

Pantheon Report

Generated at 2017-12-06 02:35:27 (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 3 flows with 10-second interval between two flows.

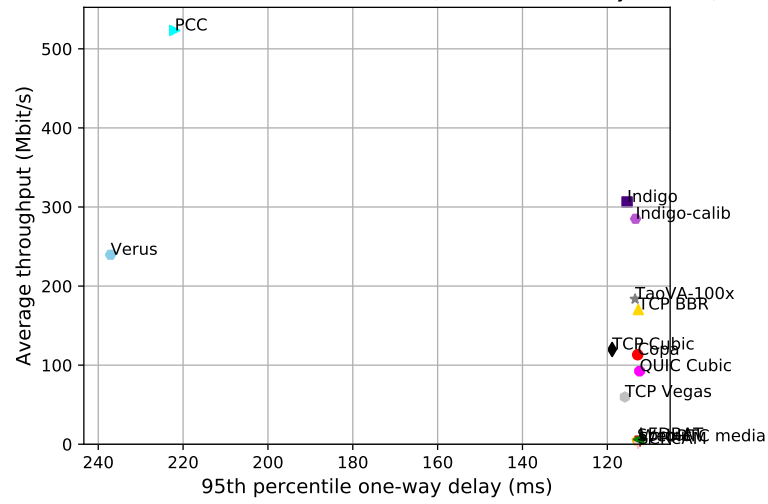
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

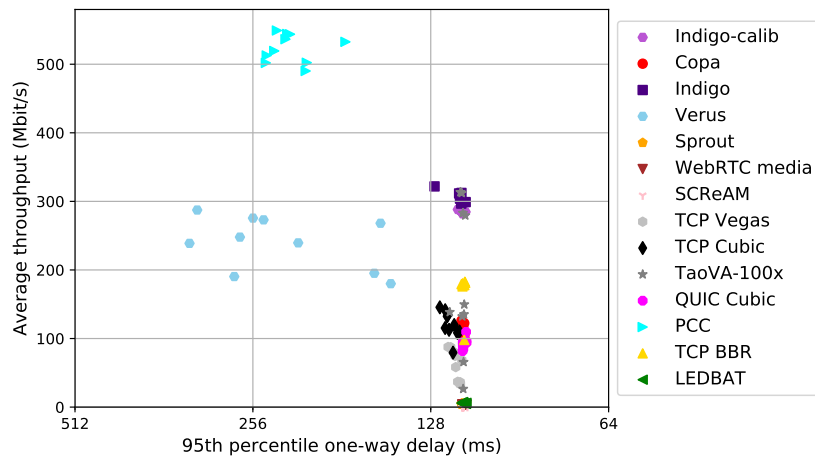
Git summary:

```
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 @ 03455460fd1a8ffbdad86fabb936fdca204b80db
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
3 flows with 10s interval between flows (mean of all runs by scheme)



test from GCE Tokyo Ethernet to GCE London Ethernet, 10 runs of 30s each per scheme
3 flows with 10s interval between flows



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	9	83.91	90.25	83.52	467.79	112.42	112.16	0.67	1.11	2.67
TCP Cubic	10	58.27	60.93	65.35	118.20	118.81	119.69	1.02	1.21	2.42
LEDBAT	10	3.58	2.72	1.94	112.73	112.55	111.83	1.39	2.27	4.77
PCC	10	470.36	70.53	19.31	222.80	215.97	188.83	3.45	2.72	3.60
QUIC Cubic	10	53.10	45.55	28.62	111.91	111.70	111.28	0.97	1.58	2.40
SCReAM	10	0.22	0.21	0.22	112.13	112.35	111.59	0.68	1.09	2.21
WebRTC media	10	2.07	1.26	0.44	111.82	112.11	111.97	0.91	1.49	4.18
Sprout	10	2.36	2.51	1.74	112.95	113.00	112.60	0.98	1.47	3.57
TaoVA-100x	10	82.89	134.24	72.35	112.42	114.44	112.81	0.46	1.15	3.58
TCP Vegas	10	26.69	36.31	27.55	114.94	114.68	114.95	0.68	1.21	2.41
Verus	10	139.30	120.58	66.72	214.34	226.79	234.89	3.45	3.58	5.57
Copa	10	64.87	54.67	48.08	112.79	112.53	112.44	0.59	1.20	4.81
Indigo	7	161.91	152.34	126.74	114.58	115.71	117.11	0.73	1.15	2.92
Indigo-calib	10	151.46	142.41	123.06	113.04	113.57	114.23	0.77	1.23	2.88

Run 1: Statistics of TCP BBR

Start at: 2017-12-05 21:17:05

End at: 2017-12-05 21:17:35

Below is generated by plot.py at 2017-12-06 01:47:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.67 Mbit/s

95th percentile per-packet one-way delay: 113.151 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 92.17 Mbit/s

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

Loss rate: 0.80%

-- Flow 2:

Average throughput: 89.47 Mbit/s

95th percentile per-packet one-way delay: 113.043 ms

Loss rate: 1.21%

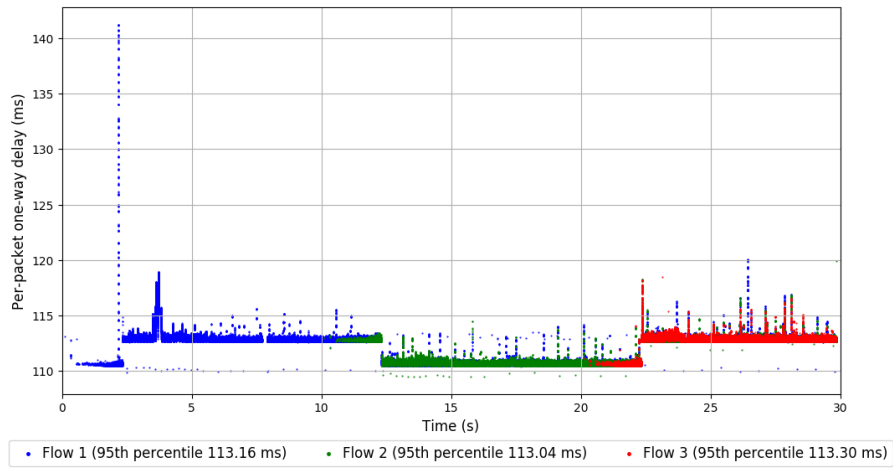
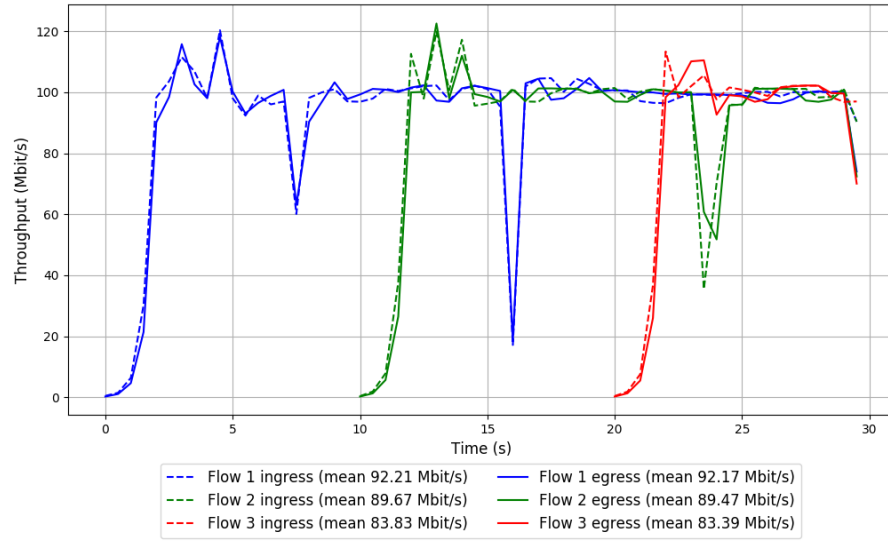
-- Flow 3:

Average throughput: 83.39 Mbit/s

95th percentile per-packet one-way delay: 113.299 ms

Loss rate: 2.91%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-05 21:30:45

End at: 2017-12-05 21:31:15

Below is generated by plot.py at 2017-12-06 01:47:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.49 Mbit/s

95th percentile per-packet one-way delay: 113.030 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 93.06 Mbit/s

95th percentile per-packet one-way delay: 112.980 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 91.71 Mbit/s

95th percentile per-packet one-way delay: 113.006 ms

Loss rate: 0.00%

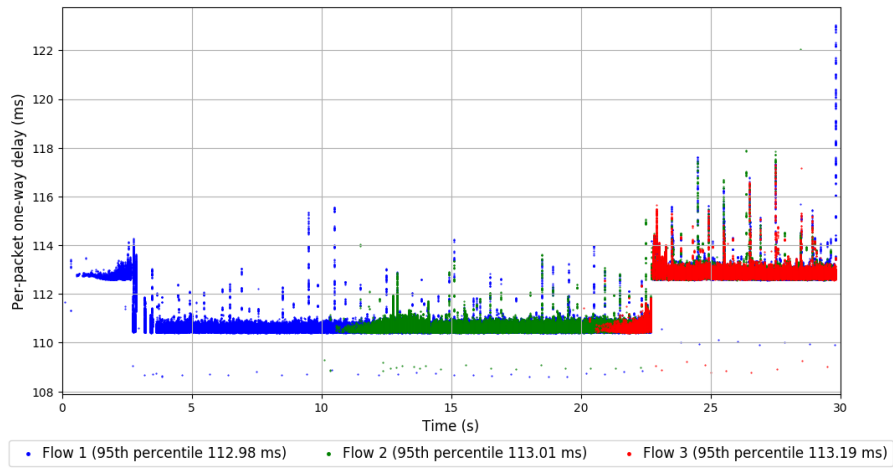
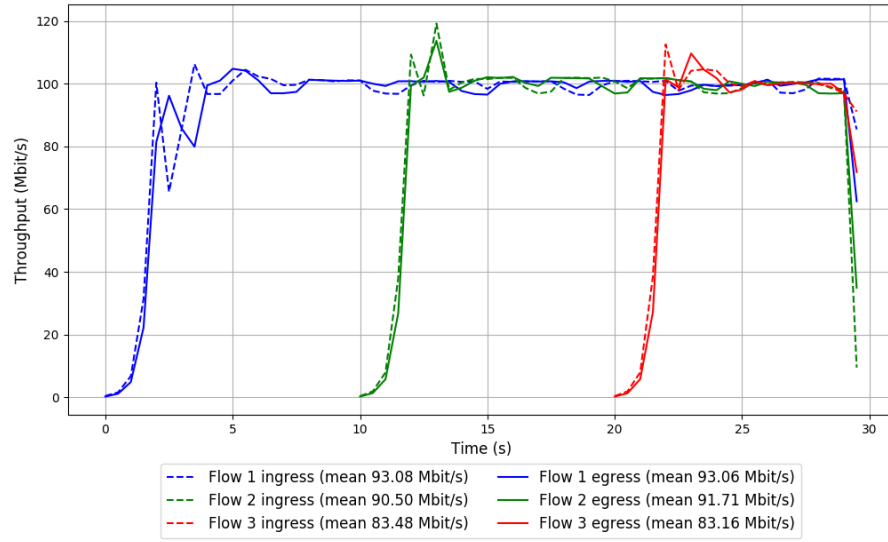
-- Flow 3:

Average throughput: 83.16 Mbit/s

95th percentile per-packet one-way delay: 113.185 ms

Loss rate: 2.62%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-05 21:44:19

End at: 2017-12-05 21:44:49

Below is generated by plot.py at 2017-12-06 01:47:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.33 Mbit/s

95th percentile per-packet one-way delay: 113.528 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 91.06 Mbit/s

95th percentile per-packet one-way delay: 113.253 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 91.99 Mbit/s

95th percentile per-packet one-way delay: 113.440 ms

Loss rate: 1.20%

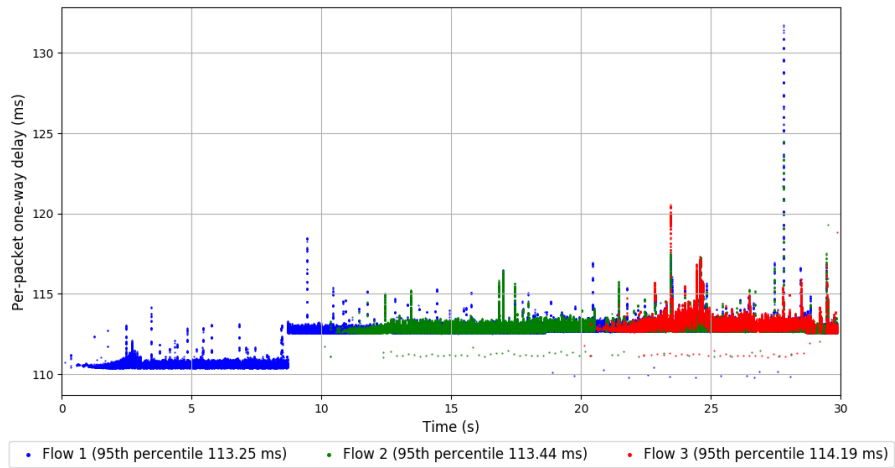
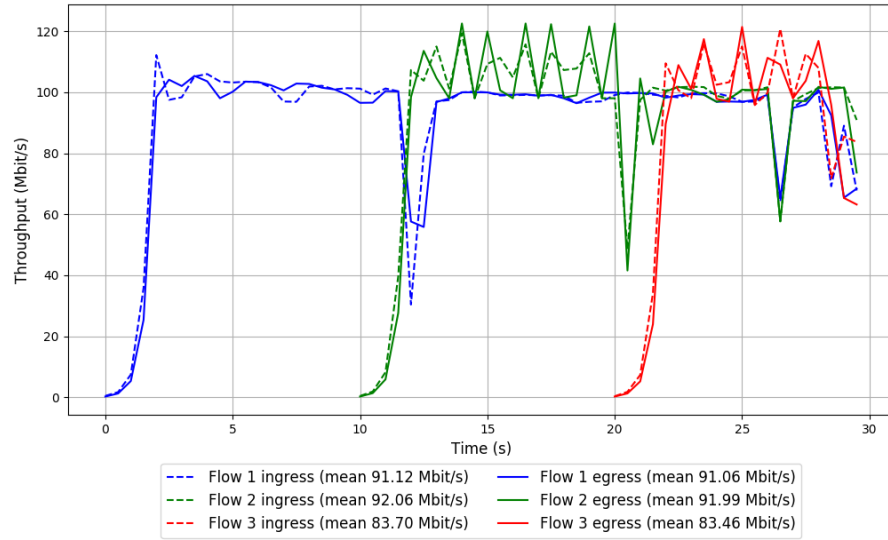
-- Flow 3:

Average throughput: 83.46 Mbit/s

95th percentile per-packet one-way delay: 114.186 ms

Loss rate: 2.47%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-05 21:58:00

End at: 2017-12-05 21:58:30

Below is generated by plot.py at 2017-12-06 01:47:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.19 Mbit/s

95th percentile per-packet one-way delay: 111.901 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 94.26 Mbit/s

95th percentile per-packet one-way delay: 111.971 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 90.47 Mbit/s

95th percentile per-packet one-way delay: 111.781 ms

Loss rate: 1.32%

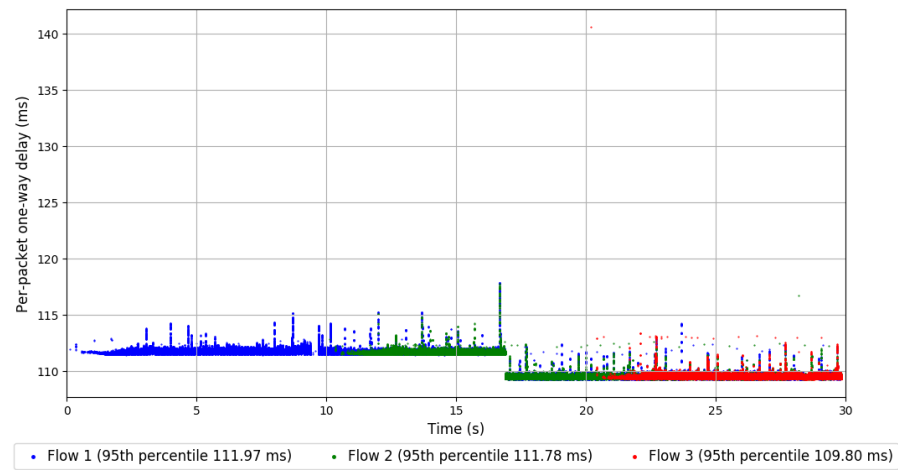
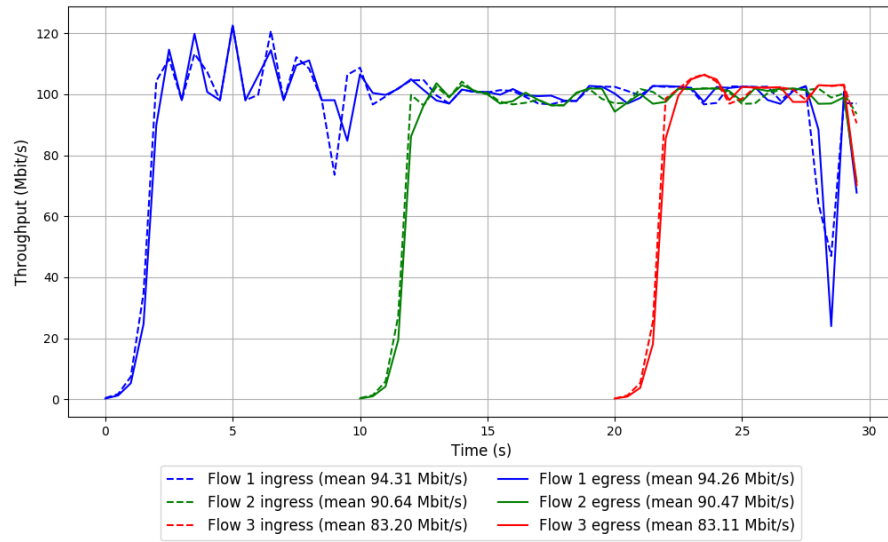
-- Flow 3:

Average throughput: 83.11 Mbit/s

95th percentile per-packet one-way delay: 109.801 ms

Loss rate: 2.67%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-05 22:11:54

End at: 2017-12-05 22:12:24

Below is generated by plot.py at 2017-12-06 01:47:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.84 Mbit/s

95th percentile per-packet one-way delay: 112.068 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 95.19 Mbit/s

95th percentile per-packet one-way delay: 111.854 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 90.98 Mbit/s

95th percentile per-packet one-way delay: 111.950 ms

Loss rate: 1.33%

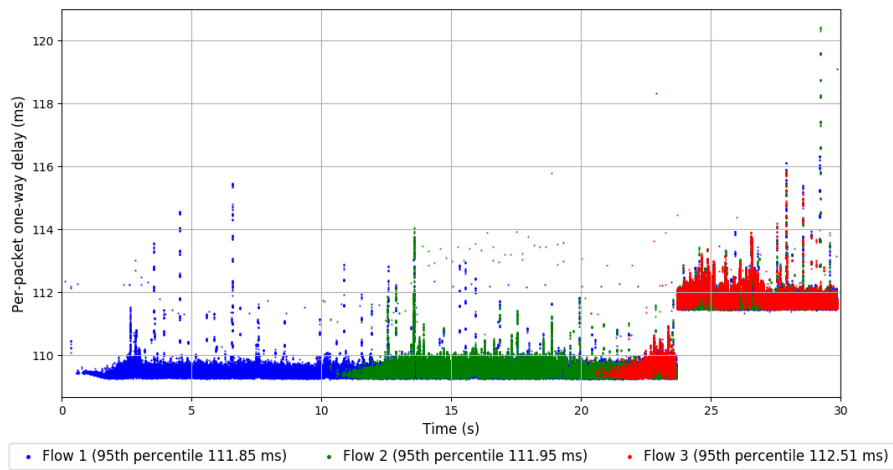
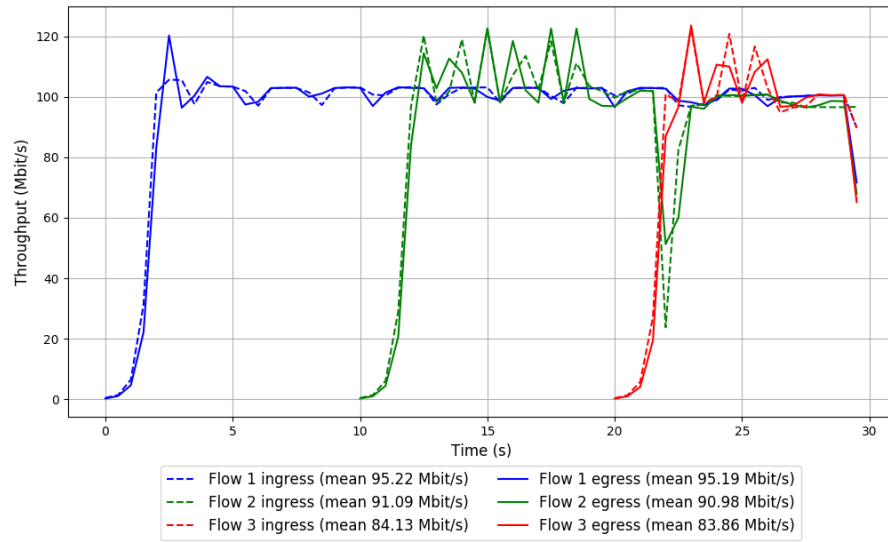
-- Flow 3:

Average throughput: 83.86 Mbit/s

95th percentile per-packet one-way delay: 112.506 ms

Loss rate: 2.56%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-05 22:25:15

End at: 2017-12-05 22:25:45

Below is generated by plot.py at 2017-12-06 01:47:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.83 Mbit/s

95th percentile per-packet one-way delay: 112.291 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 91.83 Mbit/s

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

Loss rate: 0.80%

-- Flow 2:

Average throughput: 89.55 Mbit/s

95th percentile per-packet one-way delay: 110.335 ms

Loss rate: 1.29%

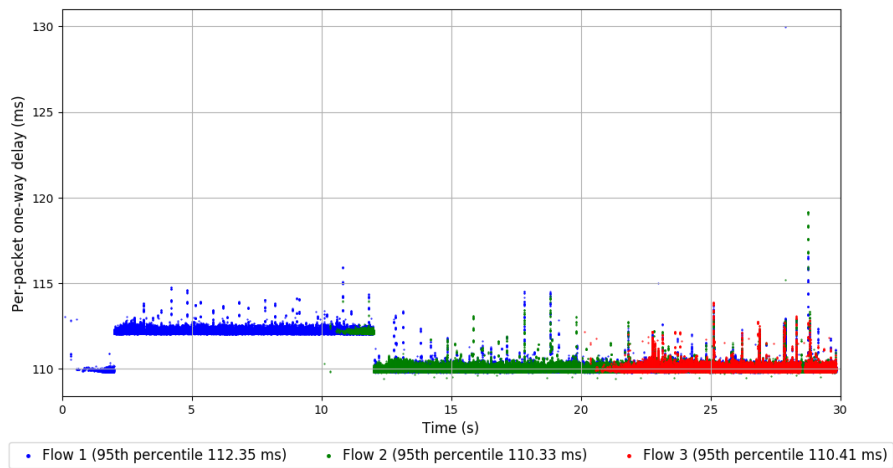
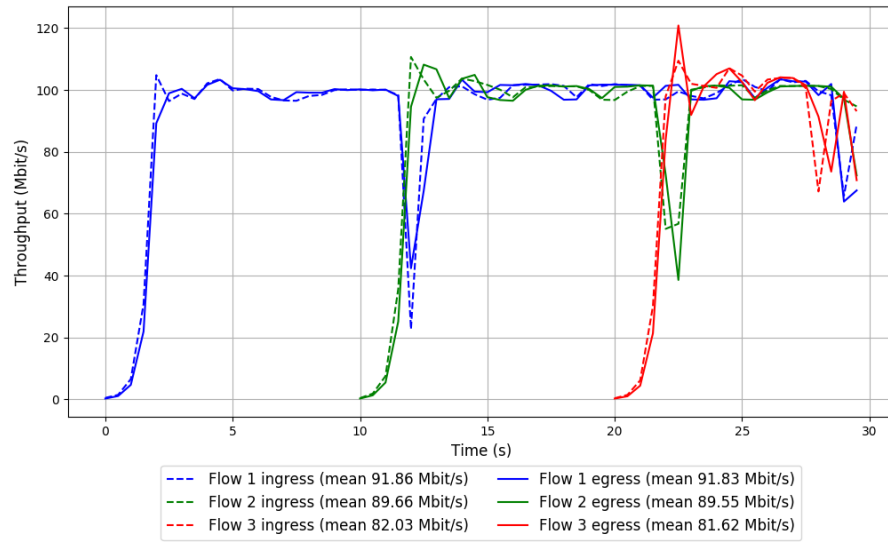
-- Flow 3:

Average throughput: 81.62 Mbit/s

95th percentile per-packet one-way delay: 110.405 ms

Loss rate: 2.75%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-05 22:39:04

End at: 2017-12-05 22:39:34

Below is generated by plot.py at 2017-12-06 01:47:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.92 Mbit/s

95th percentile per-packet one-way delay: 112.882 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 90.96 Mbit/s

95th percentile per-packet one-way delay: 112.916 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 89.56 Mbit/s

95th percentile per-packet one-way delay: 112.829 ms

Loss rate: 1.25%

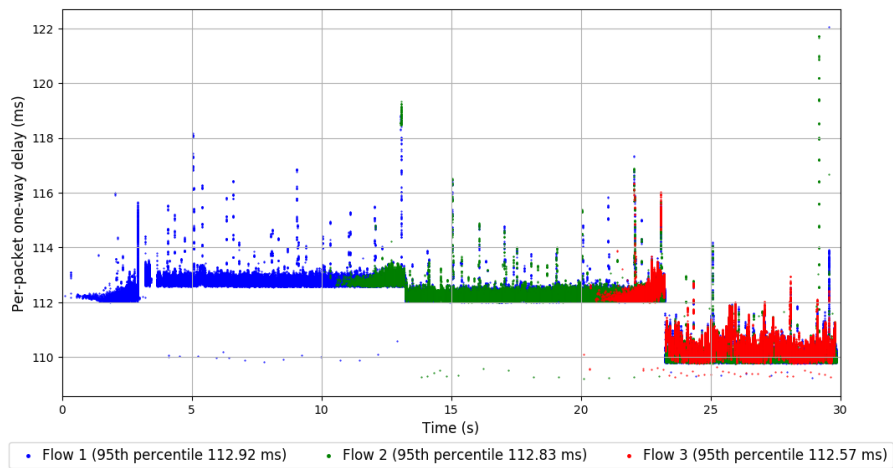
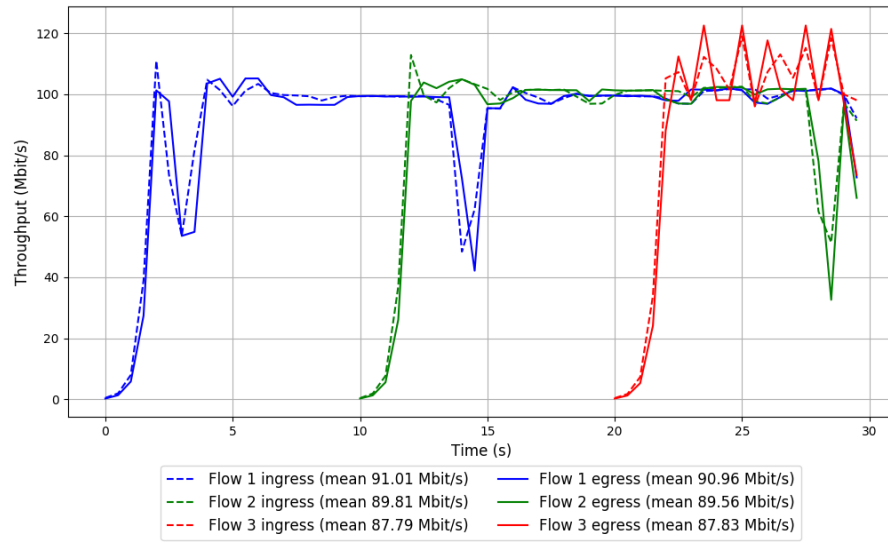
-- Flow 3:

Average throughput: 87.83 Mbit/s

95th percentile per-packet one-way delay: 112.570 ms

Loss rate: 2.81%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-05 22:52:12

End at: 2017-12-05 22:52:42

Below is generated by plot.py at 2017-12-06 01:47:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.92 Mbit/s

95th percentile per-packet one-way delay: 112.325 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 15.67 Mbit/s

95th percentile per-packet one-way delay: 3308.564 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 90.99 Mbit/s

95th percentile per-packet one-way delay: 112.392 ms

Loss rate: 1.20%

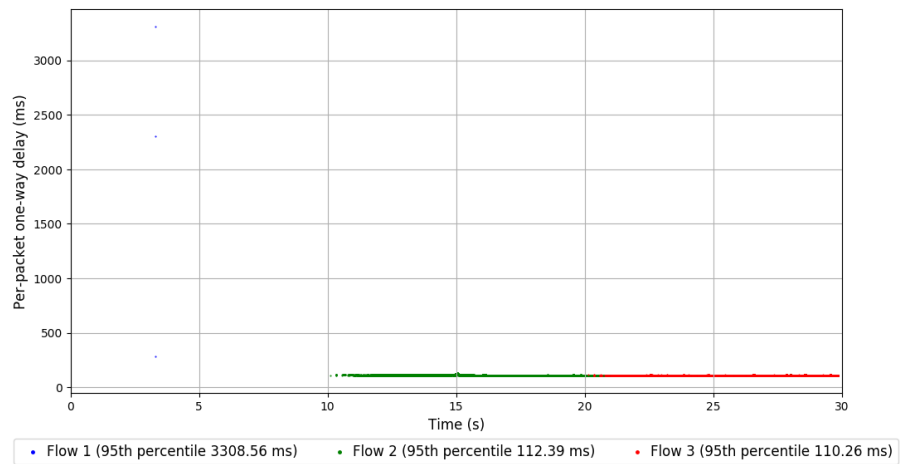
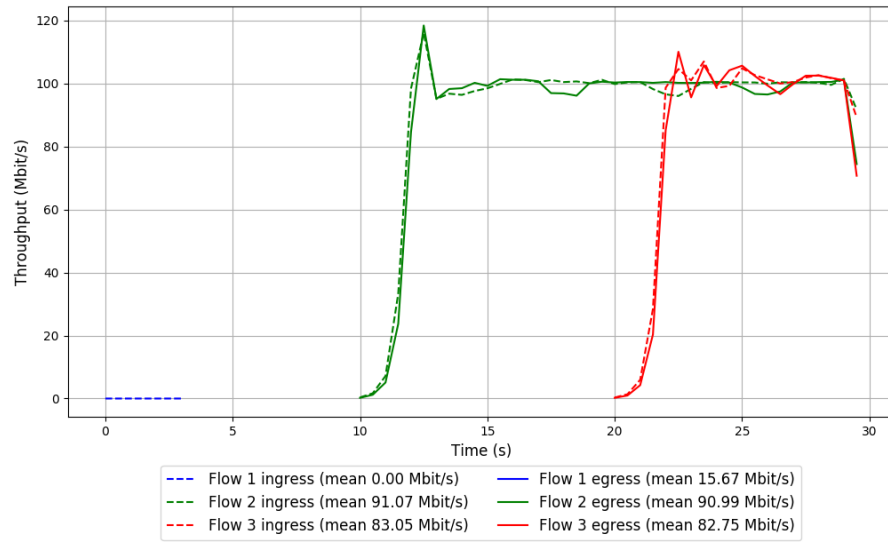
-- Flow 3:

Average throughput: 82.75 Mbit/s

95th percentile per-packet one-way delay: 110.262 ms

Loss rate: 2.59%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-05 23:05:59

End at: 2017-12-05 23:06:29

Below is generated by plot.py at 2017-12-06 01:49:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.99 Mbit/s

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

Loss rate: 1.21%

-- Flow 1:

Average throughput: 90.99 Mbit/s

95th percentile per-packet one-way delay: 113.040 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 87.56 Mbit/s

95th percentile per-packet one-way delay: 113.046 ms

Loss rate: 1.22%

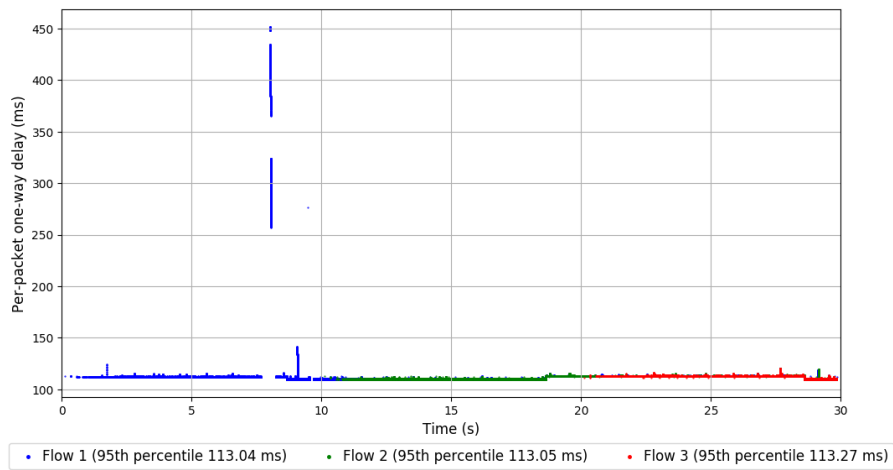
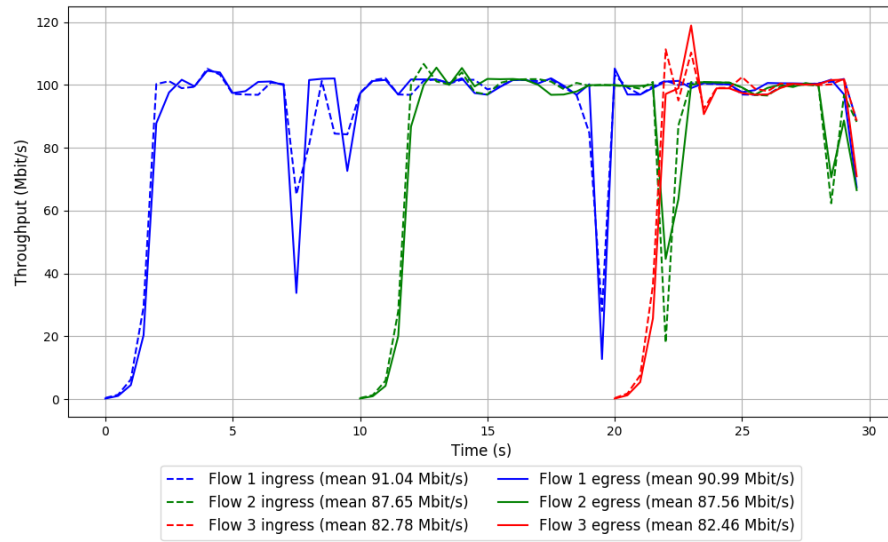
-- Flow 3:

Average throughput: 82.46 Mbit/s

95th percentile per-packet one-way delay: 113.269 ms

Loss rate: 2.62%

Run 9: Report of TCP BBR — Data Link

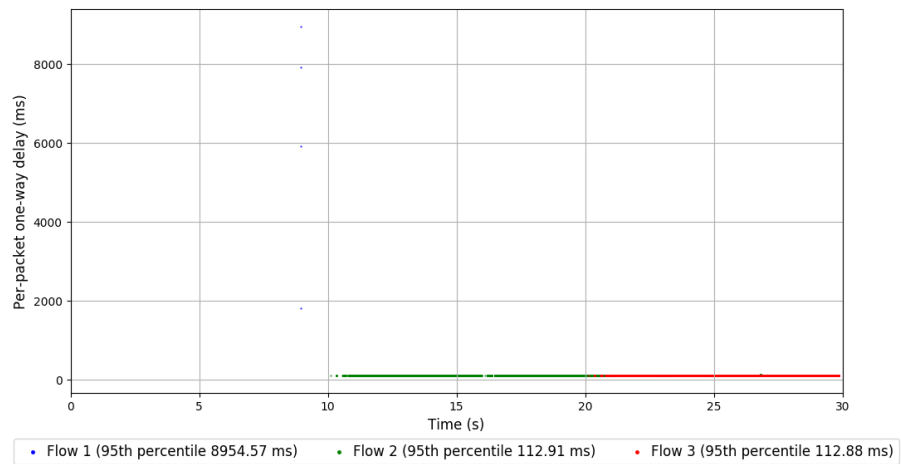
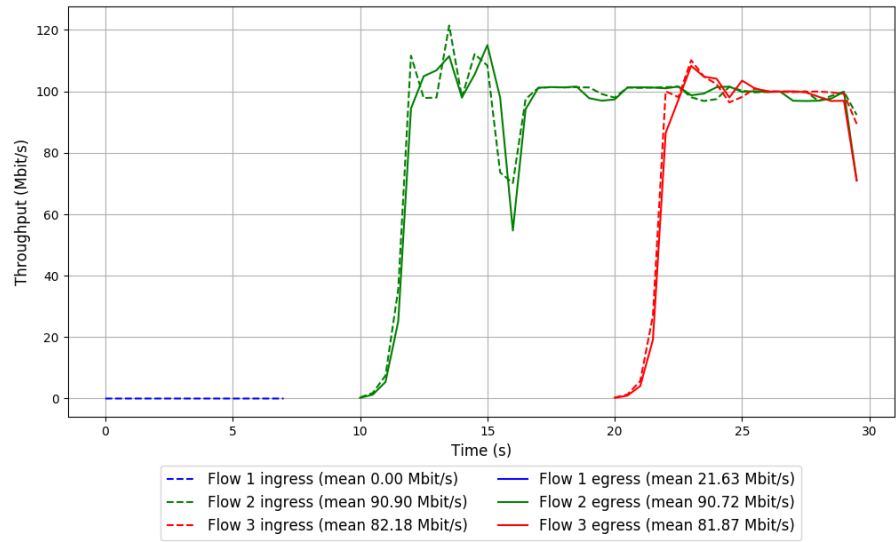


Run 10: Statistics of TCP BBR

Start at: 2017-12-05 23:19:12

End at: 2017-12-05 23:19:42

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-05 21:13:23

End at: 2017-12-05 21:13:53

Below is generated by plot.py at 2017-12-06 01:49:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.31 Mbit/s

95th percentile per-packet one-way delay: 120.986 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 78.73 Mbit/s

95th percentile per-packet one-way delay: 120.094 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 52.40 Mbit/s

95th percentile per-packet one-way delay: 120.569 ms

Loss rate: 1.16%

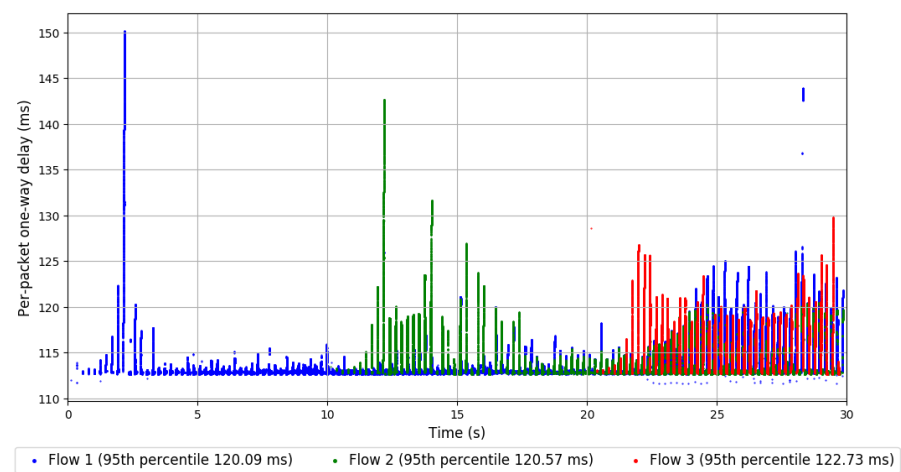
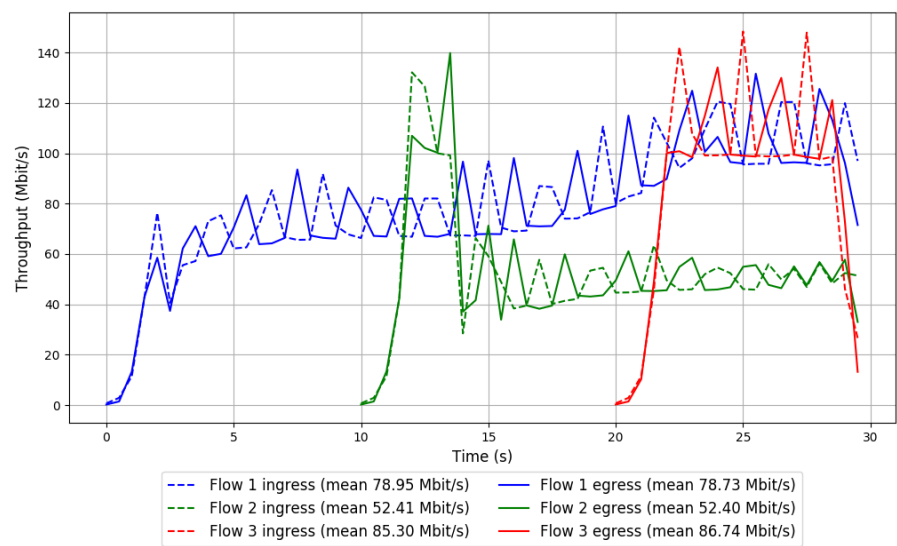
-- Flow 3:

Average throughput: 86.74 Mbit/s

95th percentile per-packet one-way delay: 122.730 ms

Loss rate: 0.81%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-05 21:26:58

End at: 2017-12-05 21:27:28

Below is generated by plot.py at 2017-12-06 01:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 145.50 Mbit/s

95th percentile per-packet one-way delay: 123.545 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 82.80 Mbit/s

95th percentile per-packet one-way delay: 122.779 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 50.53 Mbit/s

95th percentile per-packet one-way delay: 122.435 ms

Loss rate: 1.21%

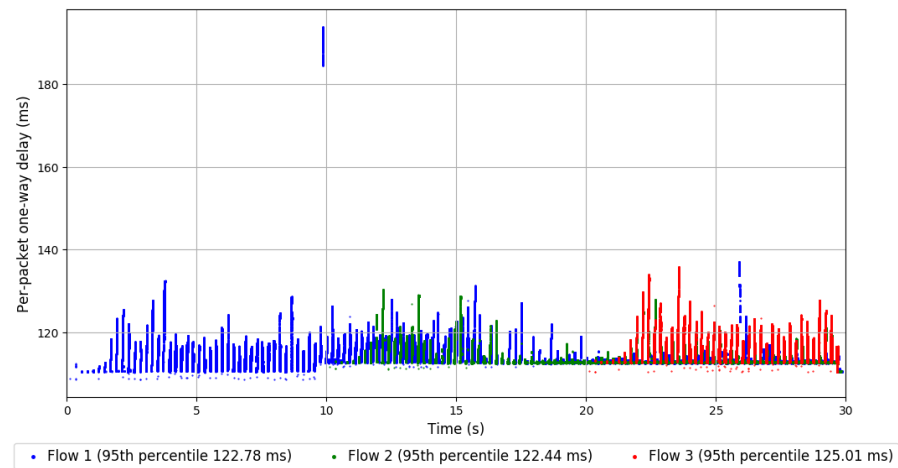
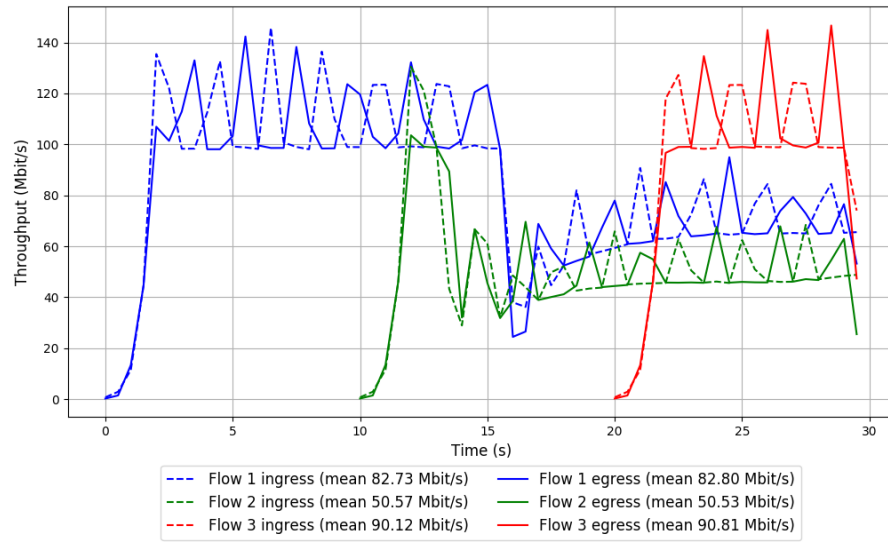
-- Flow 3:

Average throughput: 90.81 Mbit/s

95th percentile per-packet one-way delay: 125.007 ms

Loss rate: 1.51%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-05 21:40:34

End at: 2017-12-05 21:41:04

Below is generated by plot.py at 2017-12-06 01:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.34 Mbit/s

95th percentile per-packet one-way delay: 121.030 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 52.07 Mbit/s

95th percentile per-packet one-way delay: 120.645 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 51.13 Mbit/s

95th percentile per-packet one-way delay: 120.639 ms

Loss rate: 1.40%

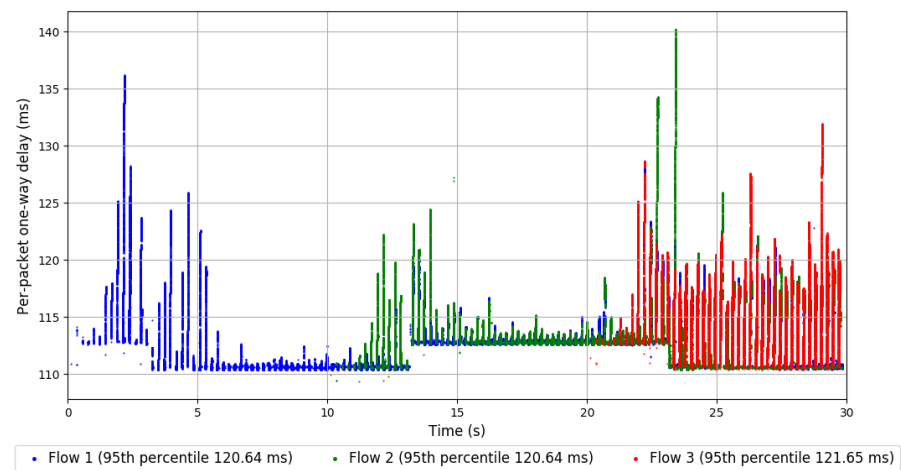
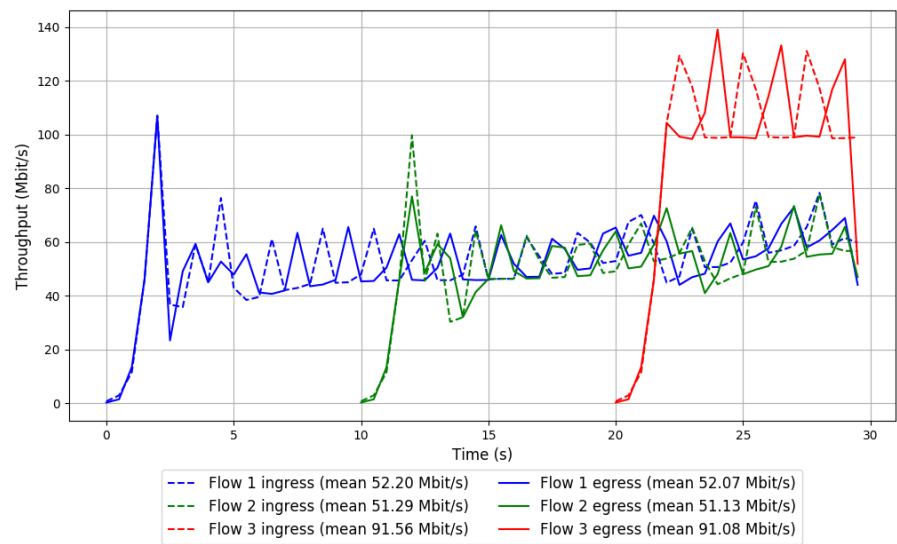
-- Flow 3:

Average throughput: 91.08 Mbit/s

95th percentile per-packet one-way delay: 121.654 ms

Loss rate: 2.74%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-05 21:54:03

End at: 2017-12-05 21:54:33

Below is generated by plot.py at 2017-12-06 01:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.65 Mbit/s

95th percentile per-packet one-way delay: 119.188 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 53.94 Mbit/s

95th percentile per-packet one-way delay: 119.522 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 62.06 Mbit/s

95th percentile per-packet one-way delay: 118.199 ms

Loss rate: 0.93%

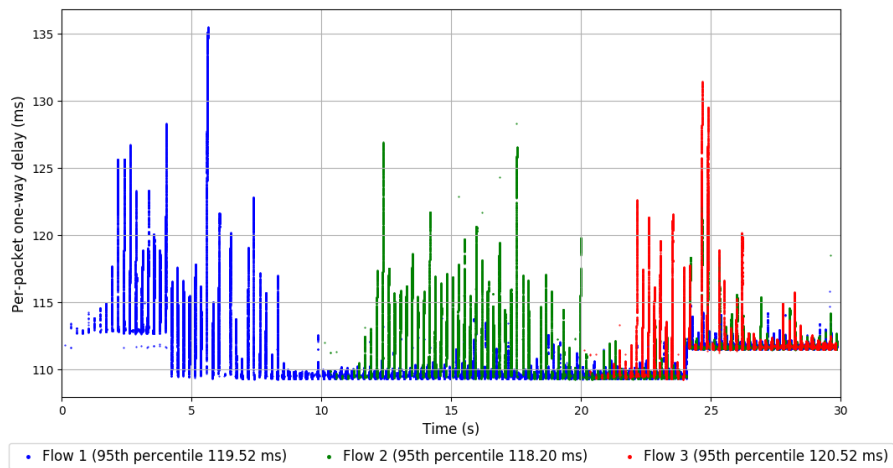
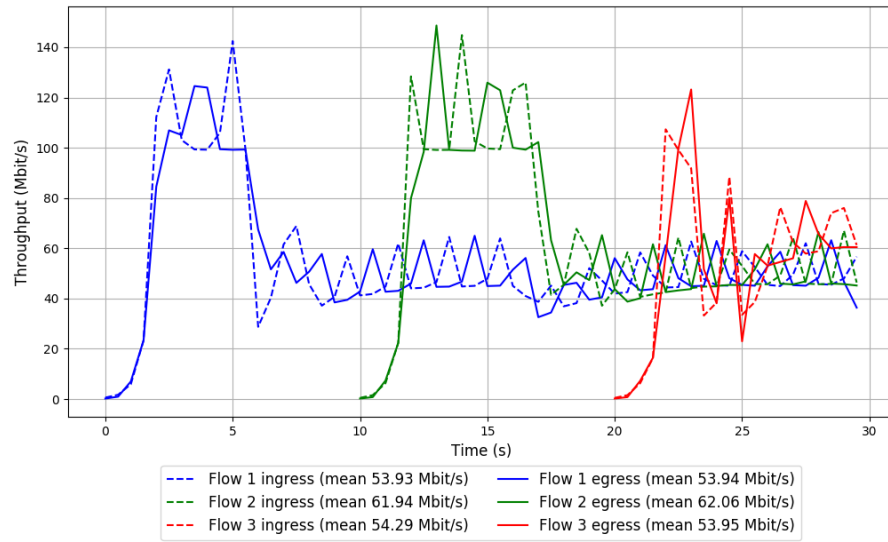
-- Flow 3:

Average throughput: 53.95 Mbit/s

95th percentile per-packet one-way delay: 120.515 ms

Loss rate: 2.86%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-05 22:07:51

End at: 2017-12-05 22:08:21

Below is generated by plot.py at 2017-12-06 01:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.21 Mbit/s

95th percentile per-packet one-way delay: 114.407 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 49.00 Mbit/s

95th percentile per-packet one-way delay: 113.777 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 67.48 Mbit/s

95th percentile per-packet one-way delay: 114.906 ms

Loss rate: 1.37%

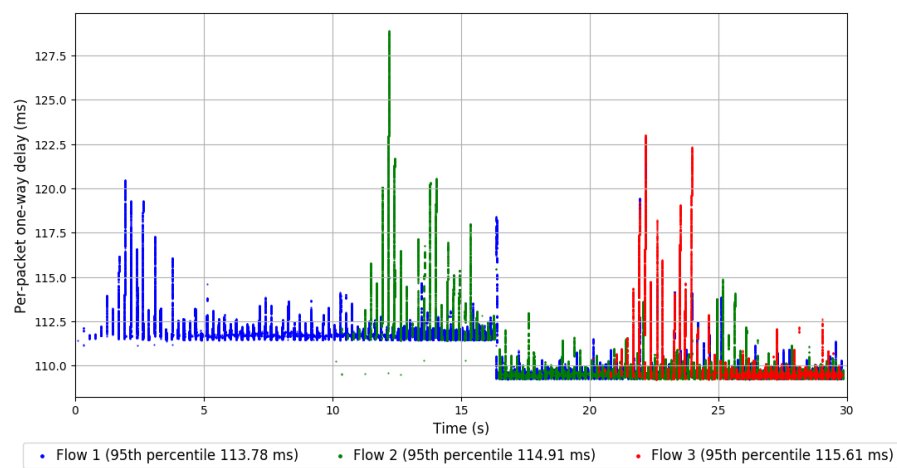
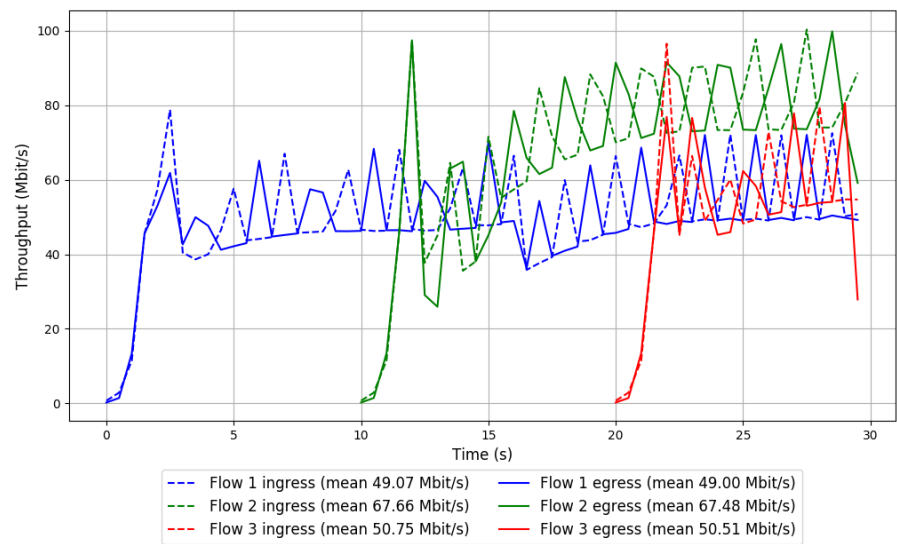
-- Flow 3:

Average throughput: 50.51 Mbit/s

95th percentile per-packet one-way delay: 115.606 ms

Loss rate: 2.72%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-05 22:21:34

End at: 2017-12-05 22:22:04

Below is generated by plot.py at 2017-12-06 01:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.72 Mbit/s

95th percentile per-packet one-way delay: 116.808 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 61.51 Mbit/s

95th percentile per-packet one-way delay: 113.751 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 66.40 Mbit/s

95th percentile per-packet one-way delay: 118.907 ms

Loss rate: 0.62%

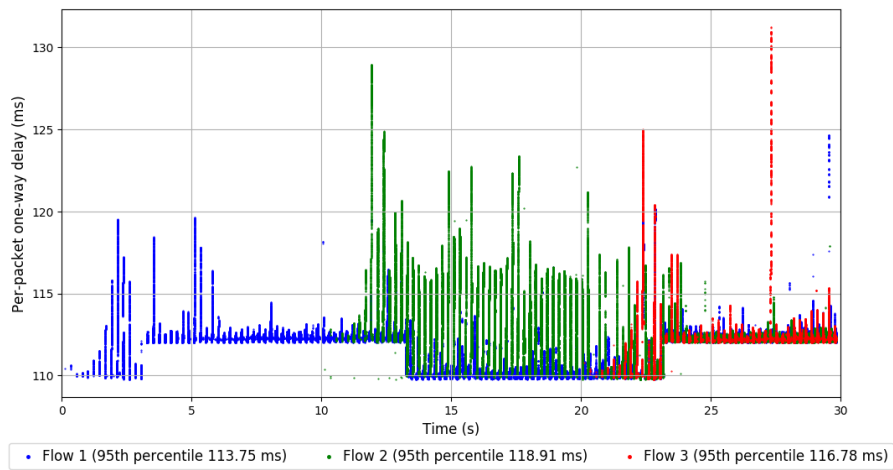
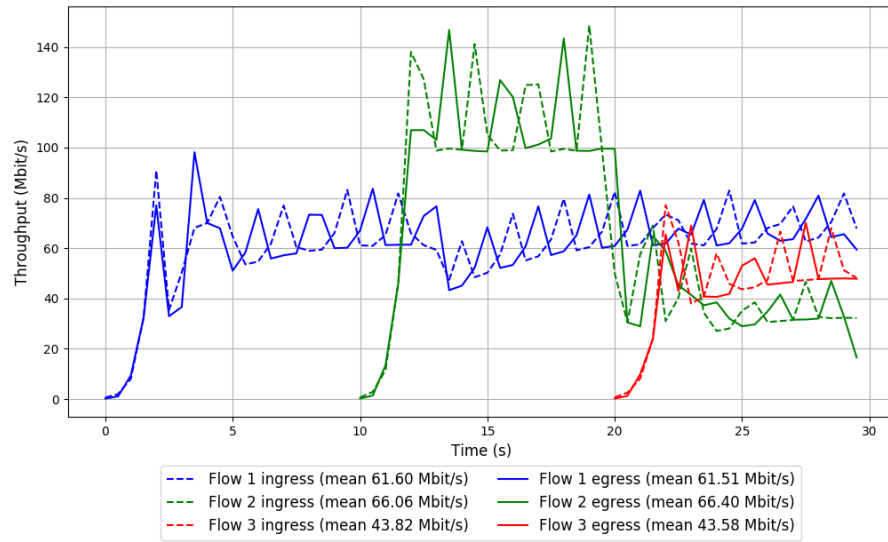
-- Flow 3:

Average throughput: 43.58 Mbit/s

95th percentile per-packet one-way delay: 116.785 ms

Loss rate: 2.77%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-05 22:35:04

End at: 2017-12-05 22:35:34

Below is generated by plot.py at 2017-12-06 01:51:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.44 Mbit/s

95th percentile per-packet one-way delay: 120.076 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 58.65 Mbit/s

95th percentile per-packet one-way delay: 119.713 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 92.42 Mbit/s

95th percentile per-packet one-way delay: 120.739 ms

Loss rate: 0.92%

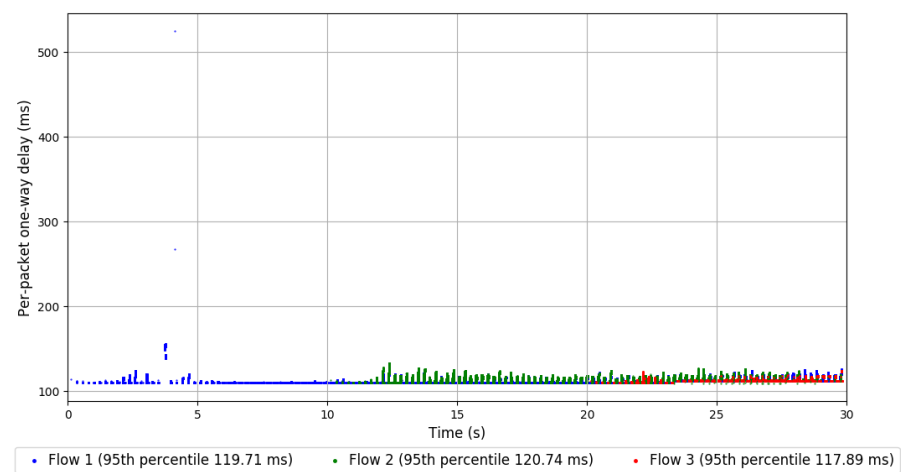
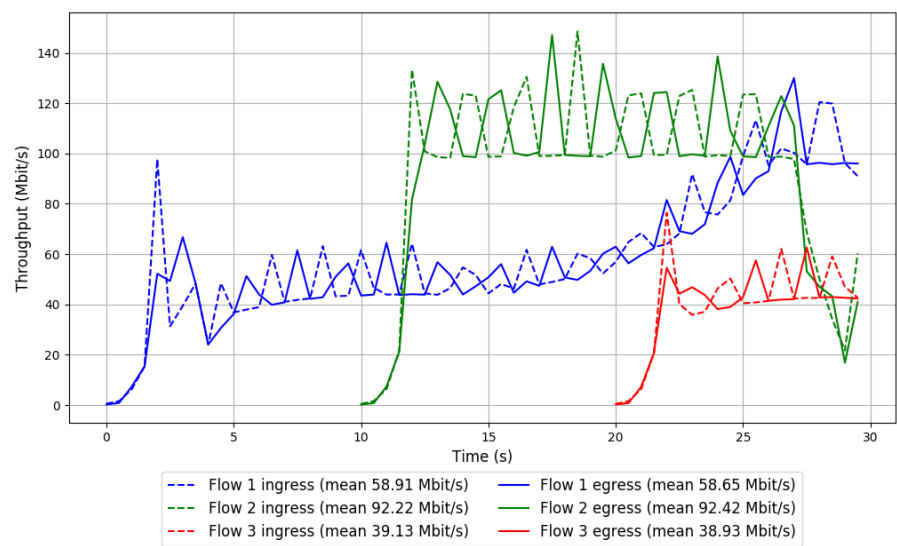
-- Flow 3:

Average throughput: 38.93 Mbit/s

95th percentile per-packet one-way delay: 117.890 ms

Loss rate: 2.76%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-05 22:48:41

End at: 2017-12-05 22:49:11

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.50 Mbit/s

95th percentile per-packet one-way delay: 119.932 ms

Loss rate: 1.69%

-- Flow 1:

Average throughput: 62.25 Mbit/s

95th percentile per-packet one-way delay: 120.077 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 62.35 Mbit/s

95th percentile per-packet one-way delay: 120.056 ms

Loss rate: 1.93%

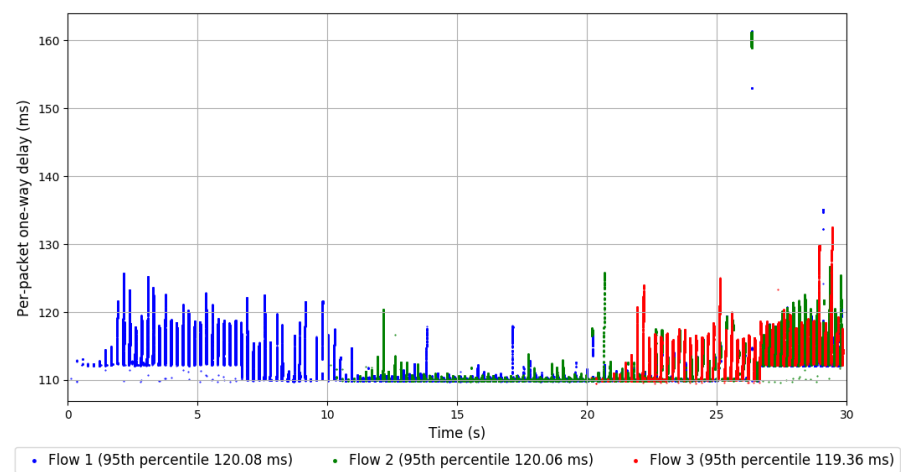
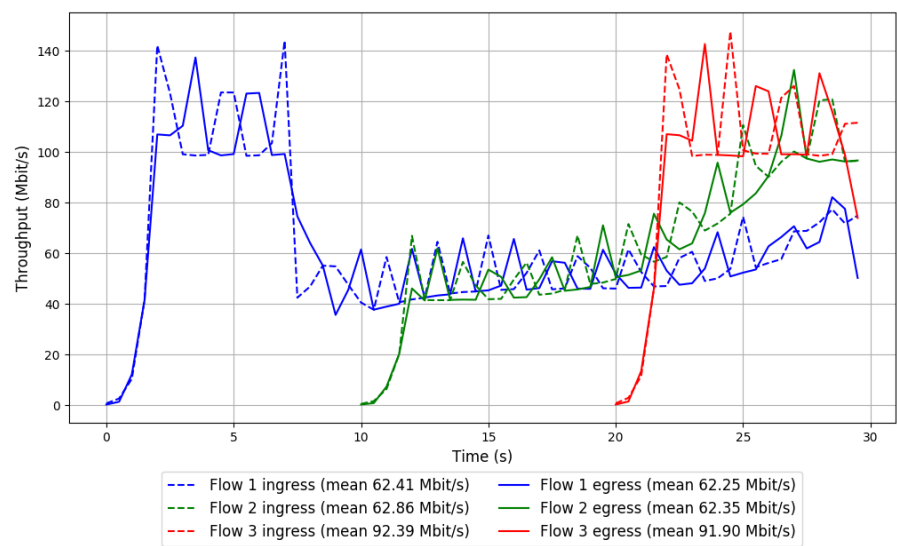
-- Flow 3:

Average throughput: 91.90 Mbit/s

95th percentile per-packet one-way delay: 119.356 ms

Loss rate: 2.72%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-05 23:01:58

End at: 2017-12-05 23:02:28

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.25 Mbit/s

95th percentile per-packet one-way delay: 115.347 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 53.27 Mbit/s

95th percentile per-packet one-way delay: 114.653 ms

Loss rate: 1.27%

-- Flow 2:

Average throughput: 57.52 Mbit/s

95th percentile per-packet one-way delay: 114.784 ms

Loss rate: 1.40%

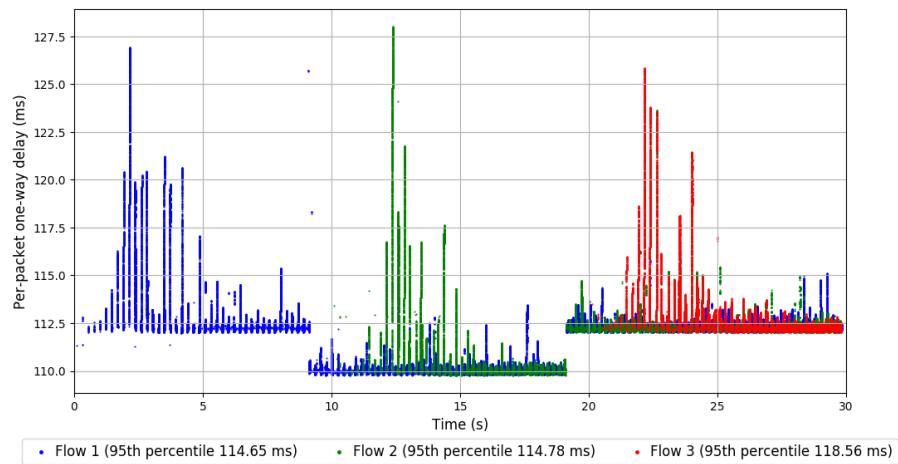
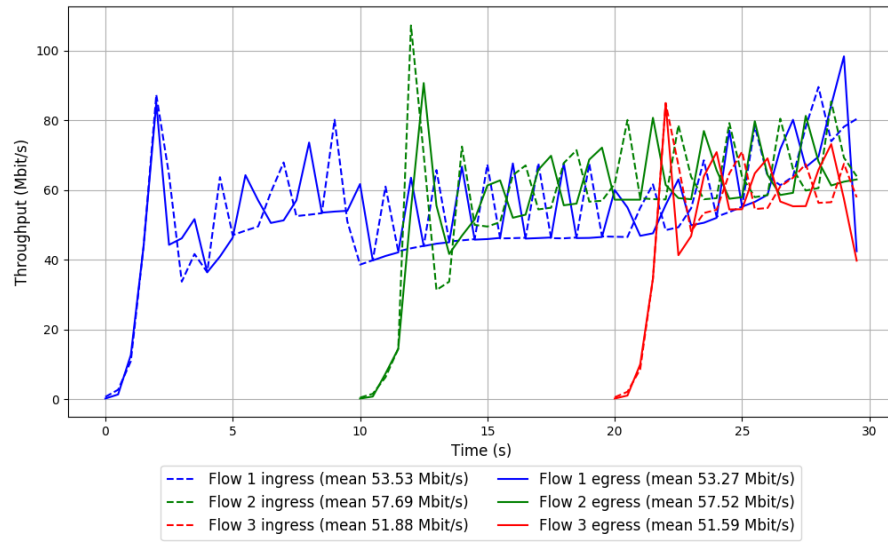
-- Flow 3:

Average throughput: 51.59 Mbit/s

95th percentile per-packet one-way delay: 118.555 ms

Loss rate: 2.82%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-05 23:15:41

End at: 2017-12-05 23:16:11

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.39 Mbit/s

95th percentile per-packet one-way delay: 117.335 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 30.51 Mbit/s

95th percentile per-packet one-way delay: 117.000 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 46.97 Mbit/s

95th percentile per-packet one-way delay: 116.841 ms

Loss rate: 1.16%

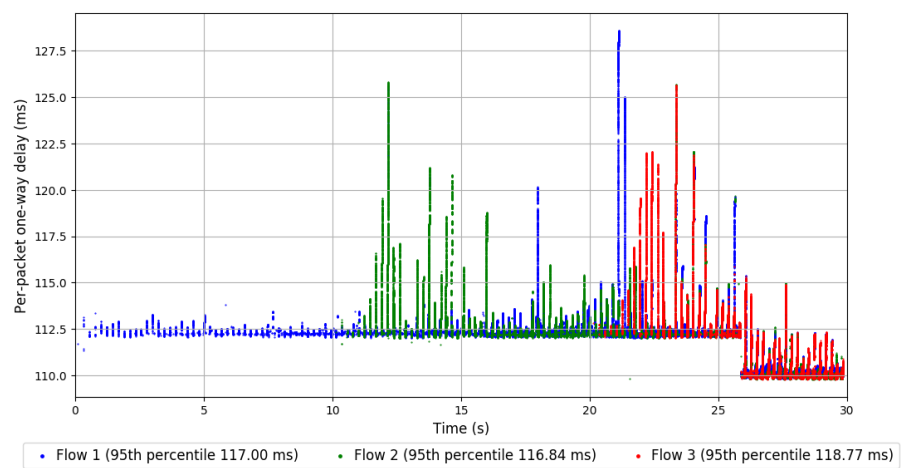
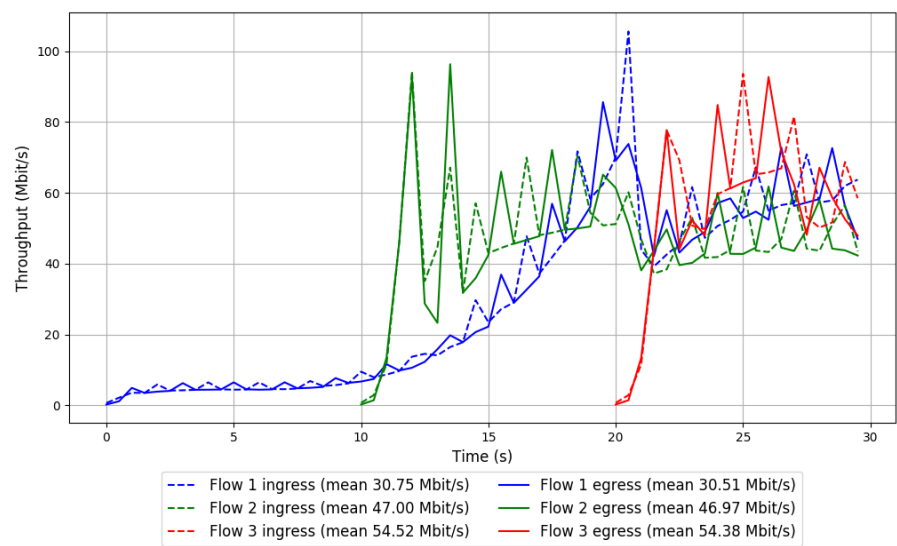
-- Flow 3:

Average throughput: 54.38 Mbit/s

95th percentile per-packet one-way delay: 118.773 ms

Loss rate: 2.51%

Run 10: Report of TCP Cubic — Data Link

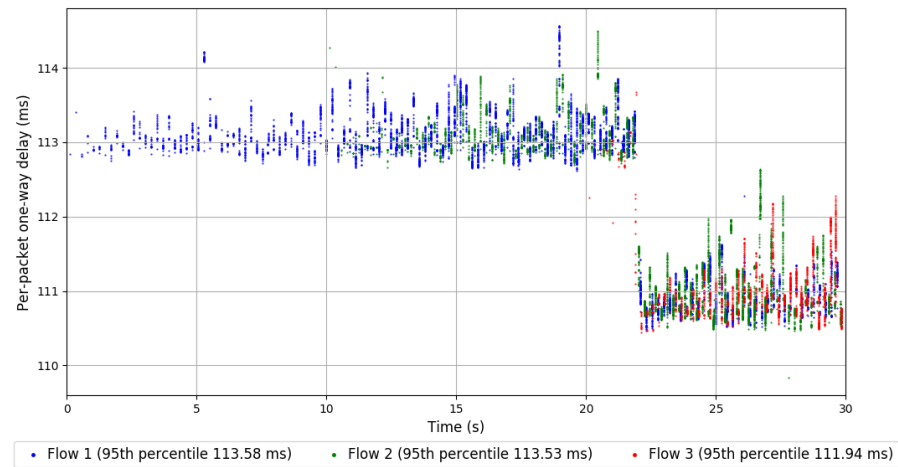
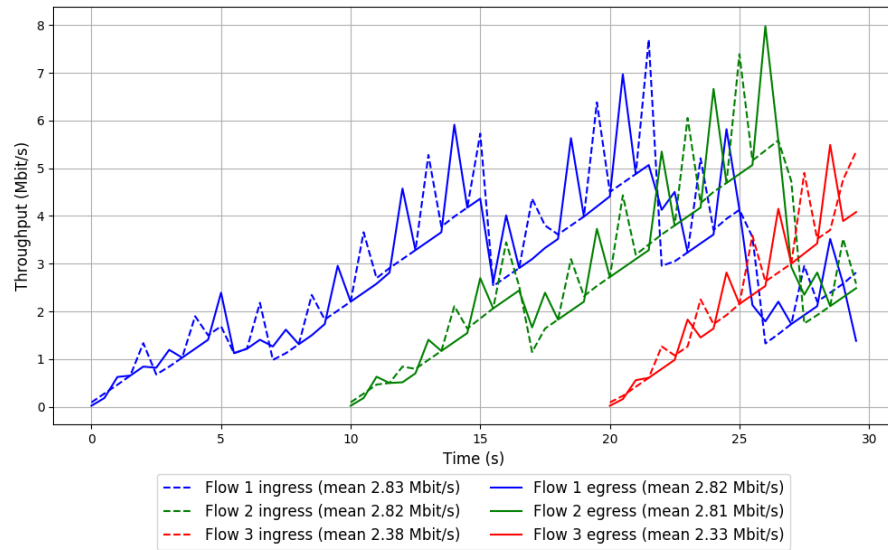


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-05 21:18:55
End at: 2017-12-05 21:19:25

# Below is generated by plot.py at 2017-12-06 01:51:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 113.531 ms
Loss rate: 1.69%
-- Flow 1:
Average throughput: 2.82 Mbit/s
95th percentile per-packet one-way delay: 113.576 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 2.81 Mbit/s
95th percentile per-packet one-way delay: 113.528 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 111.940 ms
Loss rate: 4.51%
```


