

Pantheon Report

Generated at 2018-03-07 01:24:27 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

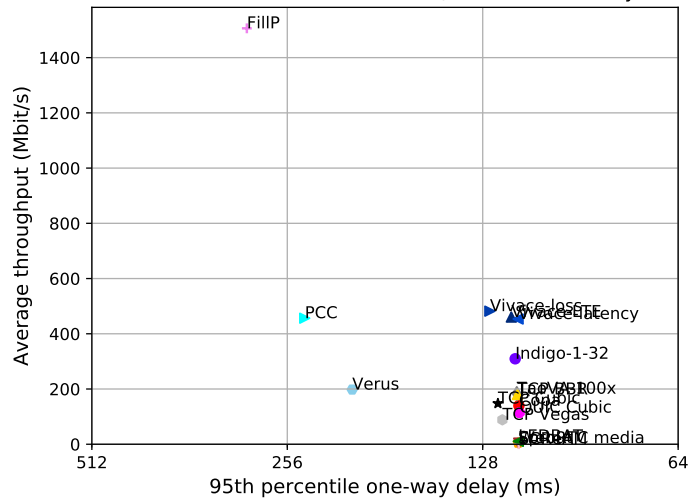
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

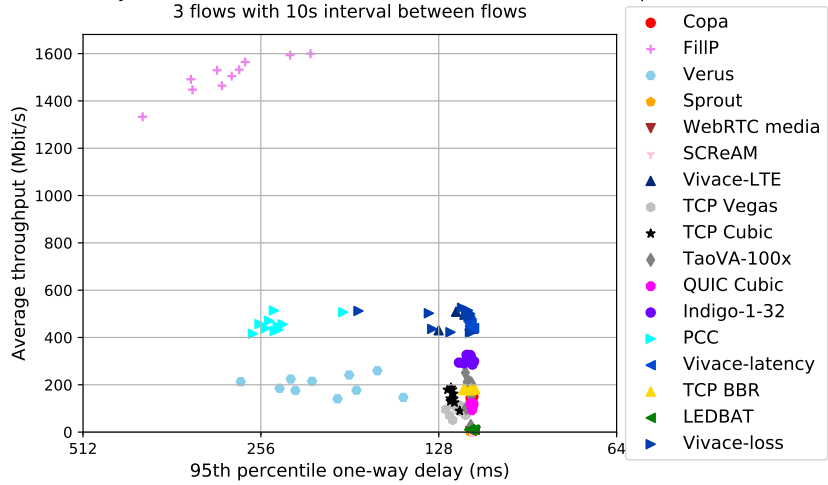
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
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/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



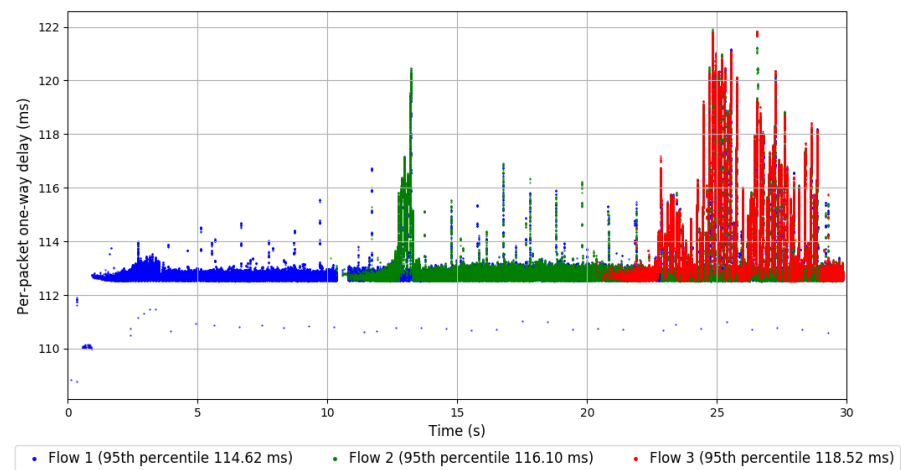
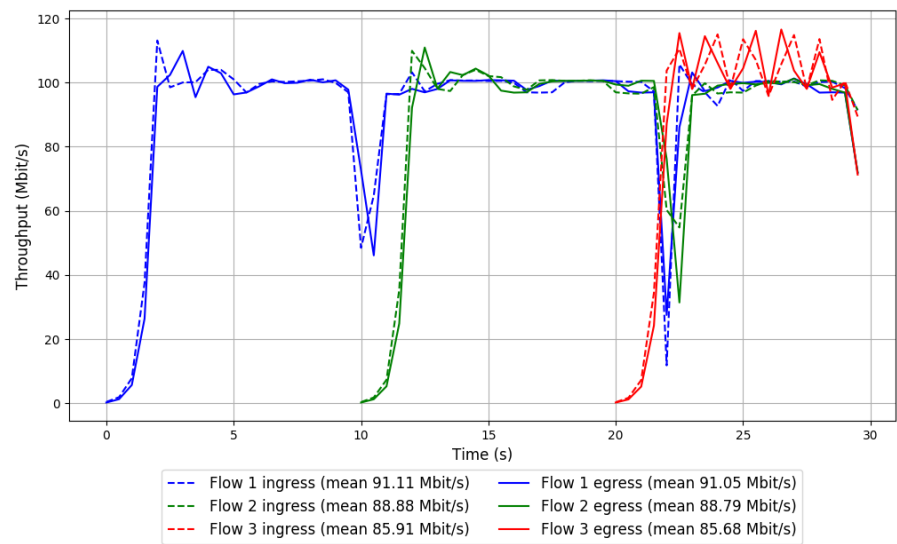
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	93.04	90.29	83.84	112.75	113.17	115.11	0.80	1.25	2.73
TCP Cubic	10	82.92	67.65	60.94	120.78	121.36	121.34	0.79	1.81	3.43
LEDBAT	10	6.94	4.34	2.19	112.89	112.70	112.25	1.52	2.34	4.65
PCC	10	363.09	120.48	41.86	241.29	238.38	237.47	2.81	3.32	4.88
QUIC Cubic	10	60.84	56.68	49.81	112.03	111.80	111.92	0.86	1.03	3.09
SCReAM	10	0.20	0.21	0.21	112.58	112.03	111.52	0.65	1.04	2.09
WebRTC media	10	2.11	1.31	0.45	112.27	112.09	112.42	0.89	1.73	3.40
Sprout	10	2.58	2.17	1.89	112.97	112.56	112.31	0.79	1.41	2.92
TaoVA-100x	10	96.46	90.72	86.75	113.00	113.90	116.29	0.55	1.29	2.43
TCP Vegas	10	40.37	43.65	58.75	117.06	118.13	120.42	0.73	1.21	2.53
Verus	10	120.38	78.97	78.13	186.23	195.61	245.88	1.27	1.27	5.03
Copa	10	71.34	69.63	67.08	112.42	112.38	112.12	0.60	1.02	2.78
FillP	10	787.35	759.85	660.97	281.76	270.26	261.89	4.71	5.70	7.26
Indigo-1-32	10	168.70	151.09	126.88	113.43	114.59	115.09	0.68	1.11	2.67
Vivace-latency	10	284.92	192.35	127.07	112.22	118.46	113.86	0.73	1.35	3.36
Vivace-loss	10	283.65	233.99	134.04	124.46	121.36	119.83	0.90	1.41	3.17
Vivace-LTE	10	273.01	214.24	141.57	116.69	121.68	115.55	2.06	1.48	3.22

```
Run 1: Statistics of TCP BBR

Start at: 2018-03-06 17:15:43
End at: 2018-03-06 17:16:13

# Below is generated by plot.py at 2018-03-06 23:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 177.92 Mbit/s
95th percentile per-packet one-way delay: 116.372 ms
Loss rate: 1.22%
-- Flow 1:
Average throughput: 91.05 Mbit/s
95th percentile per-packet one-way delay: 114.624 ms
Loss rate: 0.80%
-- Flow 2:
Average throughput: 88.79 Mbit/s
95th percentile per-packet one-way delay: 116.102 ms
Loss rate: 1.23%
-- Flow 3:
Average throughput: 85.68 Mbit/s
95th percentile per-packet one-way delay: 118.516 ms
Loss rate: 2.55%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-06 17:35:06

End at: 2018-03-06 17:35:36

Below is generated by plot.py at 2018-03-06 23:45:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.26 Mbit/s

95th percentile per-packet one-way delay: 115.522 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 91.86 Mbit/s

95th percentile per-packet one-way delay: 114.733 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 97.35 Mbit/s

95th percentile per-packet one-way delay: 116.310 ms

Loss rate: 1.26%

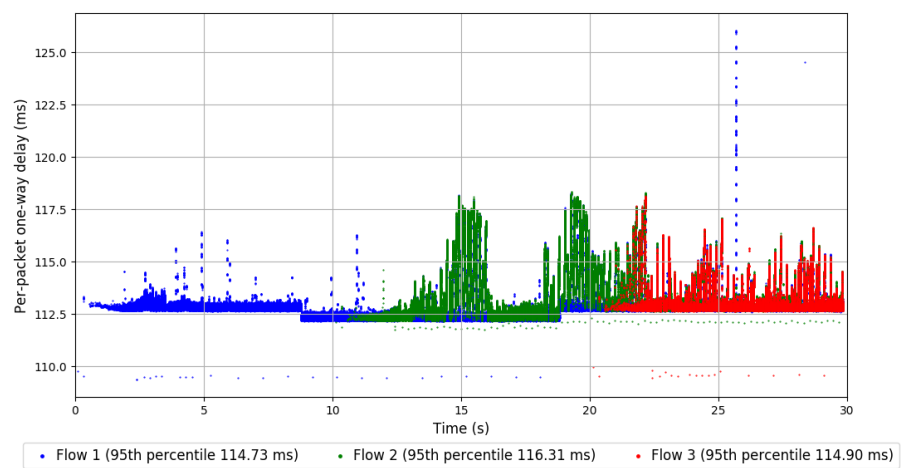
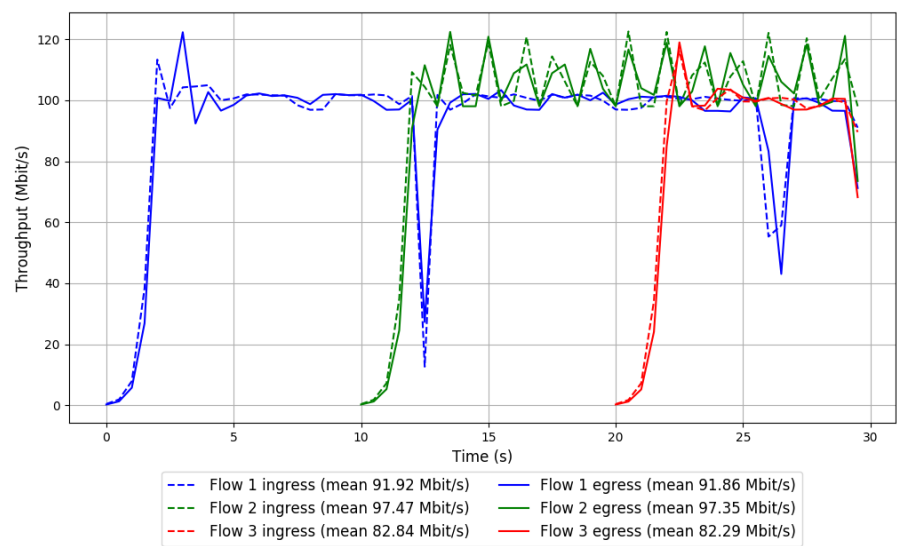
-- Flow 3:

Average throughput: 82.29 Mbit/s

95th percentile per-packet one-way delay: 114.898 ms

Loss rate: 2.68%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-06 17:54:22

End at: 2018-03-06 17:54:52

Below is generated by plot.py at 2018-03-06 23:45:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.89 Mbit/s

95th percentile per-packet one-way delay: 111.166 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 111.048 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 91.47 Mbit/s

95th percentile per-packet one-way delay: 111.474 ms

Loss rate: 1.20%

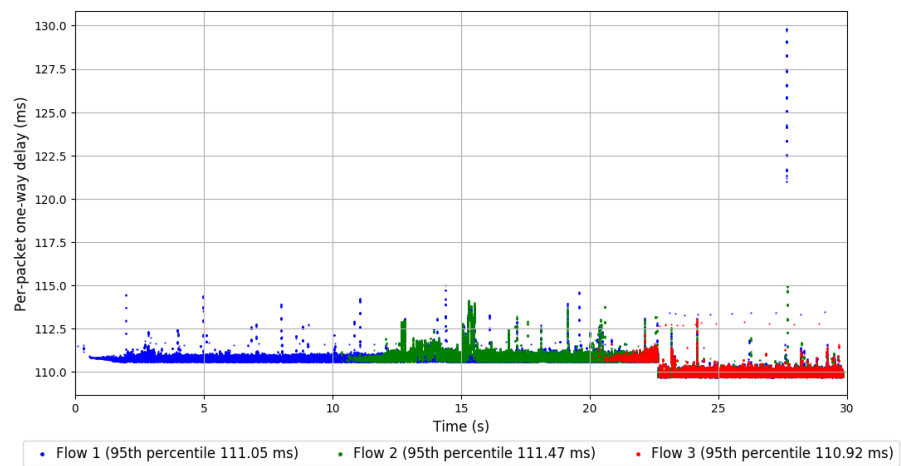
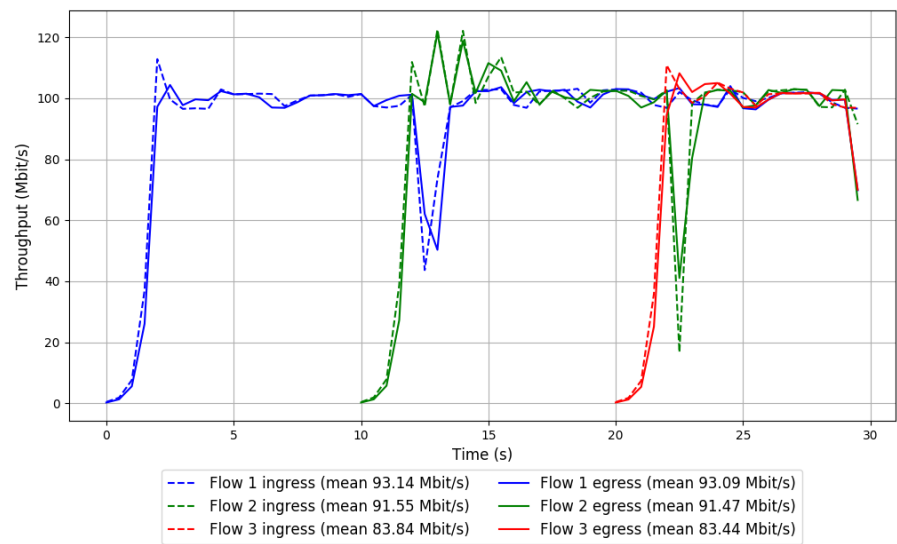
-- Flow 3:

Average throughput: 83.44 Mbit/s

95th percentile per-packet one-way delay: 110.917 ms

Loss rate: 2.90%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-06 18:13:55

End at: 2018-03-06 18:14:25

Below is generated by plot.py at 2018-03-06 23:45:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 184.86 Mbit/s

95th percentile per-packet one-way delay: 112.717 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 96.18 Mbit/s

95th percentile per-packet one-way delay: 112.074 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 89.86 Mbit/s

95th percentile per-packet one-way delay: 112.480 ms

Loss rate: 1.21%

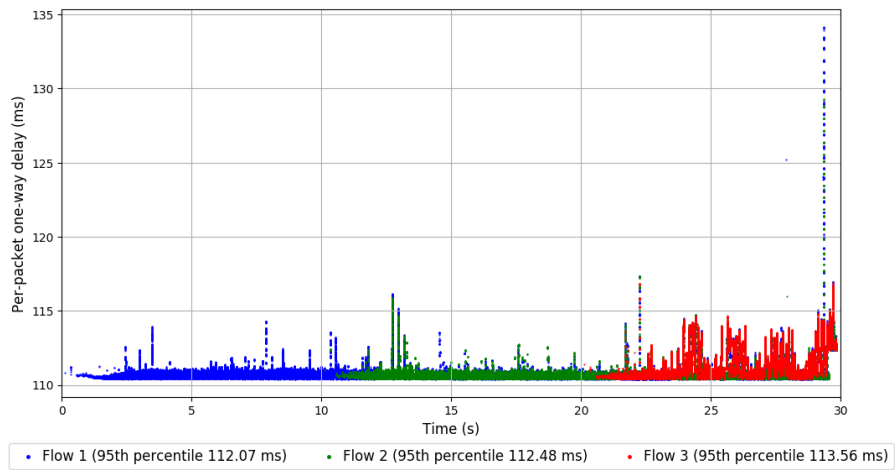
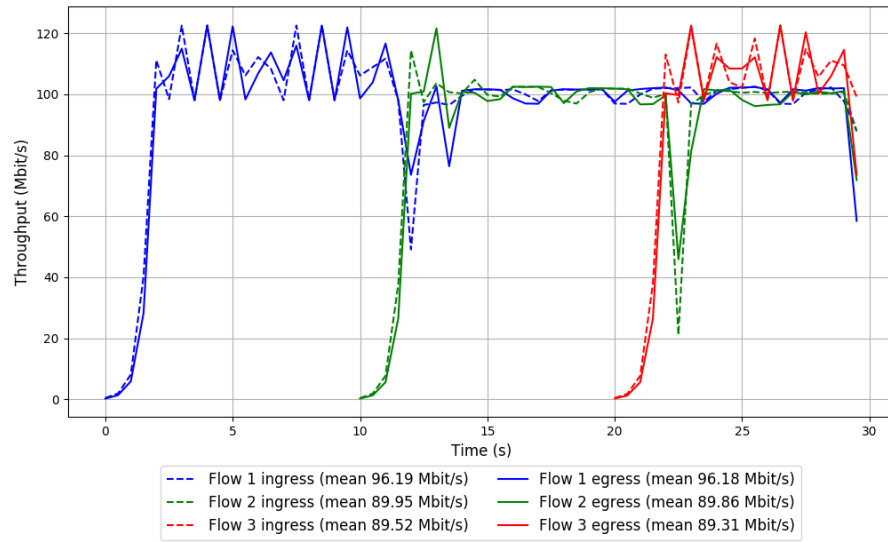
-- Flow 3:

Average throughput: 89.31 Mbit/s

95th percentile per-packet one-way delay: 113.557 ms

Loss rate: 2.82%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-06 18:33:01

End at: 2018-03-06 18:33:31

Below is generated by plot.py at 2018-03-06 23:45:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.93 Mbit/s

95th percentile per-packet one-way delay: 111.063 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 95.37 Mbit/s

95th percentile per-packet one-way delay: 111.035 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 89.22 Mbit/s

95th percentile per-packet one-way delay: 111.123 ms

Loss rate: 1.23%

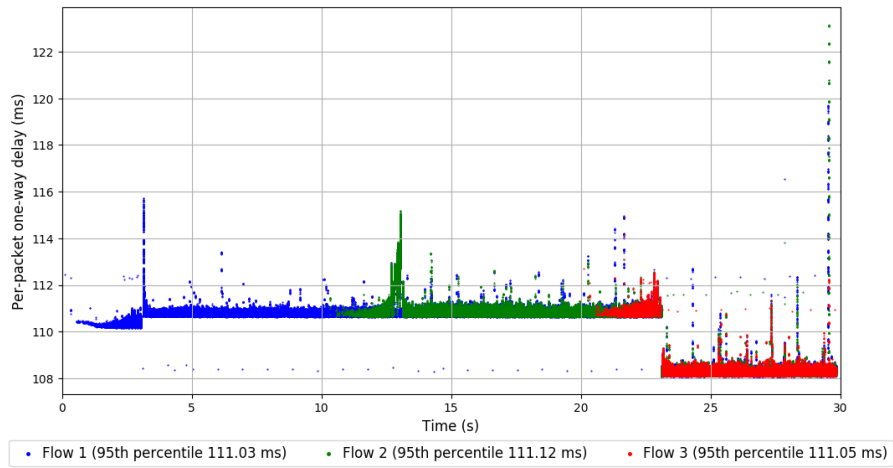
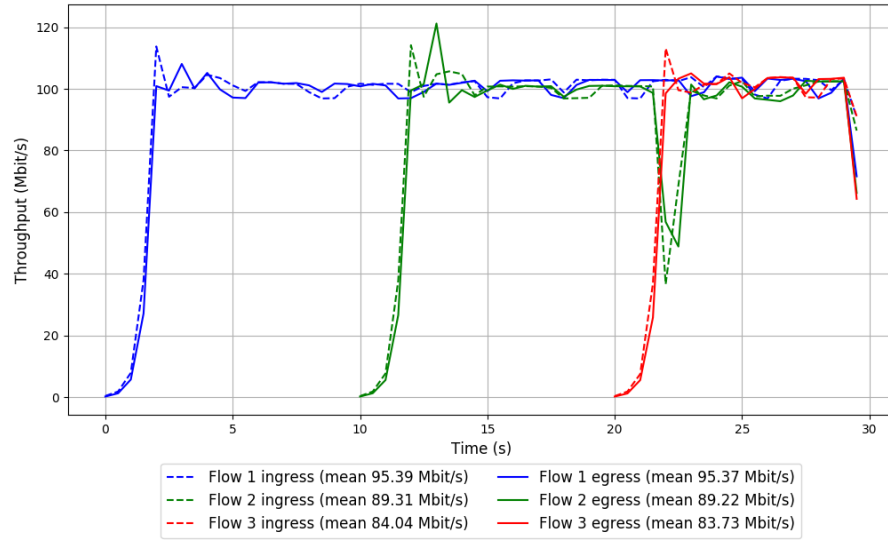
-- Flow 3:

Average throughput: 83.73 Mbit/s

95th percentile per-packet one-way delay: 111.049 ms

Loss rate: 2.64%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-06 18:52:24

End at: 2018-03-06 18:52:54

Below is generated by plot.py at 2018-03-06 23:45:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.11 Mbit/s

95th percentile per-packet one-way delay: 112.648 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 93.63 Mbit/s

95th percentile per-packet one-way delay: 112.565 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 89.52 Mbit/s

95th percentile per-packet one-way delay: 112.592 ms

Loss rate: 1.25%

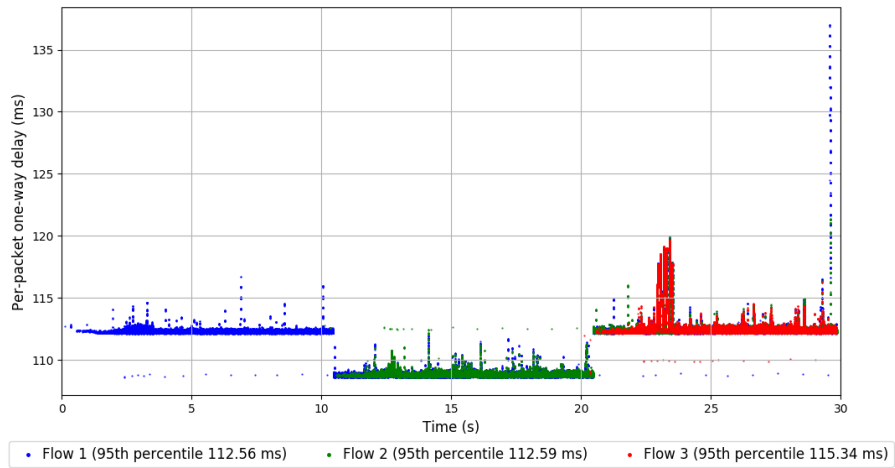
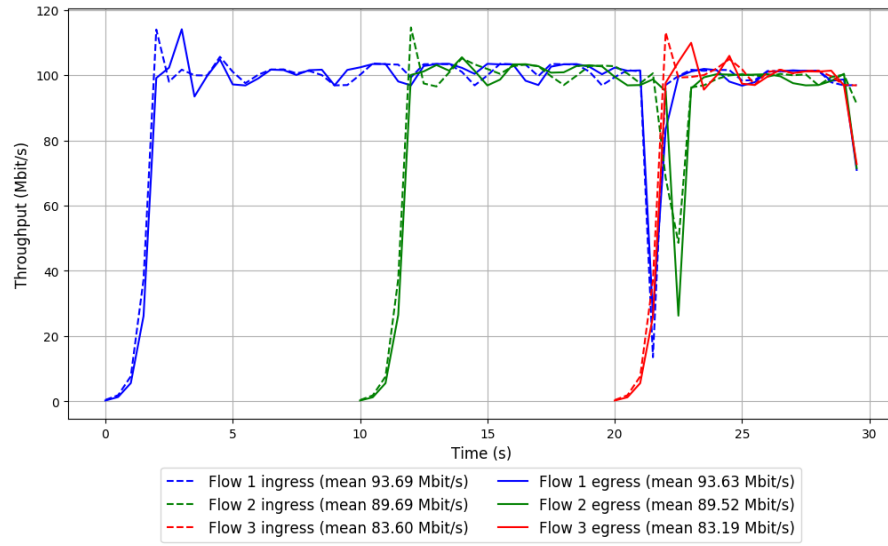
-- Flow 3:

Average throughput: 83.19 Mbit/s

95th percentile per-packet one-way delay: 115.345 ms

Loss rate: 2.91%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-06 19:11:42

End at: 2018-03-06 19:12:12

Below is generated by plot.py at 2018-03-06 23:45:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.84 Mbit/s

95th percentile per-packet one-way delay: 113.316 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 93.47 Mbit/s

95th percentile per-packet one-way delay: 112.931 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 89.41 Mbit/s

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

Loss rate: 1.35%

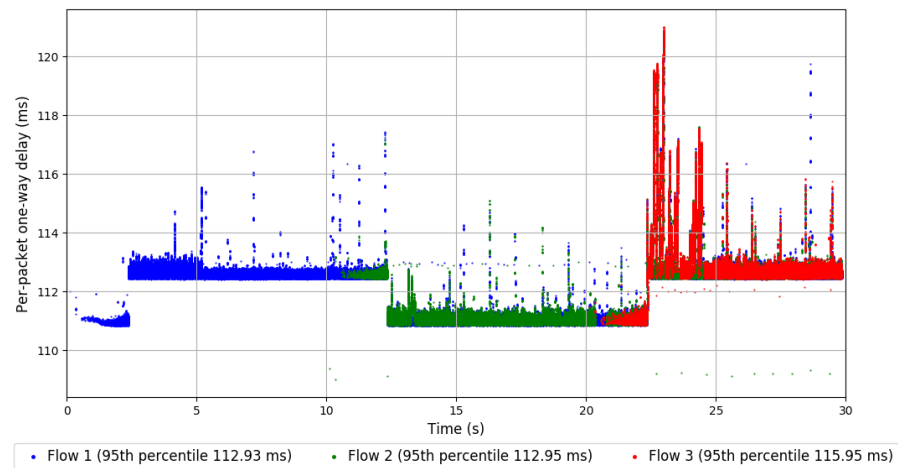
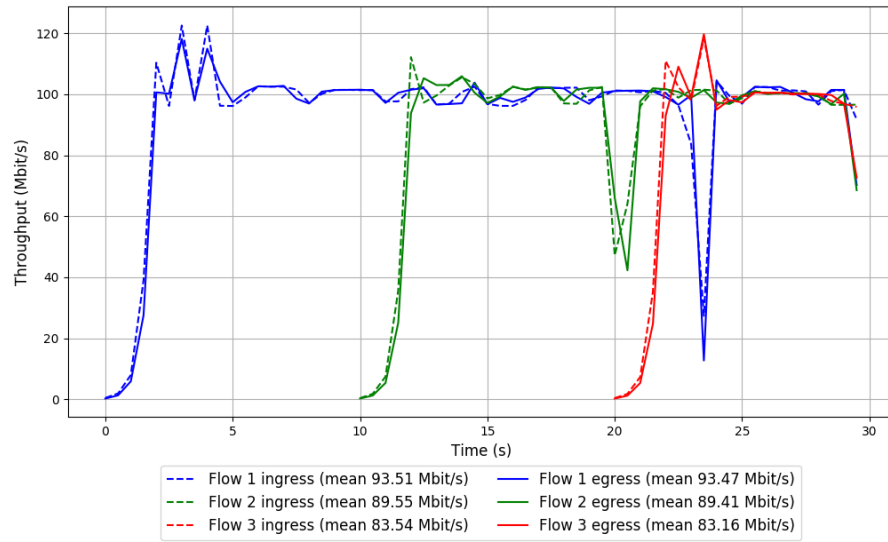
-- Flow 3:

Average throughput: 83.16 Mbit/s

95th percentile per-packet one-way delay: 115.954 ms

Loss rate: 2.85%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-06 19:31:04

End at: 2018-03-06 19:31:34

Below is generated by plot.py at 2018-03-06 23:45:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.81 Mbit/s

95th percentile per-packet one-way delay: 112.917 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 93.48 Mbit/s

95th percentile per-packet one-way delay: 112.828 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 89.37 Mbit/s

95th percentile per-packet one-way delay: 112.852 ms

Loss rate: 1.22%

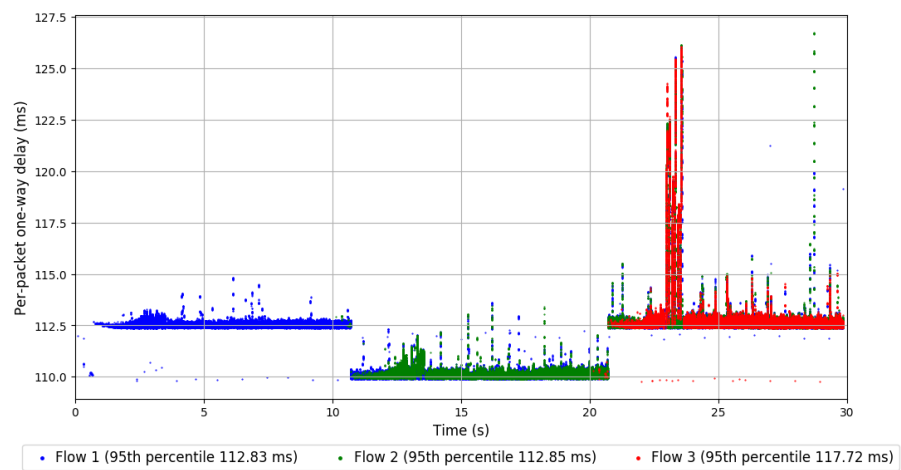
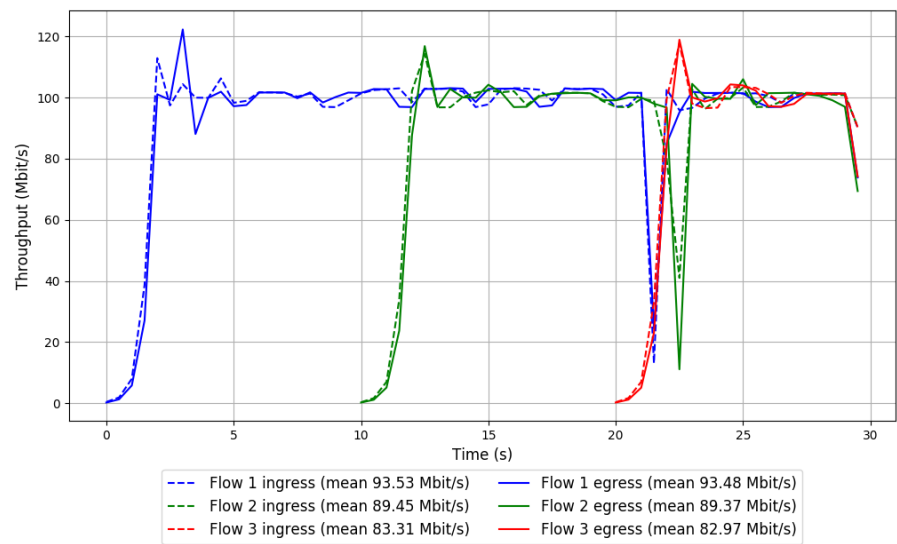
-- Flow 3:

Average throughput: 82.97 Mbit/s

95th percentile per-packet one-way delay: 117.716 ms

Loss rate: 2.60%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-06 19:50:24

End at: 2018-03-06 19:50:54

Below is generated by plot.py at 2018-03-06 23:47:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.38 Mbit/s

95th percentile per-packet one-way delay: 113.059 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 90.75 Mbit/s

95th percentile per-packet one-way delay: 112.909 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 113.013 ms

Loss rate: 1.24%

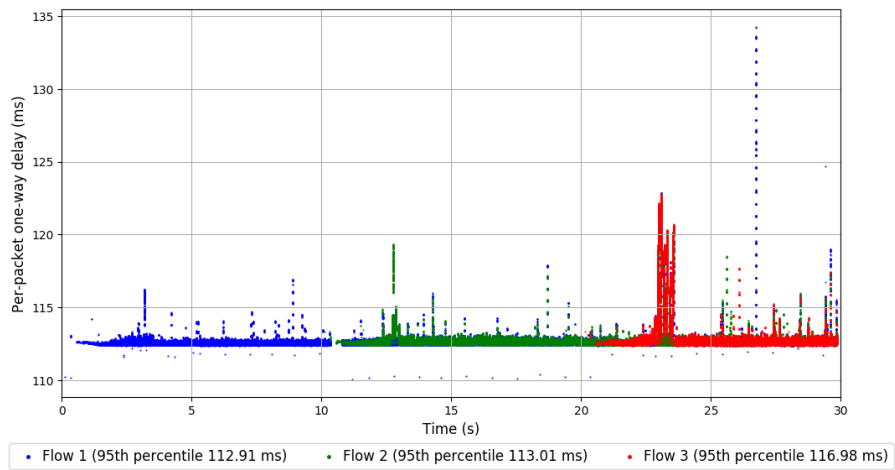
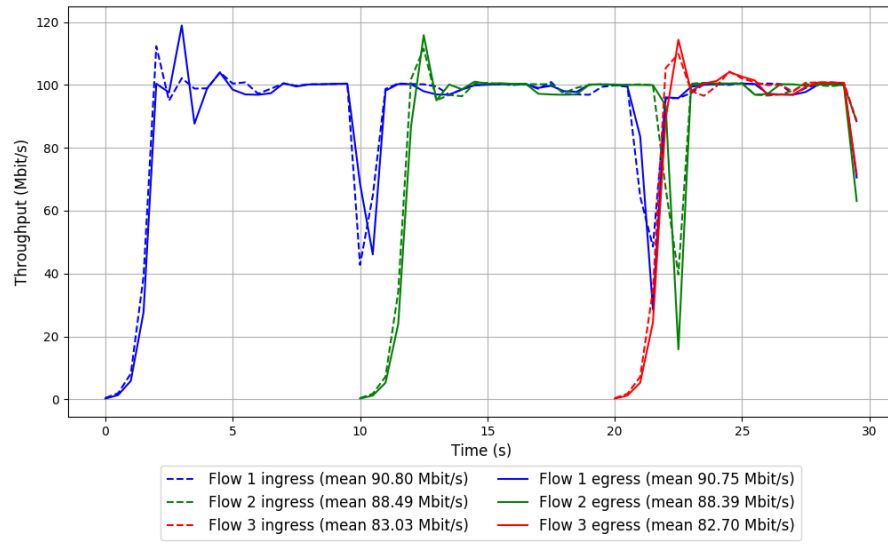
-- Flow 3:

Average throughput: 82.70 Mbit/s

95th percentile per-packet one-way delay: 116.976 ms

Loss rate: 2.65%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-06 20:09:45

End at: 2018-03-06 20:10:15

Below is generated by plot.py at 2018-03-06 23:47:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.62 Mbit/s

95th percentile per-packet one-way delay: 112.847 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 91.51 Mbit/s

95th percentile per-packet one-way delay: 112.733 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 89.52 Mbit/s

95th percentile per-packet one-way delay: 112.809 ms

Loss rate: 1.35%

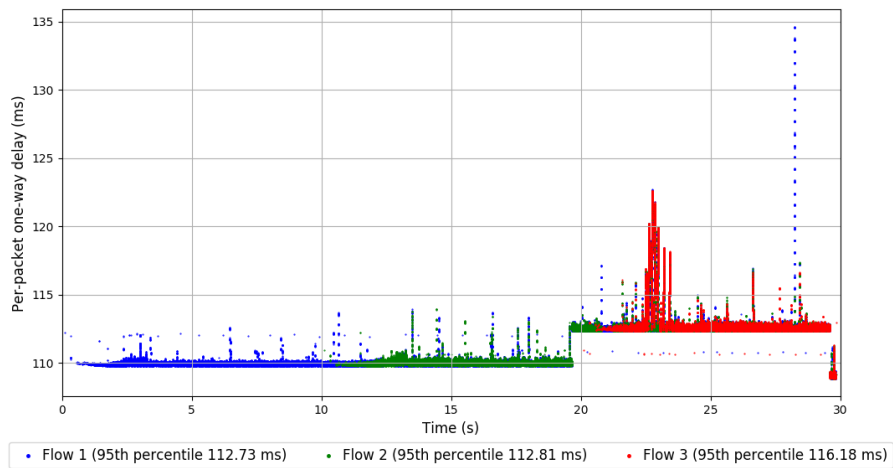
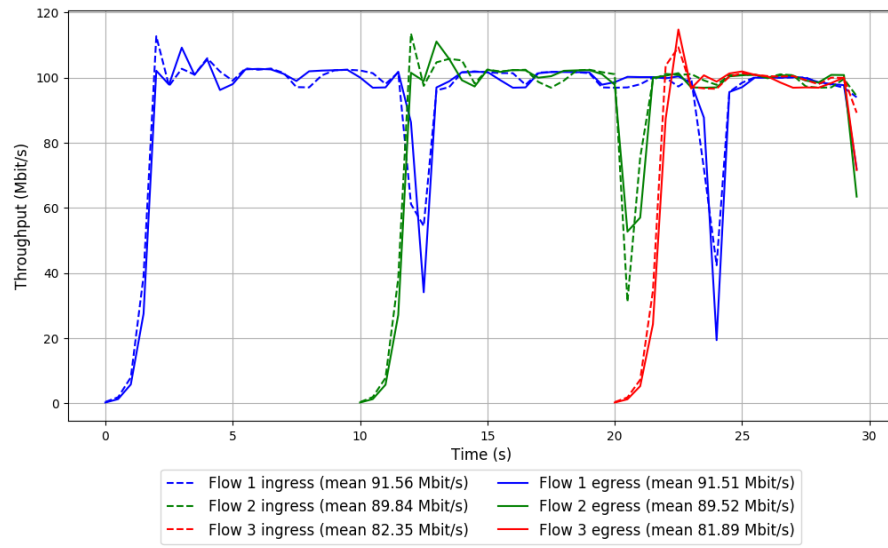
-- Flow 3:

Average throughput: 81.89 Mbit/s

95th percentile per-packet one-way delay: 116.178 ms

Loss rate: 2.72%

Run 10: Report of TCP BBR — Data Link

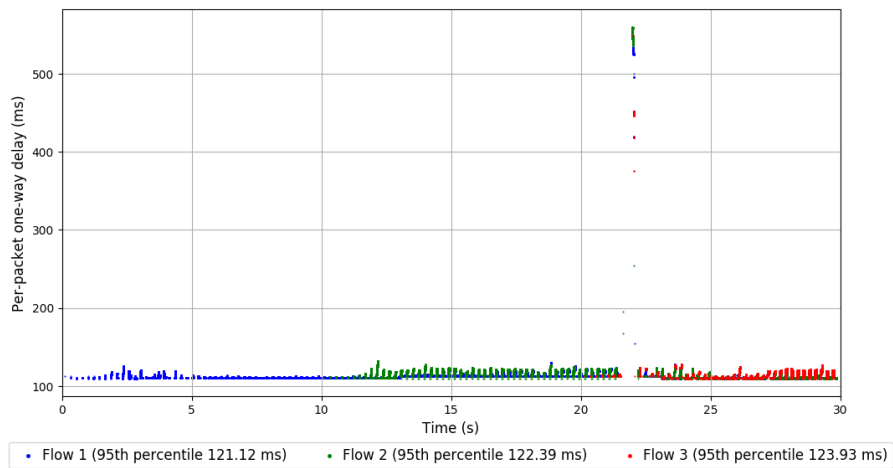
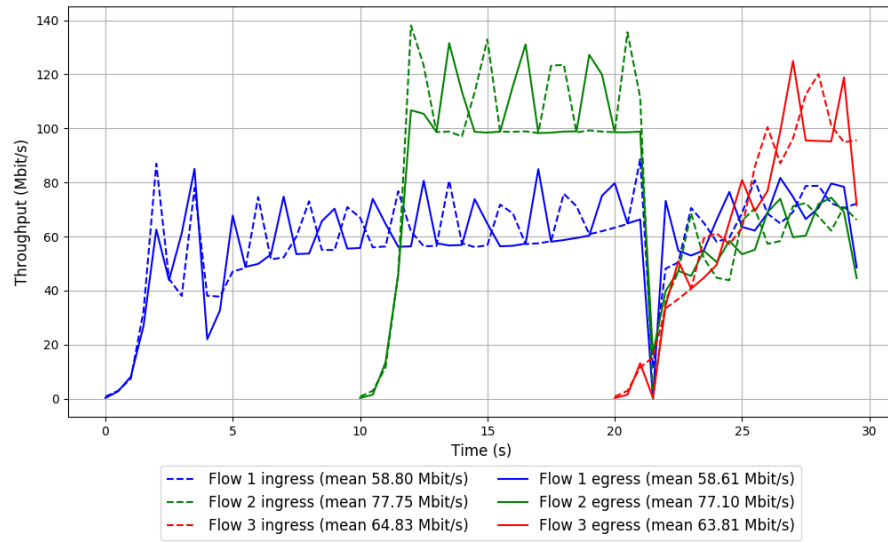


```
Run 1: Statistics of TCP Cubic

Start at: 2018-03-06 17:08:31
End at: 2018-03-06 17:09:01

# Below is generated by plot.py at 2018-03-06 23:47:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.42 Mbit/s
95th percentile per-packet one-way delay: 122.304 ms
Loss rate: 1.84%
-- Flow 1:
Average throughput: 58.61 Mbit/s
95th percentile per-packet one-way delay: 121.116 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 77.10 Mbit/s
95th percentile per-packet one-way delay: 122.393 ms
Loss rate: 1.93%
-- Flow 3:
Average throughput: 63.81 Mbit/s
95th percentile per-packet one-way delay: 123.930 ms
Loss rate: 3.75%
```

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-06 17:28:00

End at: 2018-03-06 17:28:30

Below is generated by plot.py at 2018-03-06 23:47:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.11 Mbit/s

95th percentile per-packet one-way delay: 123.699 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 84.70 Mbit/s

95th percentile per-packet one-way delay: 124.733 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 98.58 Mbit/s

95th percentile per-packet one-way delay: 121.905 ms

Loss rate: 1.27%

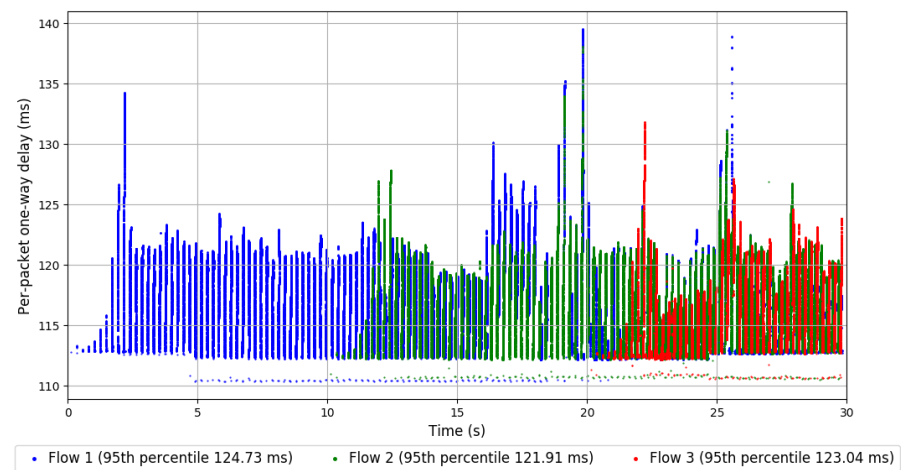
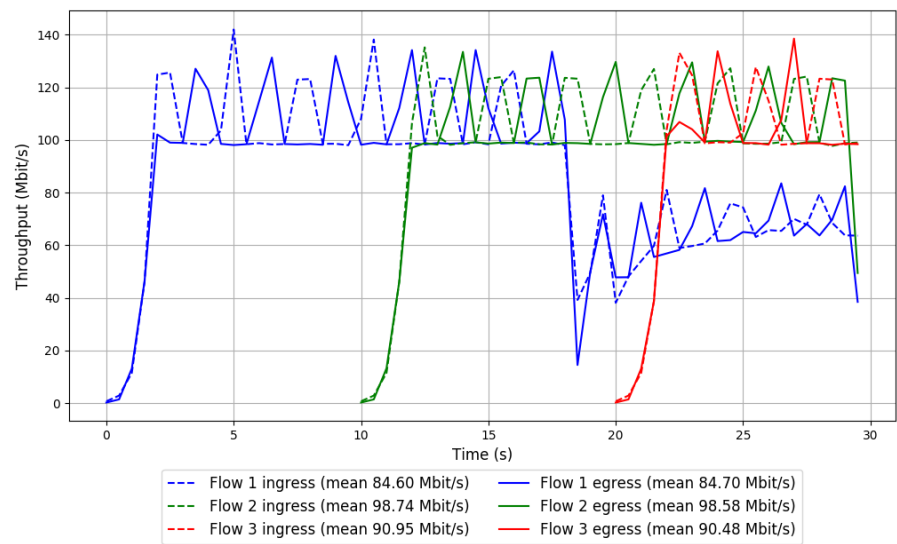
-- Flow 3:

Average throughput: 90.48 Mbit/s

95th percentile per-packet one-way delay: 123.044 ms

Loss rate: 2.75%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-06 17:47:09

End at: 2018-03-06 17:47:39

Below is generated by plot.py at 2018-03-06 23:47:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.80 Mbit/s

95th percentile per-packet one-way delay: 120.825 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 72.05 Mbit/s

95th percentile per-packet one-way delay: 120.615 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 59.22 Mbit/s

95th percentile per-packet one-way delay: 120.913 ms

Loss rate: 1.50%

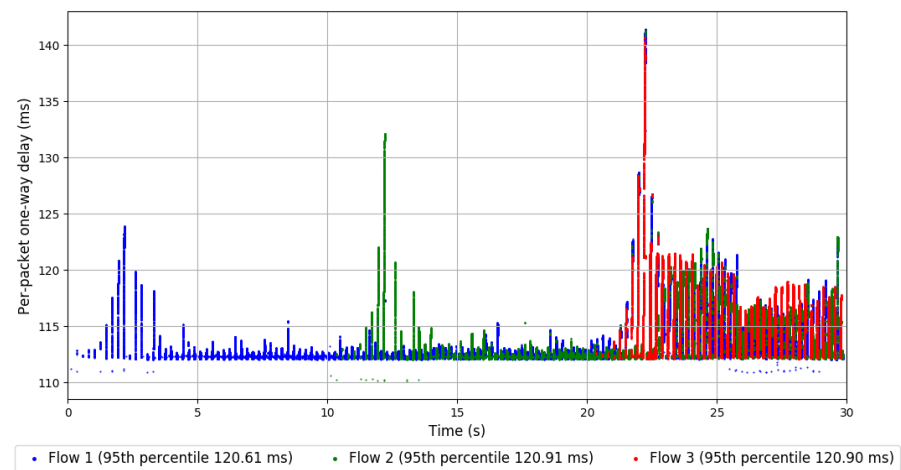
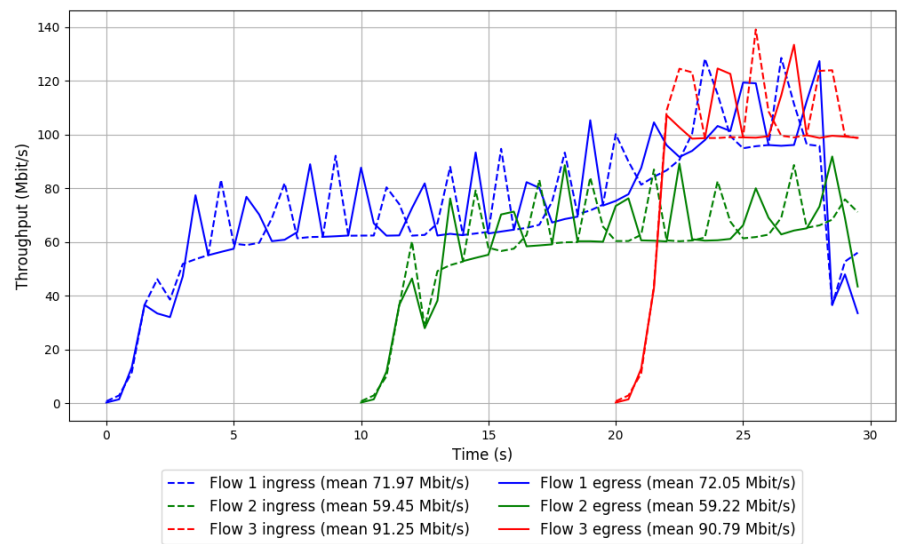
-- Flow 3:

Average throughput: 90.79 Mbit/s

95th percentile per-packet one-way delay: 120.900 ms

Loss rate: 2.75%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-06 18:06:41

End at: 2018-03-06 18:07:11

Below is generated by plot.py at 2018-03-06 23:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.92 Mbit/s

95th percentile per-packet one-way delay: 121.363 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 103.36 Mbit/s

95th percentile per-packet one-way delay: 121.533 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 71.45 Mbit/s

95th percentile per-packet one-way delay: 122.342 ms

Loss rate: 1.44%

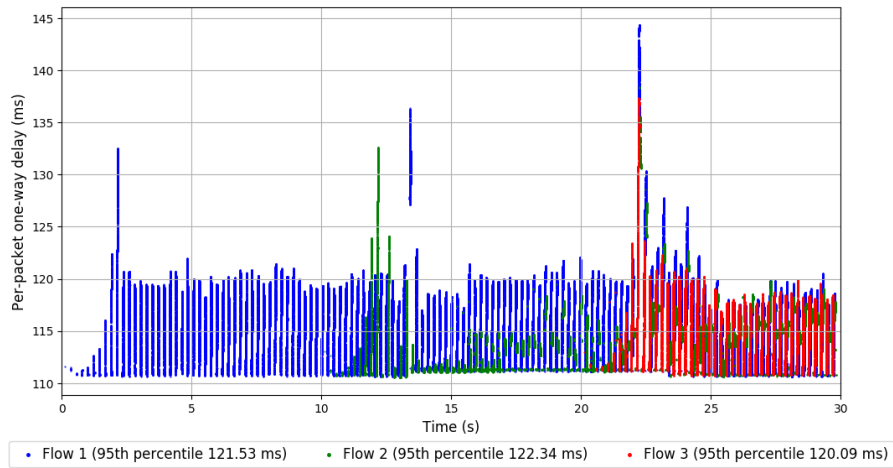
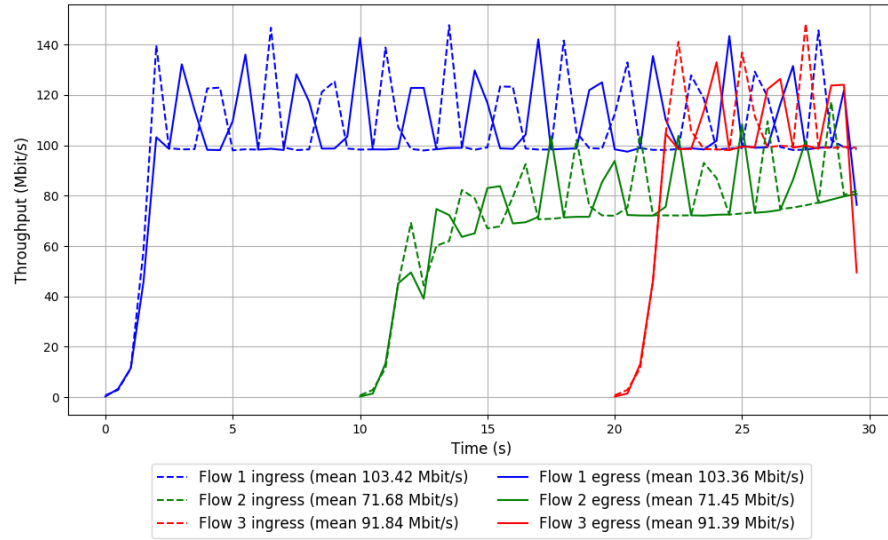
-- Flow 3:

Average throughput: 91.39 Mbit/s

95th percentile per-packet one-way delay: 120.086 ms

Loss rate: 2.75%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-06 18:25:48

End at: 2018-03-06 18:26:18

Below is generated by plot.py at 2018-03-06 23:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.55 Mbit/s

95th percentile per-packet one-way delay: 122.359 ms

Loss rate: 0.94%

-- Flow 1:

Average throughput: 87.30 Mbit/s

95th percentile per-packet one-way delay: 121.064 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 59.86 Mbit/s

95th percentile per-packet one-way delay: 124.185 ms

Loss rate: 1.50%

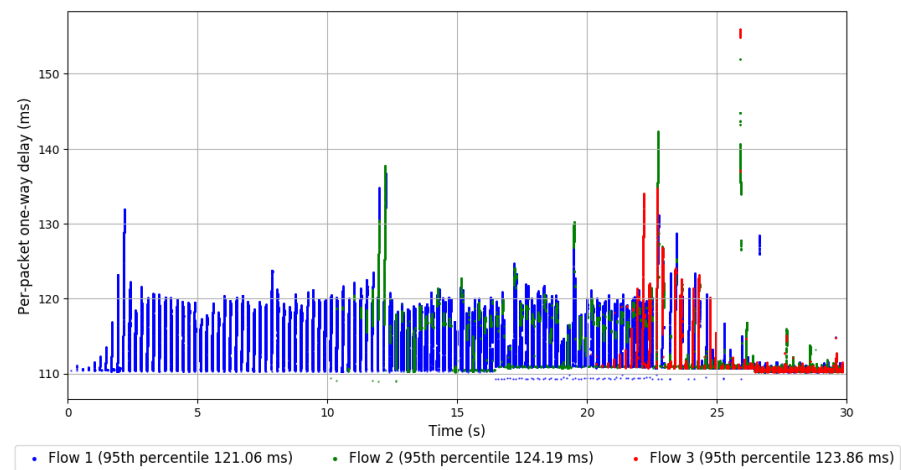
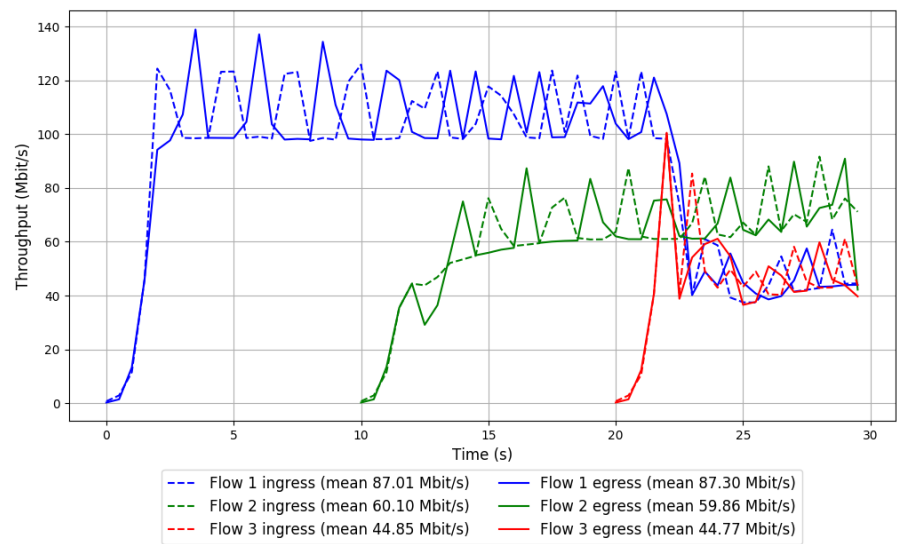
-- Flow 3:

Average throughput: 44.77 Mbit/s

95th percentile per-packet one-way delay: 123.862 ms

Loss rate: 2.45%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-06 18:45:14

End at: 2018-03-06 18:45:44

Below is generated by plot.py at 2018-03-06 23:48:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.85 Mbit/s

95th percentile per-packet one-way delay: 122.014 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 102.30 Mbit/s

95th percentile per-packet one-way delay: 120.803 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 84.63 Mbit/s

95th percentile per-packet one-way delay: 123.927 ms

Loss rate: 1.28%

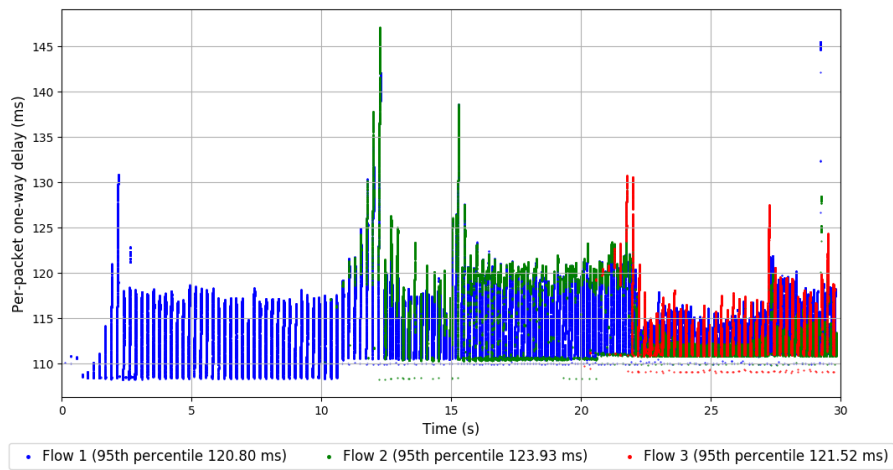
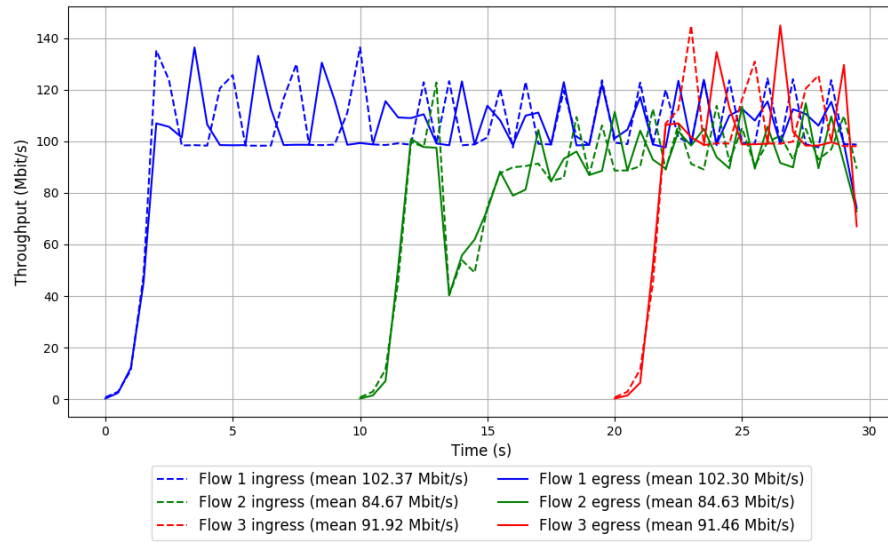
-- Flow 3:

Average throughput: 91.46 Mbit/s

95th percentile per-packet one-way delay: 121.524 ms

Loss rate: 2.71%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-06 19:04:30

End at: 2018-03-06 19:05:00

Below is generated by plot.py at 2018-03-06 23:49:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.06 Mbit/s

95th percentile per-packet one-way delay: 120.367 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 76.11 Mbit/s

95th percentile per-packet one-way delay: 120.482 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 52.20 Mbit/s

95th percentile per-packet one-way delay: 119.615 ms

Loss rate: 1.48%

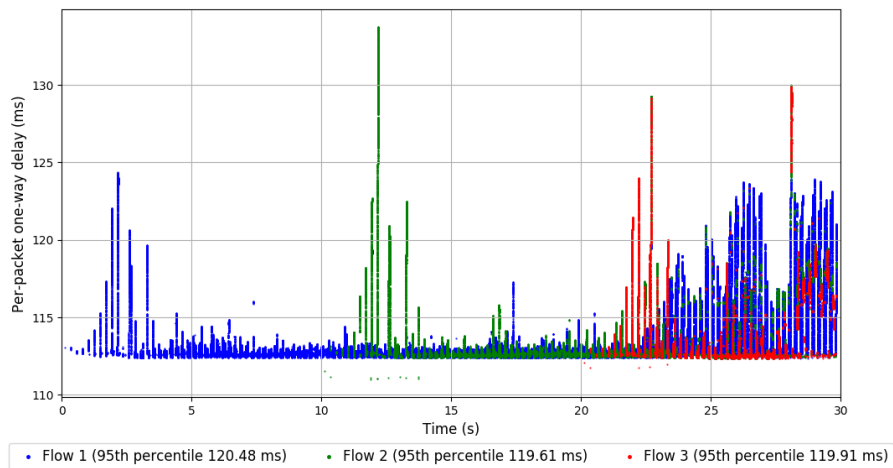
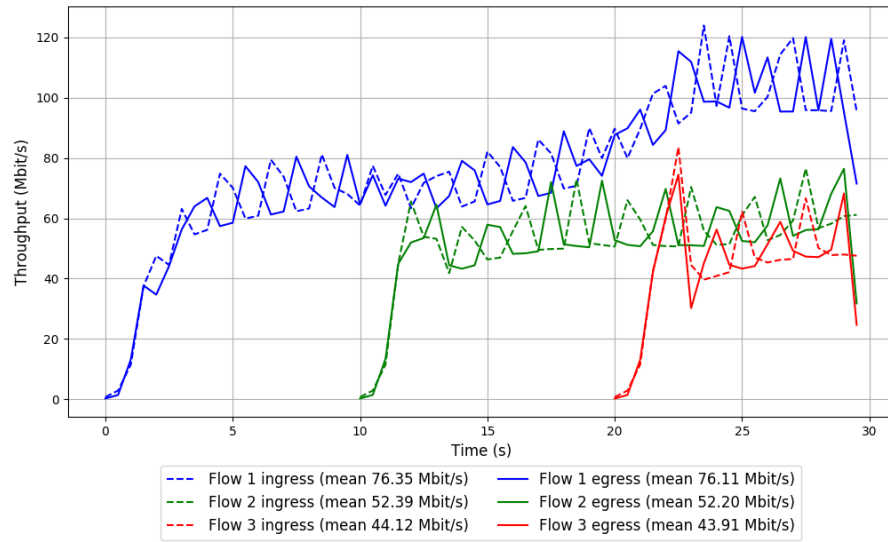
-- Flow 3:

Average throughput: 43.91 Mbit/s

95th percentile per-packet one-way delay: 119.912 ms

Loss rate: 2.72%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-06 19:23:50

End at: 2018-03-06 19:24:20

Below is generated by plot.py at 2018-03-06 23:49:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.12 Mbit/s

95th percentile per-packet one-way delay: 120.820 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 81.49 Mbit/s

95th percentile per-packet one-way delay: 119.547 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 99.67 Mbit/s

95th percentile per-packet one-way delay: 121.255 ms

Loss rate: 1.25%

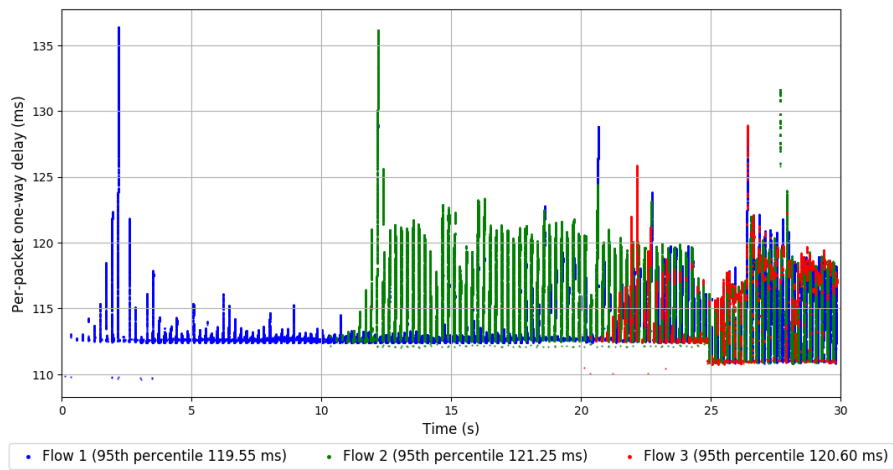
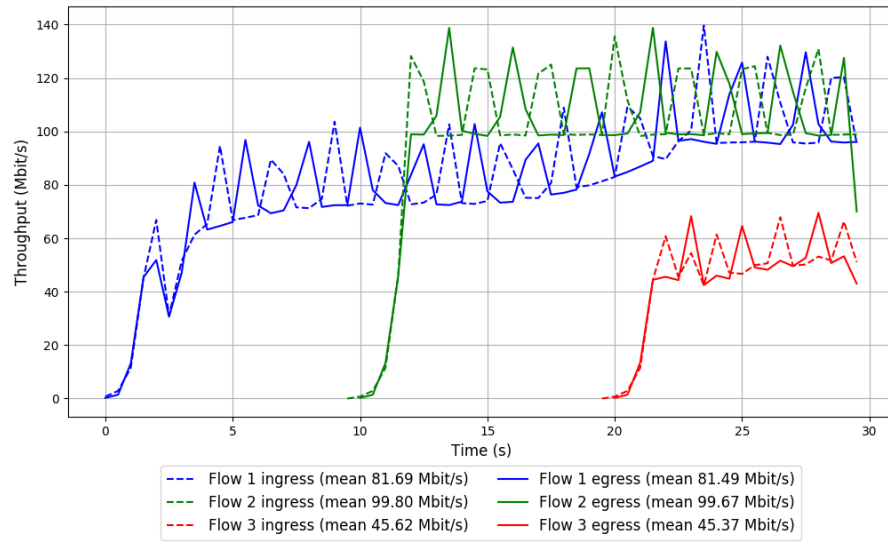
-- Flow 3:

Average throughput: 45.37 Mbit/s

95th percentile per-packet one-way delay: 120.602 ms

Loss rate: 2.76%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-06 19:43:16

End at: 2018-03-06 19:43:46

Below is generated by plot.py at 2018-03-06 23:49:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.84 Mbit/s

95th percentile per-packet one-way delay: 117.970 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 60.93 Mbit/s

95th percentile per-packet one-way delay: 116.849 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 21.27 Mbit/s

95th percentile per-packet one-way delay: 115.047 ms

Loss rate: 4.96%

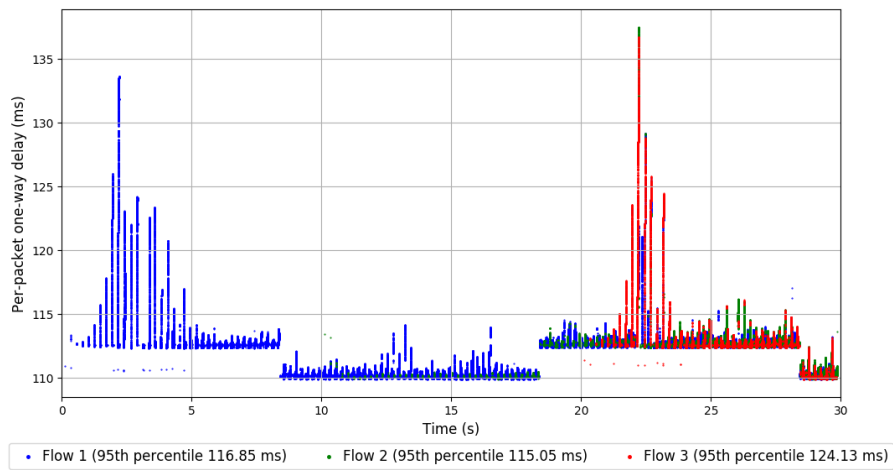
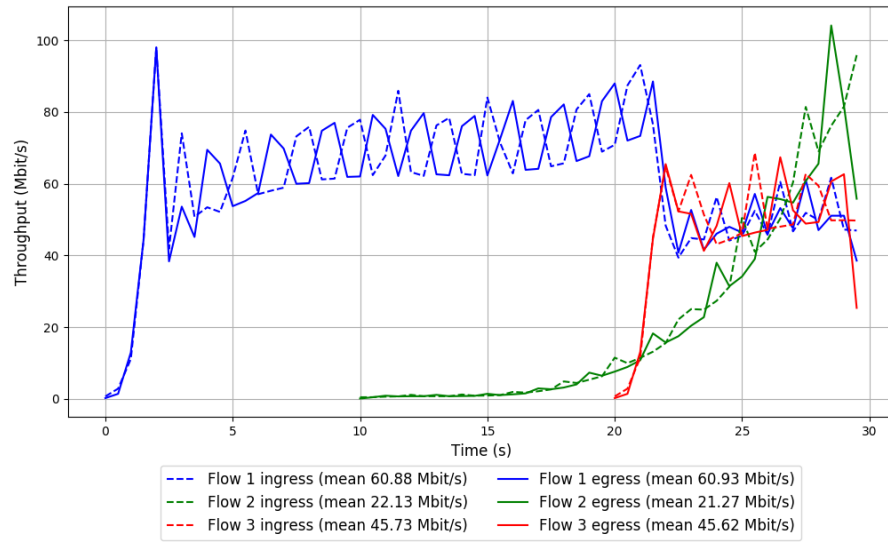
-- Flow 3:

Average throughput: 45.62 Mbit/s

95th percentile per-packet one-way delay: 124.129 ms

Loss rate: 2.74%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-06 20:02:36

End at: 2018-03-06 20:03:06

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.77 Mbit/s

95th percentile per-packet one-way delay: 121.123 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 102.40 Mbit/s

95th percentile per-packet one-way delay: 121.056 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 52.52 Mbit/s

95th percentile per-packet one-way delay: 122.025 ms

Loss rate: 1.48%

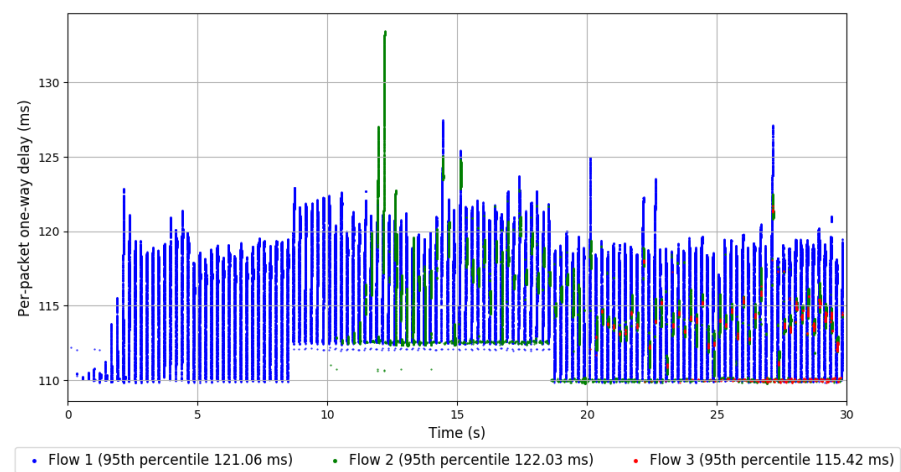
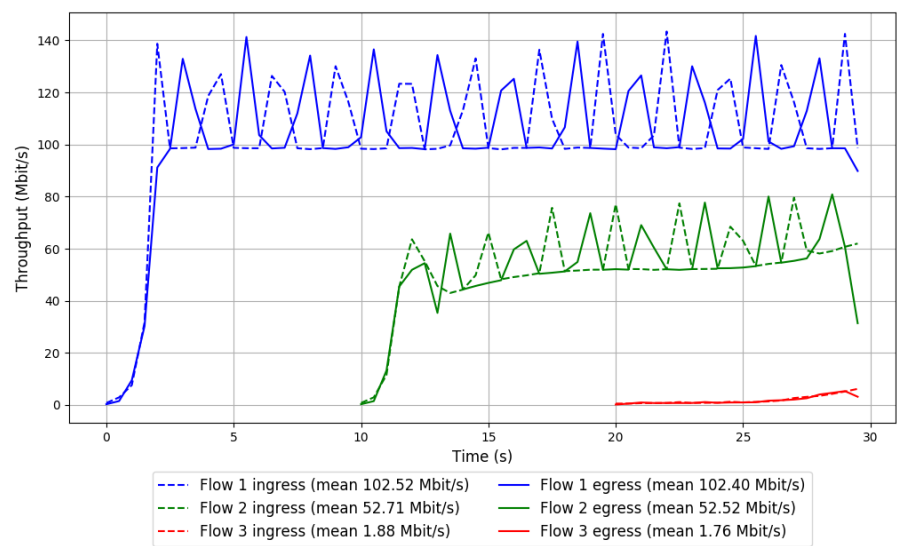
-- Flow 3:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 115.422 ms

Loss rate: 8.93%

Run 10: Report of TCP Cubic — Data Link

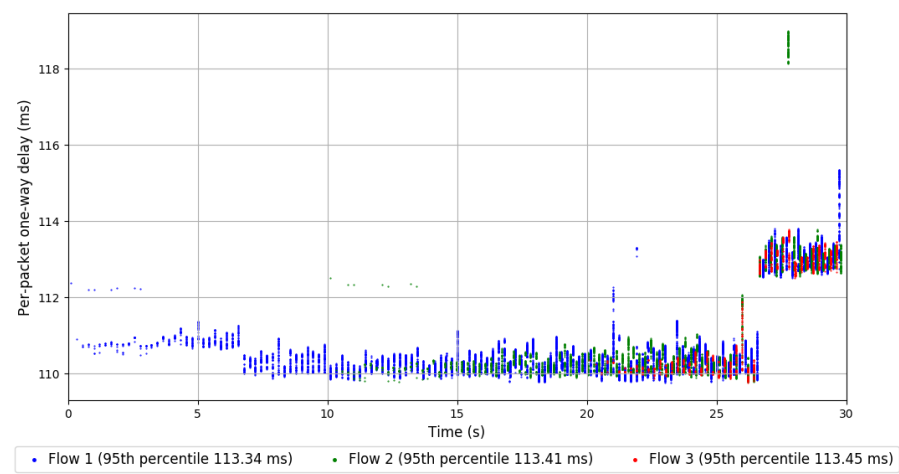
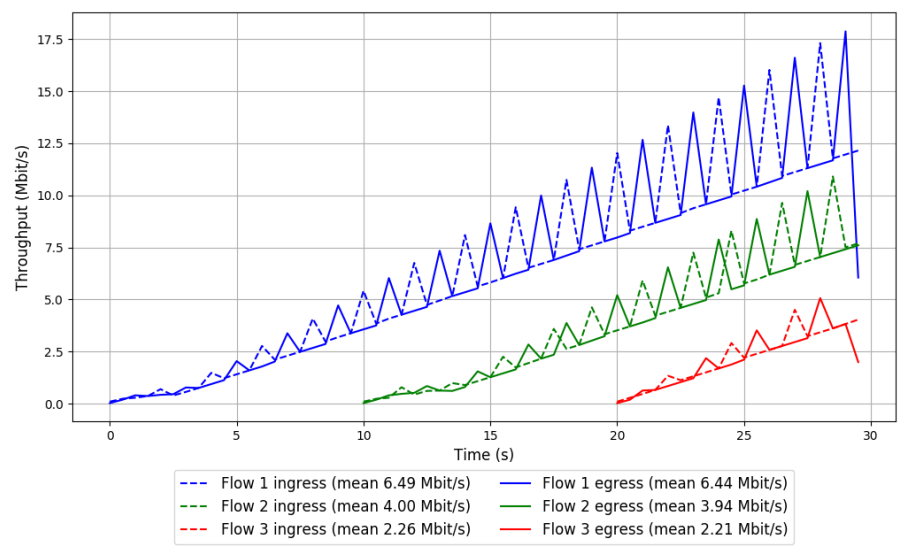


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-06 17:03:08
End at: 2018-03-06 17:03:38

# Below is generated by plot.py at 2018-03-06 23:49:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 113.361 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 6.44 Mbit/s
95th percentile per-packet one-way delay: 113.337 ms
Loss rate: 1.58%
-- Flow 2:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 113.412 ms
Loss rate: 2.44%
-- Flow 3:
Average throughput: 2.21 Mbit/s
95th percentile per-packet one-way delay: 113.449 ms
Loss rate: 4.64%
```


