

Pantheon Report

Generated at 2017-11-21 02:00:00 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

Each test lasted for 30 seconds running 1 flow.

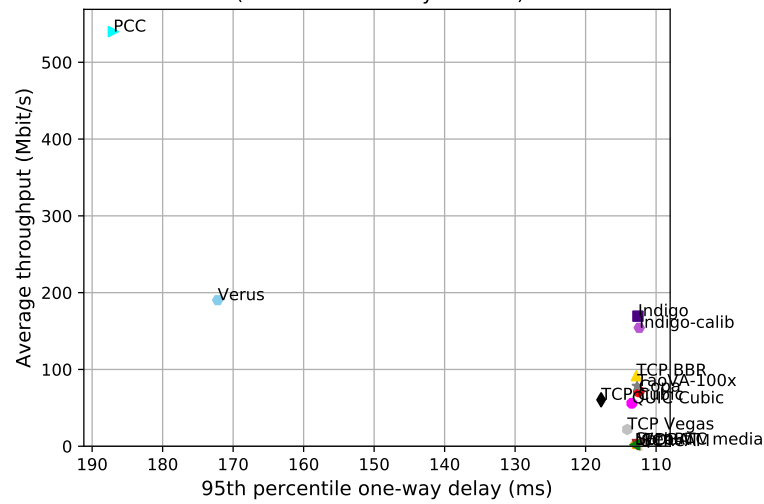
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

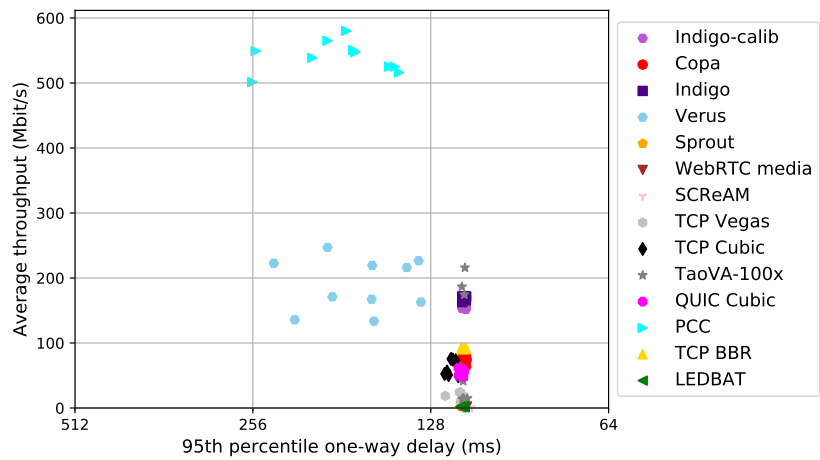
Git summary:

```
branch: 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 Tokyo Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
(mean of all runs by scheme)



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



scheme	# runs	mean avg tput (Mbit/s) flow 1	mean 95th-%ile delay (ms) flow 1	mean loss rate (%) flow 1
TCP BBR	9	91.93	112.79	0.82
TCP Cubic	8	60.48	117.80	0.82
LEDBAT	10	1.72	113.03	1.28
PCC	10	539.95	186.99	2.64
QUIC Cubic	9	55.92	113.45	1.06
SCReAM	10	0.21	112.11	0.75
WebRTC media	9	2.15	112.66	0.87
Sprout	10	2.48	112.88	1.52
TaoVA-100x	10	78.41	112.70	1.07
TCP Vegas	10	21.87	114.09	0.76
Verus	10	190.25	172.19	1.27
Copa	10	71.14	112.45	0.64
Indigo	8	169.39	112.58	0.83
Indigo-calib	10	154.23	112.39	0.83

Run 1: Statistics of TCP BBR

Start at: 2017-11-20 21:43:43

End at: 2017-11-20 21:44:13

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.95 Mbit/s

95th percentile per-packet one-way delay: 111.699 ms

Loss rate: 0.94%

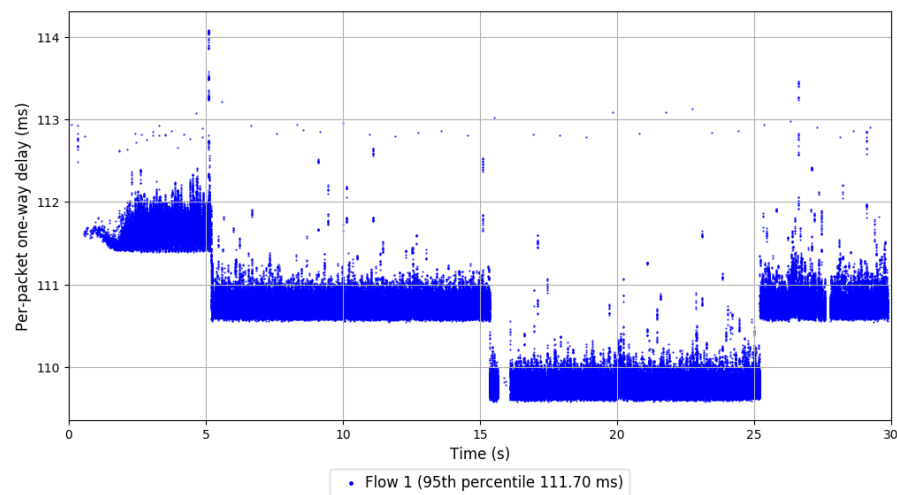
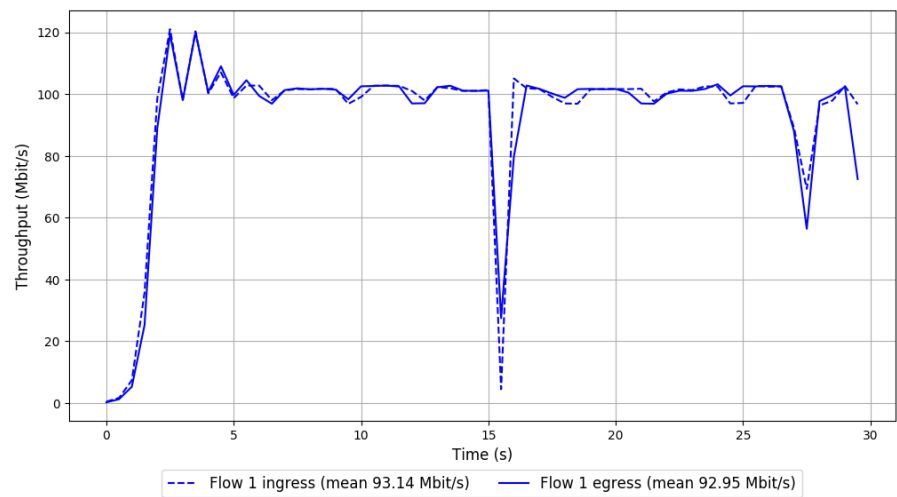
-- Flow 1:

Average throughput: 92.95 Mbit/s

95th percentile per-packet one-way delay: 111.699 ms

Loss rate: 0.94%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-11-20 21:54:57

End at: 2017-11-20 21:55:27

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.93 Mbit/s

95th percentile per-packet one-way delay: 113.324 ms

Loss rate: 0.79%

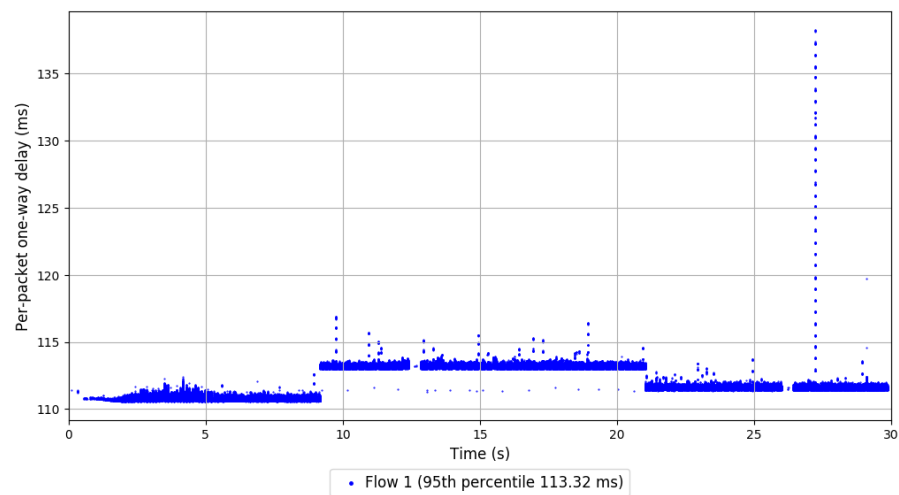
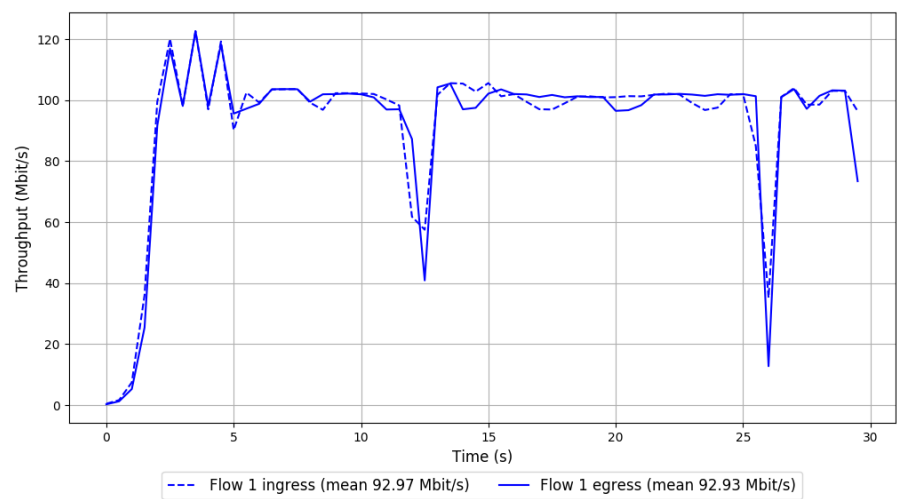
-- Flow 1:

Average throughput: 92.93 Mbit/s

95th percentile per-packet one-way delay: 113.324 ms

Loss rate: 0.79%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-11-20 22:06:12

End at: 2017-11-20 22:06:43

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.35 Mbit/s

95th percentile per-packet one-way delay: 113.380 ms

Loss rate: 0.79%

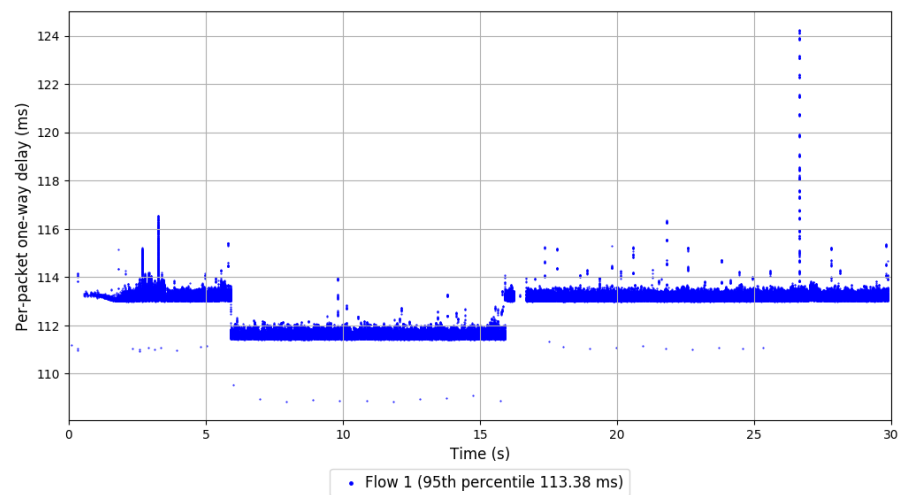
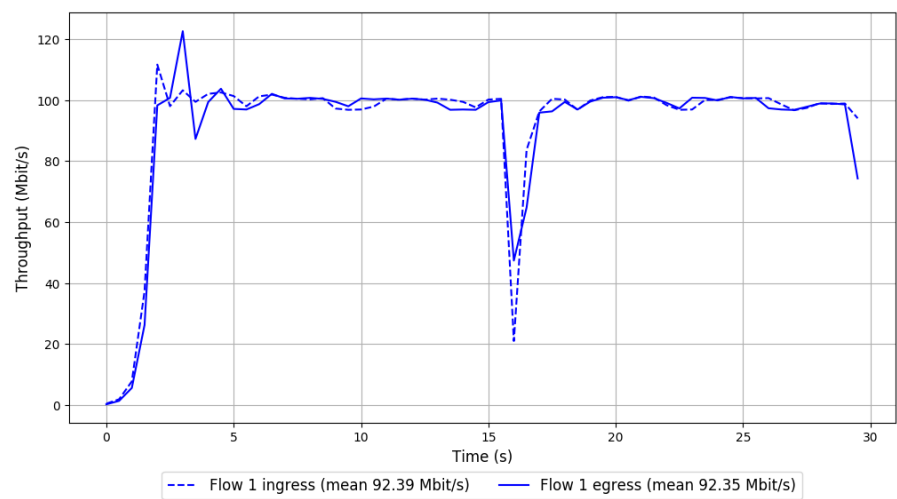
-- Flow 1:

Average throughput: 92.35 Mbit/s

95th percentile per-packet one-way delay: 113.380 ms

Loss rate: 0.79%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-11-20 22:17:19

End at: 2017-11-20 22:17:49

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 93.20 Mbit/s

95th percentile per-packet one-way delay: 113.312 ms

Loss rate: 0.80%

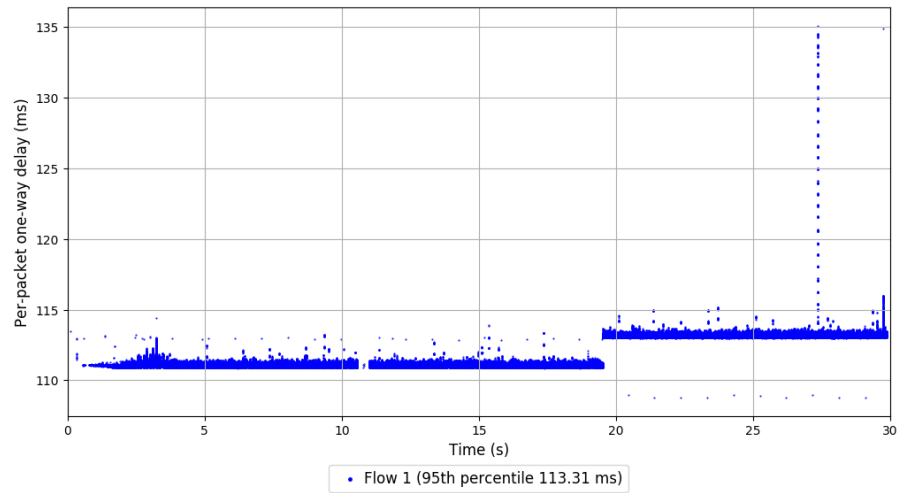
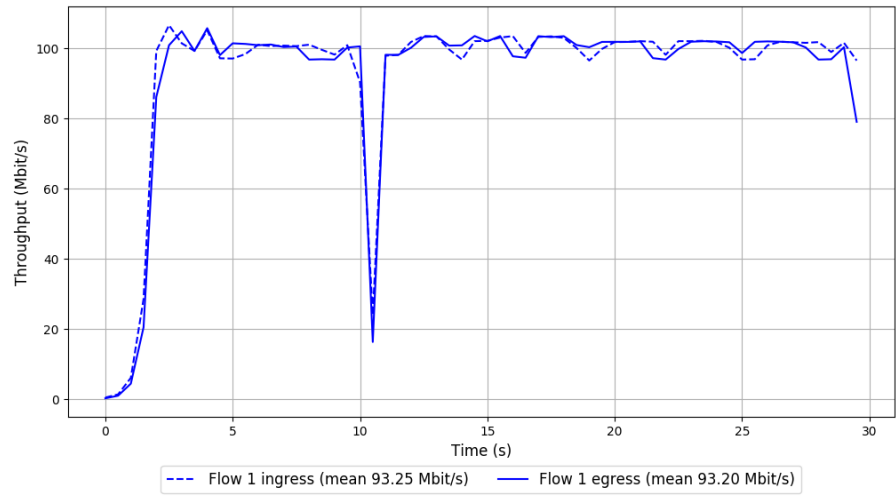
-- Flow 1:

Average throughput: 93.20 Mbit/s

95th percentile per-packet one-way delay: 113.312 ms

Loss rate: 0.80%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-11-20 22:28:22

End at: 2017-11-20 22:28:52

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 111.761 ms

Loss rate: 0.78%

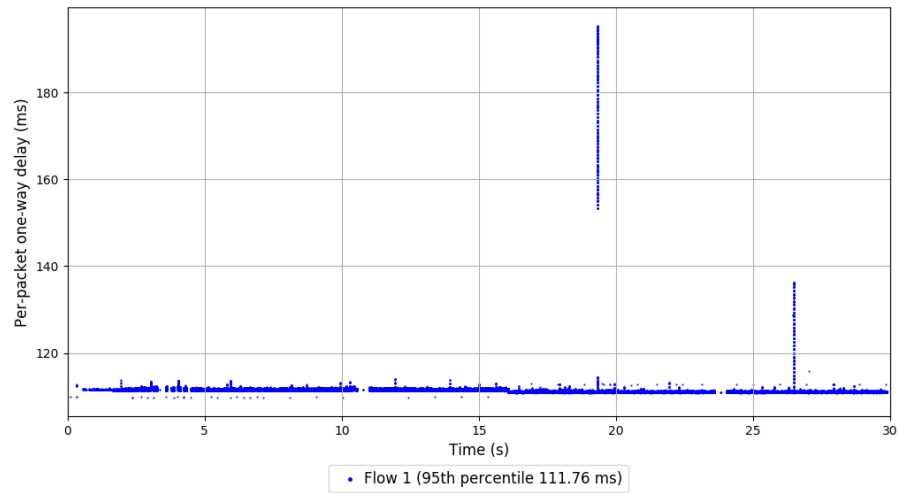
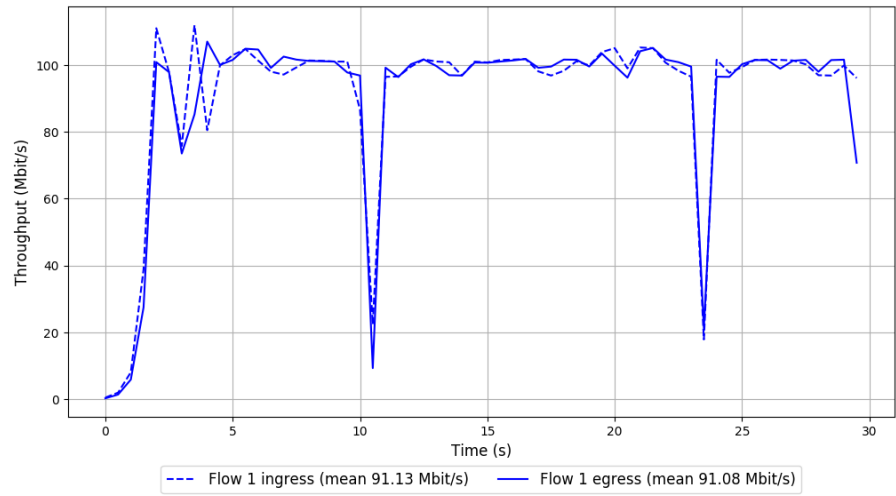
-- Flow 1:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 111.761 ms

Loss rate: 0.78%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-11-20 22:39:43

End at: 2017-11-20 22:40:13

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.36 Mbit/s

95th percentile per-packet one-way delay: 111.788 ms

Loss rate: 0.81%

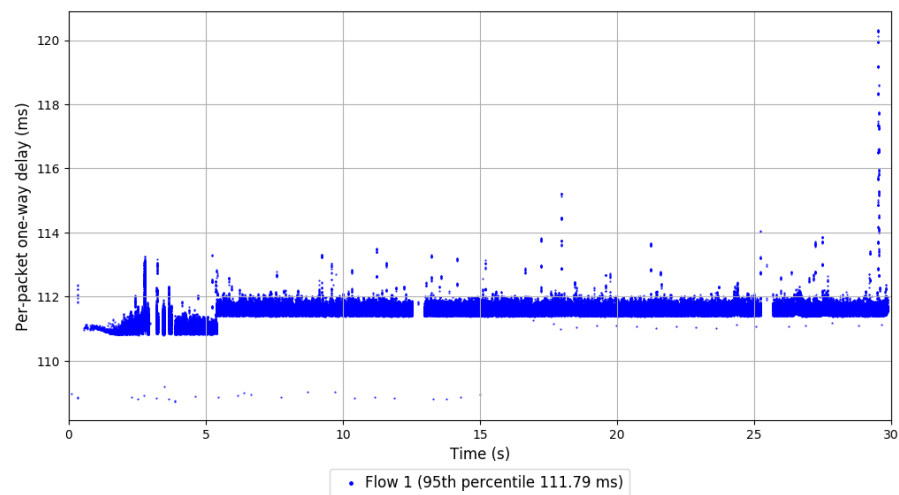
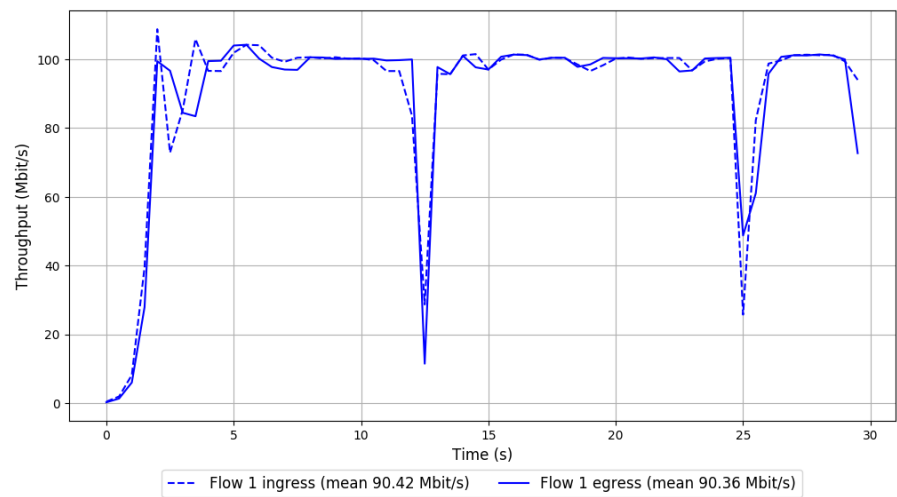
-- Flow 1:

Average throughput: 90.36 Mbit/s

95th percentile per-packet one-way delay: 111.788 ms

Loss rate: 0.81%

Run 6: Report of TCP BBR — Data Link

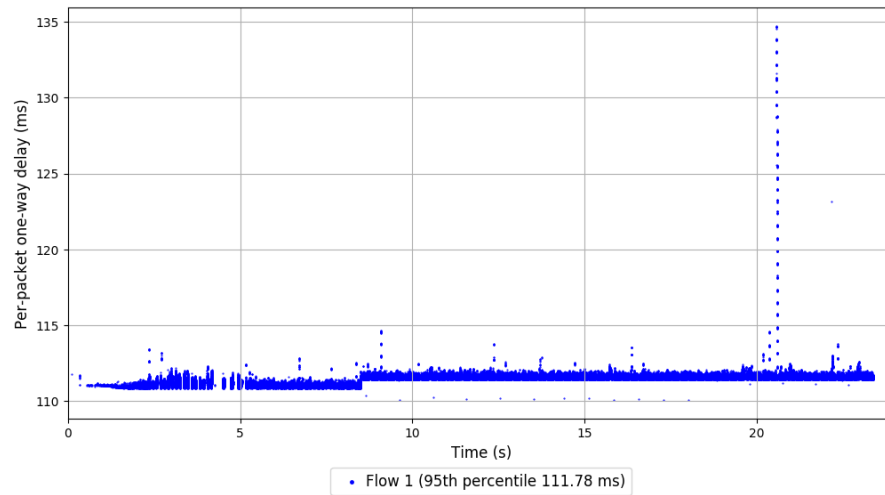
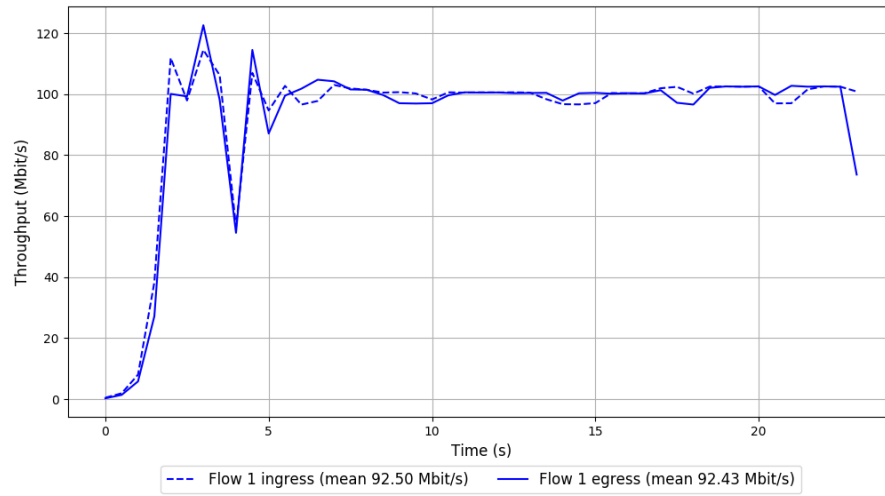


Run 7: Statistics of TCP BBR

Start at: 2017-11-20 22:50:43

End at: 2017-11-20 22:51:13

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-11-20 23:01:29

End at: 2017-11-20 23:01:59

Below is generated by plot.py at 2017-11-21 01:27:49

Datalink statistics

-- Total of 1 flow:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 113.331 ms

Loss rate: 0.80%

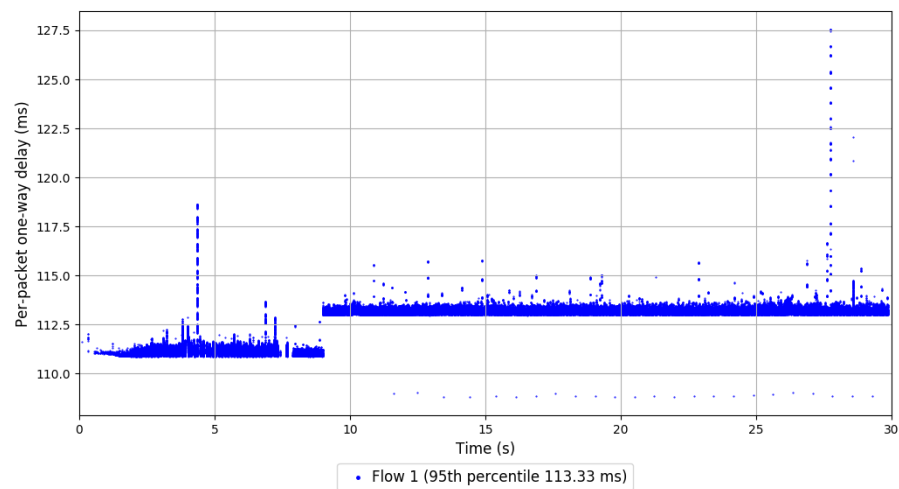
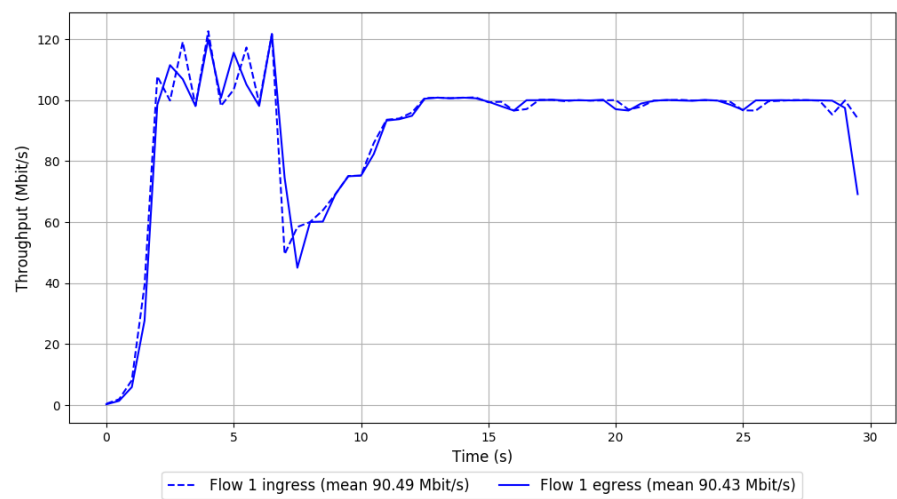
-- Flow 1:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 113.331 ms

Loss rate: 0.80%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-11-20 23:12:27

End at: 2017-11-20 23:12:57

Below is generated by plot.py at 2017-11-21 01:29:23

Datalink statistics

-- Total of 1 flow:

Average throughput: 92.13 Mbit/s

95th percentile per-packet one-way delay: 113.365 ms

Loss rate: 0.79%

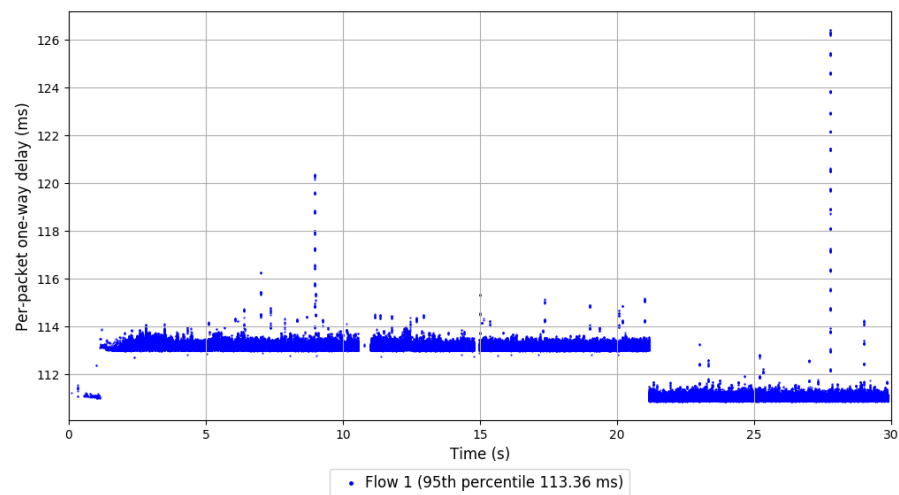
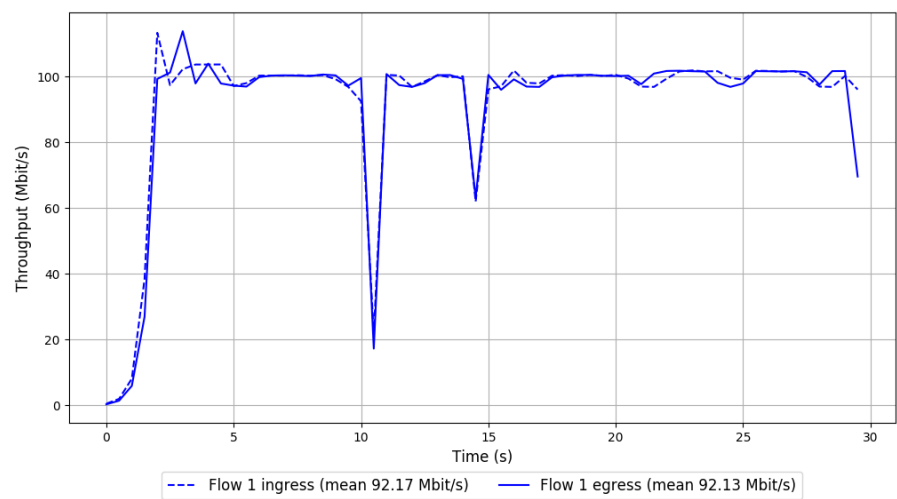
-- Flow 1:

Average throughput: 92.13 Mbit/s

95th percentile per-packet one-way delay: 113.365 ms

Loss rate: 0.79%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-11-20 23:23:12

End at: 2017-11-20 23:23:42

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 91.96 Mbit/s

95th percentile per-packet one-way delay: 113.192 ms

Loss rate: 0.88%

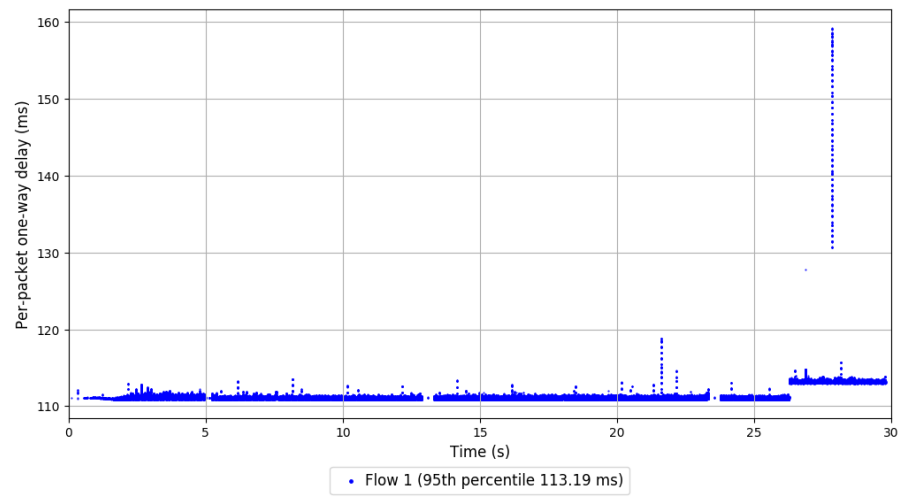
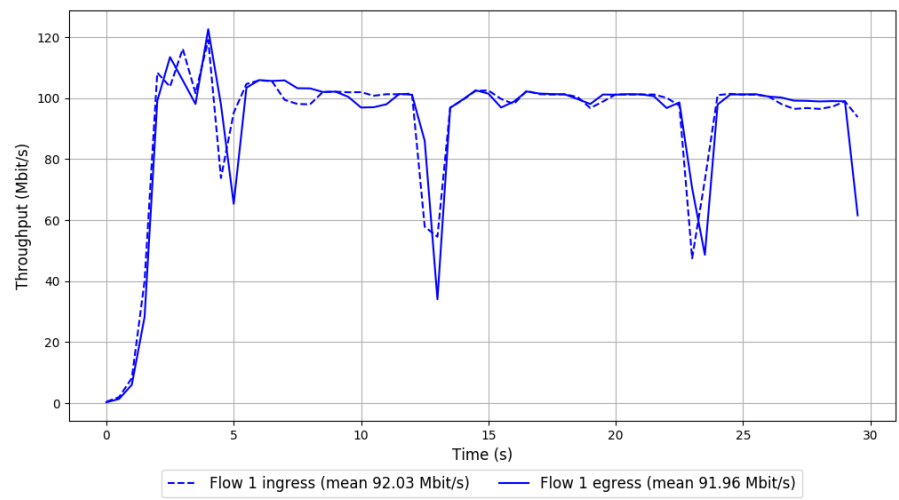
-- Flow 1:

Average throughput: 91.96 Mbit/s

95th percentile per-packet one-way delay: 113.192 ms

Loss rate: 0.88%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-11-20 21:48:03

End at: 2017-11-20 21:48:33

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.45 Mbit/s

95th percentile per-packet one-way delay: 117.447 ms

Loss rate: 0.63%

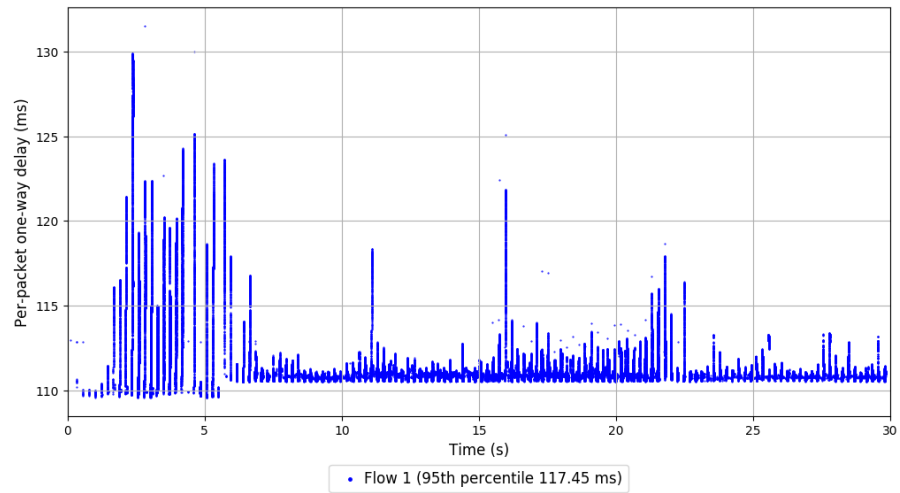
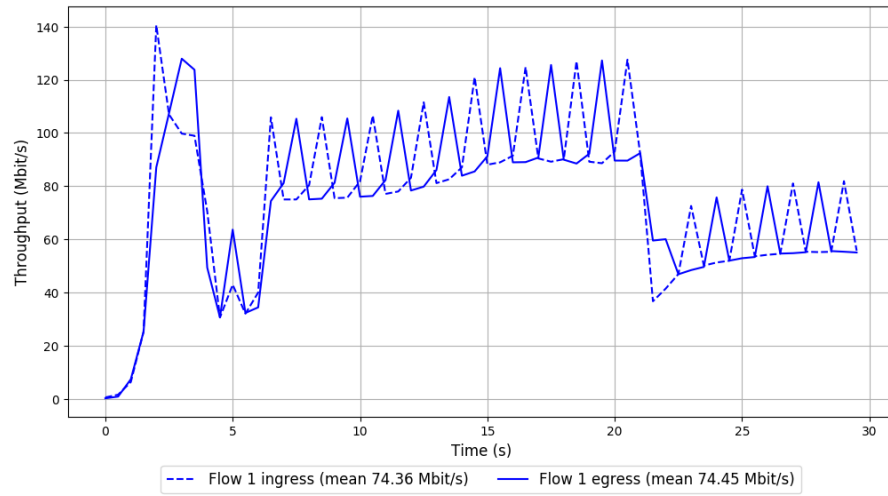
-- Flow 1:

Average throughput: 74.45 Mbit/s

95th percentile per-packet one-way delay: 117.447 ms

Loss rate: 0.63%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-11-20 21:59:16

End at: 2017-11-20 21:59:46

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.42 Mbit/s

95th percentile per-packet one-way delay: 121.229 ms

Loss rate: 0.82%

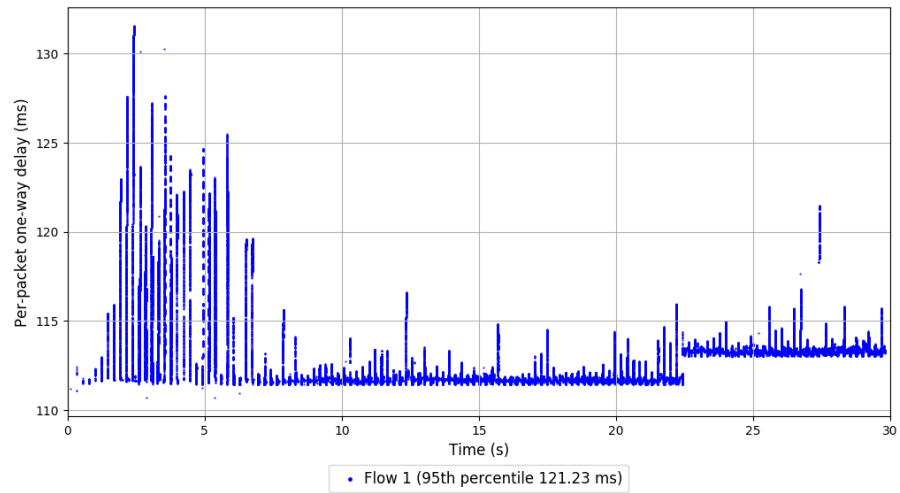
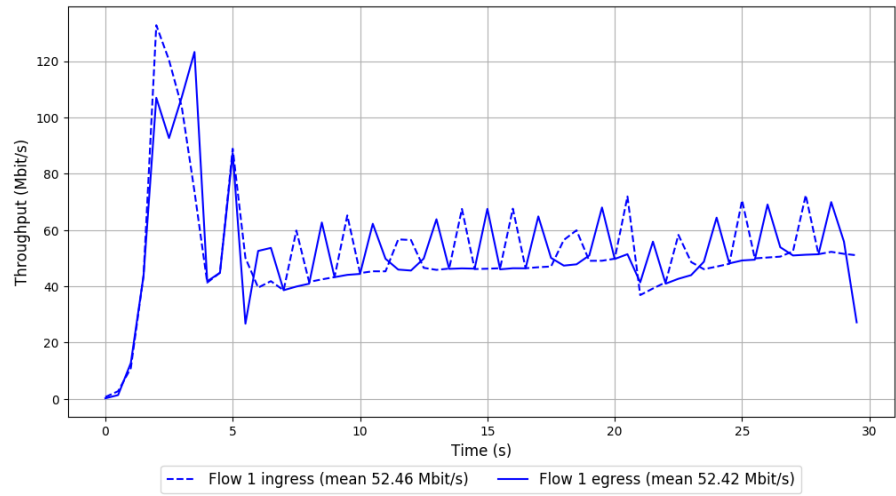
-- Flow 1:

Average throughput: 52.42 Mbit/s

95th percentile per-packet one-way delay: 121.229 ms

Loss rate: 0.82%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-11-20 22:10:32

End at: 2017-11-20 22:11:02

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.35 Mbit/s

95th percentile per-packet one-way delay: 116.105 ms

Loss rate: 0.81%

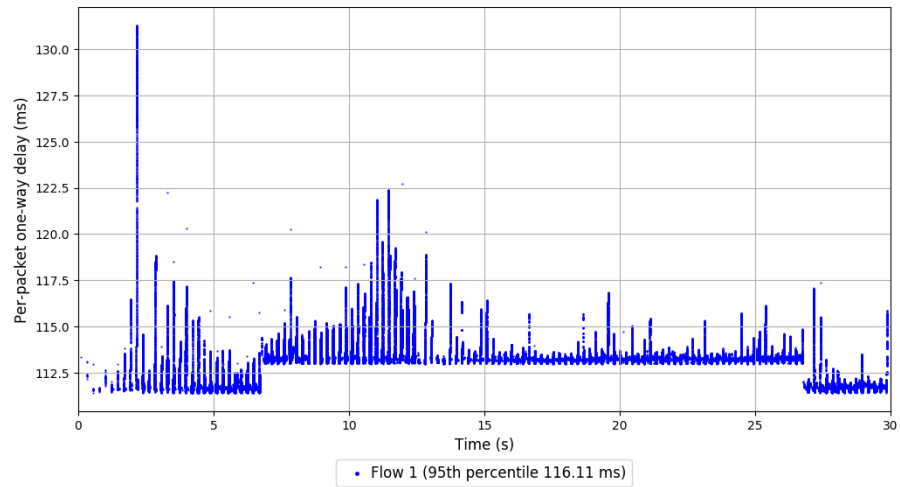
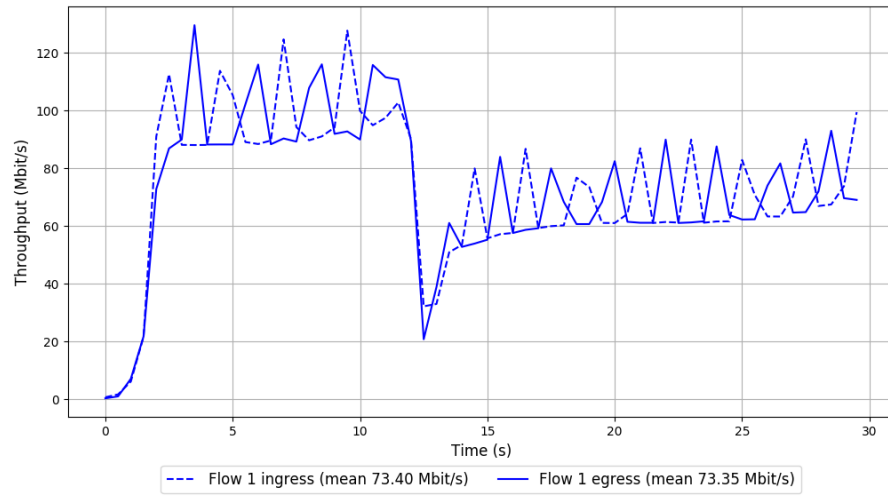
-- Flow 1:

Average throughput: 73.35 Mbit/s

95th percentile per-packet one-way delay: 116.105 ms

Loss rate: 0.81%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-11-20 22:21:41

End at: 2017-11-20 22:22:11

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.94 Mbit/s

95th percentile per-packet one-way delay: 114.952 ms

Loss rate: 1.65%

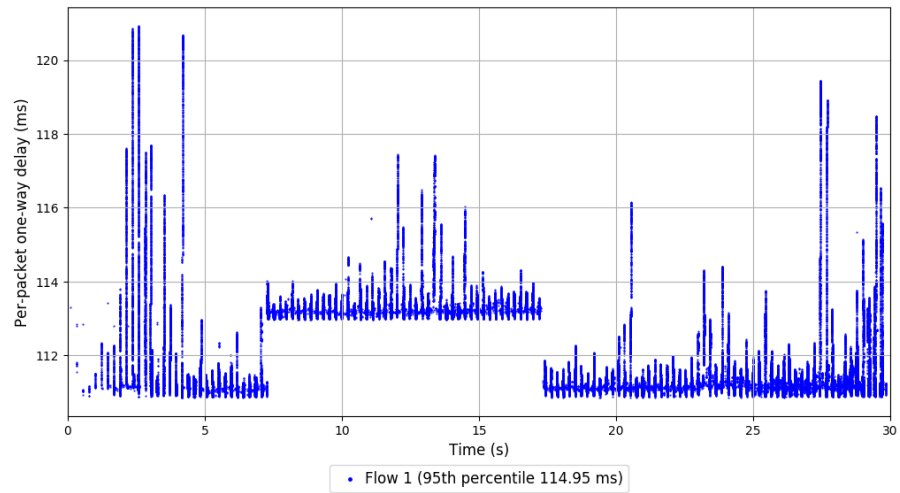
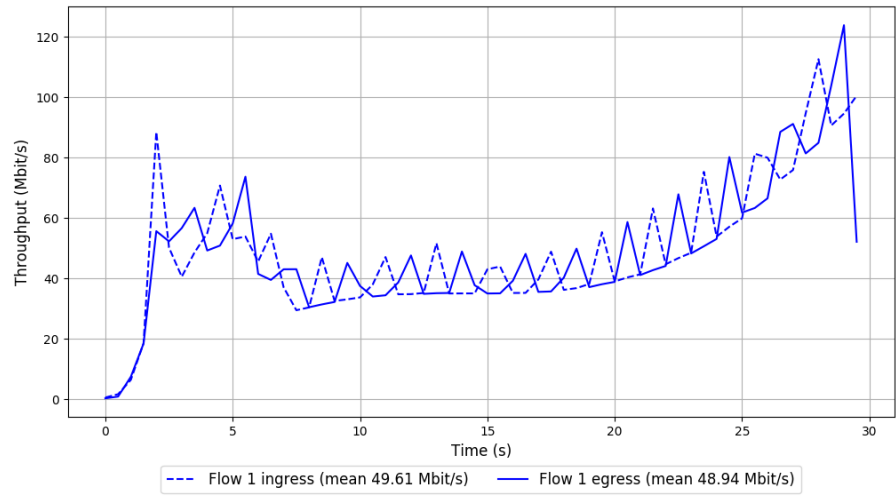
-- Flow 1:

Average throughput: 48.94 Mbit/s

95th percentile per-packet one-way delay: 114.952 ms

Loss rate: 1.65%

Run 4: Report of TCP Cubic — Data Link

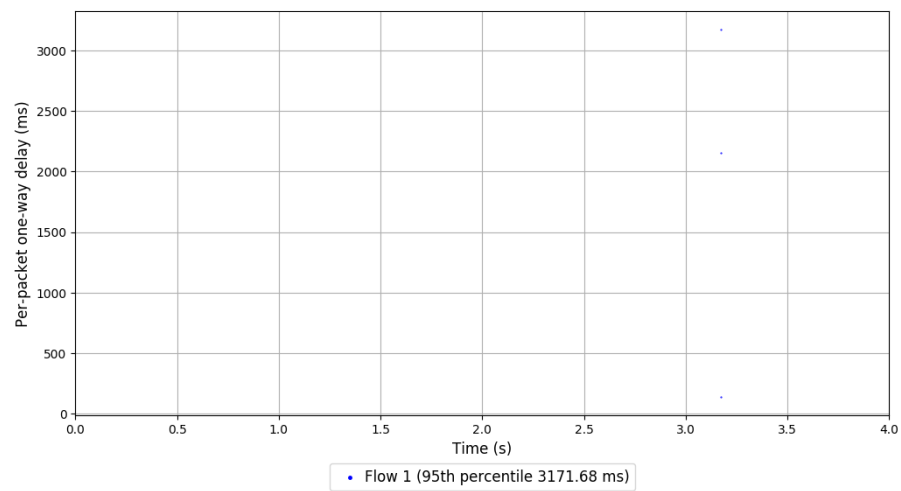
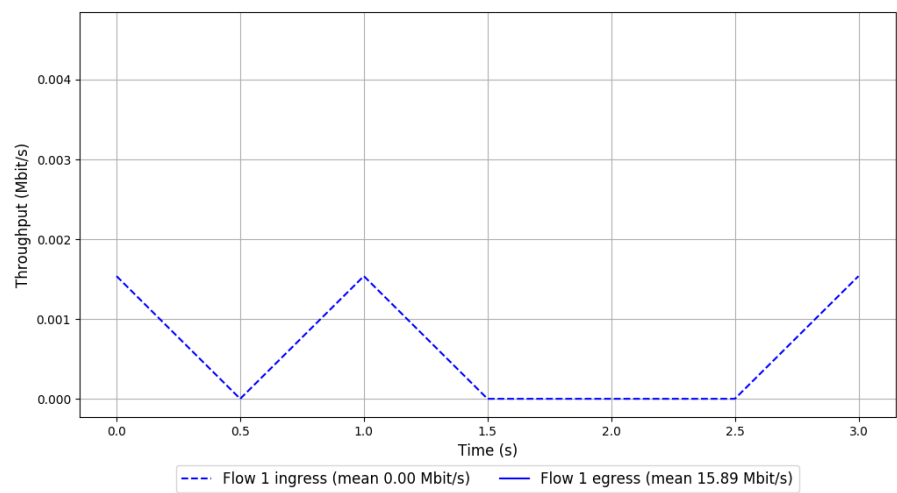


Run 5: Statistics of TCP Cubic

Start at: 2017-11-20 22:32:49

End at: 2017-11-20 22:33:19

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-11-20 22:44:04

End at: 2017-11-20 22:44:34

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 119.413 ms

Loss rate: 0.93%

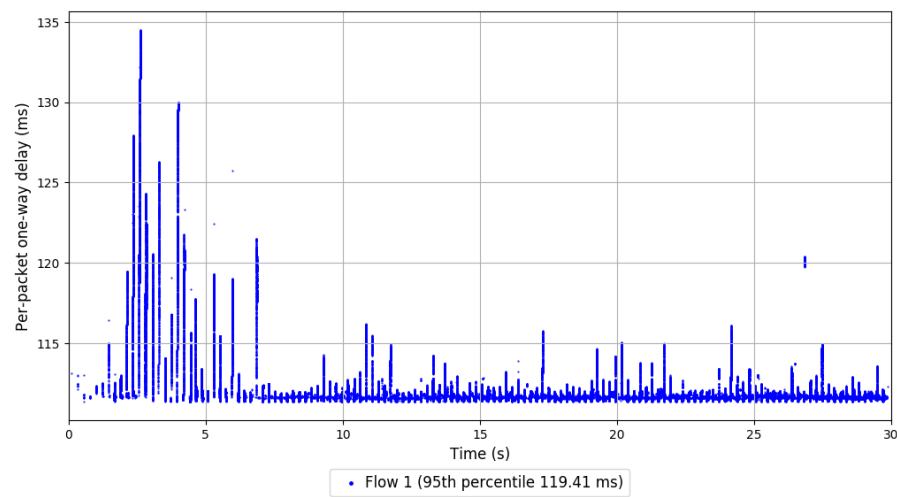
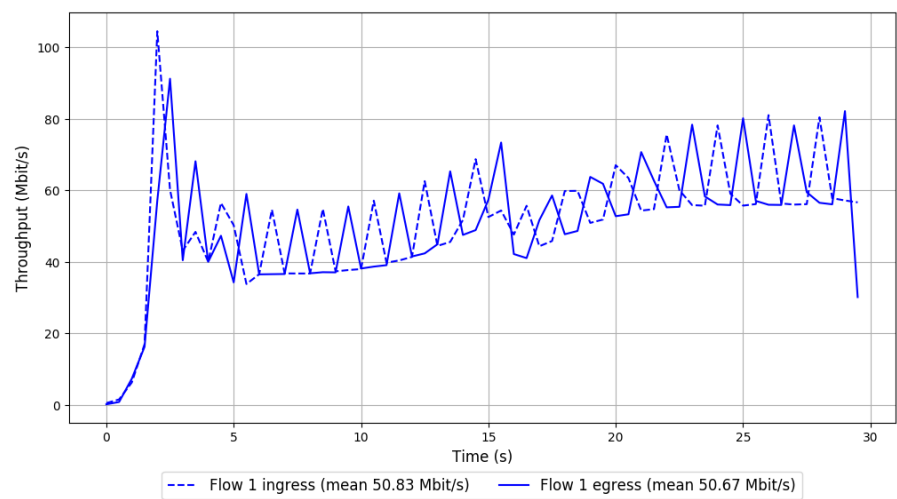
-- Flow 1:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 119.413 ms

Loss rate: 0.93%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-11-20 22:54:48

End at: 2017-11-20 22:55:18

Below is generated by plot.py at 2017-11-21 01:29:38

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.49 Mbit/s

95th percentile per-packet one-way delay: 118.287 ms

Loss rate: 0.56%

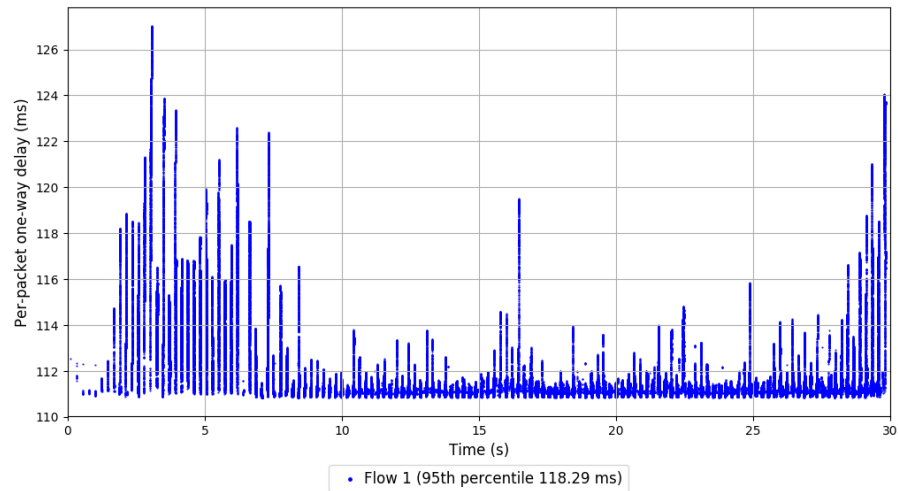
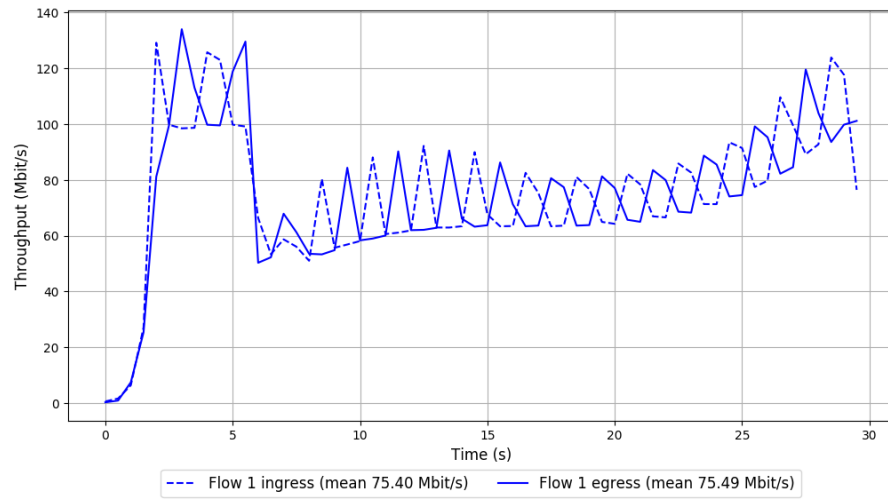
-- Flow 1:

Average throughput: 75.49 Mbit/s

95th percentile per-packet one-way delay: 118.287 ms

Loss rate: 0.56%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-11-20 23:05:50

End at: 2017-11-20 23:06:20

Below is generated by plot.py at 2017-11-21 01:29:47

Datalink statistics

-- Total of 1 flow:

Average throughput: 52.56 Mbit/s

95th percentile per-packet one-way delay: 114.844 ms

Loss rate: 0.59%

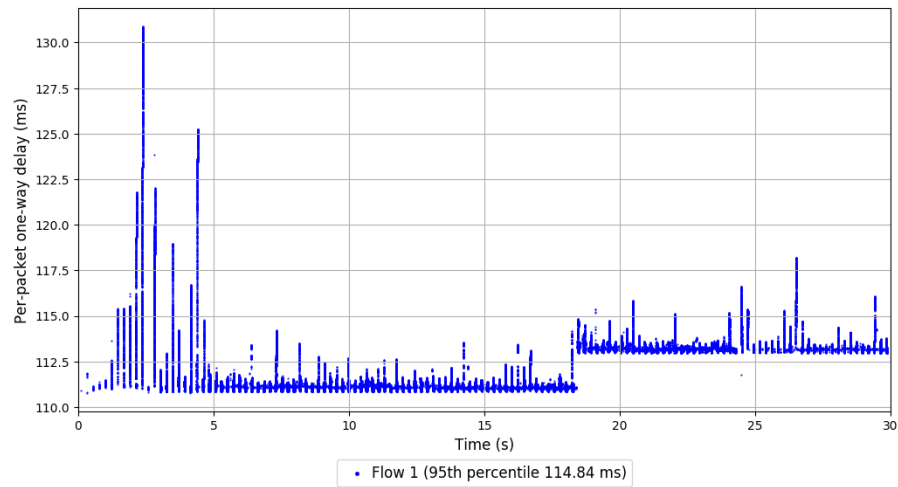
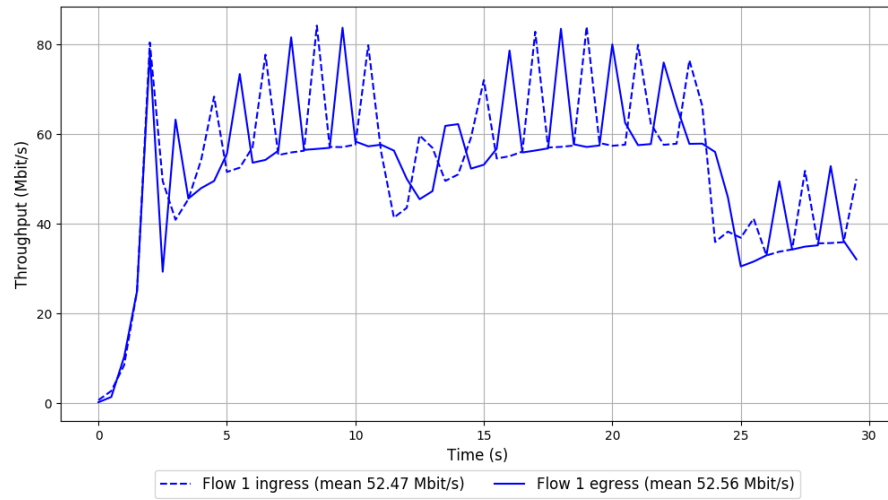
-- Flow 1:

Average throughput: 52.56 Mbit/s

95th percentile per-packet one-way delay: 114.844 ms

Loss rate: 0.59%

Run 8: Report of TCP Cubic — Data Link

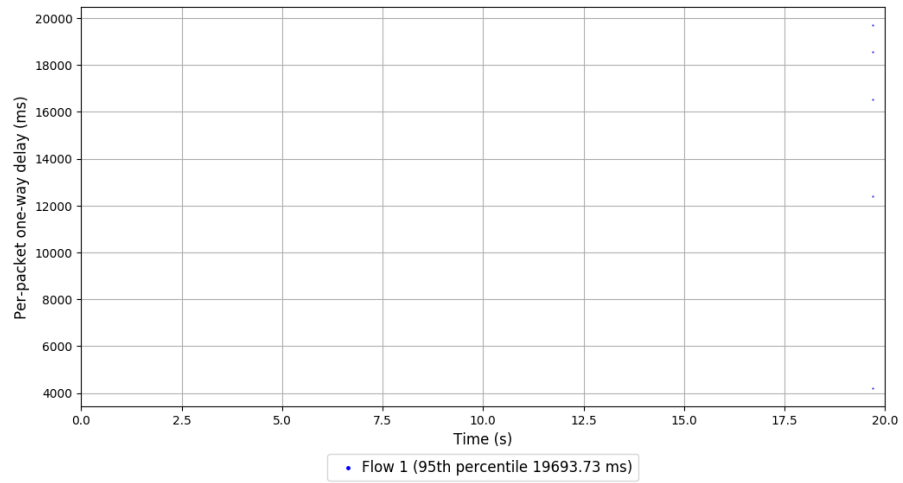
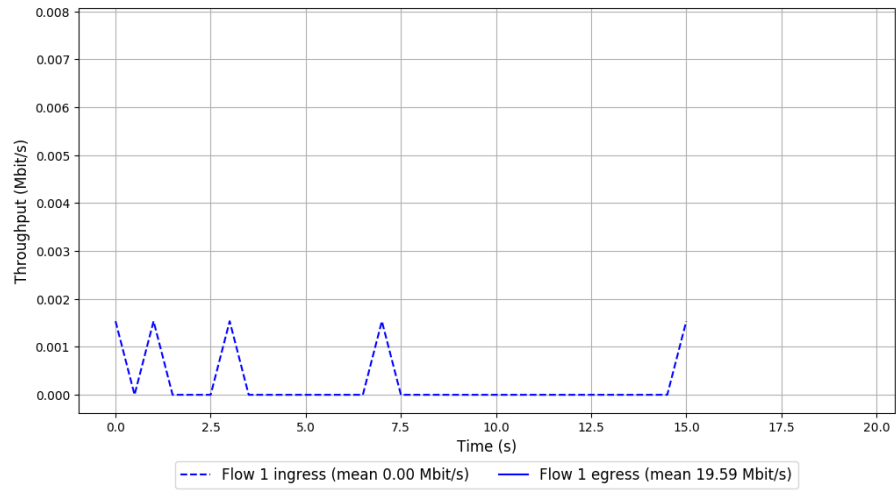


Run 9: Statistics of TCP Cubic

Start at: 2017-11-20 23:16:37

End at: 2017-11-20 23:17:07

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-11-20 23:27:30

End at: 2017-11-20 23:28:00

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 55.96 Mbit/s

95th percentile per-packet one-way delay: 120.101 ms

Loss rate: 0.53%

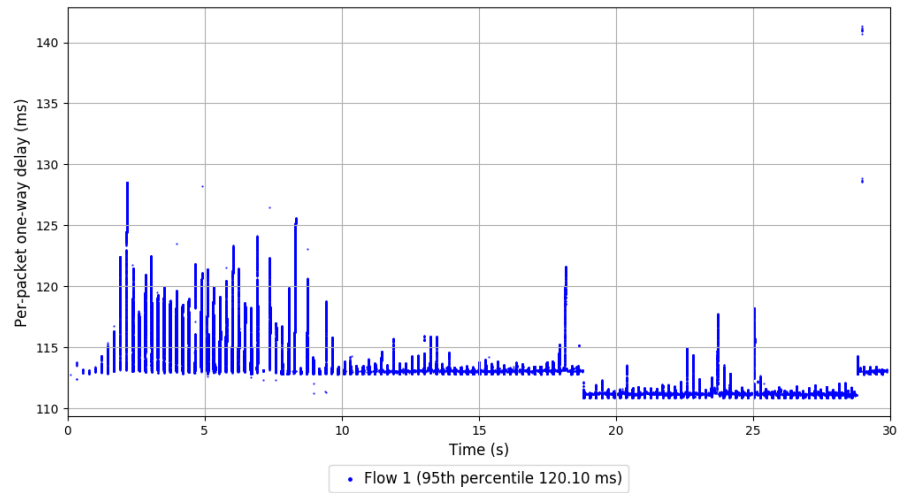
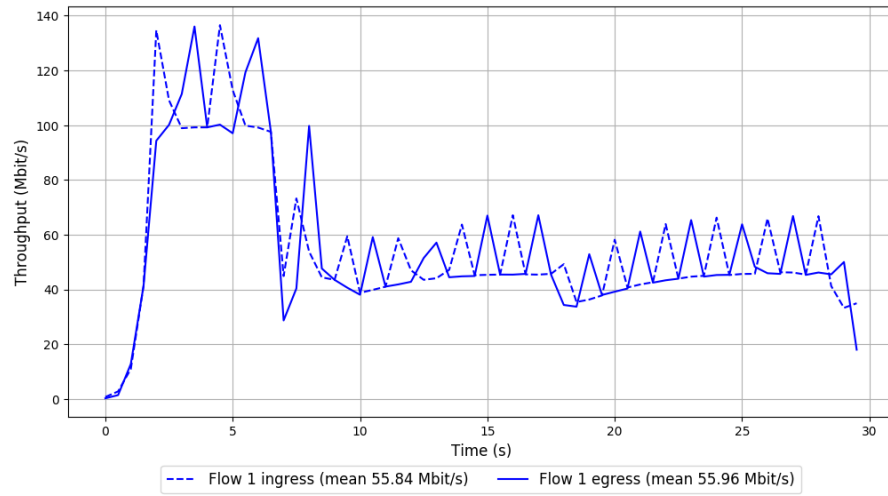
-- Flow 1:

Average throughput: 55.96 Mbit/s

95th percentile per-packet one-way delay: 120.101 ms

Loss rate: 0.53%

Run 10: Report of TCP Cubic — Data Link

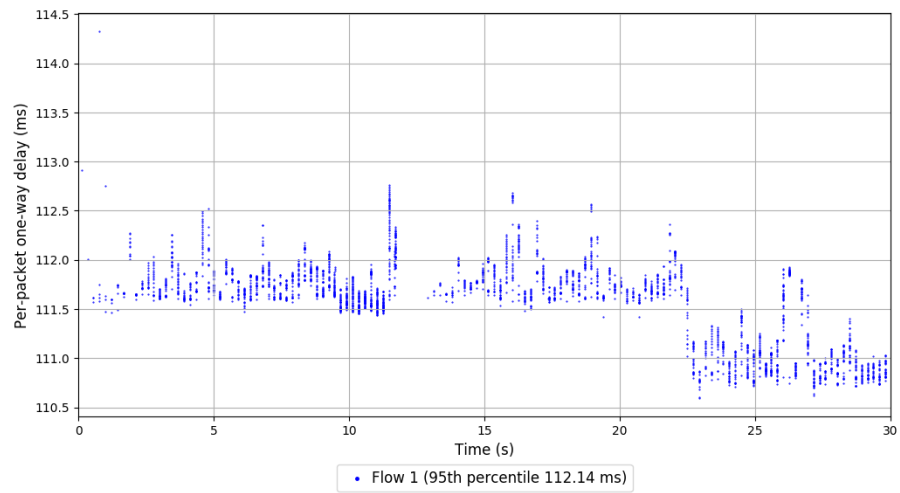
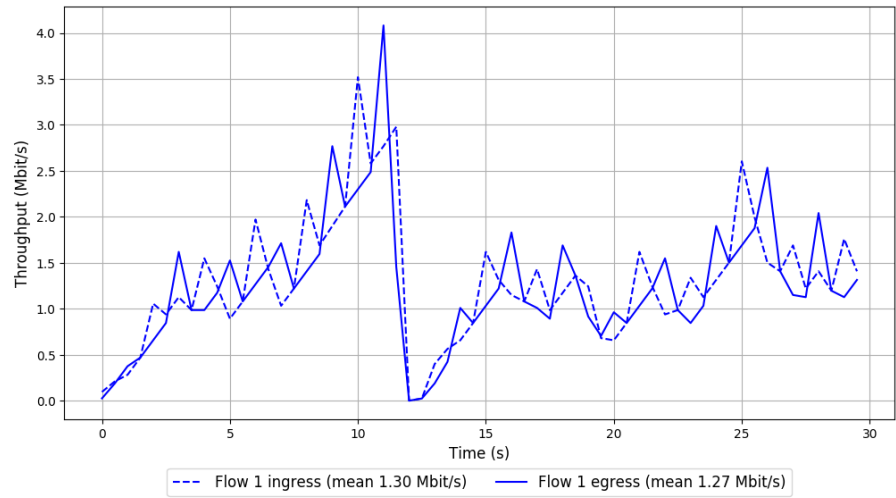


