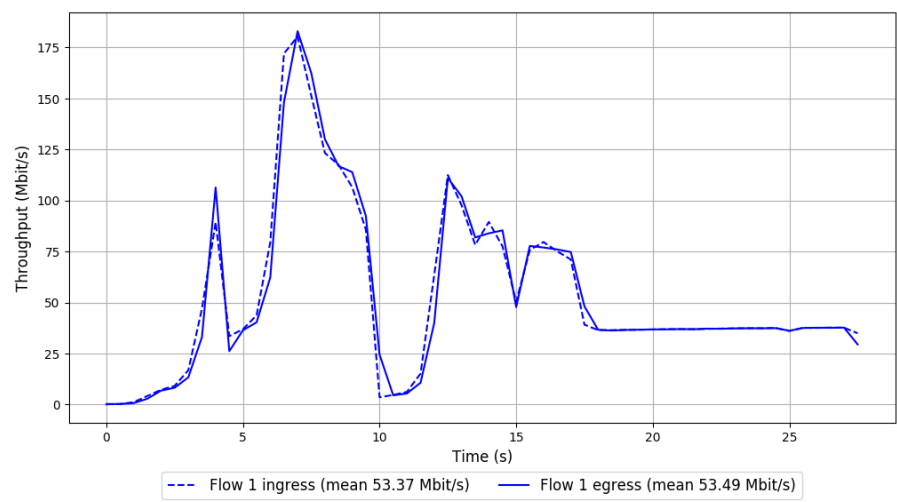
-- Flow 1:

Average throughput: 53.49 Mbit/s

95th percentile per-packet one-way delay: 152.437 ms

Loss rate: 0.57%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-08 19:58:10

End at: 2018-01-08 19:58:41

Below is generated by plot.py at 2018-01-08 23:31:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.46 Mbit/s

95th percentile per-packet one-way delay: 134.093 ms

Loss rate: 0.98%

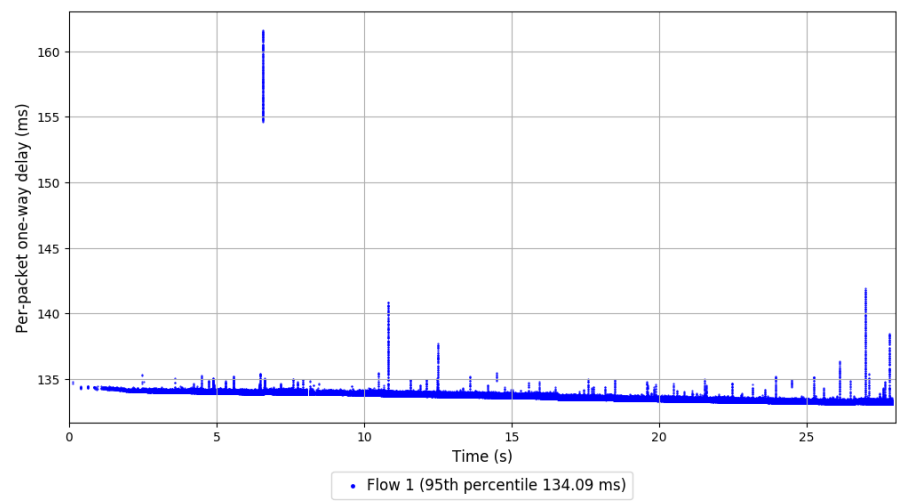
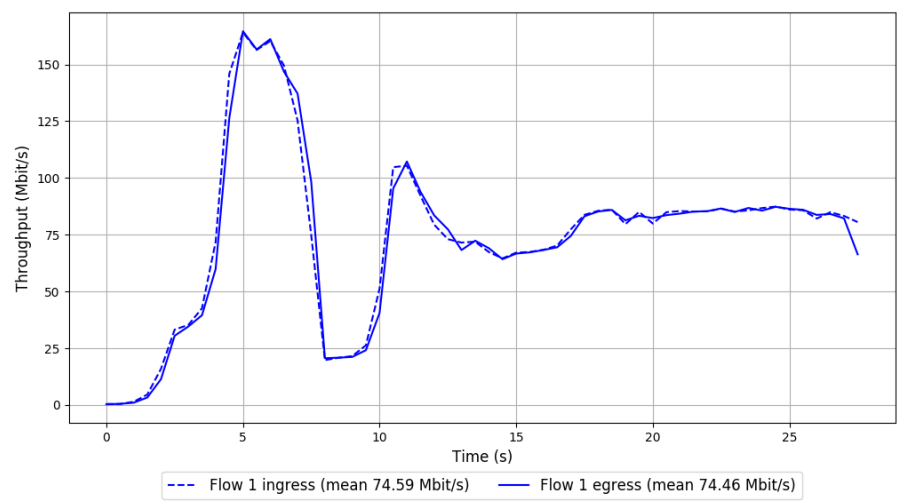
-- Flow 1:

Average throughput: 74.46 Mbit/s

95th percentile per-packet one-way delay: 134.093 ms

Loss rate: 0.98%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-08 20:10:33

End at: 2018-01-08 20:11:03

Below is generated by plot.py at 2018-01-08 23:31:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.18 Mbit/s

95th percentile per-packet one-way delay: 127.203 ms

Loss rate: 1.75%

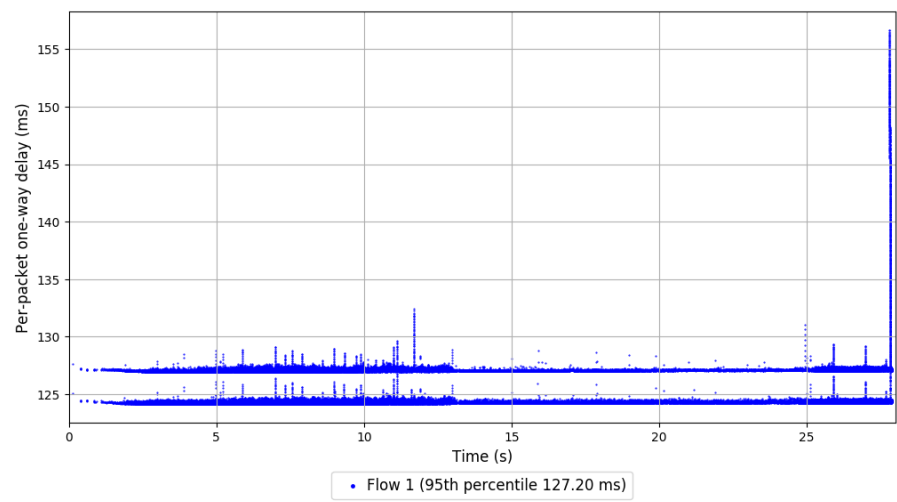
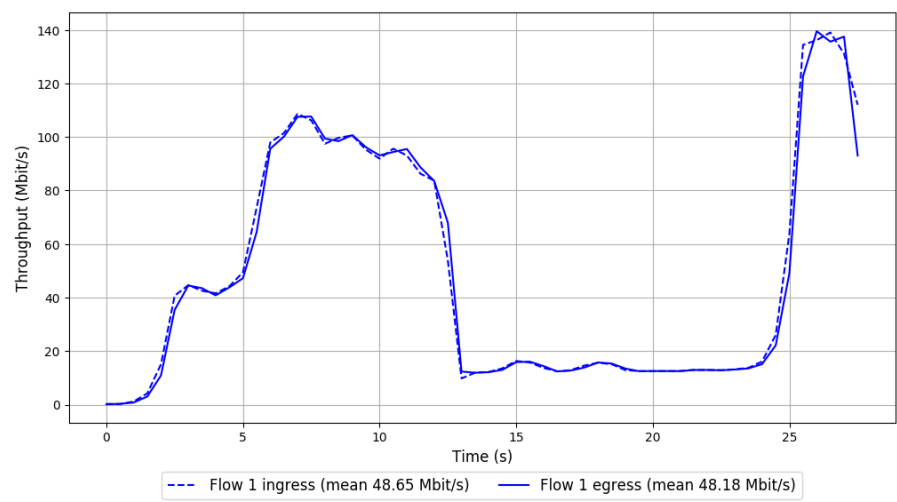
-- Flow 1:

Average throughput: 48.18 Mbit/s

95th percentile per-packet one-way delay: 127.203 ms

Loss rate: 1.75%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-08 20:23:07

End at: 2018-01-08 20:23:37

Below is generated by plot.py at 2018-01-08 23:32:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.85 Mbit/s

95th percentile per-packet one-way delay: 127.164 ms

Loss rate: 0.12%

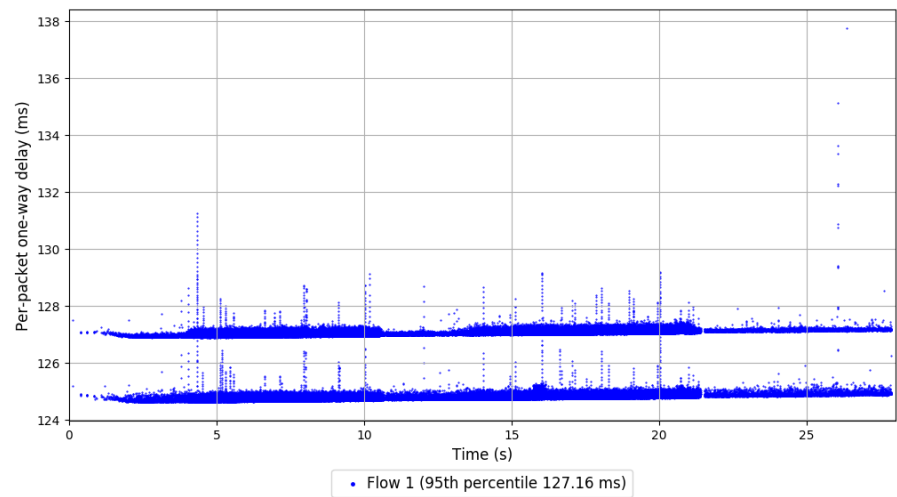
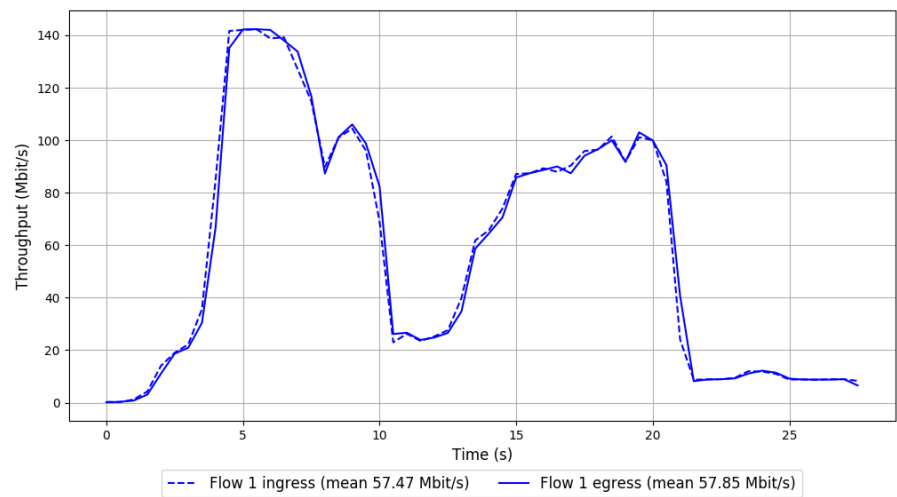
-- Flow 1:

Average throughput: 57.85 Mbit/s

95th percentile per-packet one-way delay: 127.164 ms

Loss rate: 0.12%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-08 20:35:43

End at: 2018-01-08 20:36:13

Below is generated by plot.py at 2018-01-08 23:32:24

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.15 Mbit/s

95th percentile per-packet one-way delay: 127.475 ms

Loss rate: 0.12%

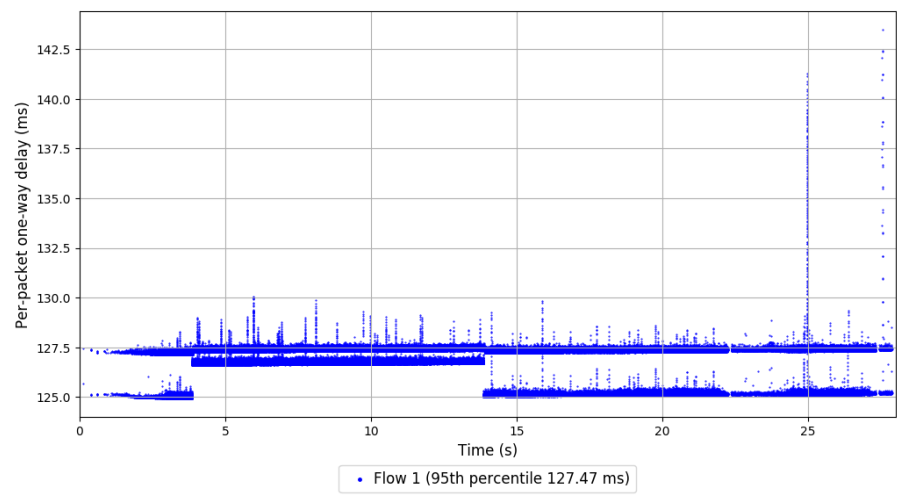
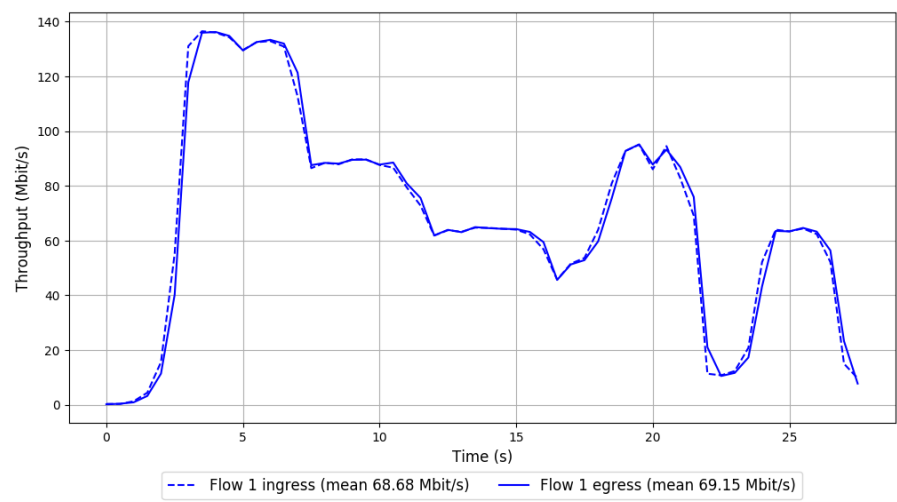
-- Flow 1:

Average throughput: 69.15 Mbit/s

95th percentile per-packet one-way delay: 127.475 ms

Loss rate: 0.12%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-08 20:48:23

End at: 2018-01-08 20:48:53

Below is generated by plot.py at 2018-01-08 23:32:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.42 Mbit/s

95th percentile per-packet one-way delay: 127.650 ms

Loss rate: 0.31%

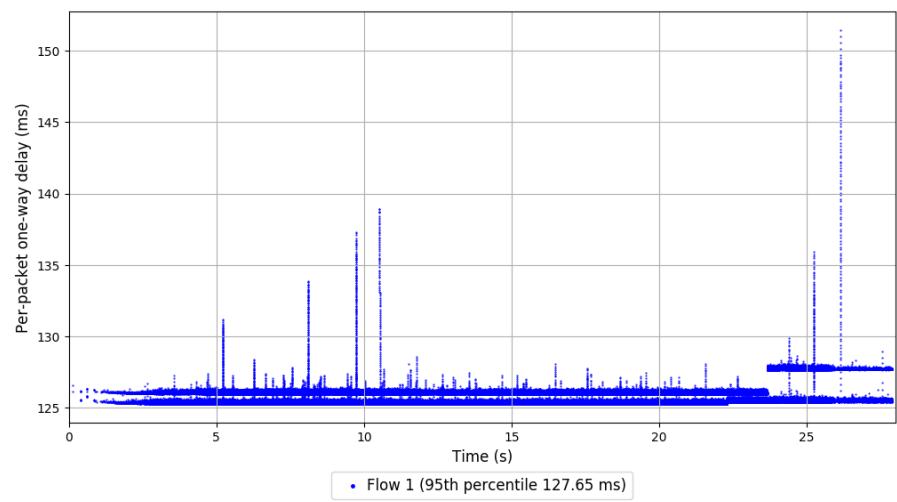
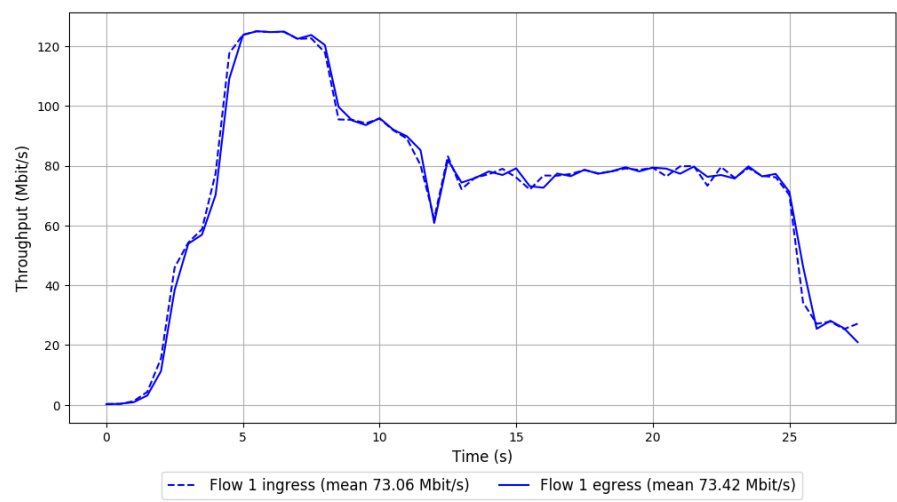
-- Flow 1:

Average throughput: 73.42 Mbit/s

95th percentile per-packet one-way delay: 127.650 ms

Loss rate: 0.31%

Run 10: Report of Copa — Data Link

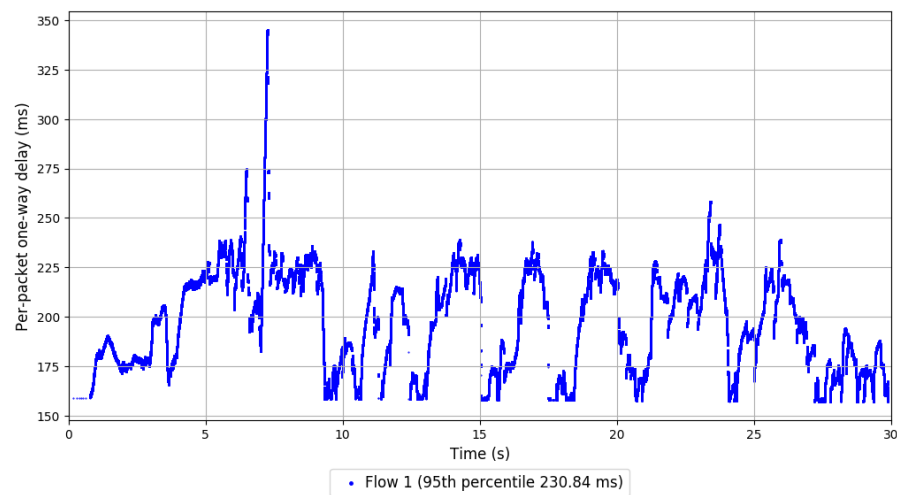
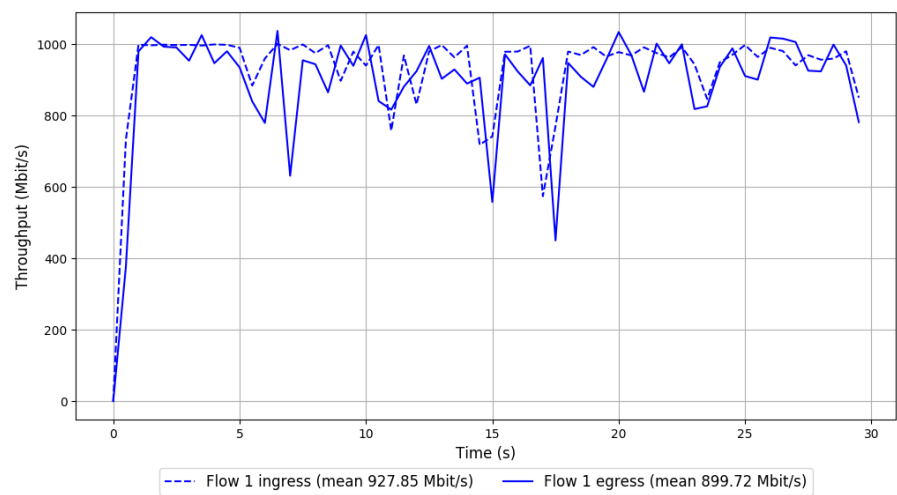


```
Run 1: Statistics of FillP

Start at: 2018-01-08 18:50:59
End at: 2018-01-08 18:51:29

# Below is generated by plot.py at 2018-01-08 23:48:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 899.72 Mbit/s
95th percentile per-packet one-way delay: 230.838 ms
Loss rate: 3.76%
-- Flow 1:
Average throughput: 899.72 Mbit/s
95th percentile per-packet one-way delay: 230.838 ms
Loss rate: 3.76%
```