Run 1: Report of LEDBAT — Data Link

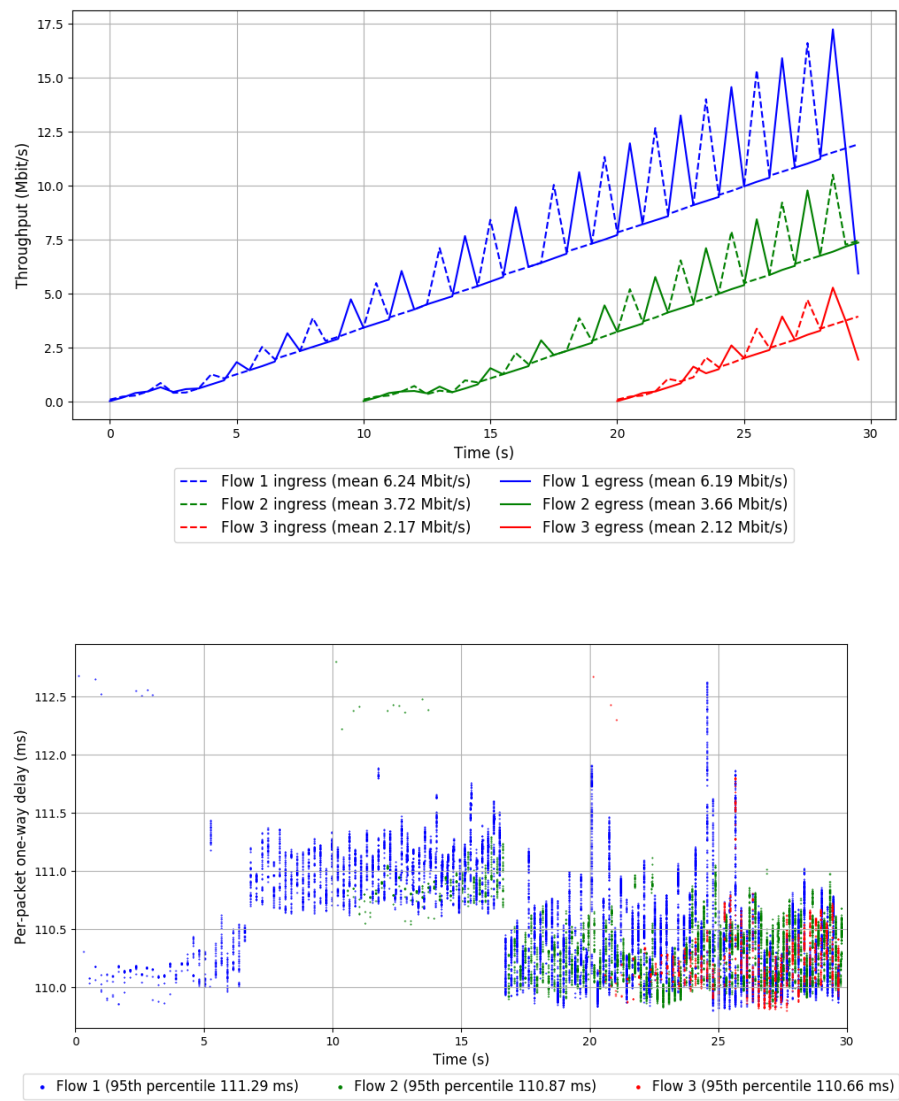


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-06 17:22:28
End at: 2018-03-06 17:22:58

# Below is generated by plot.py at 2018-03-06 23:49:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 111.207 ms
Loss rate: 2.09%
-- Flow 1:
Average throughput: 6.19 Mbit/s
95th percentile per-packet one-way delay: 111.286 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 110.872 ms
Loss rate: 2.54%
-- Flow 3:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 110.663 ms
Loss rate: 4.70%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-06 17:41:44

End at: 2018-03-06 17:42:14

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.85 Mbit/s

95th percentile per-packet one-way delay: 113.214 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 7.02 Mbit/s

95th percentile per-packet one-way delay: 113.303 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 4.71 Mbit/s

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

Loss rate: 2.26%

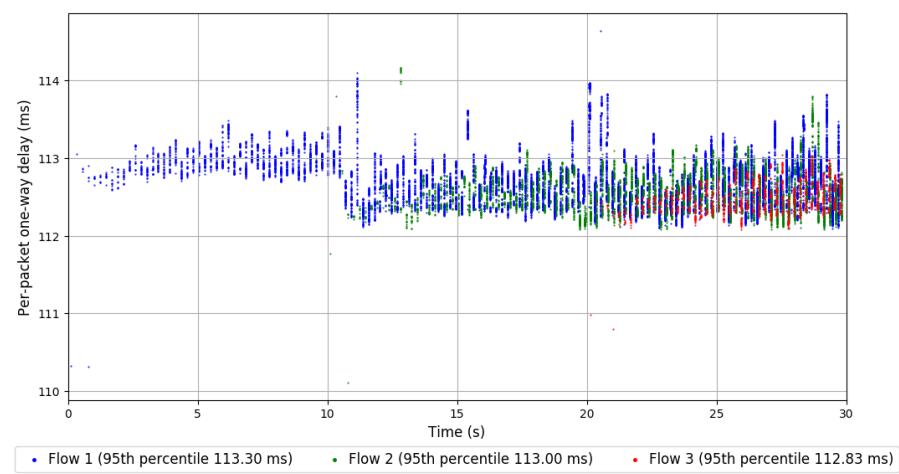
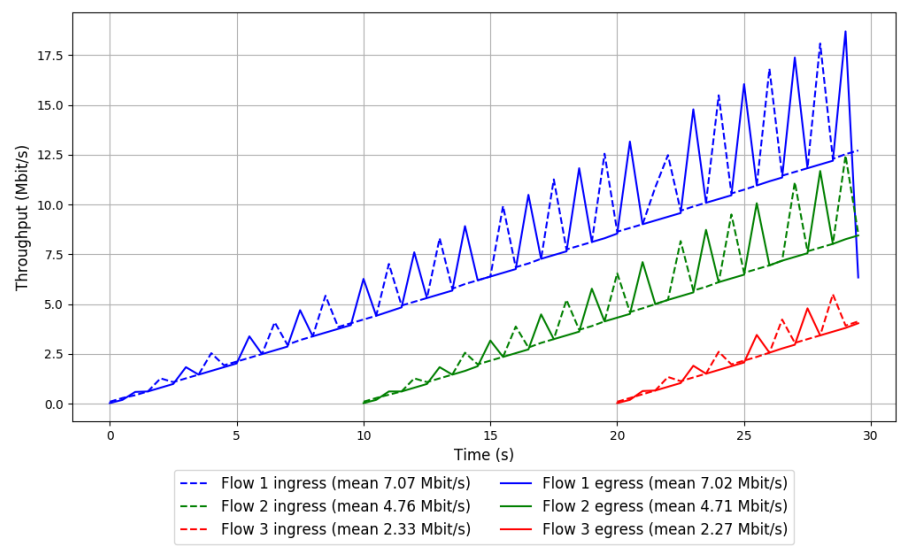
-- Flow 3:

Average throughput: 2.27 Mbit/s

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

Loss rate: 4.55%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-06 18:01:19

End at: 2018-03-06 18:01:49

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.76 Mbit/s

95th percentile per-packet one-way delay: 113.459 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 7.05 Mbit/s

95th percentile per-packet one-way delay: 113.523 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 113.415 ms

Loss rate: 2.27%

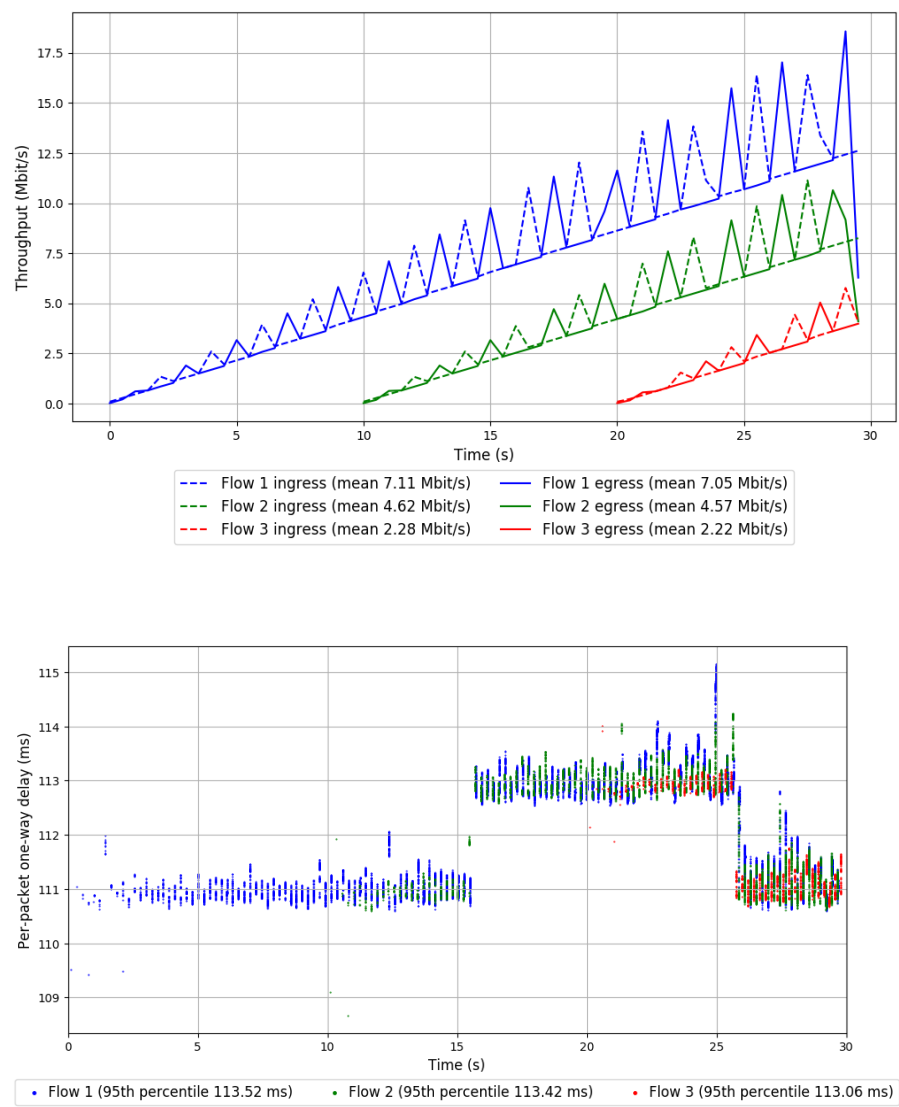
-- Flow 3:

Average throughput: 2.22 Mbit/s

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

Loss rate: 4.58%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-06 18:20:22

End at: 2018-03-06 18:20:52

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.51 Mbit/s

95th percentile per-packet one-way delay: 111.661 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 7.22 Mbit/s

95th percentile per-packet one-way delay: 111.723 ms

Loss rate: 1.49%

-- Flow 2:

Average throughput: 4.15 Mbit/s

95th percentile per-packet one-way delay: 111.423 ms

Loss rate: 2.40%

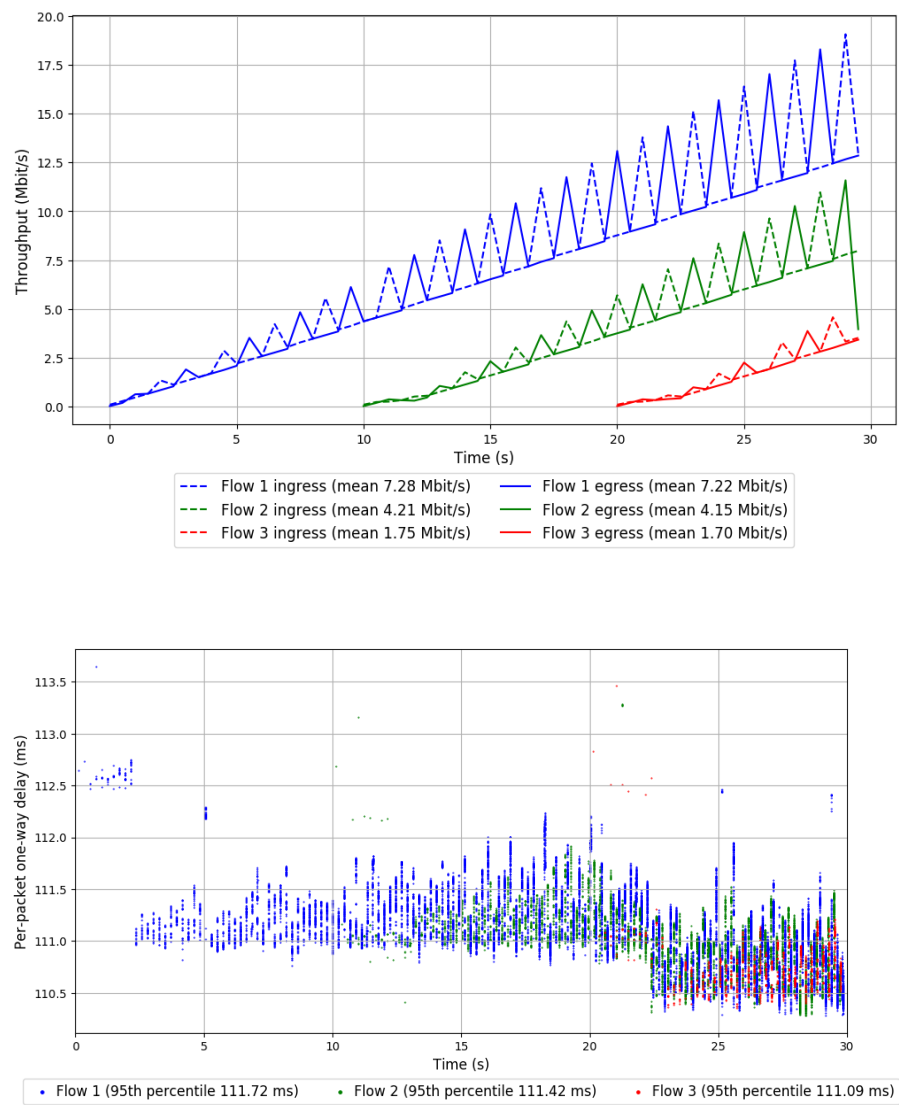
-- Flow 3:

Average throughput: 1.70 Mbit/s

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

Loss rate: 5.18%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-06 18:39:44

End at: 2018-03-06 18:40:14

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.51 Mbit/s

95th percentile per-packet one-way delay: 111.484 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 6.79 Mbit/s

95th percentile per-packet one-way delay: 111.511 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 4.52 Mbit/s

95th percentile per-packet one-way delay: 111.432 ms

Loss rate: 2.29%

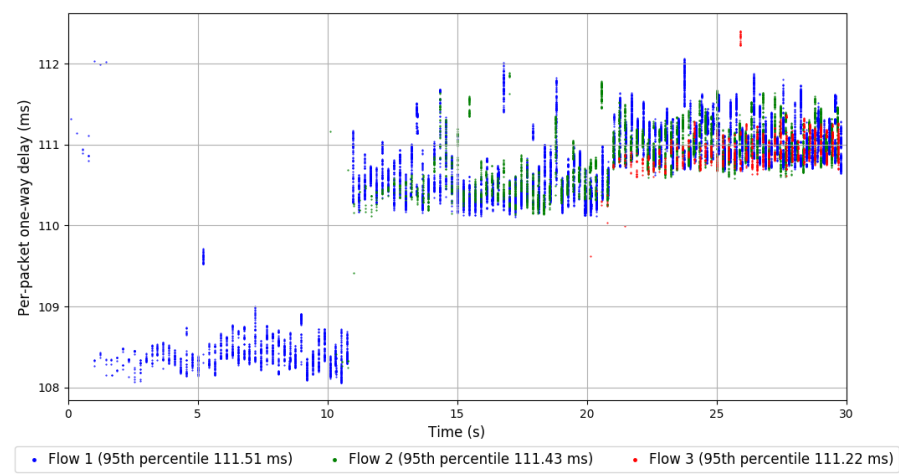
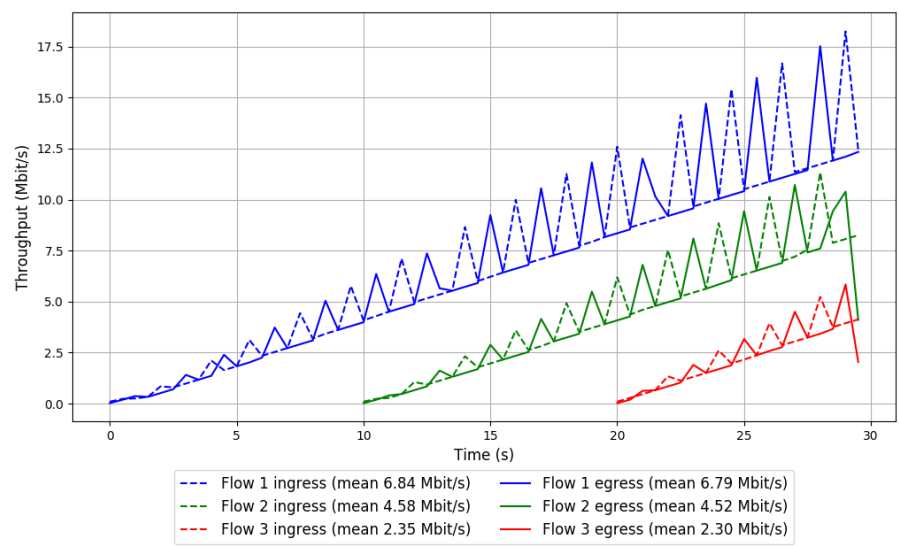
-- Flow 3:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 111.222 ms

Loss rate: 4.54%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-06 18:59:07

End at: 2018-03-06 18:59:37

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 113.620 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 7.11 Mbit/s

95th percentile per-packet one-way delay: 113.732 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 4.65 Mbit/s

95th percentile per-packet one-way delay: 113.595 ms

Loss rate: 2.28%

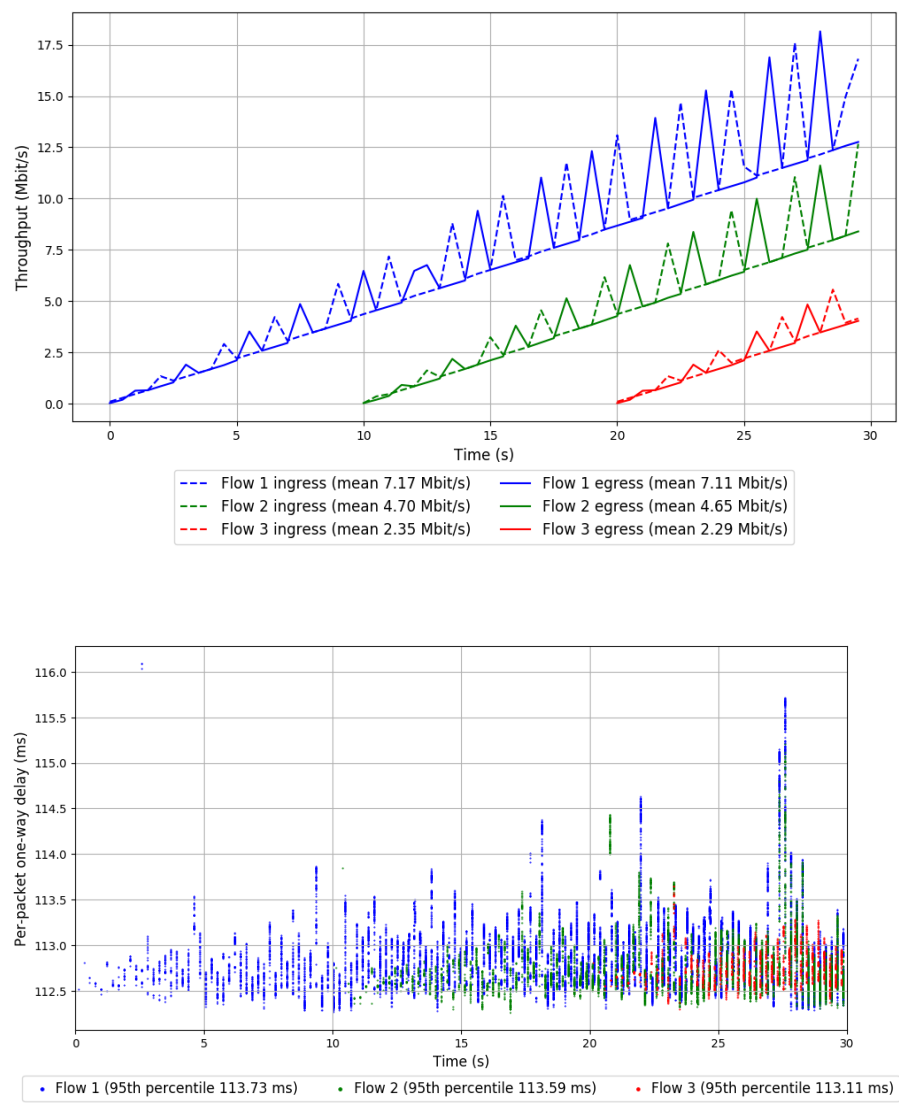
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 113.115 ms

Loss rate: 4.57%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-06 19:18:30

End at: 2018-03-06 19:19:00

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.85 Mbit/s

95th percentile per-packet one-way delay: 113.544 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 7.18 Mbit/s

95th percentile per-packet one-way delay: 113.576 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 4.52 Mbit/s

95th percentile per-packet one-way delay: 113.460 ms

Loss rate: 2.28%

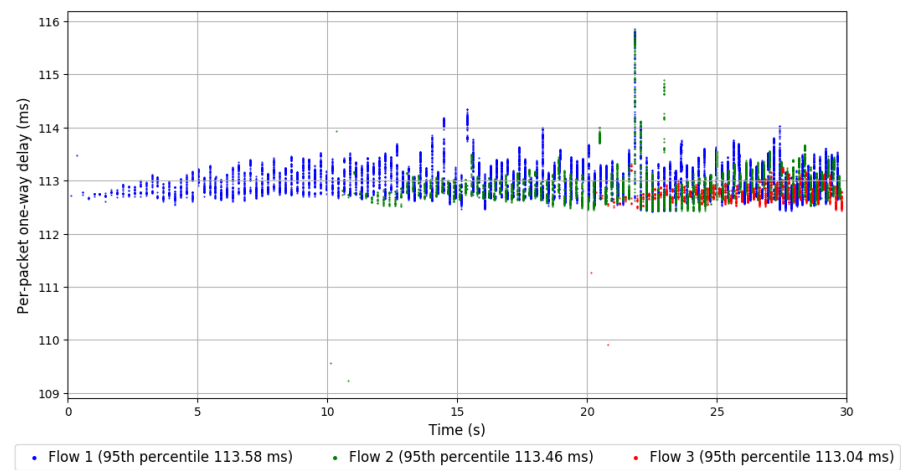
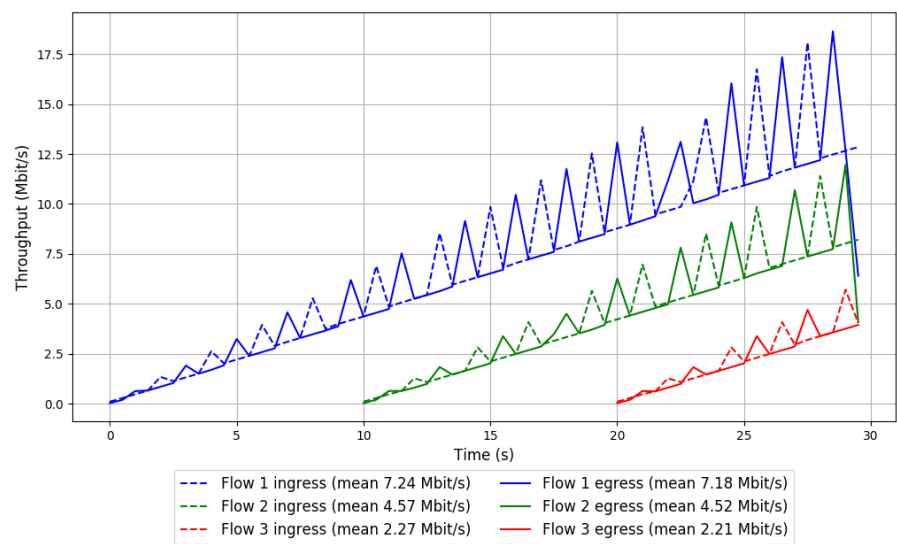
-- Flow 3:

Average throughput: 2.21 Mbit/s

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

Loss rate: 4.56%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-06 19:37:53

End at: 2018-03-06 19:38:23

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.67 Mbit/s

95th percentile per-packet one-way delay: 113.273 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 113.339 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 4.22 Mbit/s

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

Loss rate: 2.40%

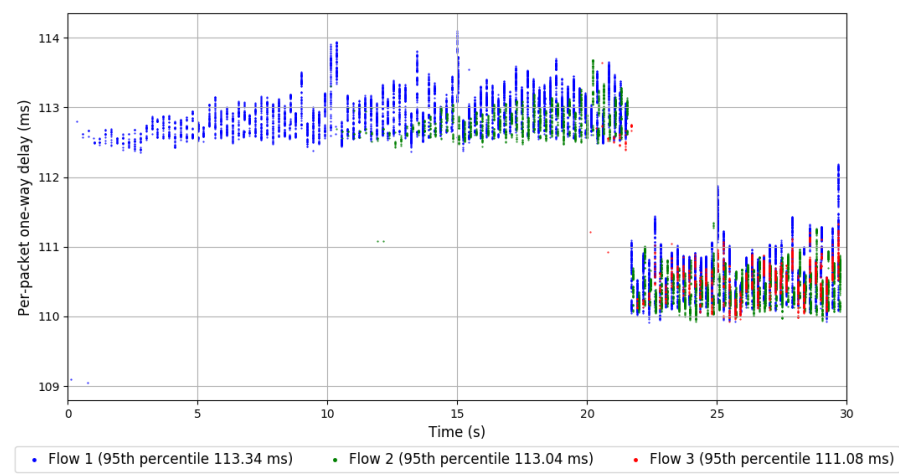
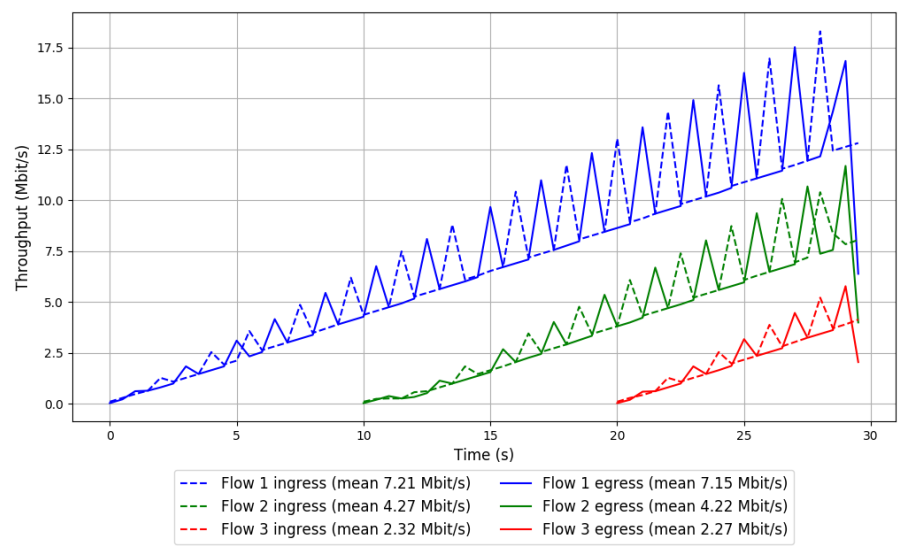
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 111.078 ms

Loss rate: 4.60%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-06 19:57:06

End at: 2018-03-06 19:57:36

Below is generated by plot.py at 2018-03-06 23:49:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.89 Mbit/s

95th percentile per-packet one-way delay: 113.514 ms

Loss rate: 1.91%

-- Flow 1:

Average throughput: 7.21 Mbit/s

95th percentile per-packet one-way delay: 113.611 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 4.44 Mbit/s

95th percentile per-packet one-way delay: 113.301 ms

Loss rate: 2.26%

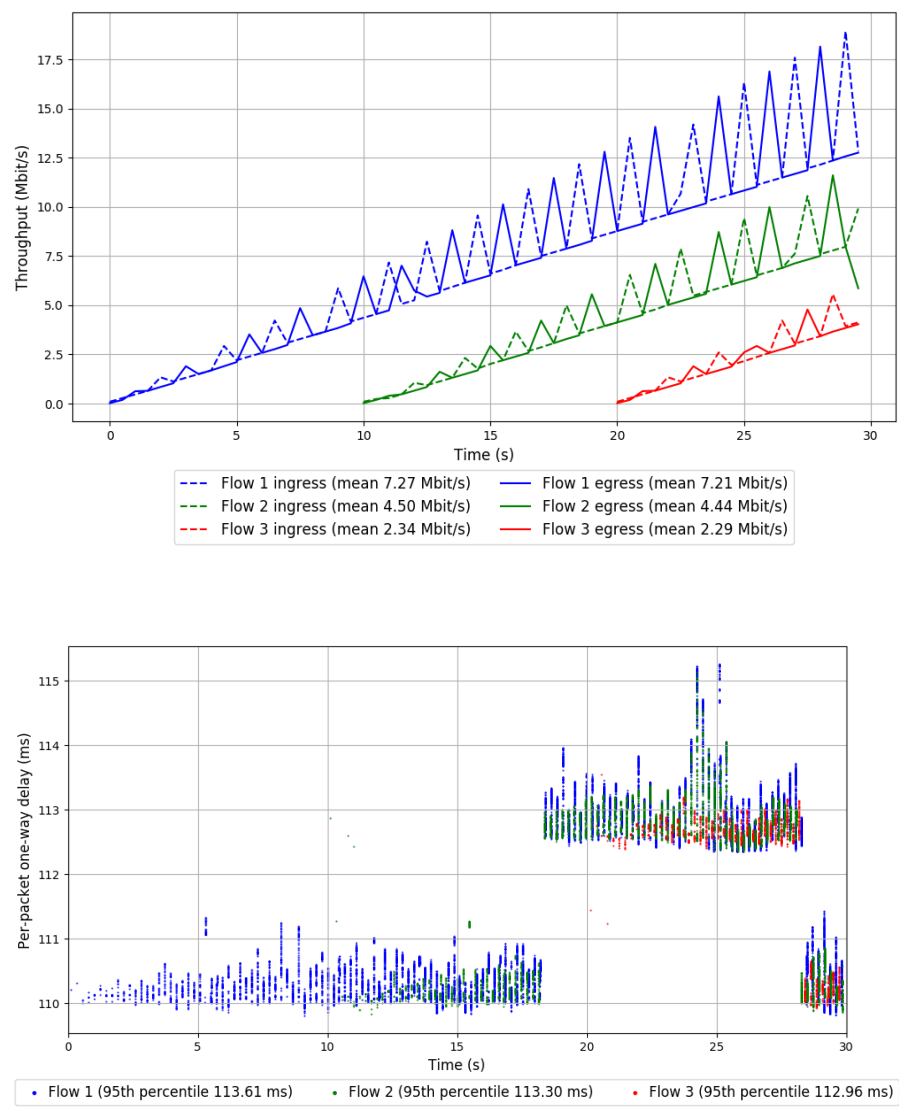
-- Flow 3:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 112.956 ms

Loss rate: 4.54%

Run 10: Report of LEDBAT — Data Link

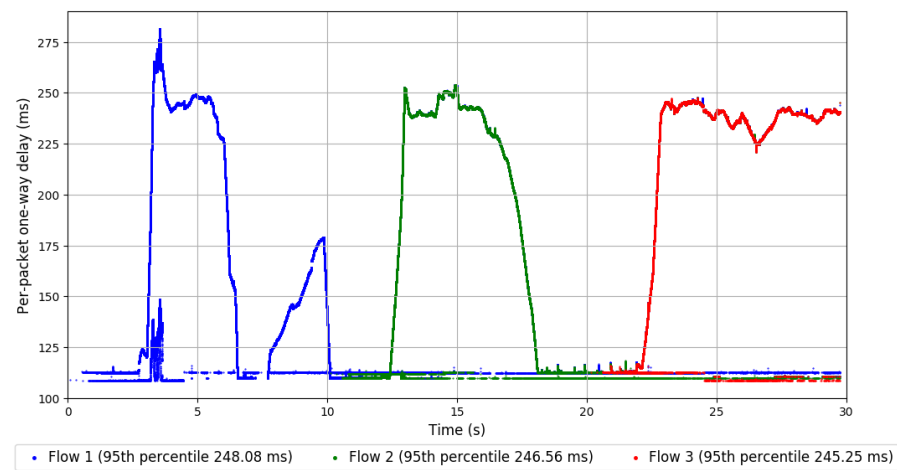
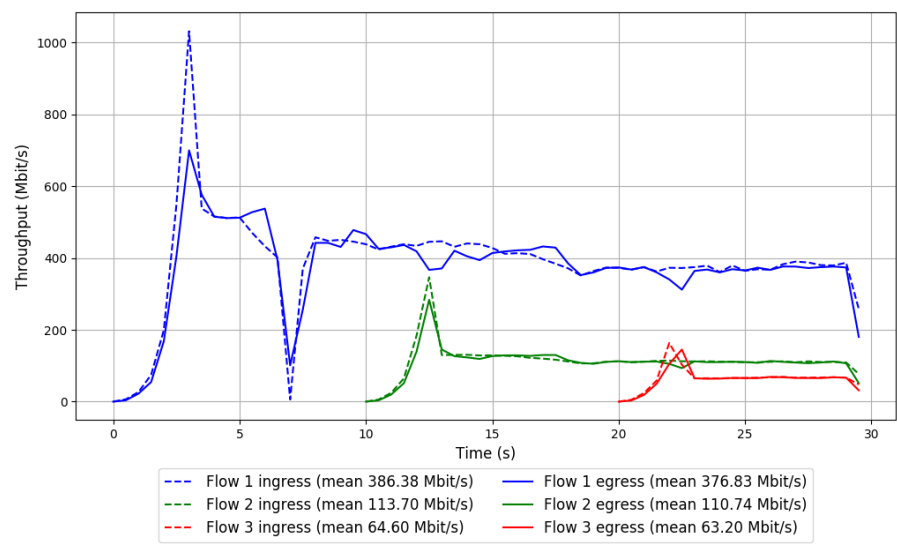


```
Run 1: Statistics of PCC

Start at: 2018-03-06 17:16:40
End at: 2018-03-06 17:17:10

# Below is generated by plot.py at 2018-03-06 23:55:45
# Datalink statistics
-- Total of 3 flows:
Average throughput: 470.60 Mbit/s
95th percentile per-packet one-way delay: 247.860 ms
Loss rate: 3.39%
-- Flow 1:
Average throughput: 376.83 Mbit/s
95th percentile per-packet one-way delay: 248.080 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 110.74 Mbit/s
95th percentile per-packet one-way delay: 246.560 ms
Loss rate: 3.69%
-- Flow 3:
Average throughput: 63.20 Mbit/s
95th percentile per-packet one-way delay: 245.253 ms
Loss rate: 4.38%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-06 17:36:03

End at: 2018-03-06 17:36:33

Below is generated by plot.py at 2018-03-06 23:55:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 415.66 Mbit/s

95th percentile per-packet one-way delay: 264.011 ms

Loss rate: 4.21%

-- Flow 1:

Average throughput: 336.31 Mbit/s

95th percentile per-packet one-way delay: 263.977 ms

Loss rate: 4.02%

-- Flow 2:

Average throughput: 118.71 Mbit/s

95th percentile per-packet one-way delay: 264.147 ms

Loss rate: 4.97%

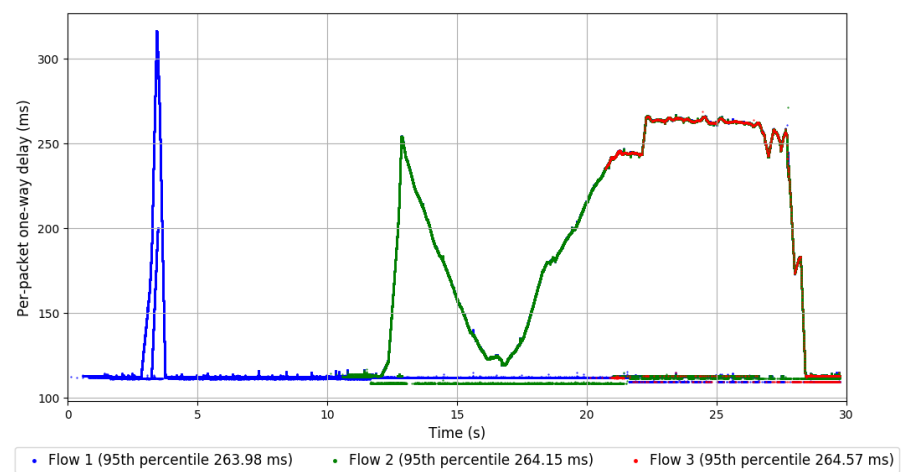
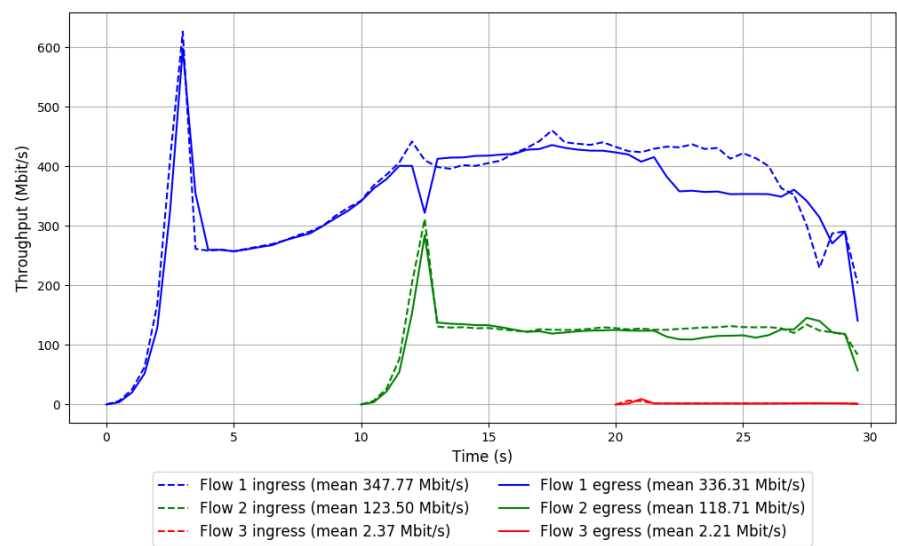
-- Flow 3:

Average throughput: 2.21 Mbit/s

95th percentile per-packet one-way delay: 264.573 ms

Loss rate: 8.84%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-06 17:55:19

End at: 2018-03-06 17:55:49

Below is generated by plot.py at 2018-03-06 23:55:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 427.27 Mbit/s

95th percentile per-packet one-way delay: 242.638 ms

Loss rate: 3.04%

-- Flow 1:

Average throughput: 274.03 Mbit/s

95th percentile per-packet one-way delay: 242.553 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 230.28 Mbit/s

95th percentile per-packet one-way delay: 242.888 ms

Loss rate: 4.18%

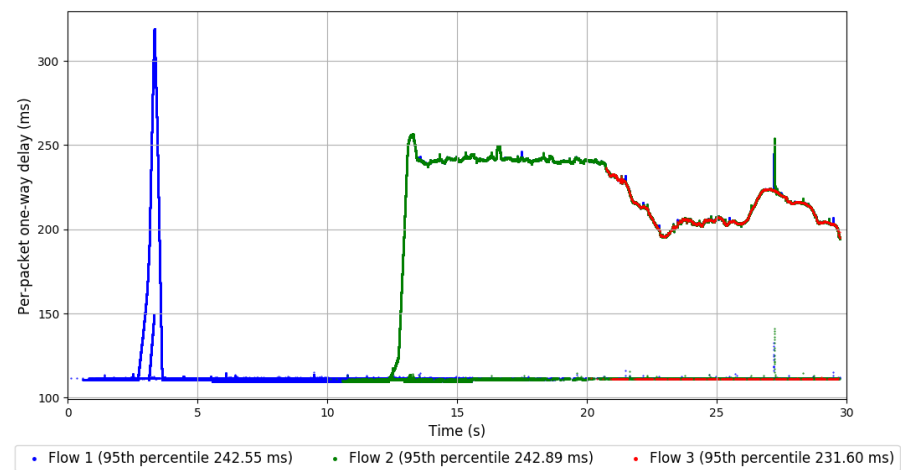
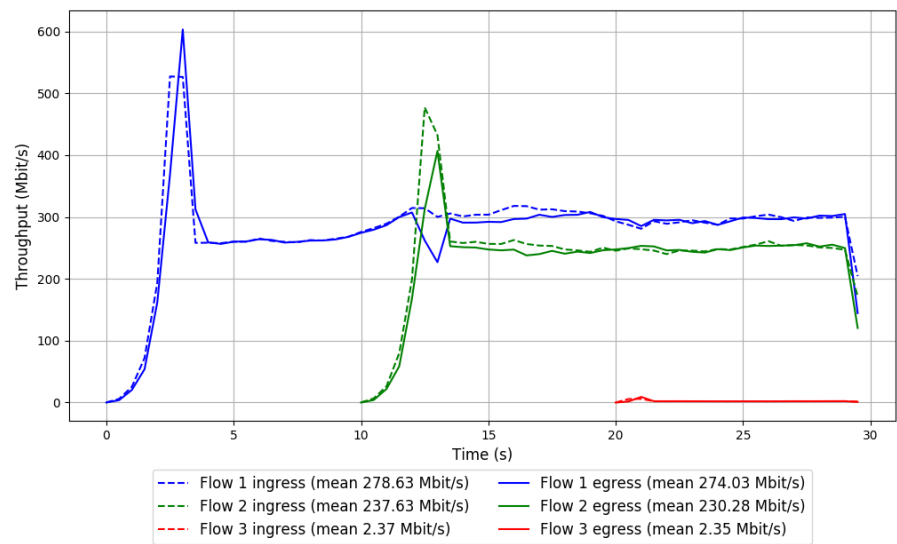
-- Flow 3:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 231.605 ms

Loss rate: 2.84%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-06 18:14:52

End at: 2018-03-06 18:15:22

Below is generated by plot.py at 2018-03-06 23:56:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.10 Mbit/s

95th percentile per-packet one-way delay: 243.305 ms

Loss rate: 4.07%

-- Flow 1:

Average throughput: 469.74 Mbit/s

95th percentile per-packet one-way delay: 243.295 ms

Loss rate: 4.08%

-- Flow 2:

Average throughput: 59.52 Mbit/s

95th percentile per-packet one-way delay: 243.101 ms

Loss rate: 3.55%

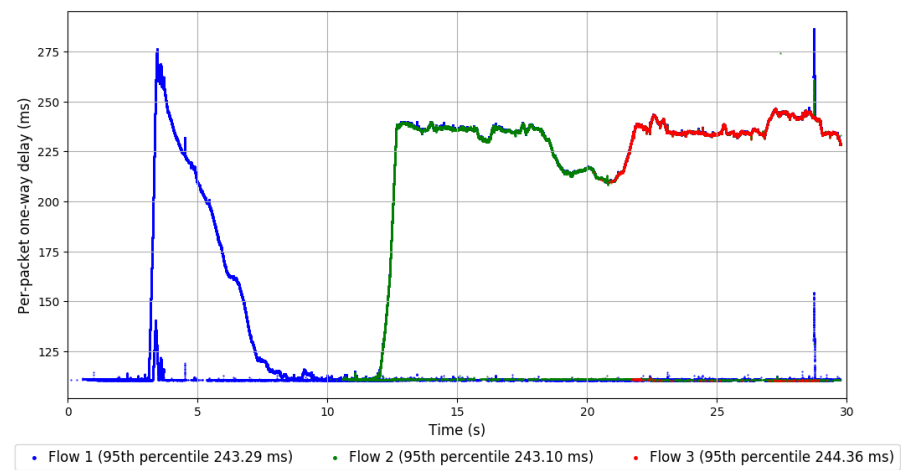
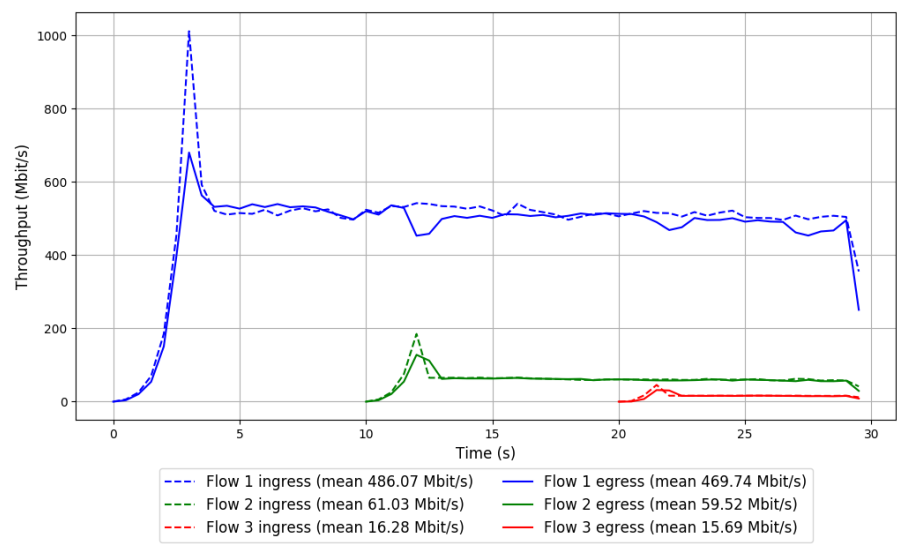
-- Flow 3:

Average throughput: 15.69 Mbit/s

95th percentile per-packet one-way delay: 244.361 ms

Loss rate: 6.82%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-06 18:33:58

End at: 2018-03-06 18:34:28

Below is generated by plot.py at 2018-03-06 23:56:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 506.52 Mbit/s

95th percentile per-packet one-way delay: 185.686 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 492.88 Mbit/s

95th percentile per-packet one-way delay: 185.905 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 180.593 ms

Loss rate: 1.24%

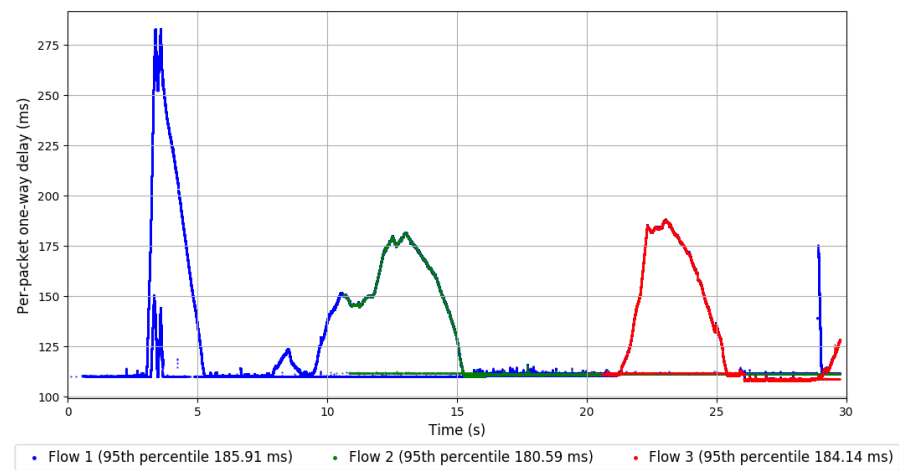
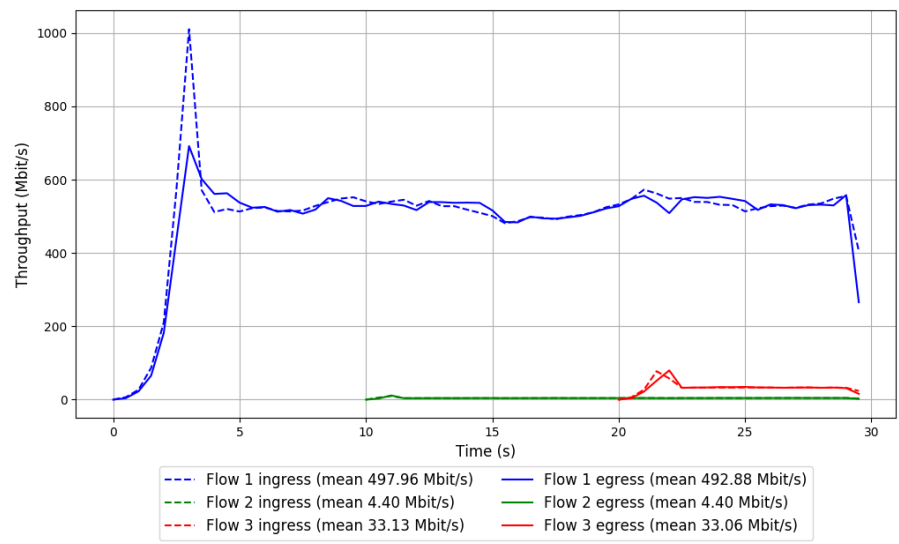
-- Flow 3:

Average throughput: 33.06 Mbit/s

95th percentile per-packet one-way delay: 184.144 ms

Loss rate: 2.46%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-06 18:53:21

End at: 2018-03-06 18:53:51

Below is generated by plot.py at 2018-03-06 23:56:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 438.65 Mbit/s

95th percentile per-packet one-way delay: 251.149 ms

Loss rate: 3.27%

-- Flow 1:

Average throughput: 336.99 Mbit/s

95th percentile per-packet one-way delay: 250.539 ms

Loss rate: 2.99%

-- Flow 2:

Average throughput: 122.97 Mbit/s

95th percentile per-packet one-way delay: 251.768 ms

Loss rate: 3.91%

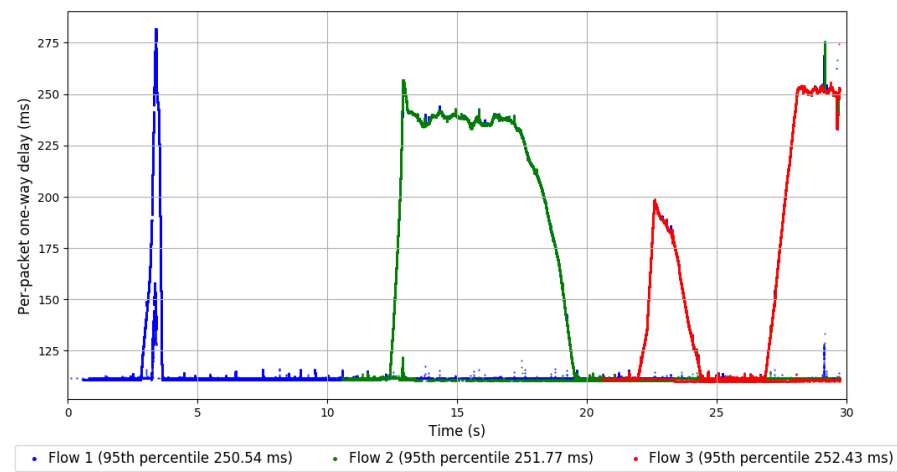
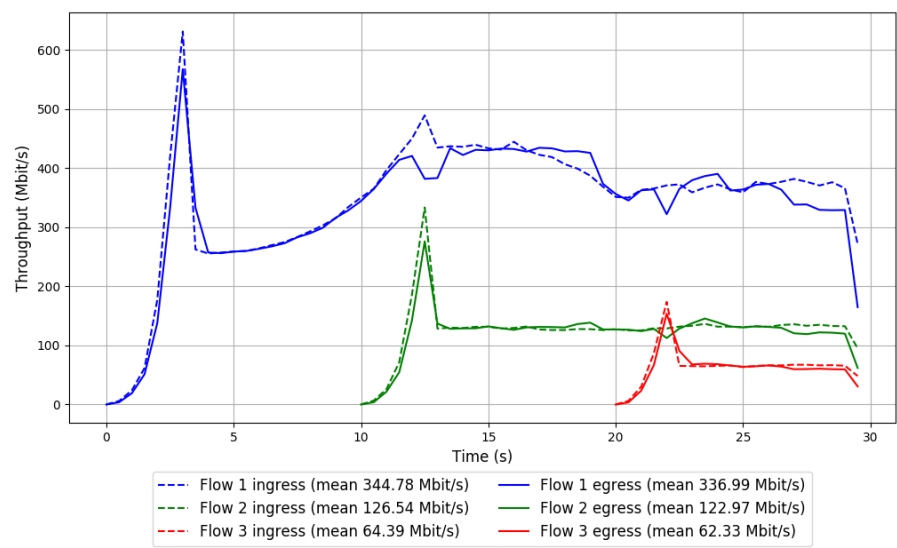
-- Flow 3:

Average throughput: 62.33 Mbit/s

95th percentile per-packet one-way delay: 252.428 ms

Loss rate: 5.38%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-06 19:12:39

End at: 2018-03-06 19:13:09

Below is generated by plot.py at 2018-03-06 23:57:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 456.62 Mbit/s

95th percentile per-packet one-way delay: 257.315 ms

Loss rate: 4.63%

-- Flow 1:

Average throughput: 379.92 Mbit/s

95th percentile per-packet one-way delay: 265.248 ms

Loss rate: 4.45%

-- Flow 2:

Average throughput: 62.29 Mbit/s

95th percentile per-packet one-way delay: 239.309 ms

Loss rate: 3.24%

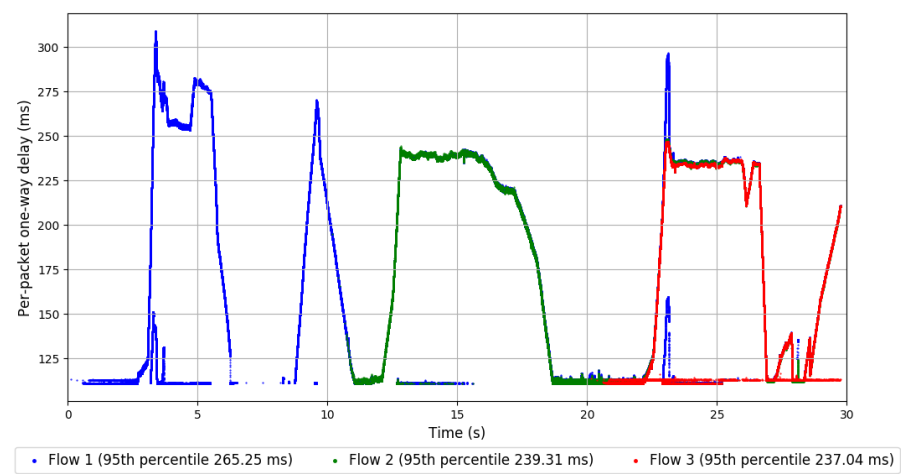
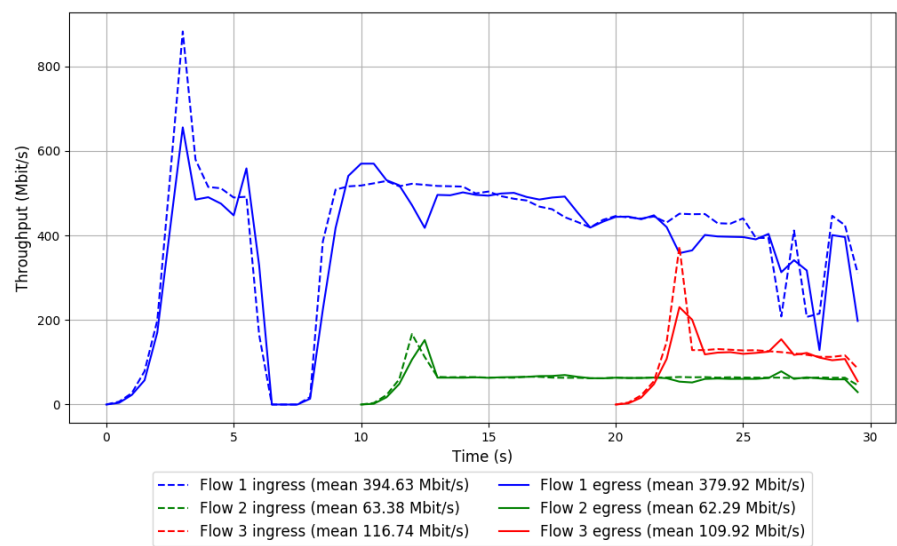
-- Flow 3:

Average throughput: 109.92 Mbit/s

95th percentile per-packet one-way delay: 237.040 ms

Loss rate: 8.00%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-06 19:32:00

End at: 2018-03-06 19:32:30

Below is generated by plot.py at 2018-03-06 23:57:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.64 Mbit/s

95th percentile per-packet one-way delay: 239.753 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 360.57 Mbit/s

95th percentile per-packet one-way delay: 239.560 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 127.86 Mbit/s

95th percentile per-packet one-way delay: 240.406 ms

Loss rate: 2.37%

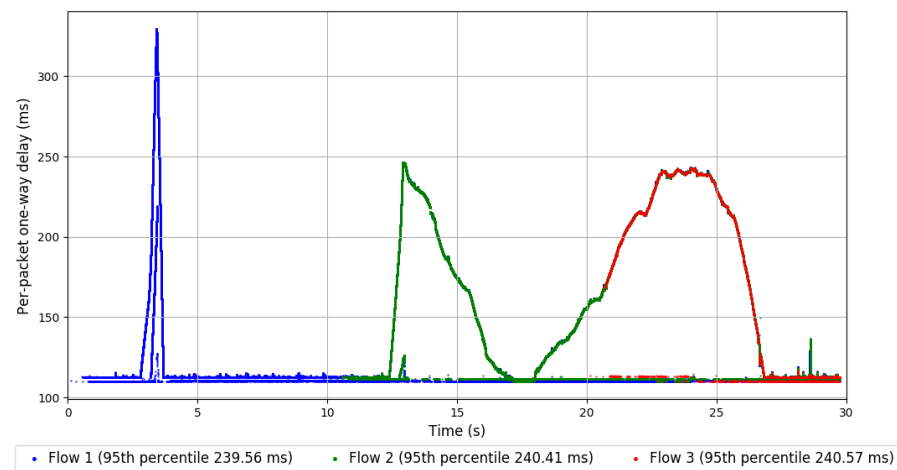
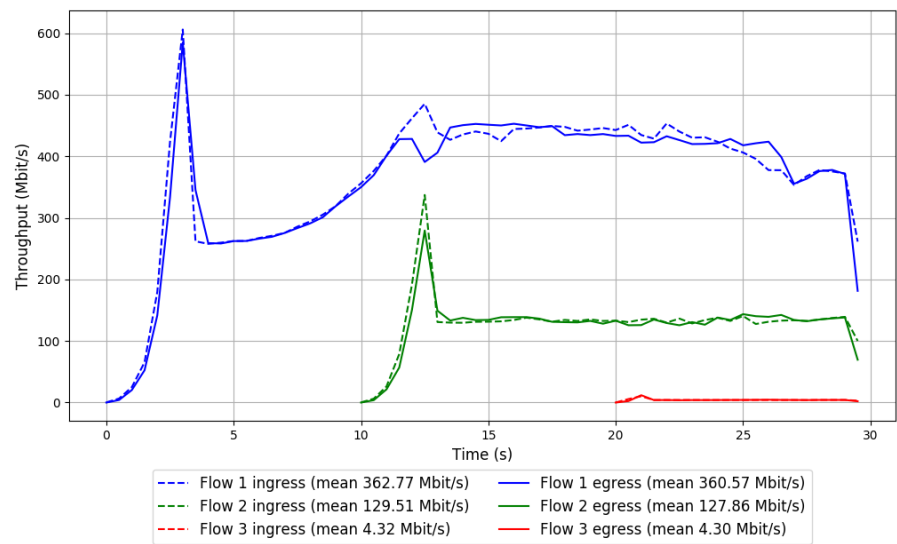
-- Flow 3:

Average throughput: 4.30 Mbit/s

95th percentile per-packet one-way delay: 240.571 ms

Loss rate: 2.72%

Run 8: Report of PCC — Data Link

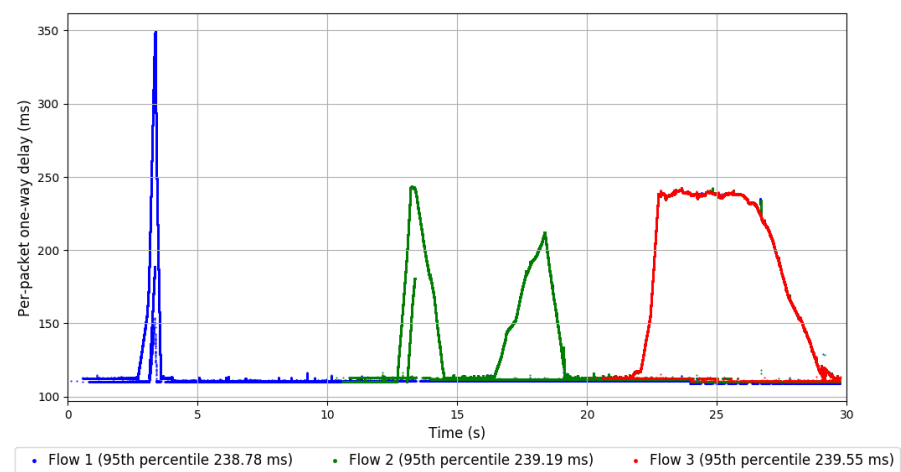
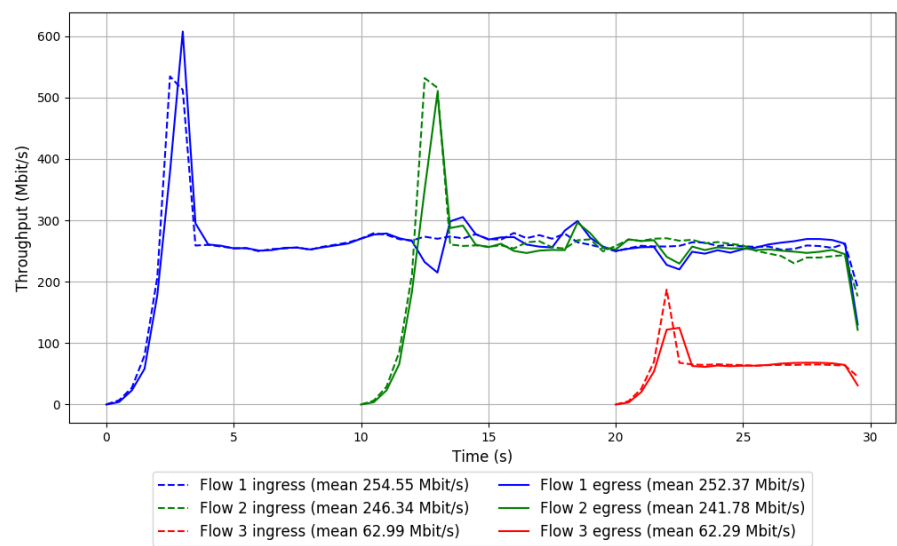


