

Pantheon Report

Generated at 2017-08-31 18:03:05 (UTC).

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

Repeated the test of 15 congestion control schemes 10 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

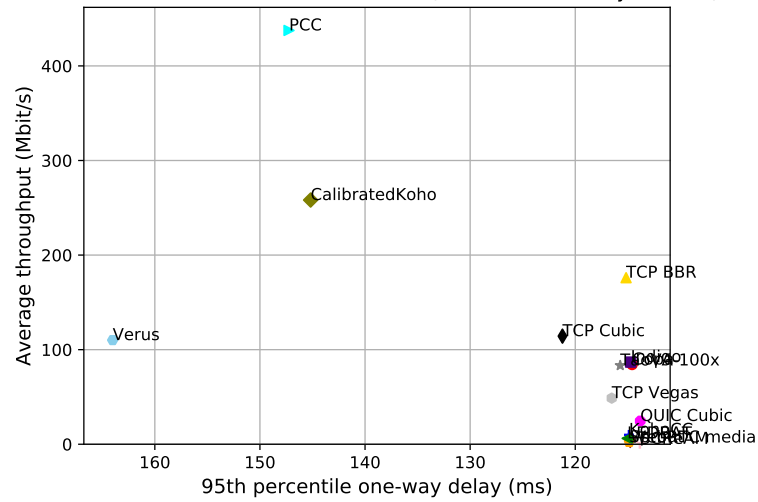
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

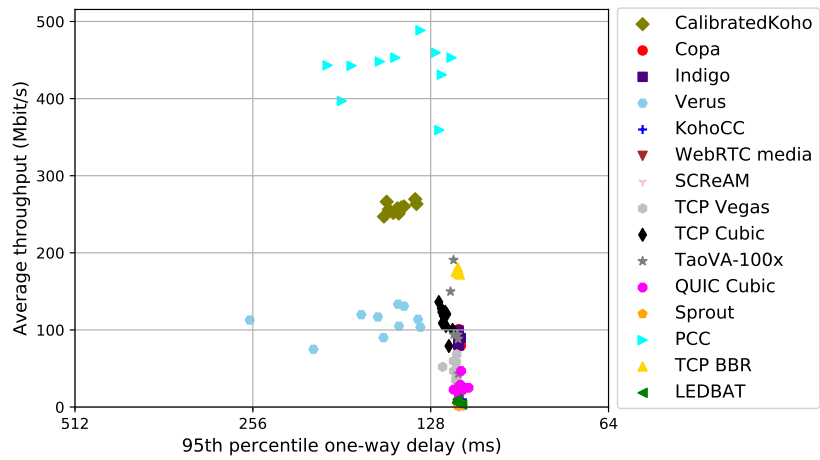
Git summary:

```
branch: master @ 5ea146acdebe79f5b9acfb2d9044554a7d2582ea
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/genericCC @ f7ca42f251bf49b432bb71de6d13fa903515c366
third_party/indigo @ 7ddb4adf480966042c0438984cb22a298bfa635f
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	90.60	88.49	80.25	114.88	115.03	117.37	0.83	1.30	2.78
CalibratedKoho	10	185.89	99.22	19.96	147.15	140.80	122.68	0.76	2.02	9.10
Copa	10	50.32	44.21	22.82	114.59	114.49	114.48	0.53	0.94	6.16
TCP Cubic	10	62.76	53.16	50.11	120.40	120.38	122.33	0.86	1.33	2.78
Indigo	10	42.19	51.88	31.36	114.70	114.78	114.71	0.83	0.90	3.02
KohoCC	10	5.06	4.98	4.71	114.91	114.89	114.86	0.80	1.21	2.57
LEDBAT	10	3.51	3.14	1.86	115.08	115.09	115.01	1.39	2.06	4.52
PCC	10	255.51	195.52	141.73	599.79	124.77	123.31	0.63	0.75	3.29
QUIC Cubic	10	2.33	21.82	23.90	112.93	113.63	112.89	0.01	1.07	2.56
SCReAM	8	0.21	0.20	0.22	113.48	113.14	112.73	0.75	1.04	2.20
Sprout	10	1.07	1.08	1.18	114.86	114.86	114.83	0.72	1.37	2.63
TaoVA-100x	10	39.42	57.86	29.90	115.45	115.34	115.07	0.83	1.02	2.57
TCP Vegas	10	22.97	23.94	30.28	115.75	115.70	117.03	0.79	1.08	2.48
Verus	10	70.06	47.62	27.38	156.10	165.91	128.14	1.48	0.86	3.06
WebRTC media	10	0.53	1.25	0.22	114.74	113.78	115.24	0.23	1.68	9.11

Run 1: Statistics of TCP BBR

Start at: 2017-08-31 12:22:08

End at: 2017-08-31 12:22:38

Below is generated by plot.py at 2017-08-31 17:36:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.96 Mbit/s

95th percentile per-packet one-way delay: 114.248 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 88.30 Mbit/s

95th percentile per-packet one-way delay: 114.008 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 86.56 Mbit/s

95th percentile per-packet one-way delay: 114.184 ms

Loss rate: 1.40%

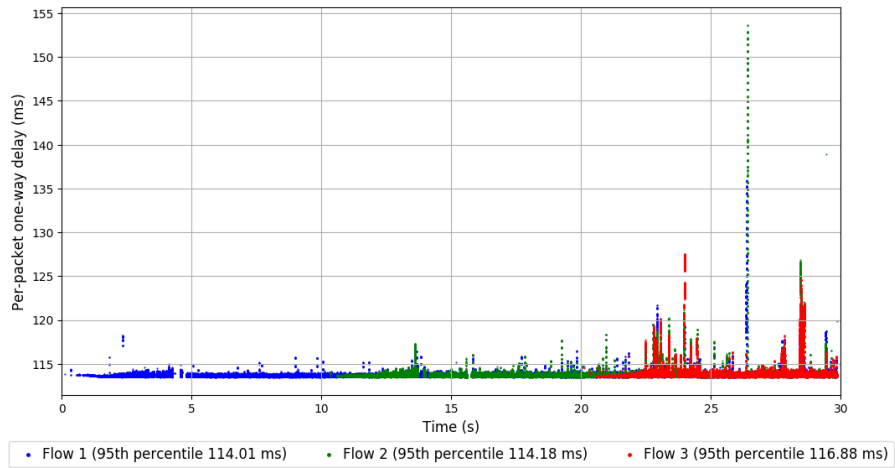
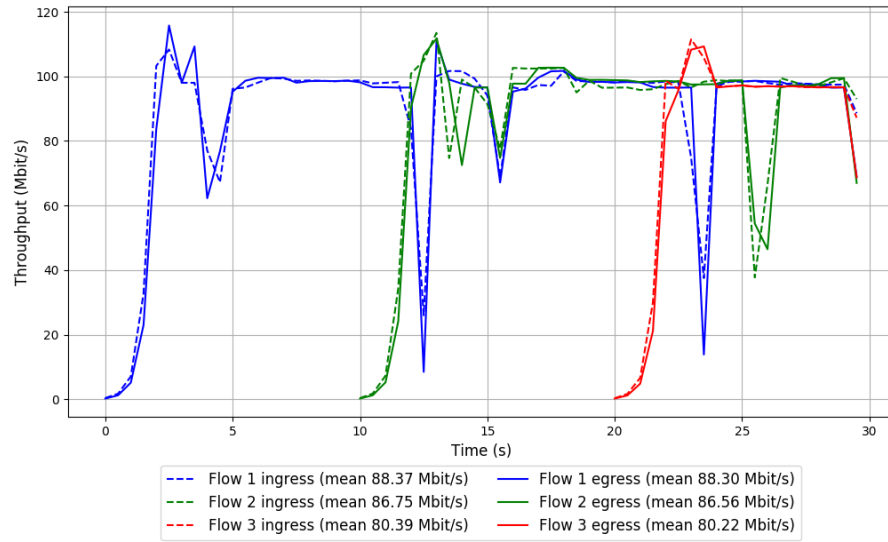
-- Flow 3:

Average throughput: 80.22 Mbit/s

95th percentile per-packet one-way delay: 116.880 ms

Loss rate: 2.66%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-08-31 12:35:44

End at: 2017-08-31 12:36:14

Below is generated by plot.py at 2017-08-31 17:36:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.10 Mbit/s

95th percentile per-packet one-way delay: 115.536 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 90.22 Mbit/s

95th percentile per-packet one-way delay: 115.049 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 87.45 Mbit/s

95th percentile per-packet one-way delay: 115.133 ms

Loss rate: 1.27%

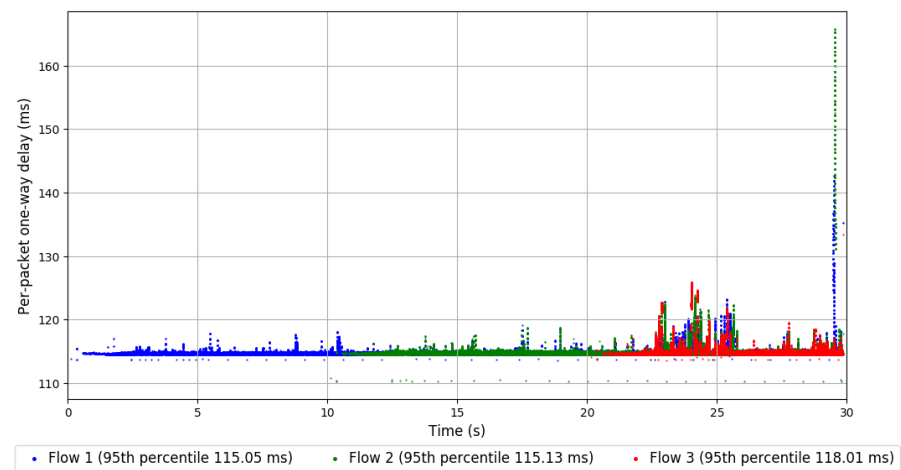
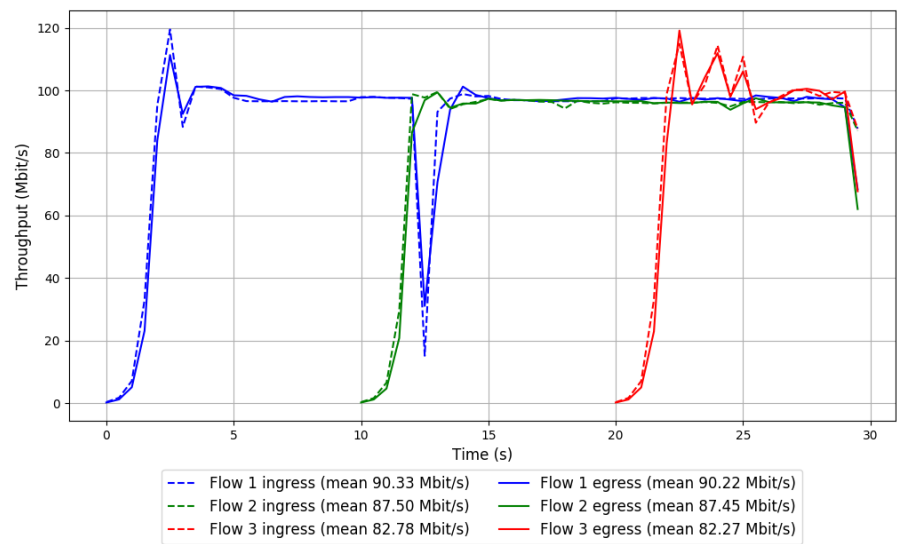
-- Flow 3:

Average throughput: 82.27 Mbit/s

95th percentile per-packet one-way delay: 118.012 ms

Loss rate: 2.75%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-08-31 12:49:18

End at: 2017-08-31 12:49:48

Below is generated by plot.py at 2017-08-31 17:37:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.56 Mbit/s

95th percentile per-packet one-way delay: 116.097 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 90.10 Mbit/s

95th percentile per-packet one-way delay: 115.031 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 88.24 Mbit/s

95th percentile per-packet one-way delay: 115.599 ms

Loss rate: 1.37%

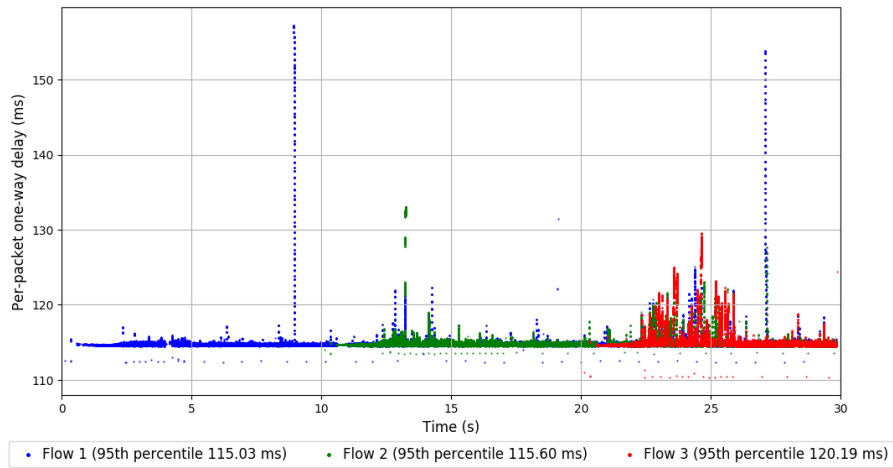
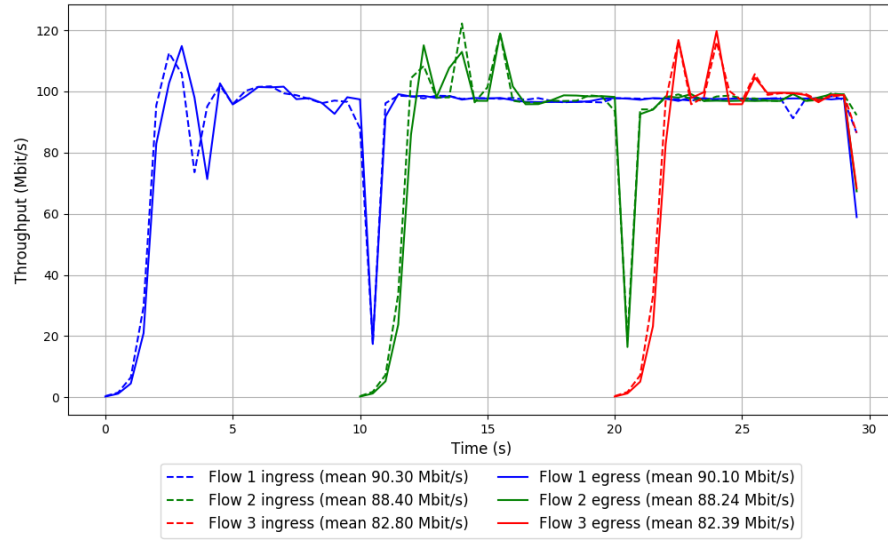
-- Flow 3:

Average throughput: 82.39 Mbit/s

95th percentile per-packet one-way delay: 120.192 ms

Loss rate: 2.66%

Run 3: Report of TCP BBR — Data Link

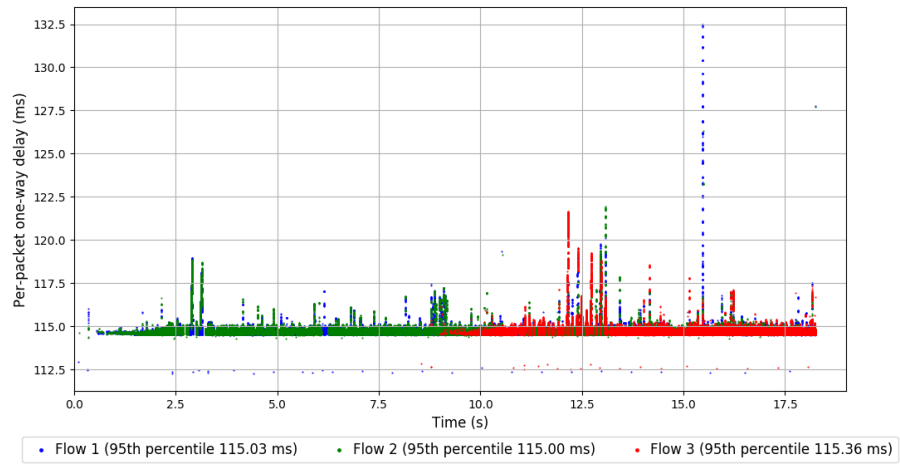
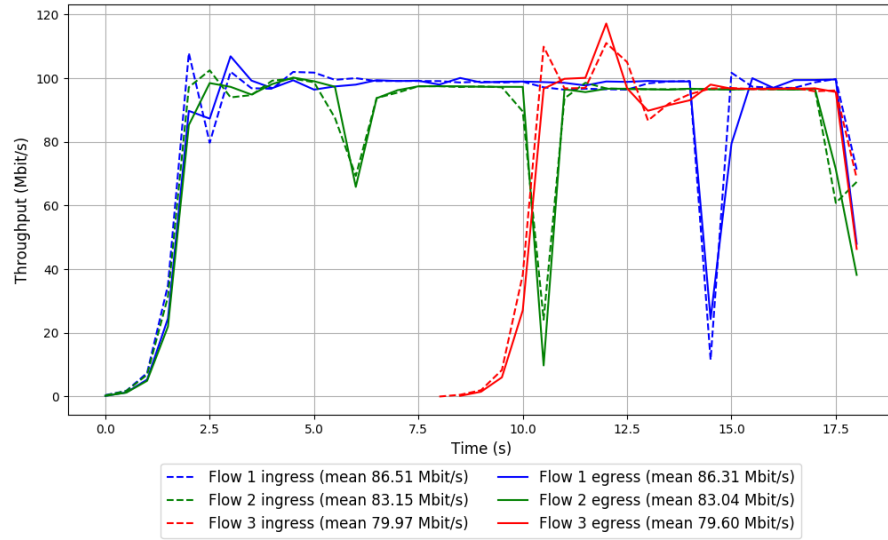


Run 4: Statistics of TCP BBR

Start at: 2017-08-31 13:02:30

End at: 2017-08-31 13:03:00

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-08-31 13:16:02

End at: 2017-08-31 13:16:32

Below is generated by plot.py at 2017-08-31 17:37:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.44 Mbit/s

95th percentile per-packet one-way delay: 115.059 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 89.73 Mbit/s

95th percentile per-packet one-way delay: 114.947 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 87.82 Mbit/s

95th percentile per-packet one-way delay: 115.082 ms

Loss rate: 1.30%

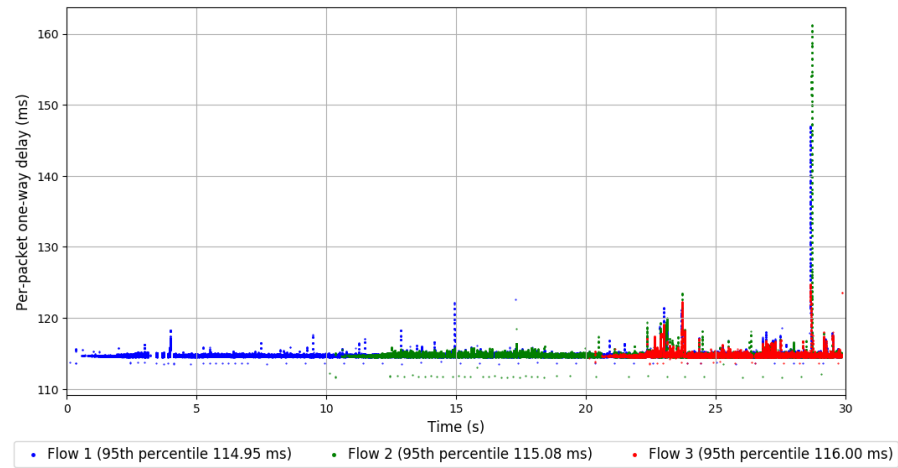
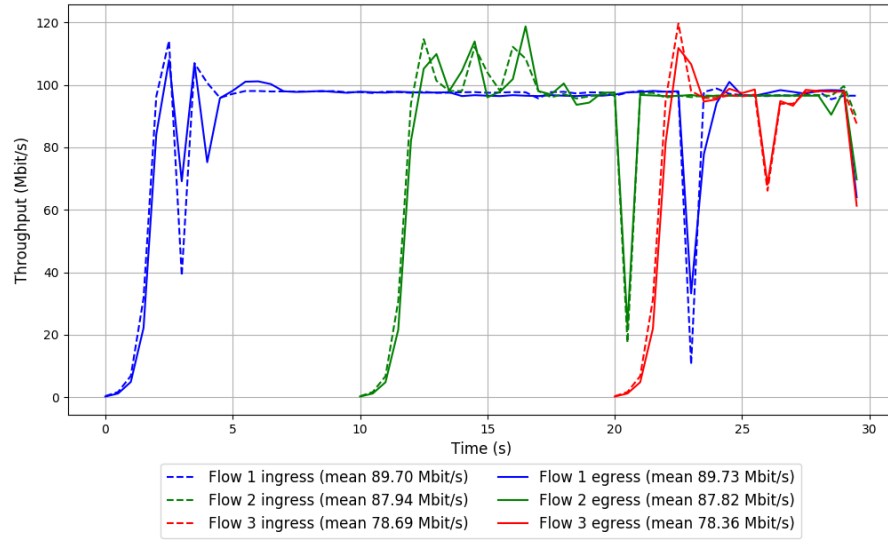
-- Flow 3:

Average throughput: 78.36 Mbit/s

95th percentile per-packet one-way delay: 116.005 ms

Loss rate: 2.87%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-08-31 13:29:24

End at: 2017-08-31 13:29:54

Below is generated by plot.py at 2017-08-31 17:37:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.79 Mbit/s

95th percentile per-packet one-way delay: 115.067 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 92.61 Mbit/s

95th percentile per-packet one-way delay: 114.943 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 87.38 Mbit/s

95th percentile per-packet one-way delay: 114.941 ms

Loss rate: 1.38%

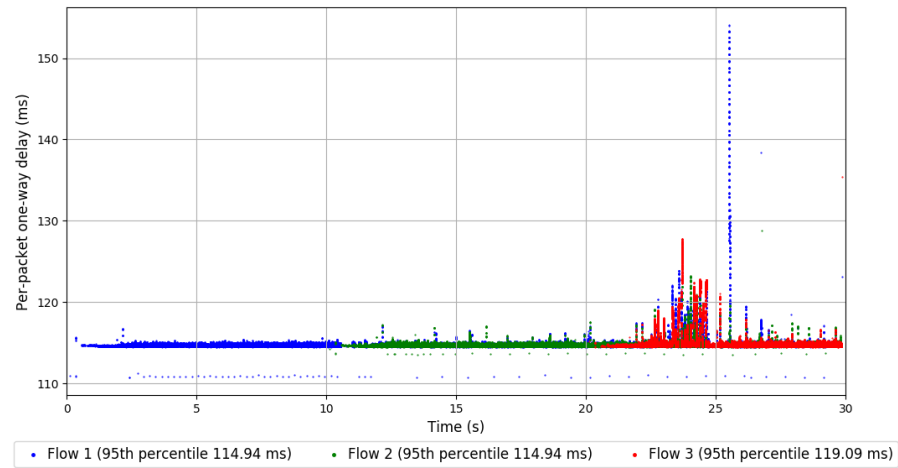
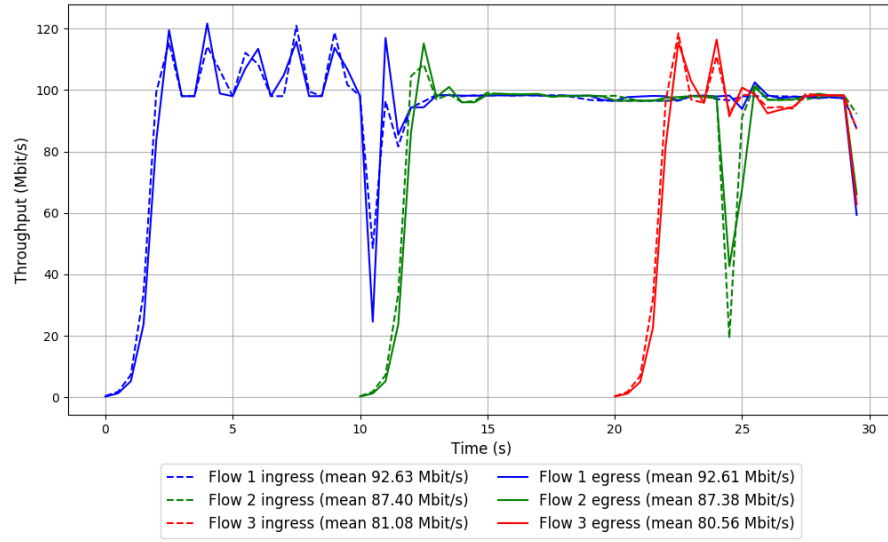
-- Flow 3:

Average throughput: 80.56 Mbit/s

95th percentile per-packet one-way delay: 119.093 ms

Loss rate: 2.75%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-08-31 13:42:48

End at: 2017-08-31 13:43:18

Below is generated by plot.py at 2017-08-31 17:38:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.99 Mbit/s

95th percentile per-packet one-way delay: 114.986 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 92.48 Mbit/s

95th percentile per-packet one-way delay: 114.964 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.39 Mbit/s

95th percentile per-packet one-way delay: 114.982 ms

Loss rate: 1.26%

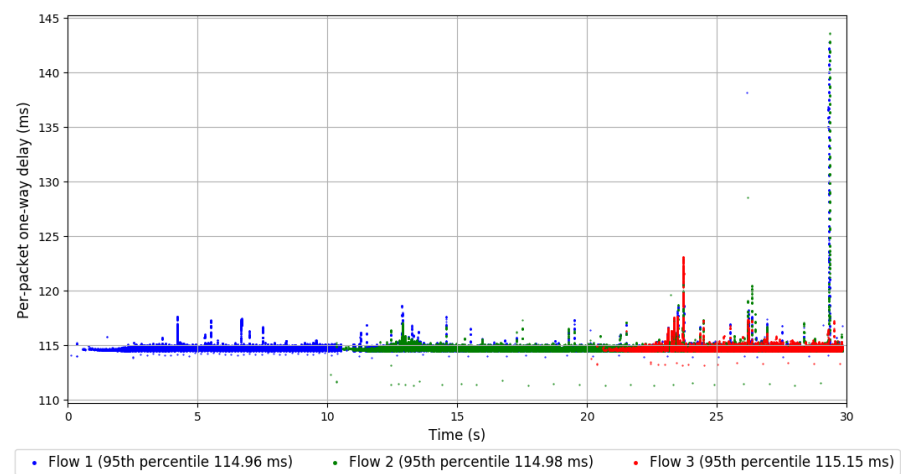
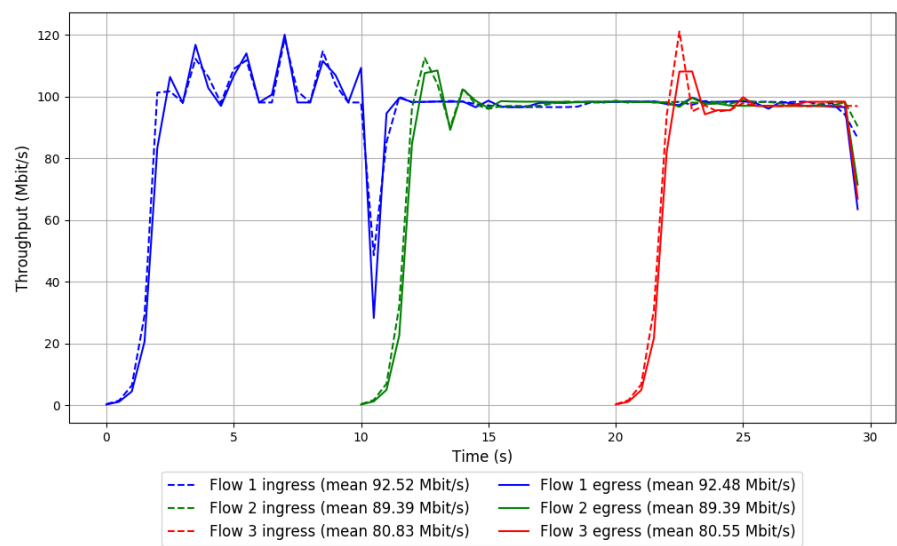
-- Flow 3:

Average throughput: 80.55 Mbit/s

95th percentile per-packet one-way delay: 115.153 ms

Loss rate: 3.02%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-08-31 13:56:19

End at: 2017-08-31 13:56:49

Below is generated by plot.py at 2017-08-31 17:38:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.93 Mbit/s

95th percentile per-packet one-way delay: 115.132 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 88.67 Mbit/s

95th percentile per-packet one-way delay: 115.003 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 90.99 Mbit/s

95th percentile per-packet one-way delay: 115.142 ms

Loss rate: 1.23%

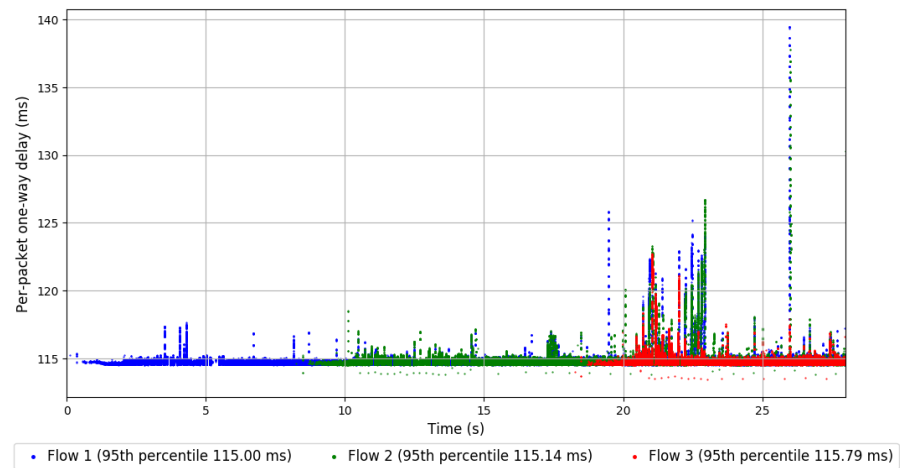
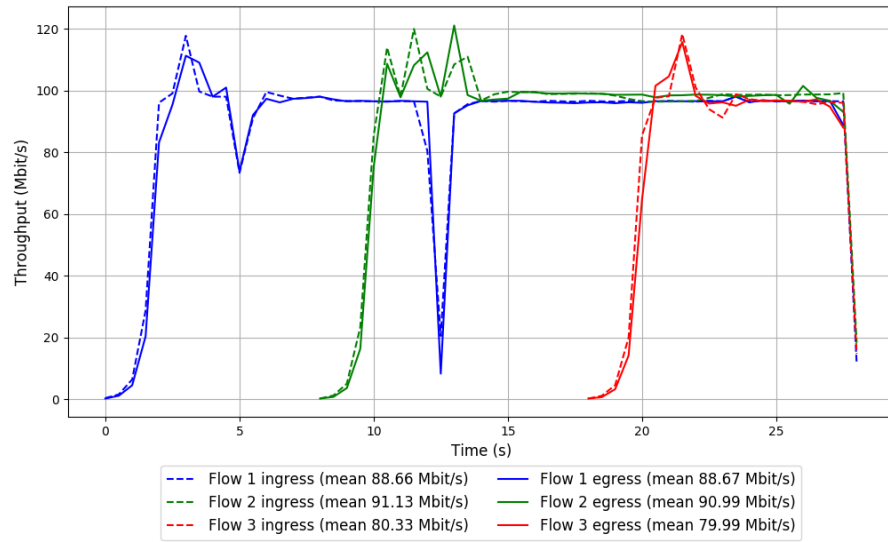
-- Flow 3:

Average throughput: 79.99 Mbit/s

95th percentile per-packet one-way delay: 115.789 ms

Loss rate: 2.71%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-08-31 14:09:41

End at: 2017-08-31 14:10:11

Below is generated by plot.py at 2017-08-31 17:38:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.55 Mbit/s

95th percentile per-packet one-way delay: 115.349 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 91.07 Mbit/s

95th percentile per-packet one-way delay: 115.032 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 89.48 Mbit/s

95th percentile per-packet one-way delay: 115.223 ms

Loss rate: 1.20%

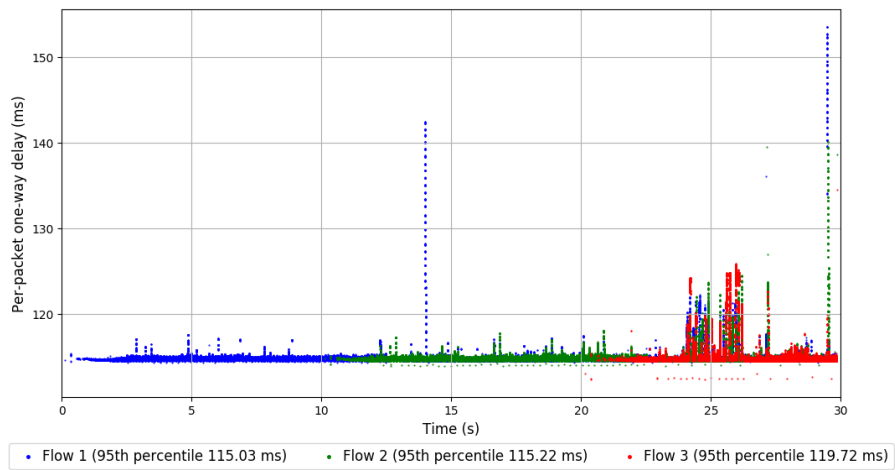
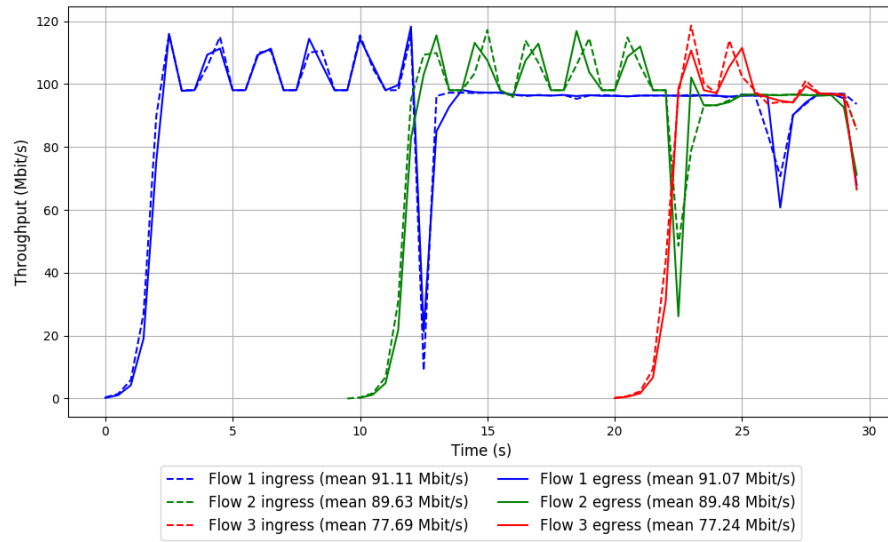
-- Flow 3:

Average throughput: 77.24 Mbit/s

95th percentile per-packet one-way delay: 119.718 ms

Loss rate: 2.82%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-08-31 14:23:06

End at: 2017-08-31 14:23:36

Below is generated by plot.py at 2017-08-31 17:39:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.54 Mbit/s

95th percentile per-packet one-way delay: 115.007 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 92.21 Mbit/s

95th percentile per-packet one-way delay: 114.967 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.12 Mbit/s

95th percentile per-packet one-way delay: 114.990 ms

Loss rate: 1.33%

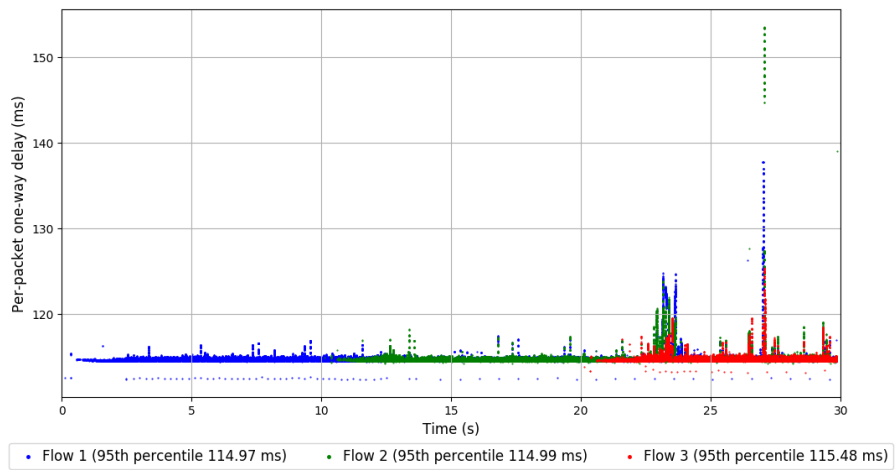
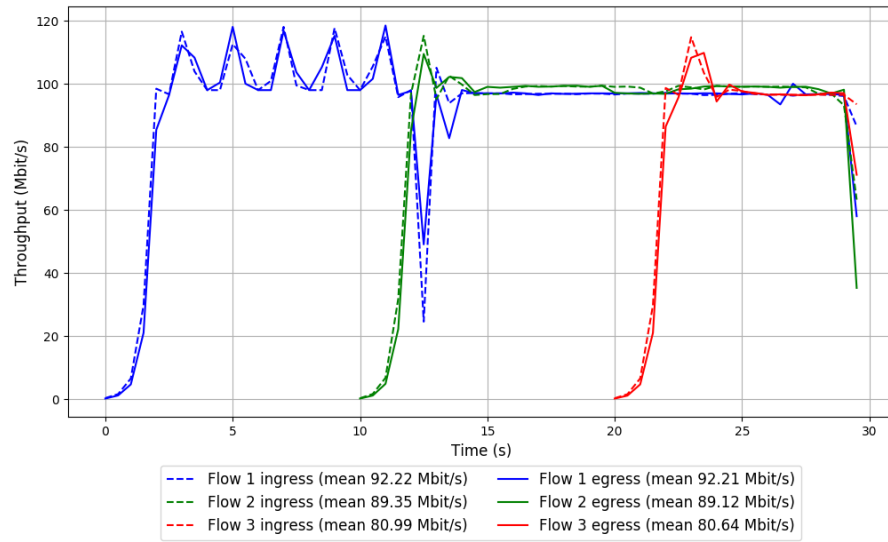
-- Flow 3:

Average throughput: 80.64 Mbit/s

95th percentile per-packet one-way delay: 115.483 ms

Loss rate: 2.81%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of CalibratedKoho

Start at: 2017-08-31 12:30:01

End at: 2017-08-31 12:30:31

Below is generated by plot.py at 2017-08-31 17:39:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 269.61 Mbit/s

95th percentile per-packet one-way delay: 135.961 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 195.30 Mbit/s

95th percentile per-packet one-way delay: 138.027 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 102.04 Mbit/s

95th percentile per-packet one-way delay: 132.418 ms

Loss rate: 2.13%

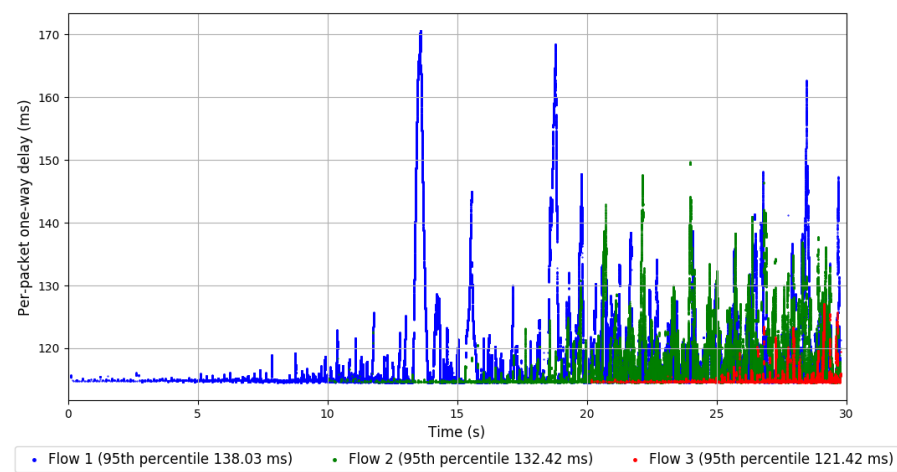
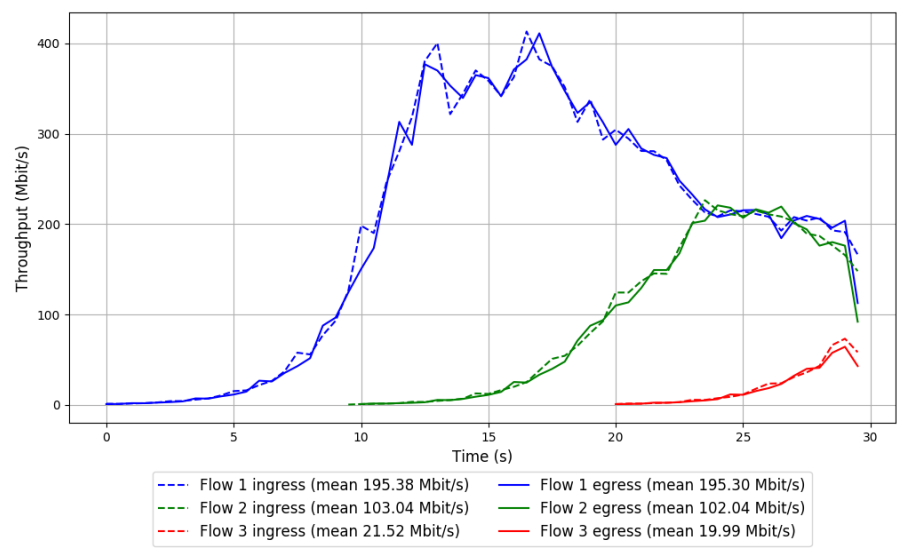
-- Flow 3:

Average throughput: 19.99 Mbit/s

95th percentile per-packet one-way delay: 121.424 ms

Loss rate: 9.24%

Run 1: Report of CalibratedKoho — Data Link



Run 2: Statistics of CalibratedKoho

Start at: 2017-08-31 12:43:31

End at: 2017-08-31 12:44:01

Below is generated by plot.py at 2017-08-31 17:39:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 266.29 Mbit/s

95th percentile per-packet one-way delay: 151.964 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 195.96 Mbit/s

95th percentile per-packet one-way delay: 156.875 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 96.40 Mbit/s

95th percentile per-packet one-way delay: 143.807 ms

Loss rate: 2.08%

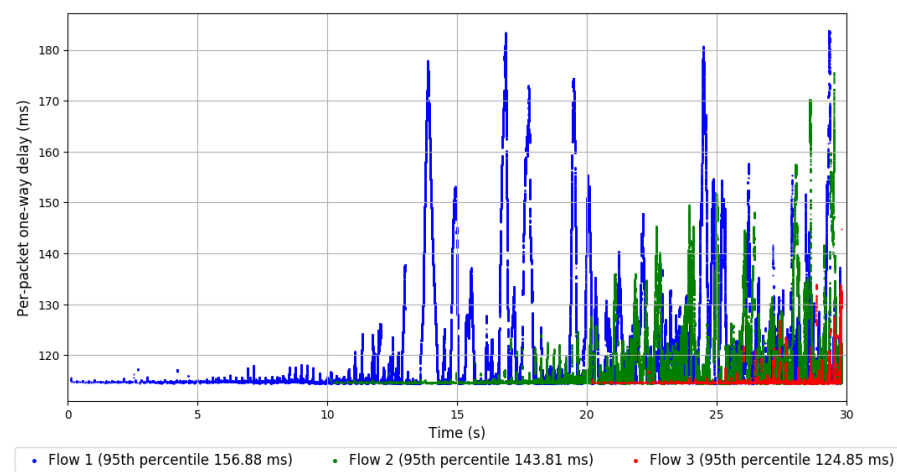
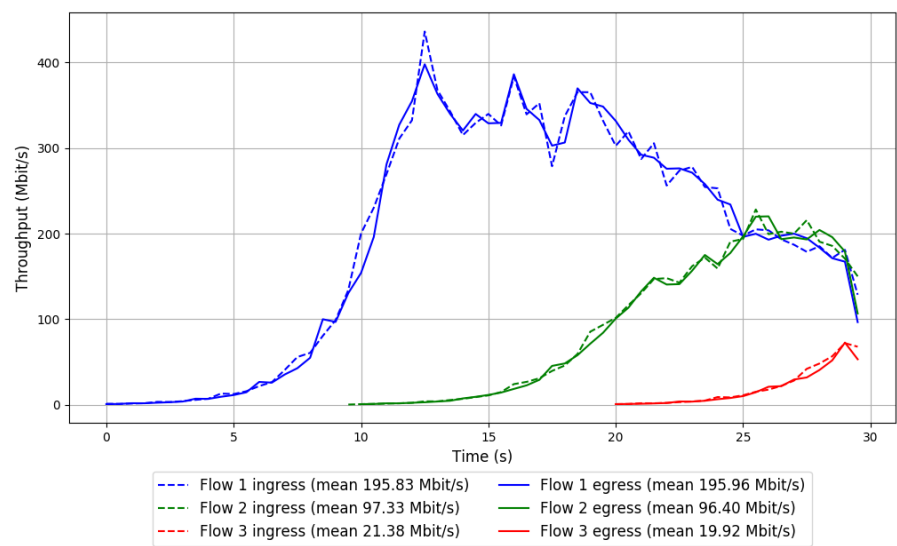
-- Flow 3:

Average throughput: 19.92 Mbit/s

95th percentile per-packet one-way delay: 124.853 ms

Loss rate: 8.92%

Run 2: Report of CalibratedKoho — Data Link



Run 3: Statistics of CalibratedKoho

Start at: 2017-08-31 12:57:10

End at: 2017-08-31 12:57:40

Below is generated by plot.py at 2017-08-31 17:40:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.02 Mbit/s

95th percentile per-packet one-way delay: 153.601 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 184.96 Mbit/s

95th percentile per-packet one-way delay: 155.068 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 83.14 Mbit/s

95th percentile per-packet one-way delay: 149.365 ms

Loss rate: 2.15%

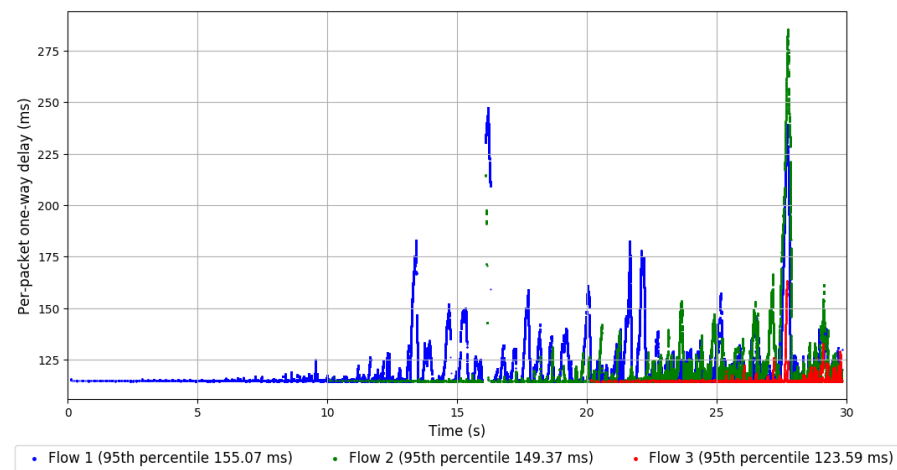
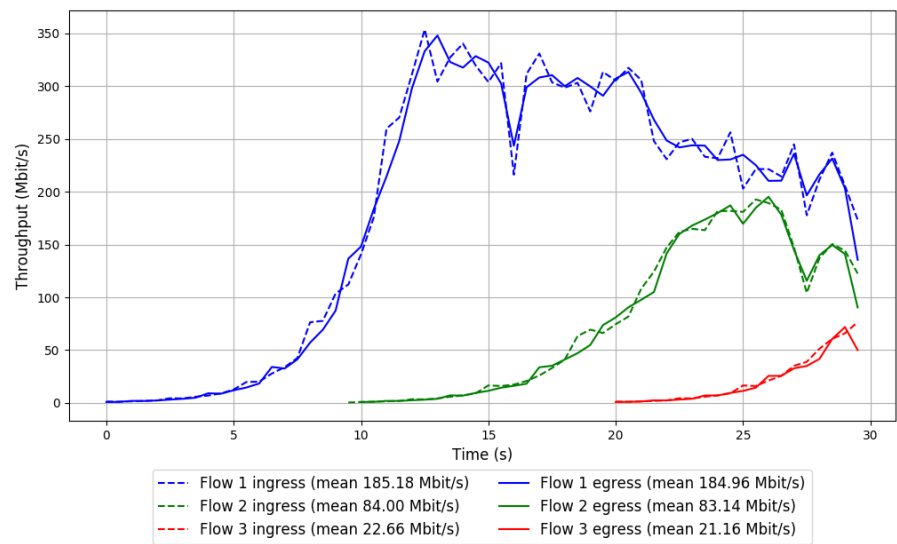
-- Flow 3:

Average throughput: 21.16 Mbit/s

95th percentile per-packet one-way delay: 123.594 ms

Loss rate: 8.76%

Run 3: Report of CalibratedKoho — Data Link



Run 4: Statistics of CalibratedKoho

Start at: 2017-08-31 13:10:19

End at: 2017-08-31 13:10:49

Below is generated by plot.py at 2017-08-31 17:40:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.93 Mbit/s

95th percentile per-packet one-way delay: 144.958 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 167.95 Mbit/s

95th percentile per-packet one-way delay: 146.149 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 116.27 Mbit/s

95th percentile per-packet one-way delay: 142.419 ms

Loss rate: 1.86%

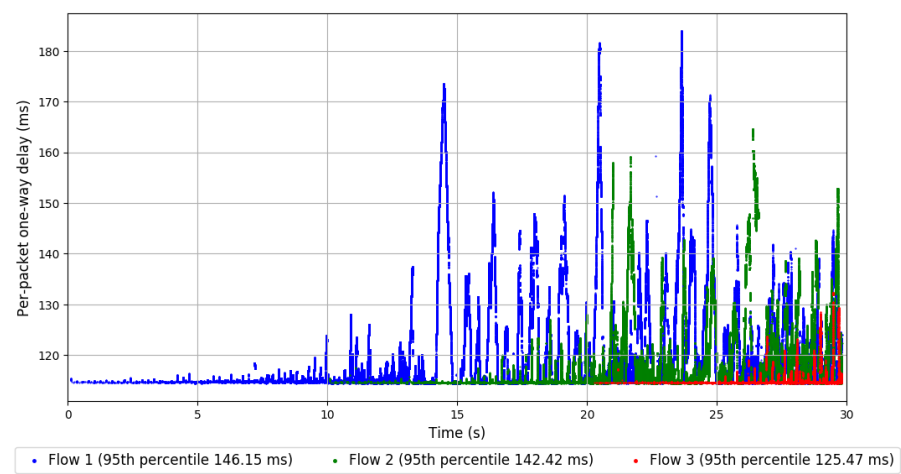
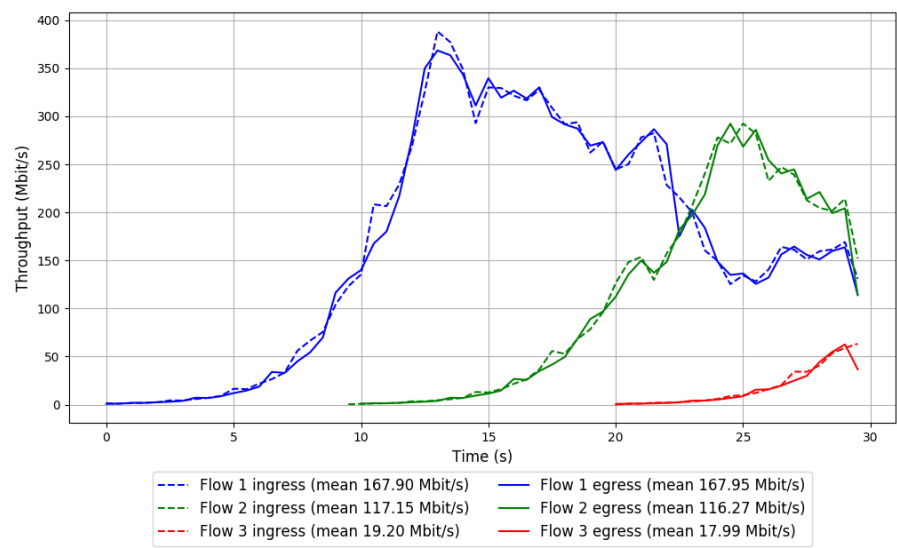
-- Flow 3:

Average throughput: 17.99 Mbit/s

95th percentile per-packet one-way delay: 125.468 ms

Loss rate: 8.96%

Run 4: Report of CalibratedKoho — Data Link



Run 5: Statistics of CalibratedKoho

Start at: 2017-08-31 13:23:56

End at: 2017-08-31 13:24:26

Below is generated by plot.py at 2017-08-31 17:41:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.29 Mbit/s

95th percentile per-packet one-way delay: 135.277 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 188.25 Mbit/s

95th percentile per-packet one-way delay: 137.579 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 102.39 Mbit/s

95th percentile per-packet one-way delay: 131.339 ms

Loss rate: 1.84%

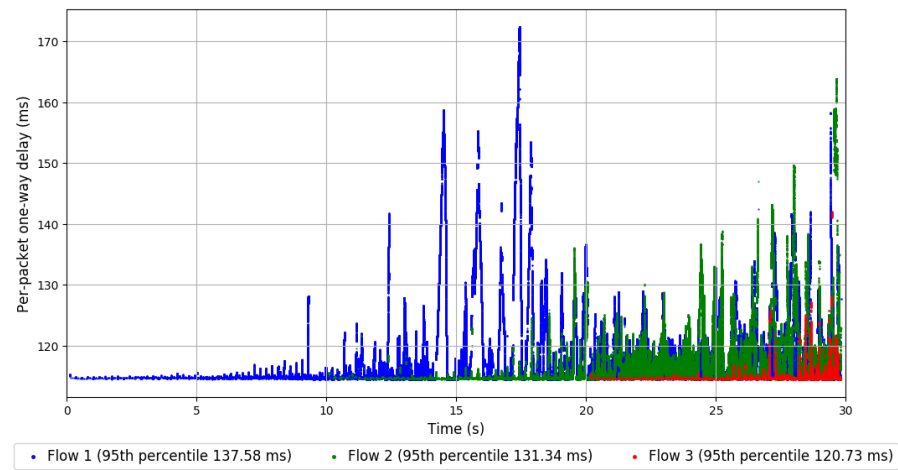
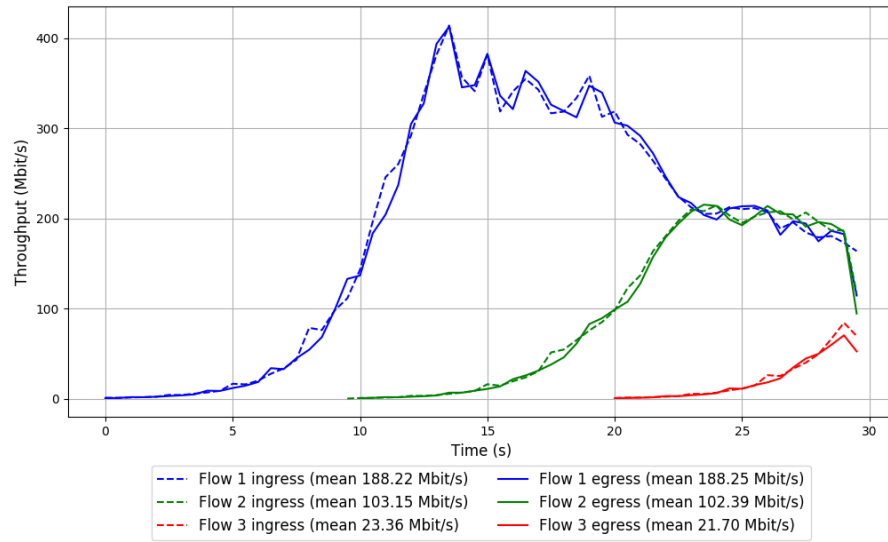
-- Flow 3:

Average throughput: 21.70 Mbit/s

95th percentile per-packet one-way delay: 120.727 ms

Loss rate: 9.22%

Run 5: Report of CalibratedKoho — Data Link



Run 6: Statistics of CalibratedKoho

Start at: 2017-08-31 13:37:14

End at: 2017-08-31 13:37:44

Below is generated by plot.py at 2017-08-31 17:41:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.02 Mbit/s

95th percentile per-packet one-way delay: 143.407 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 187.84 Mbit/s

95th percentile per-packet one-way delay: 143.708 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 97.57 Mbit/s

95th percentile per-packet one-way delay: 143.829 ms

Loss rate: 1.79%

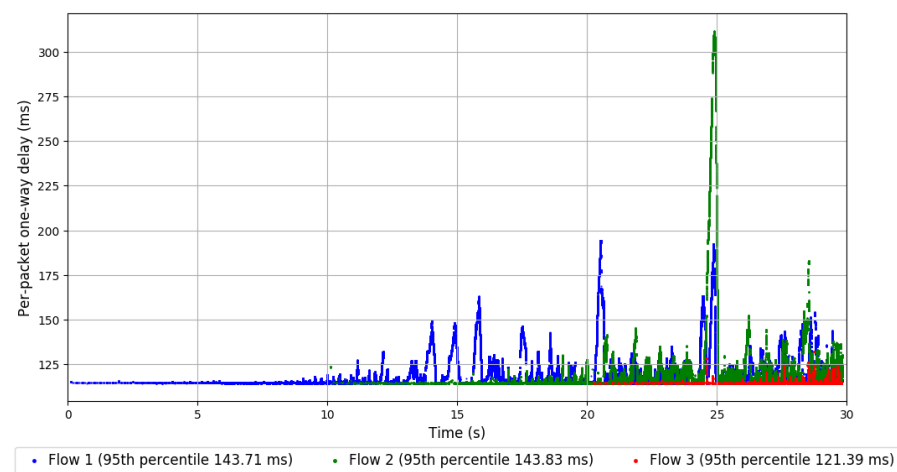
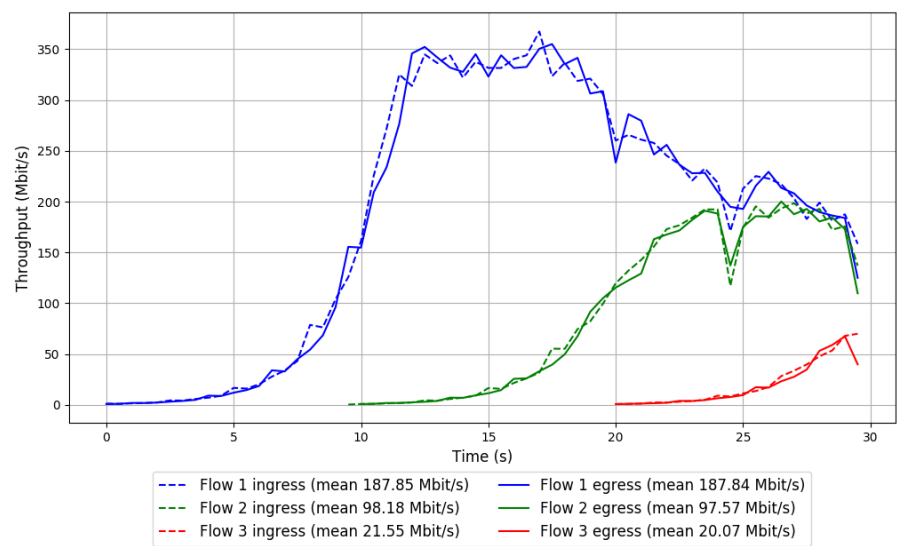
-- Flow 3:

Average throughput: 20.07 Mbit/s

95th percentile per-packet one-way delay: 121.386 ms

Loss rate: 9.03%

Run 6: Report of CalibratedKoho — Data Link



Run 7: Statistics of CalibratedKoho

Start at: 2017-08-31 13:50:44

End at: 2017-08-31 13:51:14

Below is generated by plot.py at 2017-08-31 17:42:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 260.19 Mbit/s

95th percentile per-packet one-way delay: 142.034 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 183.64 Mbit/s

95th percentile per-packet one-way delay: 141.147 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 105.58 Mbit/s

95th percentile per-packet one-way delay: 145.687 ms

Loss rate: 1.84%

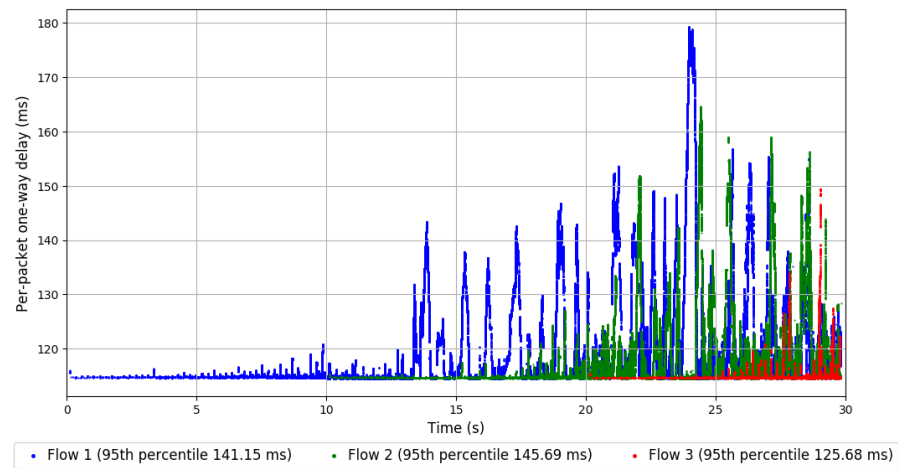
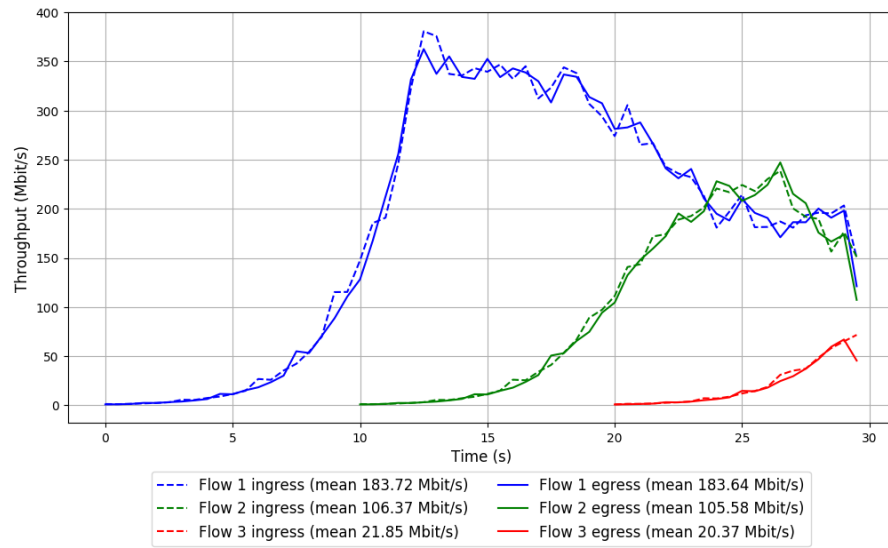
-- Flow 3:

Average throughput: 20.37 Mbit/s

95th percentile per-packet one-way delay: 125.683 ms

Loss rate: 8.98%

Run 7: Report of CalibratedKoho — Data Link



Run 8: Statistics of CalibratedKoho

Start at: 2017-08-31 14:04:12

End at: 2017-08-31 14:04:42

Below is generated by plot.py at 2017-08-31 17:42:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 251.72 Mbit/s

95th percentile per-packet one-way delay: 148.105 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 183.02 Mbit/s

95th percentile per-packet one-way delay: 149.497 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 94.15 Mbit/s

95th percentile per-packet one-way delay: 143.965 ms

Loss rate: 1.96%

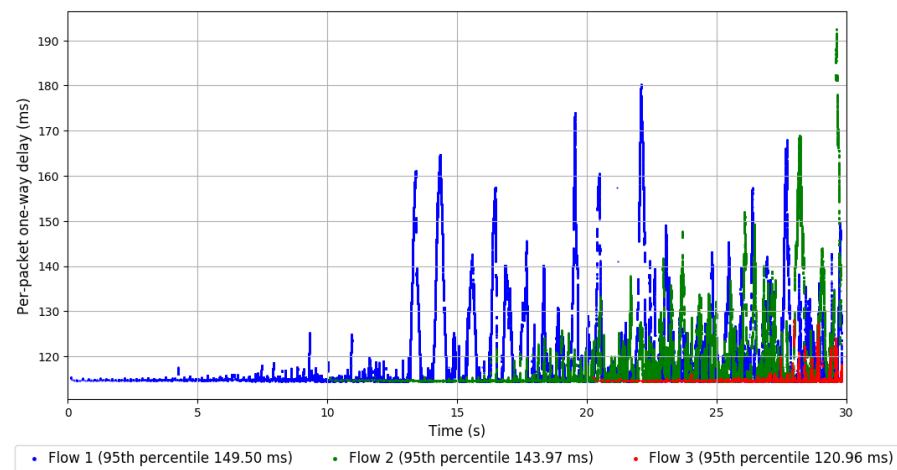
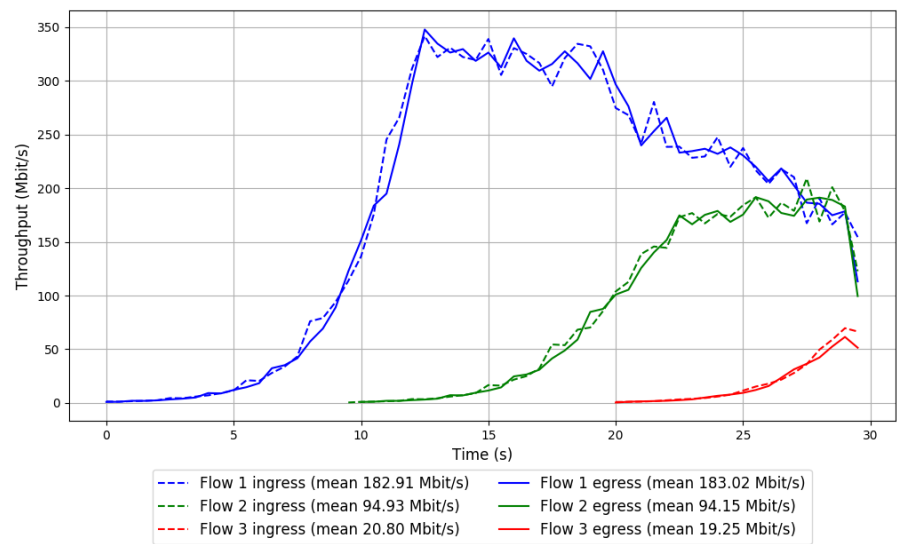
-- Flow 3:

Average throughput: 19.25 Mbit/s

95th percentile per-packet one-way delay: 120.962 ms

Loss rate: 9.68%

Run 8: Report of CalibratedKoho — Data Link



Run 9: Statistics of CalibratedKoho

Start at: 2017-08-31 14:17:32

End at: 2017-08-31 14:18:02

Below is generated by plot.py at 2017-08-31 17:43:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 257.68 Mbit/s

95th percentile per-packet one-way delay: 145.705 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 185.48 Mbit/s

95th percentile per-packet one-way delay: 148.608 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 99.51 Mbit/s

95th percentile per-packet one-way delay: 135.536 ms

Loss rate: 2.49%

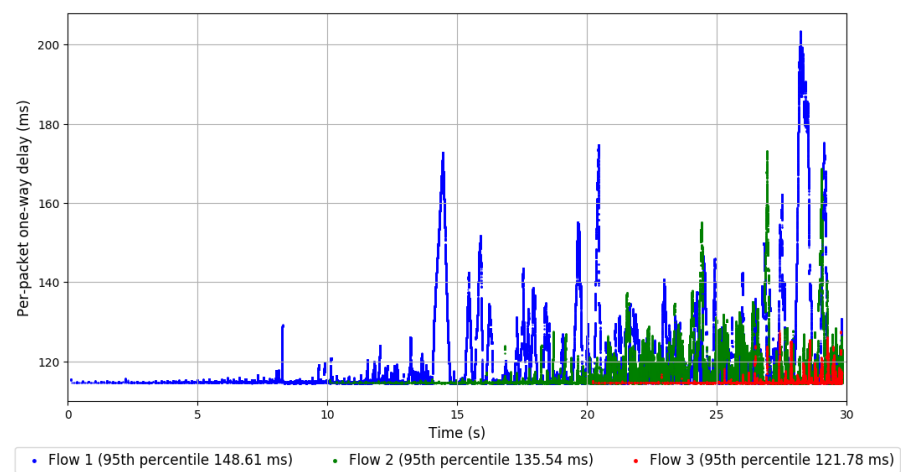
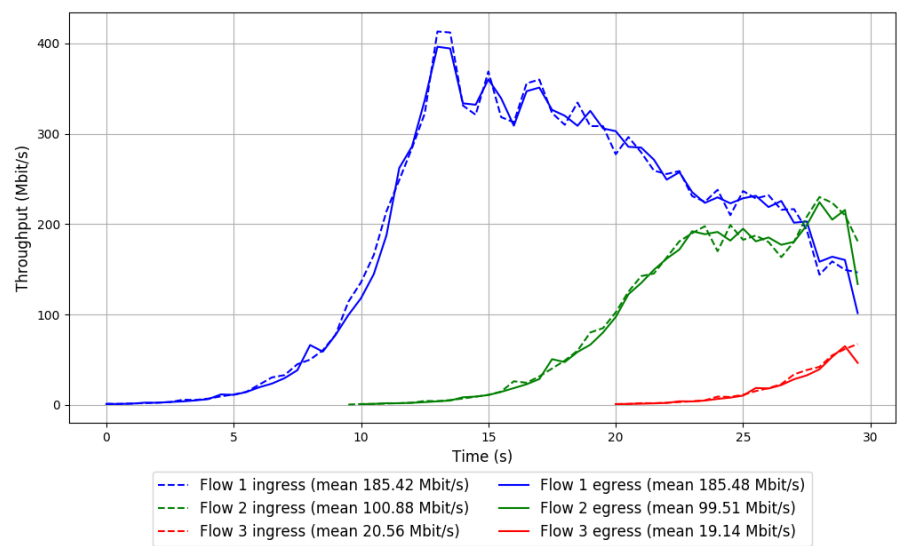
-- Flow 3:

Average throughput: 19.14 Mbit/s

95th percentile per-packet one-way delay: 121.779 ms

Loss rate: 8.93%

Run 9: Report of CalibratedKoho — Data Link



Run 10: Statistics of CalibratedKoho

Start at: 2017-08-31 14:30:58

End at: 2017-08-31 14:31:28

Below is generated by plot.py at 2017-08-31 17:43:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.12 Mbit/s

95th percentile per-packet one-way delay: 150.768 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 186.46 Mbit/s

95th percentile per-packet one-way delay: 154.845 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 95.10 Mbit/s

95th percentile per-packet one-way delay: 139.678 ms

Loss rate: 2.08%

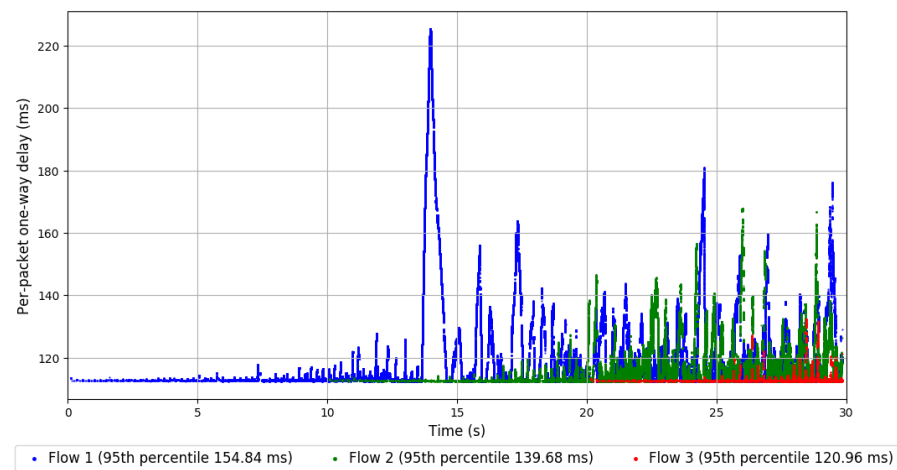
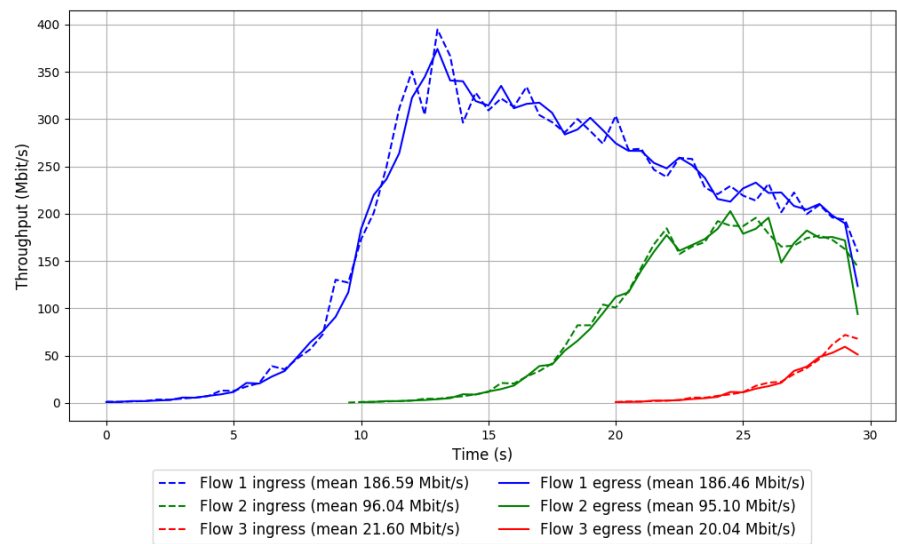
-- Flow 3:

Average throughput: 20.04 Mbit/s

95th percentile per-packet one-way delay: 120.961 ms

Loss rate: 9.32%

Run 10: Report of CalibratedKoho — Data Link



Run 1: Statistics of Copa

Start at: 2017-08-31 12:27:31

End at: 2017-08-31 12:28:01

Below is generated by plot.py at 2017-08-31 17:43:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.40 Mbit/s

95th percentile per-packet one-way delay: 114.701 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 47.71 Mbit/s

95th percentile per-packet one-way delay: 114.700 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 43.20 Mbit/s

95th percentile per-packet one-way delay: 114.704 ms

Loss rate: 1.08%

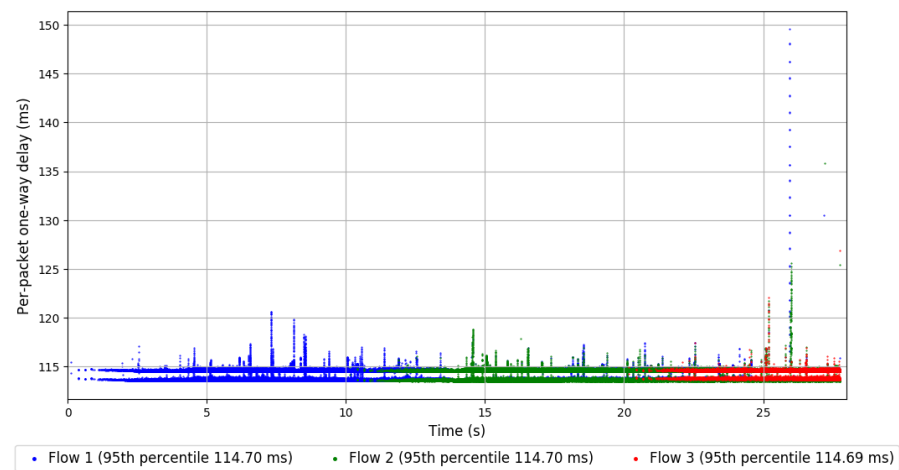
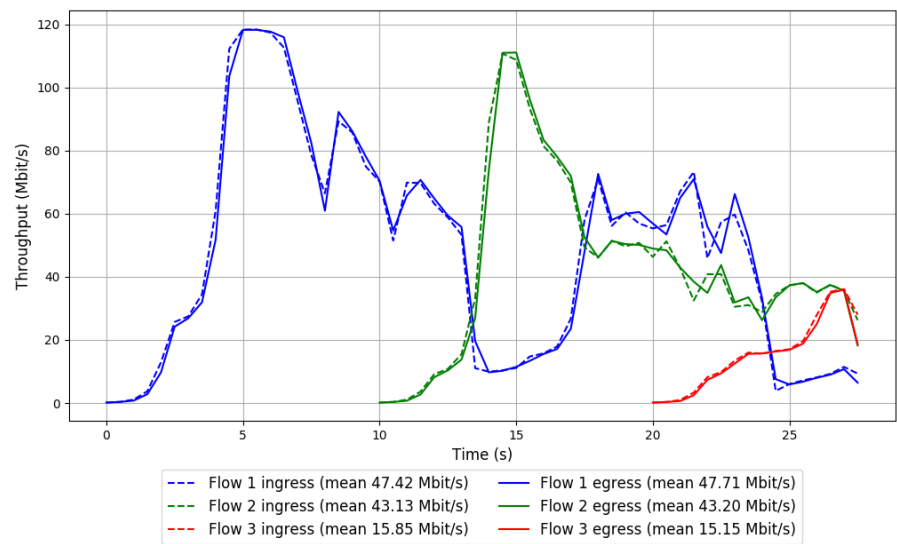
-- Flow 3:

Average throughput: 15.15 Mbit/s

95th percentile per-packet one-way delay: 114.690 ms

Loss rate: 7.13%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-08-31 12:41:00

End at: 2017-08-31 12:41:30

Below is generated by plot.py at 2017-08-31 17:43:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.06 Mbit/s

95th percentile per-packet one-way delay: 114.707 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 49.48 Mbit/s

95th percentile per-packet one-way delay: 114.718 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 69.16 Mbit/s

95th percentile per-packet one-way delay: 114.698 ms

Loss rate: 1.10%

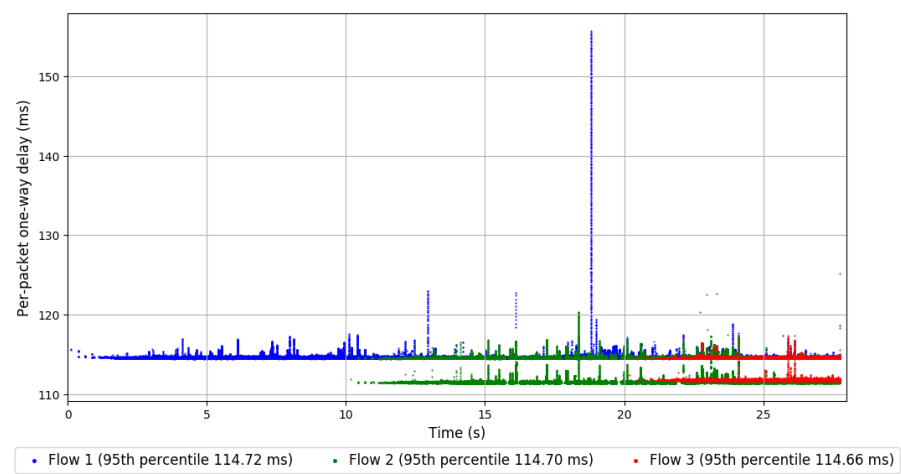
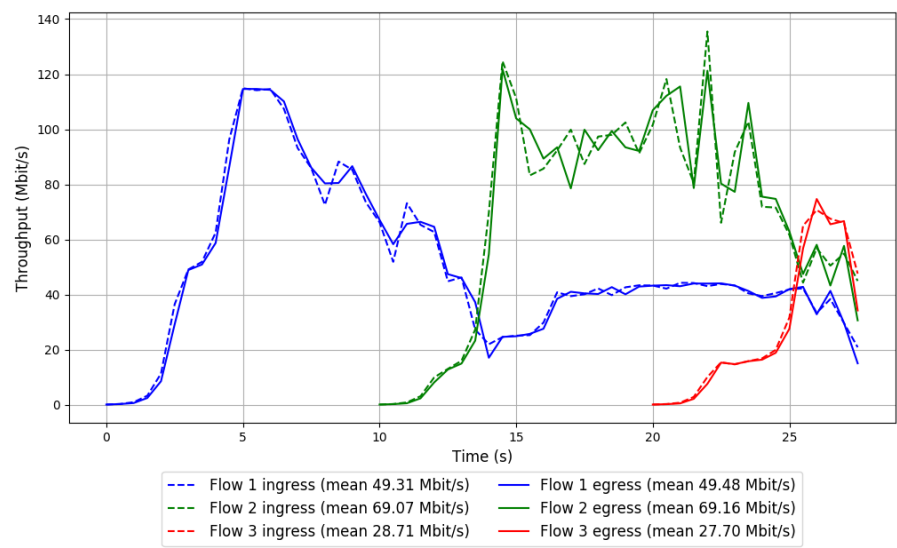
-- Flow 3:

Average throughput: 27.70 Mbit/s

95th percentile per-packet one-way delay: 114.656 ms

Loss rate: 6.31%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-08-31 12:54:39

End at: 2017-08-31 12:55:09

Below is generated by plot.py at 2017-08-31 17:44:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.31 Mbit/s

95th percentile per-packet one-way delay: 114.659 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 53.63 Mbit/s

95th percentile per-packet one-way delay: 114.648 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 44.38 Mbit/s

95th percentile per-packet one-way delay: 114.682 ms

Loss rate: 0.00%

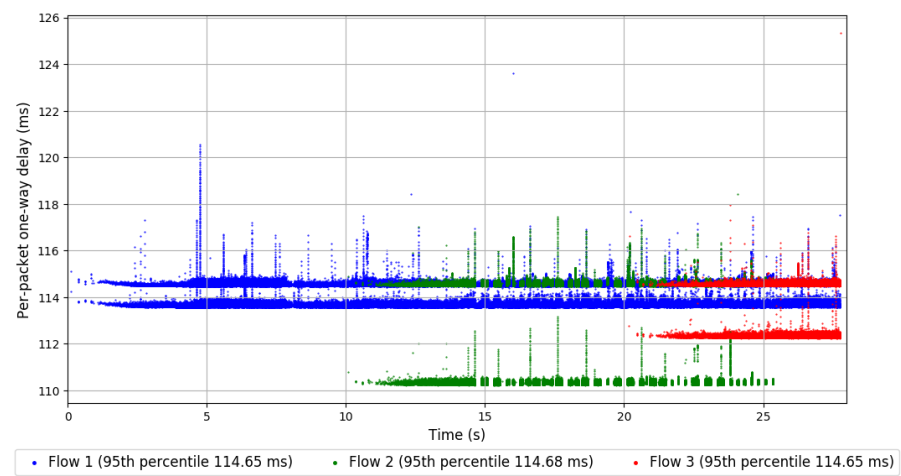
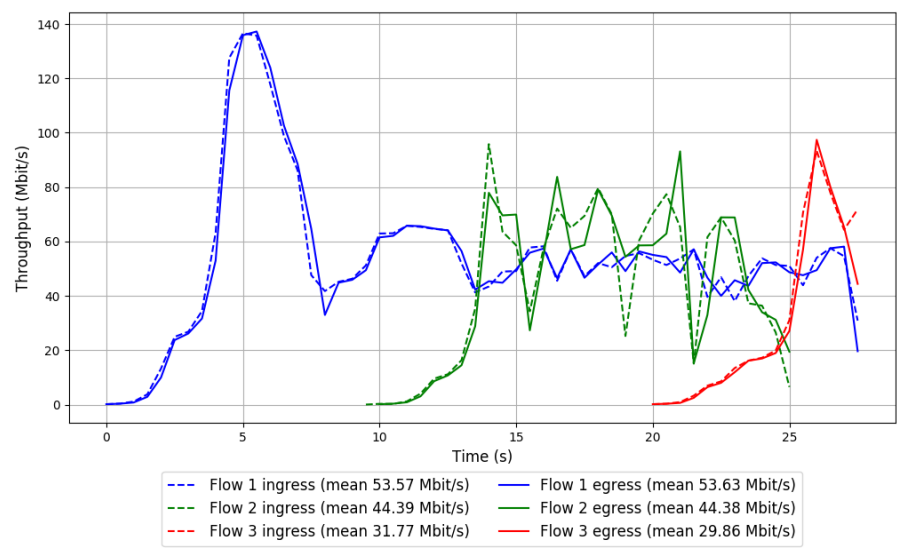
-- Flow 3:

Average throughput: 29.86 Mbit/s

95th percentile per-packet one-way delay: 114.651 ms

Loss rate: 8.64%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-08-31 13:07:47

End at: 2017-08-31 13:08:17

Below is generated by plot.py at 2017-08-31 17:44:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.31 Mbit/s

95th percentile per-packet one-way delay: 114.650 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 50.92 Mbit/s

95th percentile per-packet one-way delay: 114.646 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 44.95 Mbit/s

95th percentile per-packet one-way delay: 114.652 ms

Loss rate: 0.92%

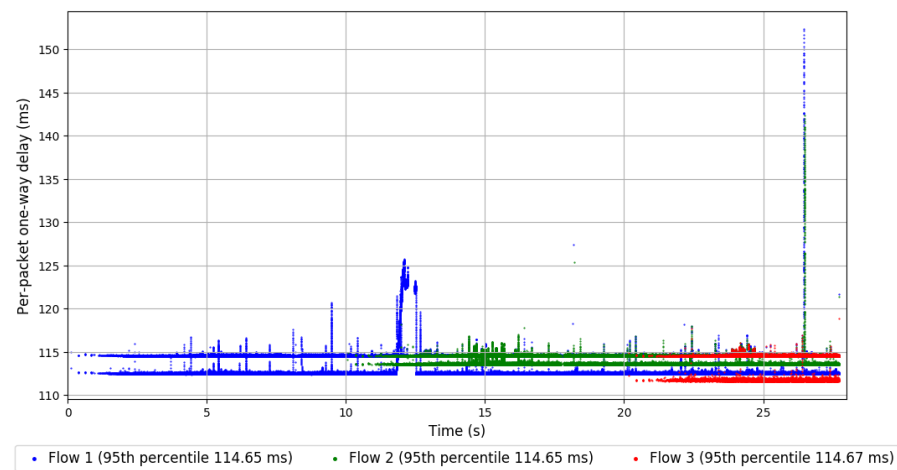
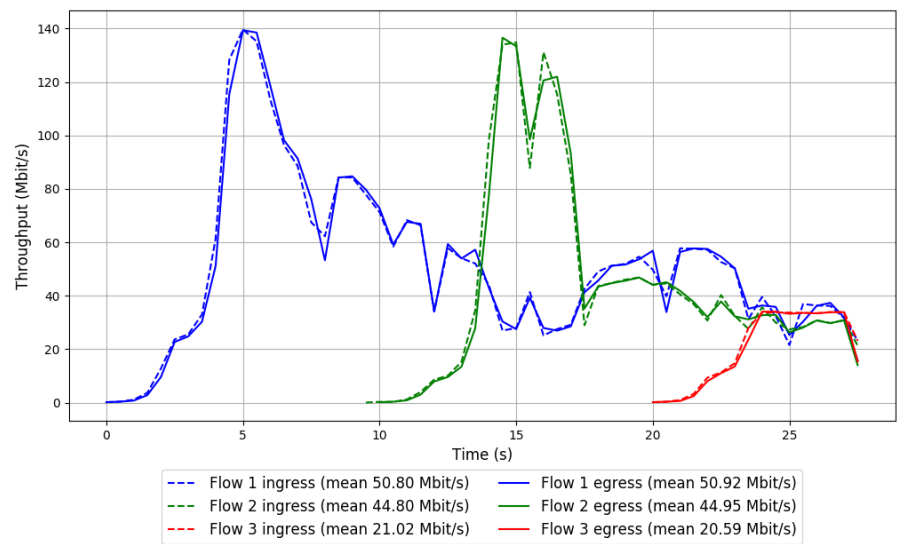
-- Flow 3:

Average throughput: 20.59 Mbit/s

95th percentile per-packet one-way delay: 114.675 ms

Loss rate: 4.85%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2017-08-31 13:21:25

End at: 2017-08-31 13:21:55

Below is generated by plot.py at 2017-08-31 17:44:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.24 Mbit/s

95th percentile per-packet one-way delay: 114.652 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 51.70 Mbit/s

95th percentile per-packet one-way delay: 114.632 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 40.47 Mbit/s

95th percentile per-packet one-way delay: 114.686 ms

Loss rate: 1.14%

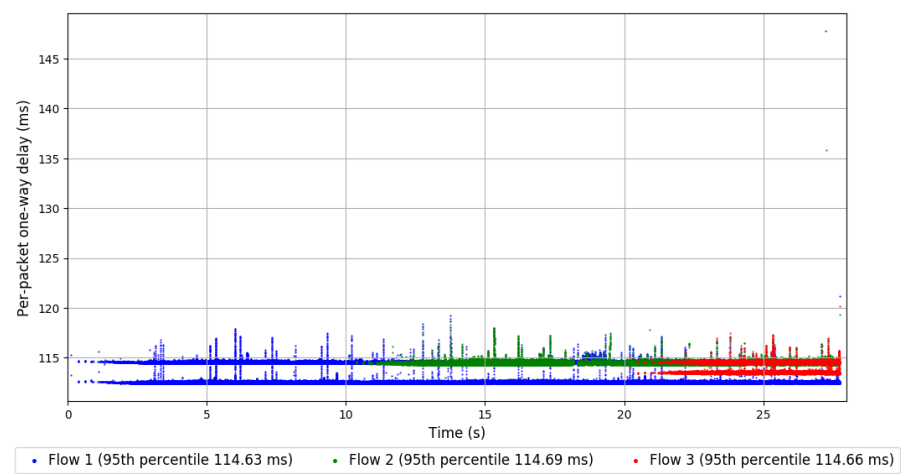
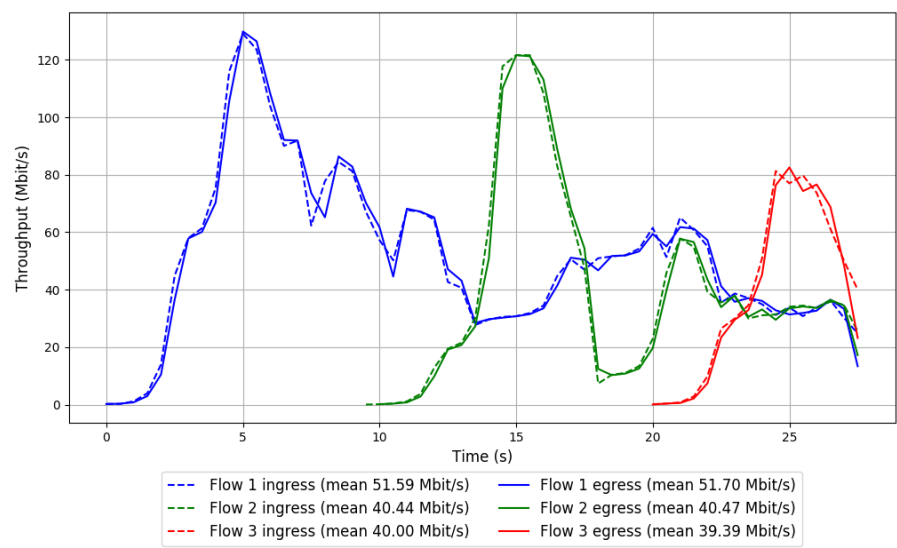
-- Flow 3:

Average throughput: 39.39 Mbit/s

95th percentile per-packet one-way delay: 114.657 ms

Loss rate: 4.38%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2017-08-31 13:34:44

End at: 2017-08-31 13:35:14

Below is generated by plot.py at 2017-08-31 17:44:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.41 Mbit/s

95th percentile per-packet one-way delay: 114.678 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 48.98 Mbit/s

95th percentile per-packet one-way delay: 114.669 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 40.46 Mbit/s

95th percentile per-packet one-way delay: 114.695 ms

Loss rate: 0.98%

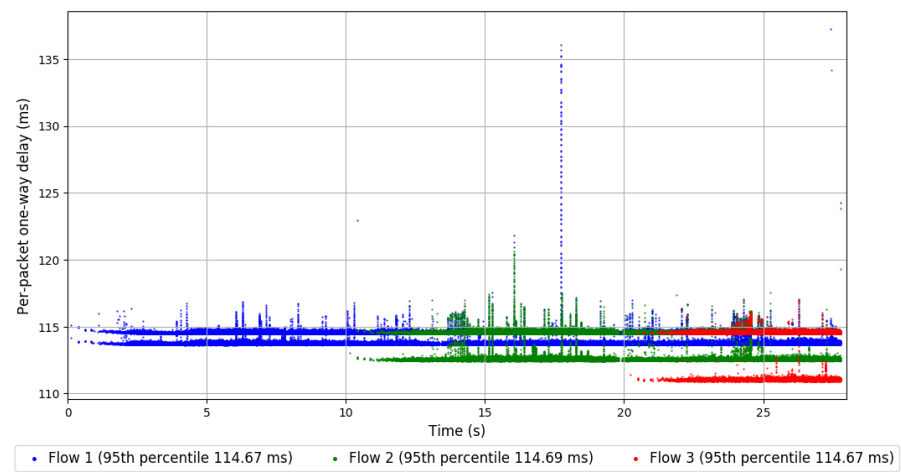
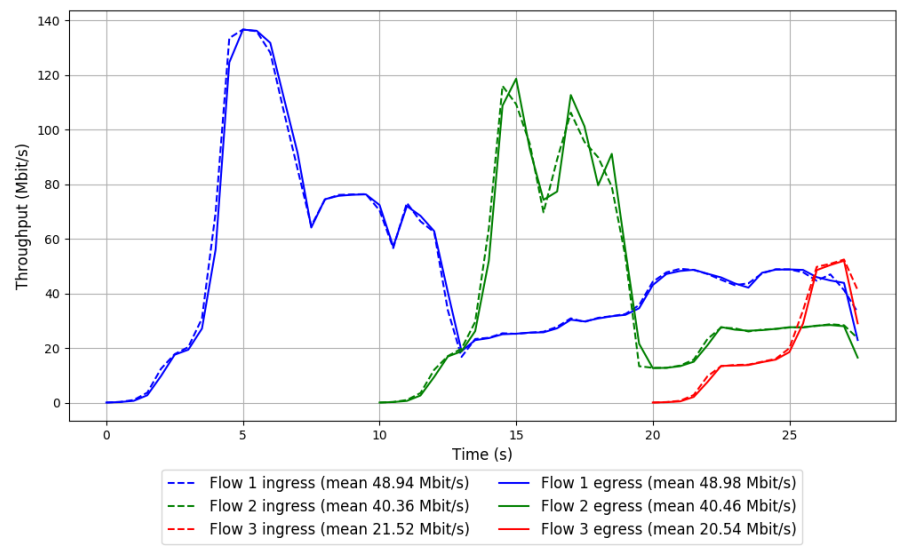
-- Flow 3:

Average throughput: 20.54 Mbit/s

95th percentile per-packet one-way delay: 114.675 ms

Loss rate: 7.27%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-08-31 13:48:13

End at: 2017-08-31 13:48:43

Below is generated by plot.py at 2017-08-31 17:45:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 80.95 Mbit/s

95th percentile per-packet one-way delay: 114.673 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 51.45 Mbit/s

95th percentile per-packet one-way delay: 114.660 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 42.02 Mbit/s

95th percentile per-packet one-way delay: 114.689 ms

Loss rate: 1.04%

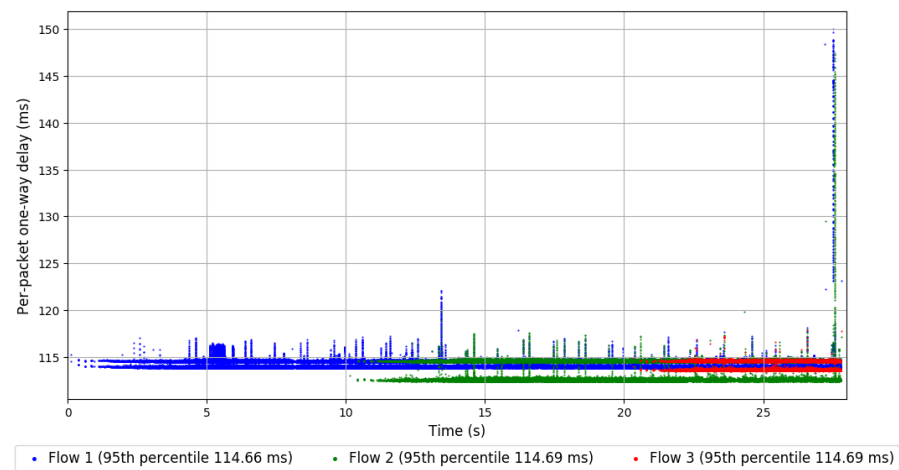
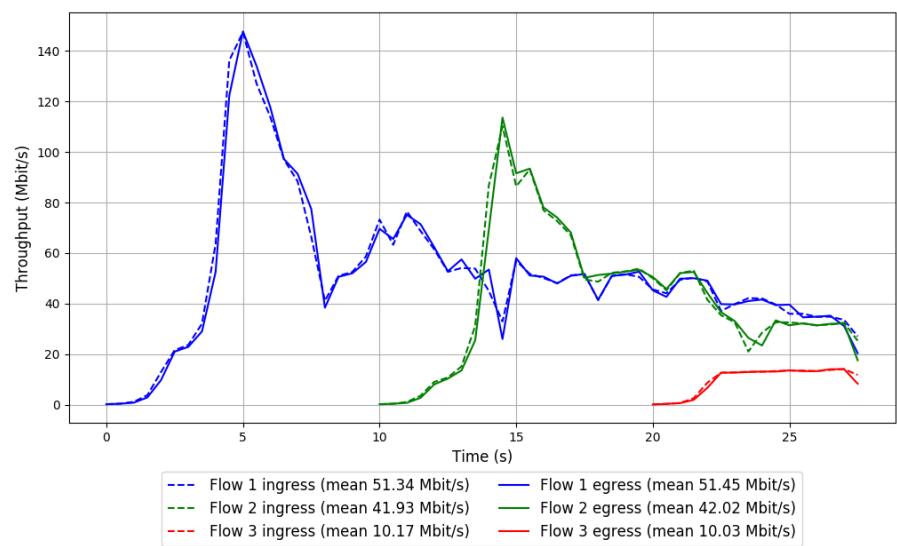
-- Flow 3:

Average throughput: 10.03 Mbit/s

95th percentile per-packet one-way delay: 114.694 ms

Loss rate: 4.24%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2017-08-31 14:01:42

End at: 2017-08-31 14:02:12

Below is generated by plot.py at 2017-08-31 17:45:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.89 Mbit/s

95th percentile per-packet one-way delay: 114.680 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 46.14 Mbit/s

95th percentile per-packet one-way delay: 114.663 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 38.47 Mbit/s

95th percentile per-packet one-way delay: 114.690 ms

Loss rate: 1.05%

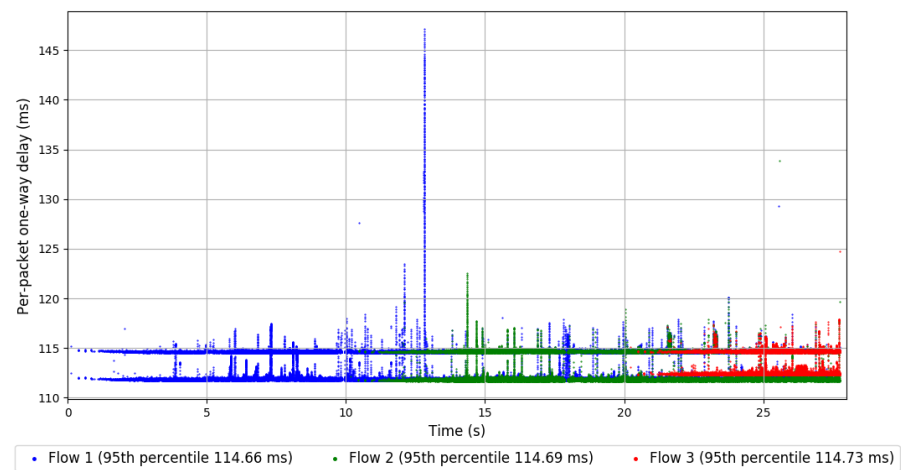
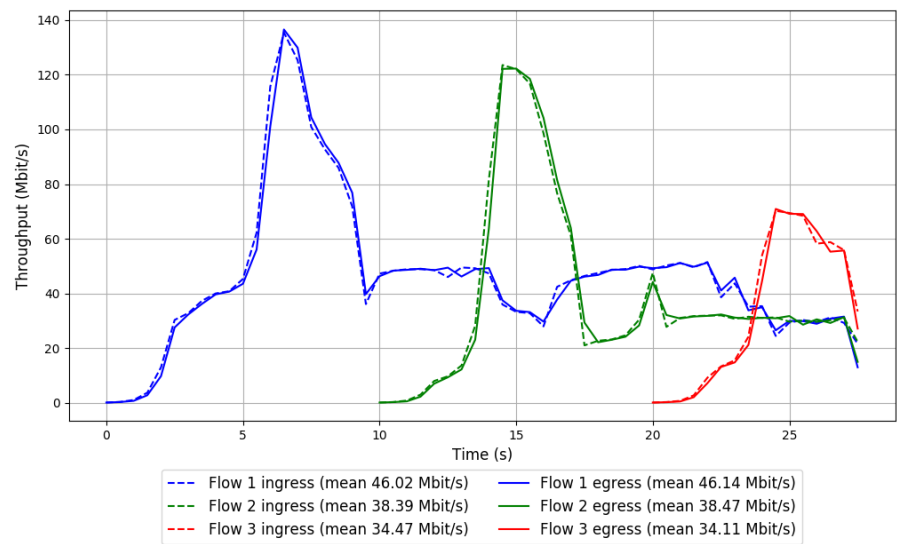
-- Flow 3:

Average throughput: 34.11 Mbit/s

95th percentile per-packet one-way delay: 114.726 ms

Loss rate: 3.85%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2017-08-31 14:15:01

End at: 2017-08-31 14:15:31

Below is generated by plot.py at 2017-08-31 17:45:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.48 Mbit/s

95th percentile per-packet one-way delay: 114.690 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 50.74 Mbit/s

95th percentile per-packet one-way delay: 114.682 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 42.16 Mbit/s

95th percentile per-packet one-way delay: 114.703 ms

Loss rate: 0.79%

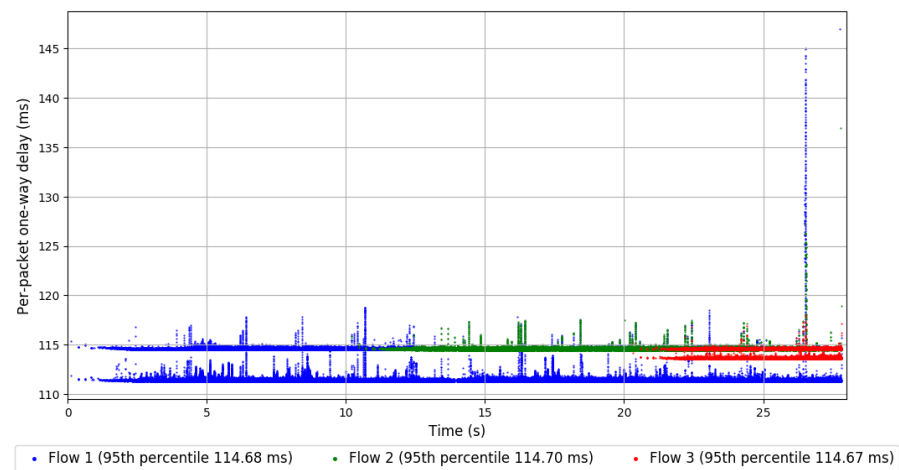
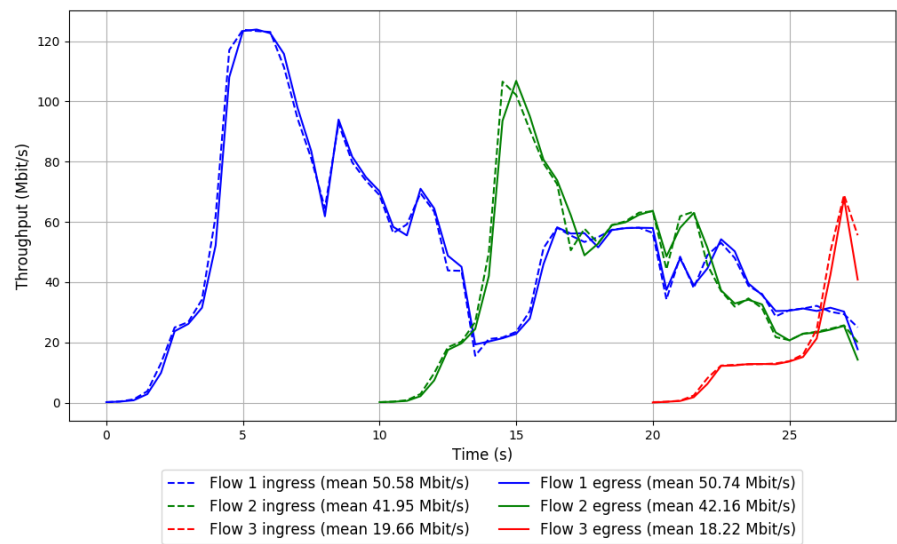
-- Flow 3:

Average throughput: 18.22 Mbit/s

95th percentile per-packet one-way delay: 114.672 ms

Loss rate: 10.06%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2017-08-31 14:28:28

End at: 2017-08-31 14:28:58

Below is generated by plot.py at 2017-08-31 17:45:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.36 Mbit/s

95th percentile per-packet one-way delay: 113.826 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 52.42 Mbit/s

95th percentile per-packet one-way delay: 113.848 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 36.81 Mbit/s

95th percentile per-packet one-way delay: 112.743 ms

Loss rate: 1.25%

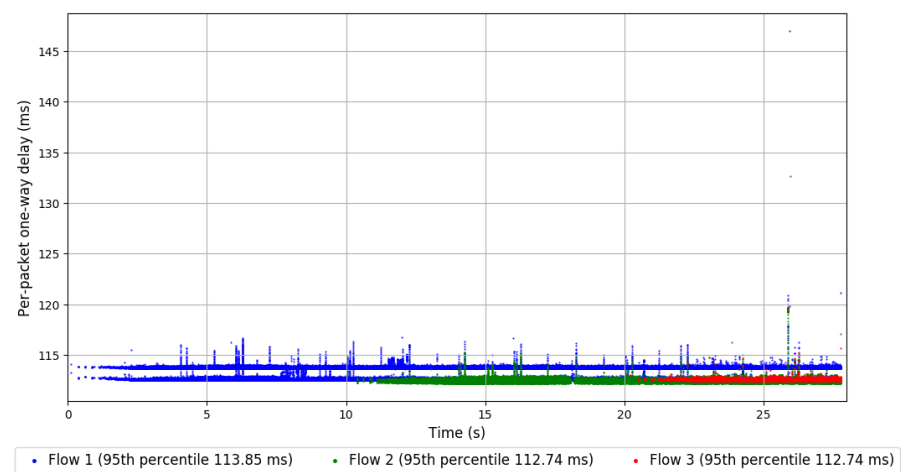
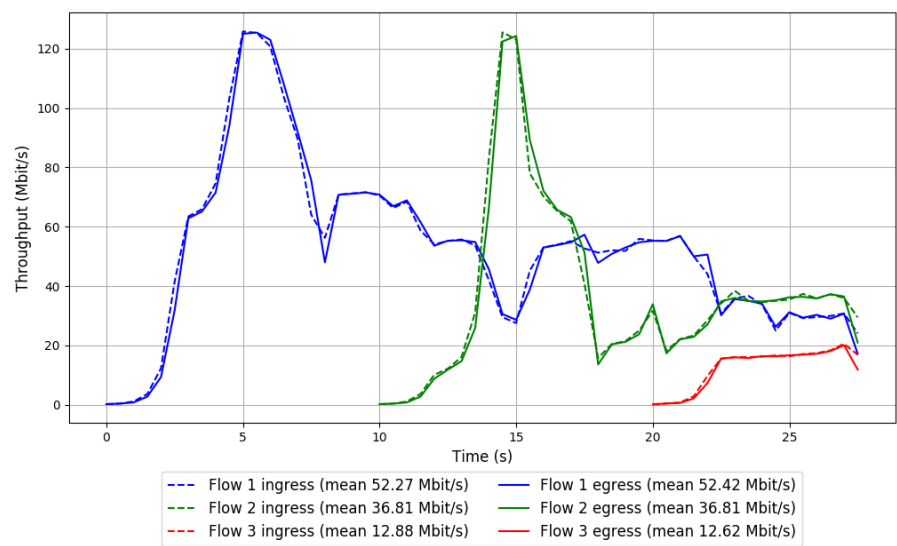
-- Flow 3:

Average throughput: 12.62 Mbit/s

95th percentile per-packet one-way delay: 112.742 ms

Loss rate: 4.85%

Run 10: Report of Copa — Data Link

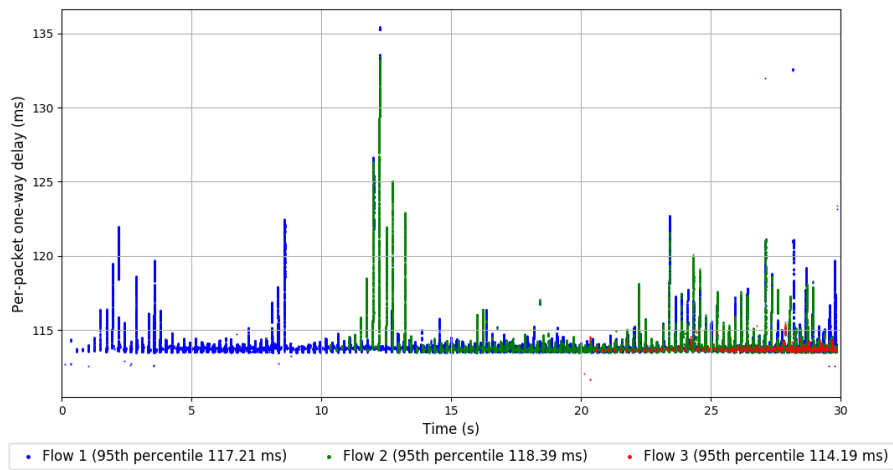
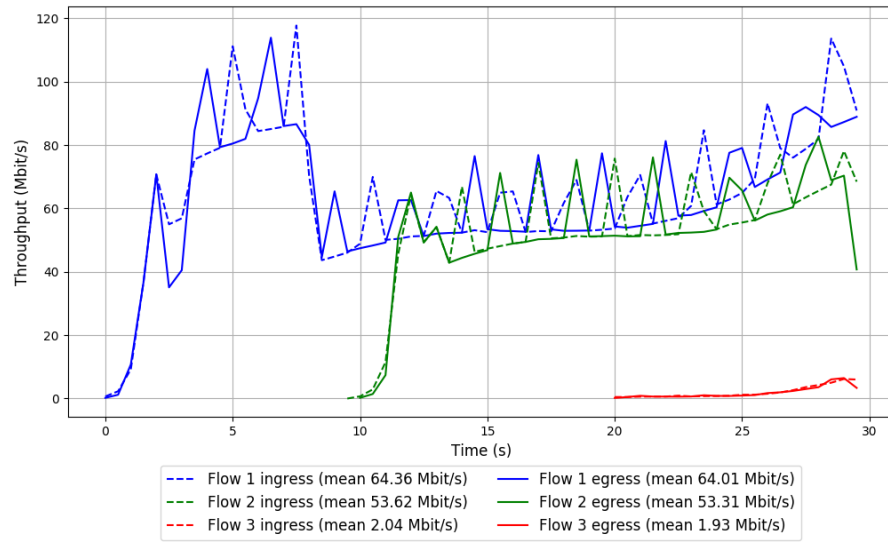


