

Pantheon Report

Generated at 2017-12-05 16:18:07 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

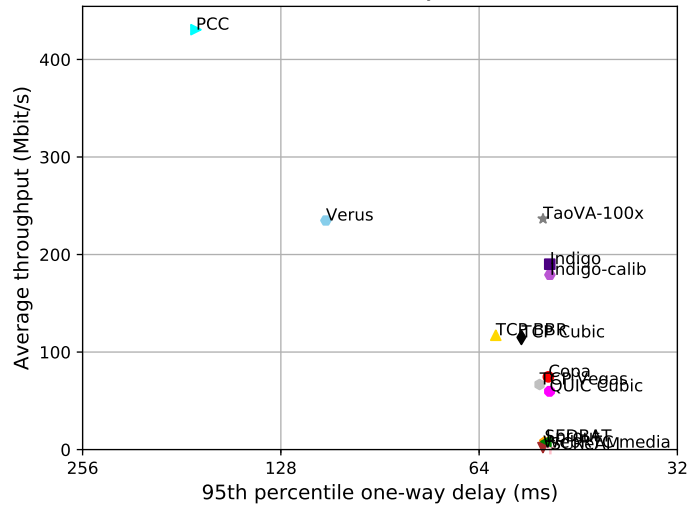
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

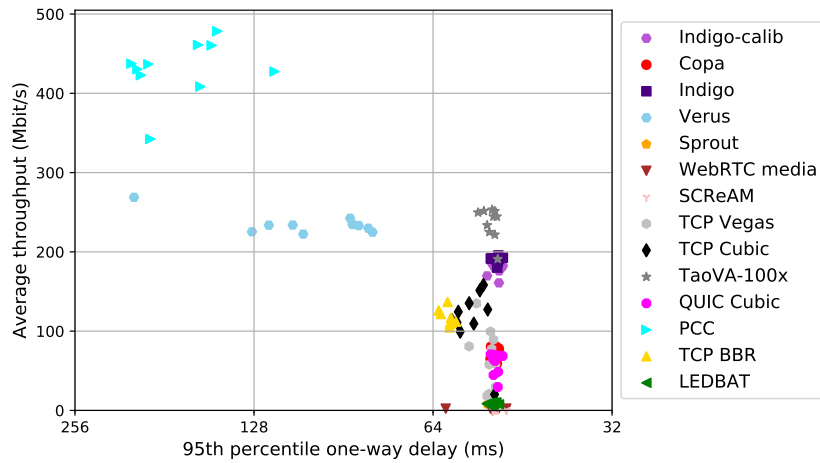
Git summary:

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

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



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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	8	117.22	60.38	0.01
TCP Cubic	10	115.06	55.21	0.01
LEDBAT	10	8.27	50.68	0.16
PCC	10	430.54	172.23	0.52
QUIC Cubic	10	59.73	50.03	0.00
SCReAM	10	0.22	49.89	0.00
WebRTC media	10	2.01	51.20	0.23
Sprout	10	7.94	50.92	0.12
TaoVA-100x	10	236.62	51.19	0.01
TCP Vegas	10	66.73	51.81	0.01
Verus	10	234.89	109.36	0.24
Copa	10	74.56	50.24	0.00
Indigo	10	190.08	49.99	0.03
Indigo-calib	10	179.18	49.97	0.00

Run 1: Statistics of TCP BBR

Start at: 2017-12-05 13:04:19

End at: 2017-12-05 13:04:49

Below is generated by plot.py at 2017-12-05 15:38:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 126.10 Mbit/s

95th percentile per-packet one-way delay: 62.607 ms

Loss rate: 0.05%

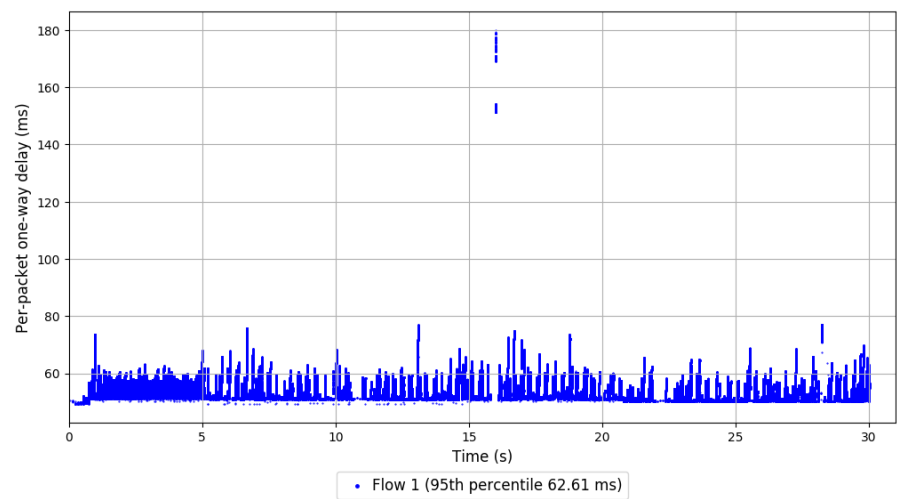
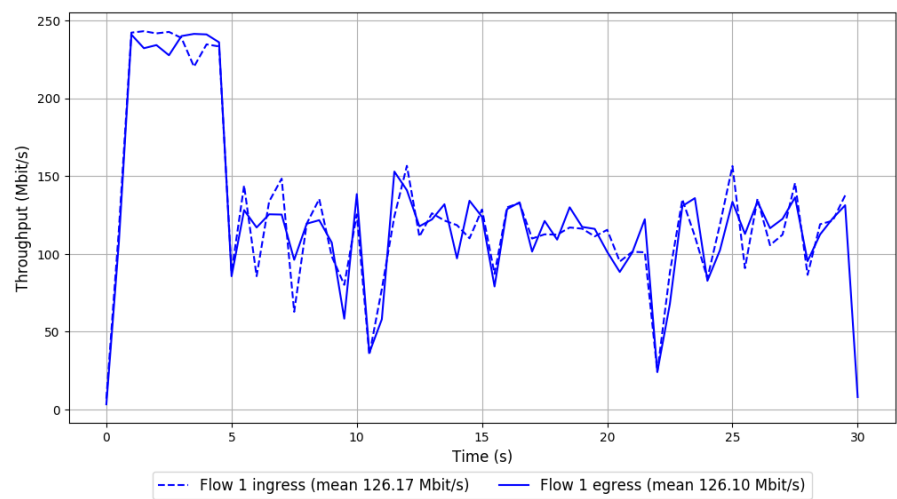
-- Flow 1:

Average throughput: 126.10 Mbit/s

95th percentile per-packet one-way delay: 62.607 ms

Loss rate: 0.05%

Run 1: Report of TCP BBR — Data Link

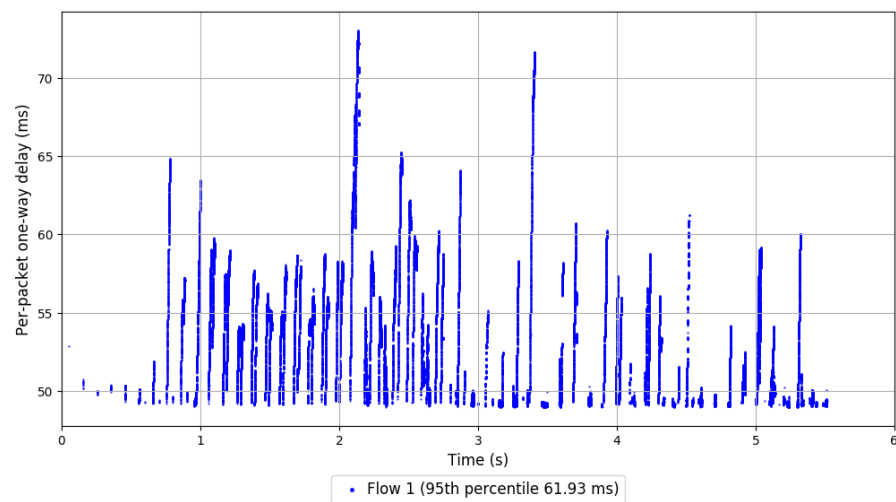
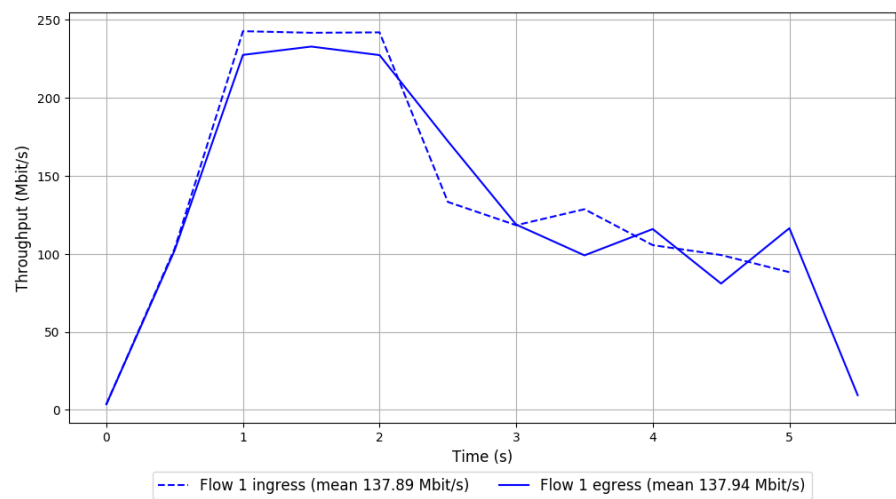


Run 2: Statistics of TCP BBR

Start at: 2017-12-05 13:14:34

End at: 2017-12-05 13:15:04

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-05 13:24:56

End at: 2017-12-05 13:25:26

Below is generated by plot.py at 2017-12-05 15:38:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 109.25 Mbit/s

95th percentile per-packet one-way delay: 59.994 ms

Loss rate: 0.00%

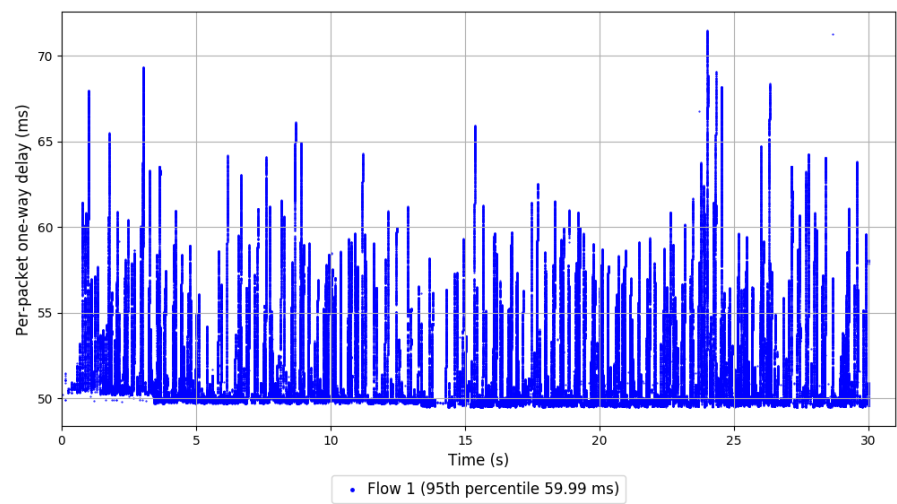
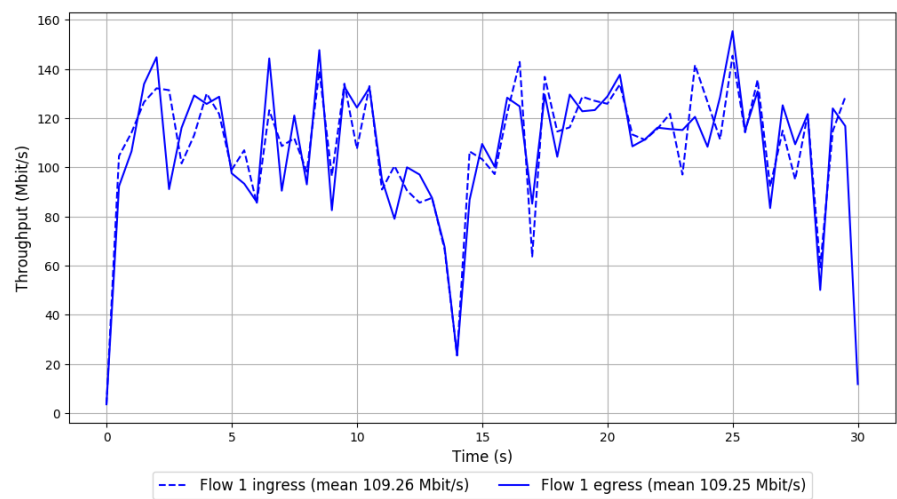
-- Flow 1:

Average throughput: 109.25 Mbit/s

95th percentile per-packet one-way delay: 59.994 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-05 13:35:14

End at: 2017-12-05 13:35:44

Below is generated by plot.py at 2017-12-05 15:38:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 110.30 Mbit/s

95th percentile per-packet one-way delay: 59.549 ms

Loss rate: 0.00%

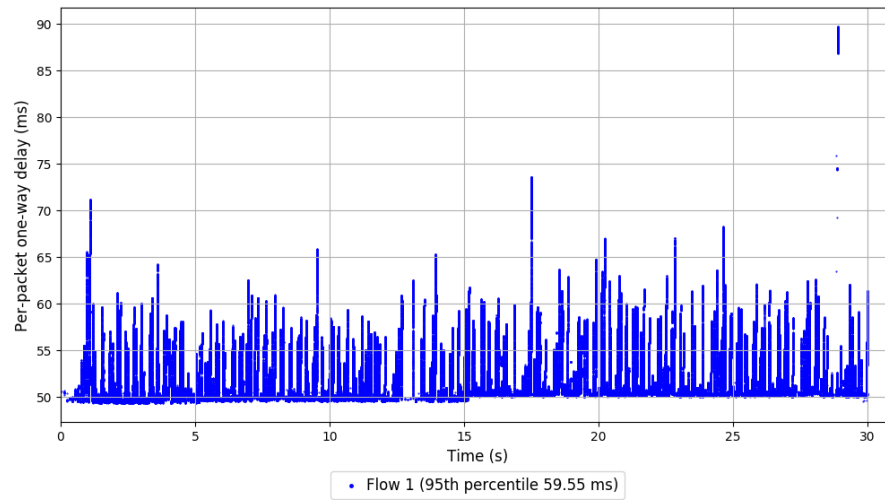
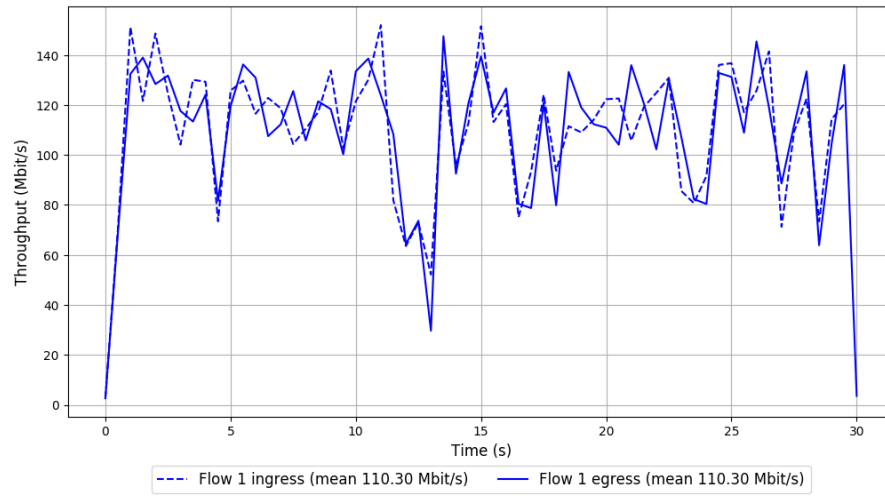
-- Flow 1:

Average throughput: 110.30 Mbit/s

95th percentile per-packet one-way delay: 59.549 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-05 13:45:38

End at: 2017-12-05 13:46:08

Below is generated by plot.py at 2017-12-05 15:38:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 121.60 Mbit/s

95th percentile per-packet one-way delay: 62.121 ms

Loss rate: 0.00%

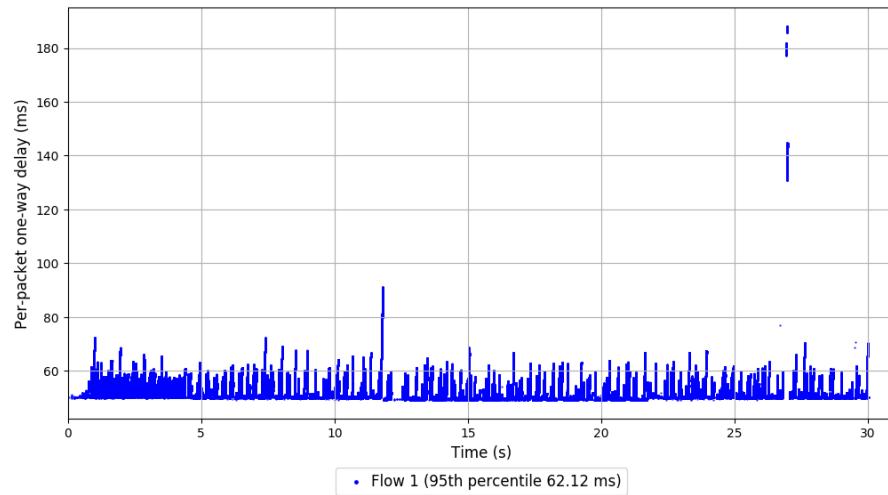
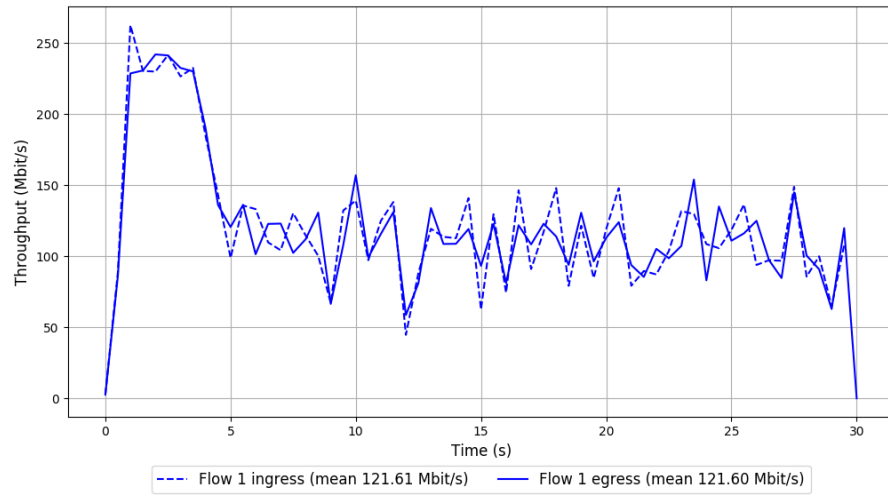
-- Flow 1:

Average throughput: 121.60 Mbit/s

95th percentile per-packet one-way delay: 62.121 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-05 13:56:03

End at: 2017-12-05 13:56:33

Below is generated by plot.py at 2017-12-05 15:38:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 117.00 Mbit/s

95th percentile per-packet one-way delay: 59.694 ms

Loss rate: 0.00%

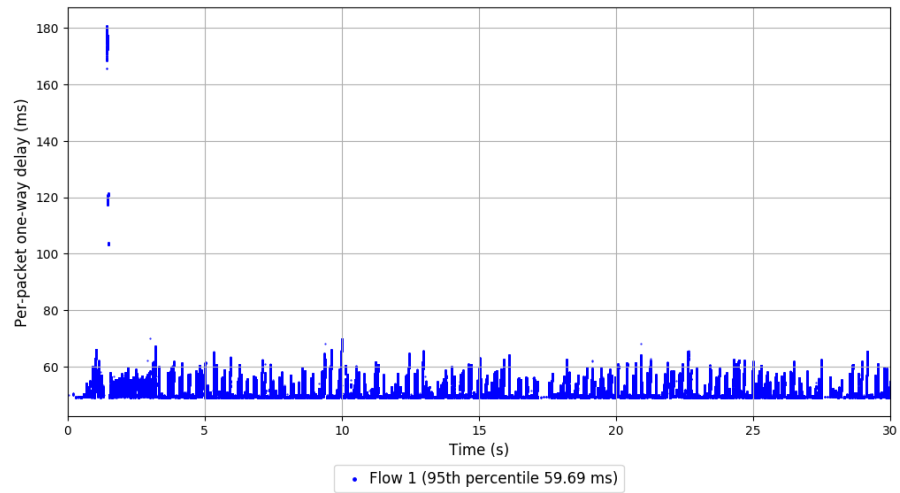
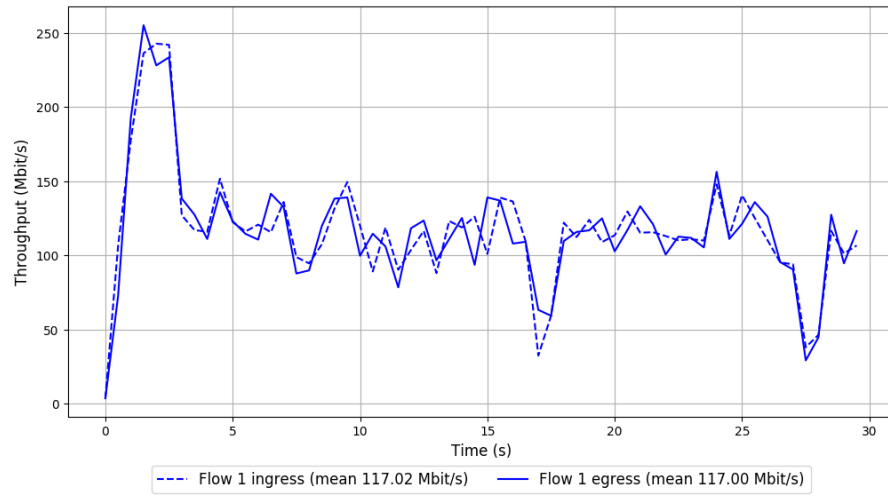
-- Flow 1:

Average throughput: 117.00 Mbit/s

95th percentile per-packet one-way delay: 59.694 ms

Loss rate: 0.00%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-05 14:06:28

End at: 2017-12-05 14:06:58

Below is generated by plot.py at 2017-12-05 15:39:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 136.82 Mbit/s

95th percentile per-packet one-way delay: 60.503 ms

Loss rate: 0.00%

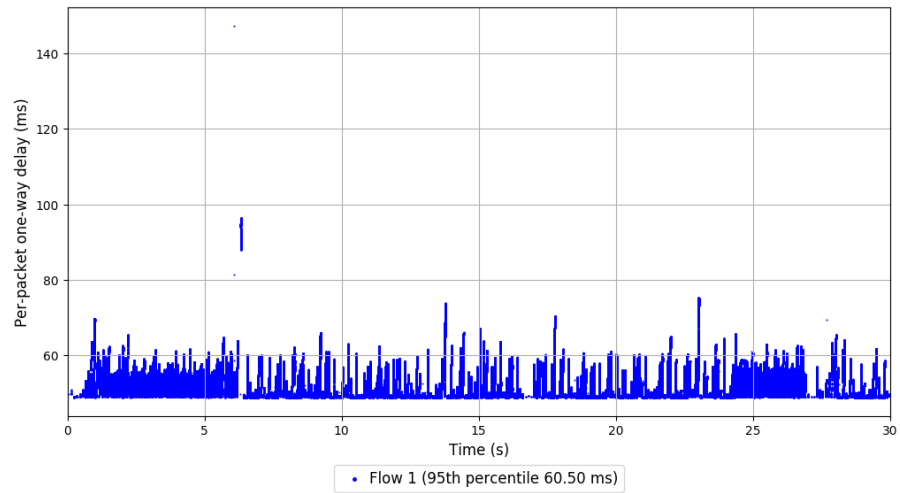
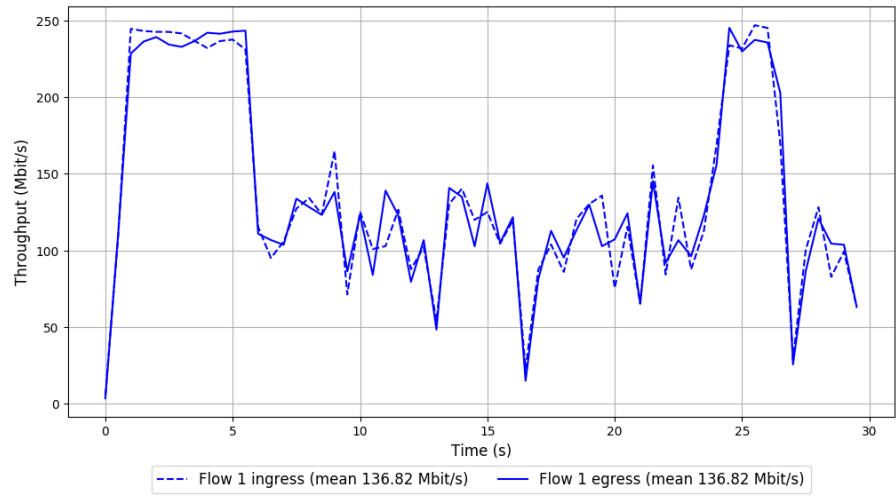
-- Flow 1:

Average throughput: 136.82 Mbit/s

95th percentile per-packet one-way delay: 60.503 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-05 14:17:02

End at: 2017-12-05 14:17:32

Below is generated by plot.py at 2017-12-05 15:39:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 104.68 Mbit/s

95th percentile per-packet one-way delay: 60.018 ms

Loss rate: 0.02%

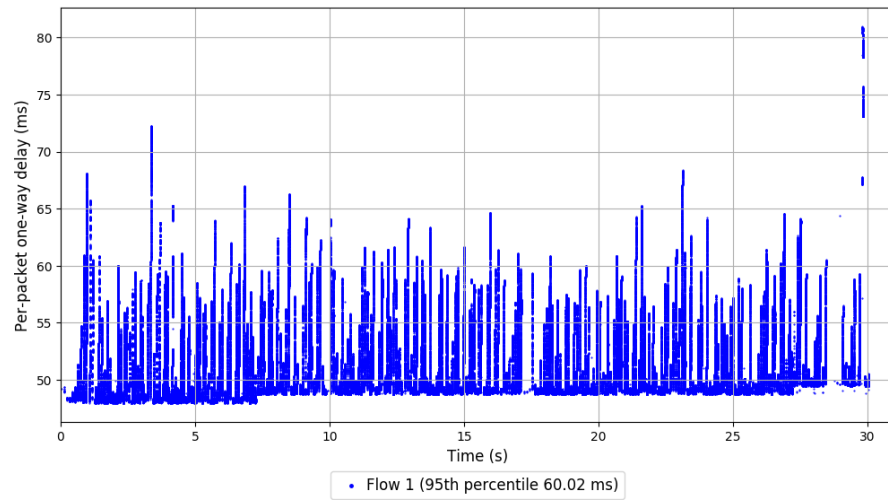
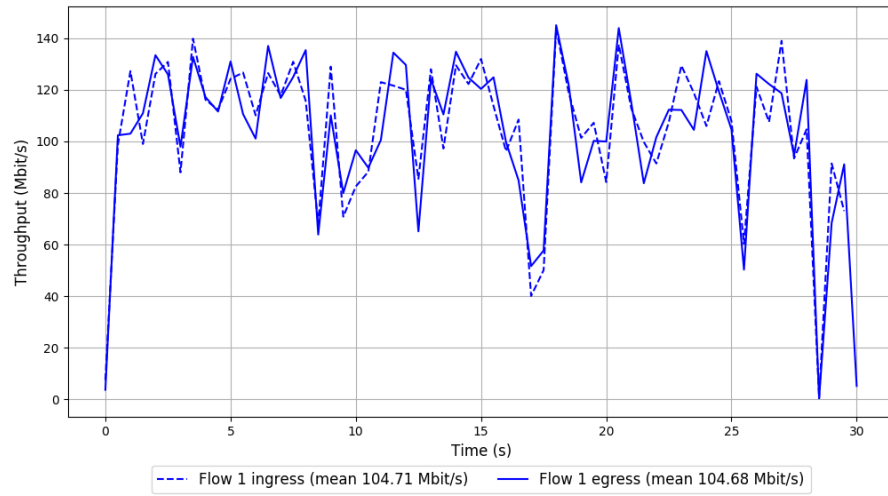
-- Flow 1:

Average throughput: 104.68 Mbit/s

95th percentile per-packet one-way delay: 60.018 ms

Loss rate: 0.02%

Run 8: Report of TCP BBR — Data Link

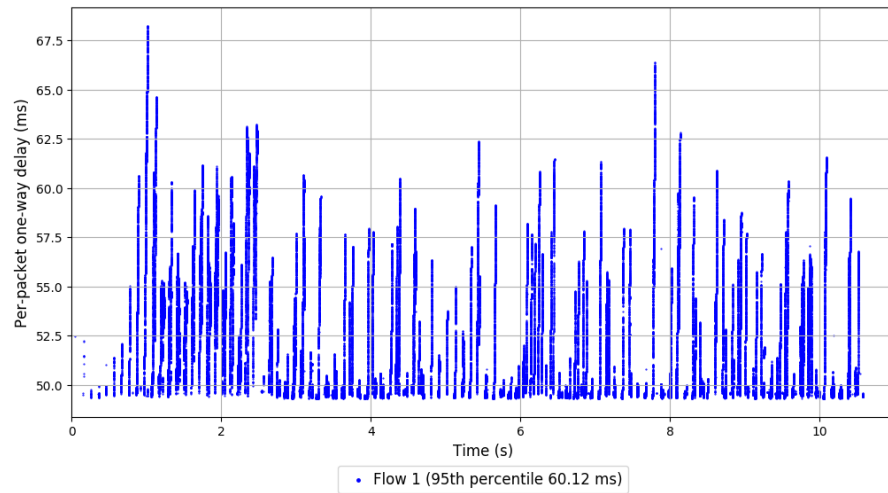
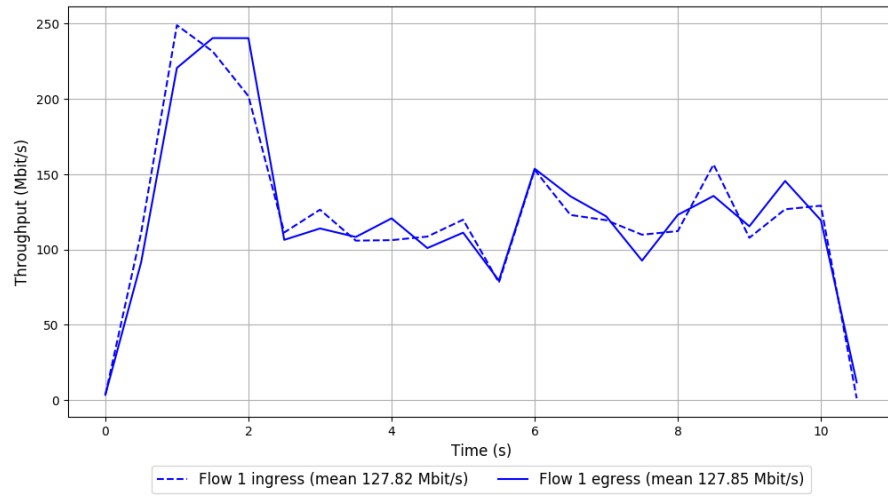


Run 9: Statistics of TCP BBR

Start at: 2017-12-05 14:27:28

End at: 2017-12-05 14:27:58

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-05 14:37:44

End at: 2017-12-05 14:38:14

Below is generated by plot.py at 2017-12-05 15:40:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 112.00 Mbit/s

95th percentile per-packet one-way delay: 58.548 ms

Loss rate: 0.01%

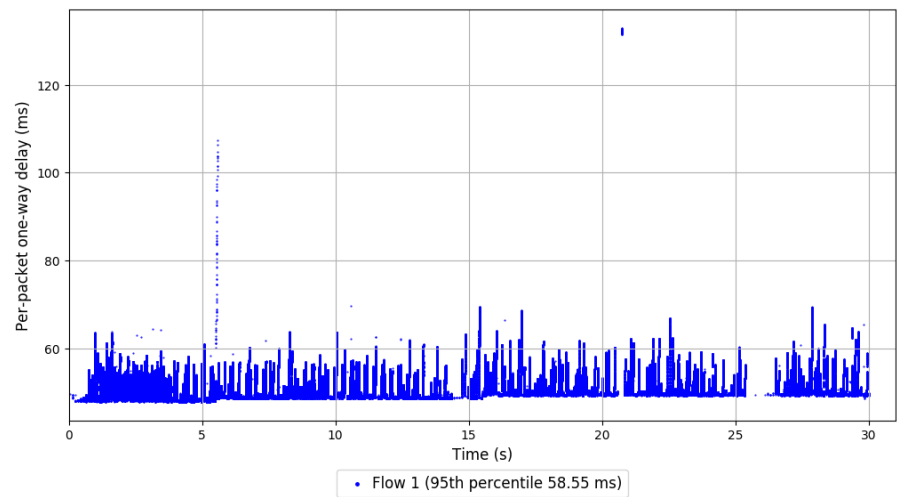
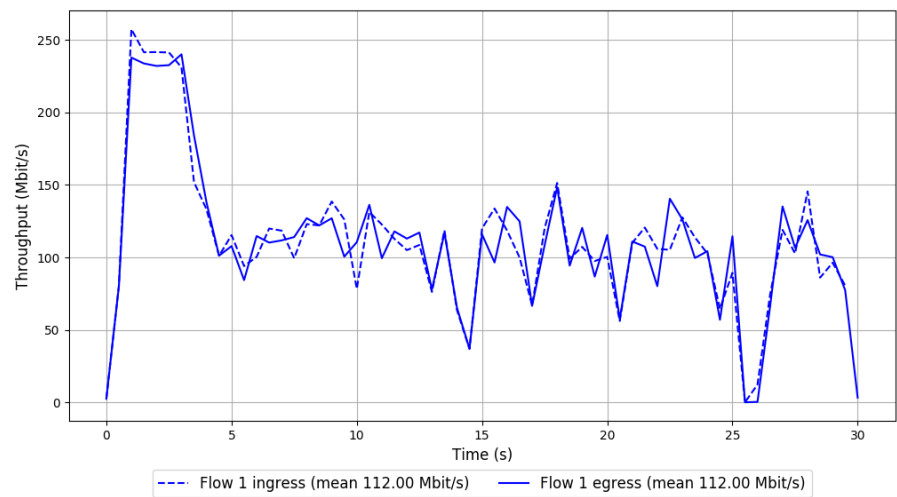
-- Flow 1:

Average throughput: 112.00 Mbit/s

95th percentile per-packet one-way delay: 58.548 ms

Loss rate: 0.01%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-05 13:11:14

End at: 2017-12-05 13:11:44

Below is generated by plot.py at 2017-12-05 15:40:39

Datalink statistics

-- Total of 1 flow:

Average throughput: 114.05 Mbit/s

95th percentile per-packet one-way delay: 59.522 ms

Loss rate: 0.00%

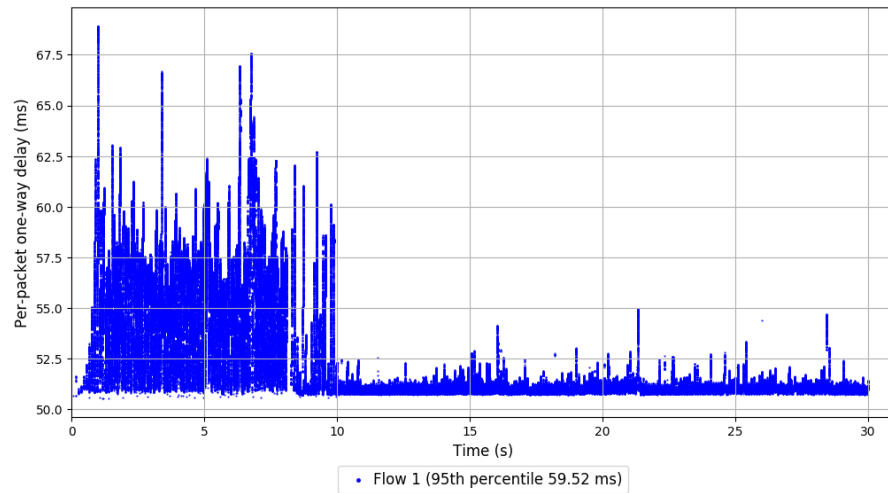
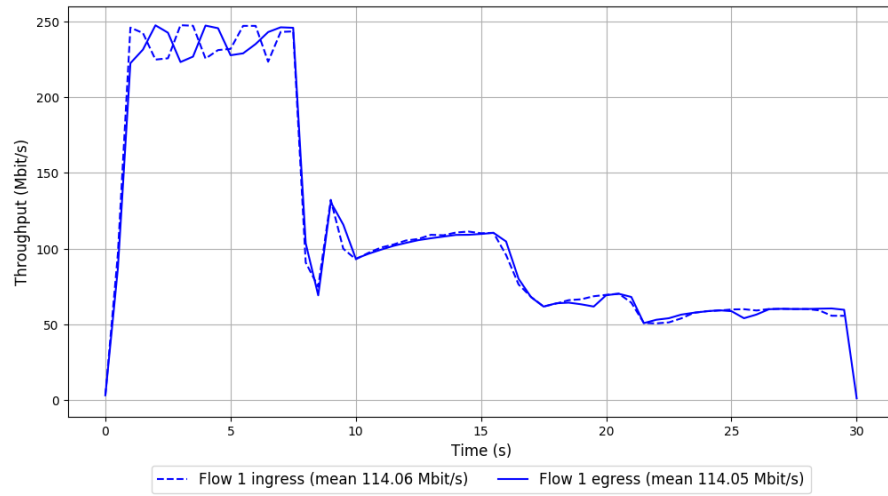
-- Flow 1:

Average throughput: 114.05 Mbit/s

95th percentile per-packet one-way delay: 59.522 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-05 13:21:32

End at: 2017-12-05 13:22:02

Below is generated by plot.py at 2017-12-05 15:40:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 127.27 Mbit/s

95th percentile per-packet one-way delay: 51.791 ms

Loss rate: 0.00%

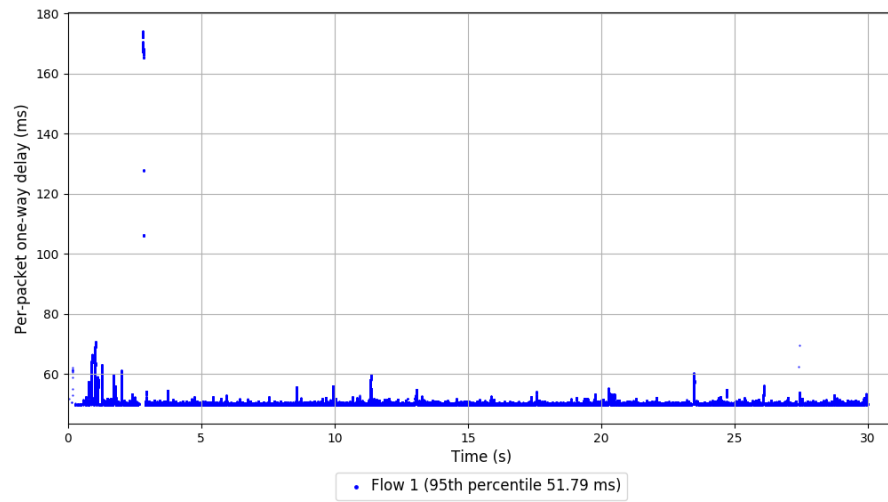
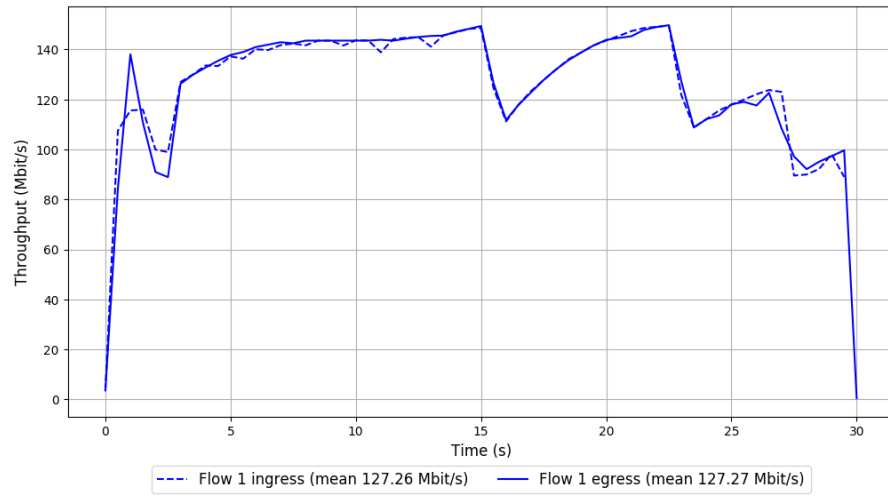
-- Flow 1:

Average throughput: 127.27 Mbit/s

95th percentile per-packet one-way delay: 51.791 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-05 13:31:54

End at: 2017-12-05 13:32:24

Below is generated by plot.py at 2017-12-05 15:40:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.15 Mbit/s

95th percentile per-packet one-way delay: 50.432 ms

Loss rate: 0.06%

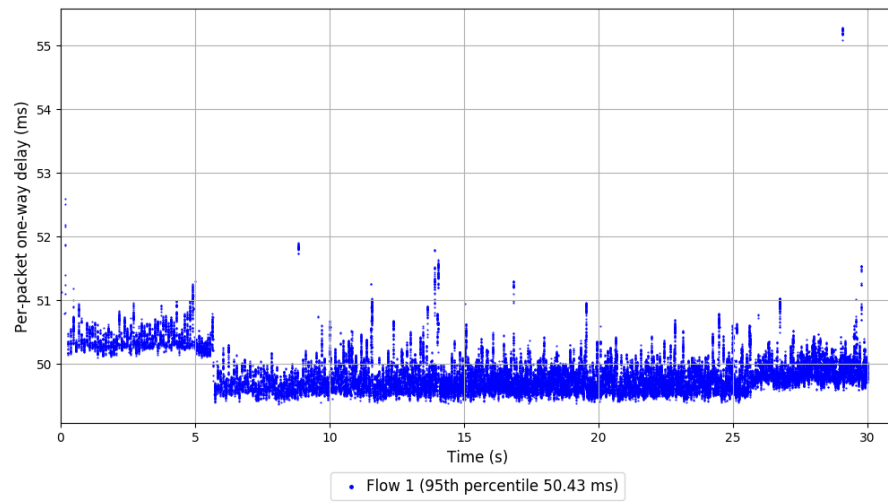
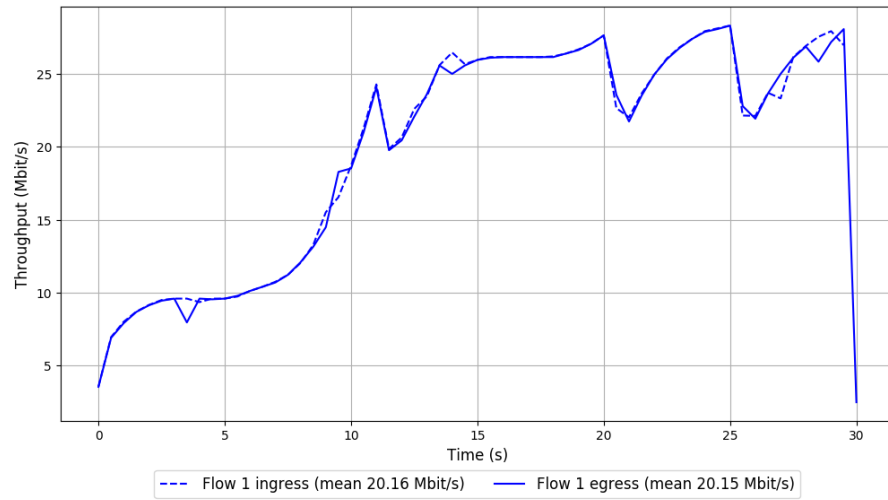
-- Flow 1:

Average throughput: 20.15 Mbit/s

95th percentile per-packet one-way delay: 50.432 ms

Loss rate: 0.06%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-05 13:42:12

End at: 2017-12-05 13:42:42

Below is generated by plot.py at 2017-12-05 15:40:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 58.341 ms

Loss rate: 0.02%

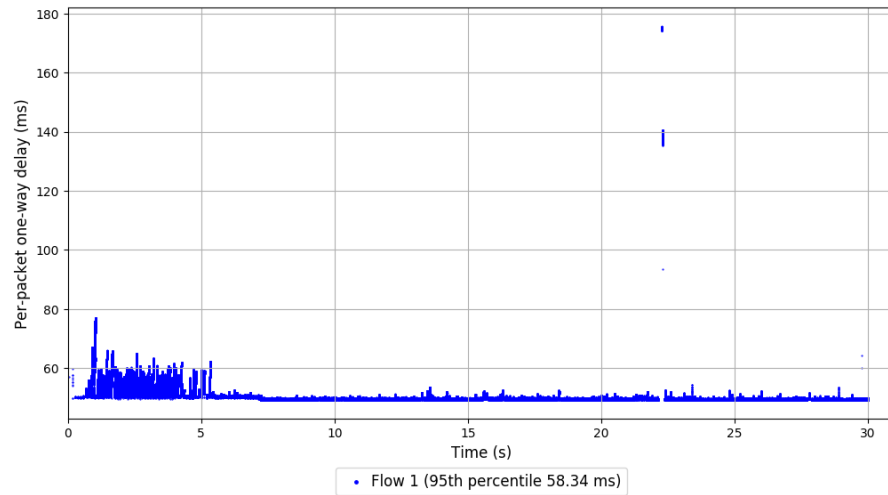
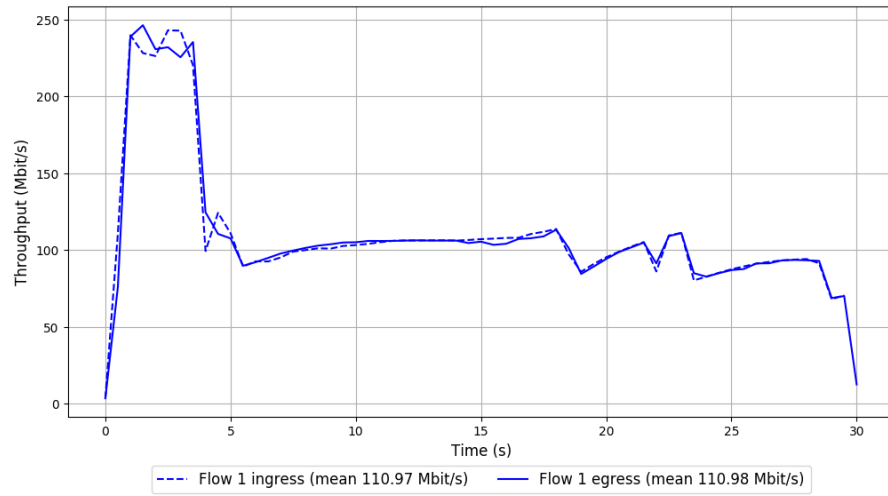
-- Flow 1:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 58.341 ms

Loss rate: 0.02%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-05 13:52:37

End at: 2017-12-05 13:53:07

Below is generated by plot.py at 2017-12-05 15:41:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 151.49 Mbit/s

95th percentile per-packet one-way delay: 53.395 ms

Loss rate: 0.00%

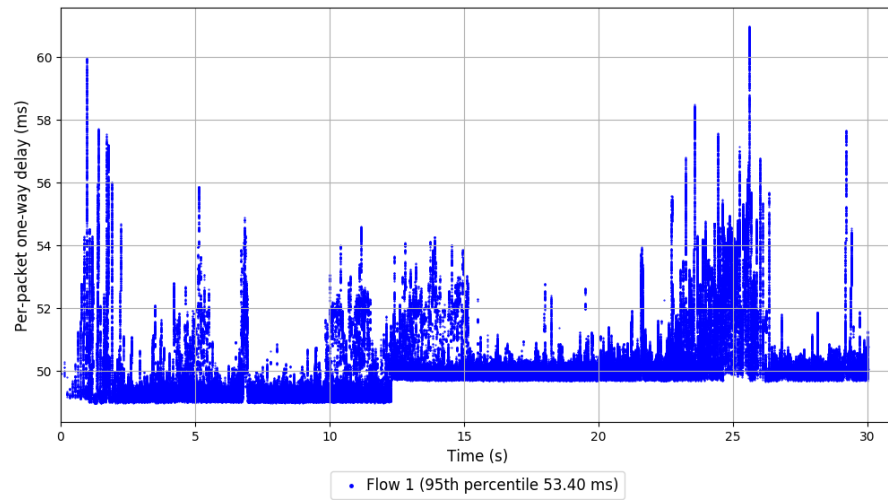
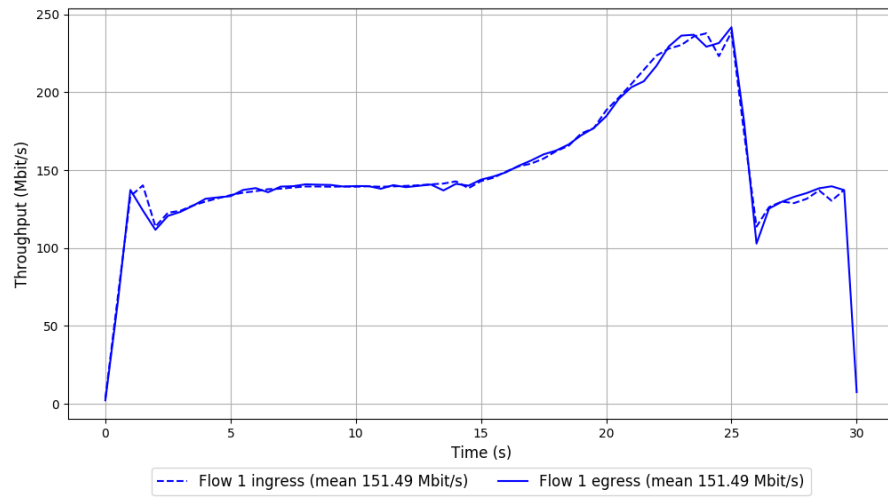
-- Flow 1:

Average throughput: 151.49 Mbit/s

95th percentile per-packet one-way delay: 53.395 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-05 14:03:03

End at: 2017-12-05 14:03:33

Below is generated by plot.py at 2017-12-05 15:41:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 124.39 Mbit/s

95th percentile per-packet one-way delay: 58.035 ms

Loss rate: 0.01%

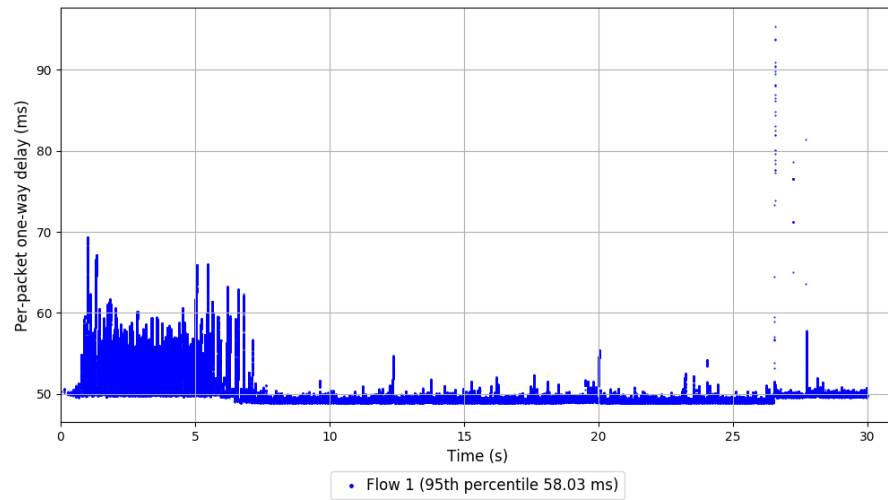
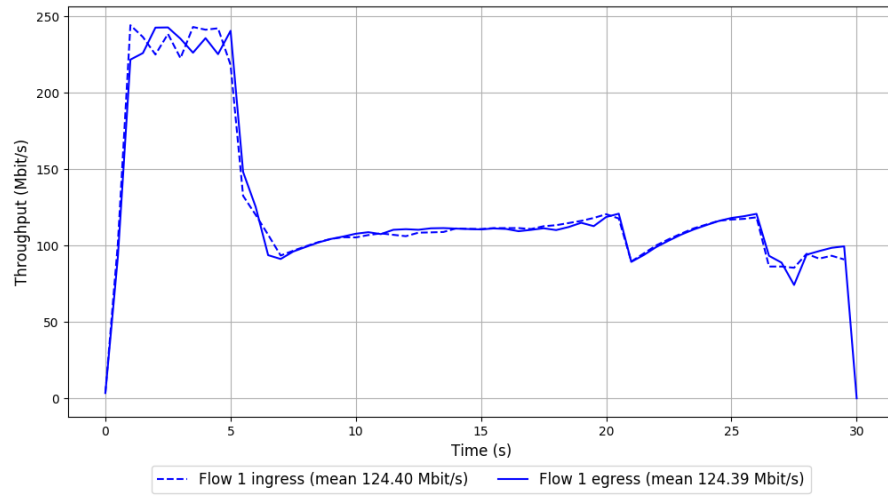
-- Flow 1:

Average throughput: 124.39 Mbit/s

95th percentile per-packet one-way delay: 58.035 ms

Loss rate: 0.01%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-05 14:13:31

End at: 2017-12-05 14:14:01

Below is generated by plot.py at 2017-12-05 15:41:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 158.23 Mbit/s

95th percentile per-packet one-way delay: 52.652 ms

Loss rate: 0.00%

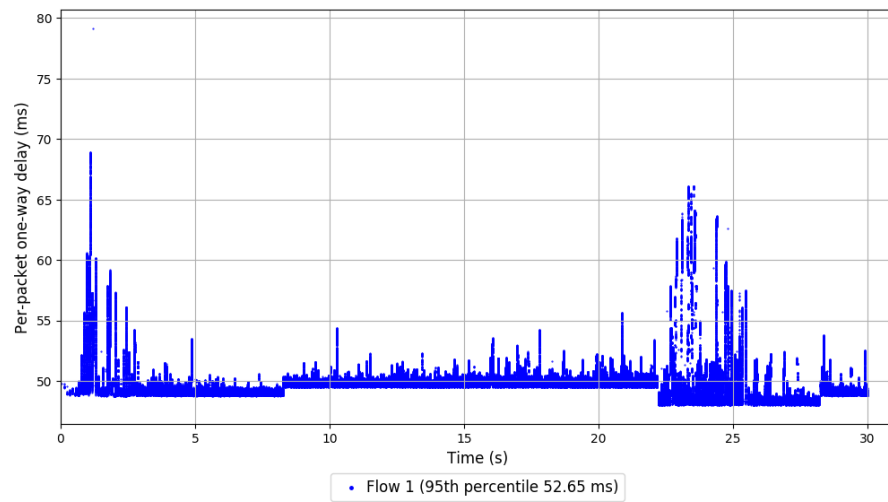
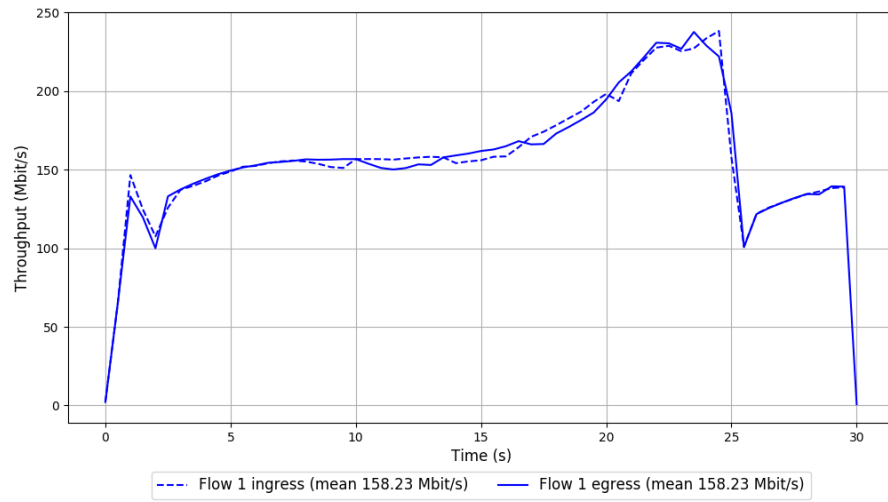
-- Flow 1:

Average throughput: 158.23 Mbit/s

95th percentile per-packet one-way delay: 52.652 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-05 14:24:00

End at: 2017-12-05 14:24:30

Below is generated by plot.py at 2017-12-05 15:41:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 109.42 Mbit/s

95th percentile per-packet one-way delay: 54.658 ms

Loss rate: 0.01%

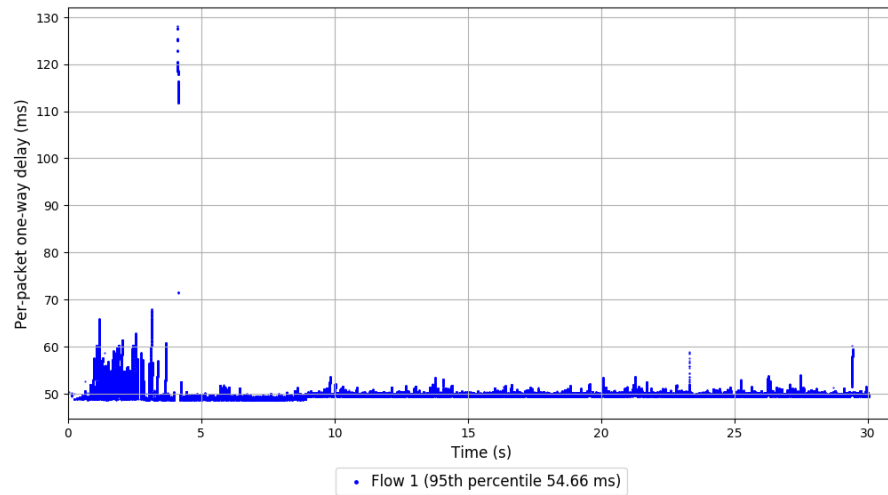
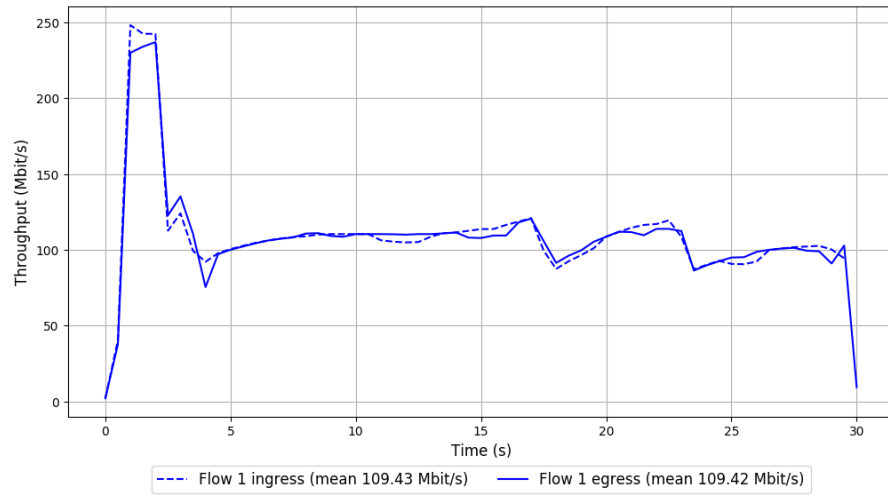
-- Flow 1:

Average throughput: 109.42 Mbit/s

95th percentile per-packet one-way delay: 54.658 ms

Loss rate: 0.01%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-05 14:34:21

End at: 2017-12-05 14:34:51

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 135.19 Mbit/s

95th percentile per-packet one-way delay: 55.649 ms

Loss rate: 0.01%

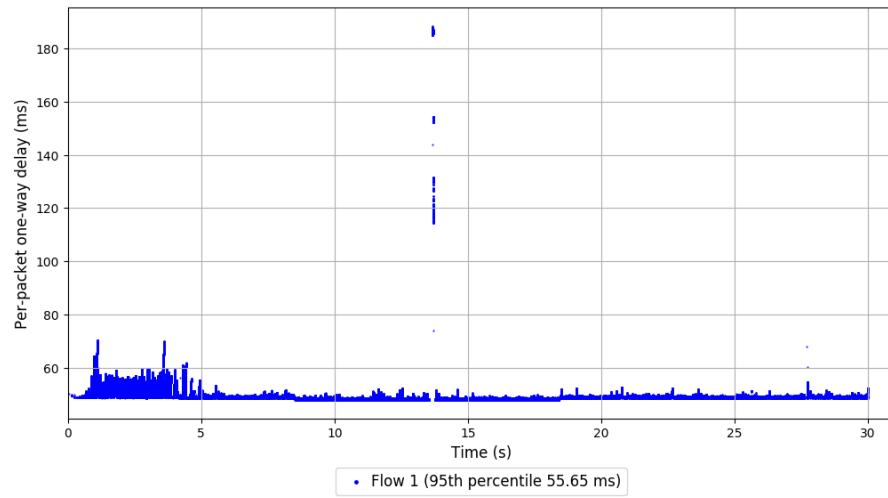
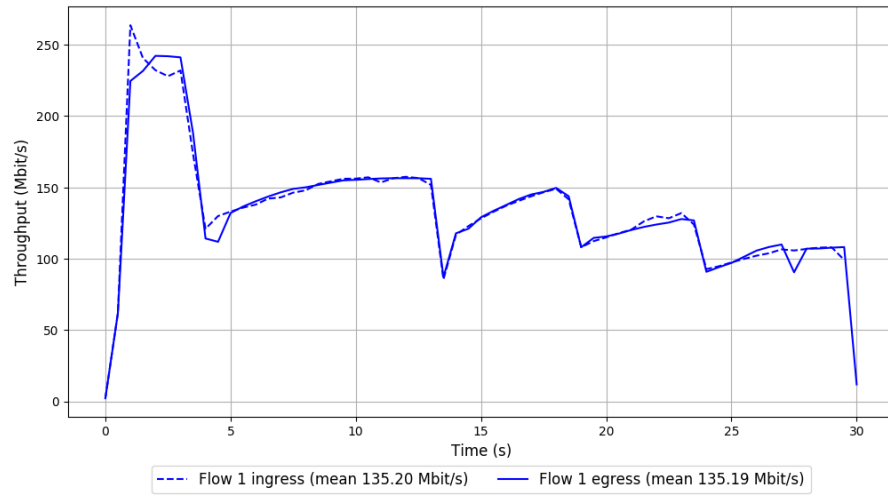
-- Flow 1:

Average throughput: 135.19 Mbit/s

95th percentile per-packet one-way delay: 55.649 ms

Loss rate: 0.01%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-05 14:44:41

End at: 2017-12-05 14:45:11

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 99.38 Mbit/s

95th percentile per-packet one-way delay: 57.611 ms

Loss rate: 0.02%

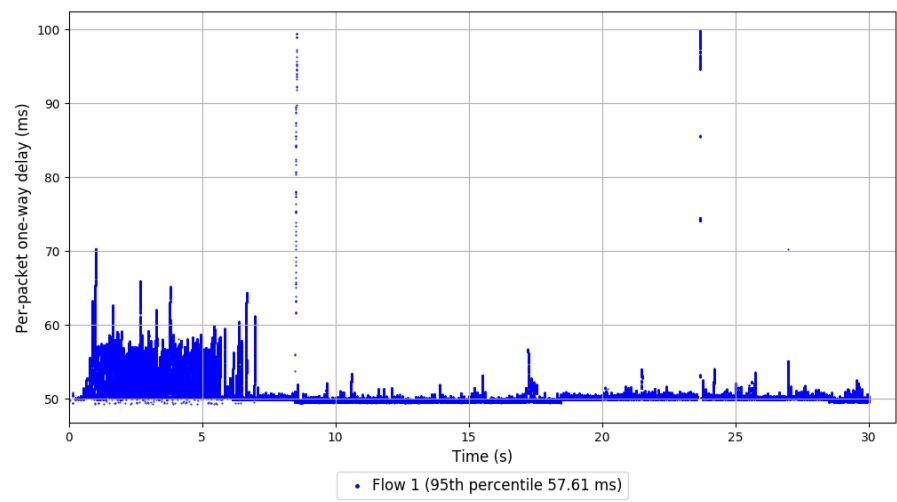
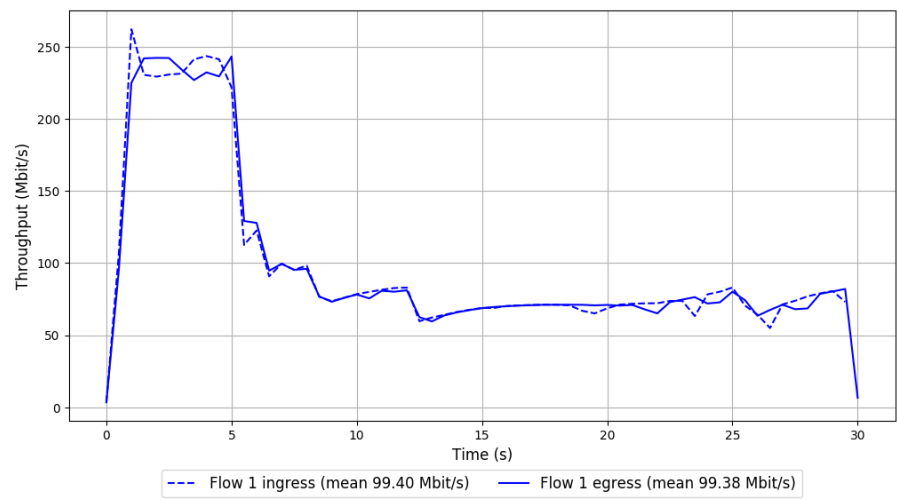
-- Flow 1:

Average throughput: 99.38 Mbit/s

95th percentile per-packet one-way delay: 57.611 ms

Loss rate: 0.02%

Run 10: Report of TCP Cubic — Data Link

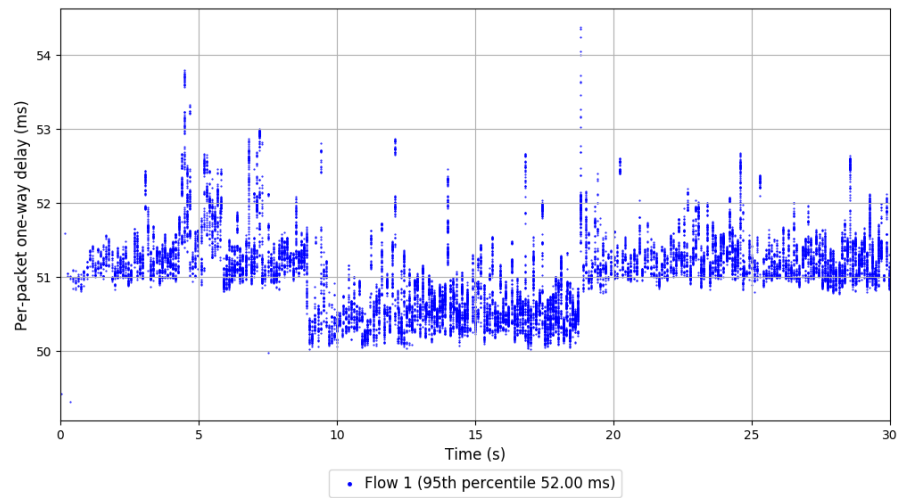
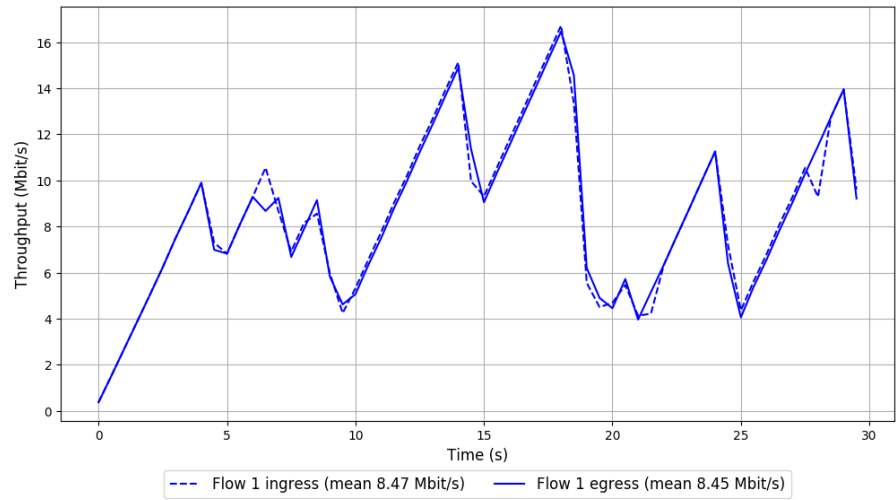


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-05 13:09:11
End at: 2017-12-05 13:09:41

# Below is generated by plot.py at 2017-12-05 15:42:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 51.998 ms
Loss rate: 0.25%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 51.998 ms
Loss rate: 0.25%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2017-12-05 13:19:28

End at: 2017-12-05 13:19:58

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.23 Mbit/s

95th percentile per-packet one-way delay: 51.247 ms

Loss rate: 0.46%

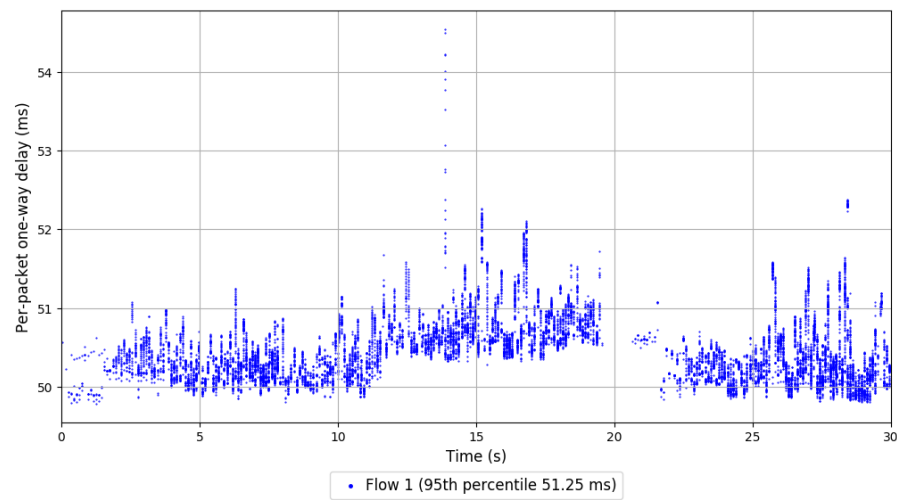
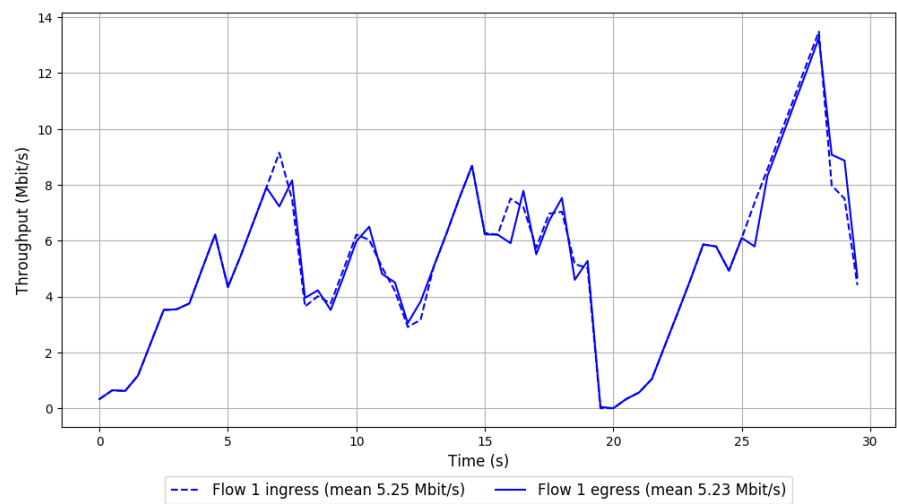
-- Flow 1:

Average throughput: 5.23 Mbit/s

95th percentile per-packet one-way delay: 51.247 ms

Loss rate: 0.46%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-05 13:29:50

End at: 2017-12-05 13:30:20

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.74 Mbit/s

95th percentile per-packet one-way delay: 51.178 ms

Loss rate: 0.07%

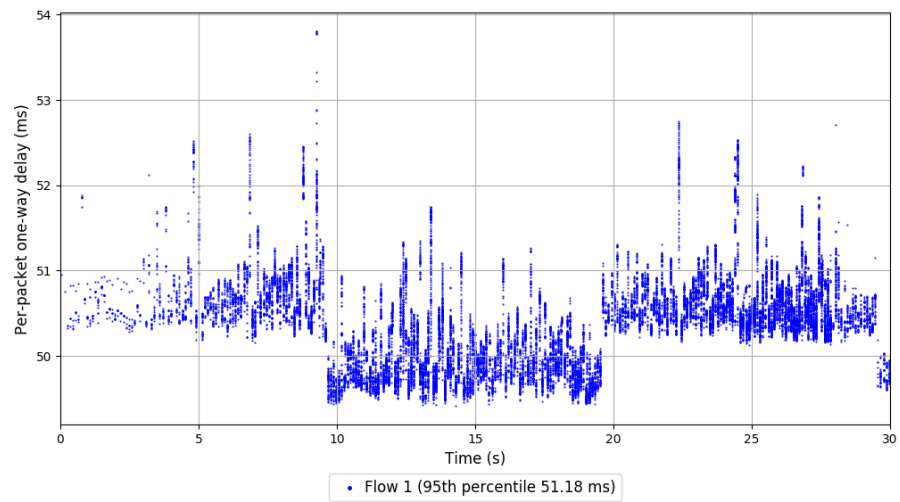
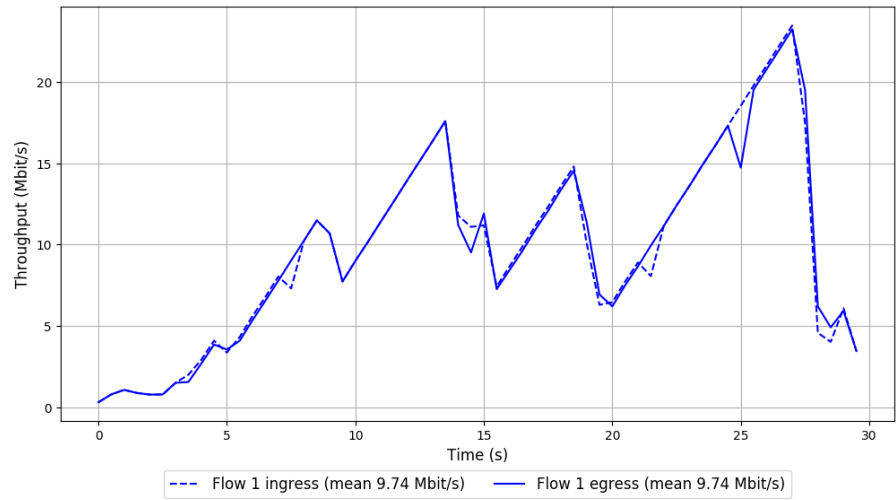
-- Flow 1:

Average throughput: 9.74 Mbit/s

95th percentile per-packet one-way delay: 51.178 ms

Loss rate: 0.07%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-05 13:40:12

End at: 2017-12-05 13:40:42

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 50.723 ms

Loss rate: 0.39%

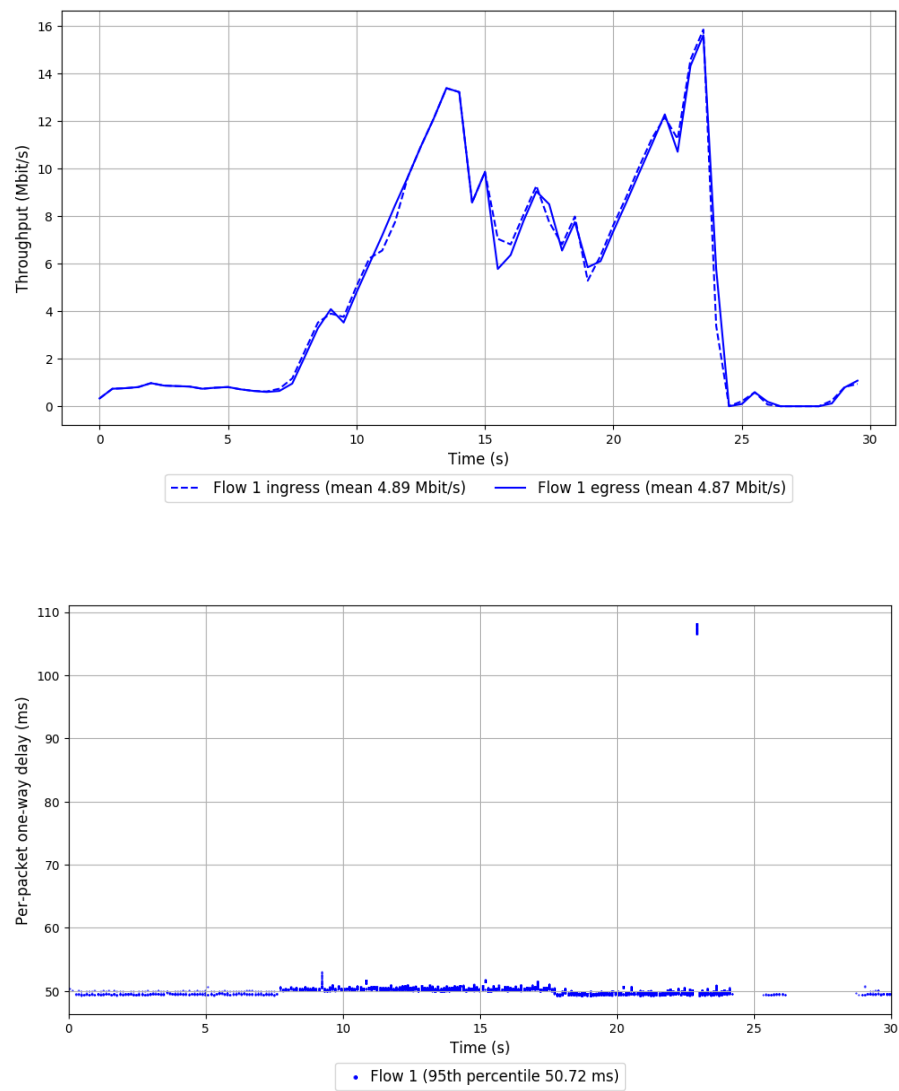
-- Flow 1:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 50.723 ms

Loss rate: 0.39%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-05 13:50:34

End at: 2017-12-05 13:51:04

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.76 Mbit/s

95th percentile per-packet one-way delay: 50.337 ms

Loss rate: 0.06%

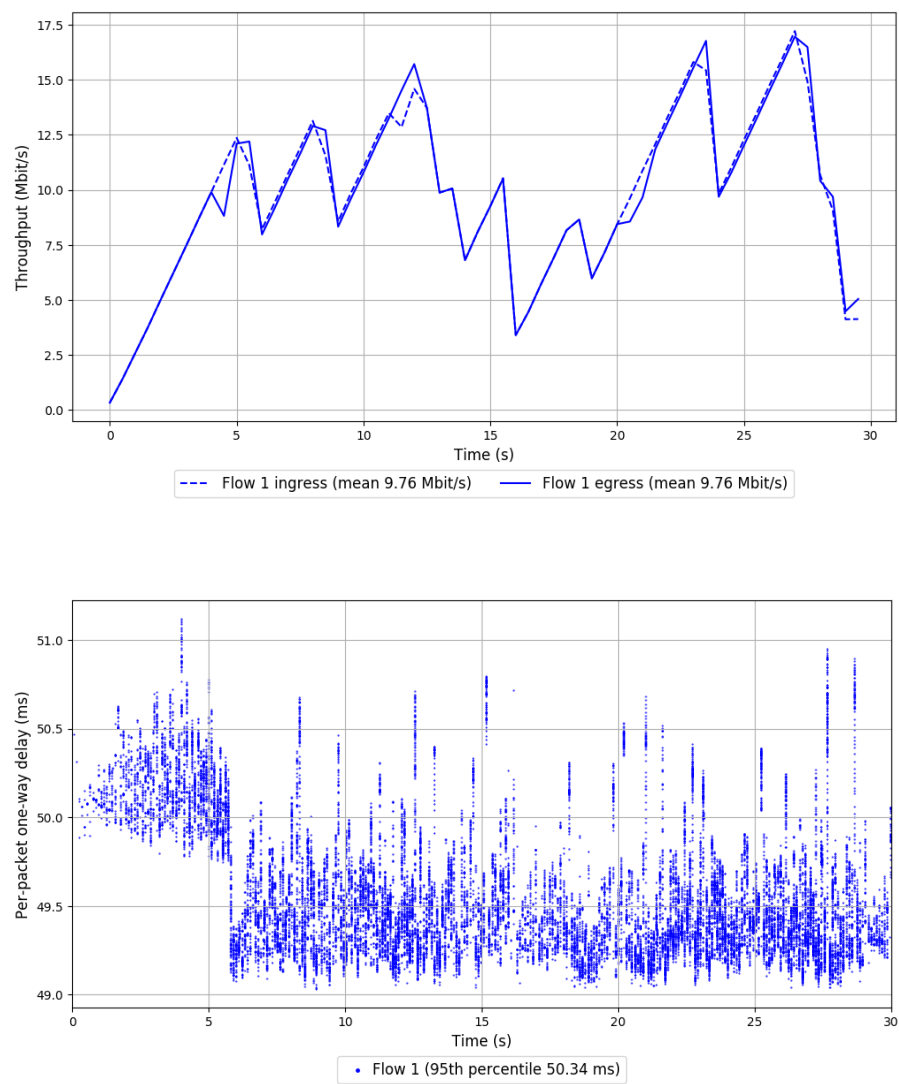
-- Flow 1:

Average throughput: 9.76 Mbit/s

95th percentile per-packet one-way delay: 50.337 ms

Loss rate: 0.06%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-05 14:00:59

End at: 2017-12-05 14:01:29

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 50.480 ms

Loss rate: 0.09%

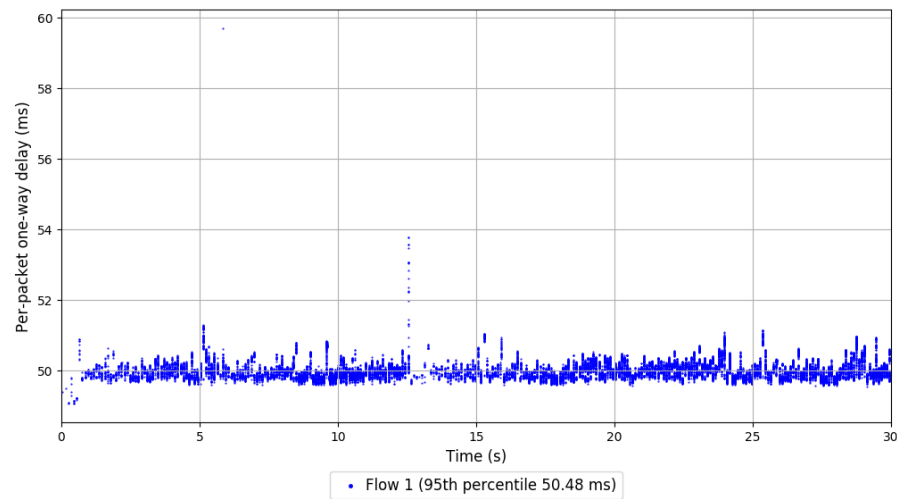
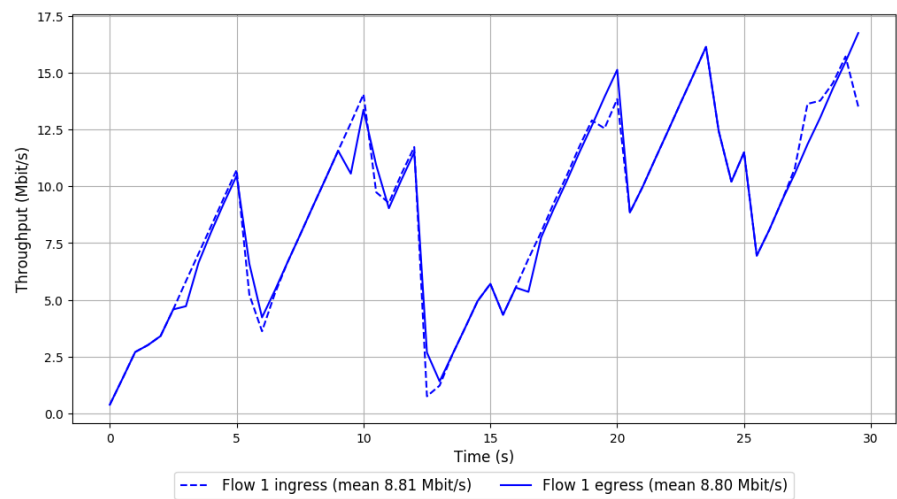
-- Flow 1:

Average throughput: 8.80 Mbit/s

95th percentile per-packet one-way delay: 50.480 ms

Loss rate: 0.09%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-05 14:11:27

End at: 2017-12-05 14:11:57

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 50.572 ms

Loss rate: 0.04%

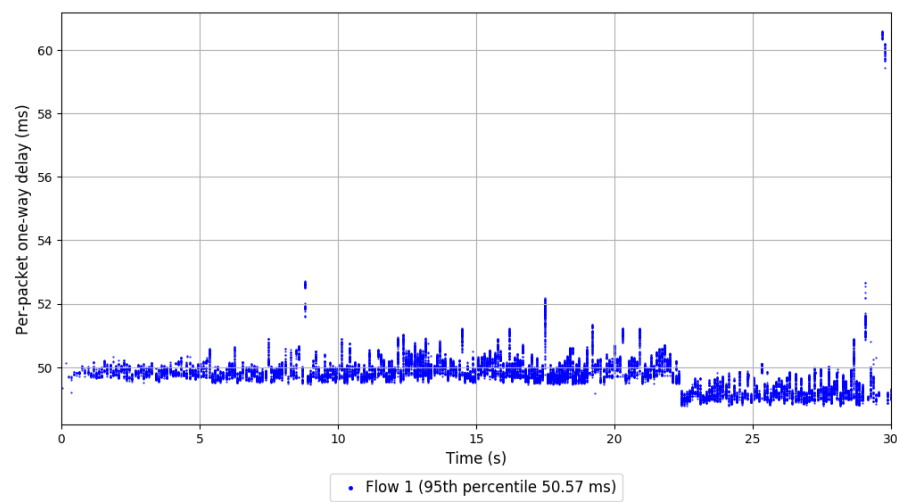
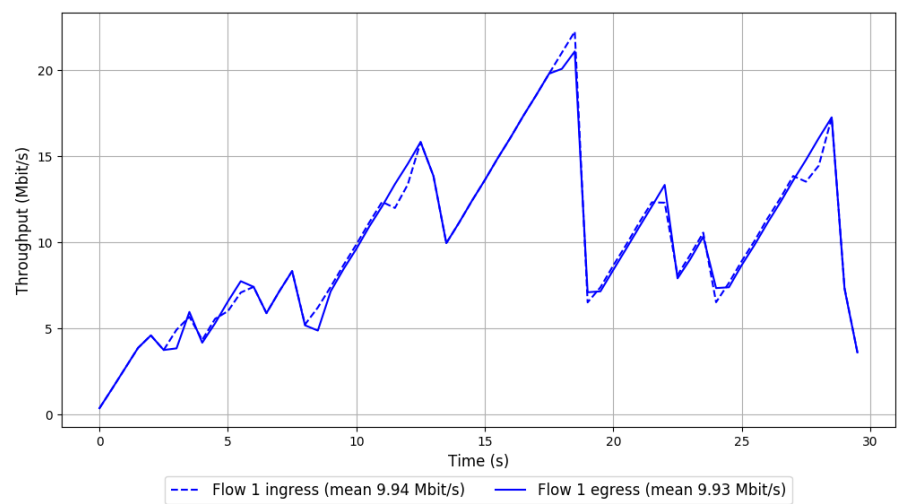
-- Flow 1:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 50.572 ms

Loss rate: 0.04%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-05 14:21:56

End at: 2017-12-05 14:22:26

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 49.573 ms

Loss rate: 0.04%

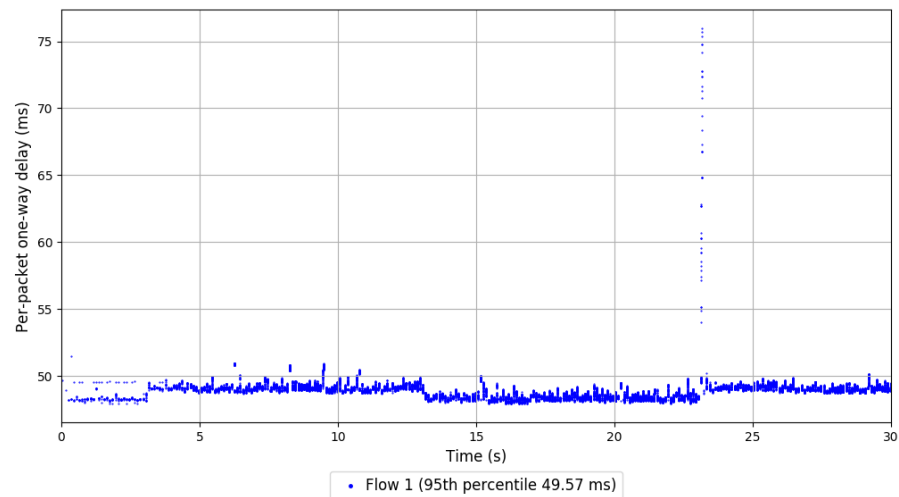
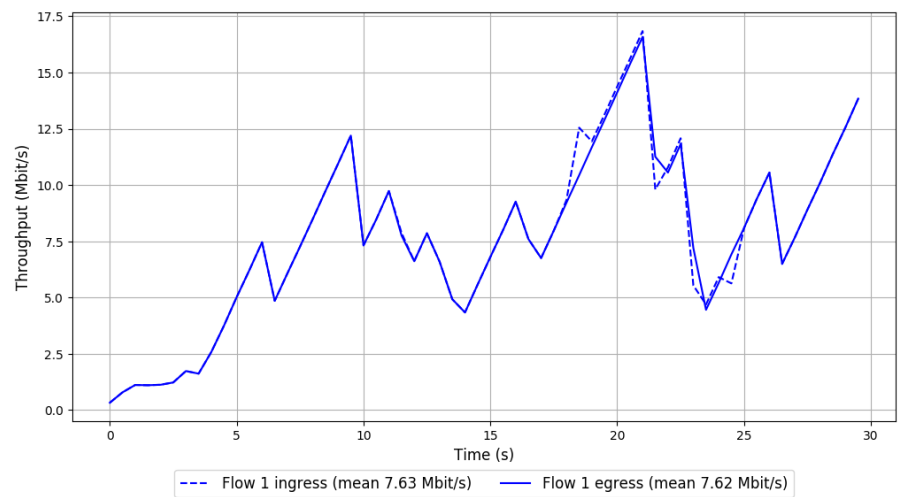
-- Flow 1:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 49.573 ms

Loss rate: 0.04%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-05 14:32:18

End at: 2017-12-05 14:32:48

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.03 Mbit/s

95th percentile per-packet one-way delay: 50.078 ms

Loss rate: 0.11%

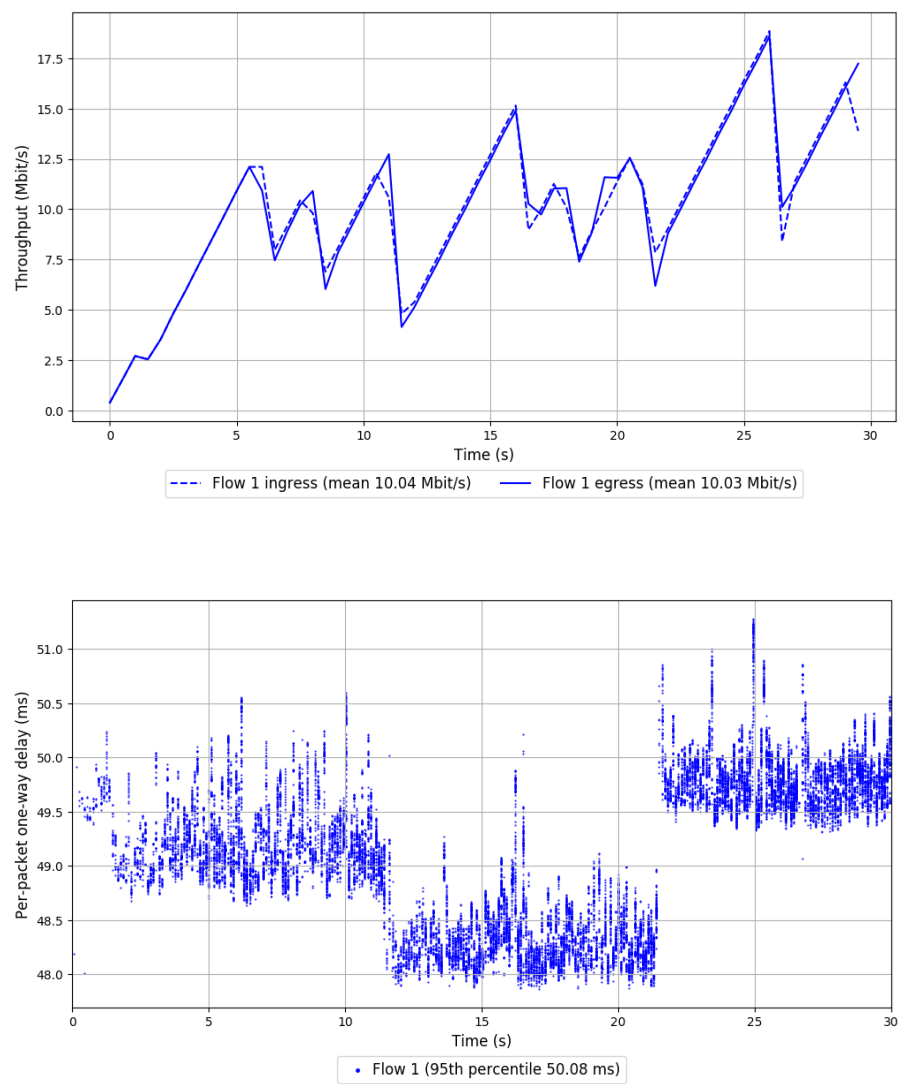
-- Flow 1:

Average throughput: 10.03 Mbit/s

95th percentile per-packet one-way delay: 50.078 ms

Loss rate: 0.11%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2017-12-05 14:42:38

End at: 2017-12-05 14:43:08

Below is generated by plot.py at 2017-12-05 15:42:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 8.29 Mbit/s

95th percentile per-packet one-way delay: 50.625 ms

Loss rate: 0.12%

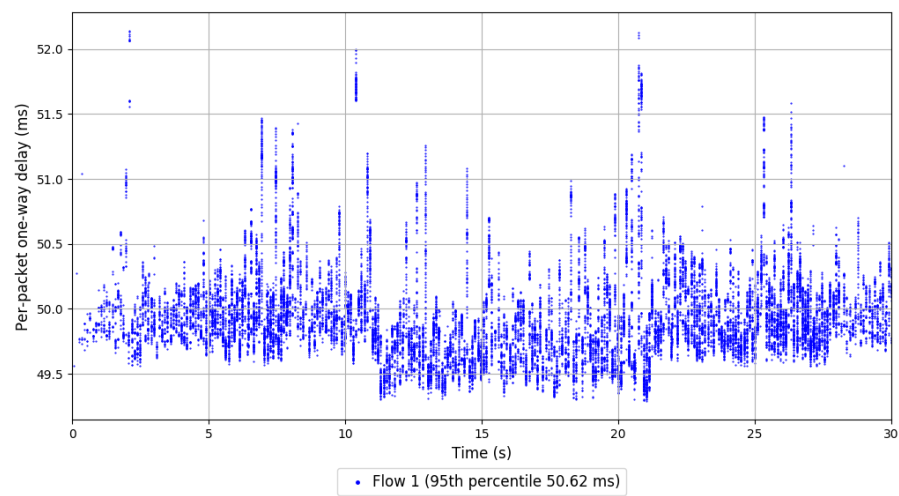
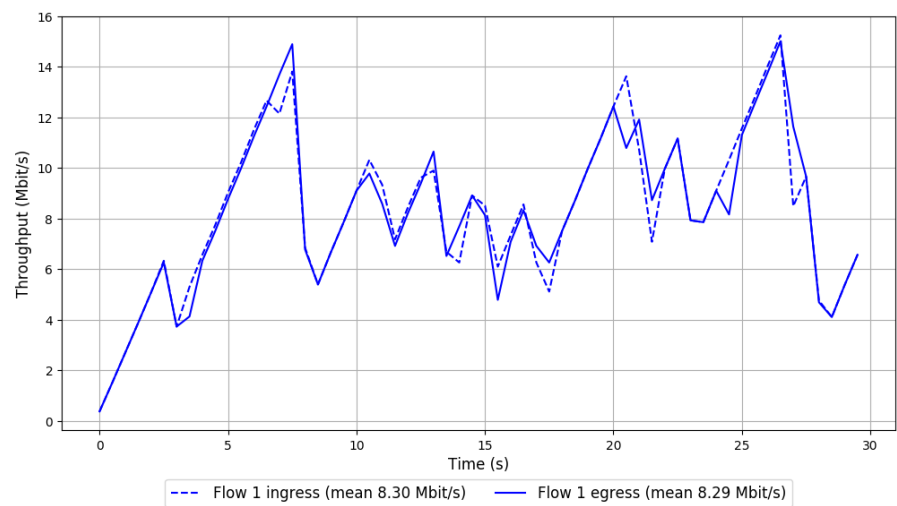
-- Flow 1:

Average throughput: 8.29 Mbit/s

95th percentile per-packet one-way delay: 50.625 ms

Loss rate: 0.12%

Run 10: Report of LEDBAT — Data Link

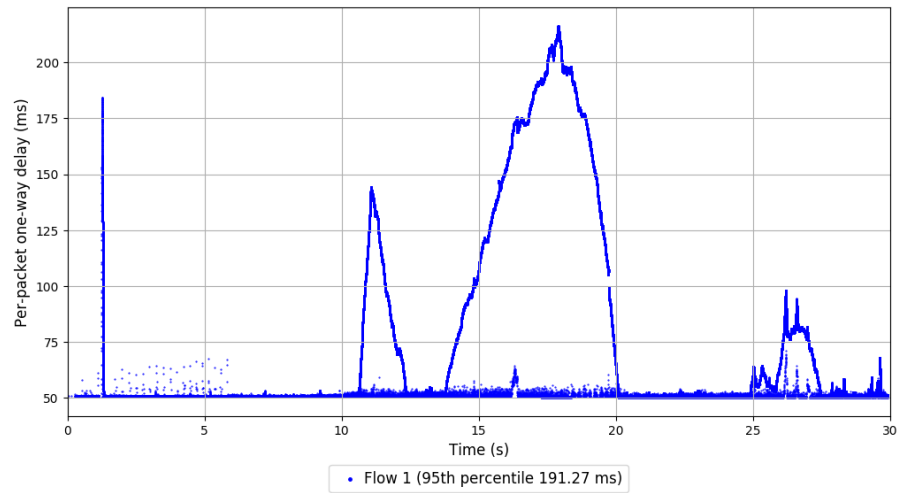
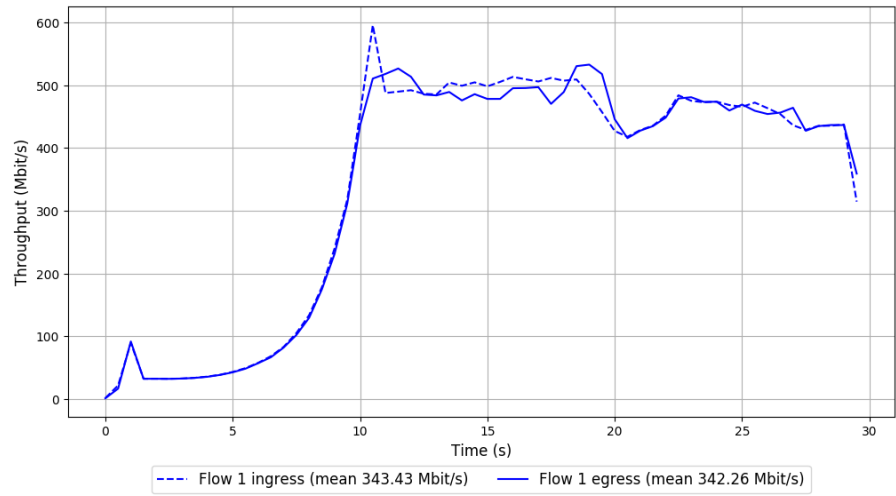


```
Run 1: Statistics of PCC

Start at: 2017-12-05 13:05:03
End at: 2017-12-05 13:05:33

# Below is generated by plot.py at 2017-12-05 15:47:26
# Datalink statistics
-- Total of 1 flow:
Average throughput: 342.26 Mbit/s
95th percentile per-packet one-way delay: 191.273 ms
Loss rate: 0.34%
-- Flow 1:
Average throughput: 342.26 Mbit/s
95th percentile per-packet one-way delay: 191.273 ms
Loss rate: 0.34%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-05 13:15:13

End at: 2017-12-05 13:15:43

Below is generated by plot.py at 2017-12-05 15:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 461.06 Mbit/s

95th percentile per-packet one-way delay: 158.983 ms

Loss rate: 0.46%

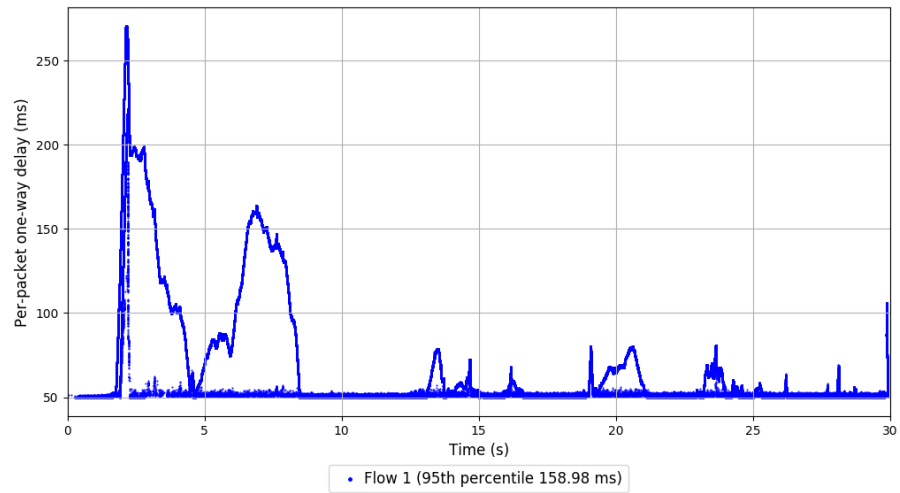
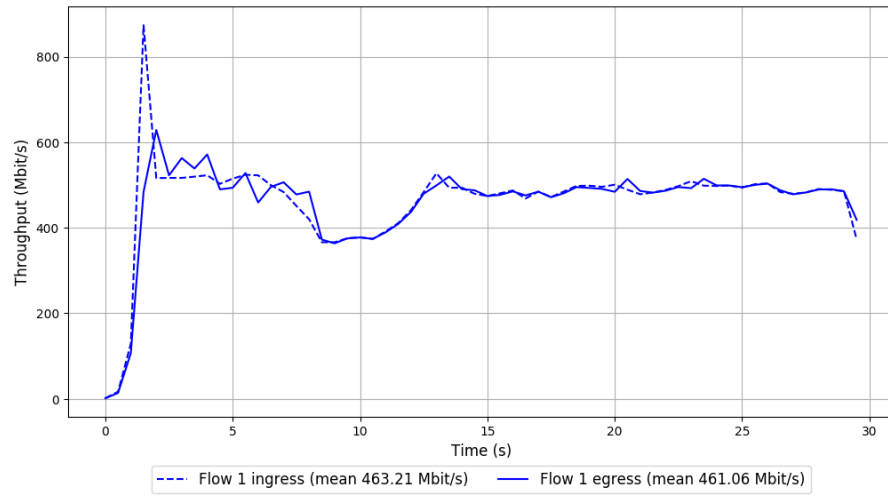
-- Flow 1:

Average throughput: 461.06 Mbit/s

95th percentile per-packet one-way delay: 158.983 ms

Loss rate: 0.46%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-05 13:25:40

End at: 2017-12-05 13:26:10

Below is generated by plot.py at 2017-12-05 15:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 408.45 Mbit/s

95th percentile per-packet one-way delay: 157.543 ms

Loss rate: 0.16%

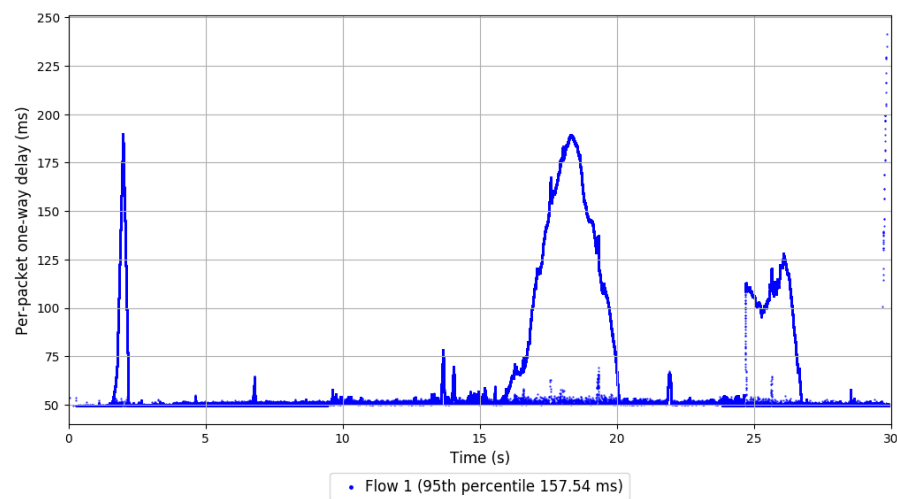
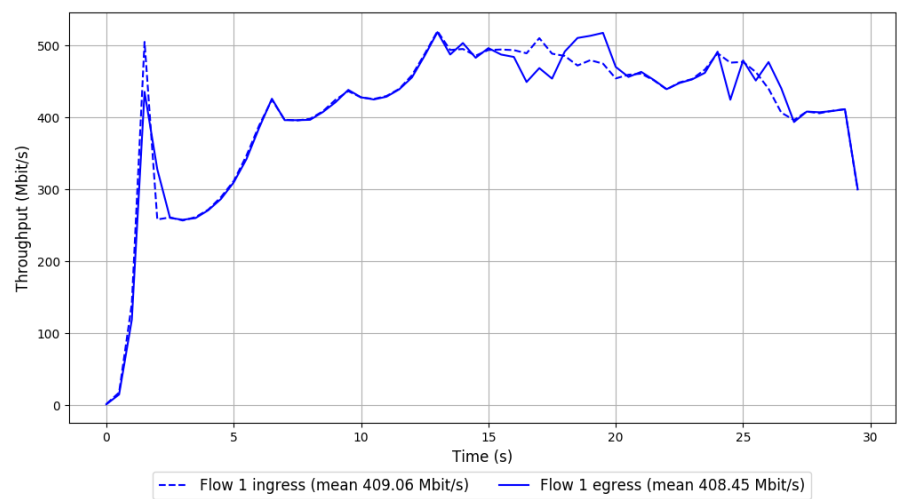
-- Flow 1:

Average throughput: 408.45 Mbit/s

95th percentile per-packet one-way delay: 157.543 ms

Loss rate: 0.16%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-05 13:35:58

End at: 2017-12-05 13:36:28

Below is generated by plot.py at 2017-12-05 15:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 422.87 Mbit/s

95th percentile per-packet one-way delay: 198.391 ms

Loss rate: 0.26%

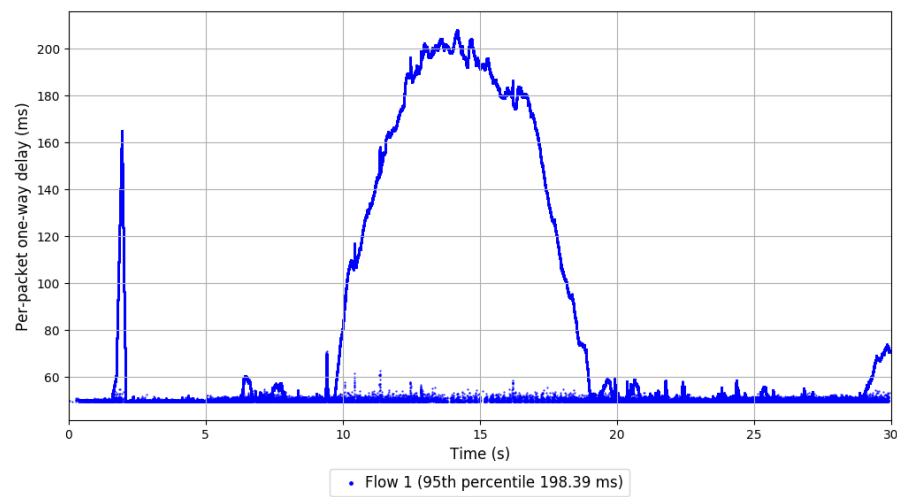
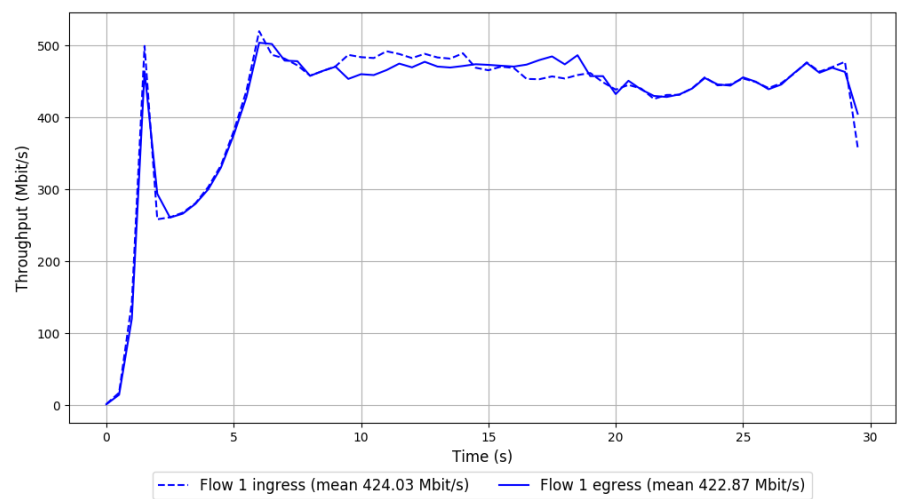
-- Flow 1:

Average throughput: 422.87 Mbit/s

95th percentile per-packet one-way delay: 198.391 ms

Loss rate: 0.26%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-05 13:46:22

End at: 2017-12-05 13:46:52

Below is generated by plot.py at 2017-12-05 15:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 430.34 Mbit/s

95th percentile per-packet one-way delay: 201.046 ms

Loss rate: 0.77%

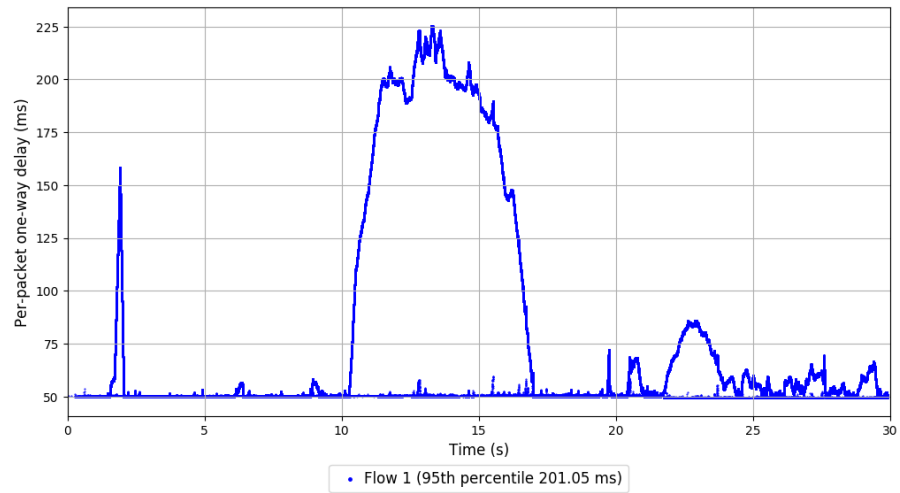
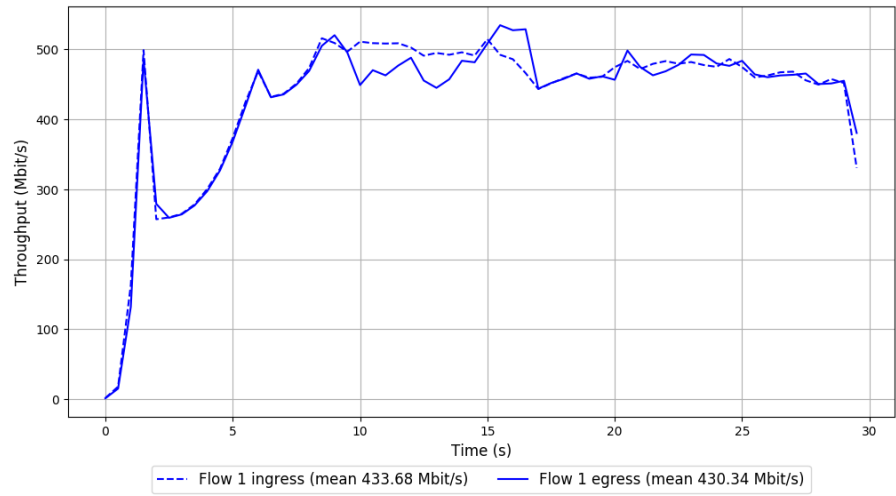
-- Flow 1:

Average throughput: 430.34 Mbit/s

95th percentile per-packet one-way delay: 201.046 ms

Loss rate: 0.77%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-05 13:56:47

End at: 2017-12-05 13:57:17

Below is generated by plot.py at 2017-12-05 15:49:06

Datalink statistics

-- Total of 1 flow:

Average throughput: 427.55 Mbit/s

95th percentile per-packet one-way delay: 118.235 ms

Loss rate: 0.03%

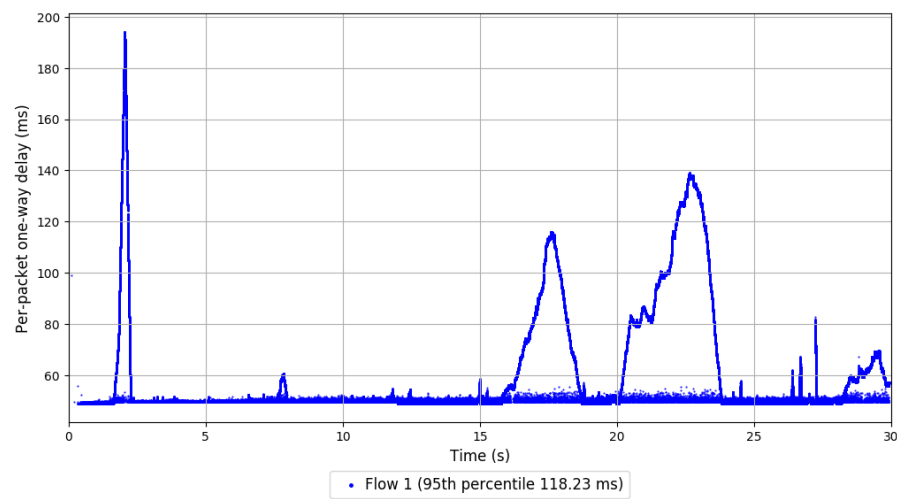
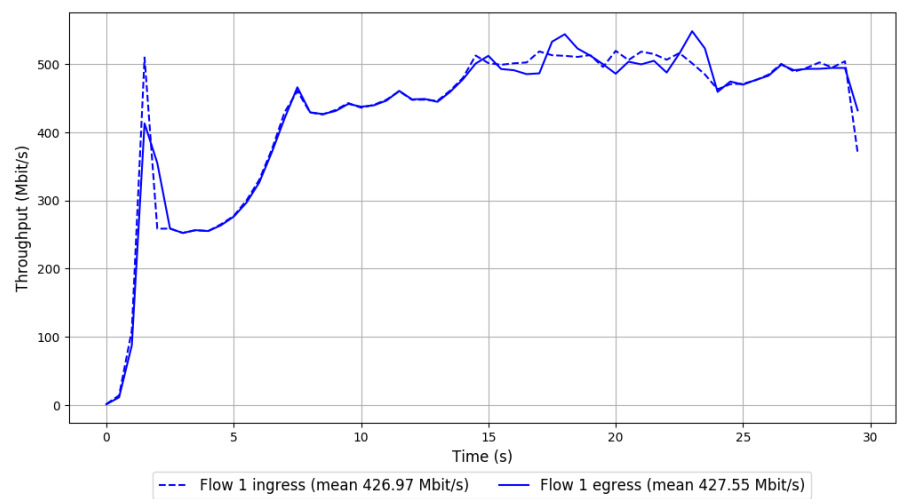
-- Flow 1:

Average throughput: 427.55 Mbit/s

95th percentile per-packet one-way delay: 118.235 ms

Loss rate: 0.03%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-05 14:07:13

End at: 2017-12-05 14:07:43

Below is generated by plot.py at 2017-12-05 15:50:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 460.47 Mbit/s

95th percentile per-packet one-way delay: 150.855 ms

Loss rate: 0.34%

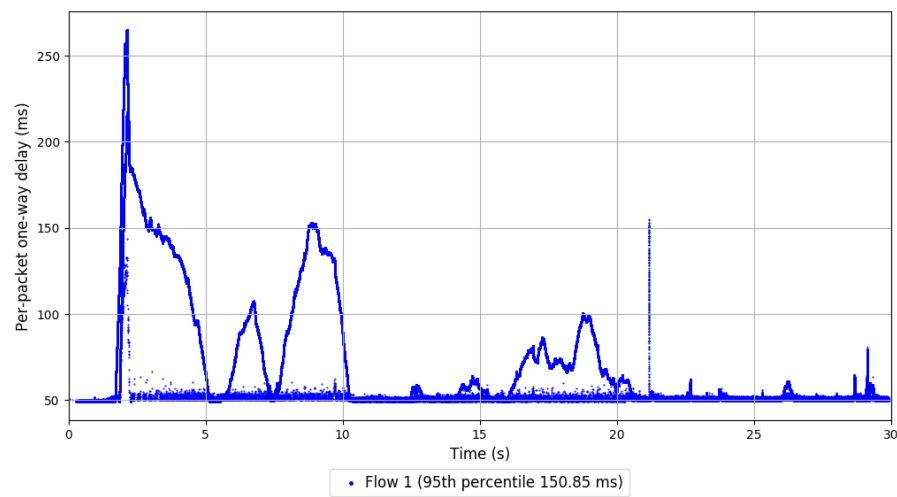
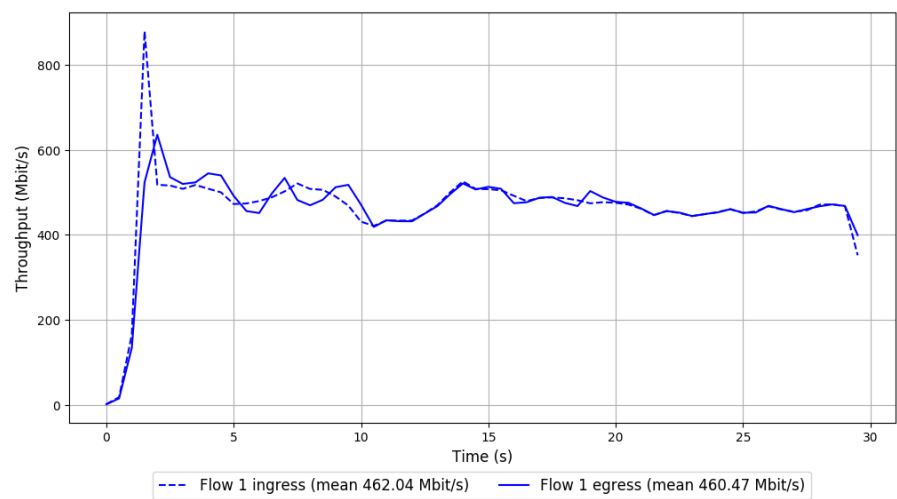
-- Flow 1:

Average throughput: 460.47 Mbit/s

95th percentile per-packet one-way delay: 150.855 ms

Loss rate: 0.34%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-05 14:17:46

End at: 2017-12-05 14:18:16

Below is generated by plot.py at 2017-12-05 15:50:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 436.71 Mbit/s

95th percentile per-packet one-way delay: 192.668 ms

Loss rate: 0.75%

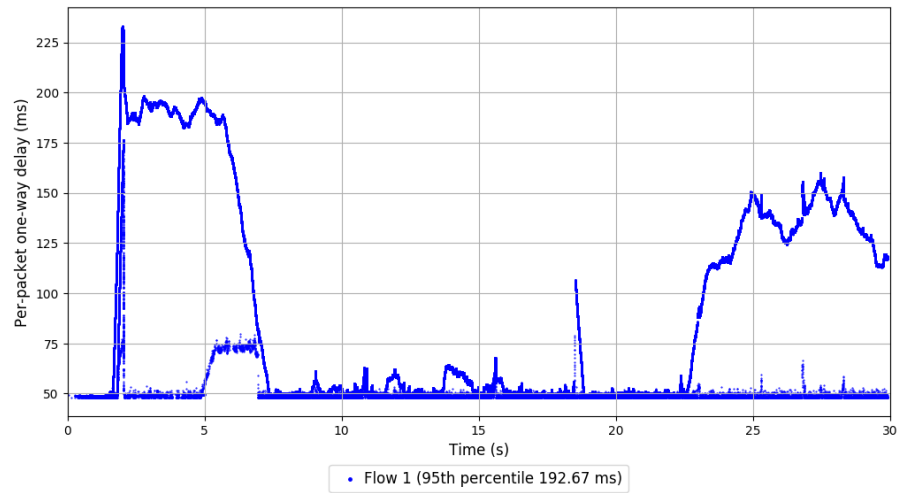
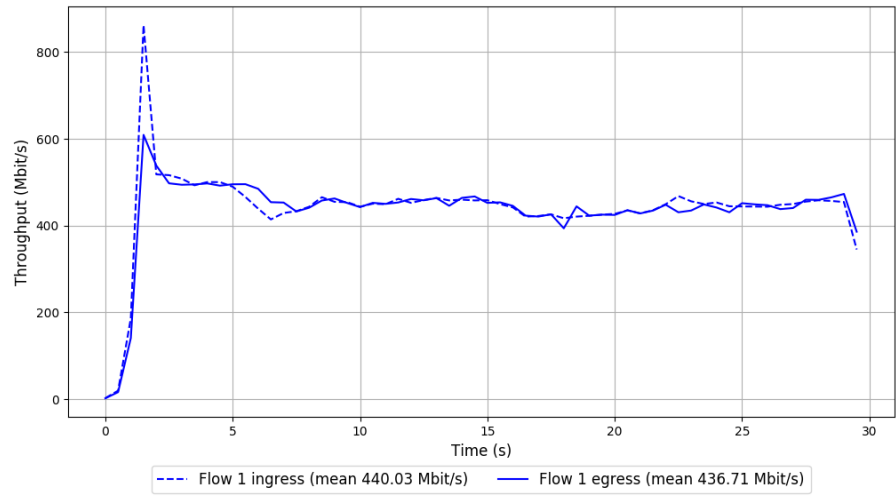
-- Flow 1:

Average throughput: 436.71 Mbit/s

95th percentile per-packet one-way delay: 192.668 ms

Loss rate: 0.75%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-05 14:28:08

End at: 2017-12-05 14:28:38

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 478.29 Mbit/s

95th percentile per-packet one-way delay: 147.524 ms

Loss rate: 0.42%

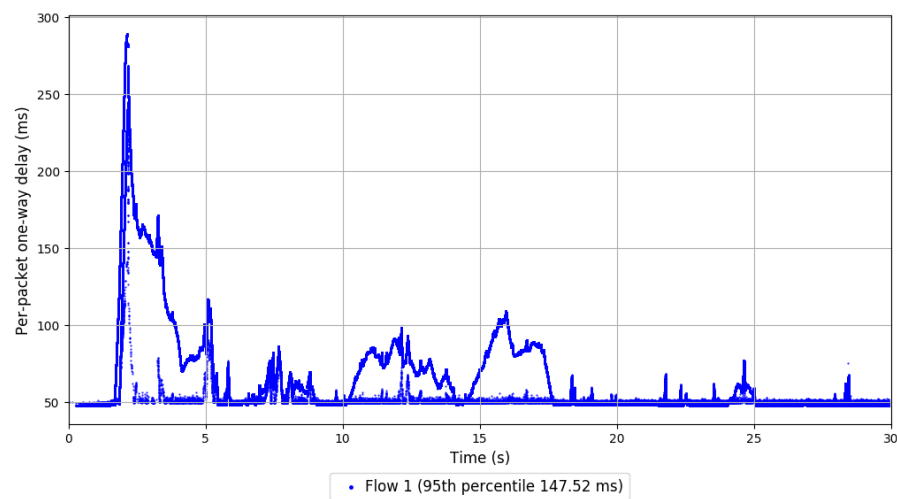
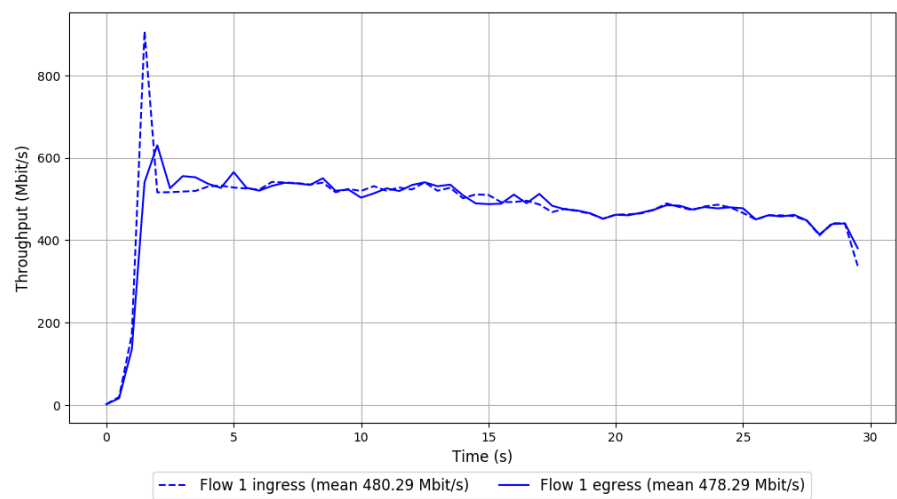
-- Flow 1:

Average throughput: 478.29 Mbit/s

95th percentile per-packet one-way delay: 147.524 ms

Loss rate: 0.42%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-05 14:38:28

End at: 2017-12-05 14:38:58

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 437.43 Mbit/s

95th percentile per-packet one-way delay: 205.747 ms

Loss rate: 1.65%

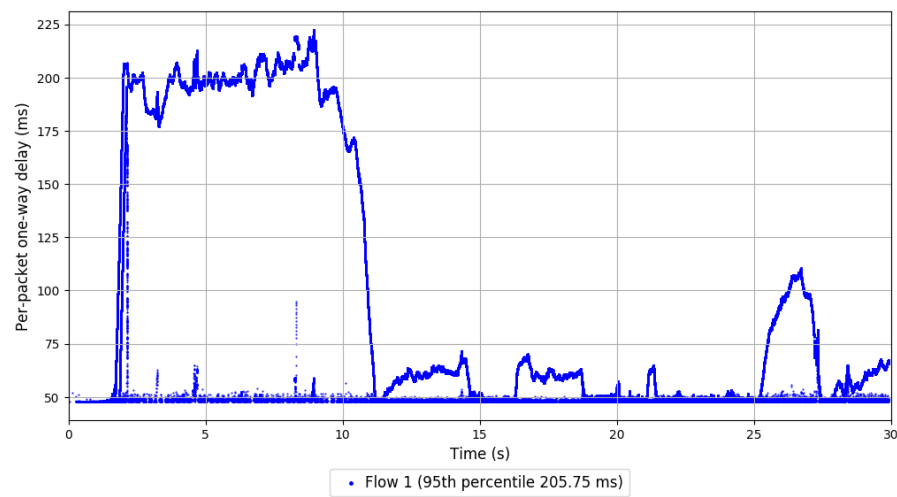
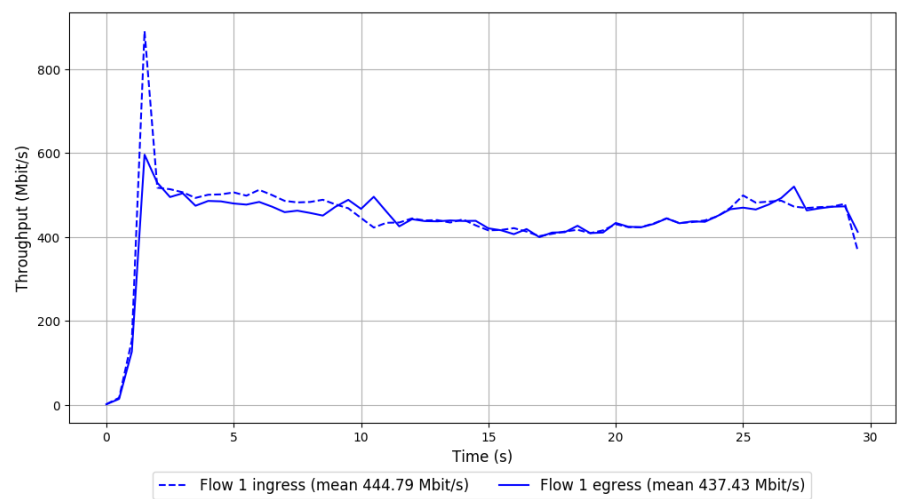
-- Flow 1:

Average throughput: 437.43 Mbit/s

95th percentile per-packet one-way delay: 205.747 ms

Loss rate: 1.65%

Run 10: Report of PCC — Data Link

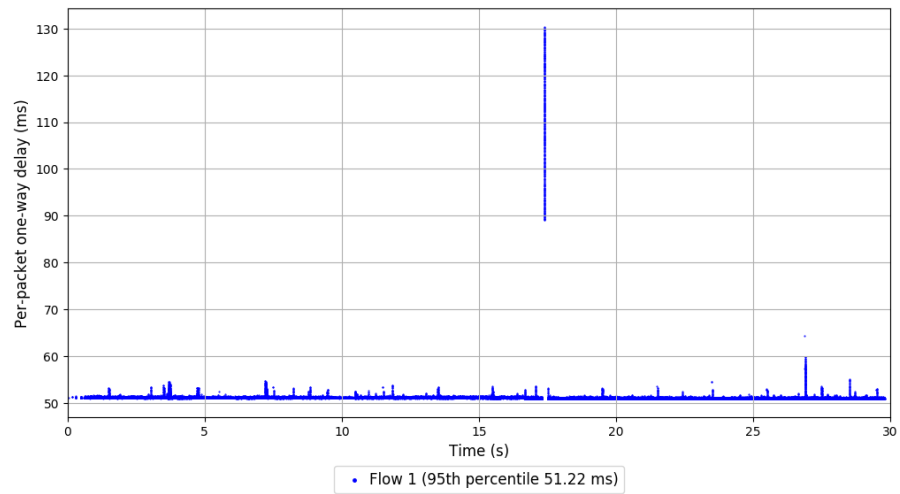
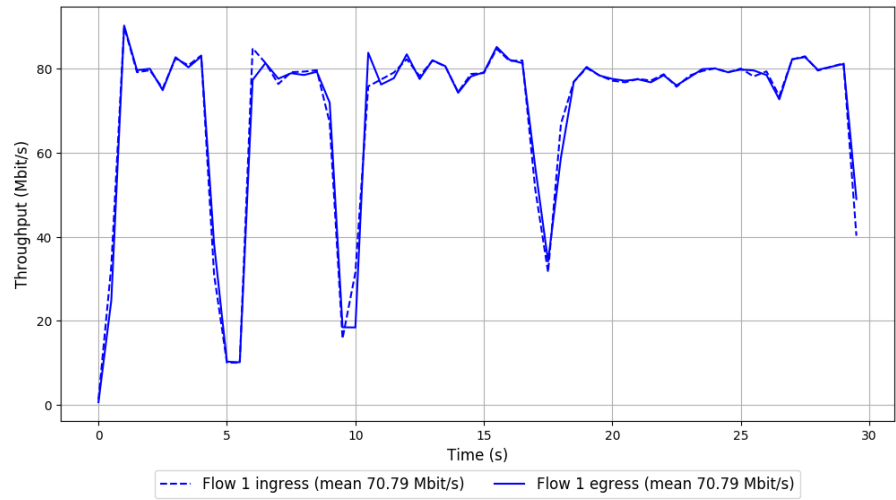


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-05 13:02:17
End at: 2017-12-05 13:02:47

# Below is generated by plot.py at 2017-12-05 15:55:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 51.217 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 70.79 Mbit/s
95th percentile per-packet one-way delay: 51.217 ms
Loss rate: 0.00%
```

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-05 13:12:36

End at: 2017-12-05 13:13:06

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 44.61 Mbit/s

95th percentile per-packet one-way delay: 50.645 ms

Loss rate: 0.00%

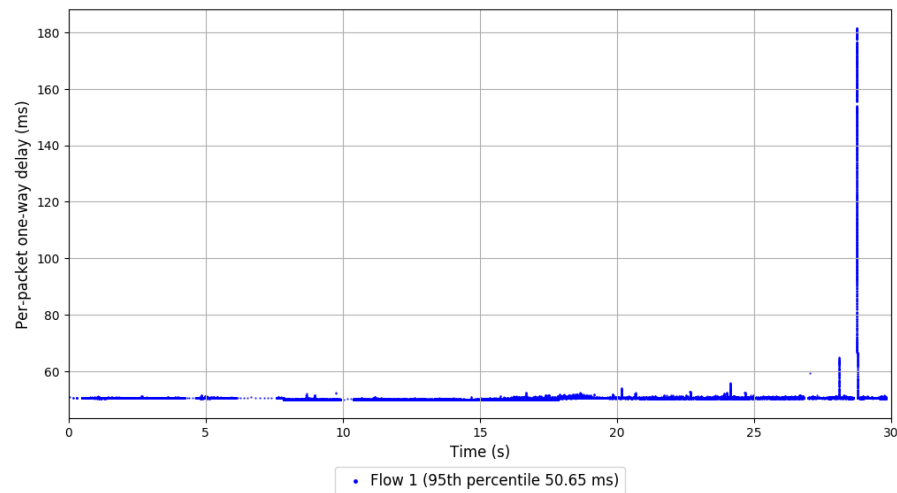
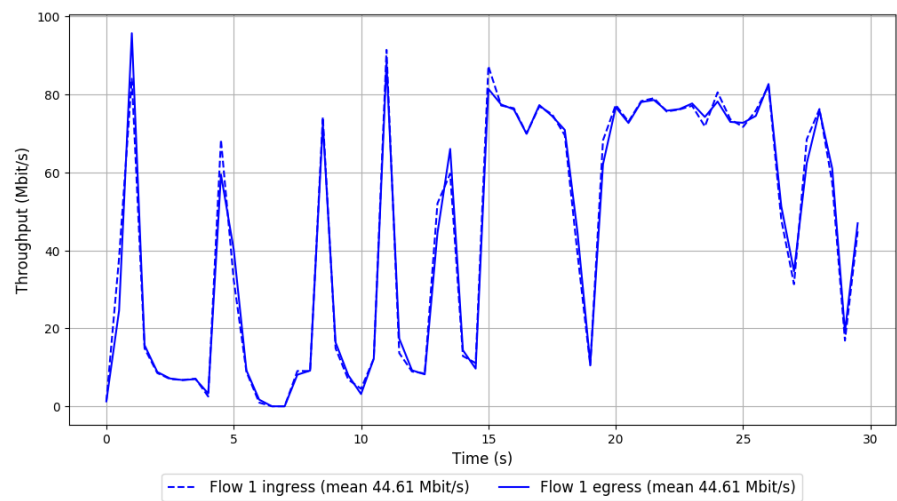
-- Flow 1:

Average throughput: 44.61 Mbit/s

95th percentile per-packet one-way delay: 50.645 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-05 13:22:55

End at: 2017-12-05 13:23:25

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 62.42 Mbit/s

95th percentile per-packet one-way delay: 50.350 ms

Loss rate: 0.00%

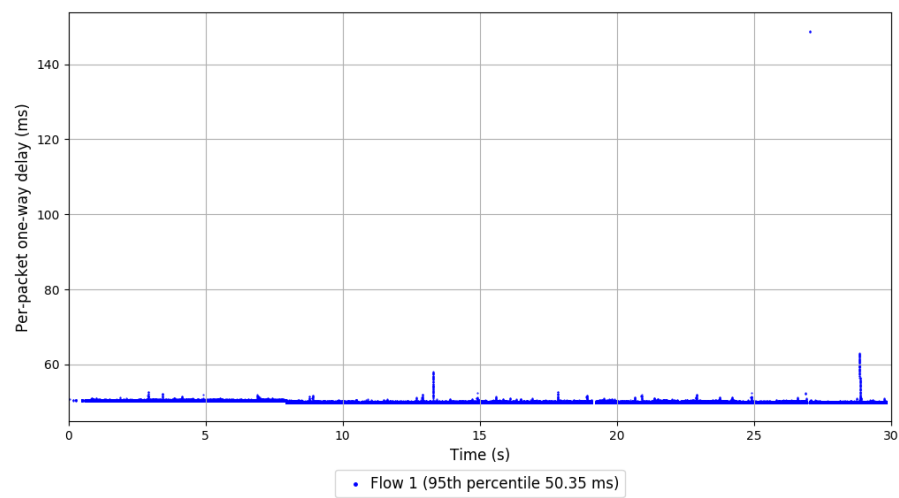
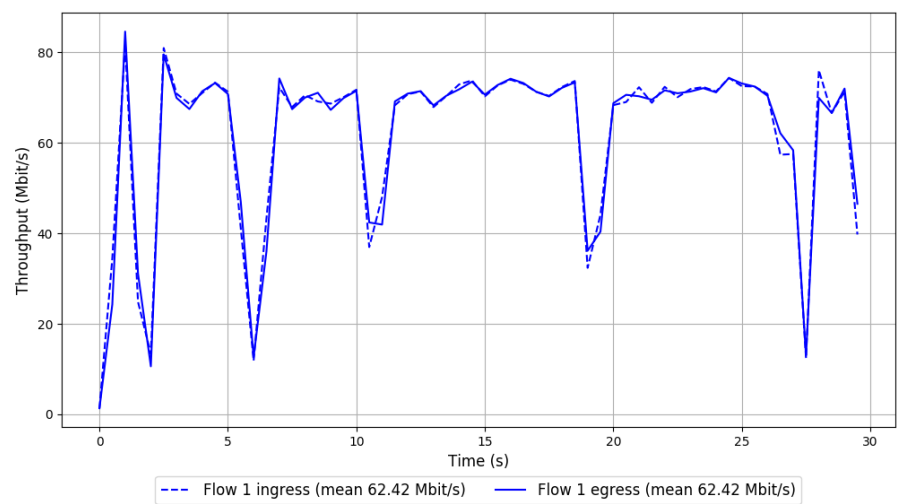
-- Flow 1:

Average throughput: 62.42 Mbit/s

95th percentile per-packet one-way delay: 50.350 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-05 13:33:13

End at: 2017-12-05 13:33:43

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.66 Mbit/s

95th percentile per-packet one-way delay: 49.748 ms

Loss rate: 0.00%

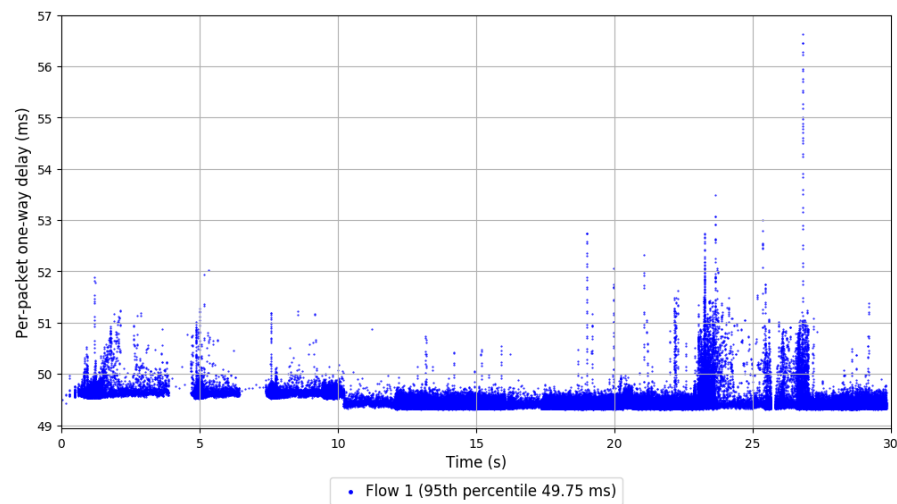
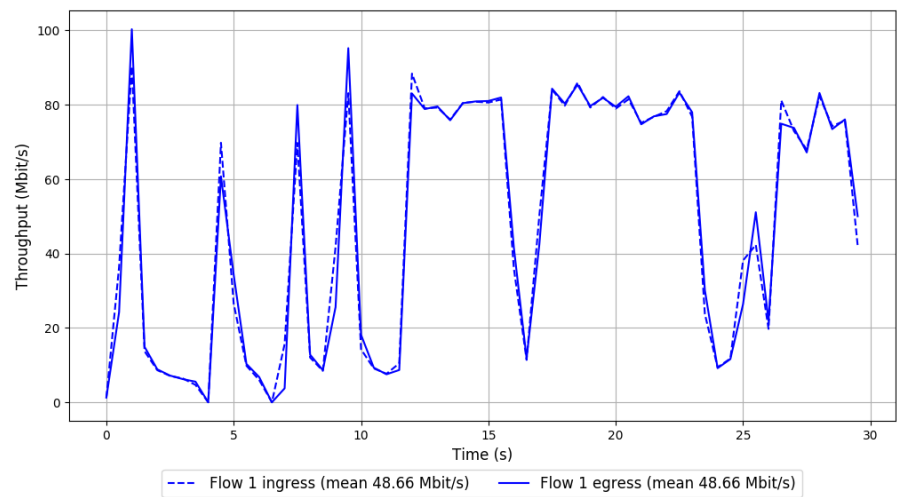
-- Flow 1:

Average throughput: 48.66 Mbit/s

95th percentile per-packet one-way delay: 49.748 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-05 13:43:37

End at: 2017-12-05 13:44:07

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 64.88 Mbit/s

95th percentile per-packet one-way delay: 50.686 ms

Loss rate: 0.00%

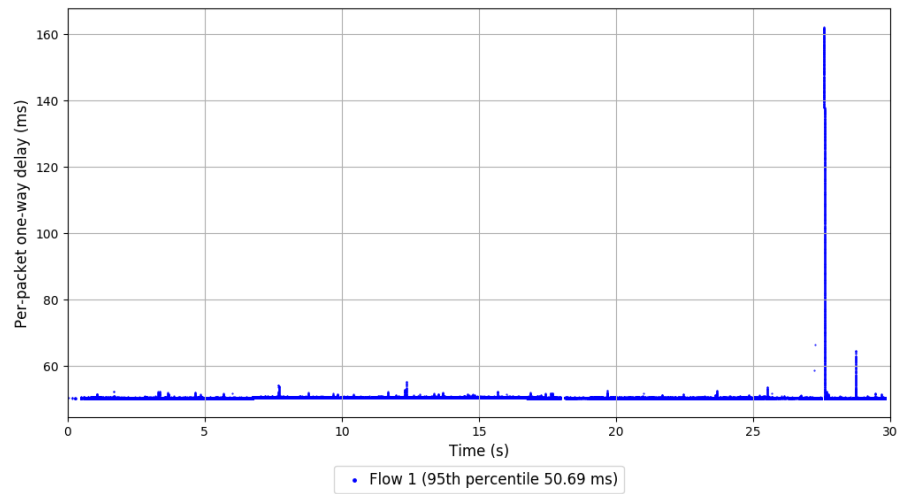
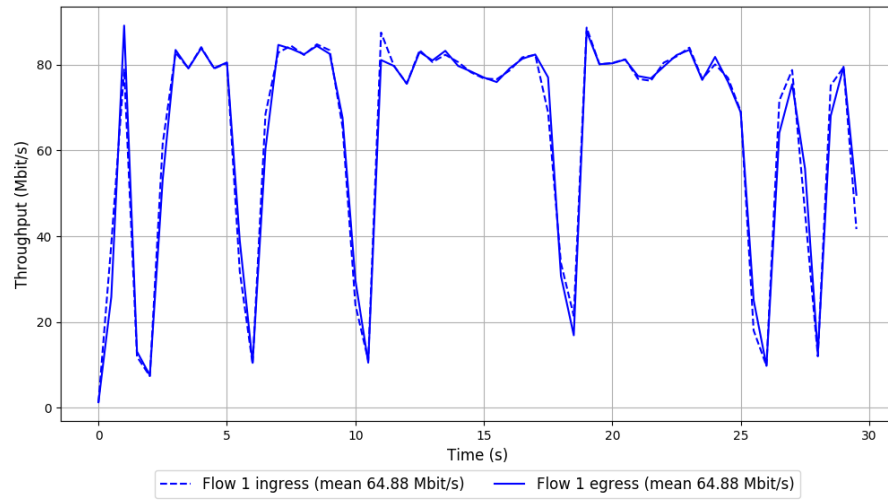
-- Flow 1:

Average throughput: 64.88 Mbit/s

95th percentile per-packet one-way delay: 50.686 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-05 13:54:04

End at: 2017-12-05 13:54:34

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 29.50 Mbit/s

95th percentile per-packet one-way delay: 49.798 ms

Loss rate: 0.00%

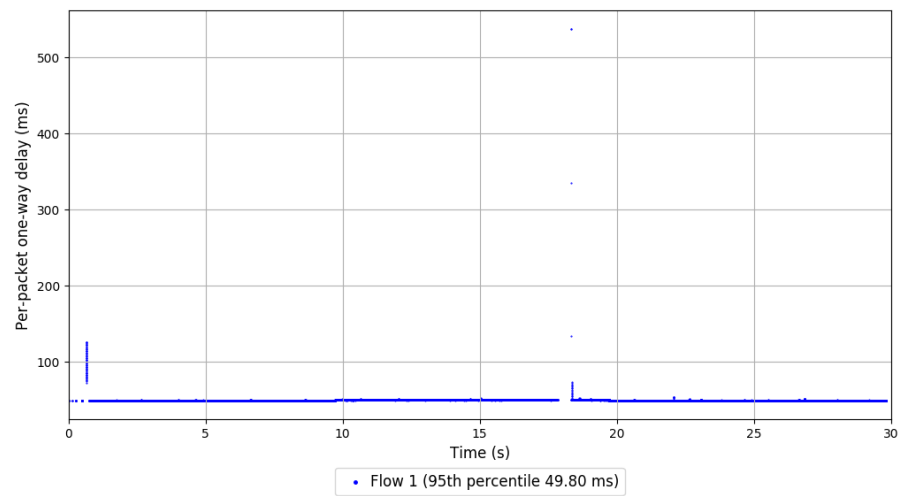
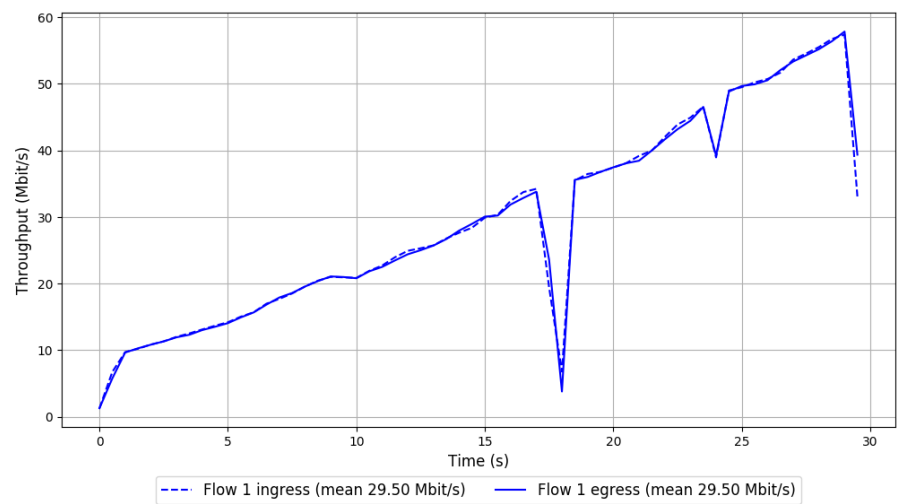
-- Flow 1:

Average throughput: 29.50 Mbit/s

95th percentile per-packet one-way delay: 49.798 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-05 14:04:27

End at: 2017-12-05 14:04:57

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.20 Mbit/s

95th percentile per-packet one-way delay: 50.353 ms

Loss rate: 0.00%

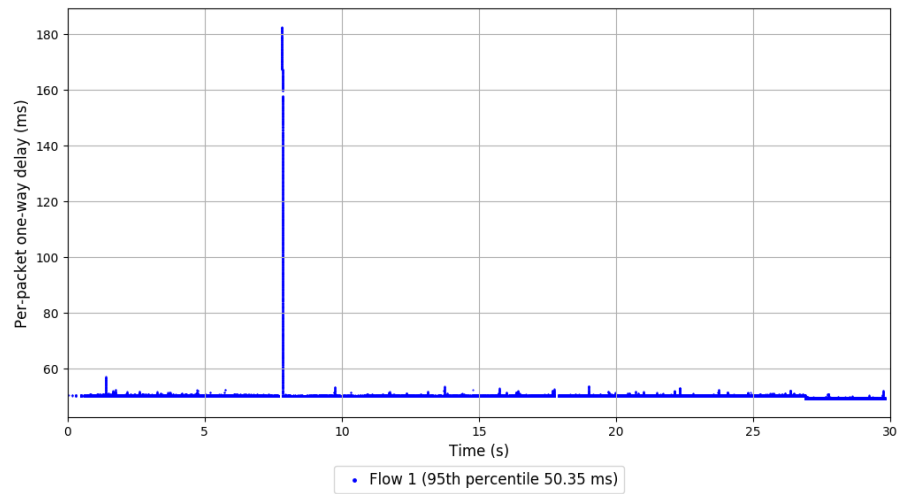
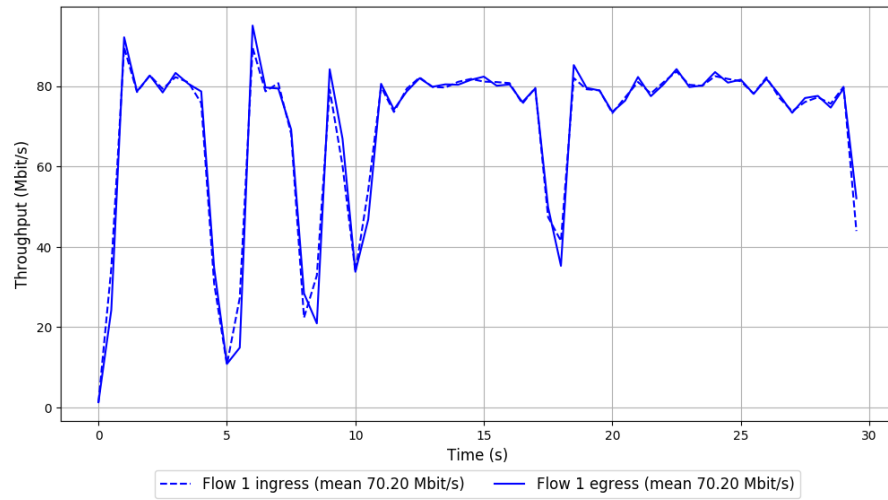
-- Flow 1:

Average throughput: 70.20 Mbit/s

95th percentile per-packet one-way delay: 50.353 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-05 14:15:01

End at: 2017-12-05 14:15:31

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.95 Mbit/s

95th percentile per-packet one-way delay: 49.184 ms

Loss rate: 0.00%

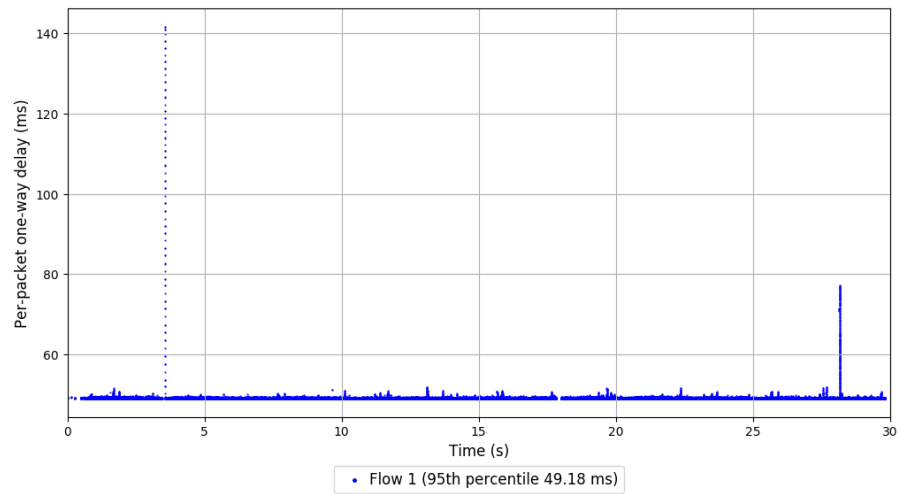
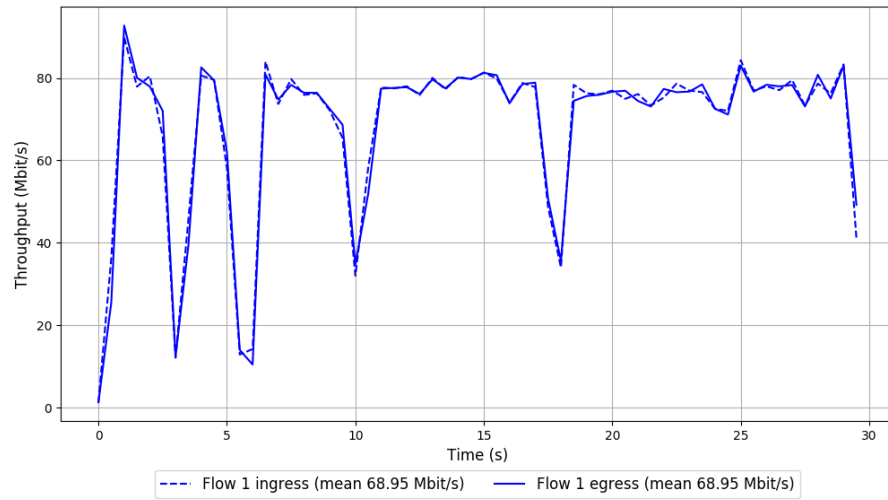
-- Flow 1:

Average throughput: 68.95 Mbit/s

95th percentile per-packet one-way delay: 49.184 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-05 14:25:26

End at: 2017-12-05 14:25:56

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.63 Mbit/s

95th percentile per-packet one-way delay: 48.882 ms

Loss rate: 0.00%

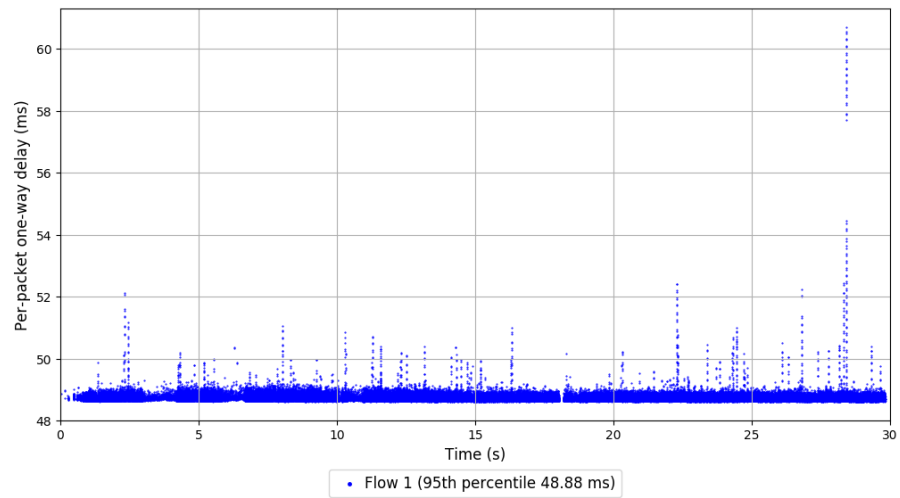
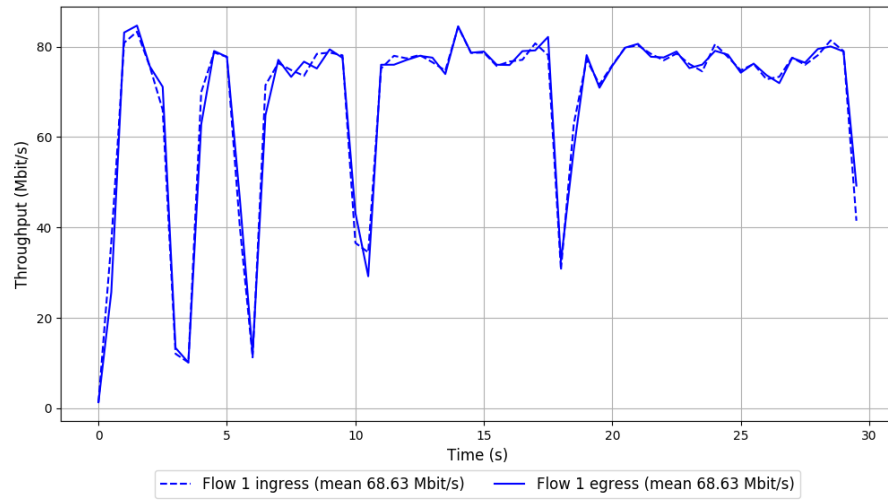
-- Flow 1:

Average throughput: 68.63 Mbit/s

95th percentile per-packet one-way delay: 48.882 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-12-05 14:35:44

End at: 2017-12-05 14:36:14

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 68.68 Mbit/s

95th percentile per-packet one-way delay: 49.480 ms

Loss rate: 0.00%

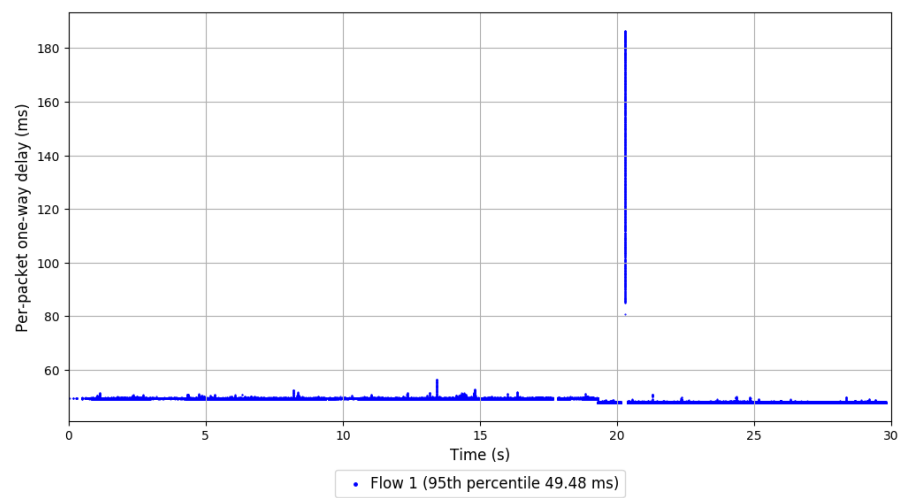
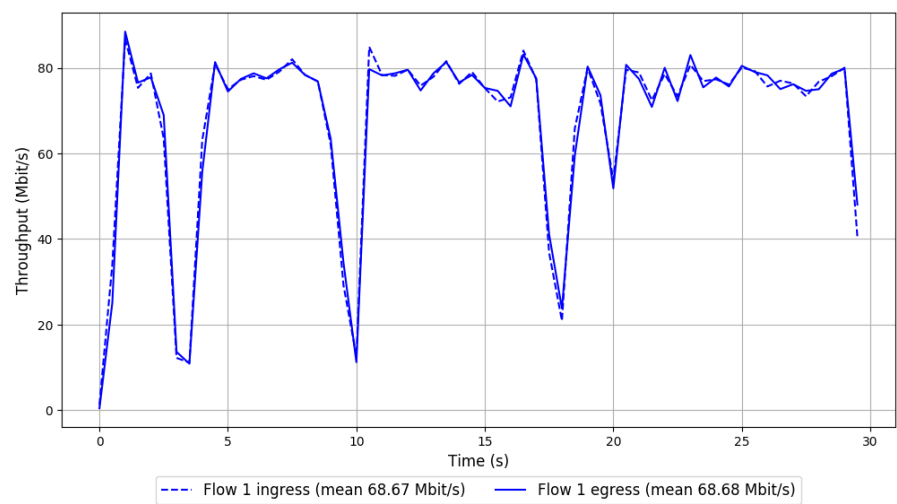
-- Flow 1:

Average throughput: 68.68 Mbit/s

95th percentile per-packet one-way delay: 49.480 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

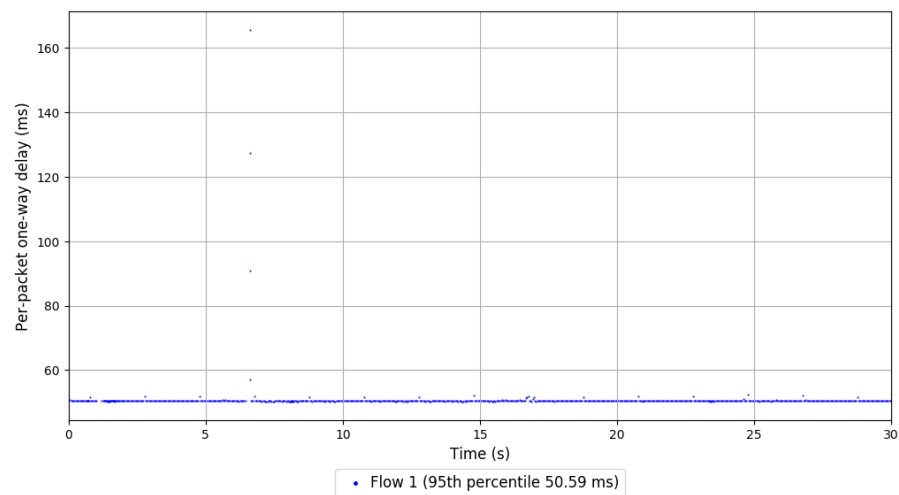
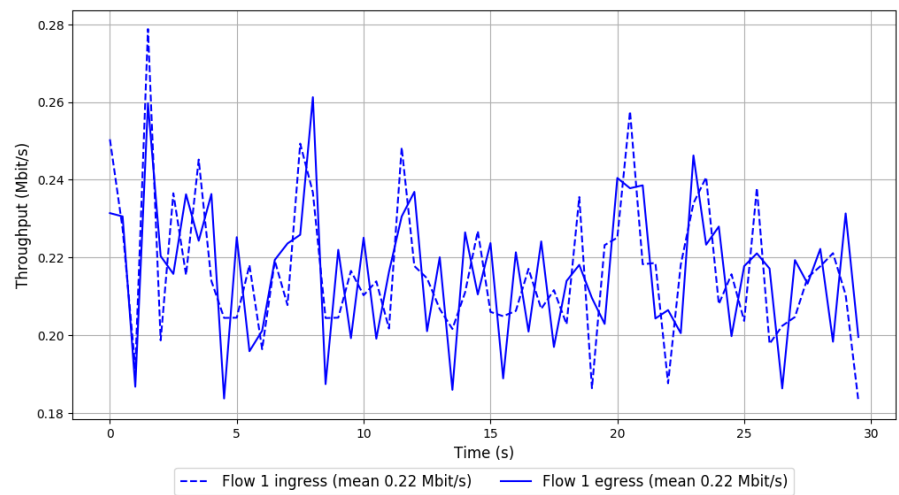


```
Run 1: Statistics of SCReAM

Start at: 2017-12-05 13:02:58
End at: 2017-12-05 13:03:28

# Below is generated by plot.py at 2017-12-05 15:55:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.589 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

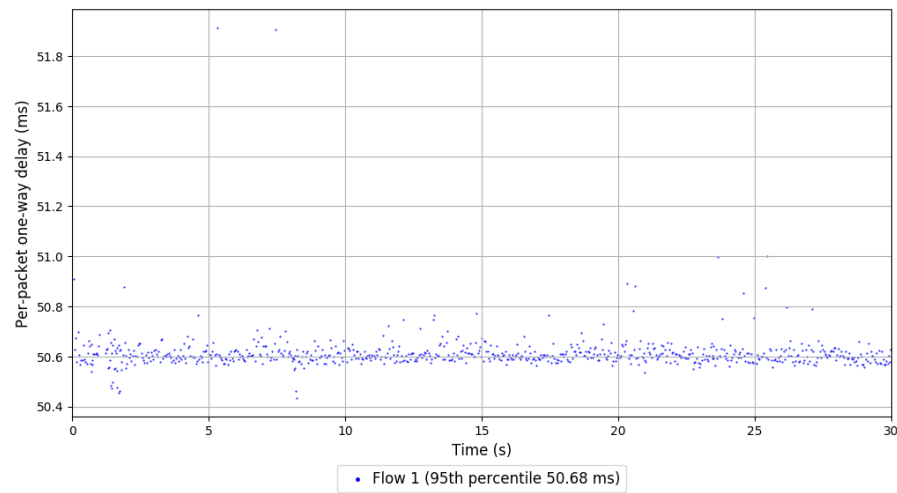
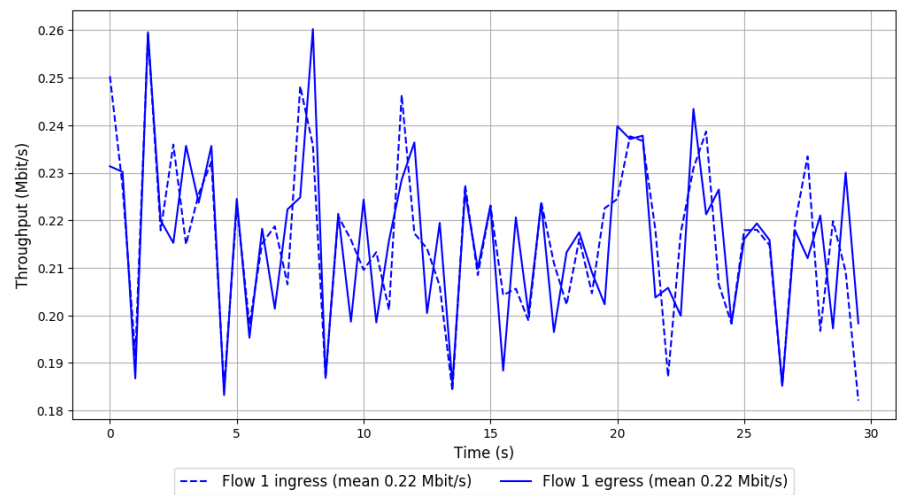


