

Pantheon Report

Generated at 2017-11-16 05:29:14 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

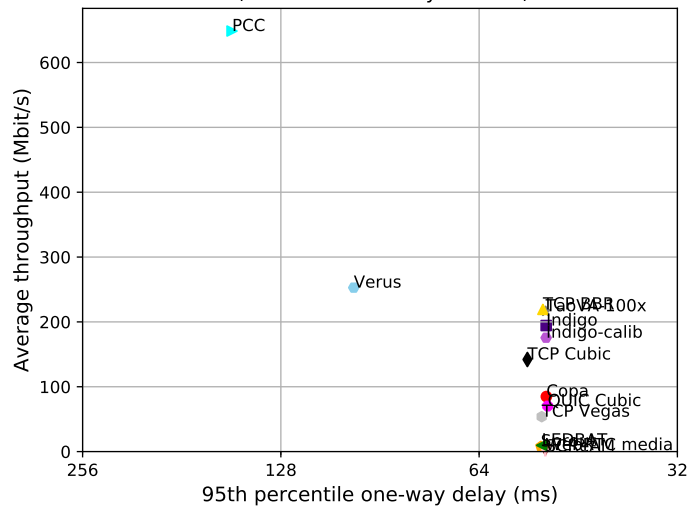
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

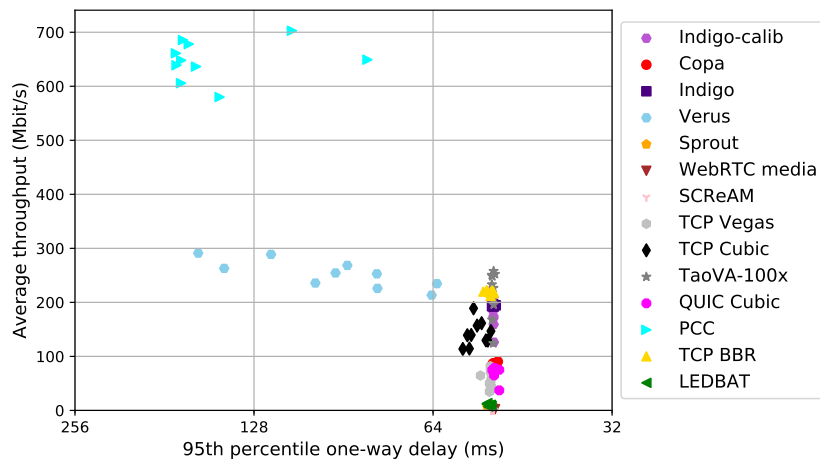
Git summary:

```
branch: indigos @ f54f2953f2a9765c9ffa988d13de5a9471790eb0
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-cellular @ aee99e8eb842cb053f8c9a80e28cd256a930bbc2
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/indigo-no-cwnd @ 3e58442c04028a11d7b02456e137604633ba2d6c
third_party/indigo-no-delivery-rate @ 57caa40858b964906edff4876d5a7e5bfff666c5
third_party/indigo-no-queuing-delay @ 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 London Ethernet to GCE Iowa Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	10	219.29	51.21	0.32
TCP Cubic	10	142.00	54.06	0.30
LEDBAT	10	9.59	51.43	0.51
PCC	10	648.55	151.81	2.44
QUIC Cubic	10	70.24	50.36	0.37
SCReAM	10	0.22	50.79	0.38
WebRTC media	9	2.30	50.77	0.39
Sprout	10	7.97	51.60	0.43
TaoVA-100x	10	216.37	50.73	0.37
TCP Vegas	10	53.82	51.42	0.39
Verus	10	252.82	99.21	0.70
Copa	10	84.87	50.59	0.22
Indigo	10	194.37	50.63	0.36
Indigo-calib	10	175.62	50.64	0.30

Run 1: Statistics of TCP BBR

Start at: 2017-11-16 01:11:23

End at: 2017-11-16 01:11:53

Below is generated by plot.py at 2017-11-16 04:45:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 221.45 Mbit/s

95th percentile per-packet one-way delay: 50.929 ms

Loss rate: 0.35%

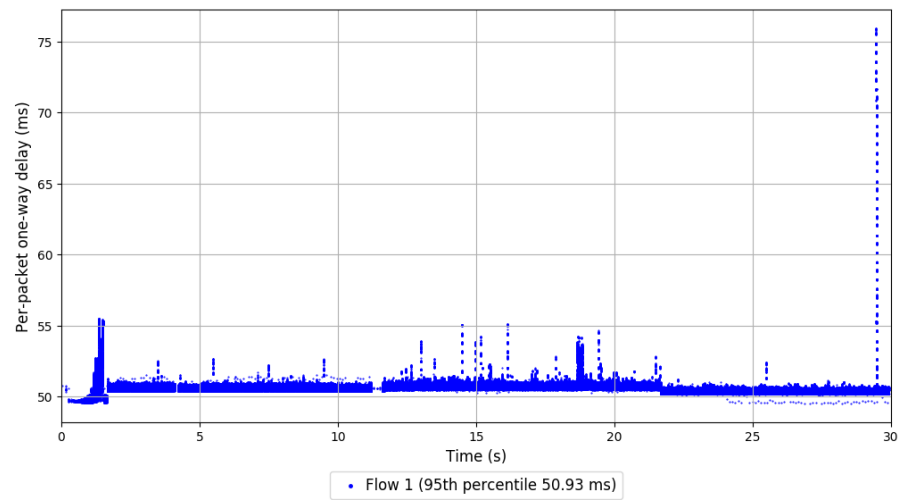
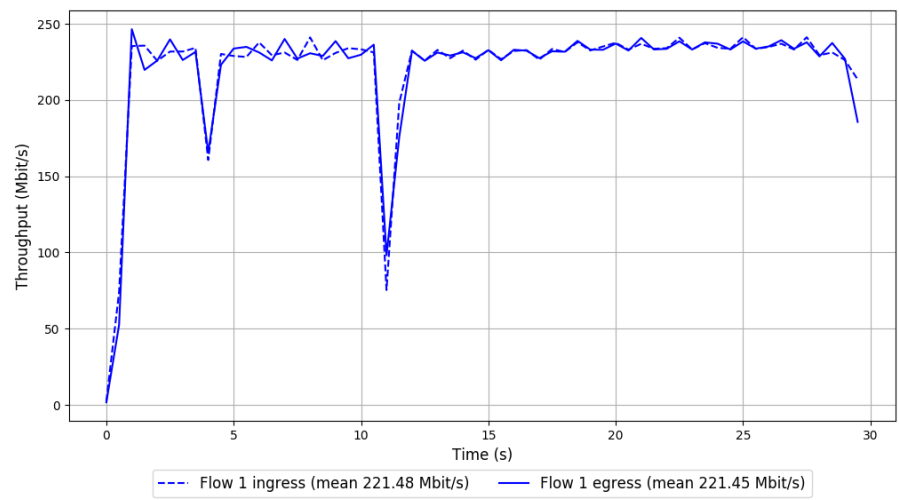
-- Flow 1:

Average throughput: 221.45 Mbit/s

95th percentile per-packet one-way delay: 50.929 ms

Loss rate: 0.35%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-11-16 01:21:56

End at: 2017-11-16 01:22:26

Below is generated by plot.py at 2017-11-16 04:45:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.75 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 0.36%

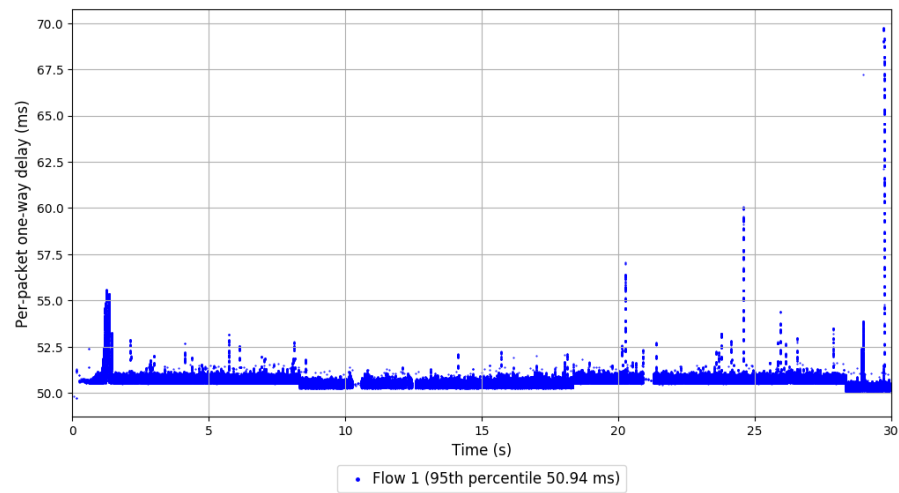
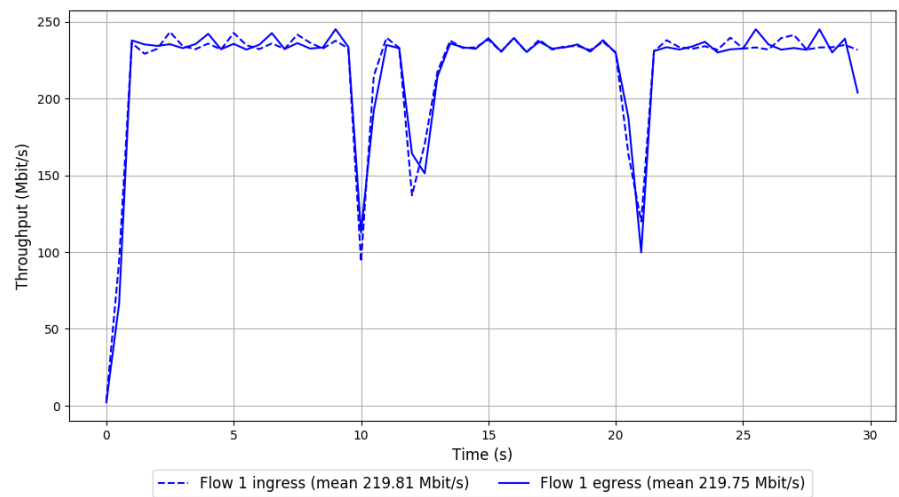
-- Flow 1:

Average throughput: 219.75 Mbit/s

95th percentile per-packet one-way delay: 50.943 ms

Loss rate: 0.36%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-11-16 01:32:23

End at: 2017-11-16 01:32:53

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 221.94 Mbit/s

95th percentile per-packet one-way delay: 50.969 ms

Loss rate: 0.36%

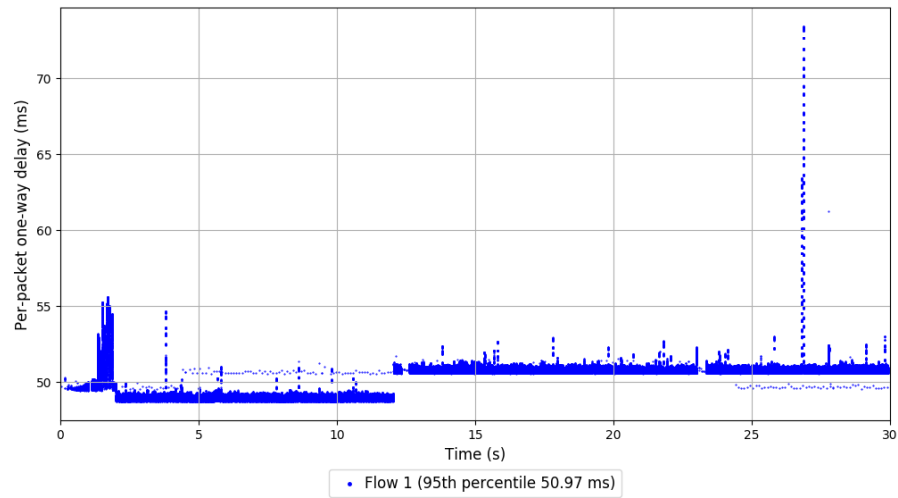
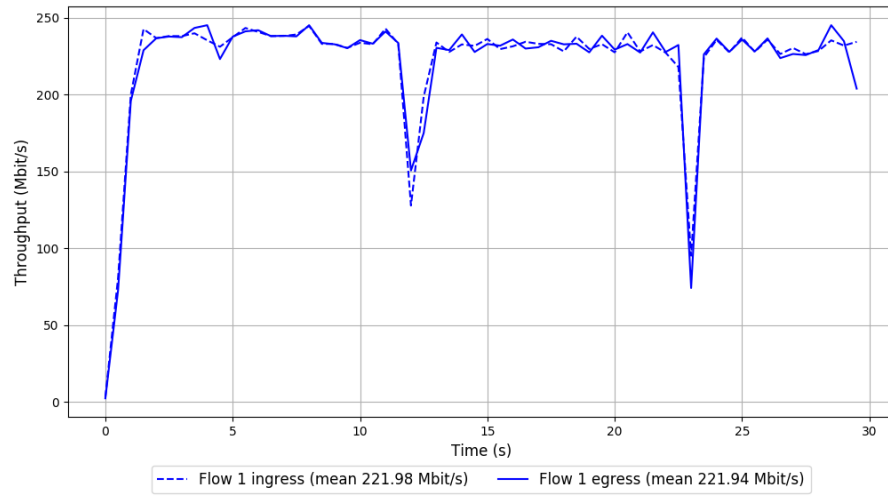
-- Flow 1:

Average throughput: 221.94 Mbit/s

95th percentile per-packet one-way delay: 50.969 ms

Loss rate: 0.36%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-11-16 01:42:57

End at: 2017-11-16 01:43:27

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.60 Mbit/s

95th percentile per-packet one-way delay: 52.005 ms

Loss rate: 0.00%

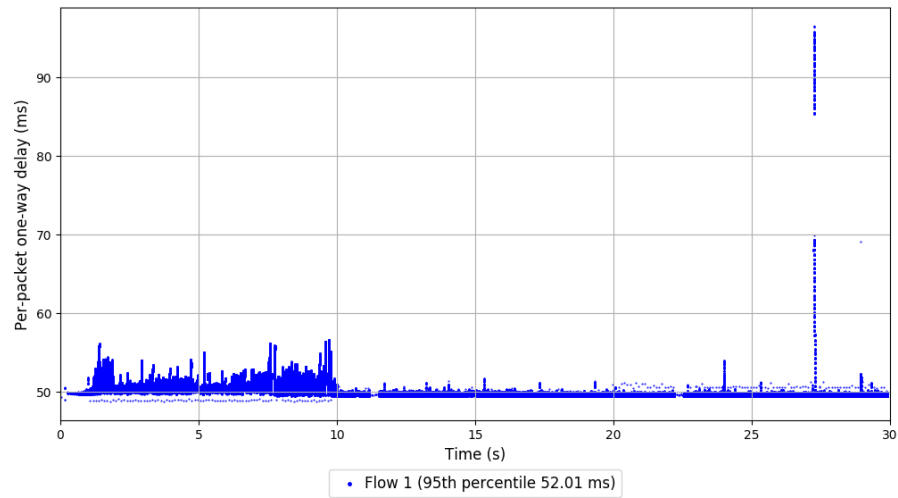
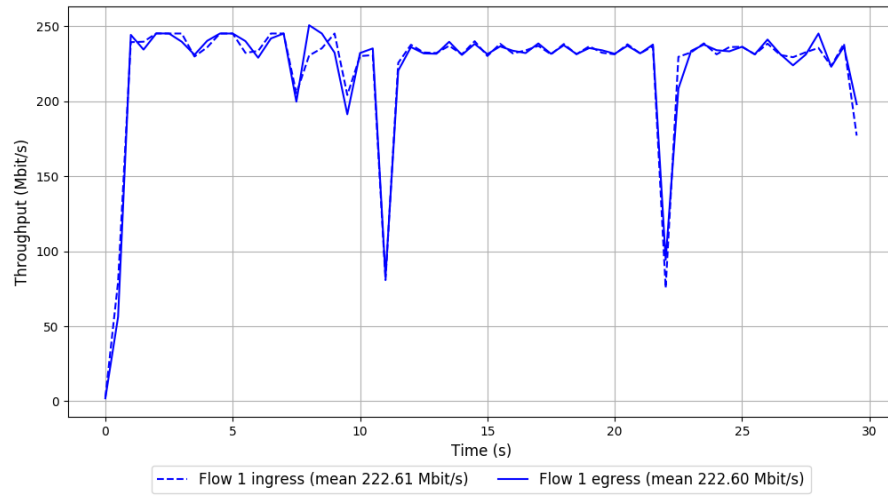
-- Flow 1:

Average throughput: 222.60 Mbit/s

95th percentile per-packet one-way delay: 52.005 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-11-16 01:53:21

End at: 2017-11-16 01:53:51

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.97 Mbit/s

95th percentile per-packet one-way delay: 52.667 ms

Loss rate: 0.31%

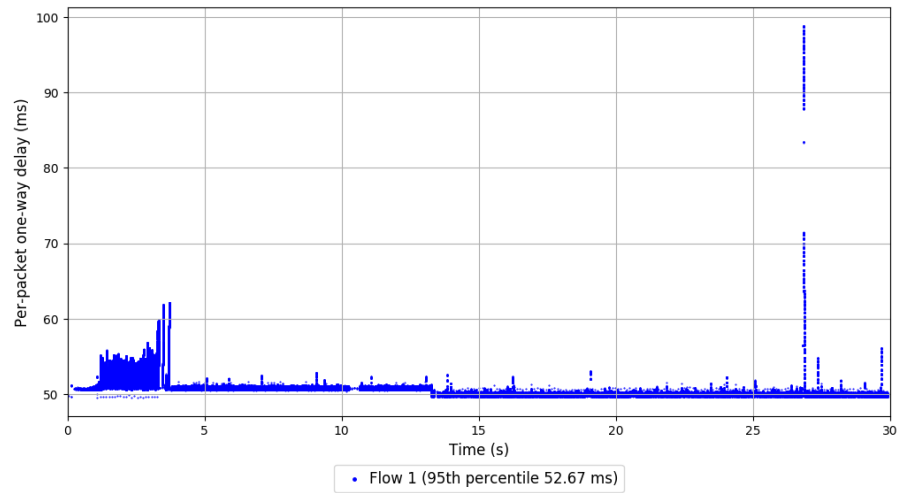
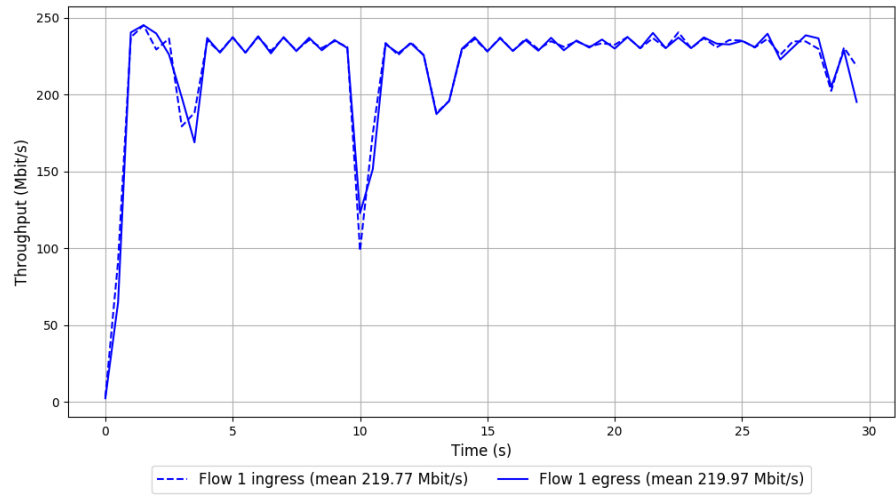
-- Flow 1:

Average throughput: 219.97 Mbit/s

95th percentile per-packet one-way delay: 52.667 ms

Loss rate: 0.31%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-11-16 02:03:58

End at: 2017-11-16 02:04:28

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 211.93 Mbit/s

95th percentile per-packet one-way delay: 51.217 ms

Loss rate: 0.38%

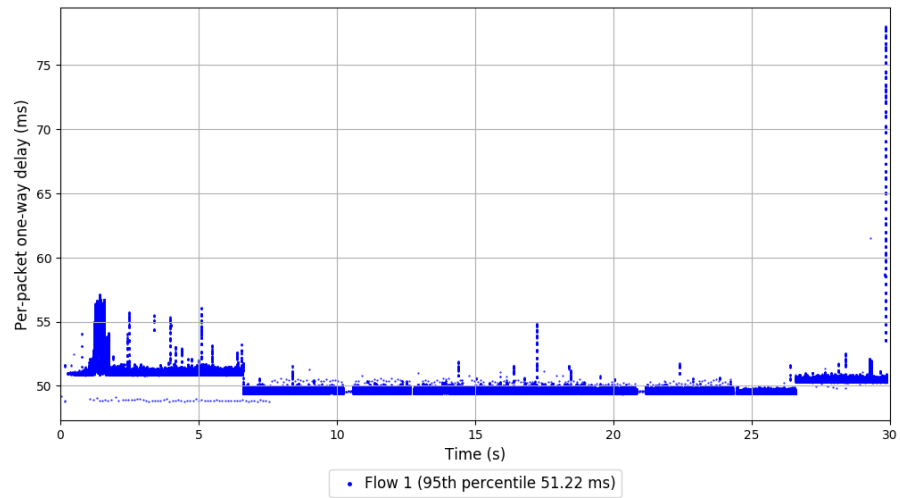
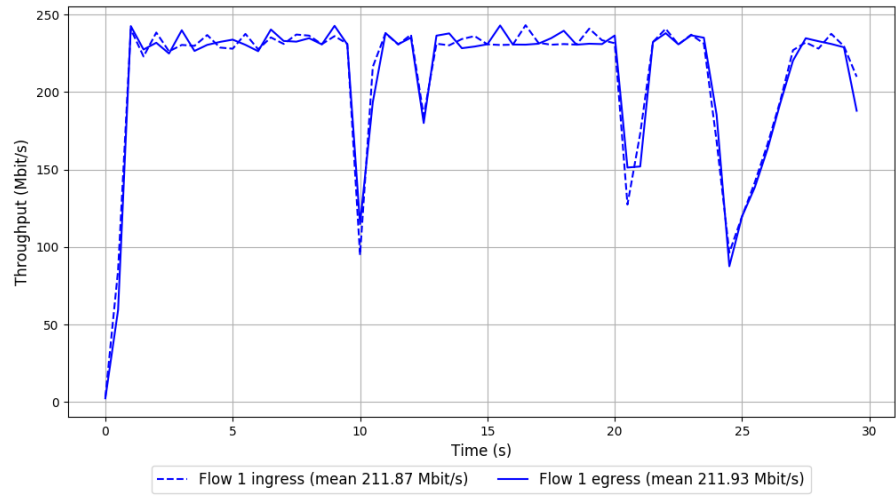
-- Flow 1:

Average throughput: 211.93 Mbit/s

95th percentile per-packet one-way delay: 51.217 ms

Loss rate: 0.38%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-11-16 02:14:37

End at: 2017-11-16 02:15:07

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 217.76 Mbit/s

95th percentile per-packet one-way delay: 51.259 ms

Loss rate: 0.38%

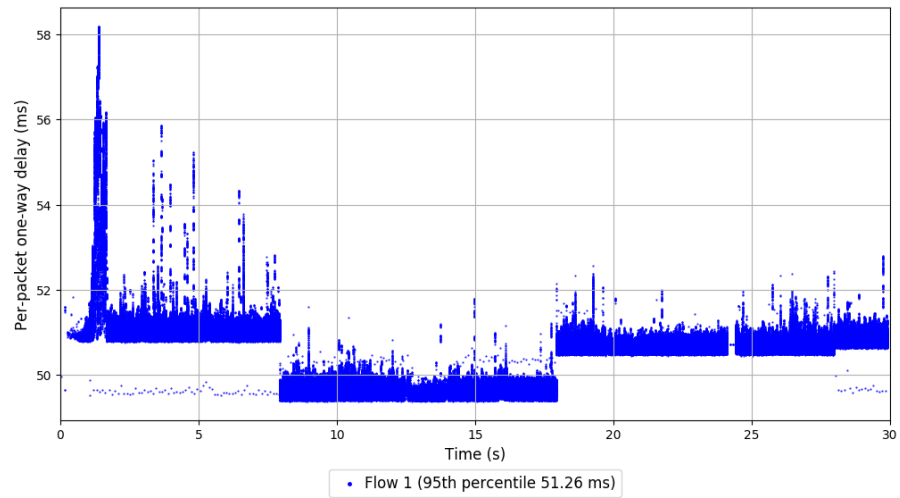
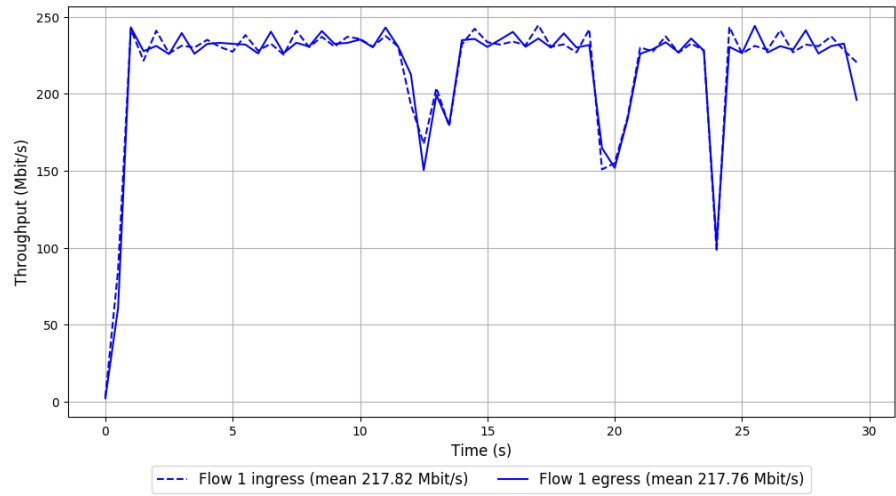
-- Flow 1:

Average throughput: 217.76 Mbit/s

95th percentile per-packet one-way delay: 51.259 ms

Loss rate: 0.38%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-11-16 02:25:11

End at: 2017-11-16 02:25:41

Below is generated by plot.py at 2017-11-16 04:45:09

Datalink statistics

-- Total of 1 flow:

Average throughput: 220.91 Mbit/s

95th percentile per-packet one-way delay: 50.769 ms

Loss rate: 0.37%

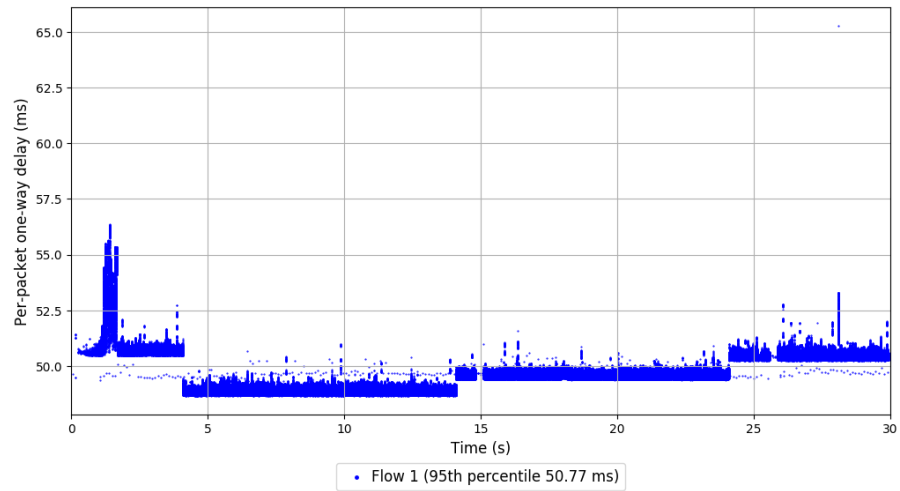
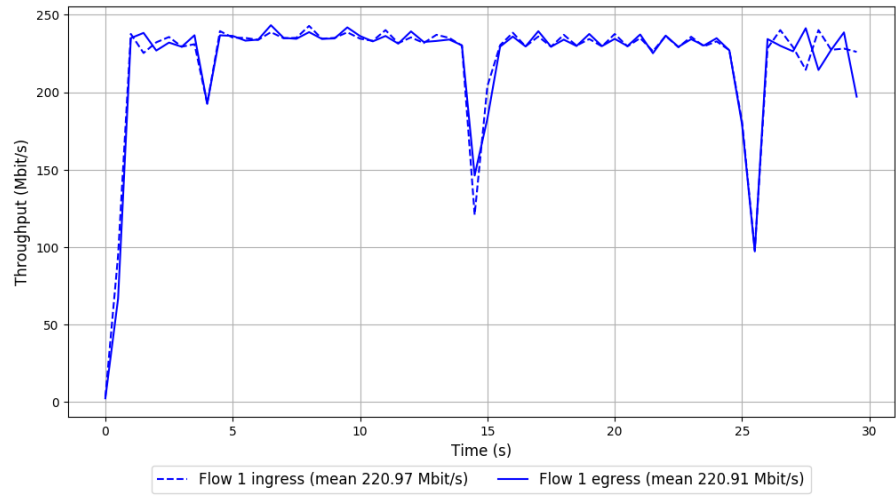
-- Flow 1:

Average throughput: 220.91 Mbit/s

95th percentile per-packet one-way delay: 50.769 ms

Loss rate: 0.37%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-11-16 02:35:38

End at: 2017-11-16 02:36:08

Below is generated by plot.py at 2017-11-16 04:48:35

Datalink statistics

-- Total of 1 flow:

Average throughput: 217.17 Mbit/s

95th percentile per-packet one-way delay: 50.724 ms

Loss rate: 0.36%

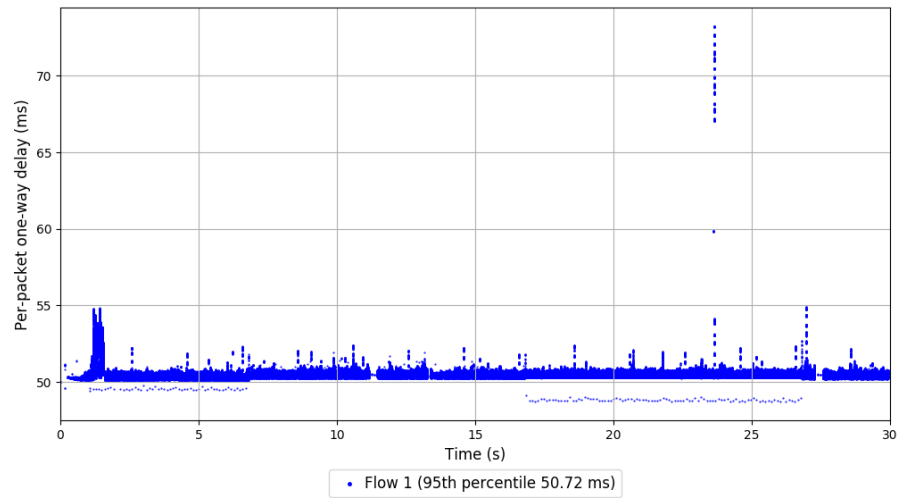
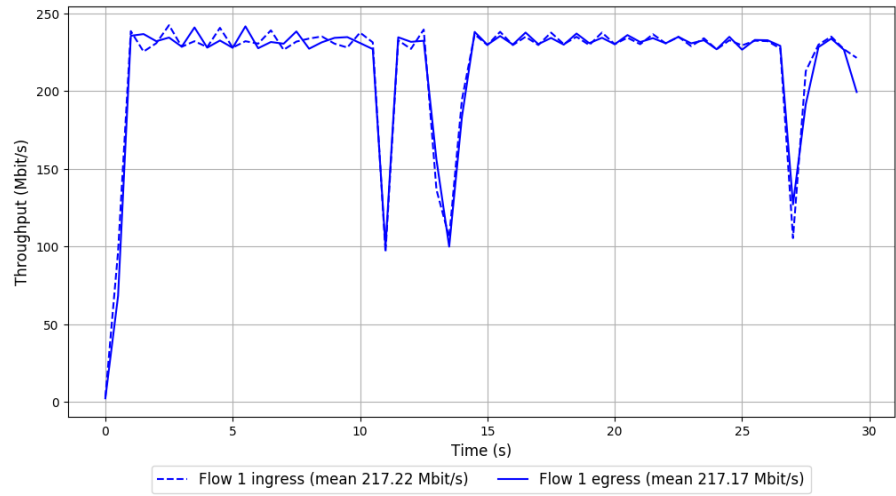
-- Flow 1:

Average throughput: 217.17 Mbit/s

95th percentile per-packet one-way delay: 50.724 ms

Loss rate: 0.36%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-11-16 02:46:12

End at: 2017-11-16 02:46:42

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.44 Mbit/s

95th percentile per-packet one-way delay: 50.653 ms

Loss rate: 0.35%

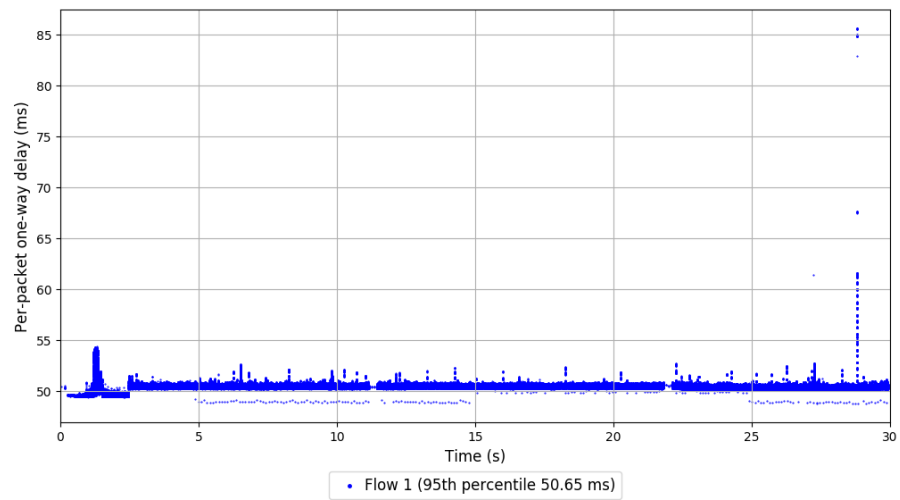
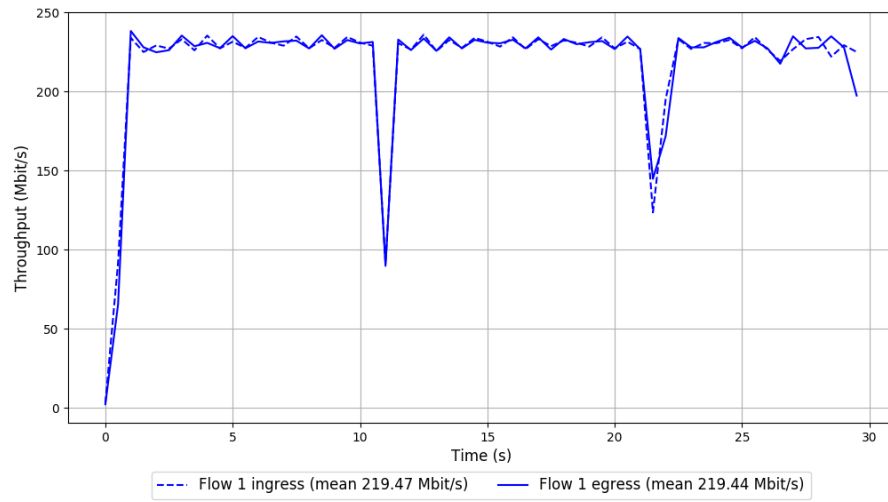
-- Flow 1:

Average throughput: 219.44 Mbit/s

95th percentile per-packet one-way delay: 50.653 ms

Loss rate: 0.35%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-11-16 01:12:48

End at: 2017-11-16 01:13:18

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 114.40 Mbit/s

95th percentile per-packet one-way delay: 55.593 ms

Loss rate: 0.37%

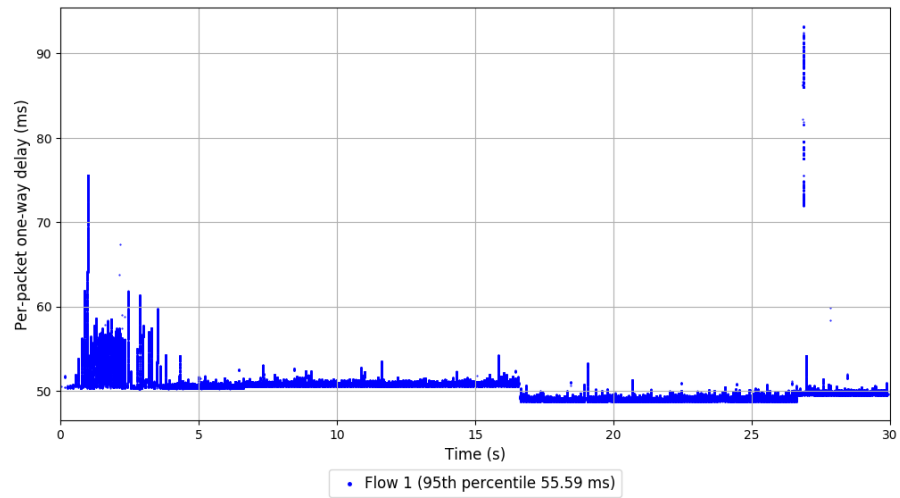
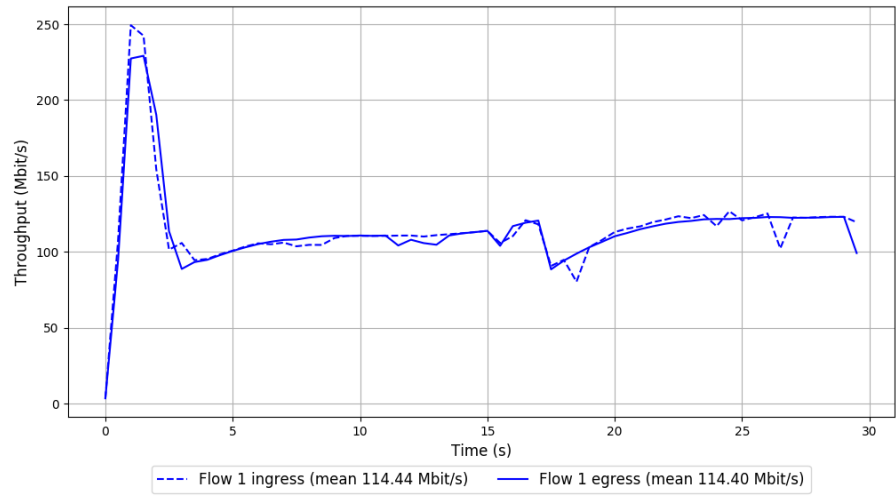
-- Flow 1:

Average throughput: 114.40 Mbit/s

95th percentile per-packet one-way delay: 55.593 ms

Loss rate: 0.37%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-11-16 01:23:21

End at: 2017-11-16 01:23:51

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 146.77 Mbit/s

95th percentile per-packet one-way delay: 51.151 ms

Loss rate: 0.29%

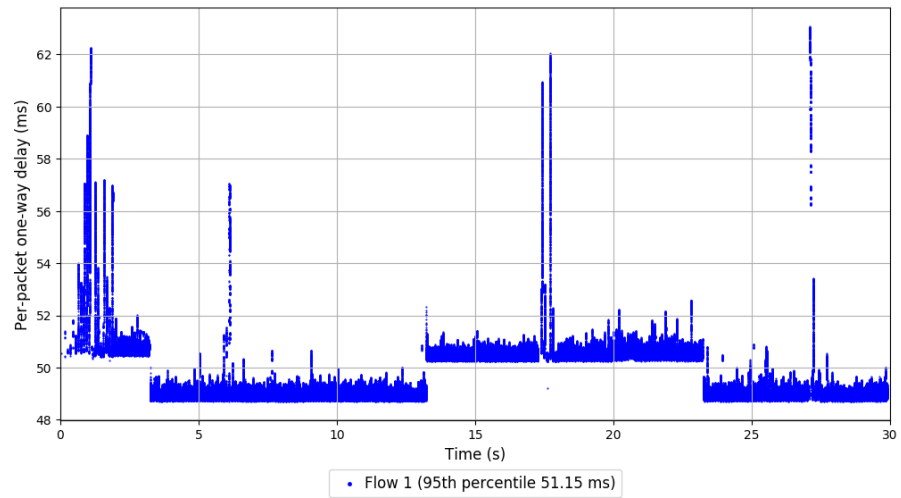
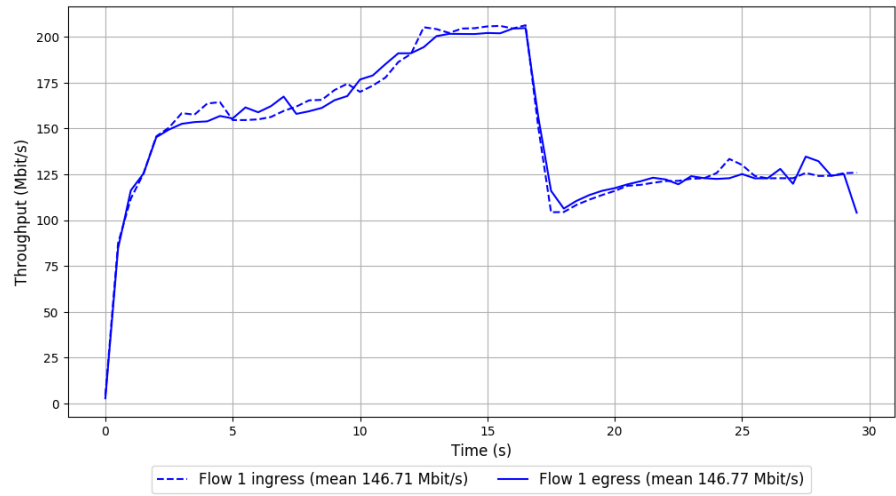
-- Flow 1:

Average throughput: 146.77 Mbit/s

95th percentile per-packet one-way delay: 51.151 ms

Loss rate: 0.29%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-11-16 01:33:48

End at: 2017-11-16 01:34:18

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 139.59 Mbit/s

95th percentile per-packet one-way delay: 55.206 ms

Loss rate: 0.36%

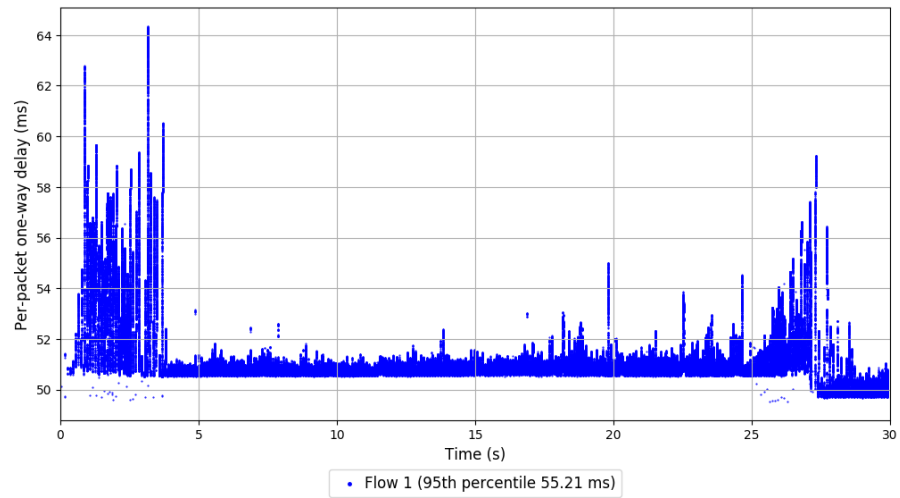
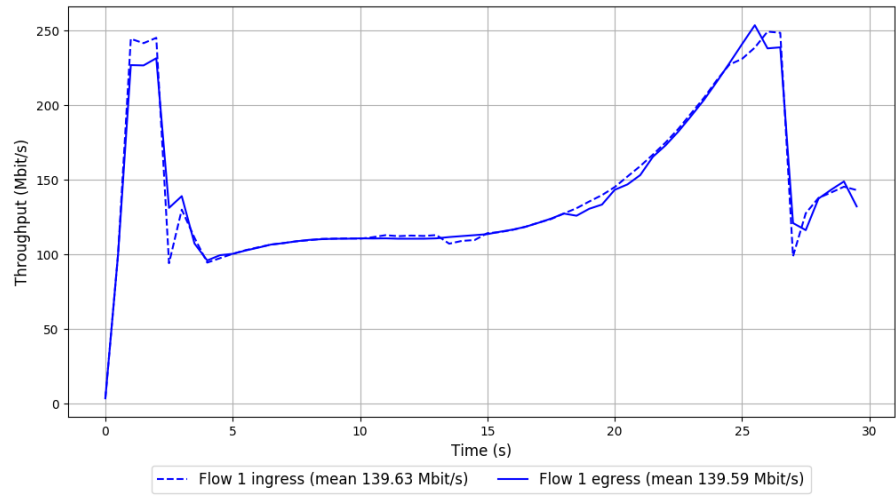
-- Flow 1:

Average throughput: 139.59 Mbit/s

95th percentile per-packet one-way delay: 55.206 ms

Loss rate: 0.36%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-11-16 01:44:22

End at: 2017-11-16 01:44:52

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 157.00 Mbit/s

95th percentile per-packet one-way delay: 53.962 ms

Loss rate: 0.31%

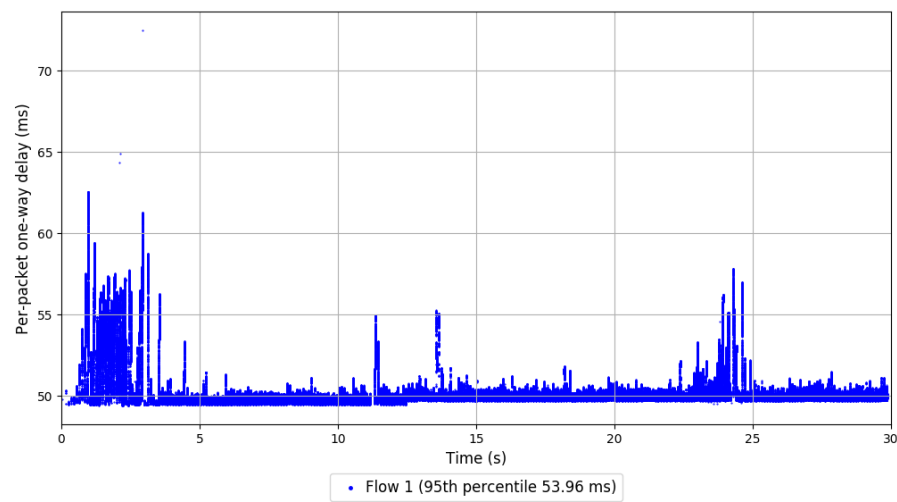
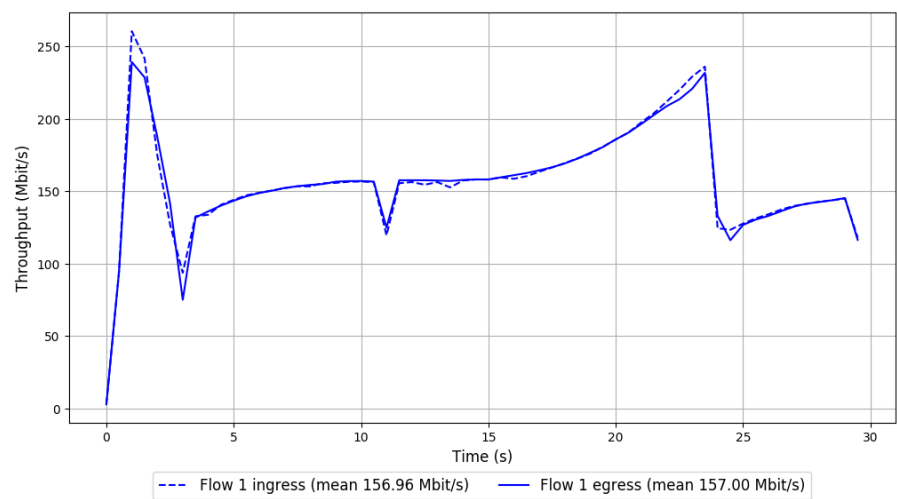
-- Flow 1:

Average throughput: 157.00 Mbit/s

95th percentile per-packet one-way delay: 53.962 ms

Loss rate: 0.31%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-11-16 01:54:46

End at: 2017-11-16 01:55:16

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.96 Mbit/s

95th percentile per-packet one-way delay: 54.715 ms

Loss rate: 0.26%

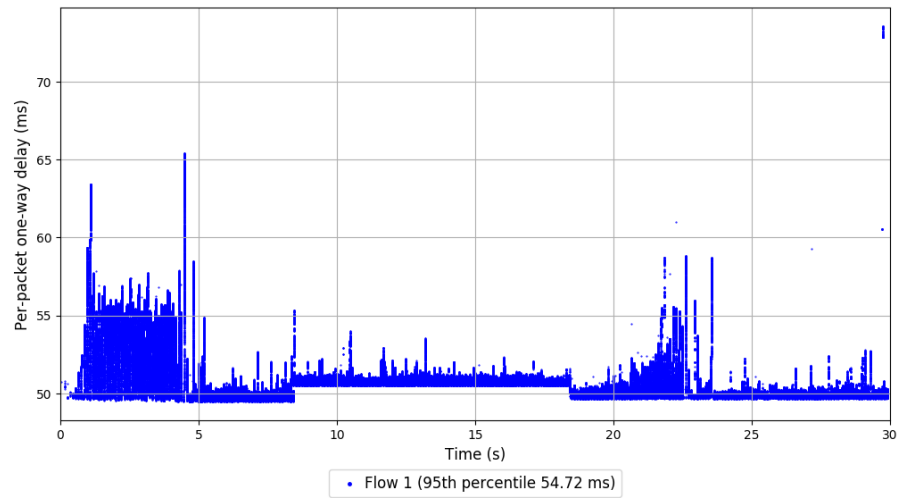
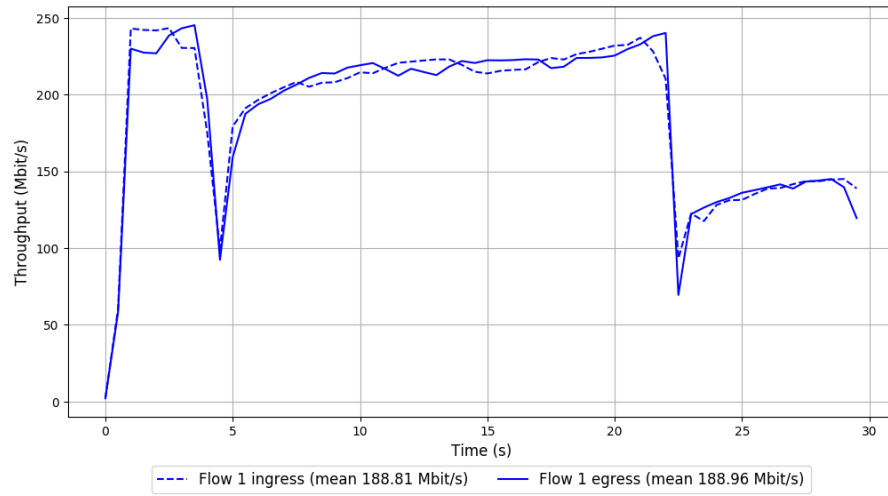
-- Flow 1:

Average throughput: 188.96 Mbit/s

95th percentile per-packet one-way delay: 54.715 ms

Loss rate: 0.26%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-11-16 02:05:23

End at: 2017-11-16 02:05:53

Below is generated by plot.py at 2017-11-16 04:48:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 161.46 Mbit/s

95th percentile per-packet one-way delay: 53.026 ms

Loss rate: 0.20%

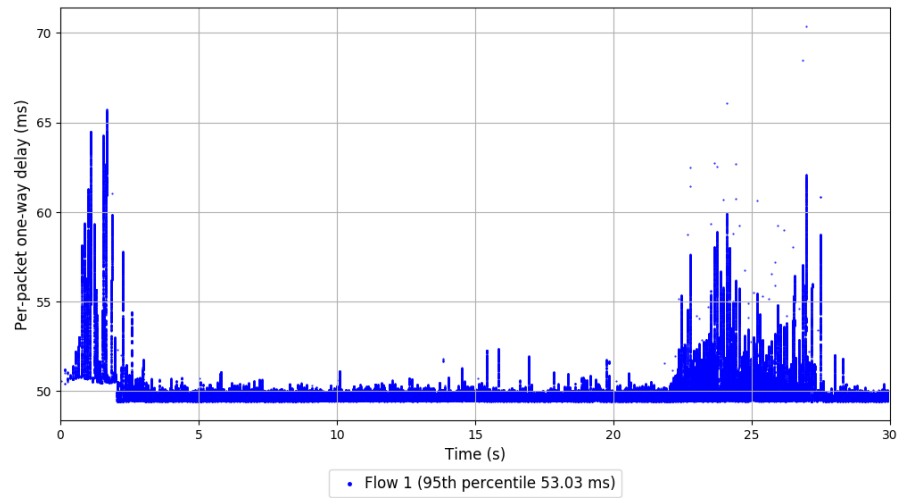
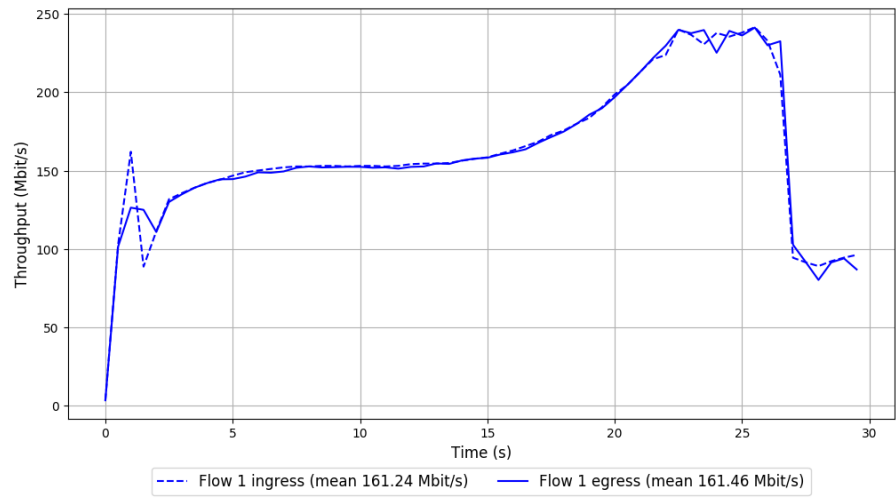
-- Flow 1:

Average throughput: 161.46 Mbit/s

95th percentile per-packet one-way delay: 53.026 ms

Loss rate: 0.20%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

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

End at: 2017-11-16 02:16:32

Below is generated by plot.py at 2017-11-16 04:49:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 51.764 ms

Loss rate: 0.25%

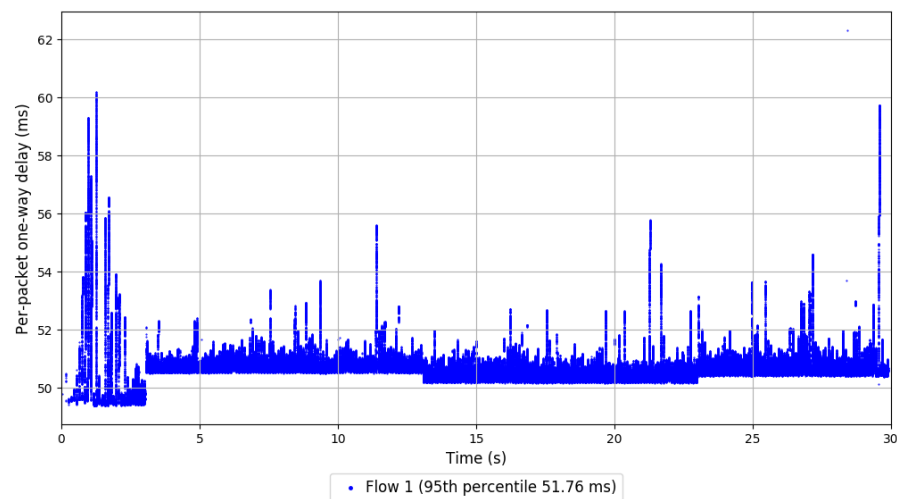
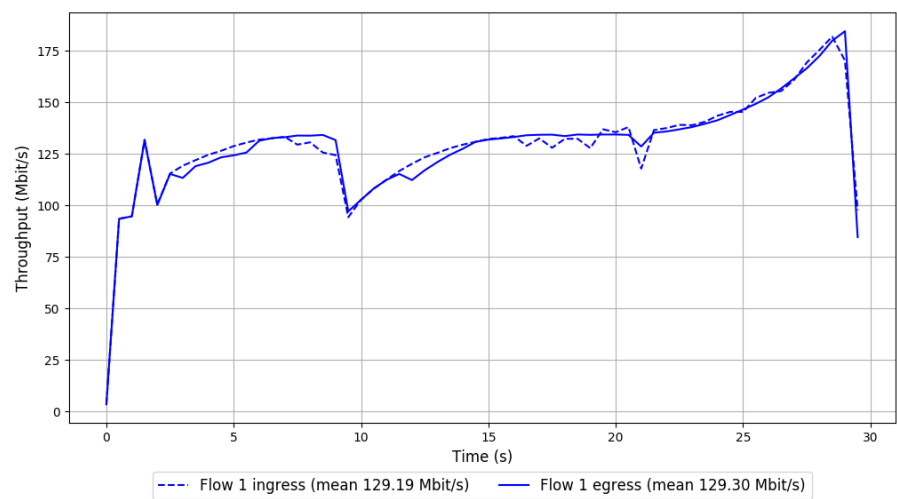
-- Flow 1:

Average throughput: 129.30 Mbit/s

95th percentile per-packet one-way delay: 51.764 ms

Loss rate: 0.25%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-11-16 02:26:36

End at: 2017-11-16 02:27:06

Below is generated by plot.py at 2017-11-16 04:49:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 113.76 Mbit/s

95th percentile per-packet one-way delay: 57.032 ms

Loss rate: 0.49%

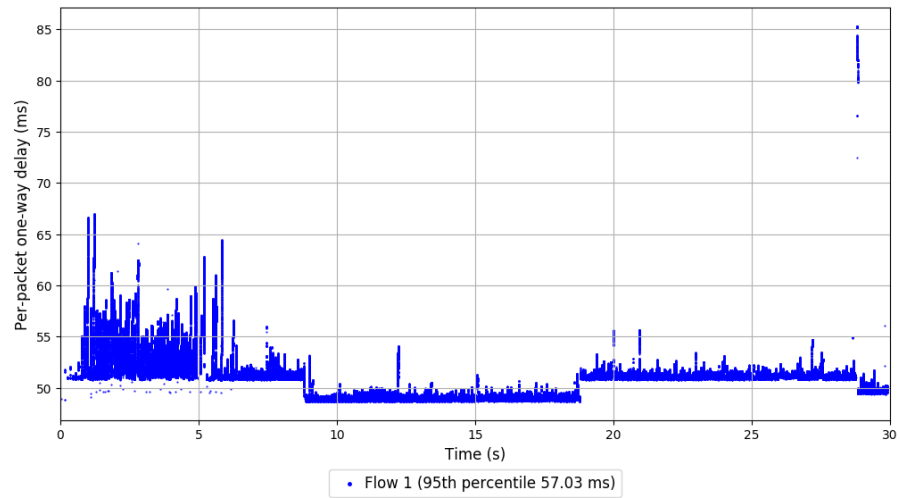
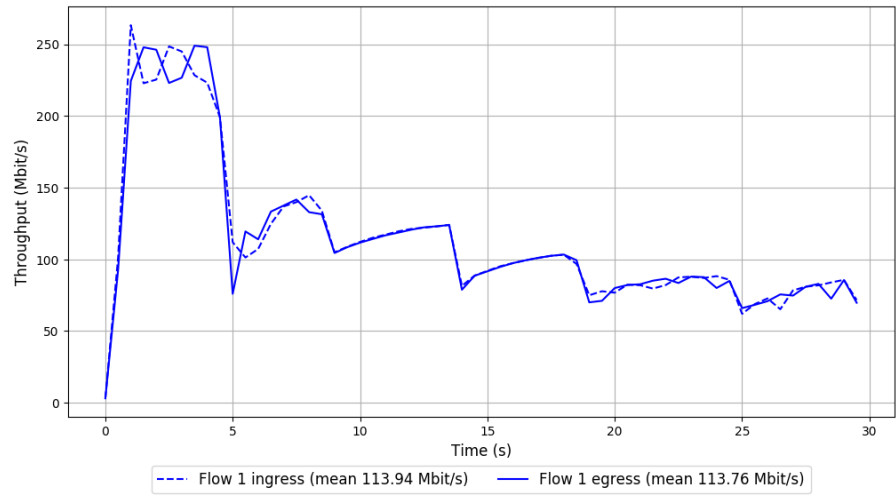
-- Flow 1:

Average throughput: 113.76 Mbit/s

95th percentile per-packet one-way delay: 57.032 ms

Loss rate: 0.49%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-11-16 02:37:03

End at: 2017-11-16 02:37:33

Below is generated by plot.py at 2017-11-16 04:49:43

Datalink statistics

-- Total of 1 flow:

Average throughput: 139.15 Mbit/s

95th percentile per-packet one-way delay: 56.043 ms

Loss rate: 0.23%

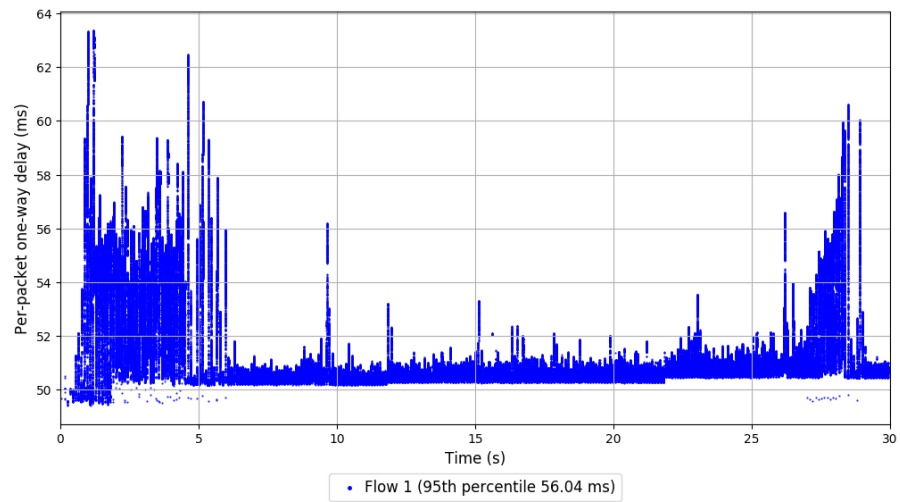
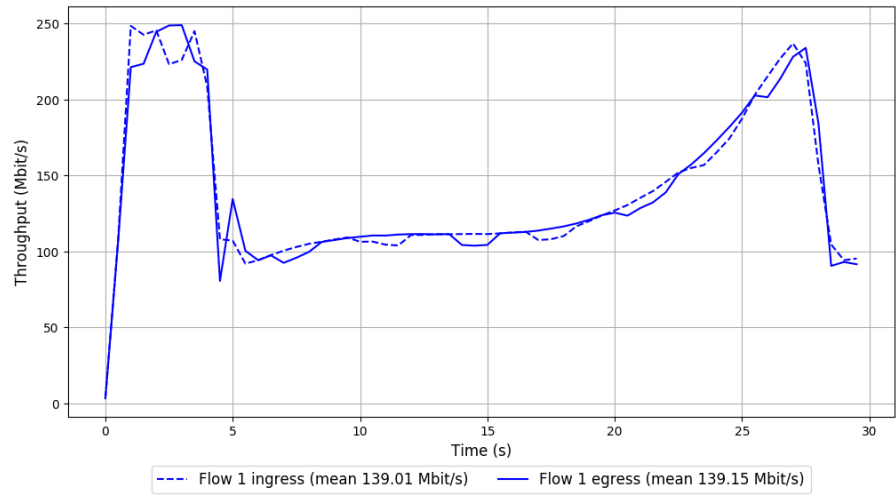
-- Flow 1:

Average throughput: 139.15 Mbit/s

95th percentile per-packet one-way delay: 56.043 ms

Loss rate: 0.23%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-11-16 02:47:37

End at: 2017-11-16 02:48:07

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 129.64 Mbit/s

95th percentile per-packet one-way delay: 52.150 ms

Loss rate: 0.28%

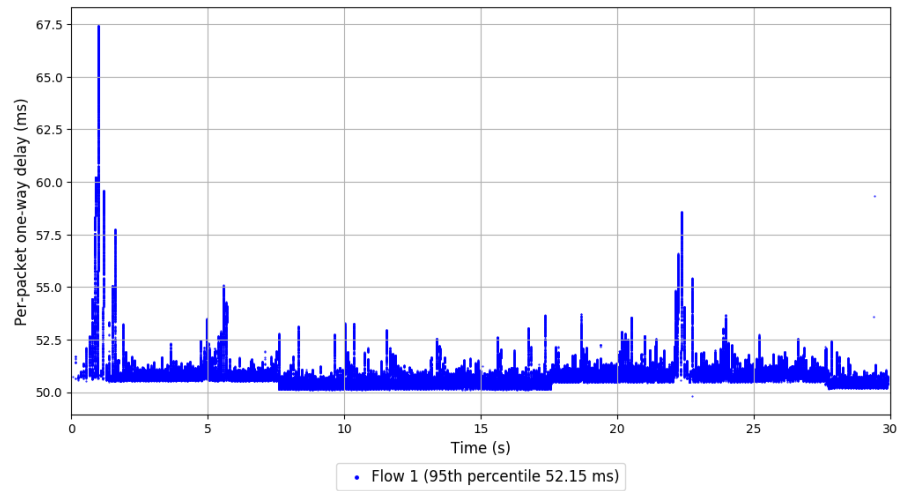
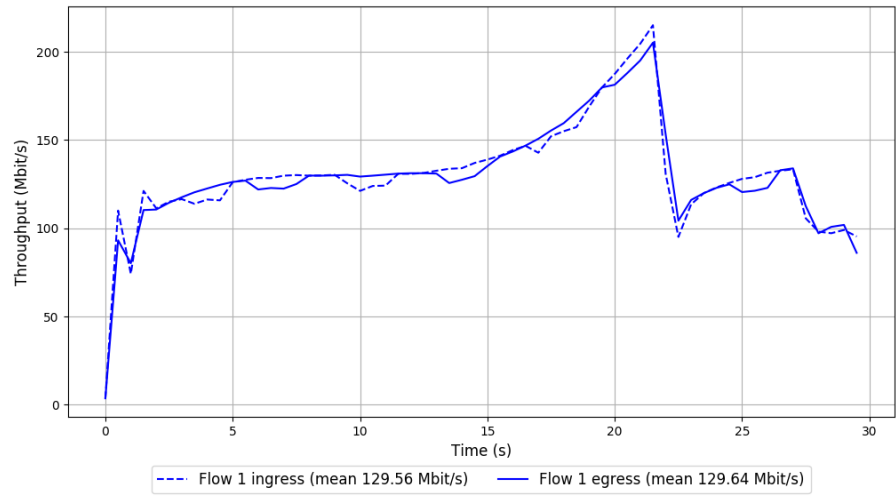
-- Flow 1:

Average throughput: 129.64 Mbit/s

95th percentile per-packet one-way delay: 52.150 ms

Loss rate: 0.28%

Run 10: Report of TCP Cubic — Data Link

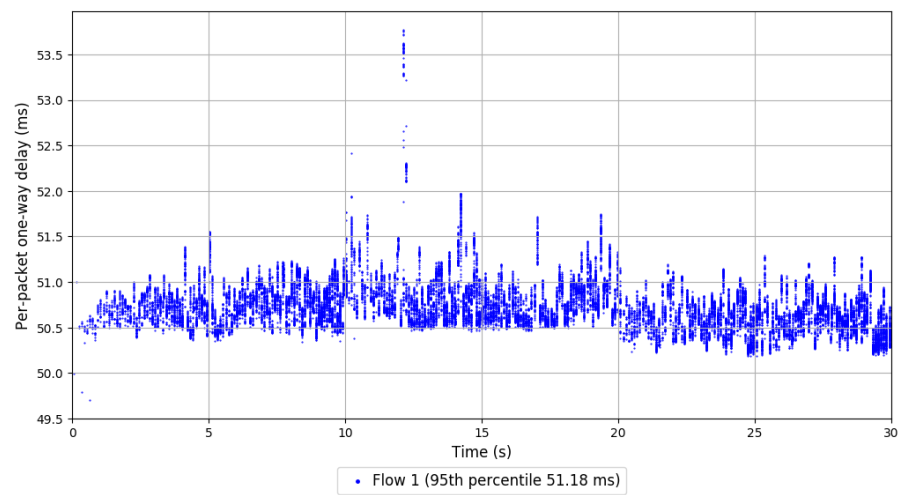
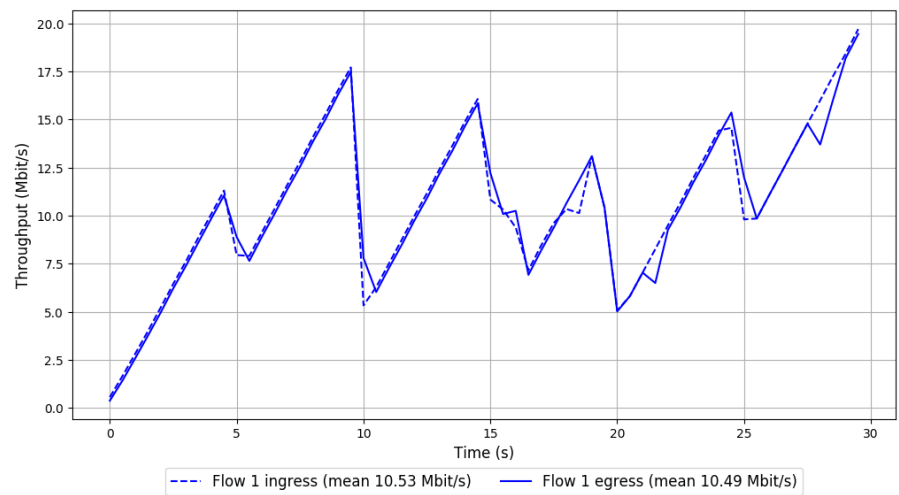