```
Run 1: Statistics of LEDBAT

Start at: 2017-11-20 21:40:46
End at: 2017-11-20 21:41:16

# Below is generated by plot.py at 2017-11-21 01:29:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 112.142 ms
Loss rate: 2.90%
-- Flow 1:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 112.142 ms
Loss rate: 2.90%
```


Run 1: Report of LEDBAT — Data Link

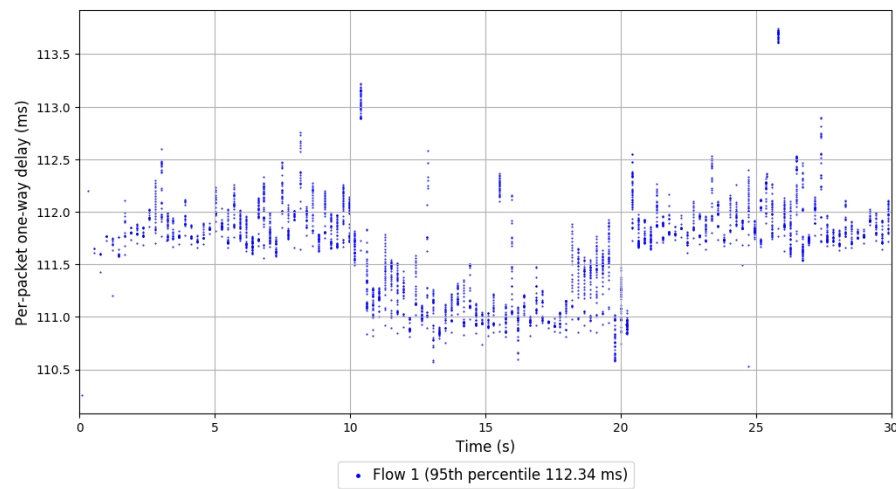
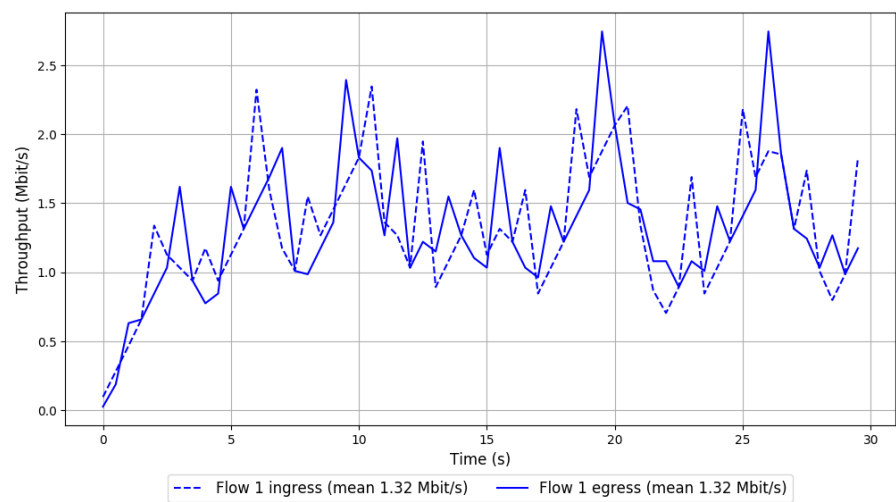


```
Run 2: Statistics of LEDBAT

Start at: 2017-11-20 21:51:58
End at: 2017-11-20 21:52:28

# Below is generated by plot.py at 2017-11-21 01:29:52
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 112.343 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 112.343 ms
Loss rate: 0.83%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-11-20 22:03:11

End at: 2017-11-20 22:03:41

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 113.821 ms

Loss rate: 1.40%

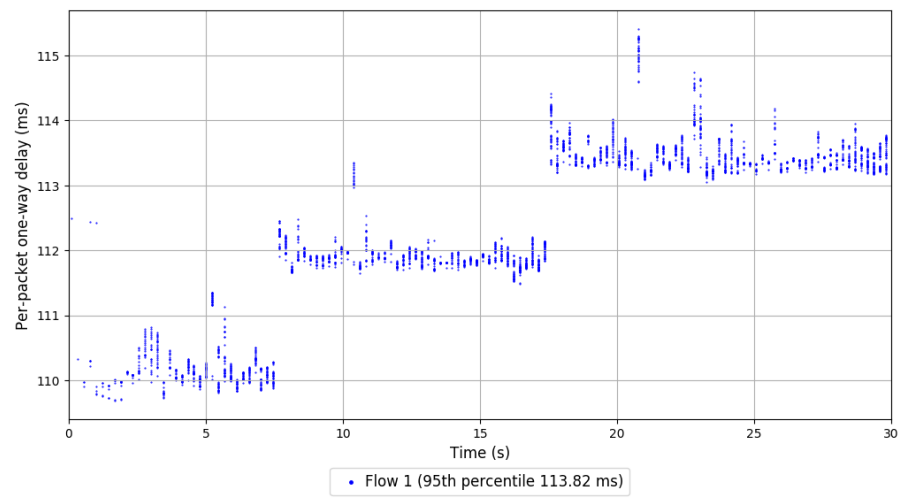
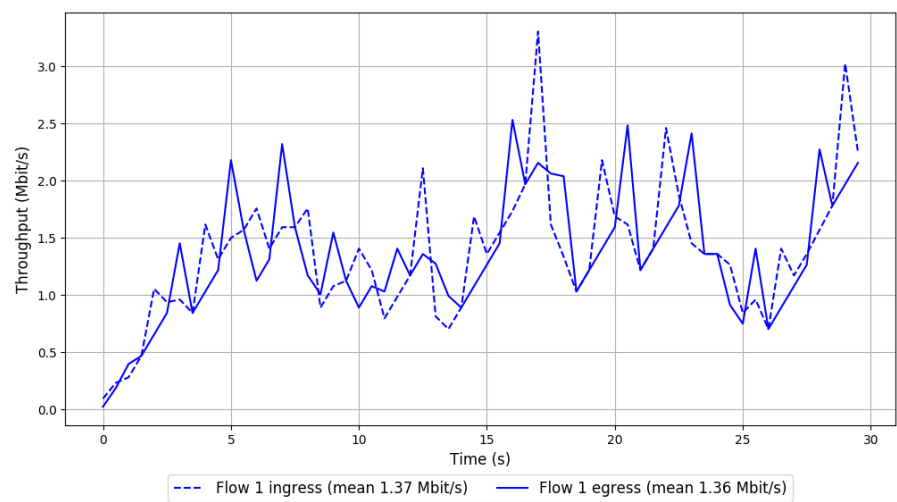
-- Flow 1:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 113.821 ms

Loss rate: 1.40%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-11-20 22:14:16

End at: 2017-11-20 22:14:46

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 113.593 ms

Loss rate: 0.60%

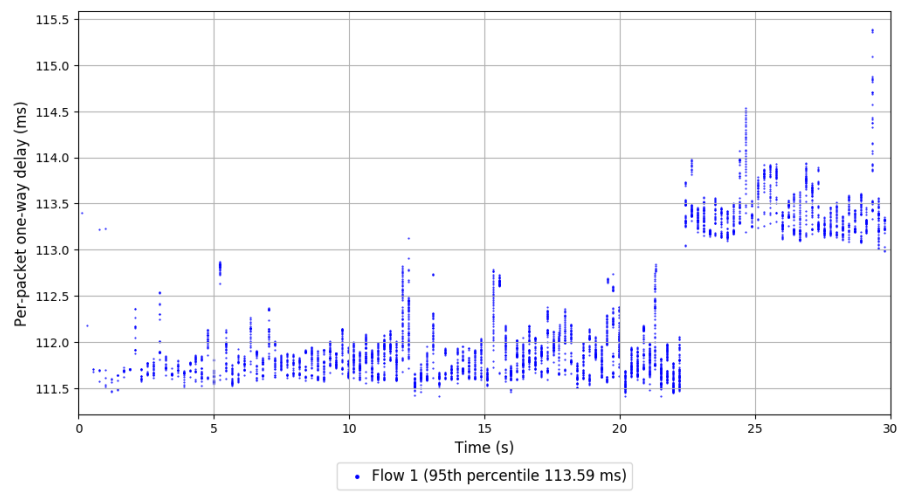
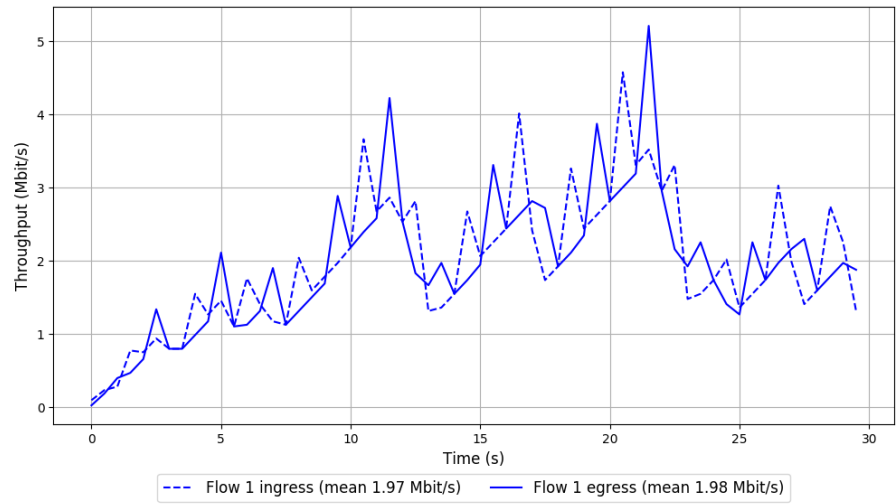
-- Flow 1:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 113.593 ms

Loss rate: 0.60%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-11-20 22:25:21

End at: 2017-11-20 22:25:51

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 112.519 ms

Loss rate: 0.36%

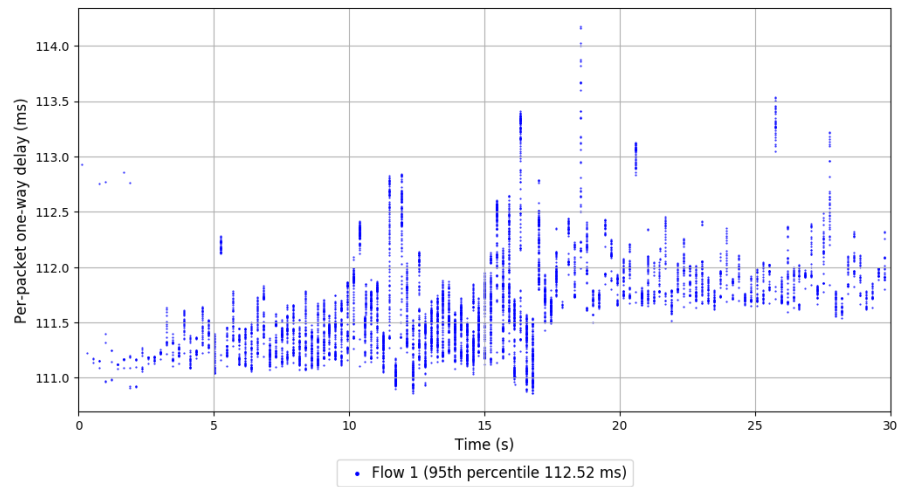
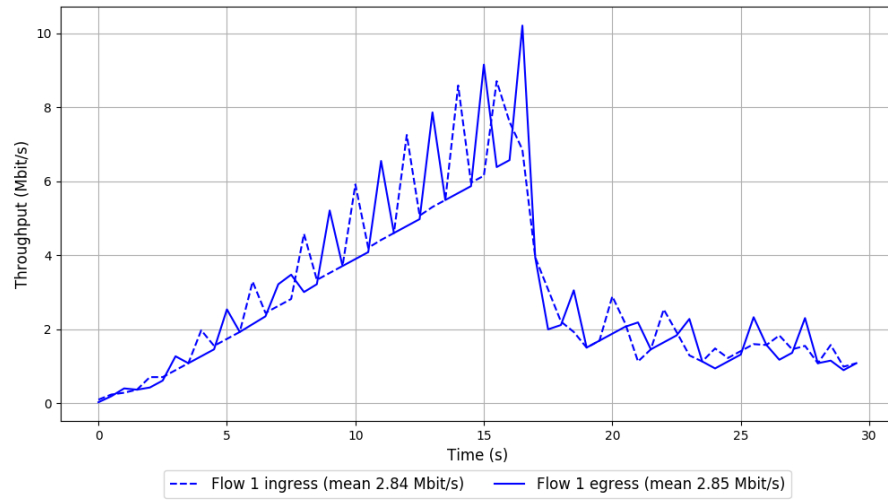
-- Flow 1:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 112.519 ms

Loss rate: 0.36%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-11-20 22:36:42

End at: 2017-11-20 22:37:12

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.218 ms

Loss rate: 1.05%

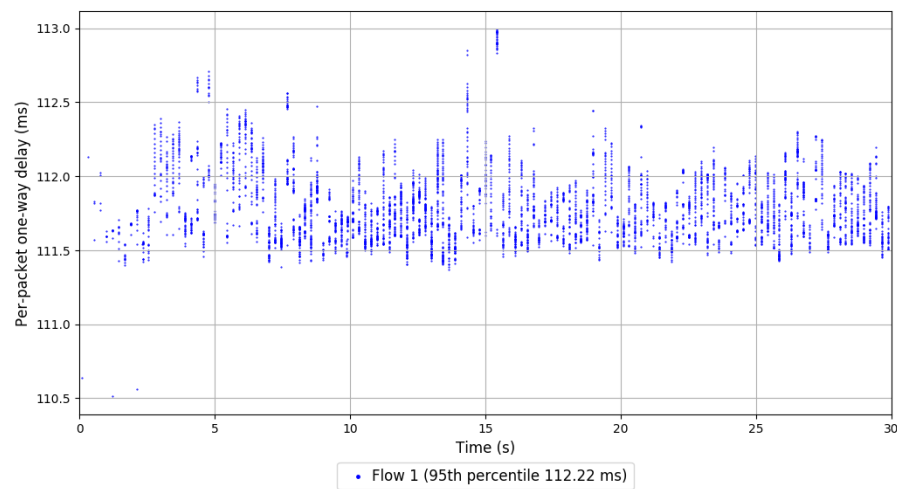
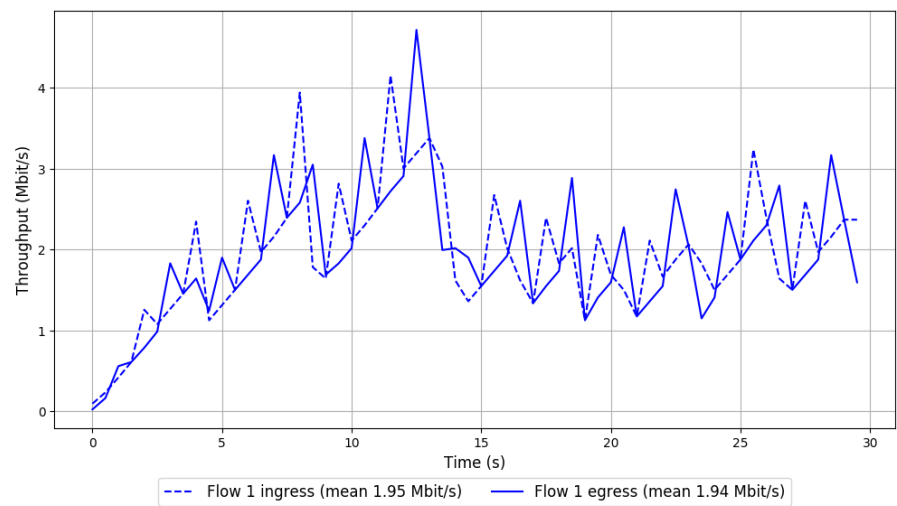
-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.218 ms

Loss rate: 1.05%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-11-20 22:47:43

End at: 2017-11-20 22:48:13

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 112.096 ms

Loss rate: 1.09%

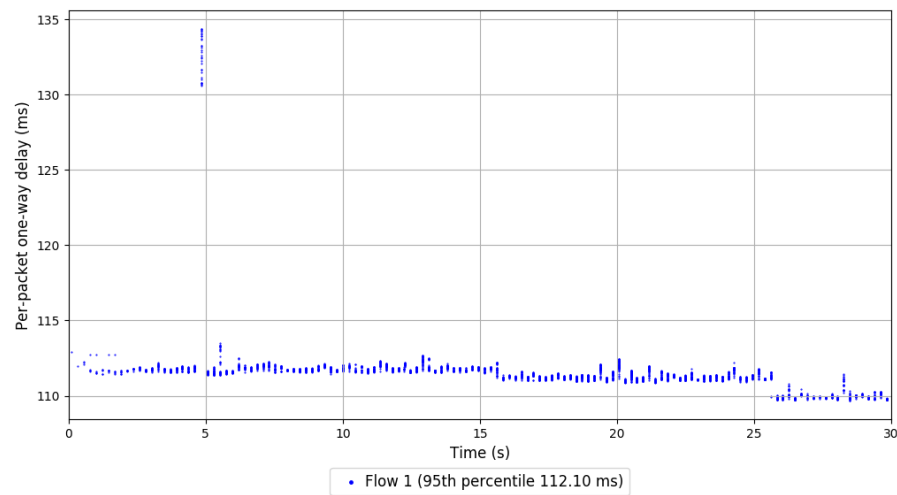
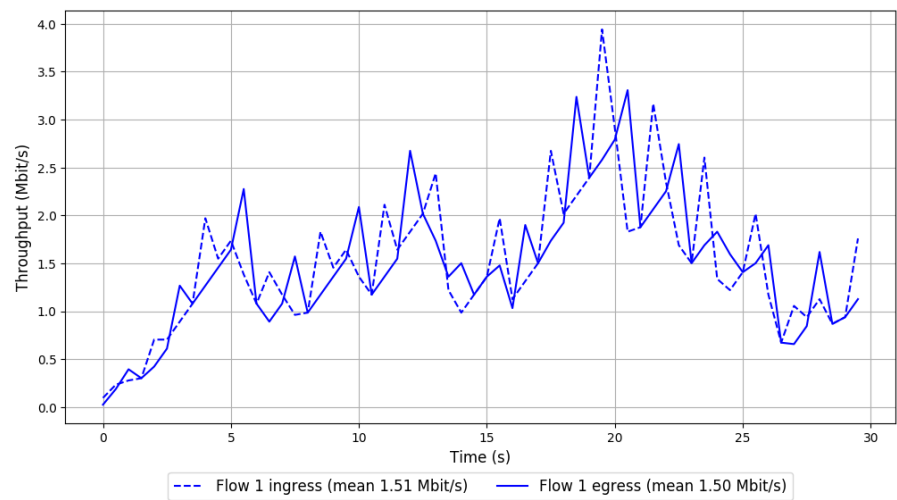
-- Flow 1:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 112.096 ms

Loss rate: 1.09%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-11-20 22:58:27

End at: 2017-11-20 22:58:57

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.779 ms

Loss rate: 1.63%

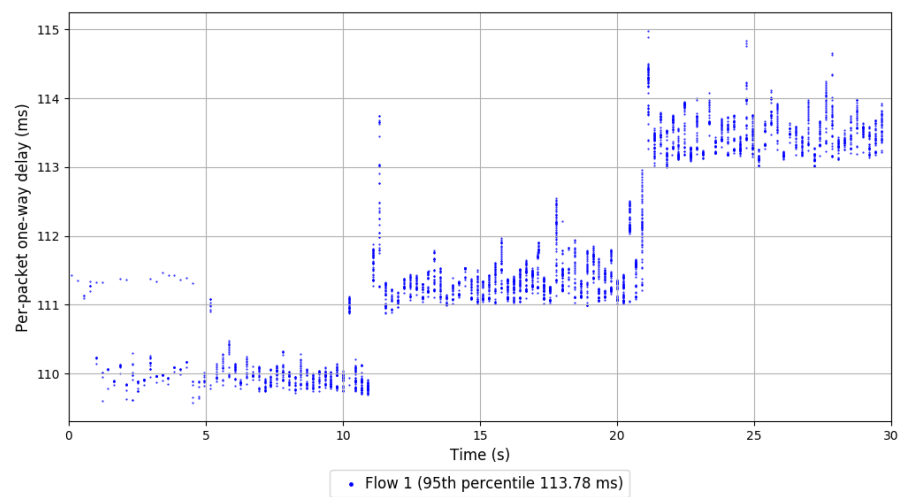
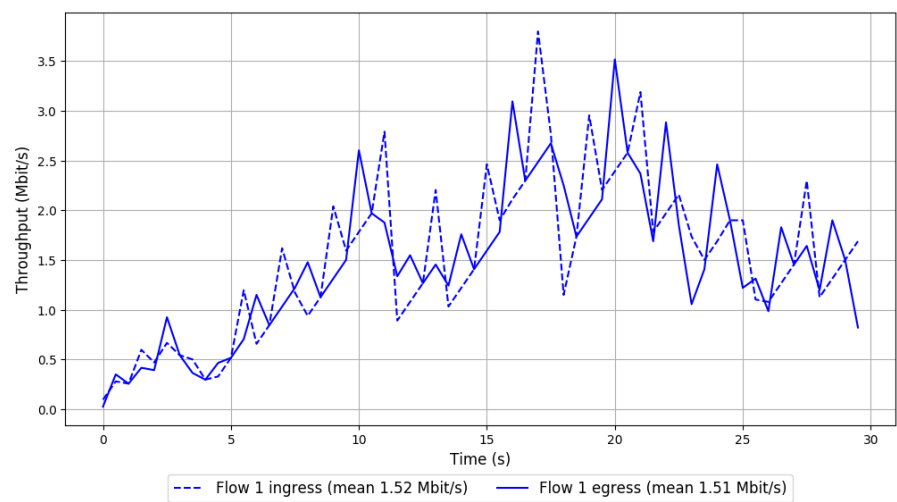
-- Flow 1:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 113.779 ms

Loss rate: 1.63%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-11-20 23:09:26

End at: 2017-11-20 23:09:56

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 113.606 ms

Loss rate: 1.60%

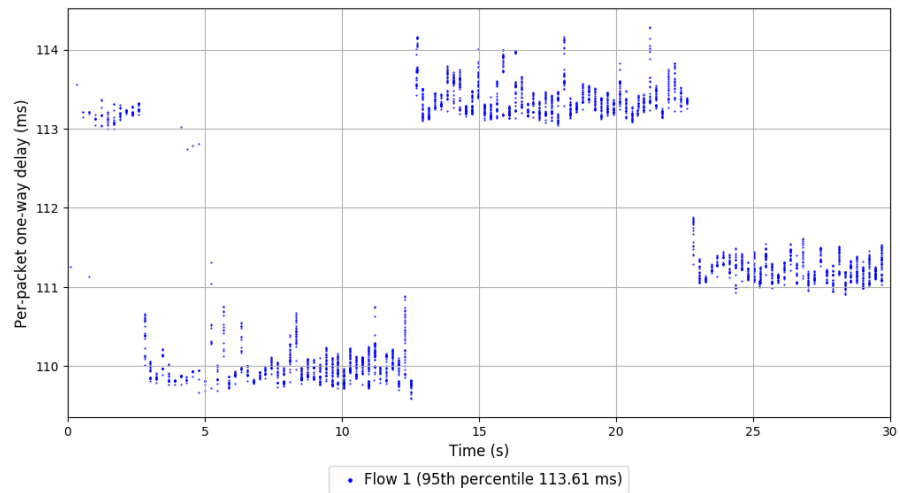
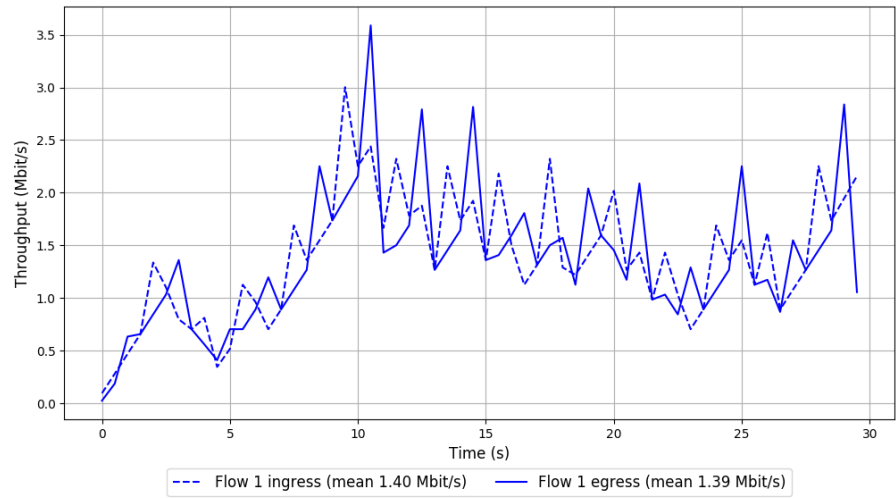
-- Flow 1:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 113.606 ms

Loss rate: 1.60%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

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

End at: 2017-11-20 23:20:41

Below is generated by plot.py at 2017-11-21 01:29:52

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 114.164 ms

Loss rate: 1.38%

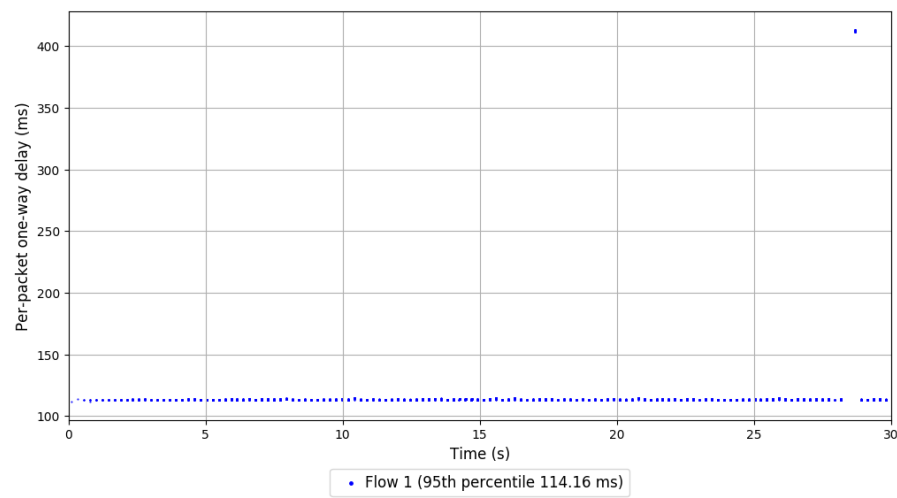
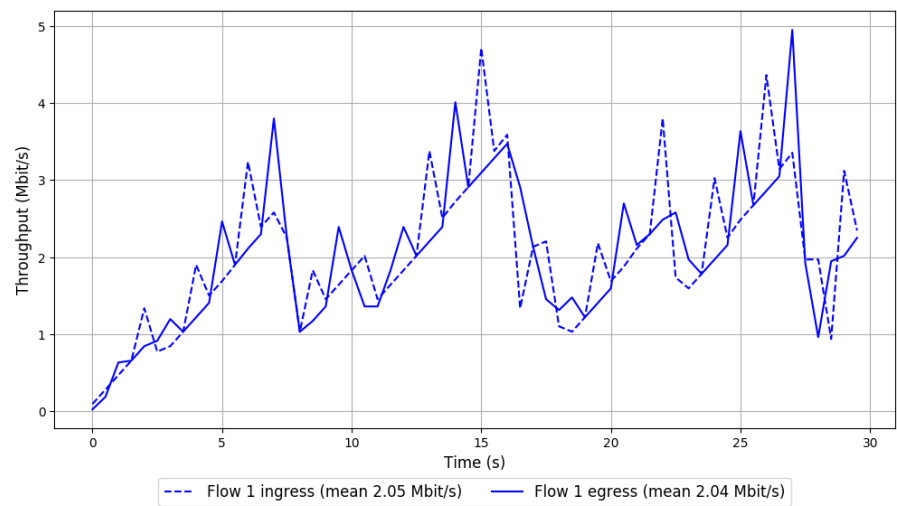
-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 114.164 ms