```
Run 1: Statistics of TCP Cubic

Start at: 2017-08-31 12:20:18
End at: 2017-08-31 12:20:48

# Below is generated by plot.py at 2017-08-31 17:46:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 100.02 Mbit/s
95th percentile per-packet one-way delay: 117.540 ms
Loss rate: 1.46%
-- Flow 1:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 117.208 ms
Loss rate: 1.25%
-- Flow 2:
Average throughput: 53.31 Mbit/s
95th percentile per-packet one-way delay: 118.394 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 114.195 ms
Loss rate: 7.55%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-08-31 12:33:45

End at: 2017-08-31 12:34:15

Below is generated by plot.py at 2017-08-31 17:46:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.18 Mbit/s

95th percentile per-packet one-way delay: 124.021 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 84.66 Mbit/s

95th percentile per-packet one-way delay: 122.913 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 52.75 Mbit/s

95th percentile per-packet one-way delay: 126.178 ms

Loss rate: 1.10%

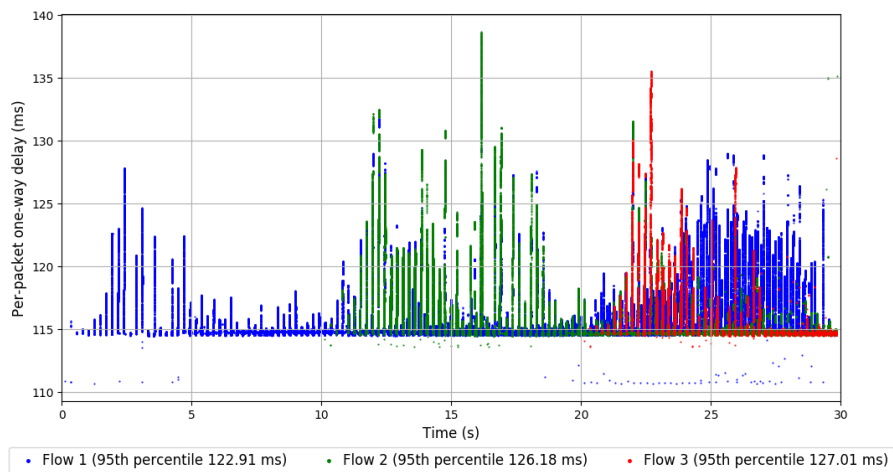
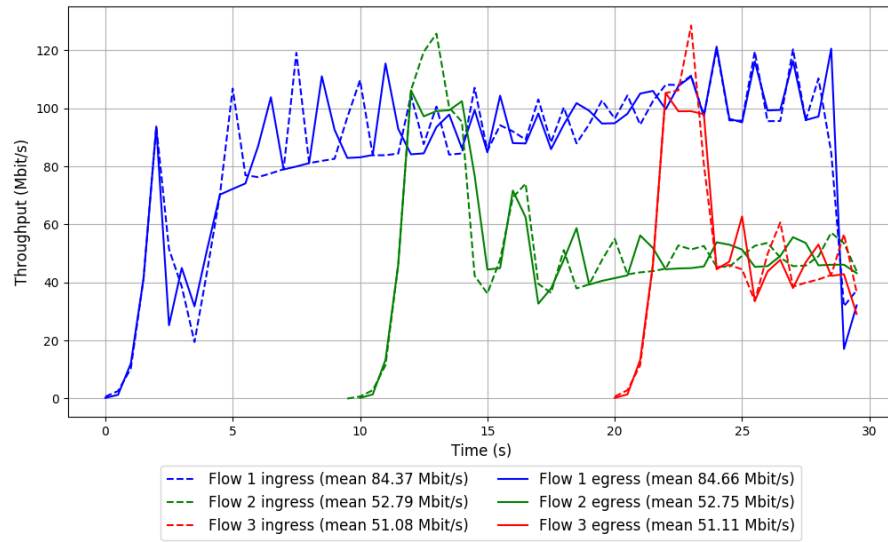
-- Flow 3:

Average throughput: 51.11 Mbit/s

95th percentile per-packet one-way delay: 127.010 ms

Loss rate: 2.22%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-08-31 12:47:32

End at: 2017-08-31 12:48:02

Below is generated by plot.py at 2017-08-31 17:46:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.88 Mbit/s

95th percentile per-packet one-way delay: 122.820 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 63.90 Mbit/s

95th percentile per-packet one-way delay: 121.151 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 57.51 Mbit/s

95th percentile per-packet one-way delay: 122.626 ms

Loss rate: 1.41%

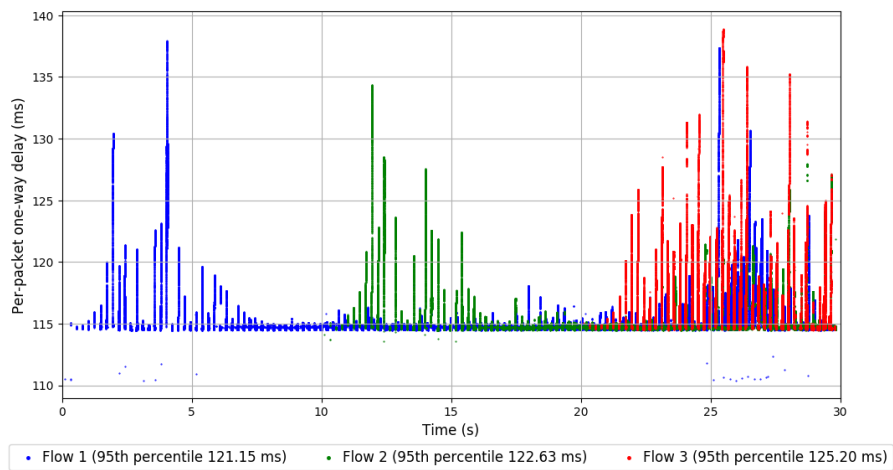
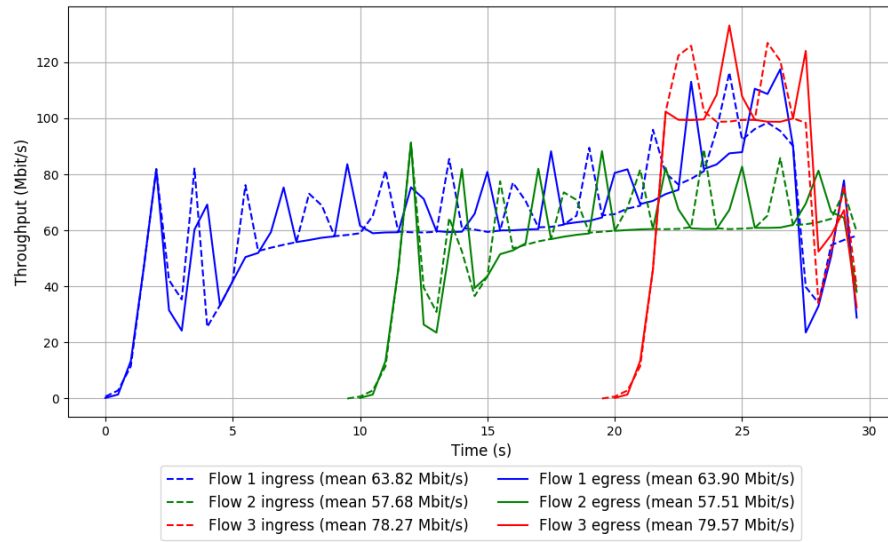
-- Flow 3:

Average throughput: 79.57 Mbit/s

95th percentile per-packet one-way delay: 125.197 ms

Loss rate: 1.02%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-08-31 13:00:48

End at: 2017-08-31 13:01:18

Below is generated by plot.py at 2017-08-31 17:46:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.15 Mbit/s

95th percentile per-packet one-way delay: 119.225 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 39.47 Mbit/s

95th percentile per-packet one-way delay: 116.079 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 40.60 Mbit/s

95th percentile per-packet one-way delay: 120.244 ms

Loss rate: 0.73%

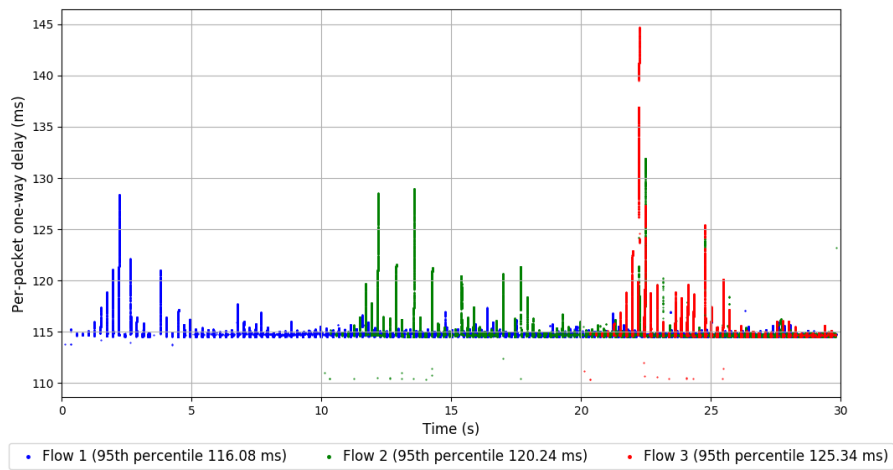
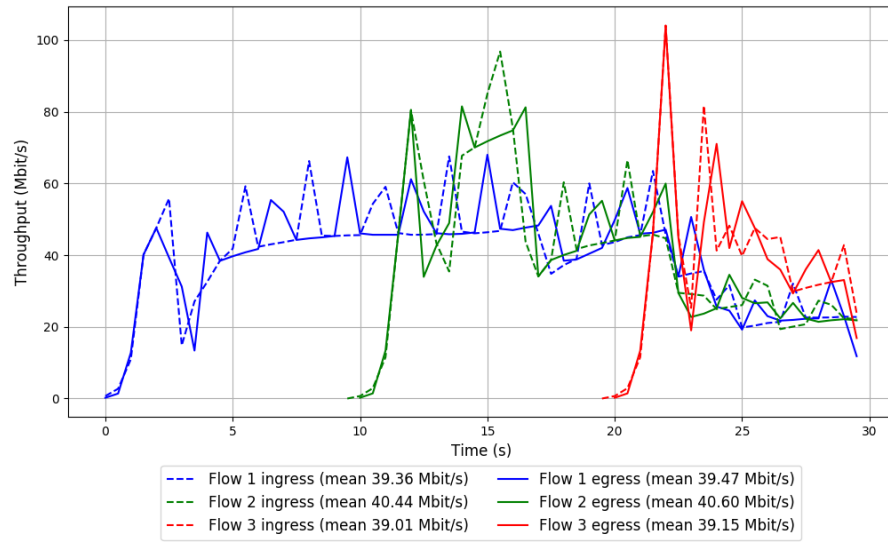
-- Flow 3:

Average throughput: 39.15 Mbit/s

95th percentile per-packet one-way delay: 125.336 ms

Loss rate: 2.28%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-08-31 13:14:00

End at: 2017-08-31 13:14:30

Below is generated by plot.py at 2017-08-31 17:46:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.52 Mbit/s

95th percentile per-packet one-way delay: 120.184 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 54.46 Mbit/s

95th percentile per-packet one-way delay: 121.230 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 72.26 Mbit/s

95th percentile per-packet one-way delay: 116.805 ms

Loss rate: 1.40%

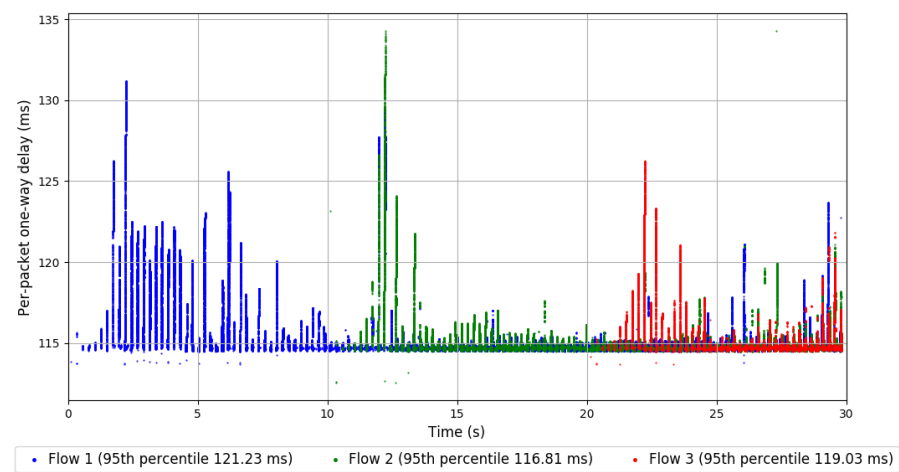
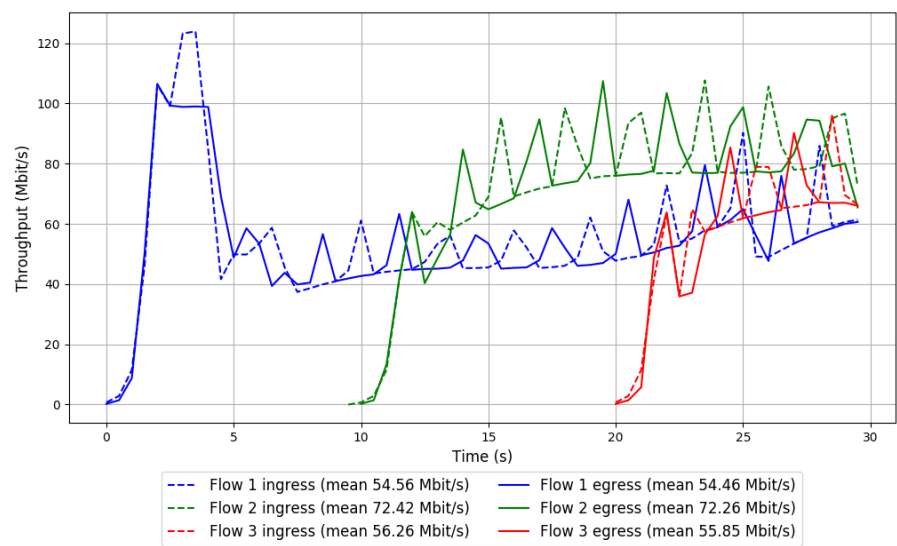
-- Flow 3:

Average throughput: 55.85 Mbit/s

95th percentile per-packet one-way delay: 119.030 ms

Loss rate: 3.02%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-08-31 13:27:40

End at: 2017-08-31 13:28:10

Below is generated by plot.py at 2017-08-31 17:47:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.11 Mbit/s

95th percentile per-packet one-way delay: 120.599 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 53.84 Mbit/s

95th percentile per-packet one-way delay: 116.772 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 47.39 Mbit/s

95th percentile per-packet one-way delay: 119.599 ms

Loss rate: 1.49%

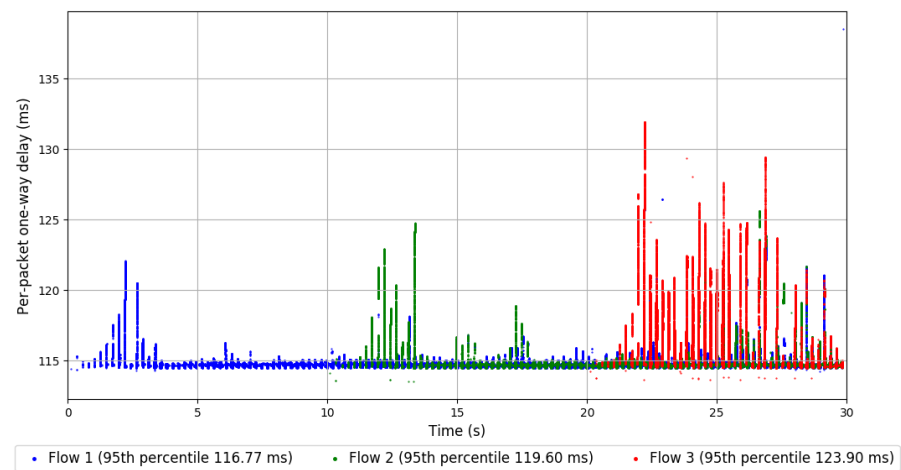
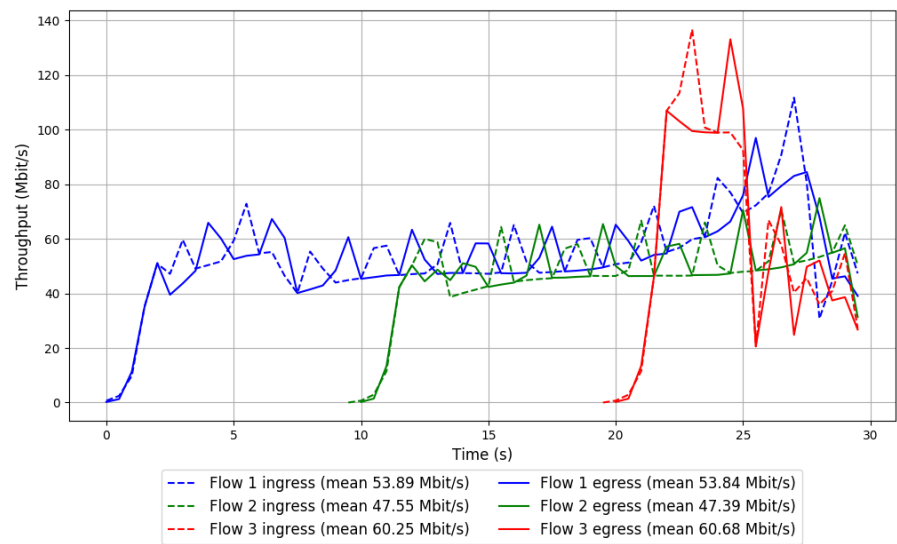
-- Flow 3:

Average throughput: 60.68 Mbit/s

95th percentile per-packet one-way delay: 123.904 ms

Loss rate: 1.67%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-08-31 13:40:57

End at: 2017-08-31 13:41:27

Below is generated by plot.py at 2017-08-31 17:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.77 Mbit/s

95th percentile per-packet one-way delay: 122.319 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 59.95 Mbit/s

95th percentile per-packet one-way delay: 123.032 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 51.54 Mbit/s

95th percentile per-packet one-way delay: 119.882 ms

Loss rate: 1.43%

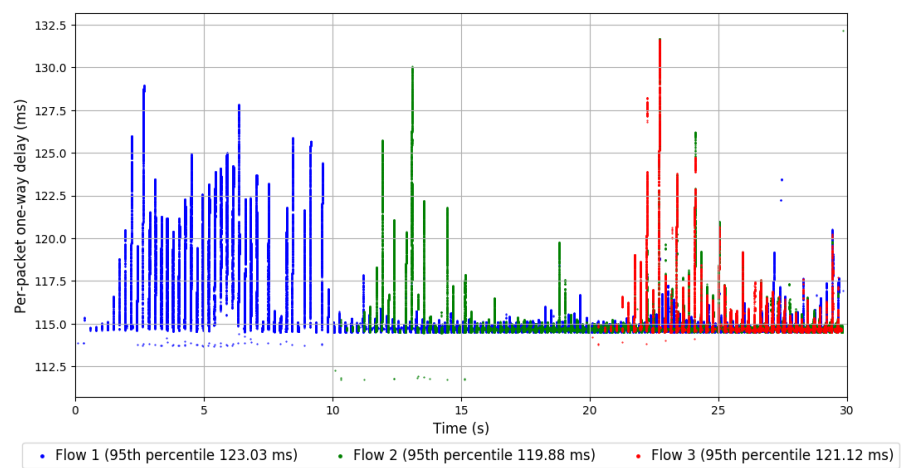
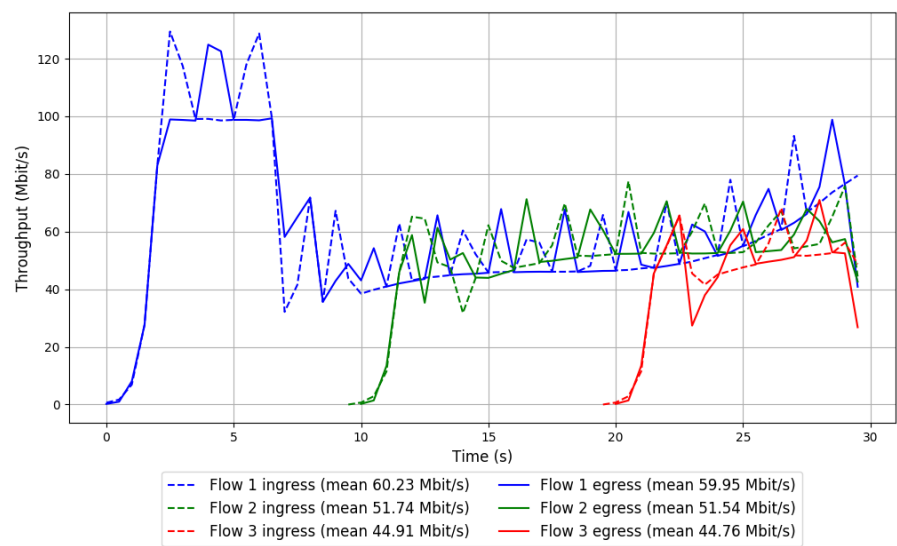
-- Flow 3:

Average throughput: 44.76 Mbit/s

95th percentile per-packet one-way delay: 121.122 ms

Loss rate: 2.94%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-08-31 13:54:28

End at: 2017-08-31 13:54:58

Below is generated by plot.py at 2017-08-31 17:47:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.45 Mbit/s

95th percentile per-packet one-way delay: 120.960 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 65.08 Mbit/s

95th percentile per-packet one-way delay: 121.699 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 60.58 Mbit/s

95th percentile per-packet one-way delay: 119.212 ms

Loss rate: 1.42%

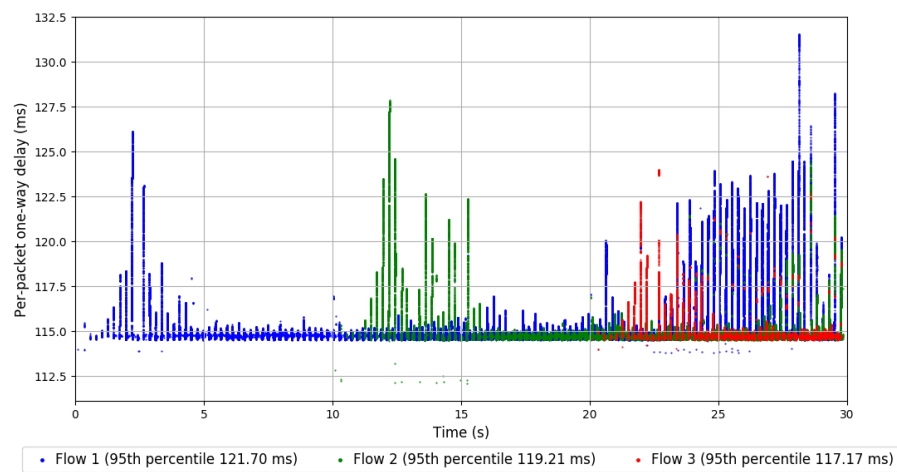
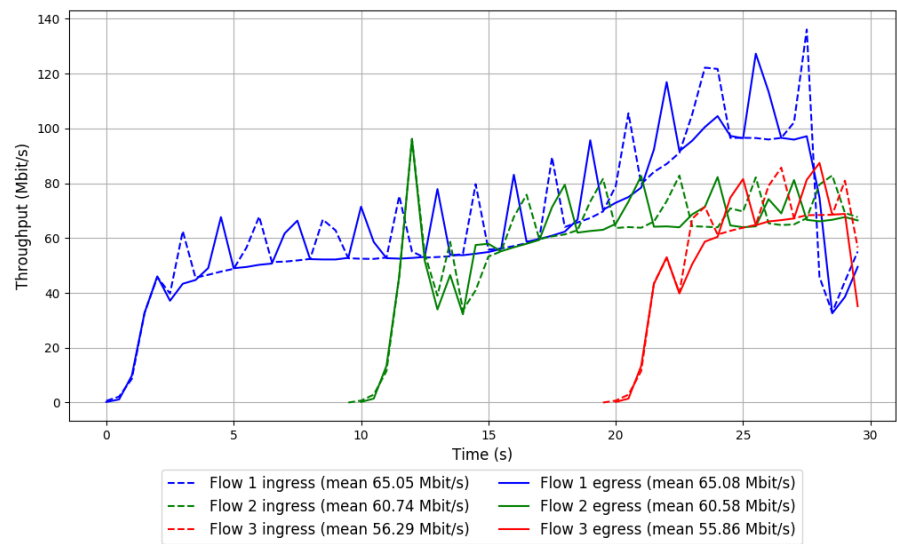
-- Flow 3:

Average throughput: 55.86 Mbit/s

95th percentile per-packet one-way delay: 117.172 ms

Loss rate: 3.08%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-08-31 14:07:54

End at: 2017-08-31 14:08:24

Below is generated by plot.py at 2017-08-31 17:47:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.58 Mbit/s

95th percentile per-packet one-way delay: 121.912 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 71.01 Mbit/s

95th percentile per-packet one-way delay: 122.055 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 49.91 Mbit/s

95th percentile per-packet one-way delay: 120.355 ms

Loss rate: 1.31%

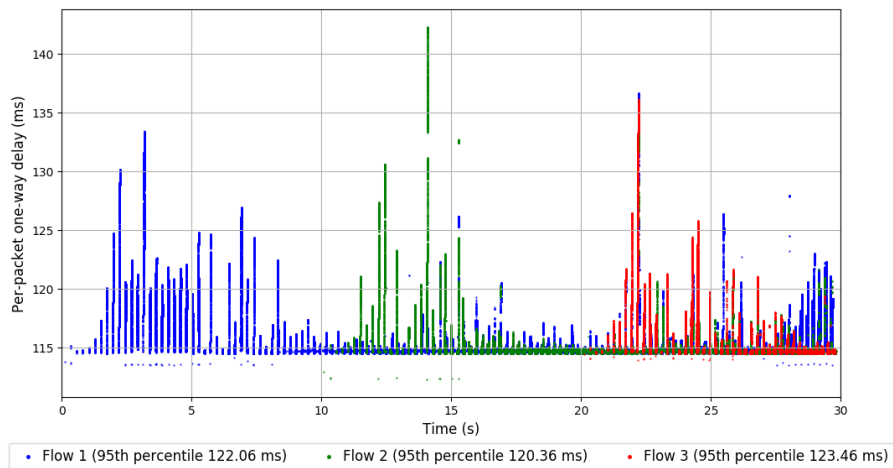
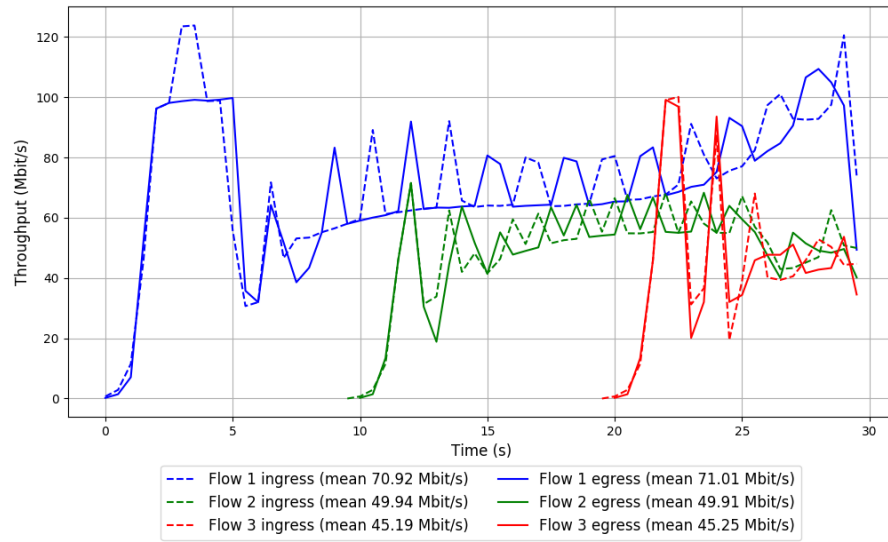
-- Flow 3:

Average throughput: 45.25 Mbit/s

95th percentile per-packet one-way delay: 123.458 ms

Loss rate: 2.52%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-08-31 14:21:14

End at: 2017-08-31 14:21:44

Below is generated by plot.py at 2017-08-31 17:47:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.19 Mbit/s

95th percentile per-packet one-way delay: 122.603 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 71.18 Mbit/s

95th percentile per-packet one-way delay: 121.827 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 45.70 Mbit/s

95th percentile per-packet one-way delay: 120.485 ms

Loss rate: 1.32%

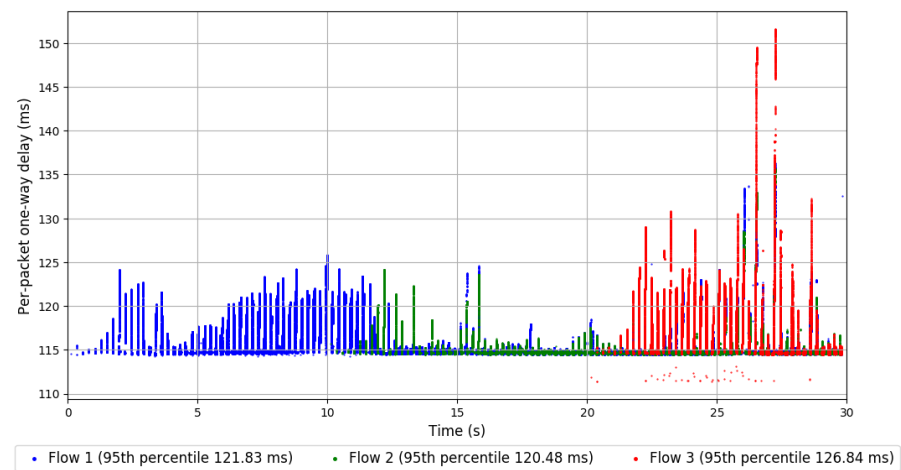
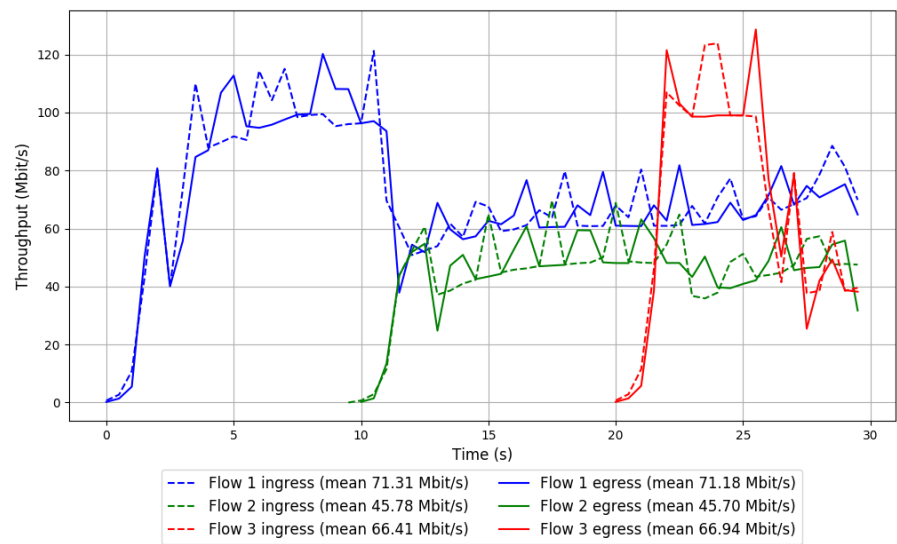
-- Flow 3:

Average throughput: 66.94 Mbit/s

95th percentile per-packet one-way delay: 126.844 ms

Loss rate: 1.53%

Run 10: Report of TCP Cubic — Data Link

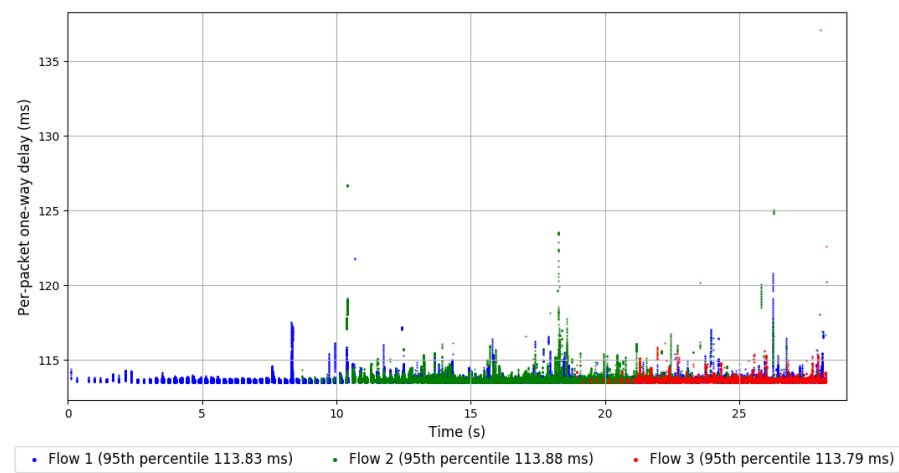
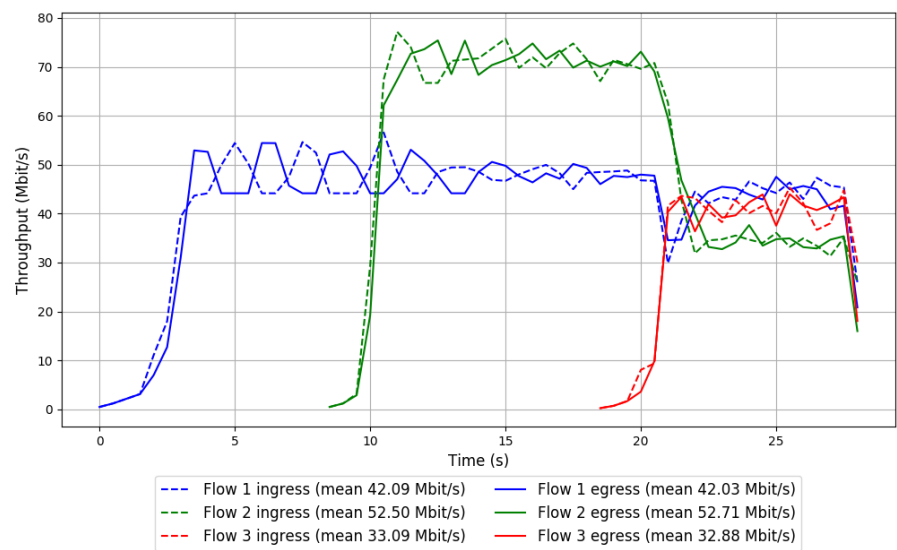


```
Run 1: Statistics of Indigo

Start at: 2017-08-31 12:24:16
End at: 2017-08-31 12:24:46

# Below is generated by plot.py at 2017-08-31 17:47:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 89.42 Mbit/s
95th percentile per-packet one-way delay: 113.847 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 42.03 Mbit/s
95th percentile per-packet one-way delay: 113.835 ms
Loss rate: 0.92%
-- Flow 2:
Average throughput: 52.71 Mbit/s
95th percentile per-packet one-way delay: 113.878 ms
Loss rate: 0.77%
-- Flow 3:
Average throughput: 32.88 Mbit/s
95th percentile per-packet one-way delay: 113.789 ms
Loss rate: 2.93%
```


Run 1: Report of Indigo — Data Link

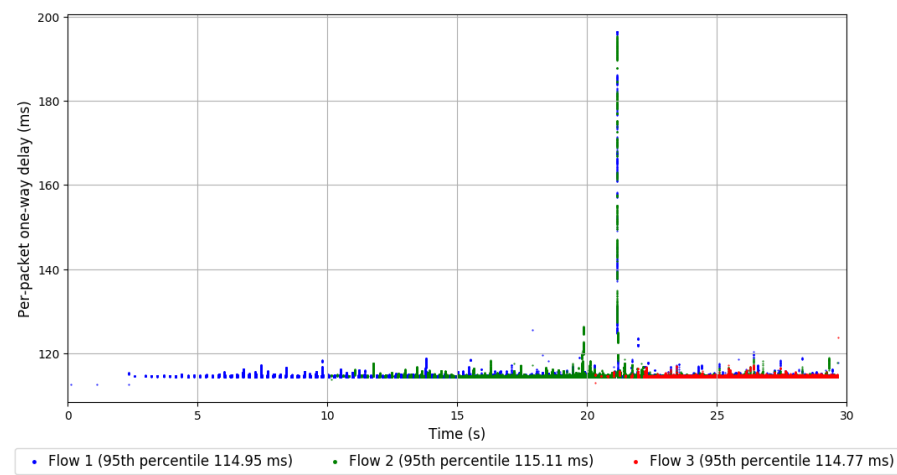
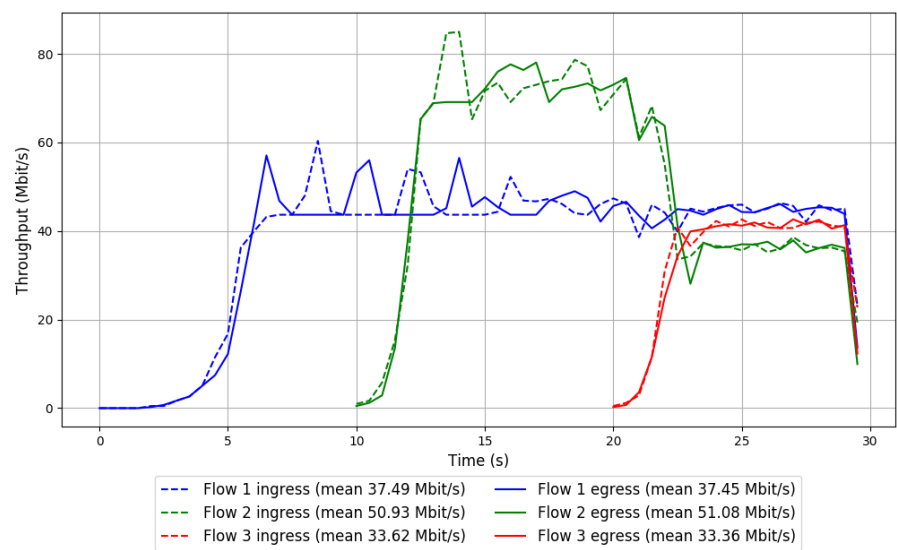


```
Run 2: Statistics of Indigo

Start at: 2017-08-31 12:37:44
End at: 2017-08-31 12:38:14

# Below is generated by plot.py at 2017-08-31 17:48:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 81.74 Mbit/s
95th percentile per-packet one-way delay: 114.968 ms
Loss rate: 1.15%
-- Flow 1:
Average throughput: 37.45 Mbit/s
95th percentile per-packet one-way delay: 114.949 ms
Loss rate: 0.88%
-- Flow 2:
Average throughput: 51.08 Mbit/s
95th percentile per-packet one-way delay: 115.109 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 33.36 Mbit/s
95th percentile per-packet one-way delay: 114.772 ms
Loss rate: 3.04%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-08-31 12:51:24

End at: 2017-08-31 12:51:54

Below is generated by plot.py at 2017-08-31 17:48:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.34 Mbit/s

95th percentile per-packet one-way delay: 114.814 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 37.41 Mbit/s

95th percentile per-packet one-way delay: 114.843 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 52.10 Mbit/s

95th percentile per-packet one-way delay: 114.809 ms

Loss rate: 0.73%

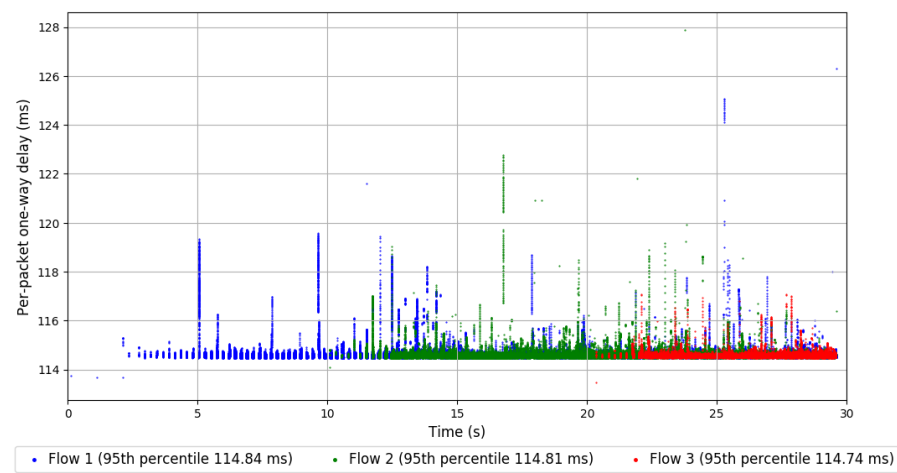
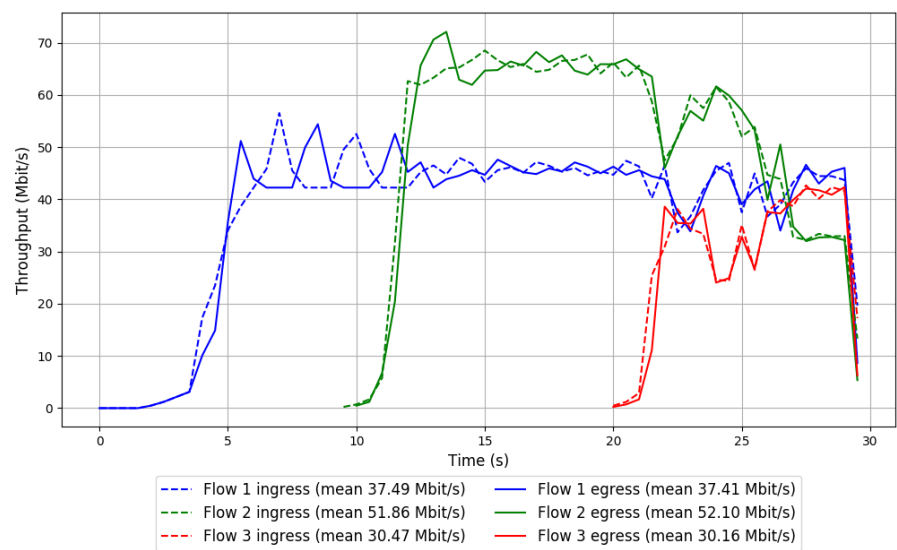
-- Flow 3:

Average throughput: 30.16 Mbit/s

95th percentile per-packet one-way delay: 114.739 ms

Loss rate: 3.41%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-08-31 13:04:32

End at: 2017-08-31 13:05:02

Below is generated by plot.py at 2017-08-31 17:48:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.94 Mbit/s

95th percentile per-packet one-way delay: 114.764 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 35.91 Mbit/s

95th percentile per-packet one-way delay: 114.754 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 51.25 Mbit/s

95th percentile per-packet one-way delay: 114.768 ms

Loss rate: 0.81%

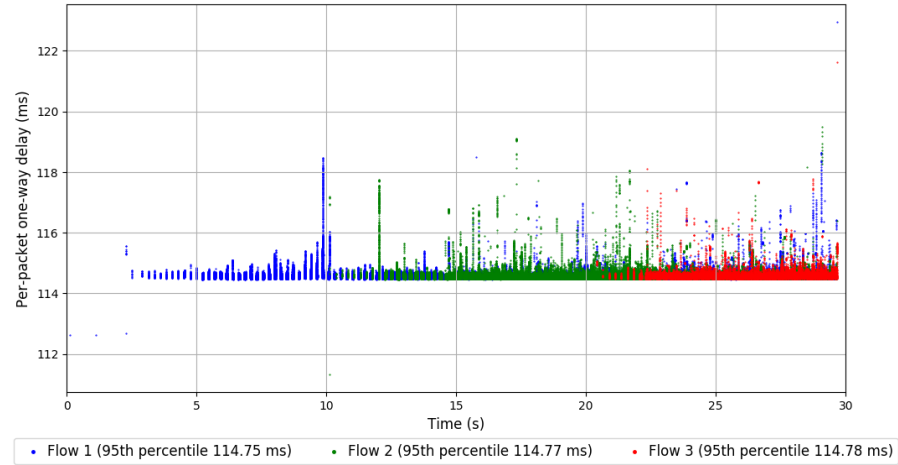
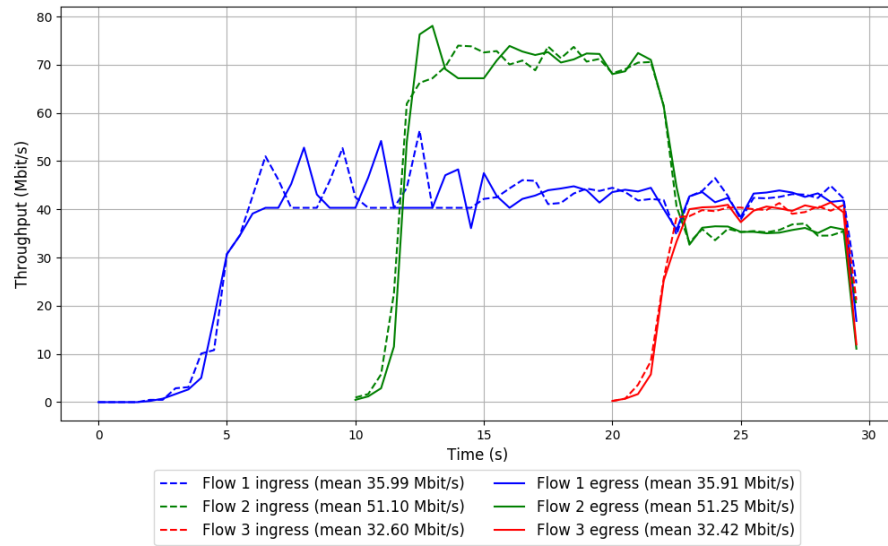
-- Flow 3:

Average throughput: 32.42 Mbit/s

95th percentile per-packet one-way delay: 114.785 ms

Loss rate: 2.88%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-08-31 13:18:09

End at: 2017-08-31 13:18:39

Below is generated by plot.py at 2017-08-31 17:48:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.63 Mbit/s

95th percentile per-packet one-way delay: 114.810 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 38.46 Mbit/s

95th percentile per-packet one-way delay: 114.755 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 52.71 Mbit/s

95th percentile per-packet one-way delay: 114.937 ms

Loss rate: 0.82%

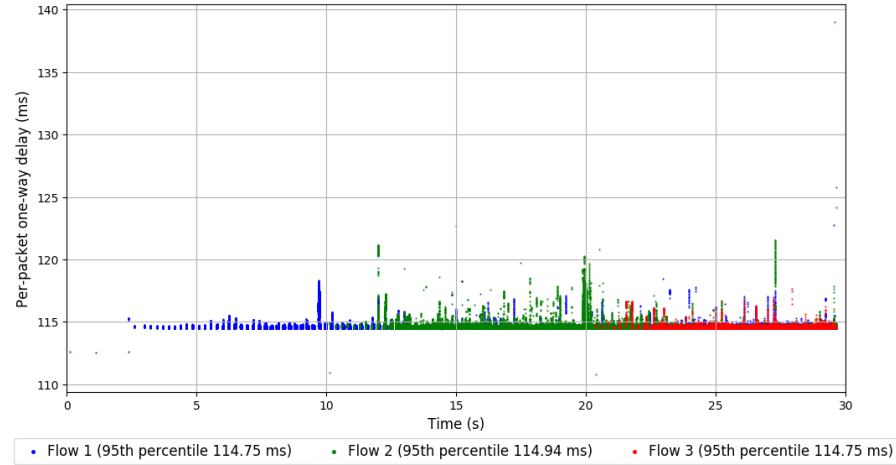
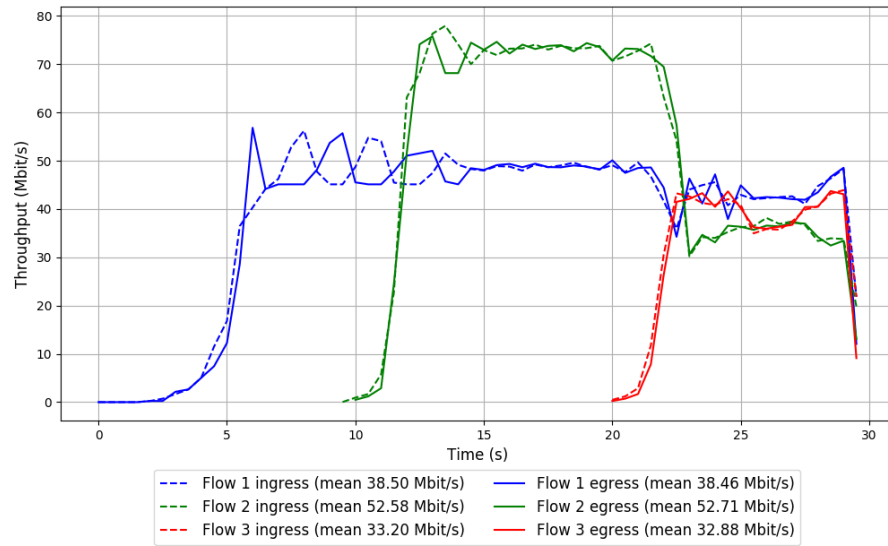
-- Flow 3:

Average throughput: 32.88 Mbit/s

95th percentile per-packet one-way delay: 114.746 ms

Loss rate: 3.33%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-08-31 13:31:28

End at: 2017-08-31 13:31:58

Below is generated by plot.py at 2017-08-31 17:48:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.76 Mbit/s

95th percentile per-packet one-way delay: 114.840 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 38.66 Mbit/s

95th percentile per-packet one-way delay: 114.808 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 51.62 Mbit/s

95th percentile per-packet one-way delay: 114.884 ms

Loss rate: 0.79%

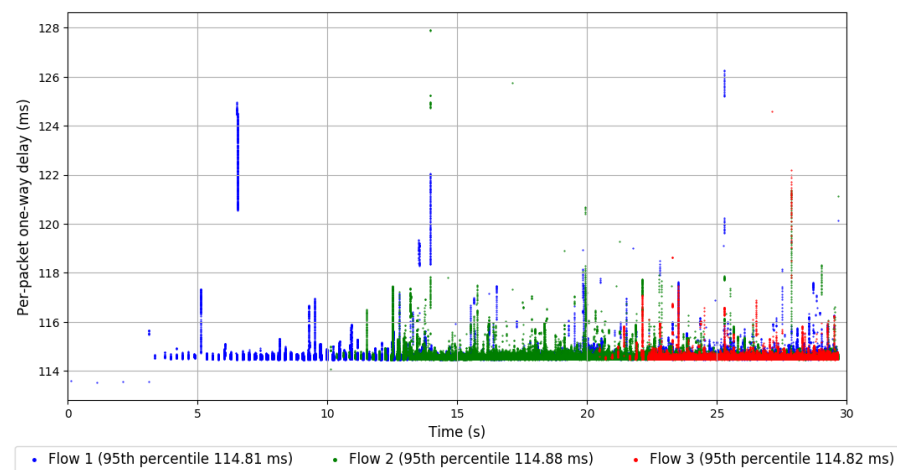
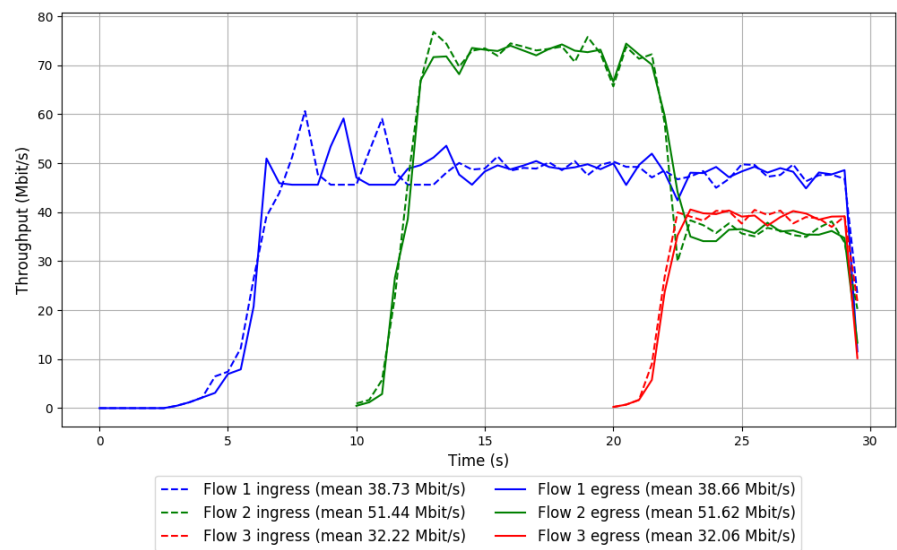
-- Flow 3:

Average throughput: 32.06 Mbit/s

95th percentile per-packet one-way delay: 114.818 ms

Loss rate: 3.04%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-08-31 13:44:56

End at: 2017-08-31 13:45:26

Below is generated by plot.py at 2017-08-31 17:48:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.69 Mbit/s

95th percentile per-packet one-way delay: 114.807 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 42.35 Mbit/s

95th percentile per-packet one-way delay: 114.764 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 52.53 Mbit/s

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

Loss rate: 0.82%

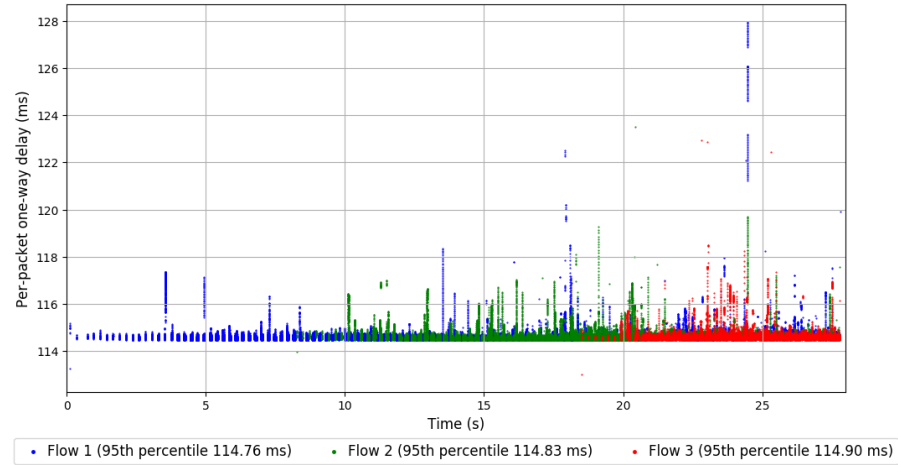
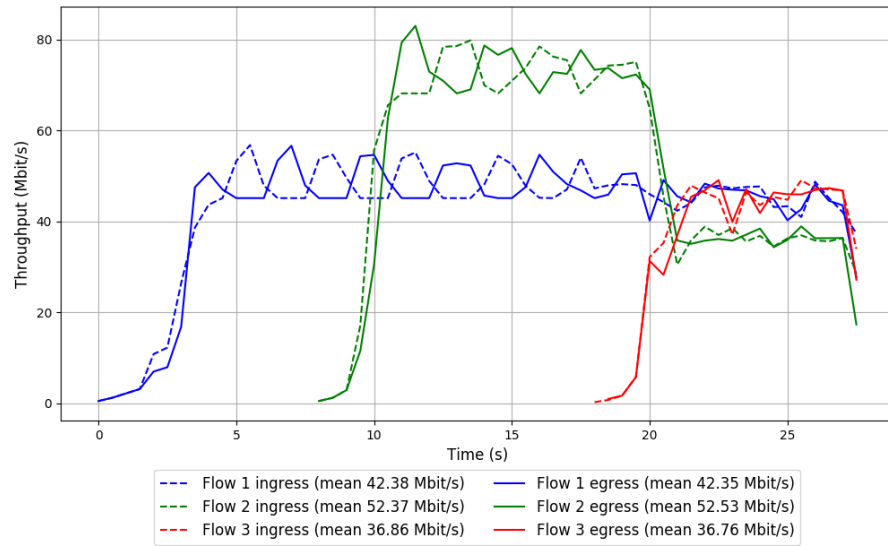
-- Flow 3:

Average throughput: 36.76 Mbit/s

95th percentile per-packet one-way delay: 114.902 ms

Loss rate: 2.65%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-08-31 13:58:25

End at: 2017-08-31 13:58:55

Below is generated by plot.py at 2017-08-31 17:49:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.27 Mbit/s

95th percentile per-packet one-way delay: 114.786 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 57.24 Mbit/s

95th percentile per-packet one-way delay: 114.770 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 48.55 Mbit/s

95th percentile per-packet one-way delay: 114.813 ms

Loss rate: 0.84%

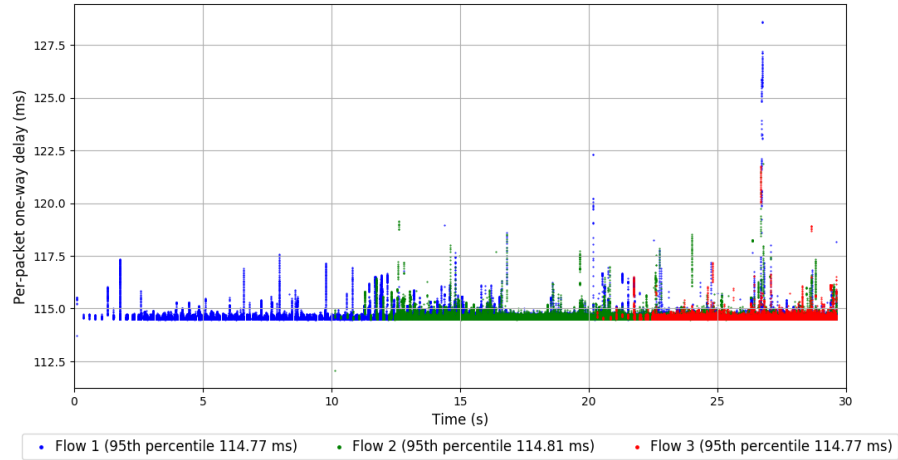
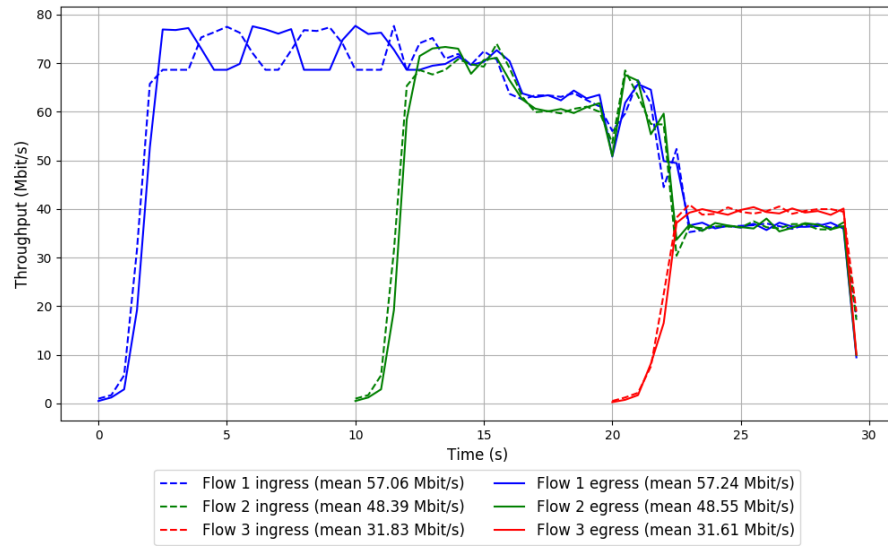
-- Flow 3:

Average throughput: 31.61 Mbit/s

95th percentile per-packet one-way delay: 114.765 ms

Loss rate: 3.00%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-08-31 14:11:46

End at: 2017-08-31 14:12:16

Below is generated by plot.py at 2017-08-31 17:49:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.49 Mbit/s

95th percentile per-packet one-way delay: 114.887 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 36.22 Mbit/s

95th percentile per-packet one-way delay: 114.810 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 61.93 Mbit/s

95th percentile per-packet one-way delay: 114.957 ms

Loss rate: 1.26%

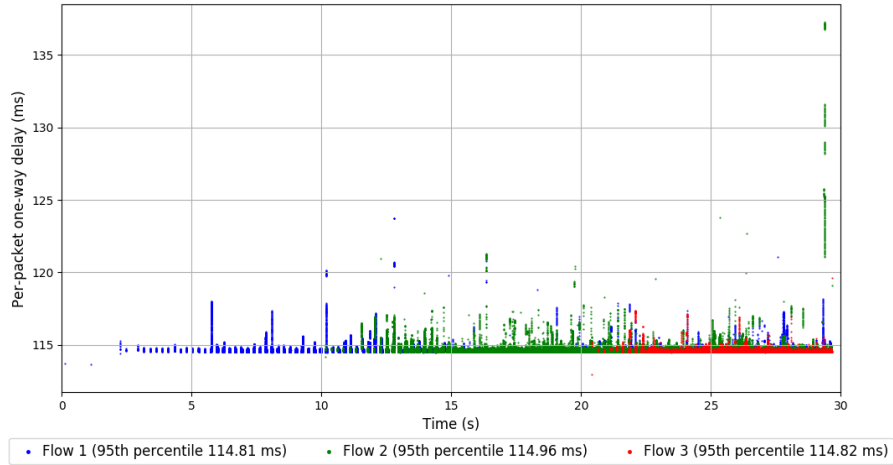
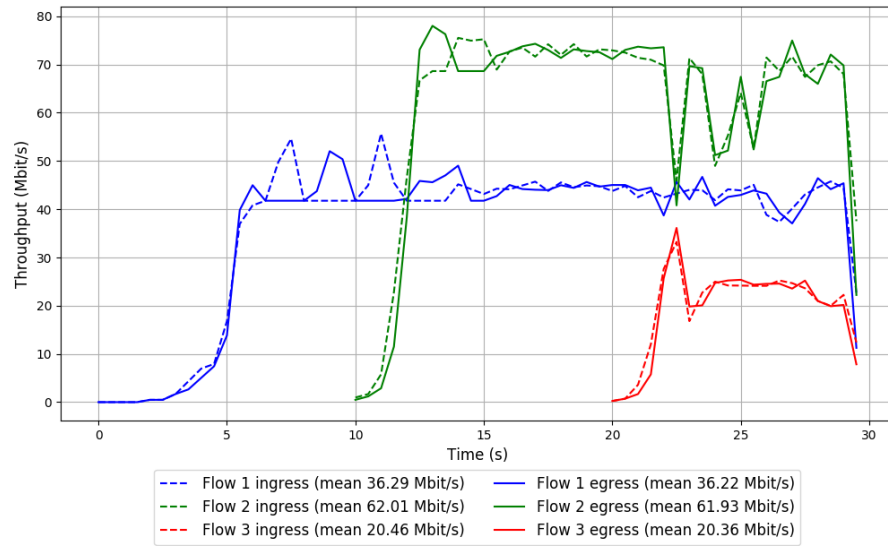
-- Flow 3:

Average throughput: 20.36 Mbit/s

95th percentile per-packet one-way delay: 114.819 ms

Loss rate: 2.86%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-08-31 14:25:12

End at: 2017-08-31 14:25:42

Below is generated by plot.py at 2017-08-31 17:49:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.11 Mbit/s

95th percentile per-packet one-way delay: 114.755 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 56.16 Mbit/s

95th percentile per-packet one-way delay: 114.715 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 44.31 Mbit/s

95th percentile per-packet one-way delay: 114.778 ms

Loss rate: 1.32%

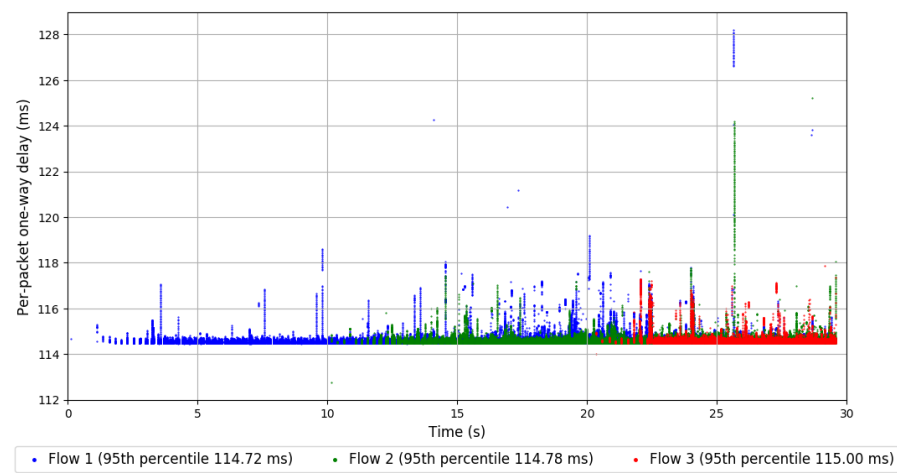
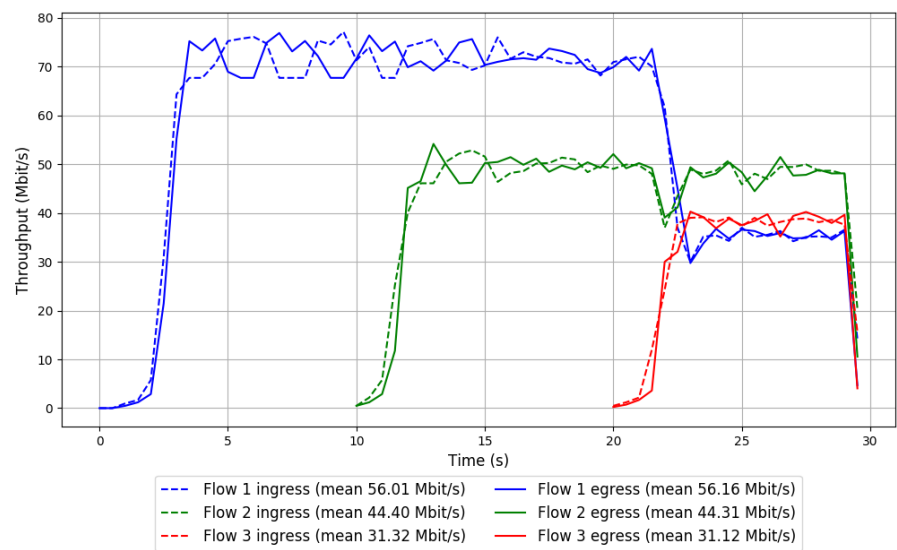
-- Flow 3:

Average throughput: 31.12 Mbit/s

95th percentile per-packet one-way delay: 114.997 ms

Loss rate: 3.05%

Run 10: Report of Indigo — Data Link

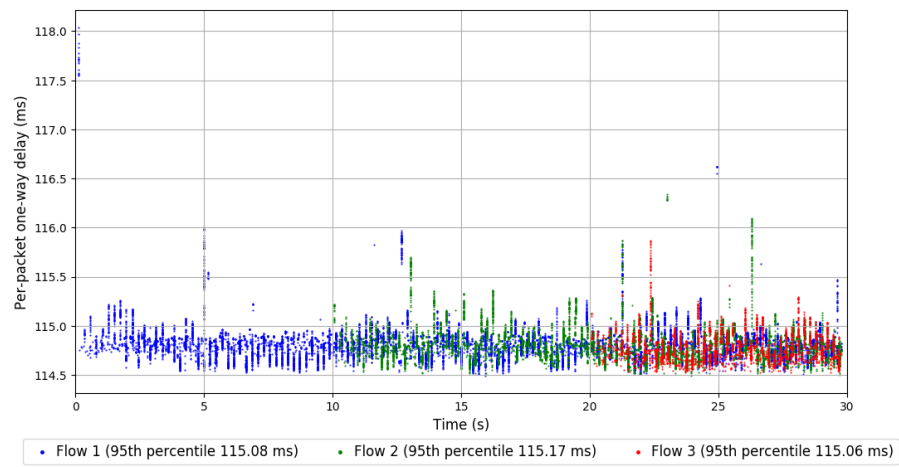
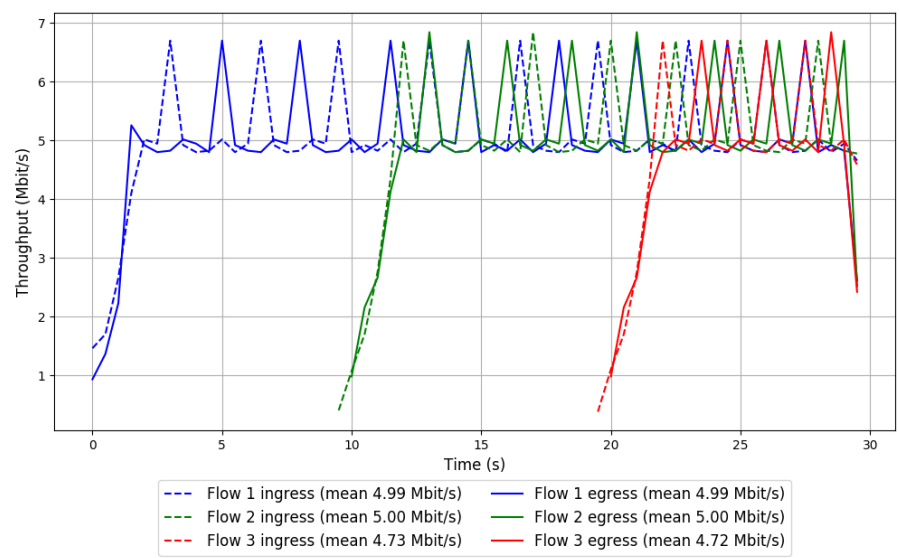


```
Run 1: Statistics of KohoCC

Start at: 2017-08-31 12:28:27
End at: 2017-08-31 12:28:57

# Below is generated by plot.py at 2017-08-31 17:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.85 Mbit/s
95th percentile per-packet one-way delay: 115.102 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 4.99 Mbit/s
95th percentile per-packet one-way delay: 115.079 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 115.173 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 115.056 ms
Loss rate: 2.55%
```

Run 1: Report of KohoCC — Data Link

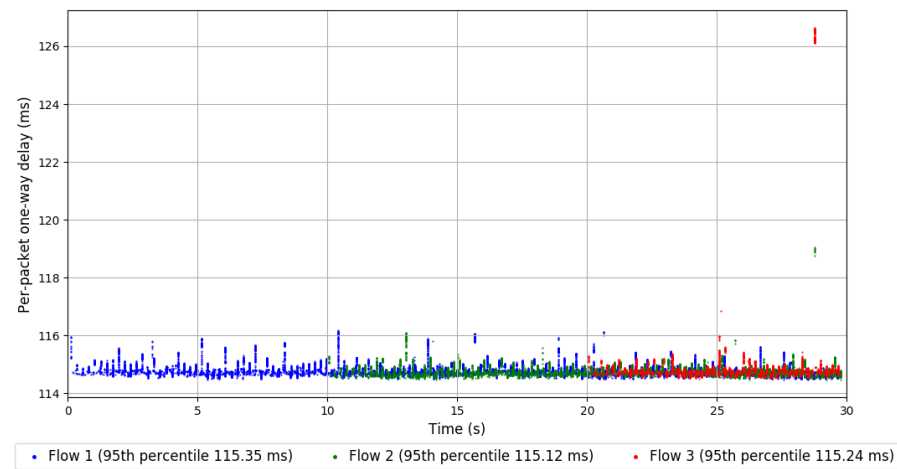
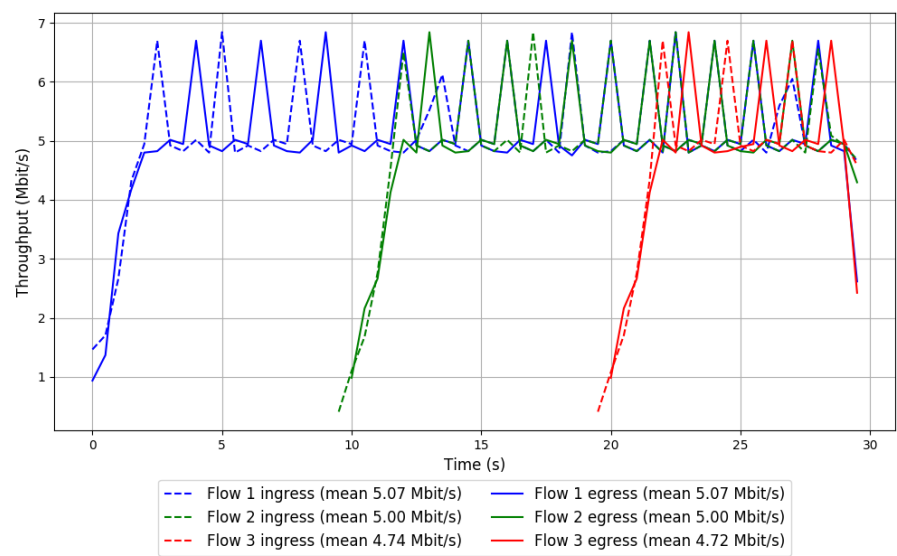