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-08 19:03:19

End at: 2018-01-08 19:03:49

Below is generated by plot.py at 2018-01-08 23:48:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 946.36 Mbit/s

95th percentile per-packet one-way delay: 233.368 ms

Loss rate: 1.34%

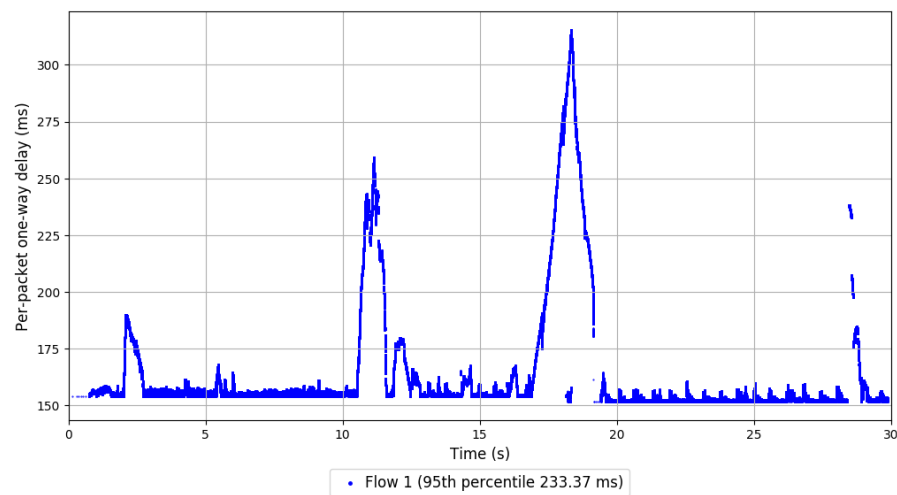
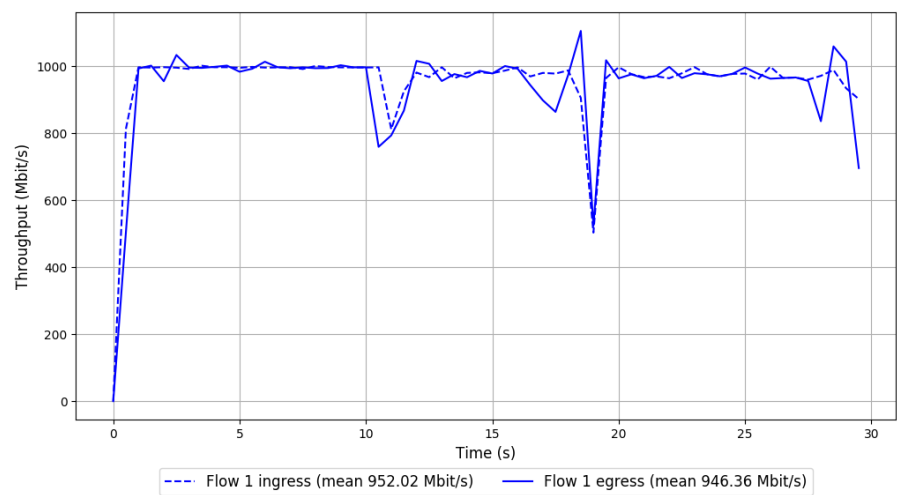
-- Flow 1:

Average throughput: 946.36 Mbit/s

95th percentile per-packet one-way delay: 233.368 ms

Loss rate: 1.34%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-08 19:15:46

End at: 2018-01-08 19:16:16

Below is generated by plot.py at 2018-01-08 23:48:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 939.23 Mbit/s

95th percentile per-packet one-way delay: 210.572 ms

Loss rate: 2.08%

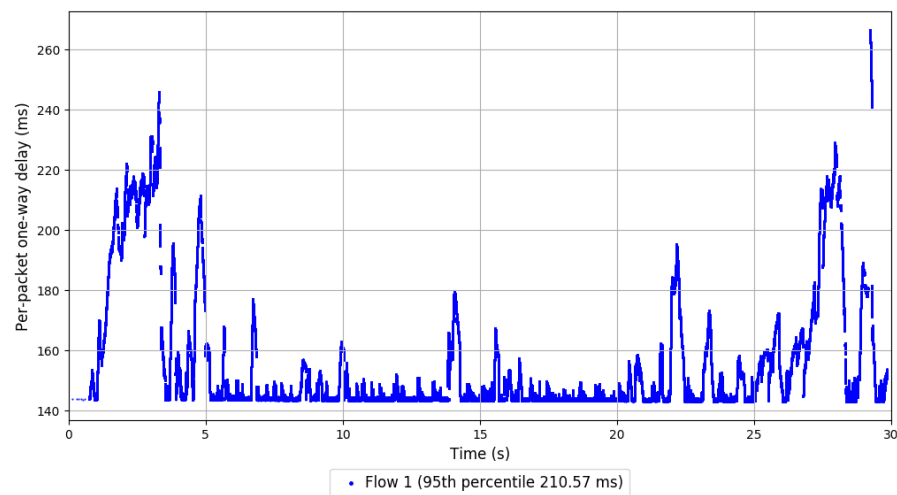
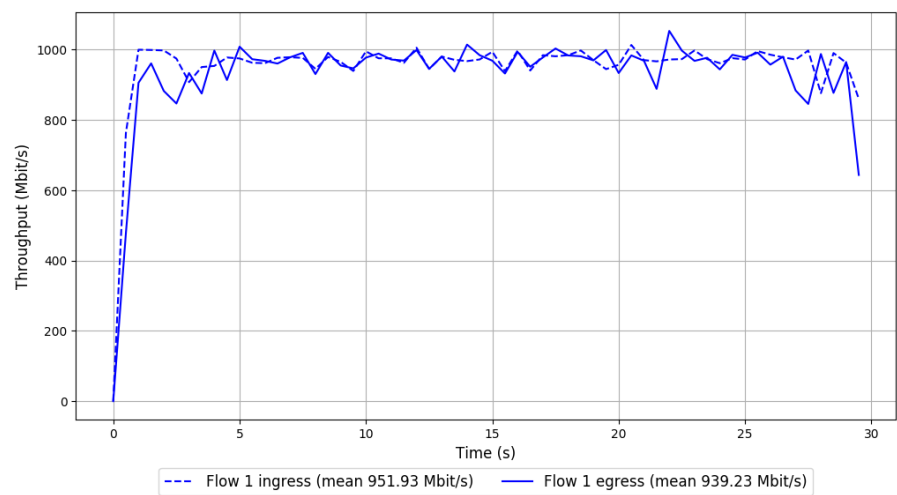
-- Flow 1:

Average throughput: 939.23 Mbit/s

95th percentile per-packet one-way delay: 210.572 ms

Loss rate: 2.08%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-08 19:28:11

End at: 2018-01-08 19:28:41

Below is generated by plot.py at 2018-01-08 23:48:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 912.28 Mbit/s

95th percentile per-packet one-way delay: 214.695 ms

Loss rate: 3.53%

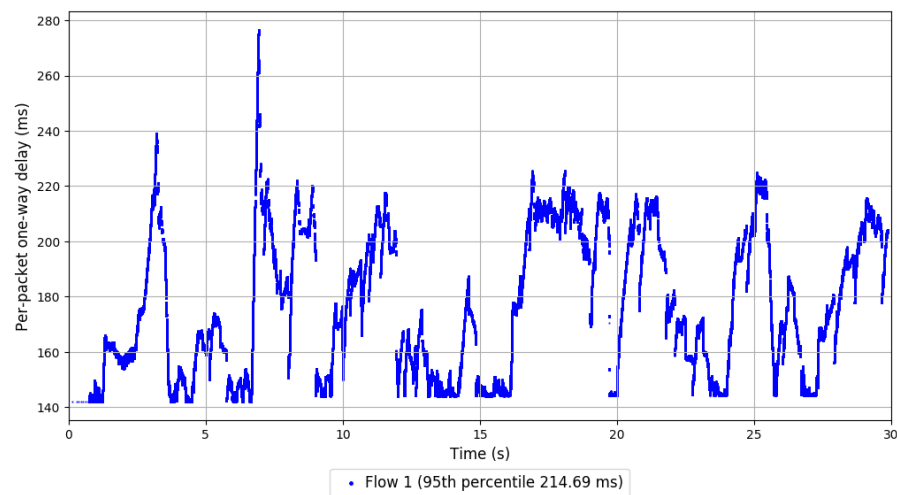
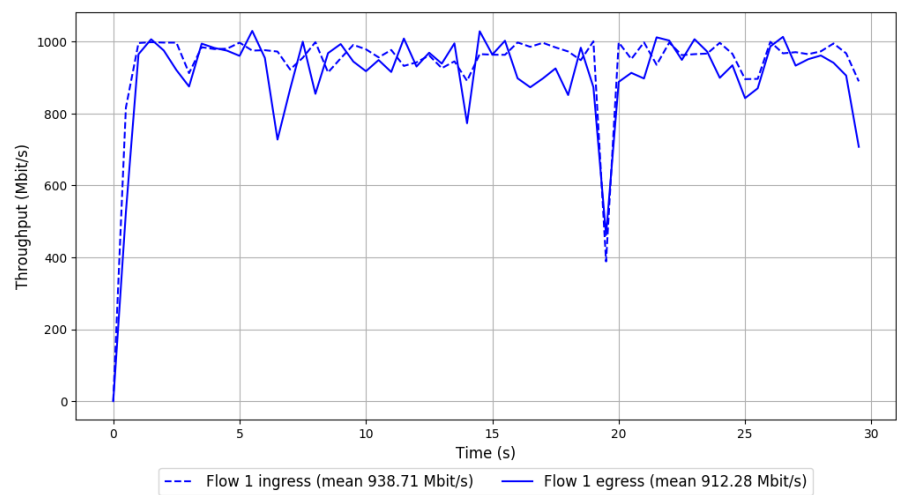
-- Flow 1:

