

Pantheon Report

Generated at 2017-12-20 20:59:40 (UTC).

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

Repeated the test of 14 congestion control schemes 10 times.

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

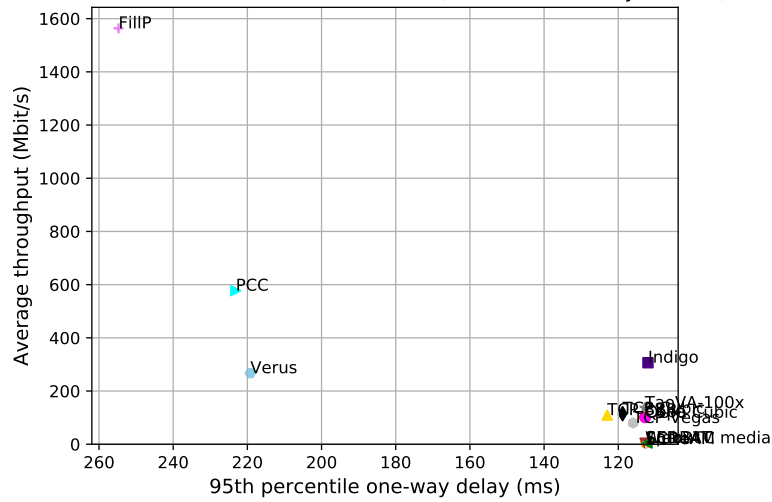
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

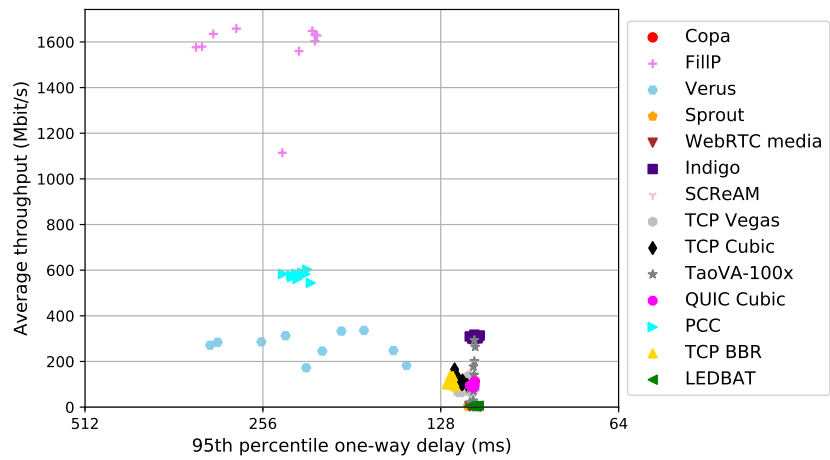
Git summary:

```
branch: master @ 904a5750834816b1e46a2c86405d707788d27c16
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ dcaef6b00654e660f73f7ed679d2eab61ce08639
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
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-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE London Ethernet to GCE Tokyo 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	10	51.90	55.71	62.82	122.76	123.23	123.37	0.45	0.38	0.01
TCP Cubic	10	62.39	60.84	36.32	118.44	118.05	116.49	0.16	0.05	0.50
LEDBAT	10	2.39	2.33	1.68	112.30	111.41	116.94	0.41	0.51	0.61
PCC	10	487.04	114.58	42.43	224.83	219.69	217.14	2.46	1.92	2.13
QUIC Cubic	10	56.41	48.73	33.83	112.27	111.78	112.14	0.00	0.01	0.00
SCReAM	10	0.21	0.22	0.20	112.26	111.92	111.84	0.00	0.00	0.00
WebRTC media	10	2.08	1.28	0.46	112.01	112.24	112.01	0.00	0.00	0.01
Sprout	10	2.60	2.19	1.51	112.77	112.69	112.14	0.09	0.39	1.35
TaoVA-100x	10	84.28	74.35	49.66	112.80	112.64	112.64	0.01	0.01	0.01
TCP Vegas	10	38.22	36.85	51.95	115.24	113.91	116.48	0.19	0.20	0.00
Verus	10	184.63	95.23	64.26	220.40	201.90	227.02	1.86	1.43	1.89
Copa	5	60.08	48.28	37.60	112.77	111.27	112.81	0.00	0.00	0.00
FillP	10	840.58	774.03	630.73	225.95	249.58	265.40	4.99	6.66	11.65
Indigo	10	162.32	156.12	127.83	111.77	111.87	112.63	0.05	0.04	0.01

Run 1: Statistics of TCP BBR

Start at: 2017-12-20 15:45:34

End at: 2017-12-20 15:46:04

Below is generated by plot.py at 2017-12-20 19:41:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.92 Mbit/s

95th percentile per-packet one-way delay: 124.745 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 50.12 Mbit/s

95th percentile per-packet one-way delay: 122.833 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 50.57 Mbit/s

95th percentile per-packet one-way delay: 124.953 ms

Loss rate: 0.04%

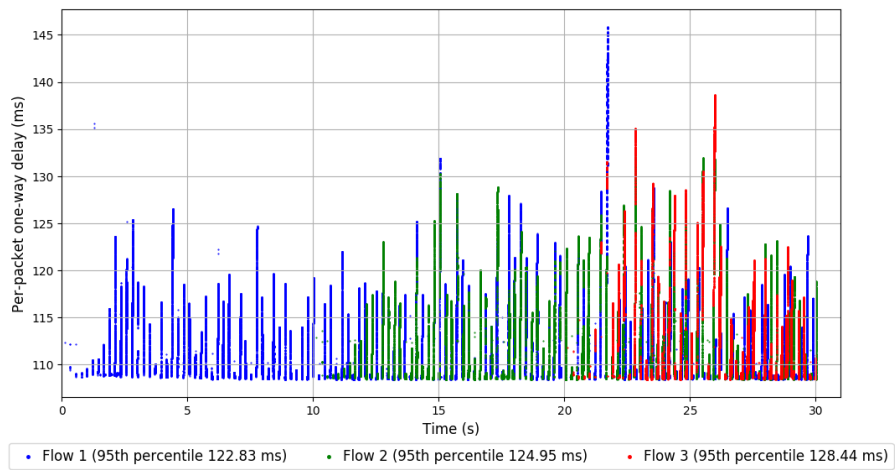
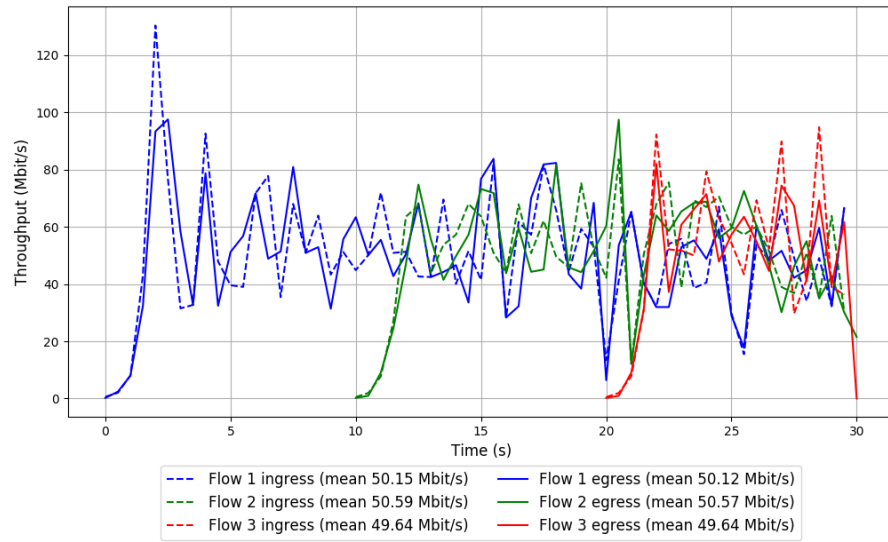
-- Flow 3:

Average throughput: 49.64 Mbit/s

95th percentile per-packet one-way delay: 128.440 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2017-12-20 16:01:18

End at: 2017-12-20 16:01:48

Below is generated by plot.py at 2017-12-20 19:41:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.59 Mbit/s

95th percentile per-packet one-way delay: 122.161 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 42.27 Mbit/s

95th percentile per-packet one-way delay: 121.447 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 60.31 Mbit/s

95th percentile per-packet one-way delay: 123.993 ms

Loss rate: 0.30%

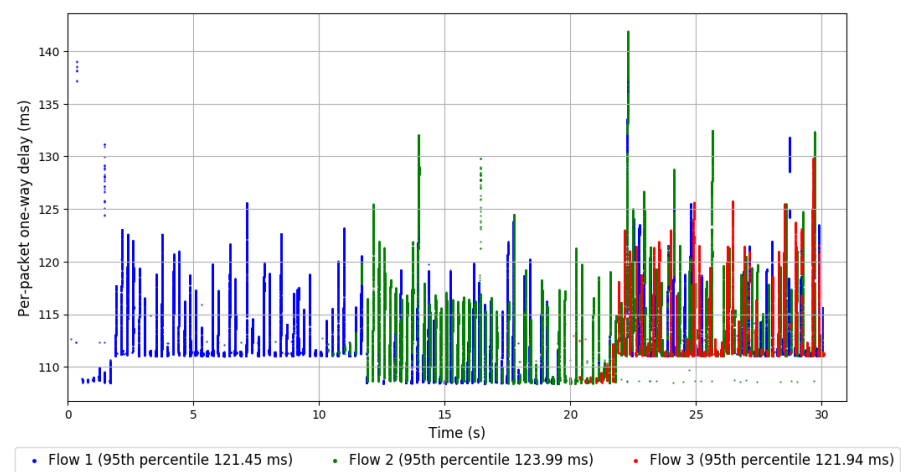
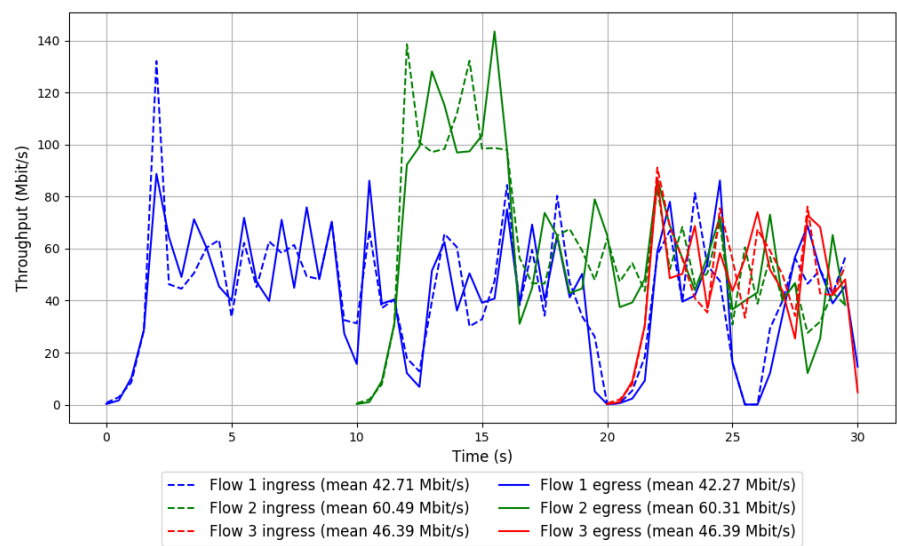
-- Flow 3:

Average throughput: 46.39 Mbit/s

95th percentile per-packet one-way delay: 121.942 ms

Loss rate: 0.03%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2017-12-20 16:16:57

End at: 2017-12-20 16:17:27

Below is generated by plot.py at 2017-12-20 19:41:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.12 Mbit/s

95th percentile per-packet one-way delay: 121.555 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 58.37 Mbit/s

95th percentile per-packet one-way delay: 121.171 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 54.98 Mbit/s

95th percentile per-packet one-way delay: 121.712 ms

Loss rate: 1.87%

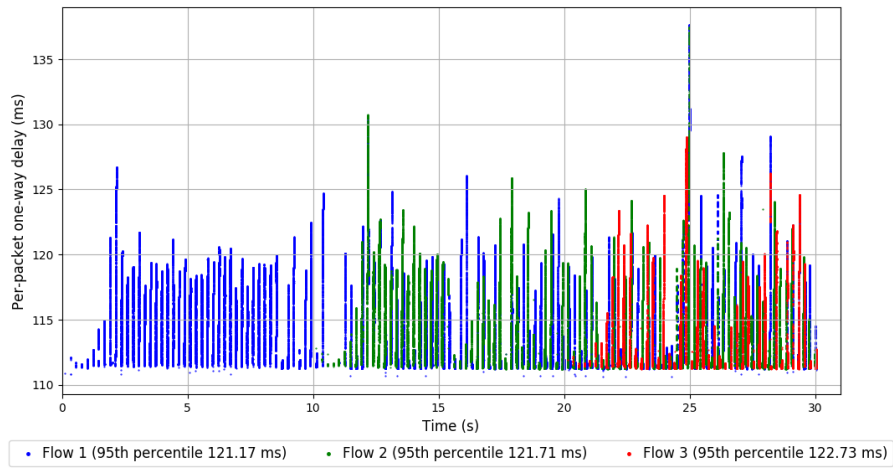
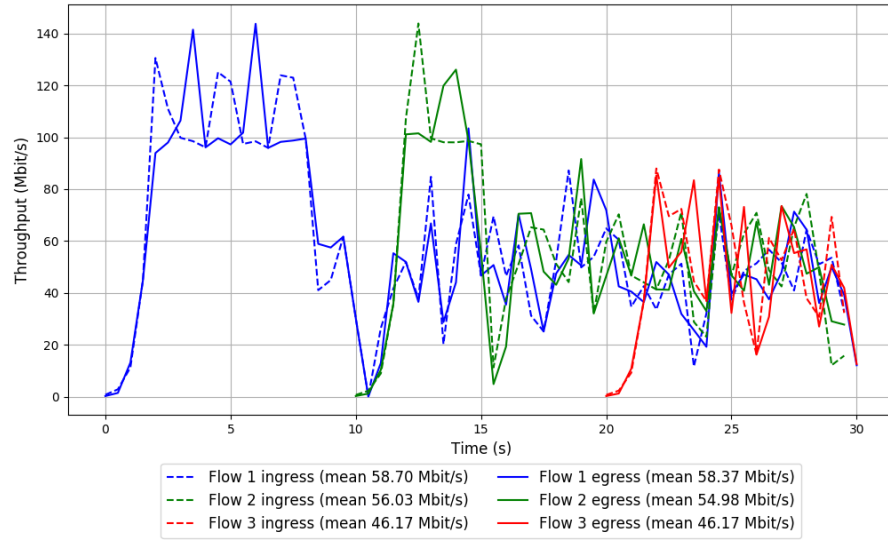
-- Flow 3:

Average throughput: 46.17 Mbit/s

95th percentile per-packet one-way delay: 122.733 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2017-12-20 16:32:11

End at: 2017-12-20 16:32:41

Below is generated by plot.py at 2017-12-20 19:42:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.14 Mbit/s

95th percentile per-packet one-way delay: 122.066 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.14 Mbit/s

95th percentile per-packet one-way delay: 122.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.20 Mbit/s

95th percentile per-packet one-way delay: 121.395 ms

Loss rate: 0.00%

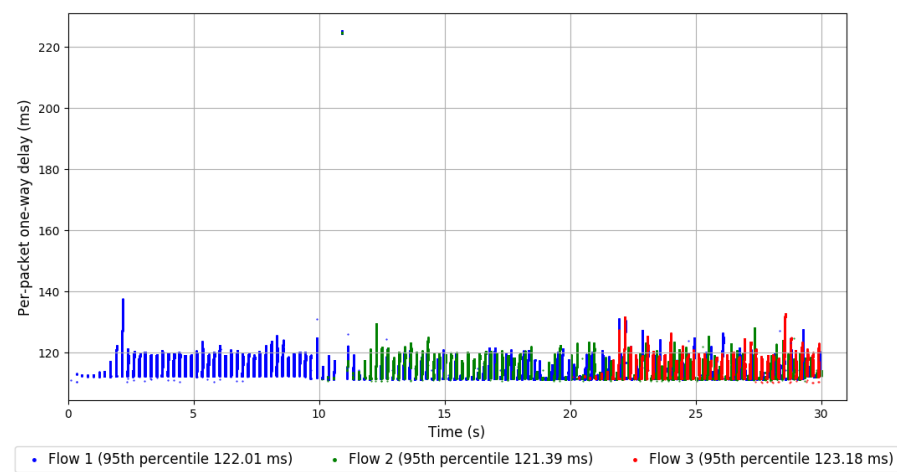
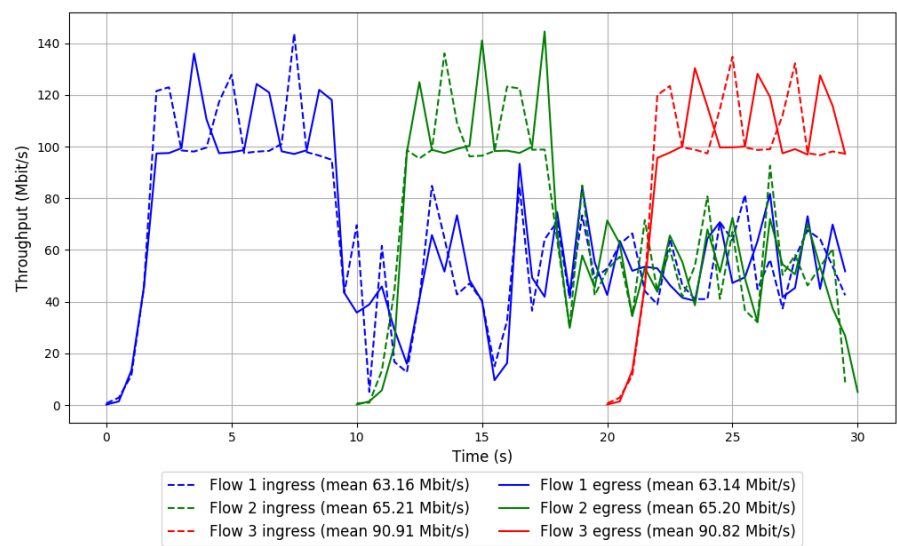
-- Flow 3:

Average throughput: 90.82 Mbit/s

95th percentile per-packet one-way delay: 123.177 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2017-12-20 16:47:17

End at: 2017-12-20 16:47:47

Below is generated by plot.py at 2017-12-20 19:42:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.28 Mbit/s

95th percentile per-packet one-way delay: 124.827 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 46.97 Mbit/s

95th percentile per-packet one-way delay: 125.428 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 49.25 Mbit/s

95th percentile per-packet one-way delay: 124.535 ms

Loss rate: 0.00%

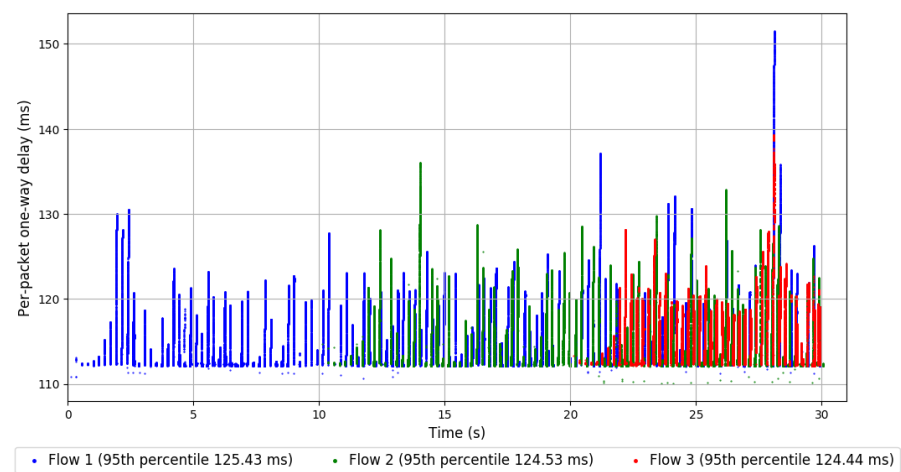
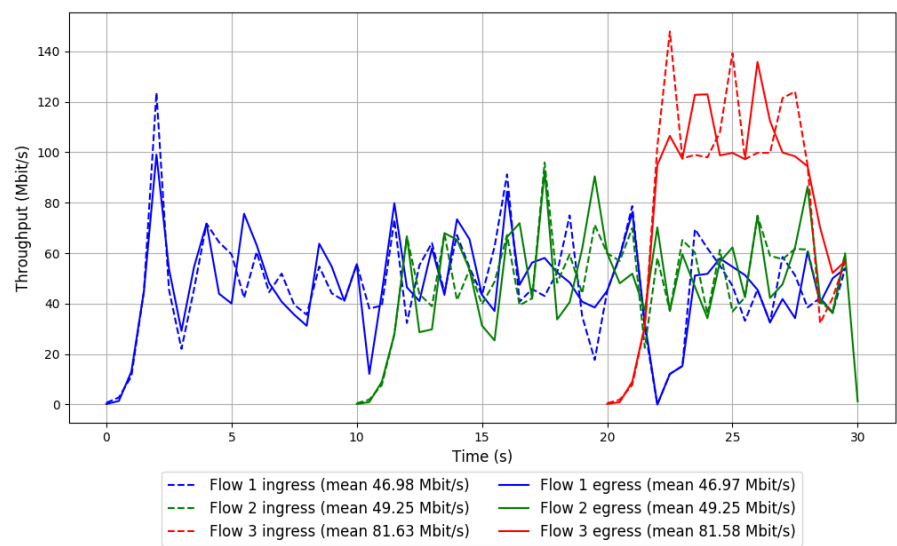
-- Flow 3:

Average throughput: 81.58 Mbit/s

95th percentile per-packet one-way delay: 124.436 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2017-12-20 17:02:27

End at: 2017-12-20 17:02:57

Below is generated by plot.py at 2017-12-20 19:42:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.71 Mbit/s

95th percentile per-packet one-way delay: 123.302 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.45 Mbit/s

95th percentile per-packet one-way delay: 123.939 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.20 Mbit/s

95th percentile per-packet one-way delay: 122.581 ms

Loss rate: 0.00%

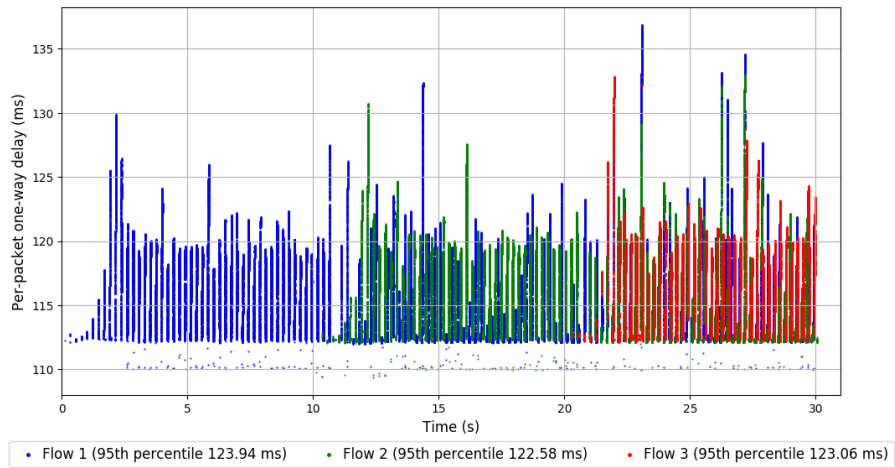
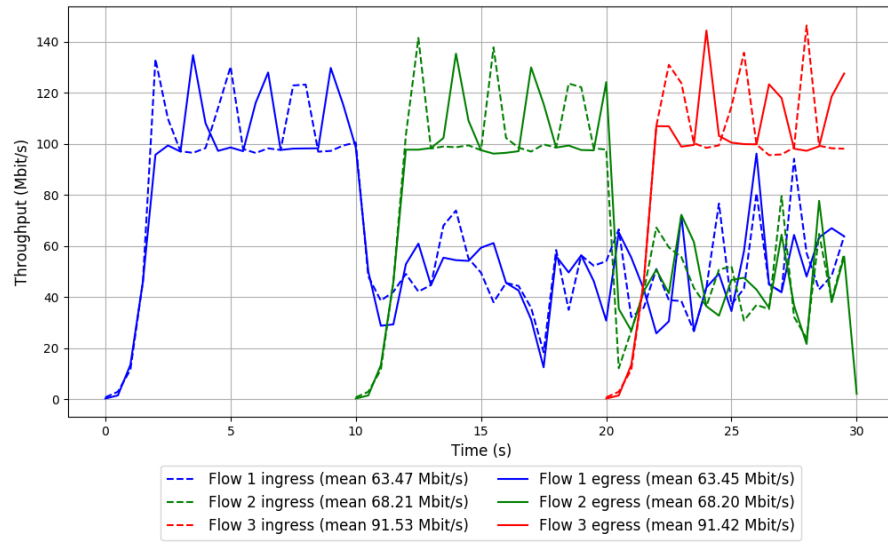
-- Flow 3:

Average throughput: 91.42 Mbit/s

95th percentile per-packet one-way delay: 123.063 ms

Loss rate: 0.00%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2017-12-20 17:17:51

End at: 2017-12-20 17:18:21

Below is generated by plot.py at 2017-12-20 19:42:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.39 Mbit/s

95th percentile per-packet one-way delay: 121.923 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 53.77 Mbit/s

95th percentile per-packet one-way delay: 120.657 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 49.28 Mbit/s

95th percentile per-packet one-way delay: 123.953 ms

Loss rate: 0.02%

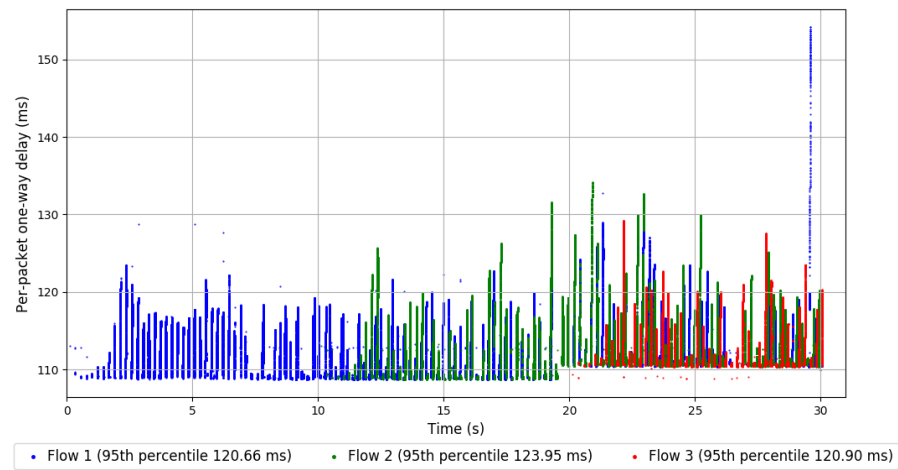
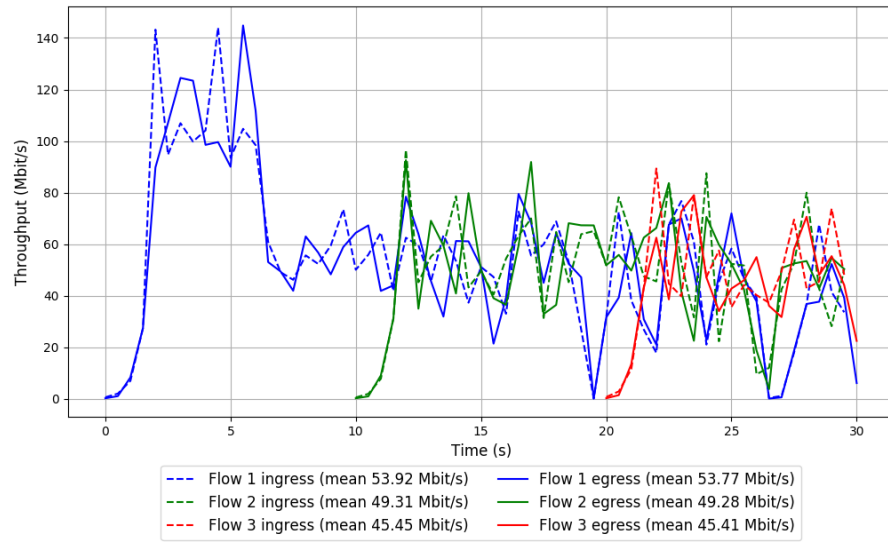
-- Flow 3:

Average throughput: 45.41 Mbit/s

95th percentile per-packet one-way delay: 120.901 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2017-12-20 17:33:24

End at: 2017-12-20 17:33:54

Below is generated by plot.py at 2017-12-20 19:42:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.33 Mbit/s

95th percentile per-packet one-way delay: 120.750 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 47.65 Mbit/s

95th percentile per-packet one-way delay: 121.406 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 45.01 Mbit/s

95th percentile per-packet one-way delay: 119.895 ms

Loss rate: 0.81%

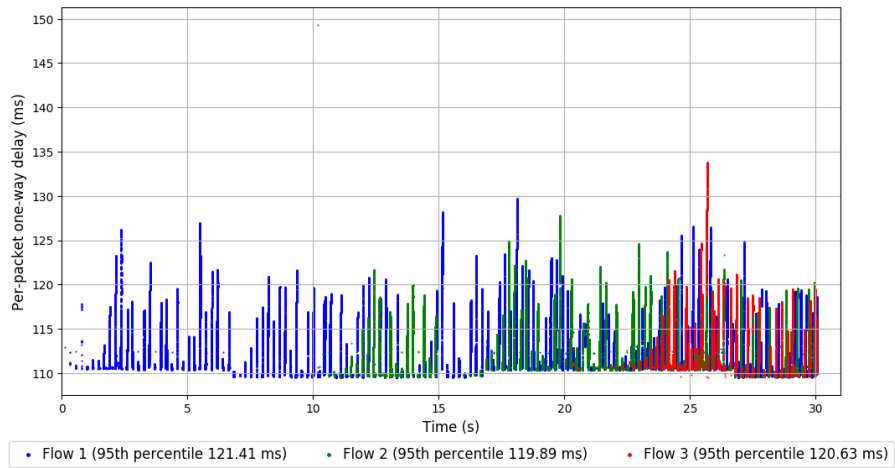
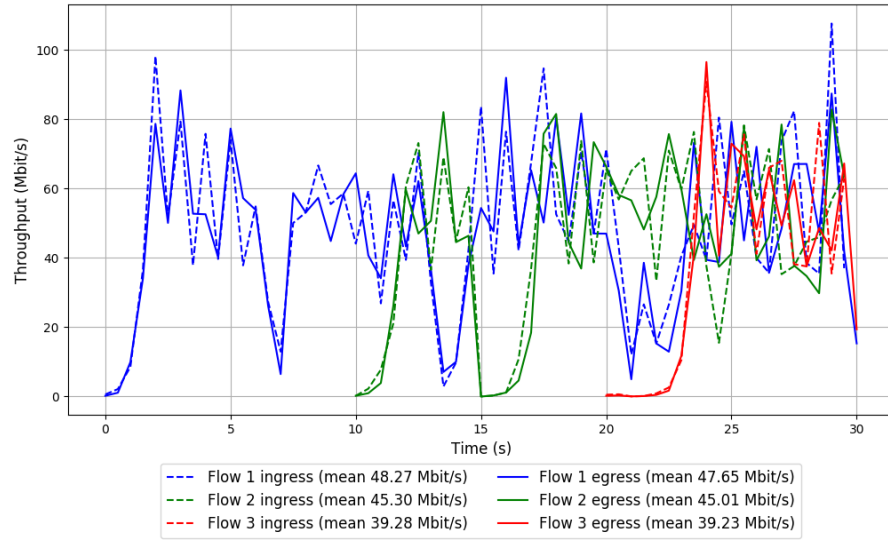
-- Flow 3:

Average throughput: 39.23 Mbit/s

95th percentile per-packet one-way delay: 120.627 ms

Loss rate: 0.08%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2017-12-20 17:48:34

End at: 2017-12-20 17:49:04

Below is generated by plot.py at 2017-12-20 19:43:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.90 Mbit/s

95th percentile per-packet one-way delay: 124.019 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 43.61 Mbit/s

95th percentile per-packet one-way delay: 124.645 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 66.31 Mbit/s

95th percentile per-packet one-way delay: 124.729 ms

Loss rate: 0.03%

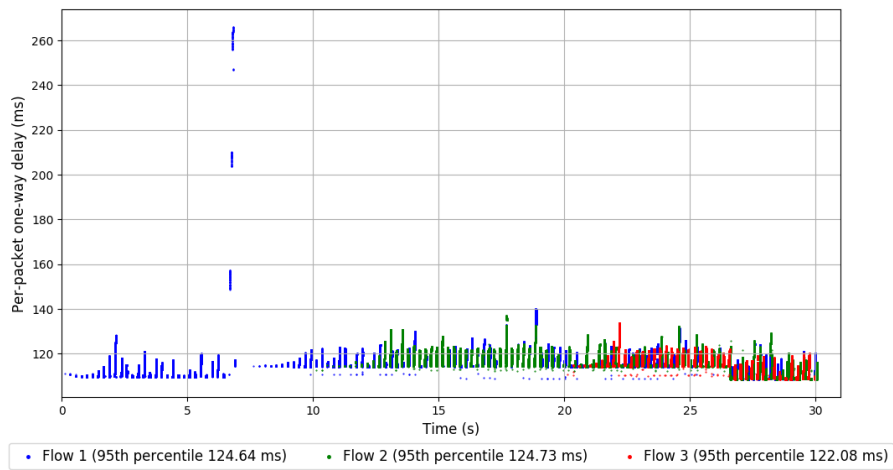
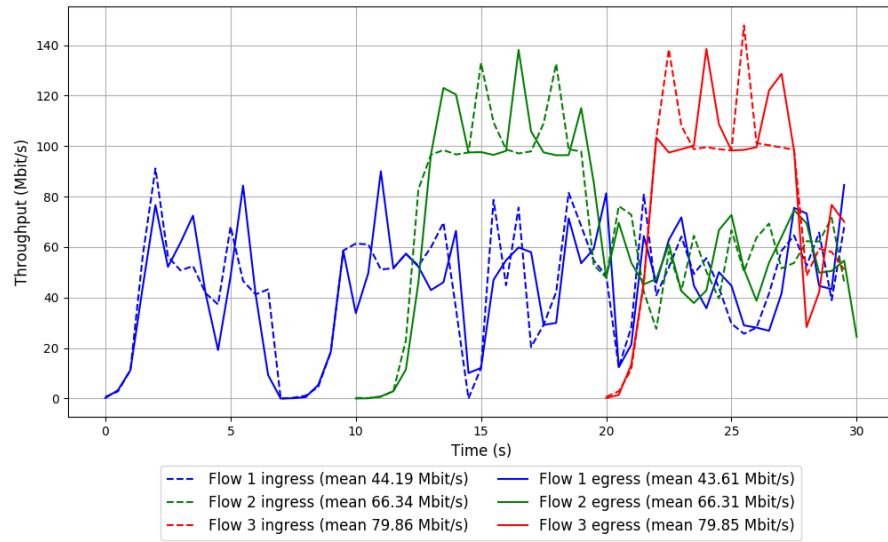
-- Flow 3:

Average throughput: 79.85 Mbit/s

95th percentile per-packet one-way delay: 122.084 ms

Loss rate: 0.02%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2017-12-20 18:03:55

End at: 2017-12-20 18:04:25

Below is generated by plot.py at 2017-12-20 19:43:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.45 Mbit/s

95th percentile per-packet one-way delay: 124.453 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 49.66 Mbit/s

95th percentile per-packet one-way delay: 124.049 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 48.02 Mbit/s

95th percentile per-packet one-way delay: 124.521 ms

Loss rate: 0.77%

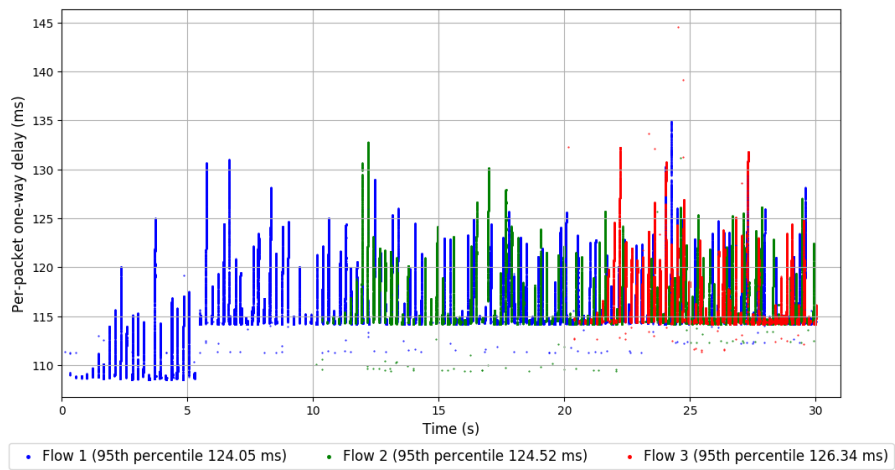
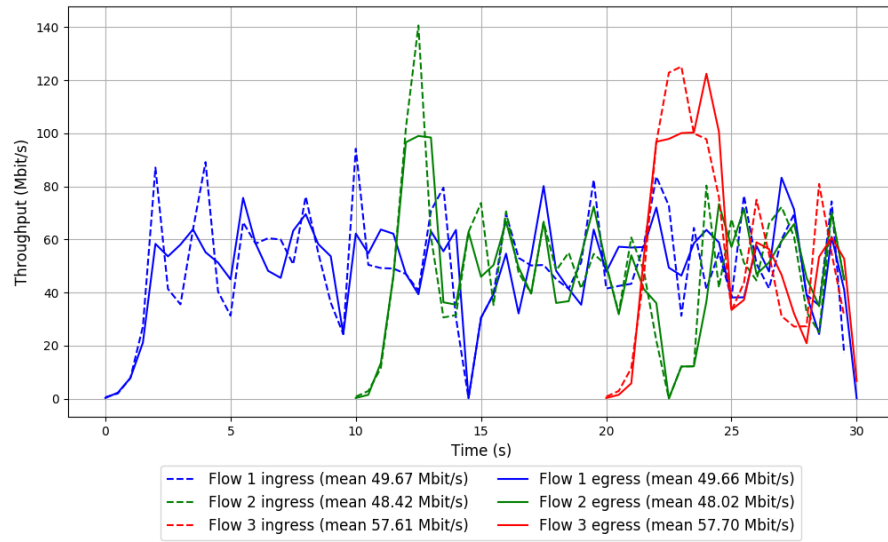
-- Flow 3:

Average throughput: 57.70 Mbit/s

95th percentile per-packet one-way delay: 126.343 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2017-12-20 15:53:34

End at: 2017-12-20 15:54:04

Below is generated by plot.py at 2017-12-20 19:43:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.67 Mbit/s

95th percentile per-packet one-way delay: 118.388 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 59.72 Mbit/s

95th percentile per-packet one-way delay: 118.049 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 33.03 Mbit/s

95th percentile per-packet one-way delay: 114.236 ms

Loss rate: 0.01%

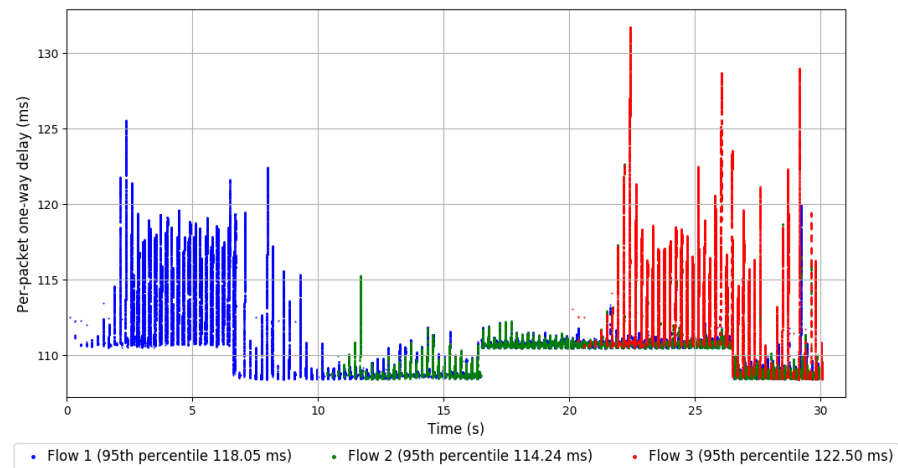
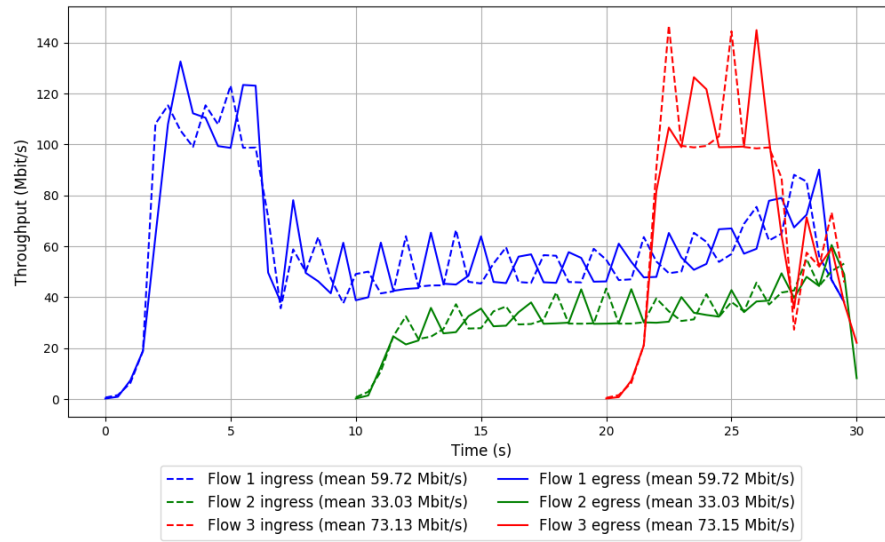
-- Flow 3:

Average throughput: 73.15 Mbit/s

95th percentile per-packet one-way delay: 122.504 ms

Loss rate: 0.01%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2017-12-20 16:09:03

End at: 2017-12-20 16:09:33

Below is generated by plot.py at 2017-12-20 19:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 165.15 Mbit/s

95th percentile per-packet one-way delay: 121.279 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 77.12 Mbit/s

95th percentile per-packet one-way delay: 119.126 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 89.23 Mbit/s

95th percentile per-packet one-way delay: 122.955 ms

Loss rate: 0.01%

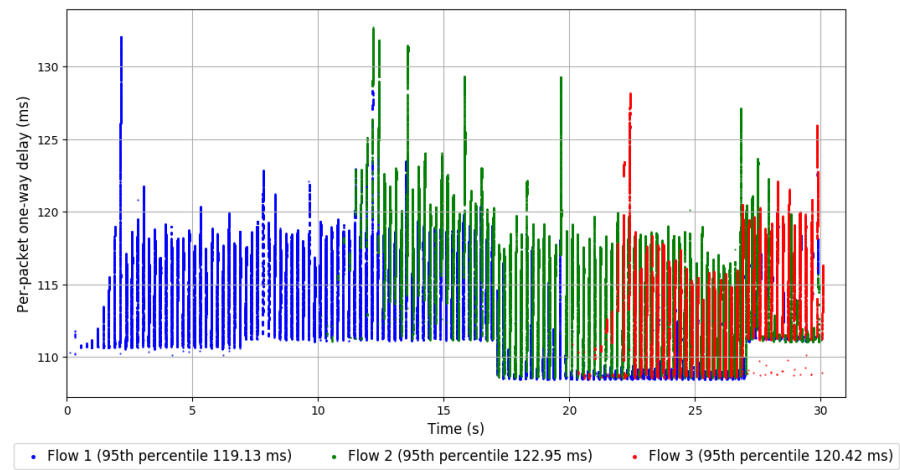
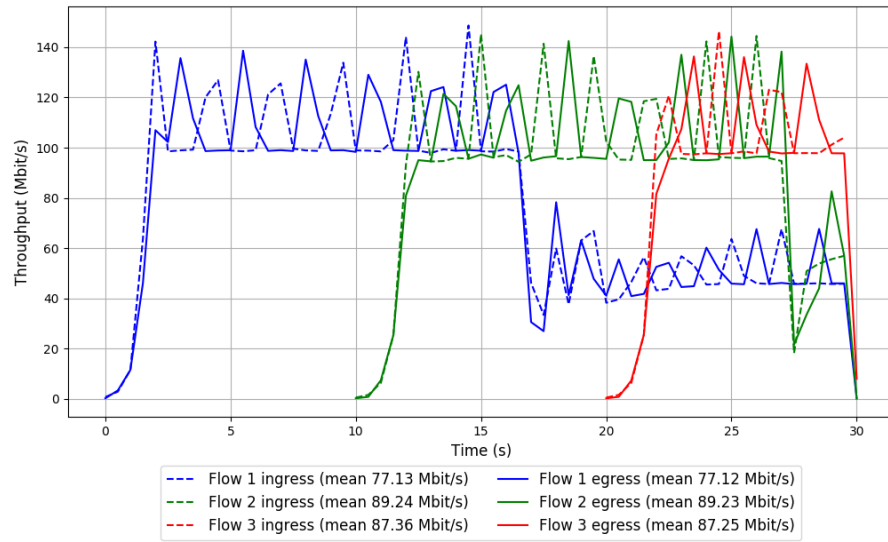
-- Flow 3:

Average throughput: 87.25 Mbit/s

95th percentile per-packet one-way delay: 120.418 ms

Loss rate: 0.10%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2017-12-20 16:24:36

End at: 2017-12-20 16:25:06

Below is generated by plot.py at 2017-12-20 19:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.71 Mbit/s

95th percentile per-packet one-way delay: 122.568 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 61.53 Mbit/s

95th percentile per-packet one-way delay: 122.377 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 51.31 Mbit/s

95th percentile per-packet one-way delay: 123.093 ms

Loss rate: 0.12%

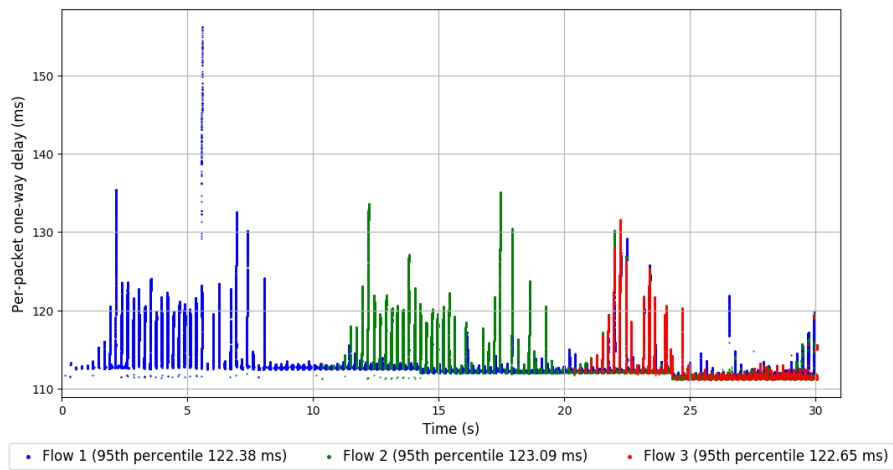
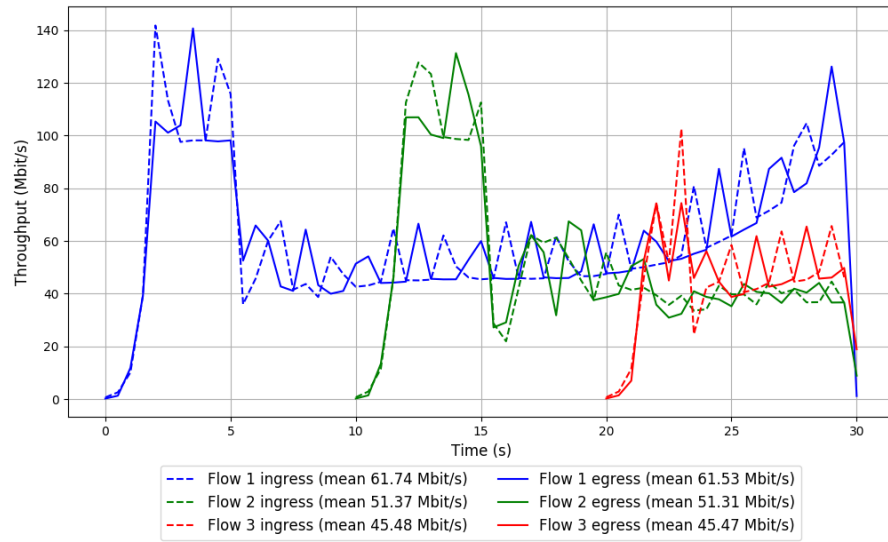
-- Flow 3:

Average throughput: 45.47 Mbit/s

95th percentile per-packet one-way delay: 122.649 ms

Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2017-12-20 16:39:40

End at: 2017-12-20 16:40:10

Below is generated by plot.py at 2017-12-20 19:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.36 Mbit/s

95th percentile per-packet one-way delay: 120.015 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 78.87 Mbit/s

95th percentile per-packet one-way delay: 120.325 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.73 Mbit/s

95th percentile per-packet one-way delay: 114.488 ms

Loss rate: 0.00%

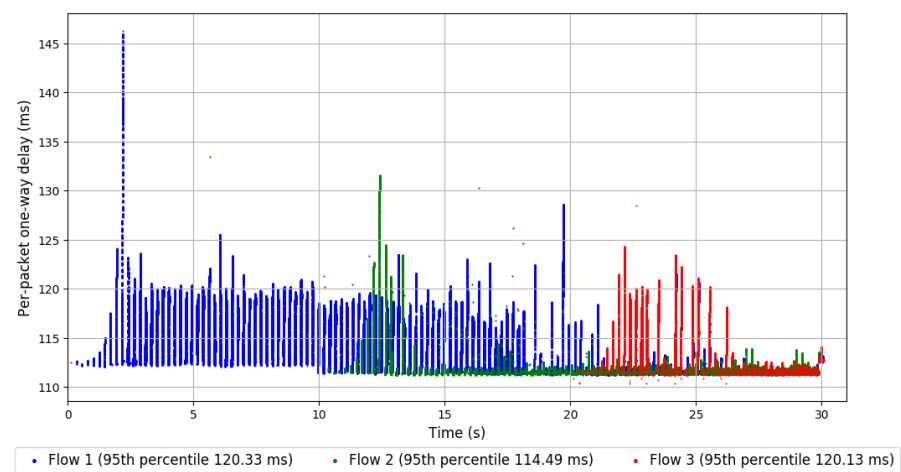
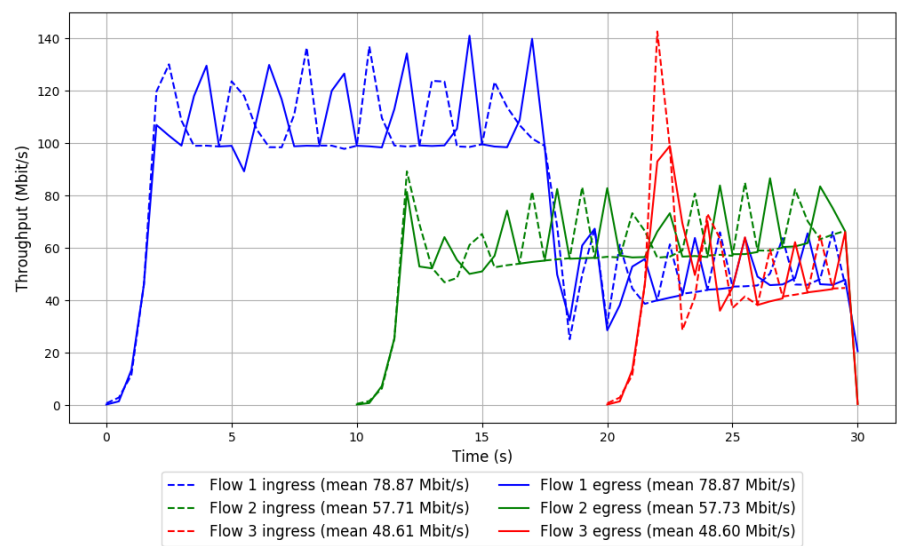
-- Flow 3:

Average throughput: 48.60 Mbit/s

95th percentile per-packet one-way delay: 120.128 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2017-12-20 16:54:38

End at: 2017-12-20 16:55:08

Below is generated by plot.py at 2017-12-20 19:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.61 Mbit/s

95th percentile per-packet one-way delay: 117.887 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.04 Mbit/s

95th percentile per-packet one-way delay: 117.797 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.60 Mbit/s

95th percentile per-packet one-way delay: 118.548 ms

Loss rate: 0.01%

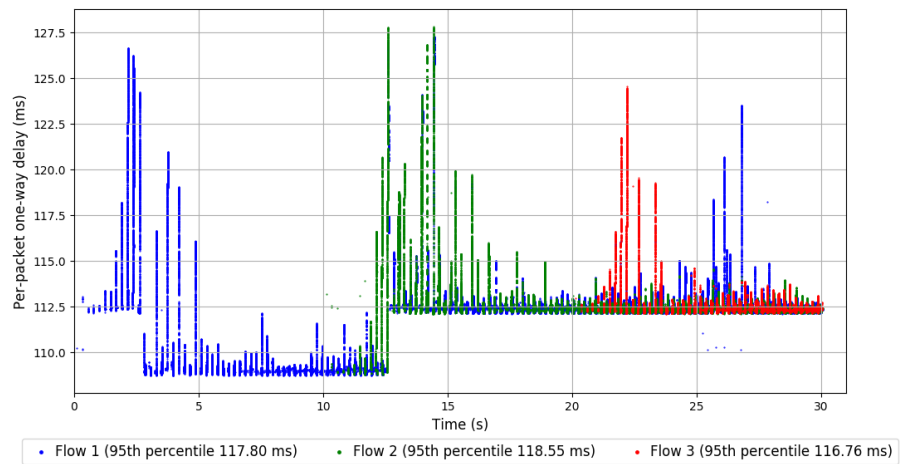
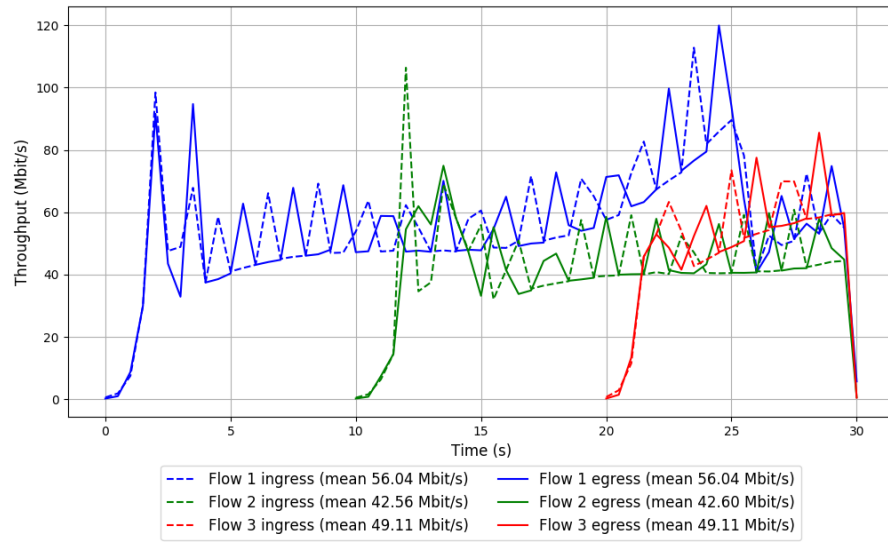
-- Flow 3:

Average throughput: 49.11 Mbit/s

95th percentile per-packet one-way delay: 116.759 ms

Loss rate: 0.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2017-12-20 17:10:07

End at: 2017-12-20 17:10:37

Below is generated by plot.py at 2017-12-20 19:44:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.53 Mbit/s

95th percentile per-packet one-way delay: 119.446 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 56.09 Mbit/s

95th percentile per-packet one-way delay: 120.169 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.52 Mbit/s

95th percentile per-packet one-way delay: 118.699 ms

Loss rate: 0.31%

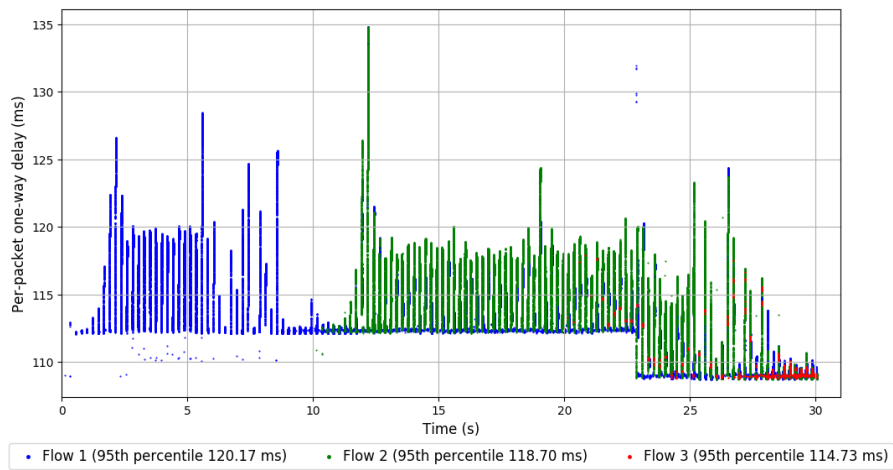
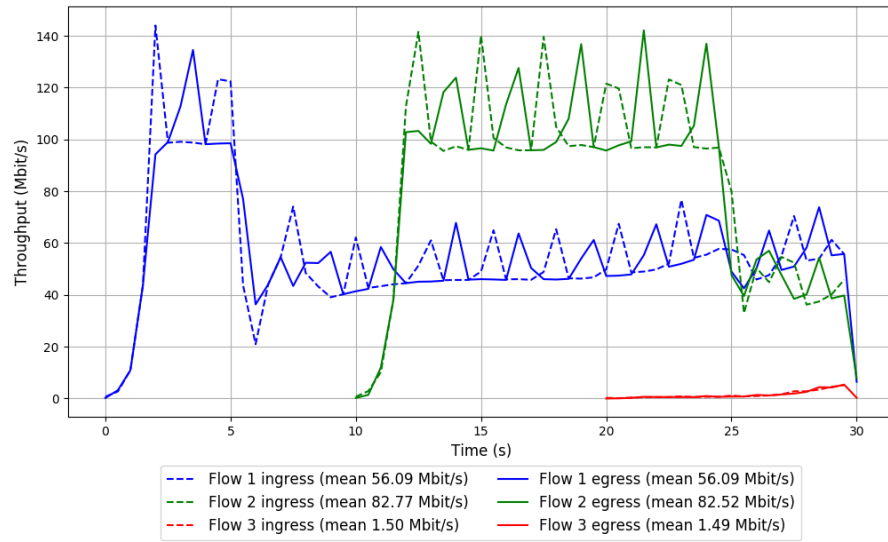
-- Flow 3:

Average throughput: 1.49 Mbit/s

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

Loss rate: 0.73%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2017-12-20 17:25:48

End at: 2017-12-20 17:26:18

Below is generated by plot.py at 2017-12-20 19:45:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.82 Mbit/s

95th percentile per-packet one-way delay: 118.308 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.44 Mbit/s

95th percentile per-packet one-way delay: 118.593 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.69 Mbit/s

95th percentile per-packet one-way delay: 116.271 ms

Loss rate: 0.00%

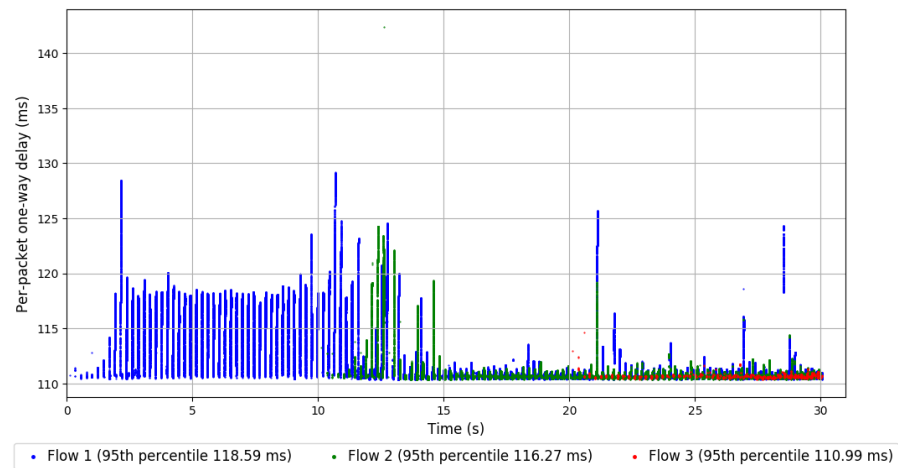
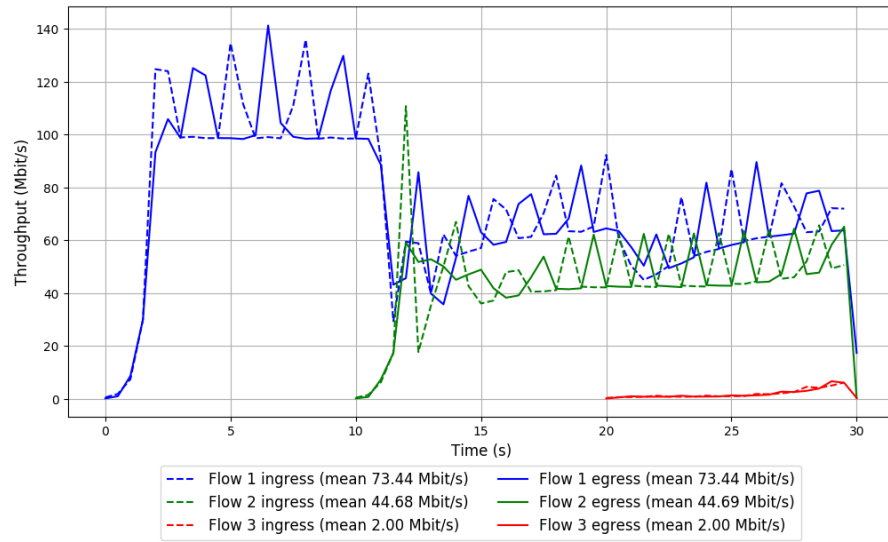
-- Flow 3:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 110.986 ms

Loss rate: 0.12%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2017-12-20 17:40:57

End at: 2017-12-20 17:41:27

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.54 Mbit/s

95th percentile per-packet one-way delay: 117.560 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 59.30 Mbit/s

95th percentile per-packet one-way delay: 116.946 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 62.40 Mbit/s

95th percentile per-packet one-way delay: 118.115 ms

Loss rate: 0.00%

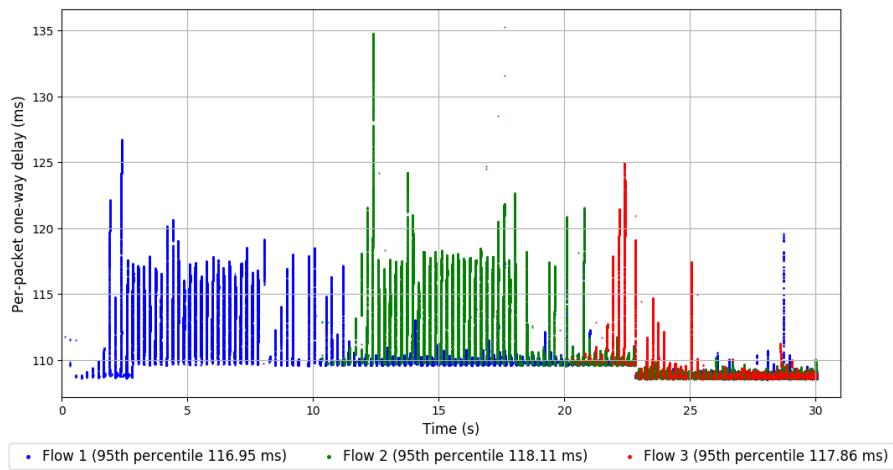
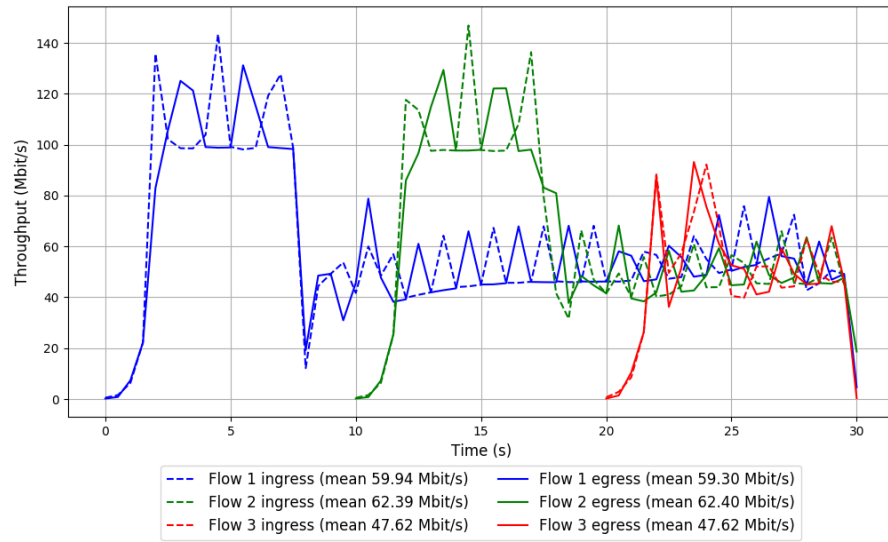
-- Flow 3:

Average throughput: 47.62 Mbit/s

95th percentile per-packet one-way delay: 117.862 ms

Loss rate: 0.01%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2017-12-20 17:56:08

End at: 2017-12-20 17:56:38

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.98 Mbit/s

95th percentile per-packet one-way delay: 117.424 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 48.07 Mbit/s

95th percentile per-packet one-way delay: 115.674 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 80.31 Mbit/s

95th percentile per-packet one-way delay: 118.064 ms

Loss rate: 0.00%

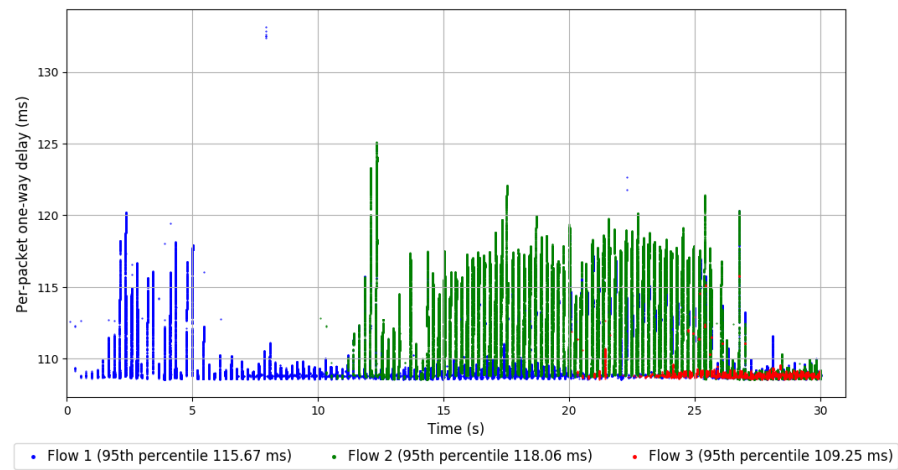
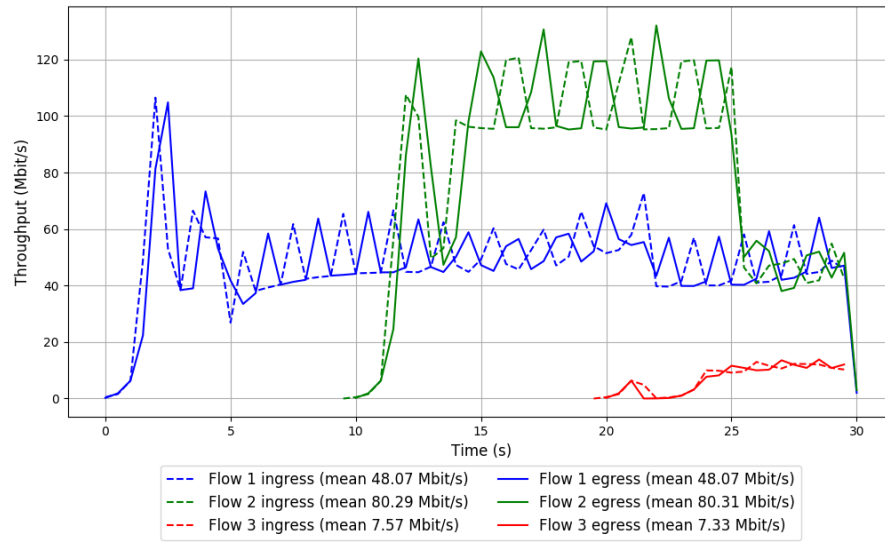
-- Flow 3:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 109.250 ms

Loss rate: 3.23%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2017-12-20 18:11:20

End at: 2017-12-20 18:11:50

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.15 Mbit/s

95th percentile per-packet one-way delay: 115.526 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 53.74 Mbit/s

95th percentile per-packet one-way delay: 115.302 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 64.59 Mbit/s

95th percentile per-packet one-way delay: 115.999 ms

Loss rate: 0.00%

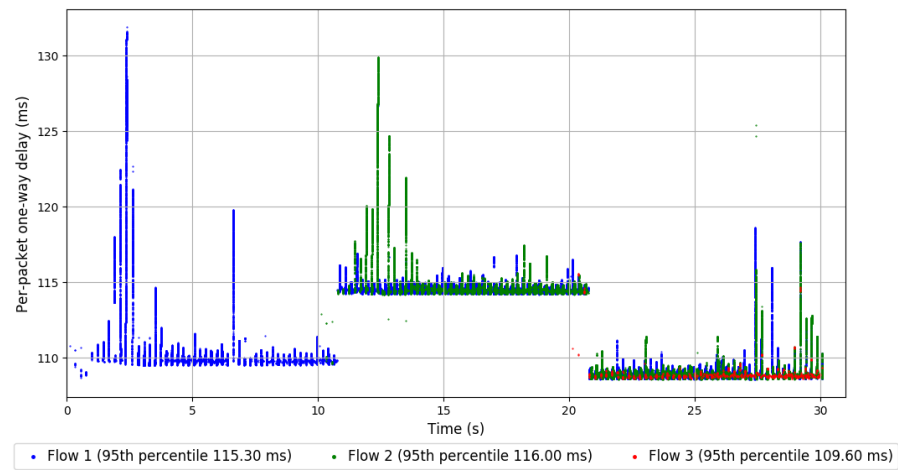
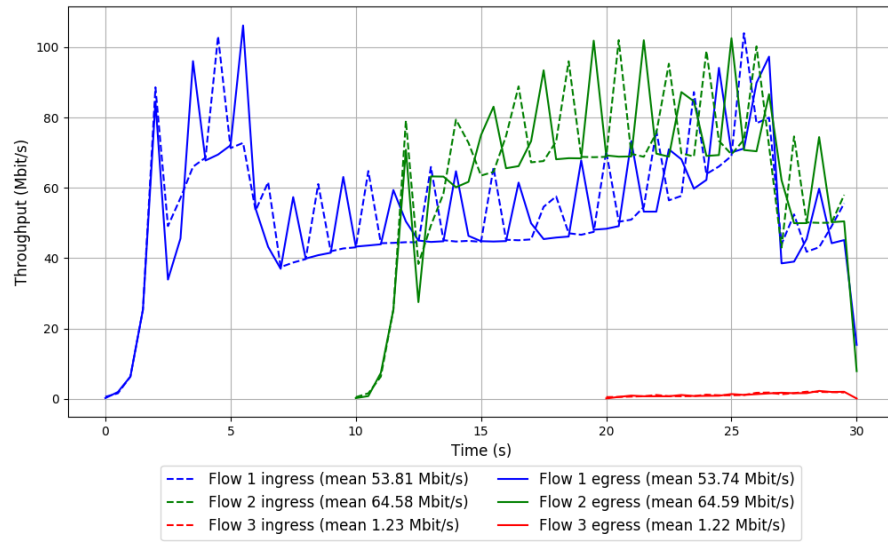
-- Flow 3:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 109.597 ms

Loss rate: 0.79%

Run 10: Report of TCP Cubic — Data Link

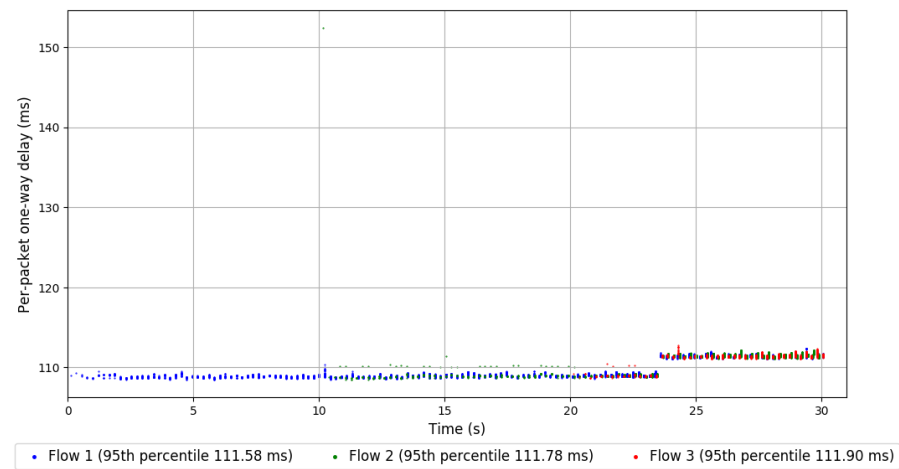
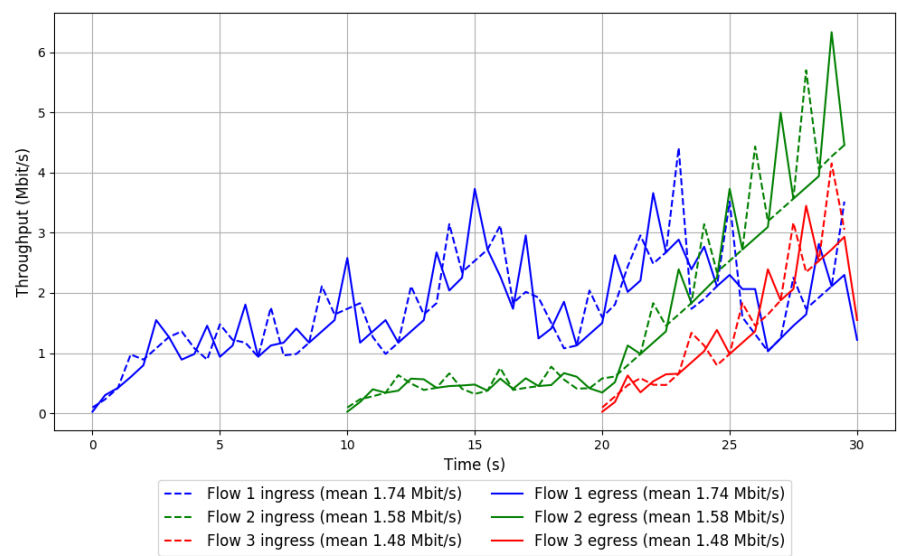