Loss rate: 1.38%

Run 10: Report of LEDBAT — Data Link

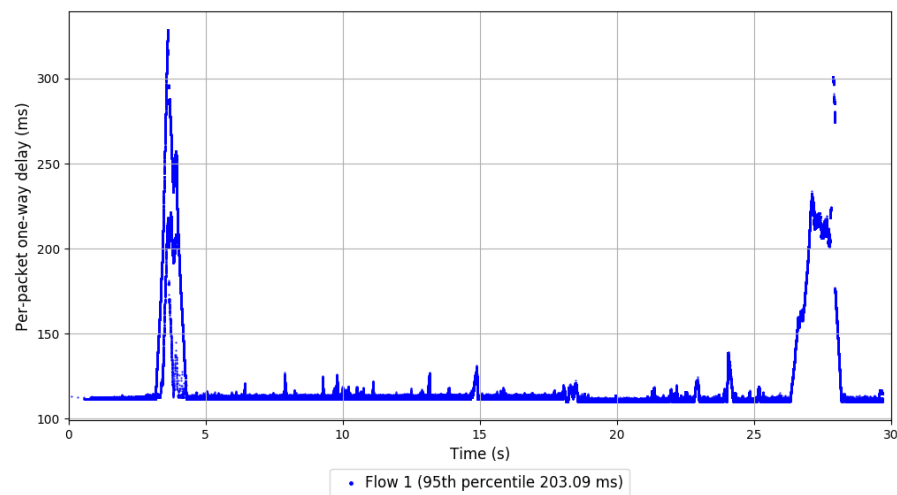
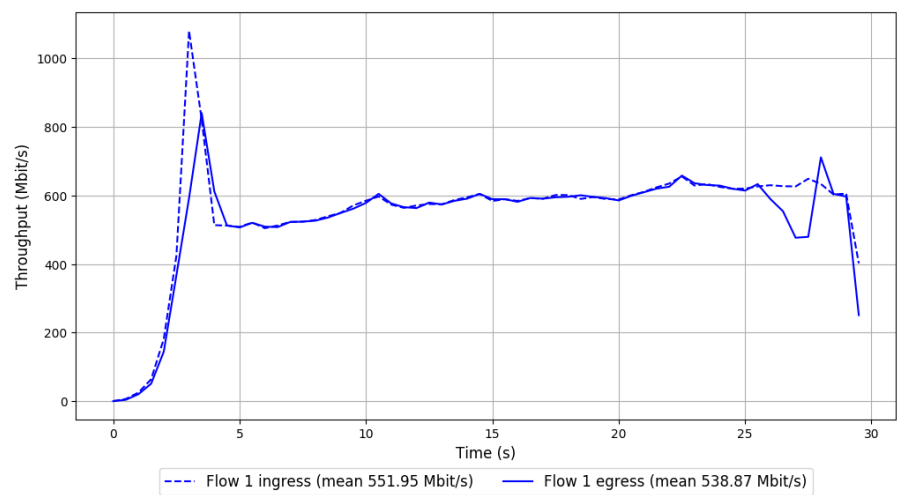


```
Run 1: Statistics of PCC

Start at: 2017-11-20 21:45:10
End at: 2017-11-20 21:45:40

# Below is generated by plot.py at 2017-11-21 01:38:54
# Datalink statistics
-- Total of 1 flow:
Average throughput: 538.87 Mbit/s
95th percentile per-packet one-way delay: 203.085 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 538.87 Mbit/s
95th percentile per-packet one-way delay: 203.085 ms
Loss rate: 3.10%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-11-20 21:56:24

End at: 2017-11-20 21:56:54

Below is generated by plot.py at 2017-11-21 01:39:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 550.69 Mbit/s

95th percentile per-packet one-way delay: 173.078 ms

Loss rate: 2.64%

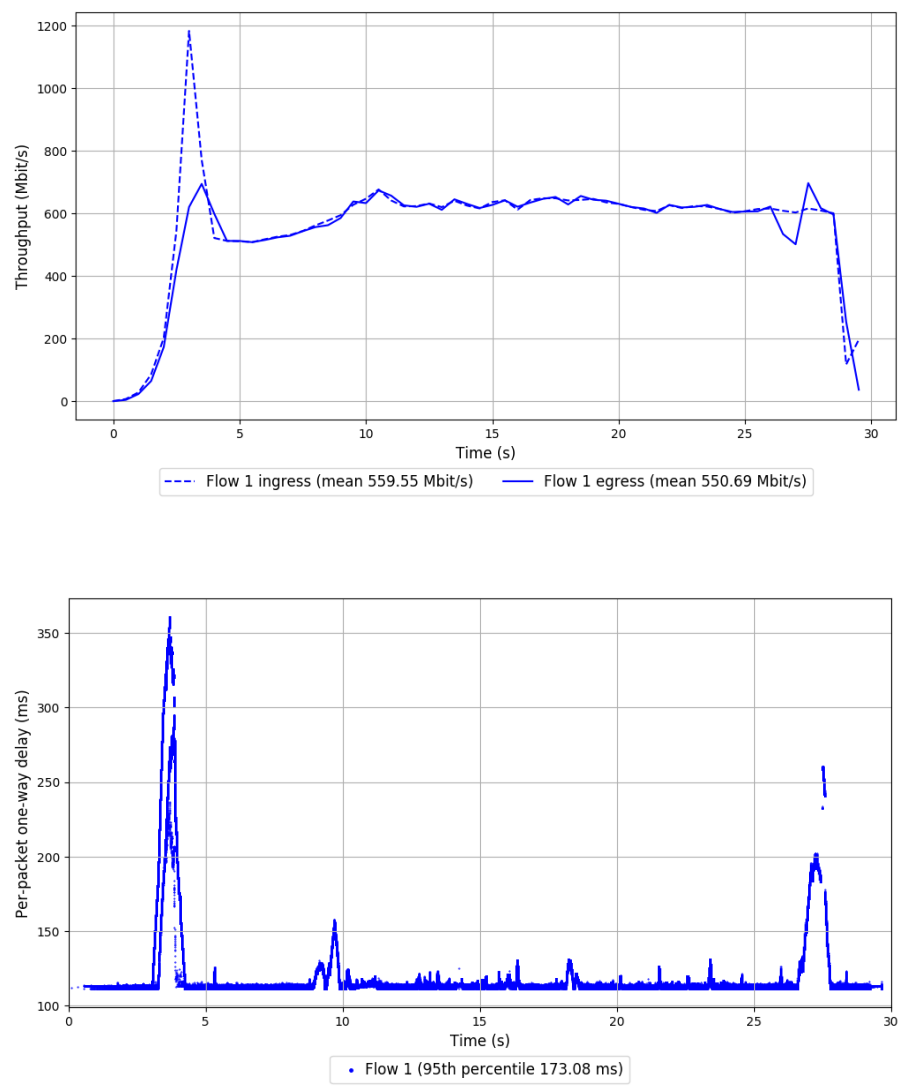
-- Flow 1:

Average throughput: 550.69 Mbit/s

95th percentile per-packet one-way delay: 173.078 ms

Loss rate: 2.64%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-11-20 22:07:40

End at: 2017-11-20 22:08:10

Below is generated by plot.py at 2017-11-21 01:39:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 516.16 Mbit/s

95th percentile per-packet one-way delay: 144.910 ms

Loss rate: 2.57%

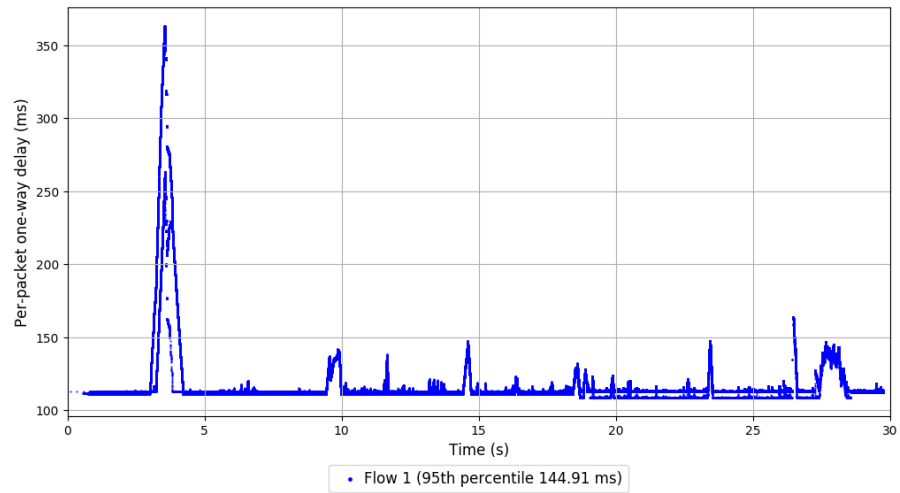
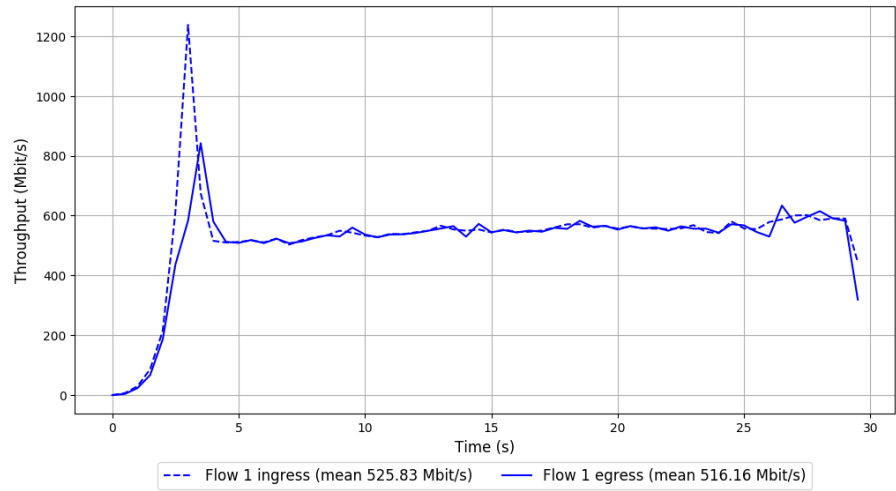
-- Flow 1:

Average throughput: 516.16 Mbit/s

95th percentile per-packet one-way delay: 144.910 ms

Loss rate: 2.57%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-11-20 22:18:46

End at: 2017-11-20 22:19:16

Below is generated by plot.py at 2017-11-21 01:39:05

Datalink statistics

-- Total of 1 flow:

Average throughput: 501.55 Mbit/s

95th percentile per-packet one-way delay: 256.697 ms

Loss rate: 1.91%

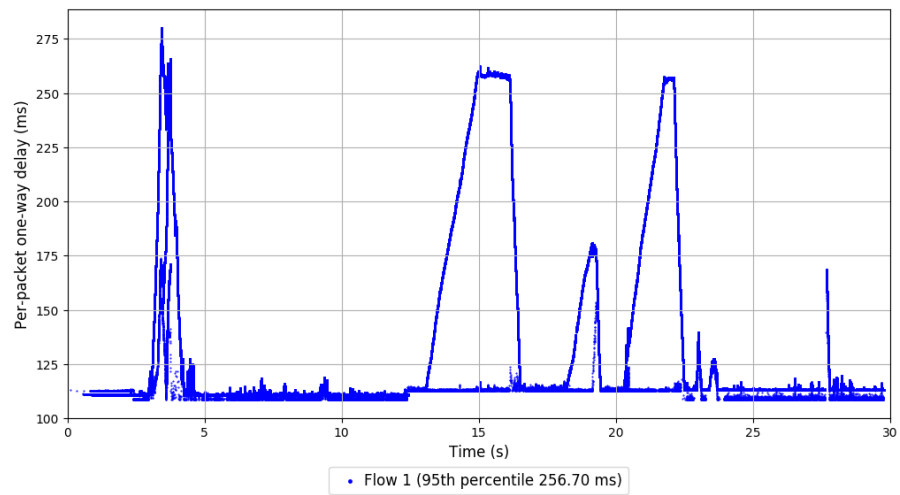
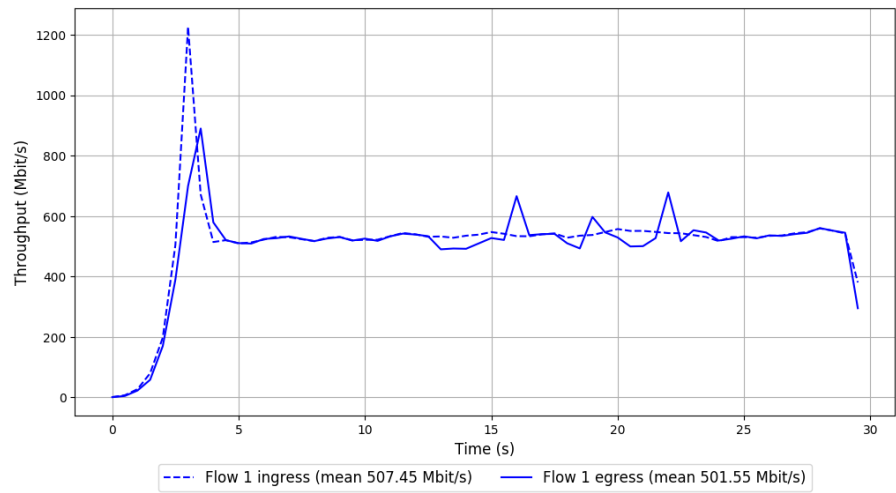
-- Flow 1:

Average throughput: 501.55 Mbit/s

95th percentile per-packet one-way delay: 256.697 ms

Loss rate: 1.91%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-11-20 22:29:50

End at: 2017-11-20 22:30:20

Below is generated by plot.py at 2017-11-21 01:39:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 565.08 Mbit/s

95th percentile per-packet one-way delay: 191.395 ms

Loss rate: 2.58%

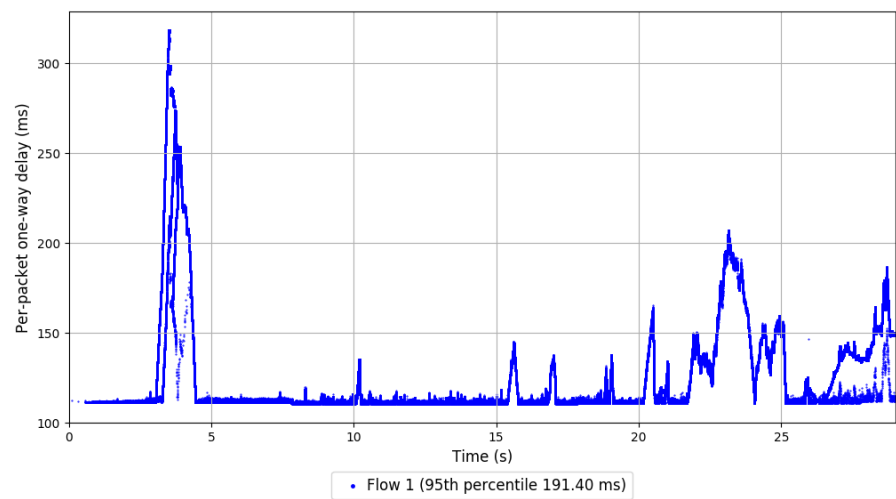
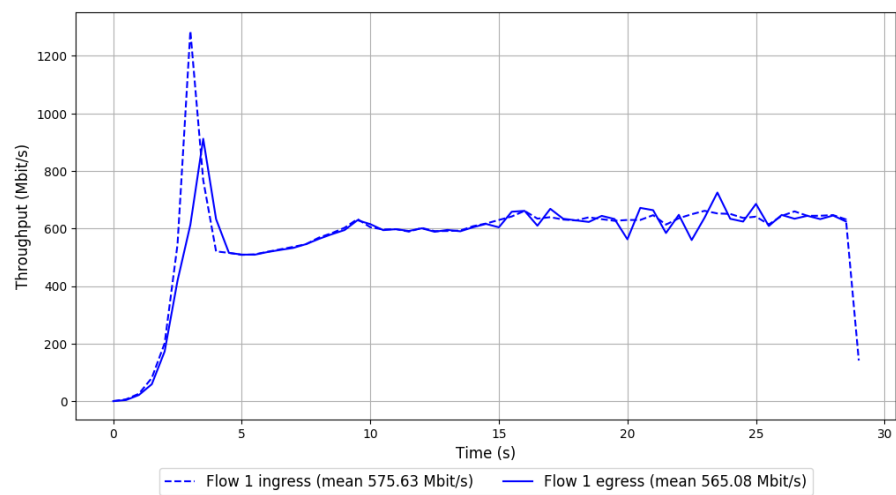
-- Flow 1:

Average throughput: 565.08 Mbit/s

95th percentile per-packet one-way delay: 191.395 ms

Loss rate: 2.58%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-11-20 22:41:10

End at: 2017-11-20 22:41:40

Below is generated by plot.py at 2017-11-21 01:39:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 525.13 Mbit/s

95th percentile per-packet one-way delay: 147.345 ms

Loss rate: 3.00%

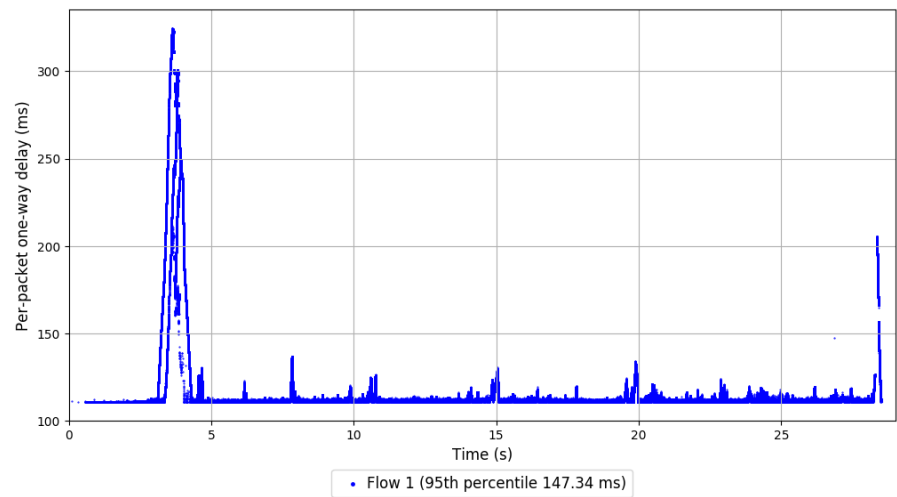
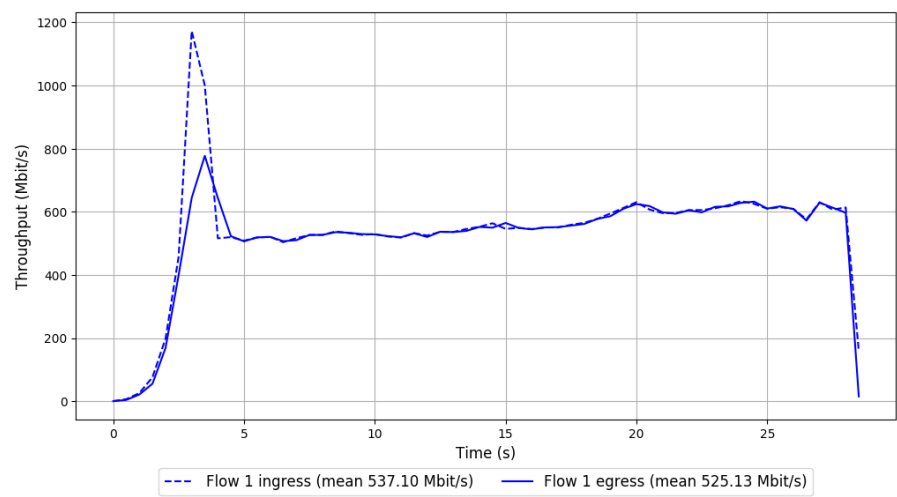
-- Flow 1:

Average throughput: 525.13 Mbit/s

95th percentile per-packet one-way delay: 147.345 ms

Loss rate: 3.00%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-11-20 22:52:09

End at: 2017-11-20 22:52:39

Below is generated by plot.py at 2017-11-21 01:39:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 525.24 Mbit/s

95th percentile per-packet one-way delay: 150.494 ms

Loss rate: 2.10%

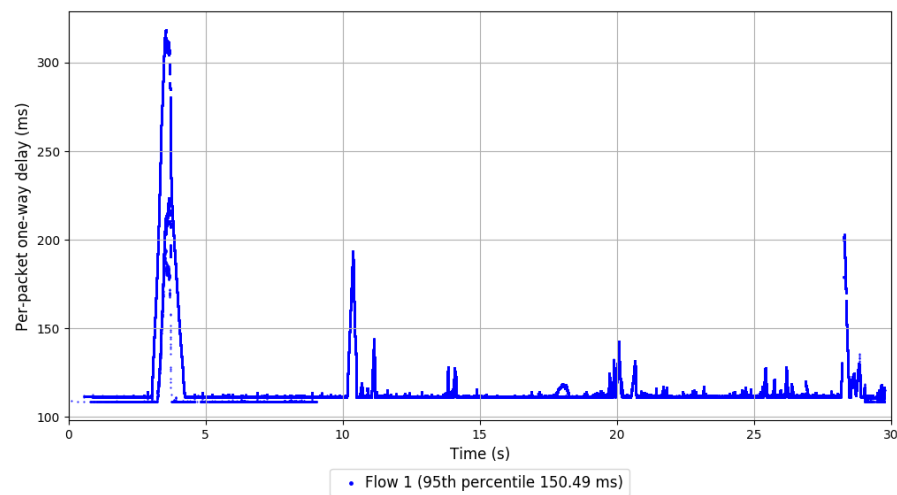
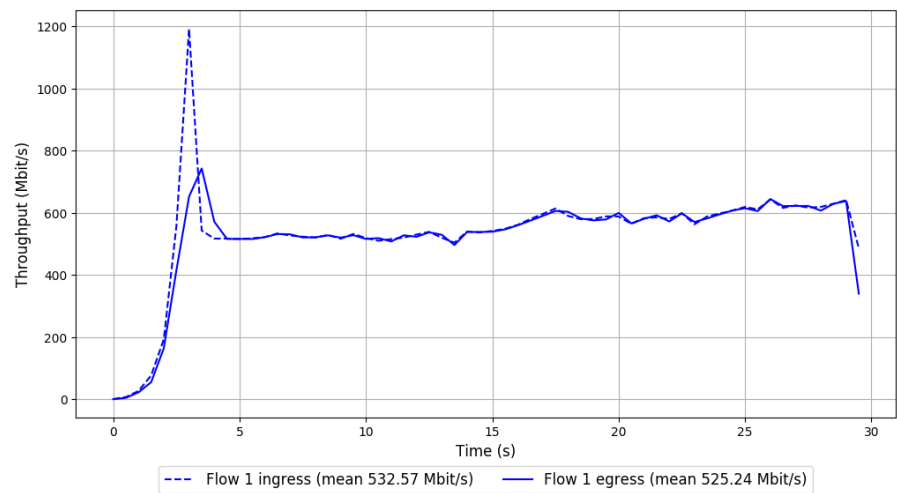
-- Flow 1:

Average throughput: 525.24 Mbit/s

95th percentile per-packet one-way delay: 150.494 ms

Loss rate: 2.10%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-11-20 23:02:56

End at: 2017-11-20 23:03:26

Below is generated by plot.py at 2017-11-21 01:39:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 549.11 Mbit/s

95th percentile per-packet one-way delay: 253.235 ms

Loss rate: 3.82%

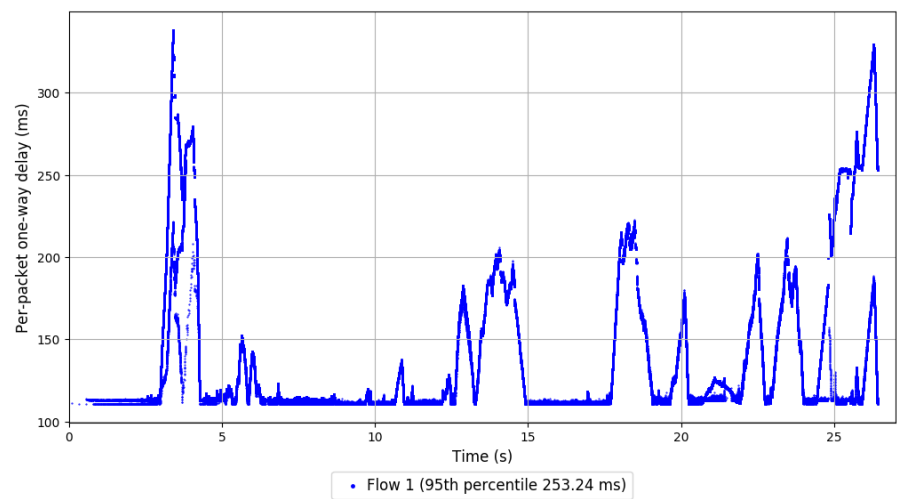
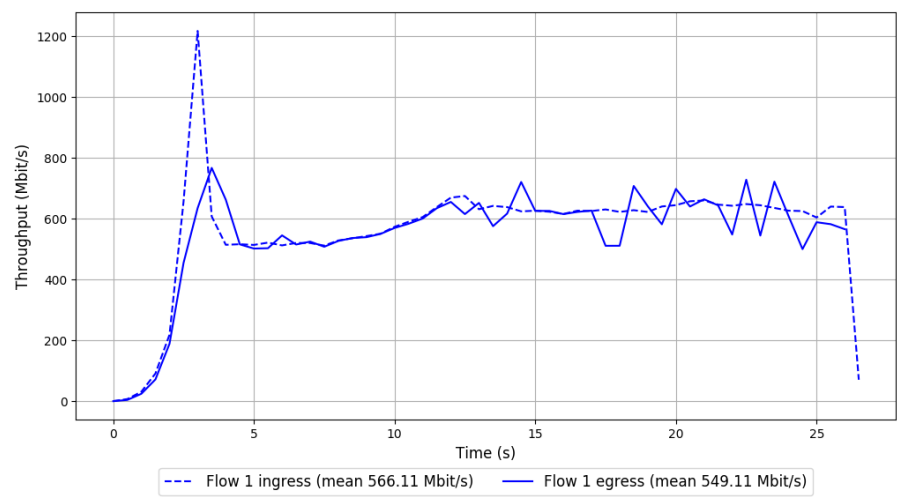
-- Flow 1:

Average throughput: 549.11 Mbit/s

95th percentile per-packet one-way delay: 253.235 ms

Loss rate: 3.82%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-11-20 23:13:54

End at: 2017-11-20 23:14:25

Below is generated by plot.py at 2017-11-21 01:48:40

Datalink statistics

-- Total of 1 flow:

Average throughput: 547.53 Mbit/s

95th percentile per-packet one-way delay: 171.717 ms

Loss rate: 2.48%

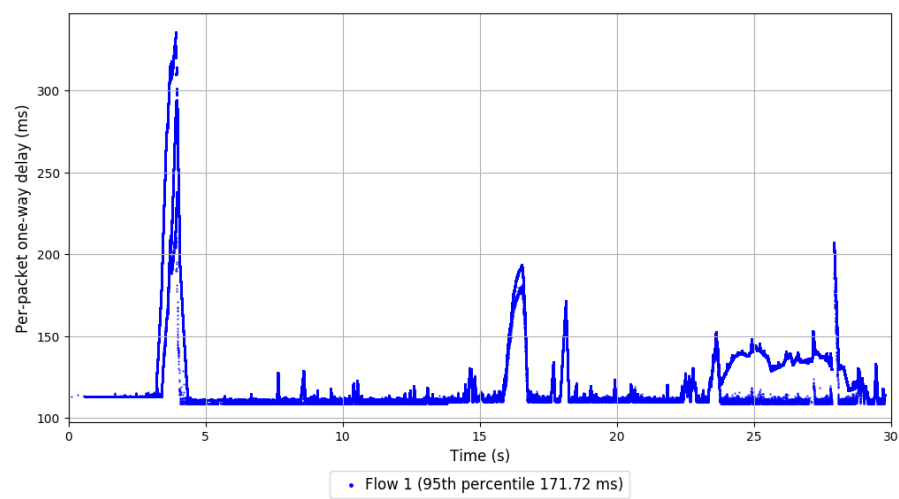
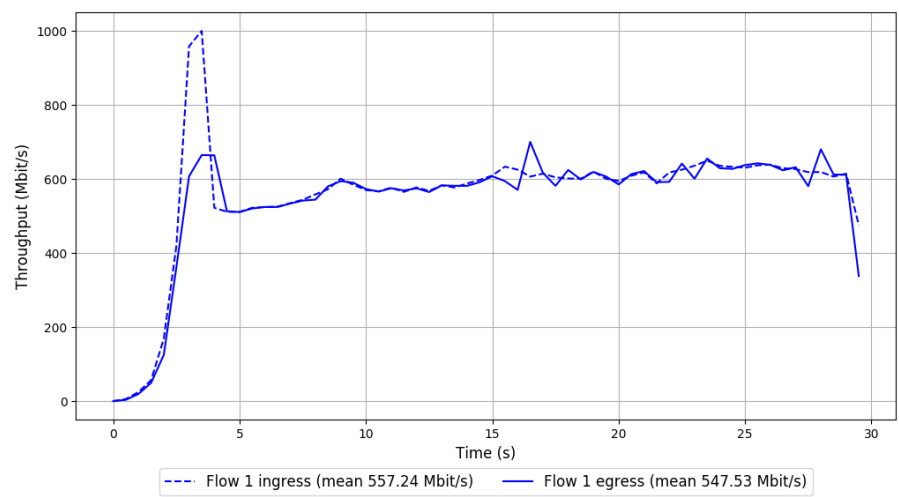
-- Flow 1:

Average throughput: 547.53 Mbit/s

95th percentile per-packet one-way delay: 171.717 ms

Loss rate: 2.48%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-11-20 23:24:39

End at: 2017-11-20 23:25:09

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 580.17 Mbit/s

95th percentile per-packet one-way delay: 177.970 ms

Loss rate: 2.19%

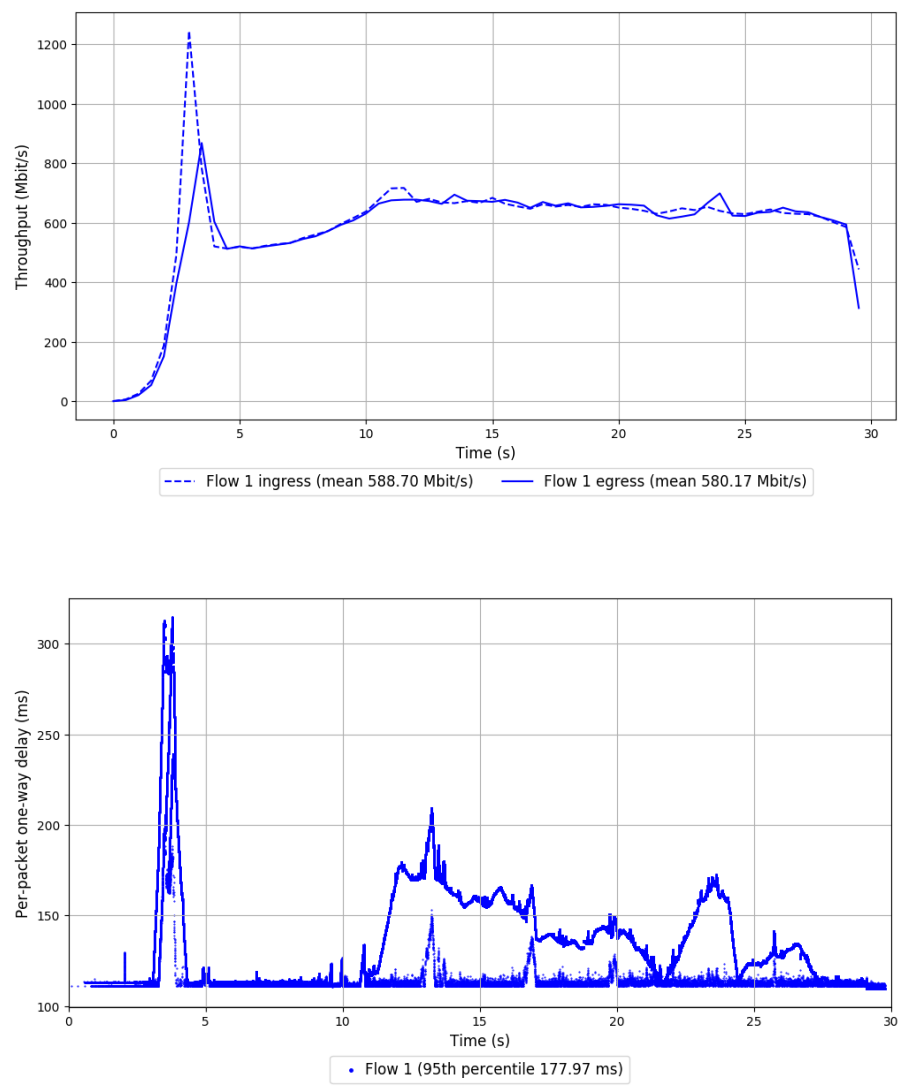
-- Flow 1:

Average throughput: 580.17 Mbit/s

95th percentile per-packet one-way delay: 177.970 ms

Loss rate: 2.19%

Run 10: Report of PCC — Data Link

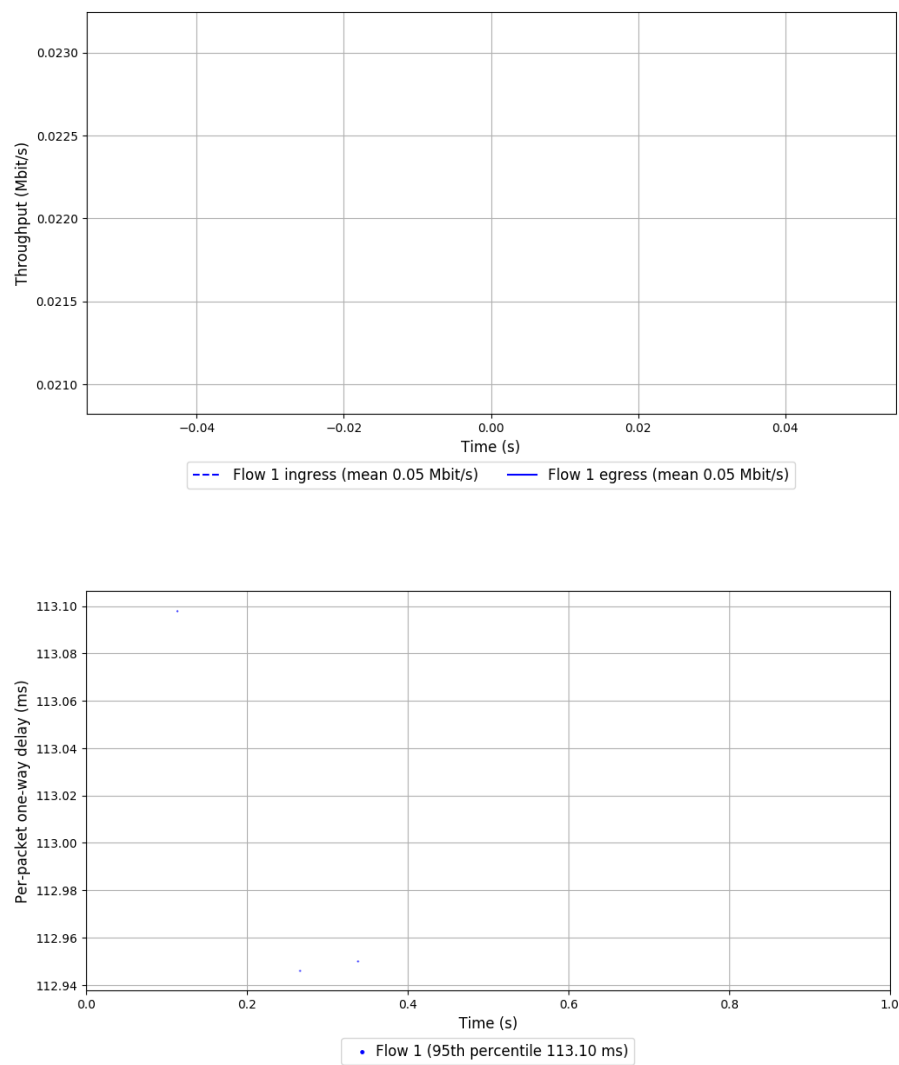


Run 1: Statistics of QUIC Cubic

Start at: 2017-11-20 21:43:03

End at: 2017-11-20 21:43:33

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-11-20 21:54:13

End at: 2017-11-20 21:54:43

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.75 Mbit/s

95th percentile per-packet one-way delay: 113.179 ms

Loss rate: 1.12%

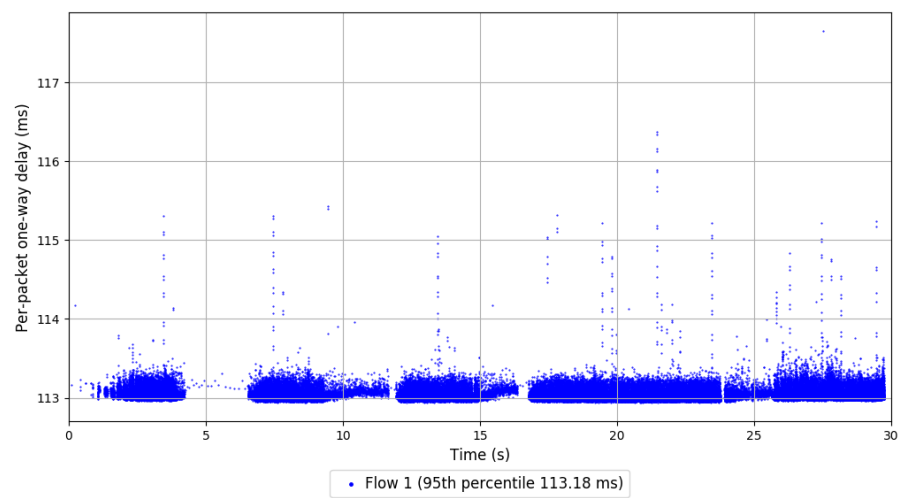
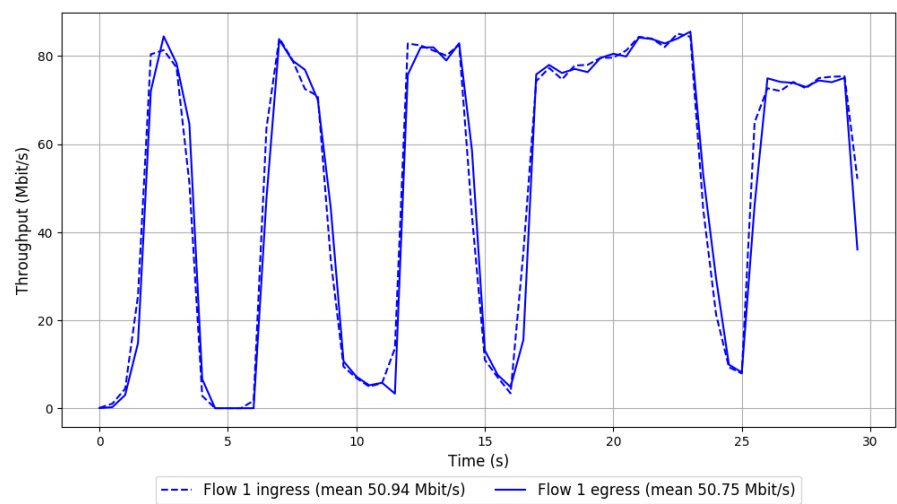
-- Flow 1:

Average throughput: 50.75 Mbit/s

95th percentile per-packet one-way delay: 113.179 ms

Loss rate: 1.12%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-11-20 22:05:27

End at: 2017-11-20 22:05:57

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.09 Mbit/s

95th percentile per-packet one-way delay: 112.388 ms

Loss rate: 1.10%

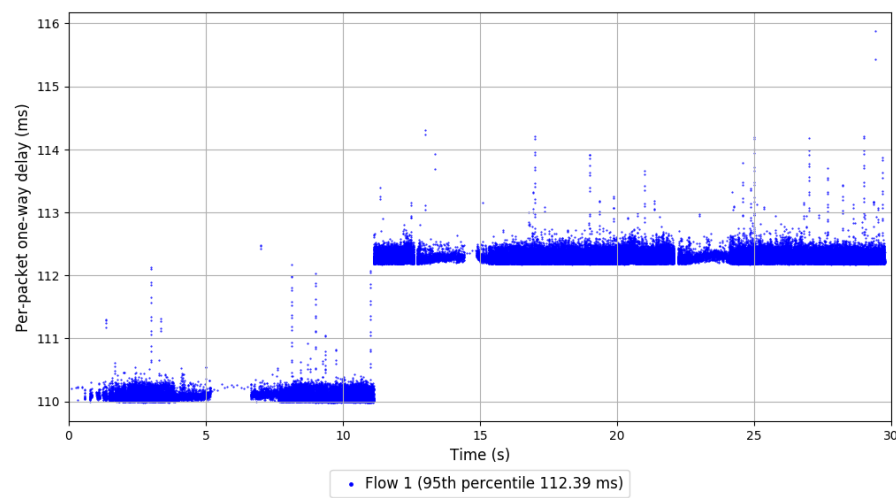
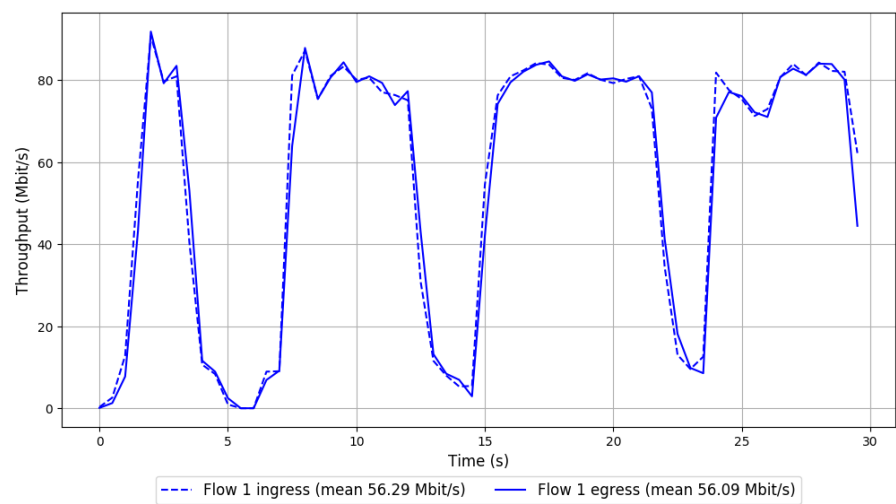
-- Flow 1:

Average throughput: 56.09 Mbit/s

95th percentile per-packet one-way delay: 112.388 ms

Loss rate: 1.10%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-11-20 22:16:34

End at: 2017-11-20 22:17:04

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 56.51 Mbit/s

95th percentile per-packet one-way delay: 112.350 ms

Loss rate: 1.02%

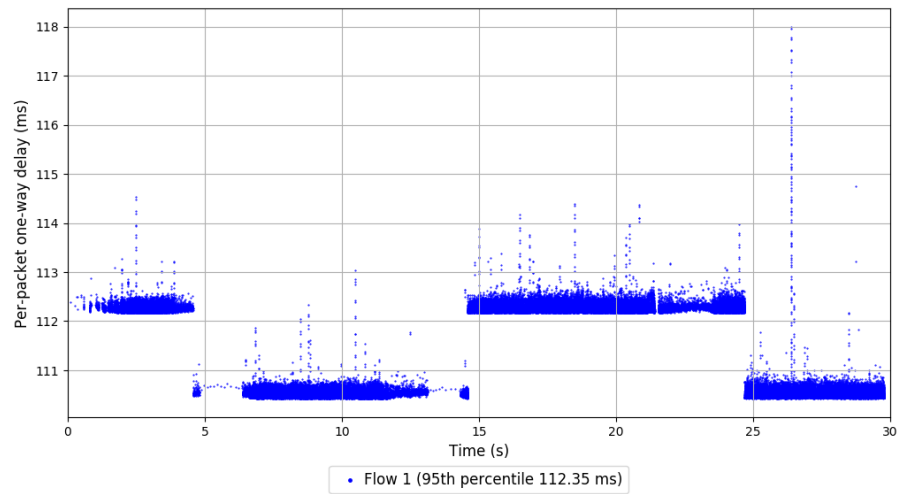
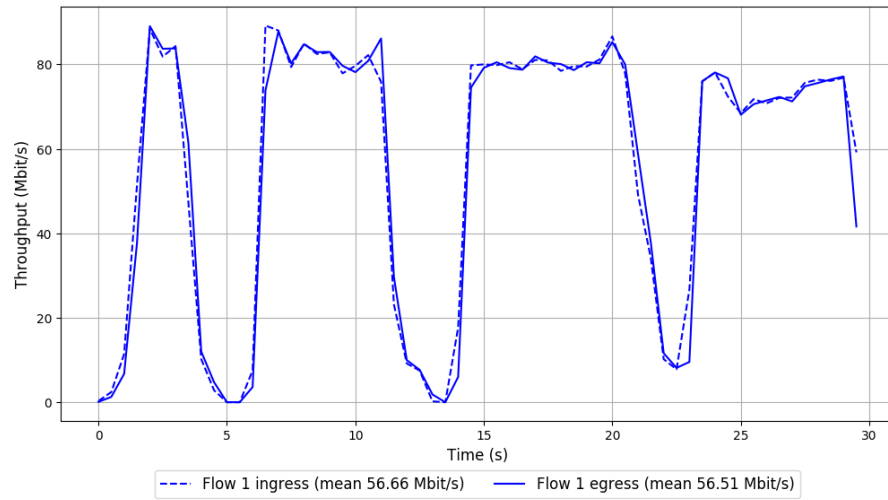
-- Flow 1:

Average throughput: 56.51 Mbit/s

95th percentile per-packet one-way delay: 112.350 ms

Loss rate: 1.02%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-11-20 22:27:38

End at: 2017-11-20 22:28:08

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 48.09 Mbit/s

95th percentile per-packet one-way delay: 112.758 ms

Loss rate: 1.15%

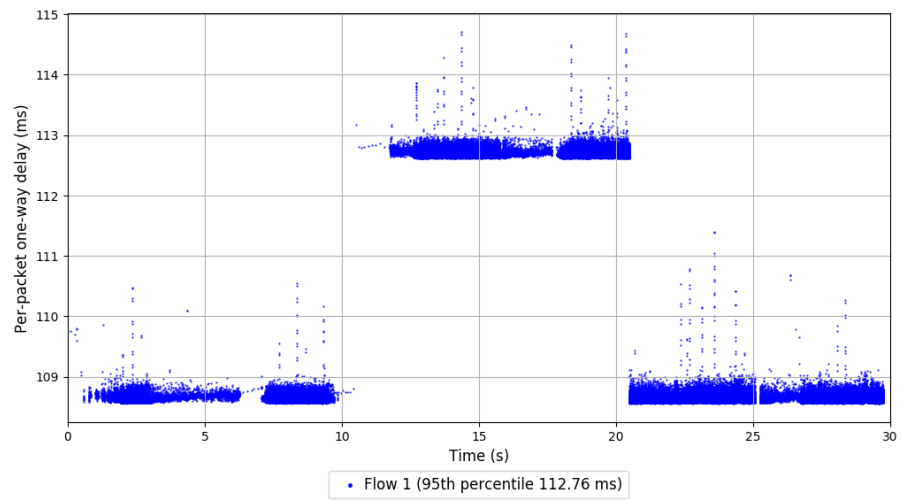
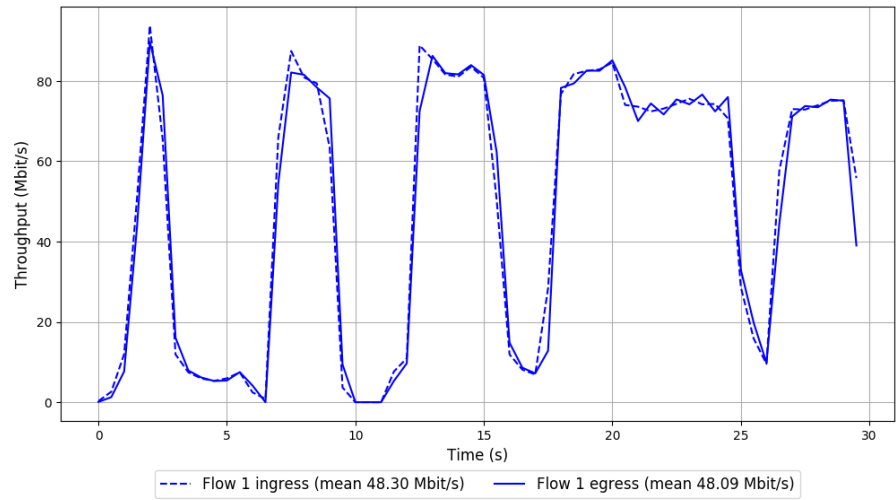
-- Flow 1:

Average throughput: 48.09 Mbit/s

95th percentile per-packet one-way delay: 112.758 ms

Loss rate: 1.15%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-11-20 22:38:57

End at: 2017-11-20 22:39:27

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.47 Mbit/s

95th percentile per-packet one-way delay: 114.877 ms

Loss rate: 0.96%

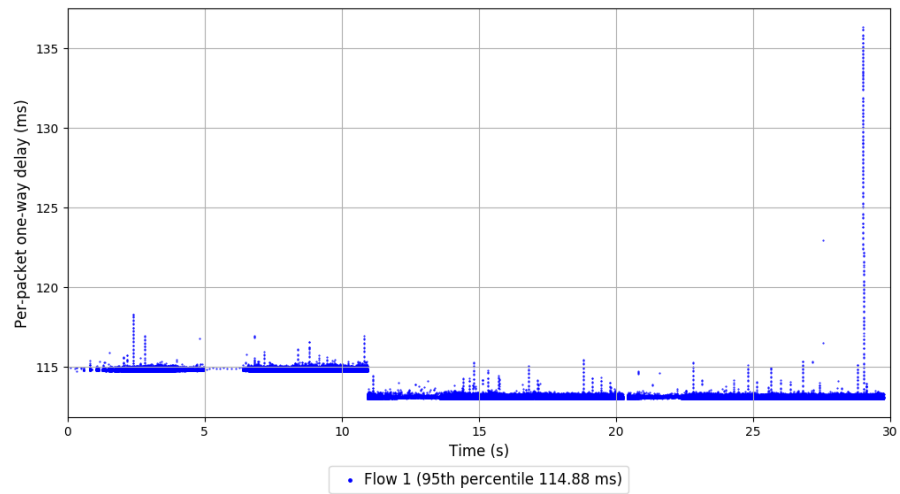
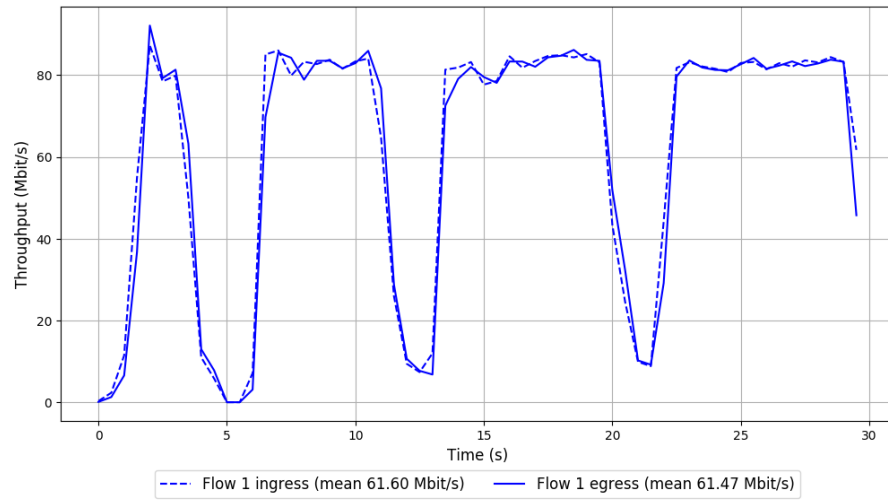
-- Flow 1:

Average throughput: 61.47 Mbit/s

95th percentile per-packet one-way delay: 114.877 ms

Loss rate: 0.96%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-11-20 22:49:59

End at: 2017-11-20 22:50:29

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 49.68 Mbit/s

95th percentile per-packet one-way delay: 114.861 ms

Loss rate: 1.16%

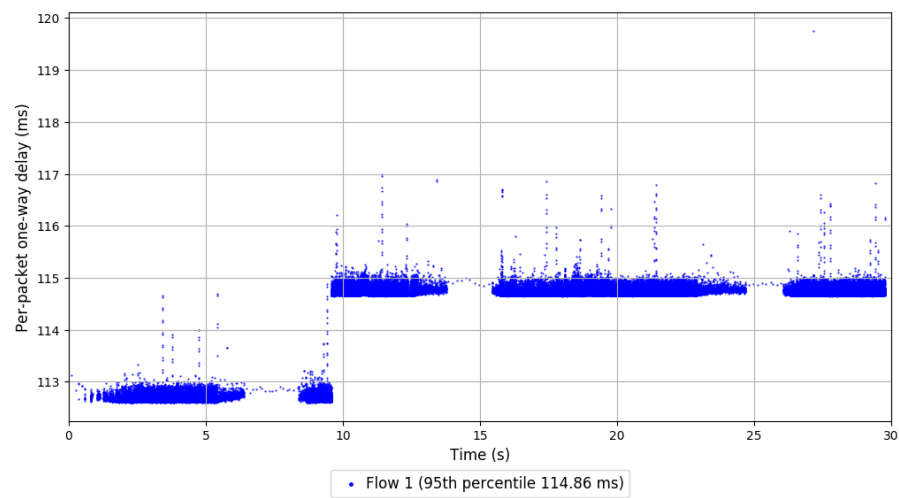
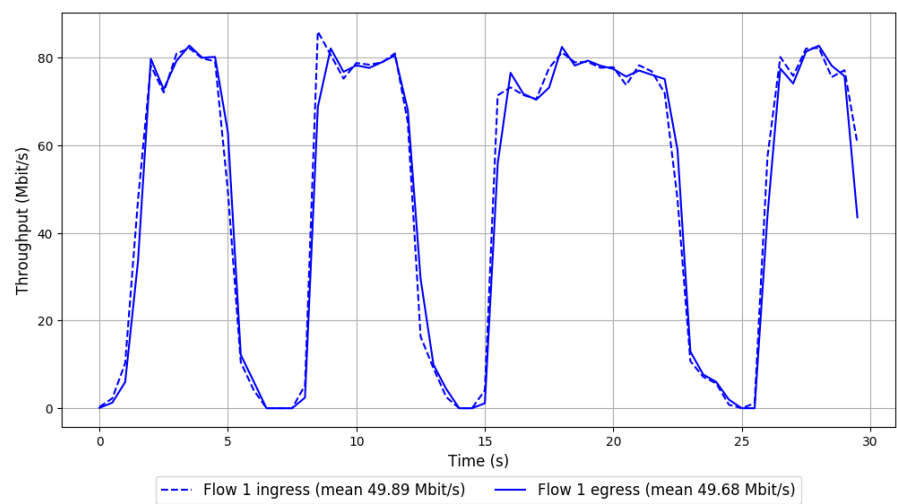
-- Flow 1:

Average throughput: 49.68 Mbit/s

95th percentile per-packet one-way delay: 114.861 ms

Loss rate: 1.16%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-11-20 23:00:44

End at: 2017-11-20 23:01:14

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 61.68 Mbit/s

95th percentile per-packet one-way delay: 114.827 ms

Loss rate: 0.99%

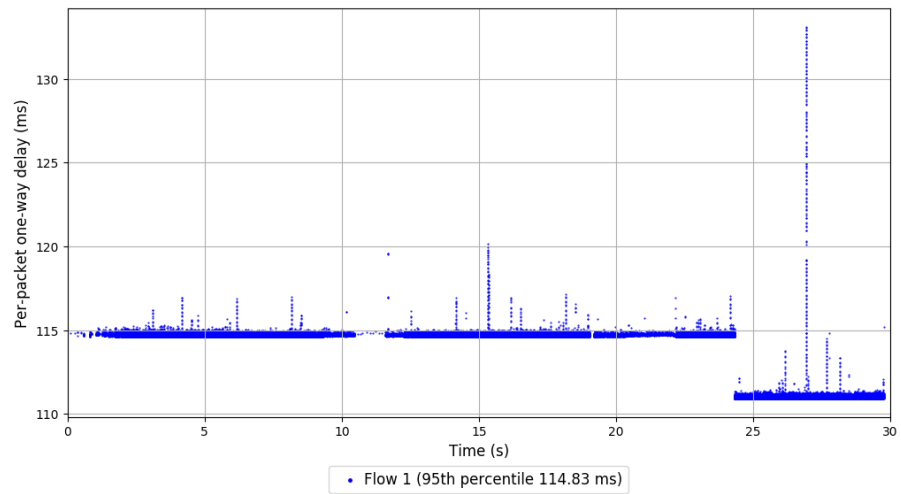
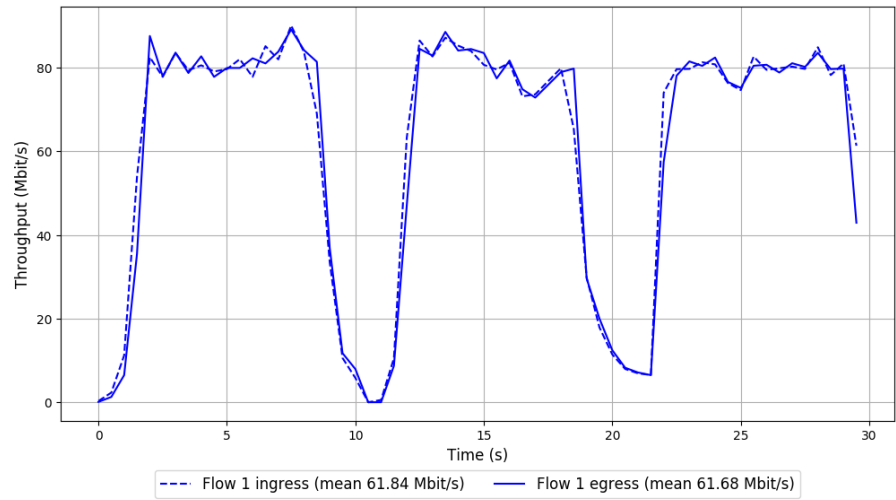
-- Flow 1:

Average throughput: 61.68 Mbit/s

95th percentile per-packet one-way delay: 114.827 ms

Loss rate: 0.99%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-11-20 23:11:42

End at: 2017-11-20 23:12:12

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 60.60 Mbit/s

95th percentile per-packet one-way delay: 113.001 ms

Loss rate: 0.99%

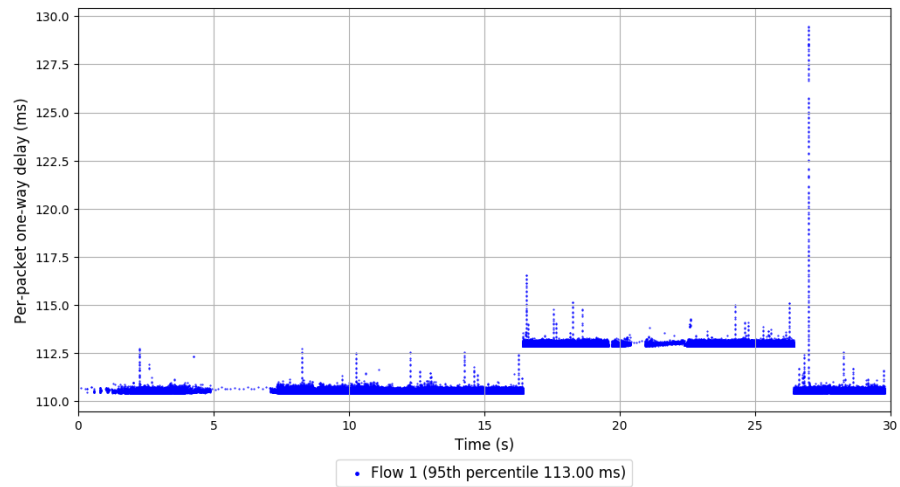
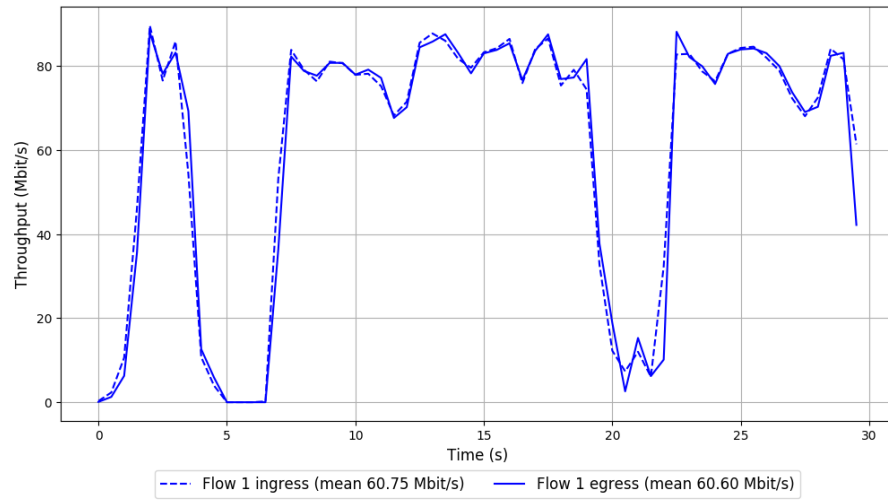
-- Flow 1:

Average throughput: 60.60 Mbit/s

95th percentile per-packet one-way delay: 113.001 ms

Loss rate: 0.99%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2017-11-20 23:22:27

End at: 2017-11-20 23:22:57

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 112.786 ms

Loss rate: 1.04%

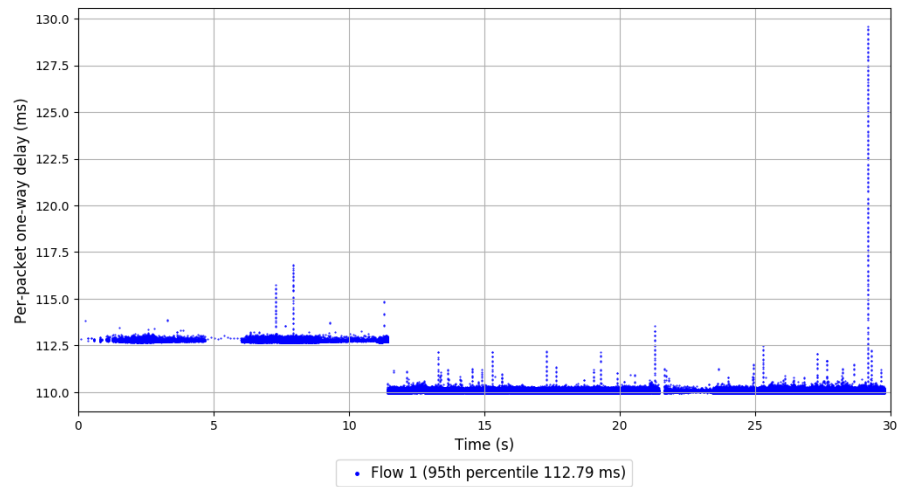
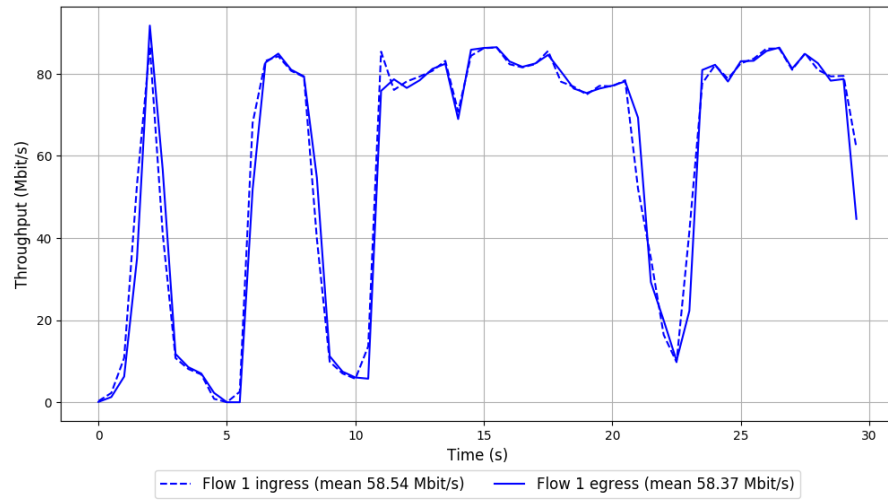
-- Flow 1:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 112.786 ms

Loss rate: 1.04%

Run 10: Report of QUIC Cubic — Data Link

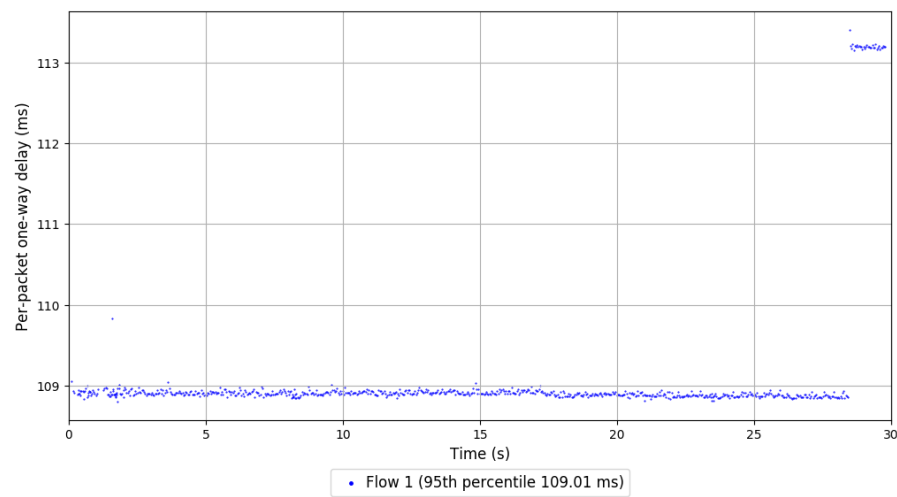
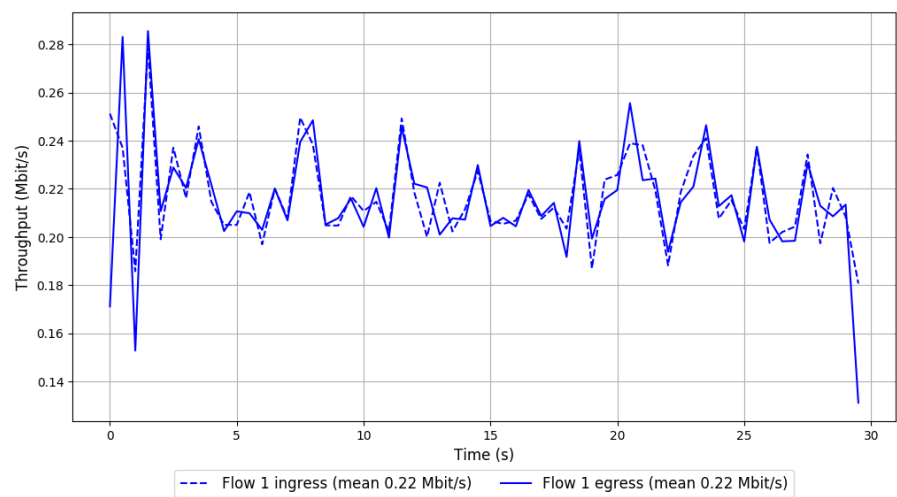


```
Run 1: Statistics of SCReAM

Start at: 2017-11-20 21:44:30
End at: 2017-11-20 21:45:00

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.009 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.009 ms
Loss rate: 0.76%
```

Run 1: Report of SReAM — Data Link

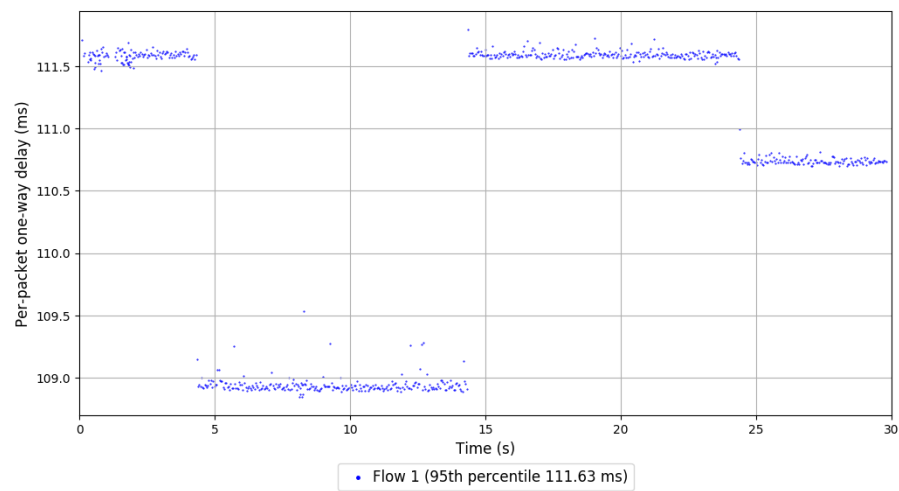
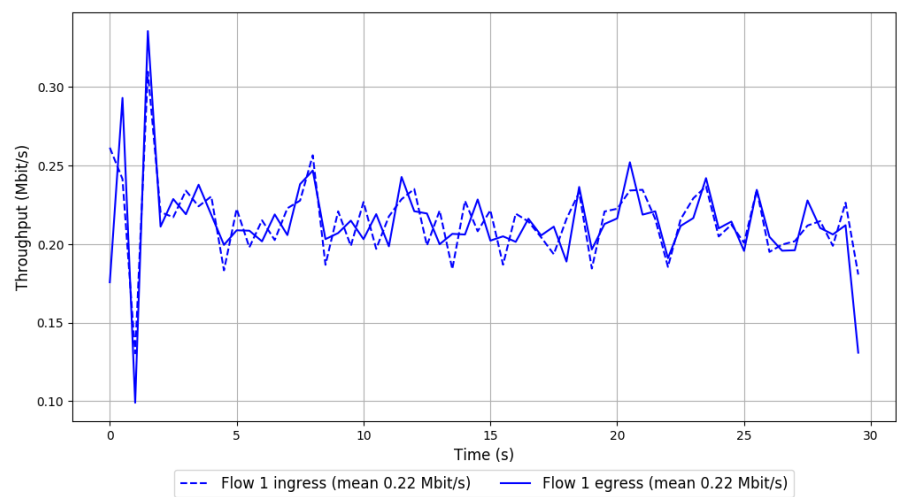


