

Pantheon Report

Generated at 2017-11-30 20:03:30 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

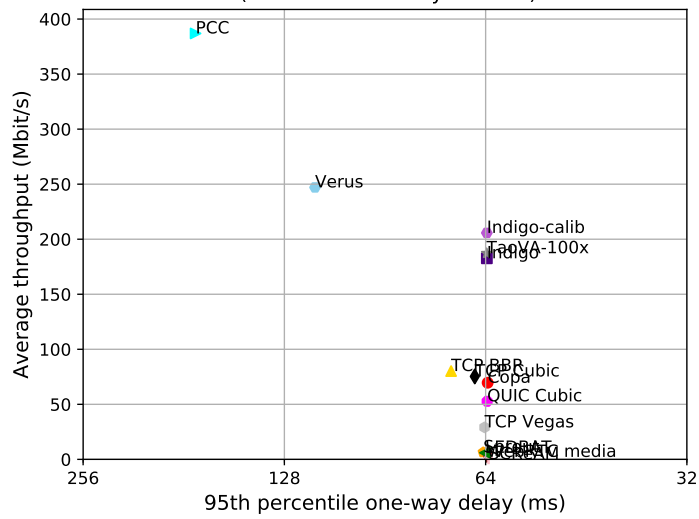
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

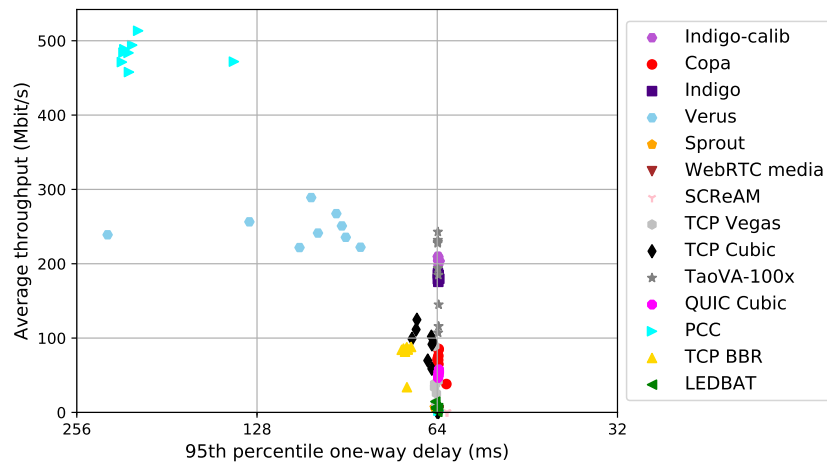
Git summary:

```
branch: indigos @ e3a57ad5ac5cfcaca0e3f983c8dd4cc3509e0262
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ b5b7c38e8391001927dc41c6cfa2627d03dde737
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 03455460fd1a8ffbdad86fab936fdca204b80db
third_party/indigo-no-send-rate @ b39dfa6b2c5f19cb7cd89626cb4f5bb81f9fecda
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ baf443516dea3eeddeccaf9b916cc313273ca4f4
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Iowa Ethernet to GCE Tokyo 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	80.24	72.08	0.63
TCP Cubic	10	75.33	66.44	0.84
LEDBAT	10	5.94	64.16	0.46
PCC	10	386.93	173.77	2.21
QUIC Cubic	10	52.75	63.67	0.00
SCReAM	10	0.22	63.37	0.00
WebRTC media	10	2.25	63.74	0.02
Sprout	10	6.43	64.53	1.00
TaoVA-100x	10	187.26	63.80	0.69
TCP Vegas	10	29.06	64.24	0.99
Verus	9	247.05	115.19	0.77
Copa	9	69.61	63.56	0.37
Indigo	8	182.66	63.73	0.94
Indigo-calib	10	205.73	63.74	0.37

Run 1: Statistics of TCP BBR

Start at: 2017-11-30 17:06:33

End at: 2017-11-30 17:07:03

Below is generated by plot.py at 2017-11-30 19:28:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.92 Mbit/s

95th percentile per-packet one-way delay: 71.913 ms

Loss rate: 3.85%

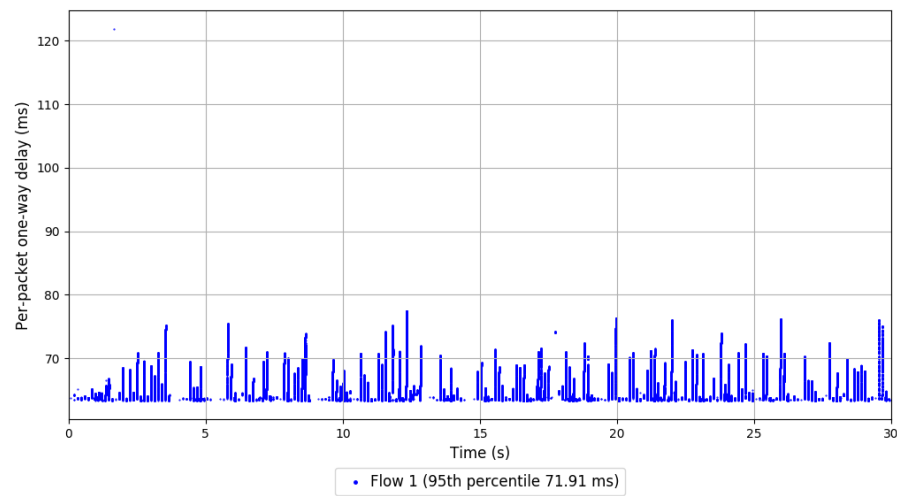
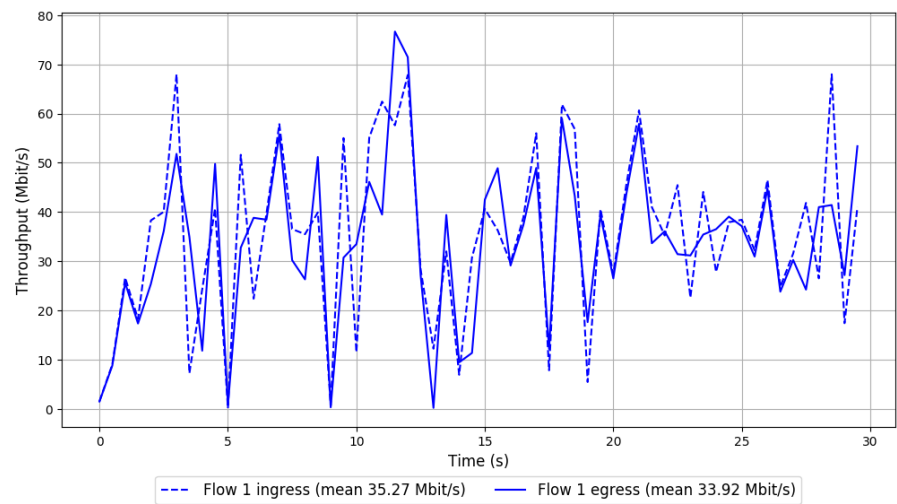
-- Flow 1:

Average throughput: 33.92 Mbit/s

95th percentile per-packet one-way delay: 71.913 ms

Loss rate: 3.85%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-11-30 17:16:30

End at: 2017-11-30 17:17:00

Below is generated by plot.py at 2017-11-30 19:28:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.68 Mbit/s

95th percentile per-packet one-way delay: 72.448 ms

Loss rate: 0.71%

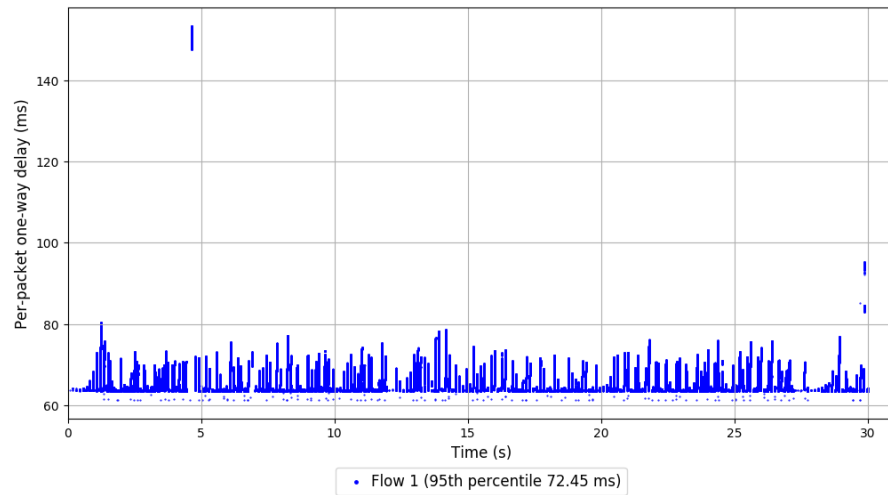
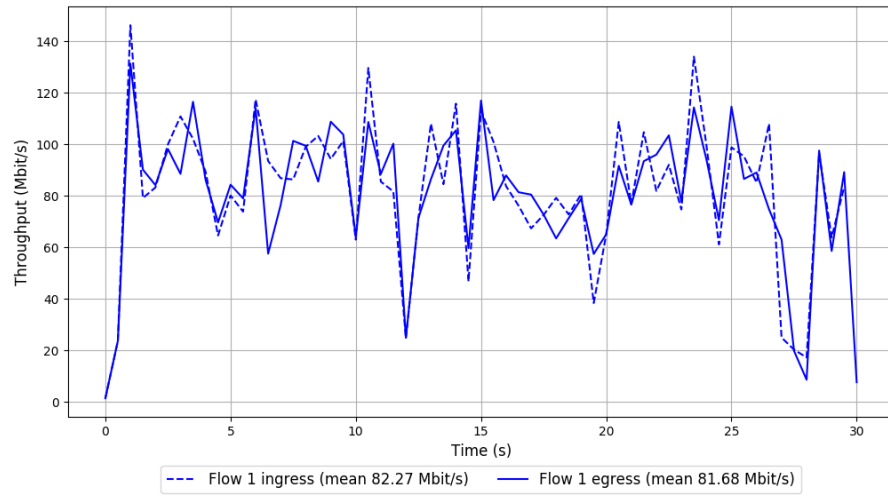
-- Flow 1:

Average throughput: 81.68 Mbit/s

95th percentile per-packet one-way delay: 72.448 ms

Loss rate: 0.71%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-11-30 17:26:50

End at: 2017-11-30 17:27:20

Below is generated by plot.py at 2017-11-30 19:28:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.21 Mbit/s

95th percentile per-packet one-way delay: 73.378 ms

Loss rate: 0.01%

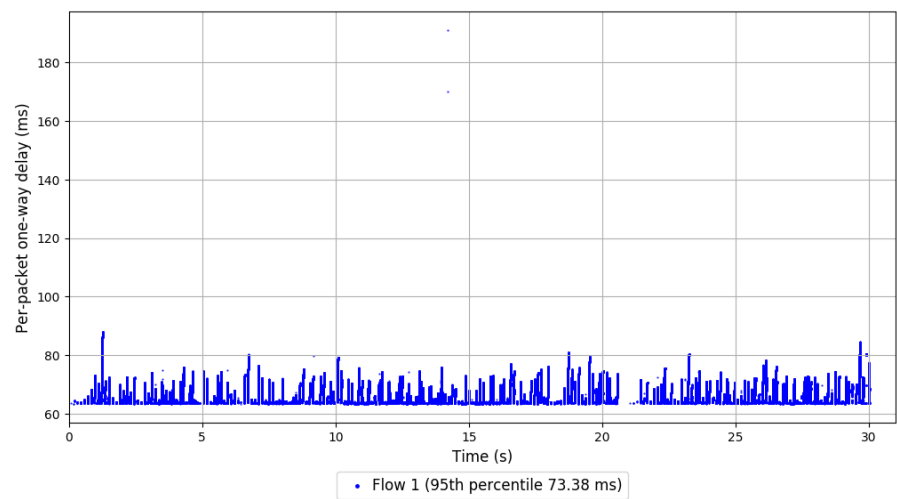
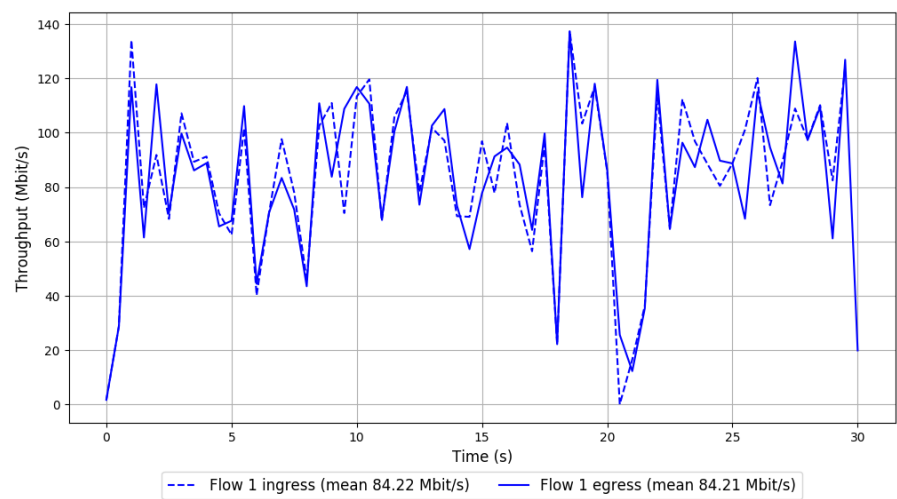
-- Flow 1:

Average throughput: 84.21 Mbit/s

95th percentile per-packet one-way delay: 73.378 ms

Loss rate: 0.01%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-11-30 17:37:18

End at: 2017-11-30 17:37:48

Below is generated by plot.py at 2017-11-30 19:28:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.74 Mbit/s

95th percentile per-packet one-way delay: 71.946 ms

Loss rate: 0.27%

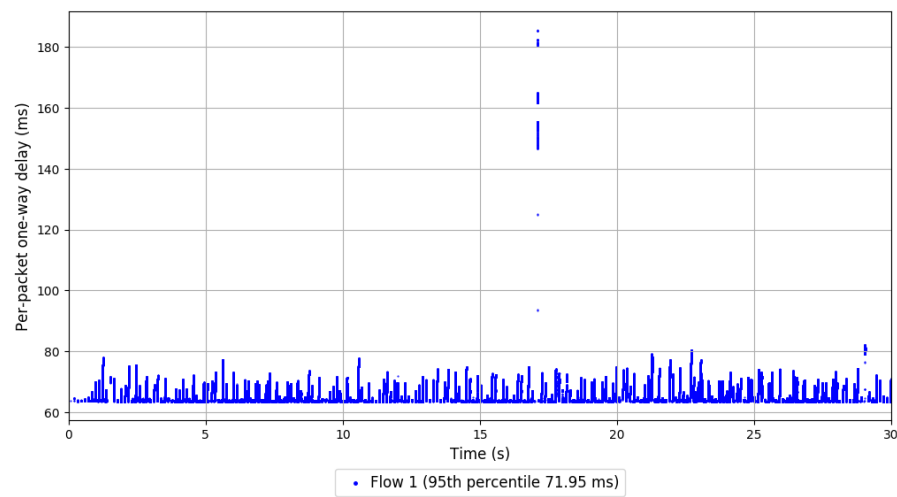
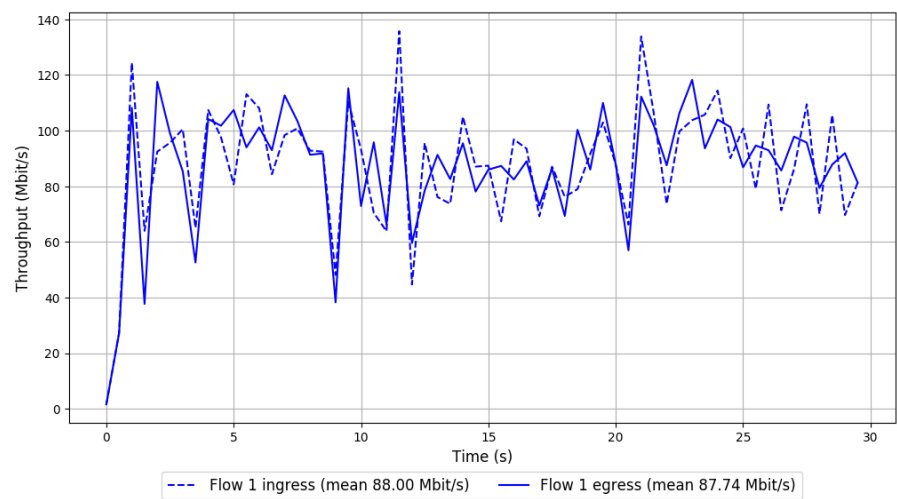
-- Flow 1:

Average throughput: 87.74 Mbit/s

95th percentile per-packet one-way delay: 71.946 ms

Loss rate: 0.27%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-11-30 17:47:45

End at: 2017-11-30 17:48:15

Below is generated by plot.py at 2017-11-30 19:28:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.62 Mbit/s

95th percentile per-packet one-way delay: 71.689 ms

Loss rate: 0.52%

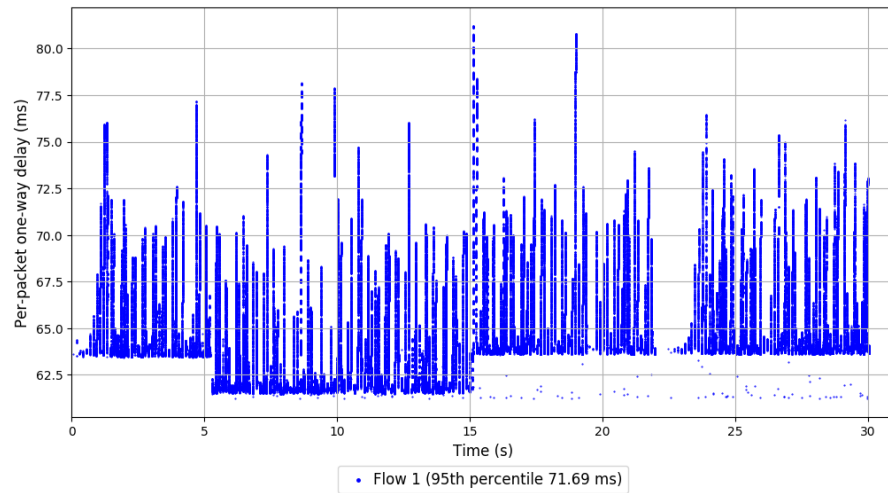
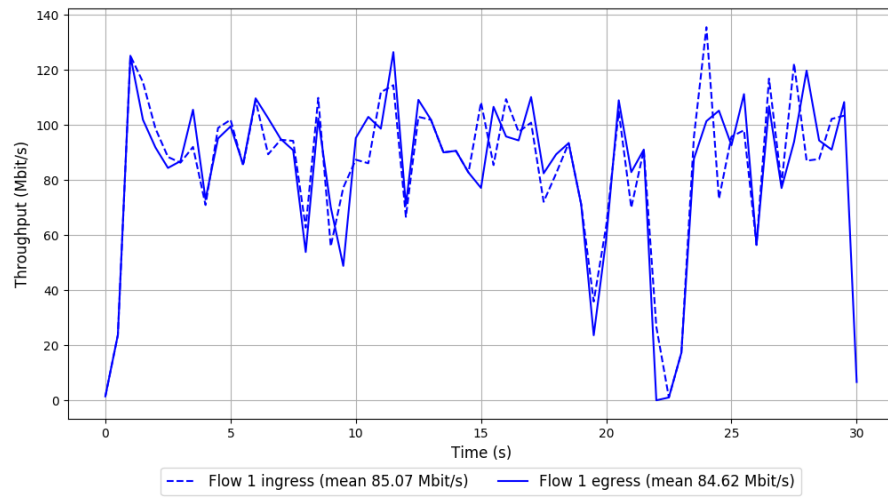
-- Flow 1:

Average throughput: 84.62 Mbit/s

95th percentile per-packet one-way delay: 71.689 ms

Loss rate: 0.52%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-11-30 17:58:16

End at: 2017-11-30 17:58:46

Below is generated by plot.py at 2017-11-30 19:28:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.73 Mbit/s

95th percentile per-packet one-way delay: 71.843 ms

Loss rate: 0.83%

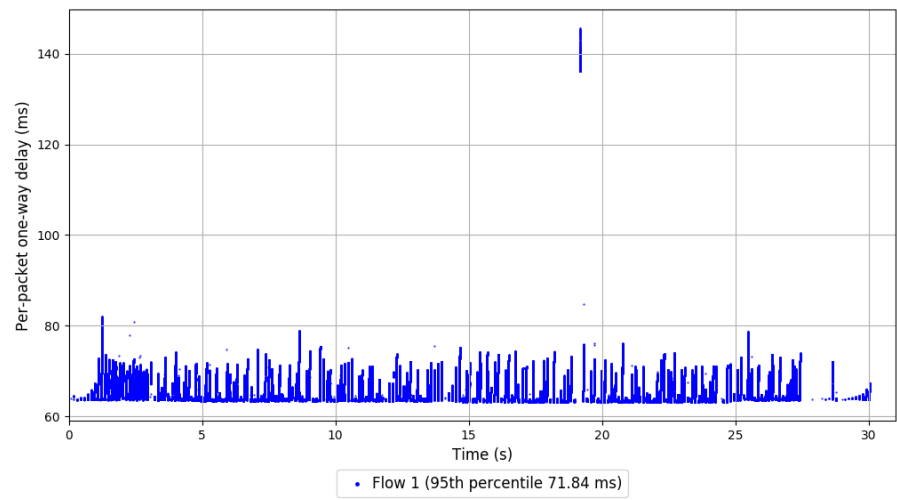
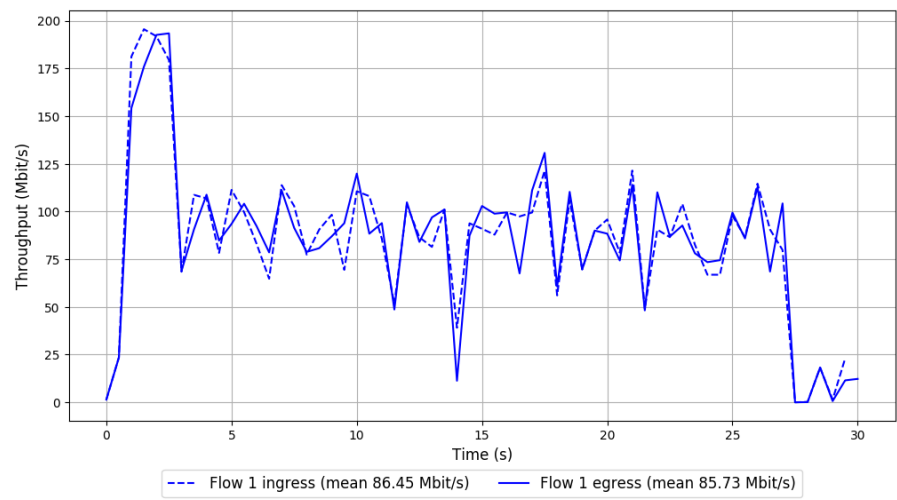
-- Flow 1:

Average throughput: 85.73 Mbit/s

95th percentile per-packet one-way delay: 71.843 ms

Loss rate: 0.83%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-11-30 18:08:31

End at: 2017-11-30 18:09:01

Below is generated by plot.py at 2017-11-30 19:28:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.93 Mbit/s

95th percentile per-packet one-way delay: 72.877 ms

Loss rate: 0.06%

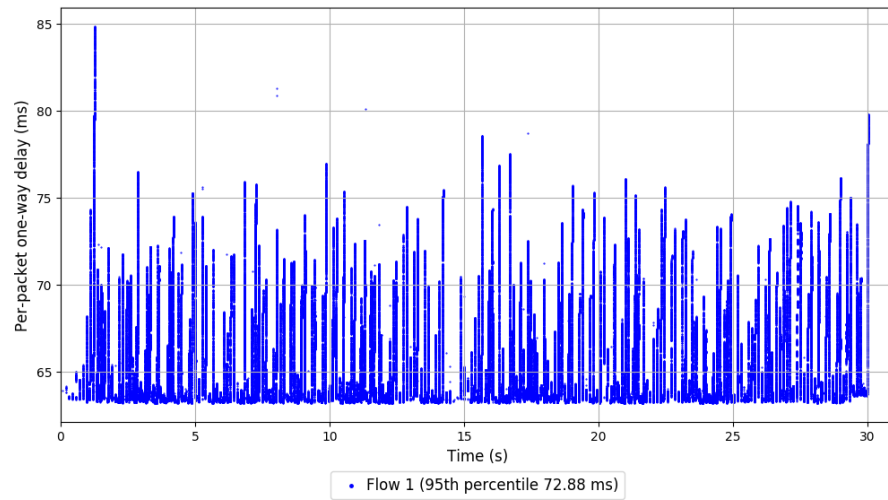
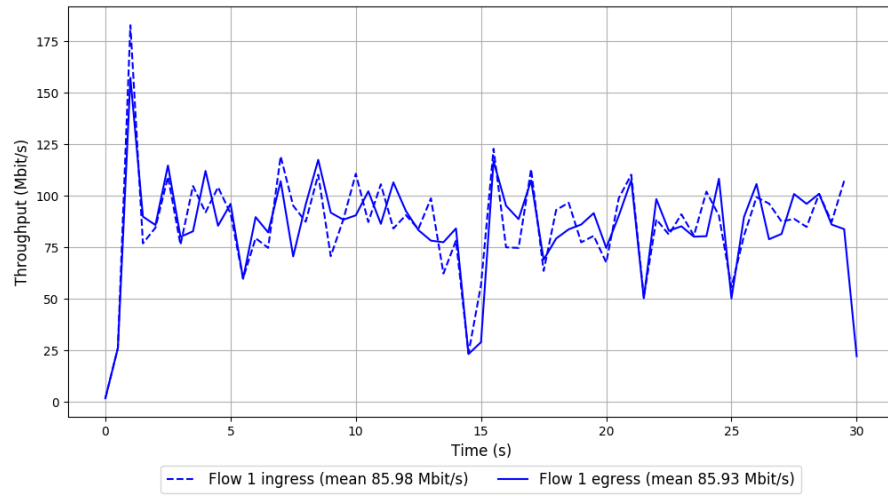
-- Flow 1:

Average throughput: 85.93 Mbit/s

95th percentile per-packet one-way delay: 72.877 ms

Loss rate: 0.06%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-11-30 18:19:02

End at: 2017-11-30 18:19:32

Below is generated by plot.py at 2017-11-30 19:29:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 88.06 Mbit/s

95th percentile per-packet one-way delay: 70.772 ms

Loss rate: 0.00%

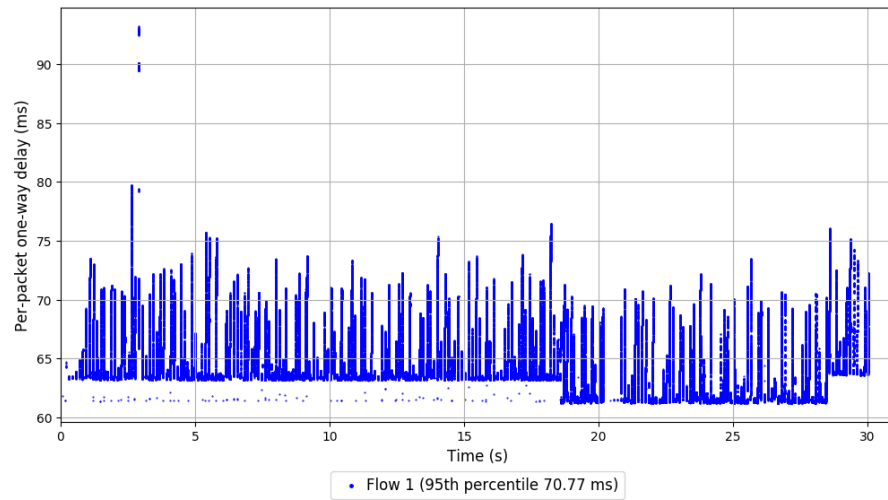
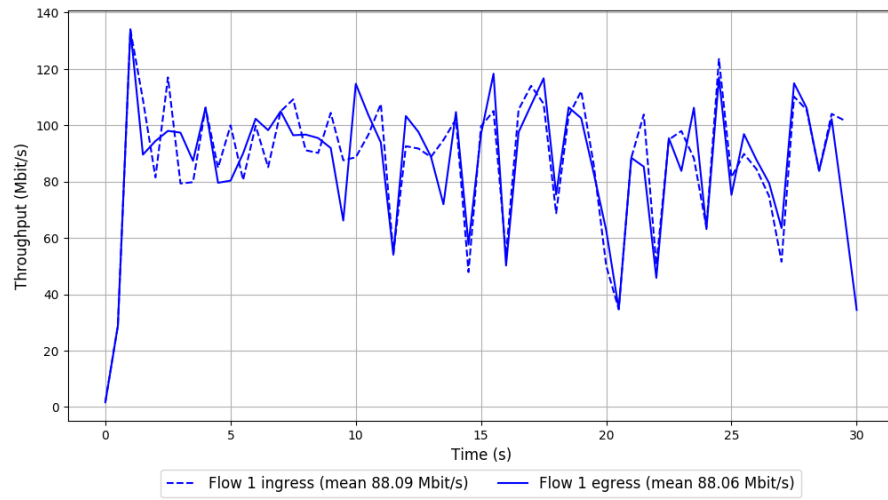
-- Flow 1:

Average throughput: 88.06 Mbit/s

95th percentile per-packet one-way delay: 70.772 ms

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-11-30 18:29:30

End at: 2017-11-30 18:30:00

Below is generated by plot.py at 2017-11-30 19:29:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 72.229 ms

Loss rate: 0.00%

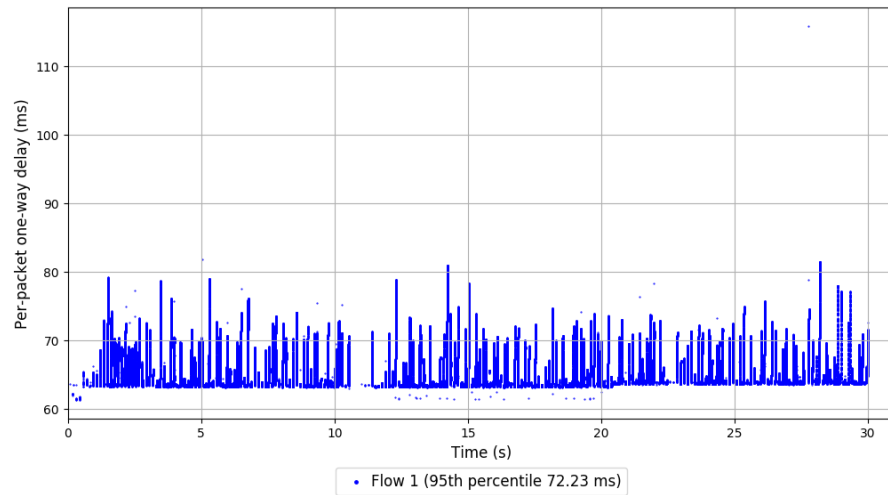
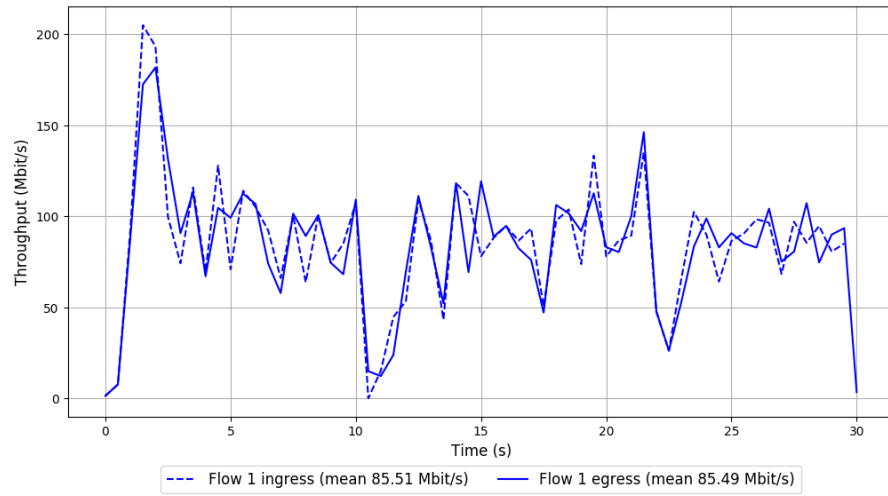
-- Flow 1:

Average throughput: 85.49 Mbit/s

95th percentile per-packet one-way delay: 72.229 ms

Loss rate: 0.00%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-11-30 18:39:57

End at: 2017-11-30 18:40:27

Below is generated by plot.py at 2017-11-30 19:30:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.01 Mbit/s

95th percentile per-packet one-way delay: 71.735 ms

Loss rate: 0.00%

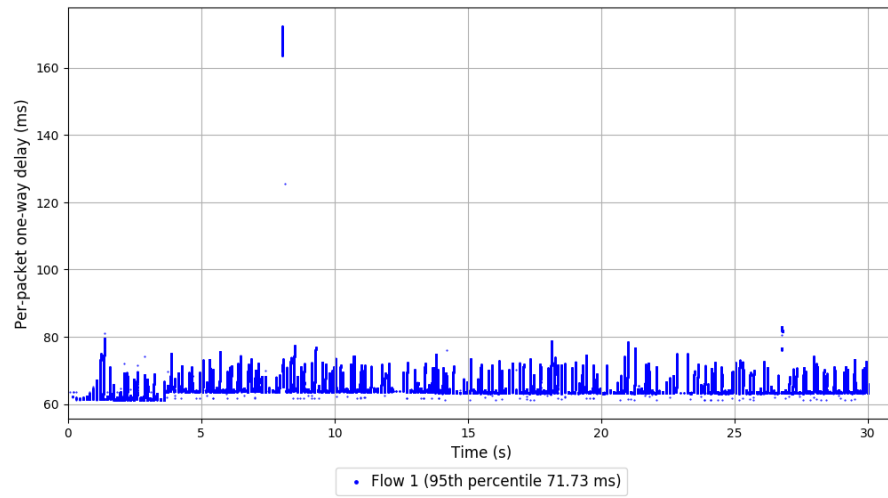
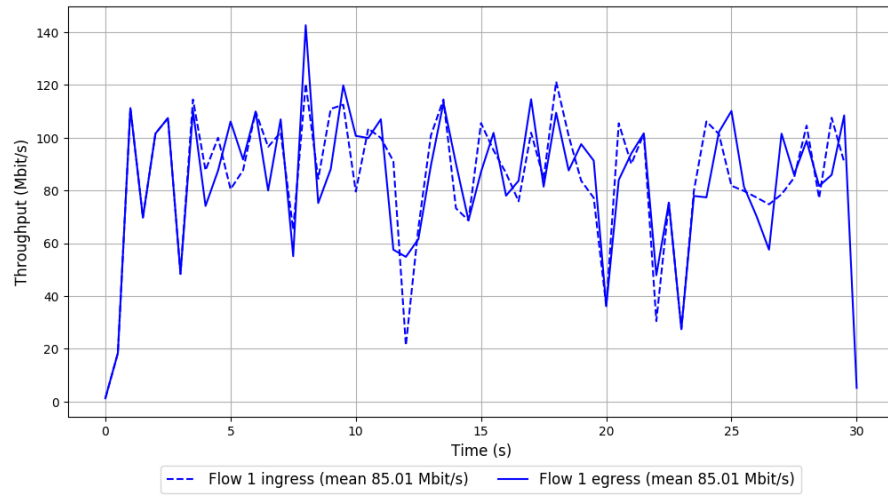
-- Flow 1:

Average throughput: 85.01 Mbit/s

95th percentile per-packet one-way delay: 71.735 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-11-30 16:58:39

End at: 2017-11-30 16:59:09

Below is generated by plot.py at 2017-11-30 19:30:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 64.034 ms

Loss rate: 3.92%

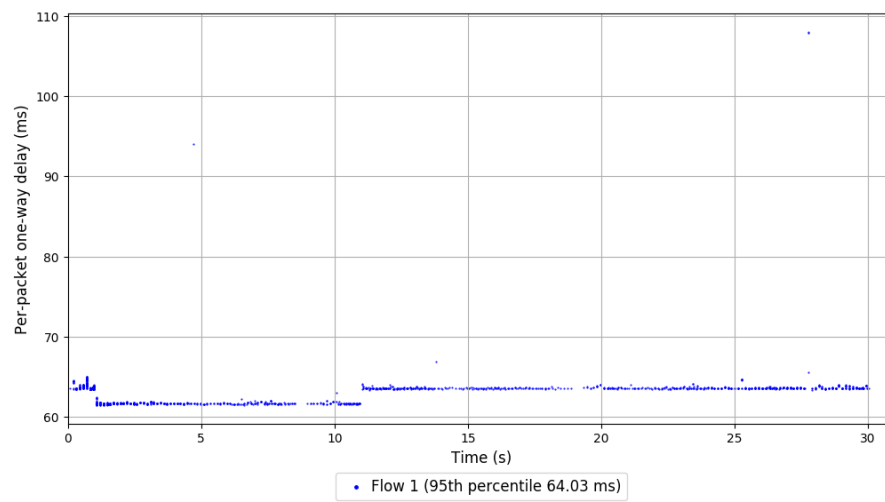
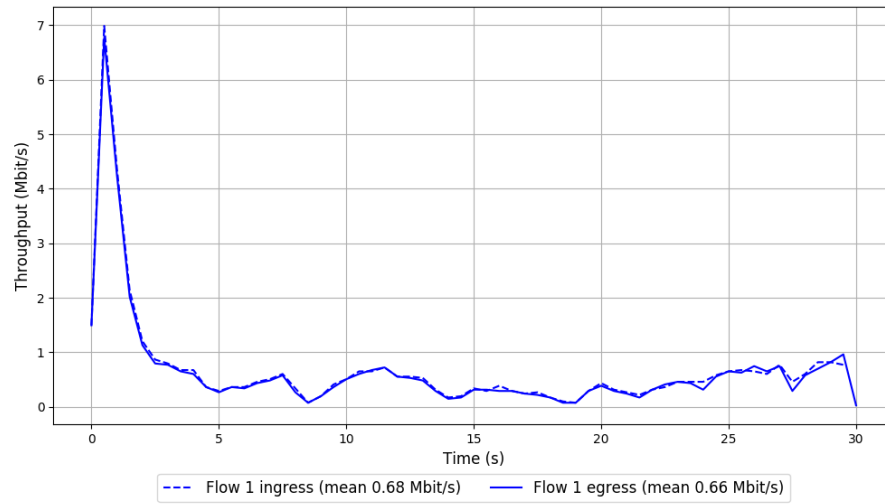
-- Flow 1:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 64.034 ms

Loss rate: 3.92%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-11-30 17:08:28

End at: 2017-11-30 17:08:58

Below is generated by plot.py at 2017-11-30 19:30:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 63.701 ms

Loss rate: 3.79%

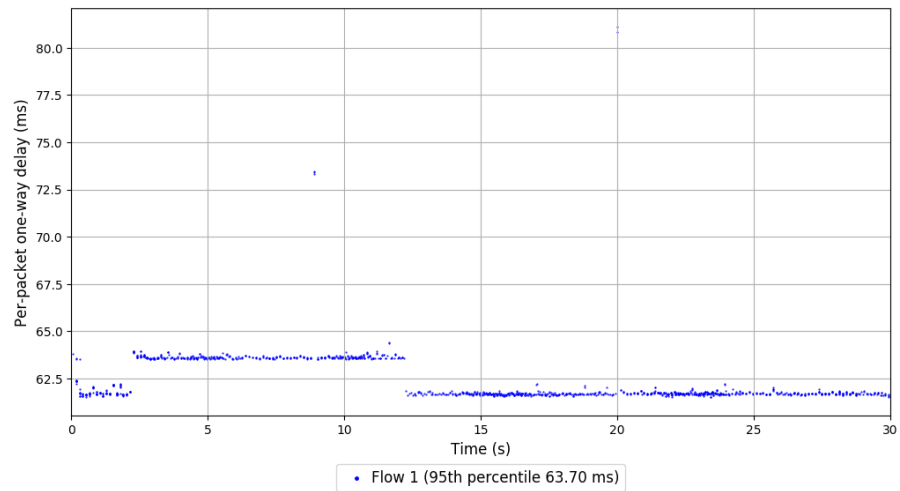
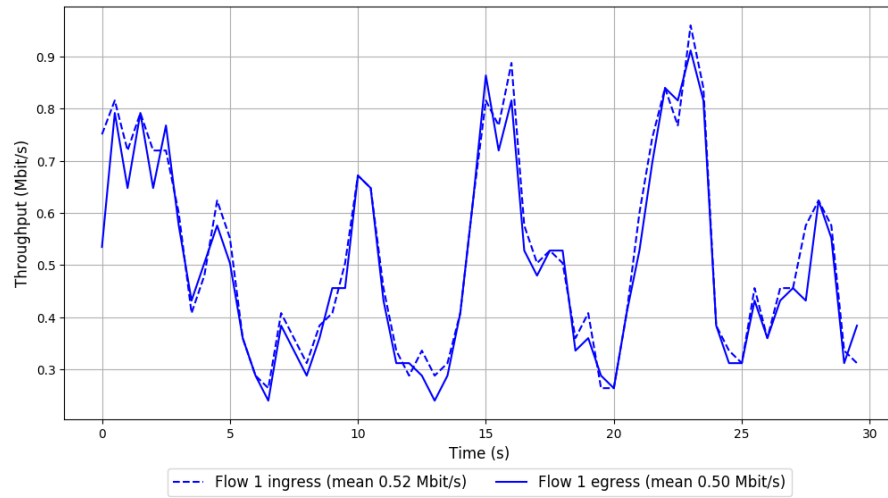
-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 63.701 ms

Loss rate: 3.79%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-11-30 17:18:30

End at: 2017-11-30 17:19:00

Below is generated by plot.py at 2017-11-30 19:30:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.76 Mbit/s

95th percentile per-packet one-way delay: 66.381 ms

Loss rate: 0.52%

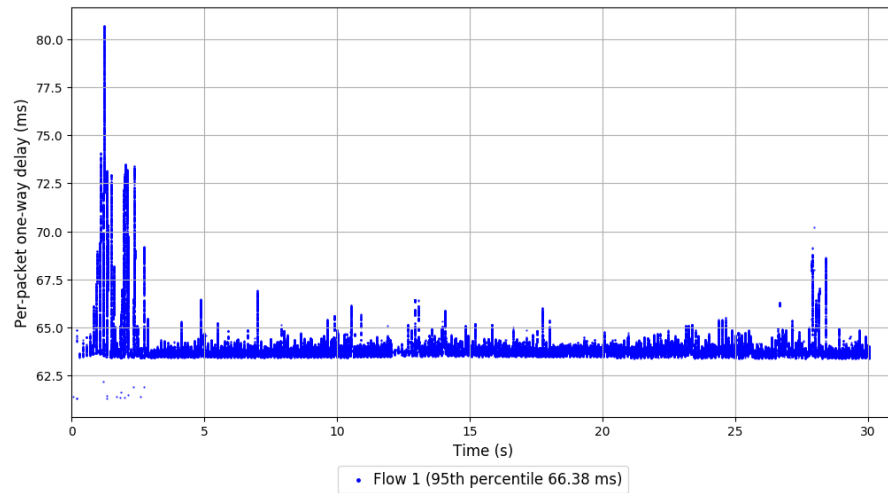
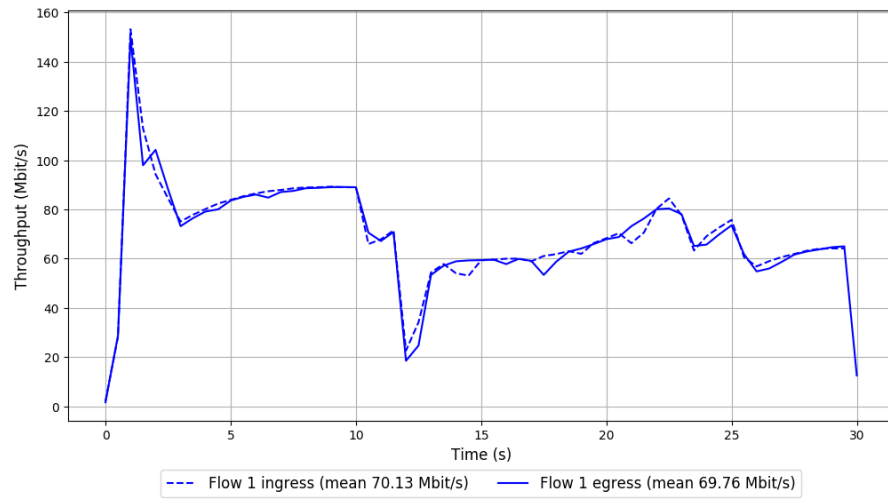
-- Flow 1:

Average throughput: 69.76 Mbit/s

95th percentile per-packet one-way delay: 66.381 ms

Loss rate: 0.52%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-11-30 17:28:52

End at: 2017-11-30 17:29:22

Below is generated by plot.py at 2017-11-30 19:30:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 95.07 Mbit/s

95th percentile per-packet one-way delay: 64.984 ms

Loss rate: 0.10%

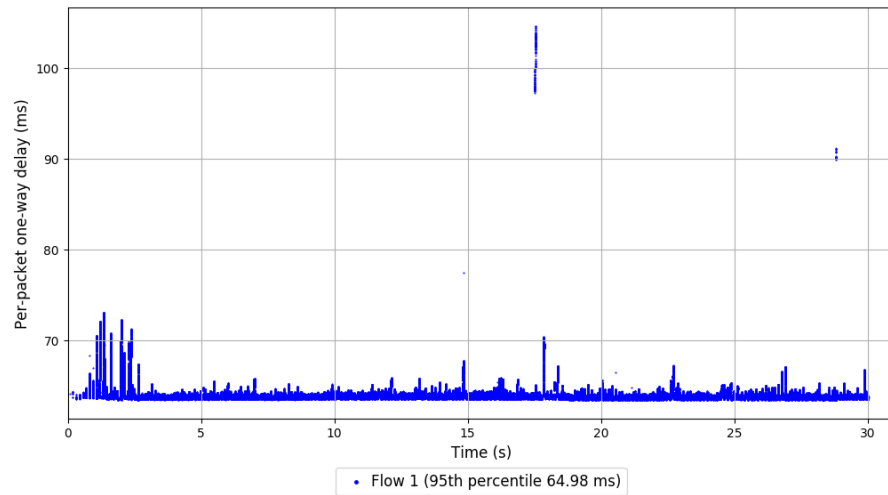
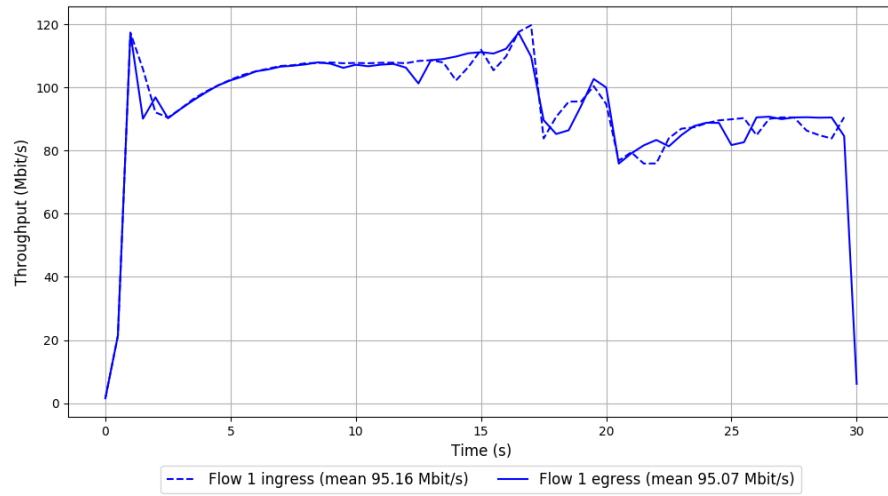
-- Flow 1:

Average throughput: 95.07 Mbit/s

95th percentile per-packet one-way delay: 64.984 ms

Loss rate: 0.10%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-11-30 17:39:19

End at: 2017-11-30 17:39:49

Below is generated by plot.py at 2017-11-30 19:31:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 124.70 Mbit/s

95th percentile per-packet one-way delay: 69.205 ms

Loss rate: 0.04%

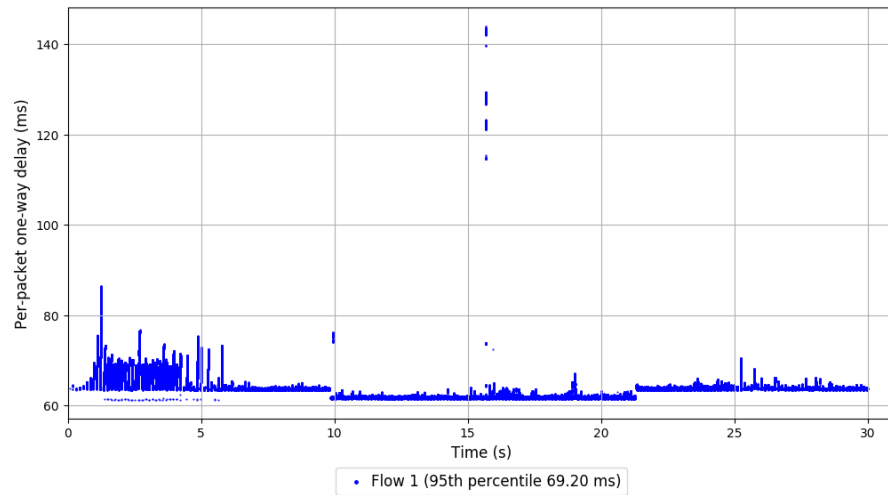
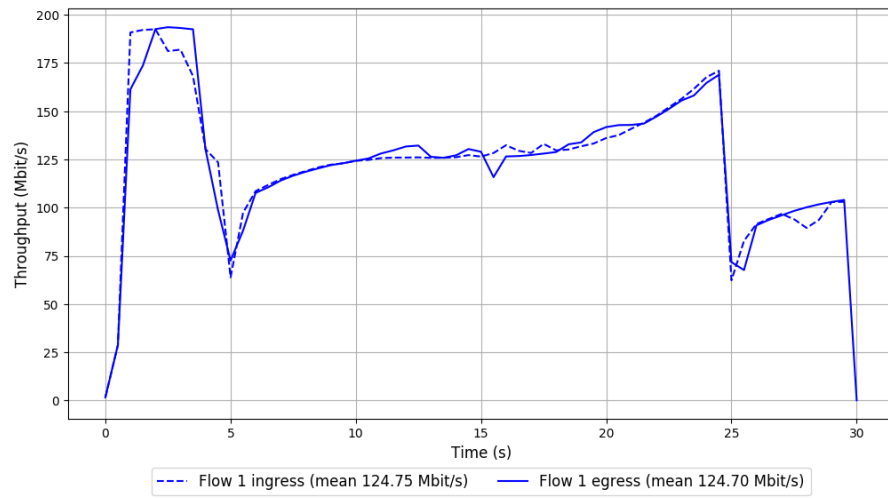
-- Flow 1:

Average throughput: 124.70 Mbit/s

95th percentile per-packet one-way delay: 69.205 ms

Loss rate: 0.04%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-11-30 17:49:47

End at: 2017-11-30 17:50:17

Below is generated by plot.py at 2017-11-30 19:31:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 111.52 Mbit/s

95th percentile per-packet one-way delay: 69.417 ms

Loss rate: 0.00%

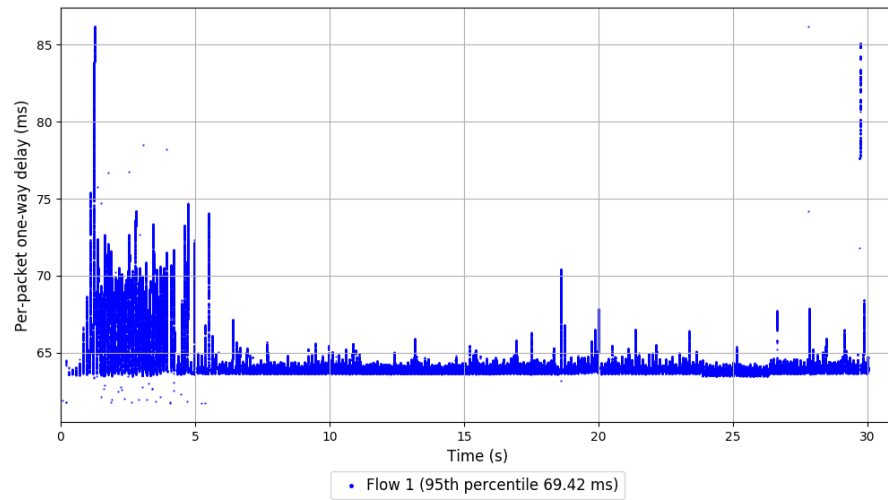
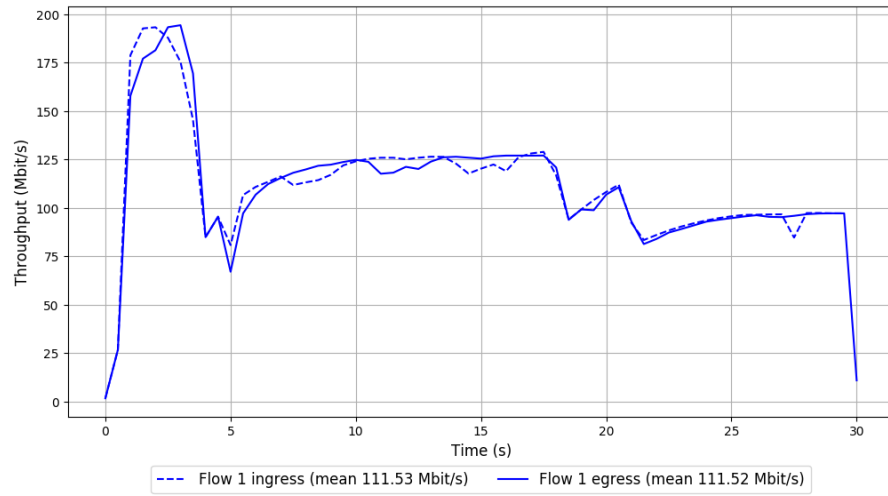
-- Flow 1:

Average throughput: 111.52 Mbit/s

95th percentile per-packet one-way delay: 69.417 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-11-30 18:00:15

End at: 2017-11-30 18:00:45

Below is generated by plot.py at 2017-11-30 19:31:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 98.95 Mbit/s

95th percentile per-packet one-way delay: 70.521 ms

Loss rate: 0.00%

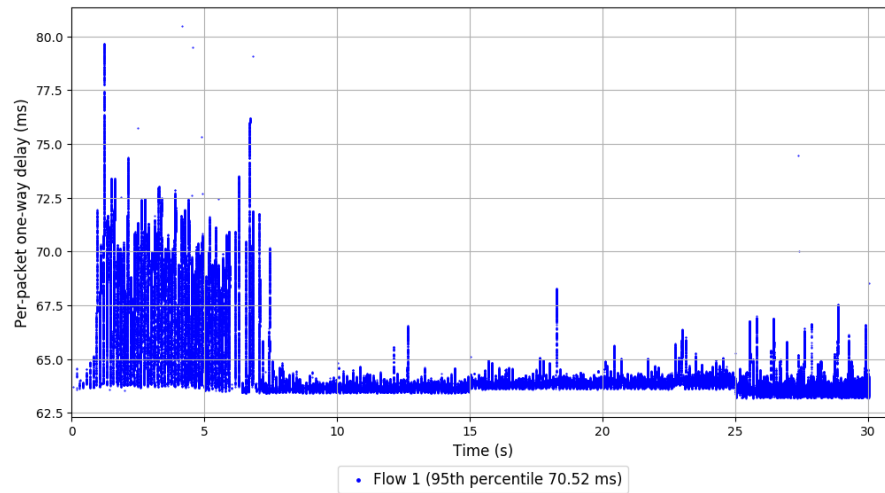
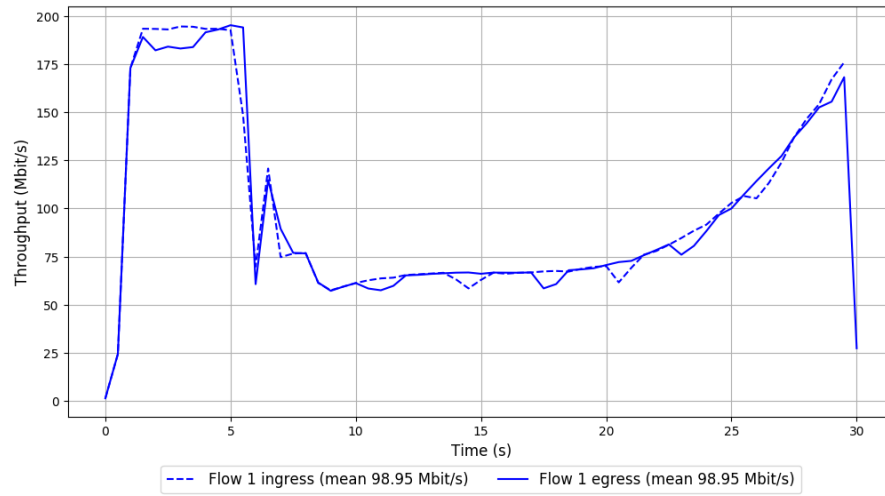
-- Flow 1:

Average throughput: 98.95 Mbit/s

95th percentile per-packet one-way delay: 70.521 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-11-30 18:10:35

End at: 2017-11-30 18:11:05

Below is generated by plot.py at 2017-11-30 19:31:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.71 Mbit/s

95th percentile per-packet one-way delay: 65.345 ms

Loss rate: 0.01%

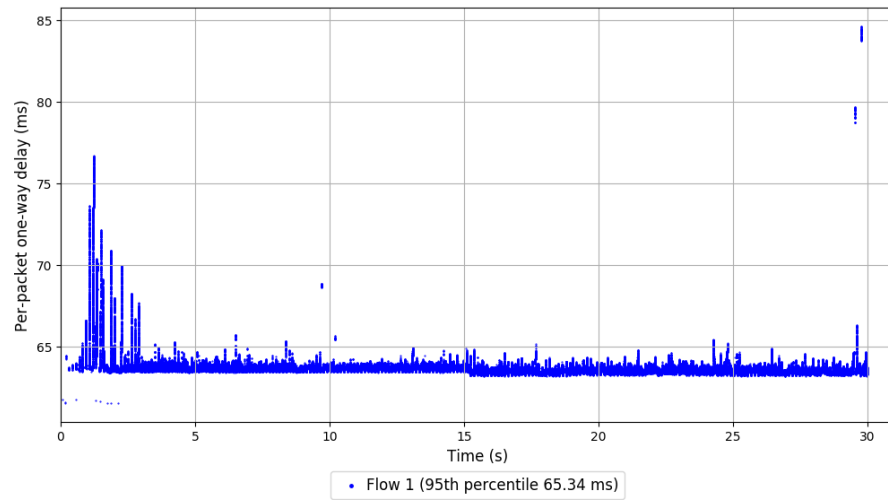
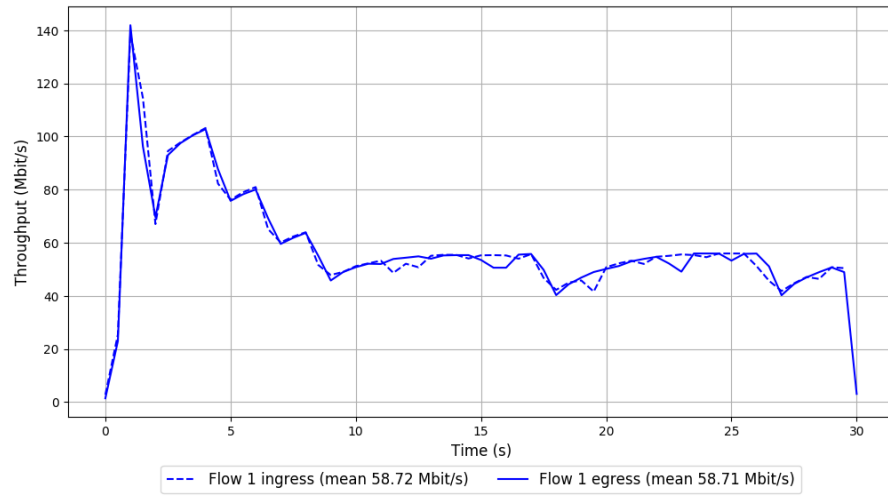
-- Flow 1:

Average throughput: 58.71 Mbit/s

95th percentile per-packet one-way delay: 65.345 ms

Loss rate: 0.01%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-11-30 18:21:03

End at: 2017-11-30 18:21:33

Below is generated by plot.py at 2017-11-30 19:31:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.58 Mbit/s

95th percentile per-packet one-way delay: 65.318 ms

Loss rate: 0.00%

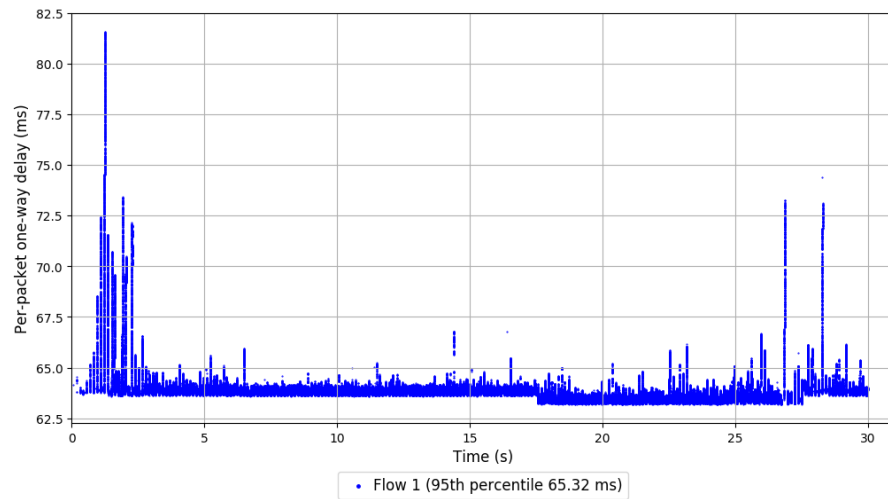
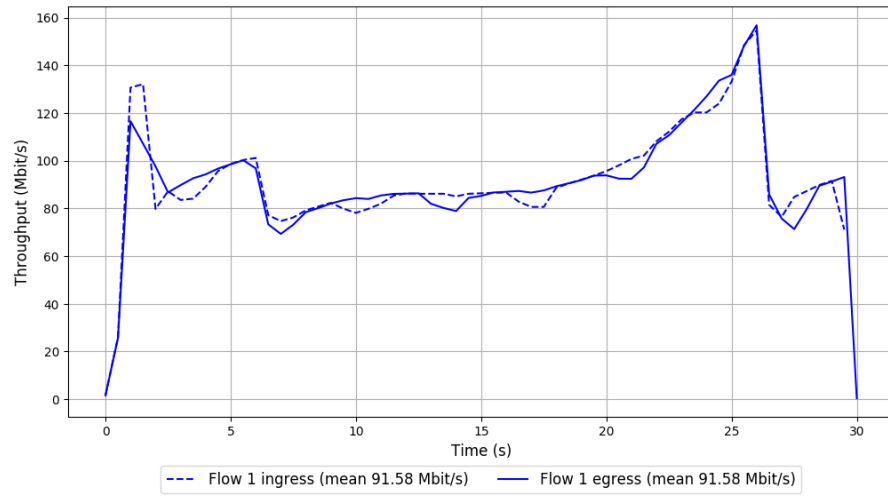
-- Flow 1:

Average throughput: 91.58 Mbit/s

95th percentile per-packet one-way delay: 65.318 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-11-30 18:31:32

End at: 2017-11-30 18:32:02

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 101.89 Mbit/s

95th percentile per-packet one-way delay: 65.461 ms

Loss rate: 0.00%

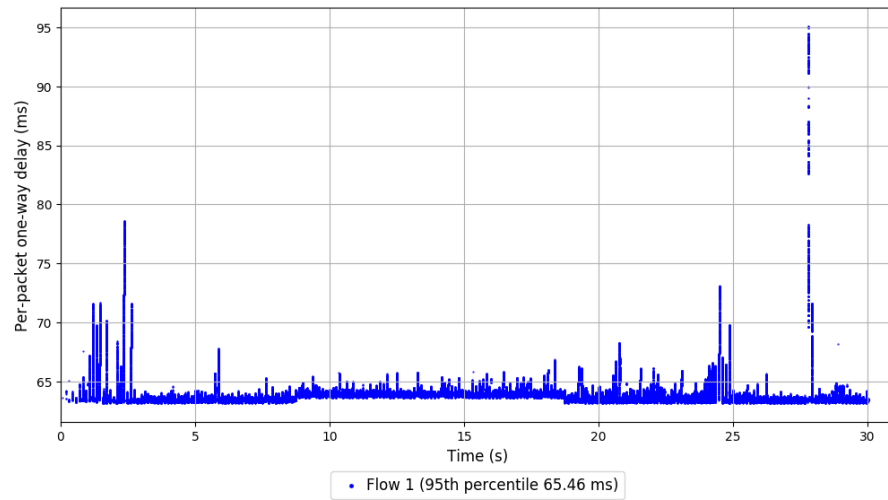
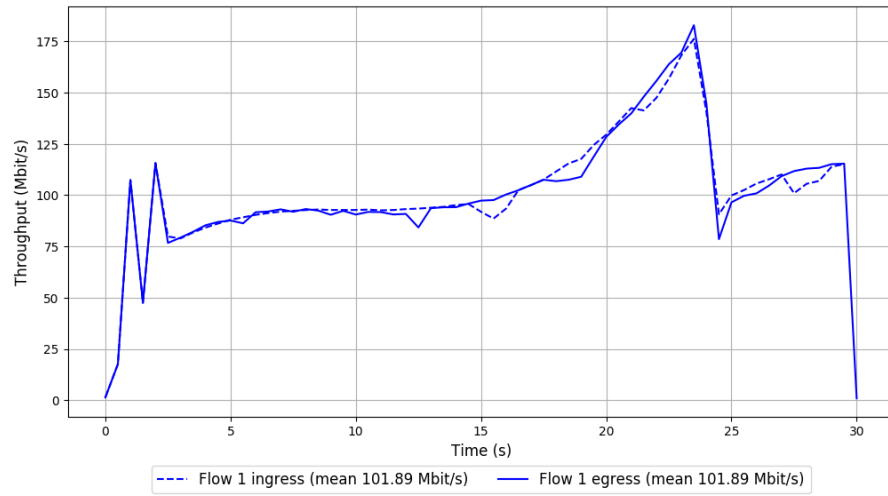
-- Flow 1:

Average throughput: 101.89 Mbit/s

95th percentile per-packet one-way delay: 65.461 ms

Loss rate: 0.00%

Run 10: Report of TCP Cubic — Data Link

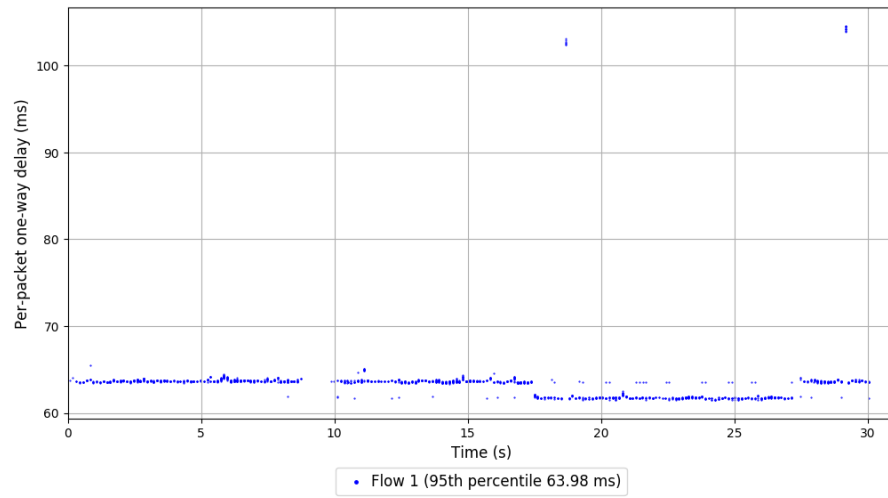
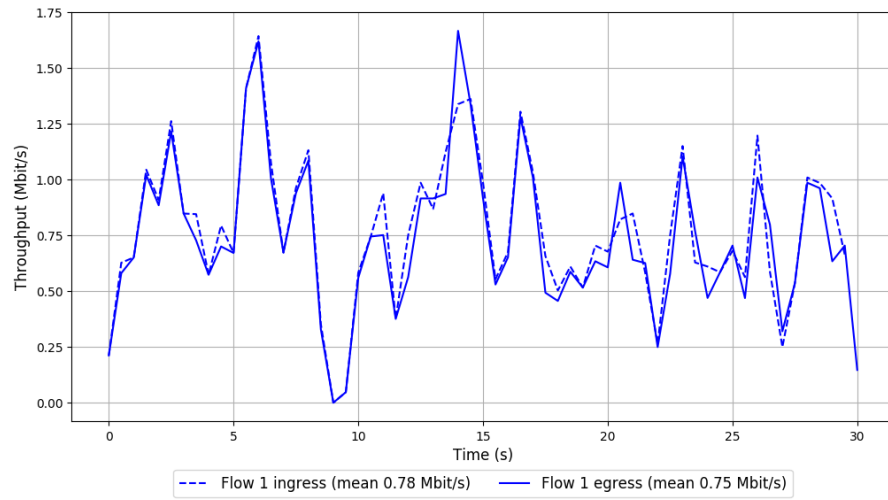