Run 1: Report of LEDBAT — Data Link

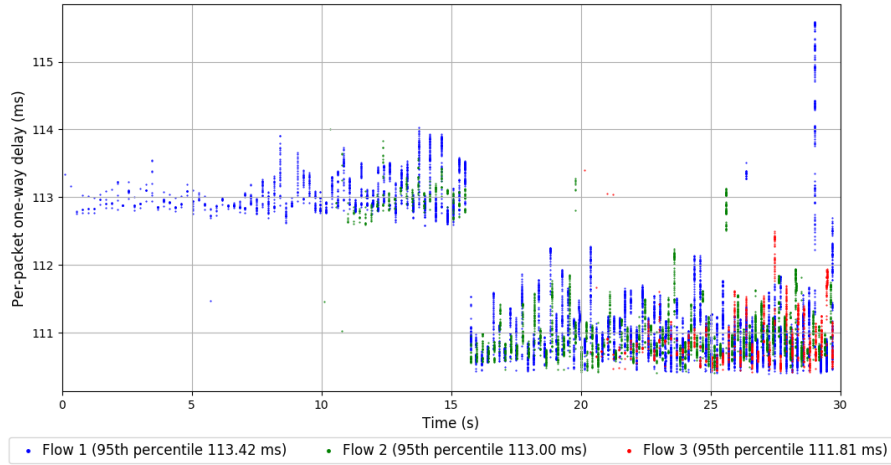
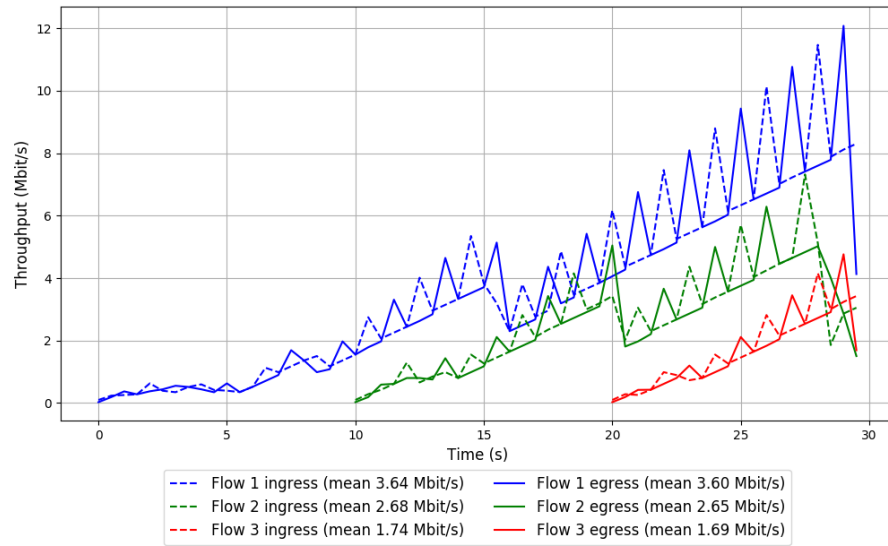


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-05 21:32:32
End at: 2017-12-05 21:33:02

# Below is generated by plot.py at 2017-12-06 01:51:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.89 Mbit/s
95th percentile per-packet one-way delay: 113.252 ms
Loss rate: 2.27%
-- Flow 1:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 113.422 ms
Loss rate: 1.92%
-- Flow 2:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 113.003 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 111.813 ms
Loss rate: 5.10%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-05 21:46:06

End at: 2017-12-05 21:46:36

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 113.461 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 113.464 ms

Loss rate: 1.67%

-- Flow 2:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 113.535 ms

Loss rate: 2.15%

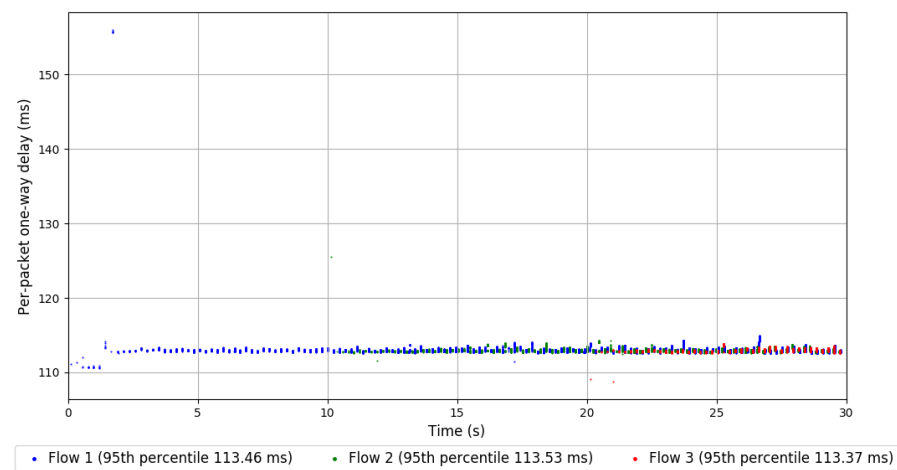
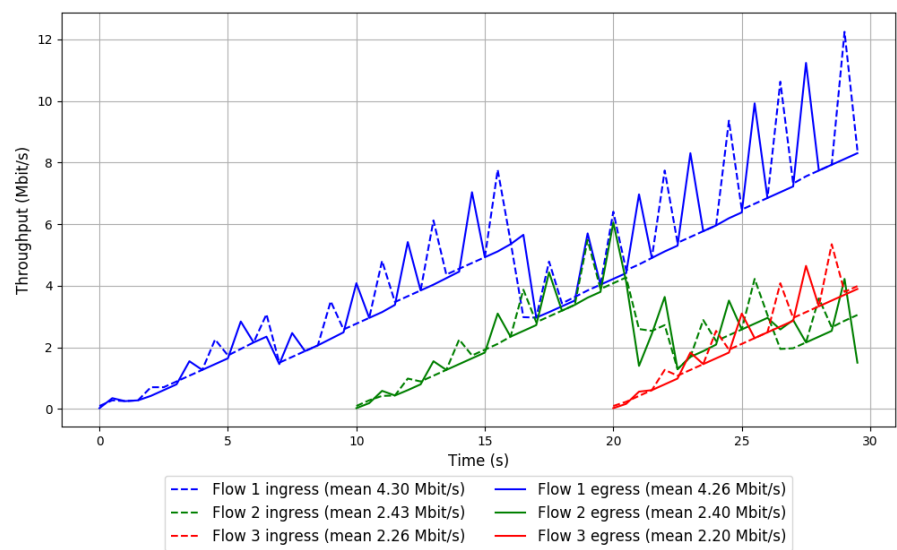
-- Flow 3:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 113.369 ms

Loss rate: 4.54%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-12-05 21:59:48

End at: 2017-12-05 22:00:18

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.49 Mbit/s

95th percentile per-packet one-way delay: 112.037 ms

Loss rate: 2.37%

-- Flow 1:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 112.039 ms

Loss rate: 1.90%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 112.064 ms

Loss rate: 2.67%

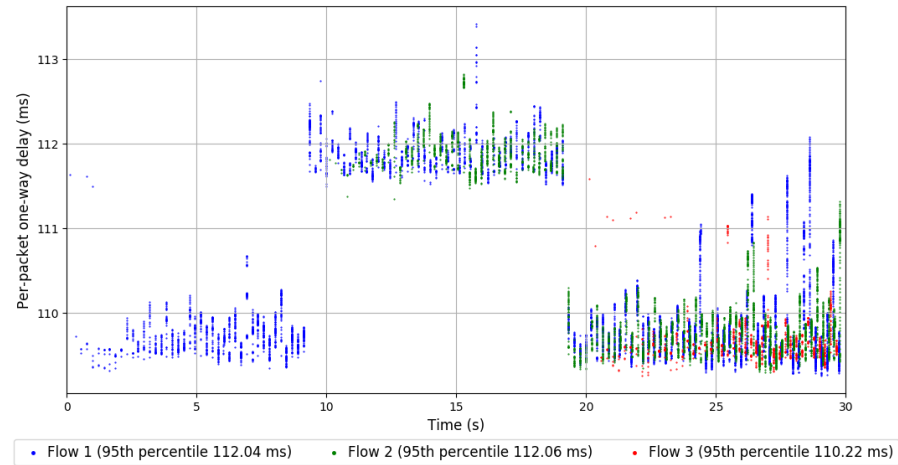
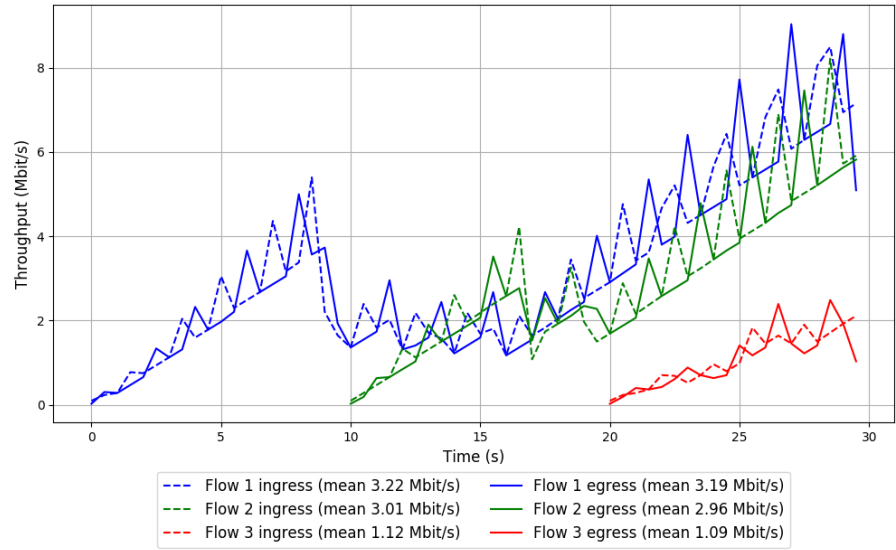
-- Flow 3:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 110.220 ms

Loss rate: 4.93%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-05 22:13:44

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

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.37 Mbit/s

95th percentile per-packet one-way delay: 112.791 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 5.34 Mbit/s

95th percentile per-packet one-way delay: 112.950 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 112.606 ms

Loss rate: 2.72%

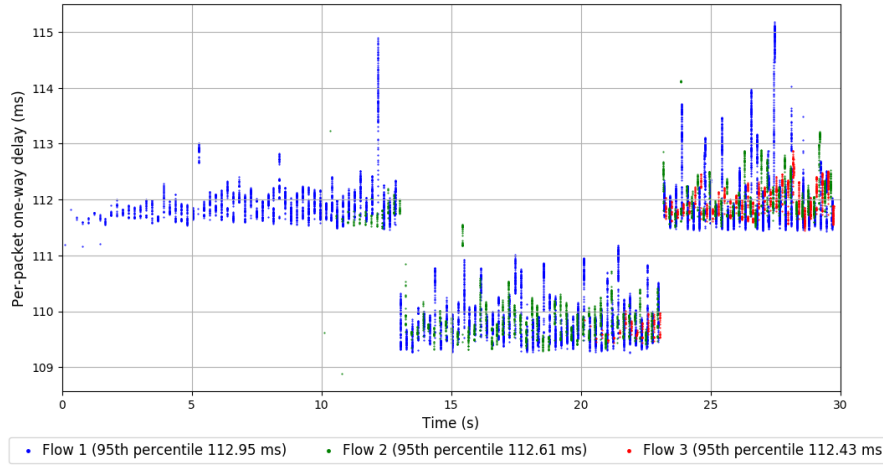
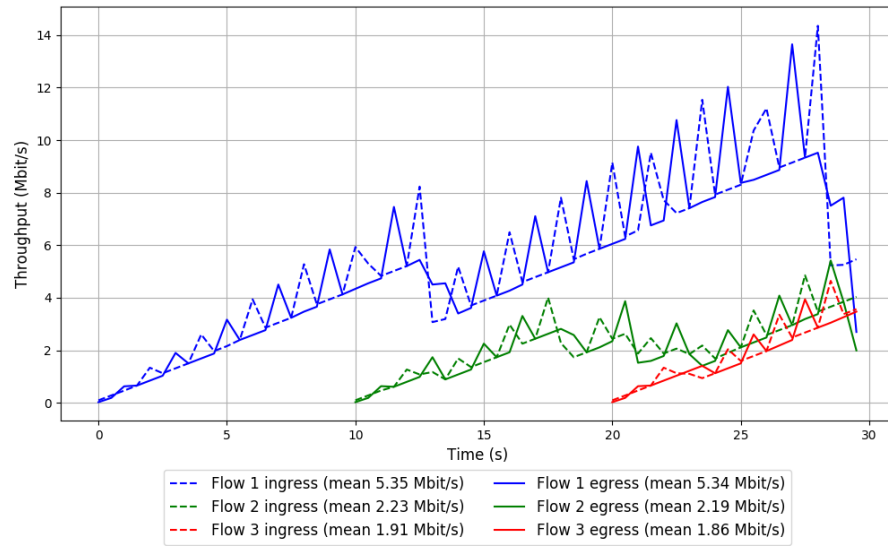
-- Flow 3:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 112.434 ms

Loss rate: 4.82%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-05 22:27:05

End at: 2017-12-05 22:27:35

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.05 Mbit/s

95th percentile per-packet one-way delay: 112.965 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 3.24 Mbit/s

95th percentile per-packet one-way delay: 112.788 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 3.34 Mbit/s

95th percentile per-packet one-way delay: 113.234 ms

Loss rate: 1.37%

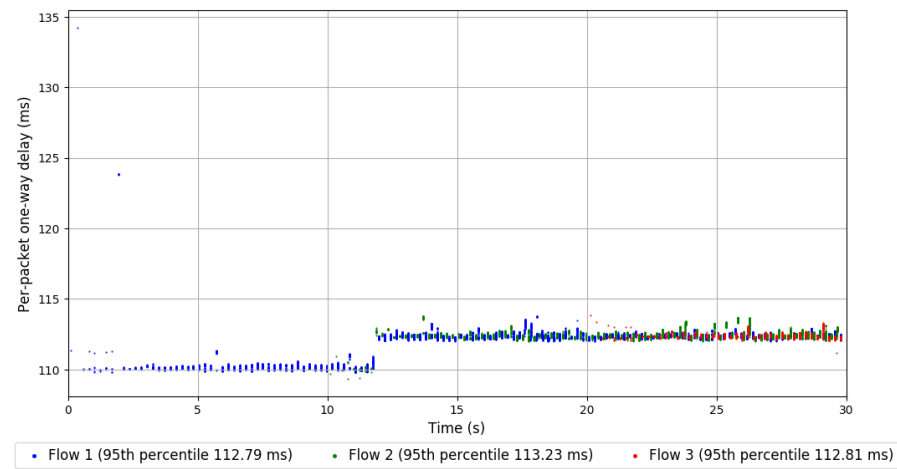
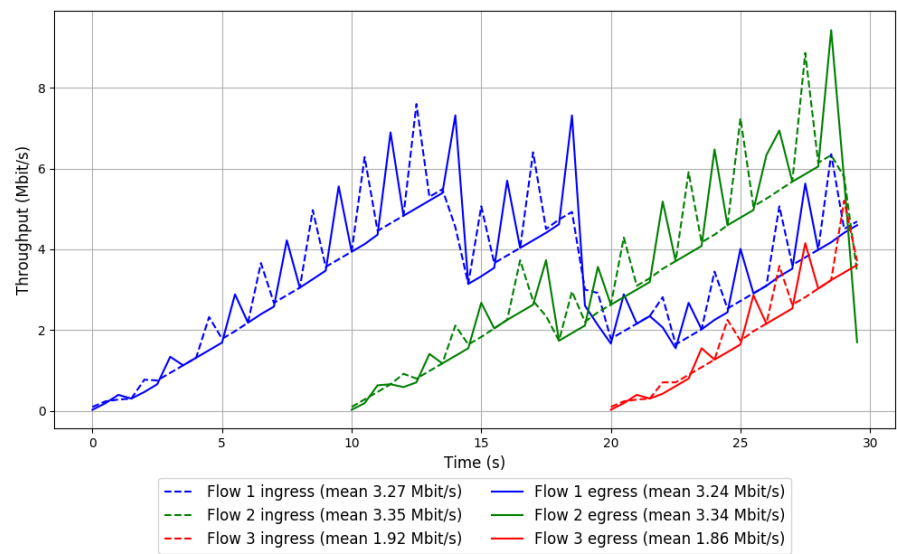
-- Flow 3:

Average throughput: 1.86 Mbit/s

95th percentile per-packet one-way delay: 112.813 ms

Loss rate: 4.95%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-05 22:40:55

End at: 2017-12-05 22:41:25

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.65 Mbit/s

95th percentile per-packet one-way delay: 111.558 ms

Loss rate: 2.35%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 112.298 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 3.06 Mbit/s

95th percentile per-packet one-way delay: 110.973 ms

Loss rate: 2.26%

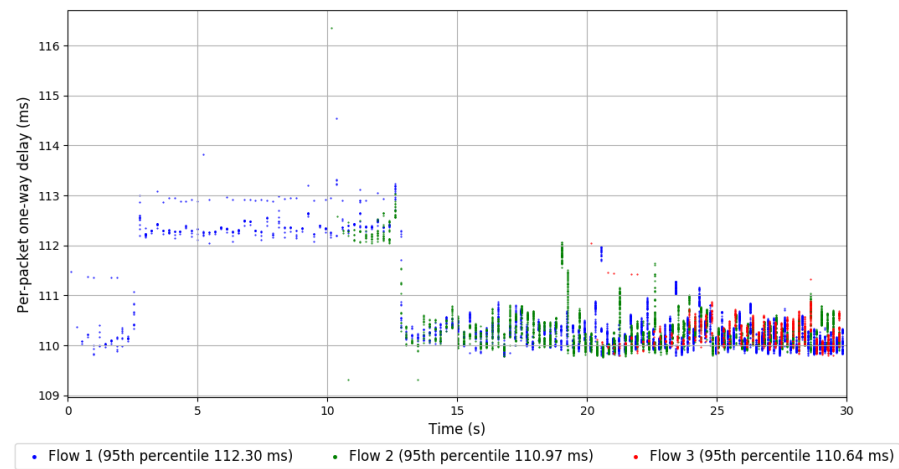
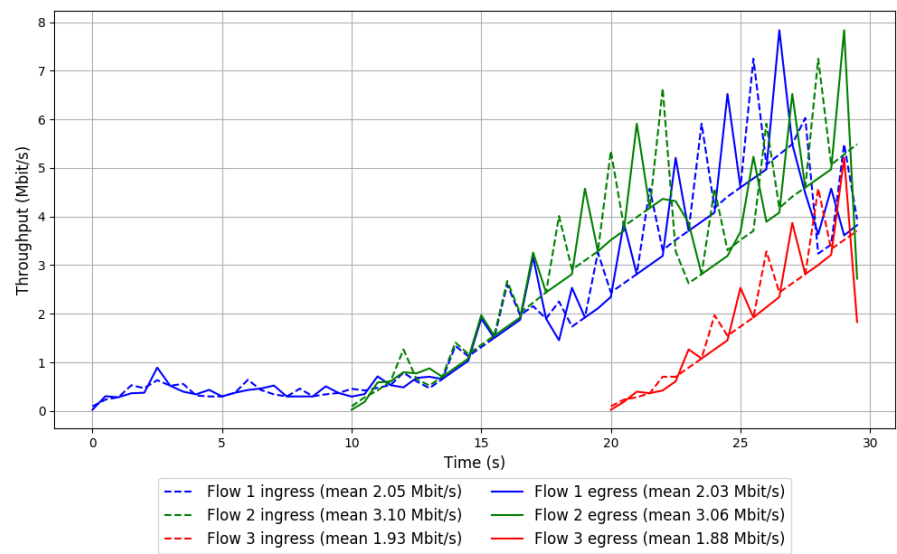
-- Flow 3:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 110.636 ms

Loss rate: 4.96%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-05 22:53:57

End at: 2017-12-05 22:54:27

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.44 Mbit/s

95th percentile per-packet one-way delay: 112.826 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 112.725 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 3.42 Mbit/s

95th percentile per-packet one-way delay: 112.876 ms

Loss rate: 1.40%

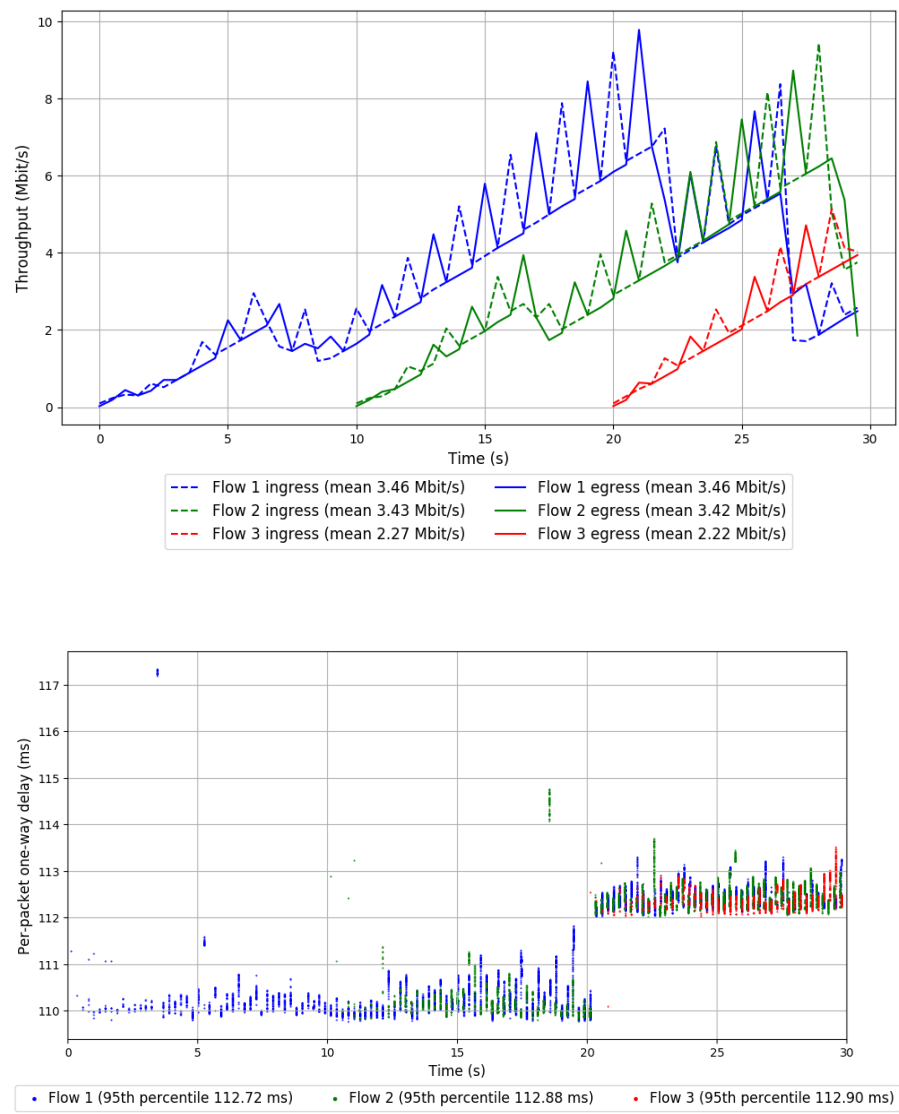
-- Flow 3:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 112.899 ms

Loss rate: 4.55%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-05 23:07:48

End at: 2017-12-05 23:08:18

Below is generated by plot.py at 2017-12-06 01:51:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.82 Mbit/s

95th percentile per-packet one-way delay: 112.583 ms

Loss rate: 2.00%

-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 112.696 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 112.500 ms

Loss rate: 2.37%

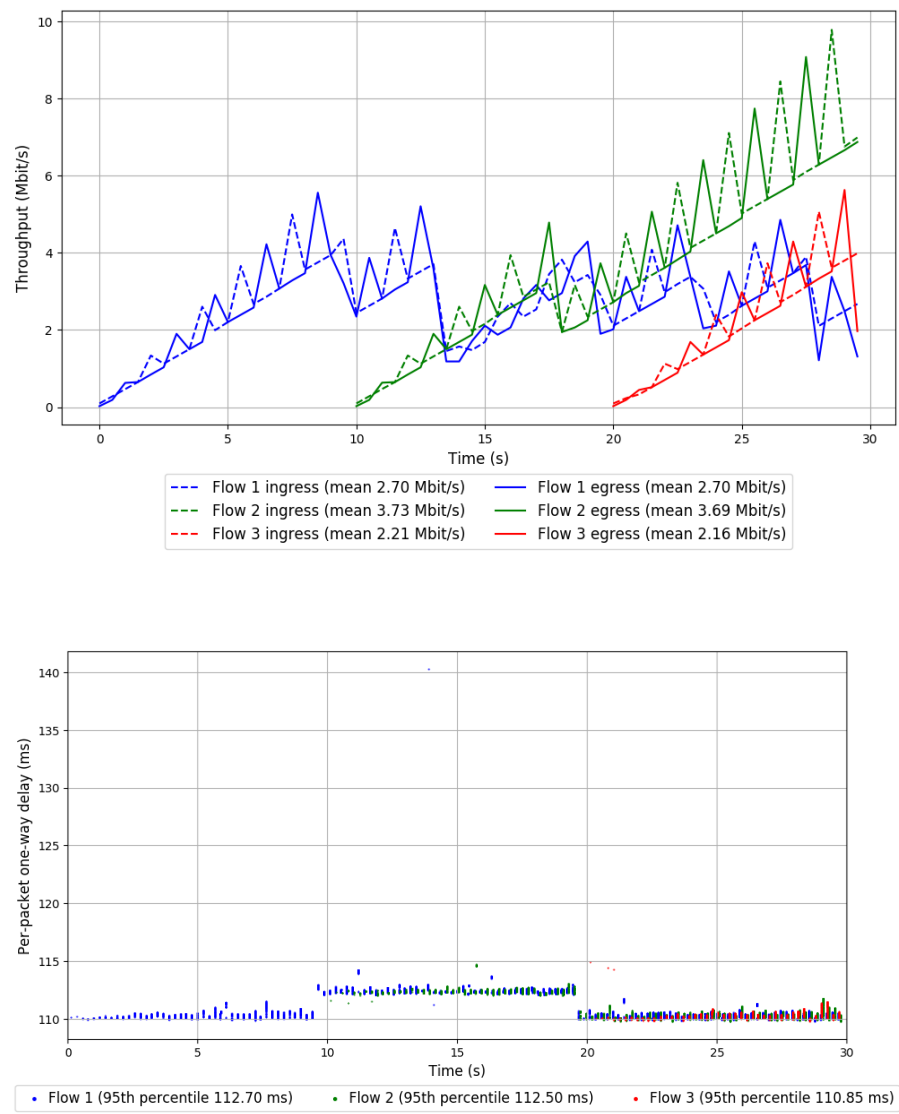
-- Flow 3:

Average throughput: 2.16 Mbit/s

95th percentile per-packet one-way delay: 110.846 ms

Loss rate: 4.66%

Run 9: Report of LEDBAT — Data Link

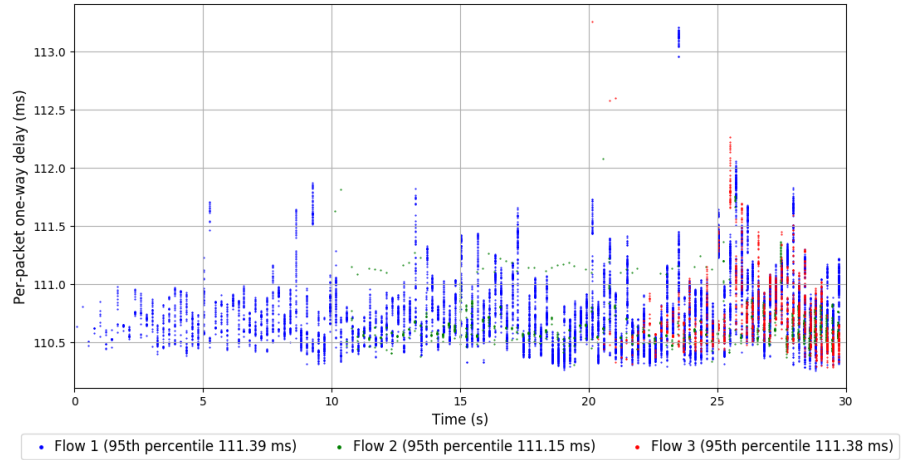
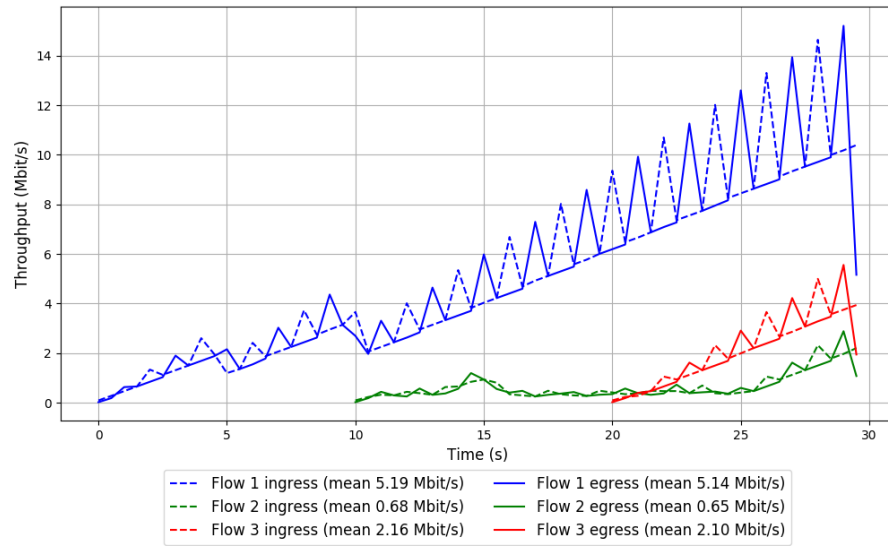


```
Run 10: Statistics of LEDBAT

Start at: 2017-12-05 23:20:53
End at: 2017-12-05 23:21:23

# Below is generated by plot.py at 2017-12-06 01:51:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.26 Mbit/s
95th percentile per-packet one-way delay: 111.370 ms
Loss rate: 2.22%
-- Flow 1:
Average throughput: 5.14 Mbit/s
95th percentile per-packet one-way delay: 111.385 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 111.147 ms
Loss rate: 4.21%
-- Flow 3:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 111.380 ms
Loss rate: 4.71%
```

Run 10: Report of LEDBAT — Data Link

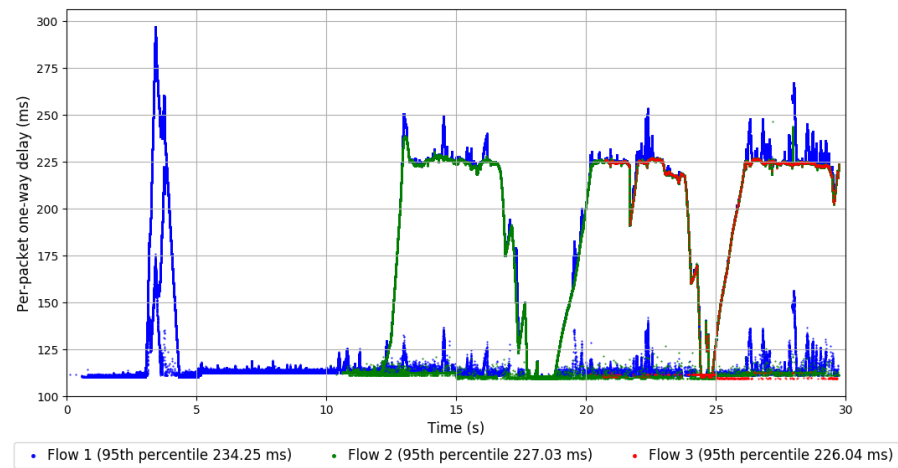
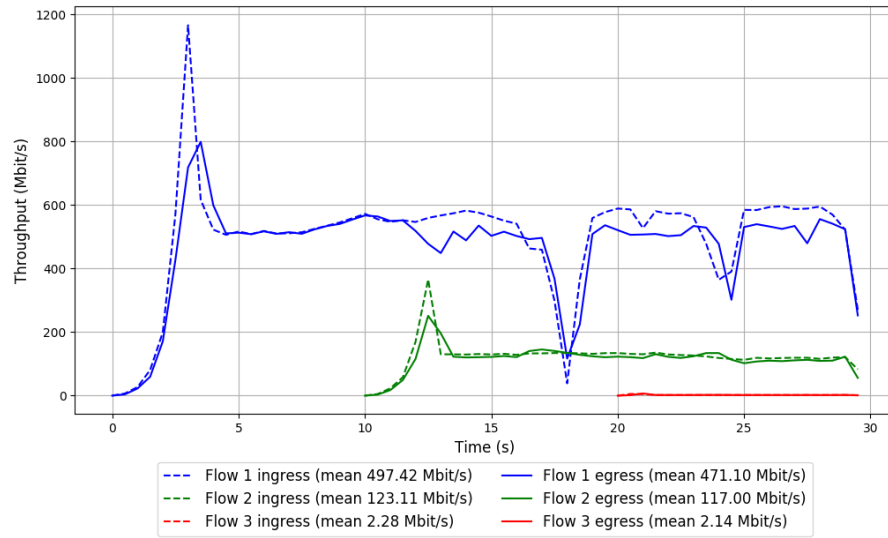


```
Run 1: Statistics of PCC

Start at: 2017-12-05 21:19:42
End at: 2017-12-05 21:20:12

# Below is generated by plot.py at 2017-12-06 01:59:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 549.20 Mbit/s
95th percentile per-packet one-way delay: 233.119 ms
Loss rate: 6.01%
-- Flow 1:
Average throughput: 471.10 Mbit/s
95th percentile per-packet one-way delay: 234.245 ms
Loss rate: 6.00%
-- Flow 2:
Average throughput: 117.00 Mbit/s
95th percentile per-packet one-way delay: 227.026 ms
Loss rate: 6.05%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 226.044 ms
Loss rate: 8.30%
```

Run 1: Report of PCC — Data Link

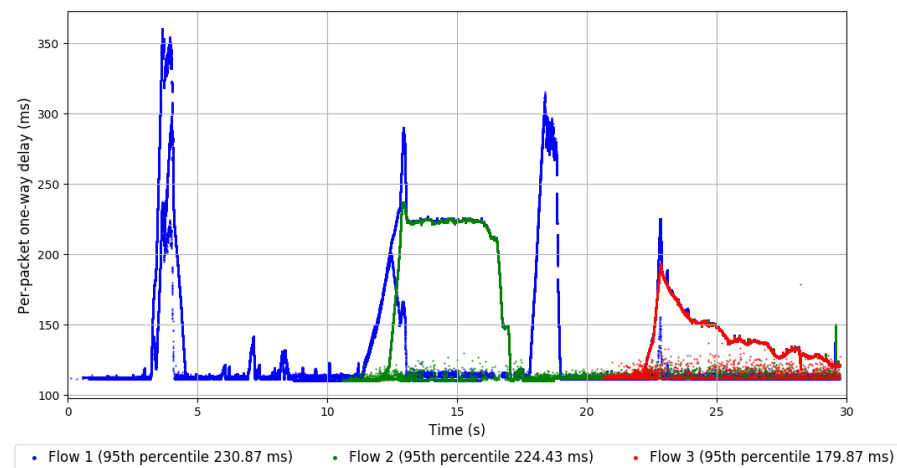
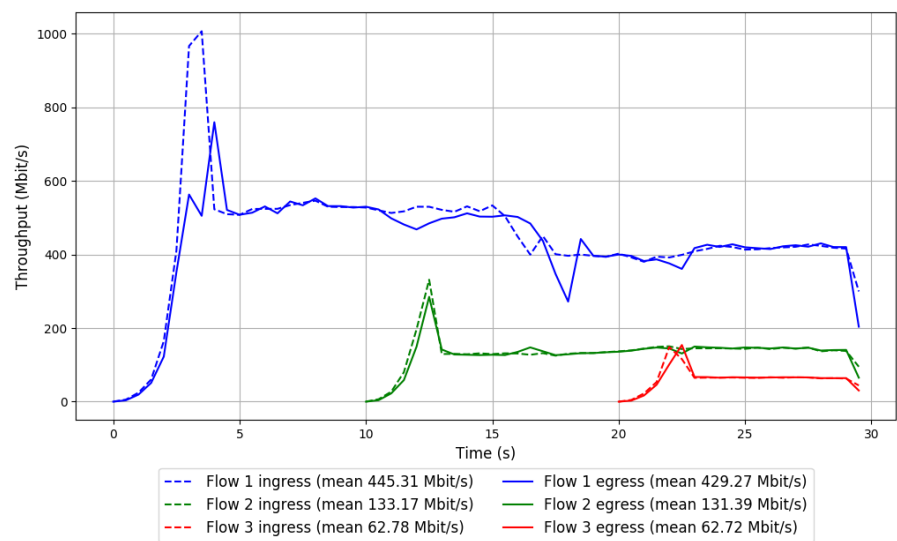


```
Run 2: Statistics of PCC

Start at: 2017-12-05 21:33:18
End at: 2017-12-05 21:33:48

# Below is generated by plot.py at 2017-12-06 01:59:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 536.47 Mbit/s
95th percentile per-packet one-way delay: 225.447 ms
Loss rate: 3.95%
-- Flow 1:
Average throughput: 429.27 Mbit/s
95th percentile per-packet one-way delay: 230.868 ms
Loss rate: 4.32%
-- Flow 2:
Average throughput: 131.39 Mbit/s
95th percentile per-packet one-way delay: 224.429 ms
Loss rate: 2.45%
-- Flow 3:
Average throughput: 62.72 Mbit/s
95th percentile per-packet one-way delay: 179.869 ms
Loss rate: 2.35%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-05 21:46:53

End at: 2017-12-05 21:47:23

Below is generated by plot.py at 2017-12-06 01:59:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 501.87 Mbit/s

95th percentile per-packet one-way delay: 243.365 ms

Loss rate: 3.49%

-- Flow 1:

Average throughput: 474.86 Mbit/s

95th percentile per-packet one-way delay: 243.443 ms

Loss rate: 3.55%

-- Flow 2:

Average throughput: 38.71 Mbit/s

95th percentile per-packet one-way delay: 242.691 ms

Loss rate: 2.36%

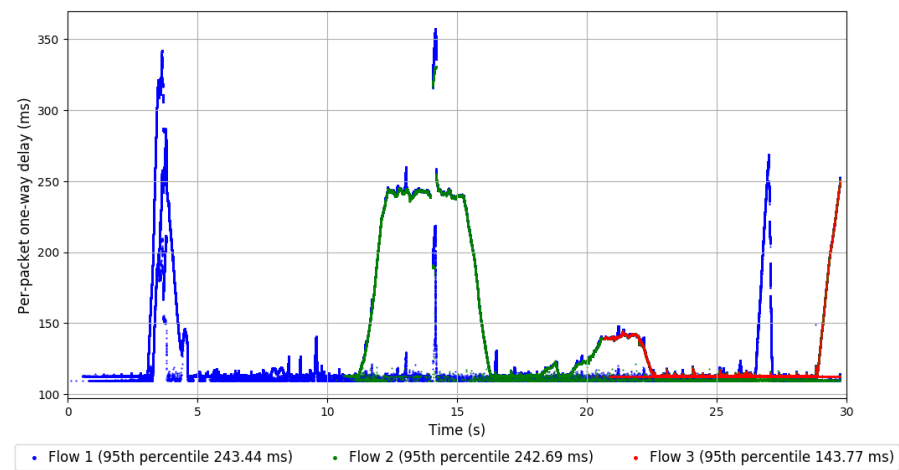
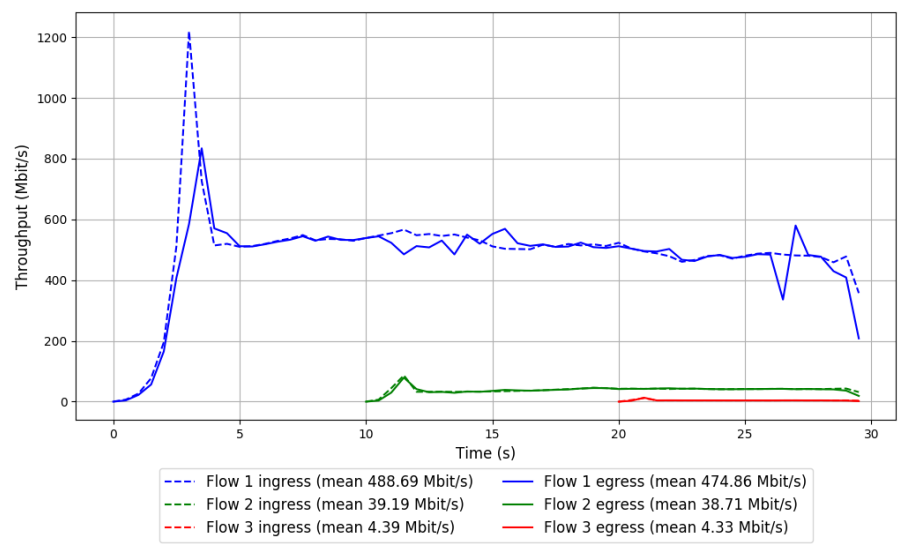
-- Flow 3:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 143.773 ms

Loss rate: 3.56%

Run 3: Report of PCC — Data Link

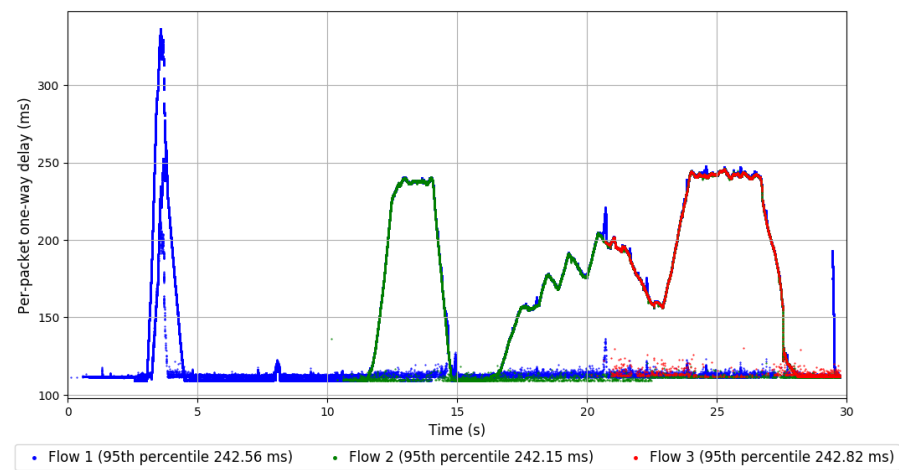
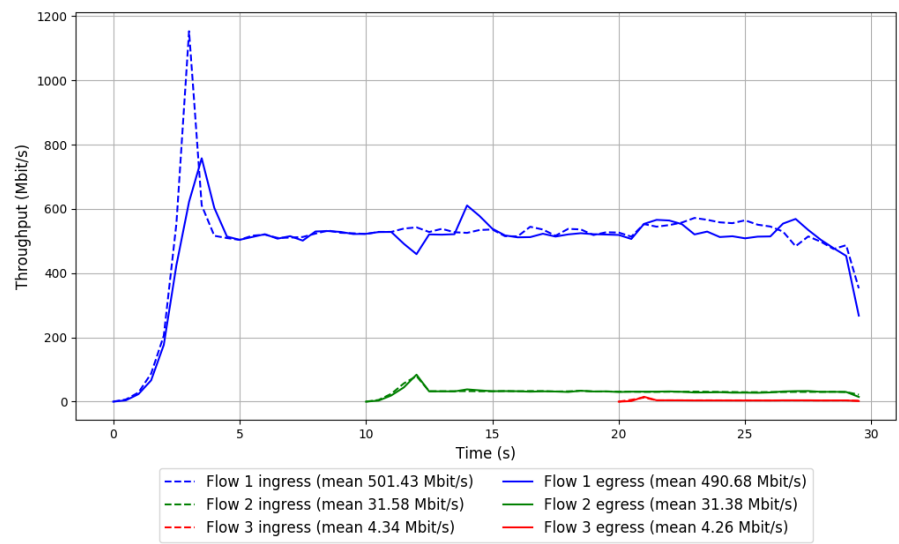