```
Run 1: Statistics of LEDBAT

Start at: 2017-12-20 15:49:27
End at: 2017-12-20 15:49:57

# Below is generated by plot.py at 2017-12-20 19:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.27 Mbit/s
95th percentile per-packet one-way delay: 111.724 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 111.583 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 111.778 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 111.903 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

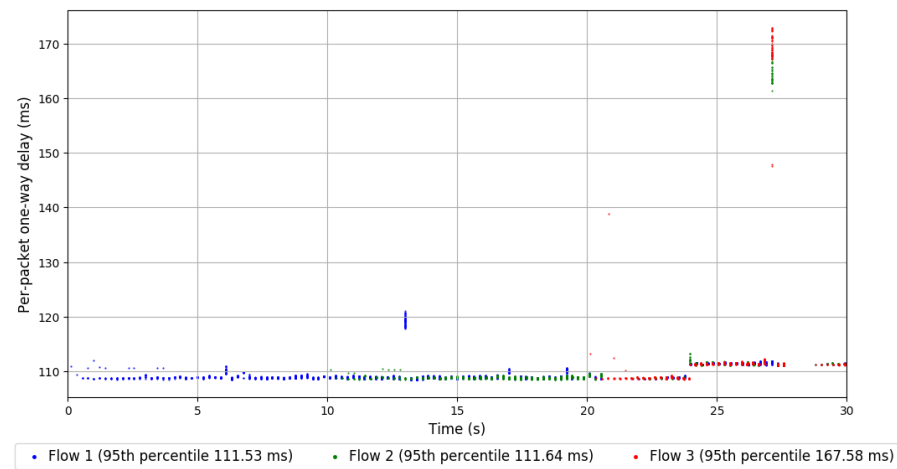
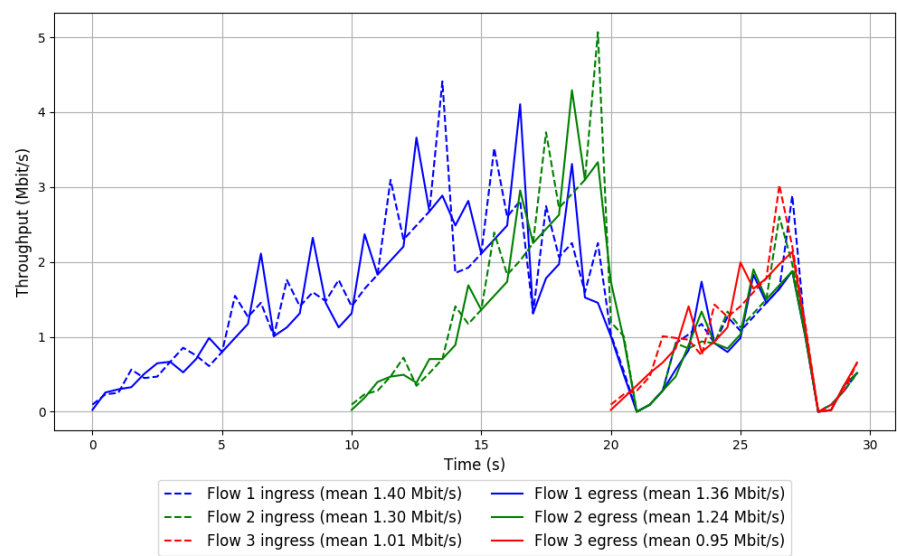


```
Run 2: Statistics of LEDBAT

Start at: 2017-12-20 16:05:16
End at: 2017-12-20 16:05:46

# Below is generated by plot.py at 2017-12-20 19:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 111.630 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 111.535 ms
Loss rate: 2.47%
-- Flow 2:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 111.642 ms
Loss rate: 4.48%
-- Flow 3:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 167.580 ms
Loss rate: 5.95%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2017-12-20 16:20:37

End at: 2017-12-20 16:21:07

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.59 Mbit/s

95th percentile per-packet one-way delay: 112.750 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 2.52 Mbit/s

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

Loss rate: 0.05%

-- Flow 2:

Average throughput: 2.17 Mbit/s

95th percentile per-packet one-way delay: 112.644 ms

Loss rate: 0.00%

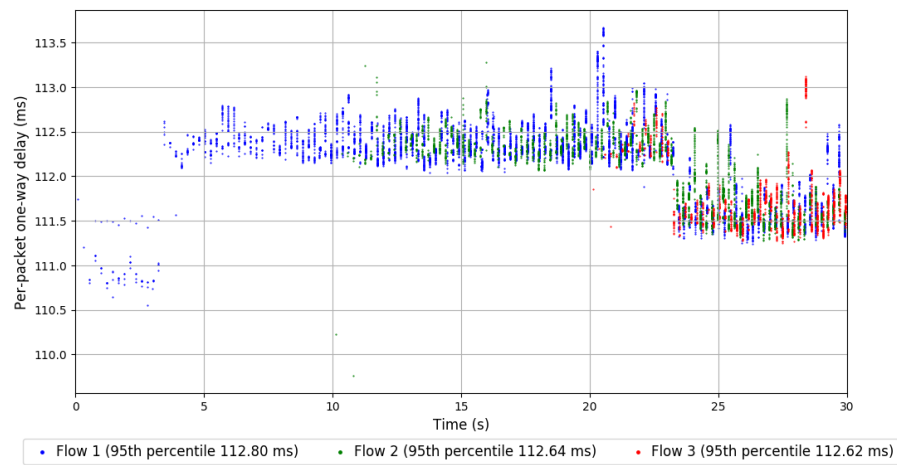
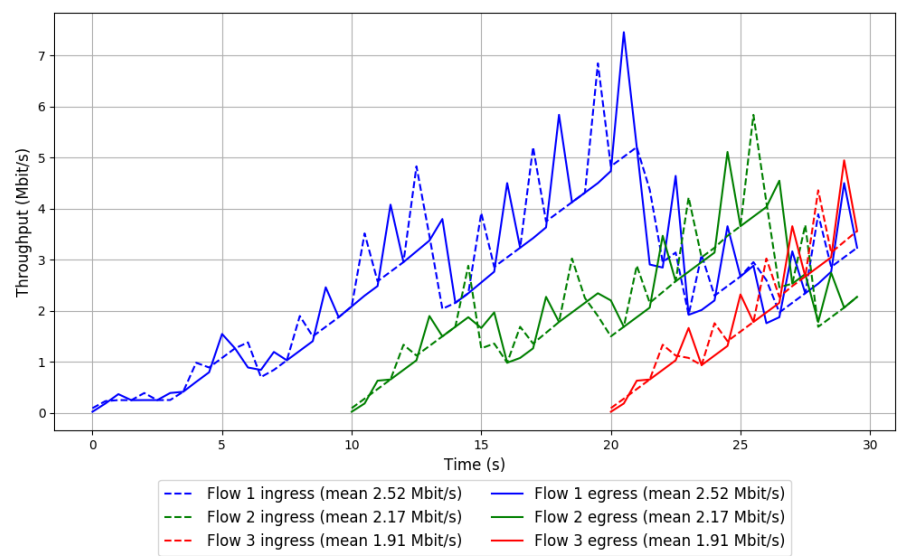
-- Flow 3:

Average throughput: 1.91 Mbit/s

95th percentile per-packet one-way delay: 112.619 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

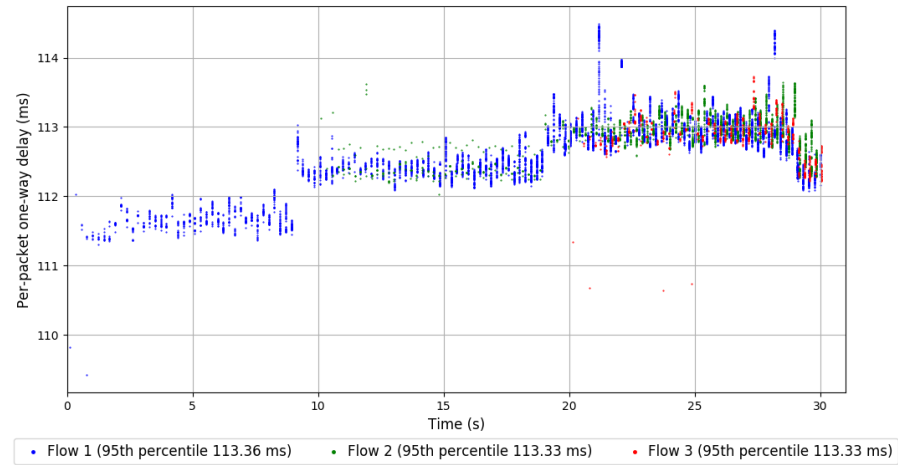
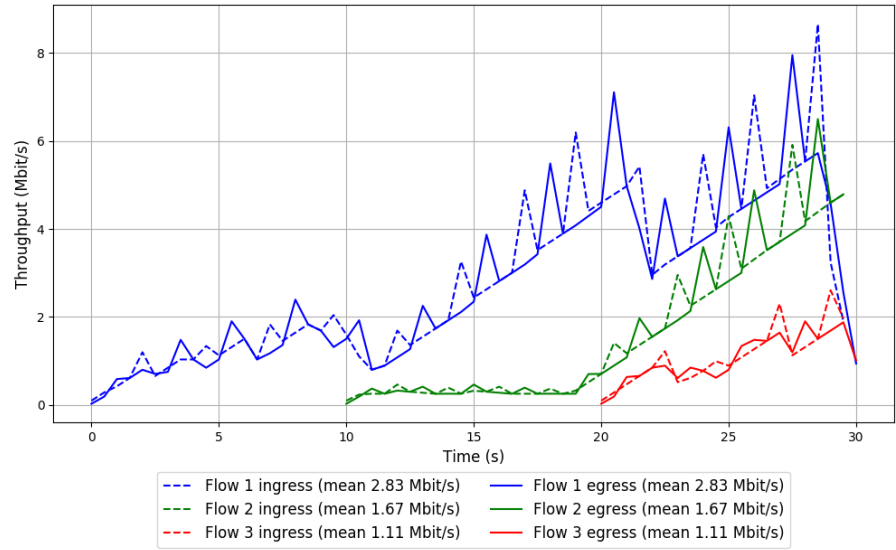


```
Run 4: Statistics of LEDBAT

Start at: 2017-12-20 16:36:01
End at: 2017-12-20 16:36:31

# Below is generated by plot.py at 2017-12-20 19:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 113.343 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 113.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.67 Mbit/s
95th percentile per-packet one-way delay: 113.330 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 113.325 ms
Loss rate: 0.00%
```

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2017-12-20 16:51:03

End at: 2017-12-20 16:51:33

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.11 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 112.827 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.24 Mbit/s

95th percentile per-packet one-way delay: 109.636 ms

Loss rate: 0.00%

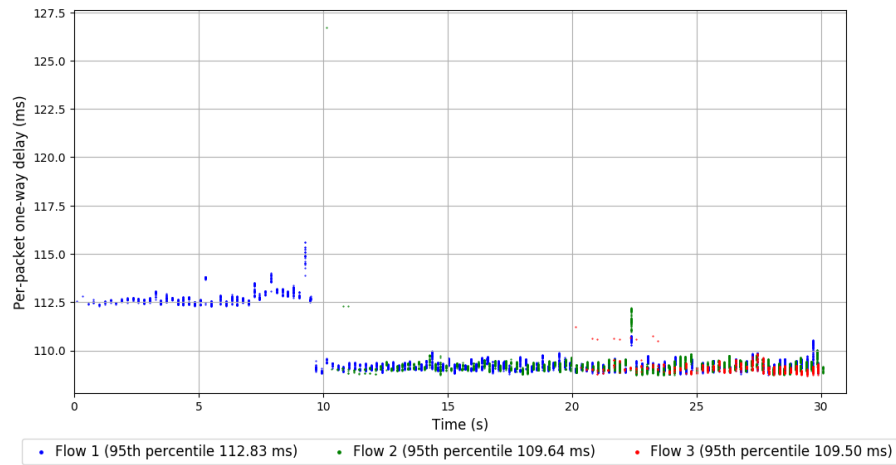
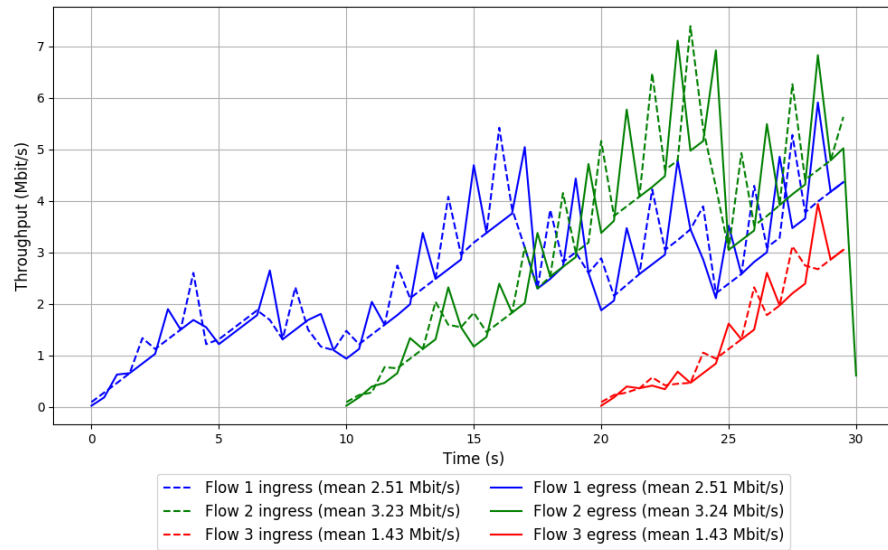
-- Flow 3:

Average throughput: 1.43 Mbit/s

95th percentile per-packet one-way delay: 109.505 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2017-12-20 17:06:18

End at: 2017-12-20 17:06:48

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.38 Mbit/s

95th percentile per-packet one-way delay: 112.908 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 112.822 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 3.77 Mbit/s

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

Loss rate: 0.00%

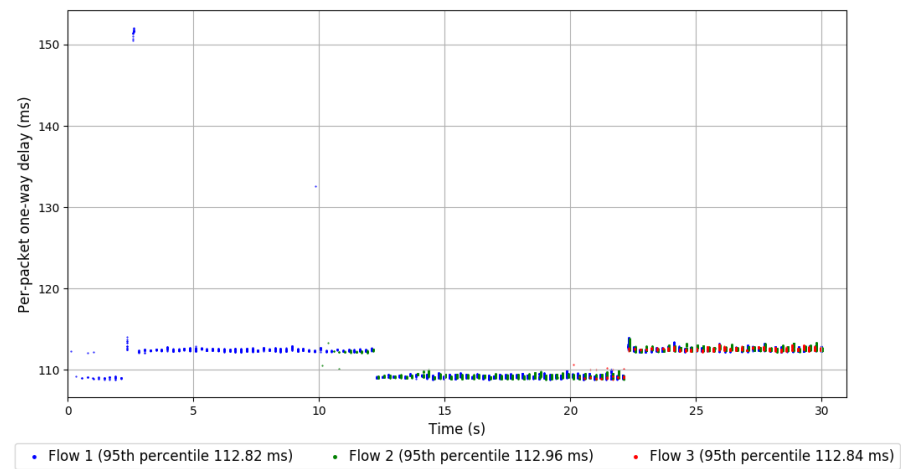
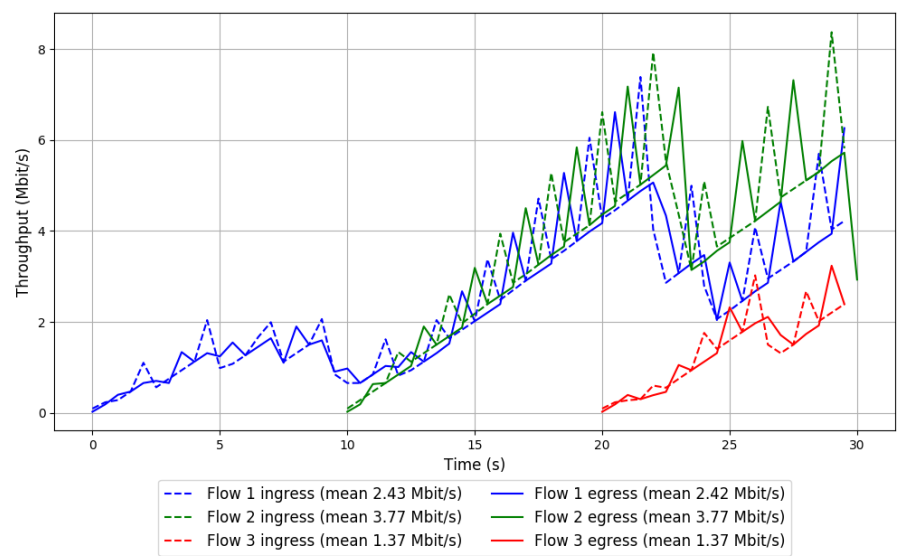
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 112.845 ms

Loss rate: 0.17%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2017-12-20 17:21:42

End at: 2017-12-20 17:22:12

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.70 Mbit/s

95th percentile per-packet one-way delay: 111.244 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 111.302 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 111.221 ms

Loss rate: 0.00%

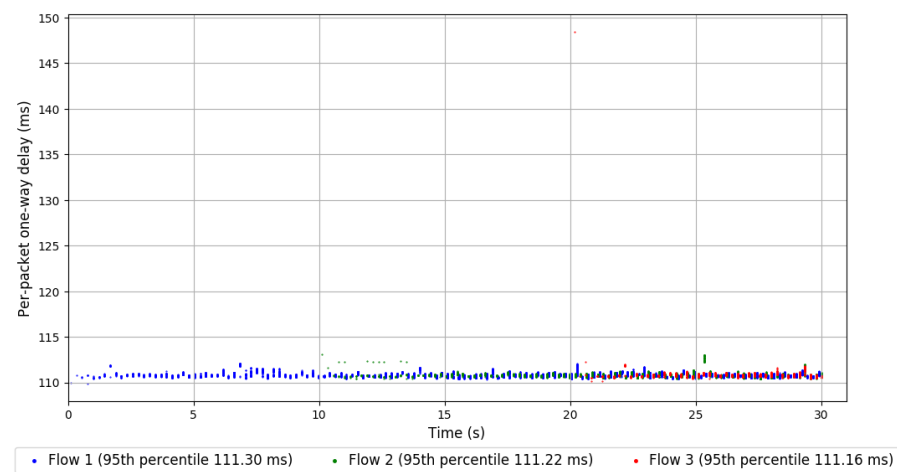
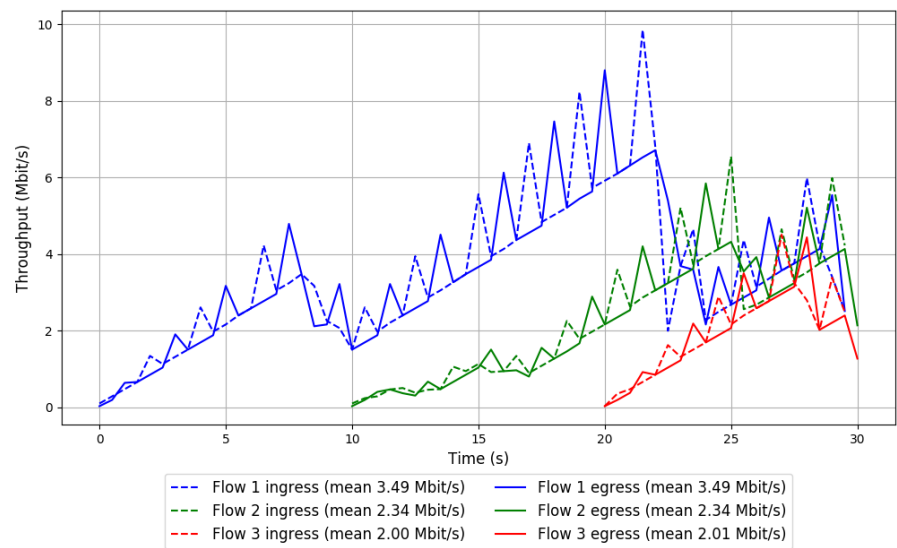
-- Flow 3:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 111.159 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2017-12-20 17:37:13

End at: 2017-12-20 17:37:43

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 111.370 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 111.240 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 111.554 ms

Loss rate: 0.00%

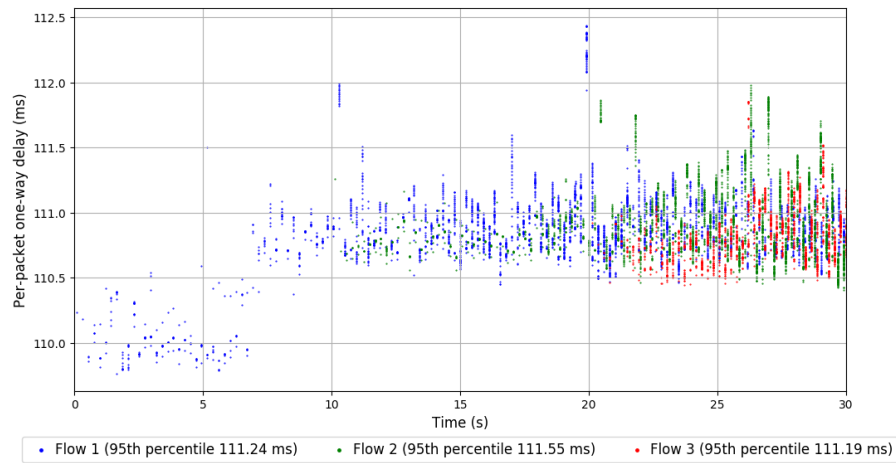
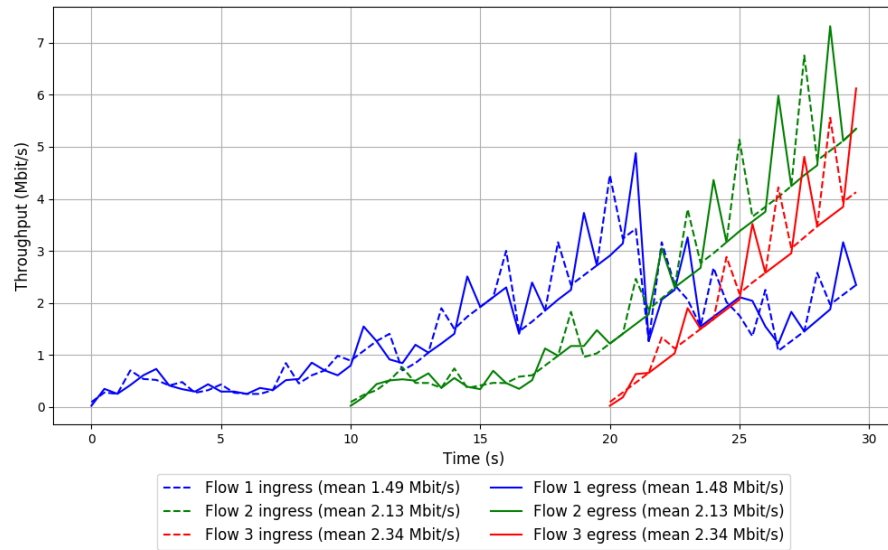
-- Flow 3:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 111.185 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2017-12-20 17:52:17

End at: 2017-12-20 17:52:47

Below is generated by plot.py at 2017-12-20 19:45:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.06 Mbit/s

95th percentile per-packet one-way delay: 110.380 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 3.47 Mbit/s

95th percentile per-packet one-way delay: 110.748 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 2.90 Mbit/s

95th percentile per-packet one-way delay: 110.059 ms

Loss rate: 0.00%

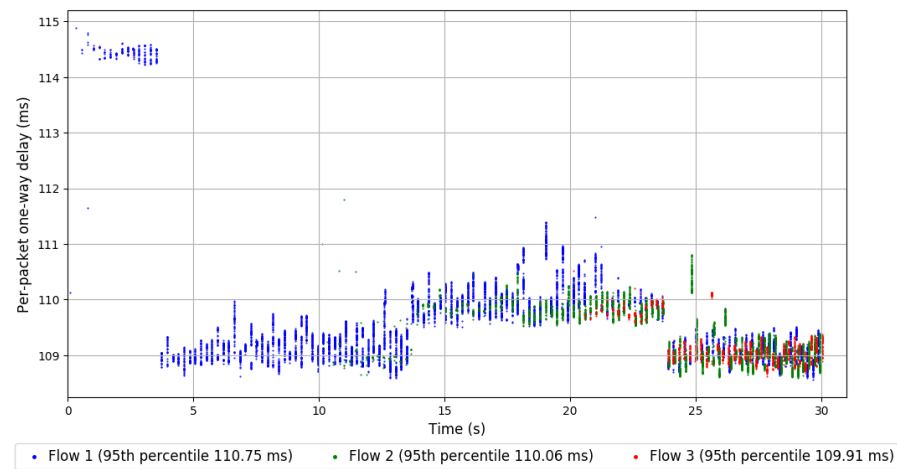
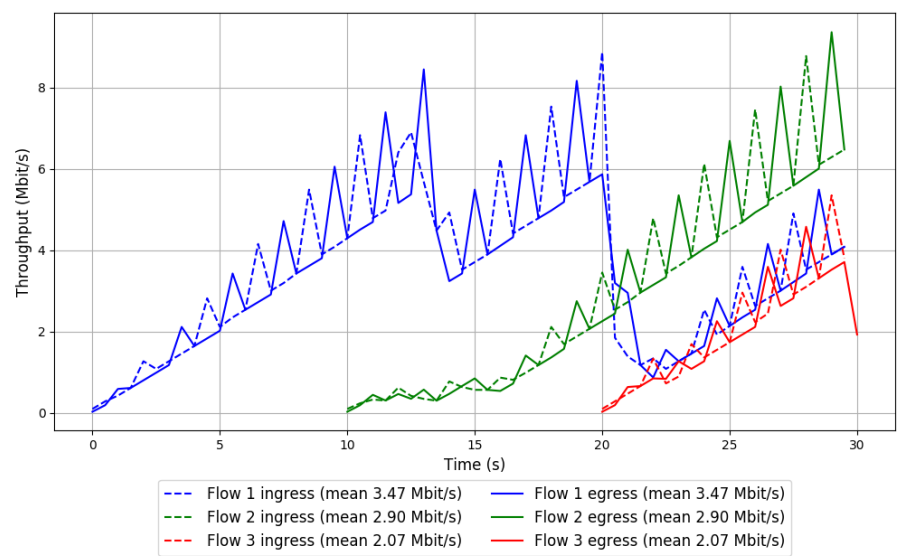
-- Flow 3:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 109.913 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link

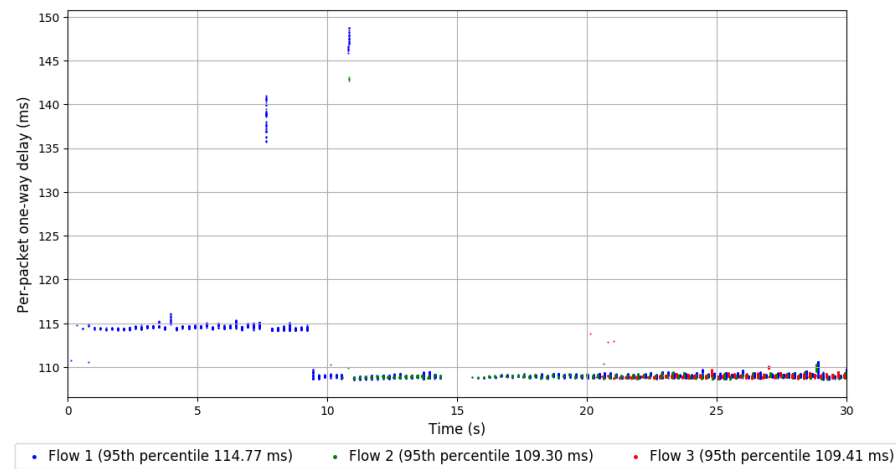
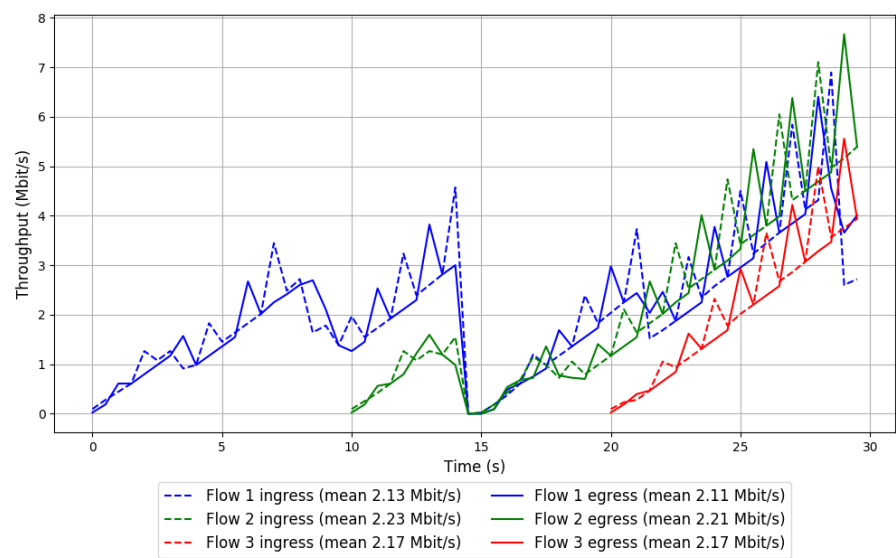


```
Run 10: Statistics of LEDBAT

Start at: 2017-12-20 18:07:41
End at: 2017-12-20 18:08:11

# Below is generated by plot.py at 2017-12-20 19:45:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.28 Mbit/s
95th percentile per-packet one-way delay: 114.561 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 114.765 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 109.303 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 109.406 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