```
Run 1: Statistics of LEDBAT

Start at: 2017-11-30 17:07:13
End at: 2017-11-30 17:07:43

# Below is generated by plot.py at 2017-11-30 19:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 63.985 ms
Loss rate: 3.72%
-- Flow 1:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 63.985 ms
Loss rate: 3.72%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-11-30 17:17:13

End at: 2017-11-30 17:17:43

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 64.190 ms

Loss rate: 0.07%

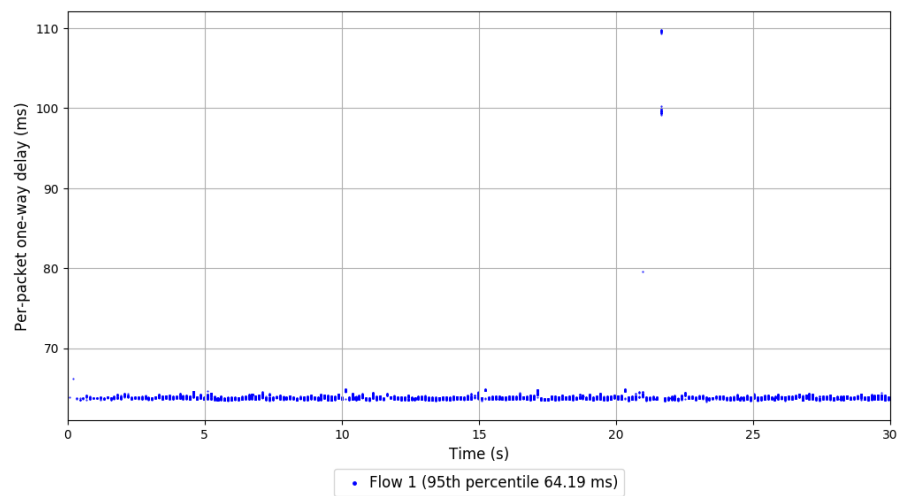
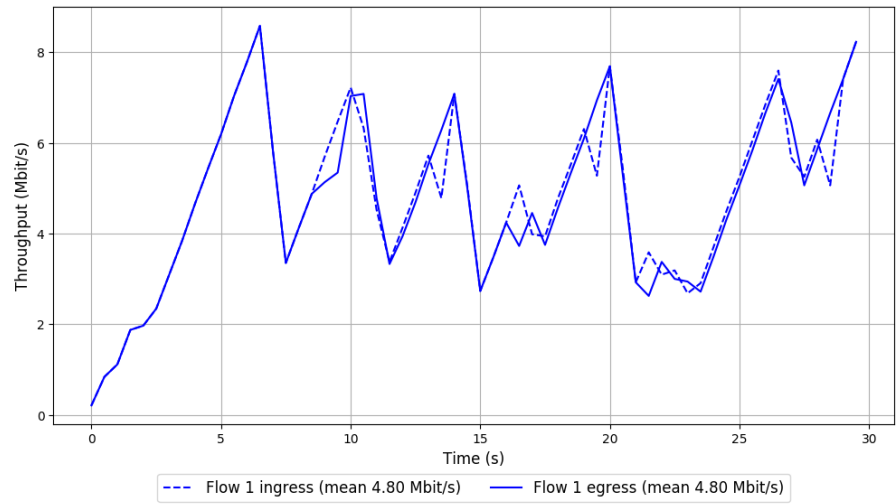
-- Flow 1:

Average throughput: 4.80 Mbit/s

95th percentile per-packet one-way delay: 64.190 ms

Loss rate: 0.07%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-11-30 17:27:34

End at: 2017-11-30 17:28:04

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 64.336 ms

Loss rate: 0.13%

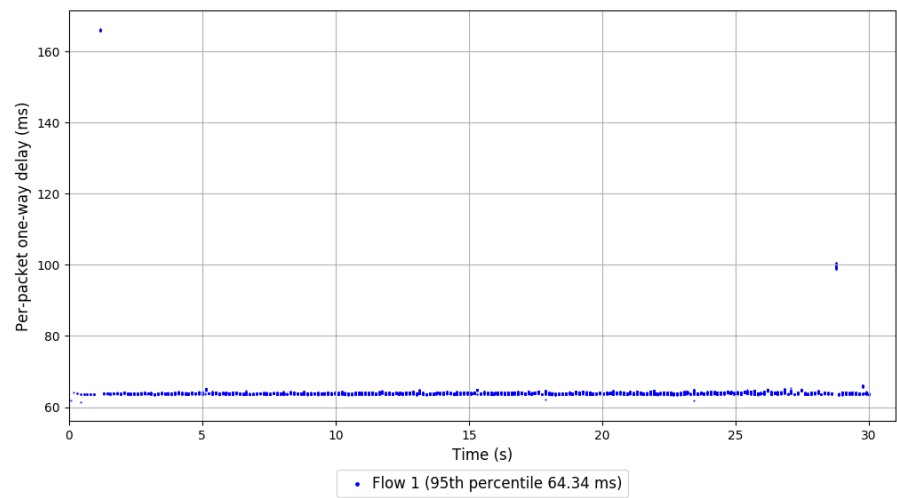
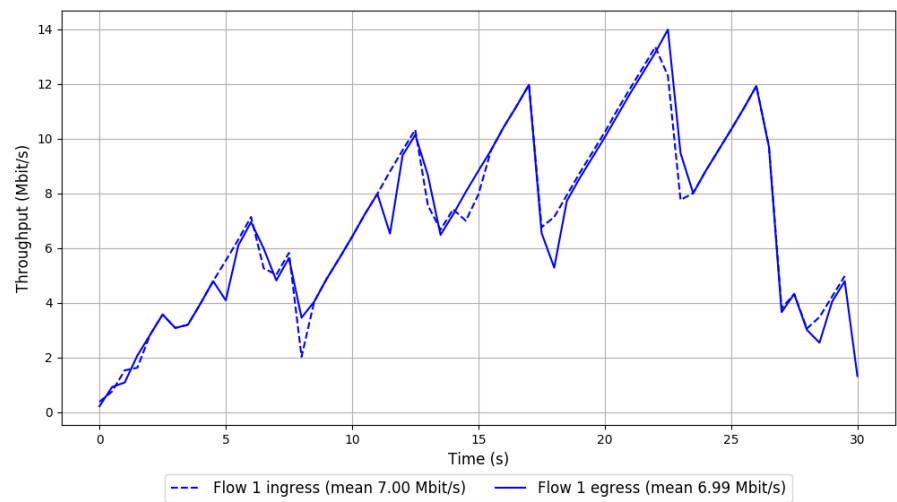
-- Flow 1:

Average throughput: 6.99 Mbit/s

95th percentile per-packet one-way delay: 64.336 ms

Loss rate: 0.13%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-11-30 17:38:01

End at: 2017-11-30 17:38:31

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 64.177 ms

Loss rate: 0.53%

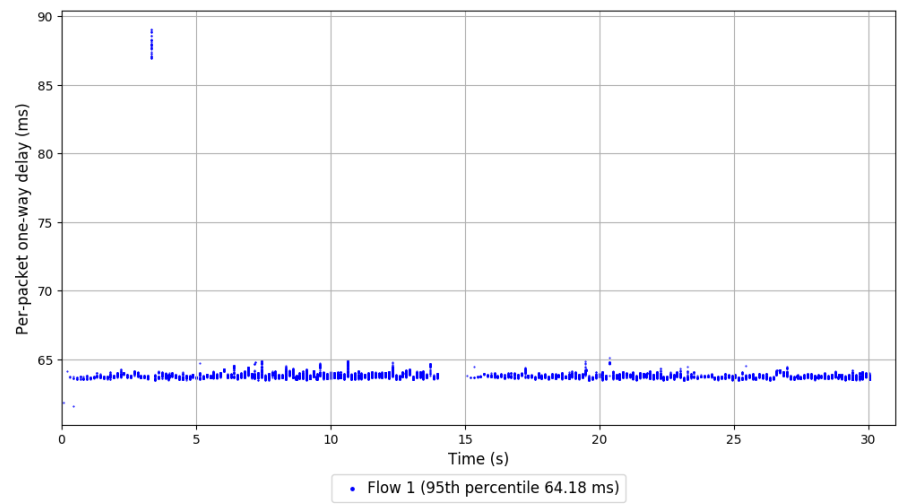
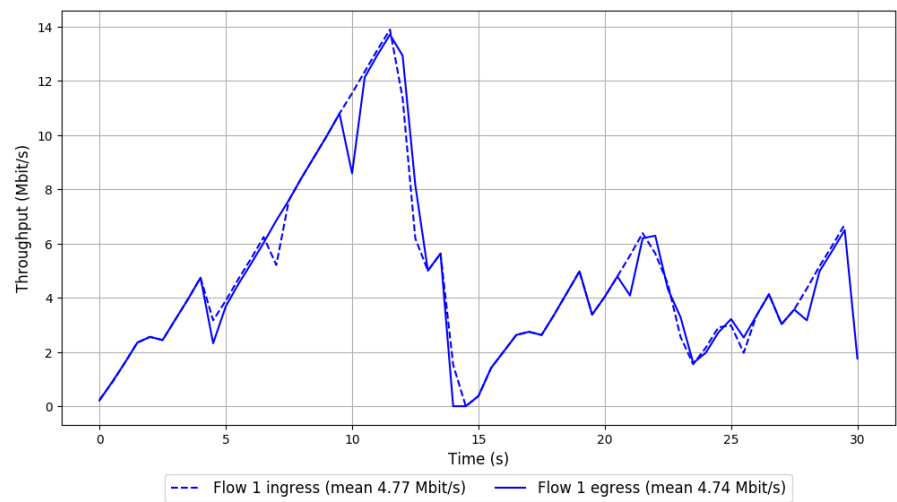
-- Flow 1:

Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 64.177 ms

Loss rate: 0.53%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-11-30 17:48:28

End at: 2017-11-30 17:48:58

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.65 Mbit/s

95th percentile per-packet one-way delay: 64.327 ms

Loss rate: 0.00%

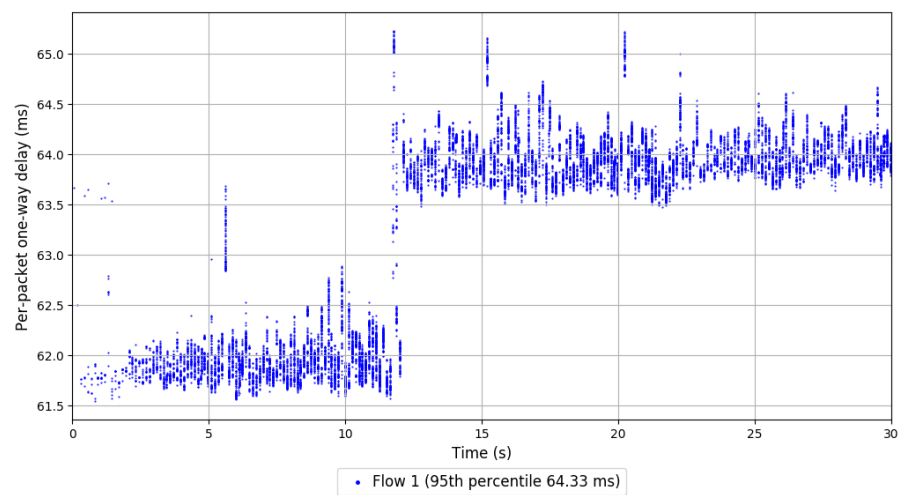
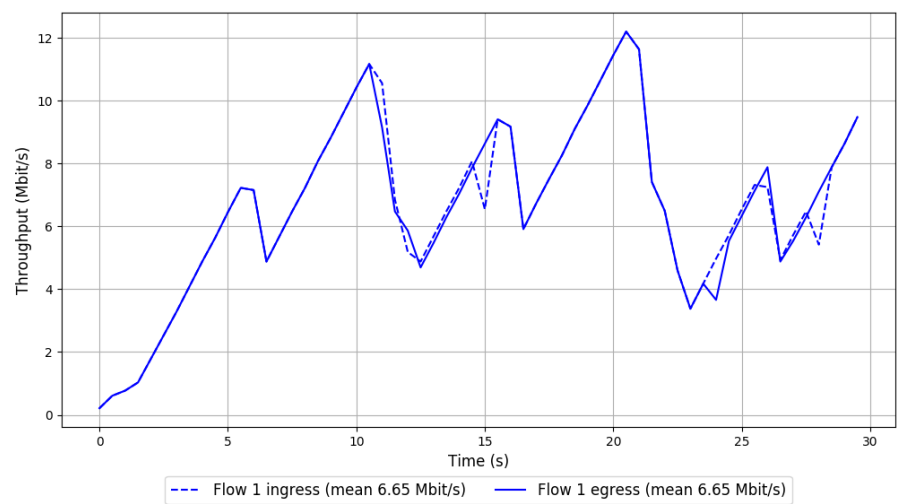
-- Flow 1:

Average throughput: 6.65 Mbit/s

95th percentile per-packet one-way delay: 64.327 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-11-30 17:58:59

End at: 2017-11-30 17:59:29

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 64.225 ms

Loss rate: 0.00%

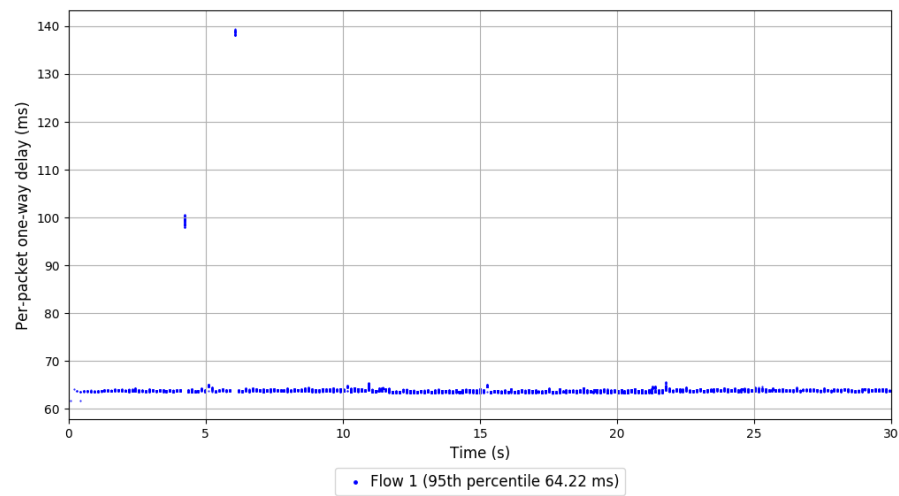
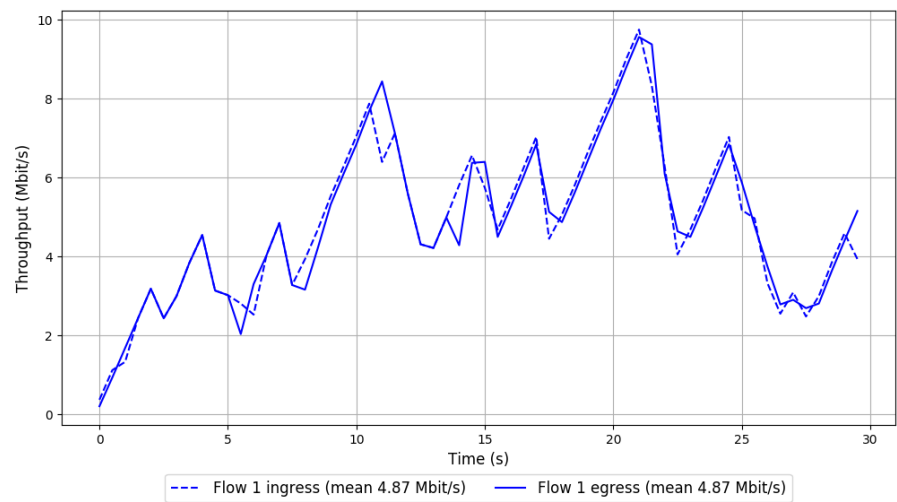
-- Flow 1:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 64.225 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-11-30 18:09:14

End at: 2017-11-30 18:09:44

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.40 Mbit/s

95th percentile per-packet one-way delay: 63.935 ms

Loss rate: 0.05%

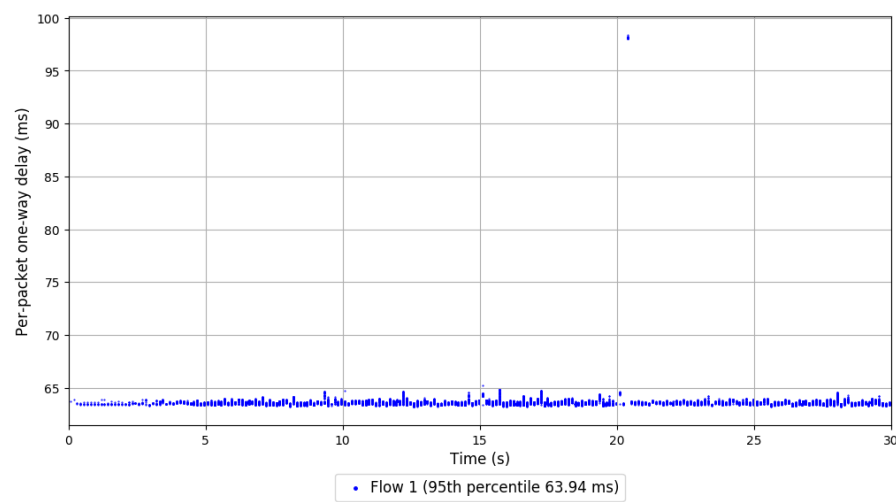
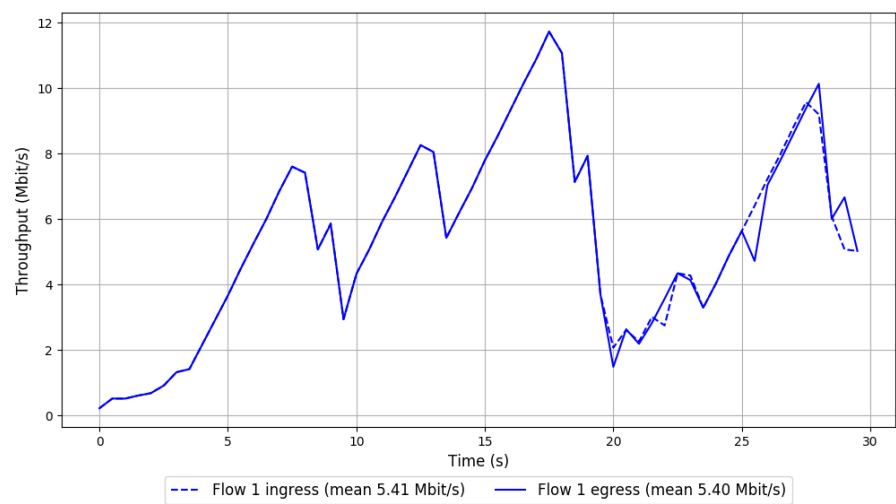
-- Flow 1:

Average throughput: 5.40 Mbit/s

95th percentile per-packet one-way delay: 63.935 ms

Loss rate: 0.05%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-11-30 18:19:45

End at: 2017-11-30 18:20:15

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 64.114 ms

Loss rate: 0.01%

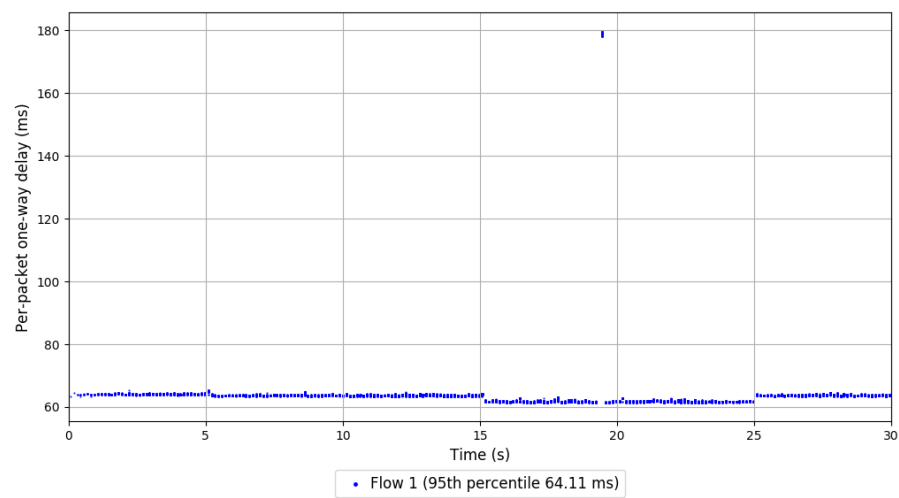
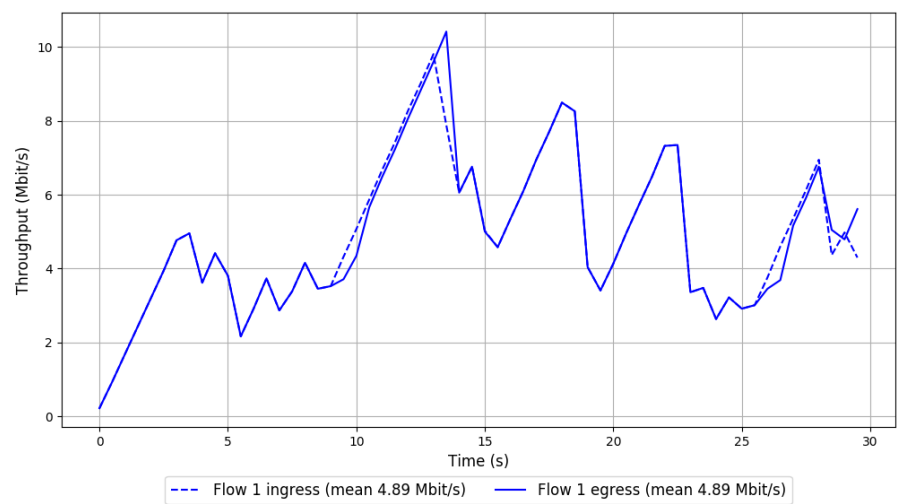
-- Flow 1:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 64.114 ms

Loss rate: 0.01%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-11-30 18:30:13

End at: 2017-11-30 18:30:43

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.80 Mbit/s

95th percentile per-packet one-way delay: 63.790 ms

Loss rate: 0.12%

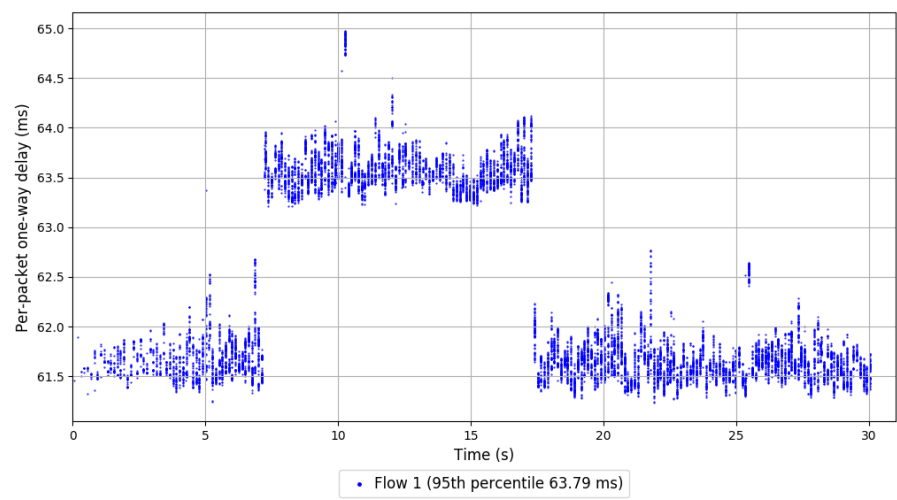
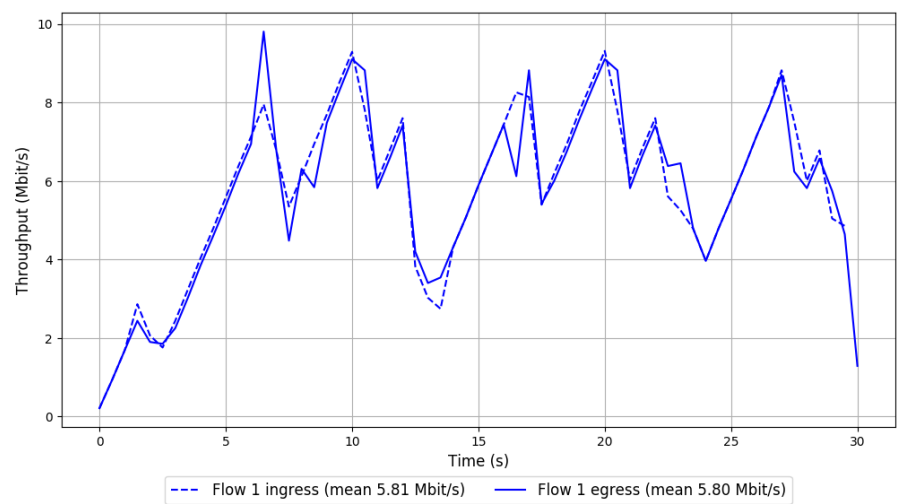
-- Flow 1:

Average throughput: 5.80 Mbit/s

95th percentile per-packet one-way delay: 63.790 ms

Loss rate: 0.12%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-11-30 18:40:40

End at: 2017-11-30 18:41:10

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.55 Mbit/s

95th percentile per-packet one-way delay: 64.478 ms

Loss rate: 0.00%

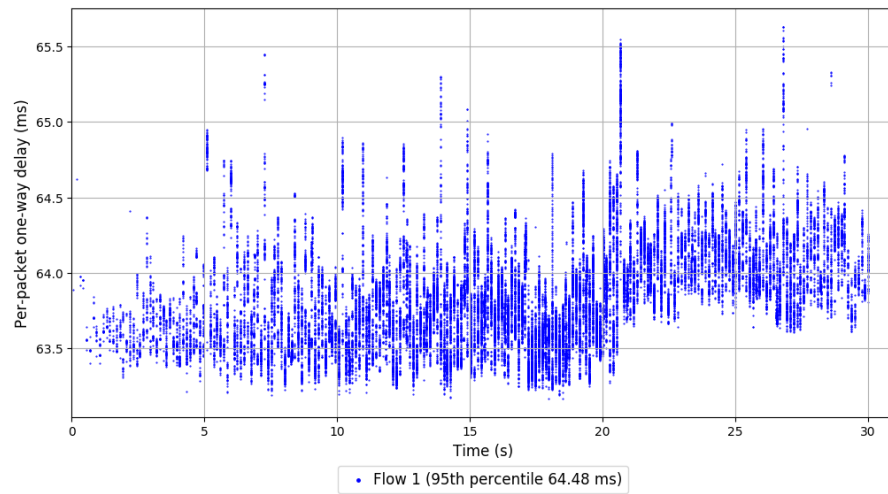
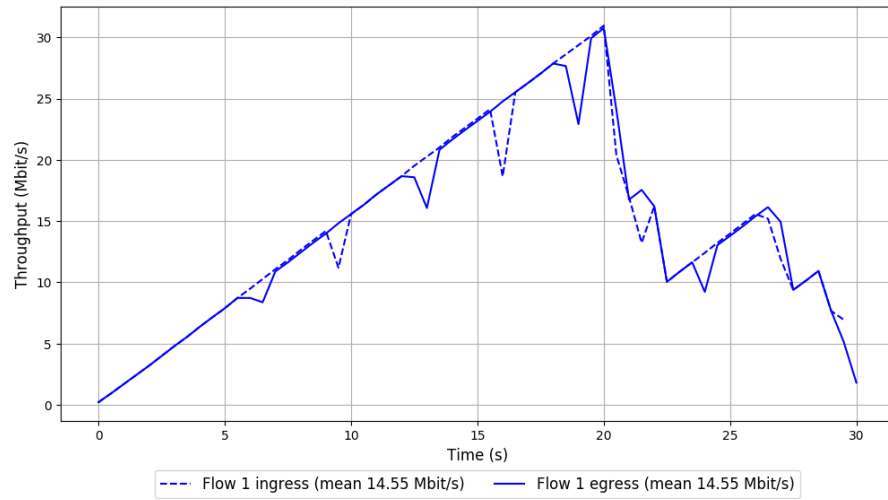
-- Flow 1:

Average throughput: 14.55 Mbit/s

95th percentile per-packet one-way delay: 64.478 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