```
Run 9: Statistics of PCC

Start at: 2018-03-06 19:51:20
End at: 2018-03-06 19:51:50

# Below is generated by plot.py at 2018-03-07 00:02:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 432.63 Mbit/s
95th percentile per-packet one-way delay: 239.017 ms
Loss rate: 2.19%
-- Flow 1:
Average throughput: 252.37 Mbit/s
95th percentile per-packet one-way delay: 238.779 ms
Loss rate: 1.60%
-- Flow 2:
Average throughput: 241.78 Mbit/s
95th percentile per-packet one-way delay: 239.194 ms
Loss rate: 2.97%
-- Flow 3:
Average throughput: 62.29 Mbit/s
95th percentile per-packet one-way delay: 239.552 ms
Loss rate: 3.35%
```

Run 9: Report of PCC — Data Link

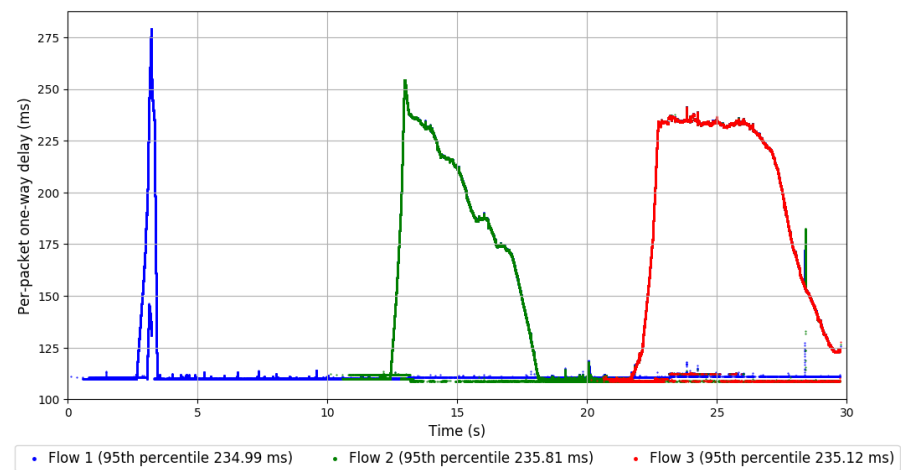
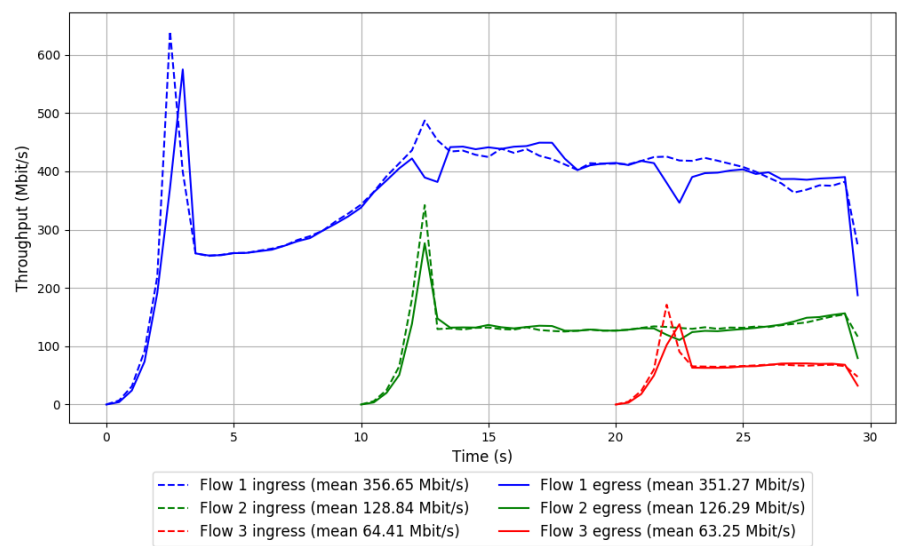


```
Run 10: Statistics of PCC

Start at: 2018-03-06 20:10:41
End at: 2018-03-06 20:11:11

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 455.37 Mbit/s
95th percentile per-packet one-way delay: 235.113 ms
Loss rate: 2.47%
-- Flow 1:
Average throughput: 351.27 Mbit/s
95th percentile per-packet one-way delay: 234.992 ms
Loss rate: 2.24%
-- Flow 2:
Average throughput: 126.29 Mbit/s
95th percentile per-packet one-way delay: 235.811 ms
Loss rate: 3.07%
-- Flow 3:
Average throughput: 63.25 Mbit/s
95th percentile per-packet one-way delay: 235.124 ms
Loss rate: 3.98%
```

Run 10: Report of PCC — Data Link

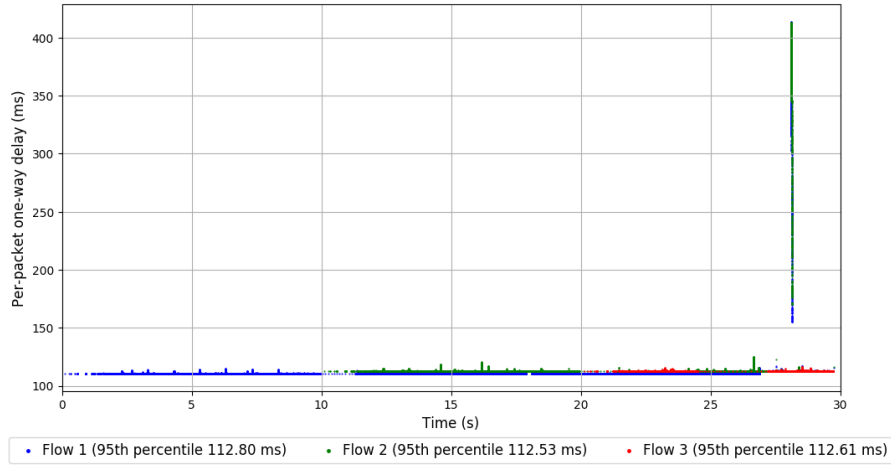
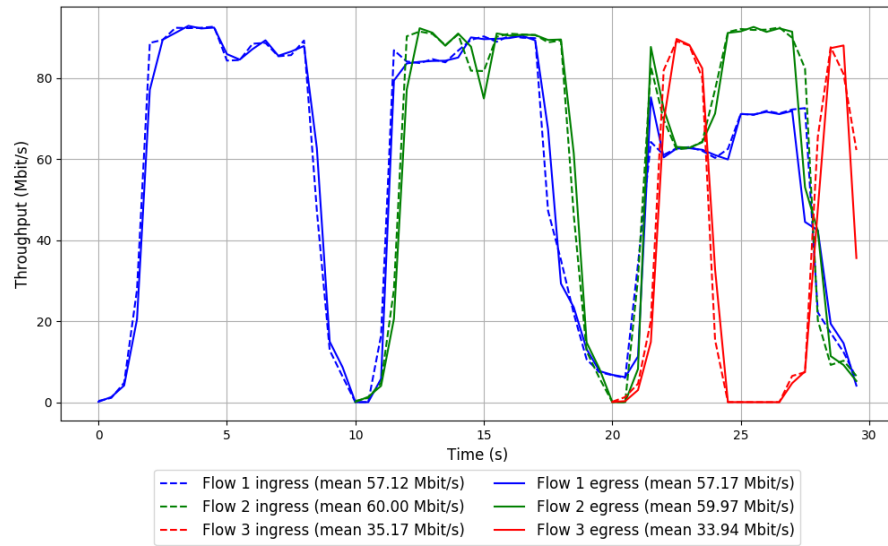


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-06 17:13:27
End at: 2018-03-06 17:13:57

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.86 Mbit/s
95th percentile per-packet one-way delay: 112.606 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 57.17 Mbit/s
95th percentile per-packet one-way delay: 112.795 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 59.97 Mbit/s
95th percentile per-packet one-way delay: 112.528 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 33.94 Mbit/s
95th percentile per-packet one-way delay: 112.615 ms
Loss rate: 5.69%
```


Run 1: Report of QUIC Cubic — Data Link

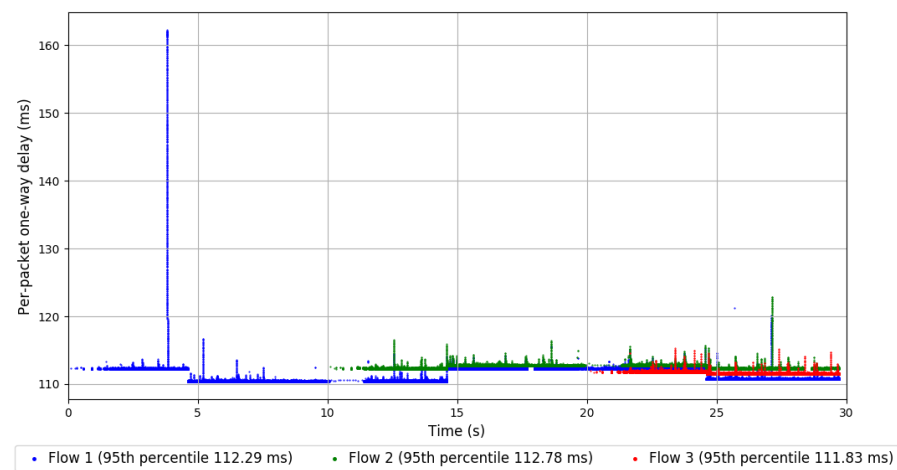
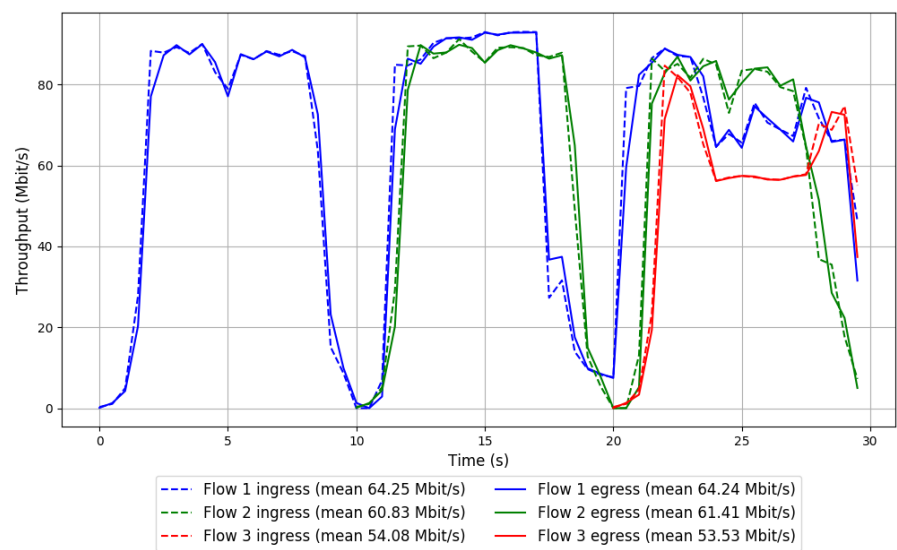


```
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-06 17:32:50
End at: 2018-03-06 17:33:20

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.28 Mbit/s
95th percentile per-packet one-way delay: 112.733 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 64.24 Mbit/s
95th percentile per-packet one-way delay: 112.294 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 61.41 Mbit/s
95th percentile per-packet one-way delay: 112.776 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 53.53 Mbit/s
95th percentile per-packet one-way delay: 111.835 ms
Loss rate: 3.30%
```

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-06 17:52:05

End at: 2018-03-06 17:52:35

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.50 Mbit/s

95th percentile per-packet one-way delay: 112.611 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 62.21 Mbit/s

95th percentile per-packet one-way delay: 111.293 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 54.23 Mbit/s

95th percentile per-packet one-way delay: 111.273 ms

Loss rate: 0.18%

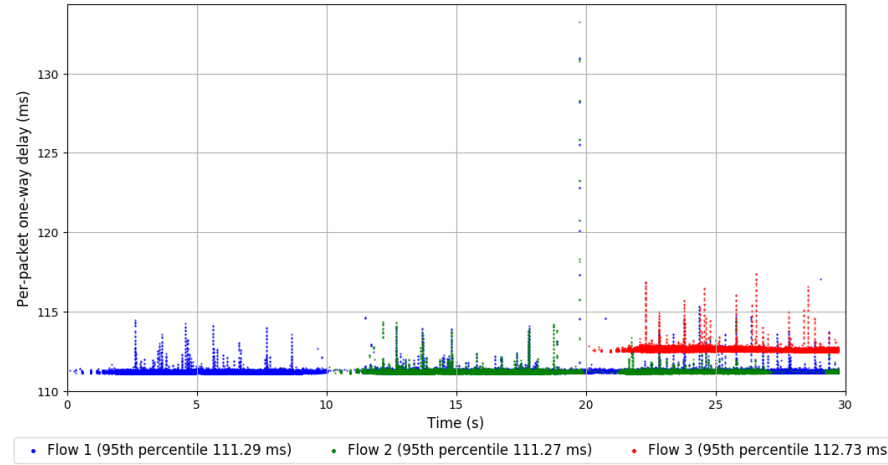
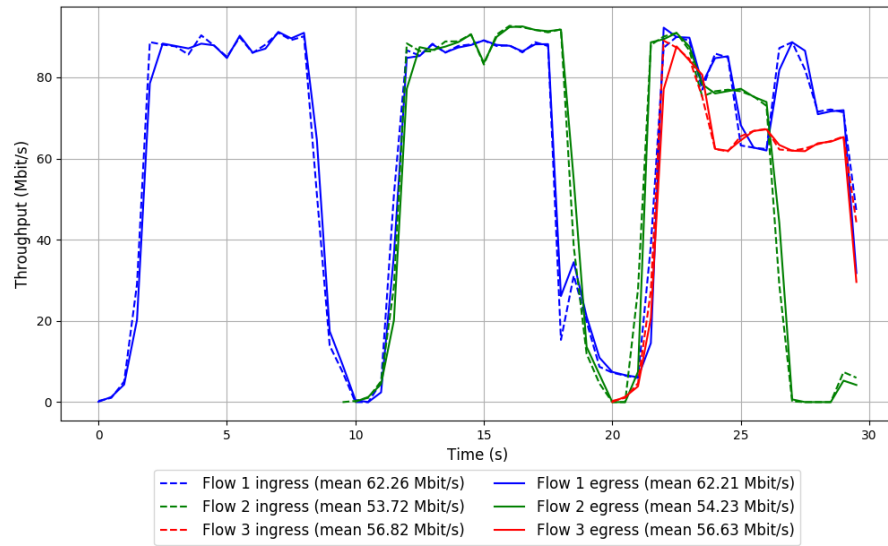
-- Flow 3:

Average throughput: 56.63 Mbit/s

95th percentile per-packet one-way delay: 112.727 ms

Loss rate: 2.62%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-06 18:11:42

End at: 2018-03-06 18:12:12

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.17 Mbit/s

95th percentile per-packet one-way delay: 112.494 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 42.08 Mbit/s

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

Loss rate: 1.01%

-- Flow 2:

Average throughput: 50.08 Mbit/s

95th percentile per-packet one-way delay: 112.539 ms

Loss rate: 2.27%

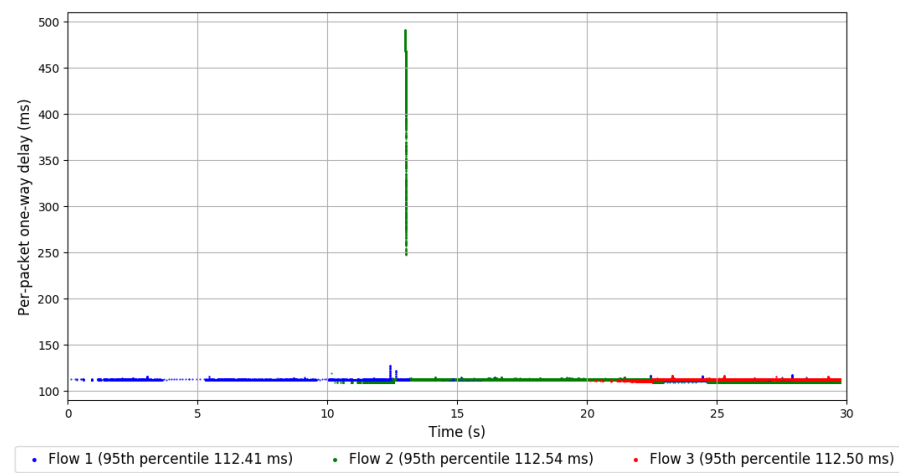
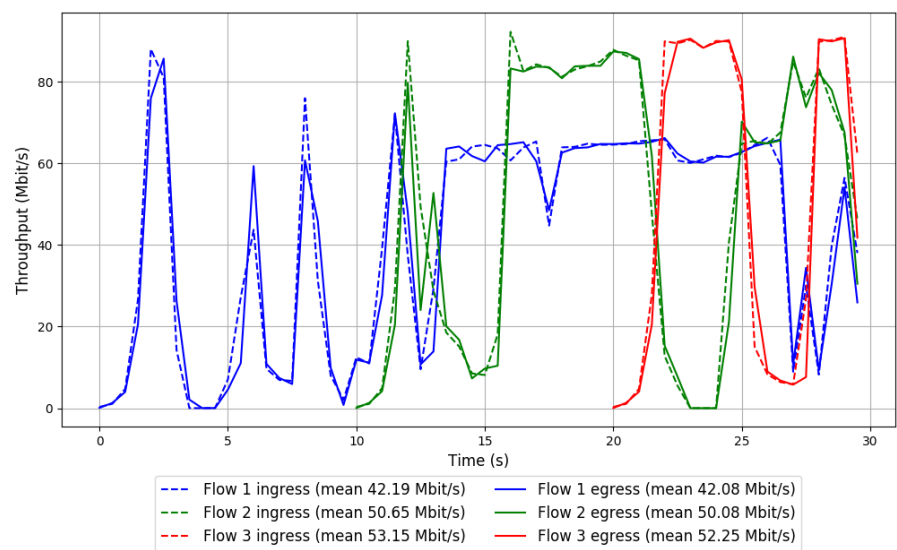
-- Flow 3:

Average throughput: 52.25 Mbit/s

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

Loss rate: 3.92%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-06 18:30:45

End at: 2018-03-06 18:31:15

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.62 Mbit/s

95th percentile per-packet one-way delay: 111.959 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 60.46 Mbit/s

95th percentile per-packet one-way delay: 111.948 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 60.65 Mbit/s

95th percentile per-packet one-way delay: 111.993 ms

Loss rate: 0.64%

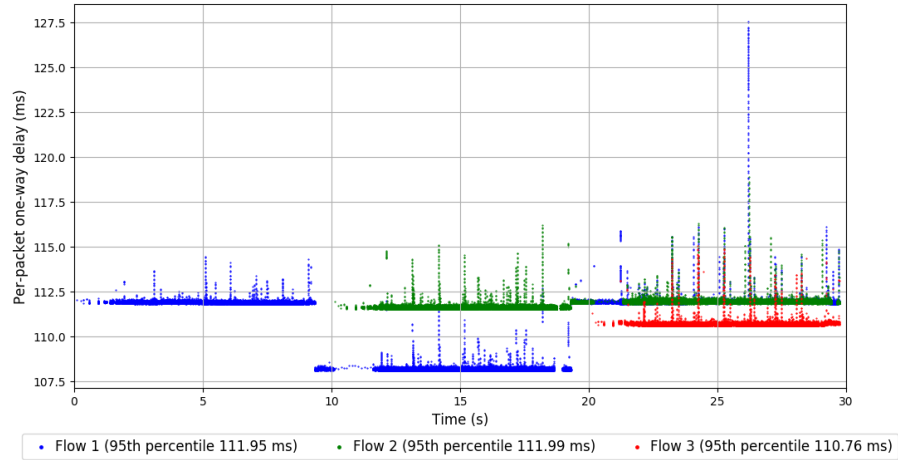
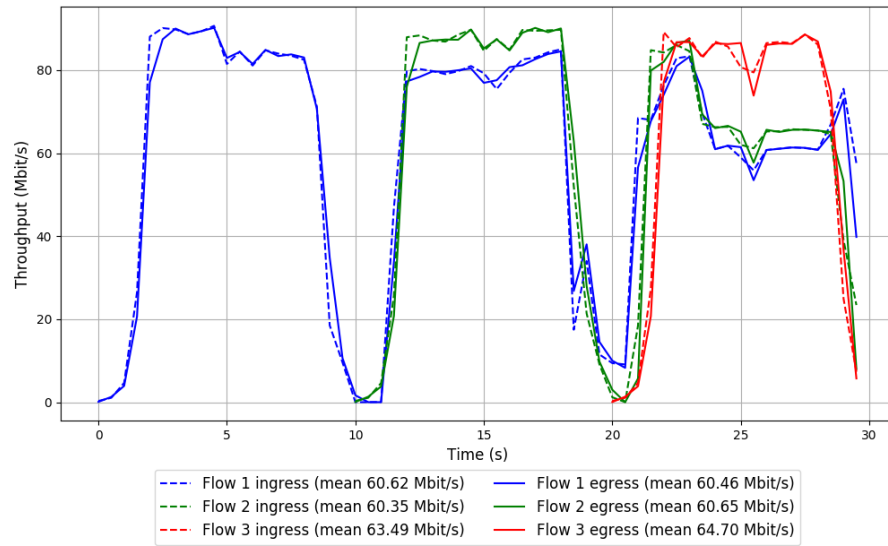
-- Flow 3:

Average throughput: 64.70 Mbit/s

95th percentile per-packet one-way delay: 110.756 ms

Loss rate: 0.36%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-06 18:50:09

End at: 2018-03-06 18:50:39

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.68 Mbit/s

95th percentile per-packet one-way delay: 112.181 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 62.44 Mbit/s

95th percentile per-packet one-way delay: 112.206 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 61.47 Mbit/s

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

Loss rate: 0.21%

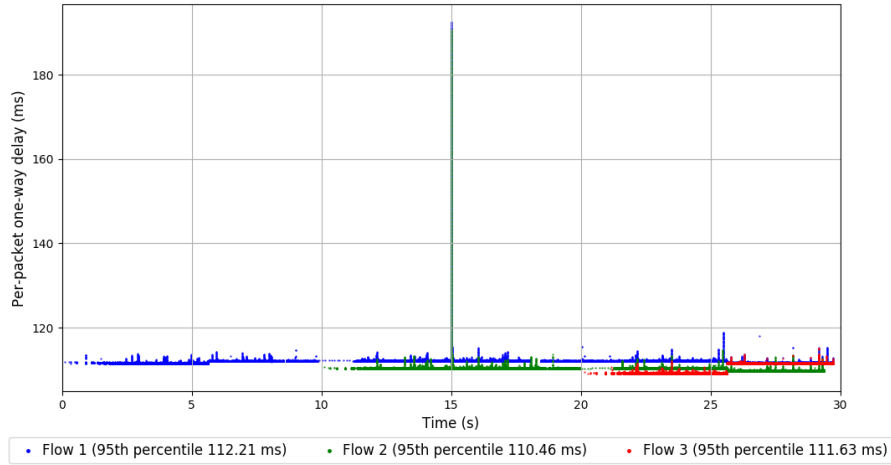
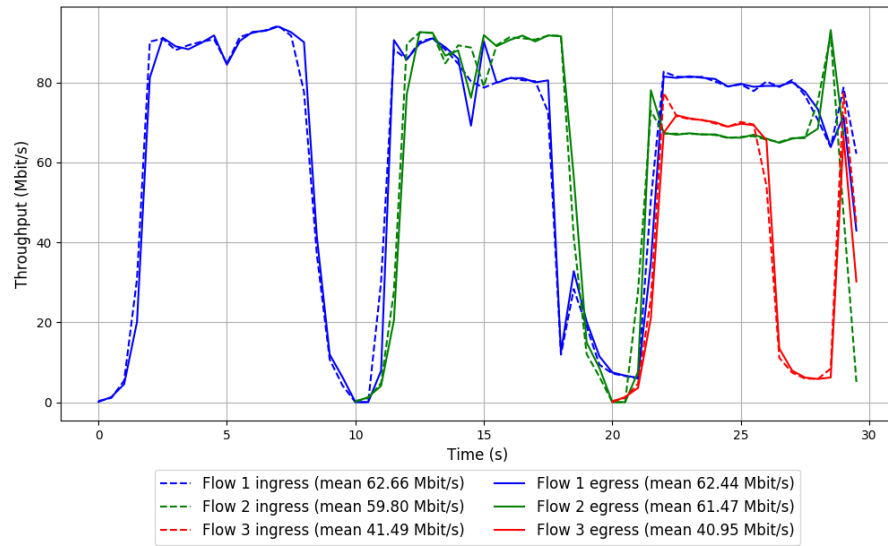
-- Flow 3:

Average throughput: 40.95 Mbit/s

95th percentile per-packet one-way delay: 111.634 ms

Loss rate: 3.51%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-06 19:09:26

End at: 2018-03-06 19:09:56

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.63 Mbit/s

95th percentile per-packet one-way delay: 111.953 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 65.92 Mbit/s

95th percentile per-packet one-way delay: 111.403 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 53.13 Mbit/s

95th percentile per-packet one-way delay: 111.943 ms

Loss rate: 1.75%

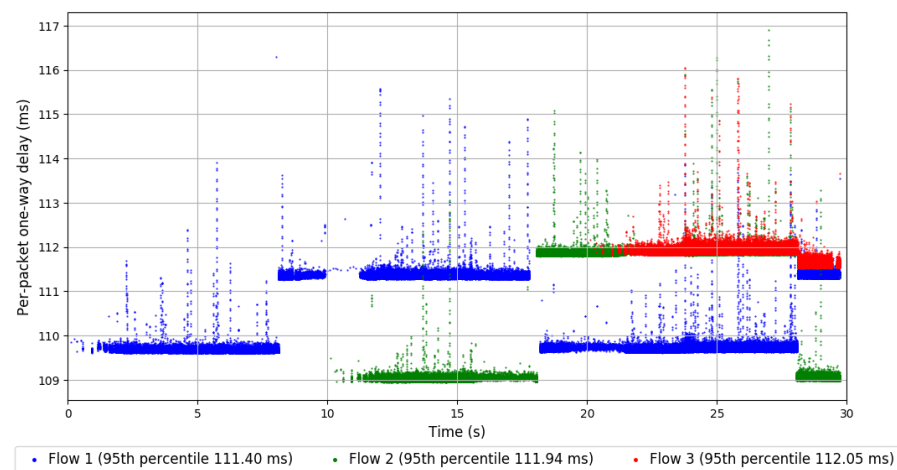
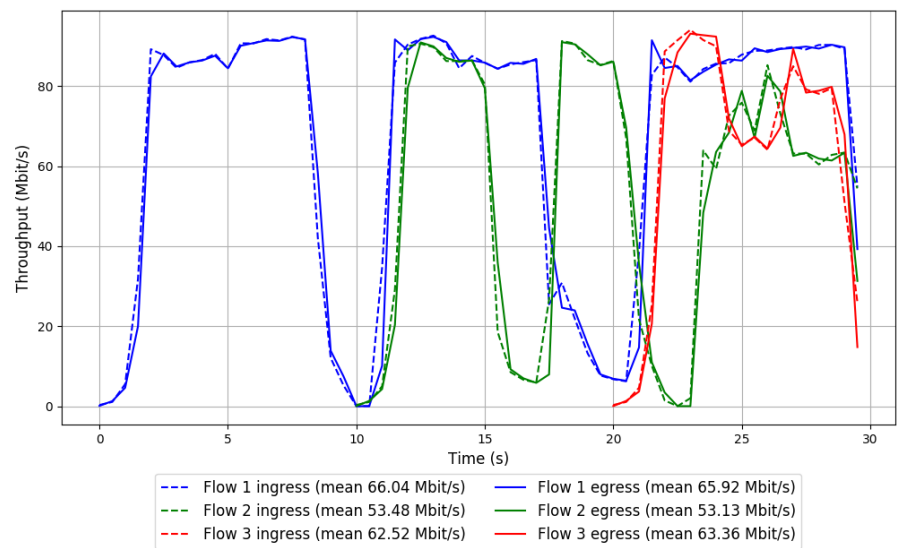
-- Flow 3:

Average throughput: 63.36 Mbit/s

95th percentile per-packet one-way delay: 112.050 ms

Loss rate: 0.91%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-06 19:28:49

End at: 2018-03-06 19:29:19

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.08 Mbit/s

95th percentile per-packet one-way delay: 112.992 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 61.88 Mbit/s

95th percentile per-packet one-way delay: 113.019 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 60.98 Mbit/s

95th percentile per-packet one-way delay: 112.499 ms

Loss rate: 0.70%

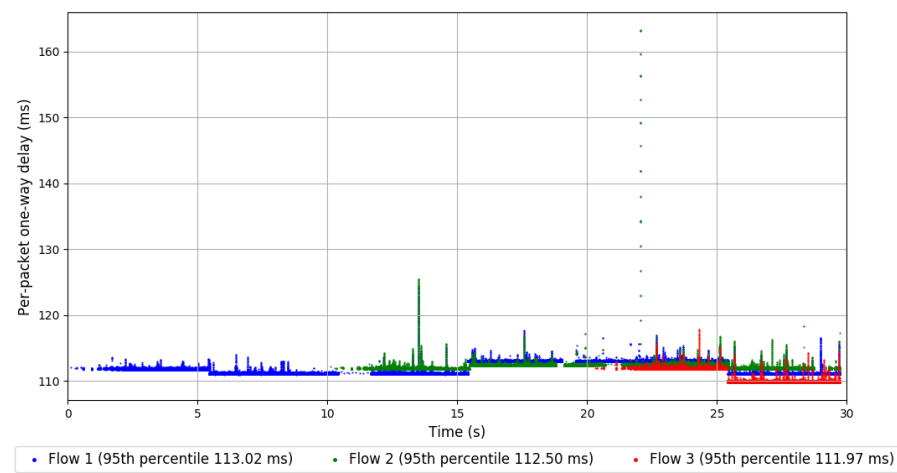
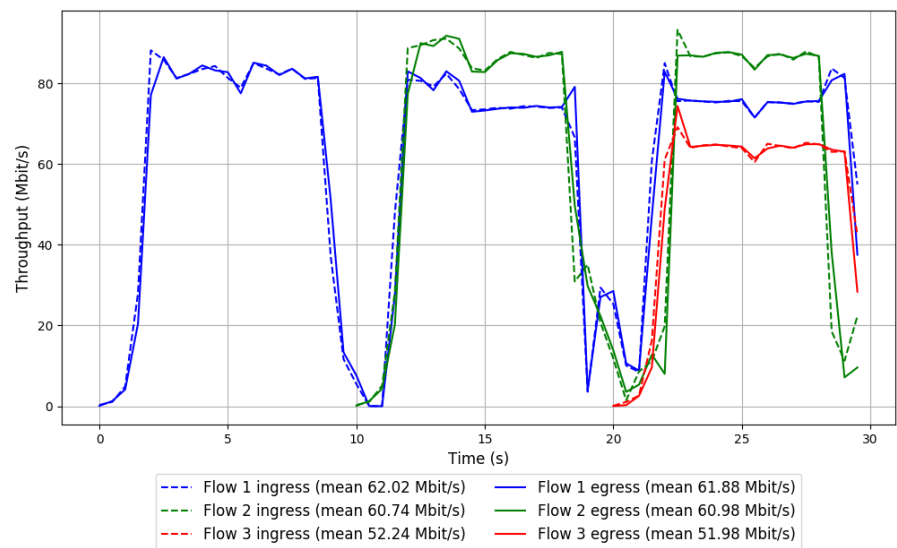
-- Flow 3:

Average throughput: 51.98 Mbit/s

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

Loss rate: 2.72%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-06 19:48:07

End at: 2018-03-06 19:48:37

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.07 Mbit/s

95th percentile per-packet one-way delay: 112.290 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 65.31 Mbit/s

95th percentile per-packet one-way delay: 112.311 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 47.91 Mbit/s

95th percentile per-packet one-way delay: 111.920 ms

Loss rate: 1.75%

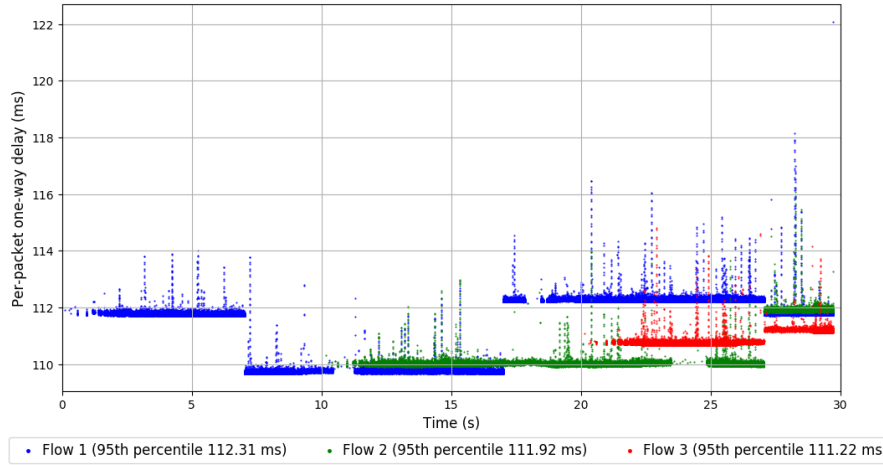
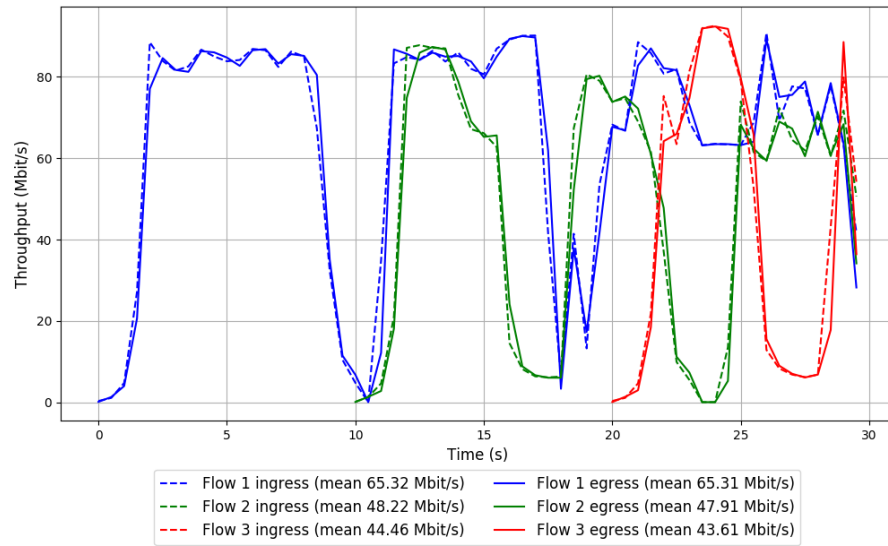
-- Flow 3:

Average throughput: 43.61 Mbit/s

95th percentile per-packet one-way delay: 111.220 ms

Loss rate: 4.11%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-06 20:07:28

End at: 2018-03-06 20:07:58

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.50 Mbit/s

95th percentile per-packet one-way delay: 111.783 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 66.73 Mbit/s

95th percentile per-packet one-way delay: 110.666 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 56.93 Mbit/s

95th percentile per-packet one-way delay: 110.052 ms

Loss rate: 1.49%

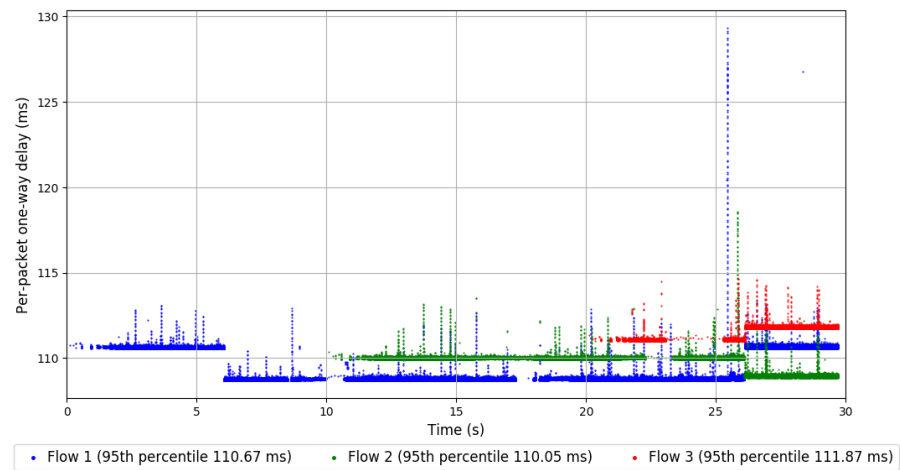
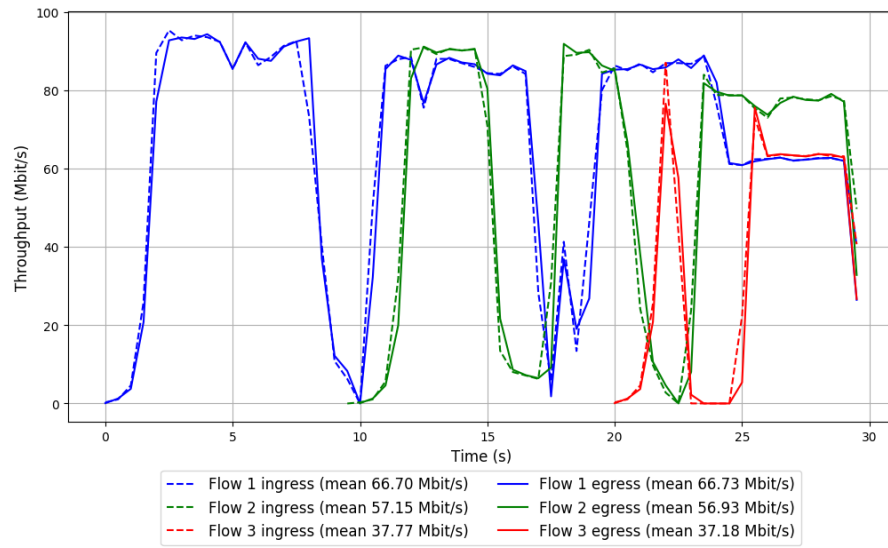
-- Flow 3:

Average throughput: 37.18 Mbit/s

95th percentile per-packet one-way delay: 111.874 ms

Loss rate: 3.79%

Run 10: Report of QUIC Cubic — Data Link

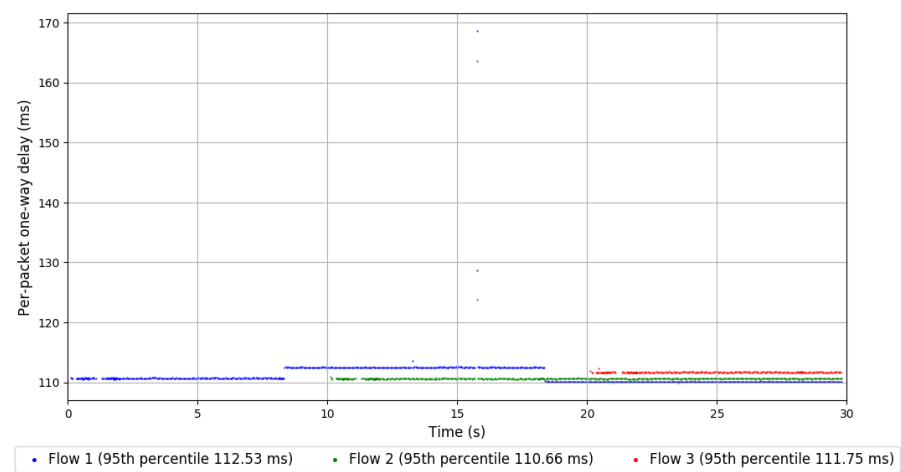
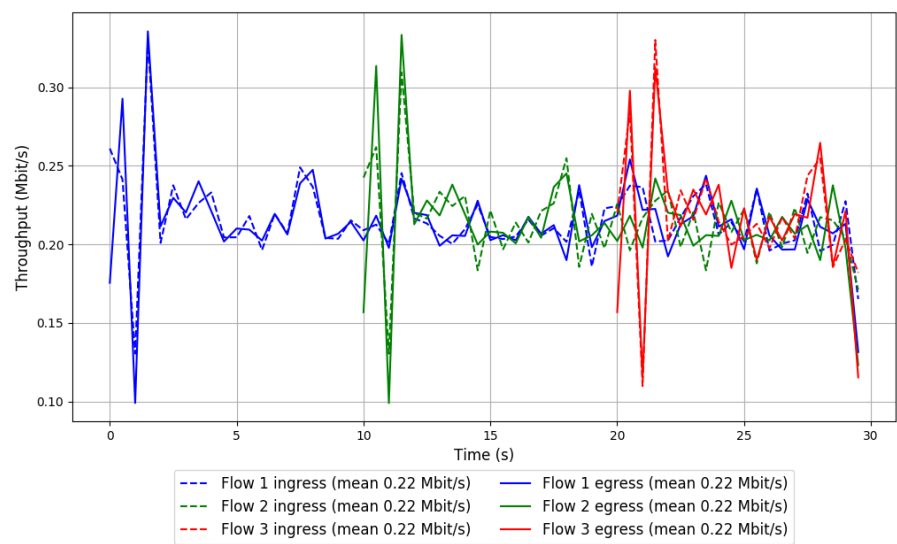


```
Run 1: Statistics of SCReAM

Start at: 2018-03-06 17:17:46
End at: 2018-03-06 17:18:16

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.507 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.529 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.660 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.745 ms
Loss rate: 2.25%
```

Run 1: Report of SReAM — Data Link

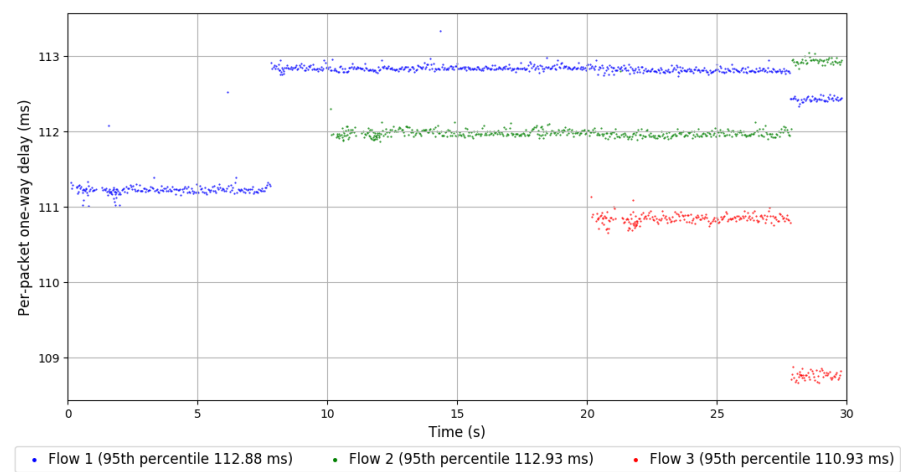
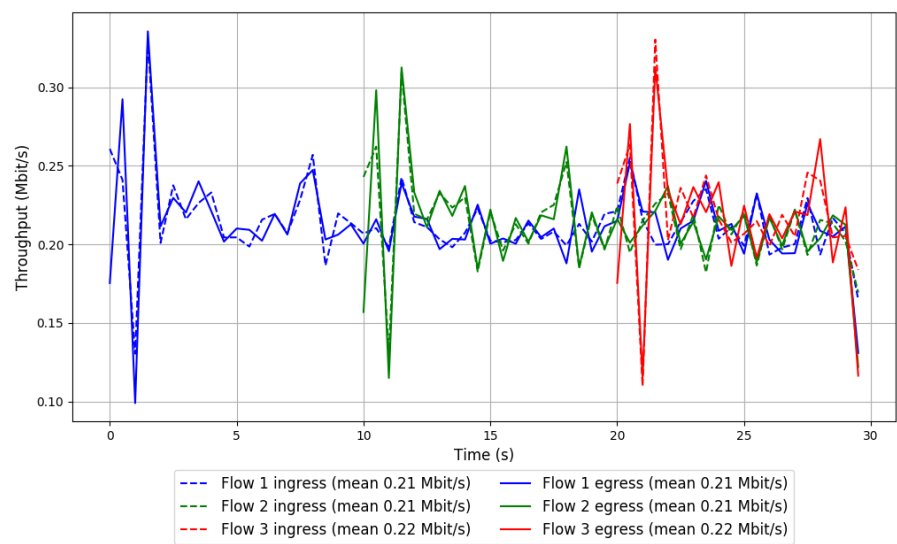


```
Run 2: Statistics of SReAM

Start at: 2018-03-06 17:37:06
End at: 2018-03-06 17:37:36

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.887 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.883 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 112.927 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.933 ms
Loss rate: 2.26%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-03-06 17:56:23

End at: 2018-03-06 17:56:53

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.114 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.131 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.069 ms

Loss rate: 0.98%

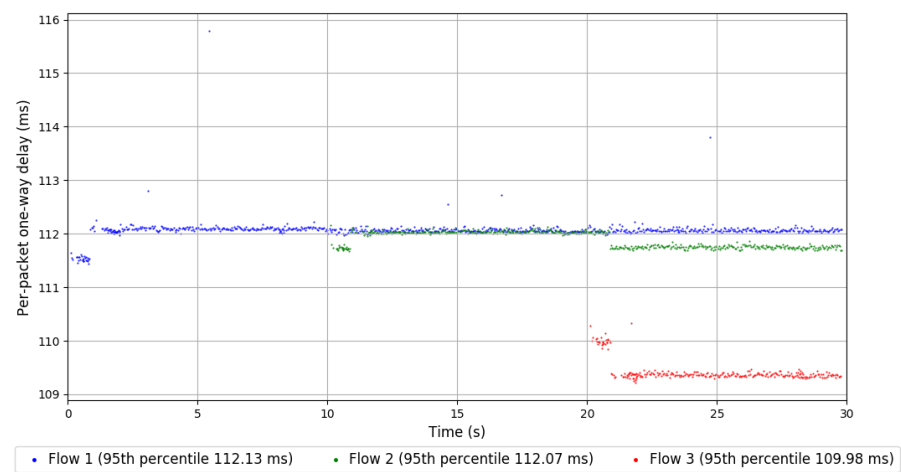
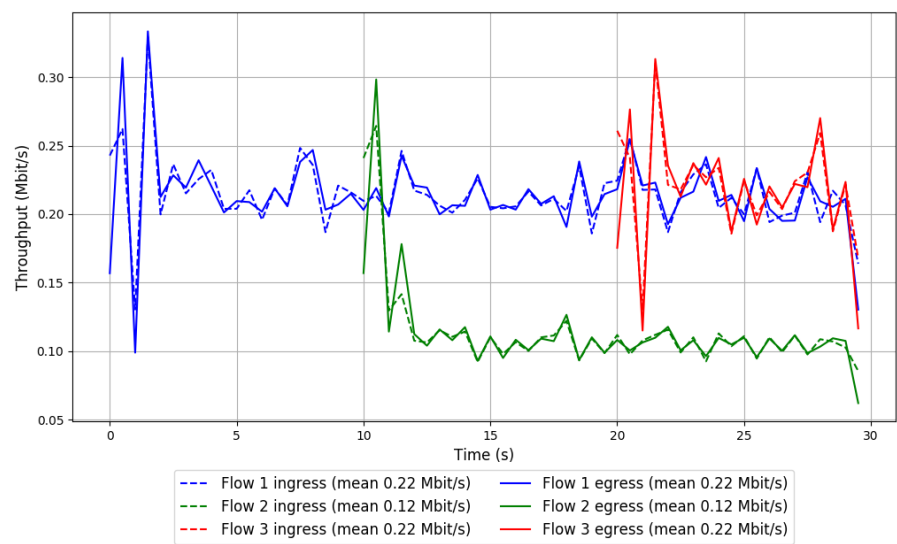
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.983 ms

Loss rate: 2.26%

Run 3: Report of SReAM — Data Link

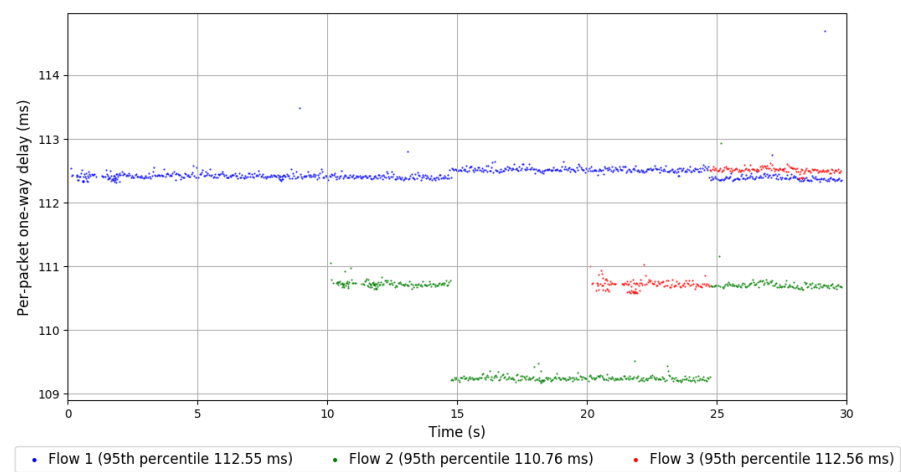
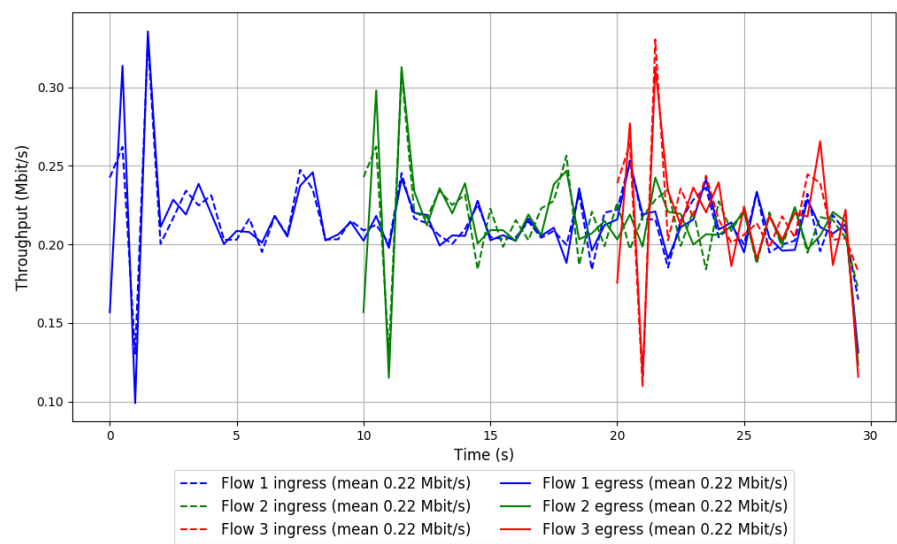


```
Run 4: Statistics of SReAM

Start at: 2018-03-06 18:16:00
End at: 2018-03-06 18:16:30

# Below is generated by plot.py at 2018-03-07 00:02:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.541 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.554 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.764 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.556 ms
Loss rate: 2.25%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-03-06 18:35:05

End at: 2018-03-06 18:35:35

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.320 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.283 ms

Loss rate: 1.06%

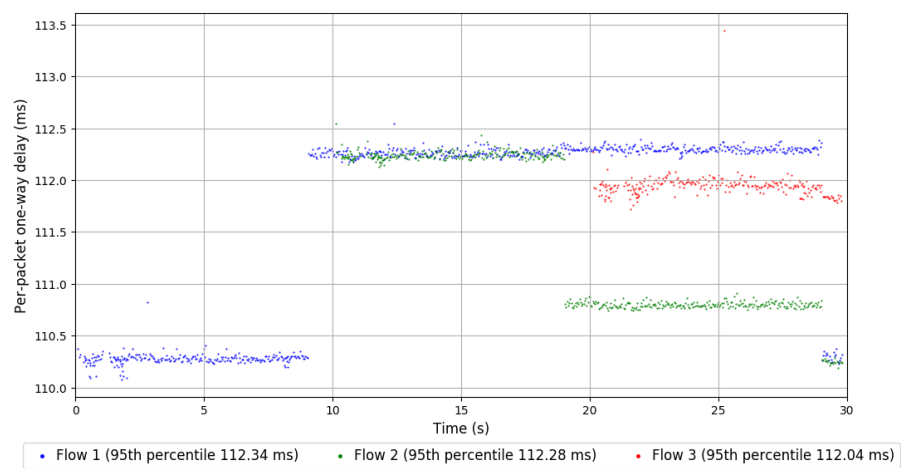
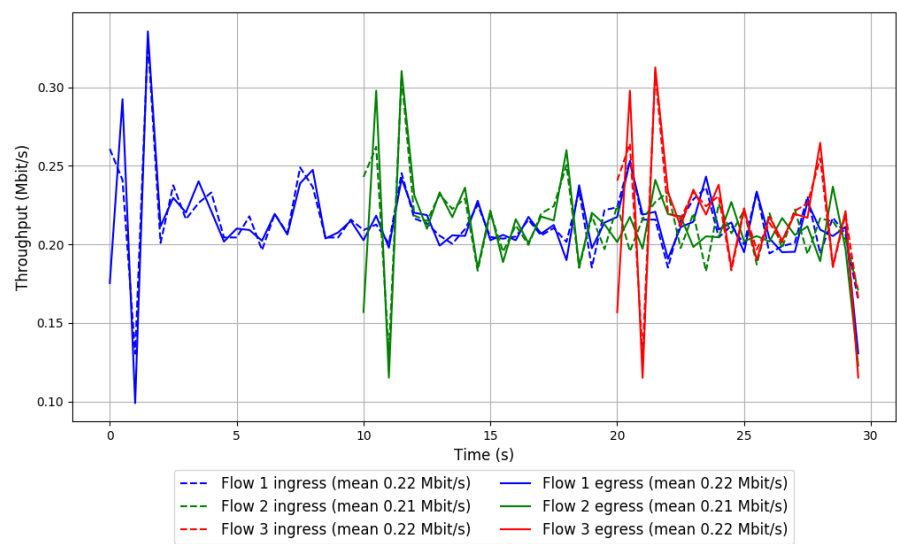
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.043 ms

Loss rate: 2.25%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-03-06 18:54:26

End at: 2018-03-06 18:54:56

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 112.990 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 113.015 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.015 ms

Loss rate: 1.05%

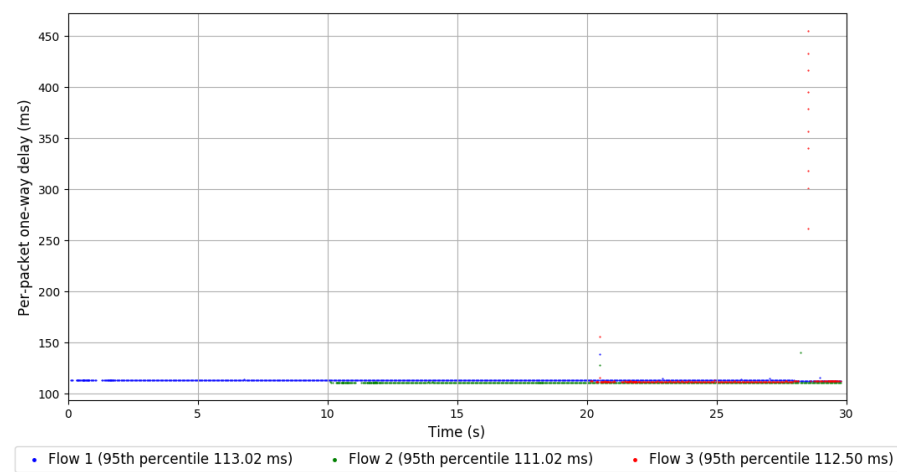
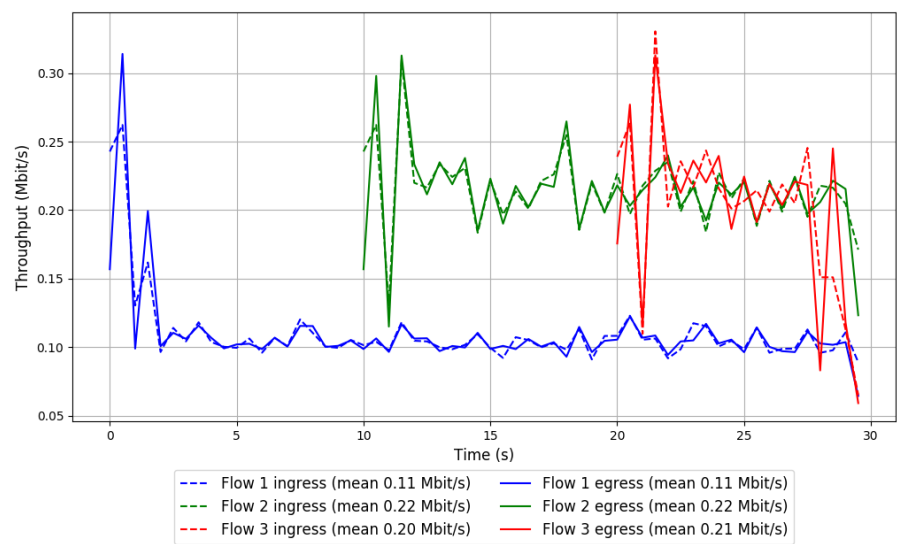
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.495 ms

Loss rate: 0.88%

Run 6: Report of SCReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-03-06 19:13:45

End at: 2018-03-06 19:14:15

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 113.280 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.754 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.024 ms

Loss rate: 1.05%

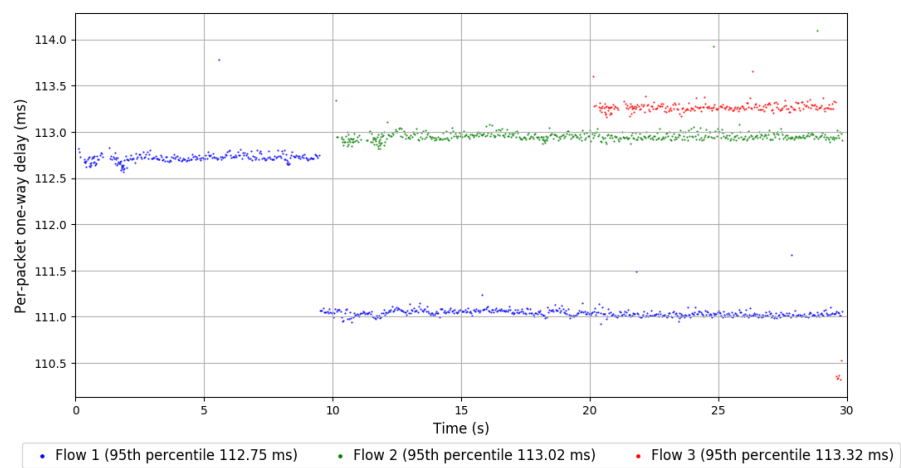
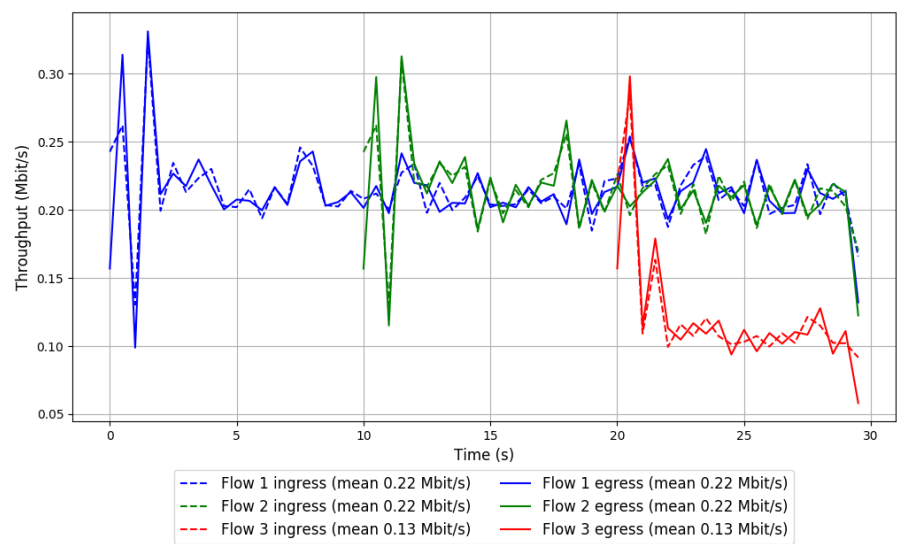
-- Flow 3:

Average throughput: 0.13 Mbit/s

95th percentile per-packet one-way delay: 113.322 ms

Loss rate: 1.99%

Run 7: Report of SCSReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-06 19:33:05

End at: 2018-03-06 19:33:35

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.63%

-- Flow 2:

Average throughput: 0.21 Mbit/s

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

Loss rate: 1.05%

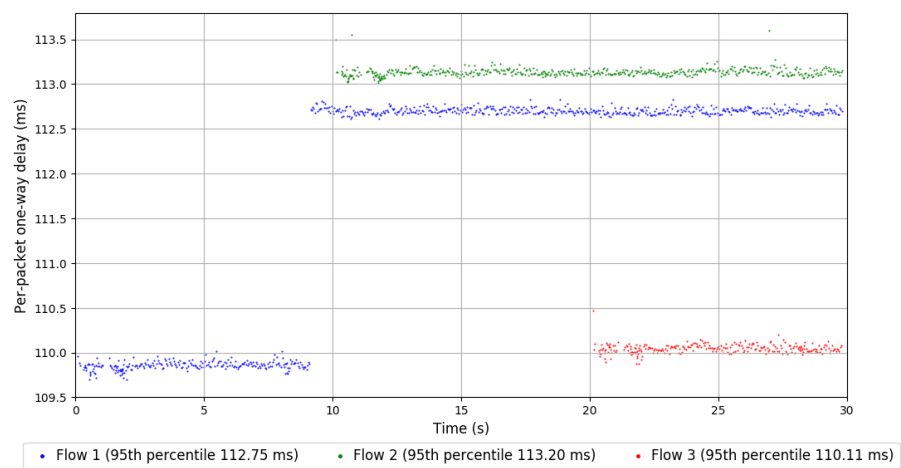
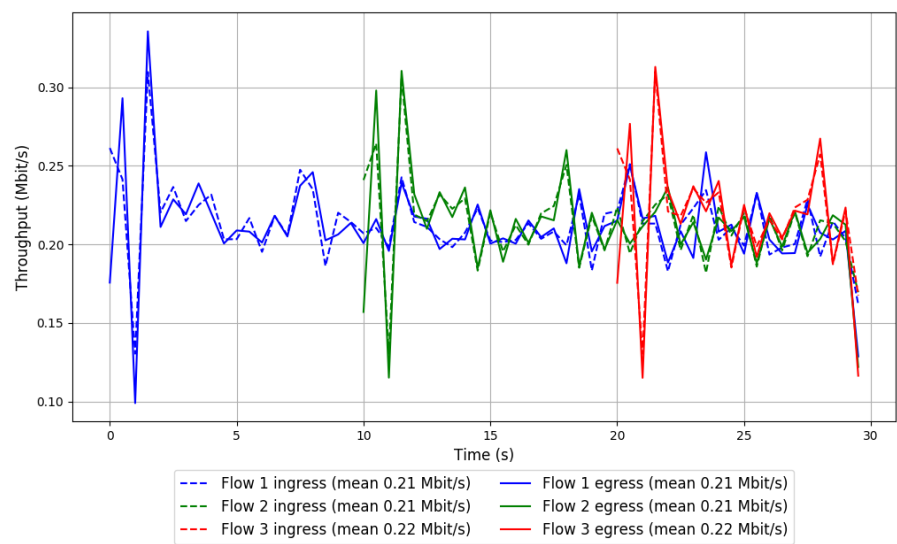
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.113 ms

Loss rate: 2.26%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-06 19:52:26

End at: 2018-03-06 19:52:56

Below is generated by plot.py at 2018-03-07 00:02:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.887 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.905 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 1.05%

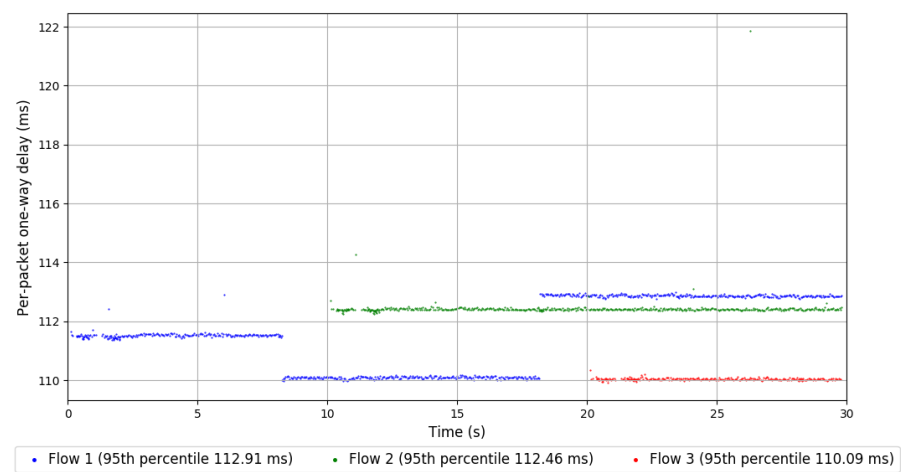
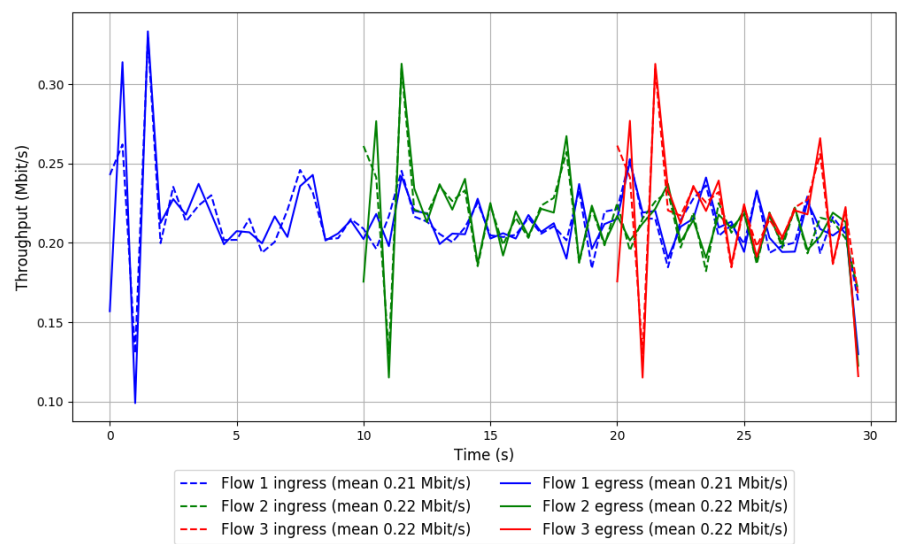
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.088 ms

Loss rate: 2.26%

Run 9: Report of SReAM — Data Link

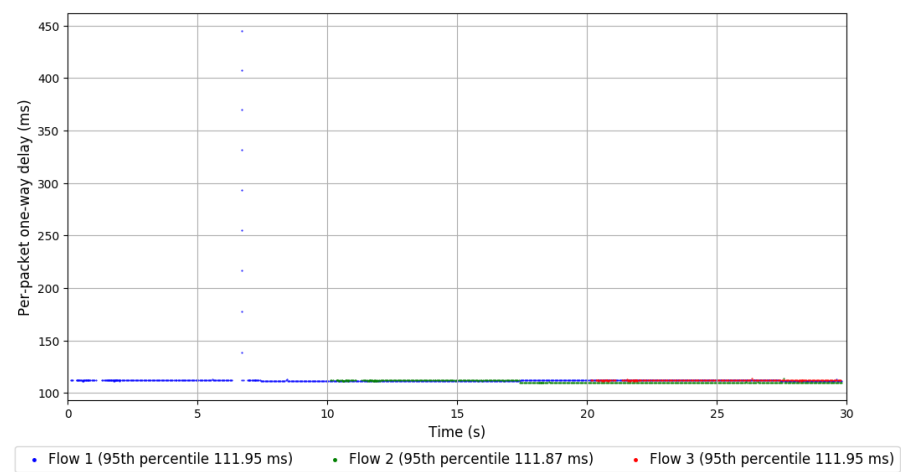
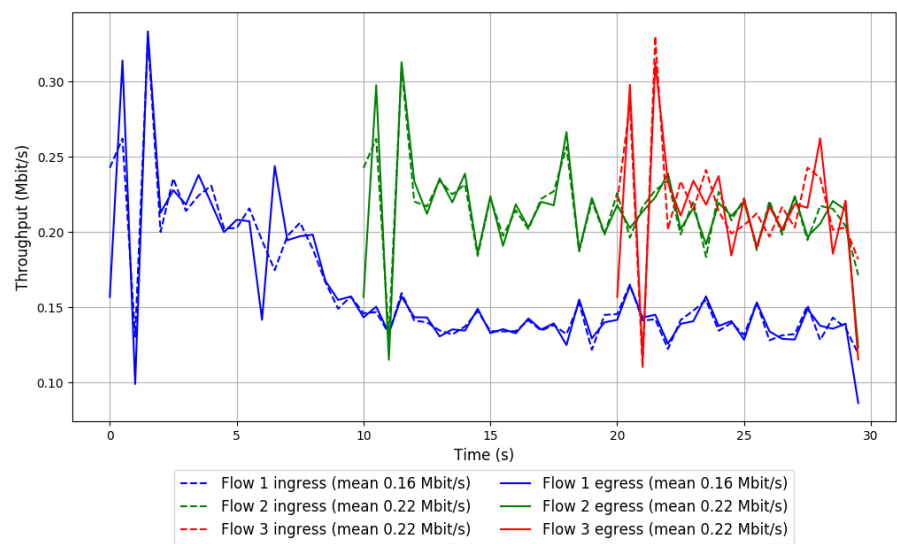


```
Run 10: Statistics of SCReAM

Start at: 2018-03-06 20:11:47
End at: 2018-03-06 20:12:17

# Below is generated by plot.py at 2018-03-07 00:02:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 111.935 ms
Loss rate: 1.12%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 111.946 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.871 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.951 ms
Loss rate: 2.26%
```

Run 10: Report of SReAM — Data Link

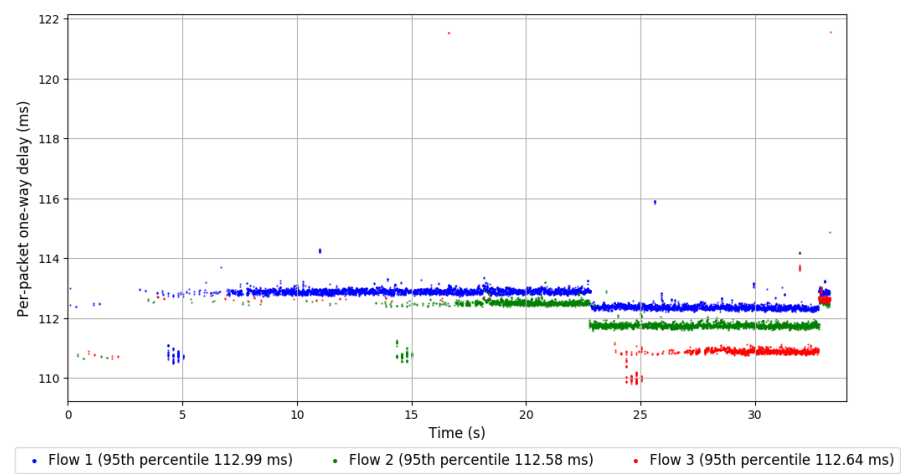
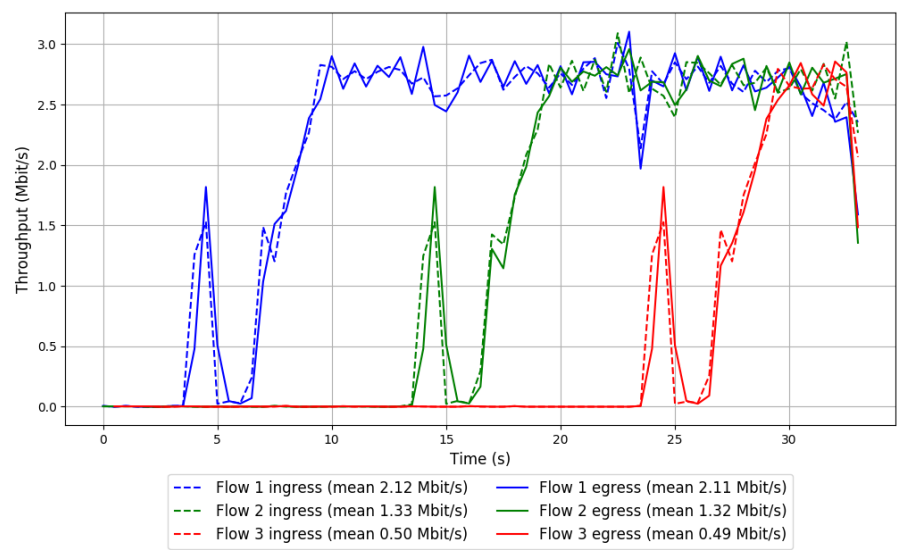


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-06 17:09:25
End at: 2018-03-06 17:09:55

# Below is generated by plot.py at 2018-03-07 00:02:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.89 Mbit/s
95th percentile per-packet one-way delay: 112.965 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 2.11 Mbit/s
95th percentile per-packet one-way delay: 112.990 ms
Loss rate: 1.01%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 112.582 ms
Loss rate: 1.83%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 112.644 ms
Loss rate: 3.47%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-06 17:28:57

End at: 2018-03-06 17:29:27

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.88 Mbit/s

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

Loss rate: 1.57%

-- Flow 1:

Average throughput: 2.12 Mbit/s

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

Loss rate: 0.92%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 113.171 ms

Loss rate: 1.85%

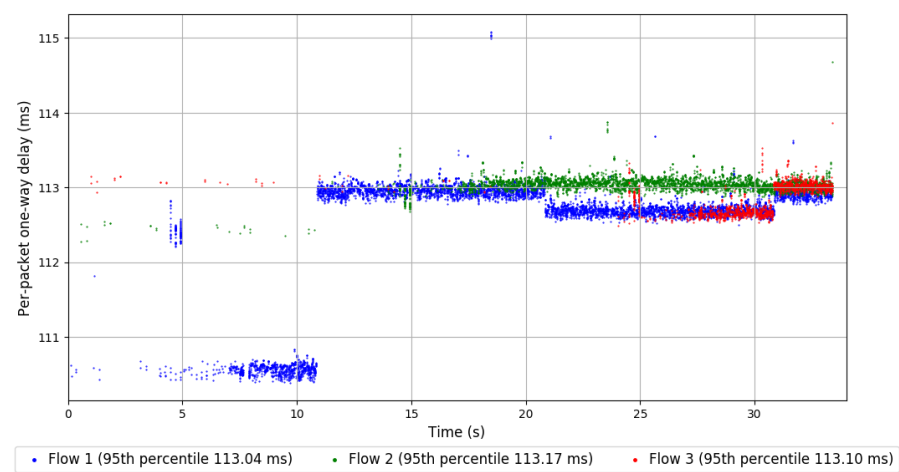
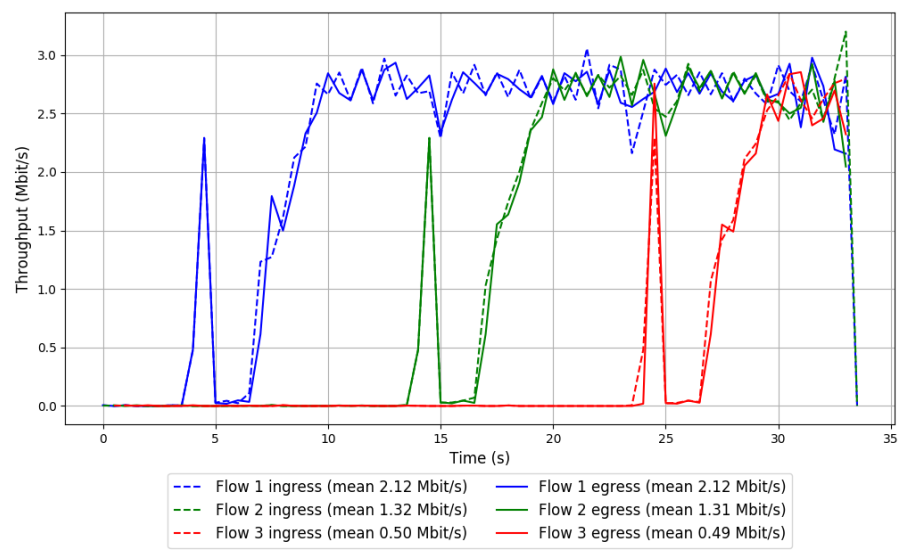
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 113.099 ms

Loss rate: 3.65%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-06 17:48:03

End at: 2018-03-06 17:48:33

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 110.839 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 110.838 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 110.601 ms

Loss rate: 1.83%

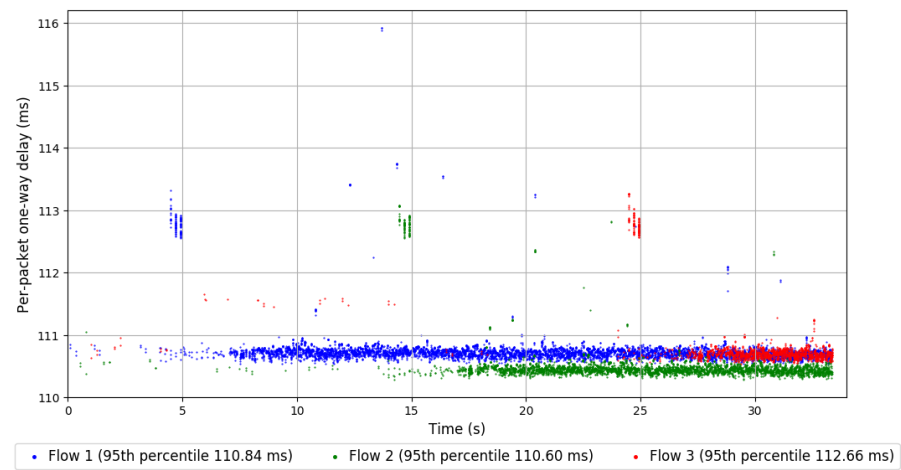
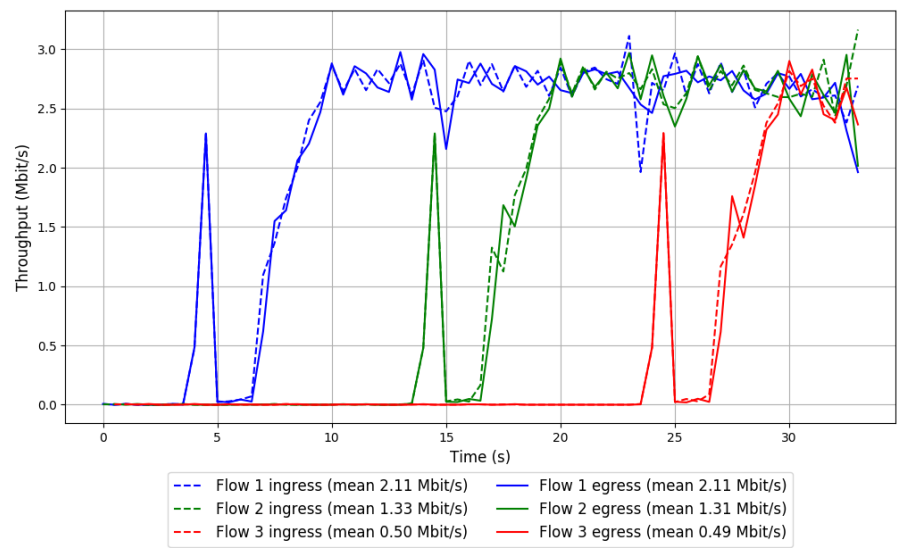
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 112.662 ms

Loss rate: 3.37%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-06 18:07:38

End at: 2018-03-06 18:08:08

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.86 Mbit/s

95th percentile per-packet one-way delay: 112.745 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 112.751 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 111.274 ms

Loss rate: 1.73%

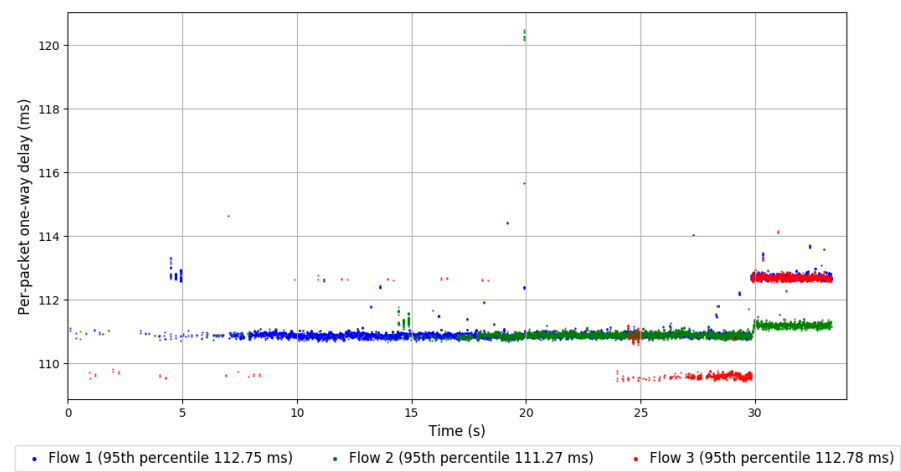
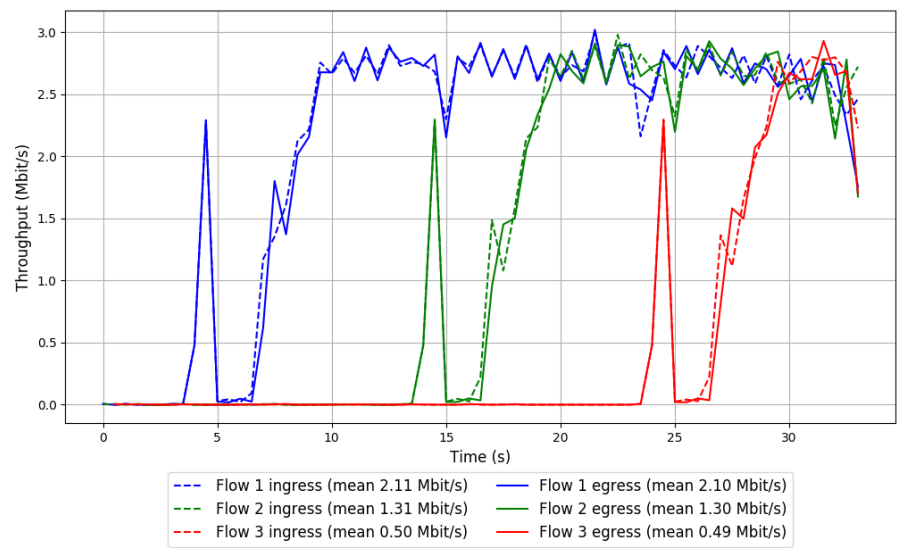
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 112.785 ms

Loss rate: 4.08%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-06 18:26:43

End at: 2018-03-06 18:27:13

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 112.448 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 2.11 Mbit/s

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

Loss rate: 0.84%

-- Flow 2:

Average throughput: 1.32 Mbit/s

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

Loss rate: 1.53%

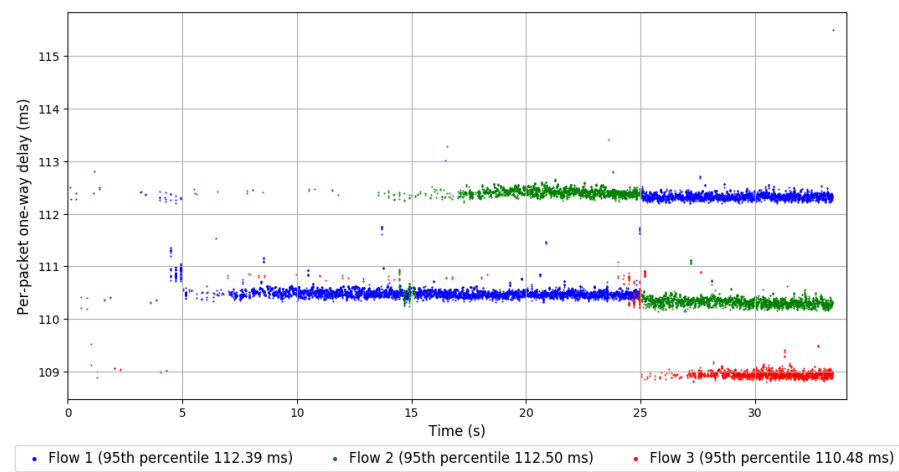
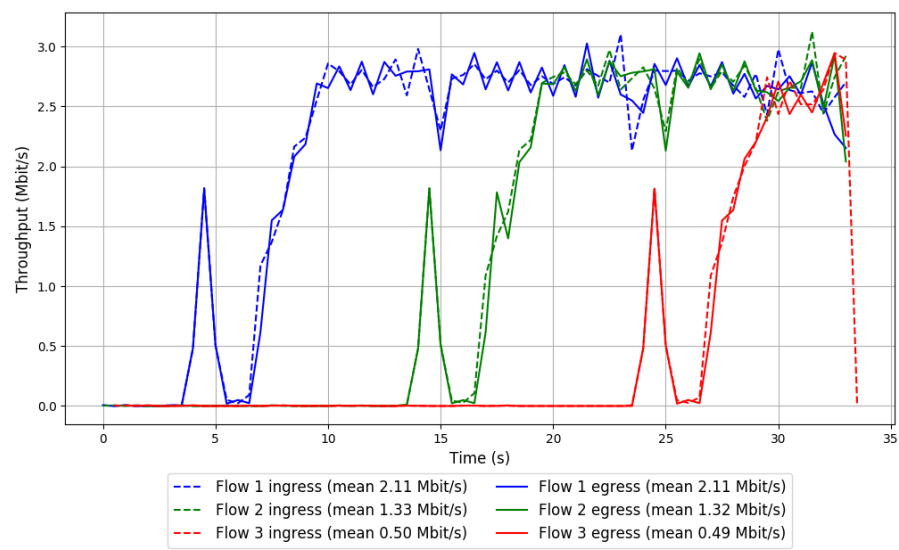
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 110.477 ms

Loss rate: 4.01%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-06 18:46:11

End at: 2018-03-06 18:46:41

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 112.551 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 112.122 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 111.518 ms

Loss rate: 1.83%

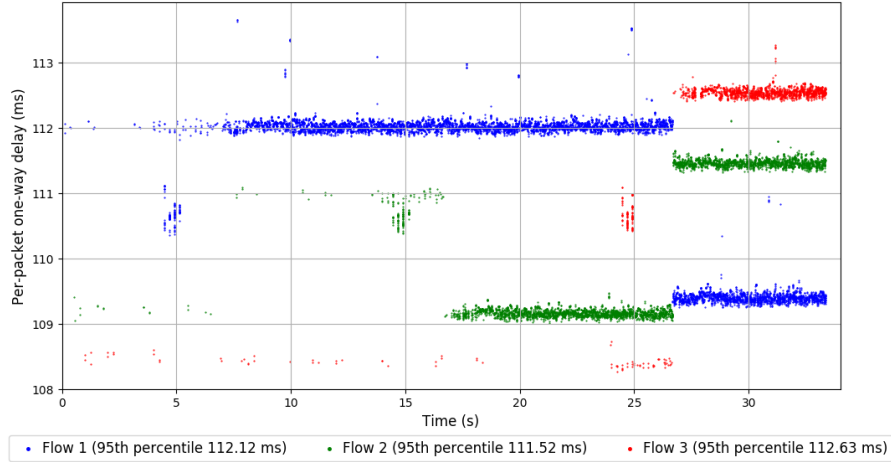
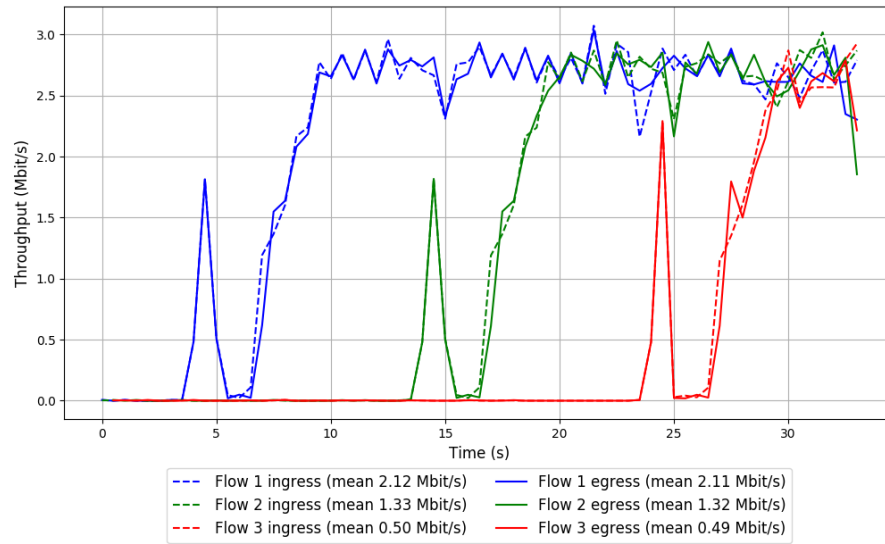
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 112.631 ms

Loss rate: 3.66%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-06 19:05:24

End at: 2018-03-06 19:05:54

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.87 Mbit/s

95th percentile per-packet one-way delay: 112.964 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 111.091 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 110.726 ms

Loss rate: 1.75%

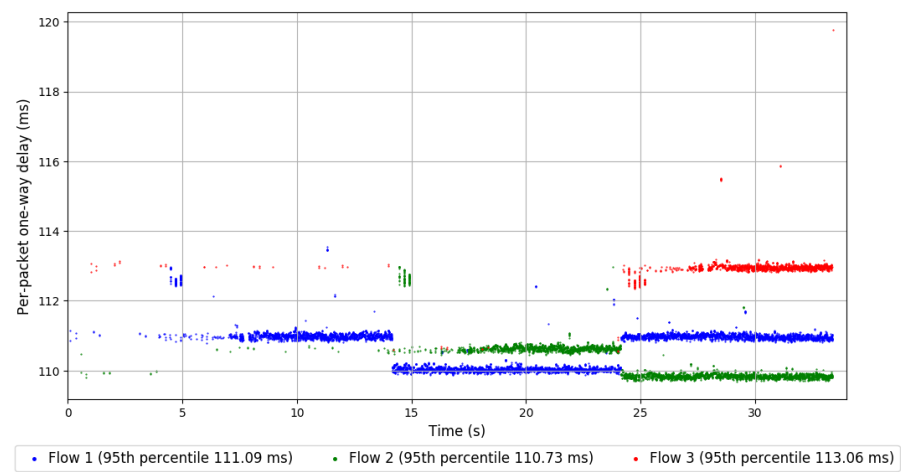
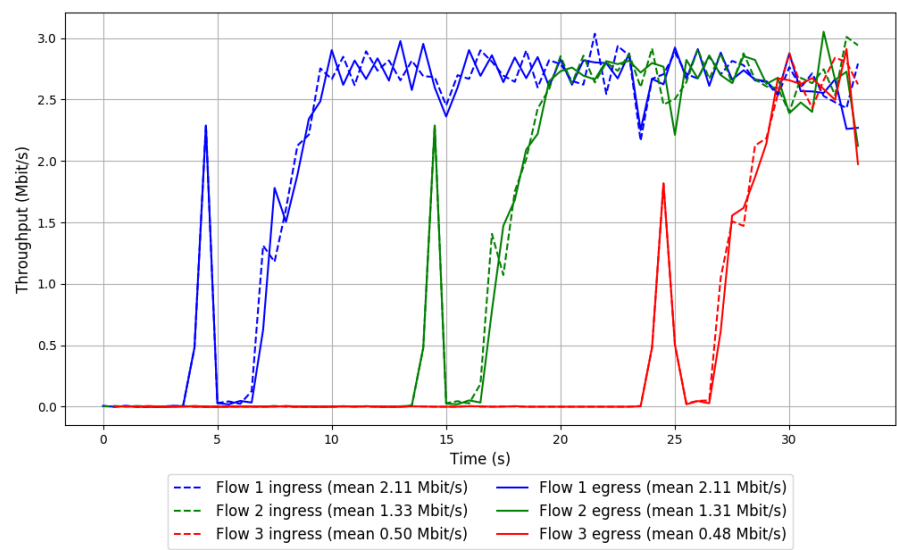
-- Flow 3:

Average throughput: 0.48 Mbit/s

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

Loss rate: 4.20%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-06 19:24:46

End at: 2018-03-06 19:25:16

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.87 Mbit/s

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

Loss rate: 1.60%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 111.740 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 1.31 Mbit/s

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

Loss rate: 1.59%

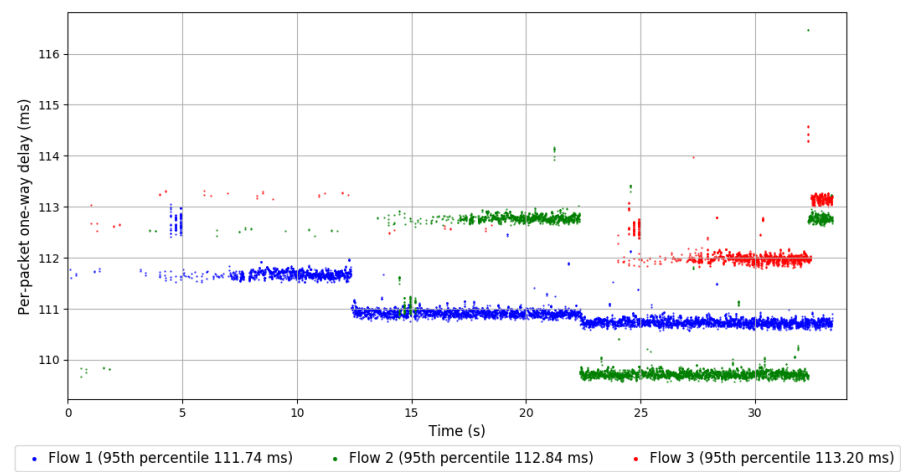
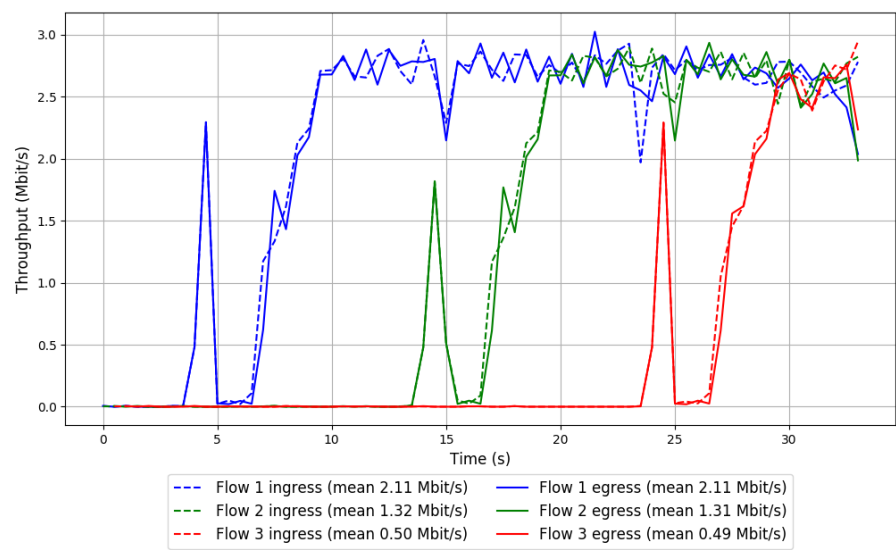
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 113.200 ms

Loss rate: 4.19%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-06 19:44:08

End at: 2018-03-06 19:44:38

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.89 Mbit/s

95th percentile per-packet one-way delay: 113.109 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 2.10 Mbit/s

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

Loss rate: 0.91%

-- Flow 2:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 112.649 ms

Loss rate: 1.72%

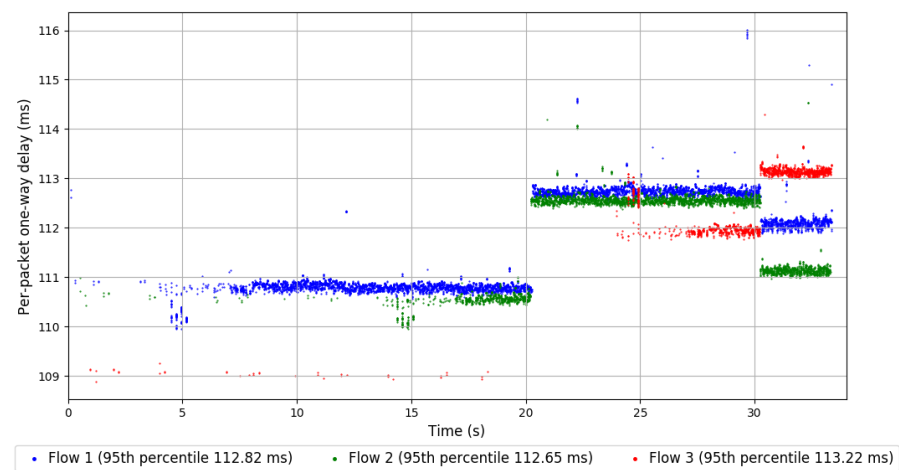
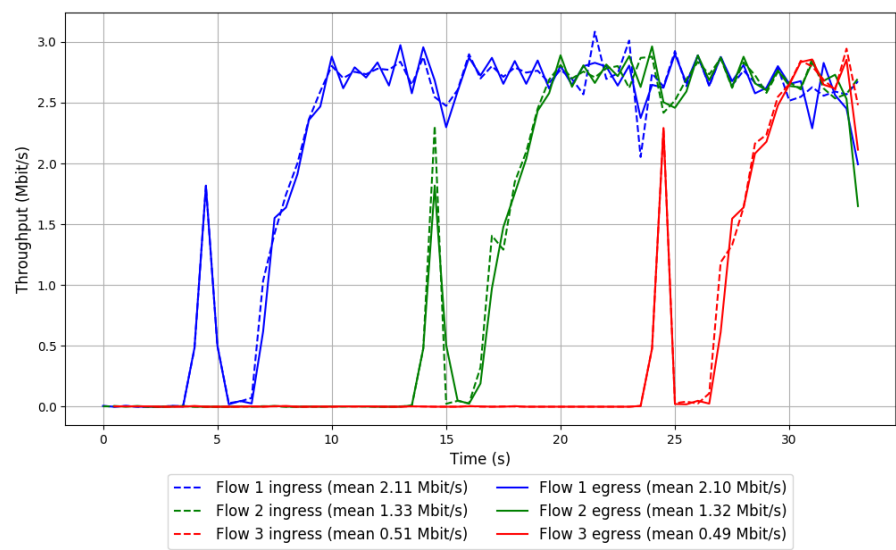
-- Flow 3:

Average throughput: 0.49 Mbit/s

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

Loss rate: 3.33%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-06 20:03:30

End at: 2018-03-06 20:04:00

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 112.994 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 112.958 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 113.016 ms

Loss rate: 1.66%

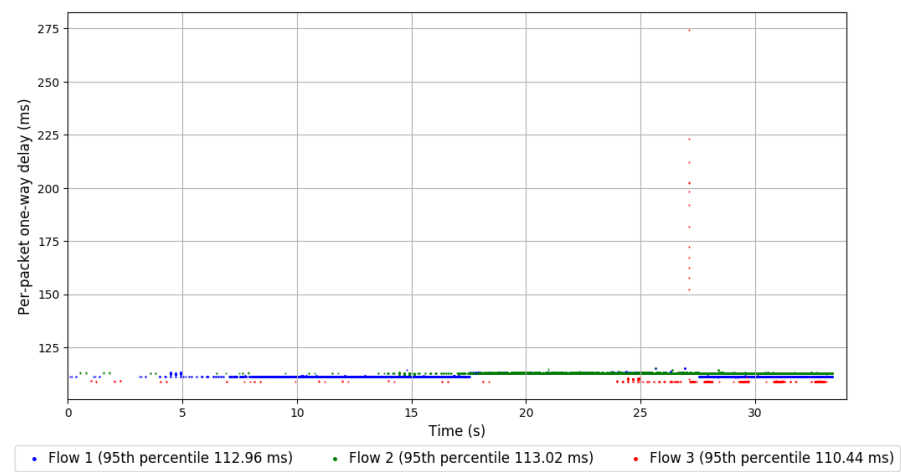
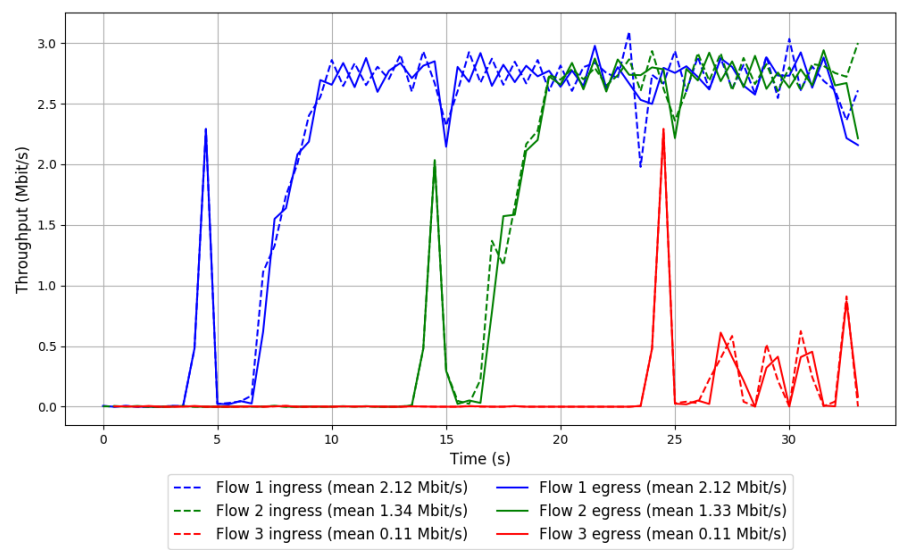
-- Flow 3:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 110.438 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

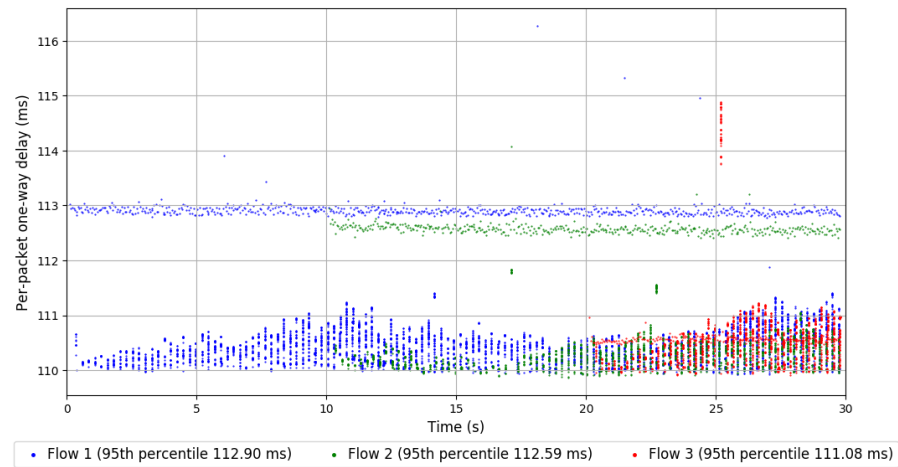
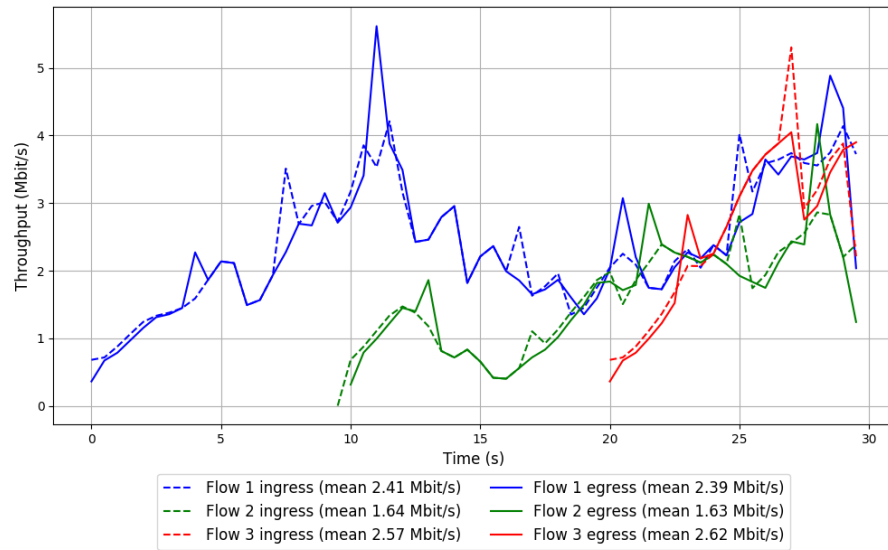


```
Run 1: Statistics of Sprout

Start at: 2018-03-06 17:19:22
End at: 2018-03-06 17:19:52

# Below is generated by plot.py at 2018-03-07 00:02:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.32 Mbit/s
95th percentile per-packet one-way delay: 112.851 ms
Loss rate: 1.27%
-- Flow 1:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 112.896 ms
Loss rate: 1.32%
-- Flow 2:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 112.592 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 2.62 Mbit/s
95th percentile per-packet one-way delay: 111.080 ms
Loss rate: 0.51%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-06 17:38:43

End at: 2018-03-06 17:39:13

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.51 Mbit/s

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

Loss rate: 0.86%

-- Flow 1:

Average throughput: 2.57 Mbit/s

95th percentile per-packet one-way delay: 113.584 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 113.448 ms

Loss rate: 1.06%

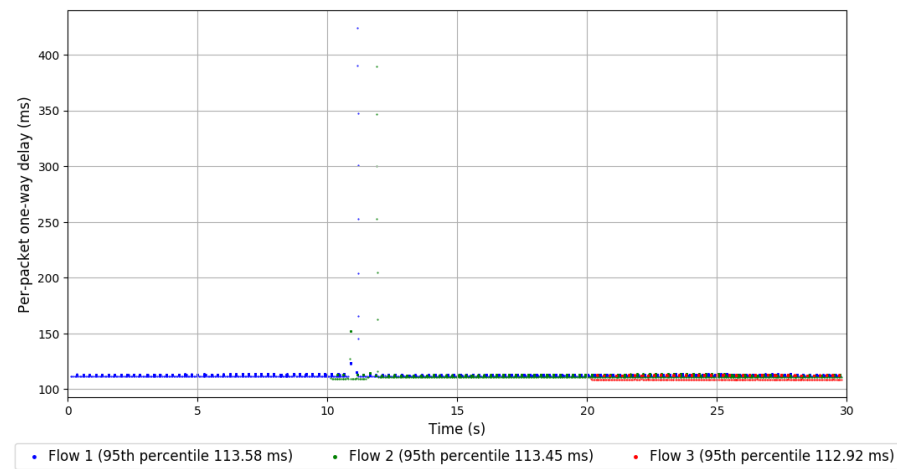
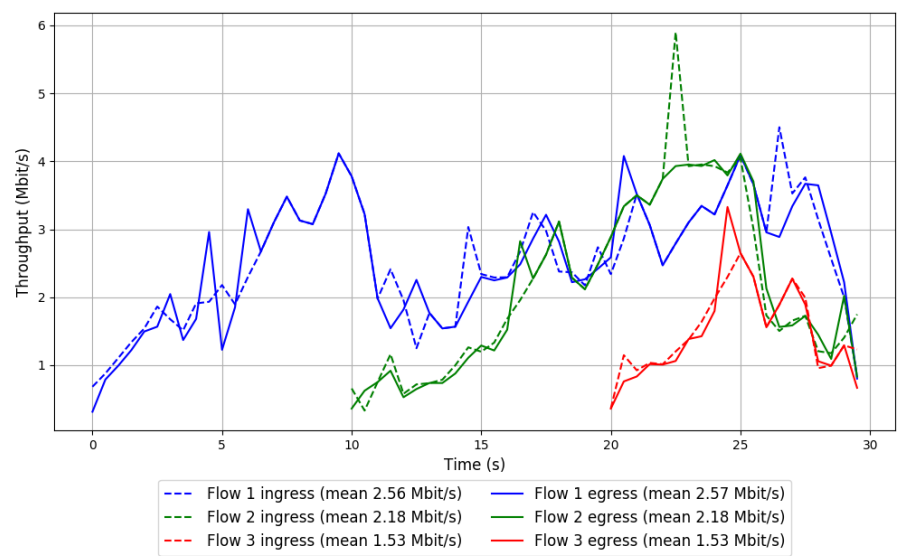
-- Flow 3:

Average throughput: 1.53 Mbit/s

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

Loss rate: 1.89%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-06 17:58:01

End at: 2018-03-06 17:58:32

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.63 Mbit/s

95th percentile per-packet one-way delay: 112.164 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 3.30 Mbit/s

95th percentile per-packet one-way delay: 112.147 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 2.79 Mbit/s

95th percentile per-packet one-way delay: 112.147 ms

Loss rate: 1.85%

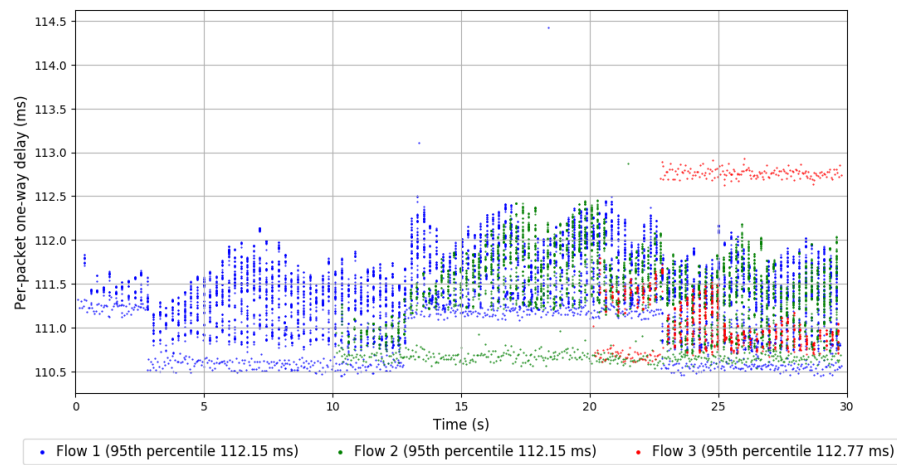
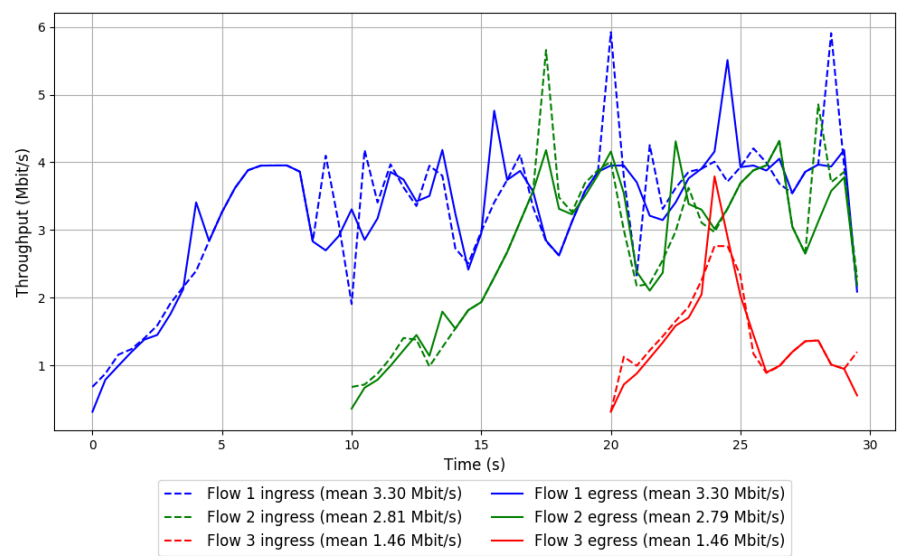
-- Flow 3:

Average throughput: 1.46 Mbit/s

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

Loss rate: 2.24%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-06 18:17:37

End at: 2018-03-06 18:18:07

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 113.280 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.84 Mbit/s

95th percentile per-packet one-way delay: 113.388 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 112.812 ms

Loss rate: 1.76%

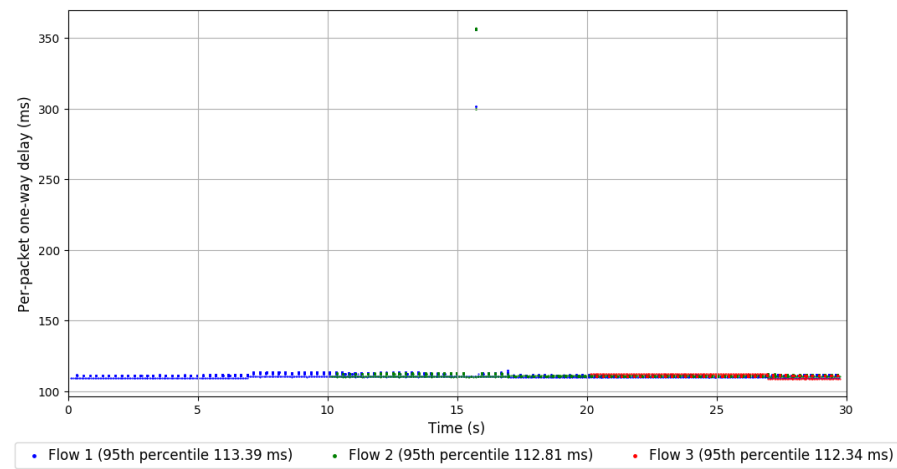
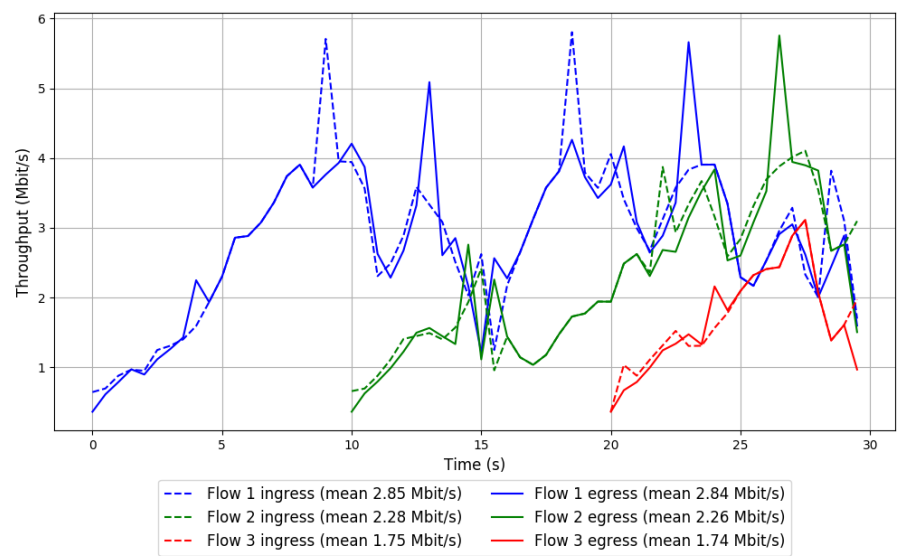
-- Flow 3:

Average throughput: 1.74 Mbit/s

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

Loss rate: 2.93%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-06 18:36:42

End at: 2018-03-06 18:37:12

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 112.055 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 112.195 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 111.595 ms

Loss rate: 1.39%

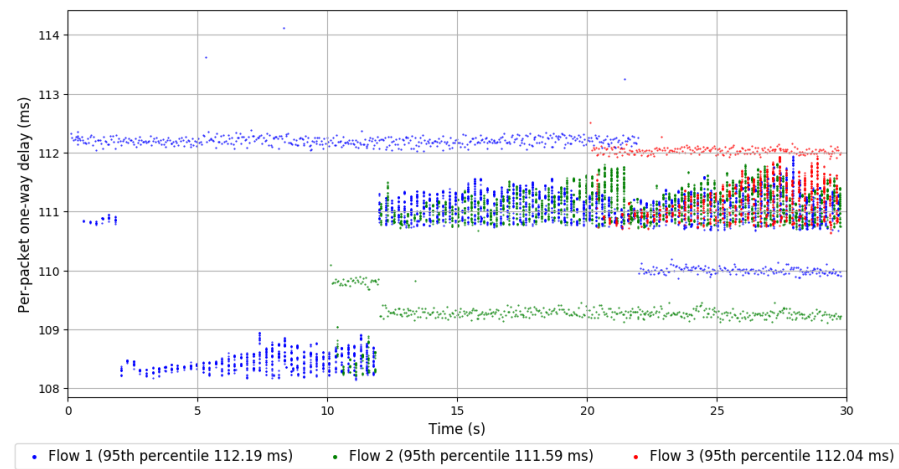
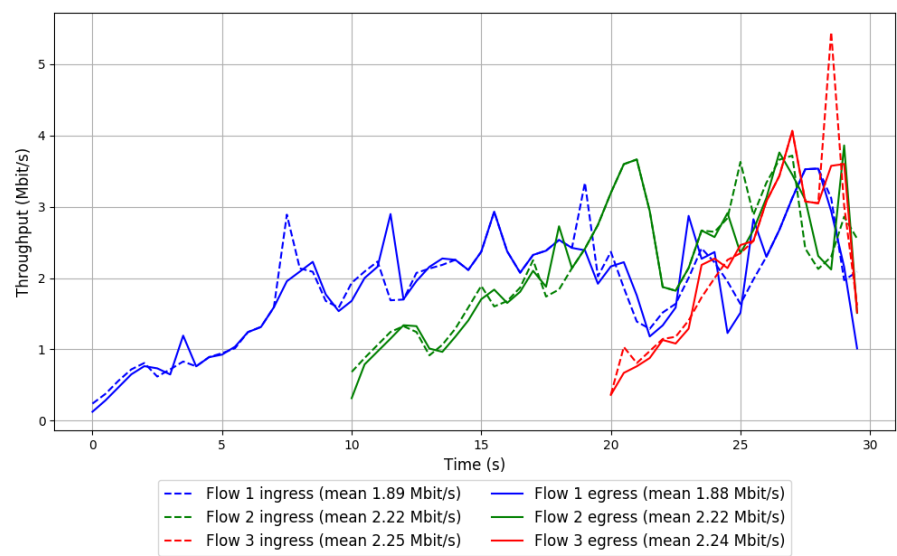
-- Flow 3:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 112.040 ms

Loss rate: 3.13%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-06 18:56:01

End at: 2018-03-06 18:56:31

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.90 Mbit/s

95th percentile per-packet one-way delay: 112.935 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 2.26 Mbit/s

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

Loss rate: 0.51%

-- Flow 2:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 112.736 ms

Loss rate: 1.17%

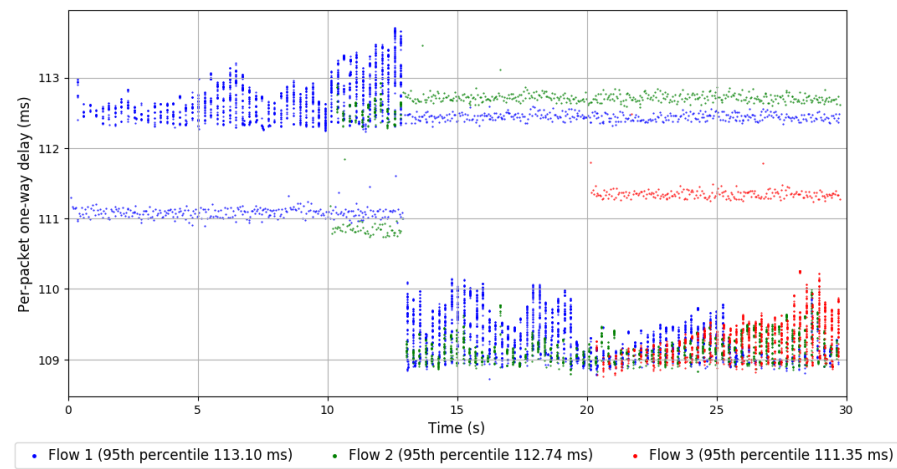
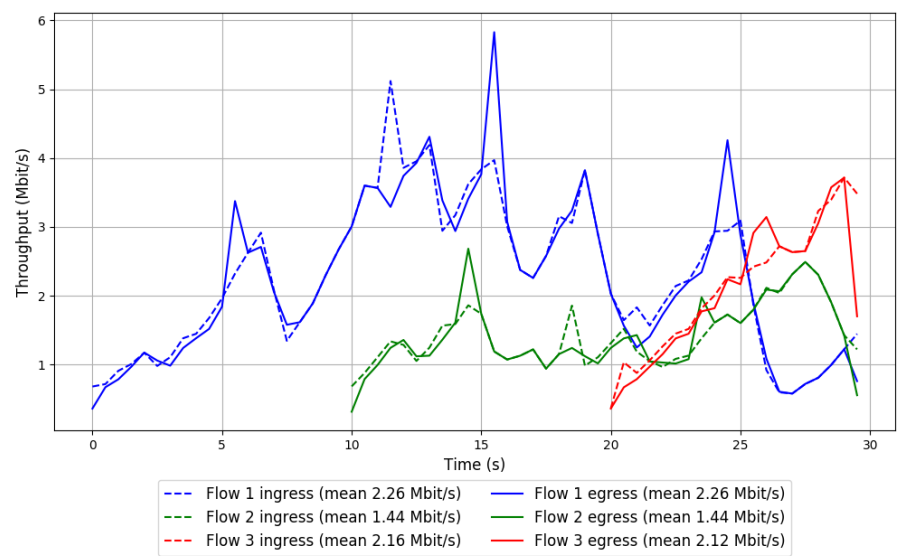
-- Flow 3:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 111.349 ms

Loss rate: 4.19%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-06 19:15:22

End at: 2018-03-06 19:15:52

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.74 Mbit/s

95th percentile per-packet one-way delay: 113.401 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 113.407 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 113.322 ms

Loss rate: 1.42%

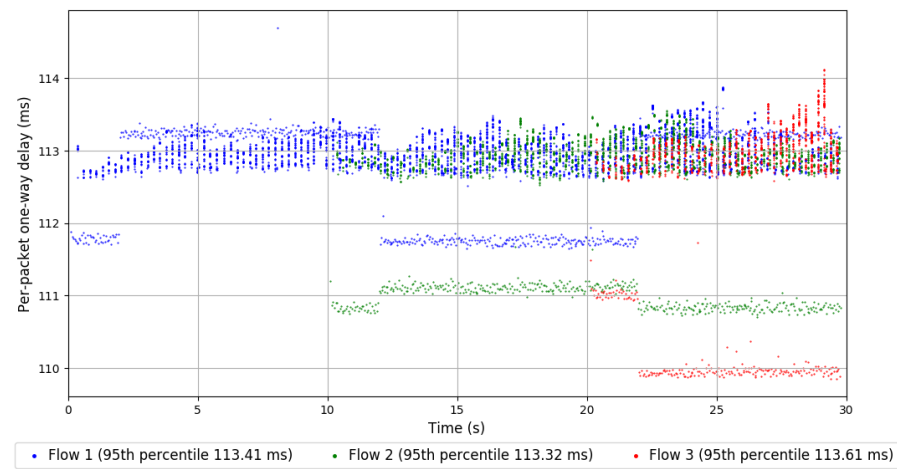
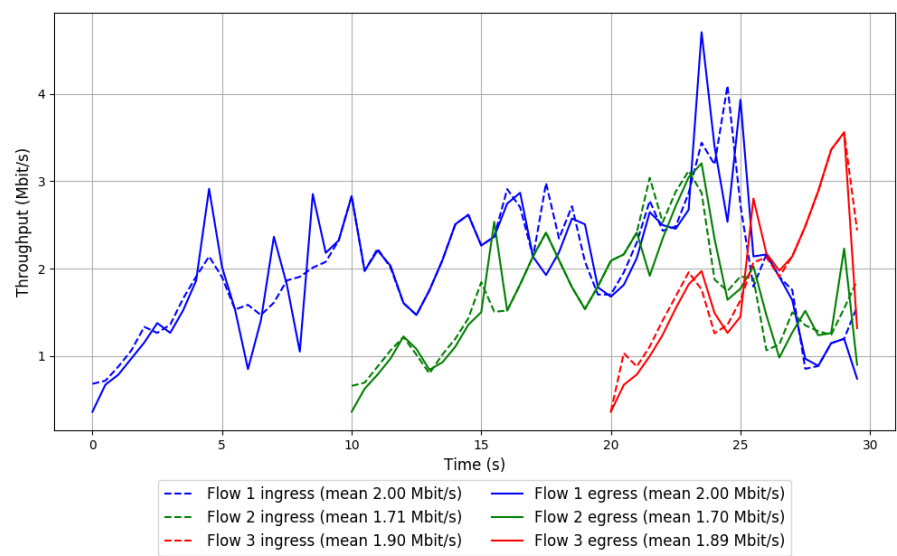
-- Flow 3:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 113.613 ms

Loss rate: 3.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-06 19:34:42

End at: 2018-03-06 19:35:12

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.88 Mbit/s

95th percentile per-packet one-way delay: 113.534 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 113.586 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 113.499 ms

Loss rate: 0.99%

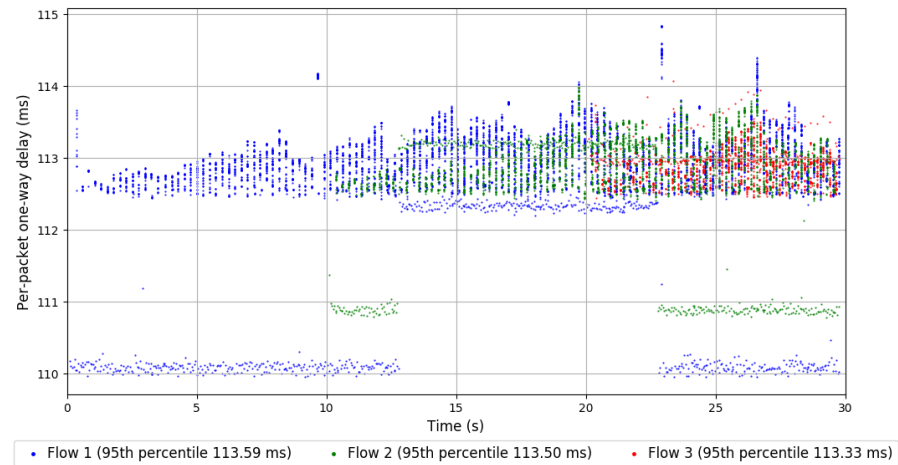
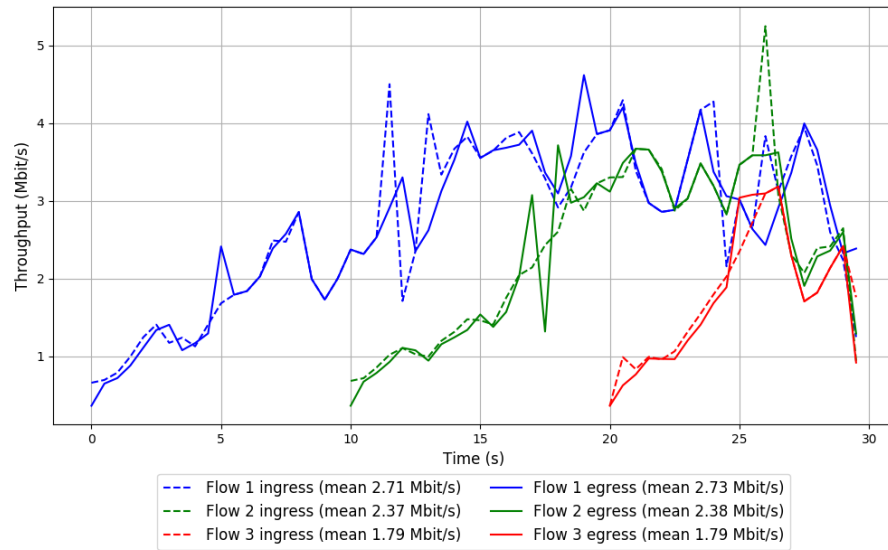
-- Flow 3:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 113.327 ms

Loss rate: 2.40%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-06 19:54:05

End at: 2018-03-06 19:54:35

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.40 Mbit/s

95th percentile per-packet one-way delay: 112.456 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 3.21 Mbit/s

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

Loss rate: 0.94%

-- Flow 2:

Average throughput: 2.42 Mbit/s

95th percentile per-packet one-way delay: 111.671 ms

Loss rate: 1.55%

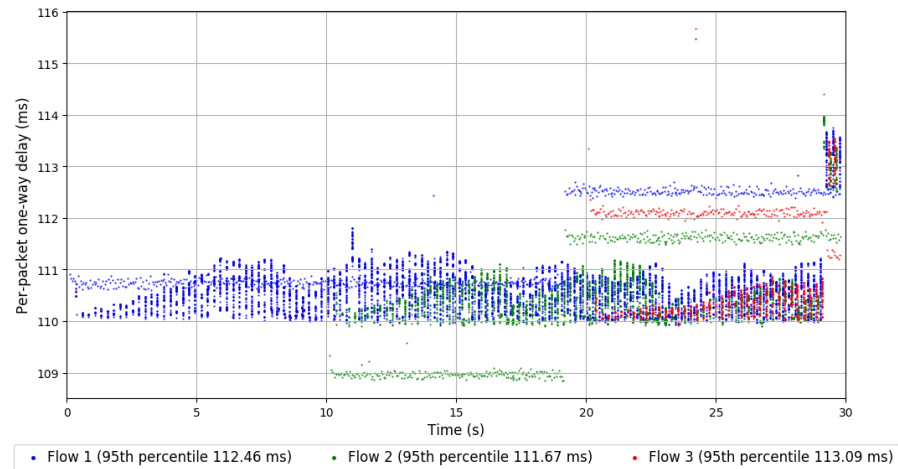
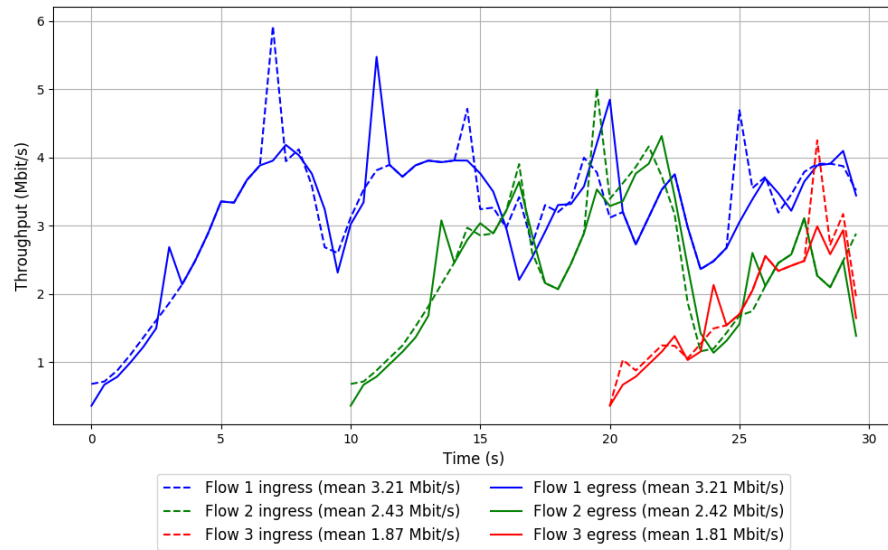
-- Flow 3:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 113.087 ms

Loss rate: 5.30%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-06 20:13:26

End at: 2018-03-06 20:13:56

Below is generated by plot.py at 2018-03-07 00:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.95 Mbit/s

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

Loss rate: 1.40%

-- Flow 1:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 112.926 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 111.760 ms

Loss rate: 1.16%

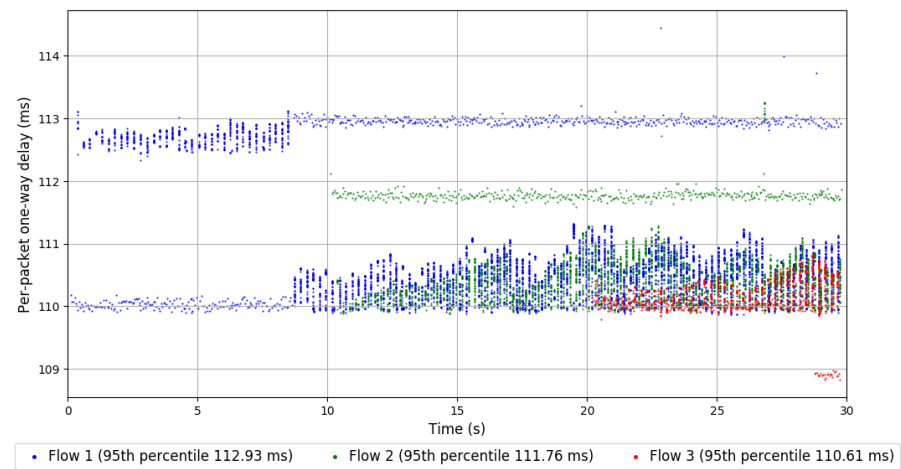
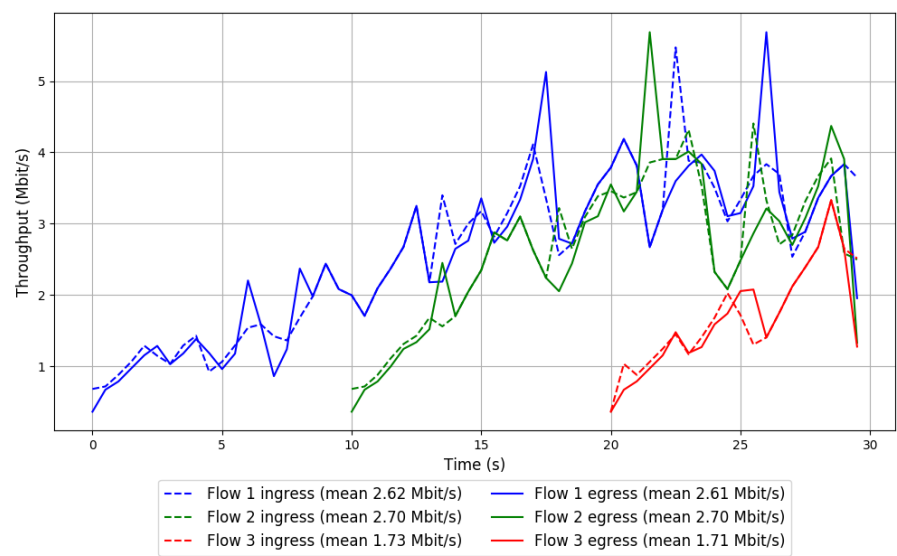
-- Flow 3:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 110.608 ms

Loss rate: 3.63%

Run 10: Report of Sprout — Data Link

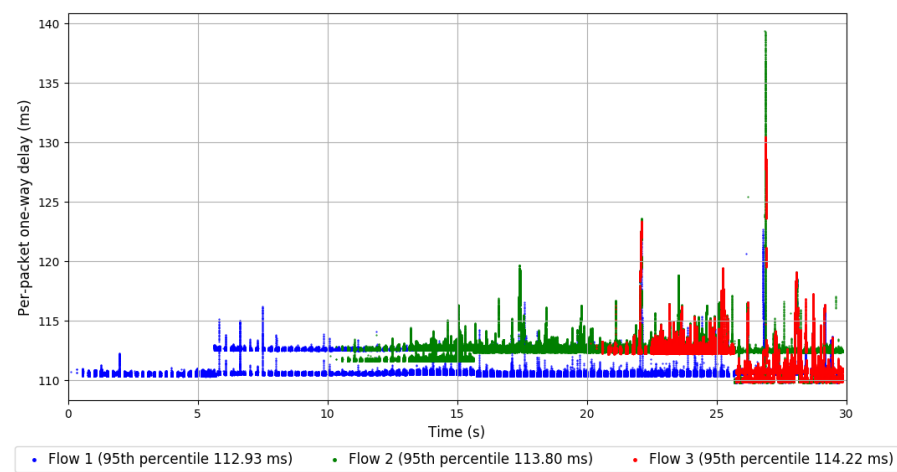
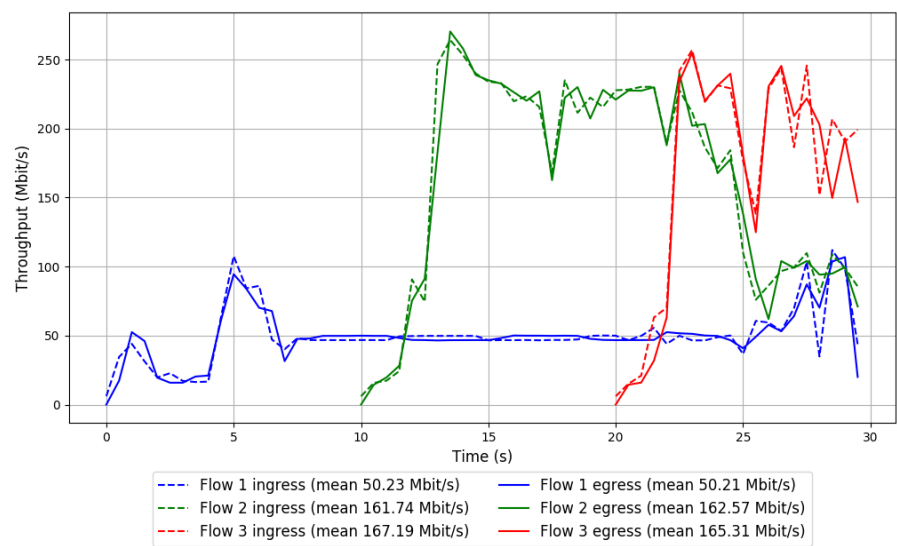


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-06 17:20:09
End at: 2018-03-06 17:20:39

# Below is generated by plot.py at 2018-03-07 00:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.80 Mbit/s
95th percentile per-packet one-way delay: 113.729 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 50.21 Mbit/s
95th percentile per-packet one-way delay: 112.927 ms
Loss rate: 0.79%
-- Flow 2:
Average throughput: 162.57 Mbit/s
95th percentile per-packet one-way delay: 113.801 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 165.31 Mbit/s
95th percentile per-packet one-way delay: 114.219 ms
Loss rate: 3.37%
```