```
Run 2: Statistics of KohoCC

Start at: 2017-08-31 12:41:57
End at: 2017-08-31 12:42:27

# Below is generated by plot.py at 2017-08-31 17:49:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.93 Mbit/s
95th percentile per-packet one-way delay: 115.231 ms
Loss rate: 1.24%
-- Flow 1:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 115.350 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 115.116 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 4.72 Mbit/s
95th percentile per-packet one-way delay: 115.244 ms
Loss rate: 2.68%
```

Run 2: Report of KohoCC — Data Link



Run 3: Statistics of KohoCC

Start at: 2017-08-31 12:55:35

End at: 2017-08-31 12:56:05

Below is generated by plot.py at 2017-08-31 17:49:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 115.111 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 5.10 Mbit/s

95th percentile per-packet one-way delay: 115.087 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 115.161 ms

Loss rate: 1.22%

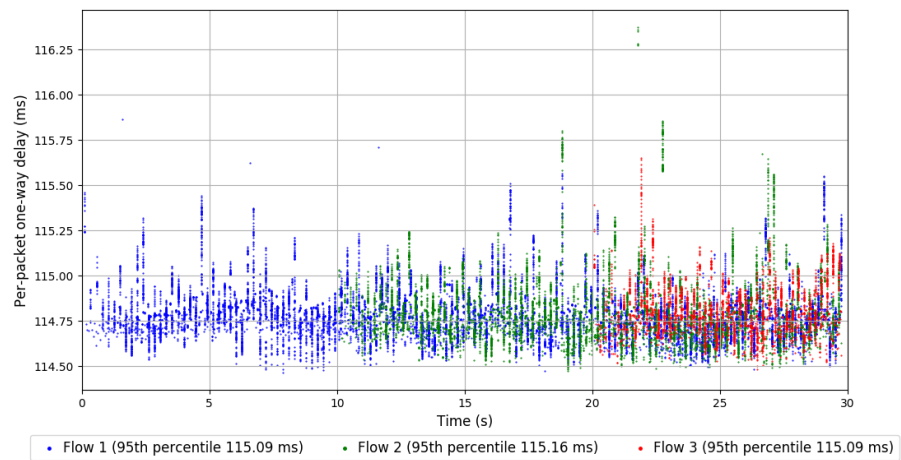
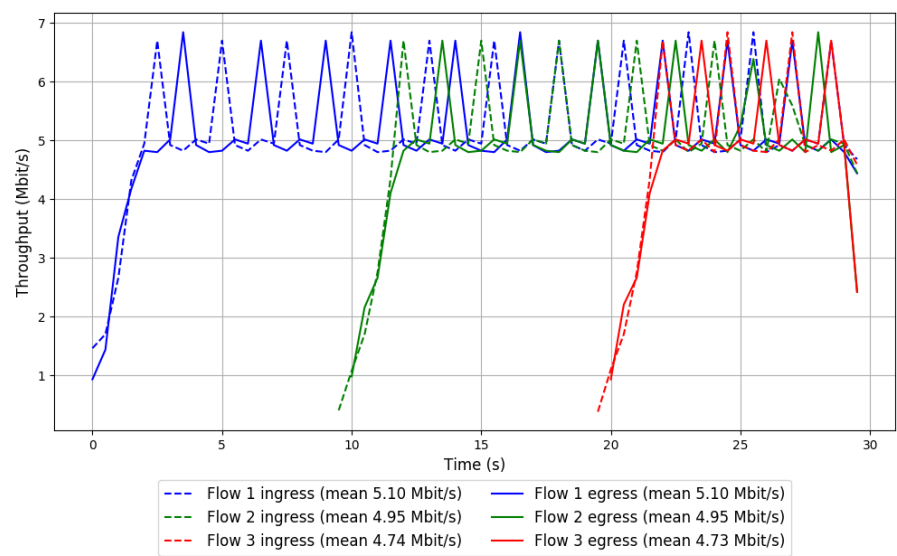
-- Flow 3:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 115.090 ms

Loss rate: 2.55%

Run 3: Report of KohoCC — Data Link



Run 4: Statistics of KohoCC

Start at: 2017-08-31 13:08:44

End at: 2017-08-31 13:09:14

Below is generated by plot.py at 2017-08-31 17:49:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 115.071 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 5.07 Mbit/s

95th percentile per-packet one-way delay: 115.080 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 115.083 ms

Loss rate: 1.20%

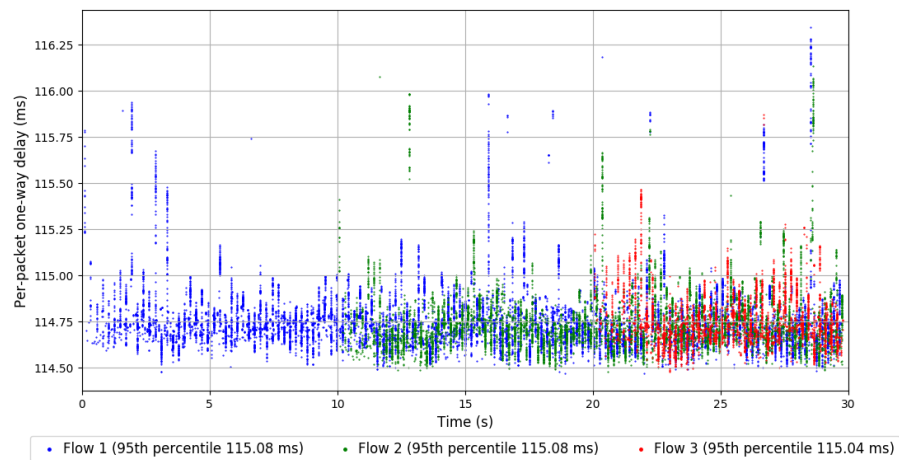
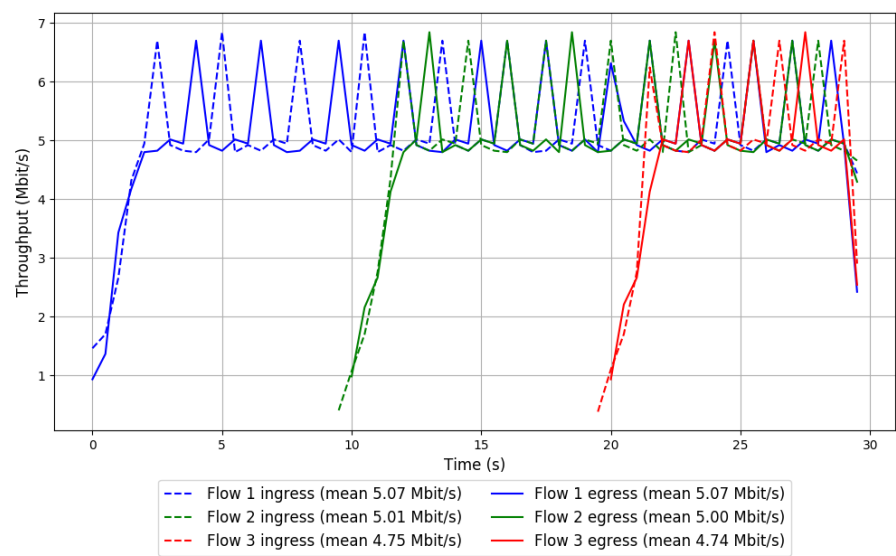
-- Flow 3:

Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 115.040 ms

Loss rate: 2.55%

Run 4: Report of KohoCC — Data Link



Run 5: Statistics of KohoCC

Start at: 2017-08-31 13:22:21

End at: 2017-08-31 13:22:51

Below is generated by plot.py at 2017-08-31 17:49:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.98 Mbit/s

95th percentile per-packet one-way delay: 115.045 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 115.033 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 5.01 Mbit/s

95th percentile per-packet one-way delay: 115.090 ms

Loss rate: 1.20%

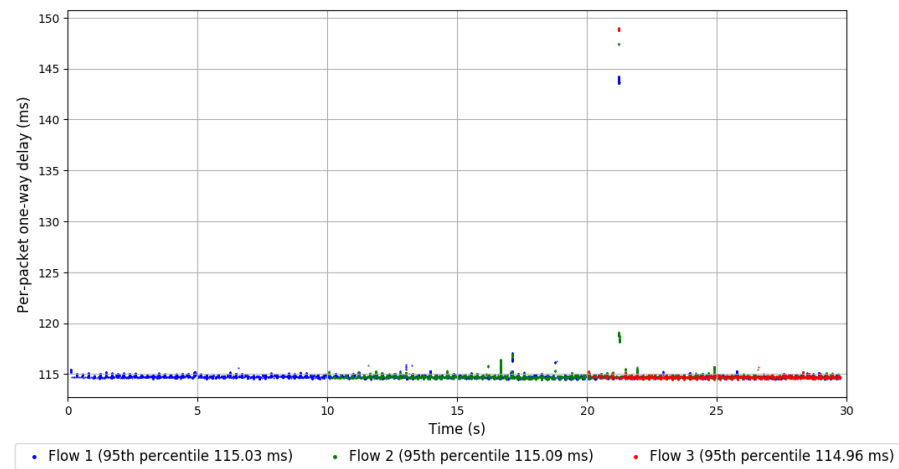
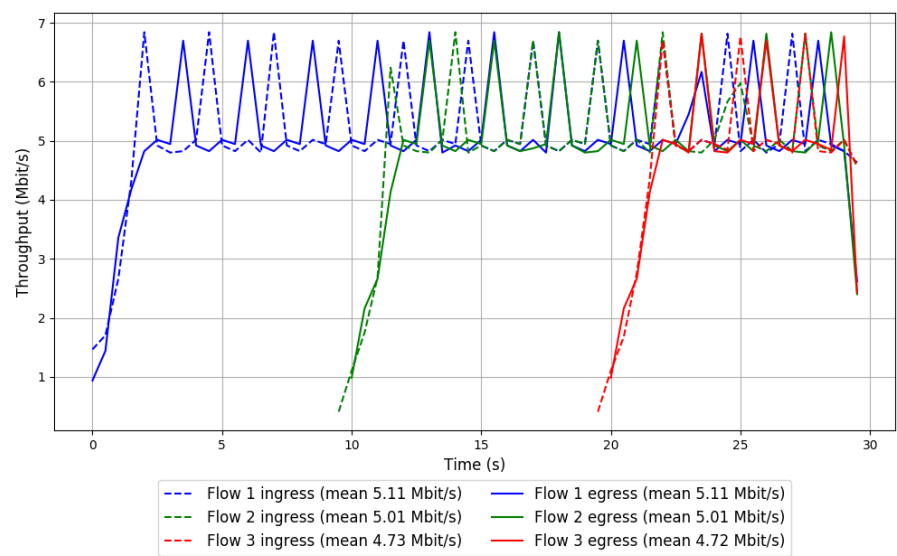
-- Flow 3:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 114.960 ms

Loss rate: 2.55%

Run 5: Report of KohoCC — Data Link



Run 6: Statistics of KohoCC

Start at: 2017-08-31 13:35:39

End at: 2017-08-31 13:36:09

Below is generated by plot.py at 2017-08-31 17:49:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.96 Mbit/s

95th percentile per-packet one-way delay: 115.018 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 5.10 Mbit/s

95th percentile per-packet one-way delay: 114.998 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 115.037 ms

Loss rate: 1.21%

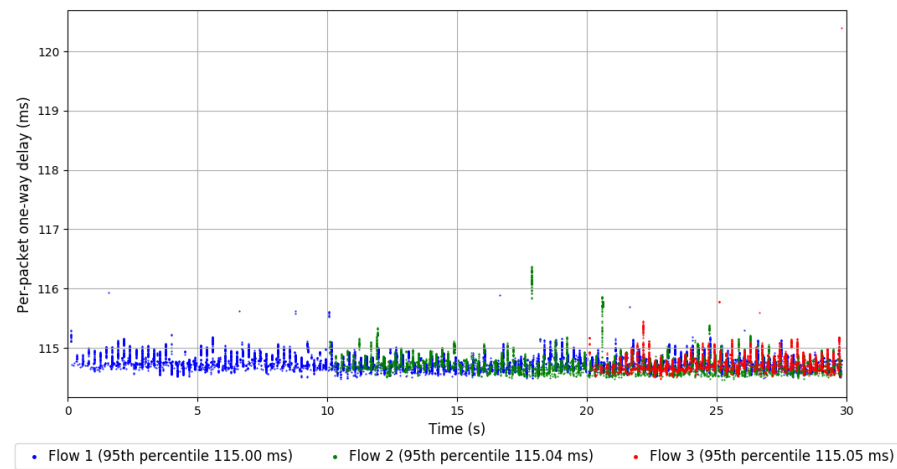
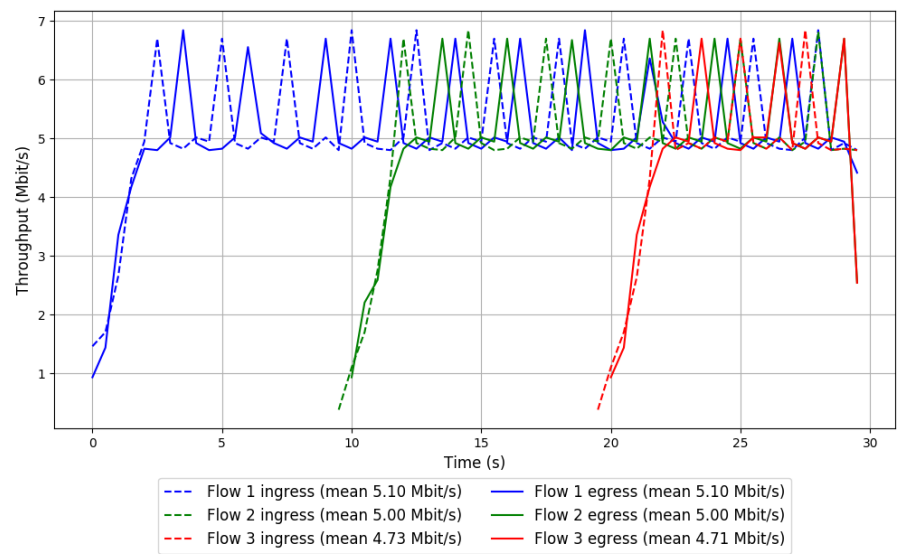
-- Flow 3:

Average throughput: 4.71 Mbit/s

95th percentile per-packet one-way delay: 115.050 ms

Loss rate: 2.55%

Run 6: Report of KohoCC — Data Link



Run 7: Statistics of KohoCC

Start at: 2017-08-31 13:49:09

End at: 2017-08-31 13:49:39

Below is generated by plot.py at 2017-08-31 17:49:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.88 Mbit/s

95th percentile per-packet one-way delay: 114.993 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 114.976 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 115.006 ms

Loss rate: 1.20%

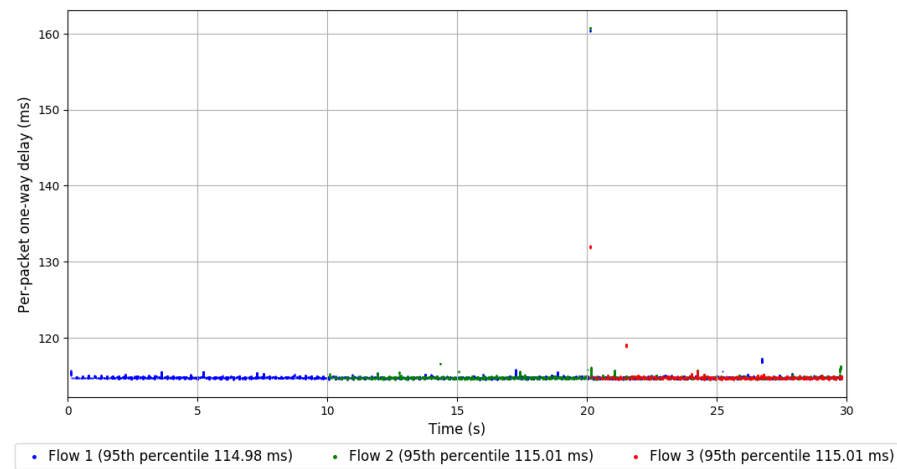
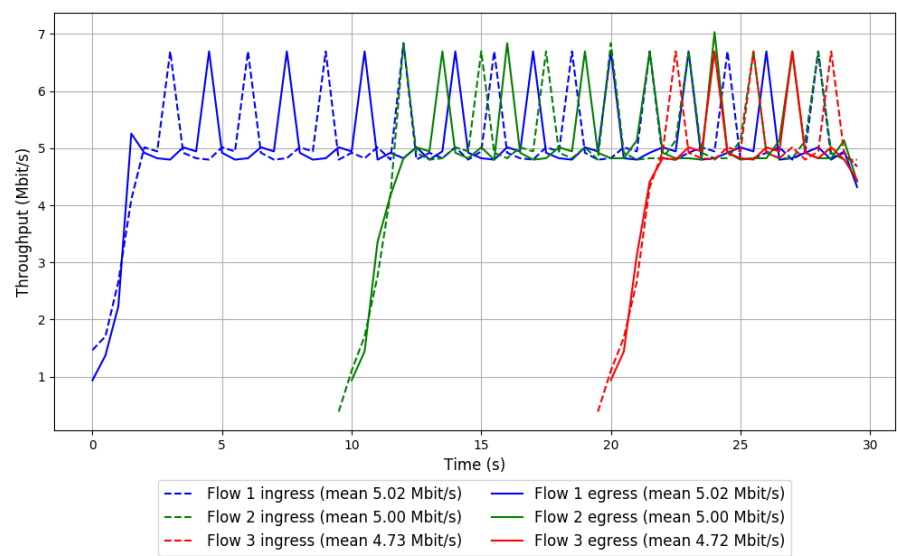
-- Flow 3:

Average throughput: 4.72 Mbit/s

95th percentile per-packet one-way delay: 115.007 ms

Loss rate: 2.56%

Run 7: Report of KohoCC — Data Link



Run 8: Statistics of KohoCC

Start at: 2017-08-31 14:02:37

End at: 2017-08-31 14:03:07

Below is generated by plot.py at 2017-08-31 17:49:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.82 Mbit/s

95th percentile per-packet one-way delay: 115.196 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 5.03 Mbit/s

95th percentile per-packet one-way delay: 115.287 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 4.94 Mbit/s

95th percentile per-packet one-way delay: 115.154 ms

Loss rate: 1.22%

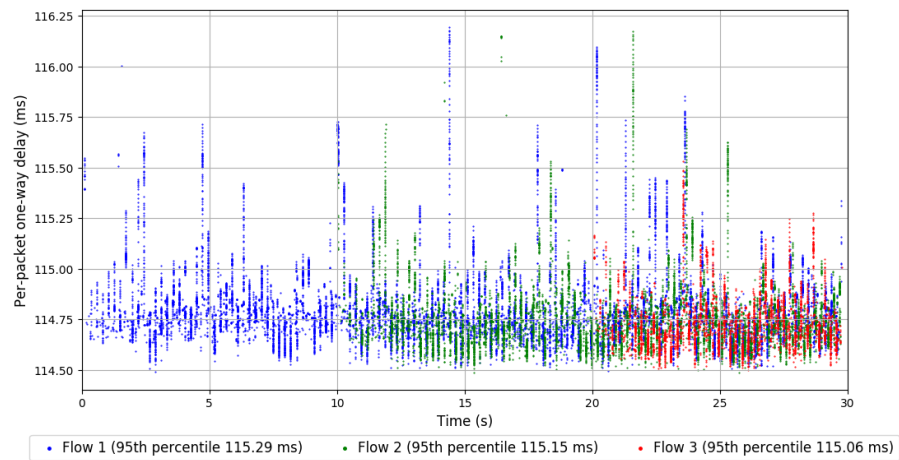
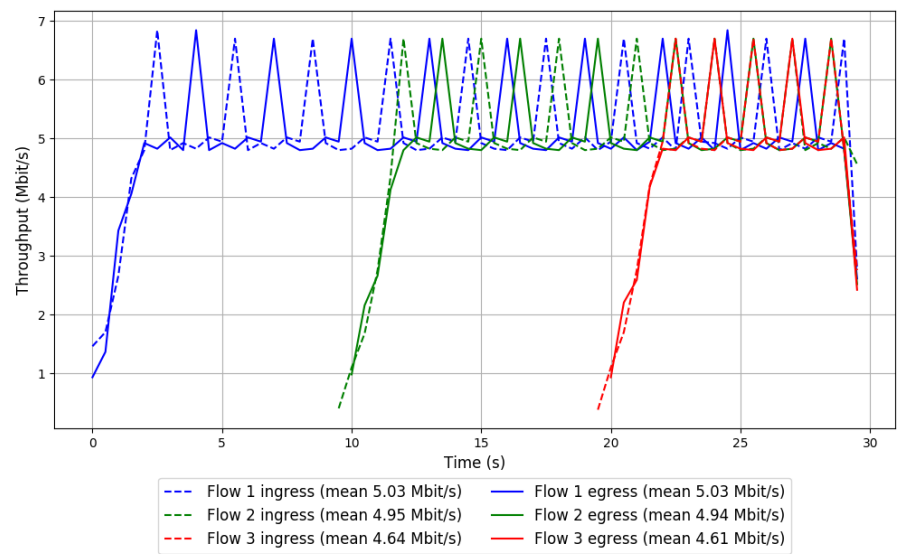
-- Flow 3:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 115.061 ms

Loss rate: 2.59%

Run 8: Report of KohoCC — Data Link



Run 9: Statistics of KohoCC

Start at: 2017-08-31 14:15:58

End at: 2017-08-31 14:16:28

Below is generated by plot.py at 2017-08-31 17:49:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 115.045 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 5.01 Mbit/s

95th percentile per-packet one-way delay: 115.073 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 4.94 Mbit/s

95th percentile per-packet one-way delay: 114.950 ms

Loss rate: 1.22%

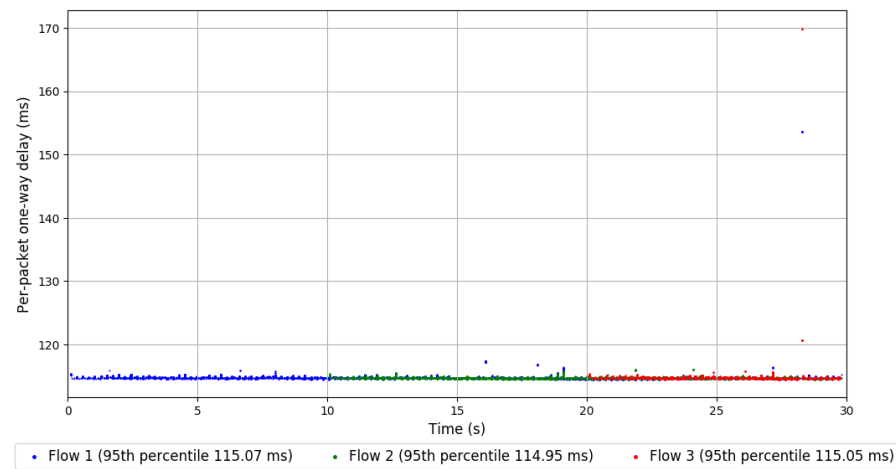
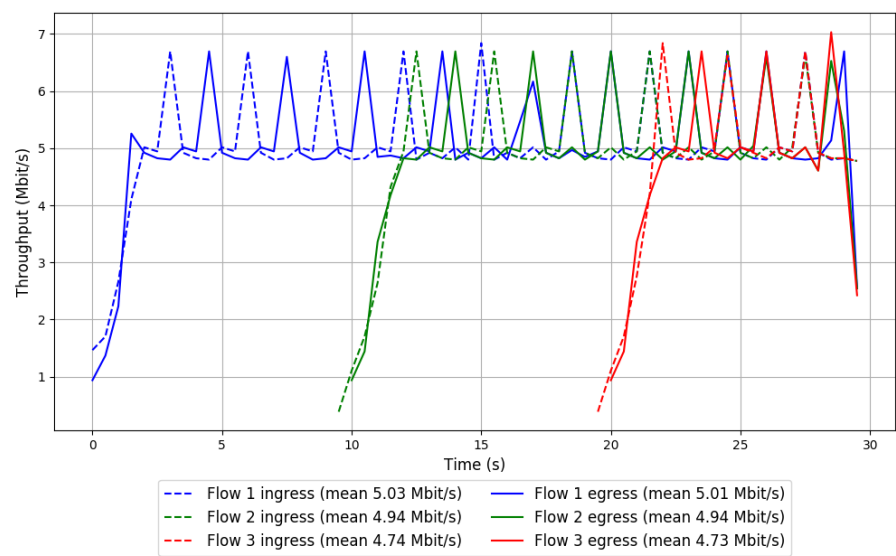
-- Flow 3:

Average throughput: 4.73 Mbit/s

95th percentile per-packet one-way delay: 115.053 ms

Loss rate: 2.55%

Run 9: Report of KohoCC — Data Link



Run 10: Statistics of KohoCC

Start at: 2017-08-31 14:29:23

End at: 2017-08-31 14:29:53

Below is generated by plot.py at 2017-08-31 17:49:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 9.91 Mbit/s

95th percentile per-packet one-way delay: 113.114 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 113.161 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 113.111 ms

Loss rate: 1.20%

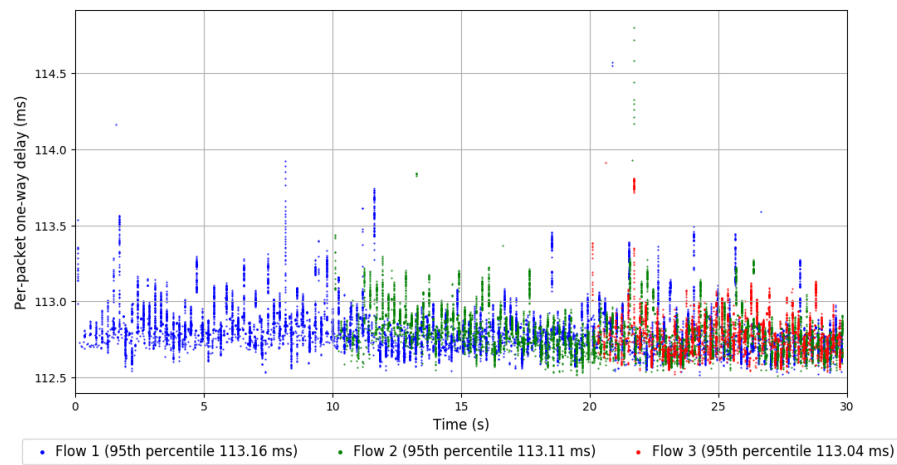
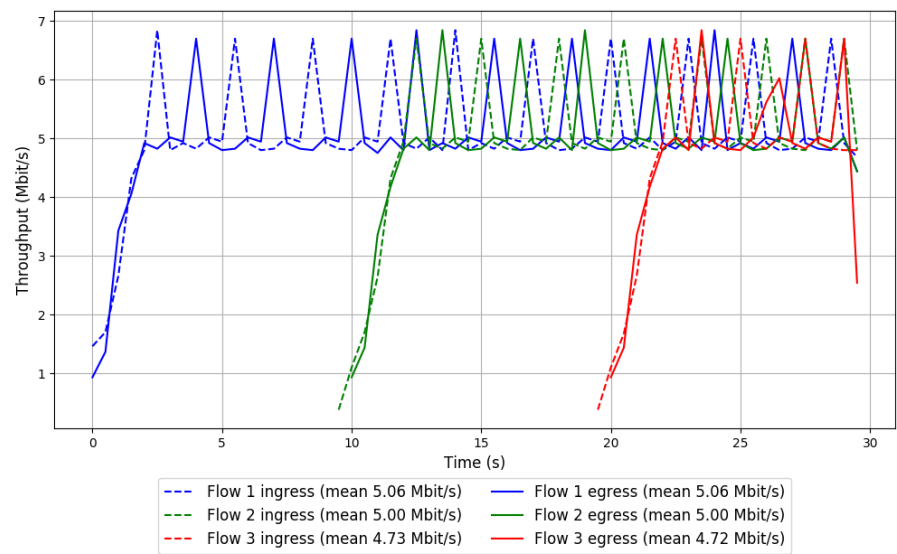
-- Flow 3:

Average throughput: 4.72 Mbit/s

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

Loss rate: 2.55%

Run 10: Report of KohoCC — Data Link

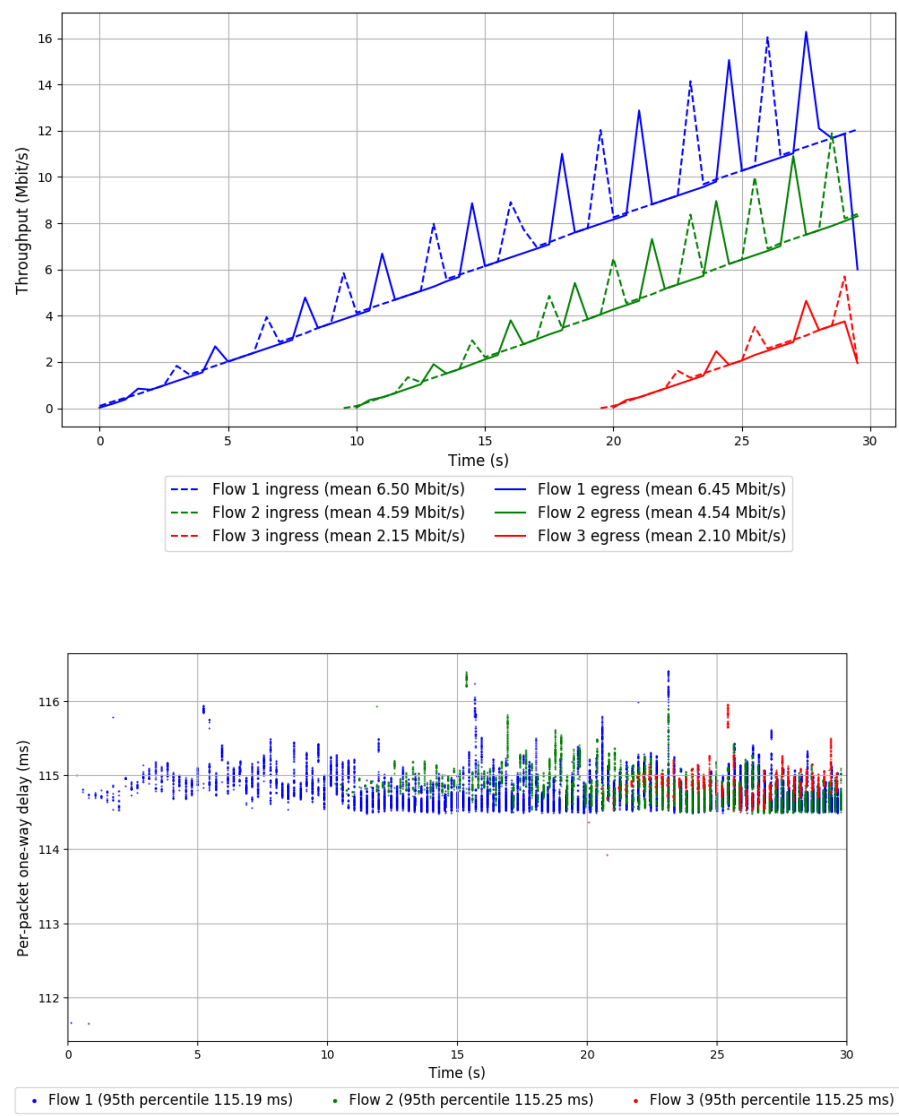


```
Run 1: Statistics of LEDBAT

Start at: 2017-08-31 12:29:14
End at: 2017-08-31 12:29:44

# Below is generated by plot.py at 2017-08-31 17:49:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.12 Mbit/s
95th percentile per-packet one-way delay: 115.219 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 115.188 ms
Loss rate: 1.56%
-- Flow 2:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 115.254 ms
Loss rate: 2.30%
-- Flow 3:
Average throughput: 2.10 Mbit/s
95th percentile per-packet one-way delay: 115.252 ms
Loss rate: 4.75%
```


Run 1: Report of LEDBAT — Data Link

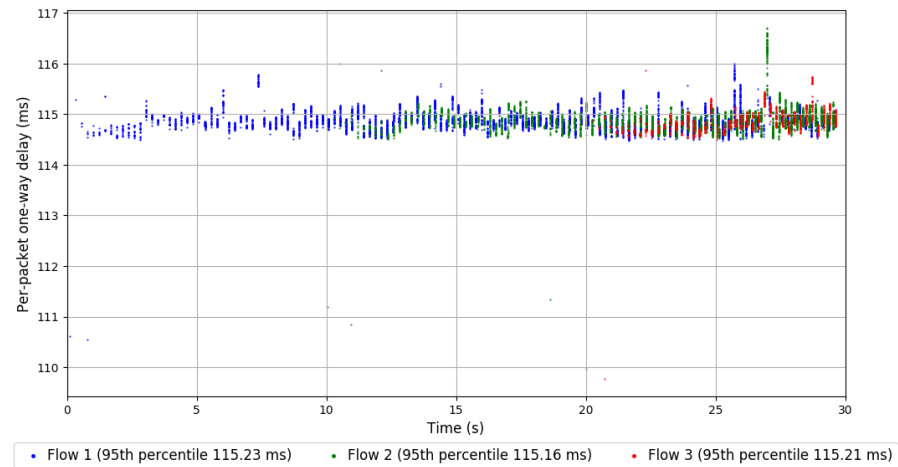
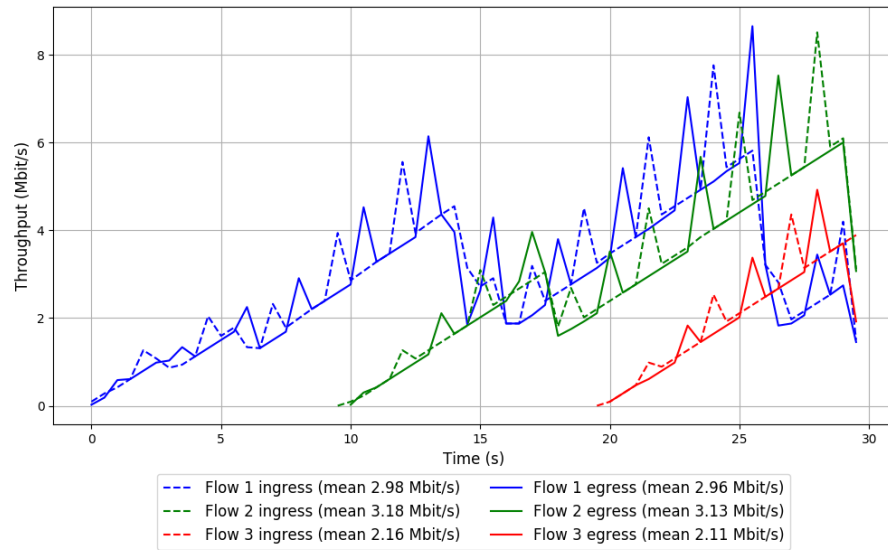


```
Run 2: Statistics of LEDBAT

Start at: 2017-08-31 12:42:44
End at: 2017-08-31 12:43:14

# Below is generated by plot.py at 2017-08-31 17:49:39
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.71 Mbit/s
95th percentile per-packet one-way delay: 115.202 ms
Loss rate: 2.16%
-- Flow 1:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 115.227 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 3.13 Mbit/s
95th percentile per-packet one-way delay: 115.162 ms
Loss rate: 2.66%
-- Flow 3:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 115.206 ms
Loss rate: 4.64%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-08-31 12:56:23

End at: 2017-08-31 12:56:53

Below is generated by plot.py at 2017-08-31 17:49:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.39 Mbit/s

95th percentile per-packet one-way delay: 115.213 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 115.206 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 3.79 Mbit/s

95th percentile per-packet one-way delay: 115.261 ms

Loss rate: 1.38%

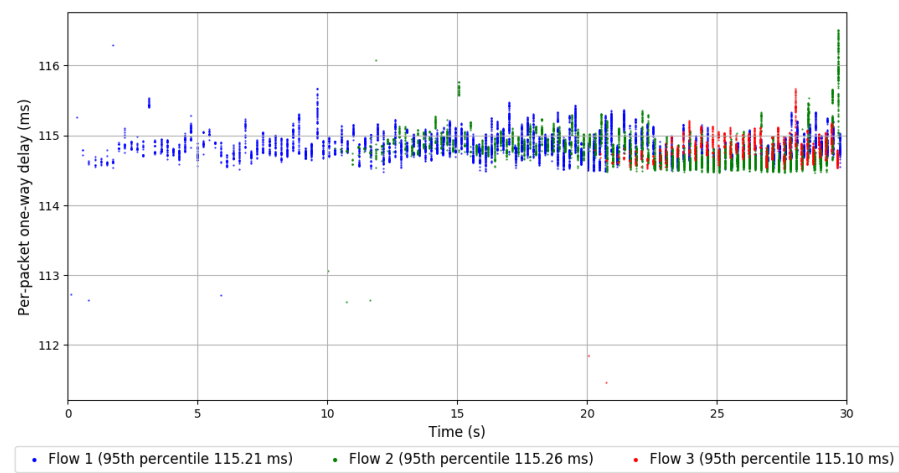
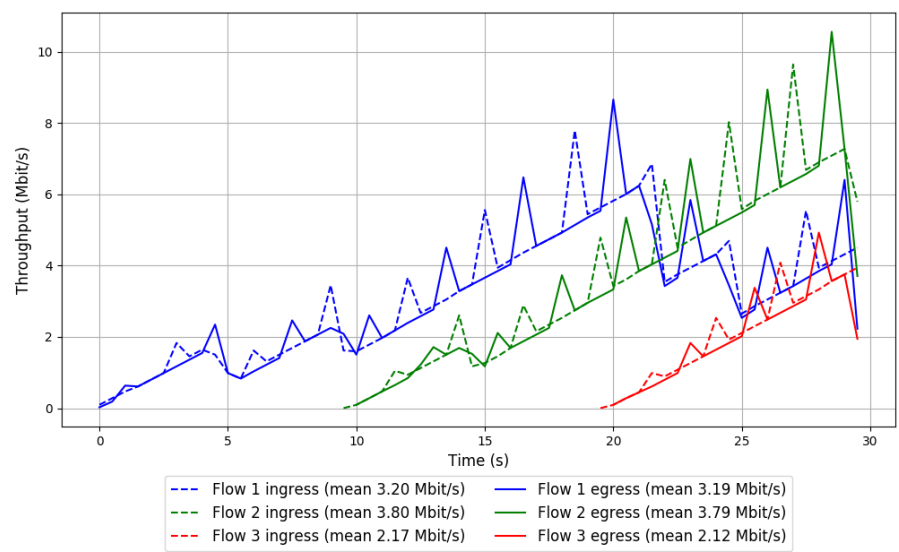
-- Flow 3:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 115.097 ms

Loss rate: 4.68%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2017-08-31 13:09:32

End at: 2017-08-31 13:10:02

Below is generated by plot.py at 2017-08-31 17:49:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.35 Mbit/s

95th percentile per-packet one-way delay: 115.536 ms

Loss rate: 2.18%

-- Flow 1:

Average throughput: 3.46 Mbit/s

95th percentile per-packet one-way delay: 115.723 ms

Loss rate: 1.93%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 115.132 ms

Loss rate: 1.36%

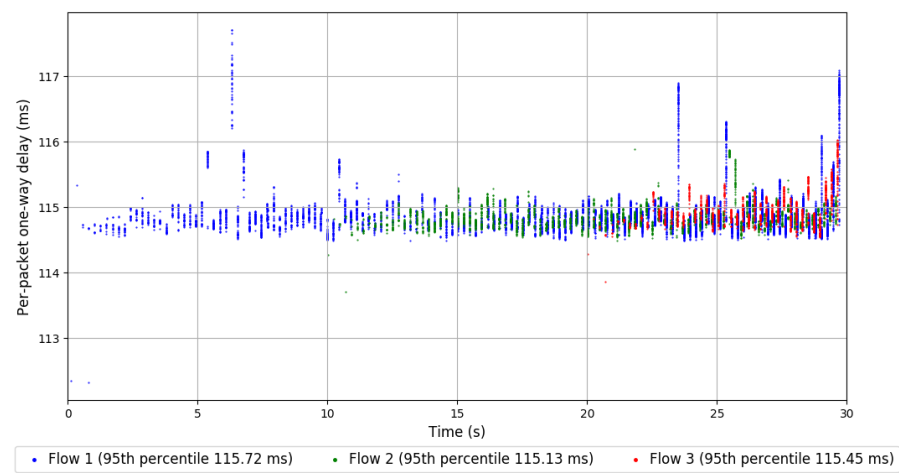
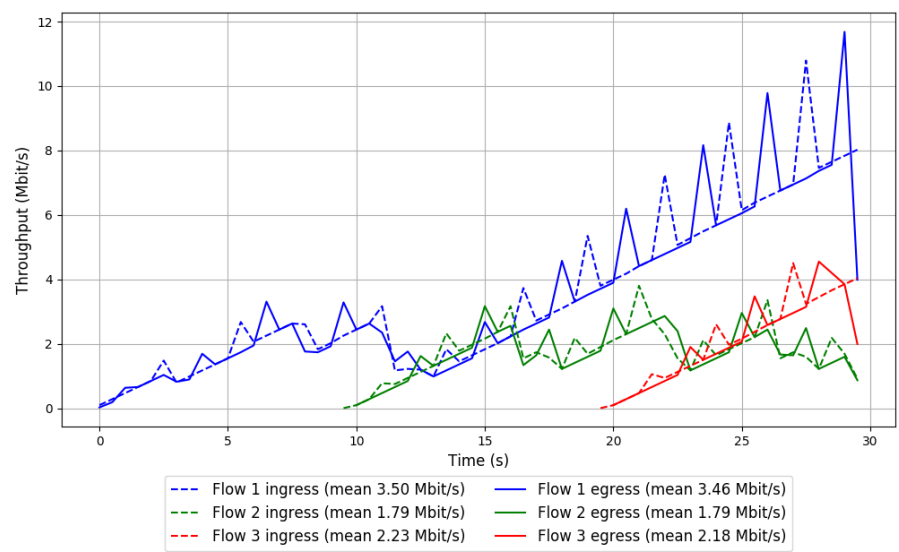
-- Flow 3:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 115.449 ms

Loss rate: 4.64%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-08-31 13:23:09

End at: 2017-08-31 13:23:39

Below is generated by plot.py at 2017-08-31 17:49:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.56 Mbit/s

95th percentile per-packet one-way delay: 115.172 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 3.14 Mbit/s

95th percentile per-packet one-way delay: 115.151 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 115.225 ms

Loss rate: 2.40%

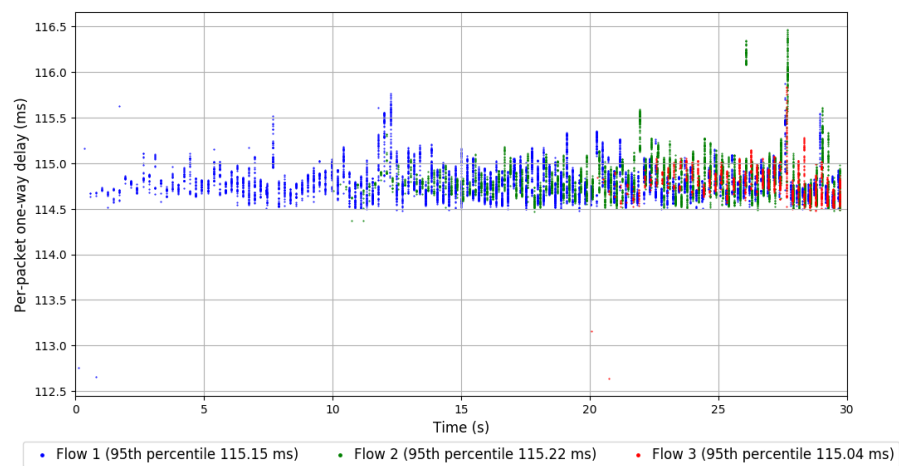
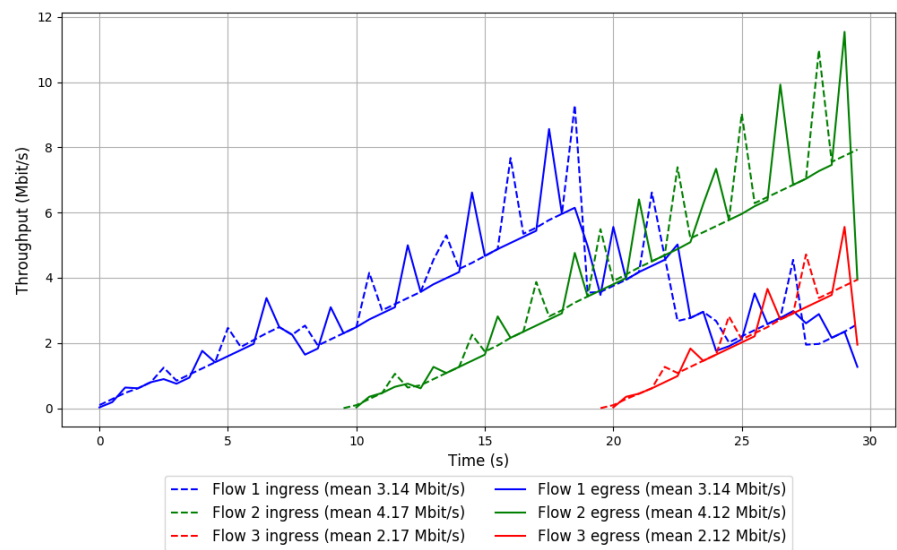
-- Flow 3:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 115.042 ms

Loss rate: 4.65%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-08-31 13:36:27

End at: 2017-08-31 13:36:57

Below is generated by plot.py at 2017-08-31 17:49:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.47 Mbit/s

95th percentile per-packet one-way delay: 115.216 ms

Loss rate: 2.07%

-- Flow 1:

Average throughput: 5.11 Mbit/s

95th percentile per-packet one-way delay: 115.170 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 115.378 ms

Loss rate: 2.43%

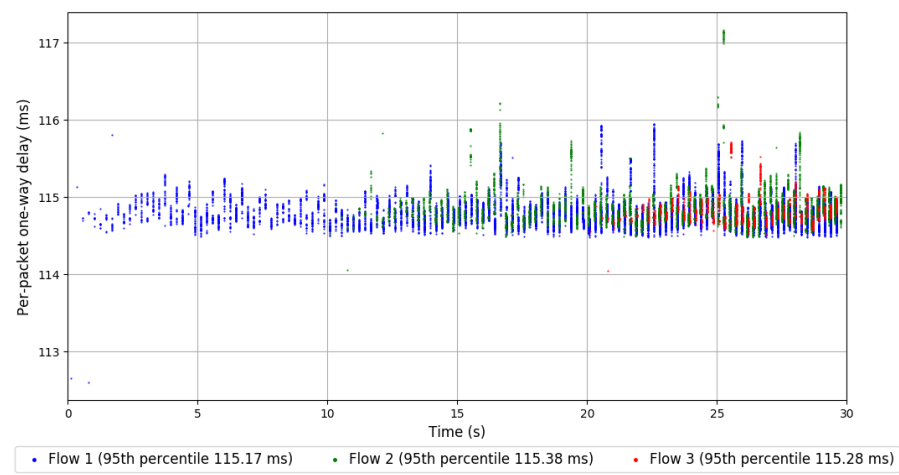
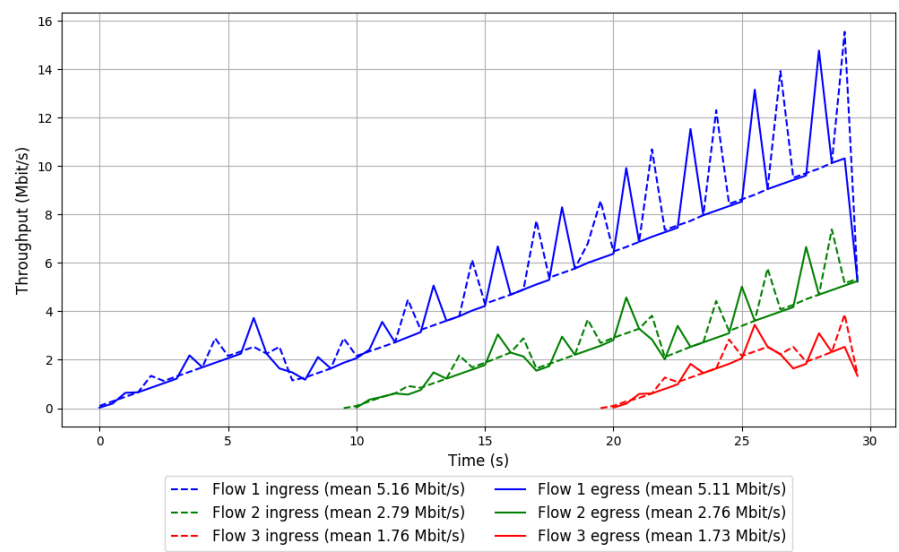
-- Flow 3:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 115.277 ms

Loss rate: 4.03%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-08-31 13:49:57

End at: 2017-08-31 13:50:27

Below is generated by plot.py at 2017-08-31 17:49:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.32 Mbit/s

95th percentile per-packet one-way delay: 115.281 ms

Loss rate: 2.02%

-- Flow 1:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 115.443 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 4.28 Mbit/s

95th percentile per-packet one-way delay: 115.191 ms

Loss rate: 2.34%

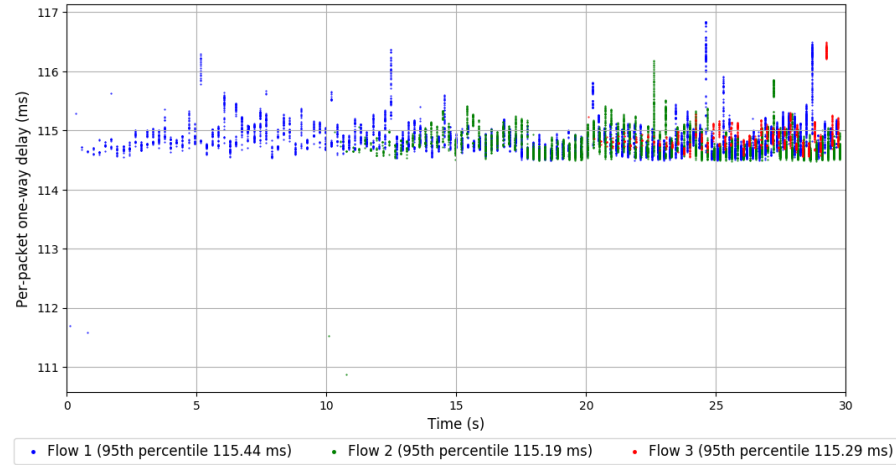
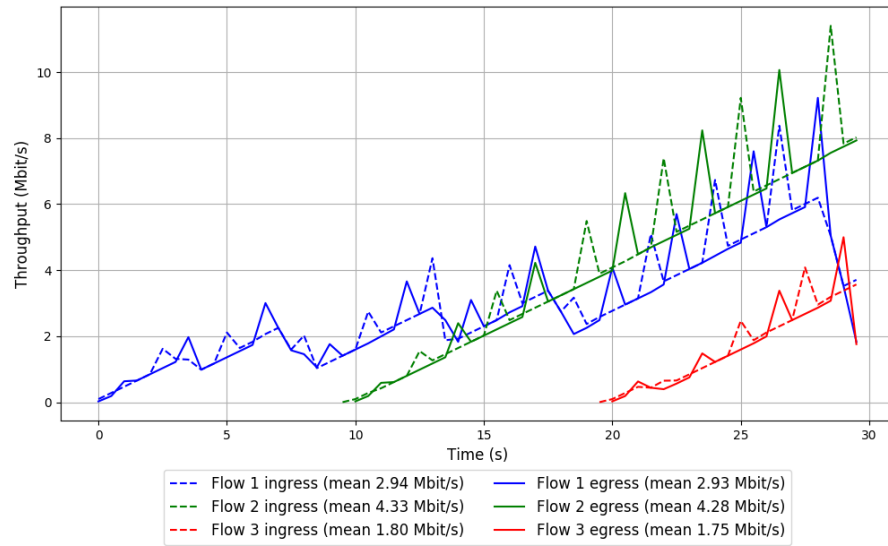
-- Flow 3:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 115.293 ms

Loss rate: 5.09%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-08-31 14:03:25

End at: 2017-08-31 14:03:55

Below is generated by plot.py at 2017-08-31 17:49:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.72 Mbit/s

95th percentile per-packet one-way delay: 115.351 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 3.22 Mbit/s

95th percentile per-packet one-way delay: 115.366 ms

Loss rate: 1.62%

-- Flow 2:

Average throughput: 3.05 Mbit/s

95th percentile per-packet one-way delay: 115.352 ms

Loss rate: 2.25%

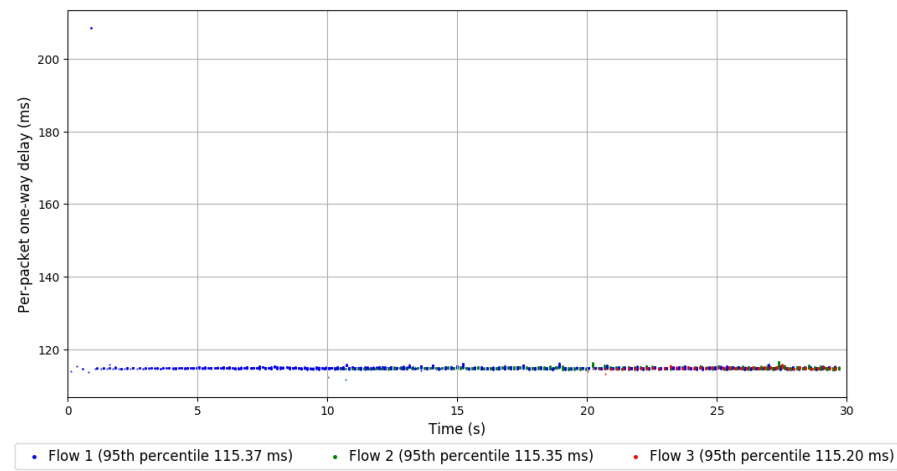
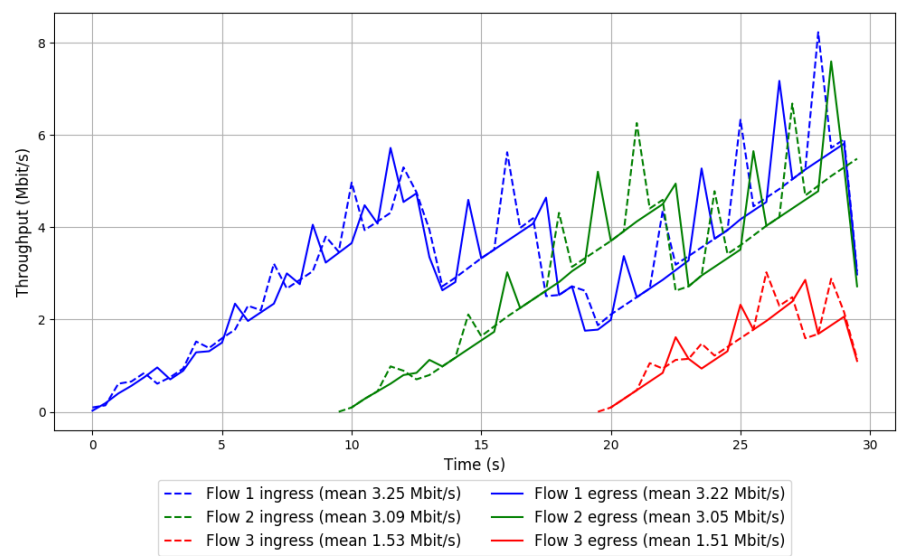
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 115.196 ms

Loss rate: 3.85%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-08-31 14:16:45

End at: 2017-08-31 14:17:15

Below is generated by plot.py at 2017-08-31 17:49:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 115.180 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 115.112 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 3.54 Mbit/s

95th percentile per-packet one-way delay: 115.244 ms

Loss rate: 1.92%

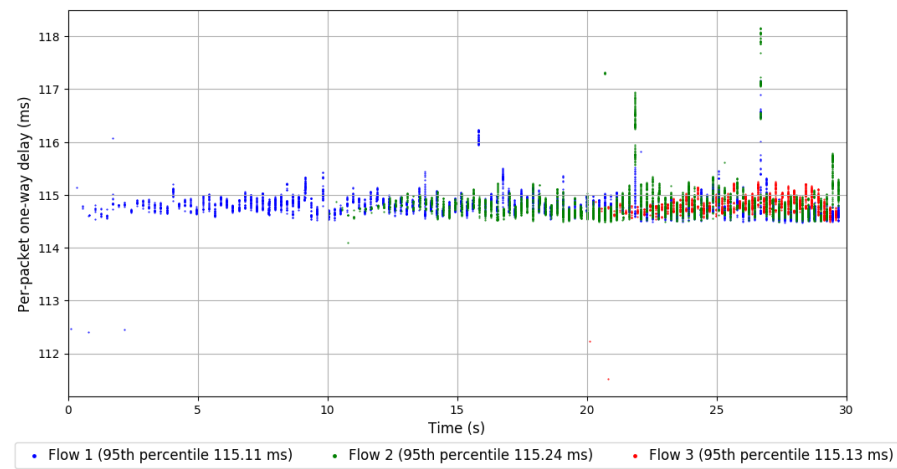
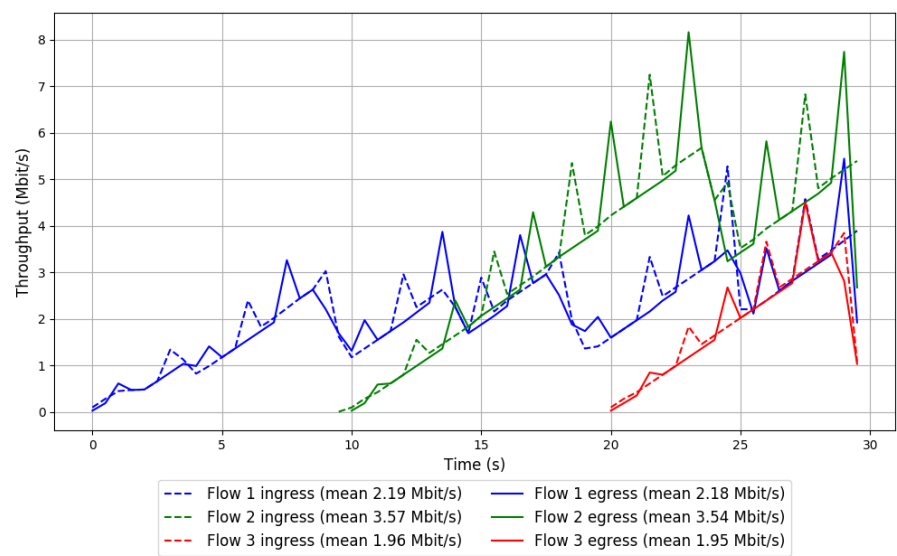
-- Flow 3:

Average throughput: 1.95 Mbit/s

95th percentile per-packet one-way delay: 115.134 ms

Loss rate: 2.84%

Run 9: Report of LEDBAT — Data Link

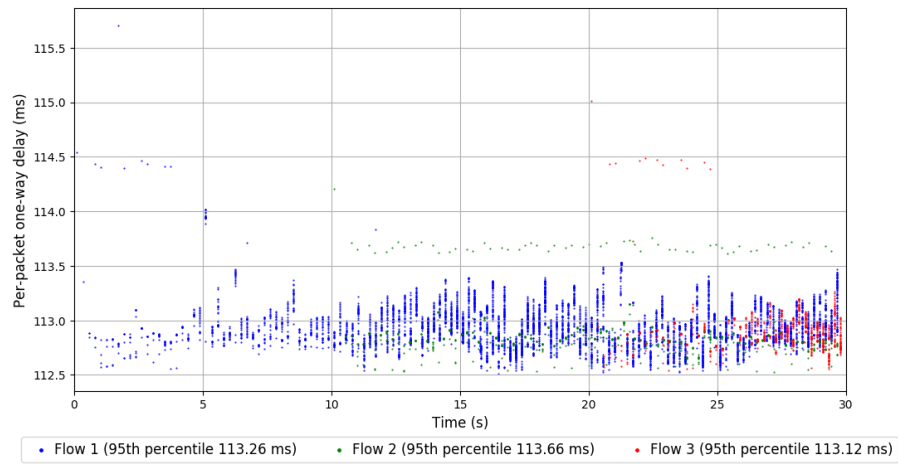
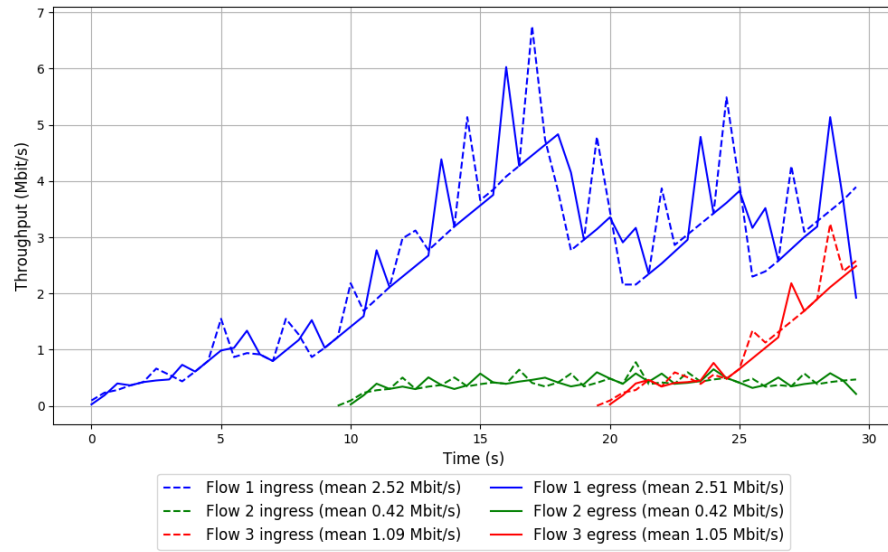


```
Run 10: Statistics of LEDBAT

Start at: 2017-08-31 14:30:11
End at: 2017-08-31 14:30:41

# Below is generated by plot.py at 2017-08-31 17:49:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 113.259 ms
Loss rate: 1.88%
-- Flow 1:
Average throughput: 2.51 Mbit/s
95th percentile per-packet one-way delay: 113.261 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 113.664 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 113.123 ms
Loss rate: 6.06%
```

Run 10: Report of LEDBAT — Data Link

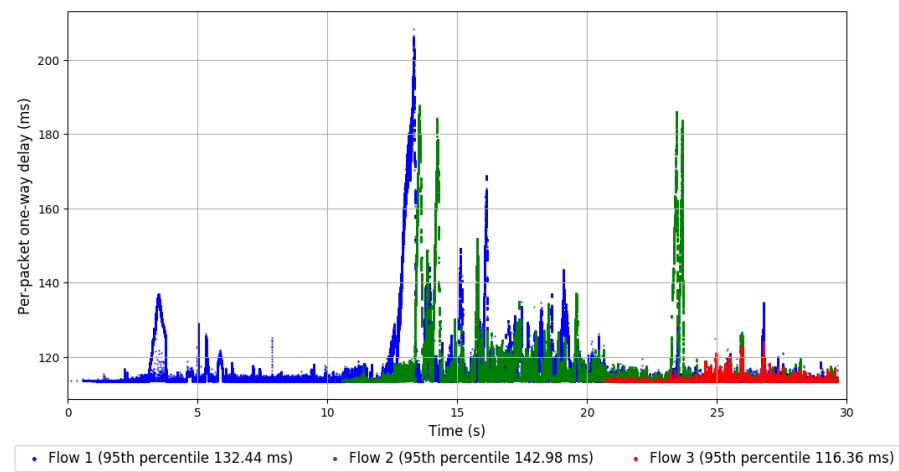
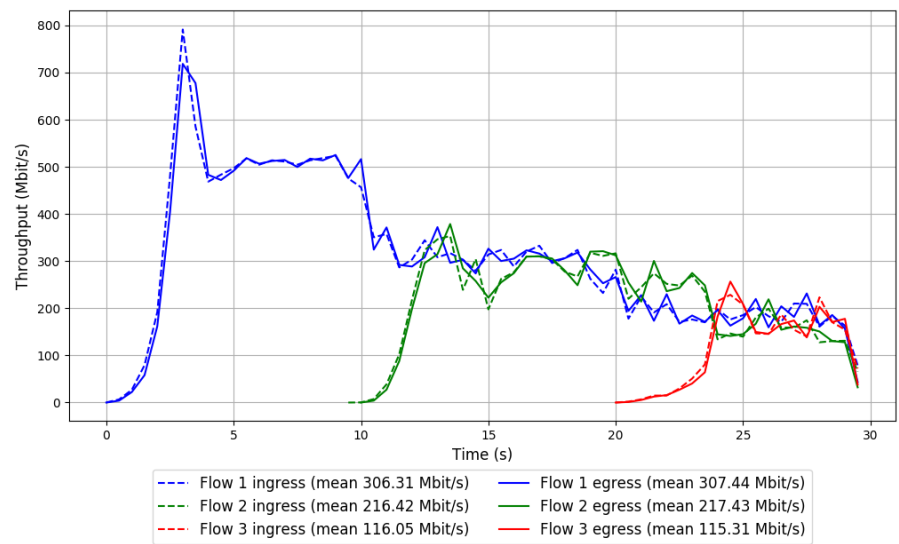


```
Run 1: Statistics of PCC

Start at: 2017-08-31 12:23:06
End at: 2017-08-31 12:23:36

# Below is generated by plot.py at 2017-08-31 17:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 488.52 Mbit/s
95th percentile per-packet one-way delay: 133.190 ms
Loss rate: 0.69%
-- Flow 1:
Average throughput: 307.44 Mbit/s
95th percentile per-packet one-way delay: 132.436 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 217.43 Mbit/s
95th percentile per-packet one-way delay: 142.983 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 115.31 Mbit/s
95th percentile per-packet one-way delay: 116.362 ms
Loss rate: 2.99%
```