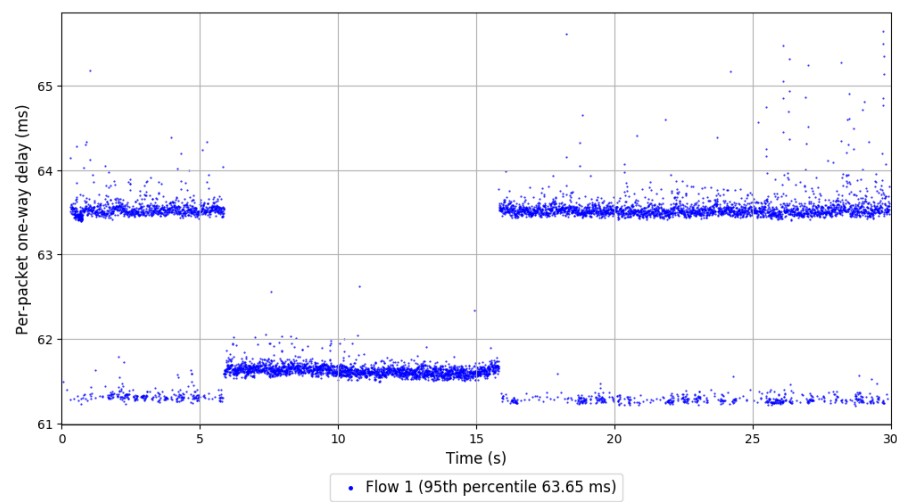
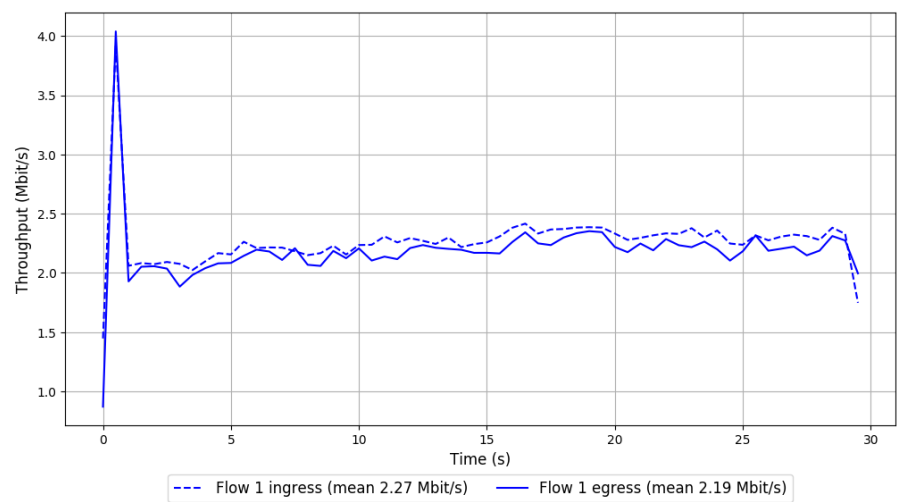


```
Run 1: Statistics of PCC

Start at: 2017-11-30 16:59:54
End at: 2017-11-30 17:00:25

# Below is generated by plot.py at 2017-11-30 19:31:48
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 63.647 ms
Loss rate: 3.55%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 63.647 ms
Loss rate: 3.55%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-11-30 17:09:43

End at: 2017-11-30 17:10:13

Below is generated by plot.py at 2017-11-30 19:31:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 63.653 ms

Loss rate: 3.81%

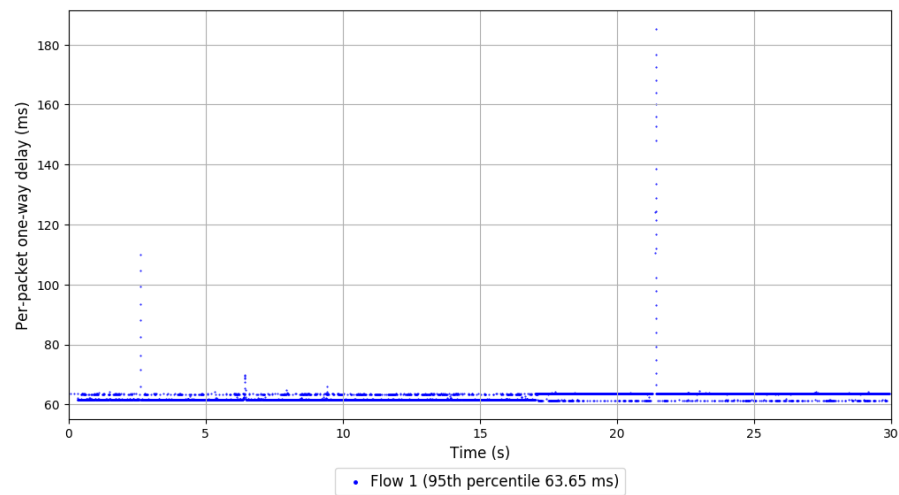
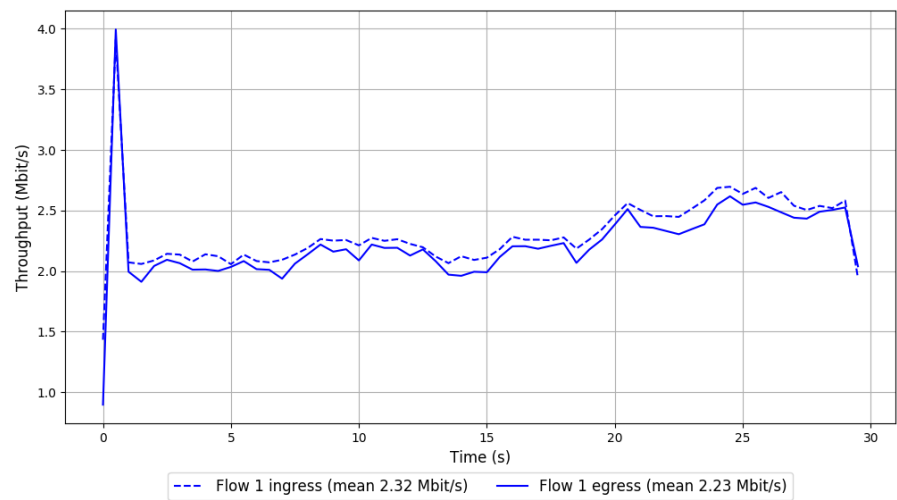
-- Flow 1:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 63.653 ms

Loss rate: 3.81%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-11-30 17:19:49

End at: 2017-11-30 17:20:19

Below is generated by plot.py at 2017-11-30 19:38:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 457.86 Mbit/s

95th percentile per-packet one-way delay: 209.460 ms

Loss rate: 0.62%

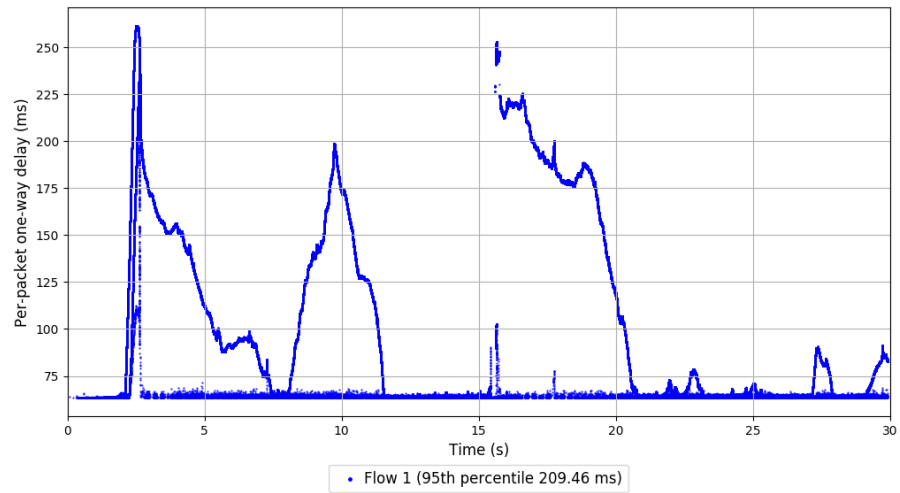
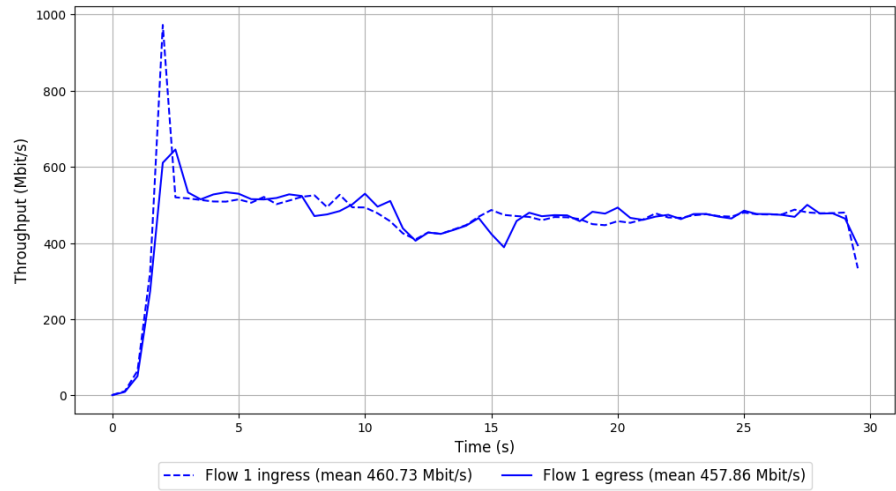
-- Flow 1:

Average throughput: 457.86 Mbit/s

95th percentile per-packet one-way delay: 209.460 ms

Loss rate: 0.62%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-11-30 17:30:12

End at: 2017-11-30 17:30:42

Below is generated by plot.py at 2017-11-30 19:39:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 483.68 Mbit/s

95th percentile per-packet one-way delay: 209.761 ms

Loss rate: 3.47%

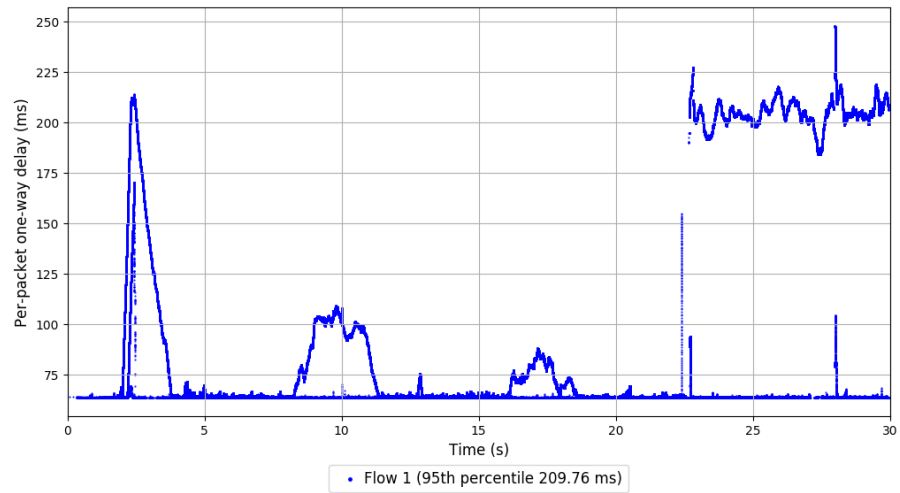
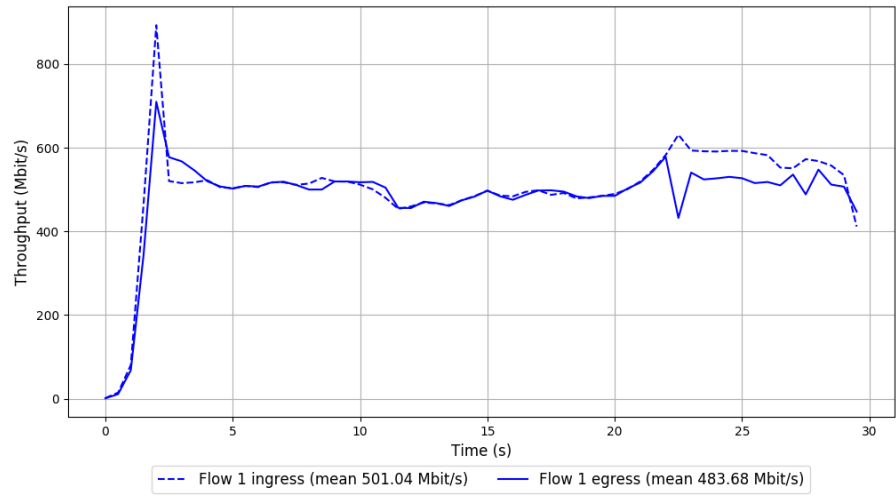
-- Flow 1:

Average throughput: 483.68 Mbit/s

95th percentile per-packet one-way delay: 209.761 ms

Loss rate: 3.47%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-11-30 17:40:41

End at: 2017-11-30 17:41:11

Below is generated by plot.py at 2017-11-30 19:39:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 513.43 Mbit/s

95th percentile per-packet one-way delay: 202.185 ms

Loss rate: 2.34%

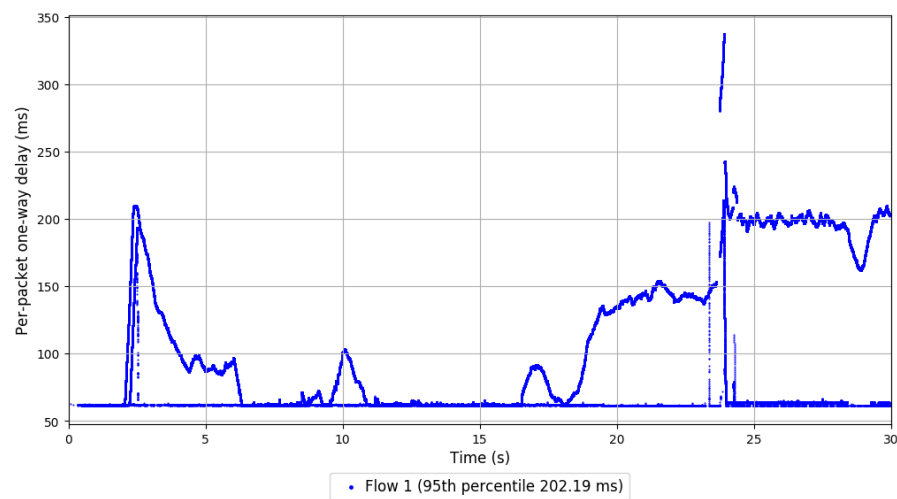
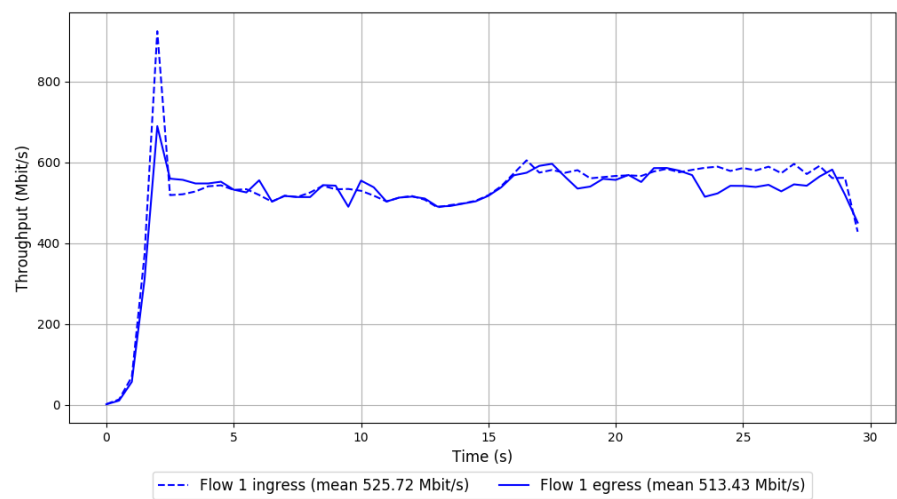
-- Flow 1:

Average throughput: 513.43 Mbit/s

95th percentile per-packet one-way delay: 202.185 ms

Loss rate: 2.34%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-11-30 17:51:08

End at: 2017-11-30 17:51:38

Below is generated by plot.py at 2017-11-30 19:39:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 494.09 Mbit/s

95th percentile per-packet one-way delay: 206.845 ms

Loss rate: 1.80%

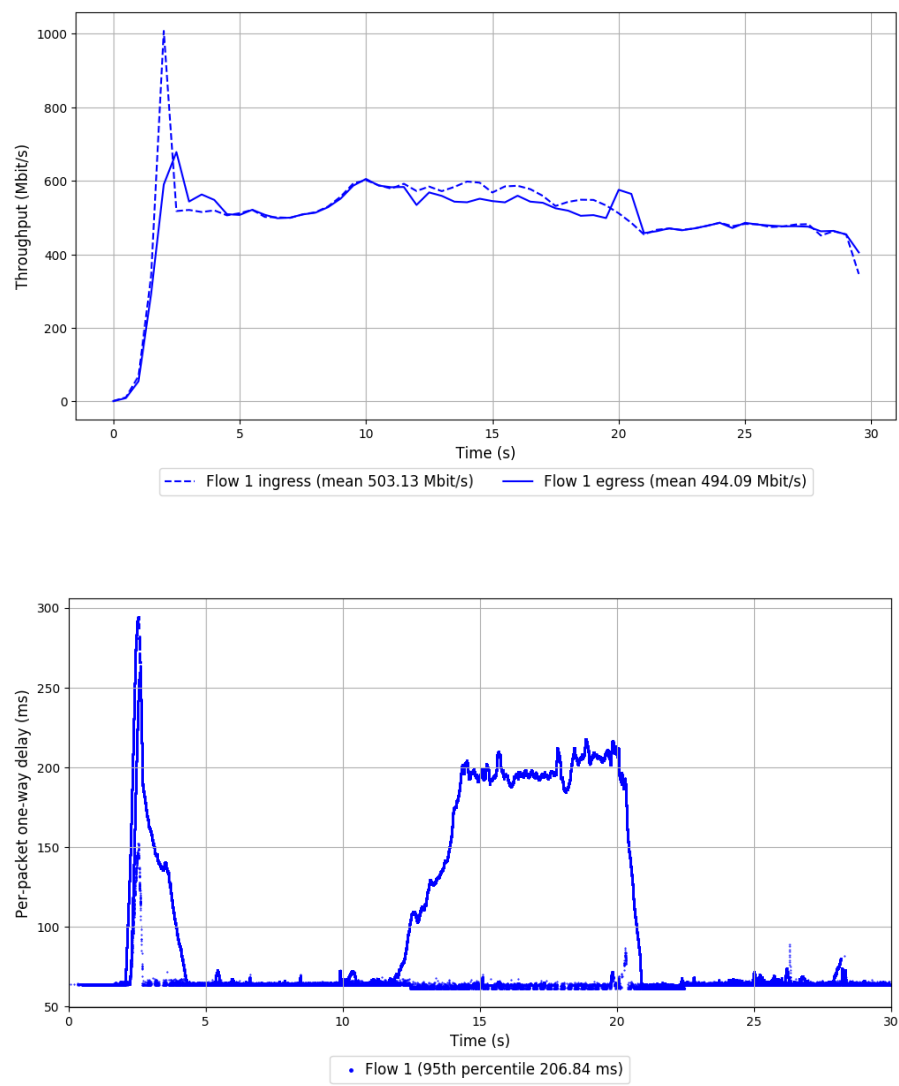
-- Flow 1:

Average throughput: 494.09 Mbit/s

95th percentile per-packet one-way delay: 206.845 ms

Loss rate: 1.80%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-11-30 18:01:36

End at: 2017-11-30 18:02:06

Below is generated by plot.py at 2017-11-30 19:39:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 471.29 Mbit/s

95th percentile per-packet one-way delay: 215.234 ms

Loss rate: 2.20%

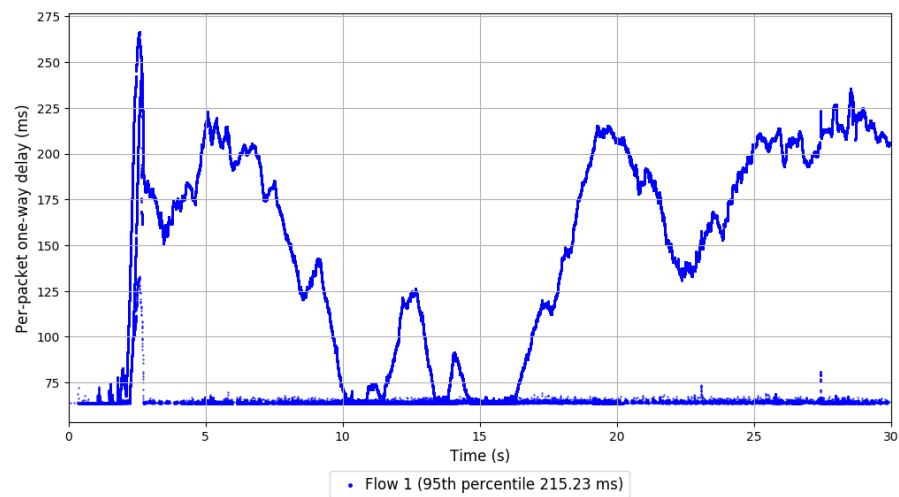
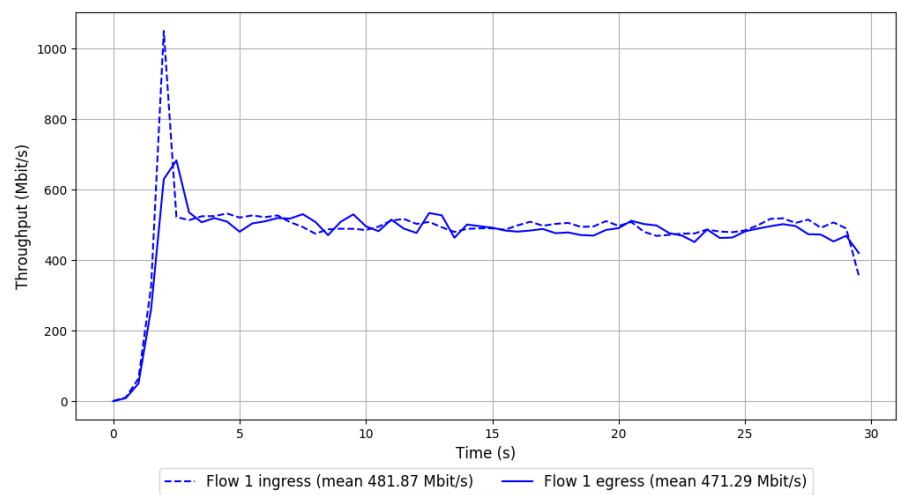
-- Flow 1:

Average throughput: 471.29 Mbit/s

95th percentile per-packet one-way delay: 215.234 ms

Loss rate: 2.20%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-11-30 18:11:54

End at: 2017-11-30 18:12:24

Below is generated by plot.py at 2017-11-30 19:39:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 484.02 Mbit/s

95th percentile per-packet one-way delay: 213.898 ms

Loss rate: 2.11%

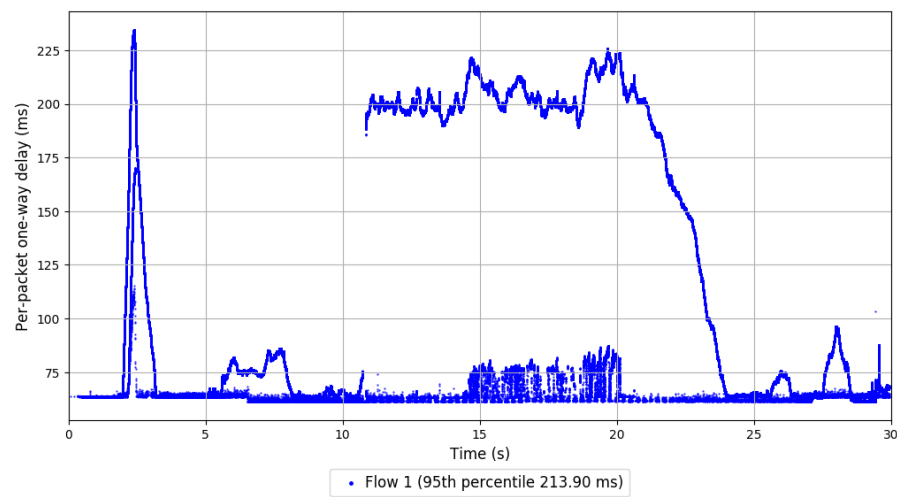
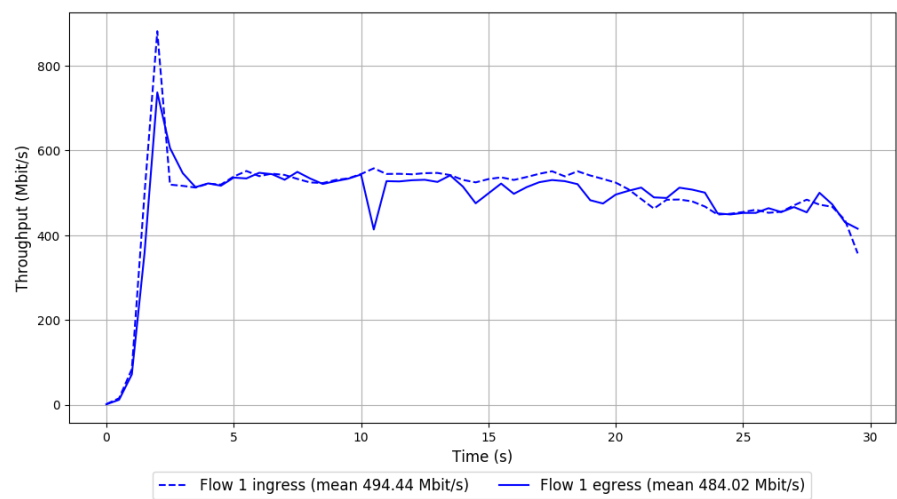
-- Flow 1:

Average throughput: 484.02 Mbit/s

95th percentile per-packet one-way delay: 213.898 ms

Loss rate: 2.11%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-11-30 18:22:24

End at: 2017-11-30 18:22:54

Below is generated by plot.py at 2017-11-30 19:39:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 471.90 Mbit/s

95th percentile per-packet one-way delay: 139.888 ms

Loss rate: 0.56%

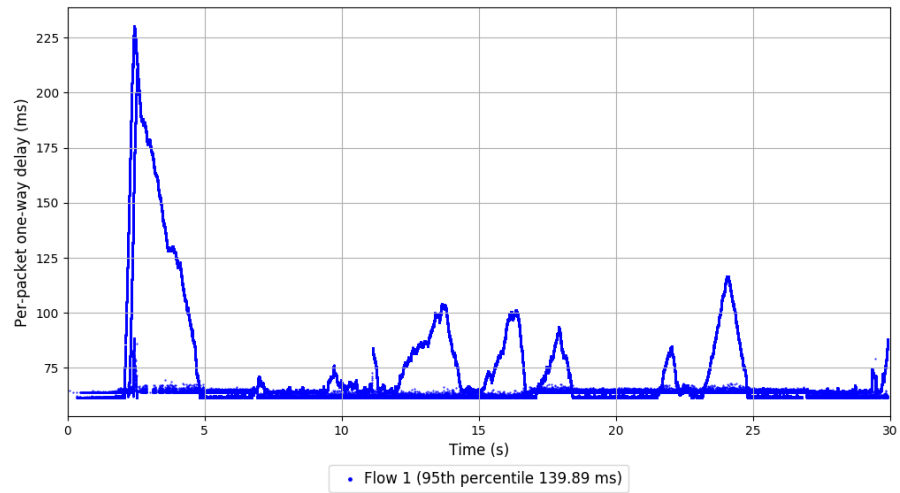
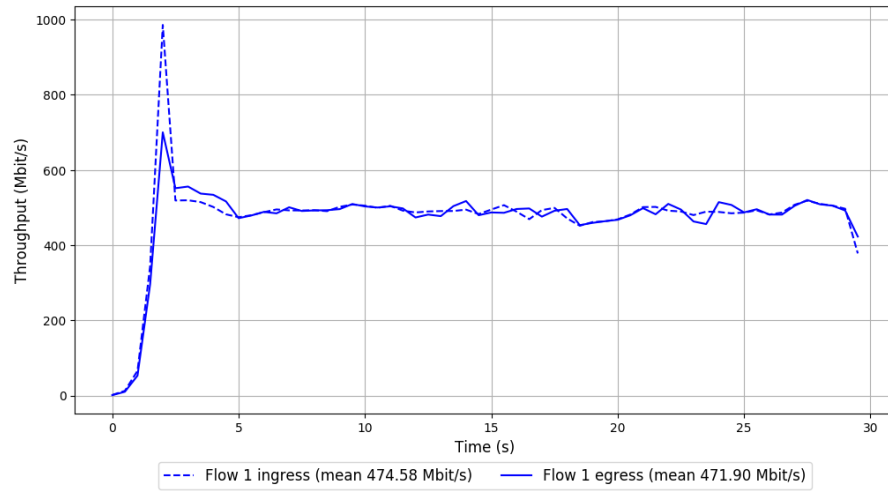
-- Flow 1:

Average throughput: 471.90 Mbit/s

95th percentile per-packet one-way delay: 139.888 ms

Loss rate: 0.56%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-11-30 18:32:53

End at: 2017-11-30 18:33:23

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 488.58 Mbit/s

95th percentile per-packet one-way delay: 213.162 ms

Loss rate: 1.65%

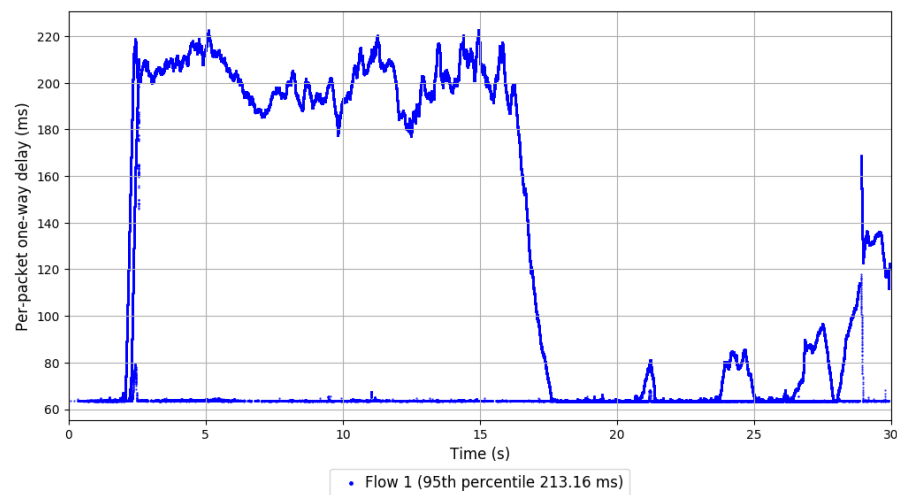
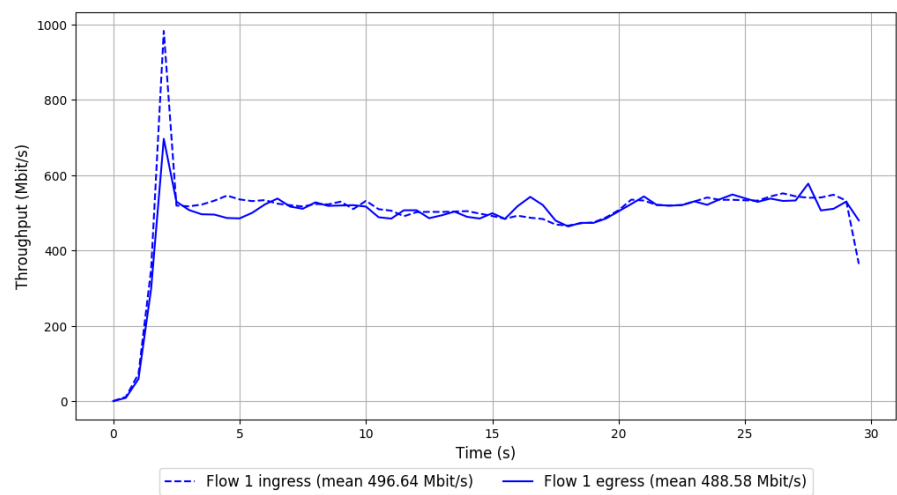
-- Flow 1:

Average throughput: 488.58 Mbit/s

95th percentile per-packet one-way delay: 213.162 ms

Loss rate: 1.65%

Run 10: Report of PCC — Data Link

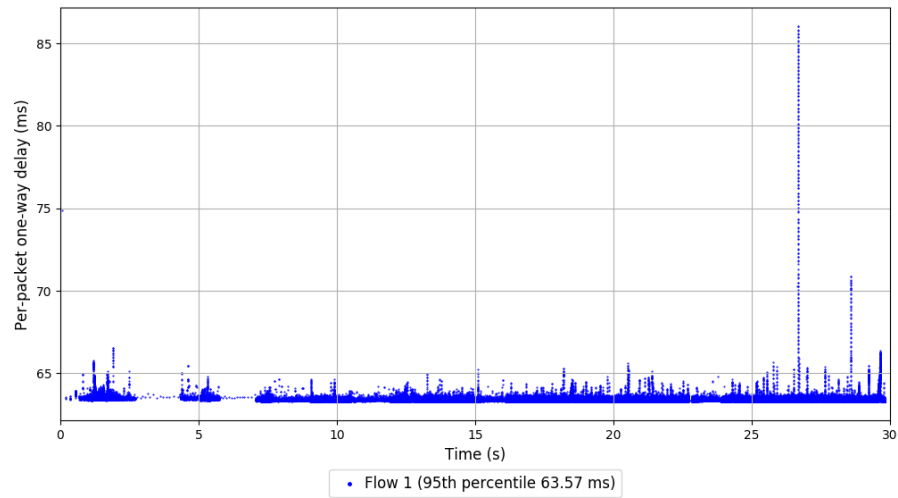
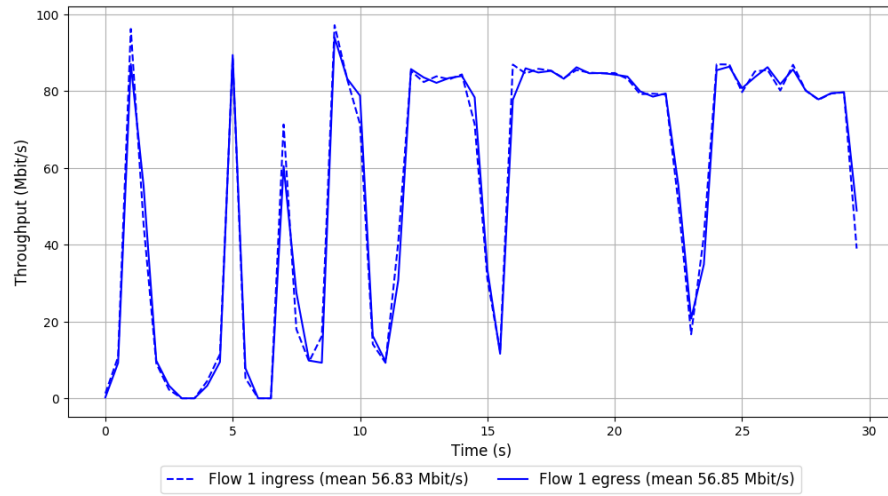


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-11-30 17:02:38
End at: 2017-11-30 17:03:08

# Below is generated by plot.py at 2017-11-30 19:40:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 63.567 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 56.85 Mbit/s
95th percentile per-packet one-way delay: 63.567 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-11-30 17:12:26

End at: 2017-11-30 17:12:56

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 63.732 ms

Loss rate: 0.00%

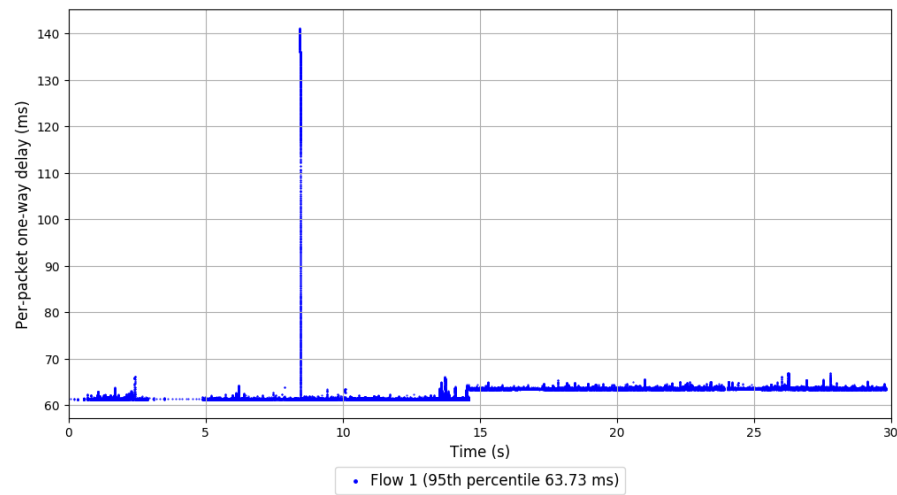
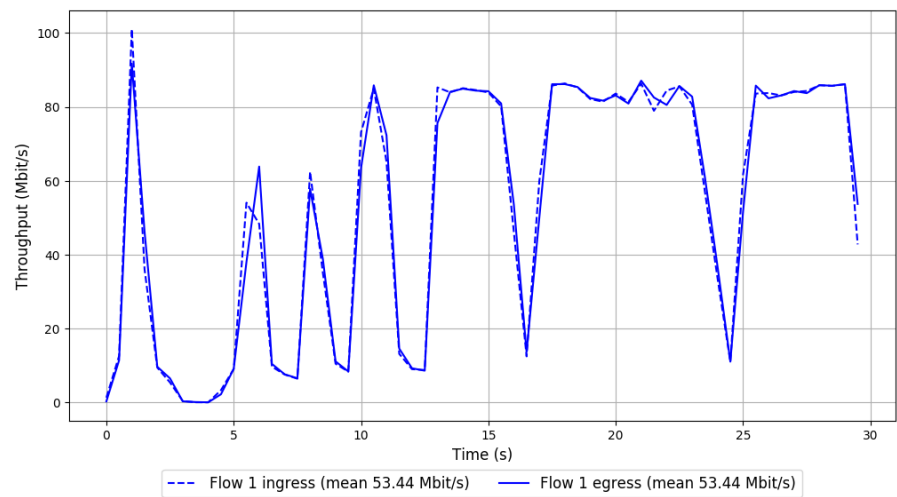
-- Flow 1:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 63.732 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-11-30 17:22:37

End at: 2017-11-30 17:23:07

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 63.610 ms

Loss rate: 0.01%

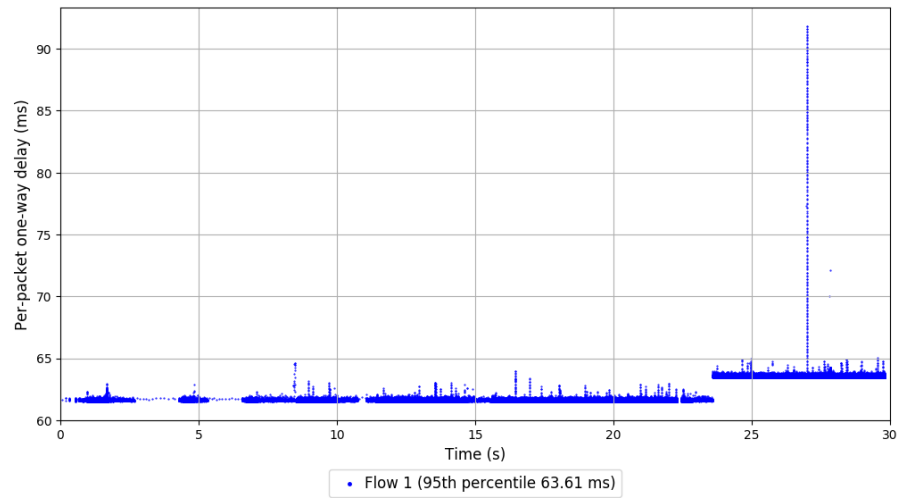
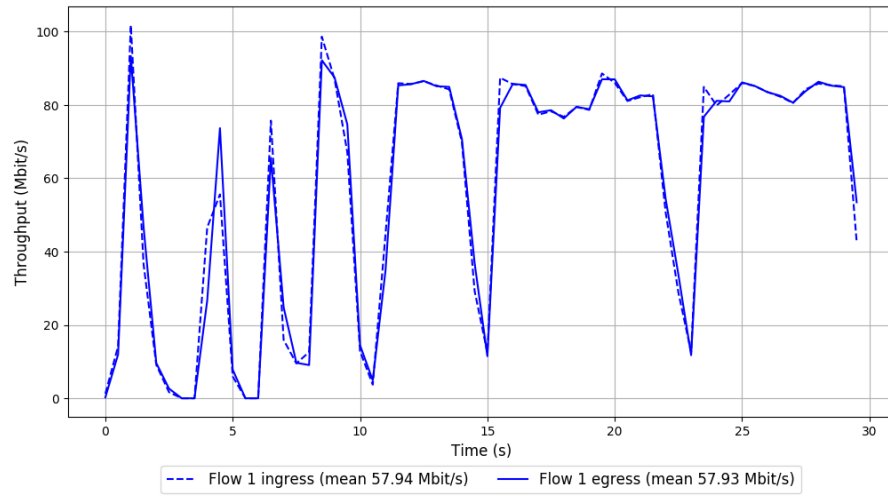
-- Flow 1:

Average throughput: 57.93 Mbit/s

95th percentile per-packet one-way delay: 63.610 ms

Loss rate: 0.01%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-11-30 17:33:14

End at: 2017-11-30 17:33:44

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.87 Mbit/s

95th percentile per-packet one-way delay: 63.585 ms

Loss rate: 0.01%

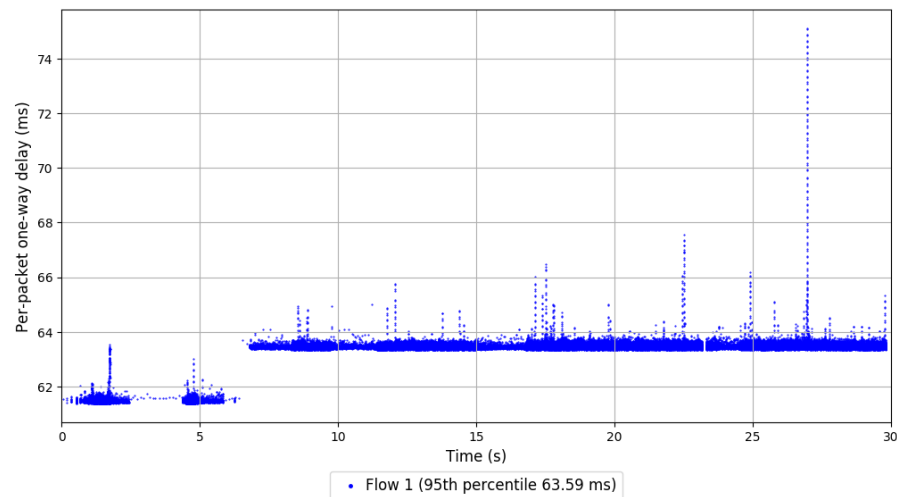
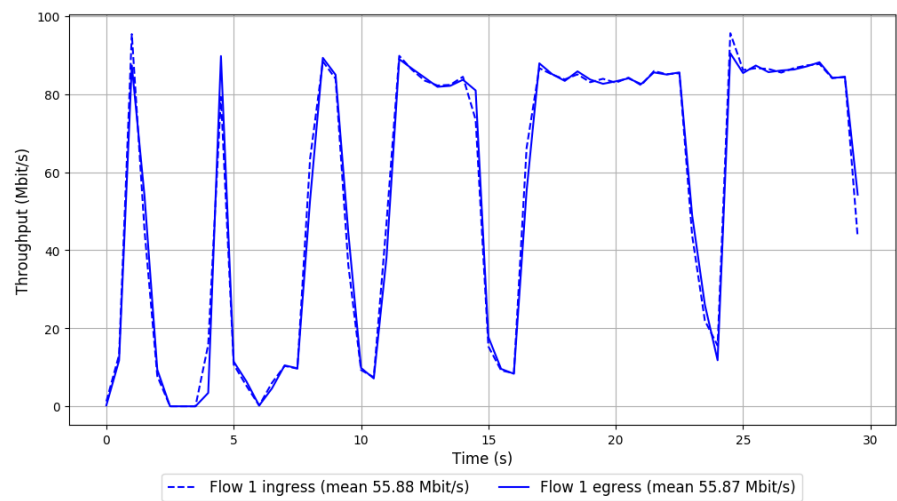
-- Flow 1:

Average throughput: 55.87 Mbit/s

95th percentile per-packet one-way delay: 63.585 ms

Loss rate: 0.01%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-11-30 17:43:43

End at: 2017-11-30 17:44:13

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 63.616 ms

Loss rate: 0.00%

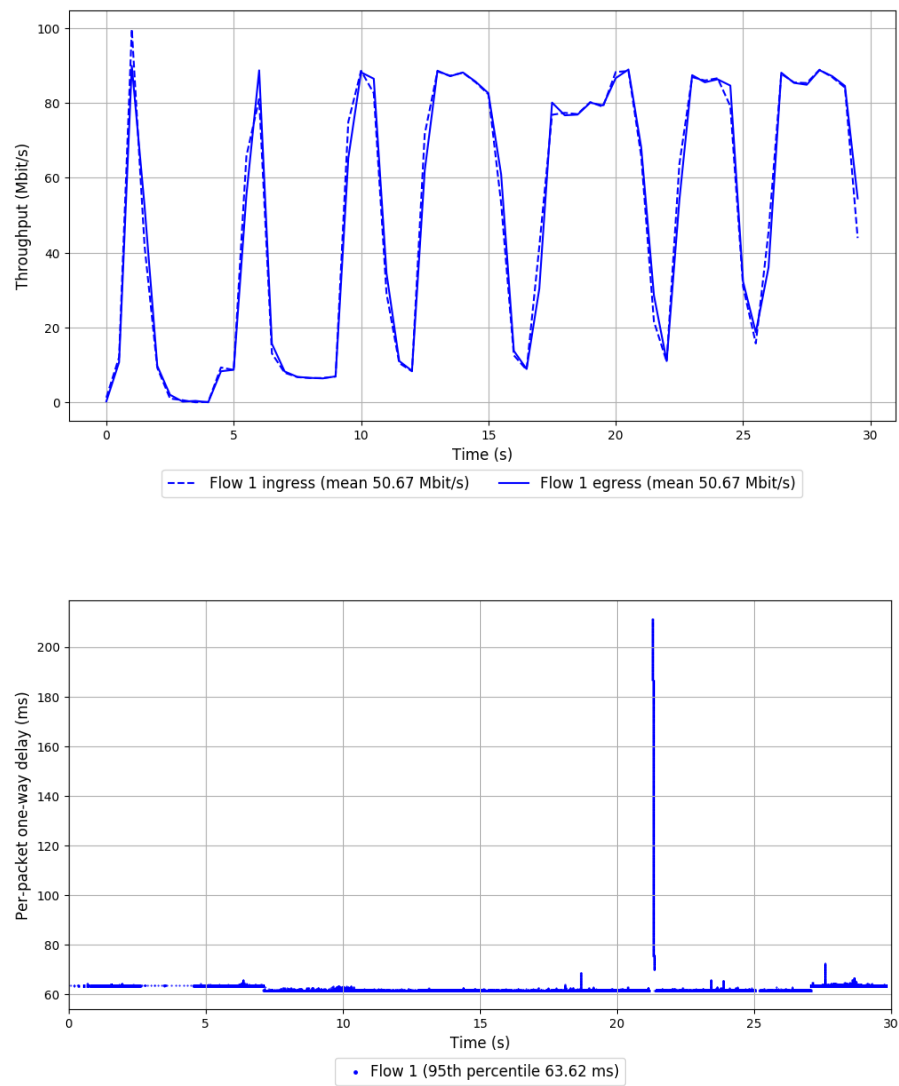
-- Flow 1:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 63.616 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-11-30 17:54:06

End at: 2017-11-30 17:54:36

Below is generated by plot.py at 2017-11-30 19:40:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.13 Mbit/s

95th percentile per-packet one-way delay: 63.812 ms

Loss rate: 0.00%

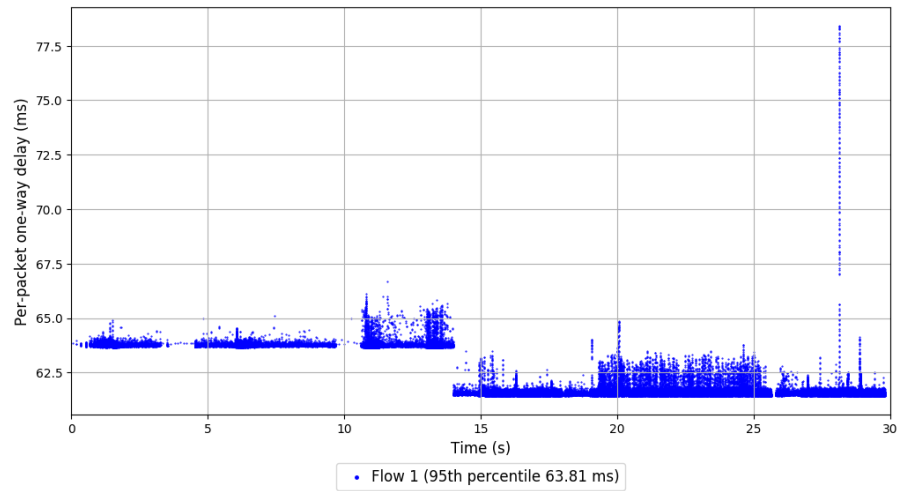
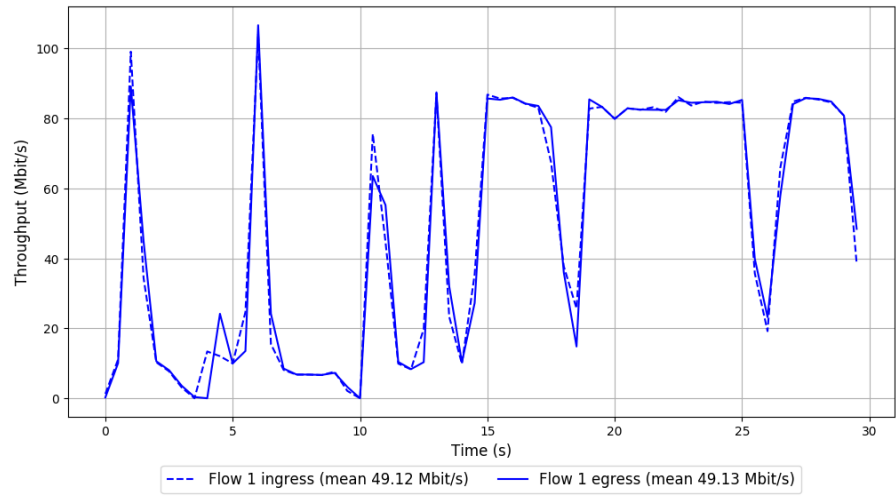
-- Flow 1:

Average throughput: 49.13 Mbit/s

95th percentile per-packet one-way delay: 63.812 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-11-30 18:04:35

End at: 2017-11-30 18:05:05

Below is generated by plot.py at 2017-11-30 19:40:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.92 Mbit/s

95th percentile per-packet one-way delay: 63.675 ms

Loss rate: 0.00%

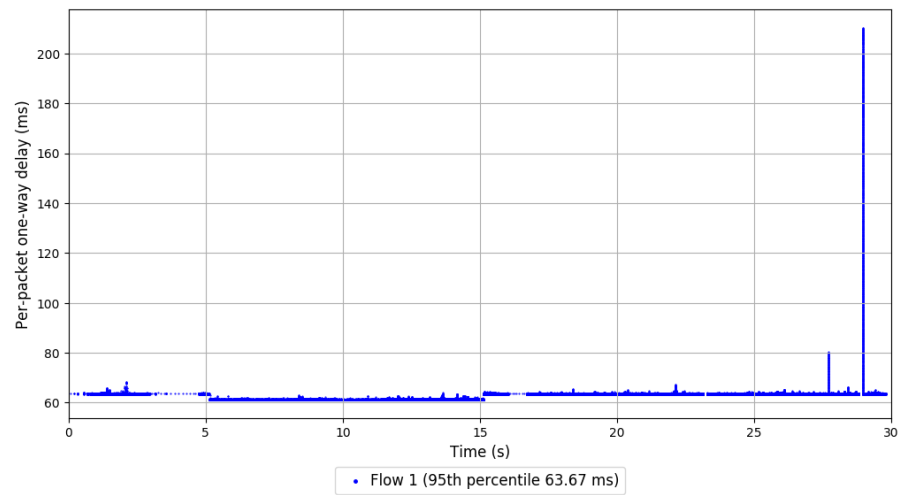
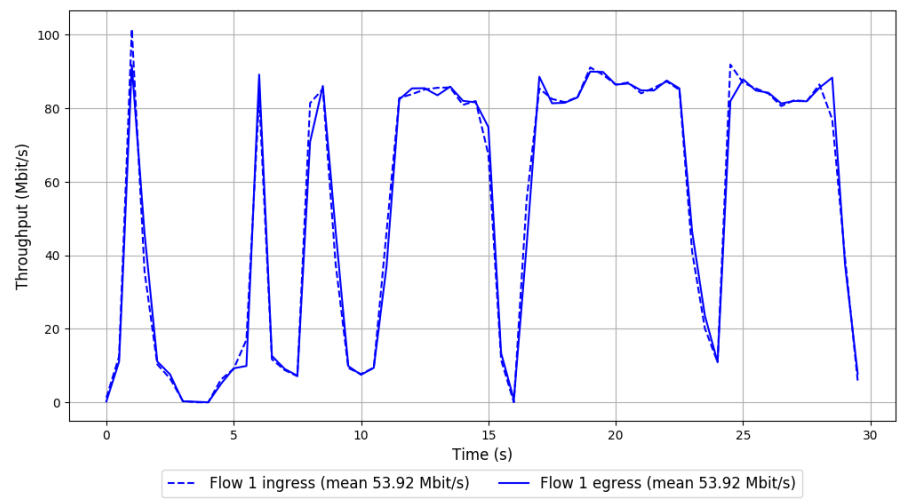
-- Flow 1:

Average throughput: 53.92 Mbit/s

95th percentile per-packet one-way delay: 63.675 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-11-30 18:14:56

End at: 2017-11-30 18:15:26

Below is generated by plot.py at 2017-11-30 19:40:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.07 Mbit/s

95th percentile per-packet one-way delay: 63.542 ms

Loss rate: 0.00%

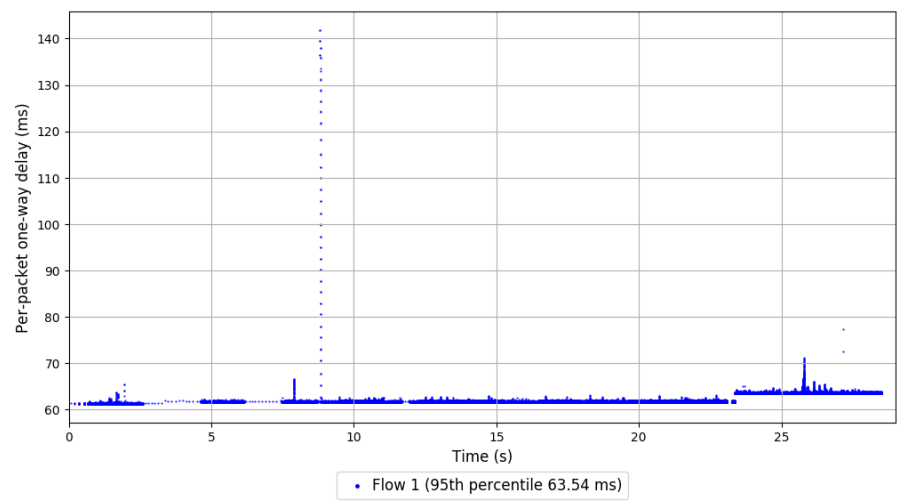
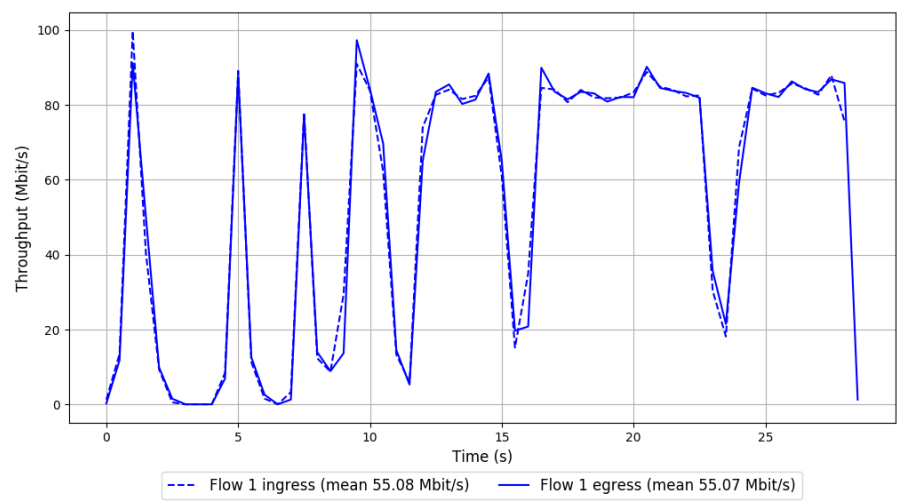
-- Flow 1:

Average throughput: 55.07 Mbit/s

95th percentile per-packet one-way delay: 63.542 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-11-30 18:25:23

End at: 2017-11-30 18:25:53

Below is generated by plot.py at 2017-11-30 19:40:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.21 Mbit/s

95th percentile per-packet one-way delay: 63.733 ms

Loss rate: 0.00%

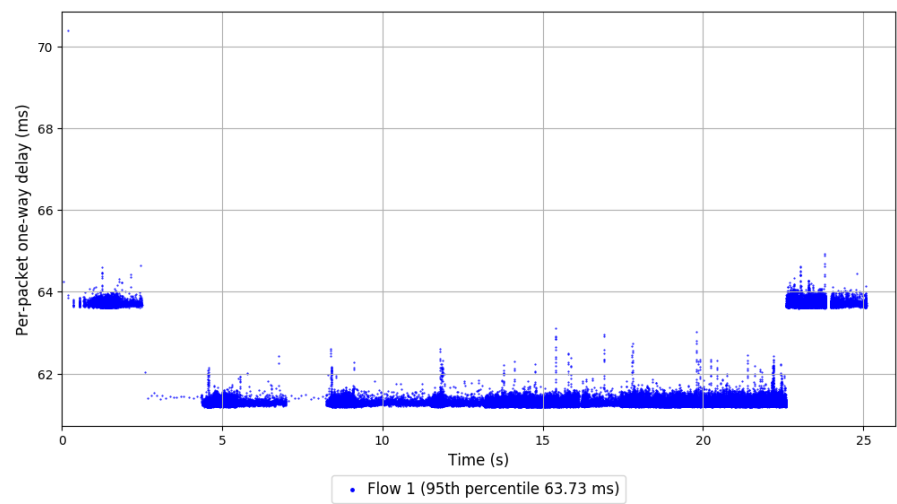
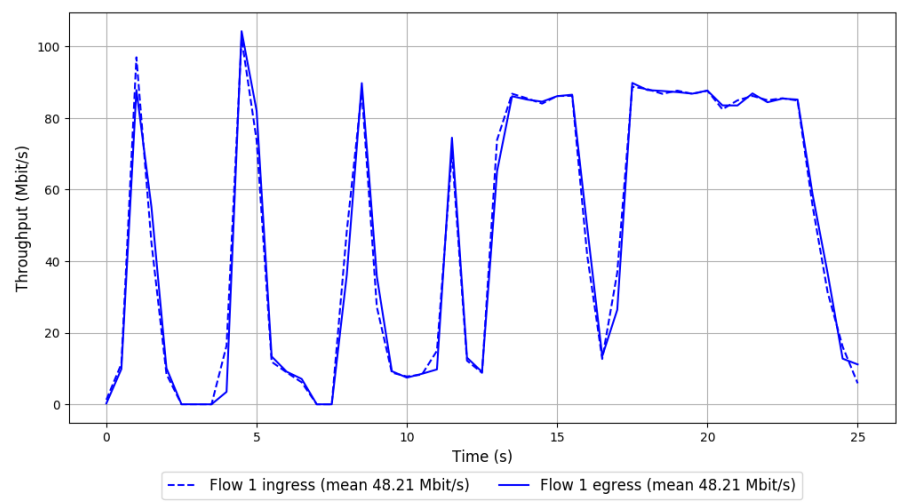
-- Flow 1:

Average throughput: 48.21 Mbit/s

95th percentile per-packet one-way delay: 63.733 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

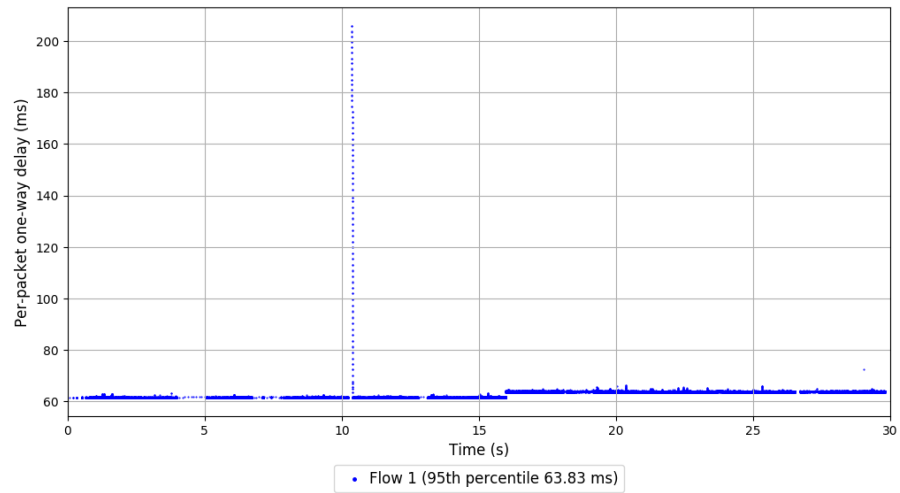
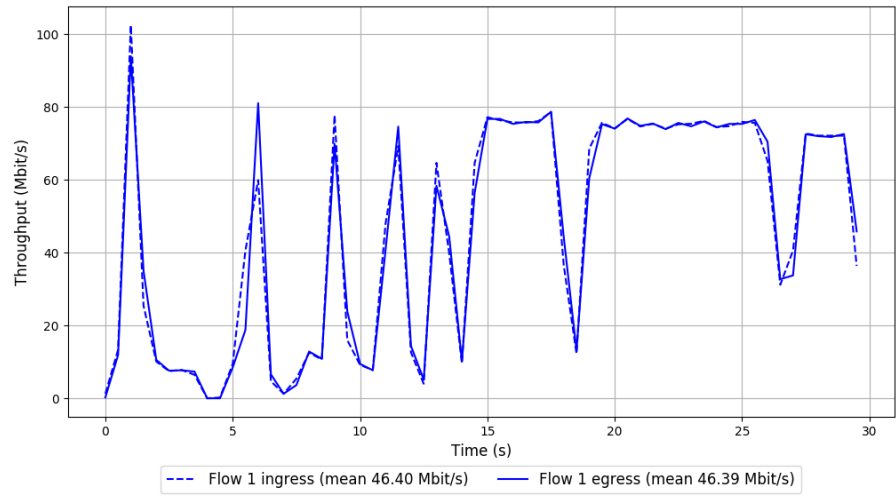


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-11-30 18:35:54
End at: 2017-11-30 18:36:24

# Below is generated by plot.py at 2017-11-30 19:41:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 63.826 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 46.39 Mbit/s
95th percentile per-packet one-way delay: 63.826 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

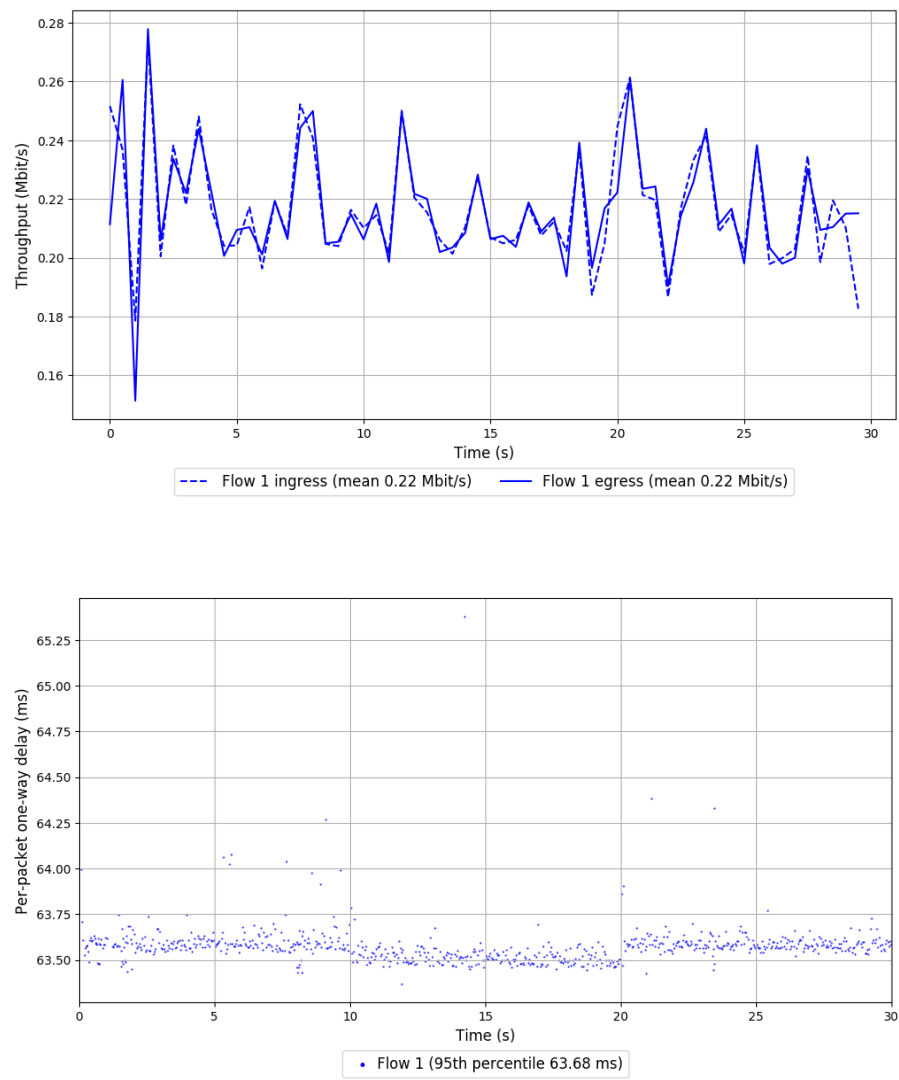


```
Run 1: Statistics of SCReAM

Start at: 2017-11-30 17:02:00
End at: 2017-11-30 17:02:30

# Below is generated by plot.py at 2017-11-30 19:41:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 63.676 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link