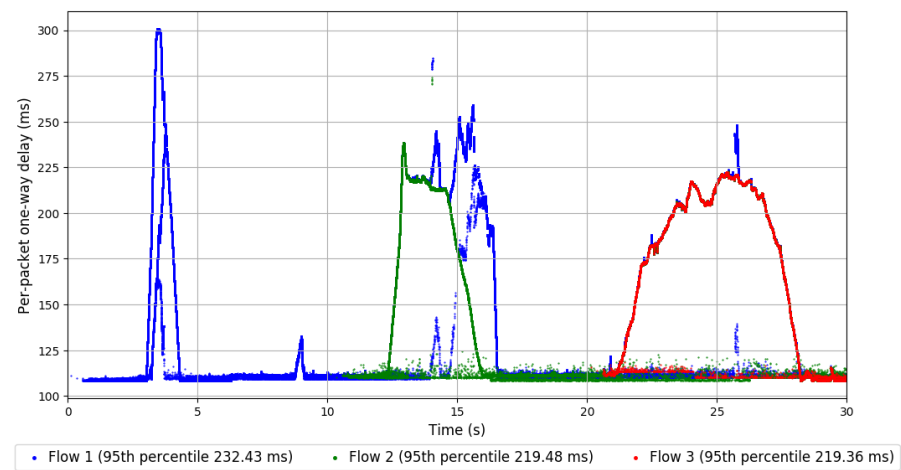
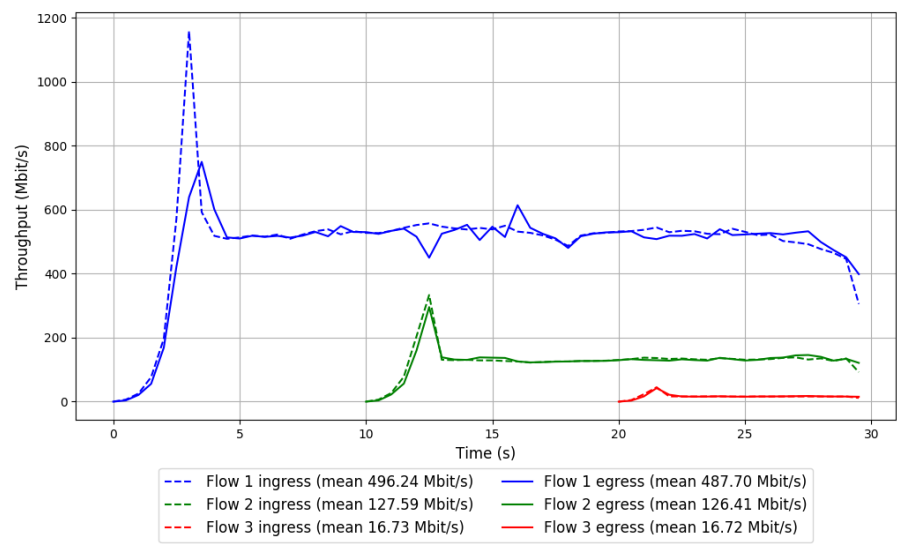


```
Run 1: Statistics of PCC

Start at: 2017-12-20 15:56:24
End at: 2017-12-20 15:56:54

# Below is generated by plot.py at 2017-12-20 19:55:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 577.22 Mbit/s
95th percentile per-packet one-way delay: 228.937 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 487.70 Mbit/s
95th percentile per-packet one-way delay: 232.428 ms
Loss rate: 1.72%
-- Flow 2:
Average throughput: 126.41 Mbit/s
95th percentile per-packet one-way delay: 219.483 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 16.72 Mbit/s
95th percentile per-packet one-way delay: 219.362 ms
Loss rate: 0.08%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2017-12-20 16:11:58

End at: 2017-12-20 16:12:28

Below is generated by plot.py at 2017-12-20 19:55:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 569.32 Mbit/s

95th percentile per-packet one-way delay: 228.516 ms

Loss rate: 3.45%

-- Flow 1:

Average throughput: 466.30 Mbit/s

95th percentile per-packet one-way delay: 228.377 ms

Loss rate: 3.35%

-- Flow 2:

Average throughput: 126.10 Mbit/s

95th percentile per-packet one-way delay: 228.561 ms

Loss rate: 3.33%

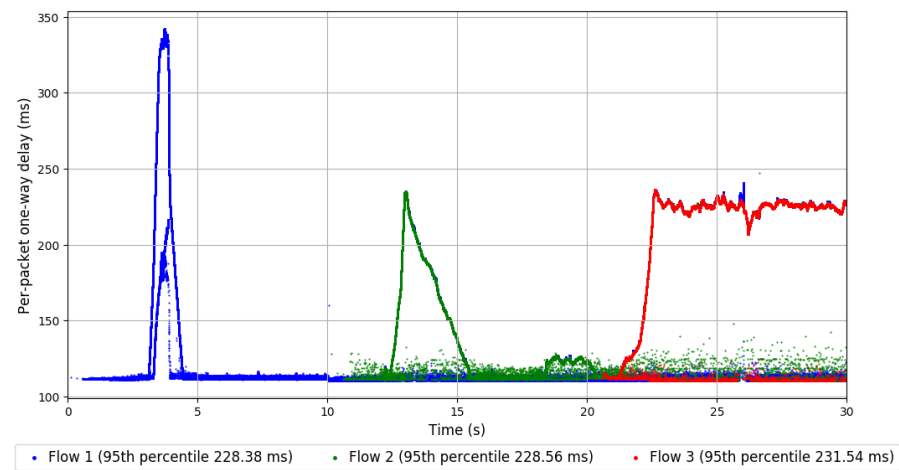
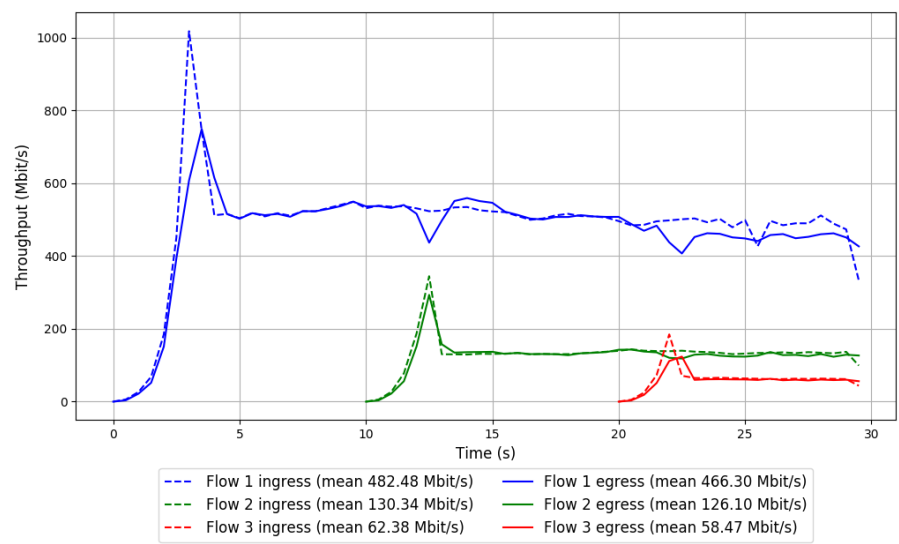
-- Flow 3:

Average throughput: 58.47 Mbit/s

95th percentile per-packet one-way delay: 231.541 ms

Loss rate: 6.25%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2017-12-20 16:27:28

End at: 2017-12-20 16:27:58

Below is generated by plot.py at 2017-12-20 19:55:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 544.02 Mbit/s

95th percentile per-packet one-way delay: 212.344 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 447.54 Mbit/s

95th percentile per-packet one-way delay: 213.719 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 143.01 Mbit/s

95th percentile per-packet one-way delay: 208.952 ms

Loss rate: 1.13%

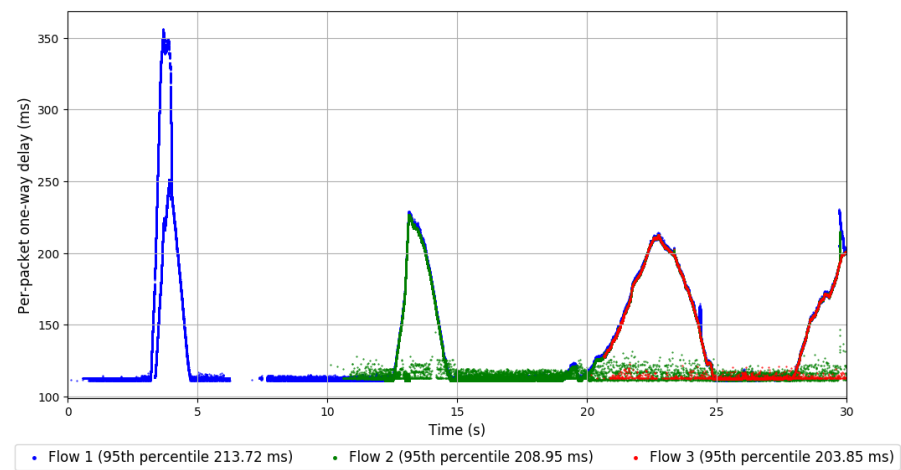
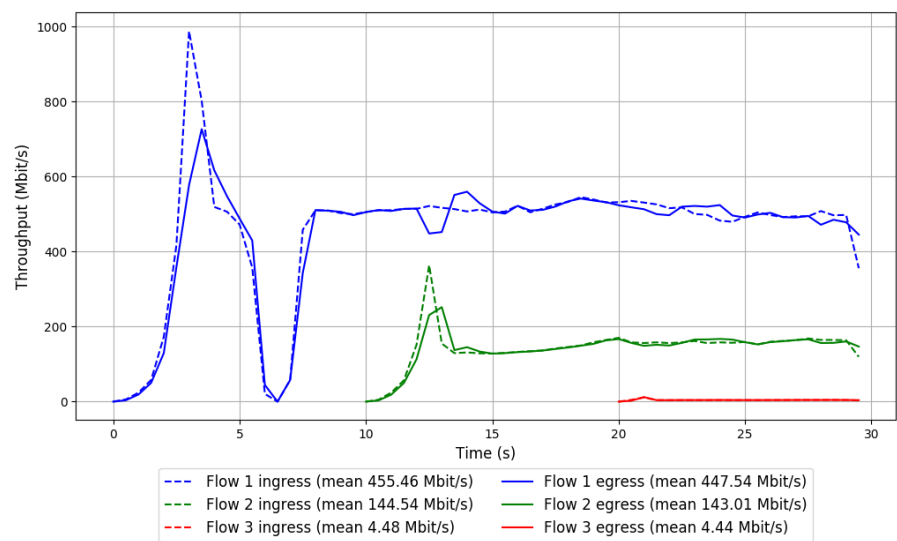
-- Flow 3:

Average throughput: 4.44 Mbit/s

95th percentile per-packet one-way delay: 203.851 ms

Loss rate: 0.90%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2017-12-20 16:42:33

End at: 2017-12-20 16:43:03

Below is generated by plot.py at 2017-12-20 19:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 583.49 Mbit/s

95th percentile per-packet one-way delay: 236.686 ms

Loss rate: 2.20%

-- Flow 1:

Average throughput: 520.78 Mbit/s

95th percentile per-packet one-way delay: 246.582 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 63.49 Mbit/s

95th percentile per-packet one-way delay: 221.265 ms

Loss rate: 1.06%

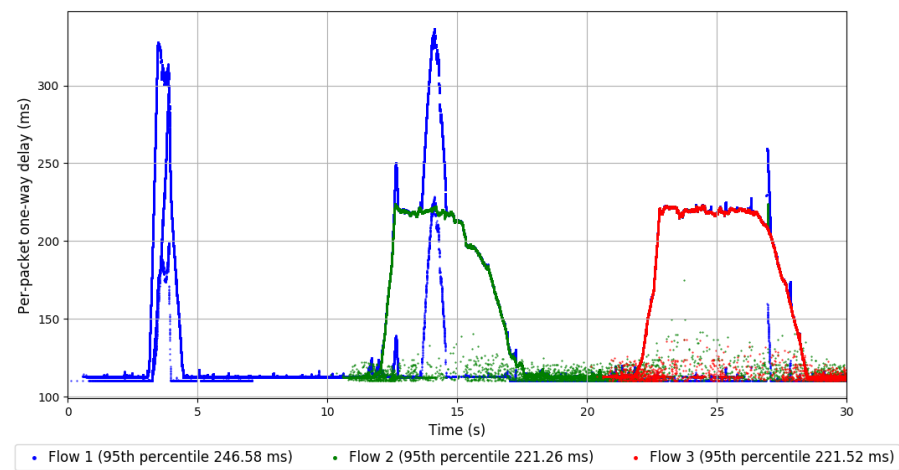
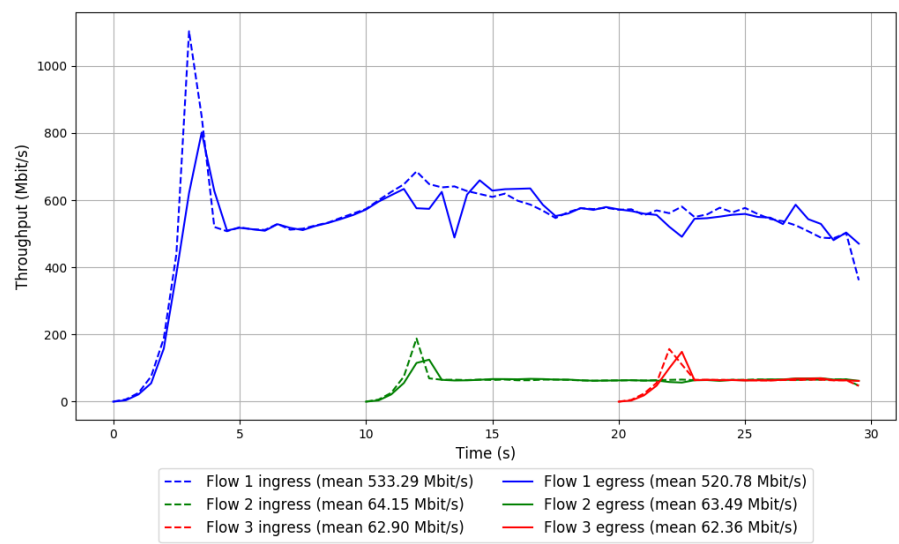
-- Flow 3:

Average throughput: 62.36 Mbit/s

95th percentile per-packet one-way delay: 221.522 ms

Loss rate: 0.94%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2017-12-20 16:57:28

End at: 2017-12-20 16:57:58

Below is generated by plot.py at 2017-12-20 19:55:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 583.73 Mbit/s

95th percentile per-packet one-way delay: 224.368 ms

Loss rate: 2.10%

-- Flow 1:

Average throughput: 487.26 Mbit/s

95th percentile per-packet one-way delay: 224.252 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 128.91 Mbit/s

95th percentile per-packet one-way delay: 224.518 ms

Loss rate: 2.12%

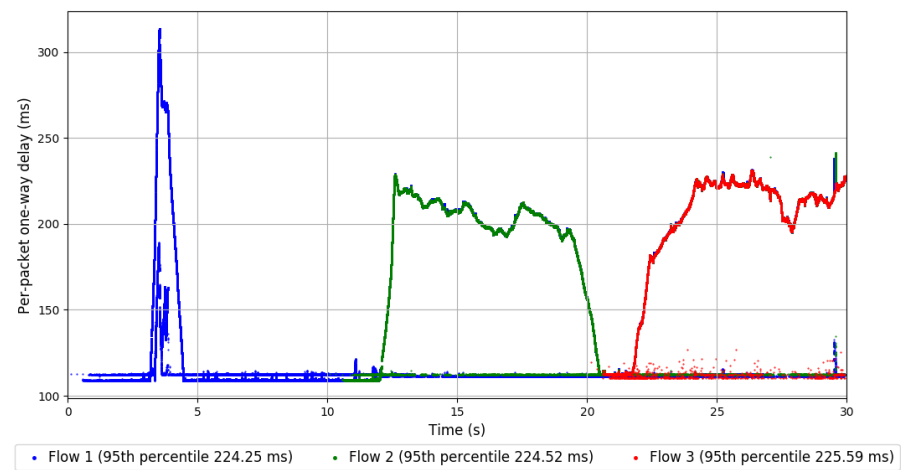
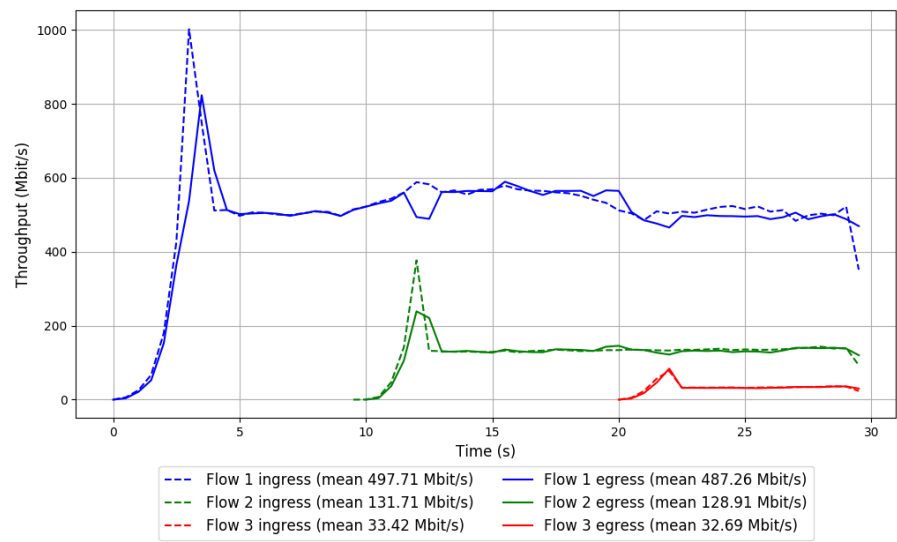
-- Flow 3:

Average throughput: 32.69 Mbit/s

95th percentile per-packet one-way delay: 225.592 ms

Loss rate: 2.21%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2017-12-20 17:12:58

End at: 2017-12-20 17:13:28

Below is generated by plot.py at 2017-12-20 19:56:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 602.25 Mbit/s

95th percentile per-packet one-way delay: 215.277 ms

Loss rate: 2.71%

-- Flow 1:

Average throughput: 516.00 Mbit/s

95th percentile per-packet one-way delay: 215.342 ms

Loss rate: 2.71%

-- Flow 2:

Average throughput: 127.52 Mbit/s

95th percentile per-packet one-way delay: 214.803 ms

Loss rate: 2.78%

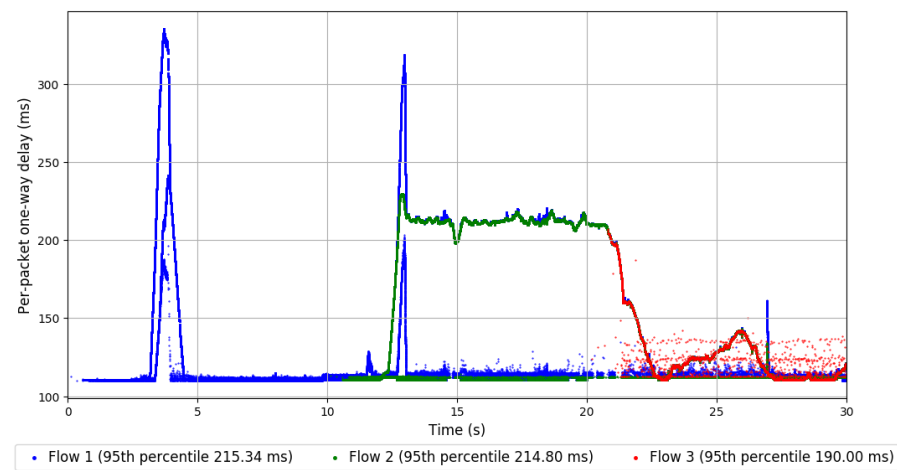
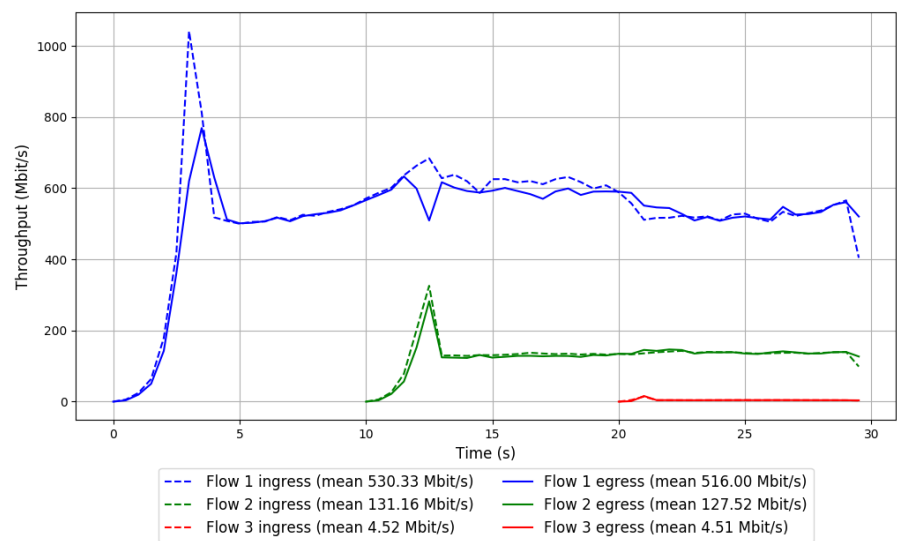
-- Flow 3:

Average throughput: 4.51 Mbit/s

95th percentile per-packet one-way delay: 190.000 ms

Loss rate: 0.27%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2017-12-20 17:28:38

End at: 2017-12-20 17:29:08

Below is generated by plot.py at 2017-12-20 19:56:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 588.84 Mbit/s

95th percentile per-packet one-way delay: 219.660 ms

Loss rate: 2.97%

-- Flow 1:

Average throughput: 524.48 Mbit/s

95th percentile per-packet one-way delay: 221.593 ms

Loss rate: 3.23%

-- Flow 2:

Average throughput: 65.82 Mbit/s

95th percentile per-packet one-way delay: 215.726 ms

Loss rate: 0.54%

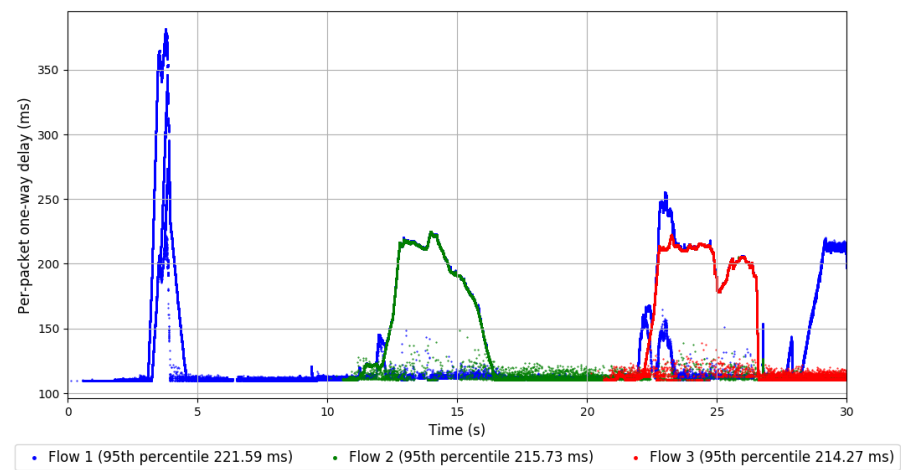
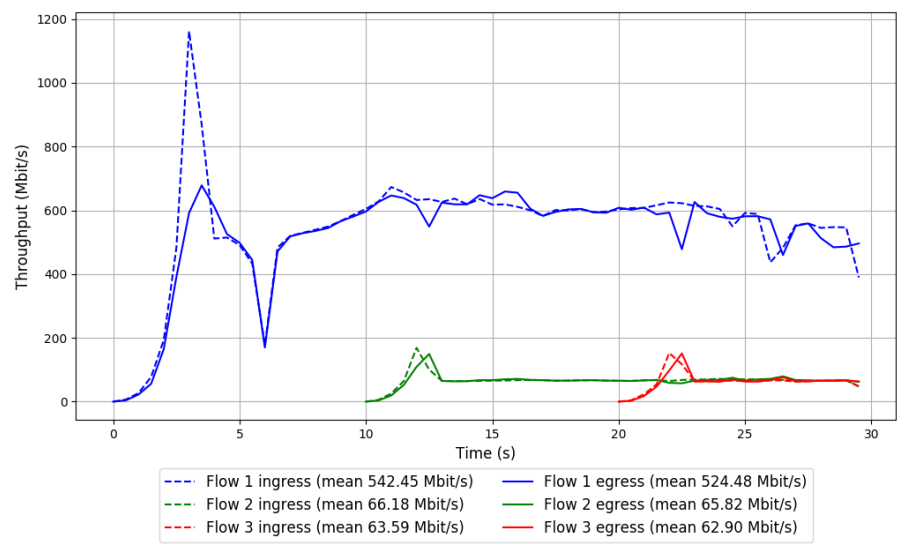
-- Flow 3:

Average throughput: 62.90 Mbit/s

95th percentile per-packet one-way delay: 214.274 ms

Loss rate: 1.11%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2017-12-20 17:43:49

End at: 2017-12-20 17:44:19

Below is generated by plot.py at 2017-12-20 19:56:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 577.95 Mbit/s

95th percentile per-packet one-way delay: 224.769 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 495.77 Mbit/s

95th percentile per-packet one-way delay: 224.943 ms

Loss rate: 2.26%

-- Flow 2:

Average throughput: 121.56 Mbit/s

95th percentile per-packet one-way delay: 224.217 ms

Loss rate: 1.92%

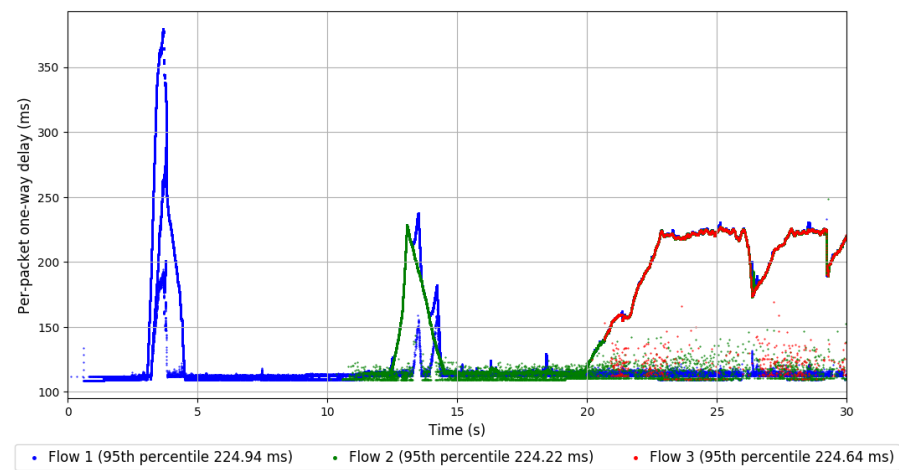
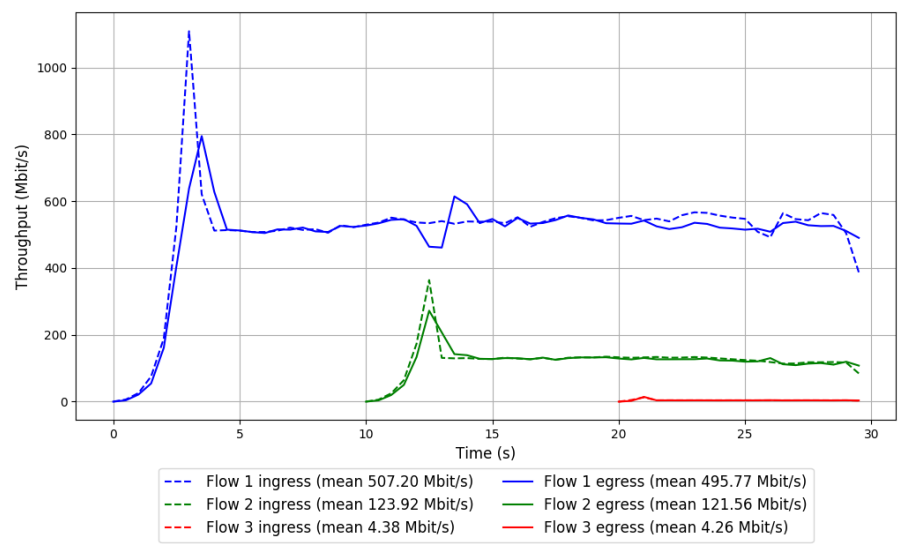
-- Flow 3:

Average throughput: 4.26 Mbit/s

95th percentile per-packet one-way delay: 224.636 ms

Loss rate: 2.82%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2017-12-20 17:58:59

End at: 2017-12-20 17:59:29

Below is generated by plot.py at 2017-12-20 20:05:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 561.69 Mbit/s

95th percentile per-packet one-way delay: 223.680 ms

Loss rate: 2.79%

-- Flow 1:

Average throughput: 460.01 Mbit/s

95th percentile per-packet one-way delay: 224.008 ms

Loss rate: 2.82%

-- Flow 2:

Average throughput: 122.32 Mbit/s

95th percentile per-packet one-way delay: 222.734 ms

Loss rate: 2.41%

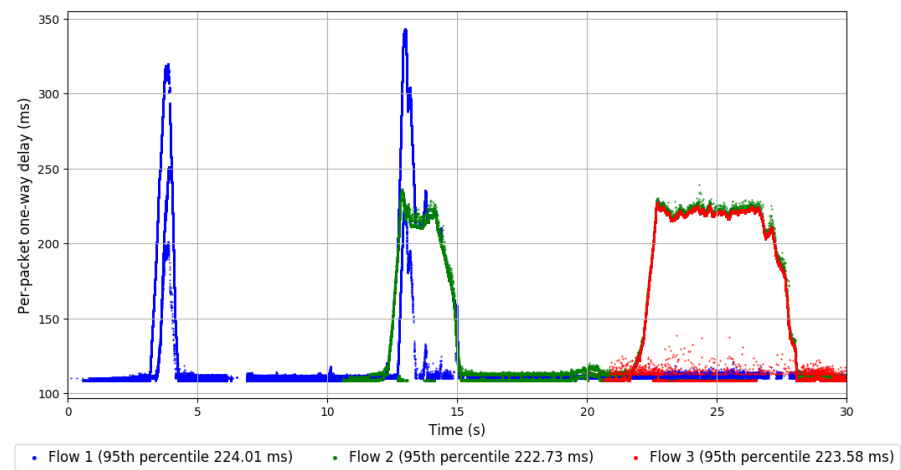
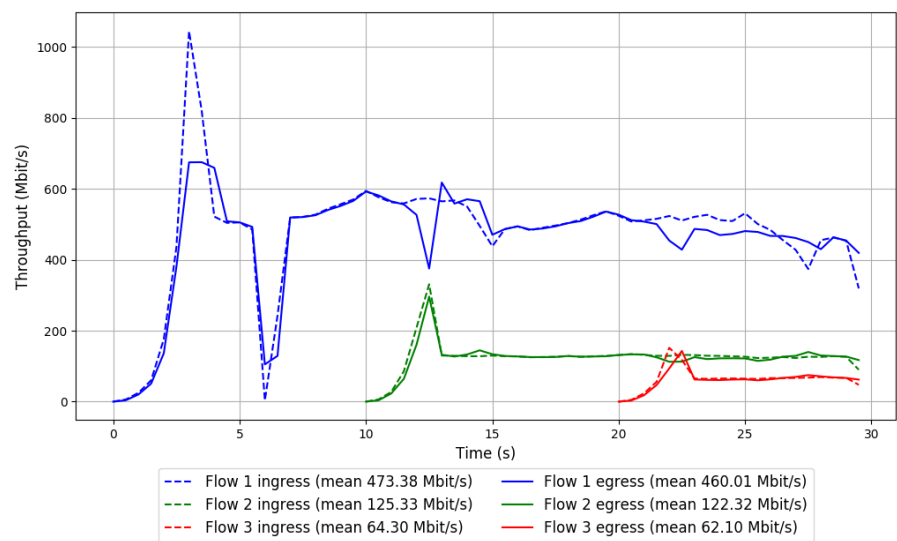
-- Flow 3:

Average throughput: 62.10 Mbit/s

95th percentile per-packet one-way delay: 223.583 ms

Loss rate: 3.48%

Run 9: Report of PCC — Data Link

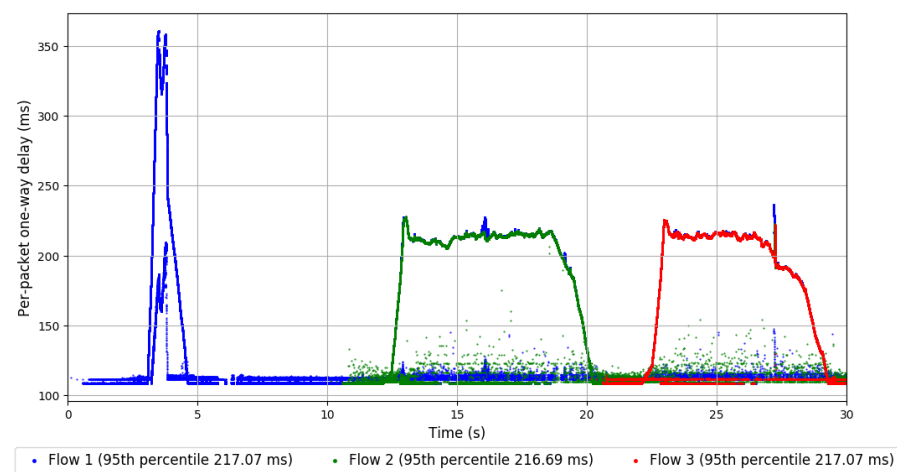
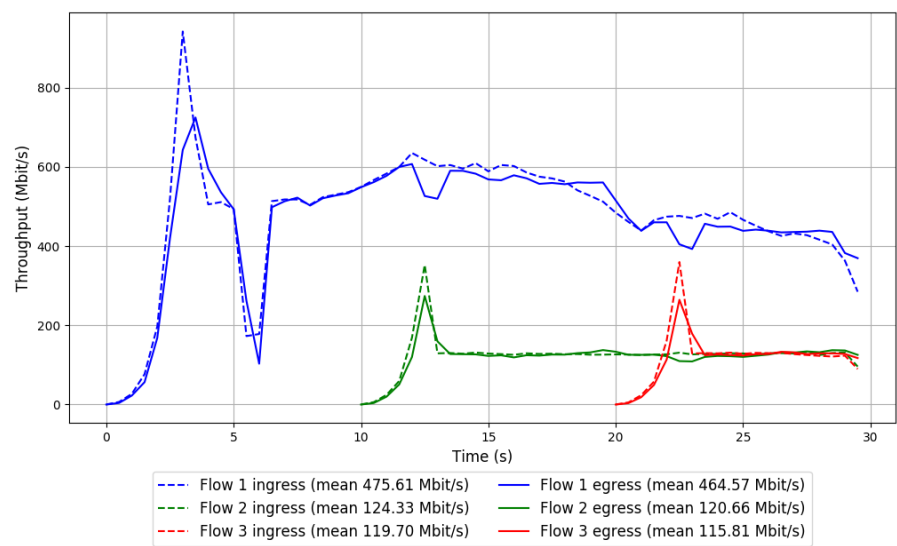


```
Run 10: Statistics of PCC

Start at: 2017-12-20 18:14:10
End at: 2017-12-20 18:14:40

# Below is generated by plot.py at 2017-12-20 20:06:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 582.95 Mbit/s
95th percentile per-packet one-way delay: 216.997 ms
Loss rate: 2.48%
-- Flow 1:
Average throughput: 464.57 Mbit/s
95th percentile per-packet one-way delay: 217.069 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 120.66 Mbit/s
95th percentile per-packet one-way delay: 216.691 ms
Loss rate: 2.96%
-- Flow 3:
Average throughput: 115.81 Mbit/s
95th percentile per-packet one-way delay: 217.070 ms
Loss rate: 3.27%
```

Run 10: Report of PCC — Data Link

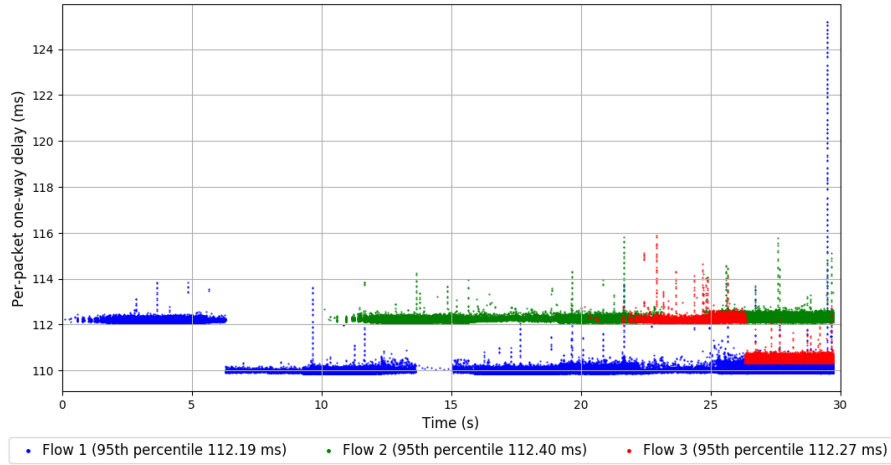
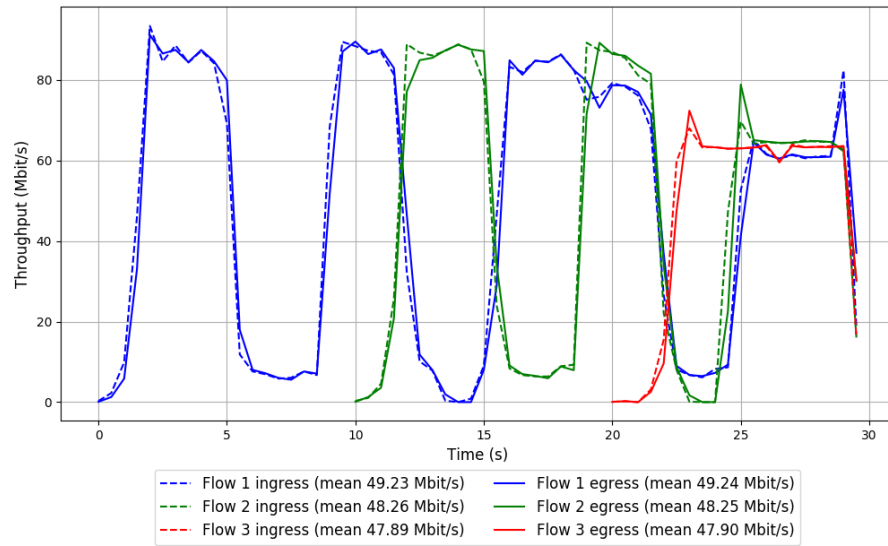


```
Run 1: Statistics of QUIC Cubic

Start at: 2017-12-20 15:47:41
End at: 2017-12-20 15:48:11

# Below is generated by plot.py at 2017-12-20 20:06:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.70 Mbit/s
95th percentile per-packet one-way delay: 112.314 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 49.24 Mbit/s
95th percentile per-packet one-way delay: 112.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.25 Mbit/s
95th percentile per-packet one-way delay: 112.404 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 47.90 Mbit/s
95th percentile per-packet one-way delay: 112.268 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2017-12-20 16:03:27

End at: 2017-12-20 16:03:57

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.90 Mbit/s

95th percentile per-packet one-way delay: 112.242 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 62.77 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.91 Mbit/s

95th percentile per-packet one-way delay: 111.226 ms

Loss rate: 0.00%

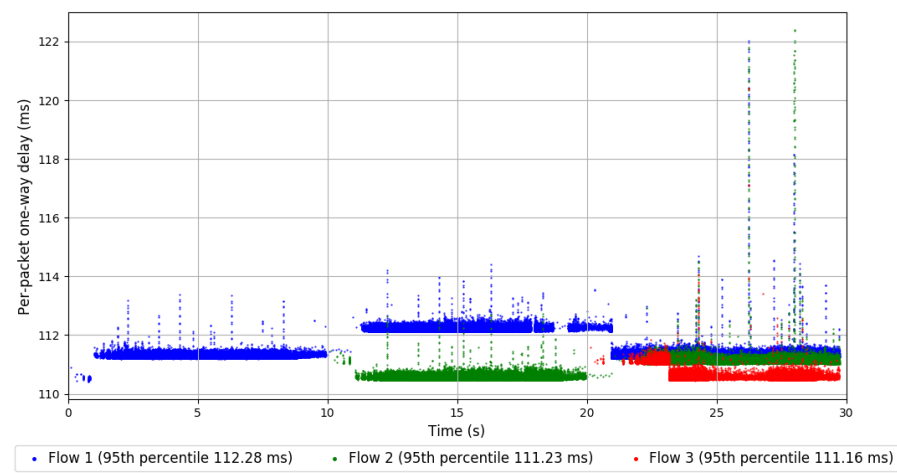
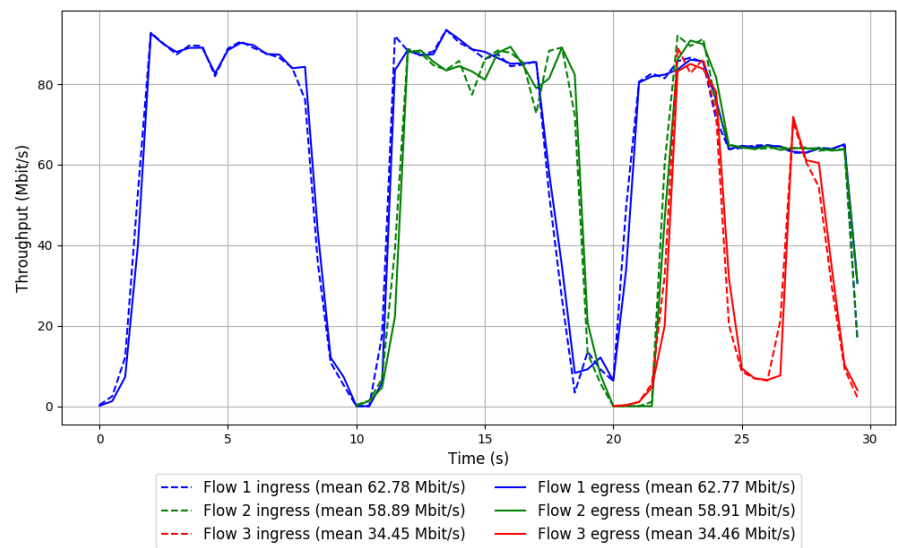
-- Flow 3:

Average throughput: 34.46 Mbit/s

95th percentile per-packet one-way delay: 111.160 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2017-12-20 16:18:53

End at: 2017-12-20 16:19:23

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 103.30 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 53.44 Mbit/s

95th percentile per-packet one-way delay: 112.020 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.47 Mbit/s

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

Loss rate: 0.01%

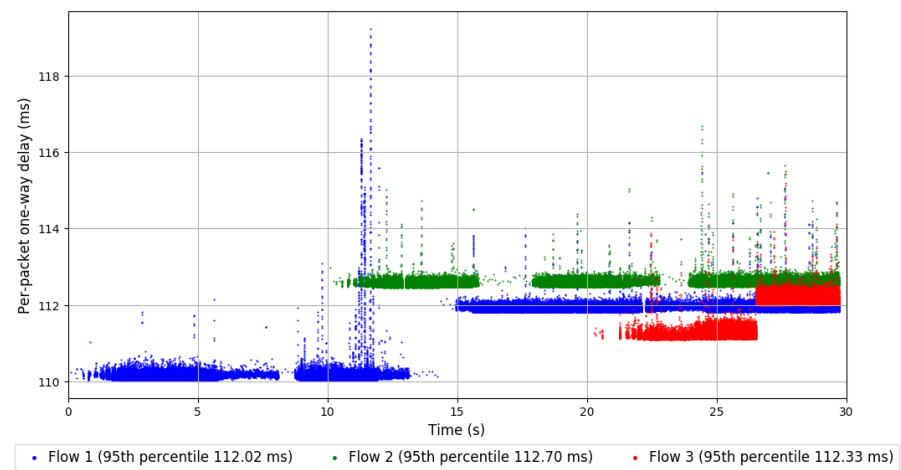
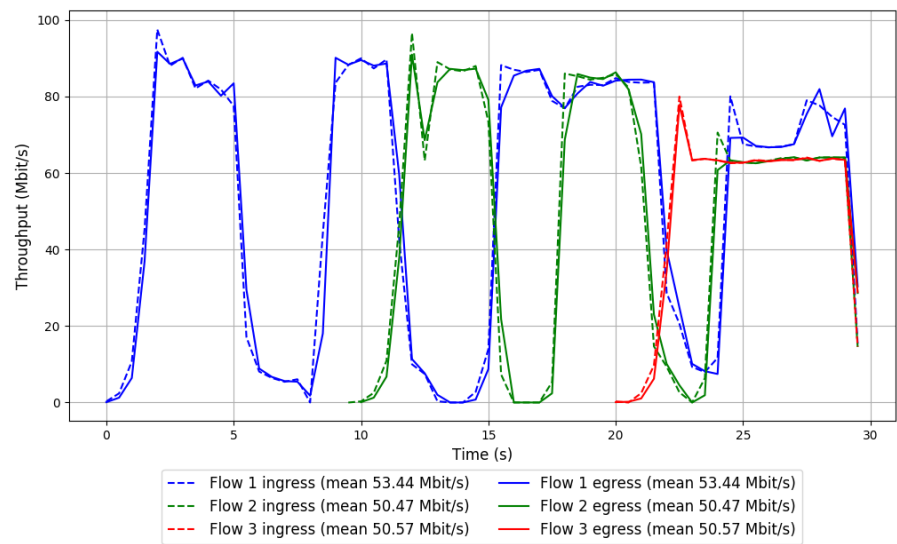
-- Flow 3:

Average throughput: 50.57 Mbit/s

95th percentile per-packet one-way delay: 112.334 ms

Loss rate: 0.02%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2017-12-20 16:34:17

End at: 2017-12-20 16:34:47

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.36 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.96 Mbit/s

95th percentile per-packet one-way delay: 111.329 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.98 Mbit/s

95th percentile per-packet one-way delay: 111.593 ms

Loss rate: 0.00%

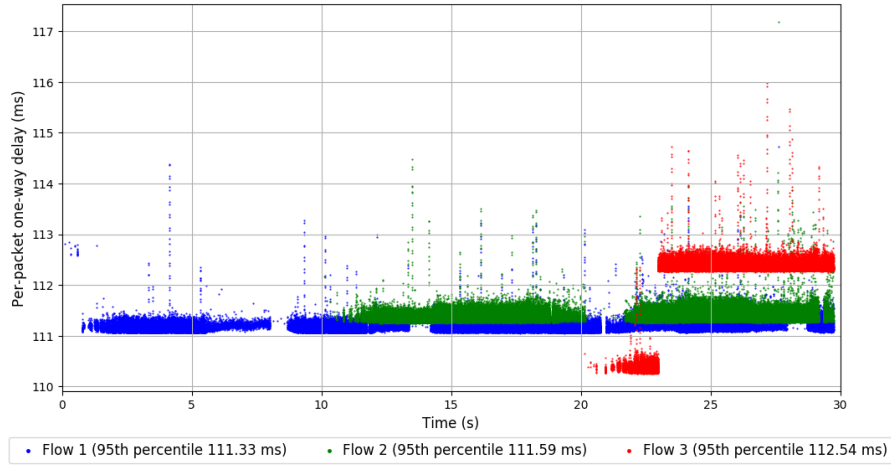
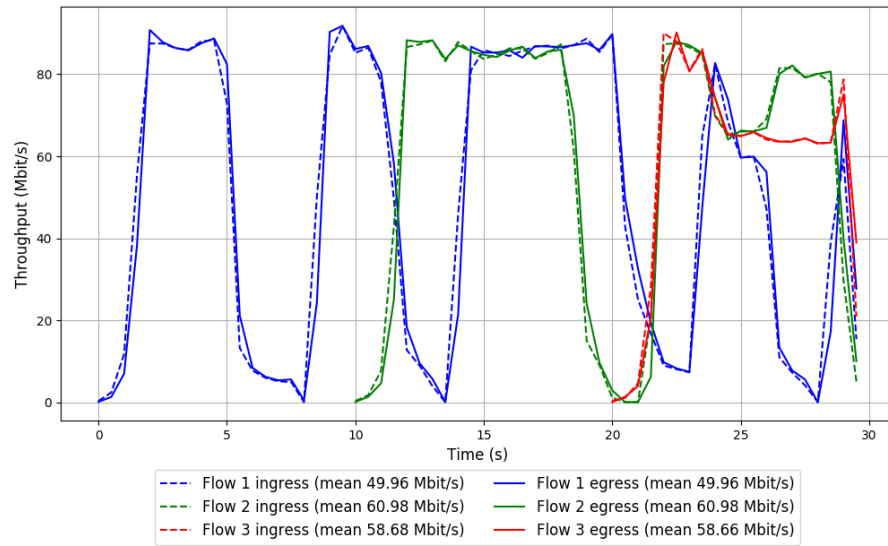
-- Flow 3:

Average throughput: 58.66 Mbit/s

95th percentile per-packet one-way delay: 112.536 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2017-12-20 16:49:19

End at: 2017-12-20 16:49:49

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.56 Mbit/s

95th percentile per-packet one-way delay: 114.289 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 45.54 Mbit/s

95th percentile per-packet one-way delay: 112.431 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 42.69 Mbit/s

95th percentile per-packet one-way delay: 112.484 ms

Loss rate: 0.03%

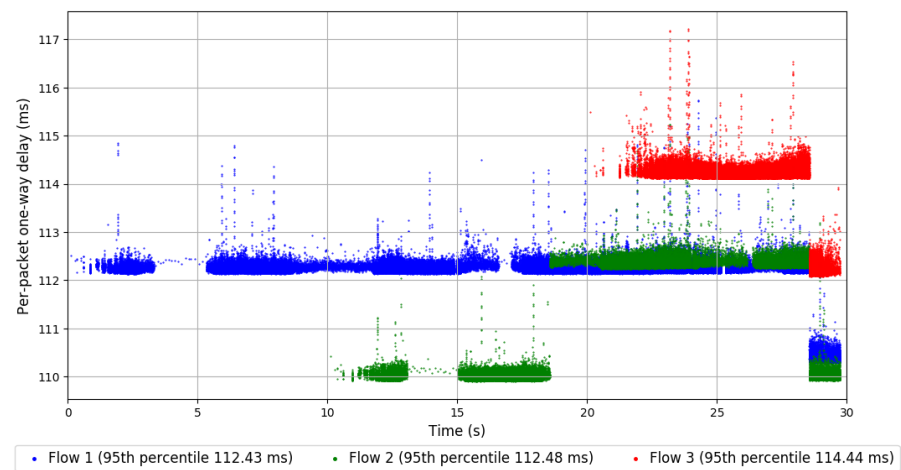
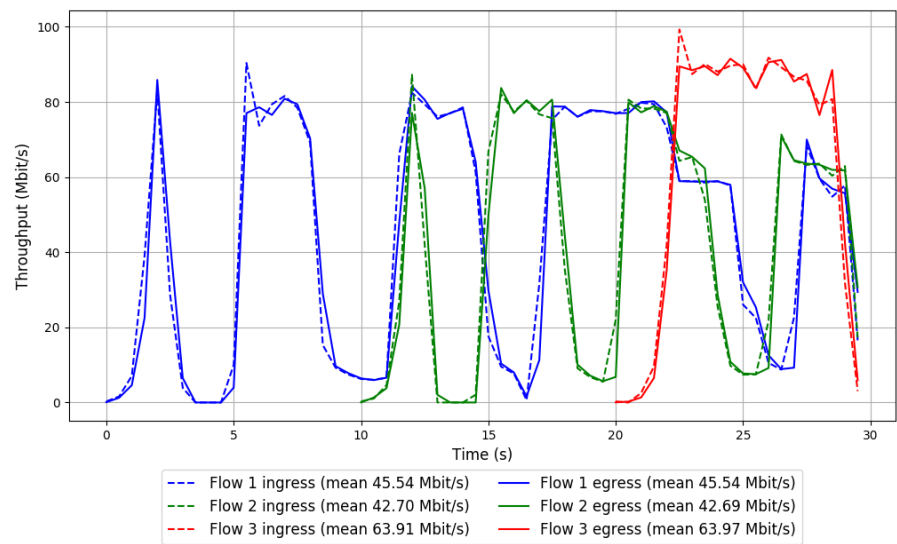
-- Flow 3:

Average throughput: 63.97 Mbit/s

95th percentile per-packet one-way delay: 114.440 ms

Loss rate: 0.01%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2017-12-20 17:04:33

End at: 2017-12-20 17:05:03

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.28 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 64.69 Mbit/s

95th percentile per-packet one-way delay: 112.849 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.46 Mbit/s

95th percentile per-packet one-way delay: 112.299 ms

Loss rate: 0.00%

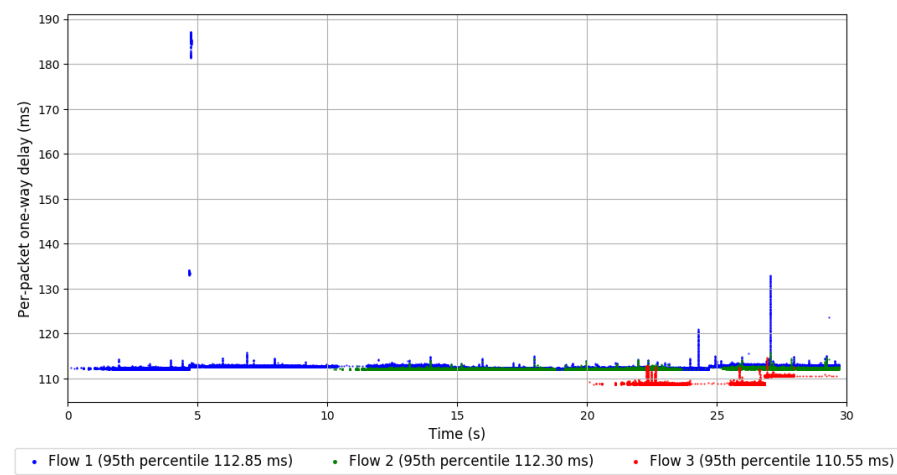
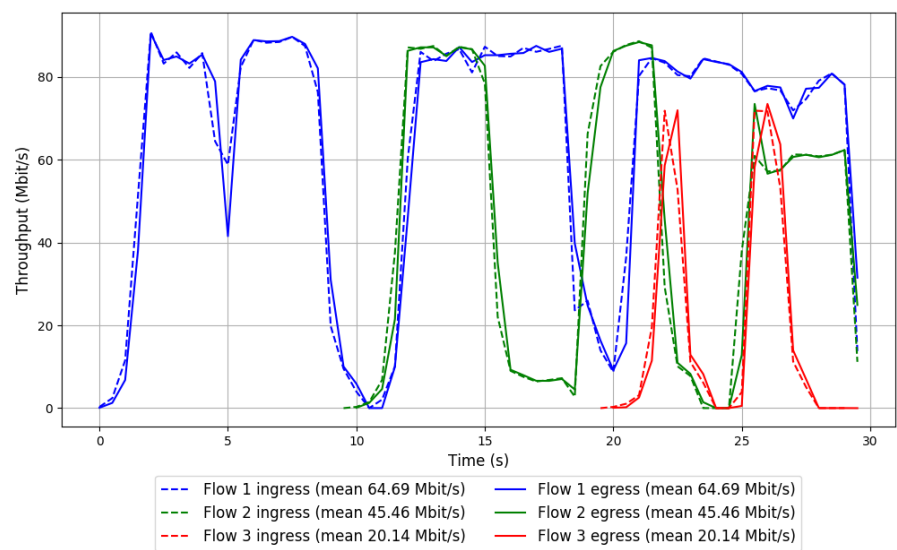
-- Flow 3:

Average throughput: 20.14 Mbit/s

95th percentile per-packet one-way delay: 110.549 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2017-12-20 17:19:59

End at: 2017-12-20 17:20:29

Below is generated by plot.py at 2017-12-20 20:06:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.45 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 51.07 Mbit/s

95th percentile per-packet one-way delay: 112.503 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.53 Mbit/s

95th percentile per-packet one-way delay: 109.704 ms

Loss rate: 0.00%

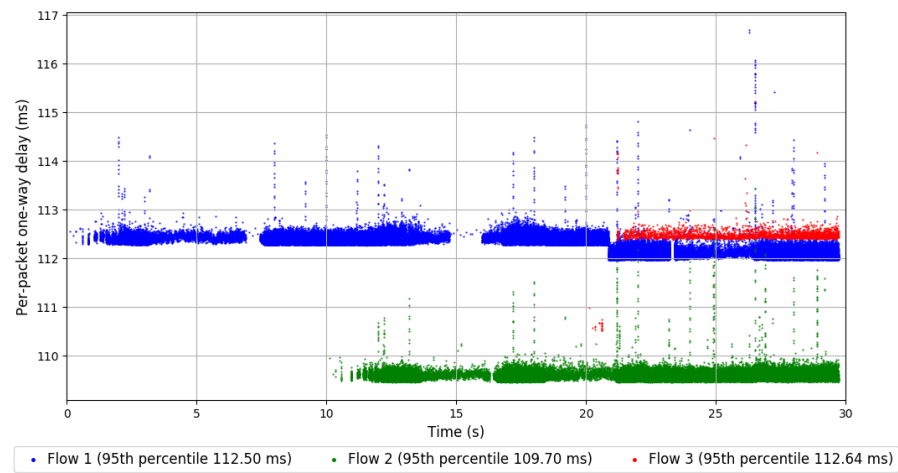
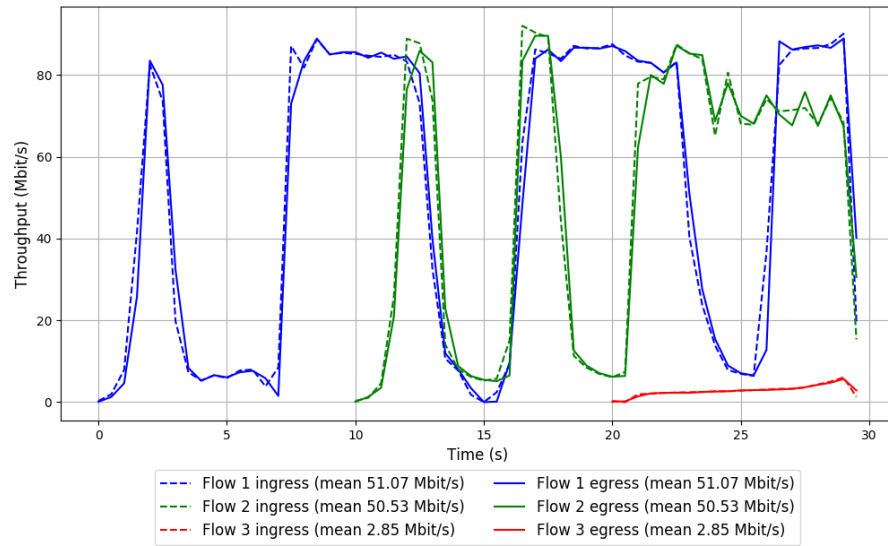
-- Flow 3:

Average throughput: 2.85 Mbit/s

95th percentile per-packet one-way delay: 112.640 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2017-12-20 17:35:28

End at: 2017-12-20 17:35:58

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.46 Mbit/s

95th percentile per-packet one-way delay: 112.746 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 63.52 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 36.80 Mbit/s

95th percentile per-packet one-way delay: 110.634 ms

Loss rate: 0.01%

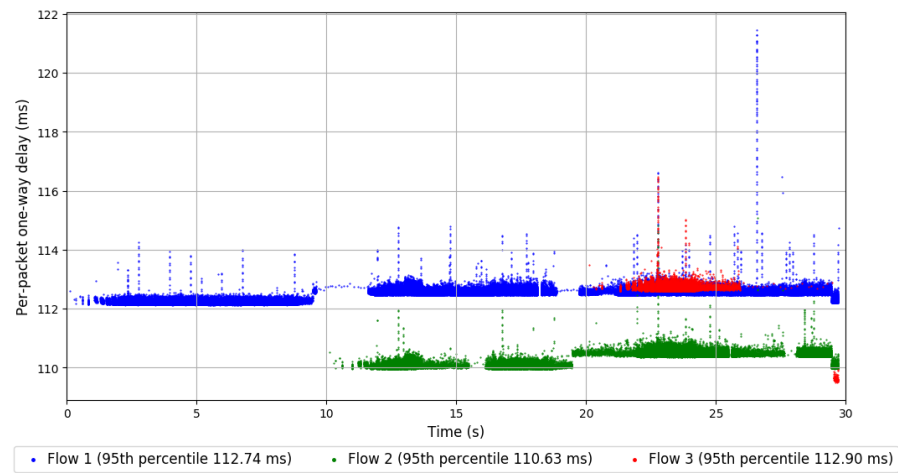
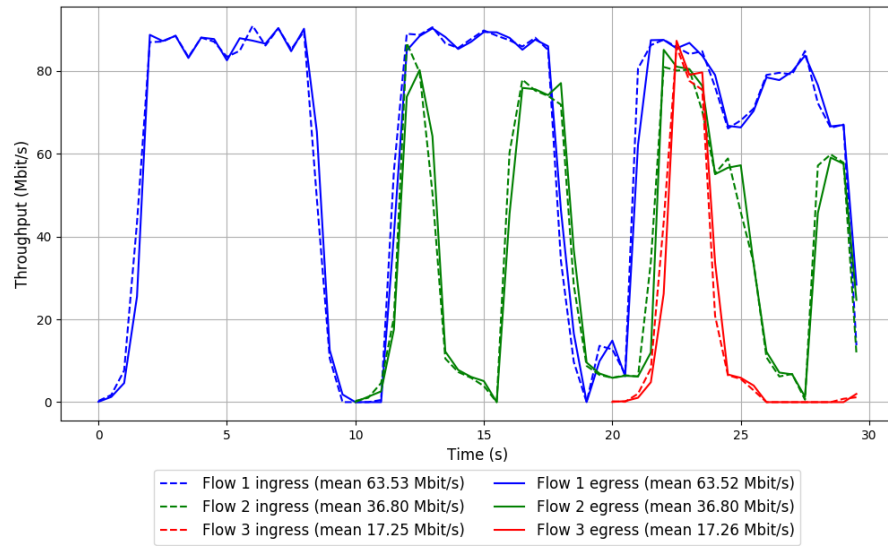
-- Flow 3:

Average throughput: 17.26 Mbit/s

95th percentile per-packet one-way delay: 112.904 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2017-12-20 17:50:32

End at: 2017-12-20 17:51:02

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.45 Mbit/s

95th percentile per-packet one-way delay: 112.224 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.86 Mbit/s

95th percentile per-packet one-way delay: 111.546 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.29 Mbit/s

95th percentile per-packet one-way delay: 112.301 ms

Loss rate: 0.00%

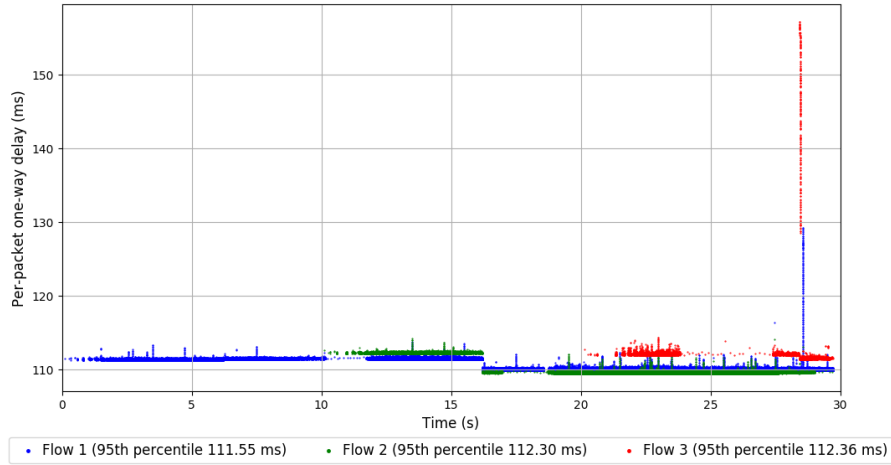
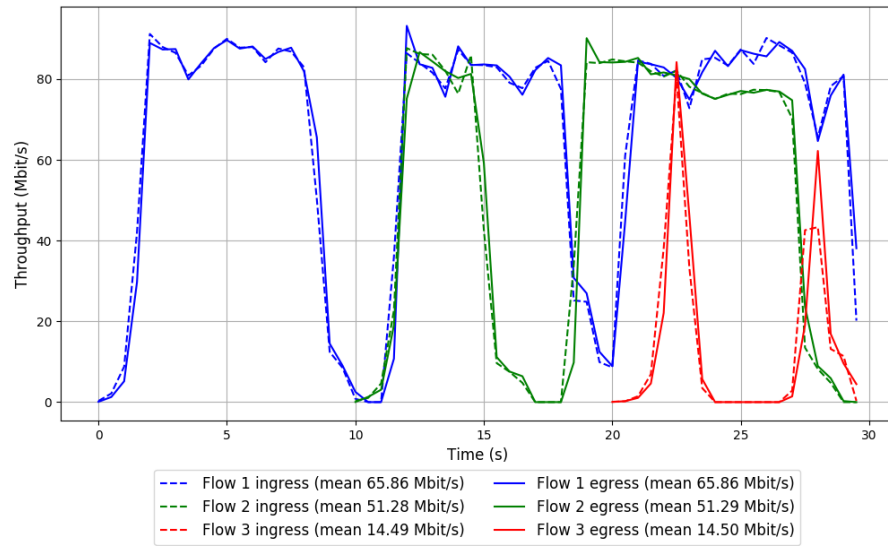
-- Flow 3:

Average throughput: 14.50 Mbit/s

95th percentile per-packet one-way delay: 112.360 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