```
Run 1: Statistics of LEDBAT

Start at: 2017-11-16 01:09:25
End at: 2017-11-16 01:09:55

# Below is generated by plot.py at 2017-11-16 04:49:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 51.182 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 10.49 Mbit/s
95th percentile per-packet one-way delay: 51.182 ms
Loss rate: 0.66%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-11-16 01:19:58

End at: 2017-11-16 01:20:29

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.77 Mbit/s

95th percentile per-packet one-way delay: 51.397 ms

Loss rate: 0.49%

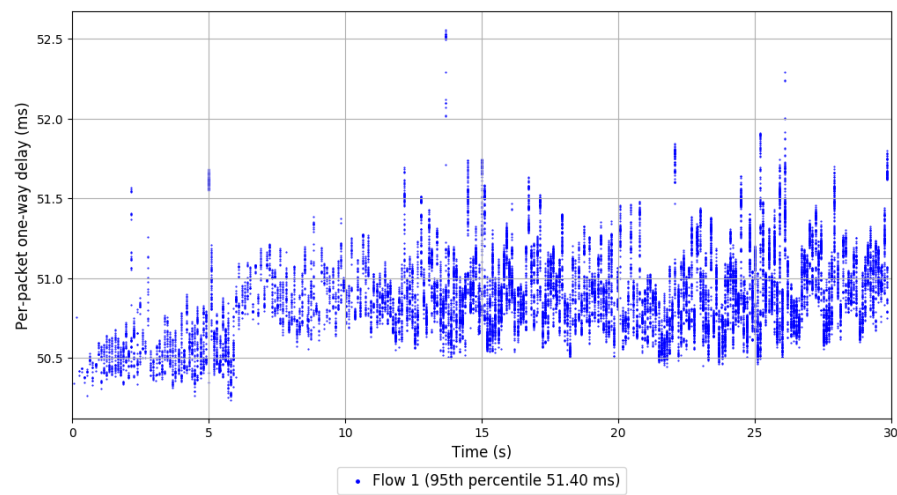
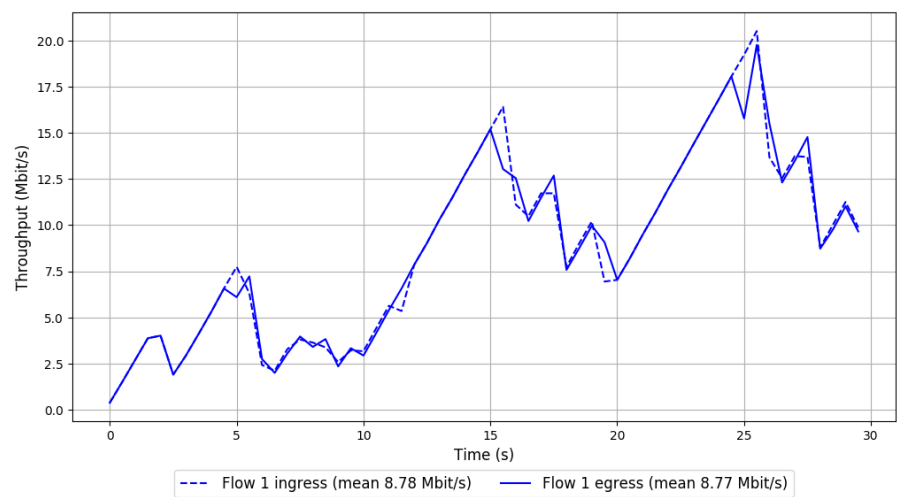
-- Flow 1:

Average throughput: 8.77 Mbit/s

95th percentile per-packet one-way delay: 51.397 ms

Loss rate: 0.49%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-11-16 01:30:25

End at: 2017-11-16 01:30:55

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.68 Mbit/s

95th percentile per-packet one-way delay: 51.261 ms

Loss rate: 0.17%

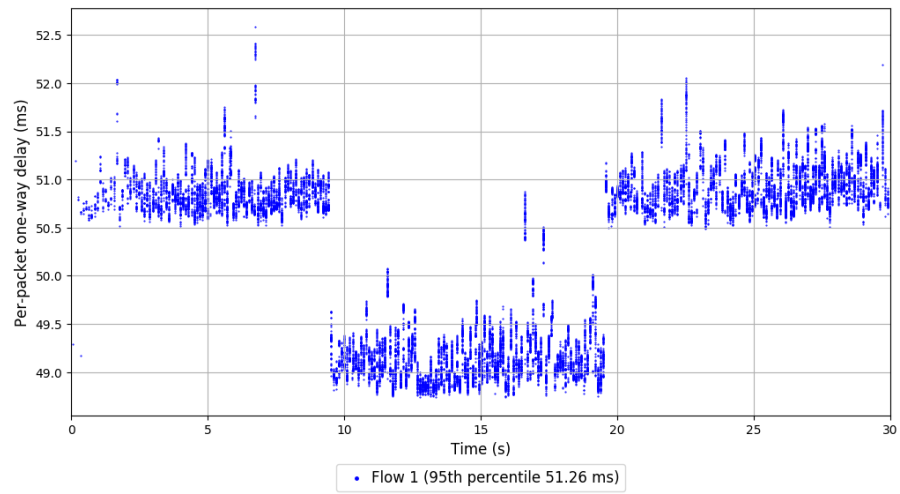
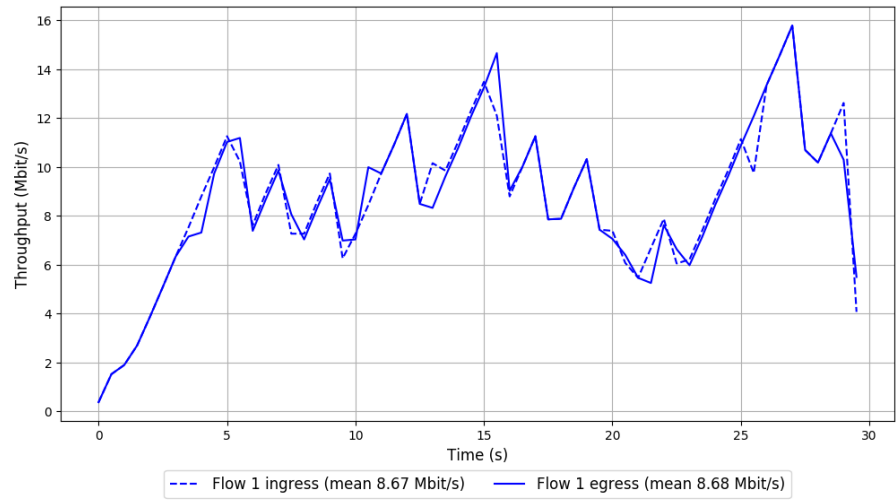
-- Flow 1:

Average throughput: 8.68 Mbit/s

95th percentile per-packet one-way delay: 51.261 ms

Loss rate: 0.17%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-11-16 01:40:59

End at: 2017-11-16 01:41:29

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.22 Mbit/s

95th percentile per-packet one-way delay: 51.335 ms

Loss rate: 0.62%

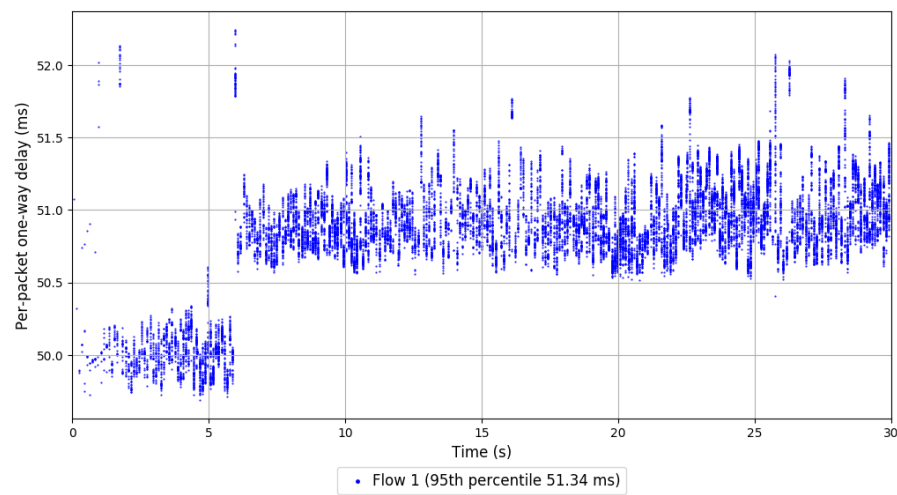
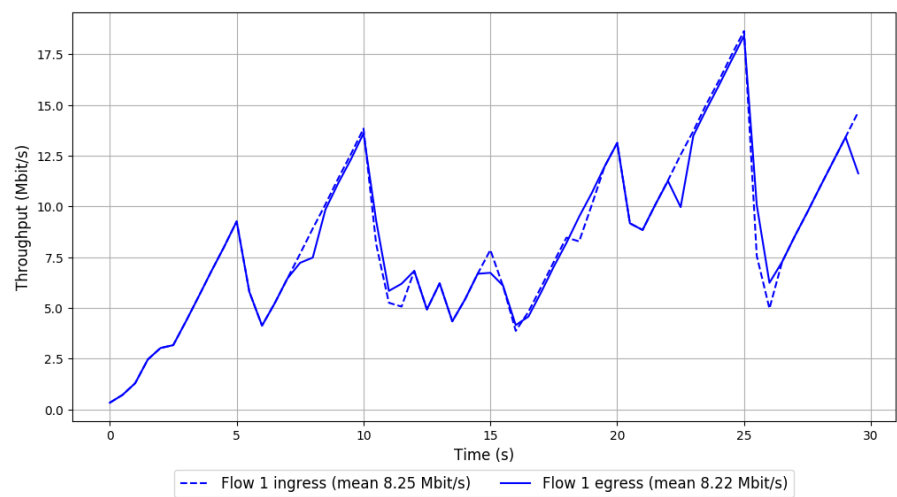
-- Flow 1:

Average throughput: 8.22 Mbit/s

95th percentile per-packet one-way delay: 51.335 ms

Loss rate: 0.62%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-11-16 01:51:24

End at: 2017-11-16 01:51:54

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.91 Mbit/s

95th percentile per-packet one-way delay: 51.185 ms

Loss rate: 0.64%

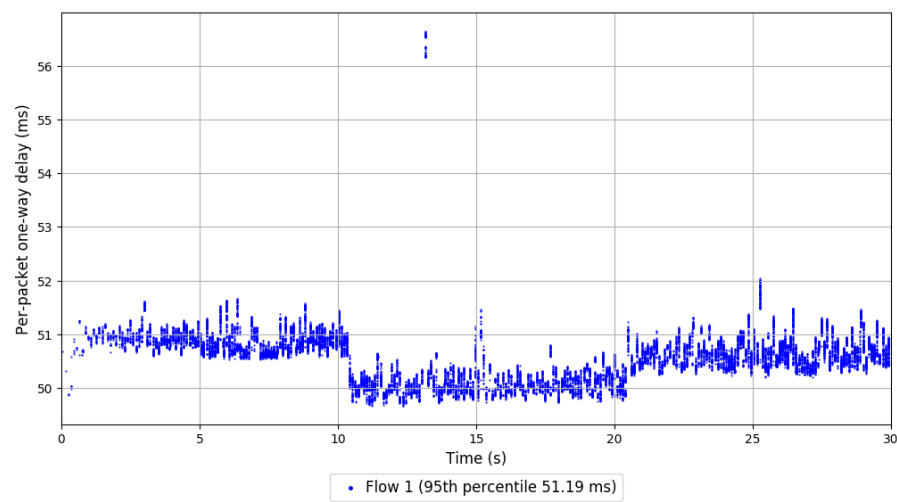
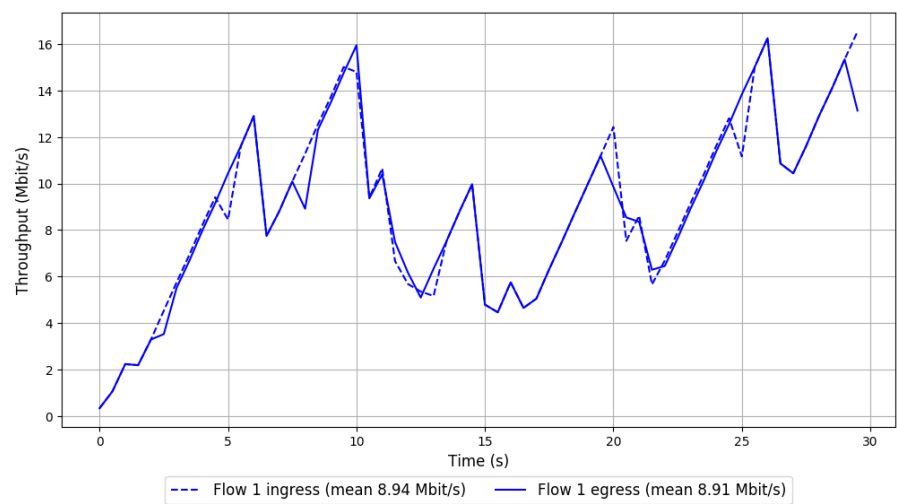
-- Flow 1:

Average throughput: 8.91 Mbit/s

95th percentile per-packet one-way delay: 51.185 ms

Loss rate: 0.64%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-11-16 02:01:59

End at: 2017-11-16 02:02:29

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.70 Mbit/s

95th percentile per-packet one-way delay: 51.388 ms

Loss rate: 0.35%

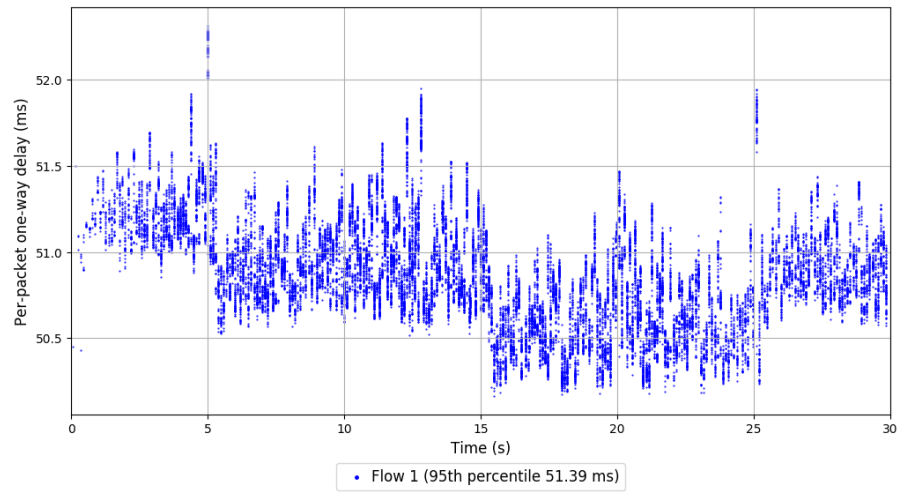
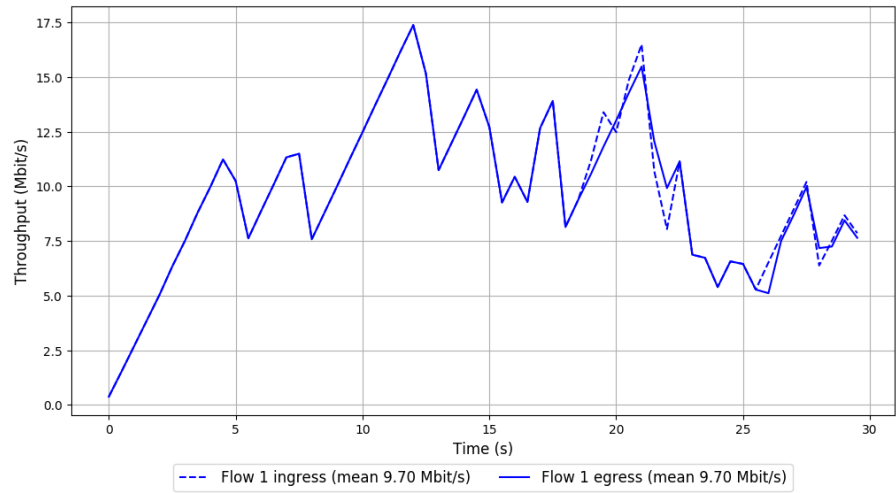
-- Flow 1:

Average throughput: 9.70 Mbit/s

95th percentile per-packet one-way delay: 51.388 ms

Loss rate: 0.35%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-11-16 02:12:38

End at: 2017-11-16 02:13:08

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.01 Mbit/s

95th percentile per-packet one-way delay: 51.690 ms

Loss rate: 1.08%

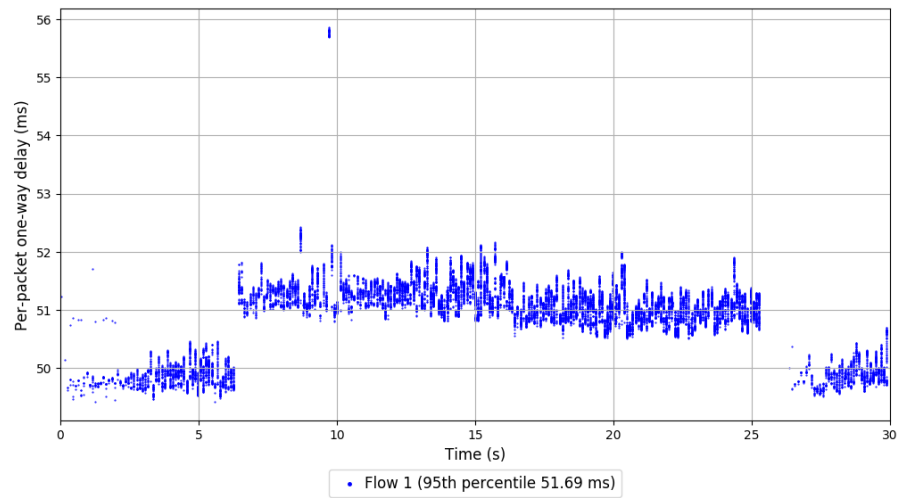
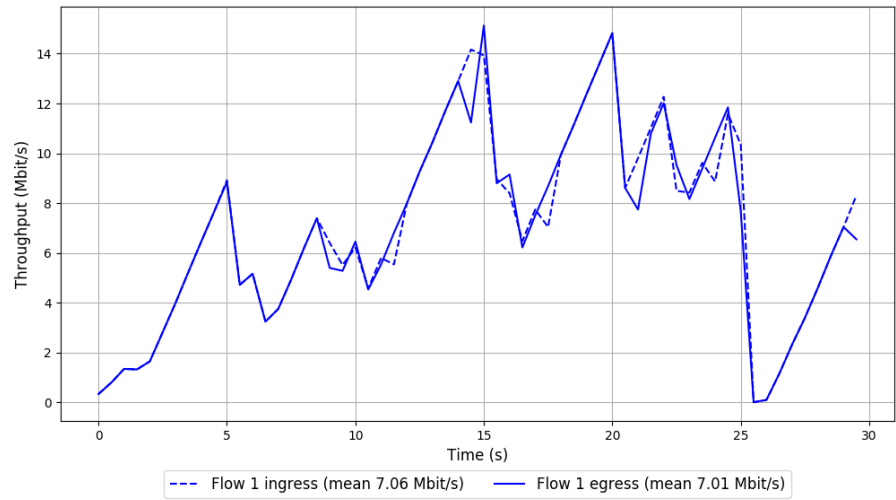
-- Flow 1:

Average throughput: 7.01 Mbit/s

95th percentile per-packet one-way delay: 51.690 ms

Loss rate: 1.08%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-11-16 02:23:13

End at: 2017-11-16 02:23:43

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 51.027 ms

Loss rate: 0.57%

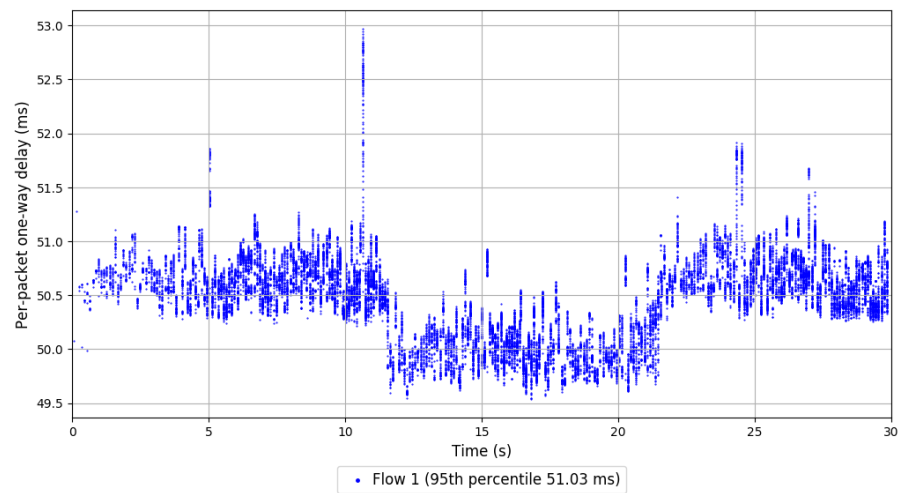
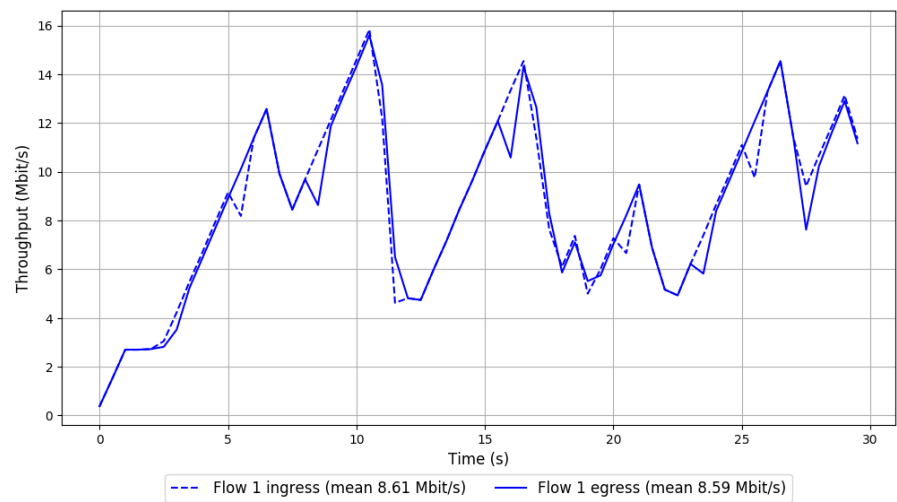
-- Flow 1:

Average throughput: 8.59 Mbit/s

95th percentile per-packet one-way delay: 51.027 ms

Loss rate: 0.57%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-11-16 02:33:40

End at: 2017-11-16 02:34:10

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 51.862 ms

Loss rate: 0.31%

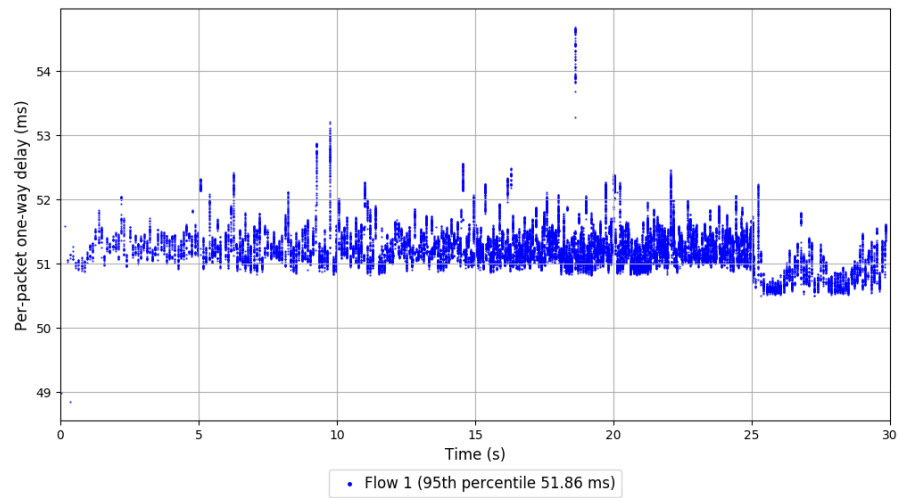
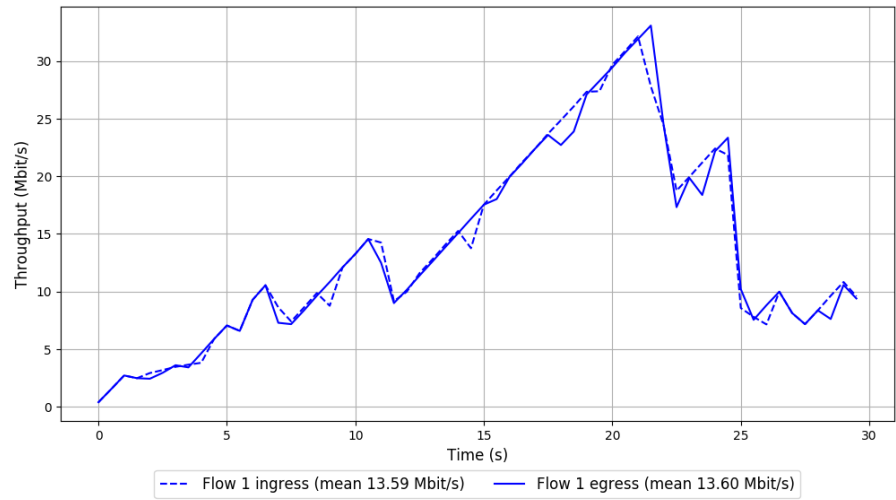
-- Flow 1:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 51.862 ms

Loss rate: 0.31%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-11-16 02:44:15

End at: 2017-11-16 02:44:45

Below is generated by plot.py at 2017-11-16 04:49:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 11.96 Mbit/s

95th percentile per-packet one-way delay: 52.013 ms

Loss rate: 0.25%

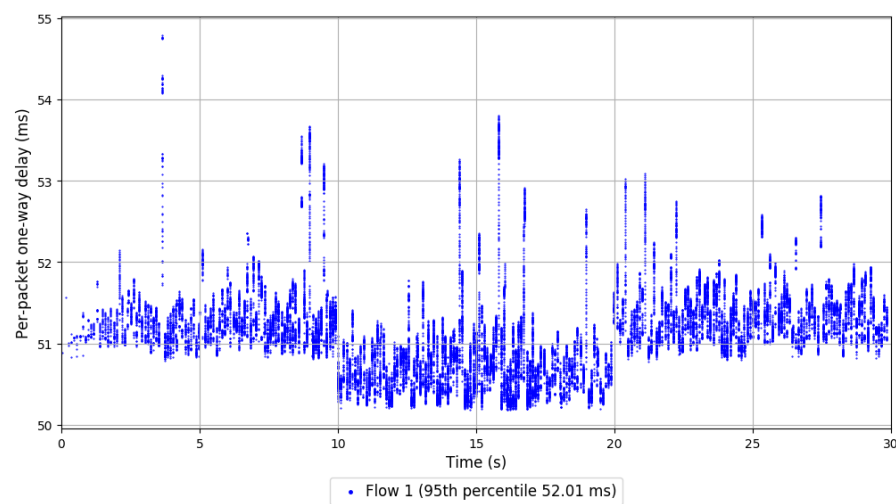
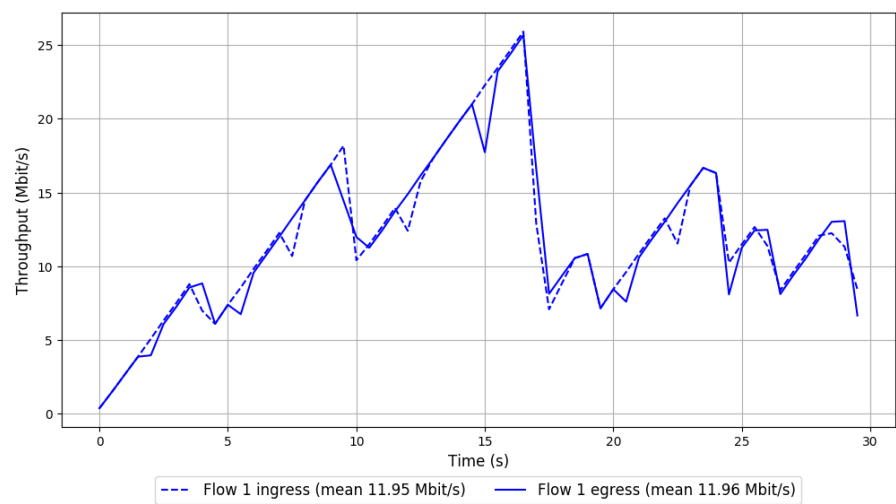
-- Flow 1:

Average throughput: 11.96 Mbit/s

95th percentile per-packet one-way delay: 52.013 ms

Loss rate: 0.25%

Run 10: Report of LEDBAT — Data Link

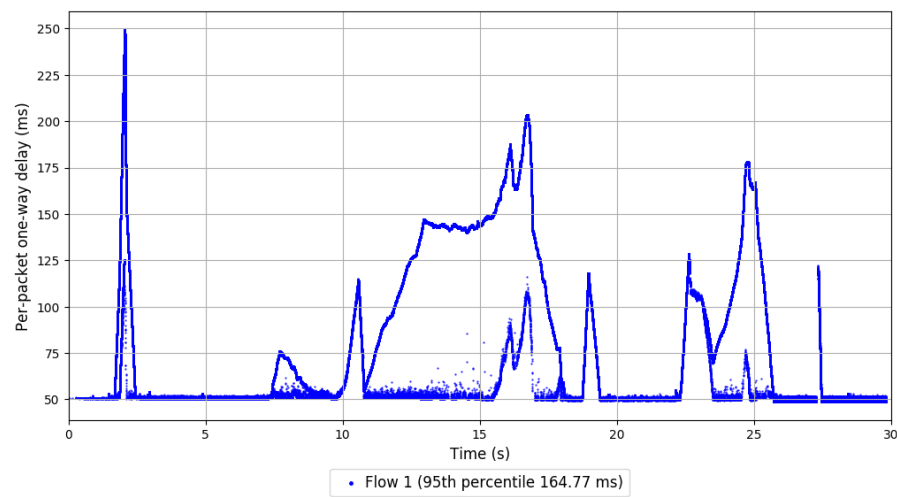
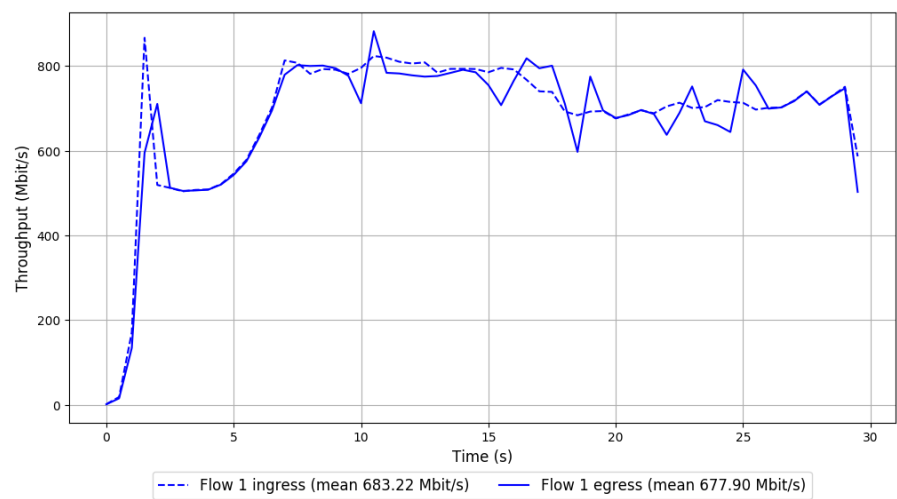


```
Run 1: Statistics of PCC

Start at: 2017-11-16 01:17:09
End at: 2017-11-16 01:17:39

# Below is generated by plot.py at 2017-11-16 04:59:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 677.90 Mbit/s
95th percentile per-packet one-way delay: 164.768 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 677.90 Mbit/s
95th percentile per-packet one-way delay: 164.768 ms
Loss rate: 1.12%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-11-16 01:27:41

End at: 2017-11-16 01:28:12

Below is generated by plot.py at 2017-11-16 04:59:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 638.84 Mbit/s

95th percentile per-packet one-way delay: 172.783 ms

Loss rate: 5.05%

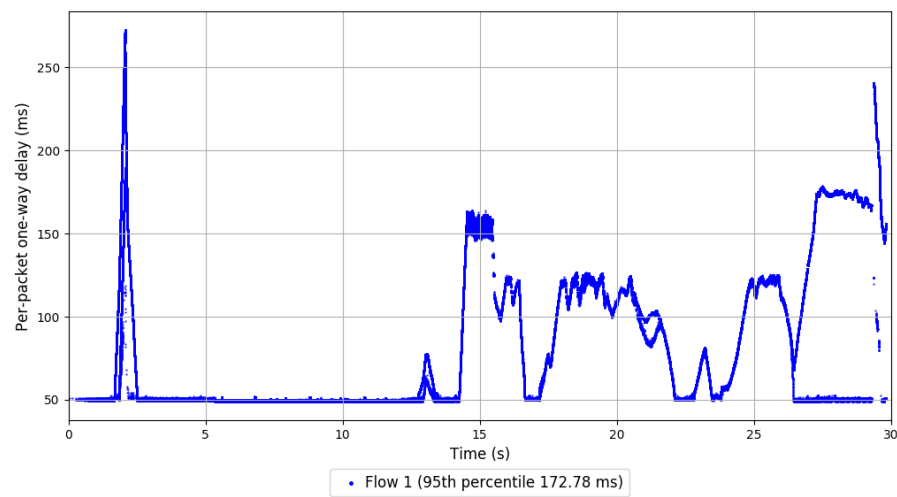
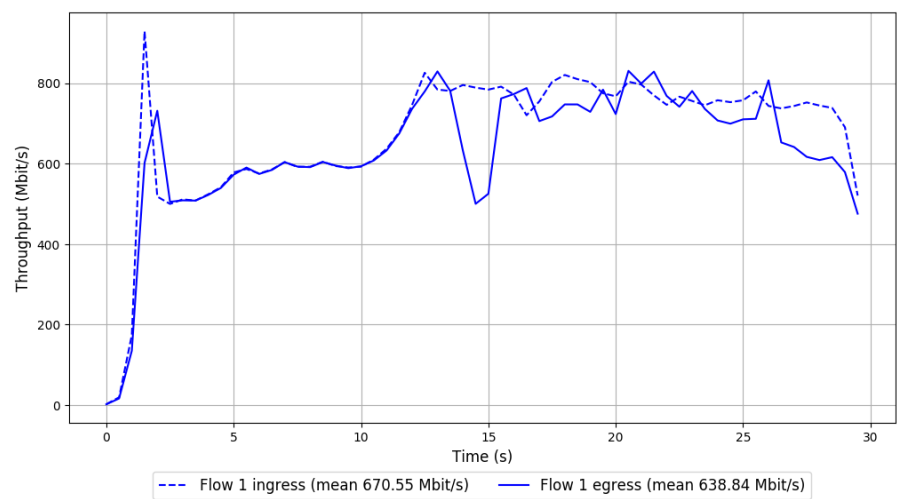
-- Flow 1:

Average throughput: 638.84 Mbit/s

95th percentile per-packet one-way delay: 172.783 ms

Loss rate: 5.05%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-11-16 01:38:11

End at: 2017-11-16 01:38:42

Below is generated by plot.py at 2017-11-16 04:59:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 661.08 Mbit/s

95th percentile per-packet one-way delay: 173.184 ms

Loss rate: 2.54%

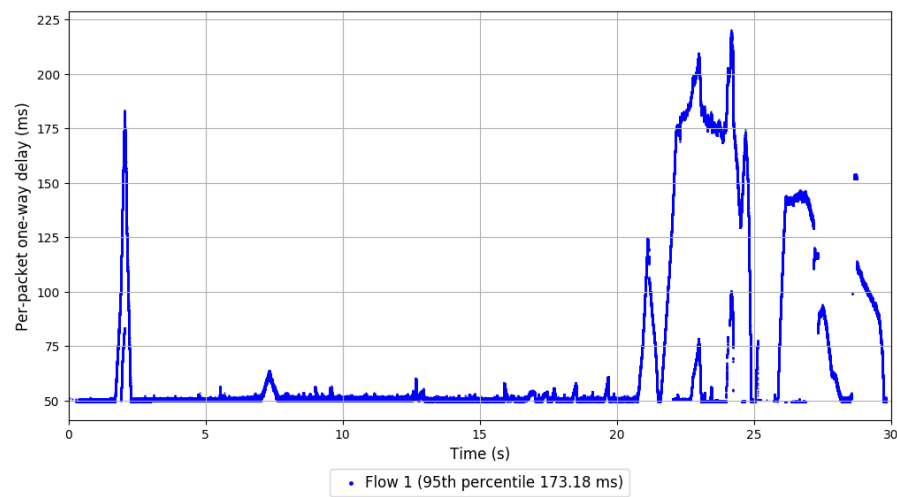
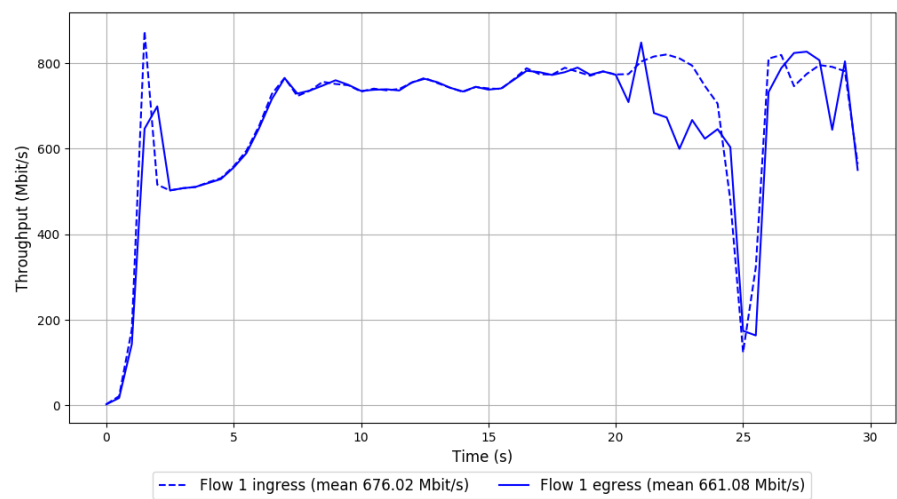
-- Flow 1:

Average throughput: 661.08 Mbit/s

95th percentile per-packet one-way delay: 173.184 ms

Loss rate: 2.54%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-11-16 01:48:48

End at: 2017-11-16 01:49:18

Below is generated by plot.py at 2017-11-16 04:59:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 636.44 Mbit/s

95th percentile per-packet one-way delay: 160.190 ms

Loss rate: 1.47%

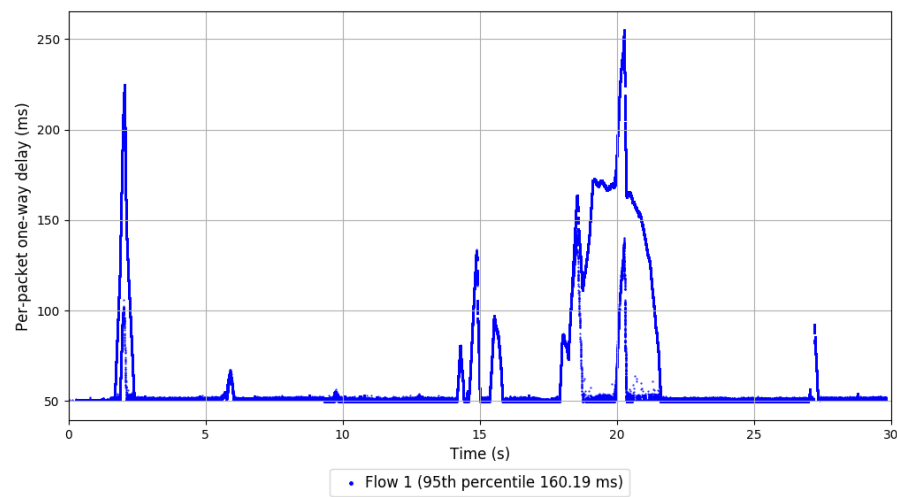
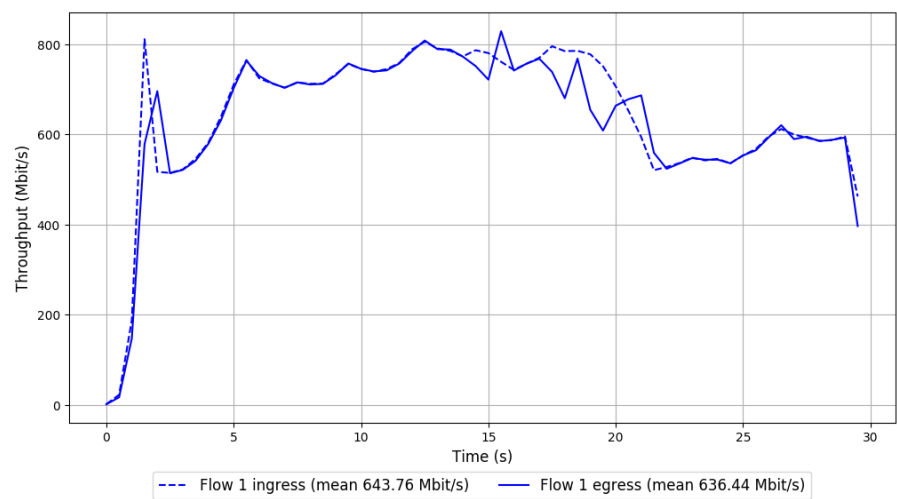
-- Flow 1:

Average throughput: 636.44 Mbit/s

95th percentile per-packet one-way delay: 160.190 ms

Loss rate: 1.47%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-11-16 01:59:13

End at: 2017-11-16 01:59:43

Below is generated by plot.py at 2017-11-16 04:59:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 580.04 Mbit/s

95th percentile per-packet one-way delay: 146.220 ms

Loss rate: 2.25%

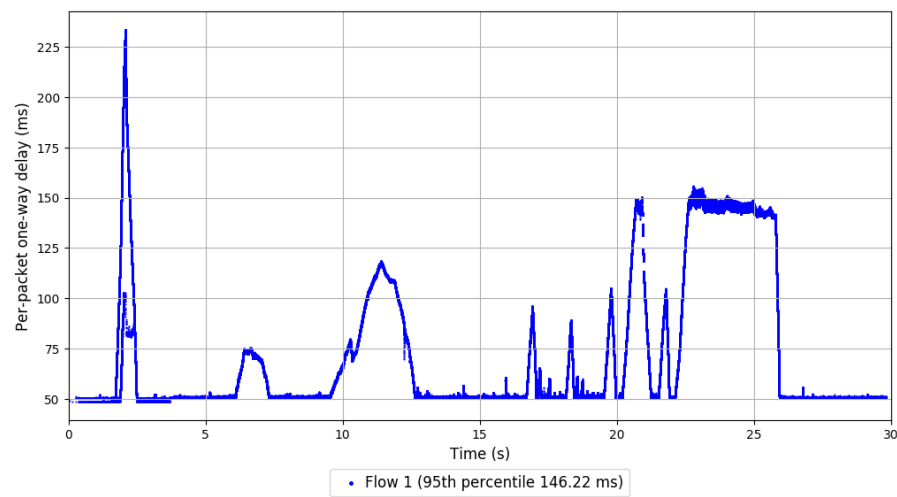
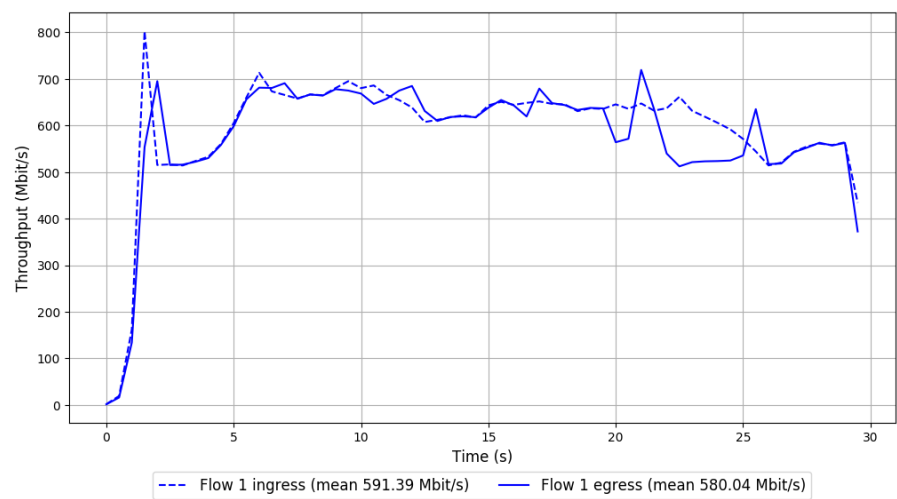
-- Flow 1:

Average throughput: 580.04 Mbit/s

95th percentile per-packet one-way delay: 146.220 ms

Loss rate: 2.25%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-11-16 02:09:48

End at: 2017-11-16 02:10:18

Below is generated by plot.py at 2017-11-16 05:00:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 702.79 Mbit/s

95th percentile per-packet one-way delay: 110.522 ms

Loss rate: 0.90%

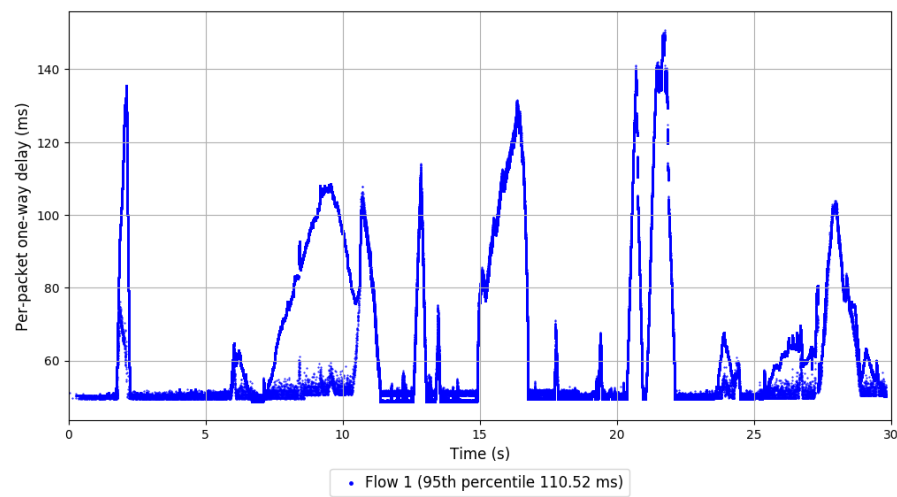
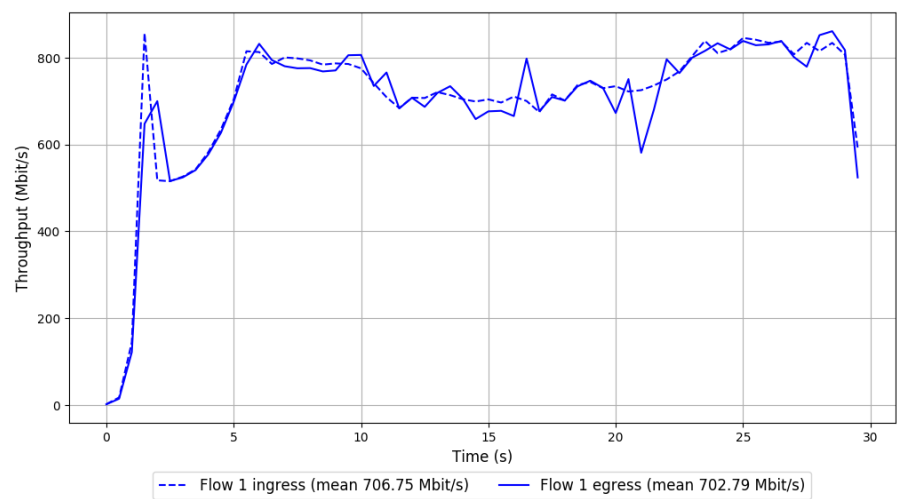
-- Flow 1:

Average throughput: 702.79 Mbit/s

95th percentile per-packet one-way delay: 110.522 ms

Loss rate: 0.90%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-11-16 02:20:24

End at: 2017-11-16 02:20:54

Below is generated by plot.py at 2017-11-16 05:00:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 648.01 Mbit/s

95th percentile per-packet one-way delay: 169.665 ms

Loss rate: 4.42%

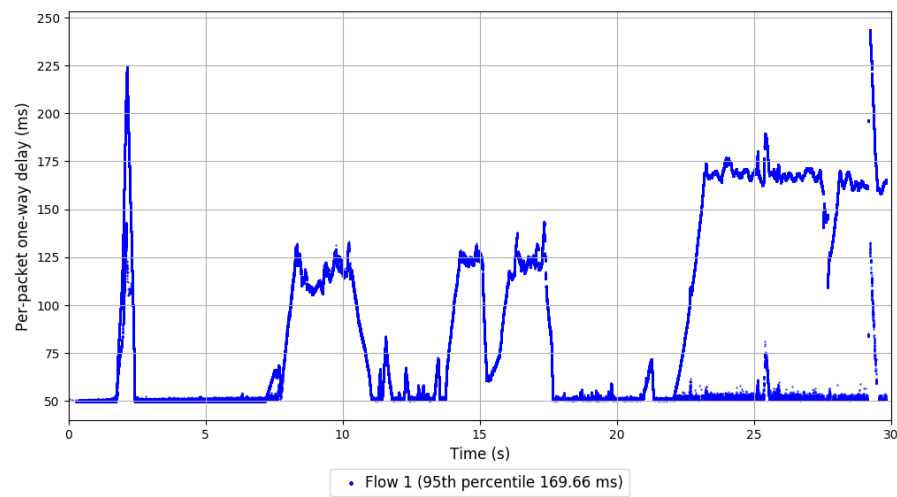
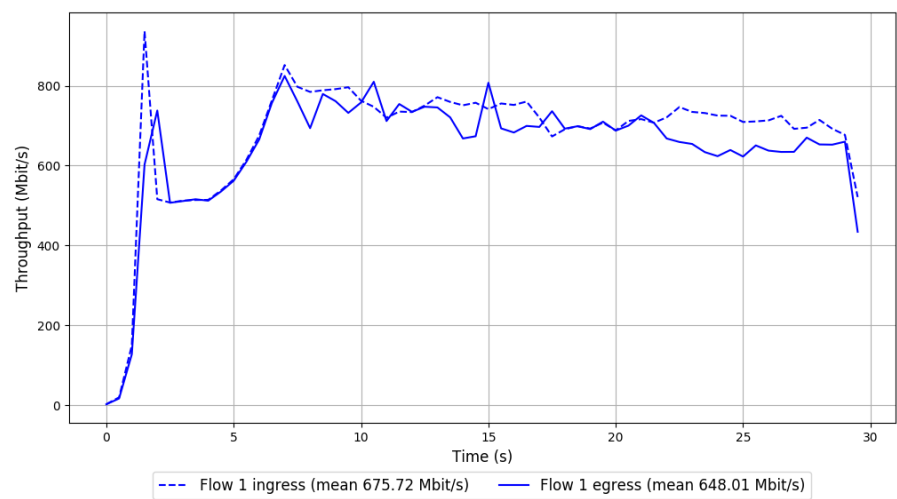
-- Flow 1:

Average throughput: 648.01 Mbit/s

95th percentile per-packet one-way delay: 169.665 ms

Loss rate: 4.42%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-11-16 02:30:56

End at: 2017-11-16 02:31:26

Below is generated by plot.py at 2017-11-16 05:00:48

Datalink statistics

-- Total of 1 flow:

Average throughput: 649.17 Mbit/s

95th percentile per-packet one-way delay: 82.494 ms

Loss rate: 0.76%

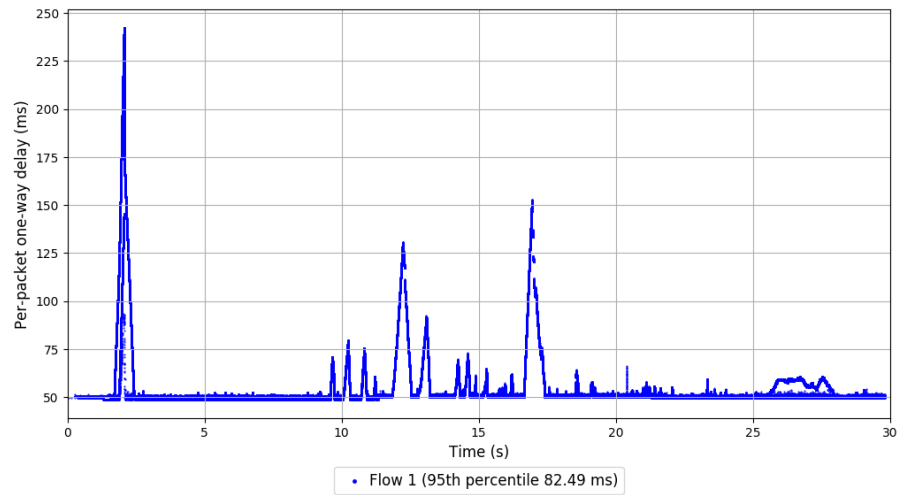
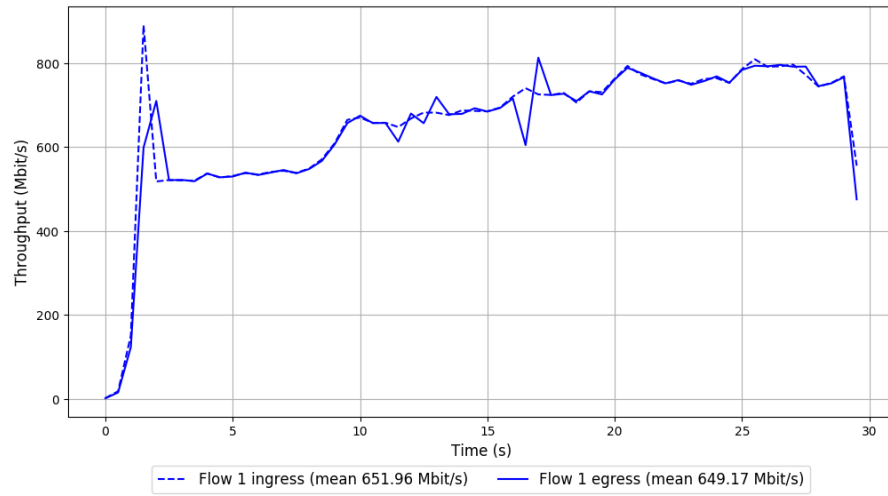
-- Flow 1:

Average throughput: 649.17 Mbit/s

95th percentile per-packet one-way delay: 82.494 ms

Loss rate: 0.76%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-11-16 02:41:29

End at: 2017-11-16 02:41:59

Below is generated by plot.py at 2017-11-16 05:09:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 605.69 Mbit/s

95th percentile per-packet one-way delay: 169.770 ms

Loss rate: 2.83%

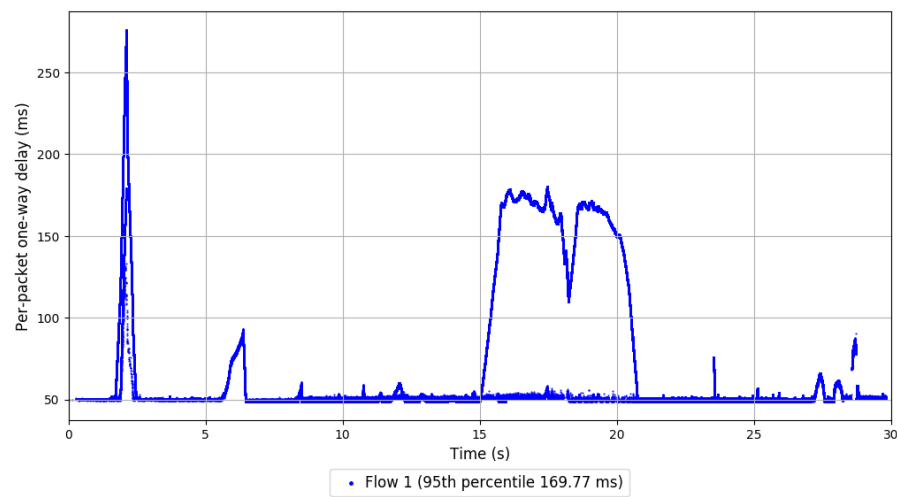
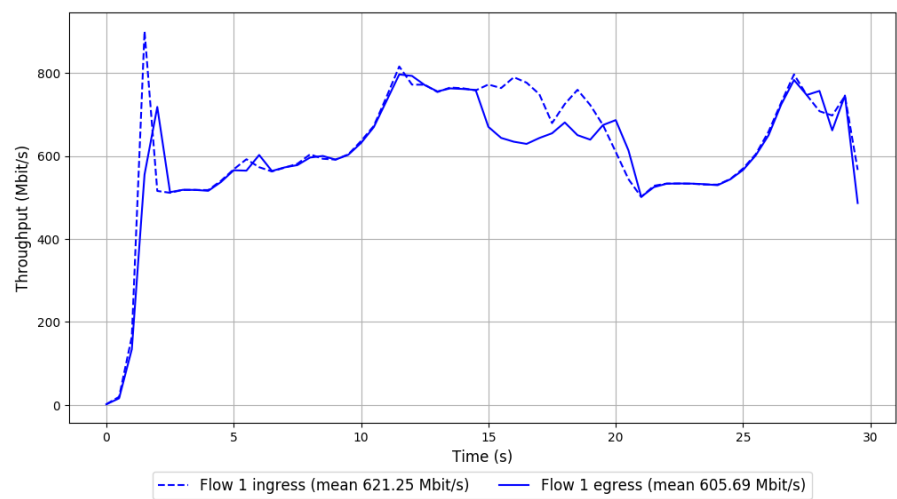
-- Flow 1:

Average throughput: 605.69 Mbit/s

95th percentile per-packet one-way delay: 169.770 ms

Loss rate: 2.83%

Run 9: Report of PCC — Data Link

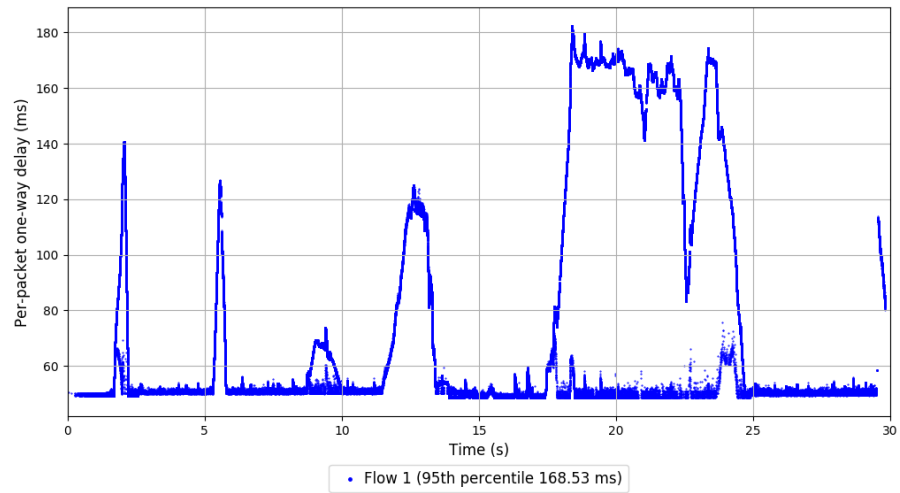
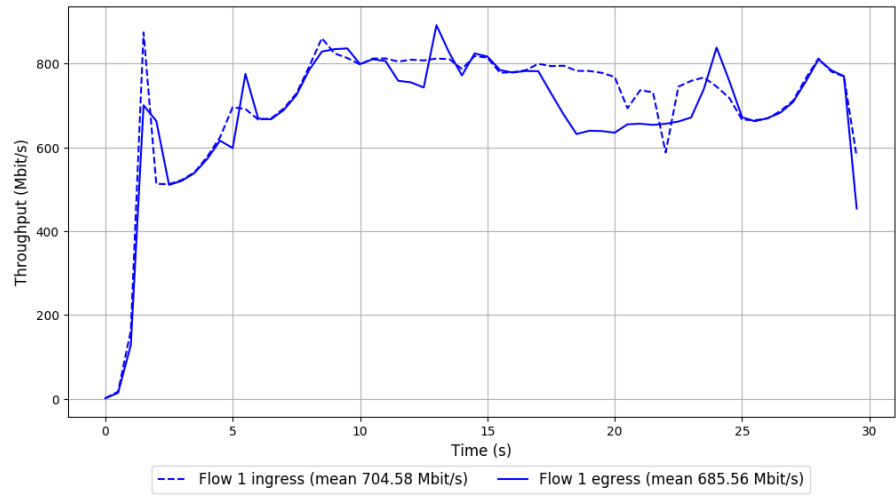


```
Run 10: Statistics of PCC

Start at: 2017-11-16 02:52:02
End at: 2017-11-16 02:52:32

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 685.56 Mbit/s
95th percentile per-packet one-way delay: 168.525 ms
Loss rate: 3.03%
-- Flow 1:
Average throughput: 685.56 Mbit/s
95th percentile per-packet one-way delay: 168.525 ms
Loss rate: 3.03%
```

Run 10: Report of PCC — Data Link

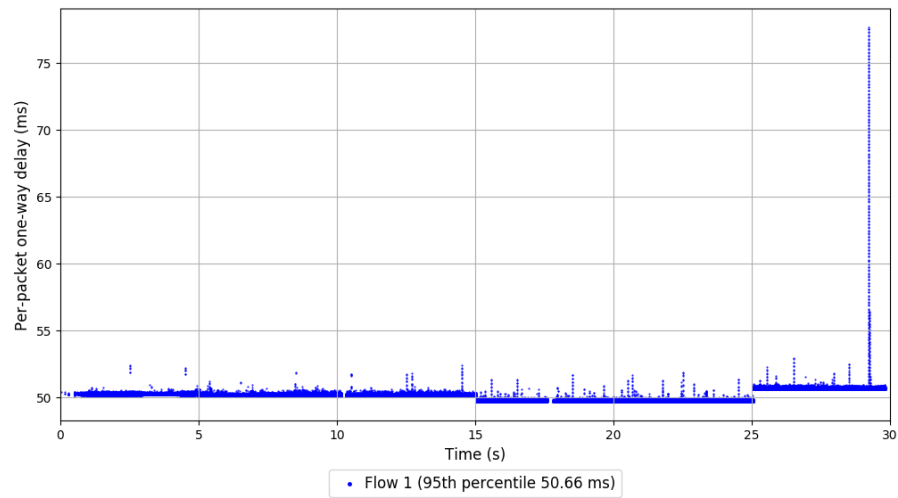
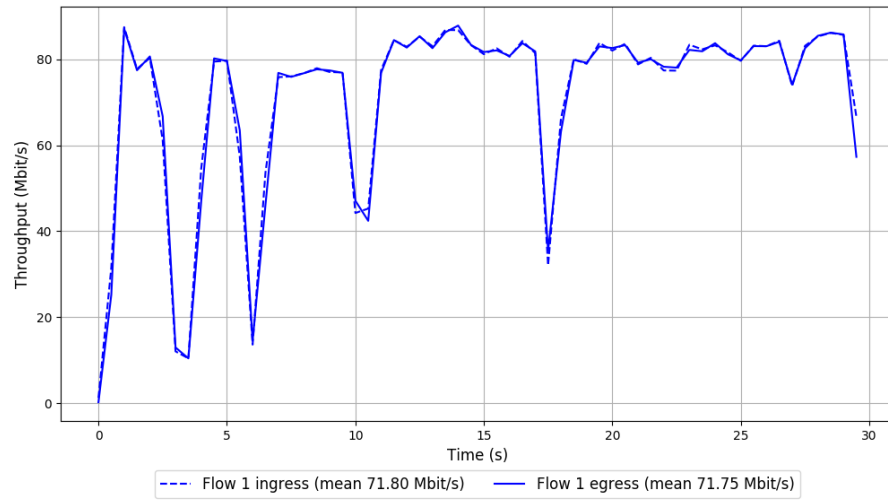


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-11-16 01:10:42
End at: 2017-11-16 01:11:12

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 71.75 Mbit/s
95th percentile per-packet one-way delay: 50.661 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 71.75 Mbit/s
95th percentile per-packet one-way delay: 50.661 ms
Loss rate: 0.41%
```

Run 1: Report of QUIC Cubic — Data Link

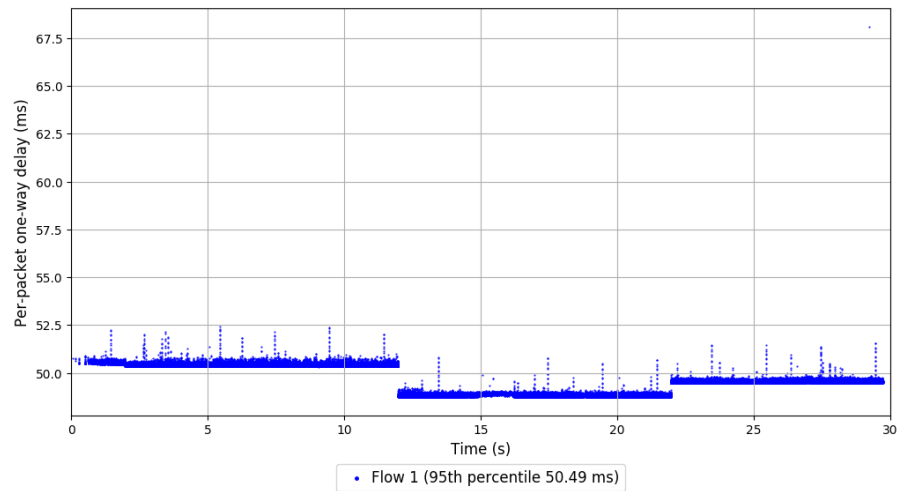
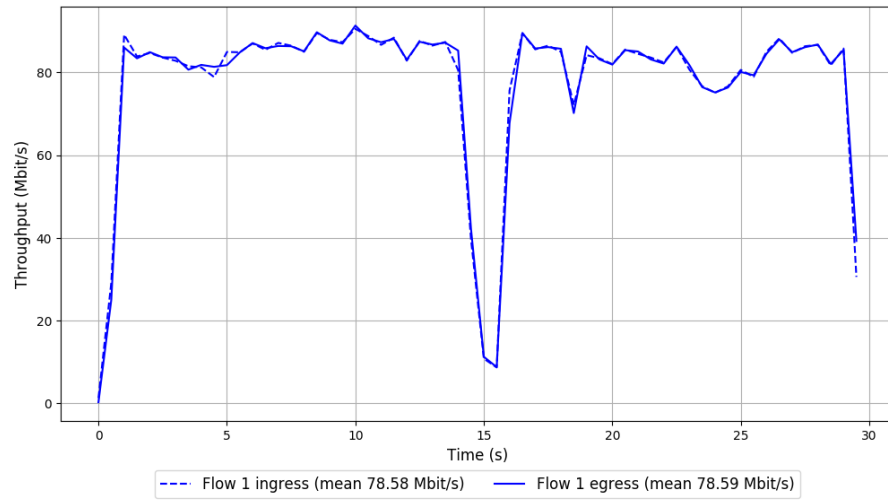


```
Run 2: Statistics of QUIC Cubic

Start at: 2017-11-16 01:21:15
End at: 2017-11-16 01:21:45

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 78.59 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 78.59 Mbit/s
95th percentile per-packet one-way delay: 50.495 ms
Loss rate: 0.00%
```

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-11-16 01:31:41

End at: 2017-11-16 01:32:11

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 76.26 Mbit/s

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

Loss rate: 0.38%

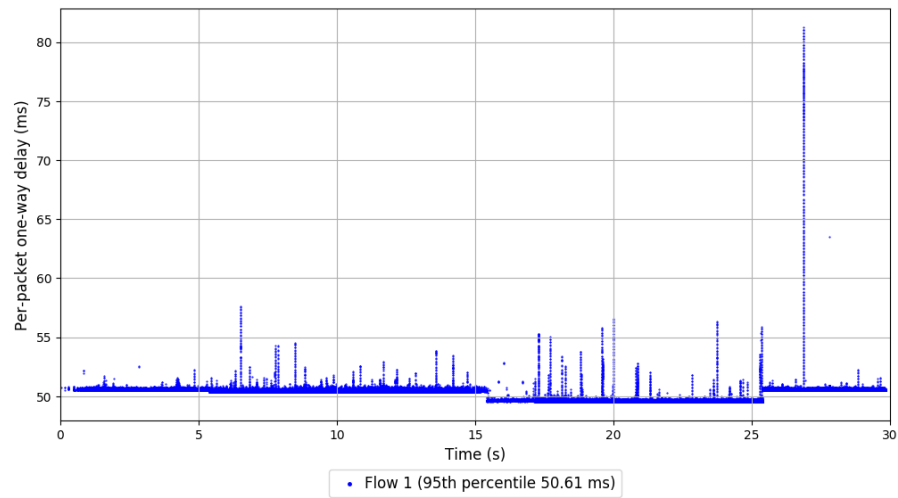
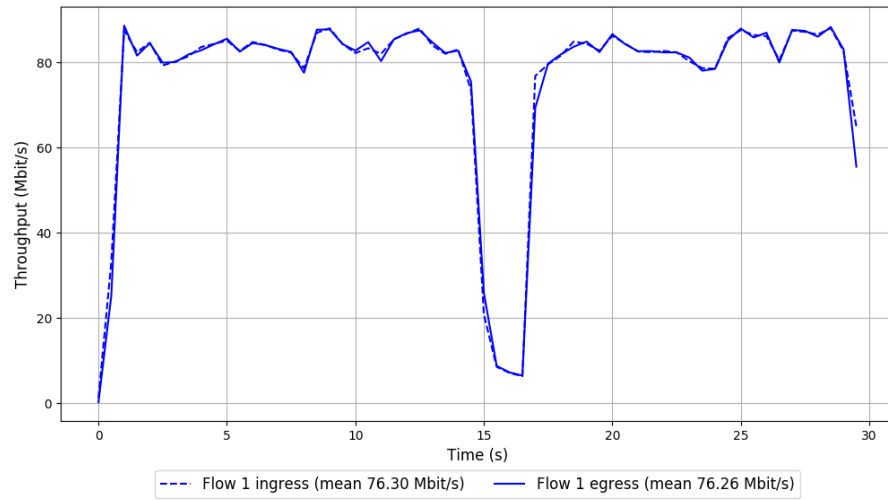
-- Flow 1:

Average throughput: 76.26 Mbit/s

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

Loss rate: 0.38%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-11-16 01:42:16

End at: 2017-11-16 01:42:46

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 50.709 ms

Loss rate: 0.41%

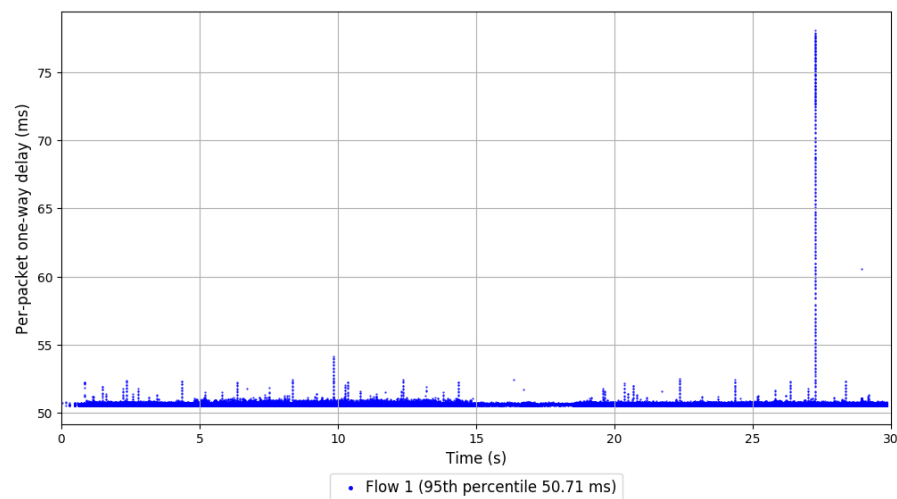
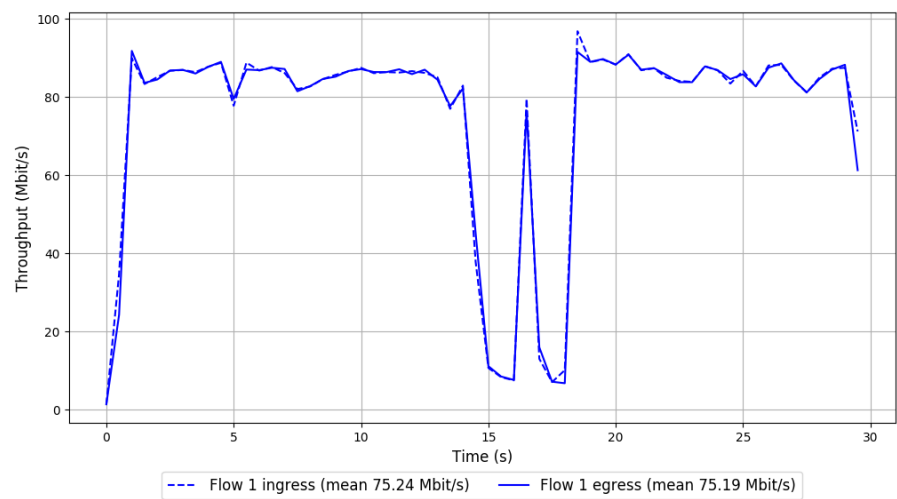
-- Flow 1:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 50.709 ms

Loss rate: 0.41%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-11-16 01:52:40

End at: 2017-11-16 01:53:10

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 71.40 Mbit/s

95th percentile per-packet one-way delay: 50.491 ms

Loss rate: 0.29%

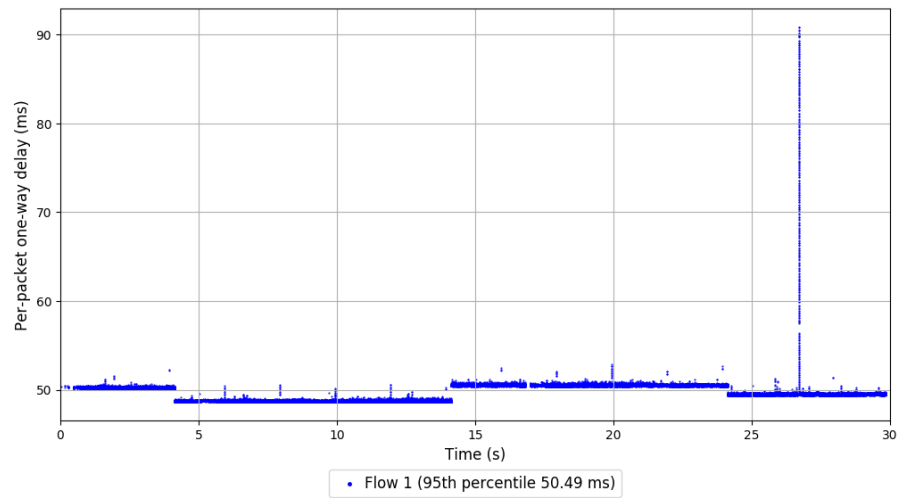
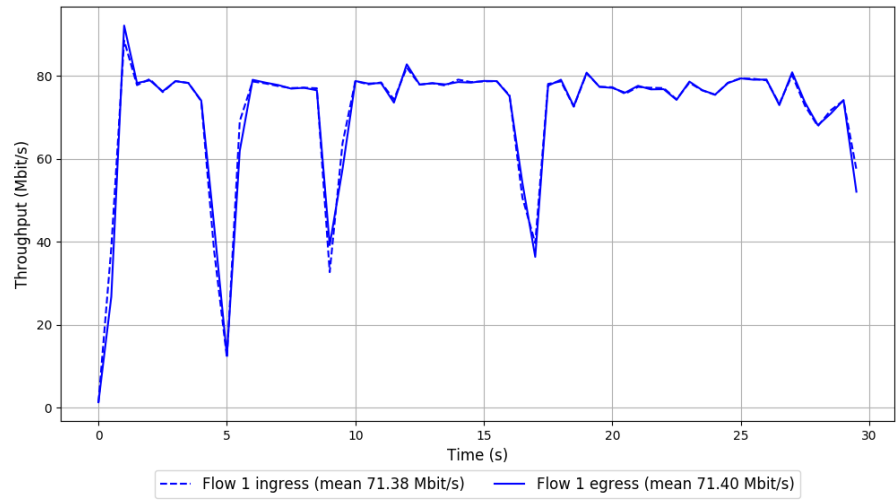
-- Flow 1:

Average throughput: 71.40 Mbit/s

95th percentile per-packet one-way delay: 50.491 ms

Loss rate: 0.29%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-11-16 02:03:17

End at: 2017-11-16 02:03:47

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.91 Mbit/s

95th percentile per-packet one-way delay: 50.878 ms

Loss rate: 0.37%

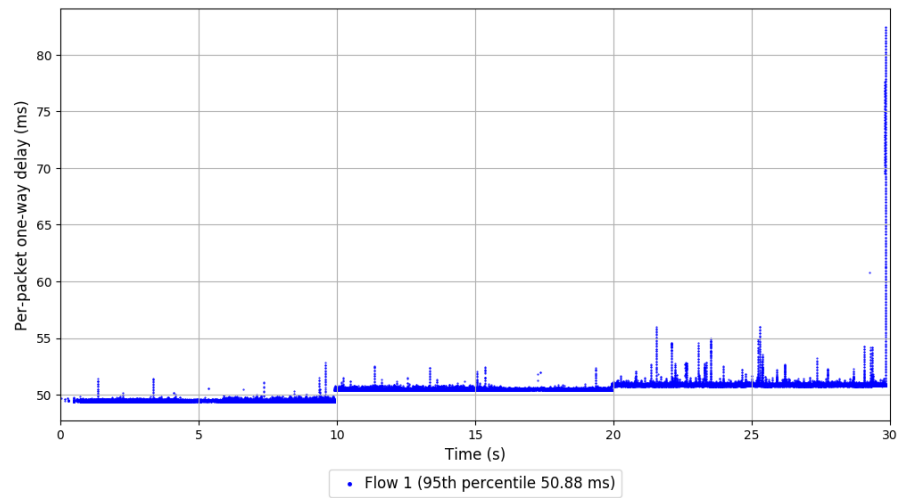
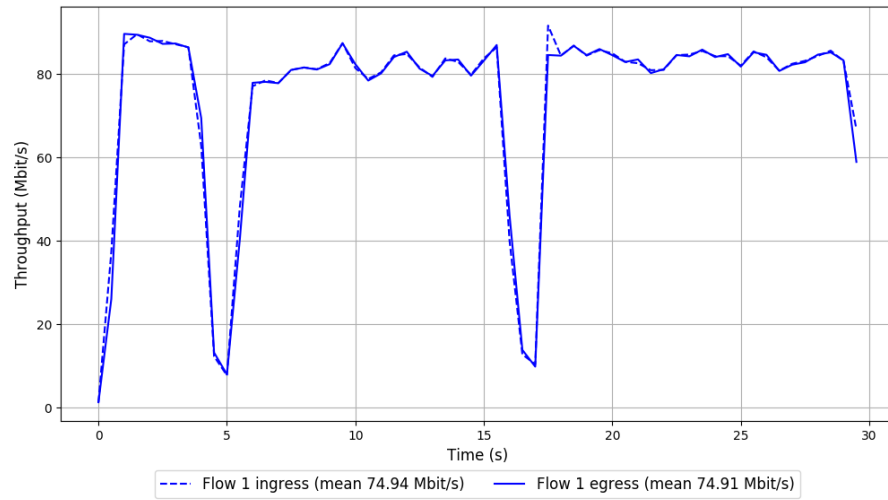
-- Flow 1:

Average throughput: 74.91 Mbit/s

95th percentile per-packet one-way delay: 50.878 ms

Loss rate: 0.37%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-11-16 02:13:56

End at: 2017-11-16 02:14:26

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.79 Mbit/s

95th percentile per-packet one-way delay: 50.533 ms

Loss rate: 0.38%

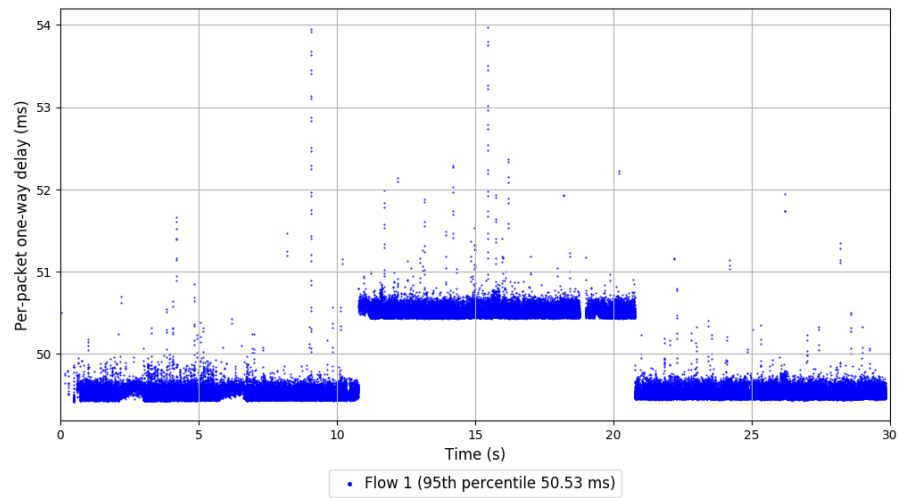
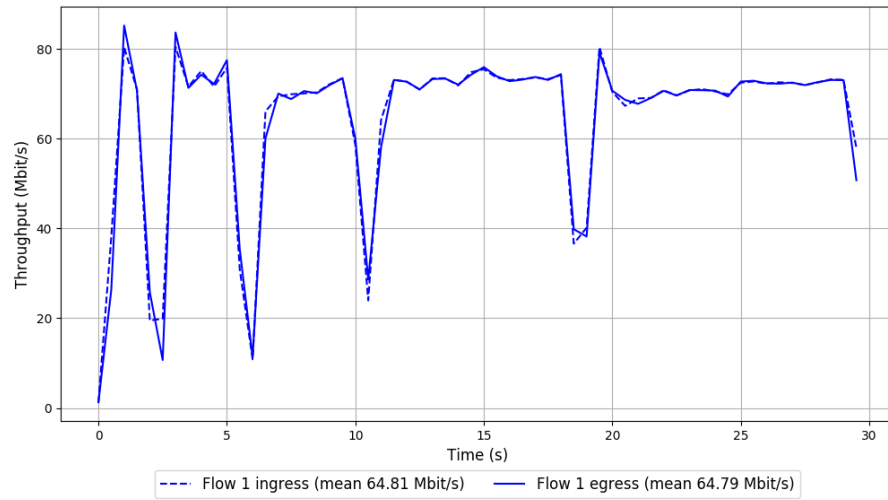
-- Flow 1:

Average throughput: 64.79 Mbit/s

95th percentile per-packet one-way delay: 50.533 ms

Loss rate: 0.38%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-11-16 02:24:31

End at: 2017-11-16 02:25:01

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.20 Mbit/s

95th percentile per-packet one-way delay: 49.524 ms

Loss rate: 0.70%

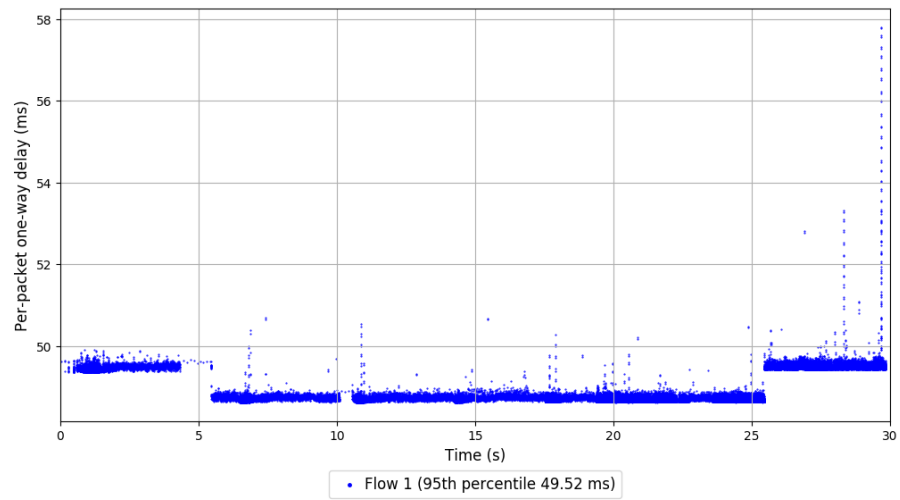
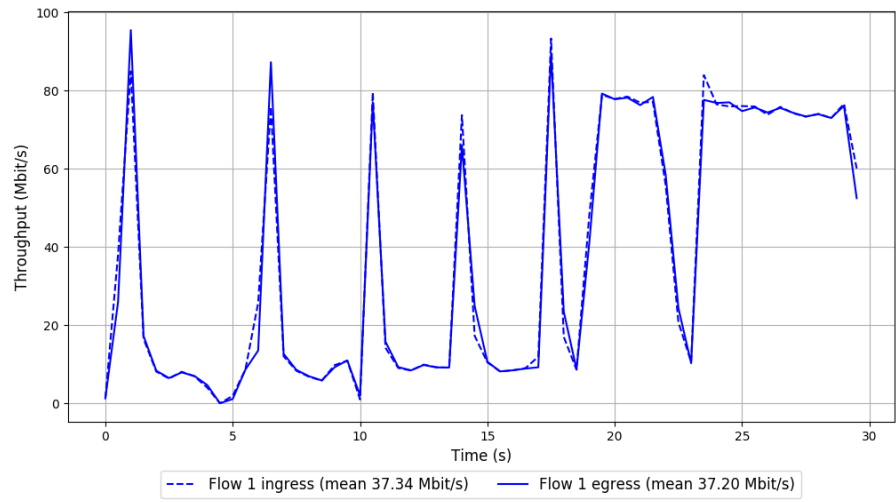
-- Flow 1:

Average throughput: 37.20 Mbit/s

95th percentile per-packet one-way delay: 49.524 ms

Loss rate: 0.70%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-11-16 02:34:57

End at: 2017-11-16 02:35:27

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.17 Mbit/s

95th percentile per-packet one-way delay: 49.522 ms

Loss rate: 0.37%

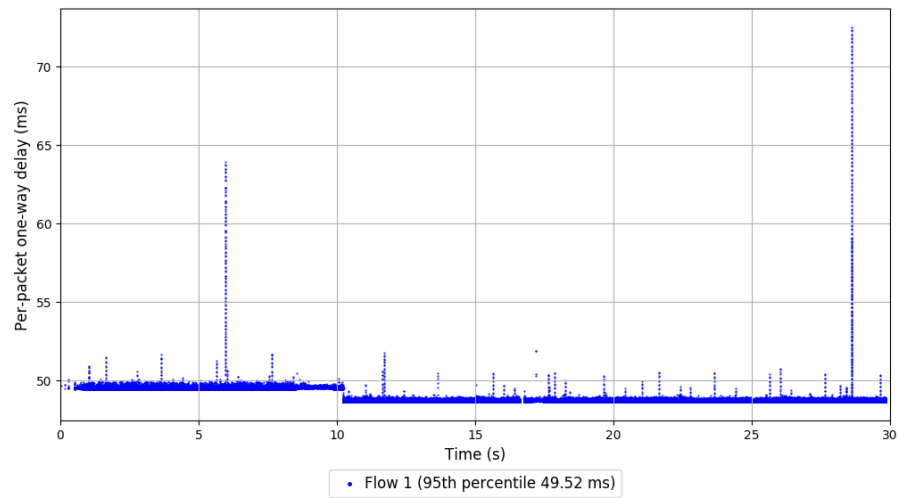
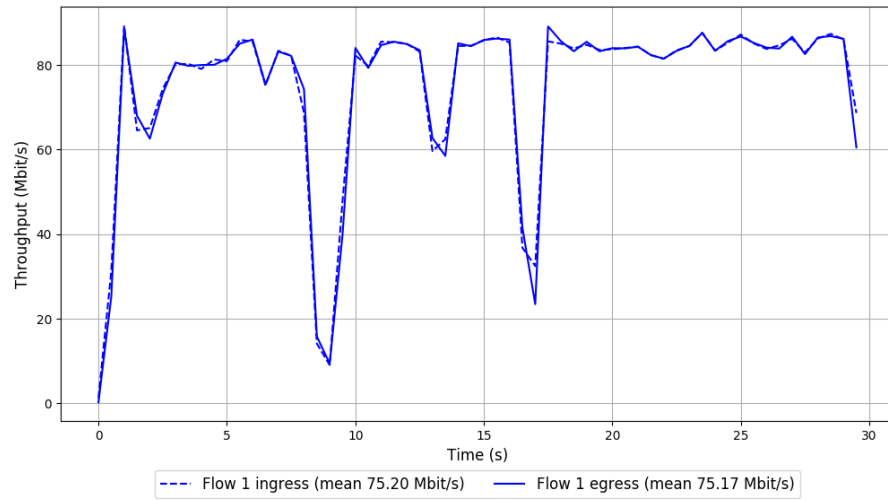
-- Flow 1:

Average throughput: 75.17 Mbit/s

95th percentile per-packet one-way delay: 49.522 ms

Loss rate: 0.37%

Run 9: Report of QUIC Cubic — Data Link

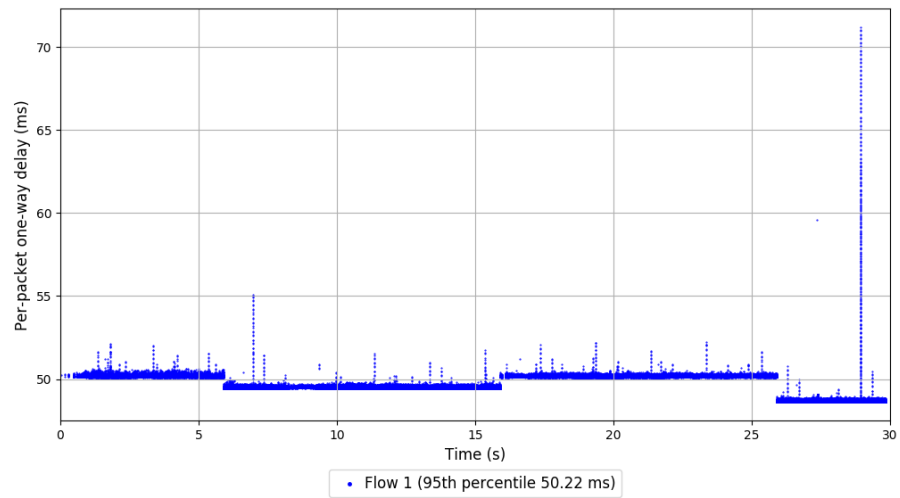
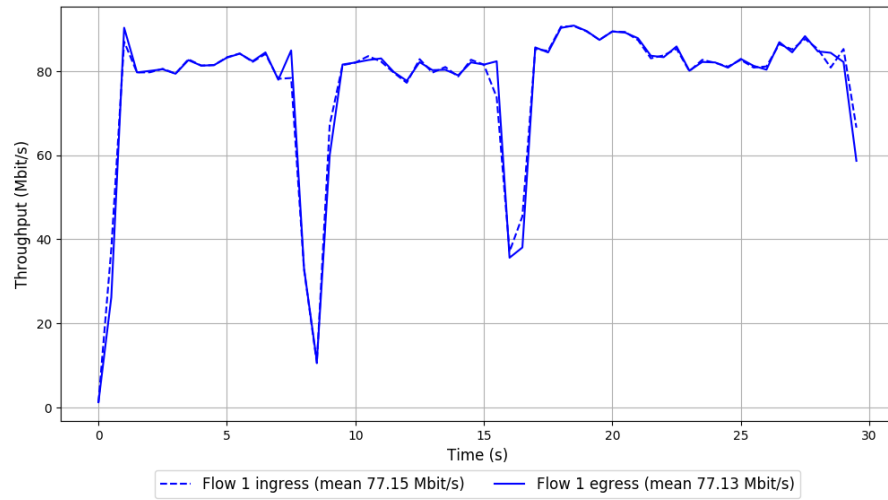


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-11-16 02:45:31
End at: 2017-11-16 02:46:01

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 77.13 Mbit/s
95th percentile per-packet one-way delay: 50.215 ms
Loss rate: 0.35%
-- Flow 1:
Average throughput: 77.13 Mbit/s
95th percentile per-packet one-way delay: 50.215 ms
Loss rate: 0.35%
```

Run 10: Report of QUIC Cubic — Data Link

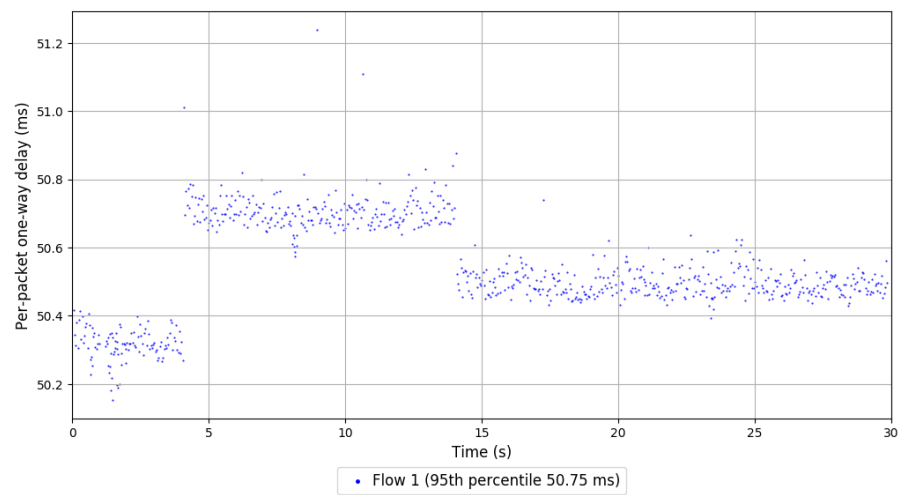
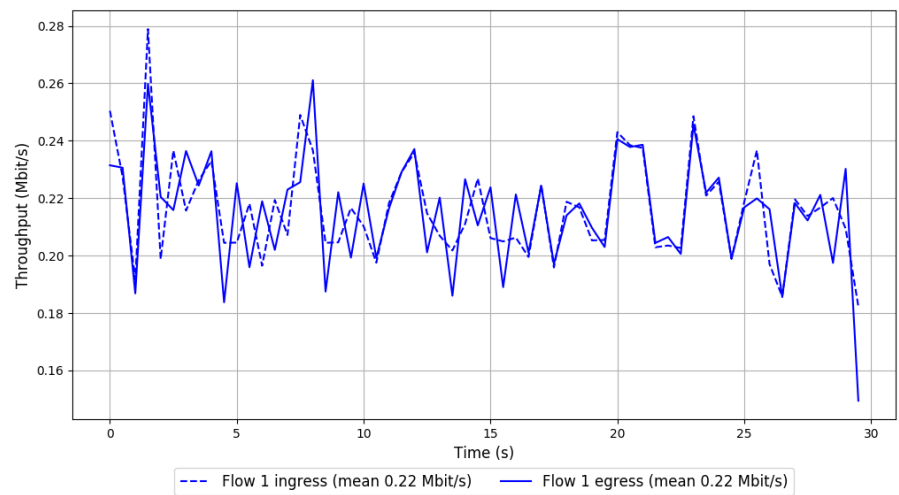