```
Run 2: Statistics of SCReAM

Start at: 2017-11-20 21:55:44
End at: 2017-11-20 21:56:14

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.627 ms
Loss rate: 0.76%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.627 ms
Loss rate: 0.76%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2017-11-20 22:06:59

End at: 2017-11-20 22:07:29

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.918 ms

Loss rate: 0.77%

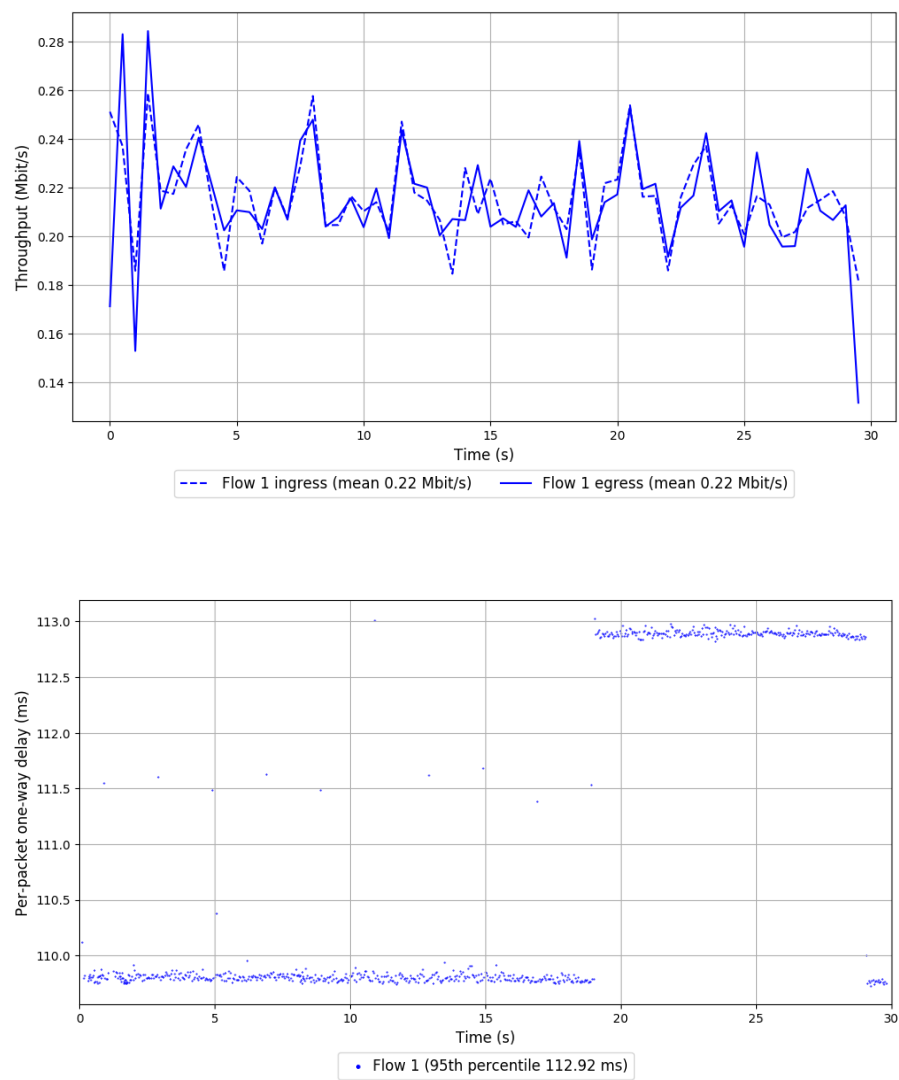
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.918 ms

Loss rate: 0.77%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-11-20 22:18:05

End at: 2017-11-20 22:18:35

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 111.191 ms

Loss rate: 0.75%

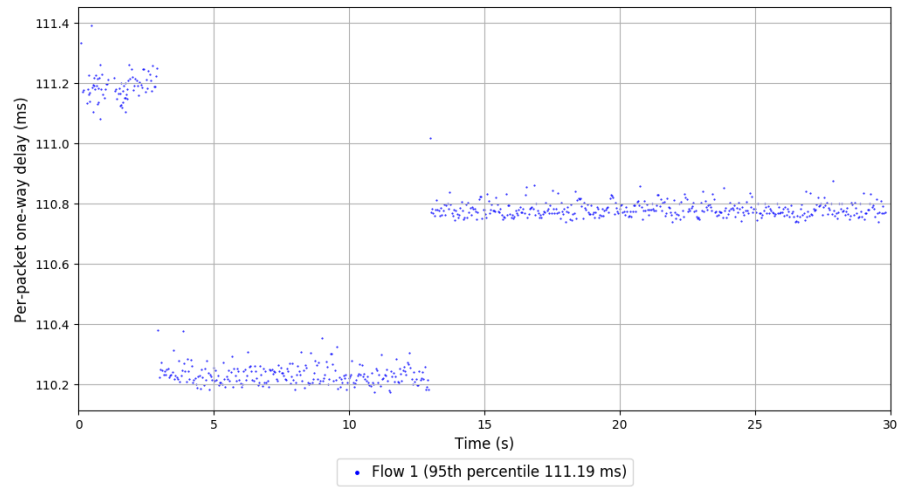
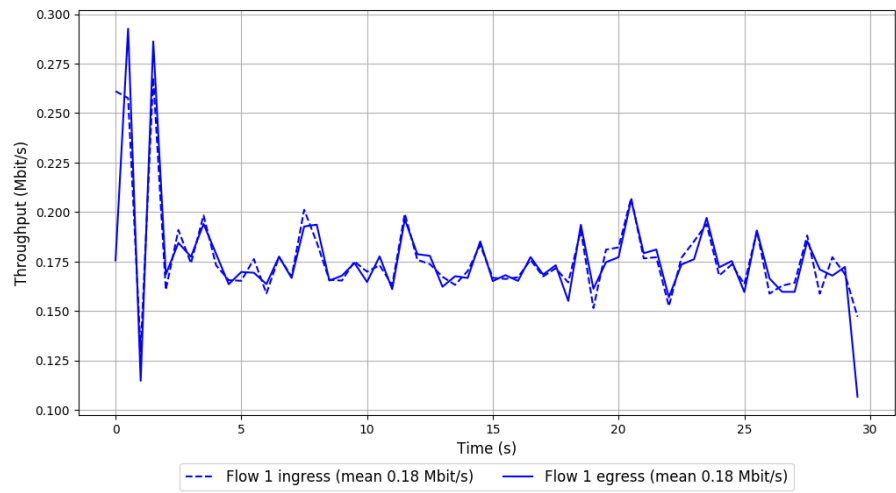
-- Flow 1:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 111.191 ms

Loss rate: 0.75%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-11-20 22:29:09

End at: 2017-11-20 22:29:39

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.057 ms

Loss rate: 0.76%

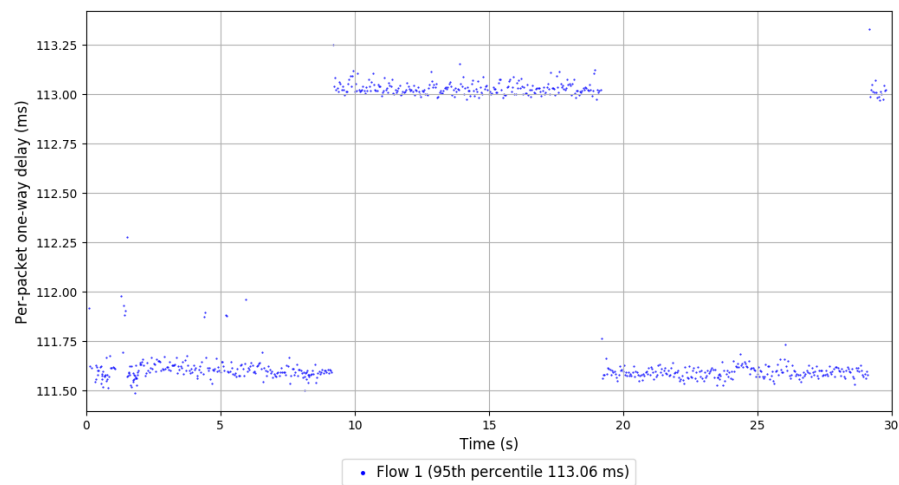
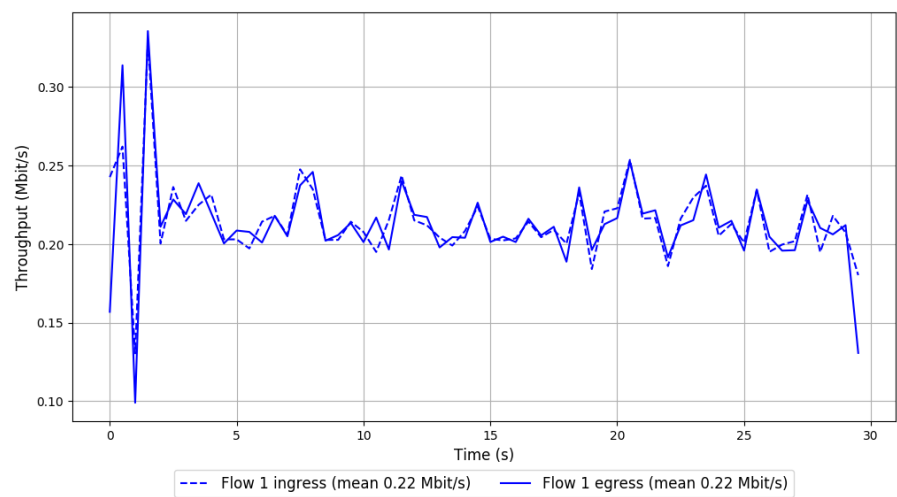
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.057 ms

Loss rate: 0.76%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-11-20 22:40:30

End at: 2017-11-20 22:41:00

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.871 ms

Loss rate: 0.76%

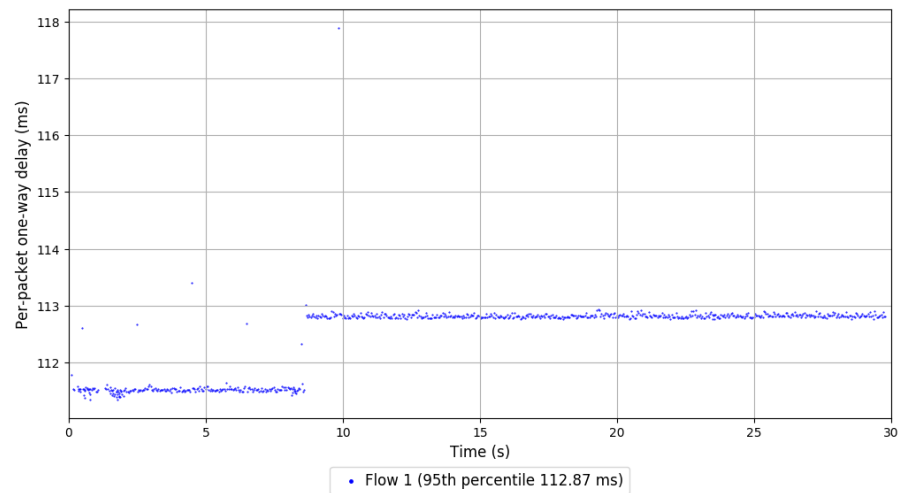
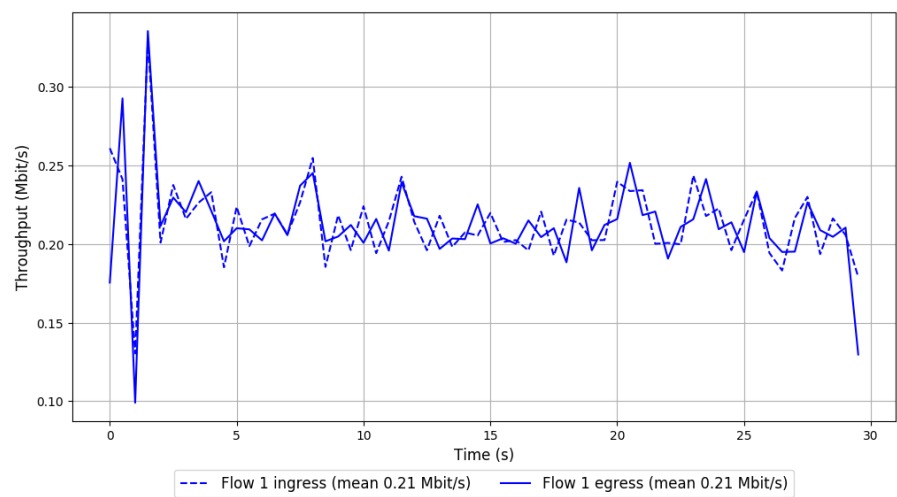
-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.871 ms

Loss rate: 0.76%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-11-20 22:51:29

End at: 2017-11-20 22:51:59

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.063 ms

Loss rate: 0.64%

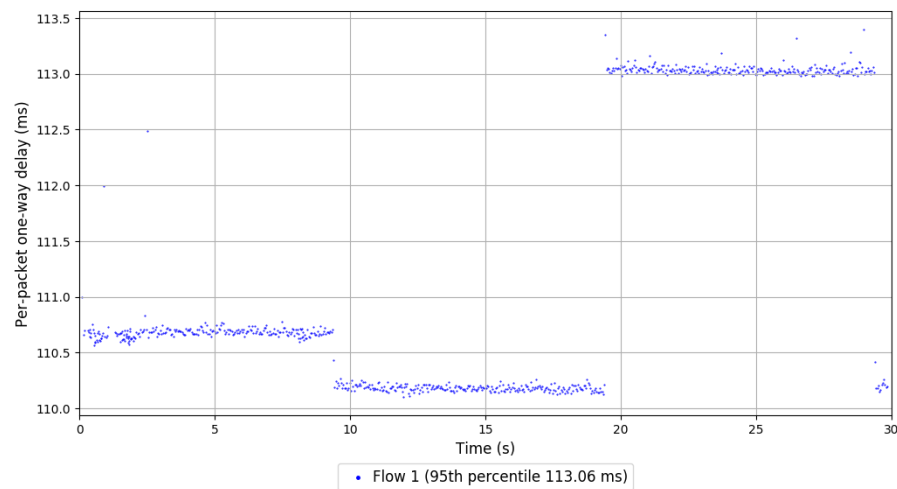
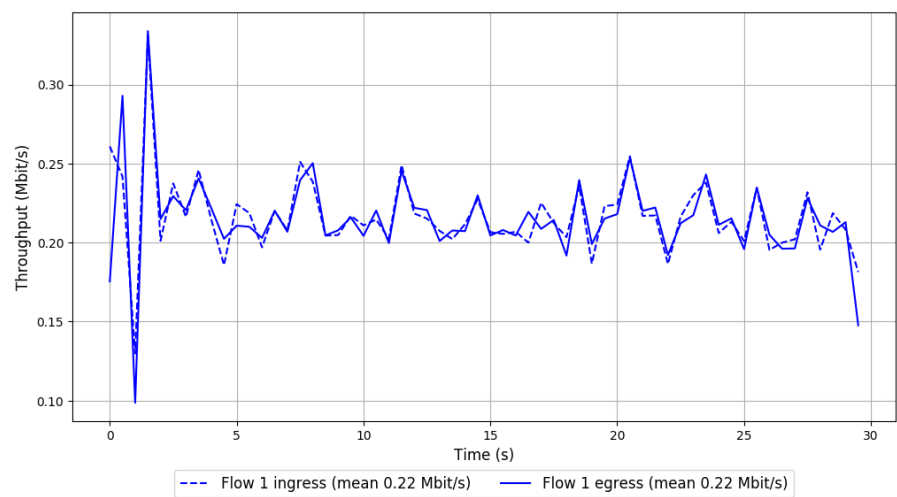
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.063 ms

Loss rate: 0.64%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-11-20 23:02:16

End at: 2017-11-20 23:02:46

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.005 ms

Loss rate: 0.76%

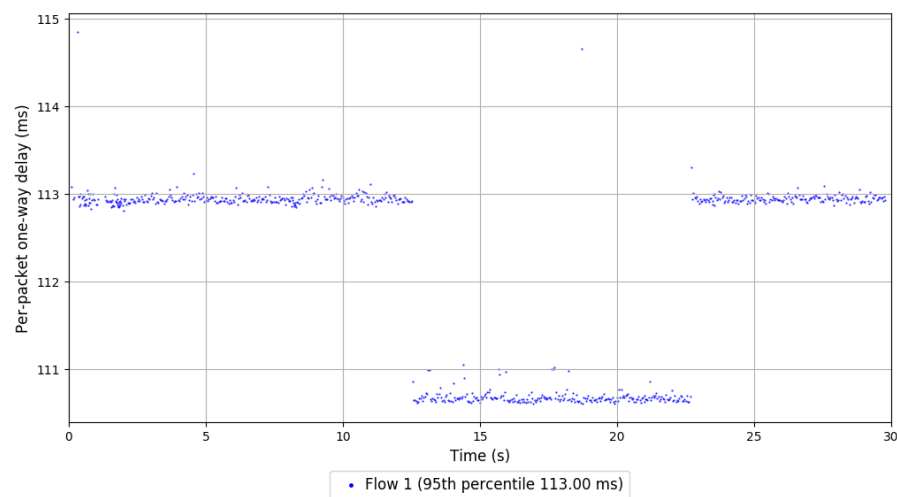
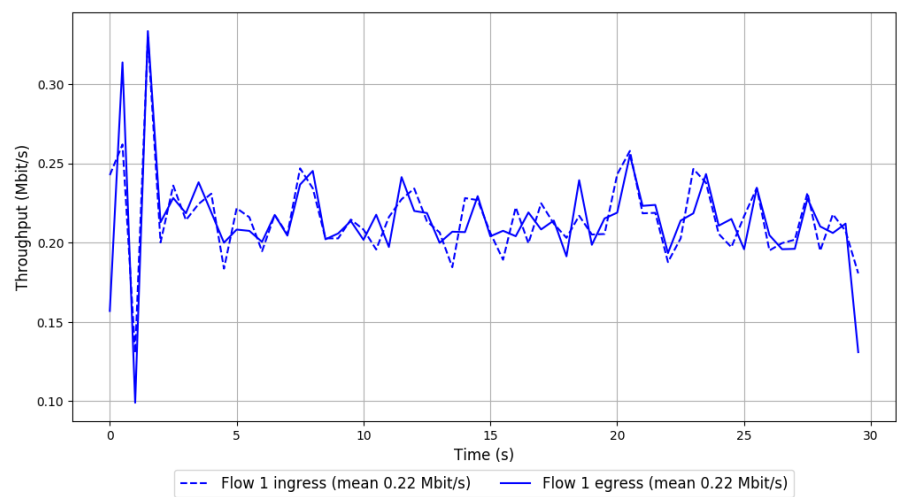
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.005 ms

Loss rate: 0.76%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-11-20 23:13:14

End at: 2017-11-20 23:13:44

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.264 ms

Loss rate: 0.76%

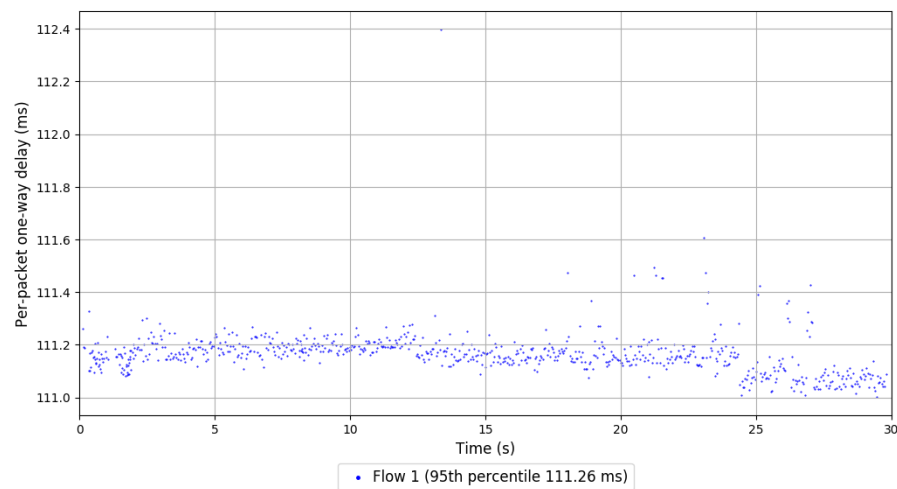
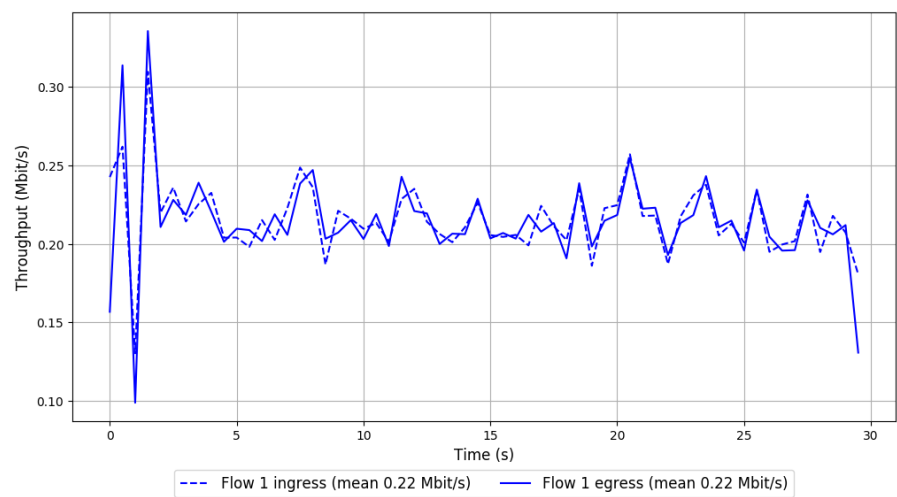
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.264 ms

Loss rate: 0.76%

Run 9: Report of SReAM — Data Link



Run 10: Statistics of SReAM

Start at: 2017-11-20 23:23:59

End at: 2017-11-20 23:24:29

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.056 ms

Loss rate: 0.76%

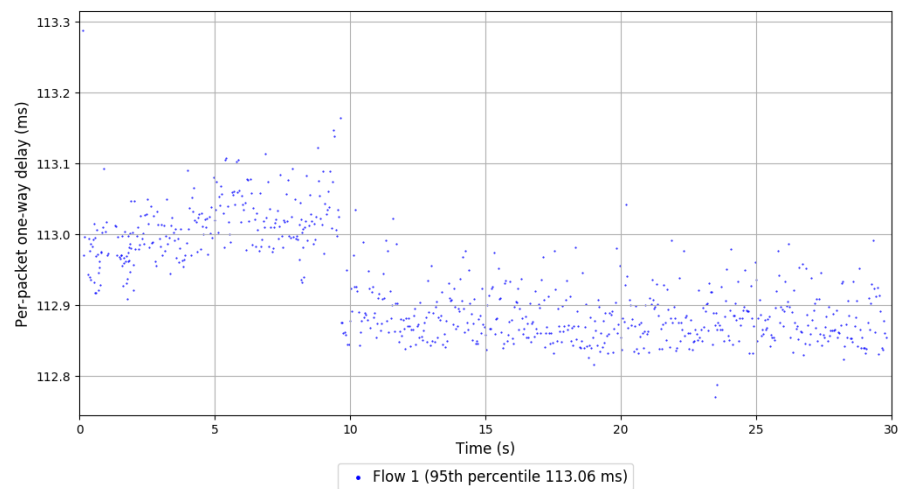
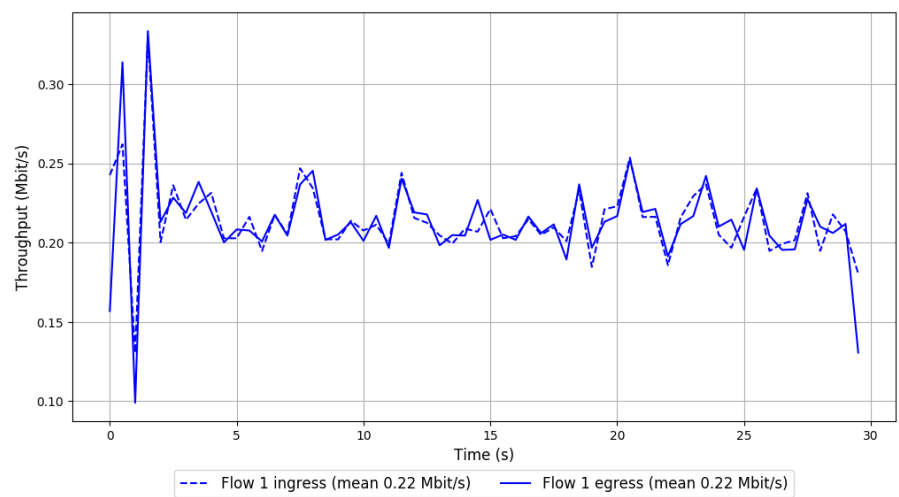
-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.056 ms