```
Run 4: Statistics of PCC

Start at: 2017-12-05 22:00:35
End at: 2017-12-05 22:01:05

# Below is generated by plot.py at 2017-12-06 01:59:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 512.81 Mbit/s
95th percentile per-packet one-way delay: 242.540 ms
Loss rate: 2.84%
-- Flow 1:
Average throughput: 490.68 Mbit/s
95th percentile per-packet one-way delay: 242.558 ms
Loss rate: 2.88%
-- Flow 2:
Average throughput: 31.38 Mbit/s
95th percentile per-packet one-way delay: 242.153 ms
Loss rate: 1.86%
-- Flow 3:
Average throughput: 4.26 Mbit/s
95th percentile per-packet one-way delay: 242.816 ms
Loss rate: 4.10%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-05 22:14:32

End at: 2017-12-05 22:15:02

Below is generated by plot.py at 2017-12-06 02:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 544.16 Mbit/s

95th percentile per-packet one-way delay: 223.892 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 458.82 Mbit/s

95th percentile per-packet one-way delay: 224.171 ms

Loss rate: 2.51%

-- Flow 2:

Average throughput: 125.05 Mbit/s

95th percentile per-packet one-way delay: 222.589 ms

Loss rate: 2.61%

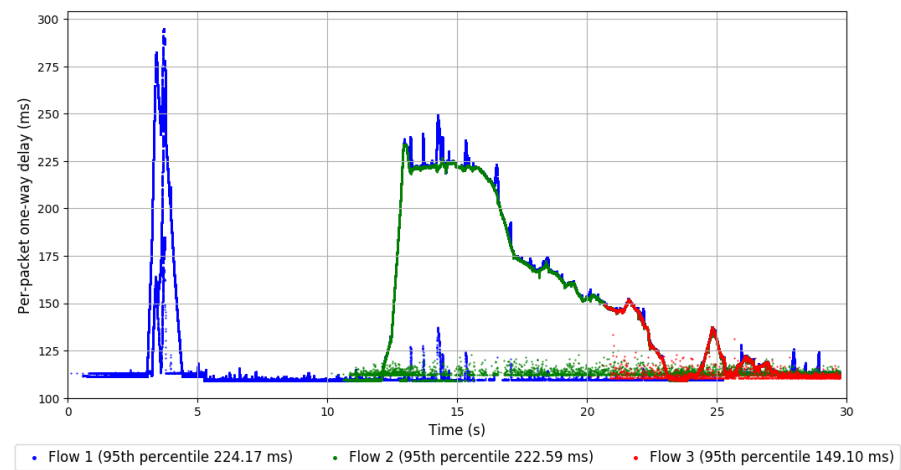
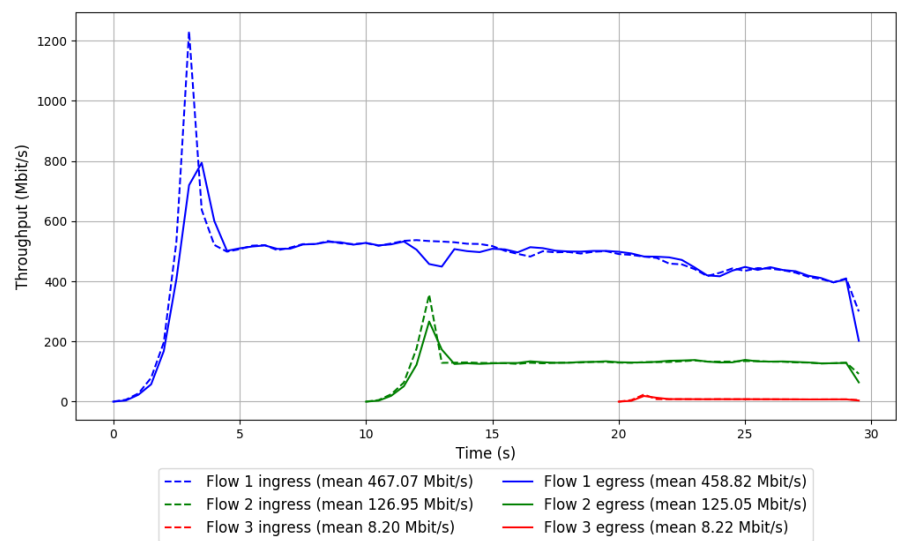
-- Flow 3:

Average throughput: 8.22 Mbit/s

95th percentile per-packet one-way delay: 149.100 ms

Loss rate: 2.10%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-05 22:27:52

End at: 2017-12-05 22:28:22

Below is generated by plot.py at 2017-12-06 02:00:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 532.64 Mbit/s

95th percentile per-packet one-way delay: 178.470 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 485.19 Mbit/s

95th percentile per-packet one-way delay: 179.241 ms

Loss rate: 1.70%

-- Flow 2:

Average throughput: 67.54 Mbit/s

95th percentile per-packet one-way delay: 174.970 ms

Loss rate: 1.33%

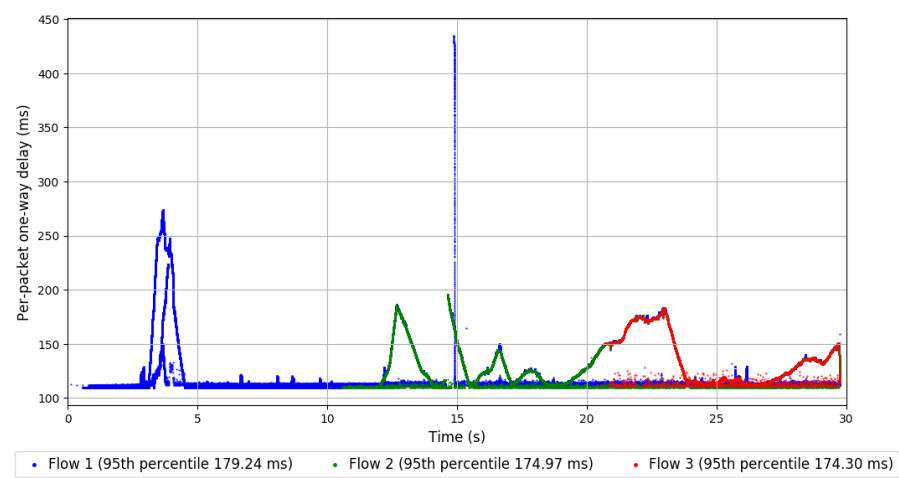
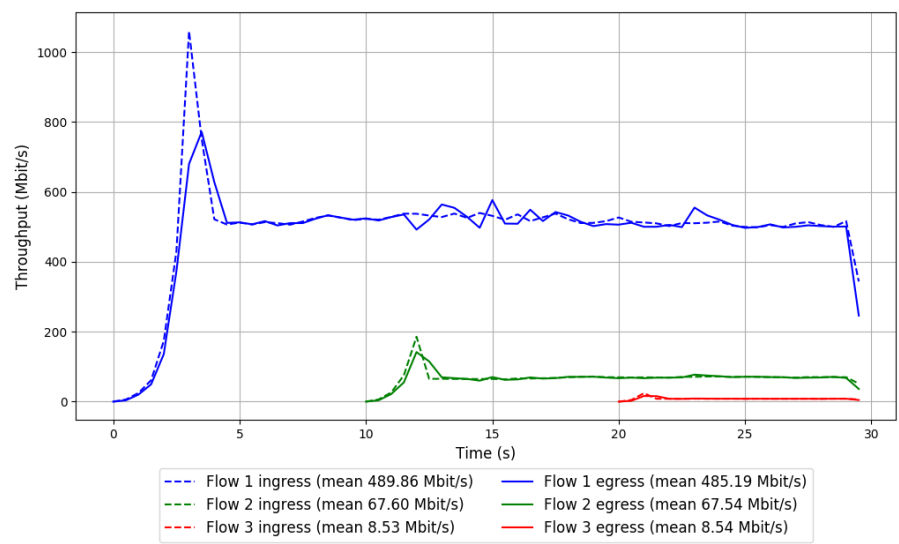
-- Flow 3:

Average throughput: 8.54 Mbit/s

95th percentile per-packet one-way delay: 174.299 ms

Loss rate: 2.42%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-05 22:41:41

End at: 2017-12-05 22:42:11

Below is generated by plot.py at 2017-12-06 02:00:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 502.21 Mbit/s

95th percentile per-packet one-way delay: 207.479 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 488.43 Mbit/s

95th percentile per-packet one-way delay: 207.523 ms

Loss rate: 1.85%

-- Flow 2:

Average throughput: 4.54 Mbit/s

95th percentile per-packet one-way delay: 200.449 ms

Loss rate: 1.17%

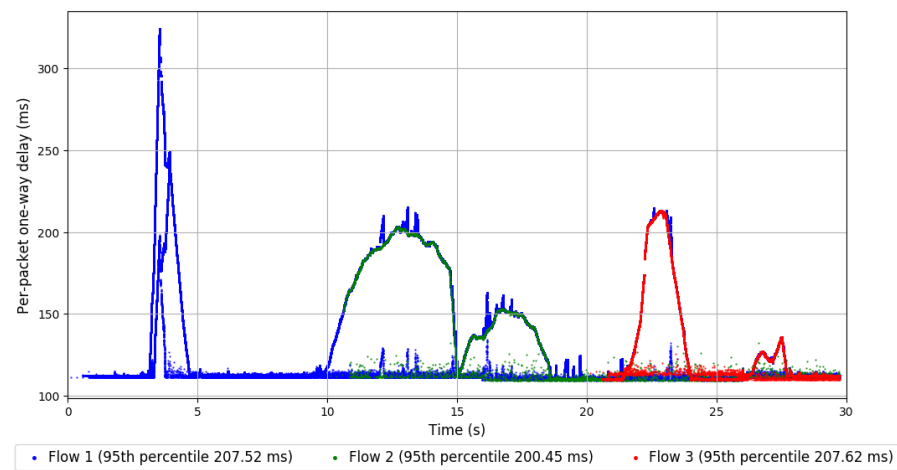
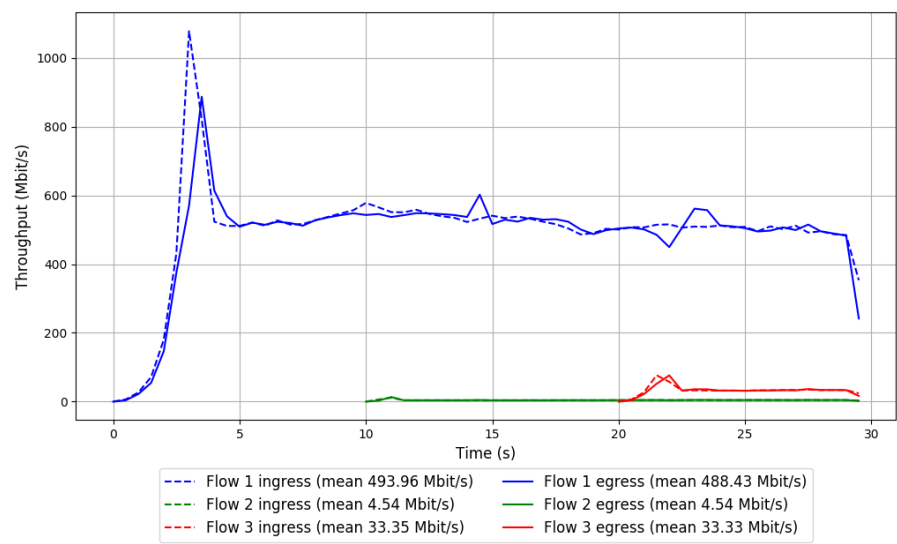
-- Flow 3:

Average throughput: 33.33 Mbit/s

95th percentile per-packet one-way delay: 207.619 ms

Loss rate: 2.33%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-05 22:54:44

End at: 2017-12-05 22:55:14

Below is generated by plot.py at 2017-12-06 02:01:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.73 Mbit/s

95th percentile per-packet one-way delay: 221.491 ms

Loss rate: 1.71%

-- Flow 1:

Average throughput: 499.67 Mbit/s

95th percentile per-packet one-way delay: 221.558 ms

Loss rate: 1.74%

-- Flow 2:

Average throughput: 64.40 Mbit/s

95th percentile per-packet one-way delay: 220.948 ms

Loss rate: 1.26%

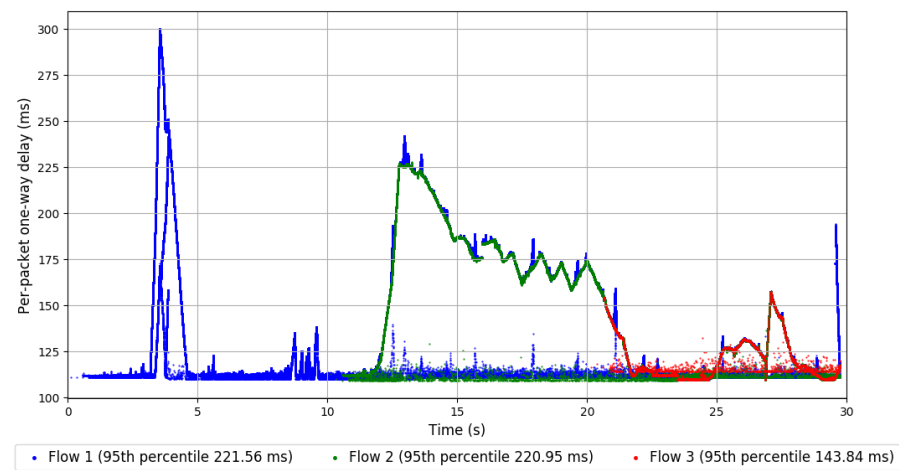
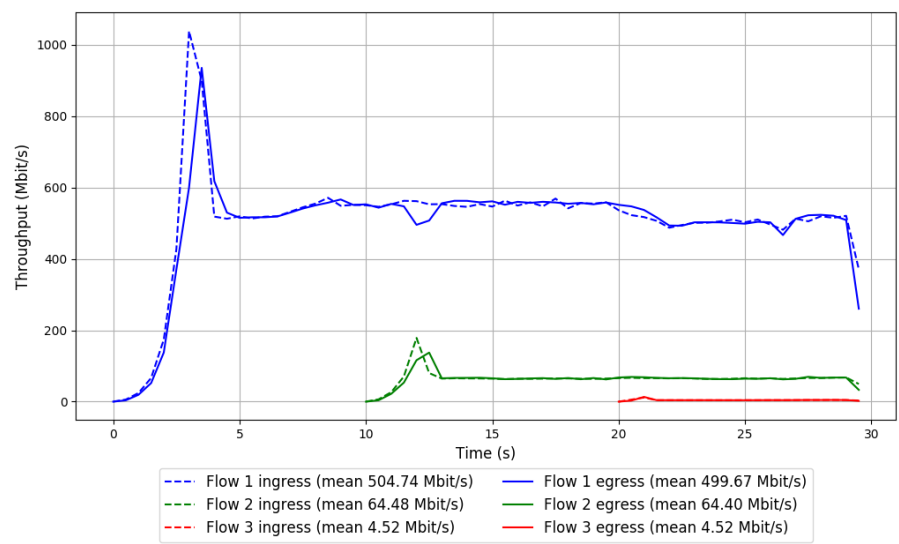
-- Flow 3:

Average throughput: 4.52 Mbit/s

95th percentile per-packet one-way delay: 143.839 ms

Loss rate: 2.32%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-05 23:08:34

End at: 2017-12-05 23:09:04

Below is generated by plot.py at 2017-12-06 02:08:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 490.13 Mbit/s

95th percentile per-packet one-way delay: 208.379 ms

Loss rate: 2.07%

-- Flow 1:

Average throughput: 466.94 Mbit/s

95th percentile per-packet one-way delay: 208.570 ms

Loss rate: 2.05%

-- Flow 2:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 169.498 ms

Loss rate: 1.23%

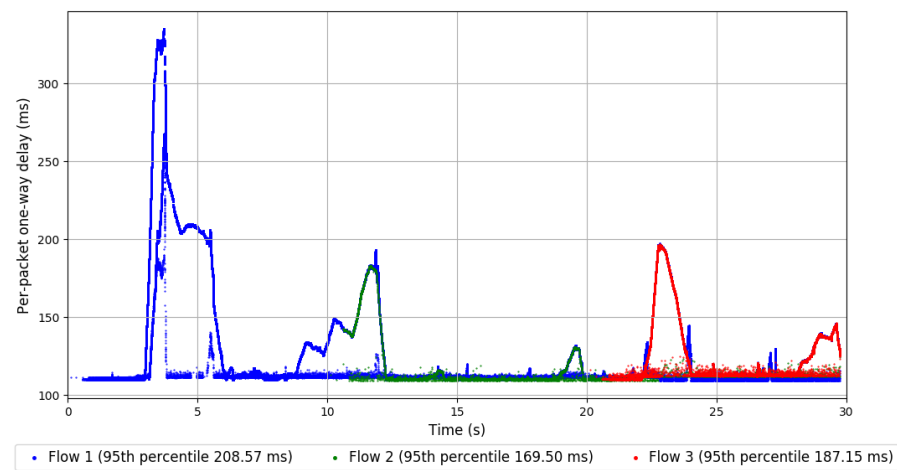
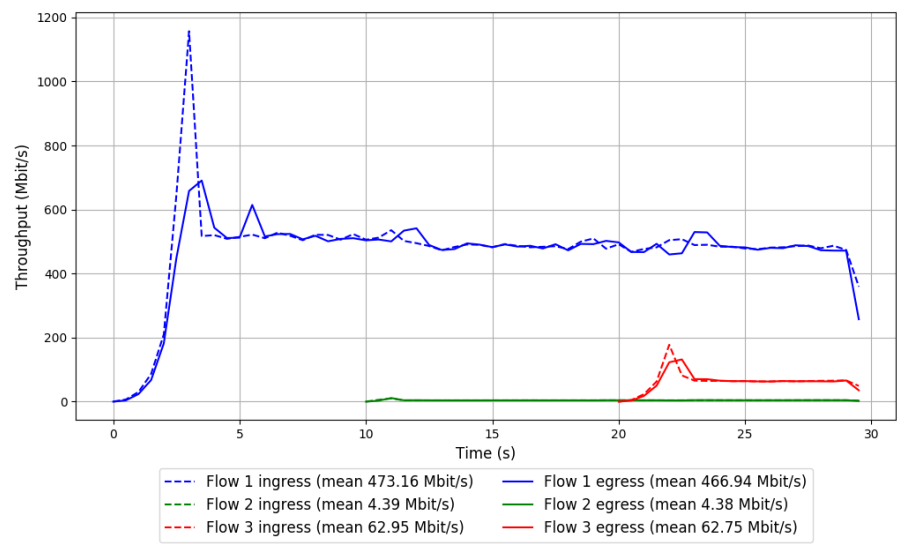
-- Flow 3:

Average throughput: 62.75 Mbit/s

95th percentile per-packet one-way delay: 187.152 ms

Loss rate: 2.63%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2017-12-05 23:21:40

End at: 2017-12-05 23:22:10

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 519.39 Mbit/s

95th percentile per-packet one-way delay: 235.548 ms

Loss rate: 7.78%

-- Flow 1:

Average throughput: 438.61 Mbit/s

95th percentile per-packet one-way delay: 235.832 ms

Loss rate: 7.94%

-- Flow 2:

Average throughput: 120.87 Mbit/s

95th percentile per-packet one-way delay: 234.923 ms

Loss rate: 6.92%

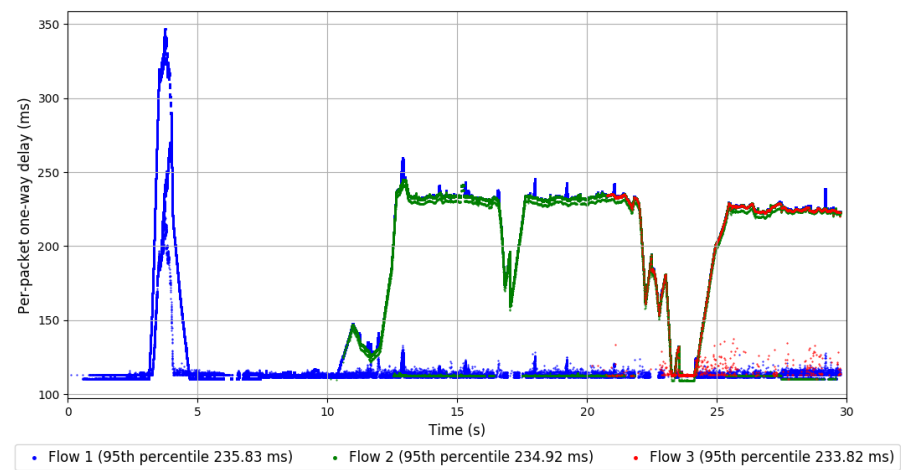
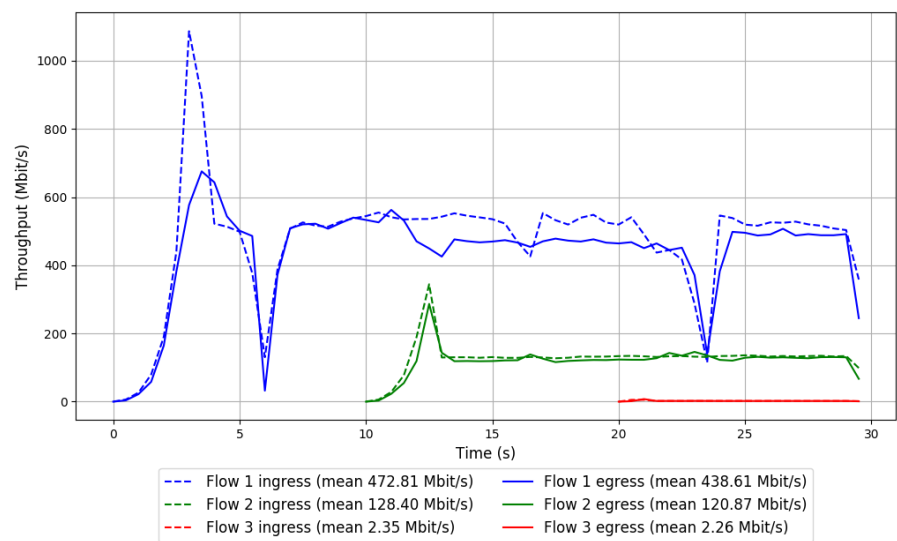
-- Flow 3:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 233.820 ms

Loss rate: 5.84%

Run 10: Report of PCC — Data Link

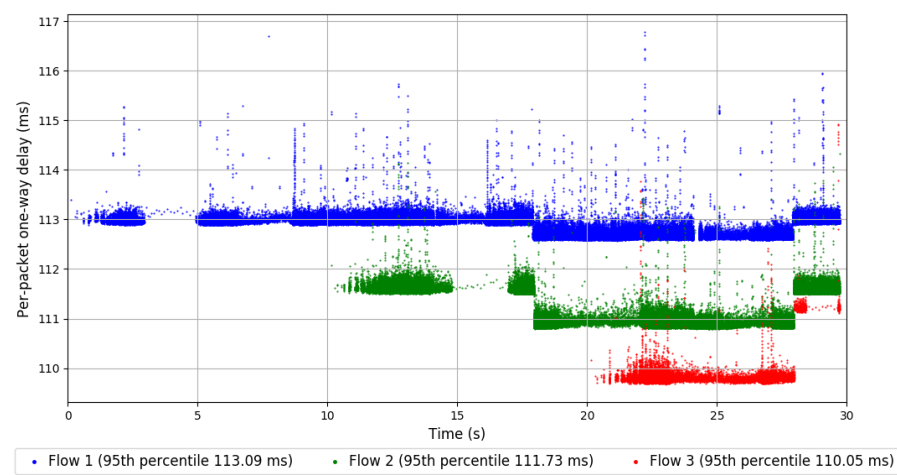
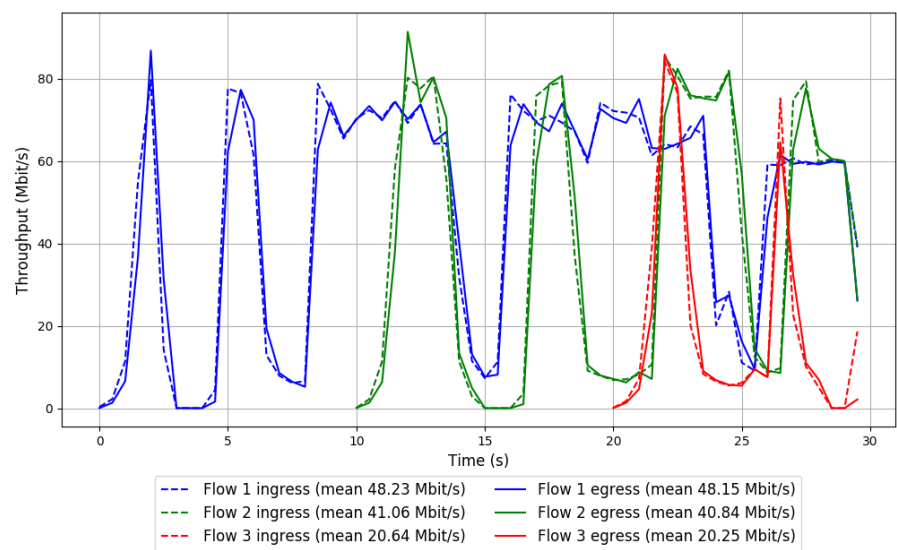


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-05 21:22:09
End at: 2017-12-05 21:22:39

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.69 Mbit/s
95th percentile per-packet one-way delay: 113.049 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 48.15 Mbit/s
95th percentile per-packet one-way delay: 113.092 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 40.84 Mbit/s
95th percentile per-packet one-way delay: 111.733 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 20.25 Mbit/s
95th percentile per-packet one-way delay: 110.045 ms
Loss rate: 4.09%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-05 21:35:45

End at: 2017-12-05 21:36:15

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.26 Mbit/s

95th percentile per-packet one-way delay: 112.998 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 52.15 Mbit/s

95th percentile per-packet one-way delay: 111.962 ms

Loss rate: 1.14%

-- Flow 2:

Average throughput: 49.74 Mbit/s

95th percentile per-packet one-way delay: 113.084 ms

Loss rate: 1.34%

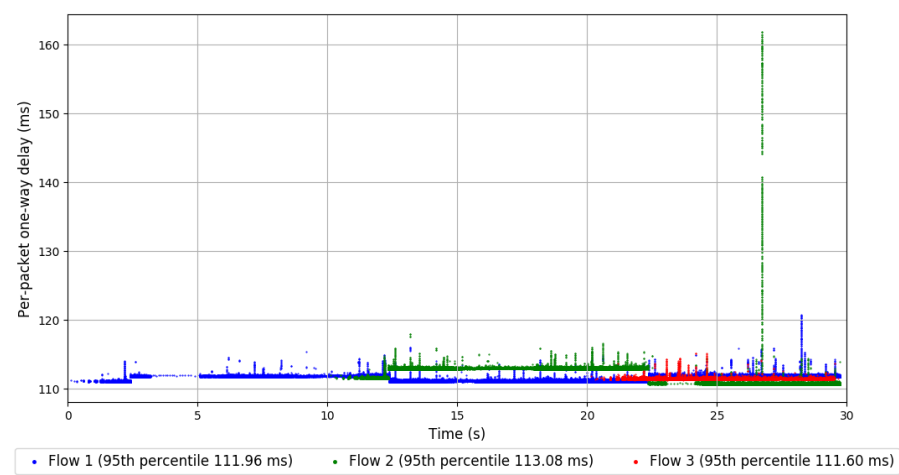
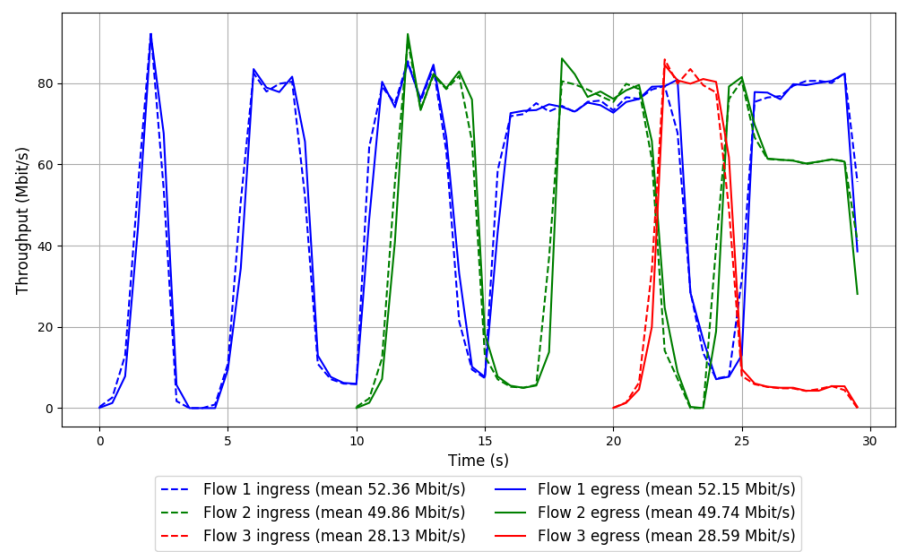
-- Flow 3:

Average throughput: 28.59 Mbit/s

95th percentile per-packet one-way delay: 111.604 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-05 21:49:17

End at: 2017-12-05 21:49:47

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.67 Mbit/s

95th percentile per-packet one-way delay: 112.753 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 47.21 Mbit/s

95th percentile per-packet one-way delay: 112.354 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 46.77 Mbit/s

95th percentile per-packet one-way delay: 112.841 ms

Loss rate: 1.58%

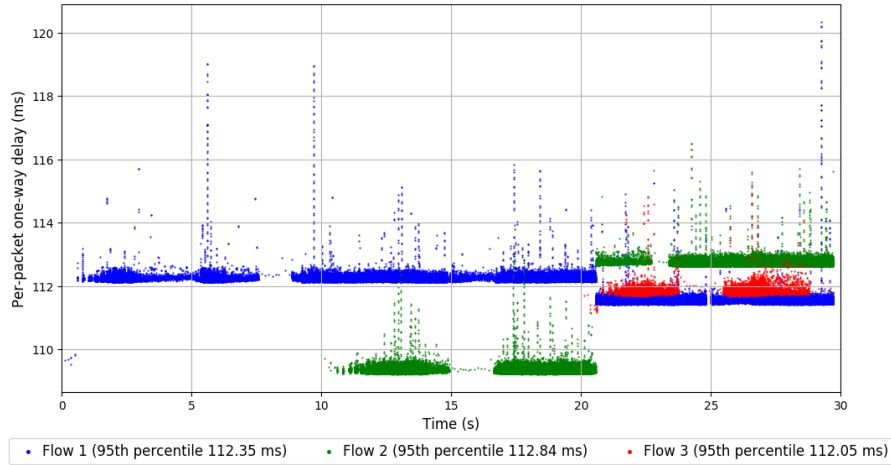
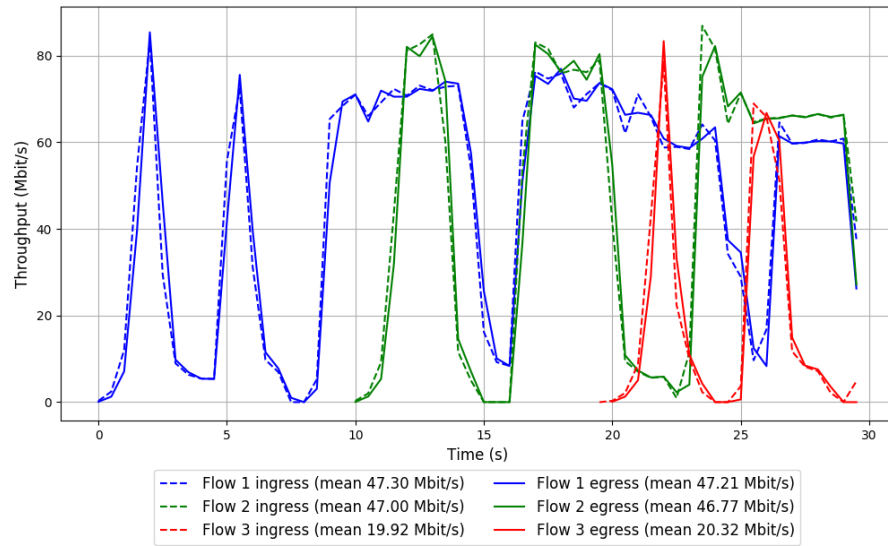
-- Flow 3:

Average throughput: 20.32 Mbit/s

95th percentile per-packet one-way delay: 112.054 ms

Loss rate: 1.23%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-05 22:03:00

End at: 2017-12-05 22:03:30

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 112.965 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 52.14 Mbit/s

95th percentile per-packet one-way delay: 112.977 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 46.62 Mbit/s

95th percentile per-packet one-way delay: 109.493 ms

Loss rate: 1.56%

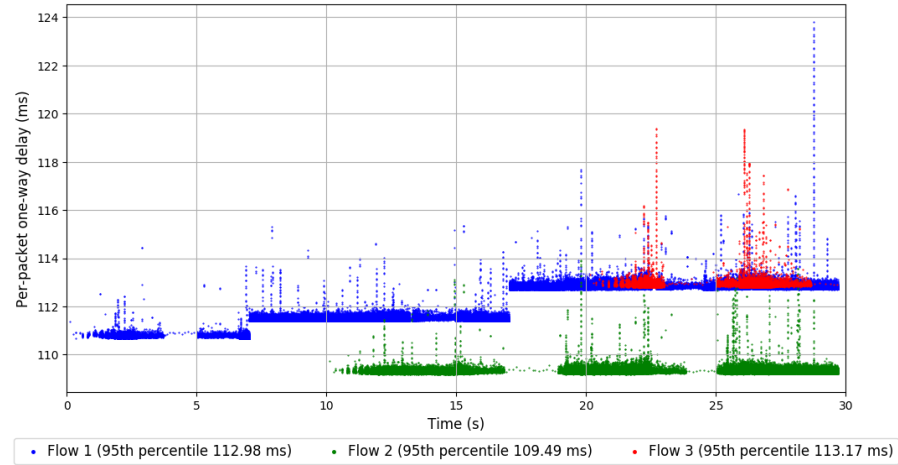
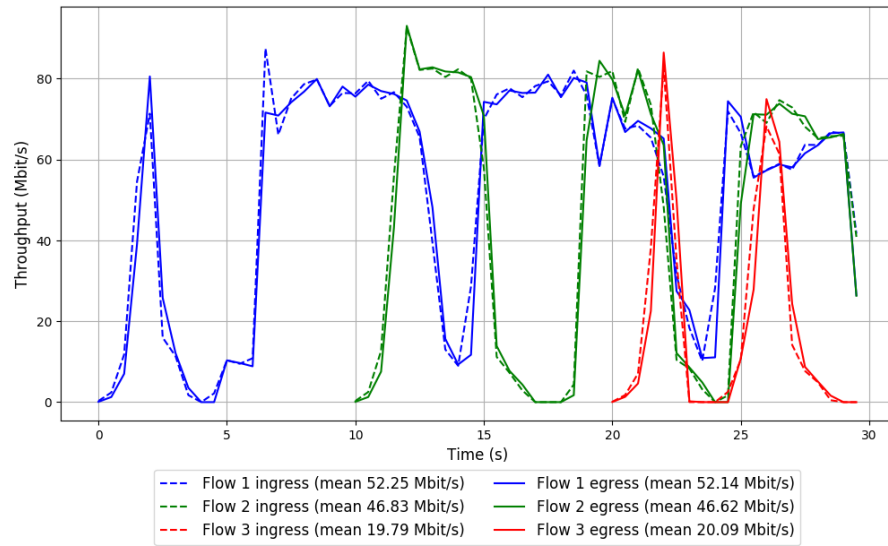
-- Flow 3:

Average throughput: 20.09 Mbit/s

95th percentile per-packet one-way delay: 113.169 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-05 22:16:52

End at: 2017-12-05 22:17:22

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.97 Mbit/s

95th percentile per-packet one-way delay: 112.924 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 57.42 Mbit/s

95th percentile per-packet one-way delay: 111.132 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 40.26 Mbit/s

95th percentile per-packet one-way delay: 112.946 ms

Loss rate: 1.51%

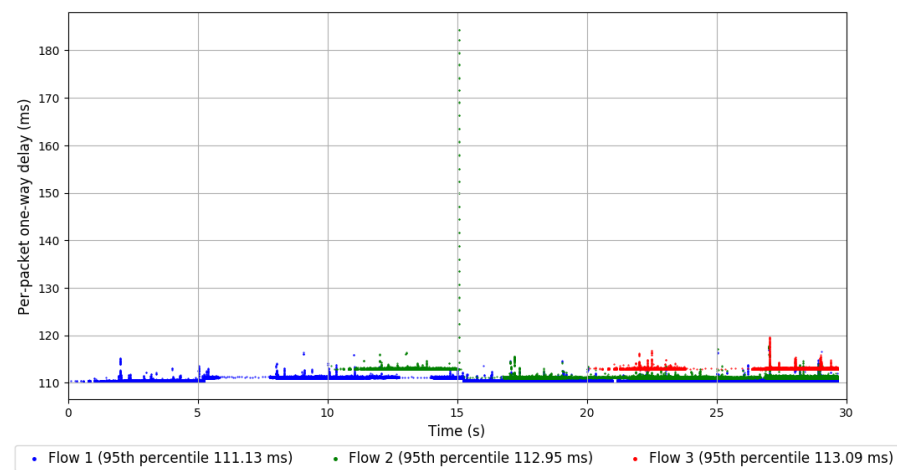
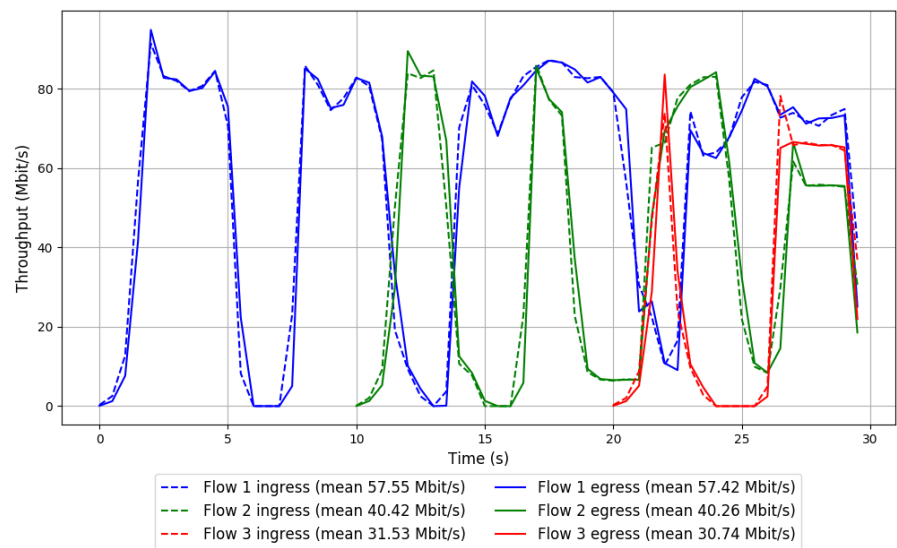
-- Flow 3:

Average throughput: 30.74 Mbit/s

95th percentile per-packet one-way delay: 113.090 ms

Loss rate: 4.77%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-05 22:30:16

End at: 2017-12-05 22:30:46

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.98 Mbit/s

95th percentile per-packet one-way delay: 112.810 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 50.75 Mbit/s

95th percentile per-packet one-way delay: 112.854 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 38.62 Mbit/s

95th percentile per-packet one-way delay: 111.487 ms

Loss rate: 1.84%

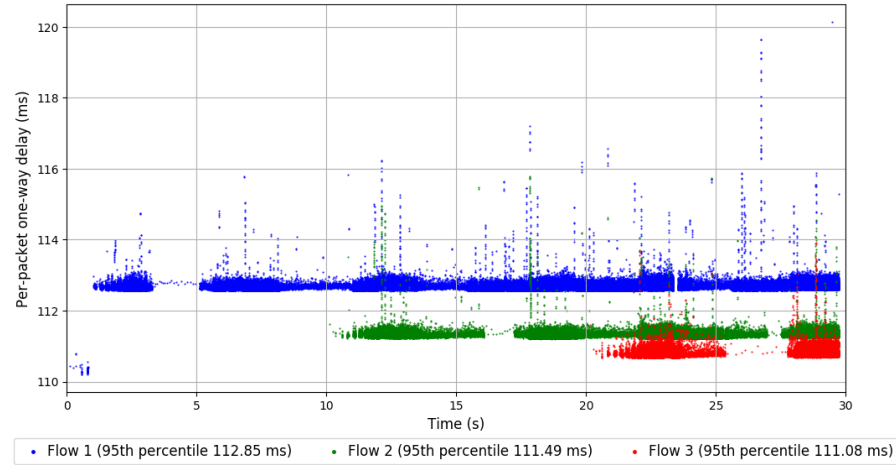
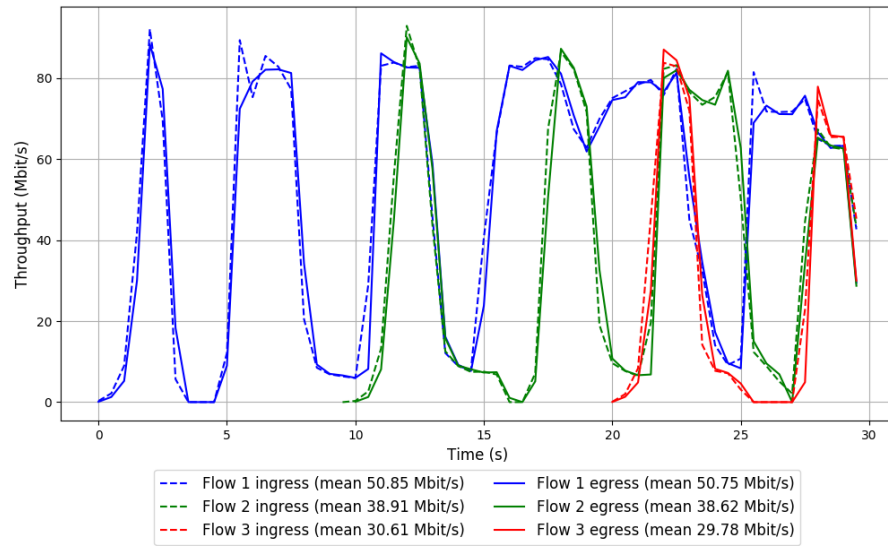
-- Flow 3:

Average throughput: 29.78 Mbit/s

95th percentile per-packet one-way delay: 111.076 ms

Loss rate: 4.95%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-05 22:43:56

End at: 2017-12-05 22:44:26

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.47 Mbit/s

95th percentile per-packet one-way delay: 111.375 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 59.40 Mbit/s

95th percentile per-packet one-way delay: 110.550 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 46.15 Mbit/s

95th percentile per-packet one-way delay: 111.466 ms

Loss rate: 1.63%

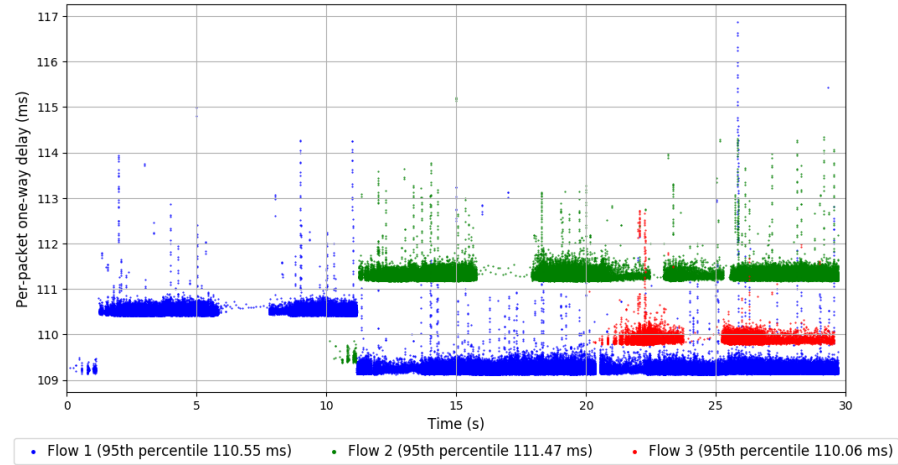
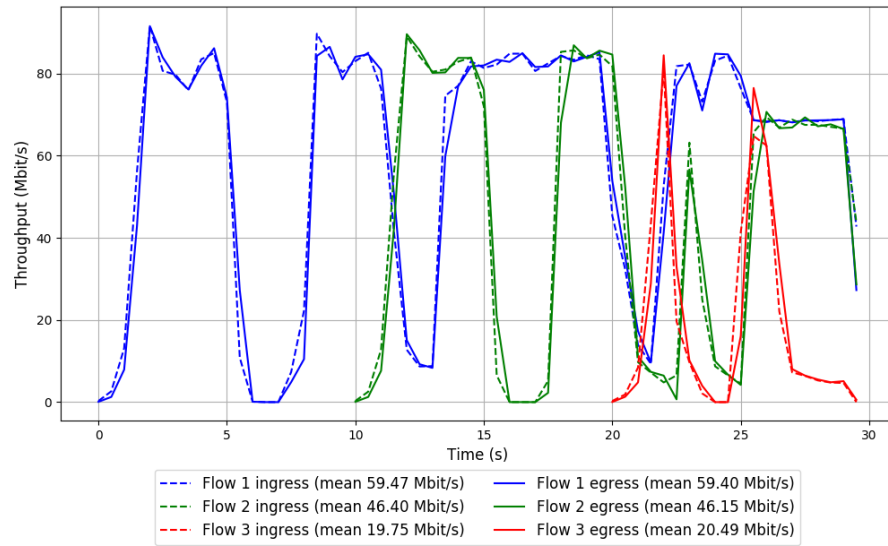
-- Flow 3:

Average throughput: 20.49 Mbit/s

95th percentile per-packet one-way delay: 110.065 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-05 22:57:07

End at: 2017-12-05 22:57:37

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.67 Mbit/s

95th percentile per-packet one-way delay: 111.525 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 52.19 Mbit/s

95th percentile per-packet one-way delay: 111.133 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 56.89 Mbit/s

95th percentile per-packet one-way delay: 111.597 ms

Loss rate: 1.24%

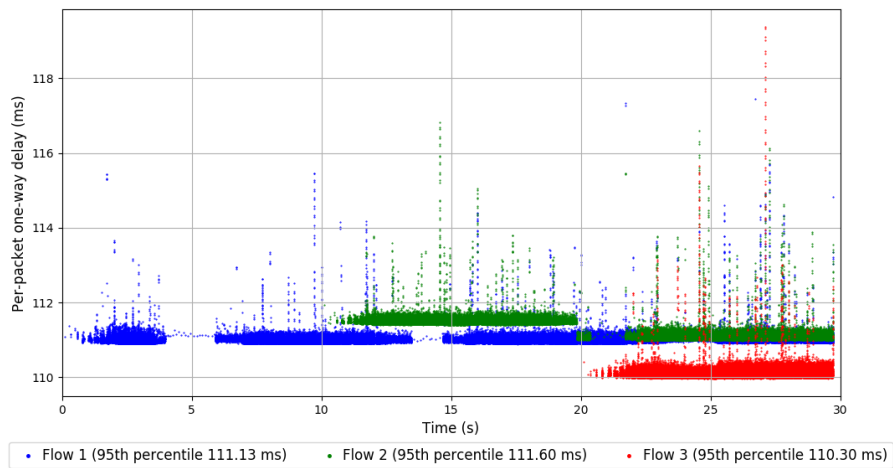
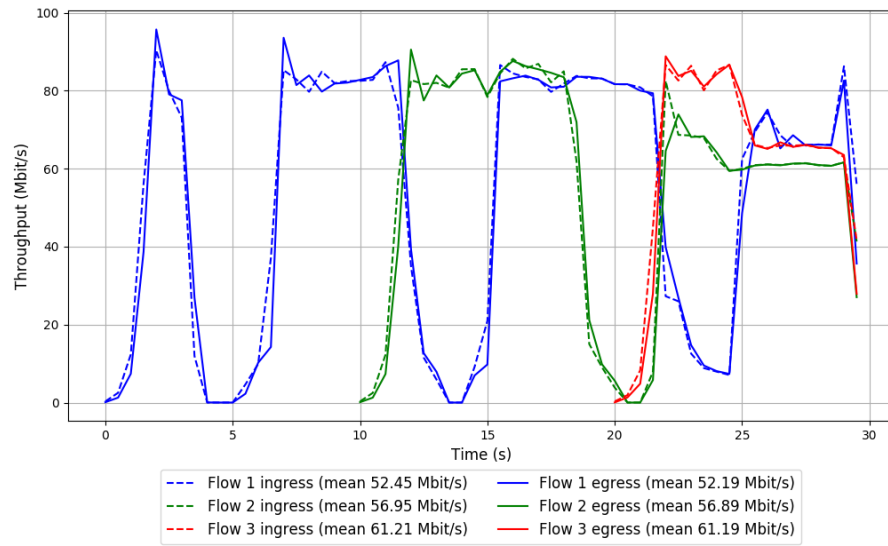
-- Flow 3:

Average throughput: 61.19 Mbit/s

95th percentile per-packet one-way delay: 110.304 ms

Loss rate: 2.30%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-05 23:10:56

End at: 2017-12-05 23:11:26

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.83 Mbit/s

95th percentile per-packet one-way delay: 112.234 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 55.41 Mbit/s

95th percentile per-packet one-way delay: 112.282 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 51.34 Mbit/s

95th percentile per-packet one-way delay: 111.181 ms

Loss rate: 1.65%

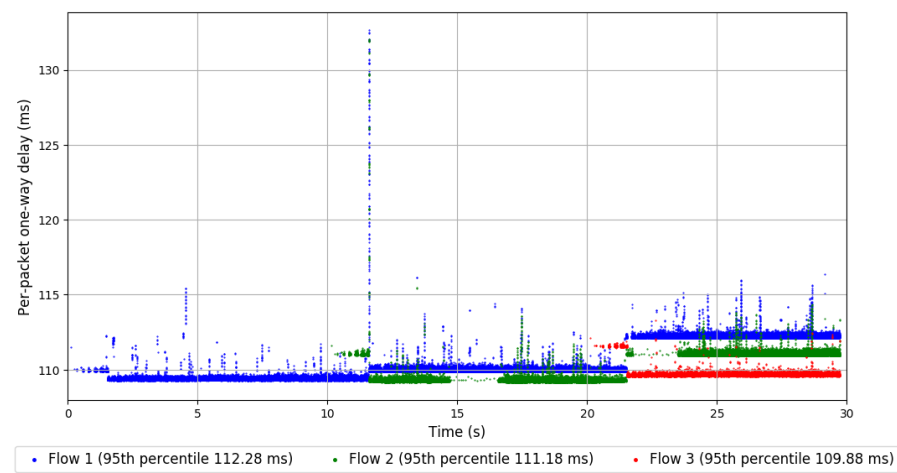
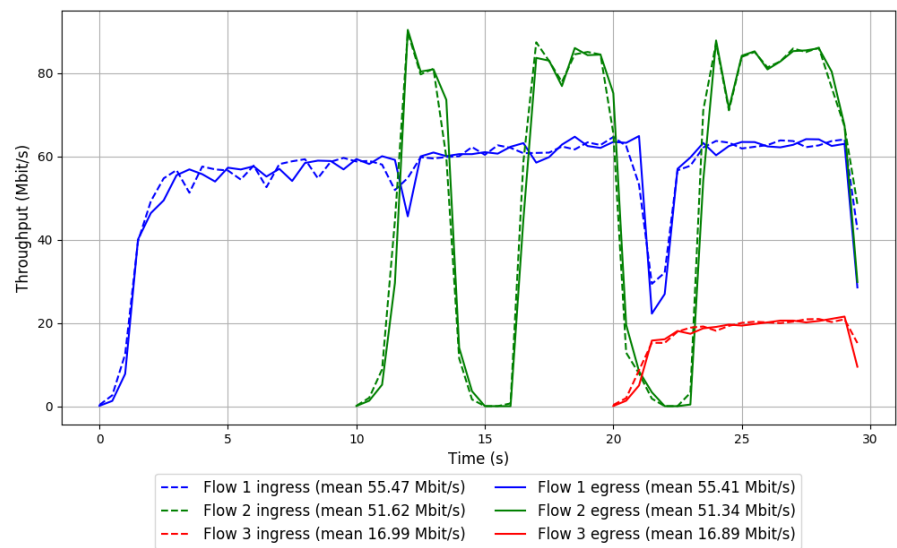
-- Flow 3:

Average throughput: 16.89 Mbit/s

95th percentile per-packet one-way delay: 109.876 ms

Loss rate: 2.84%

Run 9: Report of QUIC Cubic — Data Link

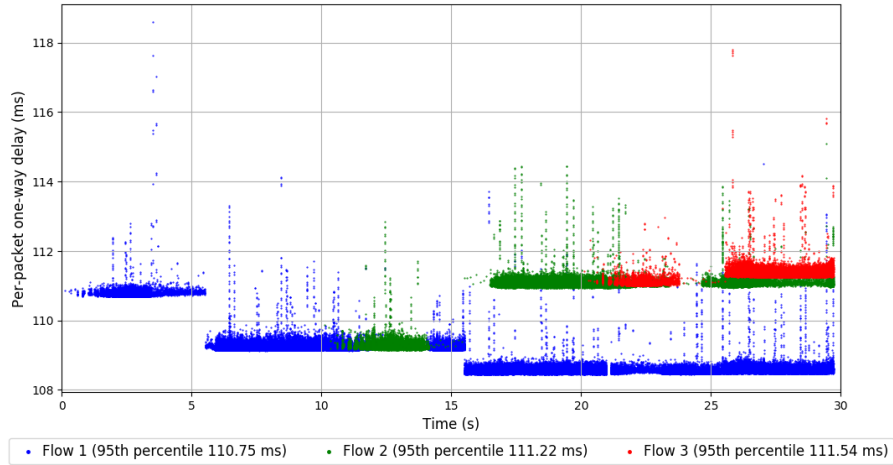
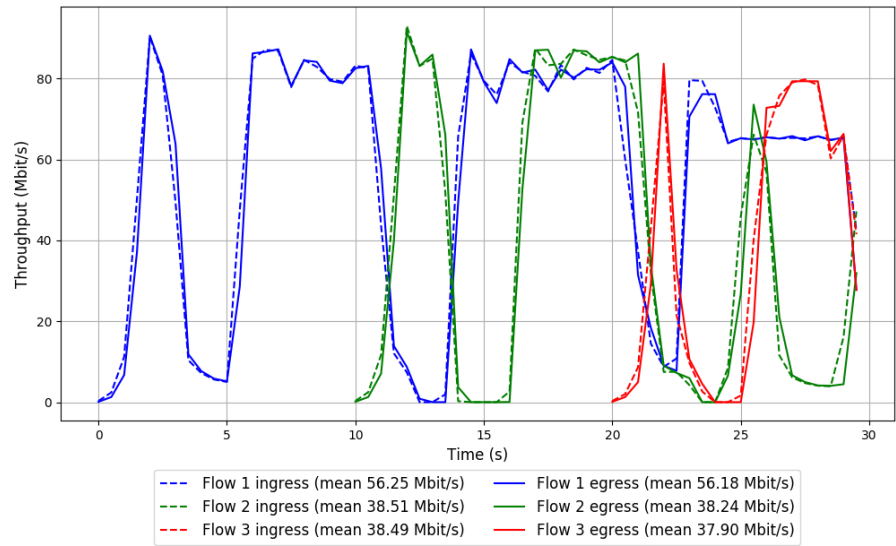


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-05 23:23:52
End at: 2017-12-05 23:24:22

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 111.342 ms
Loss rate: 1.51%
-- Flow 1:
Average throughput: 56.18 Mbit/s
95th percentile per-packet one-way delay: 110.750 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 38.24 Mbit/s
95th percentile per-packet one-way delay: 111.220 ms
Loss rate: 1.81%
-- Flow 3:
Average throughput: 37.90 Mbit/s
95th percentile per-packet one-way delay: 111.541 ms
Loss rate: 3.77%
```

Run 10: Report of QUIC Cubic — Data Link

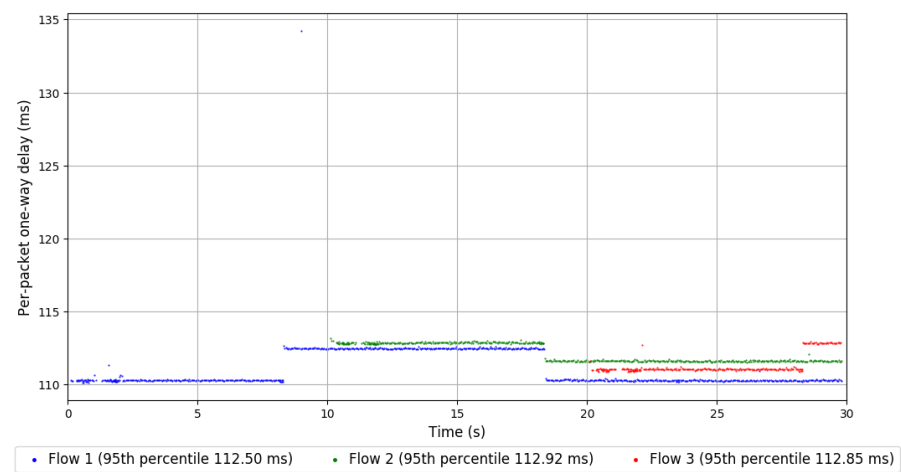
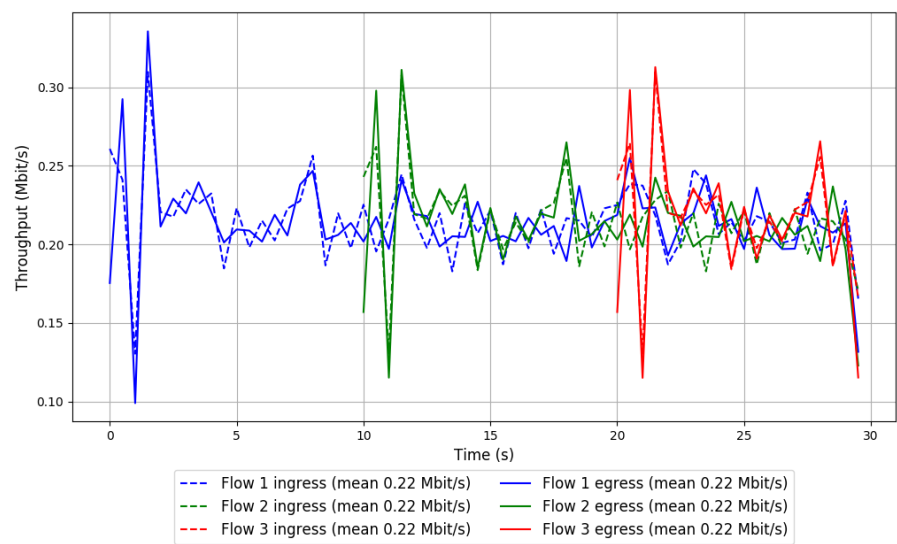