Run 1: Report of PCC — Data Link

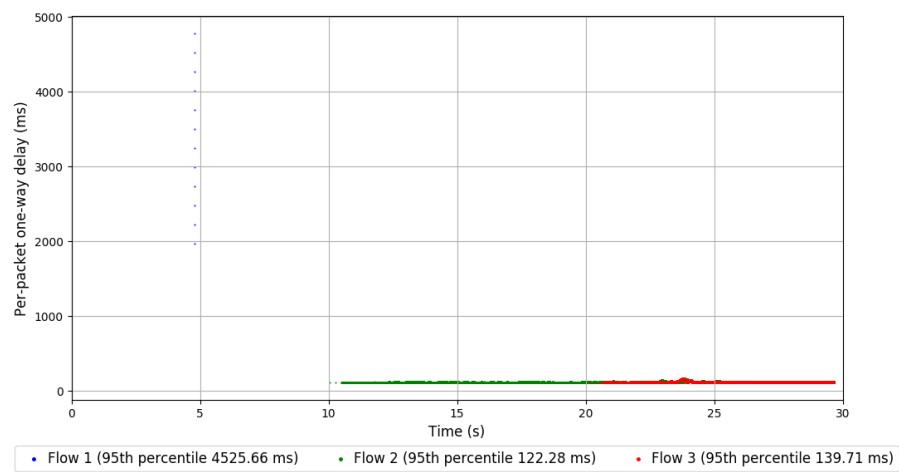
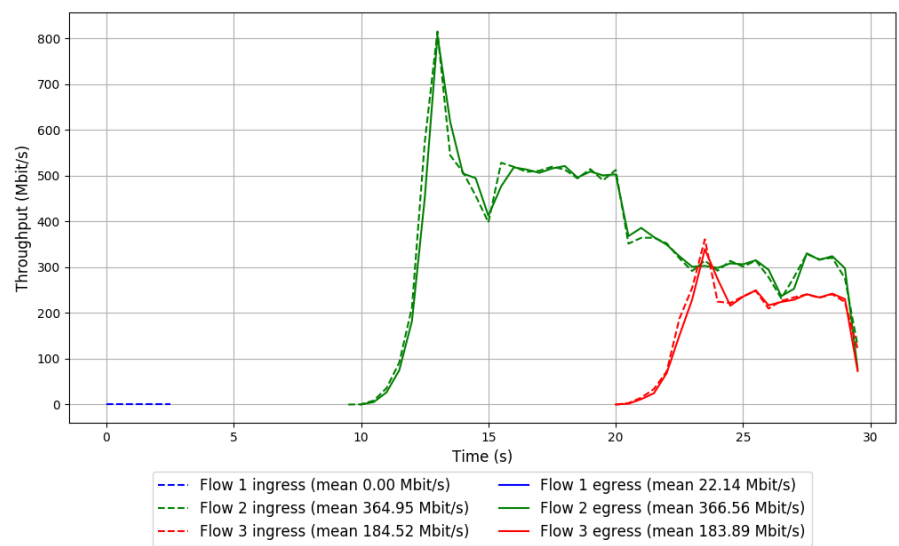


```
Run 2: Statistics of PCC

Start at: 2017-08-31 12:36:43
End at: 2017-08-31 12:37:13

# Below is generated by plot.py at 2017-08-31 17:51:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 359.21 Mbit/s
95th percentile per-packet one-way delay: 123.743 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 22.14 Mbit/s
95th percentile per-packet one-way delay: 4525.661 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 366.56 Mbit/s
95th percentile per-packet one-way delay: 122.280 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 183.89 Mbit/s
95th percentile per-packet one-way delay: 139.710 ms
Loss rate: 2.68%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-08-31 12:50:16

End at: 2017-08-31 12:50:47

Below is generated by plot.py at 2017-08-31 17:52:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.56 Mbit/s

95th percentile per-packet one-way delay: 125.500 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 262.09 Mbit/s

95th percentile per-packet one-way delay: 125.227 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 204.84 Mbit/s

95th percentile per-packet one-way delay: 124.195 ms

Loss rate: 1.08%

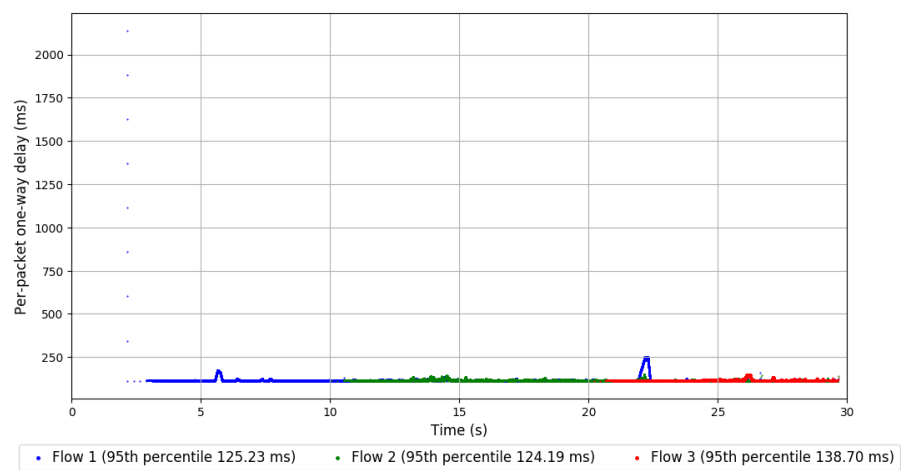
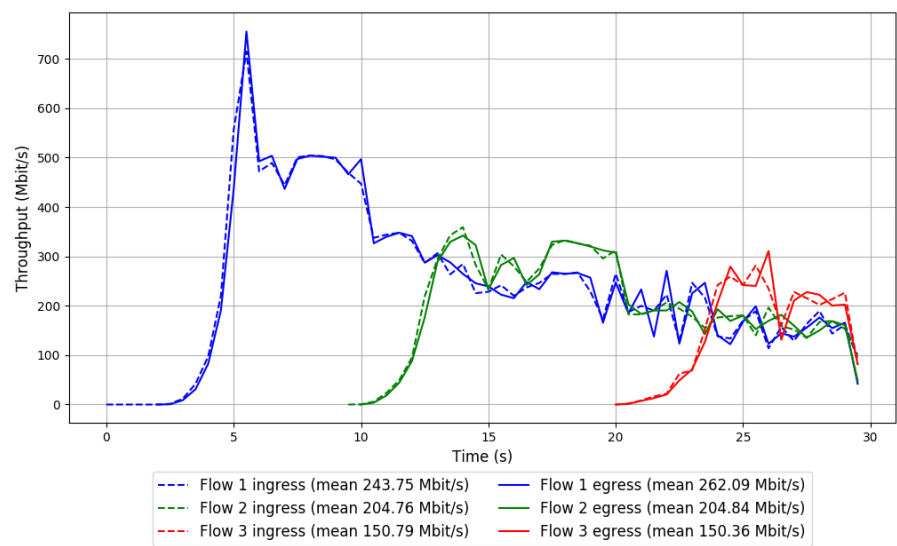
-- Flow 3:

Average throughput: 150.36 Mbit/s

95th percentile per-packet one-way delay: 138.700 ms

Loss rate: 2.50%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-08-31 13:03:25

End at: 2017-08-31 13:03:55

Below is generated by plot.py at 2017-08-31 17:52:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.97 Mbit/s

95th percentile per-packet one-way delay: 180.887 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 252.66 Mbit/s

95th percentile per-packet one-way delay: 208.869 ms

Loss rate: 1.78%

-- Flow 2:

Average throughput: 129.32 Mbit/s

95th percentile per-packet one-way delay: 118.056 ms

Loss rate: 0.44%

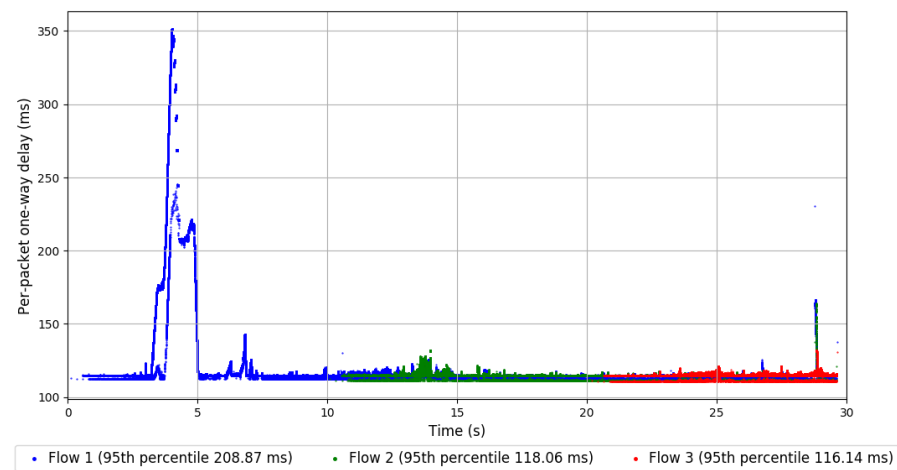
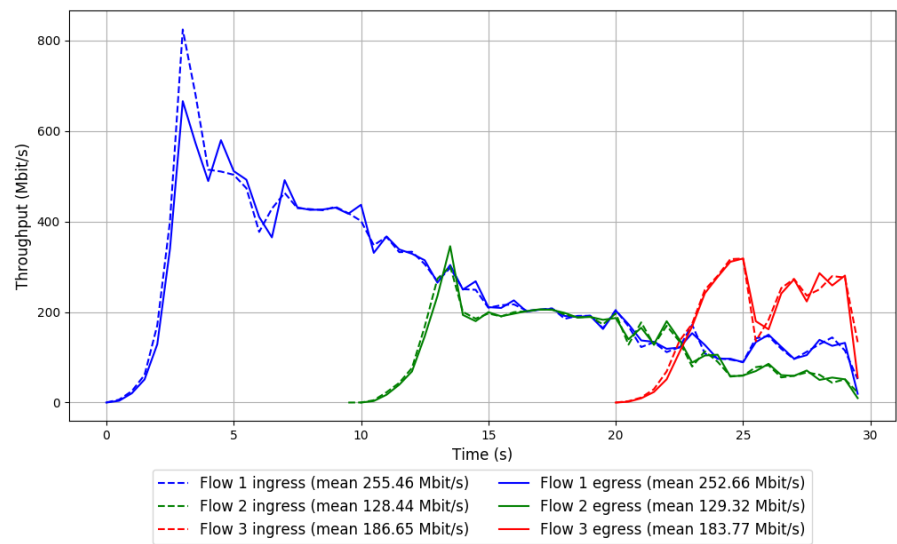
-- Flow 3:

Average throughput: 183.77 Mbit/s

95th percentile per-packet one-way delay: 116.143 ms

Loss rate: 3.75%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-08-31 13:17:01

End at: 2017-08-31 13:17:31

Below is generated by plot.py at 2017-08-31 17:53:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.01 Mbit/s

95th percentile per-packet one-way delay: 117.986 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 294.02 Mbit/s

95th percentile per-packet one-way delay: 118.758 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 168.17 Mbit/s

95th percentile per-packet one-way delay: 117.034 ms

Loss rate: 0.61%

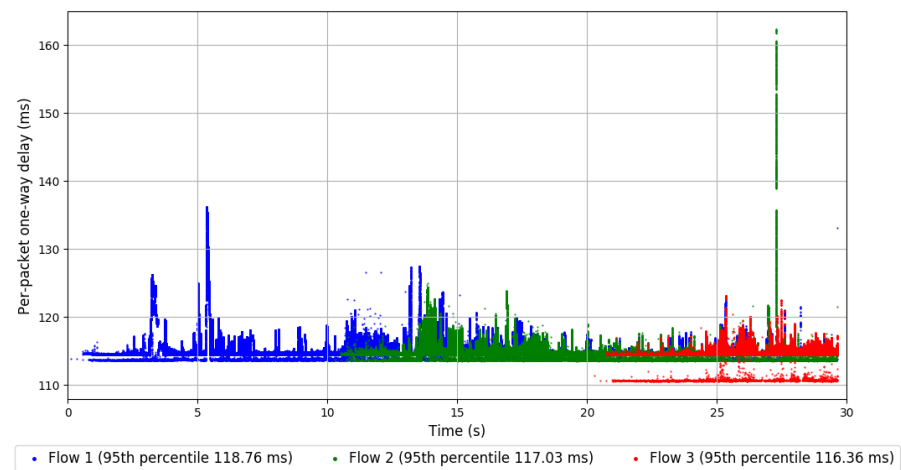
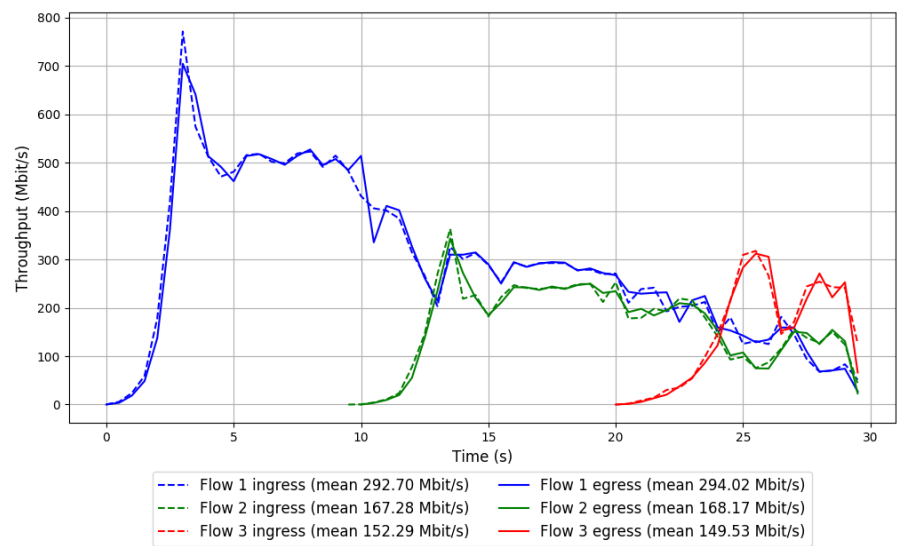
-- Flow 3:

Average throughput: 149.53 Mbit/s

95th percentile per-packet one-way delay: 116.364 ms

Loss rate: 4.09%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-08-31 13:30:22

End at: 2017-08-31 13:30:52

Below is generated by plot.py at 2017-08-31 17:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 442.58 Mbit/s

95th percentile per-packet one-way delay: 174.219 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 283.18 Mbit/s

95th percentile per-packet one-way delay: 199.728 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 149.99 Mbit/s

95th percentile per-packet one-way delay: 116.700 ms

Loss rate: 0.59%

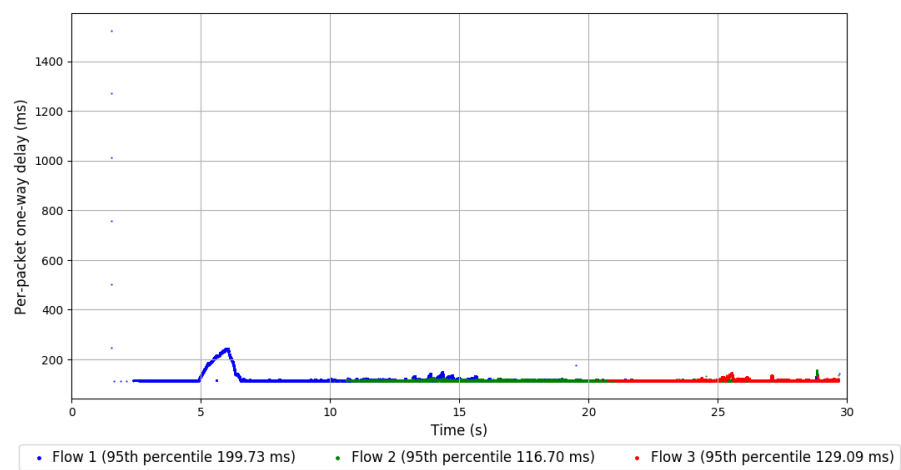
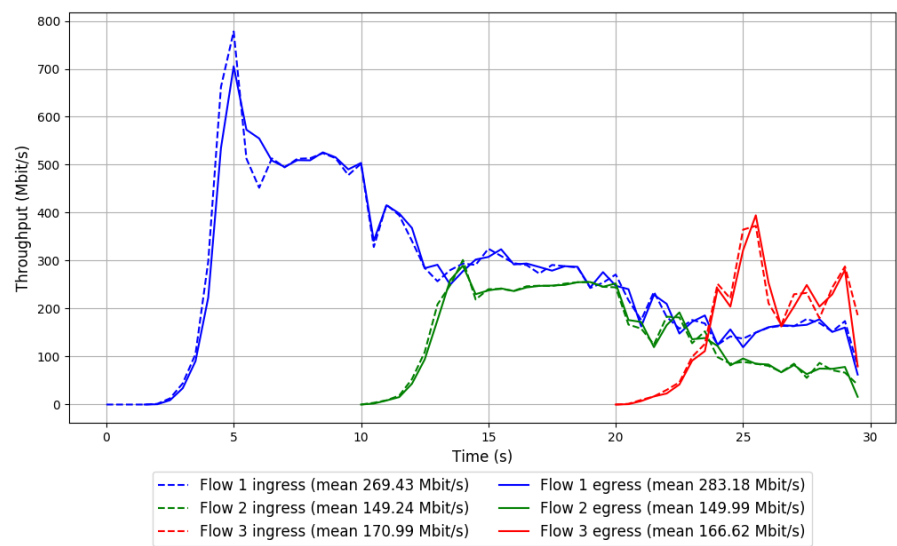
-- Flow 3:

Average throughput: 166.62 Mbit/s

95th percentile per-packet one-way delay: 129.085 ms

Loss rate: 4.87%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-08-31 13:43:47

End at: 2017-08-31 13:44:17

Below is generated by plot.py at 2017-08-31 17:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.12 Mbit/s

95th percentile per-packet one-way delay: 146.881 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 291.81 Mbit/s

95th percentile per-packet one-way delay: 170.665 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 186.06 Mbit/s

95th percentile per-packet one-way delay: 140.277 ms

Loss rate: 0.76%

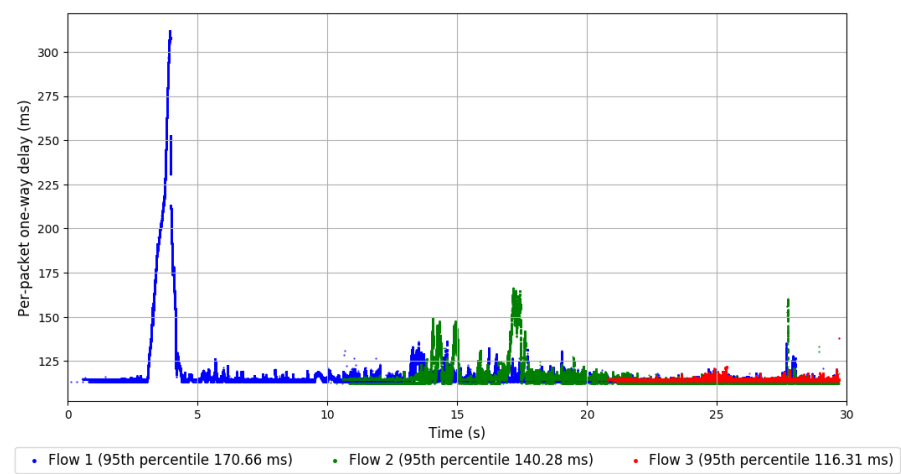
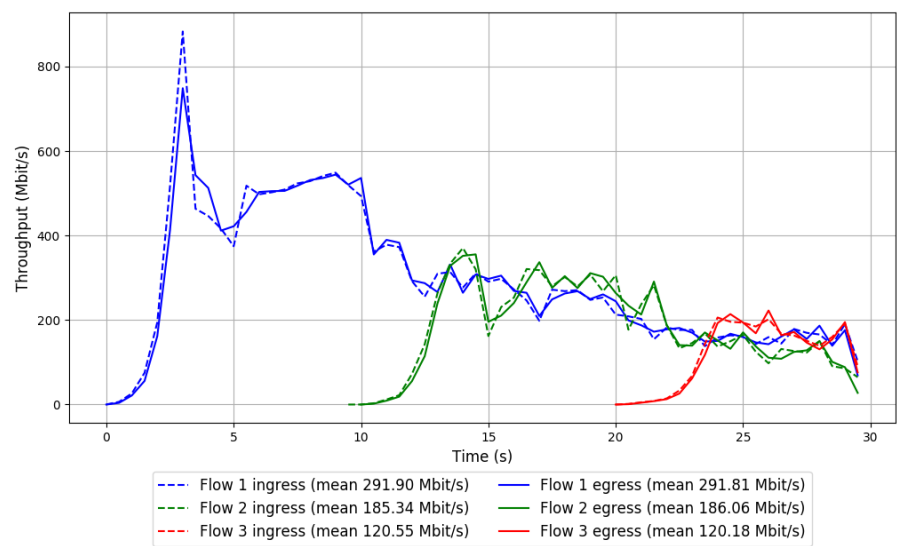
-- Flow 3:

Average throughput: 120.18 Mbit/s

95th percentile per-packet one-way delay: 116.306 ms

Loss rate: 2.48%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-08-31 13:57:18

End at: 2017-08-31 13:57:48

Below is generated by plot.py at 2017-08-31 17:55:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 448.03 Mbit/s

95th percentile per-packet one-way delay: 156.052 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 297.05 Mbit/s

95th percentile per-packet one-way delay: 172.207 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 163.71 Mbit/s

95th percentile per-packet one-way delay: 121.696 ms

Loss rate: 0.74%

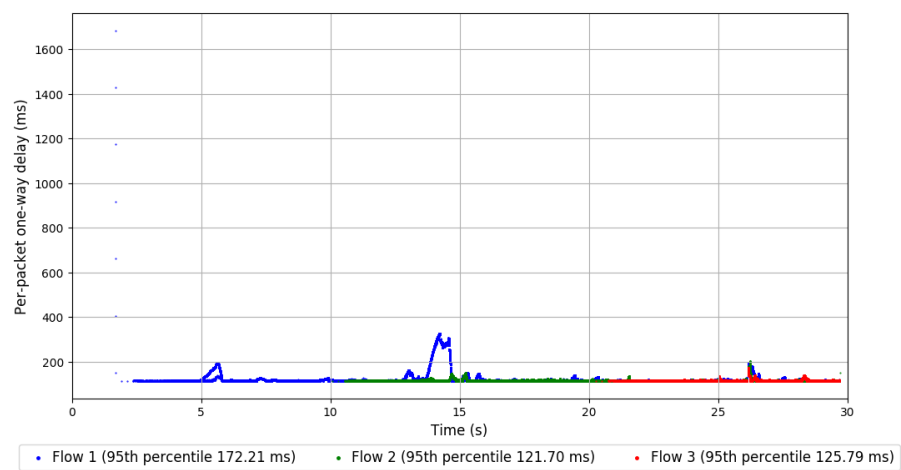
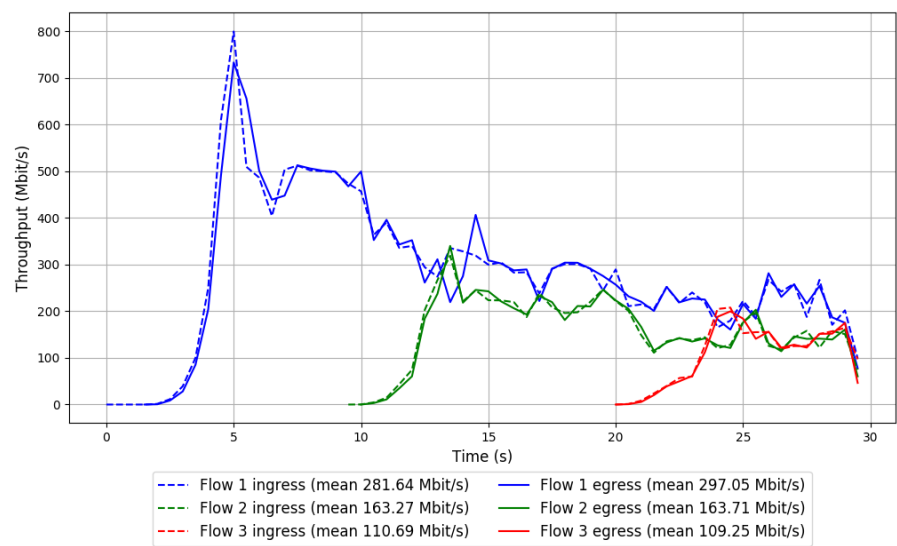
-- Flow 3:

Average throughput: 109.25 Mbit/s

95th percentile per-packet one-way delay: 125.787 ms

Loss rate: 3.64%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-08-31 14:10:40

End at: 2017-08-31 14:11:10

Below is generated by plot.py at 2017-08-31 17:56:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 430.93 Mbit/s

95th percentile per-packet one-way delay: 122.535 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 262.47 Mbit/s

95th percentile per-packet one-way delay: 140.933 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 166.10 Mbit/s

95th percentile per-packet one-way delay: 116.204 ms

Loss rate: 0.99%

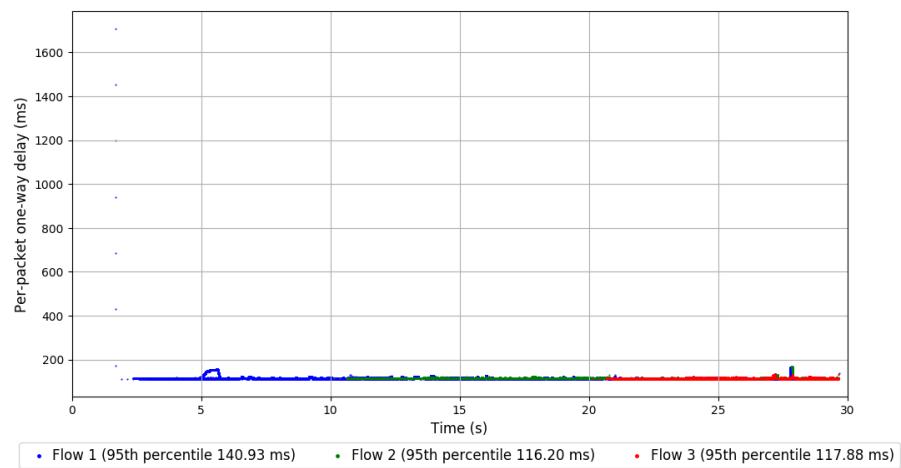
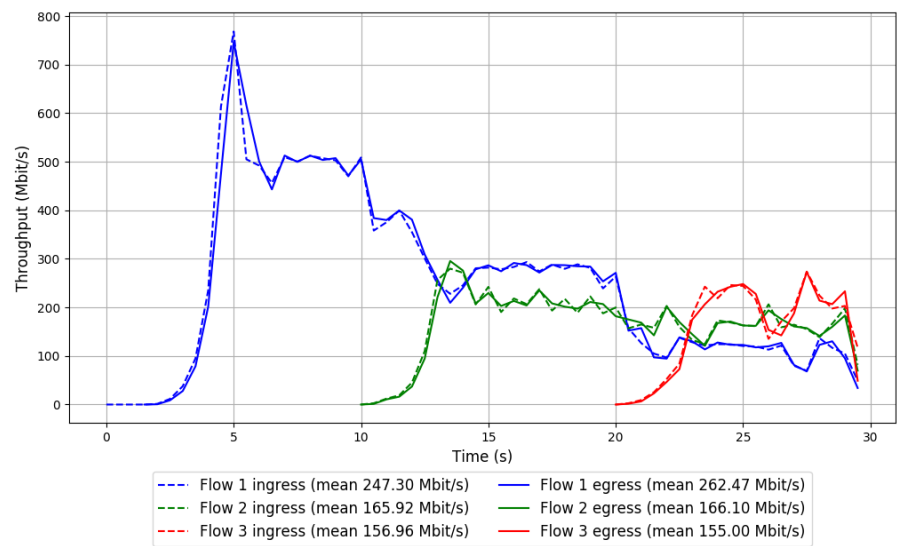
-- Flow 3:

Average throughput: 155.00 Mbit/s

95th percentile per-packet one-way delay: 117.881 ms

Loss rate: 3.44%

Run 9: Report of PCC — Data Link

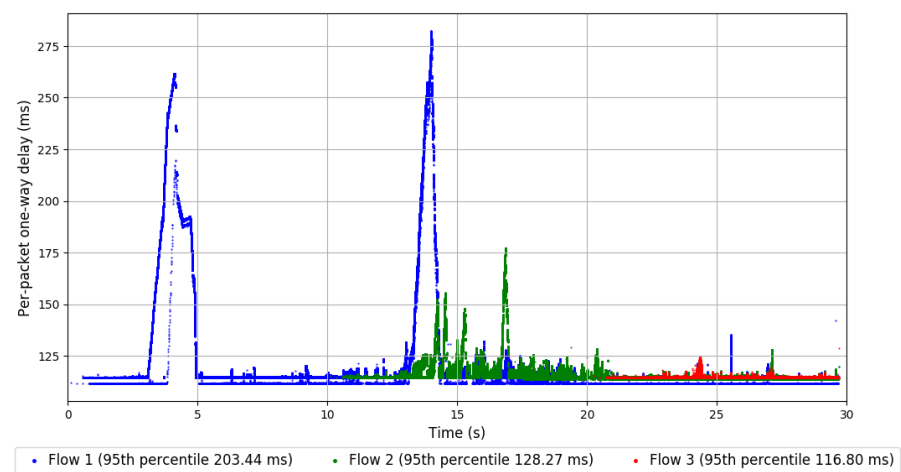
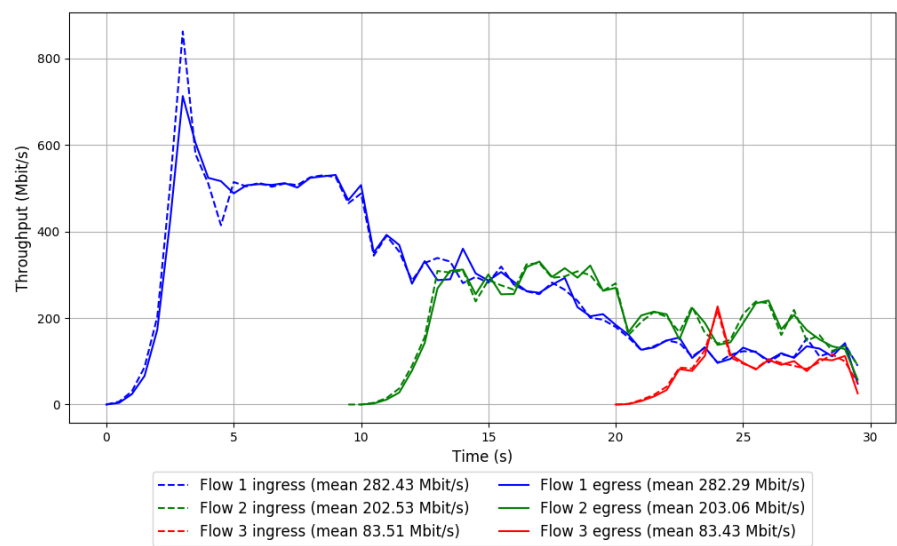


```
Run 10: Statistics of PCC

Start at: 2017-08-31 14:24:05
End at: 2017-08-31 14:24:35

# Below is generated by plot.py at 2017-08-31 17:56:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 443.15 Mbit/s
95th percentile per-packet one-way delay: 191.299 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 282.29 Mbit/s
95th percentile per-packet one-way delay: 203.445 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 203.06 Mbit/s
95th percentile per-packet one-way delay: 128.274 ms
Loss rate: 0.88%
-- Flow 3:
Average throughput: 83.43 Mbit/s
95th percentile per-packet one-way delay: 116.799 ms
Loss rate: 2.44%
```

Run 10: Report of PCC — Data Link

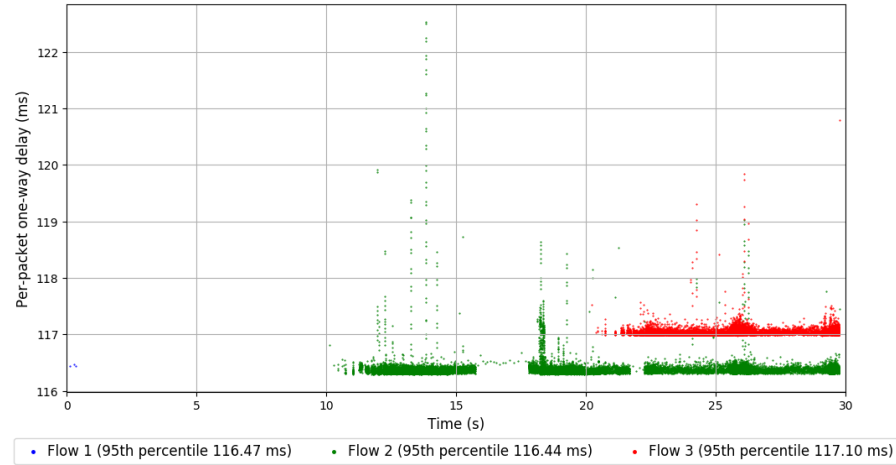
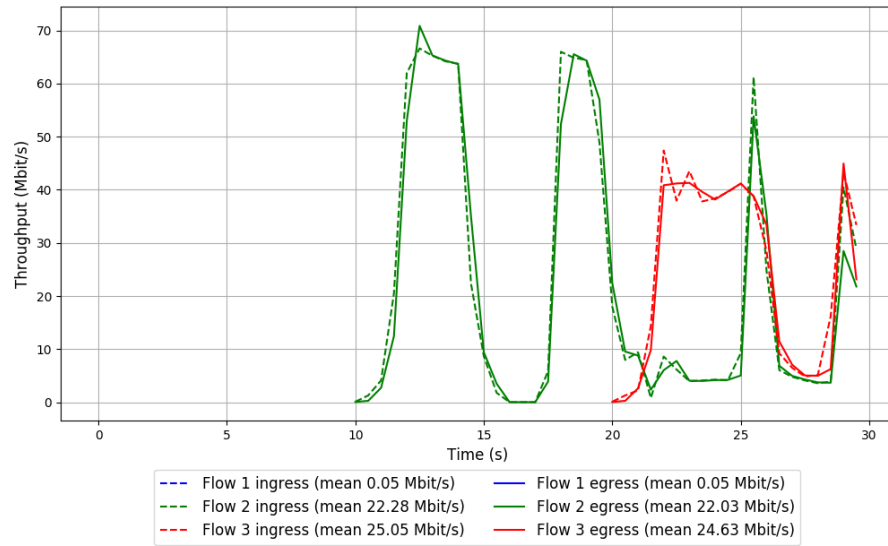


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-08-31 12:25:56
End at: 2017-08-31 12:26:26

# Below is generated by plot.py at 2017-08-31 17:56:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 22.52 Mbit/s
95th percentile per-packet one-way delay: 117.052 ms
Loss rate: 2.90%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 116.473 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.03 Mbit/s
95th percentile per-packet one-way delay: 116.438 ms
Loss rate: 2.26%
-- Flow 3:
Average throughput: 24.63 Mbit/s
95th percentile per-packet one-way delay: 117.101 ms
Loss rate: 4.04%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-08-31 12:39:24

End at: 2017-08-31 12:39:54

Below is generated by plot.py at 2017-08-31 17:56:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.46 Mbit/s

95th percentile per-packet one-way delay: 113.667 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 113.628 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 14.47 Mbit/s

95th percentile per-packet one-way delay: 113.700 ms

Loss rate: 0.43%

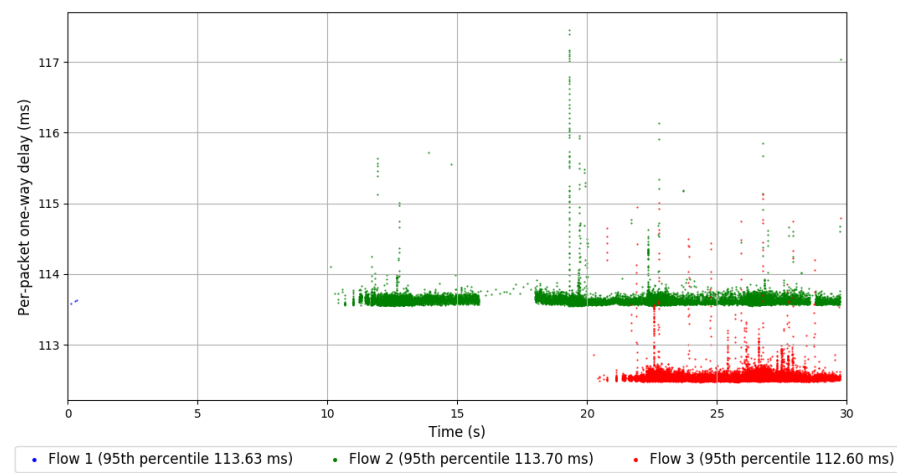
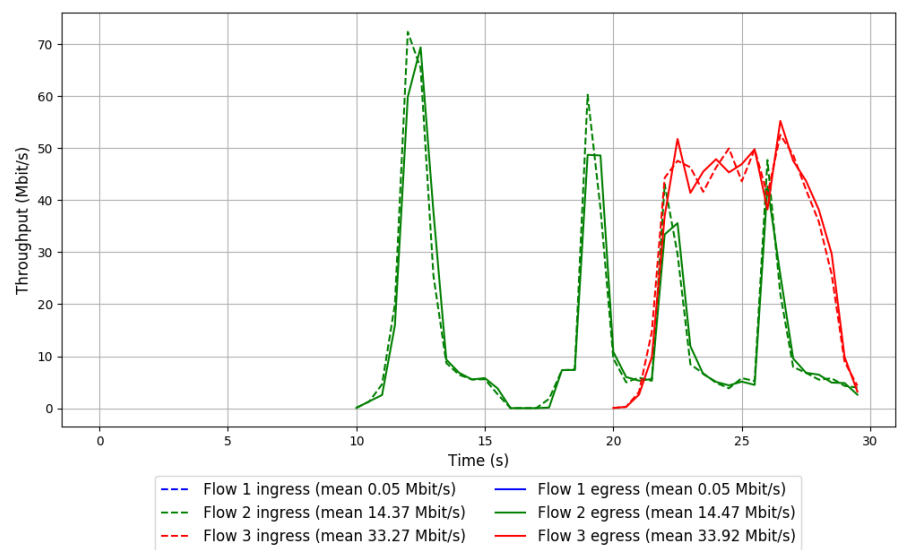
-- Flow 3:

Average throughput: 33.92 Mbit/s

95th percentile per-packet one-way delay: 112.601 ms

Loss rate: 0.42%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-08-31 12:53:03

End at: 2017-08-31 12:53:33

Below is generated by plot.py at 2017-08-31 17:56:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.02 Mbit/s

95th percentile per-packet one-way delay: 110.439 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.672 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.39 Mbit/s

95th percentile per-packet one-way delay: 110.463 ms

Loss rate: 0.25%

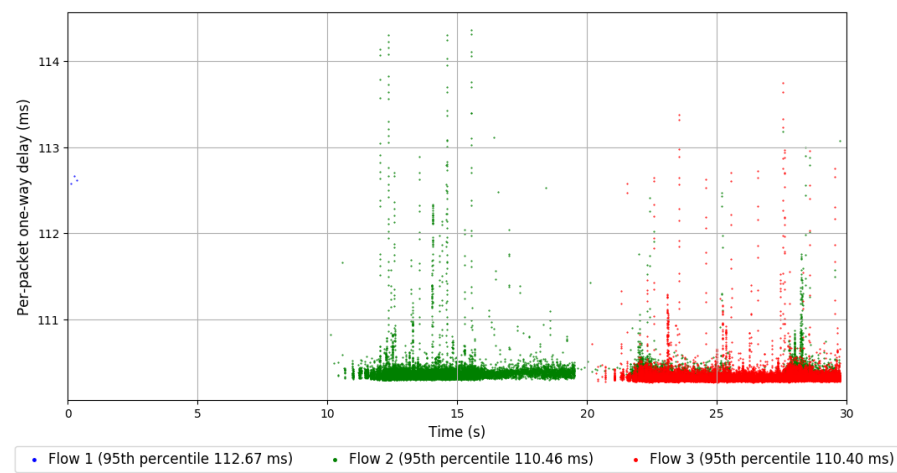
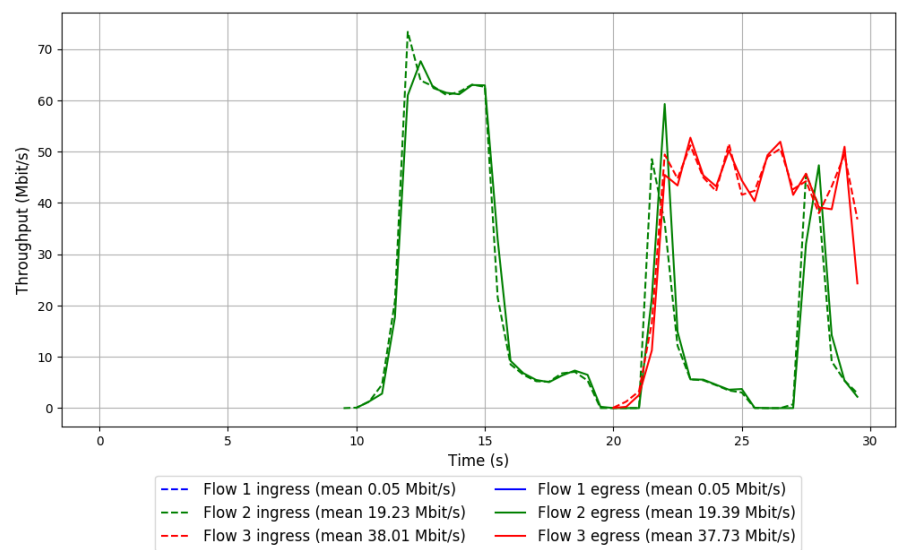
-- Flow 3:

Average throughput: 37.73 Mbit/s

95th percentile per-packet one-way delay: 110.396 ms

Loss rate: 3.01%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-08-31 13:06:12

End at: 2017-08-31 13:06:42

Below is generated by plot.py at 2017-08-31 17:56:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.83 Mbit/s

95th percentile per-packet one-way delay: 114.707 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 112.689 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.90 Mbit/s

95th percentile per-packet one-way delay: 114.717 ms

Loss rate: 3.13%

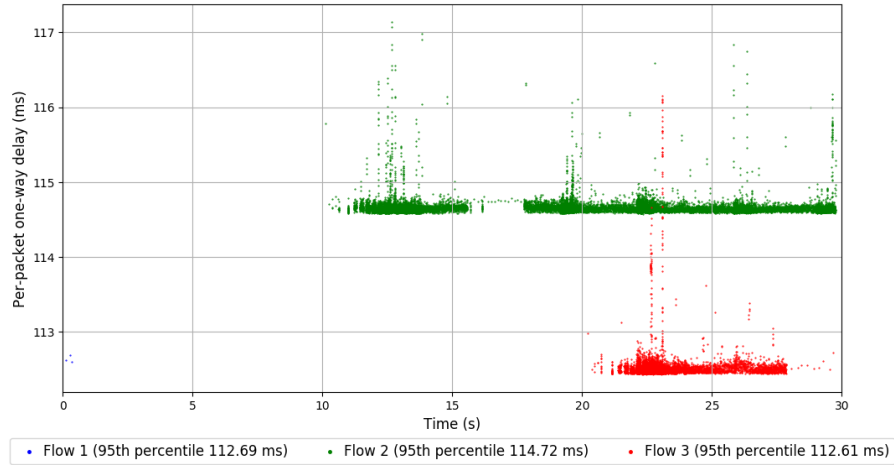
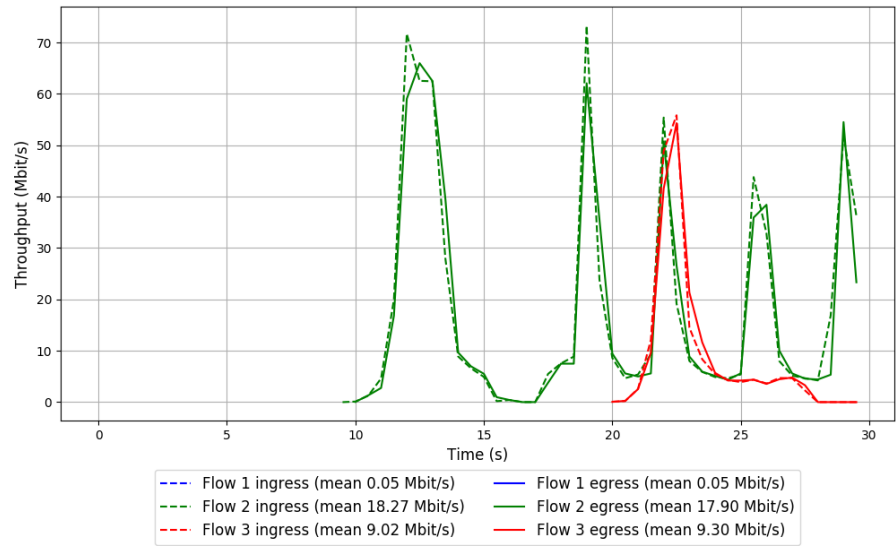
-- Flow 3:

Average throughput: 9.30 Mbit/s

95th percentile per-packet one-way delay: 112.613 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-08-31 13:19:48

End at: 2017-08-31 13:20:18

Below is generated by plot.py at 2017-08-31 17:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.49 Mbit/s

95th percentile per-packet one-way delay: 112.638 ms

Loss rate: 2.47%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.551 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.20 Mbit/s

95th percentile per-packet one-way delay: 112.620 ms

Loss rate: 1.88%

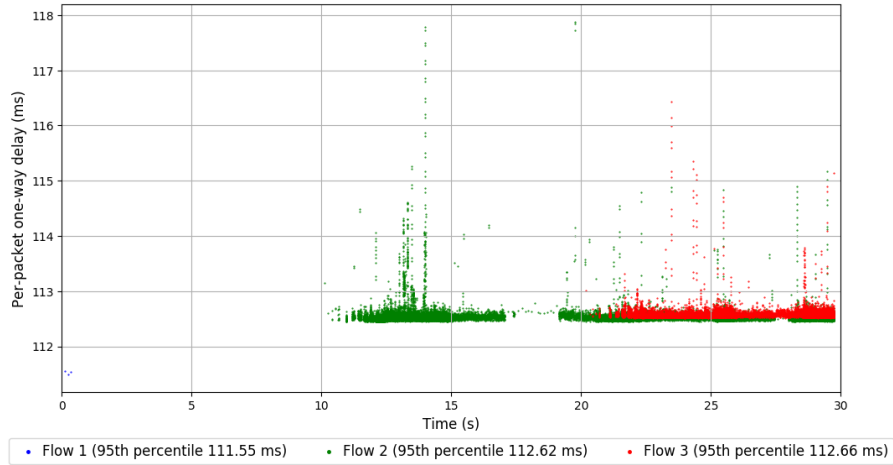
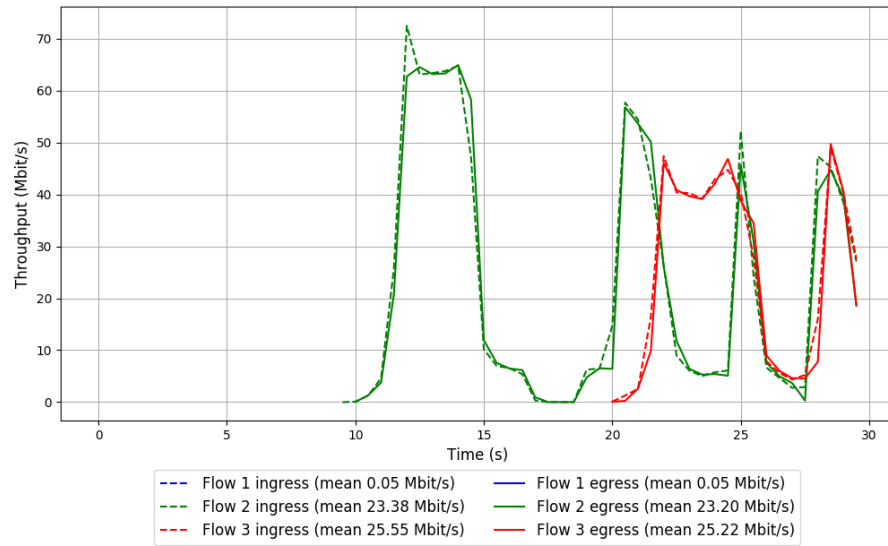
-- Flow 3:

Average throughput: 25.22 Mbit/s

95th percentile per-packet one-way delay: 112.658 ms

Loss rate: 3.57%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-08-31 13:33:08

End at: 2017-08-31 13:33:38

Below is generated by plot.py at 2017-08-31 17:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 24.90 Mbit/s

95th percentile per-packet one-way delay: 112.511 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 111.545 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.20 Mbit/s

95th percentile per-packet one-way delay: 111.766 ms

Loss rate: 0.29%

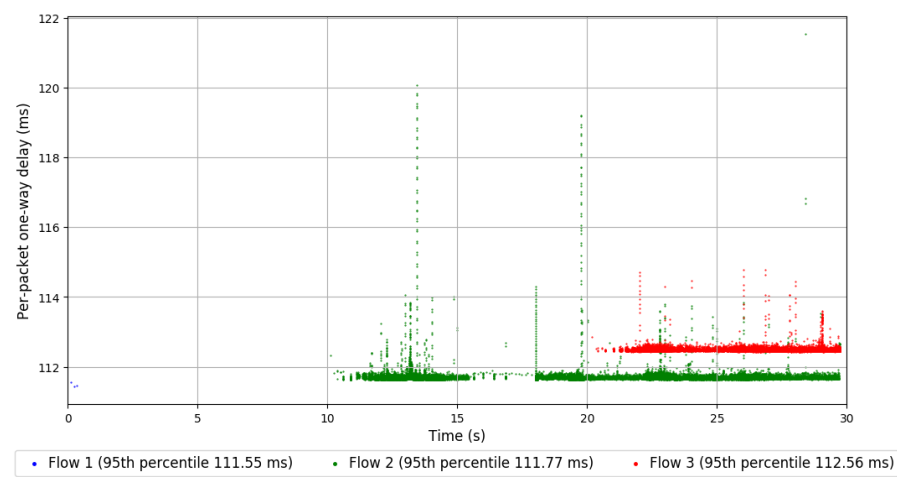
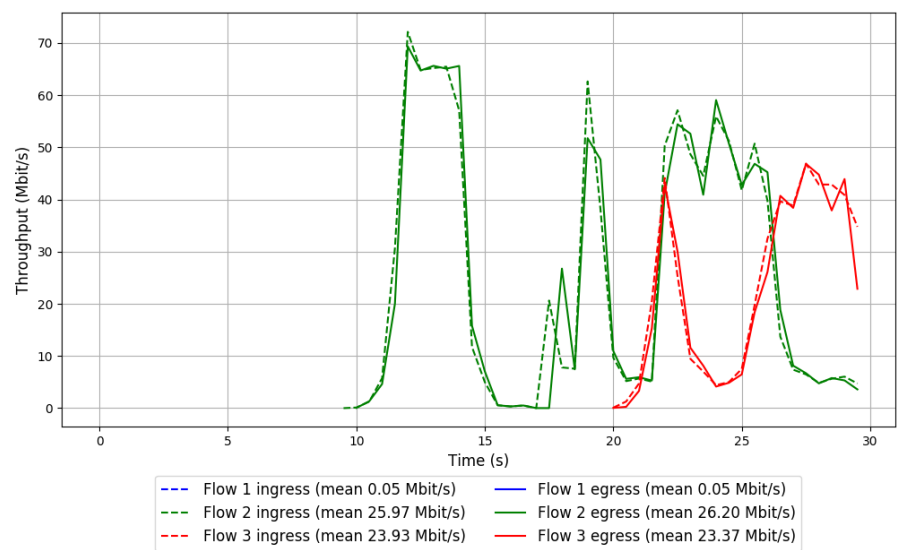
-- Flow 3:

Average throughput: 23.37 Mbit/s

95th percentile per-packet one-way delay: 112.562 ms

Loss rate: 4.61%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-08-31 13:46:37

End at: 2017-08-31 13:47:07

Below is generated by plot.py at 2017-08-31 17:57:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 46.82 Mbit/s

95th percentile per-packet one-way delay: 113.683 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 22.87 Mbit/s

95th percentile per-packet one-way delay: 113.710 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 26.97 Mbit/s

95th percentile per-packet one-way delay: 113.086 ms

Loss rate: 1.88%

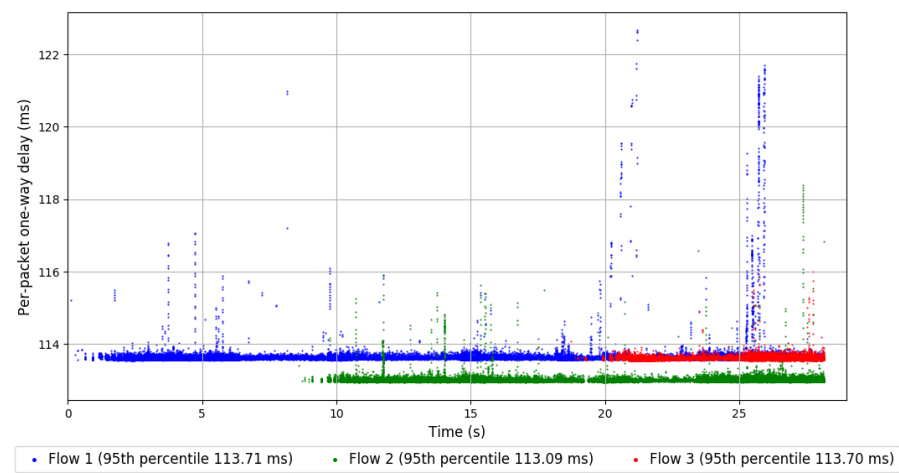
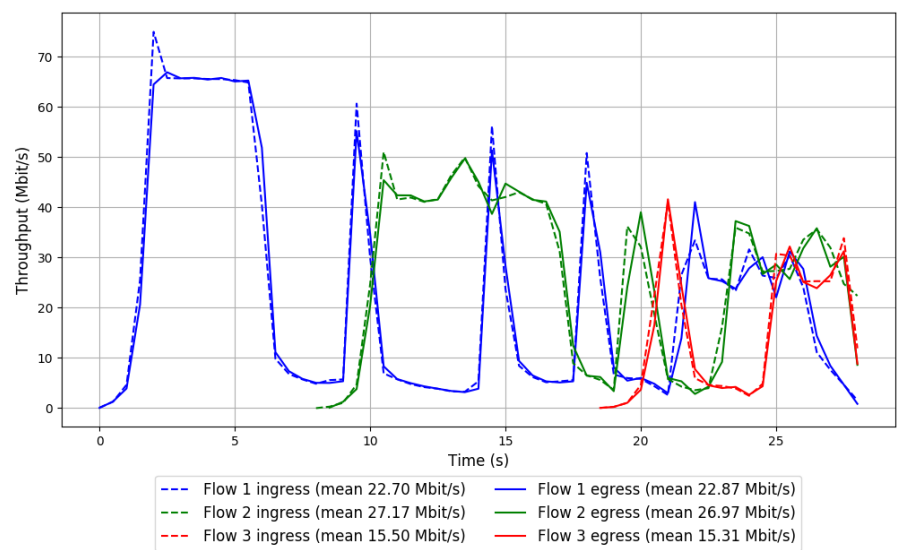
-- Flow 3:

Average throughput: 15.31 Mbit/s

95th percentile per-packet one-way delay: 113.705 ms

Loss rate: 3.59%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-08-31 14:00:06

End at: 2017-08-31 14:00:36

Below is generated by plot.py at 2017-08-31 17:57:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.67 Mbit/s

95th percentile per-packet one-way delay: 114.691 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 114.036 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.69 Mbit/s

95th percentile per-packet one-way delay: 114.716 ms

Loss rate: 0.00%

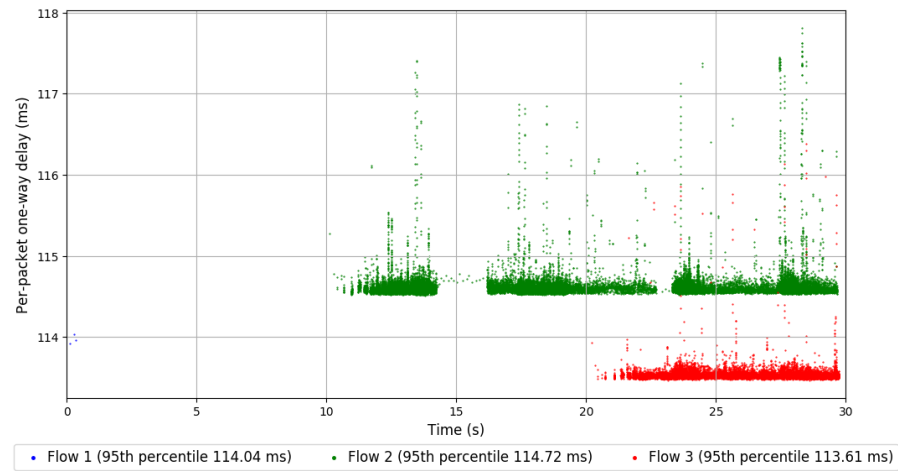
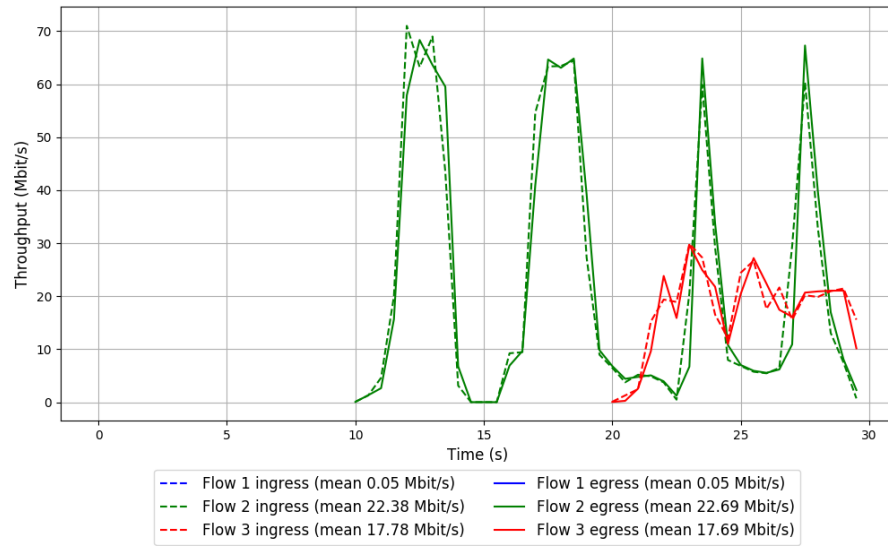
-- Flow 3:

Average throughput: 17.69 Mbit/s

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

Loss rate: 2.89%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-08-31 14:13:26

End at: 2017-08-31 14:13:56

Below is generated by plot.py at 2017-08-31 17:57:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.97 Mbit/s

95th percentile per-packet one-way delay: 114.056 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 110.574 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 24.25 Mbit/s

95th percentile per-packet one-way delay: 114.087 ms

Loss rate: 0.28%

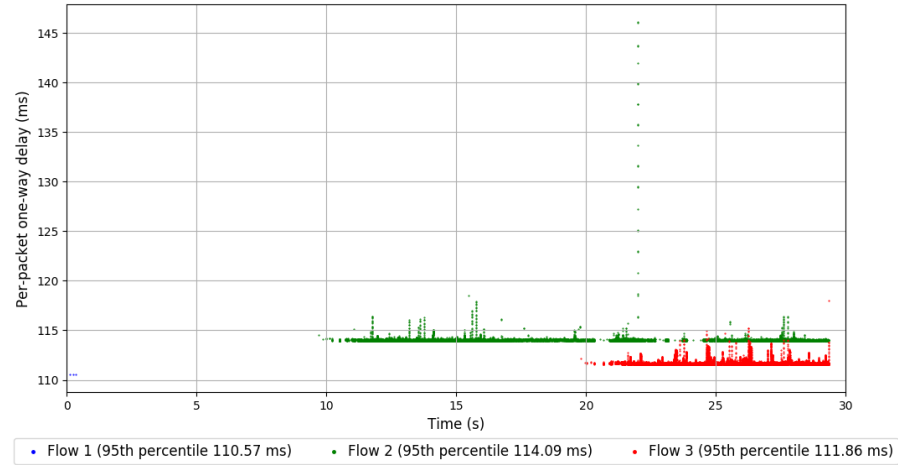
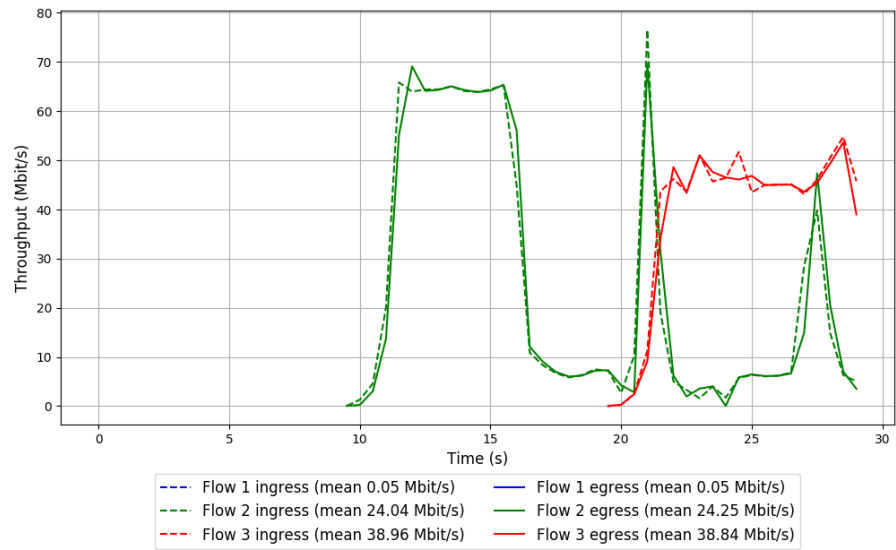
-- Flow 3:

Average throughput: 38.84 Mbit/s

95th percentile per-packet one-way delay: 111.864 ms

Loss rate: 2.54%

Run 9: Report of QUIC Cubic — Data Link

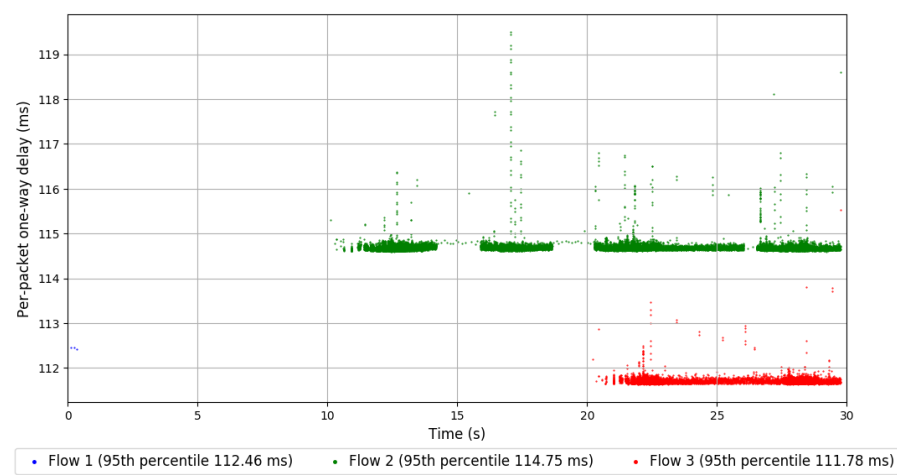
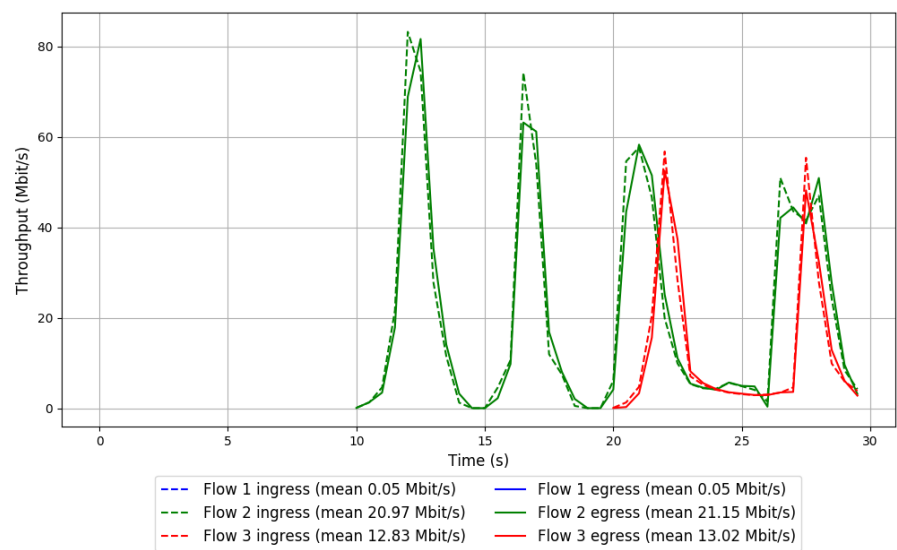


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-08-31 14:26:52
End at: 2017-08-31 14:27:22

# Below is generated by plot.py at 2017-08-31 17:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 18.21 Mbit/s
95th percentile per-packet one-way delay: 114.741 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 112.458 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 21.15 Mbit/s
95th percentile per-packet one-way delay: 114.752 ms
Loss rate: 0.30%
-- Flow 3:
Average throughput: 13.02 Mbit/s
95th percentile per-packet one-way delay: 111.785 ms
Loss rate: 0.91%
```

Run 10: Report of QUIC Cubic — Data Link

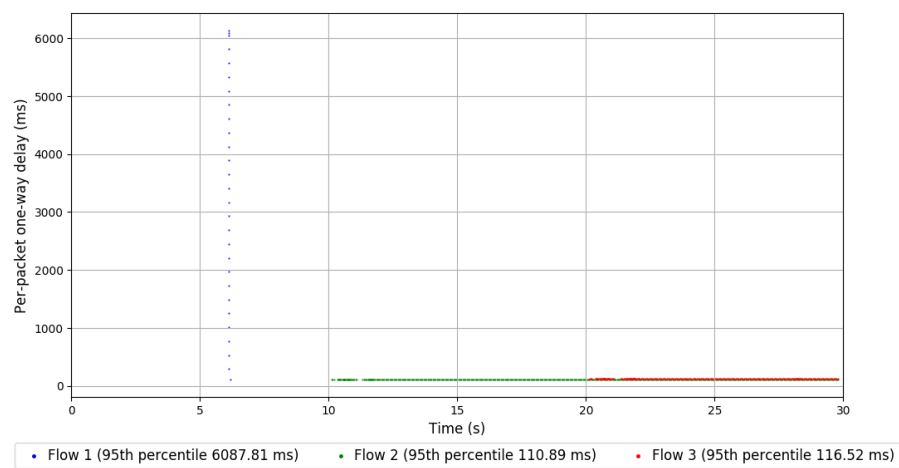
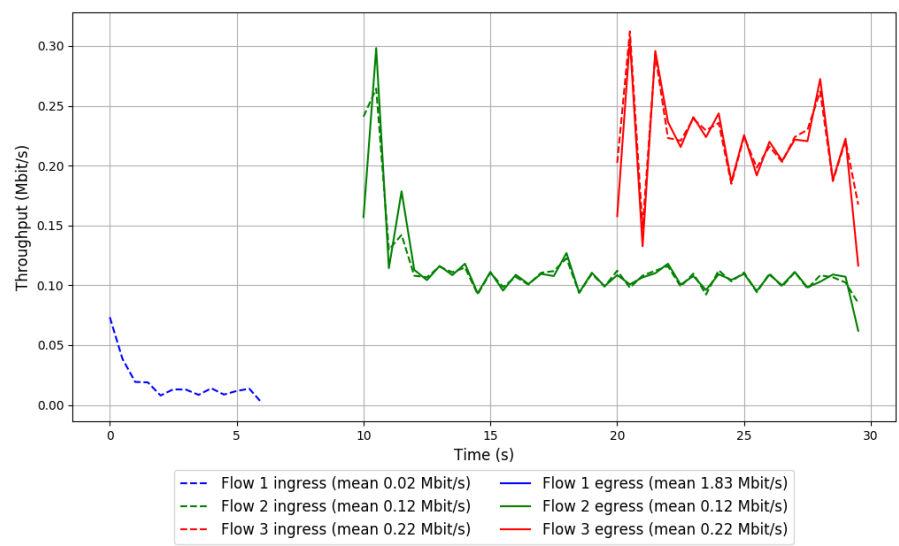


Run 1: Statistics of SReAM

Start at: 2017-08-31 12:25:10

End at: 2017-08-31 12:25:40

Run 1: Report of SReAM — Data Link

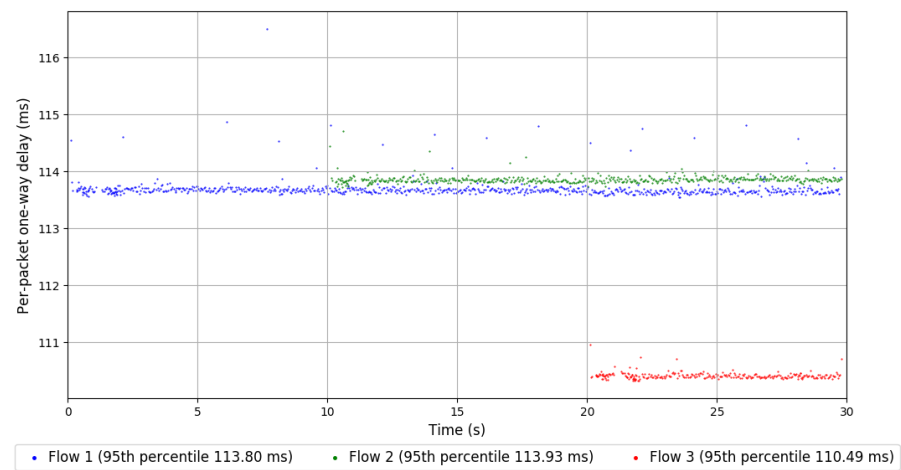
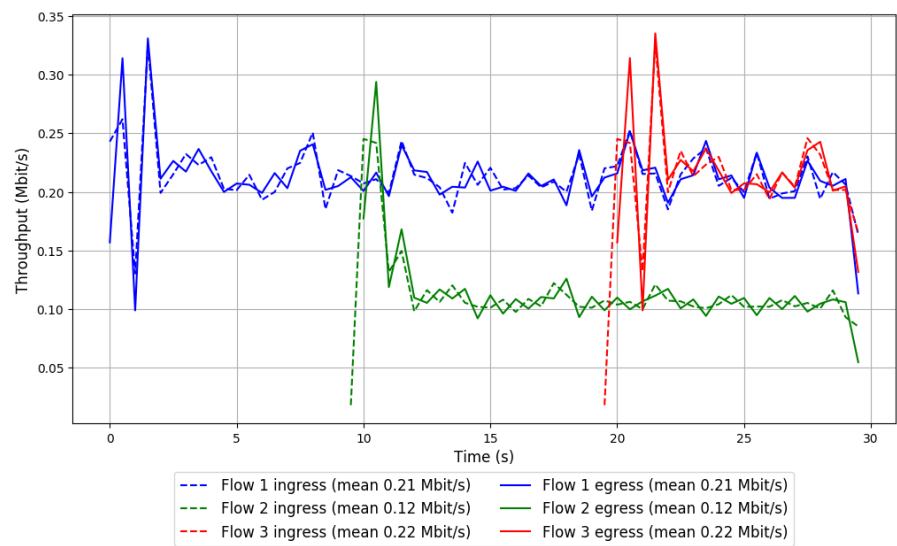


```
Run 2: Statistics of SCReAM

Start at: 2017-08-31 12:38:38
End at: 2017-08-31 12:39:08

# Below is generated by plot.py at 2017-08-31 17:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 113.903 ms
Loss rate: 1.03%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.797 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 113.933 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.493 ms
Loss rate: 1.86%
```