```
Run 2: Statistics of SCReAM

Start at: 2017-12-05 13:13:15
End at: 2017-12-05 13:13:45

# Below is generated by plot.py at 2017-12-05 15:55:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.679 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.679 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-12-05 13:23:36

End at: 2017-12-05 13:24:06

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.145 ms

Loss rate: 0.00%

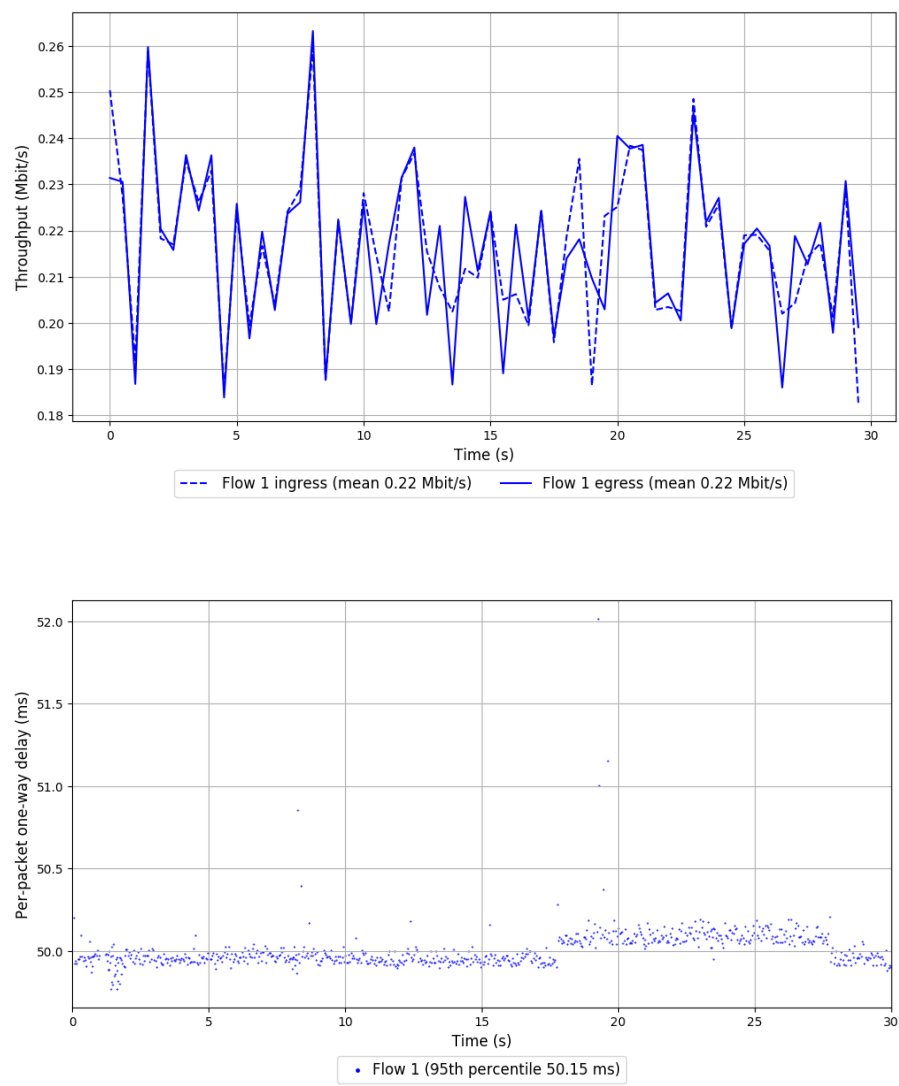
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.145 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-05 13:33:53

End at: 2017-12-05 13:34:23

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.807 ms

Loss rate: 0.00%

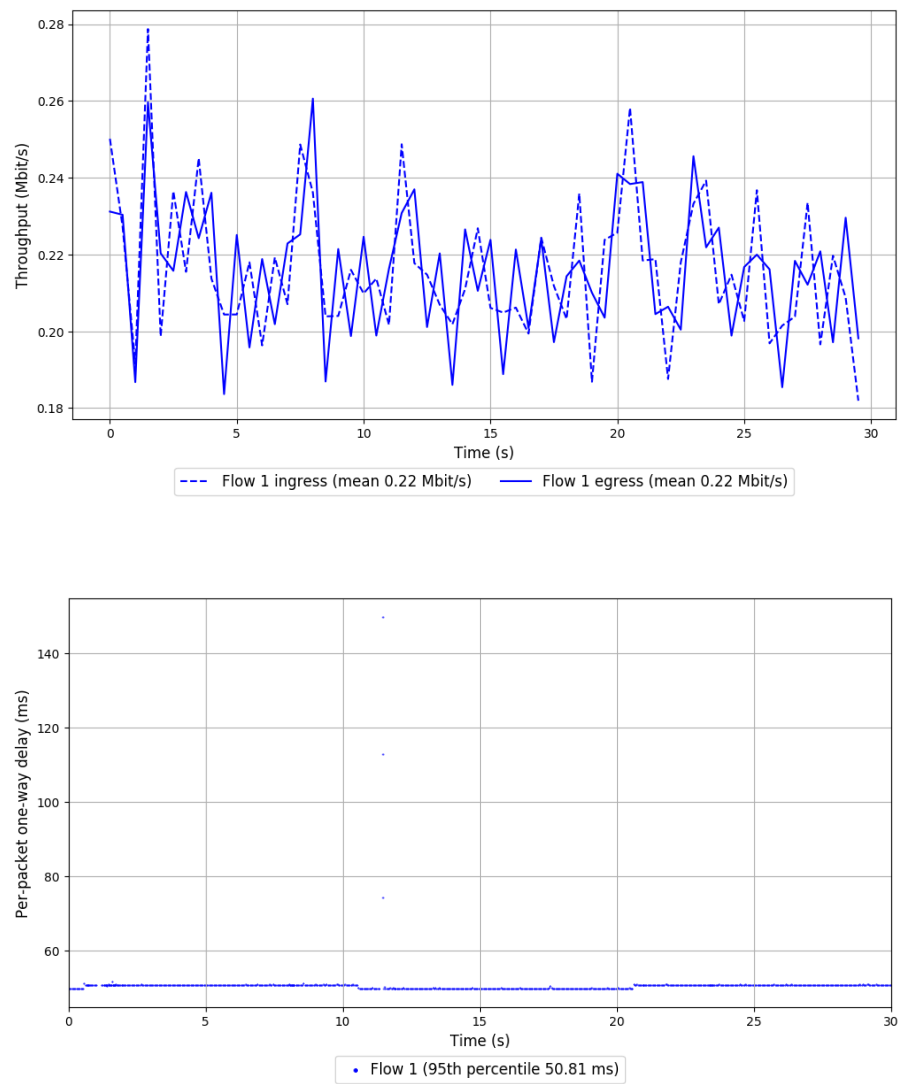
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.807 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-12-05 13:44:17

End at: 2017-12-05 13:44:47

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.101 ms

Loss rate: 0.00%

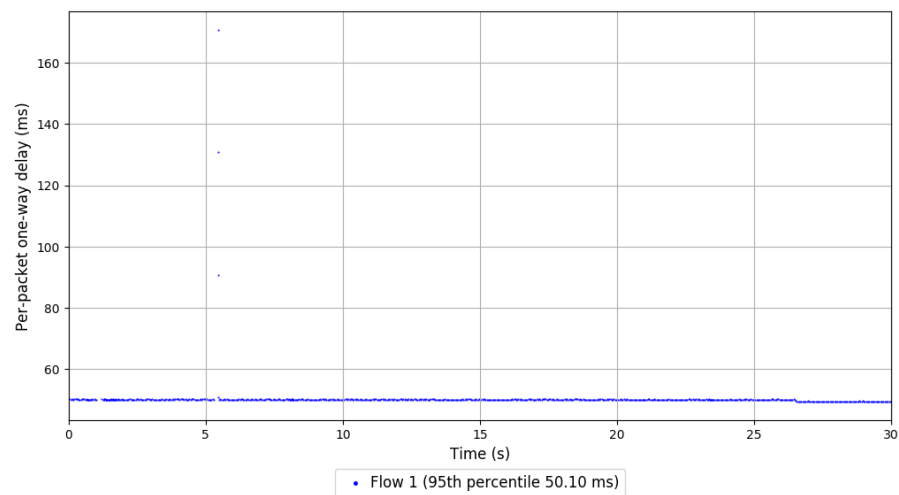
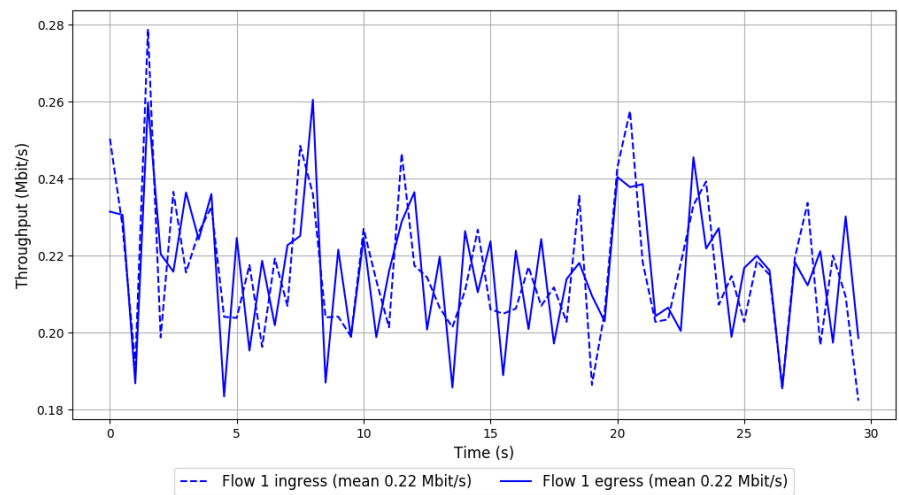
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.101 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-05 13:54:42

End at: 2017-12-05 13:55:12

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.532 ms

Loss rate: 0.00%

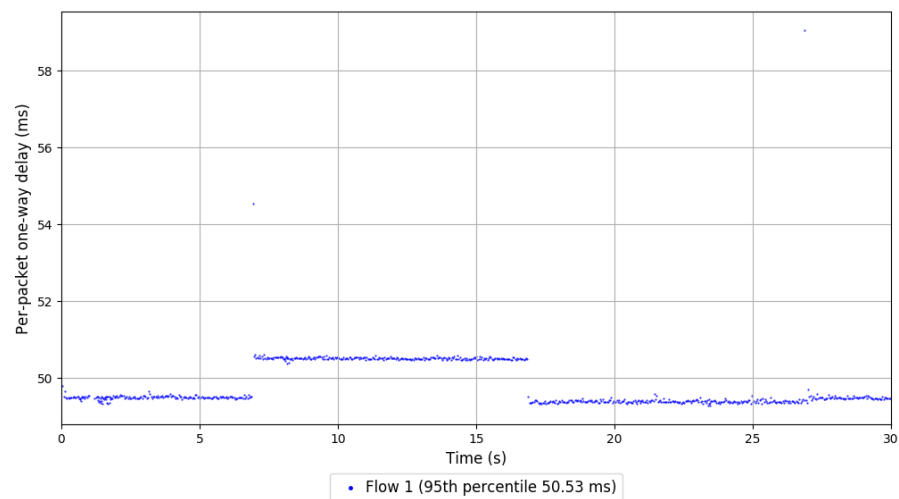
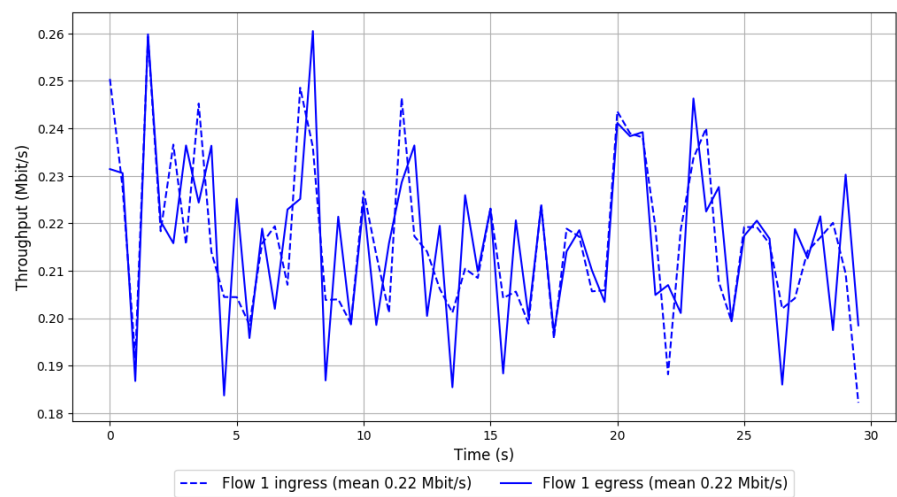
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.532 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-05 14:05:08

End at: 2017-12-05 14:05:38

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.824 ms

Loss rate: 0.00%

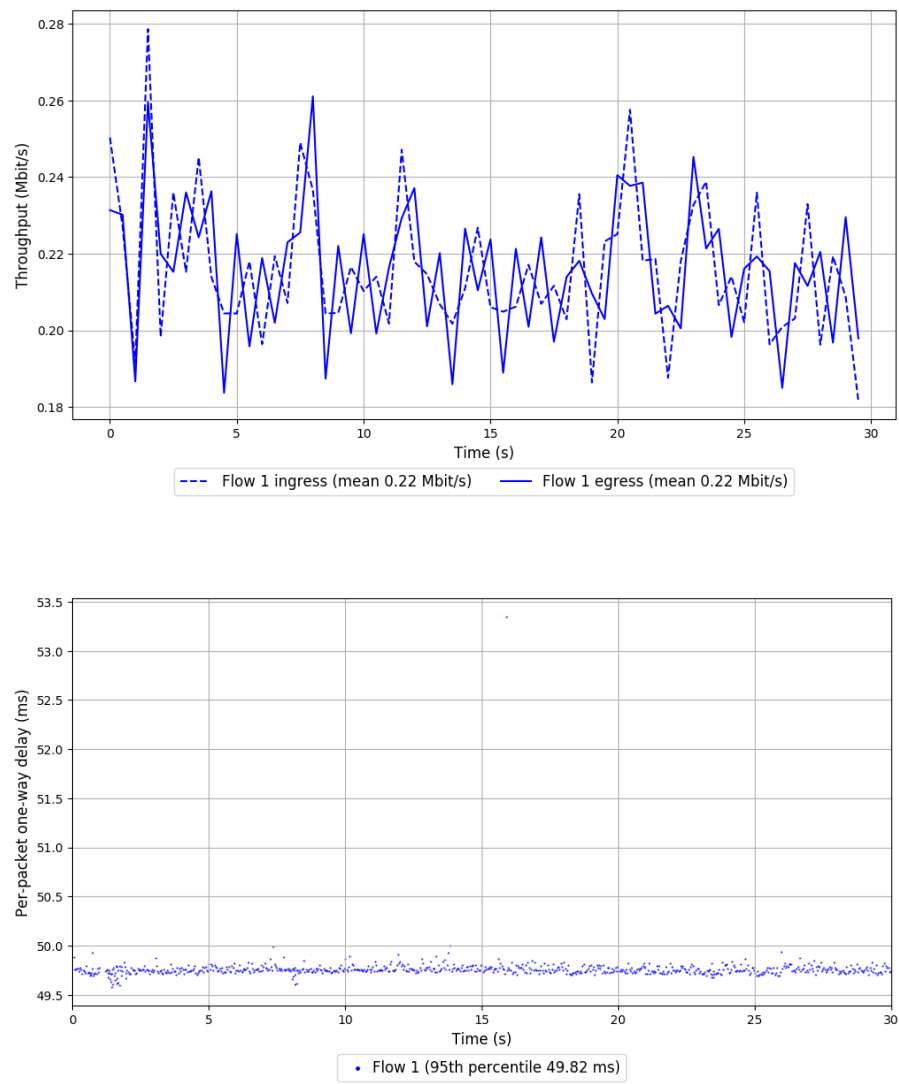
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.824 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-05 14:15:41

End at: 2017-12-05 14:16:11

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.229 ms

Loss rate: 0.00%

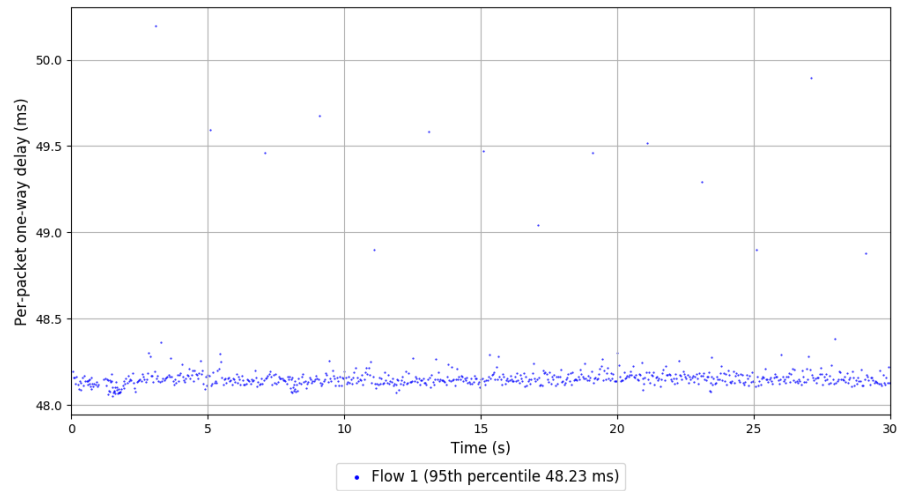
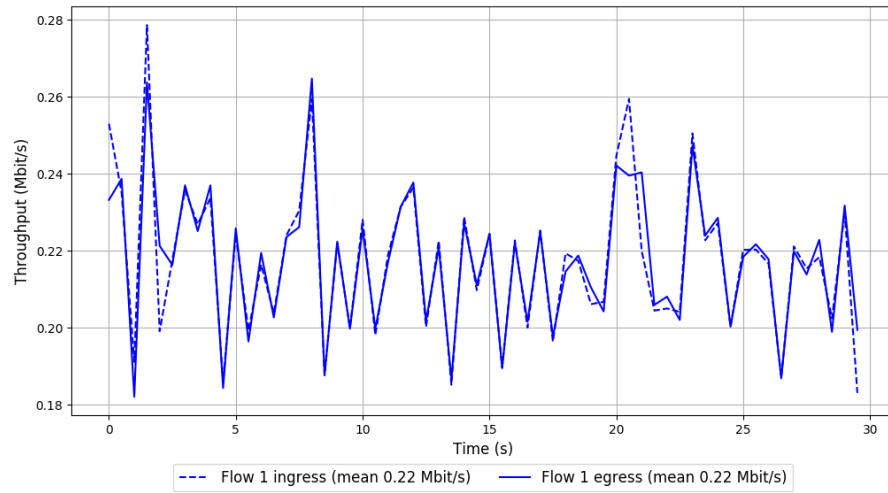
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.229 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-05 14:26:07

End at: 2017-12-05 14:26:37

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.915 ms

Loss rate: 0.00%

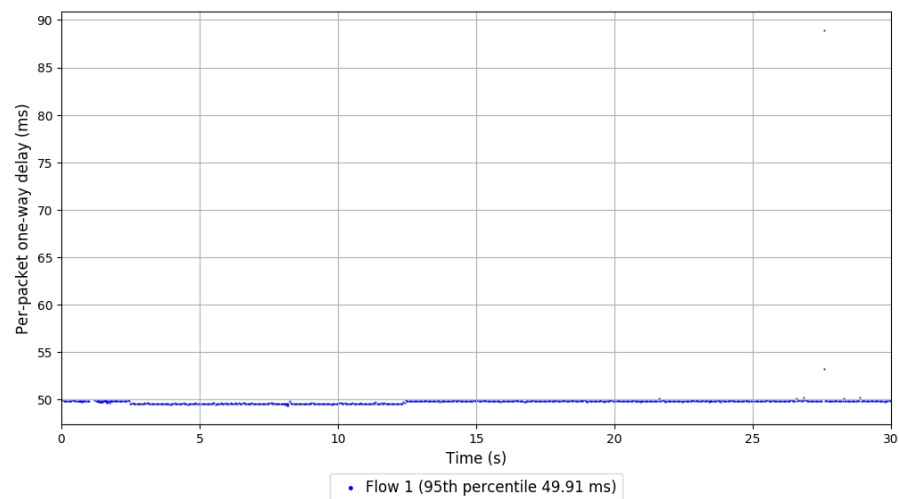
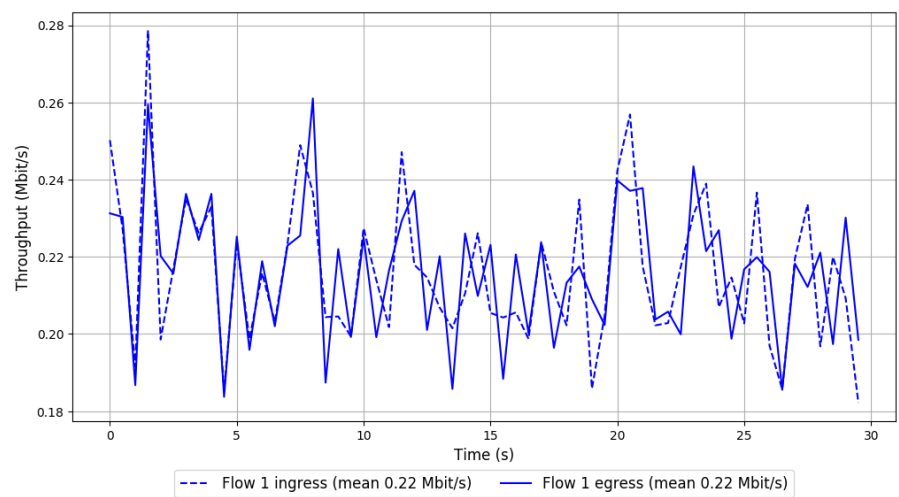
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.915 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-12-05 14:36:25

End at: 2017-12-05 14:36:55

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.091 ms

Loss rate: 0.00%

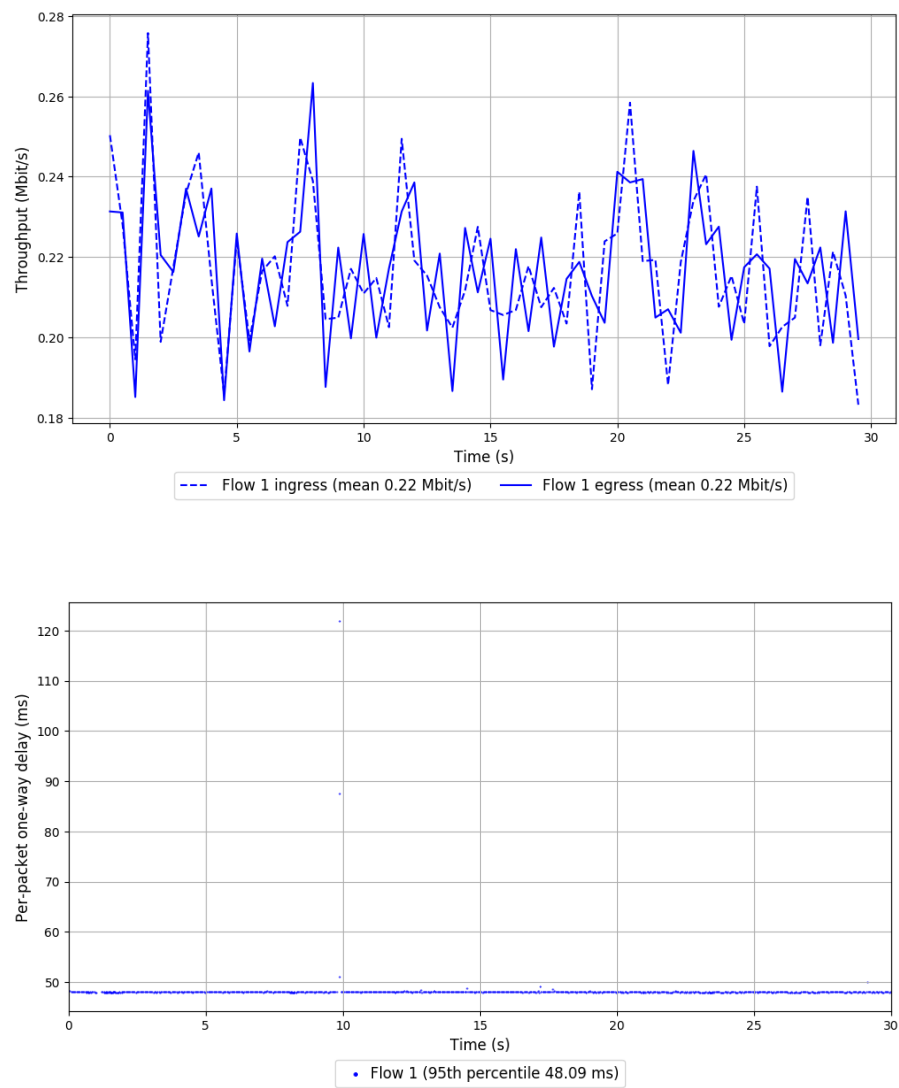
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 48.091 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link

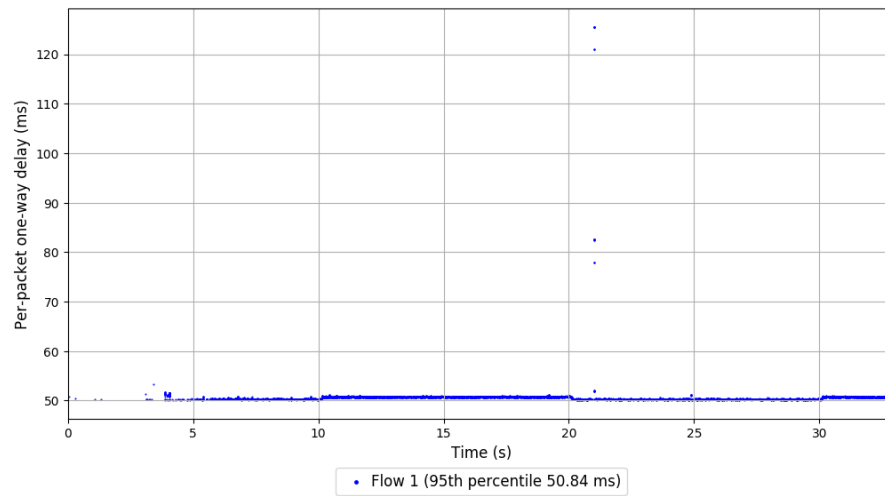
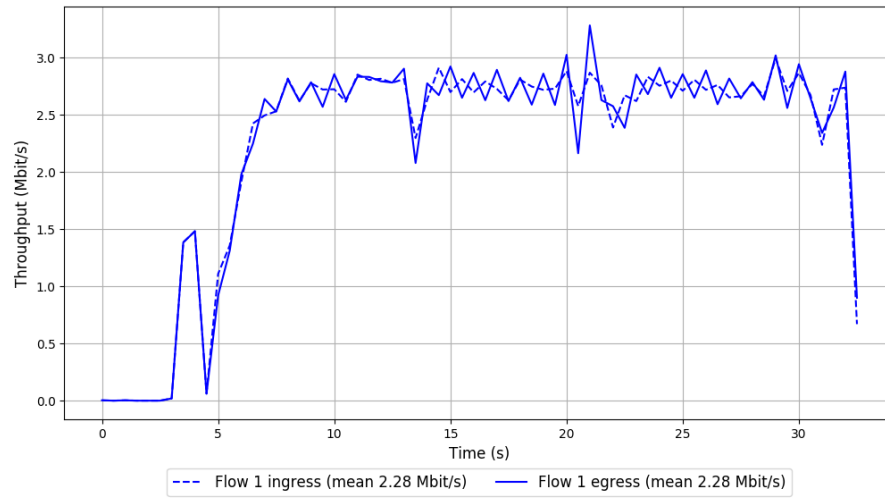


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-05 13:06:46
End at: 2017-12-05 13:07:16