Loss rate: 0.76%

Run 10: Report of SReAM — Data Link

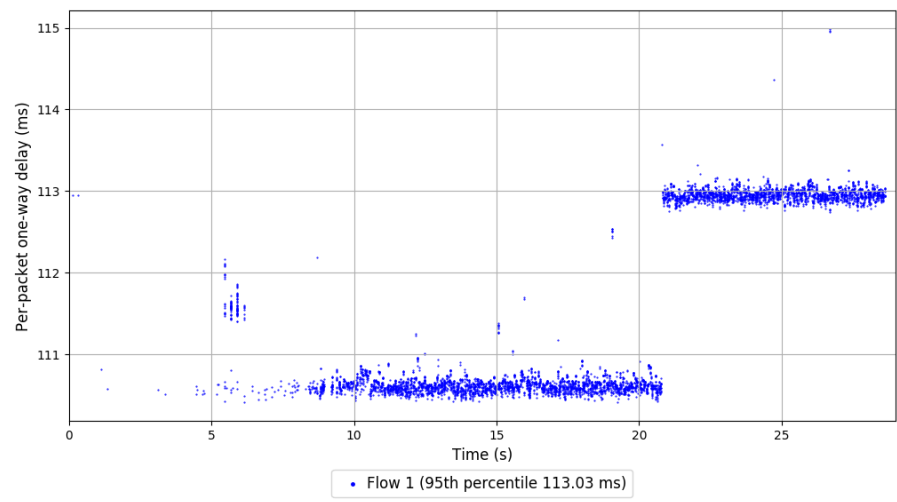
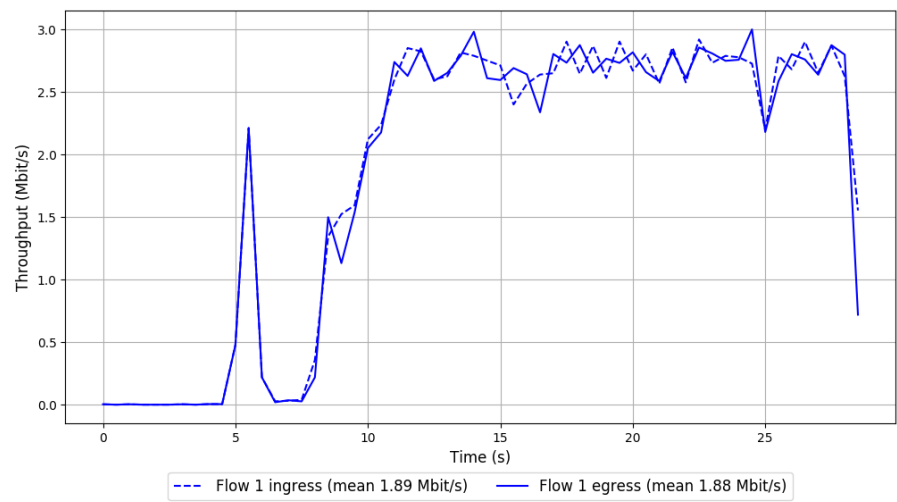


```
Run 1: Statistics of WebRTC media

Start at: 2017-11-20 21:49:46
End at: 2017-11-20 21:50:16

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 113.029 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 113.029 ms
Loss rate: 1.23%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-11-20 22:01:00

End at: 2017-11-20 22:01:30

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.403 ms

Loss rate: 0.89%

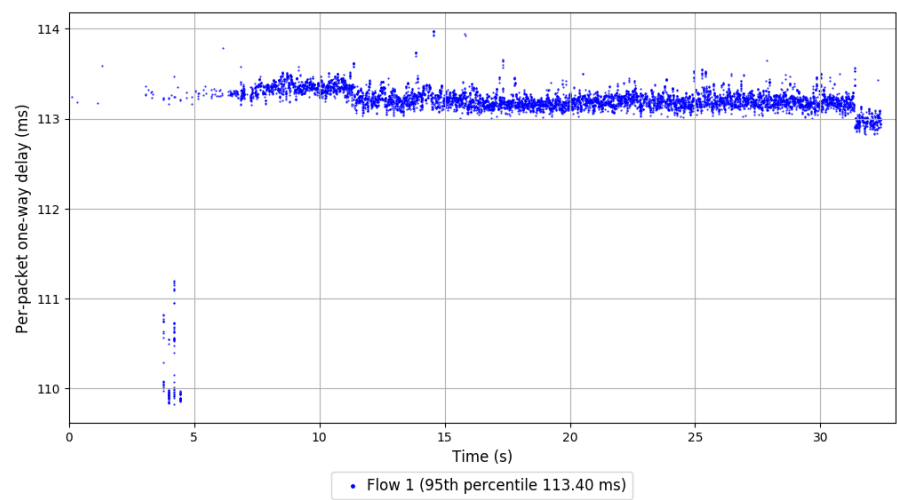
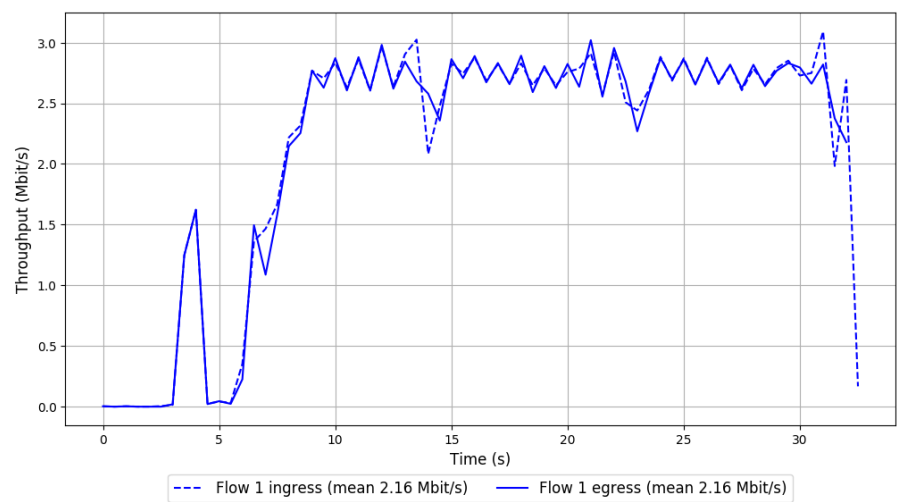
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.403 ms

Loss rate: 0.89%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-11-20 22:12:05

End at: 2017-11-20 22:12:35

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.419 ms

Loss rate: 0.77%

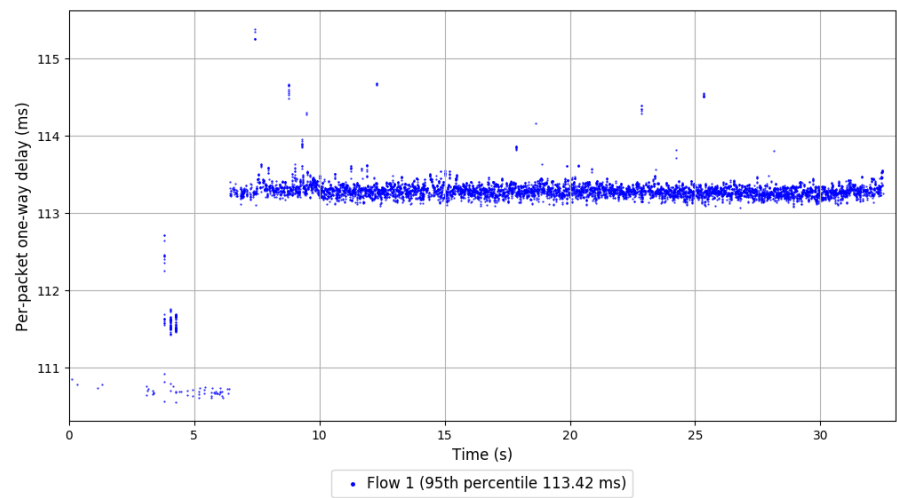
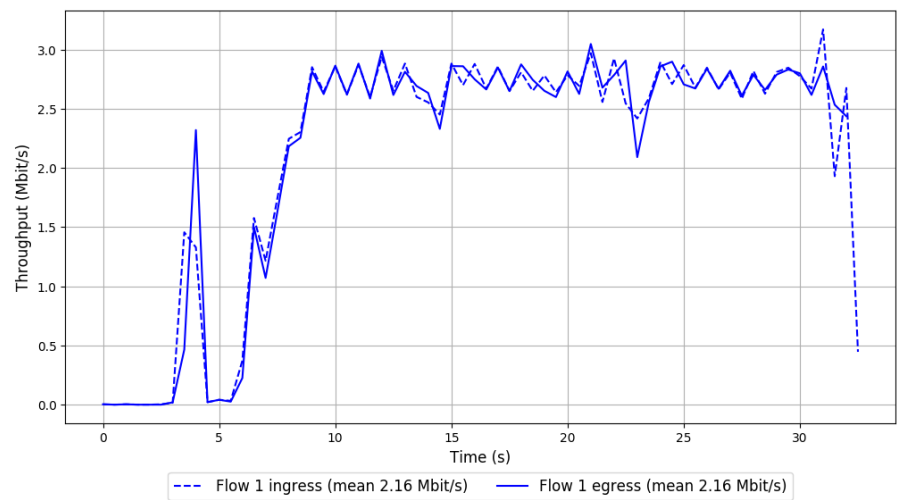
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.419 ms

Loss rate: 0.77%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-11-20 22:23:11

End at: 2017-11-20 22:23:41

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.313 ms

Loss rate: 0.76%

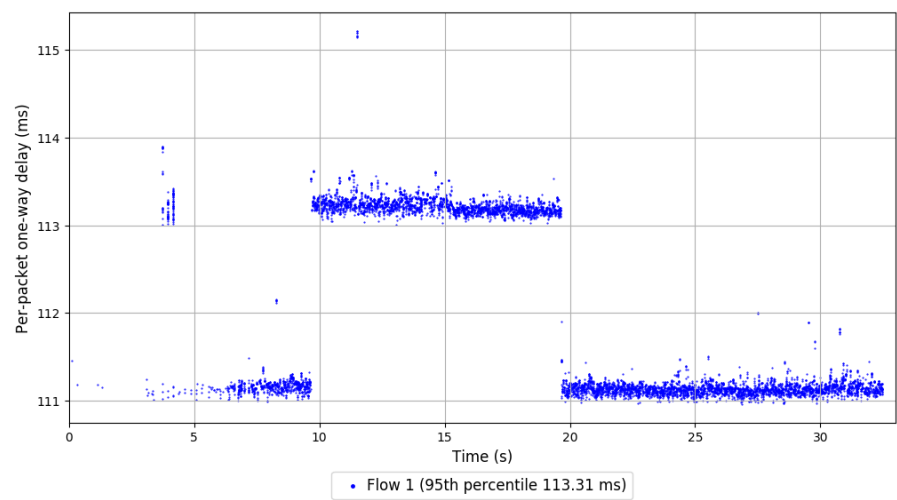
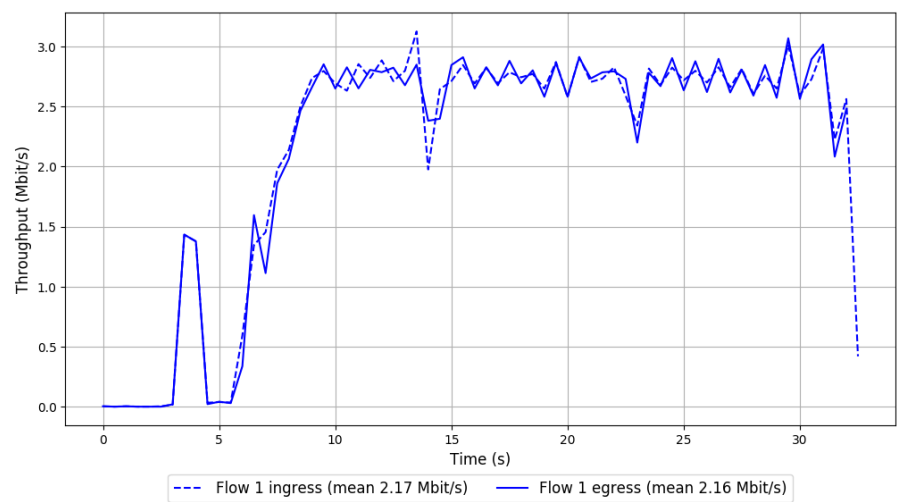
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 113.313 ms

Loss rate: 0.76%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-11-20 22:34:32

End at: 2017-11-20 22:35:02

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 112.989 ms

Loss rate: 0.79%

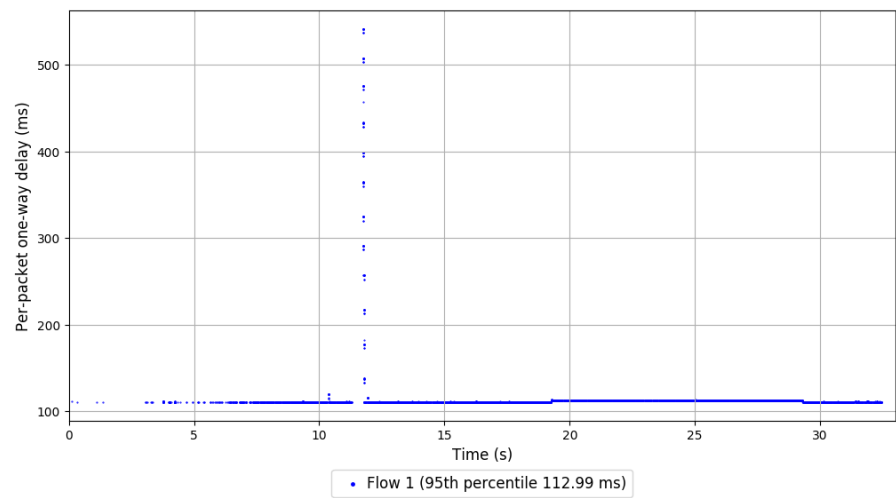
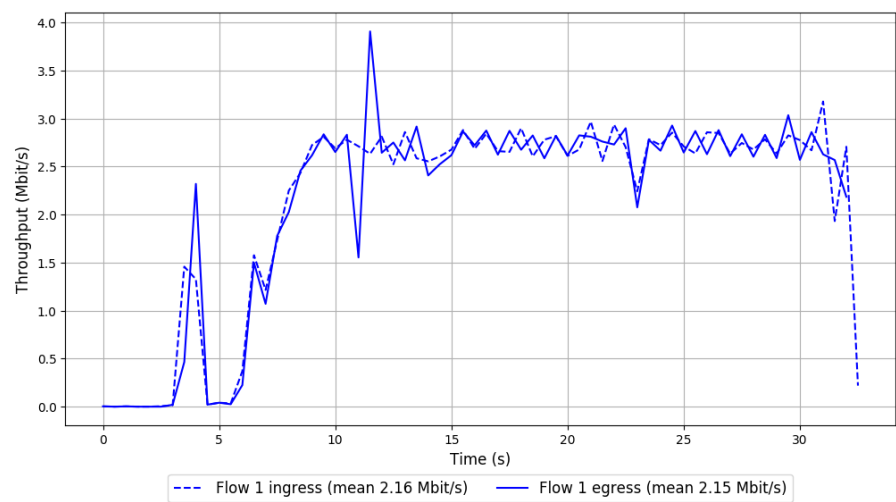
-- Flow 1:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 112.989 ms

Loss rate: 0.79%

Run 5: Report of WebRTC media — Data Link

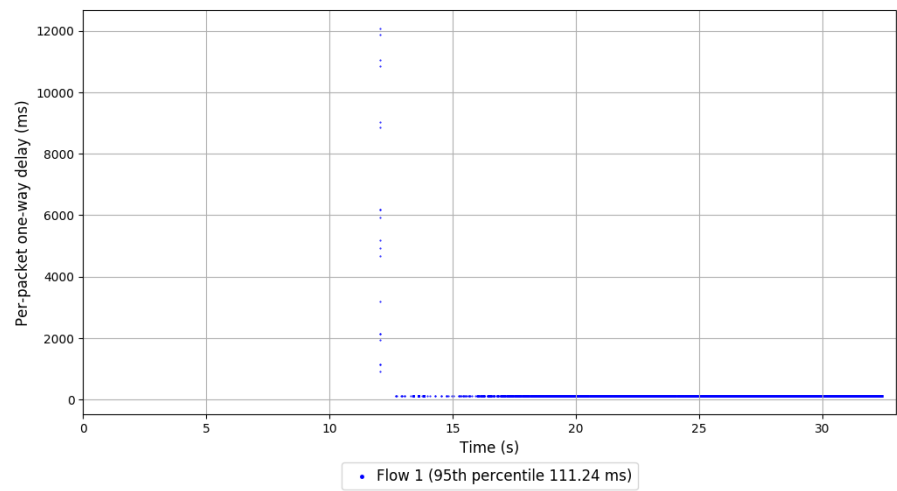
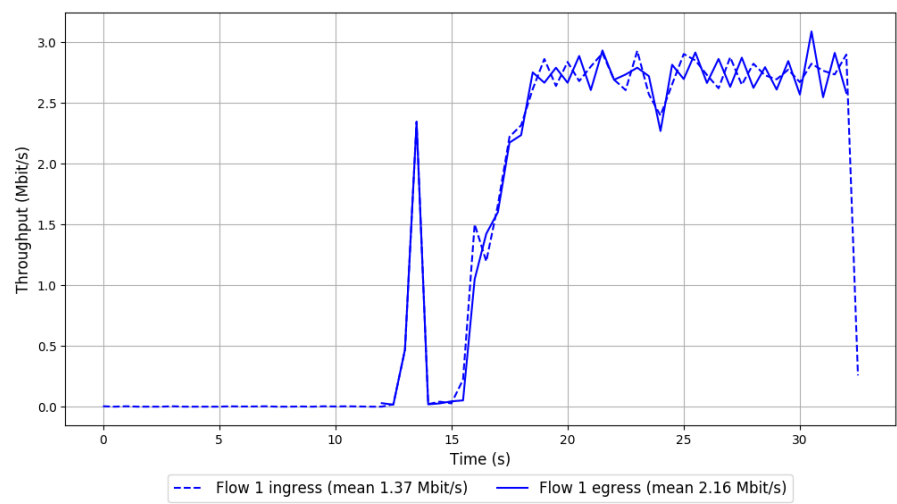


Run 6: Statistics of WebRTC media

Start at: 2017-11-20 22:45:33

End at: 2017-11-20 22:46:03

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-11-20 22:56:16

End at: 2017-11-20 22:56:46

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.234 ms

Loss rate: 0.92%

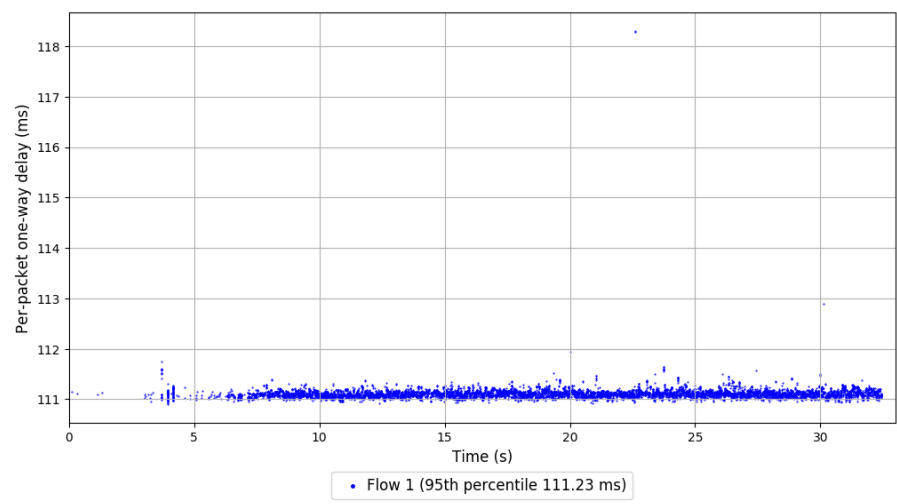
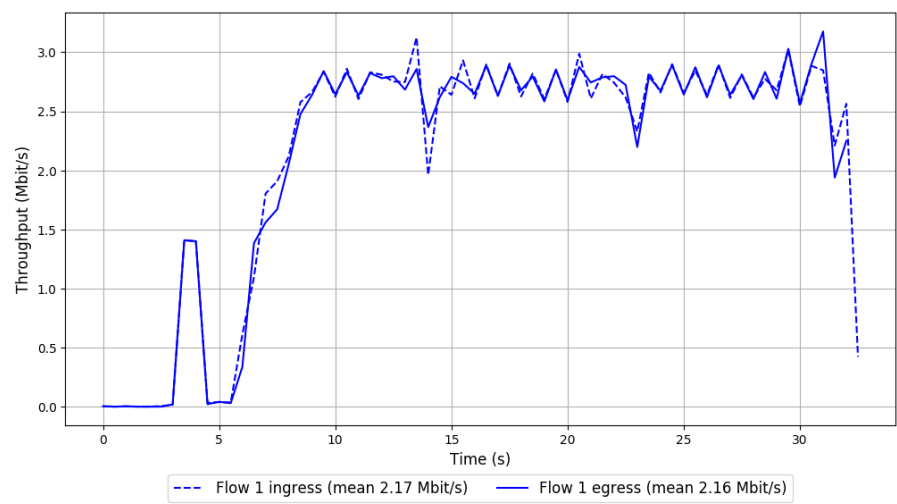
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.234 ms

Loss rate: 0.92%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-11-20 23:07:17

End at: 2017-11-20 23:07:47

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.486 ms

Loss rate: 0.77%

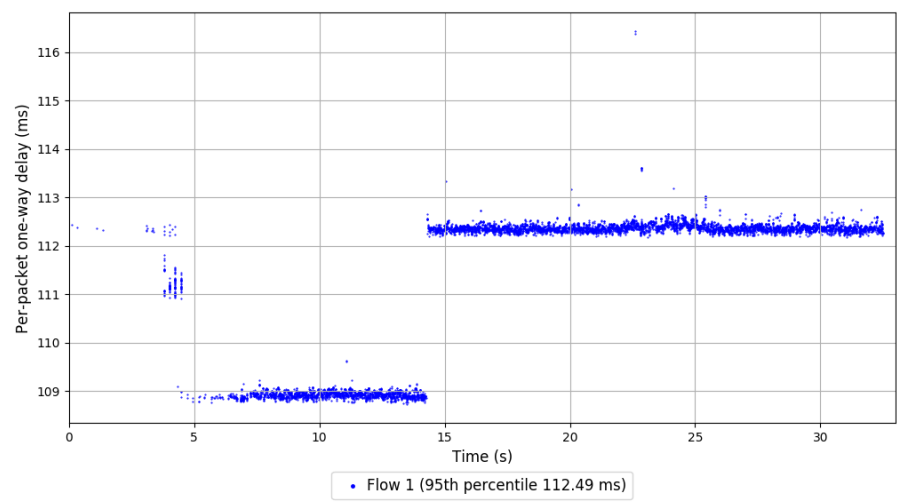
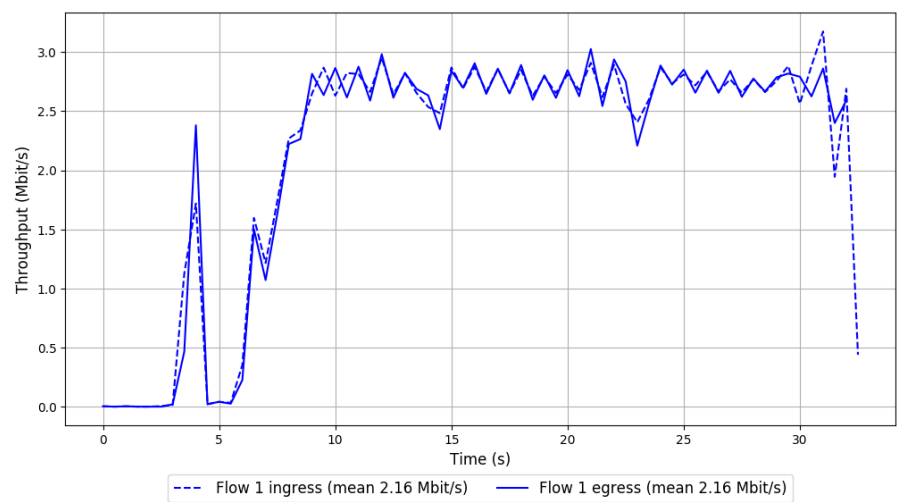
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 112.486 ms

Loss rate: 0.77%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-11-20 23:18:00

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

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 112.874 ms

Loss rate: 0.72%

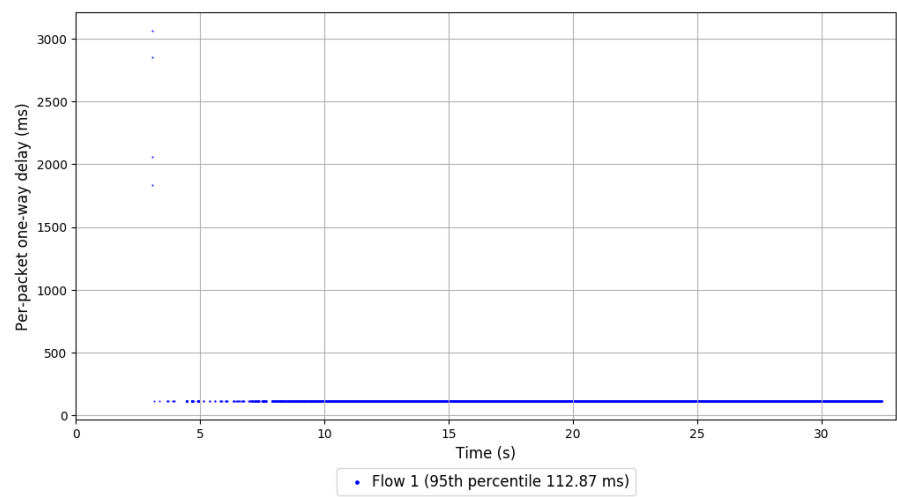
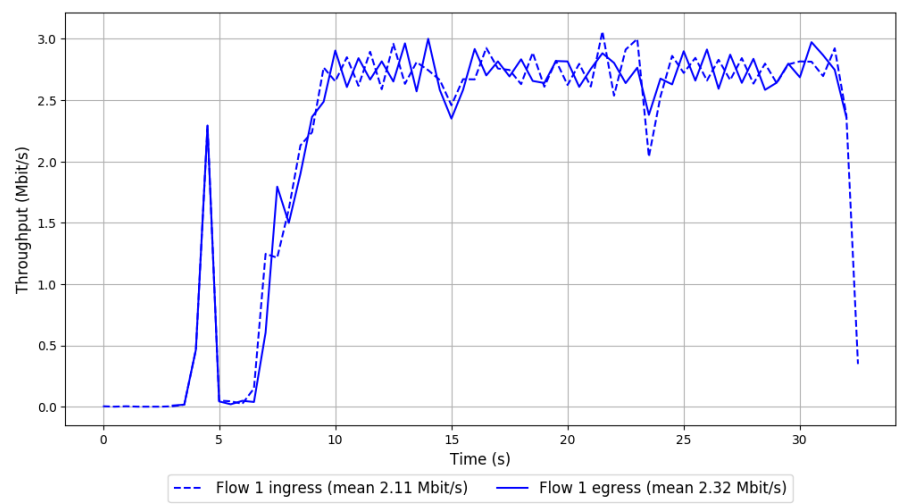
-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 112.874 ms

Loss rate: 0.72%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-11-20 23:28:57

End at: 2017-11-20 23:29:27

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.187 ms

Loss rate: 0.94%

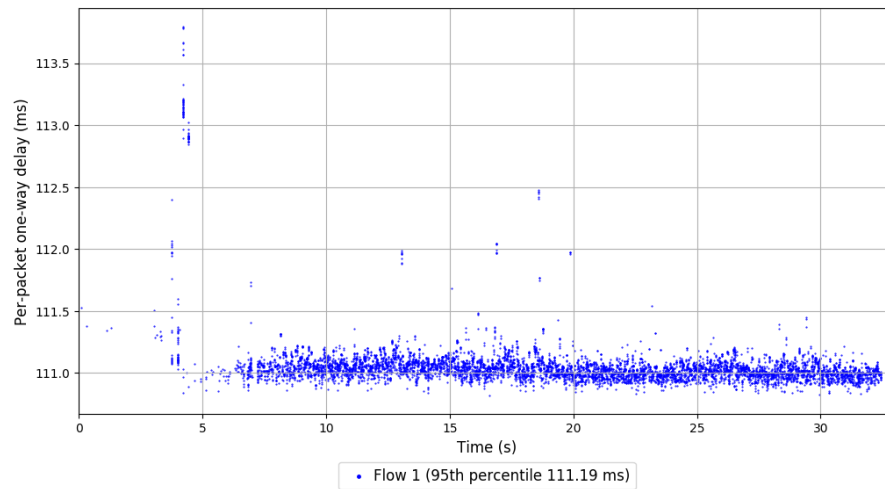
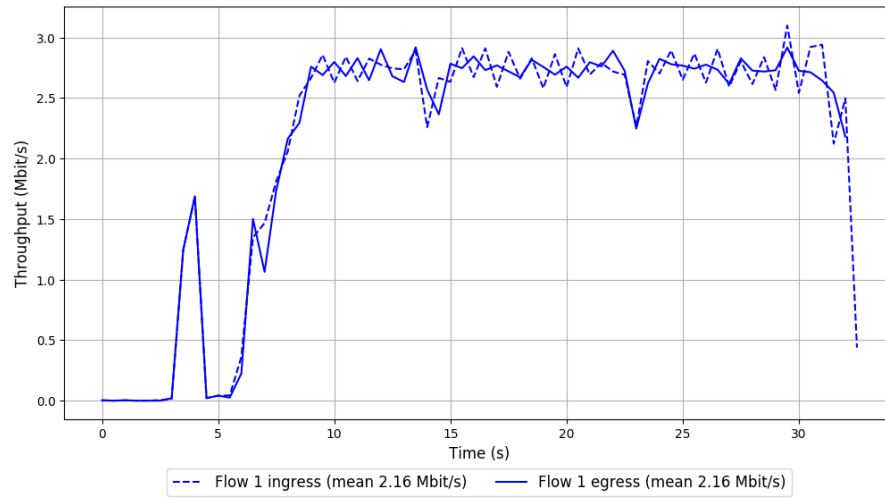
-- Flow 1:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 111.187 ms

Loss rate: 0.94%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2017-11-20 21:50:27

End at: 2017-11-20 21:50:57

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 112.146 ms

Loss rate: 0.77%

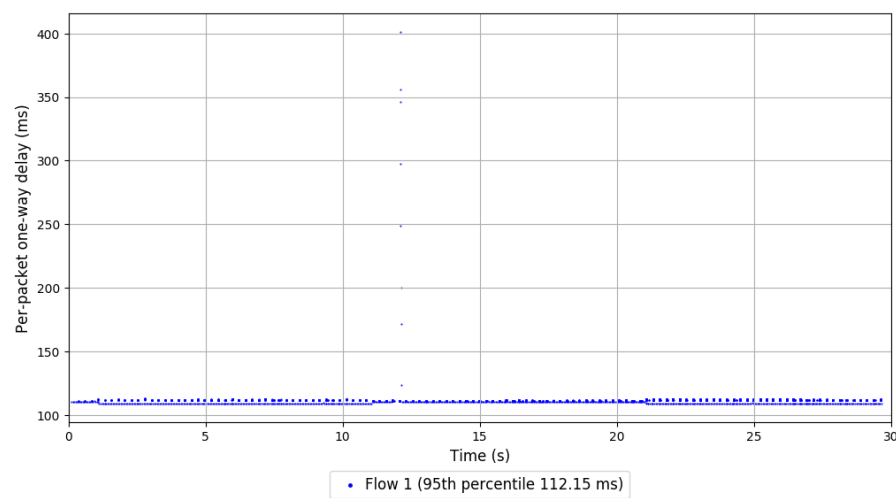
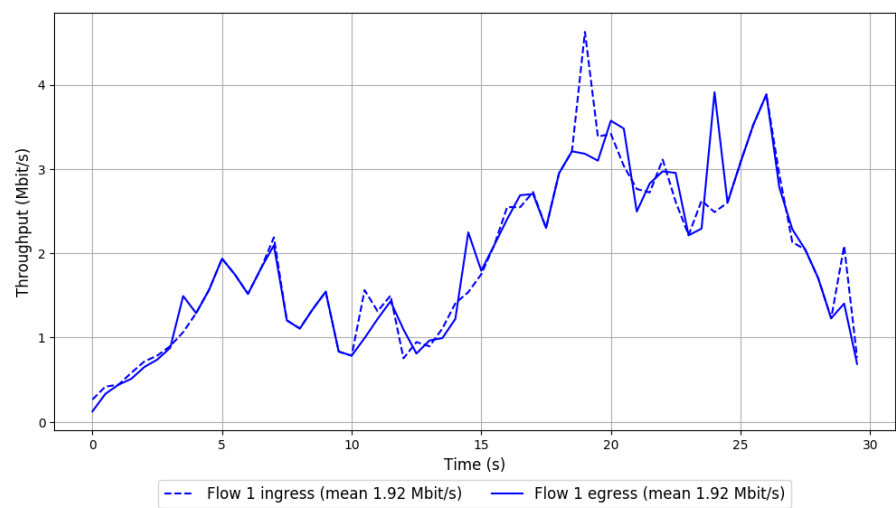
-- Flow 1:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 112.146 ms

Loss rate: 0.77%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-11-20 22:01:41

End at: 2017-11-20 22:02:11

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 113.748 ms

Loss rate: 0.52%

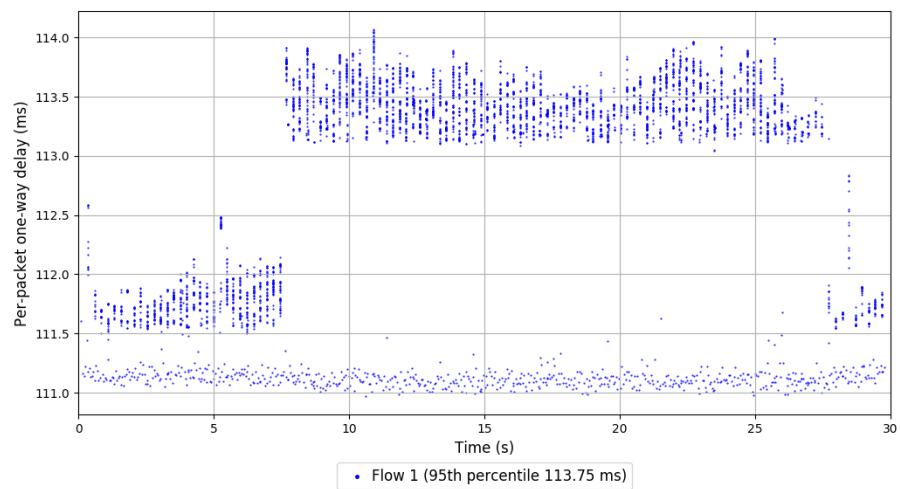
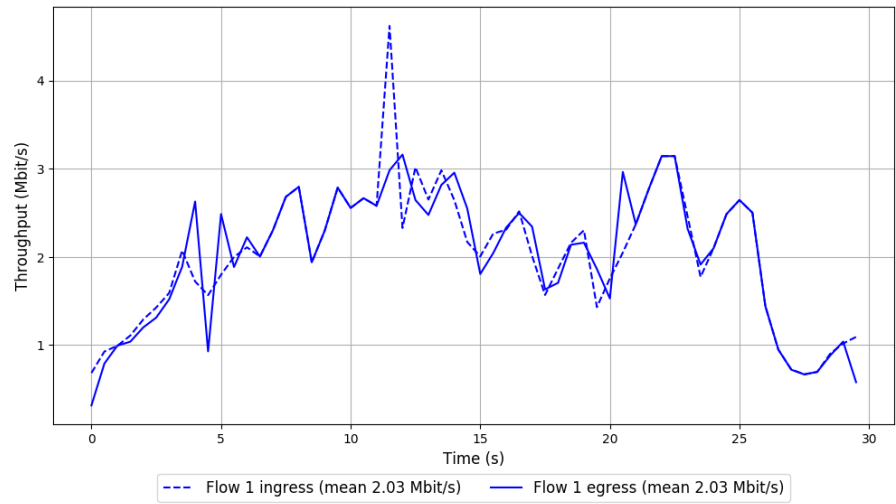
-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 113.748 ms

Loss rate: 0.52%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-11-20 22:12:46

End at: 2017-11-20 22:13:16

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 113.570 ms

Loss rate: 1.92%

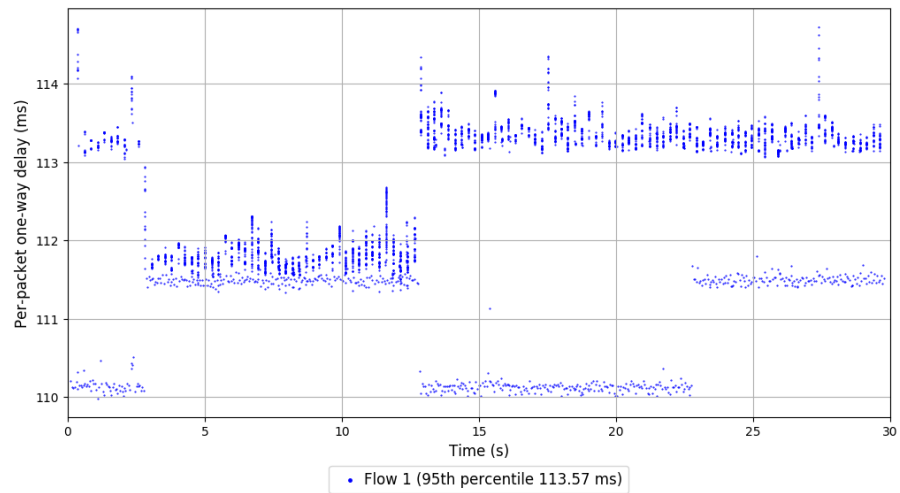
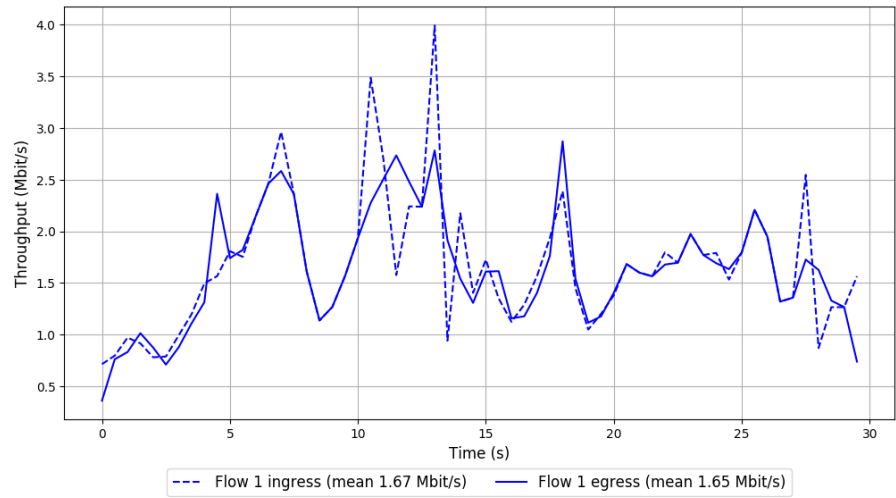
-- Flow 1:

Average throughput: 1.65 Mbit/s

95th percentile per-packet one-way delay: 113.570 ms

Loss rate: 1.92%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-11-20 22:23:52

End at: 2017-11-20 22:24:22

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 113.526 ms

Loss rate: 1.35%

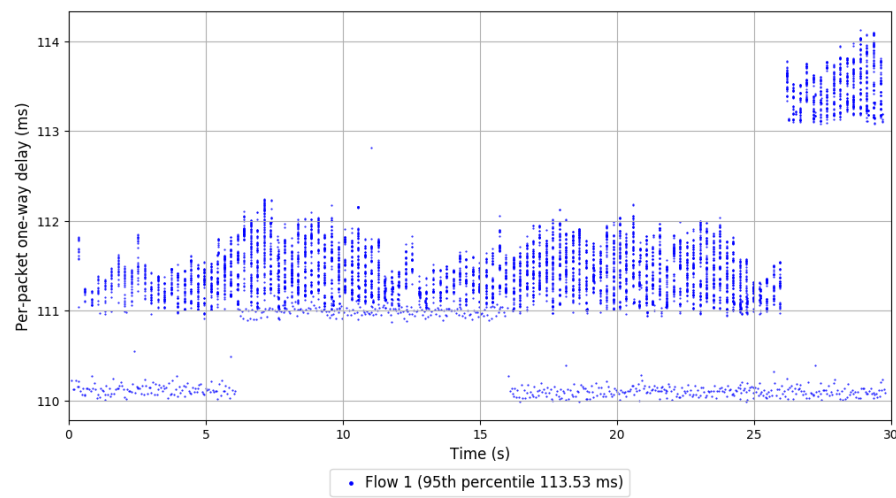
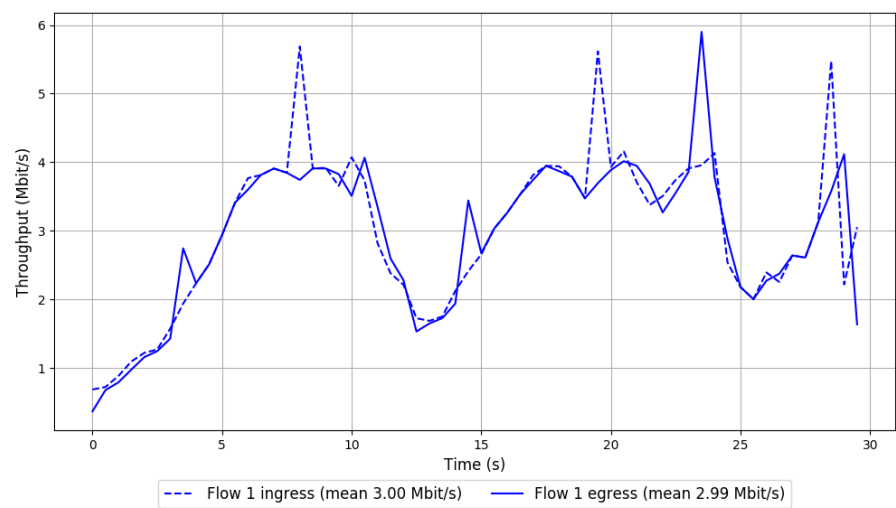
-- Flow 1:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 113.526 ms

Loss rate: 1.35%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-11-20 22:35:13

End at: 2017-11-20 22:35:43

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 112.775 ms

Loss rate: 0.99%

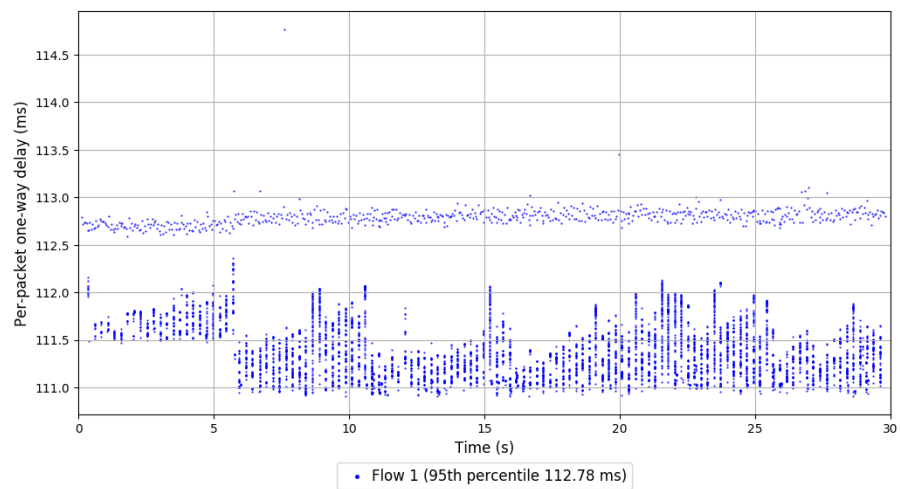
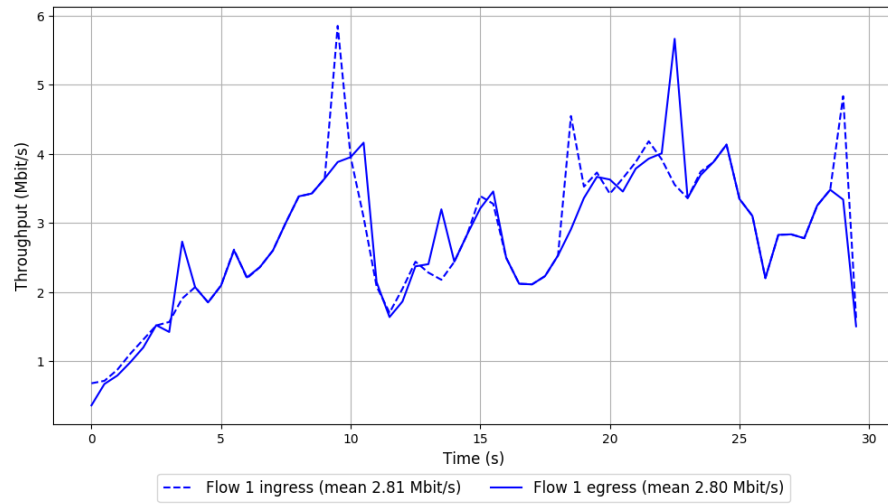
-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 112.775 ms

Loss rate: 0.99%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-11-20 22:46:14

End at: 2017-11-20 22:46:44

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.69 Mbit/s

95th percentile per-packet one-way delay: 112.132 ms

Loss rate: 1.40%

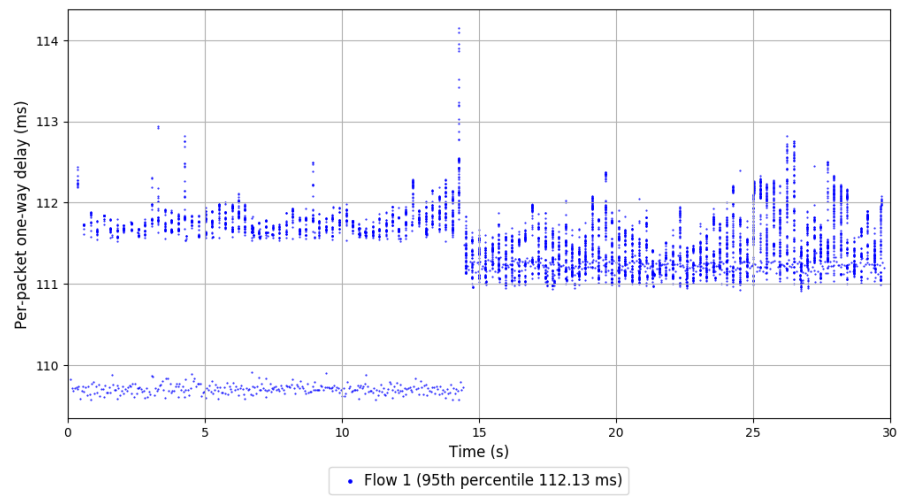
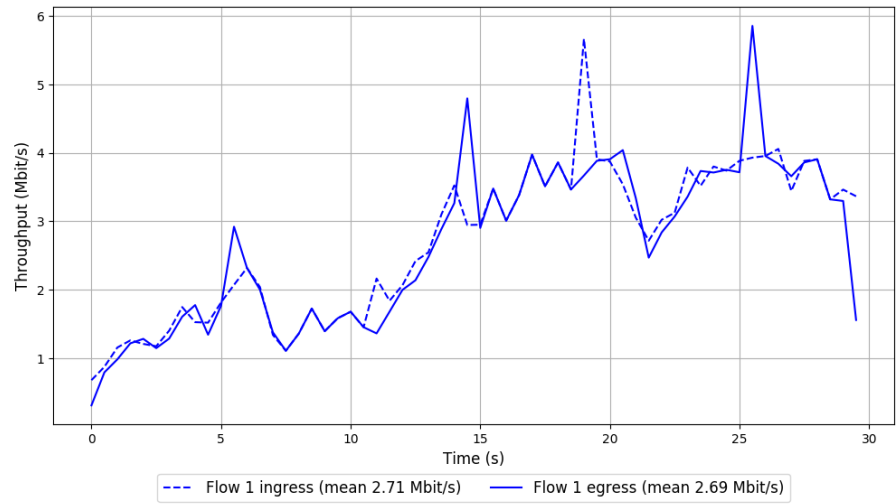
-- Flow 1:

Average throughput: 2.69 Mbit/s

95th percentile per-packet one-way delay: 112.132 ms

Loss rate: 1.40%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-11-20 22:56:57

End at: 2017-11-20 22:57:27

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 111.814 ms

Loss rate: 1.95%

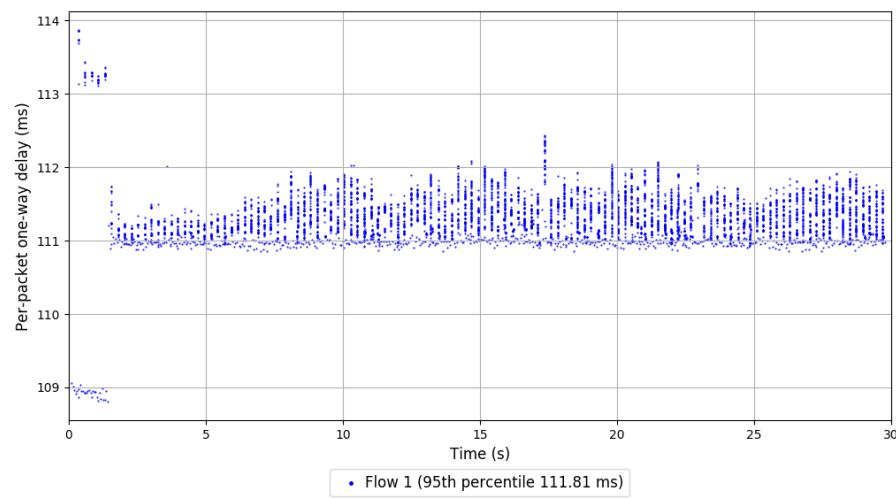
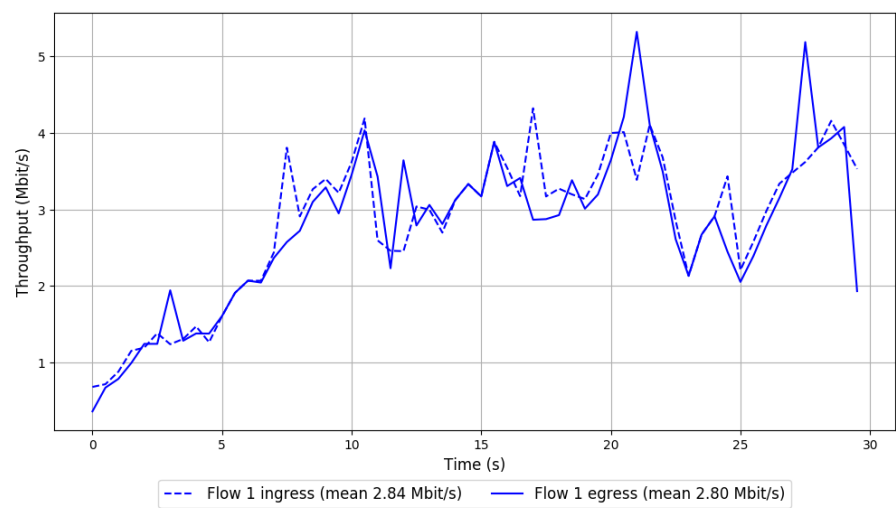
-- Flow 1:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 111.814 ms

Loss rate: 1.95%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-11-20 23:07:58

End at: 2017-11-20 23:08:28

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 113.640 ms

Loss rate: 2.01%

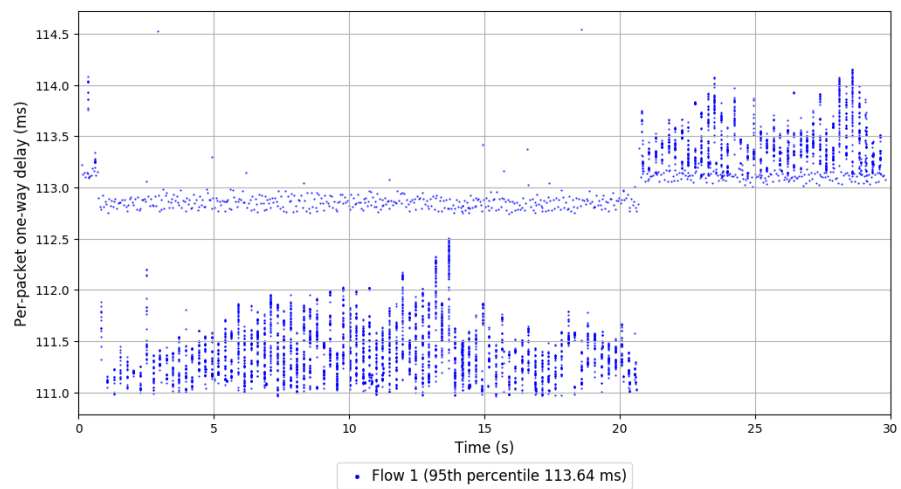
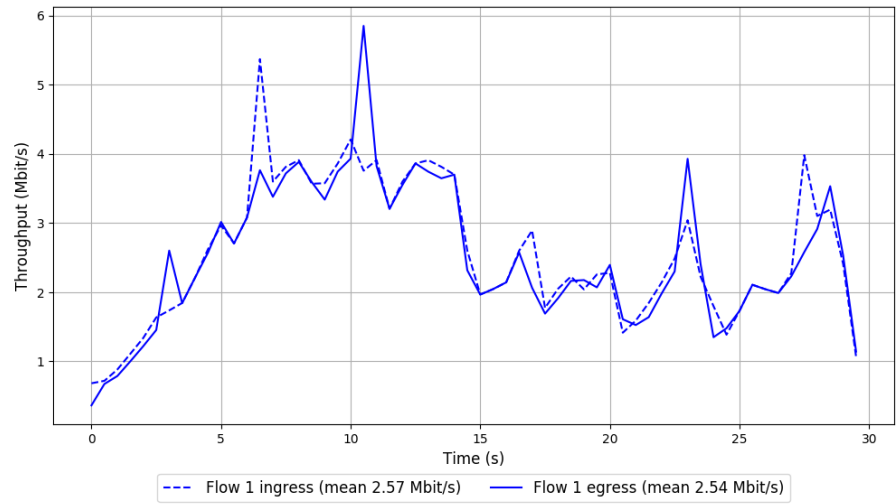
-- Flow 1:

Average throughput: 2.54 Mbit/s

95th percentile per-packet one-way delay: 113.640 ms

Loss rate: 2.01%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-11-20 23:18:41

End at: 2017-11-20 23:19:11

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 3.08 Mbit/s

95th percentile per-packet one-way delay: 111.898 ms

Loss rate: 1.49%

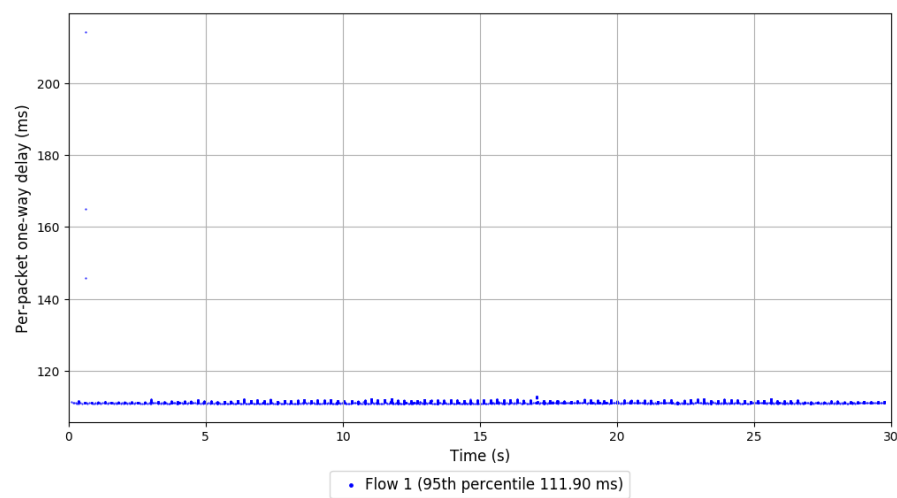
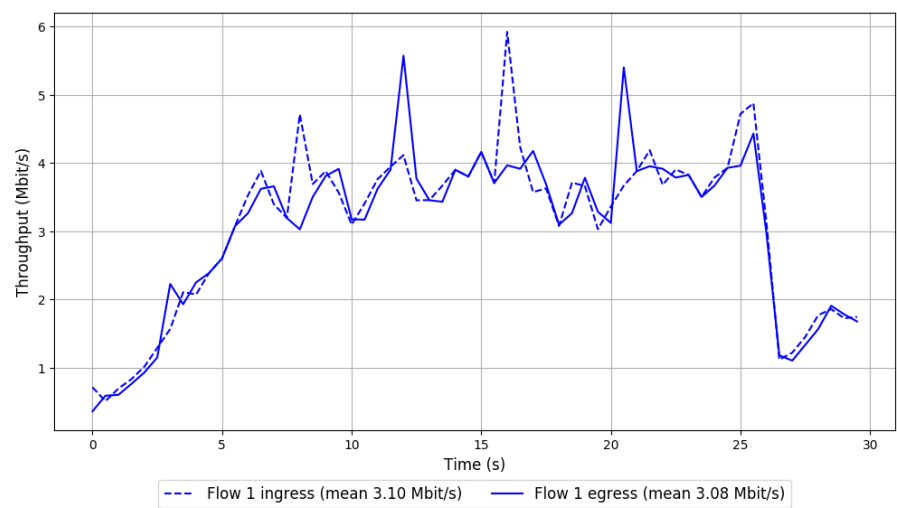
-- Flow 1:

Average throughput: 3.08 Mbit/s

95th percentile per-packet one-way delay: 111.898 ms

Loss rate: 1.49%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-11-20 23:29:38

End at: 2017-11-20 23:30:08

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 113.589 ms

Loss rate: 2.76%

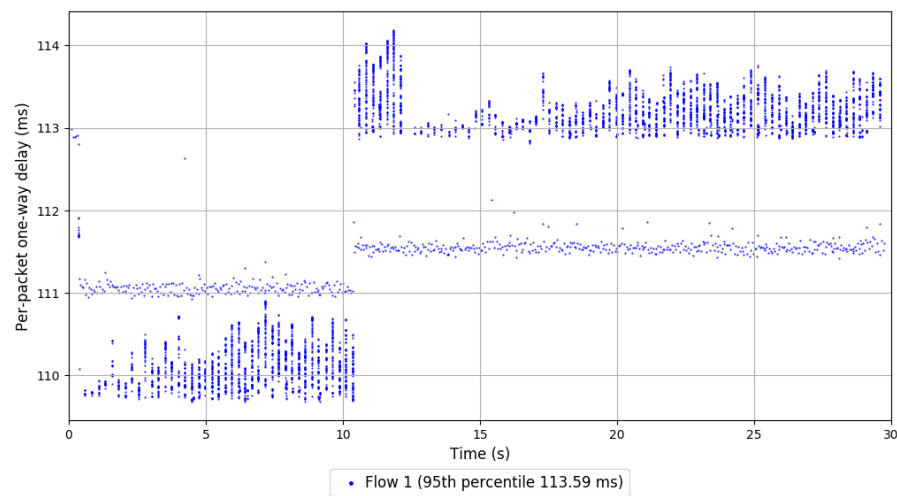
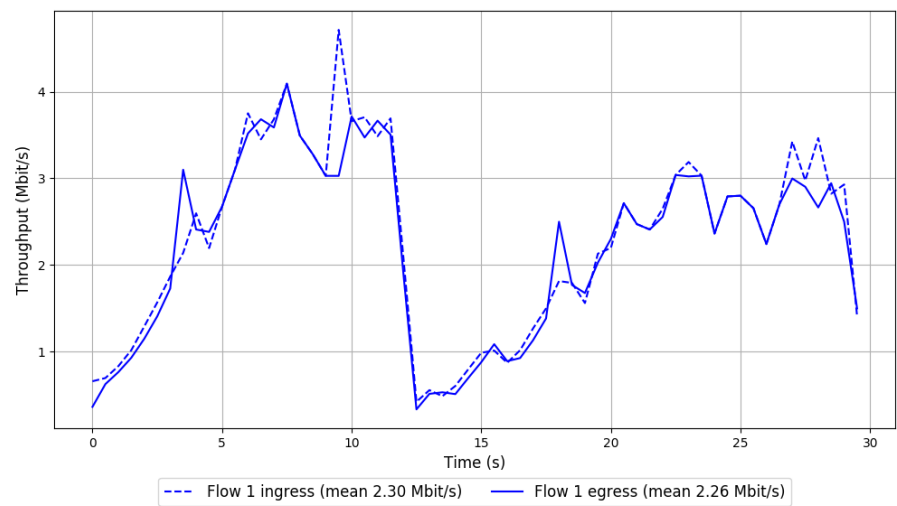
-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 113.589 ms

Loss rate: 2.76%

Run 10: Report of Sprout — Data Link

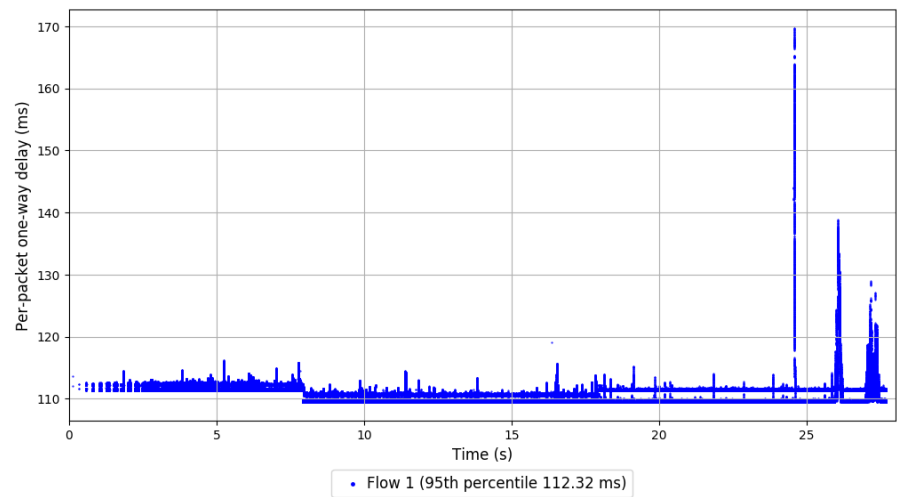
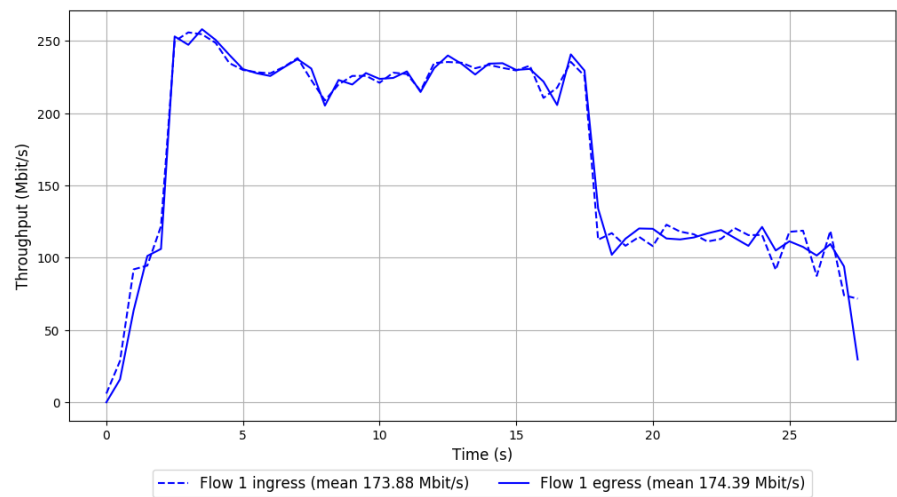


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-11-20 21:48:48
End at: 2017-11-20 21:49:18

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 174.39 Mbit/s
95th percentile per-packet one-way delay: 112.321 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 174.39 Mbit/s
95th percentile per-packet one-way delay: 112.321 ms
Loss rate: 0.52%
```


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

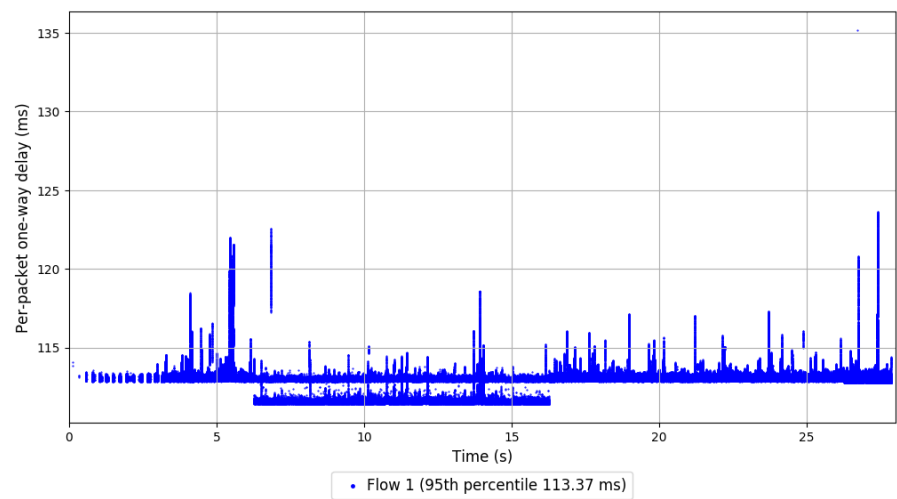
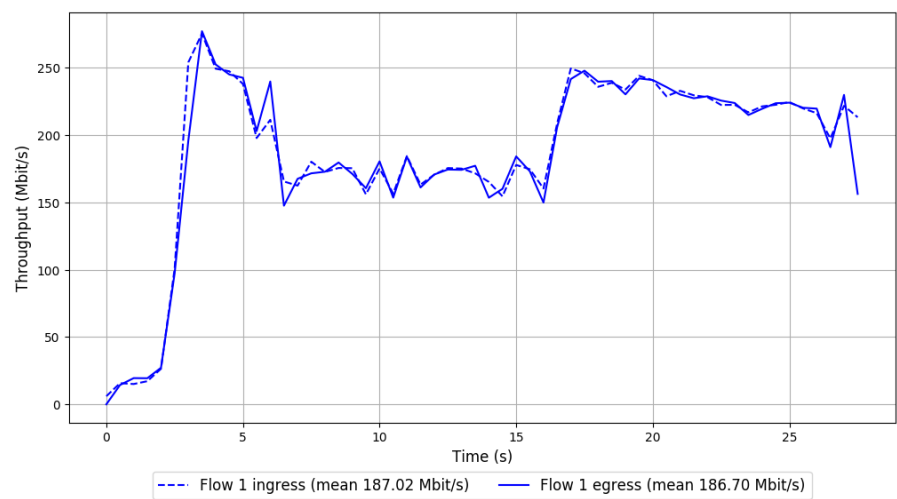


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-11-20 22:00:00
End at: 2017-11-20 22:00:30

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 186.70 Mbit/s
95th percentile per-packet one-way delay: 113.372 ms
Loss rate: 0.98%
-- Flow 1:
Average throughput: 186.70 Mbit/s
95th percentile per-packet one-way delay: 113.372 ms
Loss rate: 0.98%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-11-20 22:11:17

End at: 2017-11-20 22:11:47

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.42 Mbit/s

95th percentile per-packet one-way delay: 113.969 ms

Loss rate: 2.13%

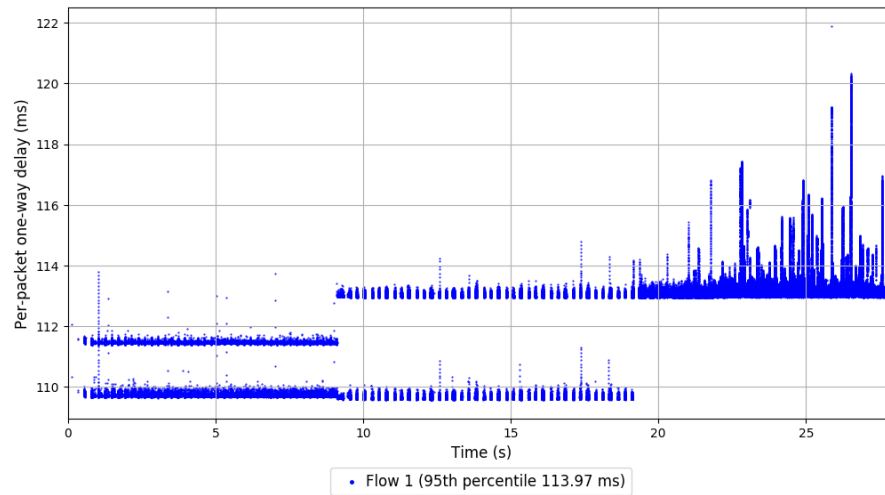
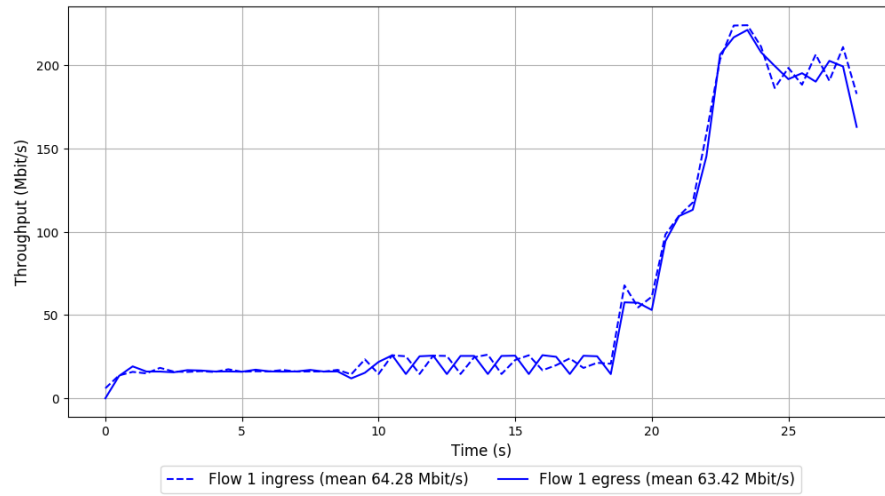
-- Flow 1:

Average throughput: 63.42 Mbit/s

95th percentile per-packet one-way delay: 113.969 ms

Loss rate: 2.13%

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-11-20 22:22:25

End at: 2017-11-20 22:22:55

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 45.77 Mbit/s

95th percentile per-packet one-way delay: 113.157 ms

Loss rate: 0.74%

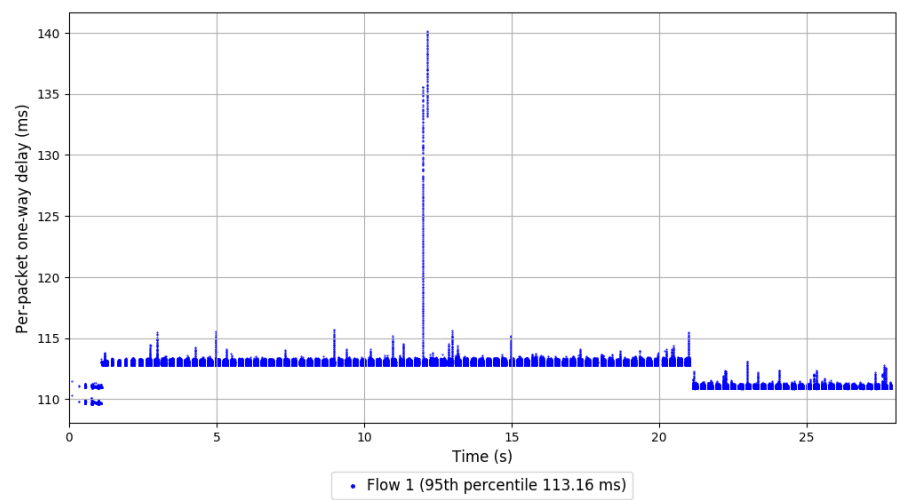
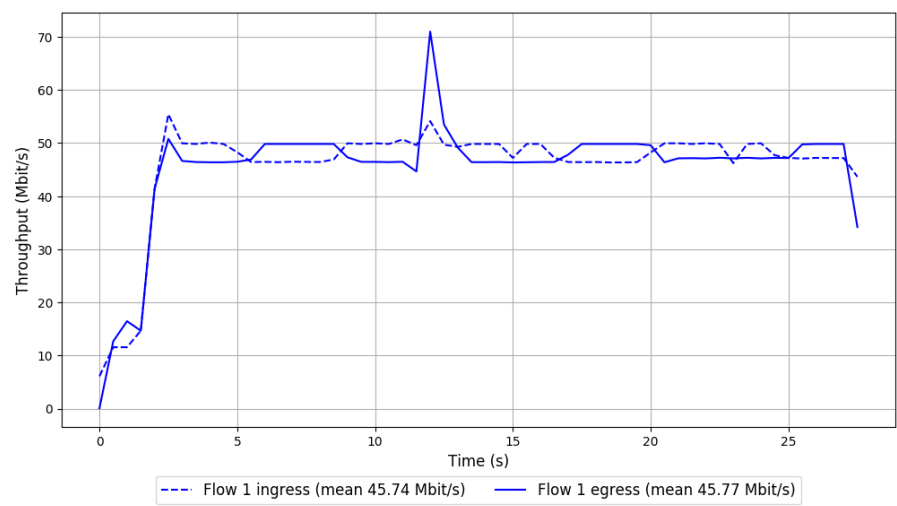
-- Flow 1:

Average throughput: 45.77 Mbit/s

95th percentile per-packet one-way delay: 113.157 ms

Loss rate: 0.74%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-11-20 22:33:30

End at: 2017-11-20 22:34:00

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 215.85 Mbit/s

95th percentile per-packet one-way delay: 112.048 ms

Loss rate: 0.92%

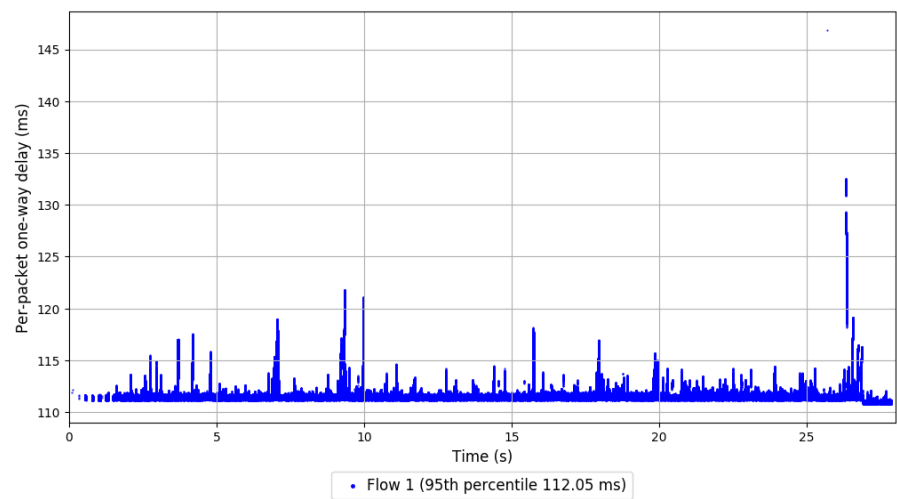
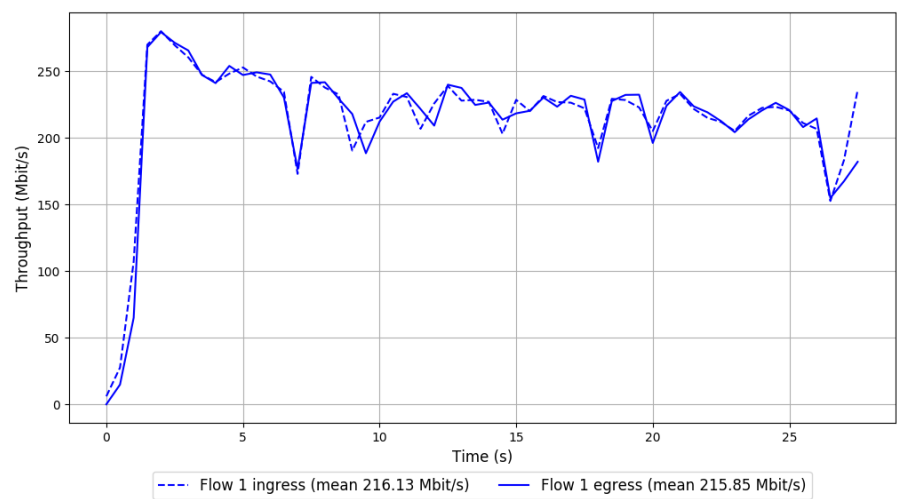
-- Flow 1:

Average throughput: 215.85 Mbit/s

95th percentile per-packet one-way delay: 112.048 ms

Loss rate: 0.92%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-11-20 22:44:48

End at: 2017-11-20 22:45:18

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 41.23 Mbit/s

95th percentile per-packet one-way delay: 112.761 ms

Loss rate: 2.00%

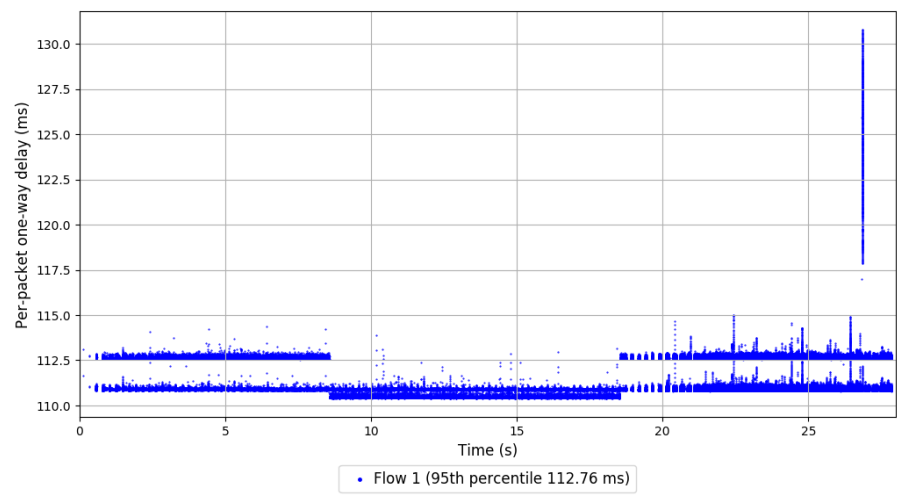
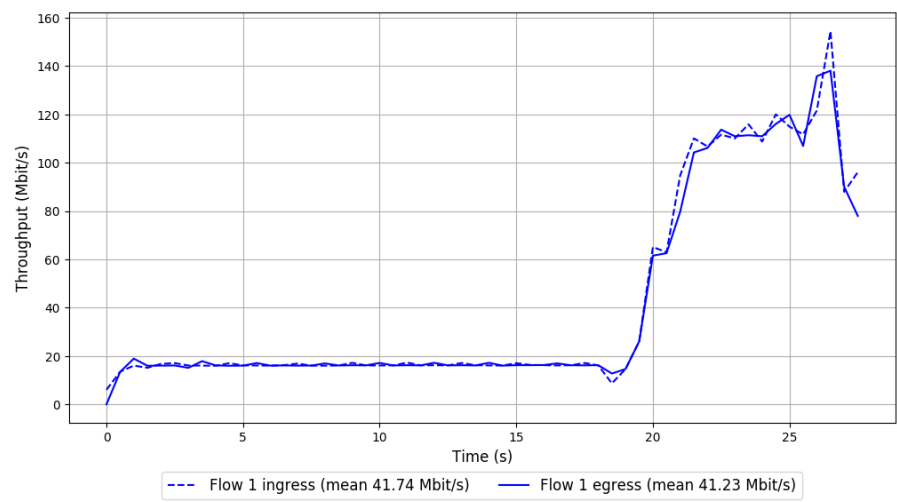
-- Flow 1:

Average throughput: 41.23 Mbit/s

95th percentile per-packet one-way delay: 112.761 ms

Loss rate: 2.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-11-20 22:55:33

End at: 2017-11-20 22:56:03

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.56 Mbit/s

95th percentile per-packet one-way delay: 113.121 ms

Loss rate: 0.83%

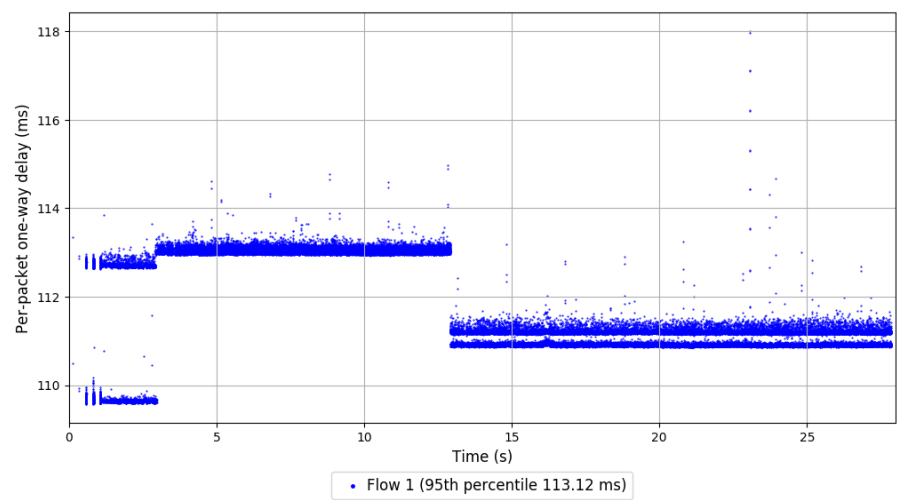
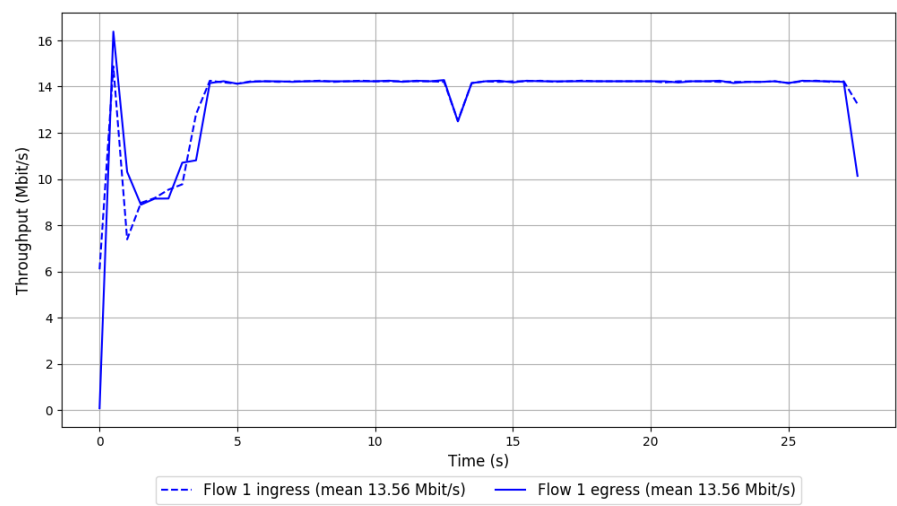
-- Flow 1:

Average throughput: 13.56 Mbit/s

95th percentile per-packet one-way delay: 113.121 ms

Loss rate: 0.83%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-11-20 23:06:34

End at: 2017-11-20 23:07:04

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 13.77 Mbit/s

95th percentile per-packet one-way delay: 112.342 ms

Loss rate: 0.81%

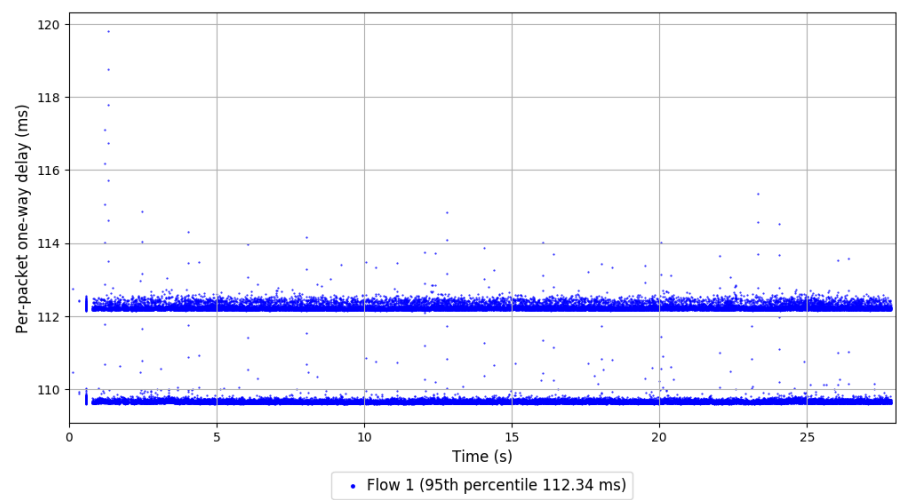
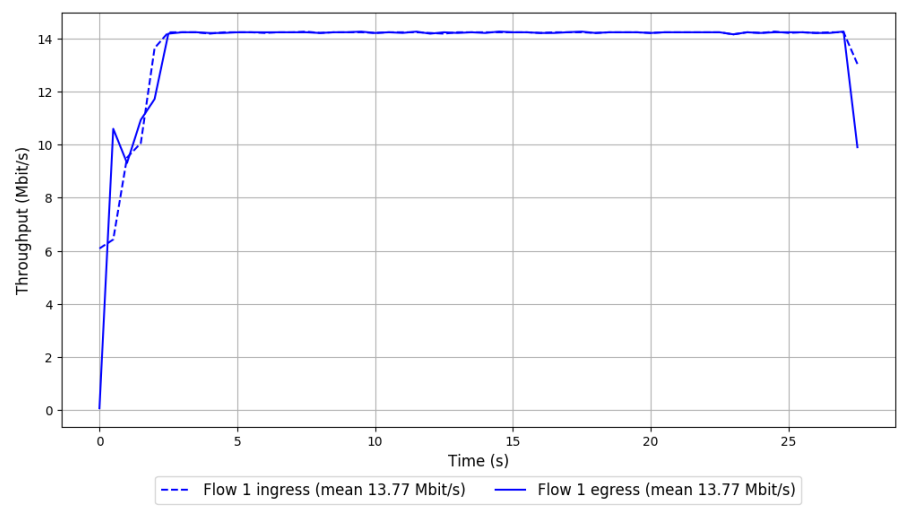
-- Flow 1:

Average throughput: 13.77 Mbit/s

95th percentile per-packet one-way delay: 112.342 ms

Loss rate: 0.81%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-11-20 23:17:17

End at: 2017-11-20 23:17:47

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 14.84 Mbit/s

95th percentile per-packet one-way delay: 110.982 ms

Loss rate: 0.88%

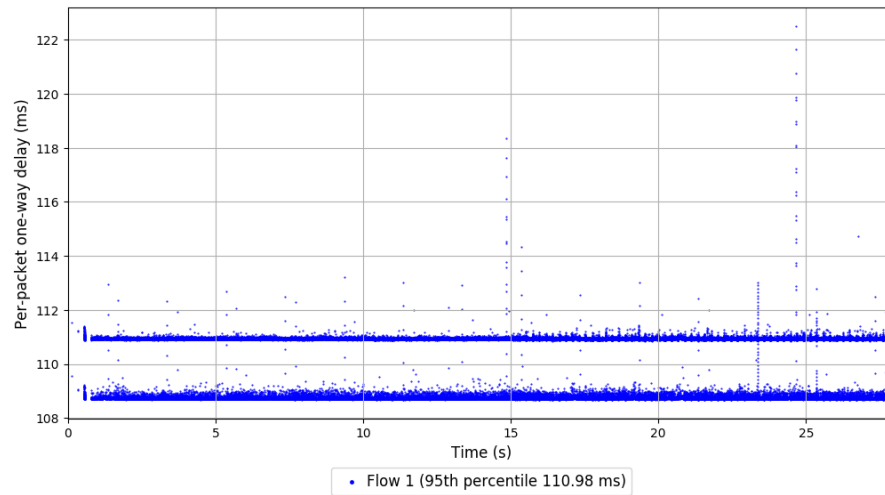
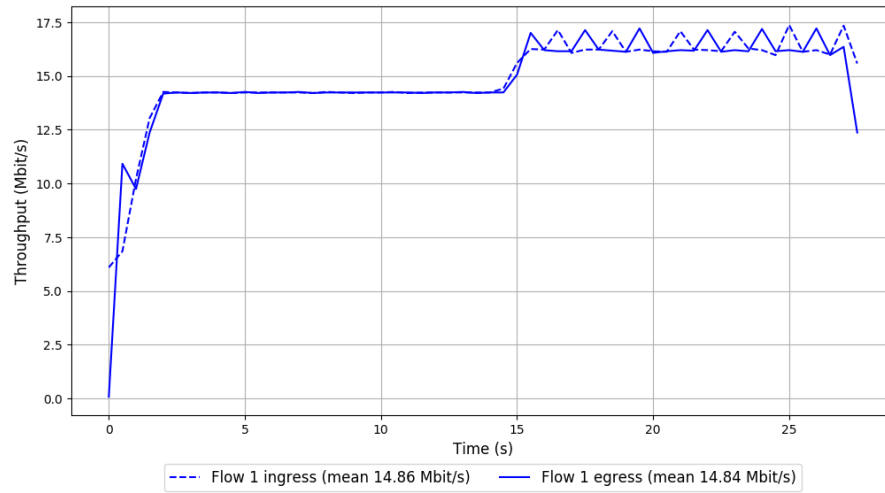
-- Flow 1:

Average throughput: 14.84 Mbit/s

95th percentile per-packet one-way delay: 110.982 ms

Loss rate: 0.88%

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

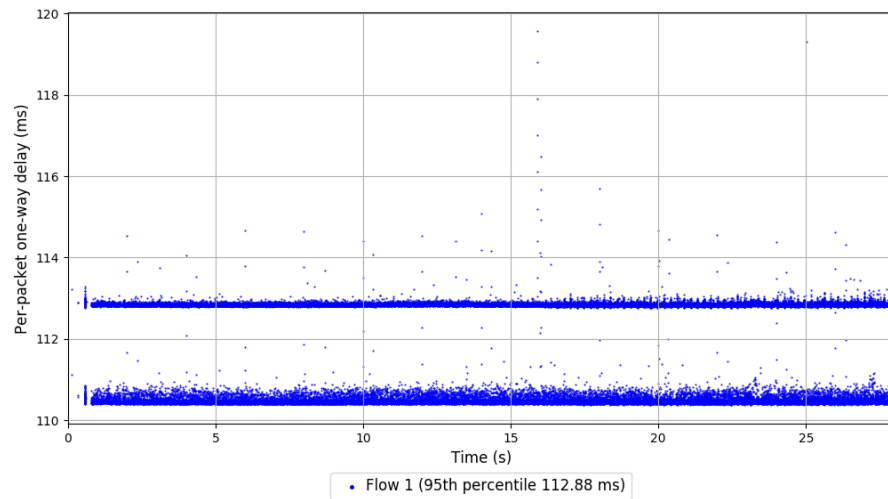
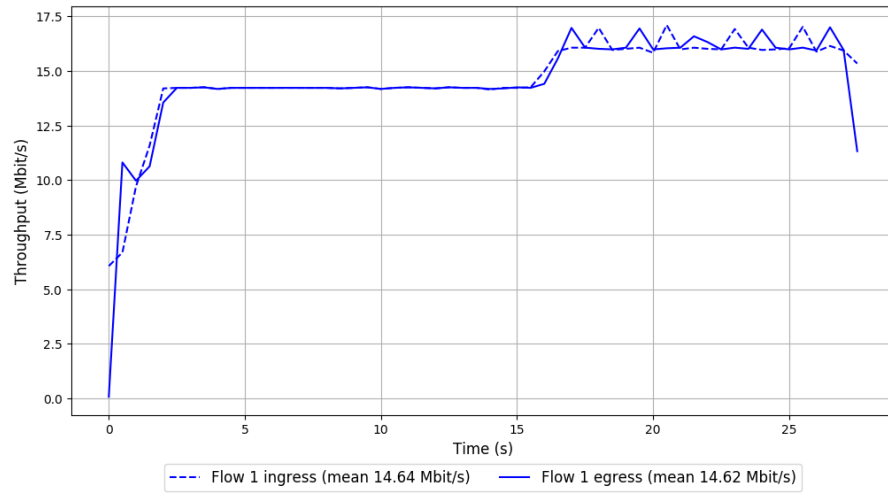


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-11-20 23:28:14
End at: 2017-11-20 23:28:44

# Below is generated by plot.py at 2017-11-21 01:49:17
# Datalink statistics
-- Total of 1 flow:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 112.884 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 14.62 Mbit/s
95th percentile per-packet one-way delay: 112.884 ms
Loss rate: 0.88%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-11-20 21:42:18

End at: 2017-11-20 21:42:49

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 50.55 Mbit/s

95th percentile per-packet one-way delay: 113.572 ms

Loss rate: 0.65%

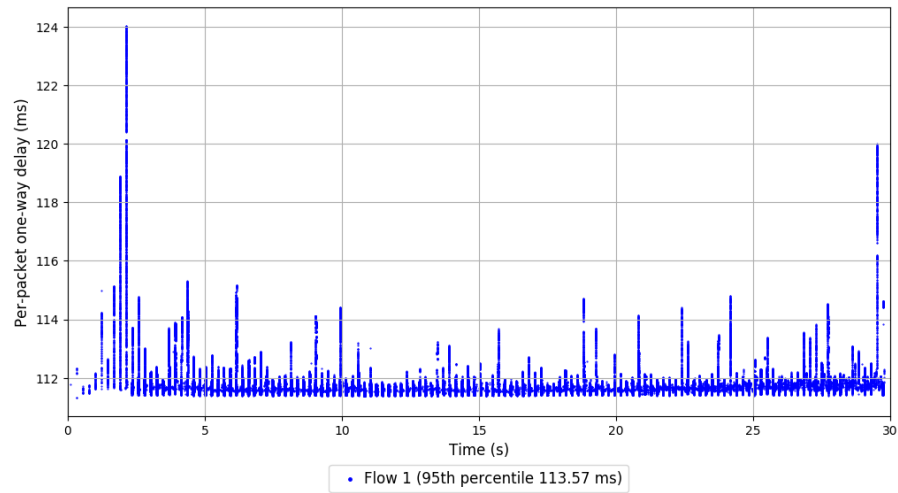
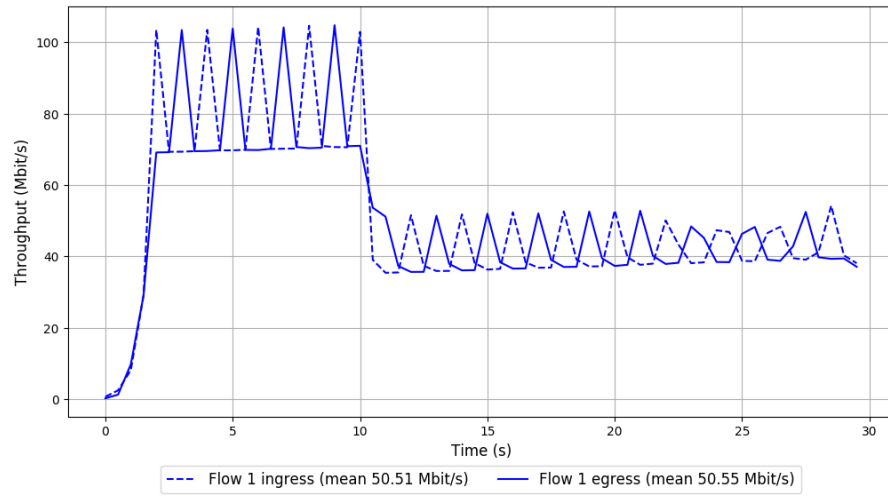
-- Flow 1:

Average throughput: 50.55 Mbit/s

95th percentile per-packet one-way delay: 113.572 ms

Loss rate: 0.65%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-11-20 21:53:32

End at: 2017-11-20 21:54:02

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 112.077 ms

Loss rate: 1.07%

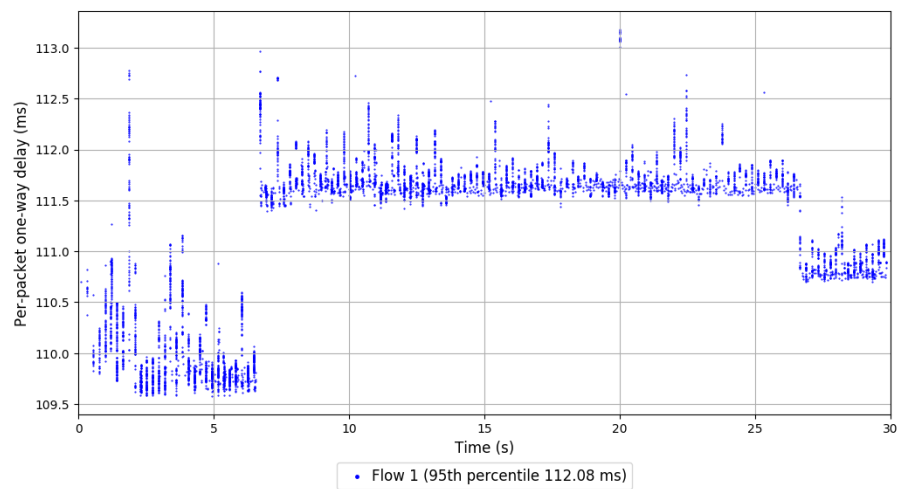
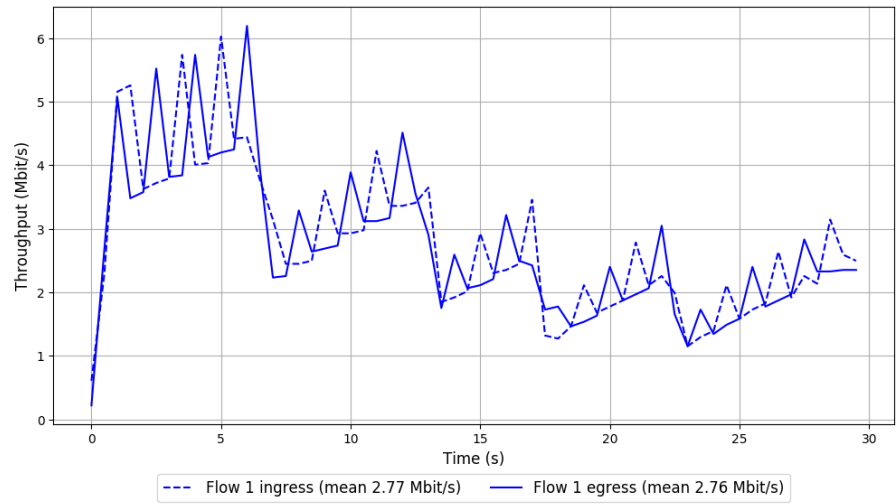
-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 112.077 ms

Loss rate: 1.07%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-11-20 22:04:45

End at: 2017-11-20 22:05:15

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.23 Mbit/s

95th percentile per-packet one-way delay: 114.433 ms

Loss rate: 0.46%

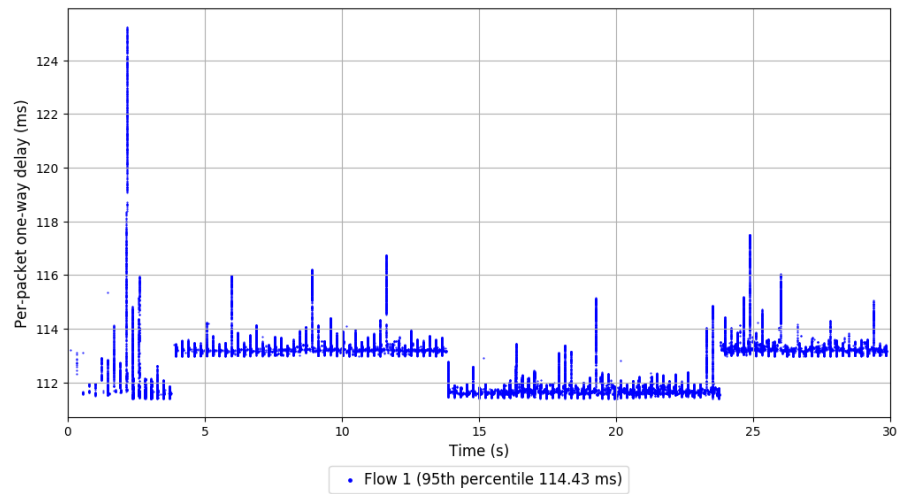
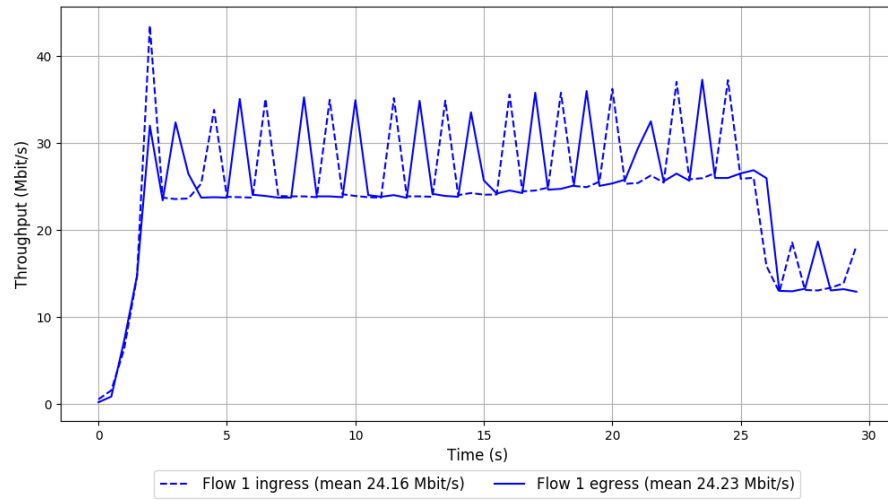
-- Flow 1:

Average throughput: 24.23 Mbit/s

95th percentile per-packet one-way delay: 114.433 ms

Loss rate: 0.46%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-11-20 22:15:50

End at: 2017-11-20 22:16:20

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 46.26 Mbit/s

95th percentile per-packet one-way delay: 114.114 ms

Loss rate: 0.52%

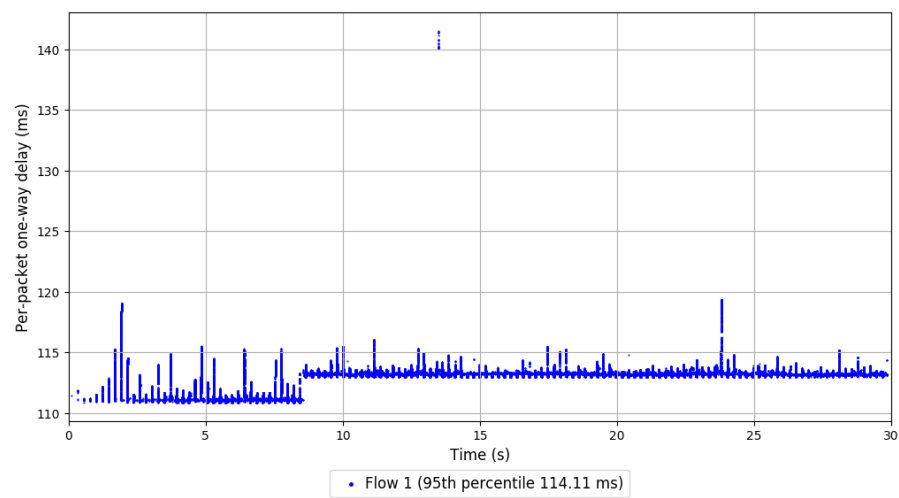
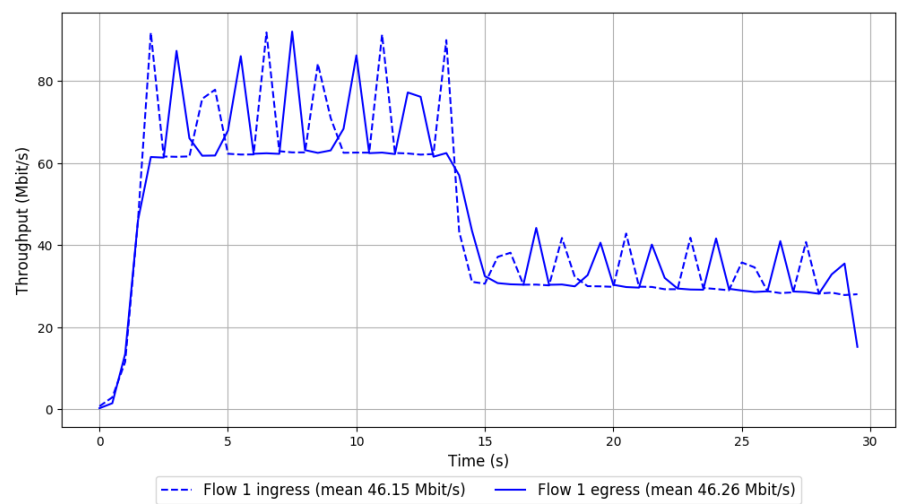
-- Flow 1:

Average throughput: 46.26 Mbit/s

95th percentile per-packet one-way delay: 114.114 ms

Loss rate: 0.52%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-11-20 22:26:56

End at: 2017-11-20 22:27:26

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.21 Mbit/s

95th percentile per-packet one-way delay: 112.702 ms

Loss rate: 0.56%

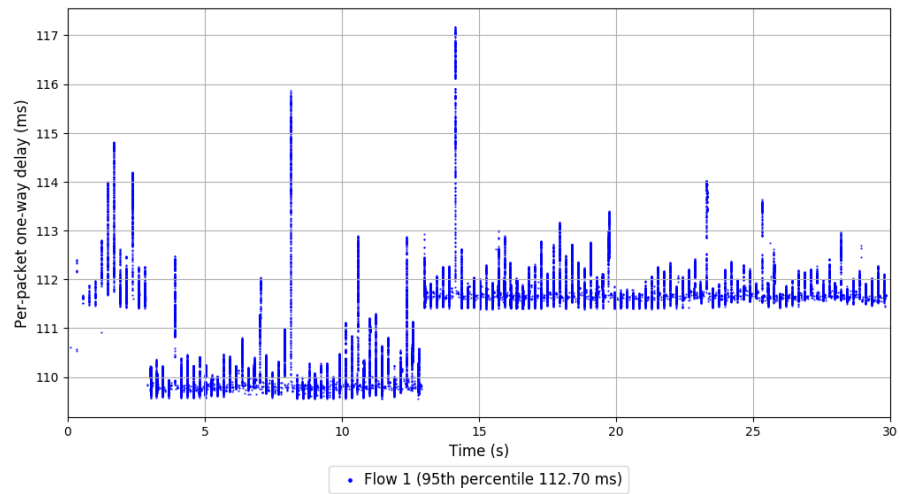
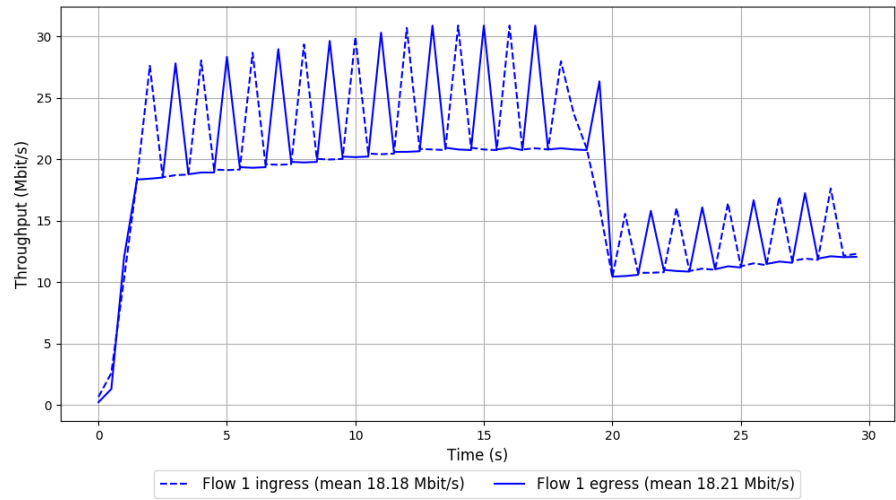
-- Flow 1:

Average throughput: 18.21 Mbit/s

95th percentile per-packet one-way delay: 112.702 ms

Loss rate: 0.56%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-11-20 22:38:16

End at: 2017-11-20 22:38:46

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 112.182 ms

Loss rate: 1.26%

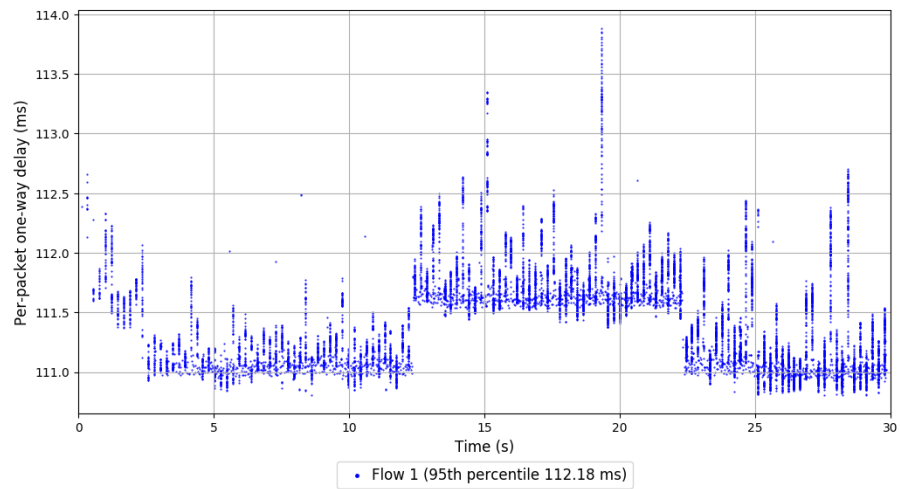
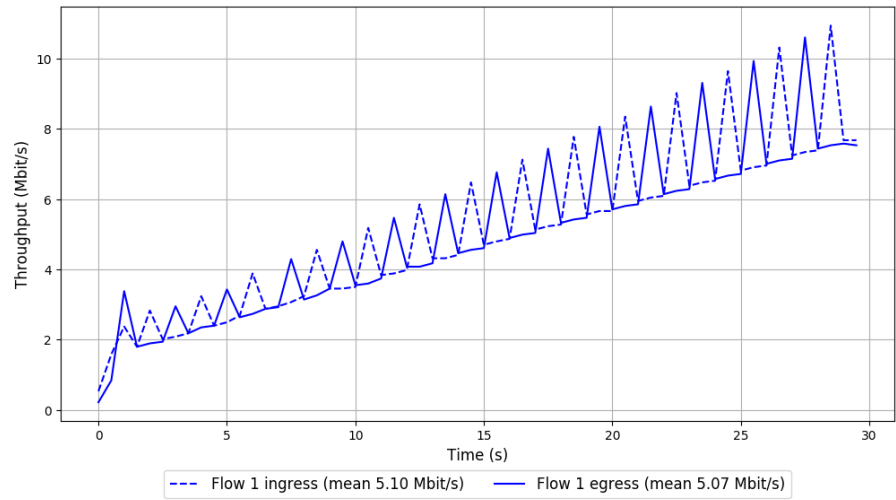
-- Flow 1:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 112.182 ms

Loss rate: 1.26%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-11-20 22:49:16

End at: 2017-11-20 22:49:46

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.32 Mbit/s

95th percentile per-packet one-way delay: 113.098 ms

Loss rate: 2.19%

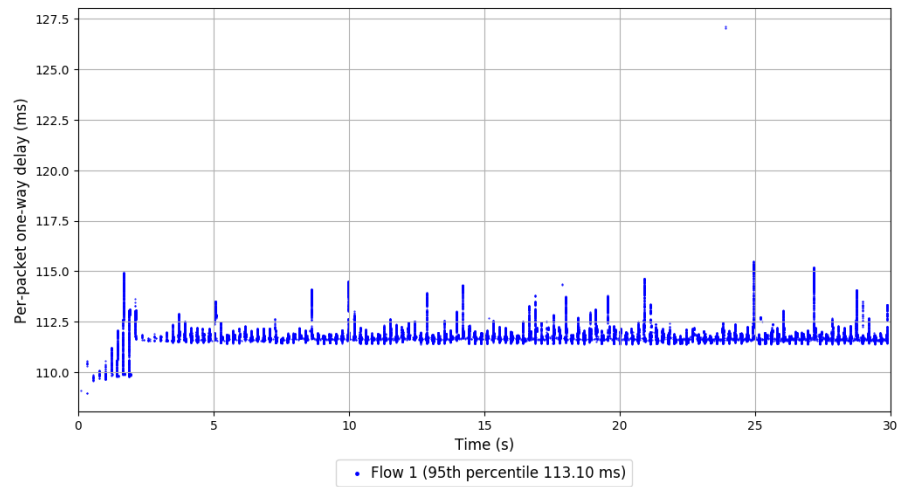
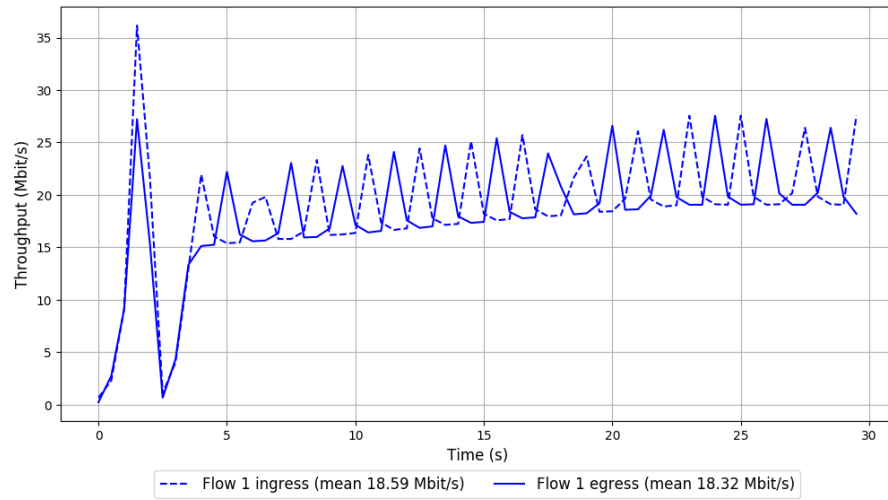
-- Flow 1:

Average throughput: 18.32 Mbit/s

95th percentile per-packet one-way delay: 113.098 ms

Loss rate: 2.19%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-11-20 23:00:01

End at: 2017-11-20 23:00:31

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 24.11 Mbit/s

95th percentile per-packet one-way delay: 113.978 ms

Loss rate: 0.22%

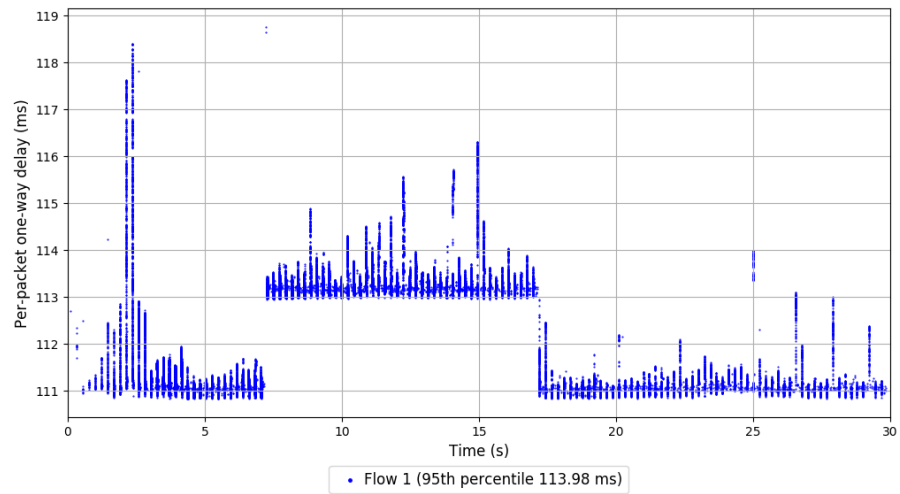
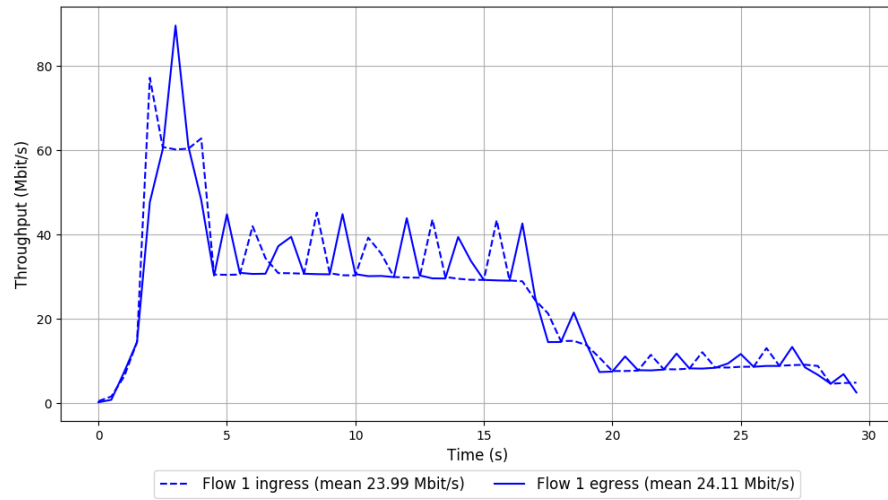
-- Flow 1:

Average throughput: 24.11 Mbit/s

95th percentile per-packet one-way delay: 113.978 ms

Loss rate: 0.22%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-11-20 23:10:59

End at: 2017-11-20 23:11:30

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 18.61 Mbit/s

95th percentile per-packet one-way delay: 120.928 ms

Loss rate: 0.20%

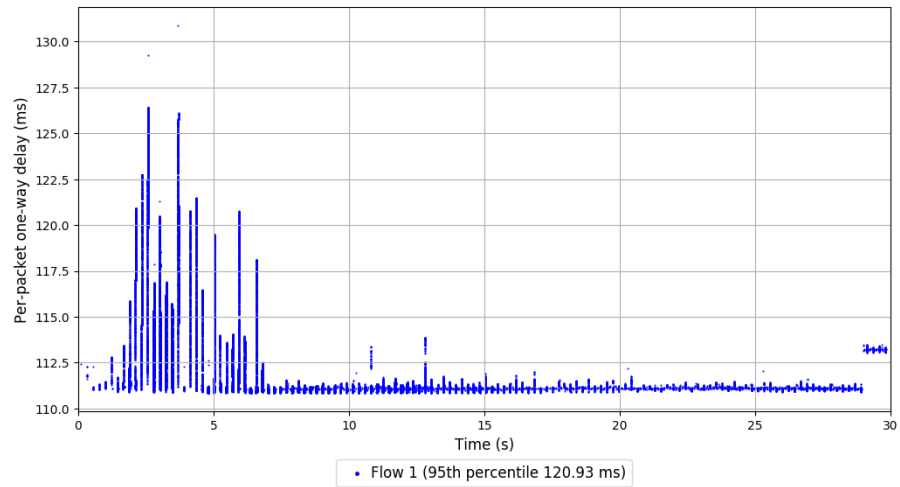
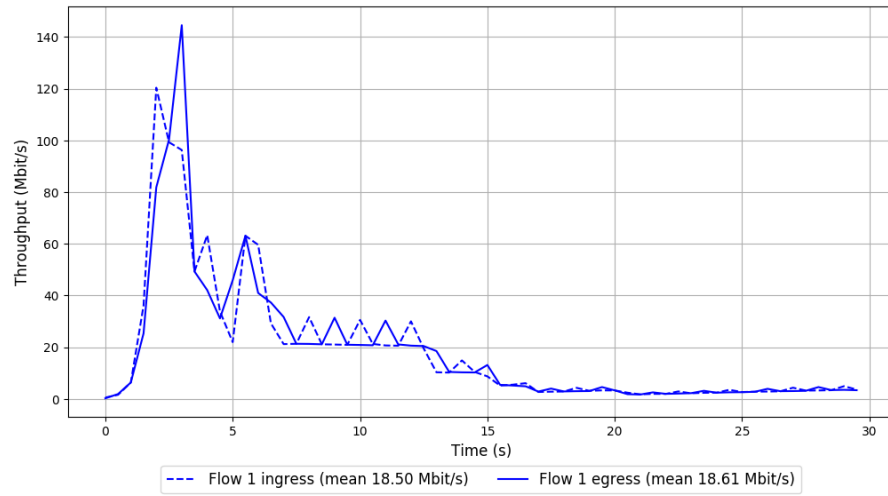
-- Flow 1:

Average throughput: 18.61 Mbit/s

95th percentile per-packet one-way delay: 120.928 ms

Loss rate: 0.20%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-11-20 23:21:45

End at: 2017-11-20 23:22:15

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 10.57 Mbit/s

95th percentile per-packet one-way delay: 113.823 ms

Loss rate: 0.50%

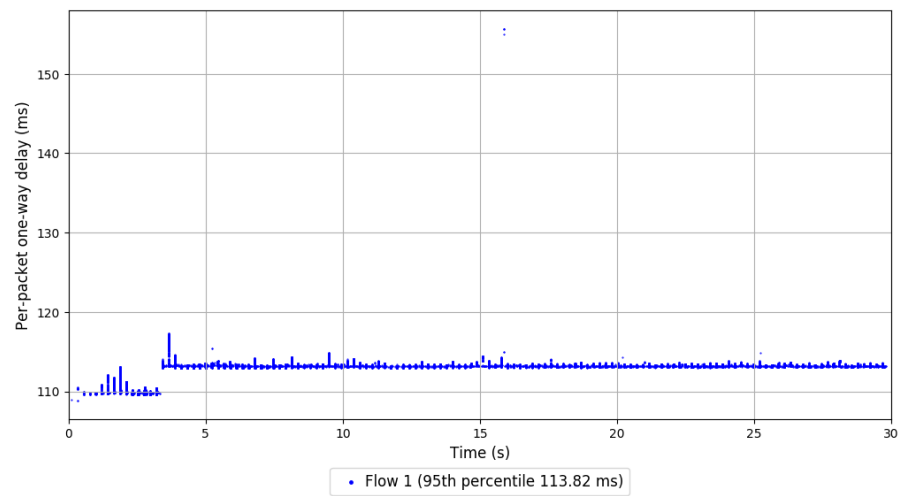
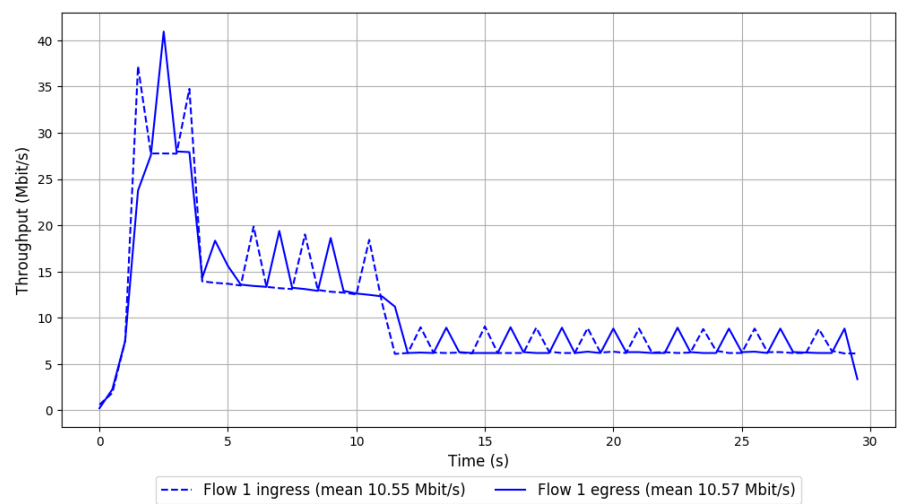
-- Flow 1:

Average throughput: 10.57 Mbit/s

95th percentile per-packet one-way delay: 113.823 ms

Loss rate: 0.50%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-11-20 21:47:08

End at: 2017-11-20 21:47:38

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.99 Mbit/s

95th percentile per-packet one-way delay: 187.833 ms

Loss rate: 2.24%

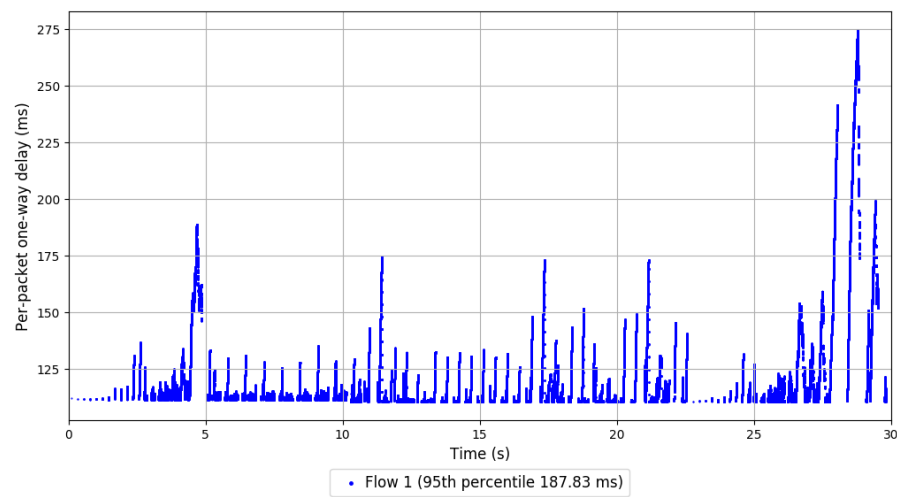
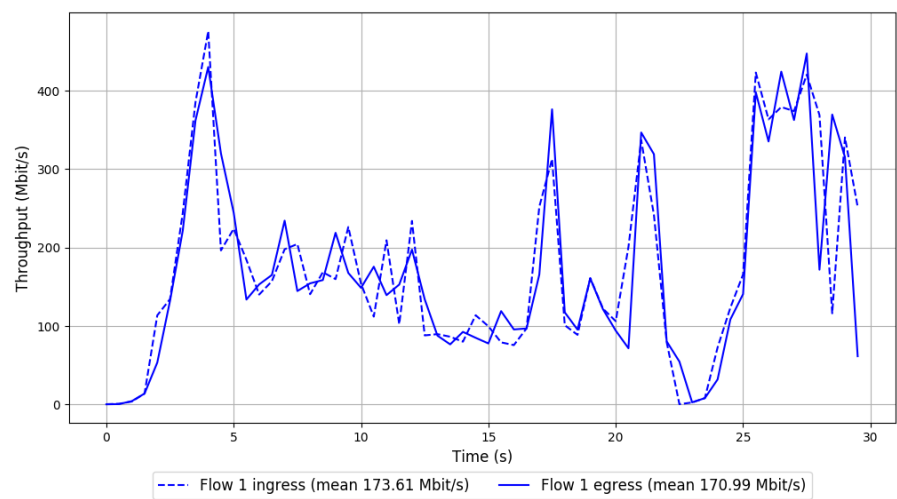
-- Flow 1:

Average throughput: 170.99 Mbit/s

95th percentile per-packet one-way delay: 187.833 ms

Loss rate: 2.24%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-11-20 21:58:24

End at: 2017-11-20 21:58:54

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 133.56 Mbit/s

95th percentile per-packet one-way delay: 159.708 ms

Loss rate: 1.08%

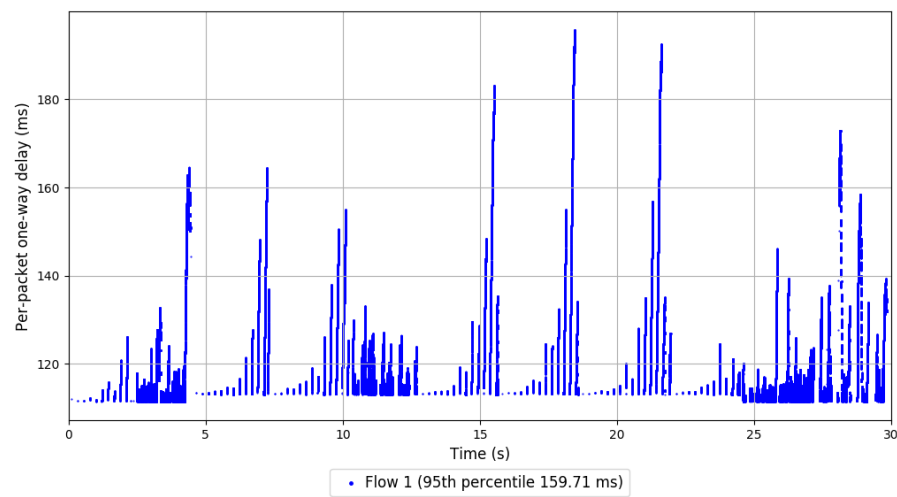
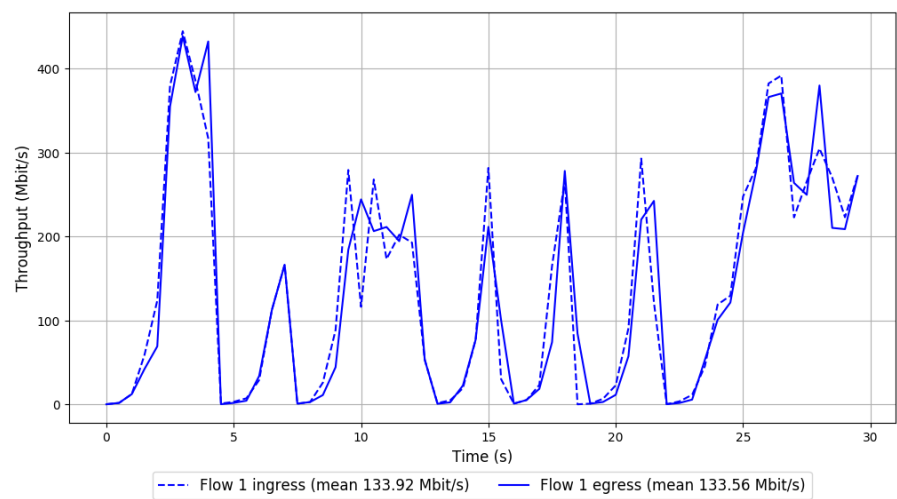
-- Flow 1:

Average throughput: 133.56 Mbit/s

95th percentile per-packet one-way delay: 159.708 ms

Loss rate: 1.08%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-11-20 22:09:37

End at: 2017-11-20 22:10:07

Below is generated by plot.py at 2017-11-21 01:49:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 162.97 Mbit/s

95th percentile per-packet one-way delay: 132.998 ms

Loss rate: 0.90%

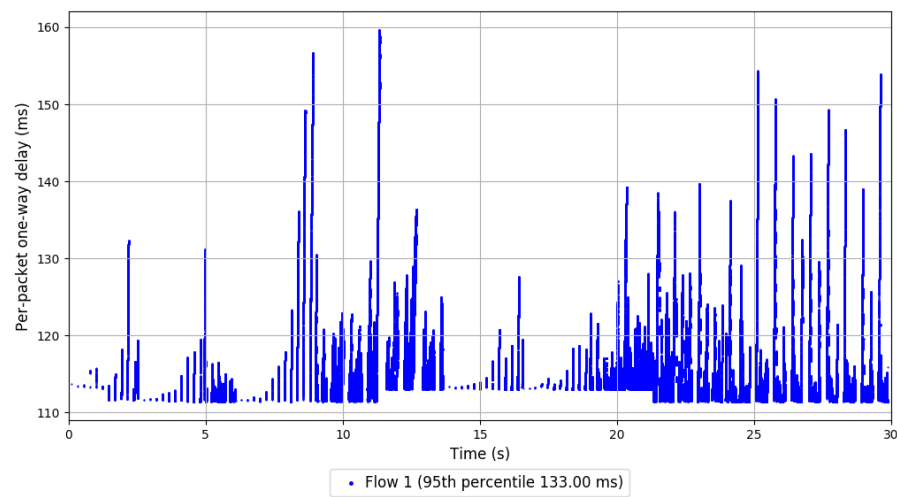
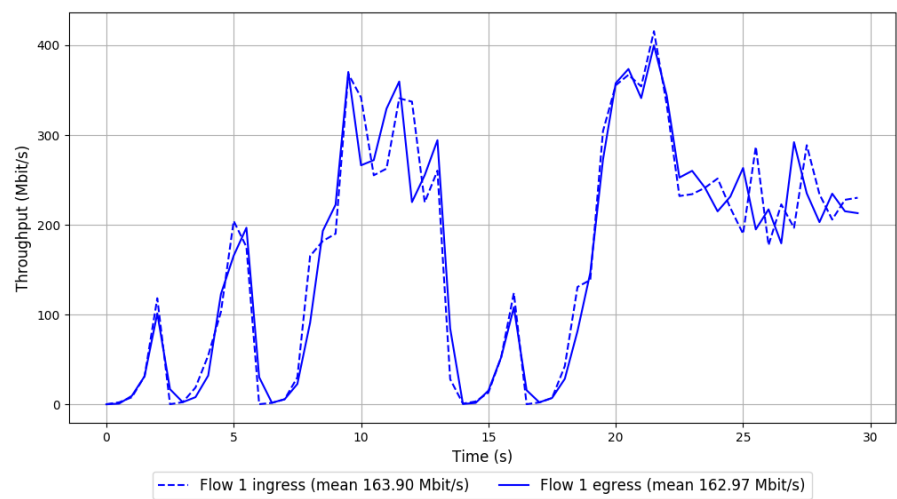
-- Flow 1:

Average throughput: 162.97 Mbit/s

95th percentile per-packet one-way delay: 132.998 ms

Loss rate: 0.90%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-11-20 22:20:43

End at: 2017-11-20 22:21:13

Below is generated by plot.py at 2017-11-21 01:50:50

Datalink statistics

-- Total of 1 flow:

Average throughput: 226.60 Mbit/s

95th percentile per-packet one-way delay: 134.214 ms

Loss rate: 0.85%

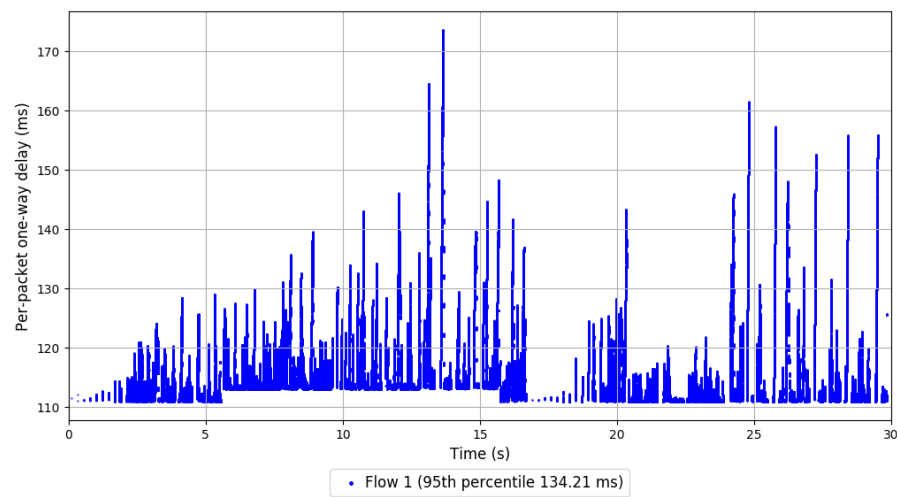
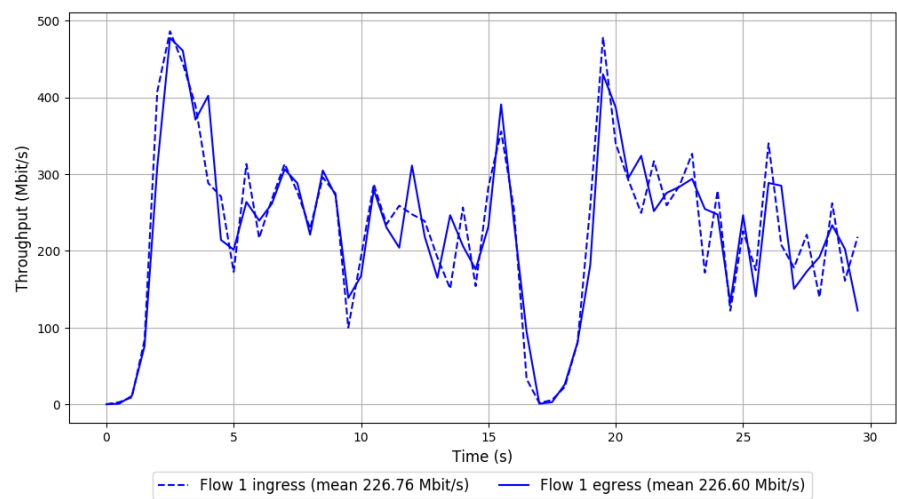
-- Flow 1:

Average throughput: 226.60 Mbit/s

95th percentile per-packet one-way delay: 134.214 ms

Loss rate: 0.85%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-11-20 22:31:49

End at: 2017-11-20 22:32:19

Below is generated by plot.py at 2017-11-21 01:51:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 247.12 Mbit/s

95th percentile per-packet one-way delay: 191.370 ms

Loss rate: 0.71%

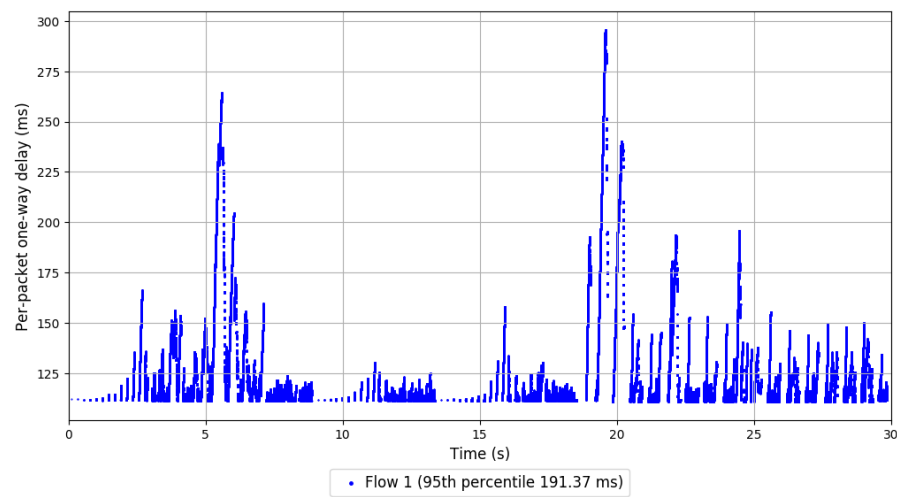
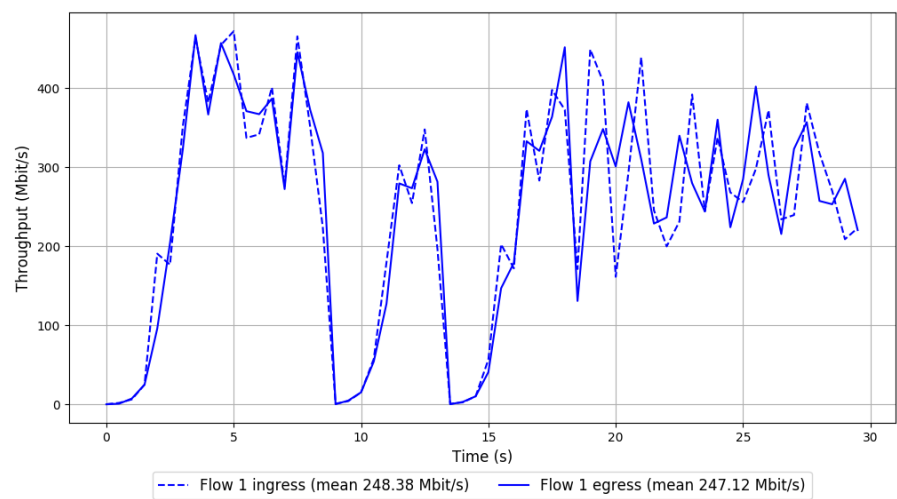
-- Flow 1:

Average throughput: 247.12 Mbit/s

95th percentile per-packet one-way delay: 191.370 ms

Loss rate: 0.71%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-11-20 22:43:05

End at: 2017-11-20 22:43:36

Below is generated by plot.py at 2017-11-21 01:51:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 219.24 Mbit/s