```
Run 1: Statistics of SReAM

Start at: 2017-12-05 21:14:19
End at: 2017-12-05 21:14:49

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.882 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.496 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.919 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.846 ms
Loss rate: 2.25%
```

Run 1: Report of SReAM — Data Link

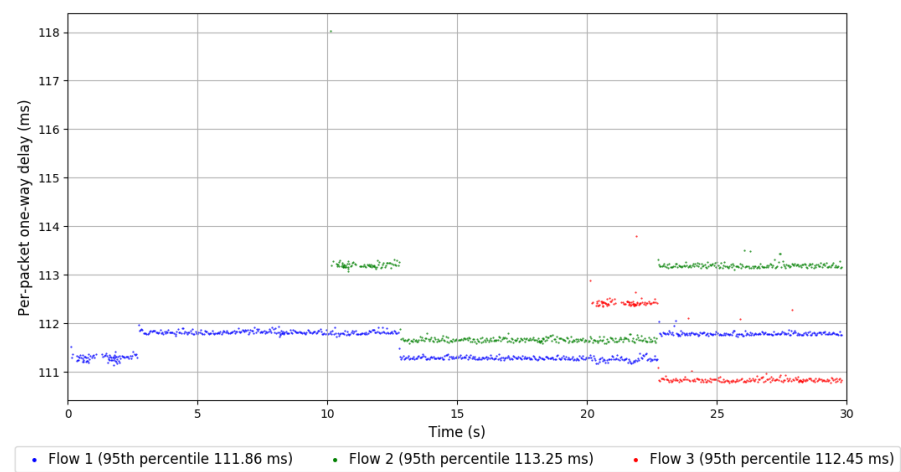
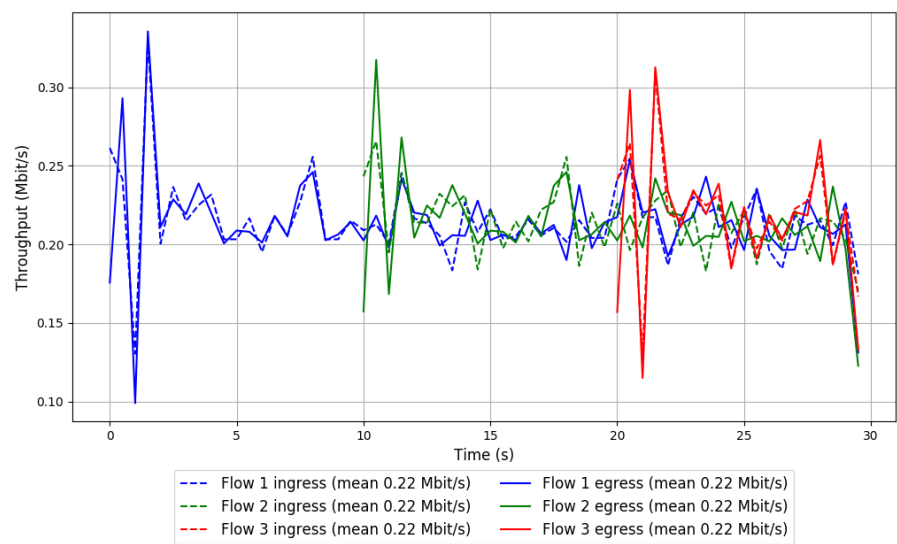


```
Run 2: Statistics of SReAM

Start at: 2017-12-05 21:27:54
End at: 2017-12-05 21:28:24

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.212 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.858 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.249 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.452 ms
Loss rate: 1.87%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2017-12-05 21:41:29

End at: 2017-12-05 21:41:59

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.219 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.142 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.247 ms

Loss rate: 1.06%

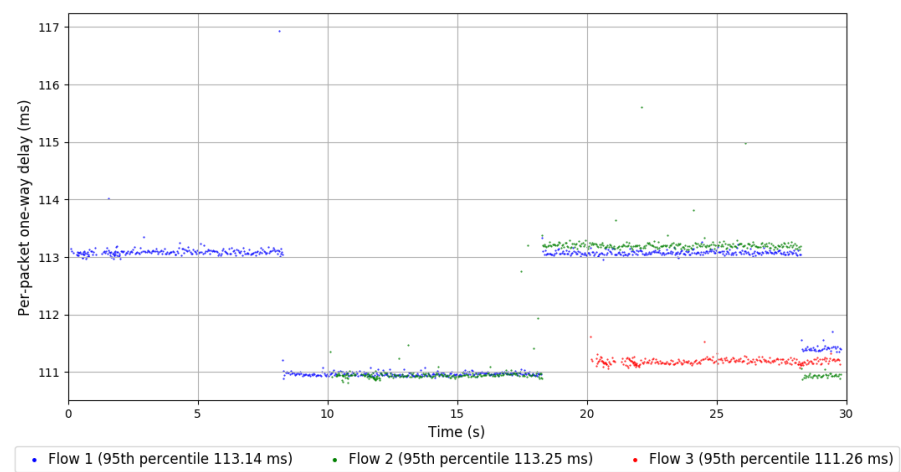
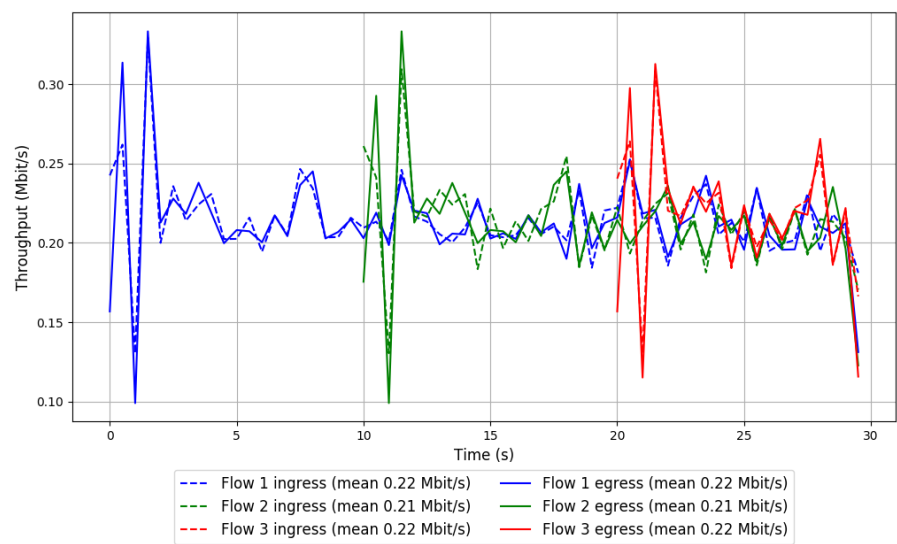
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.257 ms

Loss rate: 2.25%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2017-12-05 21:54:57

End at: 2017-12-05 21:55:27

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.025 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.051 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.691 ms

Loss rate: 1.06%

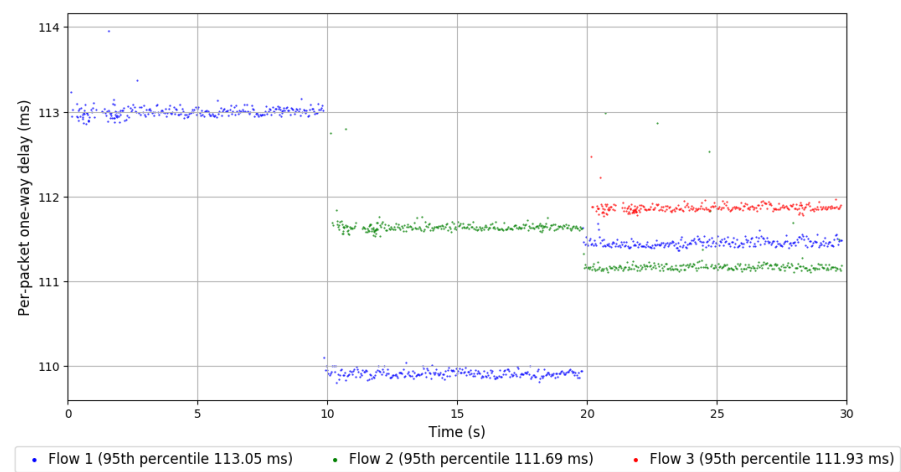
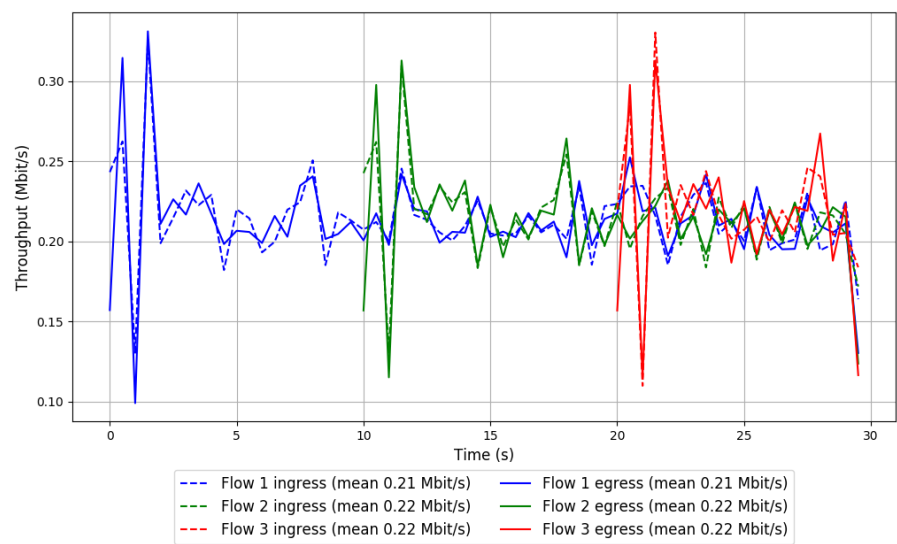
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.931 ms

Loss rate: 2.26%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-12-05 22:08:45

End at: 2017-12-05 22:09:15

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.125 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.908 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.857 ms

Loss rate: 1.25%

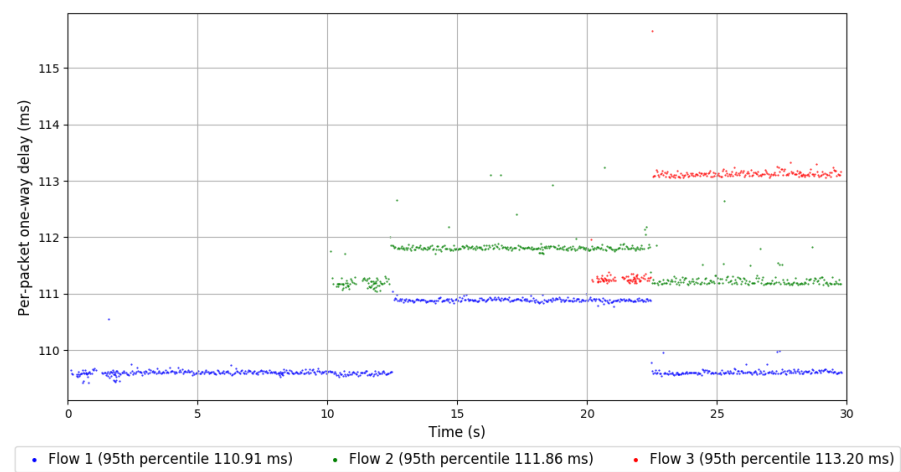
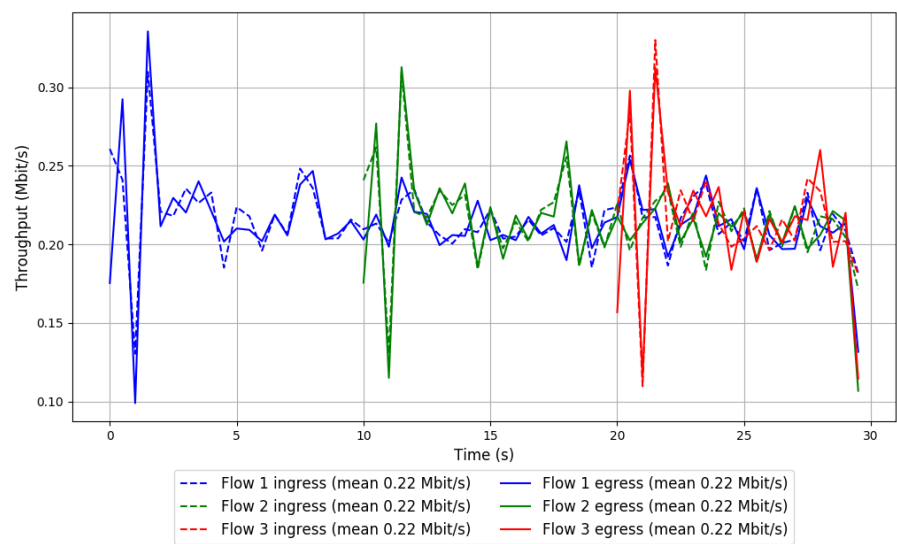
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.197 ms

Loss rate: 2.25%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-05 22:22:28

End at: 2017-12-05 22:22:58

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

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

Loss rate: 1.03%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.371 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 113.036 ms

Loss rate: 0.98%

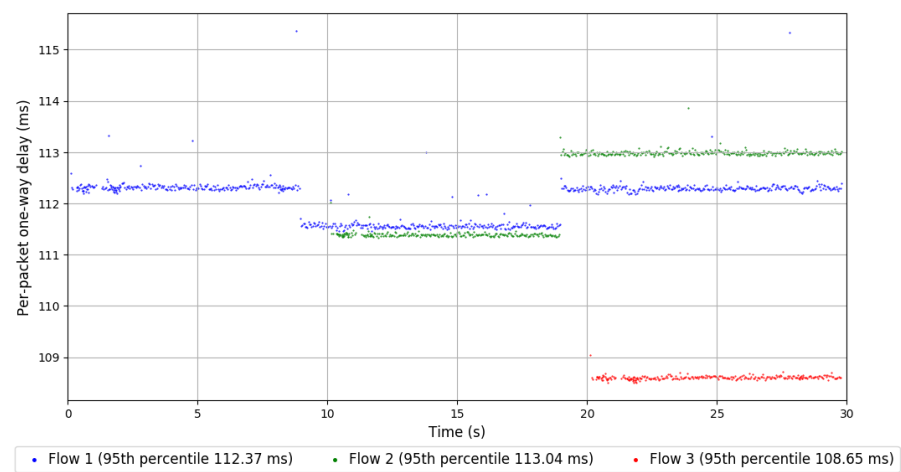
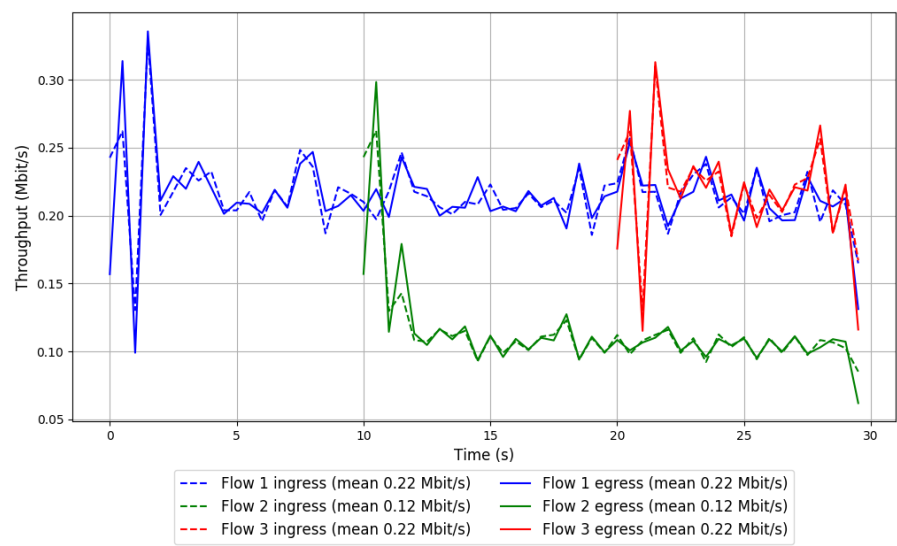
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 108.652 ms

Loss rate: 2.26%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-12-05 22:35:59

End at: 2017-12-05 22:36:29

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 110.966 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.973 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.962 ms

Loss rate: 1.05%

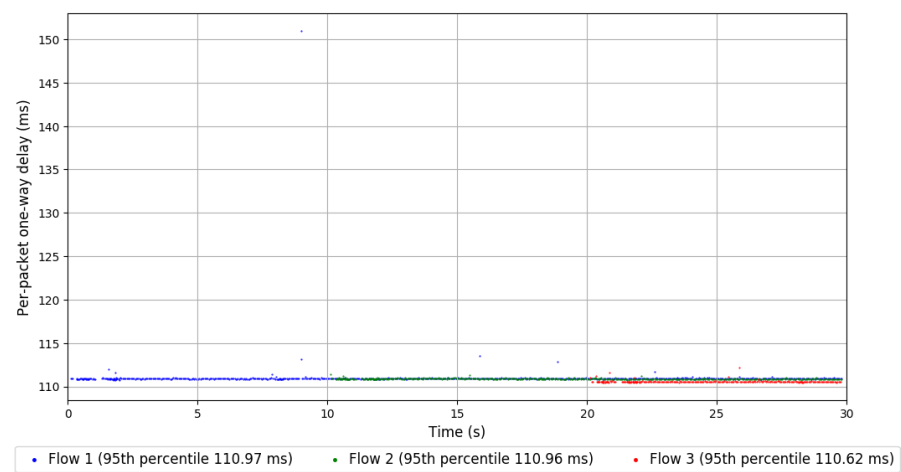
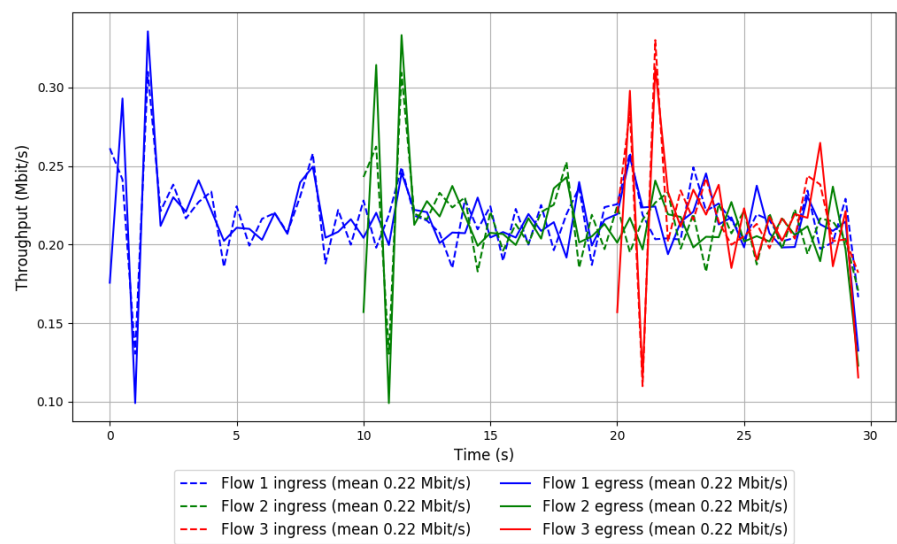
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.624 ms

Loss rate: 2.25%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2017-12-05 22:49:36

End at: 2017-12-05 22:50:06

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.954 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.212 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.459 ms

Loss rate: 1.25%

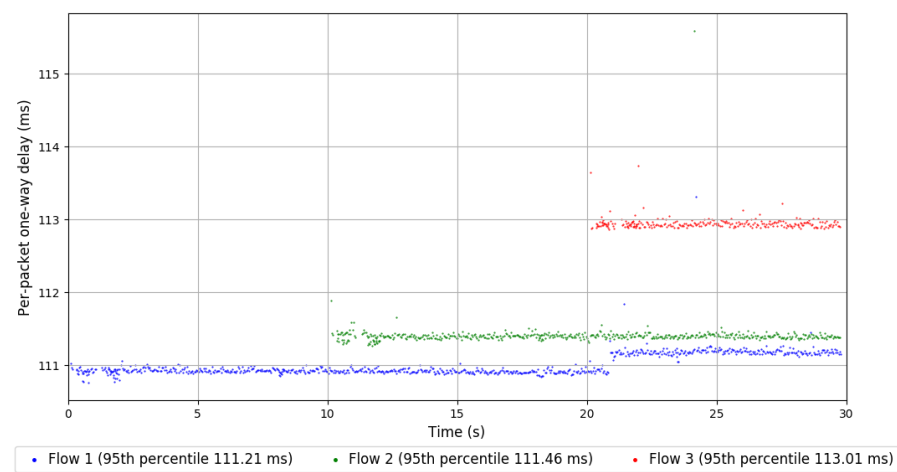
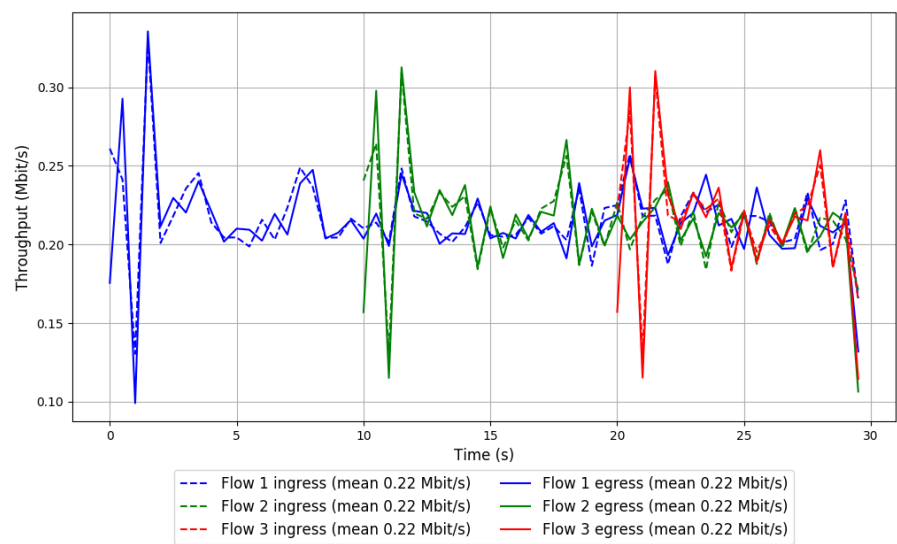
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.014 ms

Loss rate: 2.25%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2017-12-05 23:02:52

End at: 2017-12-05 23:03:22

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.810 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.825 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.801 ms

Loss rate: 1.05%

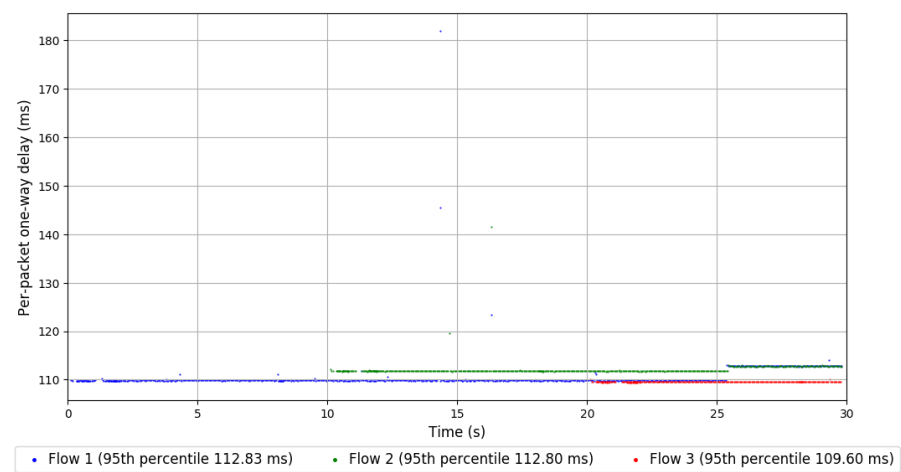
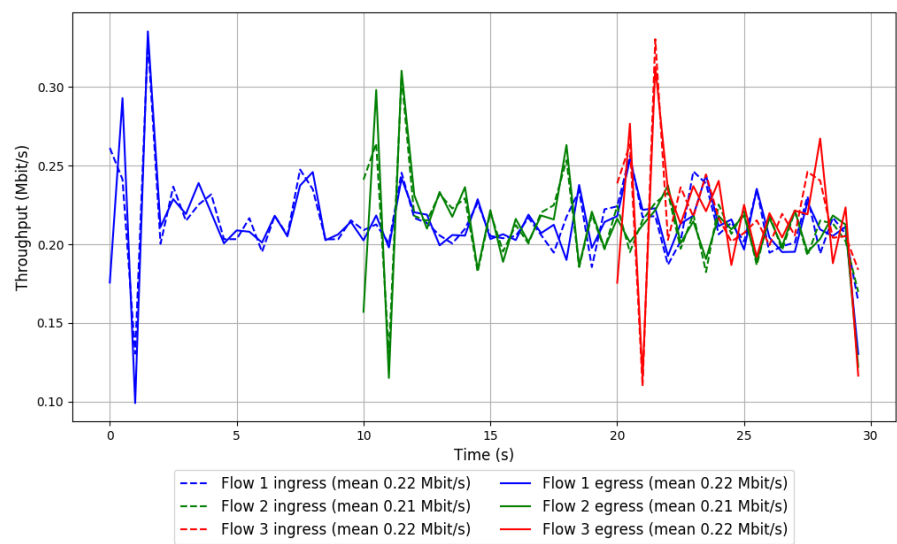
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.602 ms

Loss rate: 2.26%

Run 9: Report of SReAM — Data Link

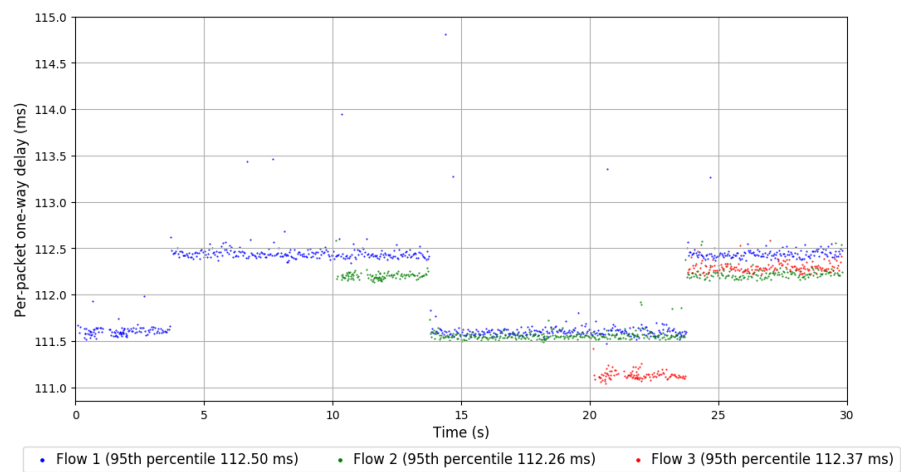
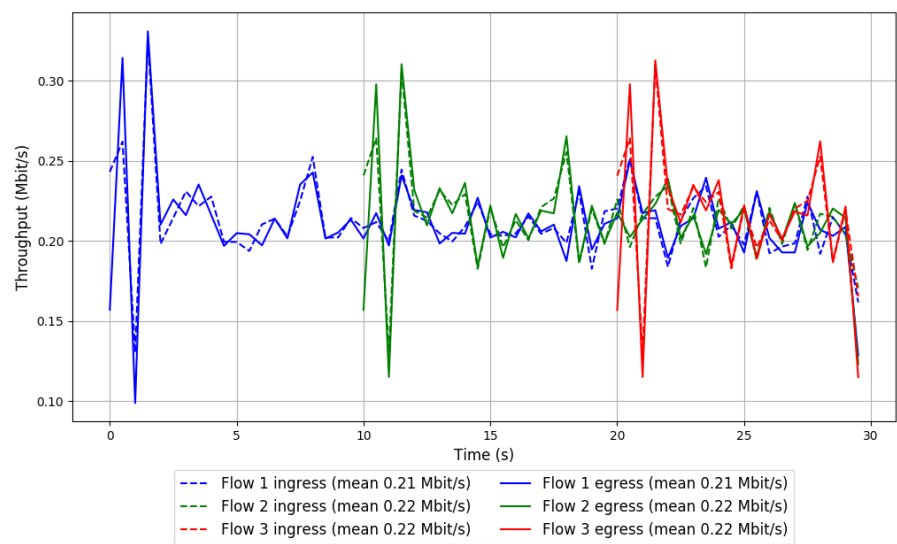


```
Run 10: Statistics of SCReAM

Start at: 2017-12-05 23:16:33
End at: 2017-12-05 23:17:04

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.475 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.495 ms
Loss rate: 0.63%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.263 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.369 ms
Loss rate: 2.25%
```

Run 10: Report of SReAM — Data Link

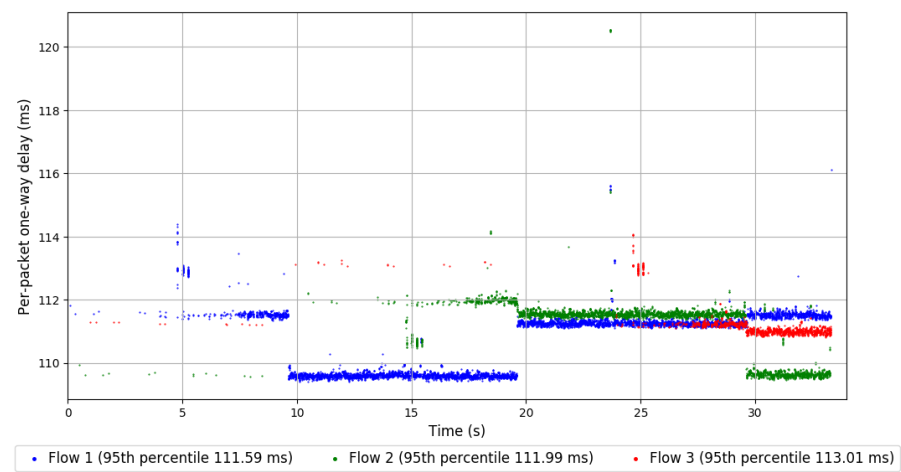
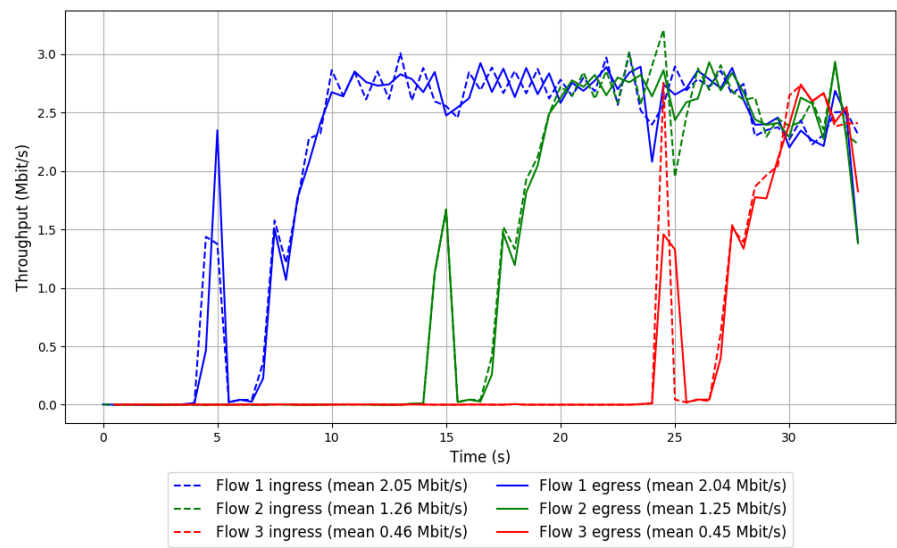


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-05 21:23:01
End at: 2017-12-05 21:23:31

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.71 Mbit/s
95th percentile per-packet one-way delay: 111.923 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 111.590 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 111.990 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 113.008 ms
Loss rate: 3.68%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-05 21:36:38

End at: 2017-12-05 21:37:08

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 113.100 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.650 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 113.176 ms

Loss rate: 1.32%

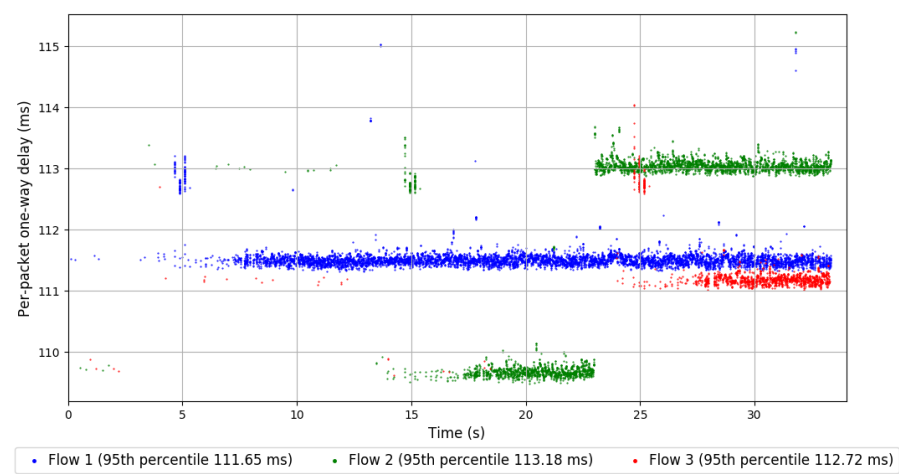
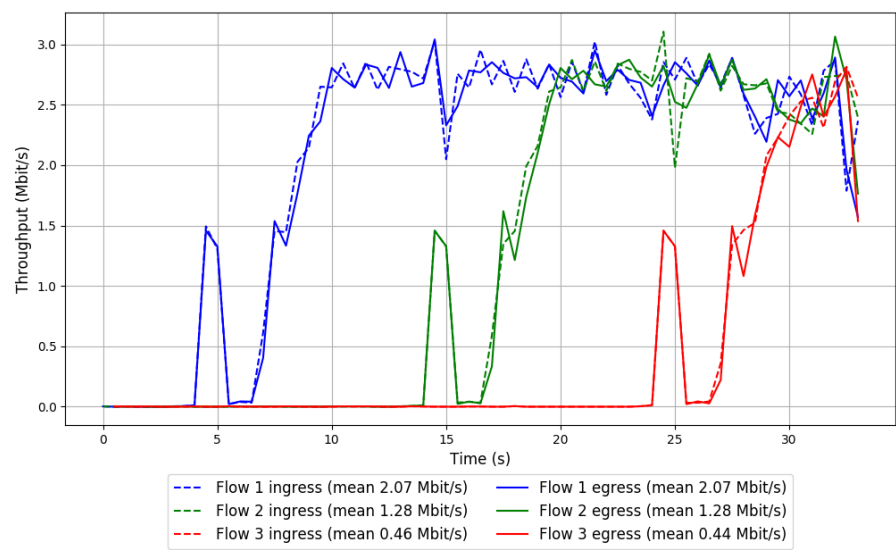
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 112.723 ms

Loss rate: 5.33%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-05 21:50:09

End at: 2017-12-05 21:50:39

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 111.667 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.389 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 111.730 ms

Loss rate: 1.66%

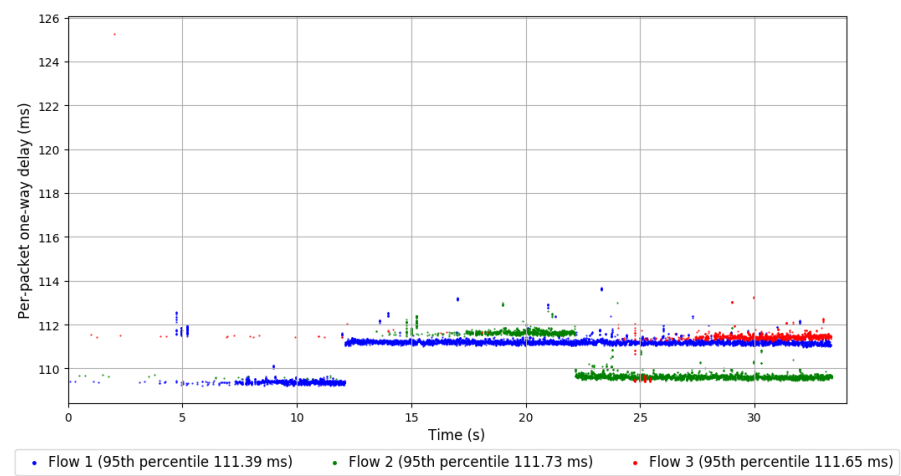
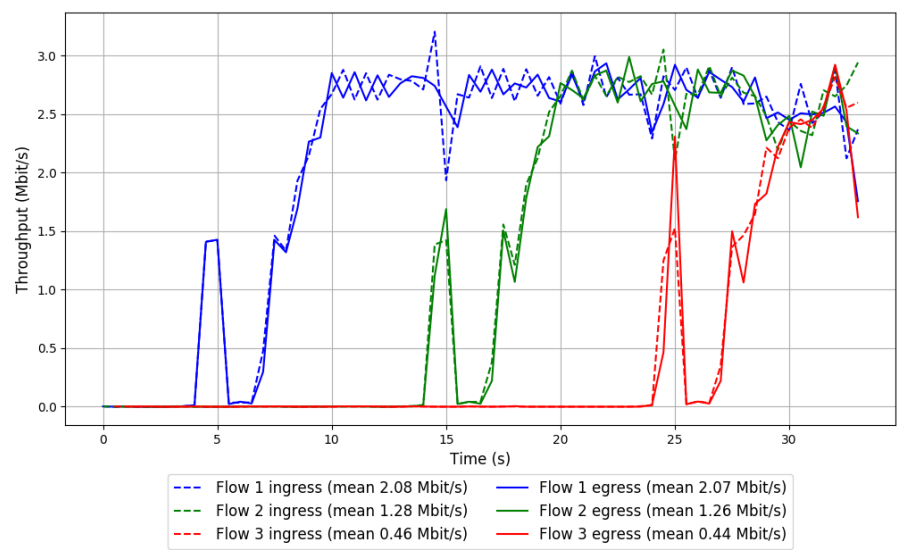
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 111.652 ms

Loss rate: 4.87%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-05 22:03:53

End at: 2017-12-05 22:04:23

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 112.321 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.032 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 111.332 ms

Loss rate: 1.37%

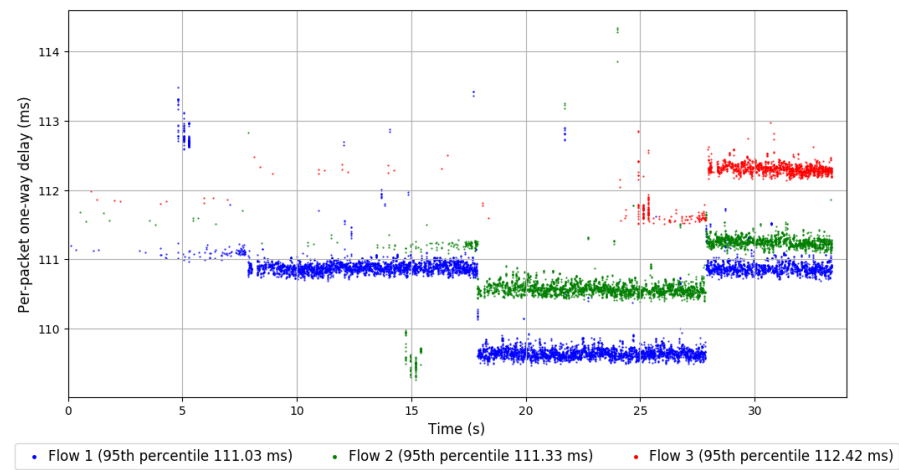
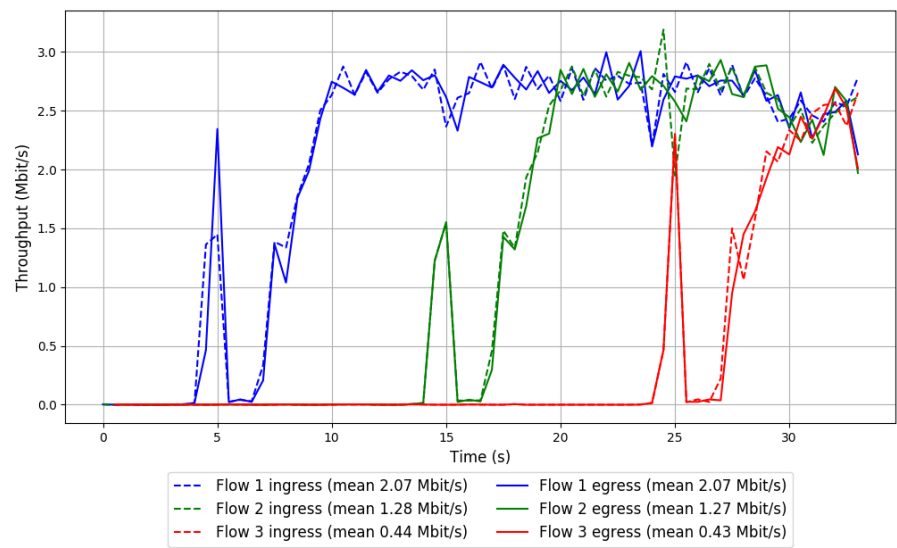
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.424 ms

Loss rate: 3.74%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-05 22:17:45

End at: 2017-12-05 22:18:15

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 113.053 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 112.289 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 113.110 ms

Loss rate: 1.67%

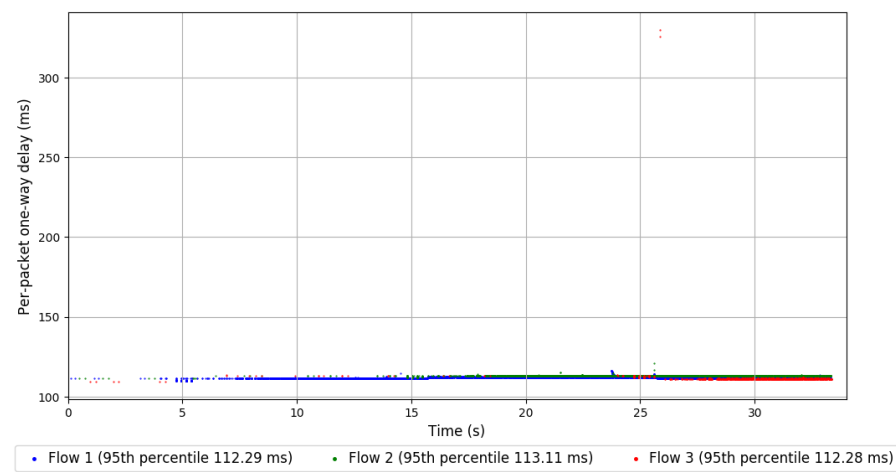
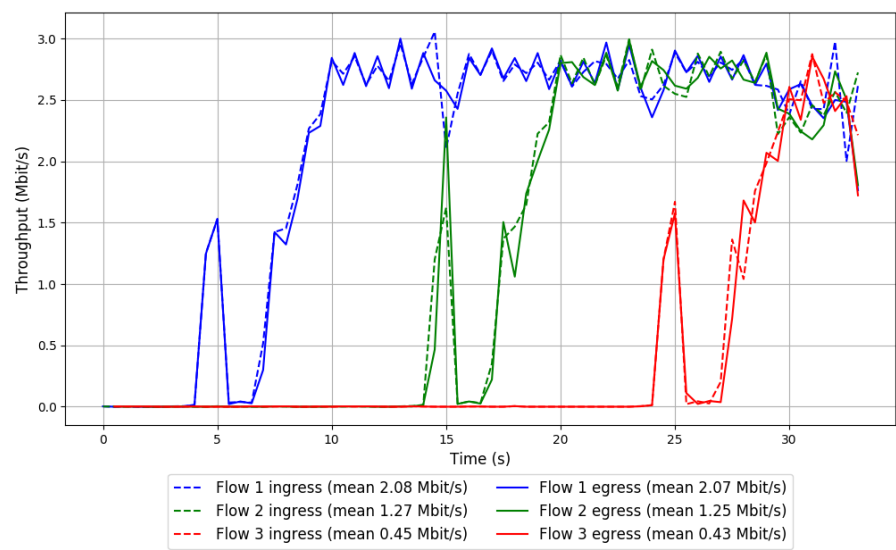
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.279 ms

Loss rate: 3.67%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-05 22:31:09

End at: 2017-12-05 22:31:39

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 111.623 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.472 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 111.717 ms

Loss rate: 1.31%

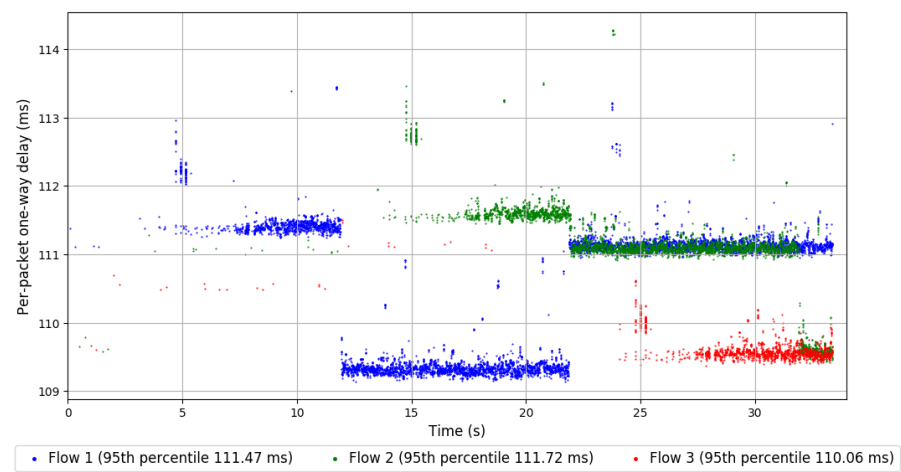
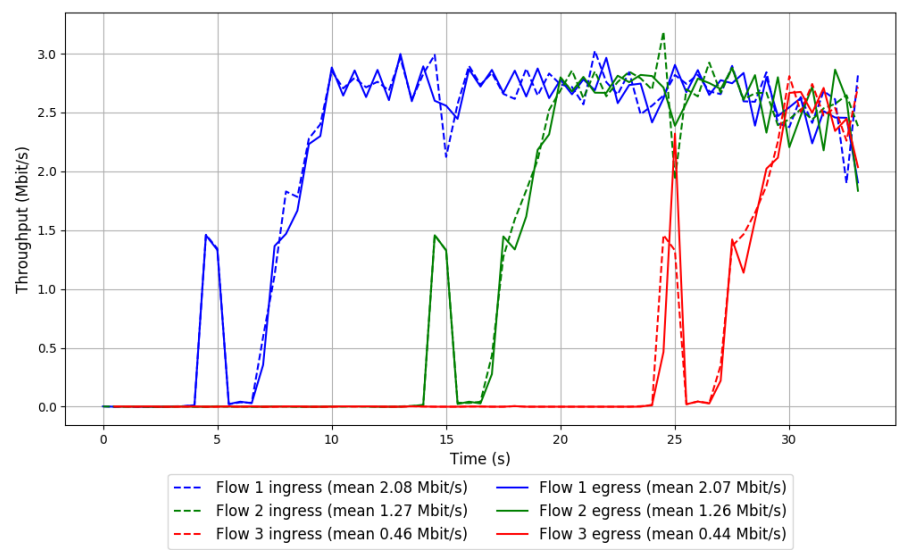
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 110.065 ms

Loss rate: 3.78%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-05 22:44:49

End at: 2017-12-05 22:45:19

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 113.156 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 113.189 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 112.327 ms

Loss rate: 1.51%

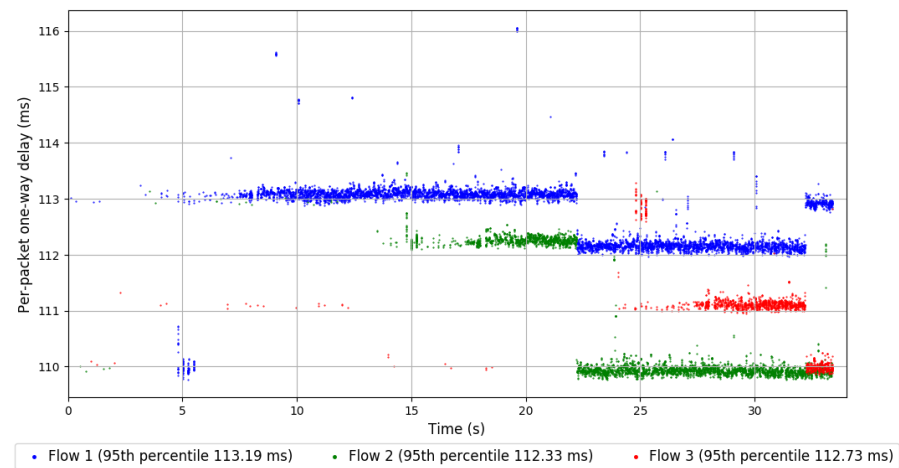
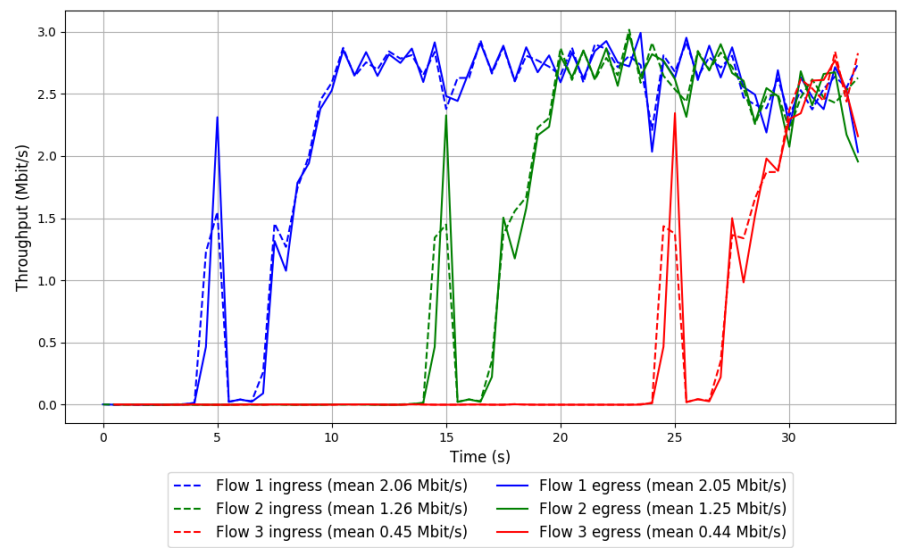
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 112.735 ms

Loss rate: 3.89%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-05 22:58:01

End at: 2017-12-05 22:58:31

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.76 Mbit/s

95th percentile per-packet one-way delay: 111.741 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.749 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 111.756 ms

Loss rate: 1.85%

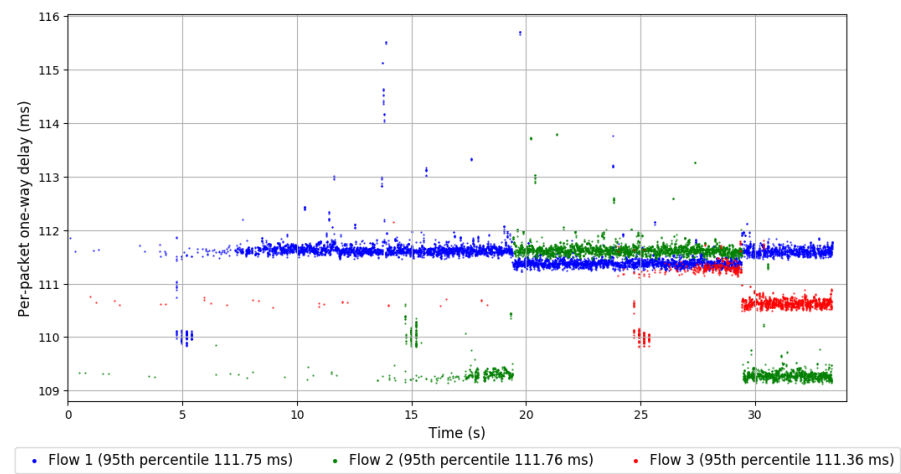
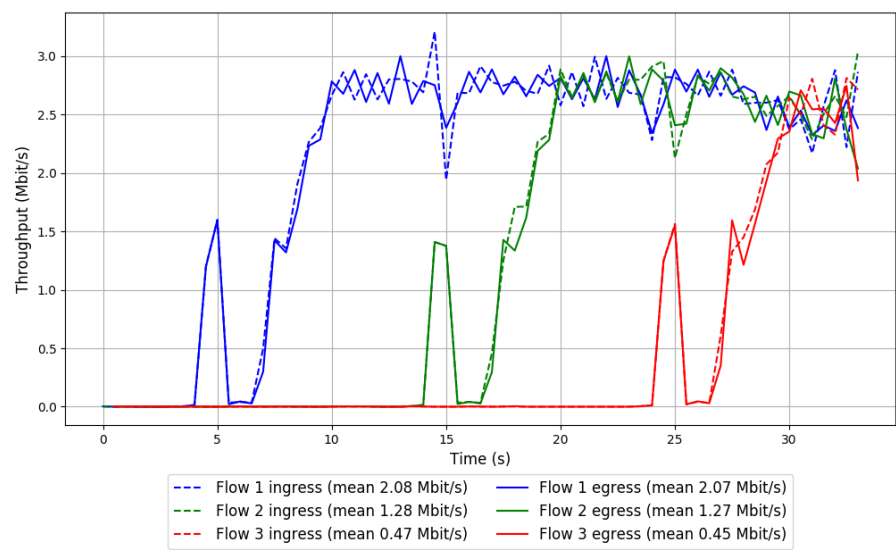
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 111.359 ms

Loss rate: 4.35%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-05 23:11:48

End at: 2017-12-05 23:12:18

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 113.167 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 112.535 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 113.245 ms

Loss rate: 1.15%

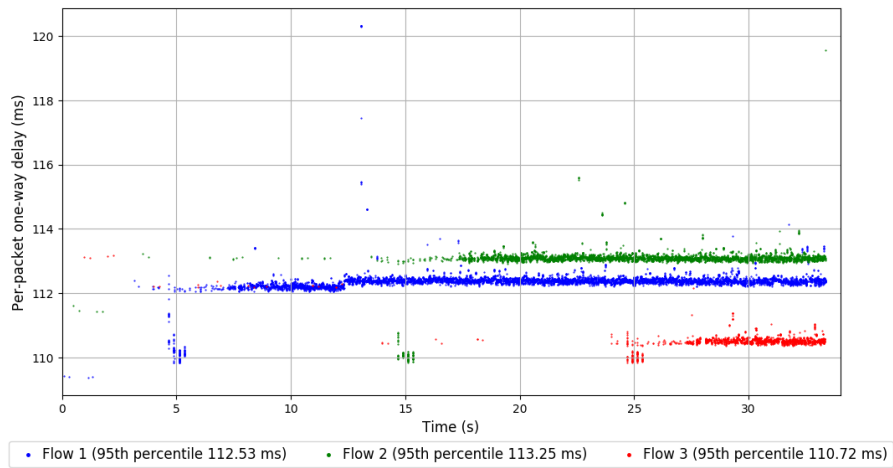
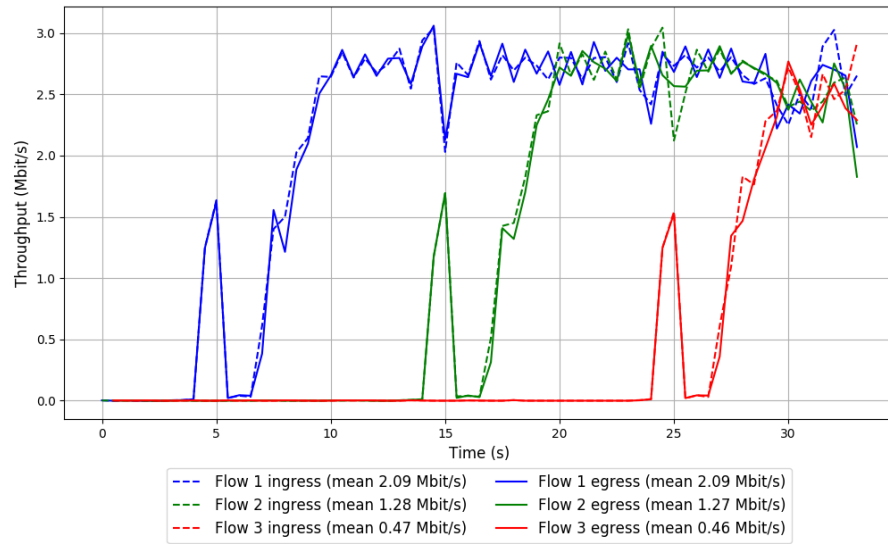
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 110.715 ms

Loss rate: 4.27%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-05 23:24:44

End at: 2017-12-05 23:25:14

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 111.276 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.259 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 110.703 ms

Loss rate: 1.37%

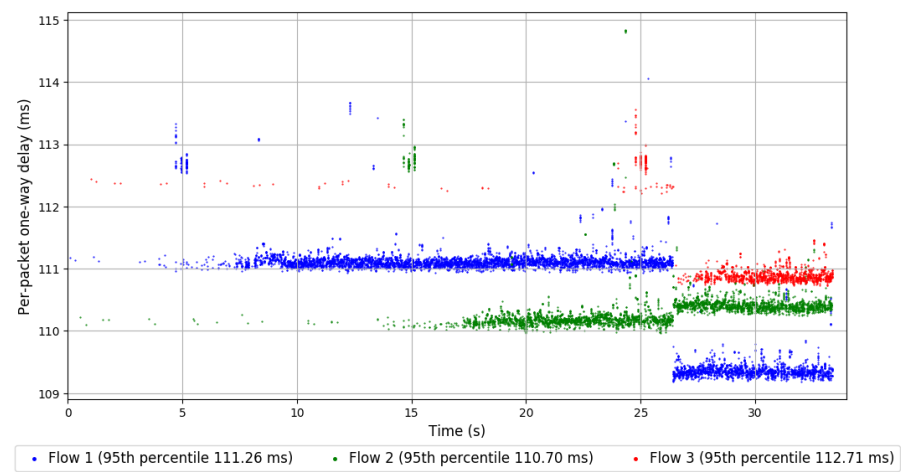
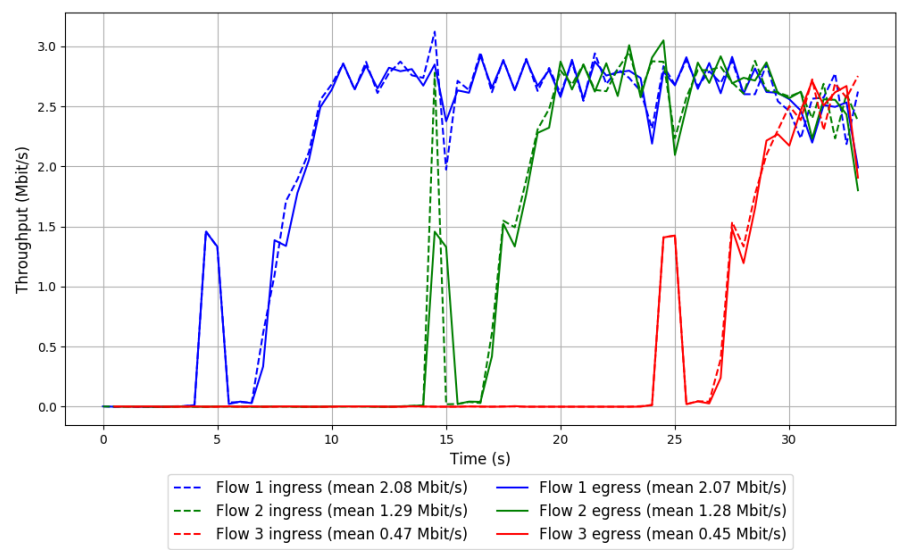
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 112.710 ms