Run 2: Report of SReAM — Data Link

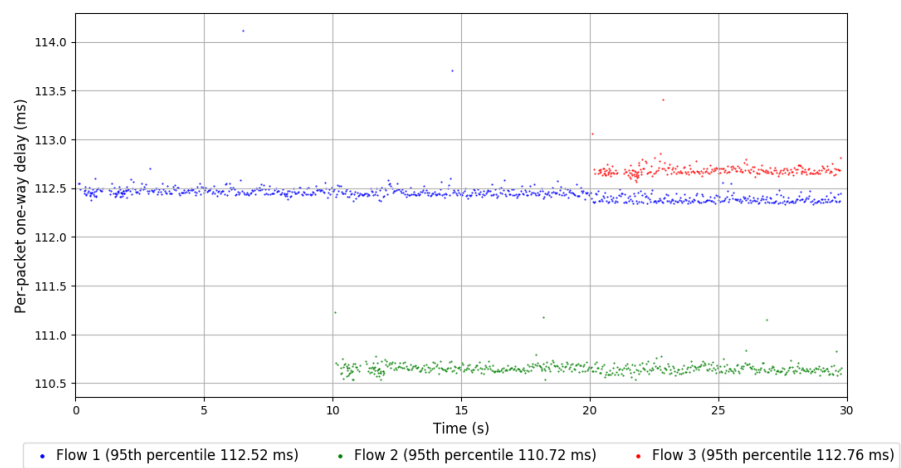
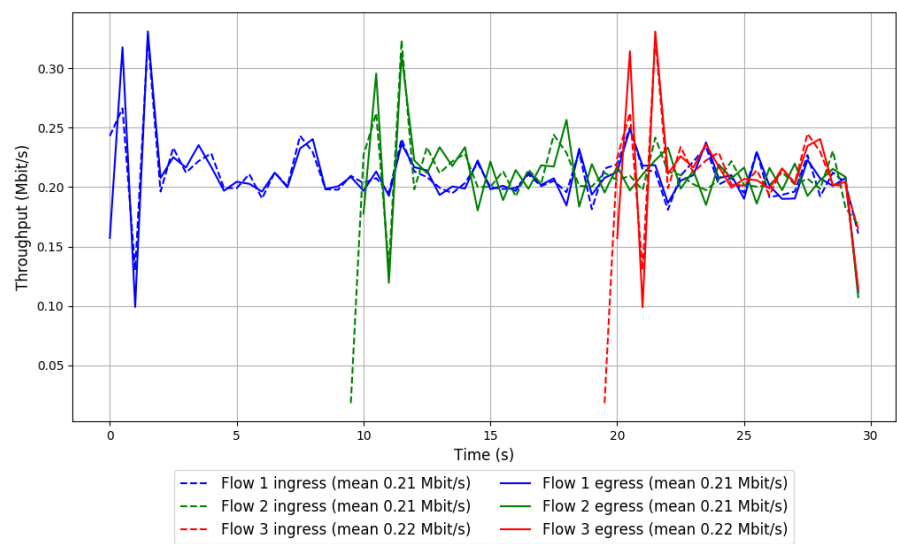


```
Run 3: Statistics of SReAM

Start at: 2017-08-31 12:52:17
End at: 2017-08-31 12:52:47

# Below is generated by plot.py at 2017-08-31 17:57:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 112.697 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.523 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 110.718 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.758 ms
Loss rate: 2.25%
```


Run 3: Report of SReAM — Data Link

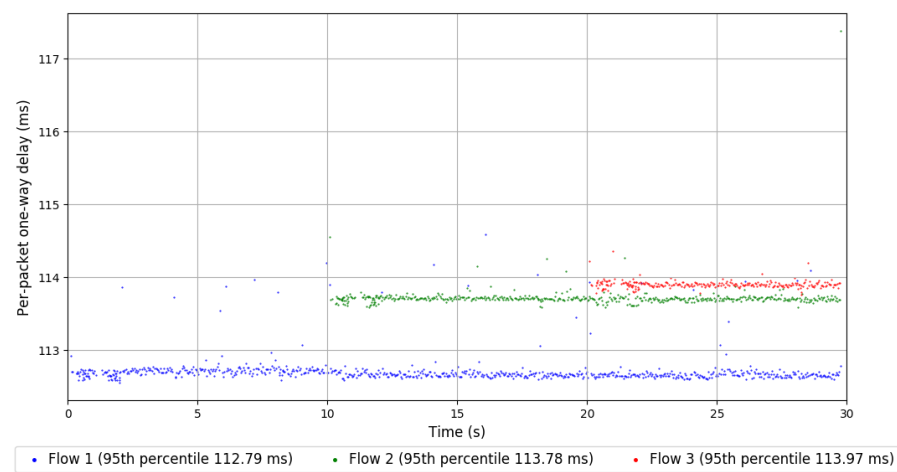
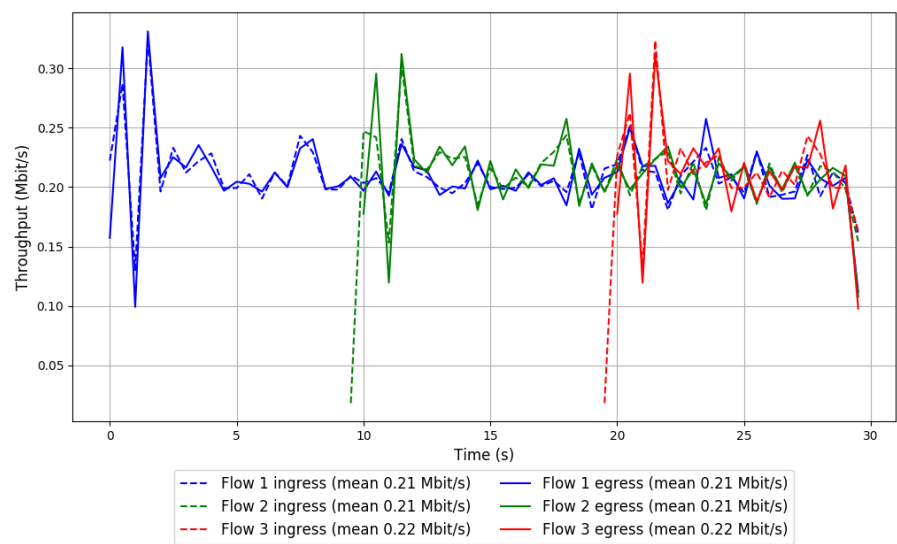


```
Run 4: Statistics of SCReAM

Start at: 2017-08-31 13:05:26
End at: 2017-08-31 13:05:56

# Below is generated by plot.py at 2017-08-31 17:57:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 113.923 ms
Loss rate: 1.11%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.788 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 113.777 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.970 ms
Loss rate: 2.25%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2017-08-31 13:19:02

End at: 2017-08-31 13:19:32

Below is generated by plot.py at 2017-08-31 17:57:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.500 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.811 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.458 ms

Loss rate: 1.05%

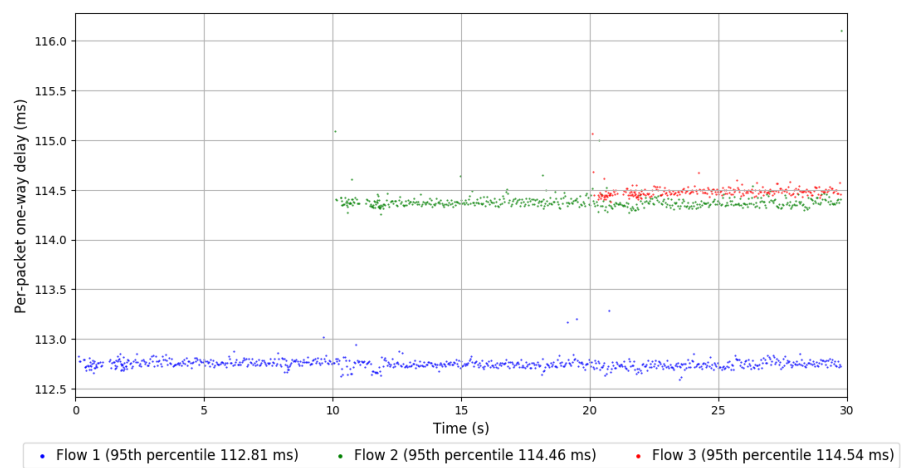
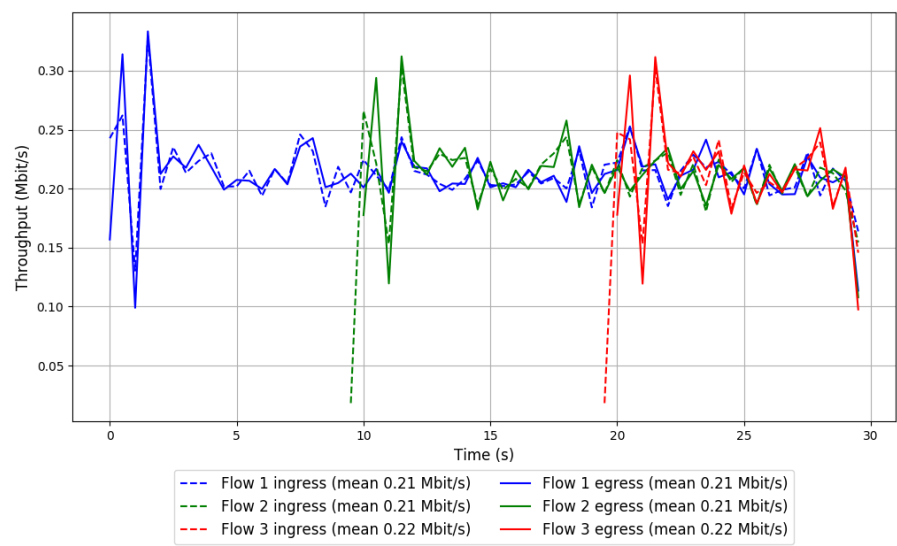
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.541 ms

Loss rate: 2.24%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-08-31 13:32:22

End at: 2017-08-31 13:32:52

Below is generated by plot.py at 2017-08-31 17:57:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.709 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.720 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.773 ms

Loss rate: 1.05%

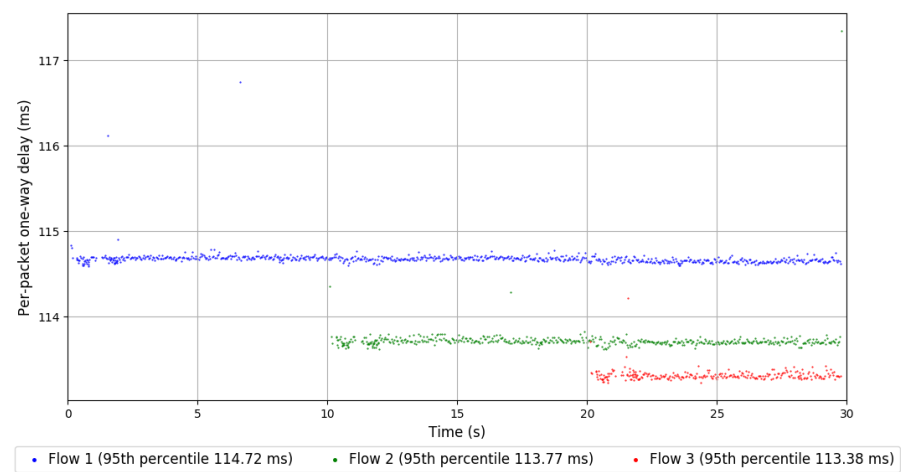
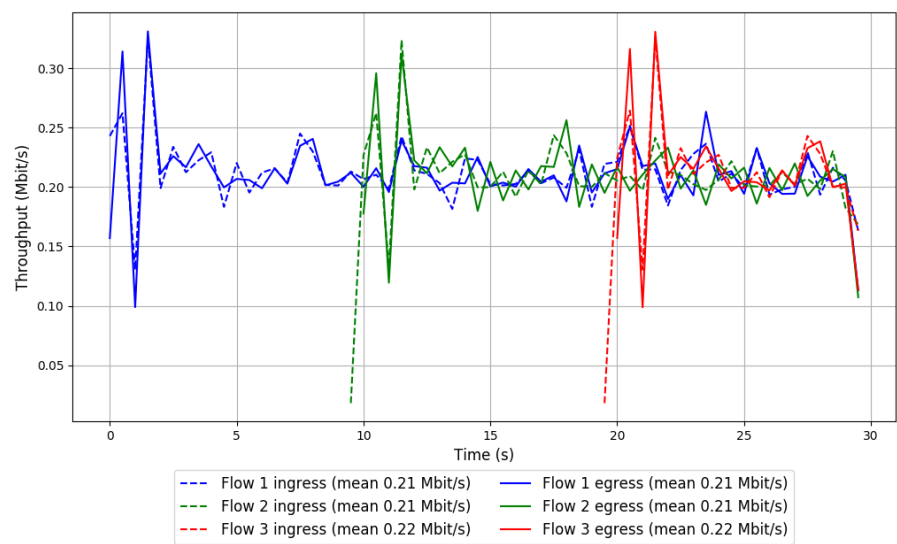
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.384 ms

Loss rate: 2.25%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2017-08-31 13:45:50

End at: 2017-08-31 13:46:20

Below is generated by plot.py at 2017-08-31 17:57:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 114.514 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.536 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.888 ms

Loss rate: 1.05%

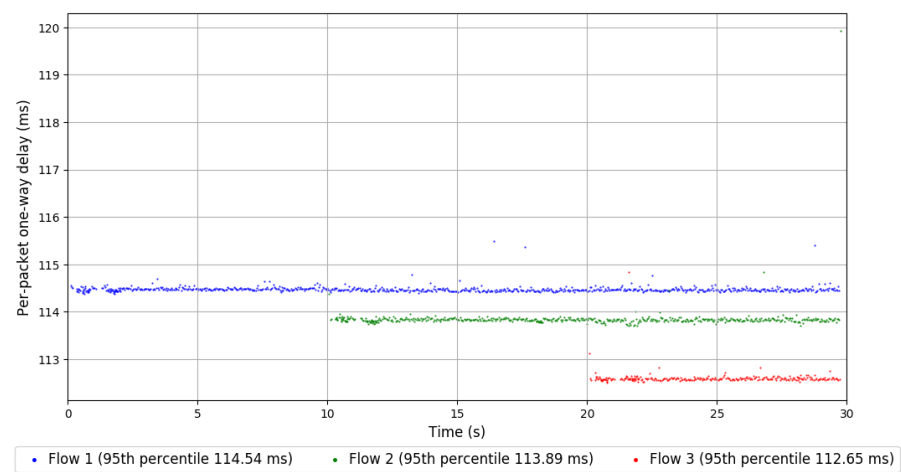
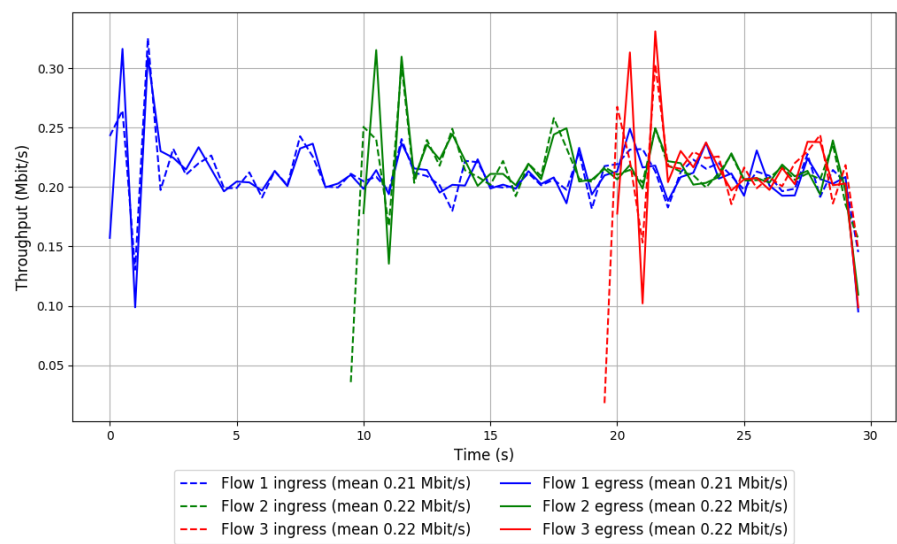
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.653 ms

Loss rate: 2.25%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-08-31 13:59:20

End at: 2017-08-31 13:59:50

Below is generated by plot.py at 2017-08-31 17:57:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 113.991 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 114.043 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 111.986 ms

Loss rate: 1.05%

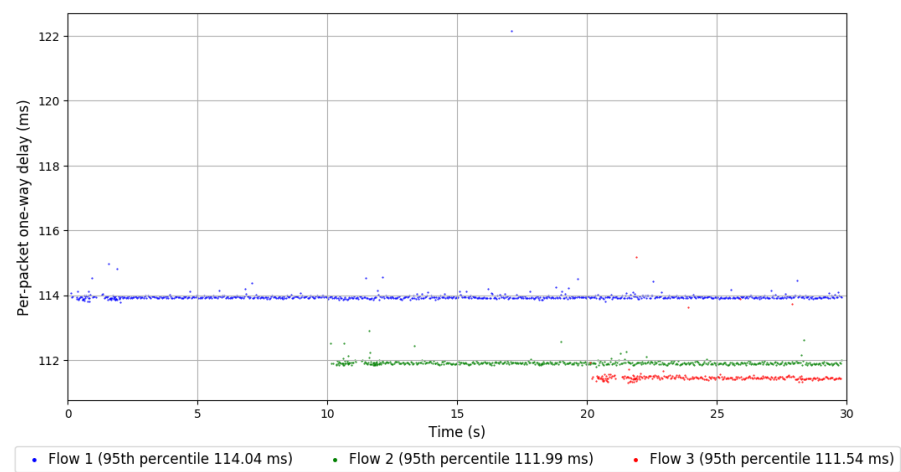
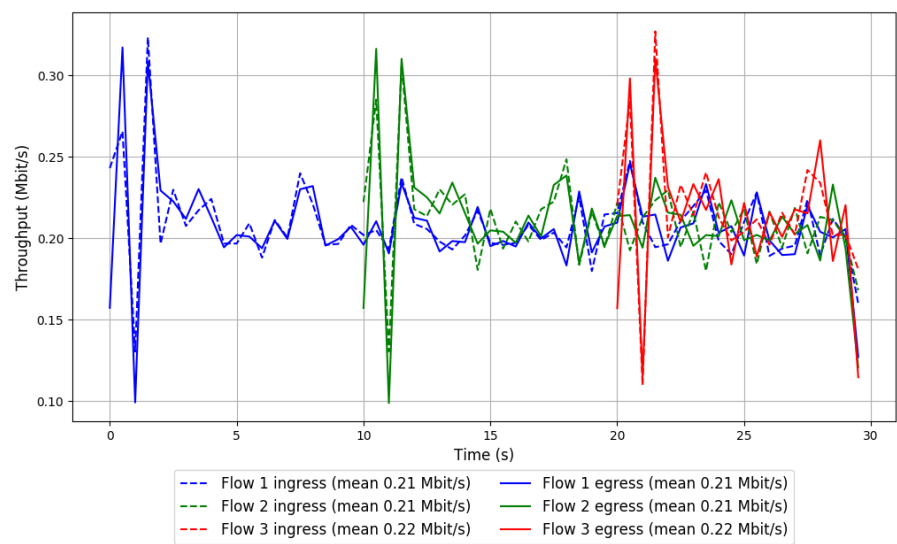
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.542 ms

Loss rate: 2.25%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-08-31 14:12:40

End at: 2017-08-31 14:13:10

Below is generated by plot.py at 2017-08-31 17:57:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 112.584 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.595 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.553 ms

Loss rate: 1.05%

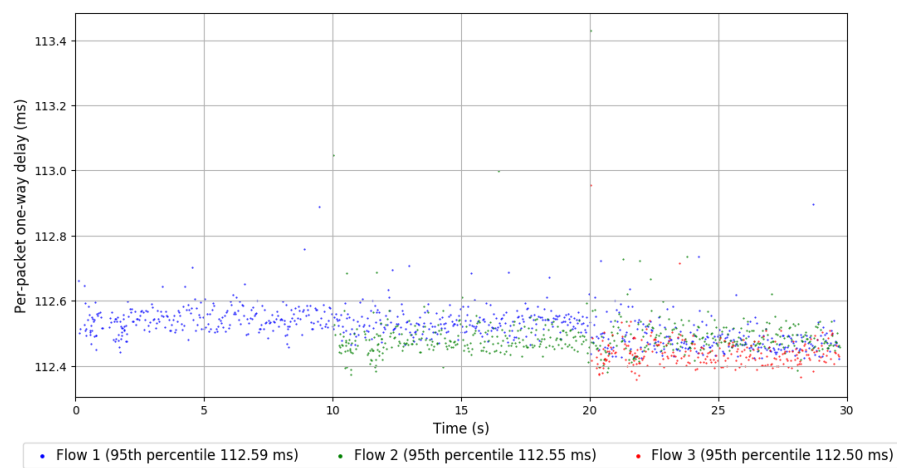
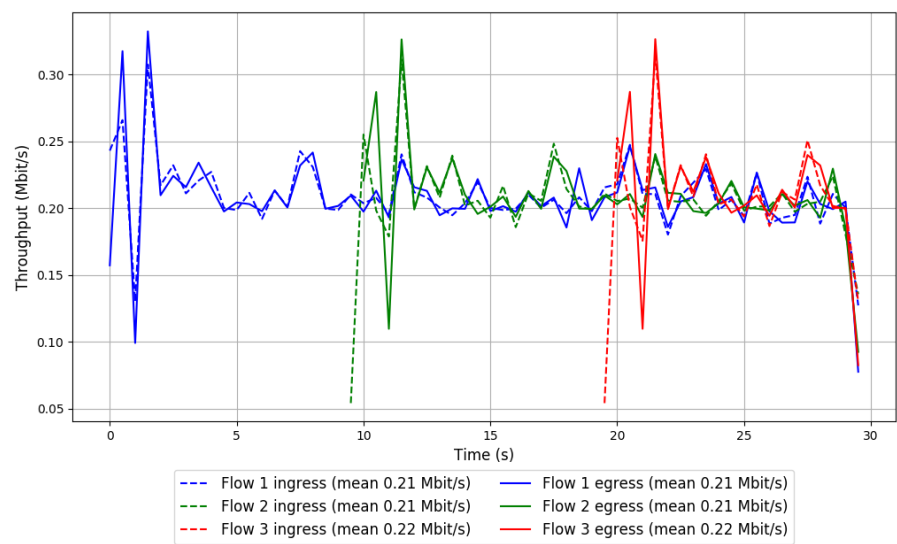
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.504 ms

Loss rate: 2.25%

Run 9: Report of SCRaM — Data Link

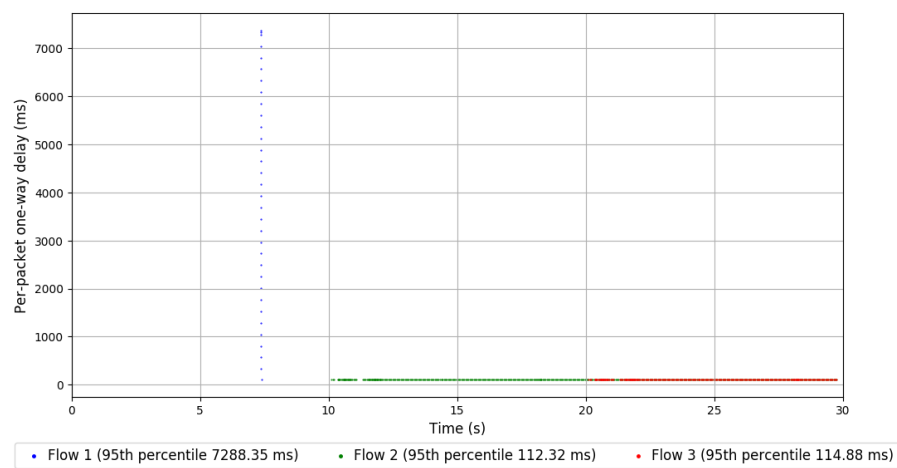
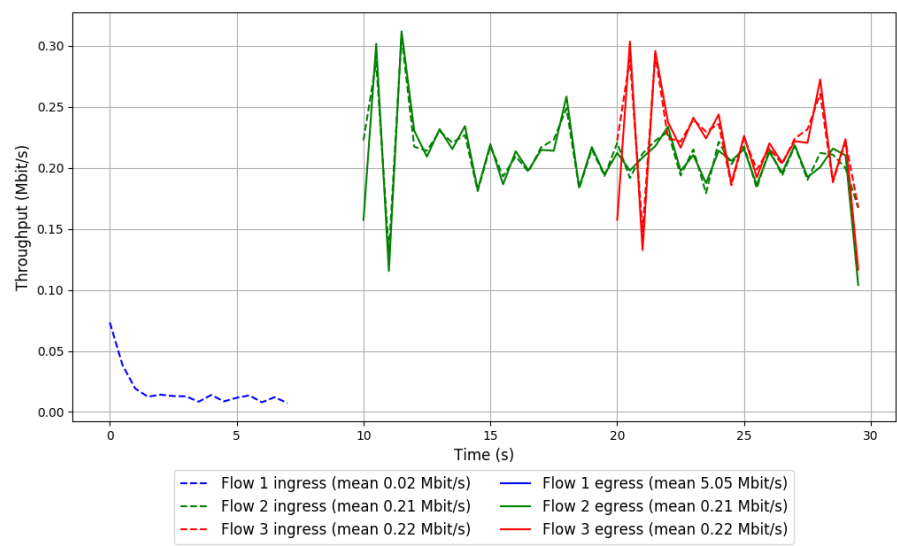


Run 10: Statistics of SReAM

Start at: 2017-08-31 14:26:06

End at: 2017-08-31 14:26:36

Run 10: Report of SCReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2017-08-31 12:26:45

End at: 2017-08-31 12:27:15

Below is generated by plot.py at 2017-08-31 17:57:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 115.136 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 115.128 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 115.148 ms

Loss rate: 0.13%

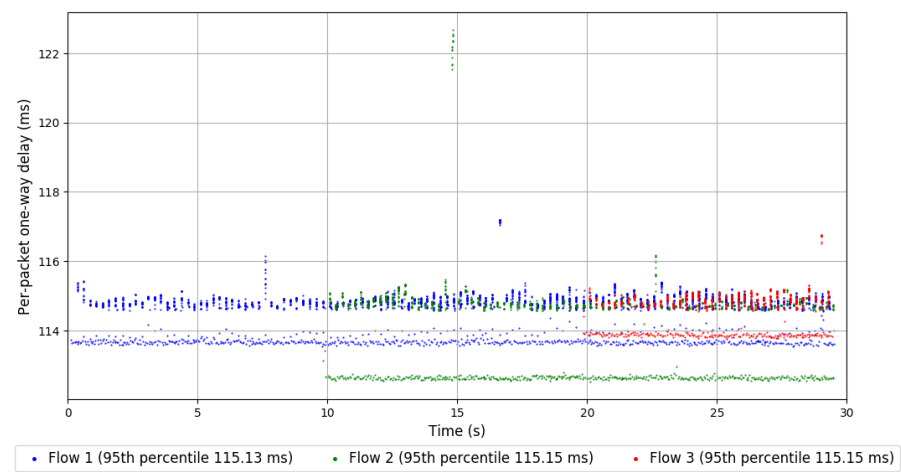
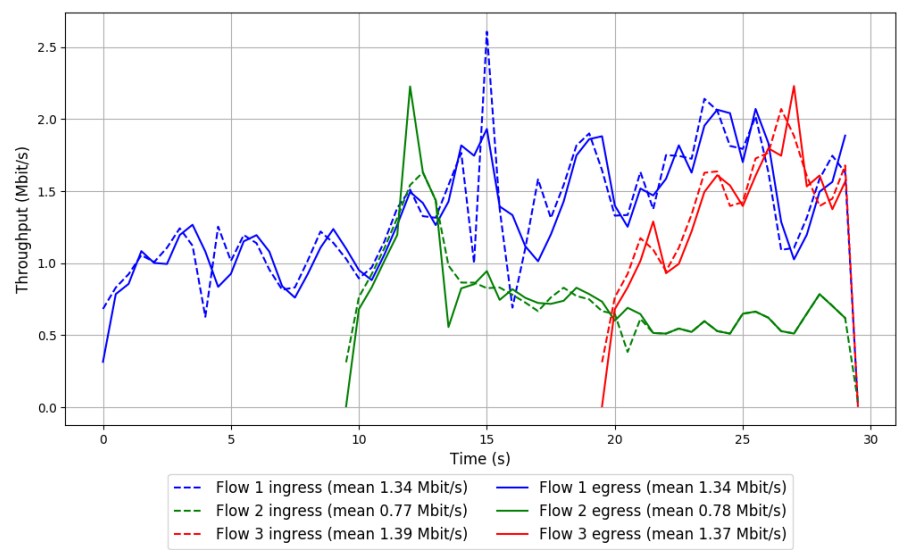
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 115.153 ms

Loss rate: 3.11%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-08-31 12:40:13

End at: 2017-08-31 12:40:43

Below is generated by plot.py at 2017-08-31 17:57:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 115.006 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 114.978 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 114.859 ms

Loss rate: 1.51%

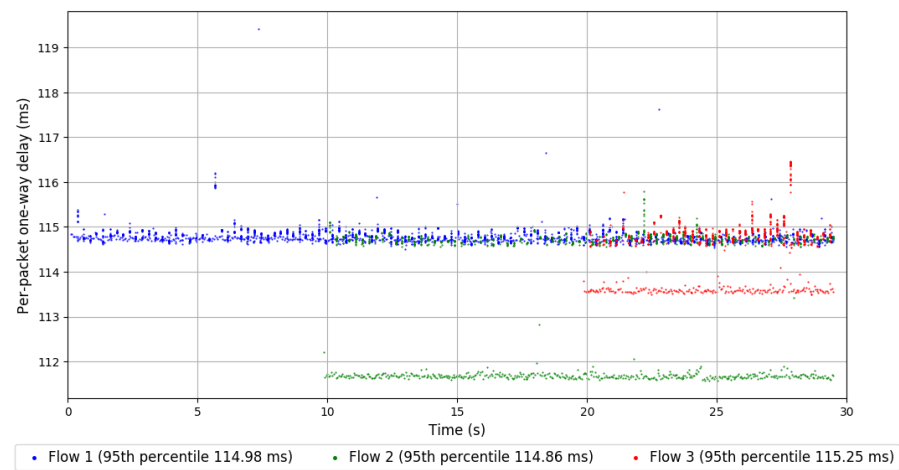
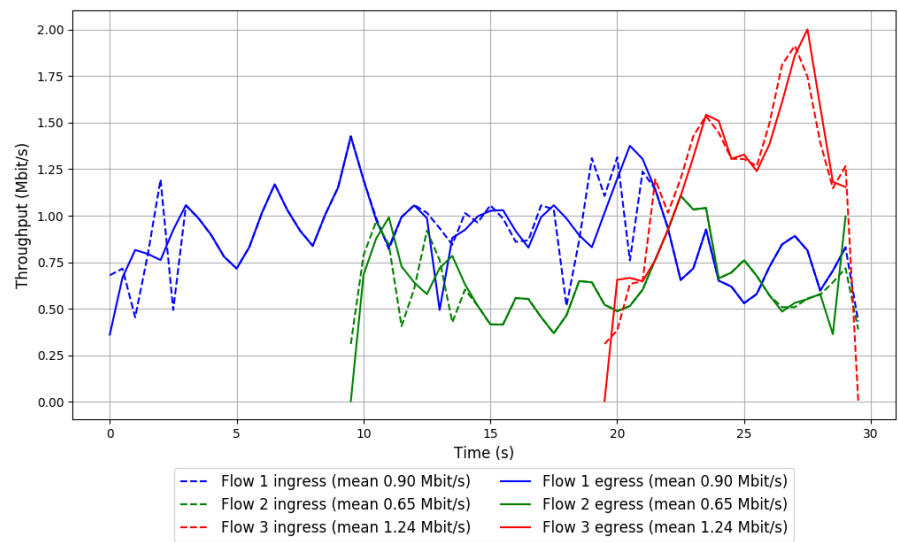
-- Flow 3:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 115.248 ms

Loss rate: 2.73%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-08-31 12:53:53

End at: 2017-08-31 12:54:23

Below is generated by plot.py at 2017-08-31 17:57:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 115.209 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 115.229 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 115.309 ms

Loss rate: 0.74%

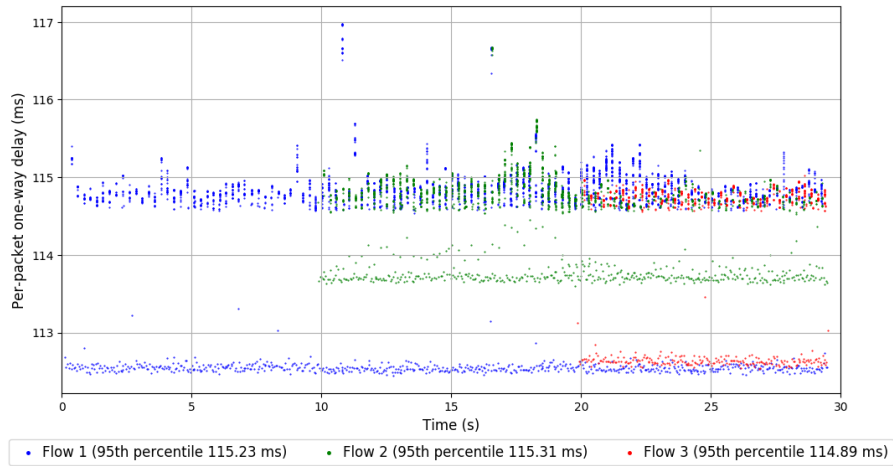
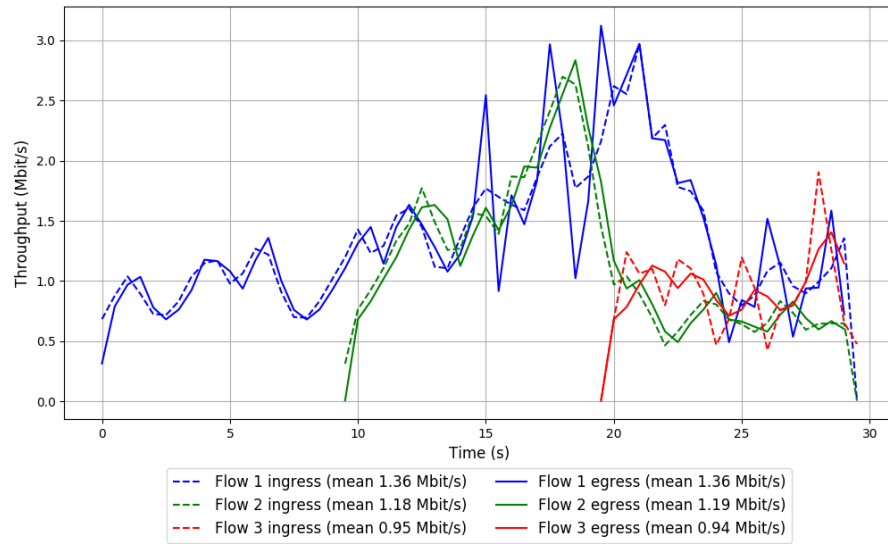
-- Flow 3:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 114.890 ms

Loss rate: 2.58%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-08-31 13:07:01

End at: 2017-08-31 13:07:31

Below is generated by plot.py at 2017-08-31 17:57:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 114.958 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 114.916 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 114.983 ms

Loss rate: 2.11%

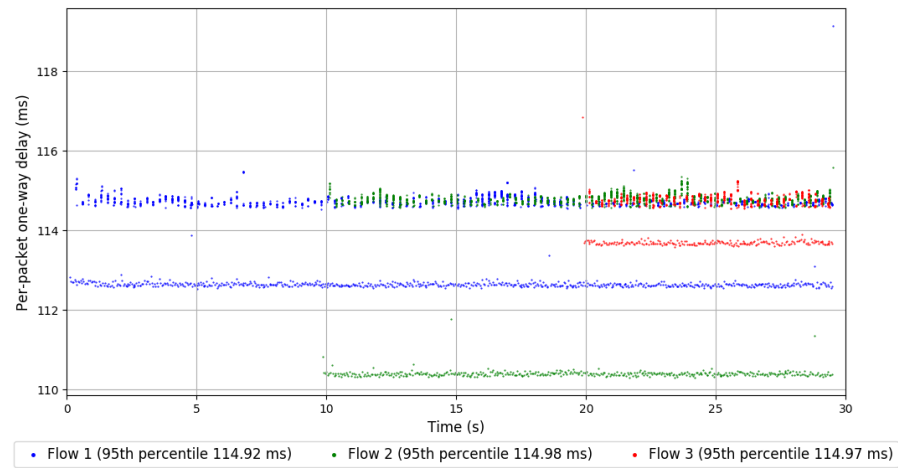
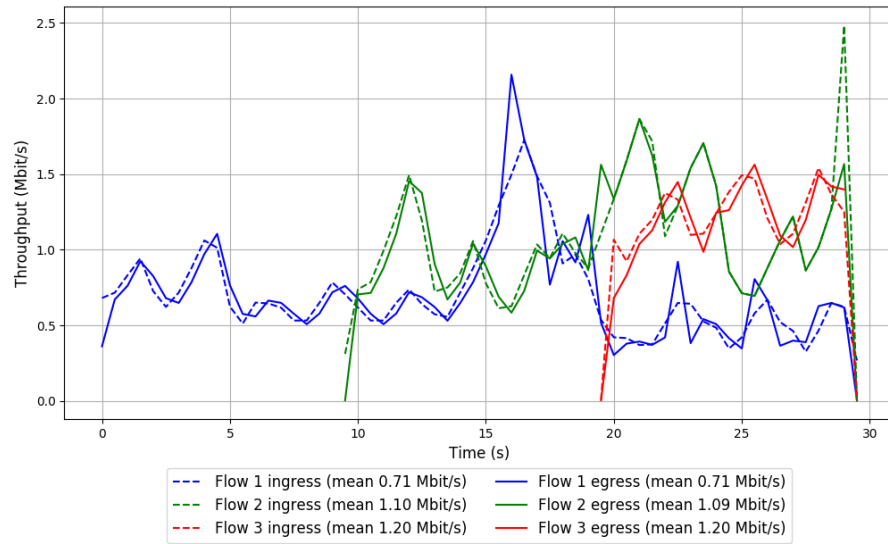
-- Flow 3:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 114.968 ms

Loss rate: 2.26%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-08-31 13:20:38

End at: 2017-08-31 13:21:08

Below is generated by plot.py at 2017-08-31 17:57:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.67 Mbit/s

95th percentile per-packet one-way delay: 115.120 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 115.182 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 115.106 ms

Loss rate: 1.54%

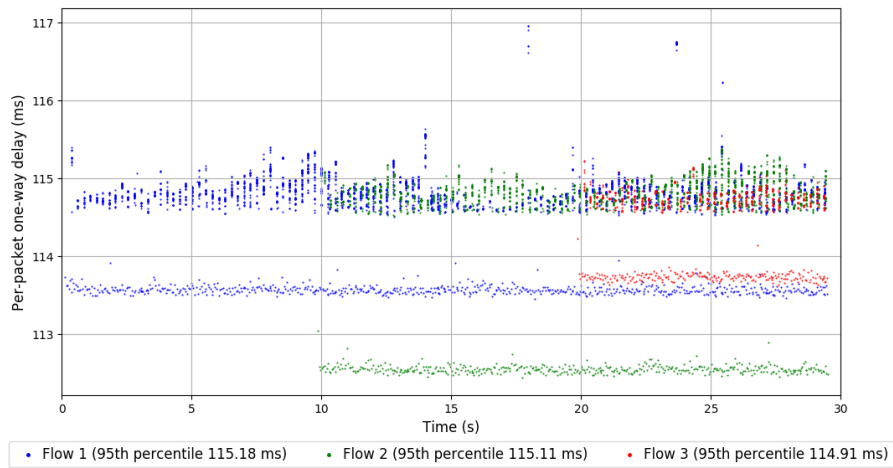
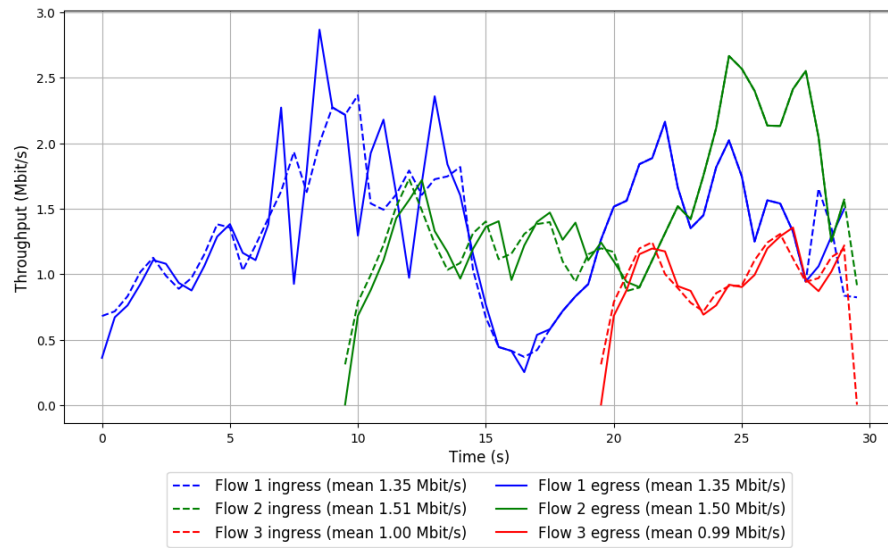
-- Flow 3:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 114.914 ms

Loss rate: 2.90%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-08-31 13:33:57

End at: 2017-08-31 13:34:27

Below is generated by plot.py at 2017-08-31 17:57:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 115.040 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 1.09 Mbit/s

95th percentile per-packet one-way delay: 115.048 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 115.030 ms

Loss rate: 1.09%

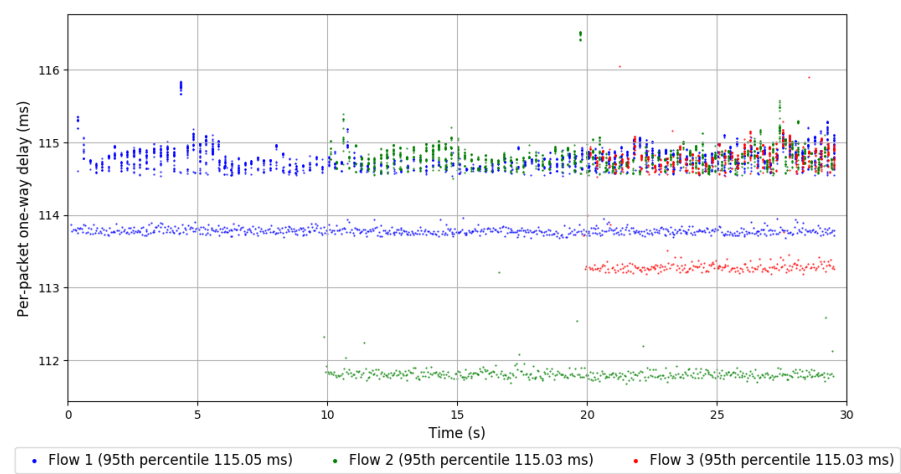
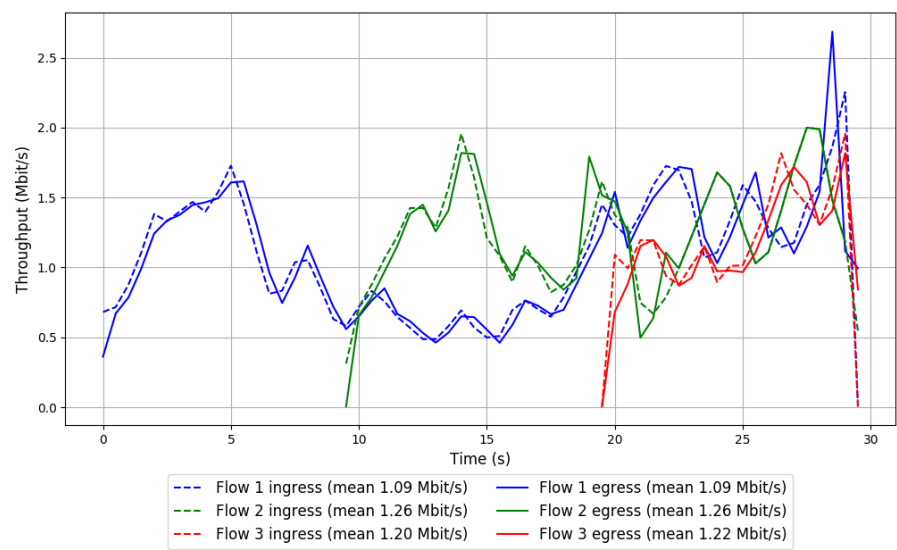
-- Flow 3:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 115.031 ms

Loss rate: 0.53%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-08-31 13:47:27

End at: 2017-08-31 13:47:57

Below is generated by plot.py at 2017-08-31 17:57:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 115.017 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 114.902 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 114.935 ms

Loss rate: 1.33%

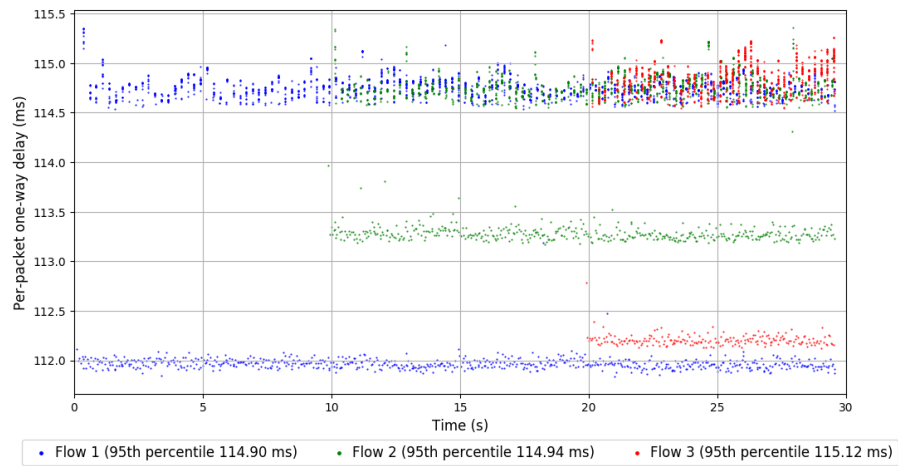
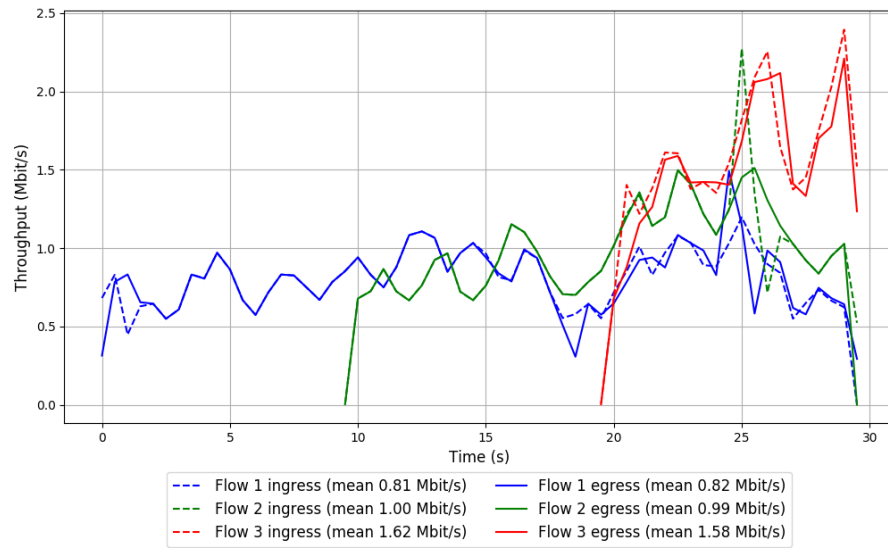
-- Flow 3:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 115.121 ms

Loss rate: 4.77%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-08-31 14:00:55

End at: 2017-08-31 14:01:25

Below is generated by plot.py at 2017-08-31 17:57:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.14 Mbit/s

95th percentile per-packet one-way delay: 115.087 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 115.084 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 115.097 ms

Loss rate: 1.56%

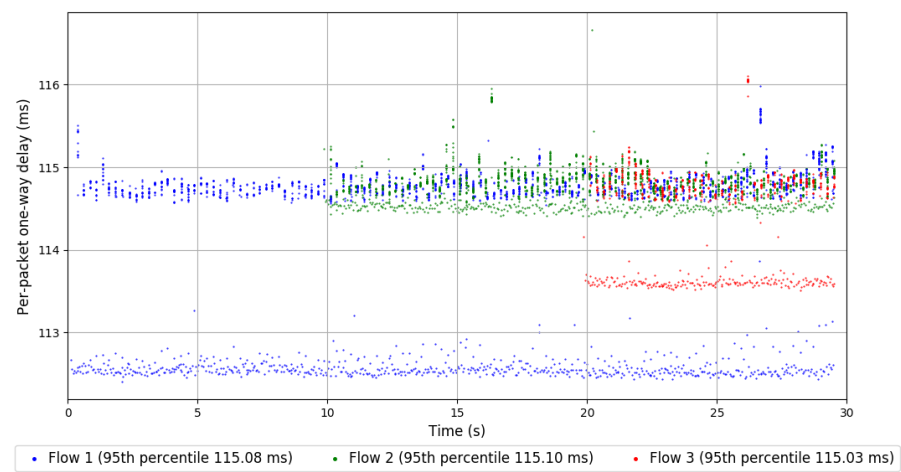
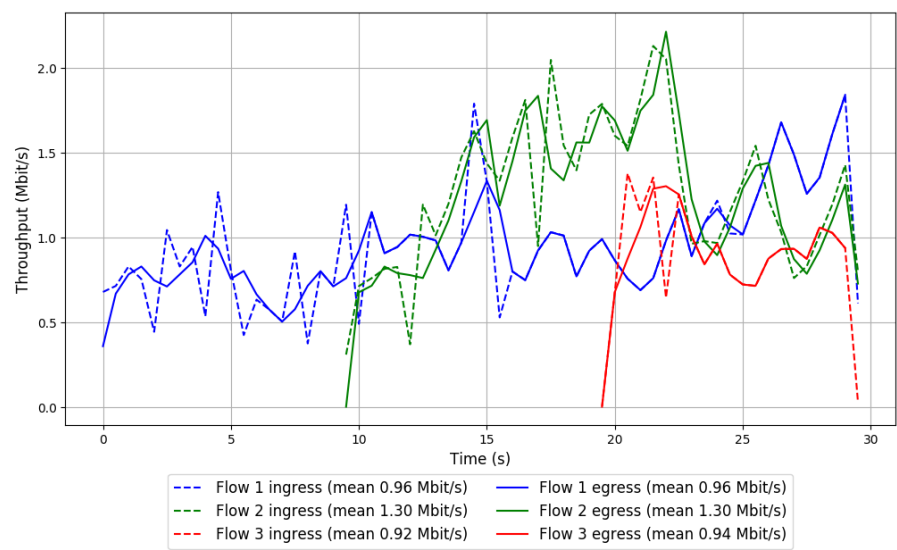
-- Flow 3:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 115.027 ms

Loss rate: 0.19%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-08-31 14:14:15

End at: 2017-08-31 14:14:45

Below is generated by plot.py at 2017-08-31 17:57:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 115.071 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 0.94 Mbit/s

95th percentile per-packet one-way delay: 115.046 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 115.138 ms

Loss rate: 1.41%

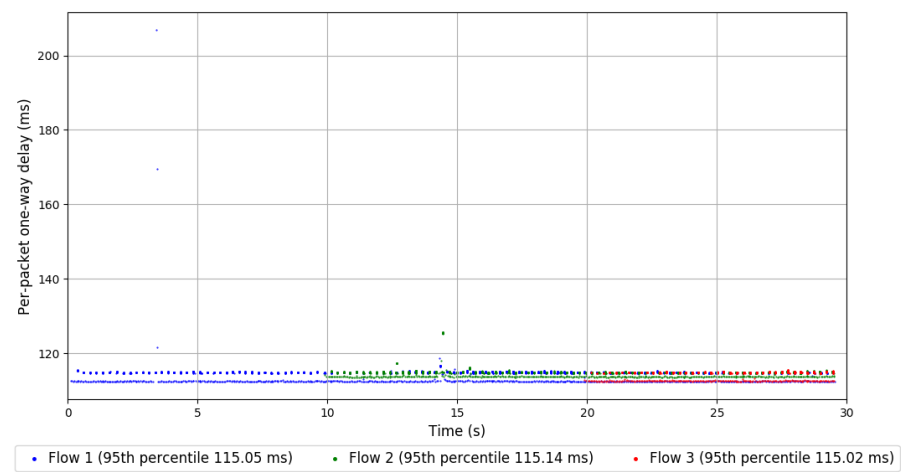
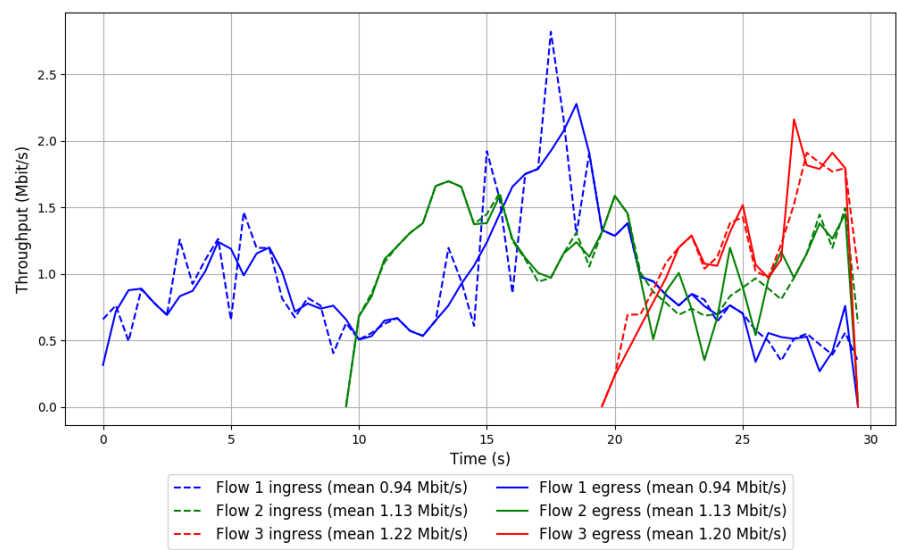
-- Flow 3:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 115.015 ms

Loss rate: 4.29%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-08-31 14:27:41

End at: 2017-08-31 14:28:11

Below is generated by plot.py at 2017-08-31 17:57:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 113.044 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 113.058 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 0.95 Mbit/s

95th percentile per-packet one-way delay: 113.018 ms

Loss rate: 2.30%

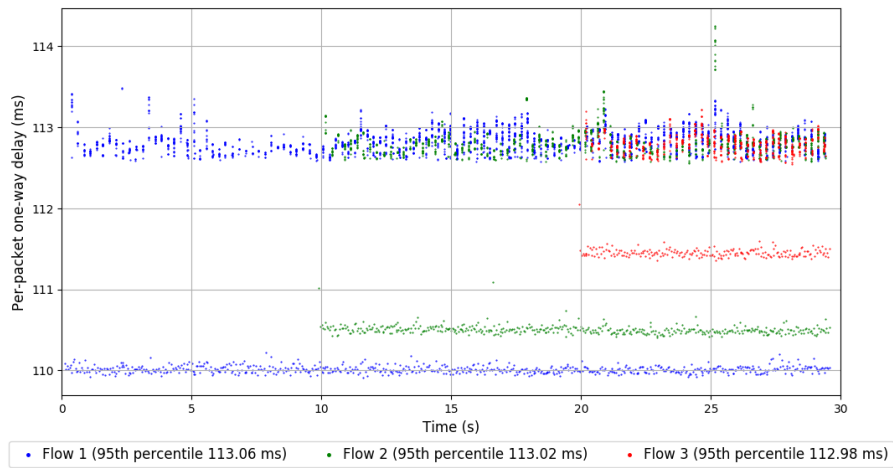
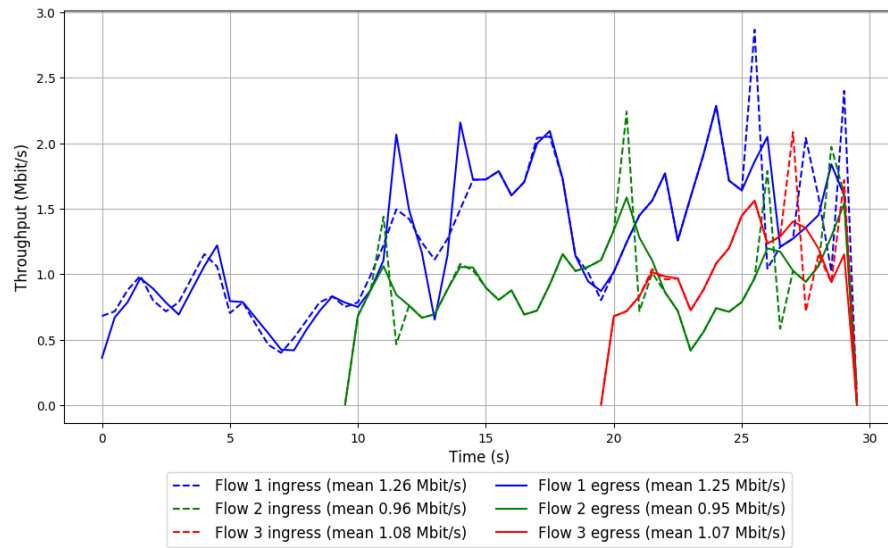
-- Flow 3:

Average throughput: 1.07 Mbit/s

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

Loss rate: 2.91%

Run 10: Report of Sprout — Data Link

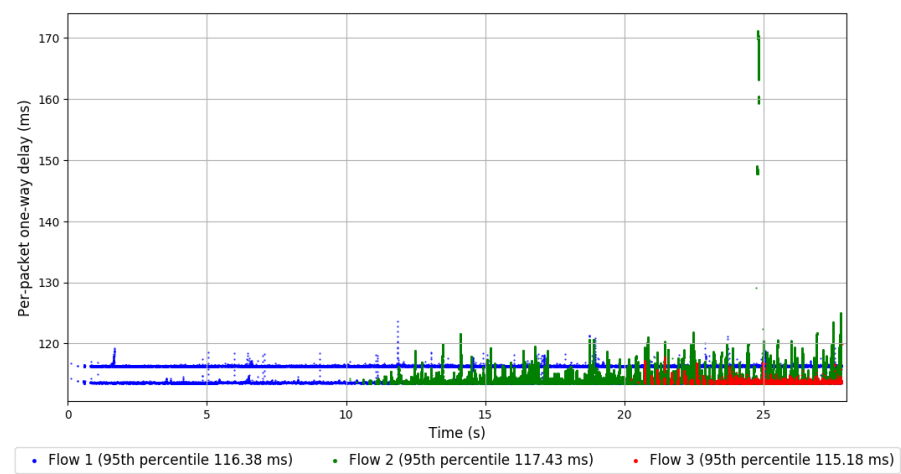
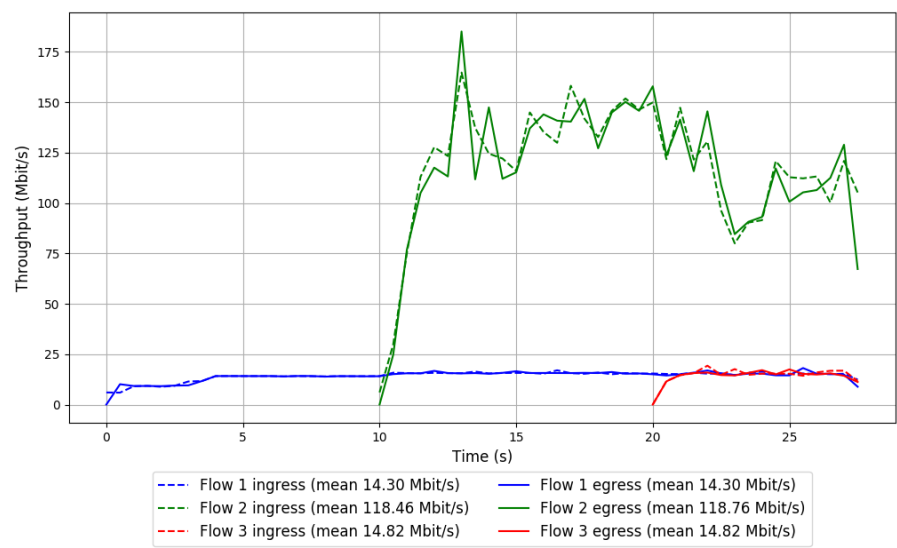


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-08-31 12:21:11
End at: 2017-08-31 12:21:41

# Below is generated by plot.py at 2017-08-31 17:58:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.97 Mbit/s
95th percentile per-packet one-way delay: 117.018 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 14.30 Mbit/s
95th percentile per-packet one-way delay: 116.375 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 118.76 Mbit/s
95th percentile per-packet one-way delay: 117.428 ms
Loss rate: 1.19%
-- Flow 3:
Average throughput: 14.82 Mbit/s
95th percentile per-packet one-way delay: 115.177 ms
Loss rate: 2.88%
```

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

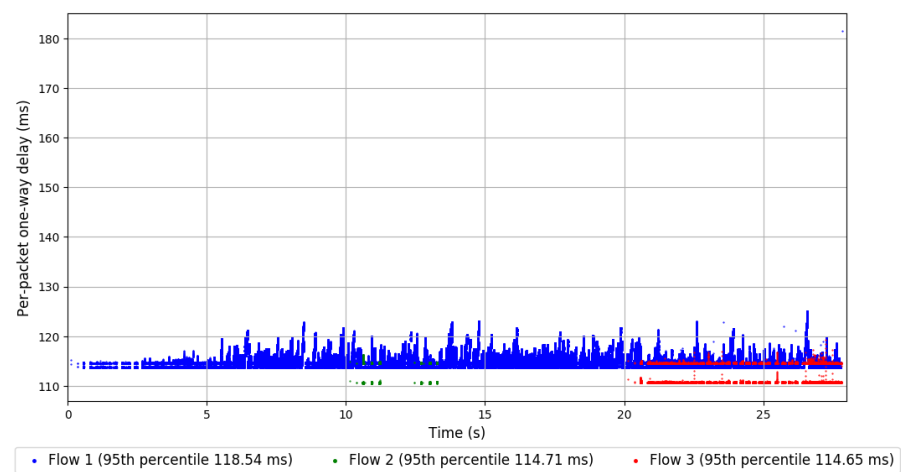
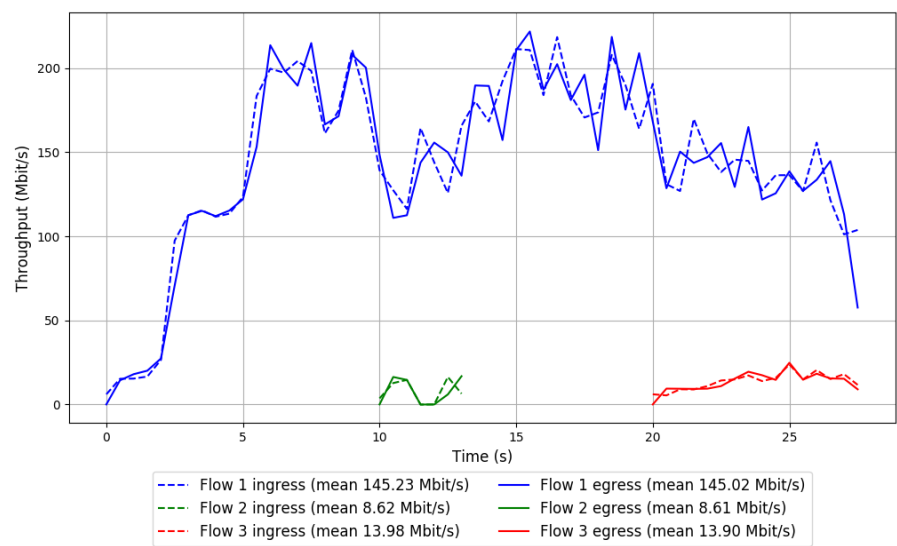