Average throughput: 912.28 Mbit/s

95th percentile per-packet one-way delay: 214.695 ms

Loss rate: 3.53%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-08 19:40:37

End at: 2018-01-08 19:41:07

Below is generated by plot.py at 2018-01-08 23:49:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 948.81 Mbit/s

95th percentile per-packet one-way delay: 218.351 ms

Loss rate: 1.54%

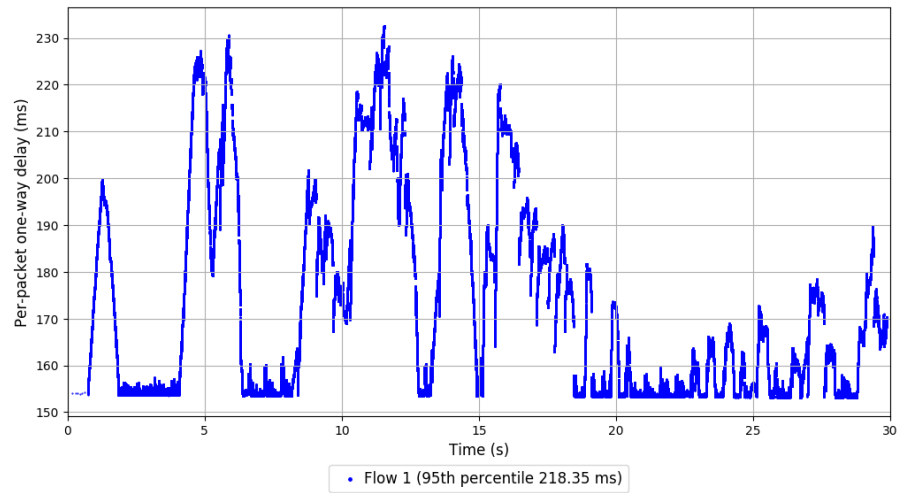
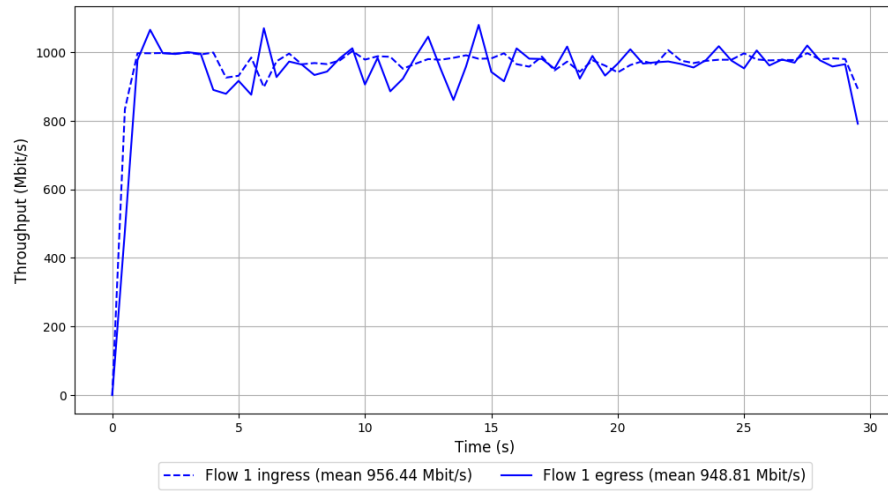
-- Flow 1:

Average throughput: 948.81 Mbit/s

95th percentile per-packet one-way delay: 218.351 ms

Loss rate: 1.54%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-08 19:52:49

End at: 2018-01-08 19:53:19

Below is generated by plot.py at 2018-01-08 23:49:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 929.13 Mbit/s

95th percentile per-packet one-way delay: 205.842 ms

Loss rate: 2.64%

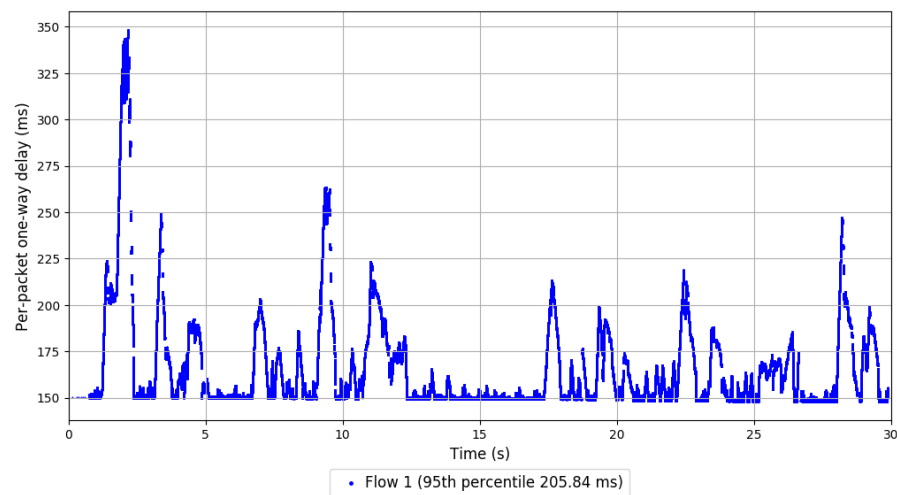
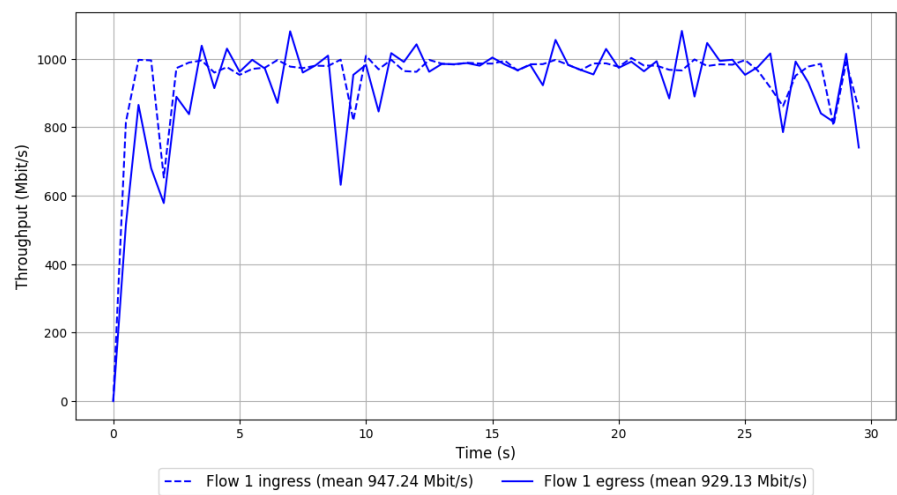
-- Flow 1:

Average throughput: 929.13 Mbit/s

95th percentile per-packet one-way delay: 205.842 ms

Loss rate: 2.64%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-08 20:05:12

End at: 2018-01-08 20:05:42

Below is generated by plot.py at 2018-01-08 23:50:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 948.10 Mbit/s

95th percentile per-packet one-way delay: 192.626 ms

Loss rate: 1.92%

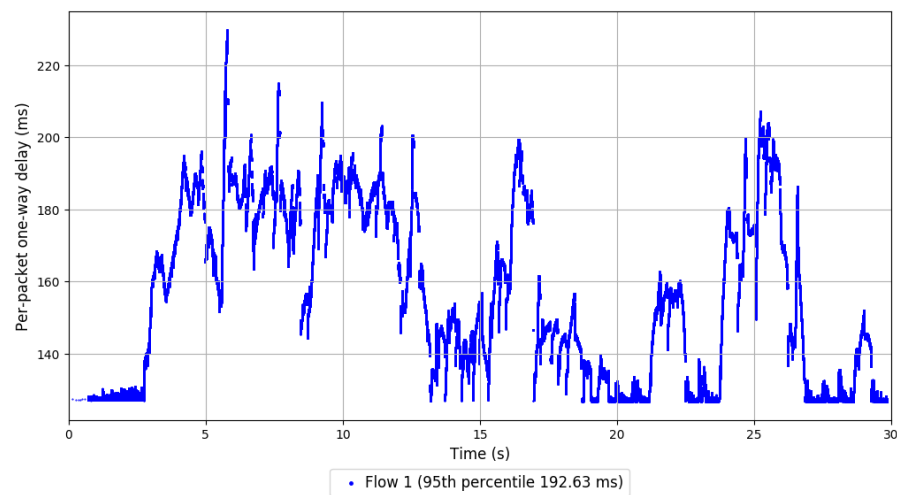
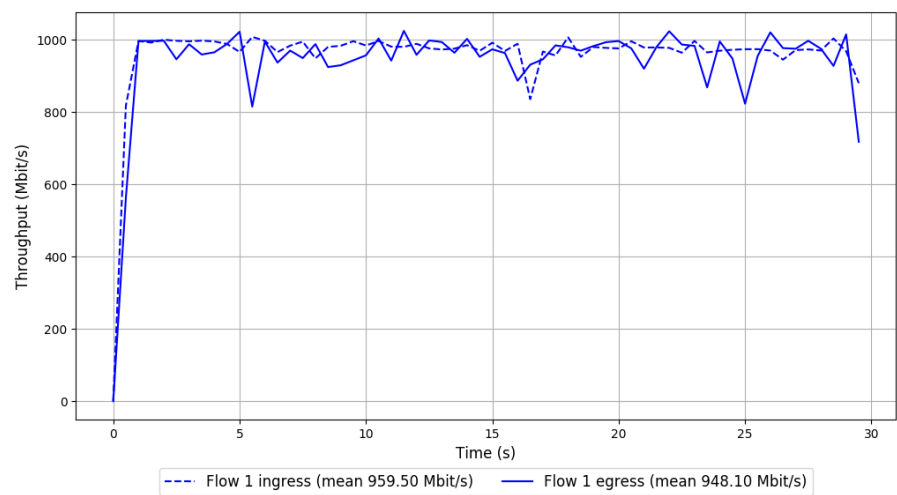
-- Flow 1:

Average throughput: 948.10 Mbit/s

95th percentile per-packet one-way delay: 192.626 ms

Loss rate: 1.92%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-08 20:17:30

End at: 2018-01-08 20:18:00

Below is generated by plot.py at 2018-01-08 23:50:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 952.64 Mbit/s

95th percentile per-packet one-way delay: 168.955 ms

Loss rate: 1.25%

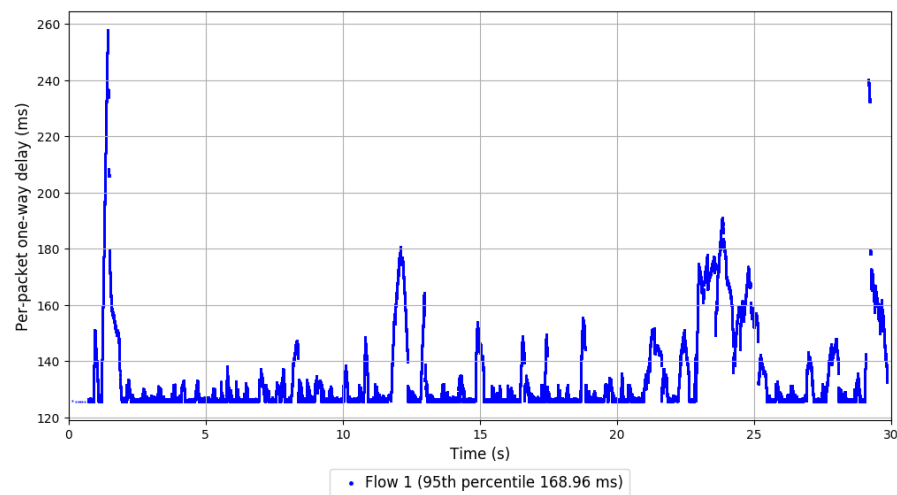
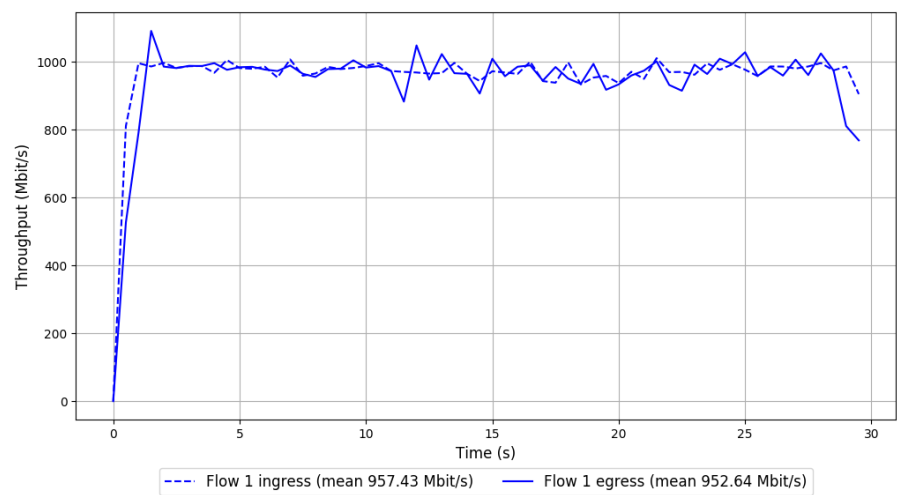
-- Flow 1:

Average throughput: 952.64 Mbit/s

95th percentile per-packet one-way delay: 168.955 ms

Loss rate: 1.25%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-08 20:30:09

End at: 2018-01-08 20:30:39

Below is generated by plot.py at 2018-01-08 23:55:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 936.19 Mbit/s

95th percentile per-packet one-way delay: 192.033 ms

Loss rate: 1.33%

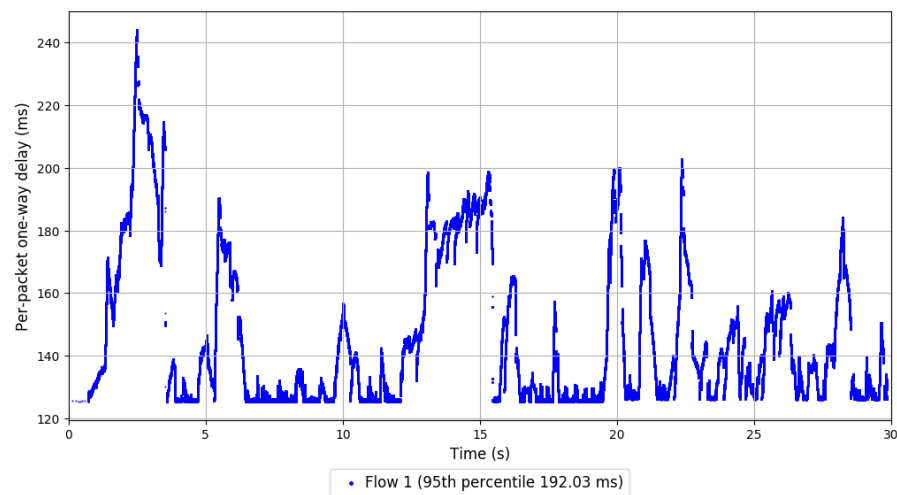
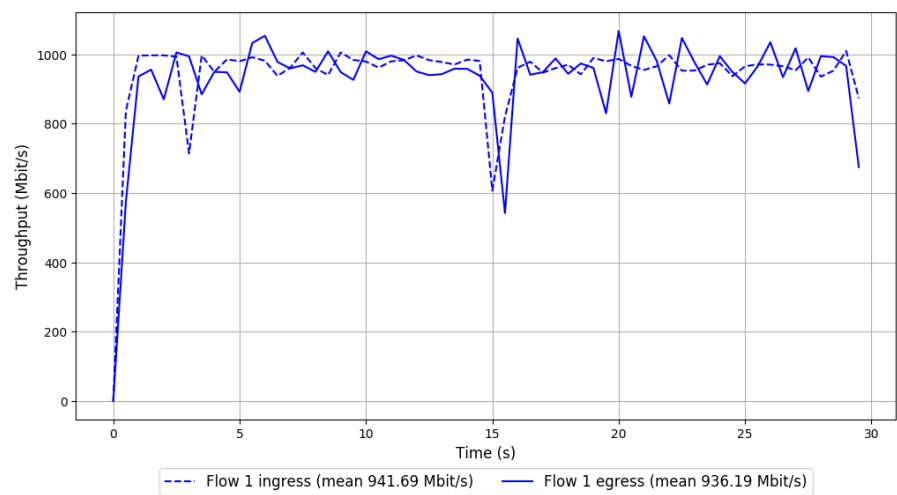
-- Flow 1:

Average throughput: 936.19 Mbit/s

95th percentile per-packet one-way delay: 192.033 ms

Loss rate: 1.33%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-01-08 20:42:44

End at: 2018-01-08 20:43:14

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 938.96 Mbit/s

95th percentile per-packet one-way delay: 193.082 ms

Loss rate: 2.02%

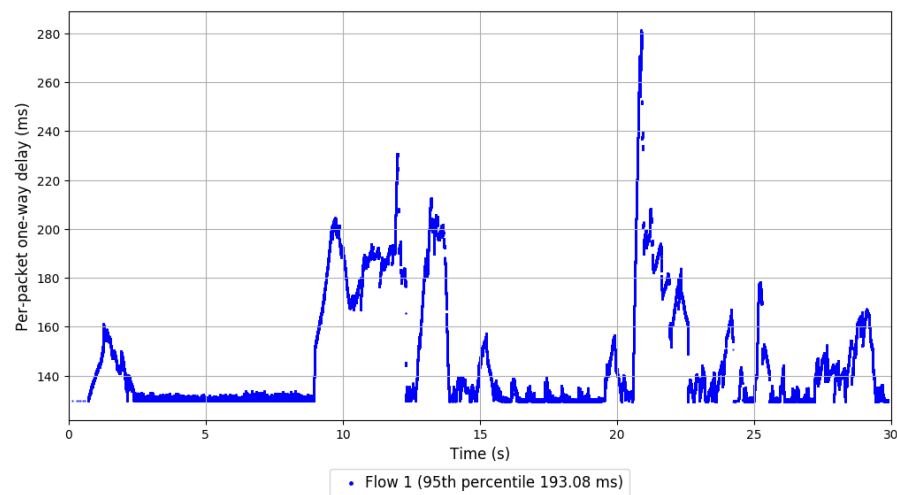
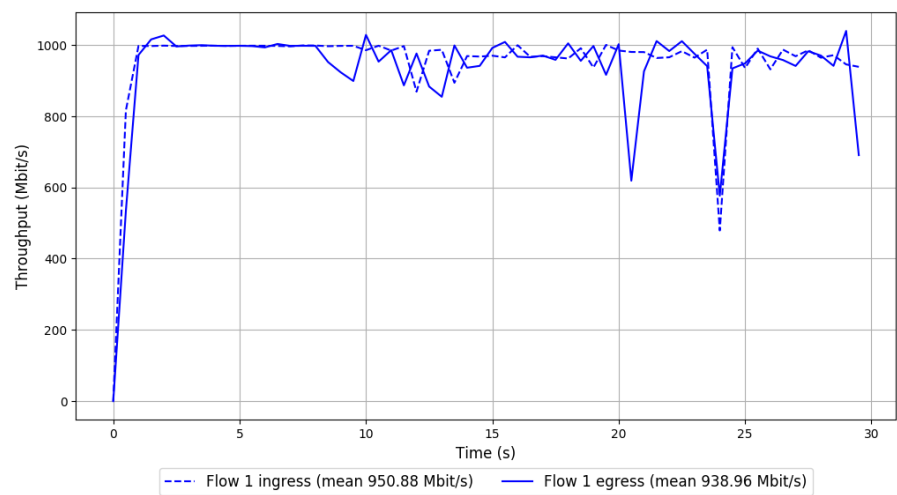
-- Flow 1:

Average throughput: 938.96 Mbit/s

95th percentile per-packet one-way delay: 193.082 ms

Loss rate: 2.02%

Run 10: Report of FillP — Data Link

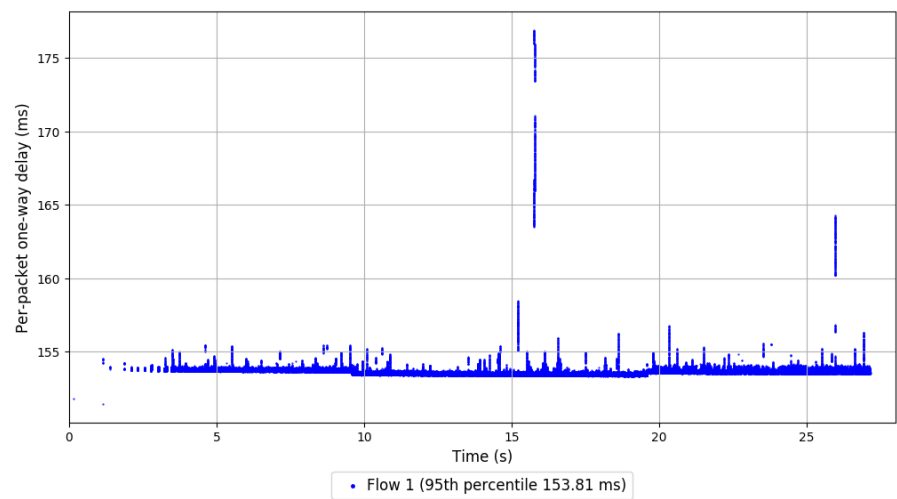
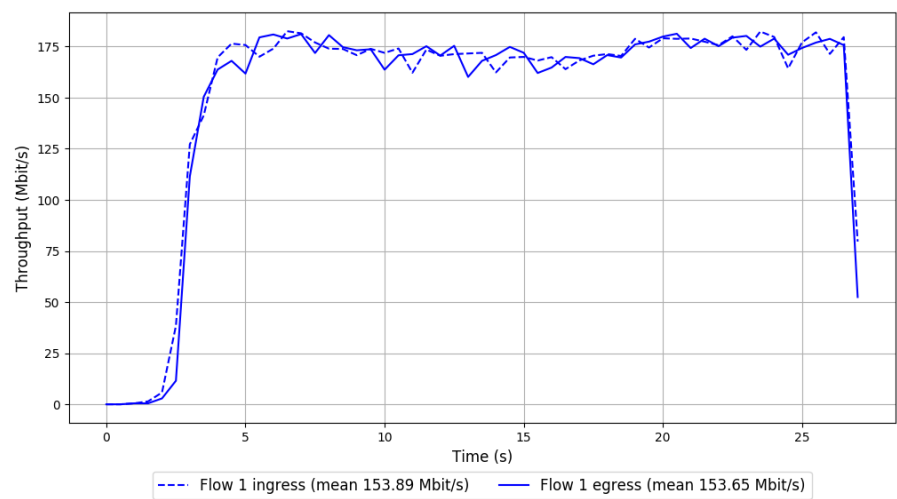


```
Run 1: Statistics of Indigo

Start at: 2018-01-08 18:53:07
End at: 2018-01-08 18:53:37

# Below is generated by plot.py at 2018-01-08 23:55:50
# Datalink statistics
-- Total of 1 flow:
Average throughput: 153.65 Mbit/s
95th percentile per-packet one-way delay: 153.809 ms
Loss rate: 0.97%
-- Flow 1:
Average throughput: 153.65 Mbit/s
95th percentile per-packet one-way delay: 153.809 ms
Loss rate: 0.97%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-01-08 19:05:29

End at: 2018-01-08 19:05:59

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.79 Mbit/s

95th percentile per-packet one-way delay: 148.745 ms

Loss rate: 0.77%

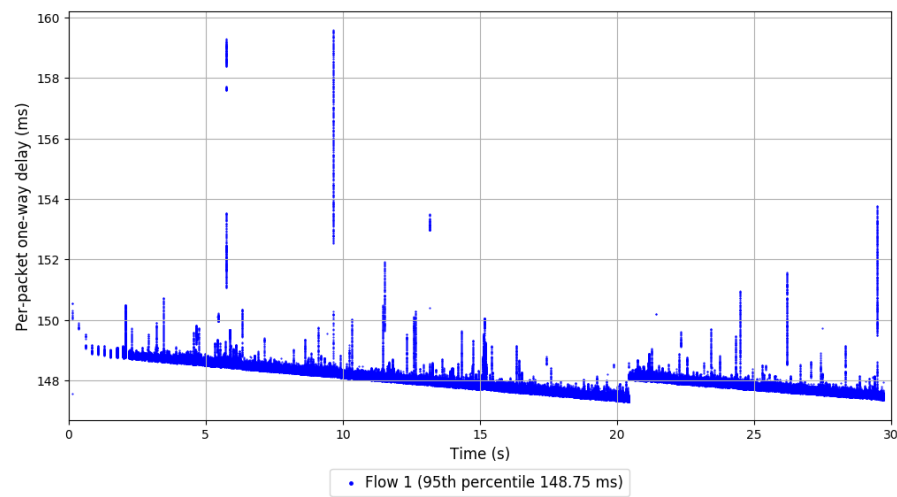
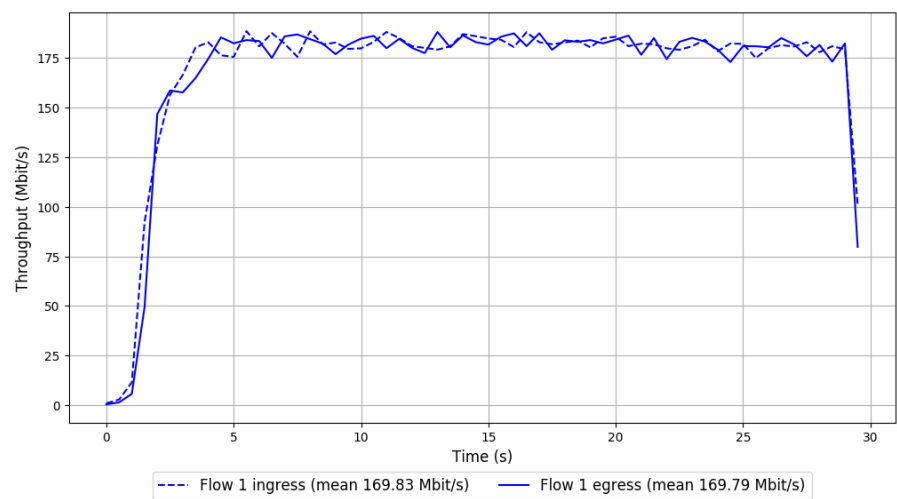
-- Flow 1:

Average throughput: 169.79 Mbit/s

95th percentile per-packet one-way delay: 148.745 ms

Loss rate: 0.77%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-08 19:17:56

End at: 2018-01-08 19:18:26

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.77 Mbit/s

95th percentile per-packet one-way delay: 142.896 ms

Loss rate: 1.03%

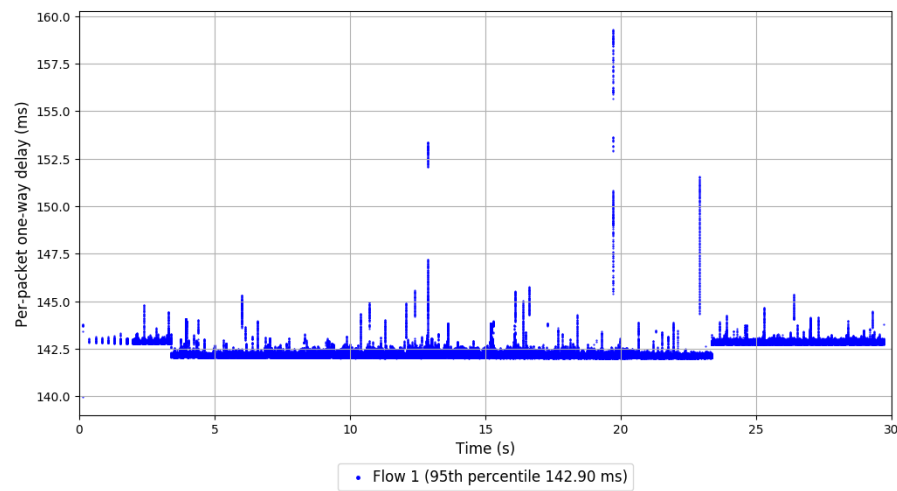
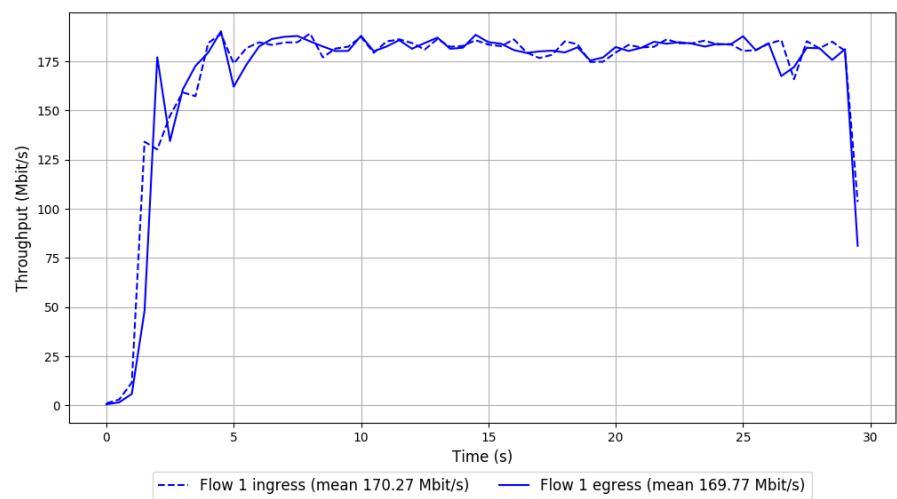
-- Flow 1:

Average throughput: 169.77 Mbit/s

95th percentile per-packet one-way delay: 142.896 ms