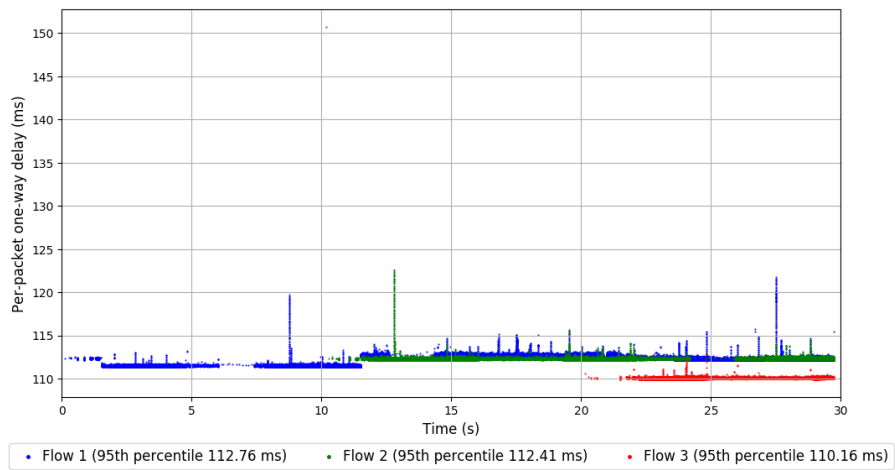
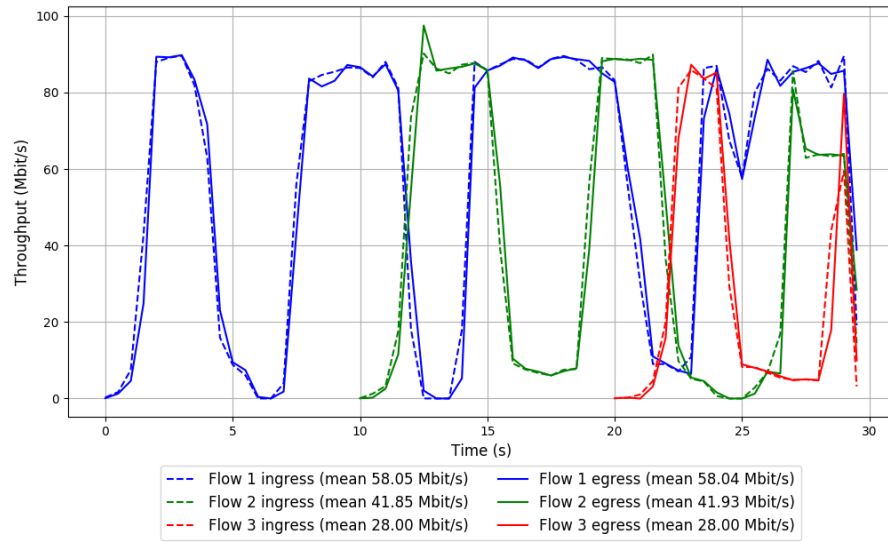


```
Run 10: Statistics of QUIC Cubic

Start at: 2017-12-20 18:05:56
End at: 2017-12-20 18:06:26

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 94.79 Mbit/s
95th percentile per-packet one-way delay: 112.707 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 58.04 Mbit/s
95th percentile per-packet one-way delay: 112.758 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.93 Mbit/s
95th percentile per-packet one-way delay: 112.414 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 28.00 Mbit/s
95th percentile per-packet one-way delay: 110.162 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

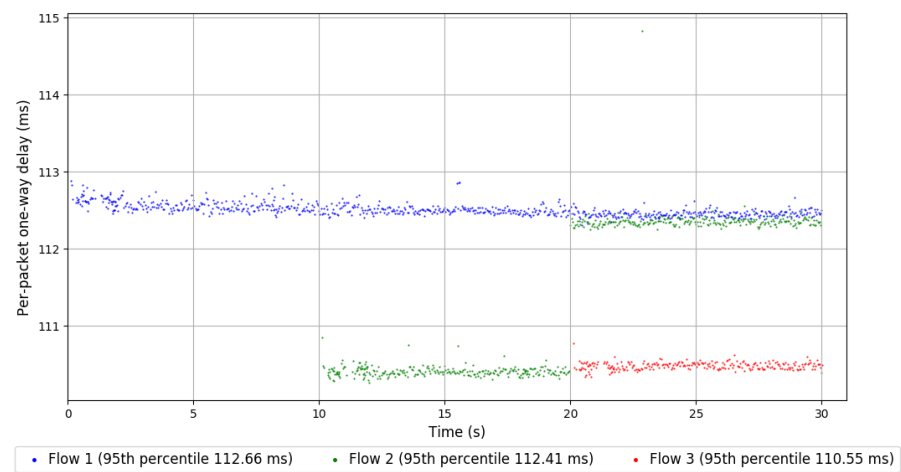
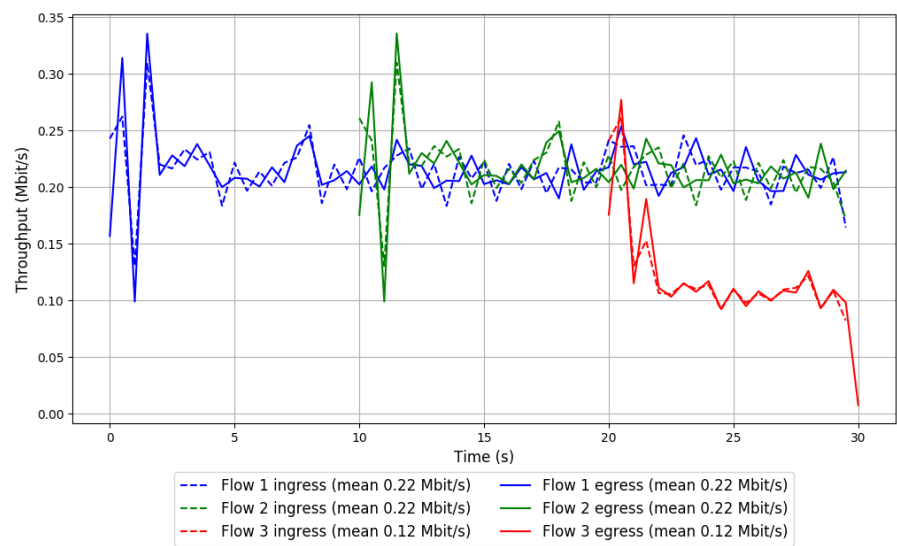


```
Run 1: Statistics of SCReAM

Start at: 2017-12-20 15:44:48
End at: 2017-12-20 15:45:18

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 112.615 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.656 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 110.547 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

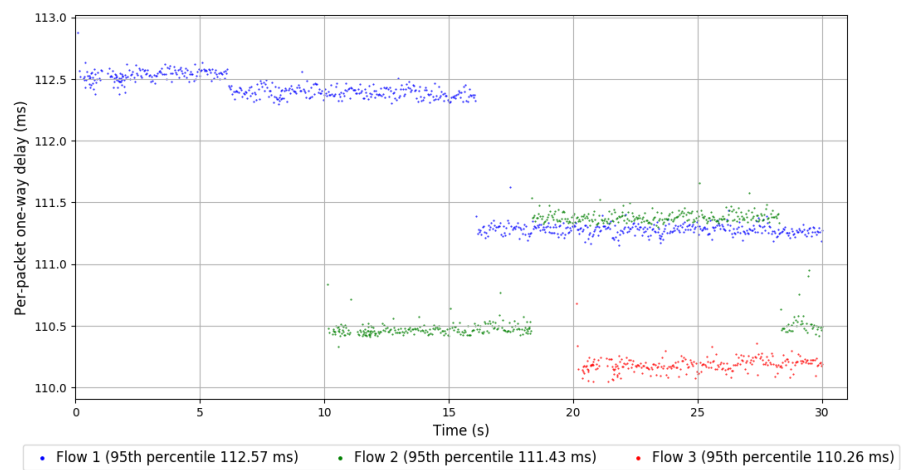
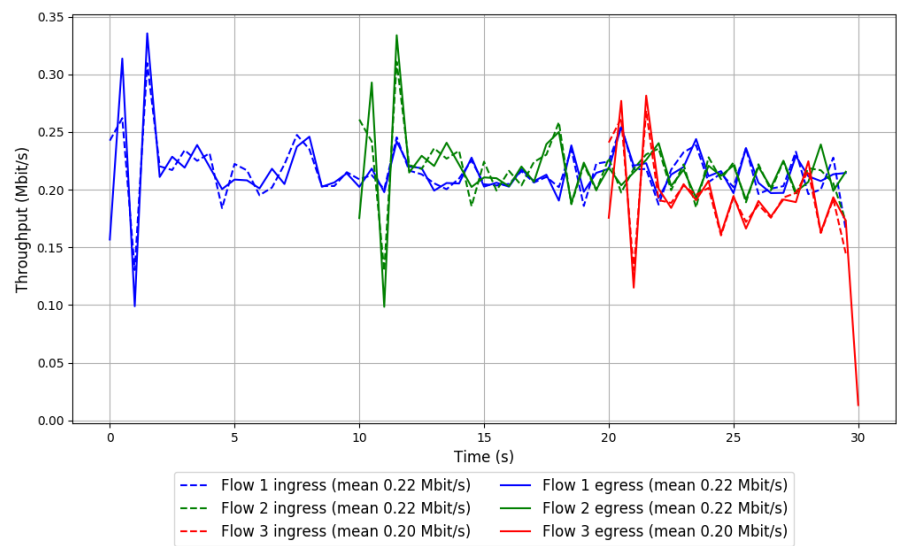


```
Run 2: Statistics of SCReAM

Start at: 2017-12-20 16:00:32
End at: 2017-12-20 16:01:02

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.539 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.568 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.429 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 110.264 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link

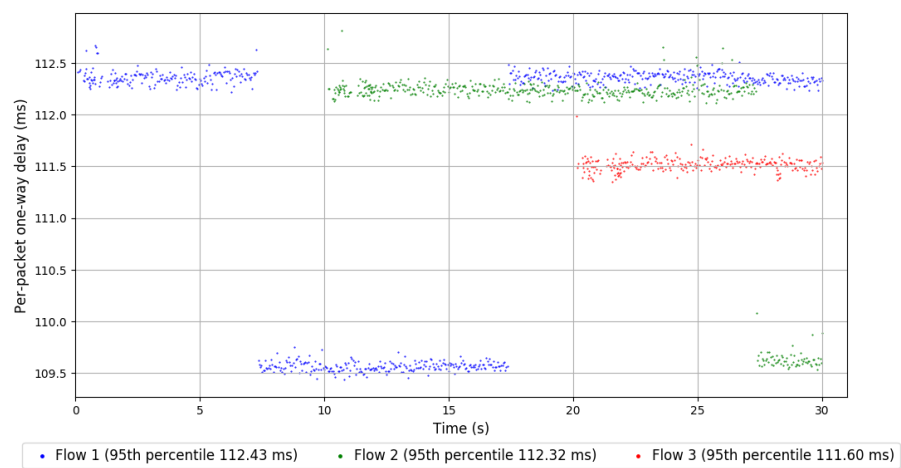
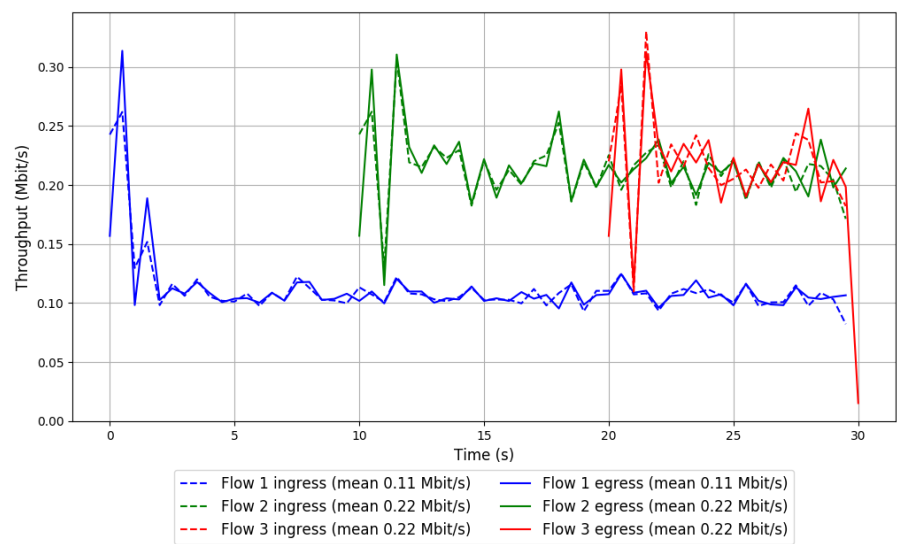


```
Run 3: Statistics of SCReAM

Start at: 2017-12-20 16:16:11
End at: 2017-12-20 16:16:41

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 112.416 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 112.431 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.324 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.604 ms
Loss rate: 0.00%
```


Run 3: Report of SCRaM — Data Link



Run 4: Statistics of SCReAM

Start at: 2017-12-20 16:31:24

End at: 2017-12-20 16:31:54

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.821 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.578 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.861 ms

Loss rate: 0.00%

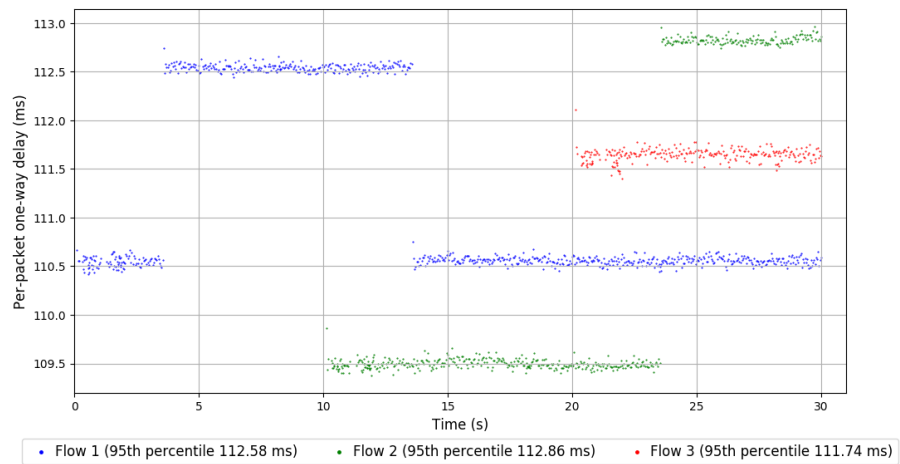
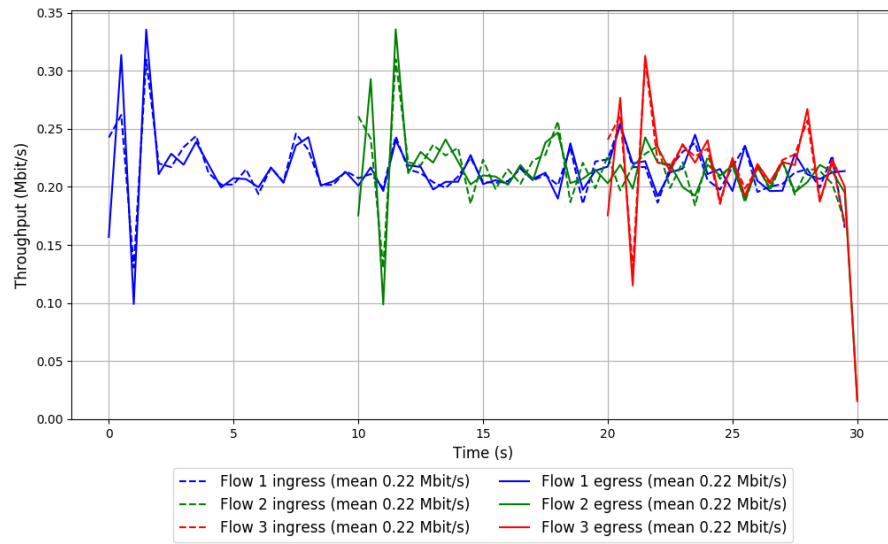
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.742 ms

Loss rate: 0.00%

Run 4: Report of SCRaM — Data Link



Run 5: Statistics of SReAM

Start at: 2017-12-20 16:46:31

End at: 2017-12-20 16:47:01

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.461 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.536 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.489 ms

Loss rate: 0.00%

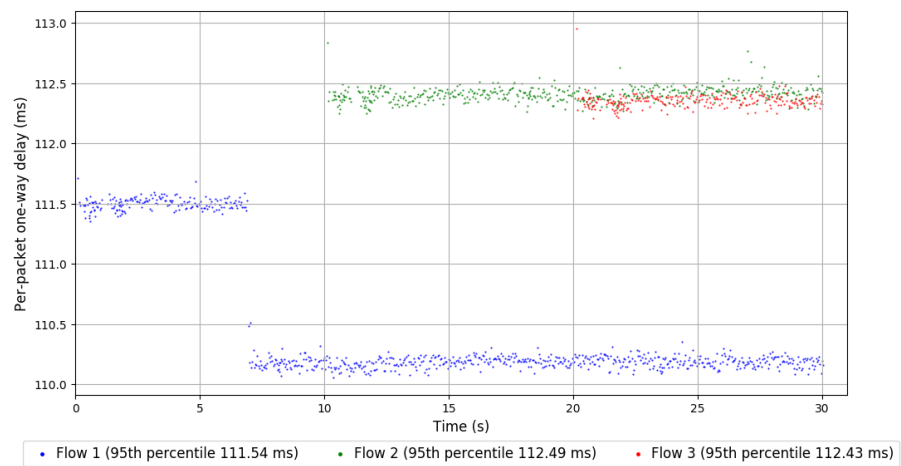
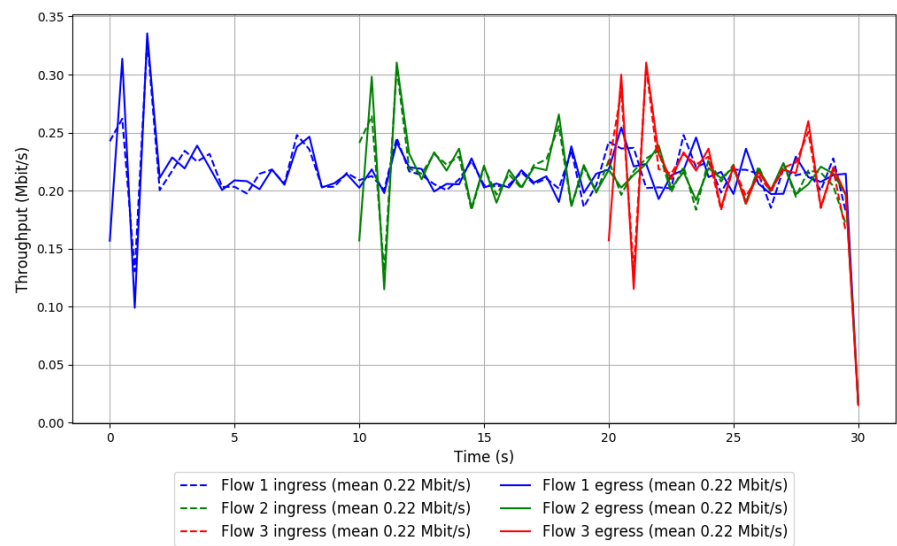
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.428 ms

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2017-12-20 17:01:41

End at: 2017-12-20 17:02:11

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.465 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.487 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.528 ms

Loss rate: 0.00%

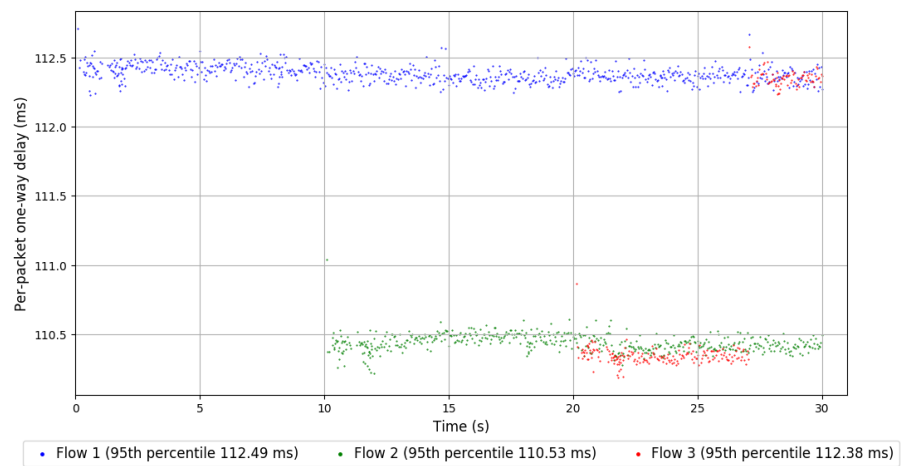
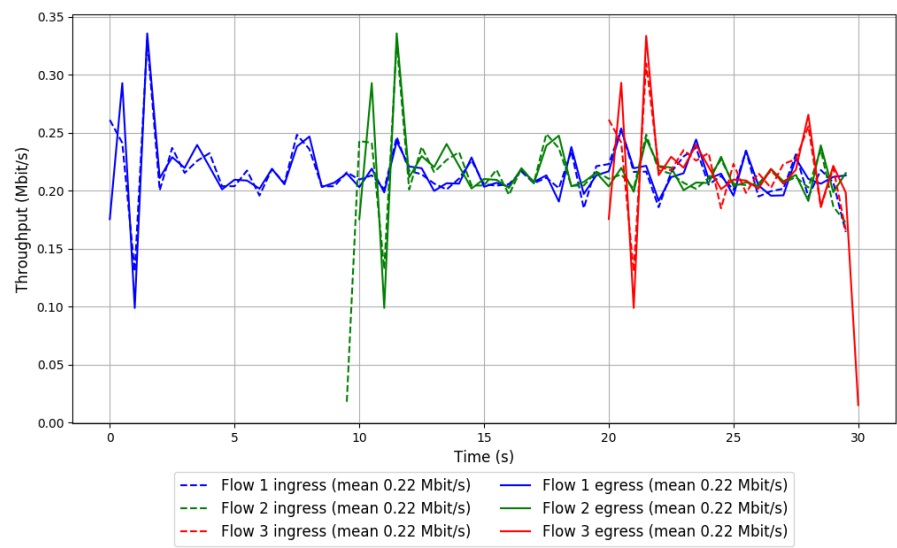
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.383 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2017-12-20 17:17:04

End at: 2017-12-20 17:17:34

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 110.748 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.645 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.450 ms

Loss rate: 0.00%

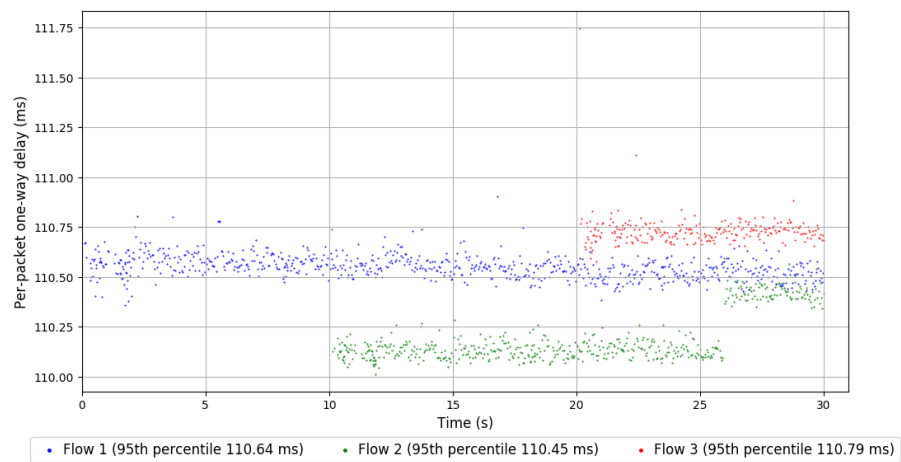
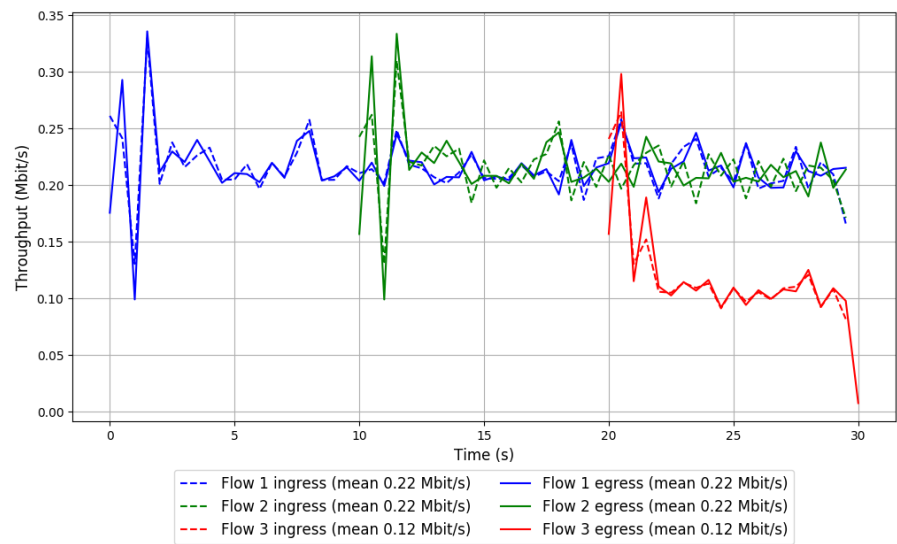
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 110.794 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2017-12-20 17:32:37

End at: 2017-12-20 17:33:07

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.873 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.490 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.890 ms

Loss rate: 0.00%

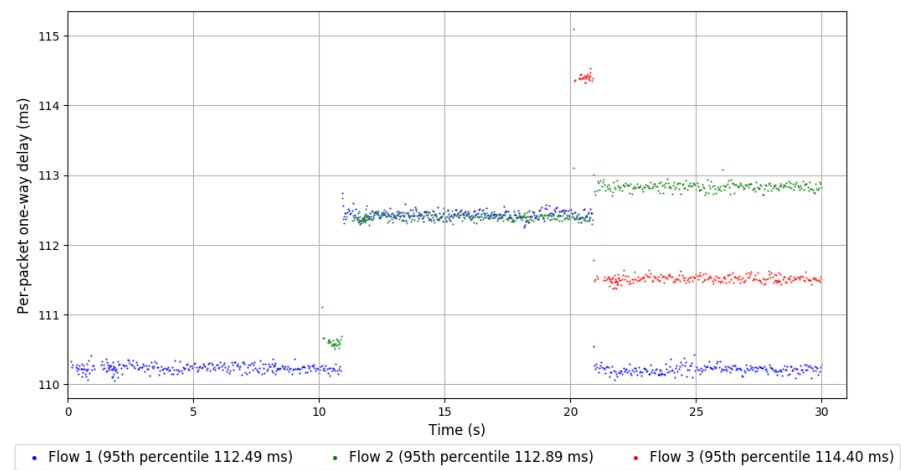
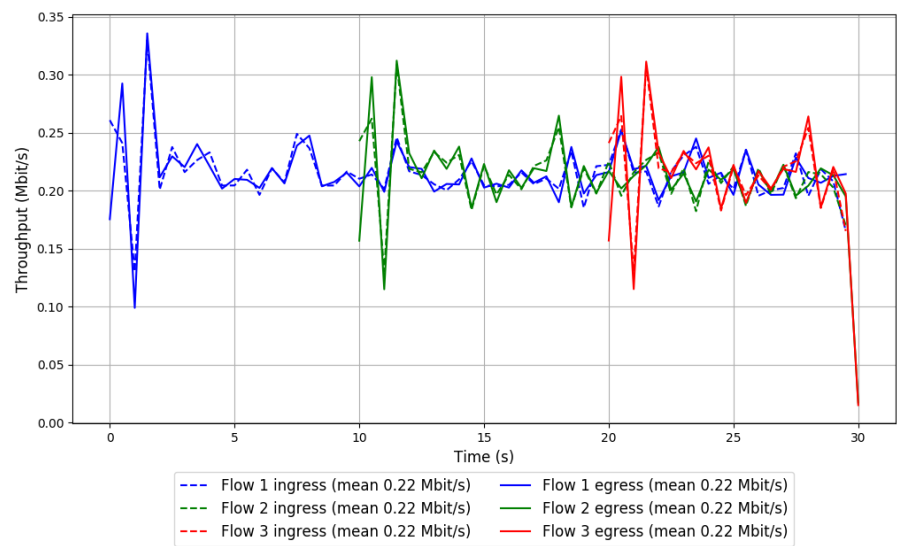
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.396 ms

Loss rate: 0.00%

Run 8: Report of SCRaM — Data Link



Run 9: Statistics of SReAM

Start at: 2017-12-20 17:47:47

End at: 2017-12-20 17:48:17

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.972 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

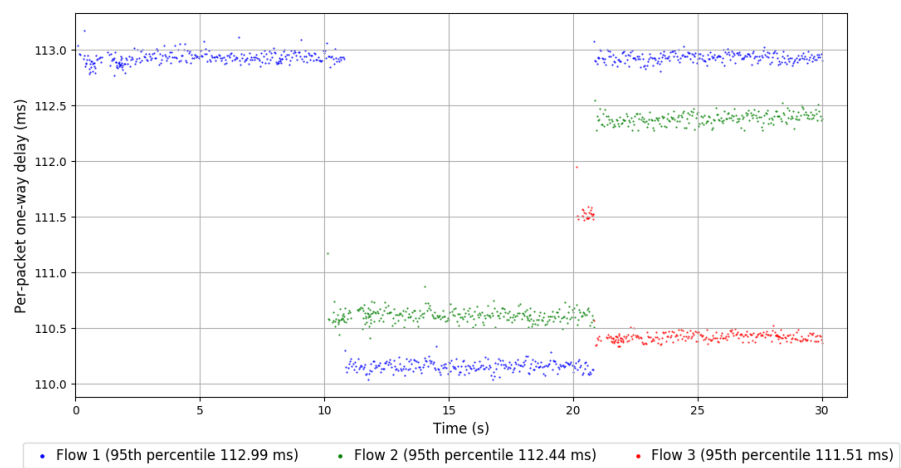
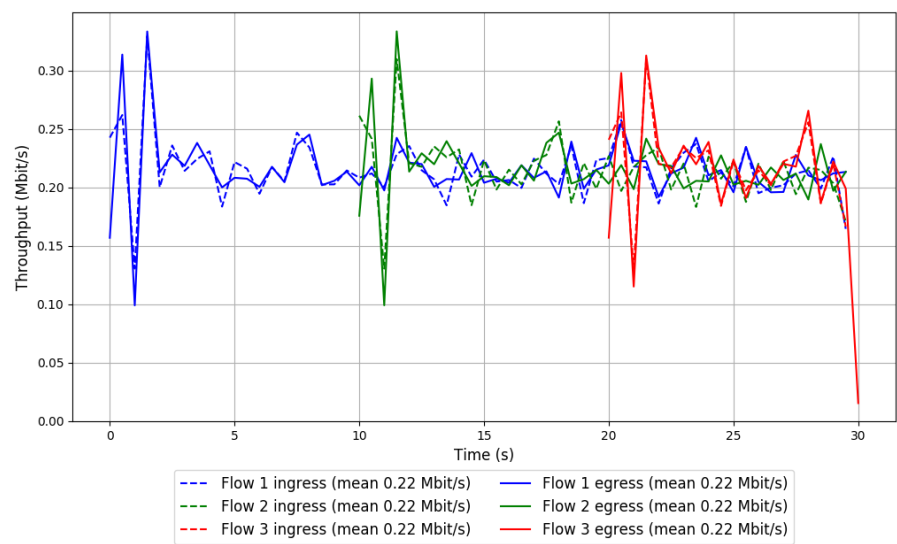
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.507 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

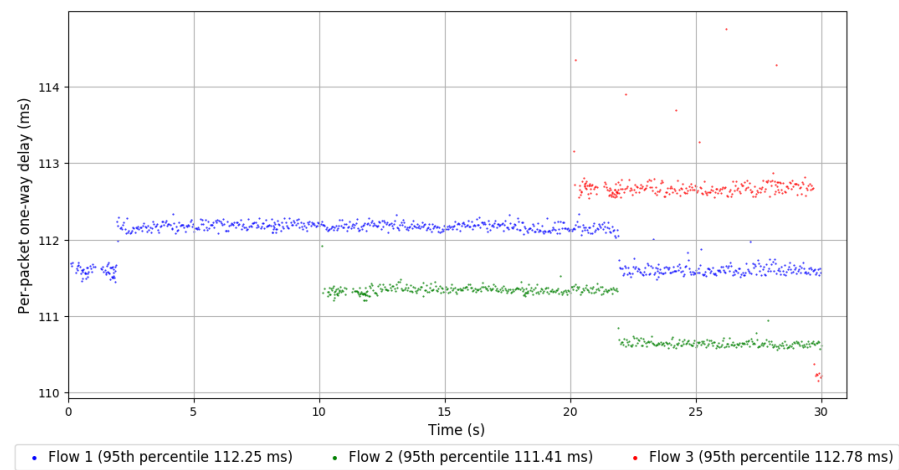
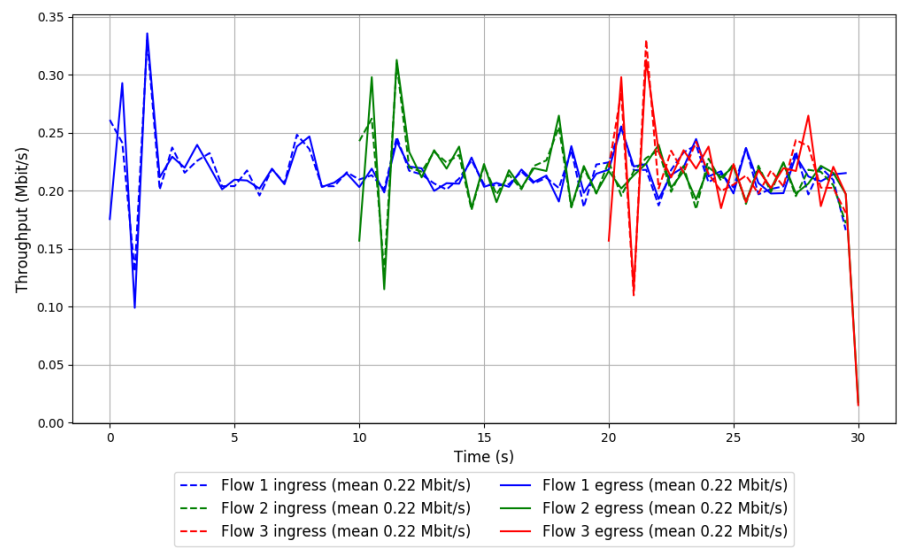


```
Run 10: Statistics of SCReAM

Start at: 2017-12-20 18:03:08
End at: 2017-12-20 18:03:38

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.705 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.247 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.407 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.782 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

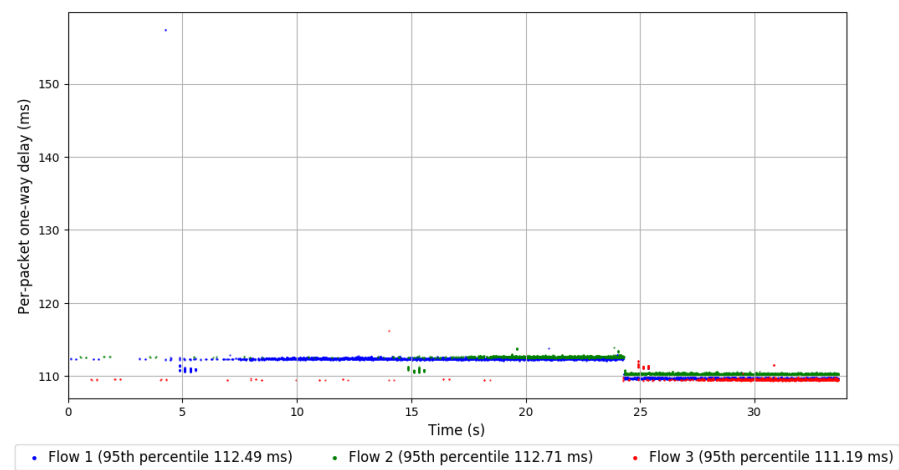
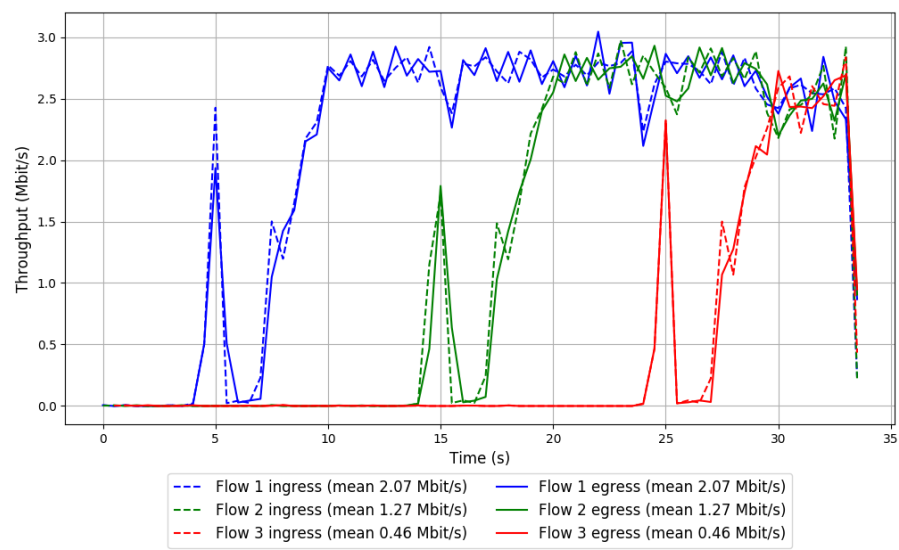


```
Run 1: Statistics of WebRTC media

Start at: 2017-12-20 15:55:37
End at: 2017-12-20 15:56:07

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 112.655 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 112.490 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 112.709 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 111.193 ms
Loss rate: 0.07%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2017-12-20 16:11:11

End at: 2017-12-20 16:11:41

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 114.379 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 114.415 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 112.618 ms

Loss rate: 0.02%

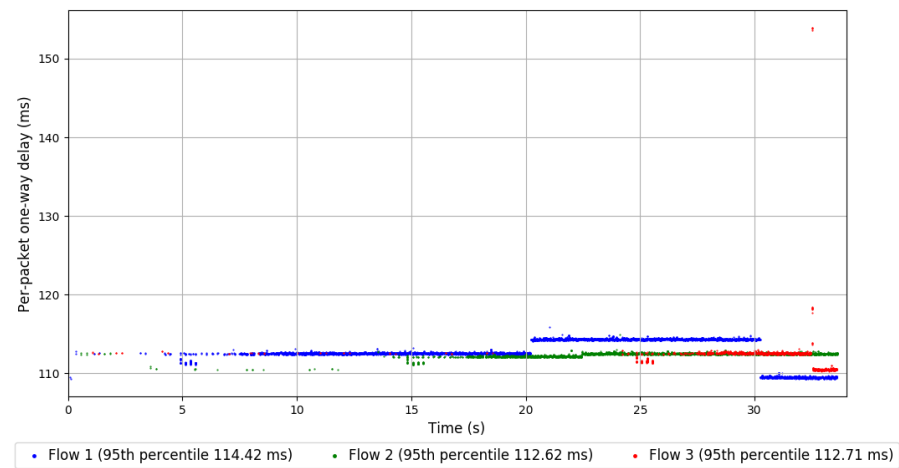
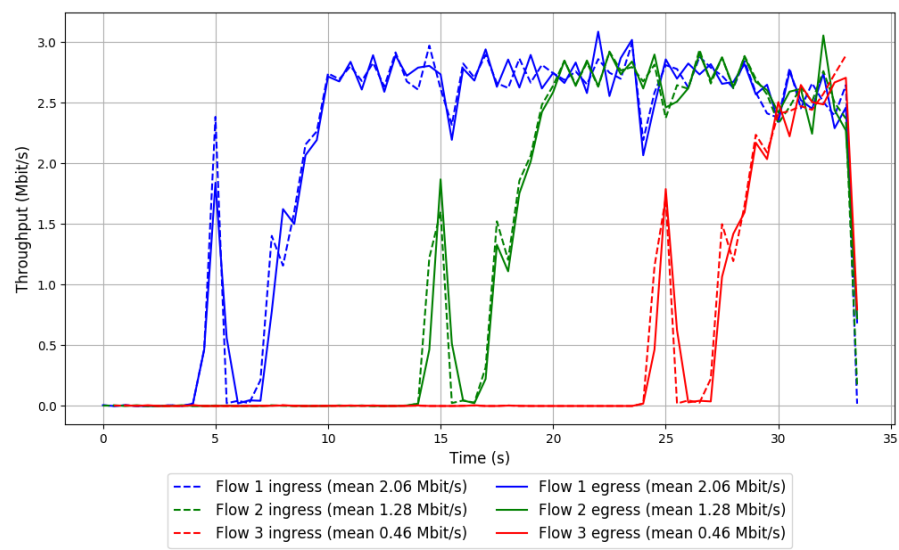
-- Flow 3:

Average throughput: 0.46 Mbit/s

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

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2017-12-20 16:26:41

End at: 2017-12-20 16:27:11

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 112.370 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 112.196 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 112.418 ms

Loss rate: 0.00%

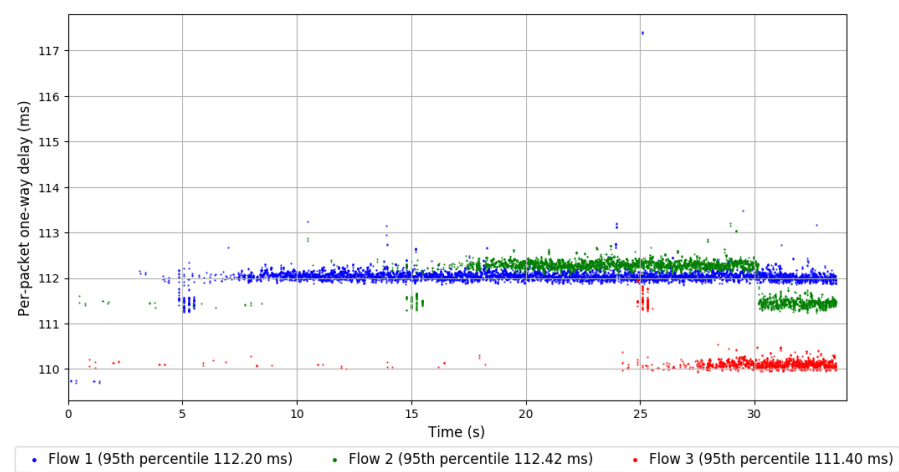
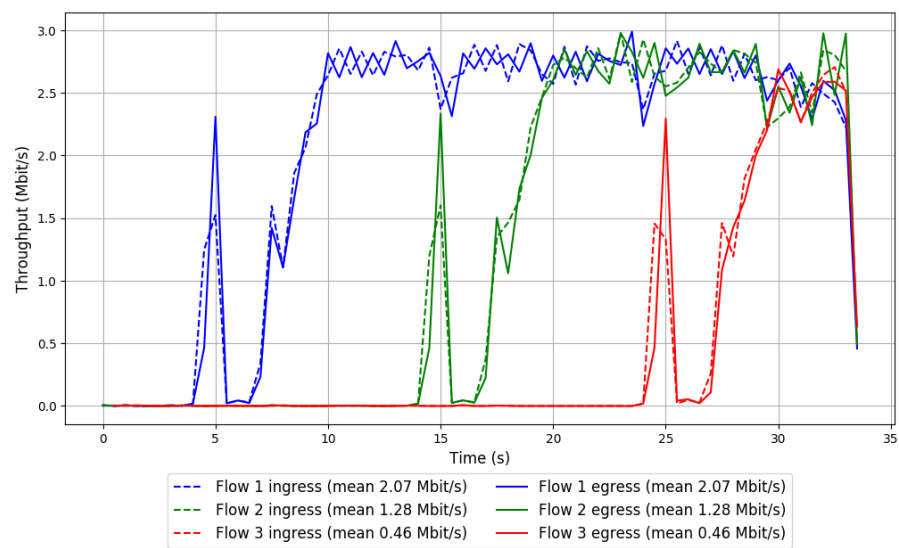
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 111.402 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2017-12-20 16:41:47

End at: 2017-12-20 16:42:17

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.76 Mbit/s

95th percentile per-packet one-way delay: 114.391 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 112.381 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

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

Loss rate: 0.00%

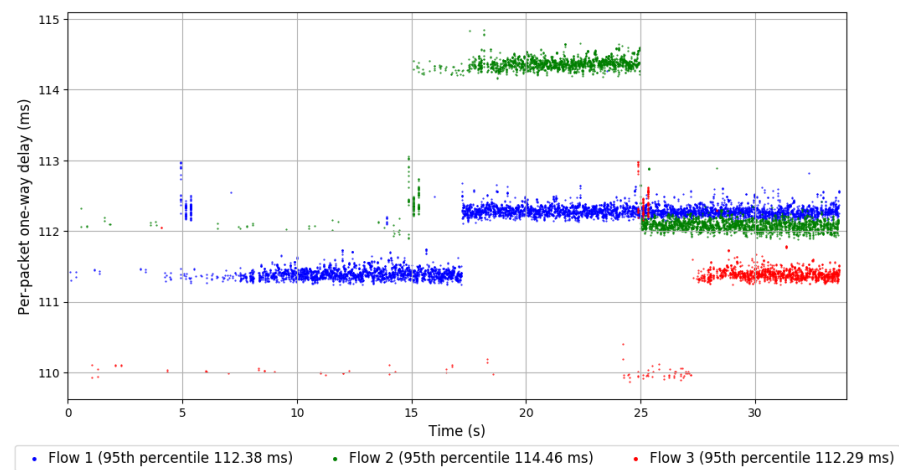
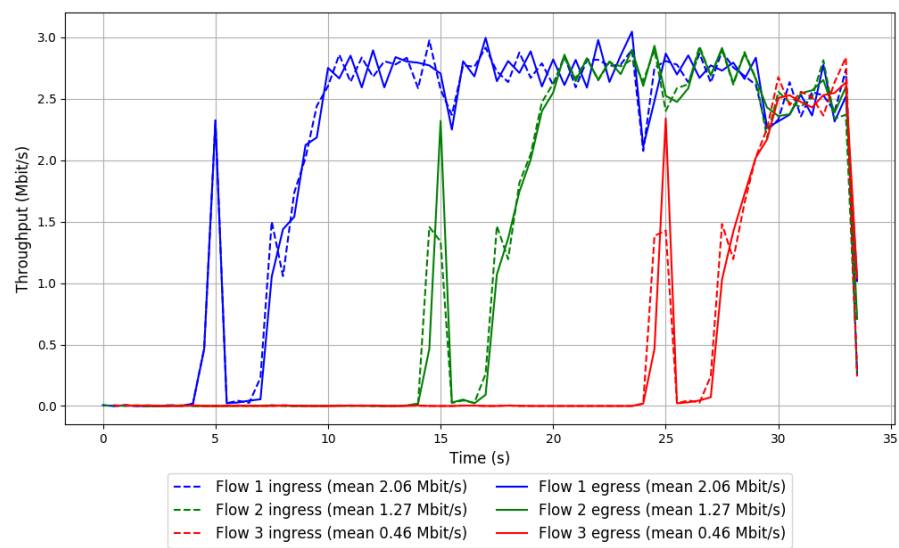
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 112.292 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2017-12-20 16:56:42

End at: 2017-12-20 16:57:12

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 112.244 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 110.571 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 110.371 ms

Loss rate: 0.00%

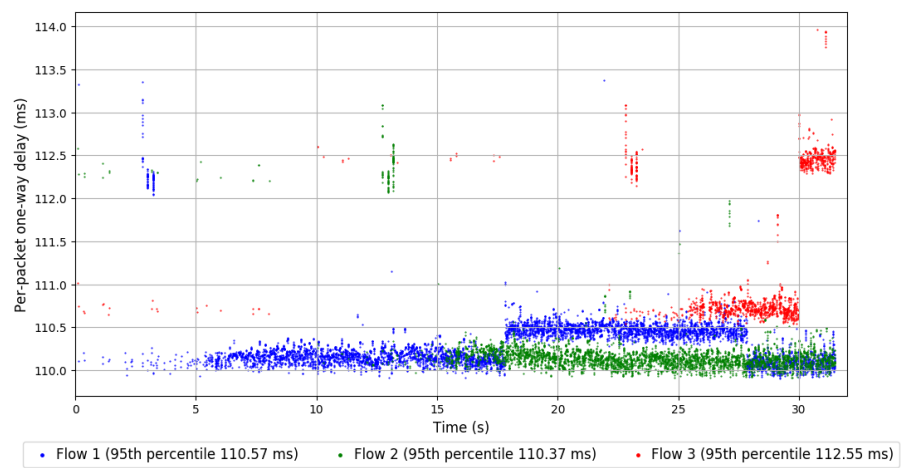
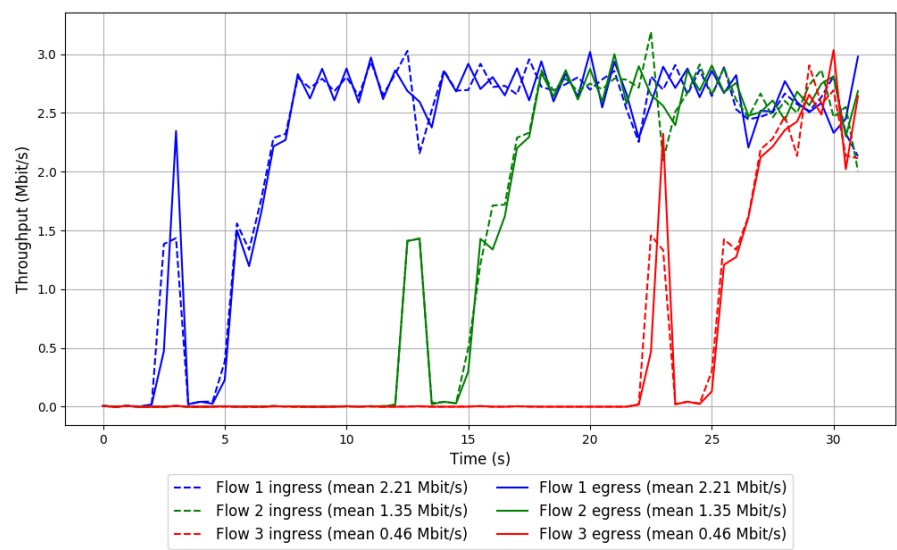
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 112.547 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2017-12-20 17:12:12

End at: 2017-12-20 17:12:42

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 112.462 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 112.488 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 112.401 ms

Loss rate: 0.00%

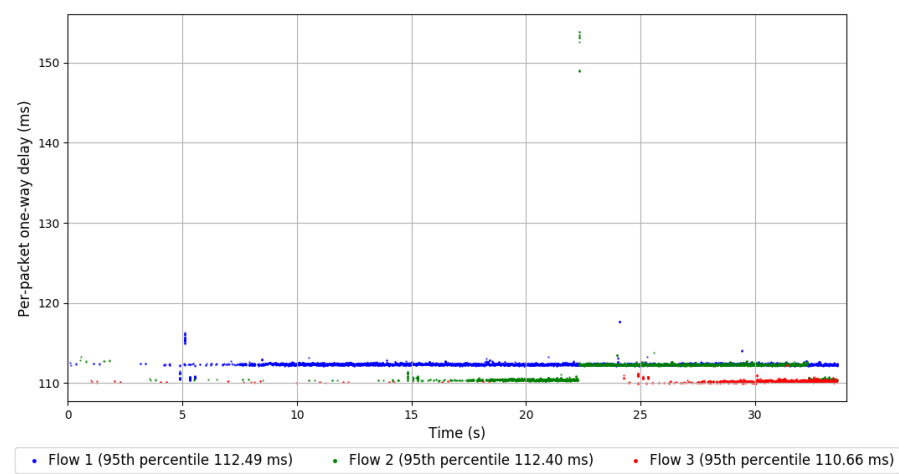
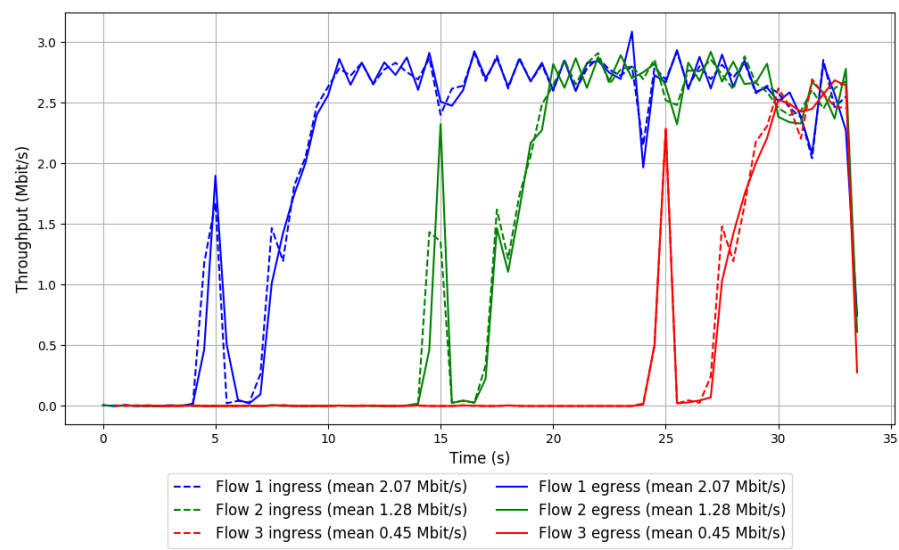
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 110.659 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2017-12-20 17:27:52

End at: 2017-12-20 17:28:22

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 112.483 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 112.461 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 110.739 ms

Loss rate: 0.00%

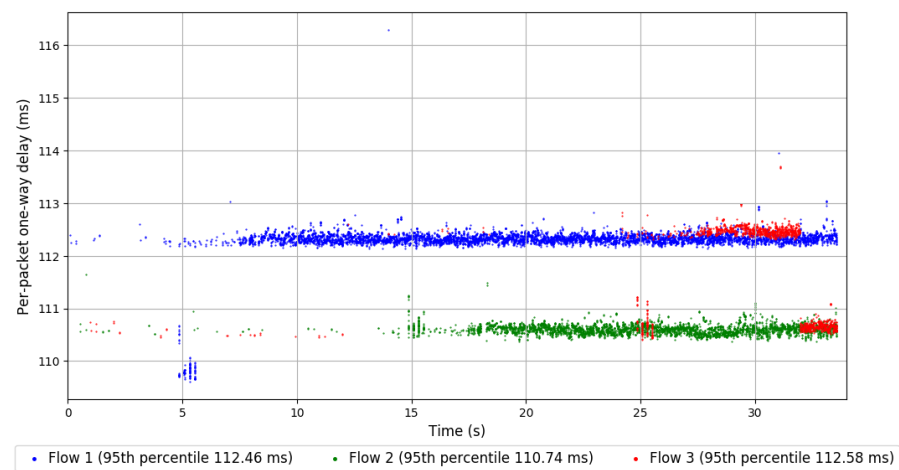
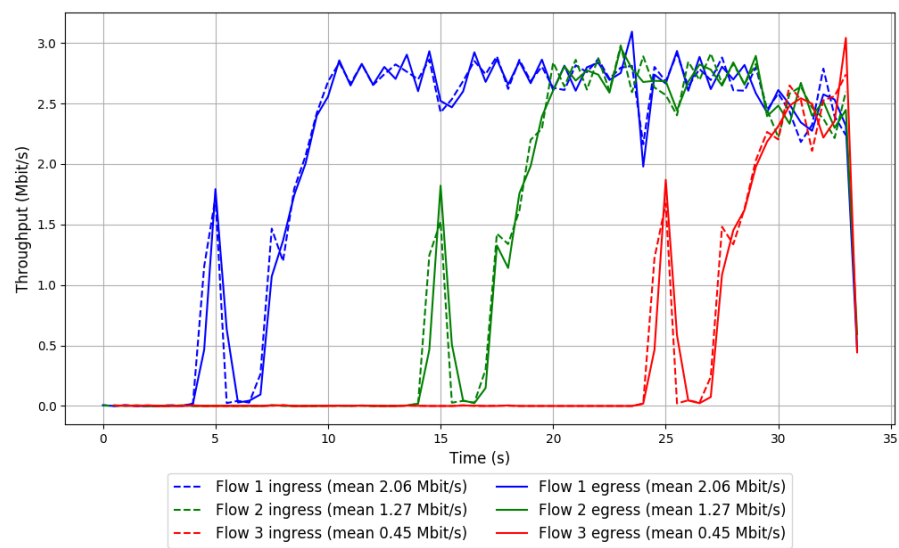
-- Flow 3:

Average throughput: 0.45 Mbit/s

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

Loss rate: 0.07%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2017-12-20 17:43:02

End at: 2017-12-20 17:43:32

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

95th percentile per-packet one-way delay: 111.580 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 111.613 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

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

Loss rate: 0.00%

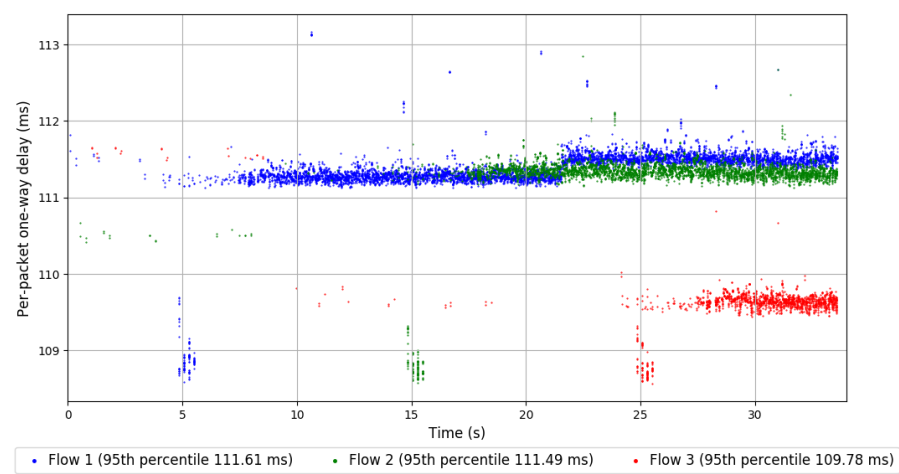
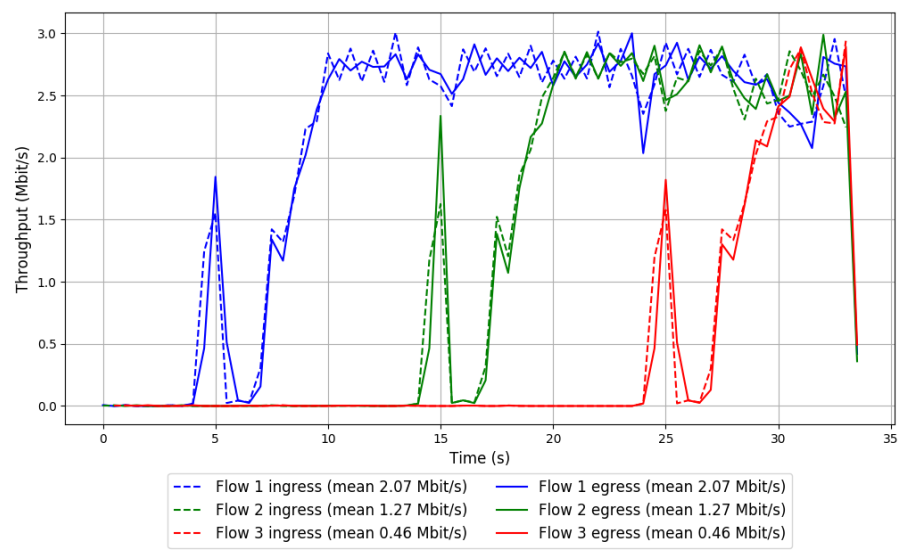
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 109.783 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2017-12-20 17:58:12

End at: 2017-12-20 17:58:42

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.76 Mbit/s

95th percentile per-packet one-way delay: 112.294 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 110.815 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 112.336 ms

Loss rate: 0.00%

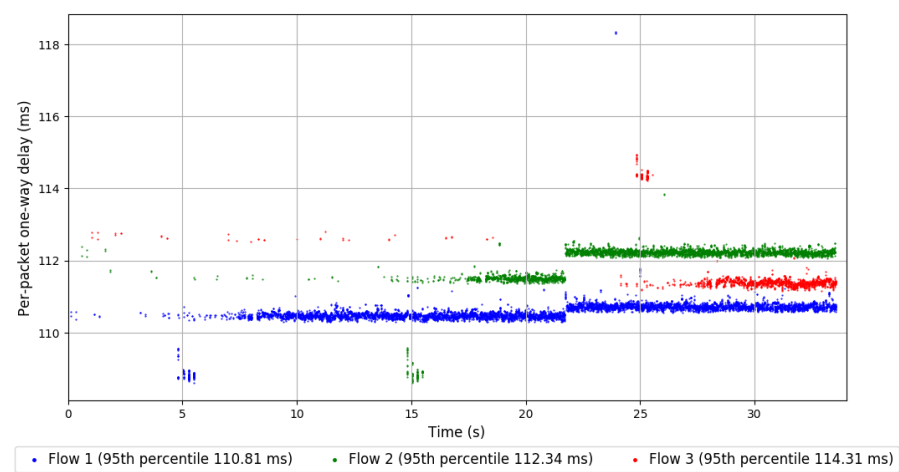
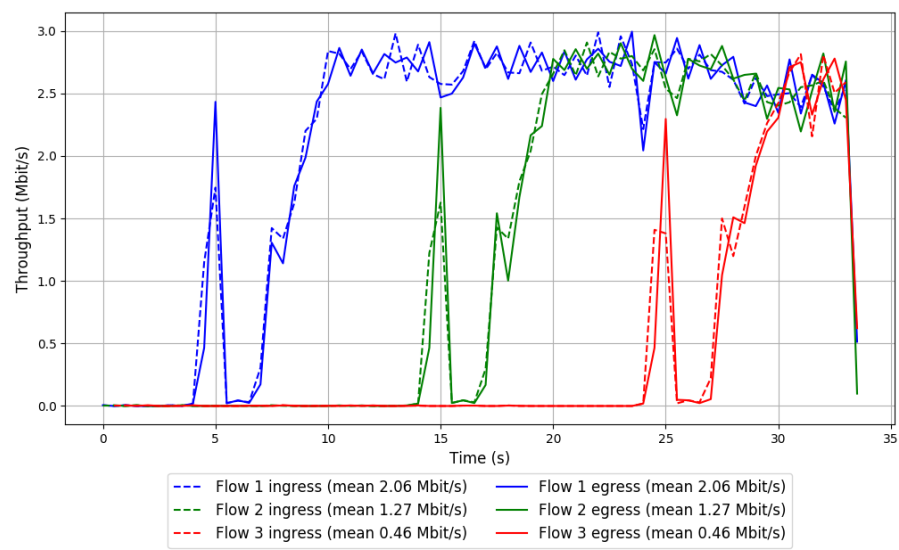
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 114.313 ms

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2017-12-20 18:13:23

End at: 2017-12-20 18:13:53

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.77 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 110.637 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 112.881 ms

Loss rate: 0.00%

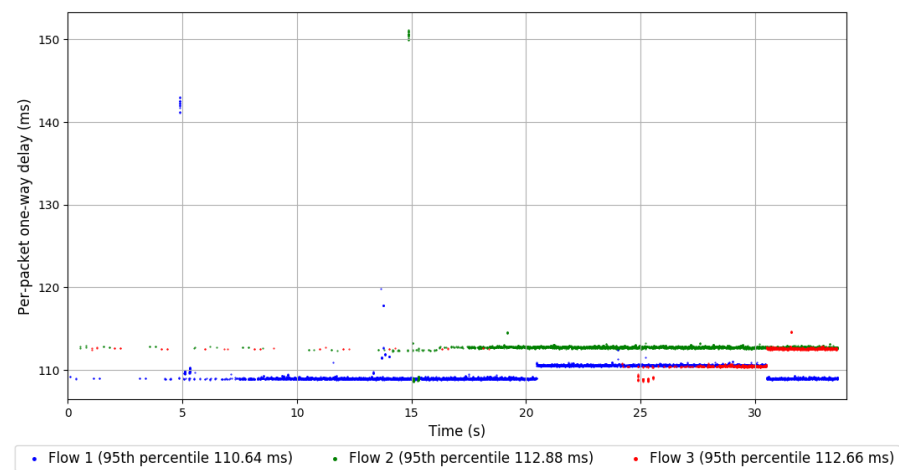
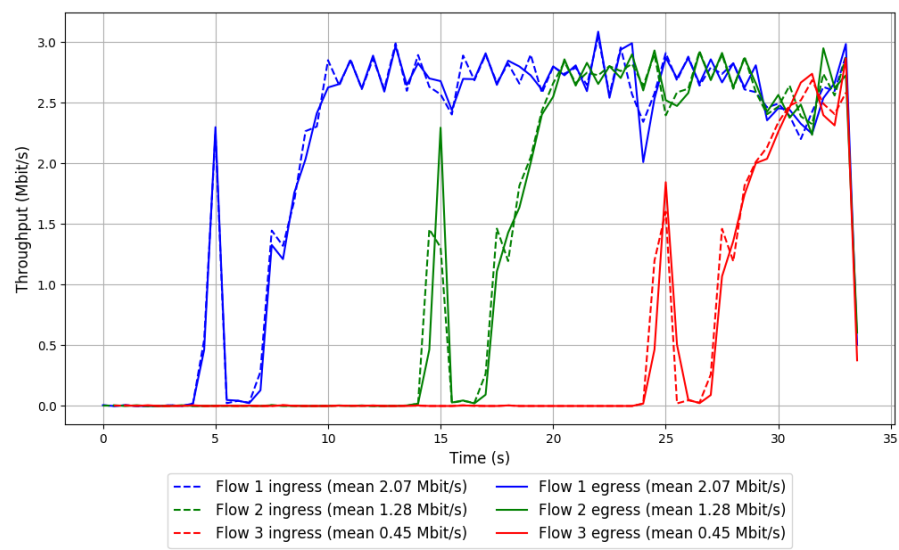
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 112.663 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

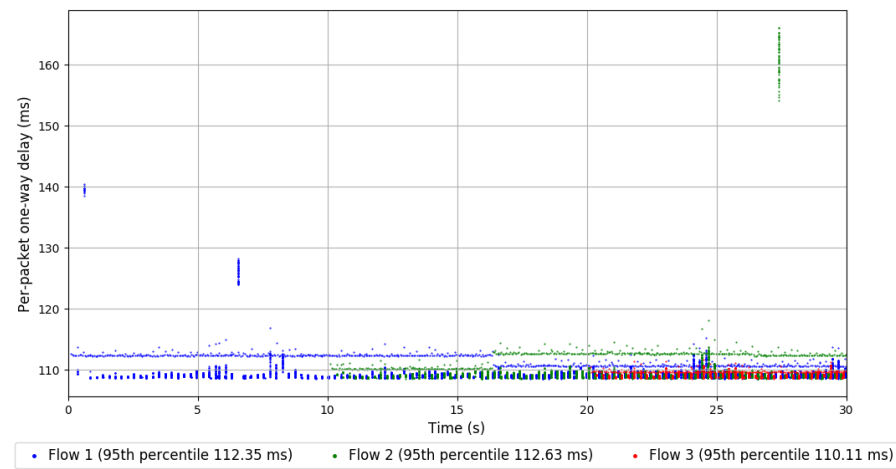
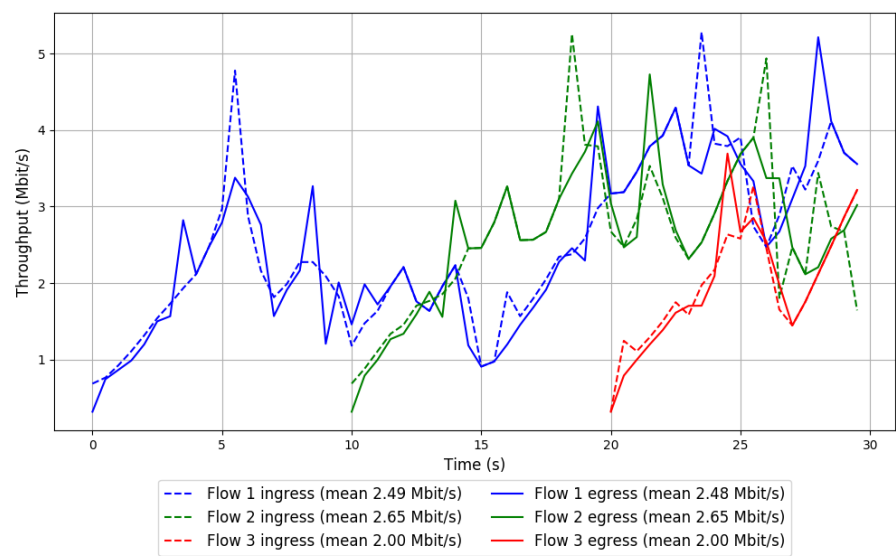