Loss rate: 4.22%

Run 10: Report of WebRTC media — Data Link

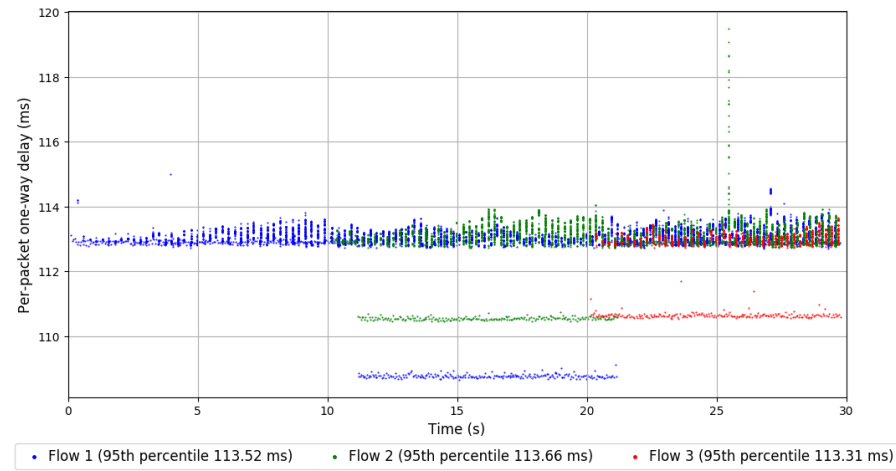
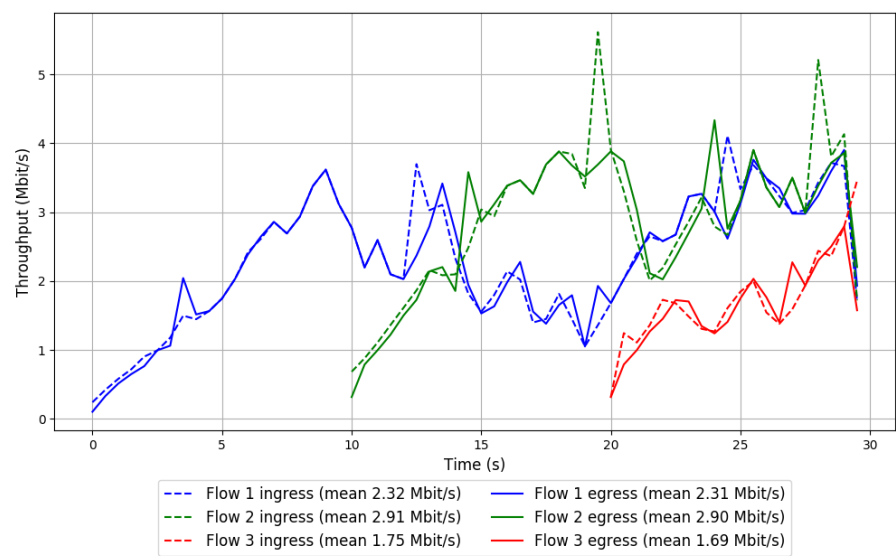


```
Run 1: Statistics of Sprout

Start at: 2017-12-05 21:12:36
End at: 2017-12-05 21:13:06

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.78 Mbit/s
95th percentile per-packet one-way delay: 113.577 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 113.521 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 2.90 Mbit/s
95th percentile per-packet one-way delay: 113.660 ms
Loss rate: 1.48%
-- Flow 3:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 113.315 ms
Loss rate: 5.48%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-05 21:26:11

End at: 2017-12-05 21:26:41

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 113.525 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 1.41 Mbit/s

95th percentile per-packet one-way delay: 113.359 ms

Loss rate: 1.68%

-- Flow 2:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 113.609 ms

Loss rate: 0.78%

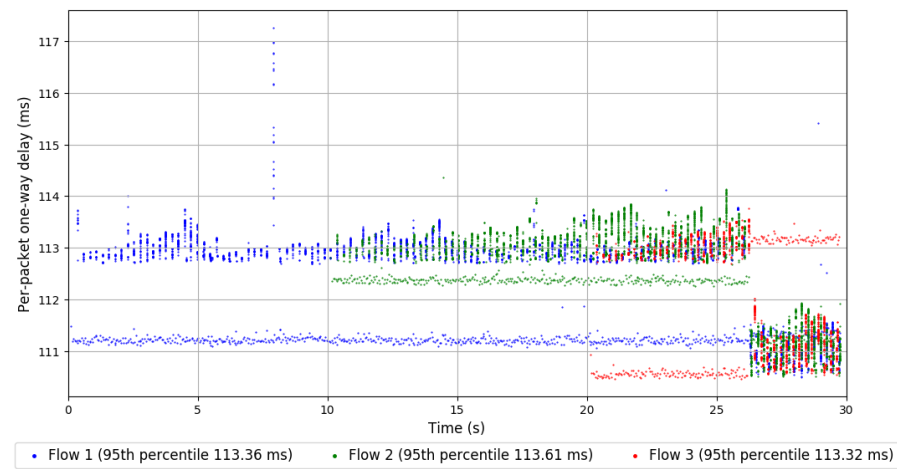
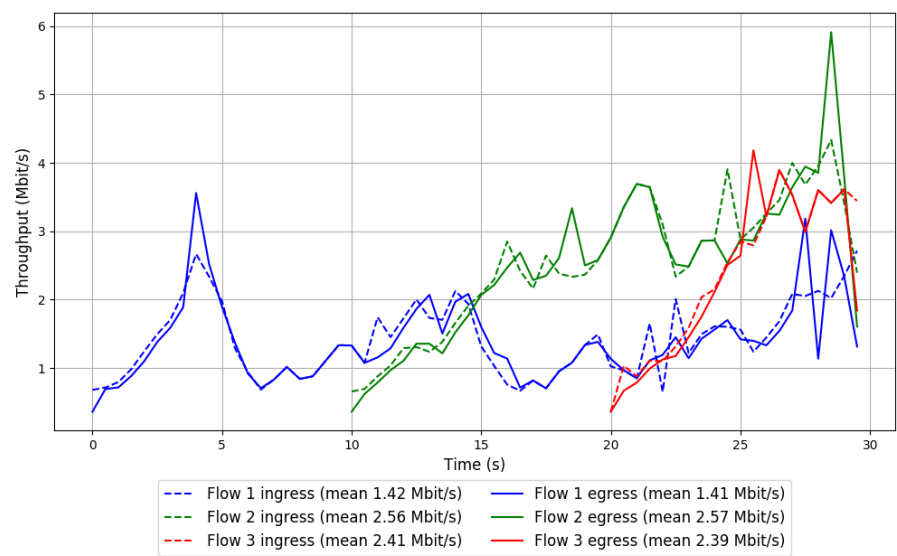
-- Flow 3:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 113.323 ms

Loss rate: 3.38%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-05 21:39:47

End at: 2017-12-05 21:40:17

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.03 Mbit/s

95th percentile per-packet one-way delay: 113.194 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 113.359 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 112.802 ms

Loss rate: 2.22%

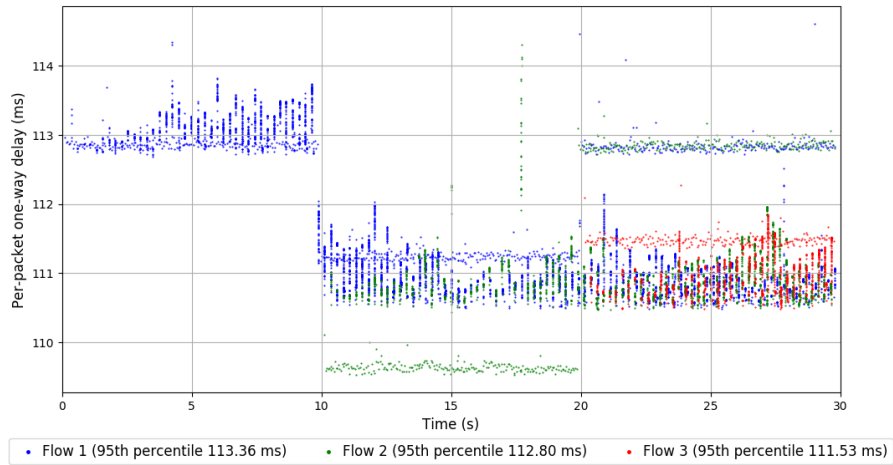
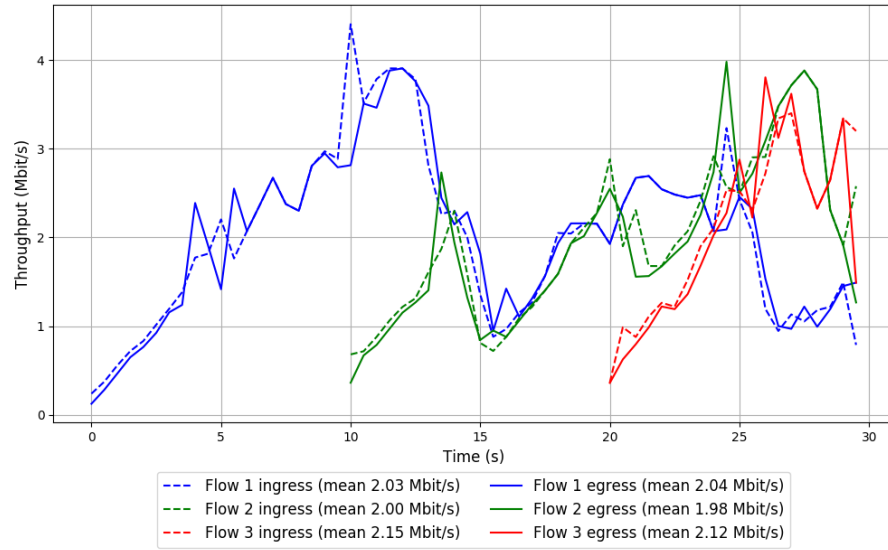
-- Flow 3:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 111.530 ms

Loss rate: 4.04%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-05 21:53:17

End at: 2017-12-05 21:53:47

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.12 Mbit/s

95th percentile per-packet one-way delay: 111.330 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 2.63 Mbit/s

95th percentile per-packet one-way delay: 111.135 ms

Loss rate: 1.69%

-- Flow 2:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 111.416 ms

Loss rate: 1.71%

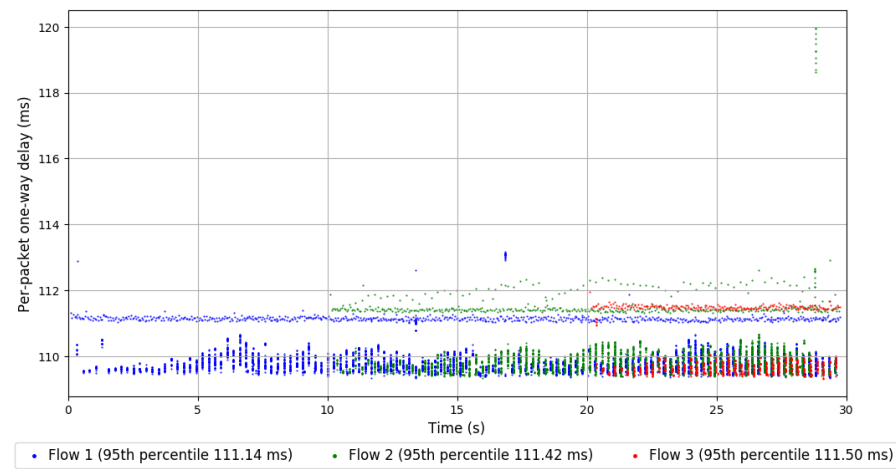
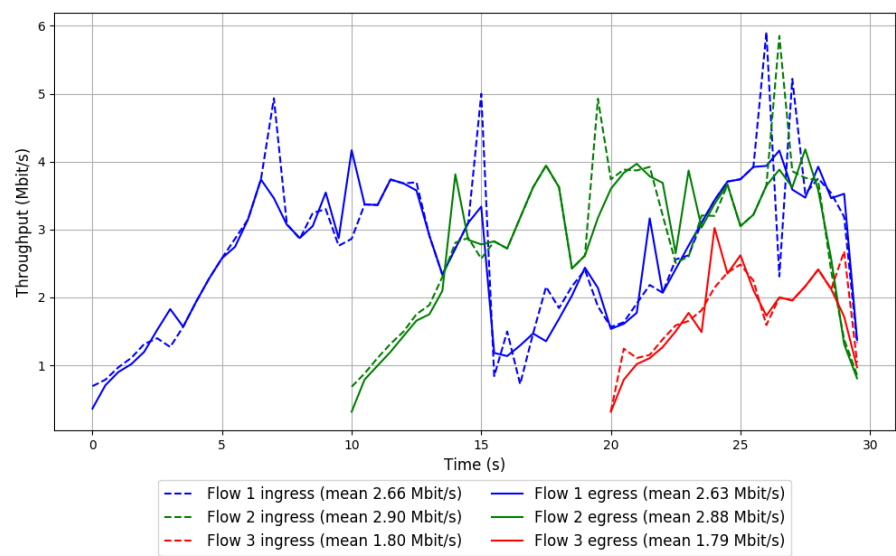
-- Flow 3:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 111.505 ms

Loss rate: 2.92%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-05 22:07:04

End at: 2017-12-05 22:07:34

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.47 Mbit/s

95th percentile per-packet one-way delay: 113.405 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 113.371 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 3.14 Mbit/s

95th percentile per-packet one-way delay: 113.507 ms

Loss rate: 1.52%

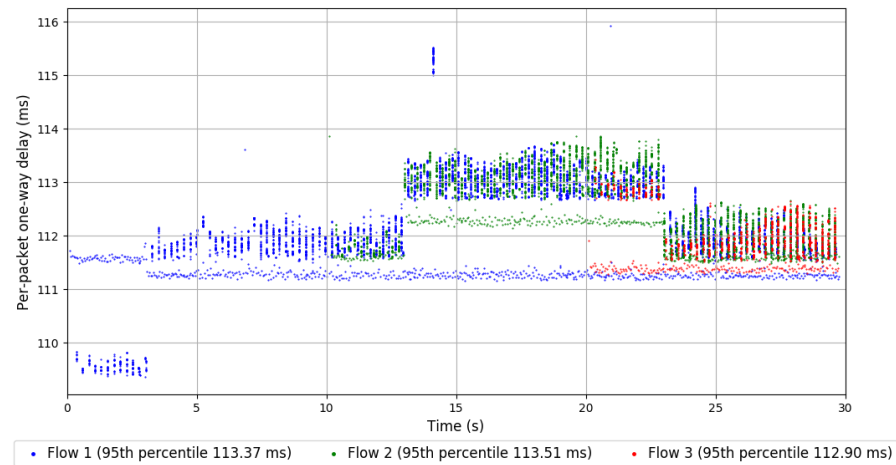
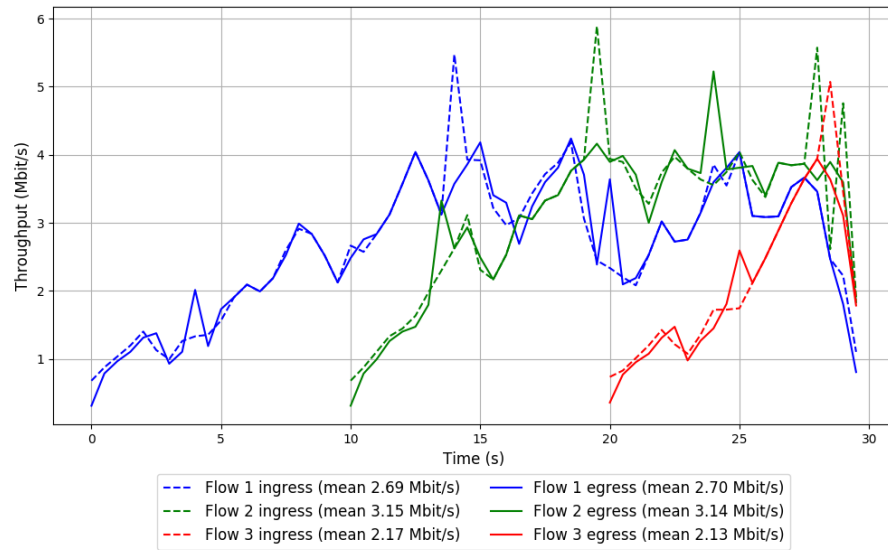
-- Flow 3:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 112.896 ms

Loss rate: 4.34%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-05 22:20:47

End at: 2017-12-05 22:21:17

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 112.831 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 112.970 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 112.893 ms

Loss rate: 2.04%

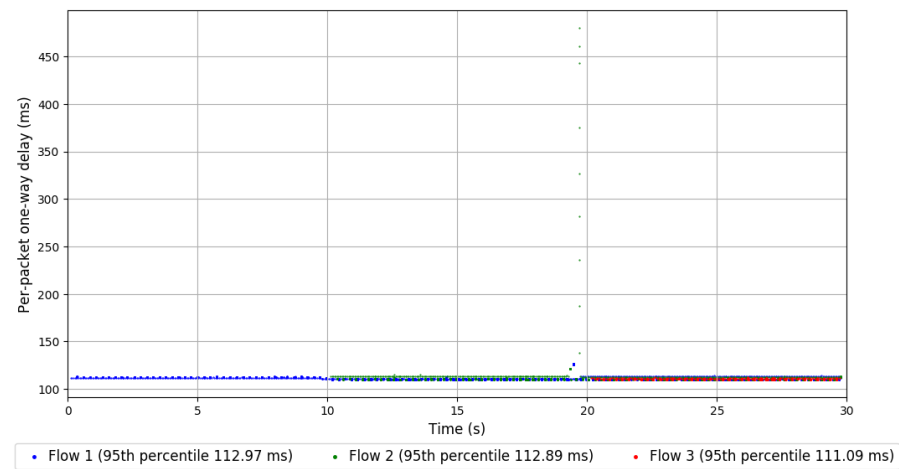
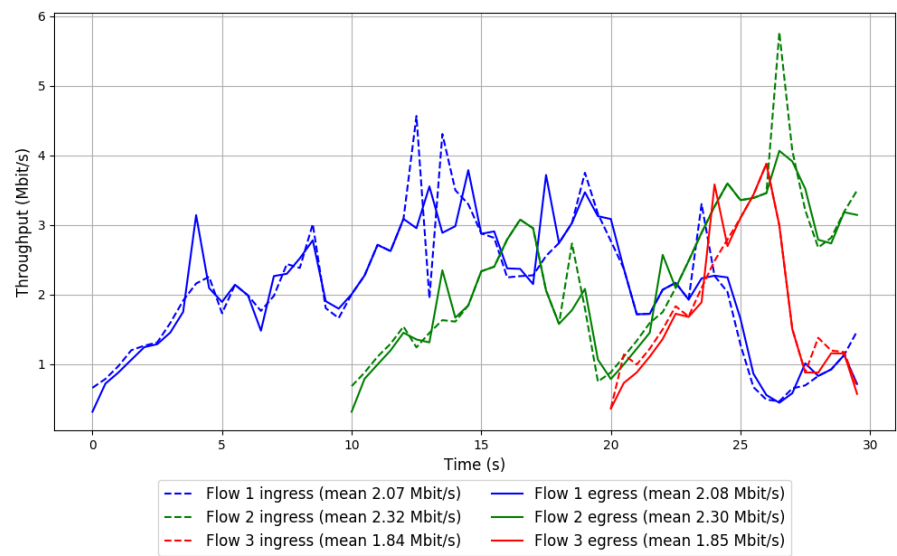
-- Flow 3:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 111.088 ms

Loss rate: 2.10%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-05 22:34:17

End at: 2017-12-05 22:34:47

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.59 Mbit/s

95th percentile per-packet one-way delay: 113.249 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 113.092 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 113.317 ms

Loss rate: 1.52%

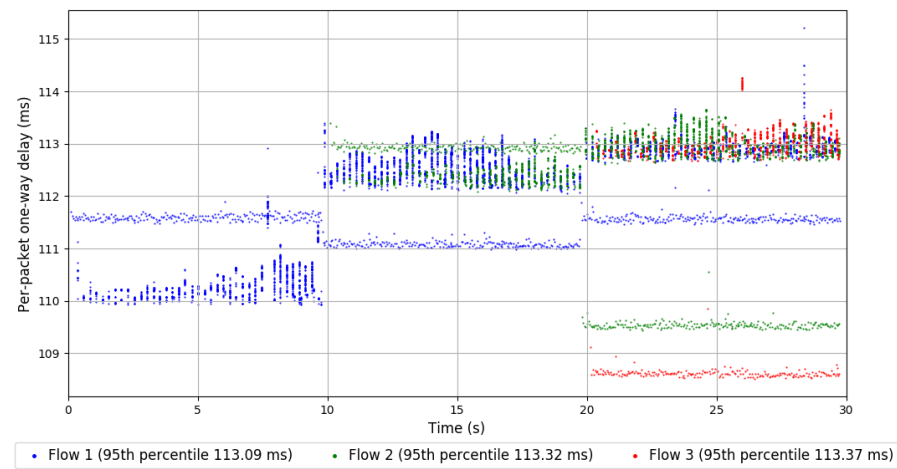
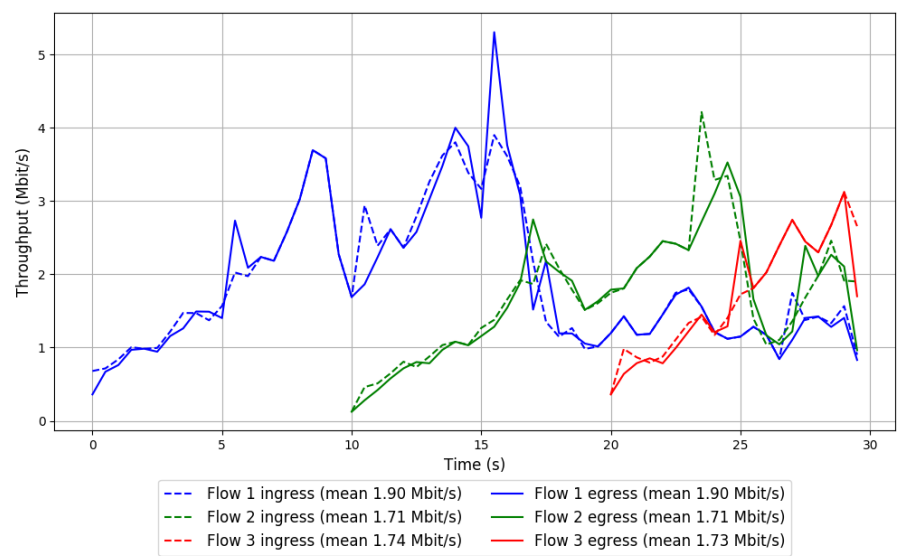
-- Flow 3:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 113.373 ms

Loss rate: 2.80%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-05 22:47:54

End at: 2017-12-05 22:48:24

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 112.945 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 2.55 Mbit/s

95th percentile per-packet one-way delay: 112.921 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 112.968 ms

Loss rate: 1.71%

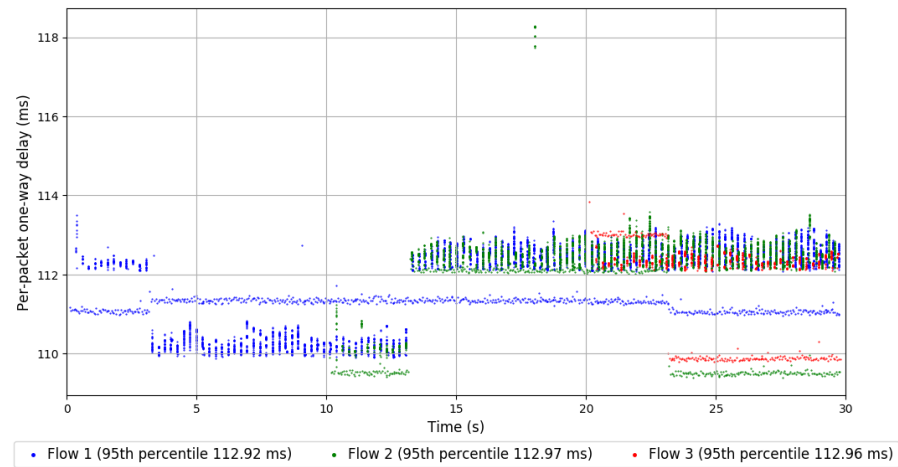
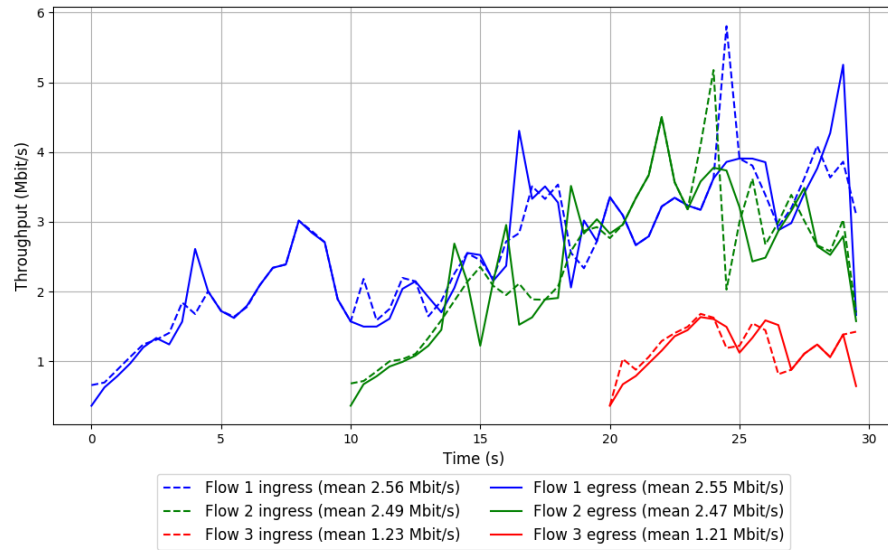
-- Flow 3:

Average throughput: 1.21 Mbit/s

95th percentile per-packet one-way delay: 112.962 ms

Loss rate: 3.25%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-05 23:01:12

End at: 2017-12-05 23:01:42

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 112.842 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 3.21 Mbit/s

95th percentile per-packet one-way delay: 112.773 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 112.781 ms

Loss rate: 1.48%

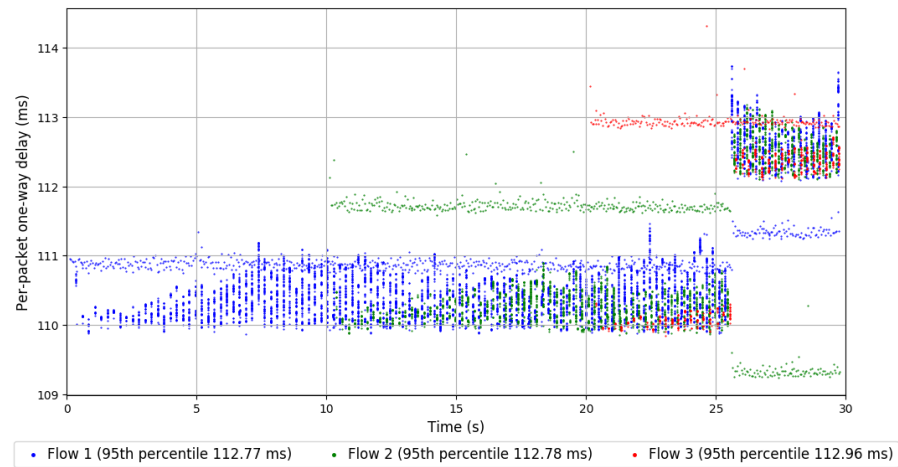
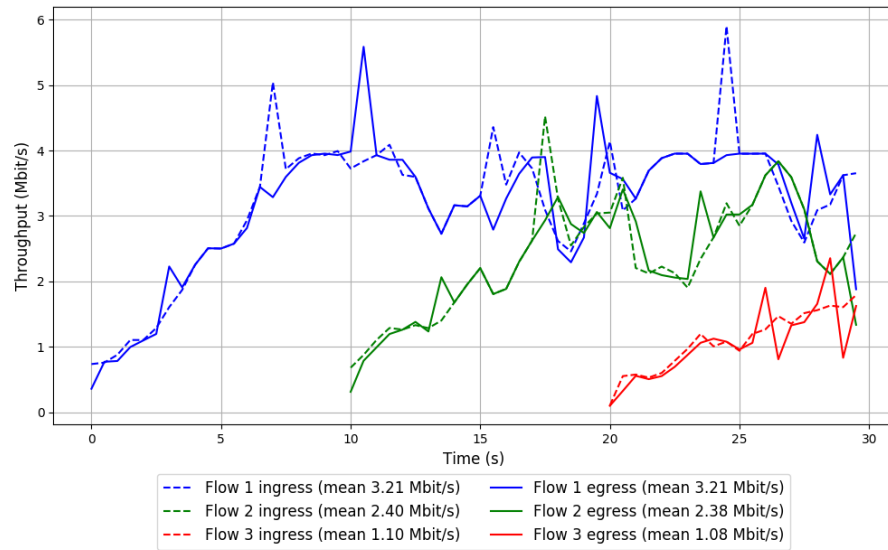
-- Flow 3:

Average throughput: 1.08 Mbit/s

95th percentile per-packet one-way delay: 112.961 ms

Loss rate: 4.34%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-05 23:14:55

End at: 2017-12-05 23:15:25

Below is generated by plot.py at 2017-12-06 02:08:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.01 Mbit/s

95th percentile per-packet one-way delay: 113.023 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 112.953 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 113.066 ms

Loss rate: 0.21%

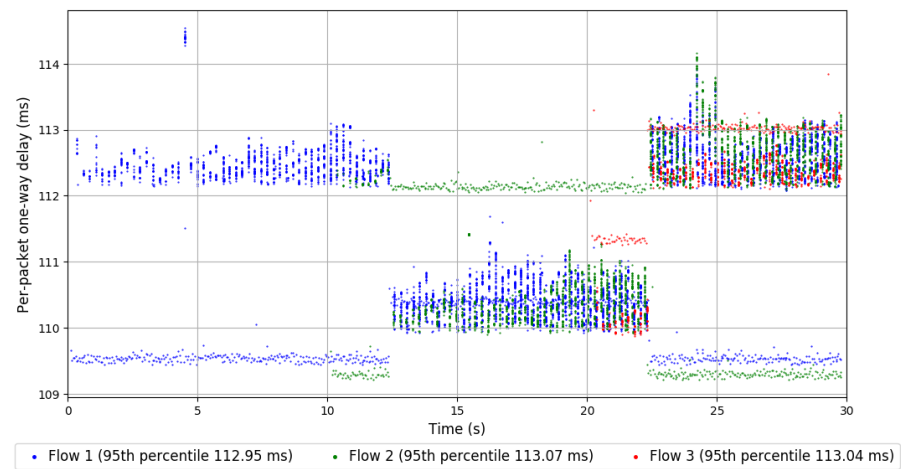
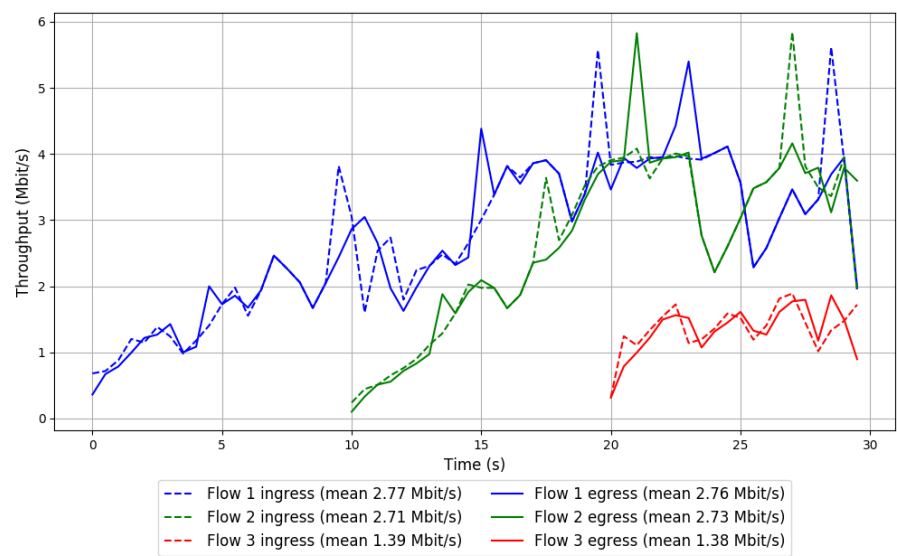
-- Flow 3:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 113.040 ms

Loss rate: 3.02%

Run 10: Report of Sprout — Data Link

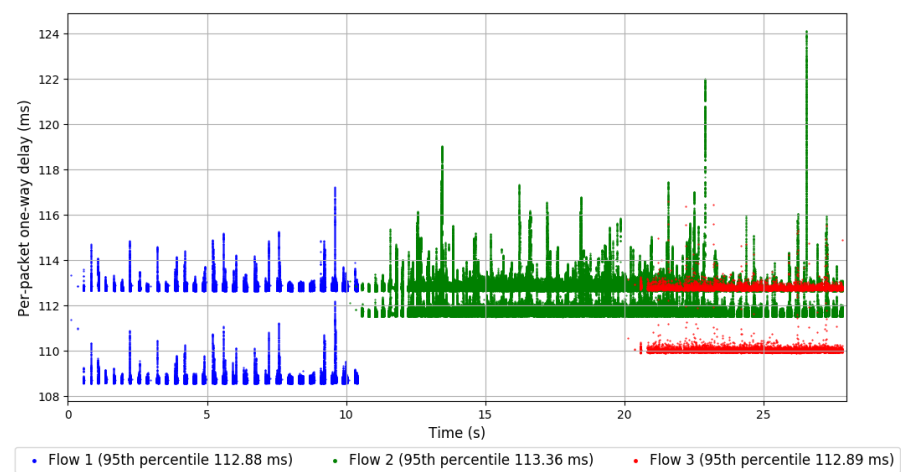
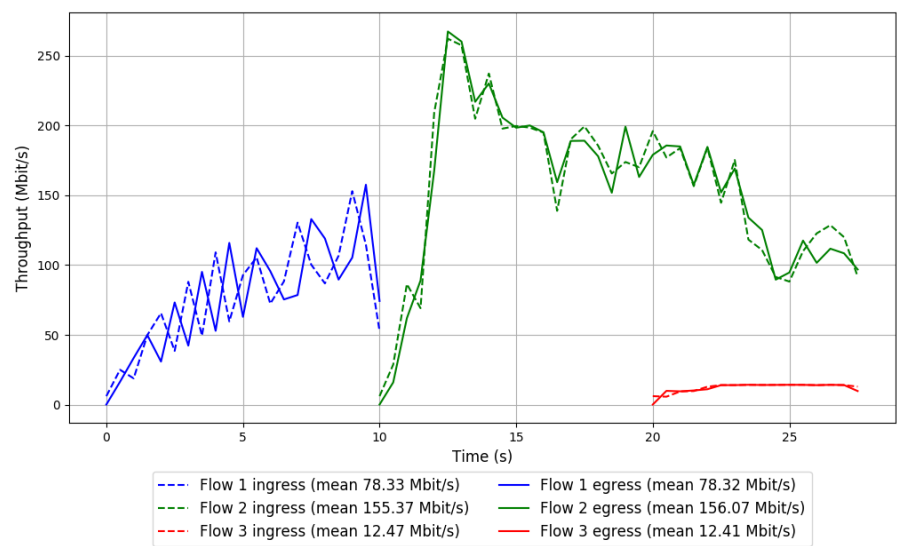


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-05 21:15:05
End at: 2017-12-05 21:15:35

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 132.28 Mbit/s
95th percentile per-packet one-way delay: 113.213 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 78.32 Mbit/s
95th percentile per-packet one-way delay: 112.884 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 156.07 Mbit/s
95th percentile per-packet one-way delay: 113.356 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 12.41 Mbit/s
95th percentile per-packet one-way delay: 112.885 ms
Loss rate: 3.21%
```


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

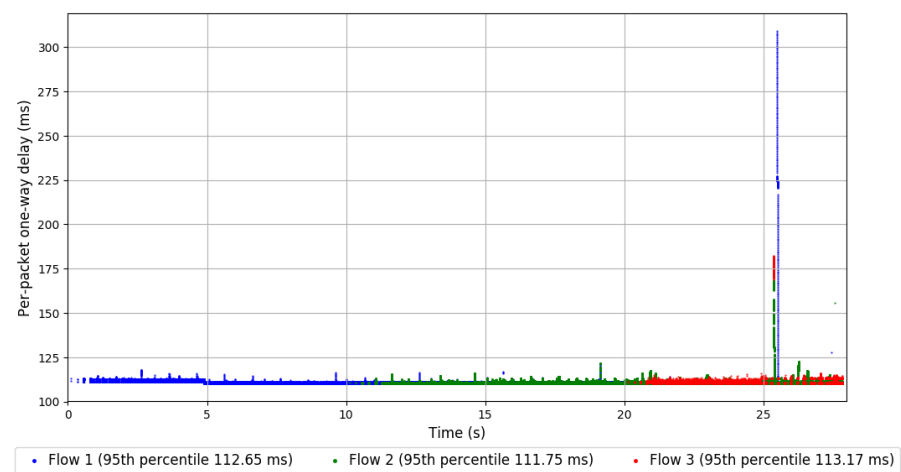
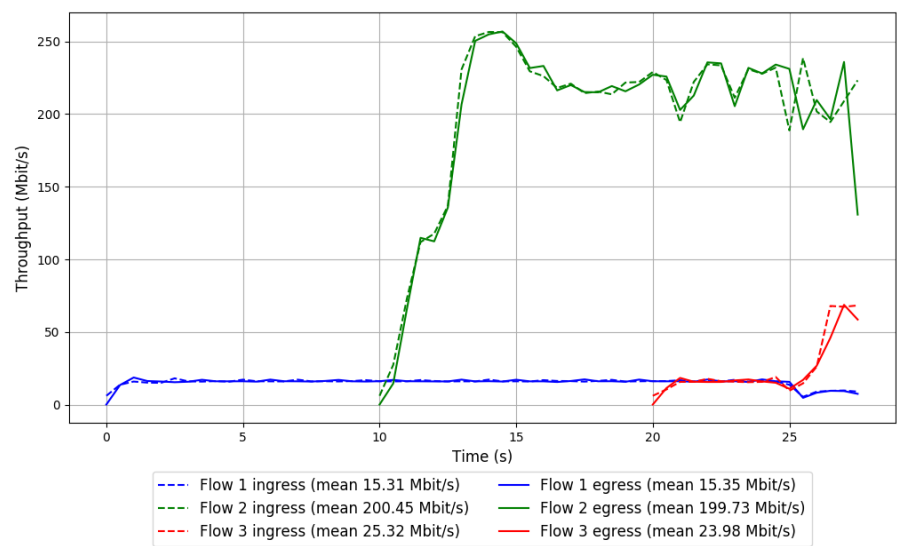


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-05 21:28:40
End at: 2017-12-05 21:29:10

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.66 Mbit/s
95th percentile per-packet one-way delay: 112.329 ms
Loss rate: 1.77%
-- Flow 1:
Average throughput: 15.35 Mbit/s
95th percentile per-packet one-way delay: 112.646 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 199.73 Mbit/s
95th percentile per-packet one-way delay: 111.745 ms
Loss rate: 1.57%
-- Flow 3:
Average throughput: 23.98 Mbit/s
95th percentile per-packet one-way delay: 113.166 ms
Loss rate: 7.92%
```

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

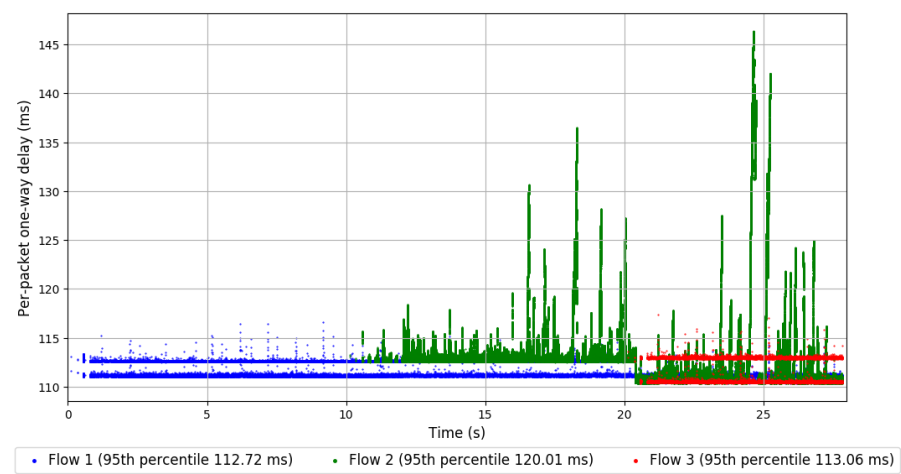
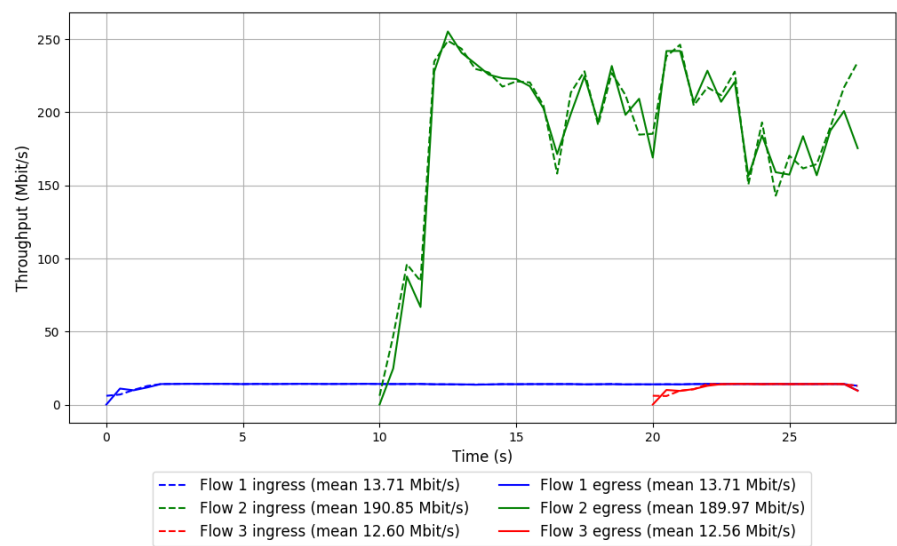


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-05 21:42:15
End at: 2017-12-05 21:42:45

# Below is generated by plot.py at 2017-12-06 02:08:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.58 Mbit/s
95th percentile per-packet one-way delay: 118.853 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 13.71 Mbit/s
95th percentile per-packet one-way delay: 112.717 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 189.97 Mbit/s
95th percentile per-packet one-way delay: 120.006 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 12.56 Mbit/s
95th percentile per-packet one-way delay: 113.060 ms
Loss rate: 3.17%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-05 21:55:43

End at: 2017-12-05 21:56:13

Below is generated by plot.py at 2017-12-06 02:12:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 279.45 Mbit/s

95th percentile per-packet one-way delay: 111.897 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 117.40 Mbit/s

95th percentile per-packet one-way delay: 111.639 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 183.47 Mbit/s

95th percentile per-packet one-way delay: 111.905 ms

Loss rate: 1.33%

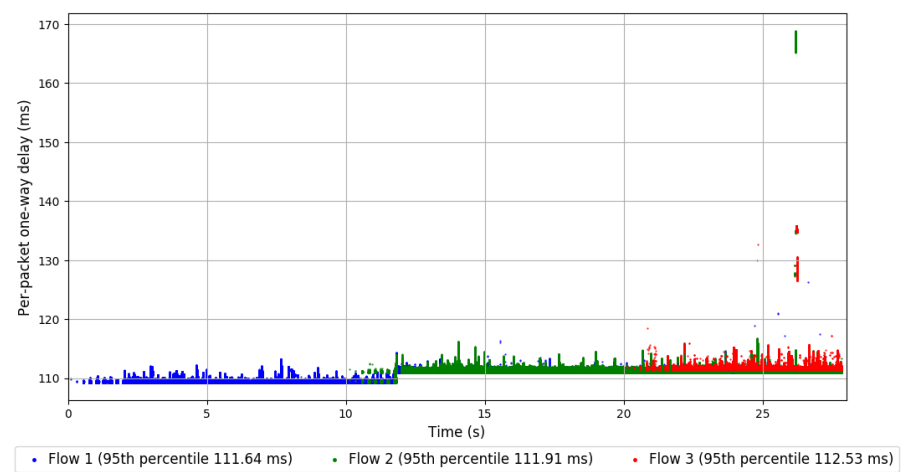
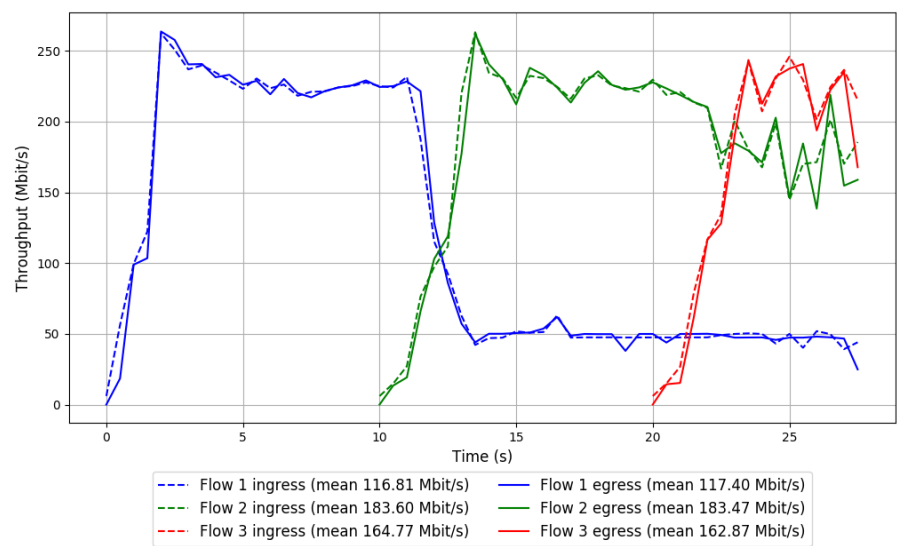
-- Flow 3:

Average throughput: 162.87 Mbit/s

95th percentile per-packet one-way delay: 112.530 ms

Loss rate: 4.02%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-05 22:09:31

End at: 2017-12-05 22:10:01

Below is generated by plot.py at 2017-12-06 02:14:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.53 Mbit/s

95th percentile per-packet one-way delay: 114.018 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 179.30 Mbit/s

95th percentile per-packet one-way delay: 113.352 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 145.85 Mbit/s

95th percentile per-packet one-way delay: 117.742 ms

Loss rate: 0.98%

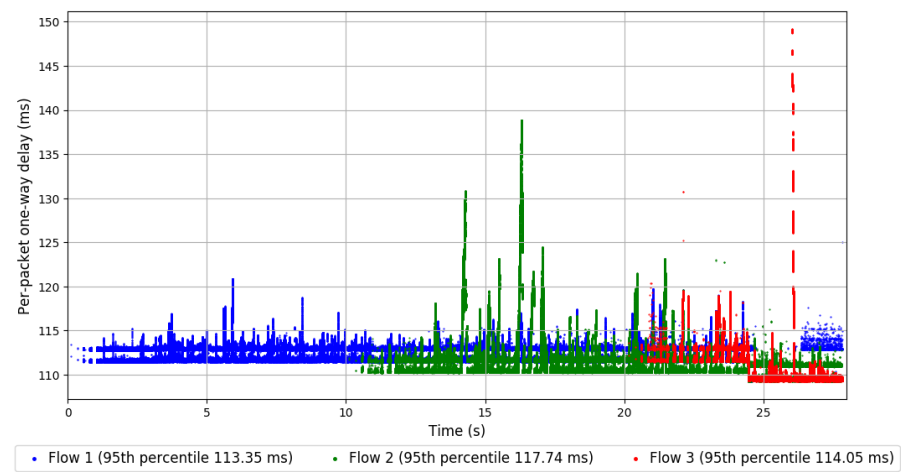
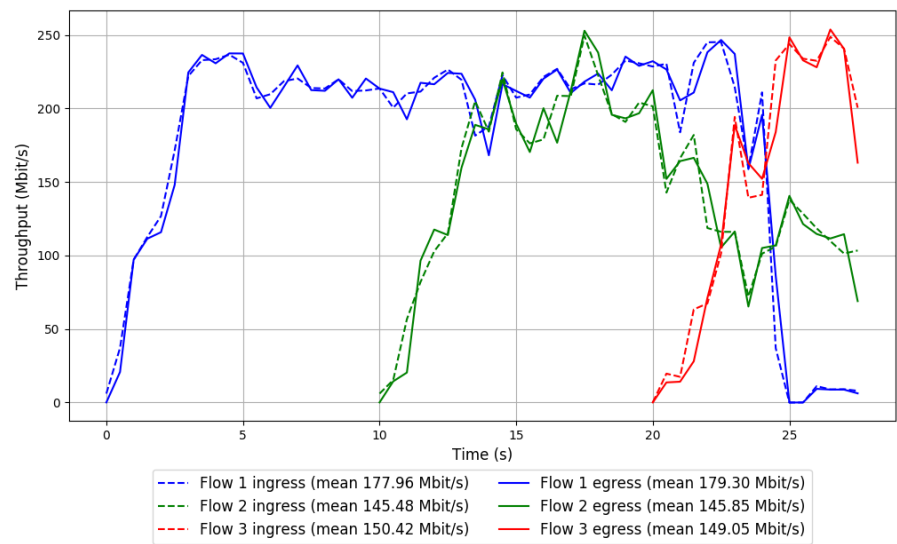
-- Flow 3:

Average throughput: 149.05 Mbit/s

95th percentile per-packet one-way delay: 114.054 ms

Loss rate: 3.71%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-05 22:23:14

End at: 2017-12-05 22:23:44

Below is generated by plot.py at 2017-12-06 02:14:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.24 Mbit/s

95th percentile per-packet one-way delay: 112.443 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 12.31 Mbit/s

95th percentile per-packet one-way delay: 112.203 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 187.49 Mbit/s

95th percentile per-packet one-way delay: 112.390 ms

Loss rate: 0.84%

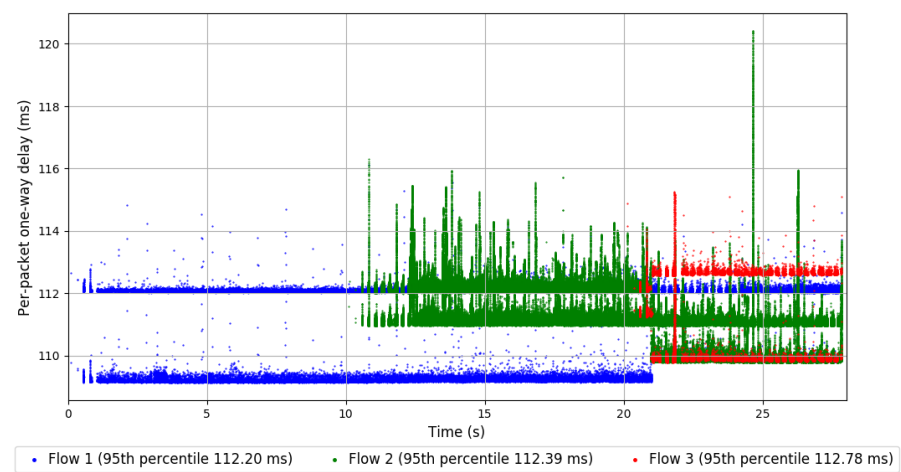
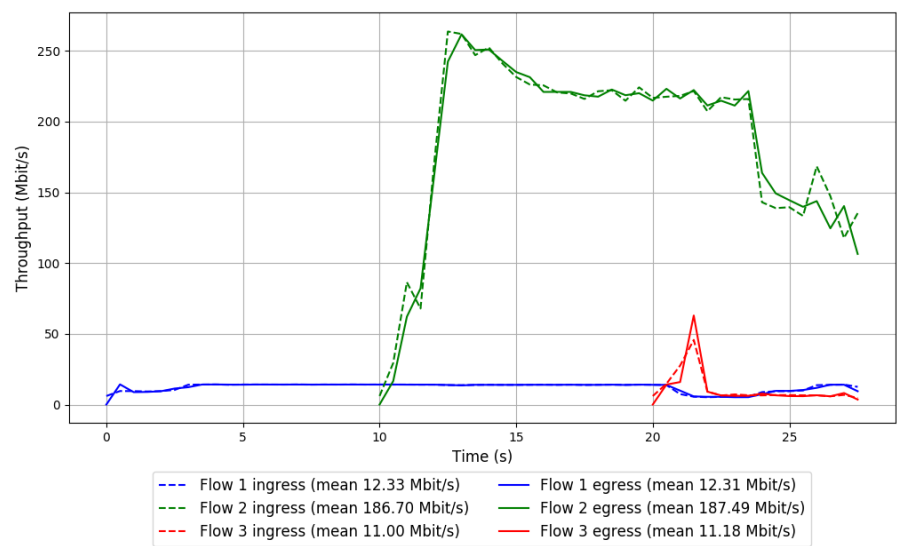
-- Flow 3:

Average throughput: 11.18 Mbit/s

95th percentile per-packet one-way delay: 112.779 ms

Loss rate: 1.29%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-05 22:36:45

End at: 2017-12-05 22:37:15

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.25 Mbit/s

95th percentile per-packet one-way delay: 113.450 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 172.13 Mbit/s

95th percentile per-packet one-way delay: 111.107 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 153.74 Mbit/s

95th percentile per-packet one-way delay: 118.670 ms

Loss rate: 0.18%

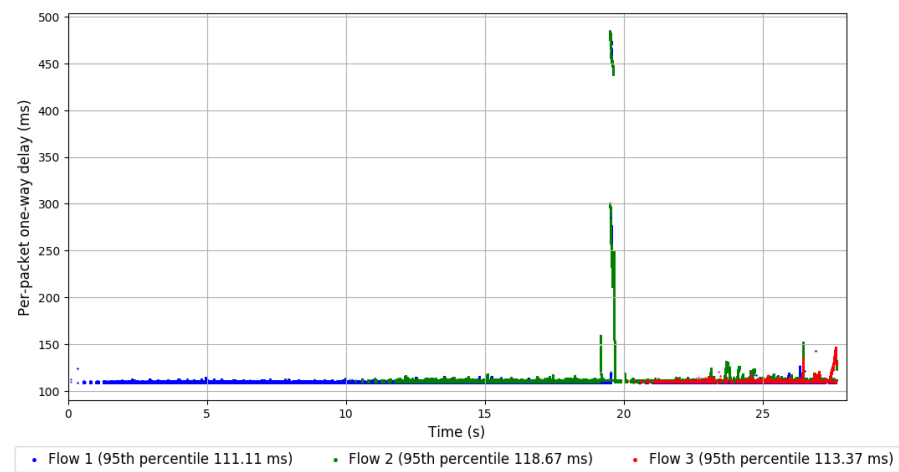
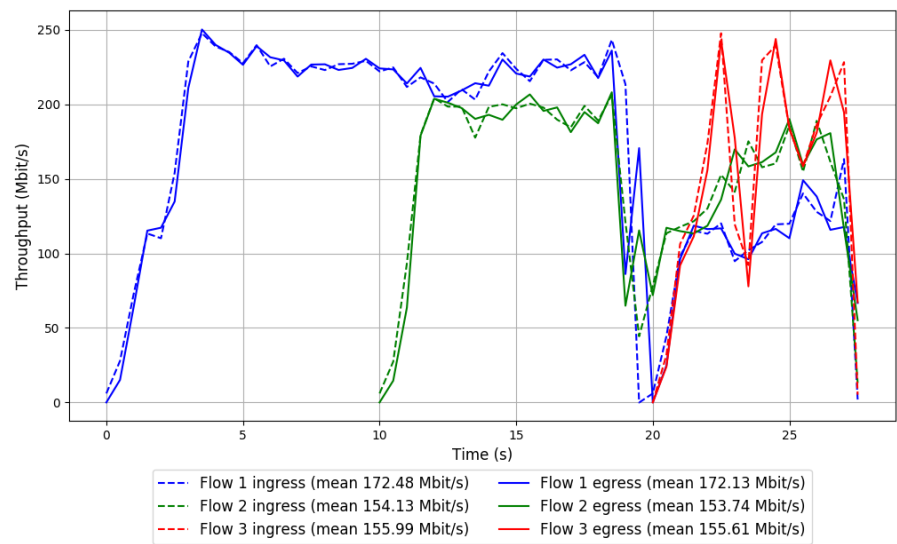
-- Flow 3:

Average throughput: 155.61 Mbit/s

95th percentile per-packet one-way delay: 113.370 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-05 22:50:22

End at: 2017-12-05 22:50:52

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.55 Mbit/s

95th percentile per-packet one-way delay: 112.794 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 14.33 Mbit/s

95th percentile per-packet one-way delay: 112.642 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 15.88 Mbit/s

95th percentile per-packet one-way delay: 112.869 ms

Loss rate: 1.27%

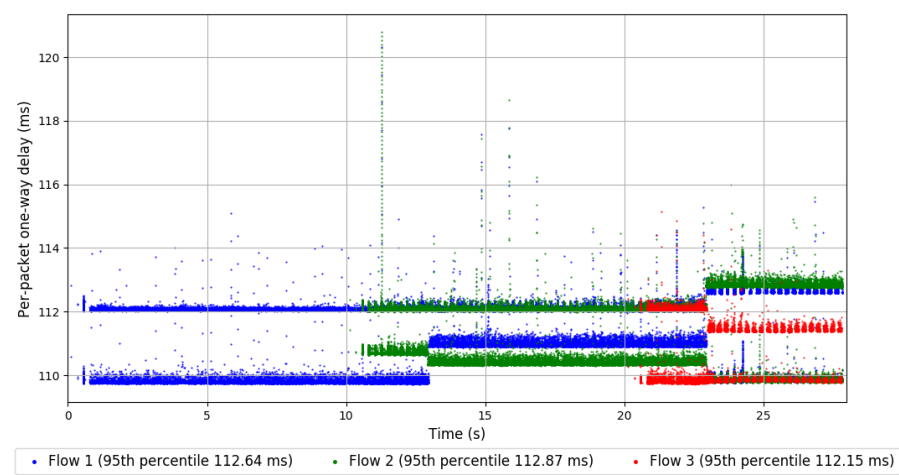
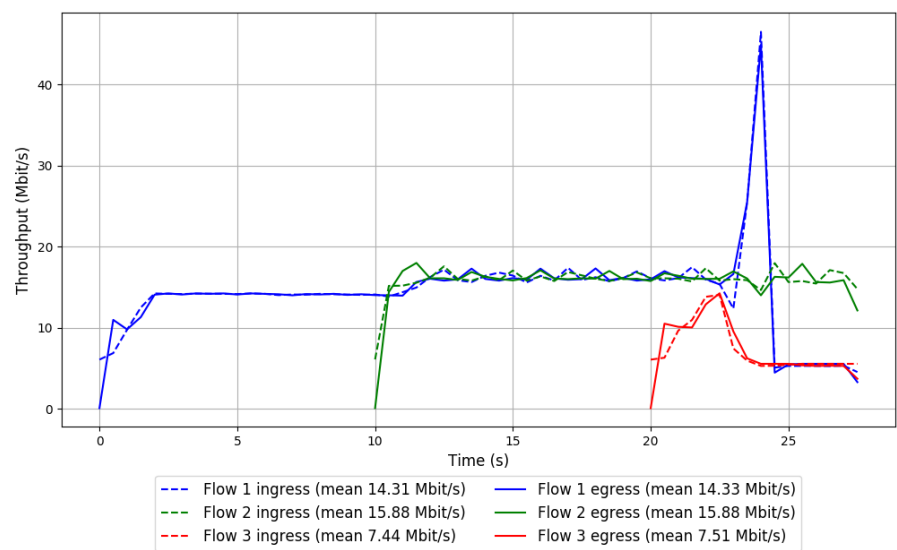
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 112.148 ms

Loss rate: 2.35%

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

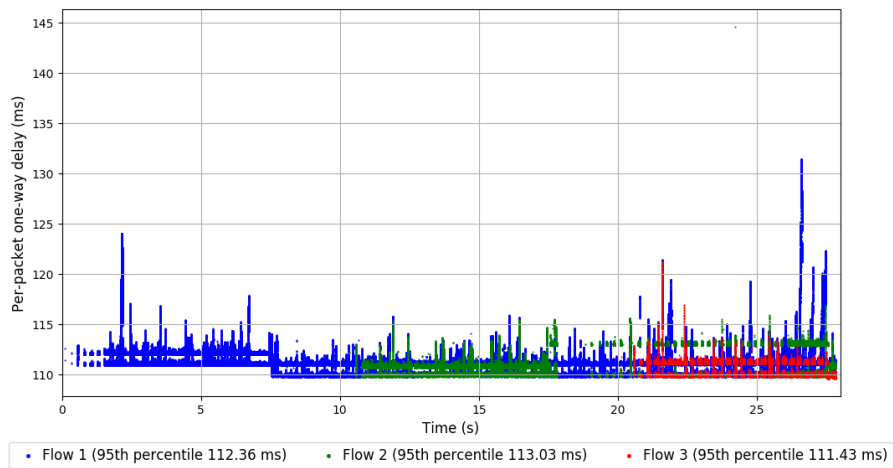
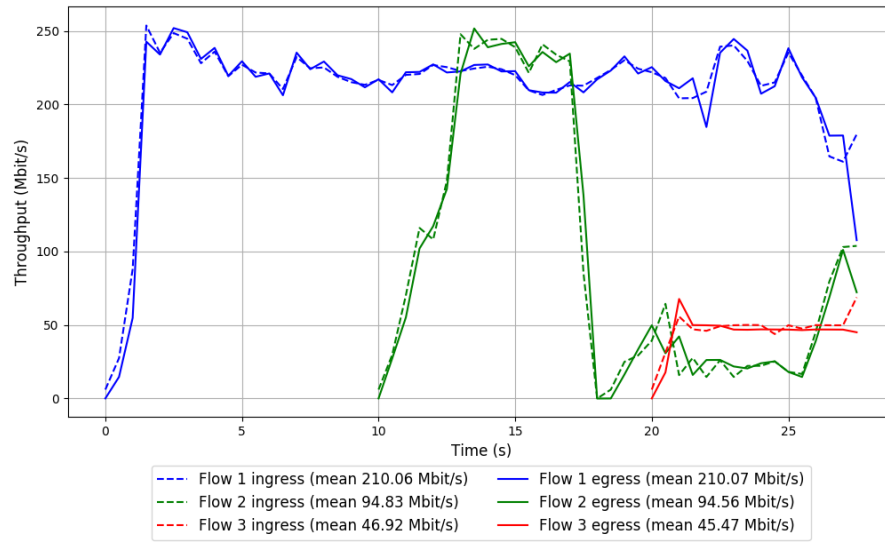