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

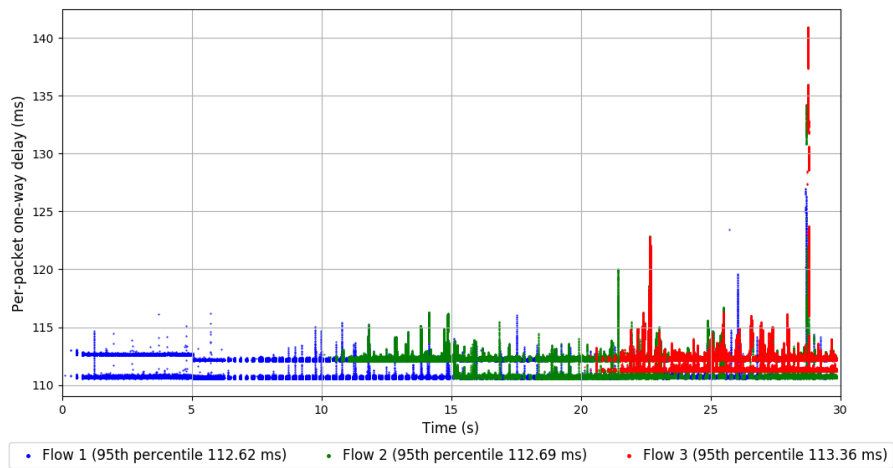
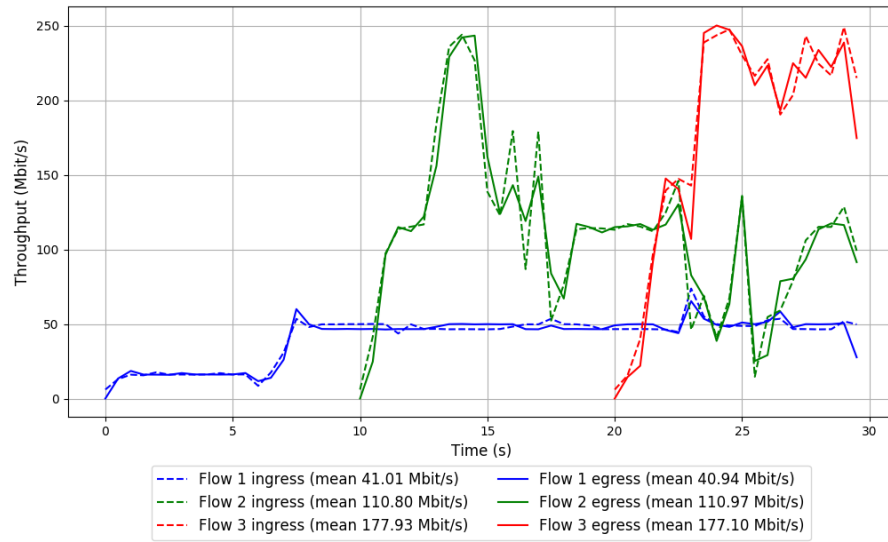


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-06 17:39:29
End at: 2018-03-06 17:39:59

# Below is generated by plot.py at 2018-03-07 00:05:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 172.29 Mbit/s
95th percentile per-packet one-way delay: 112.736 ms
Loss rate: 1.58%
-- Flow 1:
Average throughput: 40.94 Mbit/s
95th percentile per-packet one-way delay: 112.621 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 110.97 Mbit/s
95th percentile per-packet one-way delay: 112.685 ms
Loss rate: 0.98%
-- Flow 3:
Average throughput: 177.10 Mbit/s
95th percentile per-packet one-way delay: 113.360 ms
Loss rate: 2.72%
```

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

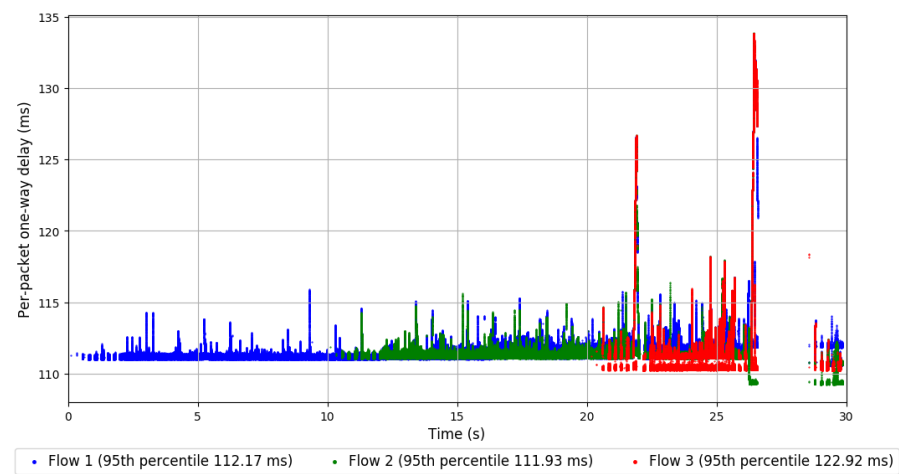
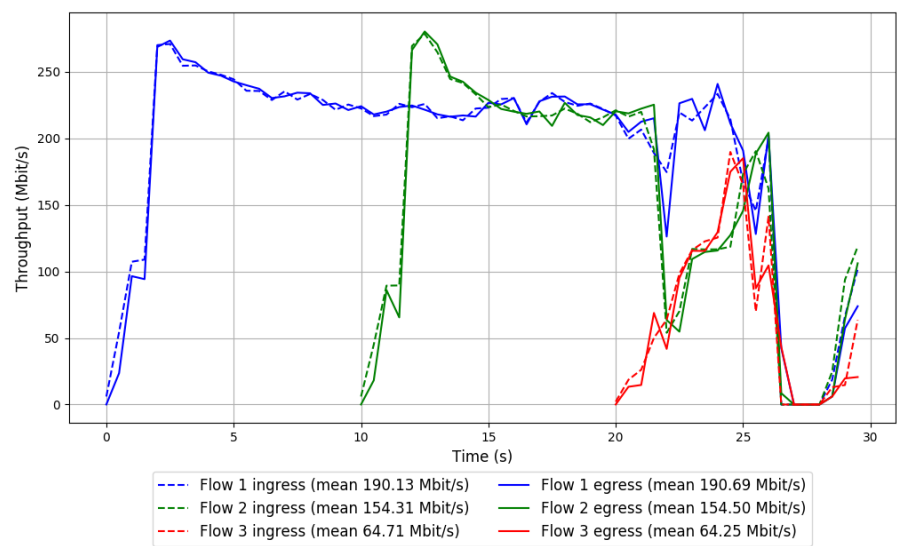


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-06 17:58:48
End at: 2018-03-06 17:59:18

# Below is generated by plot.py at 2018-03-07 00:09:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 313.95 Mbit/s
95th percentile per-packet one-way delay: 112.241 ms
Loss rate: 0.83%
-- Flow 1:
Average throughput: 190.69 Mbit/s
95th percentile per-packet one-way delay: 112.170 ms
Loss rate: 0.44%
-- Flow 2:
Average throughput: 154.50 Mbit/s
95th percentile per-packet one-way delay: 111.928 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 64.25 Mbit/s
95th percentile per-packet one-way delay: 122.916 ms
Loss rate: 3.50%
```

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

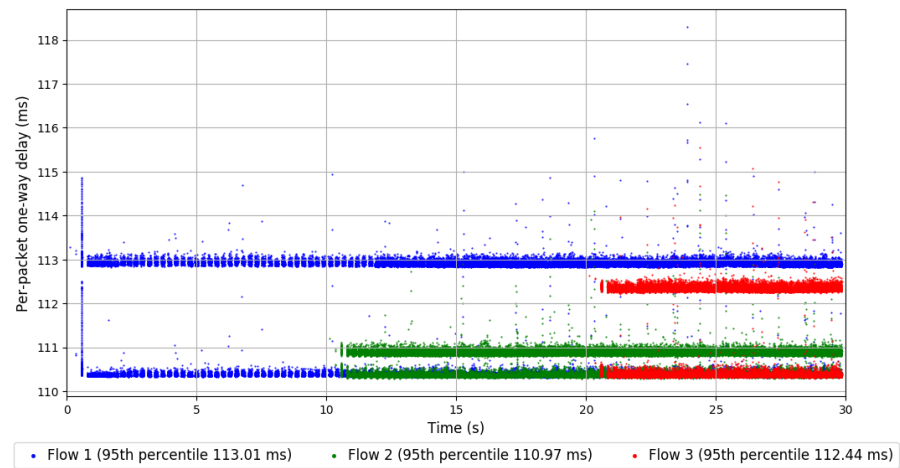
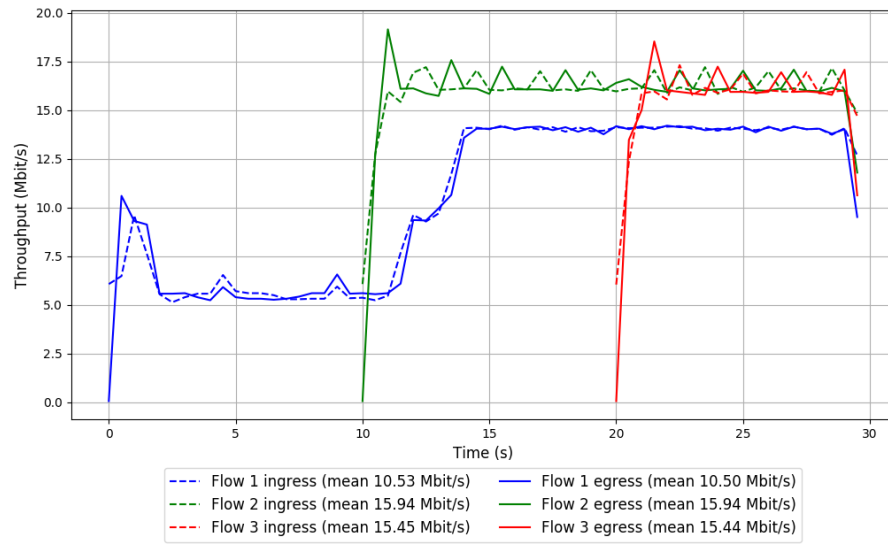


```
Run 4: Statistics of TaoVA-100x

Start at: 2018-03-06 18:18:24
End at: 2018-03-06 18:18:54

# Below is generated by plot.py at 2018-03-07 00:09:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.12 Mbit/s
95th percentile per-packet one-way delay: 112.961 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 10.50 Mbit/s
95th percentile per-packet one-way delay: 113.010 ms
Loss rate: 1.00%
-- Flow 2:
Average throughput: 15.94 Mbit/s
95th percentile per-packet one-way delay: 110.972 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 15.44 Mbit/s
95th percentile per-packet one-way delay: 112.442 ms
Loss rate: 2.36%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-06 18:37:29

End at: 2018-03-06 18:37:59

Below is generated by plot.py at 2018-03-07 00:09:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.64 Mbit/s

95th percentile per-packet one-way delay: 112.130 ms

Loss rate: 0.82%

-- Flow 1:

Average throughput: 119.08 Mbit/s

95th percentile per-packet one-way delay: 112.130 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 18.03 Mbit/s

95th percentile per-packet one-way delay: 112.183 ms

Loss rate: 1.00%

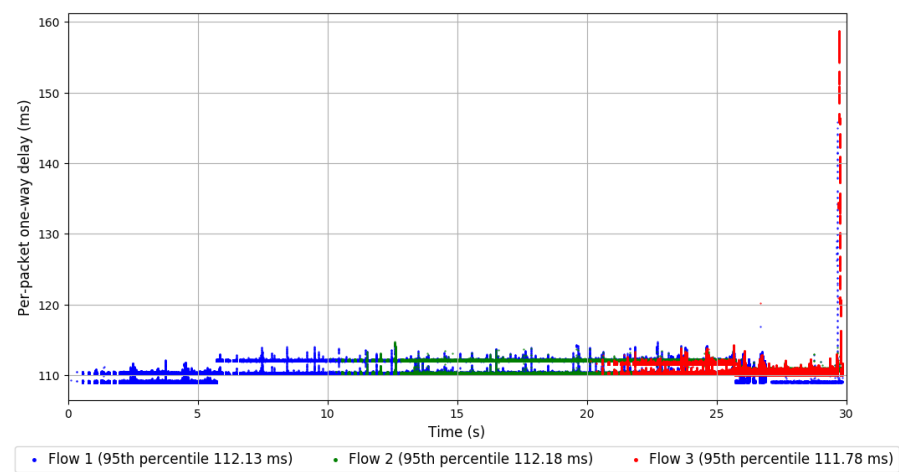
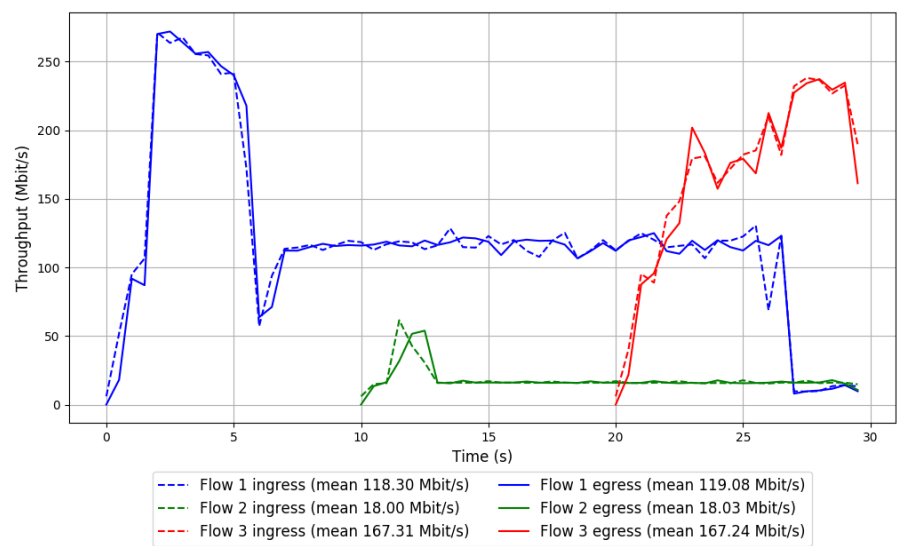
-- Flow 3:

Average throughput: 167.24 Mbit/s

95th percentile per-packet one-way delay: 111.780 ms

Loss rate: 2.31%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-06 18:56:48

End at: 2018-03-06 18:57:18

Below is generated by plot.py at 2018-03-07 00:09:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.20 Mbit/s

95th percentile per-packet one-way delay: 112.741 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 154.24 Mbit/s

95th percentile per-packet one-way delay: 112.777 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 32.40 Mbit/s

95th percentile per-packet one-way delay: 119.082 ms

Loss rate: 0.00%

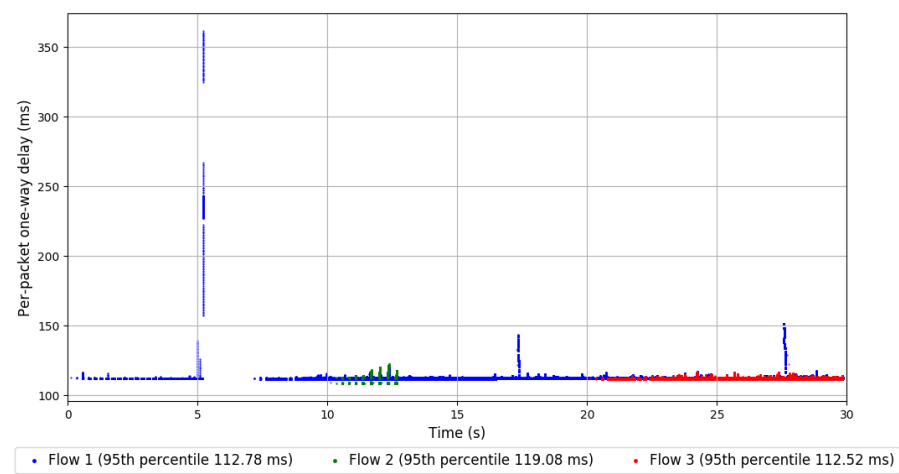
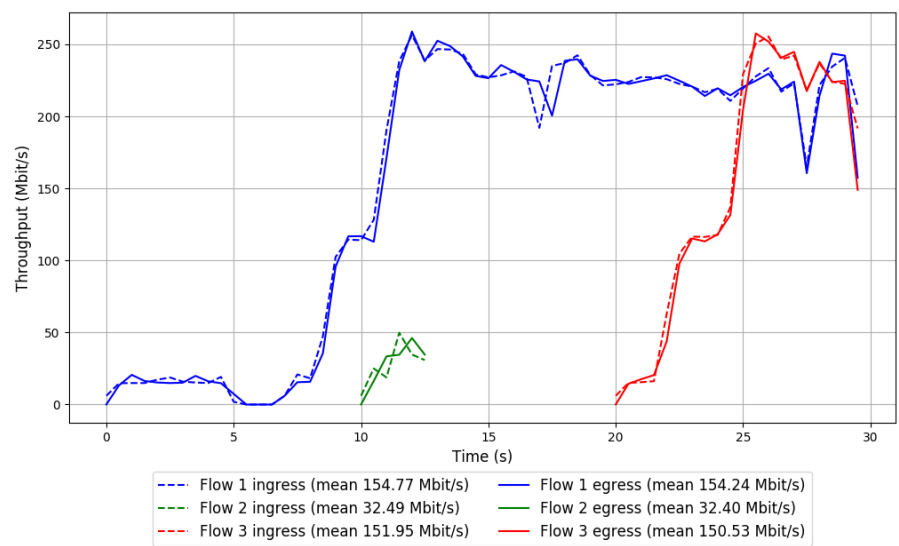
-- Flow 3:

Average throughput: 150.53 Mbit/s

95th percentile per-packet one-way delay: 112.523 ms

Loss rate: 3.09%

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

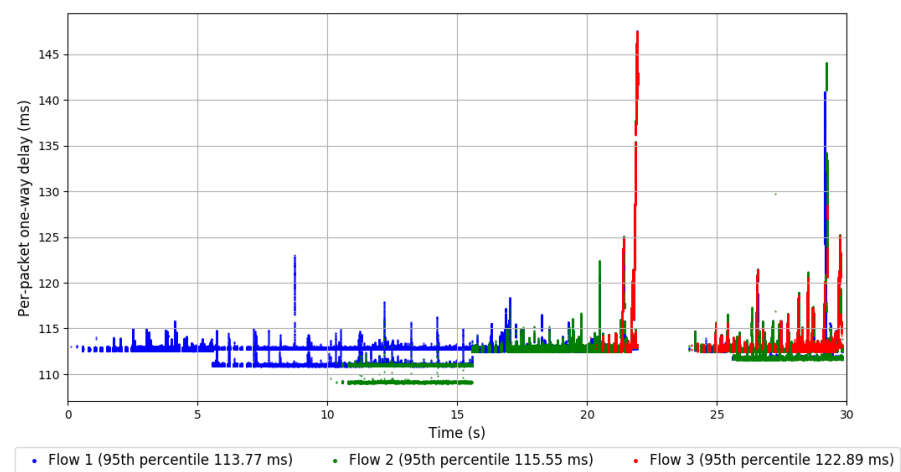
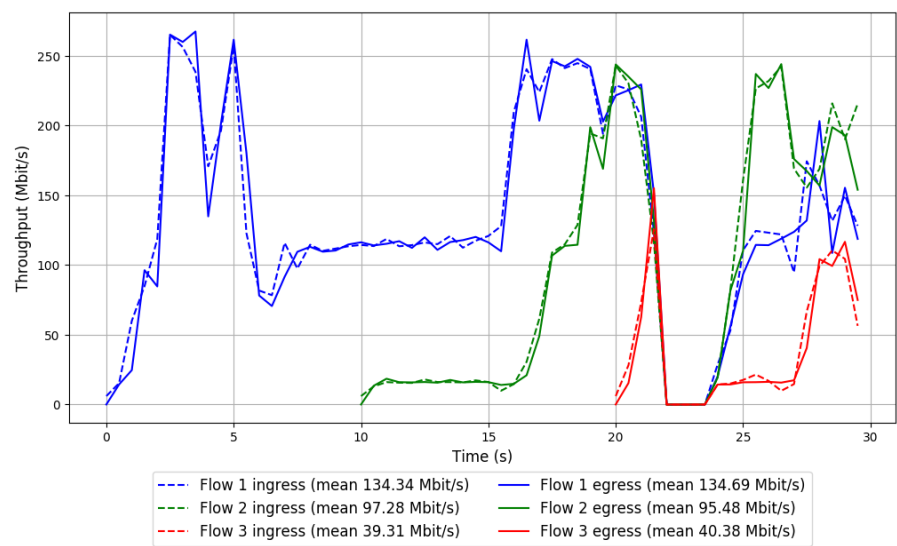


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-03-06 19:16:09
End at: 2018-03-06 19:16:39

# Below is generated by plot.py at 2018-03-07 00:09:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 211.14 Mbit/s
95th percentile per-packet one-way delay: 114.617 ms
Loss rate: 1.21%
-- Flow 1:
Average throughput: 134.69 Mbit/s
95th percentile per-packet one-way delay: 113.774 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 95.48 Mbit/s
95th percentile per-packet one-way delay: 115.550 ms
Loss rate: 2.92%
-- Flow 3:
Average throughput: 40.38 Mbit/s
95th percentile per-packet one-way delay: 122.893 ms
Loss rate: 0.19%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-06 19:35:28

End at: 2018-03-06 19:35:58

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.84 Mbit/s

95th percentile per-packet one-way delay: 115.361 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 108.98 Mbit/s

95th percentile per-packet one-way delay: 113.015 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 194.64 Mbit/s

95th percentile per-packet one-way delay: 116.962 ms

Loss rate: 1.44%

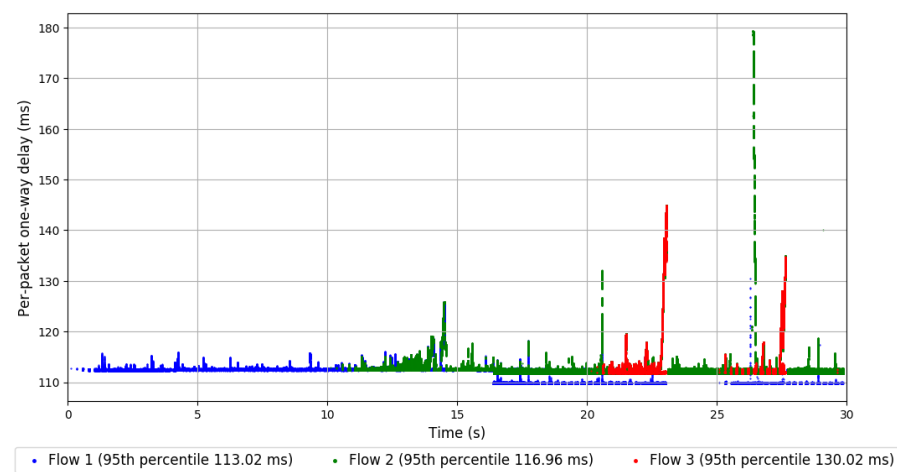
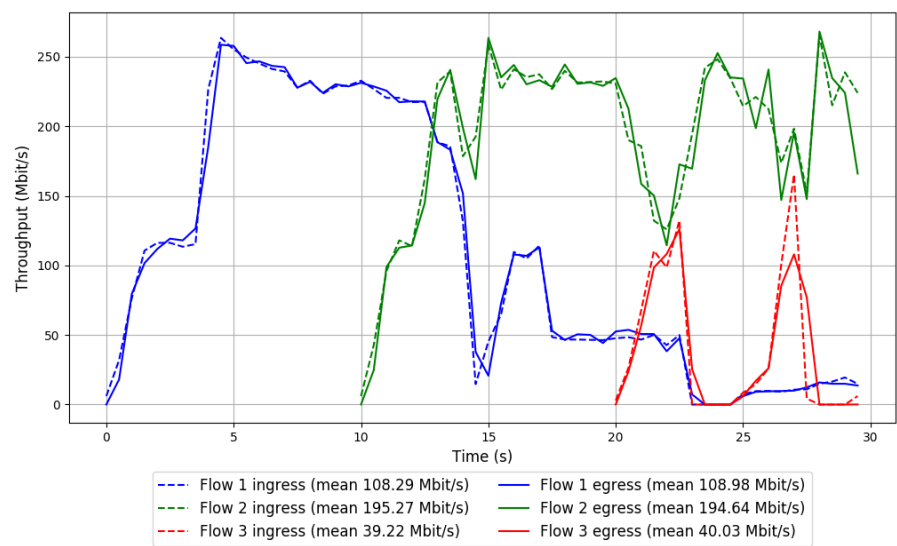
-- Flow 3:

Average throughput: 40.03 Mbit/s

95th percentile per-packet one-way delay: 130.017 ms

Loss rate: 0.79%

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

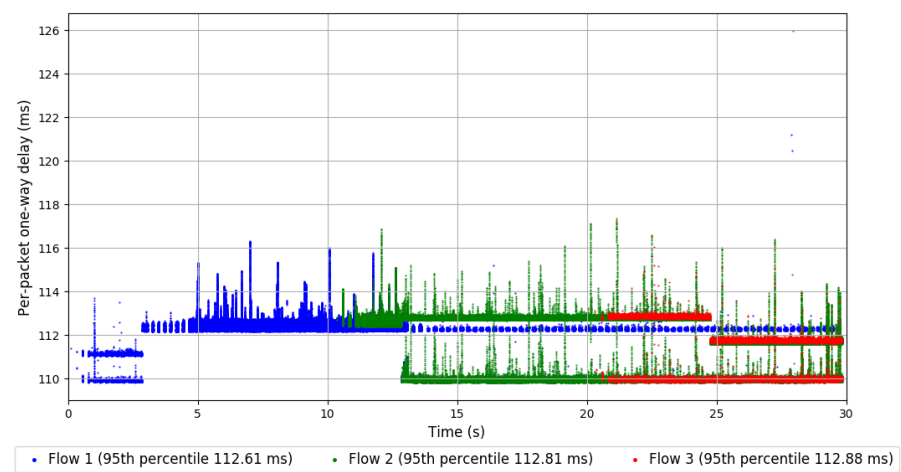
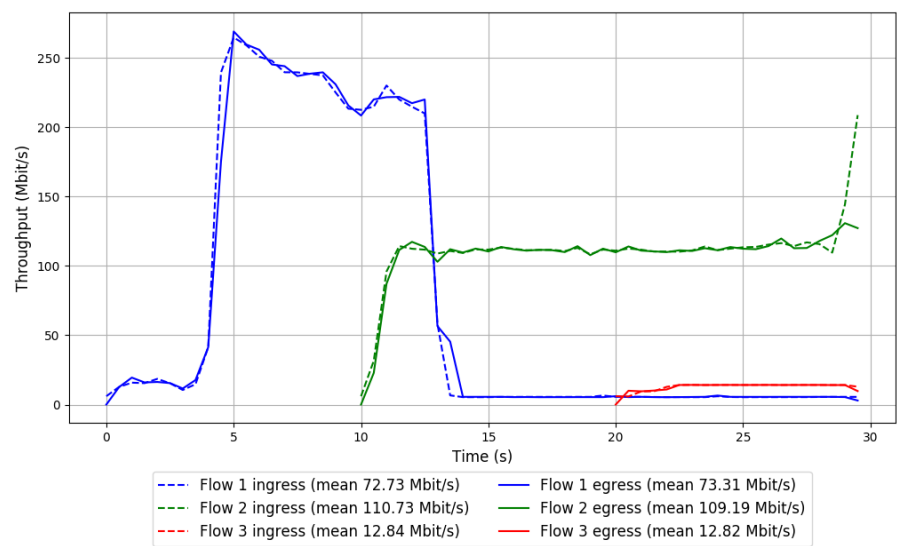


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-06 19:54:52
End at: 2018-03-06 19:55:22

# Below is generated by plot.py at 2018-03-07 00:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 149.63 Mbit/s
95th percentile per-packet one-way delay: 112.797 ms
Loss rate: 1.33%
-- Flow 1:
Average throughput: 73.31 Mbit/s
95th percentile per-packet one-way delay: 112.609 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 109.19 Mbit/s
95th percentile per-packet one-way delay: 112.815 ms
Loss rate: 2.51%
-- Flow 3:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 112.878 ms
Loss rate: 2.46%
```


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

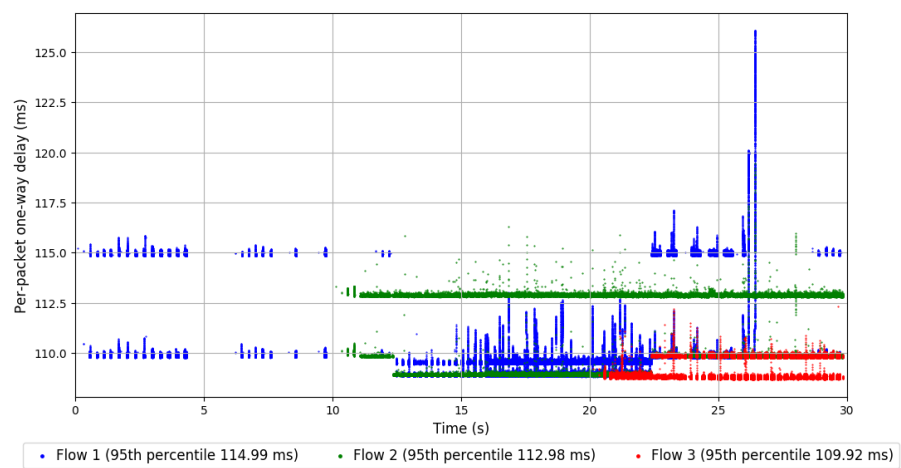
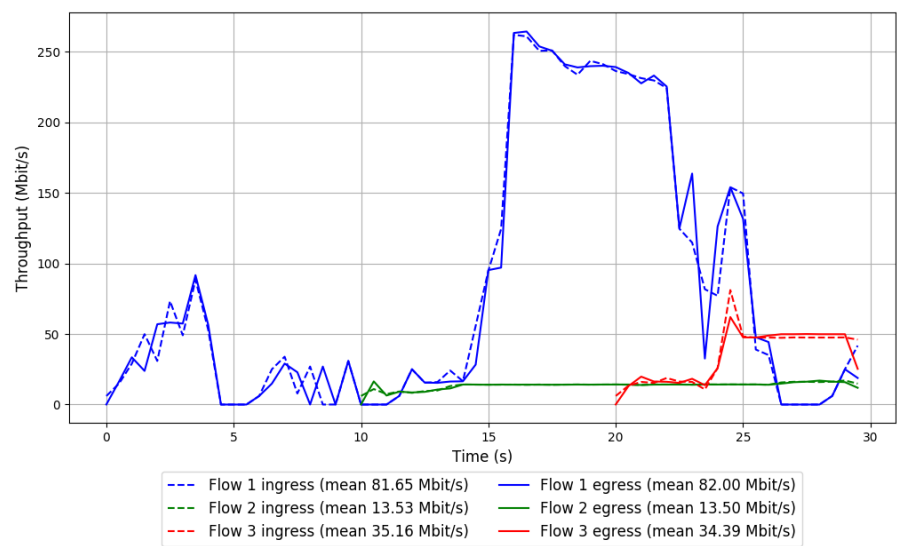


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-06 20:14:12
End at: 2018-03-06 20:14:42

# Below is generated by plot.py at 2018-03-07 00:09:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 102.02 Mbit/s
95th percentile per-packet one-way delay: 114.977 ms
Loss rate: 0.90%
-- Flow 1:
Average throughput: 82.00 Mbit/s
95th percentile per-packet one-way delay: 114.989 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 112.980 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 34.39 Mbit/s
95th percentile per-packet one-way delay: 109.919 ms
Loss rate: 3.56%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-06 17:18:32

End at: 2018-03-06 17:19:02

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.13 Mbit/s

95th percentile per-packet one-way delay: 122.652 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 38.83 Mbit/s

95th percentile per-packet one-way delay: 123.439 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 31.28 Mbit/s

95th percentile per-packet one-way delay: 116.104 ms

Loss rate: 1.23%

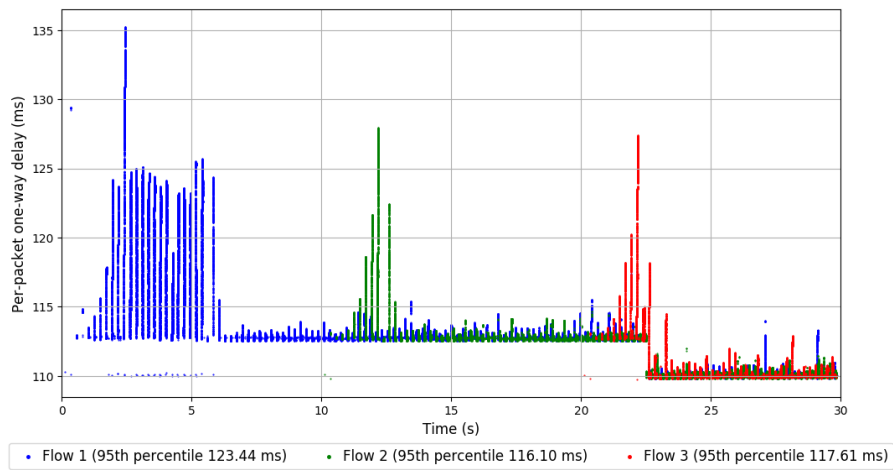
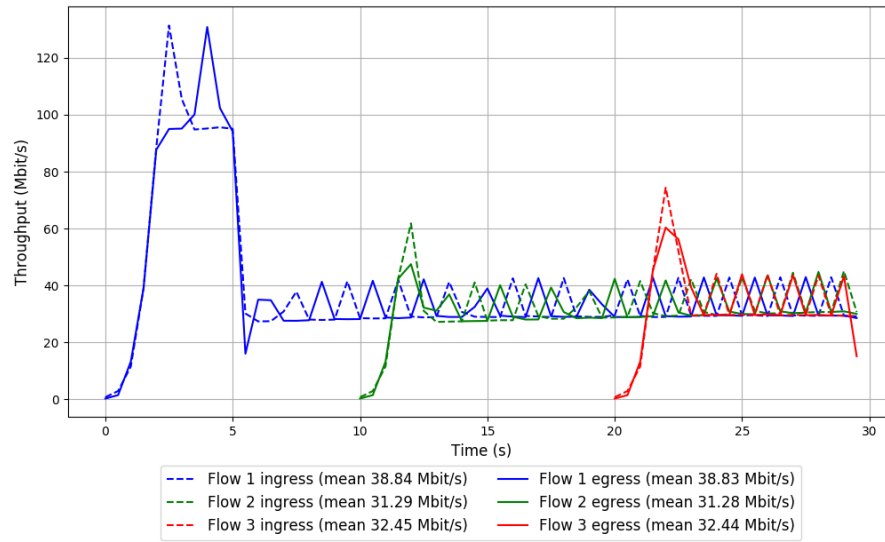
-- Flow 3:

Average throughput: 32.44 Mbit/s

95th percentile per-packet one-way delay: 117.606 ms

Loss rate: 2.27%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-06 17:37:52

End at: 2018-03-06 17:38:22

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.77 Mbit/s

95th percentile per-packet one-way delay: 115.372 ms

Loss rate: 1.13%

-- Flow 1:

Average throughput: 42.27 Mbit/s

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

Loss rate: 0.82%

-- Flow 2:

Average throughput: 33.90 Mbit/s

95th percentile per-packet one-way delay: 116.440 ms

Loss rate: 1.21%

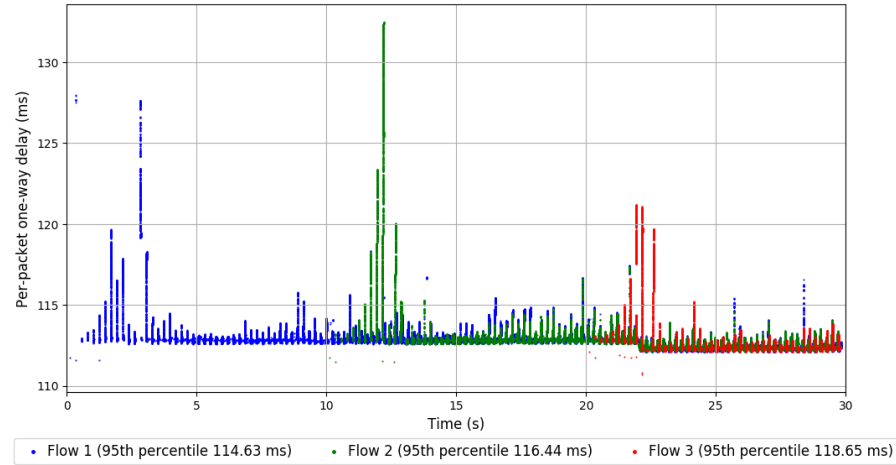
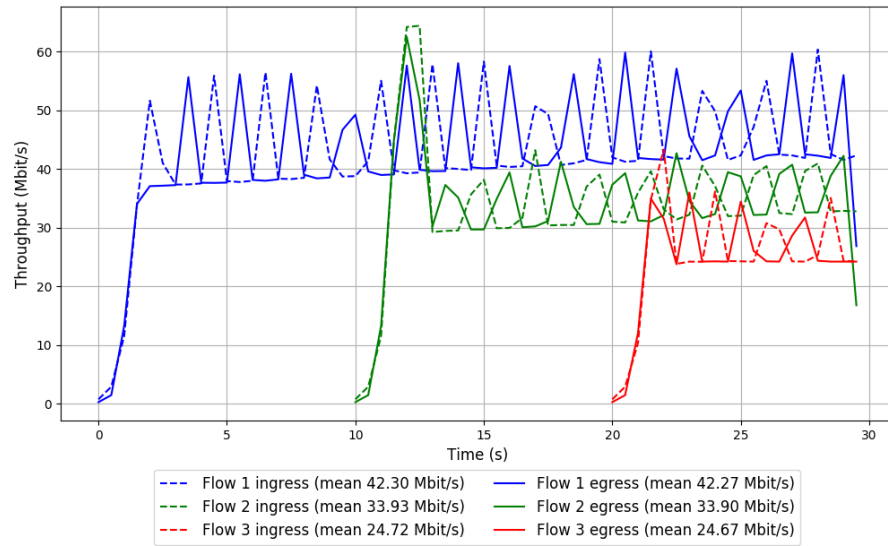
-- Flow 3:

Average throughput: 24.67 Mbit/s

95th percentile per-packet one-way delay: 118.651 ms

Loss rate: 2.46%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-06 17:57:09

End at: 2018-03-06 17:57:39

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.67 Mbit/s

95th percentile per-packet one-way delay: 118.893 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 56.61 Mbit/s

95th percentile per-packet one-way delay: 112.978 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 29.47 Mbit/s

95th percentile per-packet one-way delay: 116.612 ms

Loss rate: 1.15%

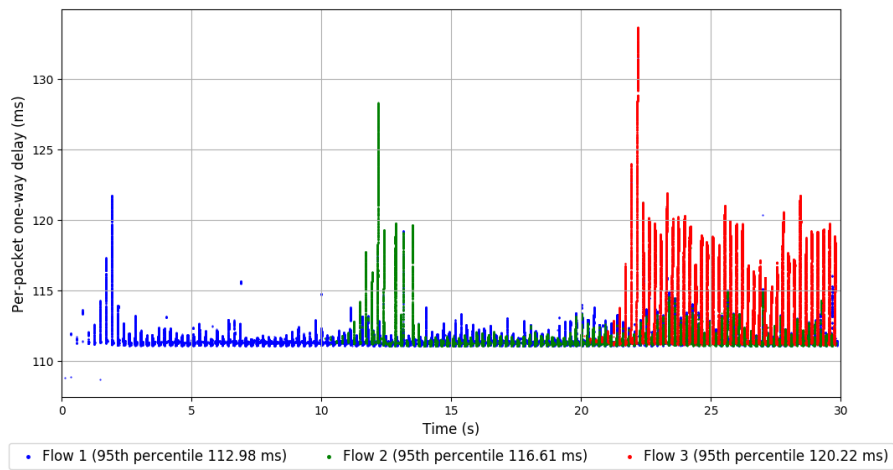
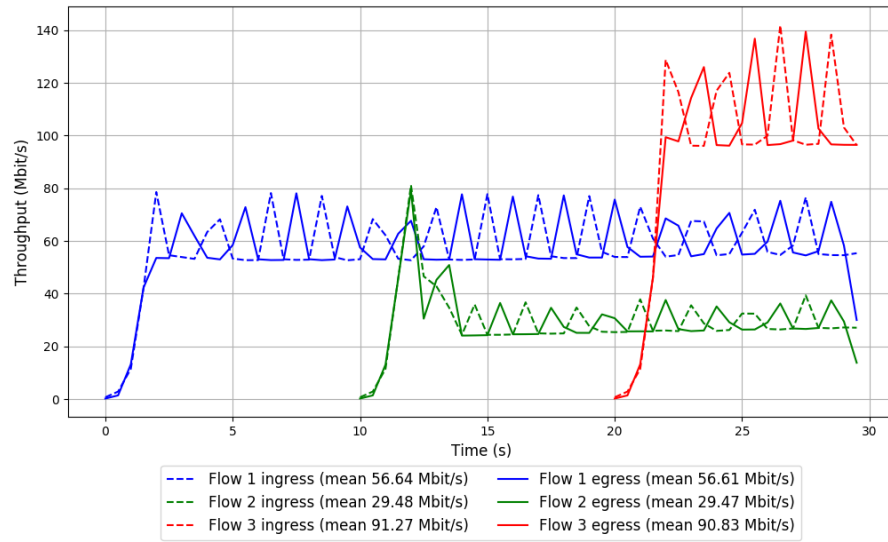
-- Flow 3:

Average throughput: 90.83 Mbit/s

95th percentile per-packet one-way delay: 120.216 ms

Loss rate: 2.67%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-06 18:16:45

End at: 2018-03-06 18:17:15

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.06 Mbit/s

95th percentile per-packet one-way delay: 119.240 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 35.81 Mbit/s

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

Loss rate: 0.69%

-- Flow 2:

Average throughput: 56.11 Mbit/s

95th percentile per-packet one-way delay: 118.351 ms

Loss rate: 1.20%

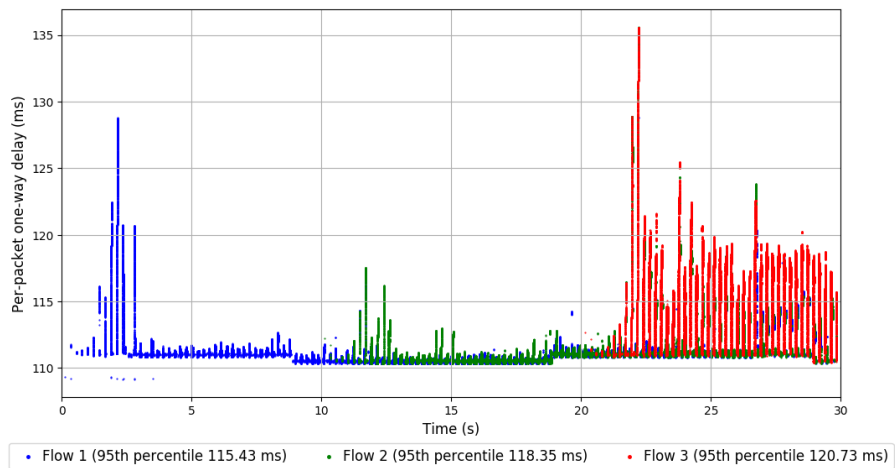
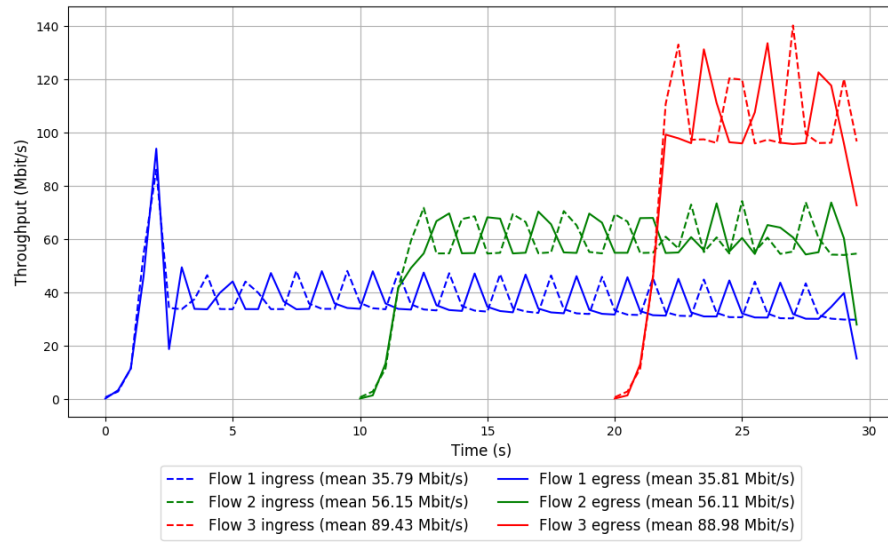
-- Flow 3:

Average throughput: 88.98 Mbit/s

95th percentile per-packet one-way delay: 120.726 ms

Loss rate: 2.72%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-06 18:35:51

End at: 2018-03-06 18:36:21

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.60 Mbit/s

95th percentile per-packet one-way delay: 118.014 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 37.78 Mbit/s

95th percentile per-packet one-way delay: 114.634 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 32.27 Mbit/s

95th percentile per-packet one-way delay: 119.339 ms

Loss rate: 1.22%

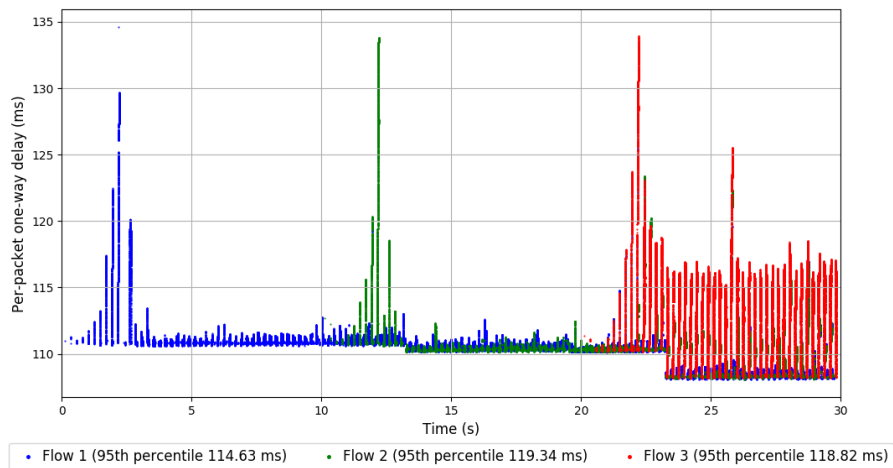
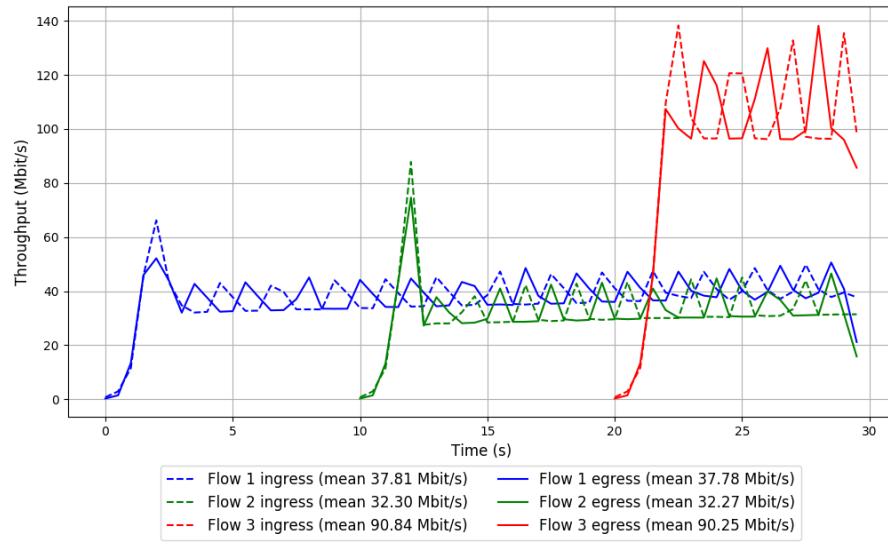
-- Flow 3:

Average throughput: 90.25 Mbit/s

95th percentile per-packet one-way delay: 118.817 ms

Loss rate: 2.90%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-06 18:55:12

End at: 2018-03-06 18:55:42

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.72 Mbit/s

95th percentile per-packet one-way delay: 121.225 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 20.36 Mbit/s

95th percentile per-packet one-way delay: 115.406 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 116.259 ms

Loss rate: 1.83%

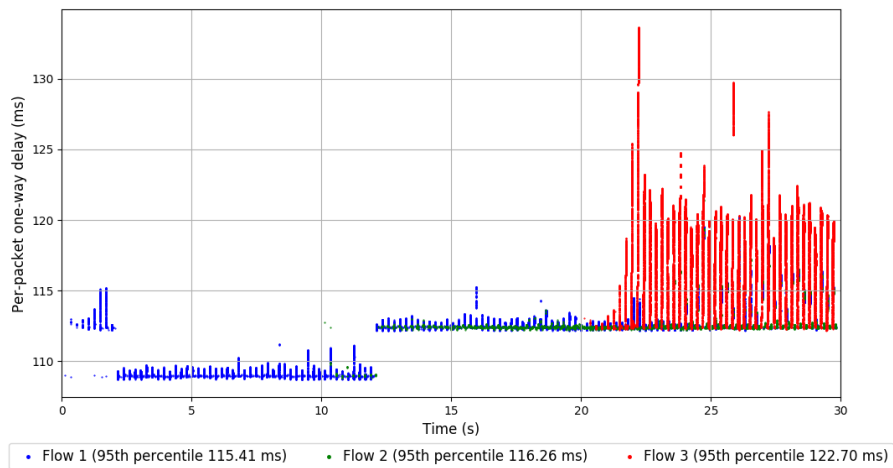
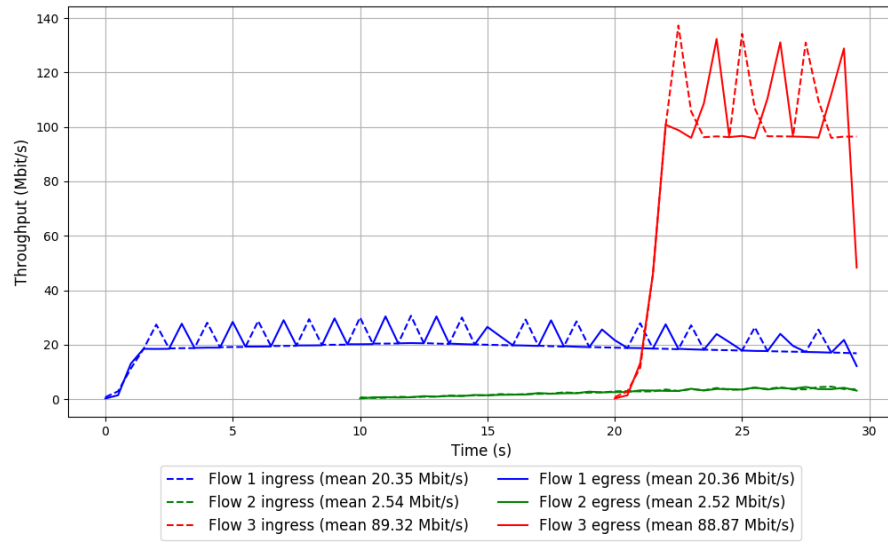
-- Flow 3:

Average throughput: 88.87 Mbit/s

95th percentile per-packet one-way delay: 122.705 ms

Loss rate: 2.75%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-06 19:14:31

End at: 2018-03-06 19:15:01

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.66 Mbit/s

95th percentile per-packet one-way delay: 124.566 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 31.63 Mbit/s

95th percentile per-packet one-way delay: 120.067 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 77.36 Mbit/s

95th percentile per-packet one-way delay: 127.567 ms

Loss rate: 0.61%

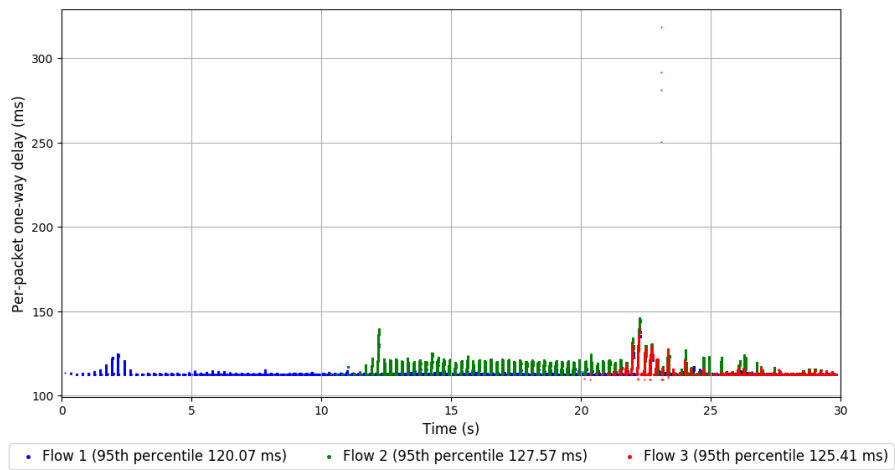
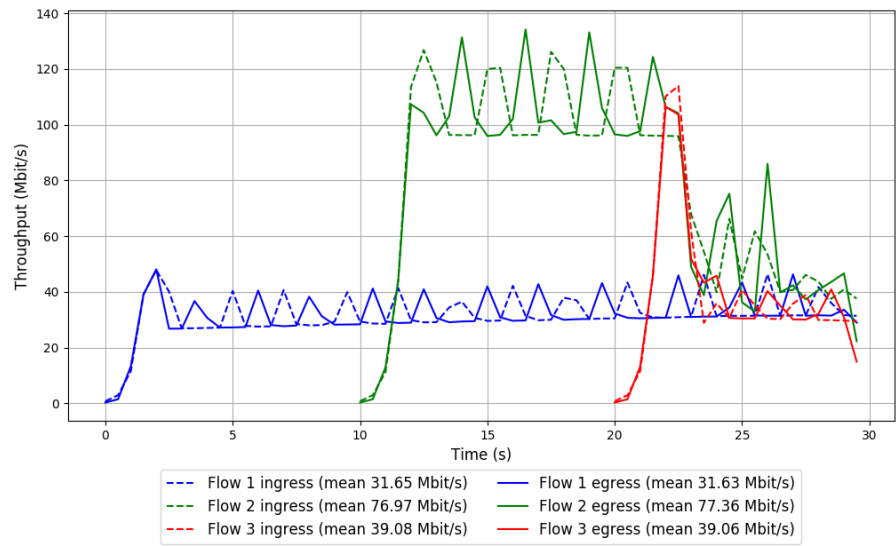
-- Flow 3:

Average throughput: 39.06 Mbit/s

95th percentile per-packet one-way delay: 125.408 ms

Loss rate: 1.91%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-06 19:33:51

End at: 2018-03-06 19:34:21

Below is generated by plot.py at 2018-03-07 00:09:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.56 Mbit/s

95th percentile per-packet one-way delay: 115.150 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 42.38 Mbit/s

95th percentile per-packet one-way delay: 113.960 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 30.92 Mbit/s

95th percentile per-packet one-way delay: 115.001 ms

Loss rate: 1.22%

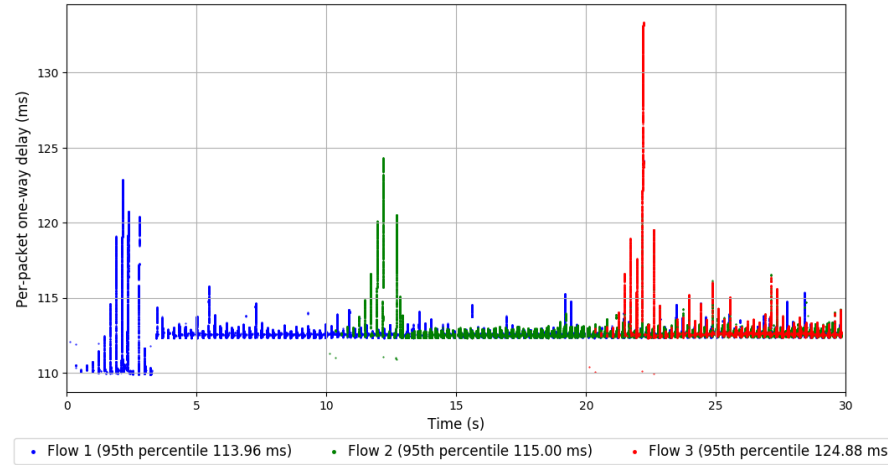
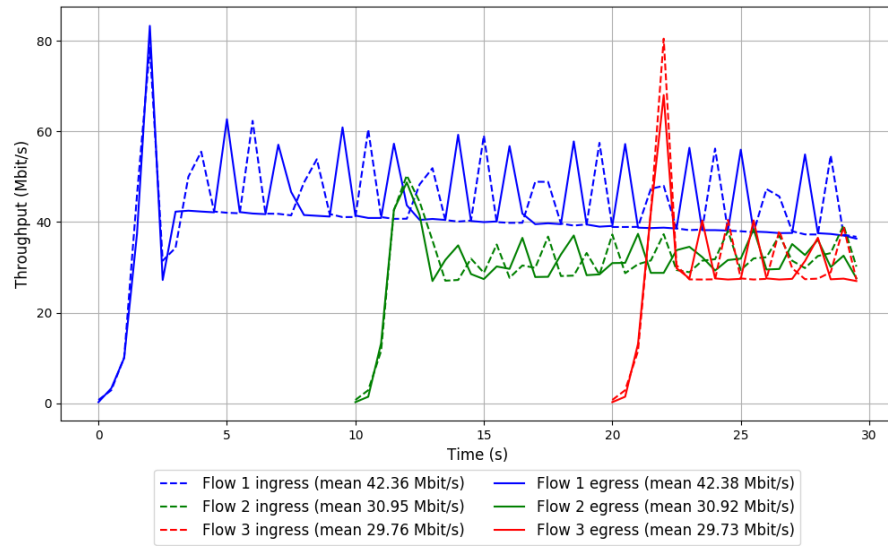
-- Flow 3:

Average throughput: 29.73 Mbit/s

95th percentile per-packet one-way delay: 124.879 ms

Loss rate: 2.31%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-06 19:53:12

End at: 2018-03-06 19:53:42

Below is generated by plot.py at 2018-03-07 00:10:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.73 Mbit/s

95th percentile per-packet one-way delay: 120.897 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 31.71 Mbit/s

95th percentile per-packet one-way delay: 122.015 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 98.73 Mbit/s

95th percentile per-packet one-way delay: 121.130 ms

Loss rate: 1.22%

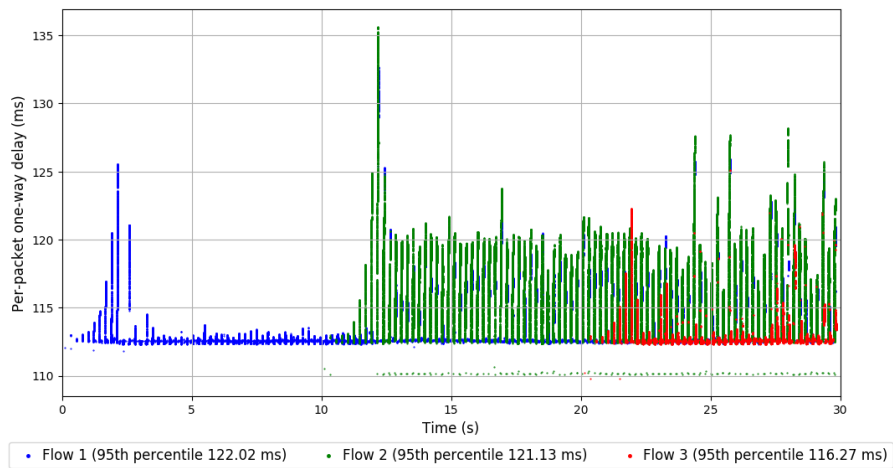
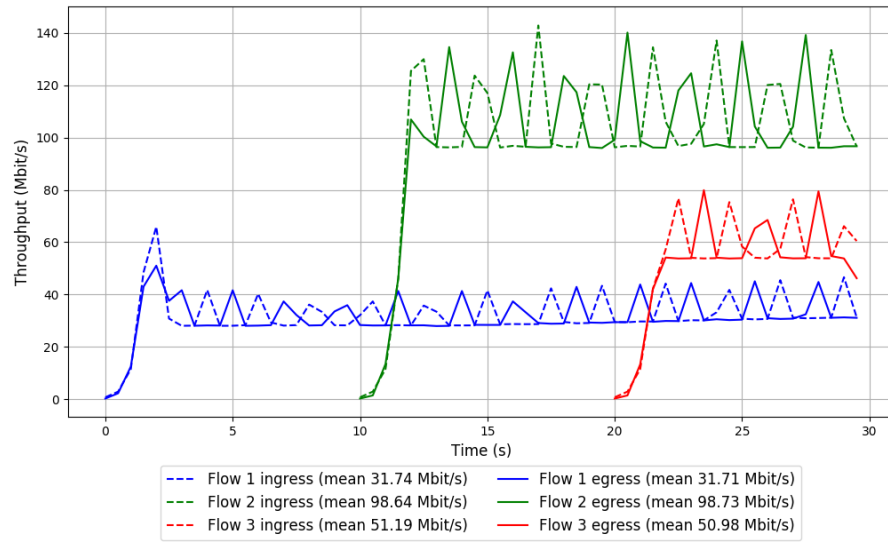
-- Flow 3:

Average throughput: 50.98 Mbit/s

95th percentile per-packet one-way delay: 116.269 ms

Loss rate: 2.63%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-06 20:12:33

End at: 2018-03-06 20:13:03

Below is generated by plot.py at 2018-03-07 00:10:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.34 Mbit/s

95th percentile per-packet one-way delay: 117.812 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 66.32 Mbit/s

95th percentile per-packet one-way delay: 118.004 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 43.91 Mbit/s

95th percentile per-packet one-way delay: 114.477 ms

Loss rate: 1.17%

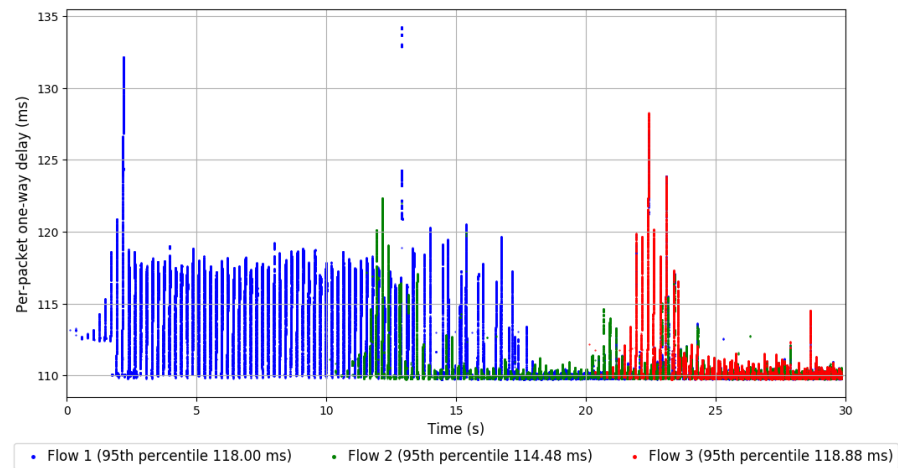
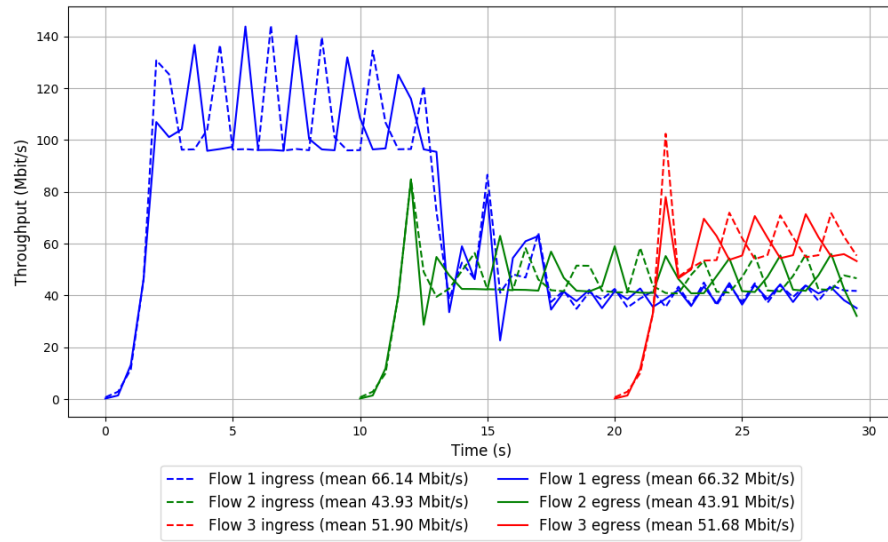
-- Flow 3:

Average throughput: 51.68 Mbit/s

95th percentile per-packet one-way delay: 118.883 ms

Loss rate: 2.65%

Run 10: Report of TCP Vegas — Data Link

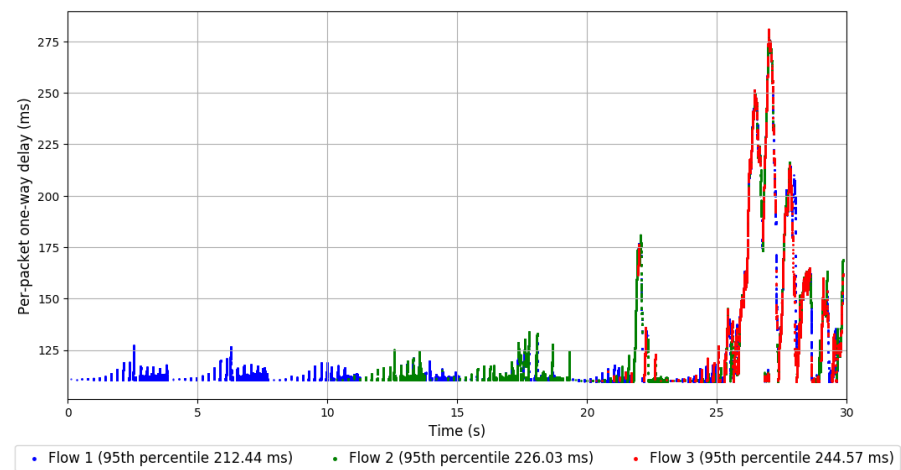
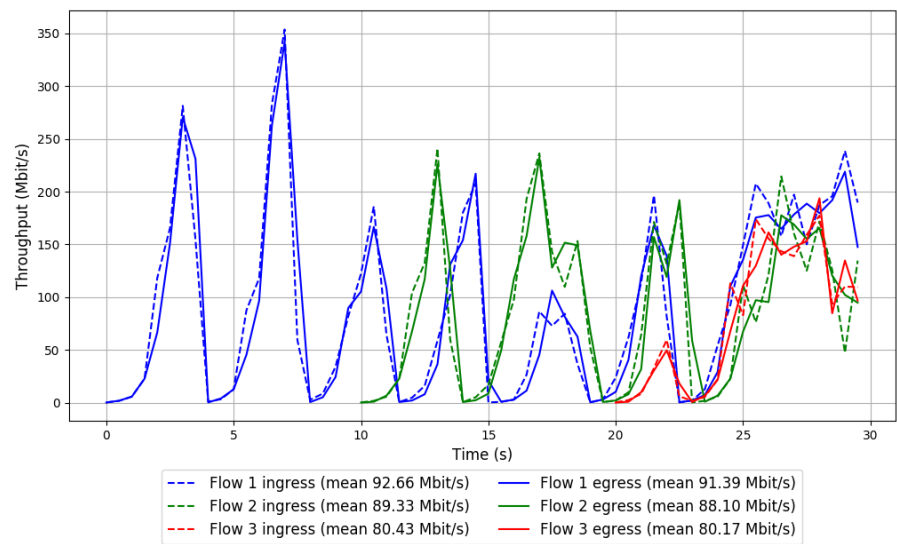


```
Run 1: Statistics of Verus

Start at: 2018-03-06 17:03:55
End at: 2018-03-06 17:04:25

# Below is generated by plot.py at 2018-03-07 00:11:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 175.99 Mbit/s
95th percentile per-packet one-way delay: 223.830 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 91.39 Mbit/s
95th percentile per-packet one-way delay: 212.437 ms
Loss rate: 2.10%
-- Flow 2:
Average throughput: 88.10 Mbit/s
95th percentile per-packet one-way delay: 226.026 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 80.17 Mbit/s
95th percentile per-packet one-way delay: 244.566 ms
Loss rate: 2.34%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-06 17:23:15

End at: 2018-03-06 17:23:45

Below is generated by plot.py at 2018-03-07 00:12:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.69 Mbit/s

95th percentile per-packet one-way delay: 181.474 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 183.22 Mbit/s

95th percentile per-packet one-way delay: 176.026 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 71.82 Mbit/s

95th percentile per-packet one-way delay: 164.726 ms

Loss rate: 1.13%

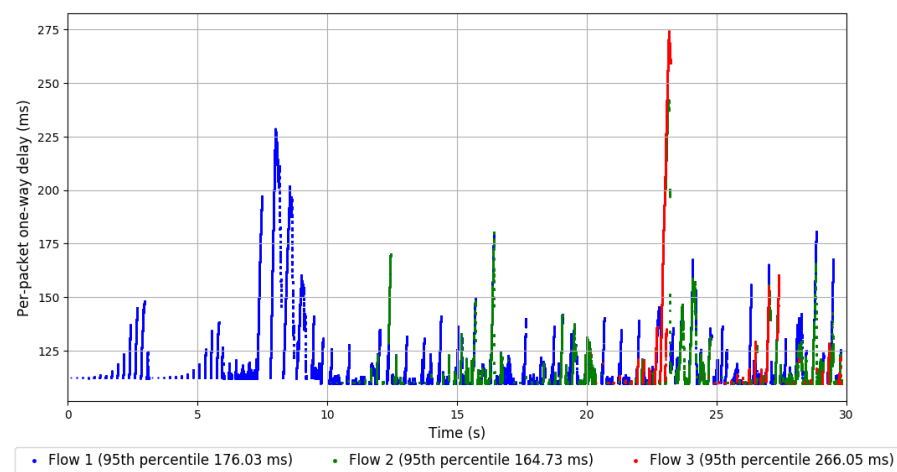
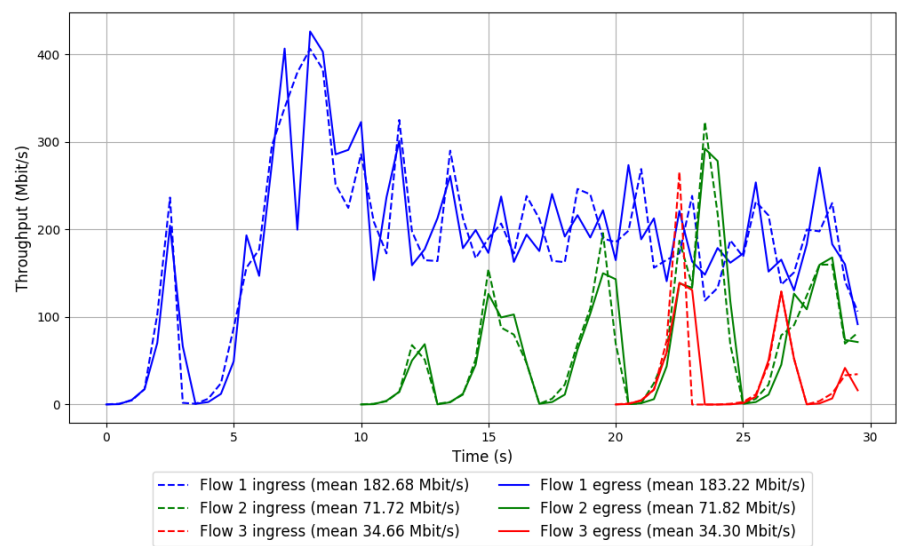
-- Flow 3:

Average throughput: 34.30 Mbit/s

95th percentile per-packet one-way delay: 266.049 ms

Loss rate: 3.98%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-06 17:42:31

End at: 2018-03-06 17:43:01

Below is generated by plot.py at 2018-03-07 00:12:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.08 Mbit/s

95th percentile per-packet one-way delay: 176.424 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 76.61 Mbit/s

95th percentile per-packet one-way delay: 151.593 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.27 Mbit/s

95th percentile per-packet one-way delay: 185.265 ms

Loss rate: 1.68%

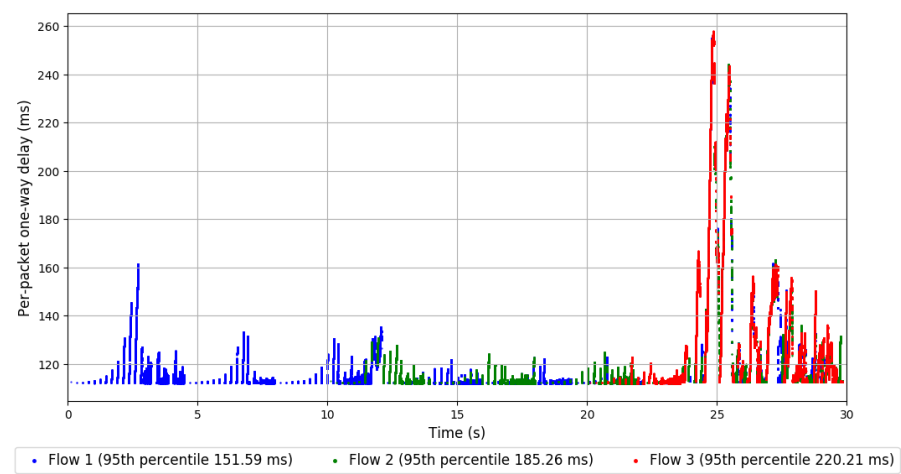
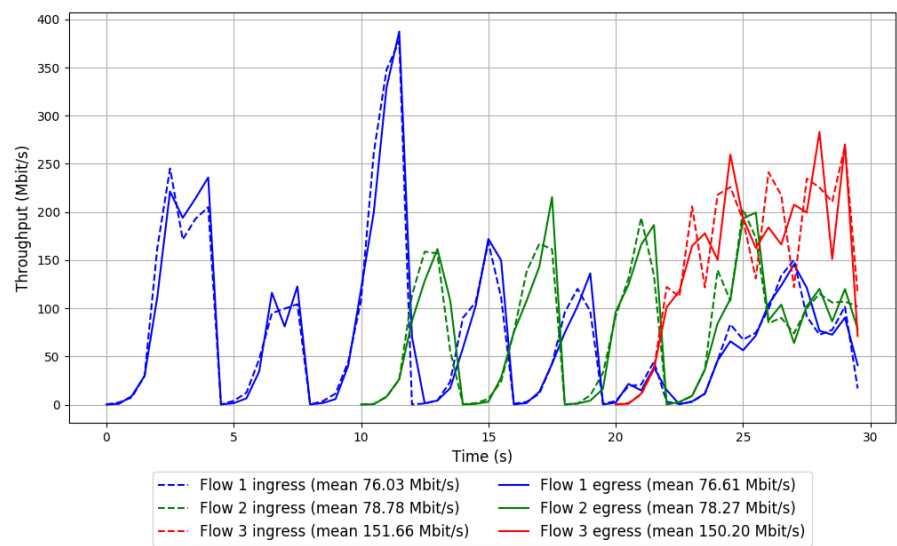
-- Flow 3:

Average throughput: 150.20 Mbit/s

95th percentile per-packet one-way delay: 220.206 ms

Loss rate: 3.36%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-06 18:02:06

End at: 2018-03-06 18:02:36

Below is generated by plot.py at 2018-03-07 00:12:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.89 Mbit/s

95th percentile per-packet one-way delay: 189.946 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 74.23 Mbit/s

95th percentile per-packet one-way delay: 130.371 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 56.82 Mbit/s

95th percentile per-packet one-way delay: 163.611 ms

Loss rate: 0.06%

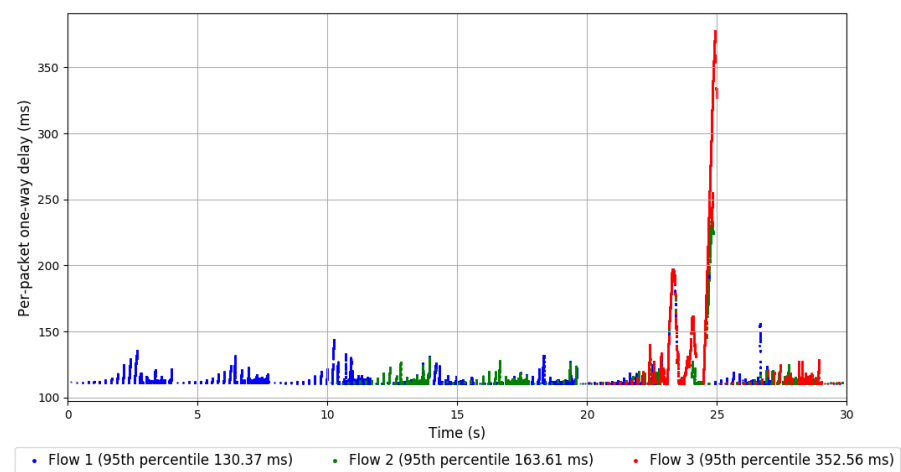
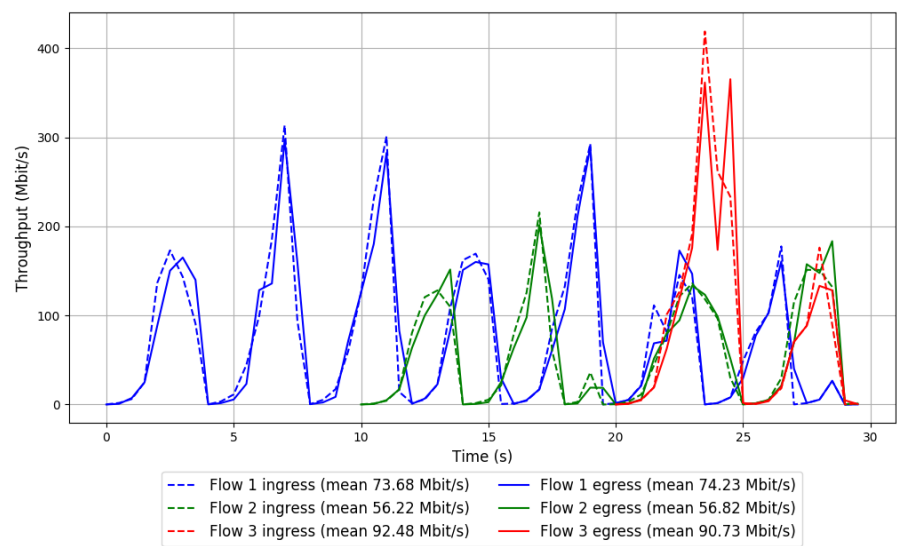
-- Flow 3:

Average throughput: 90.73 Mbit/s

95th percentile per-packet one-way delay: 352.555 ms

Loss rate: 4.14%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-06 18:21:09

End at: 2018-03-06 18:21:39

Below is generated by plot.py at 2018-03-07 00:12:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 214.99 Mbit/s

95th percentile per-packet one-way delay: 209.712 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 111.64 Mbit/s

95th percentile per-packet one-way delay: 159.216 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 87.69 Mbit/s

95th percentile per-packet one-way delay: 202.713 ms

Loss rate: 1.12%

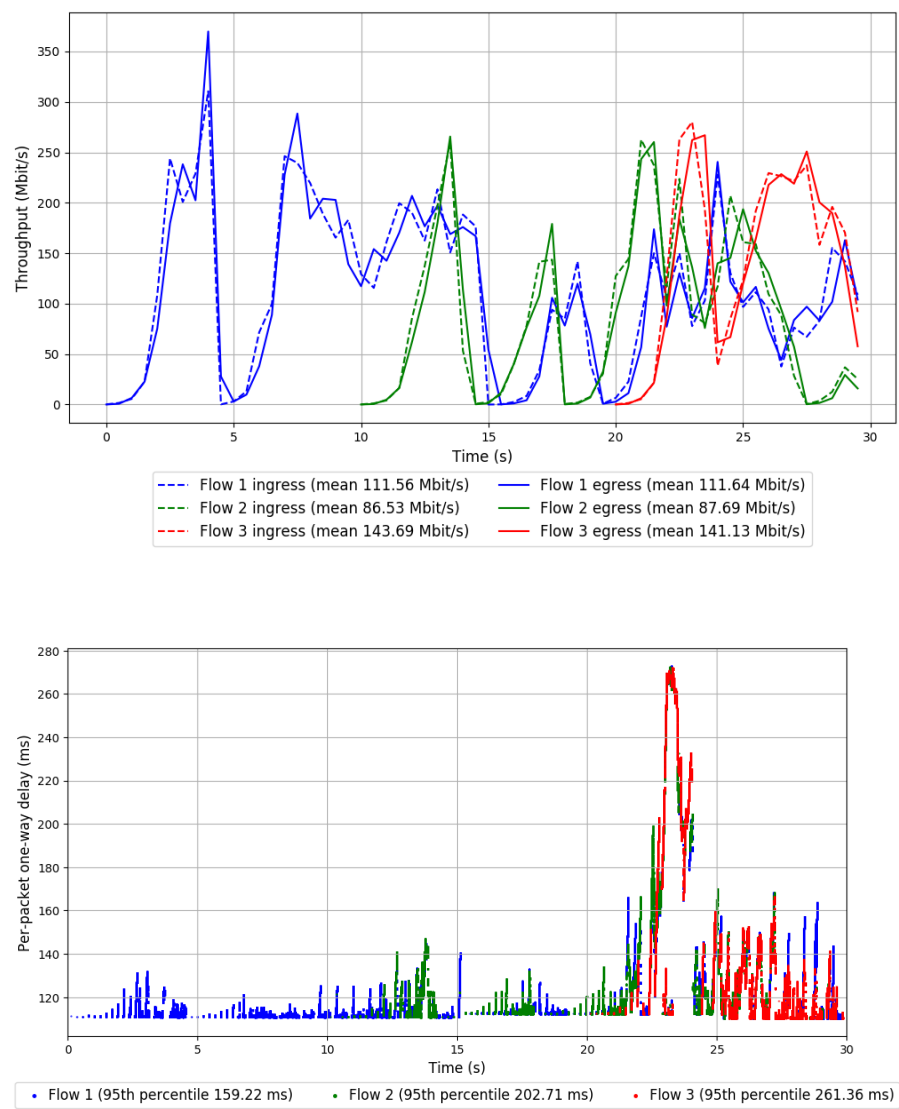
-- Flow 3:

Average throughput: 141.13 Mbit/s

95th percentile per-packet one-way delay: 261.364 ms

Loss rate: 4.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-06 18:40:31

End at: 2018-03-06 18:41:01

Below is generated by plot.py at 2018-03-07 00:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 259.51 Mbit/s

95th percentile per-packet one-way delay: 162.595 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 174.62 Mbit/s

95th percentile per-packet one-way delay: 159.027 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 116.67 Mbit/s

95th percentile per-packet one-way delay: 169.856 ms

Loss rate: 2.03%

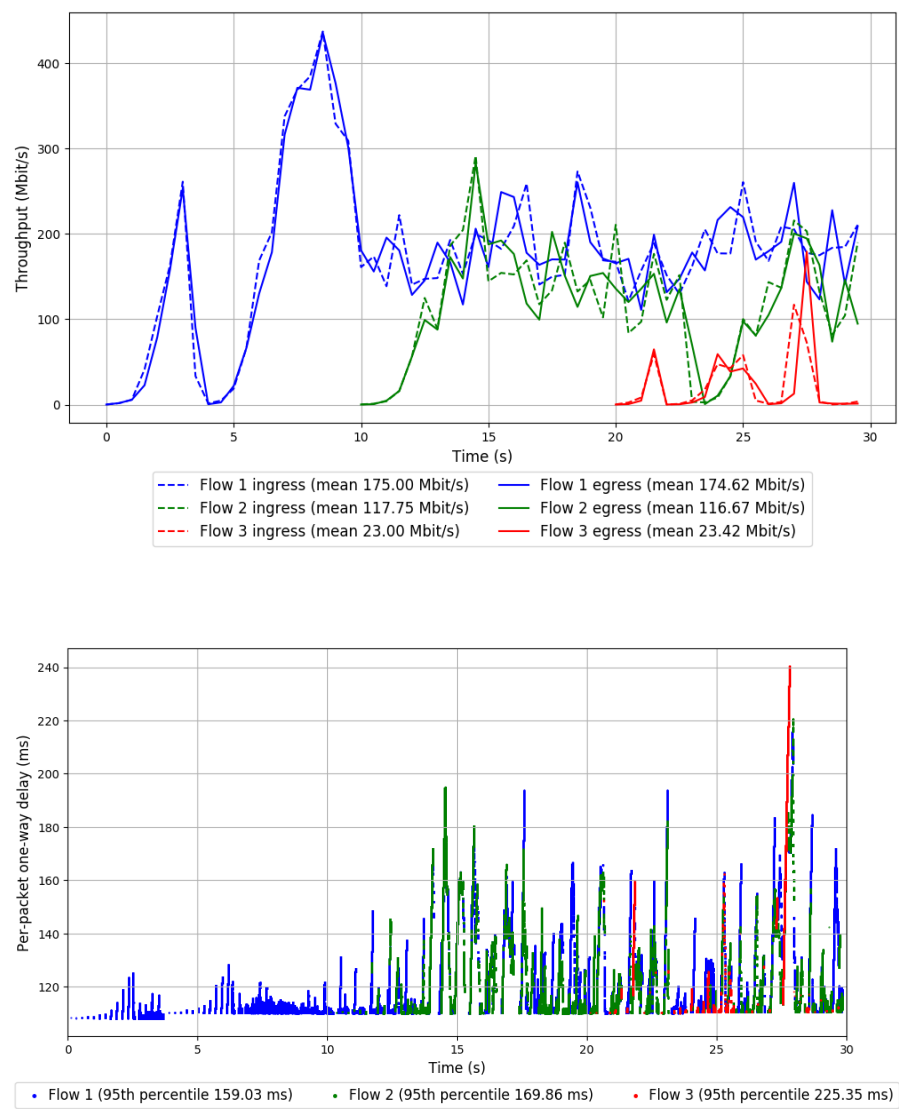
-- Flow 3:

Average throughput: 23.42 Mbit/s

95th percentile per-packet one-way delay: 225.346 ms

Loss rate: 0.53%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-06 18:59:54

End at: 2018-03-06 19:00:24

Below is generated by plot.py at 2018-03-07 00:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.99 Mbit/s

95th percentile per-packet one-way delay: 276.874 ms

Loss rate: 5.01%

-- Flow 1:

Average throughput: 133.10 Mbit/s

95th percentile per-packet one-way delay: 291.399 ms

Loss rate: 5.73%

-- Flow 2:

Average throughput: 83.46 Mbit/s

95th percentile per-packet one-way delay: 239.141 ms

Loss rate: 1.49%

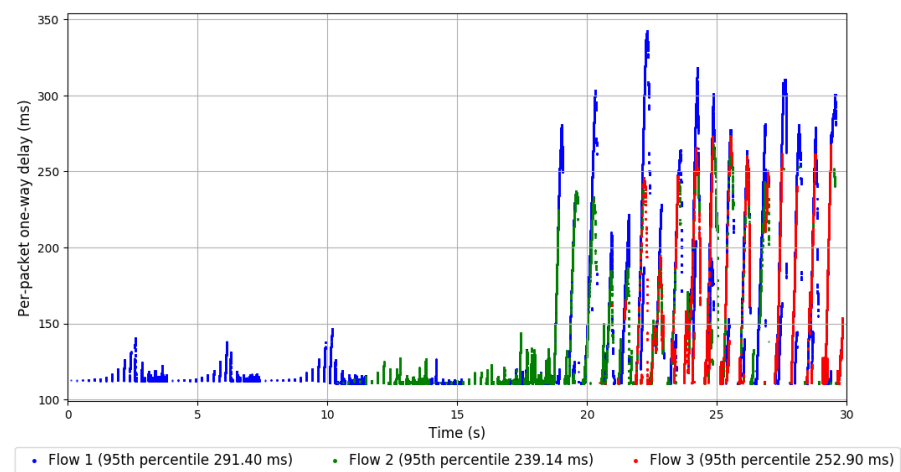
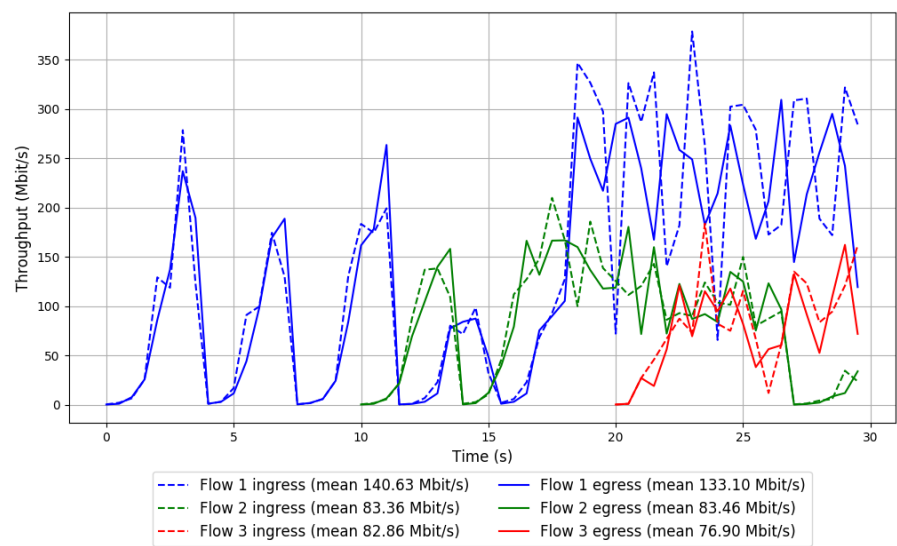
-- Flow 3:

Average throughput: 76.90 Mbit/s

95th percentile per-packet one-way delay: 252.898 ms

Loss rate: 8.48%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-06 19:19:17

End at: 2018-03-06 19:19:47

Below is generated by plot.py at 2018-03-07 00:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 185.06 Mbit/s

95th percentile per-packet one-way delay: 237.981 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 92.11 Mbit/s

95th percentile per-packet one-way delay: 205.383 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 80.59 Mbit/s

95th percentile per-packet one-way delay: 237.787 ms

Loss rate: 1.91%

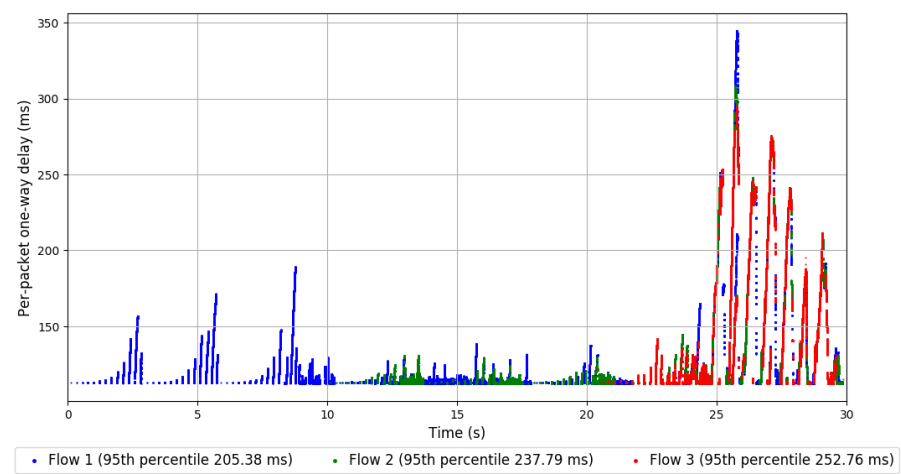
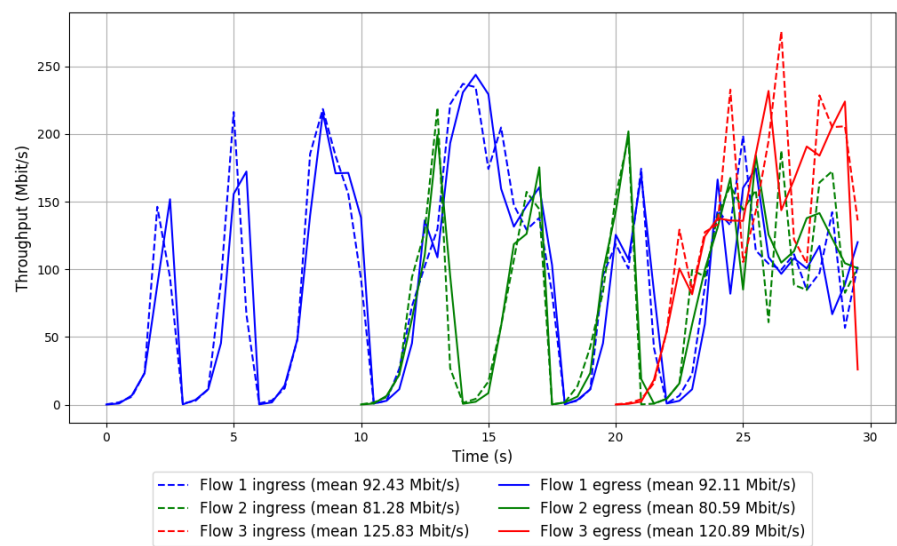
-- Flow 3:

Average throughput: 120.89 Mbit/s

95th percentile per-packet one-way delay: 252.762 ms

Loss rate: 6.17%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-06 19:38:40

End at: 2018-03-06 19:39:10

Below is generated by plot.py at 2018-03-07 00:13:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.68 Mbit/s

95th percentile per-packet one-way delay: 146.929 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 79.77 Mbit/s

95th percentile per-packet one-way delay: 149.883 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 82.40 Mbit/s

95th percentile per-packet one-way delay: 143.337 ms

Loss rate: 0.93%

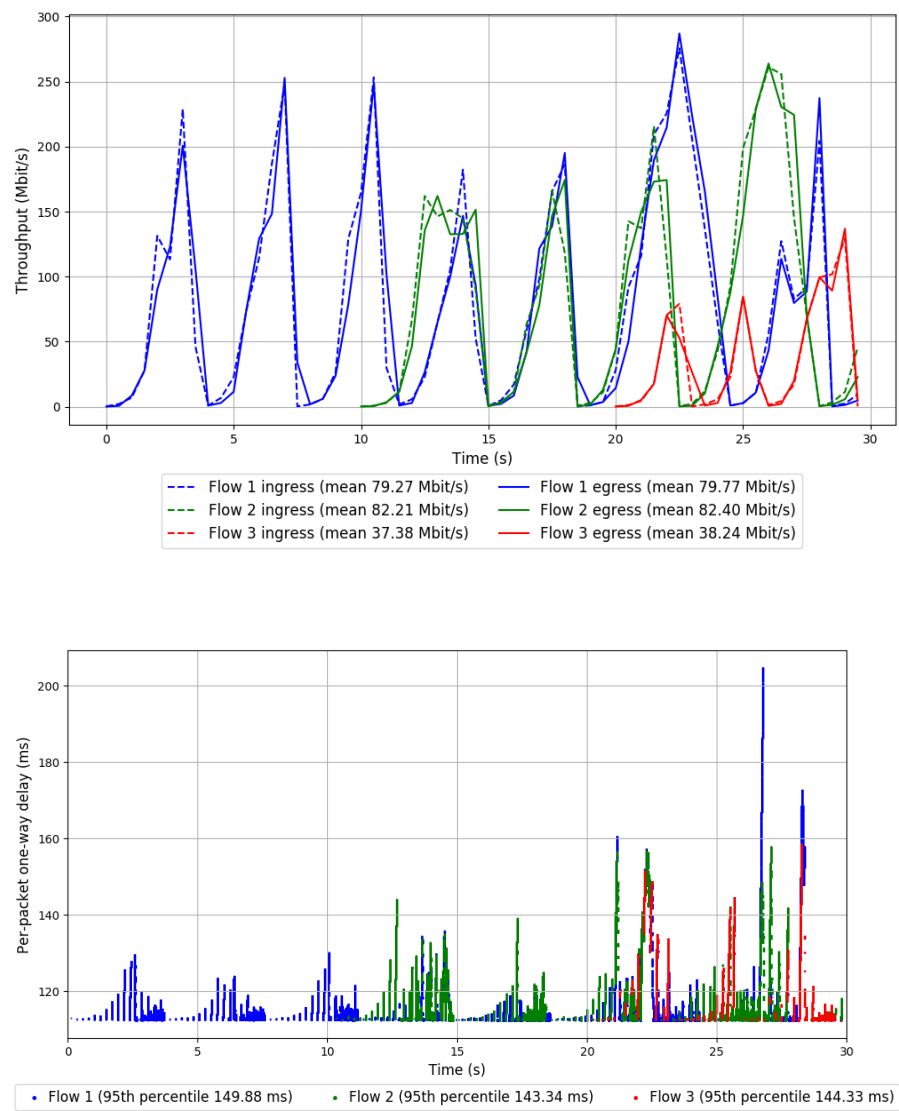
-- Flow 3:

Average throughput: 38.24 Mbit/s

95th percentile per-packet one-way delay: 144.330 ms

Loss rate: 0.02%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-06 19:57:53

End at: 2018-03-06 19:58:23

Below is generated by plot.py at 2018-03-07 00:14:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.31 Mbit/s

95th percentile per-packet one-way delay: 227.885 ms

Loss rate: 2.50%

-- Flow 1:

Average throughput: 187.12 Mbit/s

95th percentile per-packet one-way delay: 226.947 ms

Loss rate: 1.94%

-- Flow 2:

Average throughput: 43.87 Mbit/s

95th percentile per-packet one-way delay: 223.652 ms

Loss rate: 1.15%

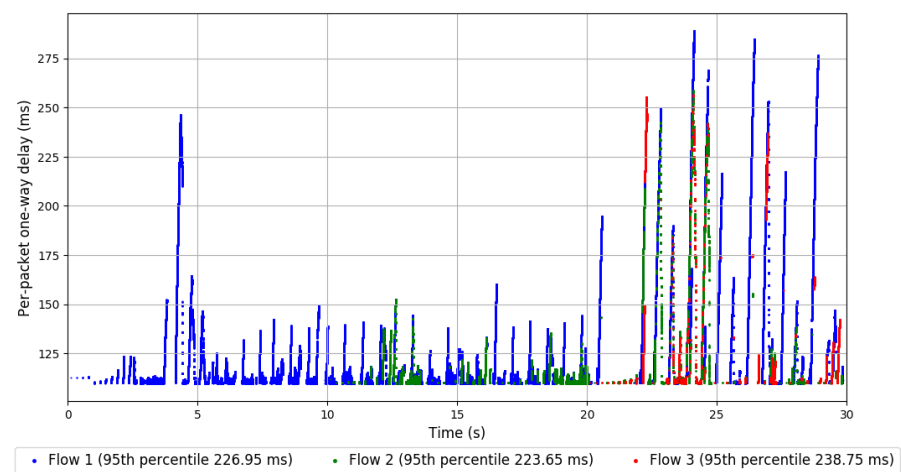
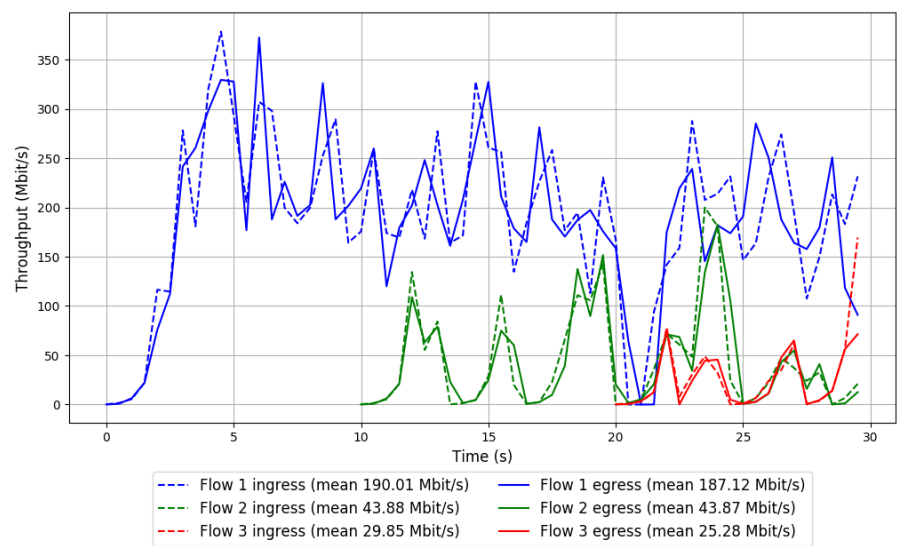
-- Flow 3:

Average throughput: 25.28 Mbit/s

95th percentile per-packet one-way delay: 238.746 ms

Loss rate: 17.28%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-06 17:07:31

End at: 2018-03-06 17:08:01

Below is generated by plot.py at 2018-03-07 00:15:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 133.59 Mbit/s

95th percentile per-packet one-way delay: 112.586 ms

Loss rate: 1.47%

-- Flow 1:

Average throughput: 67.03 Mbit/s

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

Loss rate: 1.24%

-- Flow 2:

Average throughput: 67.80 Mbit/s

95th percentile per-packet one-way delay: 112.319 ms

Loss rate: 1.08%

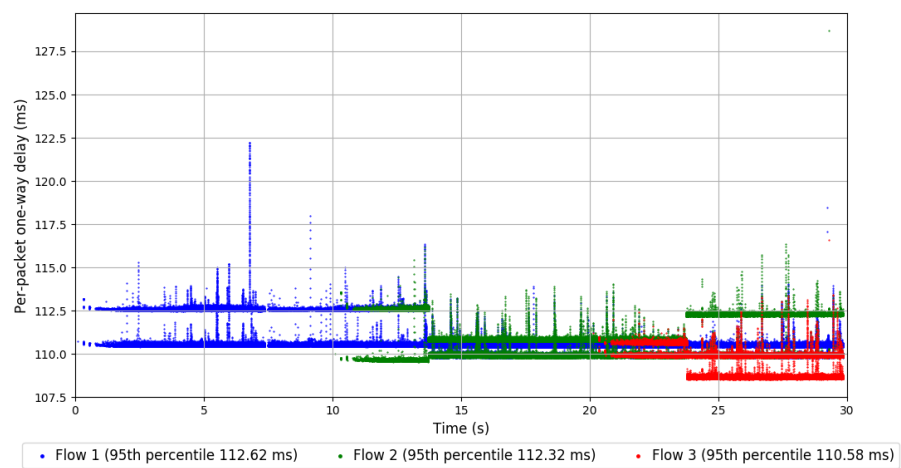
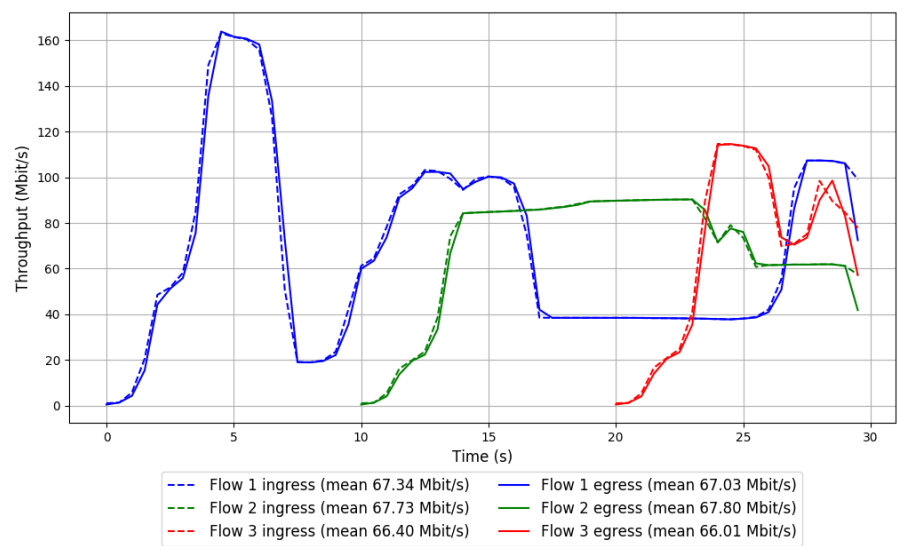
-- Flow 3:

Average throughput: 66.01 Mbit/s

95th percentile per-packet one-way delay: 110.583 ms

Loss rate: 2.96%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-06 17:26:58

End at: 2018-03-06 17:27:28

Below is generated by plot.py at 2018-03-07 00:16:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.23 Mbit/s

95th percentile per-packet one-way delay: 112.828 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 72.86 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 65.92 Mbit/s

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

Loss rate: 1.43%

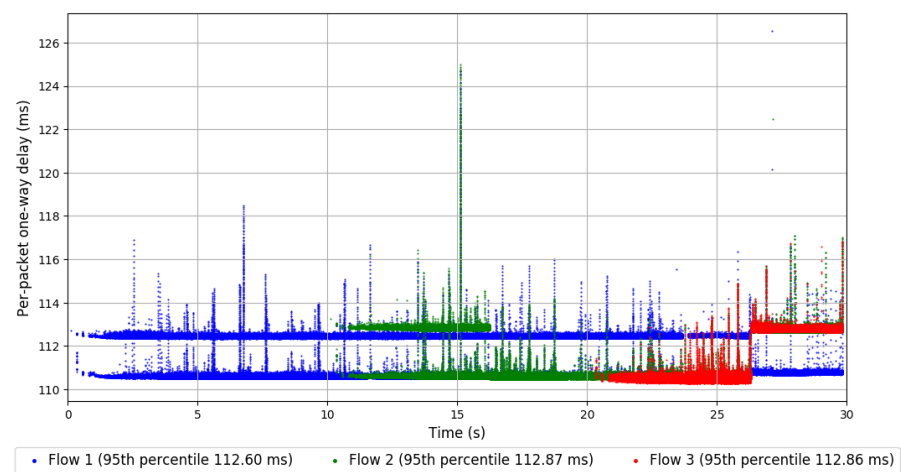
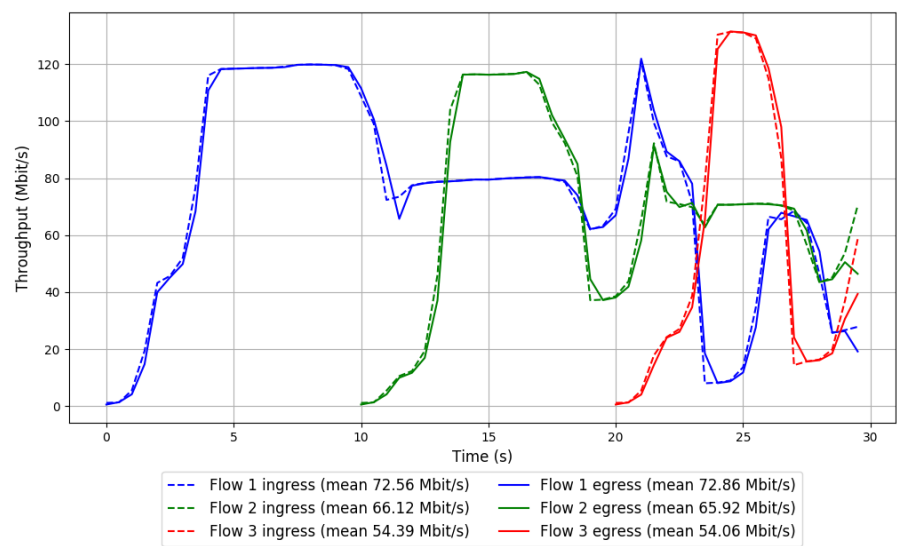
-- Flow 3:

Average throughput: 54.06 Mbit/s

95th percentile per-packet one-way delay: 112.862 ms

Loss rate: 2.85%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-06 17:46:05

End at: 2018-03-06 17:46:35

Below is generated by plot.py at 2018-03-07 00:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 157.08 Mbit/s

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

Loss rate: 1.21%

-- Flow 1:

Average throughput: 83.91 Mbit/s

95th percentile per-packet one-way delay: 112.727 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 76.03 Mbit/s

95th percentile per-packet one-way delay: 112.731 ms

Loss rate: 1.08%

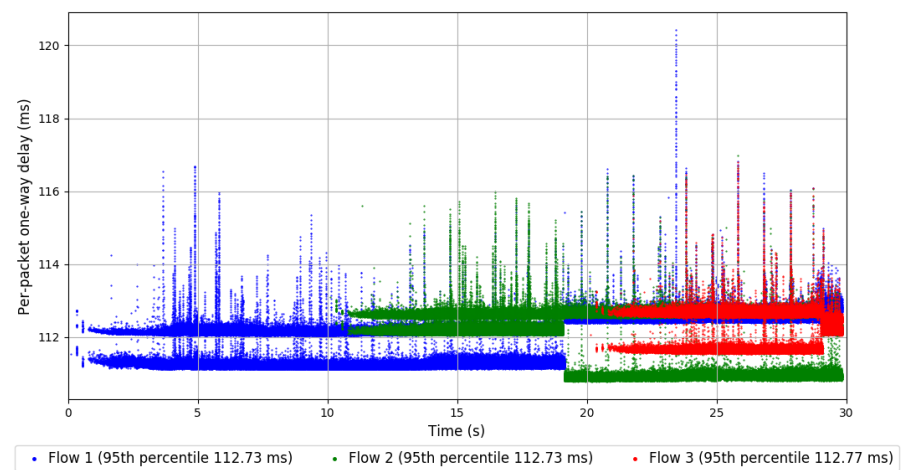
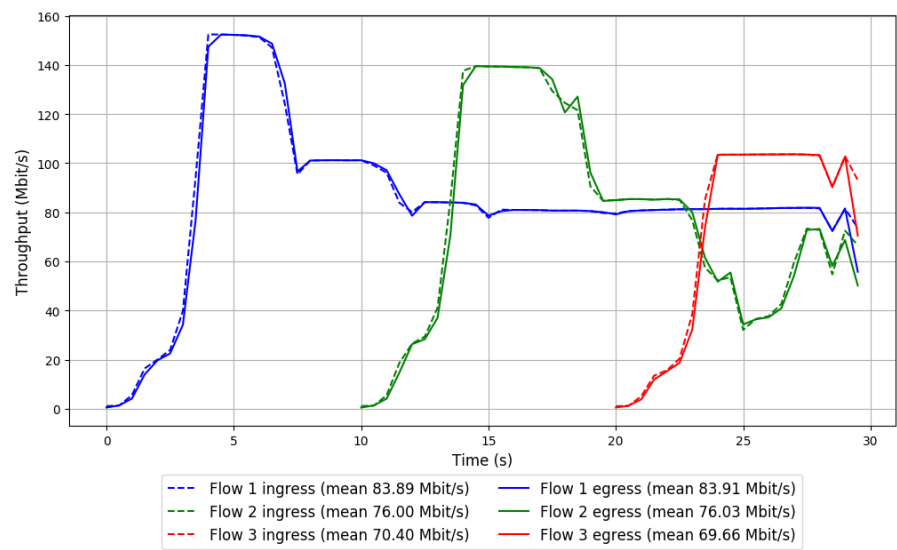
-- Flow 3:

Average throughput: 69.66 Mbit/s

95th percentile per-packet one-way delay: 112.770 ms

Loss rate: 3.27%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-06 18:05:39

End at: 2018-03-06 18:06:09

Below is generated by plot.py at 2018-03-07 00:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.16 Mbit/s

95th percentile per-packet one-way delay: 112.667 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 56.49 Mbit/s

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

Loss rate: 0.25%

-- Flow 2:

Average throughput: 82.47 Mbit/s

95th percentile per-packet one-way delay: 112.608 ms

Loss rate: 1.00%

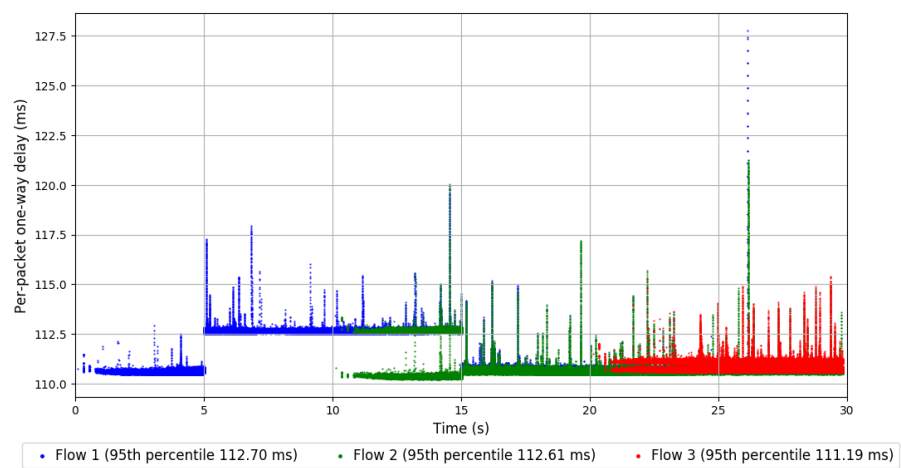
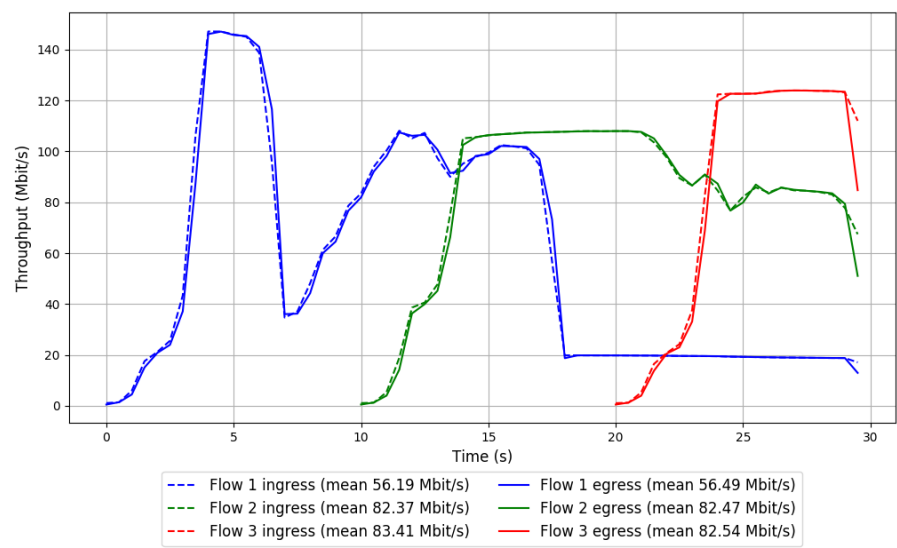
-- Flow 3:

Average throughput: 82.54 Mbit/s

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

Loss rate: 3.28%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-06 18:24:51

End at: 2018-03-06 18:25:21

Below is generated by plot.py at 2018-03-07 00:17:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.99 Mbit/s

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

Loss rate: 1.50%

-- Flow 1:

Average throughput: 43.84 Mbit/s

95th percentile per-packet one-way delay: 112.368 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 59.75 Mbit/s

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

Loss rate: 1.03%

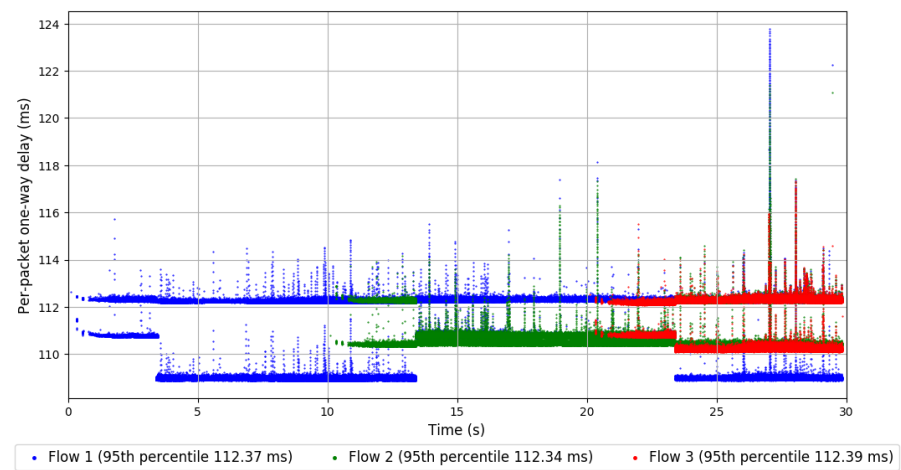
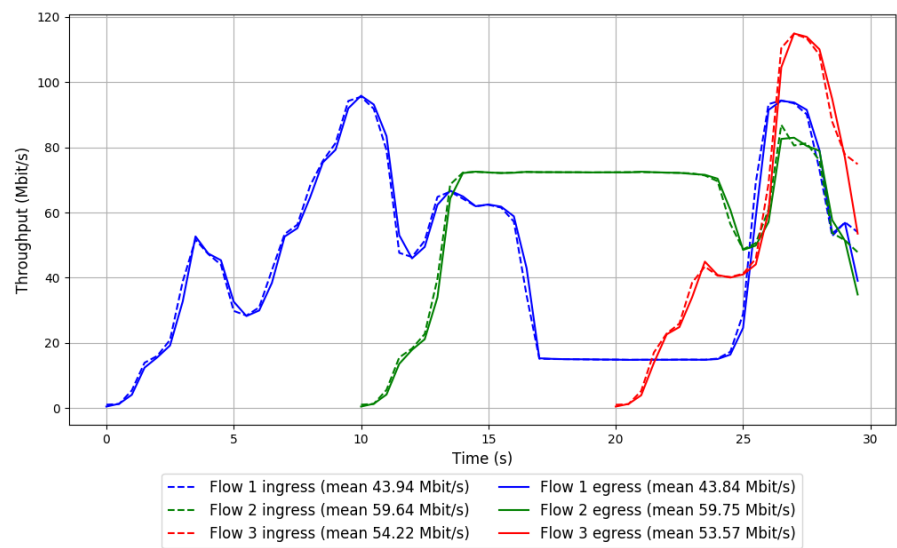
-- Flow 3:

Average throughput: 53.57 Mbit/s

95th percentile per-packet one-way delay: 112.387 ms

Loss rate: 3.60%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-06 18:44:13

End at: 2018-03-06 18:44:43

Below is generated by plot.py at 2018-03-07 00:17:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.50 Mbit/s

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

Loss rate: 0.90%

-- Flow 1:

Average throughput: 55.34 Mbit/s

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

Loss rate: 0.16%

-- Flow 2:

Average throughput: 64.52 Mbit/s

95th percentile per-packet one-way delay: 111.875 ms

Loss rate: 1.44%

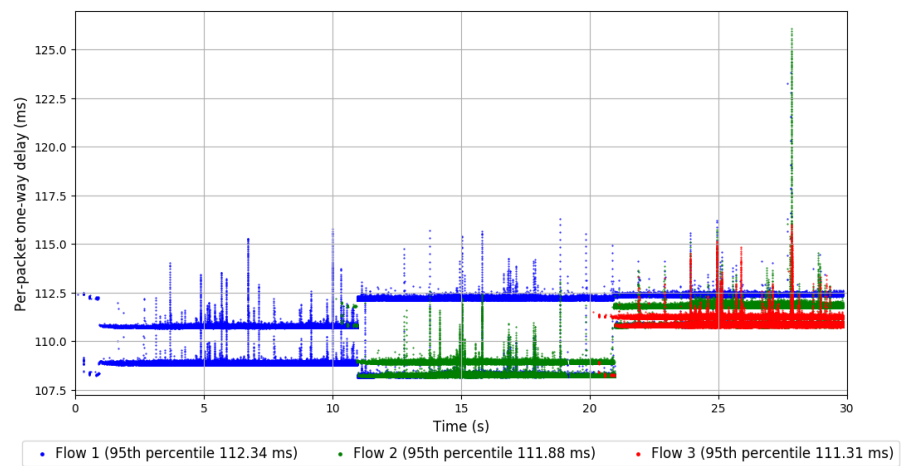
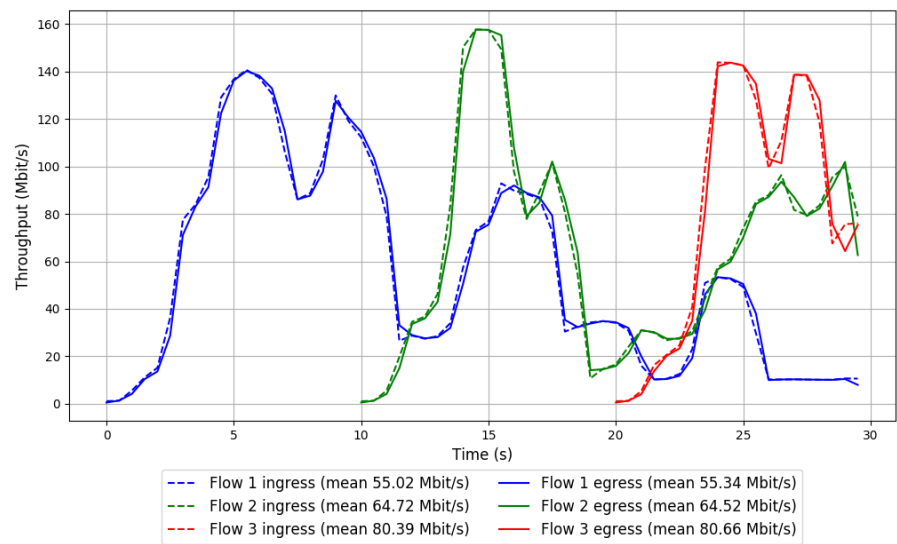
-- Flow 3:

Average throughput: 80.66 Mbit/s

95th percentile per-packet one-way delay: 111.307 ms

Loss rate: 1.55%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-06 19:03:26

End at: 2018-03-06 19:03:56

Below is generated by plot.py at 2018-03-07 00:18:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.87 Mbit/s

95th percentile per-packet one-way delay: 112.862 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 81.88 Mbit/s

95th percentile per-packet one-way delay: 112.721 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 73.76 Mbit/s

95th percentile per-packet one-way delay: 112.540 ms

Loss rate: 0.44%

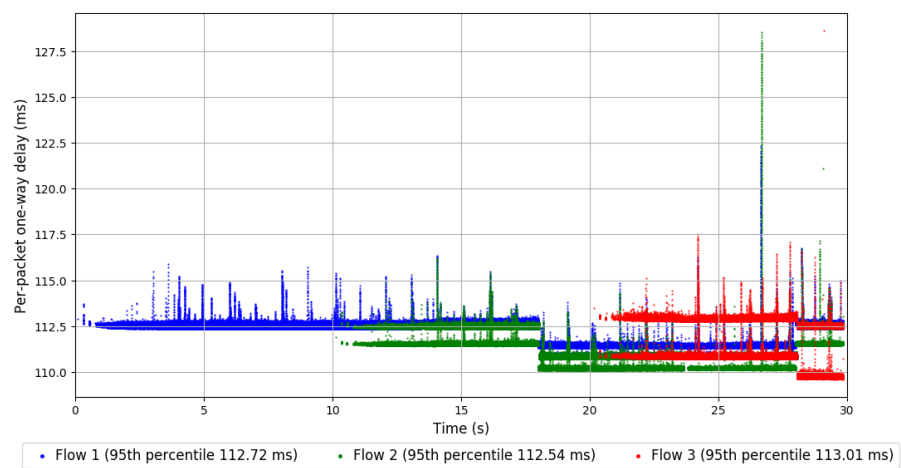
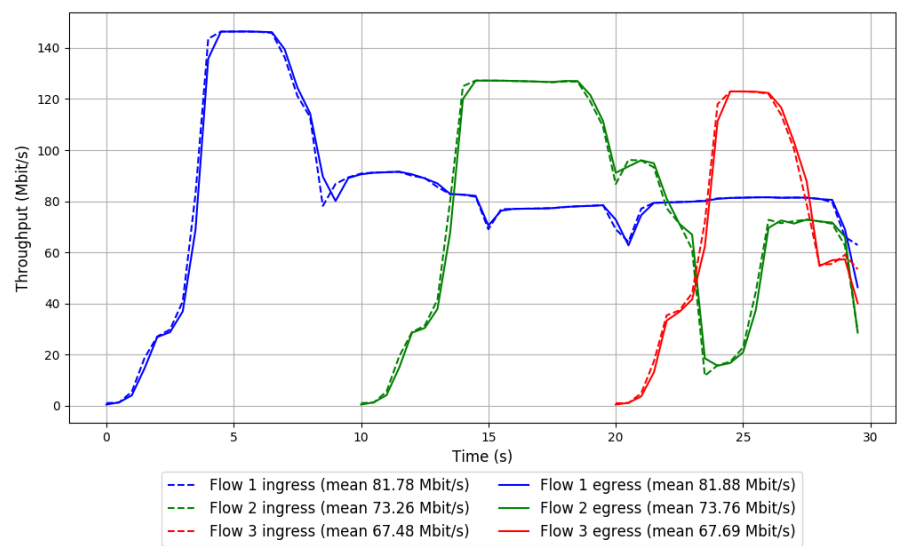
-- Flow 3:

Average throughput: 67.69 Mbit/s

95th percentile per-packet one-way delay: 113.012 ms

Loss rate: 1.96%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-06 19:22:48

End at: 2018-03-06 19:23:18

Below is generated by plot.py at 2018-03-07 00:19:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 158.89 Mbit/s

95th percentile per-packet one-way delay: 112.598 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 87.46 Mbit/s

95th percentile per-packet one-way delay: 112.602 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 72.36 Mbit/s

95th percentile per-packet one-way delay: 112.597 ms

Loss rate: 0.87%

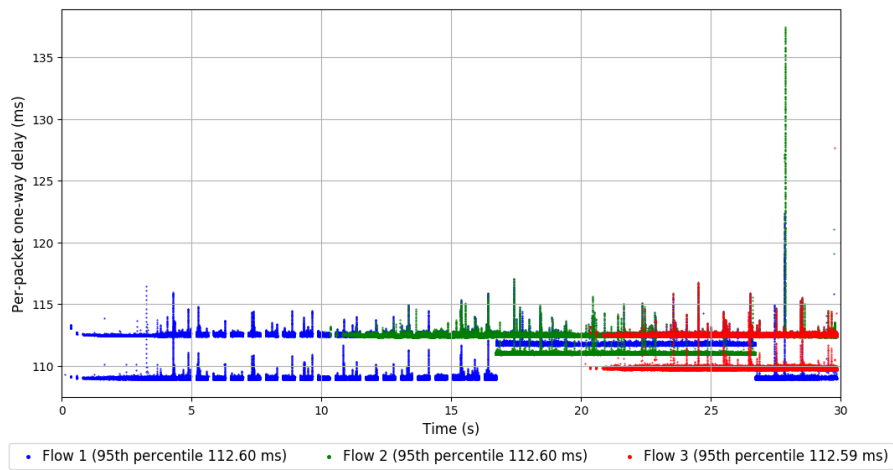
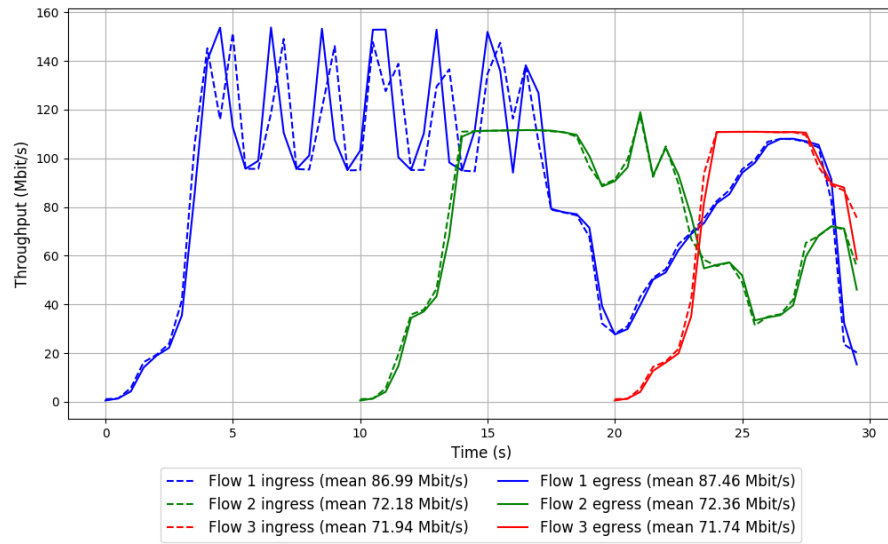
-- Flow 3:

Average throughput: 71.74 Mbit/s

95th percentile per-packet one-way delay: 112.588 ms

Loss rate: 2.50%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-06 19:42:14

End at: 2018-03-06 19:42:44

Below is generated by plot.py at 2018-03-07 00:19:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 144.61 Mbit/s

95th percentile per-packet one-way delay: 113.017 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 80.69 Mbit/s

95th percentile per-packet one-way delay: 112.759 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 68.33 Mbit/s

95th percentile per-packet one-way delay: 113.064 ms

Loss rate: 1.31%

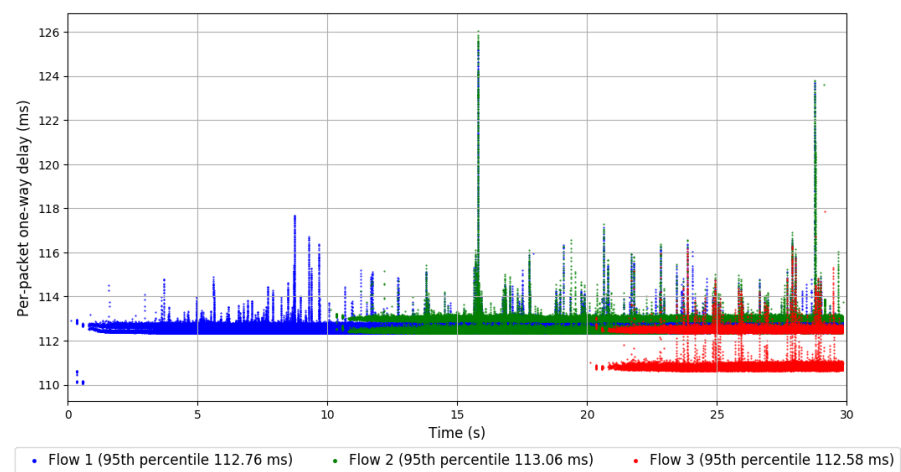
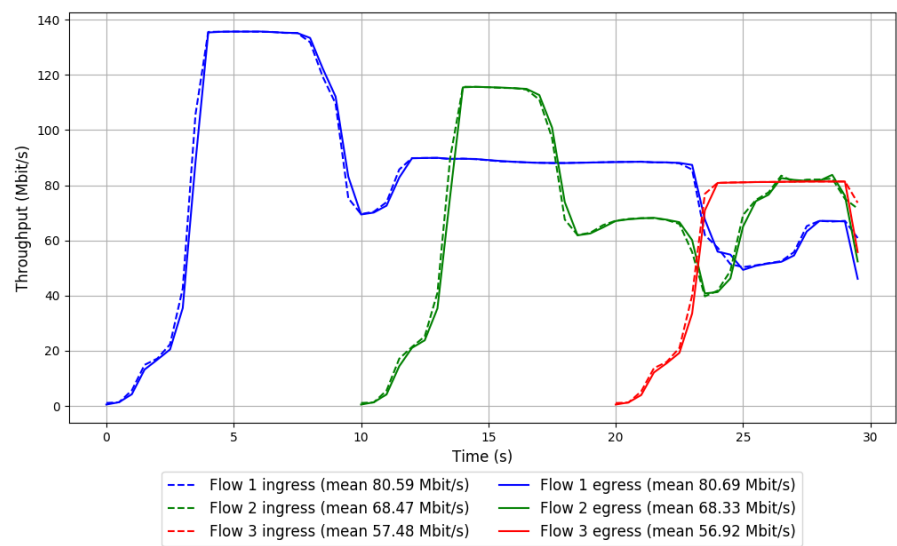
-- Flow 3:

Average throughput: 56.92 Mbit/s

95th percentile per-packet one-way delay: 112.575 ms

Loss rate: 3.17%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-06 20:01:33

End at: 2018-03-06 20:02:03

Below is generated by plot.py at 2018-03-07 00:20:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.37 Mbit/s

95th percentile per-packet one-way delay: 111.865 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 83.85 Mbit/s

95th percentile per-packet one-way delay: 110.743 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 65.40 Mbit/s

95th percentile per-packet one-way delay: 110.828 ms

Loss rate: 0.55%

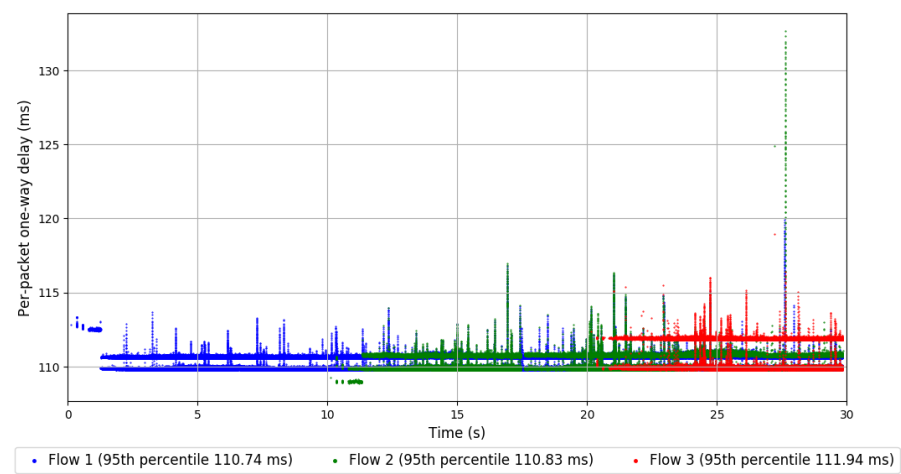
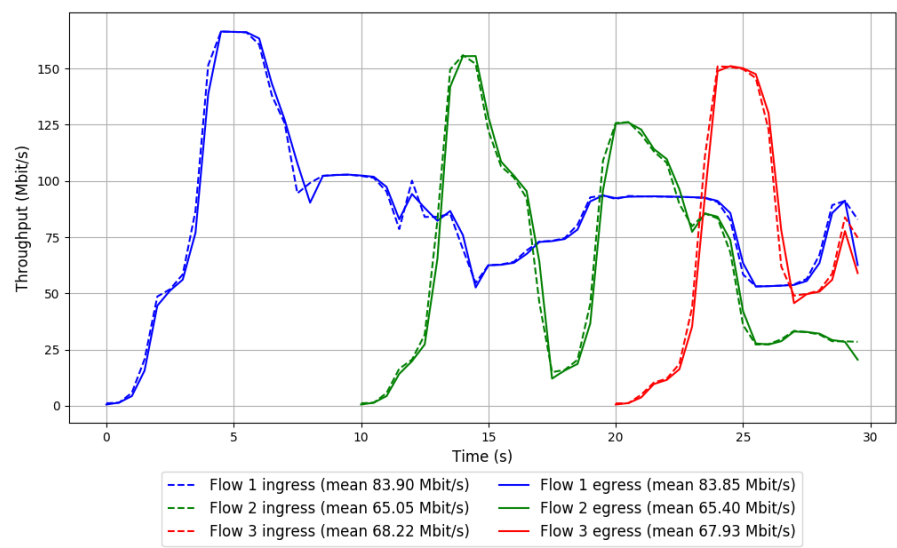
-- Flow 3:

Average throughput: 67.93 Mbit/s

95th percentile per-packet one-way delay: 111.940 ms

Loss rate: 2.67%

Run 10: Report of Copa — Data Link

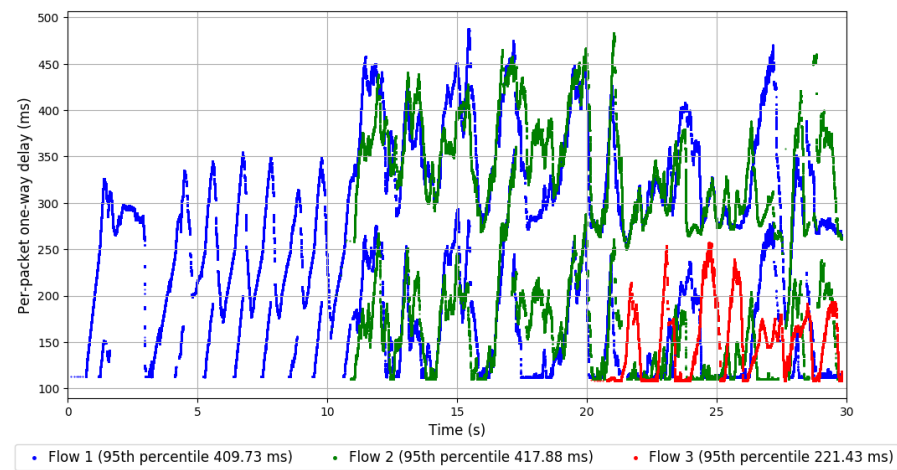
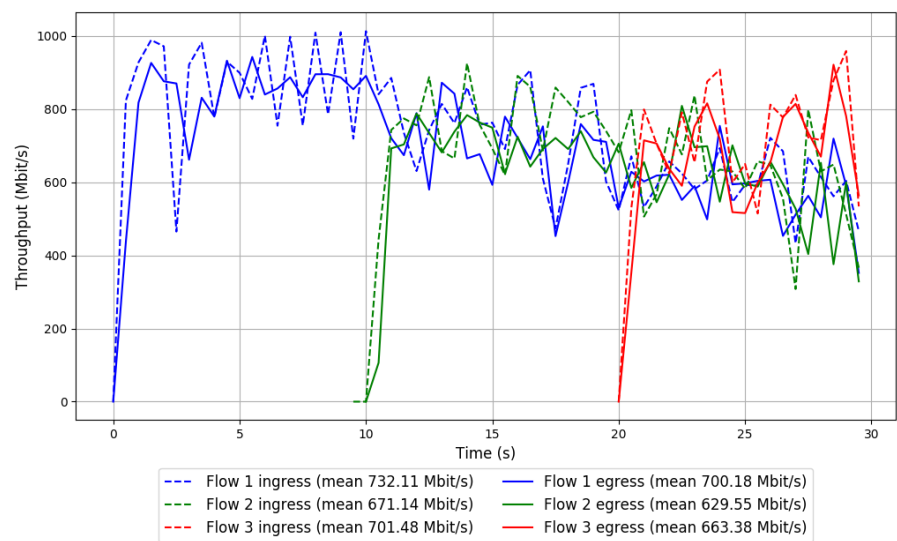