Run 2: Statistics of SCReAM

Start at: 2017-11-30 17:11:48

End at: 2017-11-30 17:12:18

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.529 ms

Loss rate: 0.00%

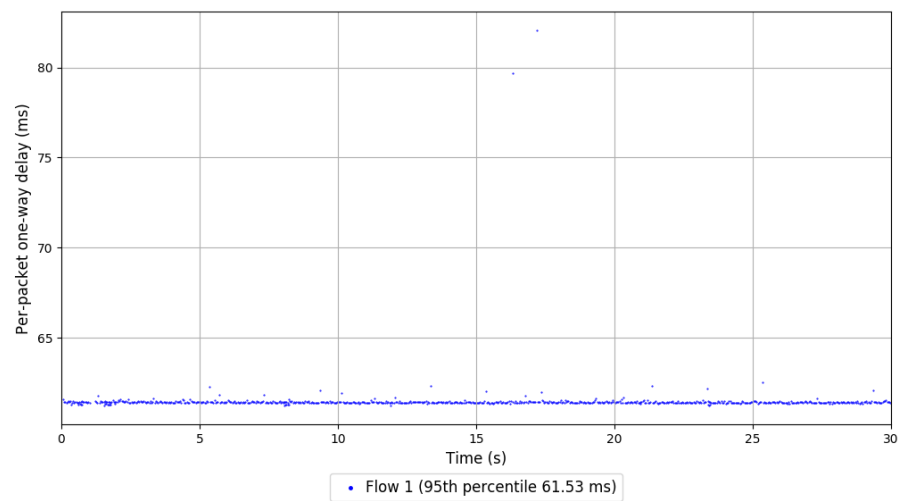
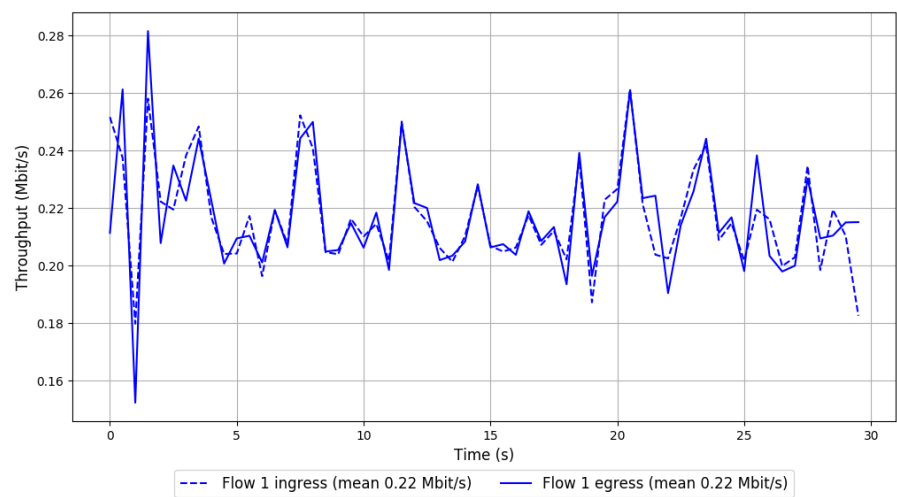
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.529 ms

Loss rate: 0.00%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-11-30 17:21:59

End at: 2017-11-30 17:22:29

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.803 ms

Loss rate: 0.00%

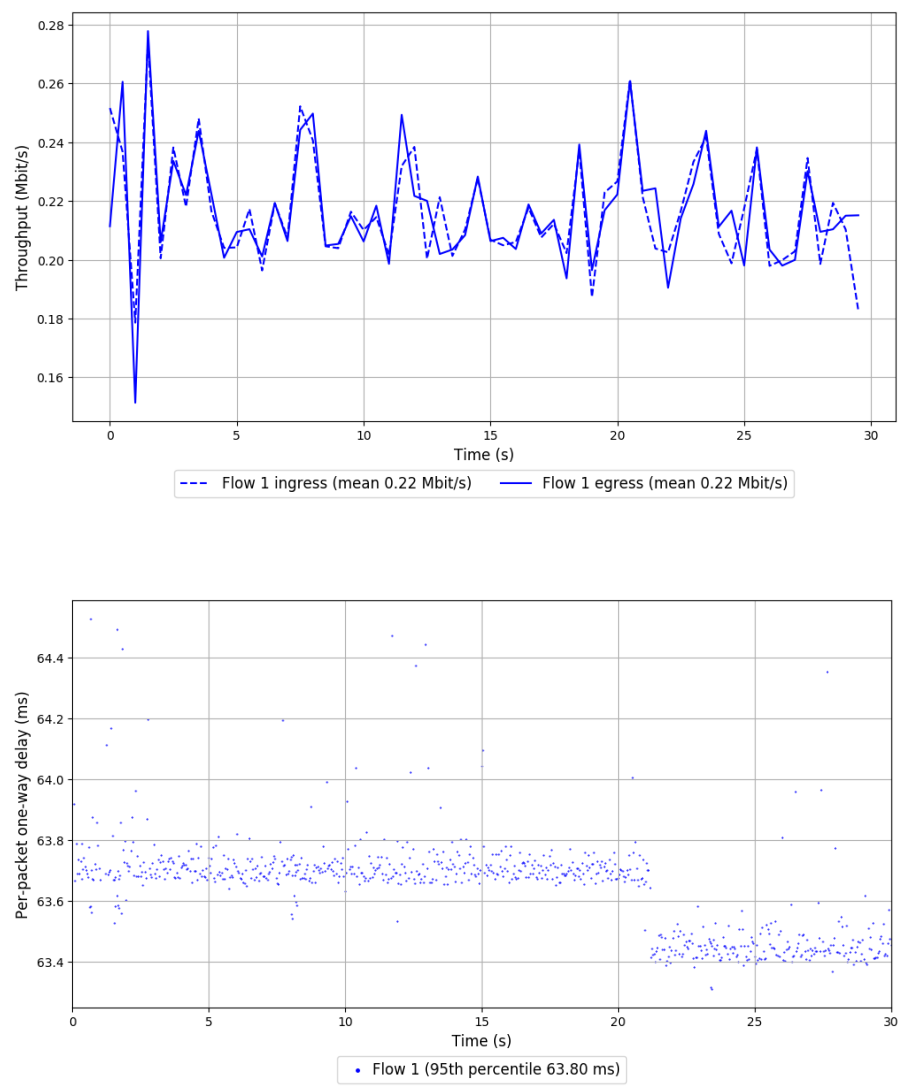
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.803 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-11-30 17:32:36

End at: 2017-11-30 17:33:06

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.809 ms

Loss rate: 0.00%

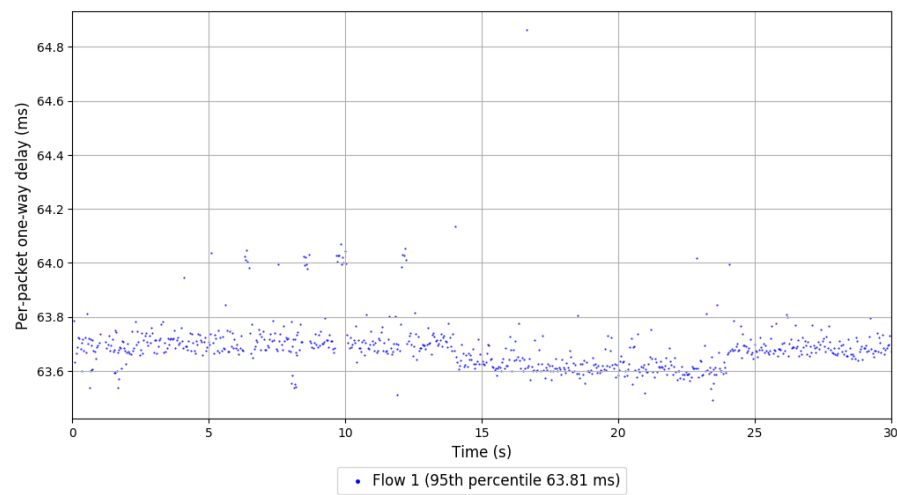
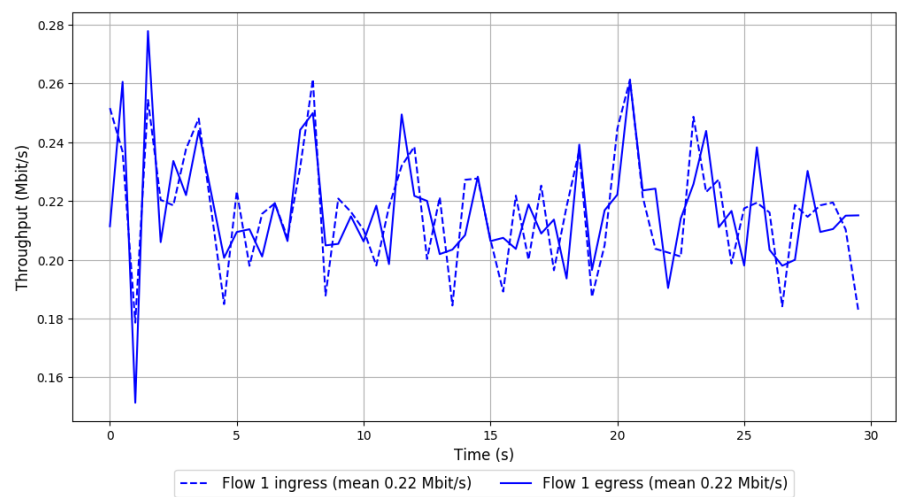
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.809 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-11-30 17:43:06

End at: 2017-11-30 17:43:36

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.730 ms

Loss rate: 0.00%

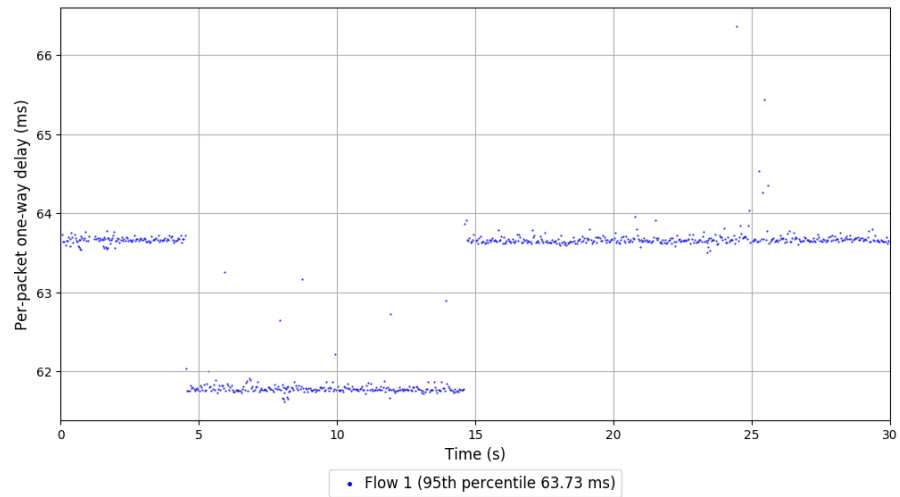
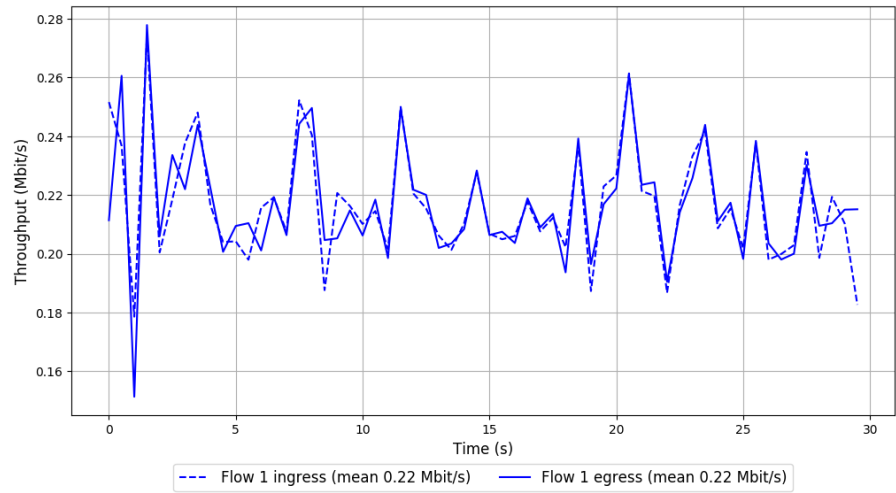
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.730 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-11-30 17:53:29

End at: 2017-11-30 17:53:59

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.777 ms

Loss rate: 0.00%

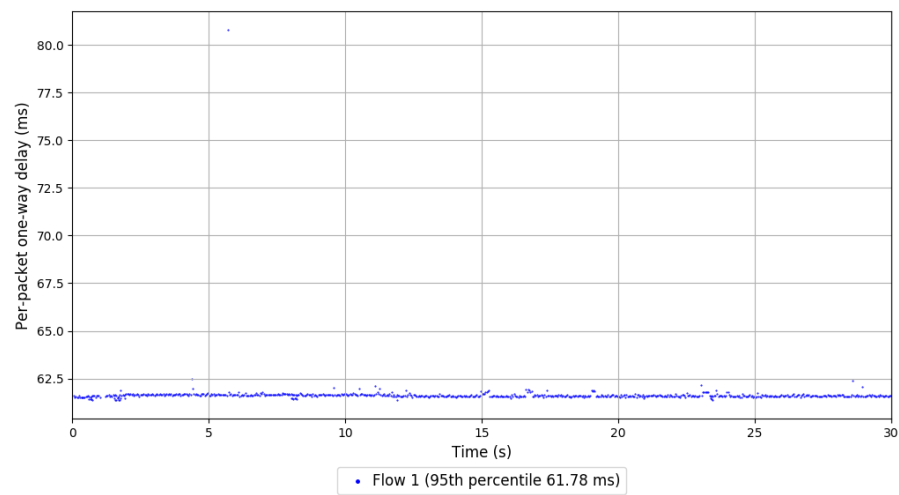
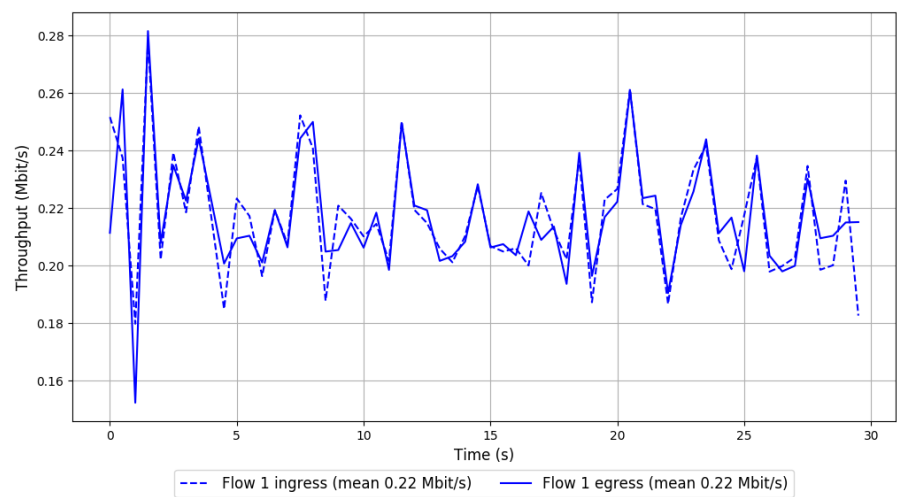
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 61.777 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-11-30 18:03:58

End at: 2017-11-30 18:04:28

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

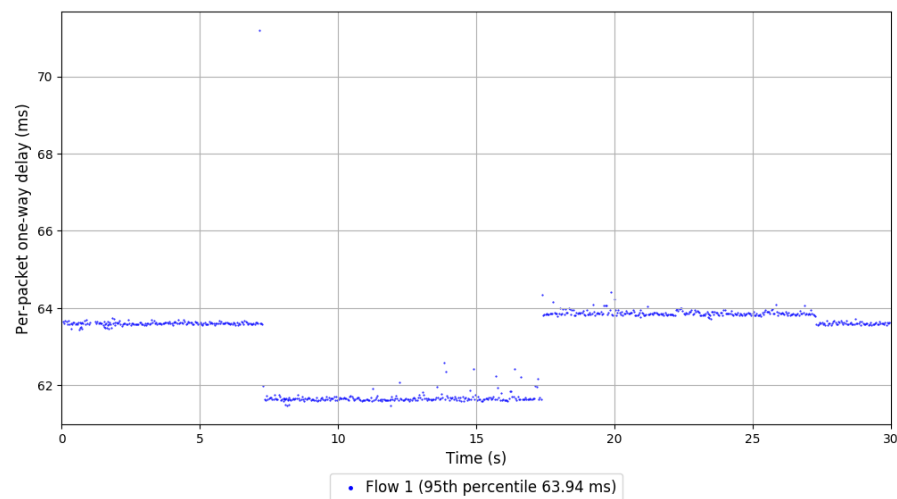
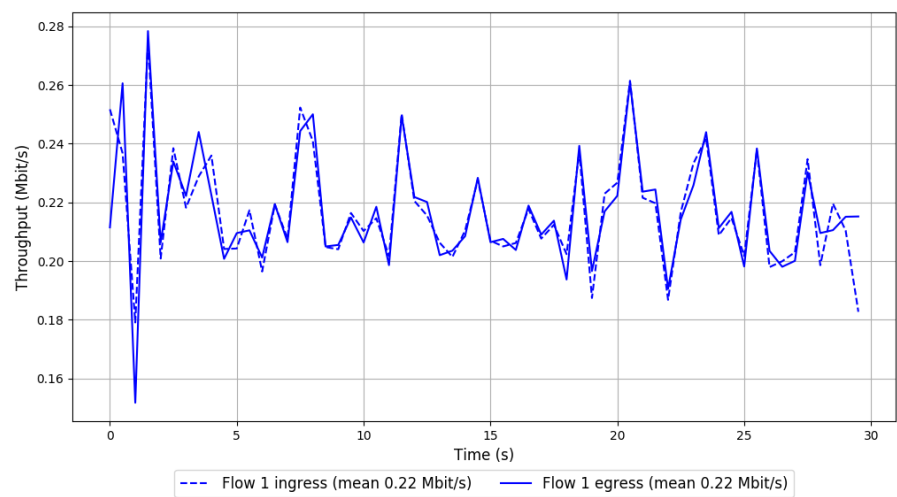
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-11-30 18:14:18

End at: 2017-11-30 18:14:48

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.561 ms

Loss rate: 0.00%

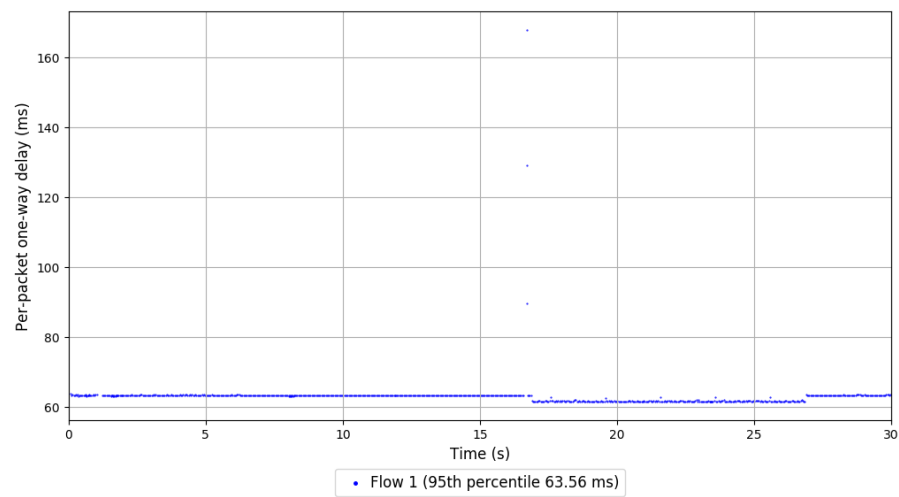
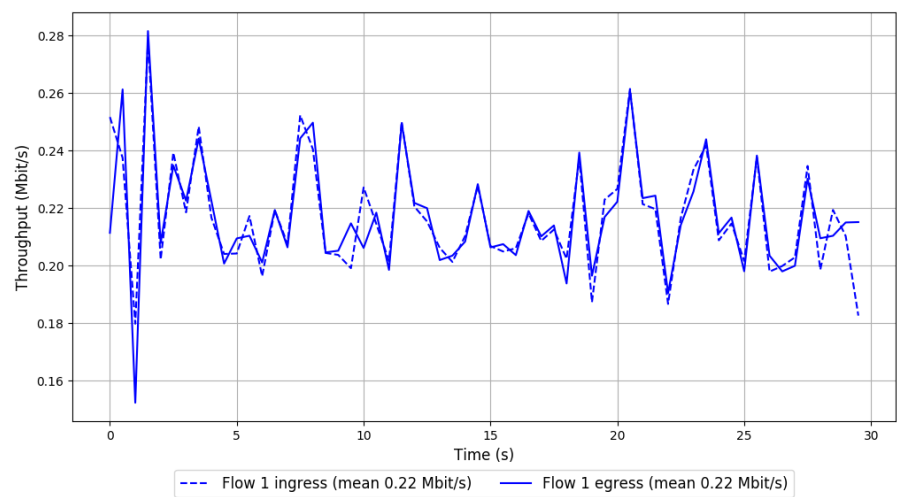
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.561 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-11-30 18:24:46

End at: 2017-11-30 18:25:16

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.893 ms

Loss rate: 0.00%

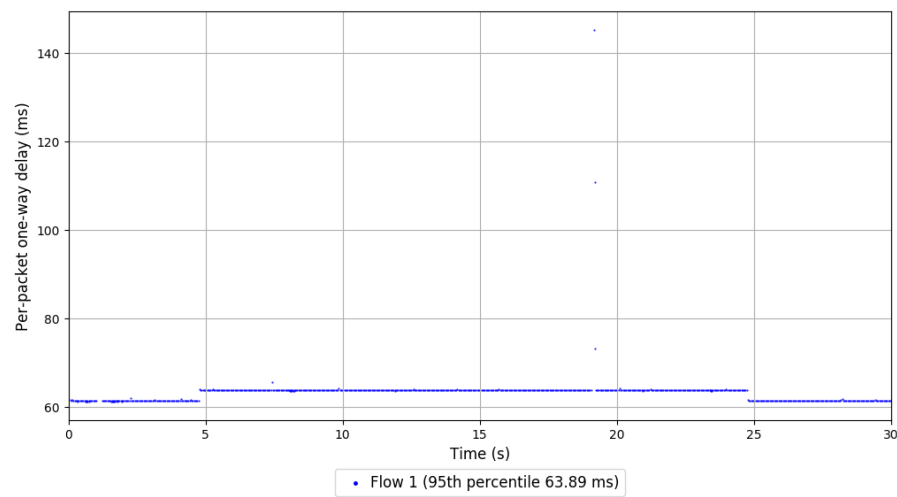
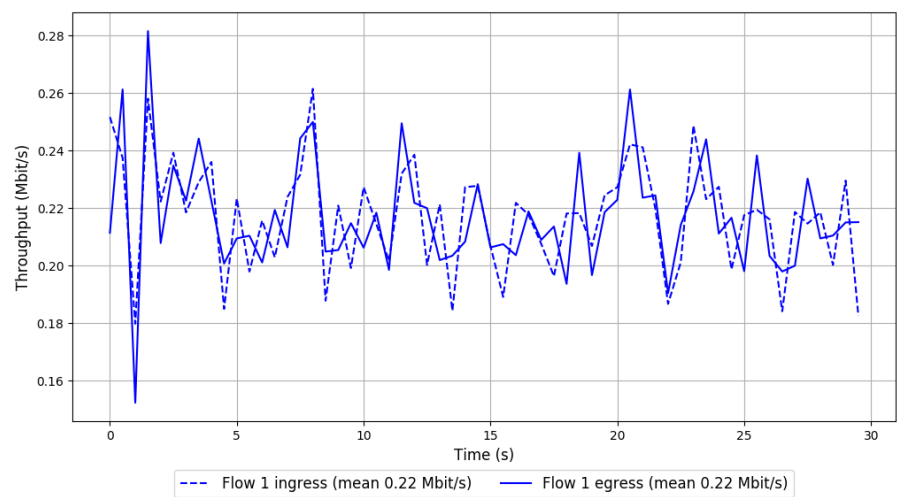
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.893 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-11-30 18:35:17

End at: 2017-11-30 18:35:47

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

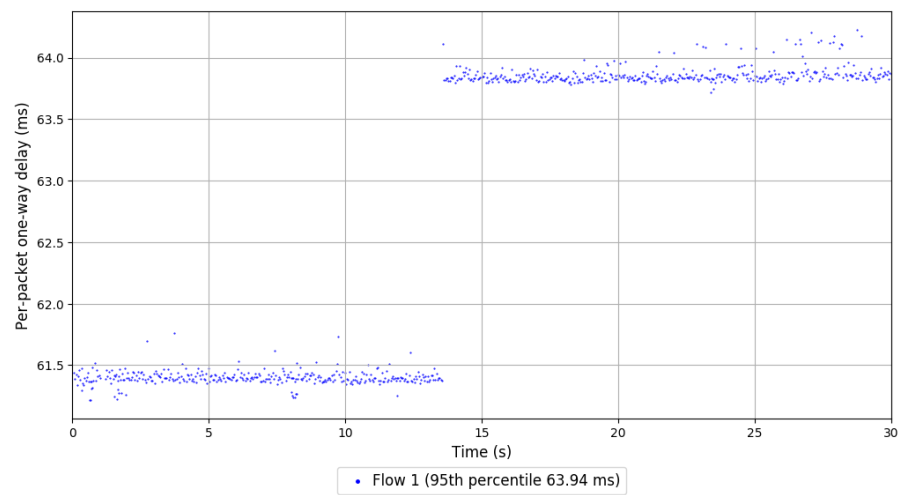
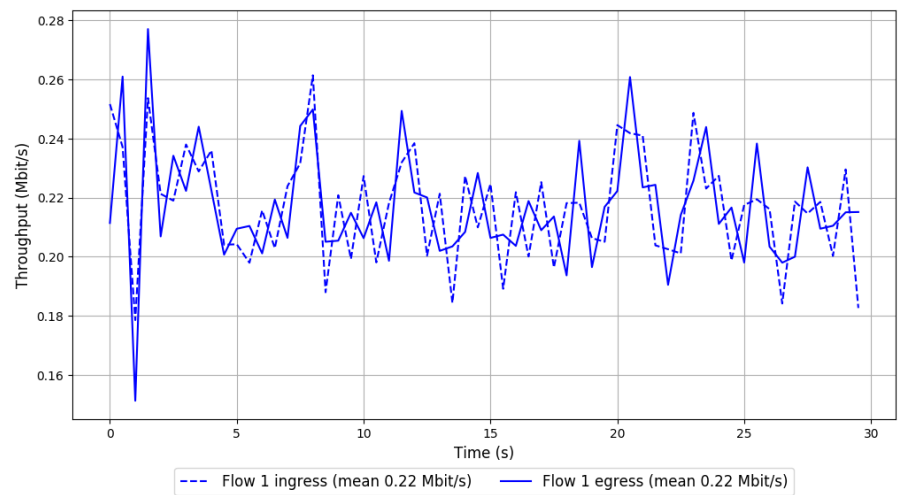
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link