```
Run 9: Statistics of TaoVA-100x

Start at: 2017-12-05 23:03:38
End at: 2017-12-05 23:04:08

# Below is generated by plot.py at 2017-12-06 02:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.12 Mbit/s
95th percentile per-packet one-way delay: 112.888 ms
Loss rate: 1.18%
-- Flow 1:
Average throughput: 210.07 Mbit/s
95th percentile per-packet one-way delay: 112.362 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 94.56 Mbit/s
95th percentile per-packet one-way delay: 113.034 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 45.47 Mbit/s
95th percentile per-packet one-way delay: 111.434 ms
Loss rate: 5.78%
```


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

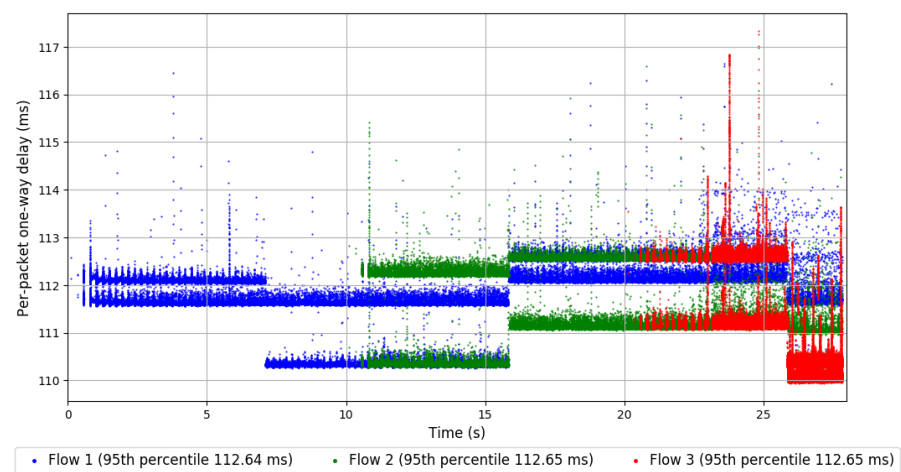
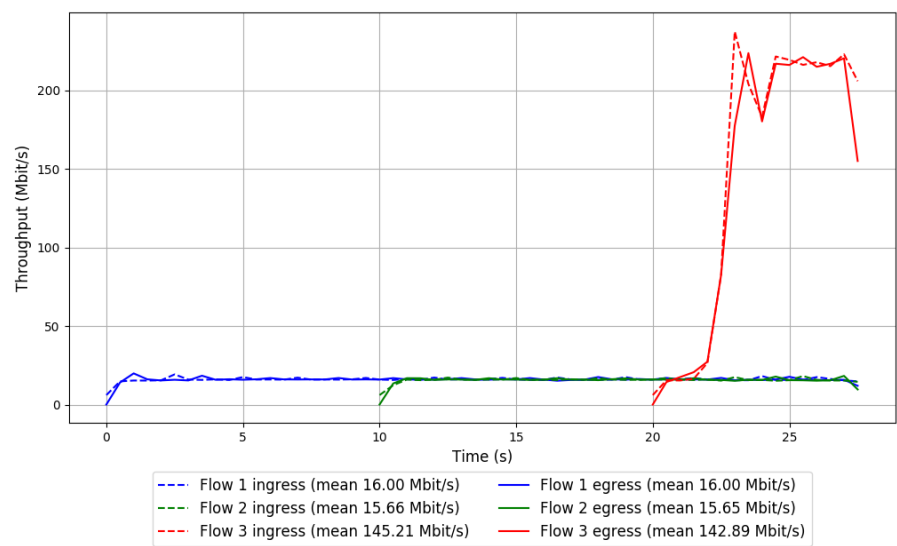


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-05 23:17:19
End at: 2017-12-05 23:17:49

# Below is generated by plot.py at 2017-12-06 02:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 65.76 Mbit/s
95th percentile per-packet one-way delay: 112.650 ms
Loss rate: 3.07%
-- Flow 1:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 15.65 Mbit/s
95th percentile per-packet one-way delay: 112.647 ms
Loss rate: 1.26%
-- Flow 3:
Average throughput: 142.89 Mbit/s
95th percentile per-packet one-way delay: 112.654 ms
Loss rate: 4.38%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-05 21:18:04

End at: 2017-12-05 21:18:34

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.78 Mbit/s

95th percentile per-packet one-way delay: 117.210 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 34.13 Mbit/s

95th percentile per-packet one-way delay: 114.340 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 44.75 Mbit/s

95th percentile per-packet one-way delay: 119.220 ms

Loss rate: 1.06%

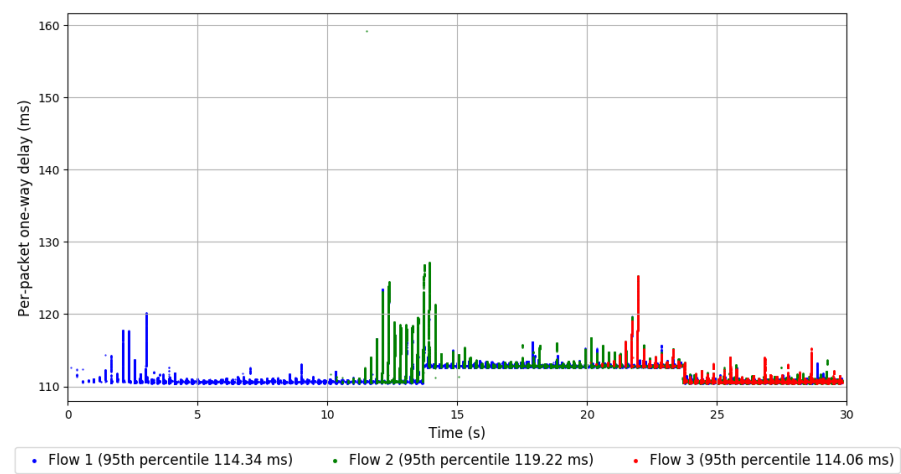
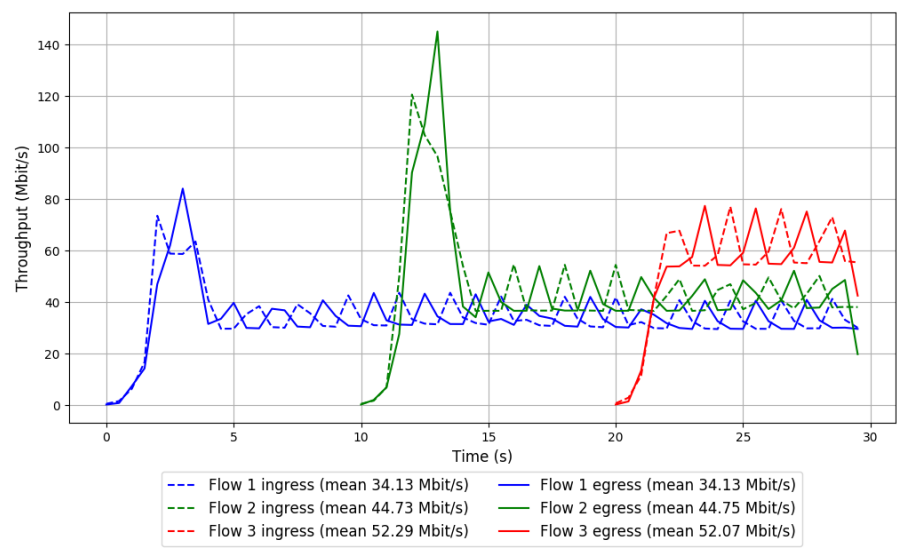
-- Flow 3:

Average throughput: 52.07 Mbit/s

95th percentile per-packet one-way delay: 114.057 ms

Loss rate: 2.66%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-05 21:31:43

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

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.39 Mbit/s

95th percentile per-packet one-way delay: 114.050 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 7.34 Mbit/s

95th percentile per-packet one-way delay: 113.332 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 35.23 Mbit/s

95th percentile per-packet one-way delay: 114.667 ms

Loss rate: 0.67%

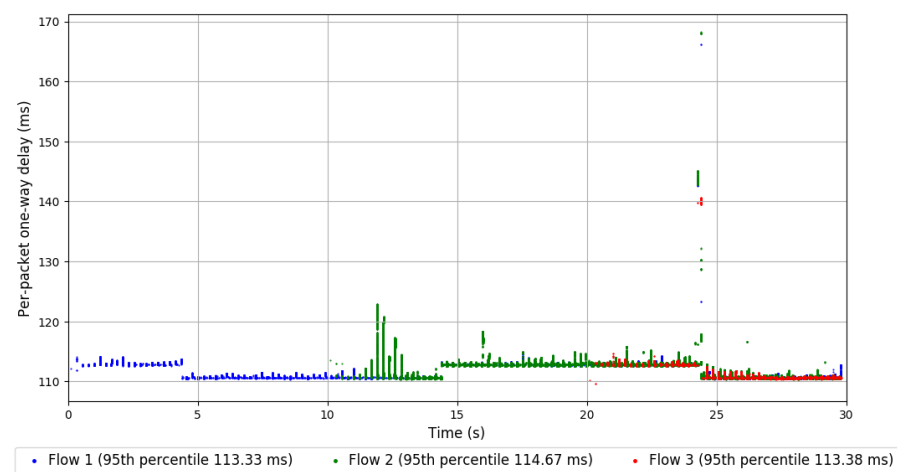
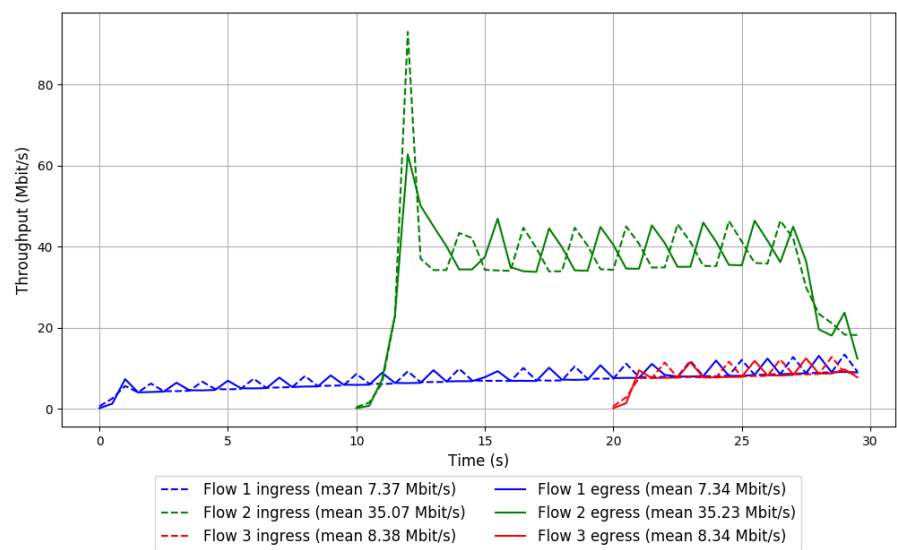
-- Flow 3:

Average throughput: 8.34 Mbit/s

95th percentile per-packet one-way delay: 113.383 ms

Loss rate: 2.69%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-05 21:45:17

End at: 2017-12-05 21:45:47

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.41 Mbit/s

95th percentile per-packet one-way delay: 113.989 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 9.50 Mbit/s

95th percentile per-packet one-way delay: 113.468 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 27.02 Mbit/s

95th percentile per-packet one-way delay: 114.318 ms

Loss rate: 1.22%

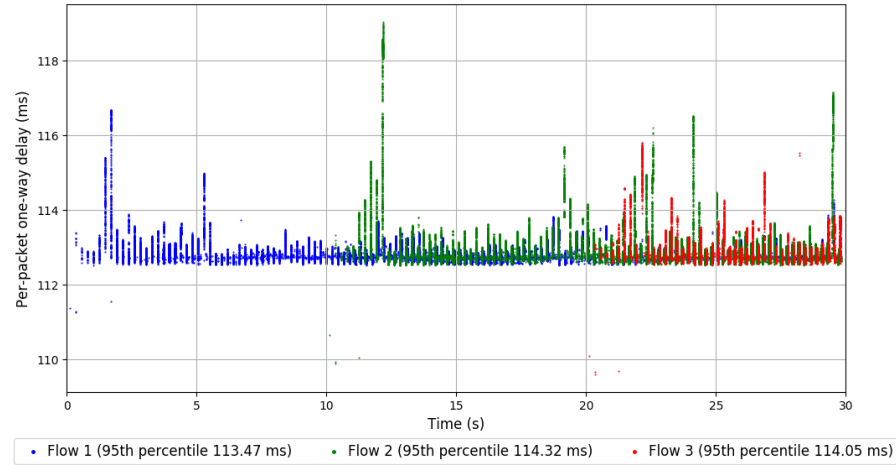
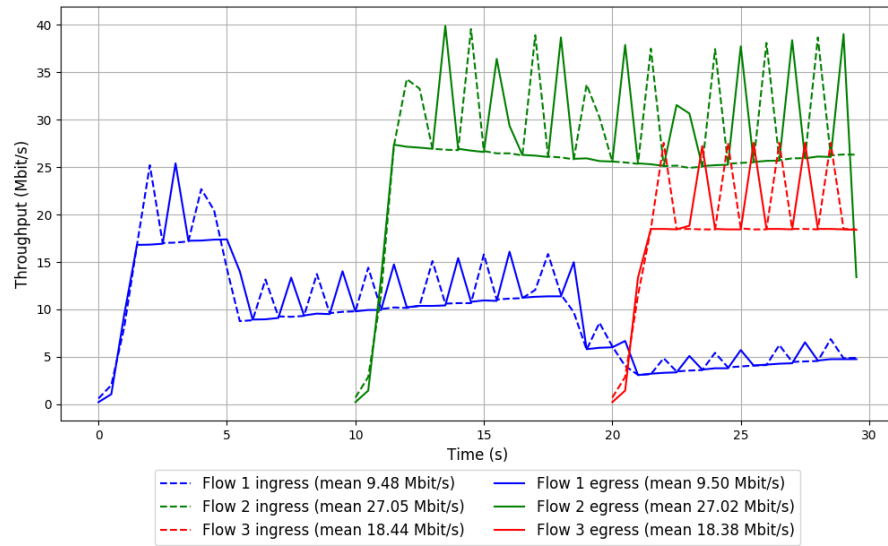
-- Flow 3:

Average throughput: 18.38 Mbit/s

95th percentile per-packet one-way delay: 114.050 ms

Loss rate: 2.52%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-05 21:58:59

End at: 2017-12-05 21:59:29

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.94 Mbit/s

95th percentile per-packet one-way delay: 115.238 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 7.29 Mbit/s

95th percentile per-packet one-way delay: 112.476 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 25.78 Mbit/s

95th percentile per-packet one-way delay: 110.466 ms

Loss rate: 1.09%

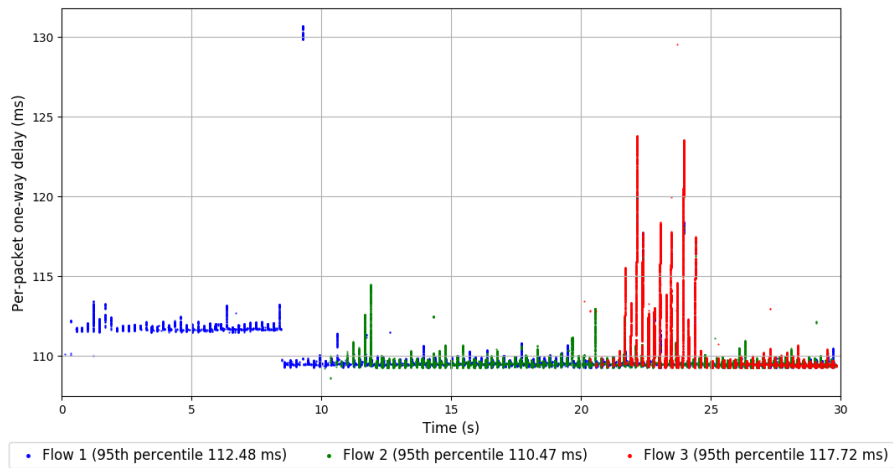
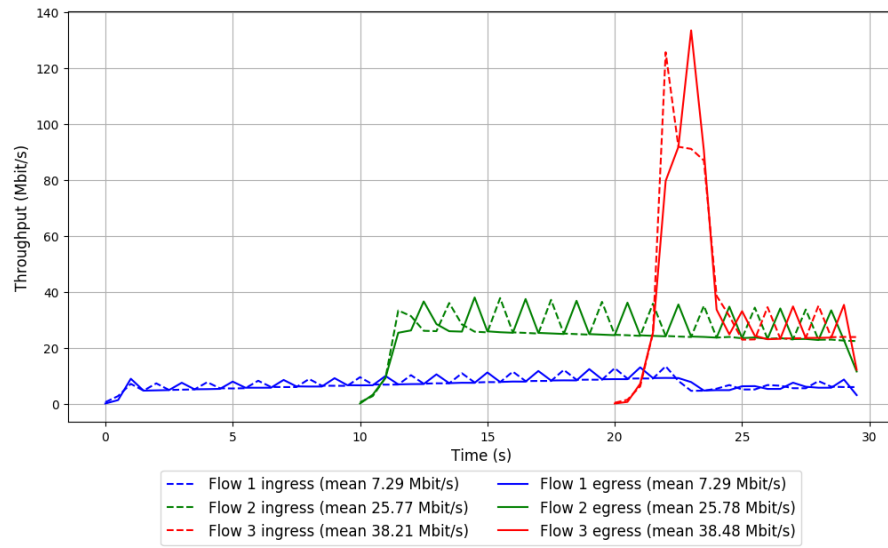
-- Flow 3:

Average throughput: 38.48 Mbit/s

95th percentile per-packet one-way delay: 117.717 ms

Loss rate: 1.59%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

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

End at: 2017-12-05 22:13:23

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.61 Mbit/s

95th percentile per-packet one-way delay: 116.418 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 37.21 Mbit/s

95th percentile per-packet one-way delay: 113.389 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 47.19 Mbit/s

95th percentile per-packet one-way delay: 118.953 ms

Loss rate: 0.94%

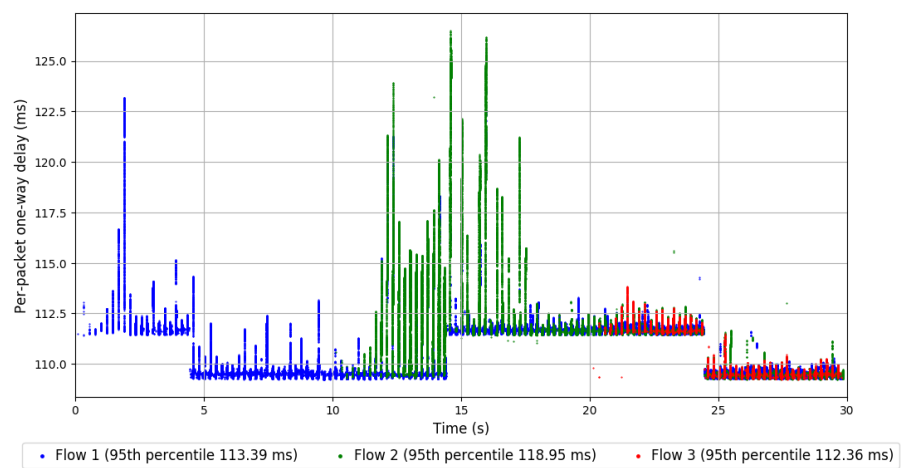
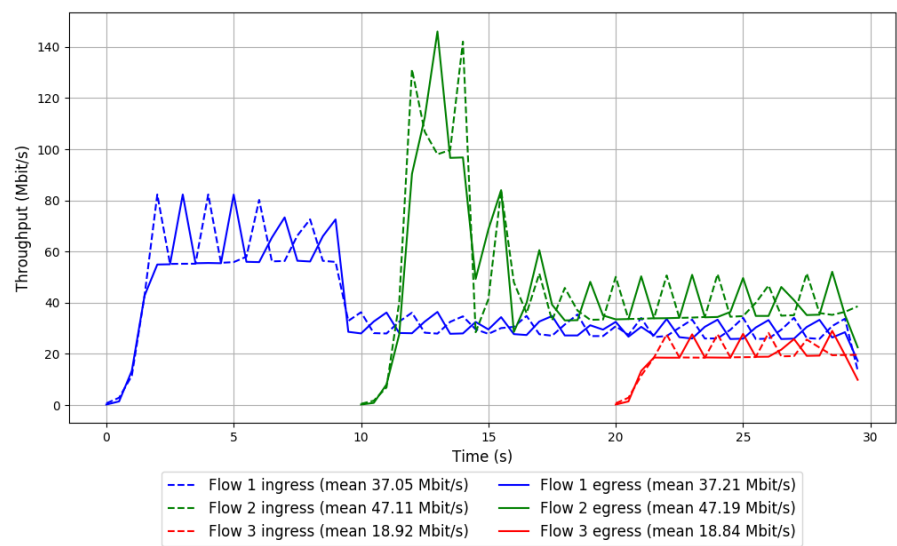
-- Flow 3:

Average throughput: 18.84 Mbit/s

95th percentile per-packet one-way delay: 112.359 ms

Loss rate: 2.63%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

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

End at: 2017-12-05 22:26:44

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.44 Mbit/s

95th percentile per-packet one-way delay: 113.400 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 19.37 Mbit/s

95th percentile per-packet one-way delay: 113.211 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 60.45 Mbit/s

95th percentile per-packet one-way delay: 113.565 ms

Loss rate: 1.22%

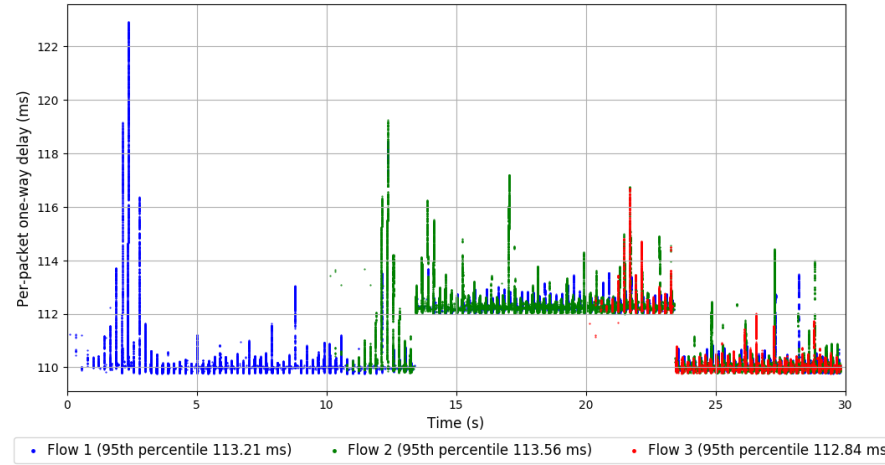
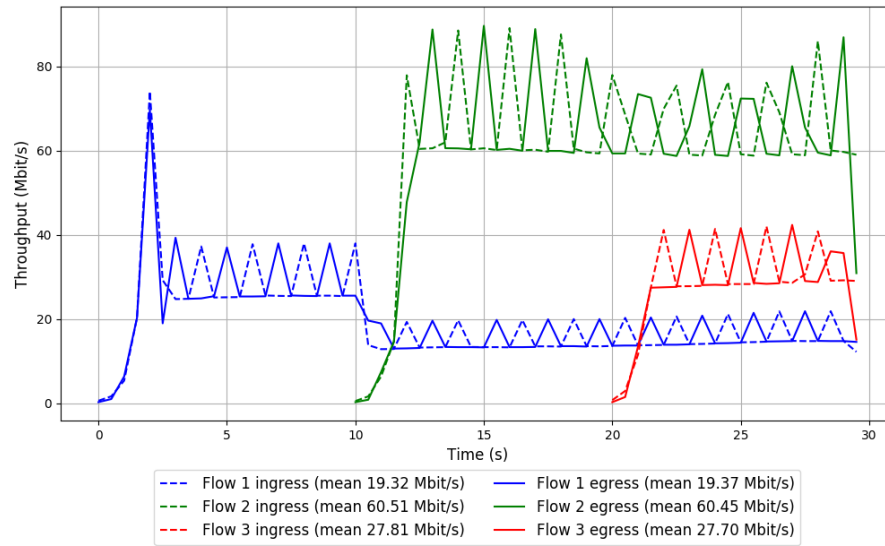
-- Flow 3:

Average throughput: 27.70 Mbit/s

95th percentile per-packet one-way delay: 112.836 ms

Loss rate: 2.63%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-05 22:40:02

End at: 2017-12-05 22:40:32

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.37 Mbit/s

95th percentile per-packet one-way delay: 118.438 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 37.72 Mbit/s

95th percentile per-packet one-way delay: 119.607 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 58.03 Mbit/s

95th percentile per-packet one-way delay: 113.007 ms

Loss rate: 1.24%

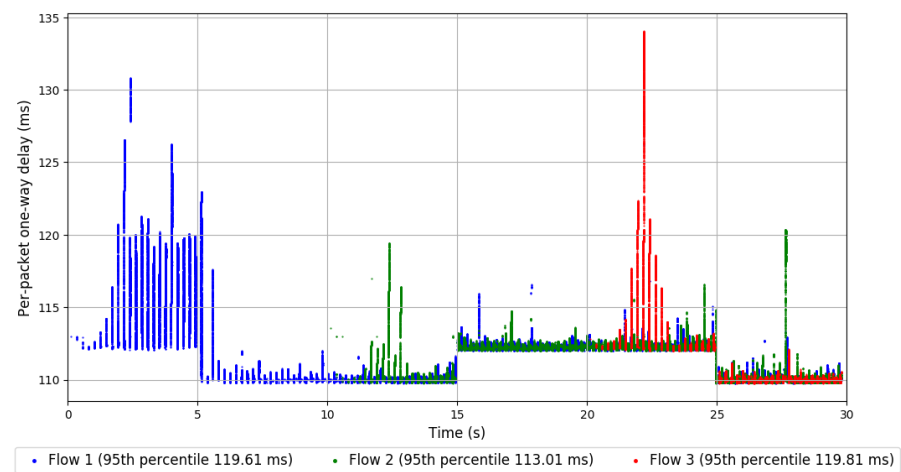
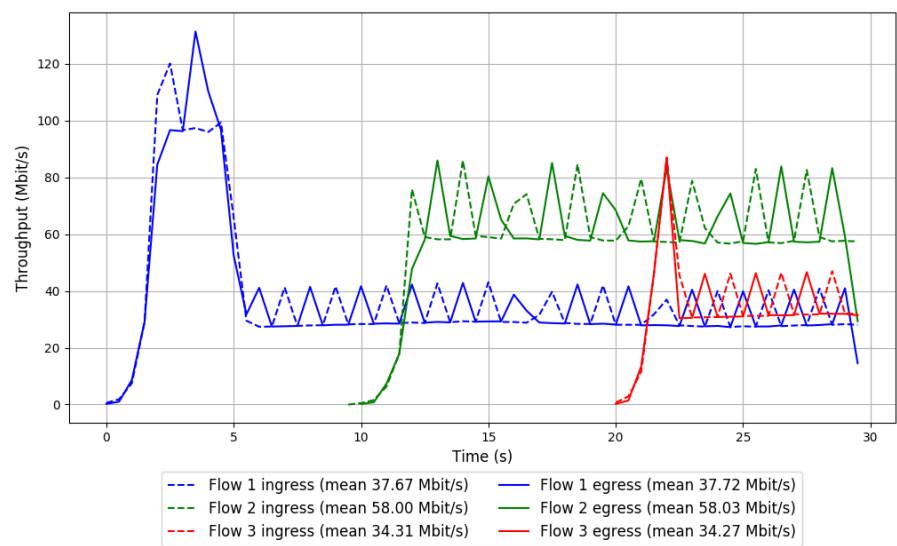
-- Flow 3:

Average throughput: 34.27 Mbit/s

95th percentile per-packet one-way delay: 119.808 ms

Loss rate: 2.35%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-05 22:53:04

End at: 2017-12-05 22:53:34

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.69 Mbit/s

95th percentile per-packet one-way delay: 119.629 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 79.45 Mbit/s

95th percentile per-packet one-way delay: 119.849 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 112.464 ms

Loss rate: 2.50%

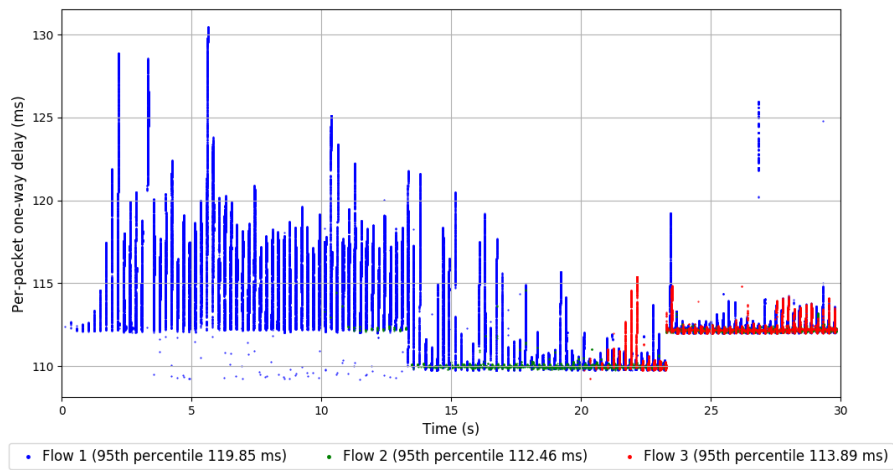
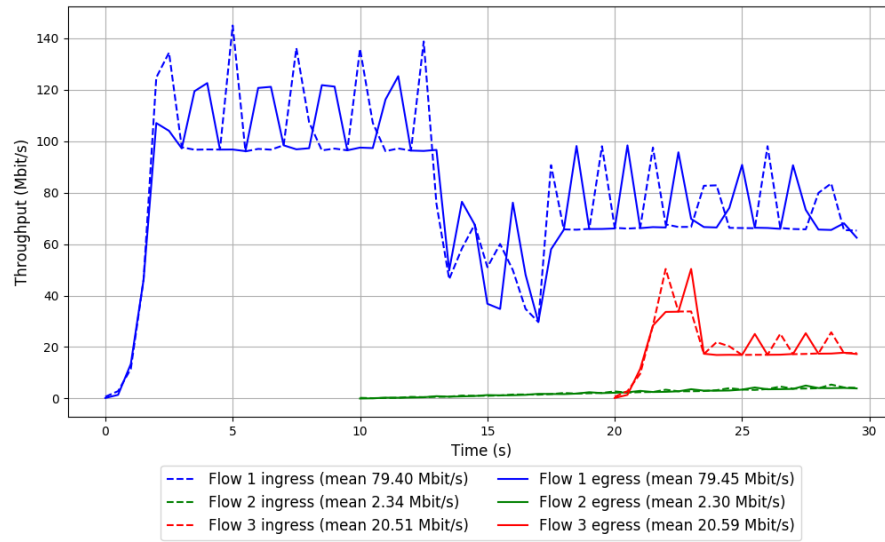
-- Flow 3:

Average throughput: 20.59 Mbit/s

95th percentile per-packet one-way delay: 113.892 ms

Loss rate: 2.18%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-05 23:06:57

End at: 2017-12-05 23:07:27

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.28 Mbit/s

95th percentile per-packet one-way delay: 116.129 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 21.40 Mbit/s

95th percentile per-packet one-way delay: 116.303 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 40.98 Mbit/s

95th percentile per-packet one-way delay: 116.684 ms

Loss rate: 0.88%

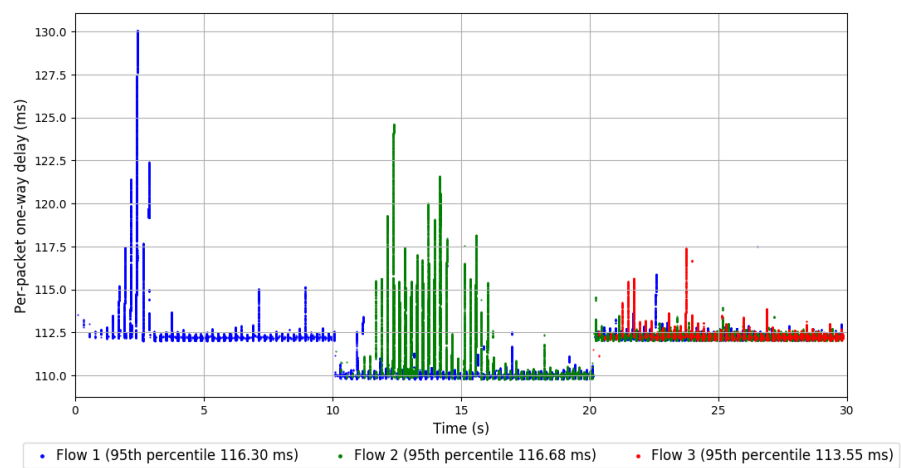
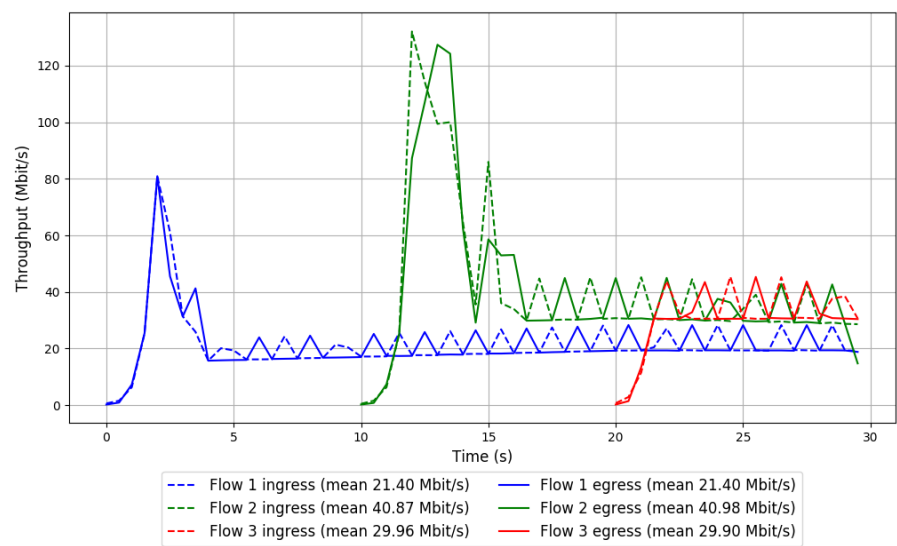
-- Flow 3:

Average throughput: 29.90 Mbit/s

95th percentile per-packet one-way delay: 113.546 ms

Loss rate: 2.58%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-05 23:20:04

End at: 2017-12-05 23:20:34

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 36.36 Mbit/s

95th percentile per-packet one-way delay: 114.142 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 13.46 Mbit/s

95th percentile per-packet one-way delay: 113.411 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 21.34 Mbit/s

95th percentile per-packet one-way delay: 113.478 ms

Loss rate: 1.30%

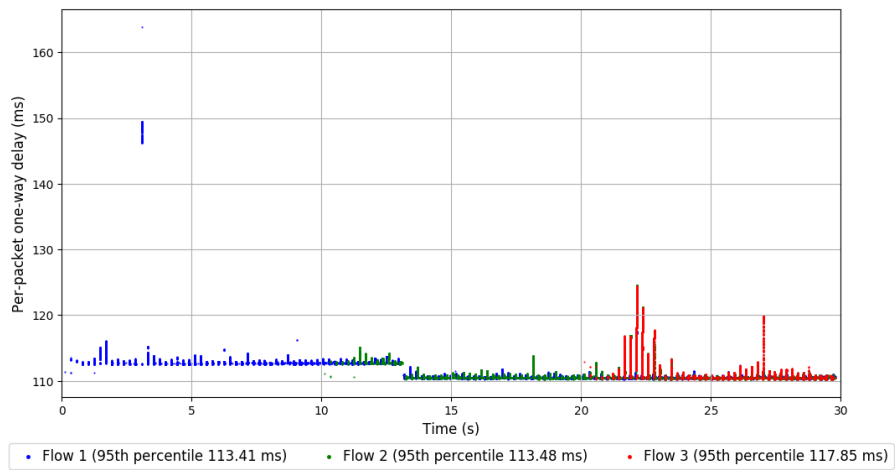
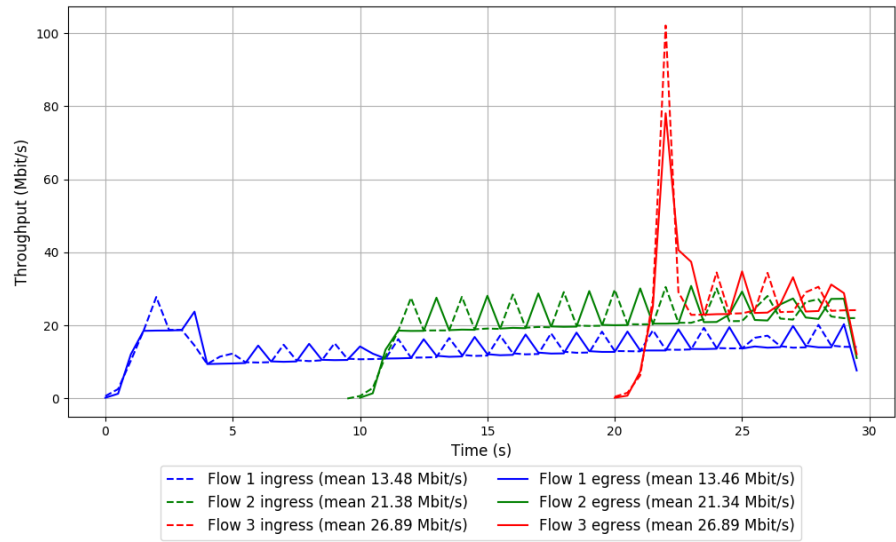
-- Flow 3:

Average throughput: 26.89 Mbit/s

95th percentile per-packet one-way delay: 117.848 ms

Loss rate: 2.27%

Run 10: Report of TCP Vegas — Data Link

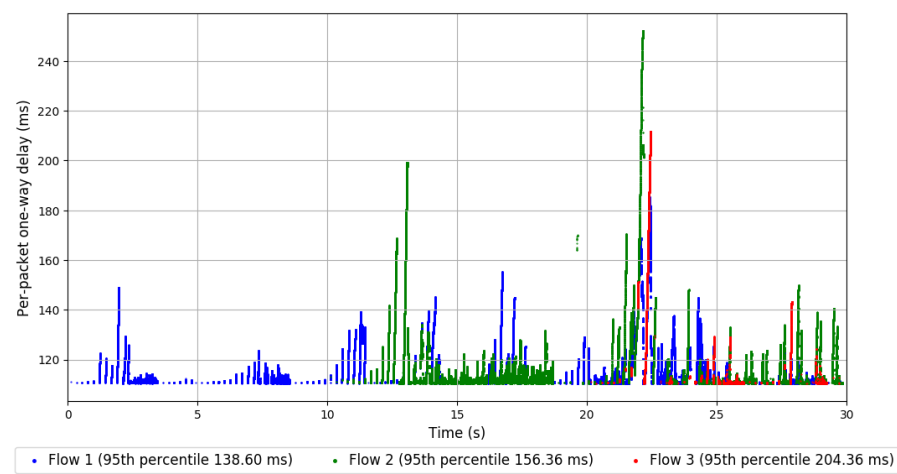
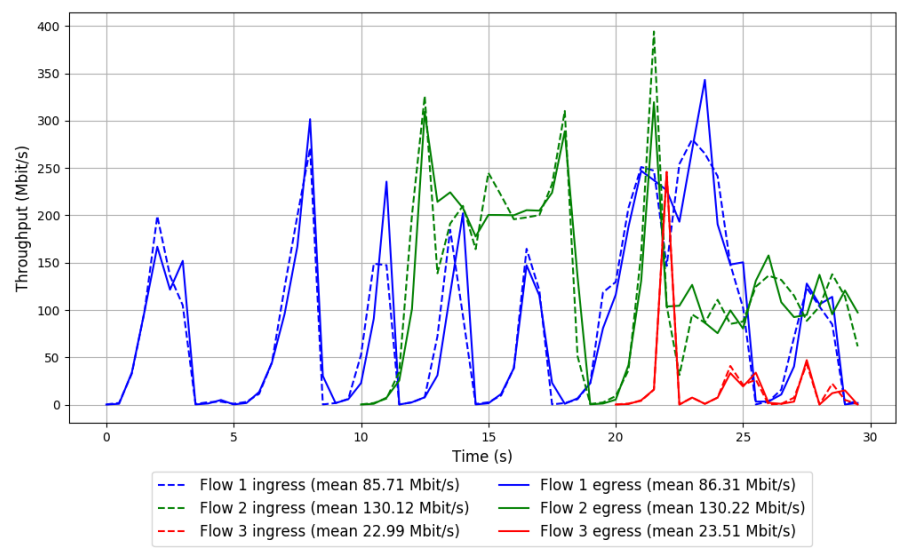


```
Run 1: Statistics of Verus

Start at: 2017-12-05 21:10:21
End at: 2017-12-05 21:10:51

# Below is generated by plot.py at 2017-12-06 02:17:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 179.97 Mbit/s
95th percentile per-packet one-way delay: 149.567 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 86.31 Mbit/s
95th percentile per-packet one-way delay: 138.603 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 130.22 Mbit/s
95th percentile per-packet one-way delay: 156.362 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 23.51 Mbit/s
95th percentile per-packet one-way delay: 204.360 ms
Loss rate: 0.04%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-05 21:23:48

End at: 2017-12-05 21:24:18

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 275.62 Mbit/s

95th percentile per-packet one-way delay: 255.917 ms

Loss rate: 4.53%

-- Flow 1:

Average throughput: 191.58 Mbit/s

95th percentile per-packet one-way delay: 253.714 ms

Loss rate: 3.44%

-- Flow 2:

Average throughput: 110.84 Mbit/s

95th percentile per-packet one-way delay: 290.007 ms

Loss rate: 6.95%

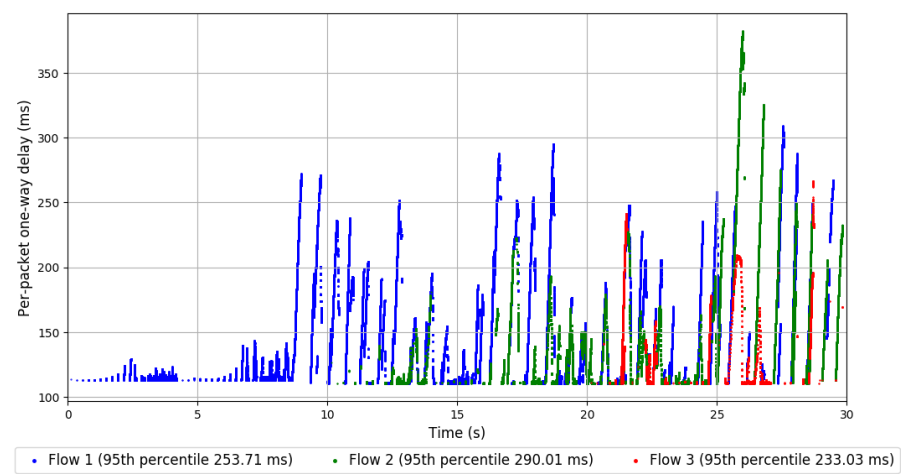
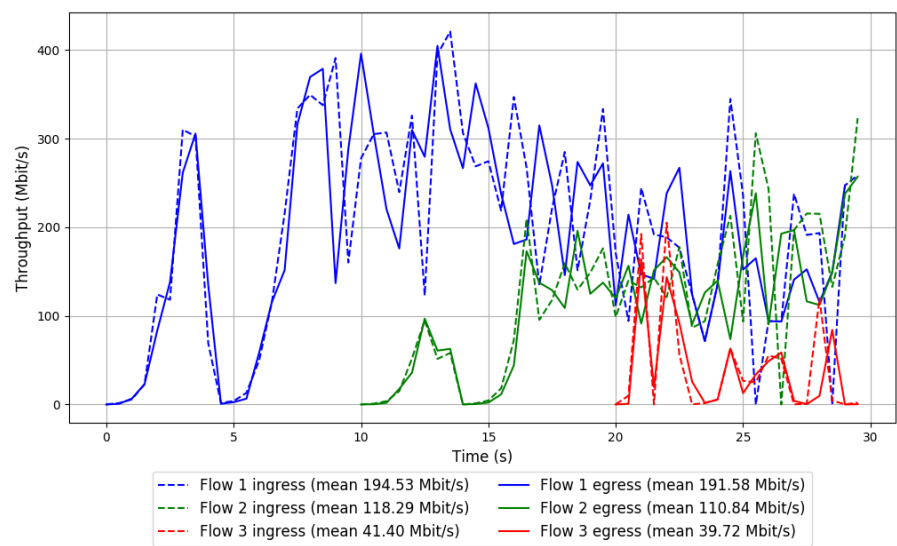
-- Flow 3:

Average throughput: 39.72 Mbit/s

95th percentile per-packet one-way delay: 233.032 ms

Loss rate: 6.24%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-05 21:37:25

End at: 2017-12-05 21:37:55

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.79 Mbit/s

95th percentile per-packet one-way delay: 327.691 ms

Loss rate: 7.08%

-- Flow 1:

Average throughput: 140.68 Mbit/s

95th percentile per-packet one-way delay: 336.853 ms

Loss rate: 8.74%

-- Flow 2:

Average throughput: 133.80 Mbit/s

95th percentile per-packet one-way delay: 241.175 ms

Loss rate: 3.67%

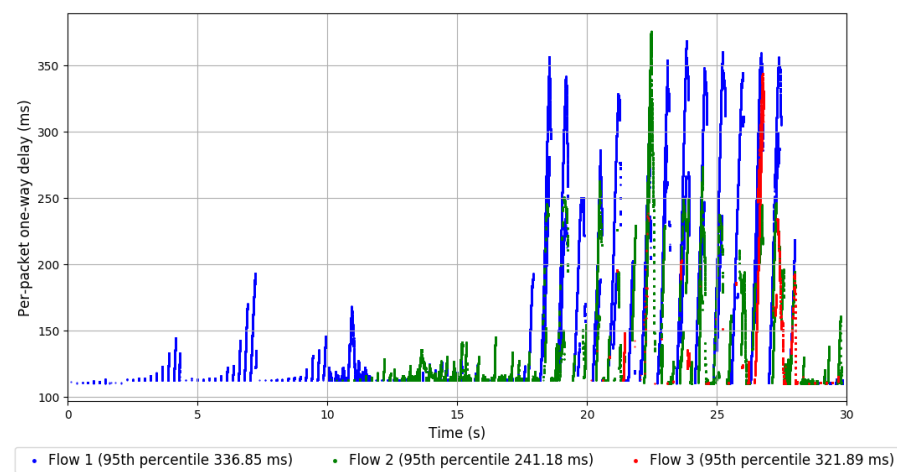
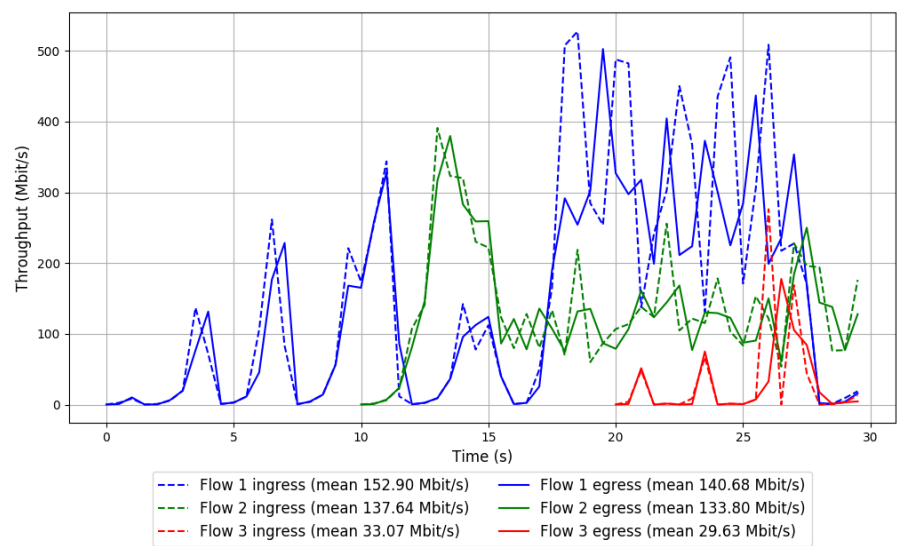
-- Flow 3:

Average throughput: 29.63 Mbit/s

95th percentile per-packet one-way delay: 321.891 ms

Loss rate: 12.51%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-05 21:50:56

End at: 2017-12-05 21:51:26

Below is generated by plot.py at 2017-12-06 02:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.11 Mbit/s

95th percentile per-packet one-way delay: 155.667 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 225.06 Mbit/s

95th percentile per-packet one-way delay: 157.224 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 35.68 Mbit/s

95th percentile per-packet one-way delay: 142.350 ms

Loss rate: 1.55%

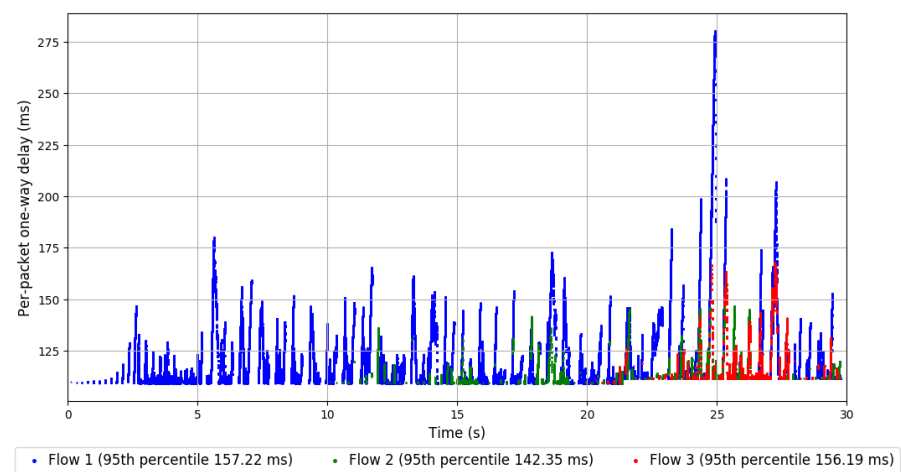
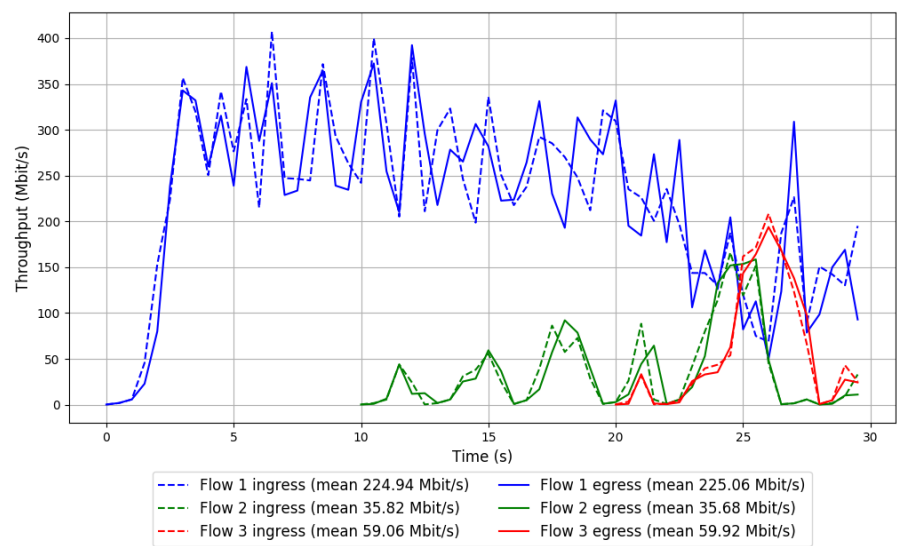
-- Flow 3:

Average throughput: 59.92 Mbit/s

95th percentile per-packet one-way delay: 156.192 ms

Loss rate: 1.41%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-05 22:04:40

End at: 2017-12-05 22:05:10

Below is generated by plot.py at 2017-12-06 02:17:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 273.05 Mbit/s

95th percentile per-packet one-way delay: 245.544 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 127.14 Mbit/s

95th percentile per-packet one-way delay: 178.620 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 191.78 Mbit/s

95th percentile per-packet one-way delay: 254.152 ms

Loss rate: 0.57%

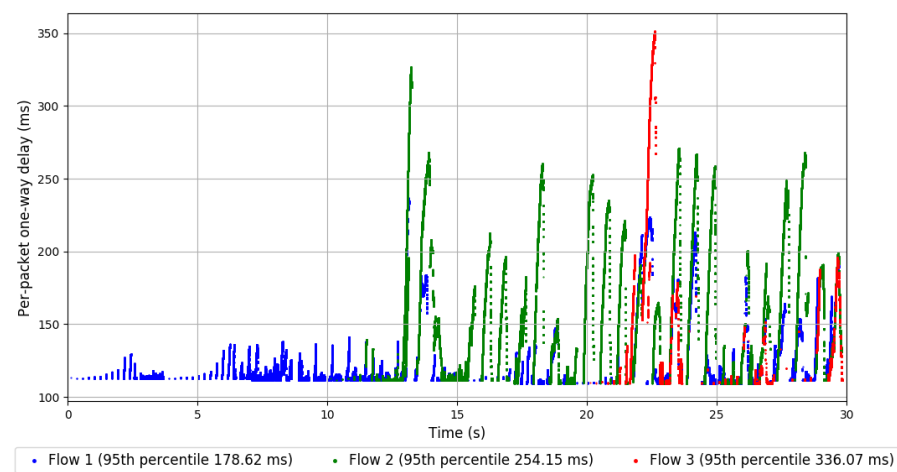
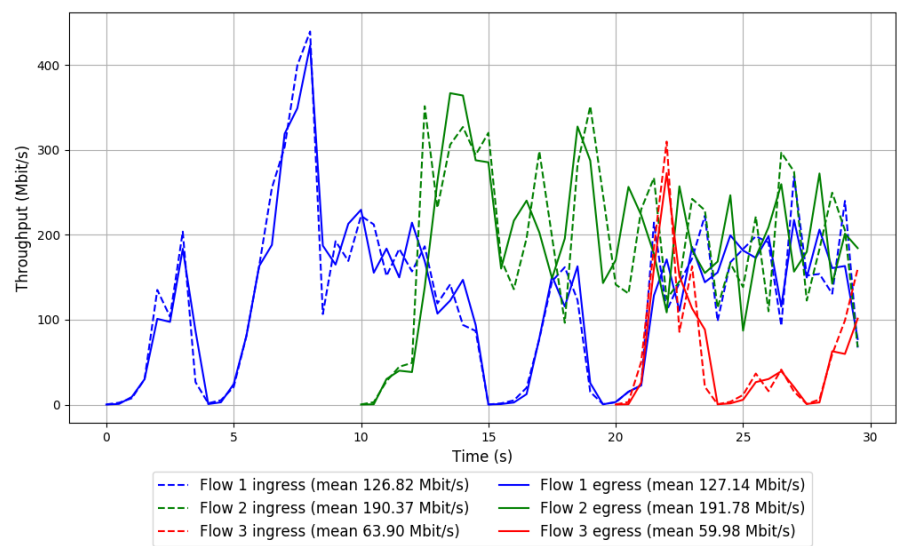
-- Flow 3:

Average throughput: 59.98 Mbit/s

95th percentile per-packet one-way delay: 336.072 ms

Loss rate: 8.20%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-05 22:18:32

End at: 2017-12-05 22:19:02

Below is generated by plot.py at 2017-12-06 02:17:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.17 Mbit/s

95th percentile per-packet one-way delay: 159.495 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 132.42 Mbit/s