```
Run 1: Statistics of FillP

Start at: 2018-03-06 17:10:12
End at: 2018-03-06 17:10:42

# Below is generated by plot.py at 2018-03-07 00:37:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1332.74 Mbit/s
95th percentile per-packet one-way delay: 405.884 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 700.18 Mbit/s
95th percentile per-packet one-way delay: 409.725 ms
Loss rate: 5.08%
-- Flow 2:
Average throughput: 629.55 Mbit/s
95th percentile per-packet one-way delay: 417.881 ms
Loss rate: 7.50%
-- Flow 3:
Average throughput: 663.38 Mbit/s
95th percentile per-packet one-way delay: 221.433 ms
Loss rate: 7.56%
```


Run 1: Report of FillP — Data Link

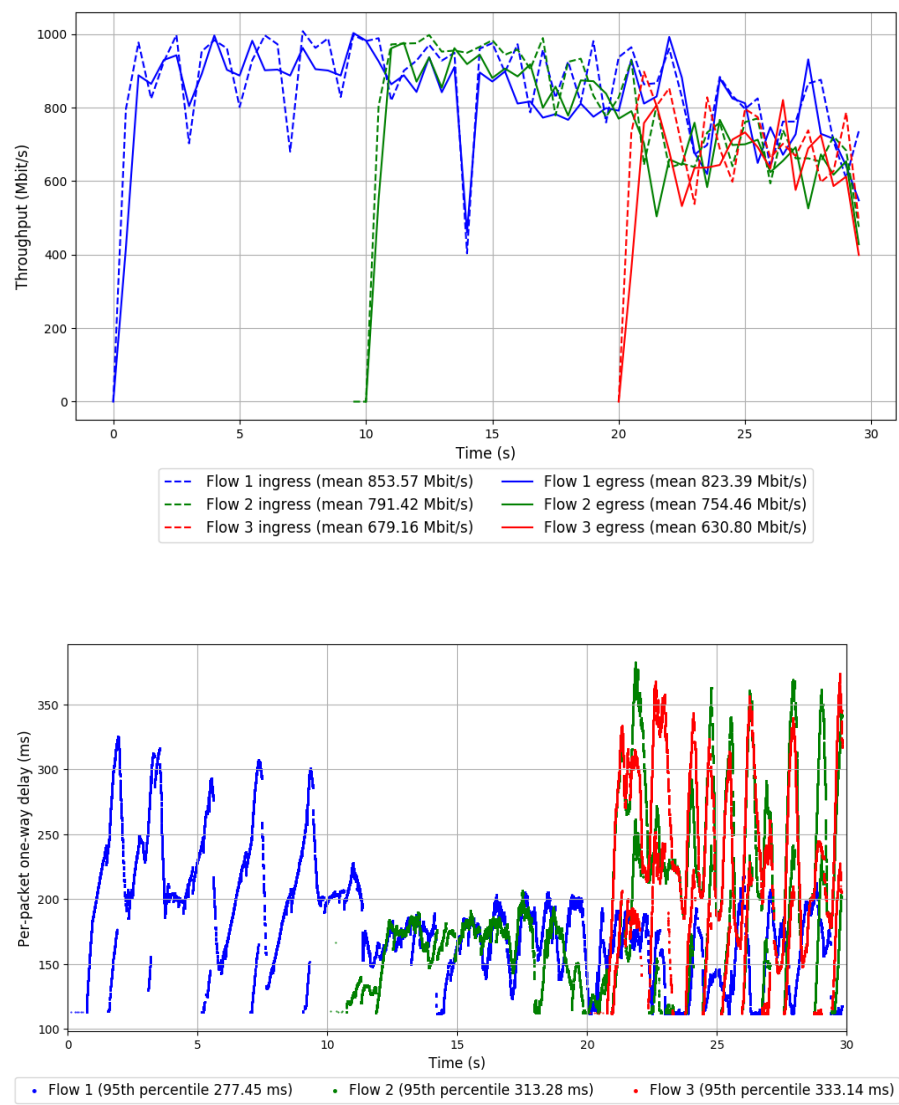


```
Run 2: Statistics of FillP

Start at: 2018-03-06 17:29:44
End at: 2018-03-06 17:30:14

# Below is generated by plot.py at 2018-03-07 00:41:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1529.87 Mbit/s
95th percentile per-packet one-way delay: 303.629 ms
Loss rate: 5.44%
-- Flow 1:
Average throughput: 823.39 Mbit/s
95th percentile per-packet one-way delay: 277.449 ms
Loss rate: 4.26%
-- Flow 2:
Average throughput: 754.46 Mbit/s
95th percentile per-packet one-way delay: 313.276 ms
Loss rate: 5.73%
-- Flow 3:
Average throughput: 630.80 Mbit/s
95th percentile per-packet one-way delay: 333.145 ms
Loss rate: 9.21%
```

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-06 17:48:50

End at: 2018-03-06 17:49:20

Below is generated by plot.py at 2018-03-07 00:43:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 1599.70 Mbit/s

95th percentile per-packet one-way delay: 210.979 ms

Loss rate: 5.20%

-- Flow 1:

Average throughput: 838.26 Mbit/s

95th percentile per-packet one-way delay: 205.454 ms

Loss rate: 5.62%

-- Flow 2:

Average throughput: 774.82 Mbit/s

95th percentile per-packet one-way delay: 229.461 ms

Loss rate: 3.41%

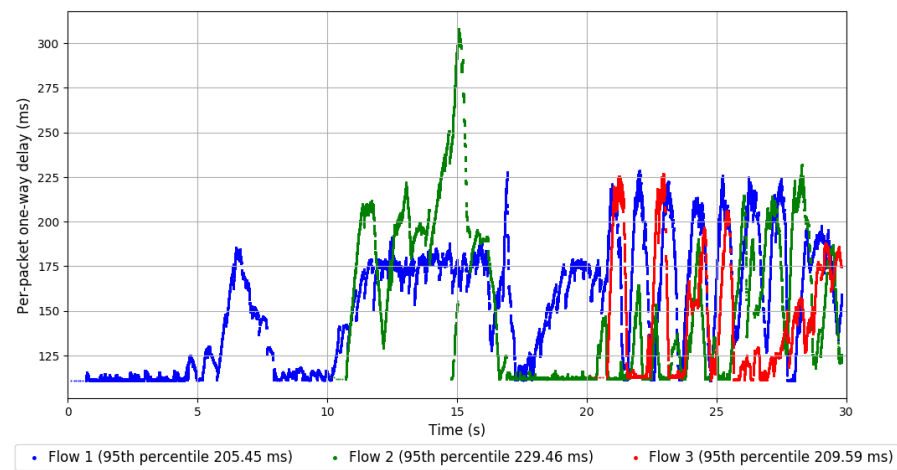
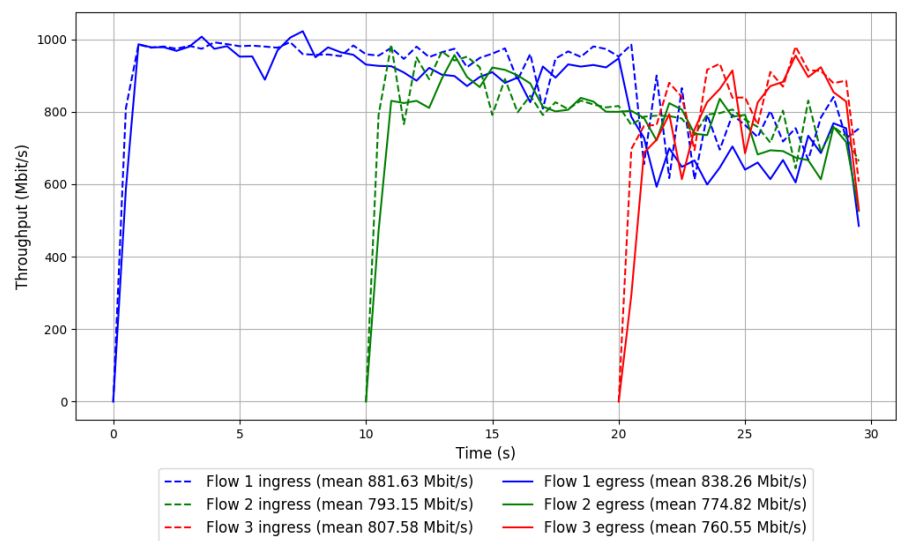
-- Flow 3:

Average throughput: 760.55 Mbit/s

95th percentile per-packet one-way delay: 209.594 ms

Loss rate: 7.37%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-06 18:08:24

End at: 2018-03-06 18:08:54

Below is generated by plot.py at 2018-03-07 00:43:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 1593.47 Mbit/s

95th percentile per-packet one-way delay: 228.421 ms

Loss rate: 5.02%

-- Flow 1:

Average throughput: 798.59 Mbit/s

95th percentile per-packet one-way delay: 239.252 ms

Loss rate: 5.60%

-- Flow 2:

Average throughput: 841.82 Mbit/s

95th percentile per-packet one-way delay: 201.475 ms

Loss rate: 3.81%

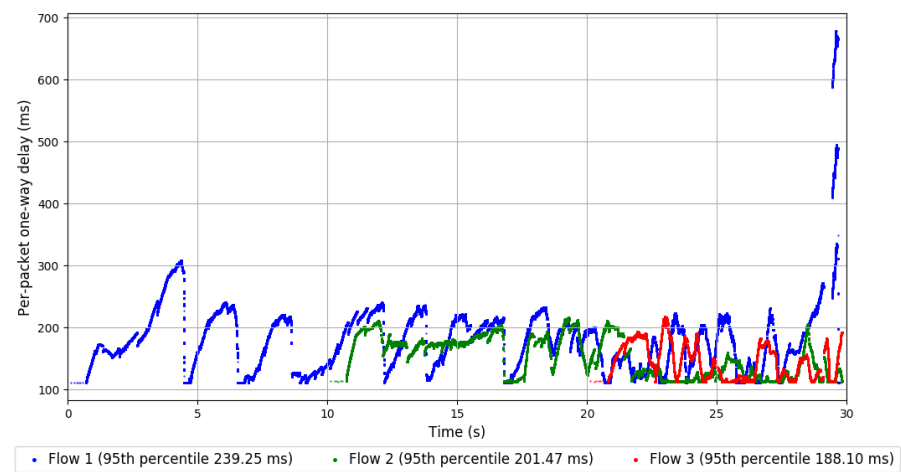
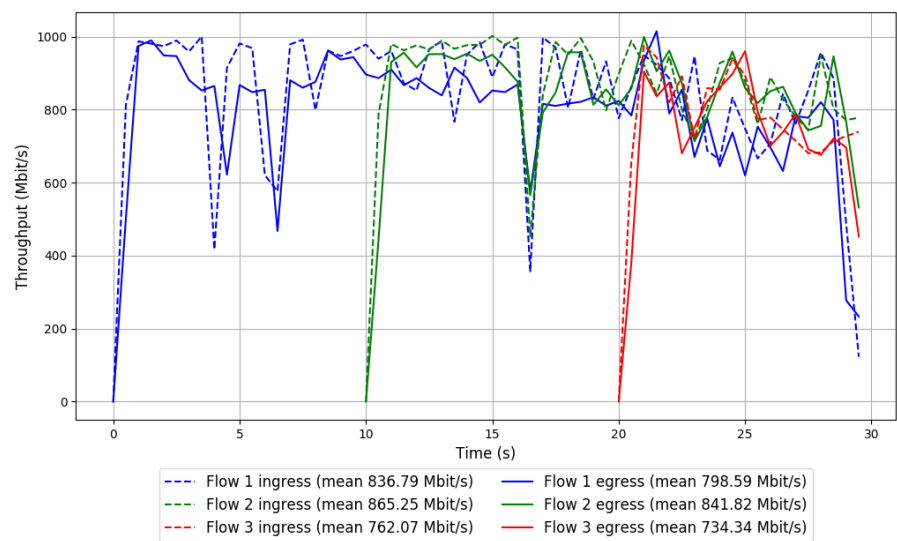
-- Flow 3:

Average throughput: 734.34 Mbit/s

95th percentile per-packet one-way delay: 188.101 ms

Loss rate: 5.84%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-06 18:27:29

End at: 2018-03-06 18:27:59

Below is generated by plot.py at 2018-03-07 00:43:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 1504.93 Mbit/s

95th percentile per-packet one-way delay: 286.792 ms

Loss rate: 4.84%

-- Flow 1:

Average throughput: 818.31 Mbit/s

95th percentile per-packet one-way delay: 248.667 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 745.30 Mbit/s

95th percentile per-packet one-way delay: 226.634 ms

Loss rate: 6.77%

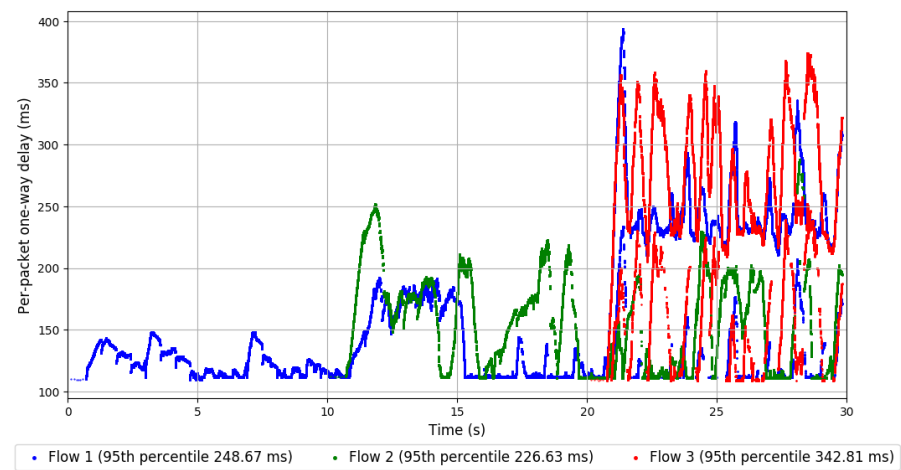
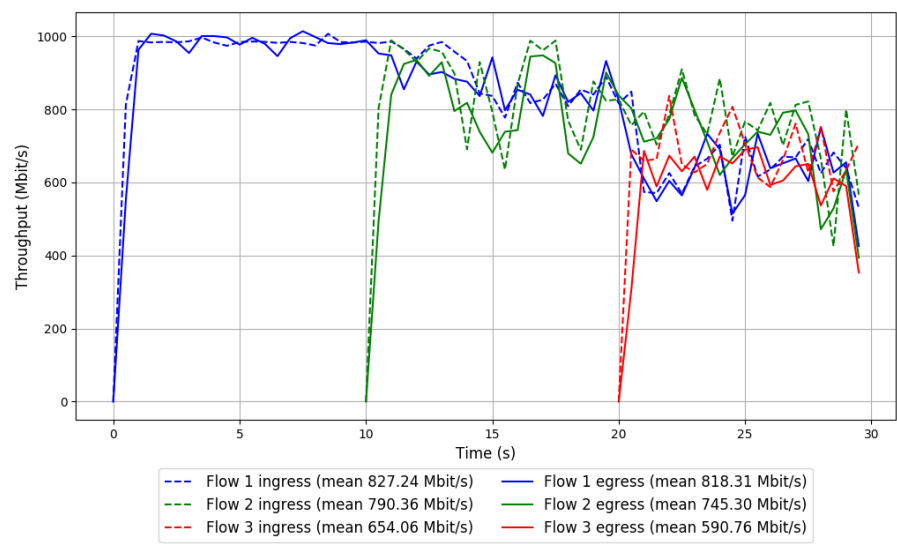
-- Flow 3:

Average throughput: 590.76 Mbit/s

95th percentile per-packet one-way delay: 342.812 ms

Loss rate: 11.71%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-06 18:46:58

End at: 2018-03-06 18:47:28

Below is generated by plot.py at 2018-03-07 00:44:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1464.34 Mbit/s

95th percentile per-packet one-way delay: 297.946 ms

Loss rate: 6.37%

-- Flow 1:

Average throughput: 778.86 Mbit/s

95th percentile per-packet one-way delay: 285.056 ms

Loss rate: 5.83%

-- Flow 2:

Average throughput: 761.54 Mbit/s

95th percentile per-packet one-way delay: 190.910 ms

Loss rate: 5.02%

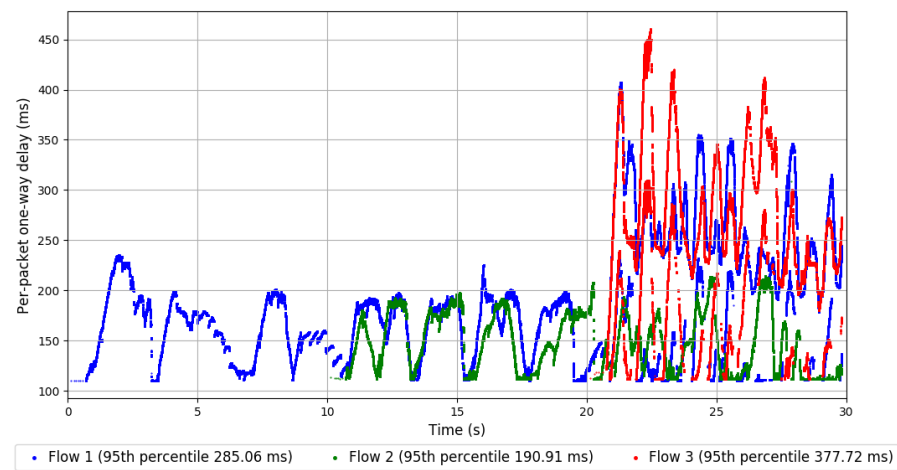
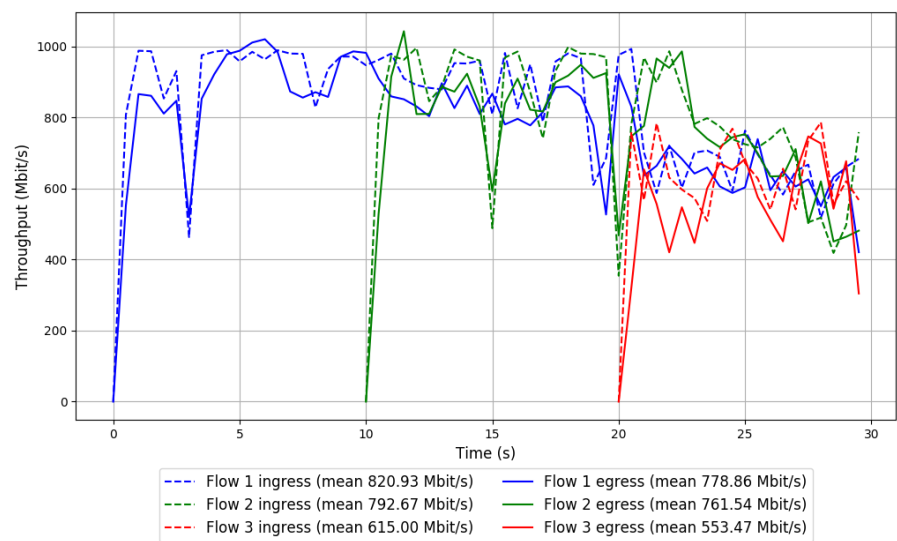
-- Flow 3:

Average throughput: 553.47 Mbit/s

95th percentile per-packet one-way delay: 377.722 ms

Loss rate: 12.05%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-06 19:06:10

End at: 2018-03-06 19:06:40

Below is generated by plot.py at 2018-03-07 00:45:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1532.11 Mbit/s

95th percentile per-packet one-way delay: 278.597 ms

Loss rate: 3.91%

-- Flow 1:

Average throughput: 798.76 Mbit/s

95th percentile per-packet one-way delay: 239.536 ms

Loss rate: 2.74%

-- Flow 2:

Average throughput: 745.88 Mbit/s

95th percentile per-packet one-way delay: 297.815 ms

Loss rate: 5.83%

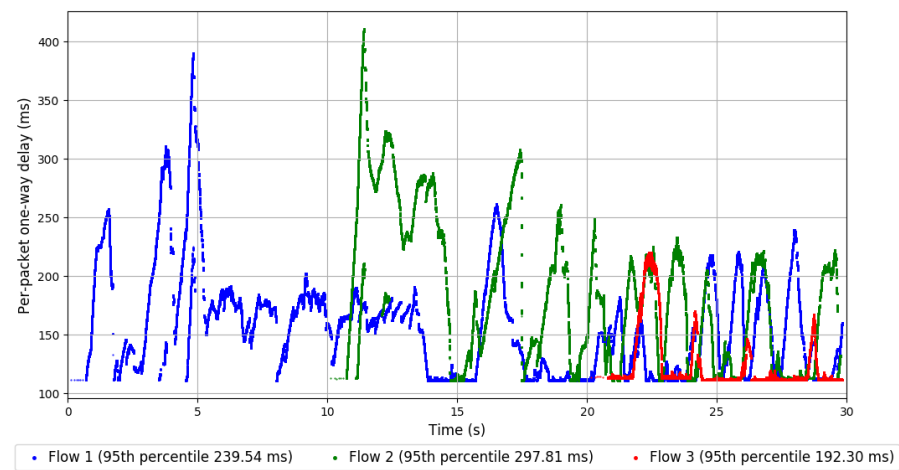
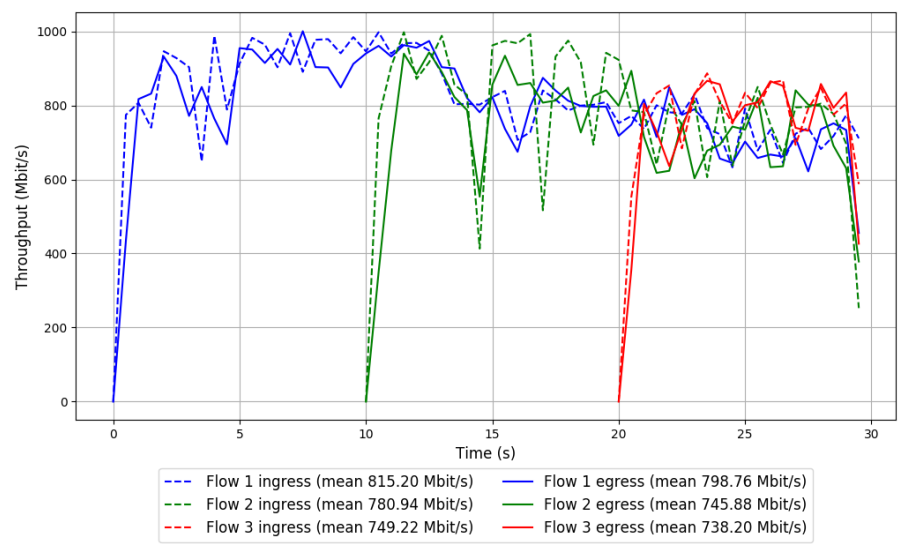
-- Flow 3:

Average throughput: 738.20 Mbit/s

95th percentile per-packet one-way delay: 192.301 ms

Loss rate: 3.70%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-06 19:25:32

End at: 2018-03-06 19:26:02

Below is generated by plot.py at 2018-03-07 00:47:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 1564.73 Mbit/s

95th percentile per-packet one-way delay: 272.178 ms

Loss rate: 3.65%

-- Flow 1:

Average throughput: 849.22 Mbit/s

95th percentile per-packet one-way delay: 181.931 ms

Loss rate: 3.25%

-- Flow 2:

Average throughput: 775.17 Mbit/s

95th percentile per-packet one-way delay: 292.924 ms

Loss rate: 4.43%

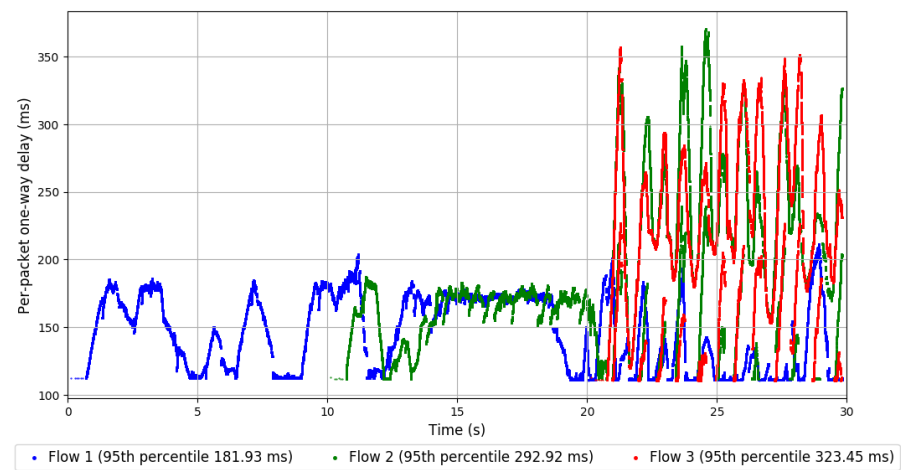
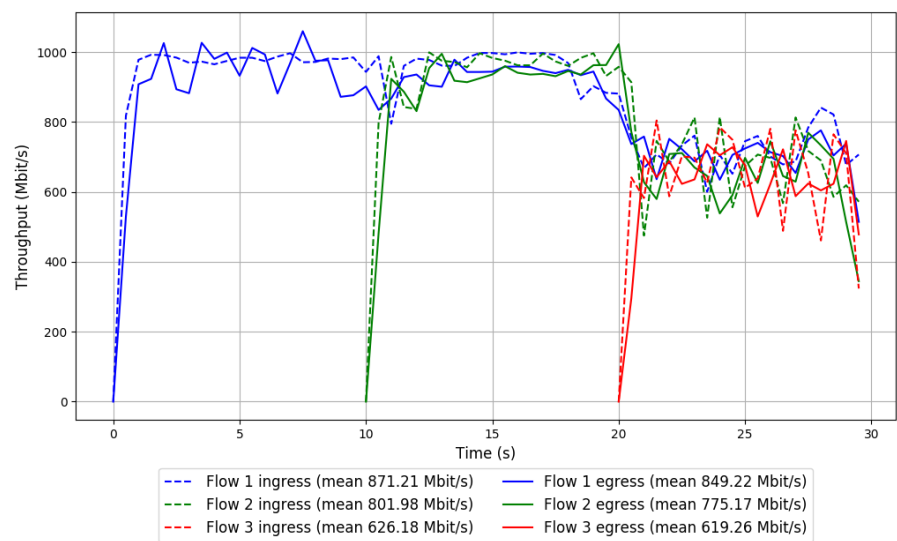
-- Flow 3:

Average throughput: 619.26 Mbit/s

95th percentile per-packet one-way delay: 323.450 ms

Loss rate: 3.34%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-06 19:44:54

End at: 2018-03-06 19:45:24

Below is generated by plot.py at 2018-03-07 01:04:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1447.65 Mbit/s

95th percentile per-packet one-way delay: 334.186 ms

Loss rate: 7.33%

-- Flow 1:

Average throughput: 743.00 Mbit/s

95th percentile per-packet one-way delay: 363.443 ms

Loss rate: 6.33%

-- Flow 2:

Average throughput: 751.05 Mbit/s

95th percentile per-packet one-way delay: 231.096 ms

Loss rate: 9.74%

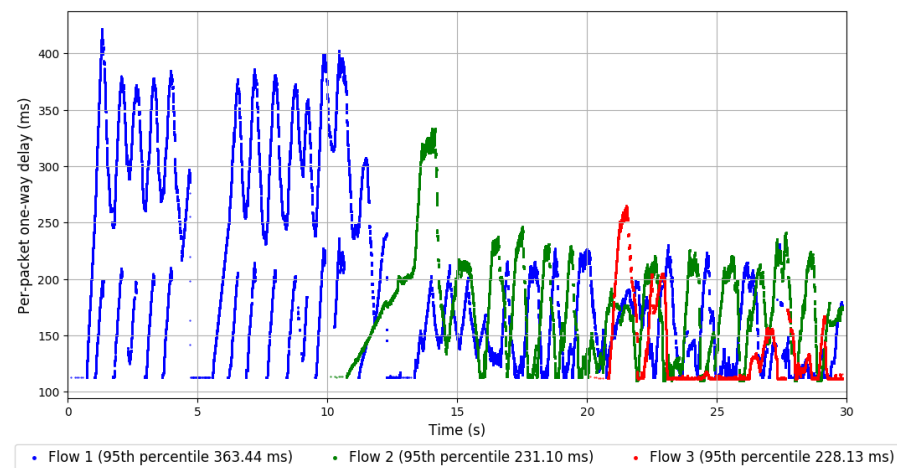
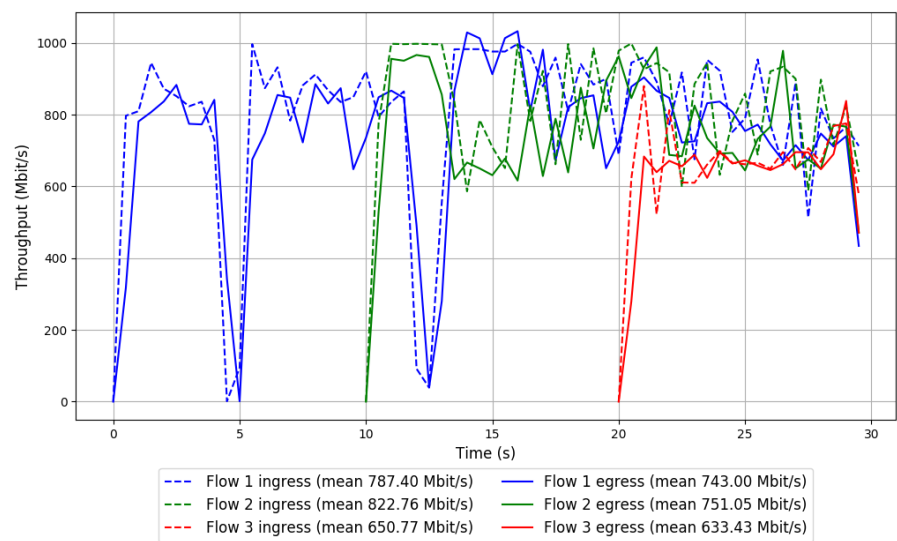
-- Flow 3:

Average throughput: 633.43 Mbit/s

95th percentile per-packet one-way delay: 228.134 ms

Loss rate: 4.84%

Run 9: Report of FillP — Data Link

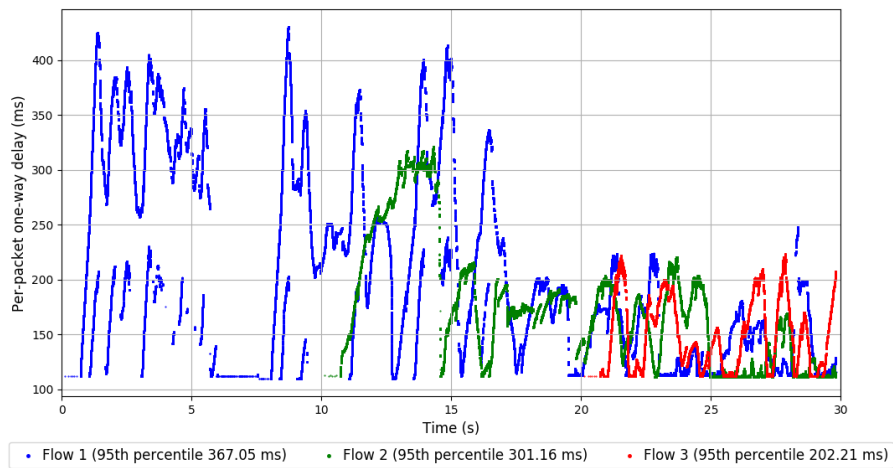
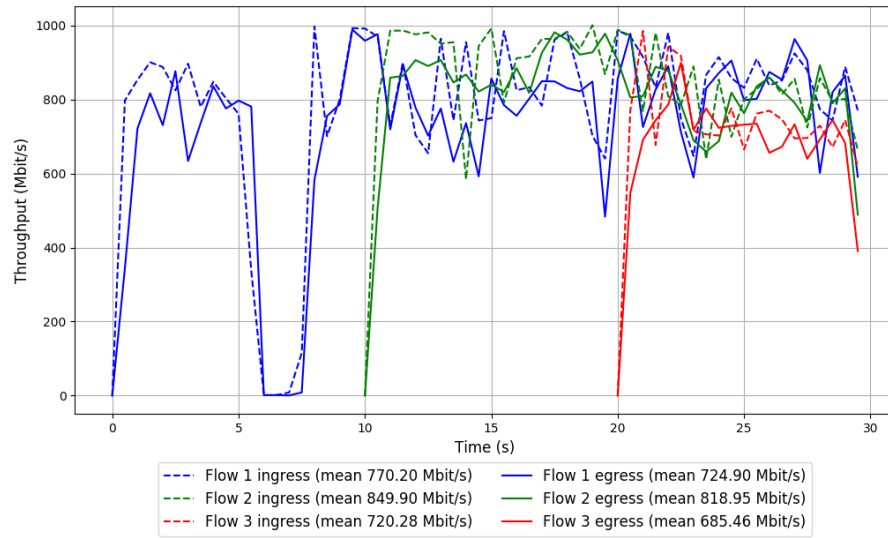


```
Run 10: Statistics of FillP

Start at: 2018-03-06 20:04:17
End at: 2018-03-06 20:04:47

# Below is generated by plot.py at 2018-03-07 01:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1491.58 Mbit/s
95th percentile per-packet one-way delay: 336.205 ms
Loss rate: 5.98%
-- Flow 1:
Average throughput: 724.90 Mbit/s
95th percentile per-packet one-way delay: 367.054 ms
Loss rate: 6.58%
-- Flow 2:
Average throughput: 818.95 Mbit/s
95th percentile per-packet one-way delay: 301.161 ms
Loss rate: 4.73%
-- Flow 3:
Average throughput: 685.46 Mbit/s
95th percentile per-packet one-way delay: 202.205 ms
Loss rate: 7.00%
```

Run 10: Report of FillP — Data Link

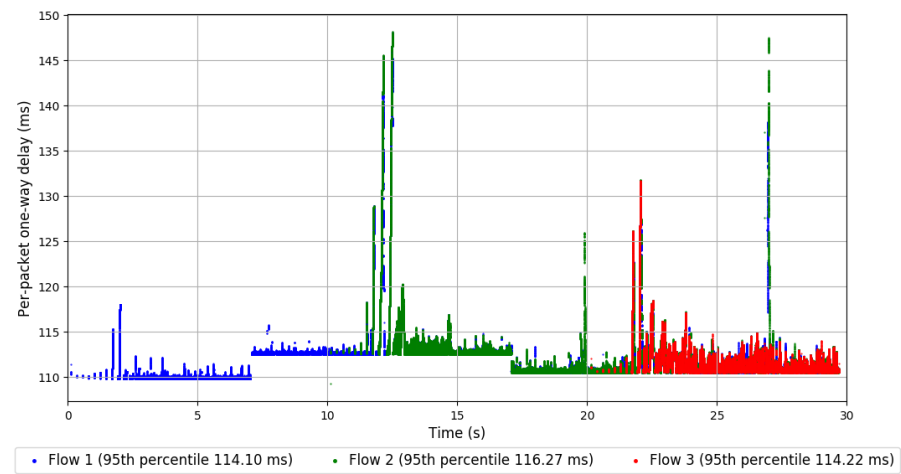
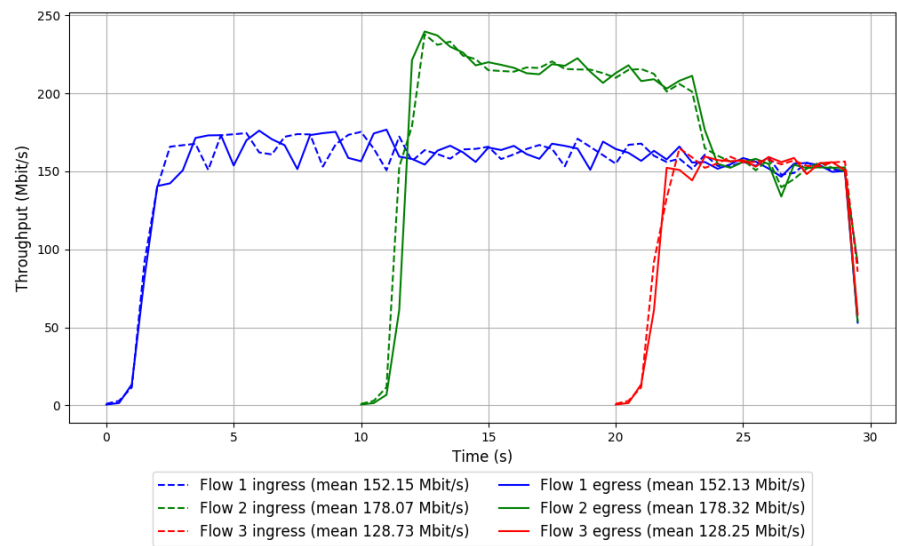


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-06 17:01:57
End at: 2018-03-06 17:02:27

# Below is generated by plot.py at 2018-03-07 01:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 311.47 Mbit/s
95th percentile per-packet one-way delay: 114.706 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 152.13 Mbit/s
95th percentile per-packet one-way delay: 114.098 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 178.32 Mbit/s
95th percentile per-packet one-way delay: 116.272 ms
Loss rate: 0.99%
-- Flow 3:
Average throughput: 128.25 Mbit/s
95th percentile per-packet one-way delay: 114.222 ms
Loss rate: 2.65%
```

Run 1: Report of Indigo-1-32 — Data Link

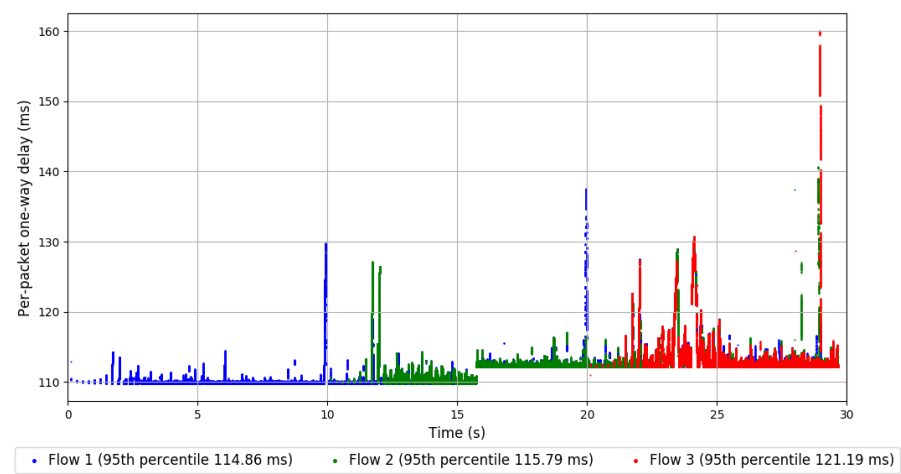
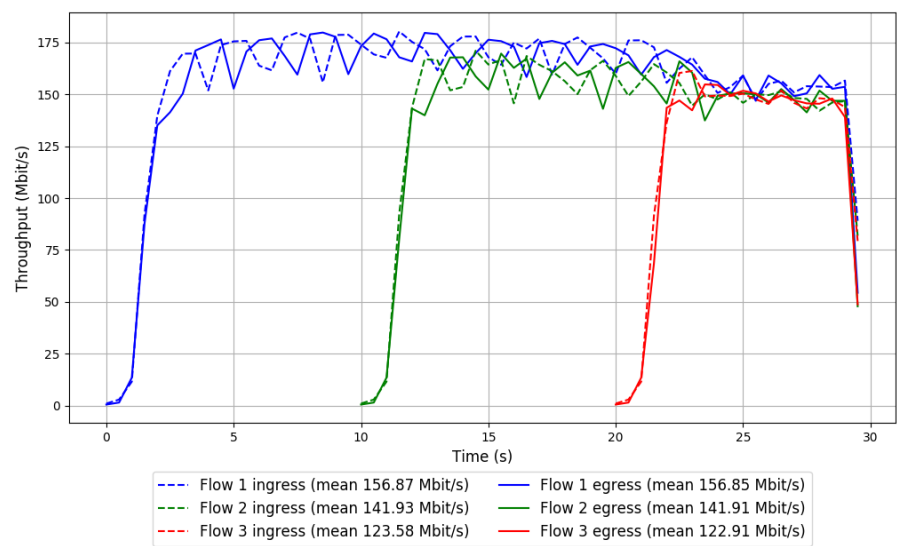


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-06 17:21:18
End at: 2018-03-06 17:21:48

# Below is generated by plot.py at 2018-03-07 01:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.44 Mbit/s
95th percentile per-packet one-way delay: 116.045 ms
Loss rate: 1.16%
-- Flow 1:
Average throughput: 156.85 Mbit/s
95th percentile per-packet one-way delay: 114.863 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 141.91 Mbit/s
95th percentile per-packet one-way delay: 115.789 ms
Loss rate: 1.14%
-- Flow 3:
Average throughput: 122.91 Mbit/s
95th percentile per-packet one-way delay: 121.195 ms
Loss rate: 2.79%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-06 17:40:35

End at: 2018-03-06 17:41:05

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.76 Mbit/s

95th percentile per-packet one-way delay: 118.272 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 156.67 Mbit/s

95th percentile per-packet one-way delay: 116.109 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 147.17 Mbit/s

95th percentile per-packet one-way delay: 118.976 ms

Loss rate: 1.11%

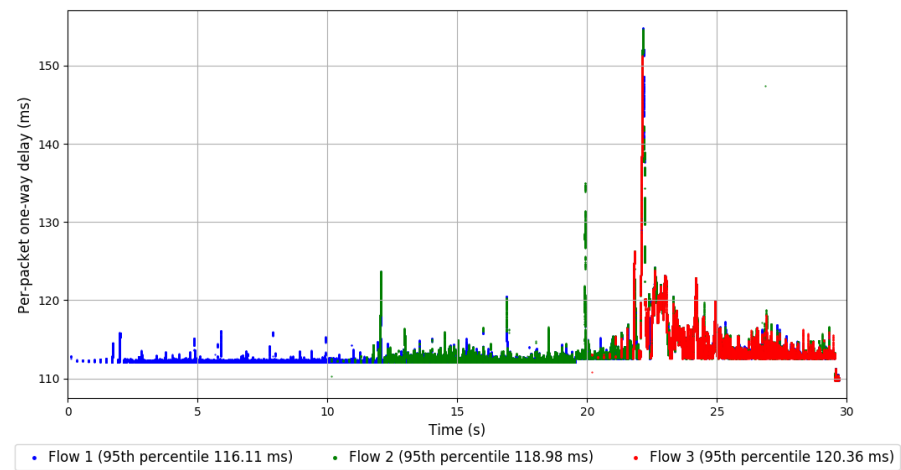
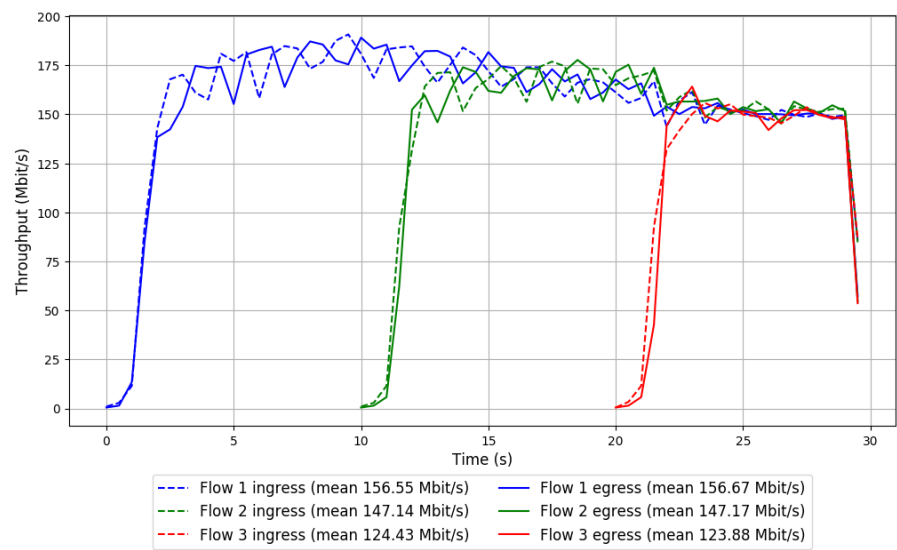
-- Flow 3:

Average throughput: 123.88 Mbit/s

95th percentile per-packet one-way delay: 120.358 ms

Loss rate: 2.73%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-06 18:00:07

End at: 2018-03-06 18:00:37

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.96 Mbit/s

95th percentile per-packet one-way delay: 113.271 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 180.97 Mbit/s

95th percentile per-packet one-way delay: 112.932 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 156.23 Mbit/s

95th percentile per-packet one-way delay: 114.179 ms

Loss rate: 1.11%

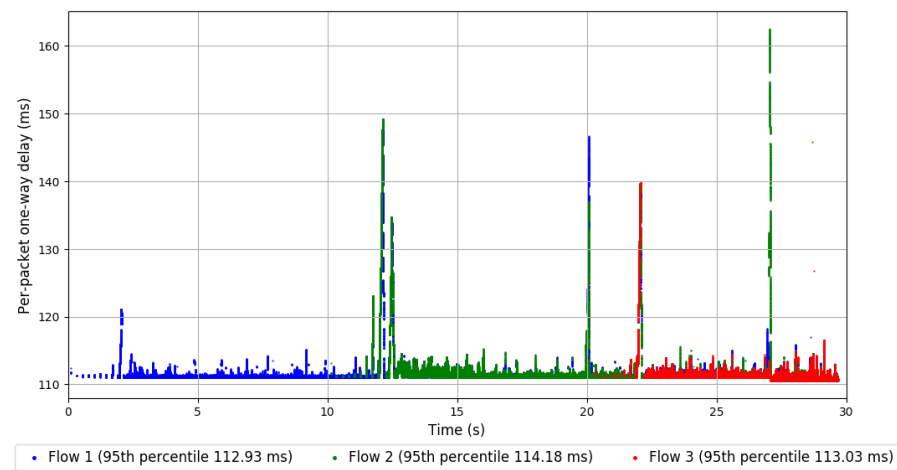
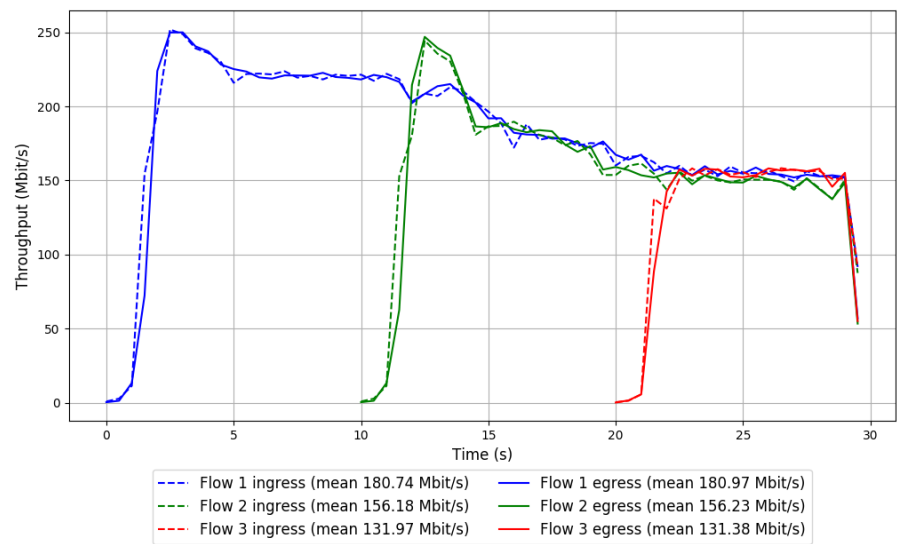
-- Flow 3:

Average throughput: 131.38 Mbit/s

95th percentile per-packet one-way delay: 113.033 ms

Loss rate: 2.78%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-06 18:19:14