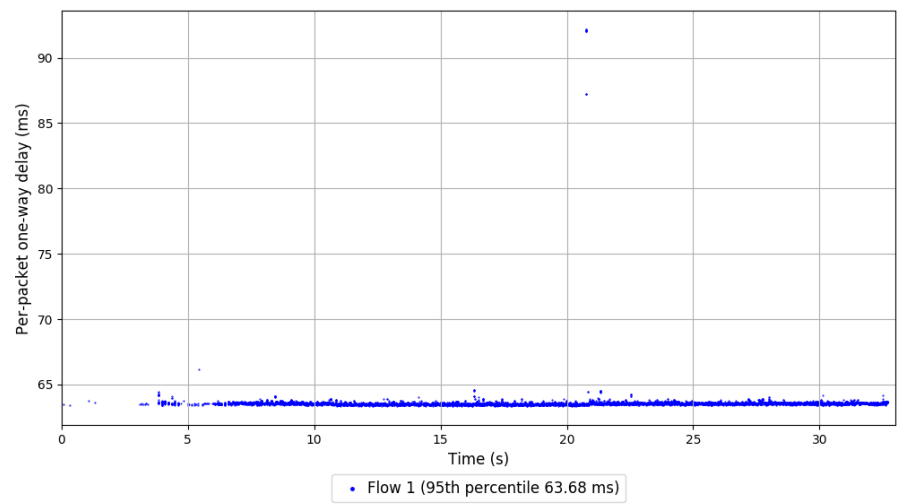
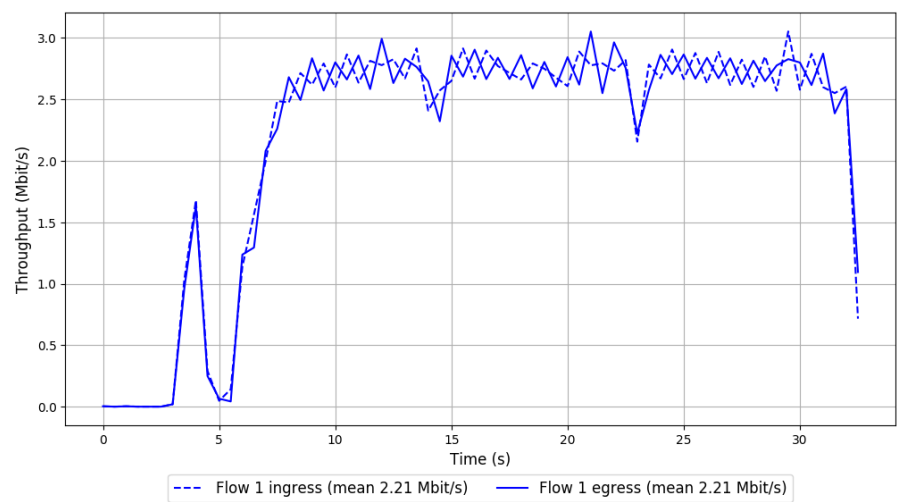


```
Run 1: Statistics of WebRTC media

Start at: 2017-11-30 16:59:17
End at: 2017-11-30 16:59:47

# Below is generated by plot.py at 2017-11-30 19:41:13
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.683 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 63.683 ms
Loss rate: 0.10%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-11-30 17:09:06

End at: 2017-11-30 17:09:36

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.697 ms

Loss rate: 0.05%

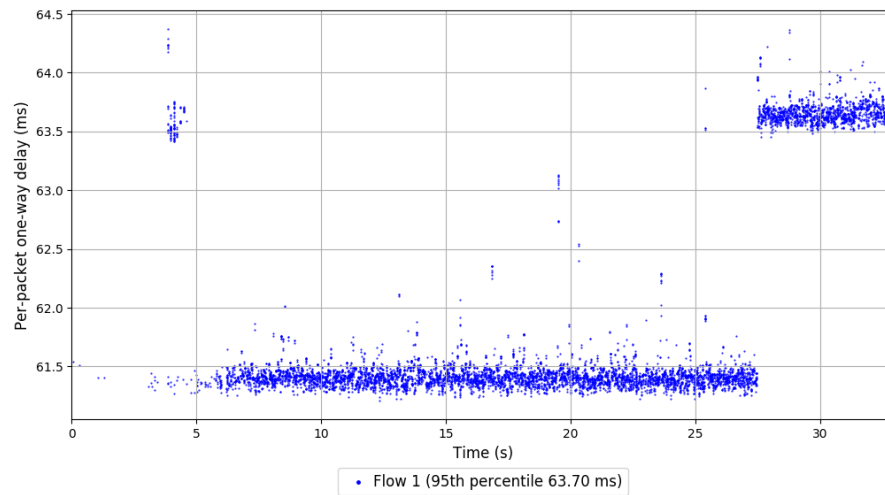
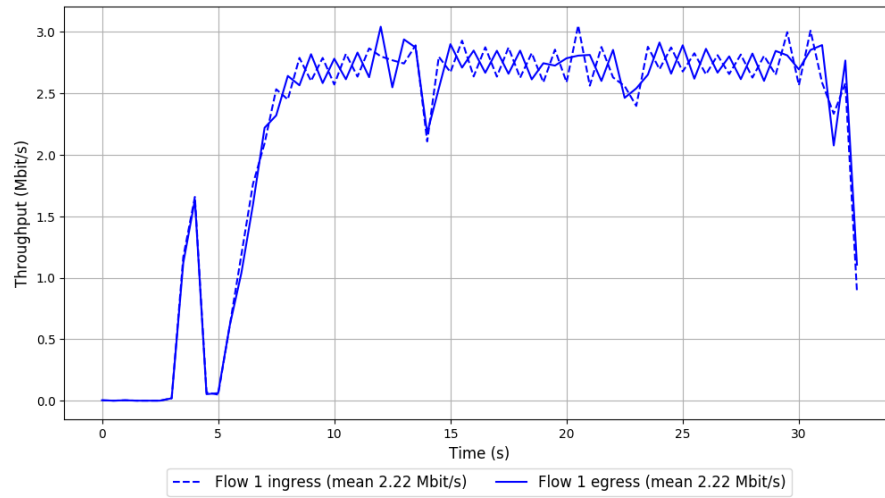
-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 63.697 ms

Loss rate: 0.05%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-11-30 17:19:11

End at: 2017-11-30 17:19:41

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.755 ms

Loss rate: 0.00%

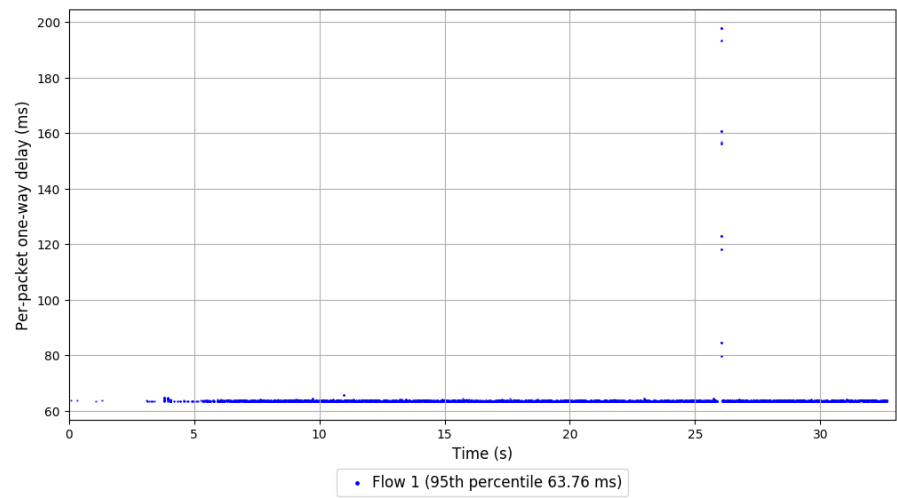
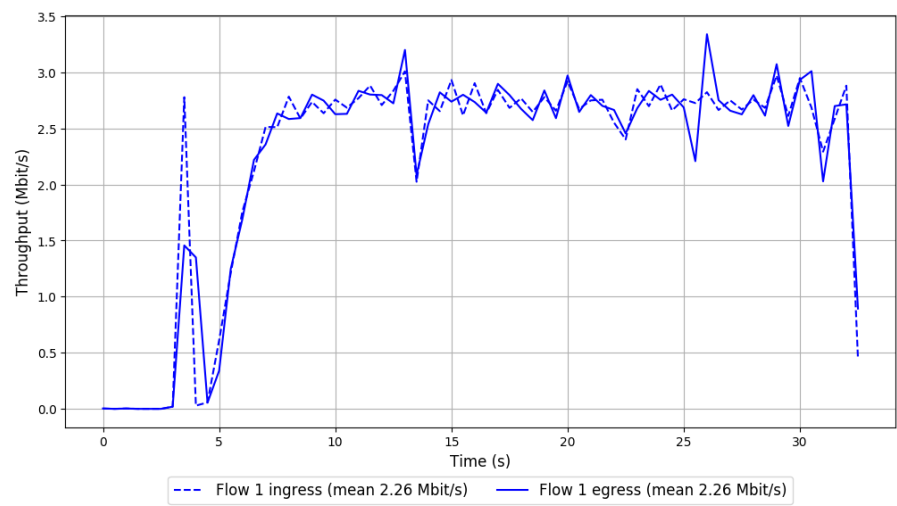
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.755 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-11-30 17:29:34

End at: 2017-11-30 17:30:04

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.652 ms

Loss rate: 0.00%

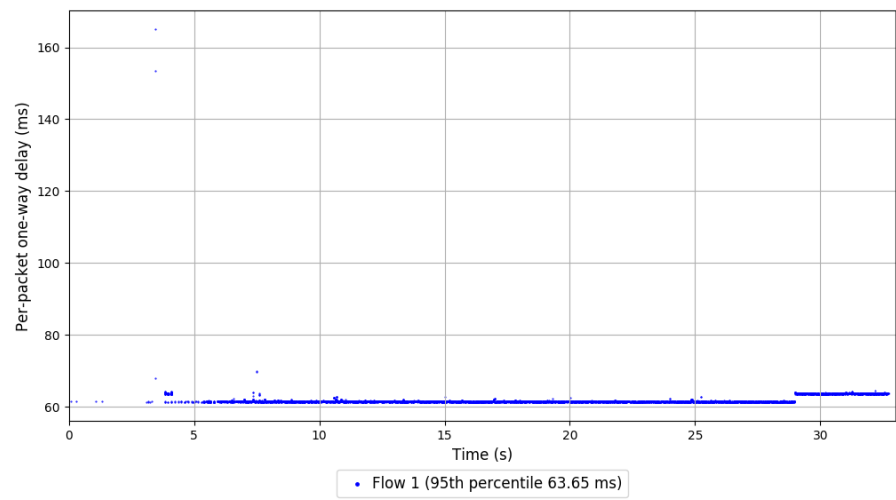
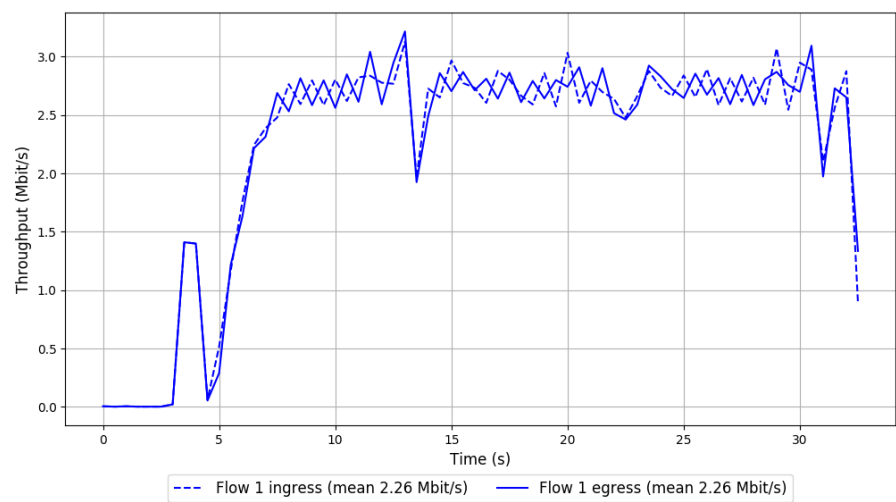
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.652 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-11-30 17:40:03

End at: 2017-11-30 17:40:33

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.624 ms

Loss rate: 0.00%

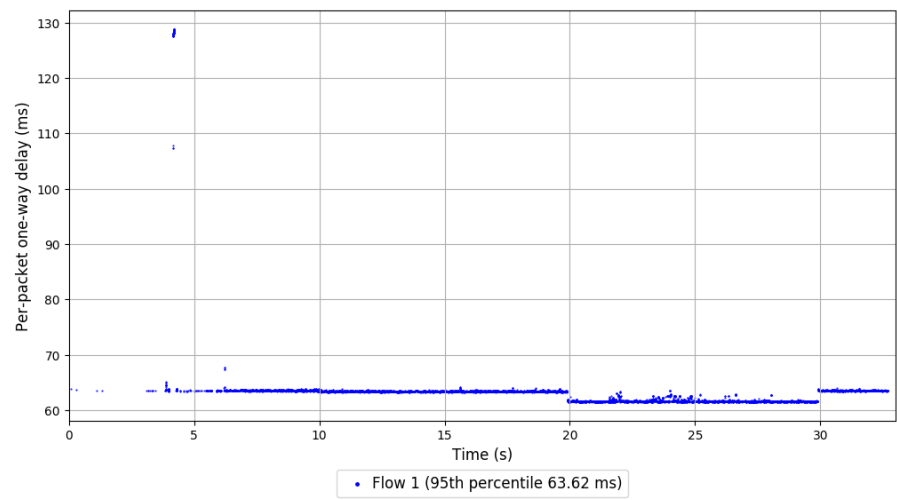
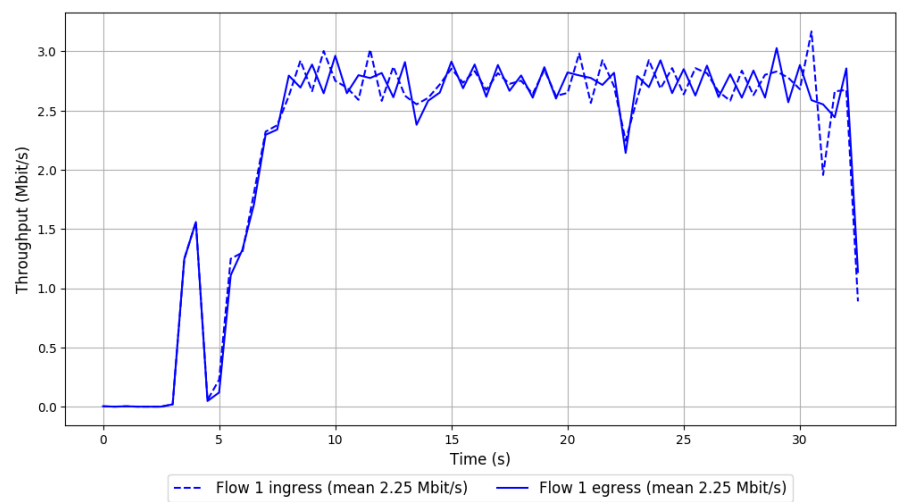
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.624 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-11-30 17:50:30

End at: 2017-11-30 17:51:00

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 64.134 ms

Loss rate: 0.00%

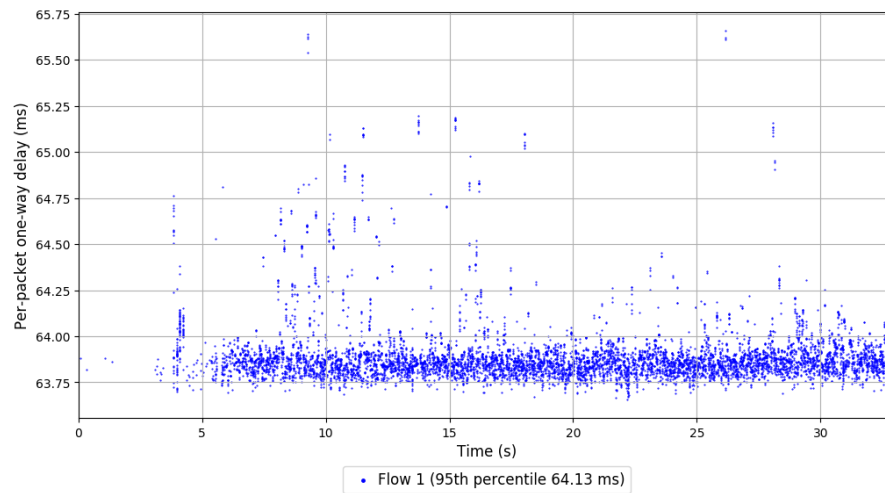
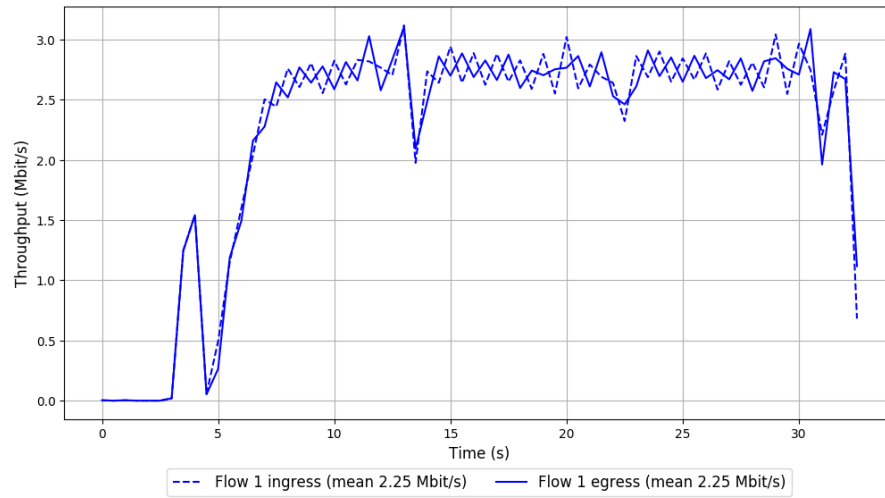
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 64.134 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-11-30 18:00:58

End at: 2017-11-30 18:01:28

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.676 ms

Loss rate: 0.00%

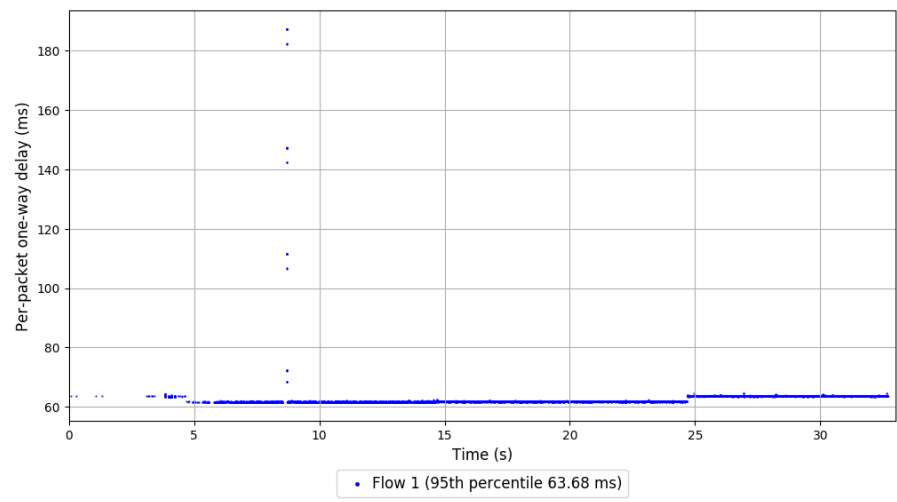
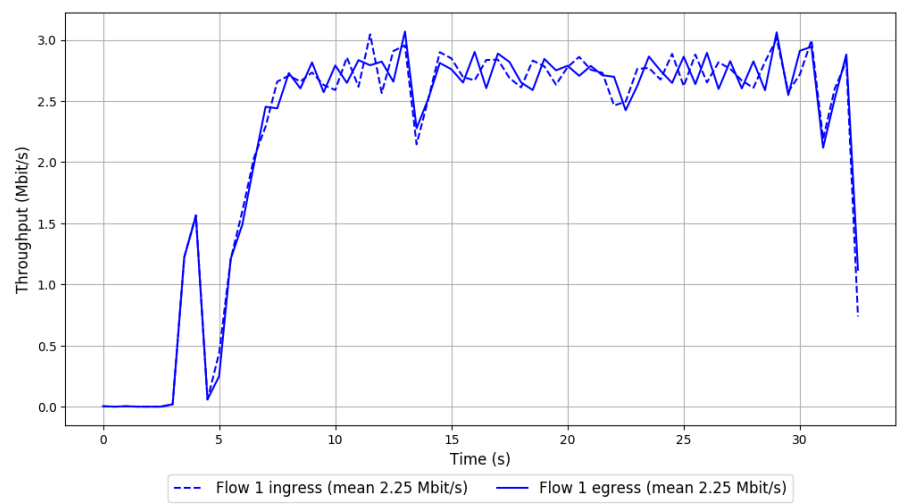
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.676 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-11-30 18:11:16

End at: 2017-11-30 18:11:46

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.694 ms

Loss rate: 0.00%

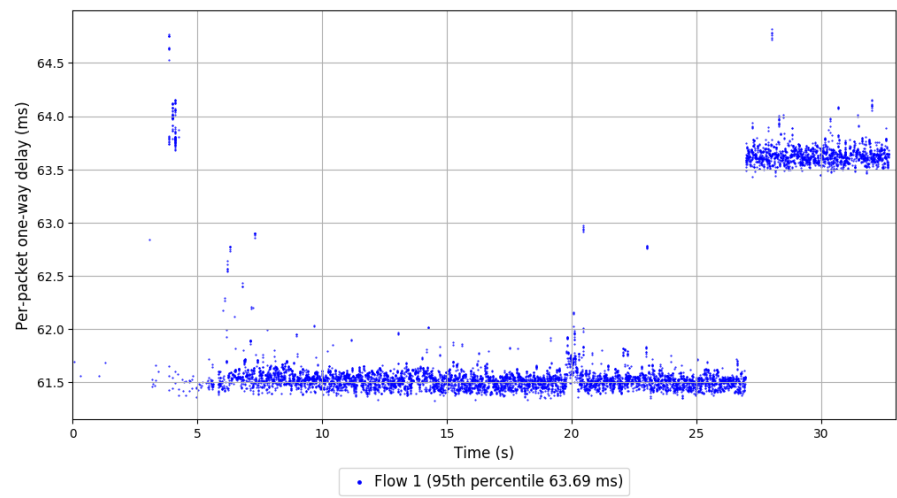
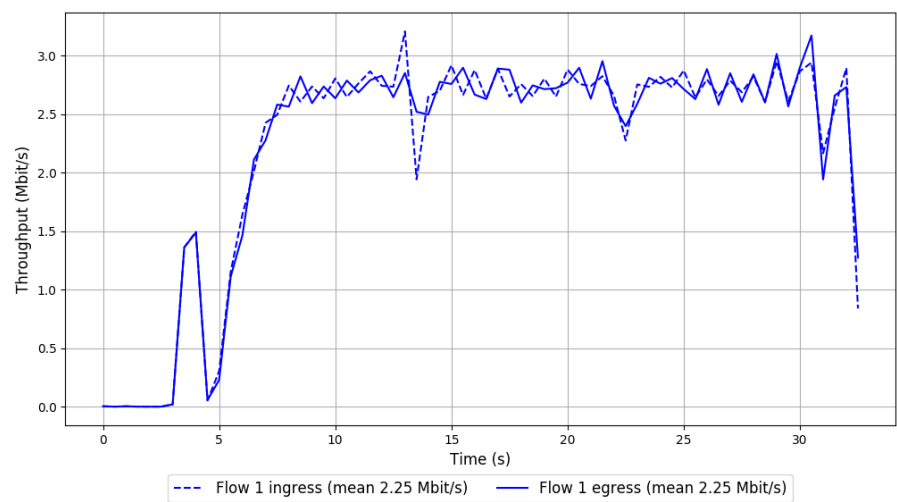
-- Flow 1:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 63.694 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-11-30 18:21:46

End at: 2017-11-30 18:22:16

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.776 ms

Loss rate: 0.00%

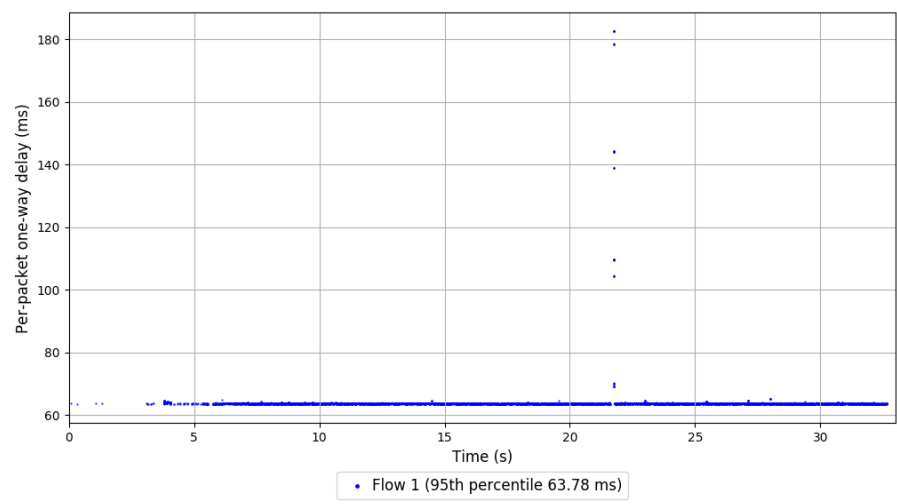
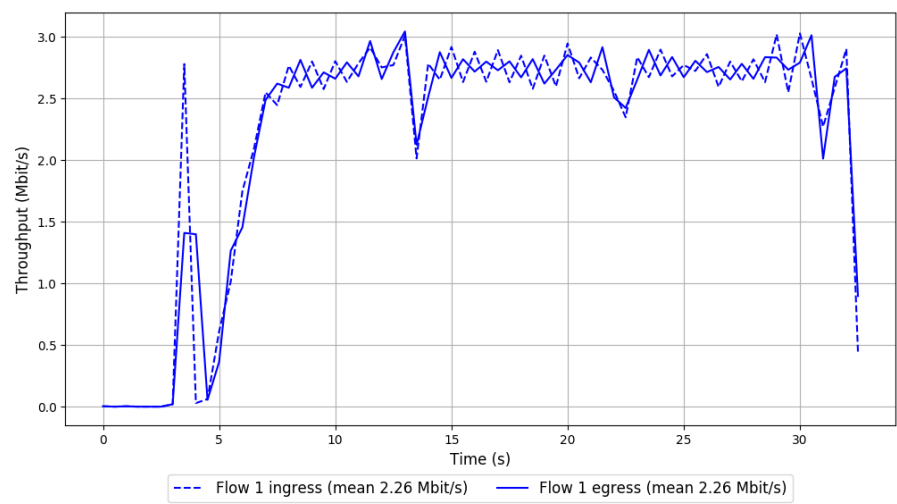
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.776 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-11-30 18:32:15

End at: 2017-11-30 18:32:45

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.724 ms

Loss rate: 0.00%

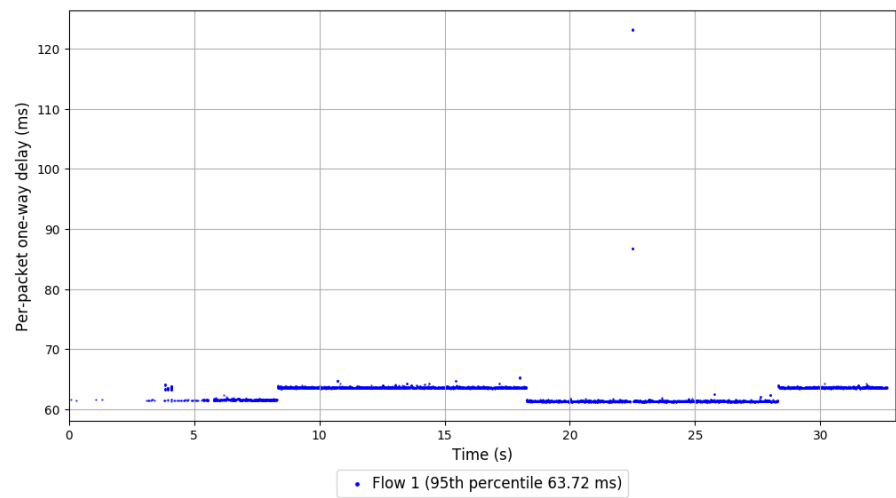
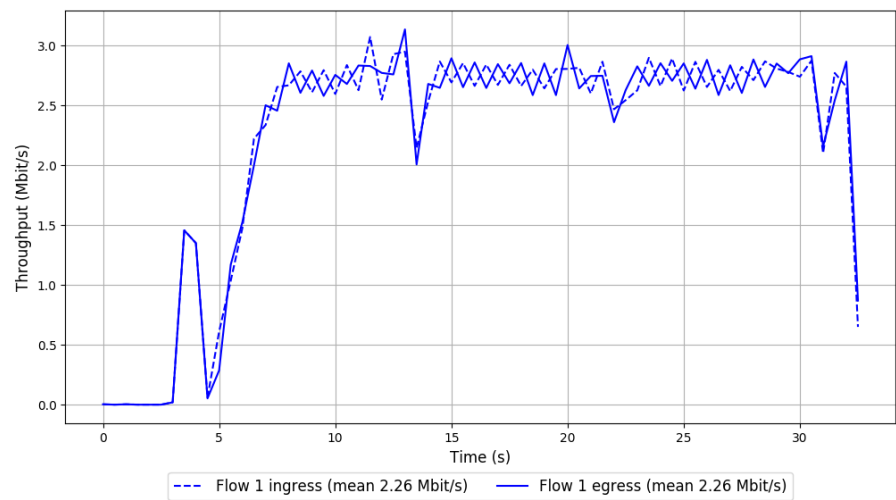
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 63.724 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-11-30 17:00:32

End at: 2017-11-30 17:01:02

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.03 Mbit/s

95th percentile per-packet one-way delay: 64.439 ms

Loss rate: 4.09%

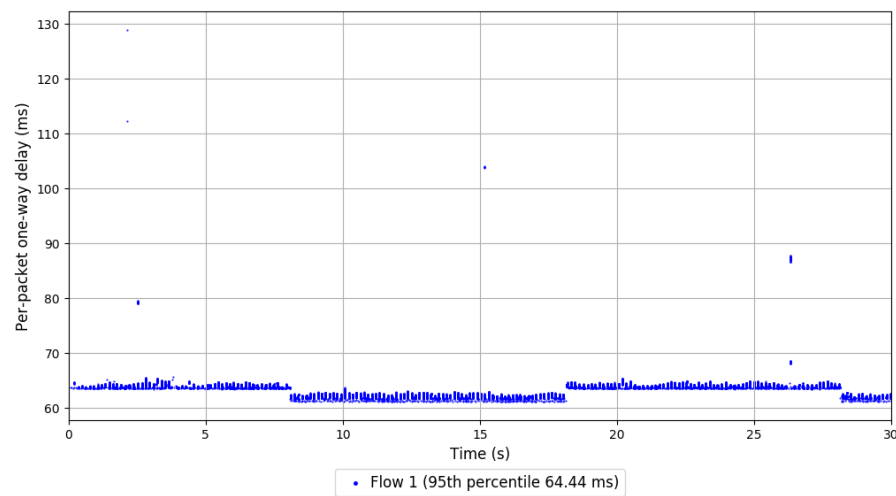
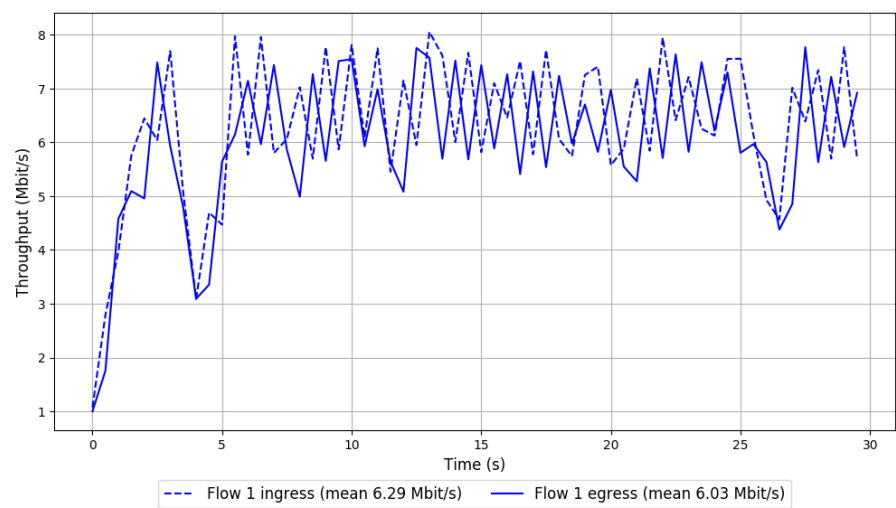
-- Flow 1:

Average throughput: 6.03 Mbit/s

95th percentile per-packet one-way delay: 64.439 ms

Loss rate: 4.09%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-11-30 17:10:21

End at: 2017-11-30 17:10:51

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.03 Mbit/s

95th percentile per-packet one-way delay: 64.442 ms

Loss rate: 3.66%

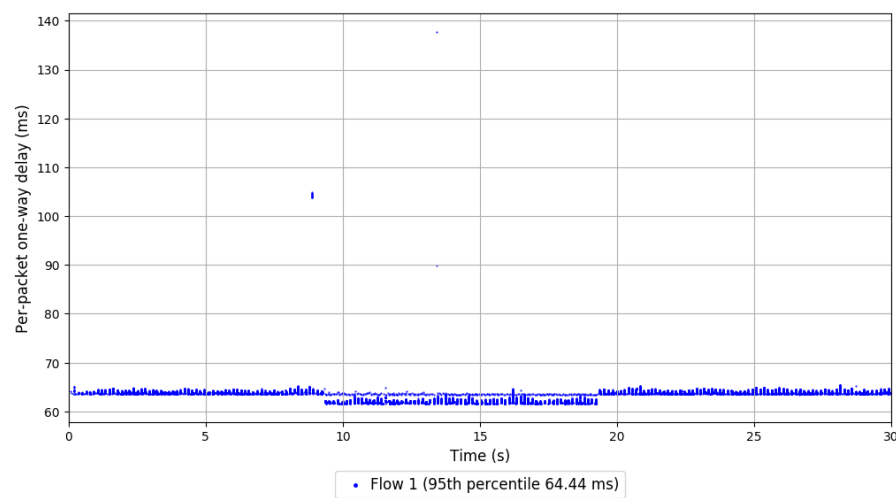
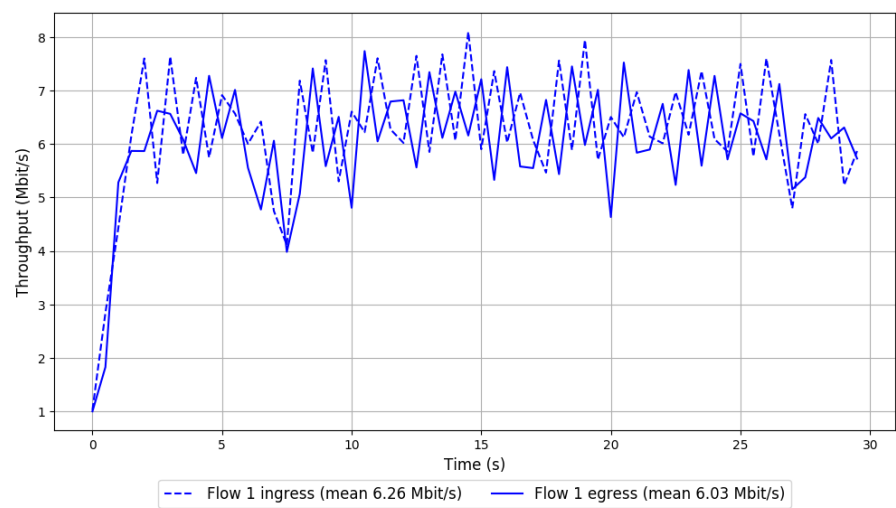
-- Flow 1:

Average throughput: 6.03 Mbit/s

95th percentile per-packet one-way delay: 64.442 ms

Loss rate: 3.66%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-11-30 17:20:44

End at: 2017-11-30 17:21:14

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 64.609 ms

Loss rate: 0.02%

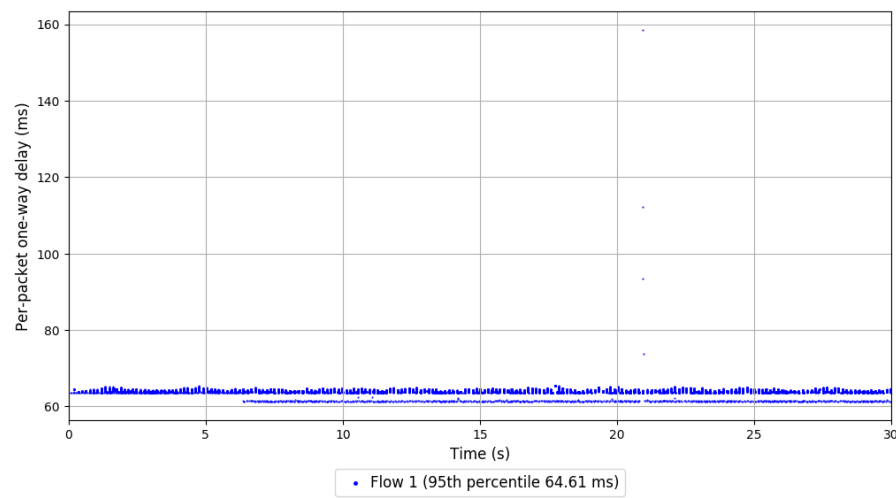
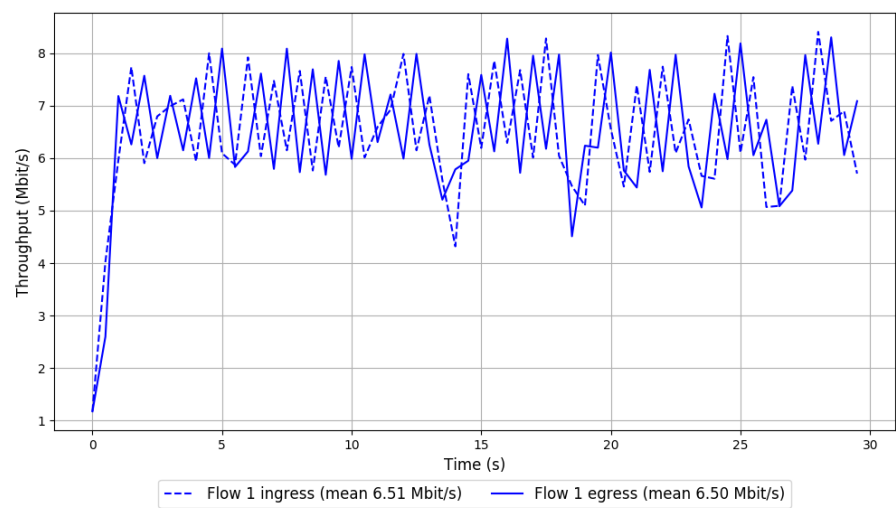
-- Flow 1:

Average throughput: 6.50 Mbit/s

95th percentile per-packet one-way delay: 64.609 ms

Loss rate: 0.02%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-11-30 17:31:08

End at: 2017-11-30 17:31:38

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 0.54%

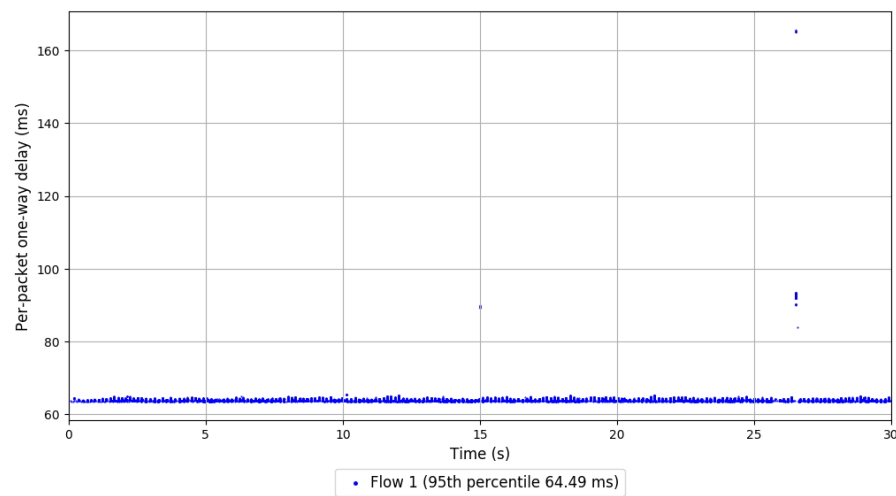
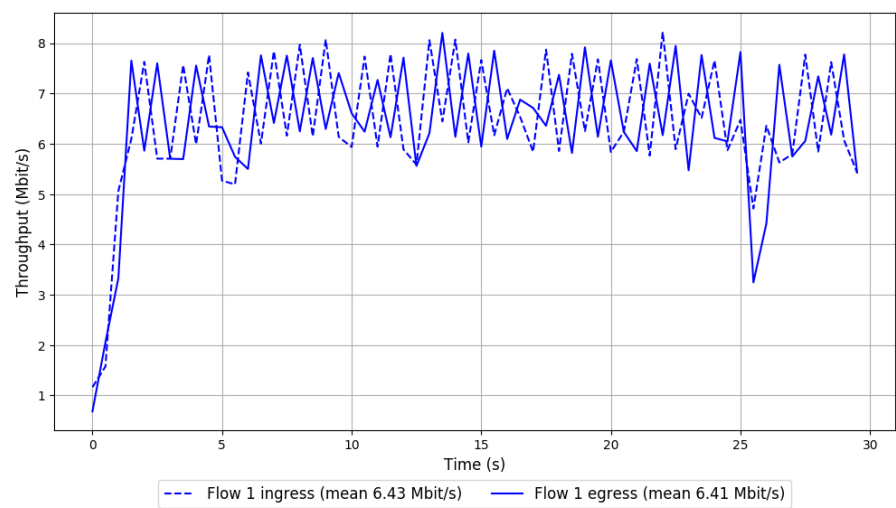
-- Flow 1:

Average throughput: 6.41 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 0.54%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-11-30 17:41:38

End at: 2017-11-30 17:42:08

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 64.510 ms

Loss rate: 0.02%

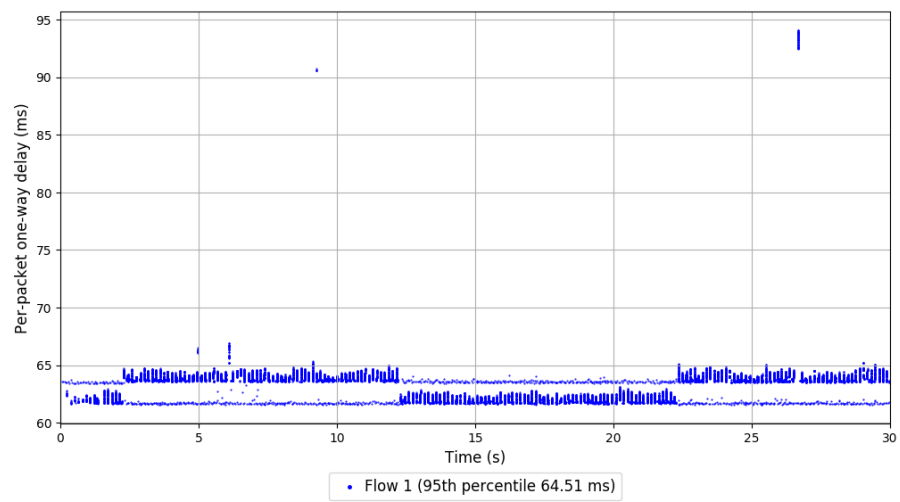
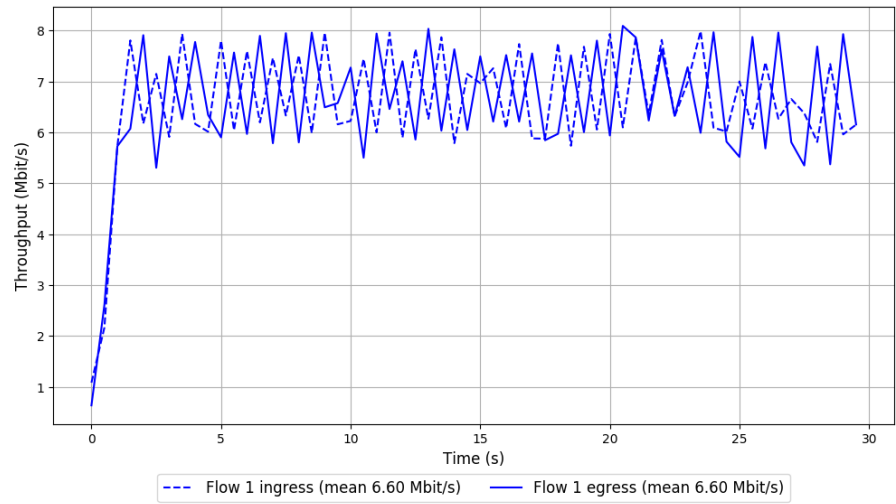
-- Flow 1:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 64.510 ms

Loss rate: 0.02%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-11-30 17:52:04

End at: 2017-11-30 17:52:34

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 64.499 ms

Loss rate: 0.28%

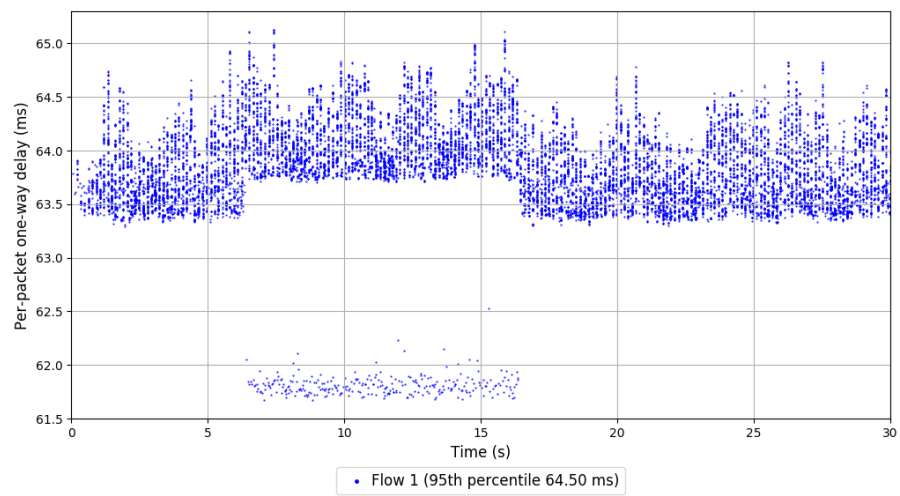
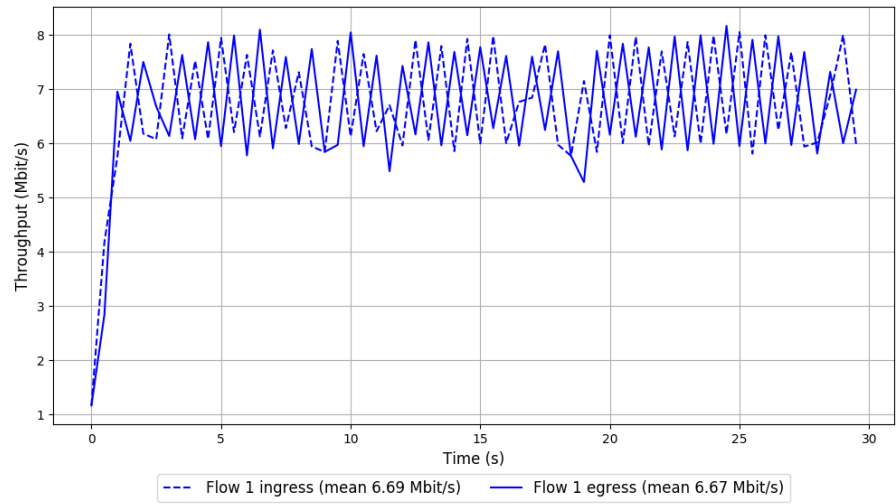
-- Flow 1:

Average throughput: 6.67 Mbit/s

95th percentile per-packet one-way delay: 64.499 ms

Loss rate: 0.28%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-11-30 18:02:31

End at: 2017-11-30 18:03:01

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.59 Mbit/s

95th percentile per-packet one-way delay: 64.596 ms

Loss rate: 0.08%

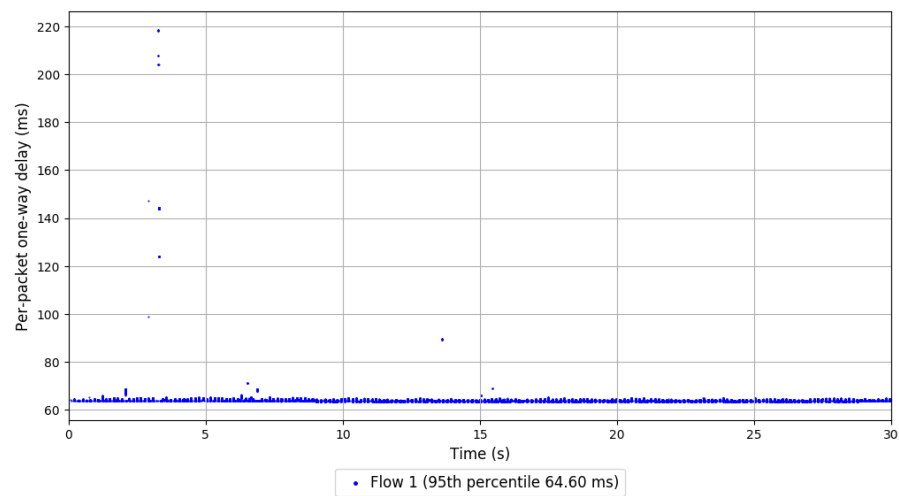
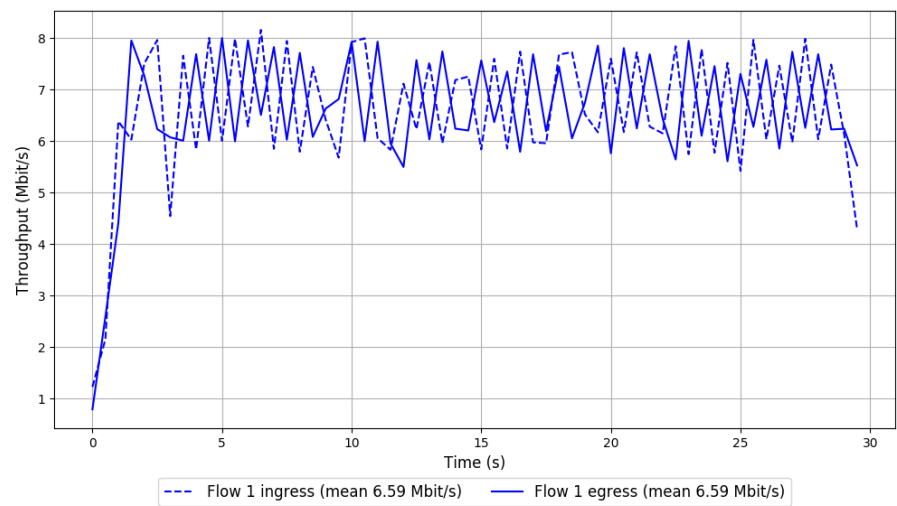
-- Flow 1:

Average throughput: 6.59 Mbit/s

95th percentile per-packet one-way delay: 64.596 ms

Loss rate: 0.08%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-11-30 18:12:50

End at: 2017-11-30 18:13:20

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 64.596 ms

Loss rate: 0.10%

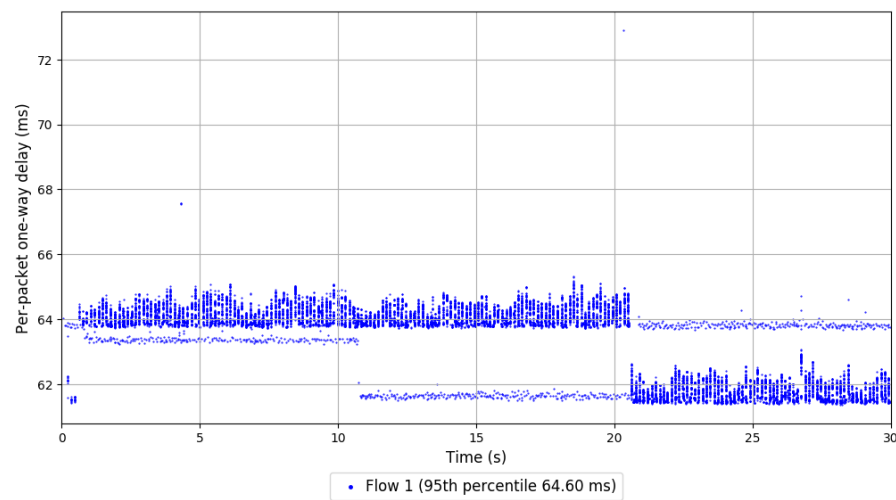
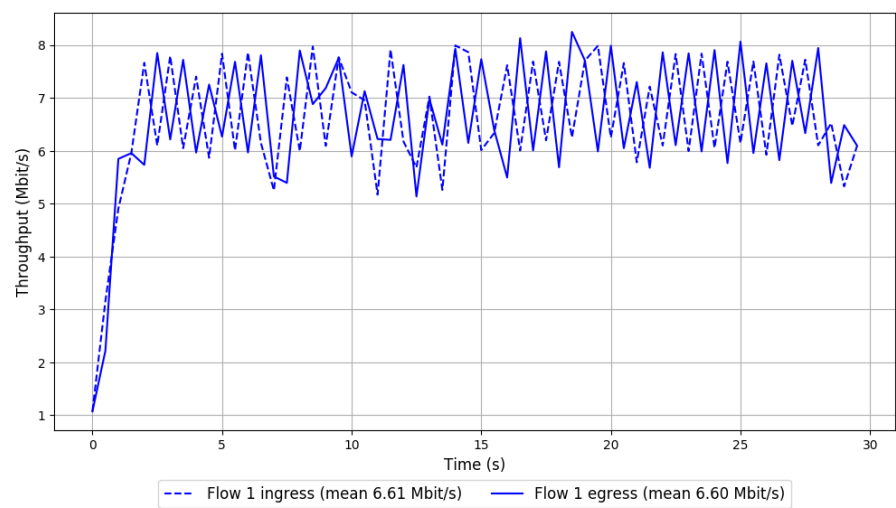
-- Flow 1:

Average throughput: 6.60 Mbit/s

95th percentile per-packet one-way delay: 64.596 ms

Loss rate: 0.10%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-11-30 18:23:20

End at: 2017-11-30 18:23:50

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 1.24%

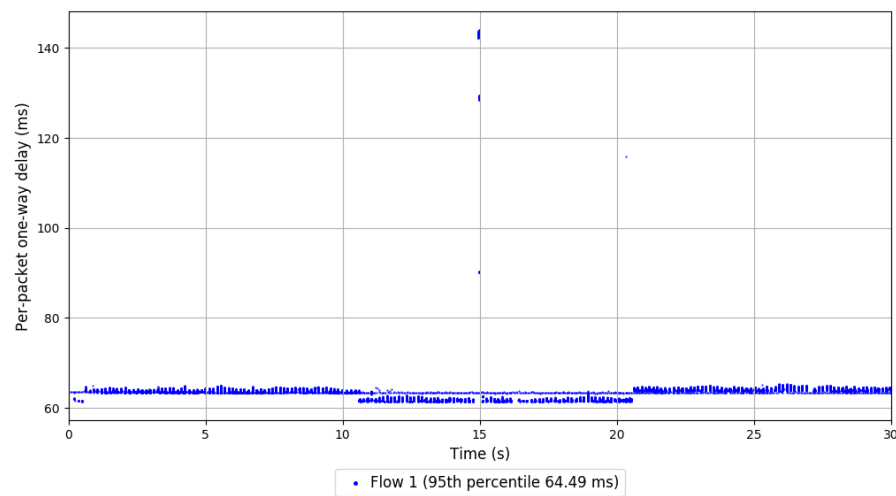
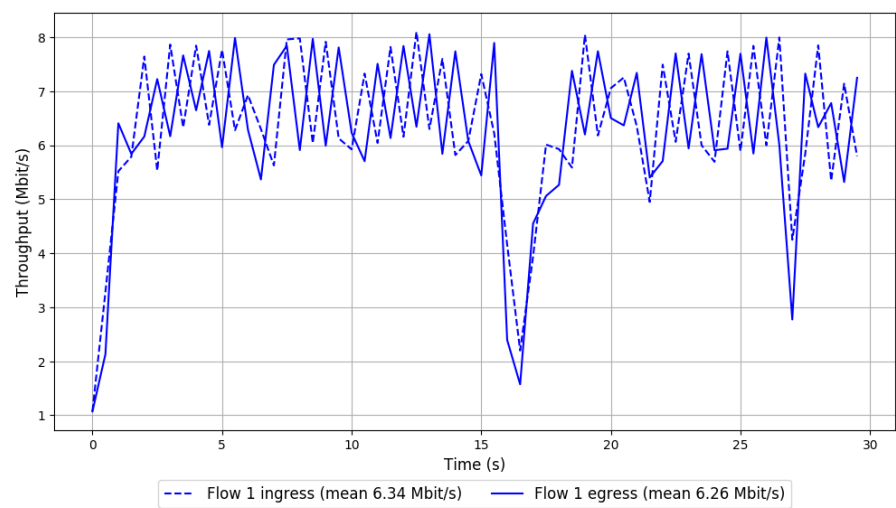
-- Flow 1:

Average throughput: 6.26 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 1.24%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-11-30 18:33:49

End at: 2017-11-30 18:34:19

Below is generated by plot.py at 2017-11-30 19:41:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 64.648 ms

Loss rate: 0.00%

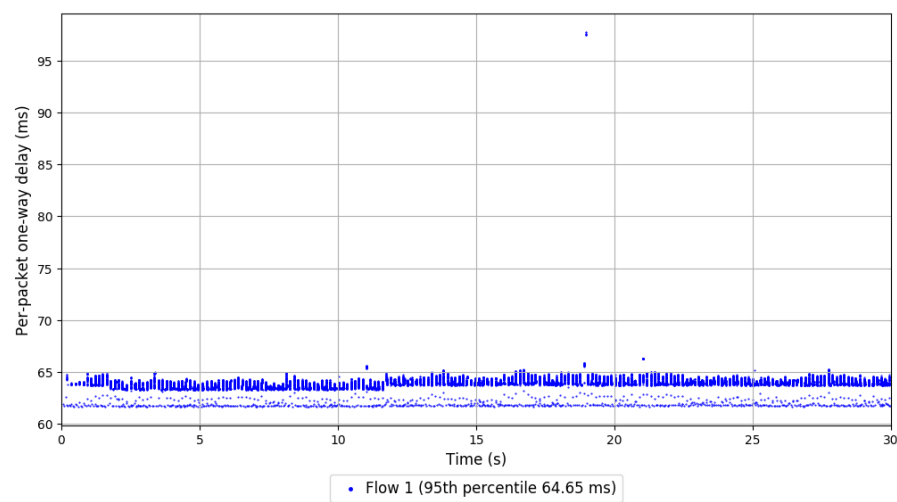
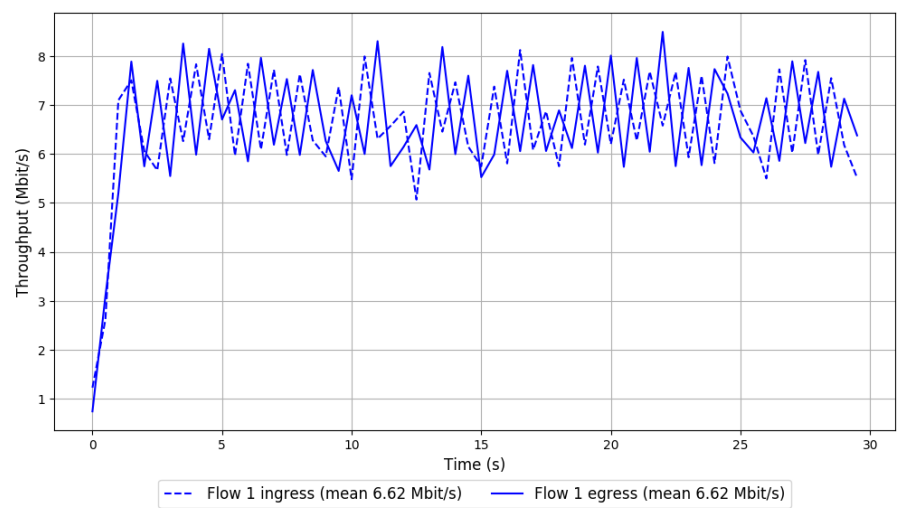
-- Flow 1:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 64.648 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

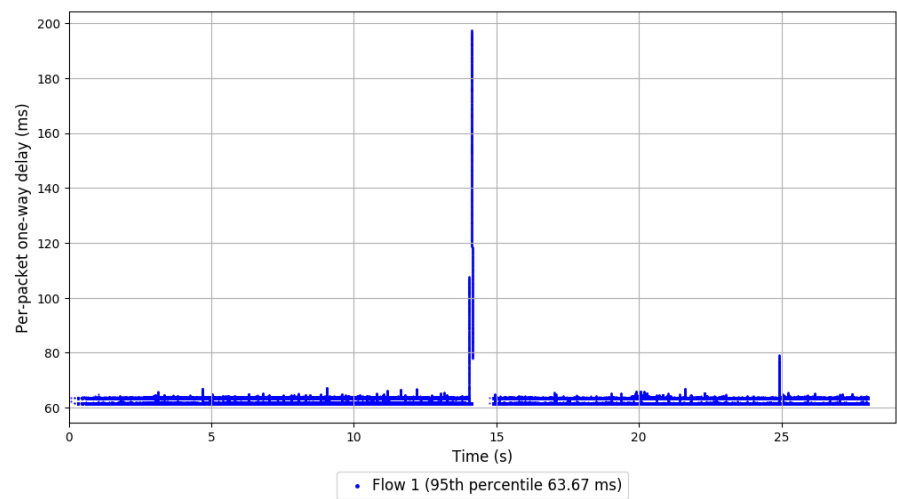
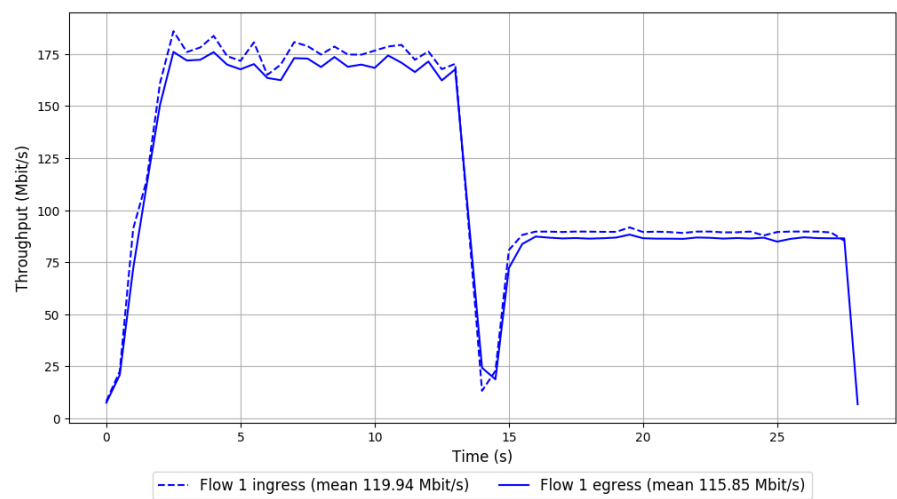


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-11-30 17:03:19
End at: 2017-11-30 17:03:49

# Below is generated by plot.py at 2017-11-30 19:44:00
# Datalink statistics
-- Total of 1 flow:
Average throughput: 115.85 Mbit/s
95th percentile per-packet one-way delay: 63.675 ms
Loss rate: 3.41%
-- Flow 1:
Average throughput: 115.85 Mbit/s
95th percentile per-packet one-way delay: 63.675 ms
Loss rate: 3.41%
```

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

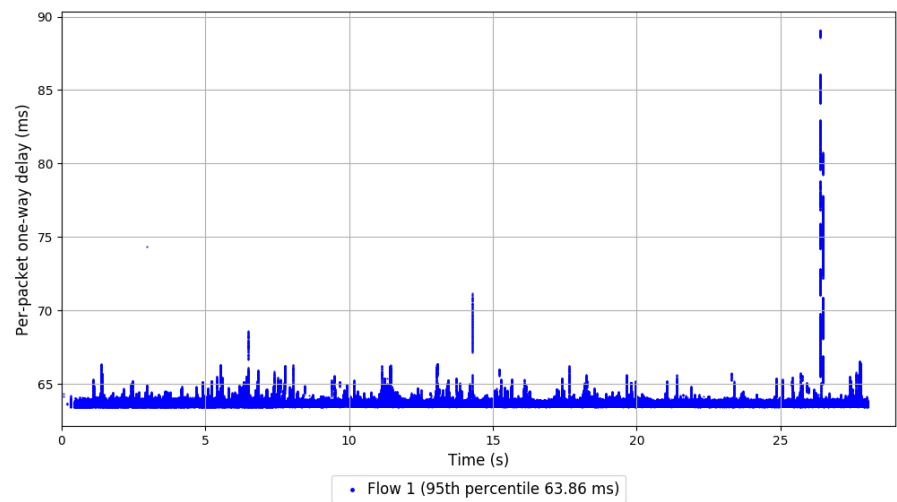
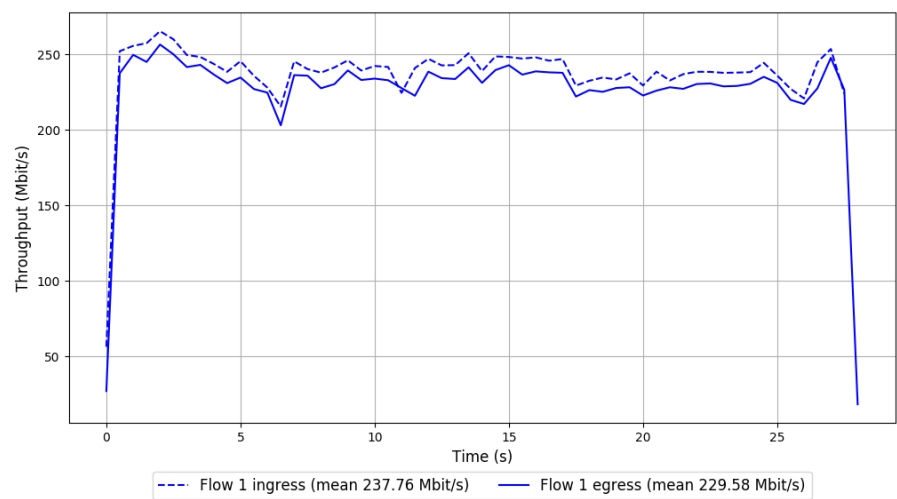


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-11-30 17:13:06
End at: 2017-11-30 17:13:36

# Below is generated by plot.py at 2017-11-30 19:47:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 229.58 Mbit/s
95th percentile per-packet one-way delay: 63.859 ms
Loss rate: 3.44%
-- Flow 1:
Average throughput: 229.58 Mbit/s
95th percentile per-packet one-way delay: 63.859 ms
Loss rate: 3.44%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-11-30 17:23:18

End at: 2017-11-30 17:23:48

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 242.95 Mbit/s

95th percentile per-packet one-way delay: 63.847 ms

Loss rate: 0.00%

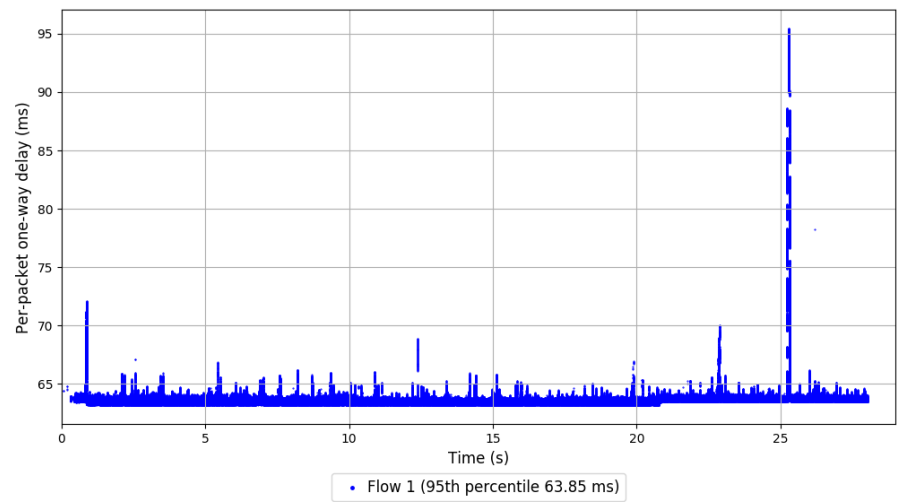
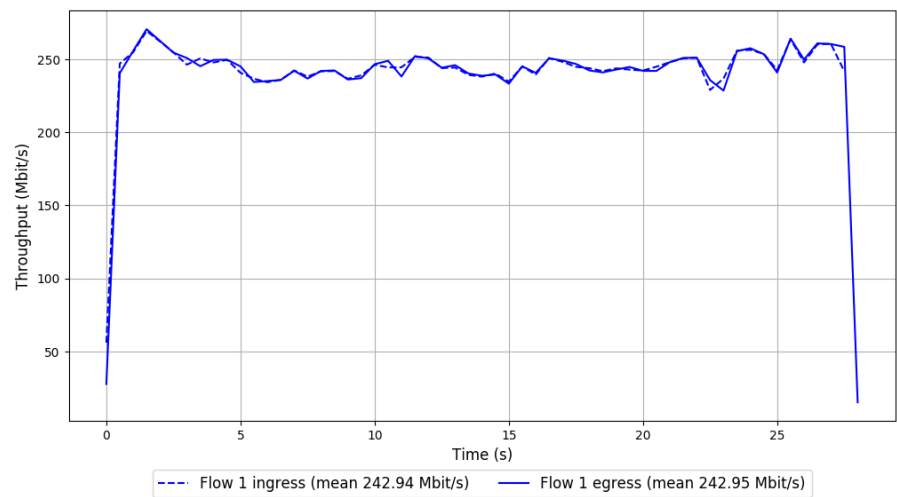
-- Flow 1:

Average throughput: 242.95 Mbit/s

95th percentile per-packet one-way delay: 63.847 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-11-30 17:33:55

End at: 2017-11-30 17:34:25

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.12 Mbit/s

95th percentile per-packet one-way delay: 63.846 ms

Loss rate: 0.01%

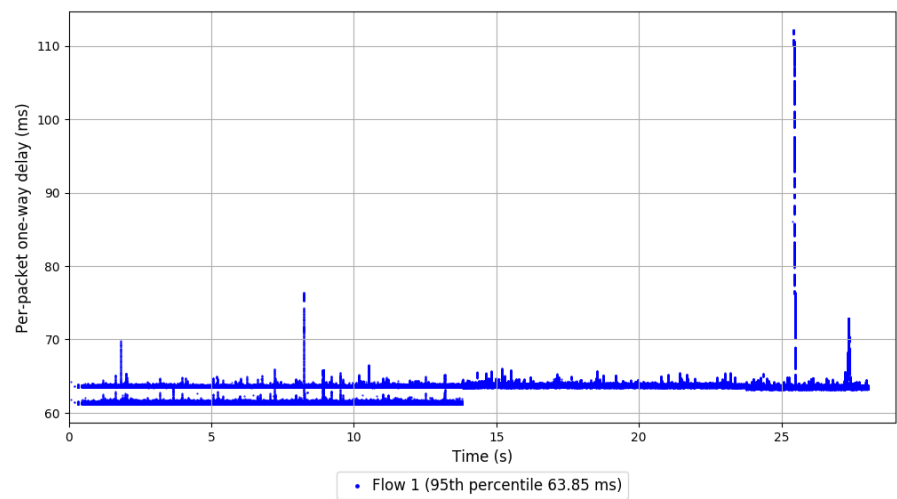
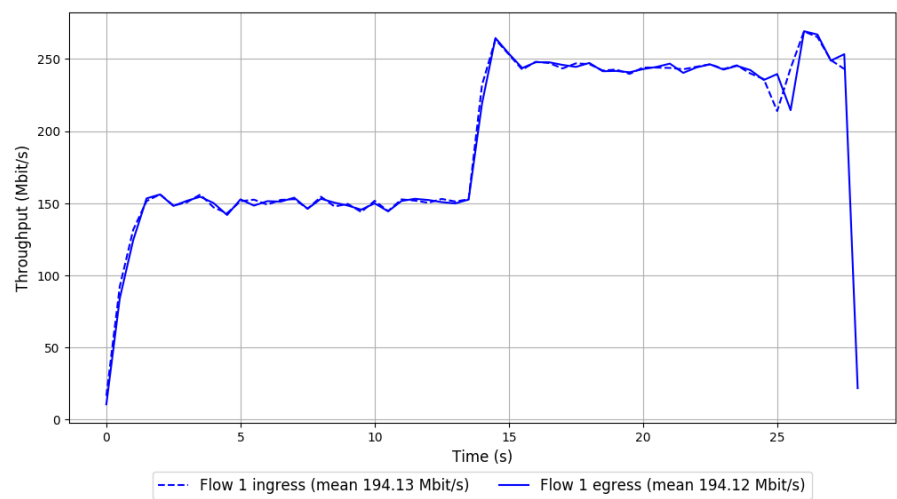
-- Flow 1:

Average throughput: 194.12 Mbit/s

95th percentile per-packet one-way delay: 63.846 ms

Loss rate: 0.01%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-11-30 17:44:24

End at: 2017-11-30 17:44:54

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 144.95 Mbit/s

95th percentile per-packet one-way delay: 63.657 ms

Loss rate: 0.00%

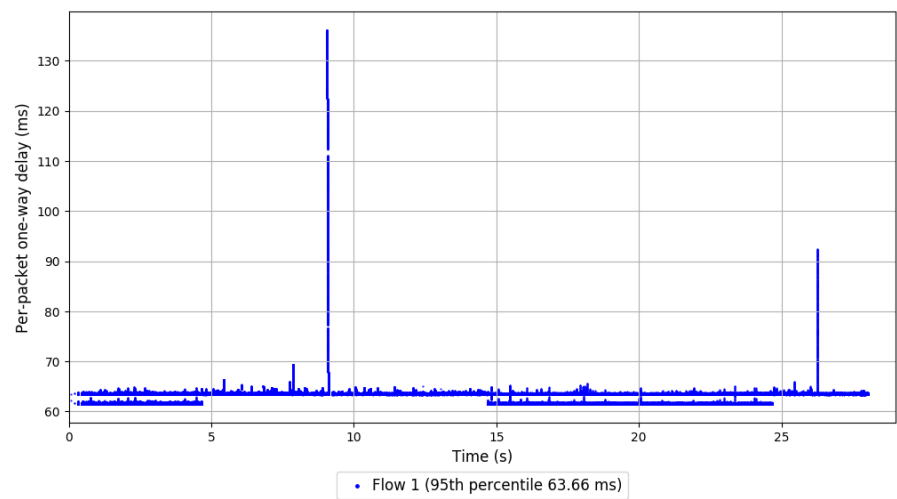
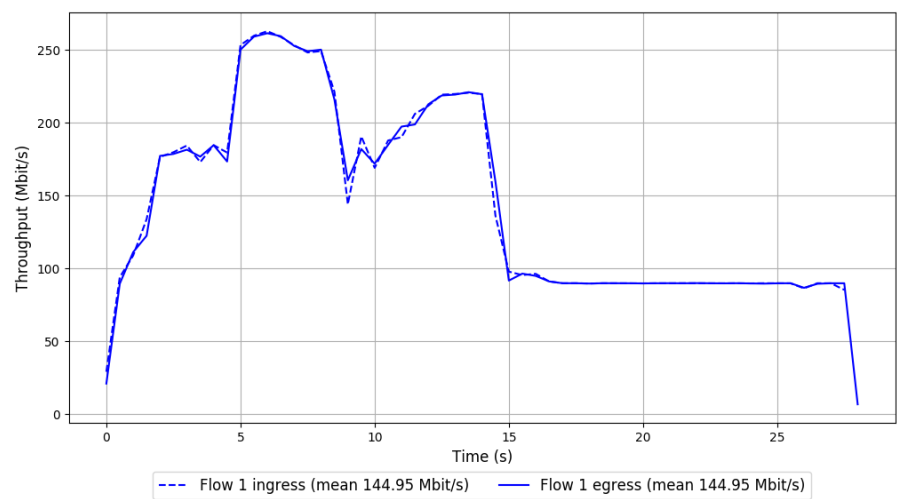
-- Flow 1:

Average throughput: 144.95 Mbit/s

95th percentile per-packet one-way delay: 63.657 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-11-30 17:54:47

End at: 2017-11-30 17:55:17

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 227.57 Mbit/s

95th percentile per-packet one-way delay: 63.886 ms

Loss rate: 0.01%

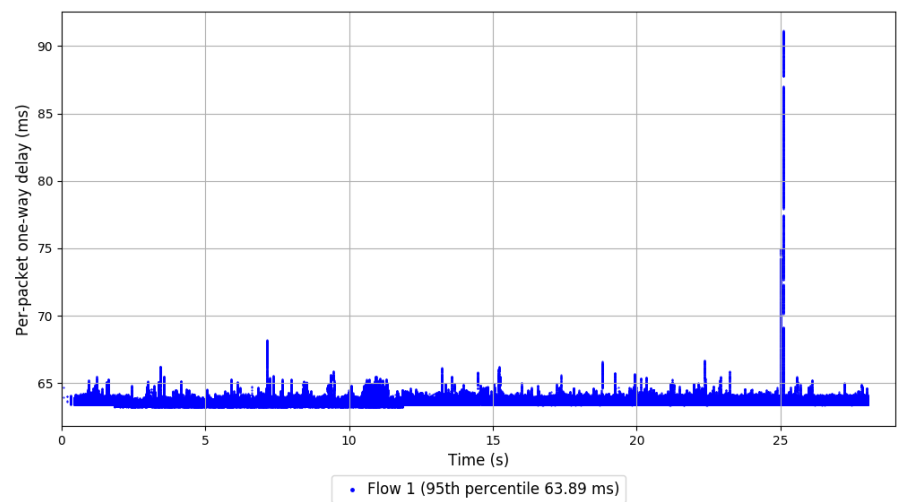
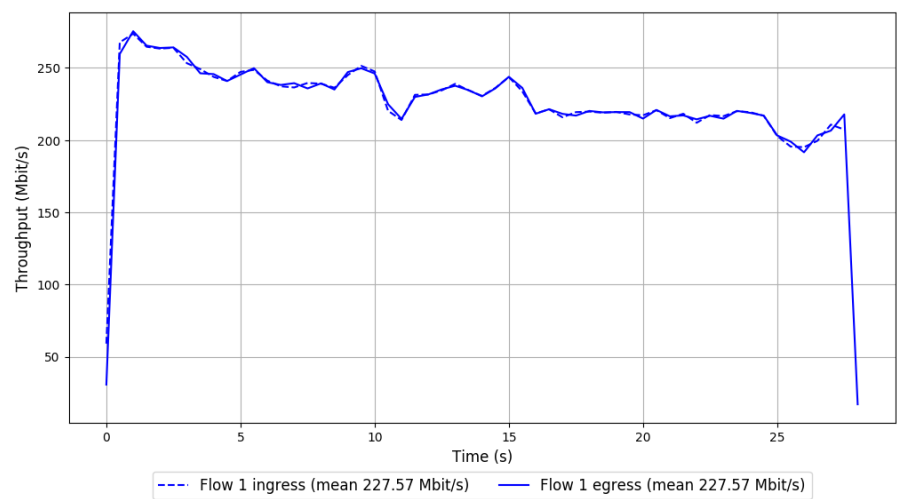
-- Flow 1:

Average throughput: 227.57 Mbit/s

95th percentile per-packet one-way delay: 63.886 ms

Loss rate: 0.01%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-11-30 18:05:16

End at: 2017-11-30 18:05:46

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 107.21 Mbit/s

95th percentile per-packet one-way delay: 63.789 ms

Loss rate: 0.00%

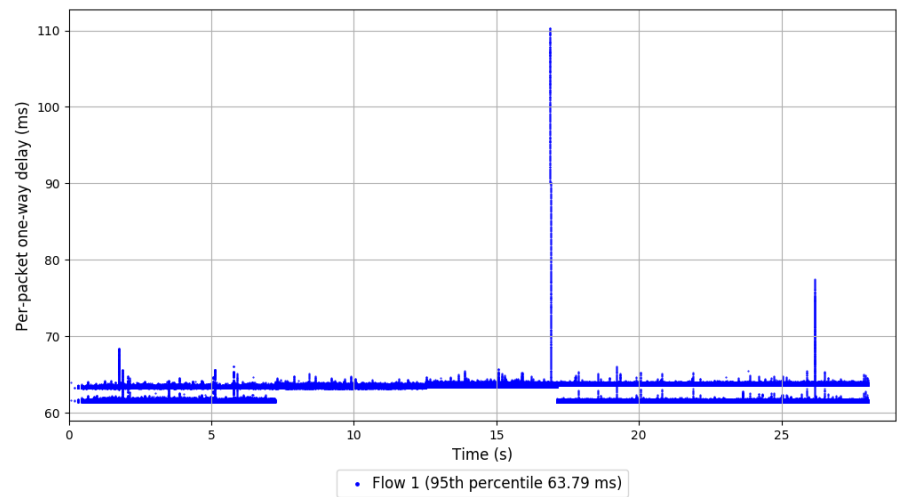
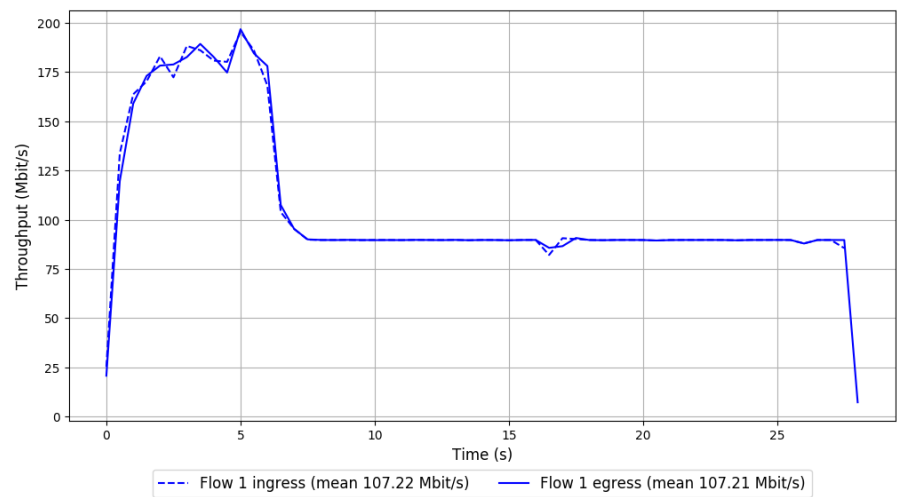
-- Flow 1:

Average throughput: 107.21 Mbit/s

95th percentile per-packet one-way delay: 63.789 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-11-30 18:15:36

End at: 2017-11-30 18:16:06

Below is generated by plot.py at 2017-11-30 19:48:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 193.58 Mbit/s