# Below is generated by plot.py at 2017-12-05 15:55:44
# Datalink statistics
-- Total of 1 flow:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 50.844 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 50.844 ms
Loss rate: 0.00%
```

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-05 13:17:01

End at: 2017-12-05 13:17:31

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 51.210 ms

Loss rate: 0.00%

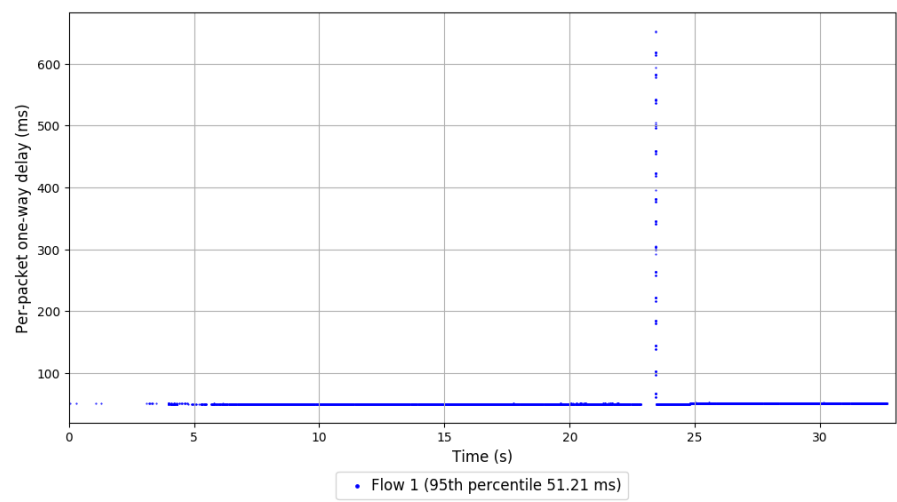
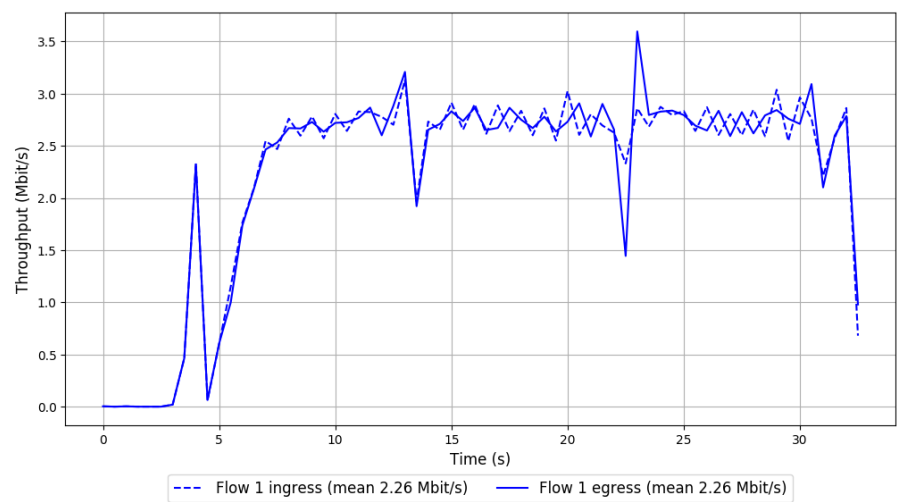
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 51.210 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-05 13:27:24

End at: 2017-12-05 13:27:54

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.069 ms

Loss rate: 0.00%

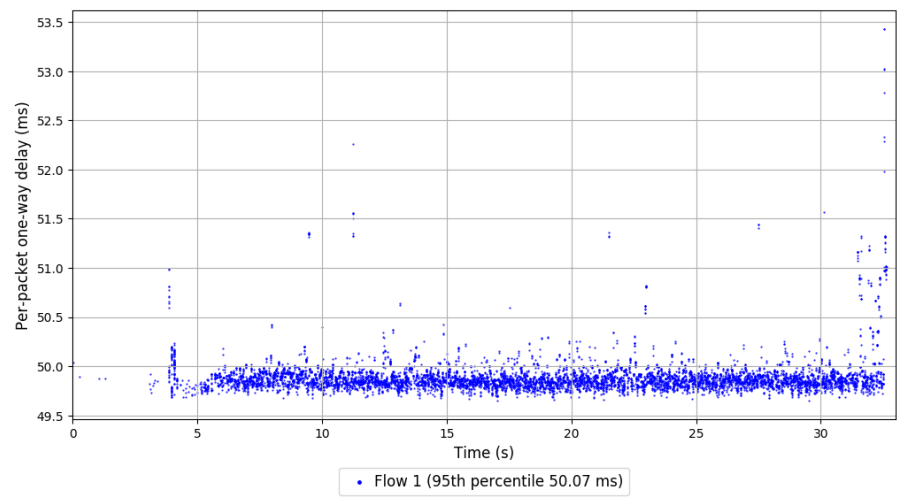
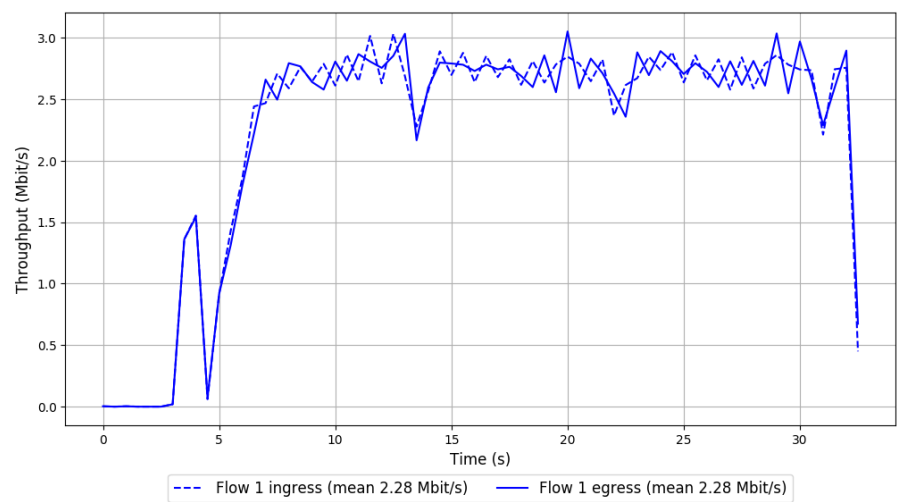
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.069 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-05 13:37:46

End at: 2017-12-05 13:38:16

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 50.325 ms

Loss rate: 0.00%

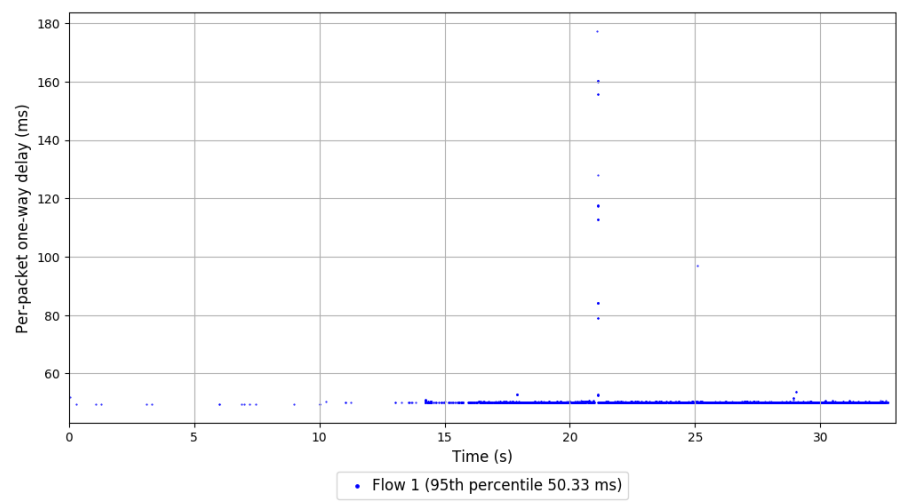
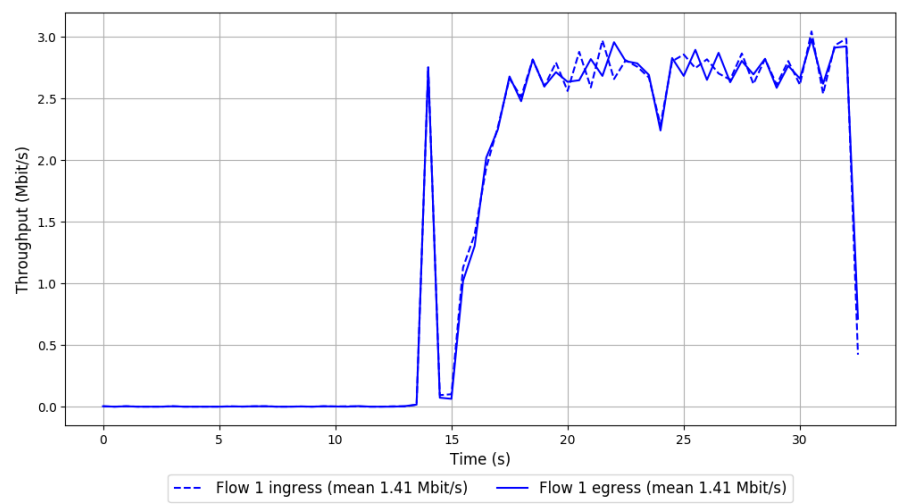
-- Flow 1:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 50.325 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-05 13:48:08

End at: 2017-12-05 13:48:38

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.809 ms

Loss rate: 0.00%

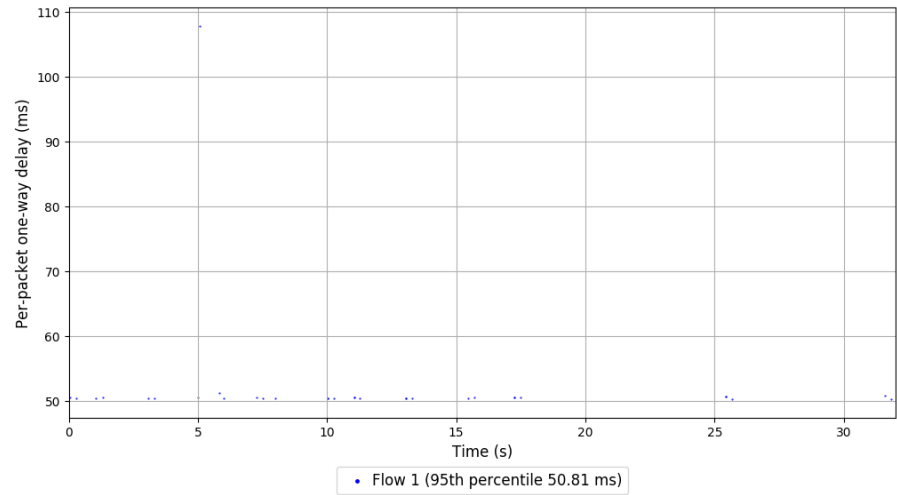
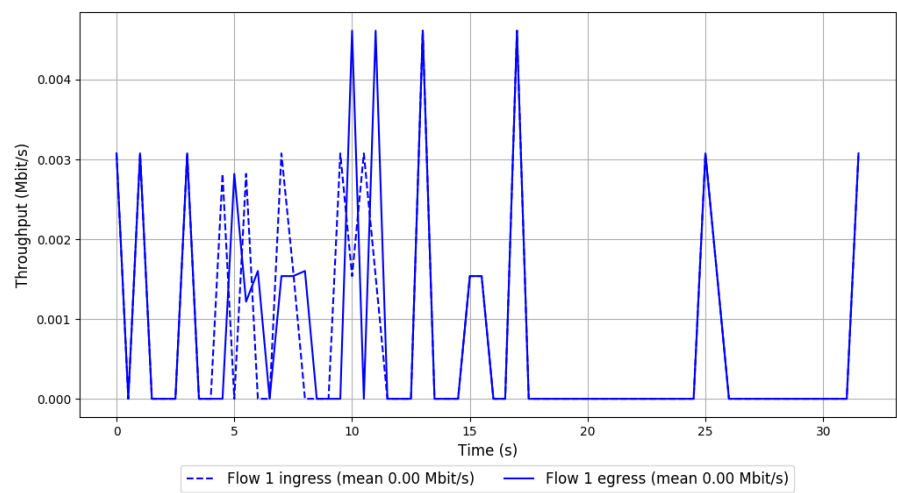
-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 50.809 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-05 13:58:33

End at: 2017-12-05 13:59:03

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 50.291 ms

Loss rate: 0.00%

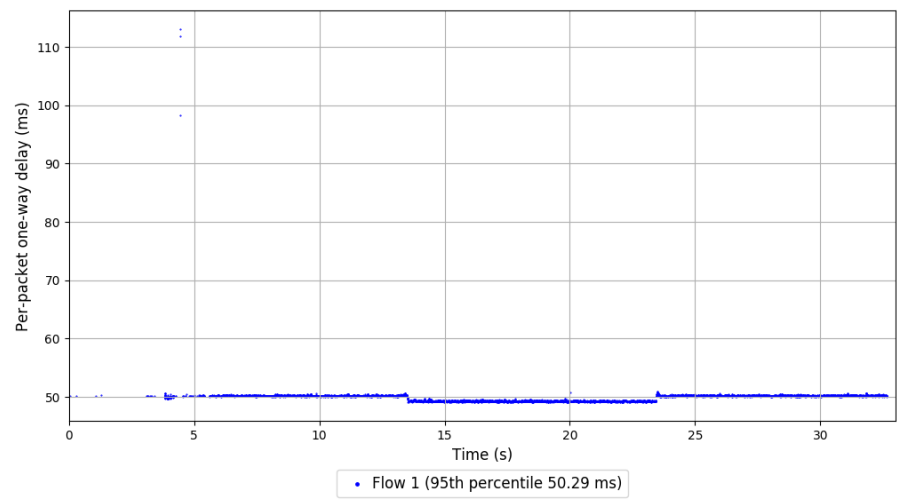
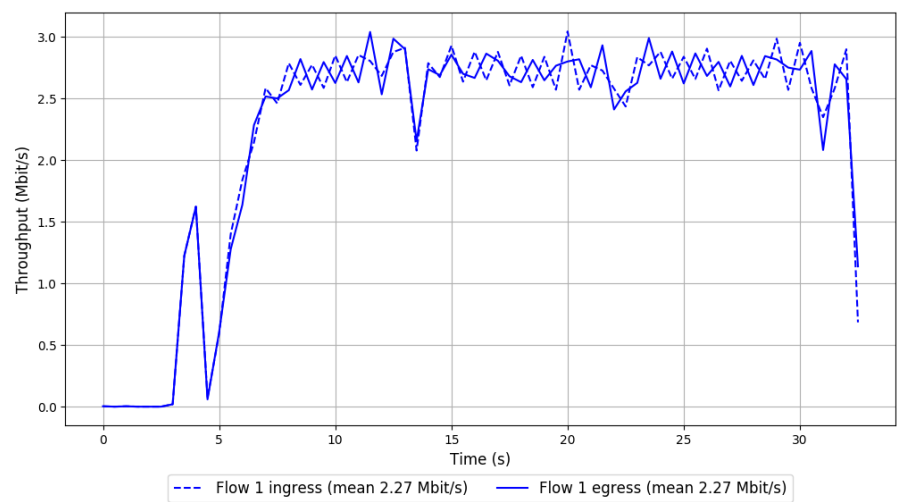
-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 50.291 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-05 14:09:00

End at: 2017-12-05 14:09:30

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 60.938 ms

Loss rate: 0.00%

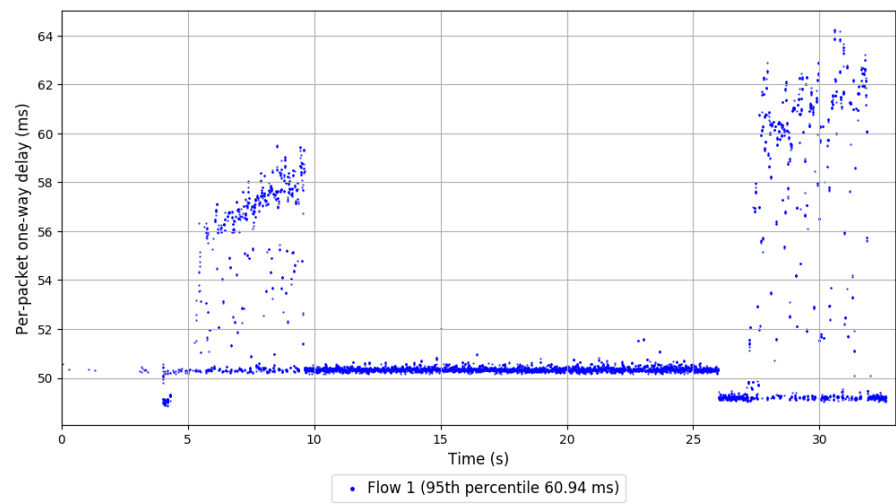
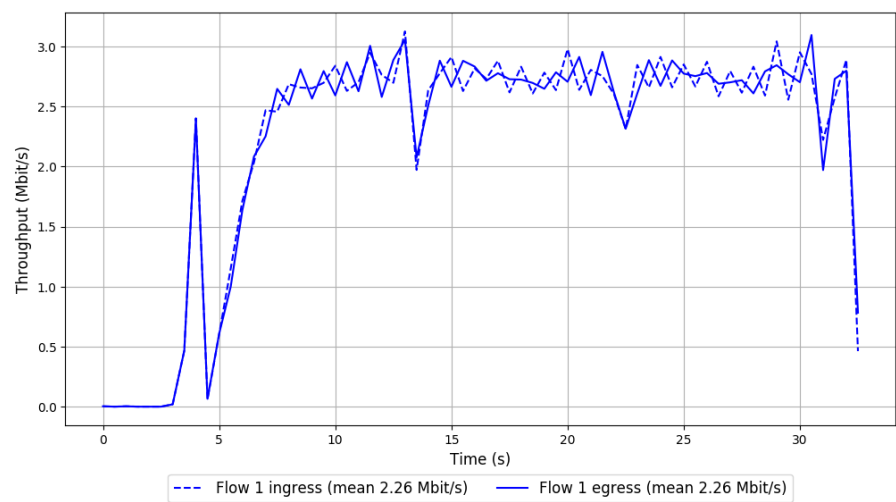
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 60.938 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-05 14:19:32

End at: 2017-12-05 14:20:02

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 49.731 ms

Loss rate: 0.00%

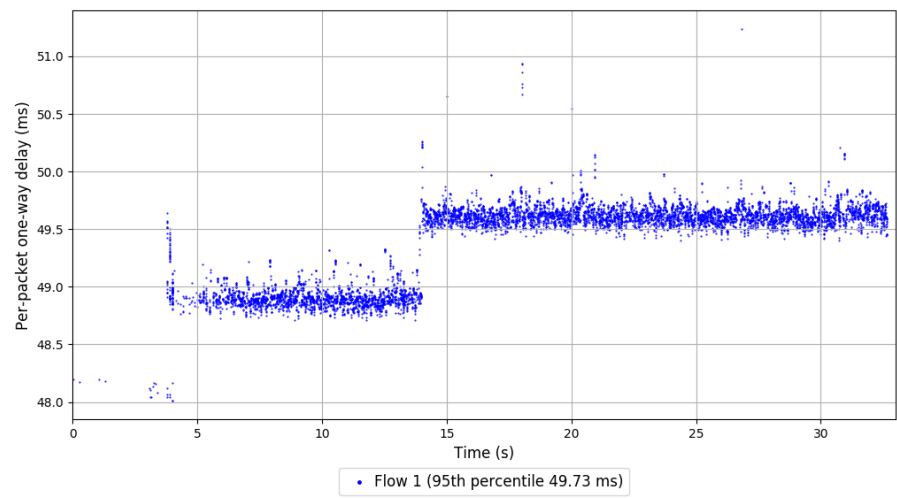
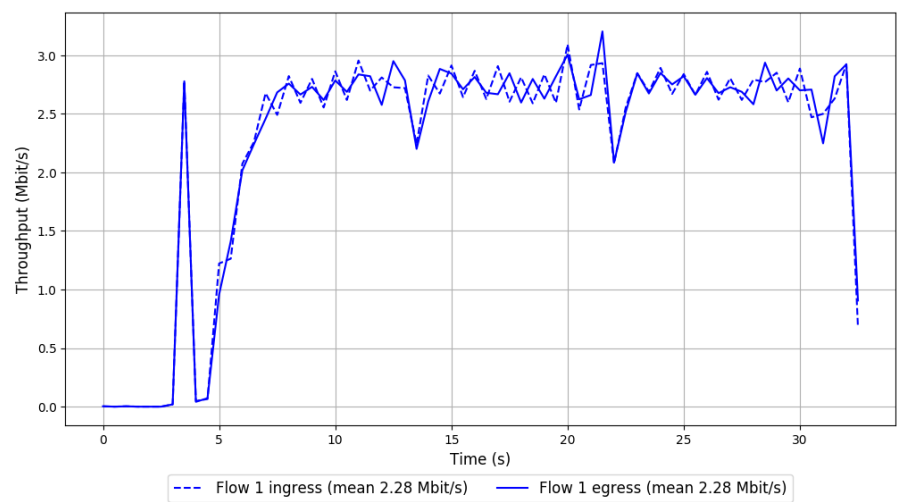
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 49.731 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-05 14:29:57

End at: 2017-12-05 14:30:27

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 48.198 ms

Loss rate: 0.00%

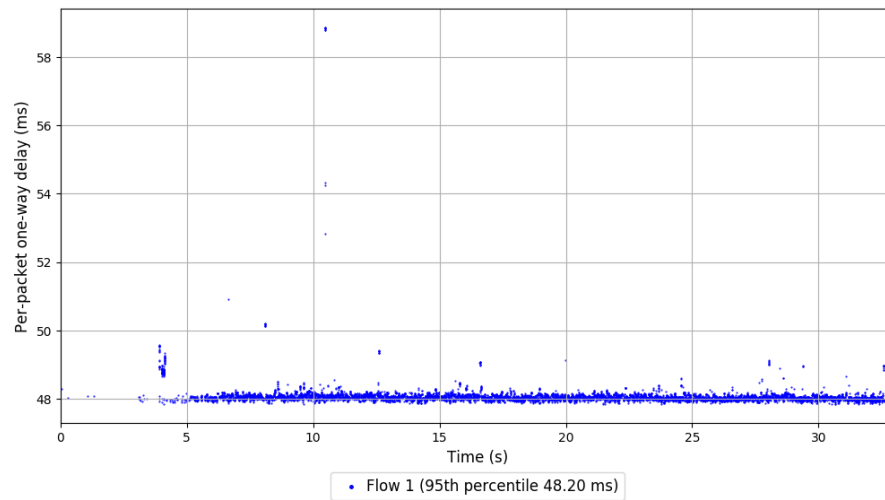
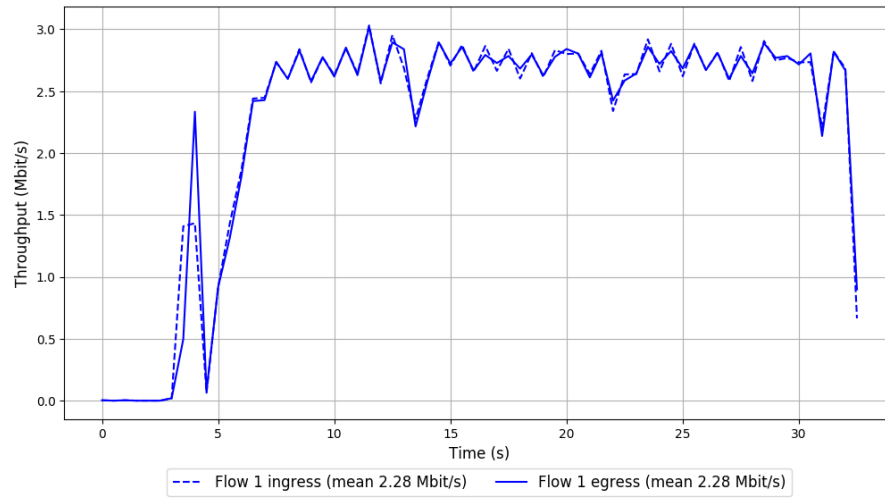
-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 48.198 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-05 14:40:14

End at: 2017-12-05 14:40:44

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 49.606 ms

Loss rate: 2.33%

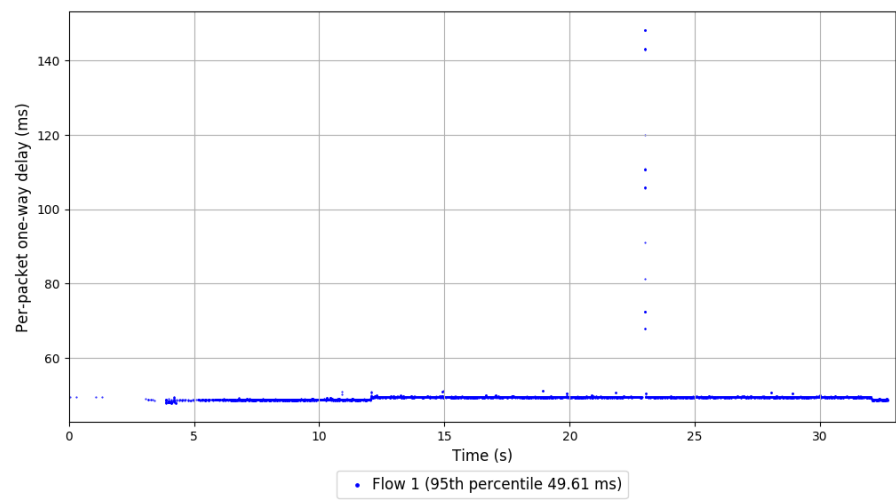
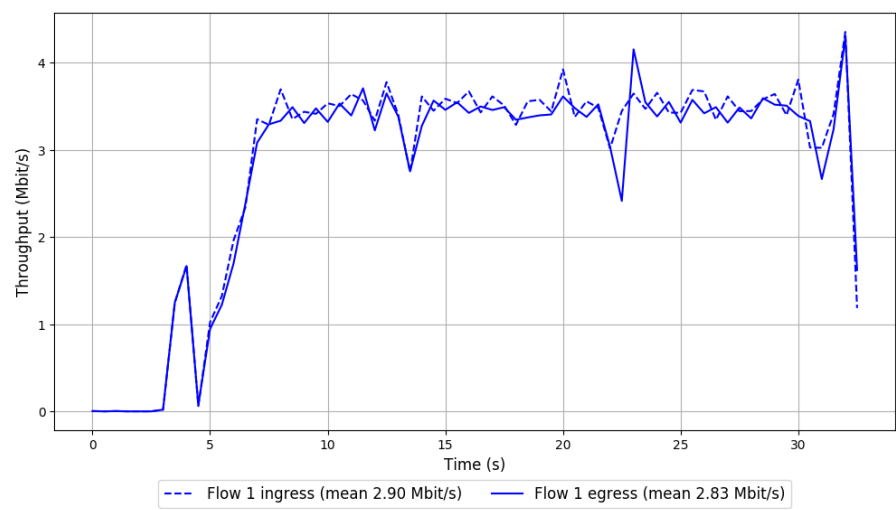
-- Flow 1:

Average throughput: 2.83 Mbit/s

95th percentile per-packet one-way delay: 49.606 ms

Loss rate: 2.33%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-12-05 13:10:37

End at: 2017-12-05 13:11:07

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 51.863 ms

Loss rate: 0.05%

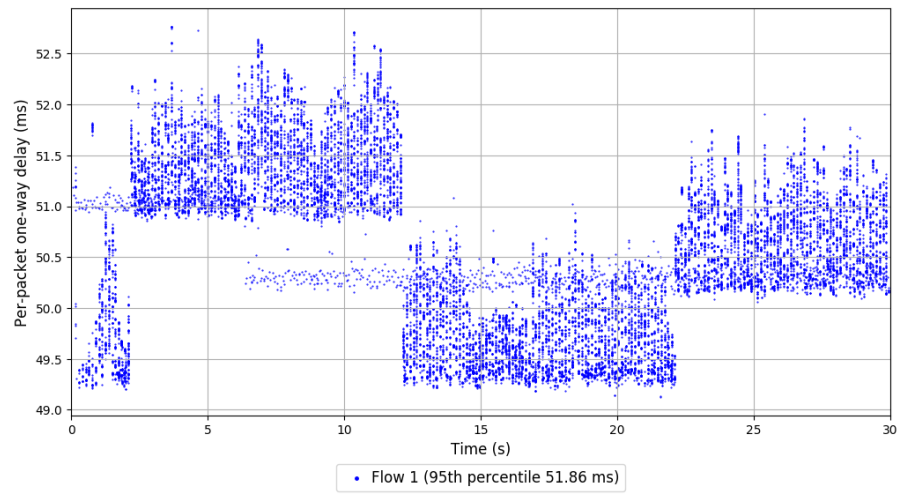
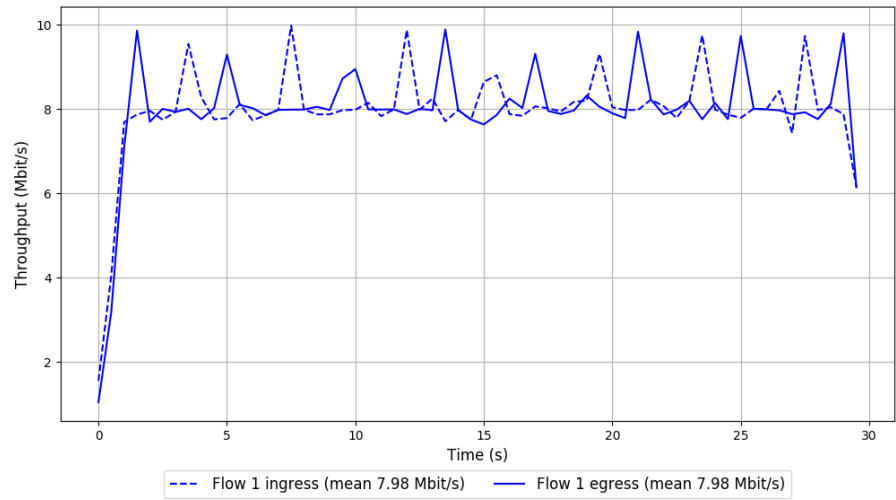
-- Flow 1:

Average throughput: 7.98 Mbit/s

95th percentile per-packet one-way delay: 51.863 ms

Loss rate: 0.05%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-05 13:20:54

End at: 2017-12-05 13:21:25

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.346 ms

Loss rate: 0.13%

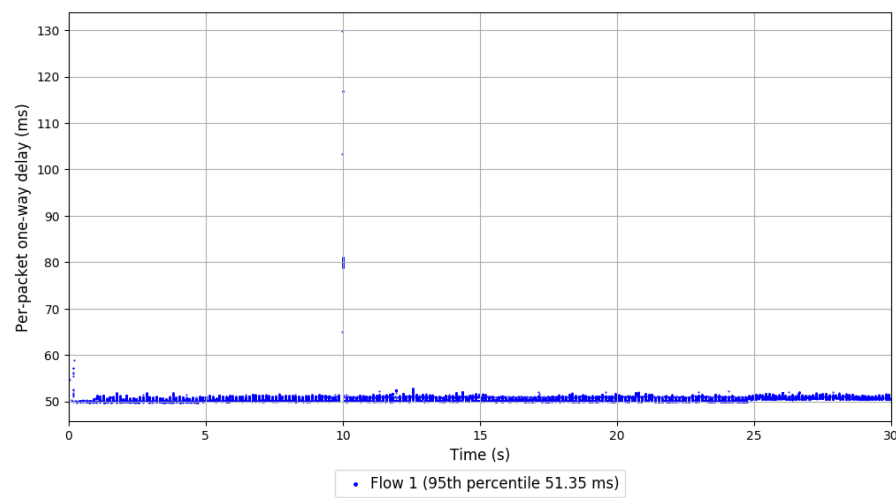
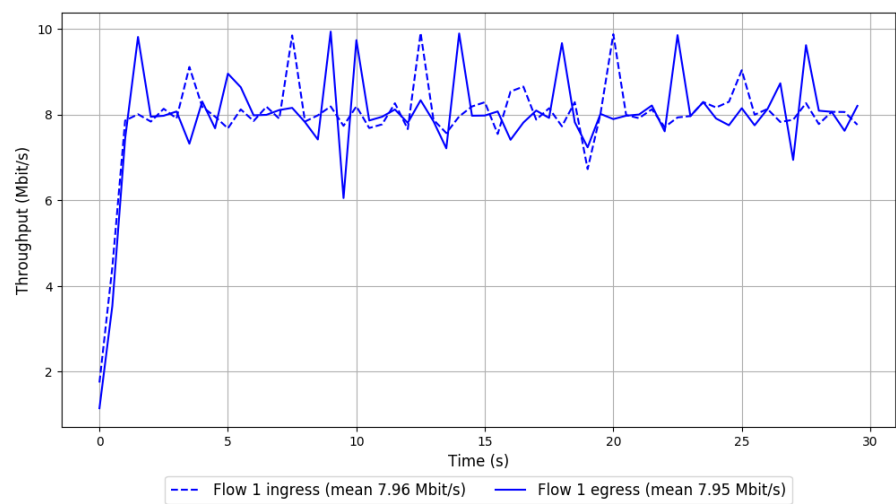
-- Flow 1:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.346 ms

Loss rate: 0.13%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-05 13:31:16

End at: 2017-12-05 13:31:46

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 50.894 ms

Loss rate: 0.01%

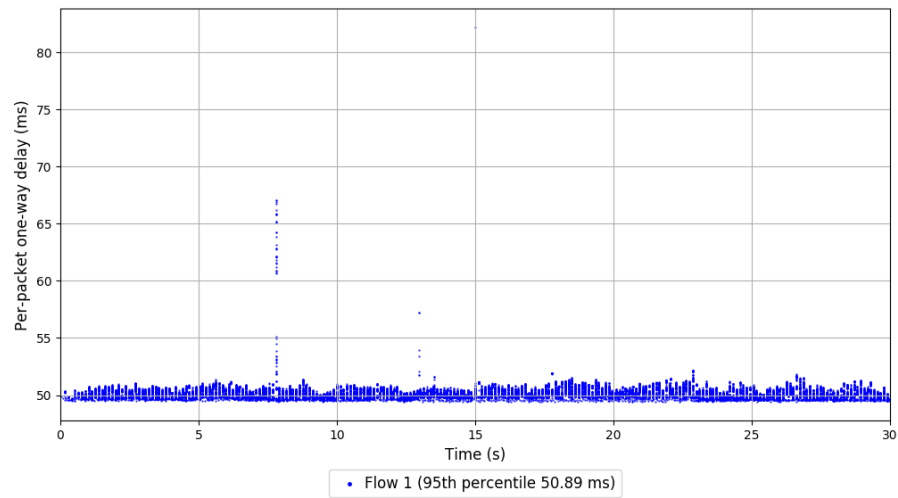
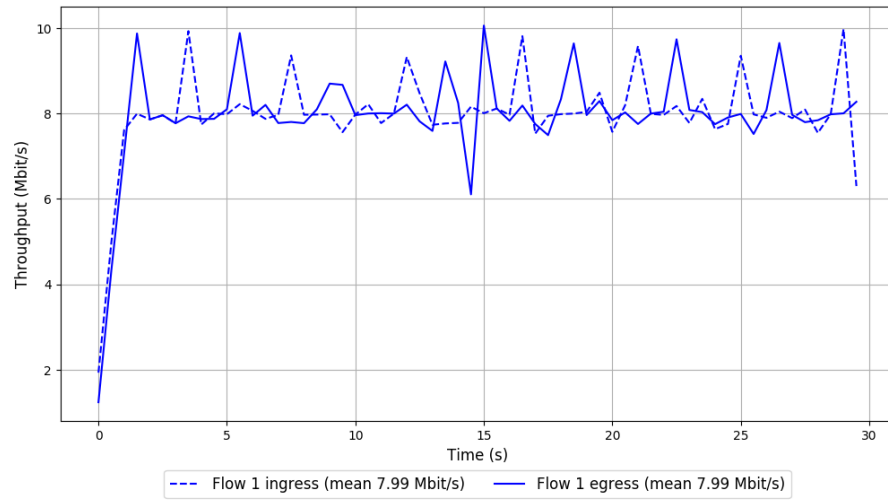
-- Flow 1:

Average throughput: 7.99 Mbit/s

95th percentile per-packet one-way delay: 50.894 ms

Loss rate: 0.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-05 13:41:35

End at: 2017-12-05 13:42:05

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 51.112 ms

Loss rate: 0.00%

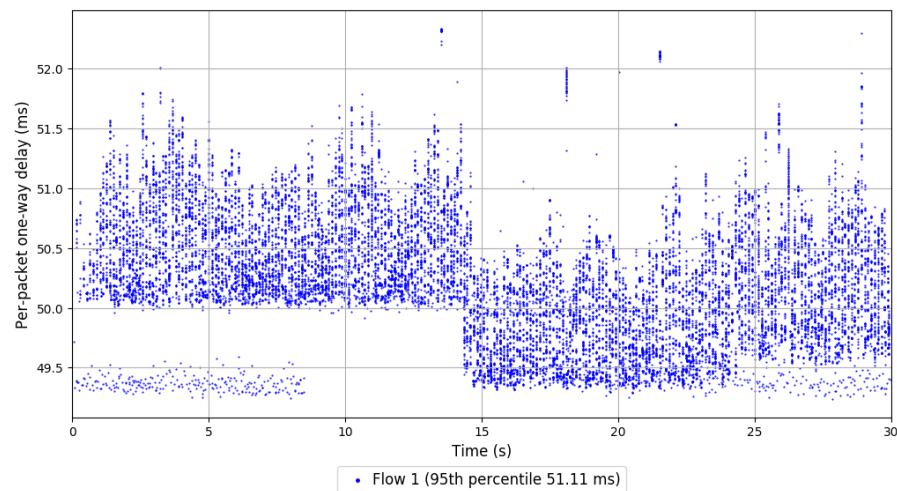
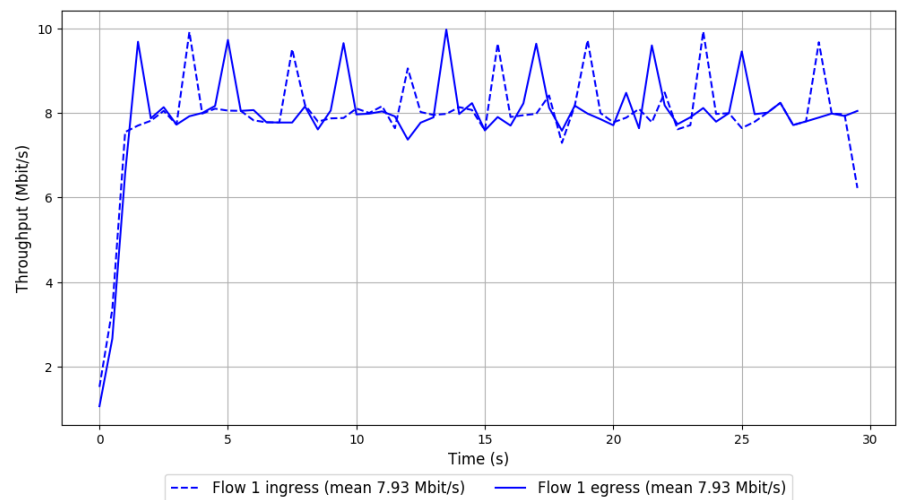
-- Flow 1:

Average throughput: 7.93 Mbit/s

95th percentile per-packet one-way delay: 51.112 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-05 13:52:00

End at: 2017-12-05 13:52:30

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 50.836 ms

Loss rate: 0.47%

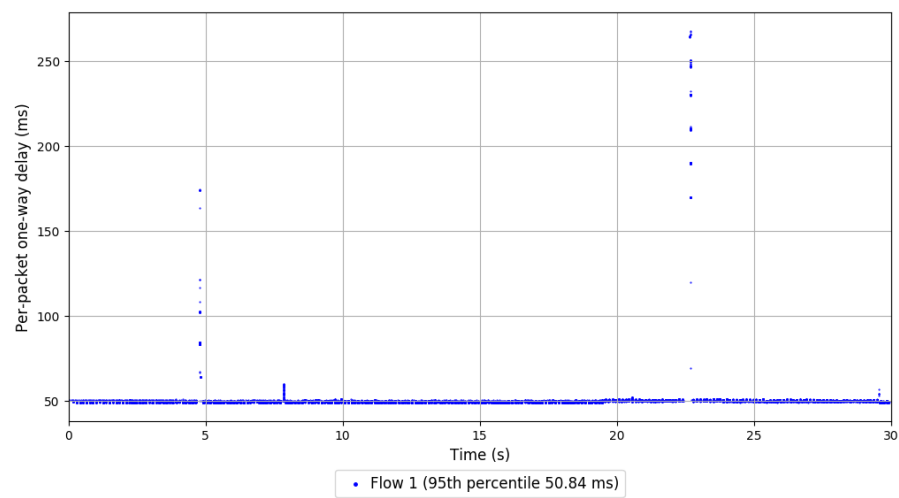
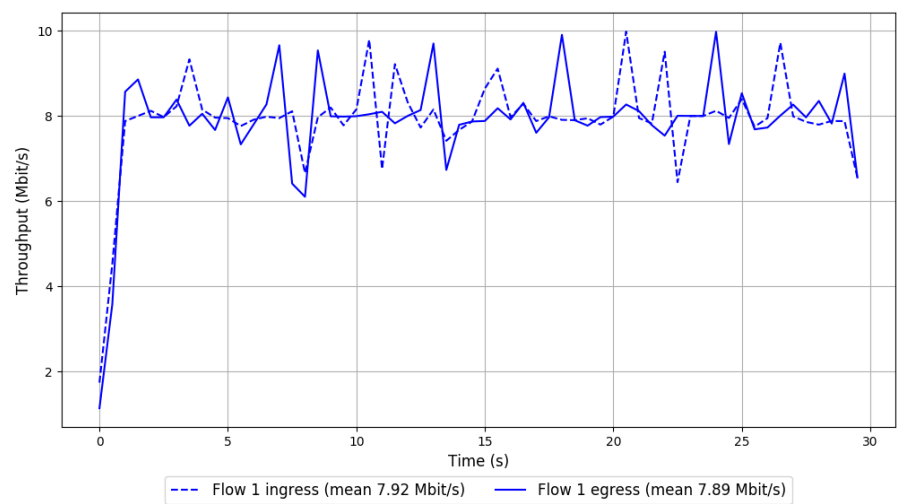
-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 50.836 ms

Loss rate: 0.47%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-05 14:02:26

End at: 2017-12-05 14:02:56

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 50.712 ms

Loss rate: 0.04%

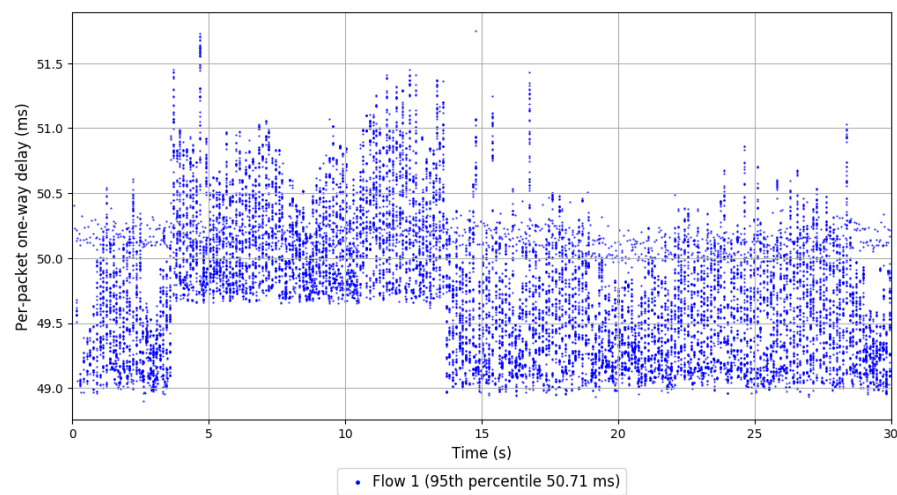
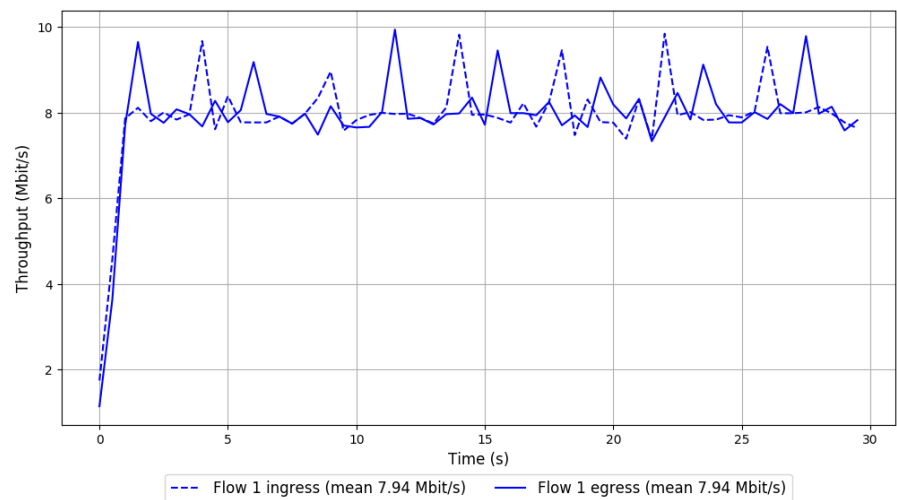
-- Flow 1:

Average throughput: 7.94 Mbit/s

95th percentile per-packet one-way delay: 50.712 ms

Loss rate: 0.04%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-05 14:12:54

End at: 2017-12-05 14:13:24

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.711 ms

Loss rate: 0.00%

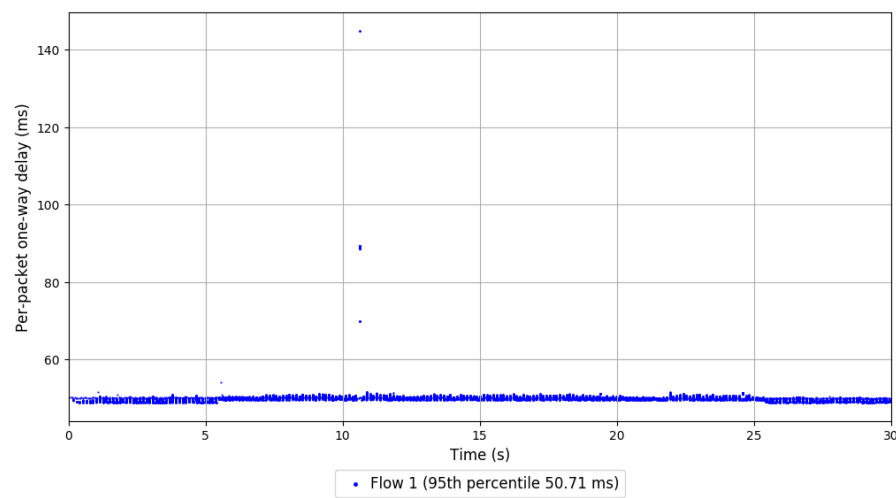
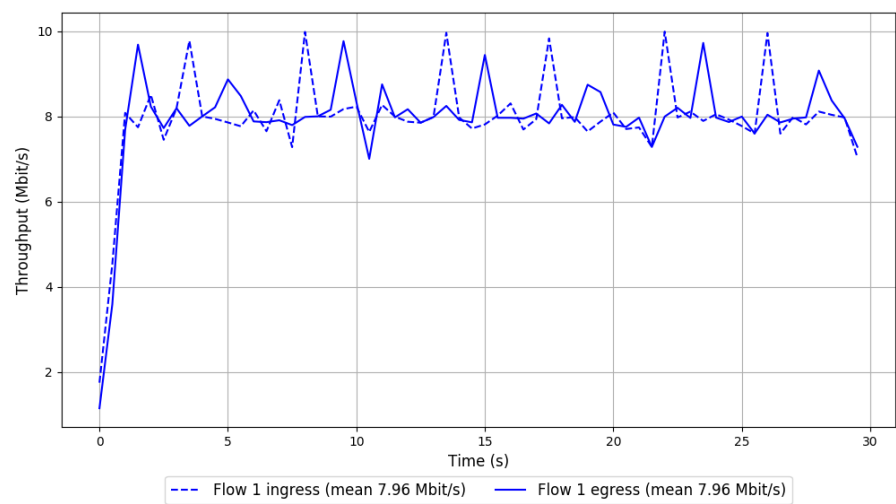
-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.711 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-05 14:23:23

End at: 2017-12-05 14:23:53

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 50.623 ms

Loss rate: 0.42%

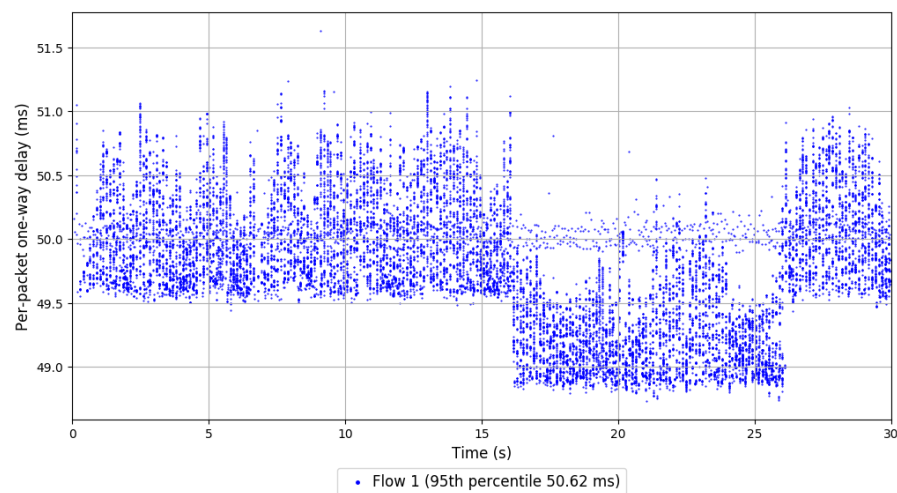
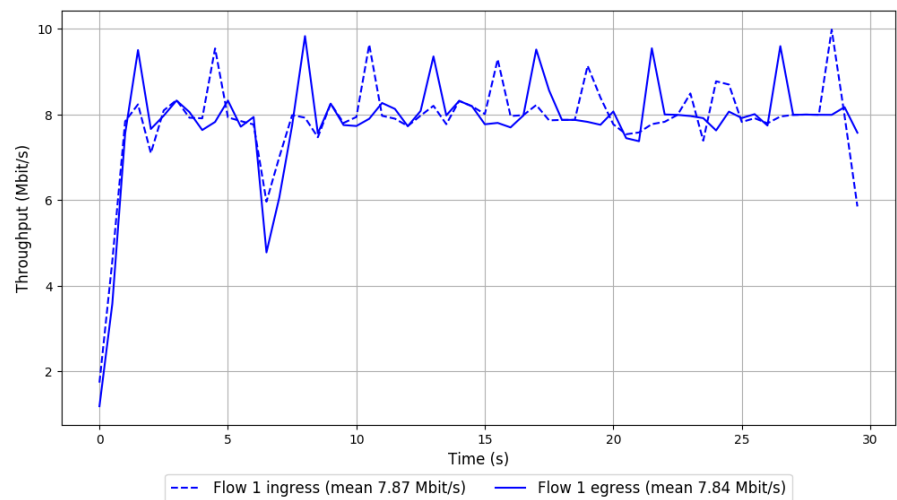
-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 50.623 ms

Loss rate: 0.42%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-05 14:33:44

End at: 2017-12-05 14:34:14

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.131 ms

Loss rate: 0.04%

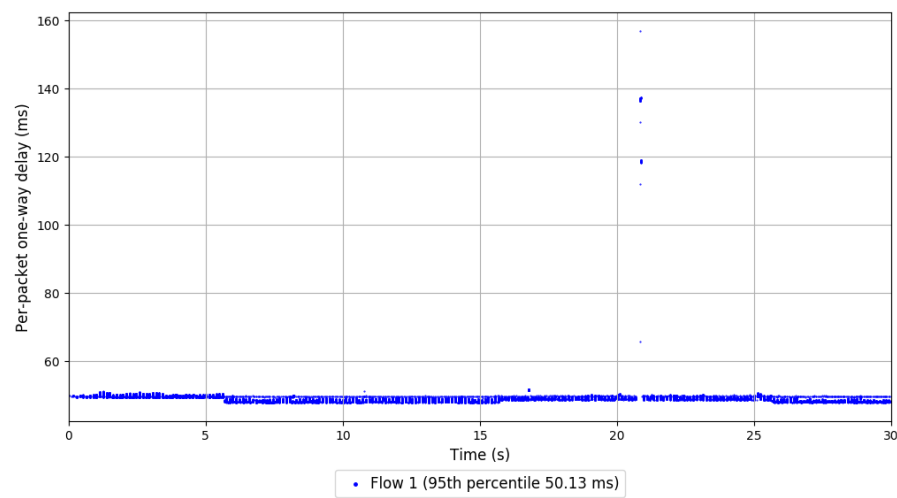
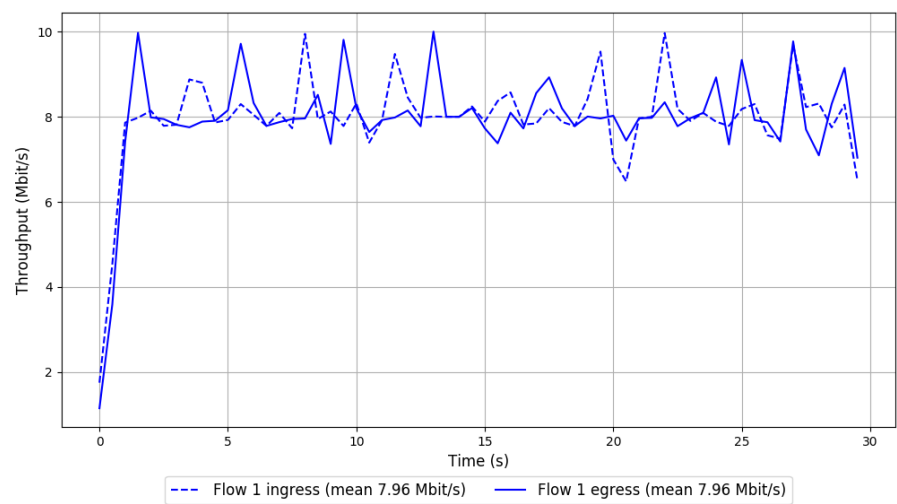
-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 50.131 ms

Loss rate: 0.04%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-05 14:44:04

End at: 2017-12-05 14:44:34

Below is generated by plot.py at 2017-12-05 15:55:44

Datalink statistics

-- Total of 1 flow:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 50.999 ms

Loss rate: 0.04%

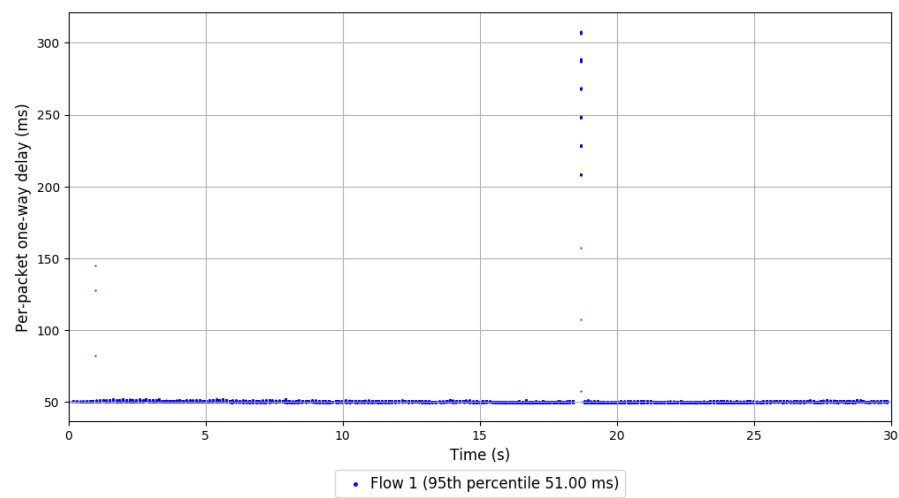
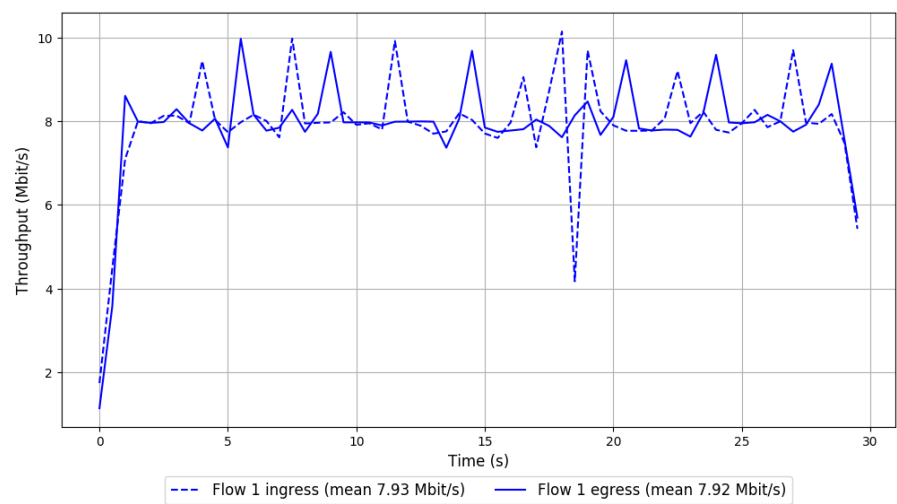
-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 50.999 ms

Loss rate: 0.04%

Run 10: Report of Sprout — Data Link

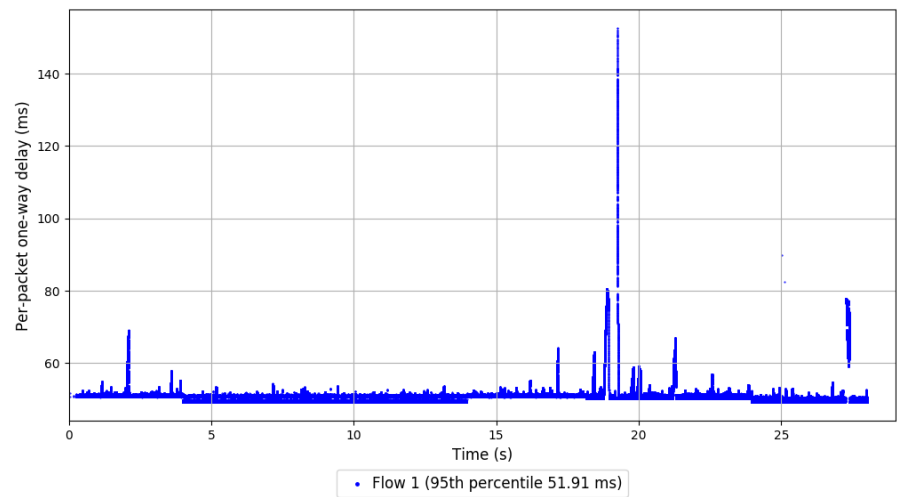
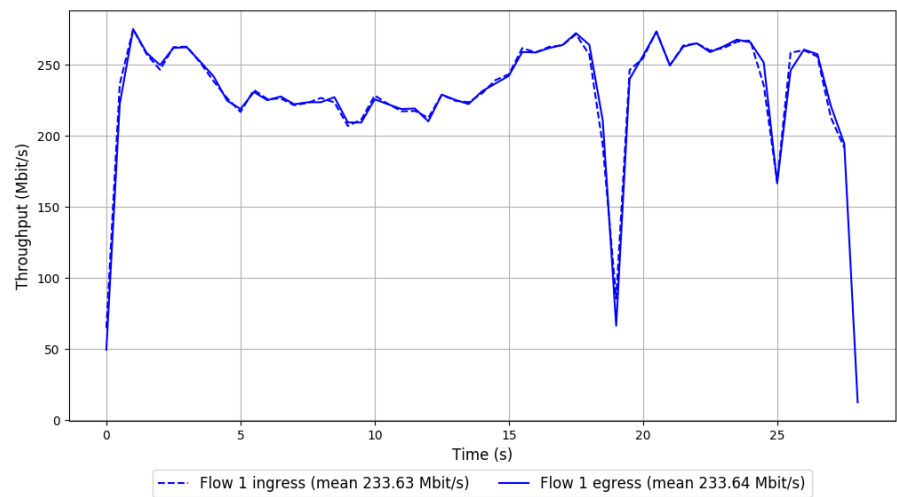


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-05 13:08:13
End at: 2017-12-05 13:08:43

# Below is generated by plot.py at 2017-12-05 15:58:20
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.64 Mbit/s
95th percentile per-packet one-way delay: 51.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 233.64 Mbit/s
95th percentile per-packet one-way delay: 51.909 ms
Loss rate: 0.00%
```

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

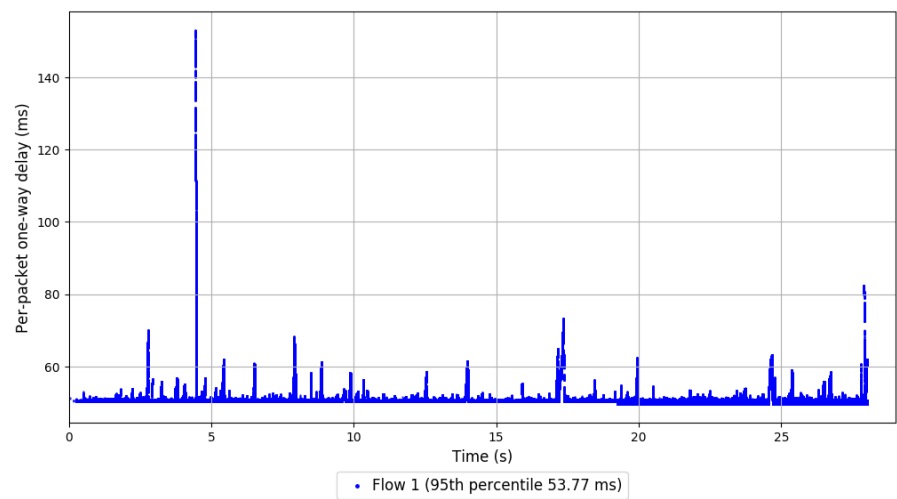
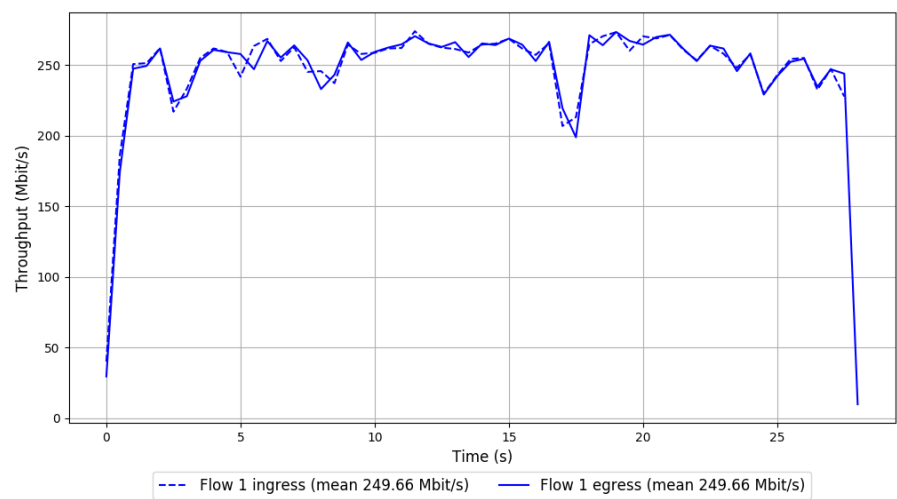


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-05 13:18:28
End at: 2017-12-05 13:18:58