95th percentile per-packet one-way delay: 178.140 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 83.94 Mbit/s

95th percentile per-packet one-way delay: 137.581 ms

Loss rate: 0.89%

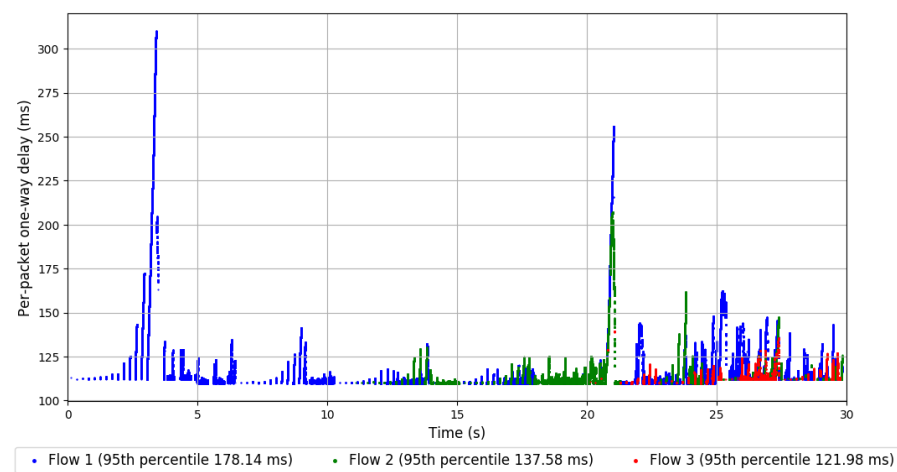
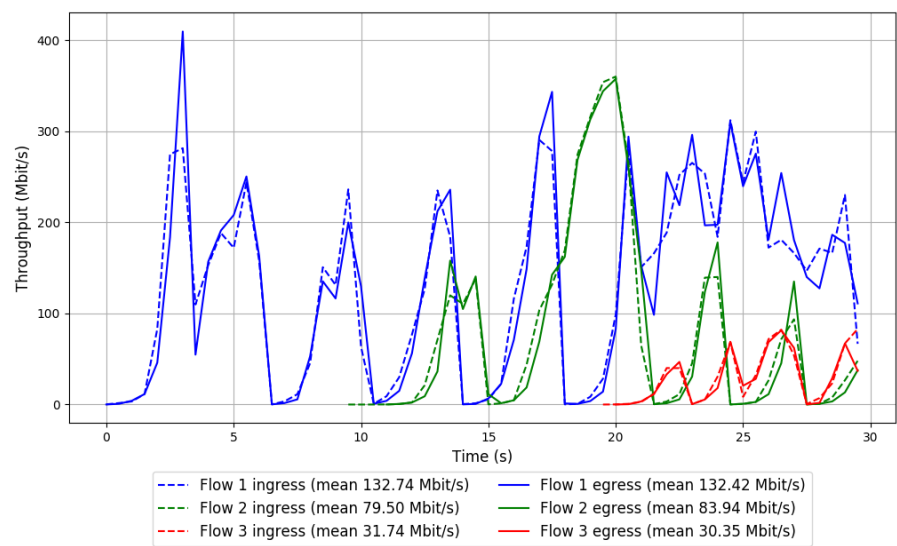
-- Flow 3:

Average throughput: 30.35 Mbit/s

95th percentile per-packet one-way delay: 121.979 ms

Loss rate: 7.29%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-05 22:31:56

End at: 2017-12-05 22:32:26

Below is generated by plot.py at 2017-12-06 02:19:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.89 Mbit/s

95th percentile per-packet one-way delay: 269.246 ms

Loss rate: 8.41%

-- Flow 1:

Average throughput: 142.28 Mbit/s

95th percentile per-packet one-way delay: 270.484 ms

Loss rate: 8.27%

-- Flow 2:

Average throughput: 127.51 Mbit/s

95th percentile per-packet one-way delay: 276.687 ms

Loss rate: 9.50%

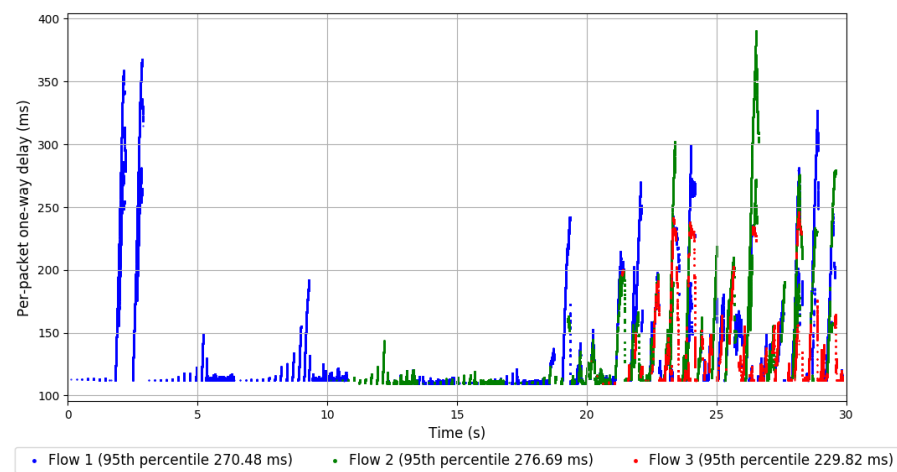
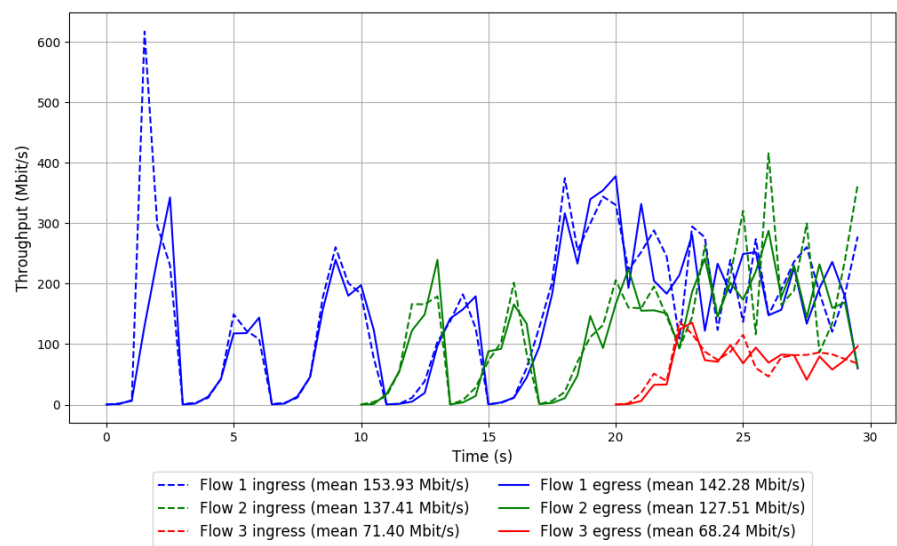
-- Flow 3:

Average throughput: 68.24 Mbit/s

95th percentile per-packet one-way delay: 229.817 ms

Loss rate: 5.08%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-05 22:45:36

End at: 2017-12-05 22:46:06

Below is generated by plot.py at 2017-12-06 02:19:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.35 Mbit/s

95th percentile per-packet one-way delay: 275.263 ms

Loss rate: 3.39%

-- Flow 1:

Average throughput: 92.68 Mbit/s

95th percentile per-packet one-way delay: 143.274 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 109.06 Mbit/s

95th percentile per-packet one-way delay: 320.773 ms

Loss rate: 6.97%

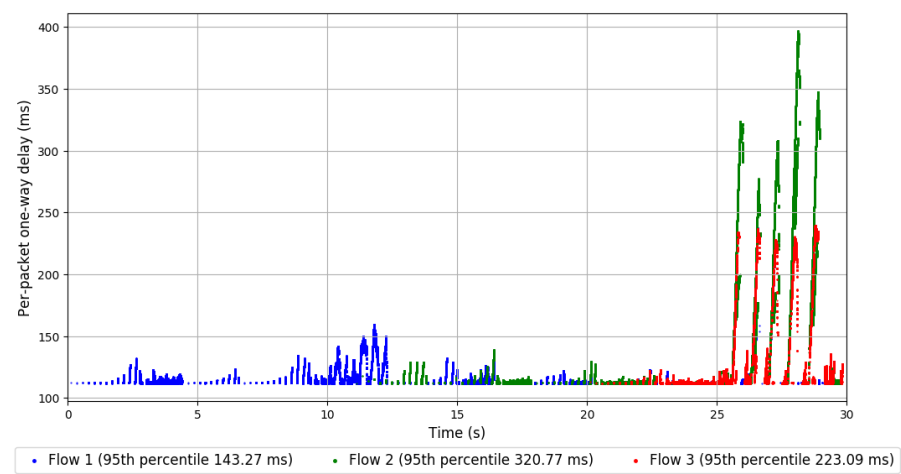
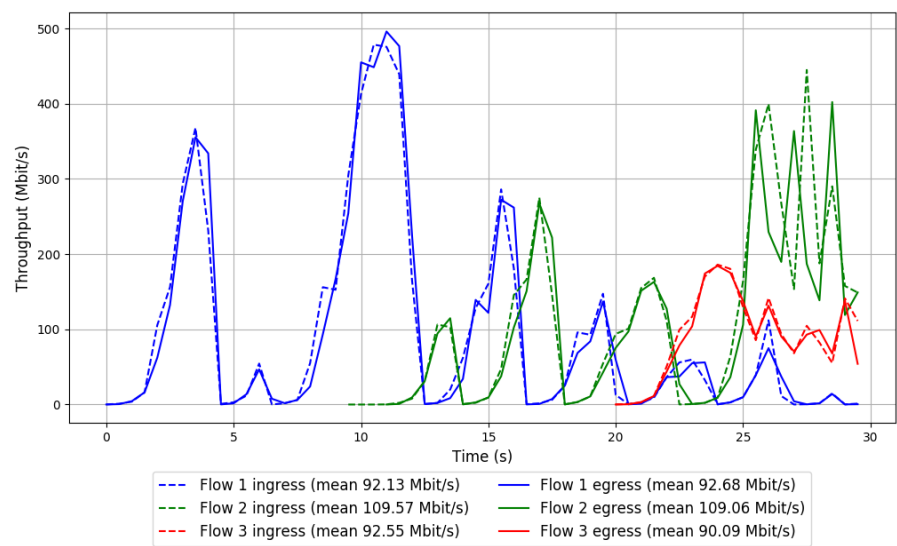
-- Flow 3:

Average throughput: 90.09 Mbit/s

95th percentile per-packet one-way delay: 223.085 ms

Loss rate: 4.58%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-05 22:58:48

End at: 2017-12-05 22:59:18

Below is generated by plot.py at 2017-12-06 02:21:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 287.38 Mbit/s

95th percentile per-packet one-way delay: 318.026 ms

Loss rate: 8.33%

-- Flow 1:

Average throughput: 170.40 Mbit/s

95th percentile per-packet one-way delay: 336.209 ms

Loss rate: 10.59%

-- Flow 2:

Average throughput: 102.58 Mbit/s

95th percentile per-packet one-way delay: 231.028 ms

Loss rate: 3.65%

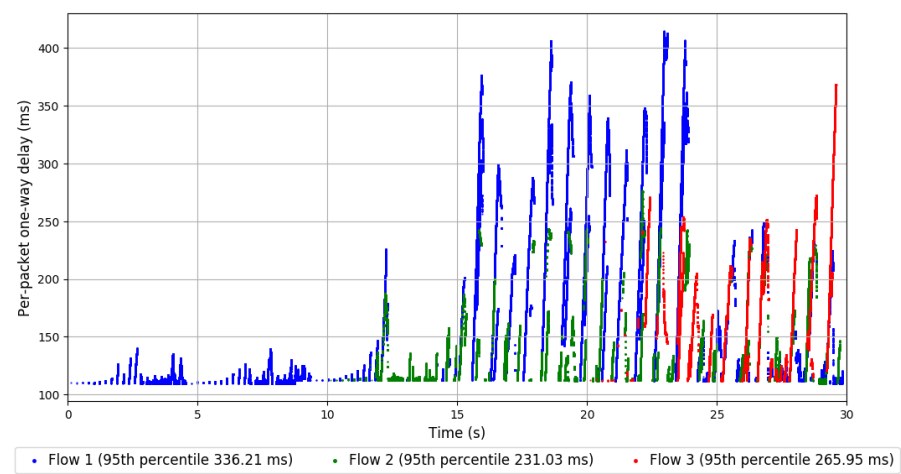
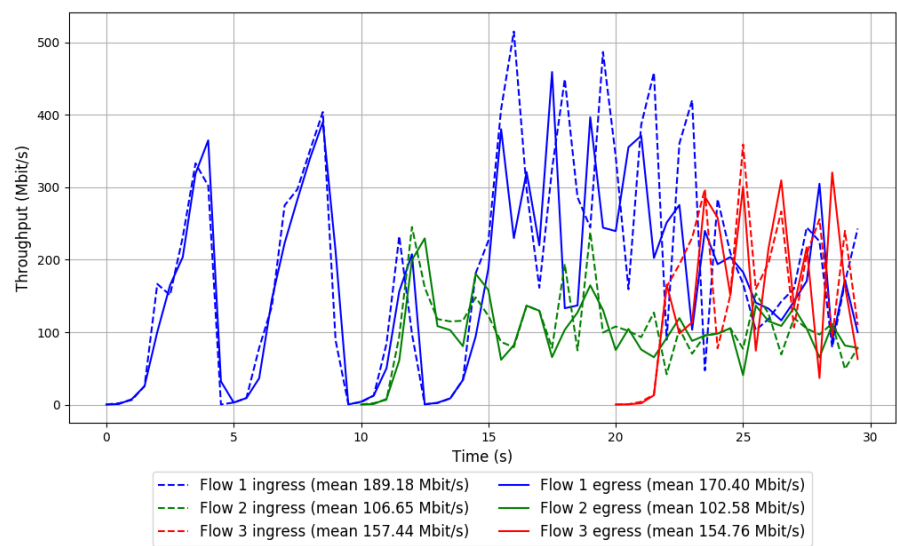
-- Flow 3:

Average throughput: 154.76 Mbit/s

95th percentile per-packet one-way delay: 265.954 ms

Loss rate: 6.37%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

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

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

Below is generated by plot.py at 2017-12-06 02:21:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.50 Mbit/s

95th percentile per-packet one-way delay: 214.539 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 84.46 Mbit/s

95th percentile per-packet one-way delay: 150.269 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 180.44 Mbit/s

95th percentile per-packet one-way delay: 217.801 ms

Loss rate: 1.96%

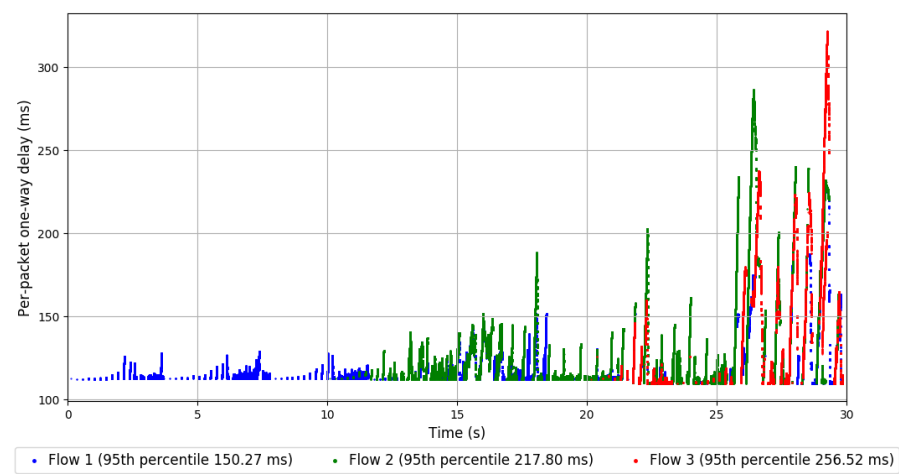
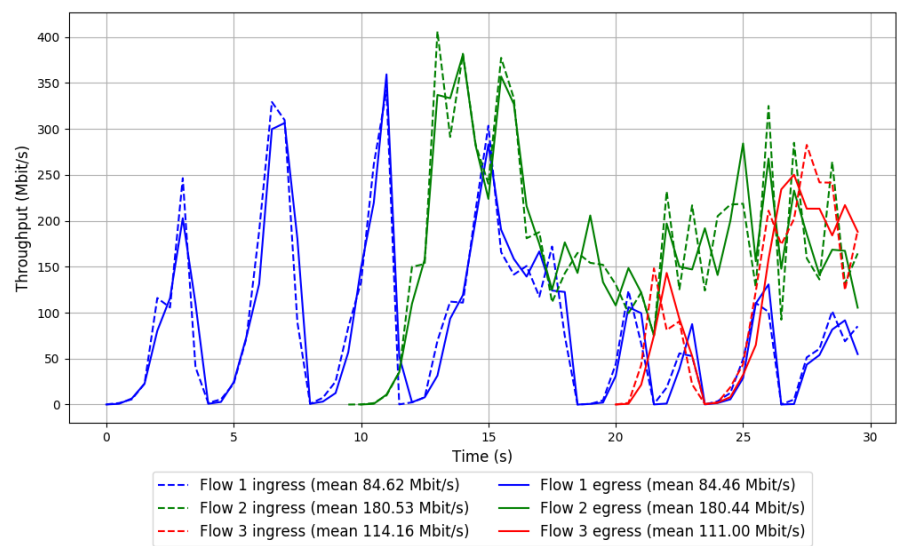
-- Flow 3:

Average throughput: 111.00 Mbit/s

95th percentile per-packet one-way delay: 256.518 ms

Loss rate: 3.98%

Run 10: Report of Verus — Data Link

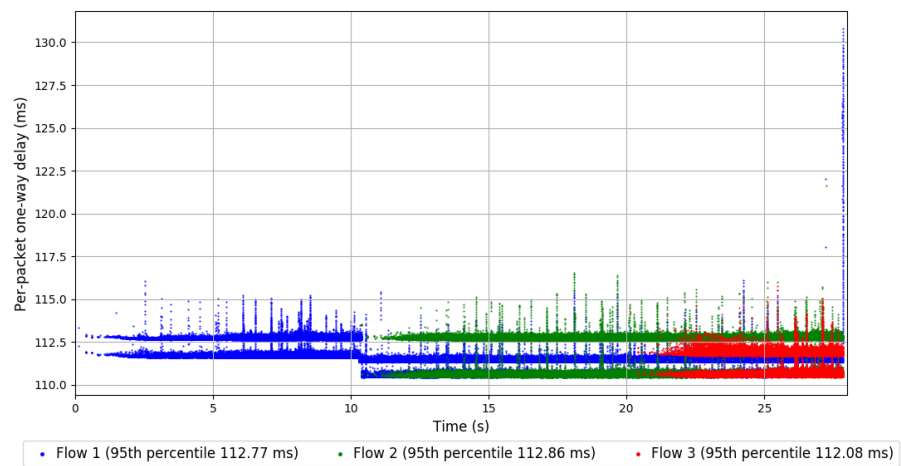
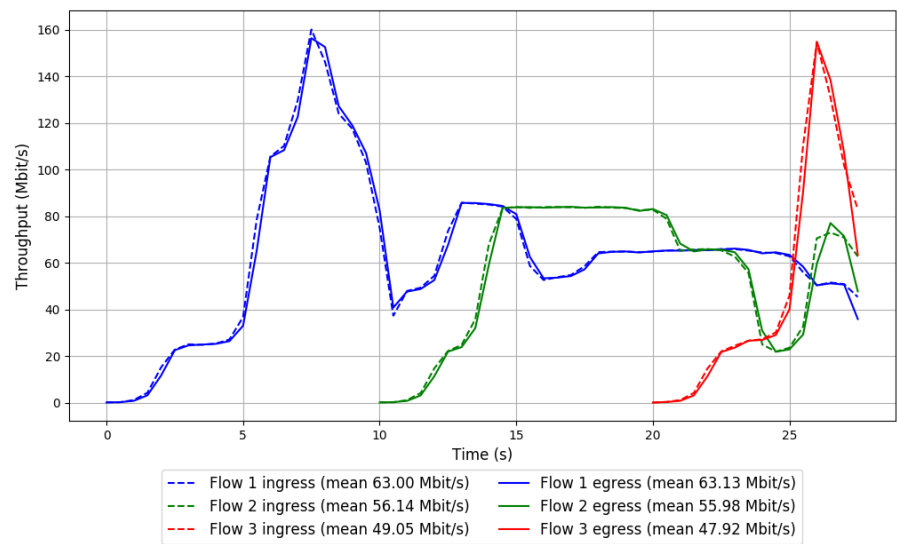


```
Run 1: Statistics of Copa

Start at: 2017-12-05 21:16:05
End at: 2017-12-05 21:16:35

# Below is generated by plot.py at 2017-12-06 02:21:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 112.23 Mbit/s
95th percentile per-packet one-way delay: 112.808 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 63.13 Mbit/s
95th percentile per-packet one-way delay: 112.771 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 55.98 Mbit/s
95th percentile per-packet one-way delay: 112.861 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 47.92 Mbit/s
95th percentile per-packet one-way delay: 112.084 ms
Loss rate: 5.07%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-05 21:29:44

End at: 2017-12-05 21:30:14

Below is generated by plot.py at 2017-12-06 02:21:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.89 Mbit/s

95th percentile per-packet one-way delay: 112.776 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 73.71 Mbit/s

95th percentile per-packet one-way delay: 112.753 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 44.53 Mbit/s

95th percentile per-packet one-way delay: 112.799 ms

Loss rate: 1.77%

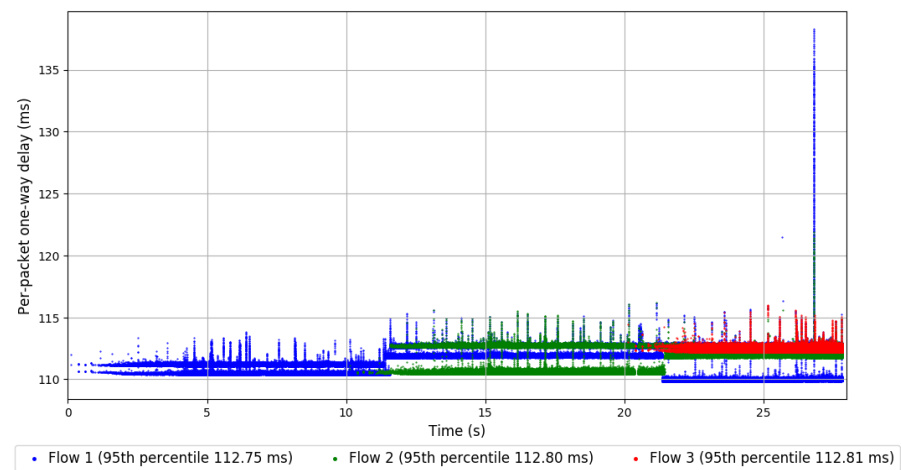
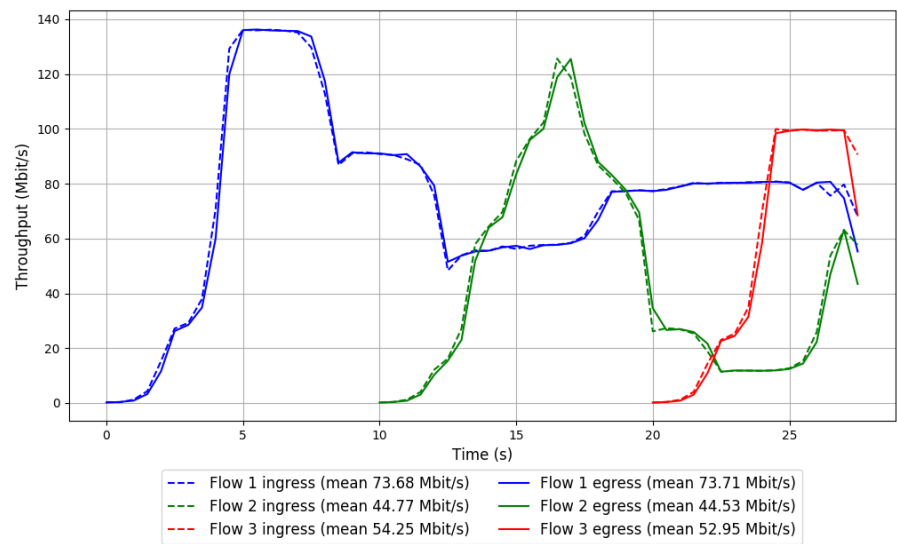
-- Flow 3:

Average throughput: 52.95 Mbit/s

95th percentile per-packet one-way delay: 112.805 ms

Loss rate: 5.17%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-05 21:43:18

End at: 2017-12-05 21:43:48

Below is generated by plot.py at 2017-12-06 02:21:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.88 Mbit/s

95th percentile per-packet one-way delay: 113.276 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 69.01 Mbit/s

95th percentile per-packet one-way delay: 112.738 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 55.82 Mbit/s

95th percentile per-packet one-way delay: 113.426 ms

Loss rate: 0.47%

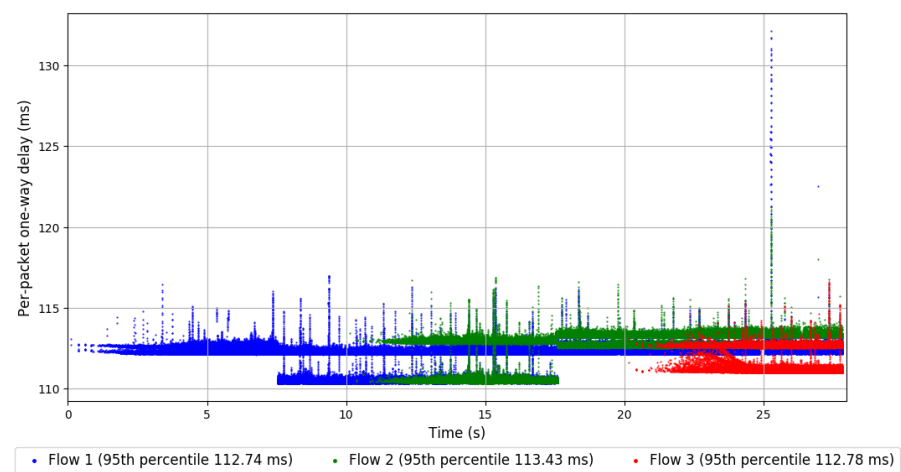
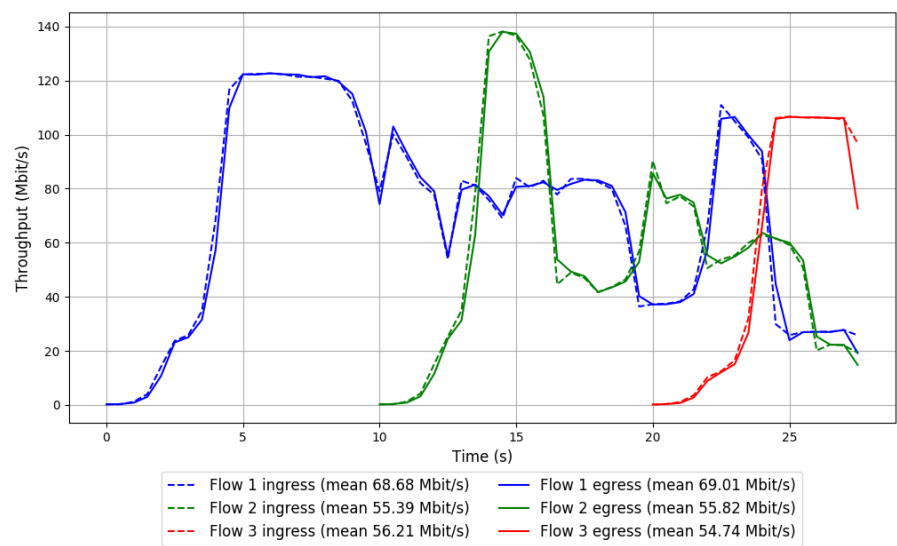
-- Flow 3:

Average throughput: 54.74 Mbit/s

95th percentile per-packet one-way delay: 112.779 ms

Loss rate: 5.36%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-05 21:57:01

End at: 2017-12-05 21:57:31

Below is generated by plot.py at 2017-12-06 02:21:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.64 Mbit/s

95th percentile per-packet one-way delay: 112.966 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 67.23 Mbit/s

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

Loss rate: 0.52%

-- Flow 2:

Average throughput: 48.93 Mbit/s

95th percentile per-packet one-way delay: 111.754 ms

Loss rate: 1.39%

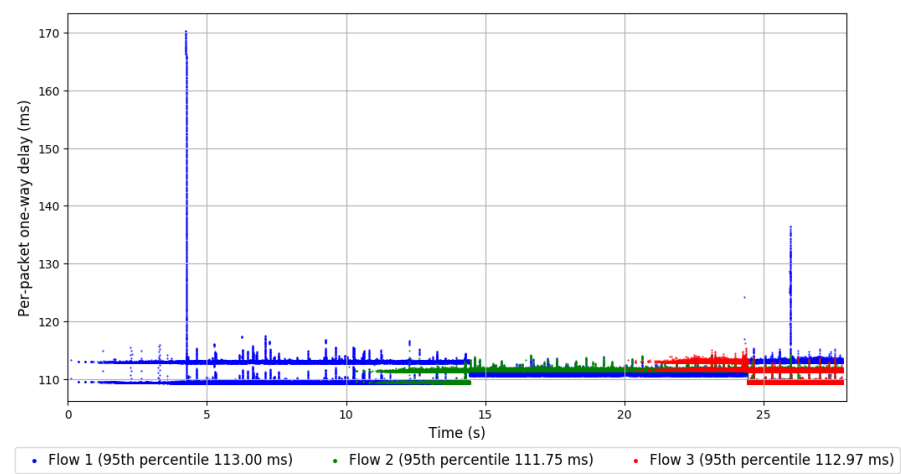
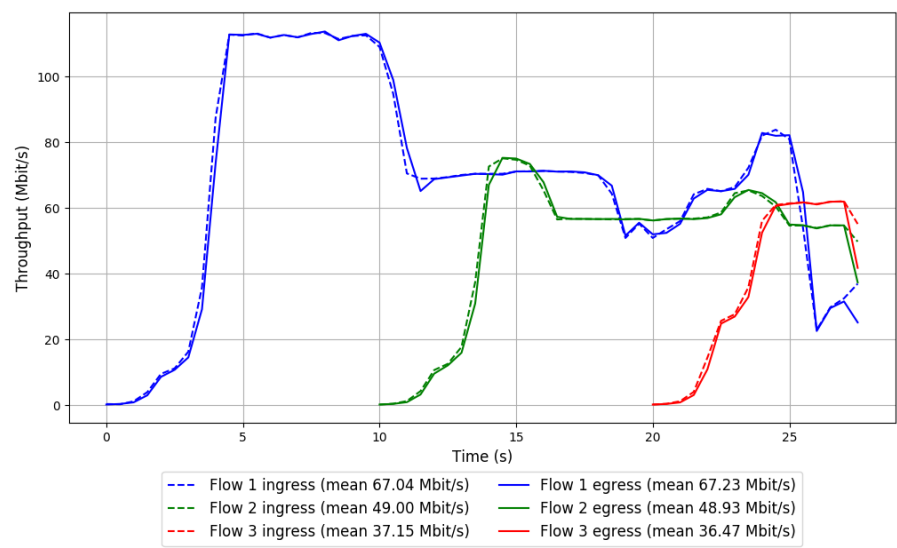
-- Flow 3:

Average throughput: 36.47 Mbit/s

95th percentile per-packet one-way delay: 112.967 ms

Loss rate: 4.59%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-12-05 22:10:52

End at: 2017-12-05 22:11:22

Below is generated by plot.py at 2017-12-06 02:23:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.28 Mbit/s

95th percentile per-packet one-way delay: 113.531 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 71.23 Mbit/s

95th percentile per-packet one-way delay: 113.617 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 64.42 Mbit/s

95th percentile per-packet one-way delay: 113.071 ms

Loss rate: 0.84%

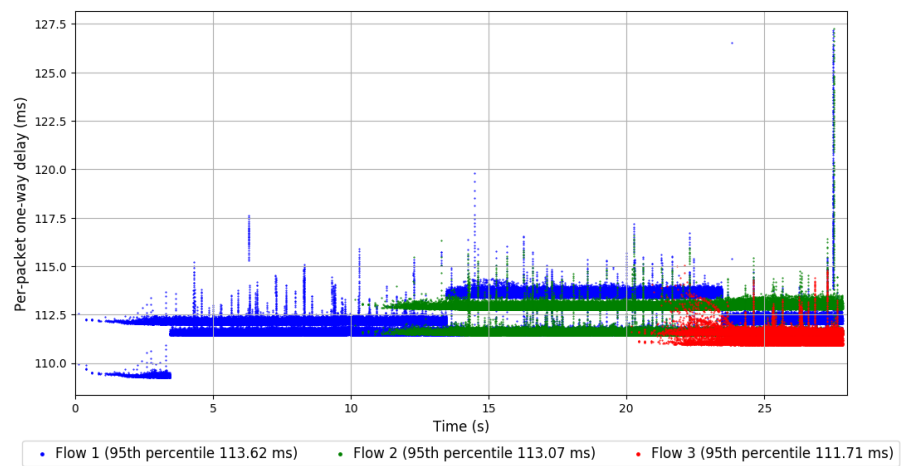
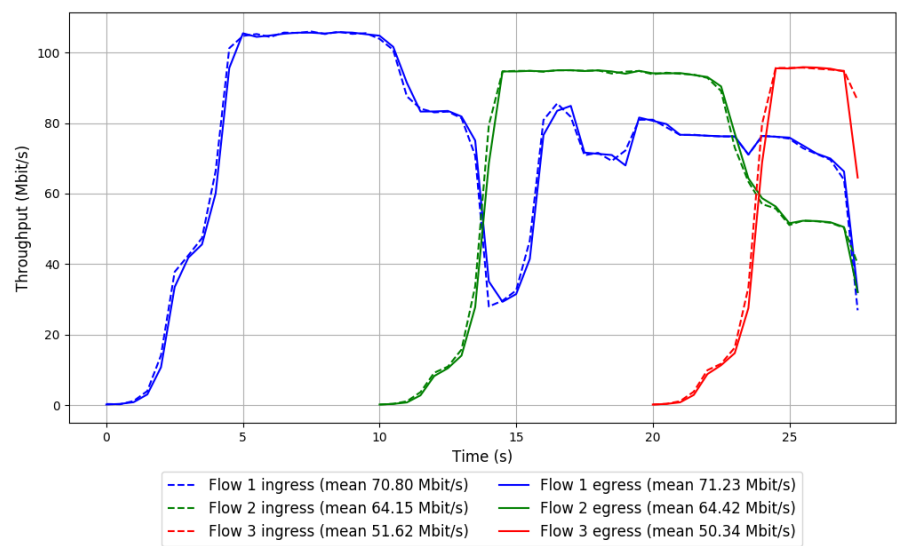
-- Flow 3:

Average throughput: 50.34 Mbit/s

95th percentile per-packet one-way delay: 111.708 ms

Loss rate: 5.26%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-12-05 22:24:16

End at: 2017-12-05 22:24:46

Below is generated by plot.py at 2017-12-06 02:23:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 112.793 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 59.91 Mbit/s

95th percentile per-packet one-way delay: 112.818 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 59.16 Mbit/s

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

Loss rate: 1.39%

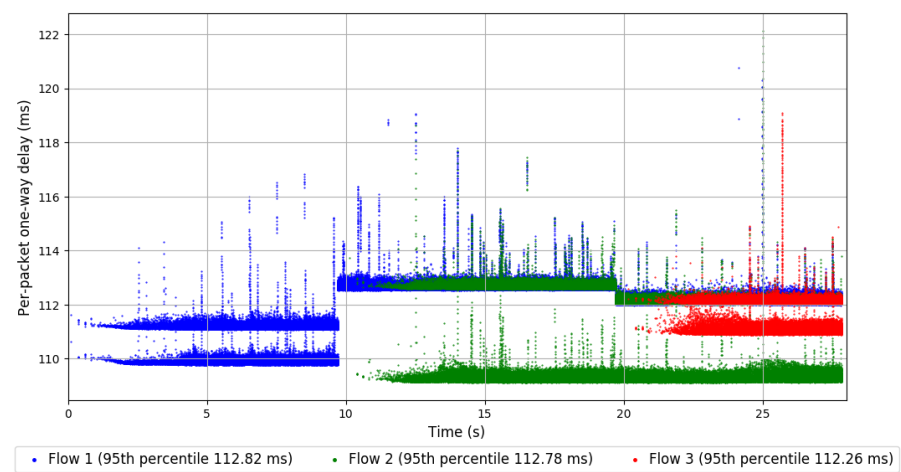
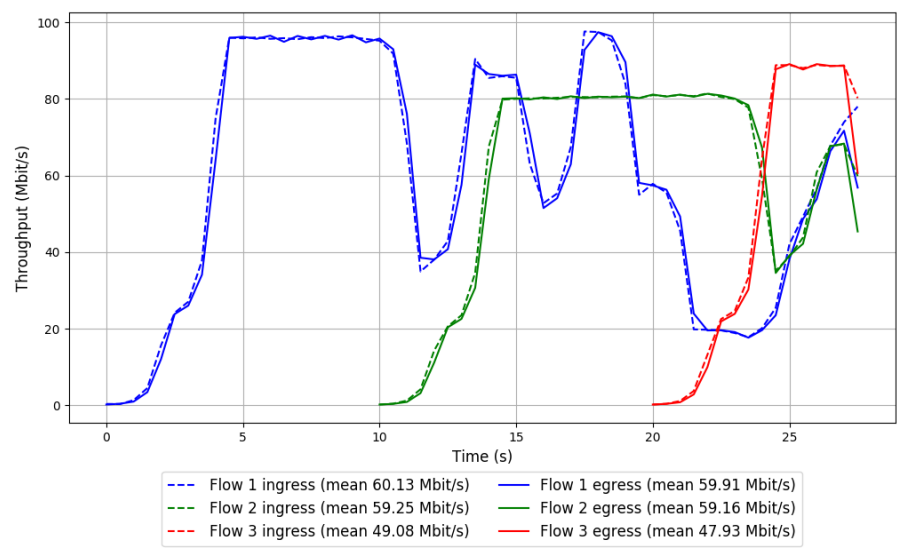
-- Flow 3:

Average throughput: 47.93 Mbit/s

95th percentile per-packet one-way delay: 112.260 ms

Loss rate: 5.08%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-05 22:38:05

End at: 2017-12-05 22:38:35

Below is generated by plot.py at 2017-12-06 02:23:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.47 Mbit/s

95th percentile per-packet one-way delay: 113.030 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 61.90 Mbit/s

95th percentile per-packet one-way delay: 113.079 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 47.16 Mbit/s

95th percentile per-packet one-way delay: 112.179 ms

Loss rate: 0.83%

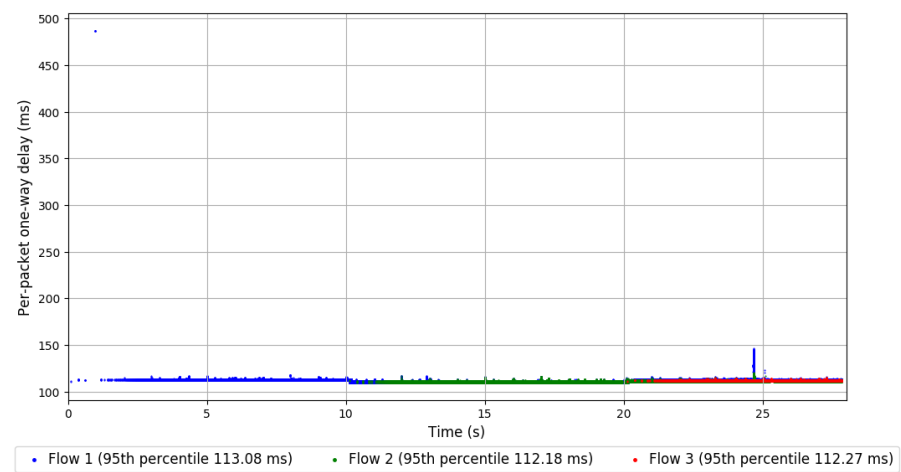
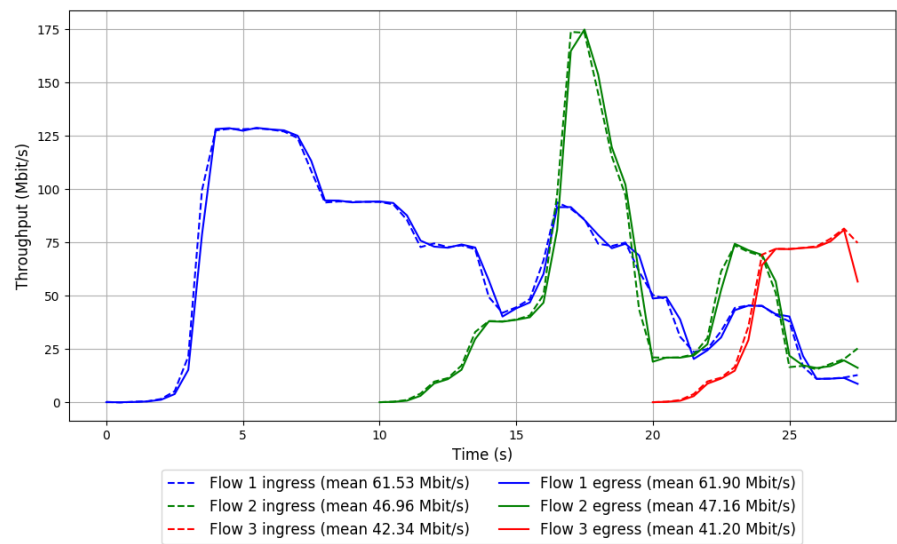
-- Flow 3:

Average throughput: 41.20 Mbit/s

95th percentile per-packet one-way delay: 112.268 ms

Loss rate: 5.43%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-12-05 22:51:12

End at: 2017-12-05 22:51:42

Below is generated by plot.py at 2017-12-06 02:24:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.72 Mbit/s

95th percentile per-packet one-way delay: 112.278 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 58.68 Mbit/s

95th percentile per-packet one-way delay: 112.305 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 59.02 Mbit/s

95th percentile per-packet one-way delay: 111.236 ms

Loss rate: 1.31%

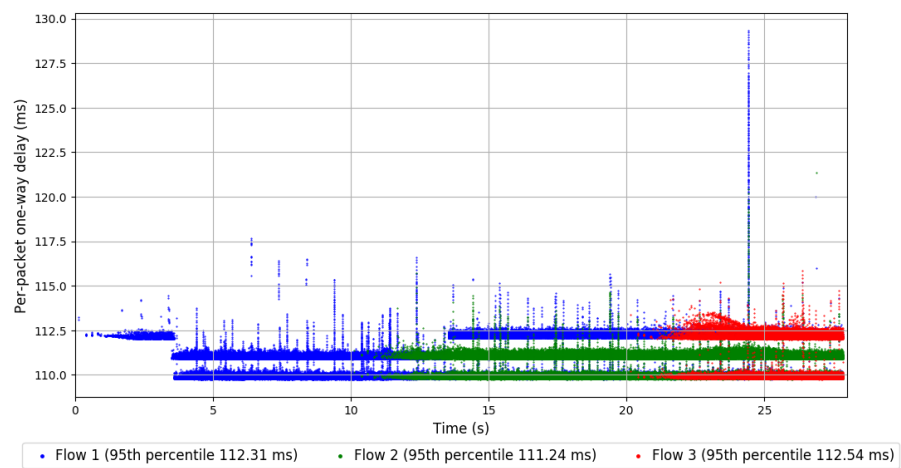
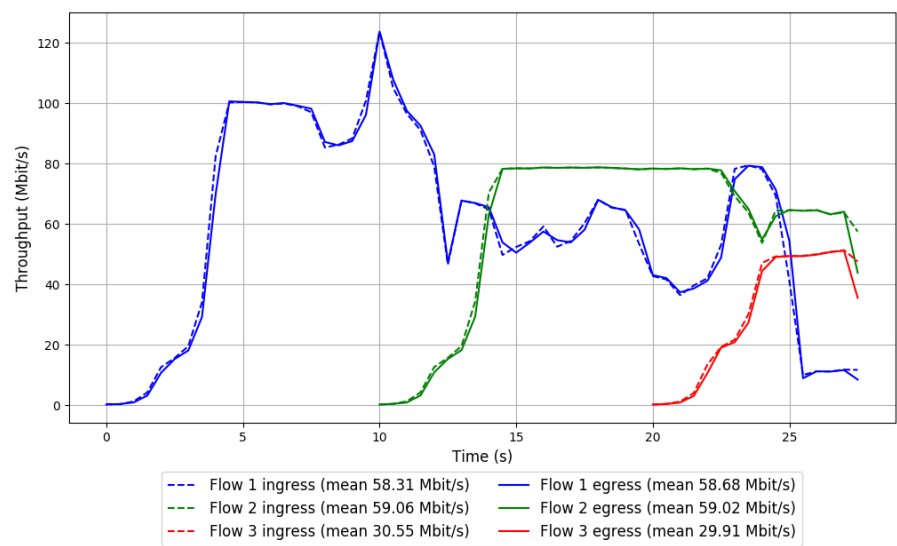
-- Flow 3:

Average throughput: 29.91 Mbit/s

95th percentile per-packet one-way delay: 112.544 ms

Loss rate: 4.82%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-12-05 23:04:57

End at: 2017-12-05 23:05:27

Below is generated by plot.py at 2017-12-06 02:24:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.47 Mbit/s

95th percentile per-packet one-way delay: 112.341 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 71.04 Mbit/s

95th percentile per-packet one-way delay: 112.273 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 52.68 Mbit/s

95th percentile per-packet one-way delay: 112.458 ms

Loss rate: 1.78%

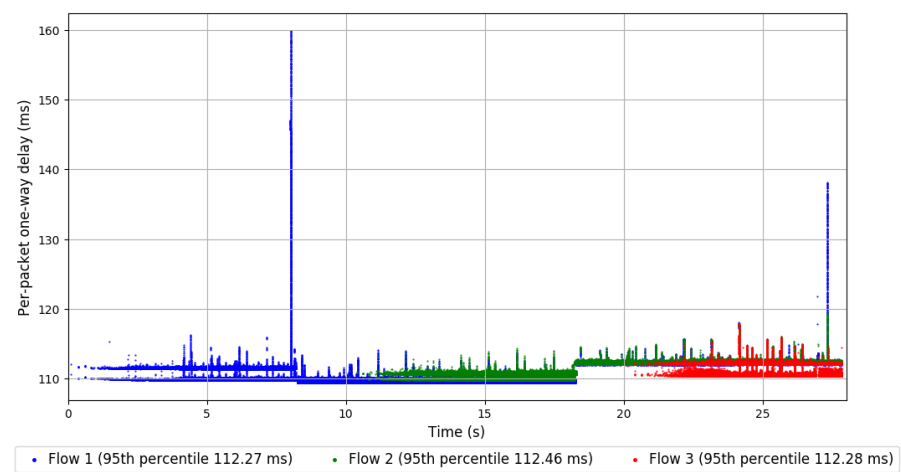
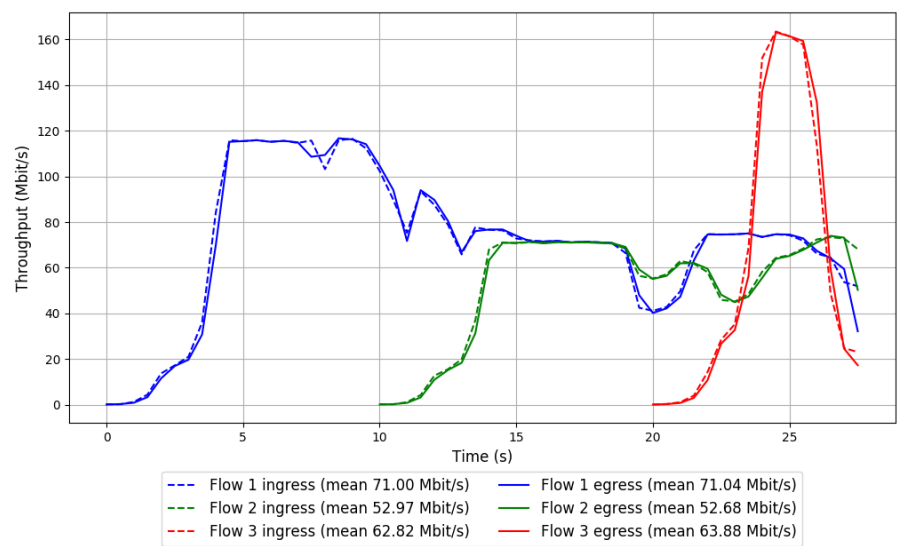
-- Flow 3:

Average throughput: 63.88 Mbit/s

95th percentile per-packet one-way delay: 112.281 ms

Loss rate: 1.14%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-12-05 23:18:13

End at: 2017-12-05 23:18:43

Below is generated by plot.py at 2017-12-06 02:24:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.99 Mbit/s

95th percentile per-packet one-way delay: 112.673 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 52.89 Mbit/s

95th percentile per-packet one-way delay: 112.582 ms

Loss rate: 1.20%

-- Flow 2:

Average throughput: 59.04 Mbit/s

95th percentile per-packet one-way delay: 112.726 ms

Loss rate: 0.69%

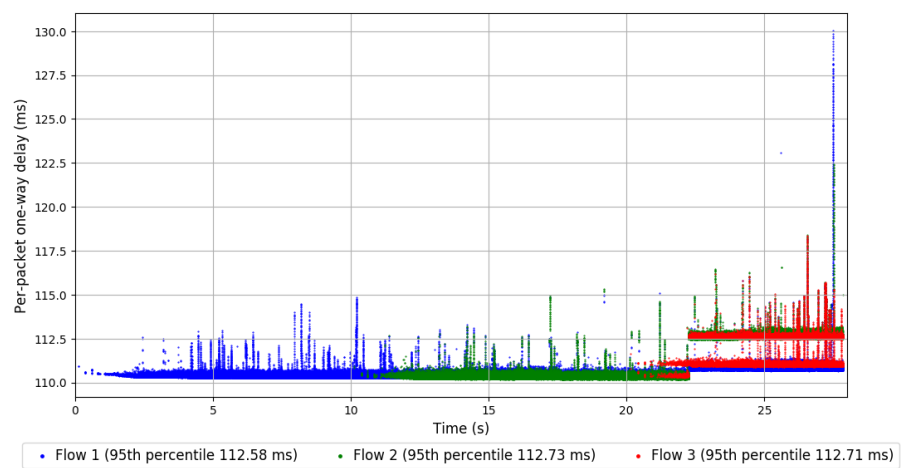
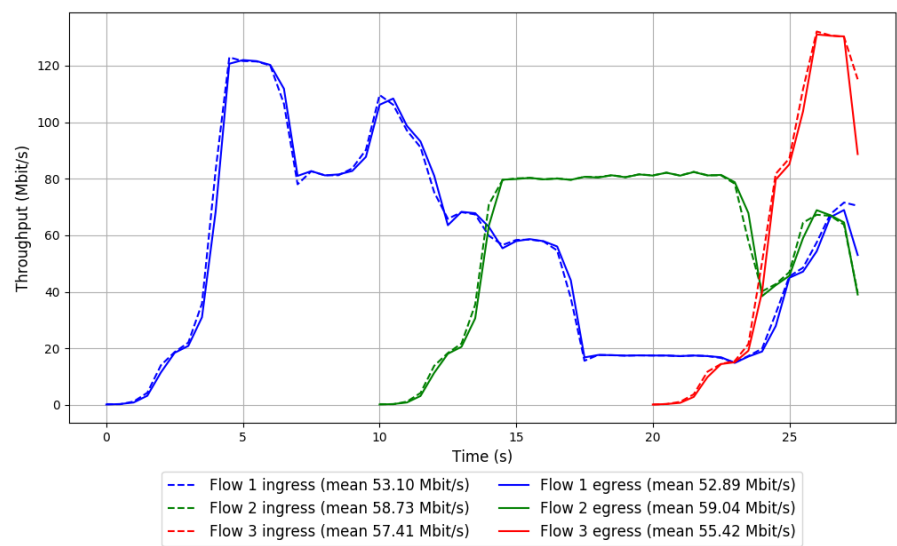
-- Flow 3:

Average throughput: 55.42 Mbit/s

95th percentile per-packet one-way delay: 112.712 ms

Loss rate: 6.16%

Run 10: Report of Copa — Data Link

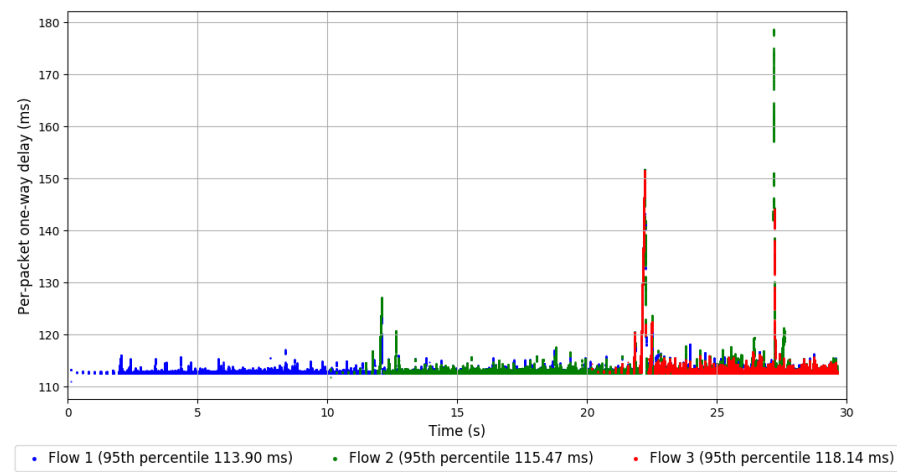
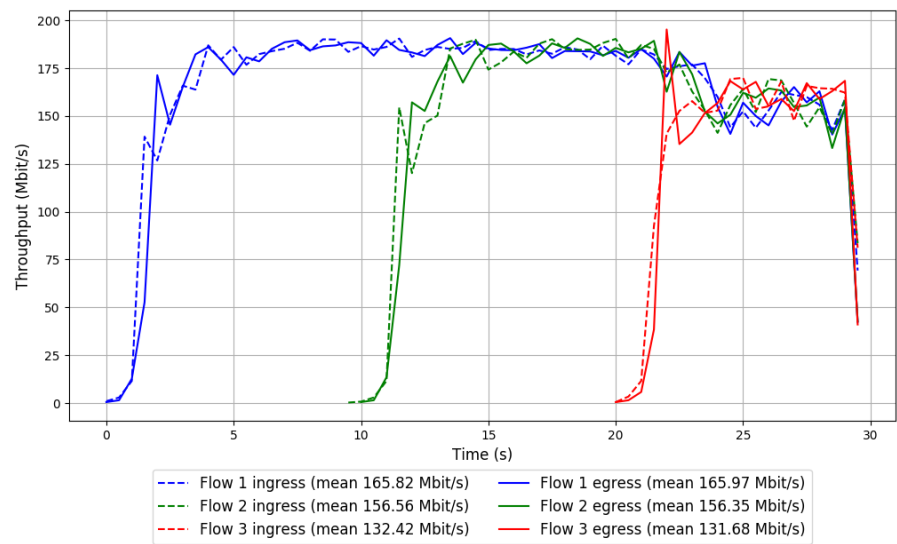


```
Run 1: Statistics of Indigo

Start at: 2017-12-05 21:20:55
End at: 2017-12-05 21:21:25

# Below is generated by plot.py at 2017-12-06 02:26:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.57 Mbit/s
95th percentile per-packet one-way delay: 114.597 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 165.97 Mbit/s
95th percentile per-packet one-way delay: 113.896 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 156.35 Mbit/s
95th percentile per-packet one-way delay: 115.474 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 131.68 Mbit/s
95th percentile per-packet one-way delay: 118.144 ms
Loss rate: 2.87%
```


Run 1: Report of Indigo — Data Link

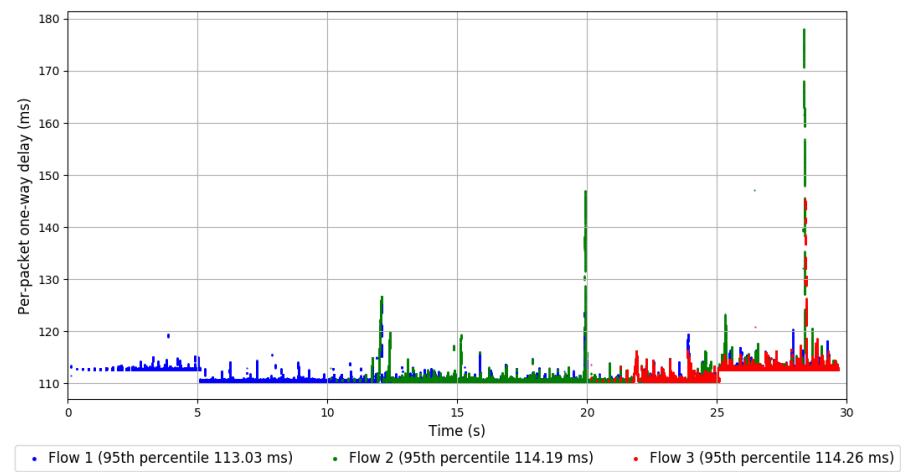
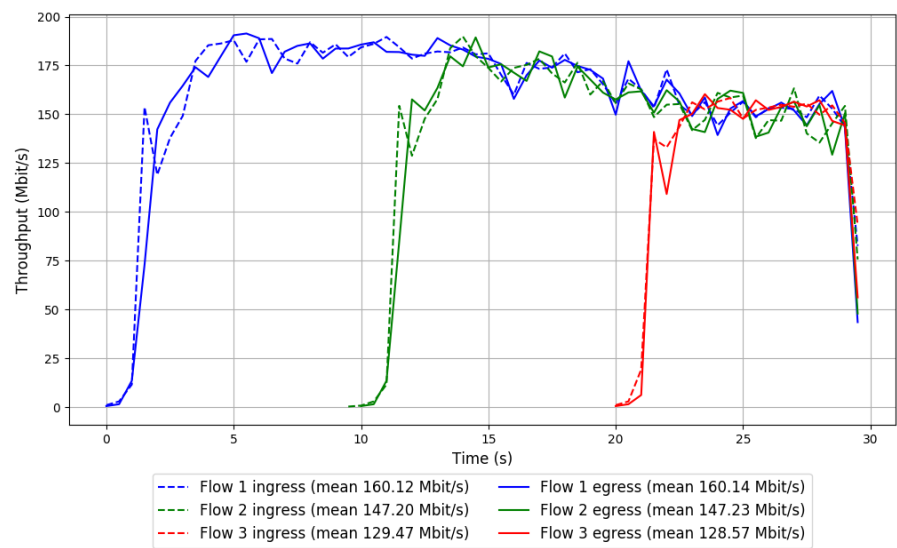


```
Run 2: Statistics of Indigo

Start at: 2017-12-05 21:34:32
End at: 2017-12-05 21:35:02

# Below is generated by plot.py at 2017-12-06 02:27:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.99 Mbit/s
95th percentile per-packet one-way delay: 113.542 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 160.14 Mbit/s
95th percentile per-packet one-way delay: 113.029 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 147.23 Mbit/s
95th percentile per-packet one-way delay: 114.185 ms
Loss rate: 1.10%
-- Flow 3:
Average throughput: 128.57 Mbit/s
95th percentile per-packet one-way delay: 114.261 ms
Loss rate: 2.96%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-05 21:48:03