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-08-31 12:34:41
End at: 2017-08-31 12:35:11

# Below is generated by plot.py at 2017-08-31 17:58:28
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.84 Mbit/s
95th percentile per-packet one-way delay: 118.484 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 145.02 Mbit/s
95th percentile per-packet one-way delay: 118.543 ms
Loss rate: 0.84%
-- Flow 2:
Average throughput: 8.61 Mbit/s
95th percentile per-packet one-way delay: 114.712 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.90 Mbit/s
95th percentile per-packet one-way delay: 114.651 ms
Loss rate: 3.38%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2017-08-31 12:48:28

End at: 2017-08-31 12:48:58

Below is generated by plot.py at 2017-08-31 17:58:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.78 Mbit/s

95th percentile per-packet one-way delay: 114.669 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 15.65 Mbit/s

95th percentile per-packet one-way delay: 114.617 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 114.704 ms

Loss rate: 1.32%

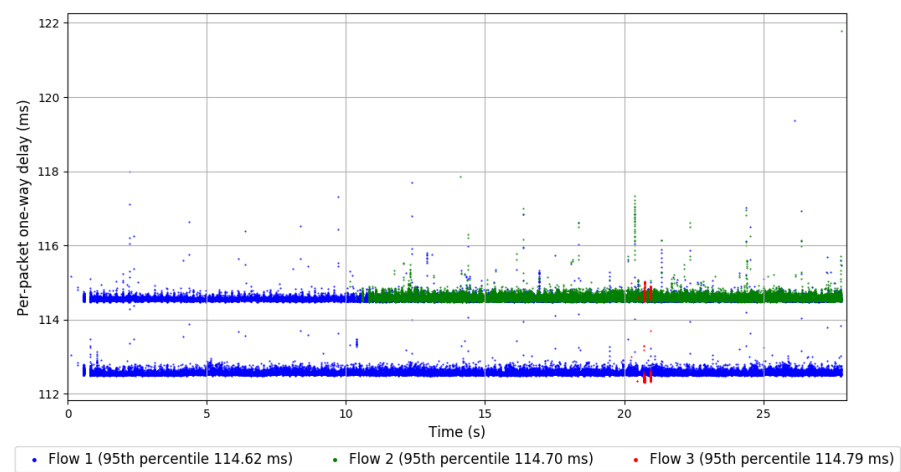
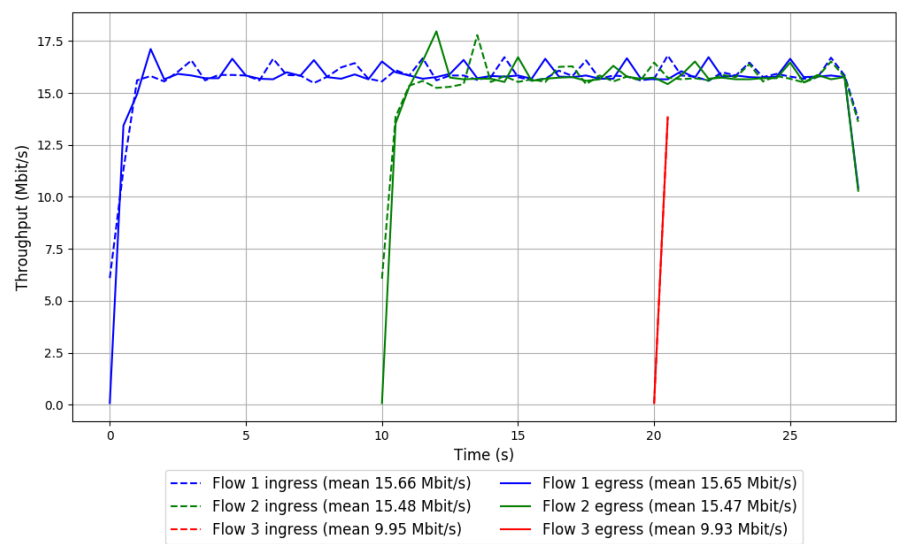
-- Flow 3:

Average throughput: 9.93 Mbit/s

95th percentile per-packet one-way delay: 114.789 ms

Loss rate: 0.00%

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

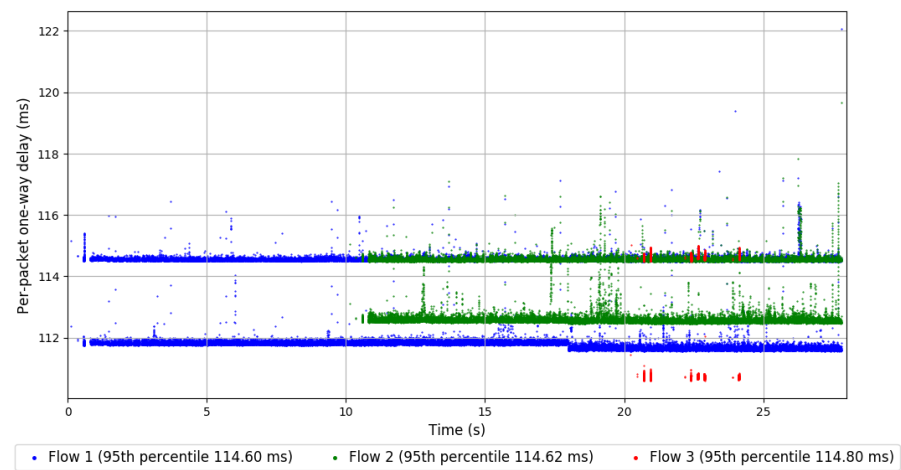
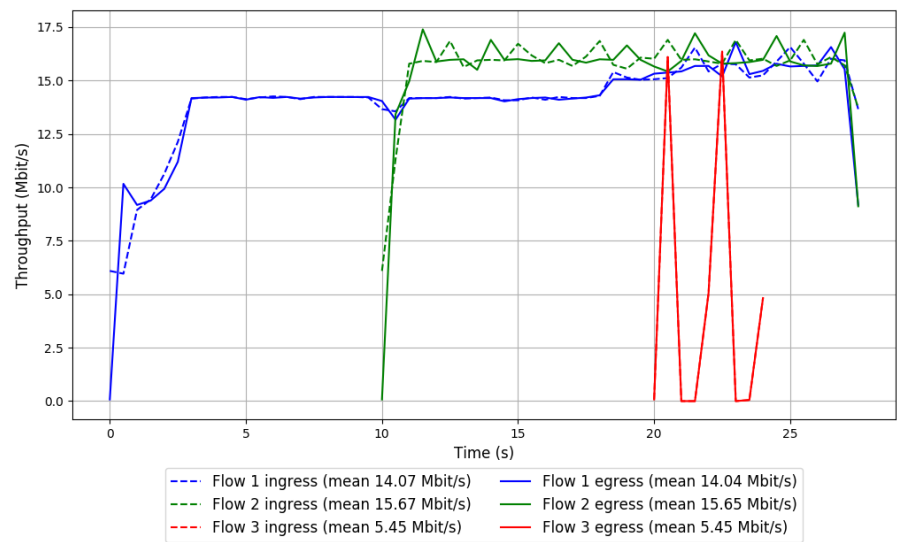


```
Run 4: Statistics of TaoVA-100x

Start at: 2017-08-31 13:01:40
End at: 2017-08-31 13:02:10

# Below is generated by plot.py at 2017-08-31 17:58:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 24.80 Mbit/s
95th percentile per-packet one-way delay: 114.620 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 14.04 Mbit/s
95th percentile per-packet one-way delay: 114.604 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 15.65 Mbit/s
95th percentile per-packet one-way delay: 114.620 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 114.801 ms
Loss rate: 0.00%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-08-31 13:14:54

End at: 2017-08-31 13:15:24

Below is generated by plot.py at 2017-08-31 17:59:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.80 Mbit/s

95th percentile per-packet one-way delay: 117.077 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 127.61 Mbit/s

95th percentile per-packet one-way delay: 117.174 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 93.24 Mbit/s

95th percentile per-packet one-way delay: 116.959 ms

Loss rate: 1.48%

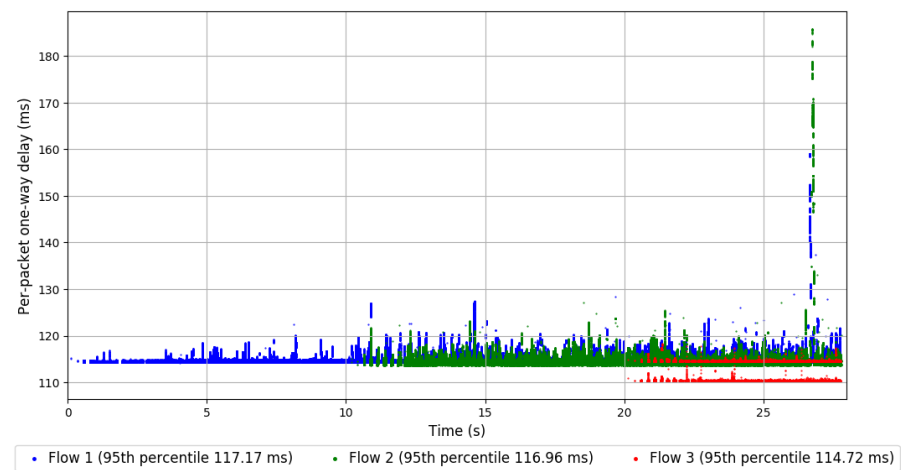
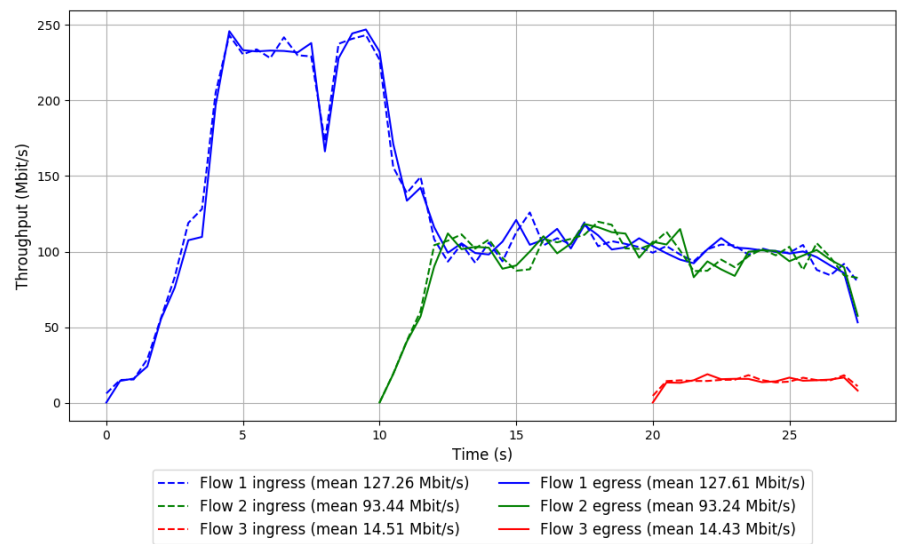
-- Flow 3:

Average throughput: 14.43 Mbit/s

95th percentile per-packet one-way delay: 114.717 ms

Loss rate: 3.28%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-08-31 13:28:34

End at: 2017-08-31 13:29:04

Below is generated by plot.py at 2017-08-31 17:59:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.44 Mbit/s

95th percentile per-packet one-way delay: 114.646 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 15.79 Mbit/s

95th percentile per-packet one-way delay: 114.647 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 13.49 Mbit/s

95th percentile per-packet one-way delay: 114.640 ms

Loss rate: 1.48%

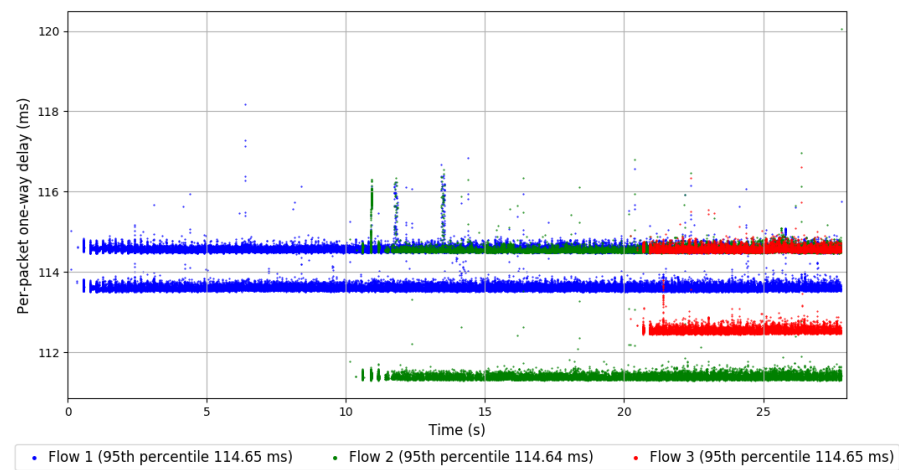
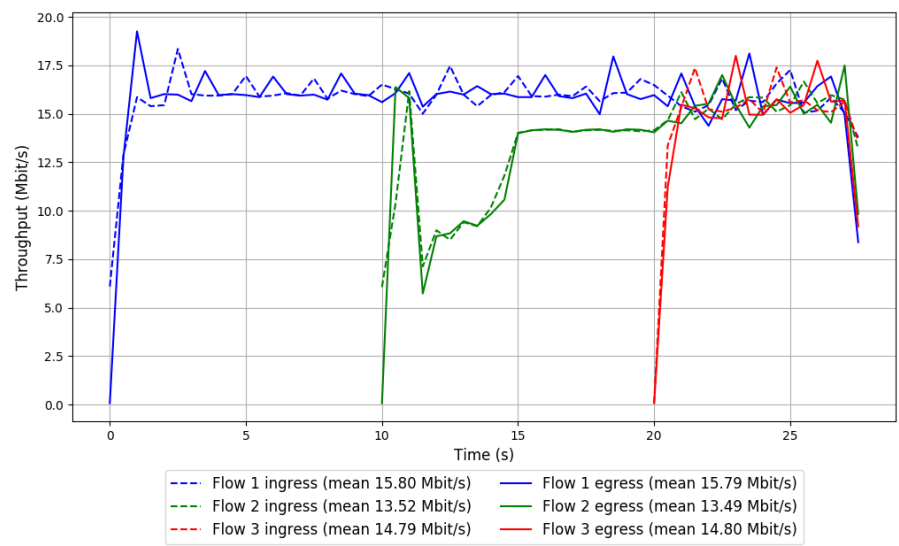
-- Flow 3:

Average throughput: 14.80 Mbit/s

95th percentile per-packet one-way delay: 114.651 ms

Loss rate: 2.91%

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

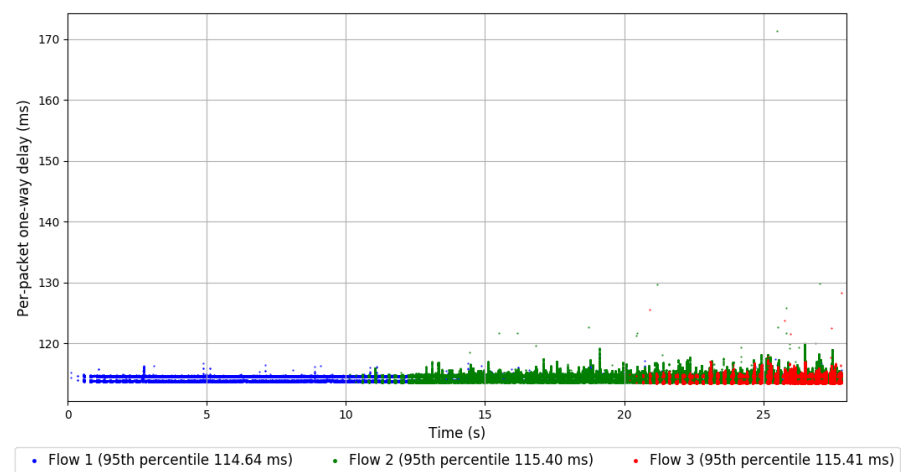
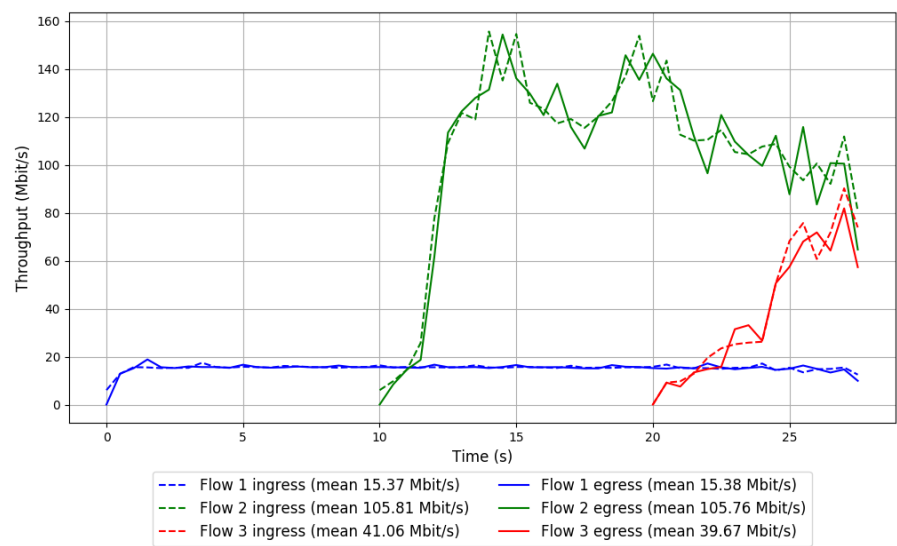


```
Run 7: Statistics of TaoVA-100x

Start at: 2017-08-31 13:41:51
End at: 2017-08-31 13:42:21

# Below is generated by plot.py at 2017-08-31 17:59:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.79 Mbit/s
95th percentile per-packet one-way delay: 115.302 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 15.38 Mbit/s
95th percentile per-packet one-way delay: 114.637 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 105.76 Mbit/s
95th percentile per-packet one-way delay: 115.401 ms
Loss rate: 1.29%
-- Flow 3:
Average throughput: 39.67 Mbit/s
95th percentile per-packet one-way delay: 115.406 ms
Loss rate: 6.18%
```


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



Run 8: Statistics of TaoVA-100x

Start at: 2017-08-31 13:55:23

End at: 2017-08-31 13:55:53

Below is generated by plot.py at 2017-08-31 17:59:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.47 Mbit/s

95th percentile per-packet one-way delay: 115.003 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 15.57 Mbit/s

95th percentile per-packet one-way delay: 114.656 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 110.34 Mbit/s

95th percentile per-packet one-way delay: 115.097 ms

Loss rate: 1.30%

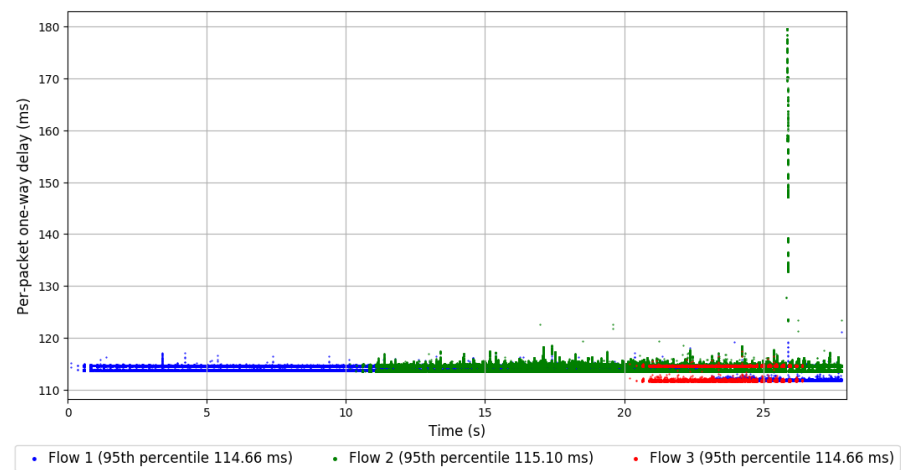
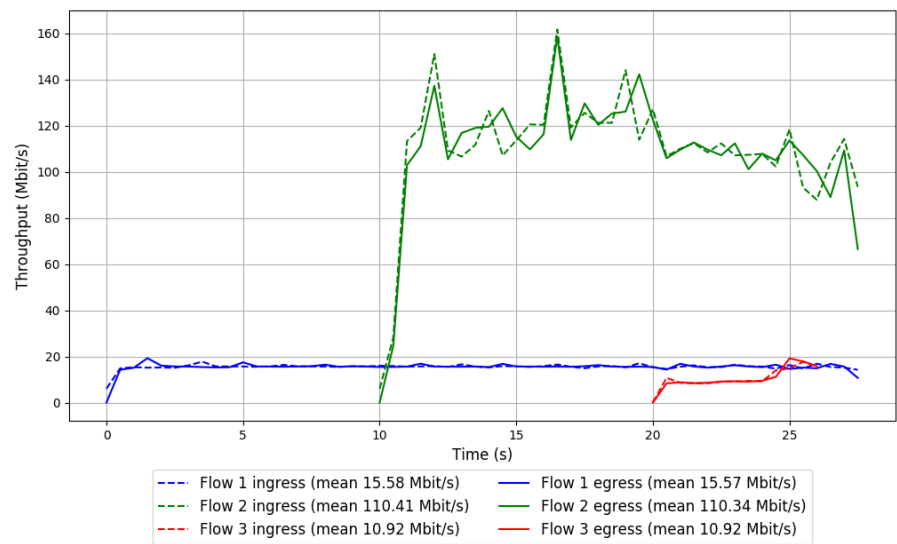
-- Flow 3:

Average throughput: 10.92 Mbit/s

95th percentile per-packet one-way delay: 114.662 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-08-31 14:08:49

End at: 2017-08-31 14:09:19

Below is generated by plot.py at 2017-08-31 17:59:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.30 Mbit/s

95th percentile per-packet one-way delay: 114.890 ms

Loss rate: 2.33%

-- Flow 1:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 114.637 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 5.97 Mbit/s

95th percentile per-packet one-way delay: 114.732 ms

Loss rate: 0.00%

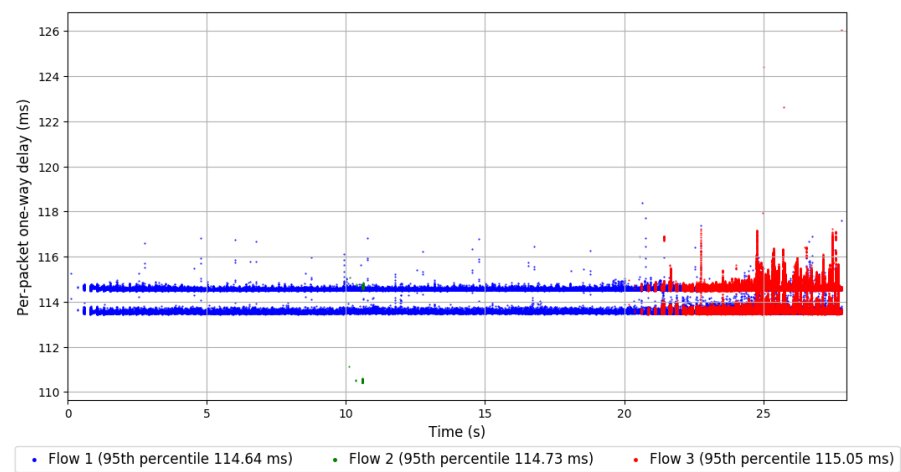
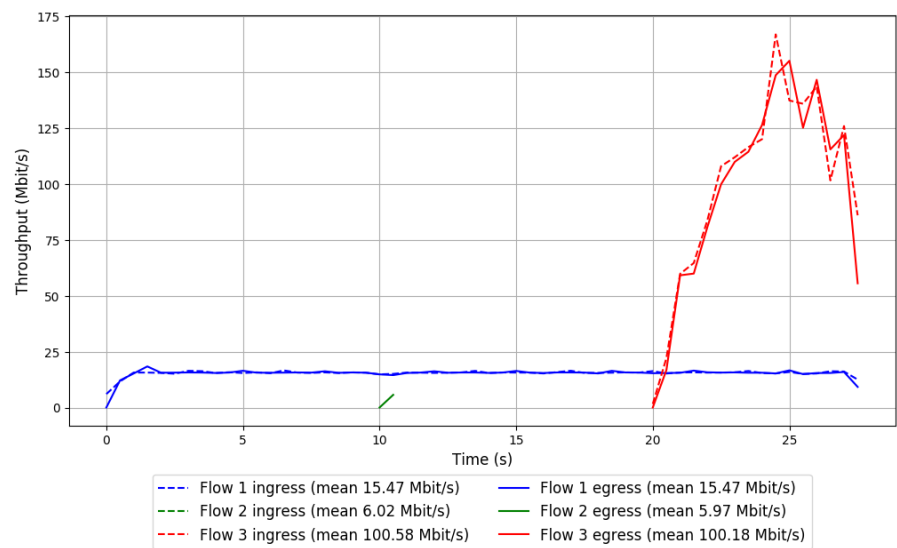
-- Flow 3:

Average throughput: 100.18 Mbit/s

95th percentile per-packet one-way delay: 115.045 ms

Loss rate: 3.15%

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

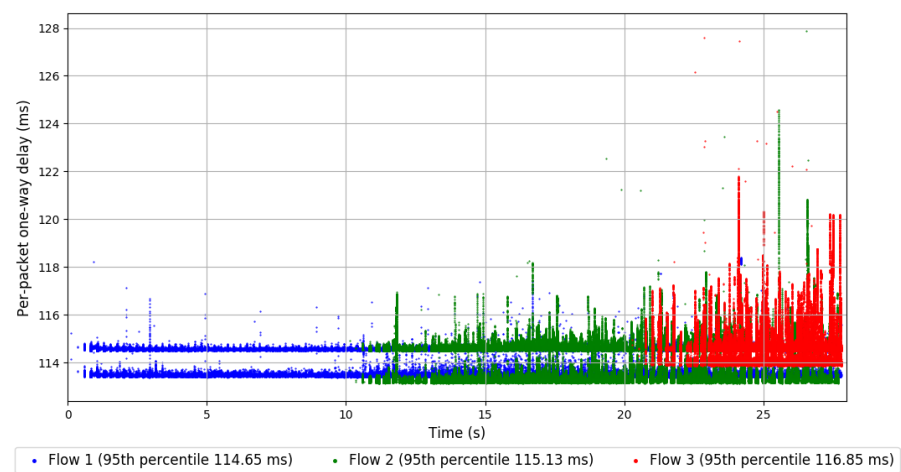
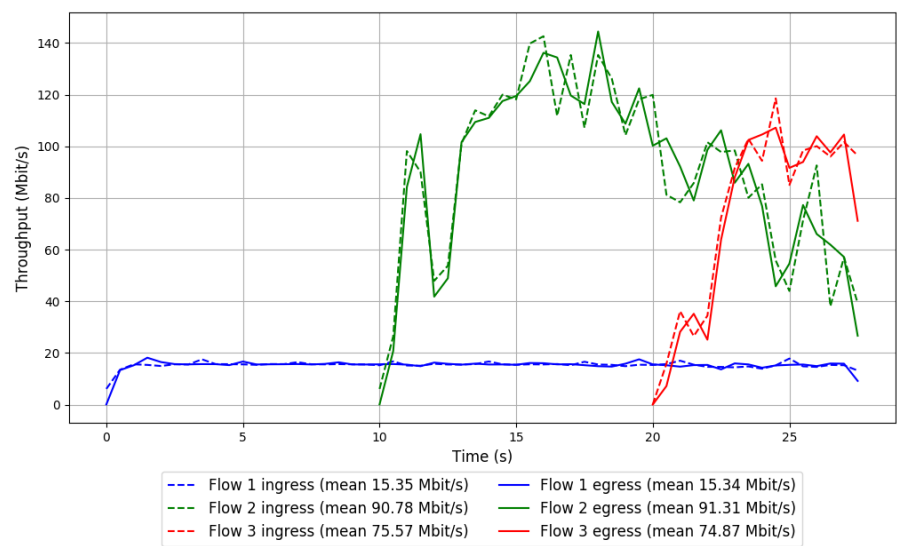


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-08-31 14:22:09
End at: 2017-08-31 14:22:39

# Below is generated by plot.py at 2017-08-31 18:00:15
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.59 Mbit/s
95th percentile per-packet one-way delay: 115.534 ms
Loss rate: 1.48%
-- Flow 1:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 114.654 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 91.31 Mbit/s
95th percentile per-packet one-way delay: 115.134 ms
Loss rate: 0.79%
-- Flow 3:
Average throughput: 74.87 Mbit/s
95th percentile per-packet one-way delay: 116.849 ms
Loss rate: 3.90%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-08-31 12:19:28

End at: 2017-08-31 12:19:58

Below is generated by plot.py at 2017-08-31 18:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.00 Mbit/s

95th percentile per-packet one-way delay: 114.963 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 6.92 Mbit/s

95th percentile per-packet one-way delay: 114.437 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 54.70 Mbit/s

95th percentile per-packet one-way delay: 115.288 ms

Loss rate: 1.23%

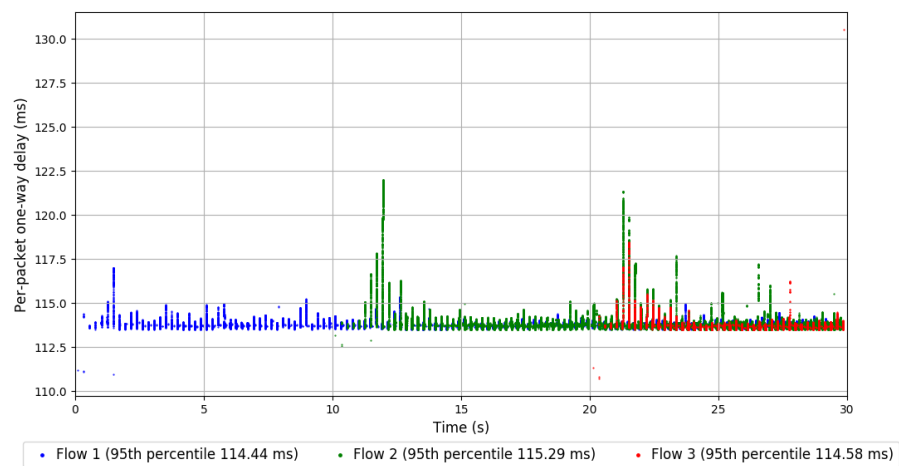
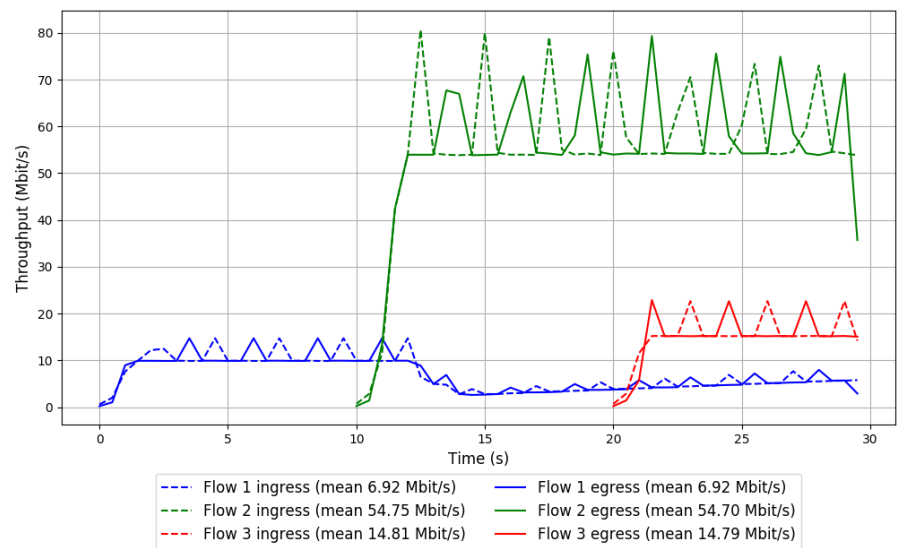
-- Flow 3:

Average throughput: 14.79 Mbit/s

95th percentile per-packet one-way delay: 114.584 ms

Loss rate: 2.26%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-08-31 12:32:55

End at: 2017-08-31 12:33:25

Below is generated by plot.py at 2017-08-31 18:00:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.63 Mbit/s

95th percentile per-packet one-way delay: 115.856 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 41.05 Mbit/s

95th percentile per-packet one-way delay: 115.798 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 17.61 Mbit/s

95th percentile per-packet one-way delay: 116.249 ms

Loss rate: 0.71%

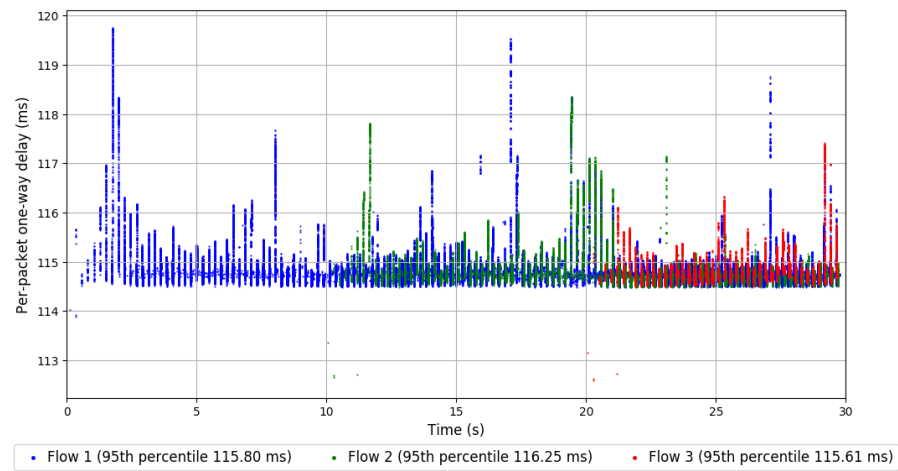
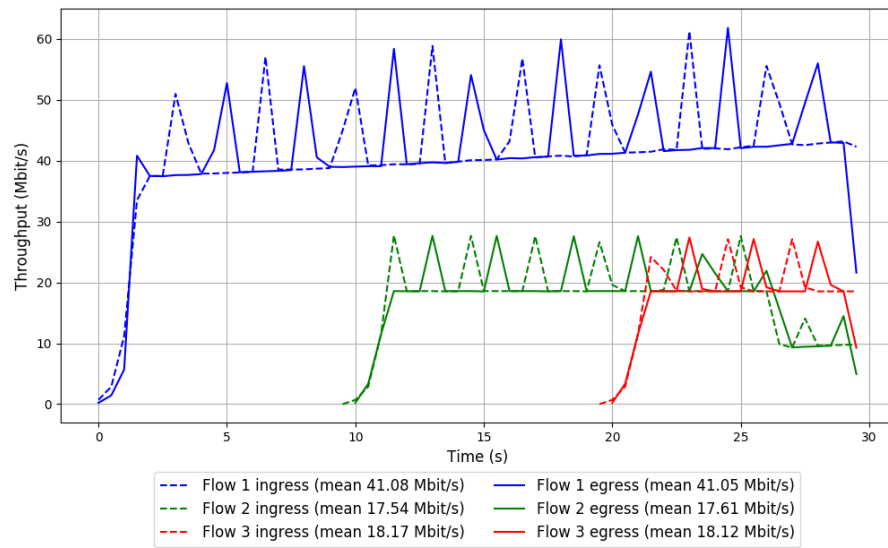
-- Flow 3:

Average throughput: 18.12 Mbit/s

95th percentile per-packet one-way delay: 115.612 ms

Loss rate: 2.59%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-08-31 12:46:42

End at: 2017-08-31 12:47:12

Below is generated by plot.py at 2017-08-31 18:00:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 52.10 Mbit/s

95th percentile per-packet one-way delay: 122.170 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 26.51 Mbit/s

95th percentile per-packet one-way delay: 116.313 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 15.84 Mbit/s

95th percentile per-packet one-way delay: 115.921 ms

Loss rate: 1.20%

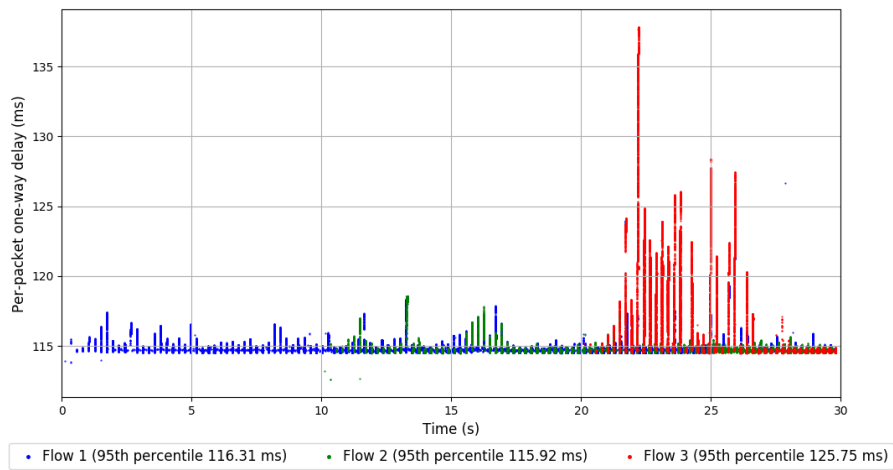
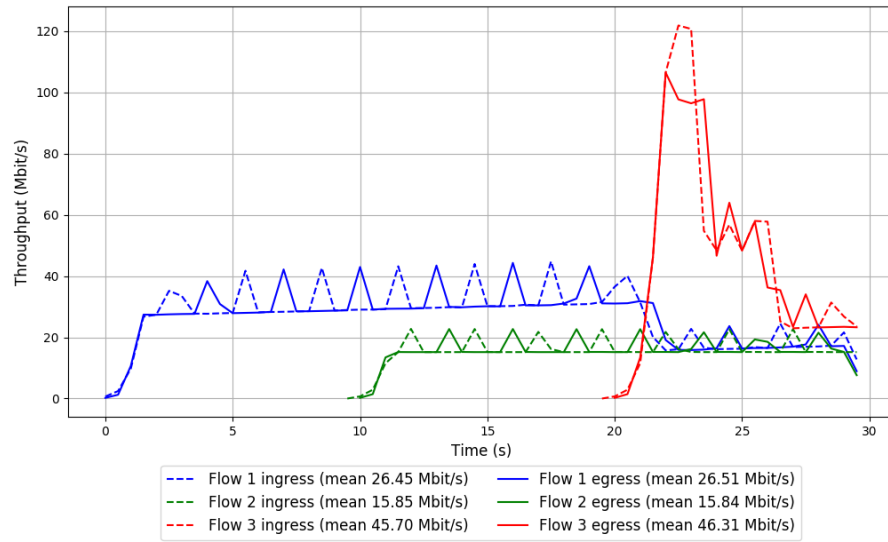
-- Flow 3:

Average throughput: 46.31 Mbit/s

95th percentile per-packet one-way delay: 125.755 ms

Loss rate: 1.30%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-08-31 12:59:59

End at: 2017-08-31 13:00:29

Below is generated by plot.py at 2017-08-31 18:00:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.45 Mbit/s

95th percentile per-packet one-way delay: 115.741 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 8.02 Mbit/s

95th percentile per-packet one-way delay: 115.247 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 31.12 Mbit/s

95th percentile per-packet one-way delay: 115.841 ms

Loss rate: 0.70%

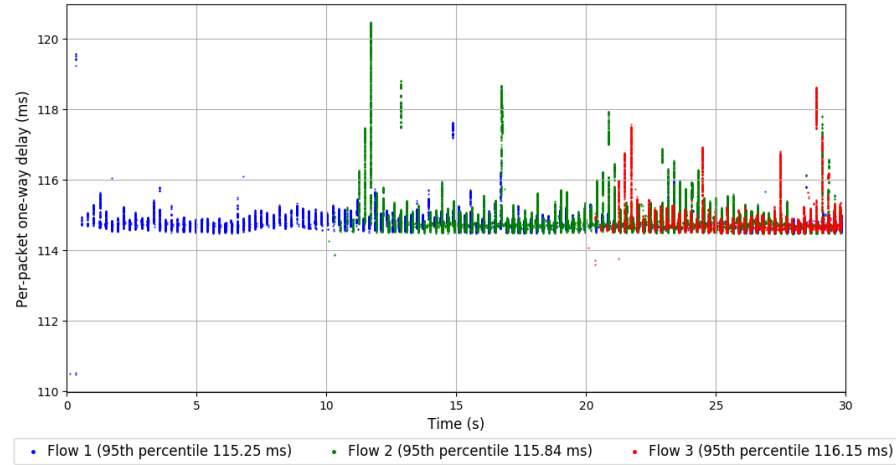
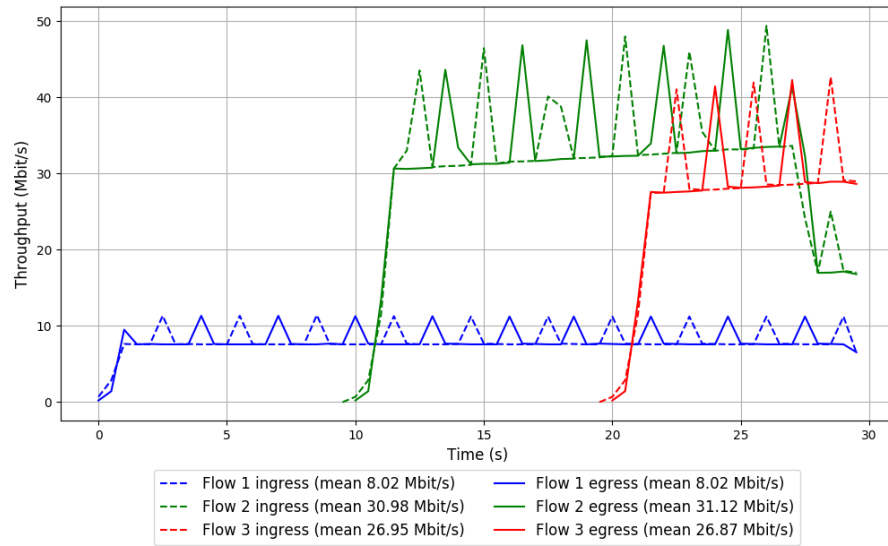
-- Flow 3:

Average throughput: 26.87 Mbit/s

95th percentile per-packet one-way delay: 116.151 ms

Loss rate: 2.70%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-08-31 13:13:09

End at: 2017-08-31 13:13:39

Below is generated by plot.py at 2017-08-31 18:00:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.48 Mbit/s

95th percentile per-packet one-way delay: 115.432 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 31.57 Mbit/s

95th percentile per-packet one-way delay: 115.285 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 8.01 Mbit/s

95th percentile per-packet one-way delay: 115.146 ms

Loss rate: 1.19%

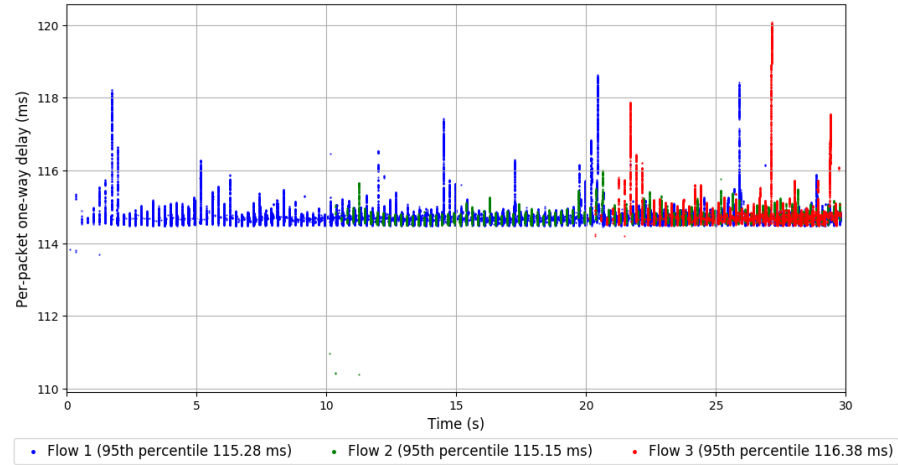
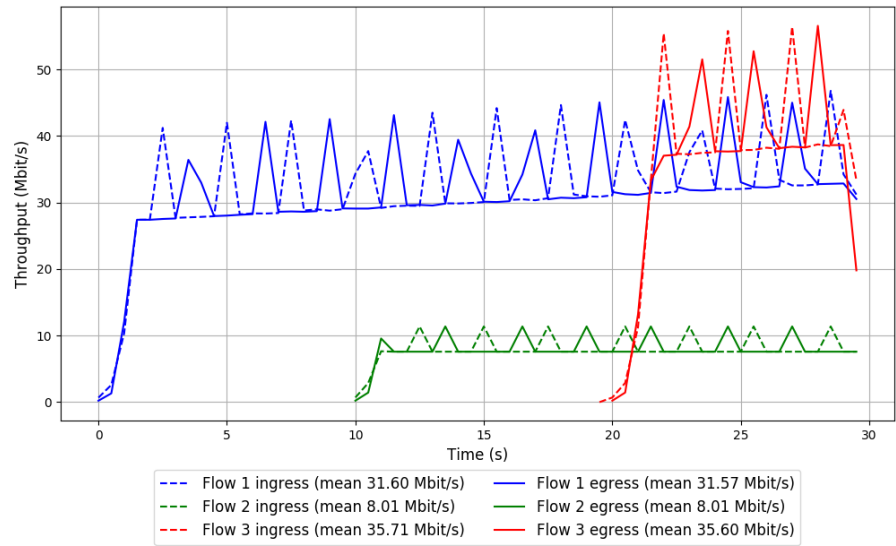
-- Flow 3:

Average throughput: 35.60 Mbit/s

95th percentile per-packet one-way delay: 116.384 ms

Loss rate: 2.72%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-08-31 13:26:49

End at: 2017-08-31 13:27:19

Below is generated by plot.py at 2017-08-31 18:00:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.52 Mbit/s

95th percentile per-packet one-way delay: 115.599 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 33.58 Mbit/s

95th percentile per-packet one-way delay: 116.010 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 38.31 Mbit/s

95th percentile per-packet one-way delay: 115.209 ms

Loss rate: 1.21%

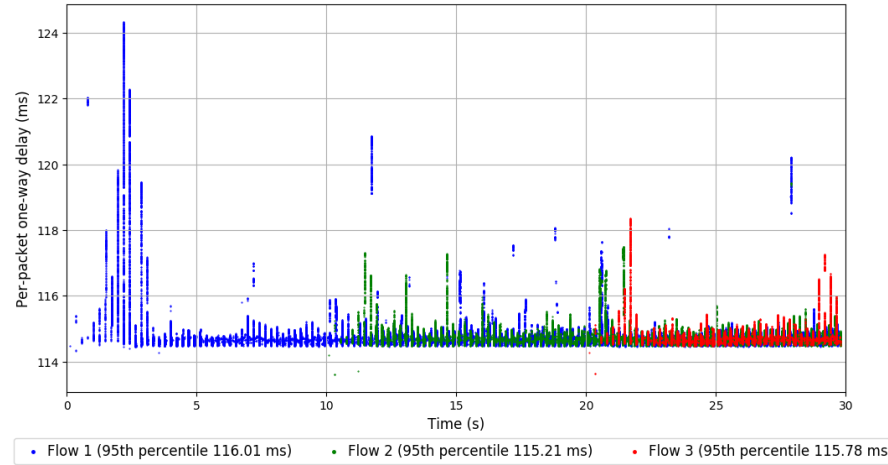
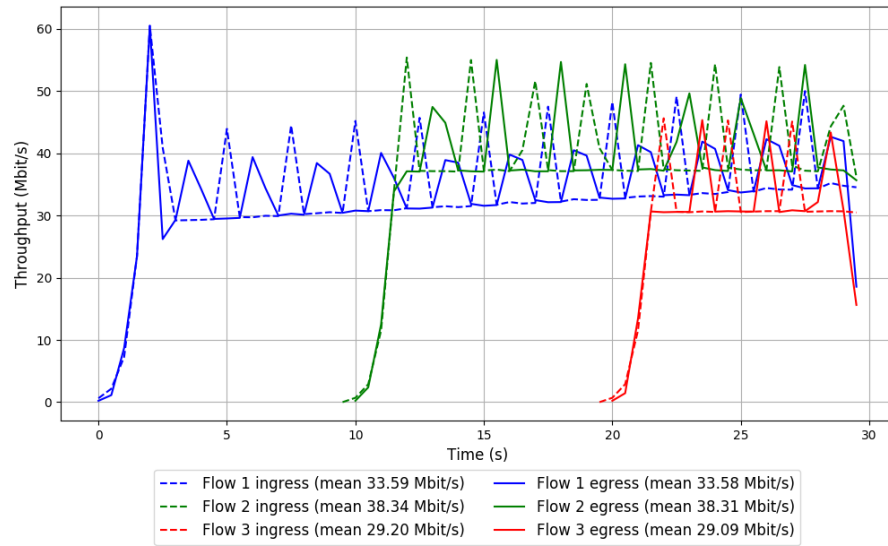
-- Flow 3:

Average throughput: 29.09 Mbit/s

95th percentile per-packet one-way delay: 115.776 ms

Loss rate: 2.62%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-08-31 13:40:08

End at: 2017-08-31 13:40:38

Below is generated by plot.py at 2017-08-31 18:00:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.94 Mbit/s

95th percentile per-packet one-way delay: 115.319 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 14.29 Mbit/s

95th percentile per-packet one-way delay: 115.270 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 24.35 Mbit/s

95th percentile per-packet one-way delay: 115.404 ms

Loss rate: 0.89%

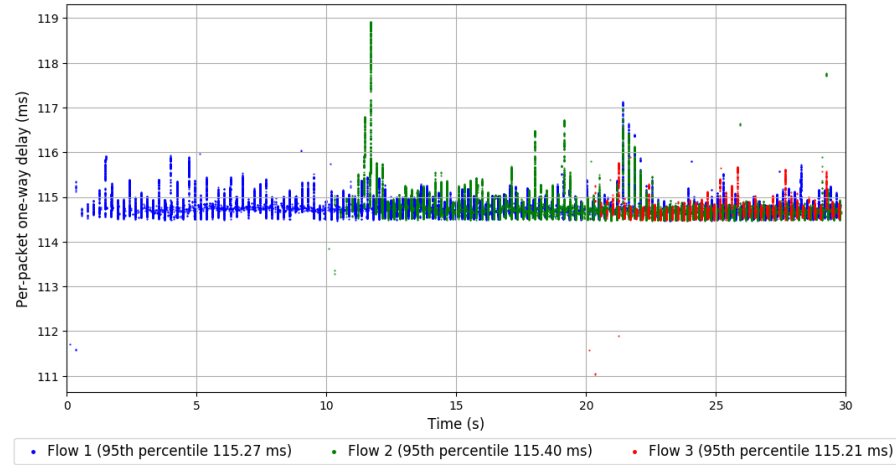
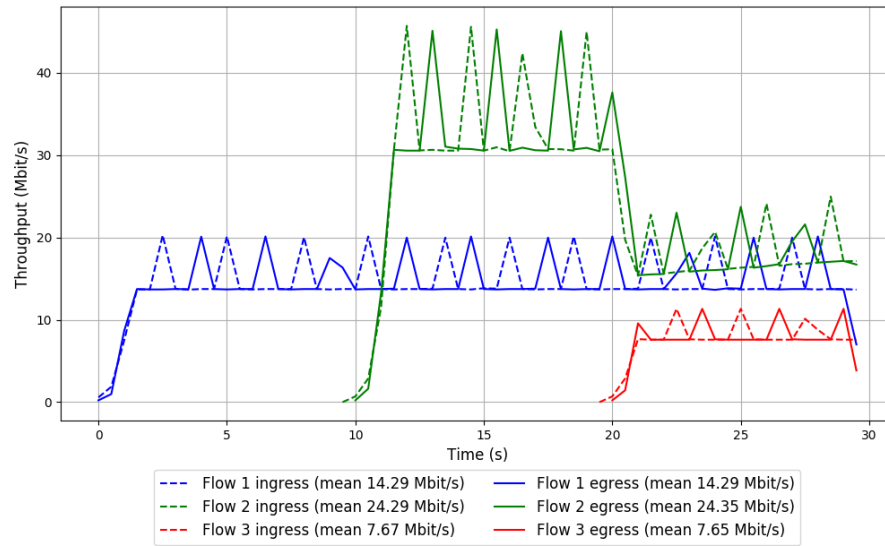
-- Flow 3:

Average throughput: 7.65 Mbit/s

95th percentile per-packet one-way delay: 115.211 ms

Loss rate: 2.50%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-08-31 13:53:39

End at: 2017-08-31 13:54:09

Below is generated by plot.py at 2017-08-31 18:00:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.07 Mbit/s

95th percentile per-packet one-way delay: 116.077 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 23.63 Mbit/s

95th percentile per-packet one-way delay: 116.321 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 8.42 Mbit/s

95th percentile per-packet one-way delay: 115.687 ms

Loss rate: 1.21%

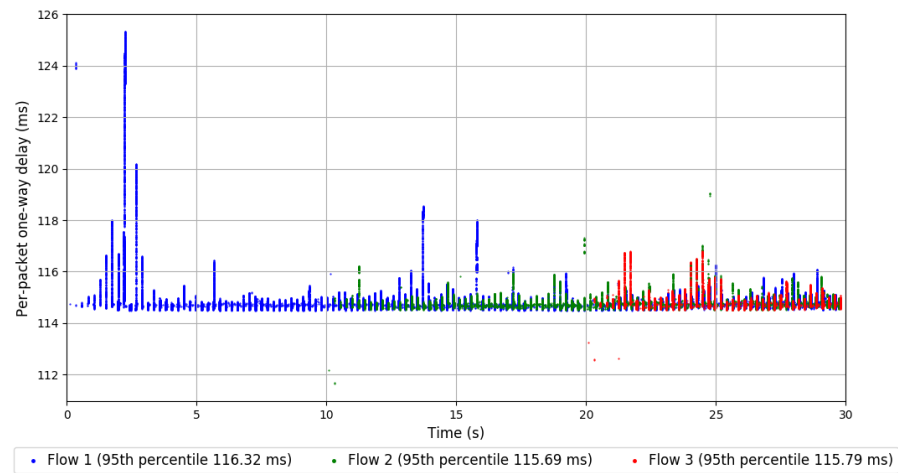
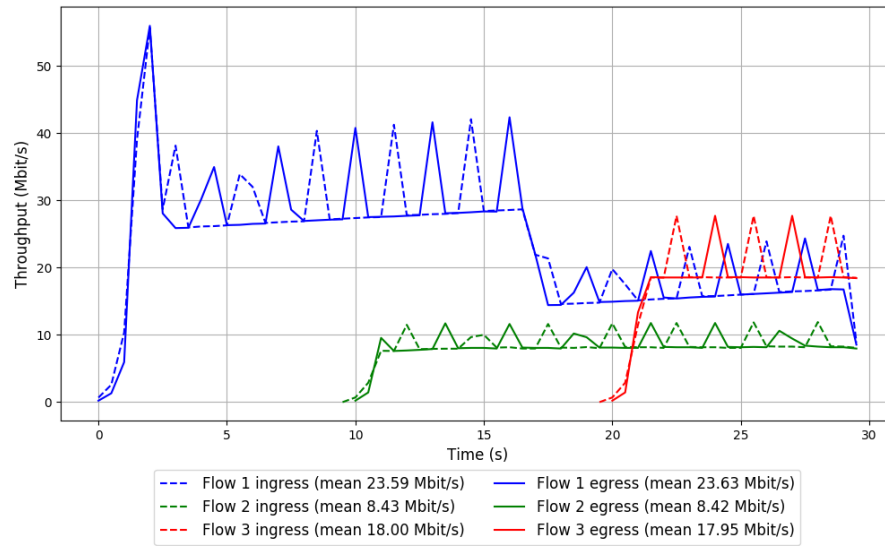
-- Flow 3:

Average throughput: 17.95 Mbit/s

95th percentile per-packet one-way delay: 115.792 ms

Loss rate: 2.59%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-08-31 14:07:05

End at: 2017-08-31 14:07:35

Below is generated by plot.py at 2017-08-31 18:00:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 46.57 Mbit/s

95th percentile per-packet one-way delay: 117.027 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 8.41 Mbit/s

95th percentile per-packet one-way delay: 115.476 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 33.12 Mbit/s

95th percentile per-packet one-way delay: 117.056 ms

Loss rate: 1.28%

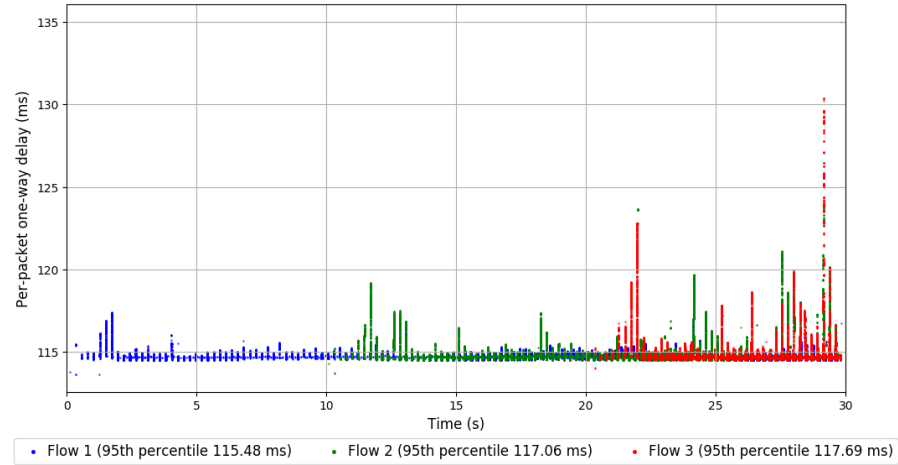
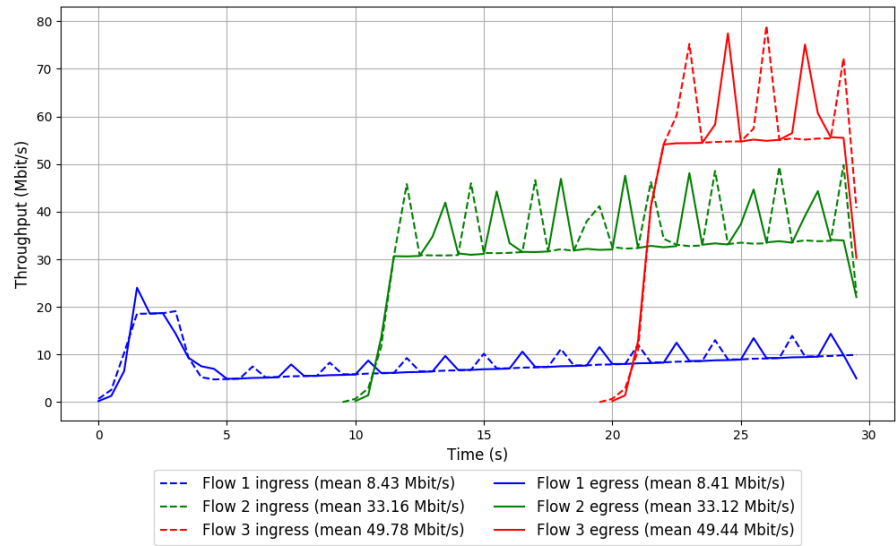
-- Flow 3:

Average throughput: 49.44 Mbit/s

95th percentile per-packet one-way delay: 117.695 ms

Loss rate: 2.78%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-08-31 14:20:23

End at: 2017-08-31 14:20:53

Below is generated by plot.py at 2017-08-31 18:00:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.61 Mbit/s

95th percentile per-packet one-way delay: 117.128 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 35.74 Mbit/s

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

Loss rate: 0.84%

-- Flow 2:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 115.233 ms

Loss rate: 1.21%

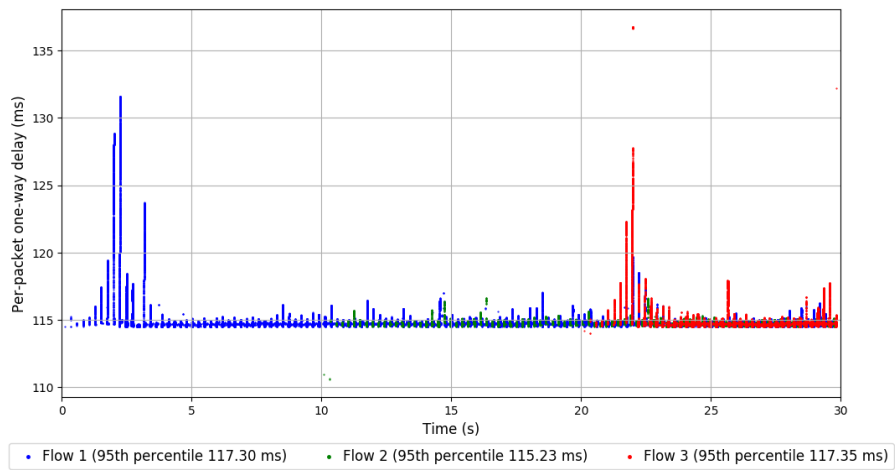
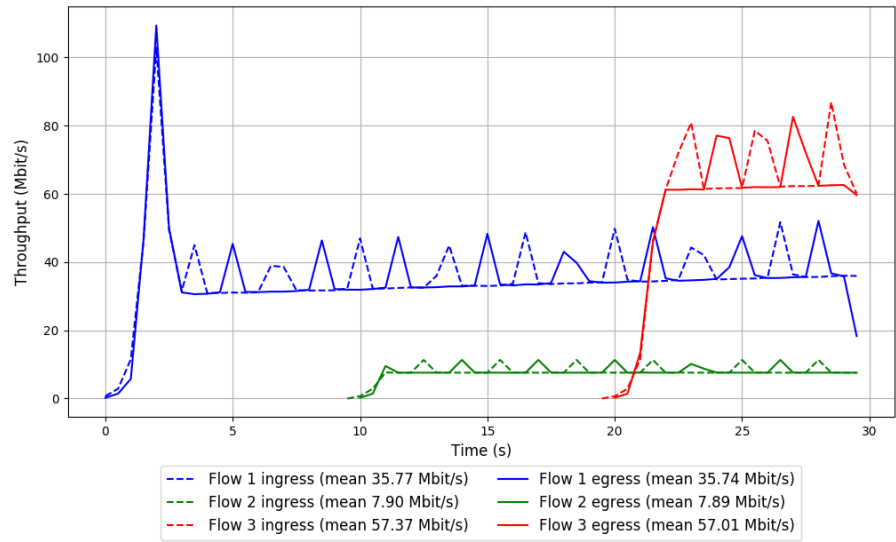
-- Flow 3:

Average throughput: 57.01 Mbit/s

95th percentile per-packet one-way delay: 117.346 ms

Loss rate: 2.74%

Run 10: Report of TCP Vegas — Data Link

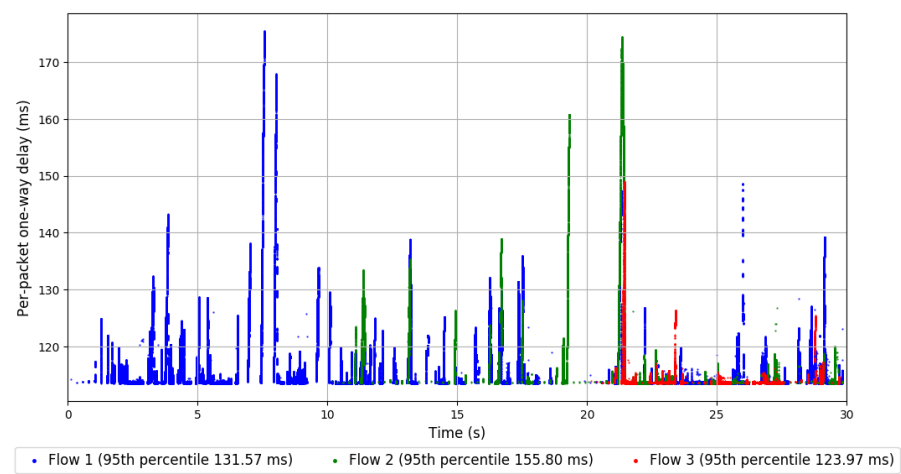
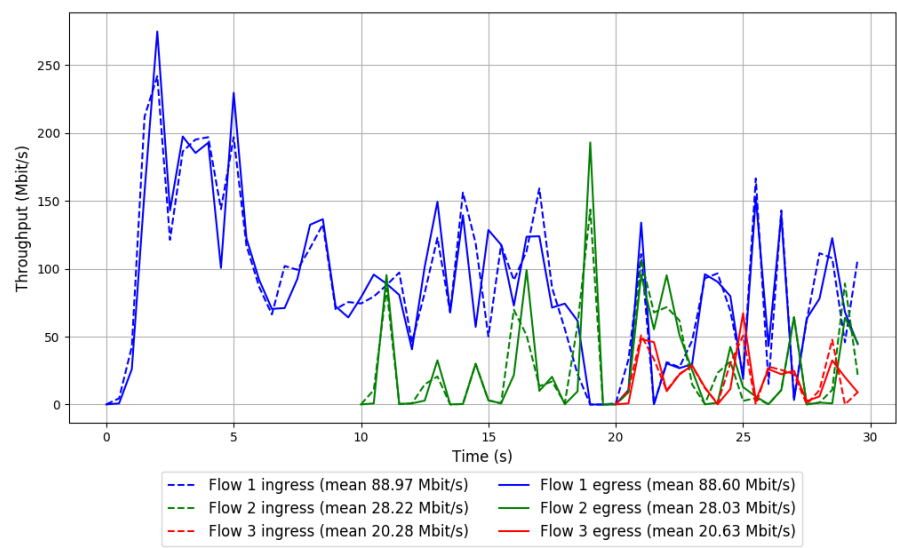