95th percentile per-packet one-way delay: 160.798 ms

Loss rate: 0.93%

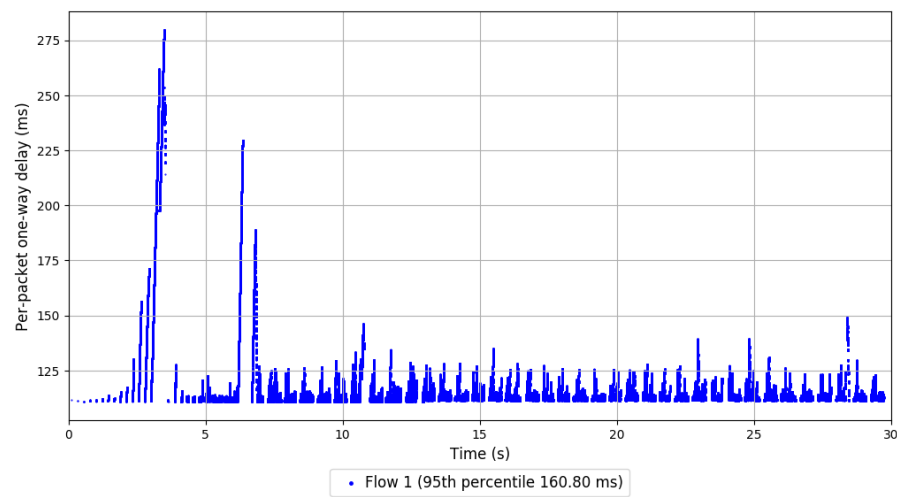
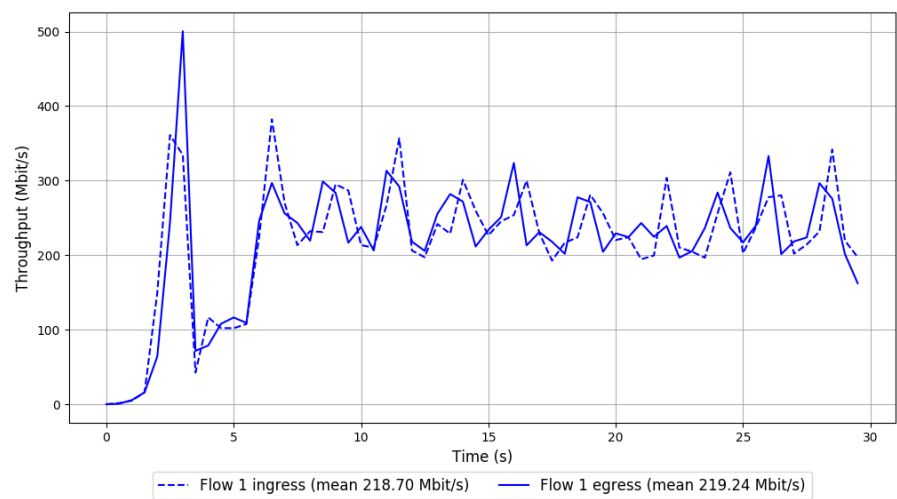
-- Flow 1:

Average throughput: 219.24 Mbit/s

95th percentile per-packet one-way delay: 160.798 ms

Loss rate: 0.93%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-11-20 22:53:54

End at: 2017-11-20 22:54:24

Below is generated by plot.py at 2017-11-21 01:51:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 167.30 Mbit/s

95th percentile per-packet one-way delay: 161.140 ms

Loss rate: 1.01%

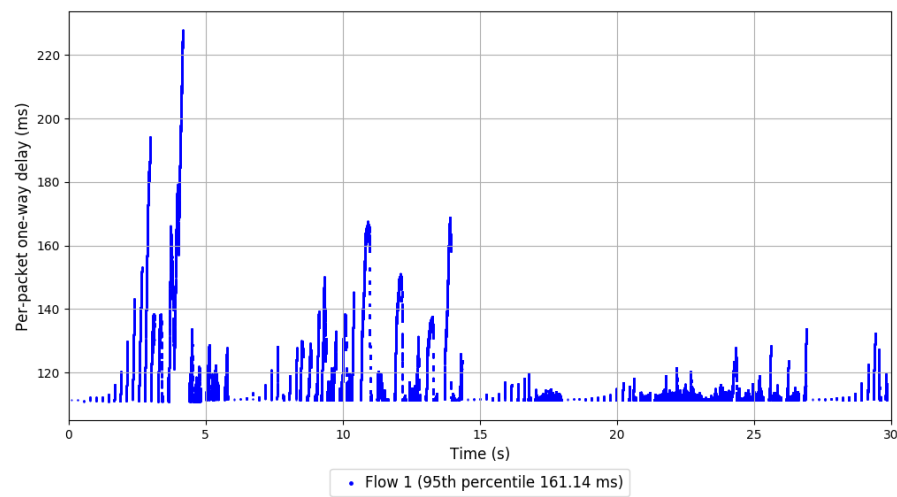
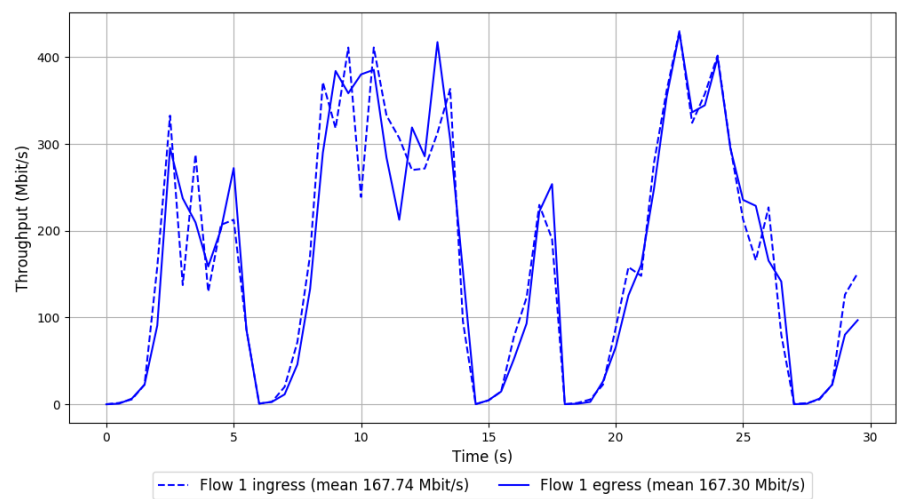
-- Flow 1:

Average throughput: 167.30 Mbit/s

95th percentile per-packet one-way delay: 161.140 ms

Loss rate: 1.01%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-11-20 23:04:52

End at: 2017-11-20 23:05:22

Below is generated by plot.py at 2017-11-21 01:51:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 222.72 Mbit/s

95th percentile per-packet one-way delay: 235.895 ms

Loss rate: 2.16%

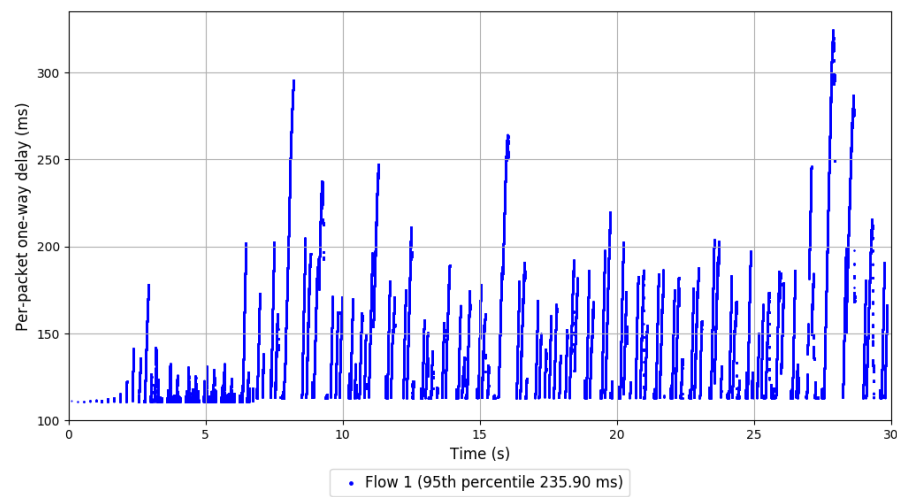
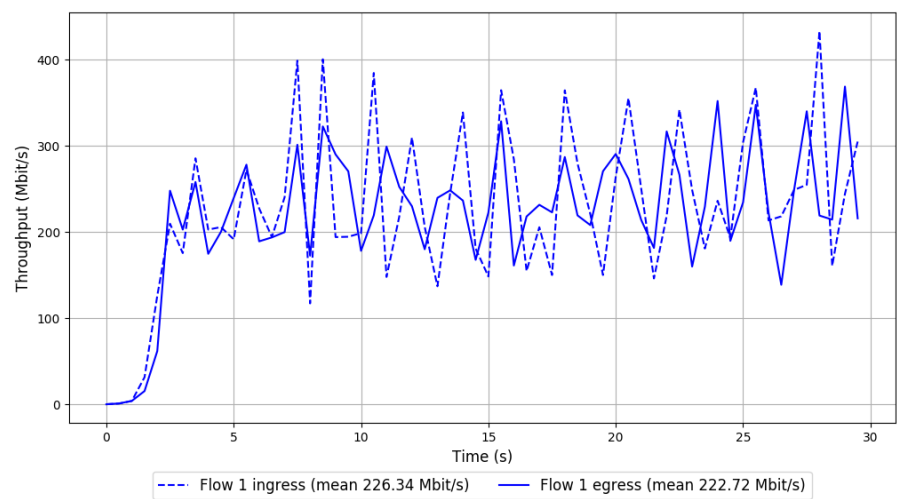
-- Flow 1:

Average throughput: 222.72 Mbit/s

95th percentile per-packet one-way delay: 235.895 ms

Loss rate: 2.16%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-11-20 23:15:39

End at: 2017-11-20 23:16:09

Below is generated by plot.py at 2017-11-21 01:51:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 216.26 Mbit/s

95th percentile per-packet one-way delay: 140.496 ms

Loss rate: 1.43%

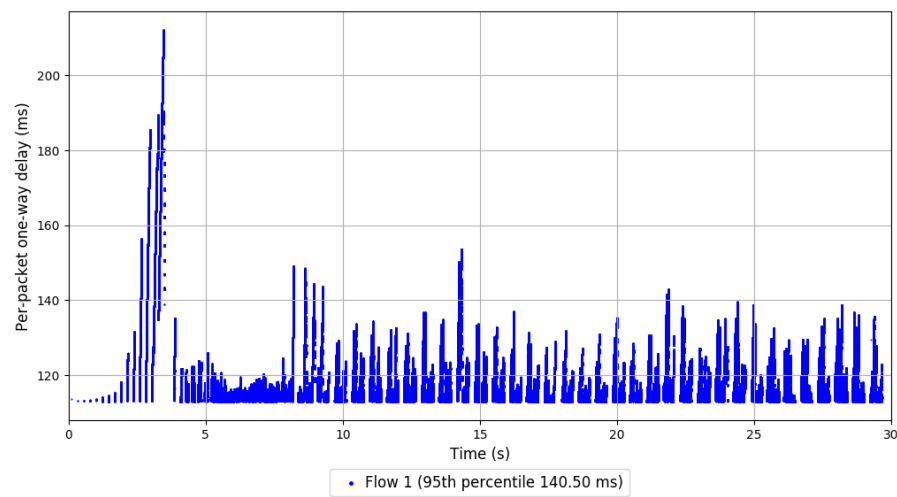
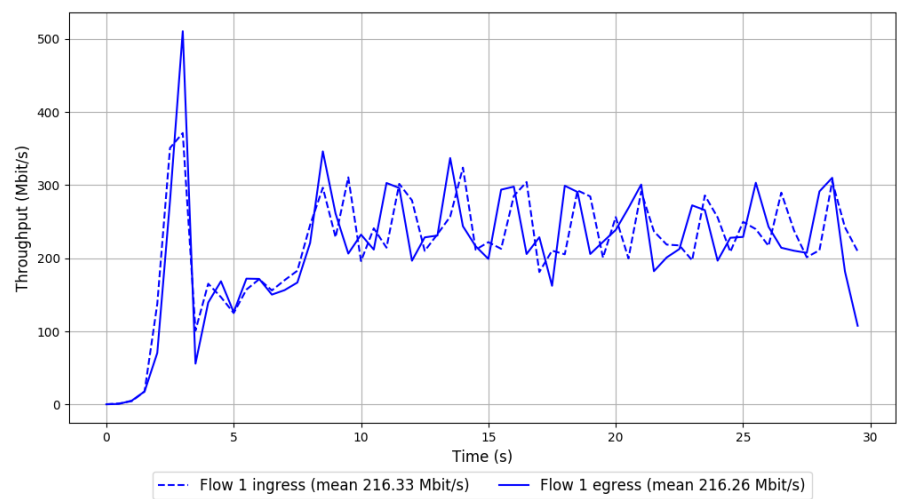
-- Flow 1:

Average throughput: 216.26 Mbit/s

95th percentile per-packet one-way delay: 140.496 ms

Loss rate: 1.43%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-11-20 23:26:39

End at: 2017-11-20 23:27:09

Below is generated by plot.py at 2017-11-21 01:51:45

Datalink statistics

-- Total of 1 flow:

Average throughput: 135.71 Mbit/s

95th percentile per-packet one-way delay: 217.492 ms

Loss rate: 1.36%

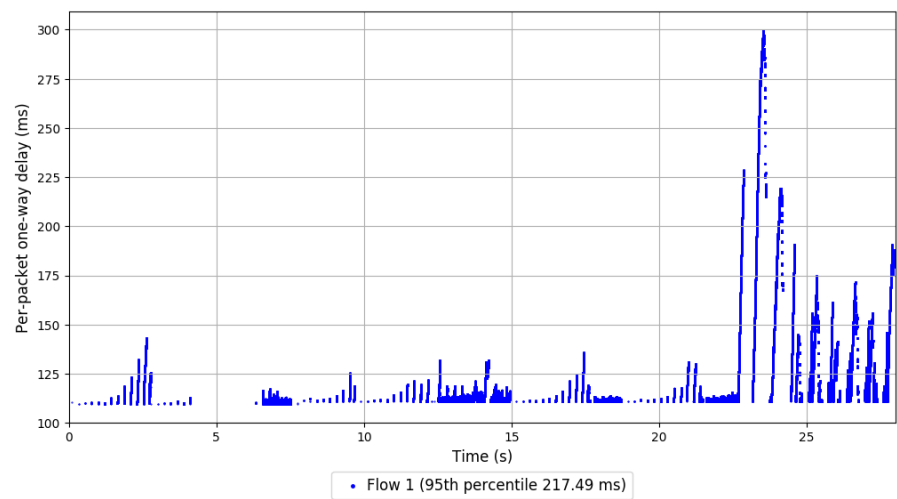
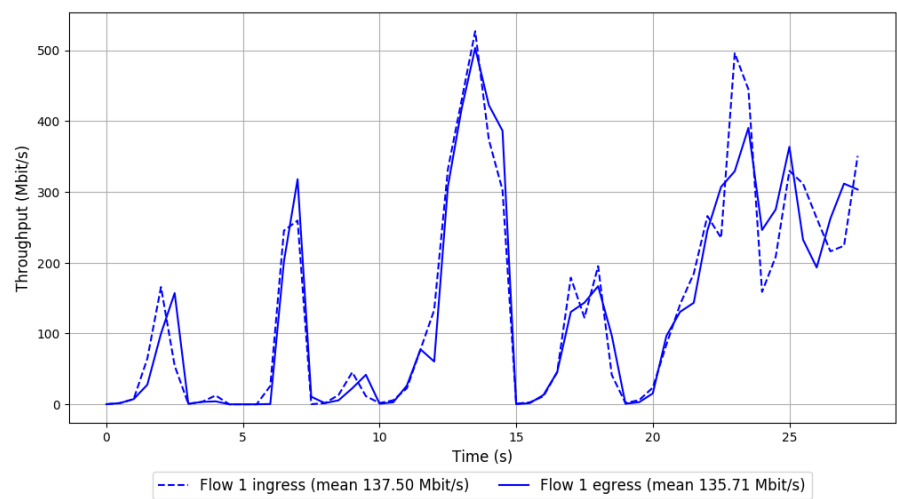
-- Flow 1:

Average throughput: 135.71 Mbit/s

95th percentile per-packet one-way delay: 217.492 ms

Loss rate: 1.36%

Run 10: Report of Verus — Data Link

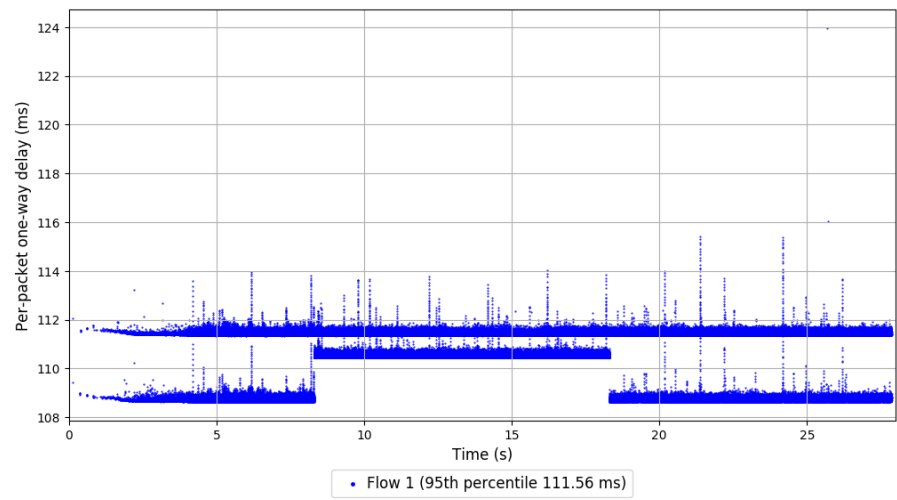
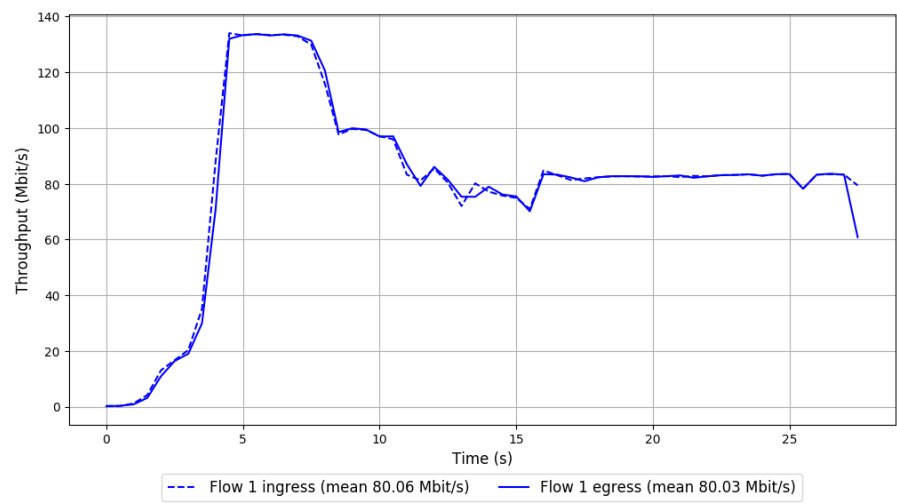


```
Run 1: Statistics of Copa

Start at: 2017-11-20 21:51:08
End at: 2017-11-20 21:51:38

# Below is generated by plot.py at 2017-11-21 01:52:03
# Datalink statistics
-- Total of 1 flow:
Average throughput: 80.03 Mbit/s
95th percentile per-packet one-way delay: 111.562 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 80.03 Mbit/s
95th percentile per-packet one-way delay: 111.562 ms
Loss rate: 0.83%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-11-20 22:02:22

End at: 2017-11-20 22:02:52

Below is generated by plot.py at 2017-11-21 01:52:54

Datalink statistics

-- Total of 1 flow:

Average throughput: 73.68 Mbit/s

95th percentile per-packet one-way delay: 113.184 ms

Loss rate: 0.85%

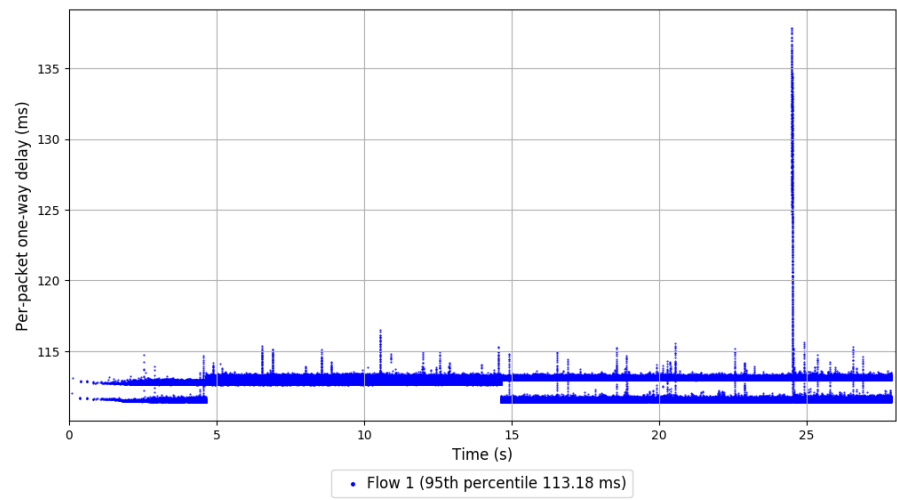
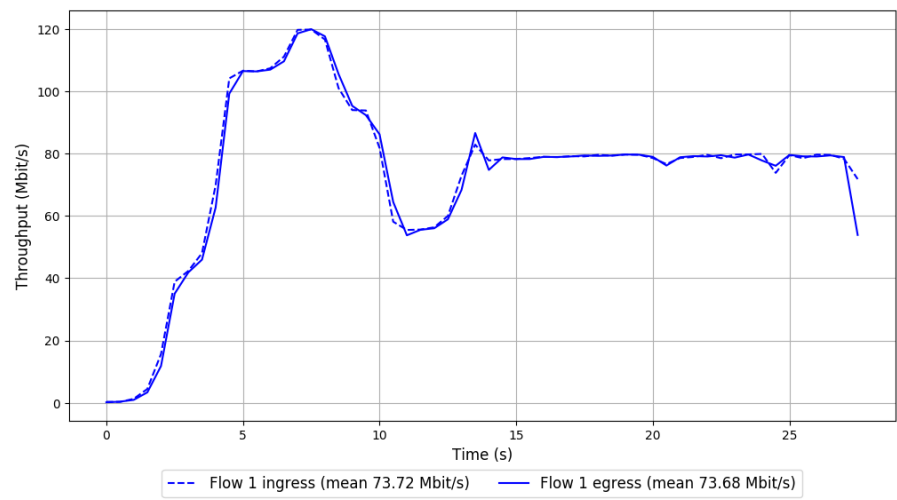
-- Flow 1:

Average throughput: 73.68 Mbit/s

95th percentile per-packet one-way delay: 113.184 ms

Loss rate: 0.85%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-11-20 22:13:26

End at: 2017-11-20 22:13:56

Below is generated by plot.py at 2017-11-21 01:53:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.31 Mbit/s

95th percentile per-packet one-way delay: 113.146 ms

Loss rate: 0.20%

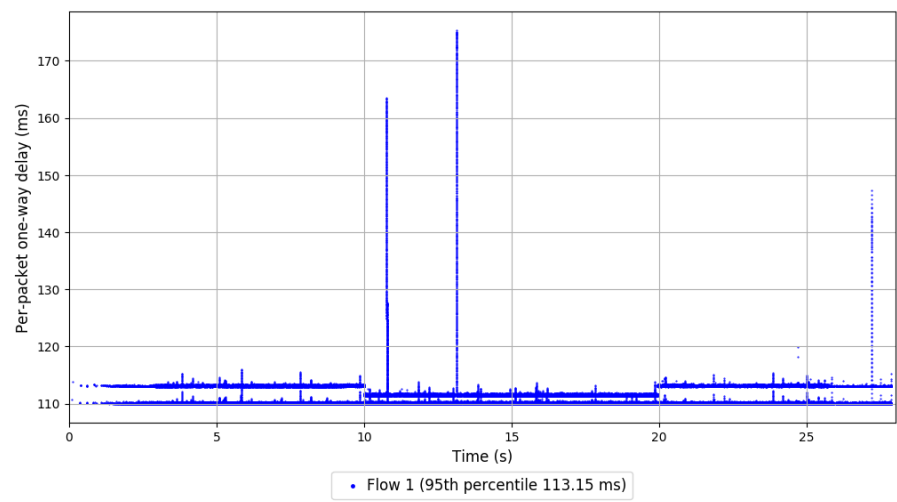
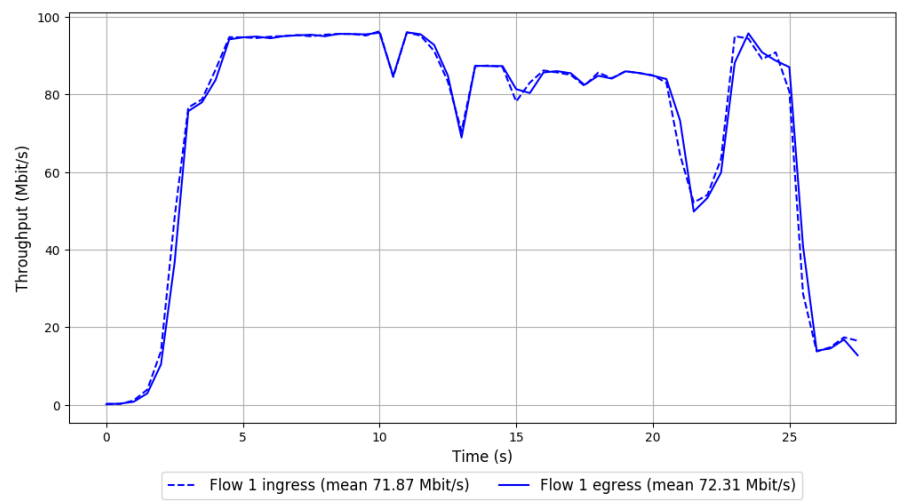
-- Flow 1:

Average throughput: 72.31 Mbit/s

95th percentile per-packet one-way delay: 113.146 ms

Loss rate: 0.20%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-11-20 22:24:33

End at: 2017-11-20 22:25:03

Below is generated by plot.py at 2017-11-21 01:53:11

Datalink statistics

-- Total of 1 flow:

Average throughput: 67.84 Mbit/s

95th percentile per-packet one-way delay: 113.106 ms

Loss rate: 0.45%

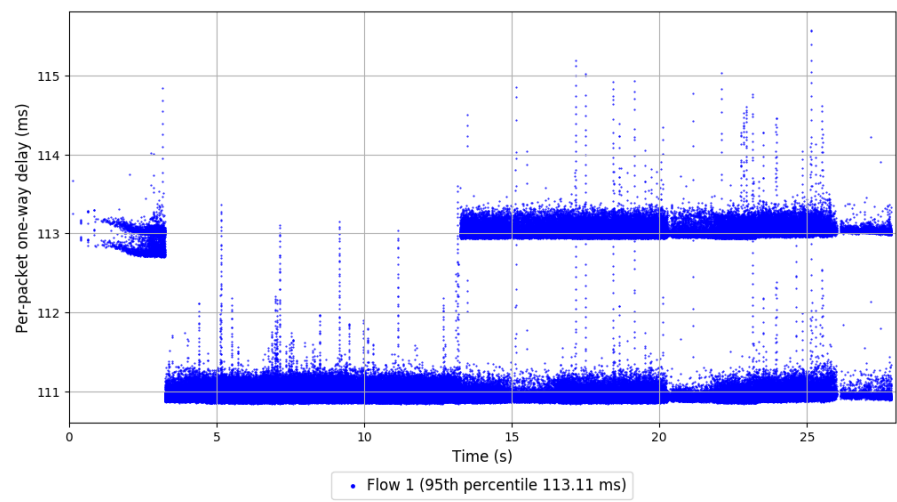
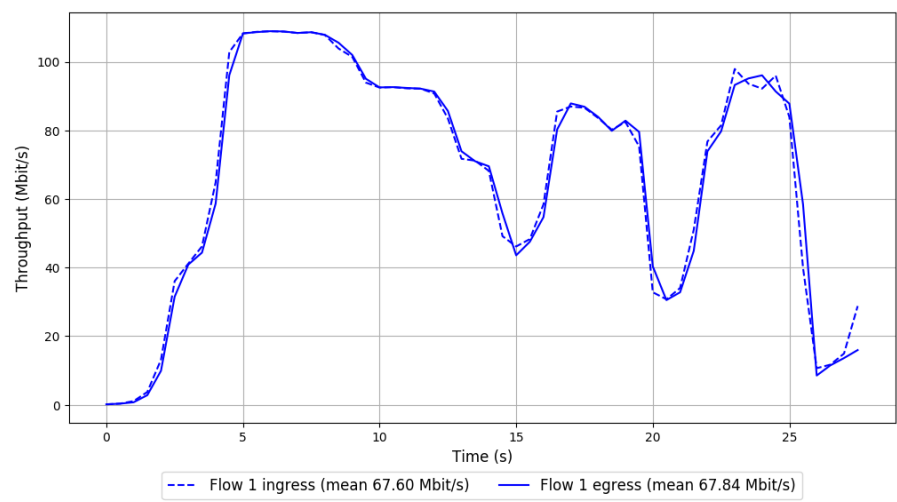
-- Flow 1:

Average throughput: 67.84 Mbit/s

95th percentile per-packet one-way delay: 113.106 ms

Loss rate: 0.45%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-11-20 22:35:54

End at: 2017-11-20 22:36:24

Below is generated by plot.py at 2017-11-21 01:53:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 72.50 Mbit/s

95th percentile per-packet one-way delay: 111.516 ms

Loss rate: 0.46%

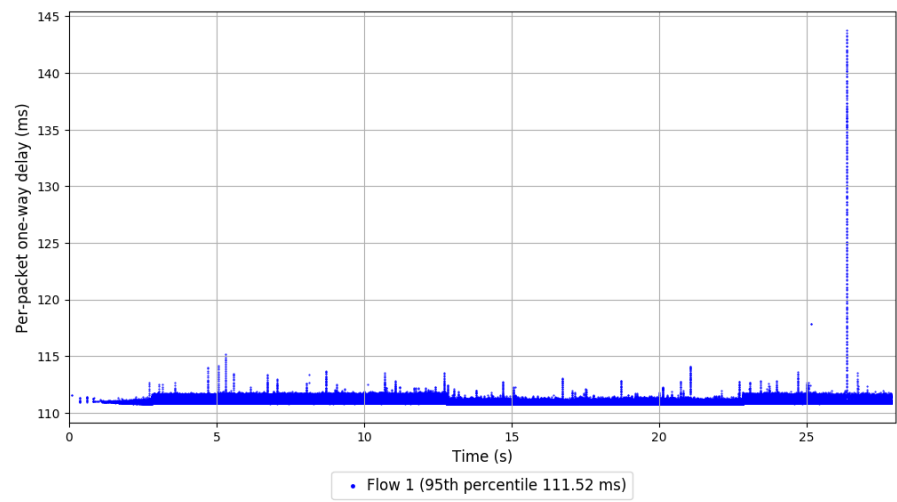
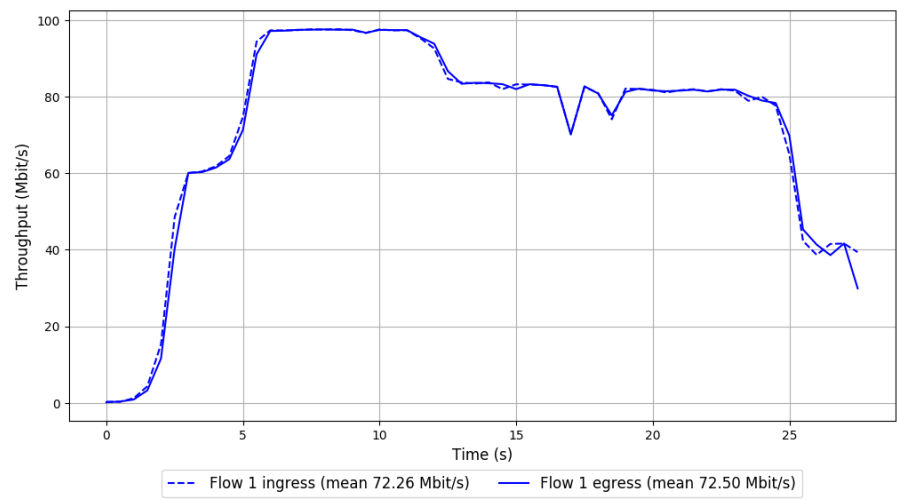
-- Flow 1:

Average throughput: 72.50 Mbit/s

95th percentile per-packet one-way delay: 111.516 ms

Loss rate: 0.46%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-11-20 22:46:55

End at: 2017-11-20 22:47:25

Below is generated by plot.py at 2017-11-21 01:53:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 63.89 Mbit/s

95th percentile per-packet one-way delay: 111.539 ms

Loss rate: 0.49%

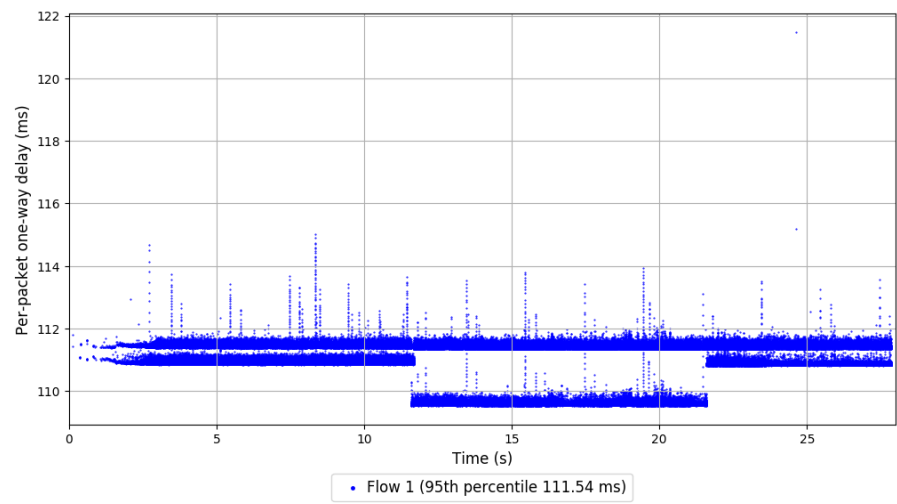
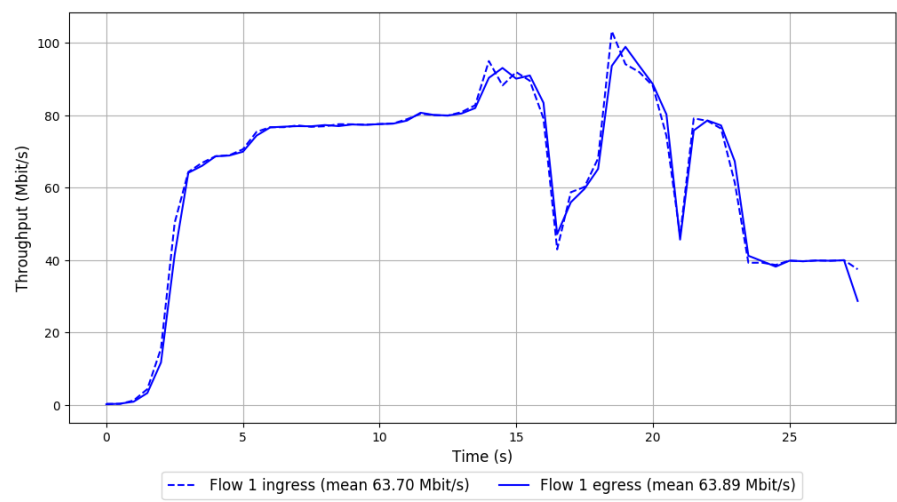
-- Flow 1:

Average throughput: 63.89 Mbit/s

95th percentile per-packet one-way delay: 111.539 ms

Loss rate: 0.49%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-11-20 22:57:38

End at: 2017-11-20 22:58:08

Below is generated by plot.py at 2017-11-21 01:54:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 74.63 Mbit/s

95th percentile per-packet one-way delay: 111.282 ms

Loss rate: 1.04%

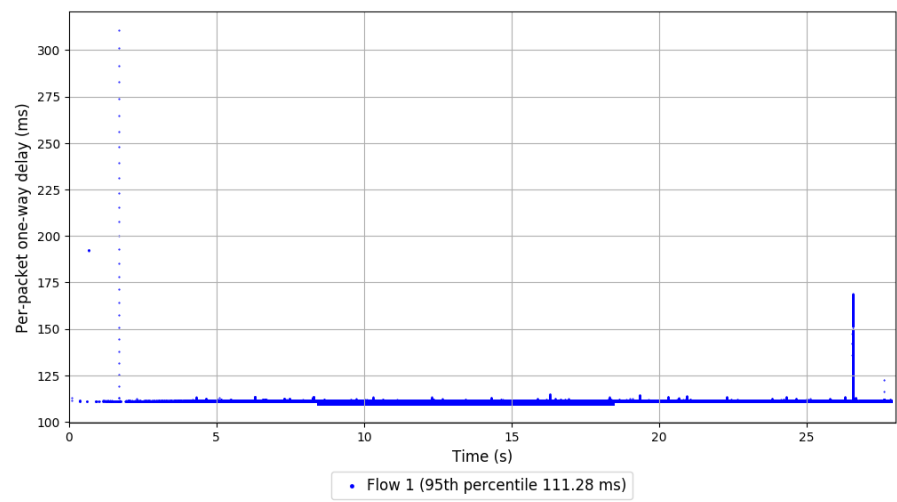
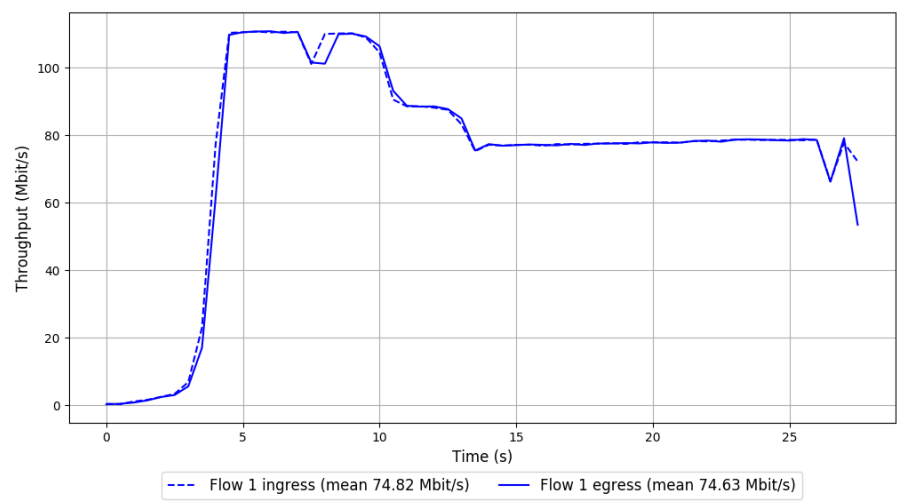
-- Flow 1:

Average throughput: 74.63 Mbit/s

95th percentile per-packet one-way delay: 111.282 ms

Loss rate: 1.04%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-11-20 23:08:39

End at: 2017-11-20 23:09:09

Below is generated by plot.py at 2017-11-21 01:54:03

Datalink statistics

-- Total of 1 flow:

Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 113.116 ms

Loss rate: 0.31%

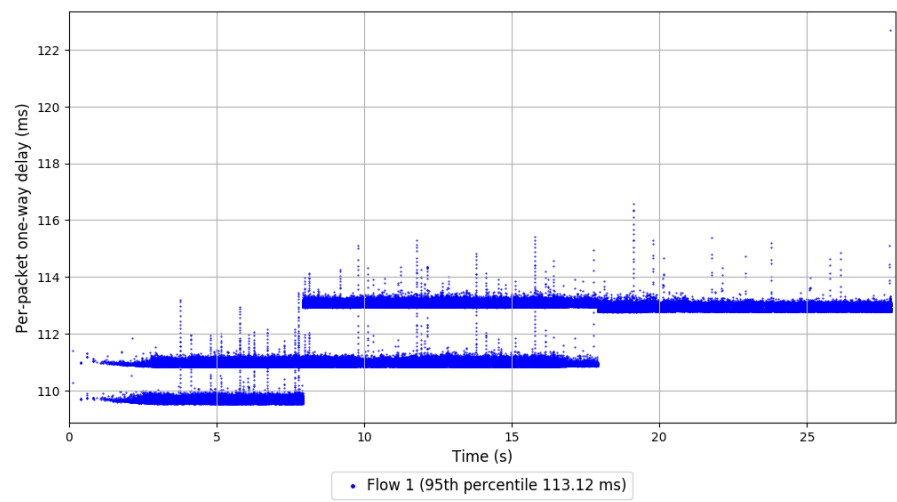
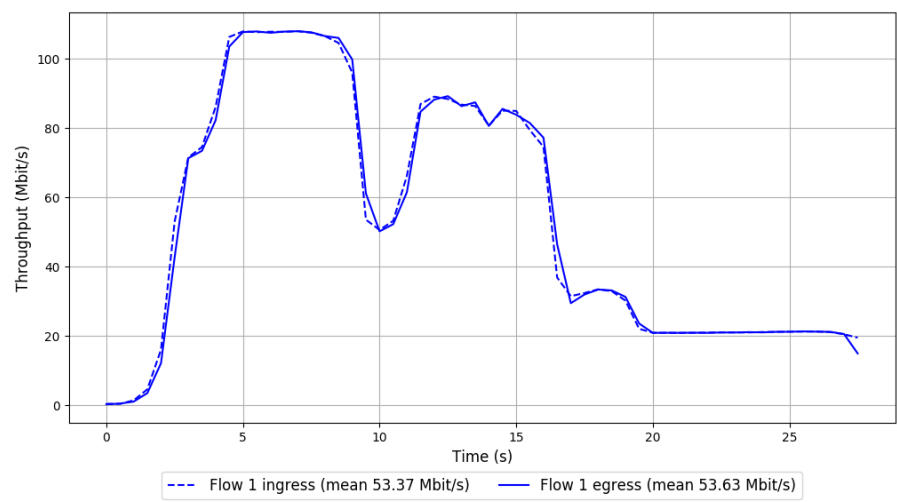
-- Flow 1:

Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 113.116 ms

Loss rate: 0.31%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-11-20 23:19:22

End at: 2017-11-20 23:19:52

Below is generated by plot.py at 2017-11-21 01:54:28

Datalink statistics

-- Total of 1 flow:

Average throughput: 77.83 Mbit/s

95th percentile per-packet one-way delay: 113.097 ms

Loss rate: 0.89%

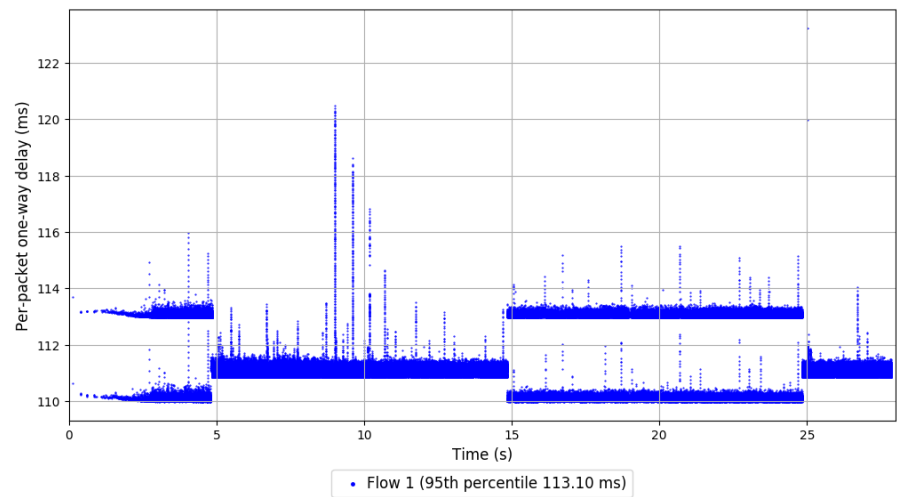
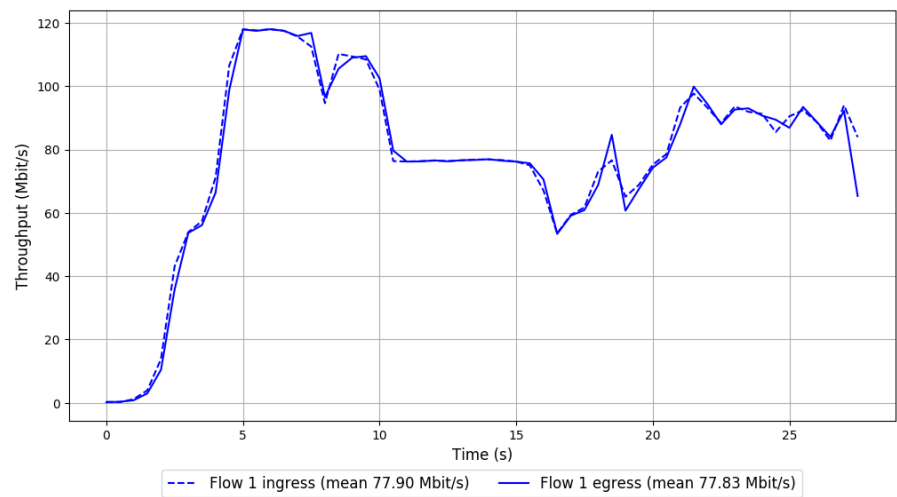
-- Flow 1:

Average throughput: 77.83 Mbit/s

95th percentile per-packet one-way delay: 113.097 ms

Loss rate: 0.89%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-11-20 23:30:19

End at: 2017-11-20 23:30:49

Below is generated by plot.py at 2017-11-21 01:55:20

Datalink statistics

-- Total of 1 flow:

Average throughput: 75.08 Mbit/s

95th percentile per-packet one-way delay: 112.933 ms

Loss rate: 0.89%

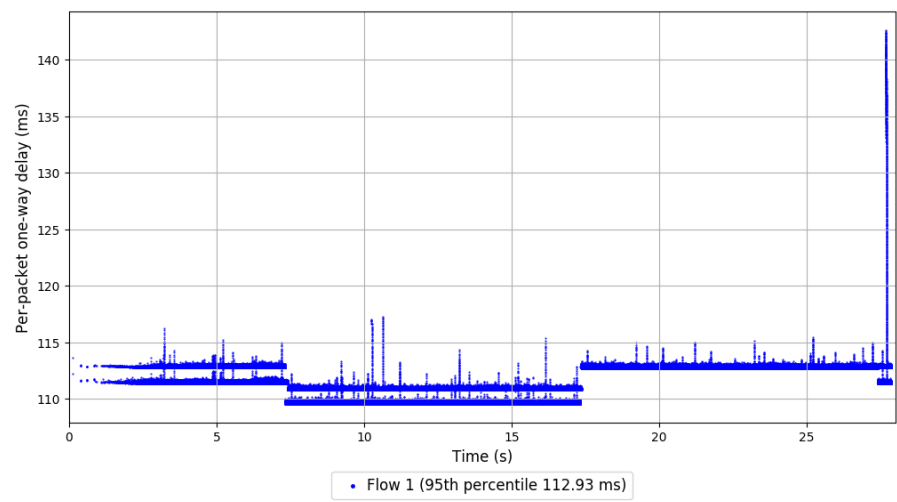
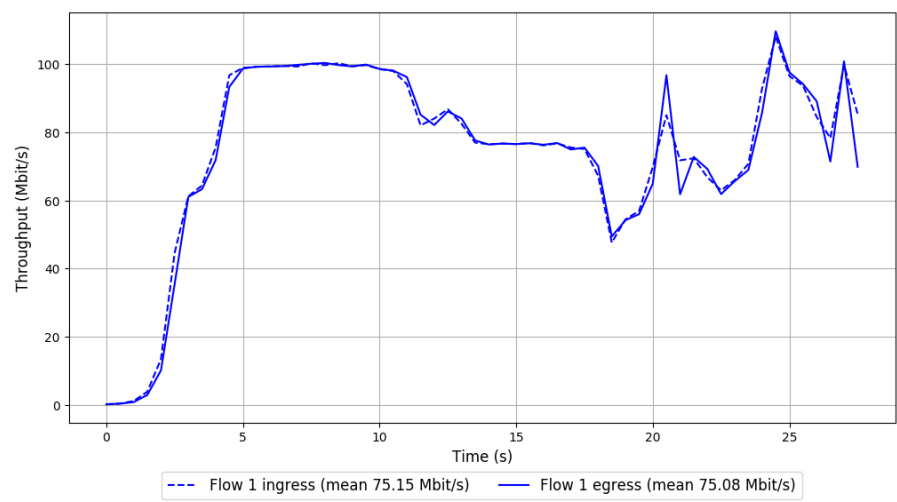
-- Flow 1:

Average throughput: 75.08 Mbit/s

95th percentile per-packet one-way delay: 112.933 ms

Loss rate: 0.89%

Run 10: Report of Copa — Data Link

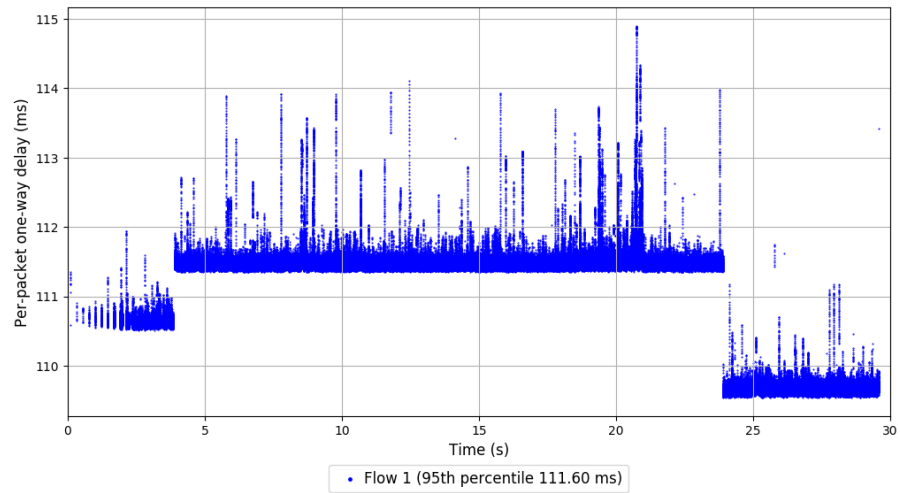
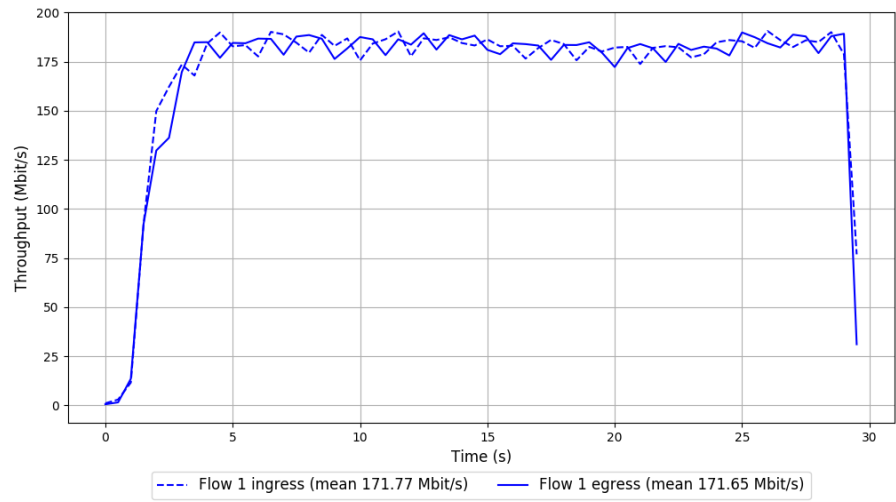