```
Run 1: Statistics of SCReAM

Start at: 2017-11-16 01:16:33
End at: 2017-11-16 01:17:03

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.750 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.750 ms
Loss rate: 0.38%
```

Run 1: Report of SReAM — Data Link

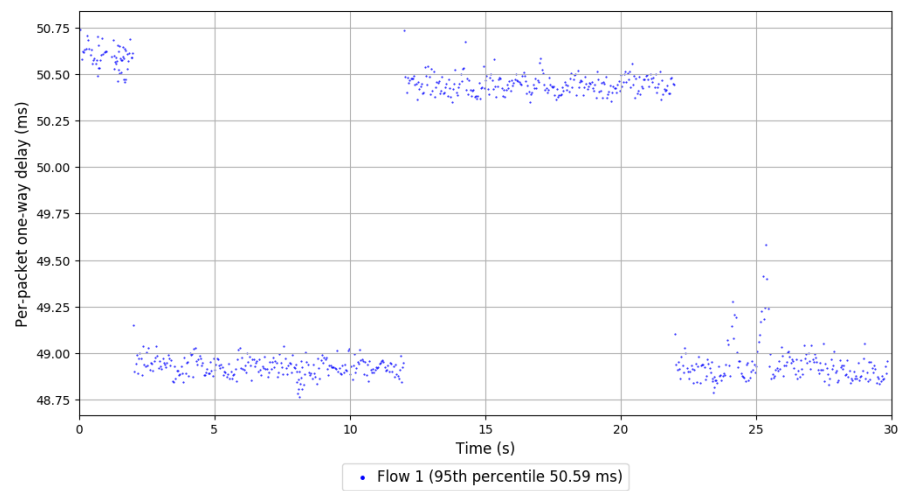
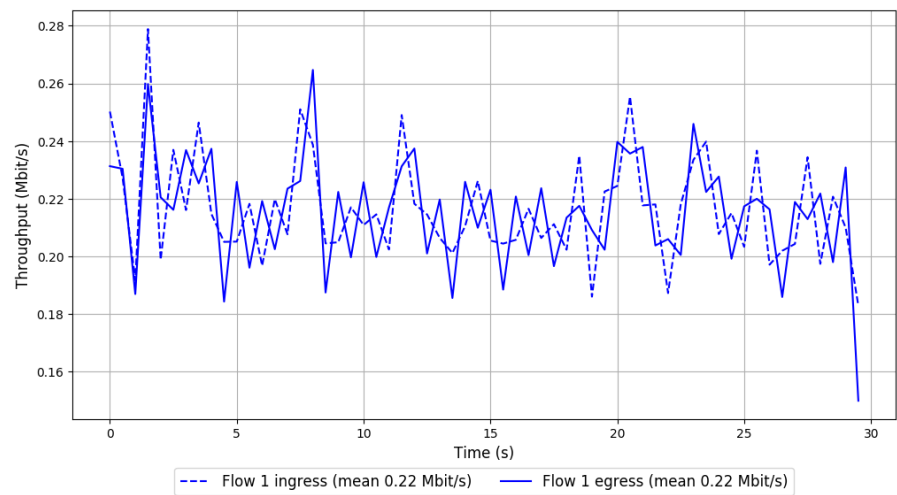


```
Run 2: Statistics of SCReAM

Start at: 2017-11-16 01:27:05
End at: 2017-11-16 01:27:35

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.585 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.585 ms
Loss rate: 0.38%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-11-16 01:37:35

End at: 2017-11-16 01:38:05

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.739 ms

Loss rate: 0.38%

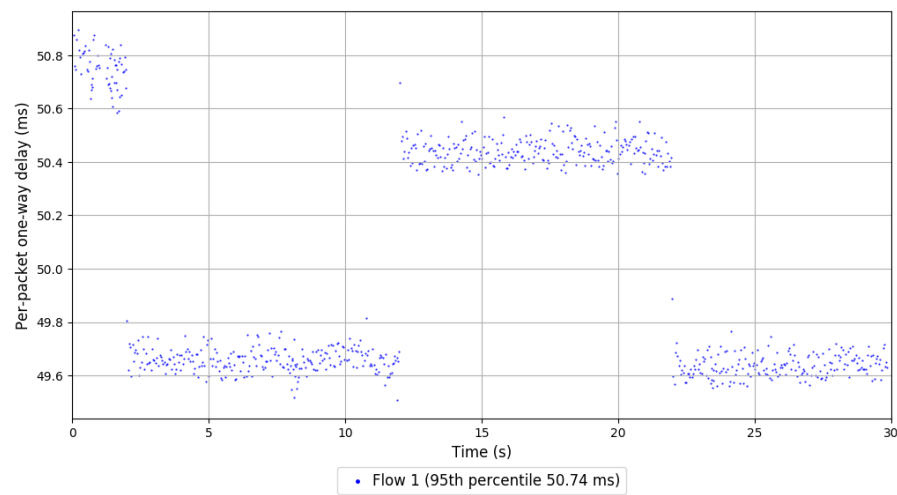
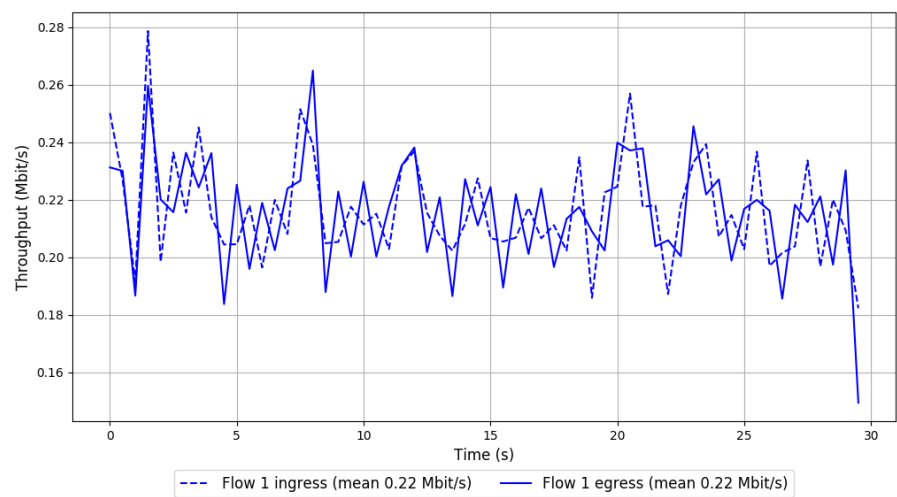
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.739 ms

Loss rate: 0.38%

Run 3: Report of SReAM — Data Link

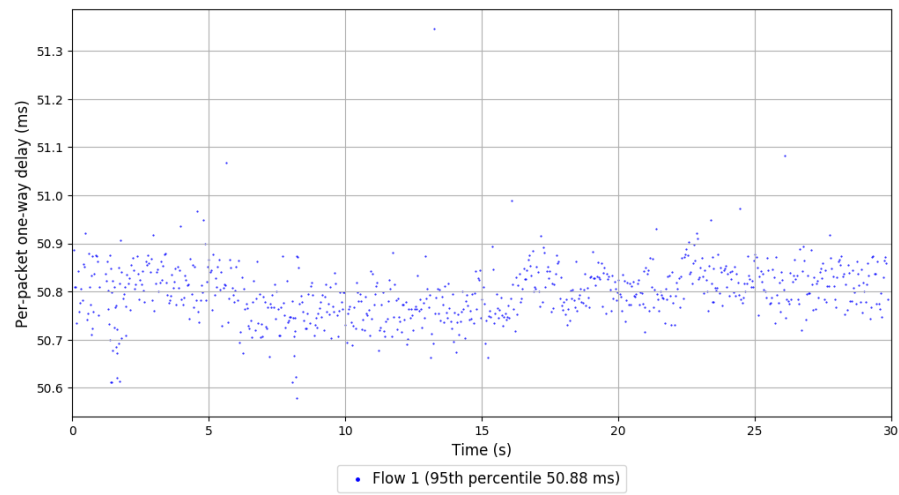
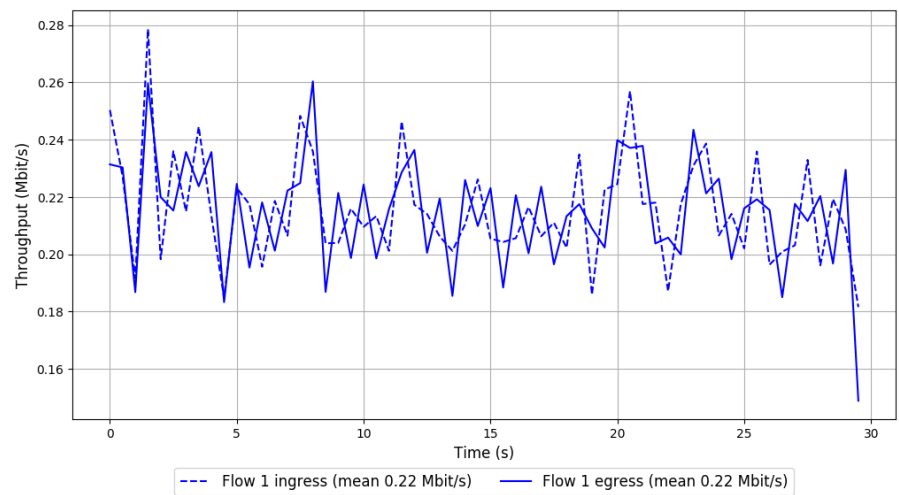


```
Run 4: Statistics of SCReAM

Start at: 2017-11-16 01:48:11
End at: 2017-11-16 01:48:41

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.876 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.876 ms
Loss rate: 0.38%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-11-16 01:58:37

End at: 2017-11-16 01:59:07

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.906 ms

Loss rate: 0.38%

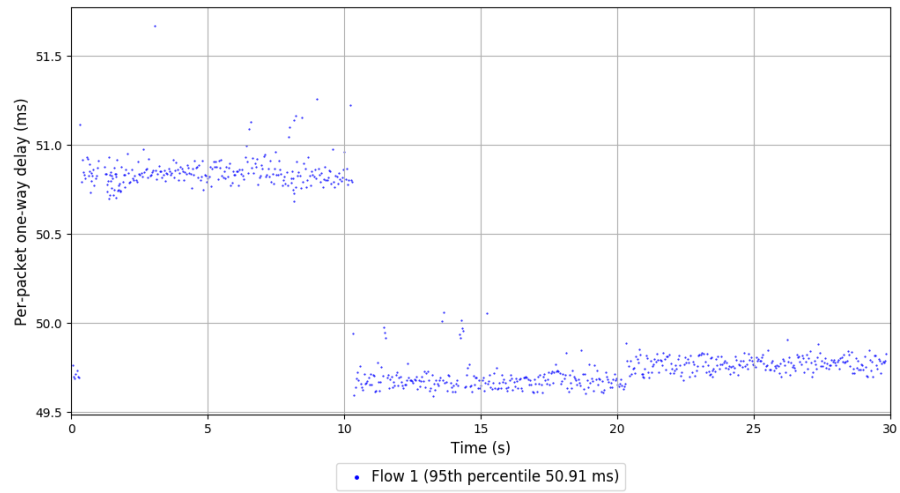
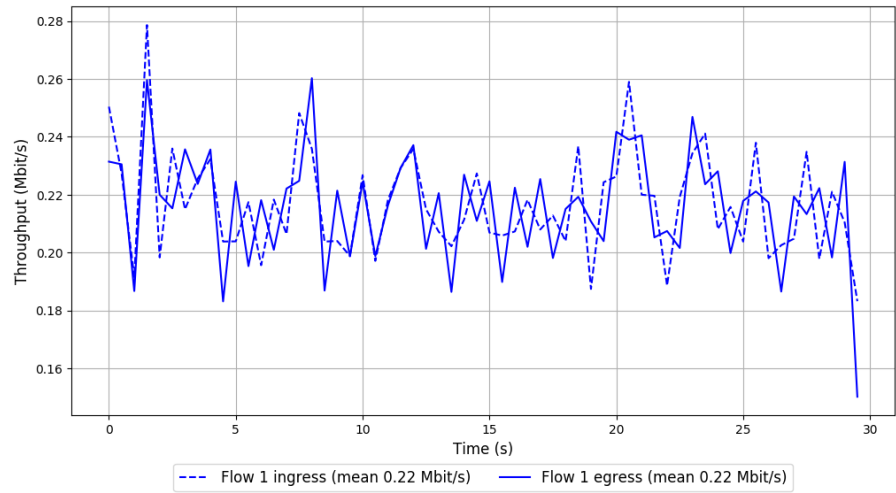
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.906 ms

Loss rate: 0.38%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-11-16 02:09:12

End at: 2017-11-16 02:09:42

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.775 ms

Loss rate: 0.38%

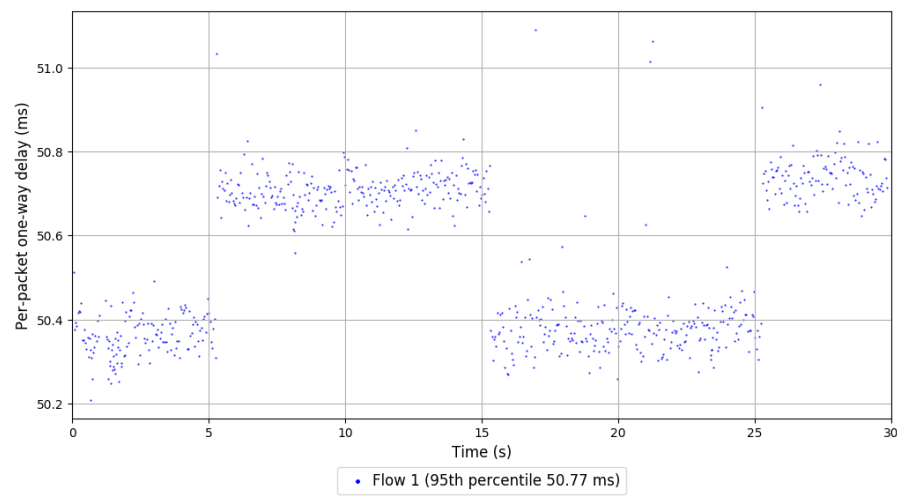
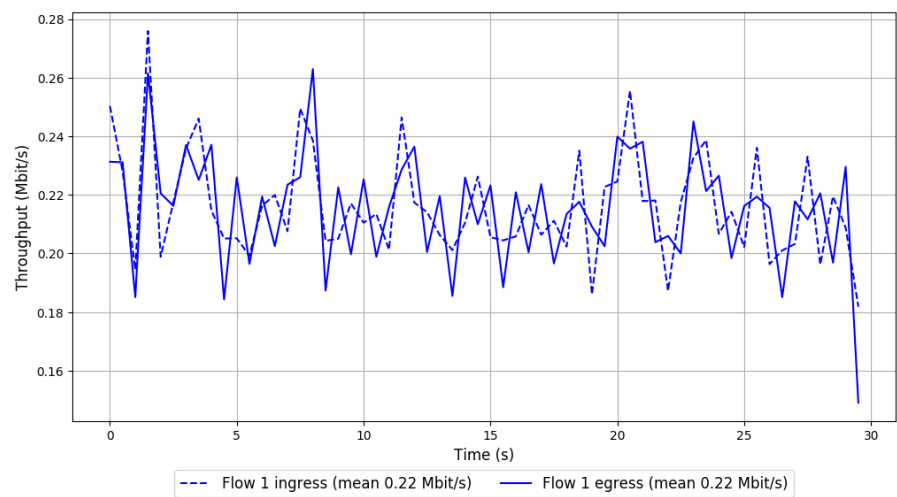
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.775 ms

Loss rate: 0.38%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-11-16 02:19:47

End at: 2017-11-16 02:20:17

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.147 ms

Loss rate: 0.38%

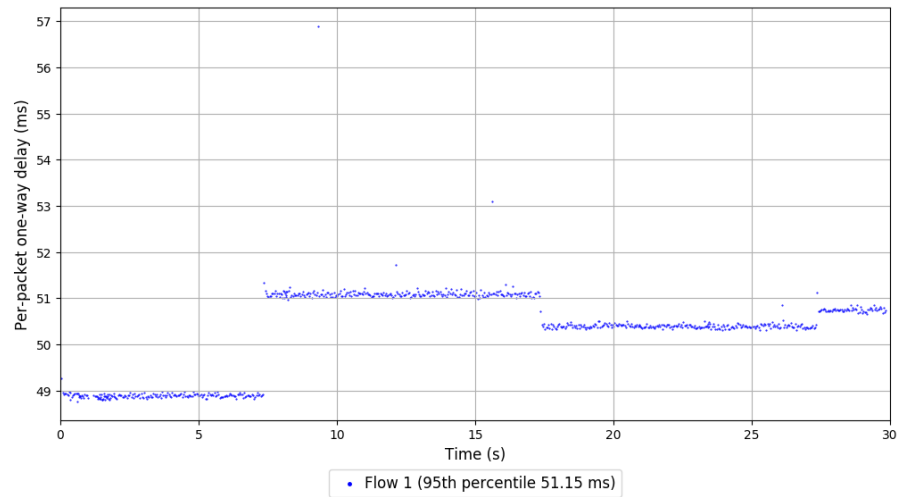
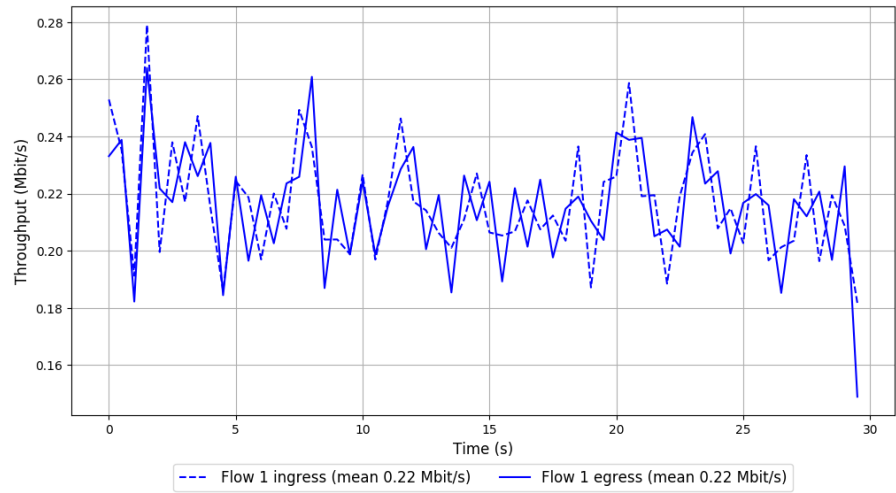
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 51.147 ms

Loss rate: 0.38%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-11-16 02:30:19

End at: 2017-11-16 02:30:49

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.608 ms

Loss rate: 0.38%

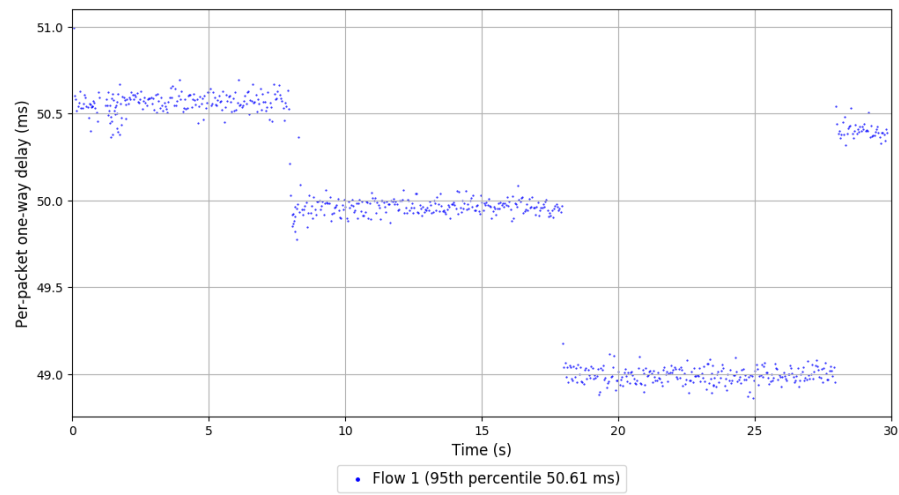
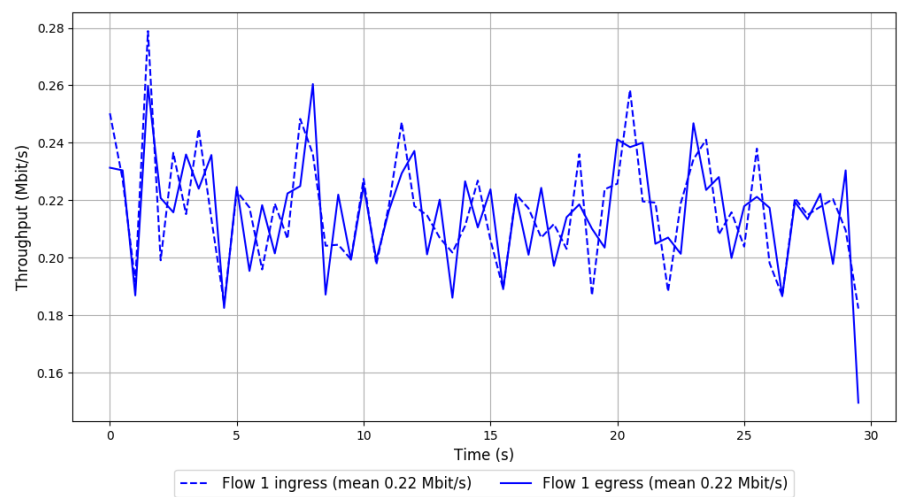
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.608 ms

Loss rate: 0.38%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-11-16 02:40:52

End at: 2017-11-16 02:41:22

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.782 ms

Loss rate: 0.38%

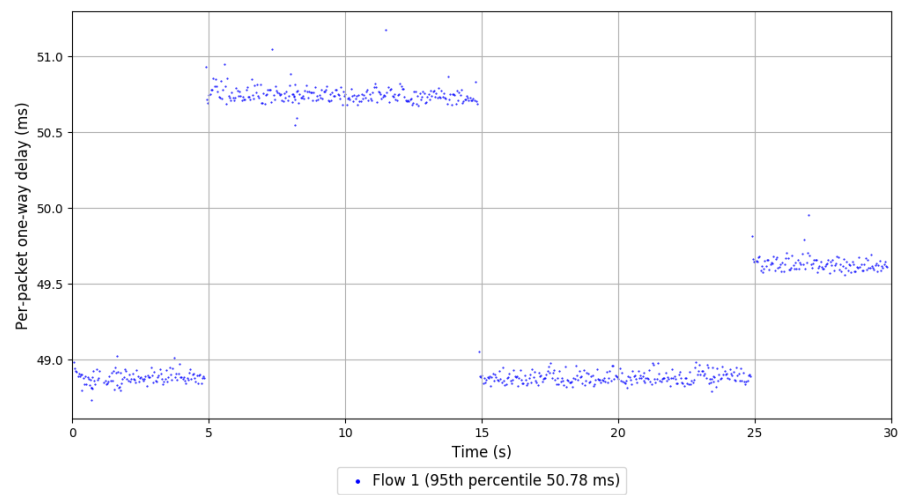
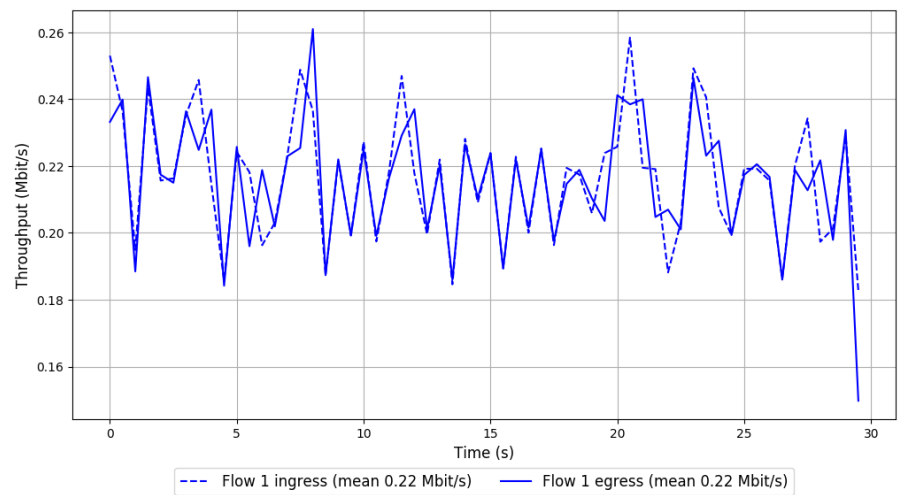
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.782 ms

Loss rate: 0.38%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-11-16 02:51:25

End at: 2017-11-16 02:51:55

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 0.38%

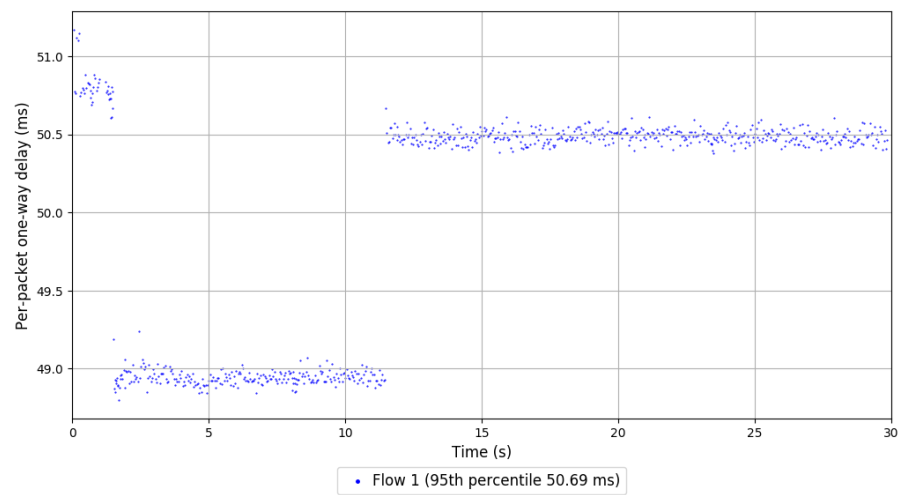
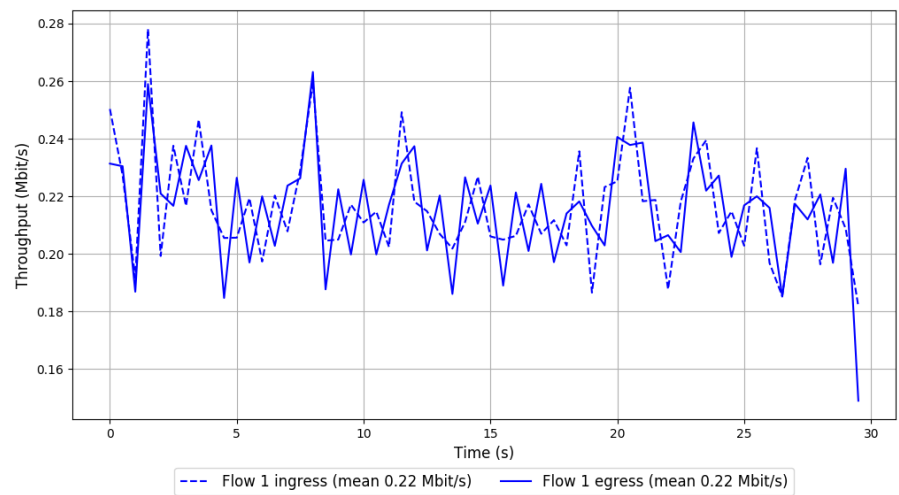
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.689 ms

Loss rate: 0.38%

Run 10: Report of SReAM — Data Link

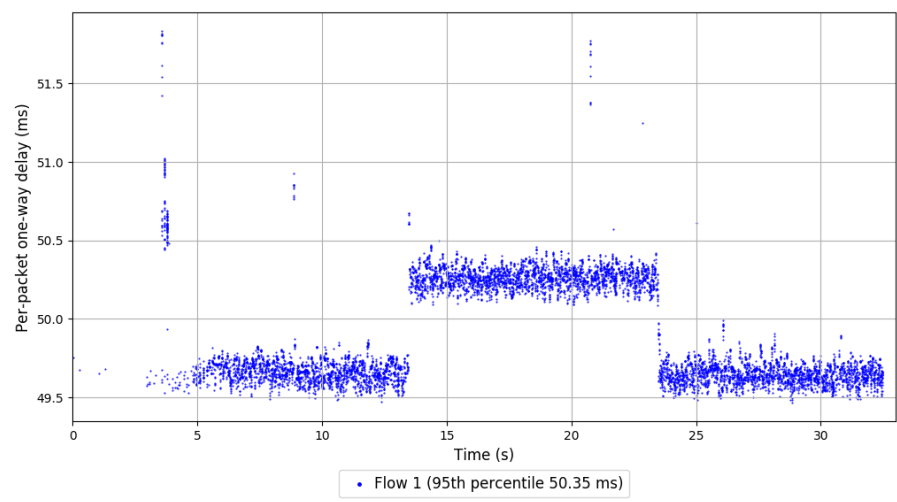
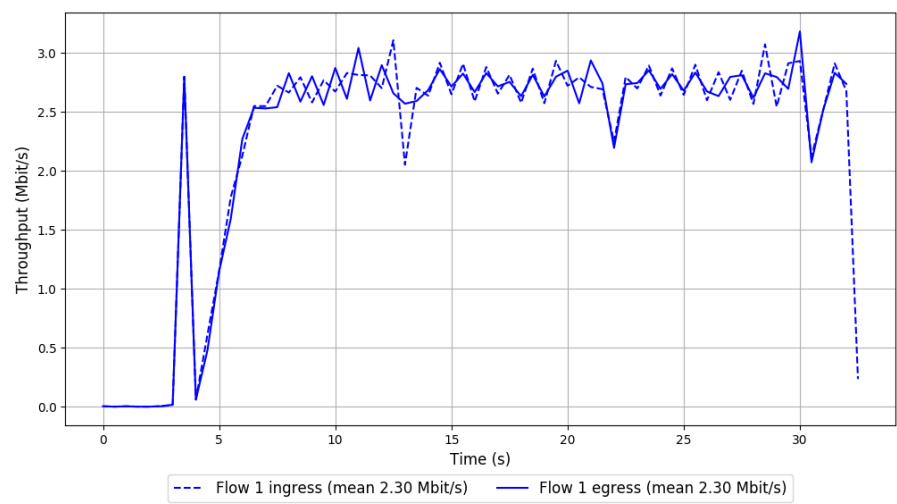


```
Run 1: Statistics of WebRTC media

Start at: 2017-11-16 01:15:56
End at: 2017-11-16 01:16:26

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 50.353 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 2.30 Mbit/s
95th percentile per-packet one-way delay: 50.353 ms
Loss rate: 0.31%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-11-16 01:26:28

End at: 2017-11-16 01:26:58

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 50.795 ms

Loss rate: 0.32%

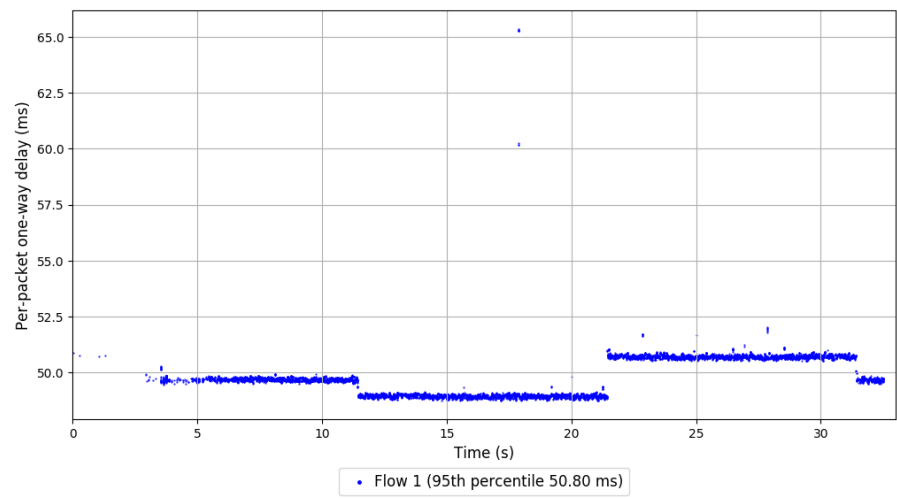
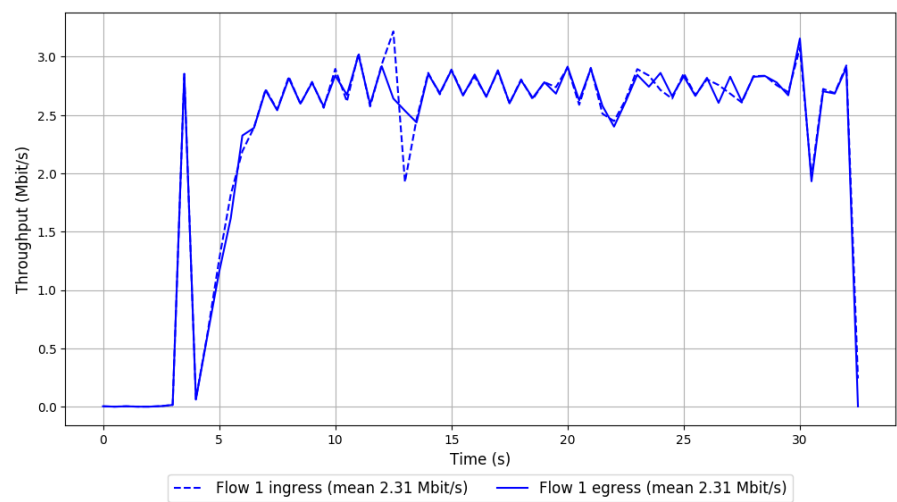
-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 50.795 ms

Loss rate: 0.32%

Run 2: Report of WebRTC media — Data Link

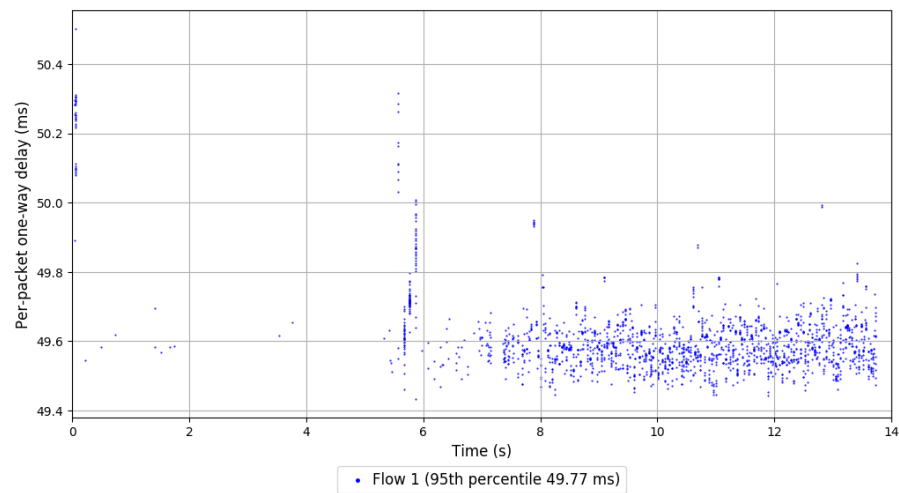
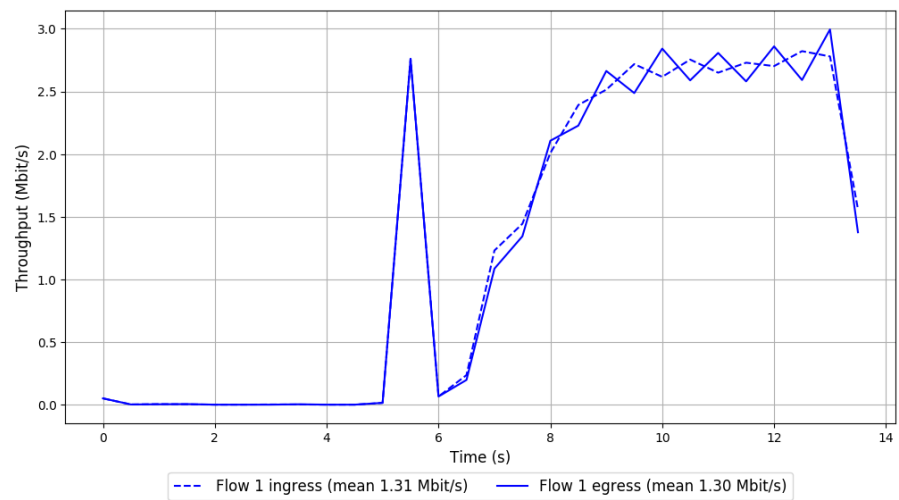


Run 3: Statistics of WebRTC media

Start at: 2017-11-16 01:36:58

End at: 2017-11-16 01:37:28

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-11-16 01:47:34

End at: 2017-11-16 01:48:04

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 50.763 ms

Loss rate: 0.28%

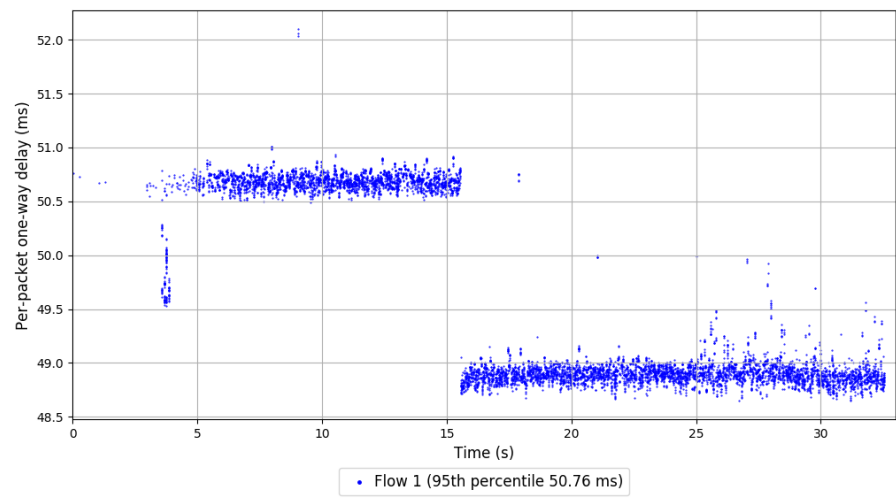
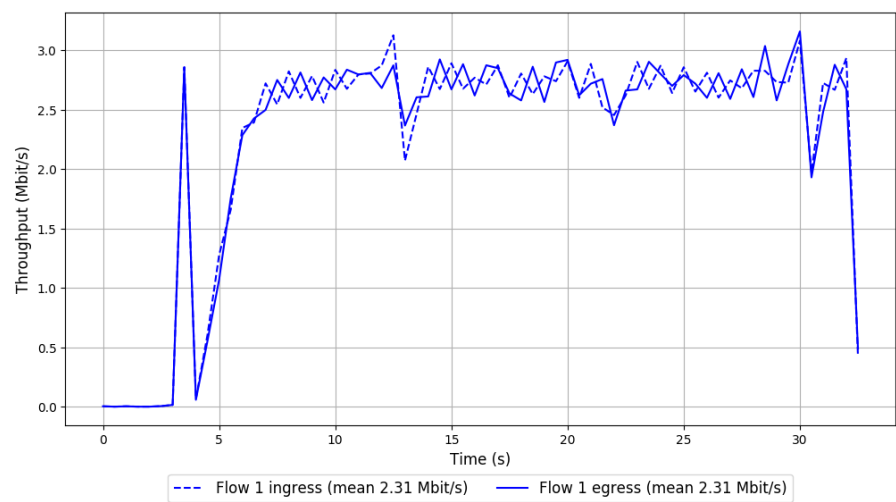
-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 50.763 ms

Loss rate: 0.28%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-11-16 01:58:00

End at: 2017-11-16 01:58:30

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.850 ms

Loss rate: 0.41%

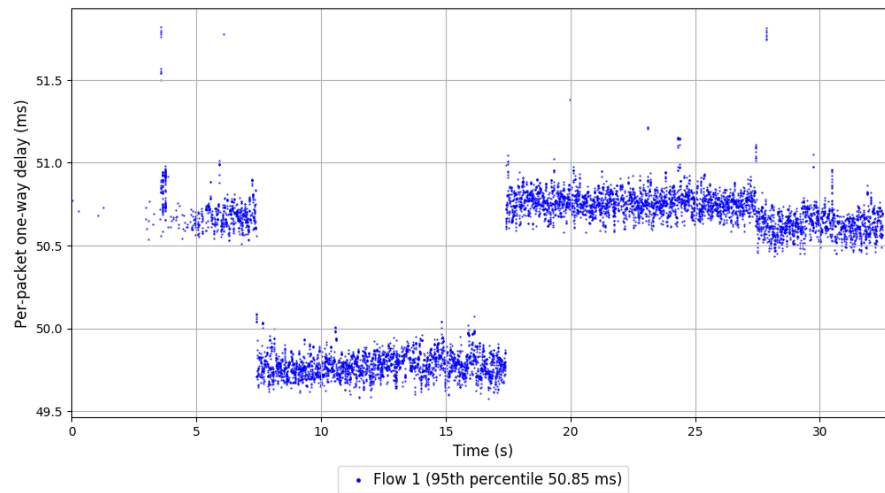
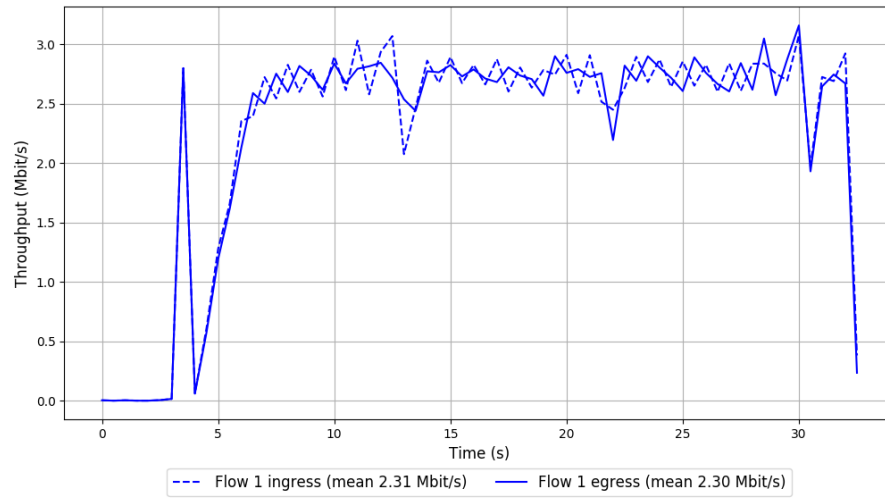
-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.850 ms

Loss rate: 0.41%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-11-16 02:08:35

End at: 2017-11-16 02:09:05

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.853 ms

Loss rate: 0.46%

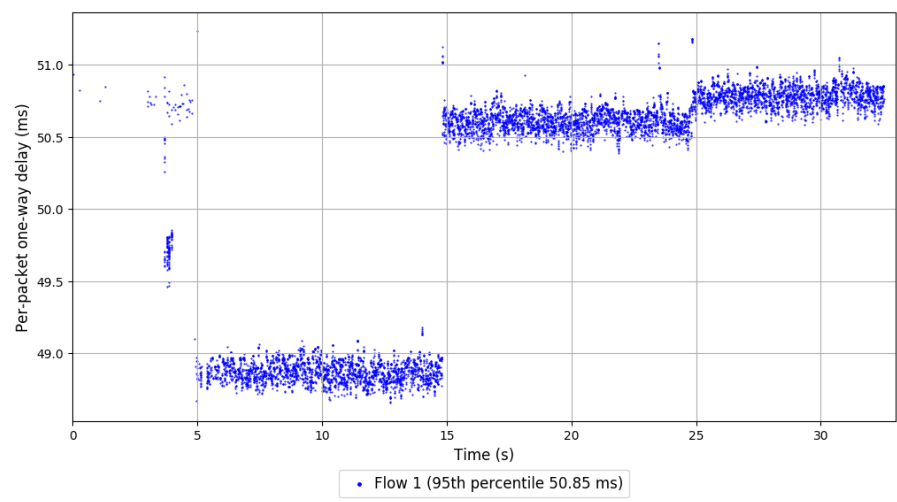
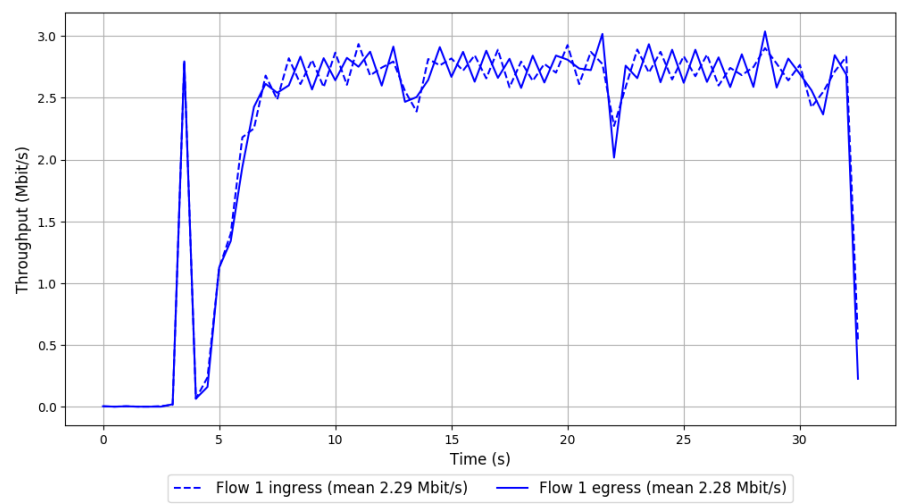
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.853 ms

Loss rate: 0.46%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-11-16 02:19:10

End at: 2017-11-16 02:19:40

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.46%

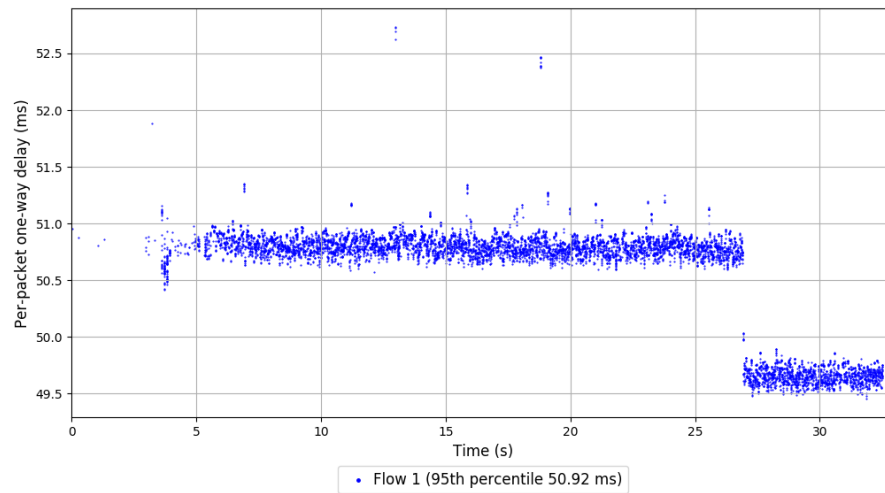
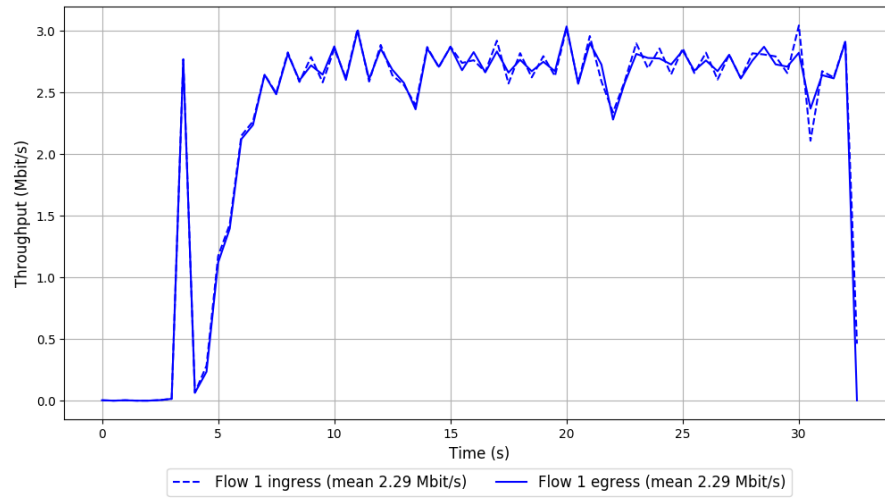
-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.46%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-11-16 02:29:42

End at: 2017-11-16 02:30:12

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.819 ms

Loss rate: 0.46%

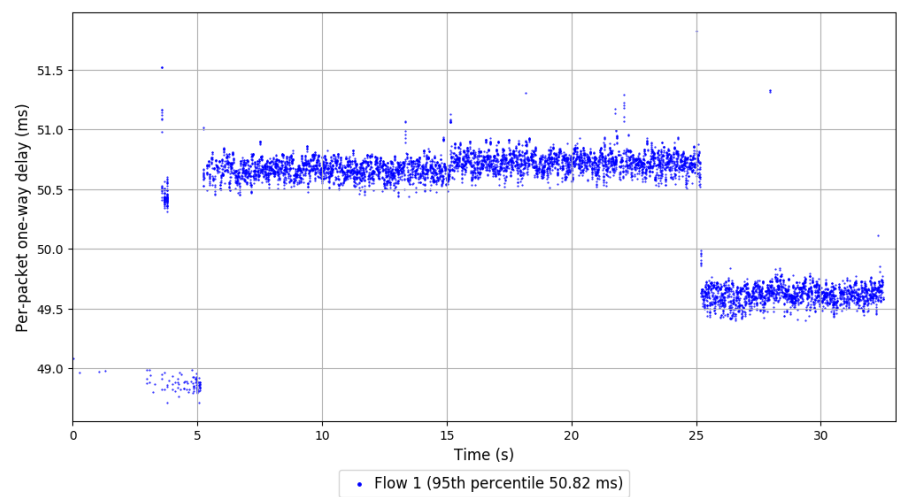
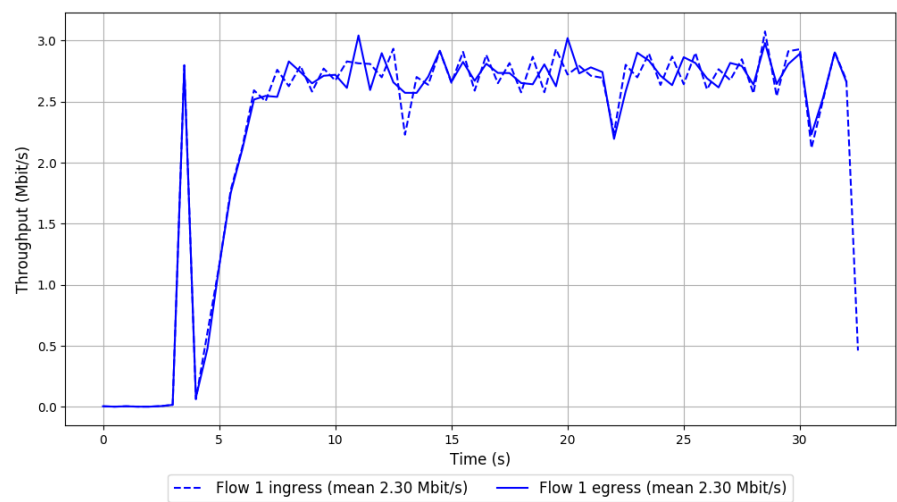
-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.819 ms

Loss rate: 0.46%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-11-16 02:40:12

End at: 2017-11-16 02:40:42

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.740 ms

Loss rate: 0.46%

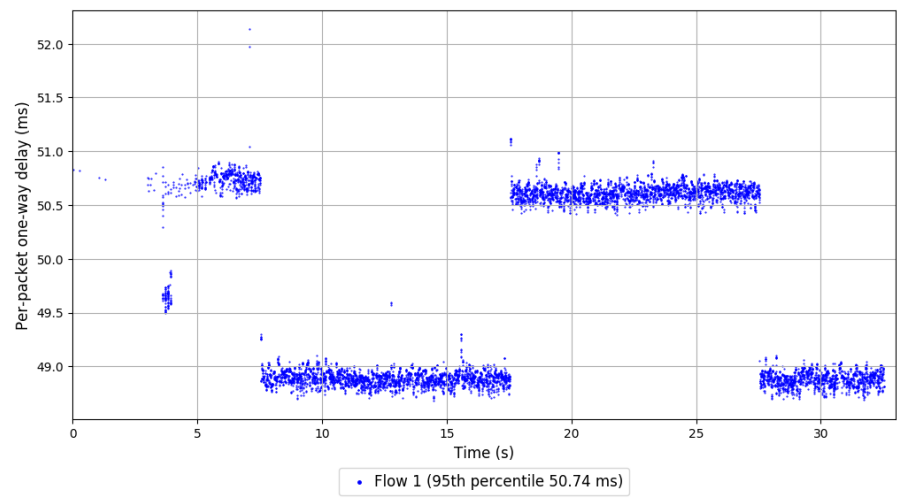
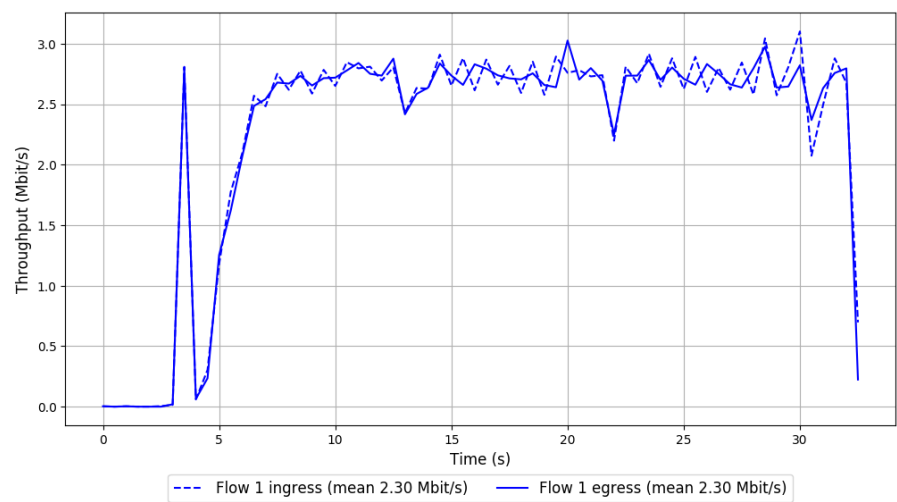
-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.740 ms

Loss rate: 0.46%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-11-16 02:50:49

End at: 2017-11-16 02:51:19

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.866 ms

Loss rate: 0.35%

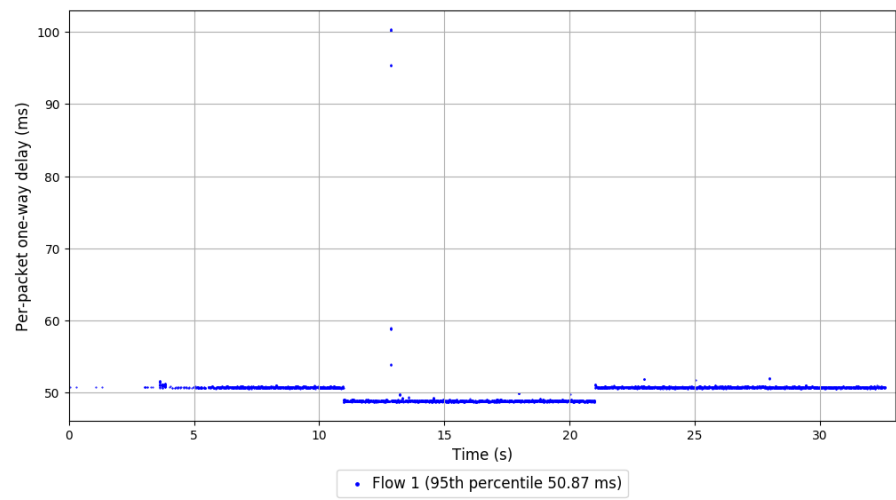
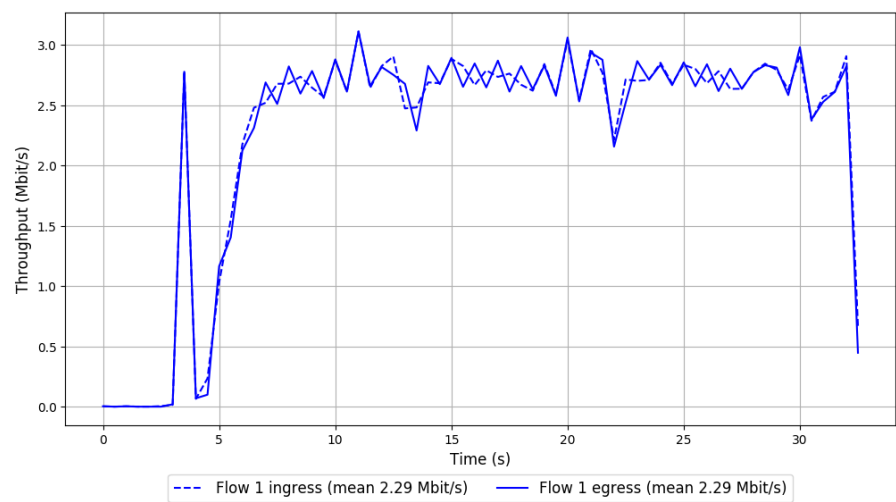
-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.866 ms