Loss rate: 1.03%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-08 19:30:18

End at: 2018-01-08 19:30:48

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 172.54 Mbit/s

95th percentile per-packet one-way delay: 146.718 ms

Loss rate: 1.01%

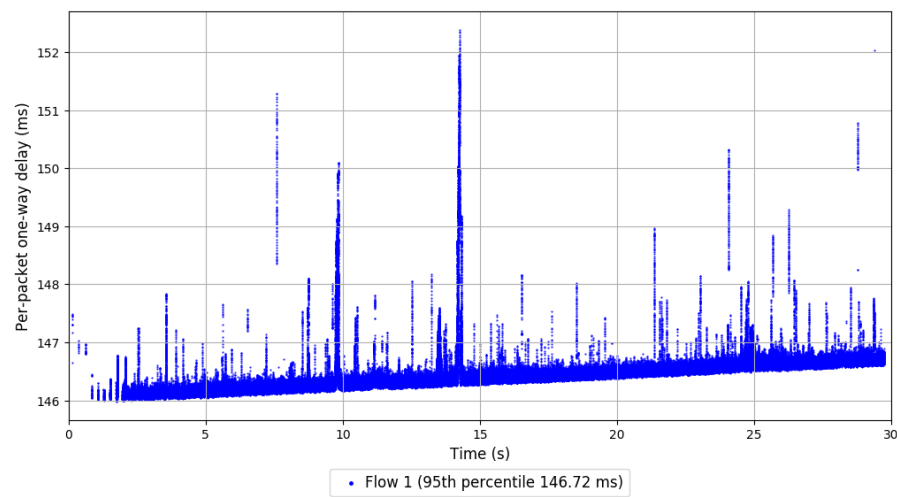
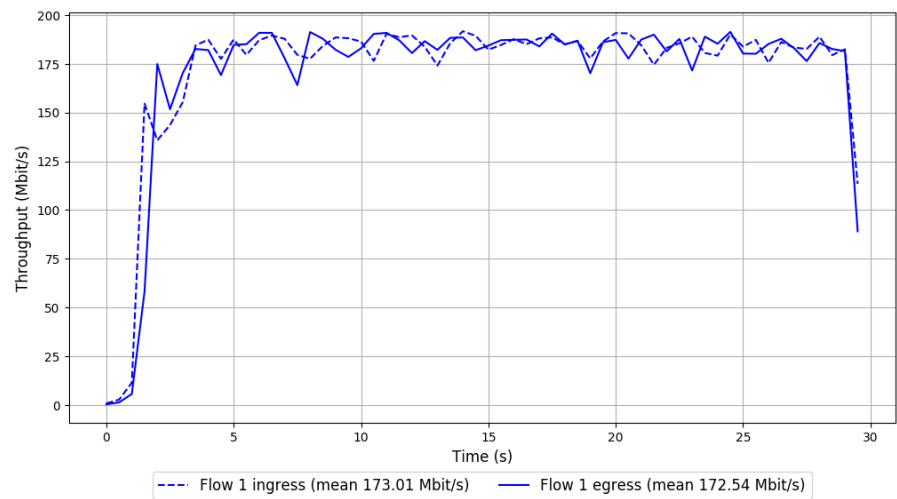
-- Flow 1:

Average throughput: 172.54 Mbit/s

95th percentile per-packet one-way delay: 146.718 ms

Loss rate: 1.01%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-08 19:42:46

End at: 2018-01-08 19:43:16

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.41 Mbit/s

95th percentile per-packet one-way delay: 153.706 ms

Loss rate: 0.77%

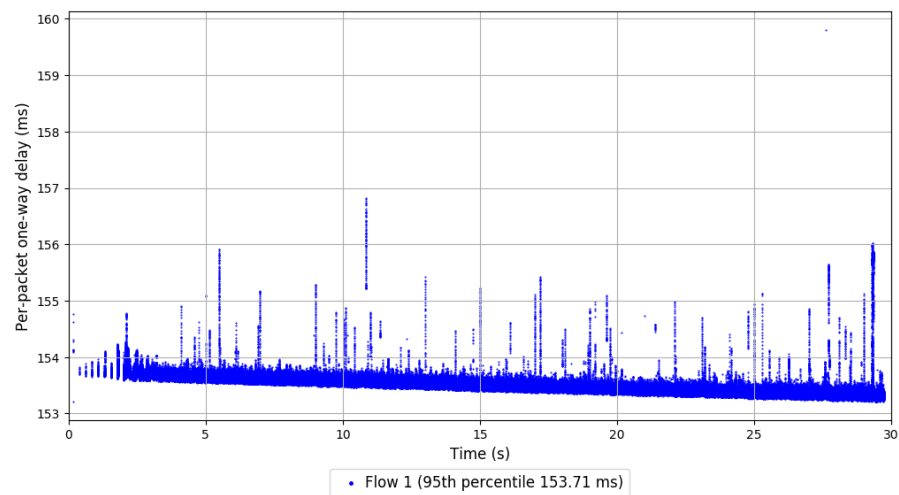
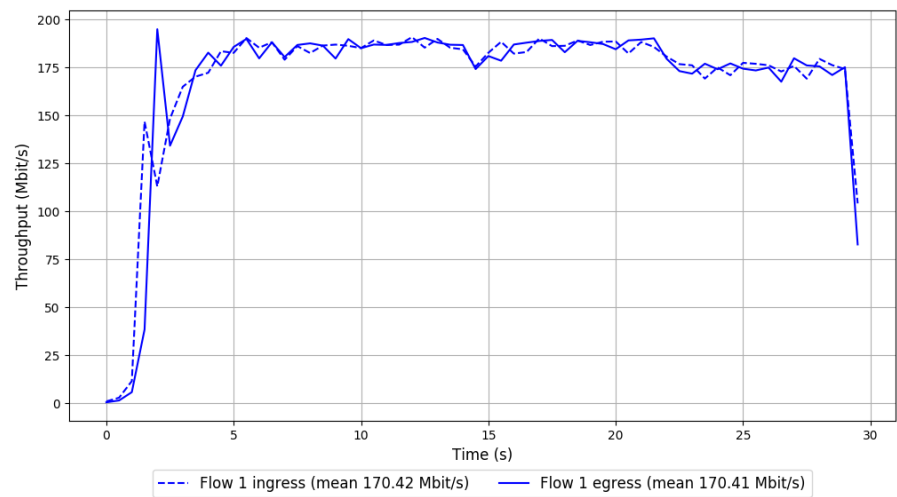
-- Flow 1:

Average throughput: 170.41 Mbit/s

95th percentile per-packet one-way delay: 153.706 ms

Loss rate: 0.77%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-08 19:54:58

End at: 2018-01-08 19:55:28

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.97 Mbit/s

95th percentile per-packet one-way delay: 143.897 ms

Loss rate: 0.76%

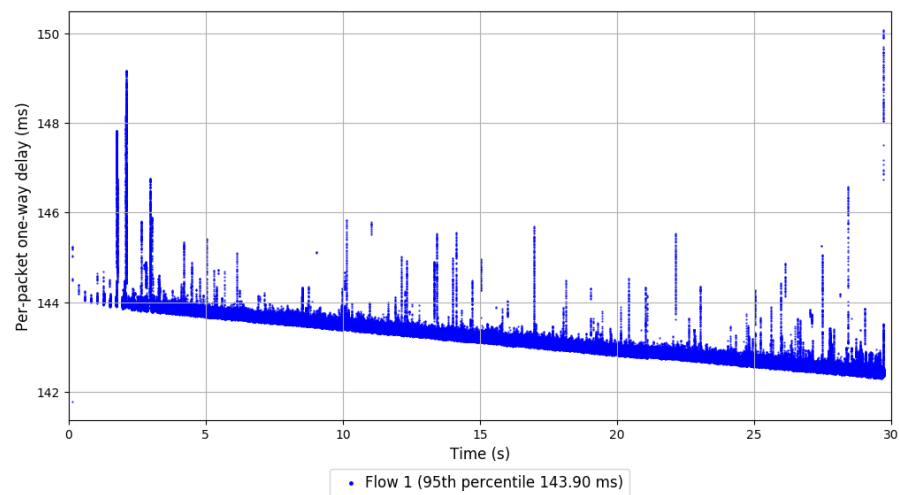
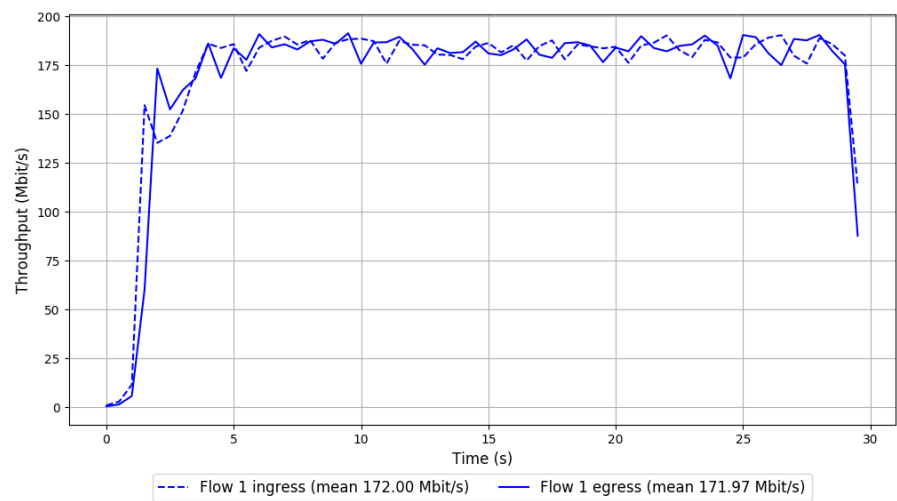
-- Flow 1:

Average throughput: 171.97 Mbit/s

95th percentile per-packet one-way delay: 143.897 ms

Loss rate: 0.76%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-08 20:07:22

End at: 2018-01-08 20:07:52

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.13 Mbit/s

95th percentile per-packet one-way delay: 127.465 ms