End at: 2017-12-05 21:48:33

Below is generated by plot.py at 2017-12-06 02:28:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 303.97 Mbit/s

95th percentile per-packet one-way delay: 114.207 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 163.71 Mbit/s

95th percentile per-packet one-way delay: 113.791 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 151.75 Mbit/s

95th percentile per-packet one-way delay: 114.035 ms

Loss rate: 1.15%

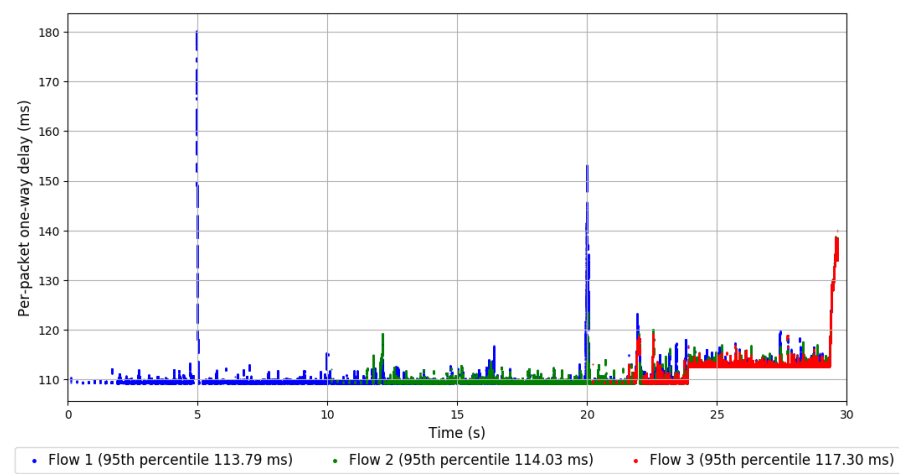
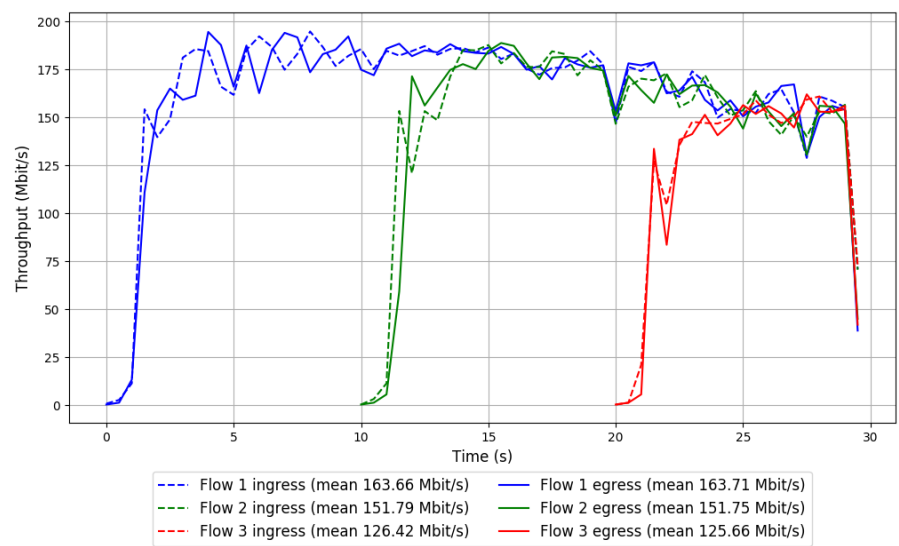
-- Flow 3:

Average throughput: 125.66 Mbit/s

95th percentile per-packet one-way delay: 117.299 ms

Loss rate: 2.88%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-05 22:01:46

End at: 2017-12-05 22:02:16

Below is generated by plot.py at 2017-12-06 02:29:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.33 Mbit/s

95th percentile per-packet one-way delay: 113.571 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 166.30 Mbit/s

95th percentile per-packet one-way delay: 112.988 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 157.76 Mbit/s

95th percentile per-packet one-way delay: 114.026 ms

Loss rate: 1.20%

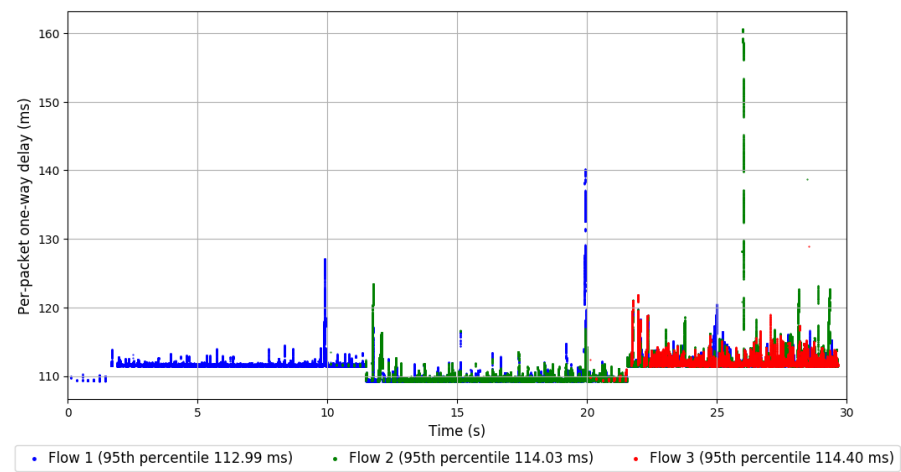
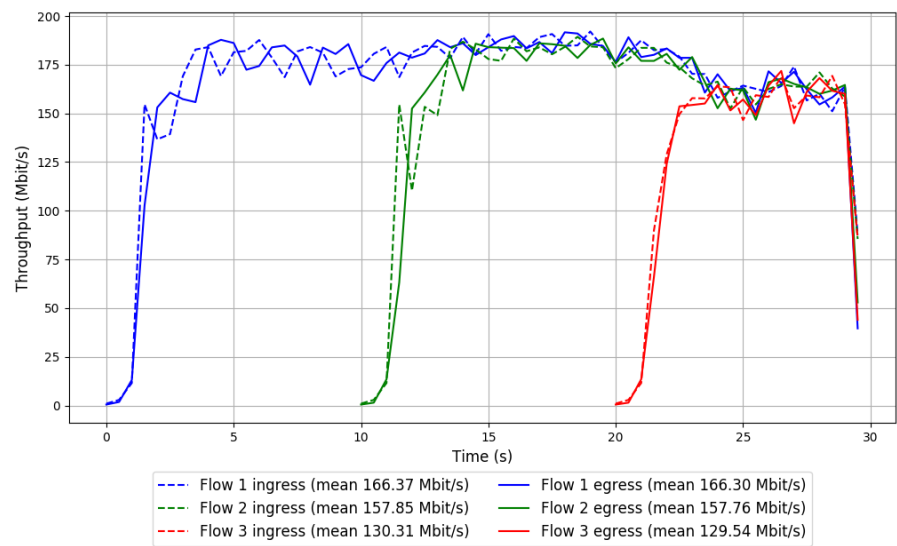
-- Flow 3:

Average throughput: 129.54 Mbit/s

95th percentile per-packet one-way delay: 114.404 ms

Loss rate: 2.88%

Run 4: Report of Indigo — Data Link

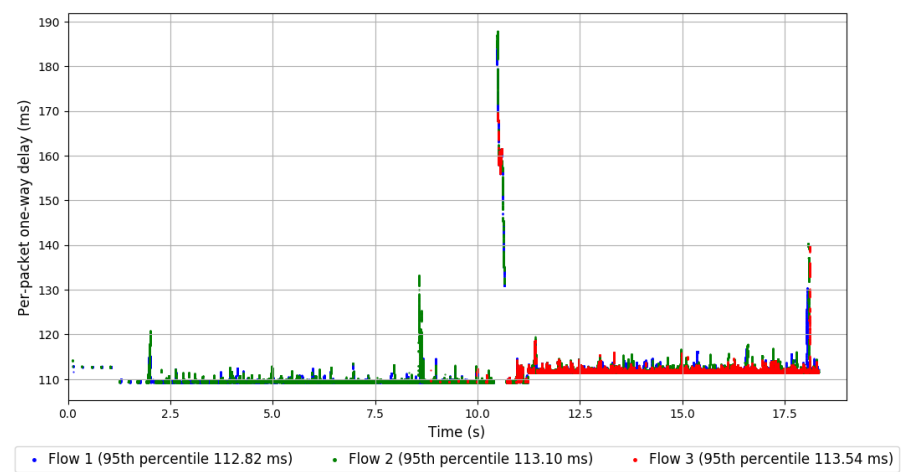
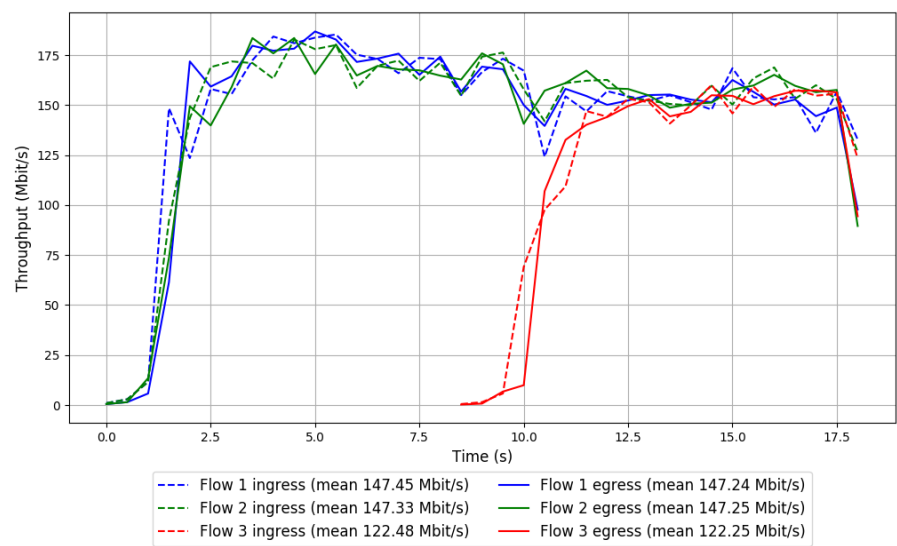


Run 5: Statistics of Indigo

Start at: 2017-12-05 22:15:45

End at: 2017-12-05 22:16:15

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-05 22:29:04

End at: 2017-12-05 22:29:34

Below is generated by plot.py at 2017-12-06 02:29:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 296.78 Mbit/s

95th percentile per-packet one-way delay: 113.639 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 156.65 Mbit/s

95th percentile per-packet one-way delay: 113.176 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 151.64 Mbit/s

95th percentile per-packet one-way delay: 114.142 ms

Loss rate: 1.26%

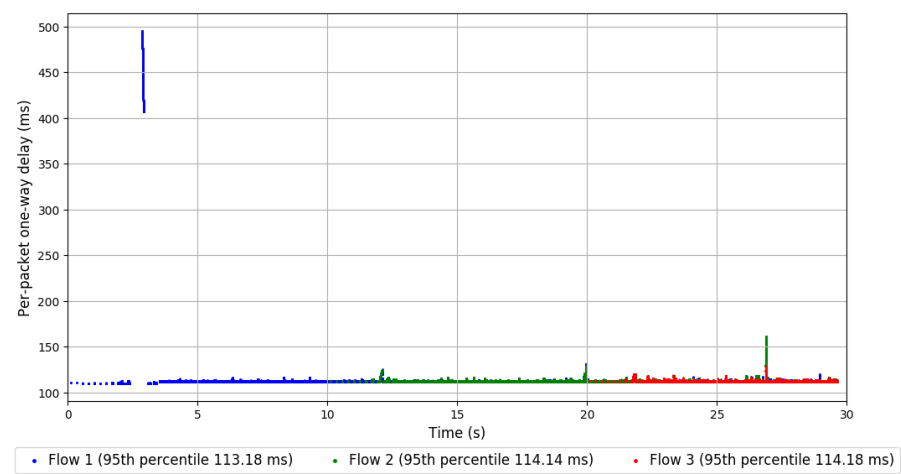
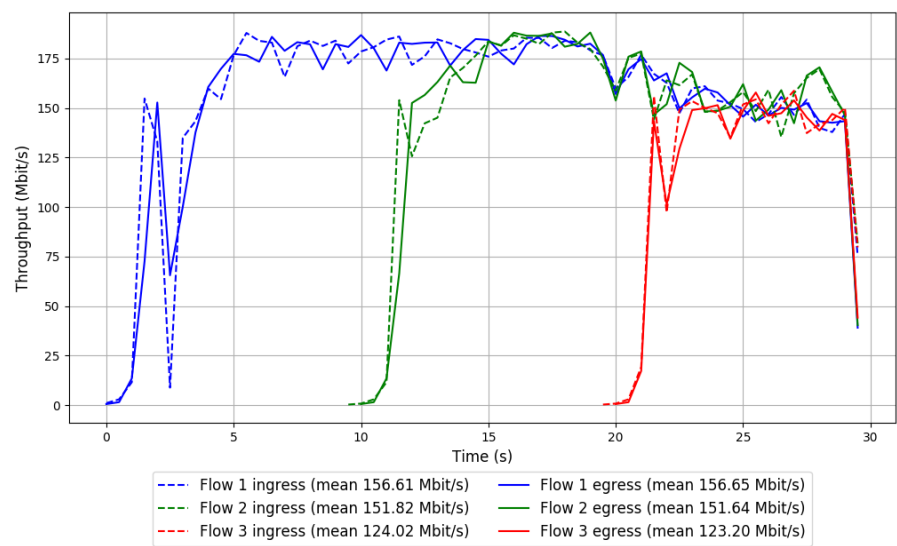
-- Flow 3:

Average throughput: 123.20 Mbit/s

95th percentile per-packet one-way delay: 114.178 ms

Loss rate: 2.99%

Run 6: Report of Indigo — Data Link

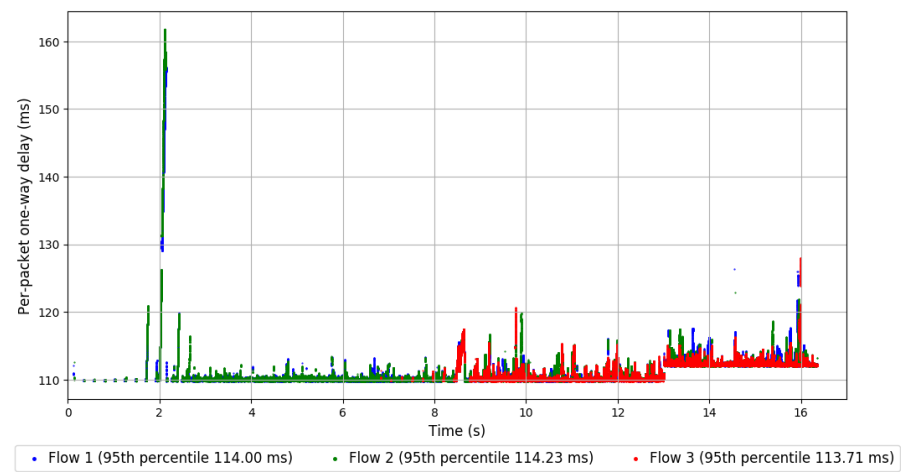
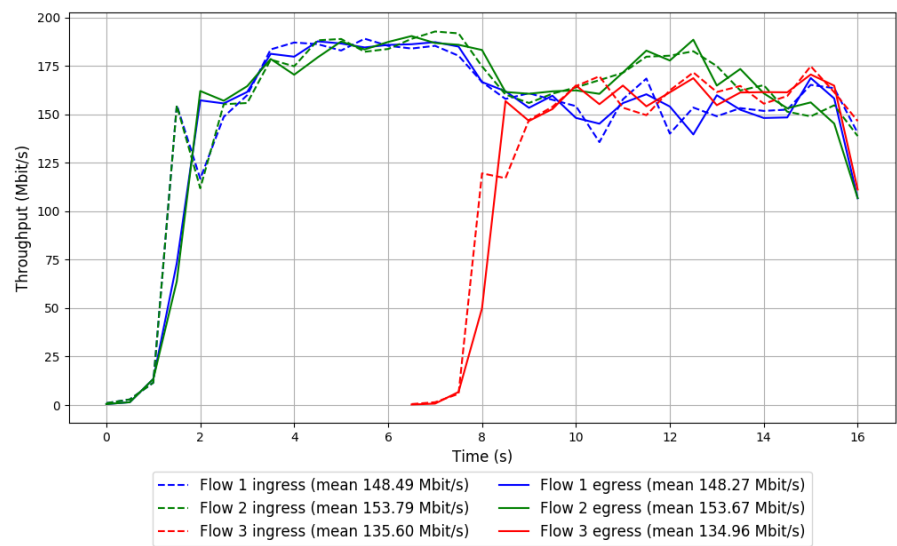


Run 7: Statistics of Indigo

Start at: 2017-12-05 22:42:51

End at: 2017-12-05 22:43:21

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-05 22:55:57

End at: 2017-12-05 22:56:27

Below is generated by plot.py at 2017-12-06 02:29:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.84 Mbit/s

95th percentile per-packet one-way delay: 126.120 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 159.73 Mbit/s

95th percentile per-packet one-way delay: 123.983 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 153.99 Mbit/s

95th percentile per-packet one-way delay: 125.929 ms

Loss rate: 1.07%

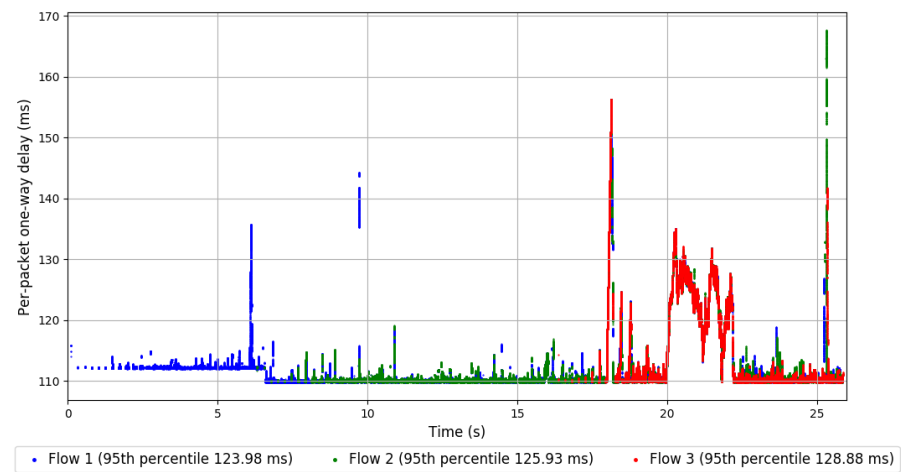
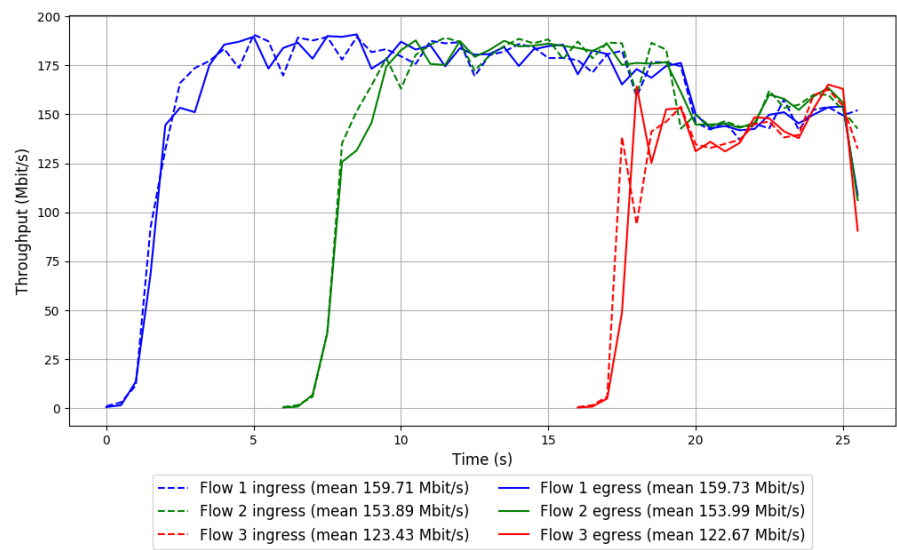
-- Flow 3:

Average throughput: 122.67 Mbit/s

95th percentile per-packet one-way delay: 128.875 ms

Loss rate: 2.87%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-05 23:09:44

End at: 2017-12-05 23:10:14

Below is generated by plot.py at 2017-12-06 02:32:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 298.94 Mbit/s

95th percentile per-packet one-way delay: 111.716 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 160.88 Mbit/s

95th percentile per-packet one-way delay: 111.203 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 147.67 Mbit/s

95th percentile per-packet one-way delay: 112.150 ms

Loss rate: 1.00%

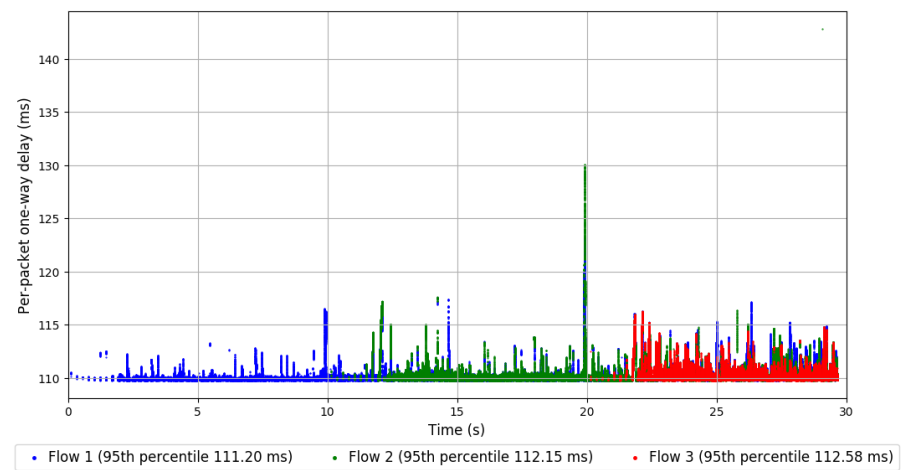
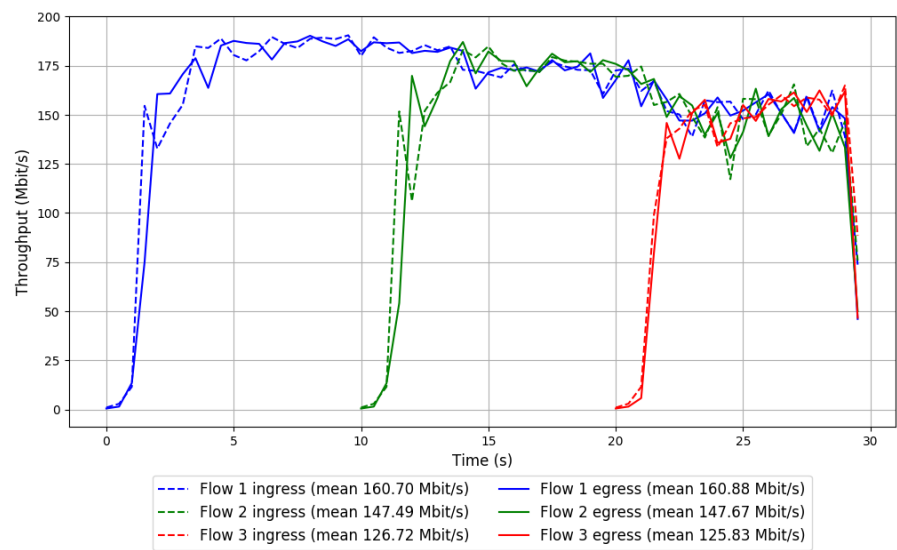
-- Flow 3:

Average throughput: 125.83 Mbit/s

95th percentile per-packet one-way delay: 112.585 ms

Loss rate: 2.99%

Run 9: Report of Indigo — Data Link

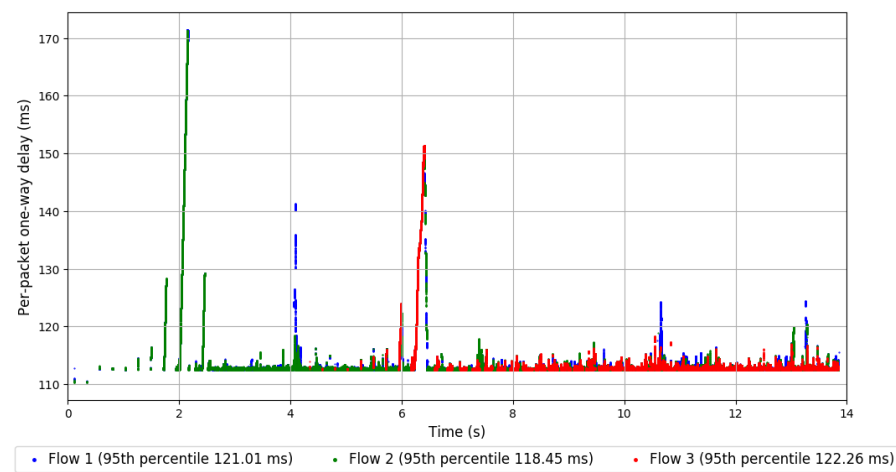
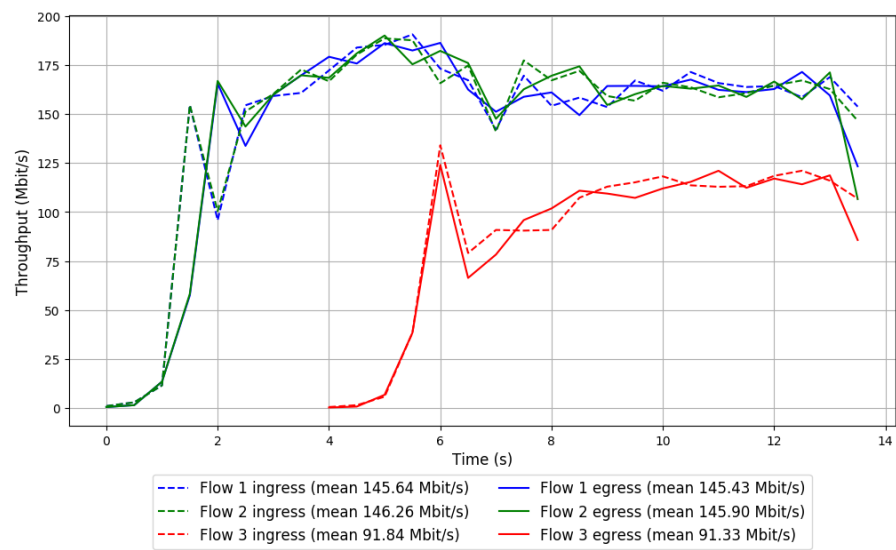


Run 10: Statistics of Indigo

Start at: 2017-12-05 23:22:51

End at: 2017-12-05 23:23:21

Run 10: Report of Indigo — Data Link

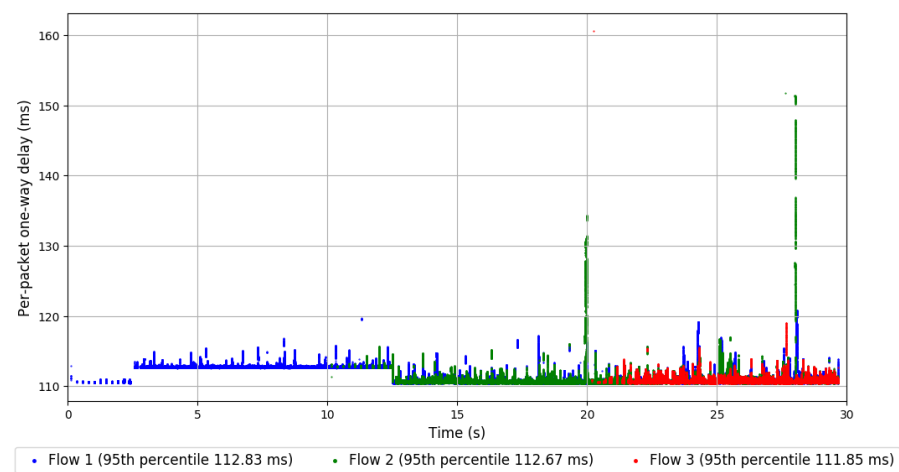
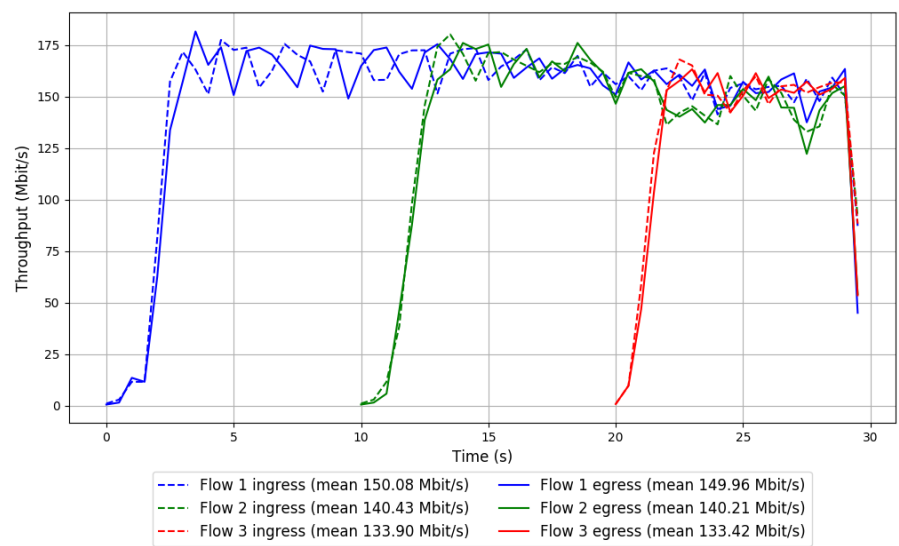


```
Run 1: Statistics of Indigo-calib

Start at: 2017-12-05 21:11:25
End at: 2017-12-05 21:11:55

# Below is generated by plot.py at 2017-12-06 02:32:35
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.43 Mbit/s
95th percentile per-packet one-way delay: 112.802 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 149.96 Mbit/s
95th percentile per-packet one-way delay: 112.834 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 140.21 Mbit/s
95th percentile per-packet one-way delay: 112.669 ms
Loss rate: 1.28%
-- Flow 3:
Average throughput: 133.42 Mbit/s
95th percentile per-packet one-way delay: 111.849 ms
Loss rate: 2.62%
```

Run 1: Report of Indigo-calib — Data Link

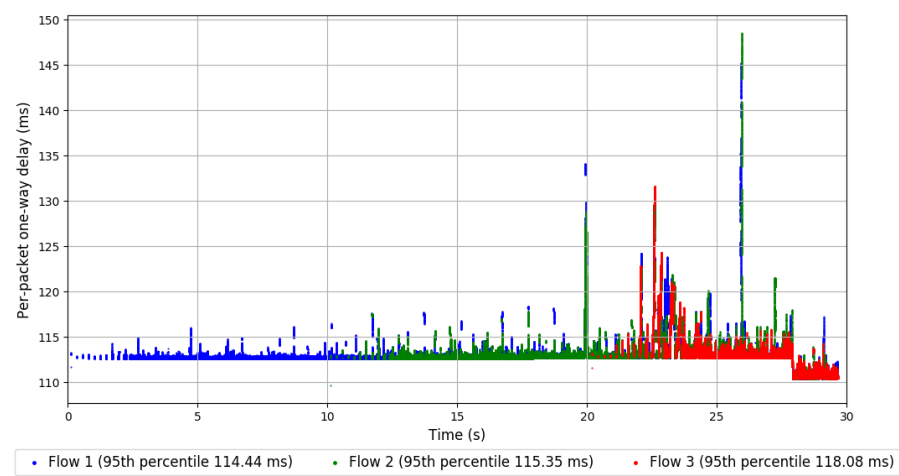
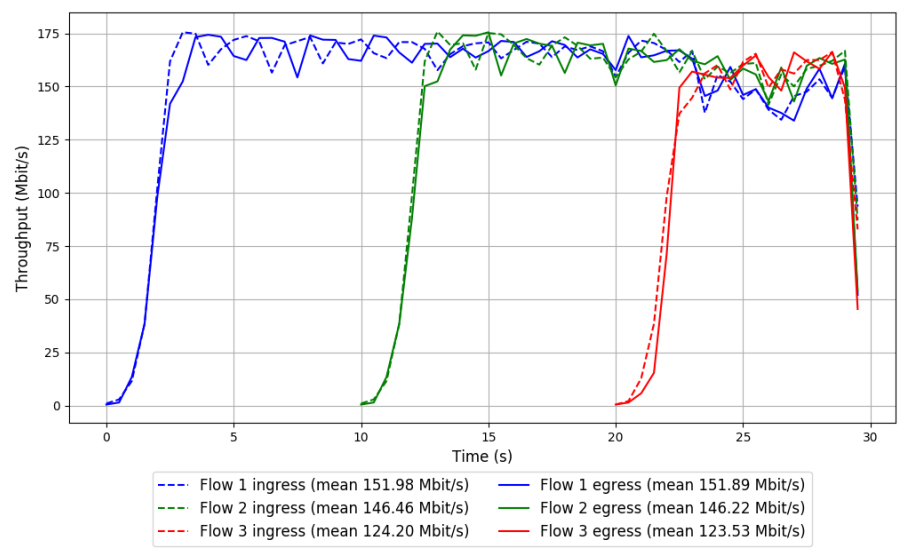


```
Run 2: Statistics of Indigo-calib

Start at: 2017-12-05 21:24:59
End at: 2017-12-05 21:25:29

# Below is generated by plot.py at 2017-12-06 02:33:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 288.18 Mbit/s
95th percentile per-packet one-way delay: 115.192 ms
Loss rate: 1.26%
-- Flow 1:
Average throughput: 151.89 Mbit/s
95th percentile per-packet one-way delay: 114.436 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 146.22 Mbit/s
95th percentile per-packet one-way delay: 115.350 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 123.53 Mbit/s
95th percentile per-packet one-way delay: 118.080 ms
Loss rate: 2.85%
```

Run 2: Report of Indigo-calib — Data Link

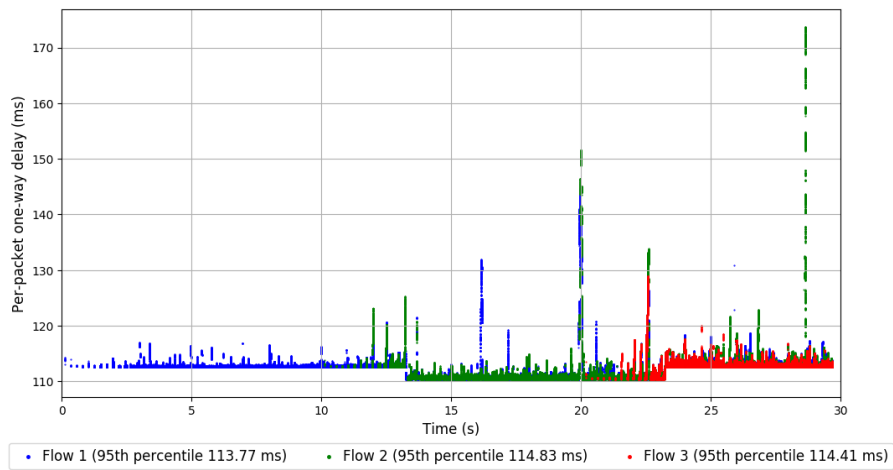
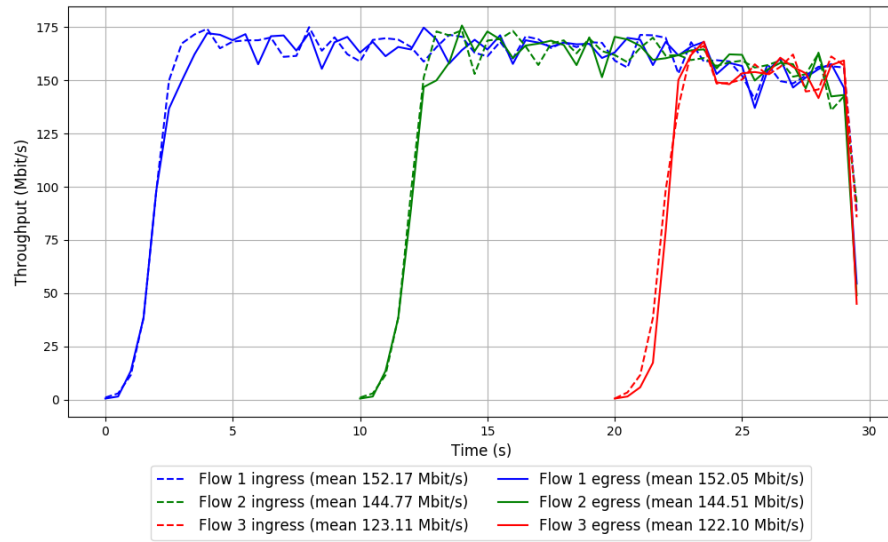


```
Run 3: Statistics of Indigo-calib

Start at: 2017-12-05 21:38:34
End at: 2017-12-05 21:39:04

# Below is generated by plot.py at 2017-12-06 02:33:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 286.83 Mbit/s
95th percentile per-packet one-way delay: 114.201 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 152.05 Mbit/s
95th percentile per-packet one-way delay: 113.774 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 144.51 Mbit/s
95th percentile per-packet one-way delay: 114.832 ms
Loss rate: 1.32%
-- Flow 3:
Average throughput: 122.10 Mbit/s
95th percentile per-packet one-way delay: 114.411 ms
Loss rate: 3.11%
```


Run 3: Report of Indigo-calib — Data Link

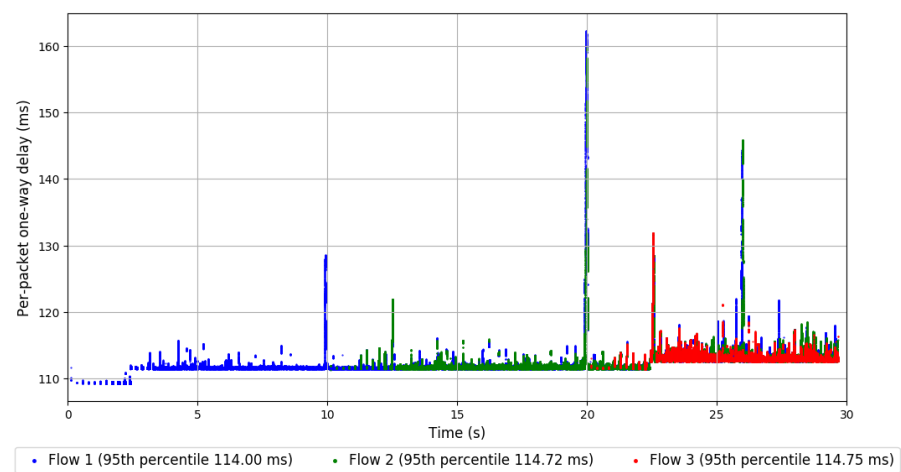
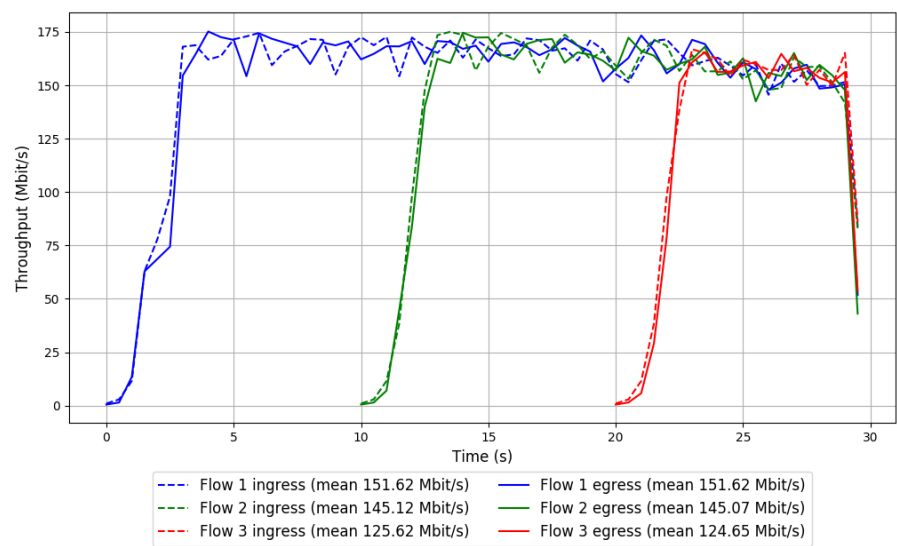


```
Run 4: Statistics of Indigo-calib

Start at: 2017-12-05 21:52:05
End at: 2017-12-05 21:52:35

# Below is generated by plot.py at 2017-12-06 02:34:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 287.61 Mbit/s
95th percentile per-packet one-way delay: 114.408 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 151.62 Mbit/s
95th percentile per-packet one-way delay: 114.000 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 145.07 Mbit/s
95th percentile per-packet one-way delay: 114.720 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 124.65 Mbit/s
95th percentile per-packet one-way delay: 114.751 ms
Loss rate: 3.03%
```

Run 4: Report of Indigo-calib — Data Link



Run 5: Statistics of Indigo-calib

Start at: 2017-12-05 22:05:52

End at: 2017-12-05 22:06:22

Below is generated by plot.py at 2017-12-06 02:34:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.66 Mbit/s

95th percentile per-packet one-way delay: 111.749 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 150.79 Mbit/s

95th percentile per-packet one-way delay: 111.733 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 142.93 Mbit/s

95th percentile per-packet one-way delay: 111.832 ms

Loss rate: 1.21%

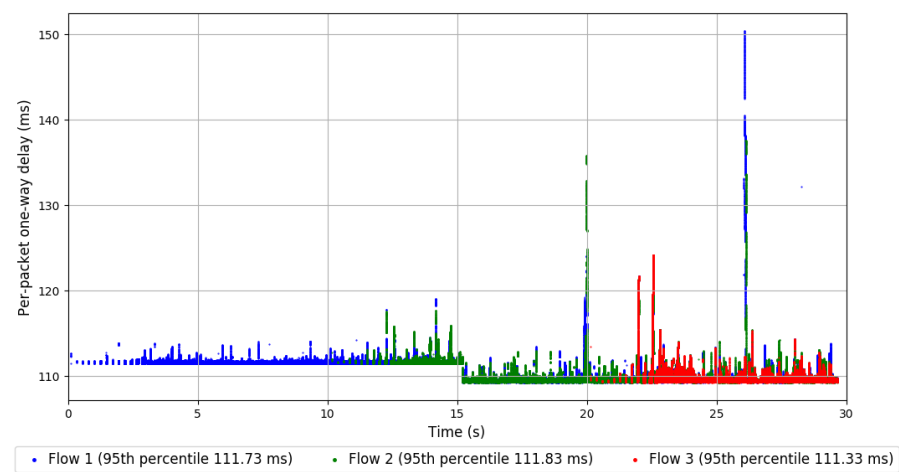
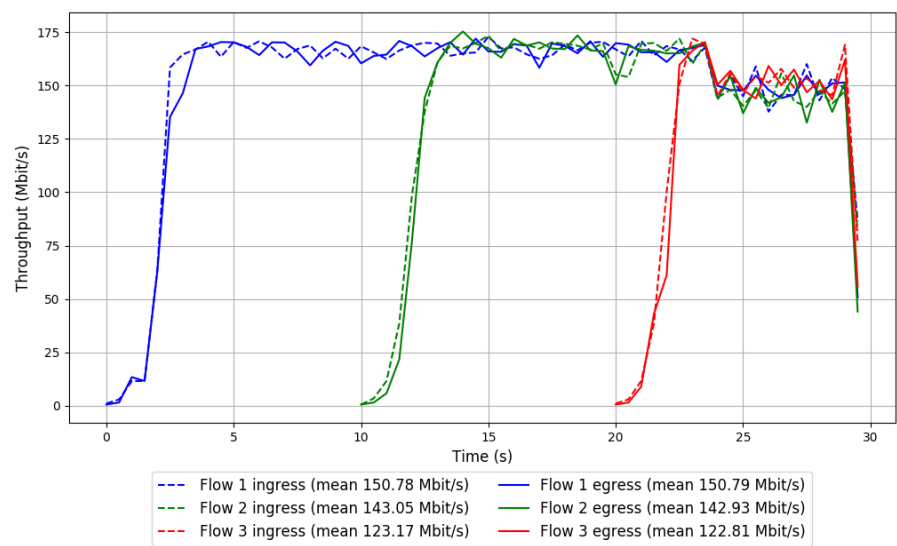
-- Flow 3:

Average throughput: 122.81 Mbit/s

95th percentile per-packet one-way delay: 111.327 ms

Loss rate: 2.56%

Run 5: Report of Indigo-calib — Data Link

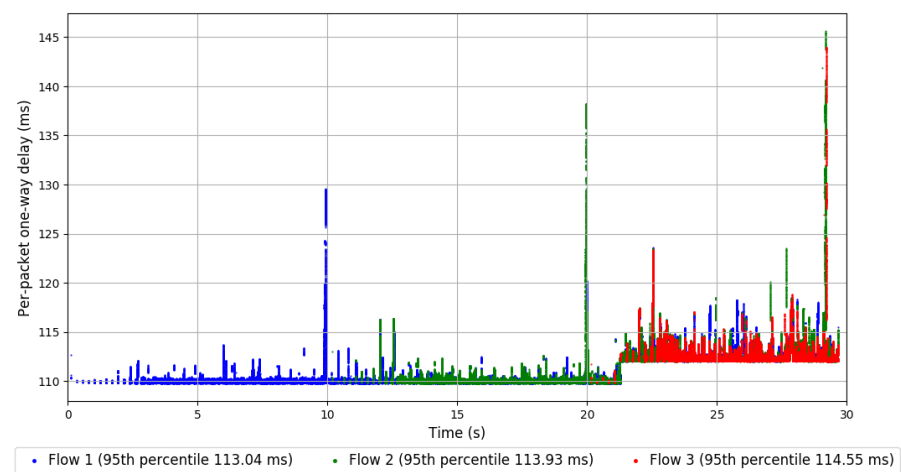
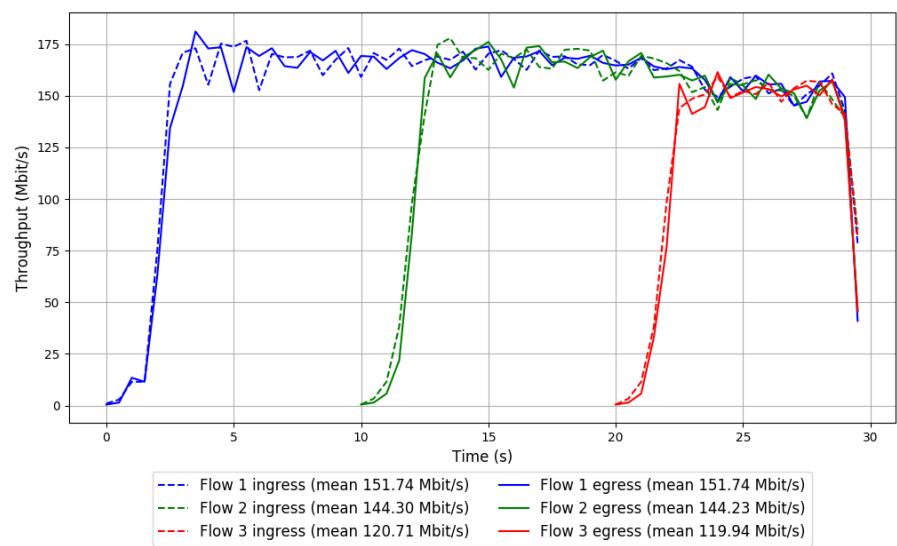


```
Run 6: Statistics of Indigo-calib

Start at: 2017-12-05 22:19:36
End at: 2017-12-05 22:20:06

# Below is generated by plot.py at 2017-12-06 02:34:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 285.36 Mbit/s
95th percentile per-packet one-way delay: 113.648 ms
Loss rate: 1.20%
-- Flow 1:
Average throughput: 151.74 Mbit/s
95th percentile per-packet one-way delay: 113.036 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 144.23 Mbit/s
95th percentile per-packet one-way delay: 113.929 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 119.94 Mbit/s
95th percentile per-packet one-way delay: 114.550 ms
Loss rate: 2.94%
```

Run 6: Report of Indigo-calib — Data Link

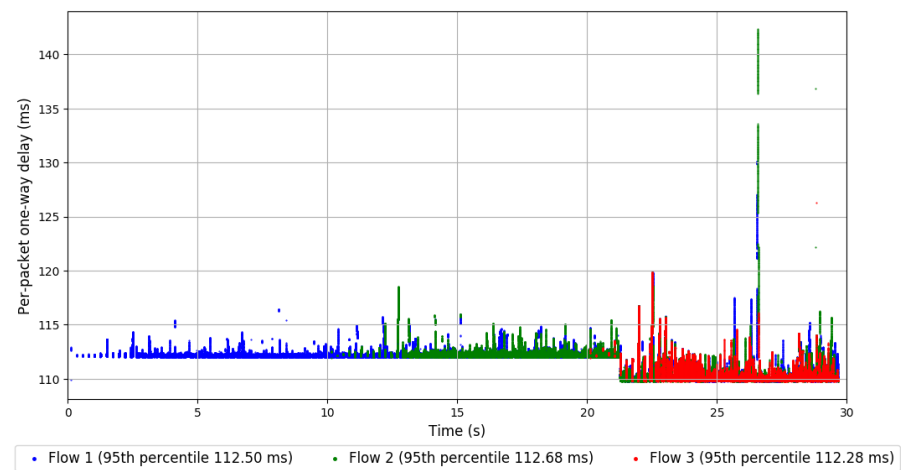
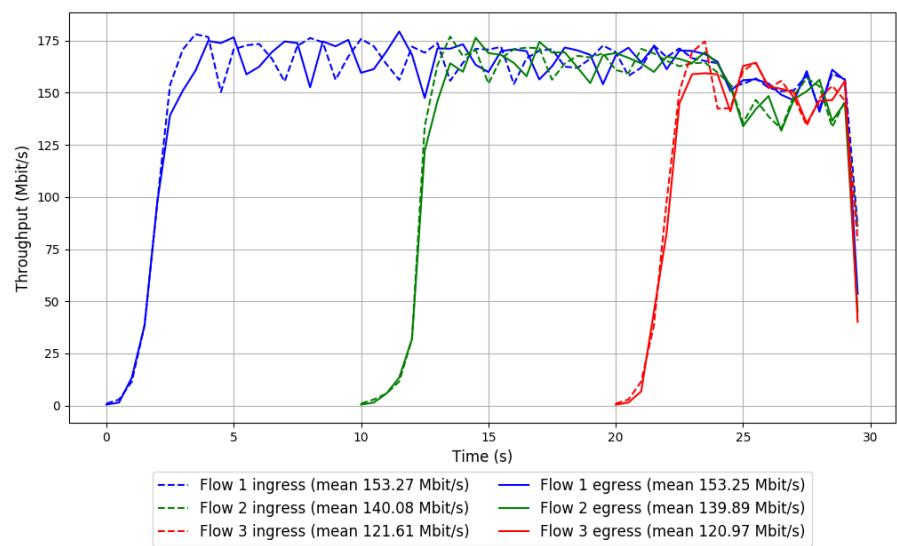


```
Run 7: Statistics of Indigo-calib

Start at: 2017-12-05 22:33:06
End at: 2017-12-05 22:33:36

# Below is generated by plot.py at 2017-12-06 02:34:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 284.66 Mbit/s
95th percentile per-packet one-way delay: 112.553 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 153.25 Mbit/s
95th percentile per-packet one-way delay: 112.498 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 139.89 Mbit/s
95th percentile per-packet one-way delay: 112.679 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 120.97 Mbit/s
95th percentile per-packet one-way delay: 112.284 ms
Loss rate: 2.82%
```


Run 7: Report of Indigo-calib — Data Link



Run 8: Statistics of Indigo-calib

Start at: 2017-12-05 22:46:42

End at: 2017-12-05 22:47:12

Below is generated by plot.py at 2017-12-06 02:35:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.83 Mbit/s

95th percentile per-packet one-way delay: 113.042 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 149.35 Mbit/s

95th percentile per-packet one-way delay: 112.708 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 140.69 Mbit/s

95th percentile per-packet one-way delay: 113.481 ms

Loss rate: 1.32%

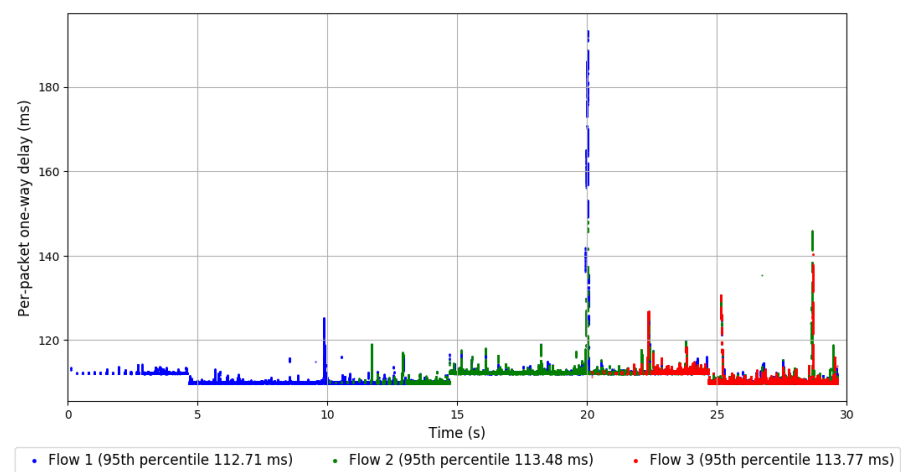
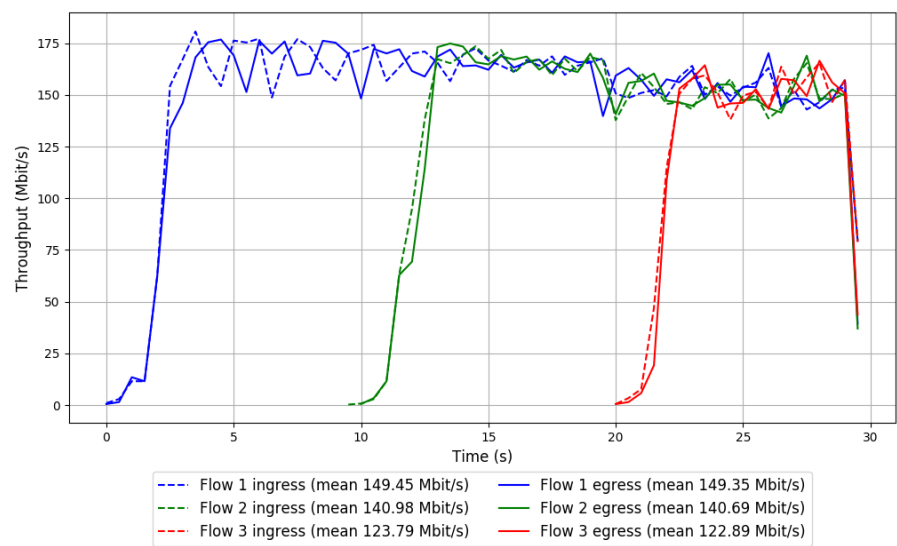
-- Flow 3:

Average throughput: 122.89 Mbit/s

95th percentile per-packet one-way delay: 113.767 ms

Loss rate: 3.01%

Run 8: Report of Indigo-calib — Data Link

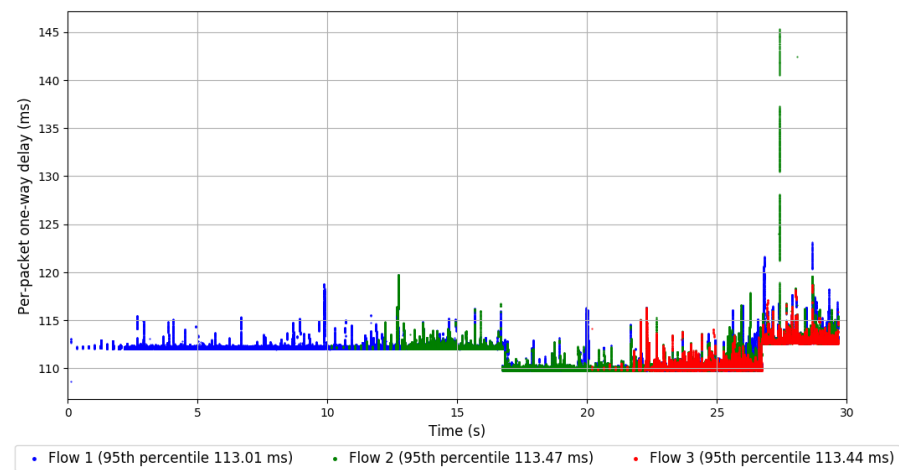
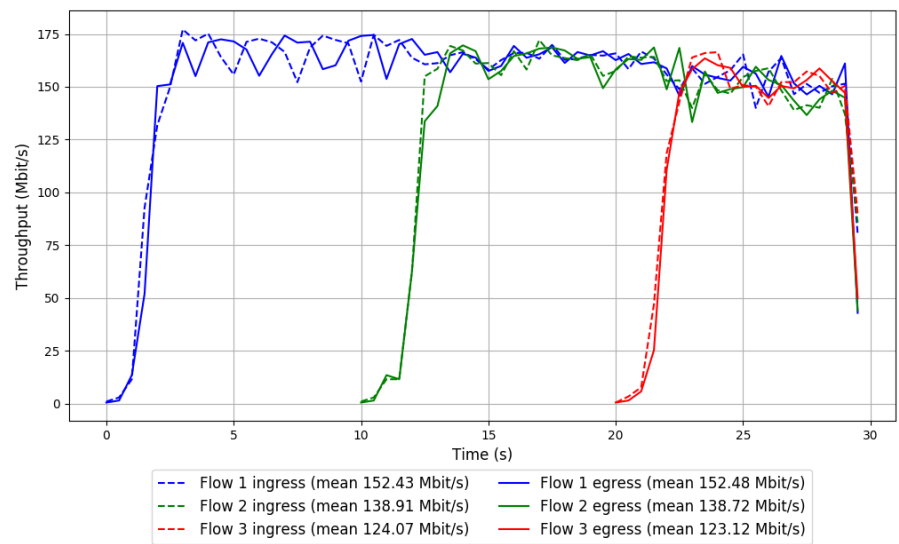


```
Run 9: Statistics of Indigo-calib

Start at: 2017-12-05 23:00:00
End at: 2017-12-05 23:00:30

# Below is generated by plot.py at 2017-12-06 02:35:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.67 Mbit/s
95th percentile per-packet one-way delay: 113.237 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 152.48 Mbit/s
95th percentile per-packet one-way delay: 113.010 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 138.72 Mbit/s
95th percentile per-packet one-way delay: 113.471 ms
Loss rate: 1.27%
-- Flow 3:
Average throughput: 123.12 Mbit/s
95th percentile per-packet one-way delay: 113.435 ms
Loss rate: 3.01%
```

Run 9: Report of Indigo-calib — Data Link



Run 10: Statistics of Indigo-calib

Start at: 2017-12-05 23:13:44

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

Below is generated by plot.py at 2017-12-06 02:35:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 282.83 Mbit/s

95th percentile per-packet one-way delay: 112.550 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 151.47 Mbit/s

95th percentile per-packet one-way delay: 112.373 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 141.66 Mbit/s

95th percentile per-packet one-way delay: 112.700 ms

Loss rate: 1.04%

-- Flow 3:

Average throughput: 117.17 Mbit/s

95th percentile per-packet one-way delay: 117.835 ms

Loss rate: 2.86%

Run 10: Report of Indigo-calib — Data Link