Loss rate: 0.35%

Run 10: Report of WebRTC media — Data Link

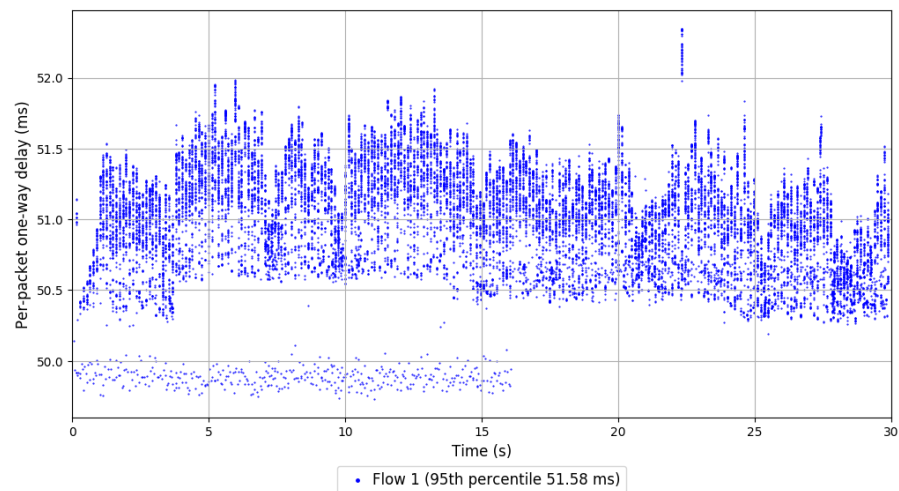
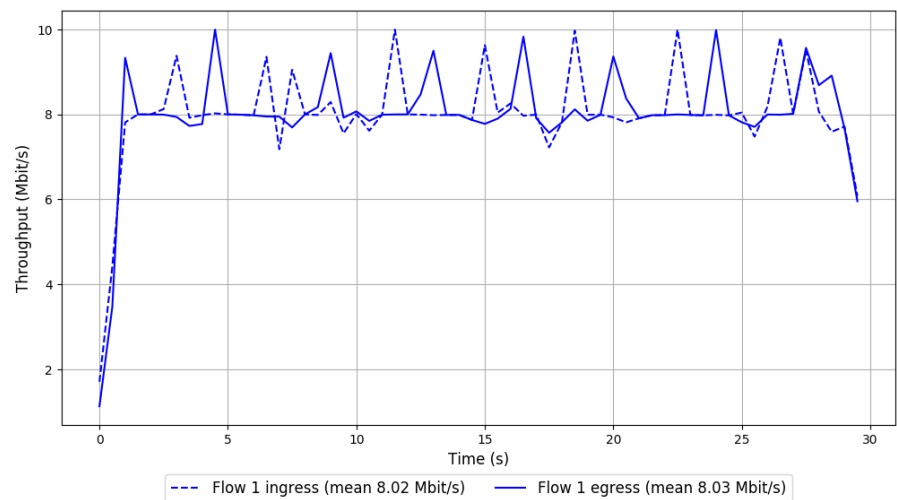


```
Run 1: Statistics of Sprout

Start at: 2017-11-16 01:12:11
End at: 2017-11-16 01:12:41

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 51.575 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 51.575 ms
Loss rate: 0.04%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-11-16 01:22:44

End at: 2017-11-16 01:23:14

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.01 Mbit/s

95th percentile per-packet one-way delay: 51.503 ms

Loss rate: 0.03%

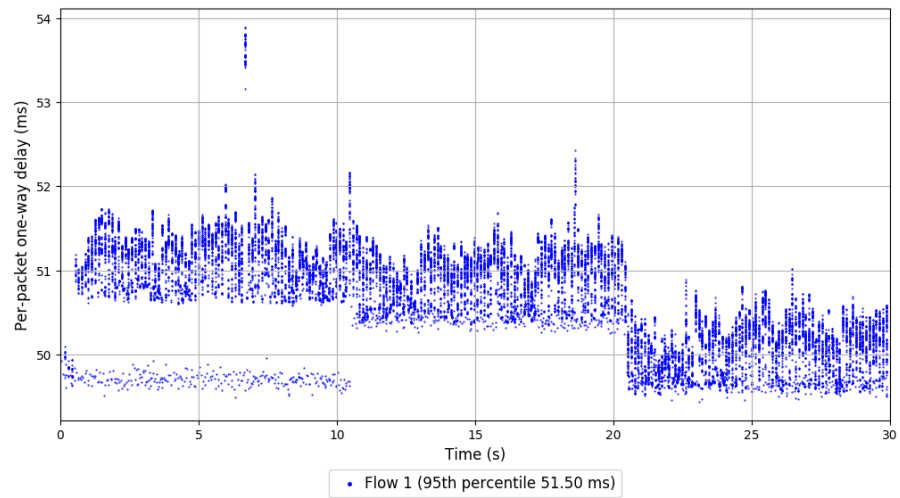
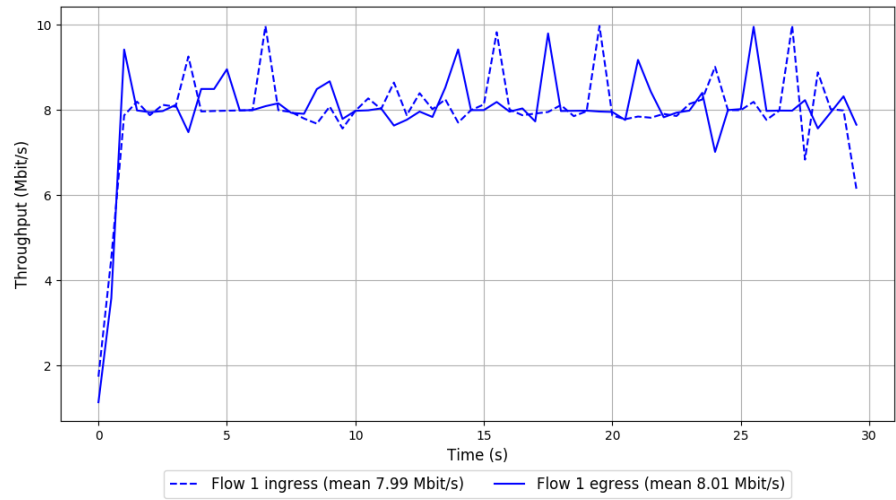
-- Flow 1:

Average throughput: 8.01 Mbit/s

95th percentile per-packet one-way delay: 51.503 ms

Loss rate: 0.03%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-11-16 01:33:10

End at: 2017-11-16 01:33:40

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 51.283 ms

Loss rate: 0.83%

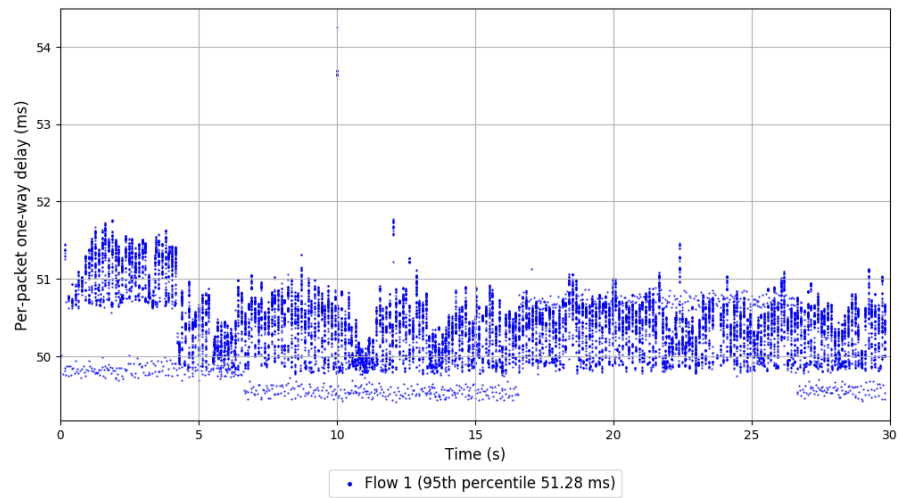
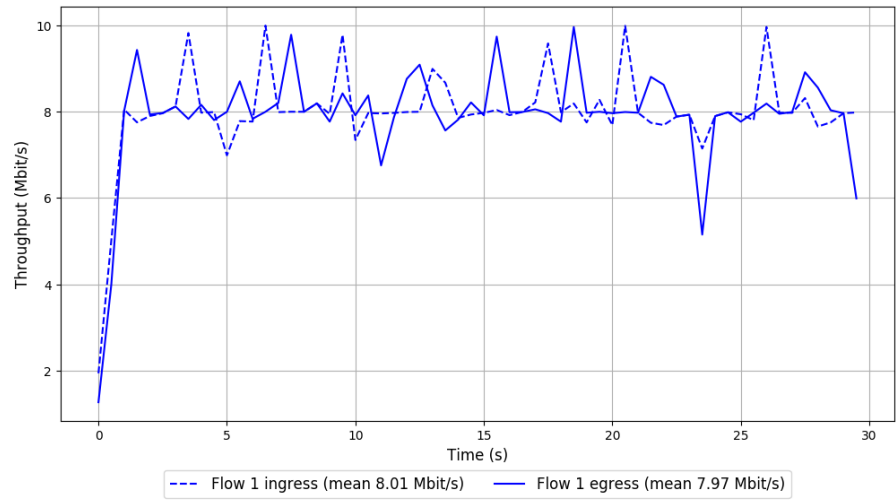
-- Flow 1:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 51.283 ms

Loss rate: 0.83%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-11-16 01:43:45

End at: 2017-11-16 01:44:15

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.545 ms

Loss rate: 0.43%

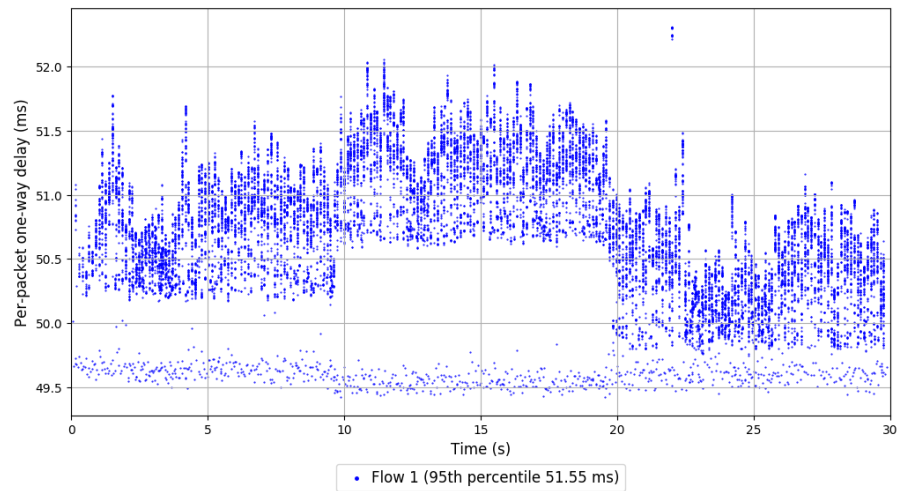
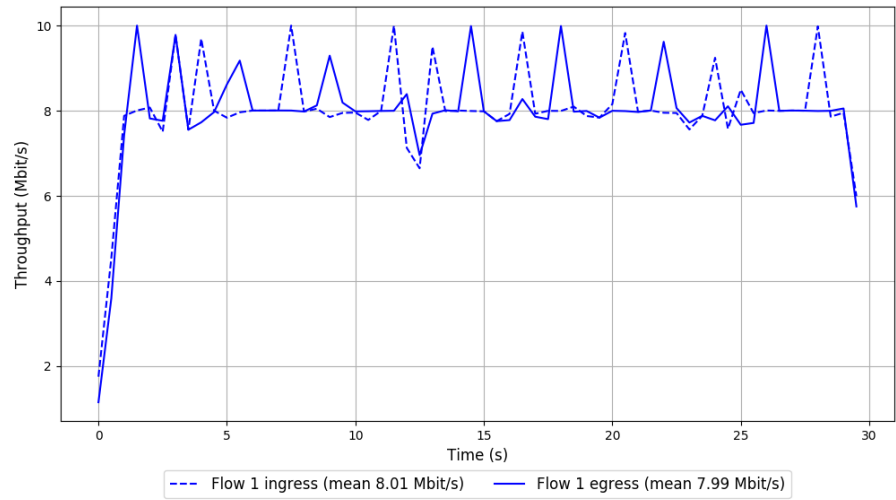
-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 51.545 ms

Loss rate: 0.43%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-11-16 01:54:09

End at: 2017-11-16 01:54:39

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.443 ms

Loss rate: 0.42%

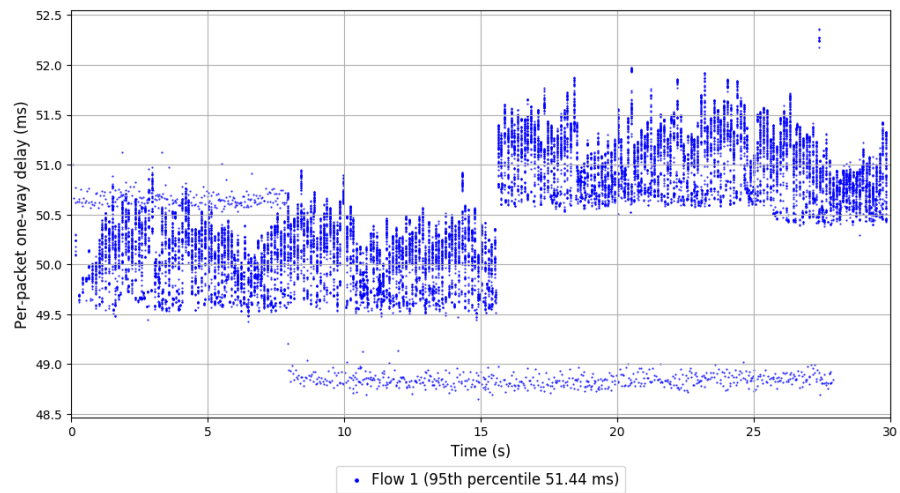
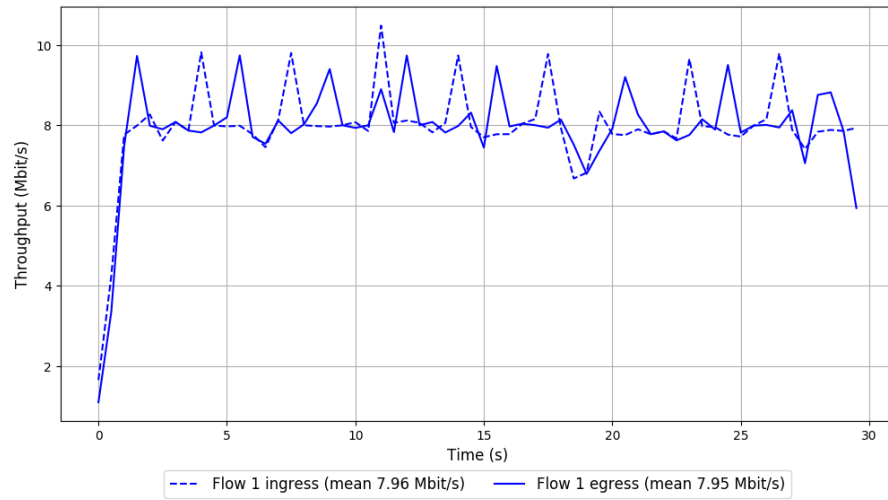
-- Flow 1:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.443 ms

Loss rate: 0.42%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-11-16 02:04:45

End at: 2017-11-16 02:05:15

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 51.834 ms

Loss rate: 0.46%

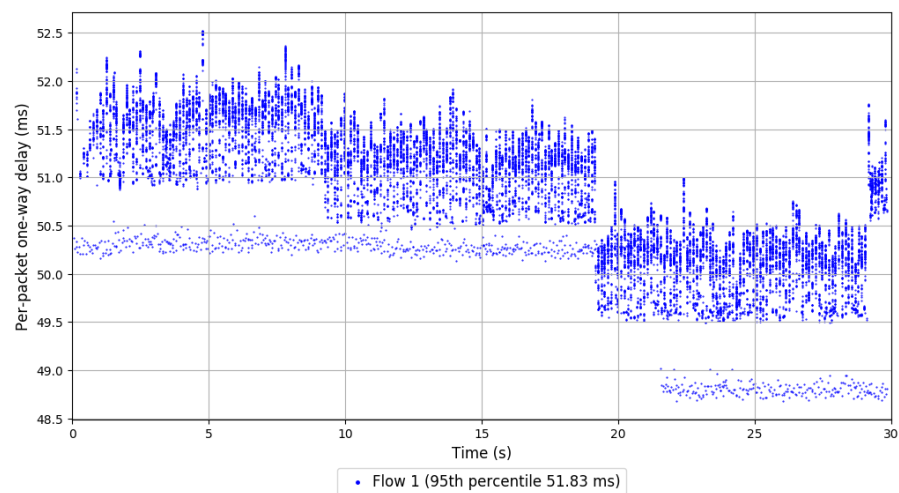
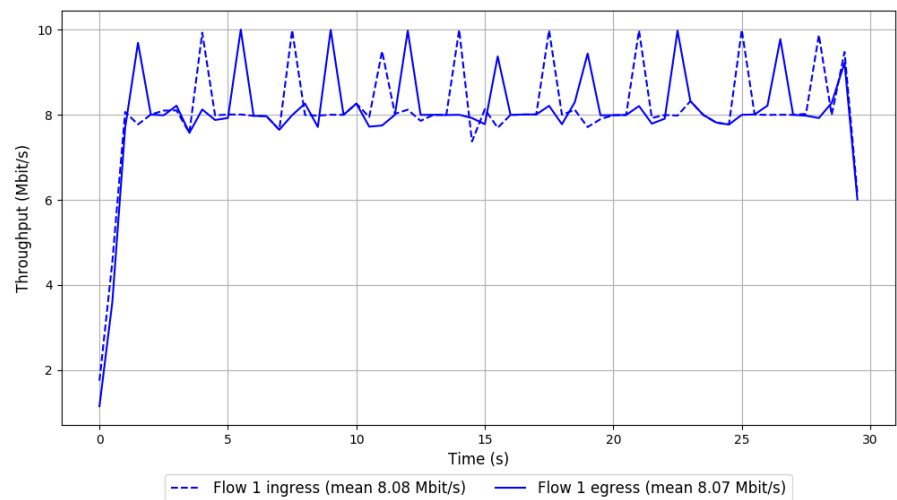
-- Flow 1:

Average throughput: 8.07 Mbit/s

95th percentile per-packet one-way delay: 51.834 ms

Loss rate: 0.46%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-11-16 02:15:24

End at: 2017-11-16 02:15:54

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.87 Mbit/s

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

Loss rate: 0.88%

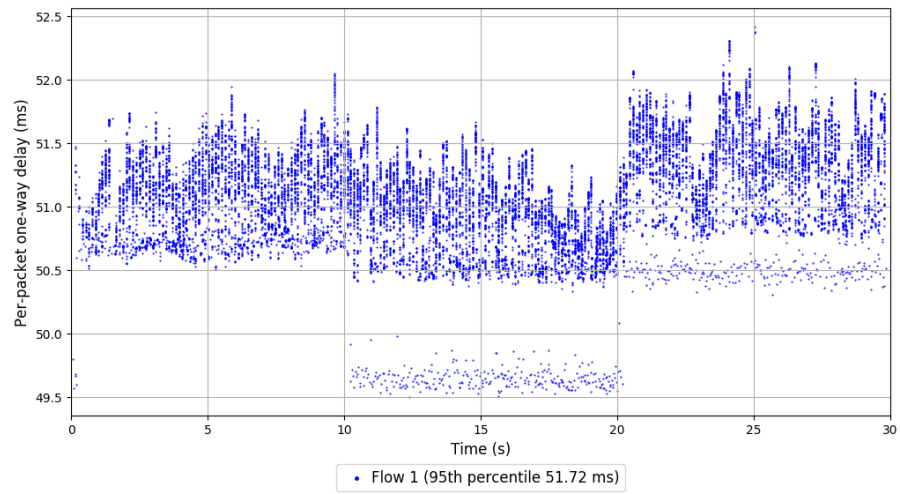
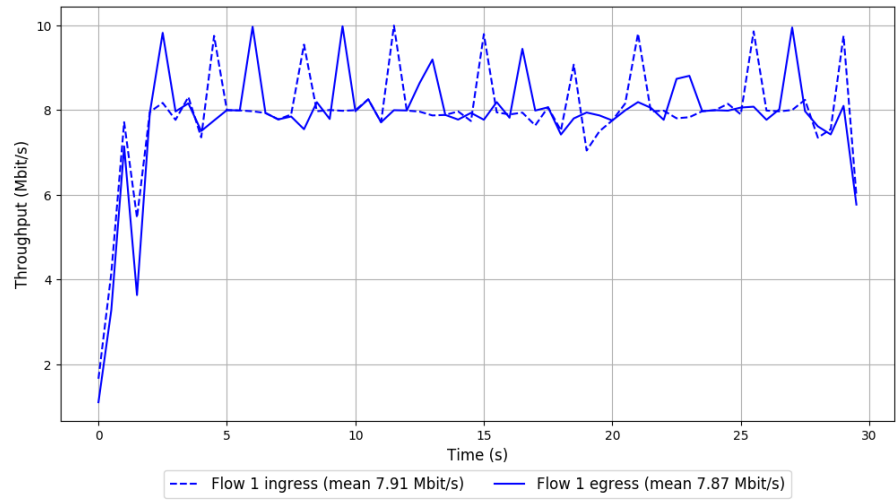
-- Flow 1:

Average throughput: 7.87 Mbit/s

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

Loss rate: 0.88%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-11-16 02:25:59

End at: 2017-11-16 02:26:29

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 51.340 ms

Loss rate: 0.40%

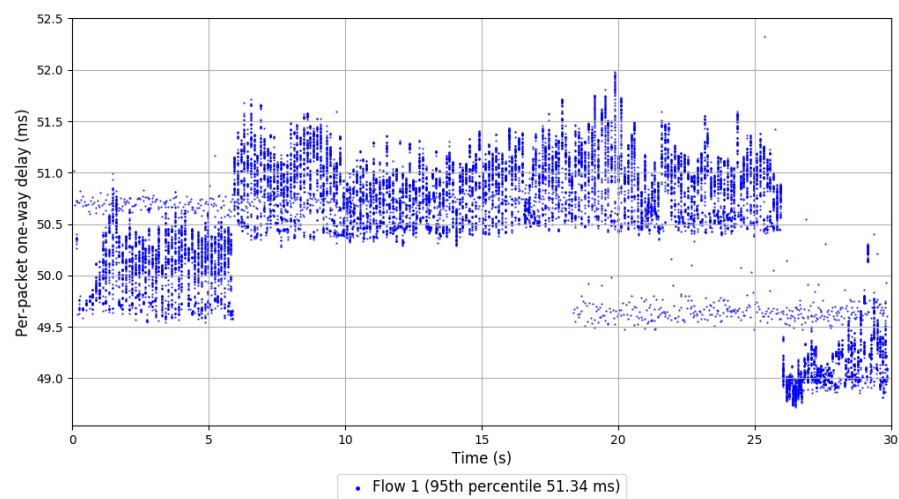
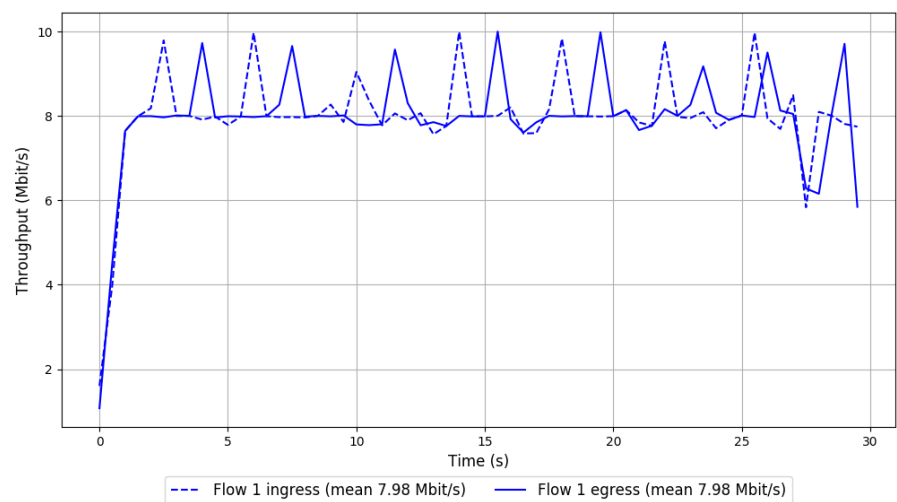
-- Flow 1:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 51.340 ms

Loss rate: 0.40%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-11-16 02:36:26

End at: 2017-11-16 02:36:56

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 51.932 ms

Loss rate: 0.40%

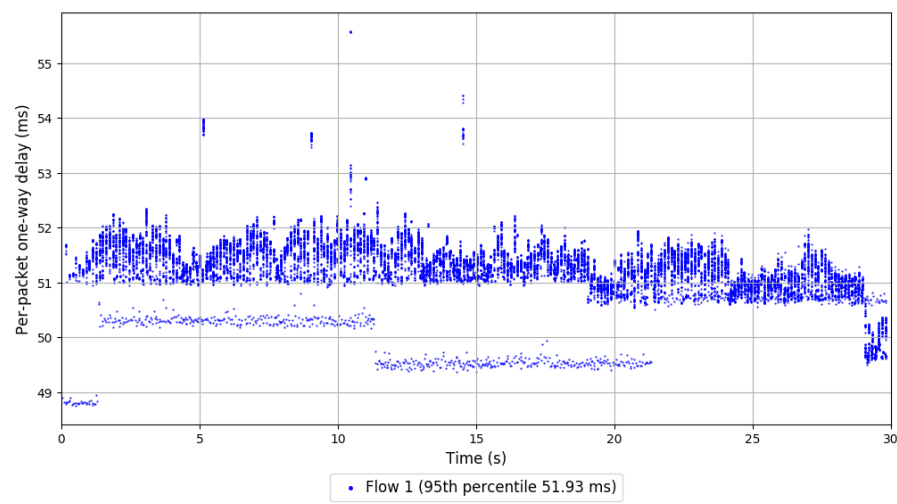
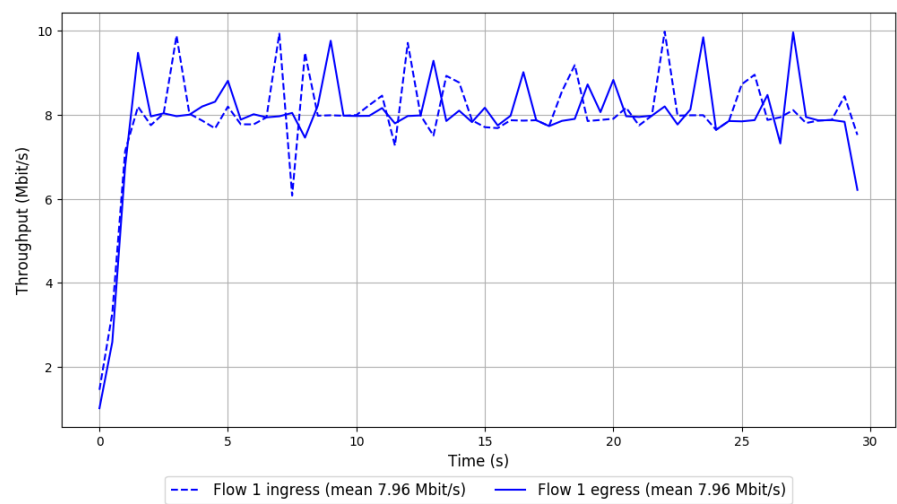
-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 51.932 ms

Loss rate: 0.40%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-11-16 02:47:00

End at: 2017-11-16 02:47:30

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 51.785 ms

Loss rate: 0.41%

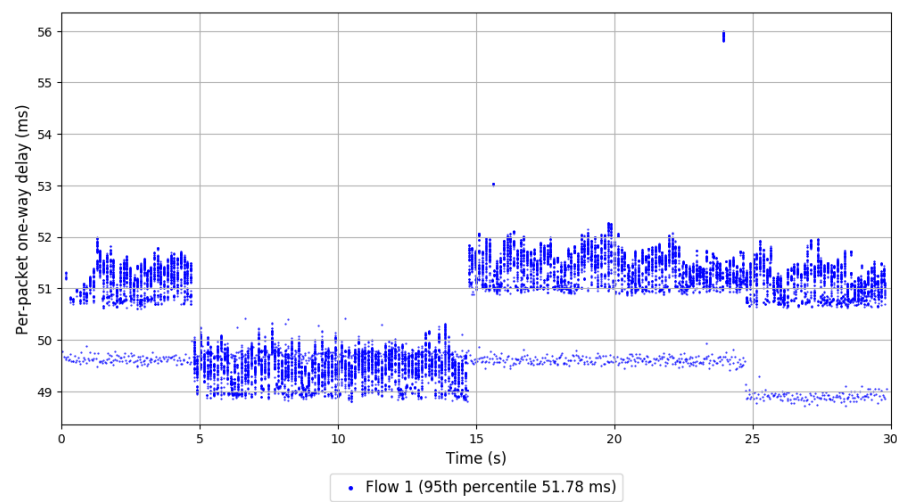
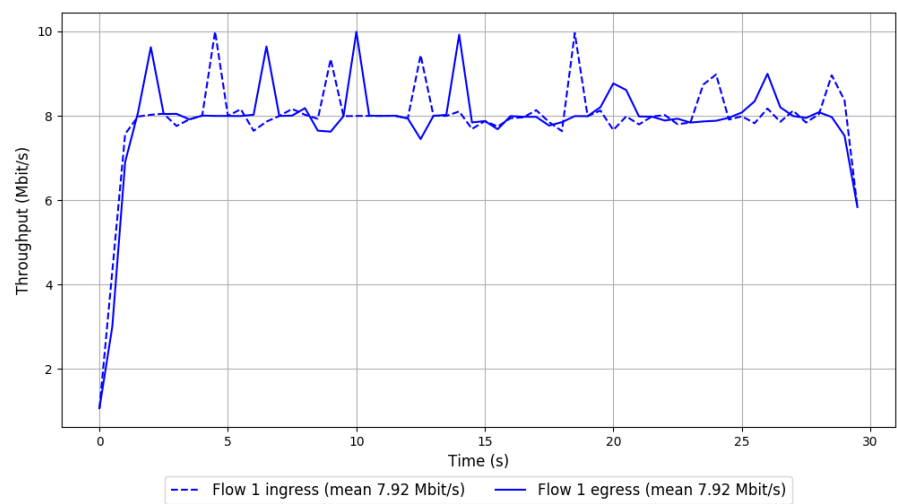
-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 51.785 ms

Loss rate: 0.41%

Run 10: Report of Sprout — Data Link

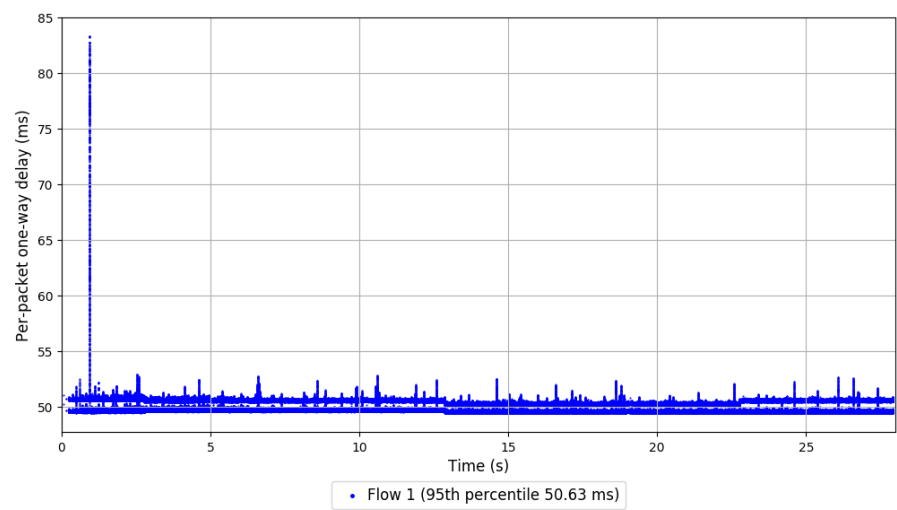
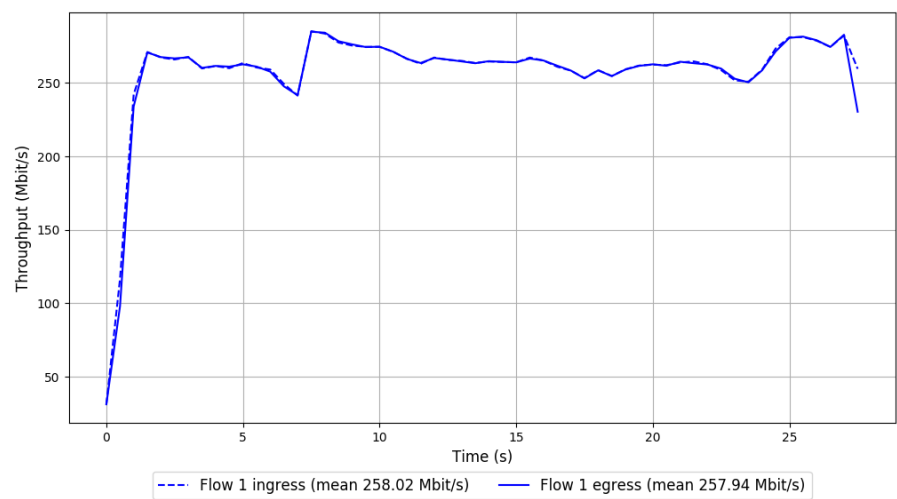


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-11-16 01:19:00
End at: 2017-11-16 01:19:30

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 257.94 Mbit/s
95th percentile per-packet one-way delay: 50.629 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 257.94 Mbit/s
95th percentile per-packet one-way delay: 50.629 ms
Loss rate: 0.39%
```

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

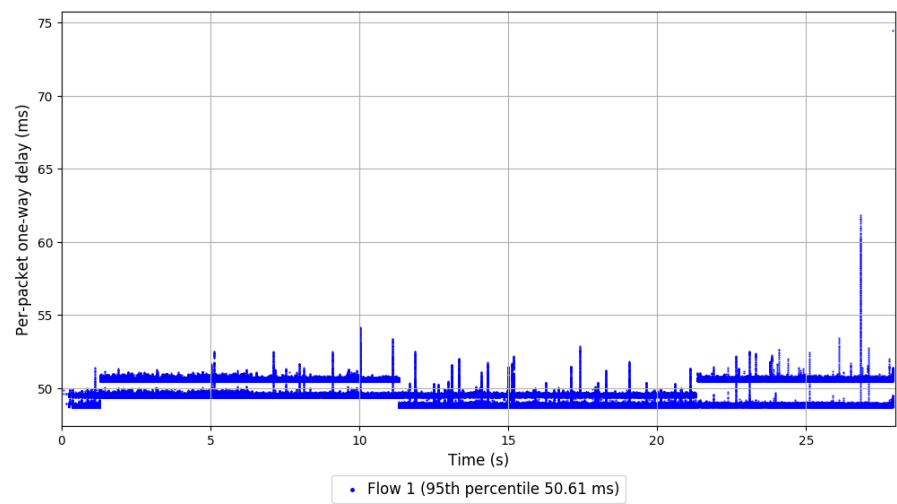
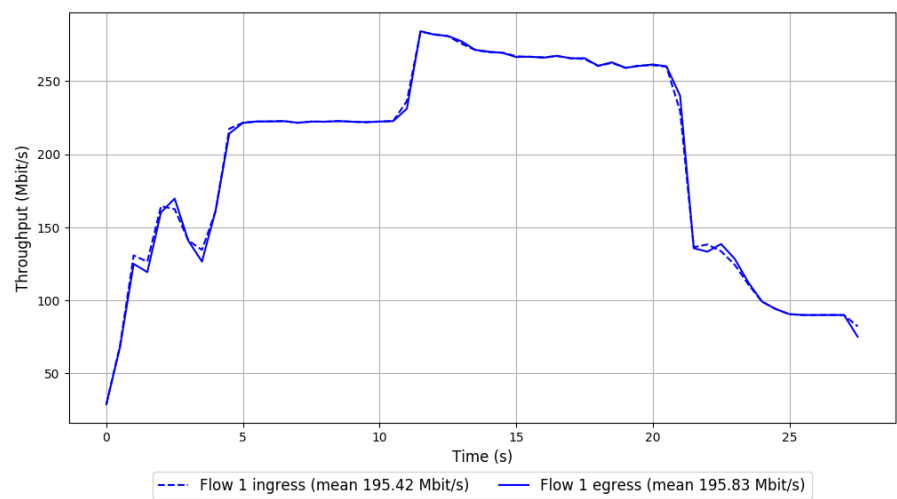


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-11-16 01:29:31
End at: 2017-11-16 01:30:01