```
Run 1: Statistics of Indigo

Start at: 2017-11-20 21:46:14
End at: 2017-11-20 21:46:44

# Below is generated by plot.py at 2017-11-21 01:56:08
# Datalink statistics
-- Total of 1 flow:
Average throughput: 171.65 Mbit/s
95th percentile per-packet one-way delay: 111.597 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 171.65 Mbit/s
95th percentile per-packet one-way delay: 111.597 ms
Loss rate: 0.80%
```


Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-11-20 21:57:30

End at: 2017-11-20 21:58:00

Below is generated by plot.py at 2017-11-21 01:56:14

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.27 Mbit/s

95th percentile per-packet one-way delay: 113.220 ms

Loss rate: 0.80%

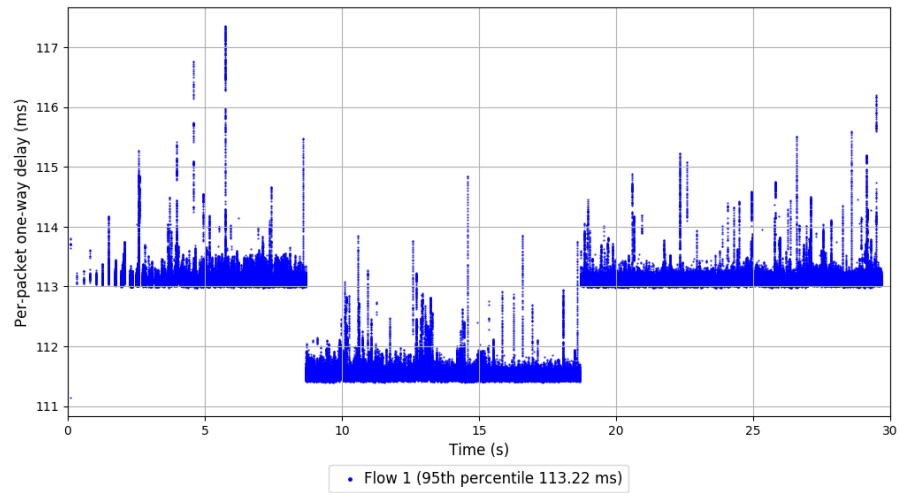
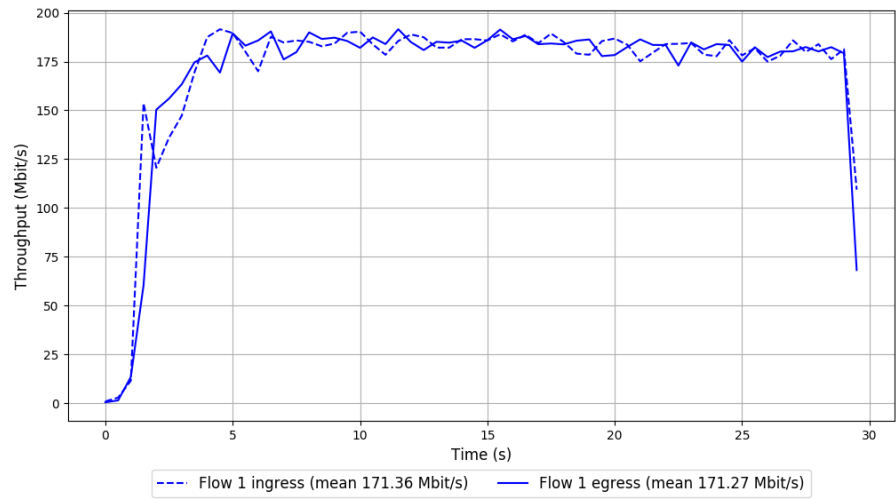
-- Flow 1:

Average throughput: 171.27 Mbit/s

95th percentile per-packet one-way delay: 113.220 ms

Loss rate: 0.80%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-11-20 22:08:43

End at: 2017-11-20 22:09:13

Below is generated by plot.py at 2017-11-21 01:56:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 170.82 Mbit/s

95th percentile per-packet one-way delay: 113.203 ms

Loss rate: 0.82%

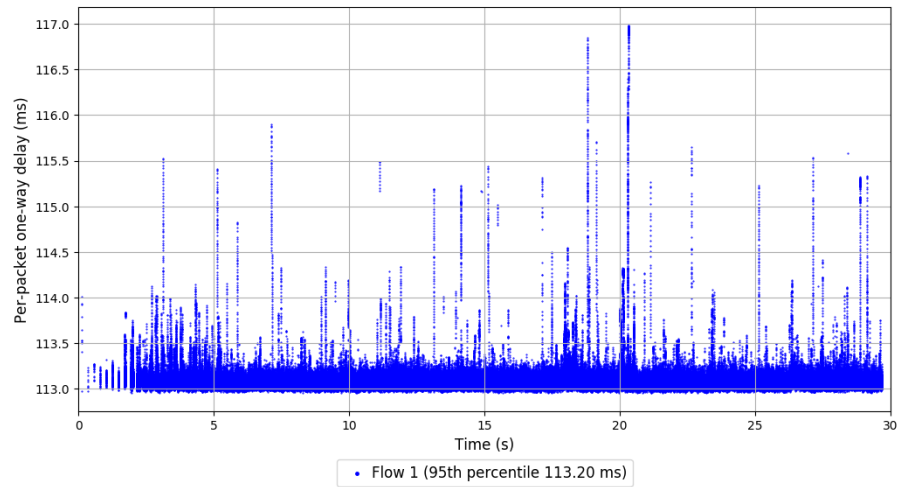
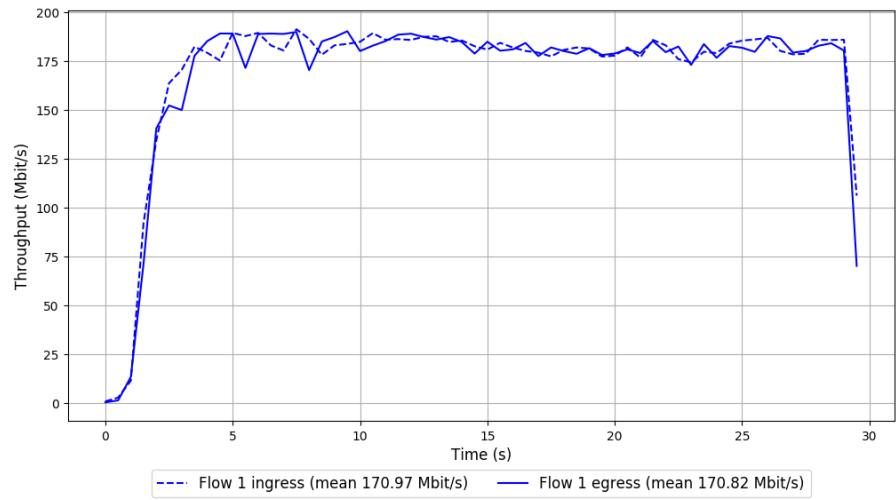
-- Flow 1:

Average throughput: 170.82 Mbit/s

95th percentile per-packet one-way delay: 113.203 ms

Loss rate: 0.82%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-11-20 22:19:49

End at: 2017-11-20 22:20:19

Below is generated by plot.py at 2017-11-21 01:56:30

Datalink statistics

-- Total of 1 flow:

Average throughput: 169.82 Mbit/s

95th percentile per-packet one-way delay: 113.224 ms

Loss rate: 0.75%

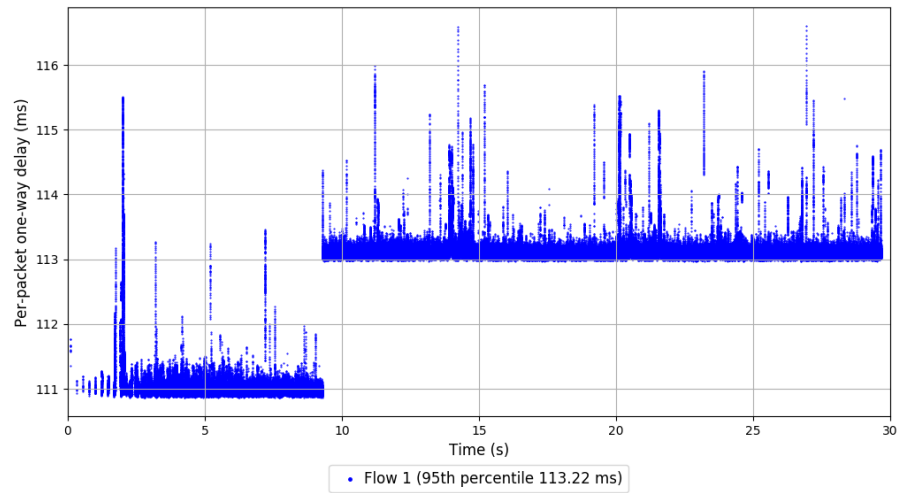
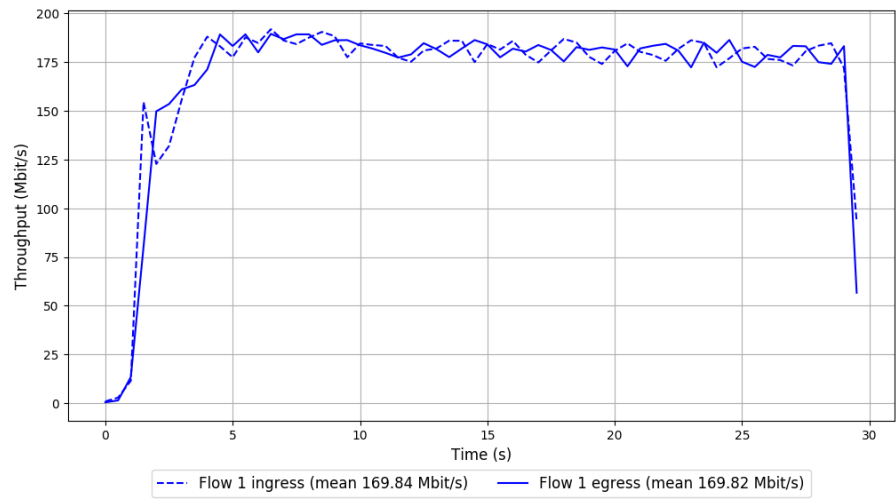
-- Flow 1:

Average throughput: 169.82 Mbit/s

95th percentile per-packet one-way delay: 113.224 ms

Loss rate: 0.75%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-11-20 22:30:55

End at: 2017-11-20 22:31:25

Below is generated by plot.py at 2017-11-21 01:56:36

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.30 Mbit/s

95th percentile per-packet one-way delay: 111.550 ms

Loss rate: 0.77%

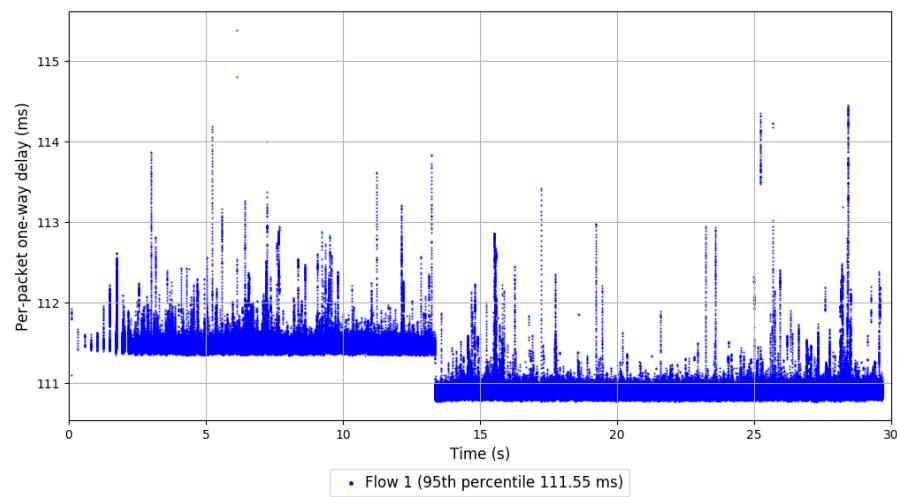
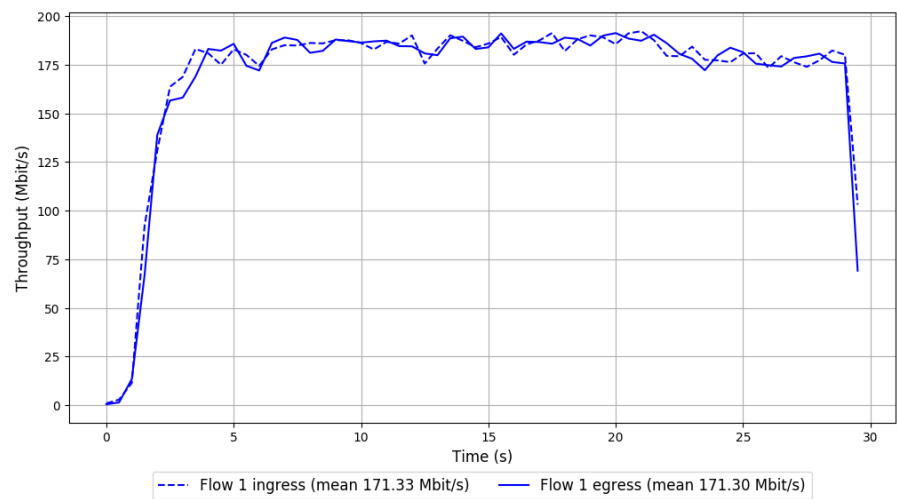
-- Flow 1:

Average throughput: 171.30 Mbit/s

95th percentile per-packet one-way delay: 111.550 ms

Loss rate: 0.77%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-11-20 22:42:13

End at: 2017-11-20 22:42:43

Below is generated by plot.py at 2017-11-21 01:56:46

Datalink statistics

-- Total of 1 flow:

Average throughput: 165.68 Mbit/s

95th percentile per-packet one-way delay: 111.611 ms

Loss rate: 0.91%

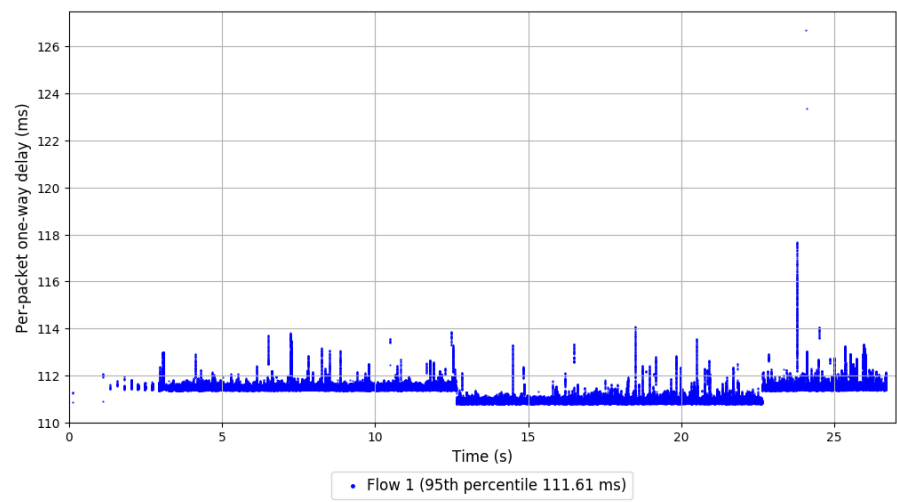
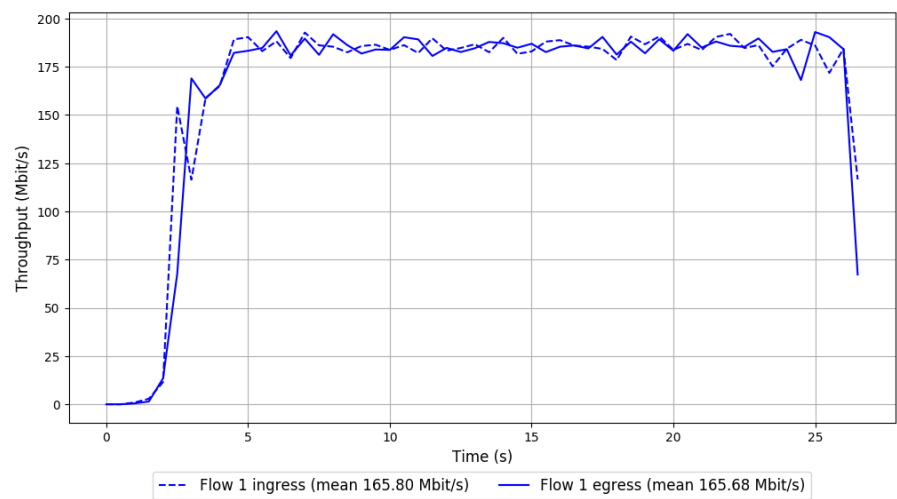
-- Flow 1:

Average throughput: 165.68 Mbit/s

95th percentile per-packet one-way delay: 111.611 ms

Loss rate: 0.91%

Run 6: Report of Indigo — Data Link

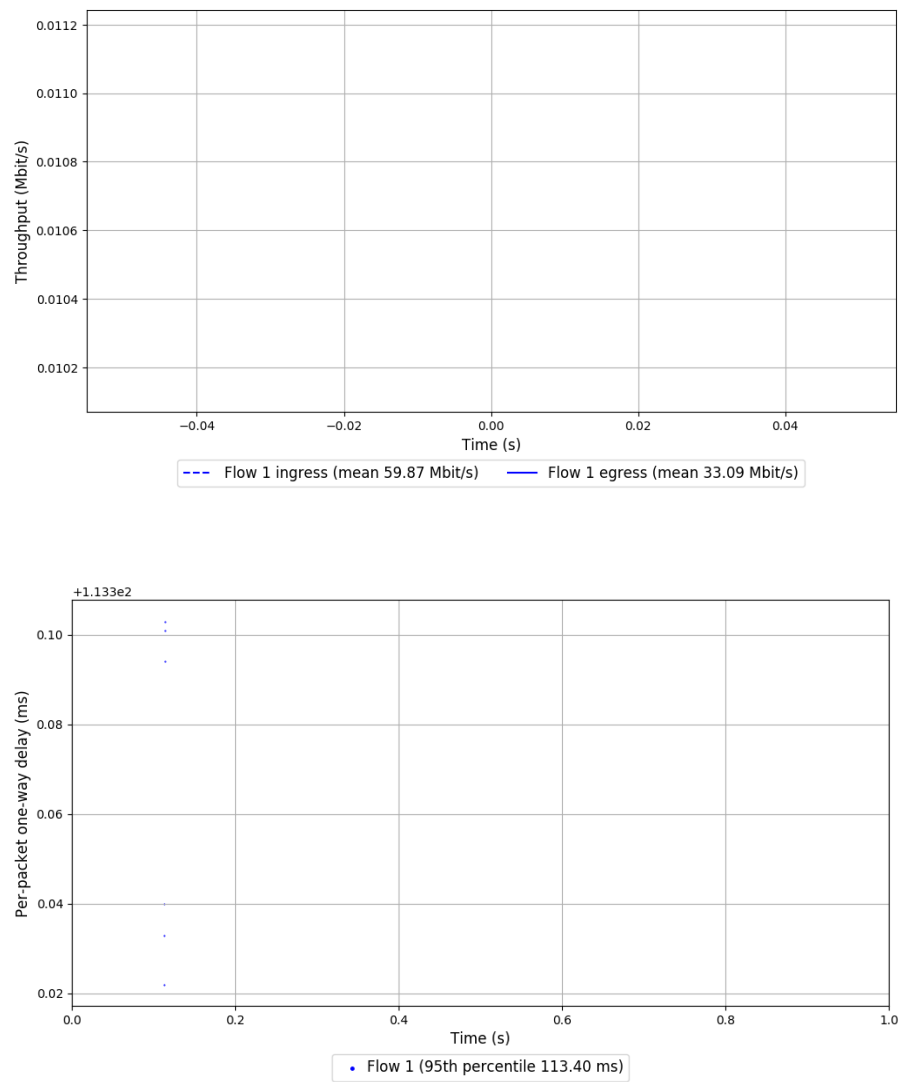


Run 7: Statistics of Indigo

Start at: 2017-11-20 22:53:13

End at: 2017-11-20 22:53:44

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-11-20 23:03:59

End at: 2017-11-20 23:04:29

Below is generated by plot.py at 2017-11-21 01:57:16

Datalink statistics

-- Total of 1 flow:

Average throughput: 162.97 Mbit/s

95th percentile per-packet one-way delay: 113.213 ms

Loss rate: 0.95%

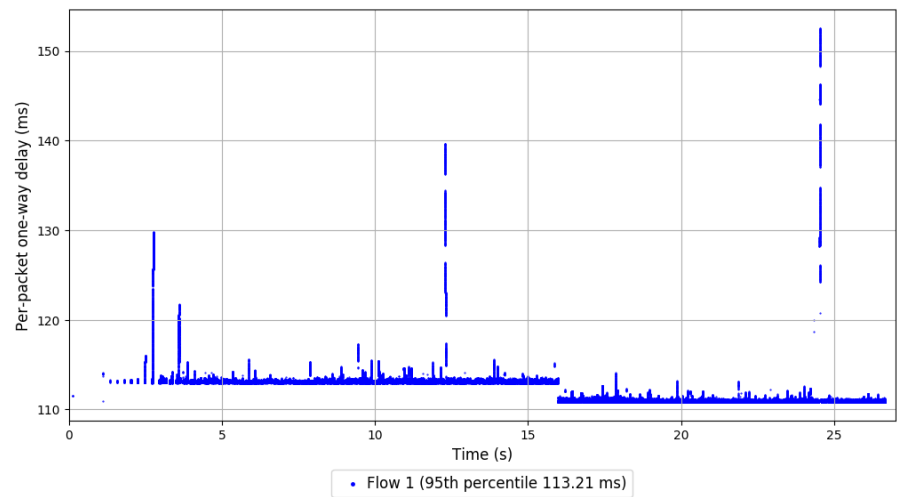
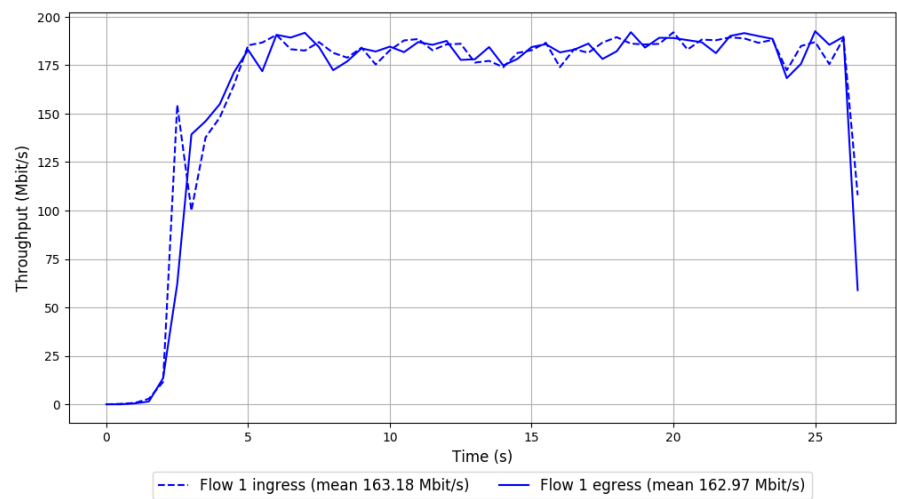
-- Flow 1:

Average throughput: 162.97 Mbit/s

95th percentile per-packet one-way delay: 113.213 ms

Loss rate: 0.95%

Run 8: Report of Indigo — Data Link

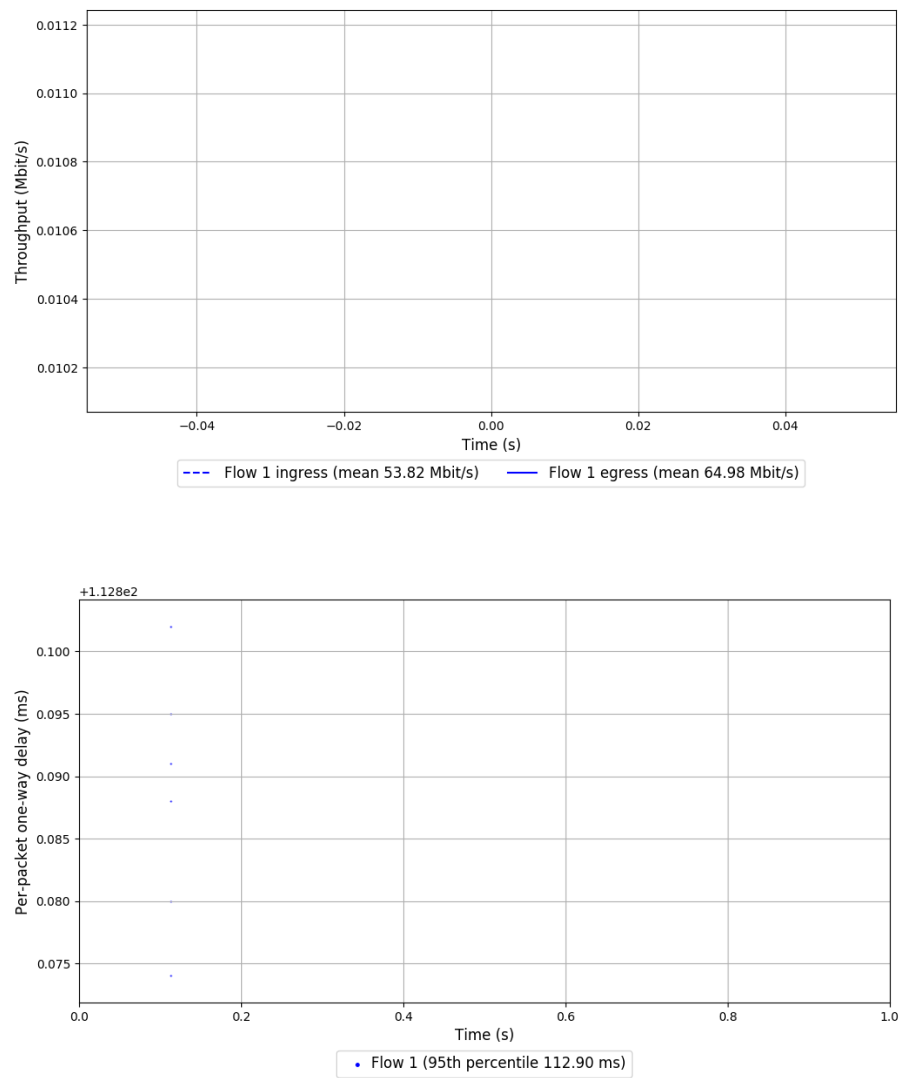


Run 9: Statistics of Indigo

Start at: 2017-11-20 23:14:59

End at: 2017-11-20 23:15:29

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-11-20 23:25:44

End at: 2017-11-20 23:26:14

Below is generated by plot.py at 2017-11-21 01:58:33

Datalink statistics

-- Total of 1 flow:

Average throughput: 171.63 Mbit/s

95th percentile per-packet one-way delay: 112.985 ms

Loss rate: 0.82%

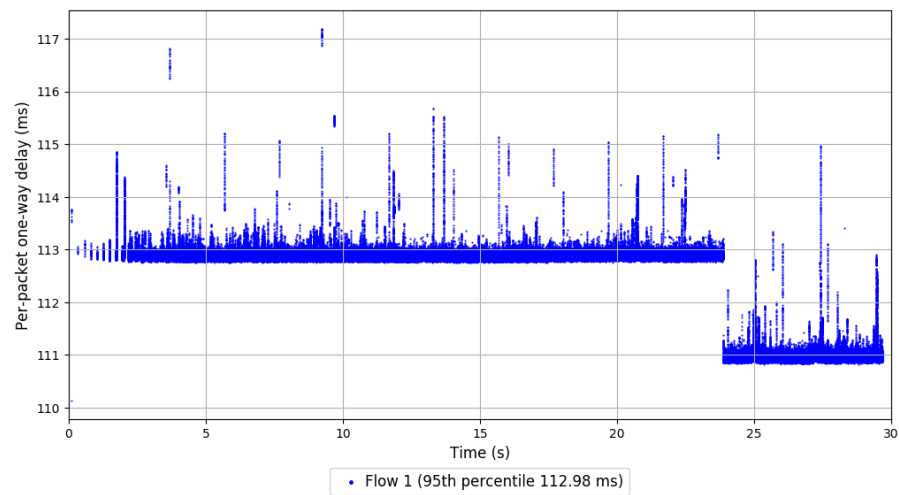
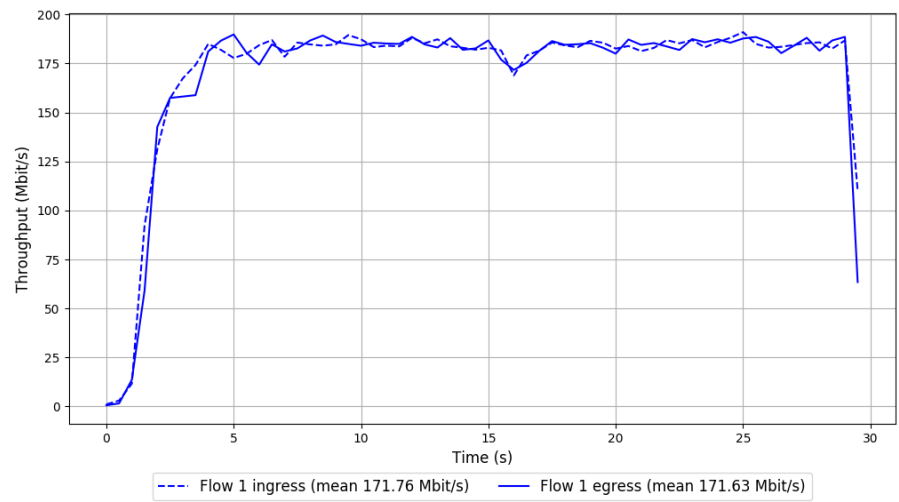
-- Flow 1:

Average throughput: 171.63 Mbit/s

95th percentile per-packet one-way delay: 112.985 ms

Loss rate: 0.82%

Run 10: Report of Indigo — Data Link

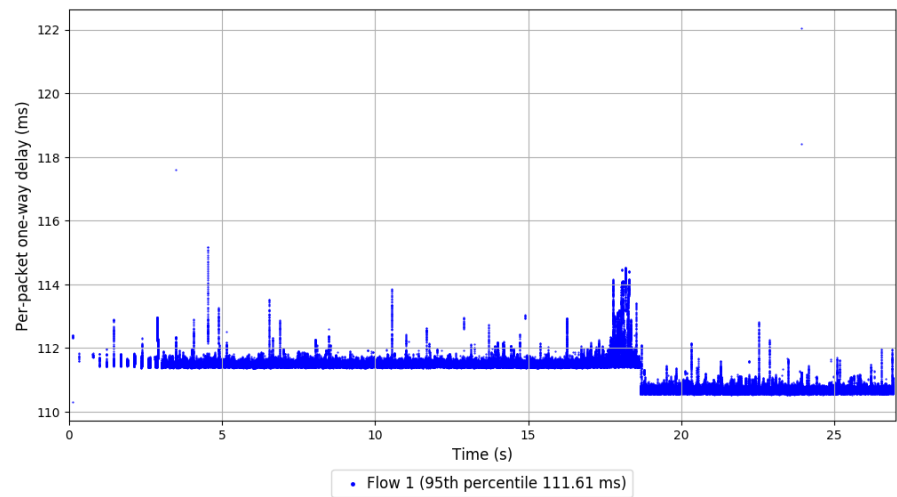
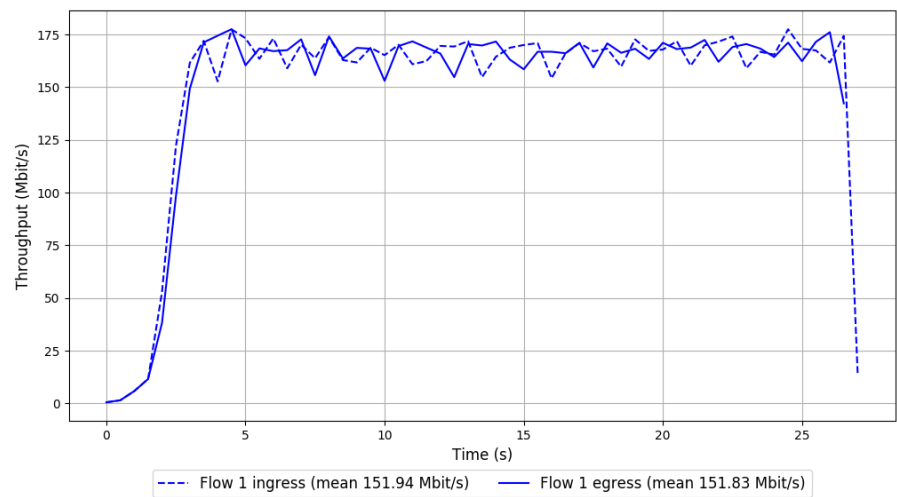


```
Run 1: Statistics of Indigo-calib

Start at: 2017-11-20 21:41:27
End at: 2017-11-20 21:41:57

# Below is generated by plot.py at 2017-11-21 01:58:35
# Datalink statistics
-- Total of 1 flow:
Average throughput: 151.83 Mbit/s
95th percentile per-packet one-way delay: 111.606 ms
Loss rate: 0.88%
-- Flow 1:
Average throughput: 151.83 Mbit/s
95th percentile per-packet one-way delay: 111.606 ms
Loss rate: 0.88%
```

Run 1: Report of Indigo-calib — Data Link

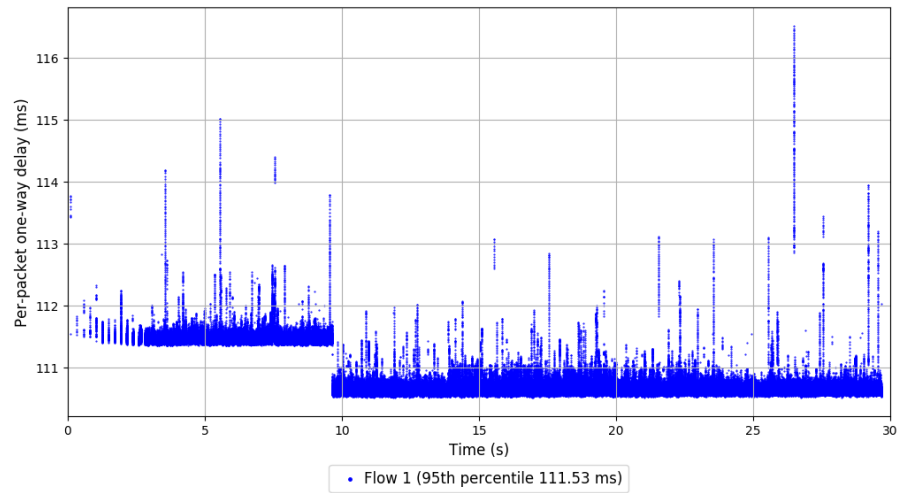
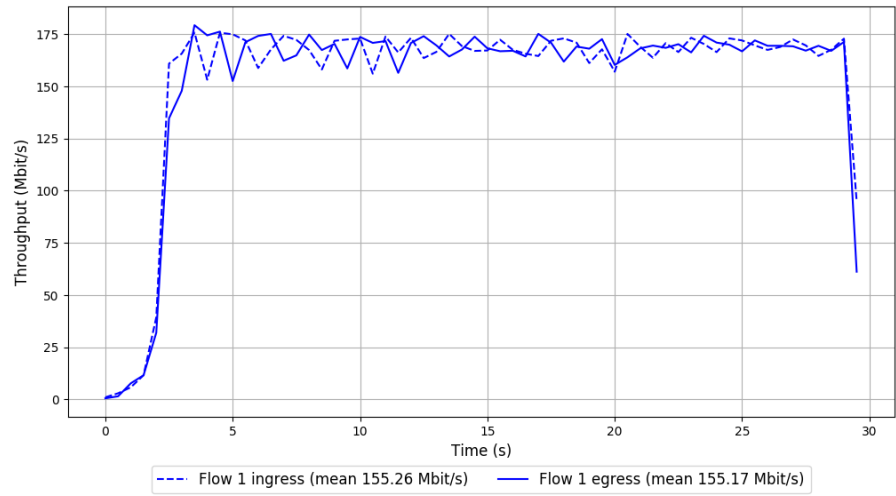


```
Run 2: Statistics of Indigo-calib

Start at: 2017-11-20 21:52:39
End at: 2017-11-20 21:53:09

# Below is generated by plot.py at 2017-11-21 01:58:56
# Datalink statistics
-- Total of 1 flow:
Average throughput: 155.17 Mbit/s
95th percentile per-packet one-way delay: 111.526 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 155.17 Mbit/s
95th percentile per-packet one-way delay: 111.526 ms
Loss rate: 0.79%
```

Run 2: Report of Indigo-calib — Data Link



Run 3: Statistics of Indigo-calib

Start at: 2017-11-20 22:03:51

End at: 2017-11-20 22:04:22

Below is generated by plot.py at 2017-11-21 01:58:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 154.79 Mbit/s

95th percentile per-packet one-way delay: 113.180 ms

Loss rate: 0.78%

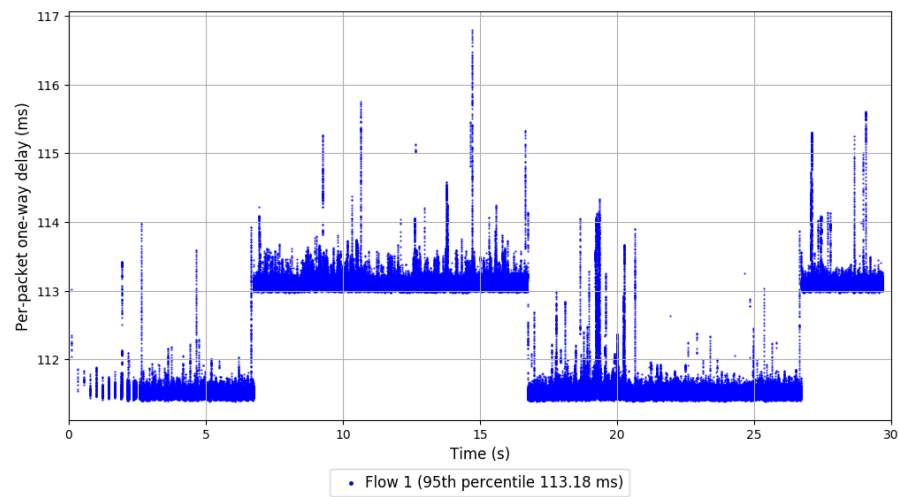
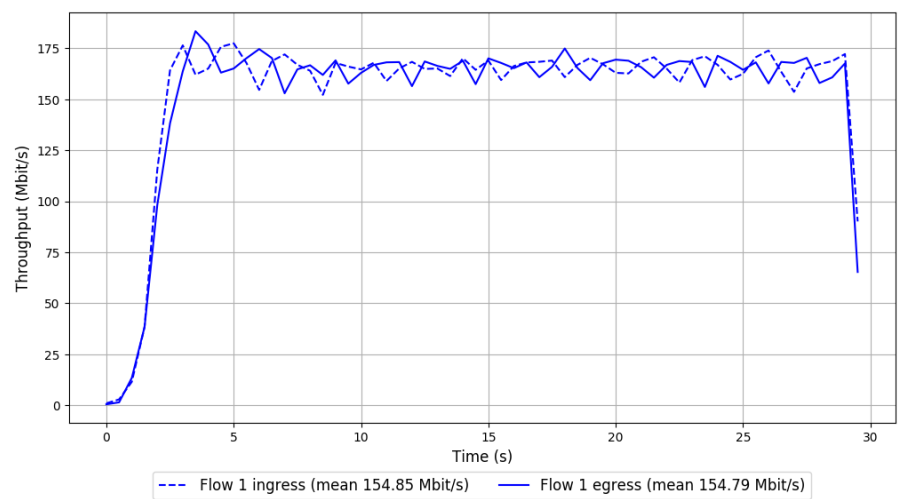
-- Flow 1:

Average throughput: 154.79 Mbit/s

95th percentile per-packet one-way delay: 113.180 ms

Loss rate: 0.78%

Run 3: Report of Indigo-calib — Data Link



Run 4: Statistics of Indigo-calib

Start at: 2017-11-20 22:14:57

End at: 2017-11-20 22:15:27

Below is generated by plot.py at 2017-11-21 01:59:13

Datalink statistics

-- Total of 1 flow:

Average throughput: 153.66 Mbit/s

95th percentile per-packet one-way delay: 113.342 ms

Loss rate: 0.79%

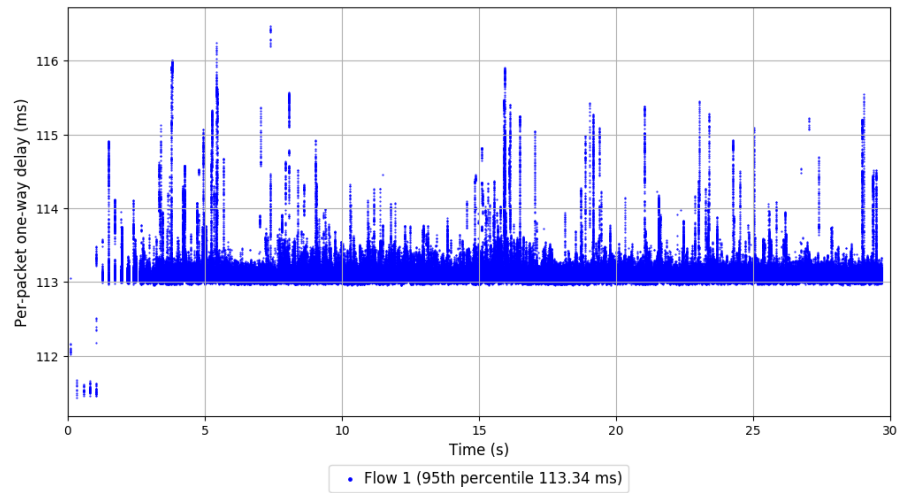
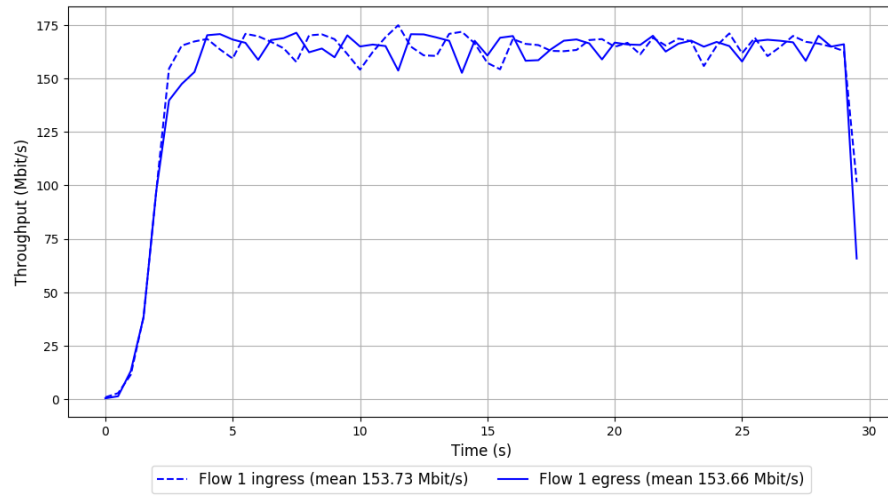
-- Flow 1:

Average throughput: 153.66 Mbit/s

95th percentile per-packet one-way delay: 113.342 ms

Loss rate: 0.79%

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-11-20 22:26:02

End at: 2017-11-20 22:26:32

Below is generated by plot.py at 2017-11-21 01:59:17

Datalink statistics

-- Total of 1 flow:

Average throughput: 155.34 Mbit/s

95th percentile per-packet one-way delay: 111.585 ms

Loss rate: 0.83%

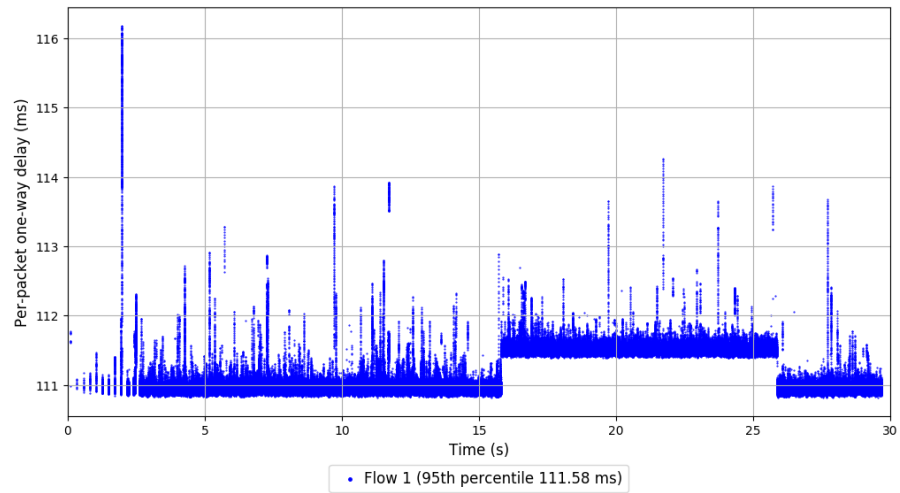
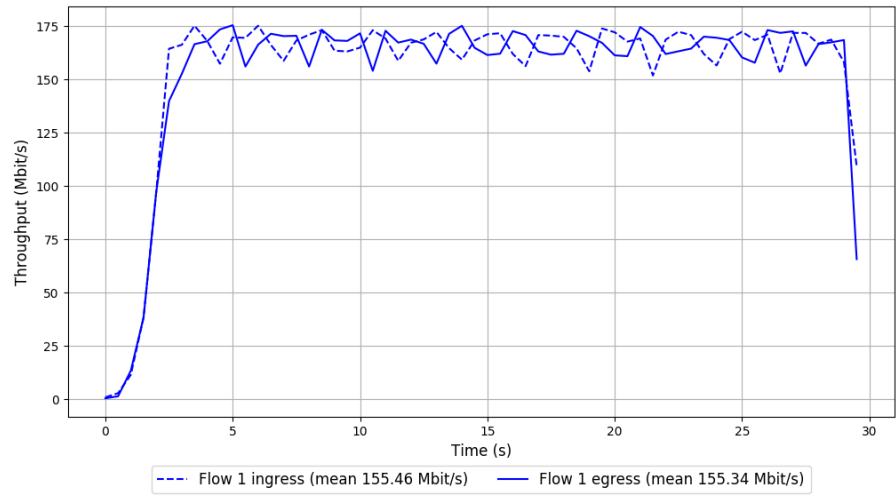
-- Flow 1:

Average throughput: 155.34 Mbit/s

95th percentile per-packet one-way delay: 111.585 ms

Loss rate: 0.83%

Run 5: Report of Indigo-calib — Data Link



Run 6: Statistics of Indigo-calib

Start at: 2017-11-20 22:37:23

End at: 2017-11-20 22:37:53

Below is generated by plot.py at 2017-11-21 01:59:21

Datalink statistics

-- Total of 1 flow:

Average throughput: 152.21 Mbit/s

95th percentile per-packet one-way delay: 111.614 ms

Loss rate: 0.85%

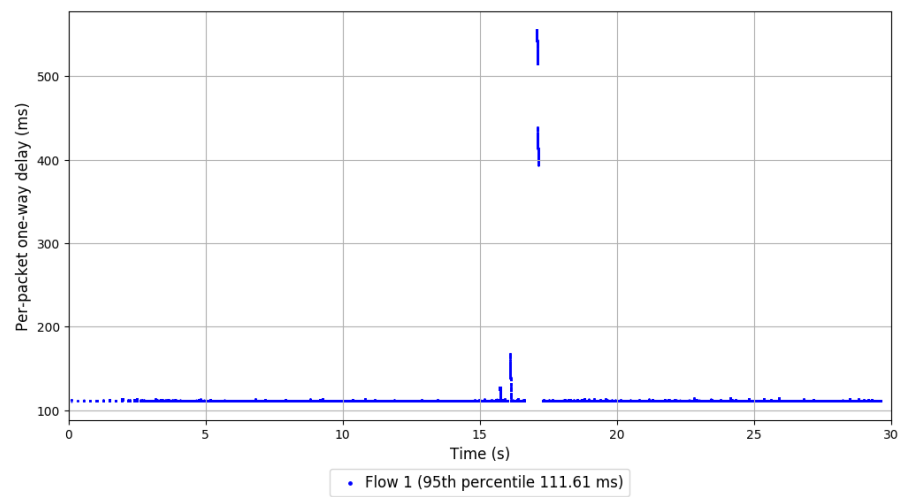
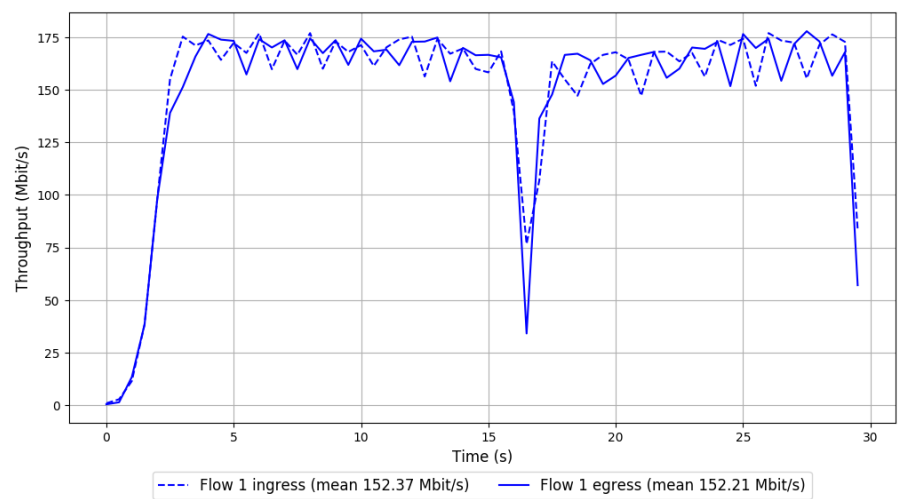
-- Flow 1:

Average throughput: 152.21 Mbit/s

95th percentile per-packet one-way delay: 111.614 ms

Loss rate: 0.85%

Run 6: Report of Indigo-calib — Data Link



Run 7: Statistics of Indigo-calib

Start at: 2017-11-20 22:48:24

End at: 2017-11-20 22:48:54

Below is generated by plot.py at 2017-11-21 01:59:31

Datalink statistics

-- Total of 1 flow:

Average throughput: 154.13 Mbit/s

95th percentile per-packet one-way delay: 111.630 ms

Loss rate: 0.80%

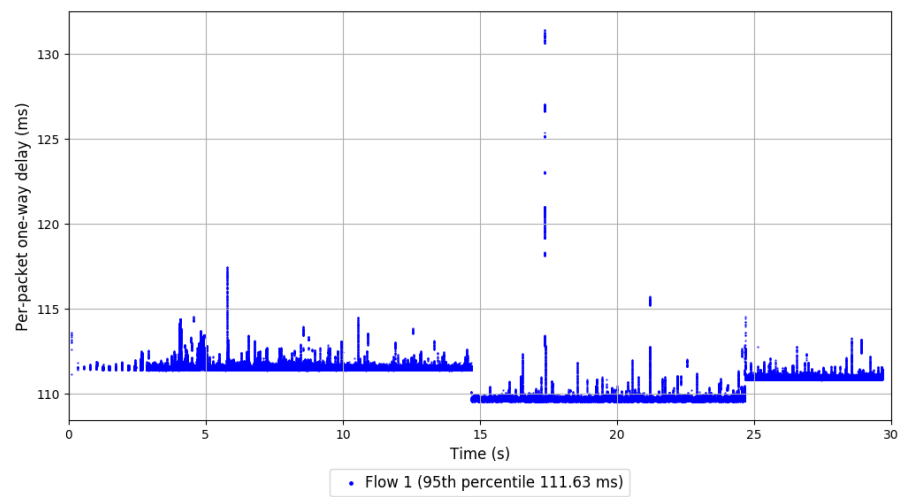
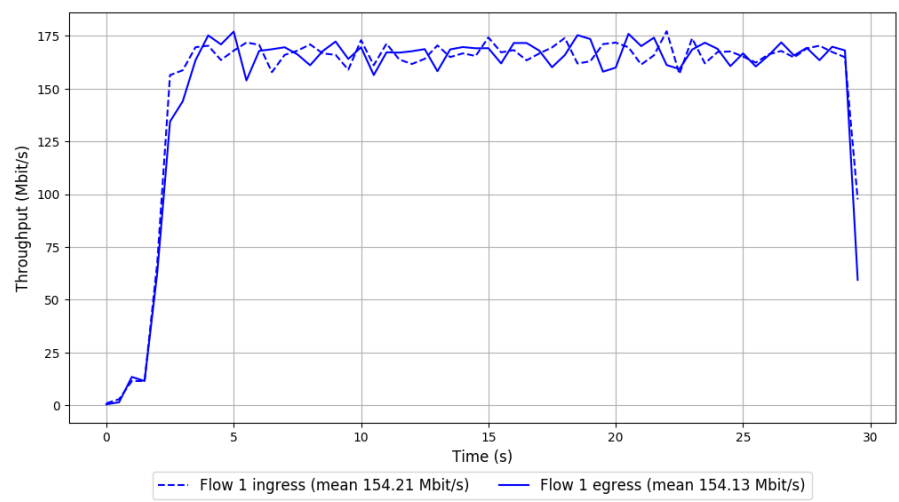
-- Flow 1:

Average throughput: 154.13 Mbit/s

95th percentile per-packet one-way delay: 111.630 ms

Loss rate: 0.80%

Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-11-20 22:59:08

End at: 2017-11-20 22:59:38

Below is generated by plot.py at 2017-11-21 01:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 153.93 Mbit/s

95th percentile per-packet one-way delay: 113.131 ms

Loss rate: 1.02%

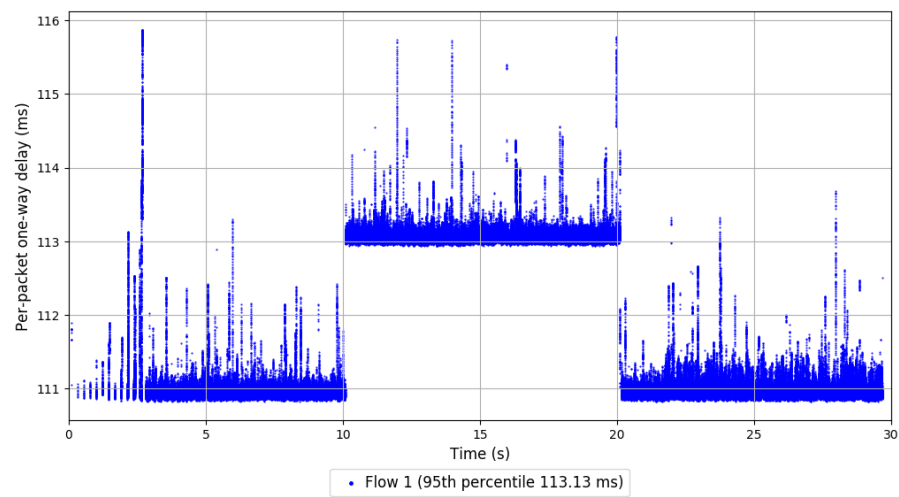
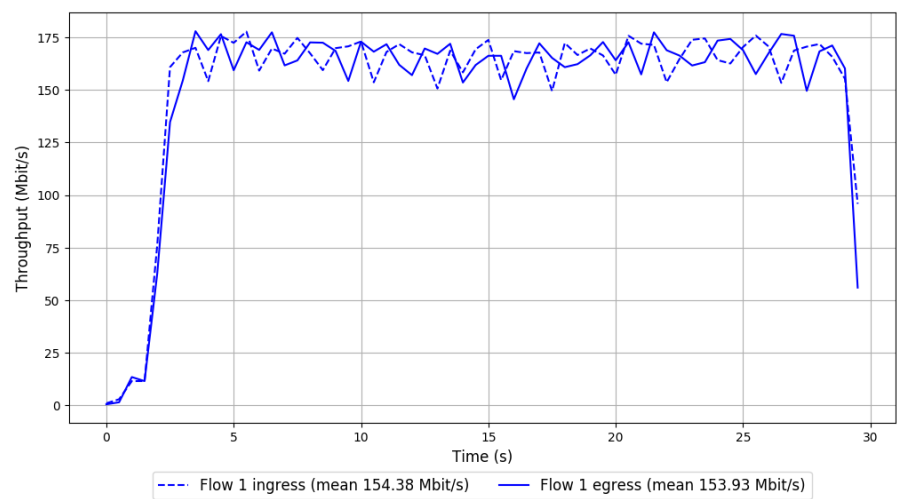
-- Flow 1:

Average throughput: 153.93 Mbit/s

95th percentile per-packet one-way delay: 113.131 ms

Loss rate: 1.02%

Run 8: Report of Indigo-calib — Data Link



Run 9: Statistics of Indigo-calib

Start at: 2017-11-20 23:10:06

End at: 2017-11-20 23:10:37

Below is generated by plot.py at 2017-11-21 01:59:56

Datalink statistics

-- Total of 1 flow:

Average throughput: 153.09 Mbit/s

95th percentile per-packet one-way delay: 113.174 ms

Loss rate: 0.80%

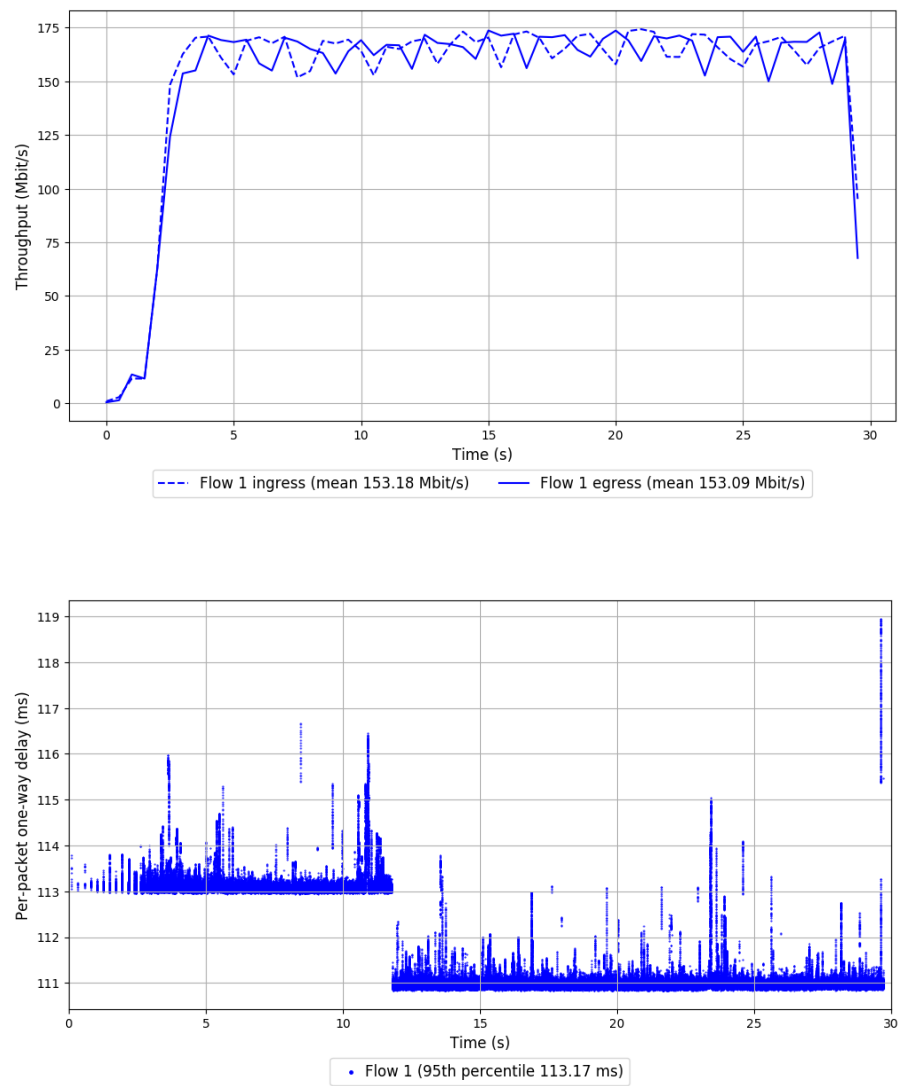
-- Flow 1:

Average throughput: 153.09 Mbit/s

95th percentile per-packet one-way delay: 113.174 ms

Loss rate: 0.80%

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-11-20 23:20:52

End at: 2017-11-20 23:21:22

Below is generated by plot.py at 2017-11-21 01:59:58

Datalink statistics

-- Total of 1 flow:

Average throughput: 158.11 Mbit/s

95th percentile per-packet one-way delay: 113.118 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 158.11 Mbit/s

95th percentile per-packet one-way delay: 113.118 ms

Loss rate: 0.78%

Run 10: Report of Indigo-calib — Data Link