95th percentile per-packet one-way delay: 63.835 ms

Loss rate: 0.00%

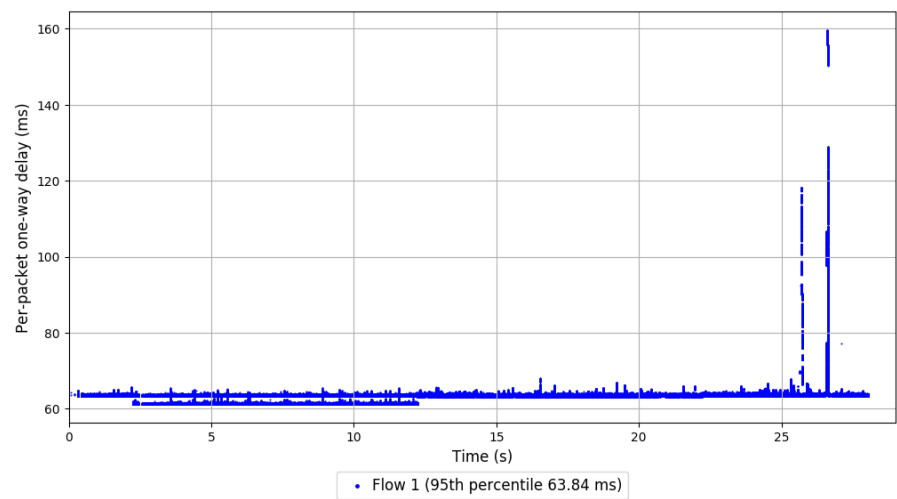
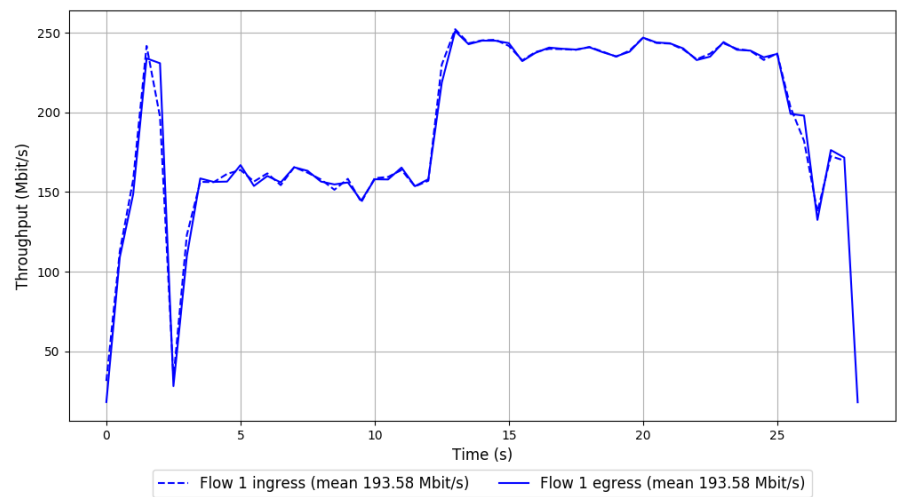
-- Flow 1:

Average throughput: 193.58 Mbit/s

95th percentile per-packet one-way delay: 63.835 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-11-30 18:26:03

End at: 2017-11-30 18:26:33

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 231.93 Mbit/s

95th percentile per-packet one-way delay: 63.856 ms

Loss rate: 0.00%

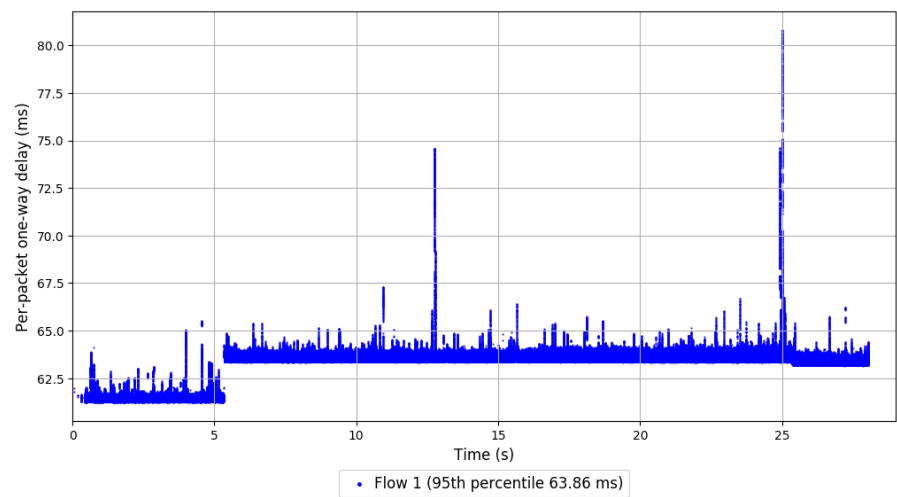
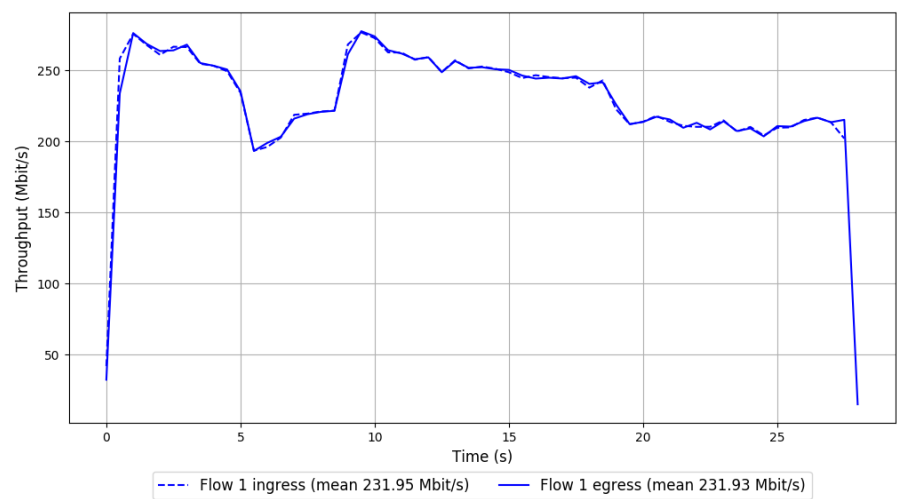
-- Flow 1:

Average throughput: 231.93 Mbit/s

95th percentile per-packet one-way delay: 63.856 ms

Loss rate: 0.00%

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

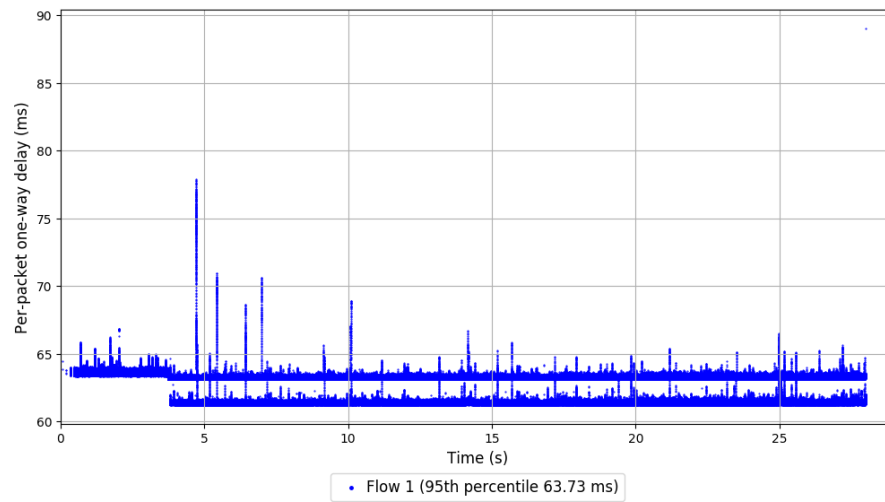
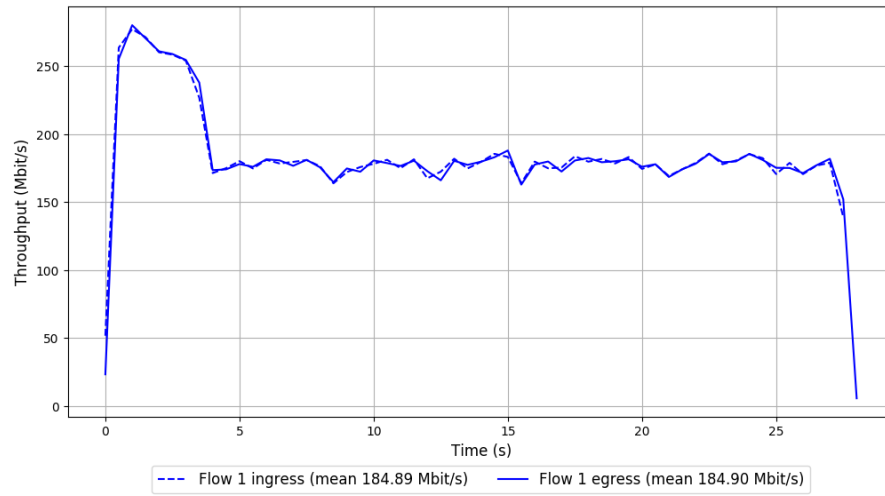


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-11-30 18:36:35
End at: 2017-11-30 18:37:05

# Below is generated by plot.py at 2017-11-30 19:51:32
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.90 Mbit/s
95th percentile per-packet one-way delay: 63.732 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 184.90 Mbit/s
95th percentile per-packet one-way delay: 63.732 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-11-30 16:58:02

End at: 2017-11-30 16:58:32

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 63.779 ms

Loss rate: 3.59%

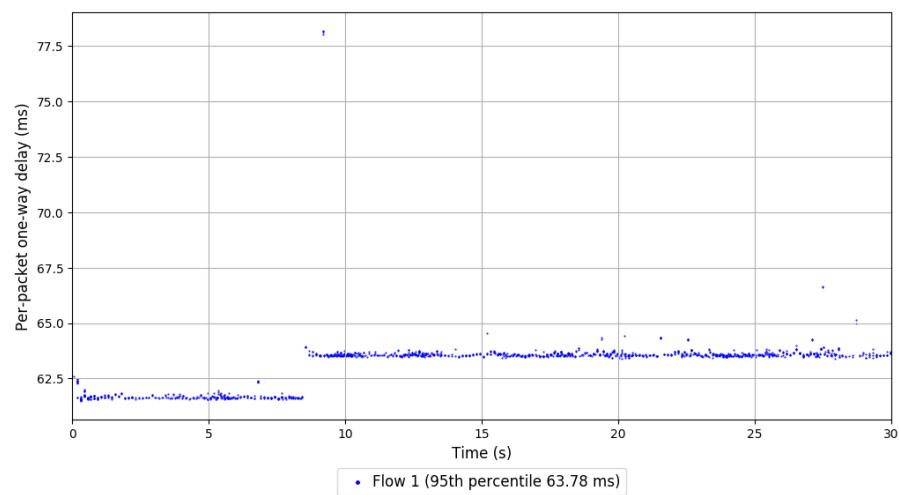
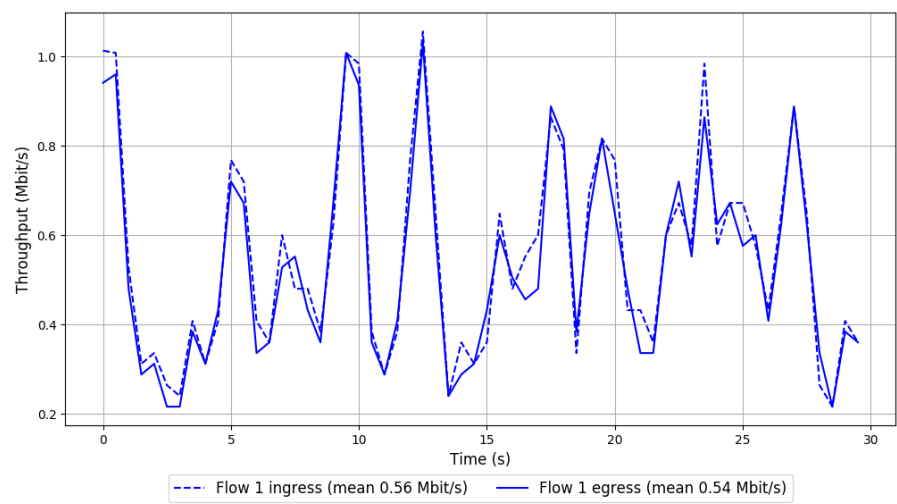
-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 63.779 ms

Loss rate: 3.59%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-11-30 17:07:51

End at: 2017-11-30 17:08:21

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 3.68%

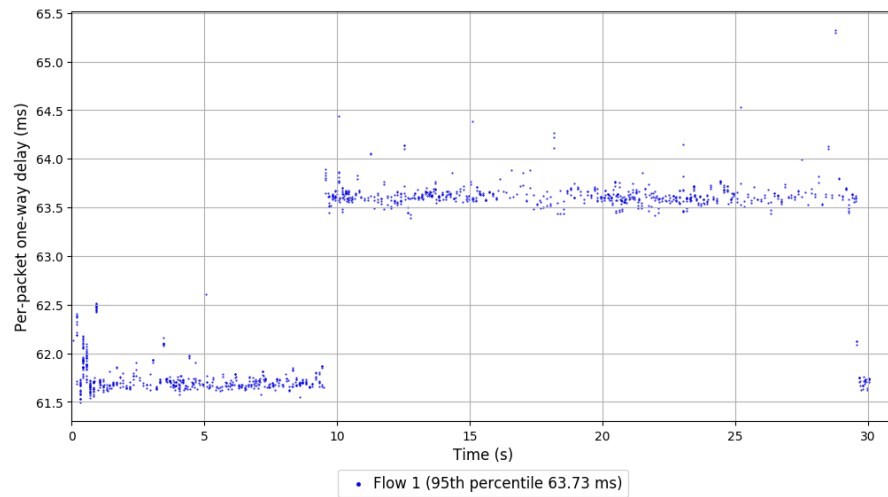
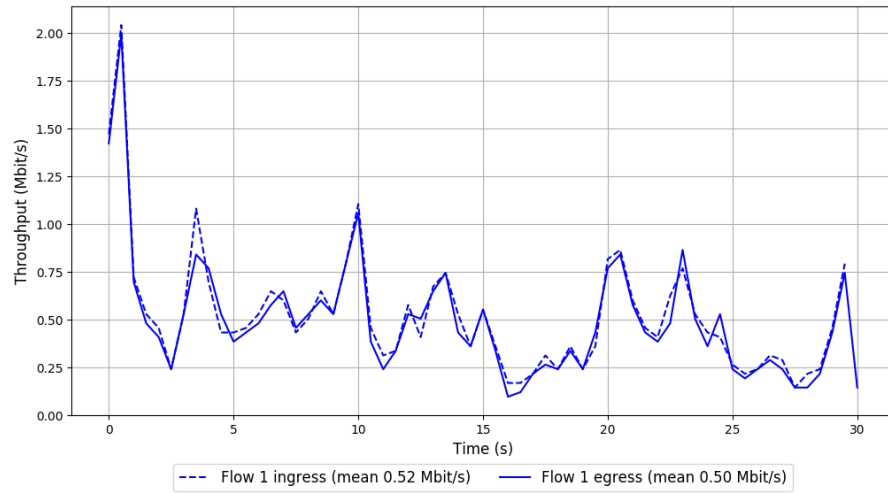
-- Flow 1:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 63.727 ms

Loss rate: 3.68%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-11-30 17:17:51

End at: 2017-11-30 17:18:21

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 12.81 Mbit/s

95th percentile per-packet one-way delay: 64.358 ms

Loss rate: 0.49%

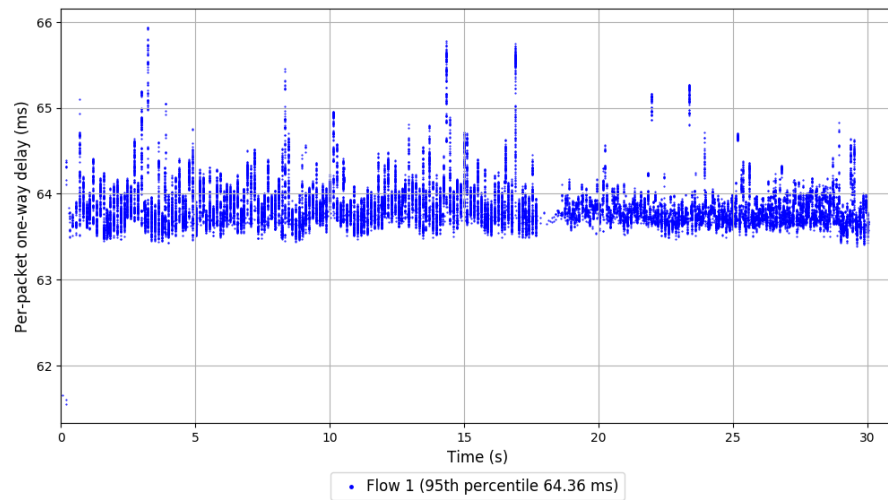
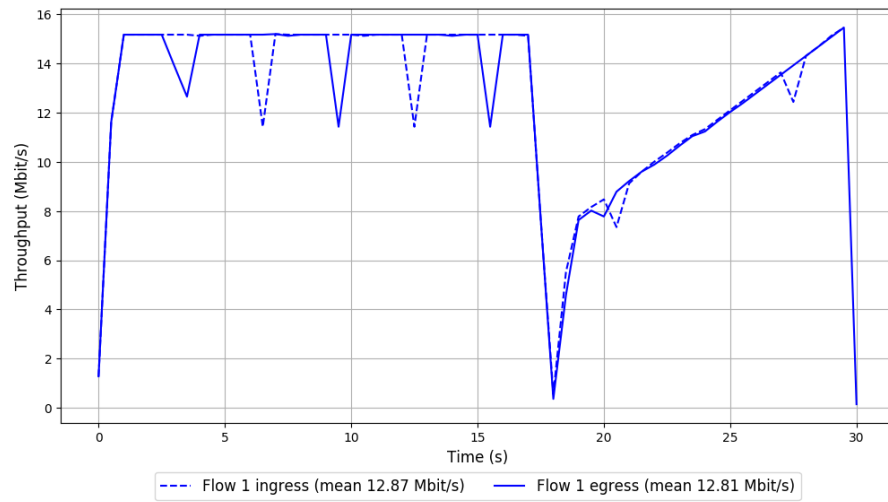
-- Flow 1:

Average throughput: 12.81 Mbit/s

95th percentile per-packet one-way delay: 64.358 ms

Loss rate: 0.49%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-11-30 17:28:12

End at: 2017-11-30 17:28:42

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 33.47 Mbit/s

95th percentile per-packet one-way delay: 64.674 ms

Loss rate: 0.19%

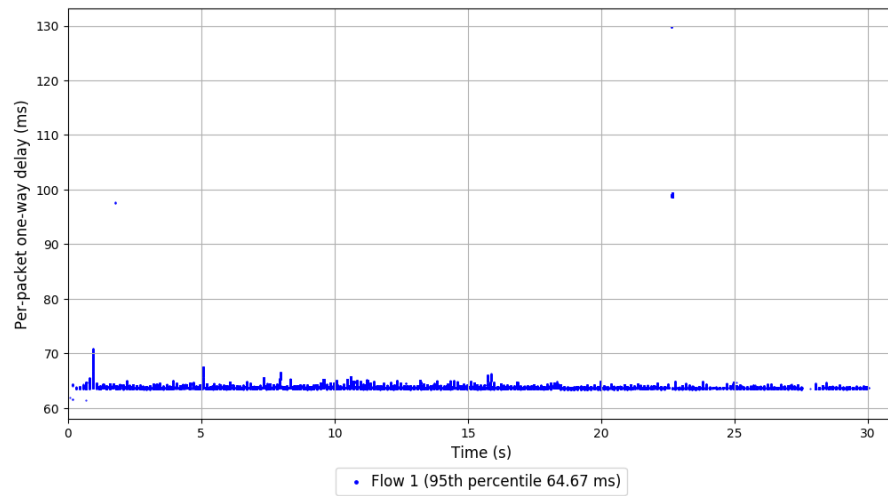
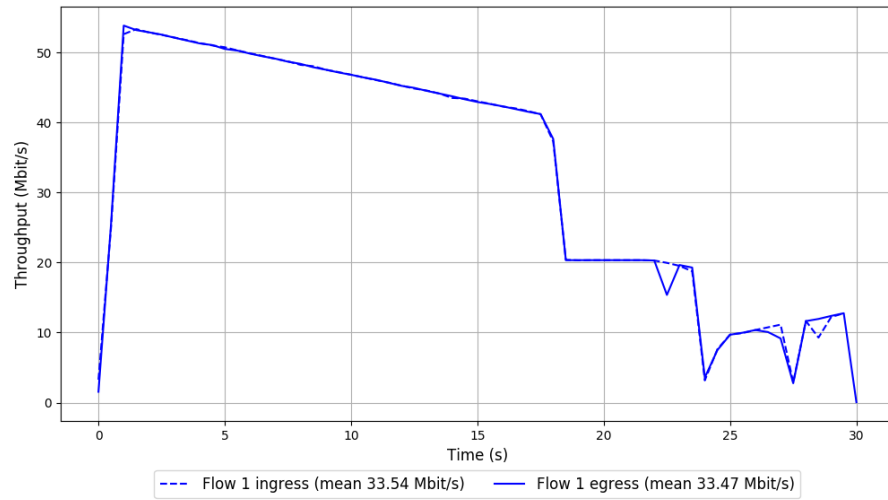
-- Flow 1:

Average throughput: 33.47 Mbit/s

95th percentile per-packet one-way delay: 64.674 ms

Loss rate: 0.19%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-11-30 17:38:39

End at: 2017-11-30 17:39:09

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 64.449 ms

Loss rate: 0.01%

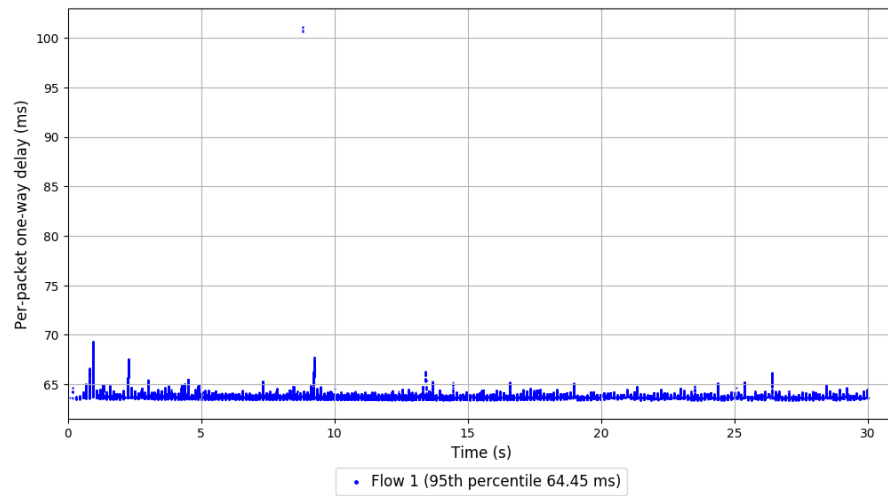
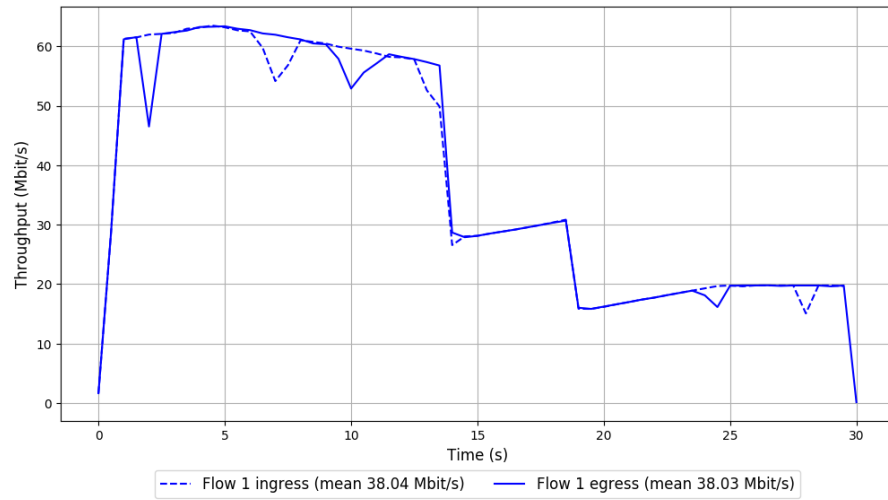
-- Flow 1:

Average throughput: 38.03 Mbit/s

95th percentile per-packet one-way delay: 64.449 ms

Loss rate: 0.01%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-11-30 17:49:07

End at: 2017-11-30 17:49:37

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.50 Mbit/s

95th percentile per-packet one-way delay: 64.652 ms

Loss rate: 0.50%

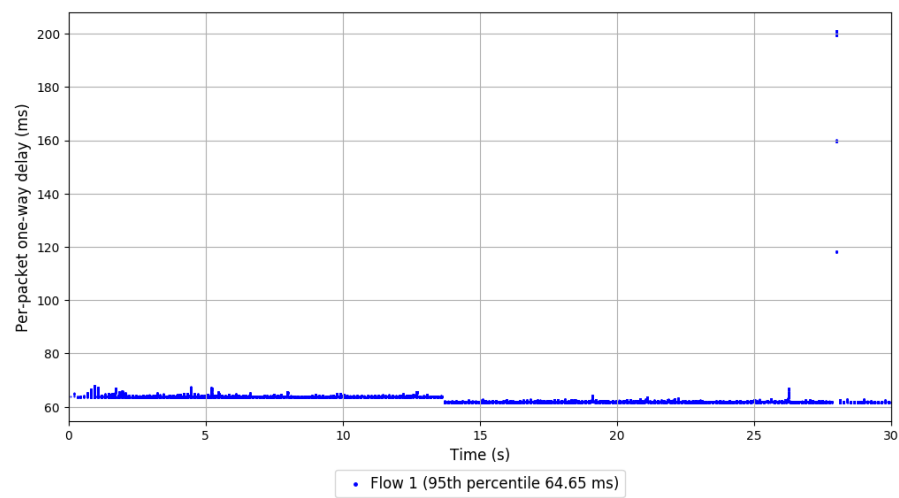
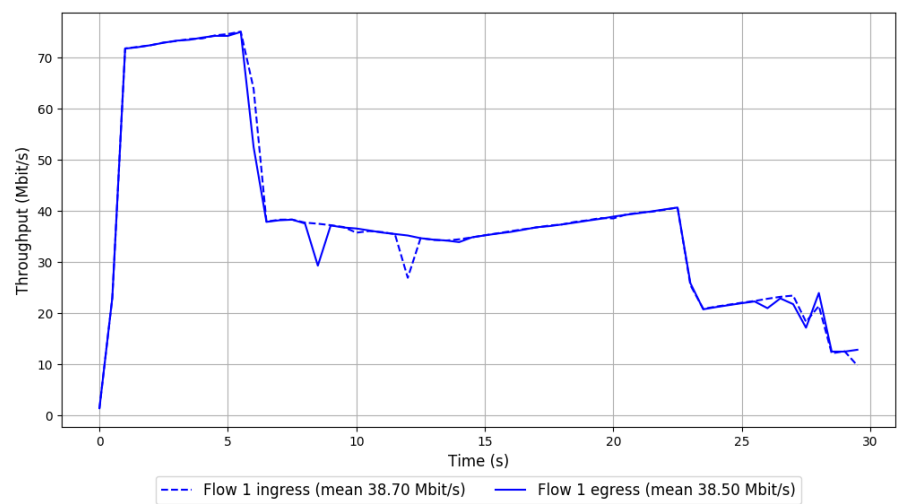
-- Flow 1:

Average throughput: 38.50 Mbit/s

95th percentile per-packet one-way delay: 64.652 ms

Loss rate: 0.50%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-11-30 17:59:37

End at: 2017-11-30 18:00:07

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.85 Mbit/s

95th percentile per-packet one-way delay: 64.180 ms

Loss rate: 0.49%

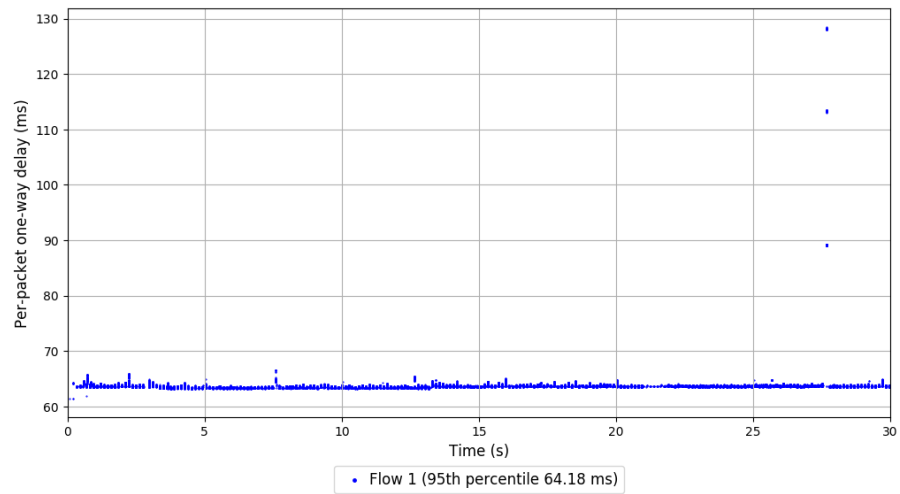
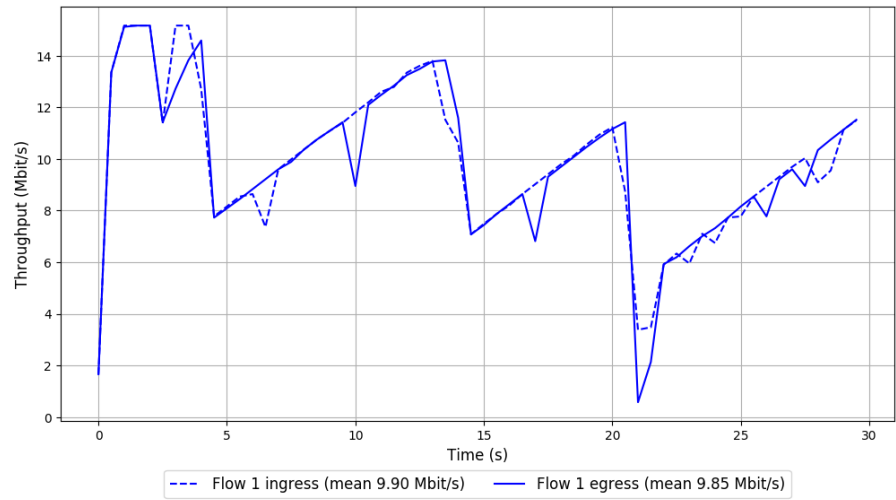
-- Flow 1:

Average throughput: 9.85 Mbit/s

95th percentile per-packet one-way delay: 64.180 ms

Loss rate: 0.49%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-11-30 18:09:53

End at: 2017-11-30 18:10:23

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.35 Mbit/s

95th percentile per-packet one-way delay: 64.608 ms

Loss rate: 0.00%

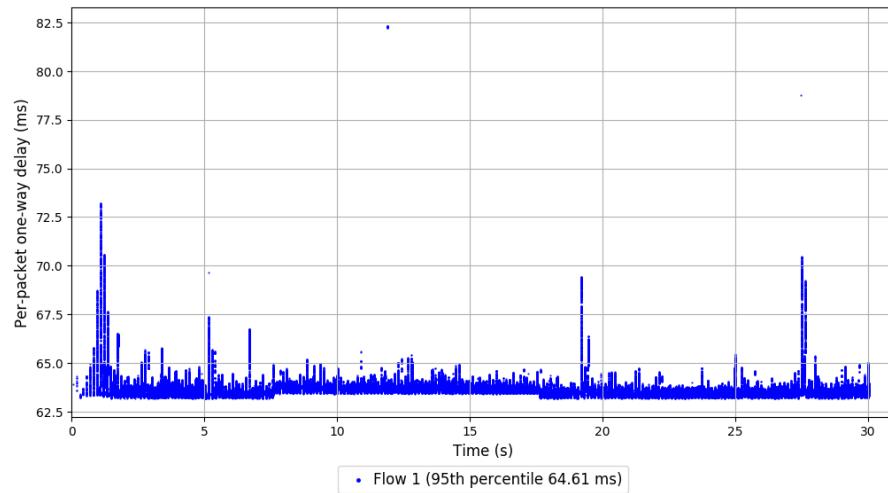
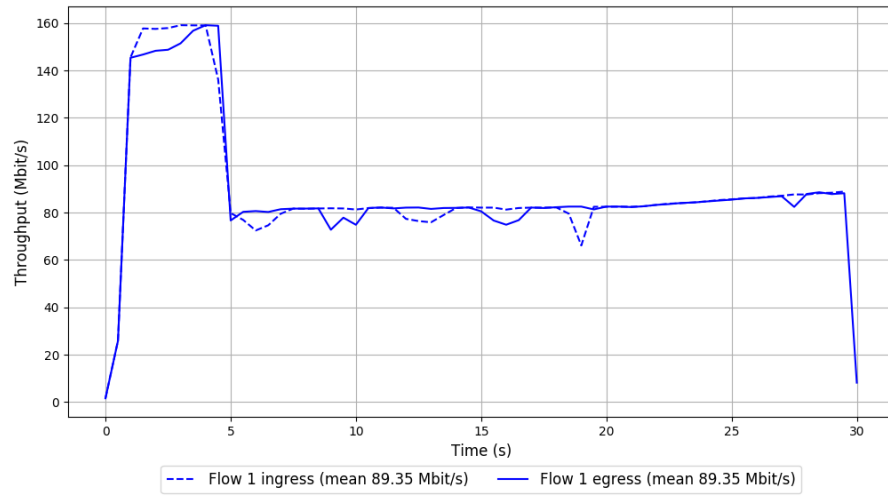
-- Flow 1:

Average throughput: 89.35 Mbit/s

95th percentile per-packet one-way delay: 64.608 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-11-30 18:20:24

End at: 2017-11-30 18:20:54

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 25.41 Mbit/s

95th percentile per-packet one-way delay: 64.205 ms

Loss rate: 0.29%

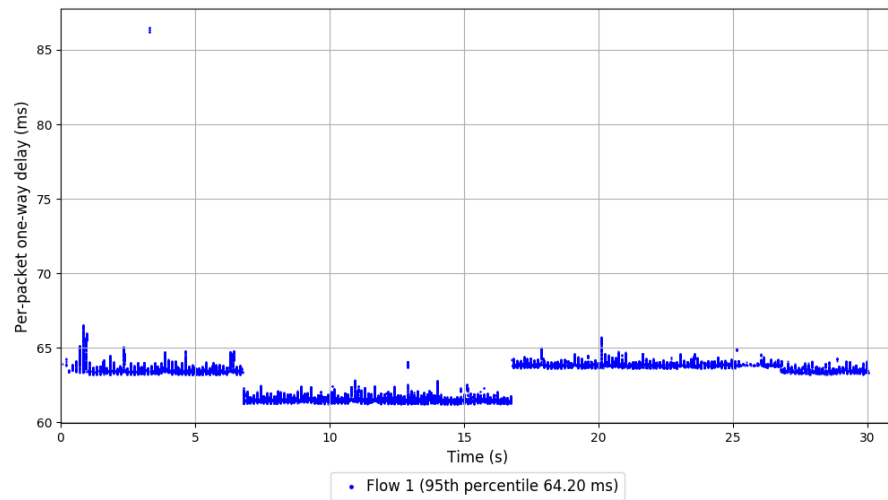
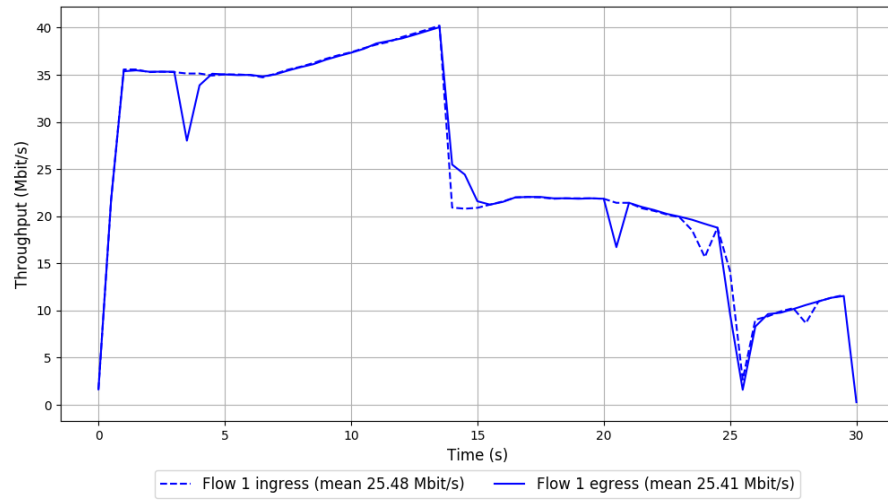
-- Flow 1:

Average throughput: 25.41 Mbit/s

95th percentile per-packet one-way delay: 64.205 ms

Loss rate: 0.29%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-11-30 18:30:52

End at: 2017-11-30 18:31:22

Below is generated by plot.py at 2017-11-30 19:51:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 42.18 Mbit/s

95th percentile per-packet one-way delay: 63.792 ms

Loss rate: 0.62%

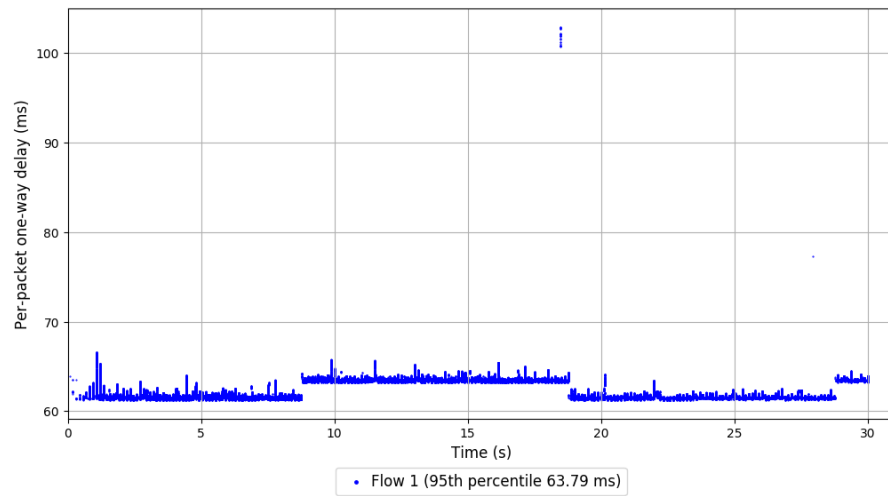
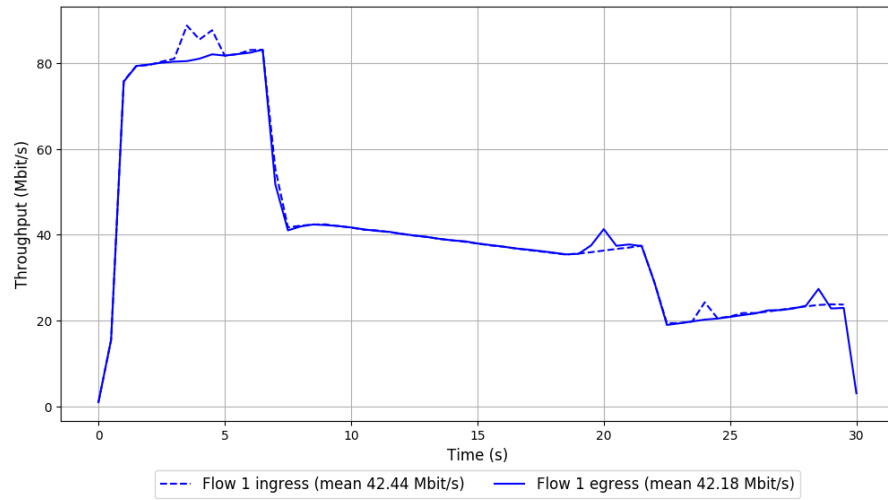
-- Flow 1:

Average throughput: 42.18 Mbit/s

95th percentile per-packet one-way delay: 63.792 ms

Loss rate: 0.62%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-11-30 17:04:06

End at: 2017-11-30 17:04:36

Below is generated by plot.py at 2017-11-30 19:51:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 238.96 Mbit/s

95th percentile per-packet one-way delay: 227.367 ms

Loss rate: 6.07%

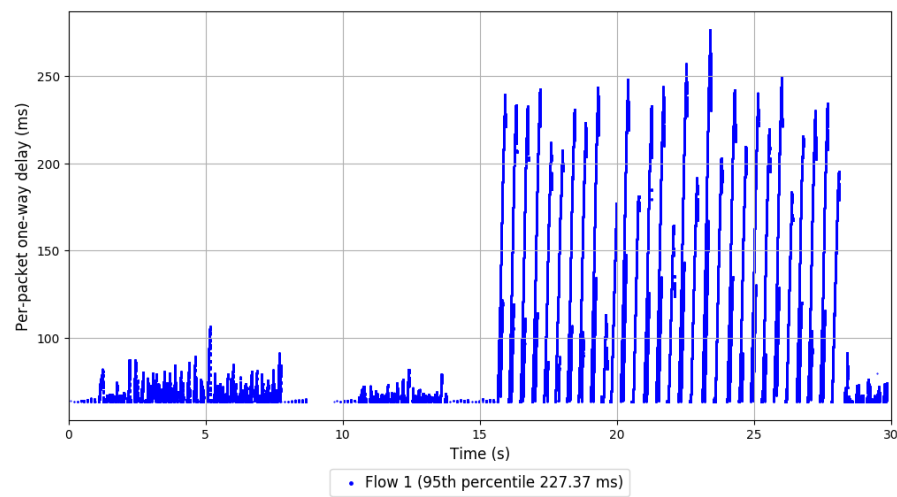
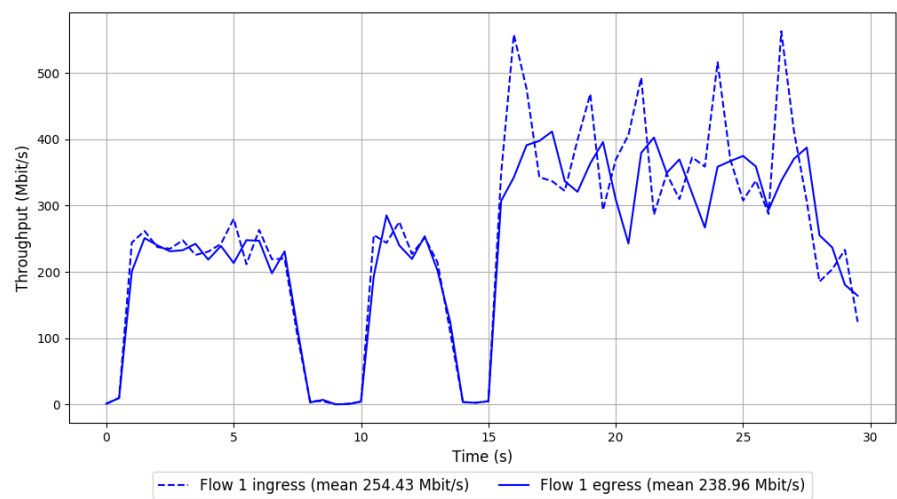
-- Flow 1:

Average throughput: 238.96 Mbit/s

95th percentile per-packet one-way delay: 227.367 ms

Loss rate: 6.07%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-11-30 17:14:05

End at: 2017-11-30 17:14:35

Below is generated by plot.py at 2017-11-30 19:51:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 241.28 Mbit/s

95th percentile per-packet one-way delay: 101.255 ms

Loss rate: 0.23%

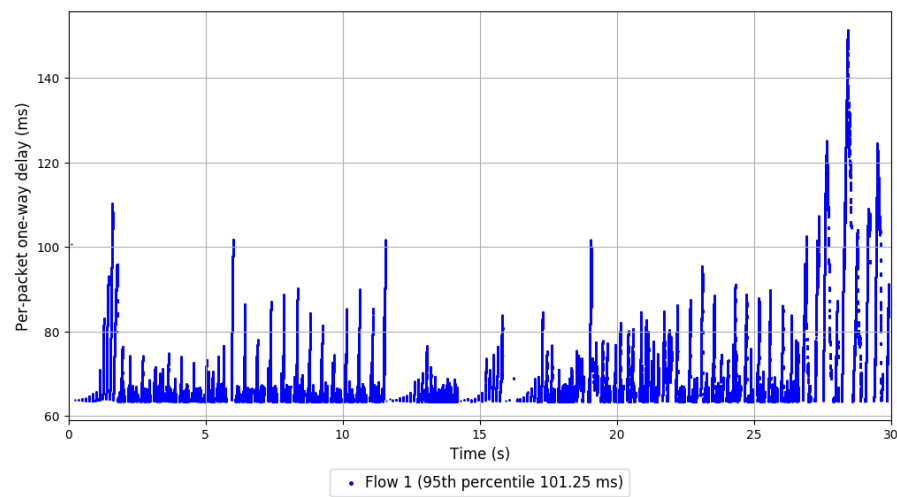
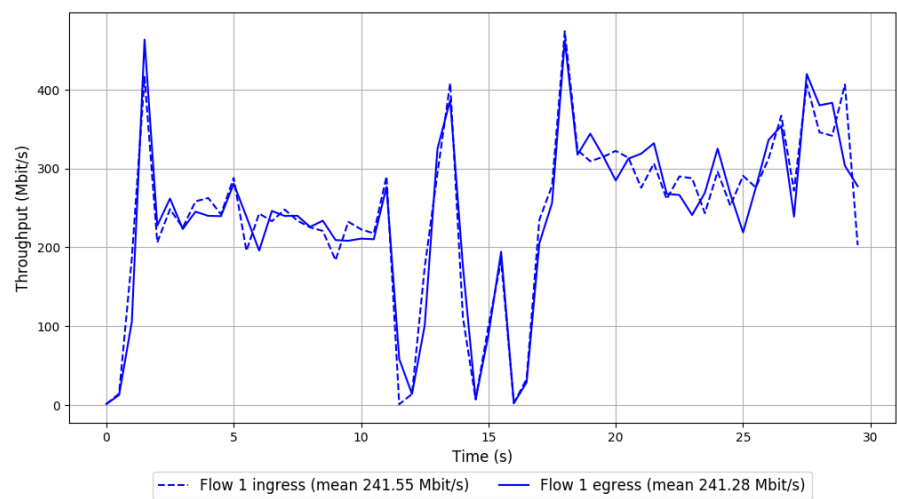
-- Flow 1:

Average throughput: 241.28 Mbit/s

95th percentile per-packet one-way delay: 101.255 ms

Loss rate: 0.23%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-11-30 17:24:16

End at: 2017-11-30 17:24:46

Below is generated by plot.py at 2017-11-30 19:52:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 289.01 Mbit/s

95th percentile per-packet one-way delay: 103.920 ms

Loss rate: 0.10%

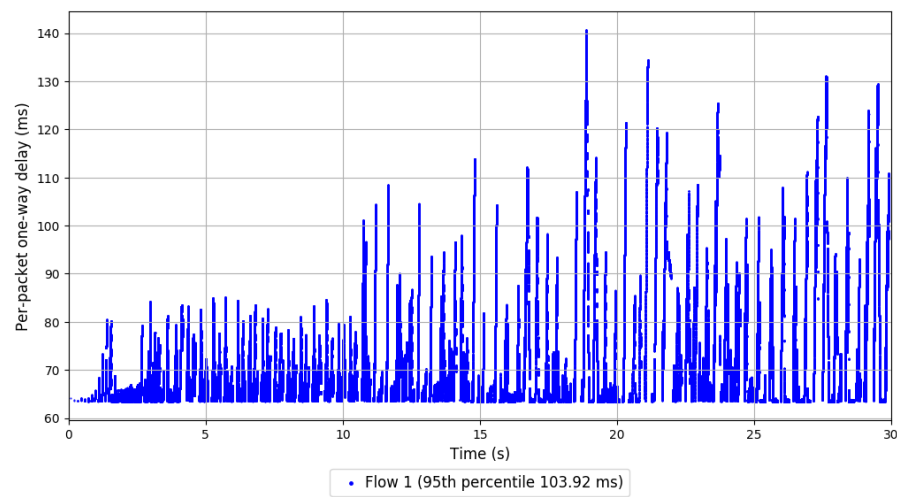
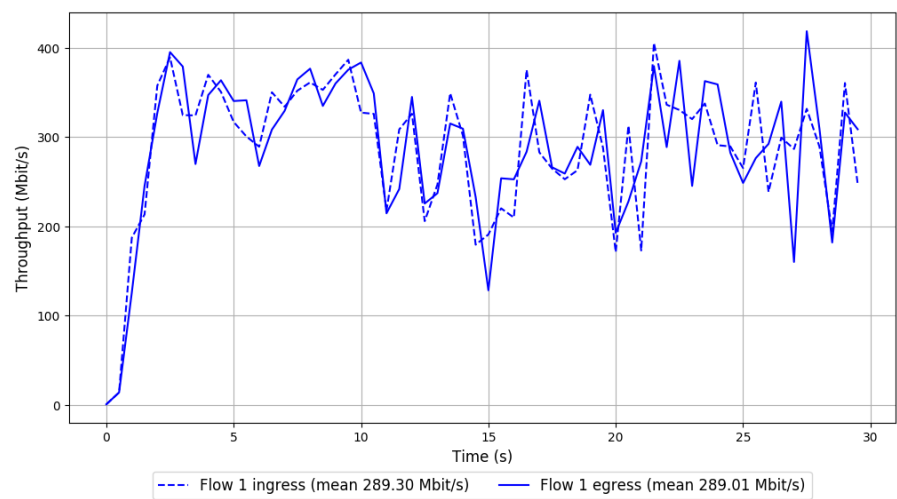
-- Flow 1:

Average throughput: 289.01 Mbit/s

95th percentile per-packet one-way delay: 103.920 ms

Loss rate: 0.10%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-11-30 17:34:49

End at: 2017-11-30 17:35:19

Below is generated by plot.py at 2017-11-30 19:52:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 221.78 Mbit/s

95th percentile per-packet one-way delay: 108.691 ms

Loss rate: 0.00%

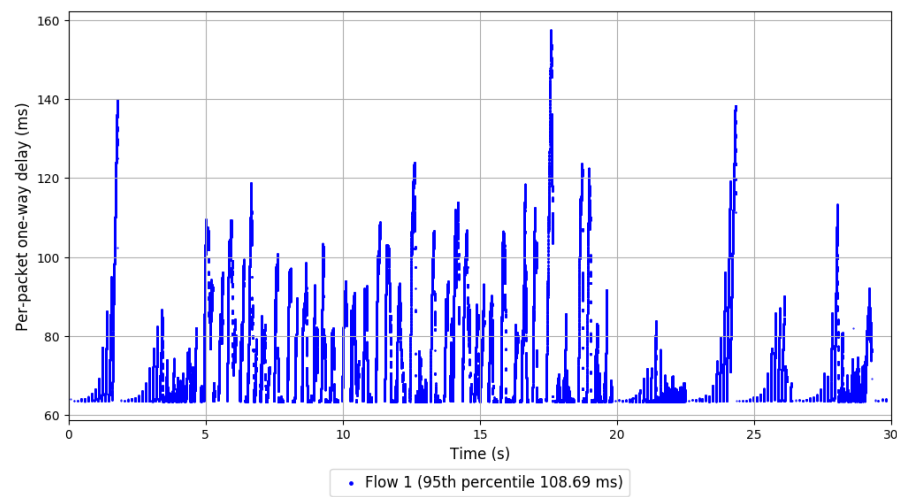
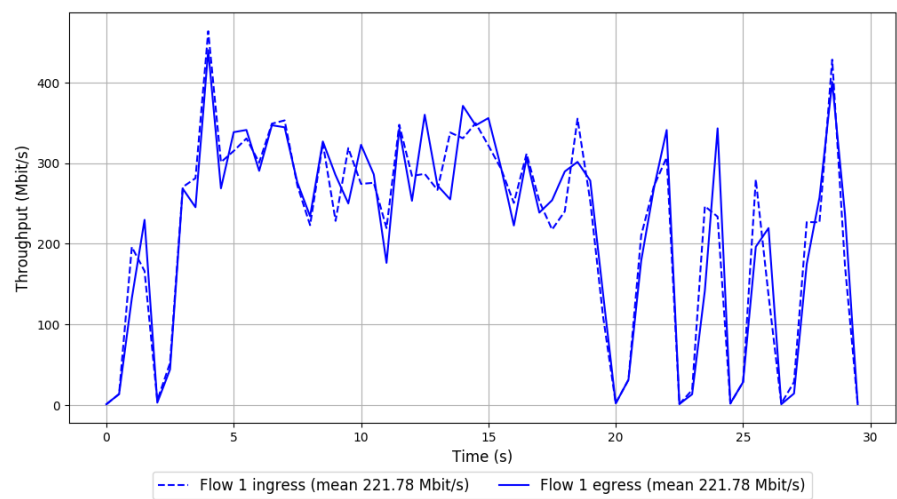
-- Flow 1:

Average throughput: 221.78 Mbit/s

95th percentile per-packet one-way delay: 108.691 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-11-30 17:45:14

End at: 2017-11-30 17:45:44

Below is generated by plot.py at 2017-11-30 19:52:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 256.37 Mbit/s

95th percentile per-packet one-way delay: 131.812 ms

Loss rate: 0.01%

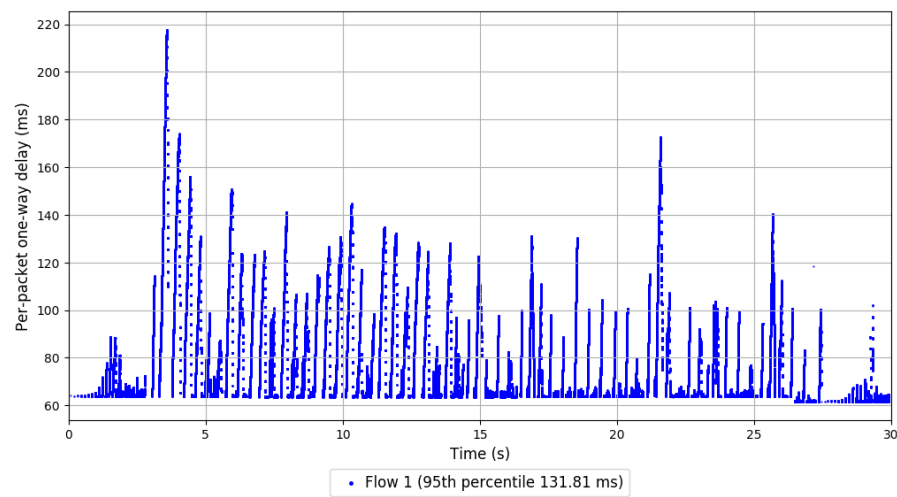
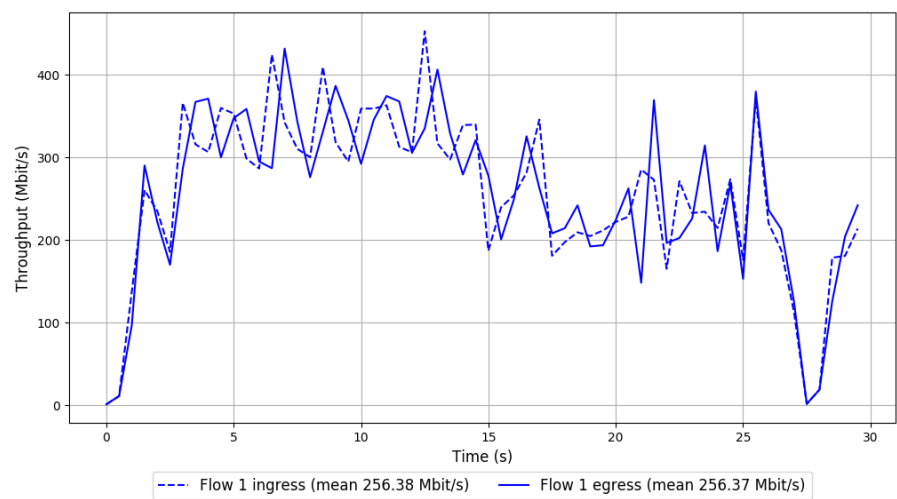
-- Flow 1:

Average throughput: 256.37 Mbit/s

95th percentile per-packet one-way delay: 131.812 ms

Loss rate: 0.01%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-11-30 17:55:44

End at: 2017-11-30 17:56:14

Below is generated by plot.py at 2017-11-30 19:52:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 250.88 Mbit/s

95th percentile per-packet one-way delay: 92.354 ms

Loss rate: 0.30%

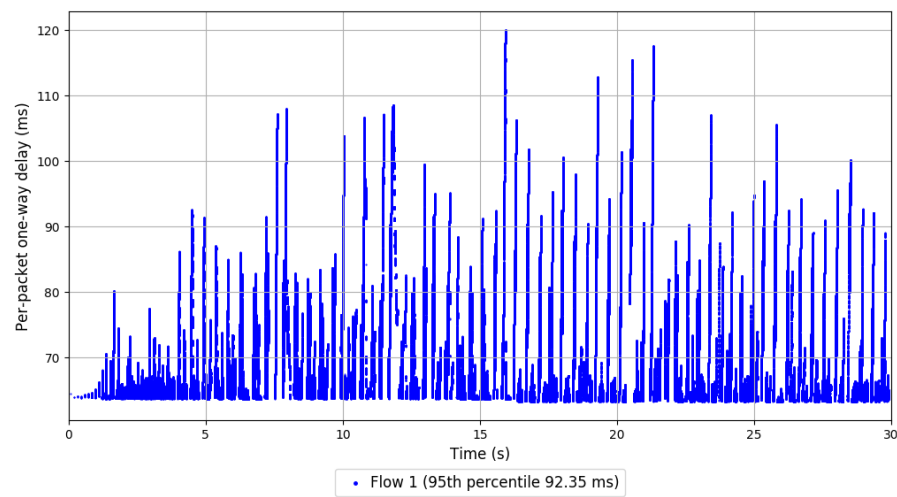
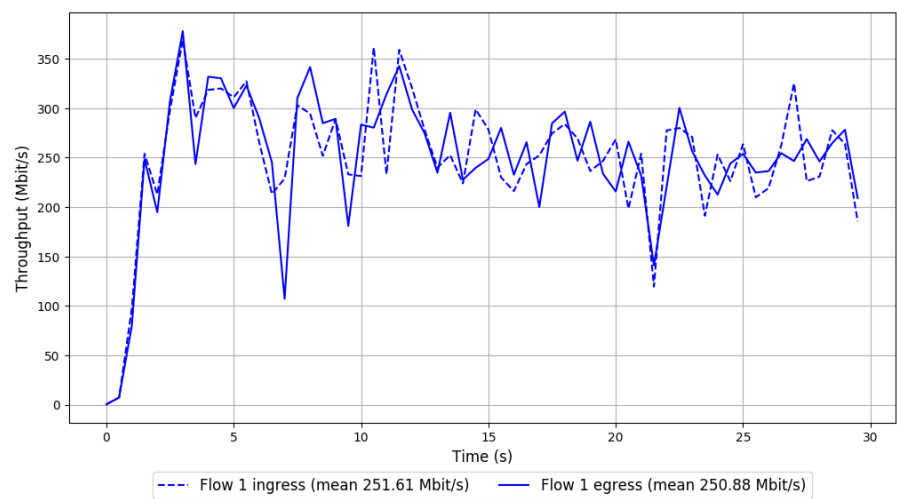
-- Flow 1:

Average throughput: 250.88 Mbit/s

95th percentile per-packet one-way delay: 92.354 ms

Loss rate: 0.30%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-11-30 18:06:03

End at: 2017-11-30 18:06:33

Below is generated by plot.py at 2017-11-30 19:54:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.21 Mbit/s

95th percentile per-packet one-way delay: 85.966 ms

Loss rate: 0.05%

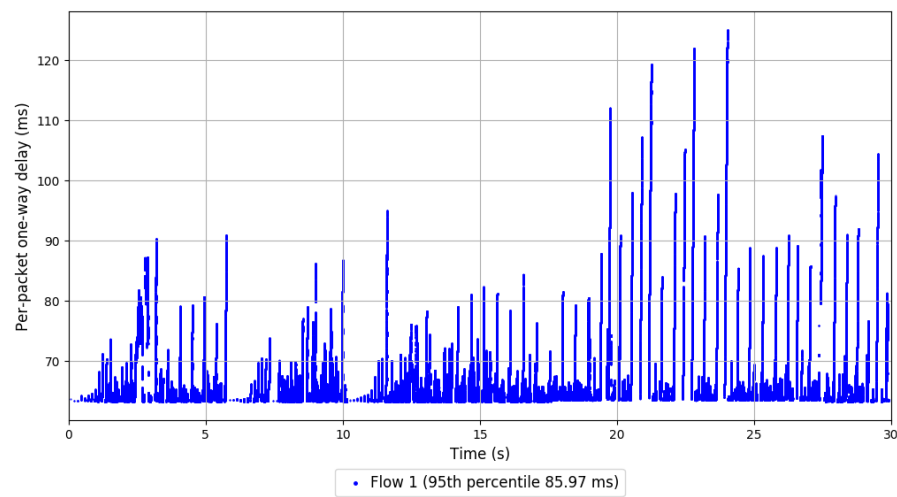
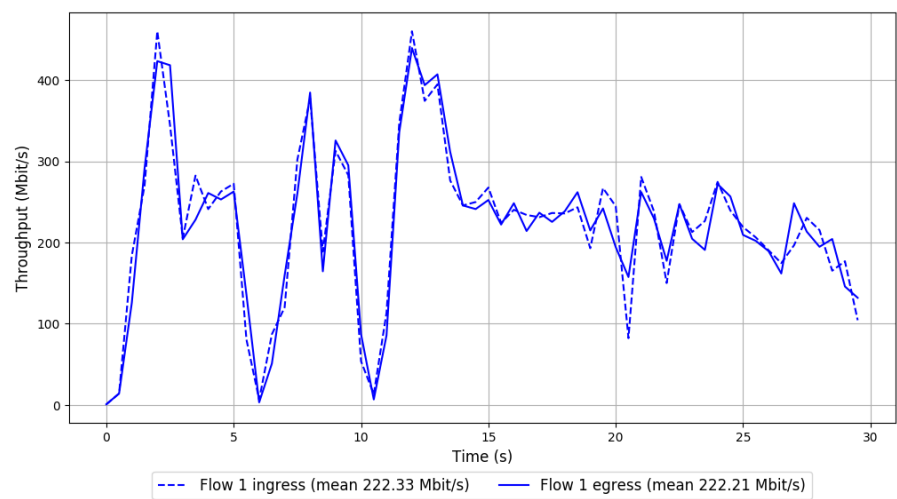
-- Flow 1:

Average throughput: 222.21 Mbit/s

95th percentile per-packet one-way delay: 85.966 ms

Loss rate: 0.05%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-11-30 18:16:30

End at: 2017-11-30 18:17:00

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 267.40 Mbit/s

95th percentile per-packet one-way delay: 94.341 ms

Loss rate: 0.12%

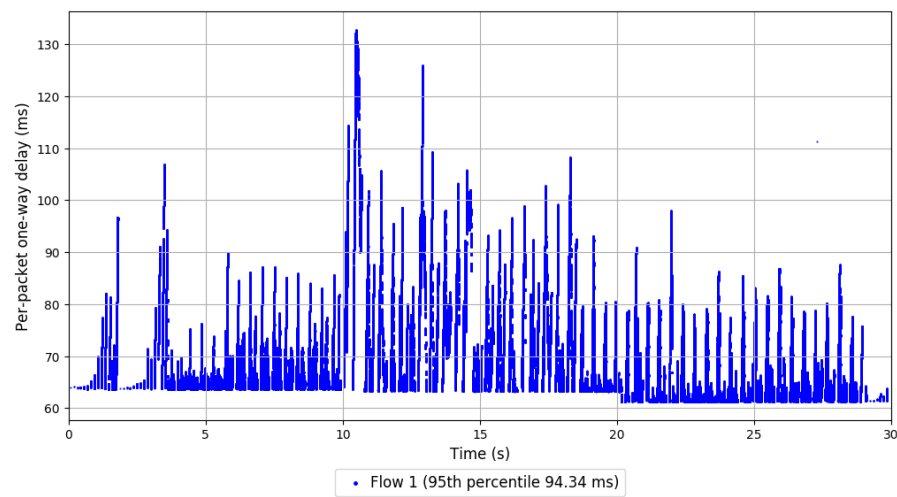
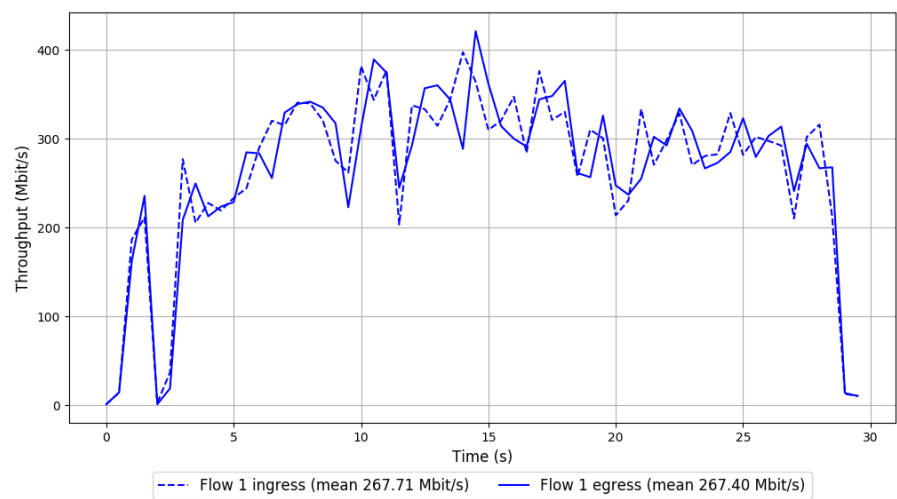
-- Flow 1:

Average throughput: 267.40 Mbit/s

95th percentile per-packet one-way delay: 94.341 ms

Loss rate: 0.12%

Run 8: Report of Verus — Data Link

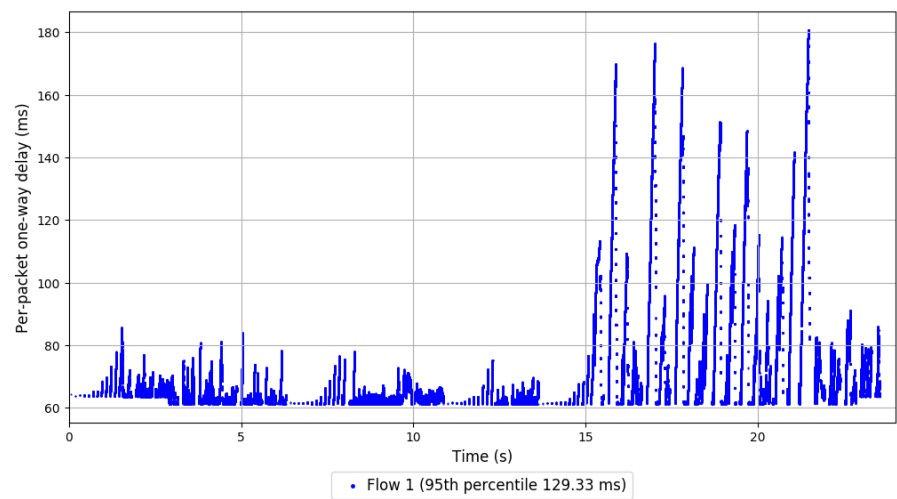
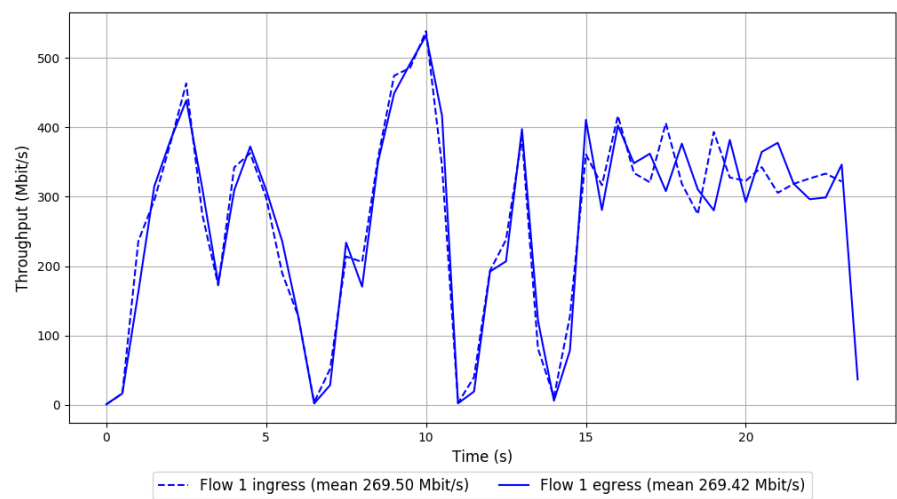


Run 9: Statistics of Verus

Start at: 2017-11-30 18:27:01

End at: 2017-11-30 18:27:31

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-11-30 18:37:27

End at: 2017-11-30 18:37:57

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 235.57 Mbit/s

95th percentile per-packet one-way delay: 90.975 ms

Loss rate: 0.03%

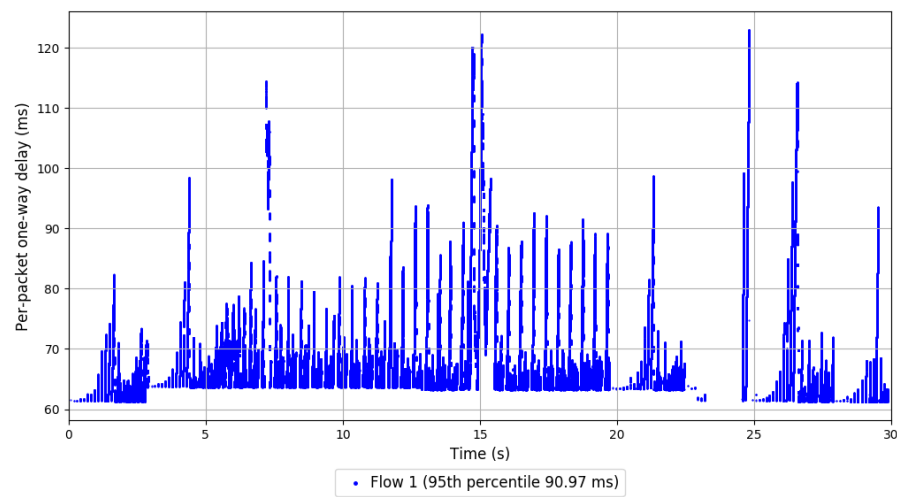
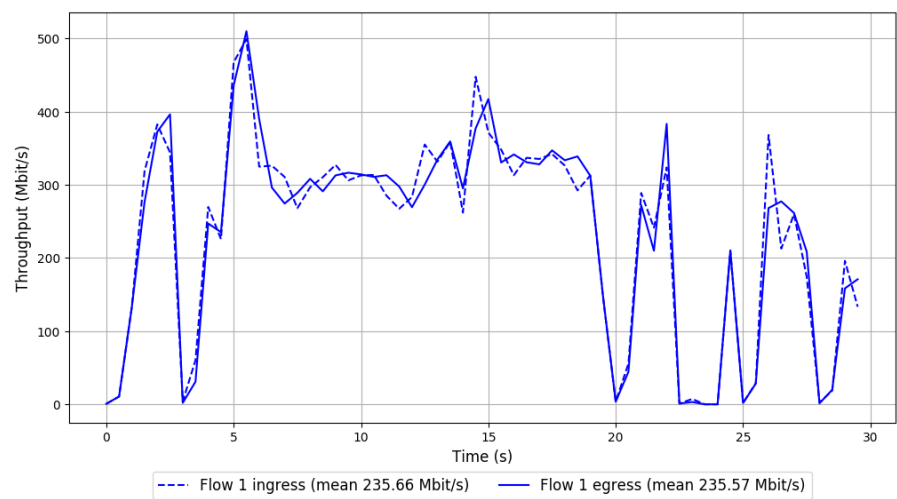
-- Flow 1:

Average throughput: 235.57 Mbit/s

95th percentile per-packet one-way delay: 90.975 ms

Loss rate: 0.03%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-11-30 17:05:00

End at: 2017-11-30 17:05:30

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.18 Mbit/s

95th percentile per-packet one-way delay: 61.794 ms

Loss rate: 3.33%

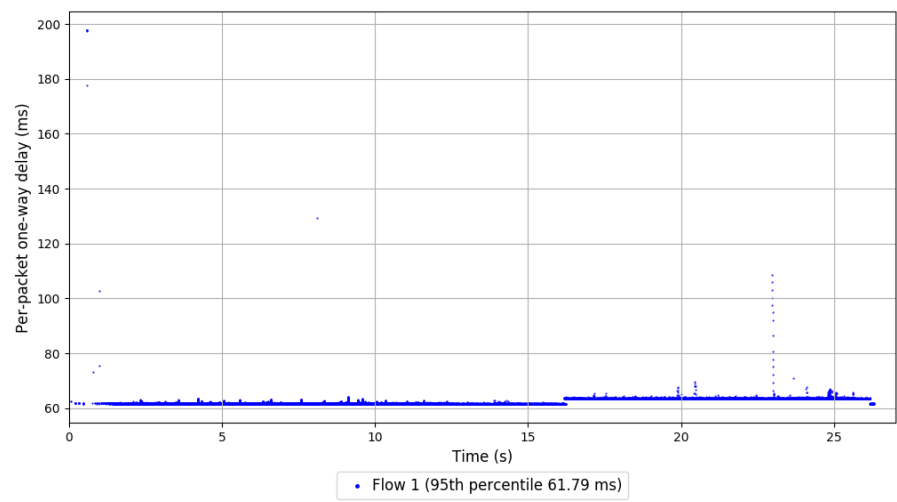
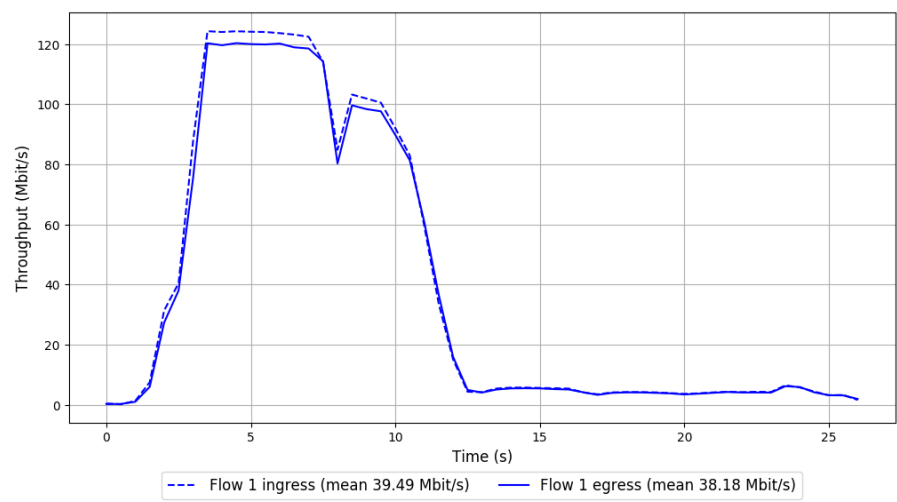
-- Flow 1:

Average throughput: 38.18 Mbit/s

95th percentile per-packet one-way delay: 61.794 ms

Loss rate: 3.33%

Run 1: Report of Copa — Data Link

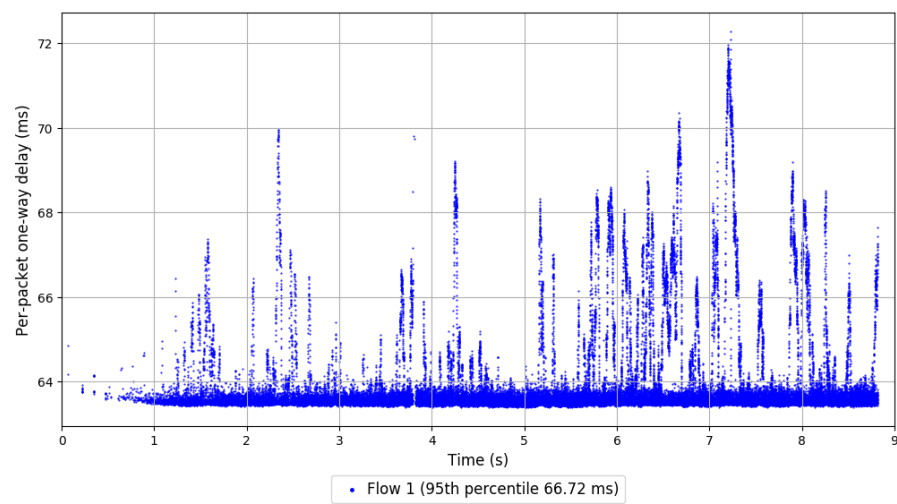
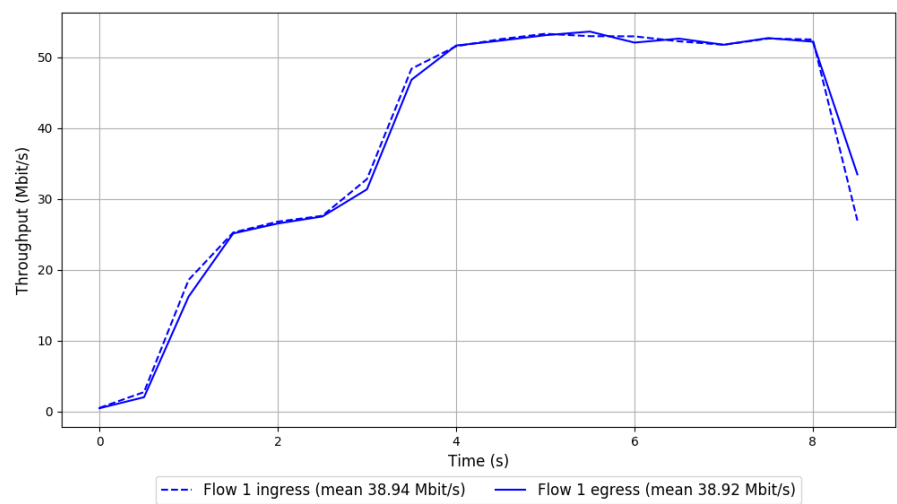


Run 2: Statistics of Copa

Start at: 2017-11-30 17:14:59

End at: 2017-11-30 17:15:29

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-11-30 17:25:13

End at: 2017-11-30 17:25:44

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.40 Mbit/s

95th percentile per-packet one-way delay: 63.641 ms

Loss rate: 0.01%

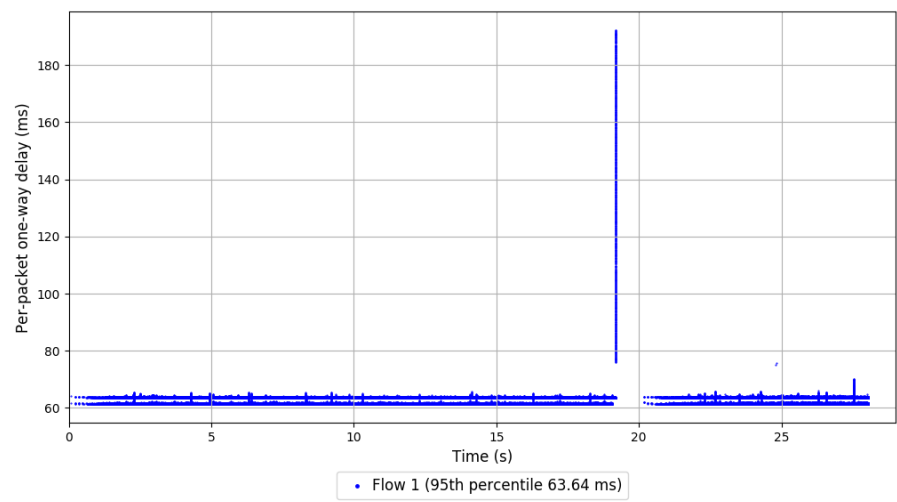
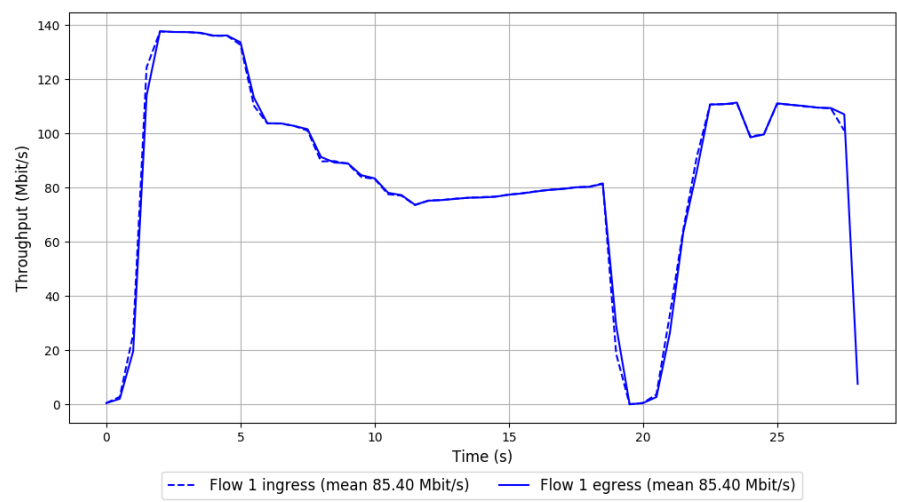
-- Flow 1:

Average throughput: 85.40 Mbit/s

95th percentile per-packet one-way delay: 63.641 ms

Loss rate: 0.01%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-11-30 17:35:42

End at: 2017-11-30 17:36:12

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.24 Mbit/s

95th percentile per-packet one-way delay: 63.762 ms

Loss rate: 0.00%

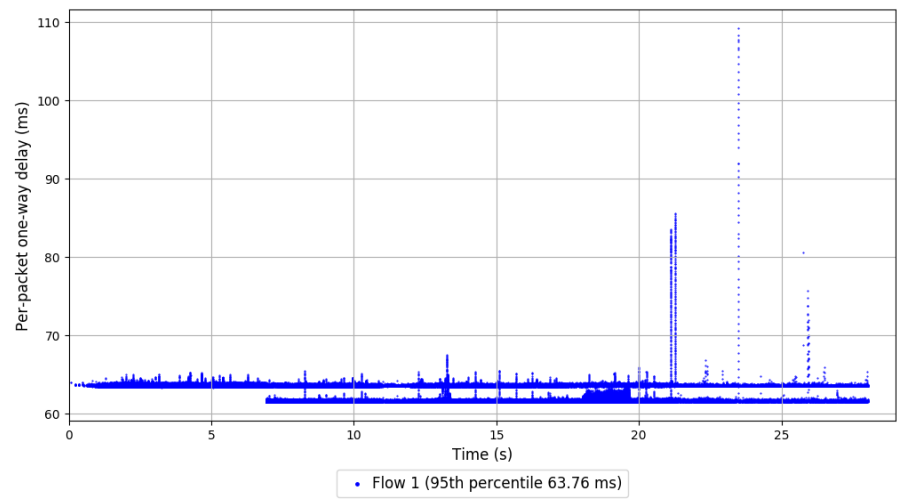
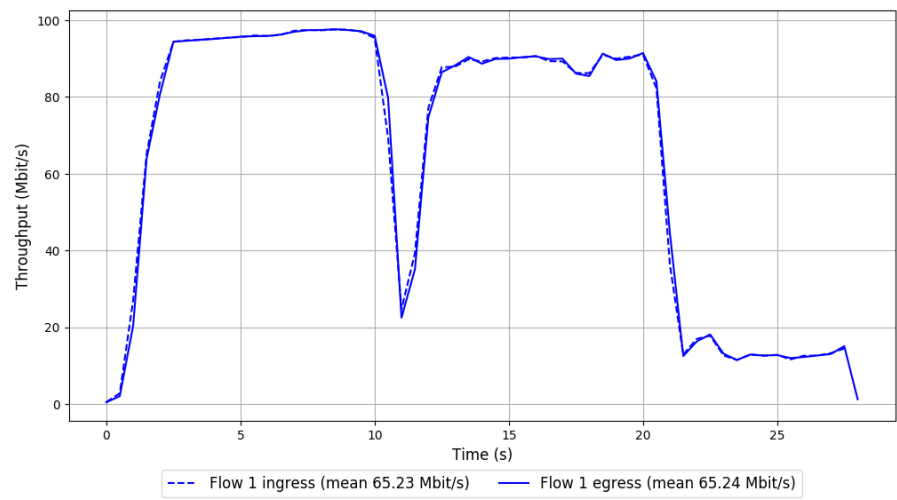
-- Flow 1:

Average throughput: 65.24 Mbit/s

95th percentile per-packet one-way delay: 63.762 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-11-30 17:46:09

End at: 2017-11-30 17:46:39

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.08 Mbit/s

95th percentile per-packet one-way delay: 63.726 ms

Loss rate: 0.00%

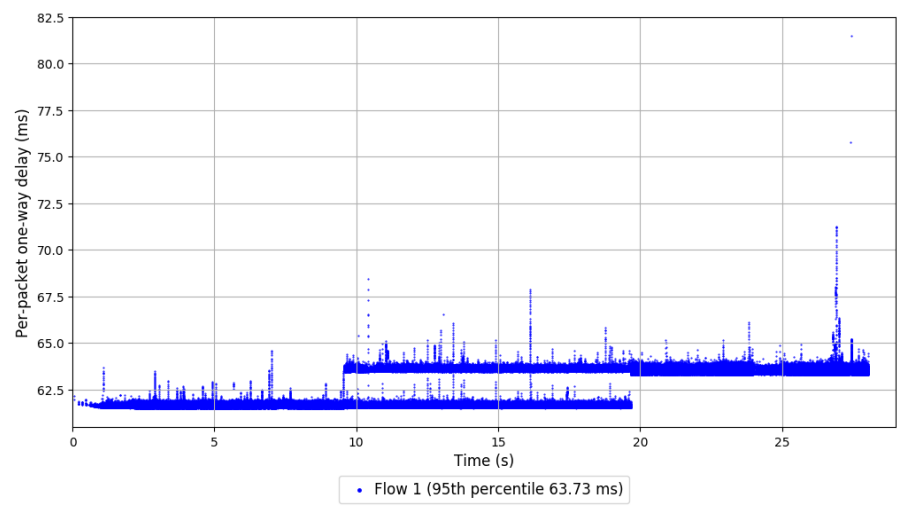
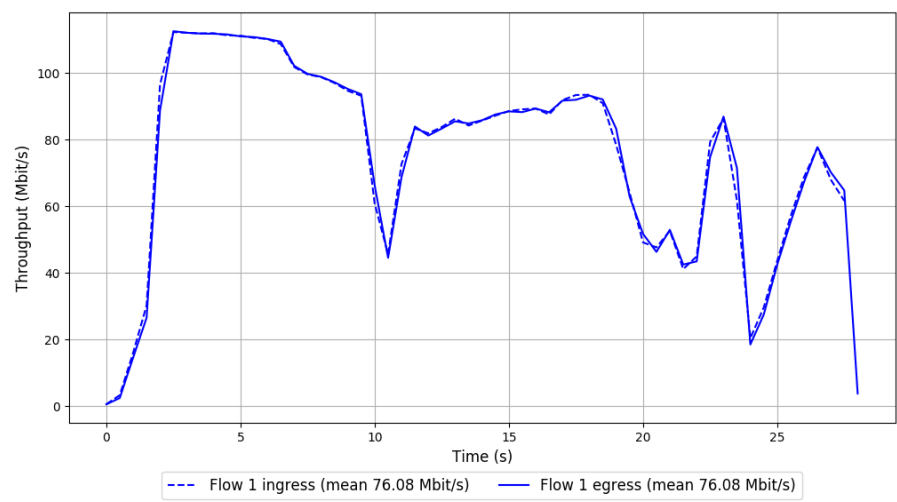
-- Flow 1:

Average throughput: 76.08 Mbit/s

95th percentile per-packet one-way delay: 63.726 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-11-30 17:56:39

End at: 2017-11-30 17:57:09

Below is generated by plot.py at 2017-11-30 19:55:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.70 Mbit/s

95th percentile per-packet one-way delay: 63.888 ms

Loss rate: 0.01%

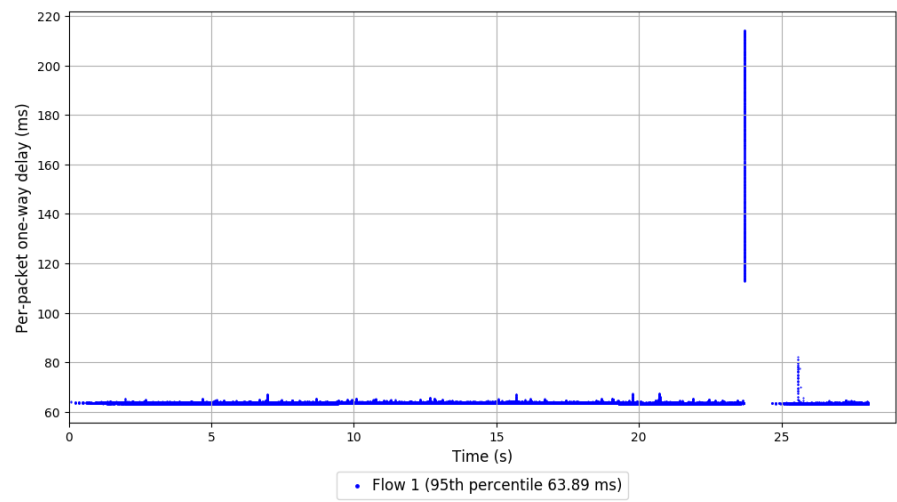
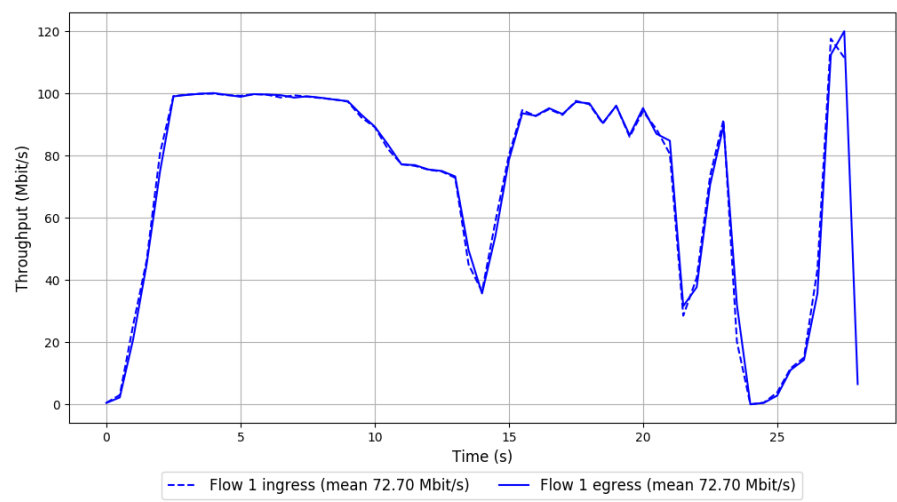
-- Flow 1:

Average throughput: 72.70 Mbit/s

95th percentile per-packet one-way delay: 63.888 ms

Loss rate: 0.01%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-11-30 18:06:55

End at: 2017-11-30 18:07:25

Below is generated by plot.py at 2017-11-30 19:56:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 69.87 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

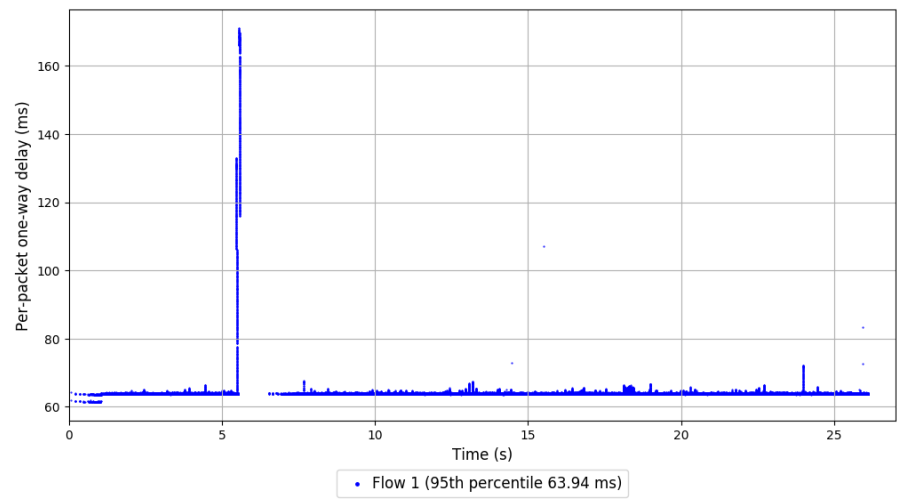
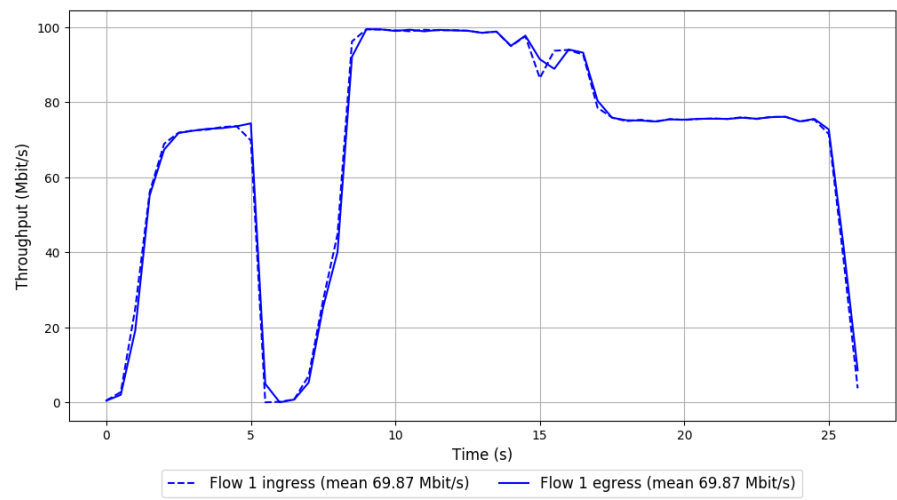
-- Flow 1:

Average throughput: 69.87 Mbit/s

95th percentile per-packet one-way delay: 63.936 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-11-30 18:17:26

End at: 2017-11-30 18:17:56

Below is generated by plot.py at 2017-11-30 19:56:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.51 Mbit/s

95th percentile per-packet one-way delay: 63.775 ms

Loss rate: 0.00%

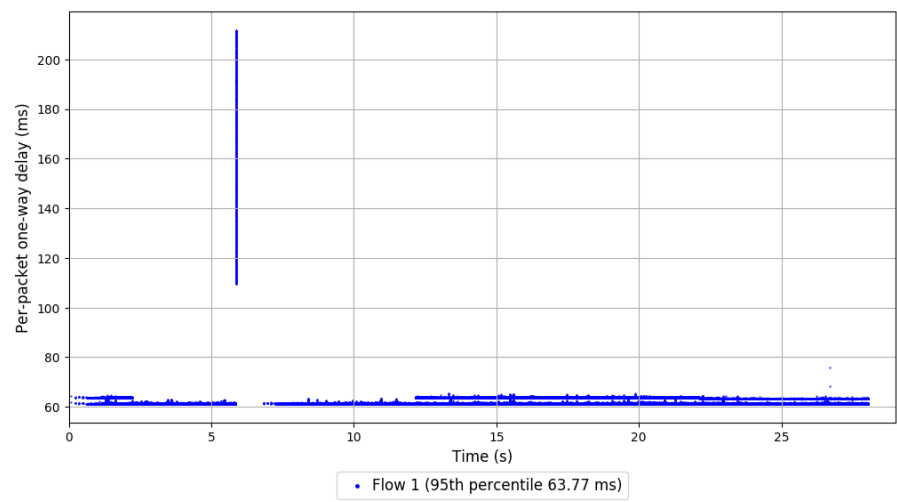
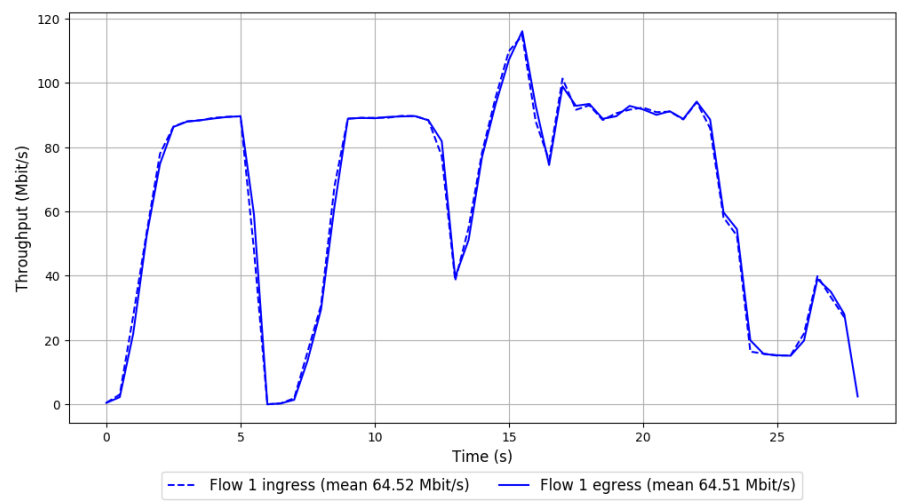
-- Flow 1:

Average throughput: 64.51 Mbit/s

95th percentile per-packet one-way delay: 63.775 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-11-30 18:27:53

End at: 2017-11-30 18:28:23

Below is generated by plot.py at 2017-11-30 19:57:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.03 Mbit/s

95th percentile per-packet one-way delay: 63.714 ms

Loss rate: 0.00%

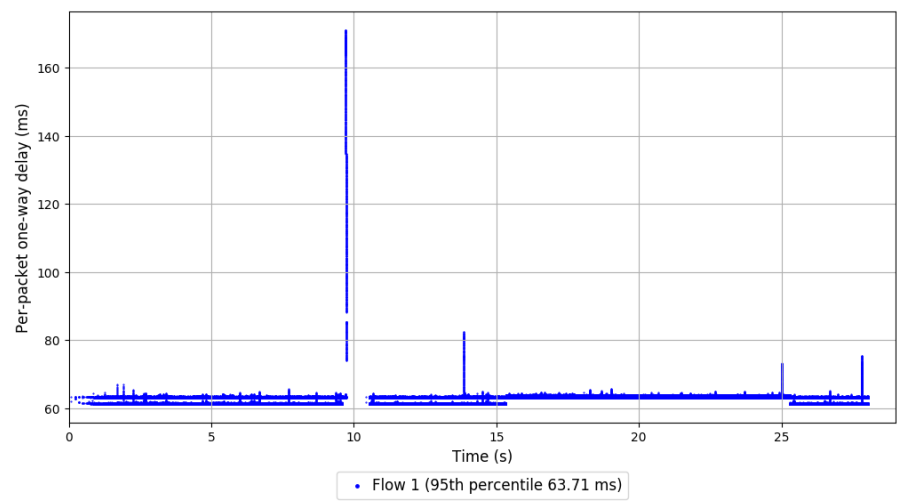
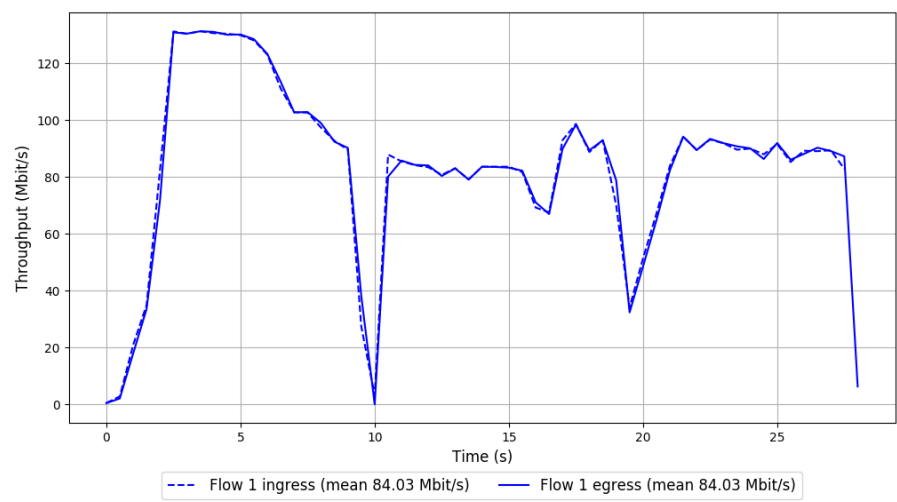
-- Flow 1:

Average throughput: 84.03 Mbit/s

95th percentile per-packet one-way delay: 63.714 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-11-30 18:38:21

End at: 2017-11-30 18:38:51

Below is generated by plot.py at 2017-11-30 19:57:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.49 Mbit/s

95th percentile per-packet one-way delay: 63.770 ms

Loss rate: 0.00%

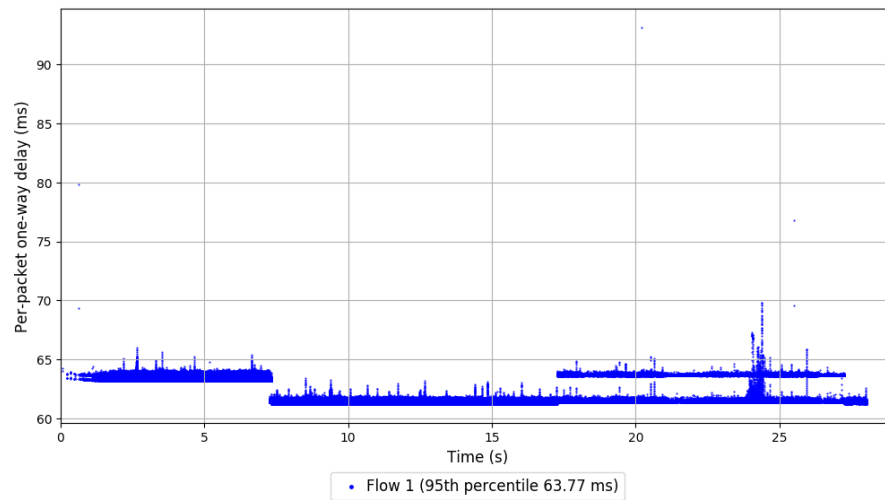
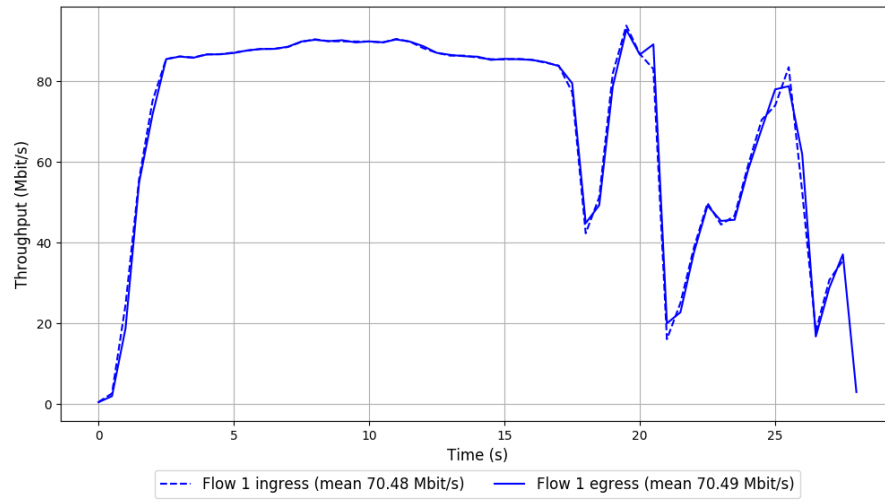
-- Flow 1:

Average throughput: 70.49 Mbit/s

95th percentile per-packet one-way delay: 63.770 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