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 195.83 Mbit/s
95th percentile per-packet one-way delay: 50.613 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 195.83 Mbit/s
95th percentile per-packet one-way delay: 50.613 ms
Loss rate: 0.15%
```

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

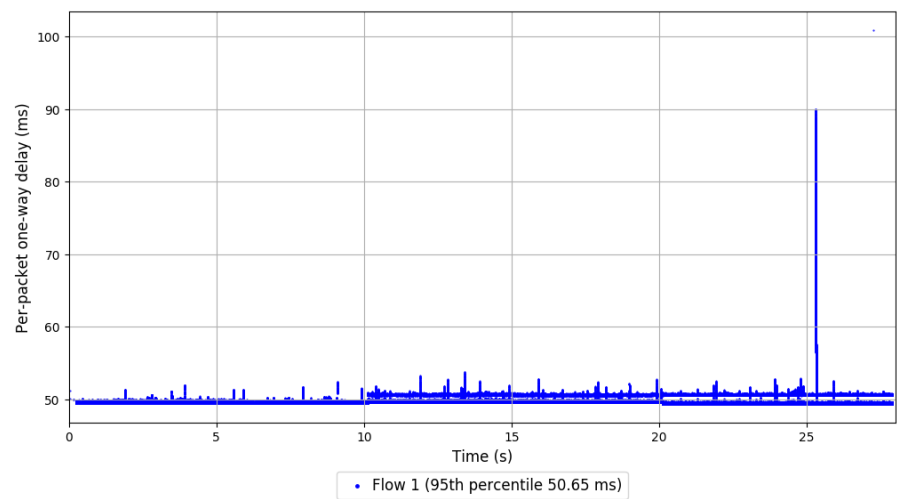
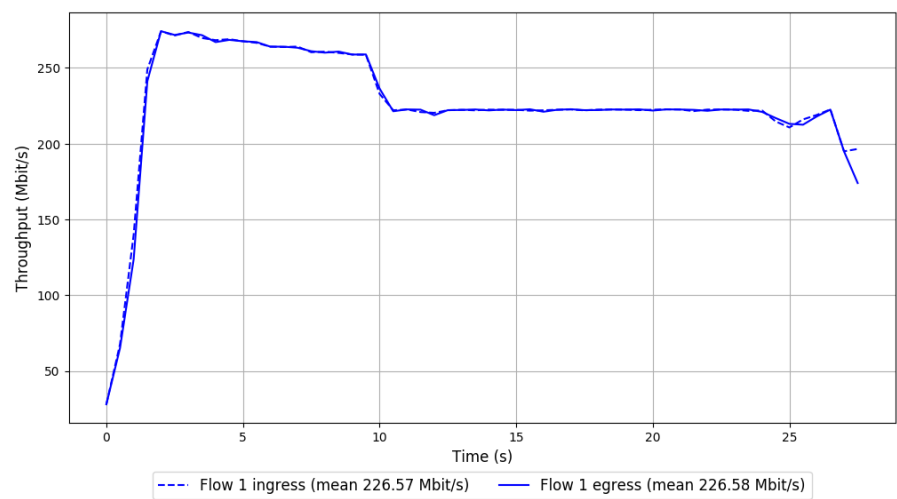


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-11-16 01:40:02
End at: 2017-11-16 01:40:32

# Below is generated by plot.py at 2017-11-16 05:10:58
# Datalink statistics
-- Total of 1 flow:
Average throughput: 226.58 Mbit/s
95th percentile per-packet one-way delay: 50.654 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 226.58 Mbit/s
95th percentile per-packet one-way delay: 50.654 ms
Loss rate: 0.36%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-11-16 01:50:37

End at: 2017-11-16 01:51:07

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 124.19 Mbit/s

95th percentile per-packet one-way delay: 50.688 ms

Loss rate: 0.79%

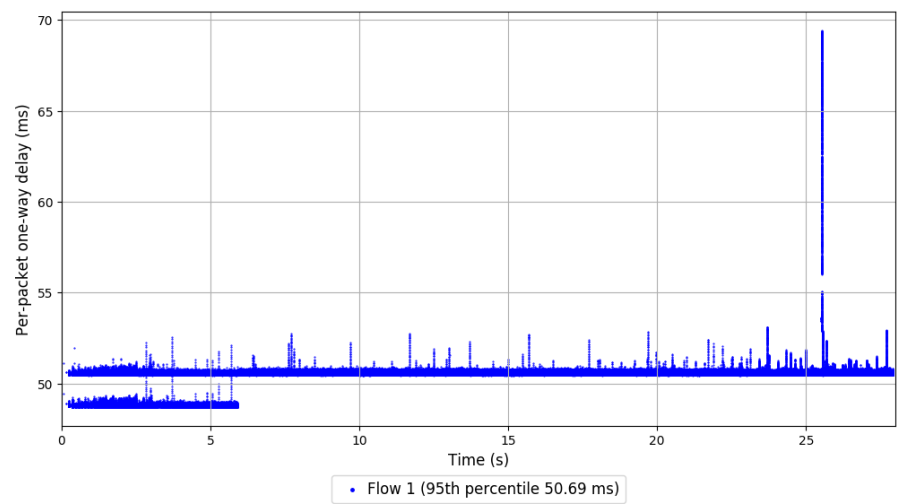
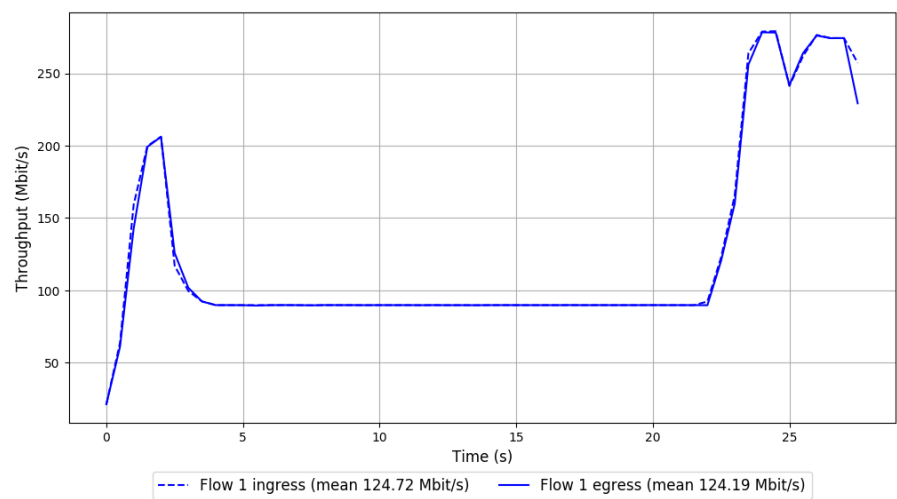
-- Flow 1:

Average throughput: 124.19 Mbit/s

95th percentile per-packet one-way delay: 50.688 ms

Loss rate: 0.79%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-11-16 02:01:01

End at: 2017-11-16 02:01:31

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 252.34 Mbit/s

95th percentile per-packet one-way delay: 50.349 ms

Loss rate: 0.38%

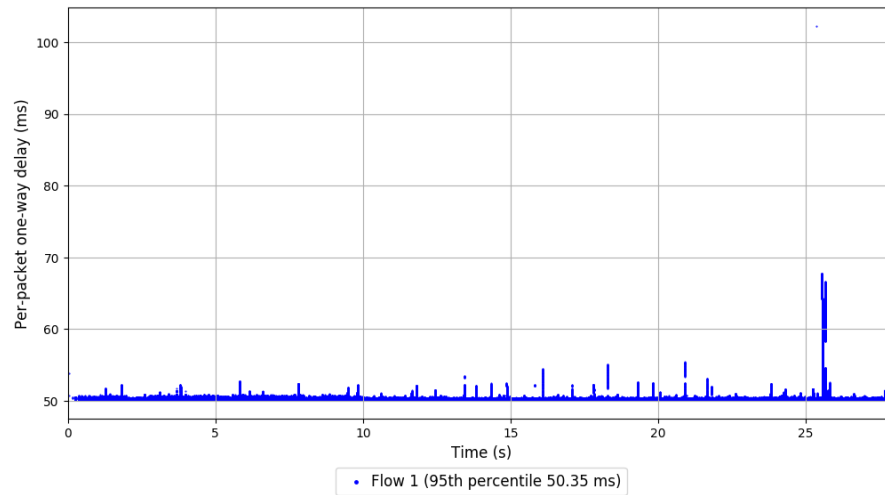
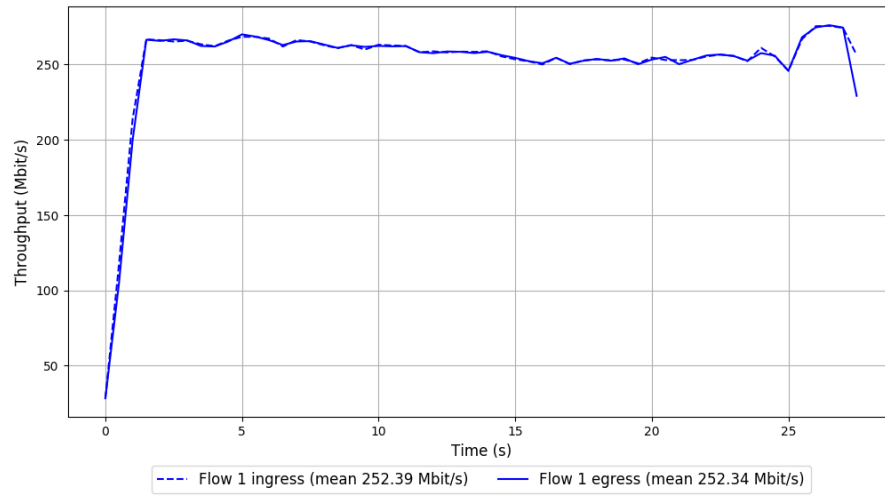
-- Flow 1:

Average throughput: 252.34 Mbit/s

95th percentile per-packet one-way delay: 50.349 ms

Loss rate: 0.38%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-11-16 02:11:40

End at: 2017-11-16 02:12:10

Below is generated by plot.py at 2017-11-16 05:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 248.10 Mbit/s

95th percentile per-packet one-way delay: 50.864 ms

Loss rate: 0.31%

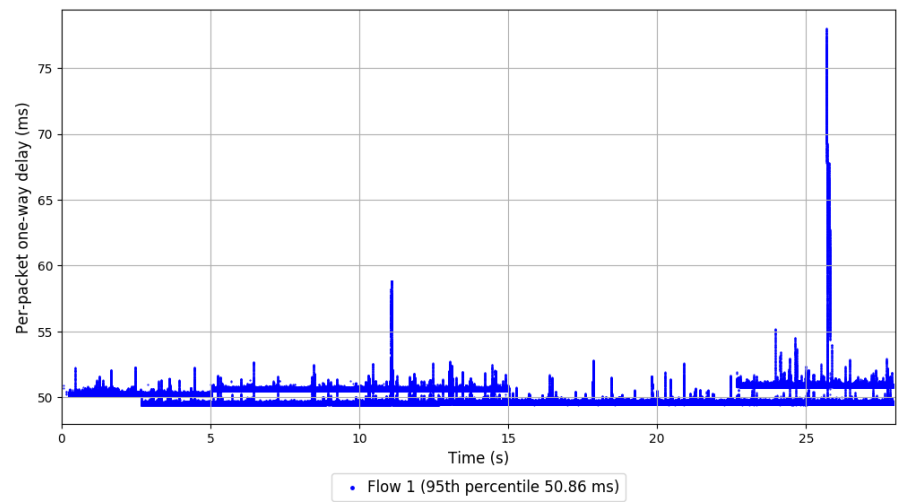
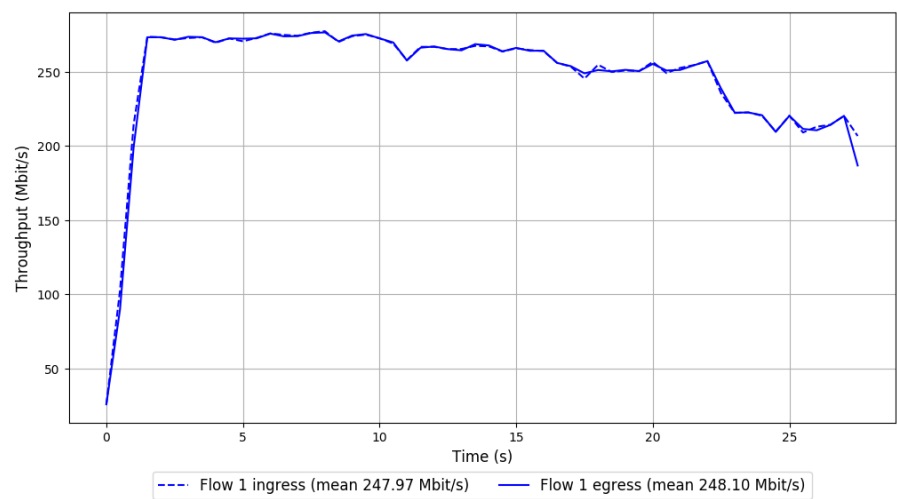
-- Flow 1:

Average throughput: 248.10 Mbit/s

95th percentile per-packet one-way delay: 50.864 ms

Loss rate: 0.31%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-11-16 02:22:14

End at: 2017-11-16 02:22:44

Below is generated by plot.py at 2017-11-16 05:13:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 250.67 Mbit/s

95th percentile per-packet one-way delay: 50.989 ms

Loss rate: 0.28%

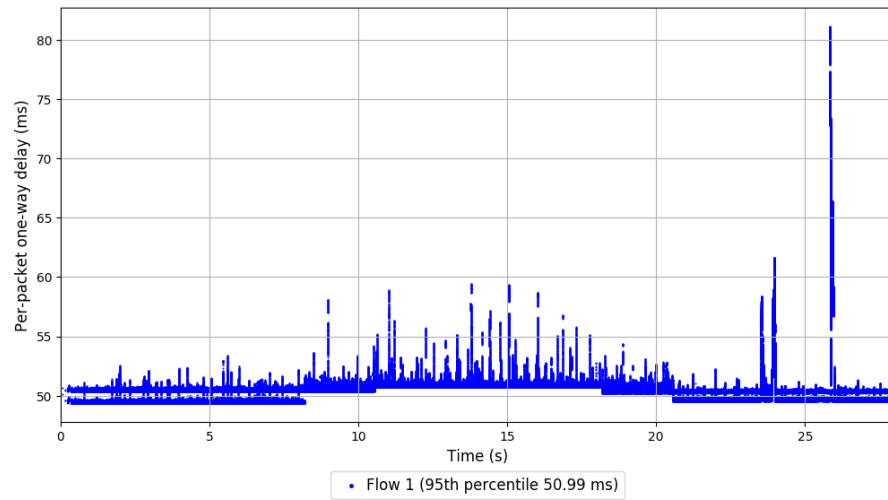
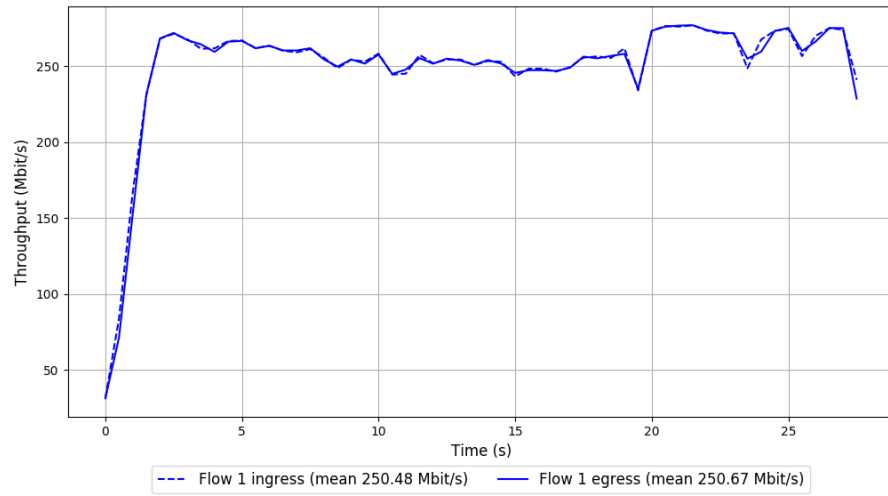
-- Flow 1:

Average throughput: 250.67 Mbit/s

95th percentile per-packet one-way delay: 50.989 ms

Loss rate: 0.28%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-11-16 02:32:45

End at: 2017-11-16 02:33:15

Below is generated by plot.py at 2017-11-16 05:14:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 207.07 Mbit/s

95th percentile per-packet one-way delay: 50.587 ms

Loss rate: 0.48%

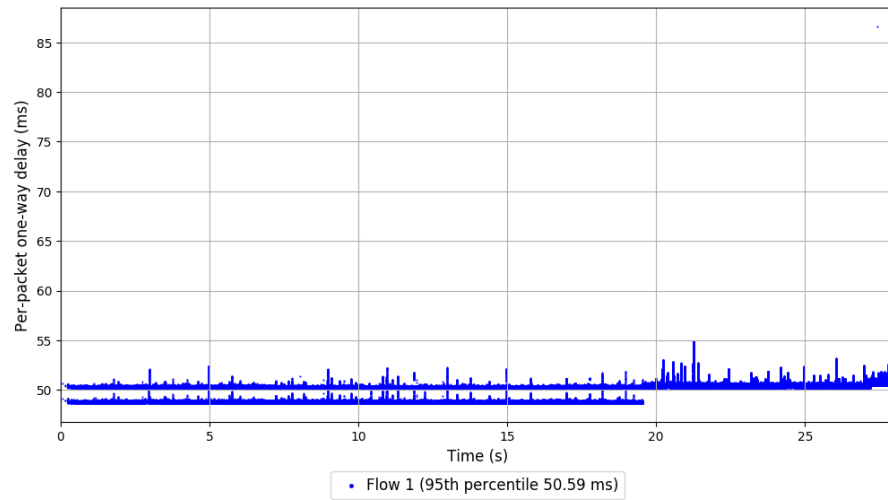
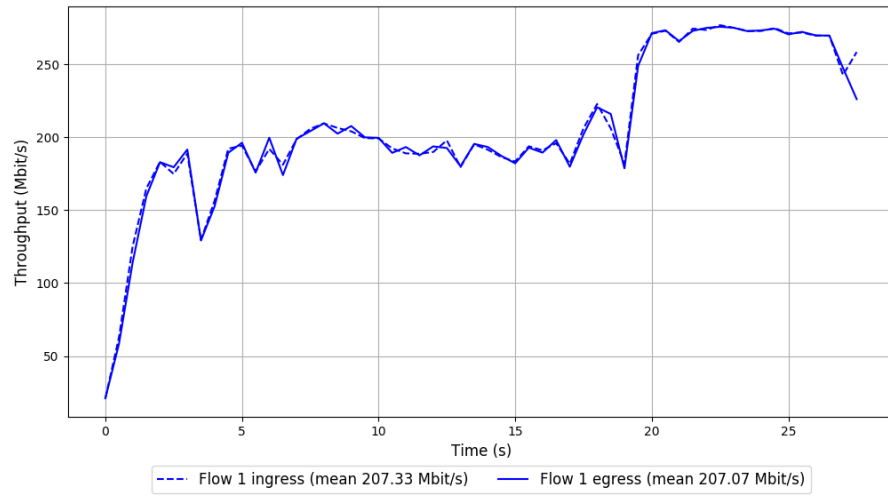
-- Flow 1:

Average throughput: 207.07 Mbit/s

95th percentile per-packet one-way delay: 50.587 ms

Loss rate: 0.48%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-11-16 02:43:18

End at: 2017-11-16 02:43:48

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.04 Mbit/s

95th percentile per-packet one-way delay: 50.951 ms

Loss rate: 0.42%

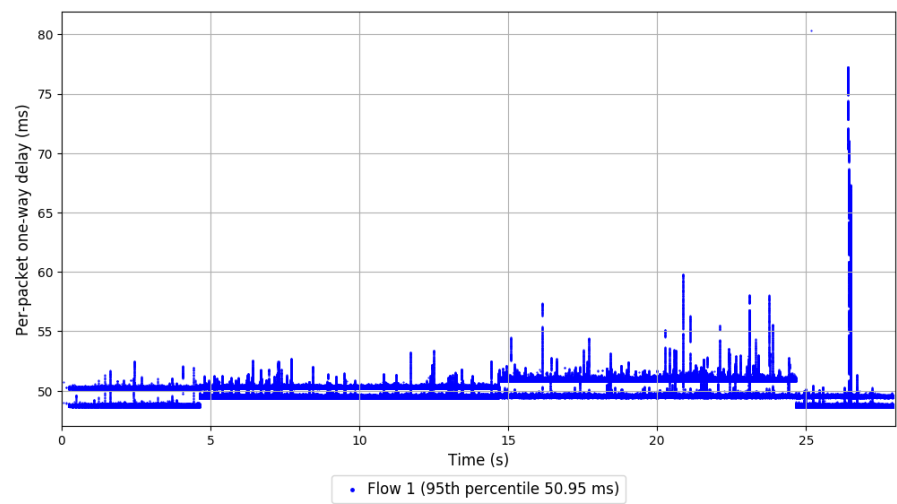
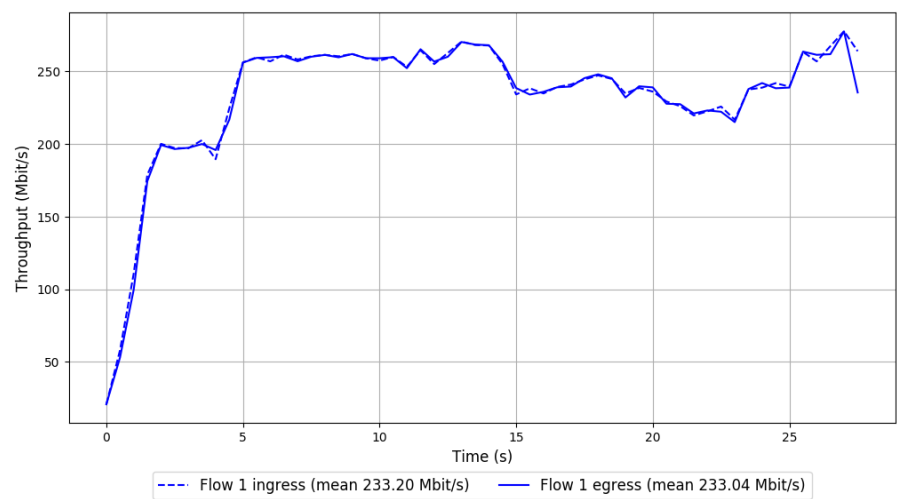
-- Flow 1:

Average throughput: 233.04 Mbit/s

95th percentile per-packet one-way delay: 50.951 ms

Loss rate: 0.42%

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

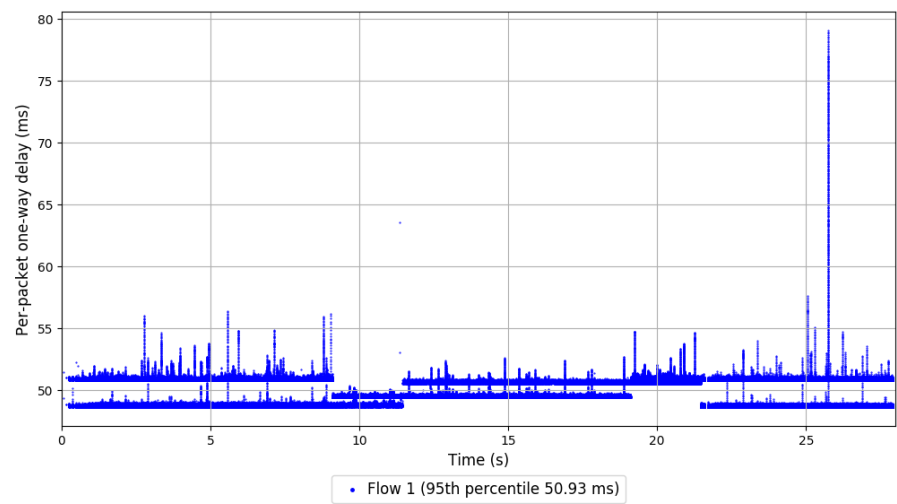
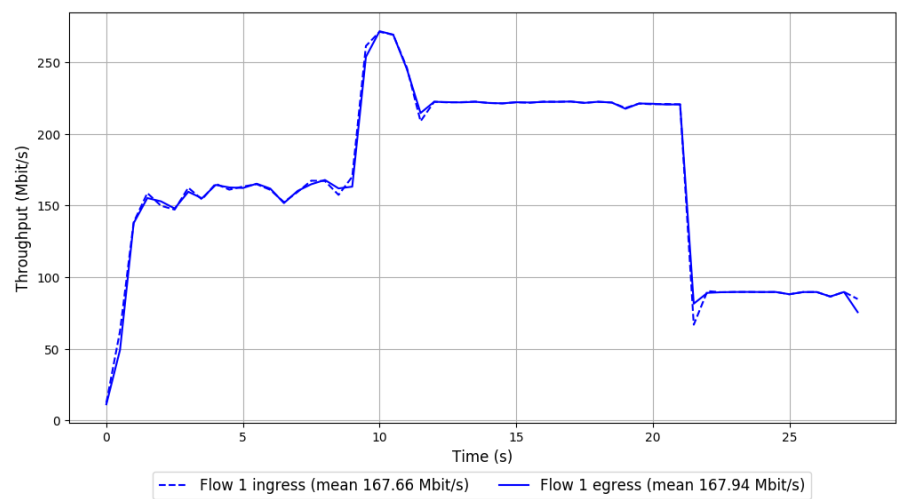


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-11-16 02:53:54
End at: 2017-11-16 02:54:24

# Below is generated by plot.py at 2017-11-16 05:15:41
# Datalink statistics
-- Total of 1 flow:
Average throughput: 167.94 Mbit/s
95th percentile per-packet one-way delay: 50.930 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 167.94 Mbit/s
95th percentile per-packet one-way delay: 50.930 ms
Loss rate: 0.19%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-11-16 01:10:02

End at: 2017-11-16 01:10:32

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 54.51 Mbit/s

95th percentile per-packet one-way delay: 51.170 ms

Loss rate: 0.73%

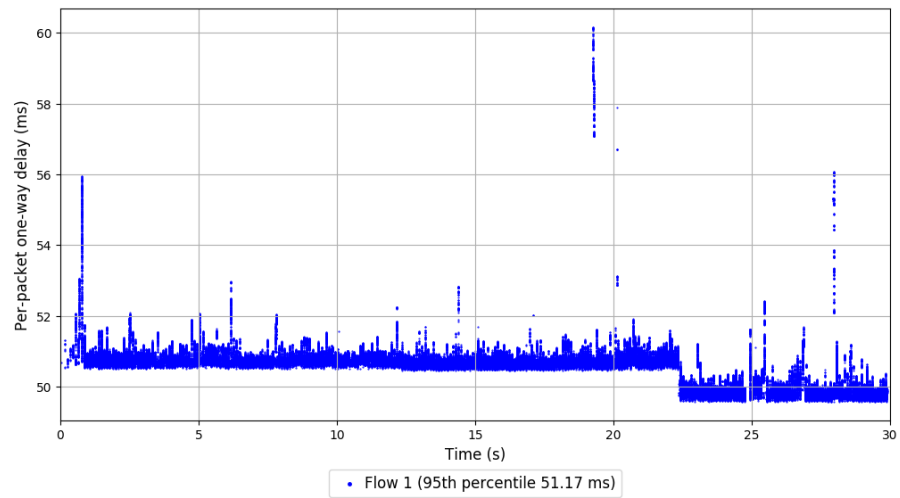
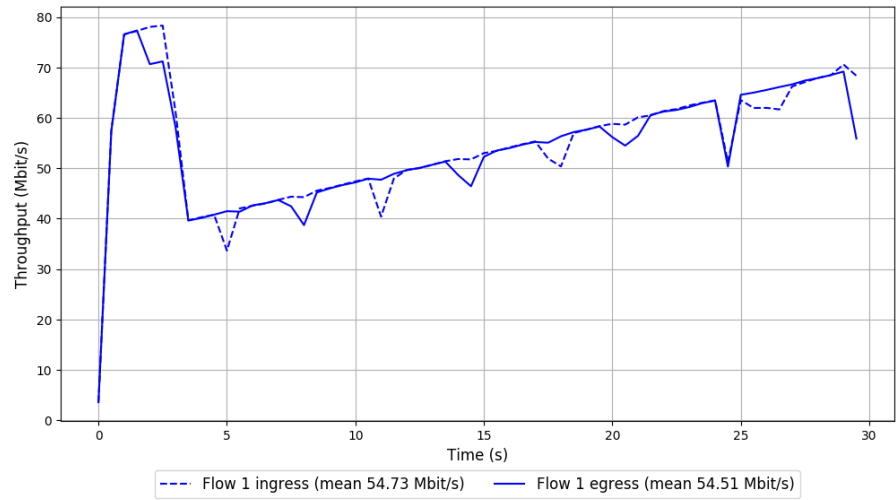
-- Flow 1:

Average throughput: 54.51 Mbit/s

95th percentile per-packet one-way delay: 51.170 ms

Loss rate: 0.73%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-11-16 01:20:36

End at: 2017-11-16 01:21:06

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 43.29 Mbit/s

95th percentile per-packet one-way delay: 51.045 ms

Loss rate: 0.43%

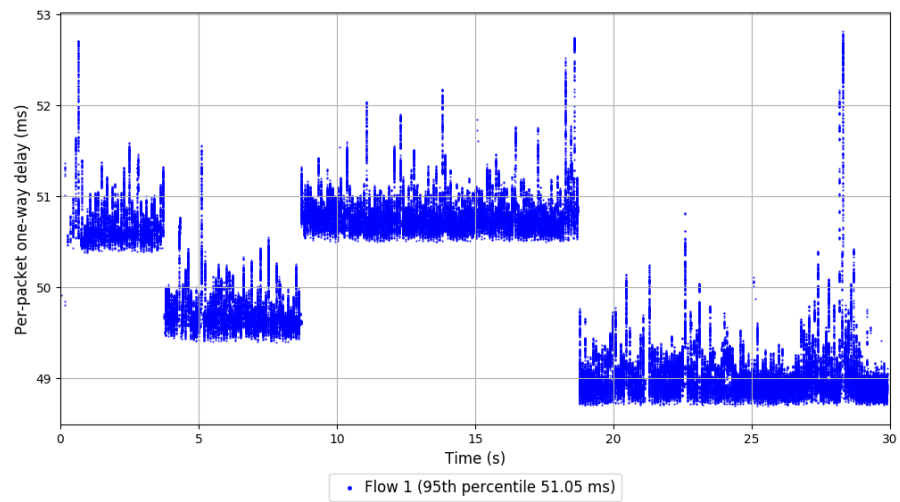
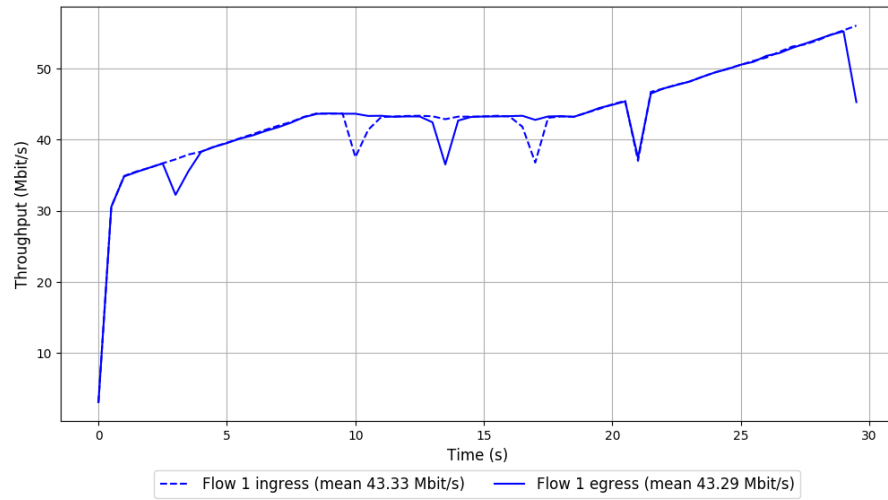
-- Flow 1:

Average throughput: 43.29 Mbit/s

95th percentile per-packet one-way delay: 51.045 ms

Loss rate: 0.43%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-11-16 01:31:03

End at: 2017-11-16 01:31:33

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 38.91 Mbit/s

95th percentile per-packet one-way delay: 51.046 ms

Loss rate: 0.37%

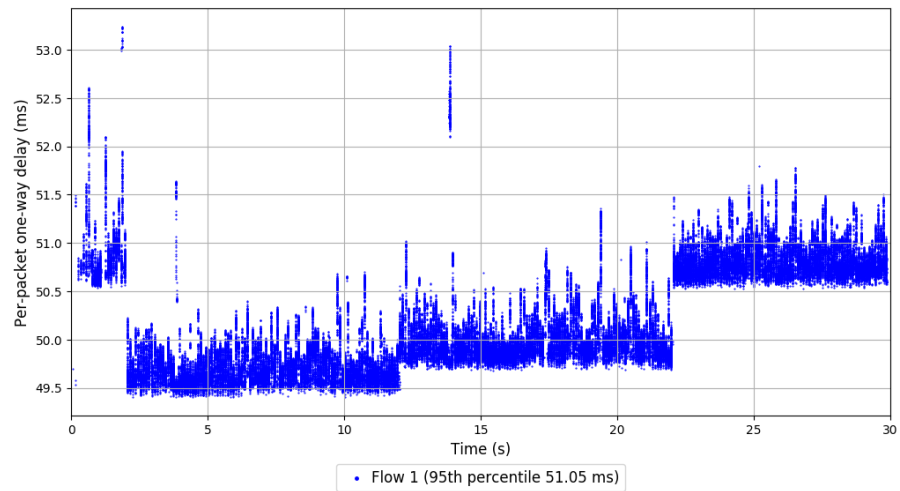
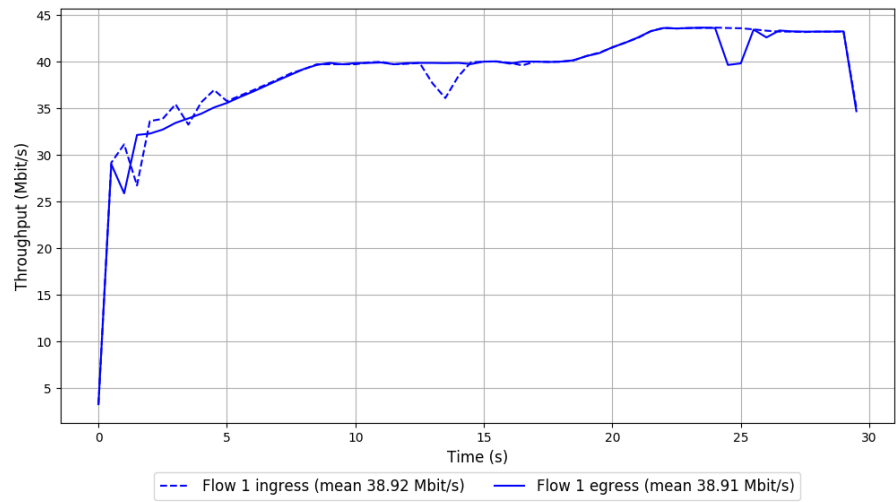
-- Flow 1:

Average throughput: 38.91 Mbit/s

95th percentile per-packet one-way delay: 51.046 ms

Loss rate: 0.37%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-11-16 01:41:36

End at: 2017-11-16 01:42:06

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.75 Mbit/s

95th percentile per-packet one-way delay: 51.033 ms

Loss rate: 0.43%

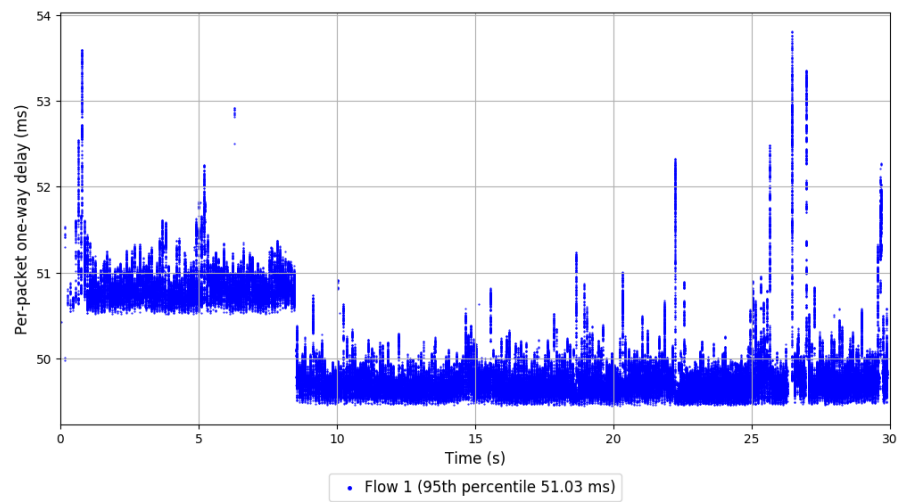
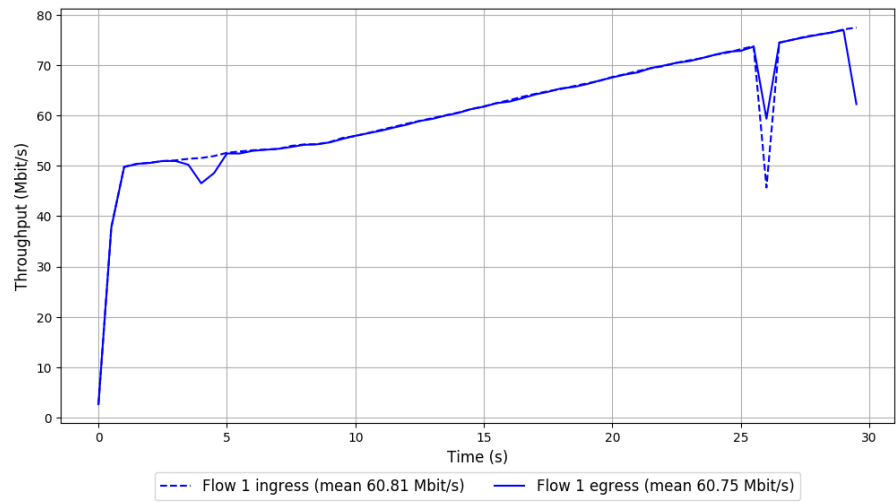
-- Flow 1:

Average throughput: 60.75 Mbit/s

95th percentile per-packet one-way delay: 51.033 ms

Loss rate: 0.43%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-11-16 01:52:02

End at: 2017-11-16 01:52:32

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 37.75 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 0.39%

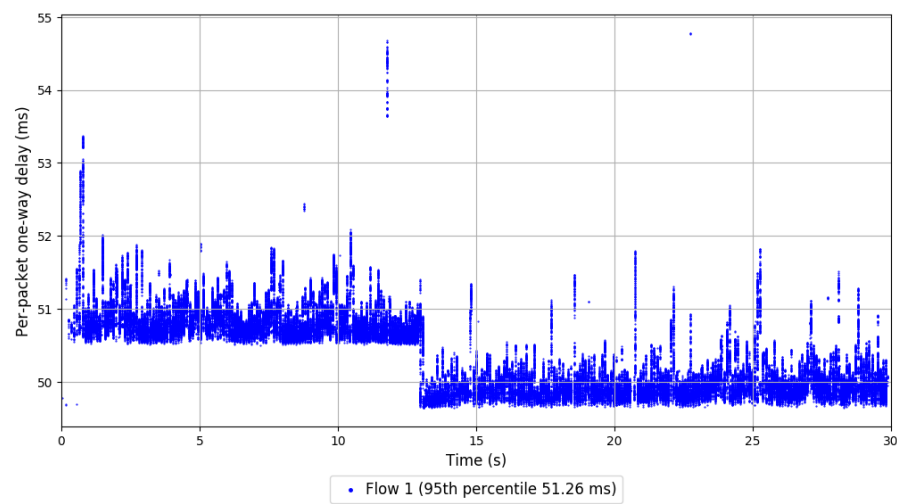
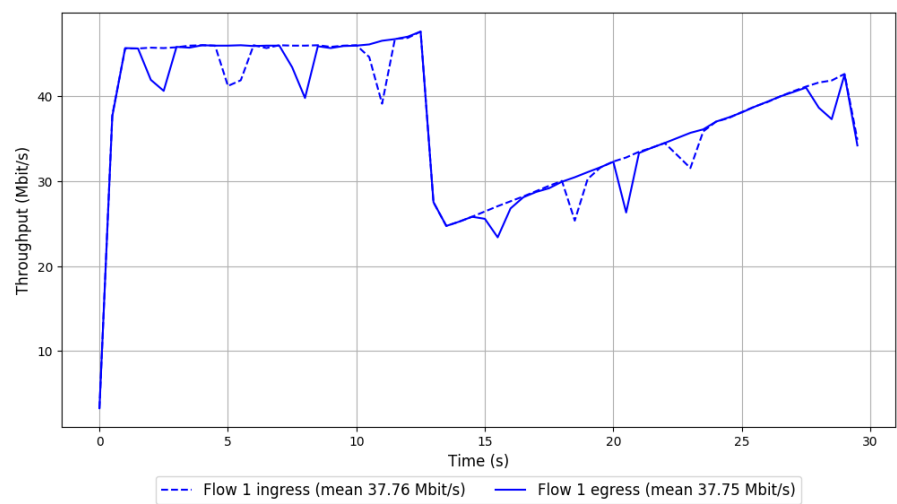
-- Flow 1:

Average throughput: 37.75 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 0.39%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-11-16 02:02:37

End at: 2017-11-16 02:03:07

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.54 Mbit/s

95th percentile per-packet one-way delay: 53.264 ms

Loss rate: 0.18%

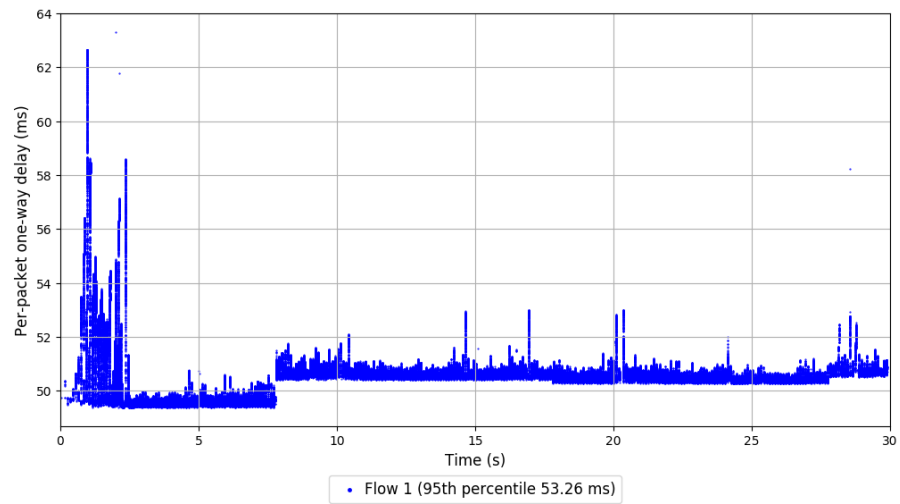
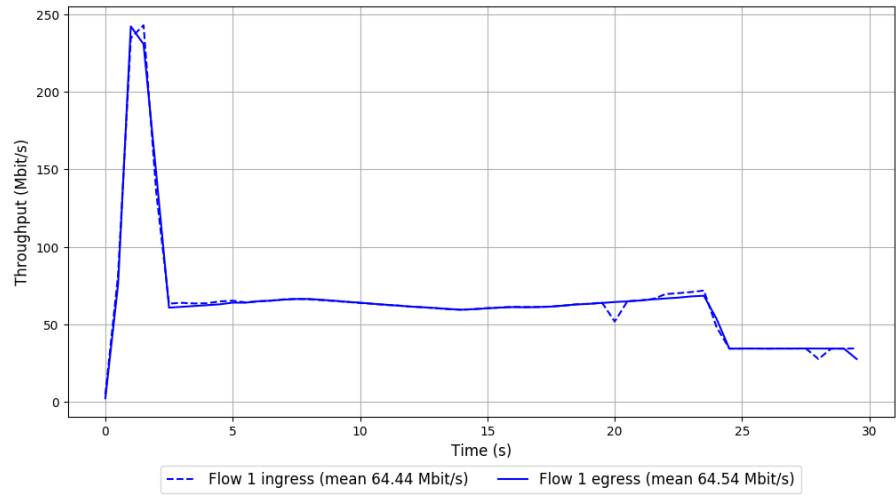
-- Flow 1:

Average throughput: 64.54 Mbit/s

95th percentile per-packet one-way delay: 53.264 ms

Loss rate: 0.18%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-11-16 02:13:16

End at: 2017-11-16 02:13:46

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.14 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 0.45%

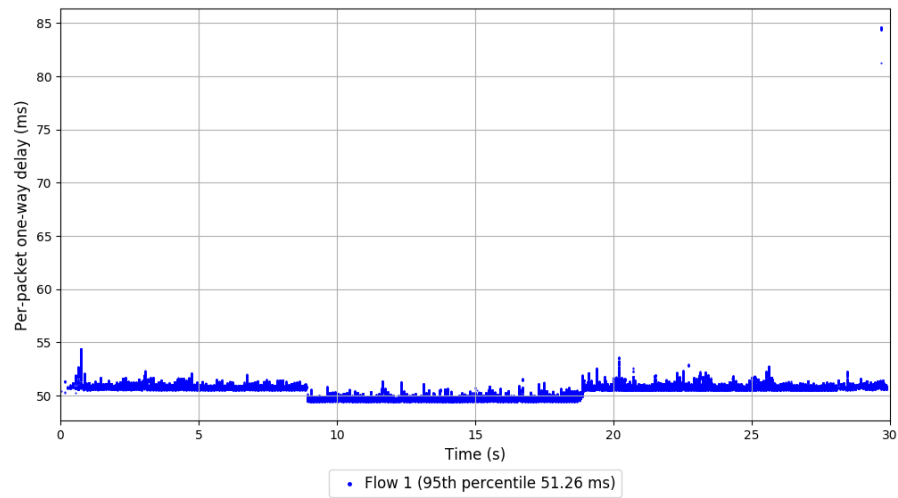
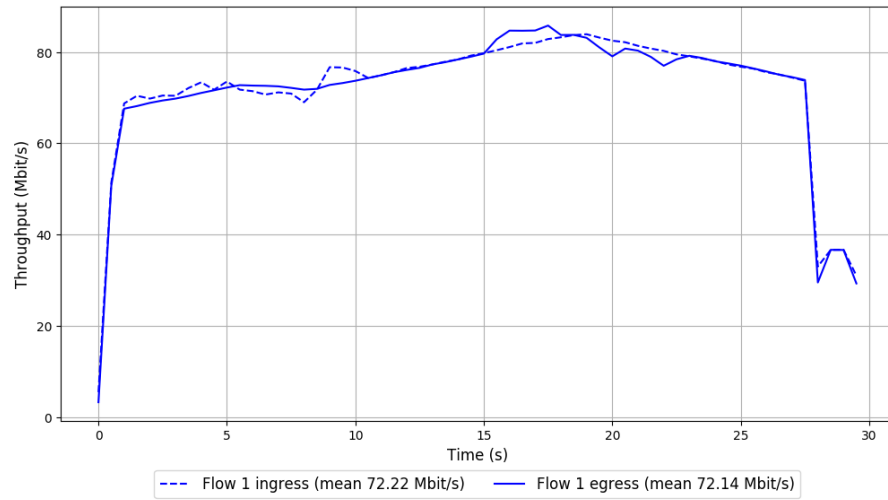
-- Flow 1:

Average throughput: 72.14 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 0.45%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-11-16 02:23:51

End at: 2017-11-16 02:24:21

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.78 Mbit/s

95th percentile per-packet one-way delay: 51.273 ms

Loss rate: 0.33%

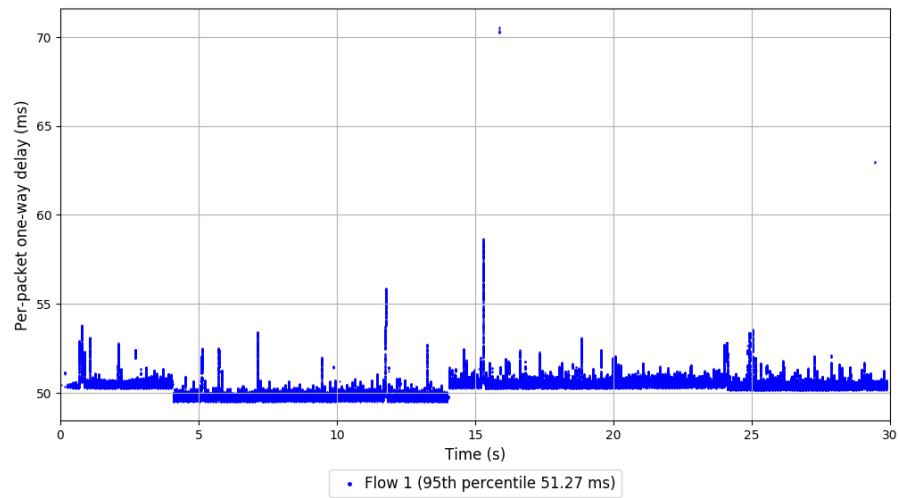
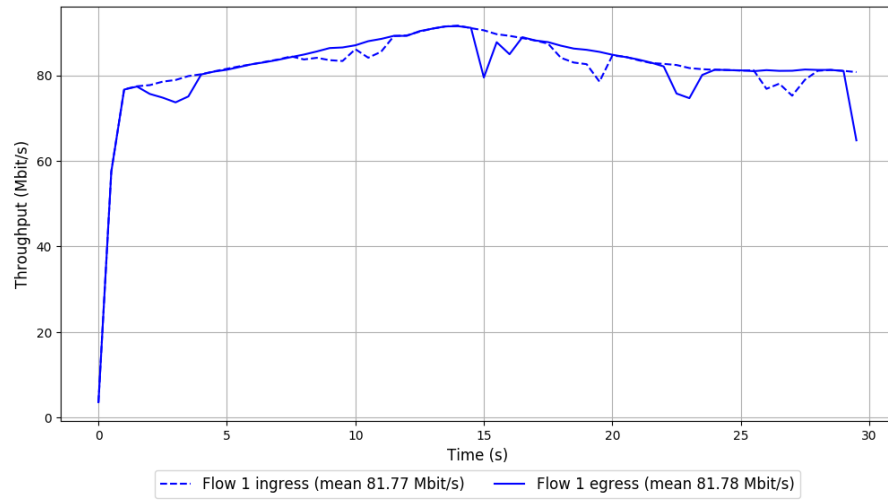
-- Flow 1:

Average throughput: 81.78 Mbit/s

95th percentile per-packet one-way delay: 51.273 ms

Loss rate: 0.33%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-11-16 02:34:17

End at: 2017-11-16 02:34:47

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.09 Mbit/s

95th percentile per-packet one-way delay: 51.444 ms

Loss rate: 0.41%

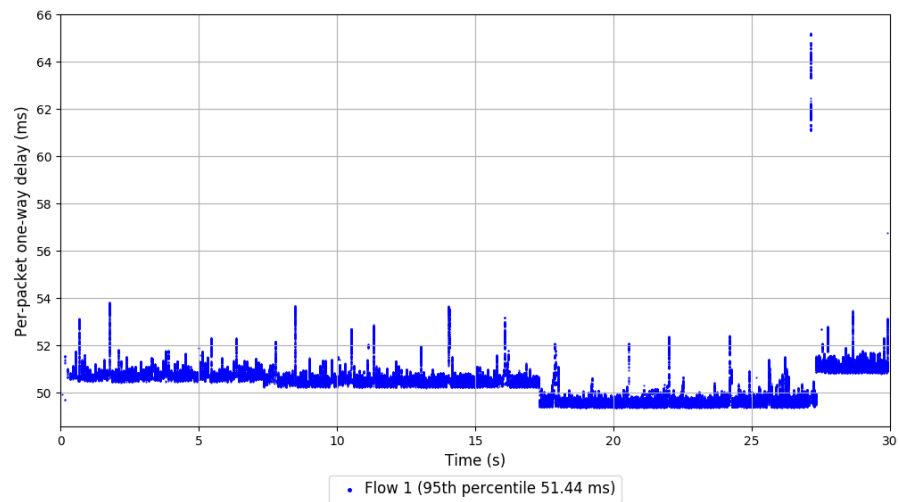
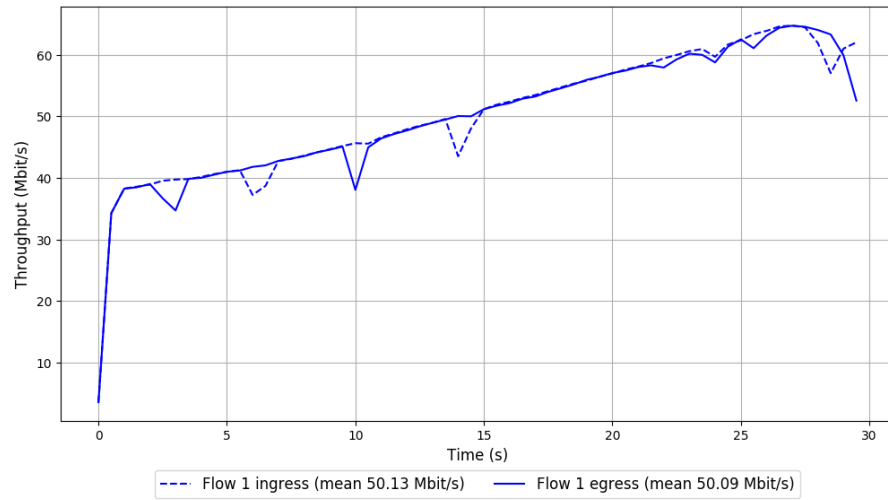
-- Flow 1:

Average throughput: 50.09 Mbit/s

95th percentile per-packet one-way delay: 51.444 ms

Loss rate: 0.41%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-11-16 02:44:52

End at: 2017-11-16 02:45:22

Below is generated by plot.py at 2017-11-16 05:15:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 0.19%

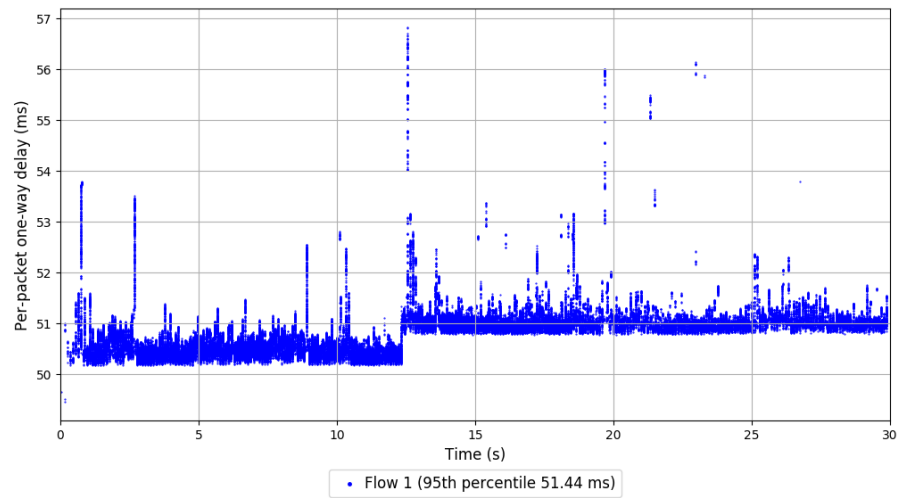
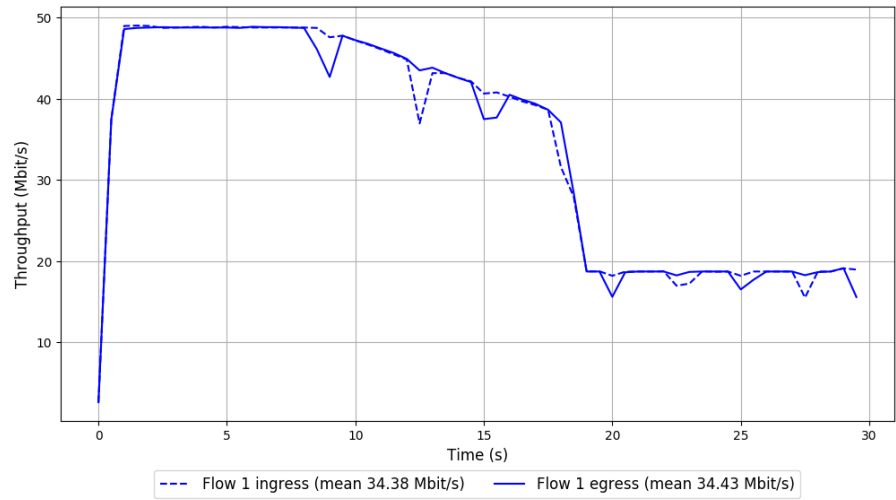
-- Flow 1:

Average throughput: 34.43 Mbit/s

95th percentile per-packet one-way delay: 51.439 ms

Loss rate: 0.19%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-11-16 01:15:04

End at: 2017-11-16 01:15:34

Below is generated by plot.py at 2017-11-16 05:16:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 234.61 Mbit/s

95th percentile per-packet one-way delay: 63.035 ms

Loss rate: 0.42%

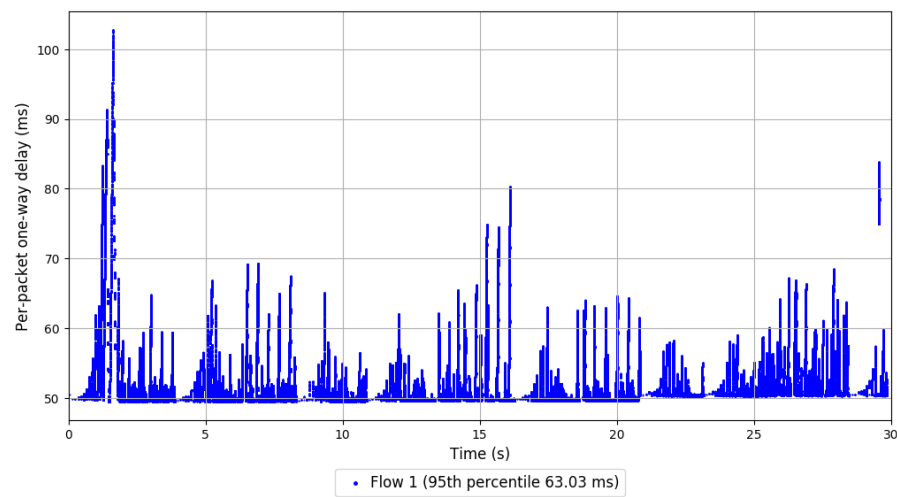
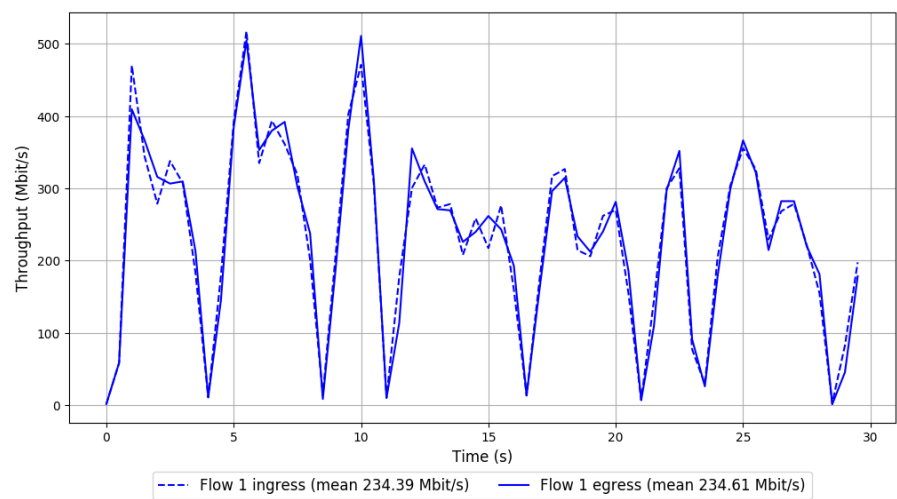
-- Flow 1:

Average throughput: 234.61 Mbit/s

95th percentile per-packet one-way delay: 63.035 ms

Loss rate: 0.42%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-11-16 01:25:37

End at: 2017-11-16 01:26:07

Below is generated by plot.py at 2017-11-16 05:16:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 213.38 Mbit/s

95th percentile per-packet one-way delay: 64.344 ms

Loss rate: 0.47%

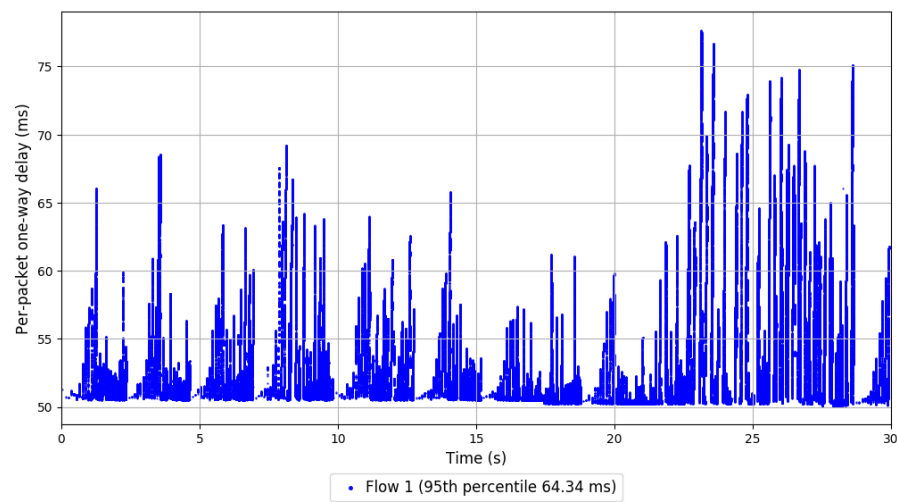
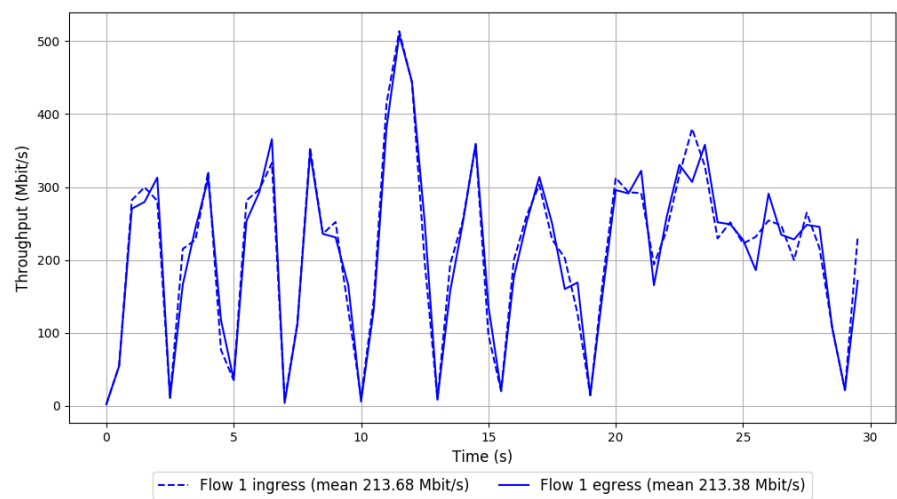
-- Flow 1:

Average throughput: 213.38 Mbit/s

95th percentile per-packet one-way delay: 64.344 ms

Loss rate: 0.47%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-11-16 01:36:05

End at: 2017-11-16 01:36:35

Below is generated by plot.py at 2017-11-16 05:16:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 252.77 Mbit/s

95th percentile per-packet one-way delay: 79.547 ms

Loss rate: 0.91%

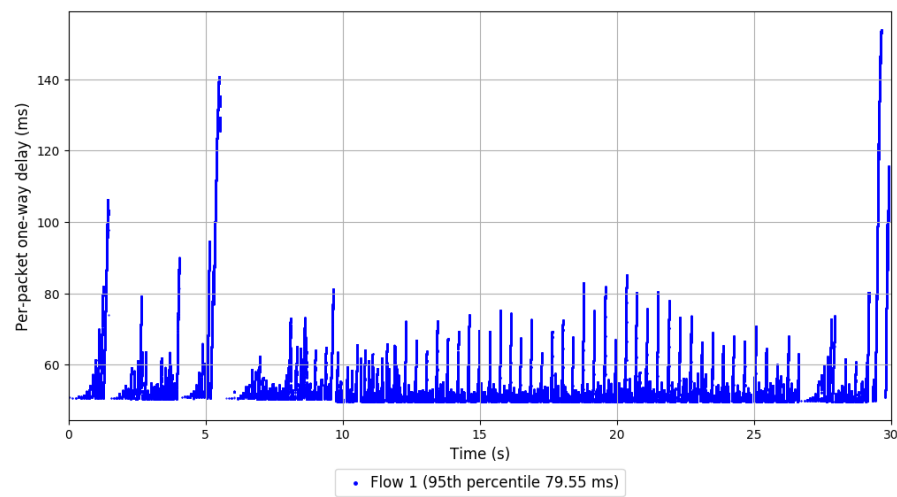
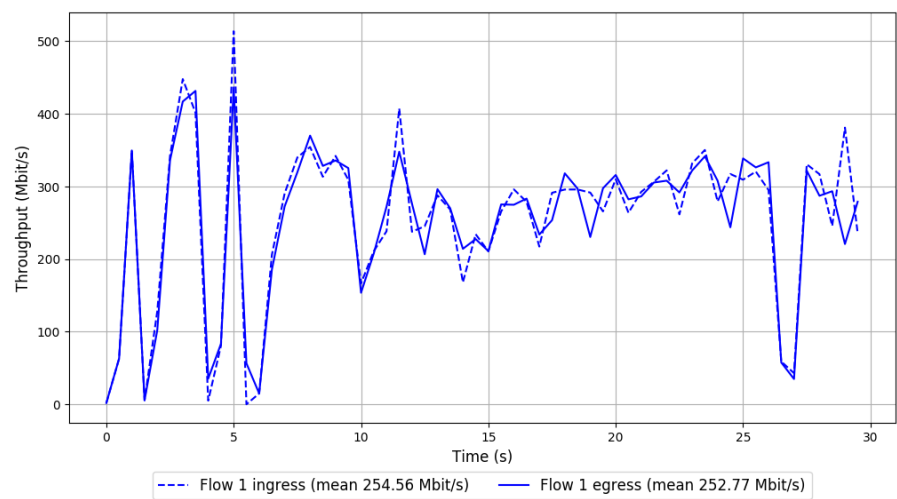
-- Flow 1:

Average throughput: 252.77 Mbit/s

95th percentile per-packet one-way delay: 79.547 ms

Loss rate: 0.91%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-11-16 01:46:38

End at: 2017-11-16 01:47:08

Below is generated by plot.py at 2017-11-16 05:17:34

Datalink statistics

-- Total of 1 flow:

Average throughput: 291.13 Mbit/s

95th percentile per-packet one-way delay: 158.865 ms

Loss rate: 0.94%

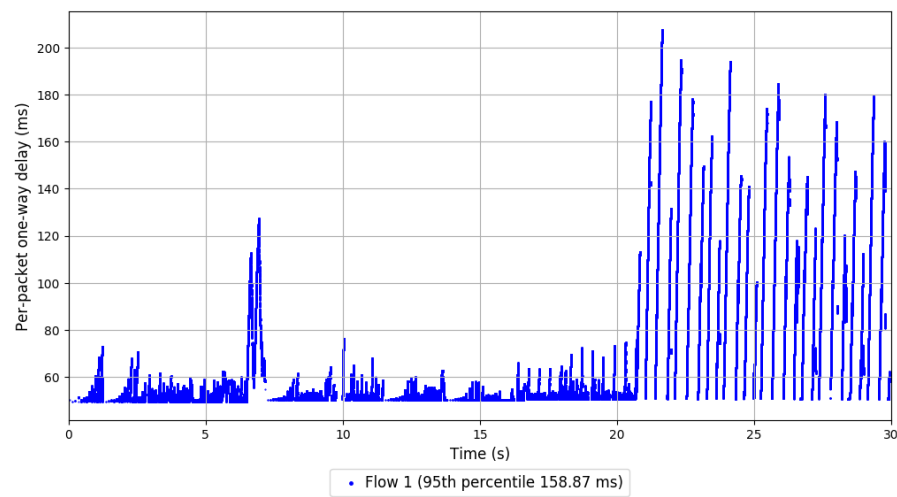
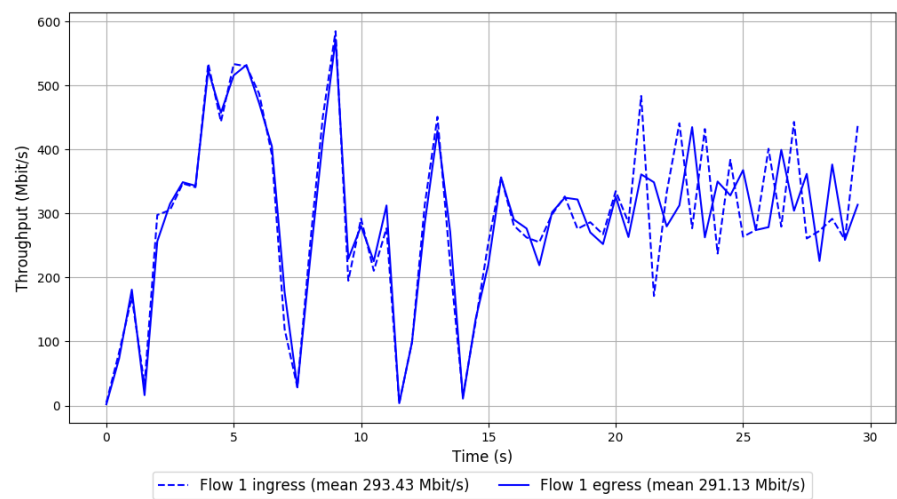
-- Flow 1:

Average throughput: 291.13 Mbit/s

95th percentile per-packet one-way delay: 158.865 ms

Loss rate: 0.94%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-11-16 01:57:06

End at: 2017-11-16 01:57:36

Below is generated by plot.py at 2017-11-16 05:18:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 262.94 Mbit/s

95th percentile per-packet one-way delay: 143.663 ms

Loss rate: 1.44%

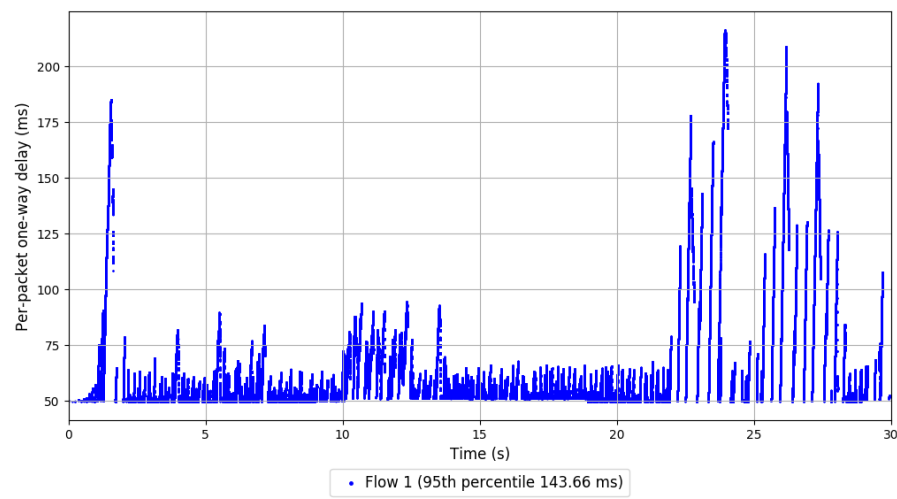
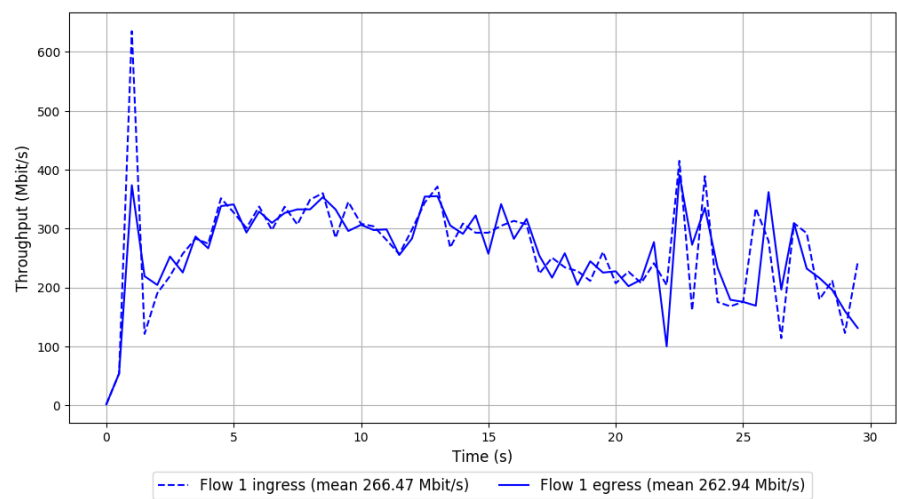
-- Flow 1:

Average throughput: 262.94 Mbit/s

95th percentile per-packet one-way delay: 143.663 ms

Loss rate: 1.44%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-11-16 02:07:41

End at: 2017-11-16 02:08:11

Below is generated by plot.py at 2017-11-16 05:18:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 254.45 Mbit/s

95th percentile per-packet one-way delay: 93.352 ms

Loss rate: 1.02%

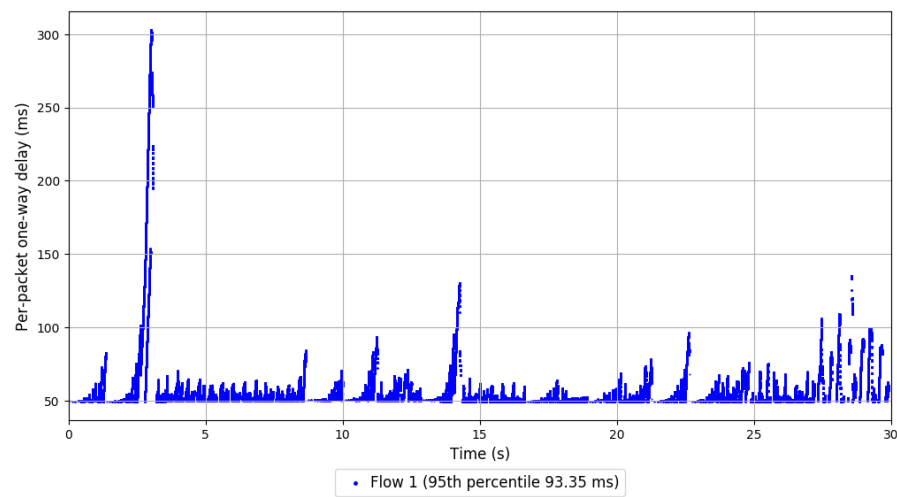
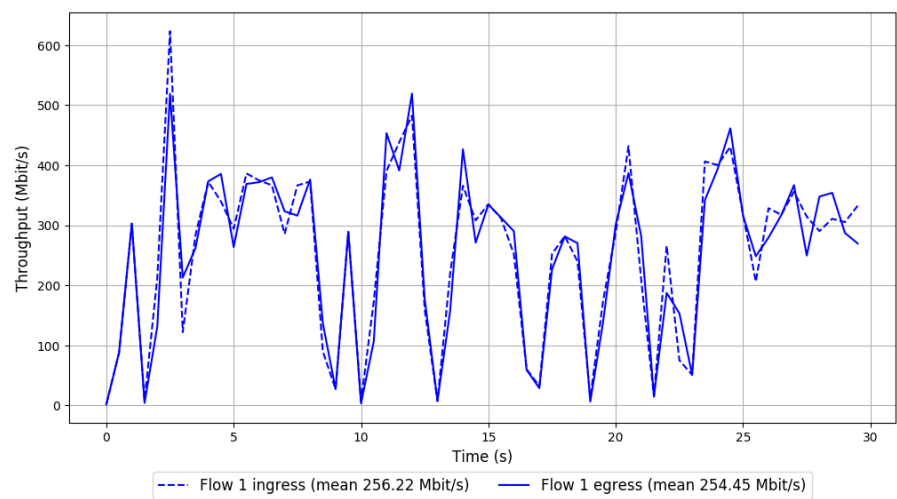
-- Flow 1:

Average throughput: 254.45 Mbit/s

95th percentile per-packet one-way delay: 93.352 ms

Loss rate: 1.02%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-11-16 02:18:18

End at: 2017-11-16 02:18:48

Below is generated by plot.py at 2017-11-16 05:18:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 235.77 Mbit/s

95th percentile per-packet one-way delay: 100.940 ms

Loss rate: 0.37%

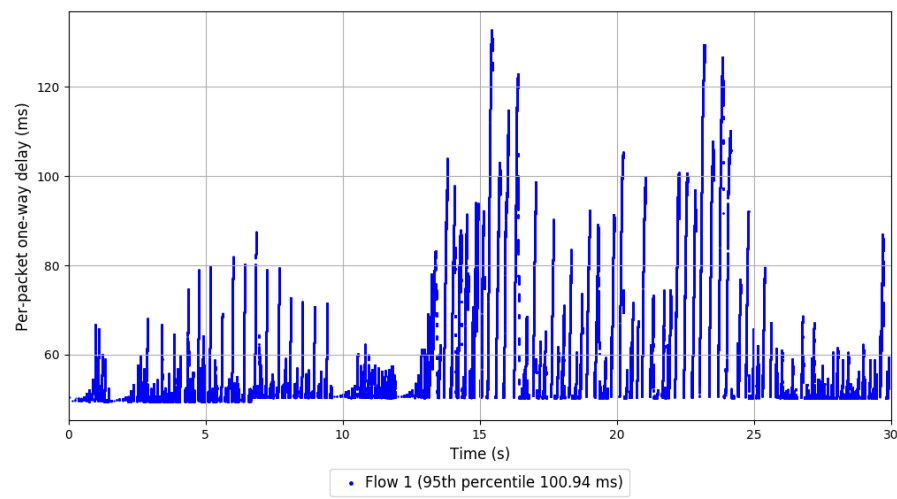
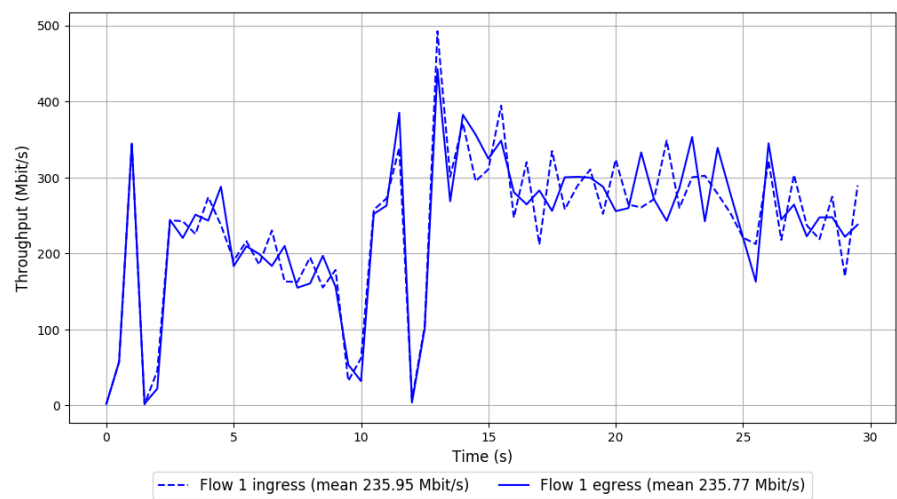
-- Flow 1:

Average throughput: 235.77 Mbit/s

95th percentile per-packet one-way delay: 100.940 ms

Loss rate: 0.37%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-11-16 02:28:48

End at: 2017-11-16 02:29:18

Below is generated by plot.py at 2017-11-16 05:20:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 268.42 Mbit/s

95th percentile per-packet one-way delay: 89.180 ms

Loss rate: 0.97%

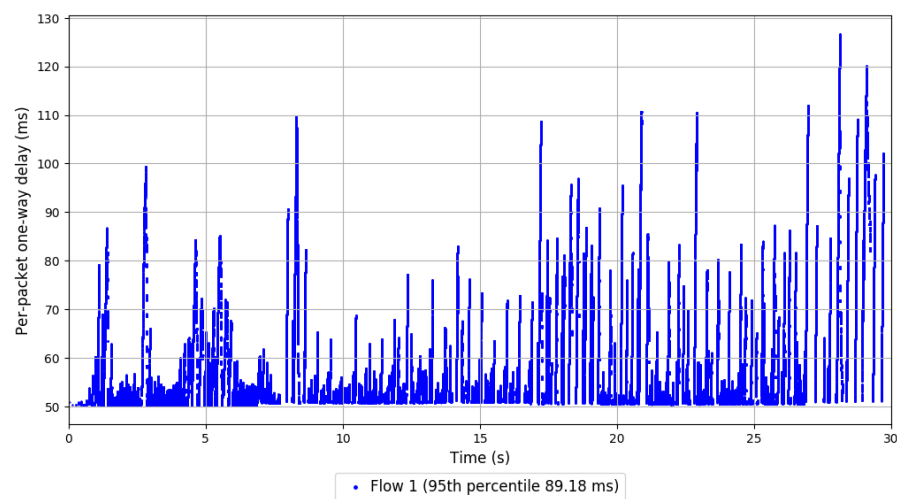
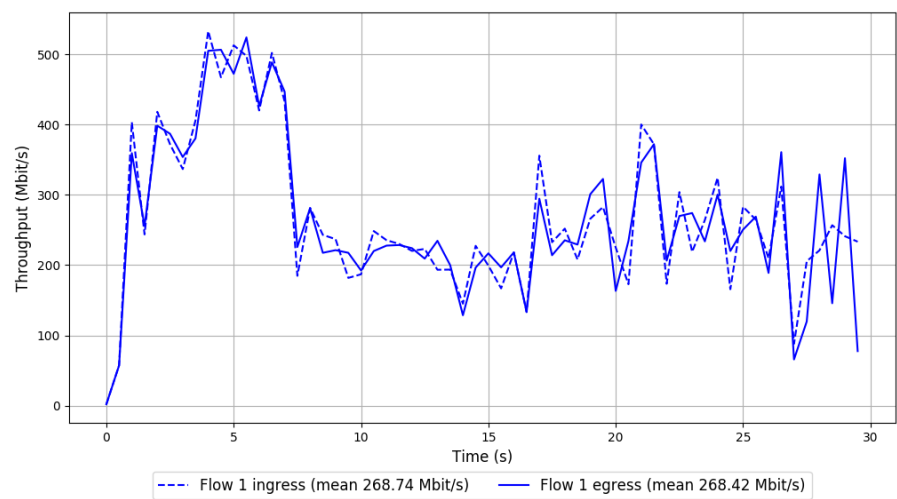
-- Flow 1:

Average throughput: 268.42 Mbit/s

95th percentile per-packet one-way delay: 89.180 ms

Loss rate: 0.97%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-11-16 02:39:20

End at: 2017-11-16 02:39:50

Below is generated by plot.py at 2017-11-16 05:20:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 225.92 Mbit/s

95th percentile per-packet one-way delay: 79.367 ms

Loss rate: 0.22%

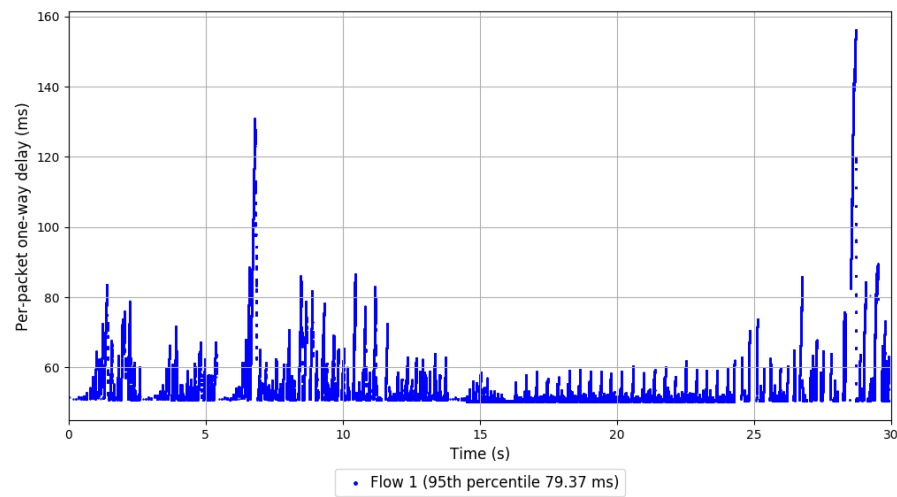
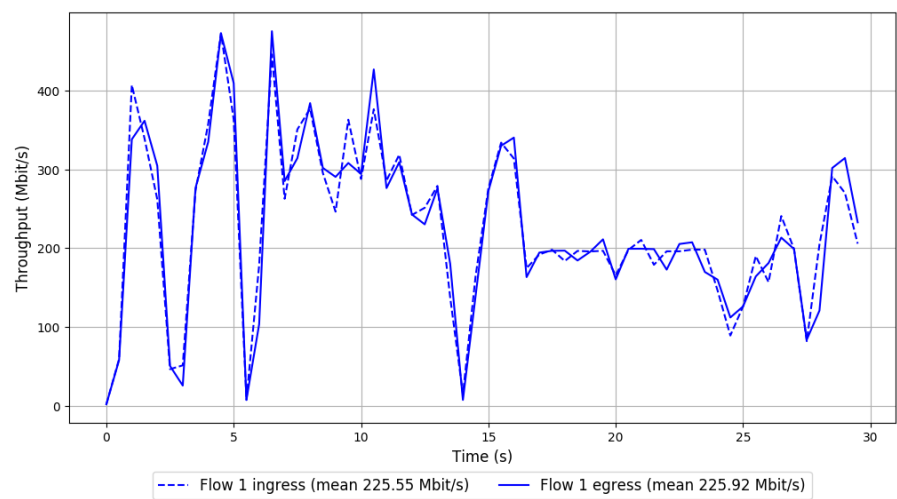
-- Flow 1:

Average throughput: 225.92 Mbit/s

95th percentile per-packet one-way delay: 79.367 ms

Loss rate: 0.22%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-11-16 02:49:53

End at: 2017-11-16 02:50:23

Below is generated by plot.py at 2017-11-16 05:21:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 288.83 Mbit/s

95th percentile per-packet one-way delay: 119.828 ms

Loss rate: 0.28%

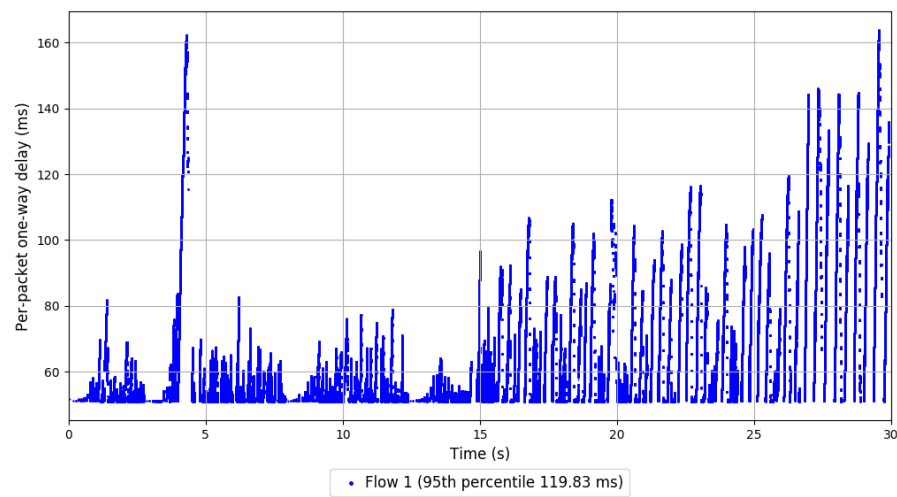
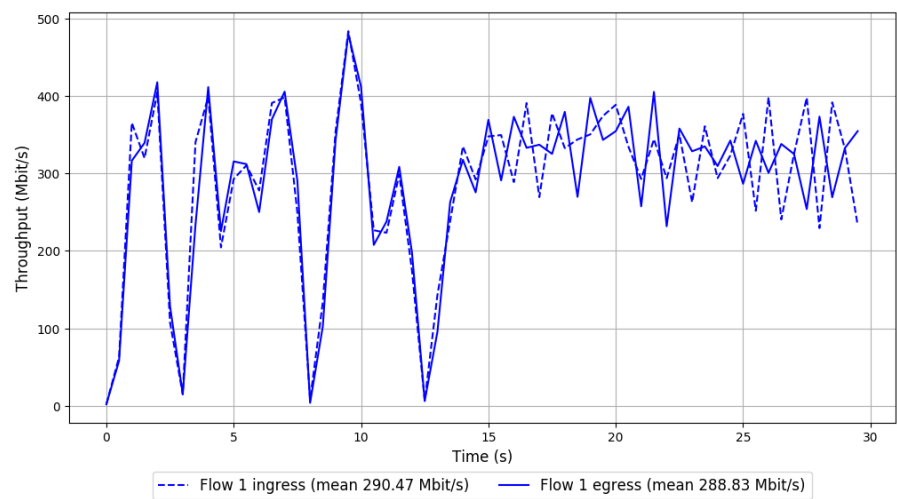
-- Flow 1:

Average throughput: 288.83 Mbit/s

95th percentile per-packet one-way delay: 119.828 ms

Loss rate: 0.28%

Run 10: Report of Verus — Data Link

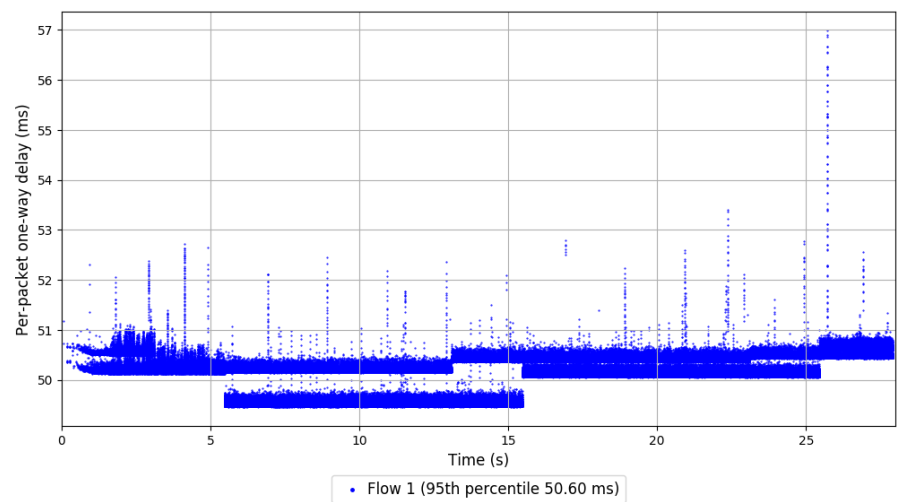
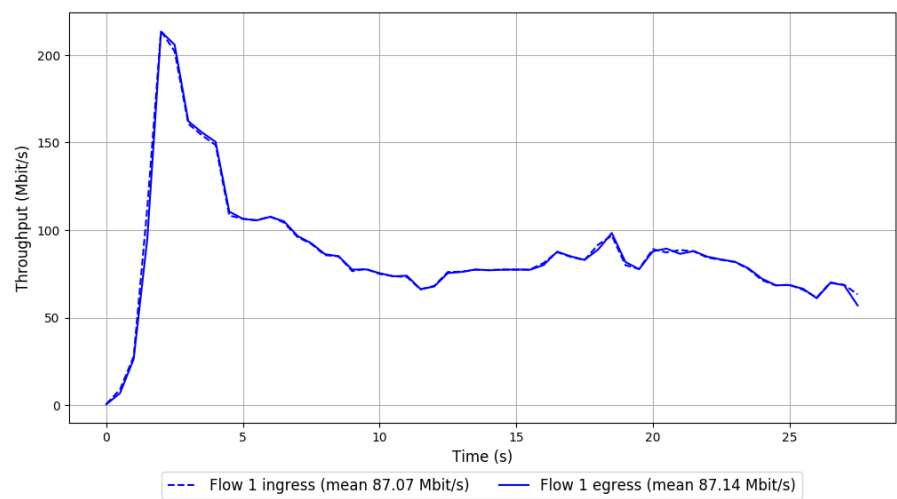