```
Run 1: Statistics of Verus

Start at: 2017-08-31 12:18:32
End at: 2017-08-31 12:19:02

# Below is generated by plot.py at 2017-08-31 18:01:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 113.78 Mbit/s
95th percentile per-packet one-way delay: 134.499 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 88.60 Mbit/s
95th percentile per-packet one-way delay: 131.567 ms
Loss rate: 1.17%
-- Flow 2:
Average throughput: 28.03 Mbit/s
95th percentile per-packet one-way delay: 155.800 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 20.63 Mbit/s
95th percentile per-packet one-way delay: 123.969 ms
Loss rate: 0.01%
```

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-08-31 12:31:58

End at: 2017-08-31 12:32:28

Below is generated by plot.py at 2017-08-31 18:01:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.77 Mbit/s

95th percentile per-packet one-way delay: 259.126 ms

Loss rate: 4.13%

-- Flow 1:

Average throughput: 67.99 Mbit/s

95th percentile per-packet one-way delay: 286.823 ms

Loss rate: 5.71%

-- Flow 2:

Average throughput: 54.46 Mbit/s

95th percentile per-packet one-way delay: 128.431 ms

Loss rate: 1.18%

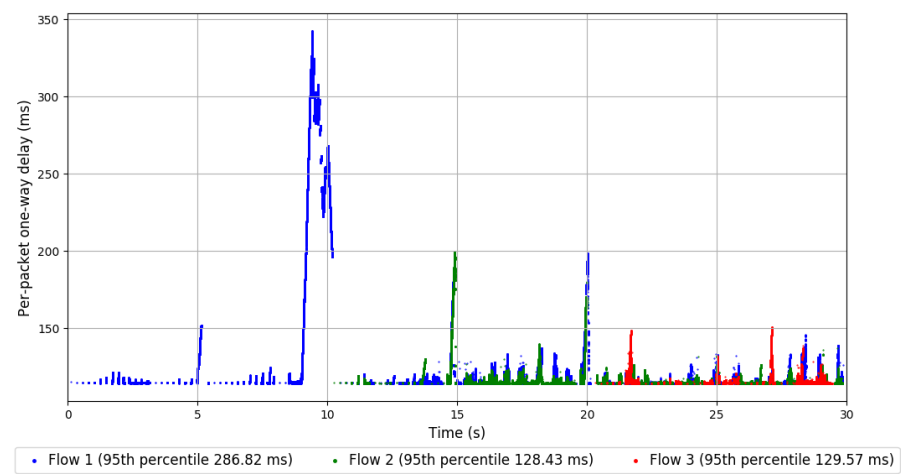
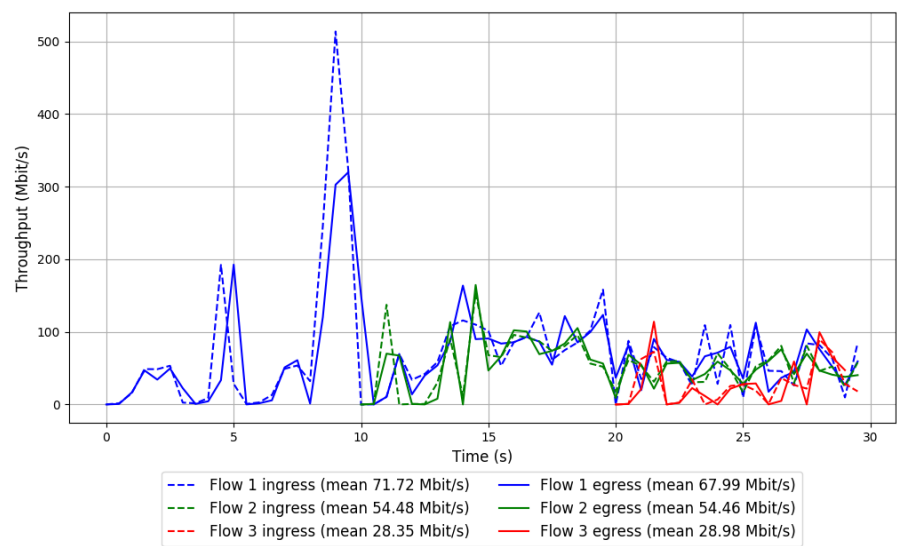
-- Flow 3:

Average throughput: 28.98 Mbit/s

95th percentile per-packet one-way delay: 129.570 ms

Loss rate: 3.32%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-08-31 12:45:49

End at: 2017-08-31 12:46:19

Below is generated by plot.py at 2017-08-31 18:01:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.93 Mbit/s

95th percentile per-packet one-way delay: 202.131 ms

Loss rate: 2.24%

-- Flow 1:

Average throughput: 32.29 Mbit/s

95th percentile per-packet one-way delay: 119.600 ms

Loss rate: 1.24%

-- Flow 2:

Average throughput: 48.82 Mbit/s

95th percentile per-packet one-way delay: 249.795 ms

Loss rate: 3.77%

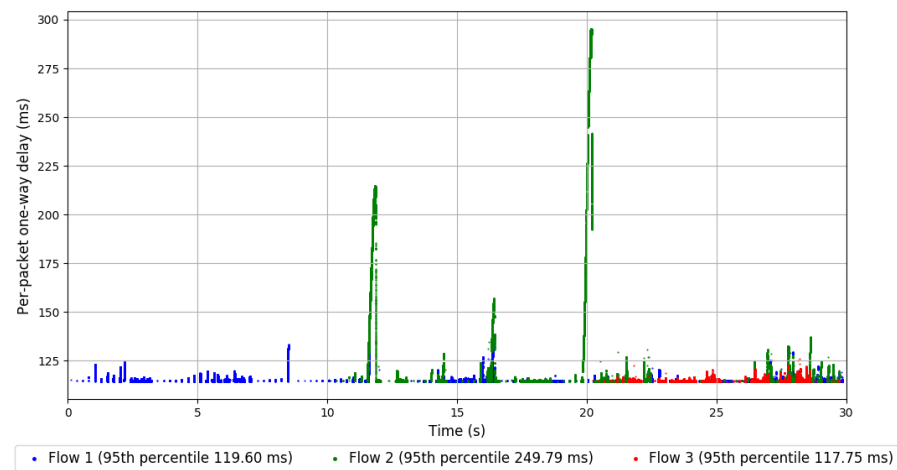
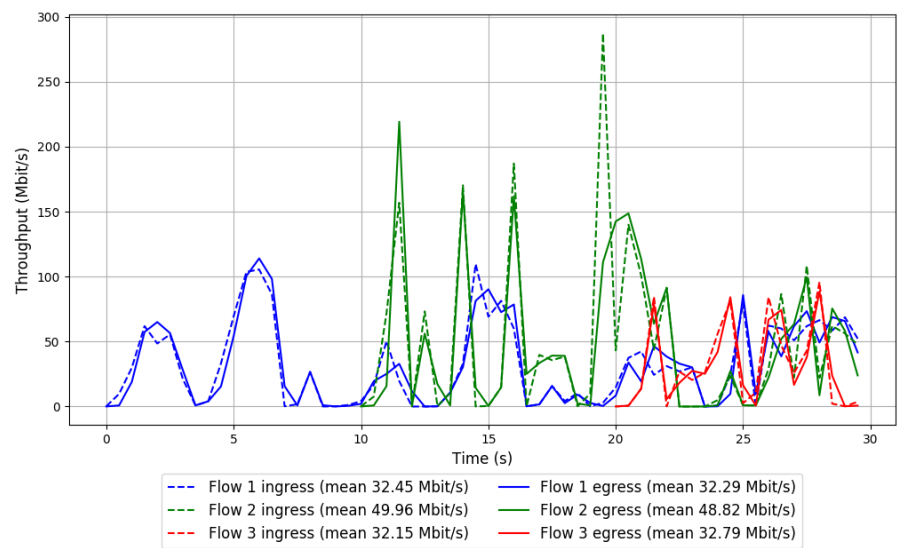
-- Flow 3:

Average throughput: 32.79 Mbit/s

95th percentile per-packet one-way delay: 117.754 ms

Loss rate: 0.47%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-08-31 12:59:05

End at: 2017-08-31 12:59:35

Below is generated by plot.py at 2017-08-31 18:01:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.02 Mbit/s

95th percentile per-packet one-way delay: 153.850 ms

Loss rate: 1.85%

-- Flow 1:

Average throughput: 38.58 Mbit/s

95th percentile per-packet one-way delay: 154.364 ms

Loss rate: 3.09%

-- Flow 2:

Average throughput: 58.17 Mbit/s

95th percentile per-packet one-way delay: 173.056 ms

Loss rate: 0.00%

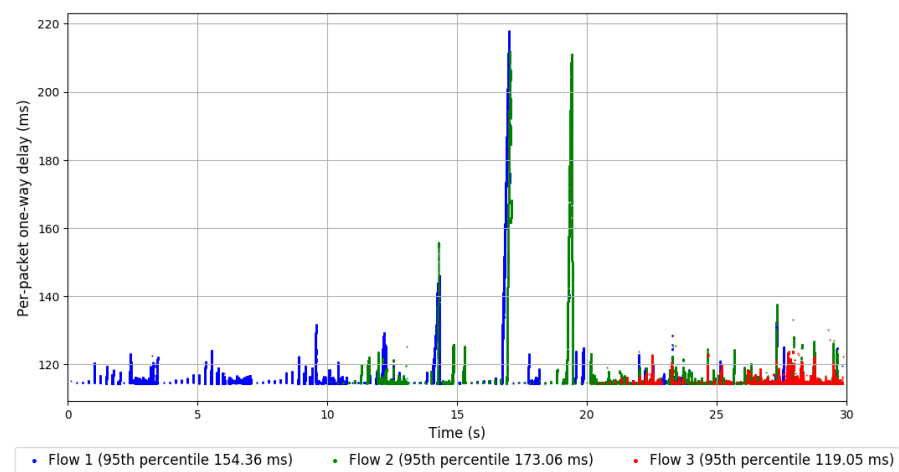
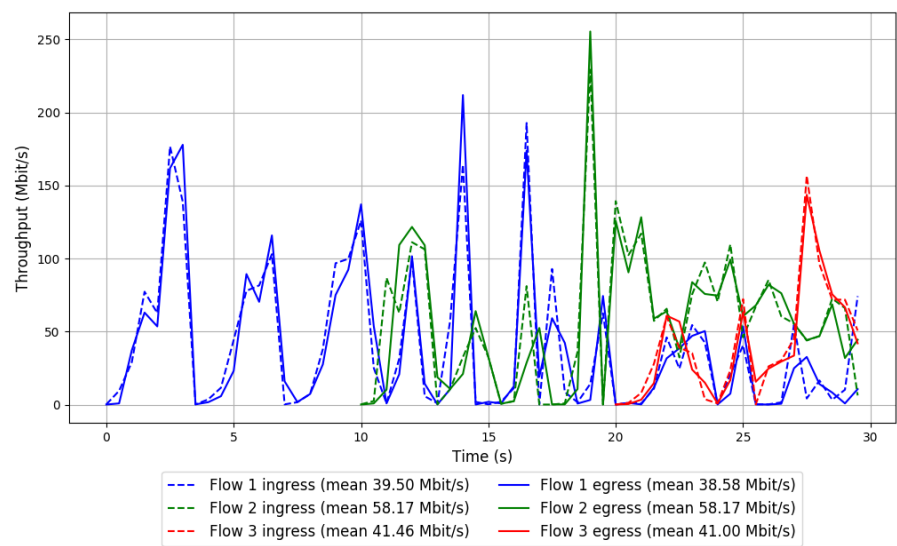
-- Flow 3:

Average throughput: 41.00 Mbit/s

95th percentile per-packet one-way delay: 119.054 ms

Loss rate: 3.40%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-08-31 13:12:14

End at: 2017-08-31 13:12:44

Below is generated by plot.py at 2017-08-31 18:01:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.94 Mbit/s

95th percentile per-packet one-way delay: 144.849 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 46.22 Mbit/s

95th percentile per-packet one-way delay: 120.979 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 79.82 Mbit/s

95th percentile per-packet one-way delay: 166.489 ms

Loss rate: 0.83%

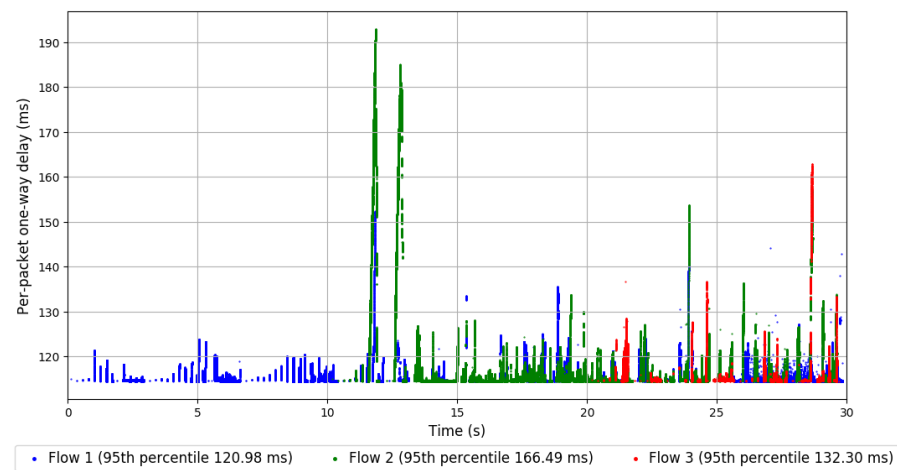
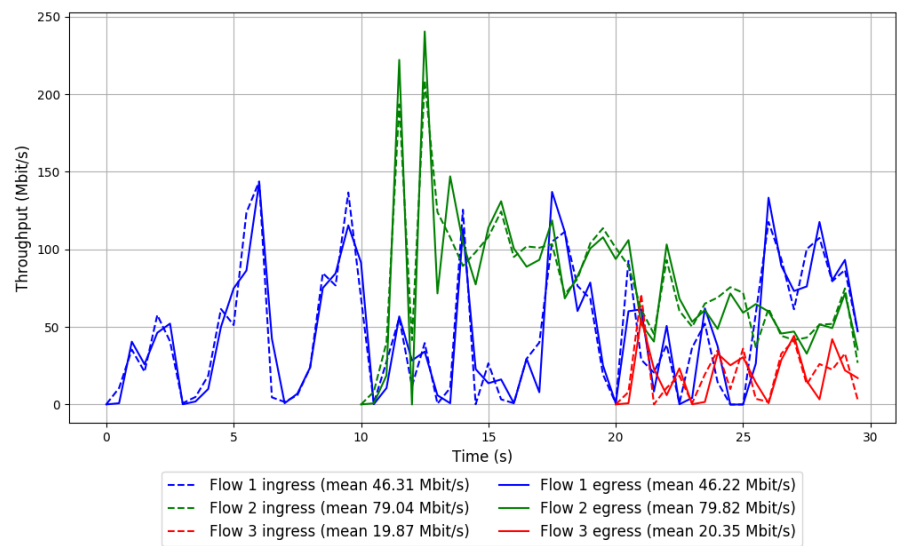
-- Flow 3:

Average throughput: 20.35 Mbit/s

95th percentile per-packet one-way delay: 132.304 ms

Loss rate: 0.01%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-08-31 13:25:52

End at: 2017-08-31 13:26:22

Below is generated by plot.py at 2017-08-31 18:02:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.82 Mbit/s

95th percentile per-packet one-way delay: 157.257 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 88.37 Mbit/s

95th percentile per-packet one-way delay: 151.997 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 27.62 Mbit/s

95th percentile per-packet one-way delay: 180.121 ms

Loss rate: 0.00%

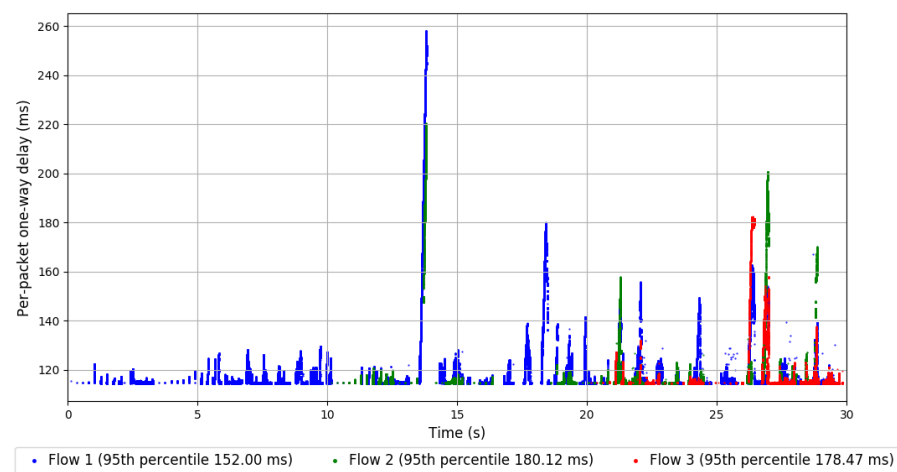
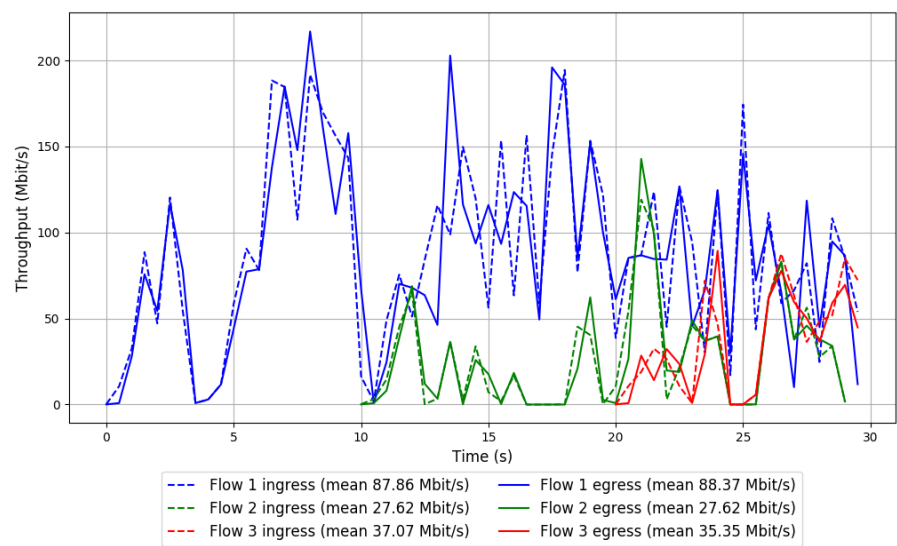
-- Flow 3:

Average throughput: 35.35 Mbit/s

95th percentile per-packet one-way delay: 178.471 ms

Loss rate: 6.53%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-08-31 13:39:09

End at: 2017-08-31 13:39:39

Below is generated by plot.py at 2017-08-31 18:02:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.42 Mbit/s

95th percentile per-packet one-way delay: 145.395 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 91.77 Mbit/s

95th percentile per-packet one-way delay: 141.555 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 52.94 Mbit/s

95th percentile per-packet one-way delay: 166.852 ms

Loss rate: 1.64%

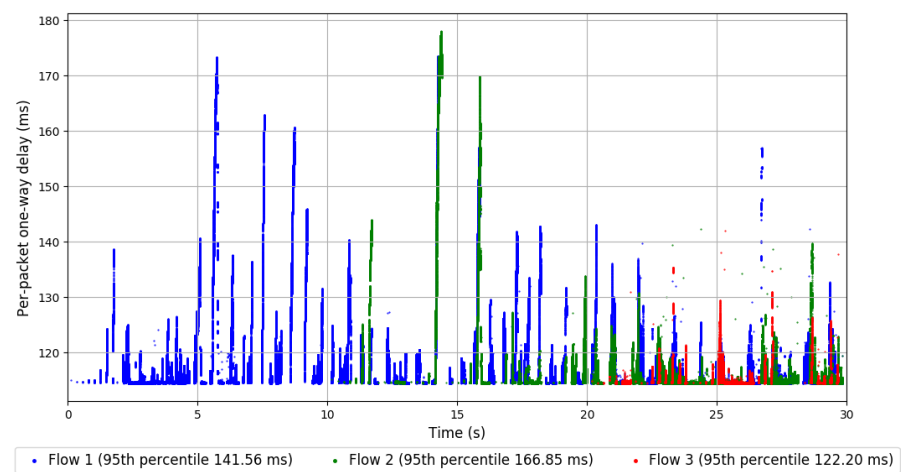
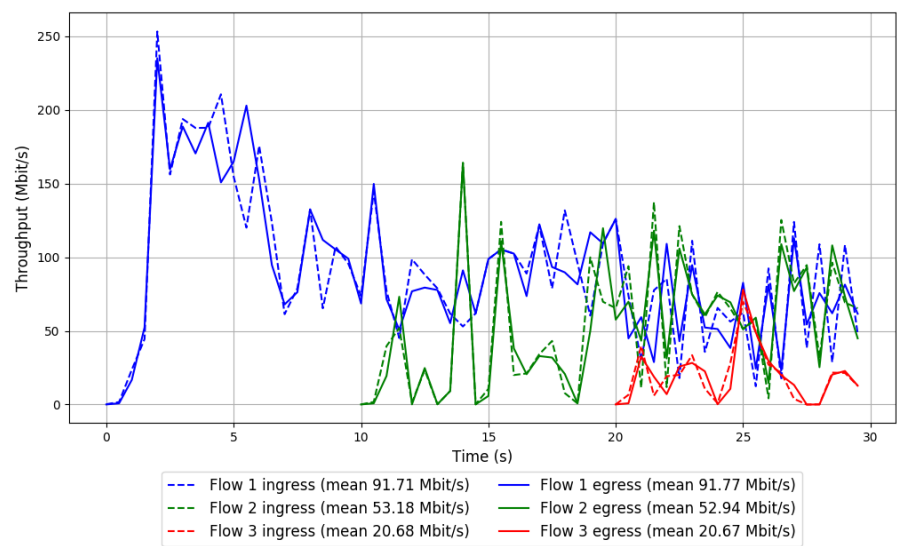
-- Flow 3:

Average throughput: 20.67 Mbit/s

95th percentile per-packet one-way delay: 122.204 ms

Loss rate: 0.02%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-08-31 13:52:40

End at: 2017-08-31 13:53:10

Below is generated by plot.py at 2017-08-31 18:02:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.81 Mbit/s

95th percentile per-packet one-way delay: 142.021 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 108.18 Mbit/s

95th percentile per-packet one-way delay: 144.749 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 25.04 Mbit/s

95th percentile per-packet one-way delay: 127.187 ms

Loss rate: 0.09%

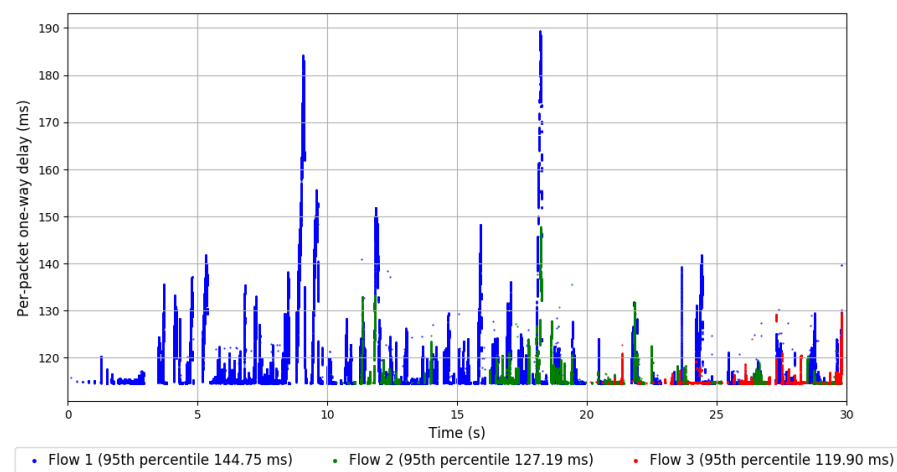
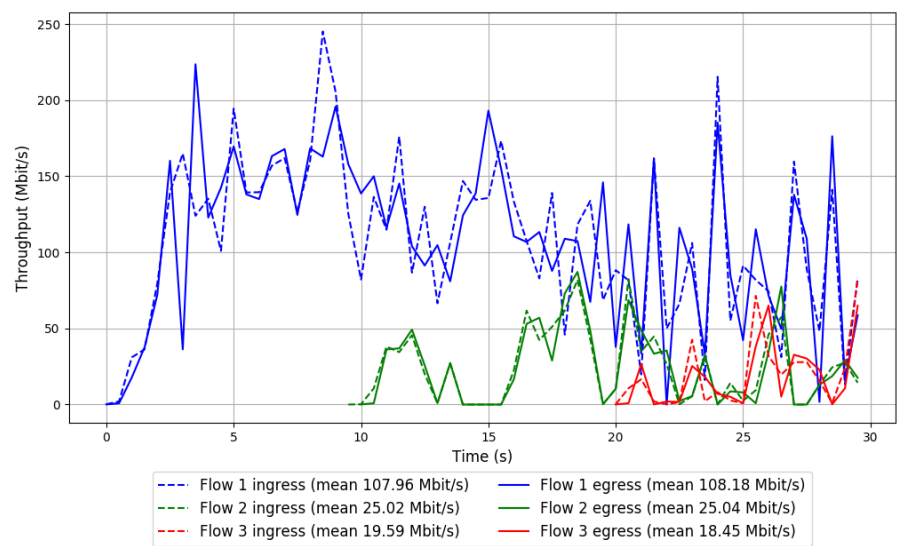
-- Flow 3:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 119.902 ms

Loss rate: 7.92%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-08-31 14:06:07

End at: 2017-08-31 14:06:37

Below is generated by plot.py at 2017-08-31 18:02:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.76 Mbit/s

95th percentile per-packet one-way delay: 167.741 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 64.39 Mbit/s

95th percentile per-packet one-way delay: 179.868 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 72.03 Mbit/s

95th percentile per-packet one-way delay: 141.352 ms

Loss rate: 0.00%

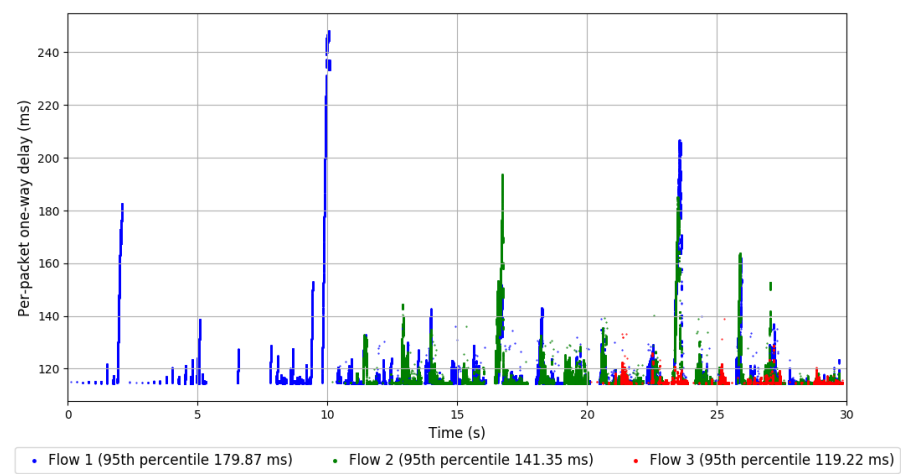
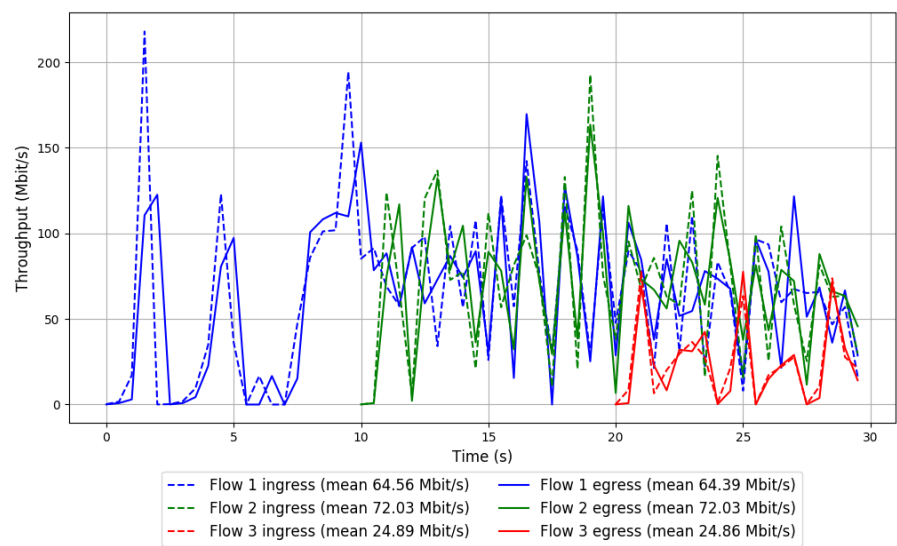
-- Flow 3:

Average throughput: 24.86 Mbit/s

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

Loss rate: 2.39%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-08-31 14:19:27

End at: 2017-08-31 14:19:57

Below is generated by plot.py at 2017-08-31 18:02:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.57 Mbit/s

95th percentile per-packet one-way delay: 133.260 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 74.21 Mbit/s

95th percentile per-packet one-way delay: 129.503 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 29.23 Mbit/s

95th percentile per-packet one-way delay: 169.970 ms

Loss rate: 0.00%

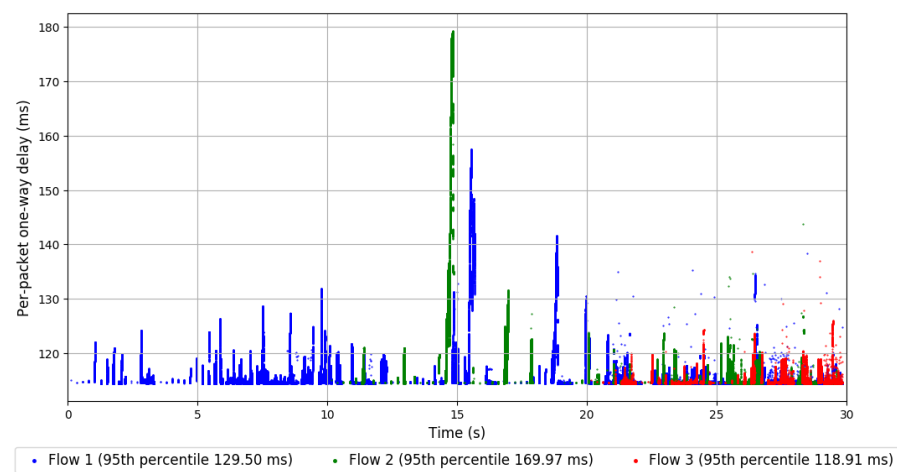
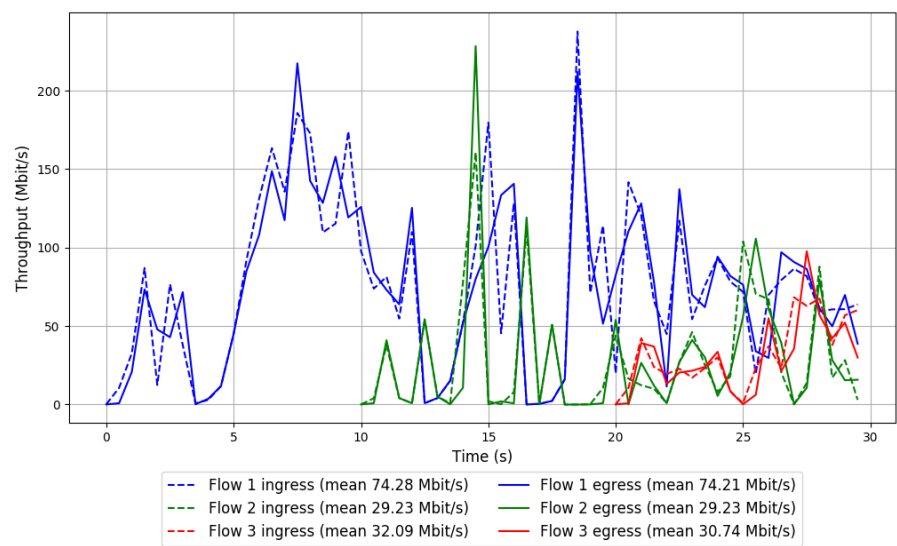
-- Flow 3:

Average throughput: 30.74 Mbit/s

95th percentile per-packet one-way delay: 118.910 ms

Loss rate: 6.48%

Run 10: Report of Verus — Data Link

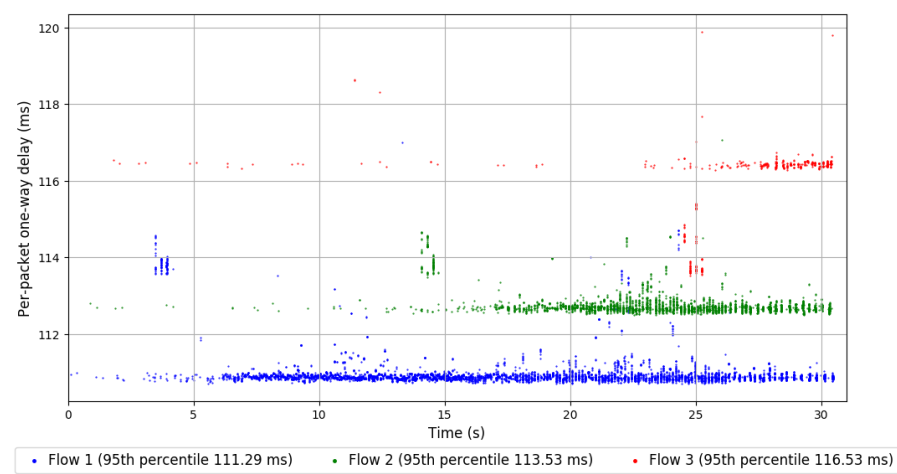
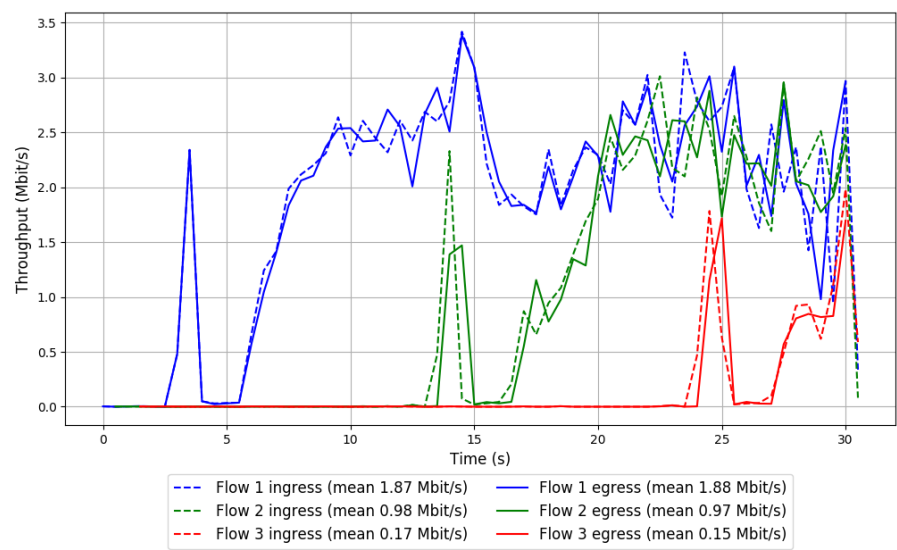


```
Run 1: Statistics of WebRTC media

Start at: 2017-08-31 12:17:45
End at: 2017-08-31 12:18:15

# Below is generated by plot.py at 2017-08-31 18:02:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 114.282 ms
Loss rate: 1.50%
-- Flow 1:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 111.286 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 113.526 ms
Loss rate: 2.13%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 116.527 ms
Loss rate: 11.87%
```


Run 1: Report of WebRTC media — Data Link

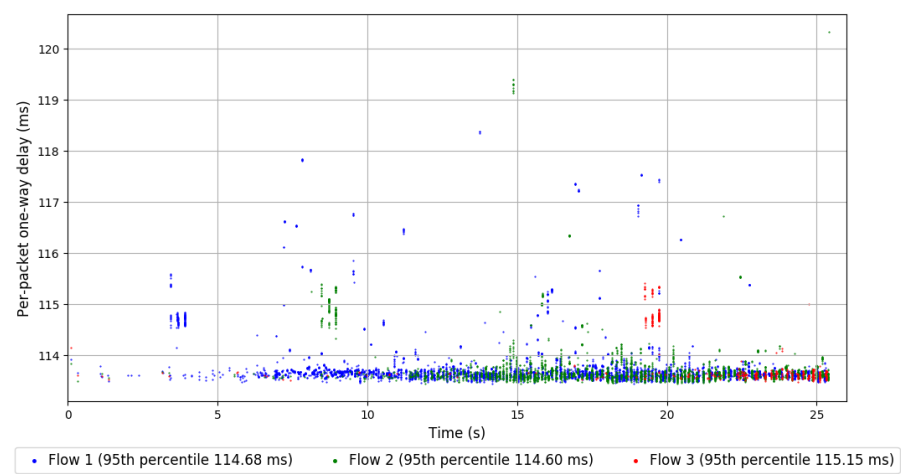
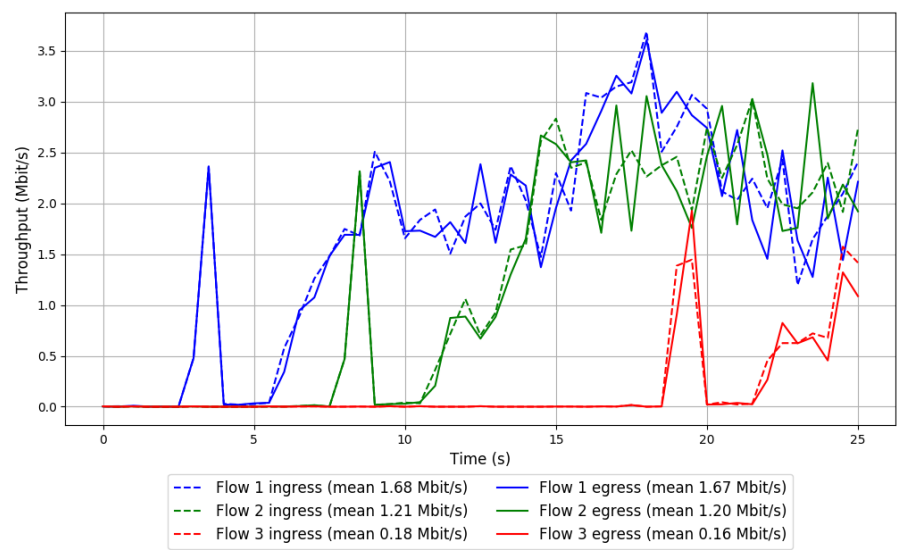


```
Run 2: Statistics of WebRTC media

Start at: 2017-08-31 12:31:11
End at: 2017-08-31 12:31:41

# Below is generated by plot.py at 2017-08-31 18:02:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 114.737 ms
Loss rate: 2.02%
-- Flow 1:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 114.681 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 114.603 ms
Loss rate: 1.77%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 115.147 ms
Loss rate: 9.28%
```

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-08-31 12:44:42

End at: 2017-08-31 12:45:12

Below is generated by plot.py at 2017-08-31 18:02:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 114.934 ms

Loss rate: 2.66%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.247 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 114.930 ms

Loss rate: 1.42%

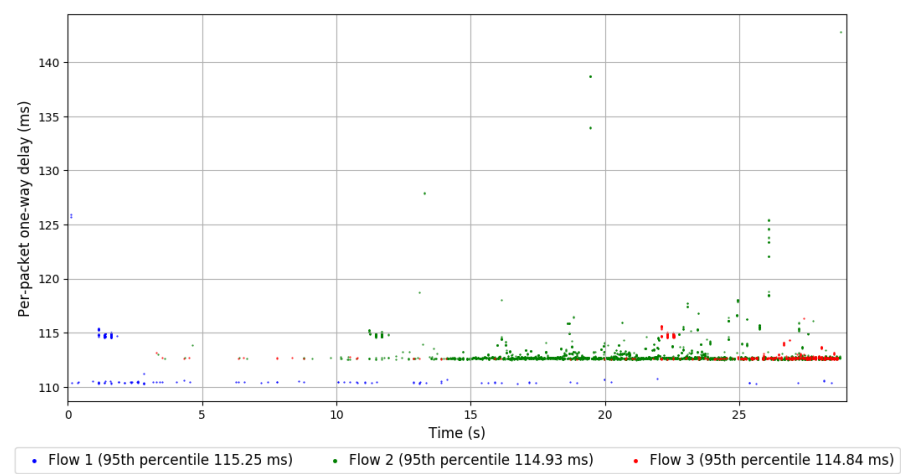
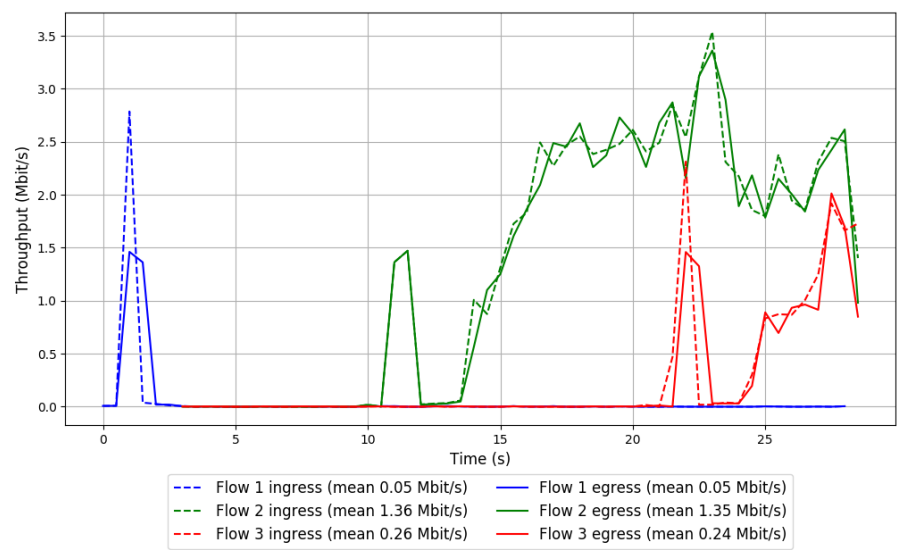
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 114.836 ms

Loss rate: 9.68%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-08-31 12:58:18

End at: 2017-08-31 12:58:48

Below is generated by plot.py at 2017-08-31 18:02:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 114.770 ms

Loss rate: 3.04%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.096 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 114.315 ms

Loss rate: 2.11%

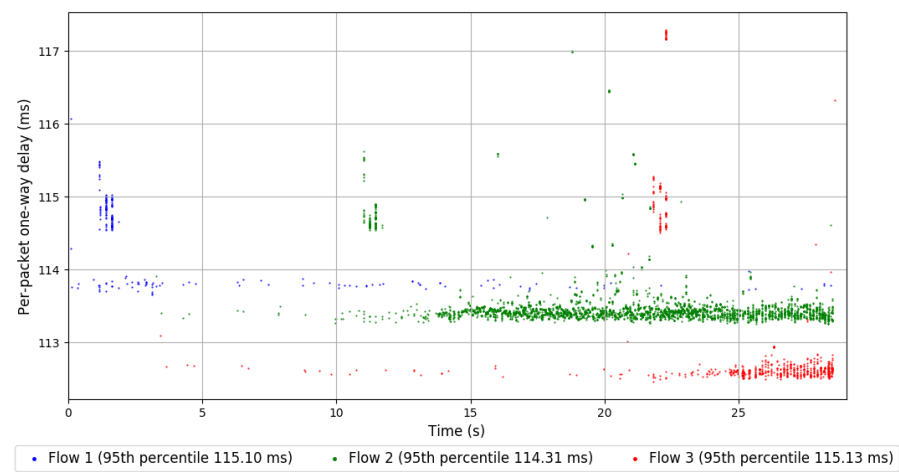
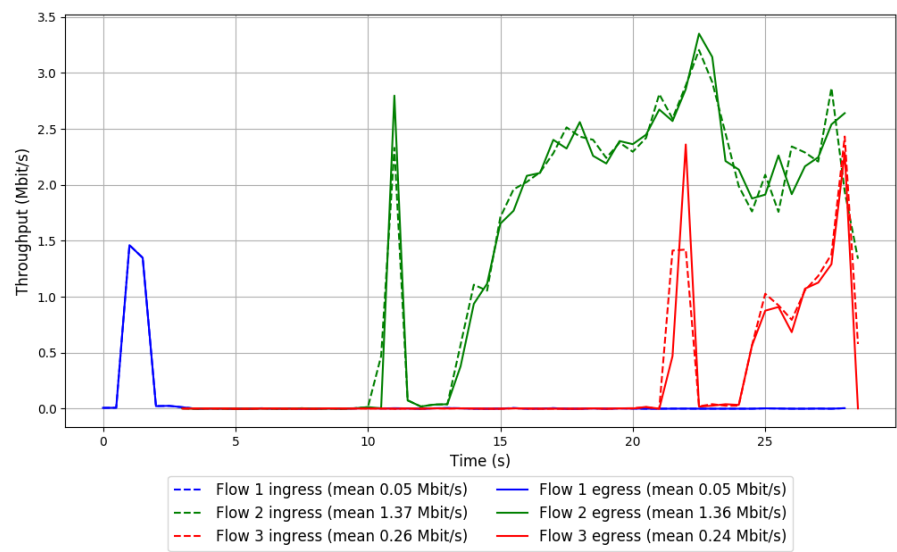
-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 115.129 ms

Loss rate: 8.73%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-08-31 13:11:27

End at: 2017-08-31 13:11:57

Below is generated by plot.py at 2017-08-31 18:02:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 114.735 ms

Loss rate: 3.19%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.241 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 112.539 ms

Loss rate: 2.38%

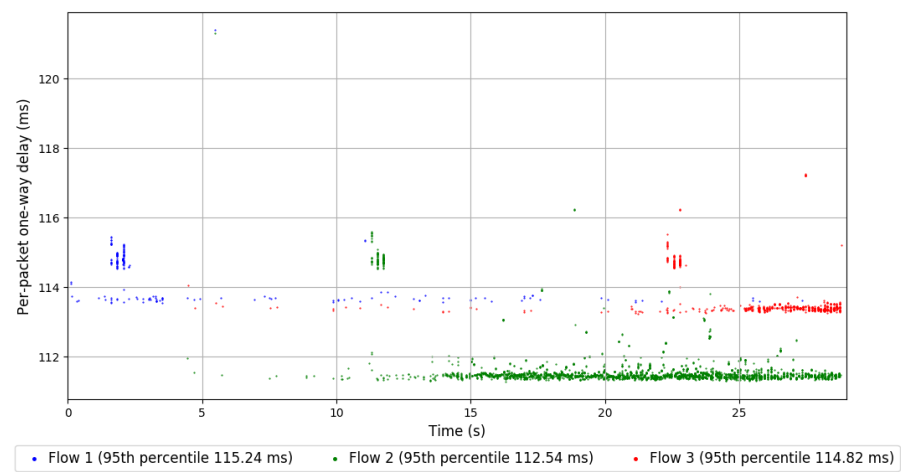
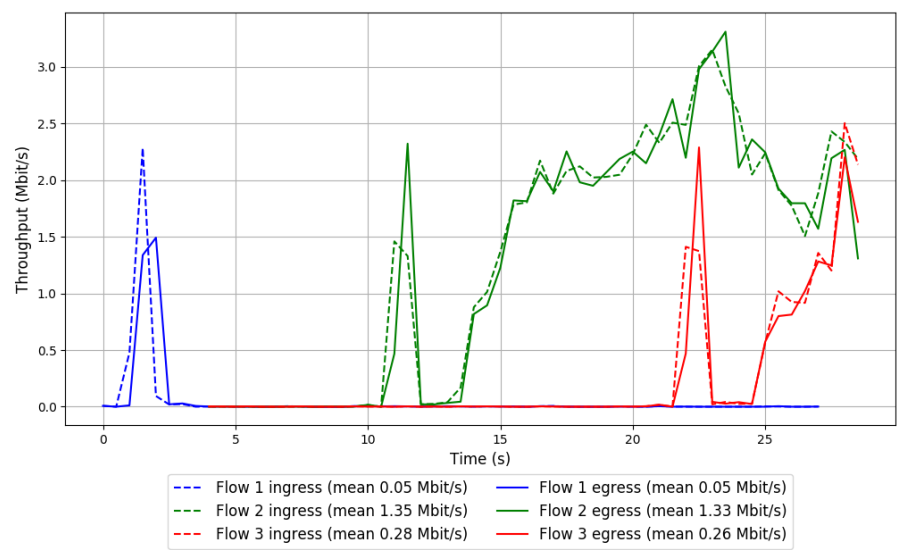
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 114.824 ms

Loss rate: 7.84%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-08-31 13:25:05

End at: 2017-08-31 13:25:35

Below is generated by plot.py at 2017-08-31 18:02:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 114.699 ms

Loss rate: 2.52%

-- Flow 1:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 115.253 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 113.629 ms

Loss rate: 1.46%

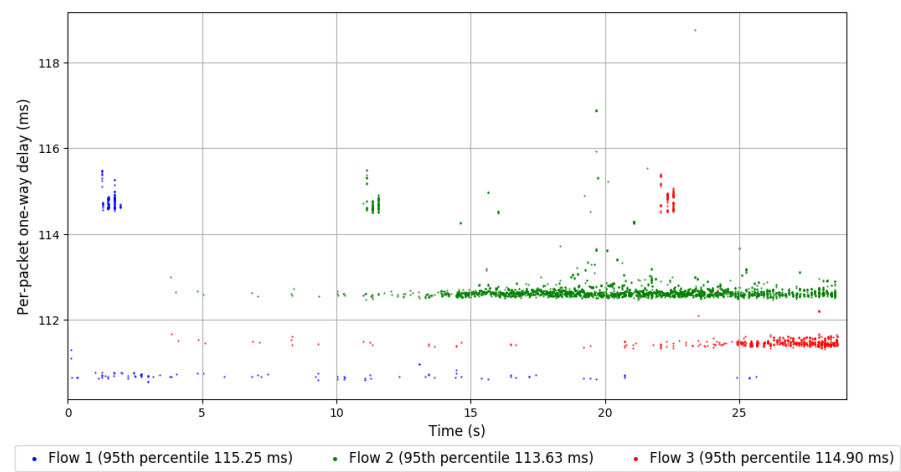
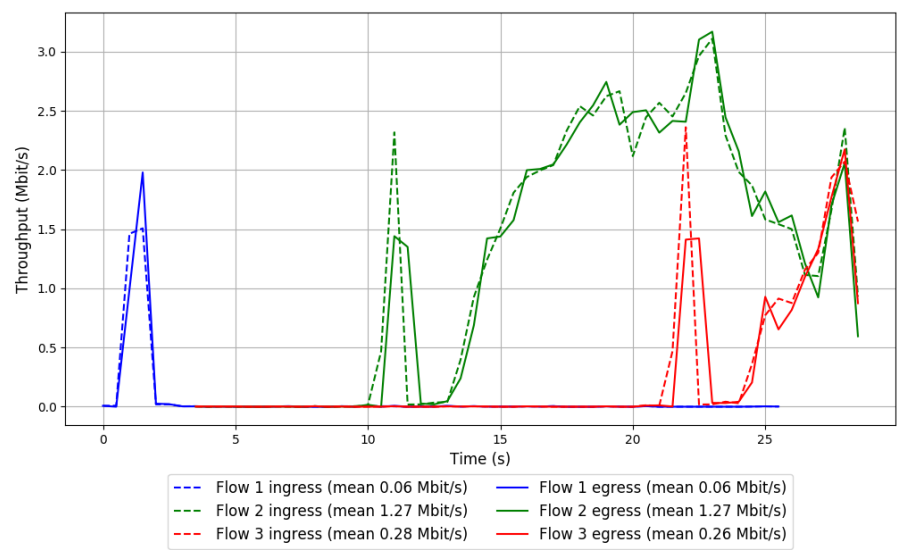
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 114.899 ms

Loss rate: 7.89%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-08-31 13:38:23

End at: 2017-08-31 13:38:53

Below is generated by plot.py at 2017-08-31 18:03:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 114.863 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.064 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 0.66%

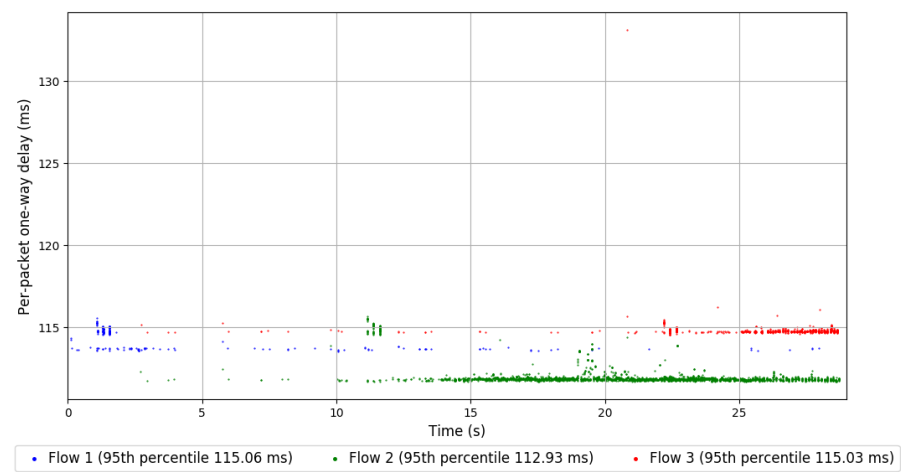
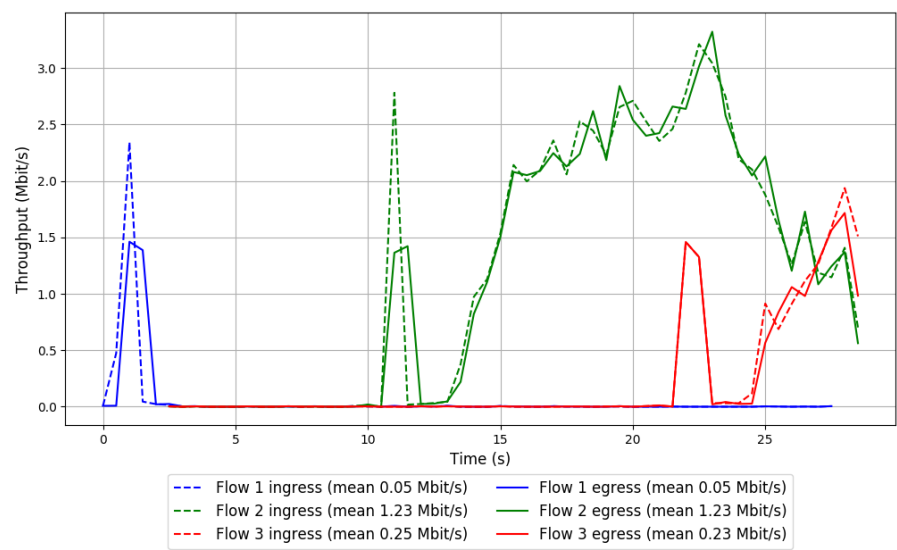
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 115.034 ms

Loss rate: 7.94%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-08-31 13:51:54

End at: 2017-08-31 13:52:24

Below is generated by plot.py at 2017-08-31 18:03:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.80 Mbit/s

95th percentile per-packet one-way delay: 115.067 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 115.284 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 112.409 ms

Loss rate: 1.86%

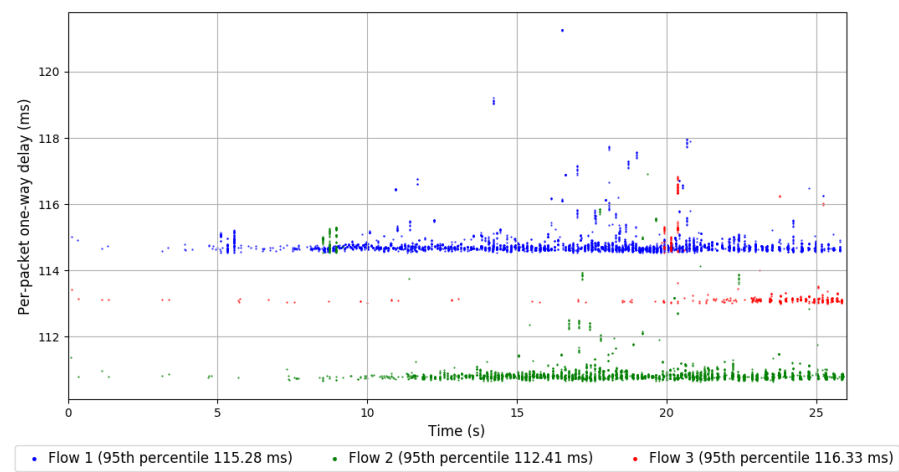
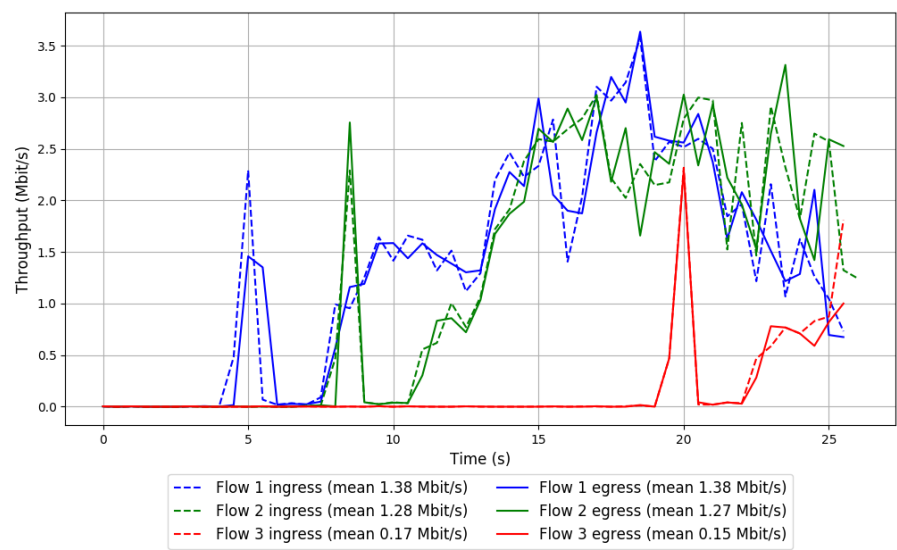
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 116.328 ms

Loss rate: 12.22%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-08-31 14:05:21

End at: 2017-08-31 14:05:51

Below is generated by plot.py at 2017-08-31 18:03:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 114.760 ms

Loss rate: 2.85%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.220 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 114.107 ms

Loss rate: 1.98%

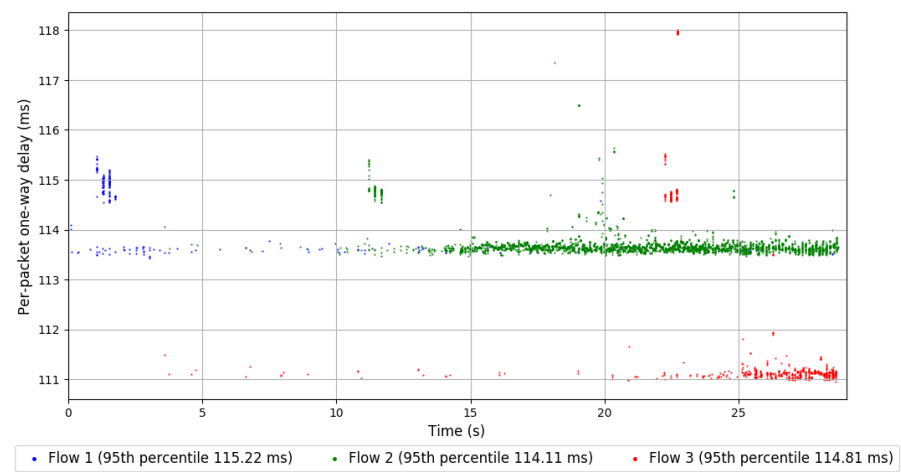
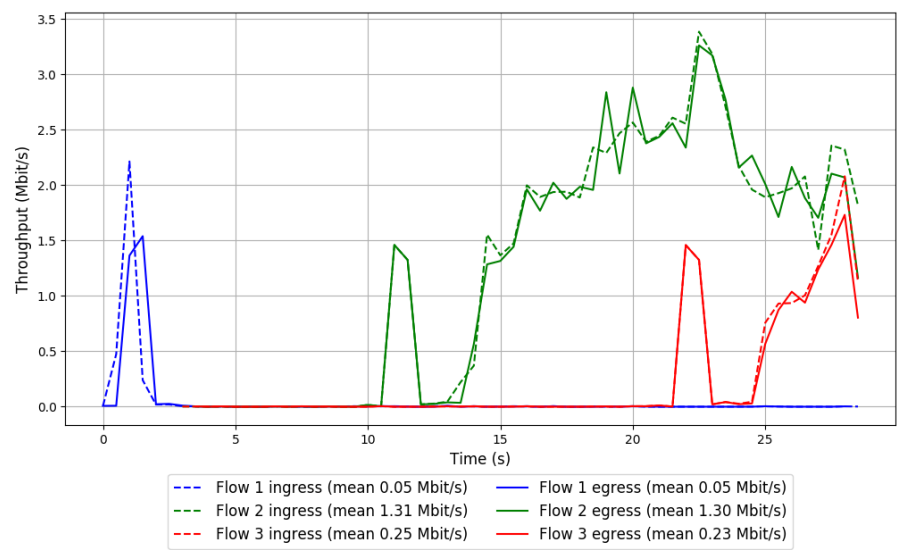
-- Flow 3:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 114.810 ms

Loss rate: 8.13%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-08-31 14:18:41

End at: 2017-08-31 14:19:11

Below is generated by plot.py at 2017-08-31 18:03:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 114.840 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 115.038 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 114.779 ms

Loss rate: 1.01%

-- Flow 3:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 114.840 ms

Loss rate: 7.53%

Run 10: Report of WebRTC media — Data Link