```
Run 1: Statistics of Sprout

Start at: 2017-12-20 15:44:02
End at: 2017-12-20 15:44:32

# Below is generated by plot.py at 2017-12-20 20:06:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.90 Mbit/s
95th percentile per-packet one-way delay: 112.359 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 2.48 Mbit/s
95th percentile per-packet one-way delay: 112.352 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 112.626 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 2.00 Mbit/s
95th percentile per-packet one-way delay: 110.115 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2017-12-20 15:59:45

End at: 2017-12-20 16:00:15

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.97 Mbit/s

95th percentile per-packet one-way delay: 112.385 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 2.53 Mbit/s

95th percentile per-packet one-way delay: 112.599 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 112.239 ms

Loss rate: 0.00%

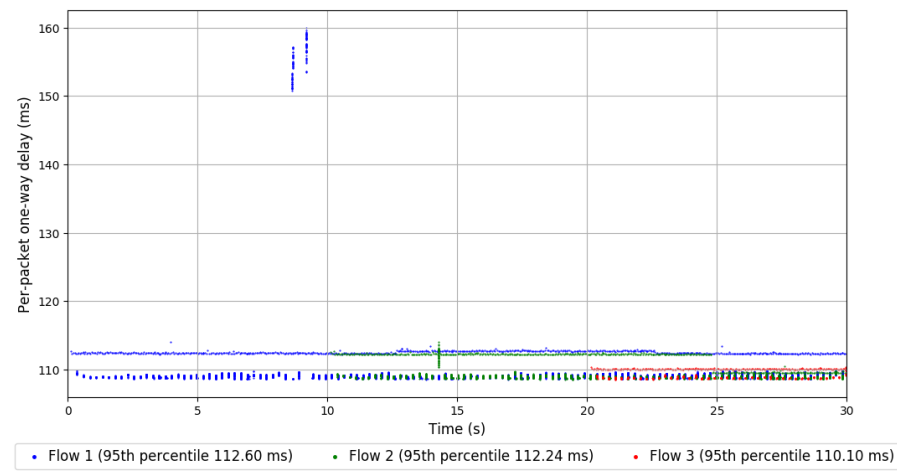
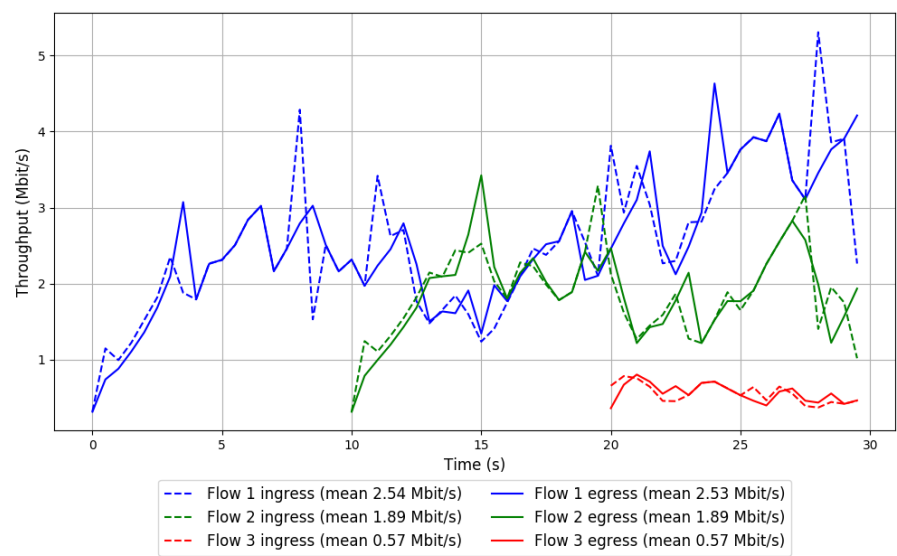
-- Flow 3:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 110.098 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2017-12-20 16:15:24

End at: 2017-12-20 16:15:54

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 112.474 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 113.094 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 112.208 ms

Loss rate: 0.00%

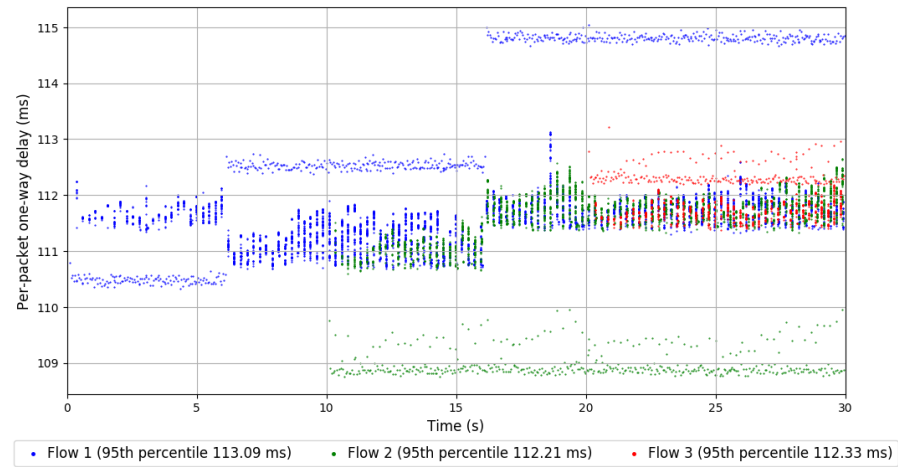
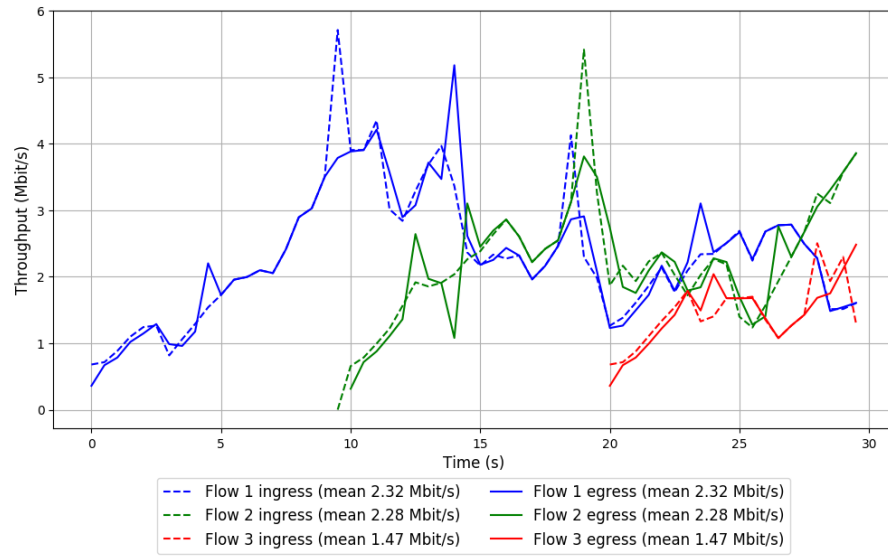
-- Flow 3:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 112.330 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2017-12-20 16:30:38

End at: 2017-12-20 16:31:08

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.86 Mbit/s

95th percentile per-packet one-way delay: 113.442 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.77 Mbit/s

95th percentile per-packet one-way delay: 113.420 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 113.493 ms

Loss rate: 0.00%

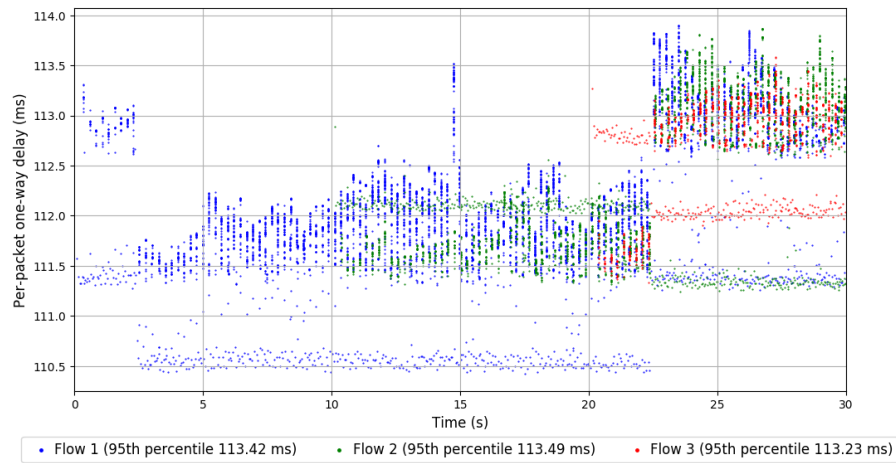
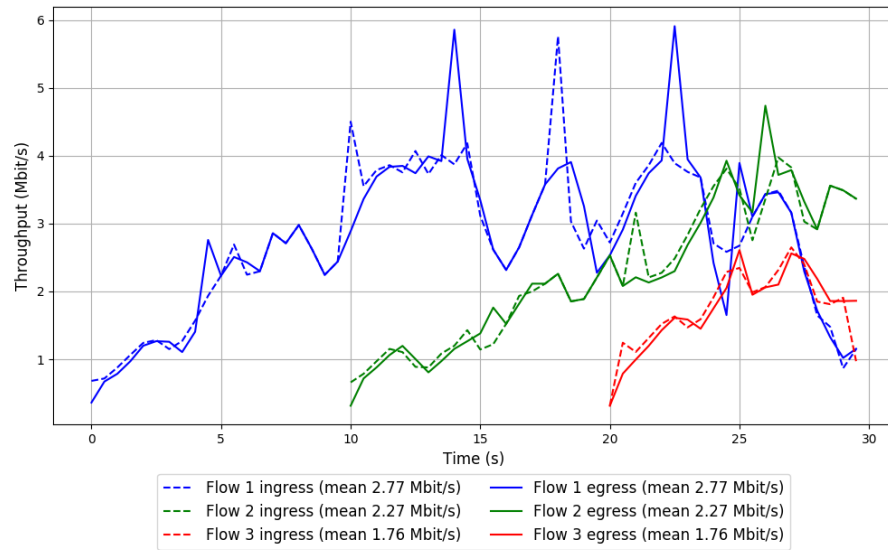
-- Flow 3:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 113.230 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2017-12-20 16:45:45

End at: 2017-12-20 16:46:15

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 113.615 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 114.197 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 113.434 ms

Loss rate: 0.00%

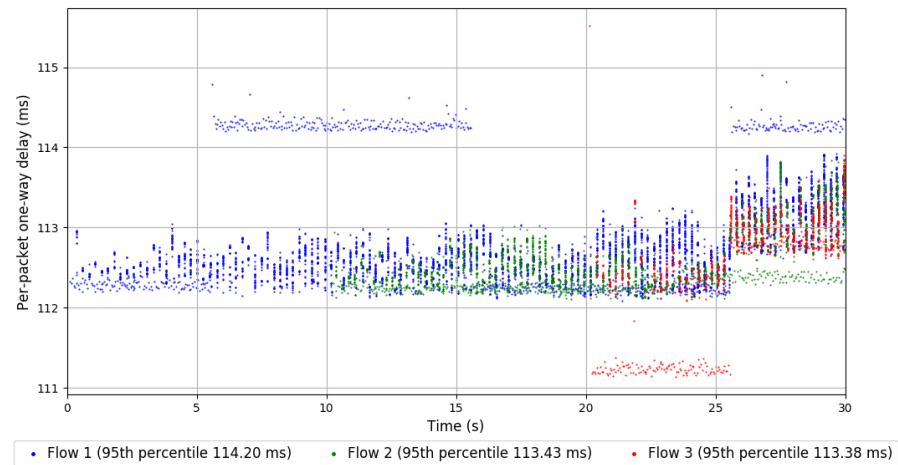
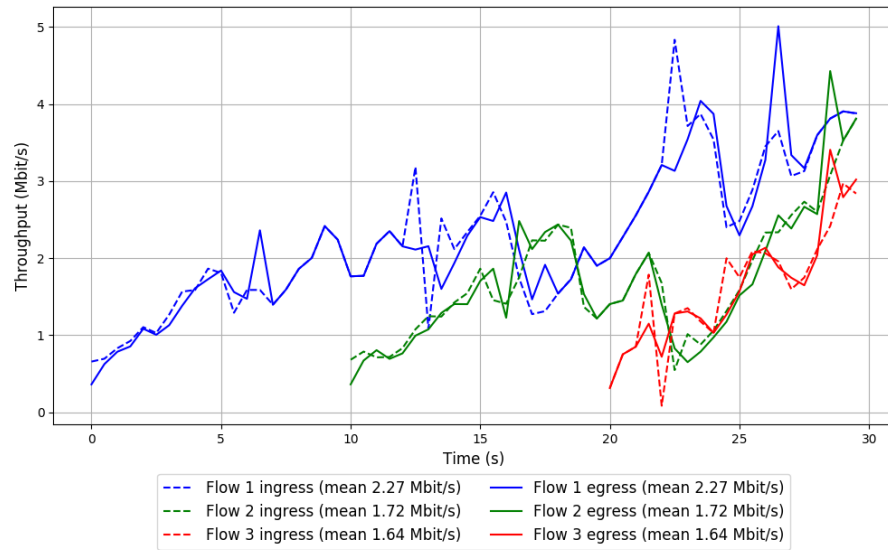
-- Flow 3:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 113.375 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2017-12-20 17:00:54

End at: 2017-12-20 17:01:24

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 112.995 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 113.041 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 1.40 Mbit/s

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

Loss rate: 0.00%

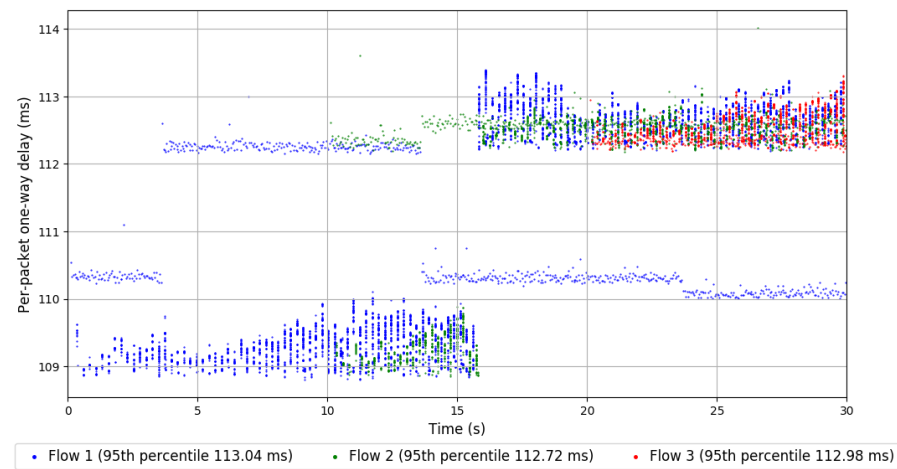
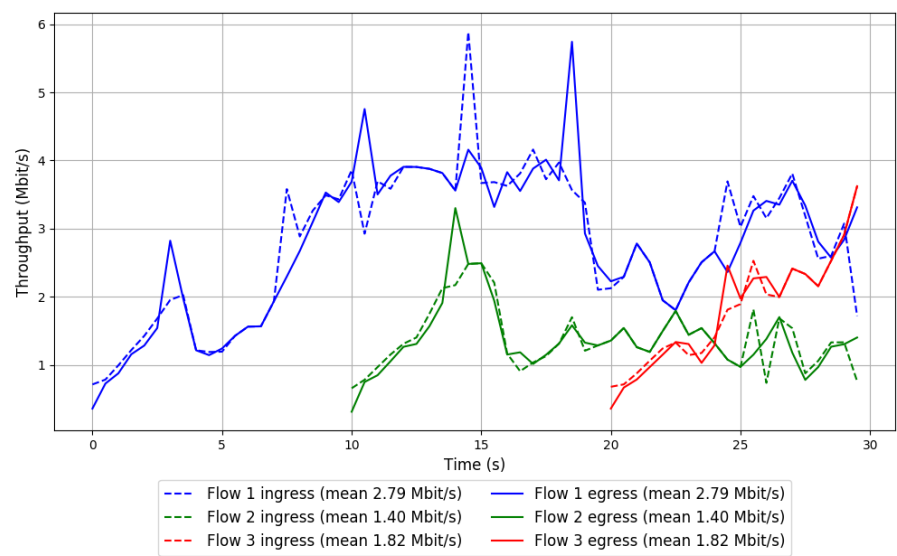
-- Flow 3:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 112.984 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2017-12-20 17:16:18

End at: 2017-12-20 17:16:48

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.21 Mbit/s

95th percentile per-packet one-way delay: 111.524 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 111.346 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 111.748 ms

Loss rate: 2.13%

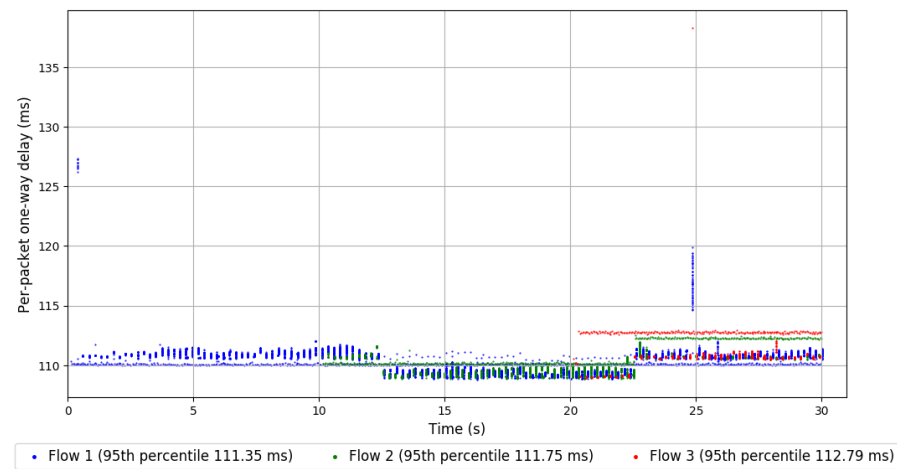
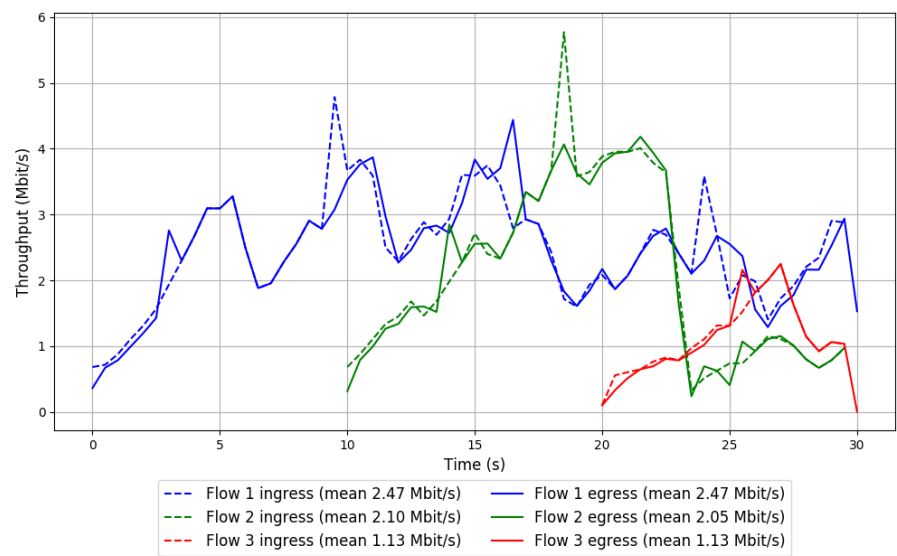
-- Flow 3:

Average throughput: 1.13 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2017-12-20 17:31:51

End at: 2017-12-20 17:32:21

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.42 Mbit/s

95th percentile per-packet one-way delay: 112.280 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 112.356 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.88 Mbit/s

95th percentile per-packet one-way delay: 111.726 ms

Loss rate: 0.00%

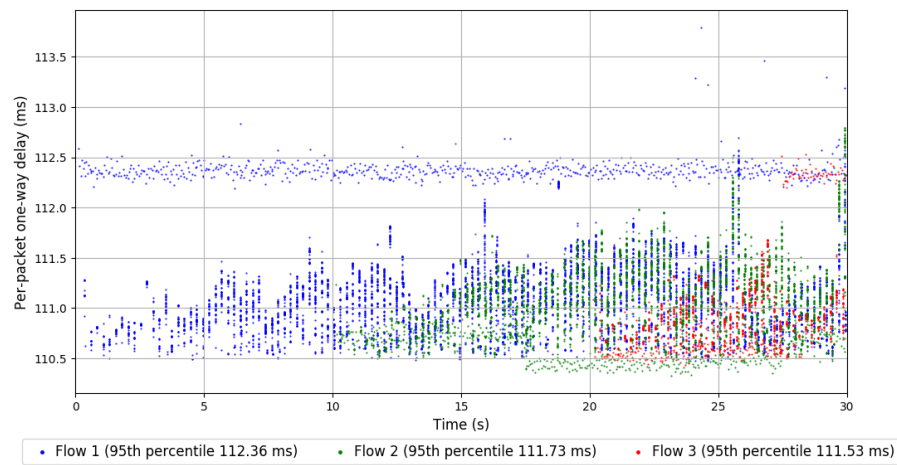
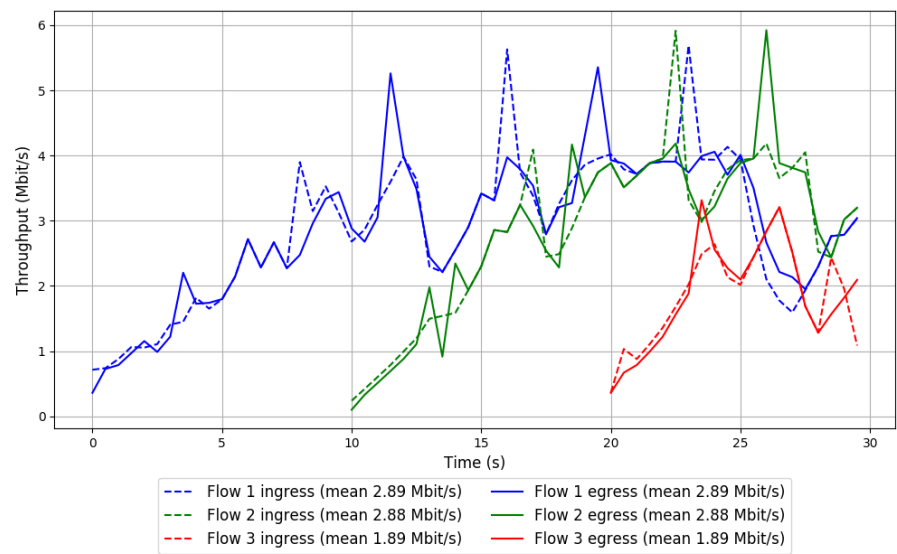
-- Flow 3:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 111.532 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2017-12-20 17:47:01

End at: 2017-12-20 17:47:31

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.83 Mbit/s

95th percentile per-packet one-way delay: 110.503 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 110.246 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 111.402 ms

Loss rate: 0.00%

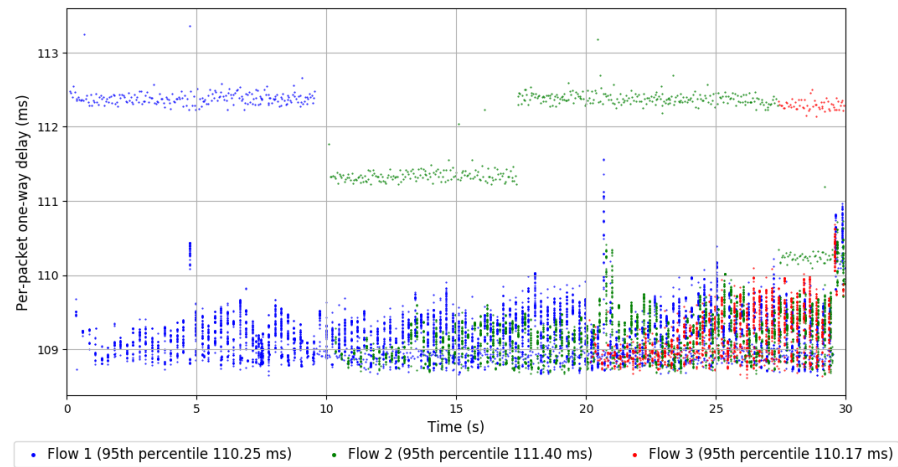
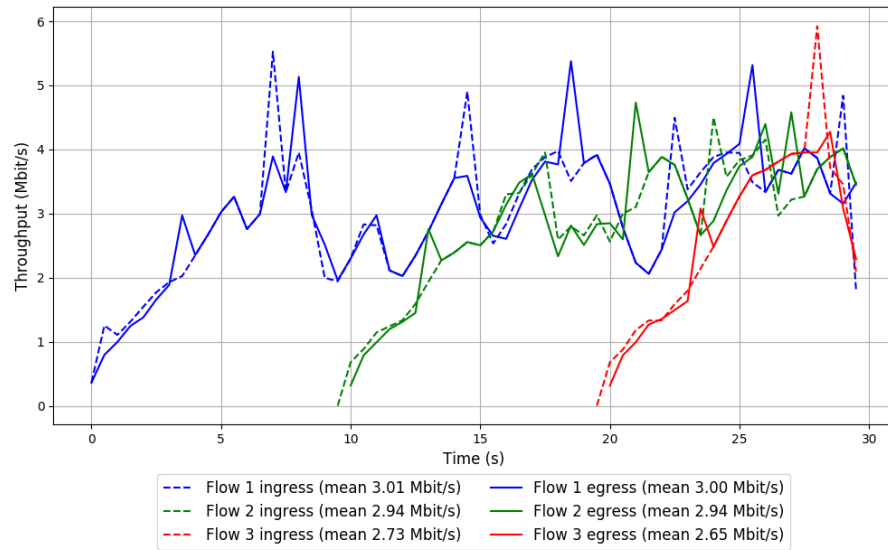
-- Flow 3:

Average throughput: 2.65 Mbit/s

95th percentile per-packet one-way delay: 110.165 ms

Loss rate: 2.96%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2017-12-20 18:02:22

End at: 2017-12-20 18:02:52

Below is generated by plot.py at 2017-12-20 20:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 115.131 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 2.43 Mbit/s

95th percentile per-packet one-way delay: 115.092 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 115.266 ms

Loss rate: 1.72%

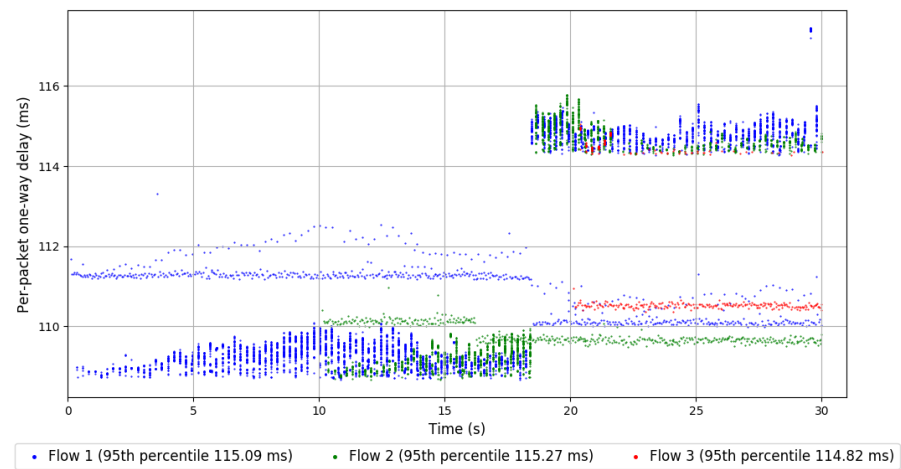
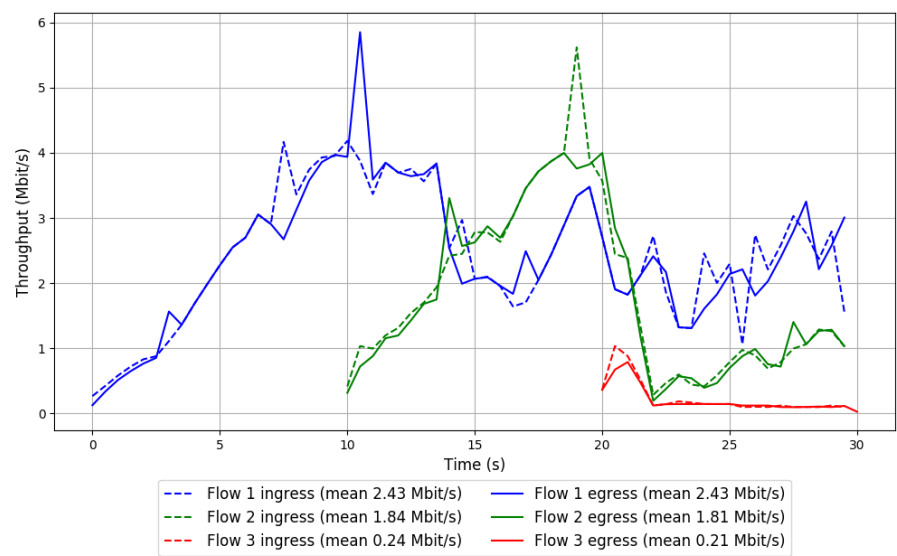
-- Flow 3:

Average throughput: 0.21 Mbit/s

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

Loss rate: 10.51%

Run 10: Report of Sprout — Data Link

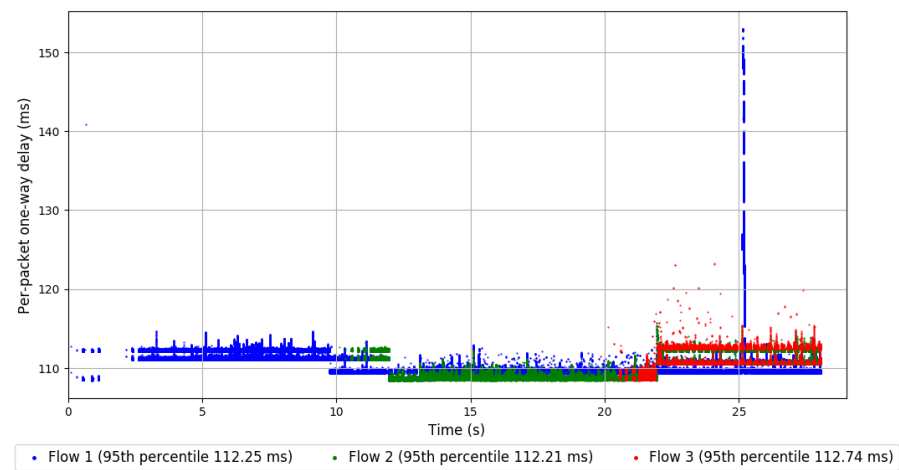
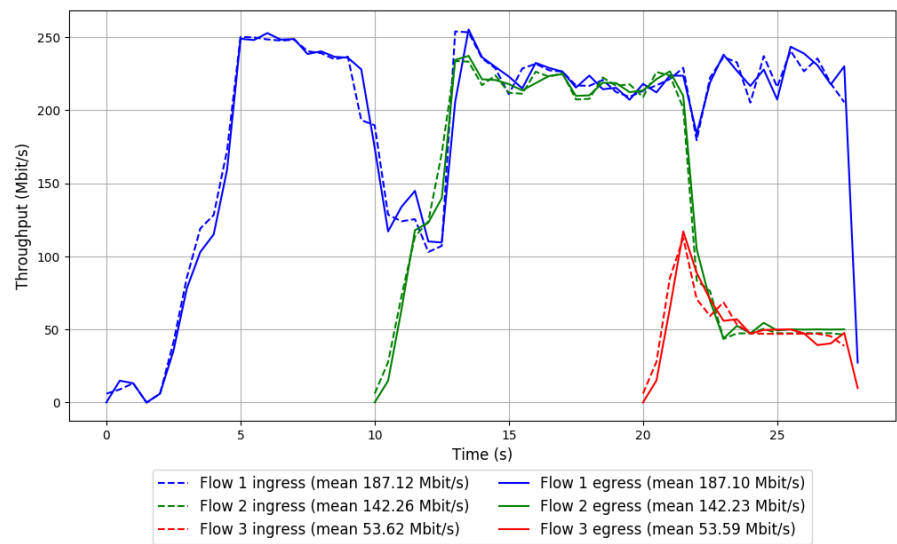


```
Run 1: Statistics of TaoVA-100x

Start at: 2017-12-20 15:52:16
End at: 2017-12-20 15:52:46

# Below is generated by plot.py at 2017-12-20 20:08:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 293.30 Mbit/s
95th percentile per-packet one-way delay: 112.285 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 187.10 Mbit/s
95th percentile per-packet one-way delay: 112.252 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 142.23 Mbit/s
95th percentile per-packet one-way delay: 112.211 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 53.59 Mbit/s
95th percentile per-packet one-way delay: 112.737 ms
Loss rate: 0.00%
```


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

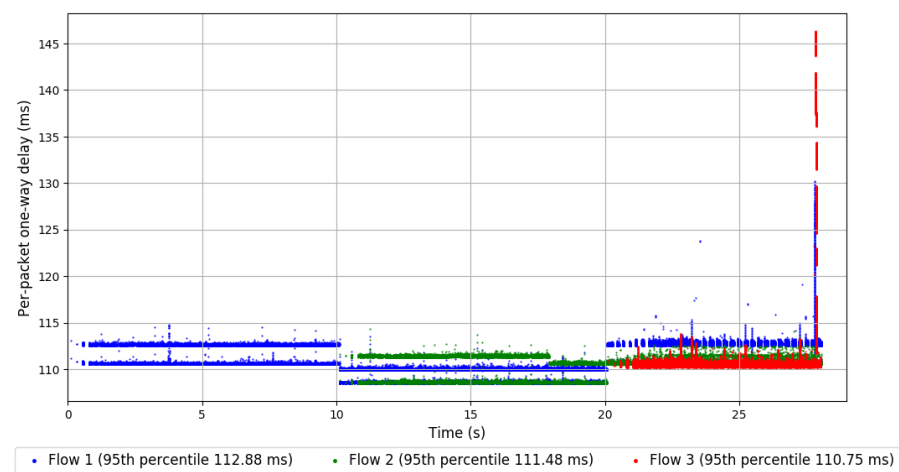
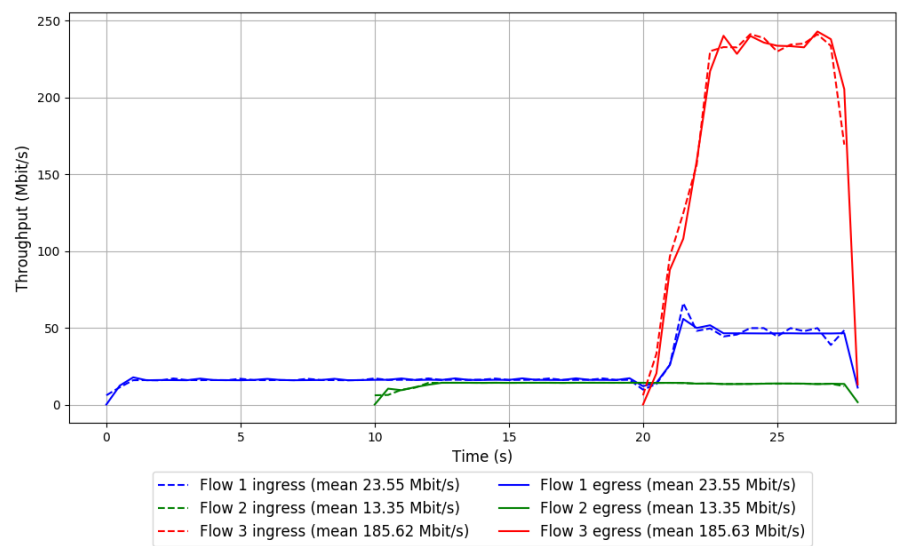


```
Run 2: Statistics of TaoVA-100x

Start at: 2017-12-20 16:08:08
End at: 2017-12-20 16:08:38

# Below is generated by plot.py at 2017-12-20 20:08:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.60 Mbit/s
95th percentile per-packet one-way delay: 112.703 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.55 Mbit/s
95th percentile per-packet one-way delay: 112.875 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 13.35 Mbit/s
95th percentile per-packet one-way delay: 111.476 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 185.63 Mbit/s
95th percentile per-packet one-way delay: 110.753 ms
Loss rate: 0.00%
```