```
Run 1: Statistics of Copa

Start at: 2017-11-16 01:14:19
End at: 2017-11-16 01:14:49

# Below is generated by plot.py at 2017-11-16 05:21:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 87.14 Mbit/s
95th percentile per-packet one-way delay: 50.599 ms
Loss rate: 0.28%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-11-16 01:24:53

End at: 2017-11-16 01:25:23

Below is generated by plot.py at 2017-11-16 05:21:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.16 Mbit/s

95th percentile per-packet one-way delay: 50.693 ms

Loss rate: 0.12%

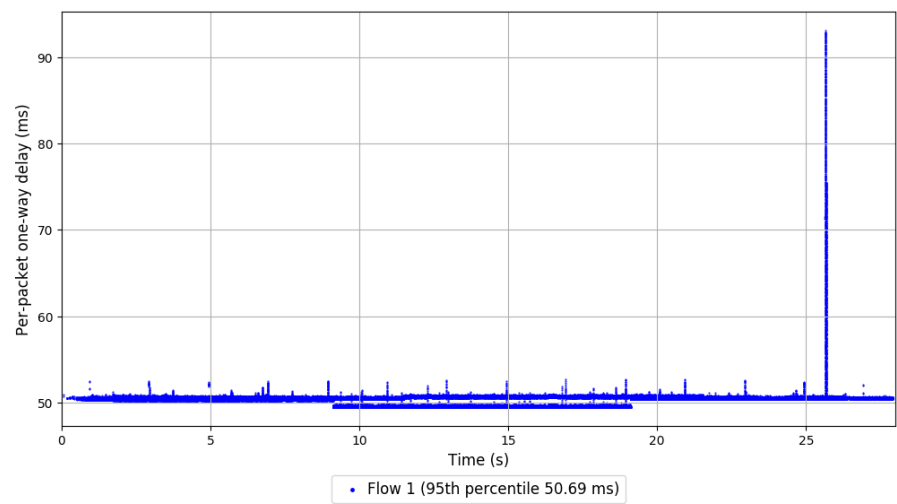
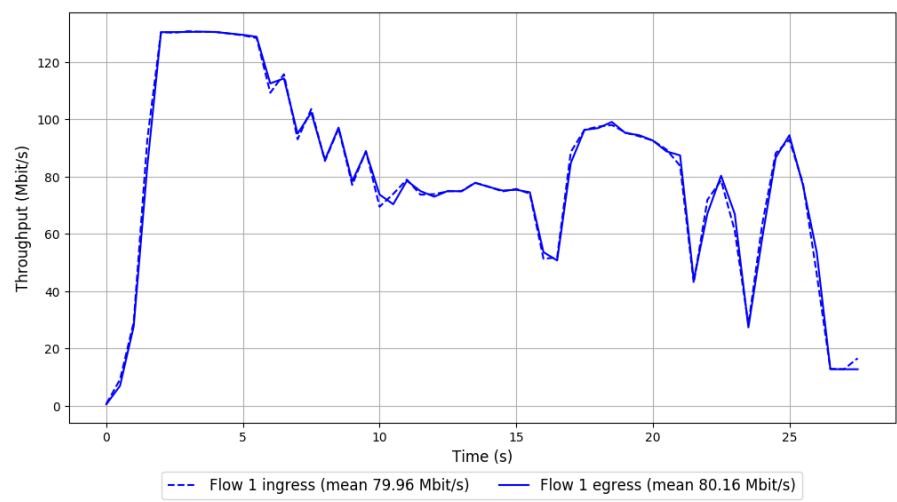
-- Flow 1:

Average throughput: 80.16 Mbit/s

95th percentile per-packet one-way delay: 50.693 ms

Loss rate: 0.12%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-11-16 01:35:21

End at: 2017-11-16 01:35:51

Below is generated by plot.py at 2017-11-16 05:21:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.46 Mbit/s

95th percentile per-packet one-way delay: 49.803 ms

Loss rate: 0.29%

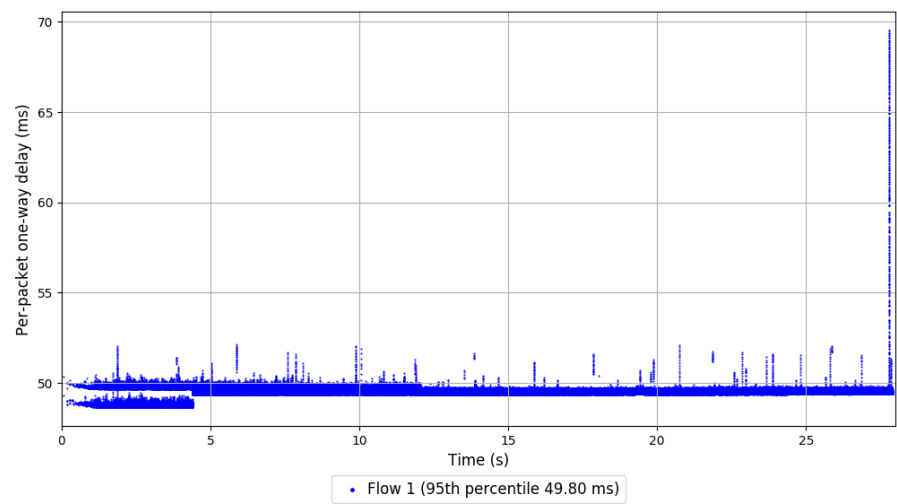
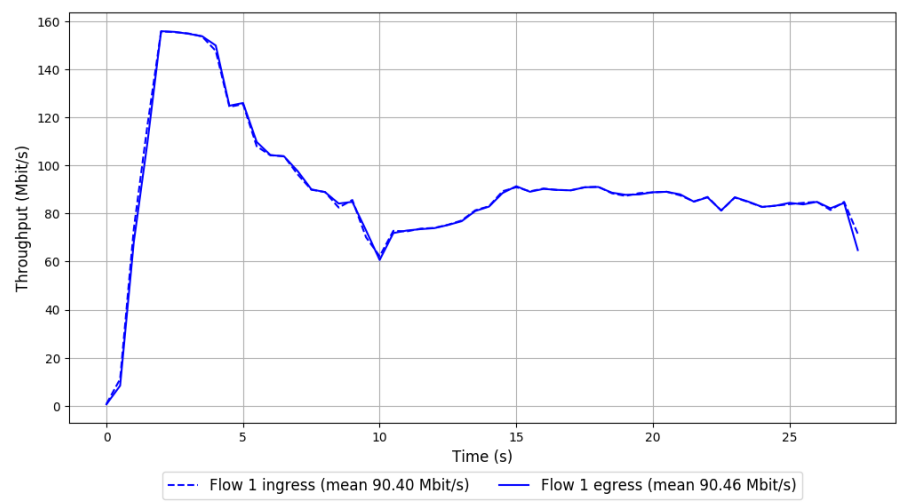
-- Flow 1:

Average throughput: 90.46 Mbit/s

95th percentile per-packet one-way delay: 49.803 ms

Loss rate: 0.29%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-11-16 01:45:54

End at: 2017-11-16 01:46:24

Below is generated by plot.py at 2017-11-16 05:21:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.10 Mbit/s

95th percentile per-packet one-way delay: 50.598 ms

Loss rate: 0.01%

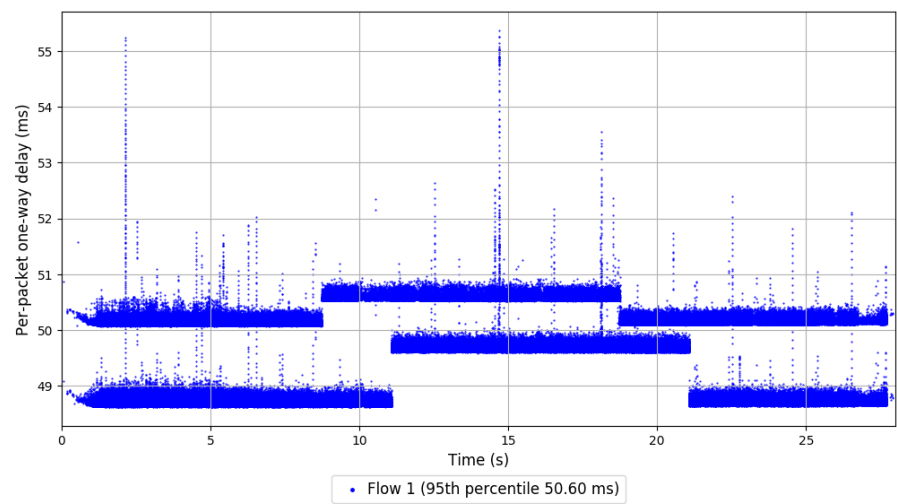
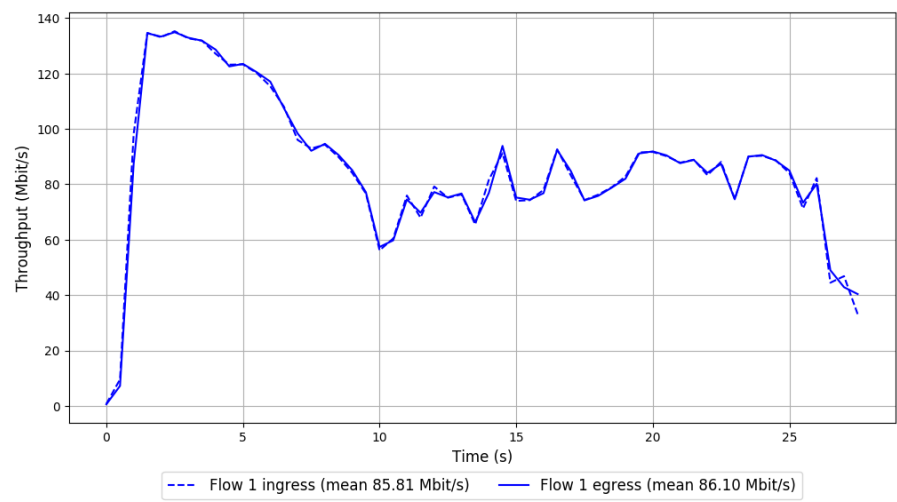
-- Flow 1:

Average throughput: 86.10 Mbit/s

95th percentile per-packet one-way delay: 50.598 ms

Loss rate: 0.01%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-11-16 01:56:21

End at: 2017-11-16 01:56:51

Below is generated by plot.py at 2017-11-16 05:21:01

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.73 Mbit/s

95th percentile per-packet one-way delay: 50.640 ms

Loss rate: 0.28%

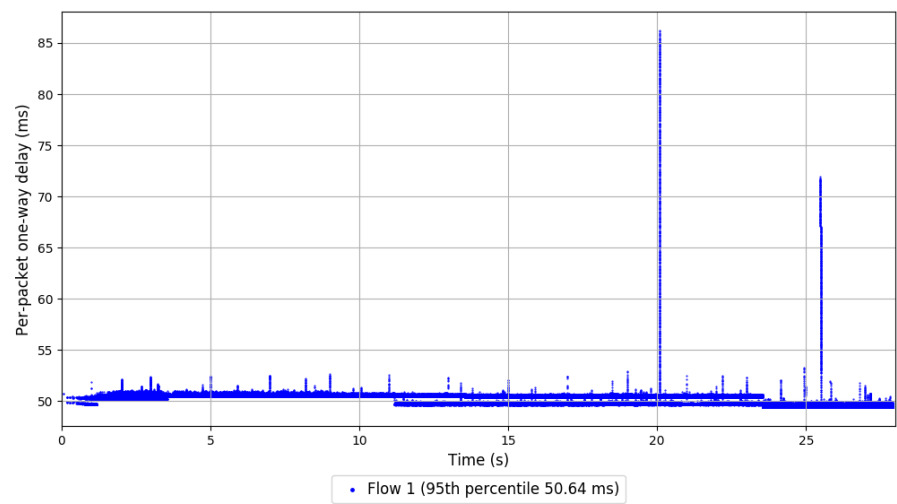
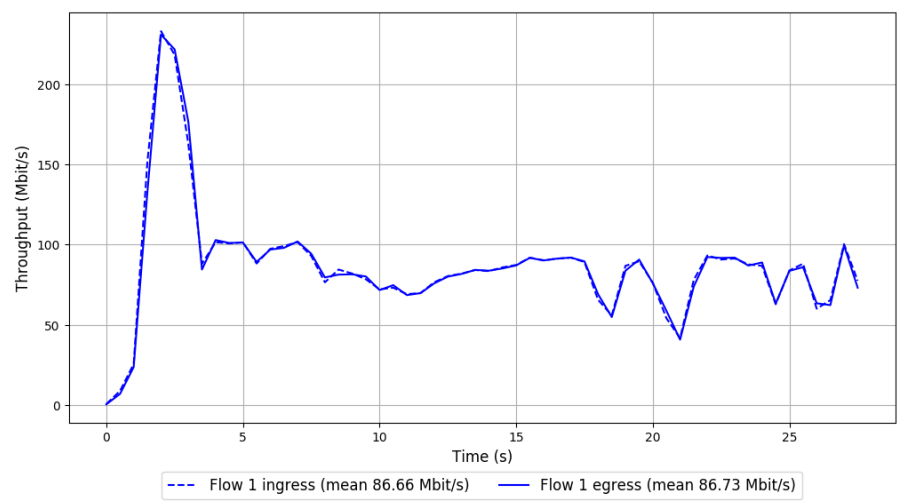
-- Flow 1:

Average throughput: 86.73 Mbit/s

95th percentile per-packet one-way delay: 50.640 ms

Loss rate: 0.28%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-11-16 02:06:57

End at: 2017-11-16 02:07:27

Below is generated by plot.py at 2017-11-16 05:21:53

Datalink statistics

-- Total of 1 flow:

Average throughput: 87.02 Mbit/s

95th percentile per-packet one-way delay: 50.715 ms

Loss rate: 0.32%

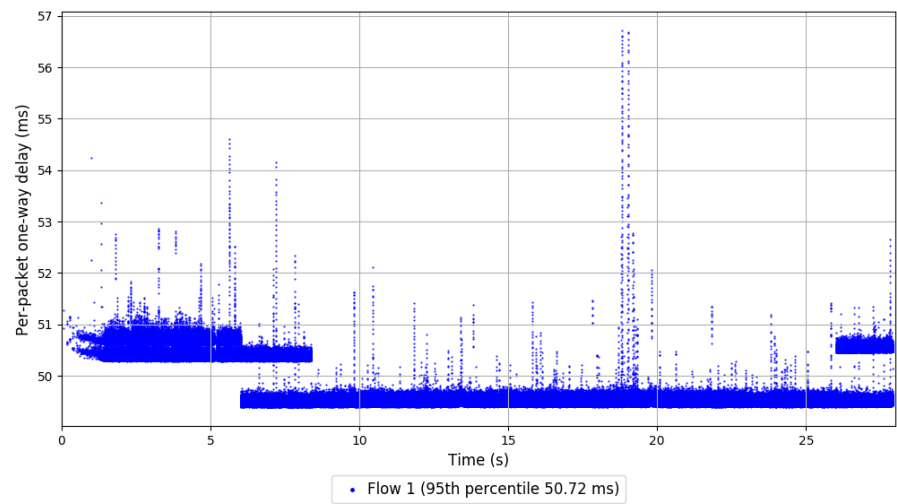
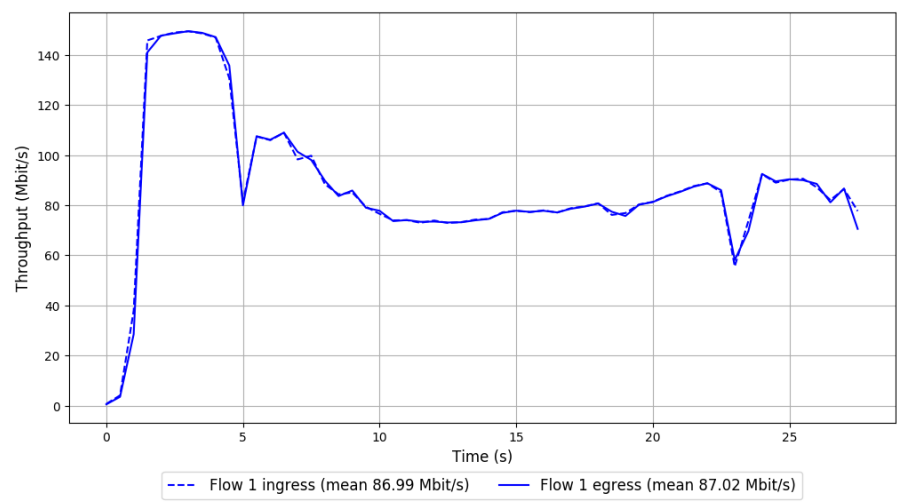
-- Flow 1:

Average throughput: 87.02 Mbit/s

95th percentile per-packet one-way delay: 50.715 ms

Loss rate: 0.32%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-11-16 02:17:33

End at: 2017-11-16 02:18:03

Below is generated by plot.py at 2017-11-16 05:22:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 86.51 Mbit/s

95th percentile per-packet one-way delay: 50.729 ms

Loss rate: 0.22%

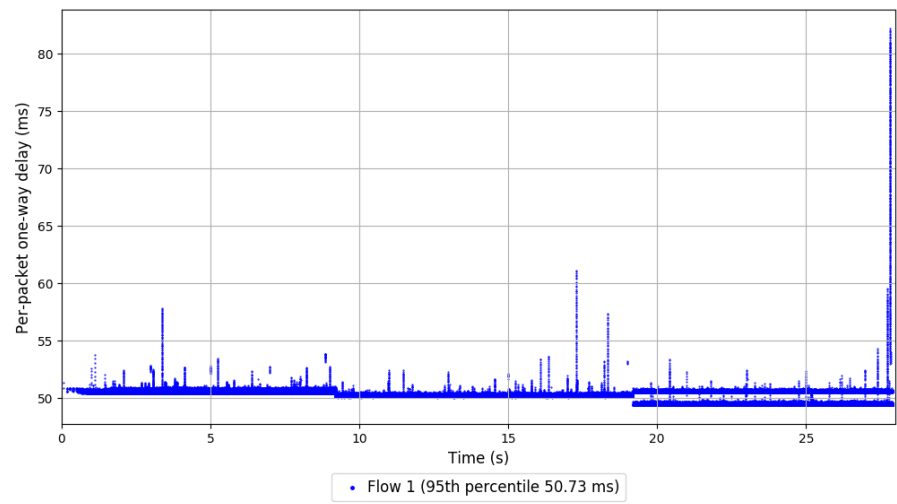
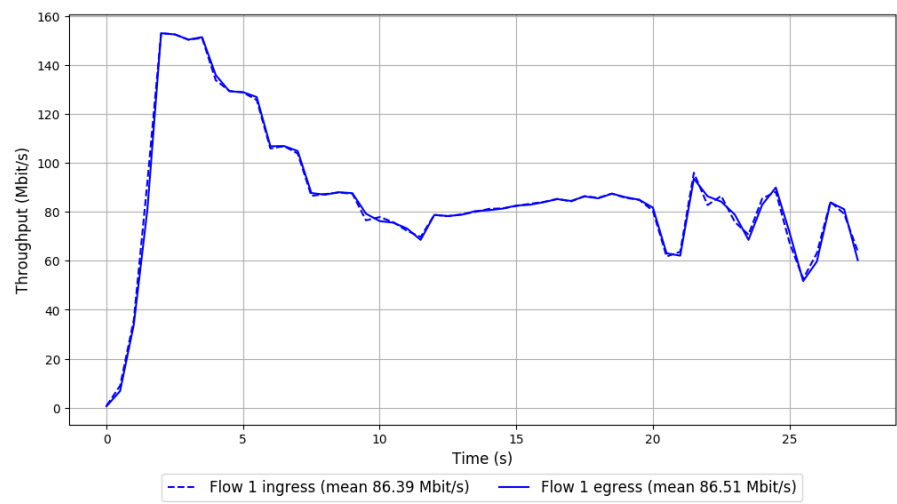
-- Flow 1:

Average throughput: 86.51 Mbit/s

95th percentile per-packet one-way delay: 50.729 ms

Loss rate: 0.22%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-11-16 02:28:04

End at: 2017-11-16 02:28:34

Below is generated by plot.py at 2017-11-16 05:22:15

Datalink statistics

-- Total of 1 flow:

Average throughput: 85.11 Mbit/s

95th percentile per-packet one-way delay: 50.620 ms

Loss rate: 0.19%

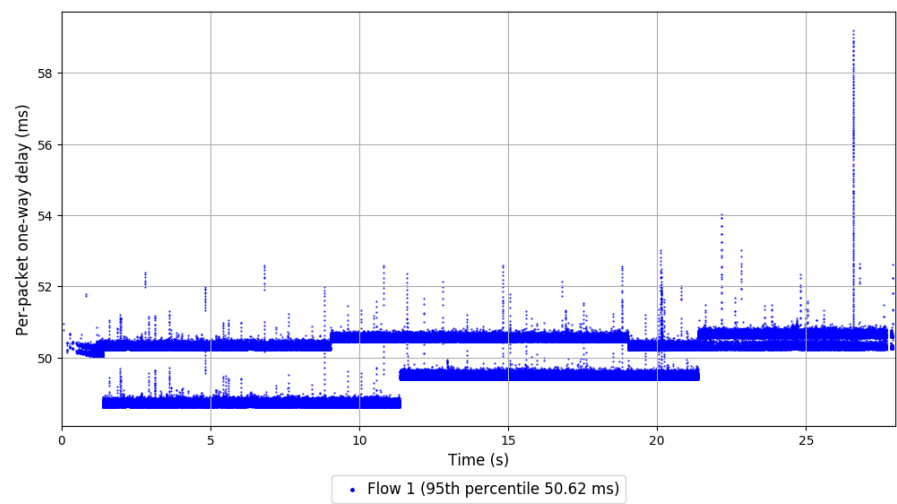
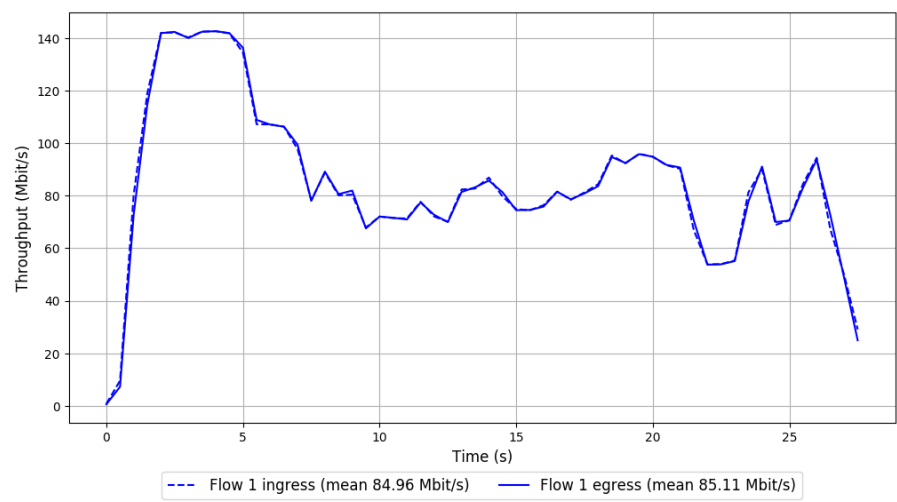
-- Flow 1:

Average throughput: 85.11 Mbit/s

95th percentile per-packet one-way delay: 50.620 ms

Loss rate: 0.19%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-11-16 02:38:36

End at: 2017-11-16 02:39:06

Below is generated by plot.py at 2017-11-16 05:22:29

Datalink statistics

-- Total of 1 flow:

Average throughput: 84.18 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.38%

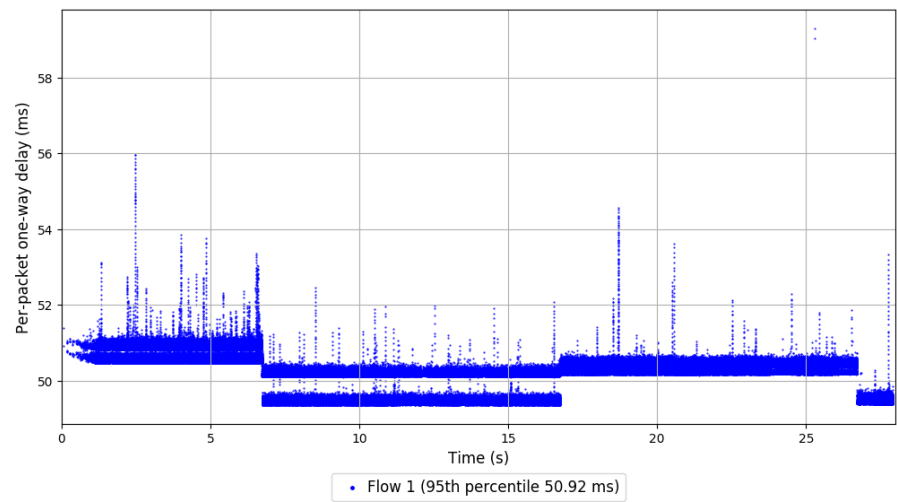
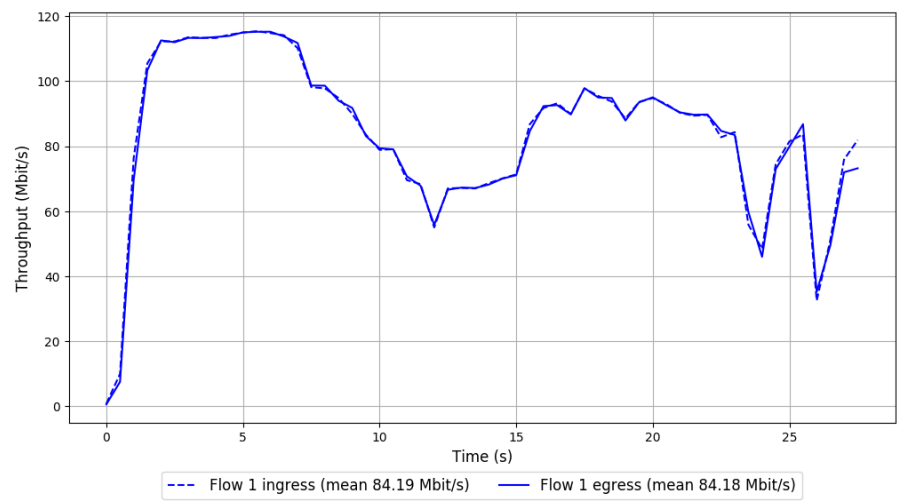
-- Flow 1:

Average throughput: 84.18 Mbit/s

95th percentile per-packet one-way delay: 50.923 ms

Loss rate: 0.38%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-11-16 02:49:09

End at: 2017-11-16 02:49:39

Below is generated by plot.py at 2017-11-16 05:23:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.33 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 0.12%

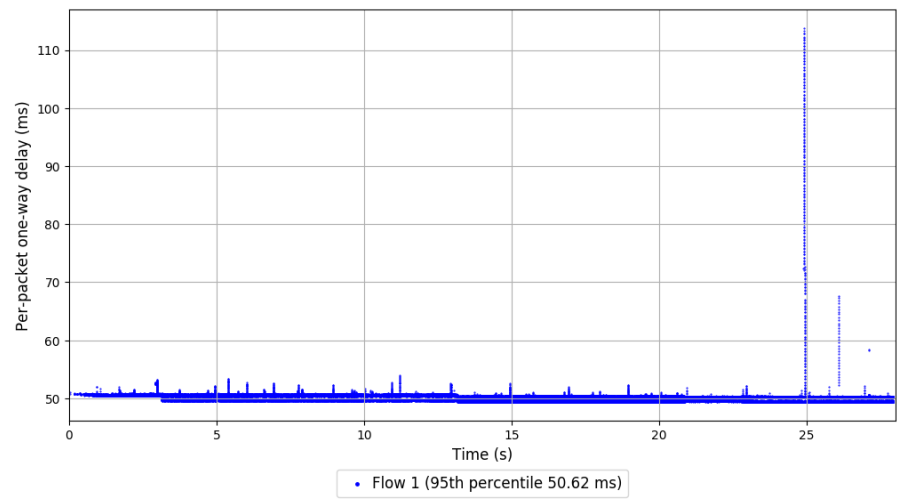
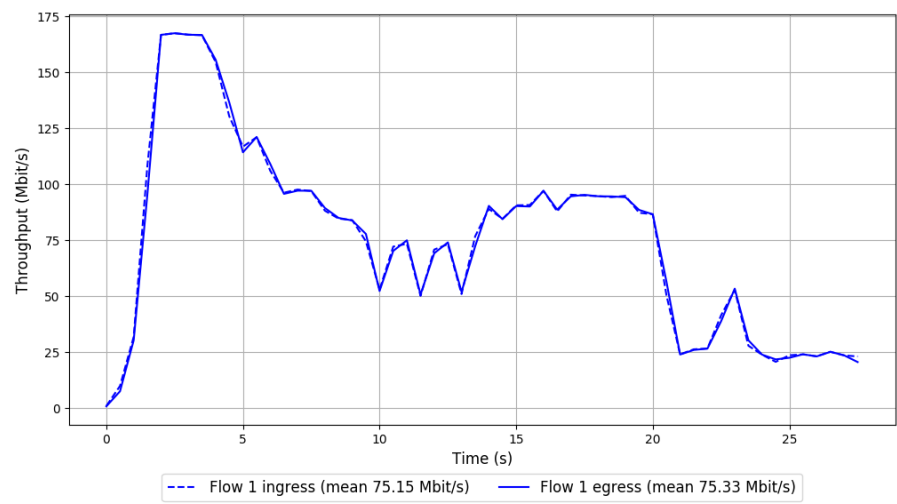
-- Flow 1:

Average throughput: 75.33 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 0.12%