Loss rate: 0.80%

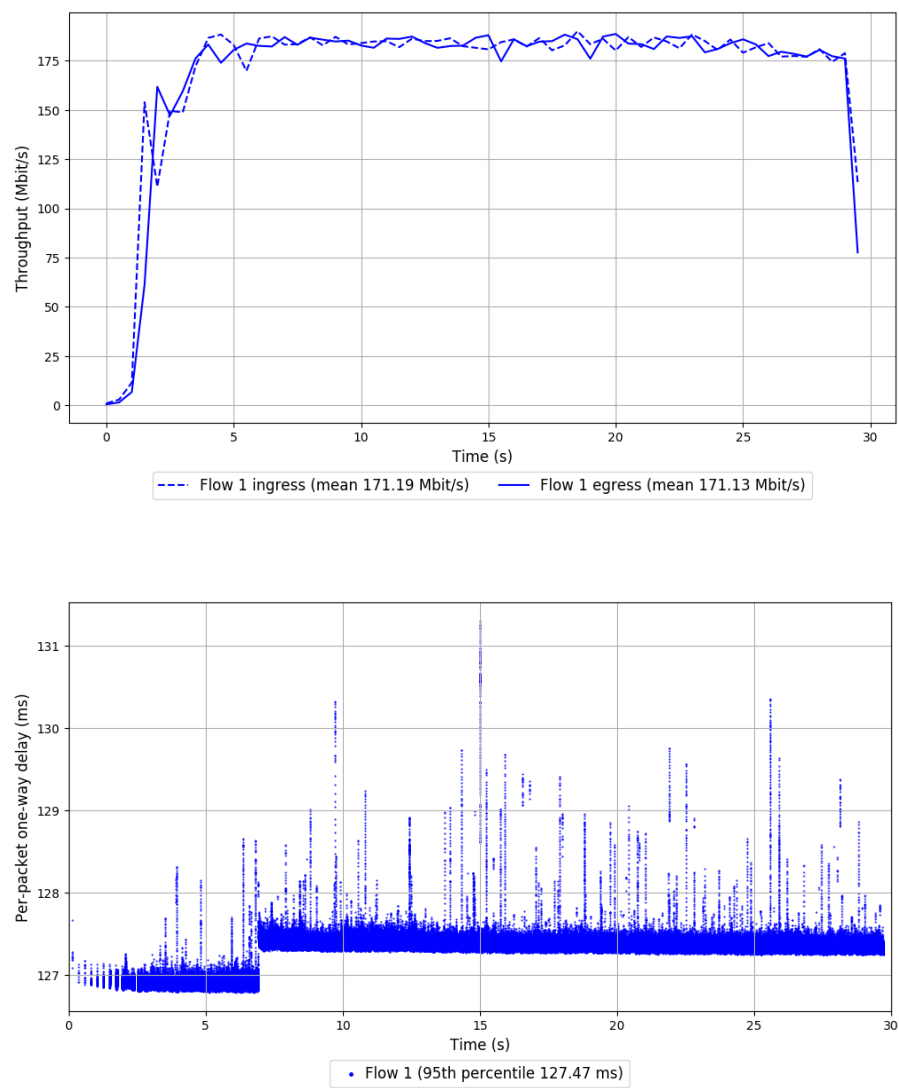
-- Flow 1:

Average throughput: 171.13 Mbit/s

95th percentile per-packet one-way delay: 127.465 ms

Loss rate: 0.80%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-08 20:19:38

End at: 2018-01-08 20:20:08

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.22 Mbit/s

95th percentile per-packet one-way delay: 125.755 ms

Loss rate: 0.78%

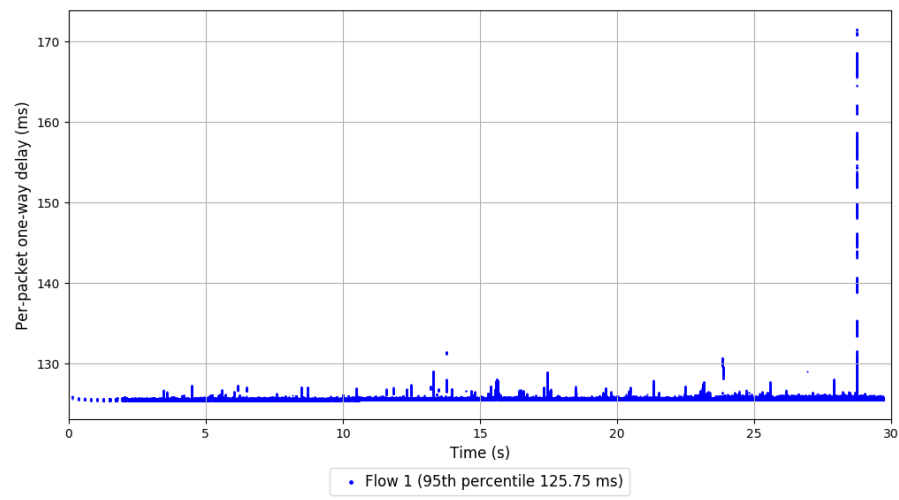
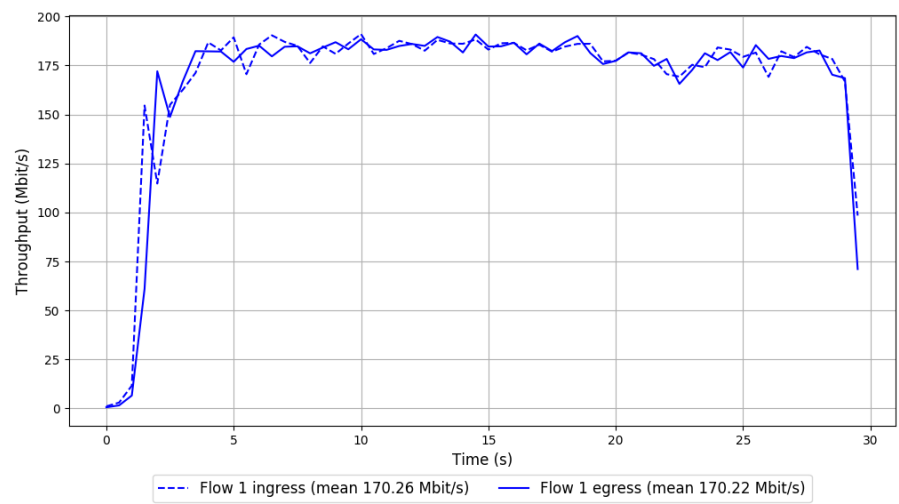
-- Flow 1:

Average throughput: 170.22 Mbit/s

95th percentile per-packet one-way delay: 125.755 ms

Loss rate: 0.78%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-08 20:32:17

End at: 2018-01-08 20:32:47

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.57 Mbit/s

95th percentile per-packet one-way delay: 125.776 ms

Loss rate: 0.79%

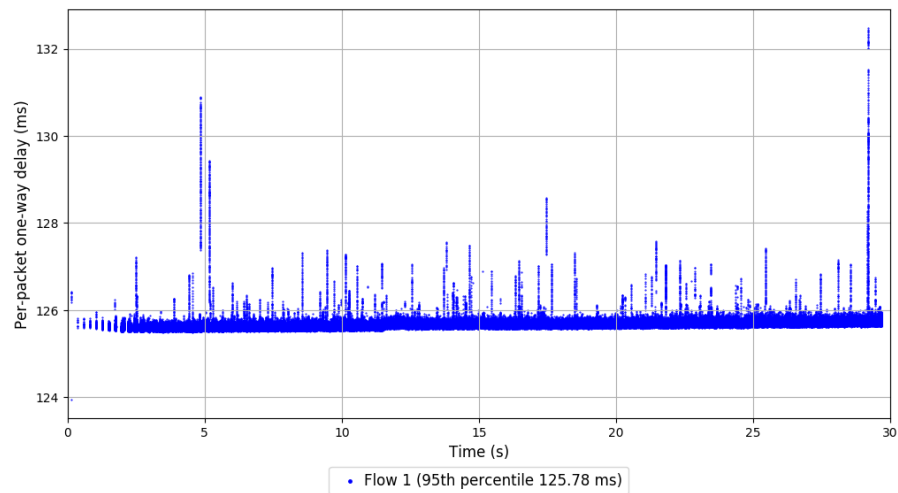
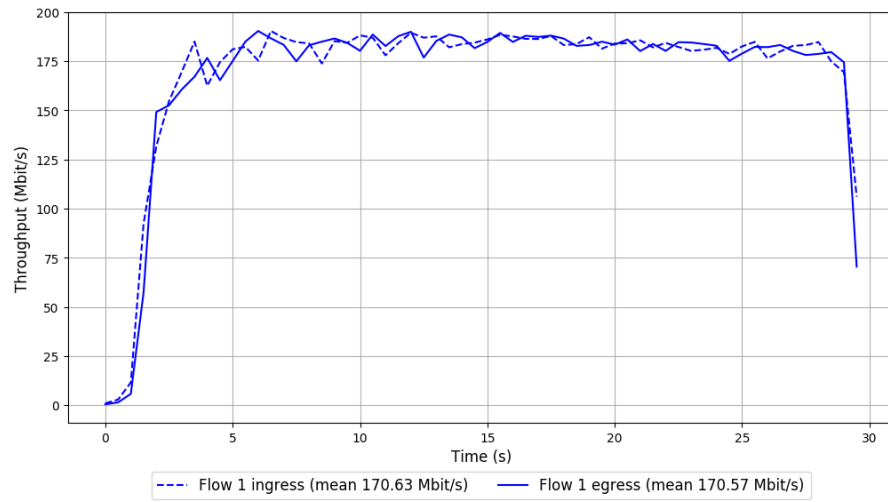
-- Flow 1:

Average throughput: 170.57 Mbit/s

95th percentile per-packet one-way delay: 125.776 ms

Loss rate: 0.79%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-08 20:44:52

End at: 2018-01-08 20:45:22

Below is generated by plot.py at 2018-01-08 23:55:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.08 Mbit/s

95th percentile per-packet one-way delay: 128.555 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 171.08 Mbit/s

95th percentile per-packet one-way delay: 128.555 ms

Loss rate: 0.84%

Run 10: Report of Indigo — Data Link