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

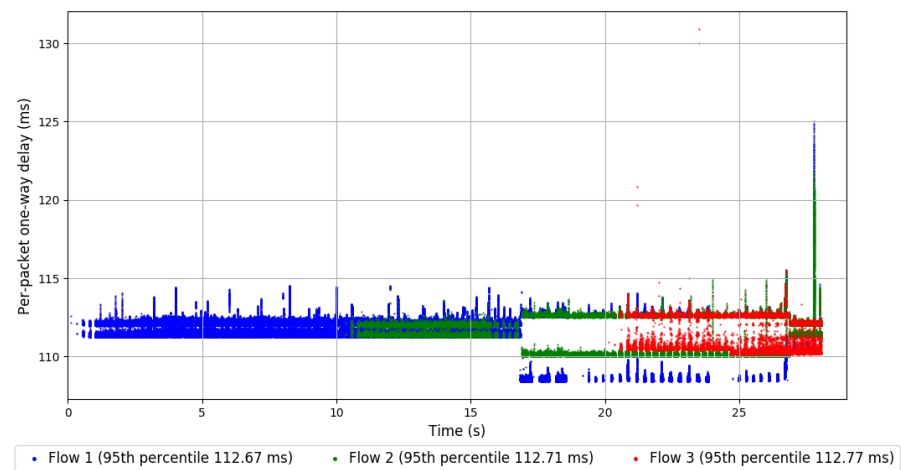
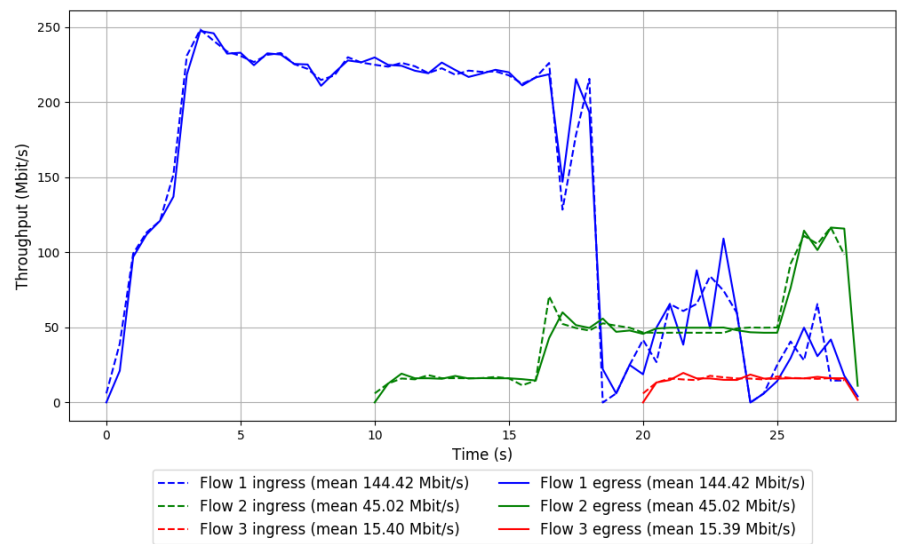


```
Run 3: Statistics of TaoVA-100x

Start at: 2017-12-20 16:23:31
End at: 2017-12-20 16:24:01

# Below is generated by plot.py at 2017-12-20 20:08:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 177.48 Mbit/s
95th percentile per-packet one-way delay: 112.681 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 144.42 Mbit/s
95th percentile per-packet one-way delay: 112.667 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 45.02 Mbit/s
95th percentile per-packet one-way delay: 112.713 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.39 Mbit/s
95th percentile per-packet one-way delay: 112.767 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2017-12-20 16:38:51

End at: 2017-12-20 16:39:21

Below is generated by plot.py at 2017-12-20 20:08:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.23 Mbit/s

95th percentile per-packet one-way delay: 112.769 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.64 Mbit/s

95th percentile per-packet one-way delay: 112.755 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.05 Mbit/s

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

Loss rate: 0.00%

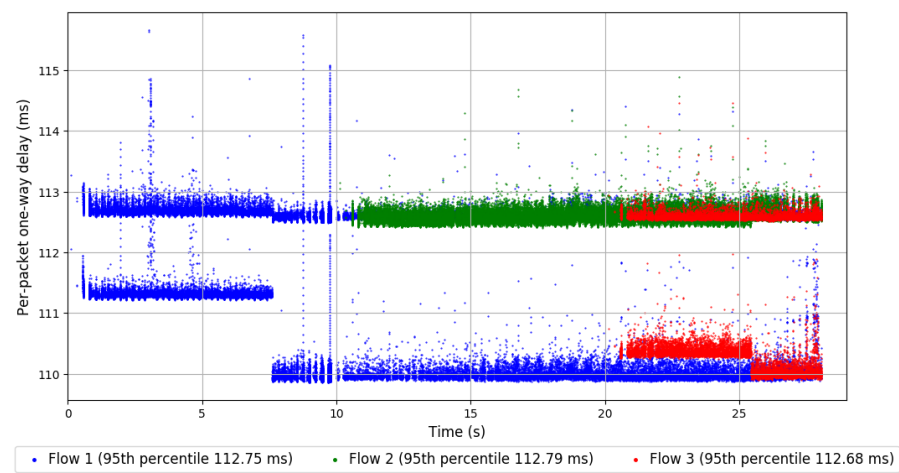
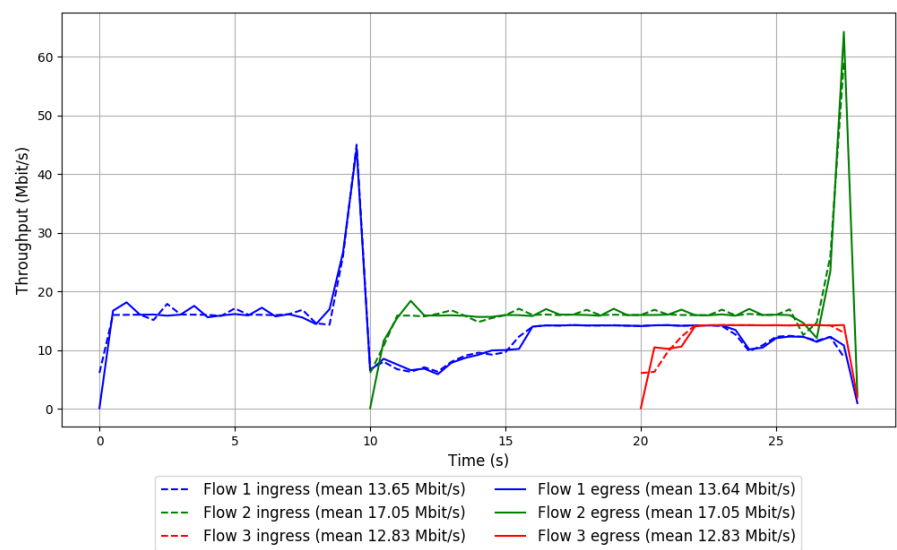
-- Flow 3:

Average throughput: 12.83 Mbit/s

95th percentile per-packet one-way delay: 112.682 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2017-12-20 16:53:29

End at: 2017-12-20 16:53:59

Below is generated by plot.py at 2017-12-20 20:08:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 200.88 Mbit/s

95th percentile per-packet one-way delay: 112.303 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 129.04 Mbit/s

95th percentile per-packet one-way delay: 112.284 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 106.22 Mbit/s

95th percentile per-packet one-way delay: 112.338 ms

Loss rate: 0.00%

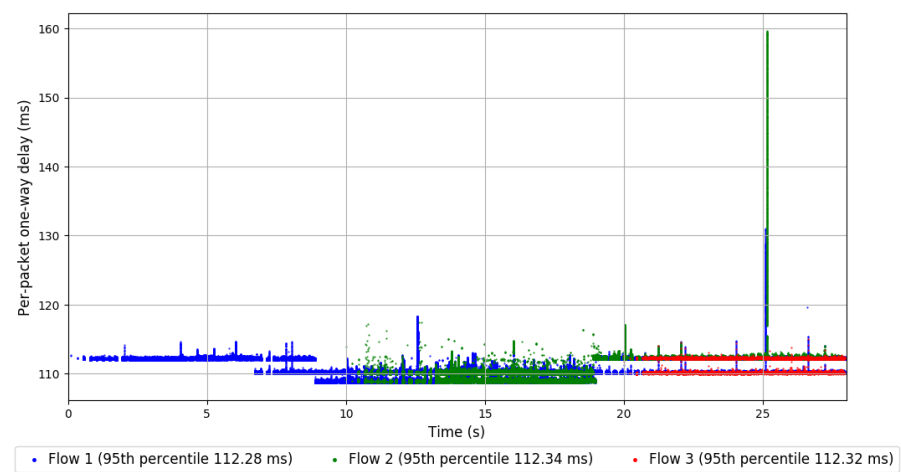
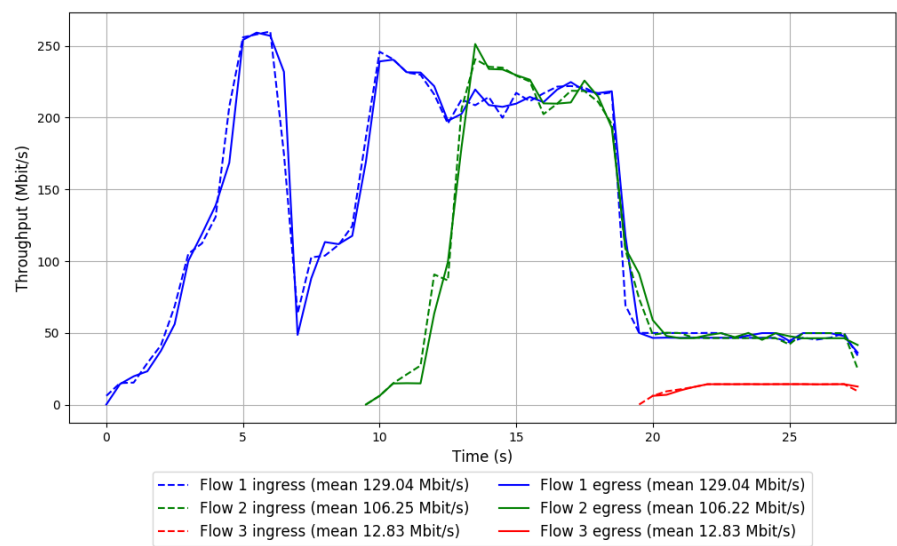
-- Flow 3:

Average throughput: 12.83 Mbit/s

95th percentile per-packet one-way delay: 112.322 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2017-12-20 17:09:06

End at: 2017-12-20 17:09:36

Below is generated by plot.py at 2017-12-20 20:08:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.37 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 16.77 Mbit/s

95th percentile per-packet one-way delay: 112.502 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 152.87 Mbit/s

95th percentile per-packet one-way delay: 112.374 ms

Loss rate: 0.00%

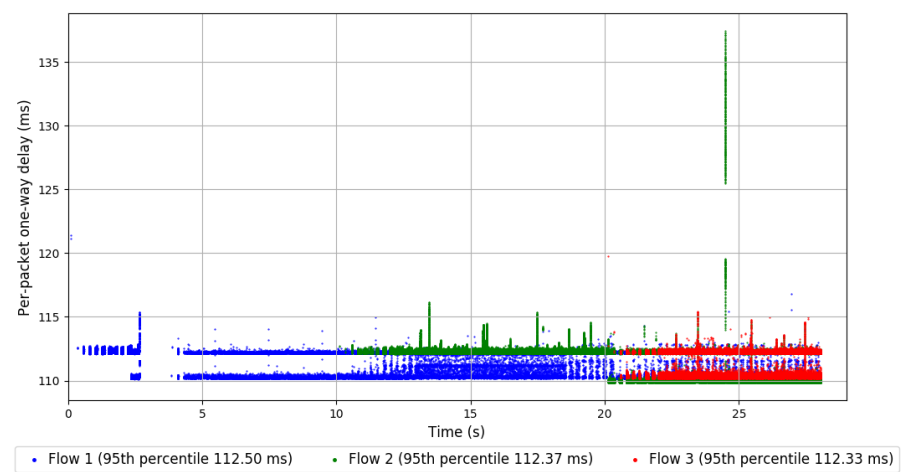
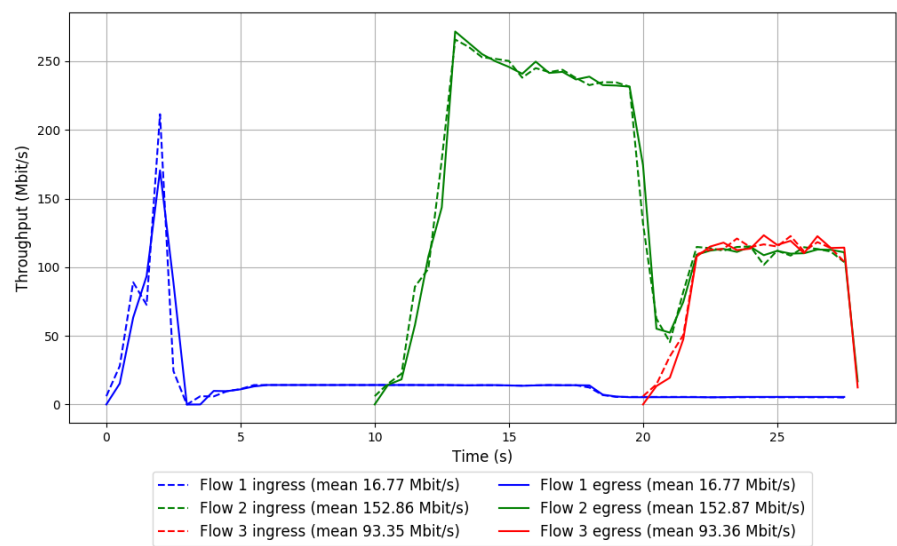
-- Flow 3:

Average throughput: 93.36 Mbit/s

95th percentile per-packet one-way delay: 112.334 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2017-12-20 17:24:33

End at: 2017-12-20 17:25:03

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.85 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 115.23 Mbit/s

95th percentile per-packet one-way delay: 111.692 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 214.94 Mbit/s

95th percentile per-packet one-way delay: 111.116 ms

Loss rate: 0.00%

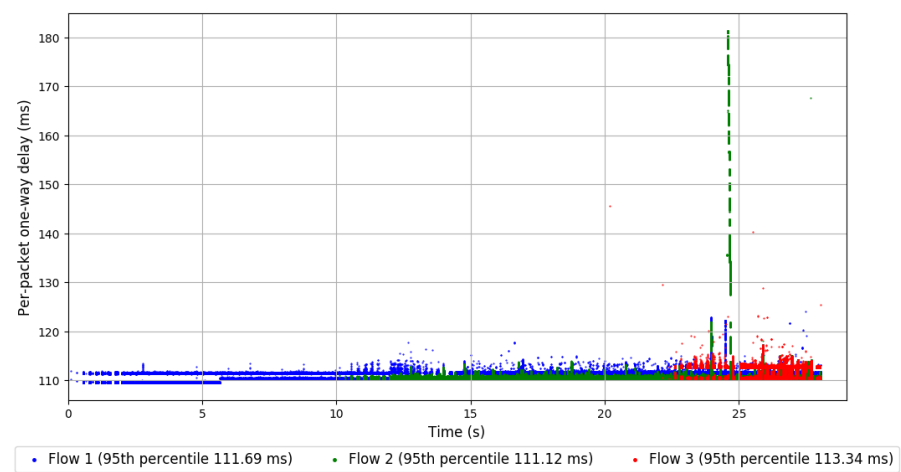
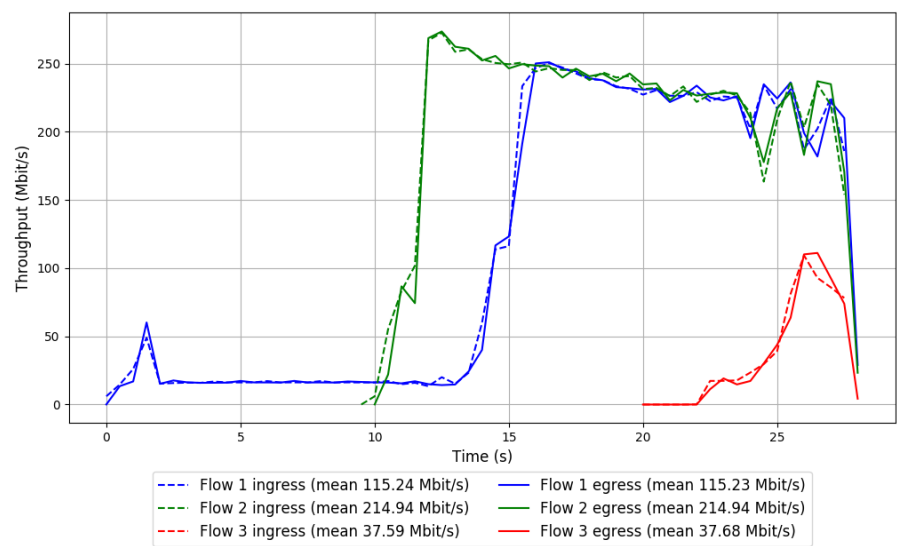
-- Flow 3:

Average throughput: 37.68 Mbit/s

95th percentile per-packet one-way delay: 113.345 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2017-12-20 17:40:03

End at: 2017-12-20 17:40:33

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.13 Mbit/s

95th percentile per-packet one-way delay: 112.715 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 42.22 Mbit/s

95th percentile per-packet one-way delay: 112.315 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 31.21 Mbit/s

95th percentile per-packet one-way delay: 112.787 ms

Loss rate: 0.02%

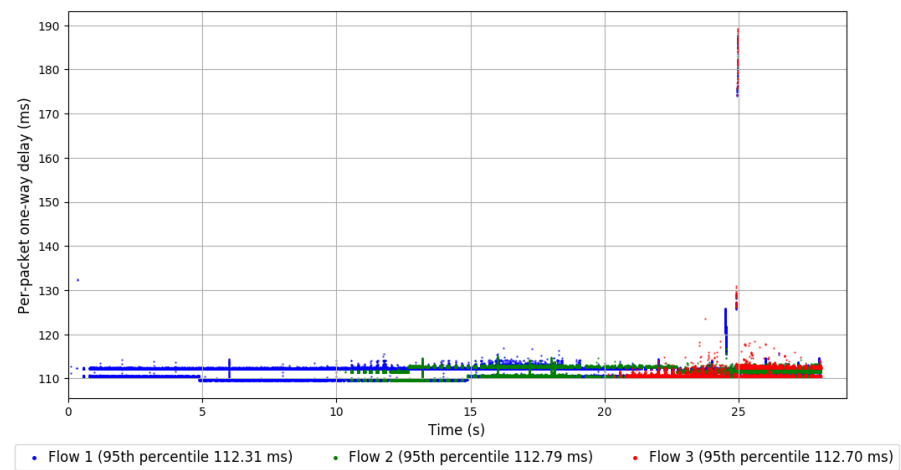
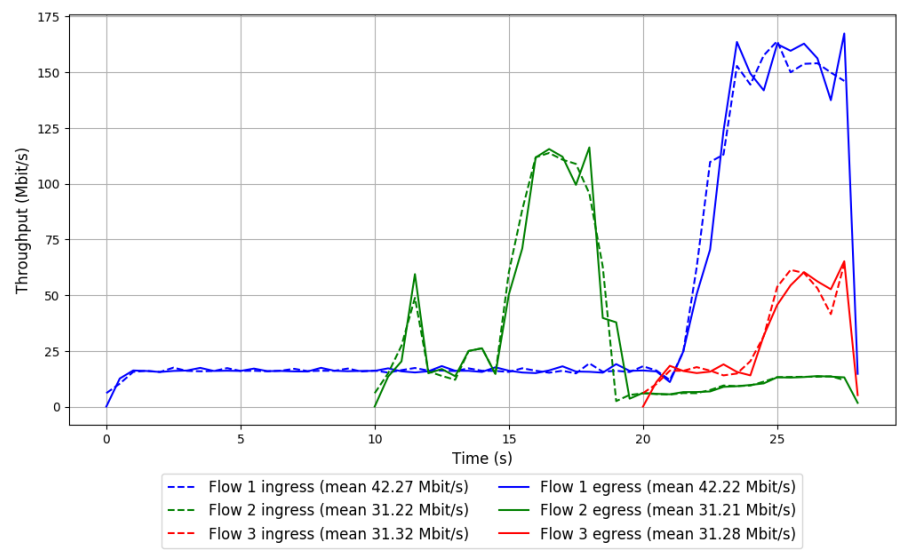
-- Flow 3:

Average throughput: 31.28 Mbit/s

95th percentile per-packet one-way delay: 112.699 ms

Loss rate: 0.13%

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



Run 9: Statistics of TaoVA-100x

Start at: 2017-12-20 17:55:13

End at: 2017-12-20 17:55:43

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 79.97 Mbit/s

95th percentile per-packet one-way delay: 114.345 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 160.54 Mbit/s

95th percentile per-packet one-way delay: 114.358 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 12.07 Mbit/s

95th percentile per-packet one-way delay: 114.289 ms

Loss rate: 0.00%

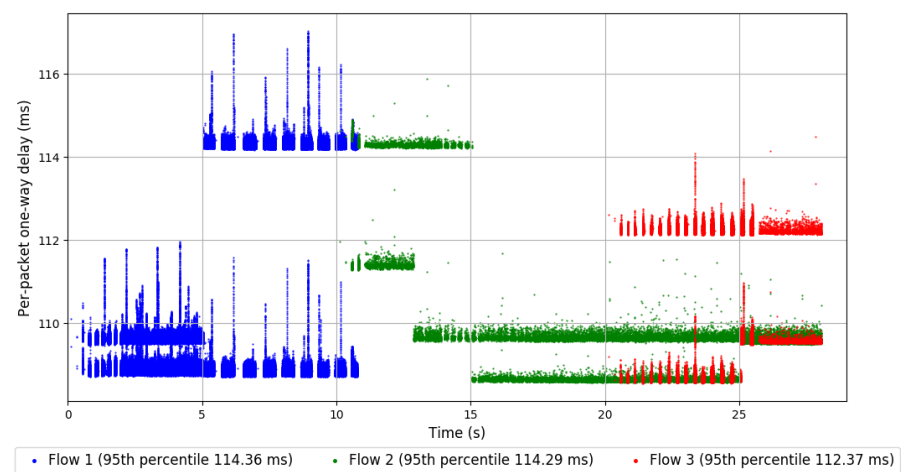
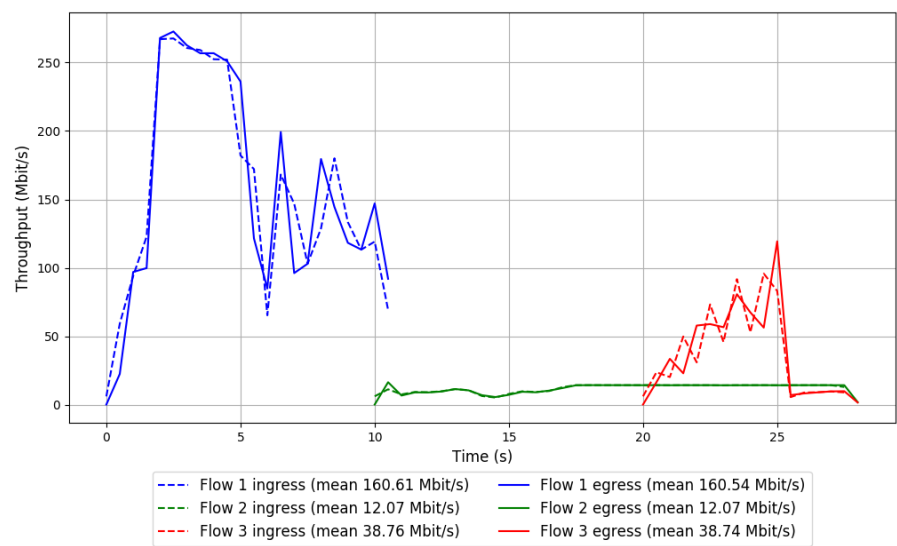
-- Flow 3:

Average throughput: 38.74 Mbit/s

95th percentile per-packet one-way delay: 112.372 ms

Loss rate: 0.00%

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

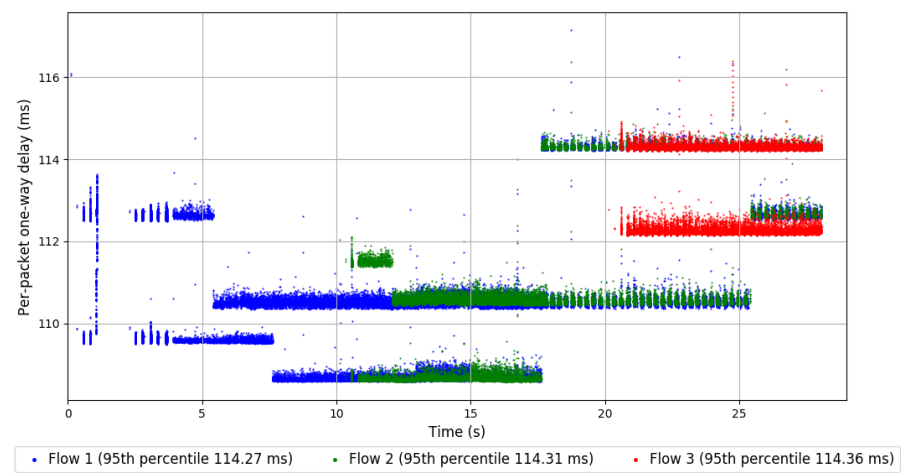
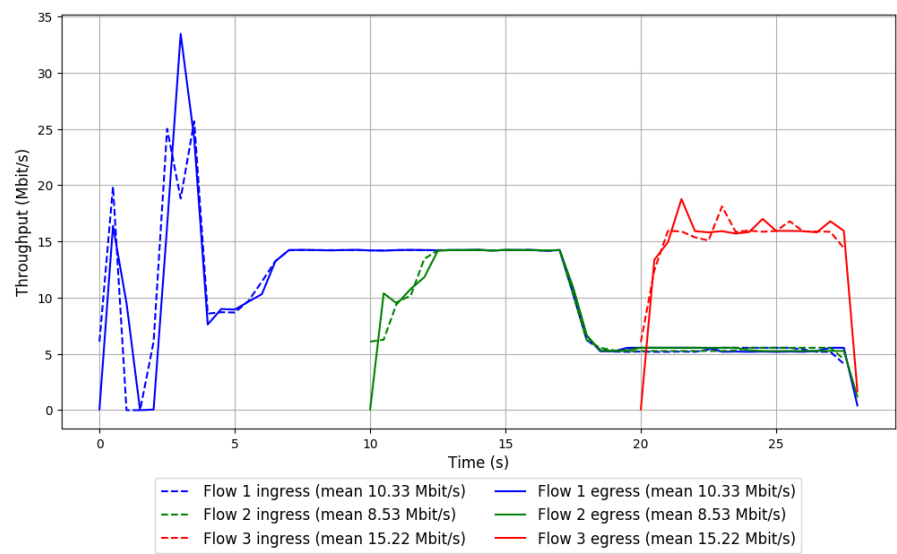


```
Run 10: Statistics of TaoVA-100x

Start at: 2017-12-20 18:10:31
End at: 2017-12-20 18:11:01

# Below is generated by plot.py at 2017-12-20 20:09:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 20.12 Mbit/s
95th percentile per-packet one-way delay: 114.311 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 10.33 Mbit/s
95th percentile per-packet one-way delay: 114.271 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 8.53 Mbit/s
95th percentile per-packet one-way delay: 114.305 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 15.22 Mbit/s
95th percentile per-packet one-way delay: 114.364 ms
Loss rate: 0.01%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2017-12-20 15:48:34

End at: 2017-12-20 15:49:04

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.22 Mbit/s

95th percentile per-packet one-way delay: 117.562 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 29.83 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 53.59 Mbit/s

95th percentile per-packet one-way delay: 117.838 ms

Loss rate: 0.00%

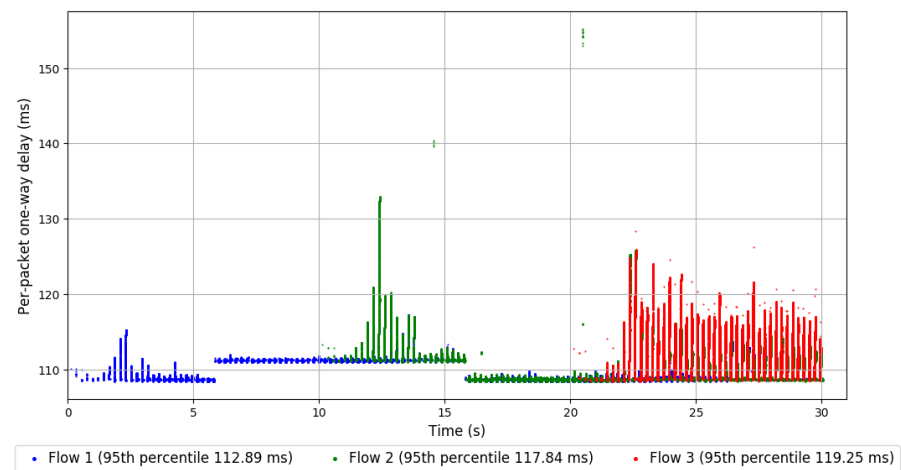
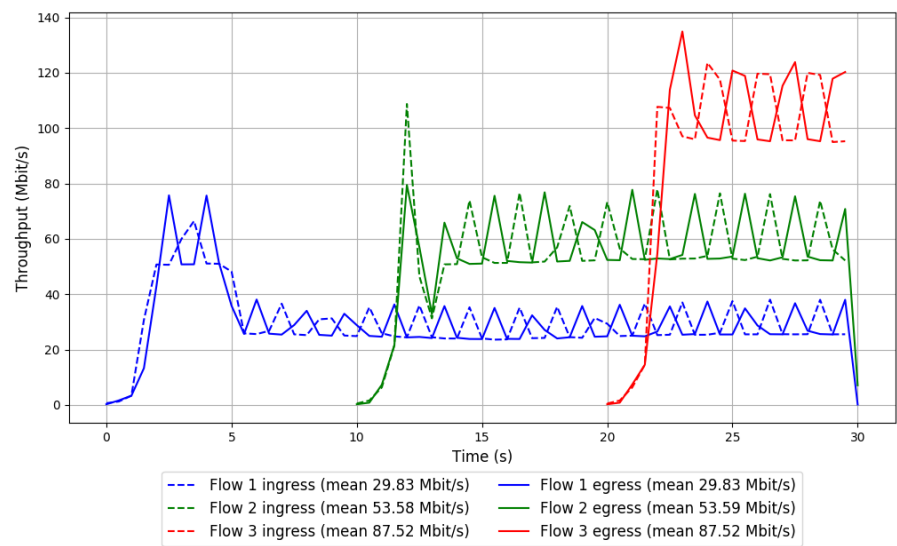
-- Flow 3:

Average throughput: 87.52 Mbit/s

95th percentile per-packet one-way delay: 119.254 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2017-12-20 16:04:21

End at: 2017-12-20 16:04:51

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.62 Mbit/s

95th percentile per-packet one-way delay: 114.727 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.88 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 64.64 Mbit/s

95th percentile per-packet one-way delay: 114.610 ms

Loss rate: 0.00%

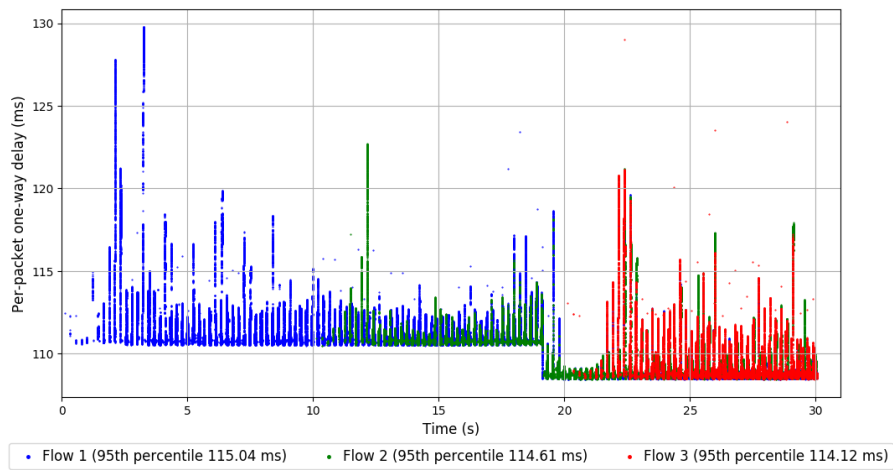
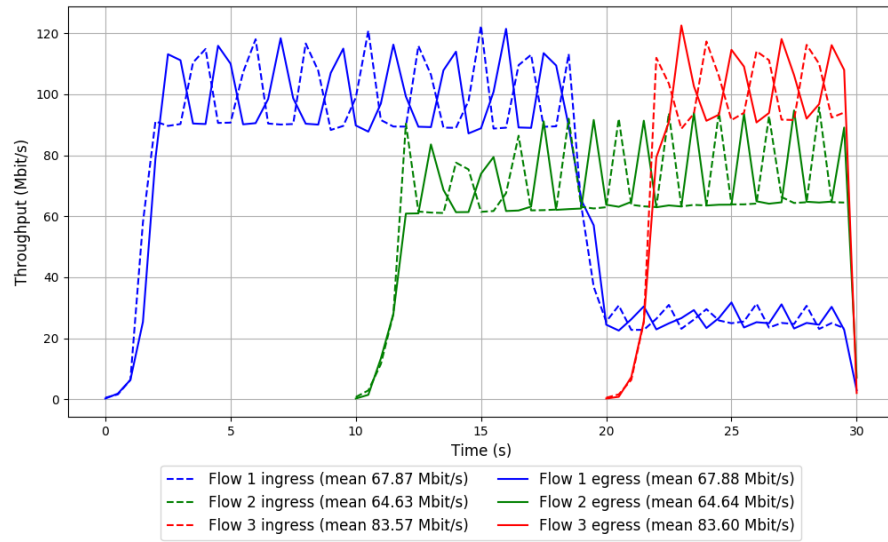
-- Flow 3:

Average throughput: 83.60 Mbit/s

95th percentile per-packet one-way delay: 114.117 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2017-12-20 16:19:47

End at: 2017-12-20 16:20:17

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.13 Mbit/s

95th percentile per-packet one-way delay: 113.372 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 11.22 Mbit/s

95th percentile per-packet one-way delay: 112.099 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 55.81 Mbit/s

95th percentile per-packet one-way delay: 113.689 ms

Loss rate: 0.00%

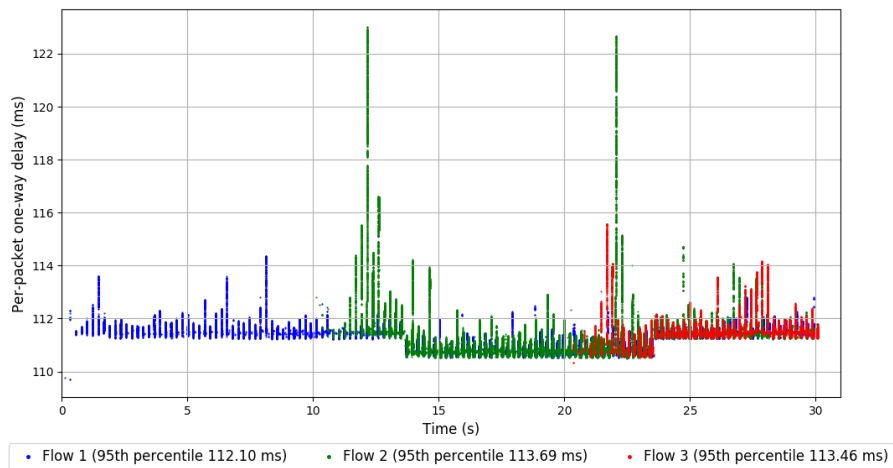
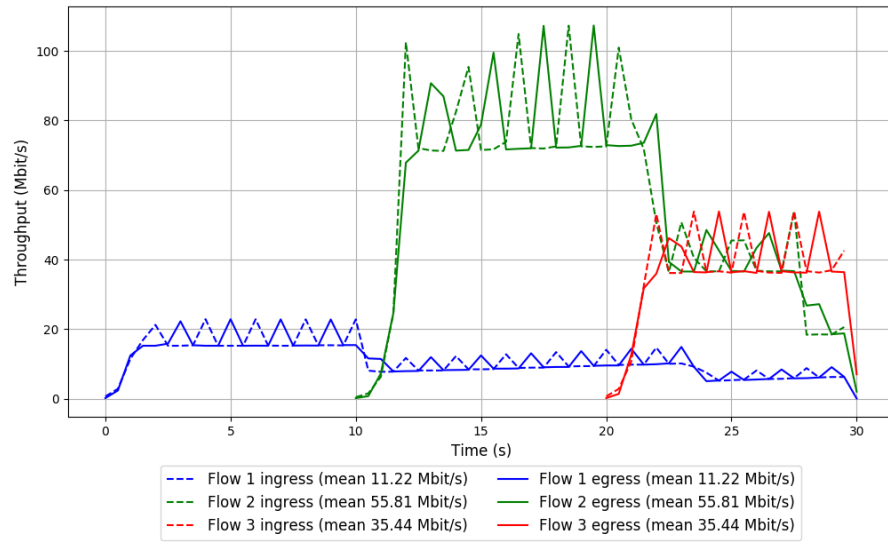
-- Flow 3:

Average throughput: 35.44 Mbit/s

95th percentile per-packet one-way delay: 113.458 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2017-12-20 16:35:10

End at: 2017-12-20 16:35:40

Below is generated by plot.py at 2017-12-20 20:09:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.32 Mbit/s

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

Loss rate: 0.08%

-- Flow 1:

Average throughput: 31.00 Mbit/s

95th percentile per-packet one-way delay: 119.308 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 38.13 Mbit/s

95th percentile per-packet one-way delay: 113.939 ms

Loss rate: 0.00%

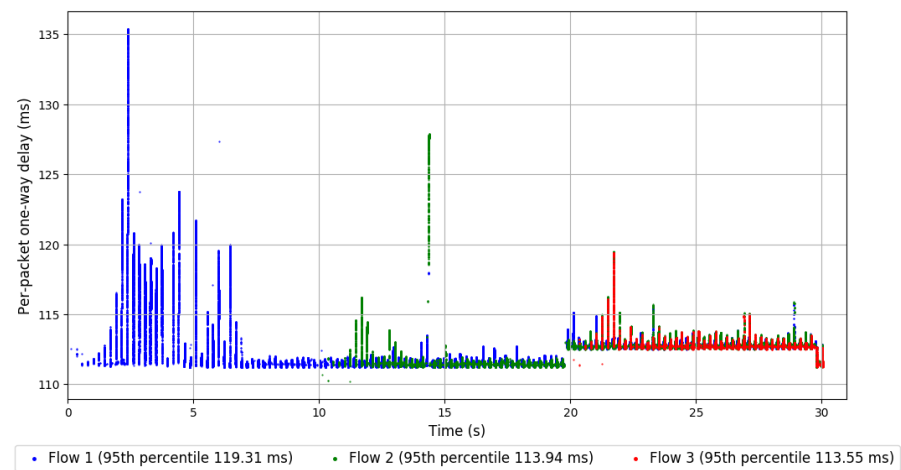
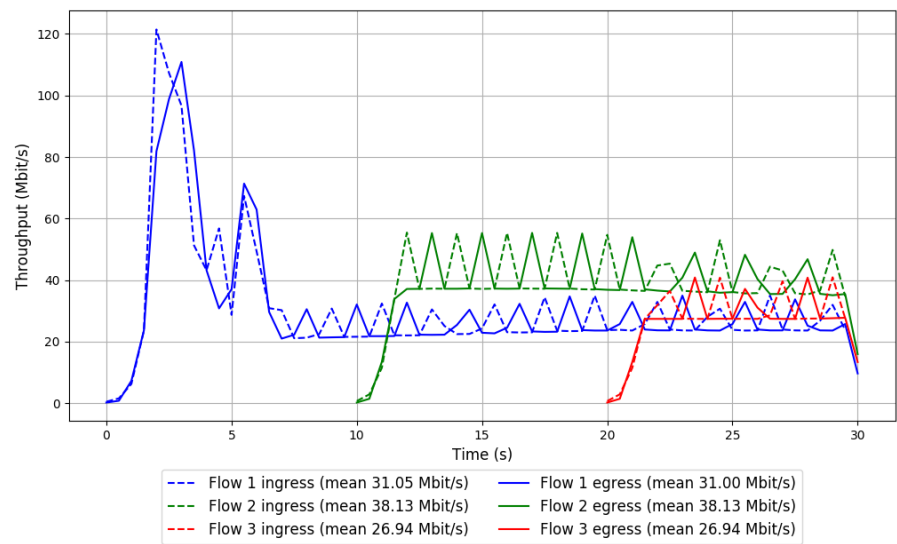
-- Flow 3:

Average throughput: 26.94 Mbit/s

95th percentile per-packet one-way delay: 113.549 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2017-12-20 16:50:12

End at: 2017-12-20 16:50:42

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.06 Mbit/s

95th percentile per-packet one-way delay: 113.241 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 35.05 Mbit/s

95th percentile per-packet one-way delay: 113.083 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 40.17 Mbit/s

95th percentile per-packet one-way delay: 113.420 ms

Loss rate: 0.00%

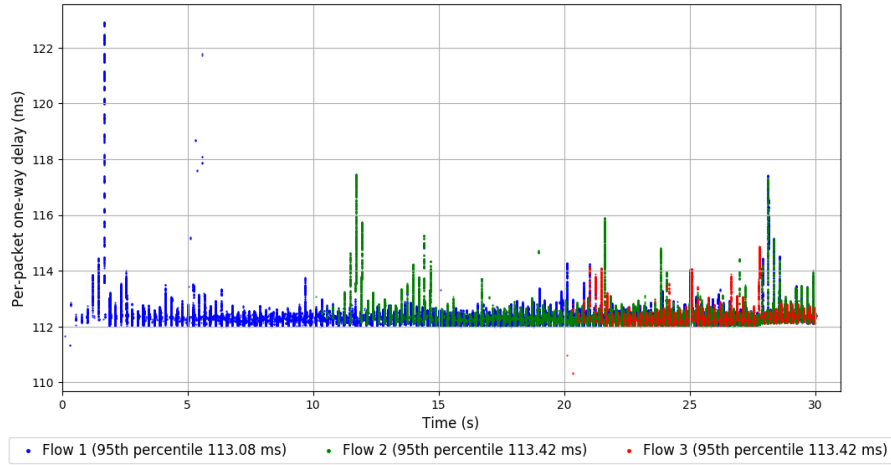
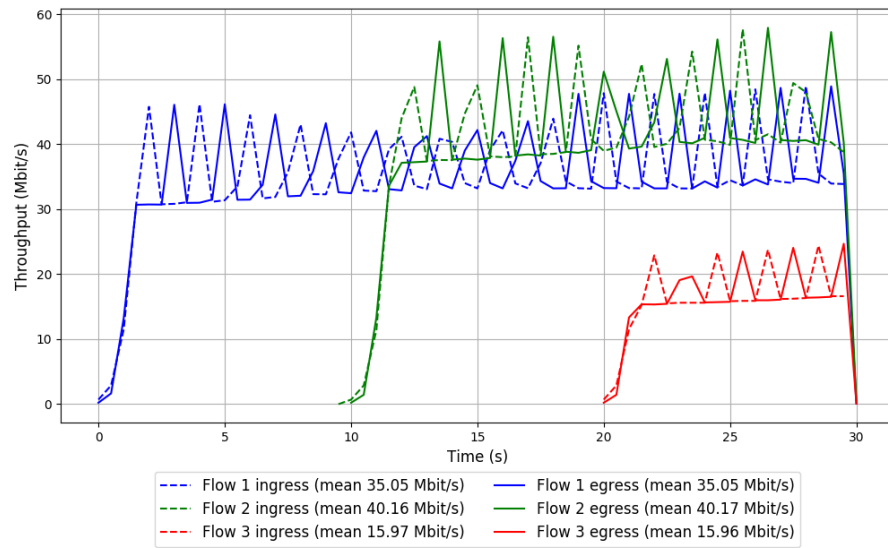
-- Flow 3:

Average throughput: 15.96 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2017-12-20 17:05:27

End at: 2017-12-20 17:05:57

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.52 Mbit/s

95th percentile per-packet one-way delay: 119.462 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 49.33 Mbit/s

95th percentile per-packet one-way delay: 114.868 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 113.801 ms

Loss rate: 1.85%

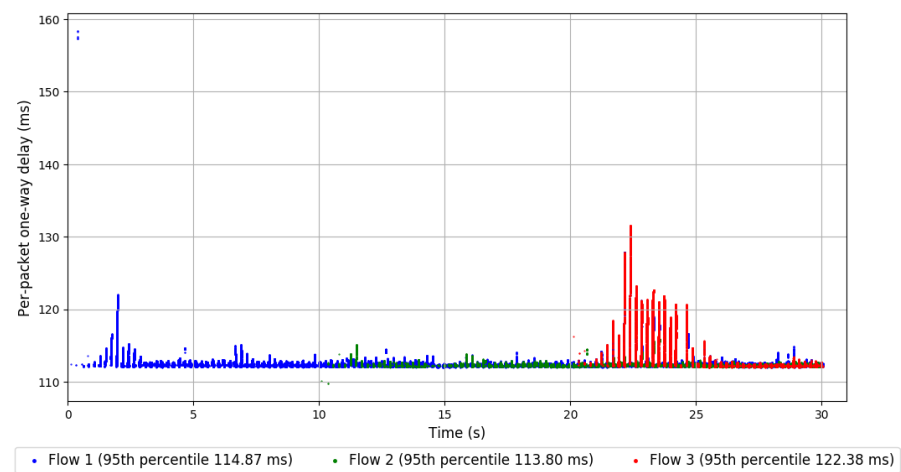
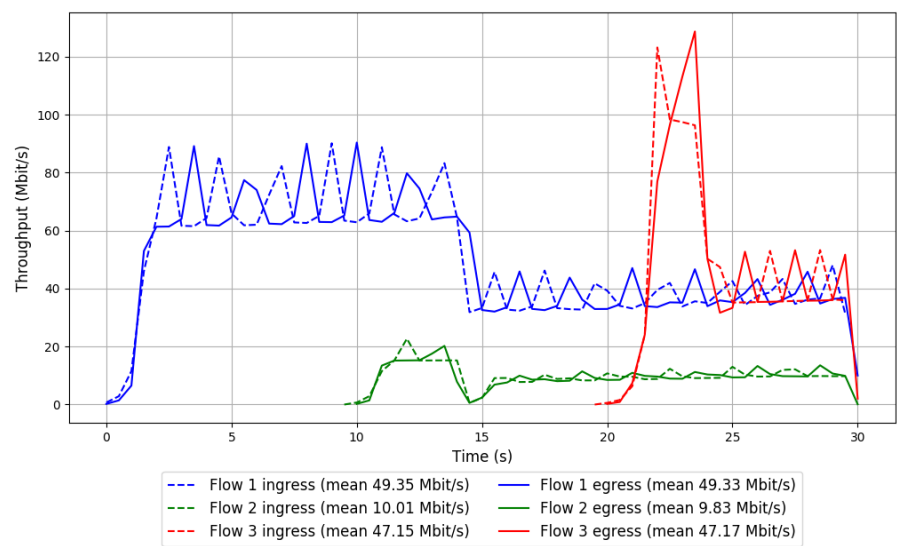
-- Flow 3:

Average throughput: 47.17 Mbit/s

95th percentile per-packet one-way delay: 122.384 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2017-12-20 17:20:51

End at: 2017-12-20 17:21:21

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.81 Mbit/s

95th percentile per-packet one-way delay: 119.679 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 39.42 Mbit/s

95th percentile per-packet one-way delay: 119.059 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 16.57 Mbit/s

95th percentile per-packet one-way delay: 112.402 ms

Loss rate: 0.00%

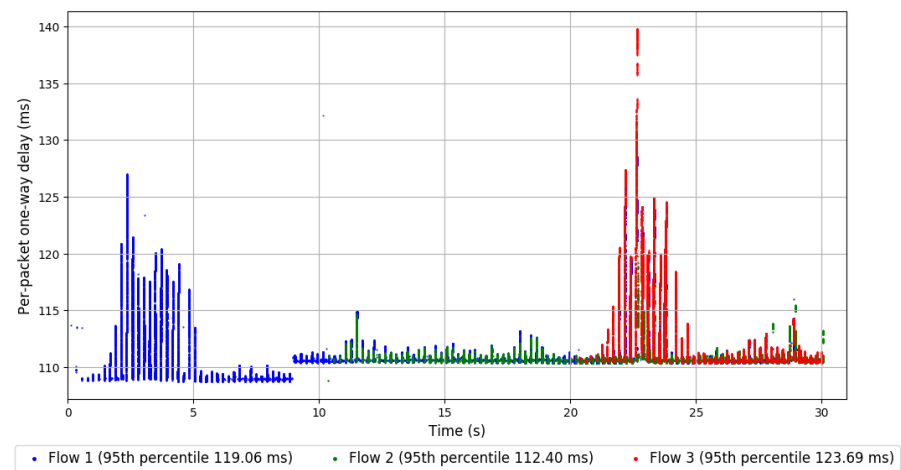
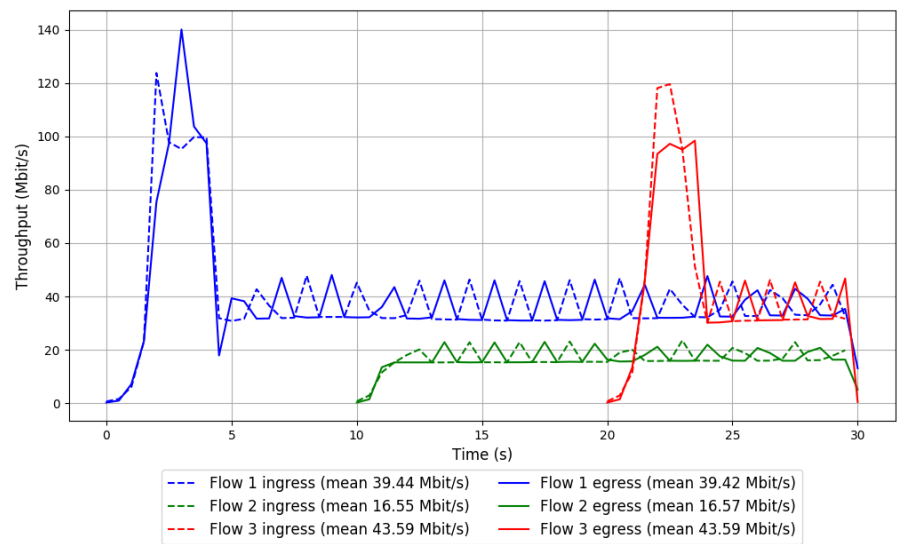
-- Flow 3:

Average throughput: 43.59 Mbit/s

95th percentile per-packet one-way delay: 123.694 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2017-12-20 17:36:21

End at: 2017-12-20 17:36:51

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.82 Mbit/s

95th percentile per-packet one-way delay: 117.212 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 31.74 Mbit/s

95th percentile per-packet one-way delay: 117.590 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 40.11 Mbit/s

95th percentile per-packet one-way delay: 114.302 ms

Loss rate: 0.00%

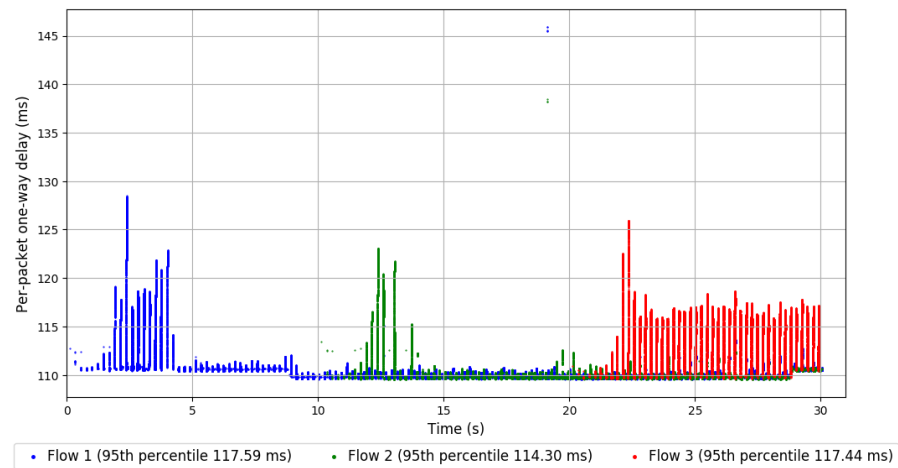
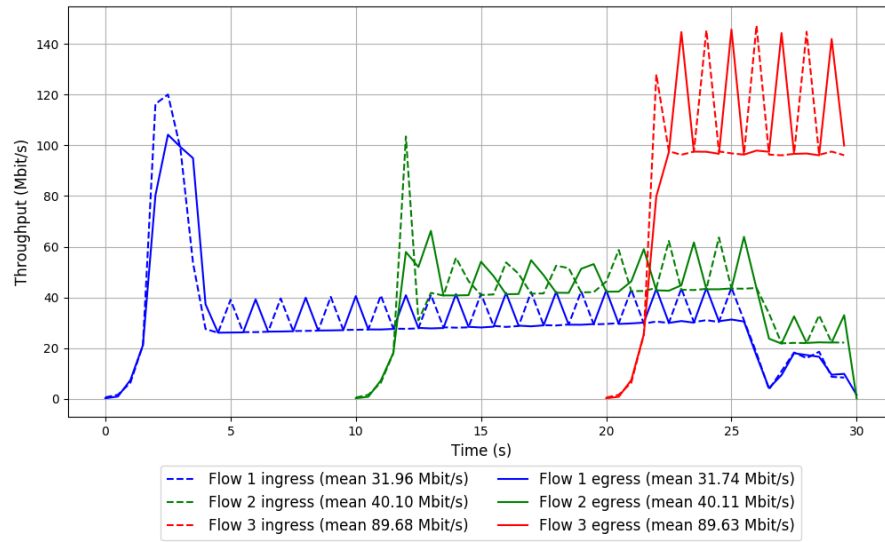
-- Flow 3:

Average throughput: 89.63 Mbit/s

95th percentile per-packet one-way delay: 117.436 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2017-12-20 17:51:26

End at: 2017-12-20 17:51:56

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.89 Mbit/s

95th percentile per-packet one-way delay: 114.802 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.81 Mbit/s

95th percentile per-packet one-way delay: 114.719 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 114.836 ms

Loss rate: 0.17%

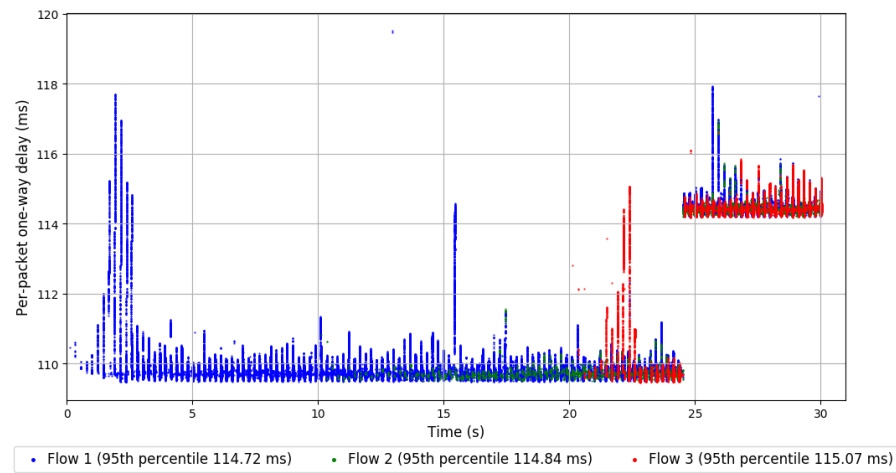
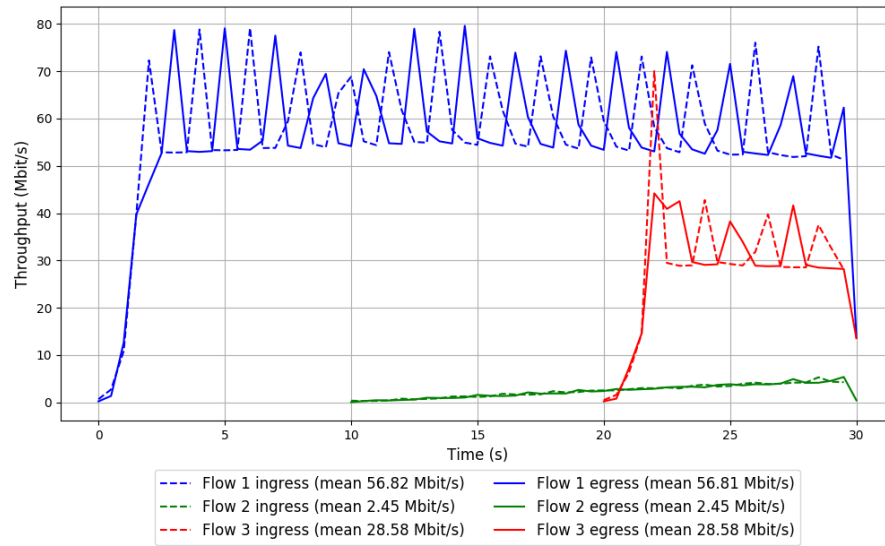
-- Flow 3:

Average throughput: 28.58 Mbit/s

95th percentile per-packet one-way delay: 115.068 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2017-12-20 18:06:49

End at: 2017-12-20 18:07:19

Below is generated by plot.py at 2017-12-20 20:09:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.62 Mbit/s

95th percentile per-packet one-way delay: 111.945 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 29.96 Mbit/s

95th percentile per-packet one-way delay: 113.717 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 47.21 Mbit/s

95th percentile per-packet one-way delay: 110.215 ms

Loss rate: 0.00%

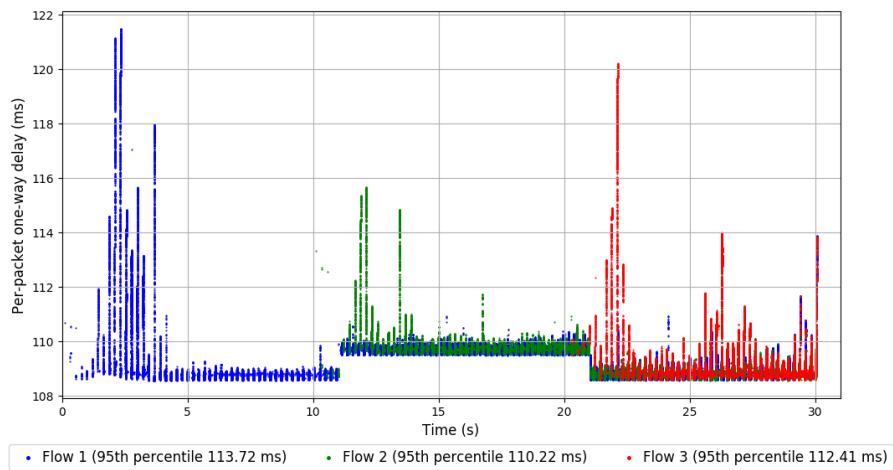
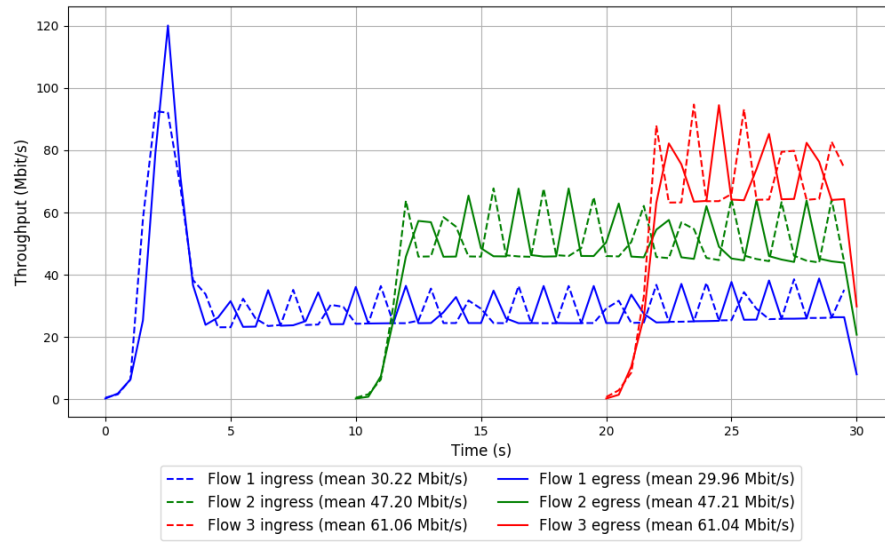
-- Flow 3:

Average throughput: 61.04 Mbit/s

95th percentile per-packet one-way delay: 112.407 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2017-12-20 15:46:29

End at: 2017-12-20 15:46:59

Below is generated by plot.py at 2017-12-20 20:13:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.02 Mbit/s

95th percentile per-packet one-way delay: 234.346 ms

Loss rate: 1.48%

-- Flow 1:

Average throughput: 176.92 Mbit/s

95th percentile per-packet one-way delay: 230.839 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 184.50 Mbit/s

95th percentile per-packet one-way delay: 241.815 ms

Loss rate: 2.17%

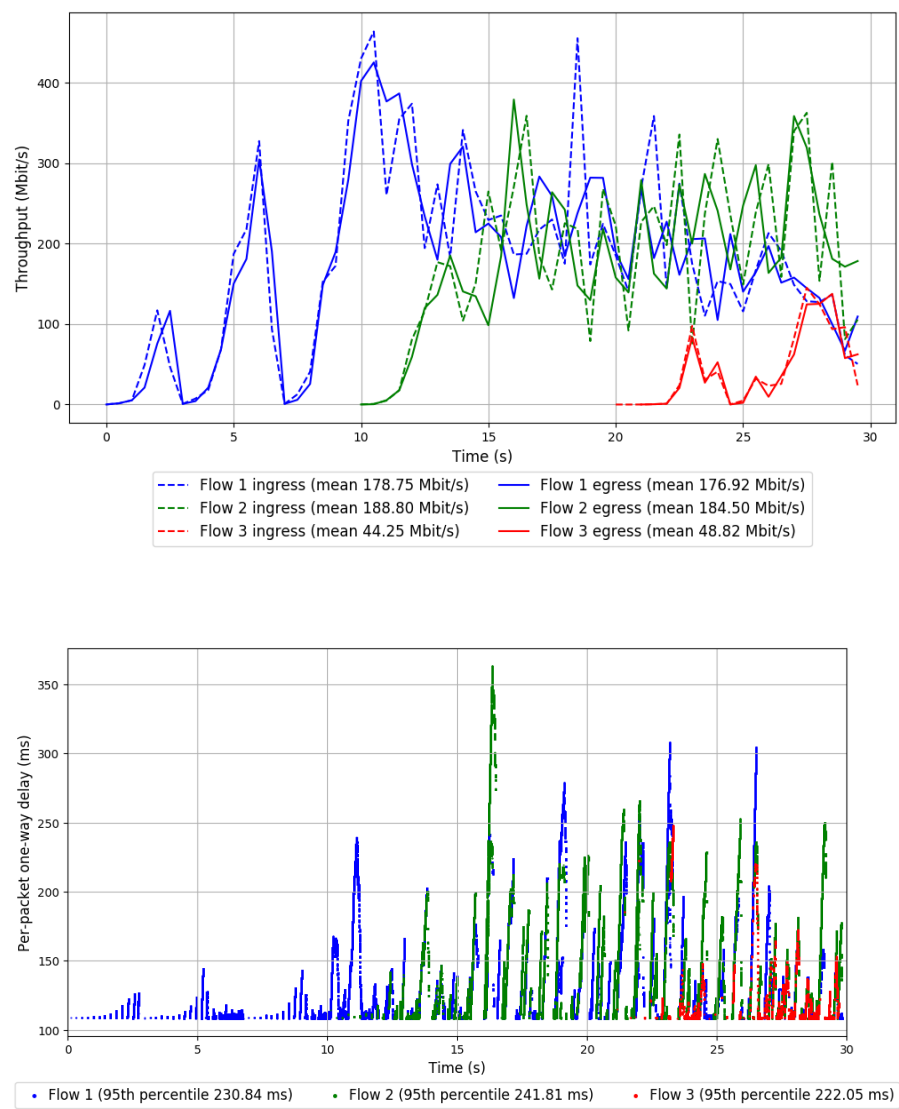
-- Flow 3:

Average throughput: 48.82 Mbit/s

95th percentile per-packet one-way delay: 222.053 ms

Loss rate: 1.21%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2017-12-20 16:02:12

End at: 2017-12-20 16:02:42

Below is generated by plot.py at 2017-12-20 20:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.87 Mbit/s

95th percentile per-packet one-way delay: 172.646 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 193.84 Mbit/s

95th percentile per-packet one-way delay: 165.520 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 165.53 Mbit/s

95th percentile per-packet one-way delay: 183.521 ms

Loss rate: 0.15%

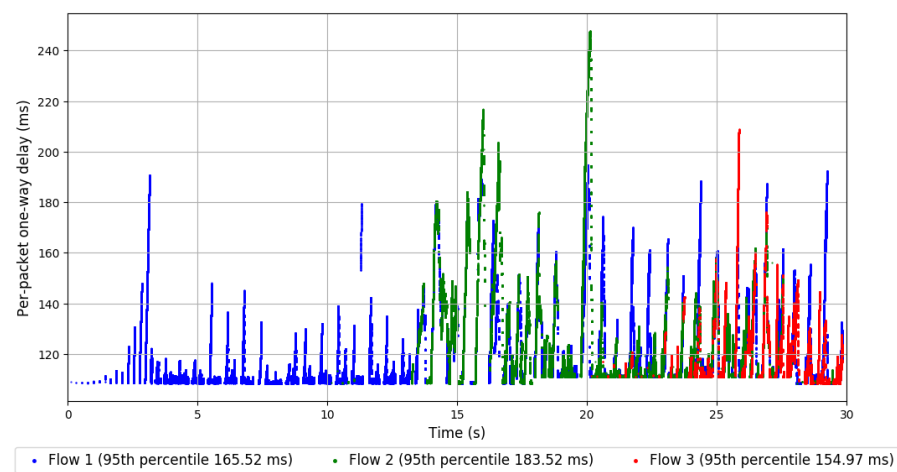
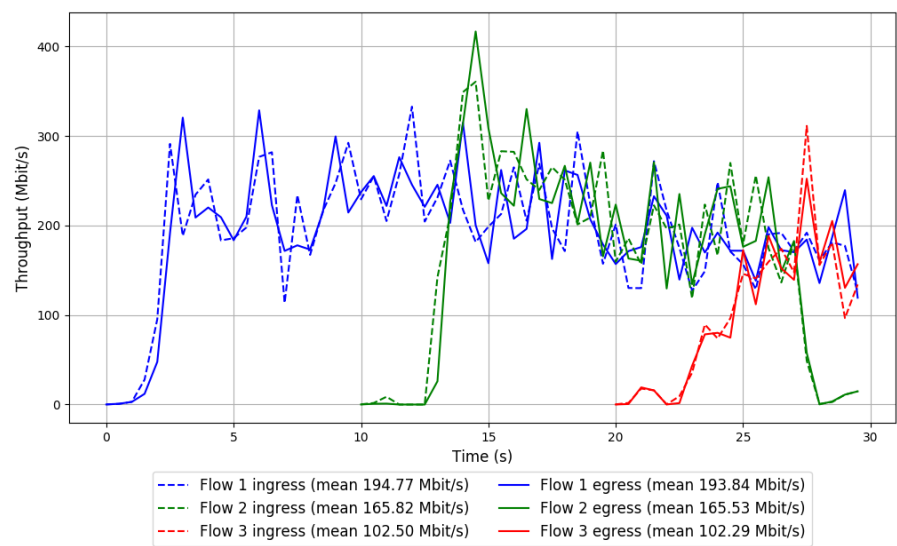
-- Flow 3:

Average throughput: 102.29 Mbit/s

95th percentile per-packet one-way delay: 154.967 ms

Loss rate: 0.28%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2017-12-20 16:17:52

End at: 2017-12-20 16:18:22

Below is generated by plot.py at 2017-12-20 20:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 172.20 Mbit/s

95th percentile per-packet one-way delay: 216.224 ms

Loss rate: 3.13%

-- Flow 1:

Average throughput: 110.98 Mbit/s

95th percentile per-packet one-way delay: 251.247 ms

Loss rate: 4.19%

-- Flow 2:

Average throughput: 82.06 Mbit/s

95th percentile per-packet one-way delay: 209.135 ms

Loss rate: 1.33%

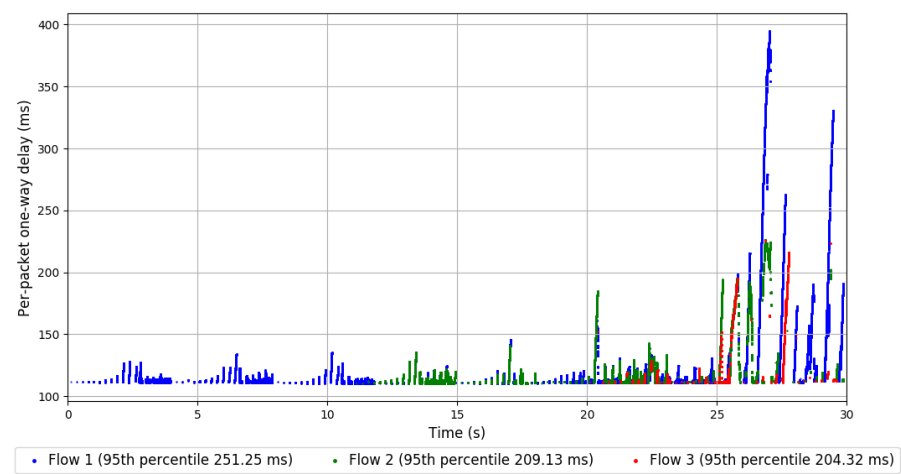
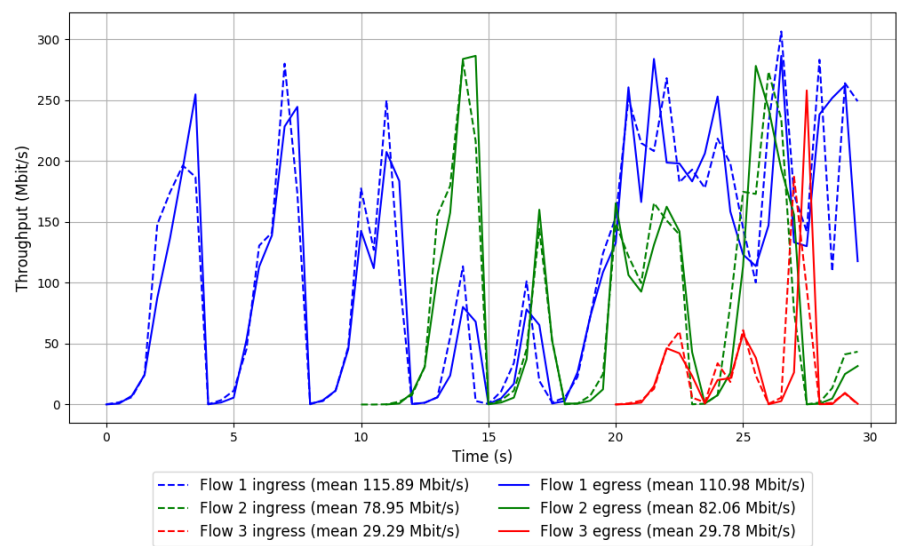
-- Flow 3:

Average throughput: 29.78 Mbit/s

95th percentile per-packet one-way delay: 204.319 ms

Loss rate: 0.26%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2017-12-20 16:33:07

End at: 2017-12-20 16:33:37

Below is generated by plot.py at 2017-12-20 20:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.11 Mbit/s

95th percentile per-packet one-way delay: 305.372 ms

Loss rate: 3.54%

-- Flow 1:

Average throughput: 257.68 Mbit/s

95th percentile per-packet one-way delay: 311.604 ms

Loss rate: 3.82%

-- Flow 2:

Average throughput: 20.56 Mbit/s

95th percentile per-packet one-way delay: 221.733 ms

Loss rate: 0.83%

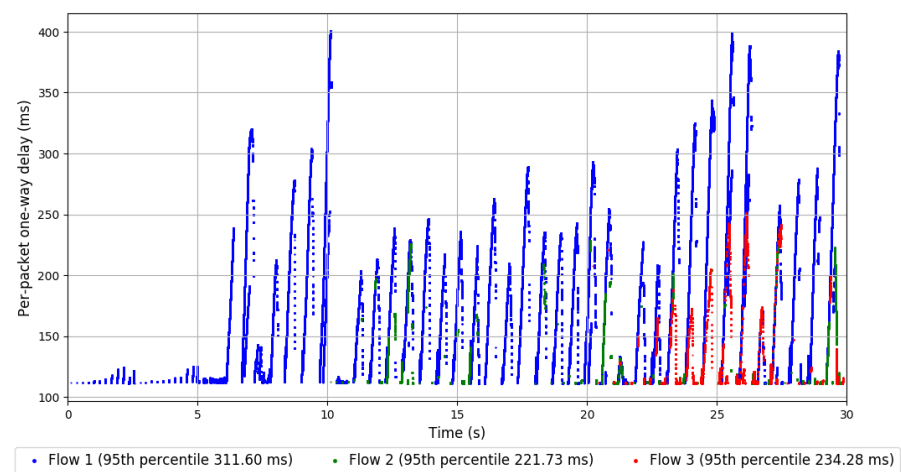
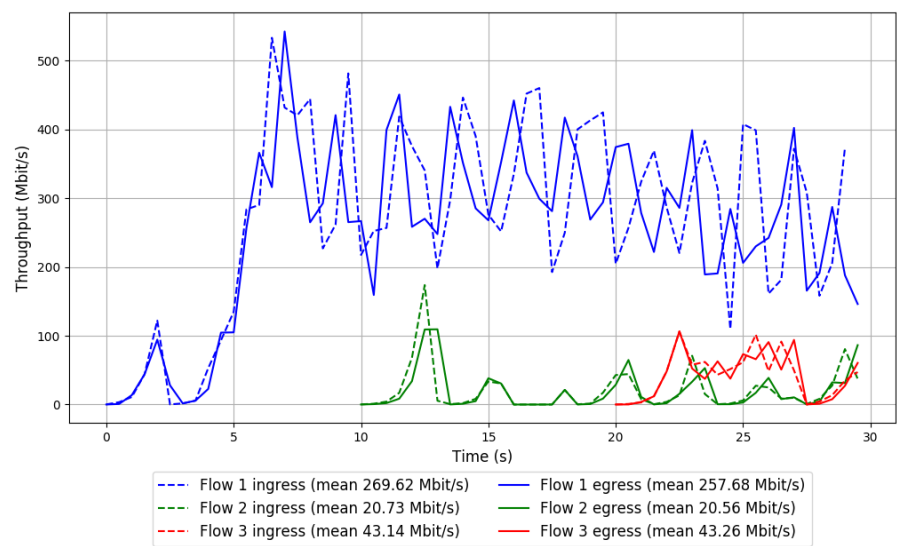
-- Flow 3:

Average throughput: 43.26 Mbit/s

95th percentile per-packet one-way delay: 234.280 ms

Loss rate: 0.74%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2017-12-20 16:48:12

End at: 2017-12-20 16:48:42

Below is generated by plot.py at 2017-12-20 20:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.56 Mbit/s

95th percentile per-packet one-way delay: 203.082 ms

Loss rate: 1.04%

-- Flow 1:

Average throughput: 170.53 Mbit/s

95th percentile per-packet one-way delay: 178.023 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 96.65 Mbit/s

95th percentile per-packet one-way delay: 224.964 ms

Loss rate: 2.36%

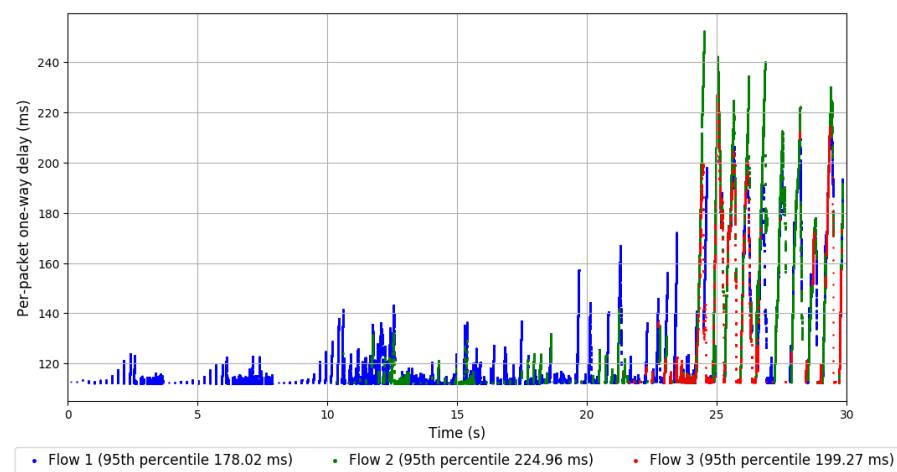
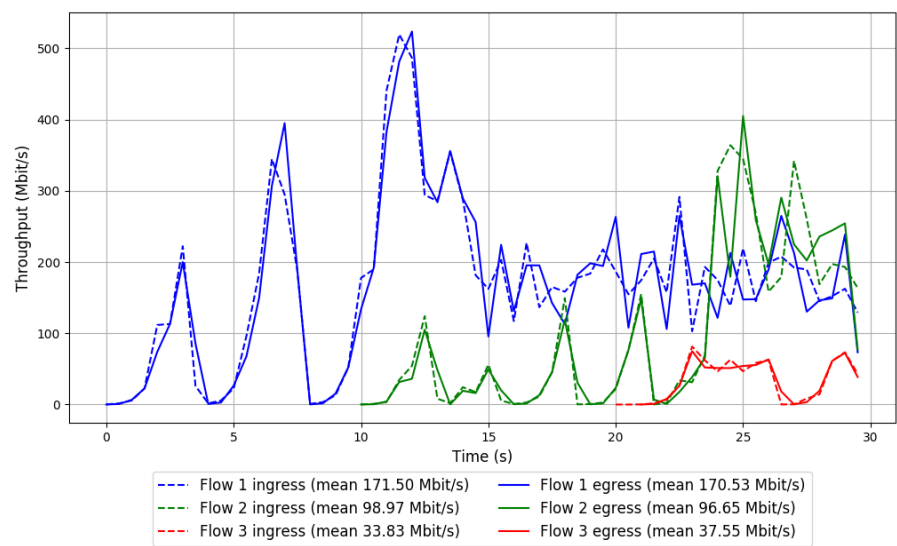
-- Flow 3:

Average throughput: 37.55 Mbit/s

95th percentile per-packet one-way delay: 199.273 ms

Loss rate: 0.83%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2017-12-20 17:03:24

End at: 2017-12-20 17:03:54

Below is generated by plot.py at 2017-12-20 20:14:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.99 Mbit/s

95th percentile per-packet one-way delay: 314.403 ms

Loss rate: 3.57%

-- Flow 1:

Average throughput: 206.32 Mbit/s

95th percentile per-packet one-way delay: 315.367 ms

Loss rate: 4.22%

-- Flow 2:

Average throughput: 19.03 Mbit/s

95th percentile per-packet one-way delay: 230.290 ms

Loss rate: 2.17%

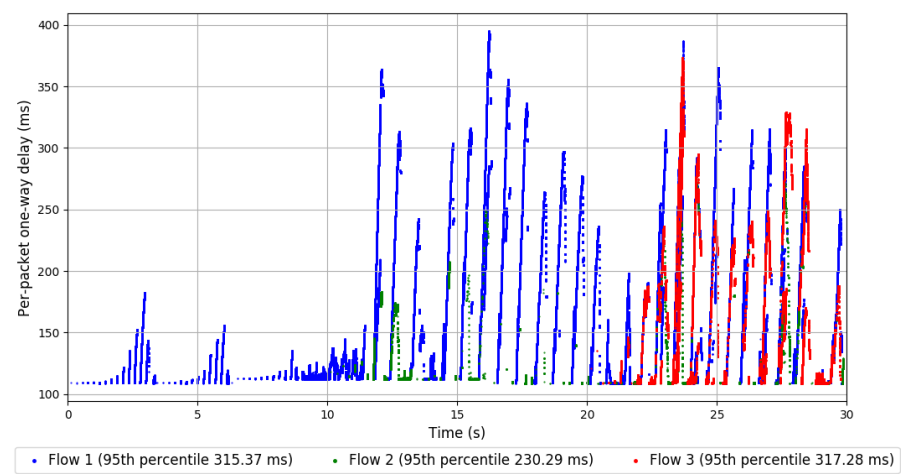
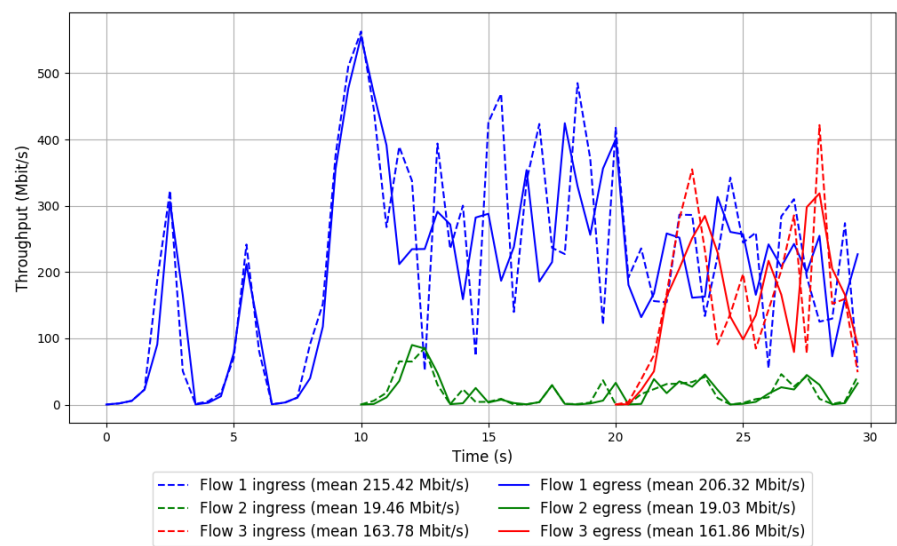
-- Flow 3:

Average throughput: 161.86 Mbit/s

95th percentile per-packet one-way delay: 317.280 ms

Loss rate: 1.26%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2017-12-20 17:18:45

End at: 2017-12-20 17:19:15

Below is generated by plot.py at 2017-12-20 20:15:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 332.83 Mbit/s

95th percentile per-packet one-way delay: 188.514 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 269.89 Mbit/s

95th percentile per-packet one-way delay: 184.149 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 56.70 Mbit/s

95th percentile per-packet one-way delay: 144.492 ms

Loss rate: 0.48%

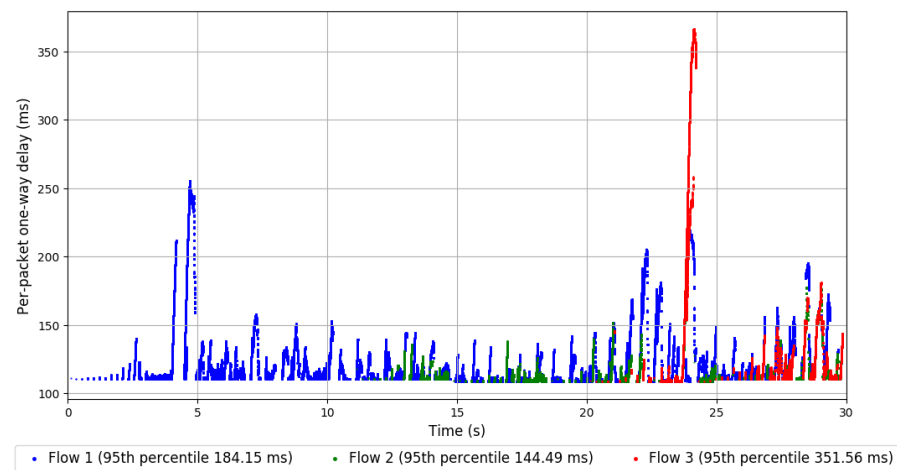
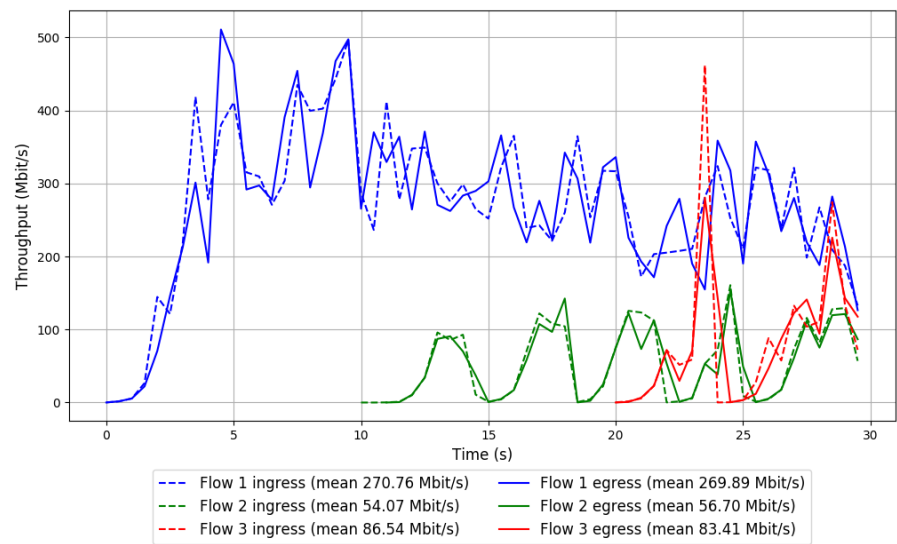
-- Flow 3:

Average throughput: 83.41 Mbit/s

95th percentile per-packet one-way delay: 351.555 ms

Loss rate: 3.45%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2017-12-20 17:34:17

End at: 2017-12-20 17:34:47

Below is generated by plot.py at 2017-12-20 20:15:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.89 Mbit/s

95th percentile per-packet one-way delay: 257.457 ms

Loss rate: 4.49%

-- Flow 1:

Average throughput: 155.69 Mbit/s

95th percentile per-packet one-way delay: 277.448 ms

Loss rate: 3.80%

-- Flow 2:

Average throughput: 181.29 Mbit/s

95th percentile per-packet one-way delay: 233.334 ms

Loss rate: 4.80%

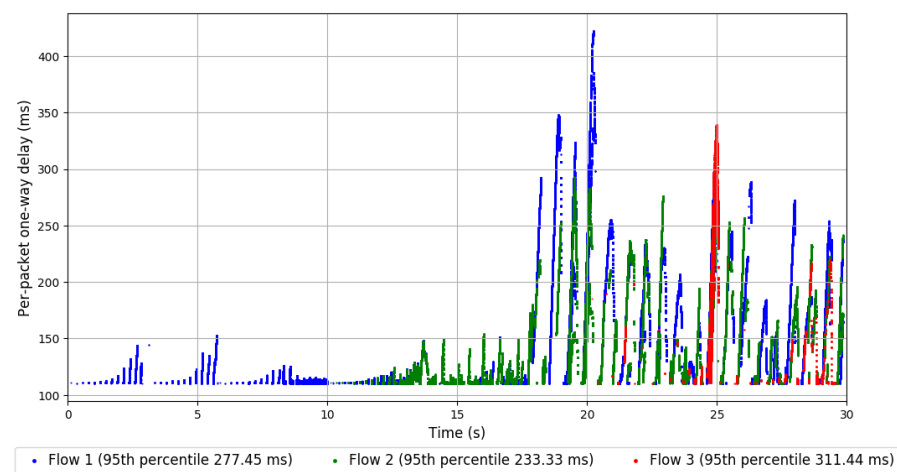
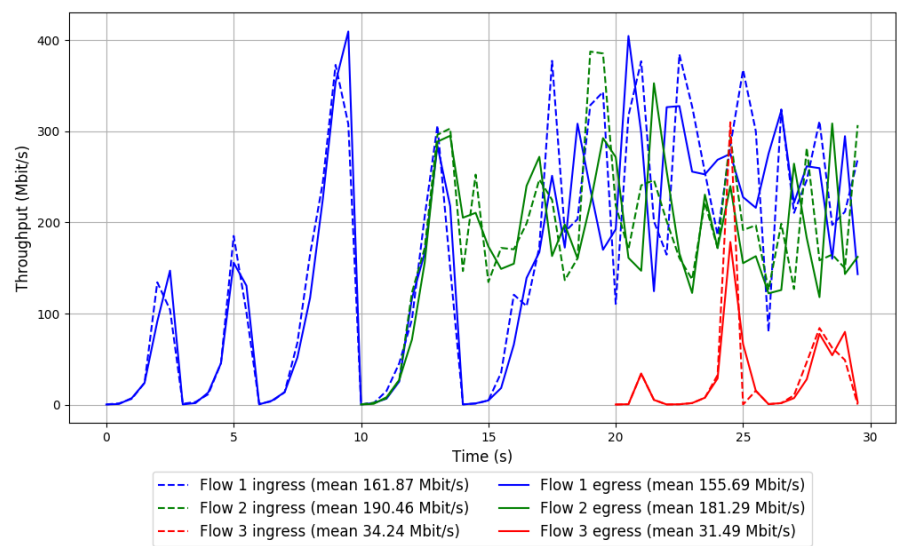
-- Flow 3:

Average throughput: 31.49 Mbit/s

95th percentile per-packet one-way delay: 311.438 ms

Loss rate: 10.87%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2017-12-20 17:49:29

End at: 2017-12-20 17:49:59

Below is generated by plot.py at 2017-12-20 20:15:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.44 Mbit/s

95th percentile per-packet one-way delay: 146.280 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 127.77 Mbit/s

95th percentile per-packet one-way delay: 142.213 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 54.46 Mbit/s

95th percentile per-packet one-way delay: 149.623 ms

Loss rate: 0.00%

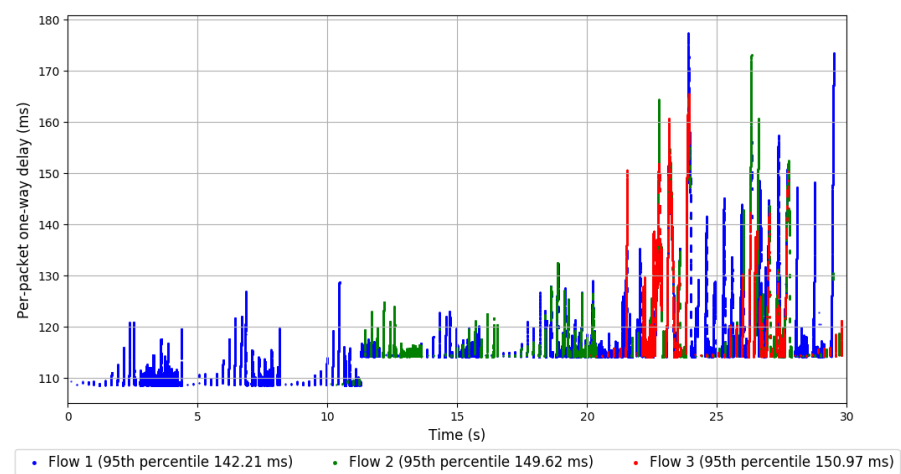
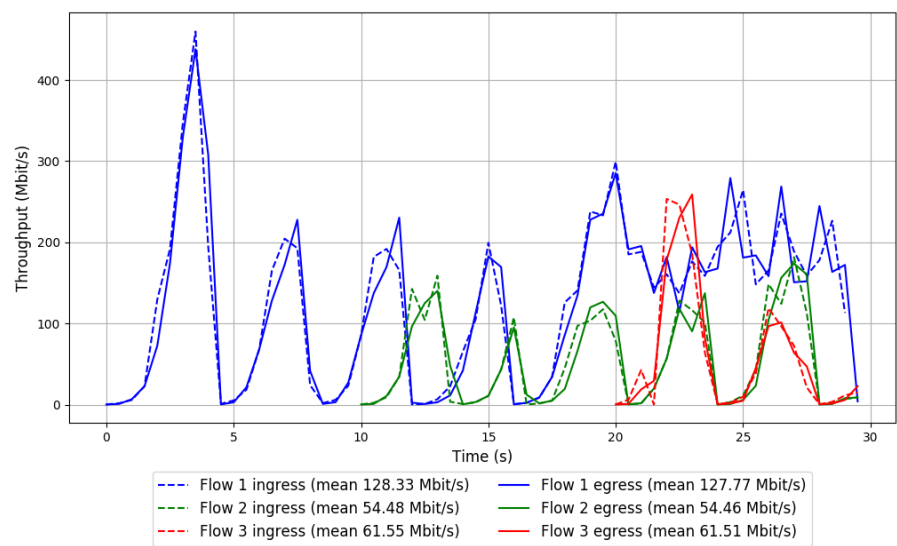
-- Flow 3:

Average throughput: 61.51 Mbit/s

95th percentile per-packet one-way delay: 150.968 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2017-12-20 18:04:49

End at: 2017-12-20 18:05:19

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.84 Mbit/s

95th percentile per-packet one-way delay: 153.887 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 176.70 Mbit/s

95th percentile per-packet one-way delay: 147.558 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 91.48 Mbit/s

95th percentile per-packet one-way delay: 180.123 ms

Loss rate: 0.00%

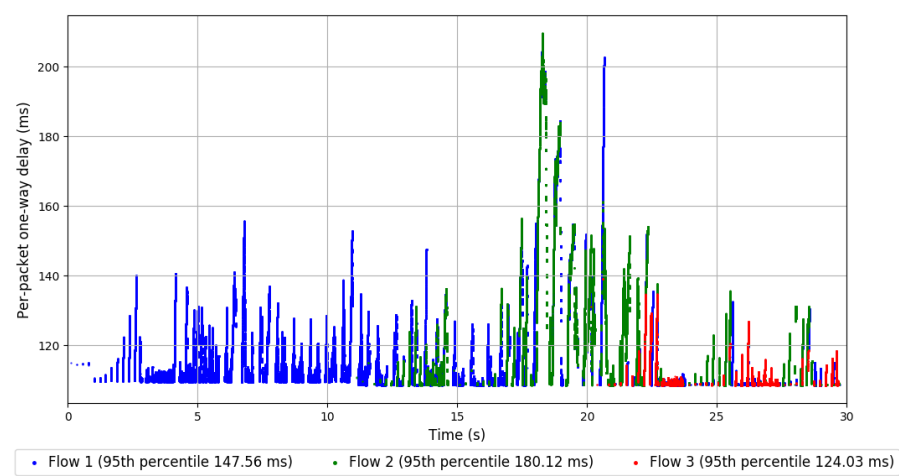
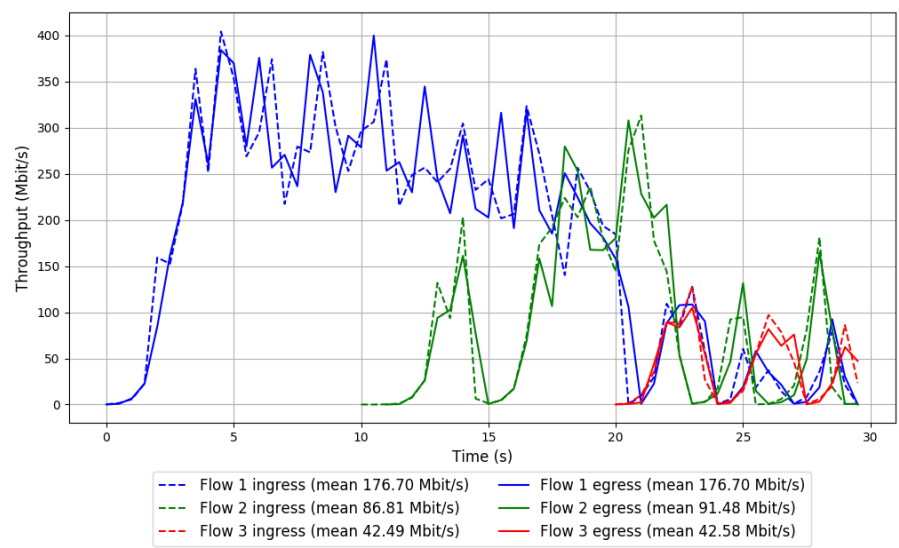
-- Flow 3:

Average throughput: 42.58 Mbit/s

95th percentile per-packet one-way delay: 124.029 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2017-12-20 15:43:05

End at: 2017-12-20 15:43:35

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.06 Mbit/s

95th percentile per-packet one-way delay: 112.288 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 47.96 Mbit/s

95th percentile per-packet one-way delay: 112.030 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.94 Mbit/s

95th percentile per-packet one-way delay: 109.136 ms

Loss rate: 0.00%

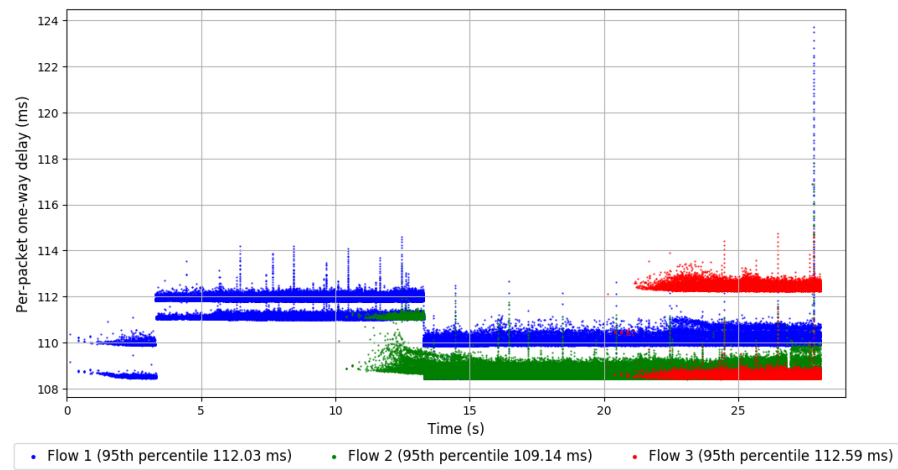
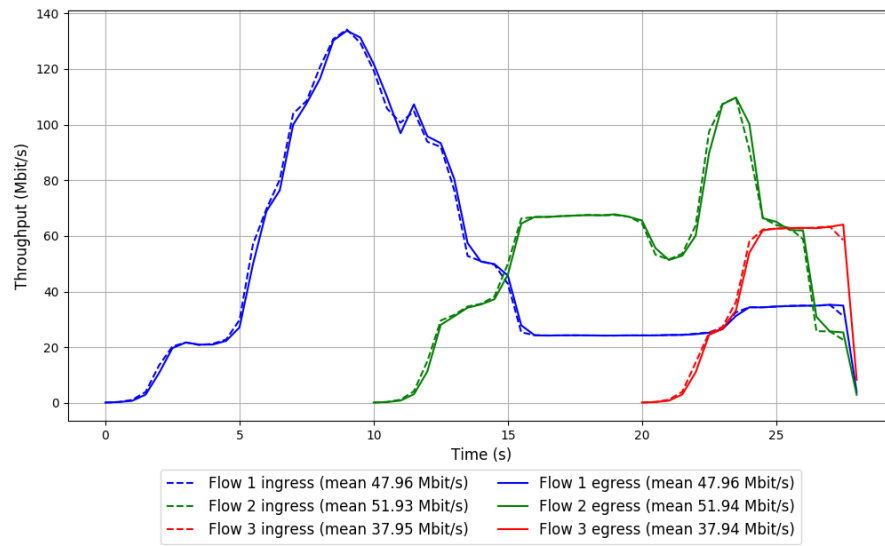
-- Flow 3:

Average throughput: 37.94 Mbit/s

95th percentile per-packet one-way delay: 112.591 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2017-12-20 15:58:48

End at: 2017-12-20 15:59:18

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.04 Mbit/s

95th percentile per-packet one-way delay: 112.529 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.69 Mbit/s

95th percentile per-packet one-way delay: 112.453 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.61 Mbit/s

95th percentile per-packet one-way delay: 108.990 ms

Loss rate: 0.00%

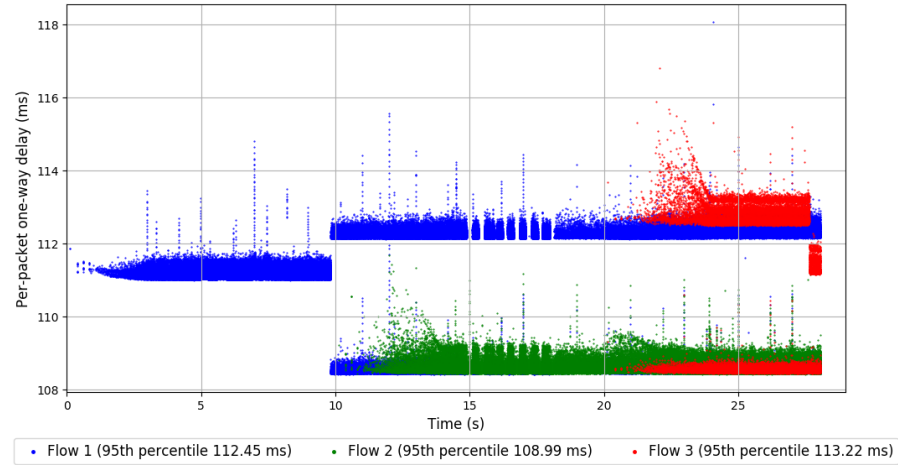
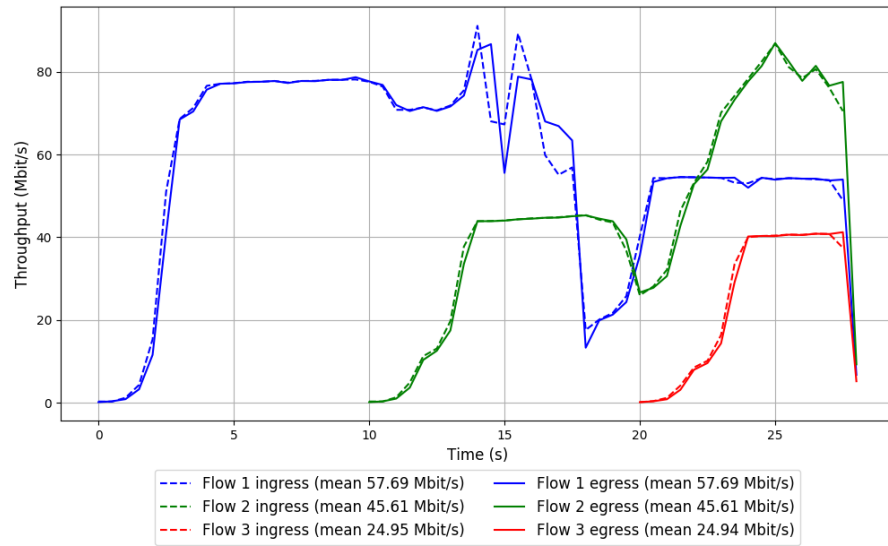
-- Flow 3:

Average throughput: 24.94 Mbit/s

95th percentile per-packet one-way delay: 113.215 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2017-12-20 16:14:24

End at: 2017-12-20 16:14:54

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.38 Mbit/s

95th percentile per-packet one-way delay: 112.124 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 72.25 Mbit/s

95th percentile per-packet one-way delay: 112.161 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.83 Mbit/s

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

Loss rate: 0.00%

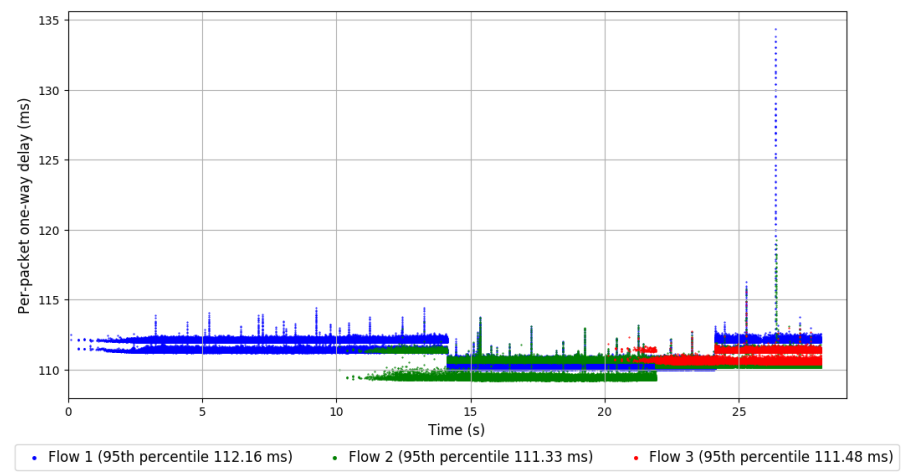
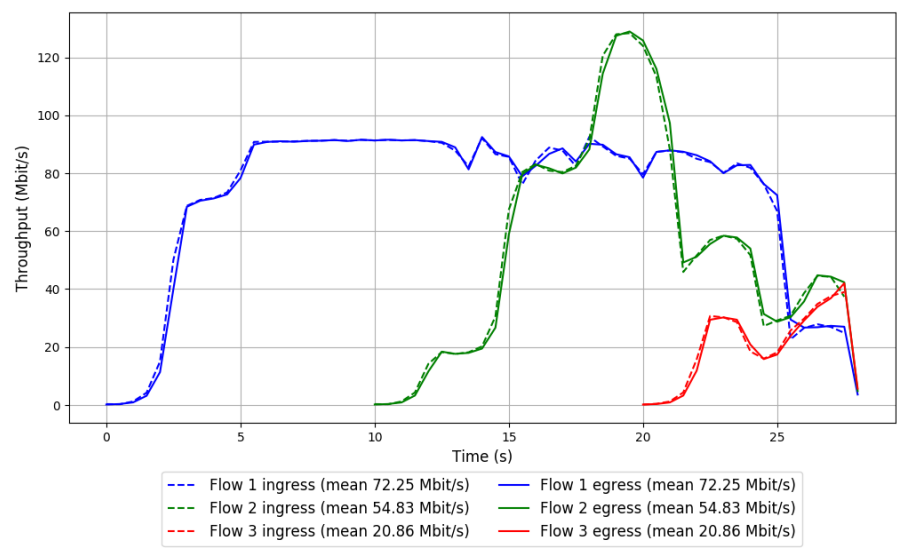
-- Flow 3:

Average throughput: 20.86 Mbit/s

95th percentile per-packet one-way delay: 111.482 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2017-12-20 16:29:52

End at: 2017-12-20 16:30:22

Run 4: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 5: Statistics of Copa

Start at: 2017-12-20 16:44:59

End at: 2017-12-20 16:45:29

Run 5: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 6: Statistics of Copa

Start at: 2017-12-20 16:59:55

End at: 2017-12-20 17:00:25

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.51 Mbit/s

95th percentile per-packet one-way delay: 112.817 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 68.13 Mbit/s

95th percentile per-packet one-way delay: 112.859 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.29 Mbit/s

95th percentile per-packet one-way delay: 112.463 ms

Loss rate: 0.00%

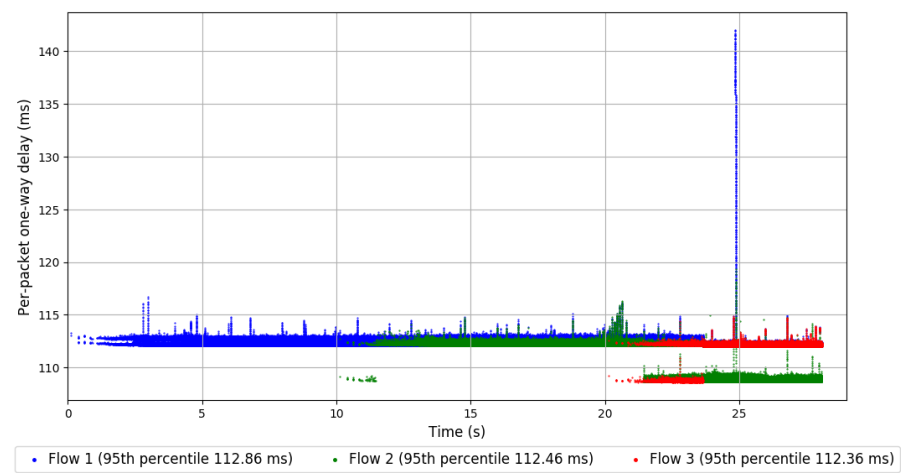
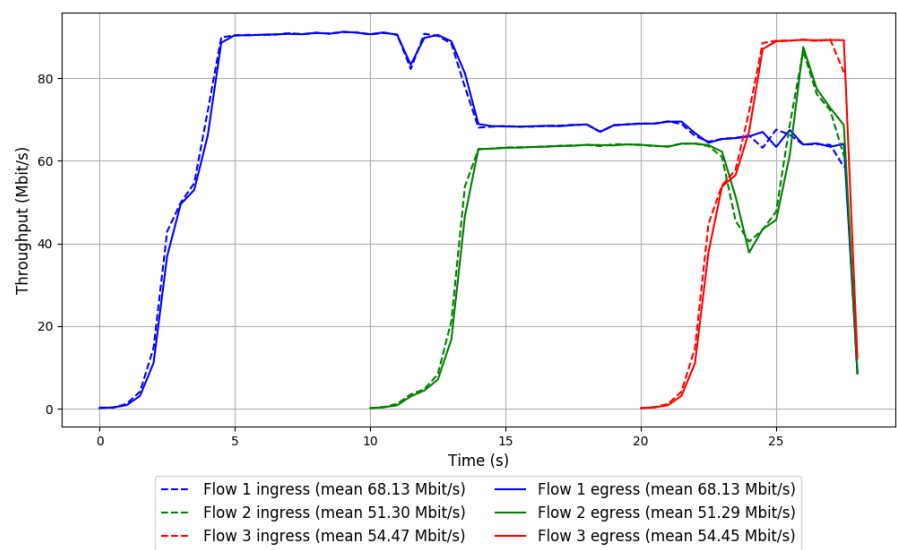
-- Flow 3:

Average throughput: 54.45 Mbit/s

95th percentile per-packet one-way delay: 112.363 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2017-12-20 17:15:26

End at: 2017-12-20 17:15:56

Run 7: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 8: Statistics of Copa

Start at: 2017-12-20 17:31:05

End at: 2017-12-20 17:31:35

Run 8: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 9: Statistics of Copa

Start at: 2017-12-20 17:46:15

End at: 2017-12-20 17:46:45

Run 9: Report of Copa — Data Link

Figure is missing

Figure is missing

Run 10: Statistics of Copa

Start at: 2017-12-20 18:01:24

End at: 2017-12-20 18:01:54

Below is generated by plot.py at 2017-12-20 20:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.75 Mbit/s

95th percentile per-packet one-way delay: 114.375 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.37 Mbit/s

95th percentile per-packet one-way delay: 114.341 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.71 Mbit/s

95th percentile per-packet one-way delay: 114.411 ms

Loss rate: 0.00%

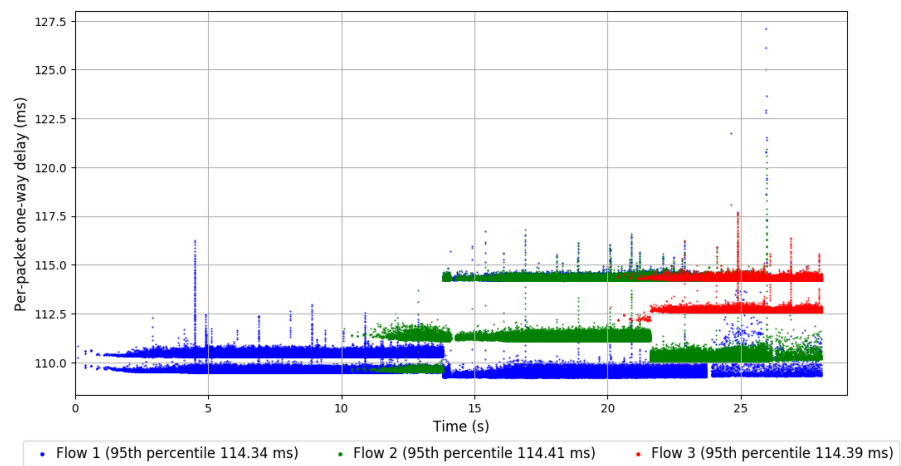
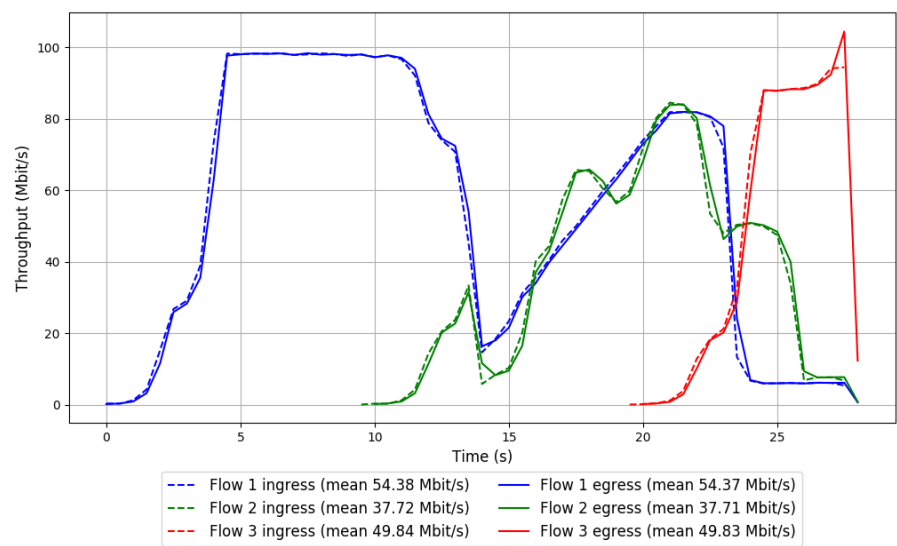
-- Flow 3:

Average throughput: 49.83 Mbit/s

95th percentile per-packet one-way delay: 114.387 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