# Below is generated by plot.py at 2017-12-05 15:58:37
# Datalink statistics
-- Total of 1 flow:
Average throughput: 249.66 Mbit/s
95th percentile per-packet one-way delay: 53.769 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 249.66 Mbit/s
95th percentile per-packet one-way delay: 53.769 ms
Loss rate: 0.00%
```

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

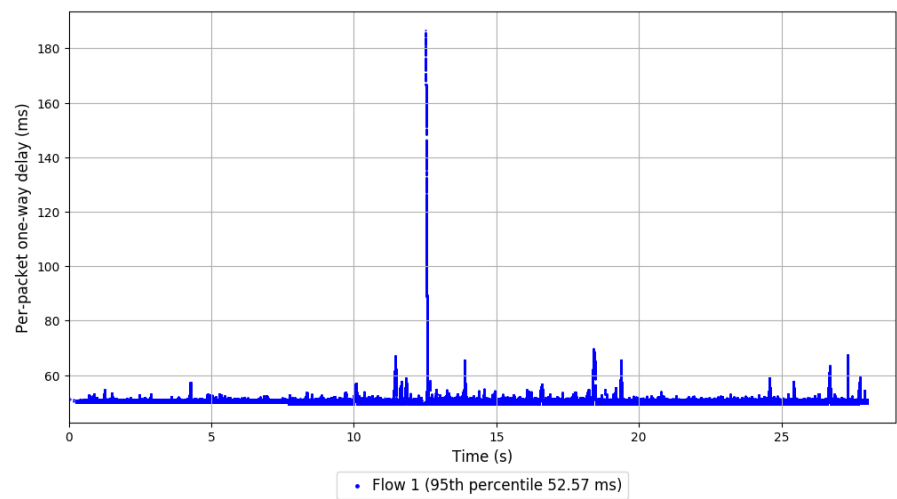
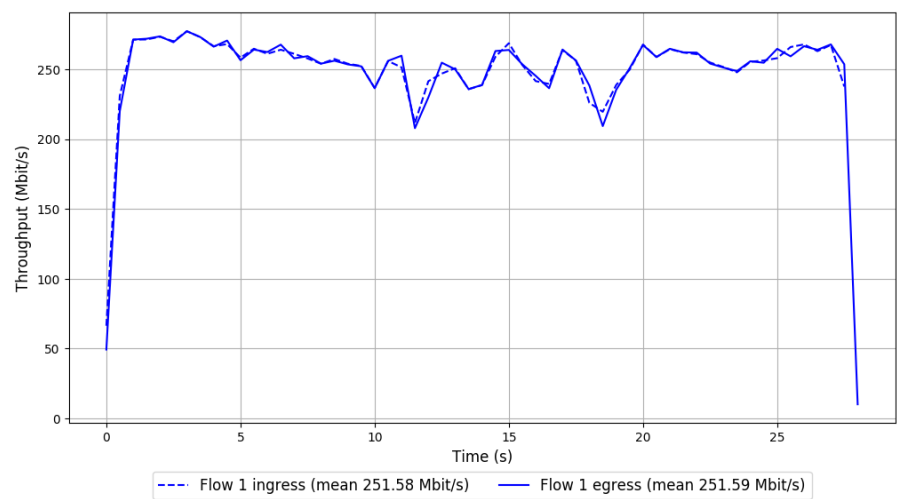


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-05 13:28:50
End at: 2017-12-05 13:29:20

# Below is generated by plot.py at 2017-12-05 15:58:42
# Datalink statistics
-- Total of 1 flow:
Average throughput: 251.59 Mbit/s
95th percentile per-packet one-way delay: 52.570 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 251.59 Mbit/s
95th percentile per-packet one-way delay: 52.570 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-05 13:39:13

End at: 2017-12-05 13:39:43

Below is generated by plot.py at 2017-12-05 15:58:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 244.62 Mbit/s

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

Loss rate: 0.00%

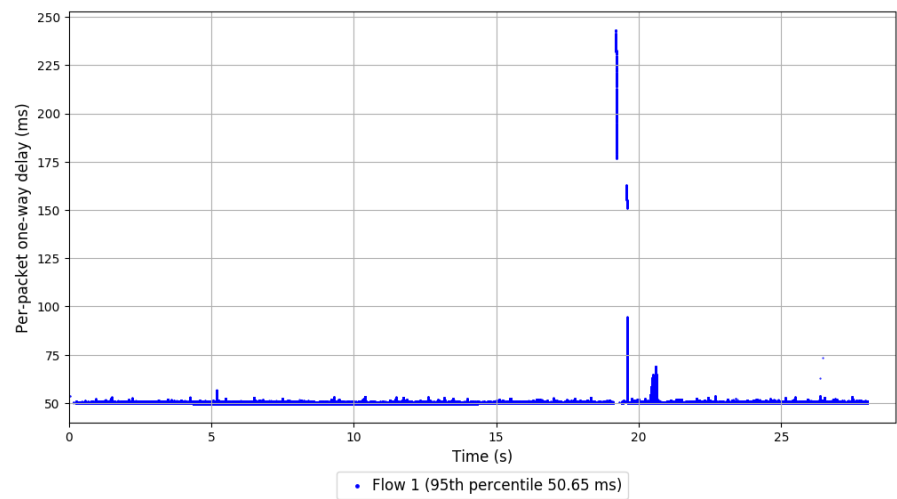
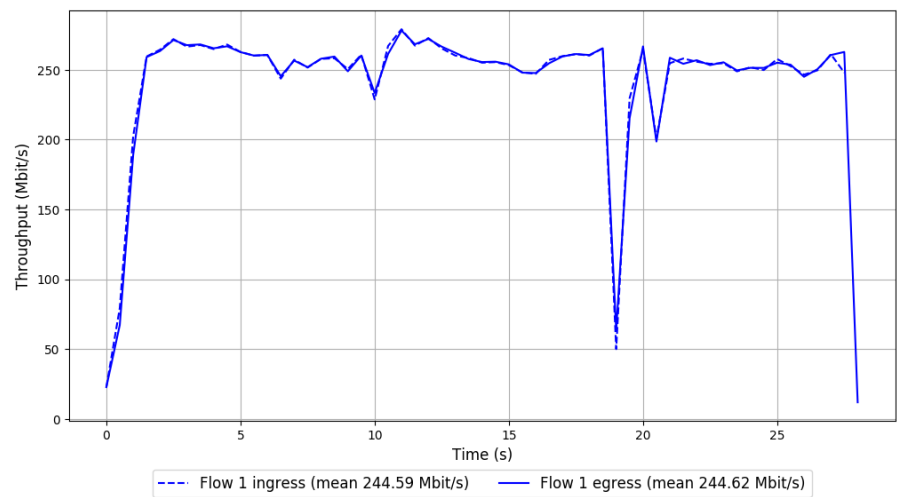
-- Flow 1:

Average throughput: 244.62 Mbit/s

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

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-05 13:49:34

End at: 2017-12-05 13:50:04

Below is generated by plot.py at 2017-12-05 15:58:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 251.36 Mbit/s

95th percentile per-packet one-way delay: 50.394 ms

Loss rate: 0.02%

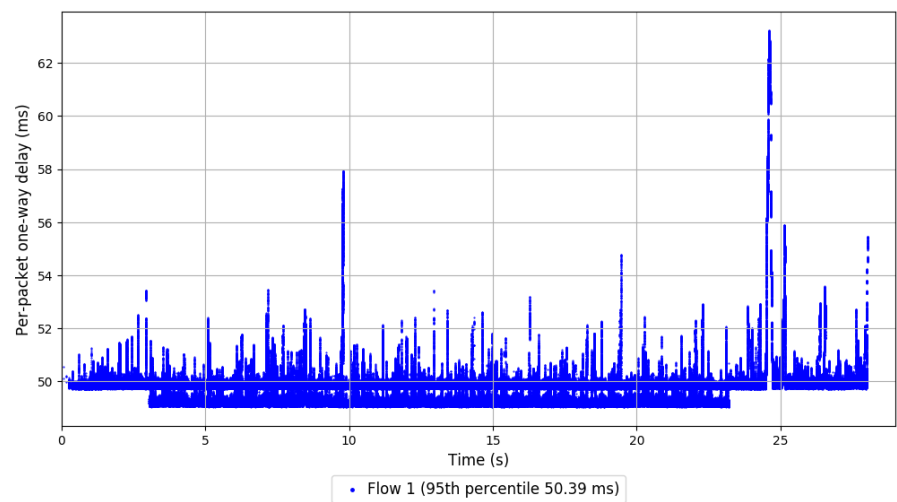
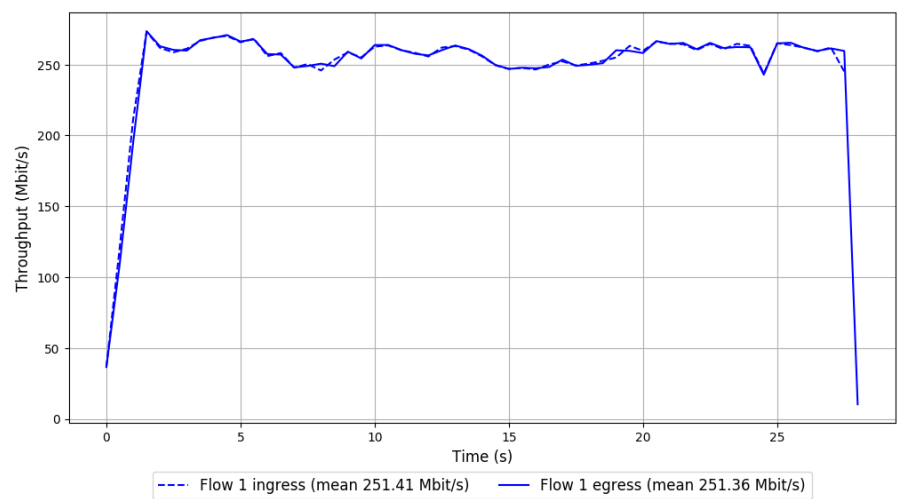
-- Flow 1:

Average throughput: 251.36 Mbit/s

95th percentile per-packet one-way delay: 50.394 ms

Loss rate: 0.02%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-05 13:59:59

End at: 2017-12-05 14:00:29

Below is generated by plot.py at 2017-12-05 15:58:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 253.23 Mbit/s

95th percentile per-packet one-way delay: 50.912 ms

Loss rate: 0.07%

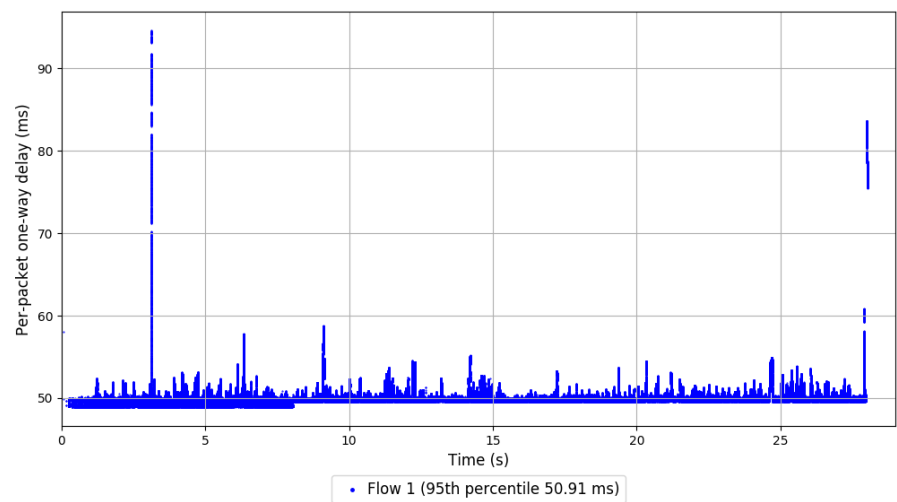
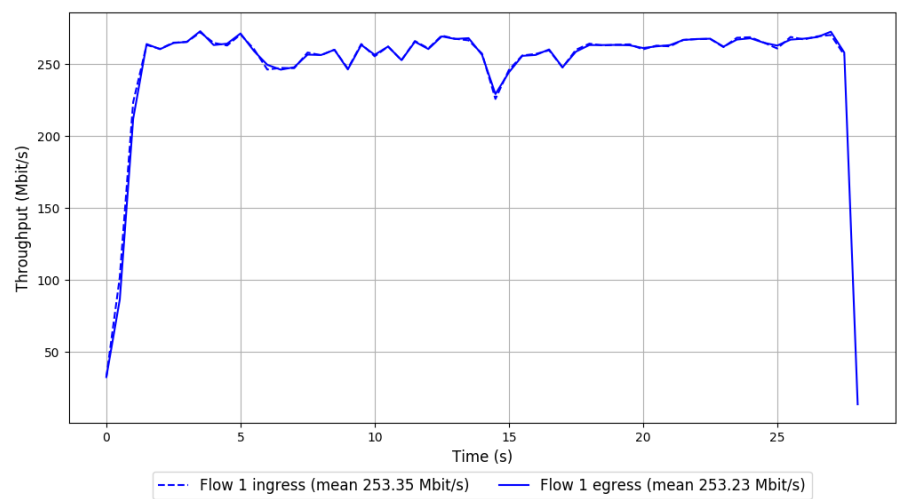
-- Flow 1:

Average throughput: 253.23 Mbit/s

95th percentile per-packet one-way delay: 50.912 ms

Loss rate: 0.07%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-05 14:10:28

End at: 2017-12-05 14:10:58

Below is generated by plot.py at 2017-12-05 16:03:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 244.48 Mbit/s

95th percentile per-packet one-way delay: 49.991 ms

Loss rate: 0.00%

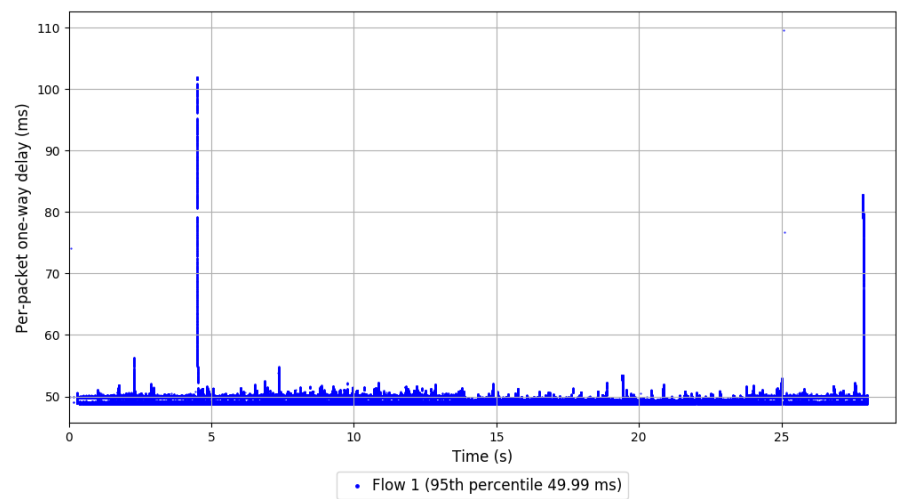
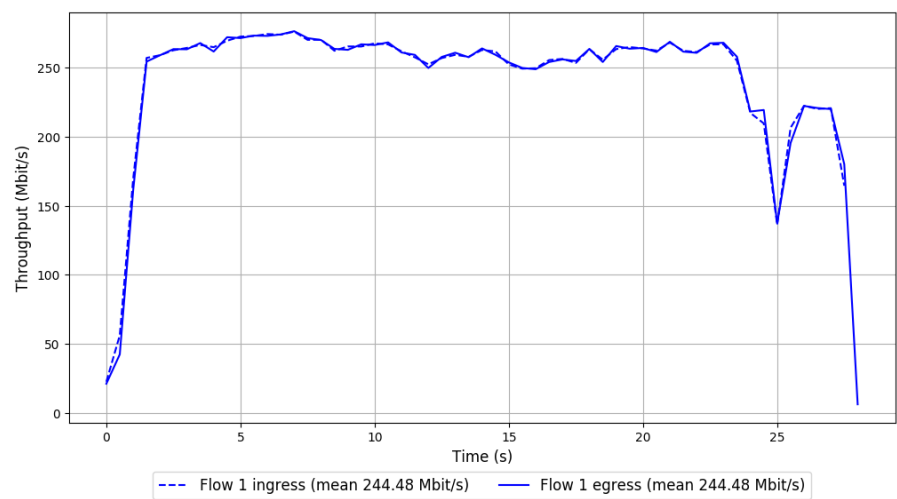
-- Flow 1:

Average throughput: 244.48 Mbit/s

95th percentile per-packet one-way delay: 49.991 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-05 14:20:59

End at: 2017-12-05 14:21:29

Below is generated by plot.py at 2017-12-05 16:03:41

Datalink statistics

-- Total of 1 flow:

Average throughput: 221.70 Mbit/s

95th percentile per-packet one-way delay: 50.387 ms

Loss rate: 0.00%

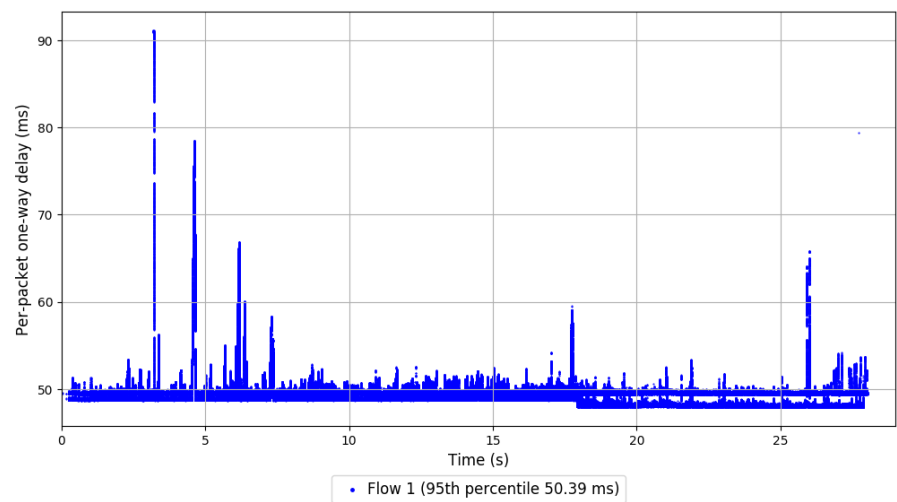
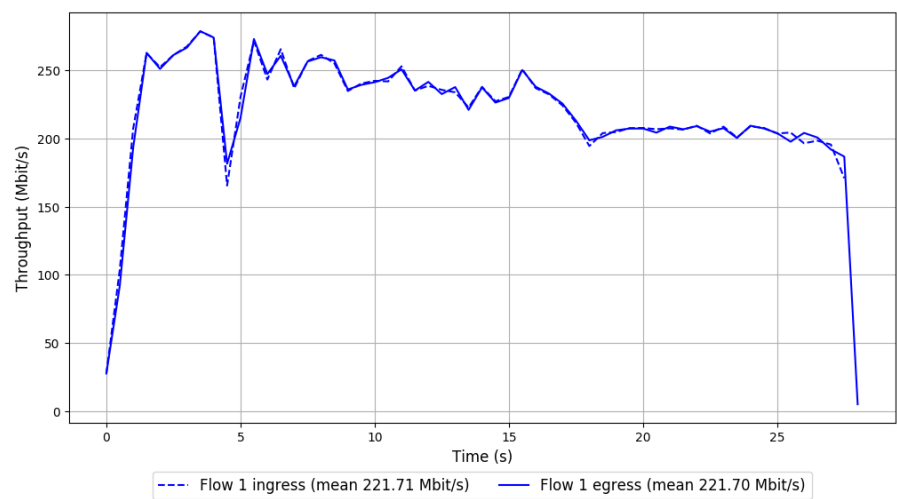
-- Flow 1:

Average throughput: 221.70 Mbit/s

95th percentile per-packet one-way delay: 50.387 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-05 14:31:23

End at: 2017-12-05 14:31:53

Below is generated by plot.py at 2017-12-05 16:04:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.01 Mbit/s

95th percentile per-packet one-way delay: 49.819 ms

Loss rate: 0.00%

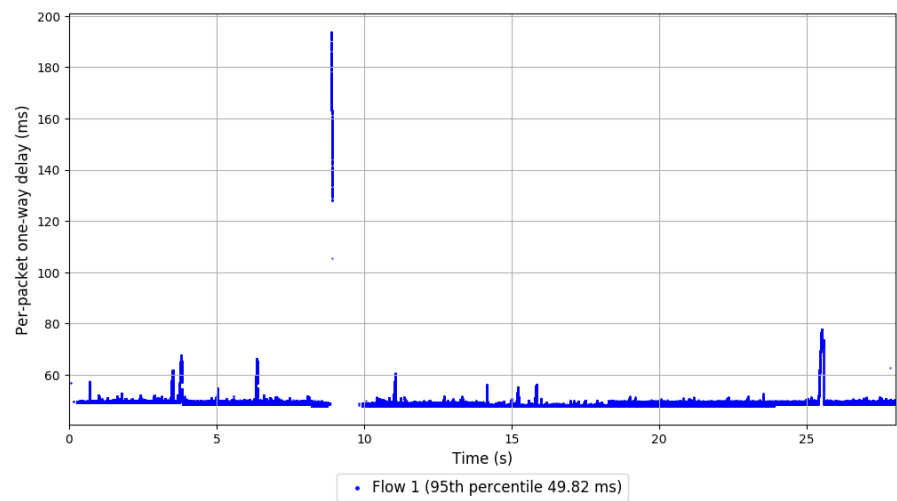
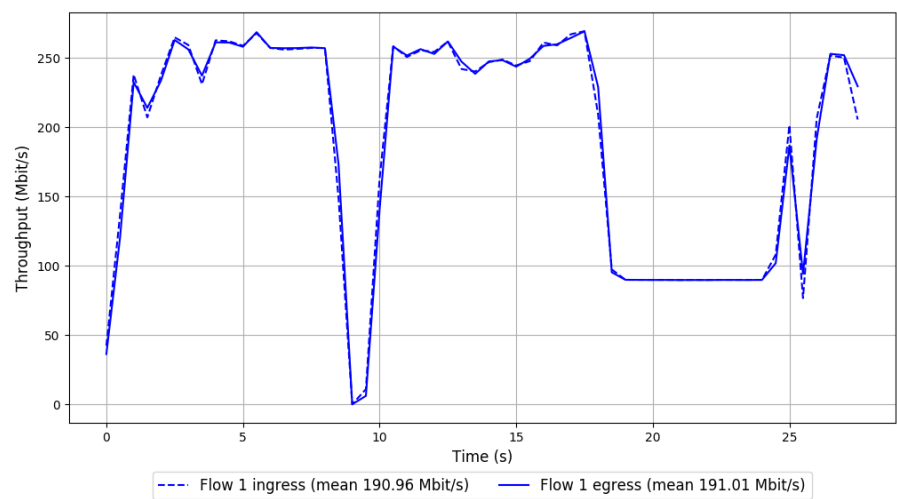
-- Flow 1:

Average throughput: 191.01 Mbit/s

95th percentile per-packet one-way delay: 49.819 ms

Loss rate: 0.00%

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

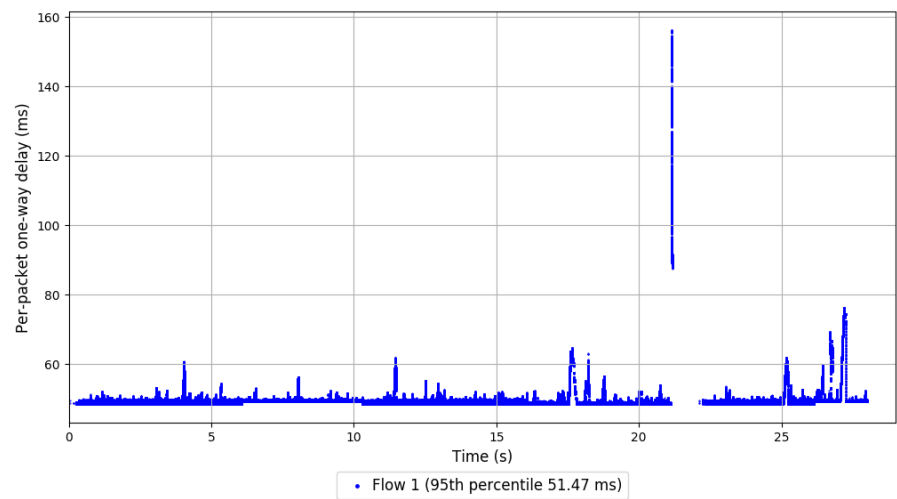
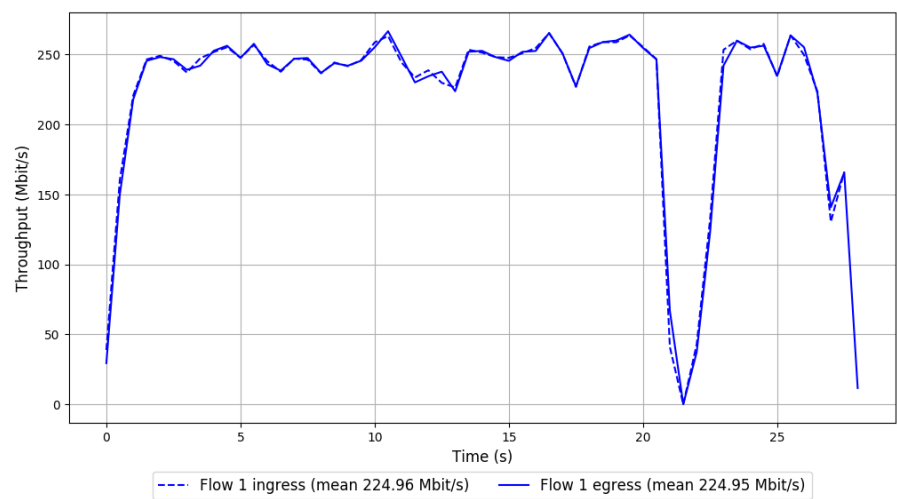


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-05 14:41:41
End at: 2017-12-05 14:42:11

# Below is generated by plot.py at 2017-12-05 16:05:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 224.95 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 224.95 Mbit/s
95th percentile per-packet one-way delay: 51.470 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-05 13:01:39

End at: 2017-12-05 13:02:09

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.13 Mbit/s

95th percentile per-packet one-way delay: 51.922 ms

Loss rate: 0.01%

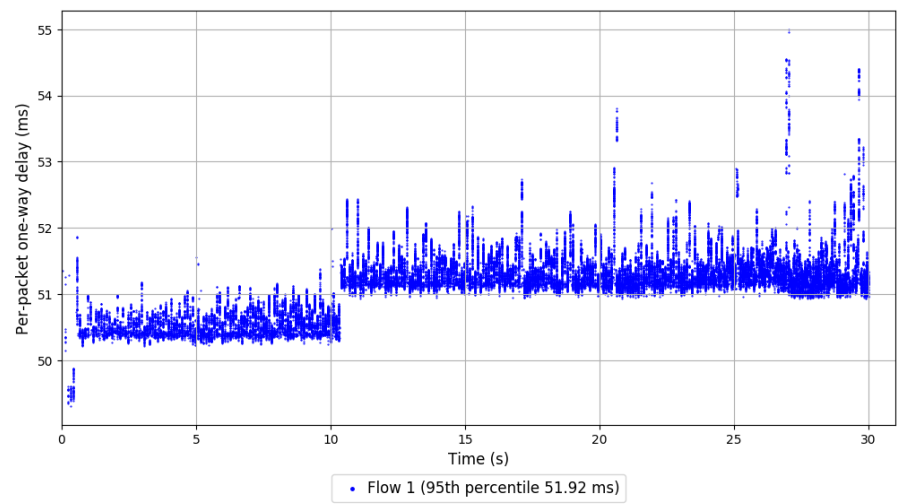
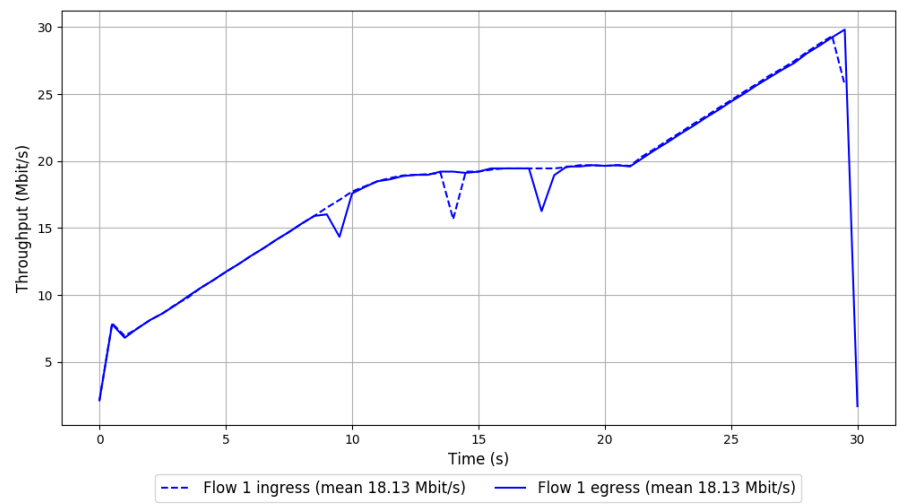
-- Flow 1:

Average throughput: 18.13 Mbit/s

95th percentile per-packet one-way delay: 51.922 ms

Loss rate: 0.01%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-05 13:11:58

End at: 2017-12-05 13:12:28

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 20.75 Mbit/s

95th percentile per-packet one-way delay: 51.548 ms

Loss rate: 0.00%

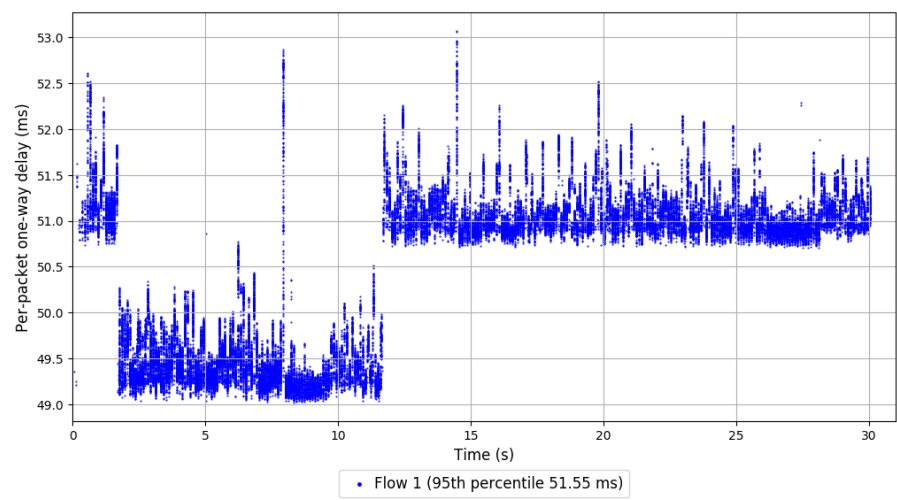
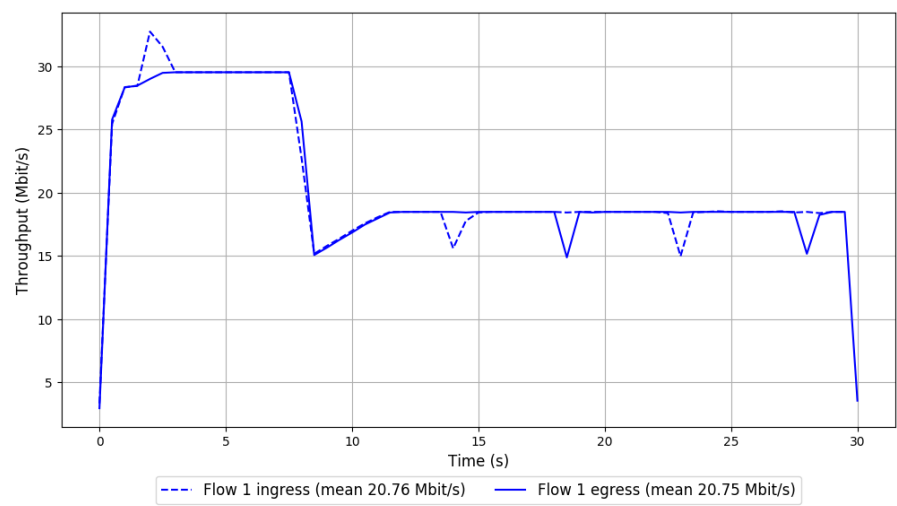
-- Flow 1:

Average throughput: 20.75 Mbit/s

95th percentile per-packet one-way delay: 51.548 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-05 13:22:15

End at: 2017-12-05 13:22:45

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 57.91 Mbit/s

95th percentile per-packet one-way delay: 51.483 ms

Loss rate: 0.02%

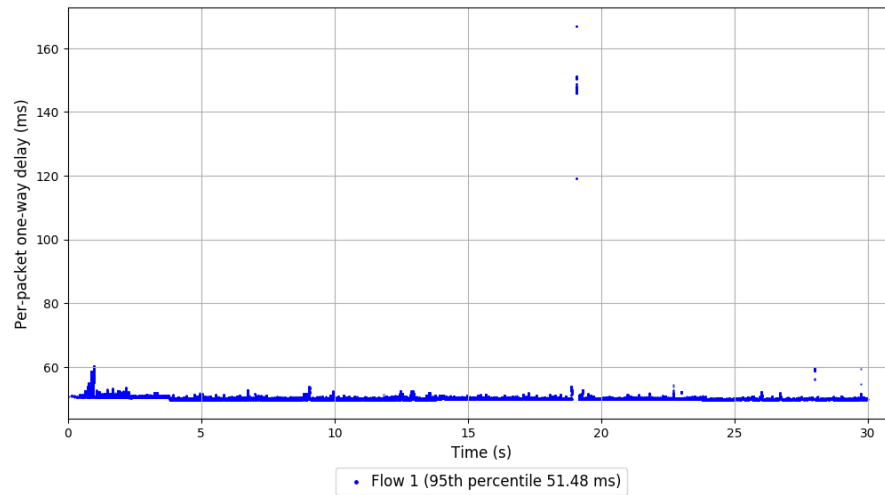
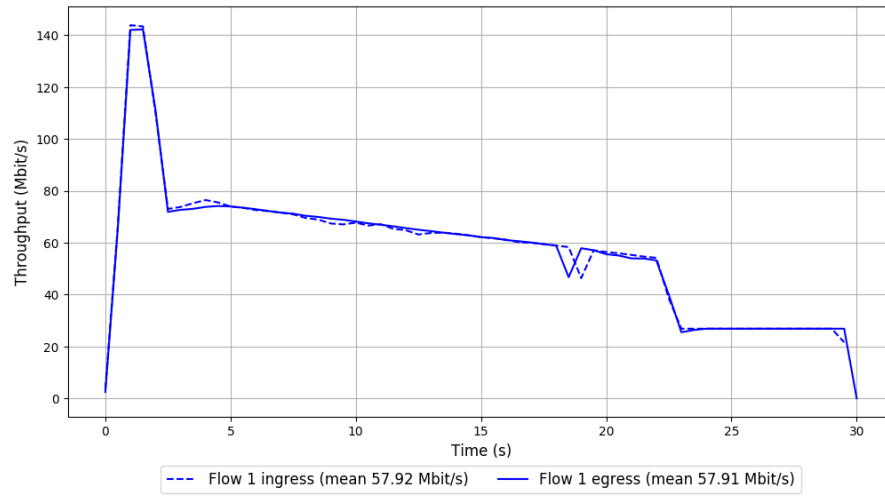
-- Flow 1:

Average throughput: 57.91 Mbit/s

95th percentile per-packet one-way delay: 51.483 ms

Loss rate: 0.02%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

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

End at: 2017-12-05 13:33:02

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.41 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.00%

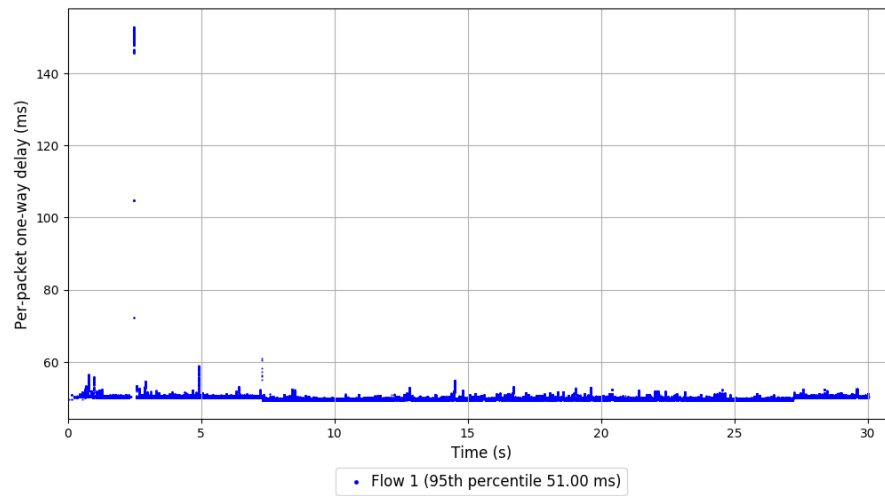
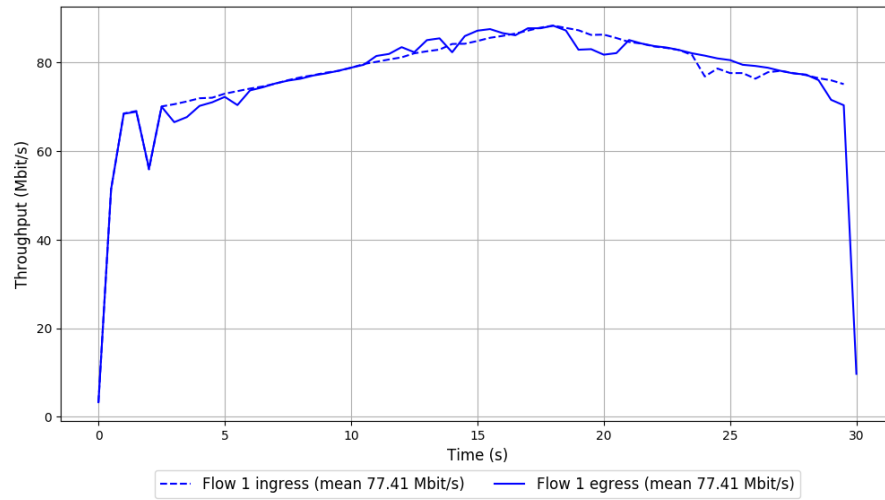
-- Flow 1:

Average throughput: 77.41 Mbit/s

95th percentile per-packet one-way delay: 51.002 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-05 13:42:55

End at: 2017-12-05 13:43:25

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.76 Mbit/s

95th percentile per-packet one-way delay: 55.679 ms

Loss rate: 0.00%

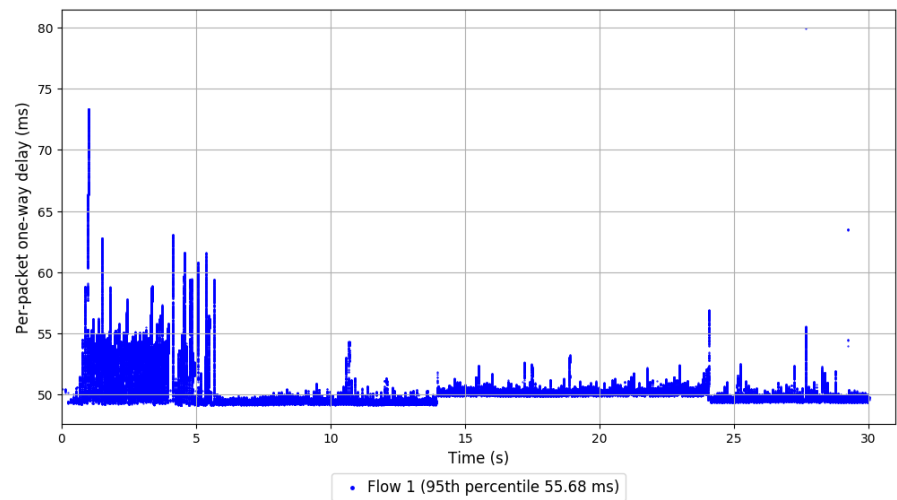
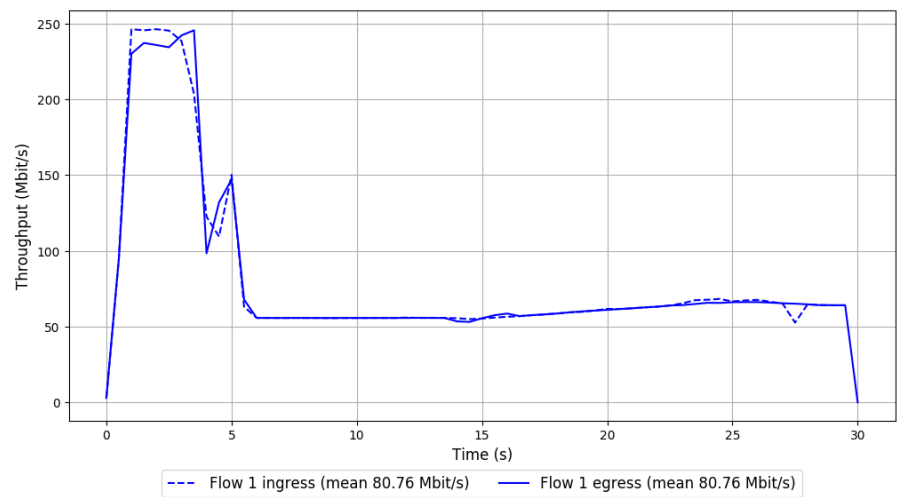
-- Flow 1:

Average throughput: 80.76 Mbit/s

95th percentile per-packet one-way delay: 55.679 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-05 13:53:22

End at: 2017-12-05 13:53:52

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 89.25 Mbit/s

95th percentile per-packet one-way delay: 50.642 ms

Loss rate: 0.00%

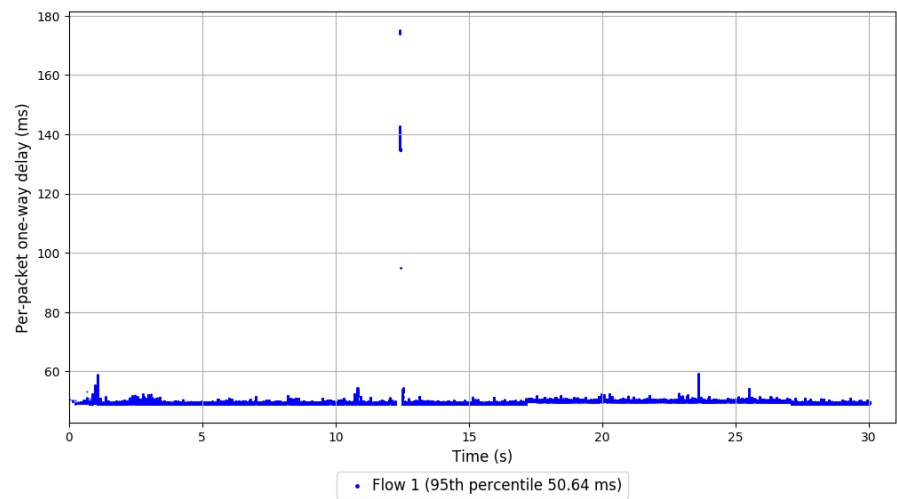
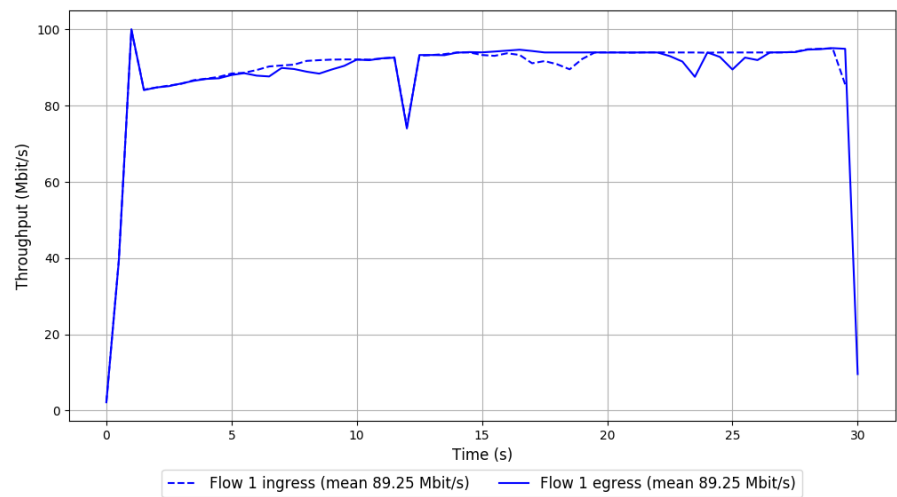
-- Flow 1:

Average throughput: 89.25 Mbit/s

95th percentile per-packet one-way delay: 50.642 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-05 14:03:47

End at: 2017-12-05 14:04:17

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.94 Mbit/s

95th percentile per-packet one-way delay: 50.240 ms

Loss rate: 0.00%

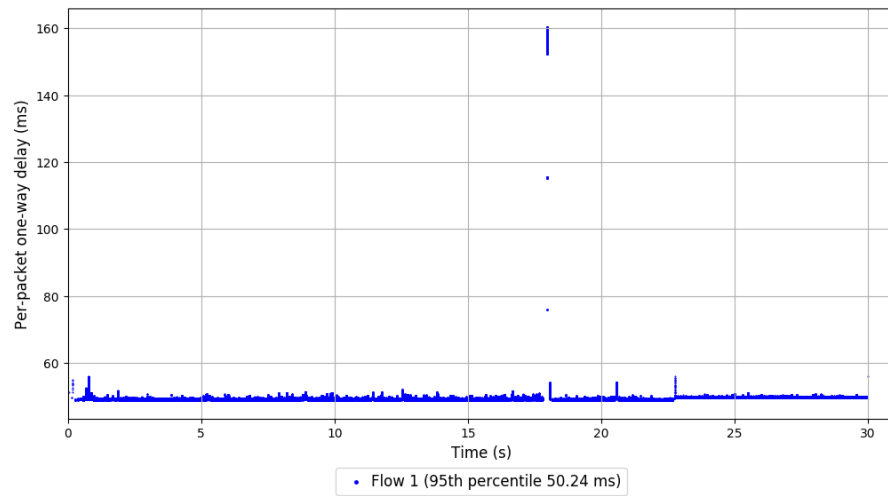
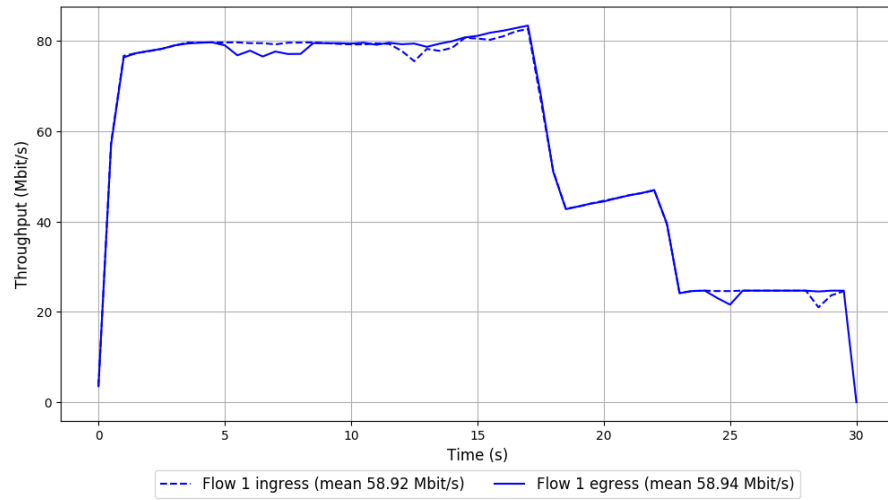
-- Flow 1:

Average throughput: 58.94 Mbit/s

95th percentile per-packet one-way delay: 50.240 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-05 14:14:17

End at: 2017-12-05 14:14:47

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 134.88 Mbit/s

95th percentile per-packet one-way delay: 54.096 ms

Loss rate: 0.00%

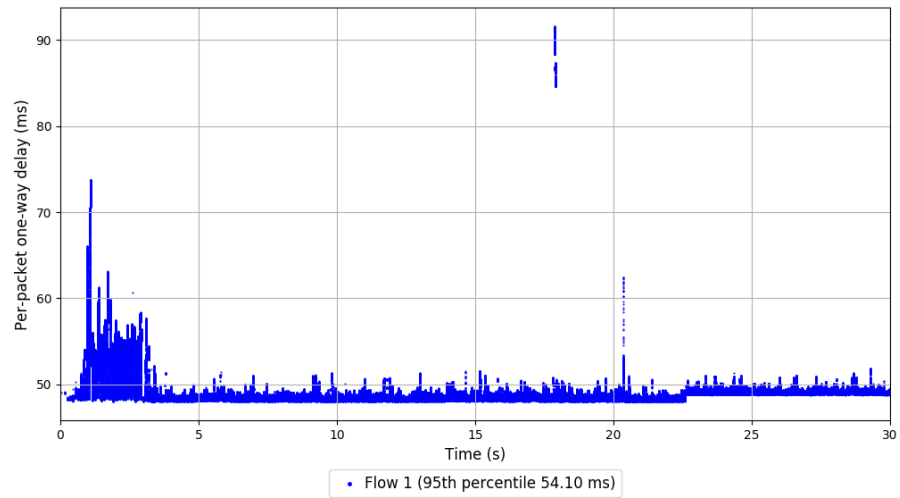
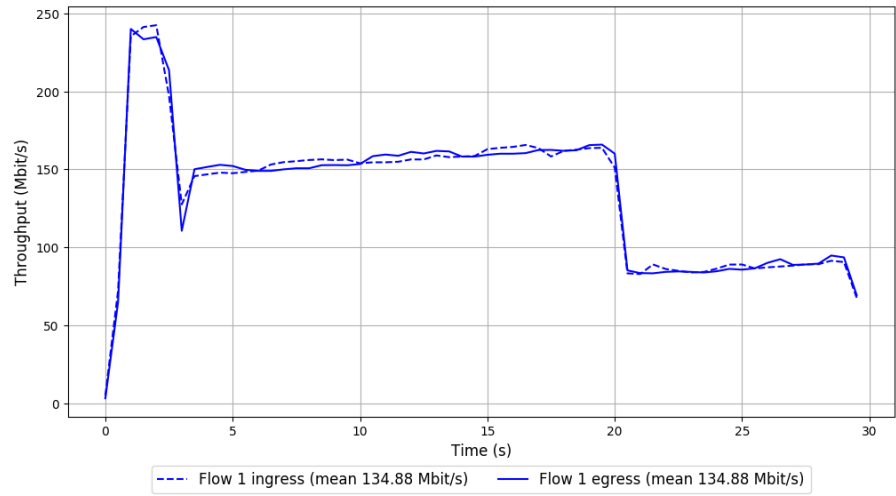
-- Flow 1:

Average throughput: 134.88 Mbit/s

95th percentile per-packet one-way delay: 54.096 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-05 14:24:44

End at: 2017-12-05 14:25:14

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 99.48 Mbit/s

95th percentile per-packet one-way delay: 51.232 ms

Loss rate: 0.00%

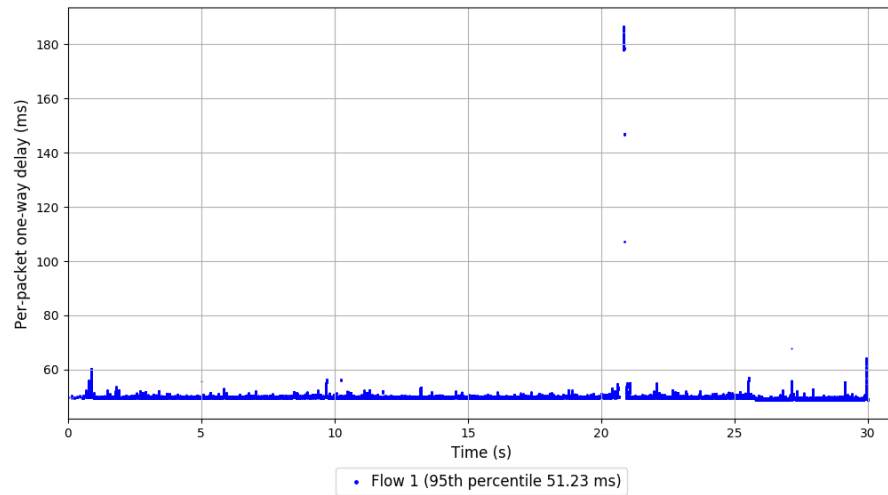
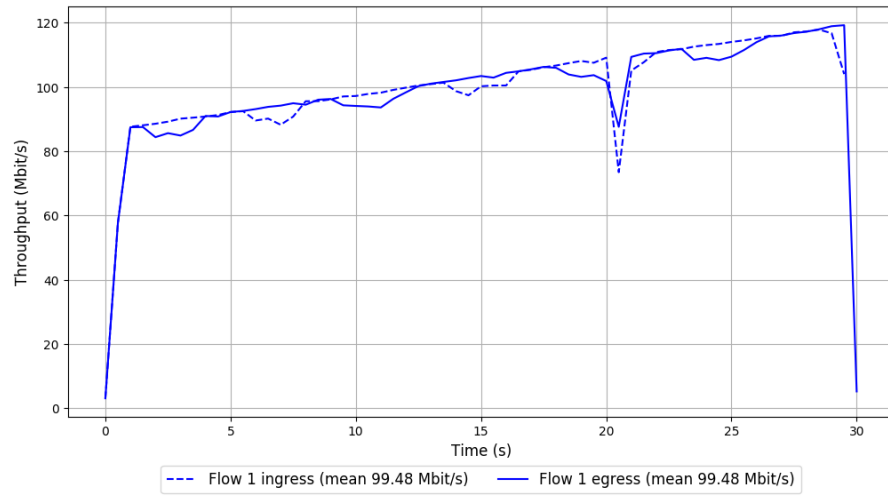
-- Flow 1:

Average throughput: 99.48 Mbit/s

95th percentile per-packet one-way delay: 51.232 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-05 14:35:05

End at: 2017-12-05 14:35:35

Below is generated by plot.py at 2017-12-05 16:05:02

Datalink statistics

-- Total of 1 flow:

Average throughput: 29.76 Mbit/s

95th percentile per-packet one-way delay: 50.251 ms

Loss rate: 0.02%

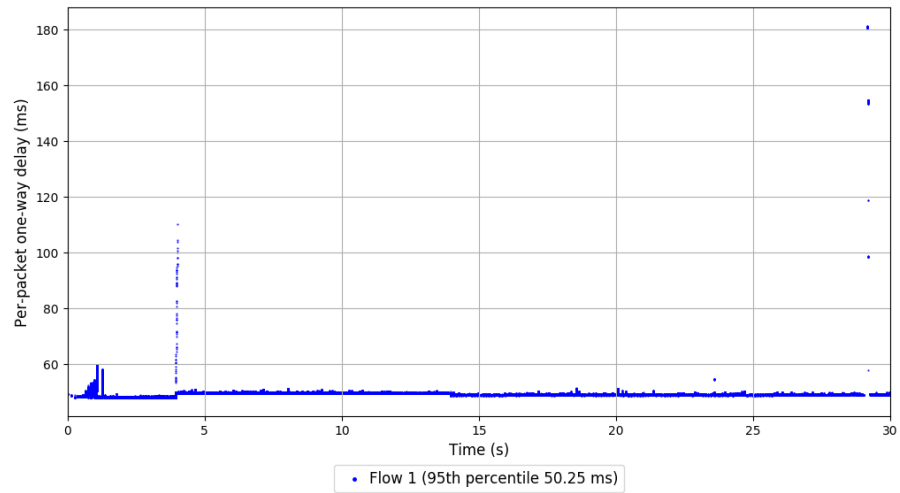
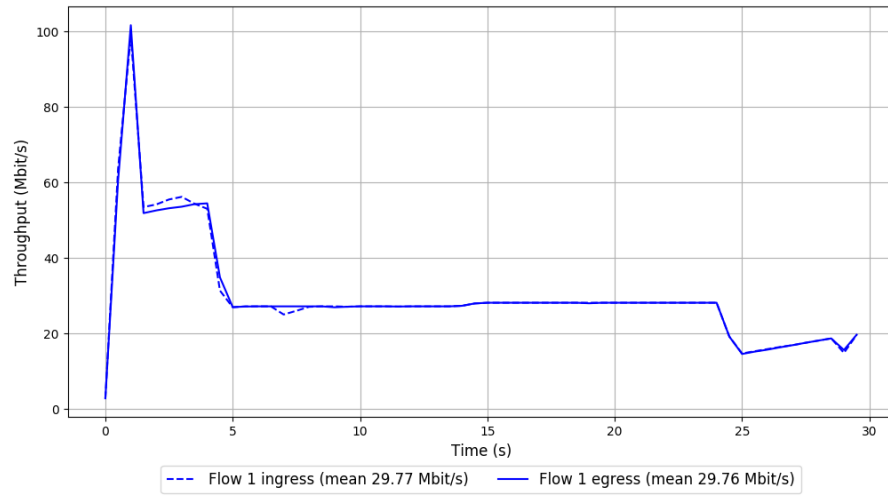
-- Flow 1:

Average throughput: 29.76 Mbit/s

95th percentile per-packet one-way delay: 50.251 ms

Loss rate: 0.02%

Run 10: Report of TCP Vegas — Data Link

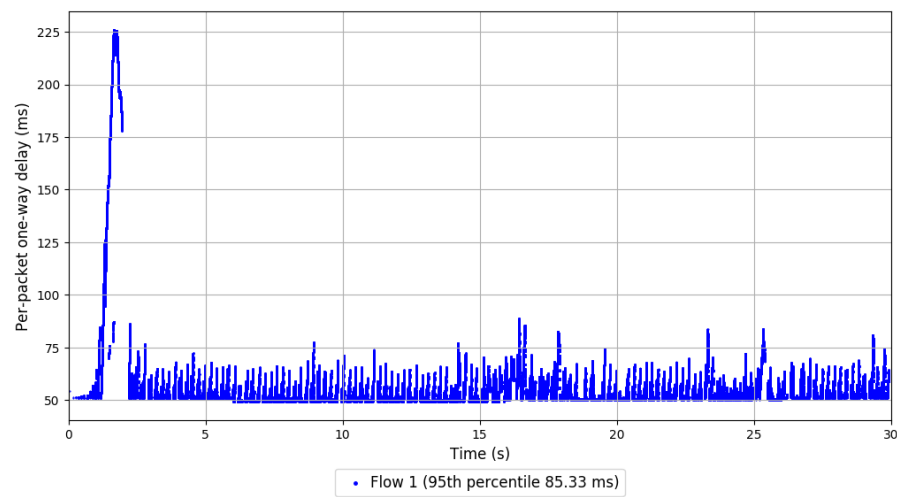
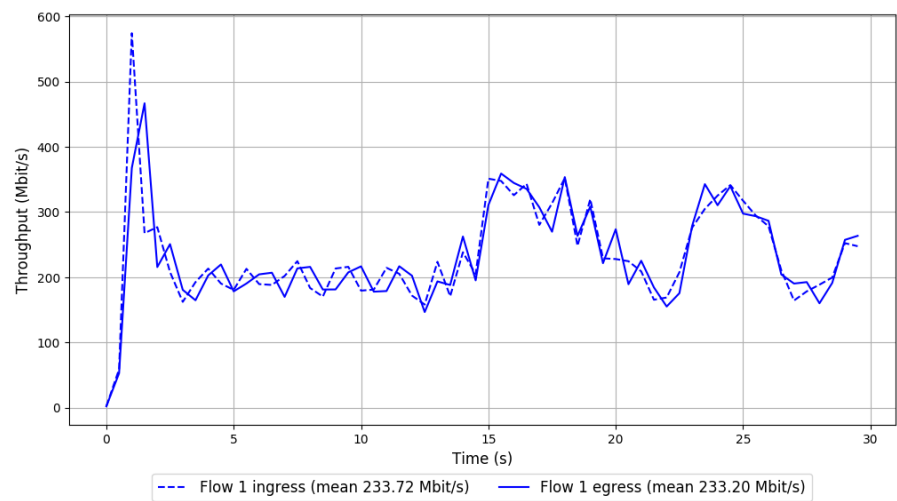


```
Run 1: Statistics of Verus

Start at: 2017-12-05 13:05:53
End at: 2017-12-05 13:06:23

# Below is generated by plot.py at 2017-12-05 16:05:02
# Datalink statistics
-- Total of 1 flow:
Average throughput: 233.20 Mbit/s
95th percentile per-packet one-way delay: 85.333 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 233.20 Mbit/s
95th percentile per-packet one-way delay: 85.333 ms
Loss rate: 0.22%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-05 13:16:08

End at: 2017-12-05 13:16:38

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 242.34 Mbit/s

95th percentile per-packet one-way delay: 88.226 ms

Loss rate: 1.03%

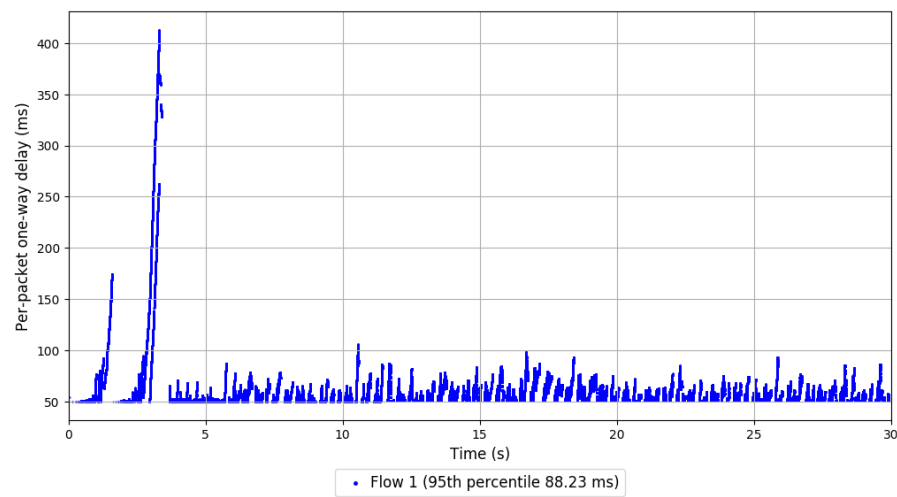
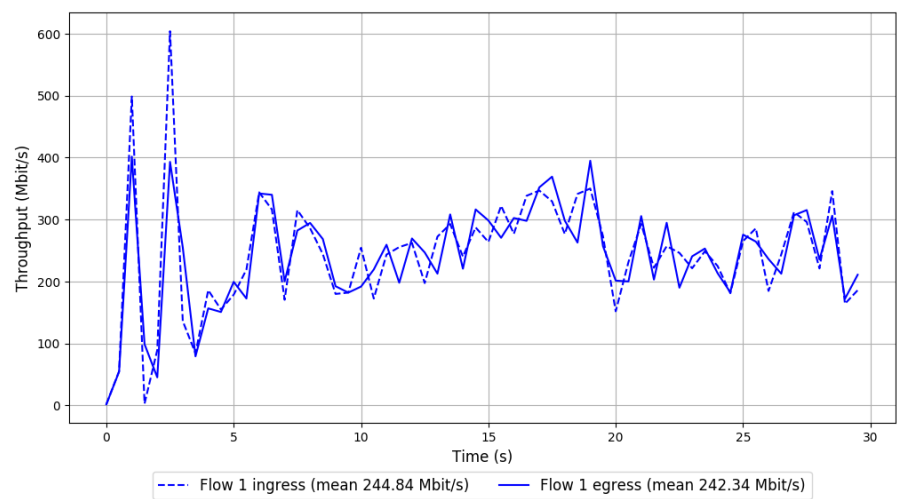
-- Flow 1:

Average throughput: 242.34 Mbit/s

95th percentile per-packet one-way delay: 88.226 ms

Loss rate: 1.03%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-05 13:26:32

End at: 2017-12-05 13:27:02

Below is generated by plot.py at 2017-12-05 16:05:55

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.44 Mbit/s

95th percentile per-packet one-way delay: 105.779 ms

Loss rate: 0.01%

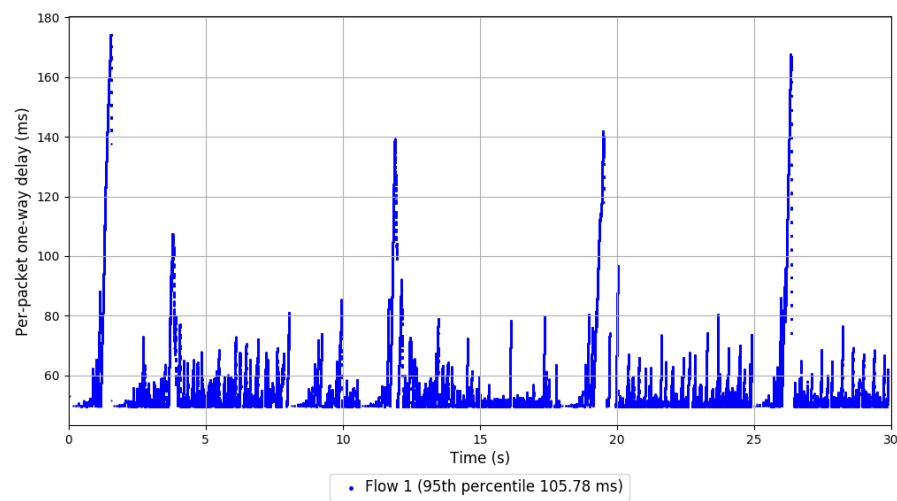
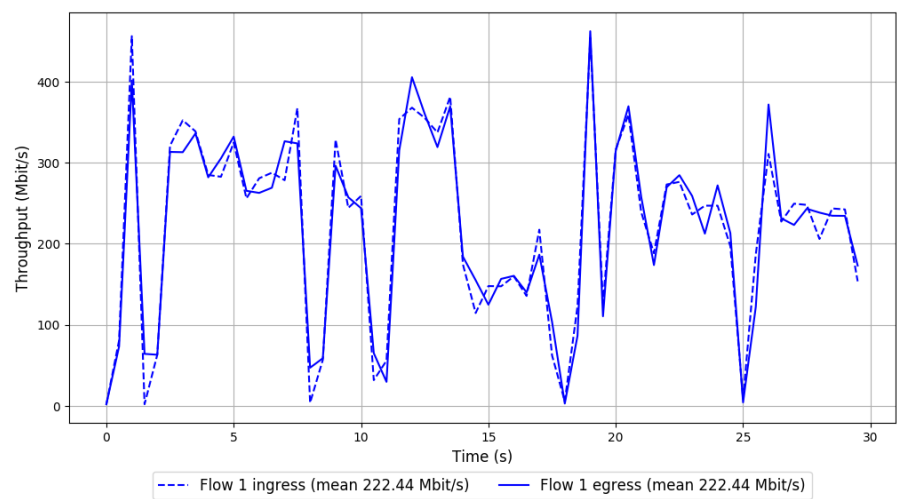
-- Flow 1:

Average throughput: 222.44 Mbit/s

95th percentile per-packet one-way delay: 105.779 ms

Loss rate: 0.01%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-05 13:36:51

End at: 2017-12-05 13:37:21

Below is generated by plot.py at 2017-12-05 16:07:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 268.85 Mbit/s

95th percentile per-packet one-way delay: 203.703 ms

Loss rate: 0.85%

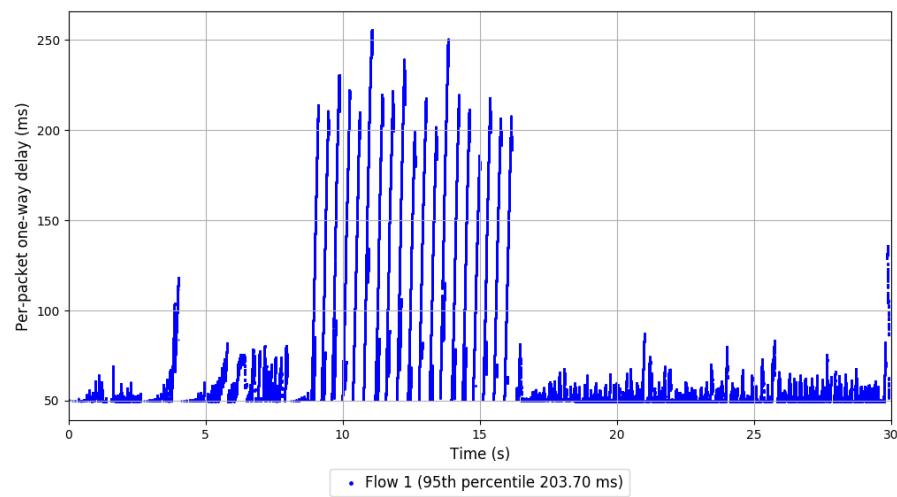
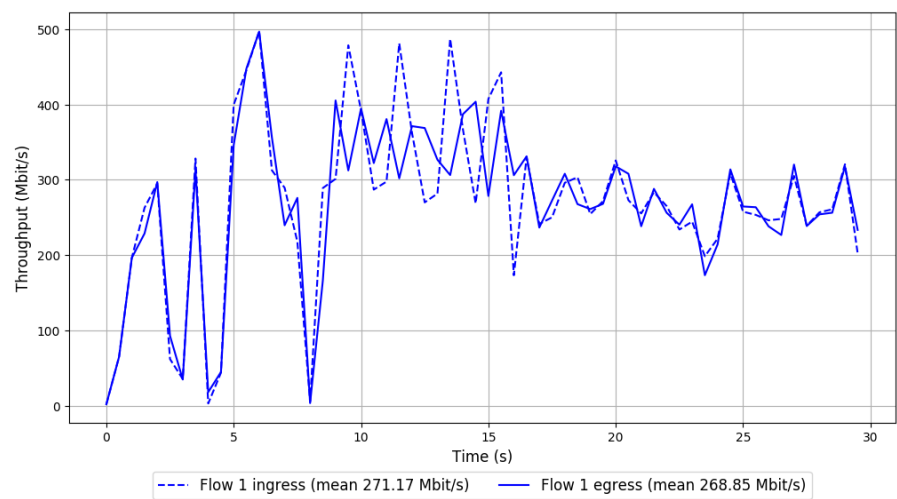
-- Flow 1:

Average throughput: 268.85 Mbit/s

95th percentile per-packet one-way delay: 203.703 ms

Loss rate: 0.85%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-05 13:47:15

End at: 2017-12-05 13:47:45

Below is generated by plot.py at 2017-12-05 16:07:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 234.48 Mbit/s

95th percentile per-packet one-way delay: 87.398 ms

Loss rate: 0.08%

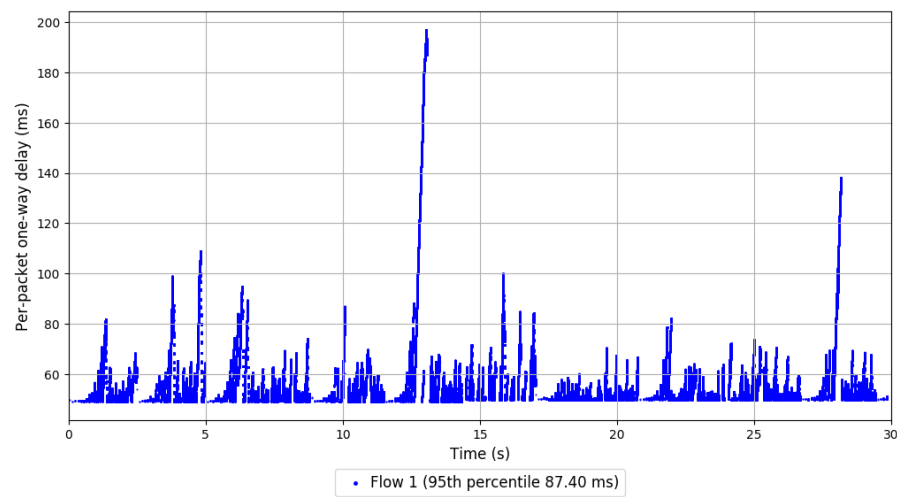
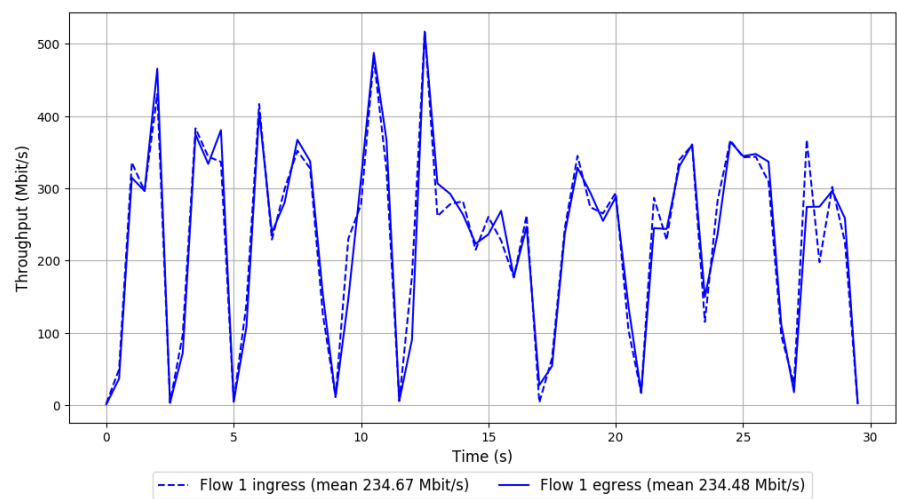
-- Flow 1:

Average throughput: 234.48 Mbit/s

95th percentile per-packet one-way delay: 87.398 ms

Loss rate: 0.08%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-05 13:57:40

End at: 2017-12-05 13:58:10

Below is generated by plot.py at 2017-12-05 16:07:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 224.82 Mbit/s

95th percentile per-packet one-way delay: 80.909 ms

Loss rate: 0.00%

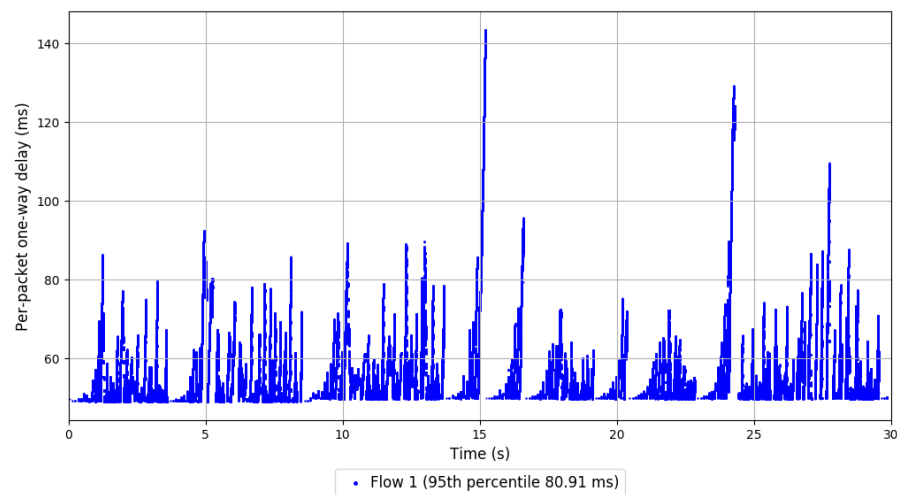
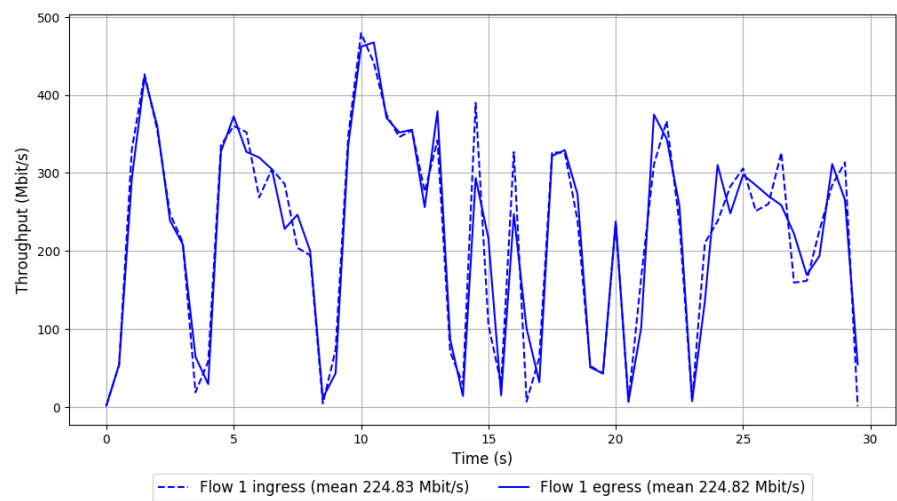
-- Flow 1:

Average throughput: 224.82 Mbit/s

95th percentile per-packet one-way delay: 80.909 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-05 14:08:08

End at: 2017-12-05 14:08:38

Below is generated by plot.py at 2017-12-05 16:07:57

Datalink statistics

-- Total of 1 flow:

Average throughput: 229.83 Mbit/s

95th percentile per-packet one-way delay: 82.218 ms

Loss rate: 0.01%

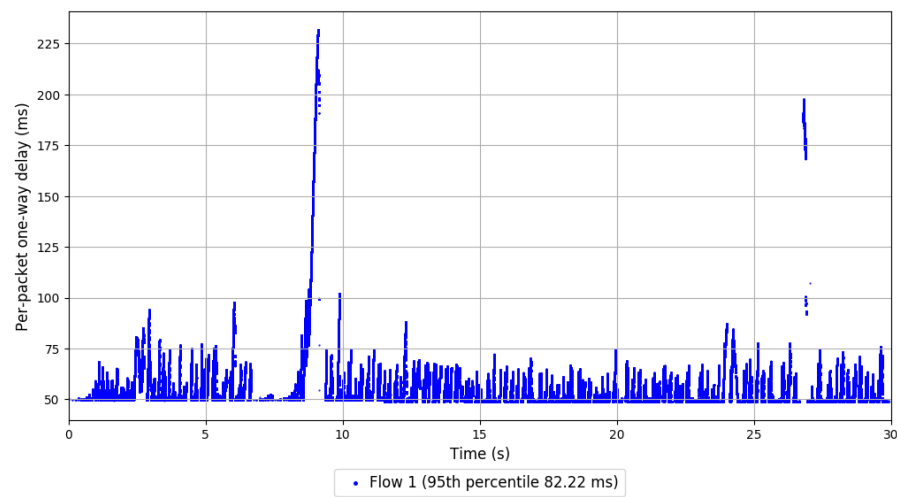
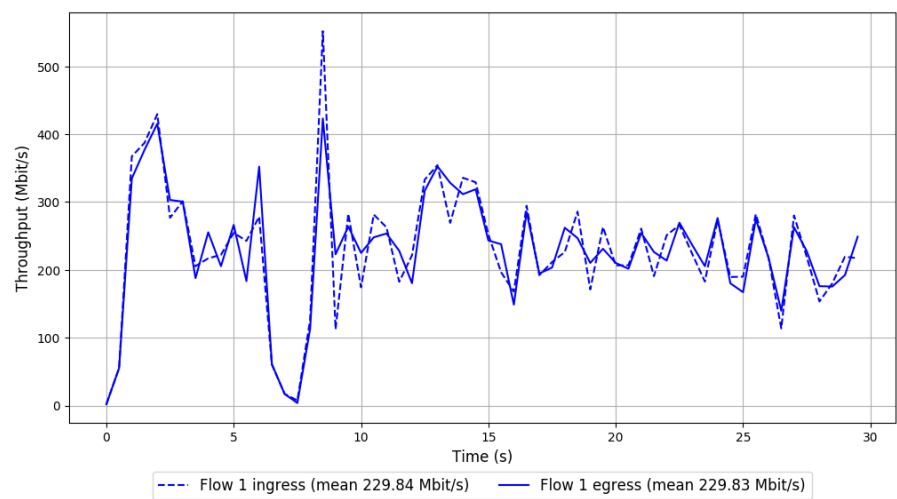
-- Flow 1:

Average throughput: 229.83 Mbit/s

95th percentile per-packet one-way delay: 82.218 ms

Loss rate: 0.01%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-05 14:18:40

End at: 2017-12-05 14:19:10

Below is generated by plot.py at 2017-12-05 16:08:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 225.43 Mbit/s

95th percentile per-packet one-way delay: 129.037 ms

Loss rate: 0.02%

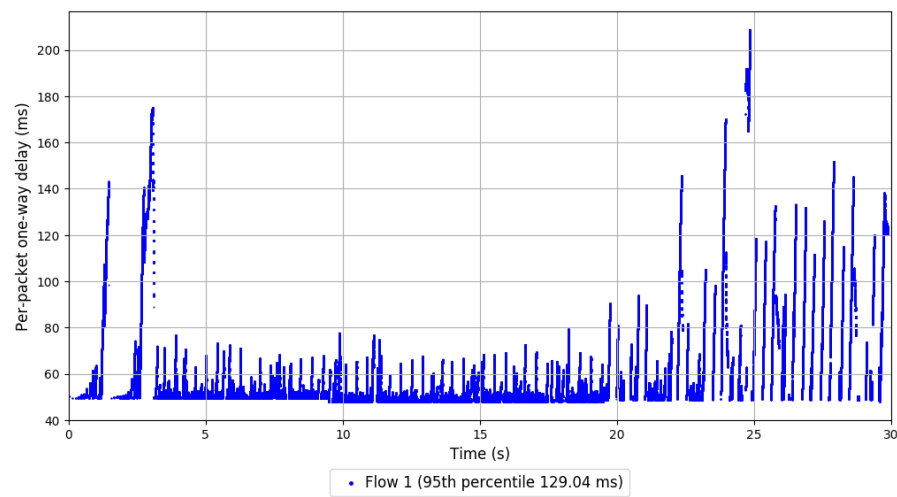
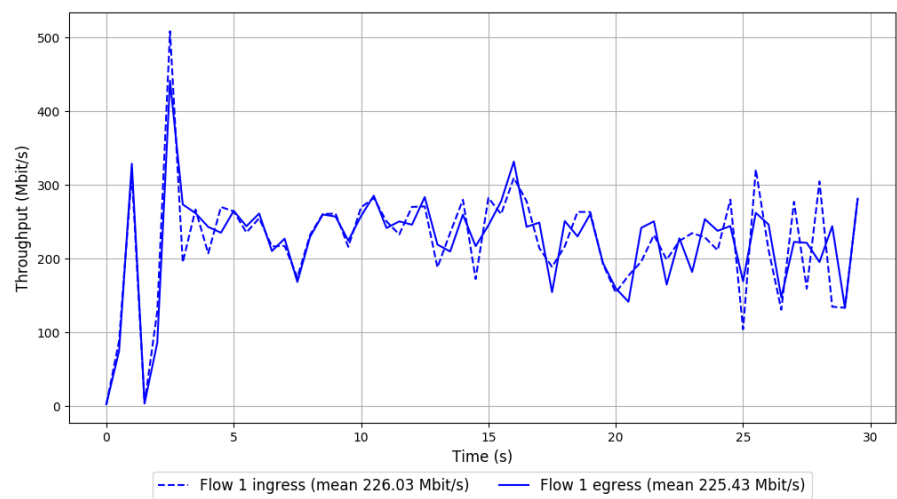
-- Flow 1:

Average throughput: 225.43 Mbit/s

95th percentile per-packet one-way delay: 129.037 ms

Loss rate: 0.02%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-05 14:29:03

End at: 2017-12-05 14:29:33

Below is generated by plot.py at 2017-12-05 16:09:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.81 Mbit/s

95th percentile per-packet one-way delay: 110.175 ms

Loss rate: 0.00%

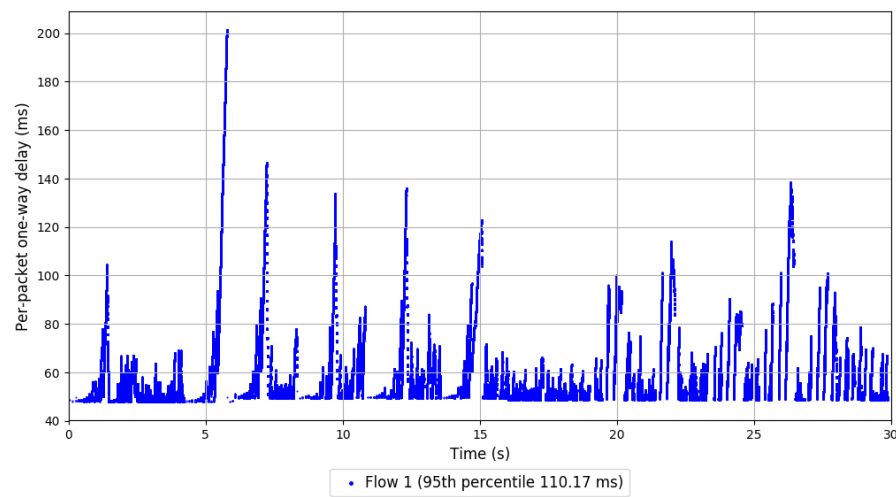
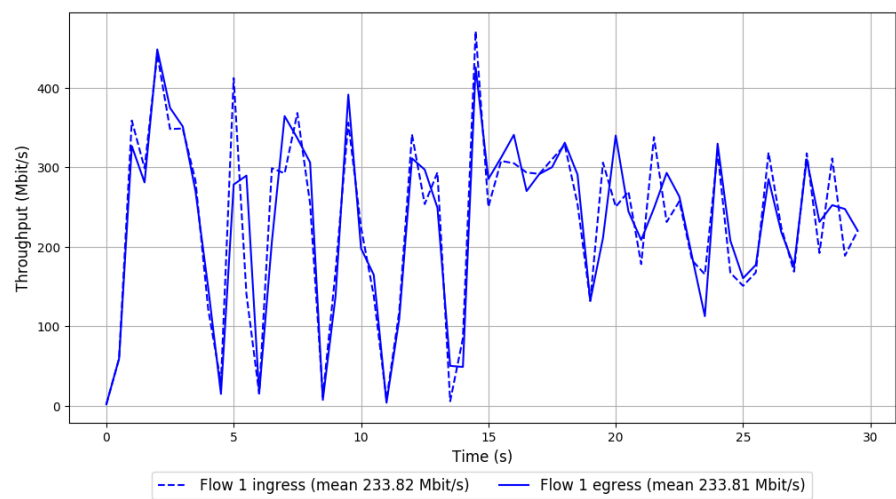
-- Flow 1:

Average throughput: 233.81 Mbit/s

95th percentile per-packet one-way delay: 110.175 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-05 14:39:21

End at: 2017-12-05 14:39:51

Below is generated by plot.py at 2017-12-05 16:09:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 233.66 Mbit/s

95th percentile per-packet one-way delay: 120.834 ms

Loss rate: 0.18%

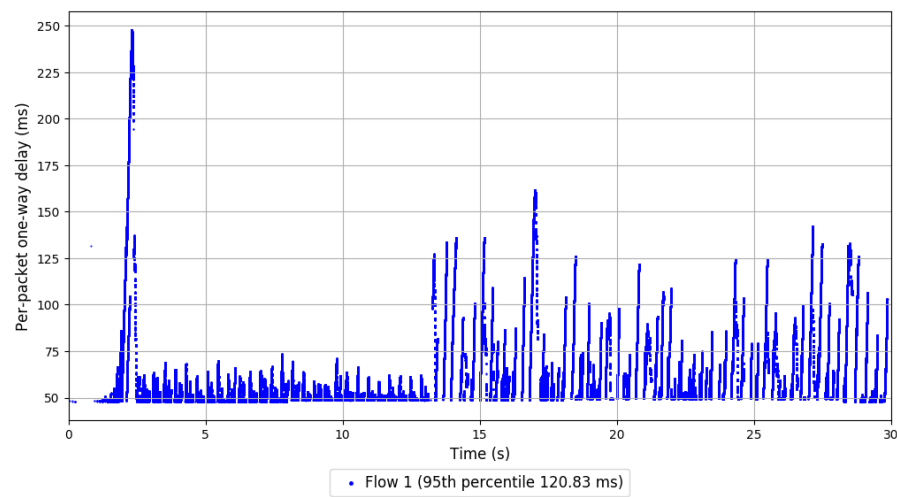
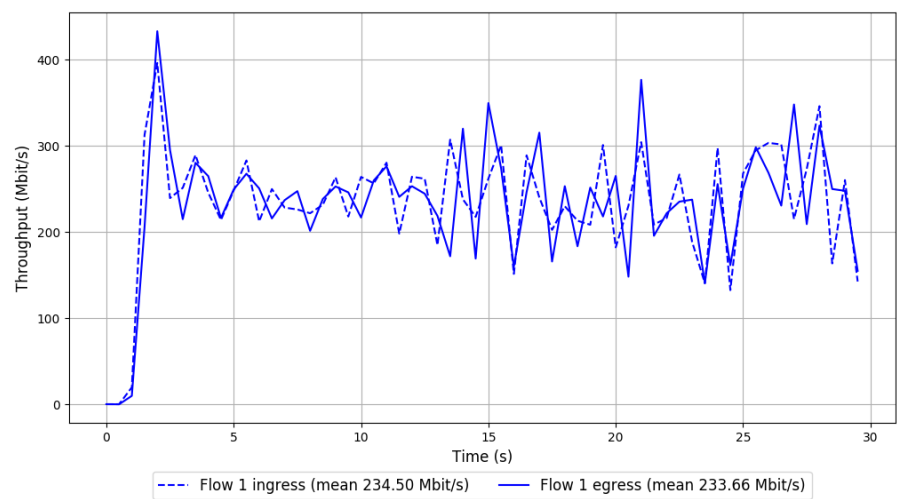
-- Flow 1:

Average throughput: 233.66 Mbit/s

95th percentile per-packet one-way delay: 120.834 ms

Loss rate: 0.18%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-05 13:03:34

End at: 2017-12-05 13:04:04

Below is generated by plot.py at 2017-12-05 16:09:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 80.58 Mbit/s

95th percentile per-packet one-way delay: 51.137 ms

Loss rate: 0.00%

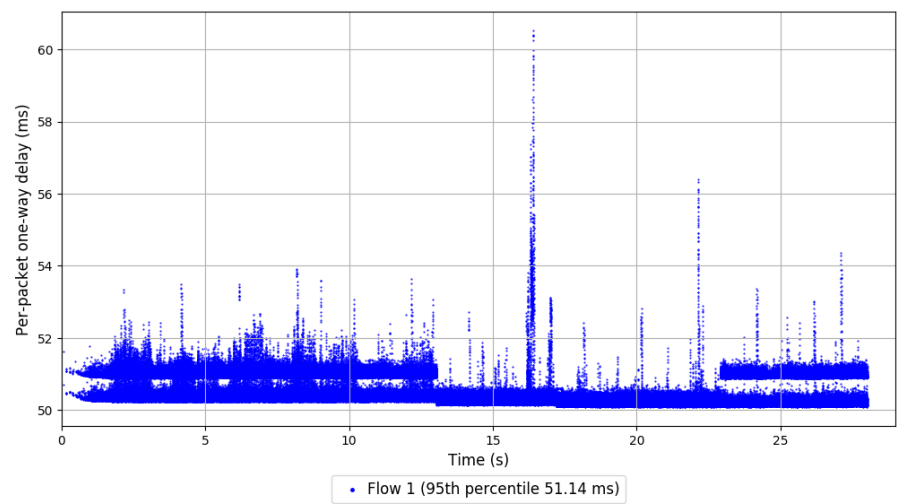
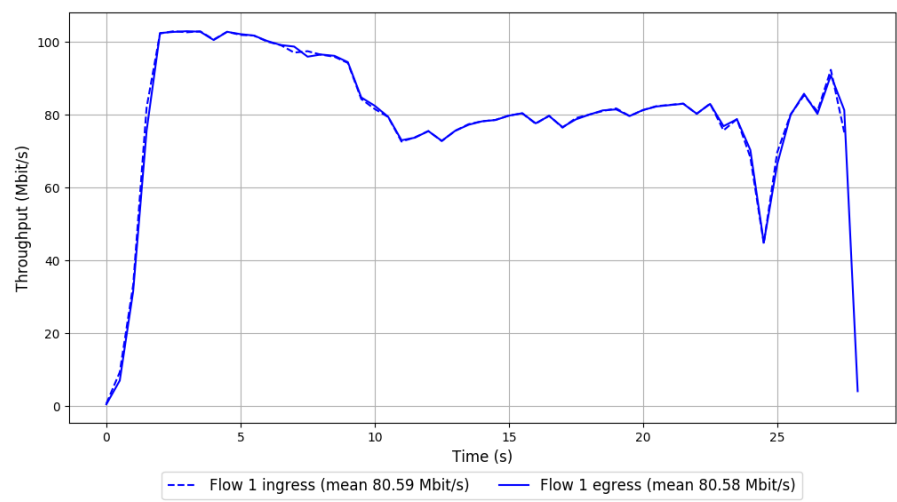
-- Flow 1:

Average throughput: 80.58 Mbit/s

95th percentile per-packet one-way delay: 51.137 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-05 13:13:52

End at: 2017-12-05 13:14:22

Below is generated by plot.py at 2017-12-05 16:09:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 65.21 Mbit/s

95th percentile per-packet one-way delay: 51.224 ms

Loss rate: 0.00%

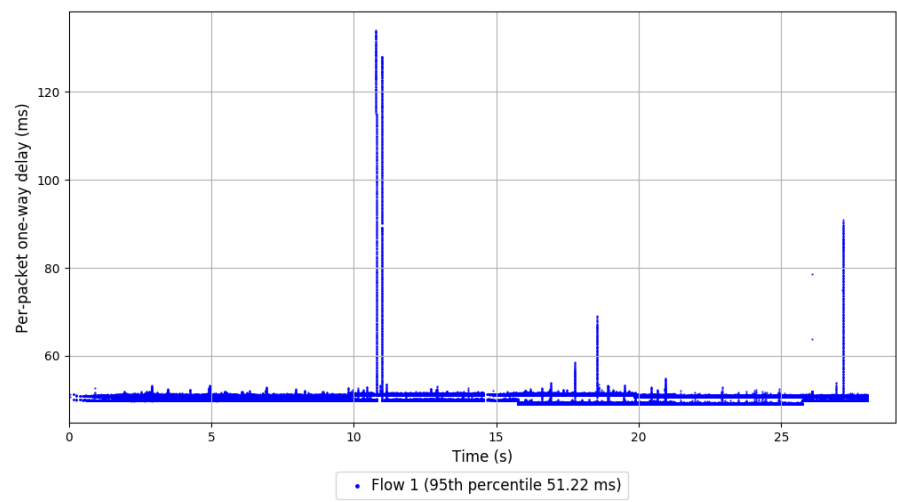
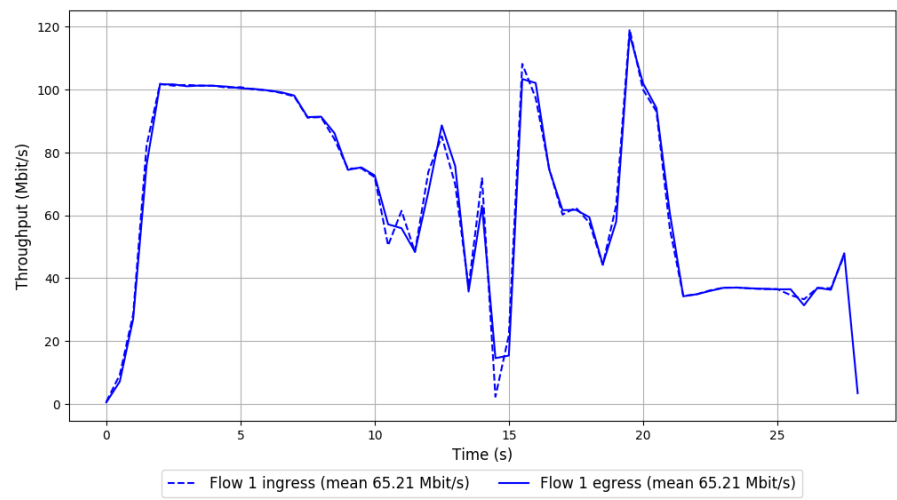
-- Flow 1:

Average throughput: 65.21 Mbit/s

95th percentile per-packet one-way delay: 51.224 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-05 13:24:12

End at: 2017-12-05 13:24:42

Below is generated by plot.py at 2017-12-05 16:09:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 70.00 Mbit/s

95th percentile per-packet one-way delay: 50.430 ms

Loss rate: 0.00%

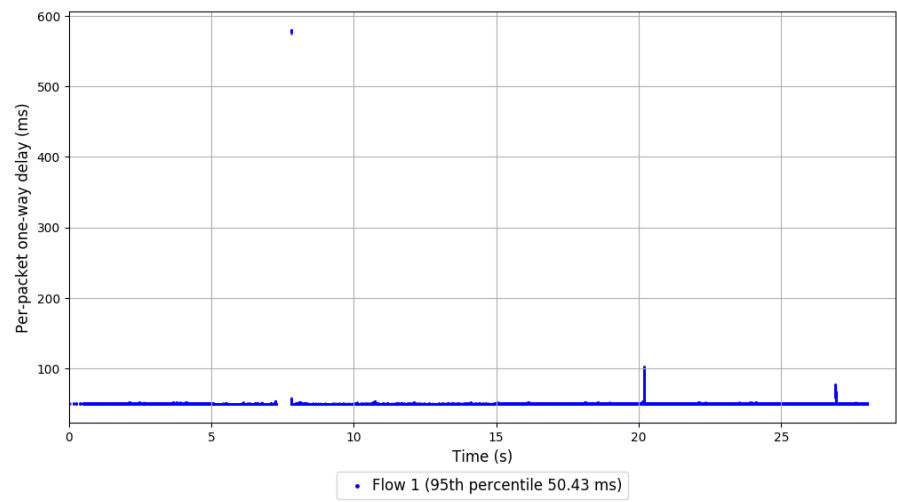
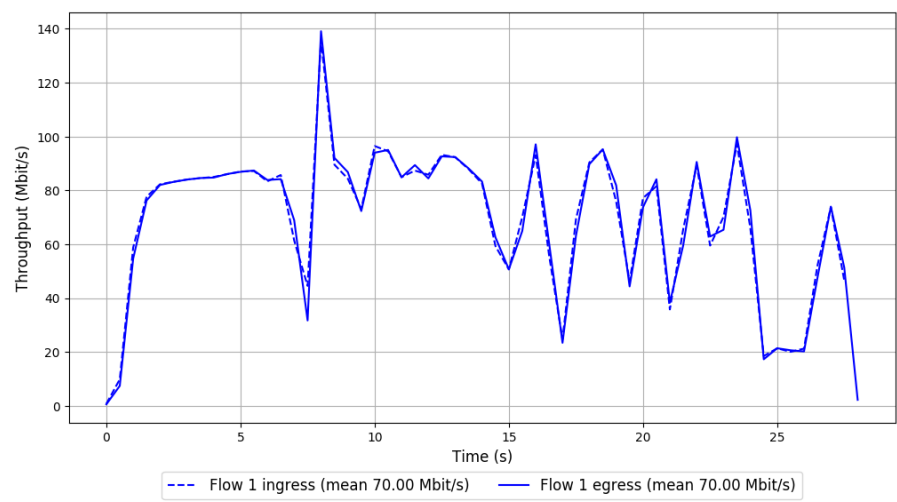
-- Flow 1:

Average throughput: 70.00 Mbit/s

95th percentile per-packet one-way delay: 50.430 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-05 13:34:30

End at: 2017-12-05 13:35:00

Below is generated by plot.py at 2017-12-05 16:09:42

Datalink statistics

-- Total of 1 flow:

Average throughput: 81.12 Mbit/s

95th percentile per-packet one-way delay: 50.239 ms

Loss rate: 0.00%

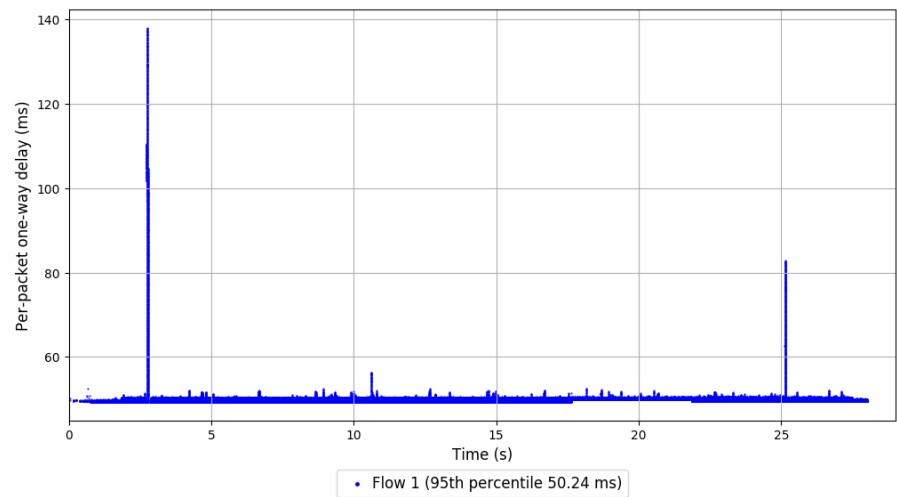
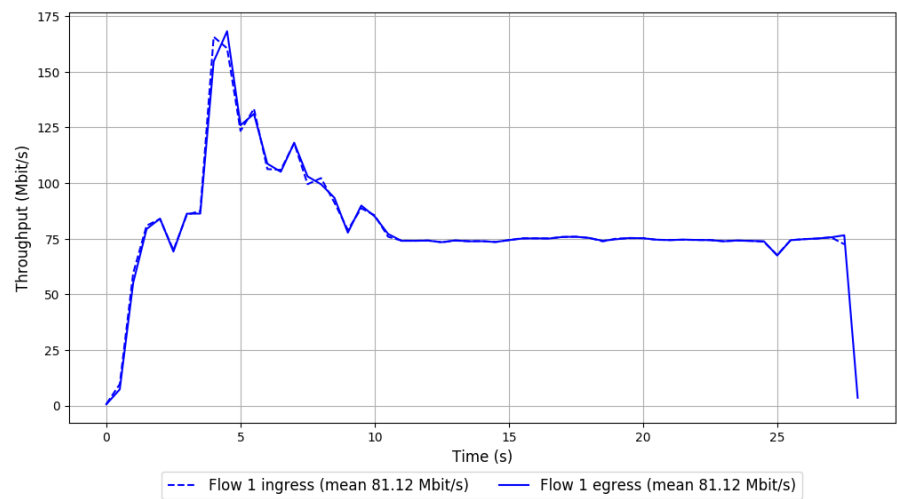
-- Flow 1:

Average throughput: 81.12 Mbit/s

95th percentile per-packet one-way delay: 50.239 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-05 13:44:54

End at: 2017-12-05 13:45:24

Below is generated by plot.py at 2017-12-05 16:10:08

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.73 Mbit/s

95th percentile per-packet one-way delay: 50.077 ms

Loss rate: 0.00%

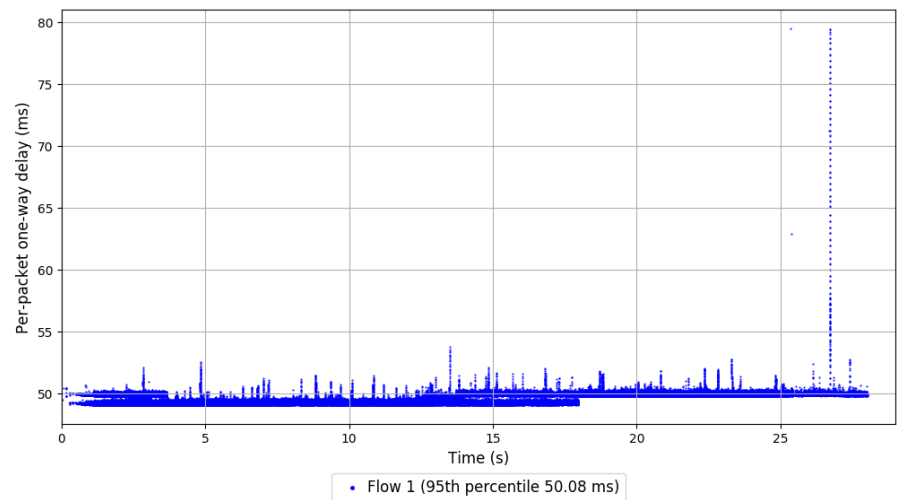
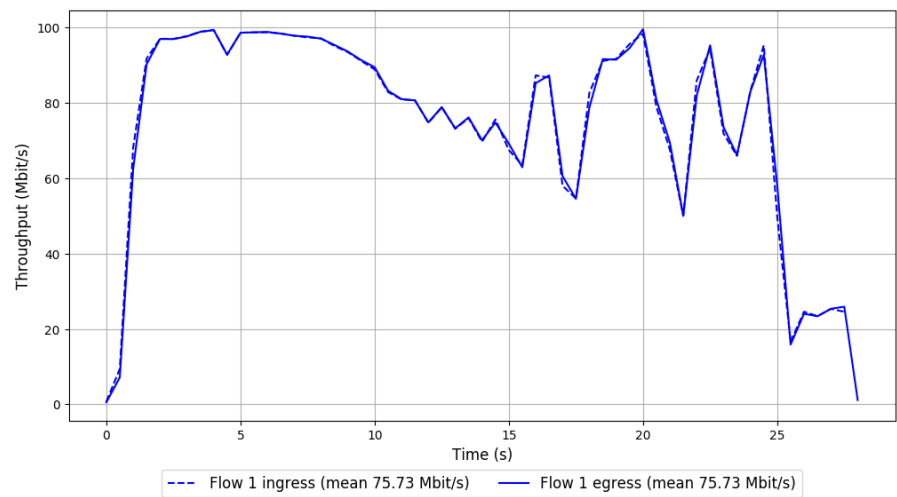
-- Flow 1:

Average throughput: 75.73 Mbit/s

95th percentile per-packet one-way delay: 50.077 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-05 13:55:19

End at: 2017-12-05 13:55:49

Below is generated by plot.py at 2017-12-05 16:10:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.06 Mbit/s

95th percentile per-packet one-way delay: 49.891 ms

Loss rate: 0.00%

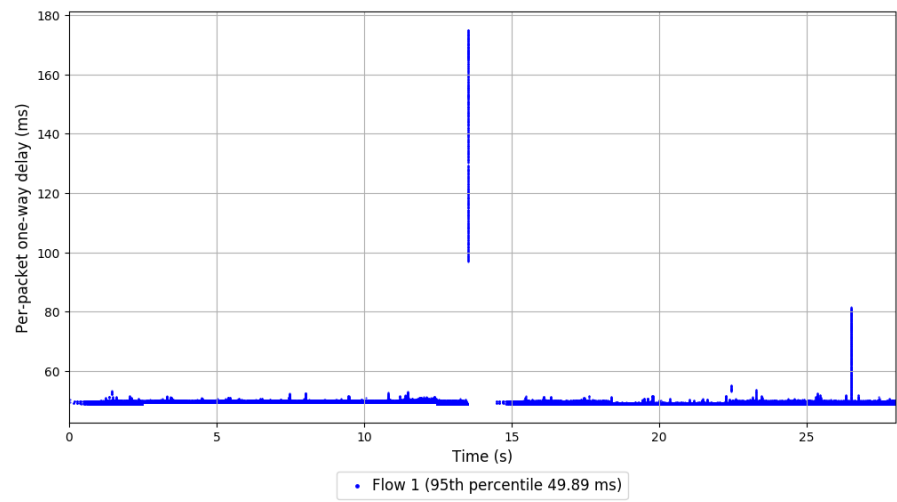
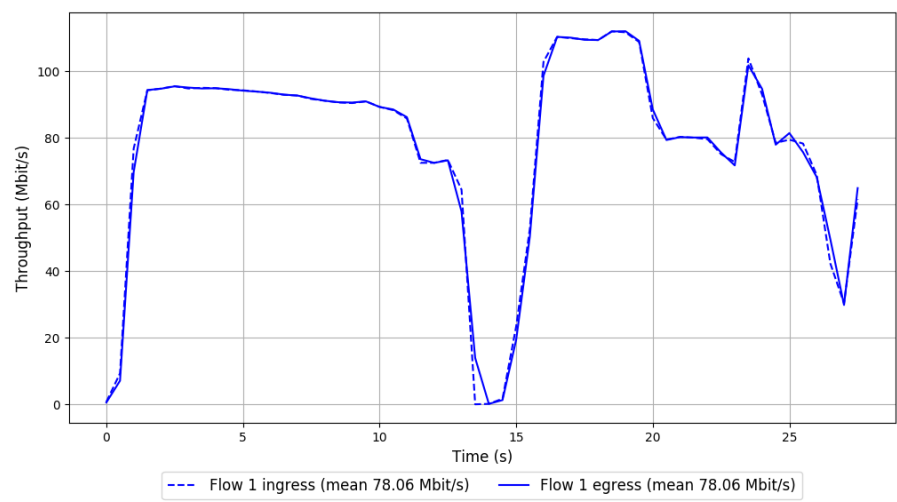
-- Flow 1:

Average throughput: 78.06 Mbit/s

95th percentile per-packet one-way delay: 49.891 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-05 14:05:44

End at: 2017-12-05 14:06:14

Below is generated by plot.py at 2017-12-05 16:10:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 78.43 Mbit/s

95th percentile per-packet one-way delay: 49.804 ms

Loss rate: 0.00%

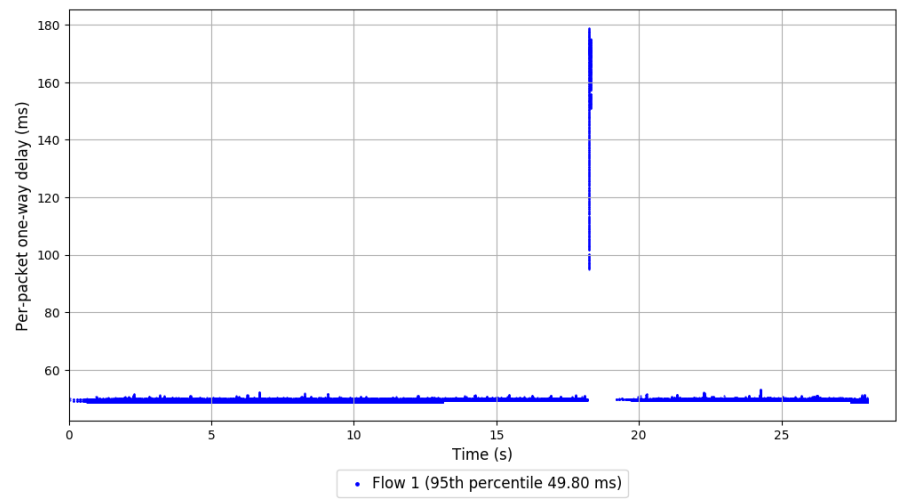
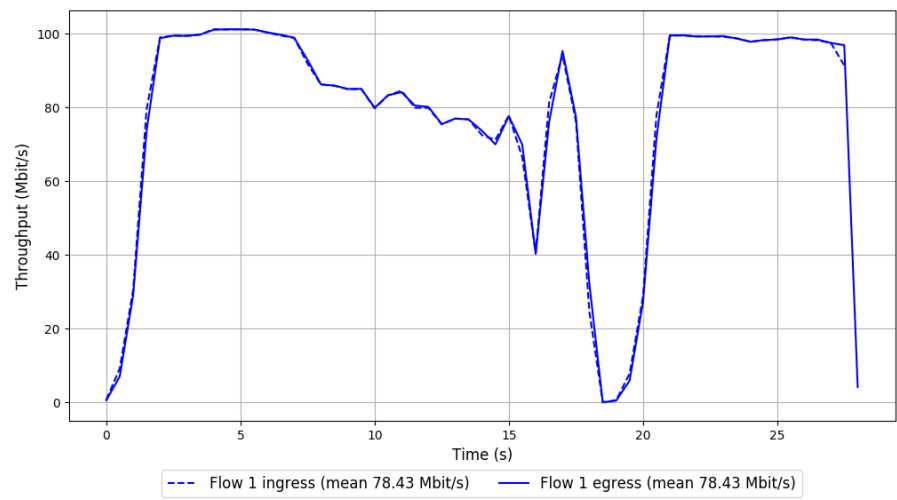
-- Flow 1:

Average throughput: 78.43 Mbit/s

95th percentile per-packet one-way delay: 49.804 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-05 14:16:18

End at: 2017-12-05 14:16:48

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.77 Mbit/s

95th percentile per-packet one-way delay: 49.598 ms

Loss rate: 0.00%

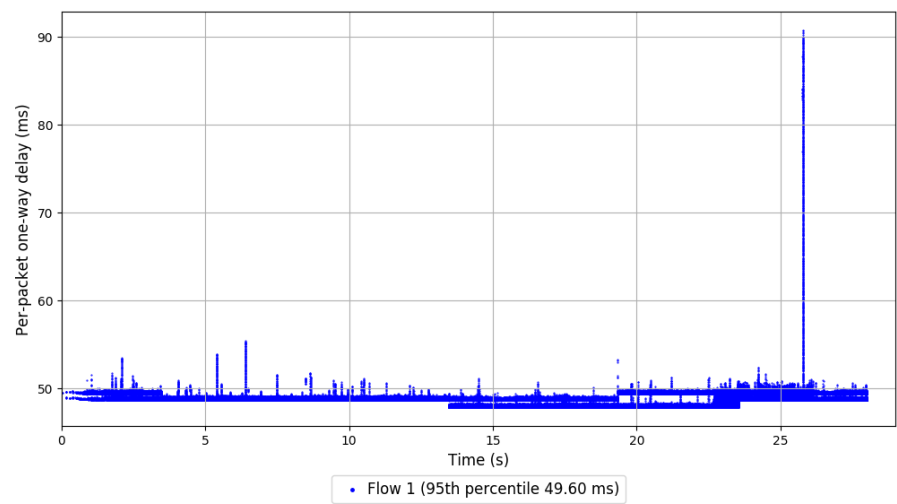
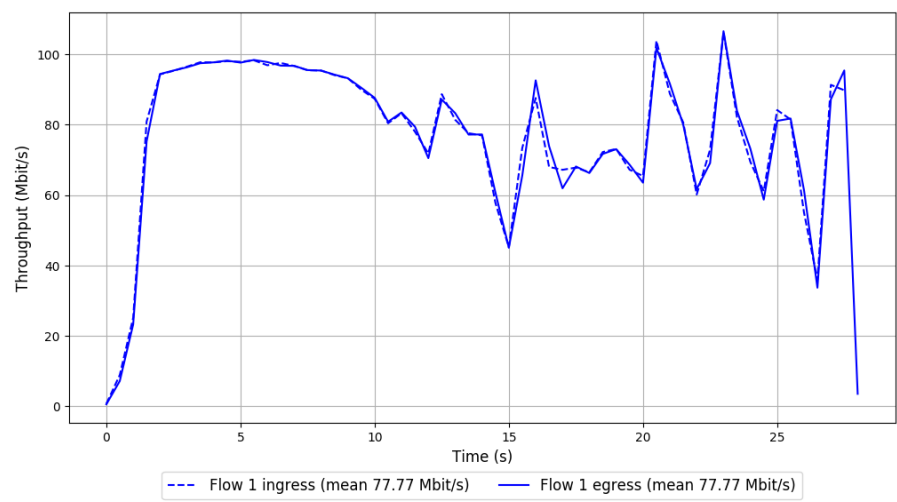
-- Flow 1:

Average throughput: 77.77 Mbit/s

95th percentile per-packet one-way delay: 49.598 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-05 14:26:44

End at: 2017-12-05 14:27:14

Below is generated by plot.py at 2017-12-05 16:11:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 79.43 Mbit/s

95th percentile per-packet one-way delay: 50.008 ms

Loss rate: 0.00%

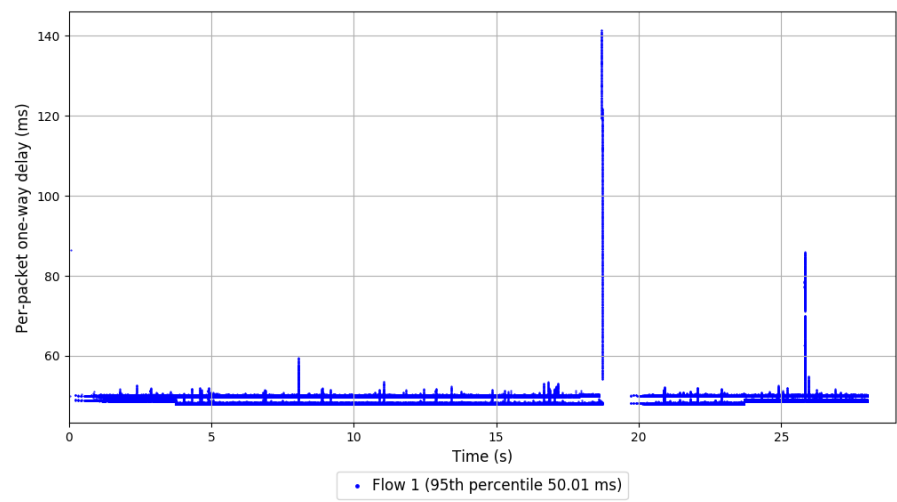
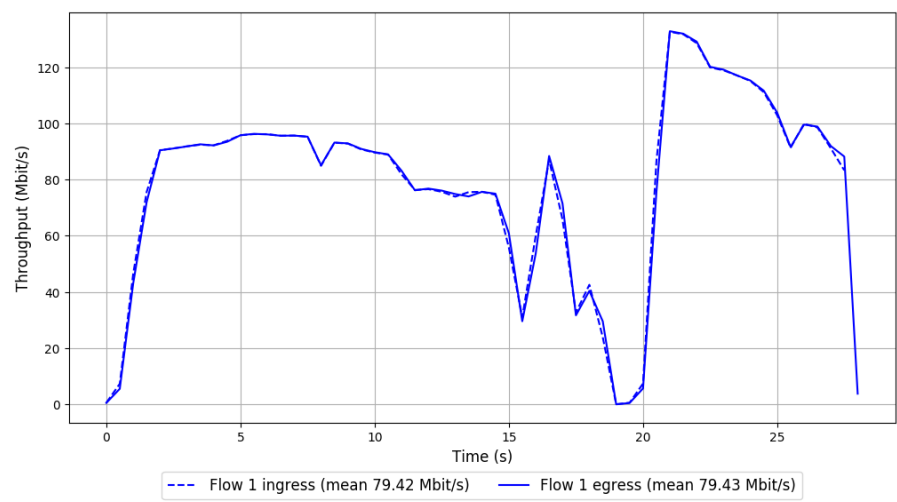
-- Flow 1:

Average throughput: 79.43 Mbit/s

95th percentile per-packet one-way delay: 50.008 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-05 14:37:01

End at: 2017-12-05 14:37:31

Below is generated by plot.py at 2017-12-05 16:11:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 59.28 Mbit/s

95th percentile per-packet one-way delay: 49.972 ms

Loss rate: 0.00%

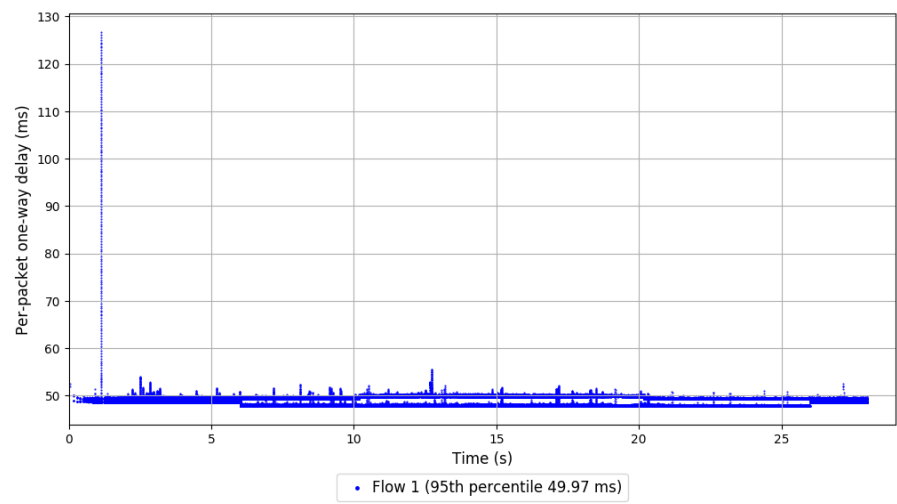
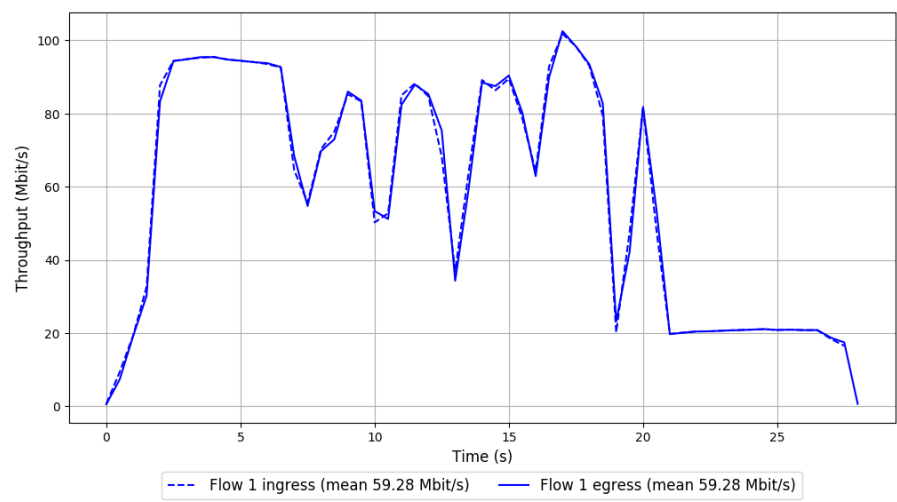
-- Flow 1:

Average throughput: 59.28 Mbit/s

95th percentile per-packet one-way delay: 49.972 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