Run 10: Report of Copa — Data Link

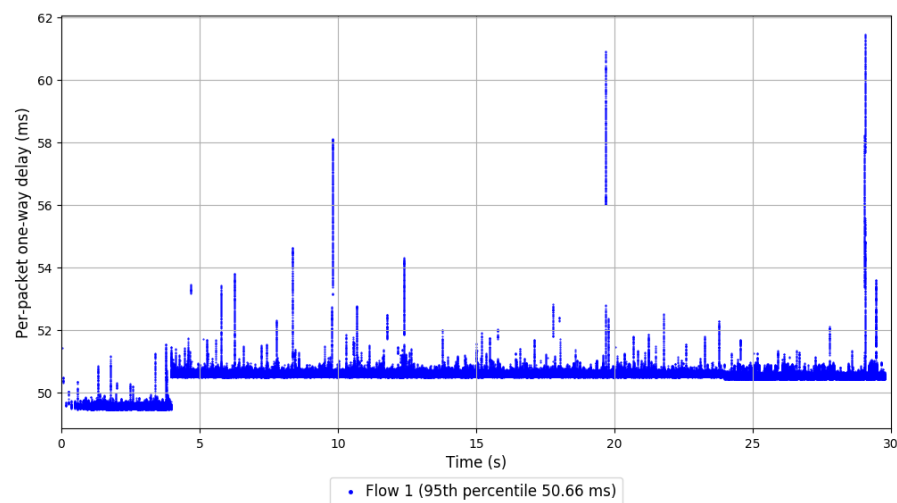
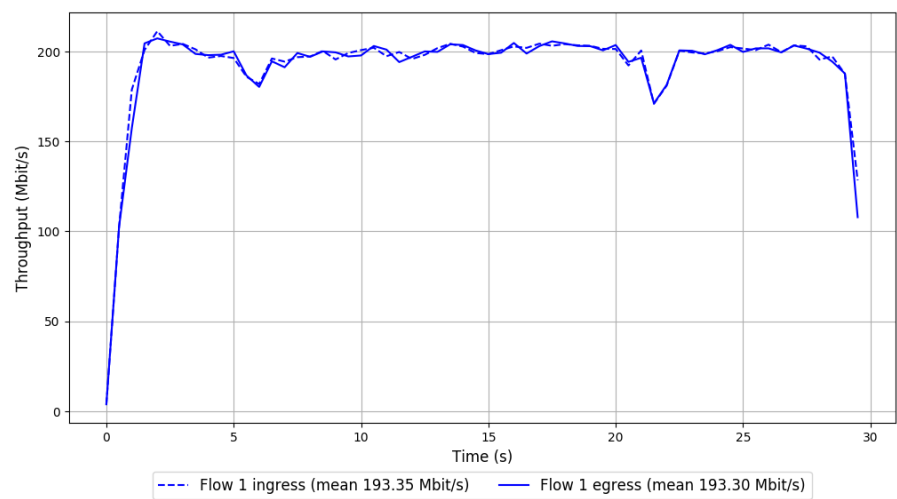


```
Run 1: Statistics of Indigo

Start at: 2017-11-16 01:18:10
End at: 2017-11-16 01:18:40

# Below is generated by plot.py at 2017-11-16 05:23:57
# Datalink statistics
-- Total of 1 flow:
Average throughput: 193.30 Mbit/s
95th percentile per-packet one-way delay: 50.660 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 193.30 Mbit/s
95th percentile per-packet one-way delay: 50.660 ms
Loss rate: 0.36%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-11-16 01:28:42

End at: 2017-11-16 01:29:12

Below is generated by plot.py at 2017-11-16 05:24:00

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.30 Mbit/s

95th percentile per-packet one-way delay: 50.649 ms

Loss rate: 0.34%

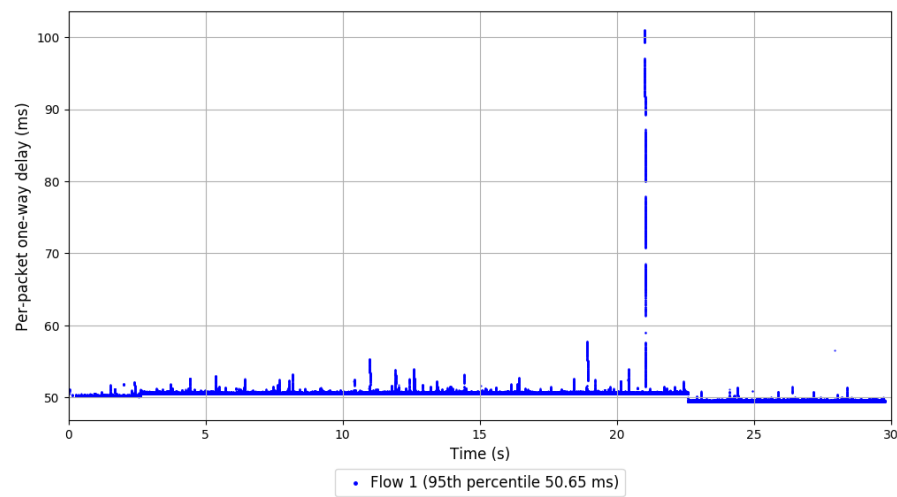
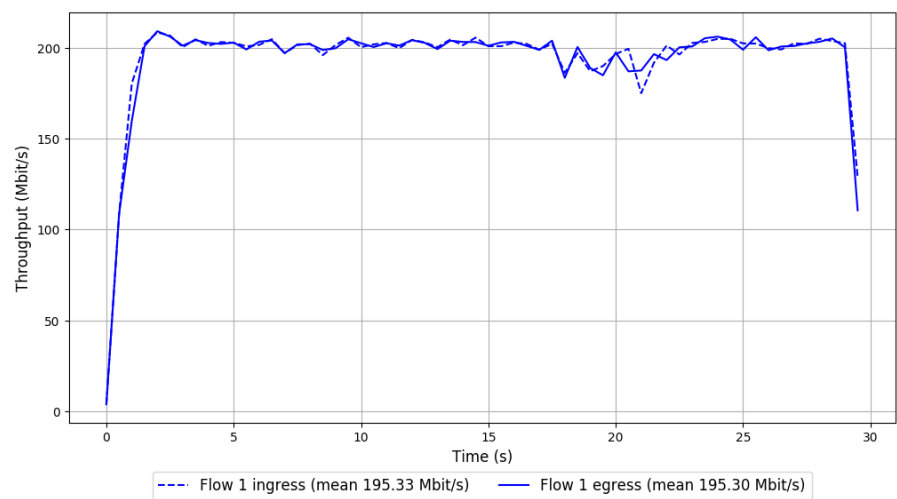
-- Flow 1:

Average throughput: 195.30 Mbit/s

95th percentile per-packet one-way delay: 50.649 ms

Loss rate: 0.34%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-11-16 01:39:13

End at: 2017-11-16 01:39:43

Below is generated by plot.py at 2017-11-16 05:24:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.52 Mbit/s

95th percentile per-packet one-way delay: 50.204 ms

Loss rate: 0.35%

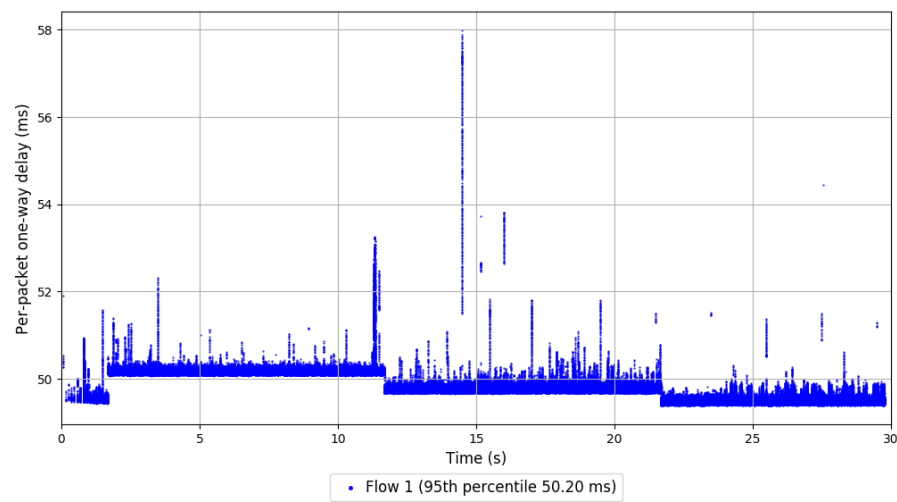
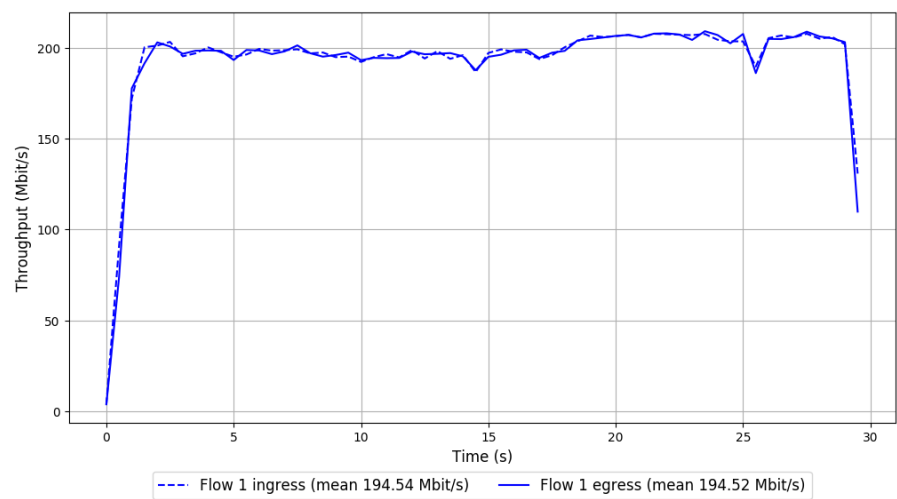
-- Flow 1:

Average throughput: 194.52 Mbit/s

95th percentile per-packet one-way delay: 50.204 ms

Loss rate: 0.35%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-11-16 01:49:47

End at: 2017-11-16 01:50:17

Below is generated by plot.py at 2017-11-16 05:25:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.14 Mbit/s

95th percentile per-packet one-way delay: 50.655 ms

Loss rate: 0.35%

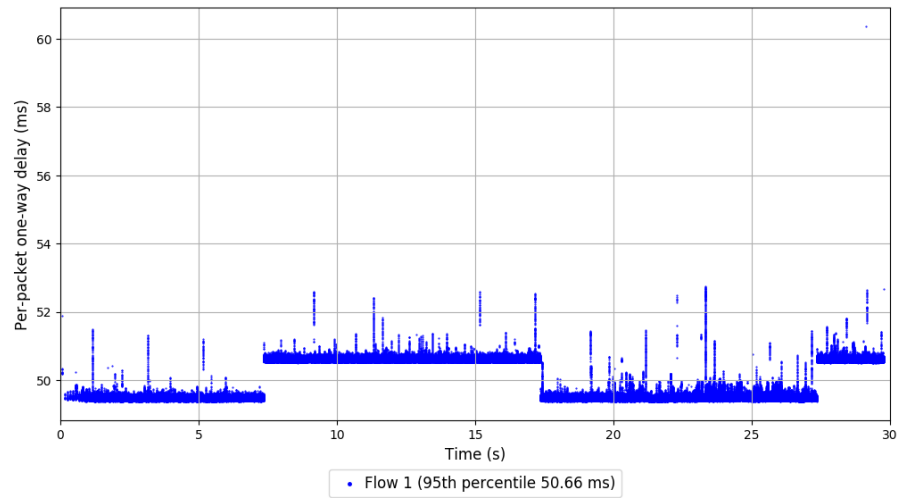
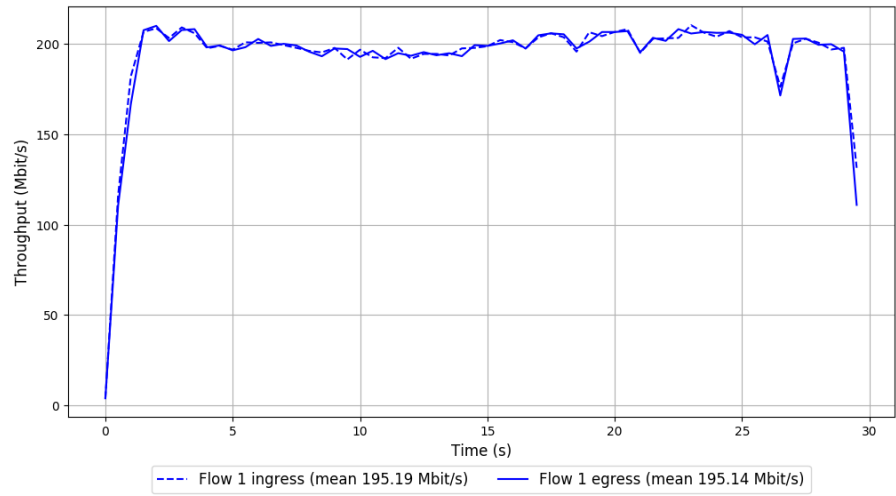
-- Flow 1:

Average throughput: 195.14 Mbit/s

95th percentile per-packet one-way delay: 50.655 ms

Loss rate: 0.35%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-11-16 02:00:11

End at: 2017-11-16 02:00:41

Below is generated by plot.py at 2017-11-16 05:25:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.14 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 0.40%

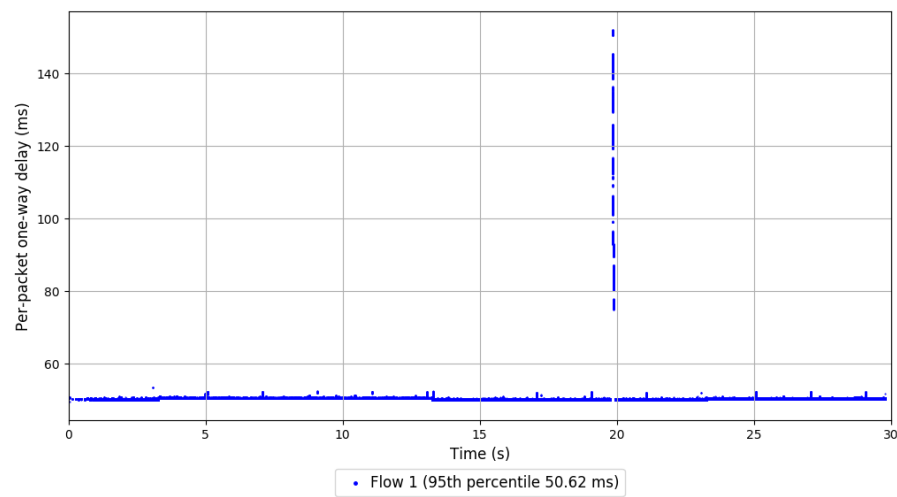
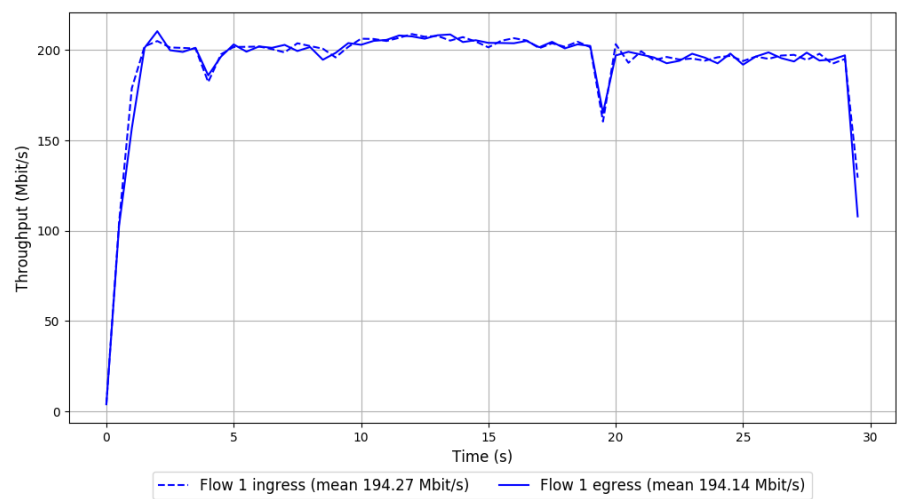
-- Flow 1:

Average throughput: 194.14 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 0.40%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-11-16 02:10:50

End at: 2017-11-16 02:11:20

Below is generated by plot.py at 2017-11-16 05:25:26

Datalink statistics

-- Total of 1 flow:

Average throughput: 196.48 Mbit/s

95th percentile per-packet one-way delay: 50.757 ms

Loss rate: 0.35%

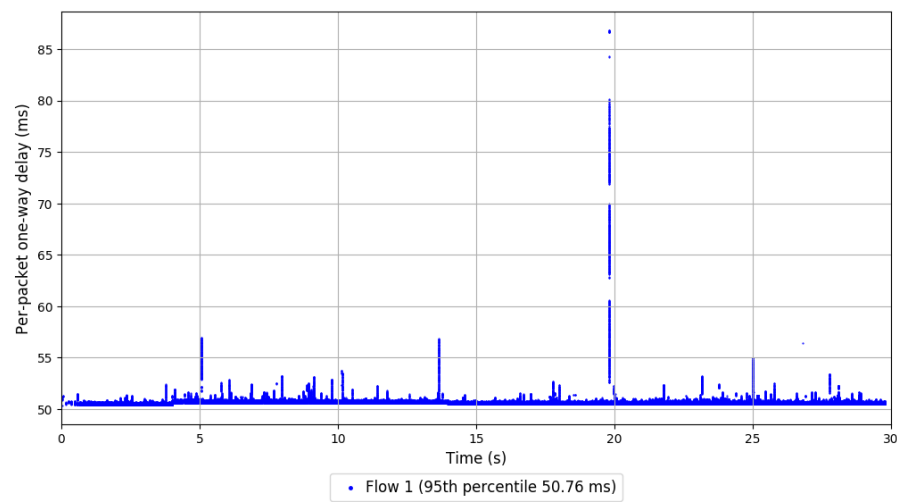
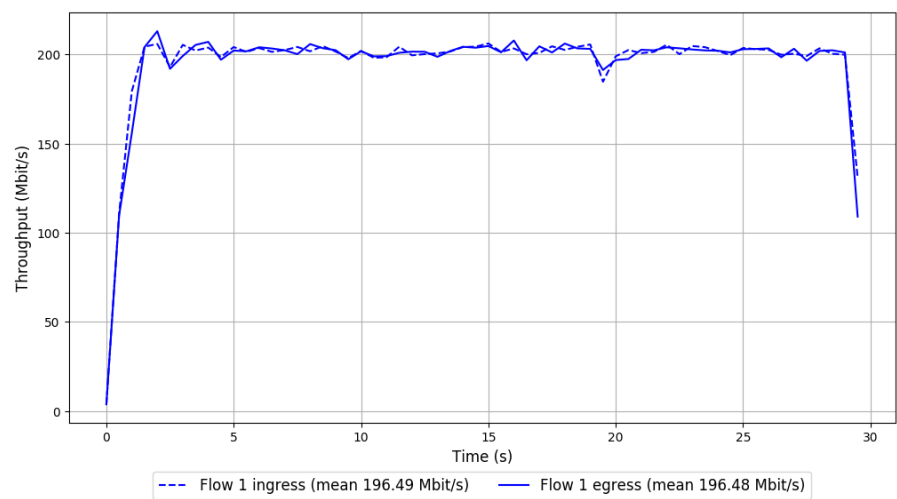
-- Flow 1:

Average throughput: 196.48 Mbit/s

95th percentile per-packet one-way delay: 50.757 ms

Loss rate: 0.35%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-11-16 02:21:25

End at: 2017-11-16 02:21:55

Below is generated by plot.py at 2017-11-16 05:25:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.84 Mbit/s

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

Loss rate: 0.35%

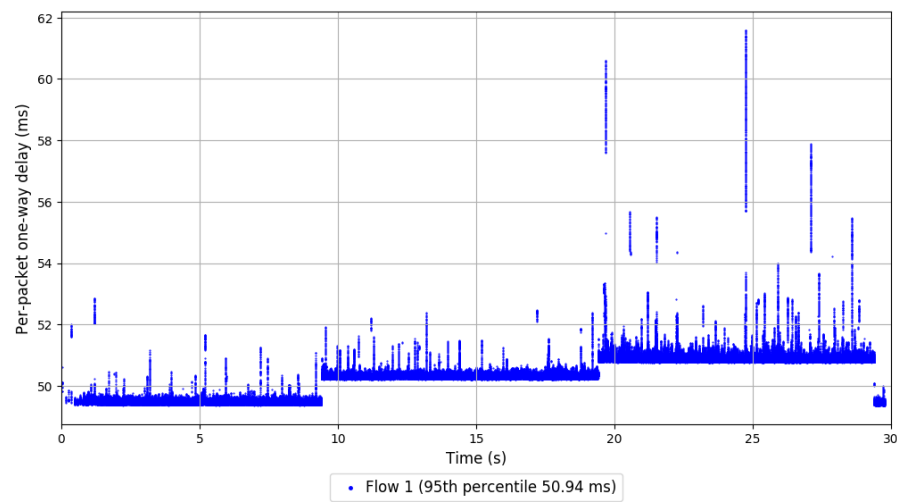
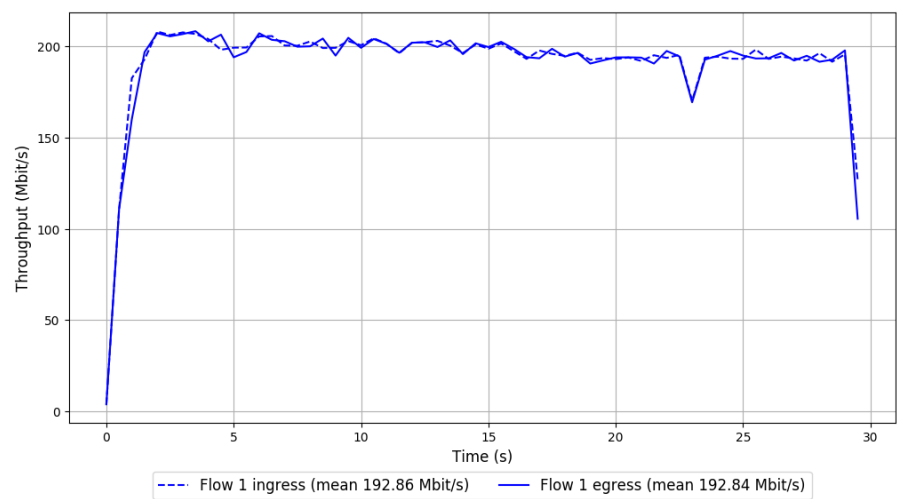
-- Flow 1:

Average throughput: 192.84 Mbit/s

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

Loss rate: 0.35%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-11-16 02:31:56

End at: 2017-11-16 02:32:26

Below is generated by plot.py at 2017-11-16 05:26:22

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.26 Mbit/s

95th percentile per-packet one-way delay: 50.590 ms

Loss rate: 0.35%

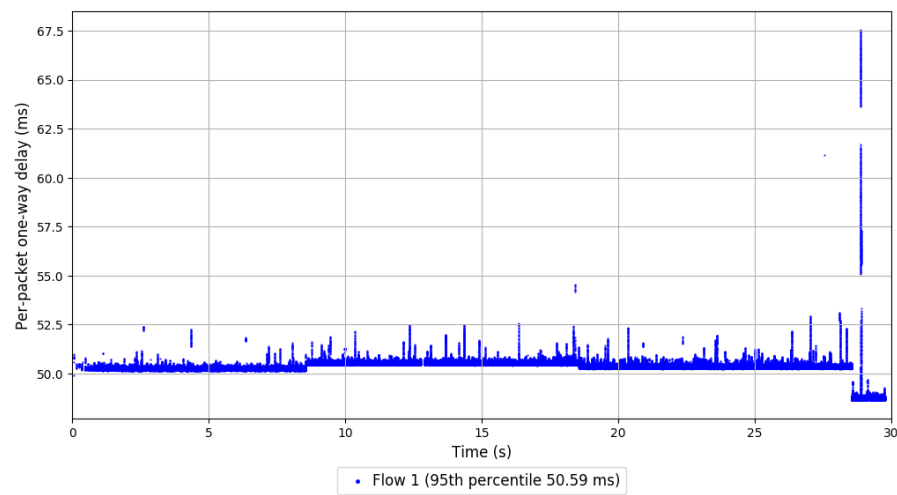
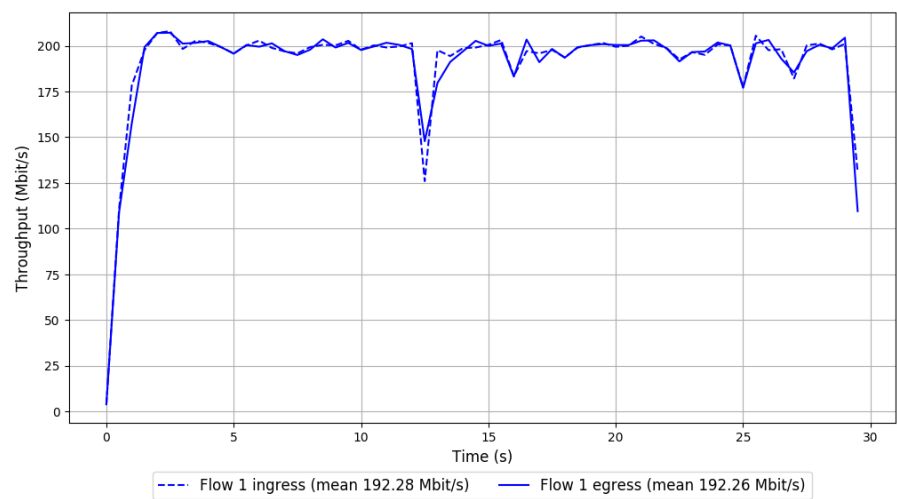
-- Flow 1:

Average throughput: 192.26 Mbit/s

95th percentile per-packet one-way delay: 50.590 ms

Loss rate: 0.35%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-11-16 02:42:28

End at: 2017-11-16 02:42:58

Below is generated by plot.py at 2017-11-16 05:27:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 194.58 Mbit/s

95th percentile per-packet one-way delay: 50.627 ms

Loss rate: 0.36%

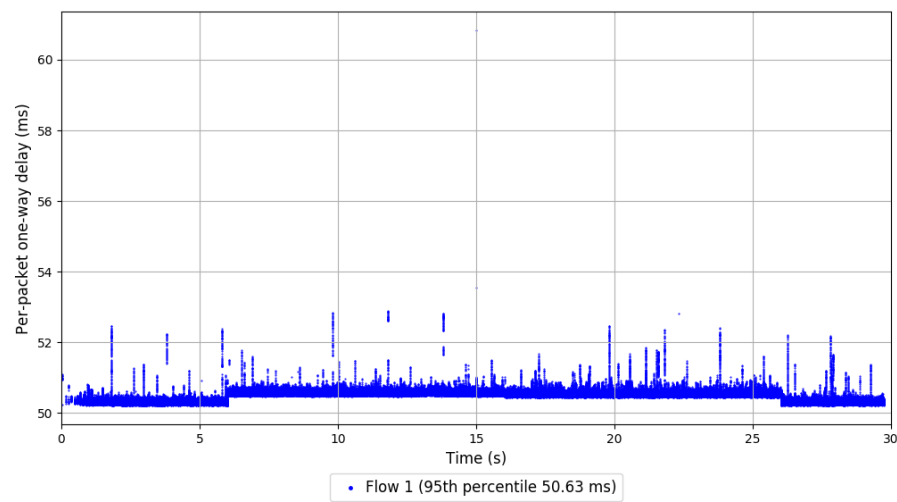
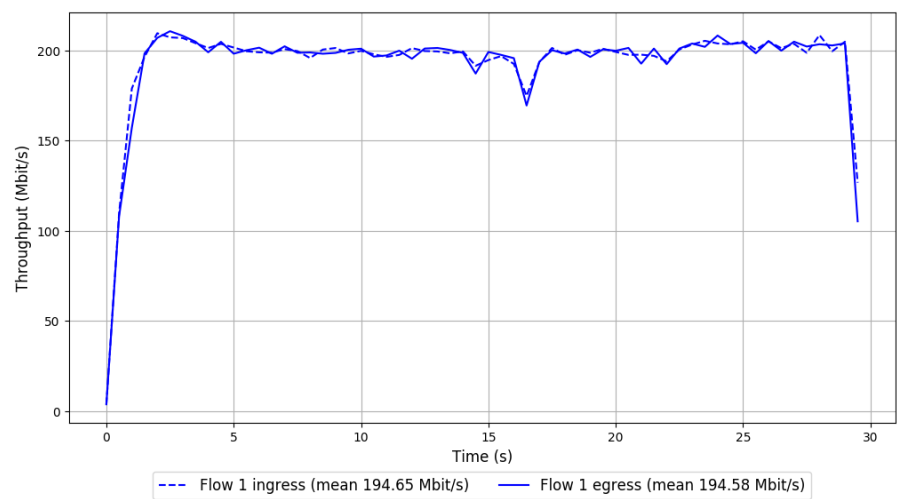
-- Flow 1:

Average throughput: 194.58 Mbit/s

95th percentile per-packet one-way delay: 50.627 ms

Loss rate: 0.36%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-11-16 02:53:04

End at: 2017-11-16 02:53:34

Below is generated by plot.py at 2017-11-16 05:27:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.15 Mbit/s

95th percentile per-packet one-way delay: 50.571 ms

Loss rate: 0.35%

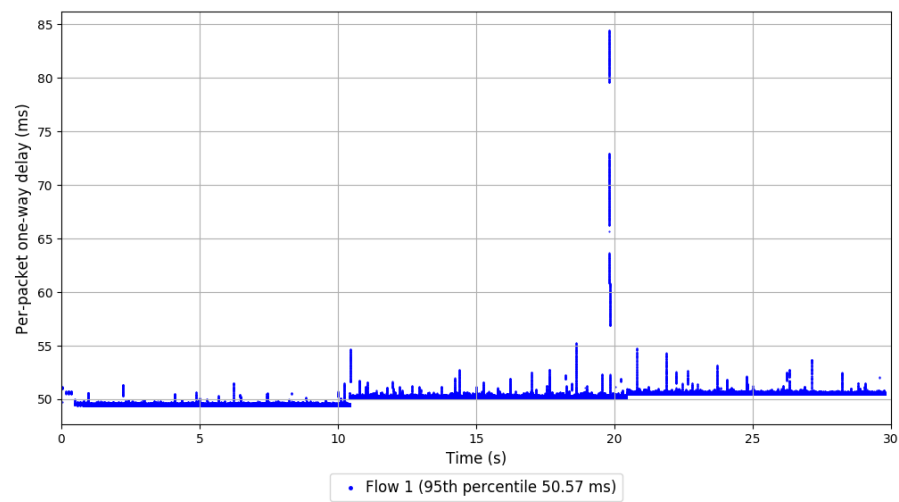
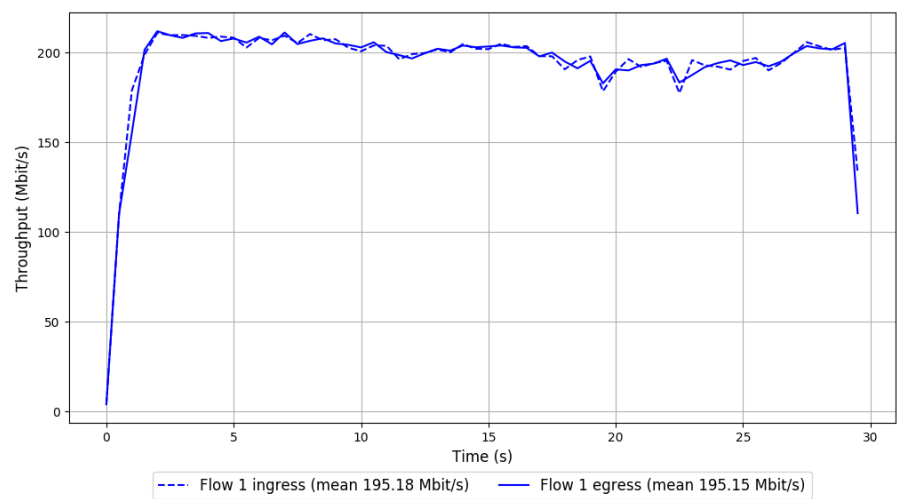
-- Flow 1:

Average throughput: 195.15 Mbit/s

95th percentile per-packet one-way delay: 50.571 ms

Loss rate: 0.35%

Run 10: Report of Indigo — Data Link

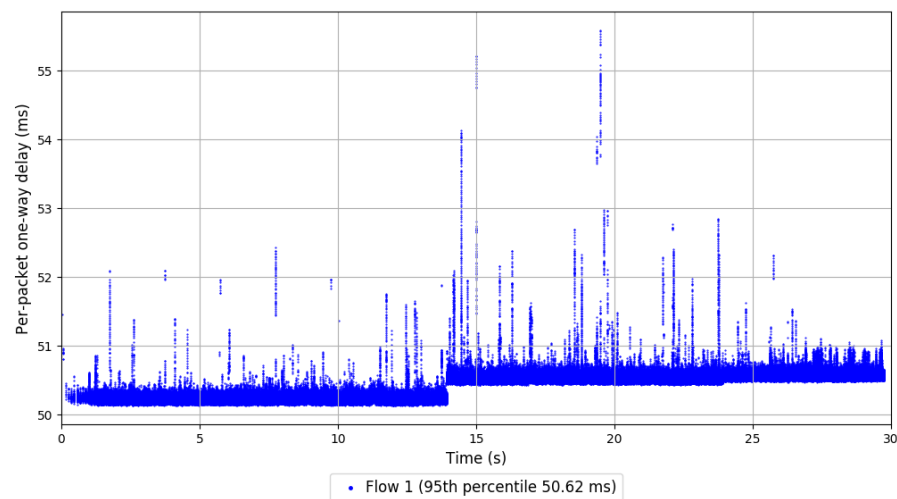
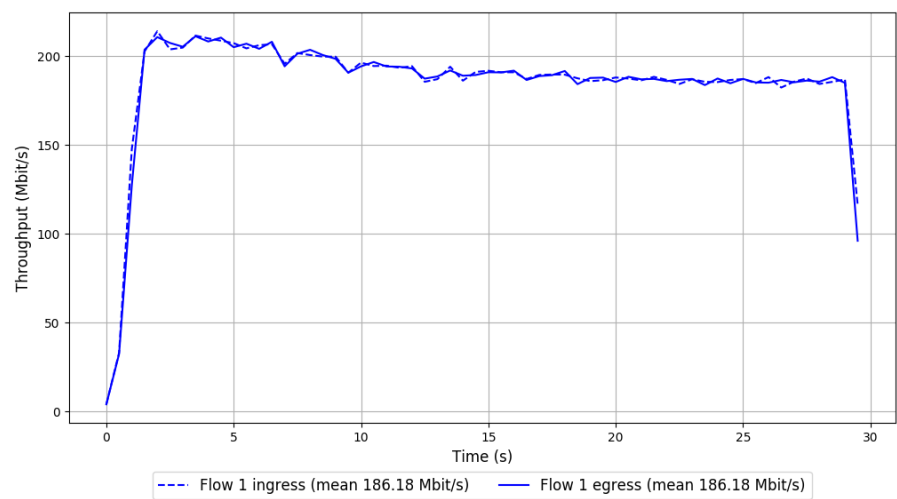


```
Run 1: Statistics of Indigo-calib

Start at: 2017-11-16 01:13:30
End at: 2017-11-16 01:14:01

# Below is generated by plot.py at 2017-11-16 05:27:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.18 Mbit/s
95th percentile per-packet one-way delay: 50.624 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 186.18 Mbit/s
95th percentile per-packet one-way delay: 50.624 ms
Loss rate: 0.34%
```

Run 1: Report of Indigo-calib — Data Link

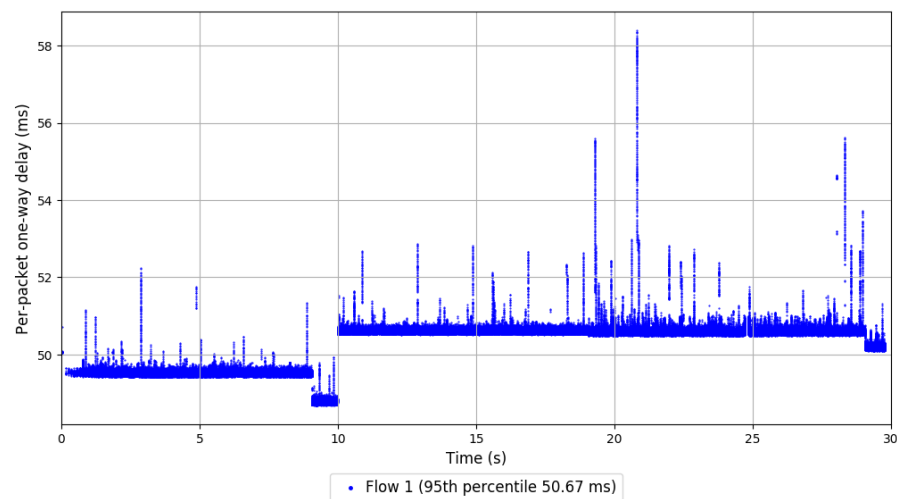
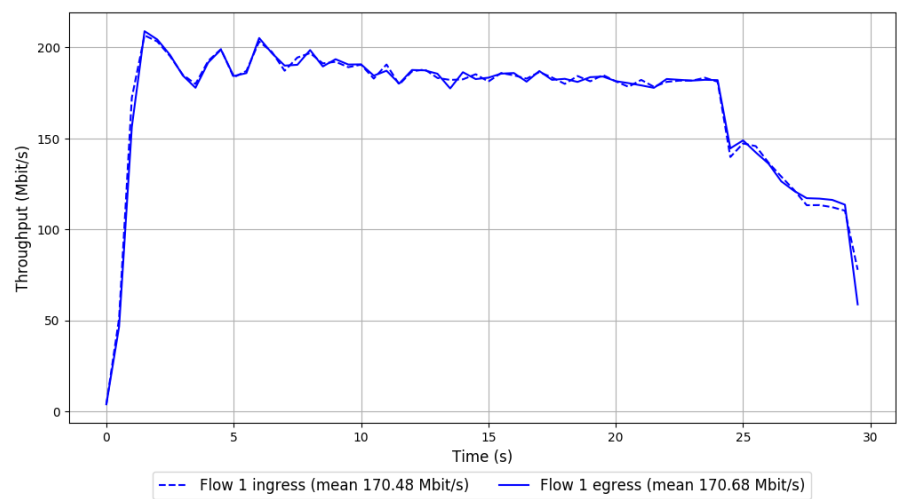


```
Run 2: Statistics of Indigo-calib

Start at: 2017-11-16 01:24:05
End at: 2017-11-16 01:24:35

# Below is generated by plot.py at 2017-11-16 05:27:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 170.68 Mbit/s
95th percentile per-packet one-way delay: 50.667 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 170.68 Mbit/s
95th percentile per-packet one-way delay: 50.667 ms
Loss rate: 0.22%
```

Run 2: Report of Indigo-calib — Data Link

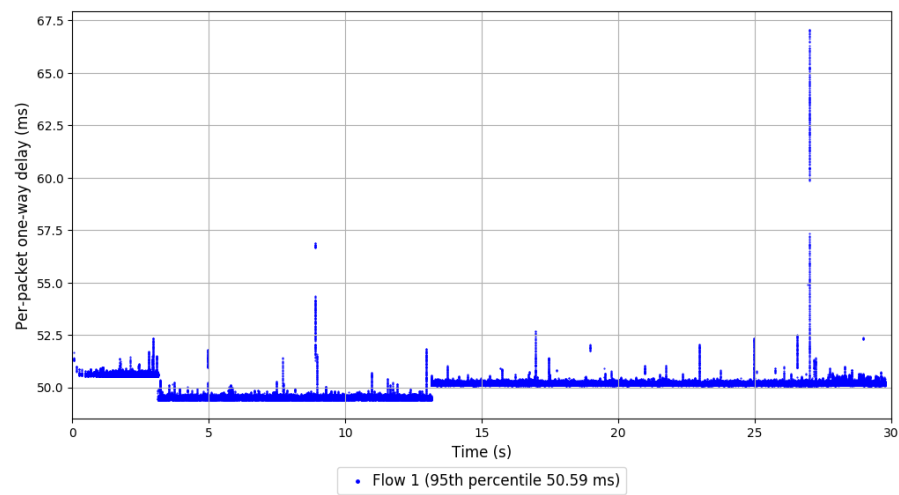
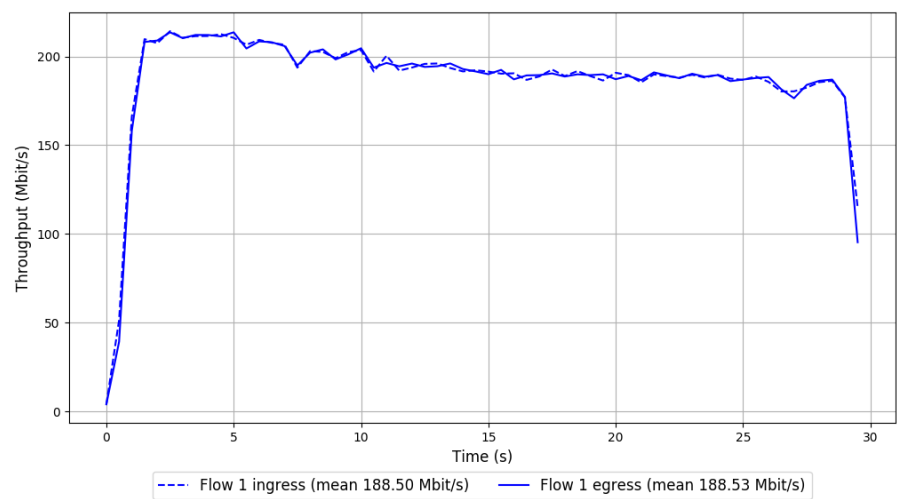


```
Run 3: Statistics of Indigo-calib

Start at: 2017-11-16 01:34:31
End at: 2017-11-16 01:35:01

# Below is generated by plot.py at 2017-11-16 05:28:23
# Datalink statistics
-- Total of 1 flow:
Average throughput: 188.53 Mbit/s
95th percentile per-packet one-way delay: 50.591 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 188.53 Mbit/s
95th percentile per-packet one-way delay: 50.591 ms
Loss rate: 0.33%
```

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-11-16 01:45:07

End at: 2017-11-16 01:45:37

Below is generated by plot.py at 2017-11-16 05:28:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 159.08 Mbit/s

95th percentile per-packet one-way delay: 50.609 ms

Loss rate: 0.25%

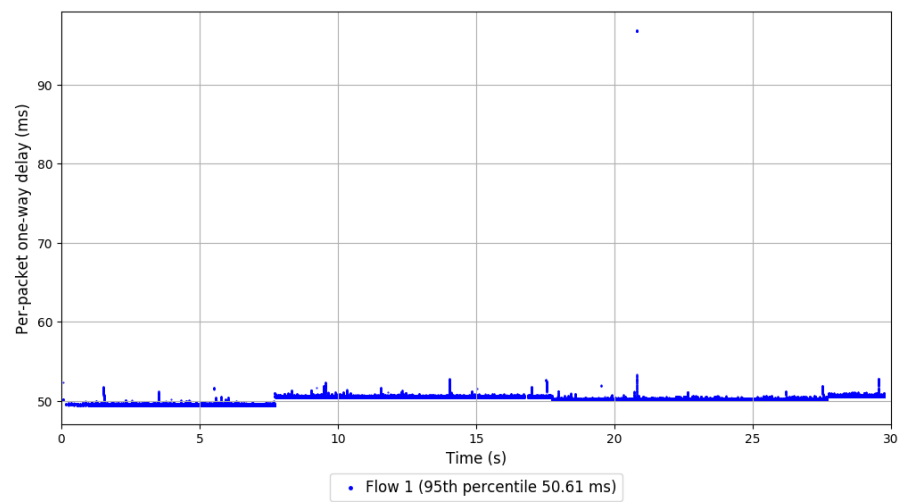
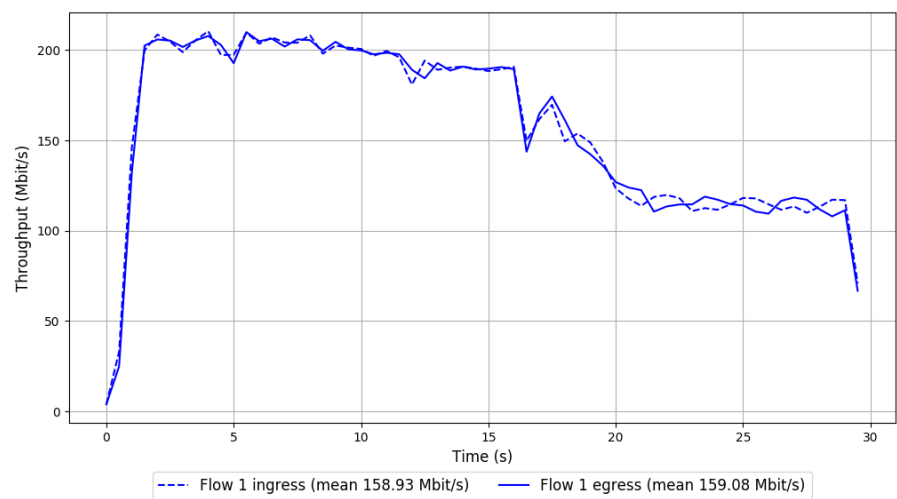
-- Flow 1:

Average throughput: 159.08 Mbit/s

95th percentile per-packet one-way delay: 50.609 ms

Loss rate: 0.25%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-11-16 01:55:32

End at: 2017-11-16 01:56:02

Below is generated by plot.py at 2017-11-16 05:28:37

Datalink statistics

-- Total of 1 flow:

Average throughput: 189.60 Mbit/s

95th percentile per-packet one-way delay: 50.389 ms

Loss rate: 0.32%

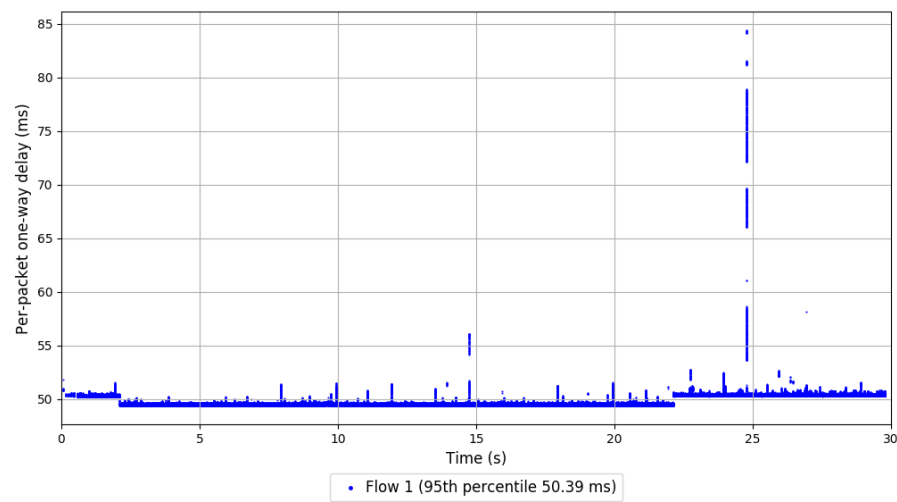
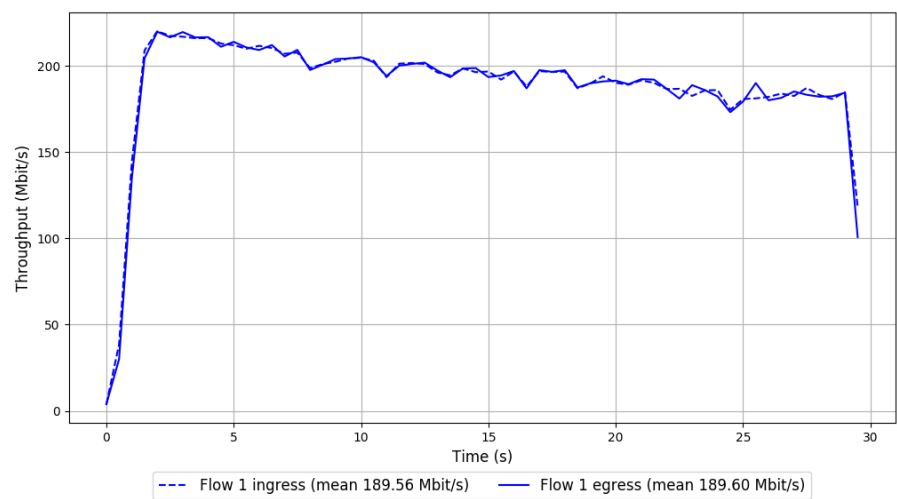
-- Flow 1:

Average throughput: 189.60 Mbit/s

95th percentile per-packet one-way delay: 50.389 ms

Loss rate: 0.32%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-11-16 02:06:07

End at: 2017-11-16 02:06:37

Below is generated by plot.py at 2017-11-16 05:28:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 185.38 Mbit/s

95th percentile per-packet one-way delay: 50.760 ms

Loss rate: 0.33%

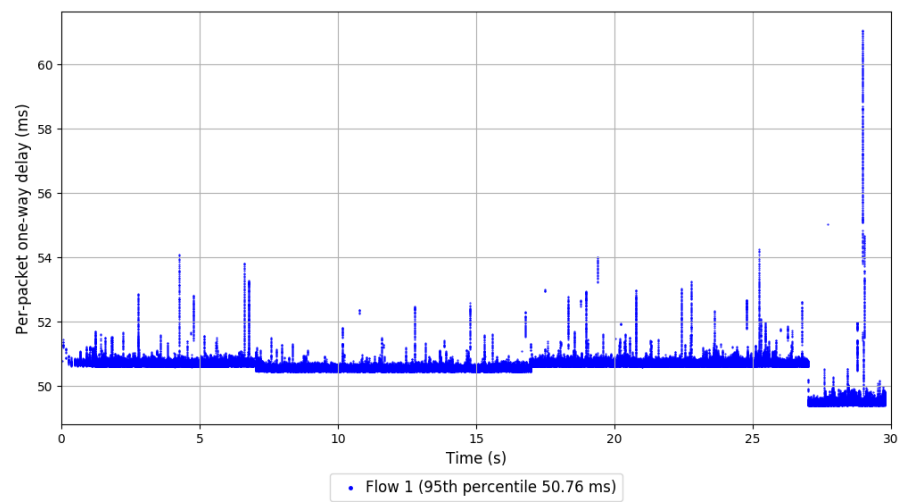
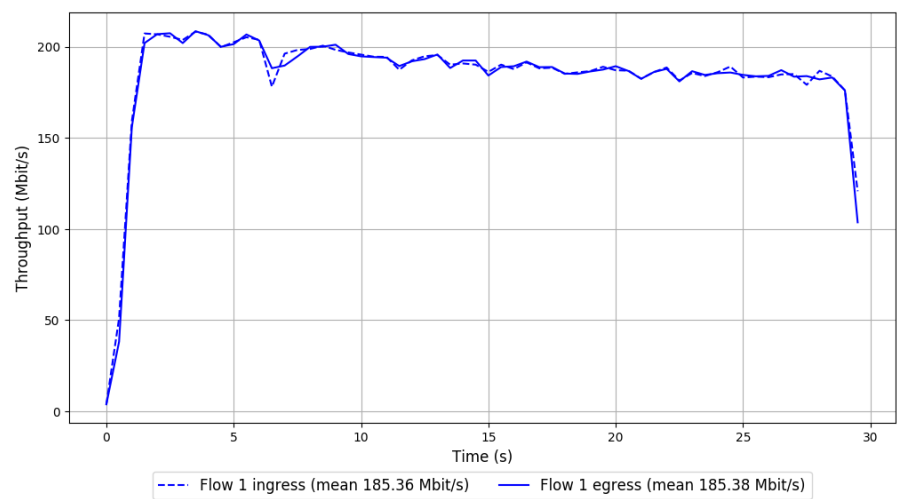
-- Flow 1:

Average throughput: 185.38 Mbit/s

95th percentile per-packet one-way delay: 50.760 ms

Loss rate: 0.33%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-11-16 02:16:45

End at: 2017-11-16 02:17:15

Below is generated by plot.py at 2017-11-16 05:29:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 174.38 Mbit/s

95th percentile per-packet one-way delay: 50.646 ms

Loss rate: 0.23%

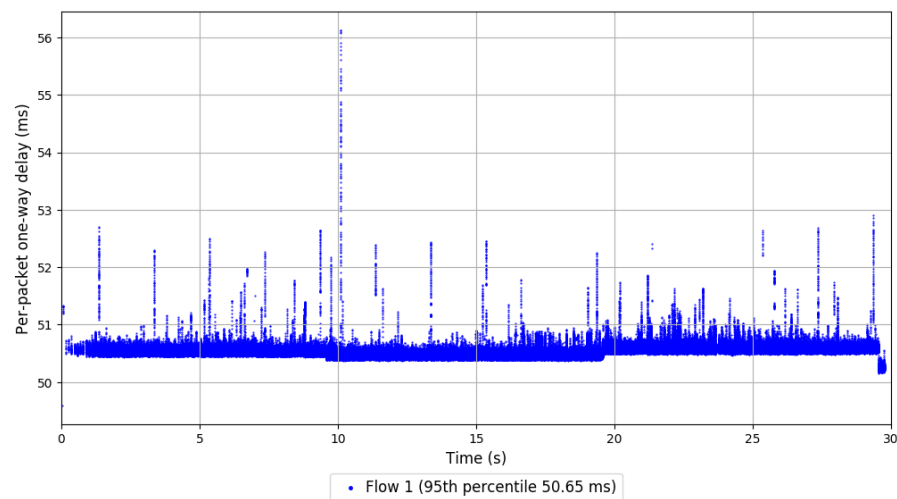
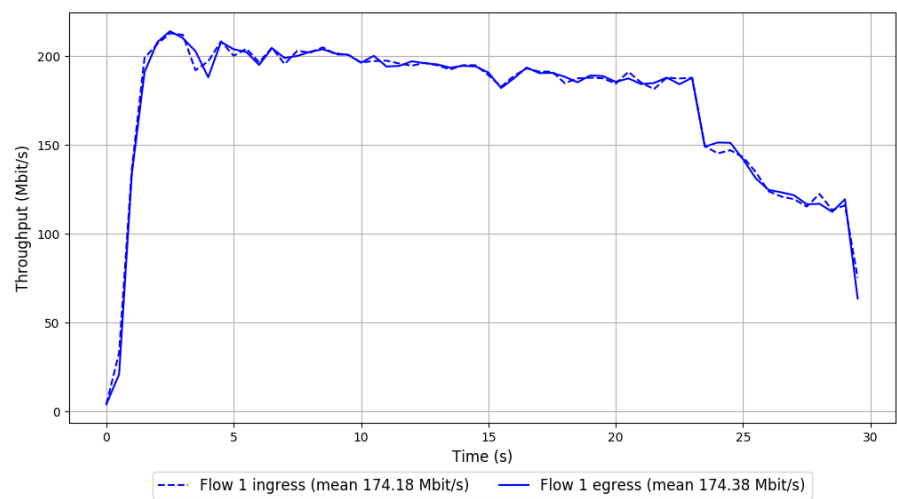
-- Flow 1:

Average throughput: 174.38 Mbit/s

95th percentile per-packet one-way delay: 50.646 ms

Loss rate: 0.23%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-11-16 02:27:18

End at: 2017-11-16 02:27:48

Below is generated by plot.py at 2017-11-16 05:29:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 126.29 Mbit/s

95th percentile per-packet one-way delay: 50.566 ms

Loss rate: 0.32%

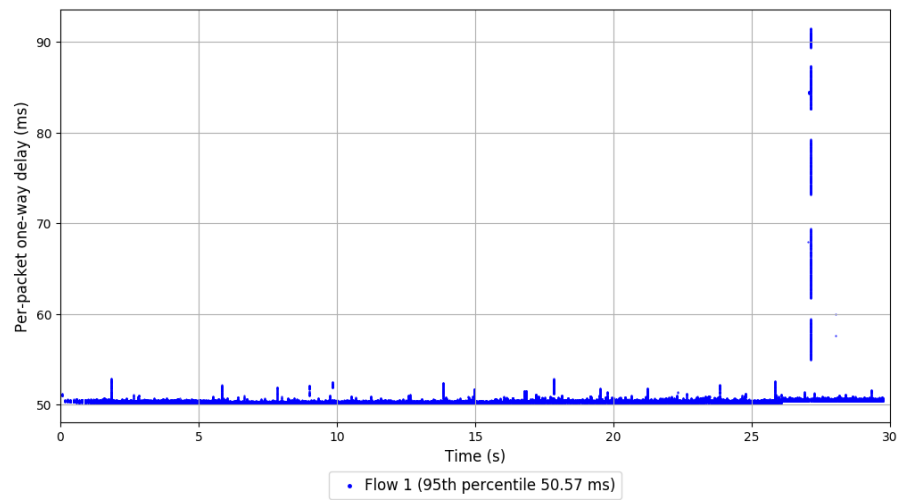
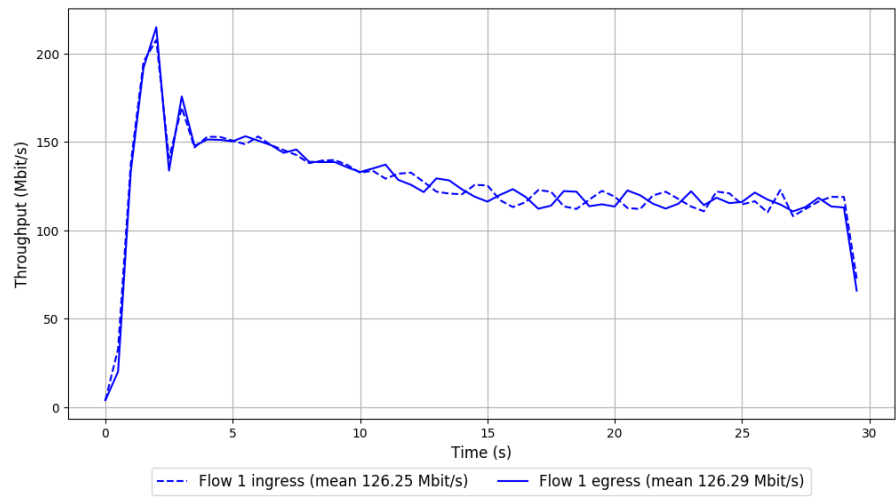
-- Flow 1:

Average throughput: 126.29 Mbit/s

95th percentile per-packet one-way delay: 50.566 ms

Loss rate: 0.32%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-11-16 02:37:47

End at: 2017-11-16 02:38:17

Below is generated by plot.py at 2017-11-16 05:29:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.99 Mbit/s

95th percentile per-packet one-way delay: 50.659 ms

Loss rate: 0.33%

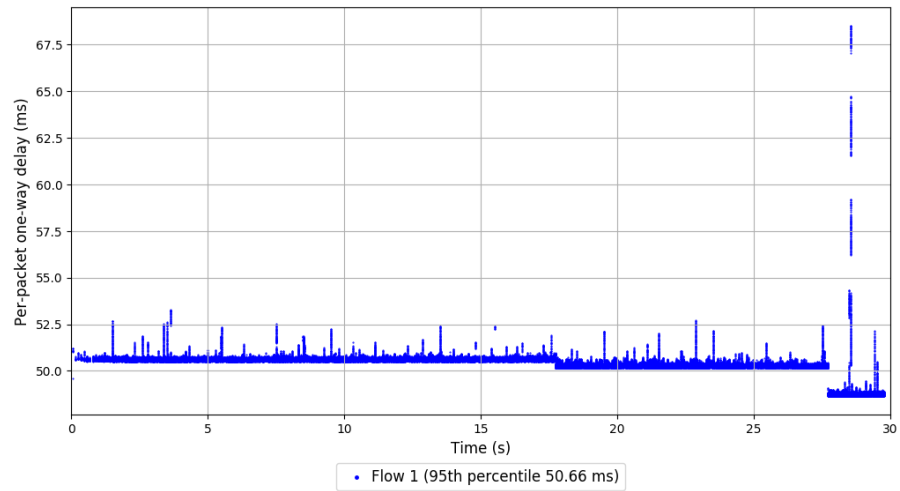
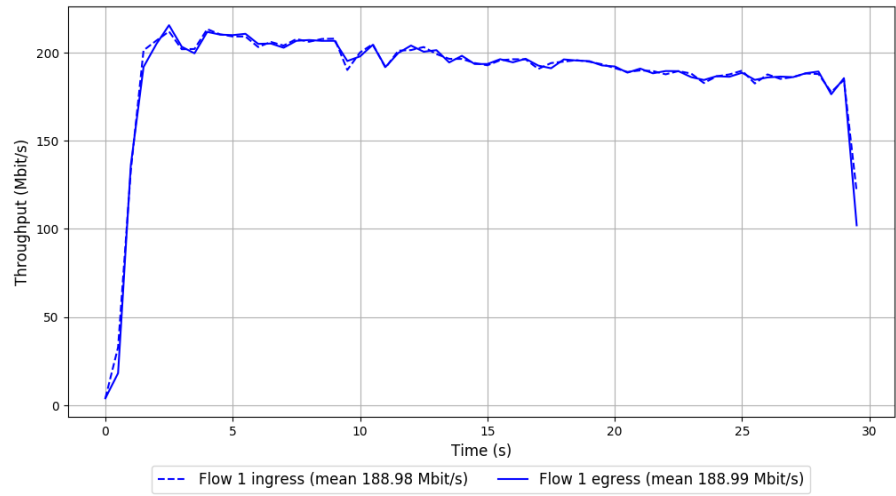
-- Flow 1:

Average throughput: 188.99 Mbit/s

95th percentile per-packet one-way delay: 50.659 ms

Loss rate: 0.33%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-11-16 02:48:20

End at: 2017-11-16 02:48:50

Below is generated by plot.py at 2017-11-16 05:29:12

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.05 Mbit/s

95th percentile per-packet one-way delay: 50.888 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 187.05 Mbit/s

95th percentile per-packet one-way delay: 50.888 ms

Loss rate: 0.29%

Run 10: Report of Indigo-calib — Data Link