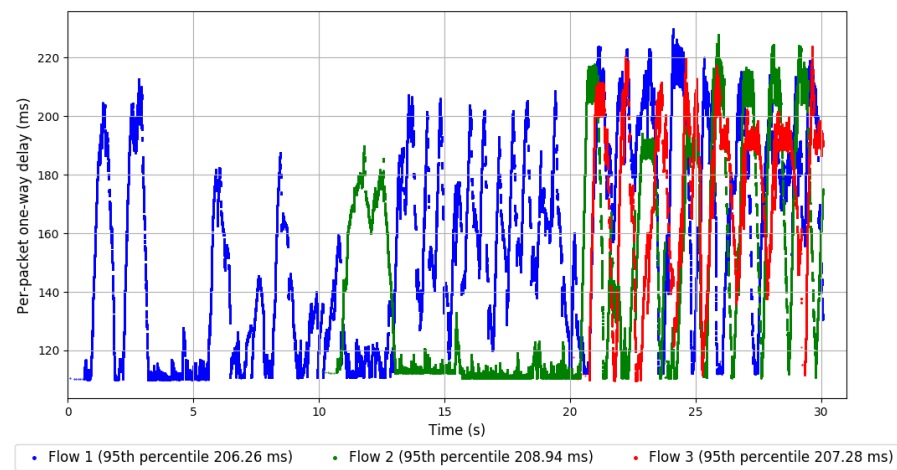
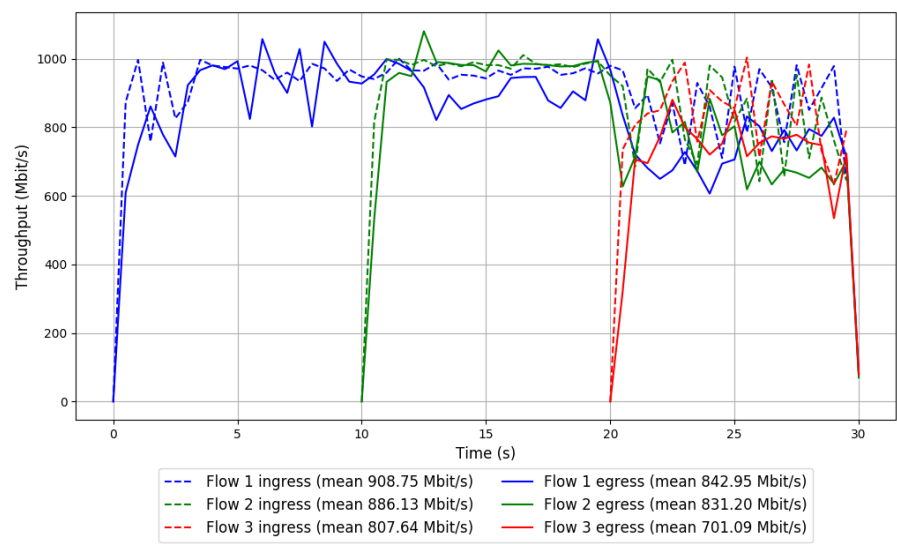


```
Run 1: Statistics of FillP

Start at: 2017-12-20 15:50:15
End at: 2017-12-20 15:50:45

# Below is generated by plot.py at 2017-12-20 20:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1628.19 Mbit/s
95th percentile per-packet one-way delay: 207.374 ms
Loss rate: 7.78%
-- Flow 1:
Average throughput: 842.95 Mbit/s
95th percentile per-packet one-way delay: 206.258 ms
Loss rate: 7.21%
-- Flow 2:
Average throughput: 831.20 Mbit/s
95th percentile per-packet one-way delay: 208.945 ms
Loss rate: 6.19%
-- Flow 3:
Average throughput: 701.09 Mbit/s
95th percentile per-packet one-way delay: 207.284 ms
Loss rate: 13.23%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2017-12-20 16:06:03

End at: 2017-12-20 16:06:34

Below is generated by plot.py at 2017-12-20 20:46:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 1658.39 Mbit/s

95th percentile per-packet one-way delay: 283.877 ms

Loss rate: 3.44%

-- Flow 1:

Average throughput: 872.97 Mbit/s

95th percentile per-packet one-way delay: 286.312 ms

Loss rate: 3.24%

-- Flow 2:

Average throughput: 880.17 Mbit/s

95th percentile per-packet one-way delay: 192.068 ms

Loss rate: 2.86%

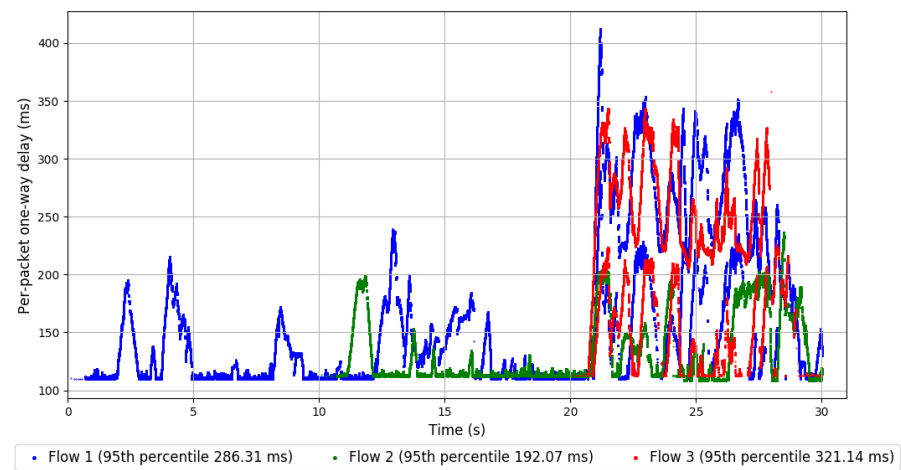
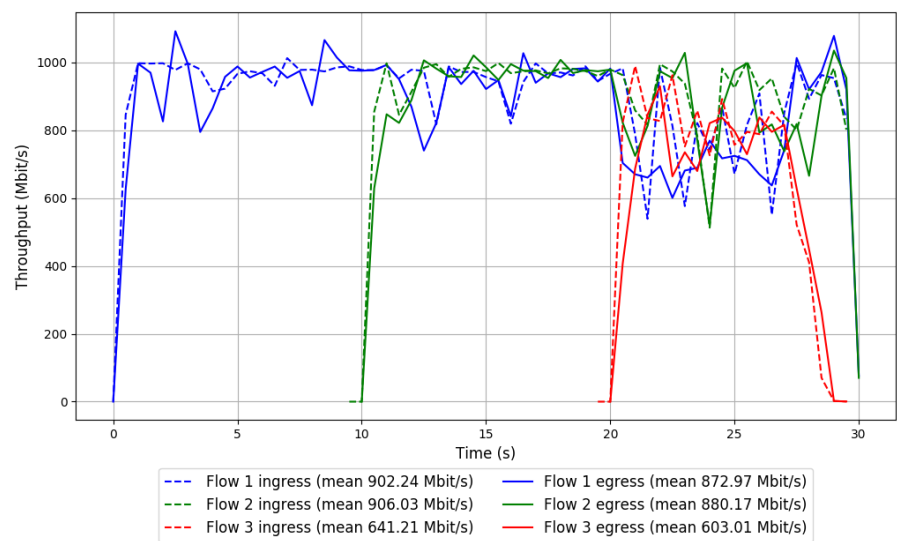
-- Flow 3:

Average throughput: 603.01 Mbit/s

95th percentile per-packet one-way delay: 321.142 ms

Loss rate: 5.96%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2017-12-20 16:21:25

End at: 2017-12-20 16:21:55

Below is generated by plot.py at 2017-12-20 20:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1635.08 Mbit/s

95th percentile per-packet one-way delay: 310.592 ms

Loss rate: 6.93%

-- Flow 1:

Average throughput: 863.31 Mbit/s

95th percentile per-packet one-way delay: 214.037 ms

Loss rate: 4.99%

-- Flow 2:

Average throughput: 811.60 Mbit/s

95th percentile per-packet one-way delay: 319.537 ms

Loss rate: 7.88%

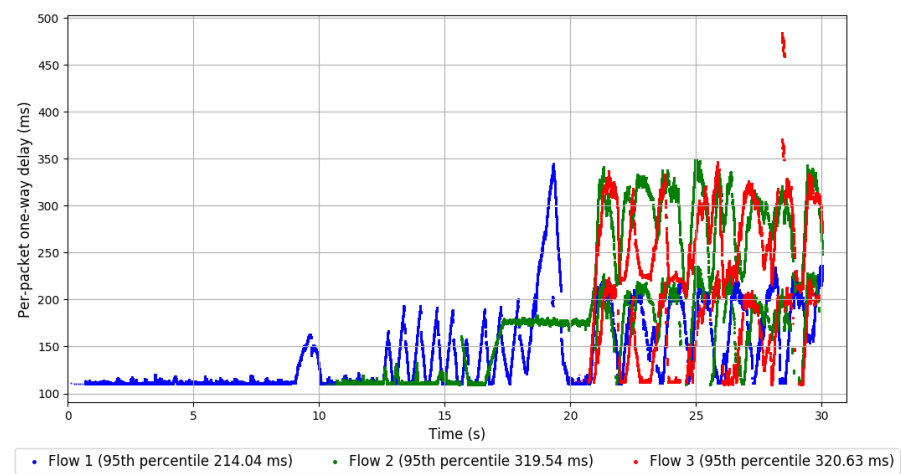
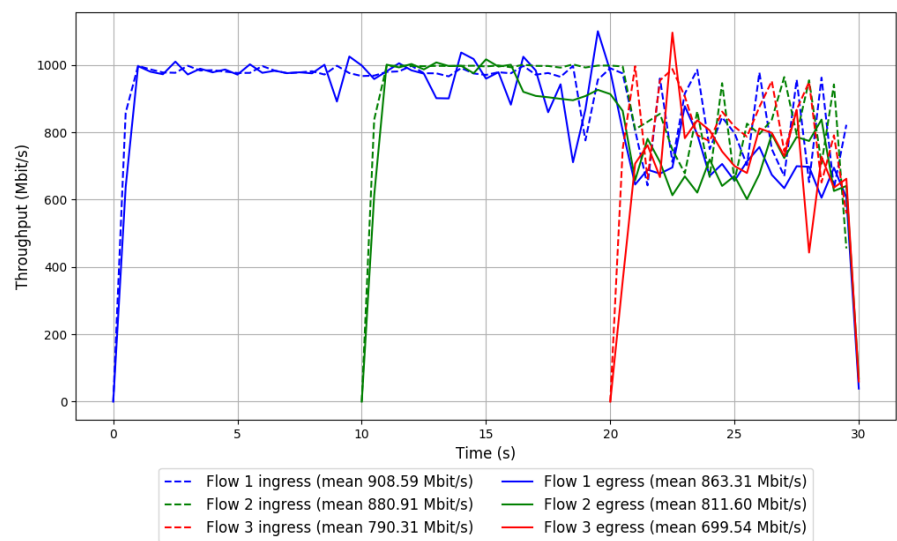
-- Flow 3:

Average throughput: 699.54 Mbit/s

95th percentile per-packet one-way delay: 320.631 ms

Loss rate: 11.52%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2017-12-20 16:36:49

End at: 2017-12-20 16:37:19

Below is generated by plot.py at 2017-12-20 20:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1579.73 Mbit/s

95th percentile per-packet one-way delay: 324.524 ms

Loss rate: 6.94%

-- Flow 1:

Average throughput: 878.04 Mbit/s

95th percentile per-packet one-way delay: 206.000 ms

Loss rate: 3.42%

-- Flow 2:

Average throughput: 749.05 Mbit/s

95th percentile per-packet one-way delay: 331.885 ms

Loss rate: 8.58%

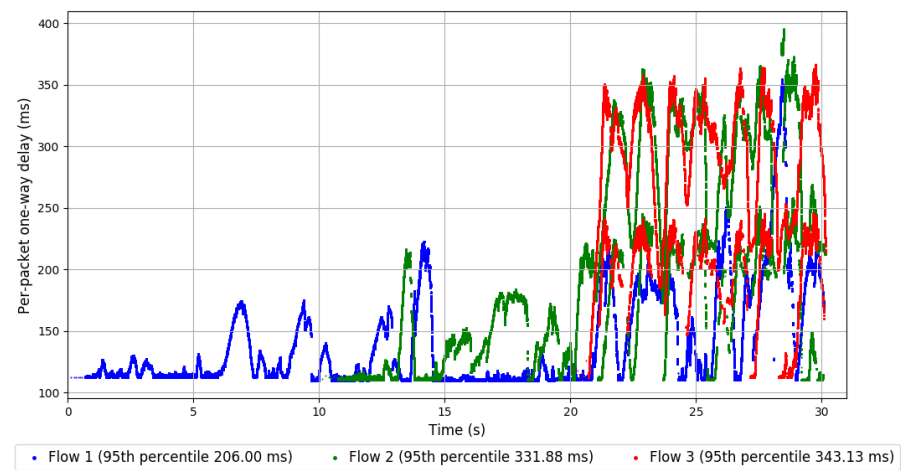
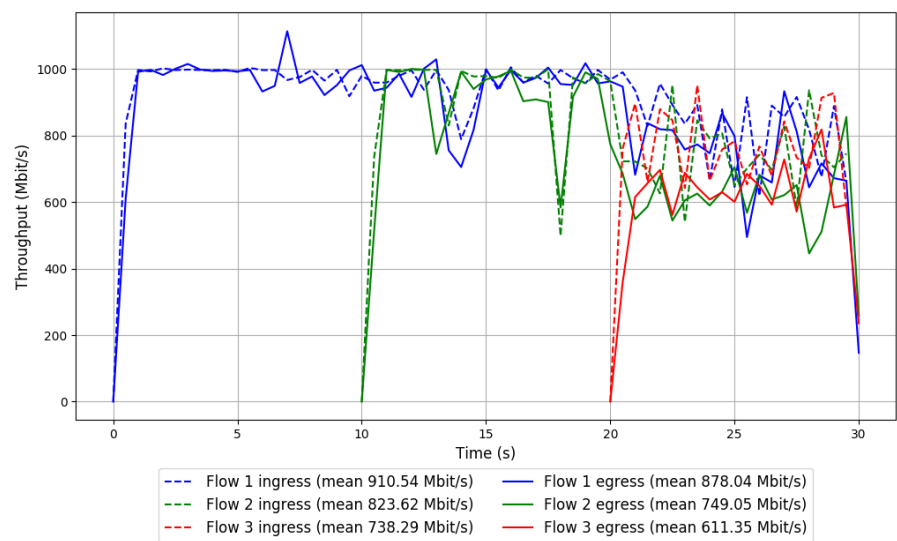
-- Flow 3:

Average throughput: 611.35 Mbit/s

95th percentile per-packet one-way delay: 343.130 ms

Loss rate: 16.40%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2017-12-20 16:51:51

End at: 2017-12-20 16:52:21

Below is generated by plot.py at 2017-12-20 20:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1114.43 Mbit/s

95th percentile per-packet one-way delay: 237.296 ms

Loss rate: 2.45%

-- Flow 1:

Average throughput: 673.02 Mbit/s

95th percentile per-packet one-way delay: 199.378 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 543.80 Mbit/s

95th percentile per-packet one-way delay: 239.908 ms

Loss rate: 2.80%

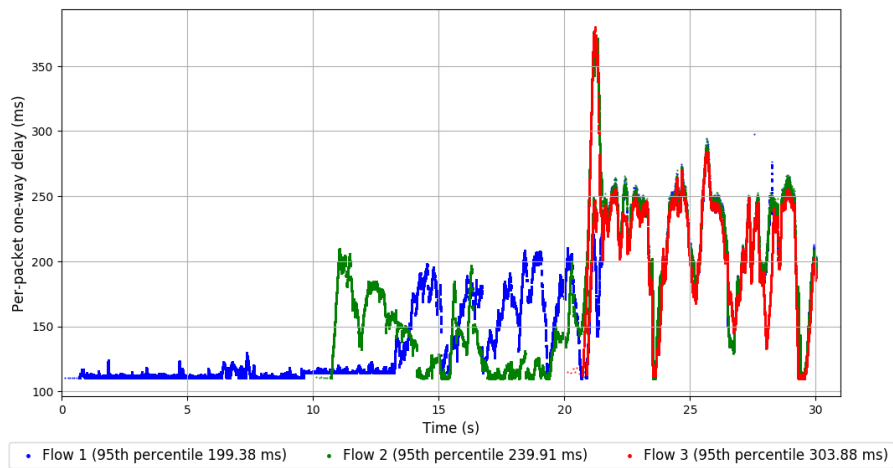
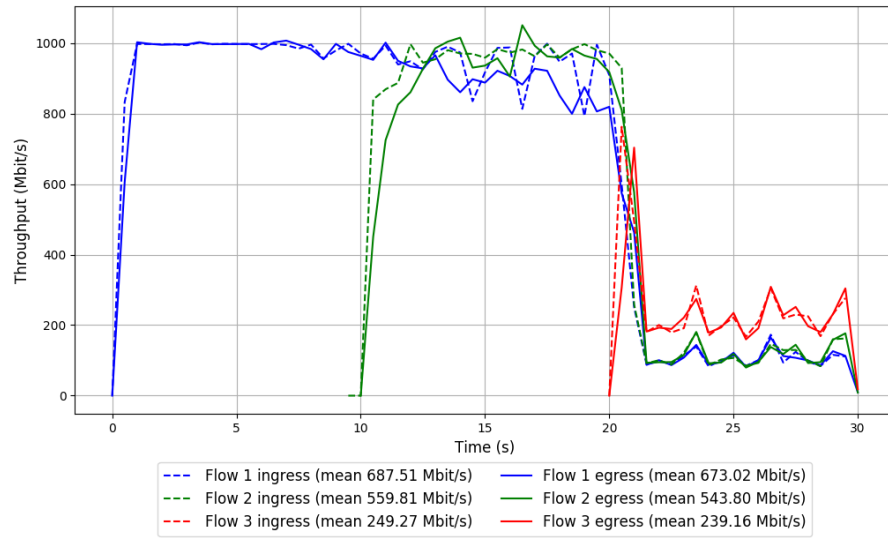
-- Flow 3:

Average throughput: 239.16 Mbit/s

95th percentile per-packet one-way delay: 303.880 ms

Loss rate: 3.99%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2017-12-20 17:07:06

End at: 2017-12-20 17:07:36

Below is generated by plot.py at 2017-12-20 20:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1559.54 Mbit/s

95th percentile per-packet one-way delay: 222.415 ms

Loss rate: 8.64%

-- Flow 1:

Average throughput: 854.45 Mbit/s

95th percentile per-packet one-way delay: 205.832 ms

Loss rate: 5.98%

-- Flow 2:

Average throughput: 718.33 Mbit/s

95th percentile per-packet one-way delay: 233.135 ms

Loss rate: 10.38%

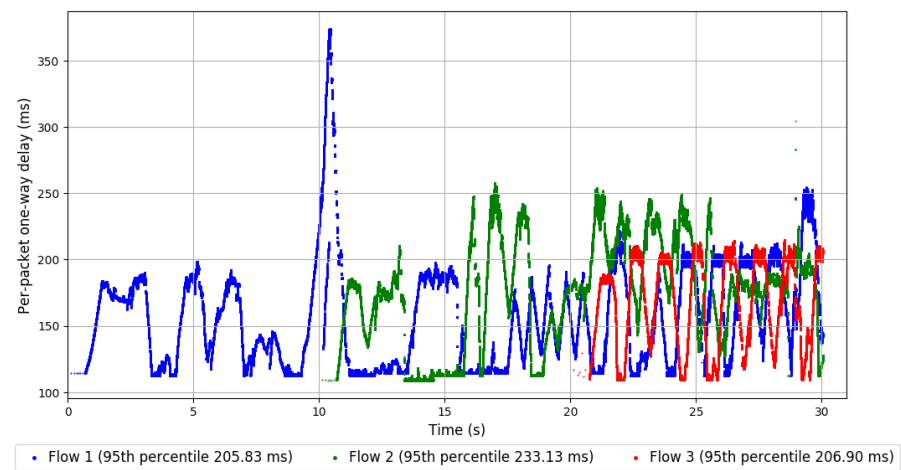
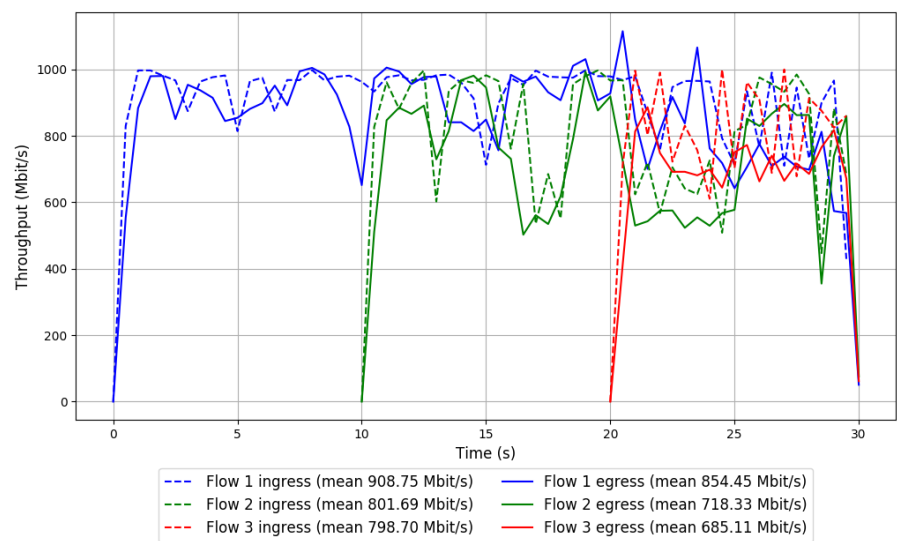
-- Flow 3:

Average throughput: 685.11 Mbit/s

95th percentile per-packet one-way delay: 206.897 ms

Loss rate: 14.27%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2017-12-20 17:22:30

End at: 2017-12-20 17:23:00

Below is generated by plot.py at 2017-12-20 20:49:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1631.94 Mbit/s

95th percentile per-packet one-way delay: 209.169 ms

Loss rate: 7.19%

-- Flow 1:

Average throughput: 876.17 Mbit/s

95th percentile per-packet one-way delay: 203.930 ms

Loss rate: 5.22%

-- Flow 2:

Average throughput: 817.13 Mbit/s

95th percentile per-packet one-way delay: 211.904 ms

Loss rate: 7.27%

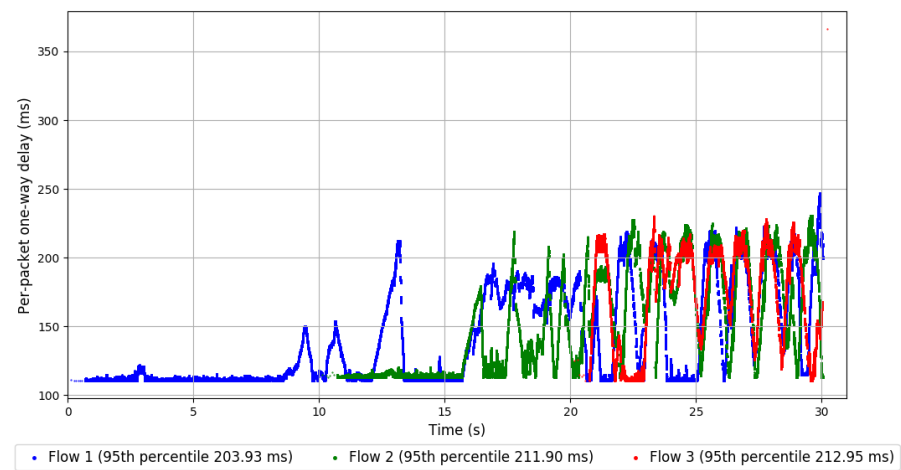
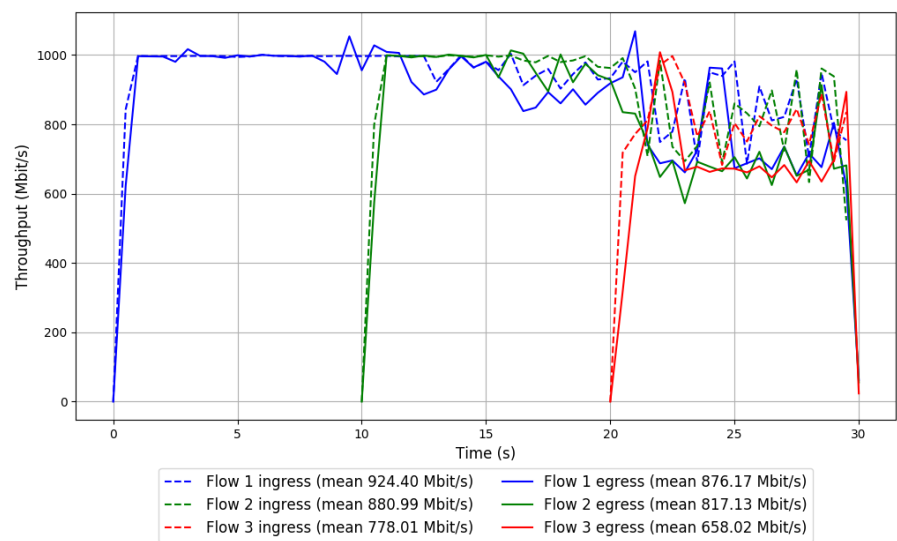
-- Flow 3:

Average throughput: 658.02 Mbit/s

95th percentile per-packet one-way delay: 212.948 ms

Loss rate: 14.07%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2017-12-20 17:38:01

End at: 2017-12-20 17:38:31

Below is generated by plot.py at 2017-12-20 20:49:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1648.61 Mbit/s

95th percentile per-packet one-way delay: 211.133 ms

Loss rate: 6.92%

-- Flow 1:

Average throughput: 879.69 Mbit/s

95th percentile per-packet one-way delay: 201.416 ms

Loss rate: 4.85%

-- Flow 2:

Average throughput: 794.86 Mbit/s

95th percentile per-packet one-way delay: 219.141 ms

Loss rate: 7.99%

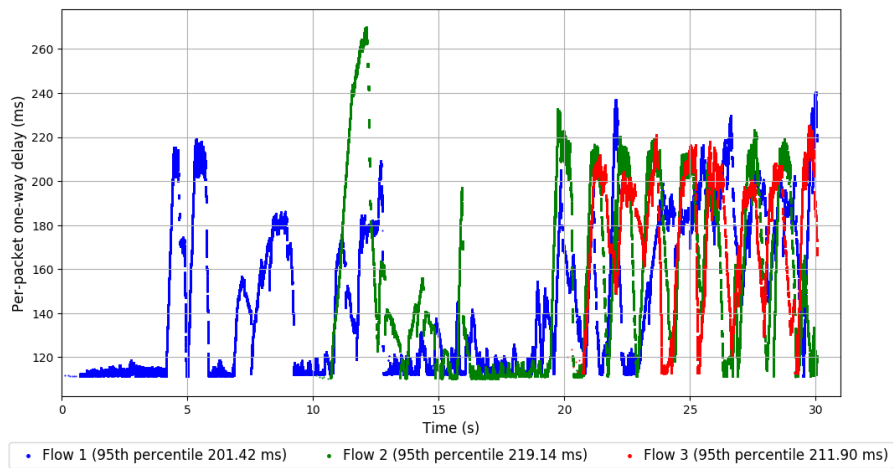
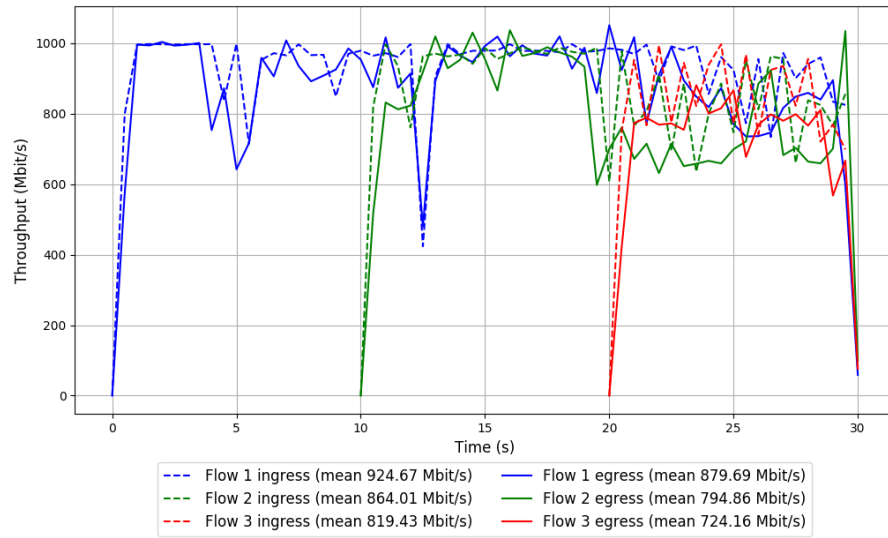
-- Flow 3:

Average throughput: 724.16 Mbit/s

95th percentile per-packet one-way delay: 211.896 ms

Loss rate: 11.67%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2017-12-20 17:53:04

End at: 2017-12-20 17:53:34

Below is generated by plot.py at 2017-12-20 20:58:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1576.61 Mbit/s

95th percentile per-packet one-way delay: 332.157 ms

Loss rate: 6.75%

-- Flow 1:

Average throughput: 825.62 Mbit/s

95th percentile per-packet one-way delay: 333.218 ms

Loss rate: 5.87%

-- Flow 2:

Average throughput: 774.07 Mbit/s

95th percentile per-packet one-way delay: 338.074 ms

Loss rate: 5.30%

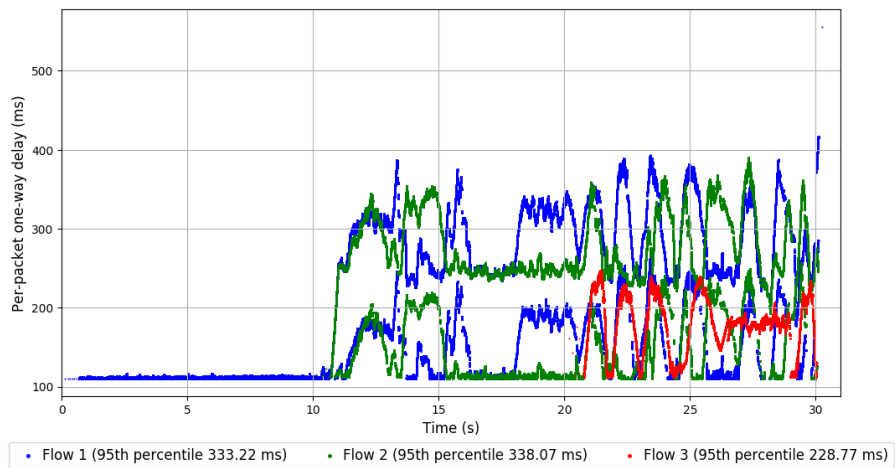
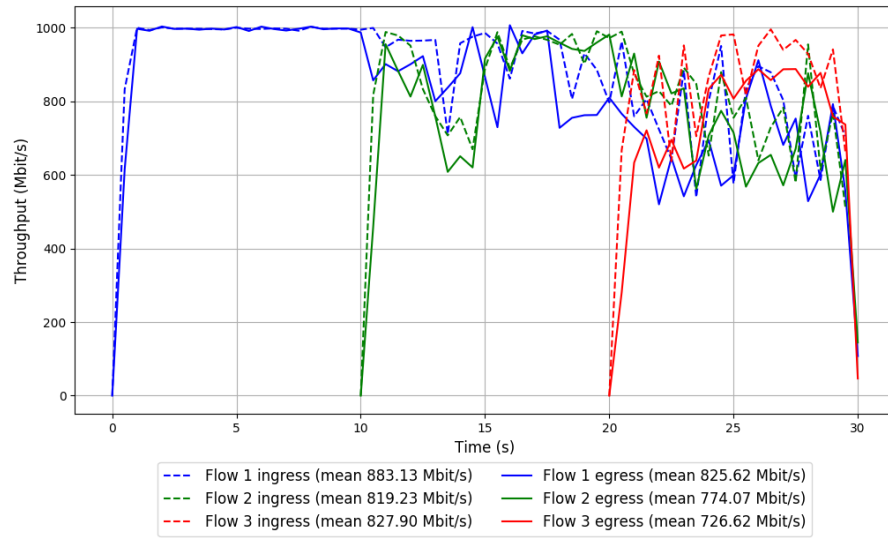
-- Flow 3:

Average throughput: 726.62 Mbit/s

95th percentile per-packet one-way delay: 228.768 ms

Loss rate: 12.50%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2017-12-20 18:08:28

End at: 2017-12-20 18:08:58

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1603.56 Mbit/s

95th percentile per-packet one-way delay: 208.947 ms

Loss rate: 7.97%

-- Flow 1:

Average throughput: 839.57 Mbit/s

95th percentile per-packet one-way delay: 203.107 ms

Loss rate: 7.00%

-- Flow 2:

Average throughput: 820.09 Mbit/s

95th percentile per-packet one-way delay: 201.234 ms

Loss rate: 7.34%

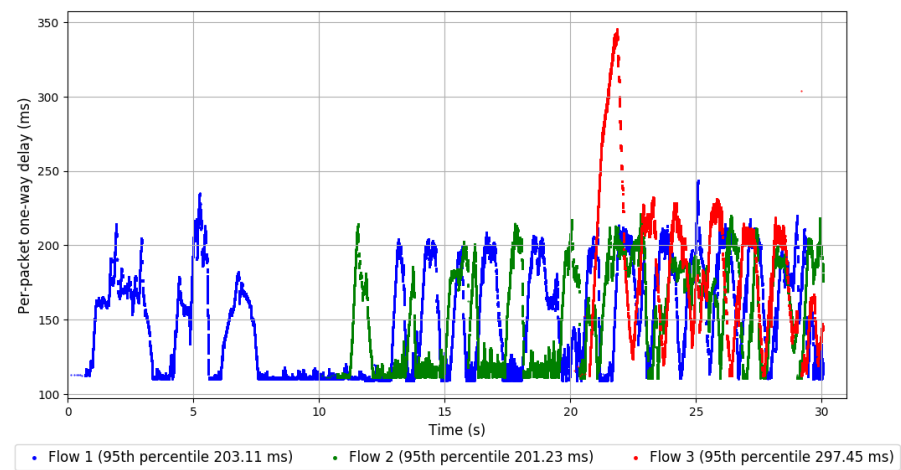
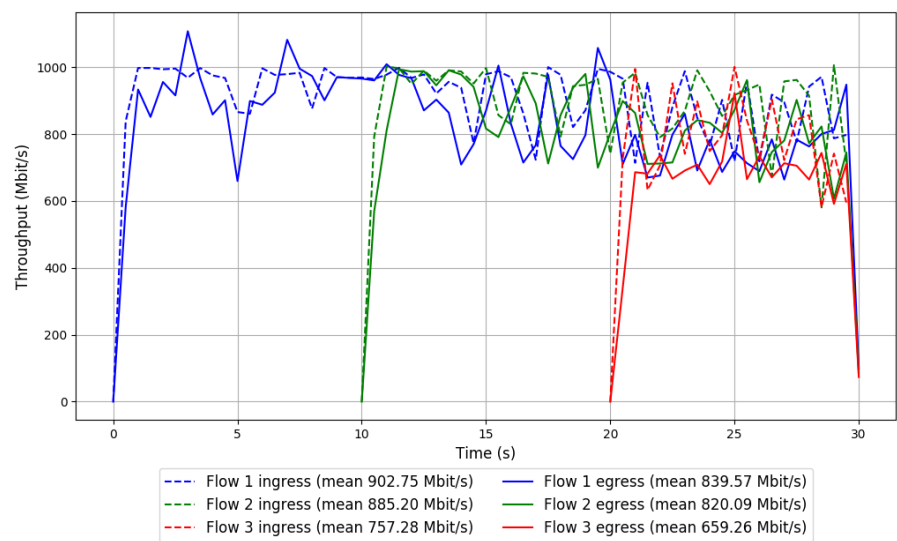
-- Flow 3:

Average throughput: 659.26 Mbit/s

95th percentile per-packet one-way delay: 297.451 ms

Loss rate: 12.94%

Run 10: Report of FillP — Data Link

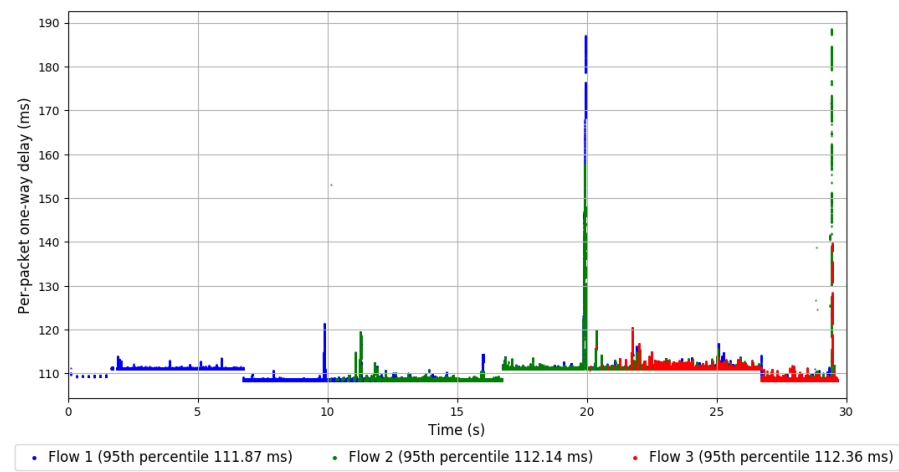
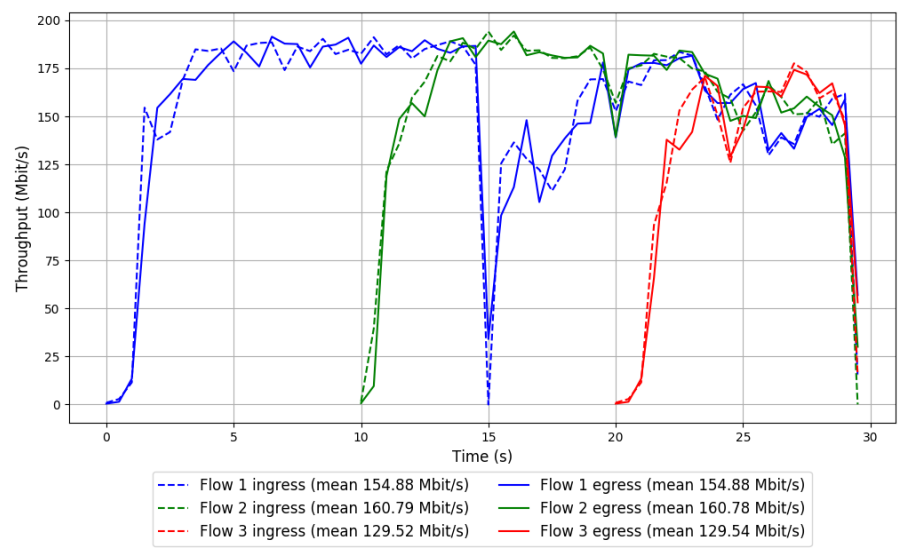


```
Run 1: Statistics of Indigo

Start at: 2017-12-20 15:41:53
End at: 2017-12-20 15:42:23

# Below is generated by plot.py at 2017-12-20 20:59:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 302.97 Mbit/s
95th percentile per-packet one-way delay: 112.070 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 154.88 Mbit/s
95th percentile per-packet one-way delay: 111.872 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 160.78 Mbit/s
95th percentile per-packet one-way delay: 112.145 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 129.54 Mbit/s
95th percentile per-packet one-way delay: 112.355 ms
Loss rate: 0.01%
```

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2017-12-20 15:57:37

End at: 2017-12-20 15:58:07

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.00 Mbit/s

95th percentile per-packet one-way delay: 110.706 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 163.24 Mbit/s

95th percentile per-packet one-way delay: 110.692 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 154.20 Mbit/s

95th percentile per-packet one-way delay: 110.777 ms

Loss rate: 0.34%

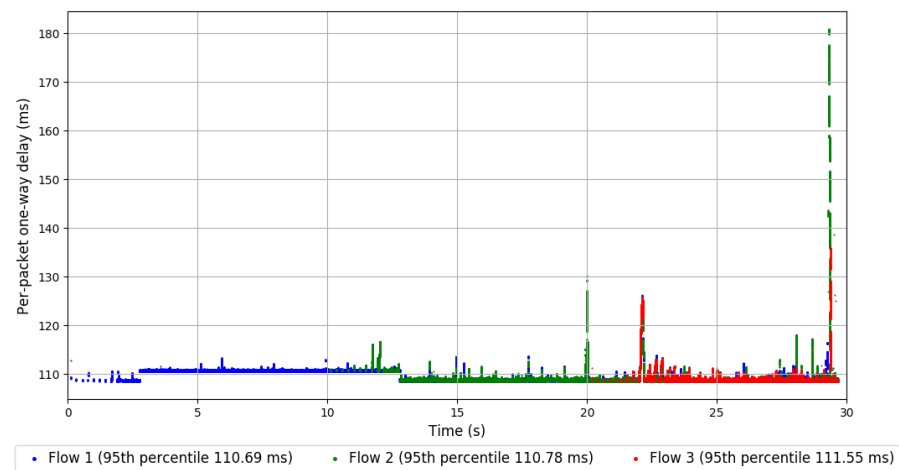
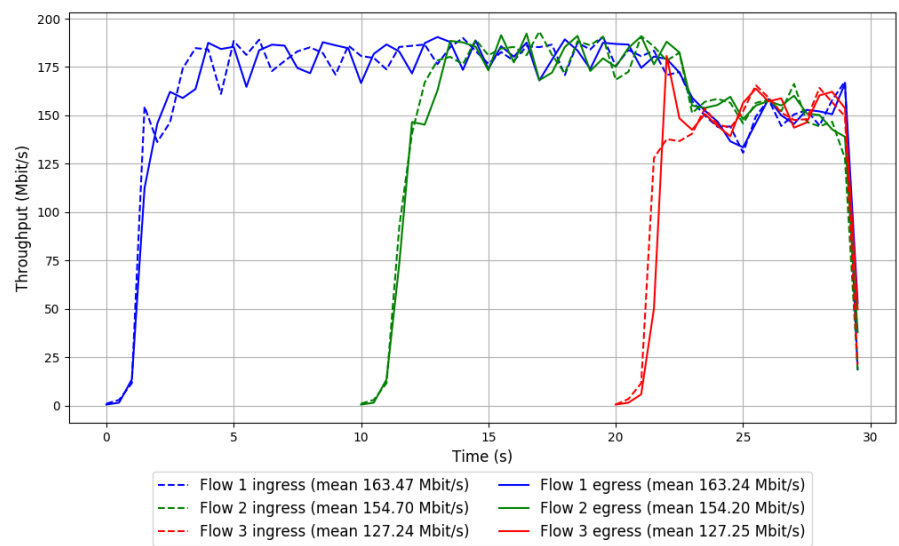
-- Flow 3:

Average throughput: 127.25 Mbit/s

95th percentile per-packet one-way delay: 111.552 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2017-12-20 16:13:11

End at: 2017-12-20 16:13:41

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 317.43 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 168.04 Mbit/s

95th percentile per-packet one-way delay: 112.111 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 160.82 Mbit/s

95th percentile per-packet one-way delay: 112.457 ms

Loss rate: 0.00%

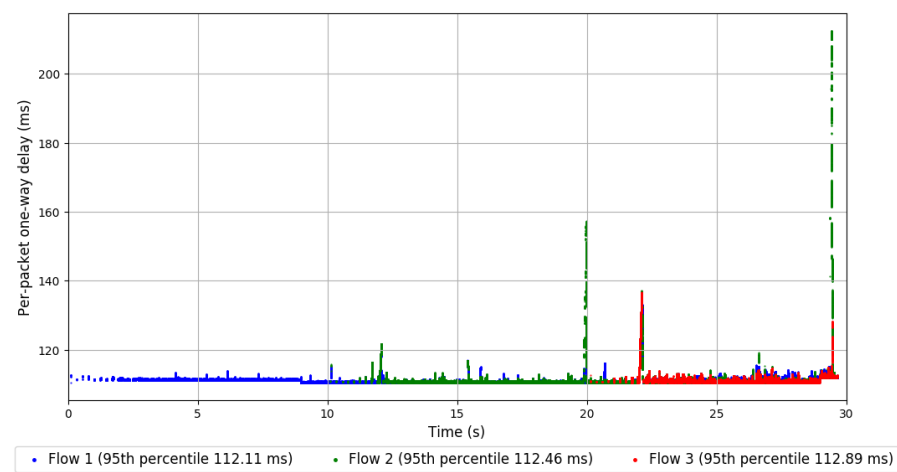
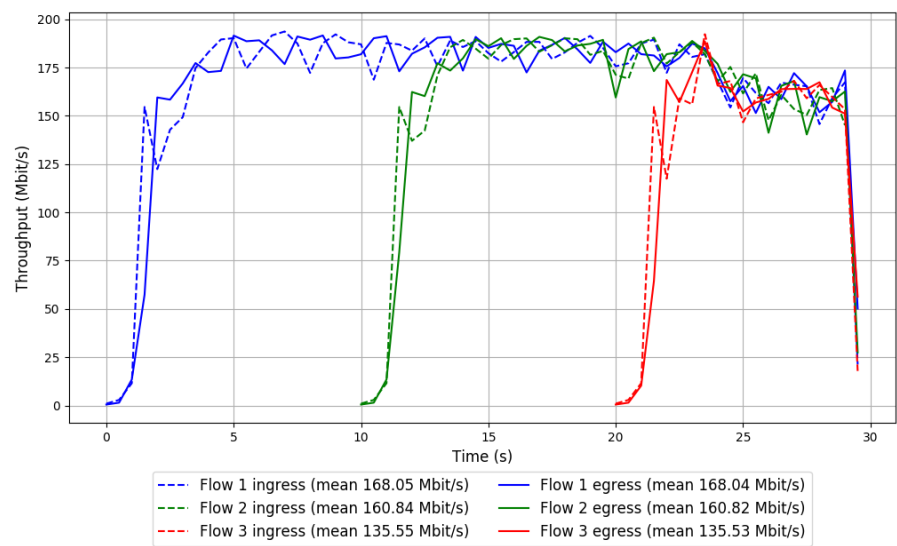
-- Flow 3:

Average throughput: 135.53 Mbit/s

95th percentile per-packet one-way delay: 112.889 ms

Loss rate: 0.00%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2017-12-20 16:28:41

End at: 2017-12-20 16:29:11

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 298.22 Mbit/s

95th percentile per-packet one-way delay: 112.488 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 160.48 Mbit/s

95th percentile per-packet one-way delay: 111.967 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 154.85 Mbit/s

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

Loss rate: 0.04%

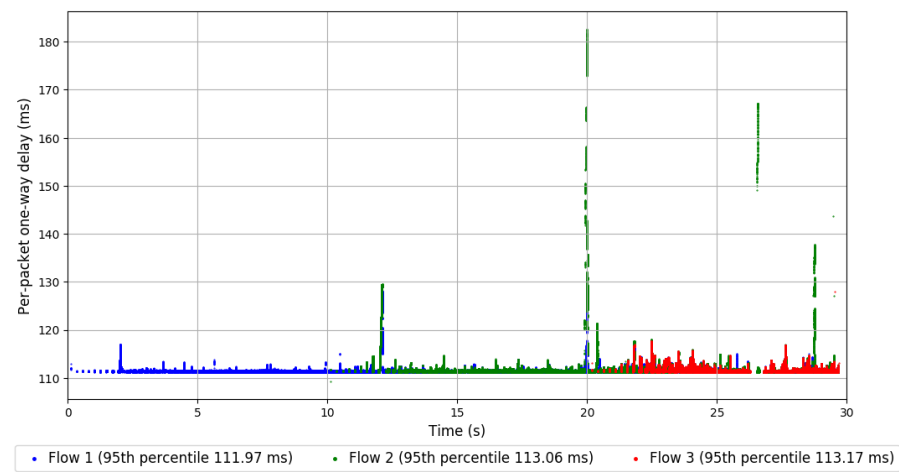
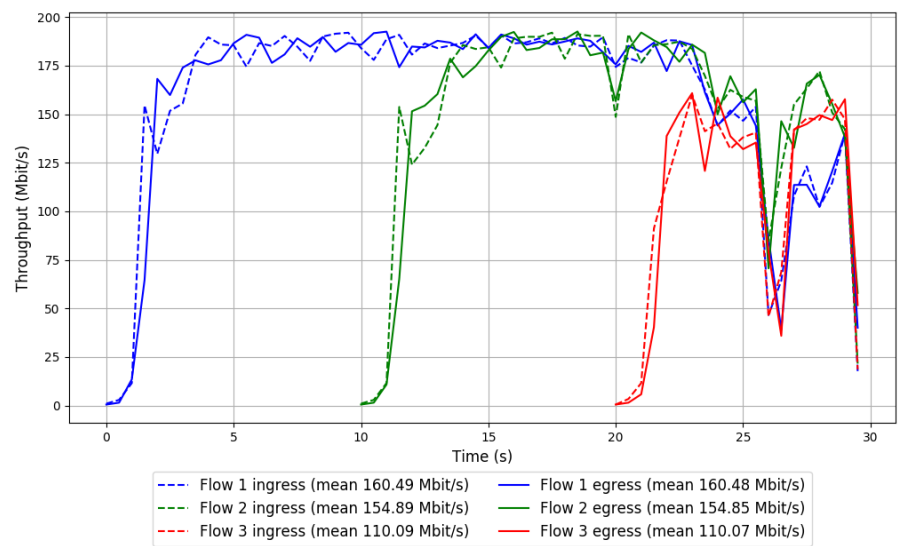
-- Flow 3:

Average throughput: 110.07 Mbit/s

95th percentile per-packet one-way delay: 113.168 ms

Loss rate: 0.01%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2017-12-20 16:43:47

End at: 2017-12-20 16:44:17

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 300.77 Mbit/s

95th percentile per-packet one-way delay: 113.231 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 156.94 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 156.55 Mbit/s

95th percentile per-packet one-way delay: 113.506 ms

Loss rate: 0.00%

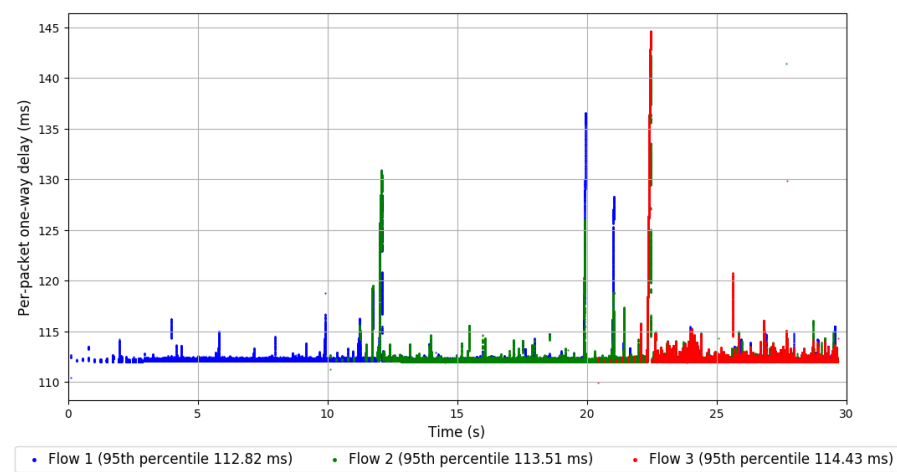
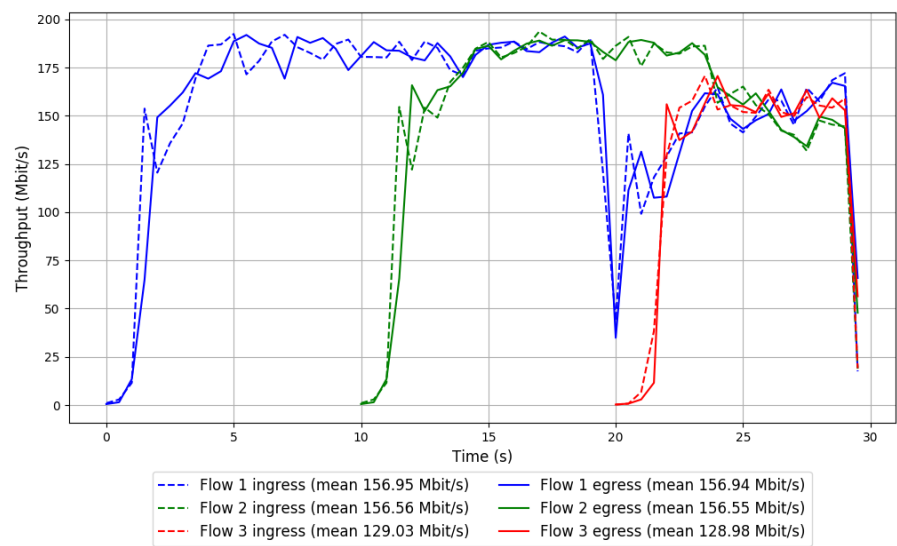
-- Flow 3:

Average throughput: 128.98 Mbit/s

95th percentile per-packet one-way delay: 114.429 ms

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2017-12-20 16:58:42

End at: 2017-12-20 16:59:12

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 306.40 Mbit/s

95th percentile per-packet one-way delay: 112.548 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 163.51 Mbit/s

95th percentile per-packet one-way delay: 112.419 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 154.88 Mbit/s

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

Loss rate: 0.00%

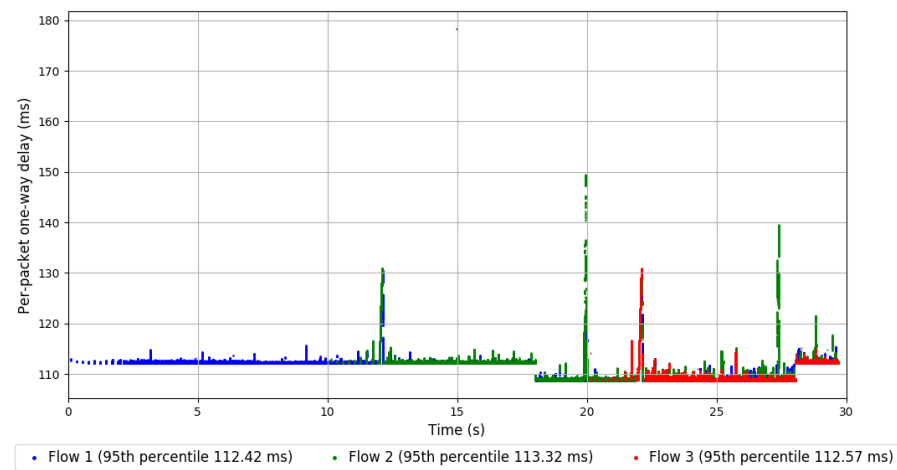
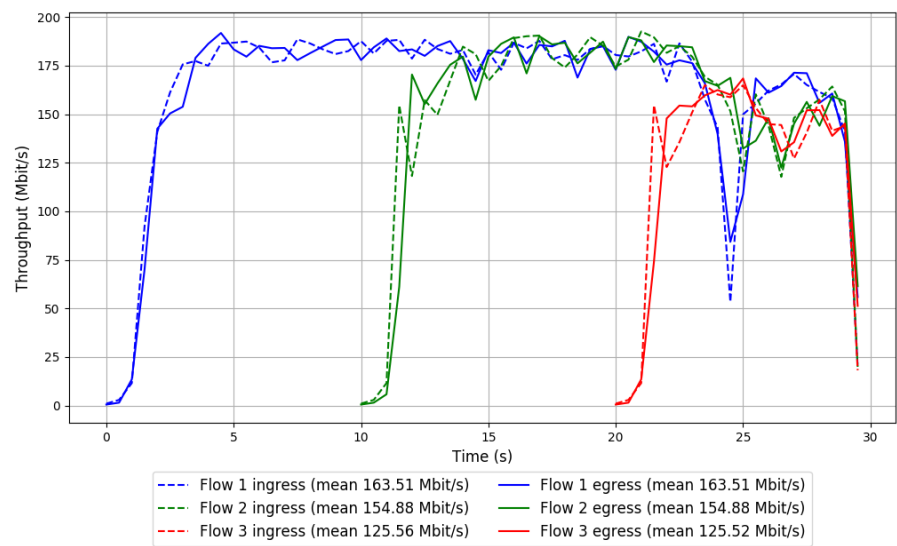
-- Flow 3:

Average throughput: 125.52 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2017-12-20 17:14:13

End at: 2017-12-20 17:14:43

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 301.26 Mbit/s

95th percentile per-packet one-way delay: 110.950 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 163.47 Mbit/s

95th percentile per-packet one-way delay: 110.821 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 148.34 Mbit/s

95th percentile per-packet one-way delay: 111.066 ms

Loss rate: 0.00%

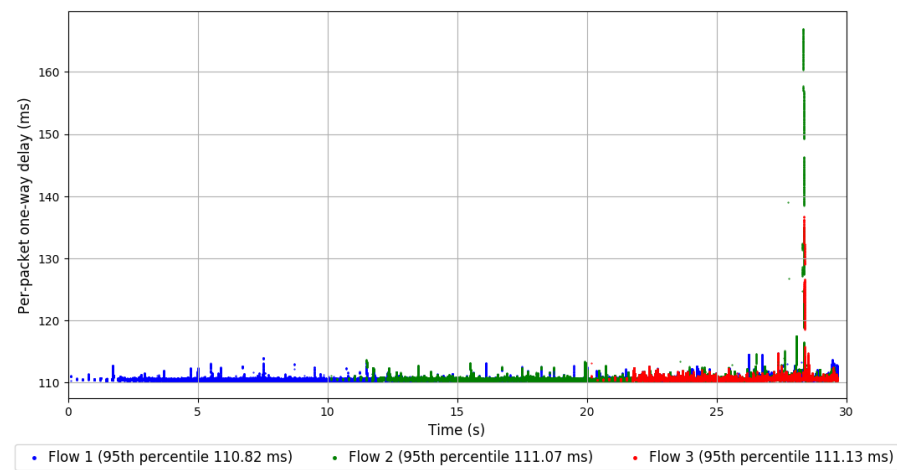
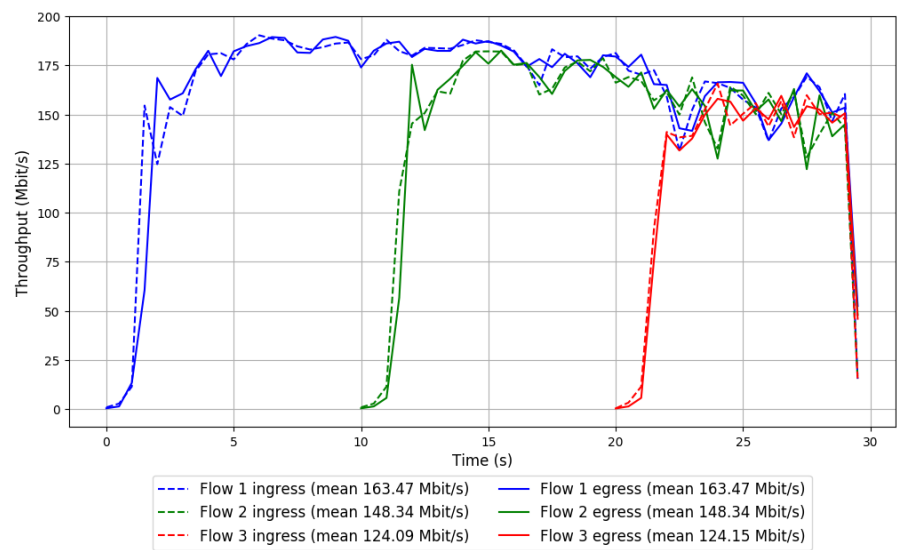
-- Flow 3:

Average throughput: 124.15 Mbit/s

95th percentile per-packet one-way delay: 111.127 ms

Loss rate: 0.01%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2017-12-20 17:29:52

End at: 2017-12-20 17:30:22

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.61 Mbit/s

95th percentile per-packet one-way delay: 111.343 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 162.57 Mbit/s

95th percentile per-packet one-way delay: 110.926 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 156.82 Mbit/s

95th percentile per-packet one-way delay: 111.795 ms

Loss rate: 0.01%

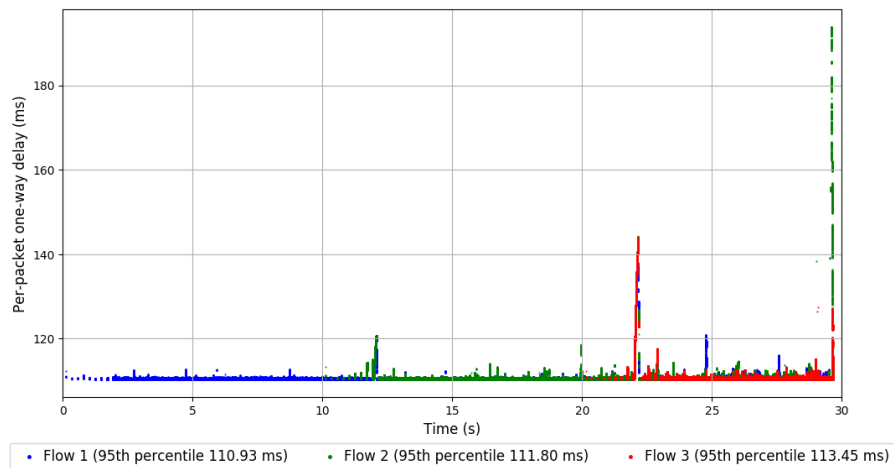
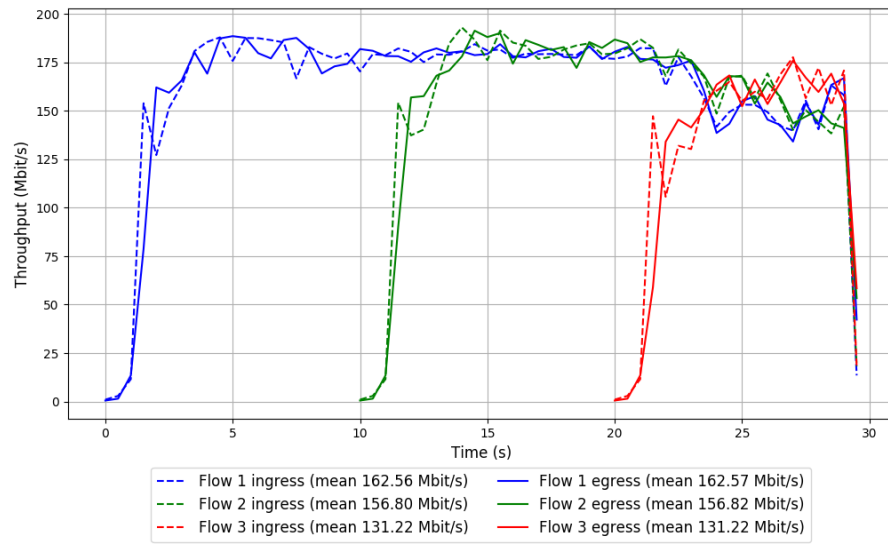
-- Flow 3:

Average throughput: 131.22 Mbit/s

95th percentile per-packet one-way delay: 113.447 ms

Loss rate: 0.02%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2017-12-20 17:45:01

End at: 2017-12-20 17:45:31

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.81 Mbit/s

95th percentile per-packet one-way delay: 109.955 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 165.77 Mbit/s

95th percentile per-packet one-way delay: 109.749 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 159.56 Mbit/s

95th percentile per-packet one-way delay: 110.159 ms

Loss rate: 0.01%

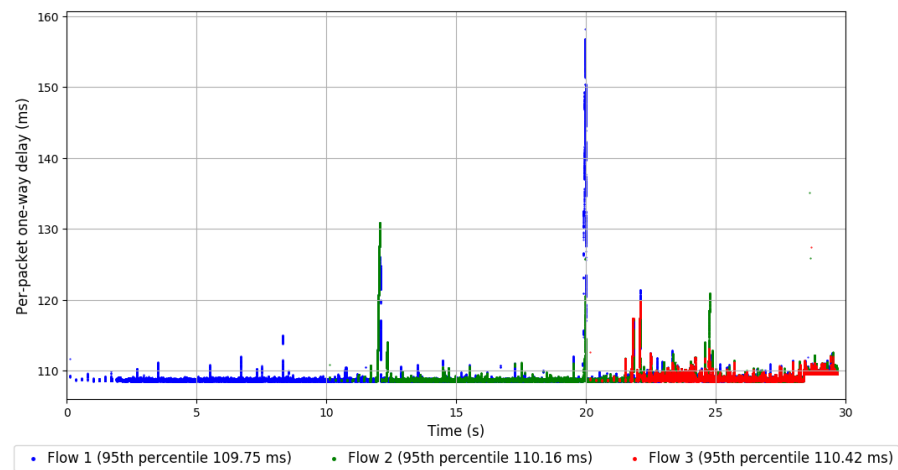
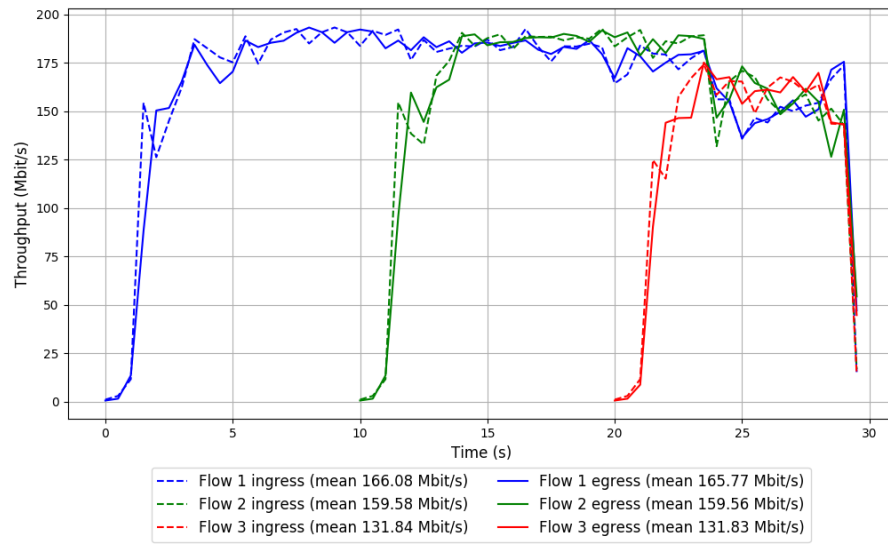
-- Flow 3:

Average throughput: 131.83 Mbit/s

95th percentile per-packet one-way delay: 110.425 ms

Loss rate: 0.00%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2017-12-20 18:00:12

End at: 2017-12-20 18:00:42

Below is generated by plot.py at 2017-12-20 20:59:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.61 Mbit/s

95th percentile per-packet one-way delay: 114.325 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 164.27 Mbit/s

95th percentile per-packet one-way delay: 114.345 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 154.45 Mbit/s

95th percentile per-packet one-way delay: 110.430 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 134.17 Mbit/s

95th percentile per-packet one-way delay: 114.358 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link