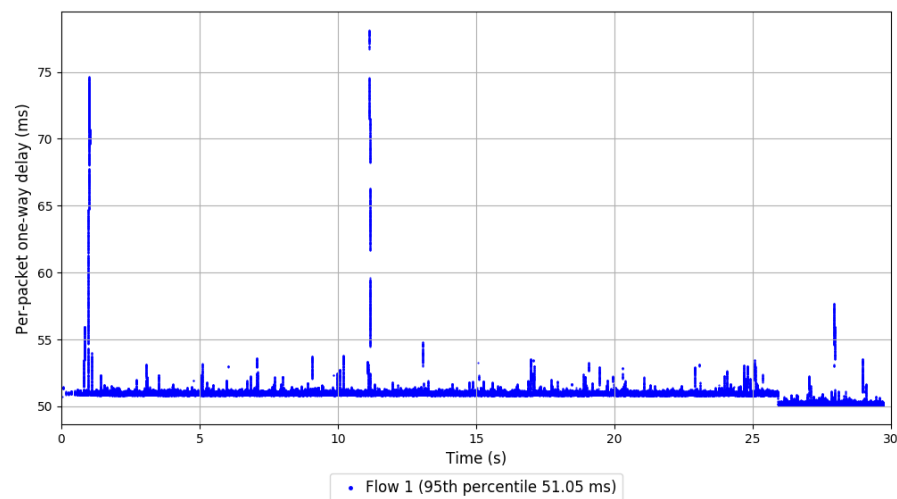
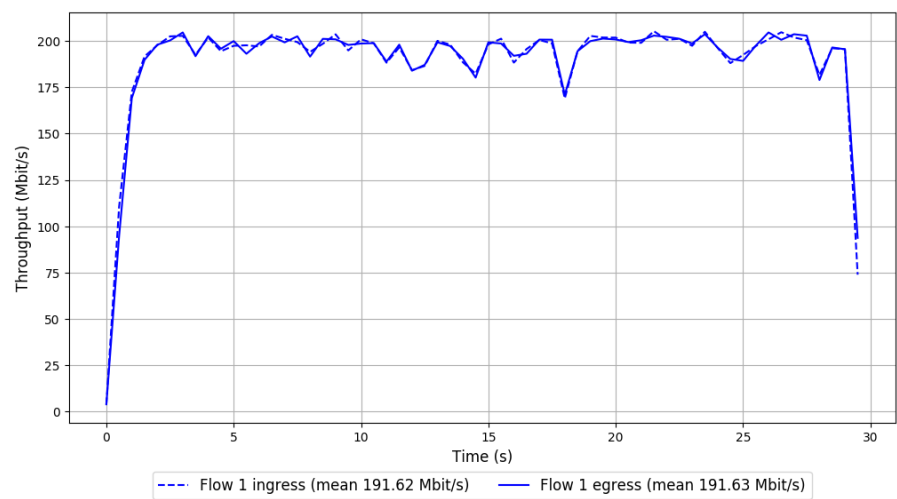


```
Run 1: Statistics of Indigo

Start at: 2017-12-05 13:07:23
End at: 2017-12-05 13:07:53

# Below is generated by plot.py at 2017-12-05 16:12:30
# Datalink statistics
-- Total of 1 flow:
Average throughput: 191.63 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 191.63 Mbit/s
95th percentile per-packet one-way delay: 51.050 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-12-05 13:17:38

End at: 2017-12-05 13:18:08

Below is generated by plot.py at 2017-12-05 16:12:51

Datalink statistics

-- Total of 1 flow:

Average throughput: 188.40 Mbit/s

95th percentile per-packet one-way delay: 49.982 ms

Loss rate: 0.00%

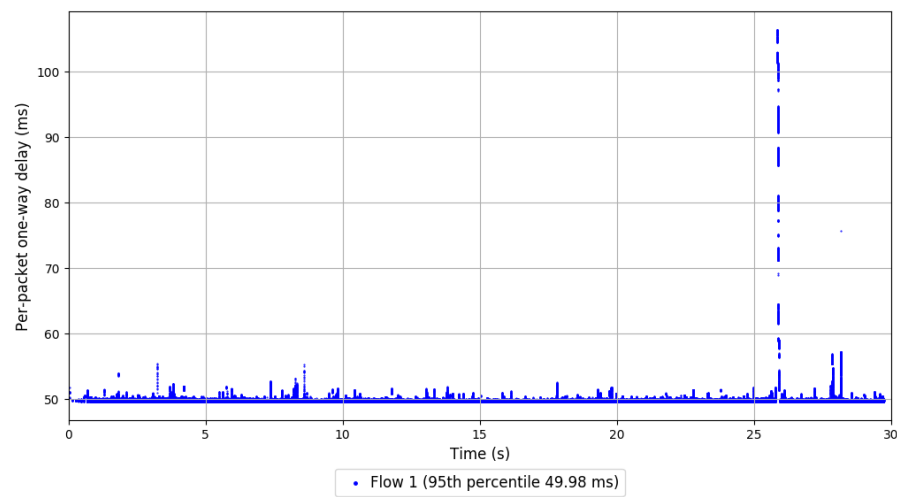
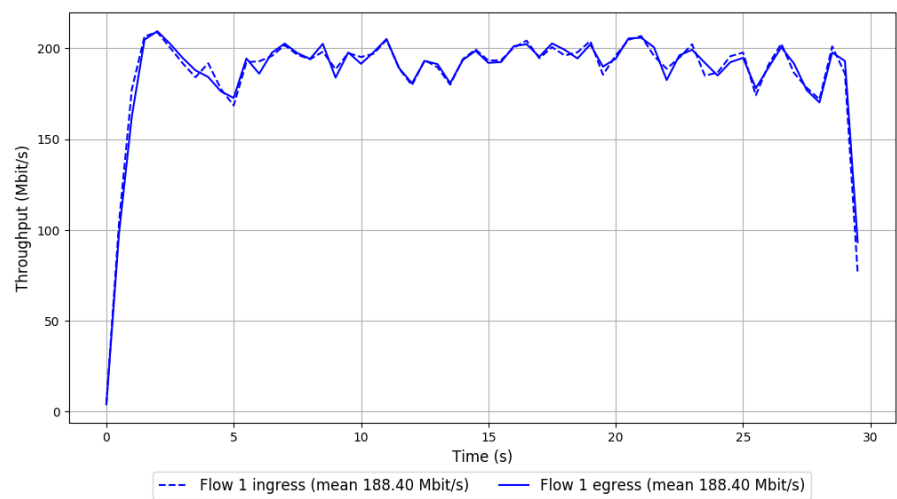
-- Flow 1:

Average throughput: 188.40 Mbit/s

95th percentile per-packet one-way delay: 49.982 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-05 13:28:01

End at: 2017-12-05 13:28:31

Below is generated by plot.py at 2017-12-05 16:13:25

Datalink statistics

-- Total of 1 flow:

Average throughput: 180.19 Mbit/s

95th percentile per-packet one-way delay: 49.924 ms

Loss rate: 0.29%

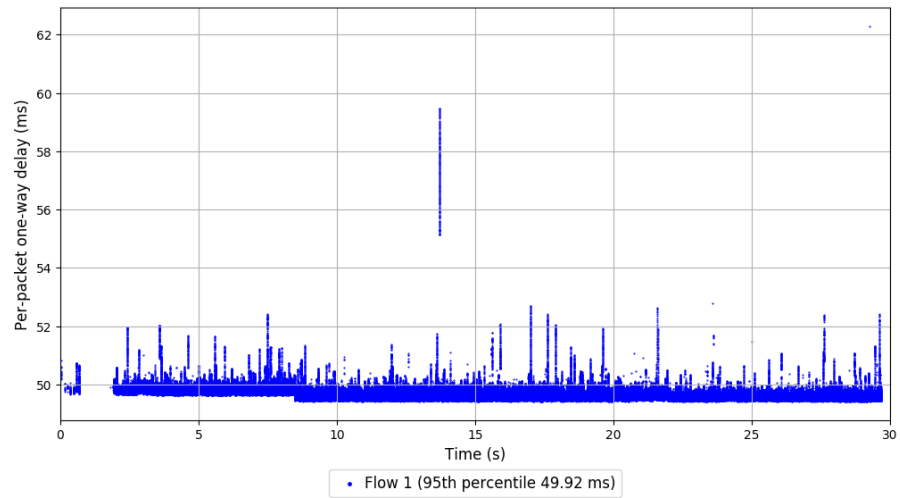
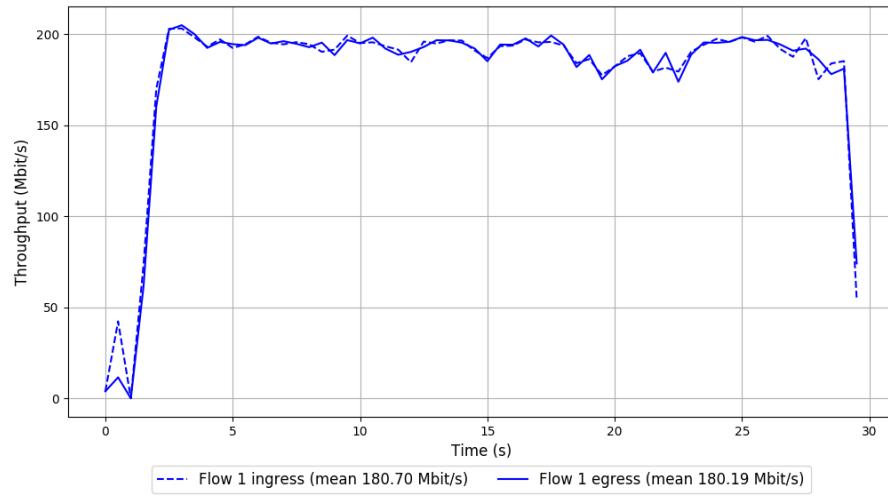
-- Flow 1:

Average throughput: 180.19 Mbit/s

95th percentile per-packet one-way delay: 49.924 ms

Loss rate: 0.29%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-05 13:38:23

End at: 2017-12-05 13:38:53

Below is generated by plot.py at 2017-12-05 16:13:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.06 Mbit/s

95th percentile per-packet one-way delay: 50.218 ms

Loss rate: 0.04%

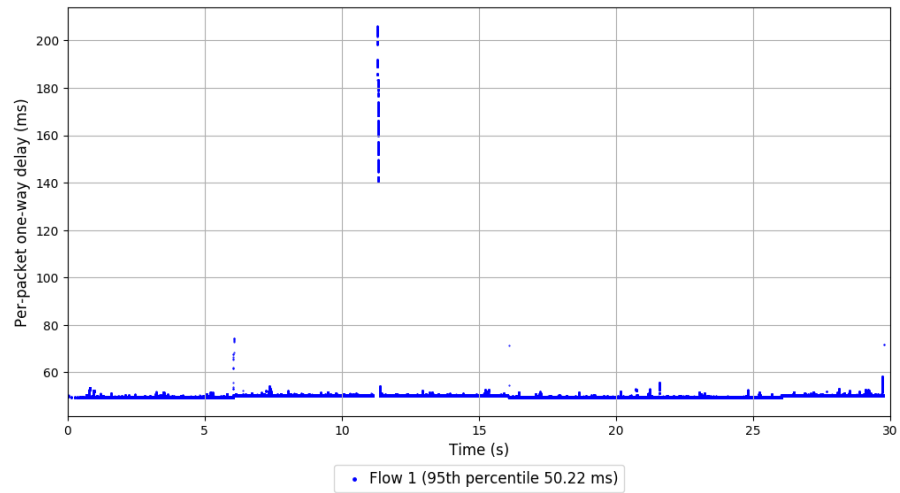
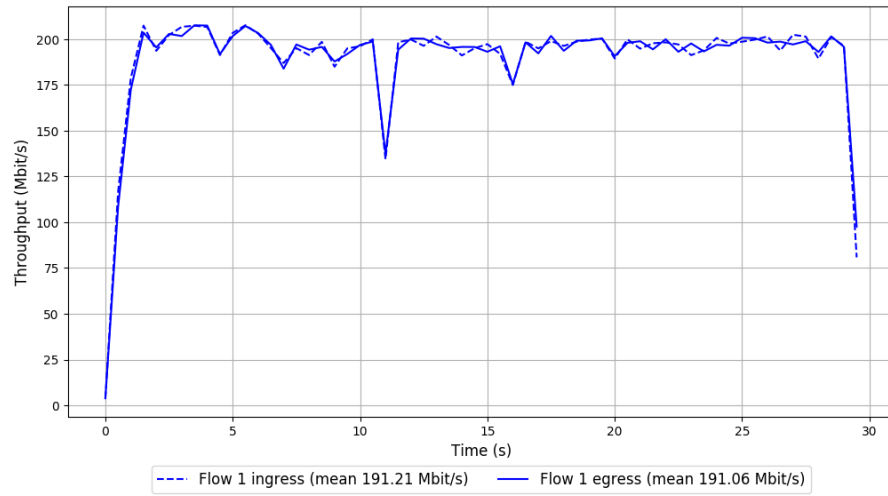
-- Flow 1:

Average throughput: 191.06 Mbit/s

95th percentile per-packet one-way delay: 50.218 ms

Loss rate: 0.04%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-05 13:48:44

End at: 2017-12-05 13:49:14

Below is generated by plot.py at 2017-12-05 16:14:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.61 Mbit/s

95th percentile per-packet one-way delay: 51.180 ms

Loss rate: 0.00%

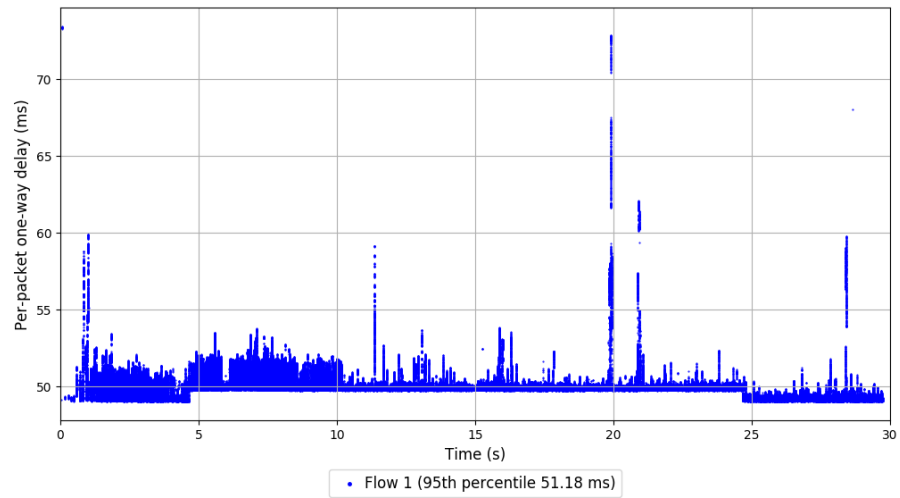
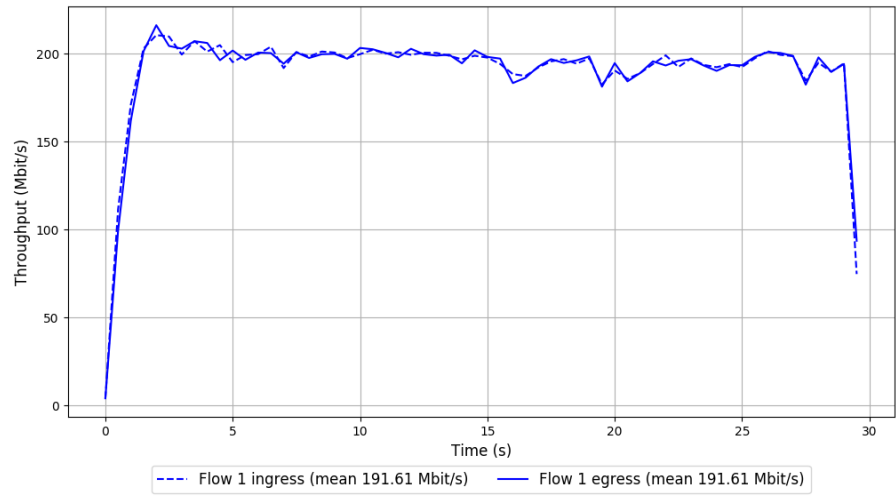
-- Flow 1:

Average throughput: 191.61 Mbit/s

95th percentile per-packet one-way delay: 51.180 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-05 13:59:10

End at: 2017-12-05 13:59:40

Below is generated by plot.py at 2017-12-05 16:14:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 187.34 Mbit/s

95th percentile per-packet one-way delay: 49.796 ms

Loss rate: 0.00%

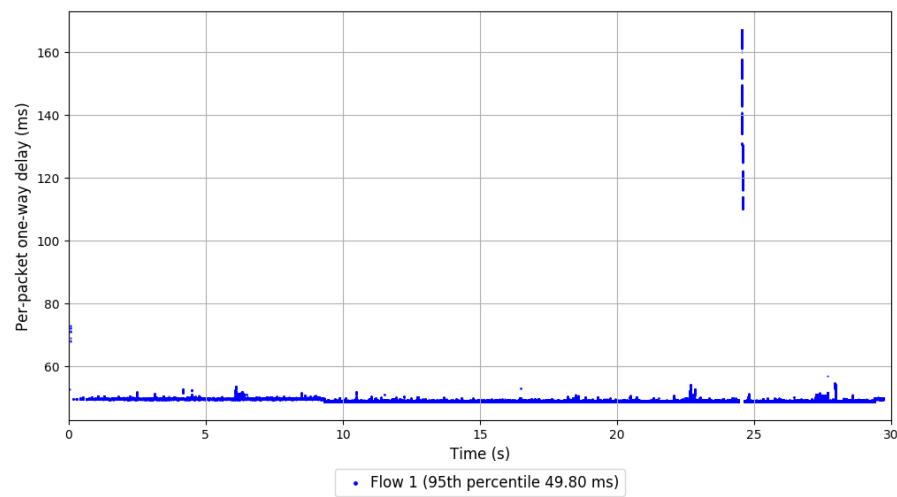
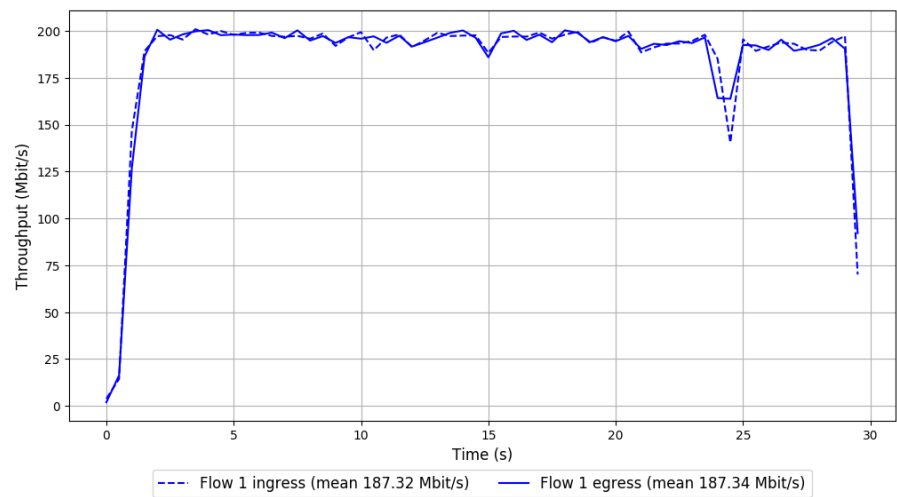
-- Flow 1:

Average throughput: 187.34 Mbit/s

95th percentile per-packet one-way delay: 49.796 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-05 14:09:37

End at: 2017-12-05 14:10:07

Below is generated by plot.py at 2017-12-05 16:14:18

Datalink statistics

-- Total of 1 flow:

Average throughput: 195.53 Mbit/s

95th percentile per-packet one-way delay: 49.701 ms

Loss rate: 0.00%

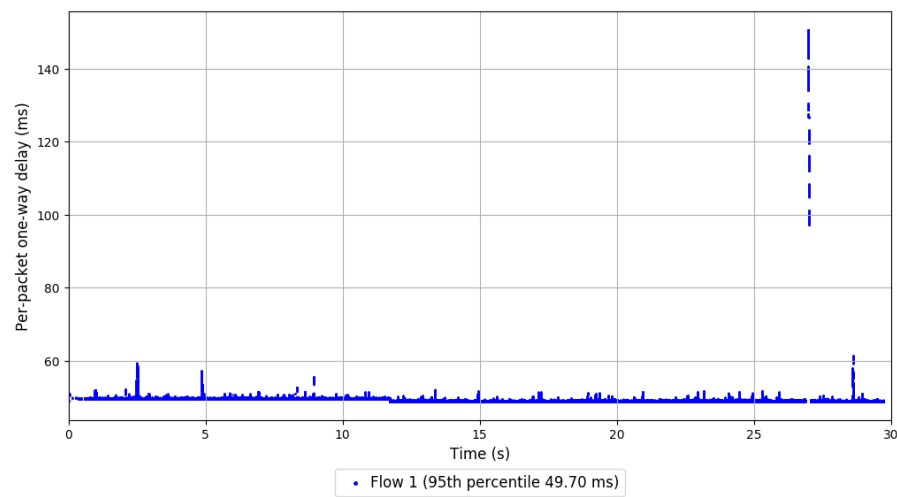
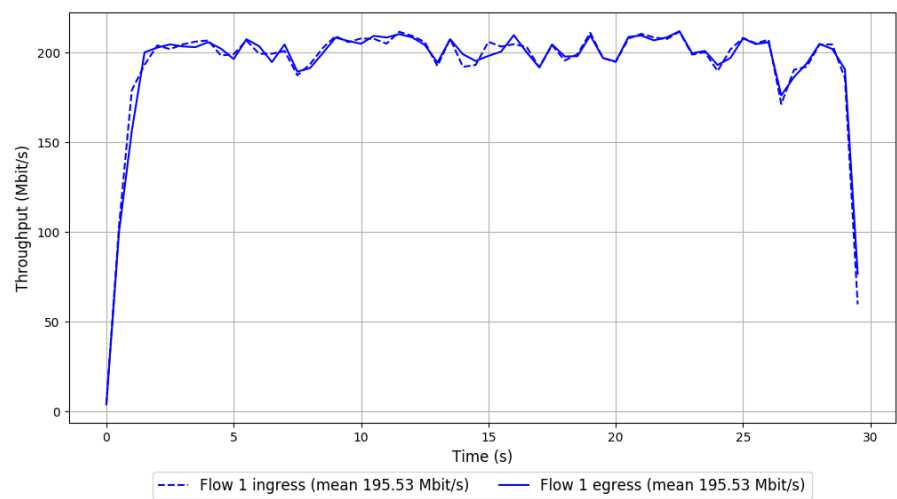
-- Flow 1:

Average throughput: 195.53 Mbit/s

95th percentile per-packet one-way delay: 49.701 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-05 14:20:09

End at: 2017-12-05 14:20:39

Below is generated by plot.py at 2017-12-05 16:14:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.09 Mbit/s

95th percentile per-packet one-way delay: 49.707 ms

Loss rate: 0.01%

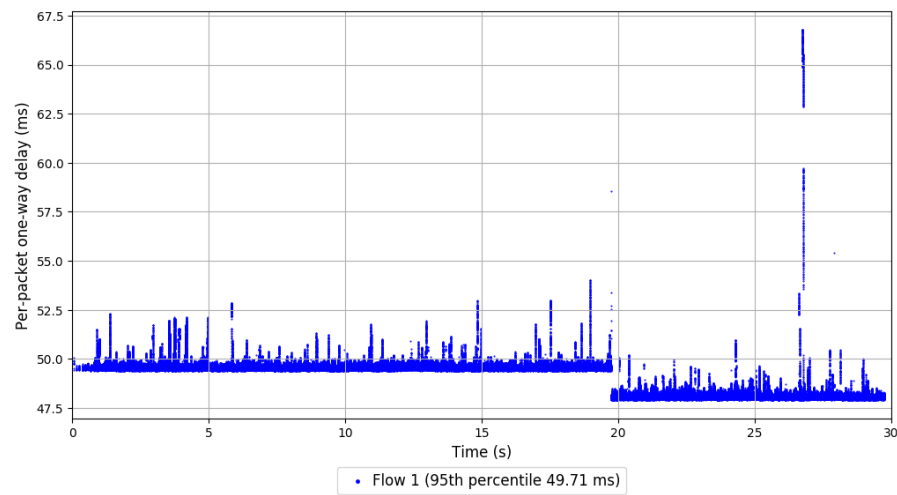
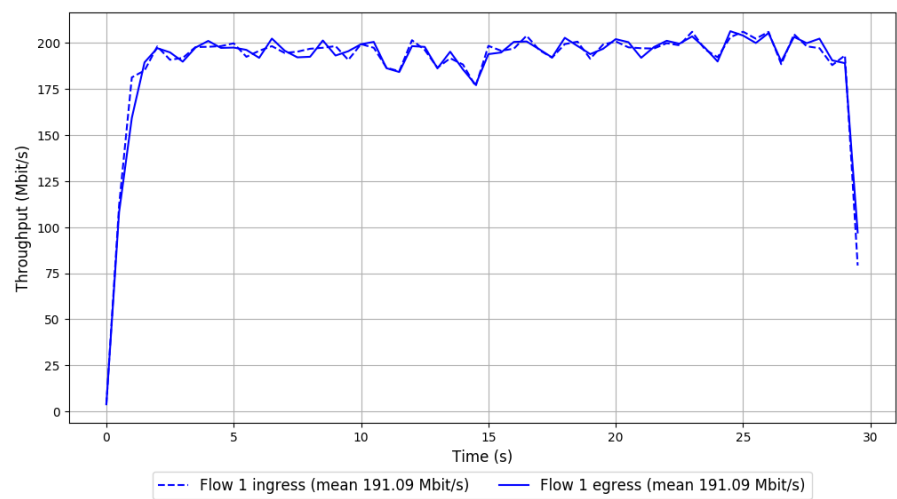
-- Flow 1:

Average throughput: 191.09 Mbit/s

95th percentile per-packet one-way delay: 49.707 ms

Loss rate: 0.01%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-05 14:30:33

End at: 2017-12-05 14:31:03

Below is generated by plot.py at 2017-12-05 16:15:59

Datalink statistics

-- Total of 1 flow:

Average throughput: 192.65 Mbit/s

95th percentile per-packet one-way delay: 48.834 ms

Loss rate: 0.00%

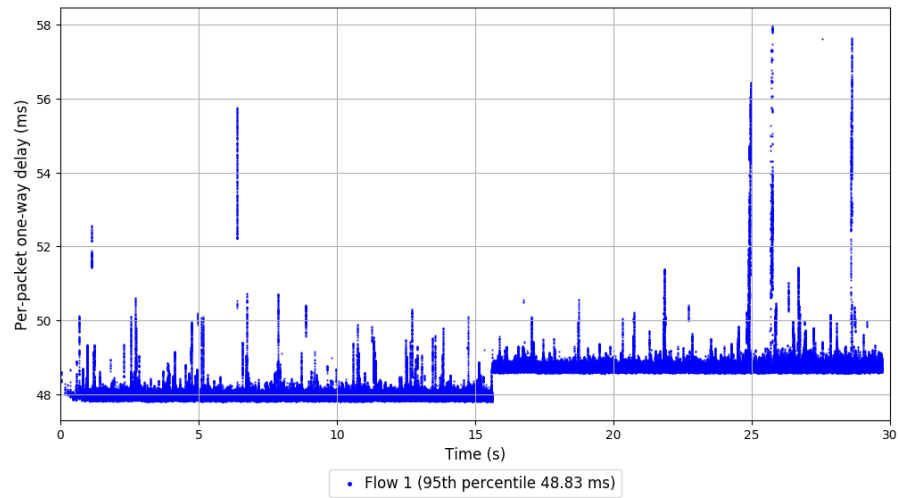
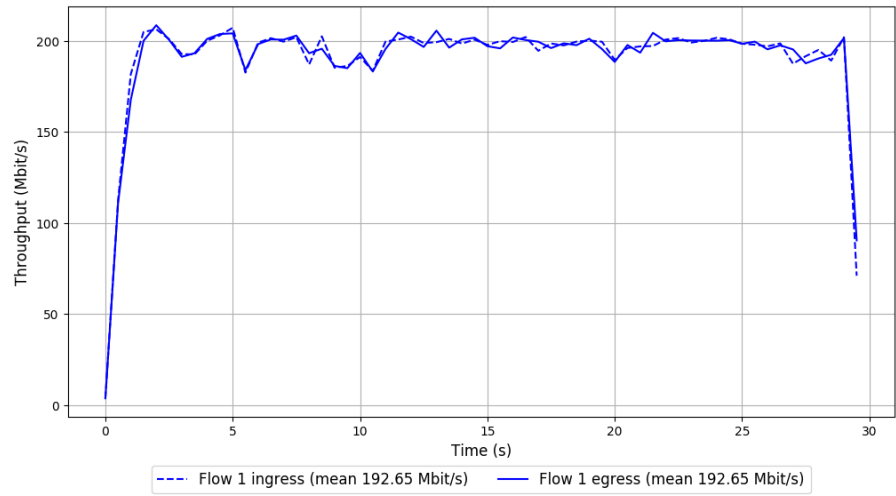
-- Flow 1:

Average throughput: 192.65 Mbit/s

95th percentile per-packet one-way delay: 48.834 ms

Loss rate: 0.00%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-05 14:40:51

End at: 2017-12-05 14:41:21

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

Datalink statistics

-- Total of 1 flow:

Average throughput: 191.29 Mbit/s

95th percentile per-packet one-way delay: 49.553 ms

Loss rate: 0.00%

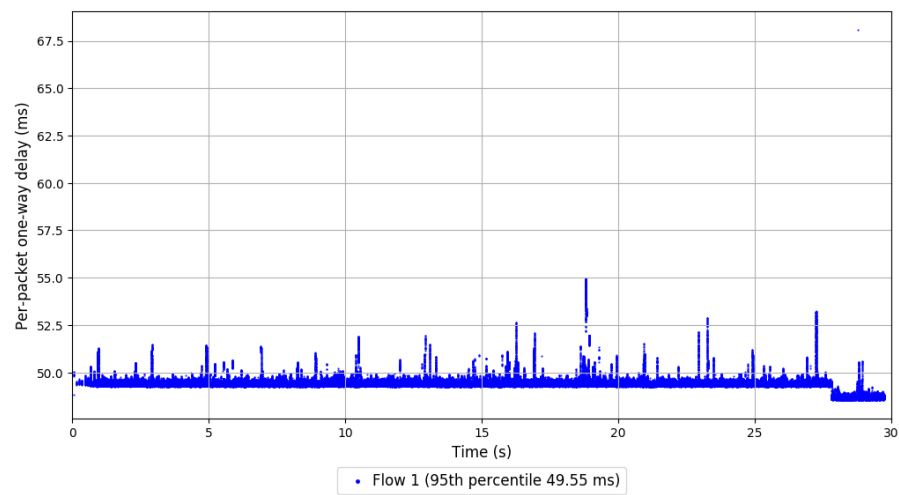
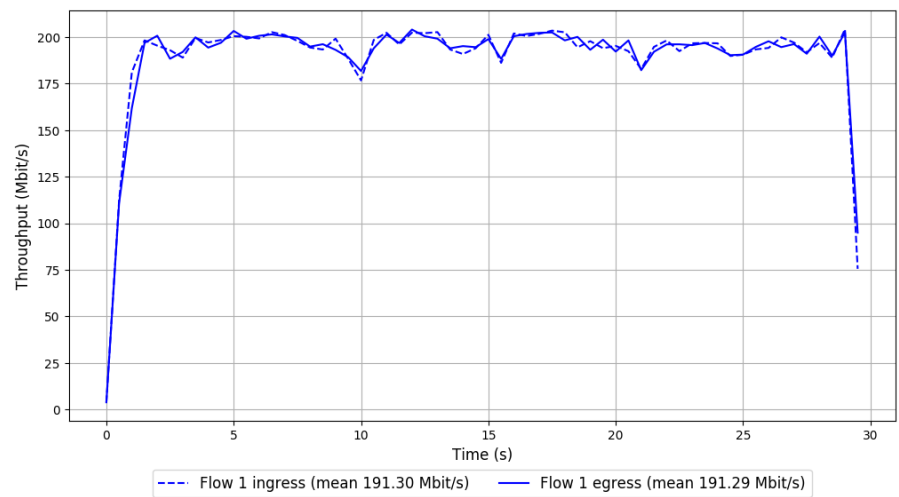
-- Flow 1:

Average throughput: 191.29 Mbit/s

95th percentile per-packet one-way delay: 49.553 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

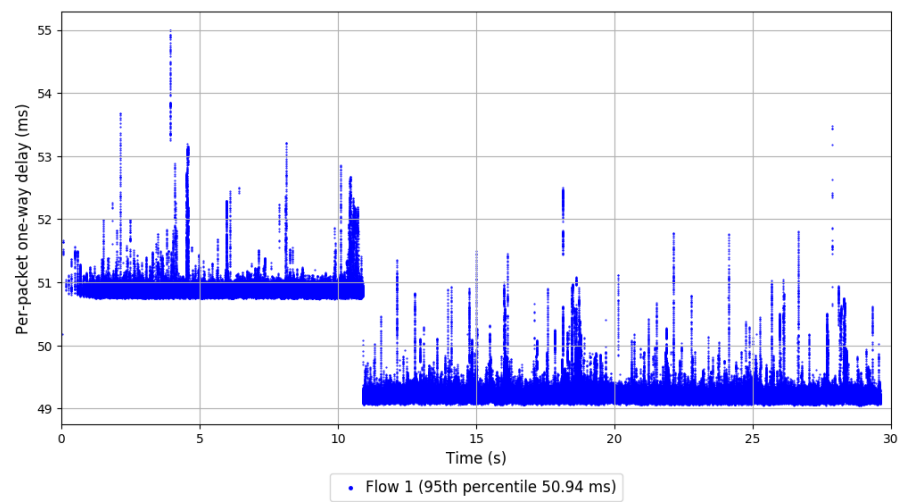
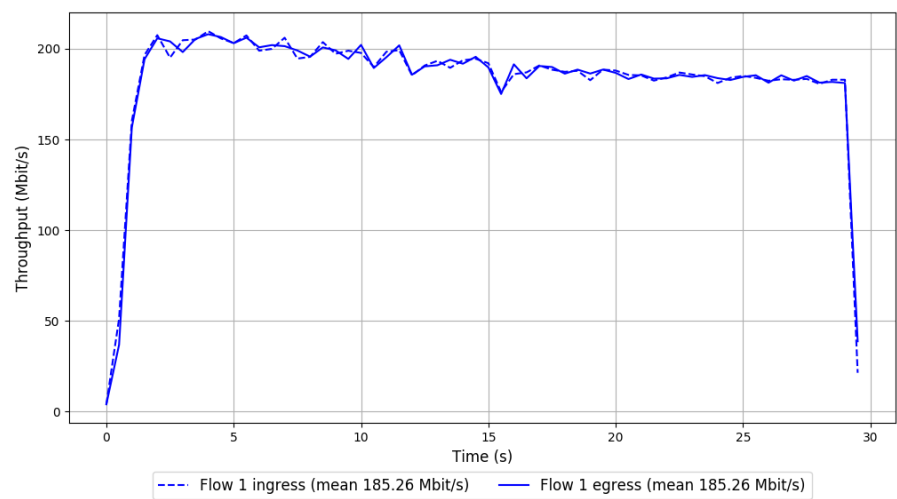


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-05 13:09:48
End at: 2017-12-05 13:10:18

# Below is generated by plot.py at 2017-12-05 16:16:31
# Datalink statistics
-- Total of 1 flow:
Average throughput: 185.26 Mbit/s
95th percentile per-packet one-way delay: 50.937 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 185.26 Mbit/s
95th percentile per-packet one-way delay: 50.937 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-calib — Data Link

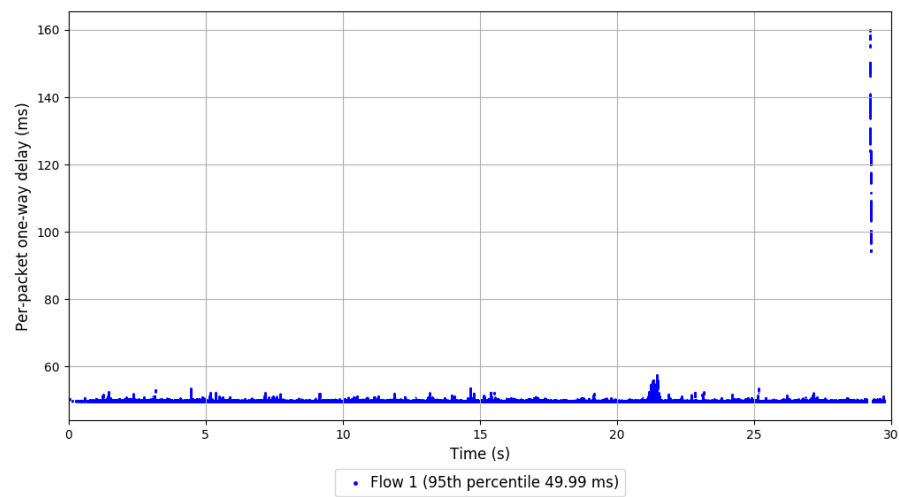
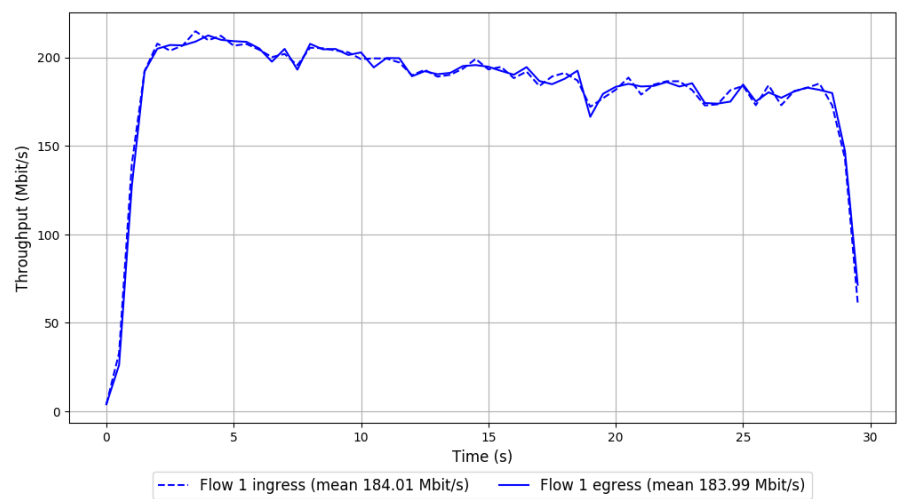


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-05 13:20:05
End at: 2017-12-05 13:20:35

# Below is generated by plot.py at 2017-12-05 16:17:01
# Datalink statistics
-- Total of 1 flow:
Average throughput: 183.99 Mbit/s
95th percentile per-packet one-way delay: 49.990 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 183.99 Mbit/s
95th percentile per-packet one-way delay: 49.990 ms
Loss rate: 0.01%
```

Run 2: Report of Indigo-calib — Data Link

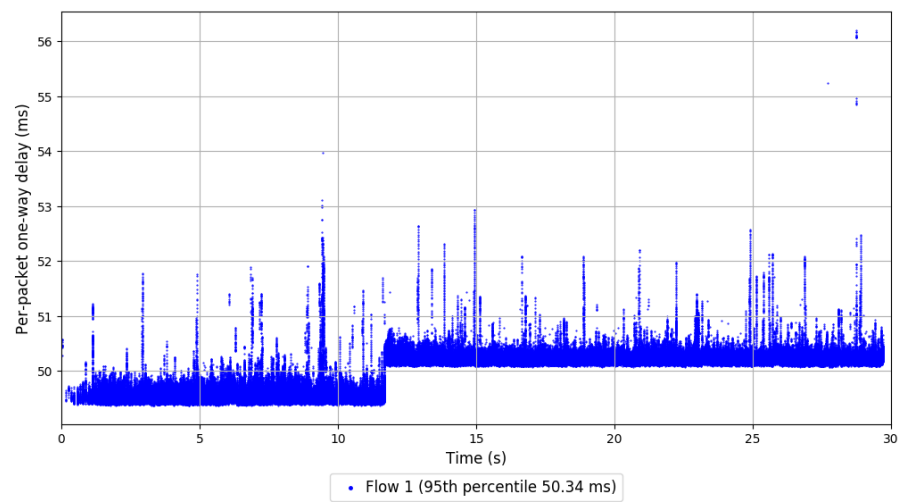
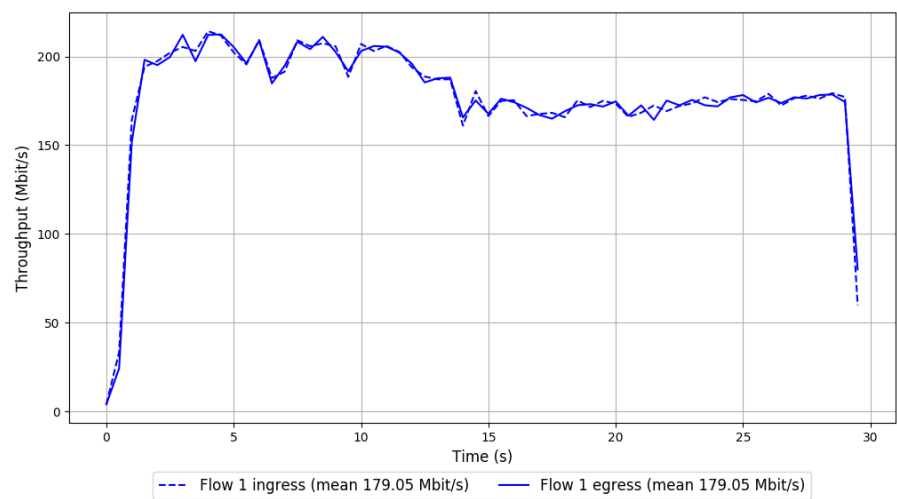


```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-05 13:30:27
End at: 2017-12-05 13:30:57

# Below is generated by plot.py at 2017-12-05 16:17:07
# Datalink statistics
-- Total of 1 flow:
Average throughput: 179.05 Mbit/s
95th percentile per-packet one-way delay: 50.339 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 179.05 Mbit/s
95th percentile per-packet one-way delay: 50.339 ms
Loss rate: 0.00%
```

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-12-05 13:40:49

End at: 2017-12-05 13:41:19

Below is generated by plot.py at 2017-12-05 16:17:07

Datalink statistics

-- Total of 1 flow:

Average throughput: 160.88 Mbit/s

95th percentile per-packet one-way delay: 49.591 ms

Loss rate: 0.00%

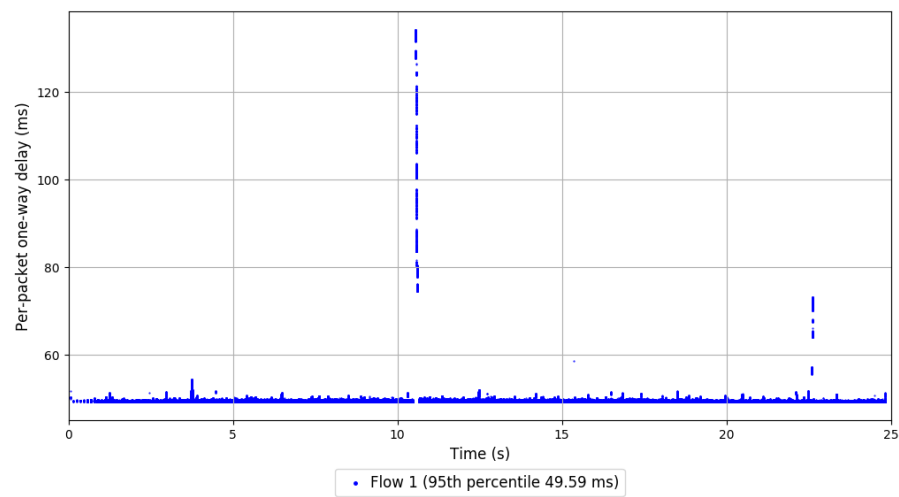
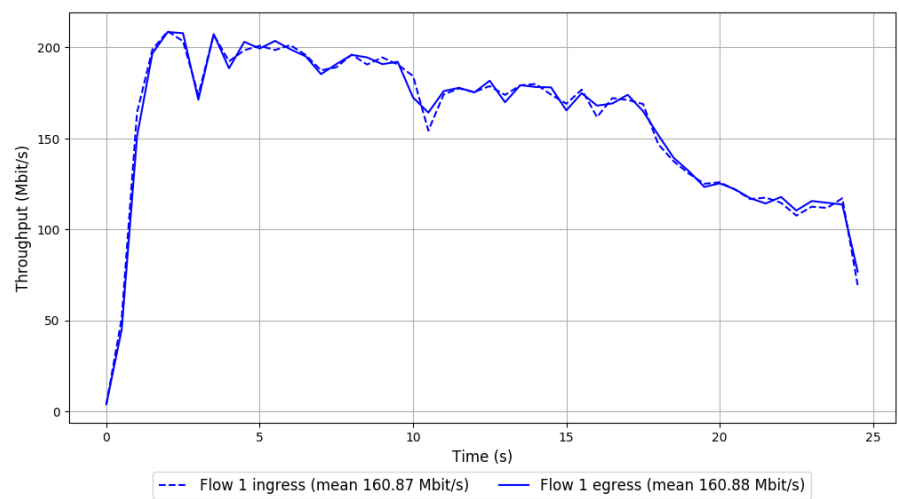
-- Flow 1:

Average throughput: 160.88 Mbit/s

95th percentile per-packet one-way delay: 49.591 ms

Loss rate: 0.00%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-05 13:51:11

End at: 2017-12-05 13:51:41

Below is generated by plot.py at 2017-12-05 16:17:10

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.73 Mbit/s

95th percentile per-packet one-way delay: 51.916 ms

Loss rate: 0.00%

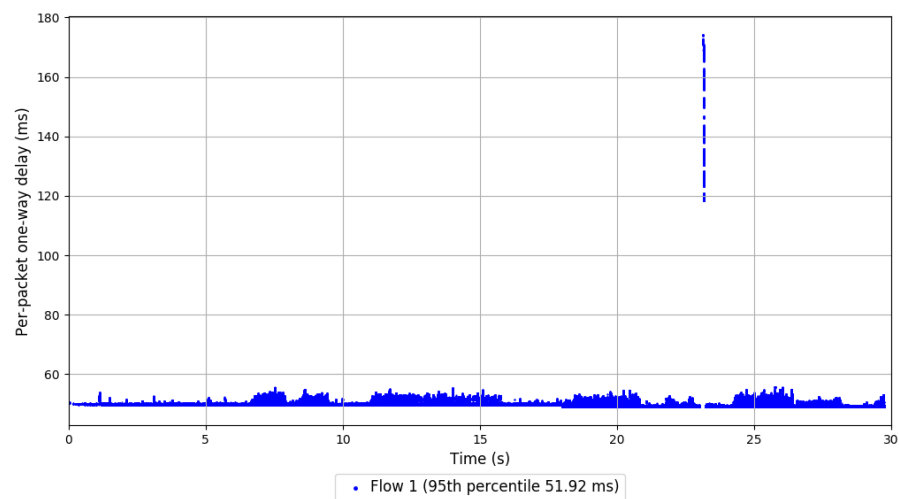
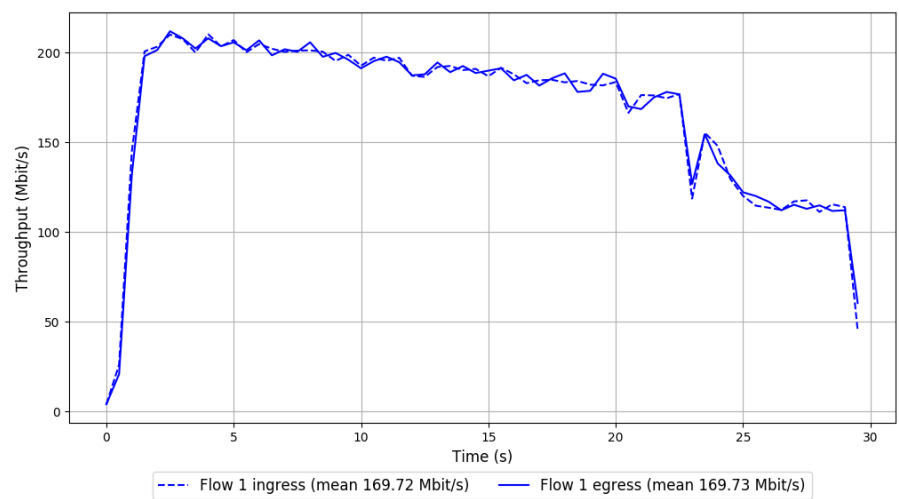
-- Flow 1:

Average throughput: 169.73 Mbit/s

95th percentile per-packet one-way delay: 51.916 ms

Loss rate: 0.00%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-12-05 14:01:36

End at: 2017-12-05 14:02:06

Below is generated by plot.py at 2017-12-05 16:17:27

Datalink statistics

-- Total of 1 flow:

Average throughput: 186.11 Mbit/s

95th percentile per-packet one-way delay: 49.861 ms

Loss rate: 0.00%

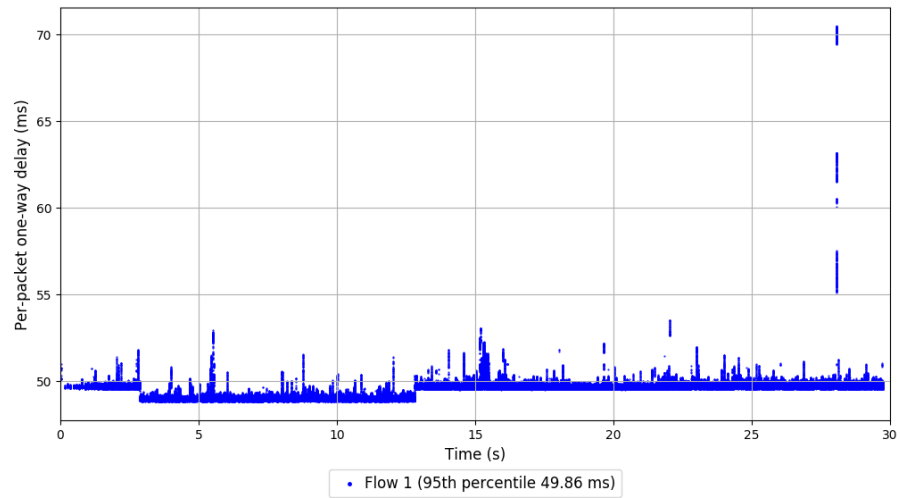
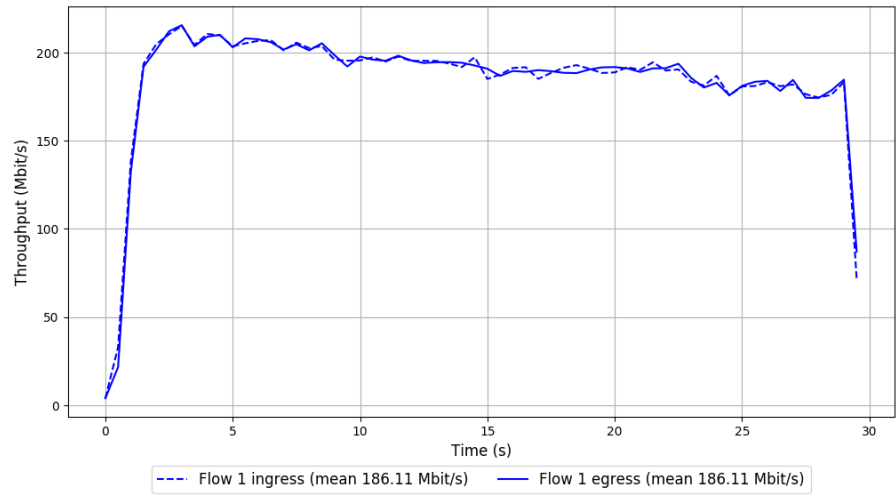
-- Flow 1:

Average throughput: 186.11 Mbit/s

95th percentile per-packet one-way delay: 49.861 ms

Loss rate: 0.00%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-12-05 14:12:05

End at: 2017-12-05 14:12:35

Below is generated by plot.py at 2017-12-05 16:18:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 186.20 Mbit/s

95th percentile per-packet one-way delay: 49.770 ms

Loss rate: 0.00%

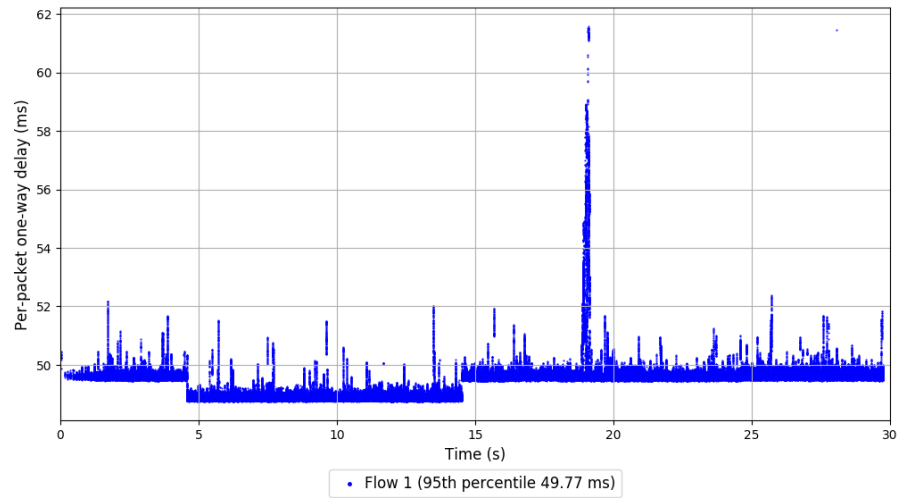
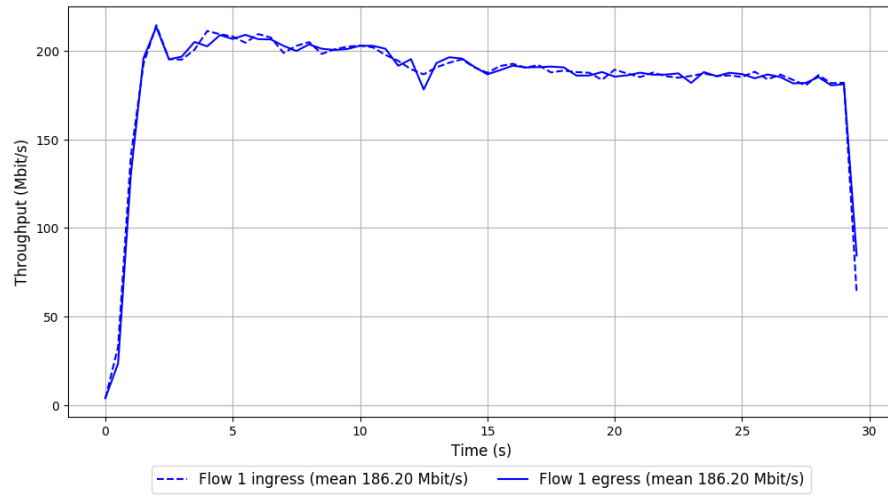
-- Flow 1:

Average throughput: 186.20 Mbit/s

95th percentile per-packet one-way delay: 49.770 ms

Loss rate: 0.00%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-12-05 14:22:34

End at: 2017-12-05 14:23:04

Below is generated by plot.py at 2017-12-05 16:18:04

Datalink statistics

-- Total of 1 flow:

Average throughput: 181.52 Mbit/s

95th percentile per-packet one-way delay: 48.913 ms

Loss rate: 0.00%

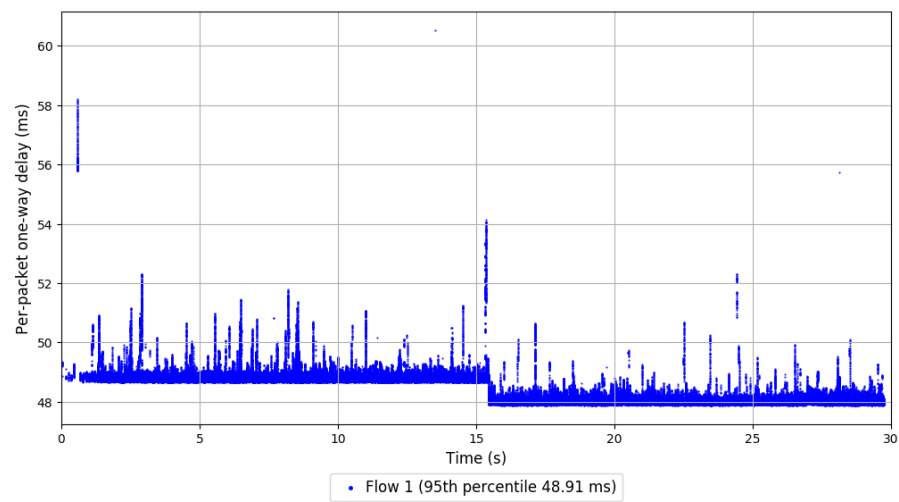
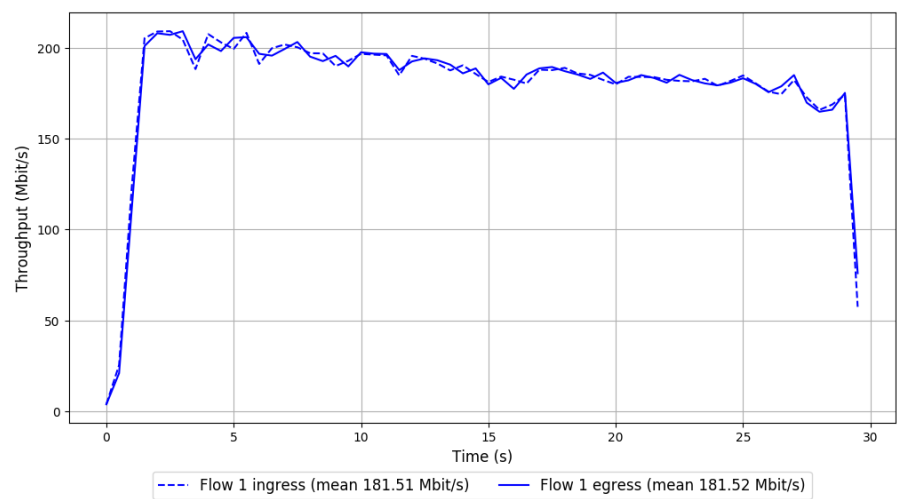
-- Flow 1:

Average throughput: 181.52 Mbit/s

95th percentile per-packet one-way delay: 48.913 ms

Loss rate: 0.00%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-12-05 14:32:56

End at: 2017-12-05 14:33:26

Below is generated by plot.py at 2017-12-05 16:18:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 183.07 Mbit/s

95th percentile per-packet one-way delay: 48.884 ms

Loss rate: 0.00%

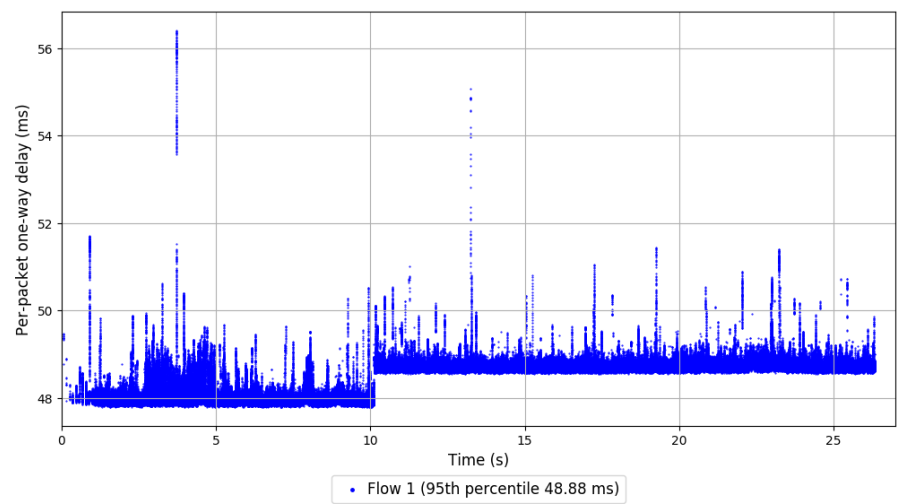
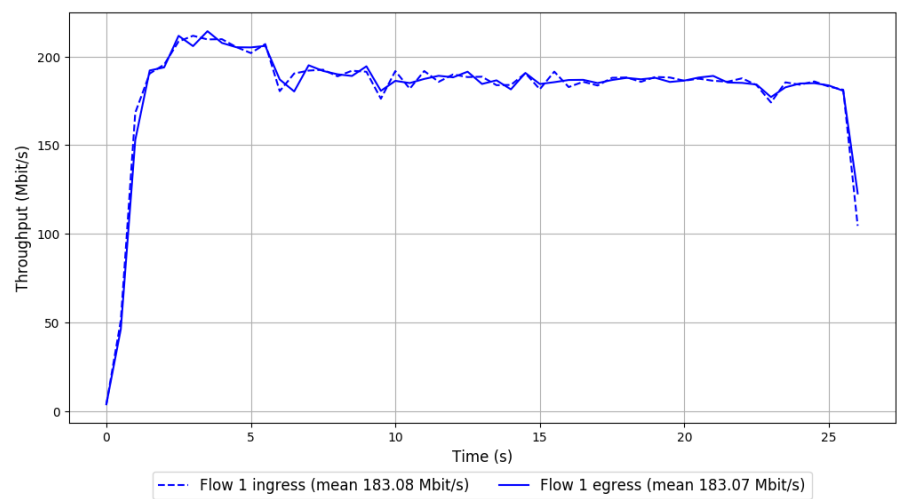
-- Flow 1:

Average throughput: 183.07 Mbit/s

95th percentile per-packet one-way delay: 48.884 ms

Loss rate: 0.00%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-05 14:43:16

End at: 2017-12-05 14:43:46

Below is generated by plot.py at 2017-12-05 16:18:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 175.99 Mbit/s

95th percentile per-packet one-way delay: 49.545 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 175.99 Mbit/s

95th percentile per-packet one-way delay: 49.545 ms

Loss rate: 0.00%

Run 10: Report of Indigo-calib — Data Link