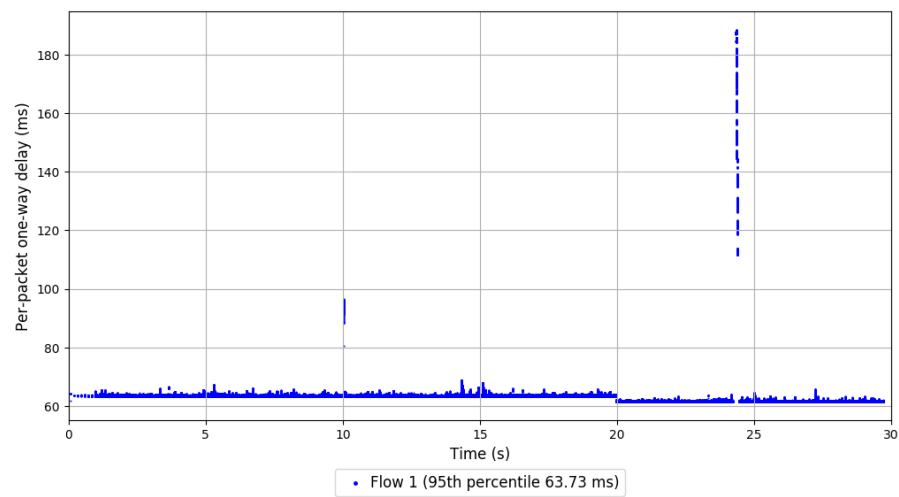
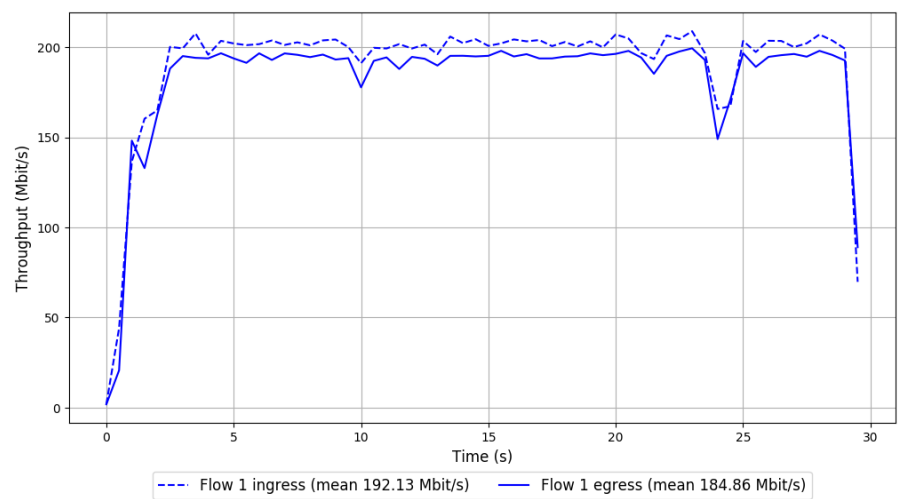


```
Run 1: Statistics of Indigo

Start at: 2017-11-30 17:01:10
End at: 2017-11-30 17:01:40

# Below is generated by plot.py at 2017-11-30 19:58:10
# Datalink statistics
-- Total of 1 flow:
Average throughput: 184.86 Mbit/s
95th percentile per-packet one-way delay: 63.733 ms
Loss rate: 3.79%
-- Flow 1:
Average throughput: 184.86 Mbit/s
95th percentile per-packet one-way delay: 63.733 ms
Loss rate: 3.79%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-11-30 17:10:59

End at: 2017-11-30 17:11:29

Below is generated by plot.py at 2017-11-30 19:58:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 175.67 Mbit/s

95th percentile per-packet one-way delay: 63.745 ms

Loss rate: 3.75%

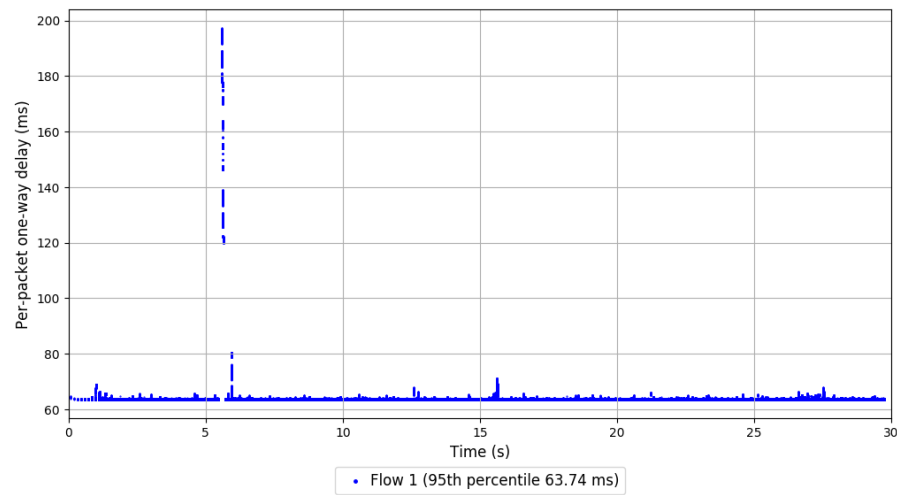
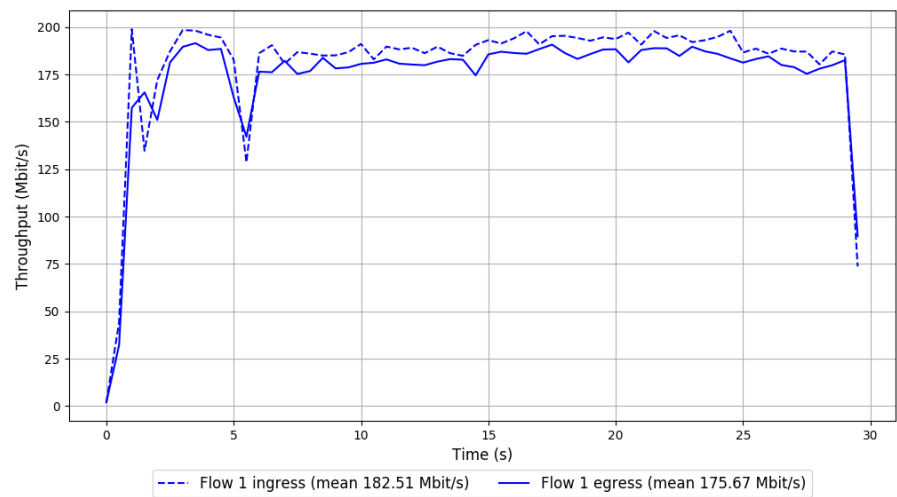
-- Flow 1:

Average throughput: 175.67 Mbit/s

95th percentile per-packet one-way delay: 63.745 ms

Loss rate: 3.75%

Run 2: Report of Indigo — Data Link

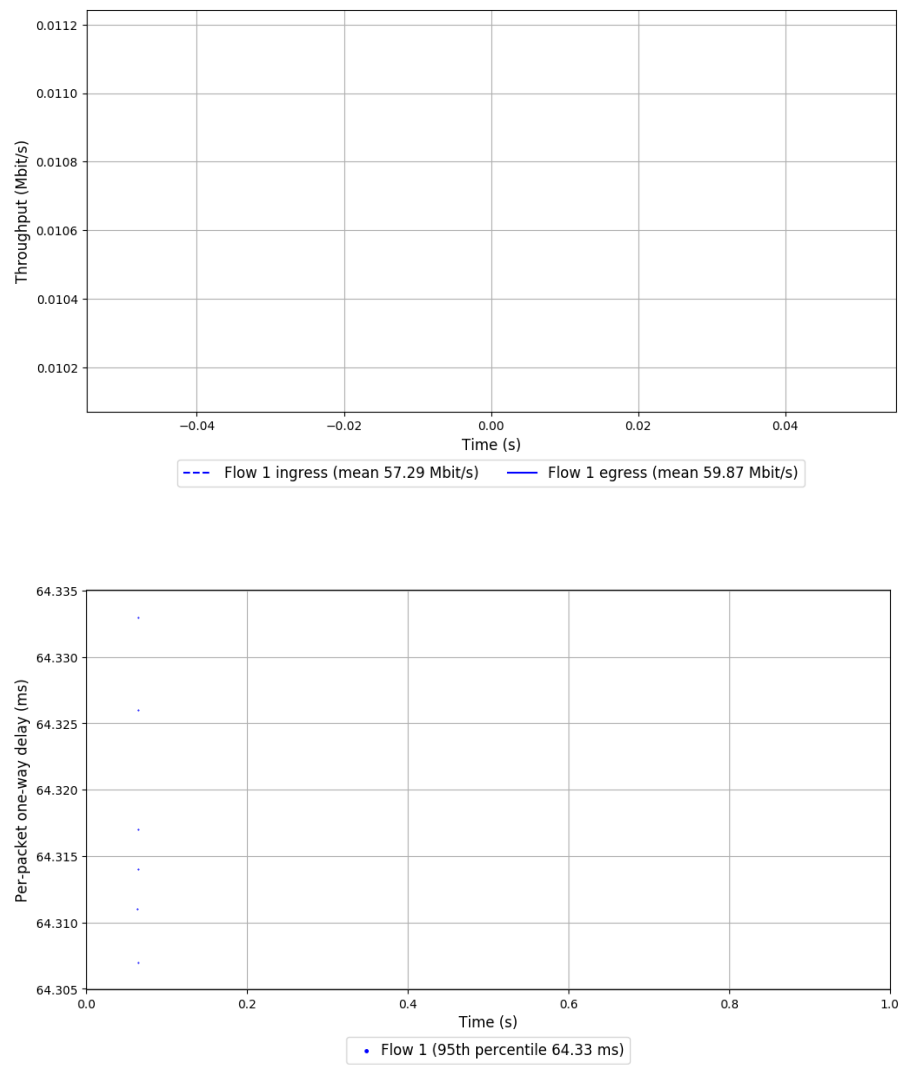


Run 3: Statistics of Indigo

Start at: 2017-11-30 17:21:22

End at: 2017-11-30 17:21:52

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-11-30 17:31:47

End at: 2017-11-30 17:32:17

Below is generated by plot.py at 2017-11-30 19:58:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 184.58 Mbit/s

95th percentile per-packet one-way delay: 63.744 ms

Loss rate: 0.00%

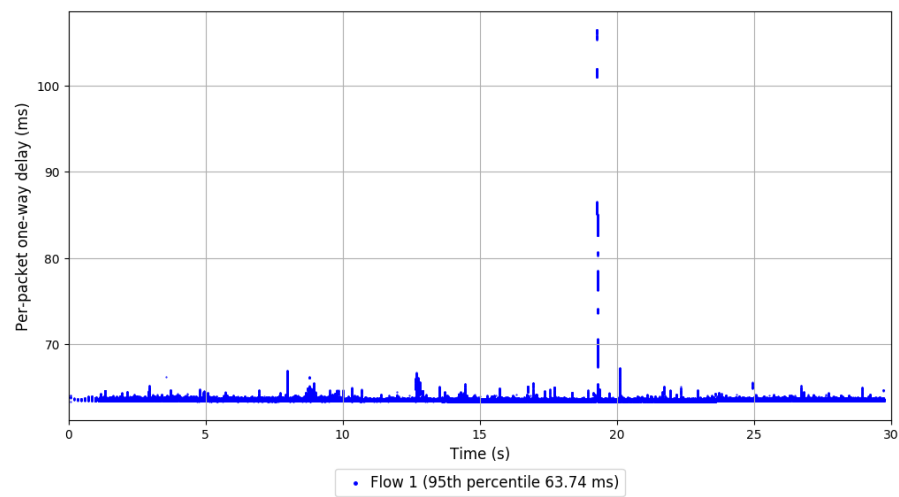
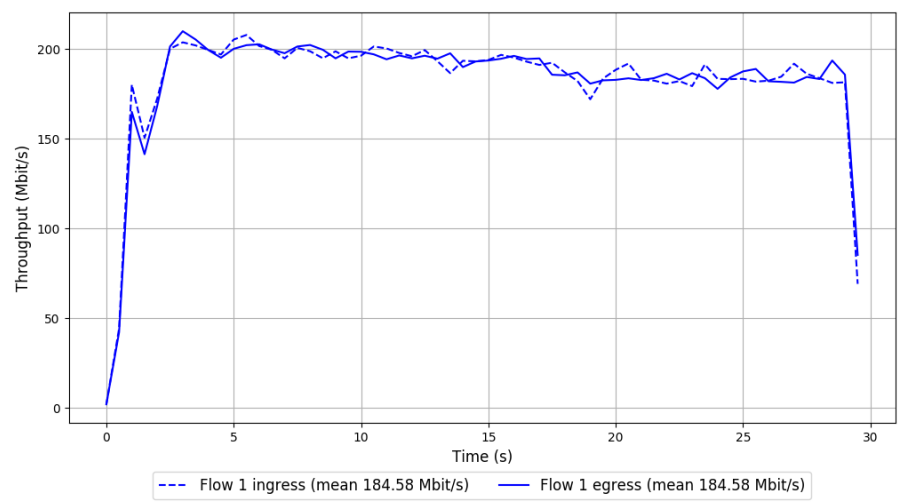
-- Flow 1:

Average throughput: 184.58 Mbit/s

95th percentile per-packet one-way delay: 63.744 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-11-30 17:42:16

End at: 2017-11-30 17:42:46

Below is generated by plot.py at 2017-11-30 19:58:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 184.51 Mbit/s

95th percentile per-packet one-way delay: 63.673 ms

Loss rate: 0.00%

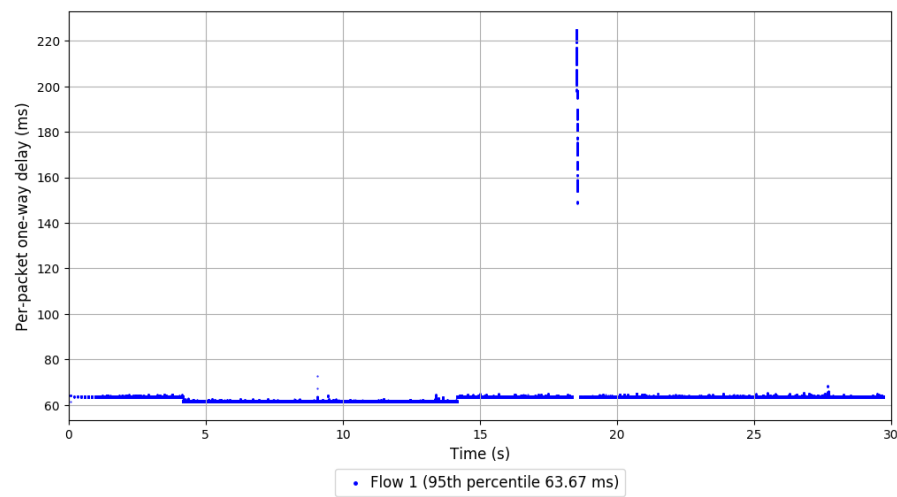
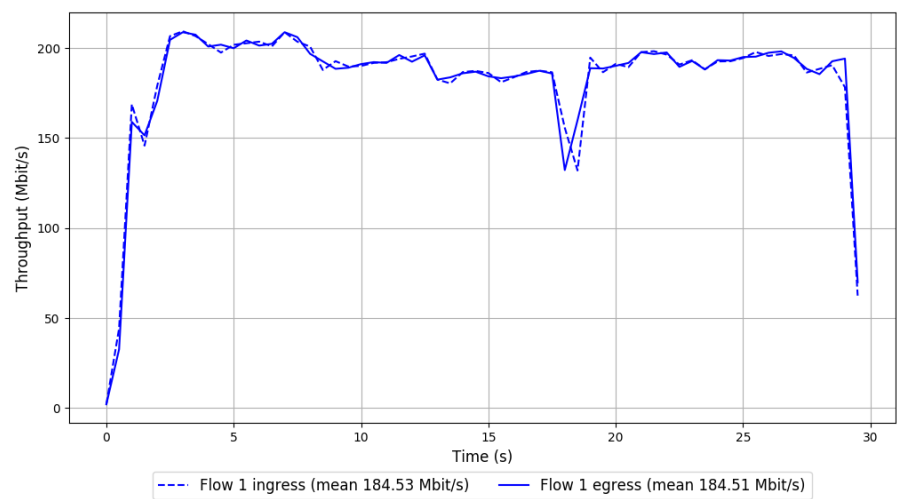
-- Flow 1:

Average throughput: 184.51 Mbit/s

95th percentile per-packet one-way delay: 63.673 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link

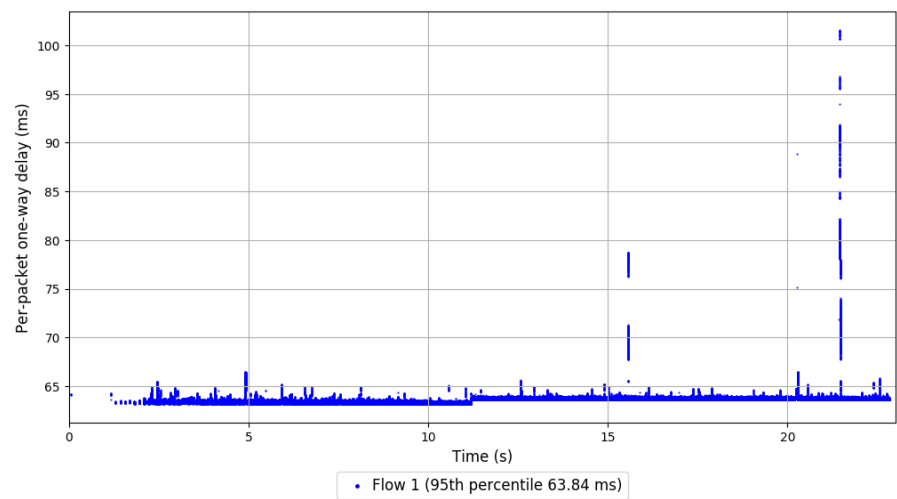
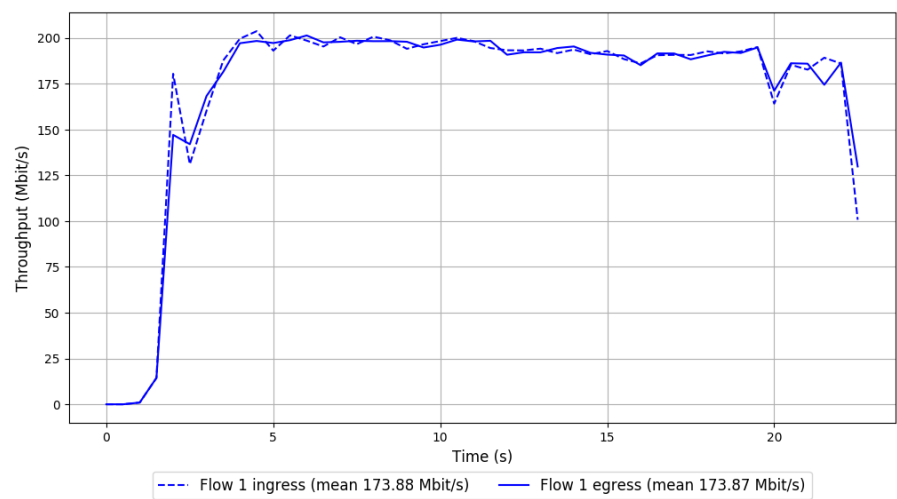


Run 6: Statistics of Indigo

Start at: 2017-11-30 17:52:42

End at: 2017-11-30 17:53:12

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-11-30 18:03:10

End at: 2017-11-30 18:03:40

Below is generated by plot.py at 2017-11-30 19:59:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 179.27 Mbit/s

95th percentile per-packet one-way delay: 63.853 ms

Loss rate: 0.00%

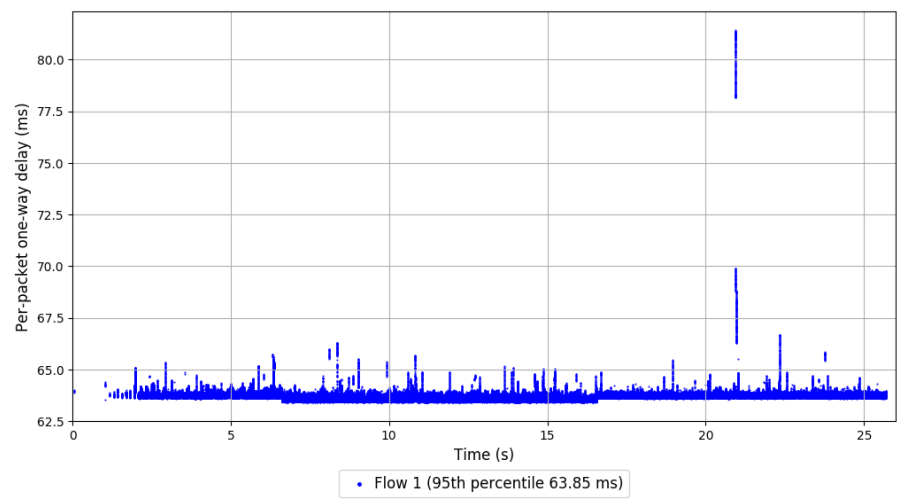
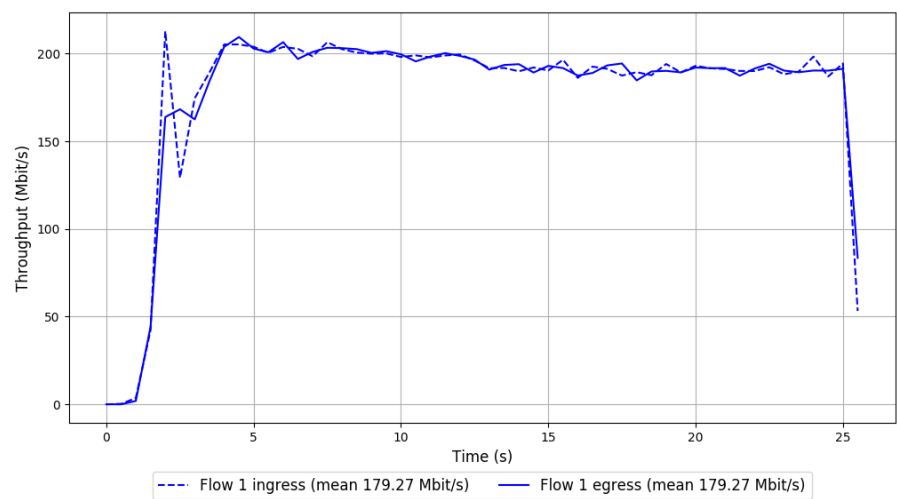
-- Flow 1:

Average throughput: 179.27 Mbit/s

95th percentile per-packet one-way delay: 63.853 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-11-30 18:13:28

End at: 2017-11-30 18:13:58

Below is generated by plot.py at 2017-11-30 20:00:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.26 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 0.00%

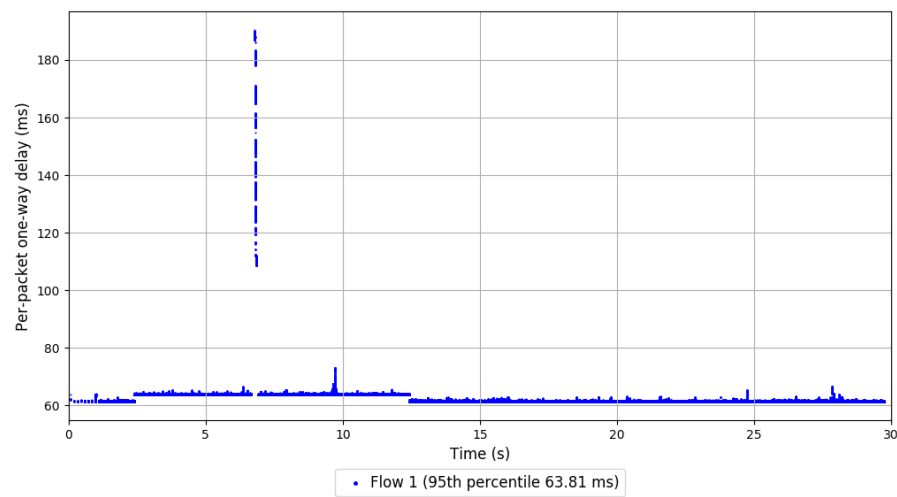
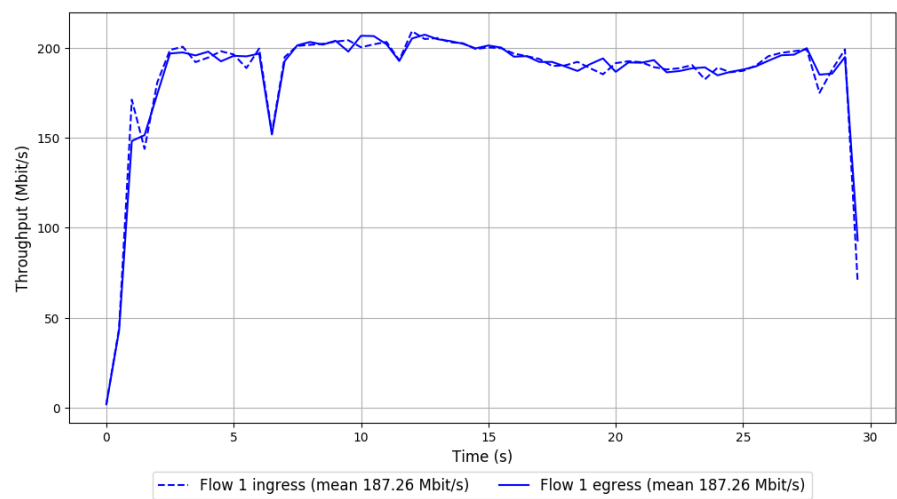
-- Flow 1:

Average throughput: 187.26 Mbit/s

95th percentile per-packet one-way delay: 63.814 ms

Loss rate: 0.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-11-30 18:23:58

End at: 2017-11-30 18:24:28

Below is generated by plot.py at 2017-11-30 20:00:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 179.84 Mbit/s

95th percentile per-packet one-way delay: 63.500 ms

Loss rate: 0.00%

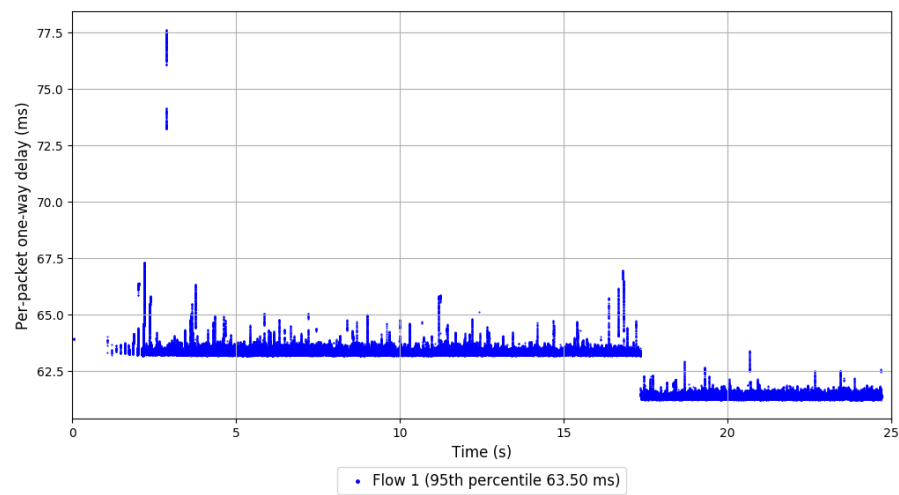
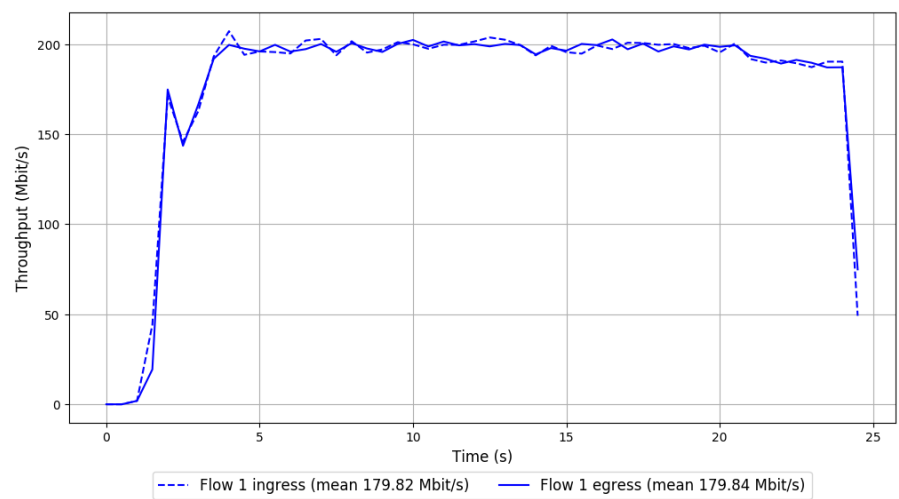
-- Flow 1:

Average throughput: 179.84 Mbit/s

95th percentile per-packet one-way delay: 63.500 ms

Loss rate: 0.00%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-11-30 18:34:27

End at: 2017-11-30 18:34:57

Below is generated by plot.py at 2017-11-30 20:01:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 63.805 ms

Loss rate: 0.00%

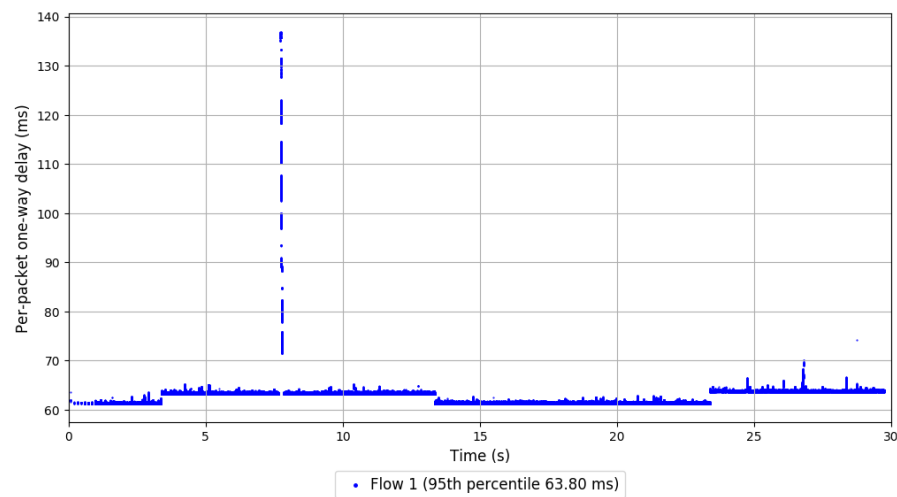
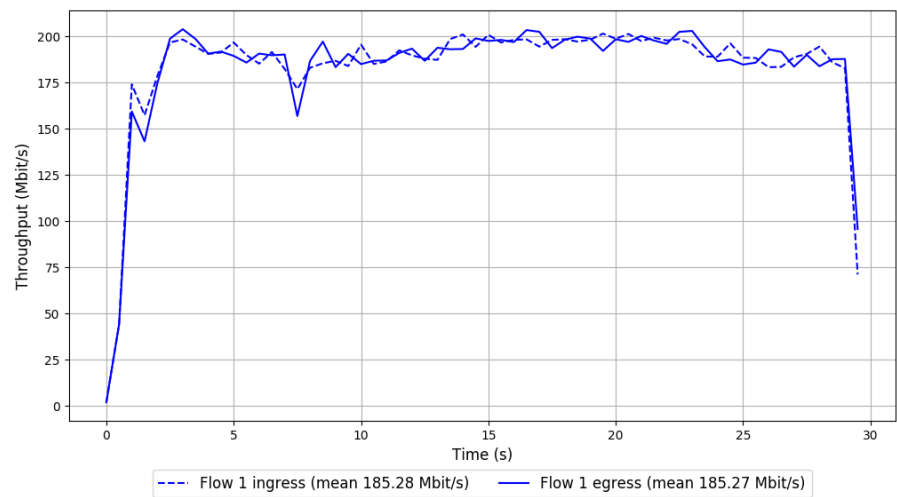
-- Flow 1:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 63.805 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

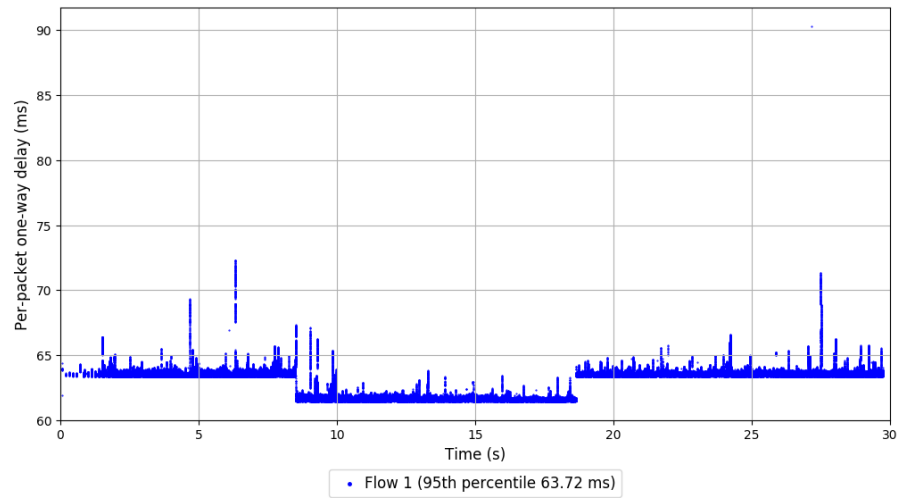
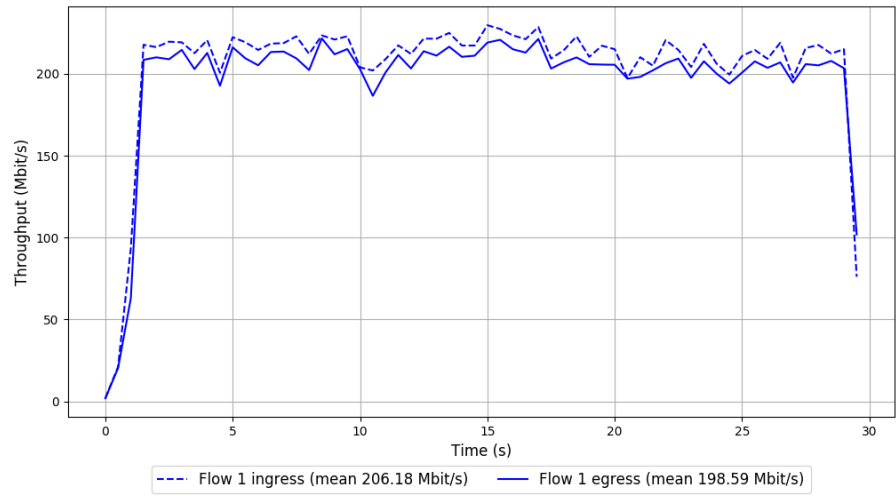


```
Run 1: Statistics of Indigo-calib

Start at: 2017-11-30 17:05:41
End at: 2017-11-30 17:06:12

# Below is generated by plot.py at 2017-11-30 20:01:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 198.59 Mbit/s
95th percentile per-packet one-way delay: 63.724 ms
Loss rate: 3.68%
-- Flow 1:
Average throughput: 198.59 Mbit/s
95th percentile per-packet one-way delay: 63.724 ms
Loss rate: 3.68%
```

Run 1: Report of Indigo-calib — Data Link

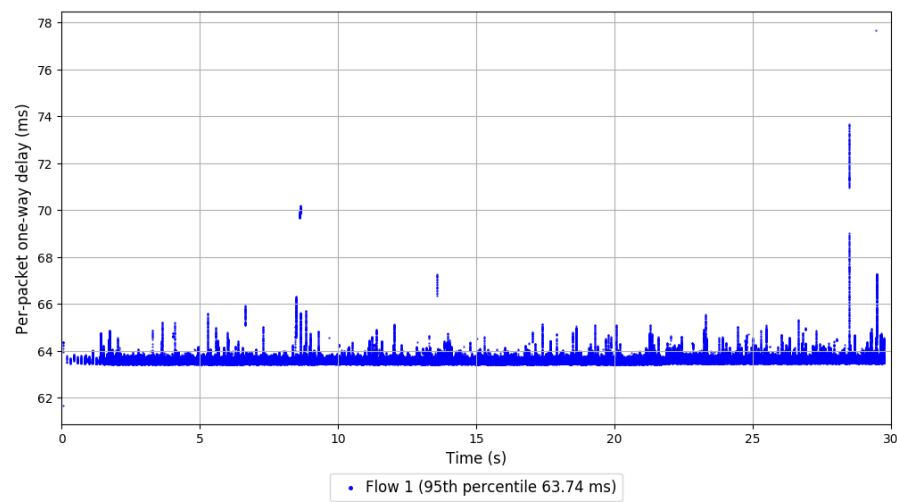
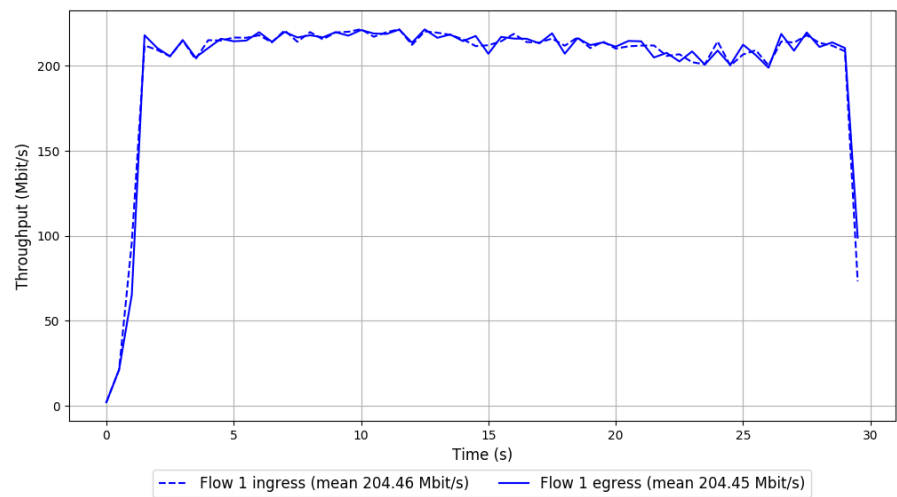


```
Run 2: Statistics of Indigo-calib

Start at: 2017-11-30 17:15:38
End at: 2017-11-30 17:16:08

# Below is generated by plot.py at 2017-11-30 20:01:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.45 Mbit/s
95th percentile per-packet one-way delay: 63.739 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.45 Mbit/s
95th percentile per-packet one-way delay: 63.739 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-calib — Data Link

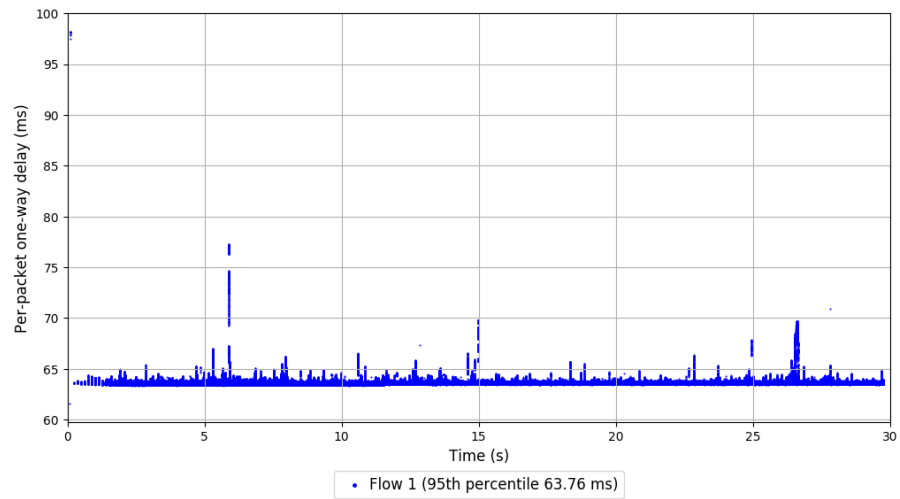
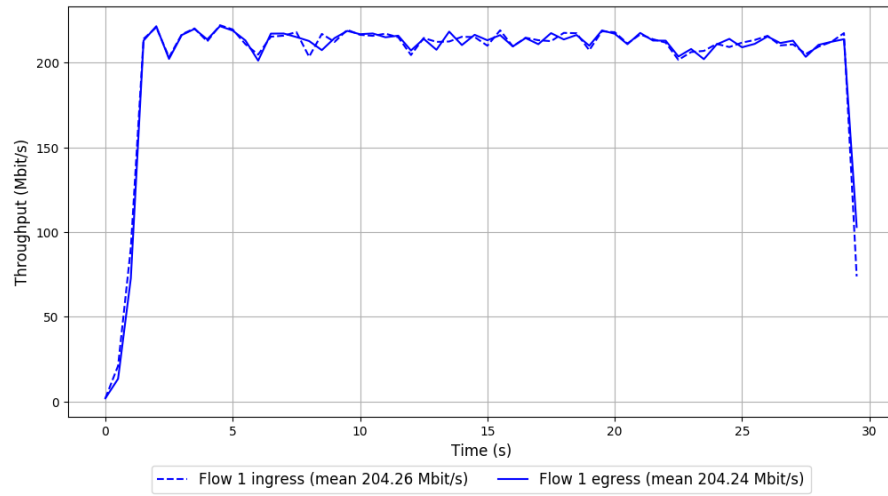


```
Run 3: Statistics of Indigo-calib

Start at: 2017-11-30 17:25:59
End at: 2017-11-30 17:26:29

# Below is generated by plot.py at 2017-11-30 20:02:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 204.24 Mbit/s
95th percentile per-packet one-way delay: 63.759 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 204.24 Mbit/s
95th percentile per-packet one-way delay: 63.759 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-11-30 17:36:25

End at: 2017-11-30 17:36:55

Below is generated by plot.py at 2017-11-30 20:02:19

Datalink statistics

-- Total of 1 flow:

Average throughput: 209.83 Mbit/s

95th percentile per-packet one-way delay: 63.728 ms

Loss rate: 0.00%

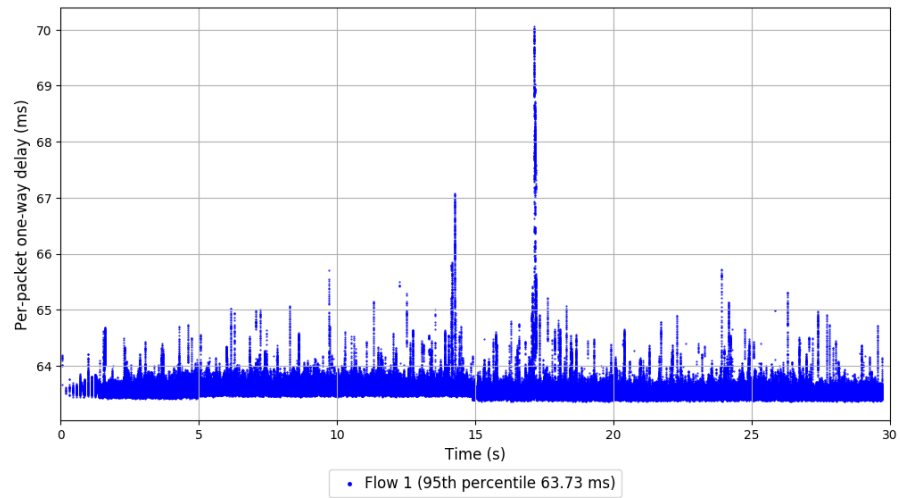
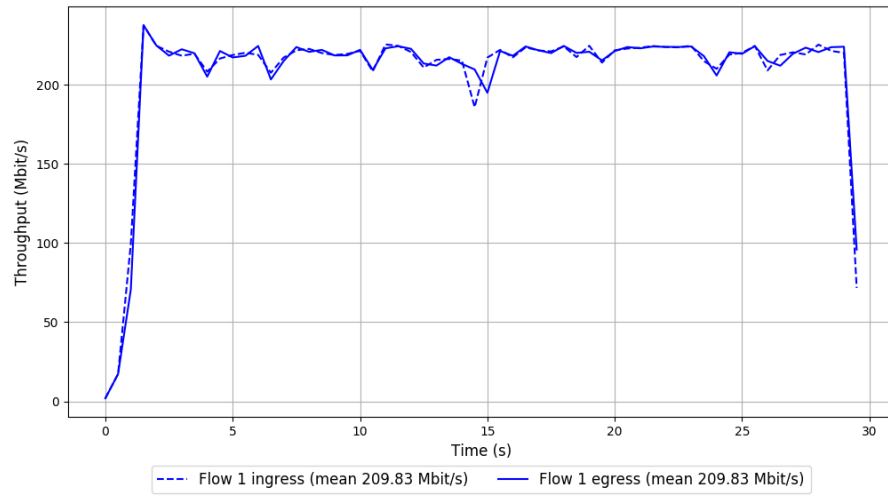
-- Flow 1:

Average throughput: 209.83 Mbit/s

95th percentile per-packet one-way delay: 63.728 ms

Loss rate: 0.00%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-11-30 17:46:53

End at: 2017-11-30 17:47:23

Below is generated by plot.py at 2017-11-30 20:02:32

Datalink statistics

-- Total of 1 flow:

Average throughput: 204.00 Mbit/s

95th percentile per-packet one-way delay: 63.751 ms

Loss rate: 0.00%

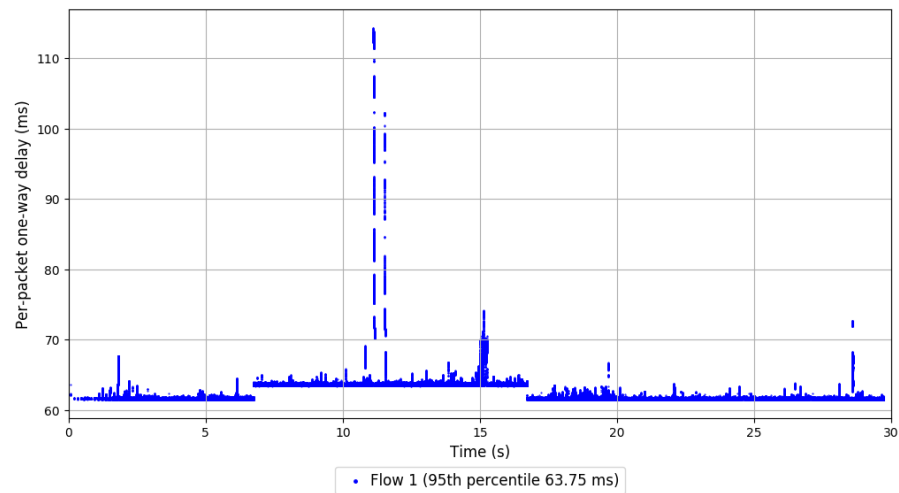
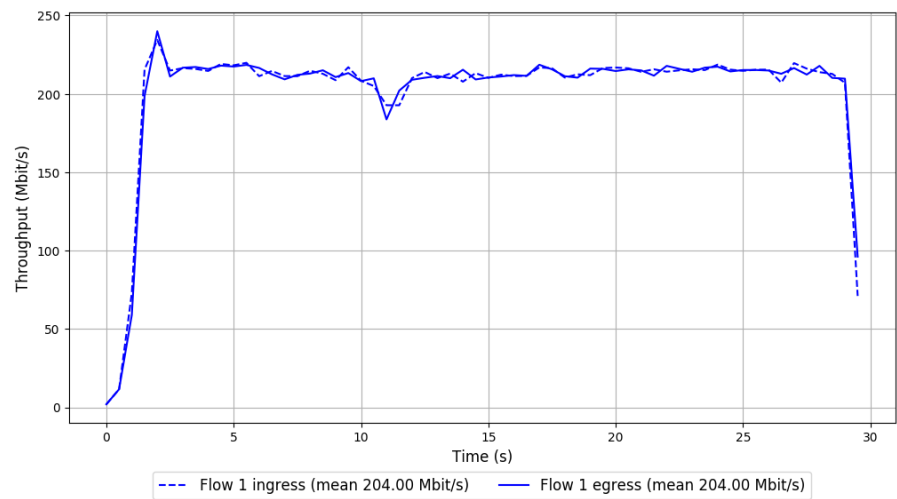
-- Flow 1:

Average throughput: 204.00 Mbit/s

95th percentile per-packet one-way delay: 63.751 ms

Loss rate: 0.00%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-11-30 17:57:23

End at: 2017-11-30 17:57:53

Below is generated by plot.py at 2017-11-30 20:02:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 209.97 Mbit/s

95th percentile per-packet one-way delay: 63.858 ms

Loss rate: 0.00%

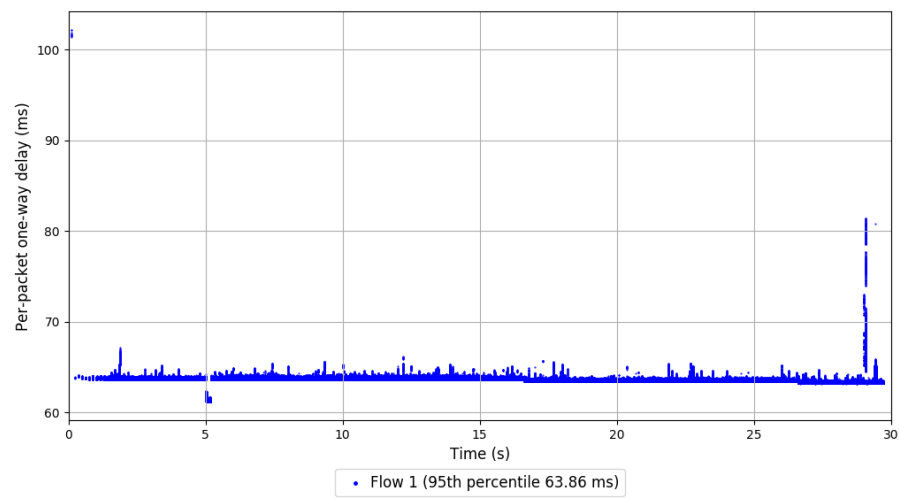
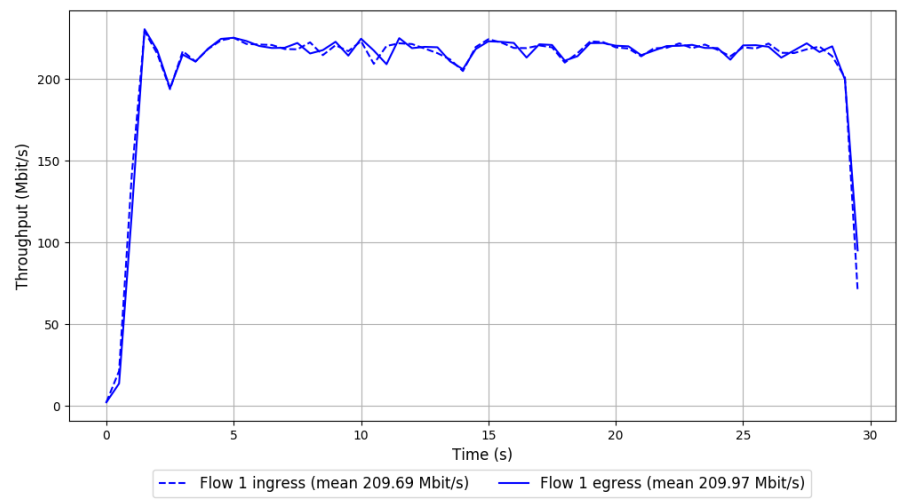
-- Flow 1:

Average throughput: 209.97 Mbit/s

95th percentile per-packet one-way delay: 63.858 ms

Loss rate: 0.00%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-11-30 18:07:39

End at: 2017-11-30 18:08:09

Below is generated by plot.py at 2017-11-30 20:03:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 209.66 Mbit/s

95th percentile per-packet one-way delay: 63.837 ms

Loss rate: 0.00%

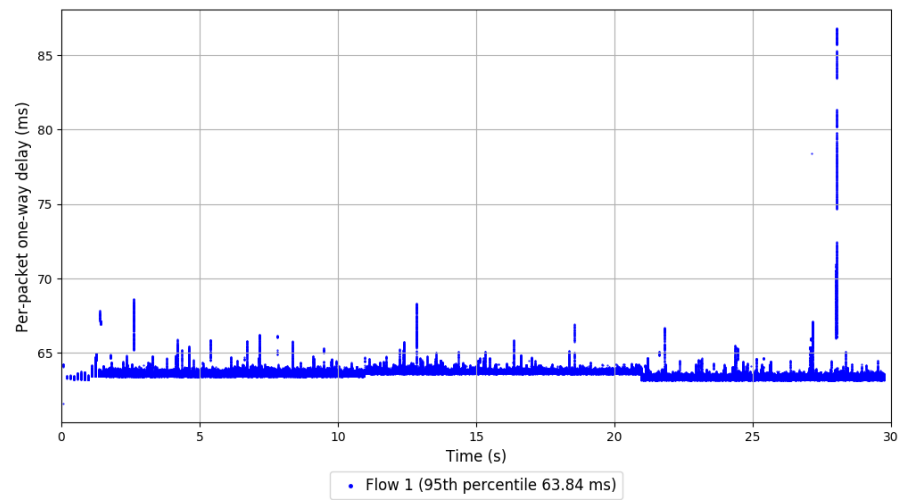
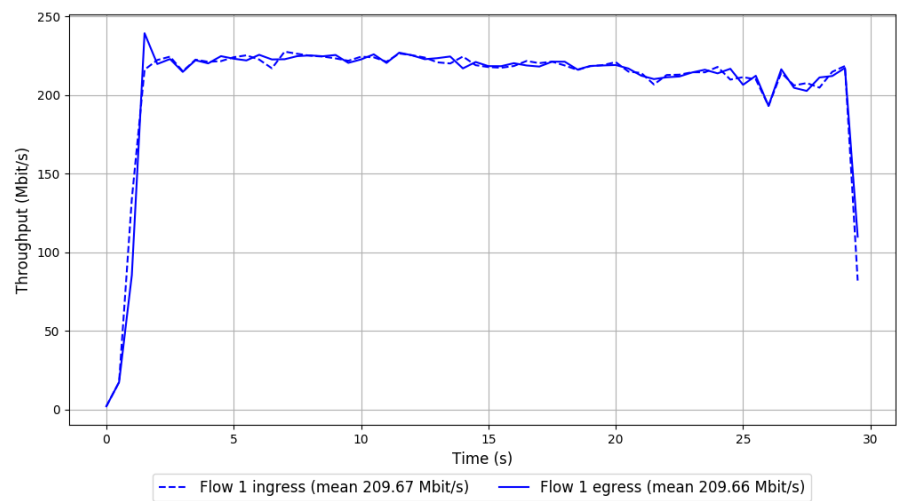
-- Flow 1:

Average throughput: 209.66 Mbit/s

95th percentile per-packet one-way delay: 63.837 ms

Loss rate: 0.00%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

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

End at: 2017-11-30 18:18:40

Below is generated by plot.py at 2017-11-30 20:03:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 203.76 Mbit/s

95th percentile per-packet one-way delay: 63.385 ms

Loss rate: 0.00%

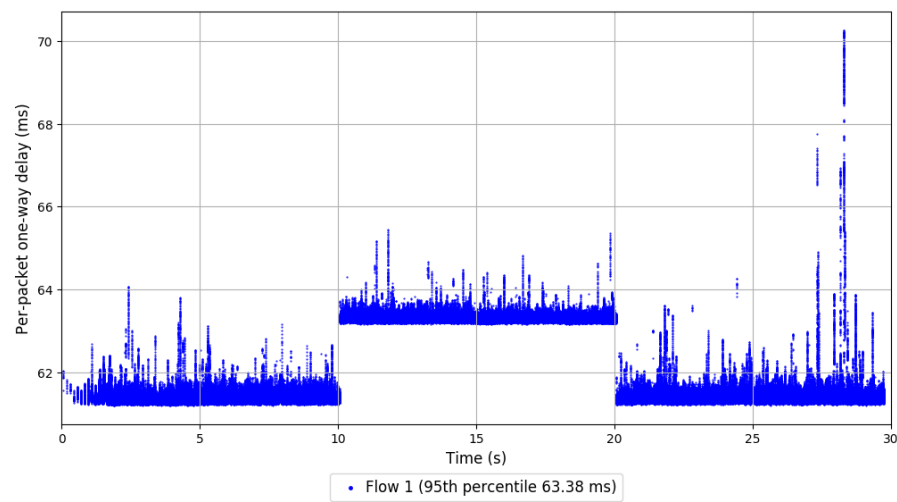
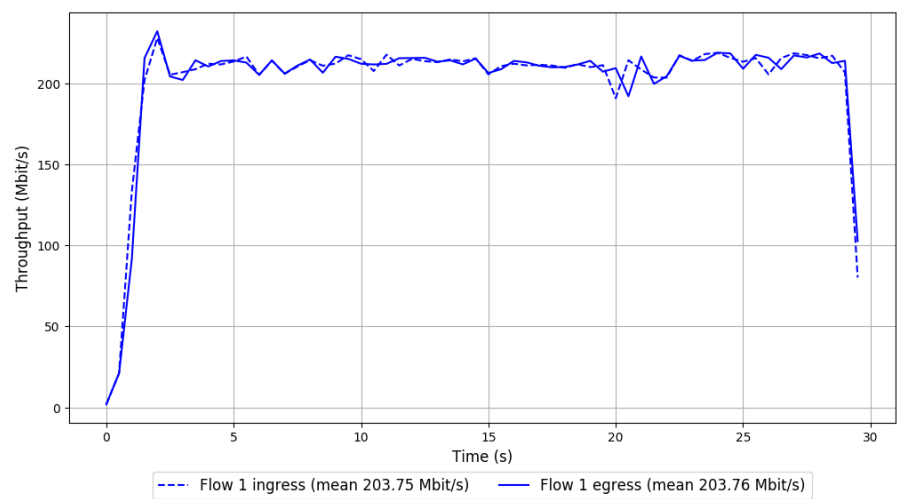
-- Flow 1:

Average throughput: 203.76 Mbit/s

95th percentile per-packet one-way delay: 63.385 ms

Loss rate: 0.00%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-11-30 18:28:38

End at: 2017-11-30 18:29:08

Below is generated by plot.py at 2017-11-30 20:03:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 204.36 Mbit/s

95th percentile per-packet one-way delay: 63.810 ms

Loss rate: 0.00%

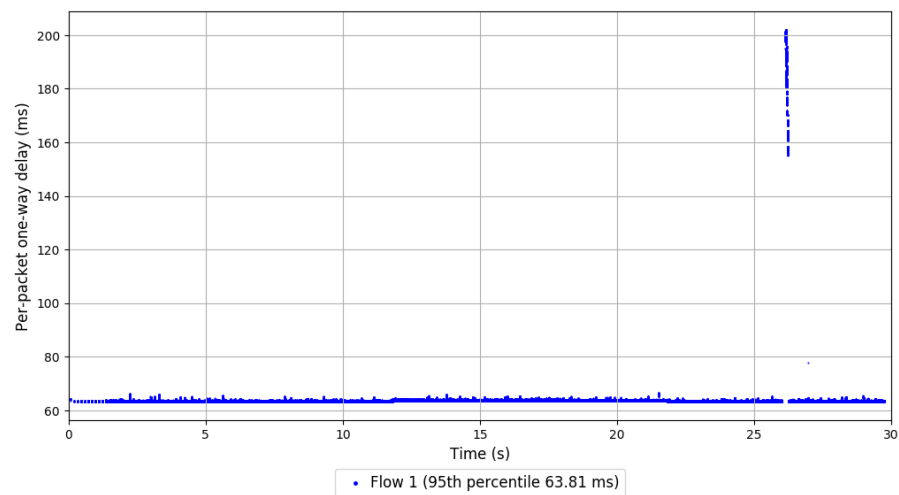
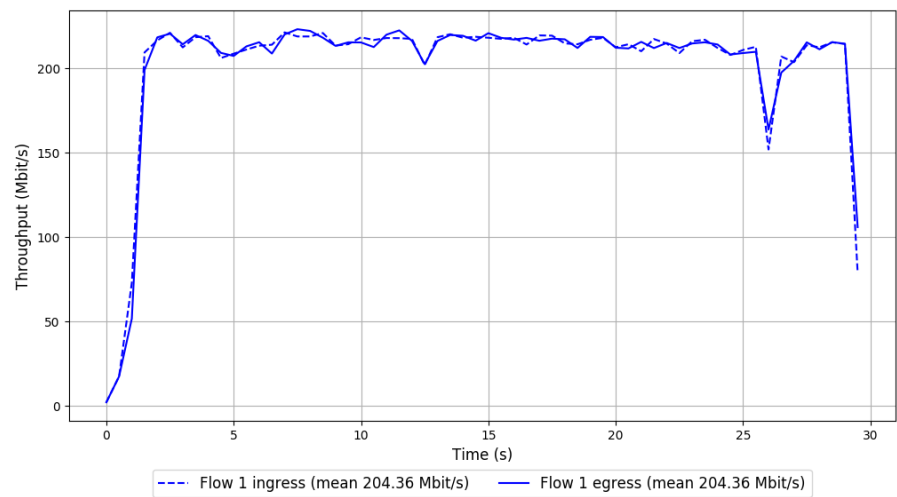
-- Flow 1:

Average throughput: 204.36 Mbit/s

95th percentile per-packet one-way delay: 63.810 ms

Loss rate: 0.00%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-11-30 18:39:05

End at: 2017-11-30 18:39:35

Below is generated by plot.py at 2017-11-30 20:03:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 208.48 Mbit/s

95th percentile per-packet one-way delay: 63.797 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 208.48 Mbit/s

95th percentile per-packet one-way delay: 63.797 ms

Loss rate: 0.00%

Run 10: Report of Indigo-calib — Data Link