End at: 2018-03-06 18:19:44

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.47 Mbit/s

95th percentile per-packet one-way delay: 112.276 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 151.68 Mbit/s

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

Loss rate: 0.73%

-- Flow 2:

Average throughput: 140.08 Mbit/s

95th percentile per-packet one-way delay: 112.579 ms

Loss rate: 1.22%

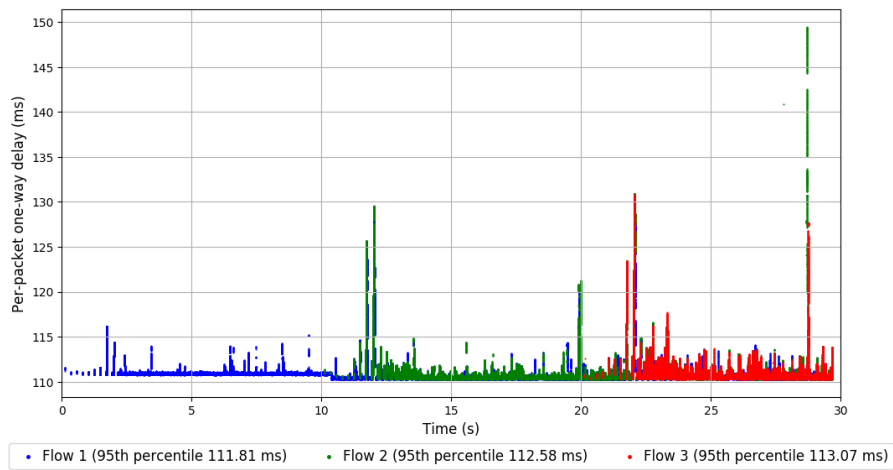
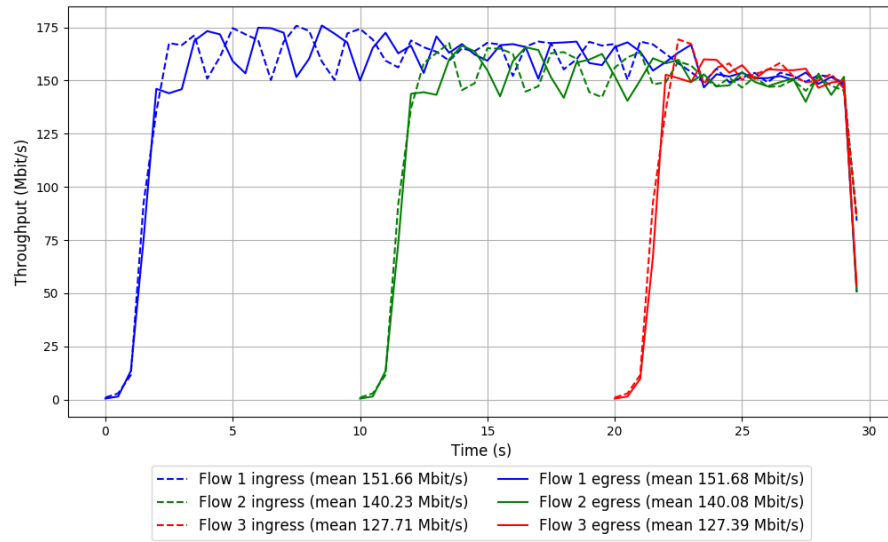
-- Flow 3:

Average throughput: 127.39 Mbit/s

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

Loss rate: 2.51%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-06 18:38:34

End at: 2018-03-06 18:39:04

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.04 Mbit/s

95th percentile per-packet one-way delay: 111.559 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 149.27 Mbit/s

95th percentile per-packet one-way delay: 111.118 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 162.46 Mbit/s

95th percentile per-packet one-way delay: 112.320 ms

Loss rate: 1.03%

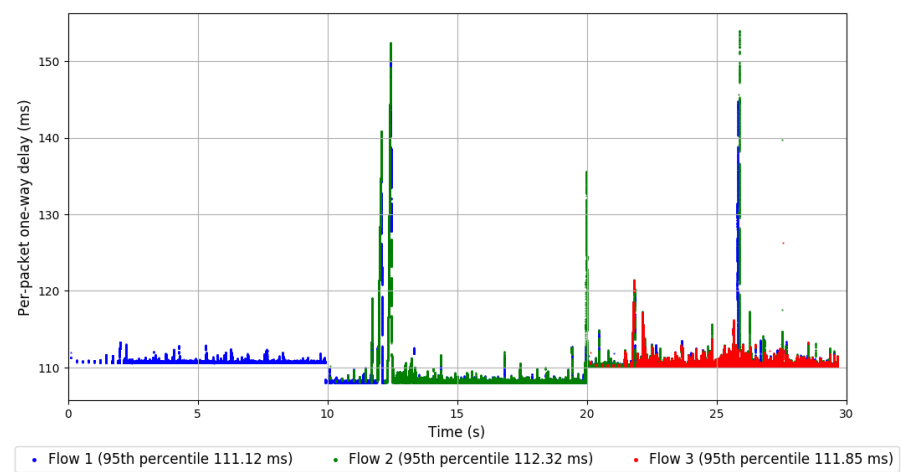
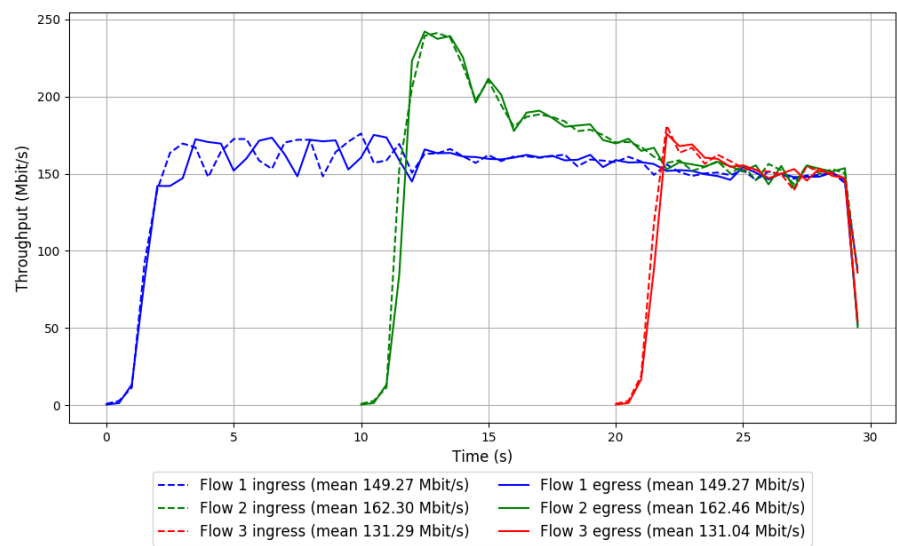
-- Flow 3:

Average throughput: 131.04 Mbit/s

95th percentile per-packet one-way delay: 111.847 ms

Loss rate: 2.48%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-06 18:57:56

End at: 2018-03-06 18:58:26

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.48 Mbit/s

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

Loss rate: 1.05%

-- Flow 1:

Average throughput: 188.11 Mbit/s

95th percentile per-packet one-way delay: 113.175 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 144.99 Mbit/s

95th percentile per-packet one-way delay: 113.424 ms

Loss rate: 1.19%

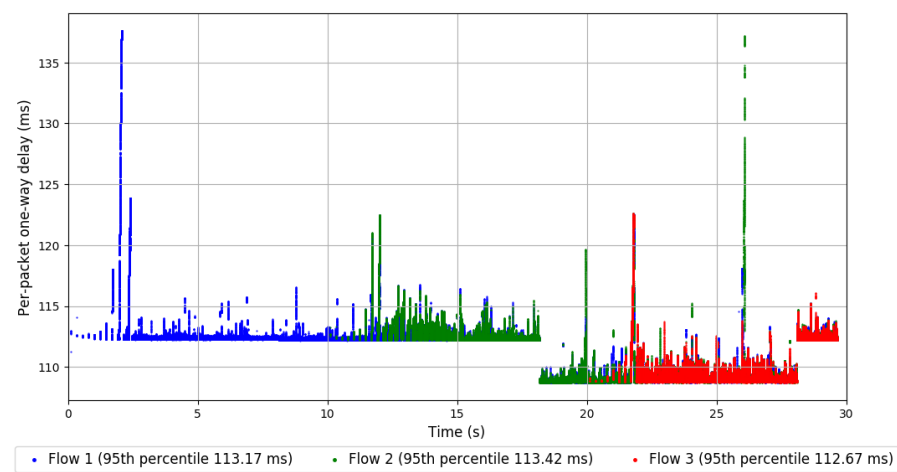
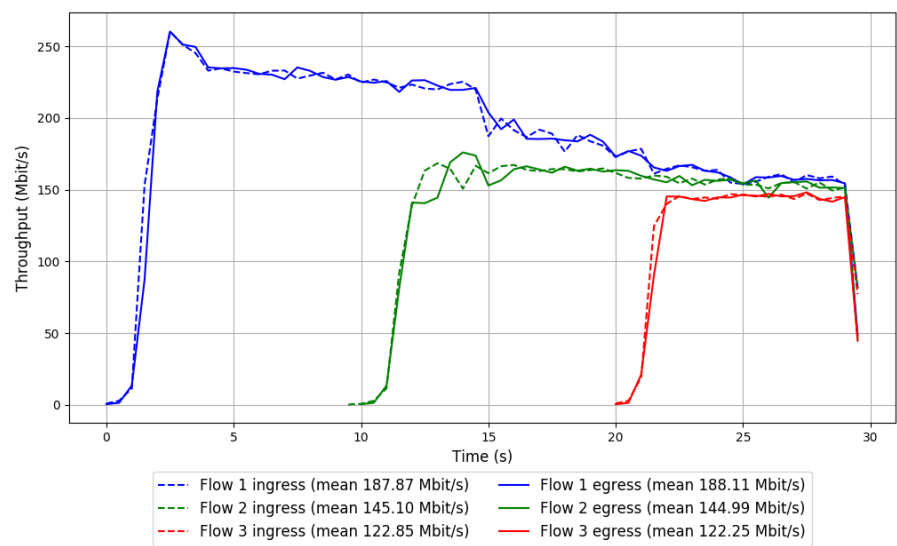
-- Flow 3:

Average throughput: 122.25 Mbit/s

95th percentile per-packet one-way delay: 112.666 ms

Loss rate: 2.71%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-06 19:17:18

End at: 2018-03-06 19:17:48

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.26 Mbit/s

95th percentile per-packet one-way delay: 114.821 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 180.46 Mbit/s

95th percentile per-packet one-way delay: 114.058 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 157.05 Mbit/s

95th percentile per-packet one-way delay: 115.589 ms

Loss rate: 1.02%

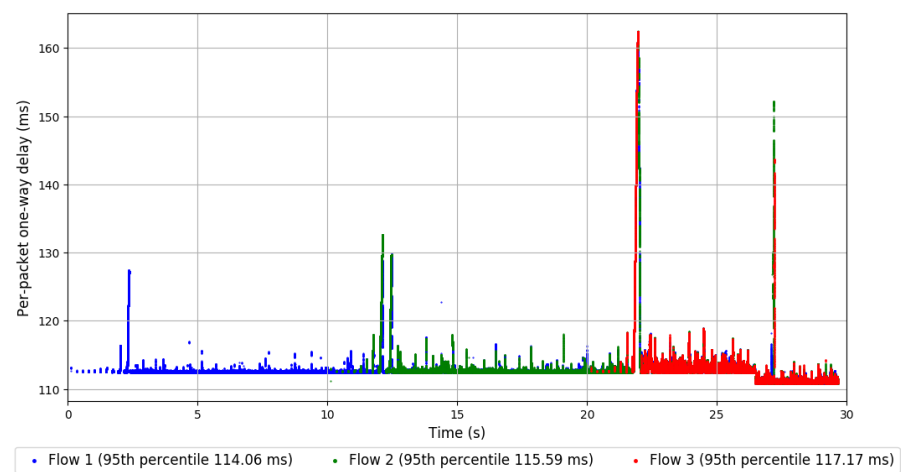
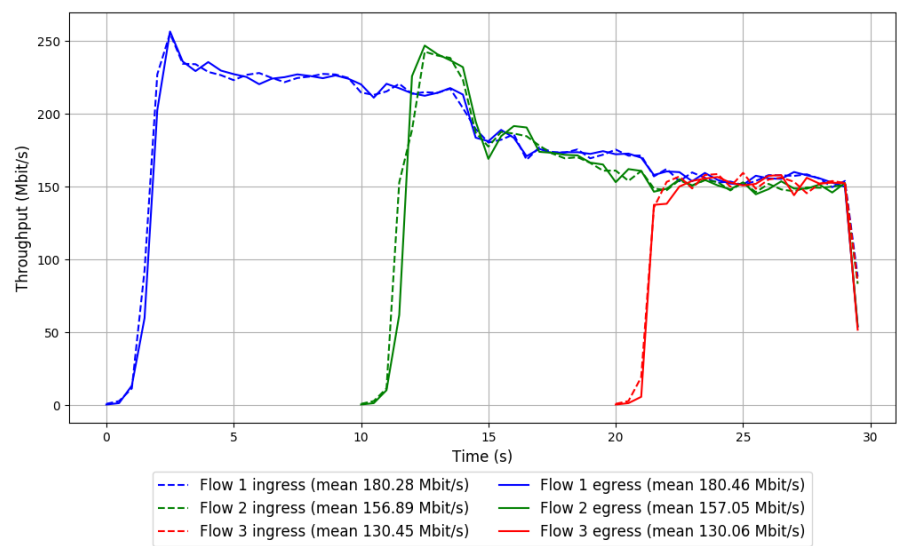
-- Flow 3:

Average throughput: 130.06 Mbit/s

95th percentile per-packet one-way delay: 117.171 ms

Loss rate: 2.57%

Run 8: Report of Indigo-1-32 — Data Link

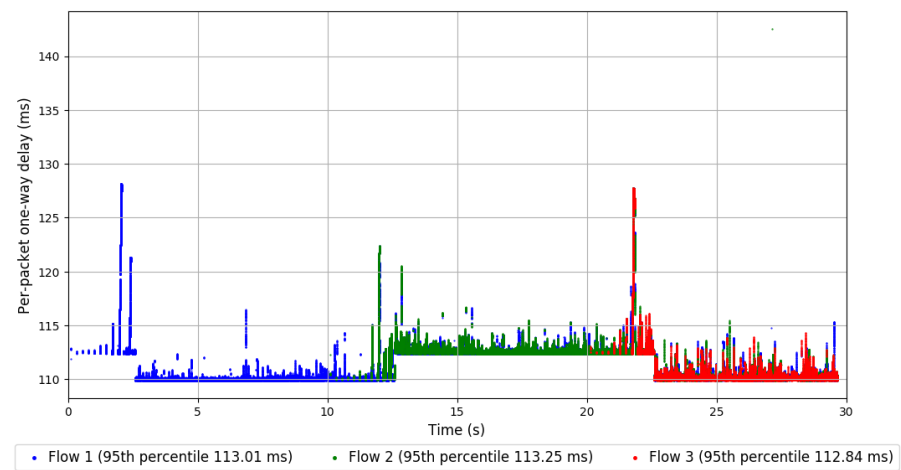
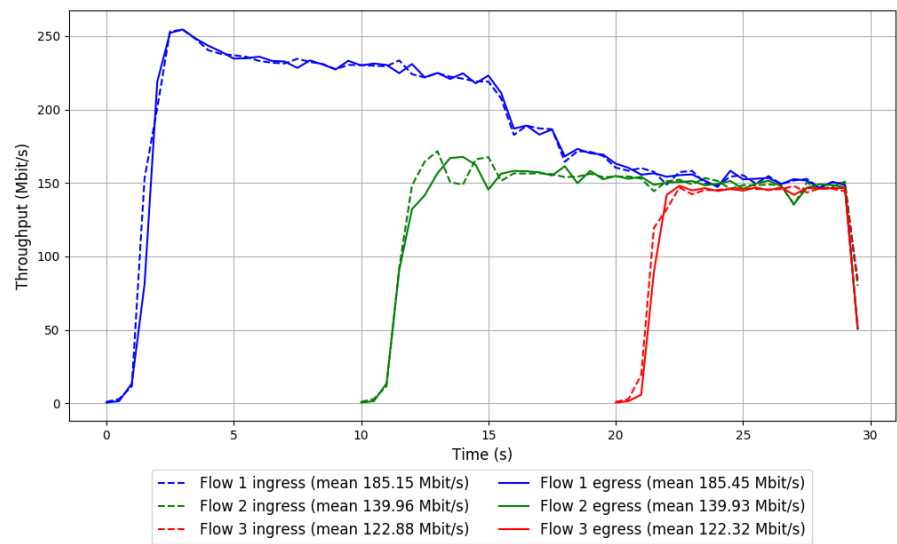


```
Run 9: Statistics of Indigo-1-32

Start at: 2018-03-06 19:36:42
End at: 2018-03-06 19:37:12

# Below is generated by plot.py at 2018-03-07 01:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.41 Mbit/s
95th percentile per-packet one-way delay: 113.092 ms
Loss rate: 1.02%
-- Flow 1:
Average throughput: 185.45 Mbit/s
95th percentile per-packet one-way delay: 113.007 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 139.93 Mbit/s
95th percentile per-packet one-way delay: 113.250 ms
Loss rate: 1.13%
-- Flow 3:
Average throughput: 122.32 Mbit/s
95th percentile per-packet one-way delay: 112.836 ms
Loss rate: 2.72%
```

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-06 19:55:55

End at: 2018-03-06 19:56:25

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.17 Mbit/s

95th percentile per-packet one-way delay: 113.474 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 185.39 Mbit/s

95th percentile per-packet one-way delay: 113.145 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 142.72 Mbit/s

95th percentile per-packet one-way delay: 113.505 ms

Loss rate: 1.18%

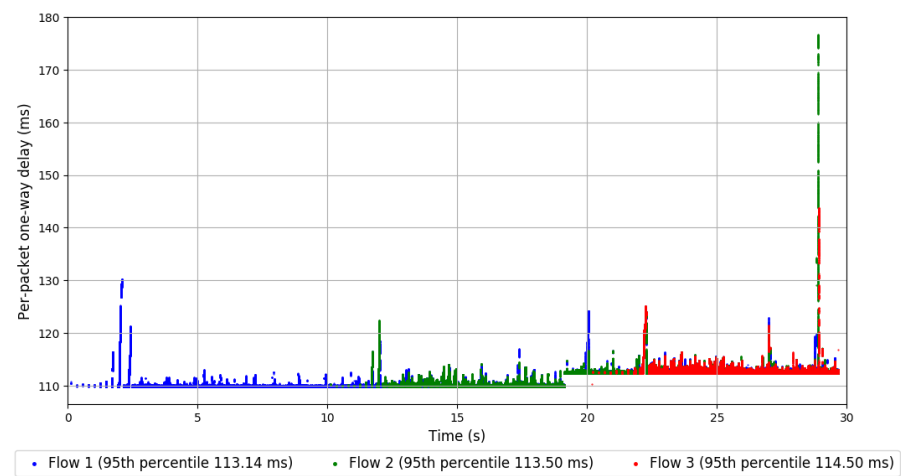
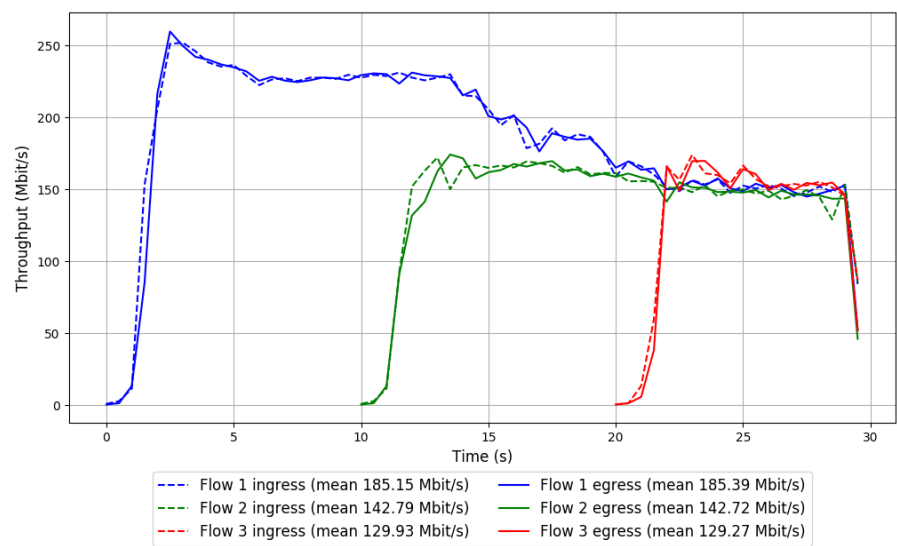
-- Flow 3:

Average throughput: 129.27 Mbit/s

95th percentile per-packet one-way delay: 114.495 ms

Loss rate: 2.74%

Run 10: Report of Indigo-1-32 — Data Link

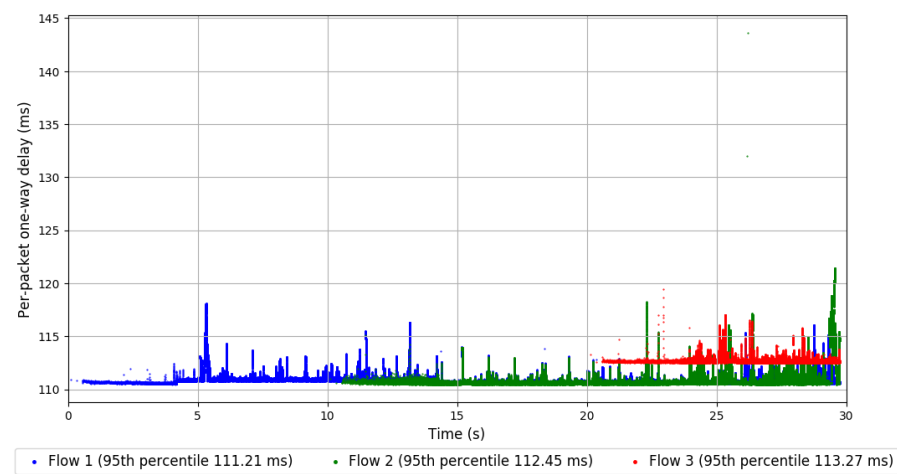
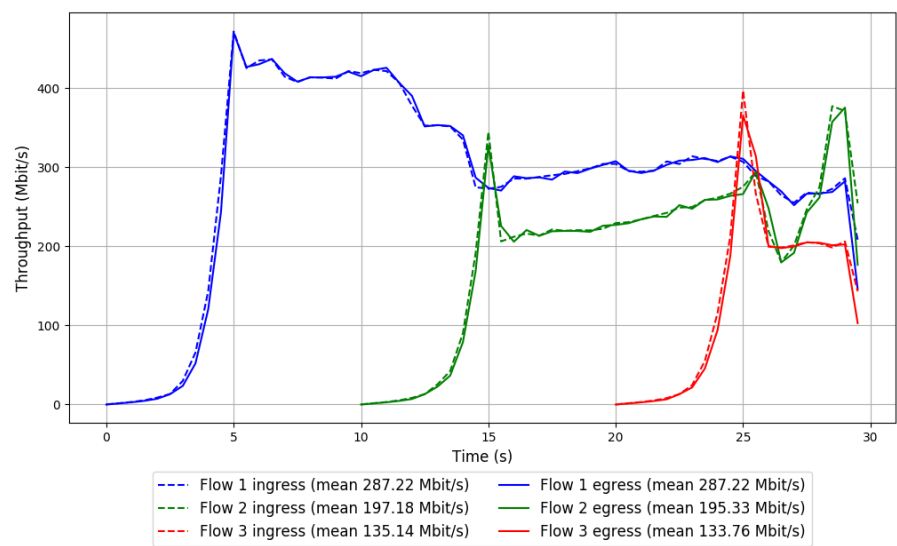


```
Run 1: Statistics of Vivace-latency

Start at: 2018-03-06 17:14:20
End at: 2018-03-06 17:14:50

# Below is generated by plot.py at 2018-03-07 01:08:09
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.98 Mbit/s
95th percentile per-packet one-way delay: 112.663 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 287.22 Mbit/s
95th percentile per-packet one-way delay: 111.210 ms
Loss rate: 0.75%
-- Flow 2:
Average throughput: 195.33 Mbit/s
95th percentile per-packet one-way delay: 112.449 ms
Loss rate: 2.06%
-- Flow 3:
Average throughput: 133.76 Mbit/s
95th percentile per-packet one-way delay: 113.265 ms
Loss rate: 3.30%
```


Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-06 17:33:43

End at: 2018-03-06 17:34:13

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 452.89 Mbit/s

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

Loss rate: 1.02%

-- Flow 1:

Average throughput: 290.01 Mbit/s

95th percentile per-packet one-way delay: 110.019 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 184.53 Mbit/s

95th percentile per-packet one-way delay: 111.274 ms

Loss rate: 1.44%

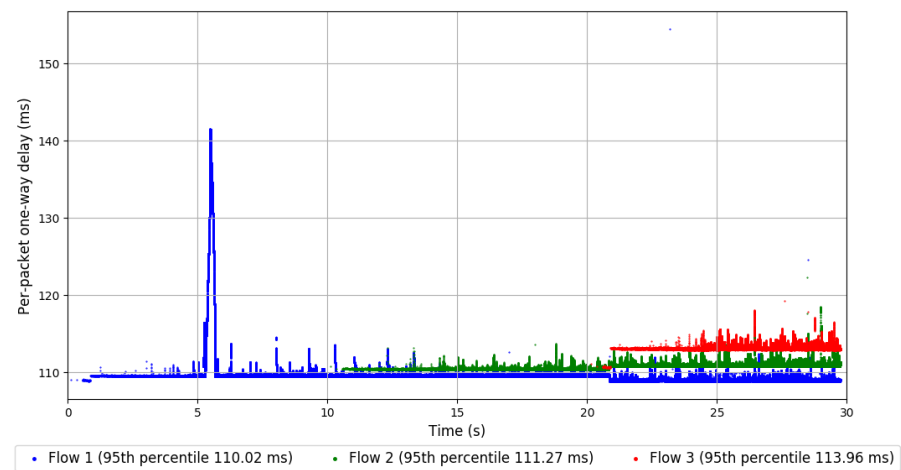
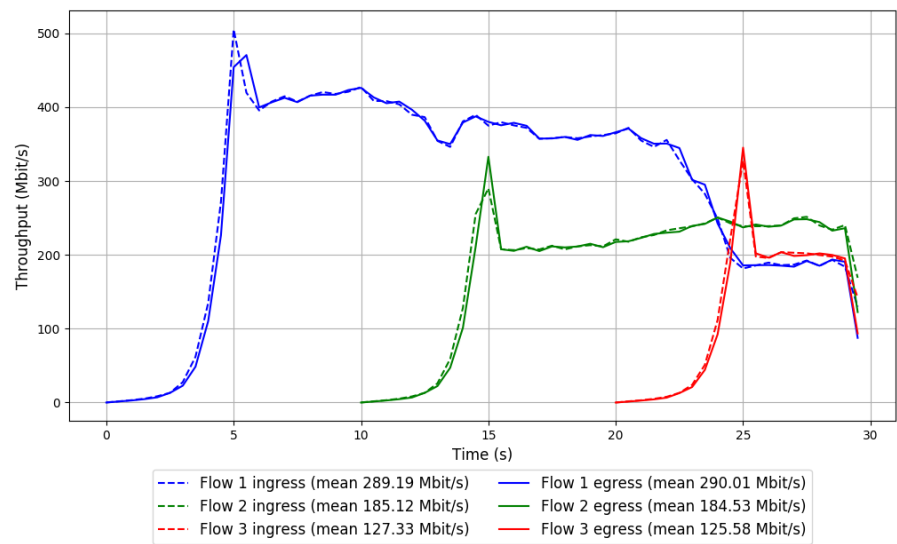
-- Flow 3:

Average throughput: 125.58 Mbit/s

95th percentile per-packet one-way delay: 113.961 ms

Loss rate: 3.62%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-06 17:52:58

End at: 2018-03-06 17:53:28

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 472.02 Mbit/s

95th percentile per-packet one-way delay: 113.240 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 300.96 Mbit/s

95th percentile per-packet one-way delay: 113.618 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 189.54 Mbit/s

95th percentile per-packet one-way delay: 111.696 ms

Loss rate: 1.38%

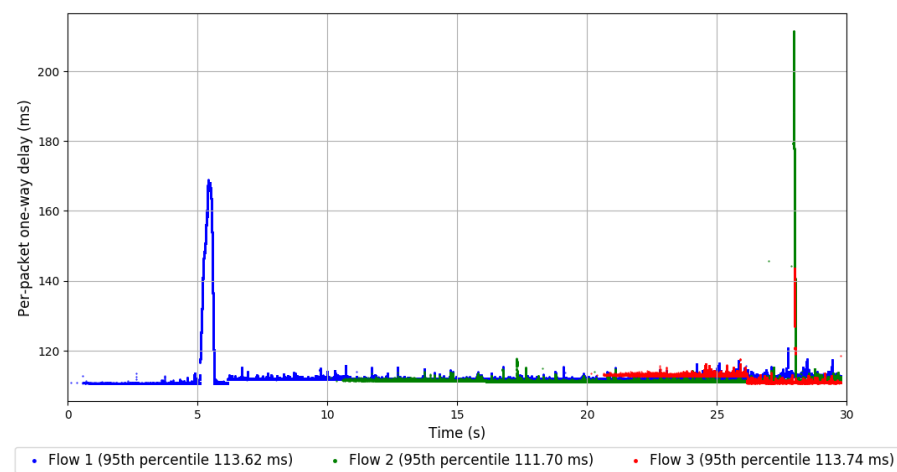
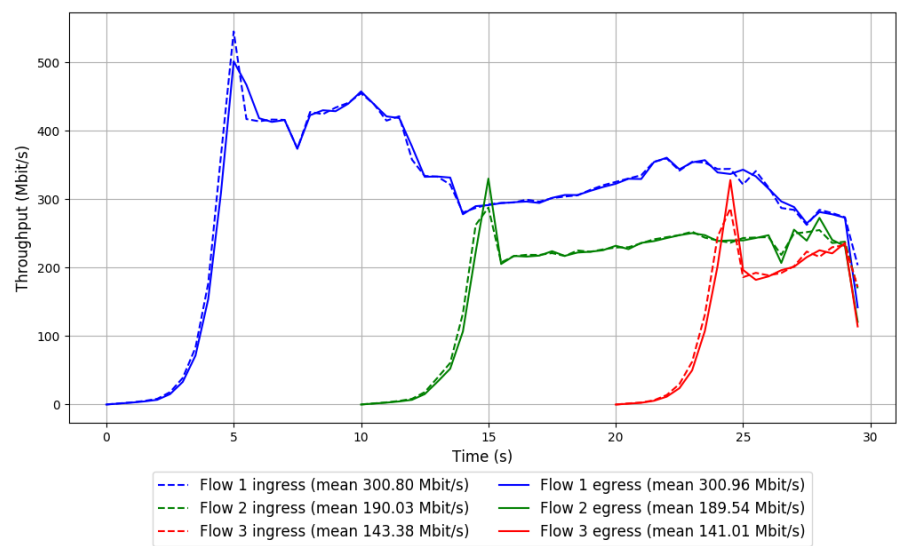
-- Flow 3:

Average throughput: 141.01 Mbit/s

95th percentile per-packet one-way delay: 113.743 ms

Loss rate: 3.83%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-06 18:12:34

End at: 2018-03-06 18:13:04

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 435.86 Mbit/s

95th percentile per-packet one-way delay: 112.552 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 275.25 Mbit/s

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

Loss rate: 0.68%

-- Flow 2:

Average throughput: 181.76 Mbit/s

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

Loss rate: 1.36%

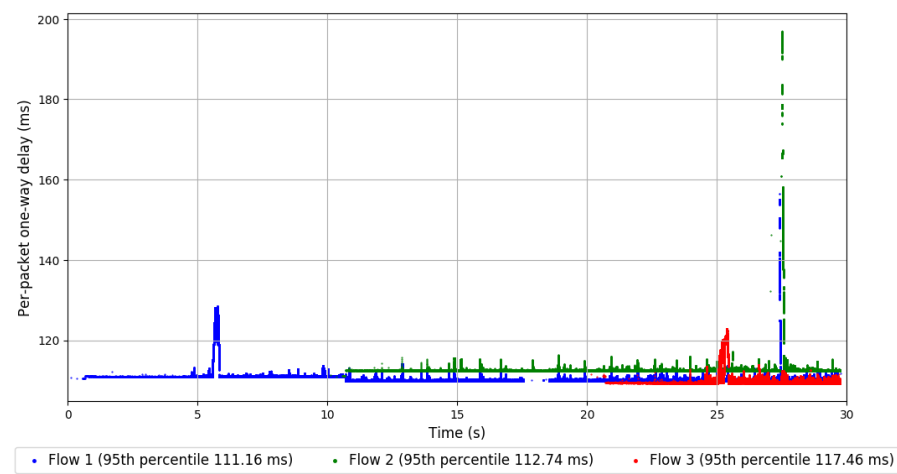
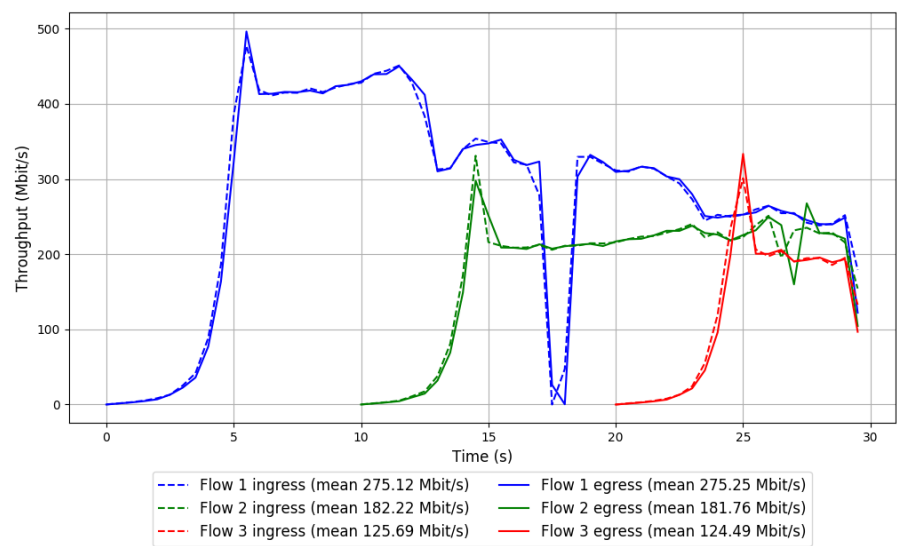
-- Flow 3:

Average throughput: 124.49 Mbit/s

95th percentile per-packet one-way delay: 117.456 ms

Loss rate: 3.20%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-06 18:31:39

End at: 2018-03-06 18:32:09

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 460.14 Mbit/s

95th percentile per-packet one-way delay: 113.530 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 291.17 Mbit/s

95th percentile per-packet one-way delay: 112.254 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 189.25 Mbit/s

95th percentile per-packet one-way delay: 176.227 ms

Loss rate: 0.65%

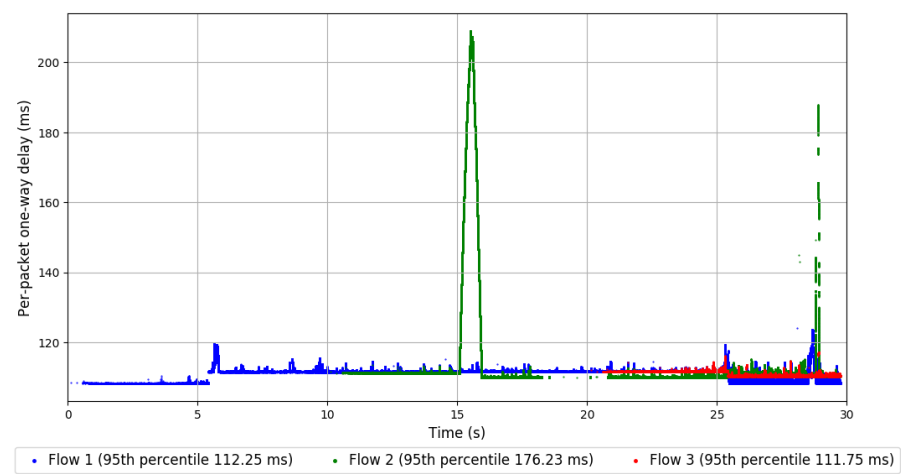
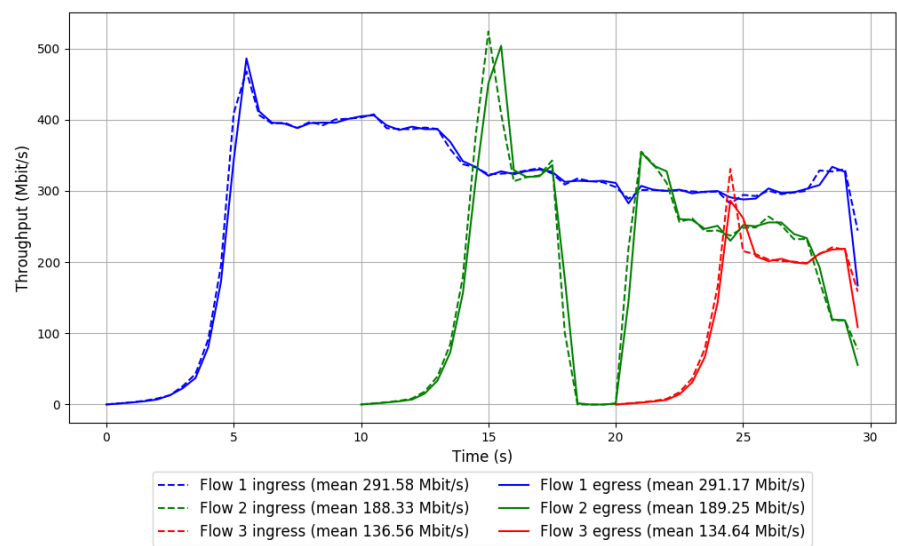
-- Flow 3:

Average throughput: 134.64 Mbit/s

95th percentile per-packet one-way delay: 111.751 ms

Loss rate: 3.66%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-06 18:51:02

End at: 2018-03-06 18:51:32

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 440.41 Mbit/s

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

Loss rate: 1.27%

-- Flow 1:

Average throughput: 260.66 Mbit/s

95th percentile per-packet one-way delay: 111.490 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 205.93 Mbit/s

95th percentile per-packet one-way delay: 110.747 ms

Loss rate: 1.58%

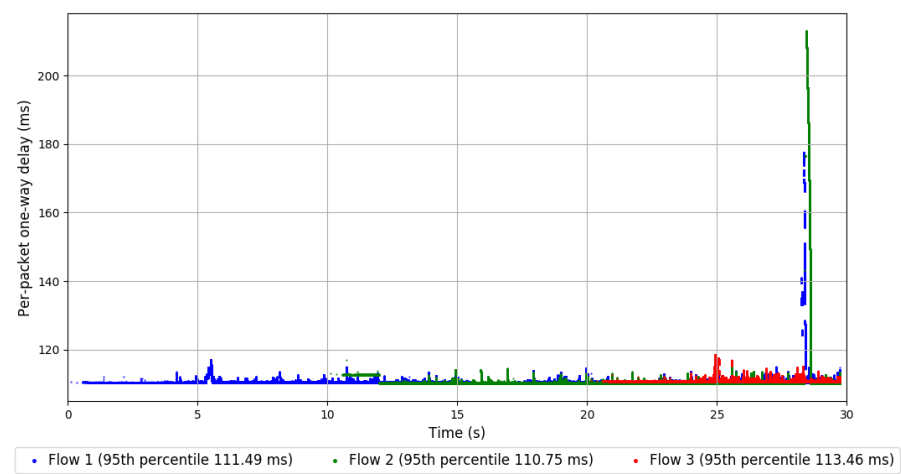
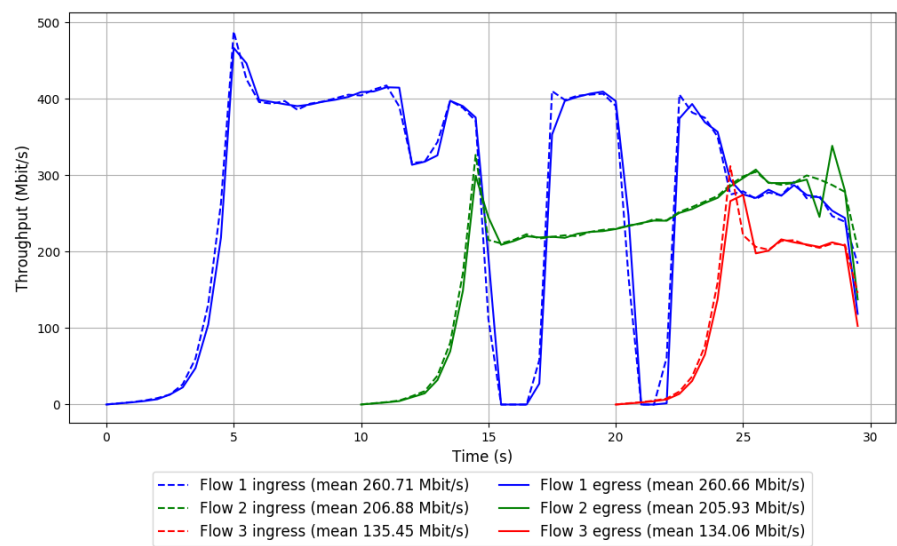
-- Flow 3:

Average throughput: 134.06 Mbit/s

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

Loss rate: 3.35%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-06 19:10:20

End at: 2018-03-06 19:10:50

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.41 Mbit/s

95th percentile per-packet one-way delay: 113.421 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 278.41 Mbit/s

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

Loss rate: 0.81%

-- Flow 2:

Average throughput: 189.24 Mbit/s

95th percentile per-packet one-way delay: 114.099 ms

Loss rate: 1.40%

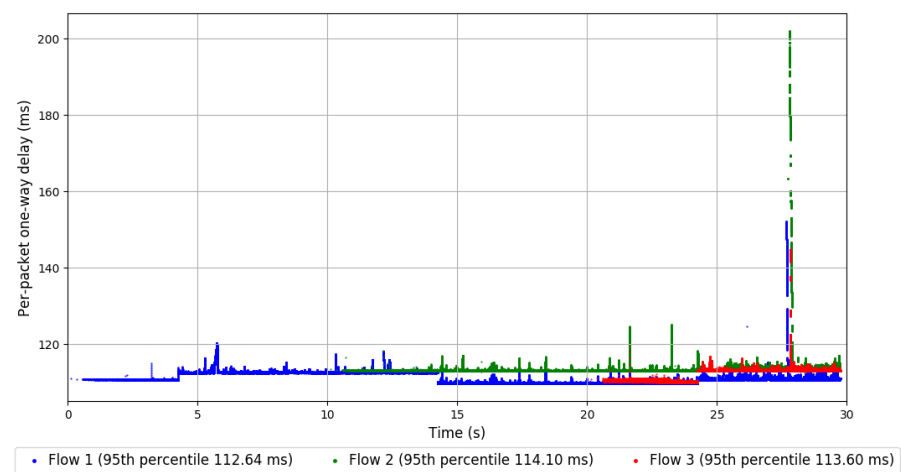
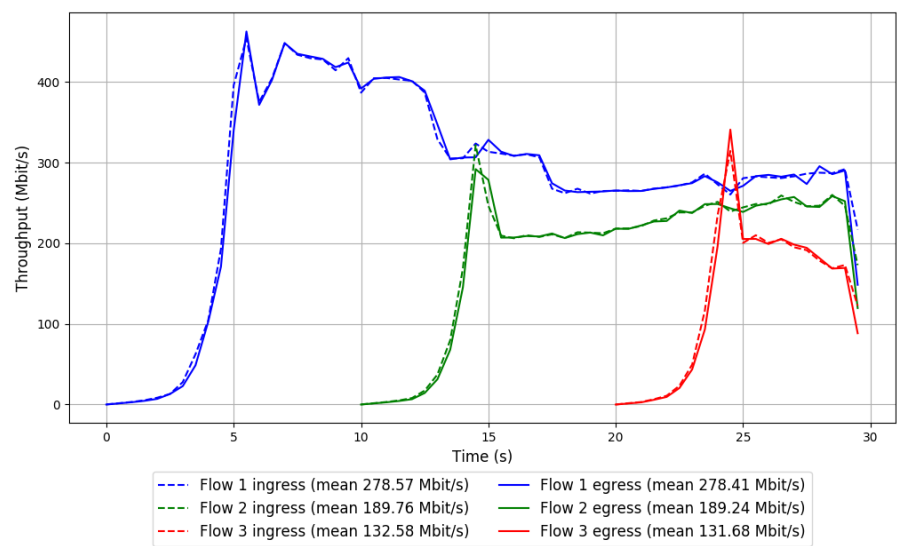
-- Flow 3:

Average throughput: 131.68 Mbit/s

95th percentile per-packet one-way delay: 113.600 ms

Loss rate: 2.93%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-06 19:29:43

End at: 2018-03-06 19:30:13

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.05 Mbit/s

95th percentile per-packet one-way delay: 111.884 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 266.47 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 208.44 Mbit/s

95th percentile per-packet one-way delay: 110.831 ms

Loss rate: 1.40%

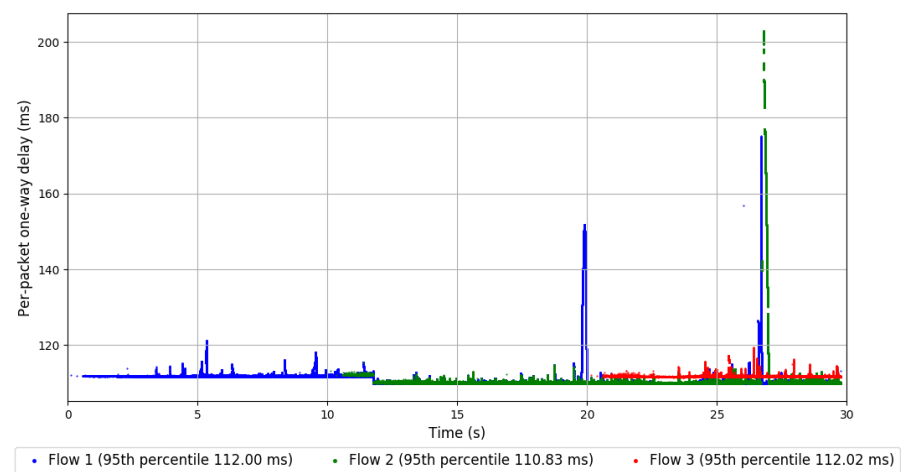
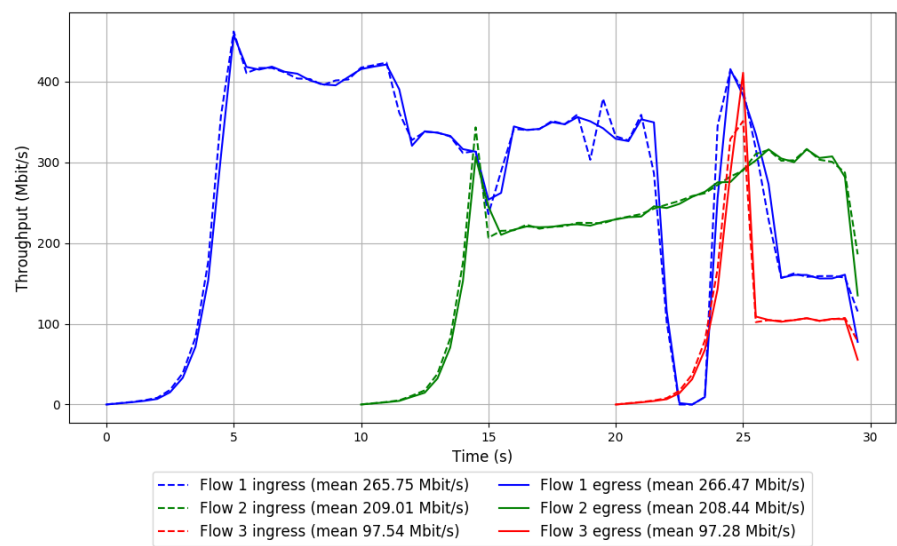
-- Flow 3:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 112.015 ms

Loss rate: 2.52%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-06 19:49:00

End at: 2018-03-06 19:49:30

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.17 Mbit/s

95th percentile per-packet one-way delay: 114.136 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 293.81 Mbit/s

95th percentile per-packet one-way delay: 114.507 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 205.85 Mbit/s

95th percentile per-packet one-way delay: 113.676 ms

Loss rate: 1.36%

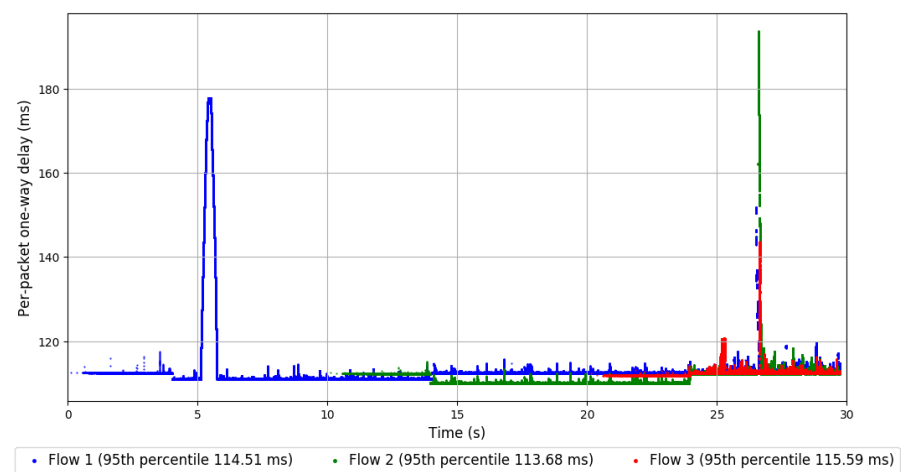
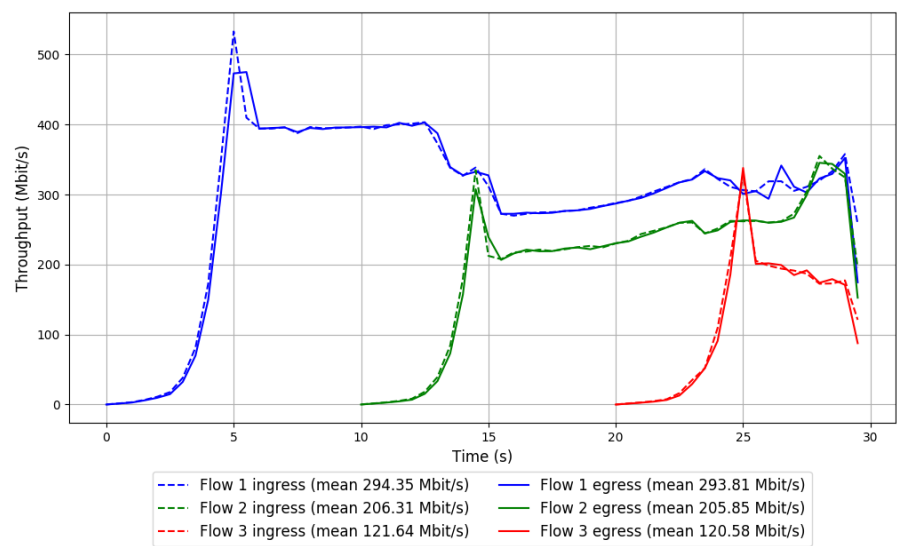
-- Flow 3:

Average throughput: 120.58 Mbit/s

95th percentile per-packet one-way delay: 115.592 ms

Loss rate: 3.15%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-06 20:08:22

End at: 2018-03-06 20:08:52

Below is generated by plot.py at 2018-03-07 01:08:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 461.51 Mbit/s

95th percentile per-packet one-way delay: 113.190 ms

Loss rate: 1.15%

-- Flow 1:

Average throughput: 305.23 Mbit/s

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

Loss rate: 0.85%

-- Flow 2:

Average throughput: 173.59 Mbit/s

95th percentile per-packet one-way delay: 110.911 ms

Loss rate: 0.87%

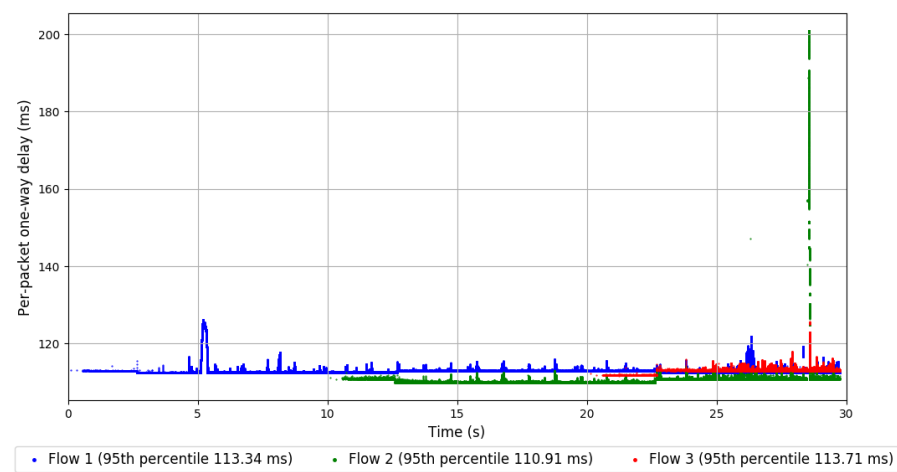
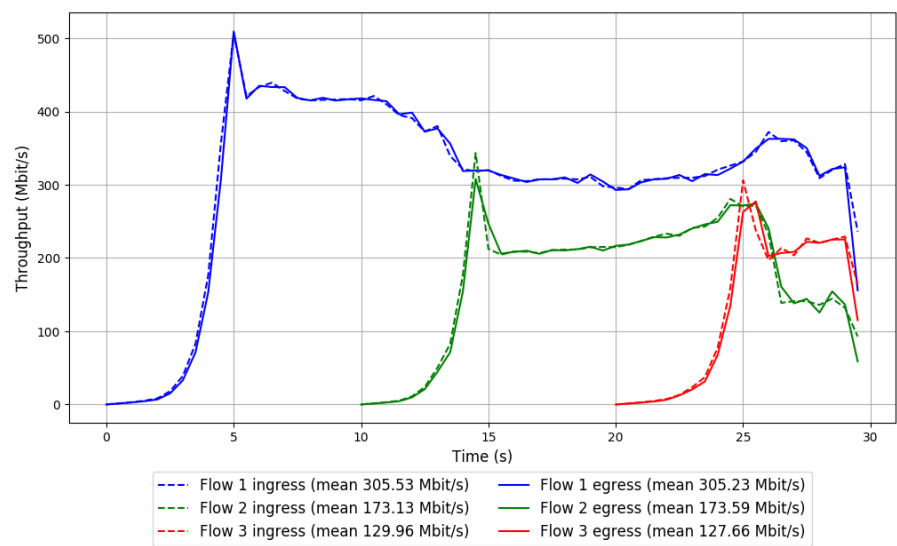
-- Flow 3:

Average throughput: 127.66 Mbit/s

95th percentile per-packet one-way delay: 113.711 ms

Loss rate: 4.02%

Run 10: Report of Vivace-latency — Data Link

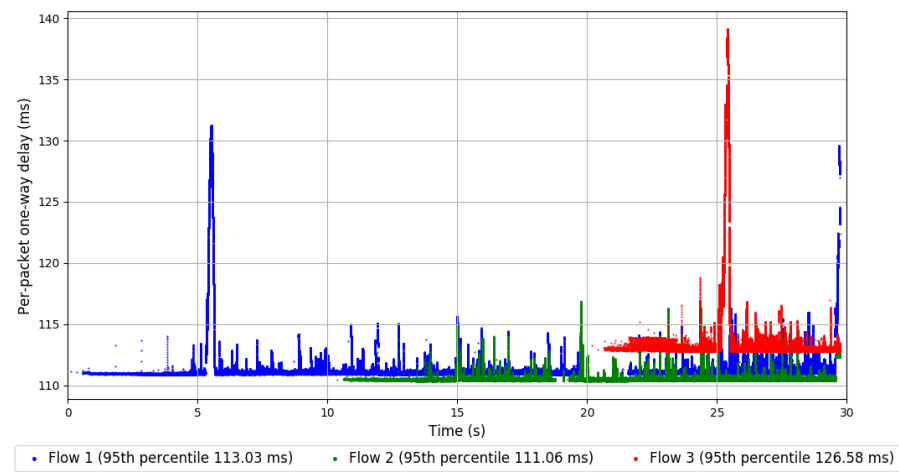
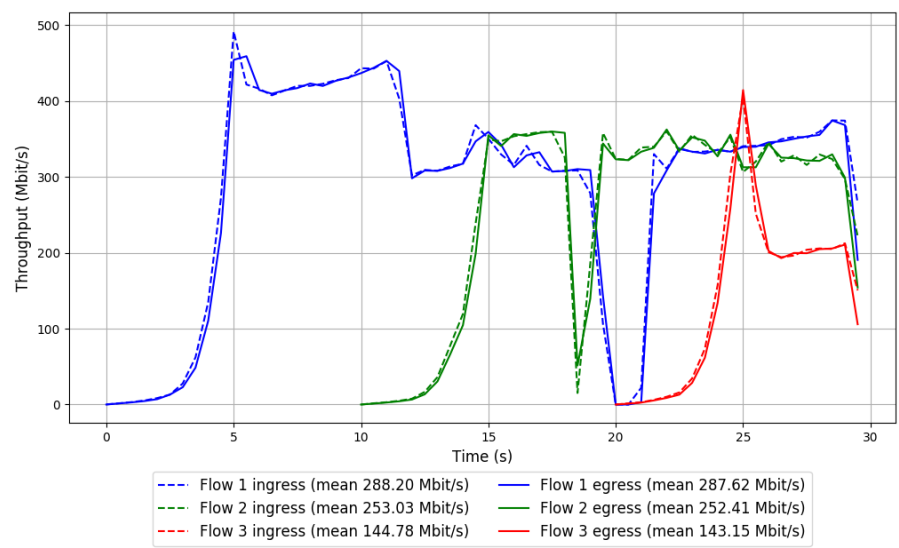


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-06 17:04:55
End at: 2018-03-06 17:05:25

# Below is generated by plot.py at 2018-03-07 01:08:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 500.47 Mbit/s
95th percentile per-packet one-way delay: 113.258 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 287.62 Mbit/s
95th percentile per-packet one-way delay: 113.027 ms
Loss rate: 0.95%
-- Flow 2:
Average throughput: 252.41 Mbit/s
95th percentile per-packet one-way delay: 111.059 ms
Loss rate: 1.37%
-- Flow 3:
Average throughput: 143.15 Mbit/s
95th percentile per-packet one-way delay: 126.576 ms
Loss rate: 3.32%
```

Run 1: Report of Vivace-loss — Data Link

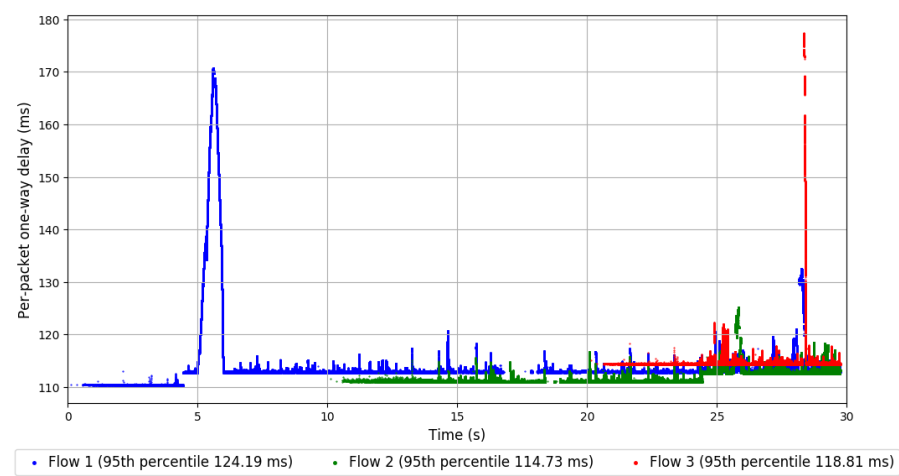
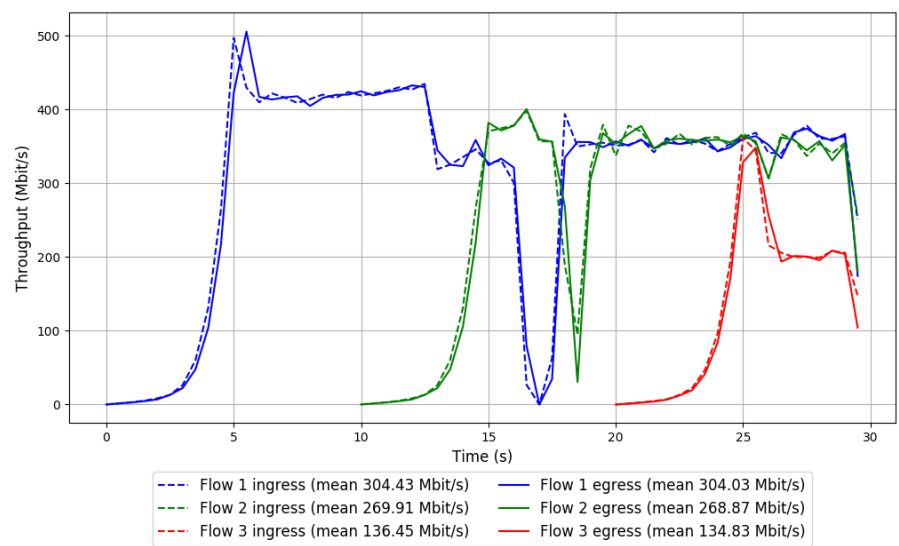


```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-06 17:24:20
End at: 2018-03-06 17:24:50

# Below is generated by plot.py at 2018-03-07 01:10:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 525.69 Mbit/s
95th percentile per-packet one-way delay: 116.874 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 304.03 Mbit/s
95th percentile per-packet one-way delay: 124.191 ms
Loss rate: 0.87%
-- Flow 2:
Average throughput: 268.87 Mbit/s
95th percentile per-packet one-way delay: 114.732 ms
Loss rate: 1.50%
-- Flow 3:
Average throughput: 134.83 Mbit/s
95th percentile per-packet one-way delay: 118.812 ms
Loss rate: 3.46%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-06 17:43:31

End at: 2018-03-06 17:44:01

Below is generated by plot.py at 2018-03-07 01:12:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 487.18 Mbit/s

95th percentile per-packet one-way delay: 113.611 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 277.44 Mbit/s

95th percentile per-packet one-way delay: 113.926 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 247.57 Mbit/s

95th percentile per-packet one-way delay: 113.723 ms

Loss rate: 1.42%

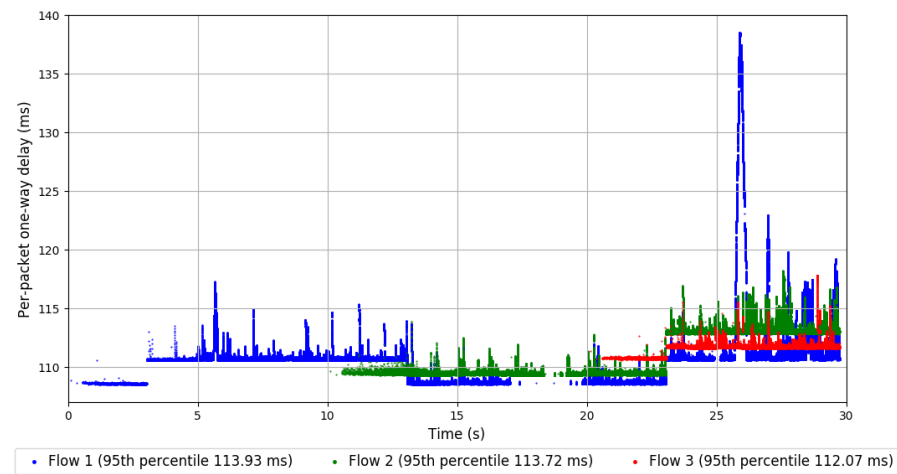
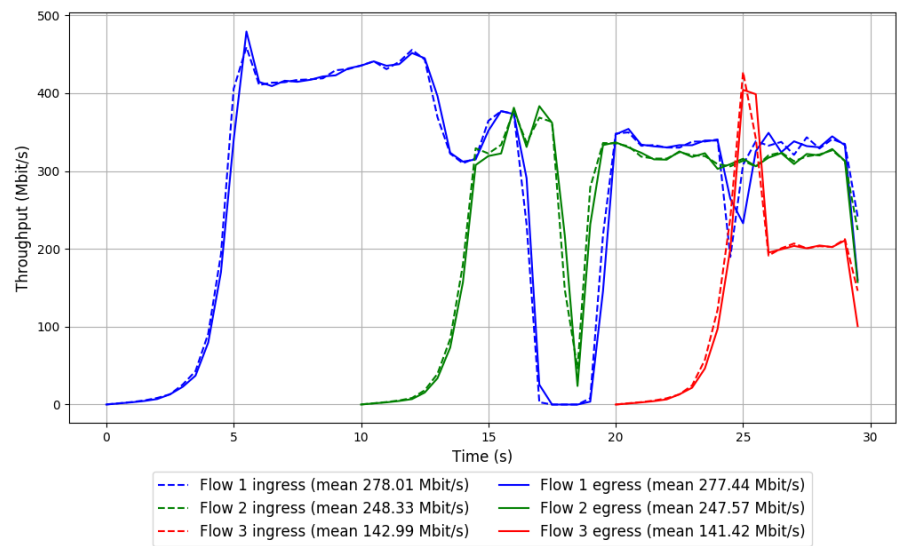
-- Flow 3:

Average throughput: 141.42 Mbit/s

95th percentile per-packet one-way delay: 112.073 ms

Loss rate: 3.34%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-06 18:03:04

End at: 2018-03-06 18:03:34

Below is generated by plot.py at 2018-03-07 01:13:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 500.57 Mbit/s

95th percentile per-packet one-way delay: 115.025 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 330.13 Mbit/s

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

Loss rate: 0.85%

-- Flow 2:

Average throughput: 211.33 Mbit/s

95th percentile per-packet one-way delay: 113.728 ms

Loss rate: 1.06%

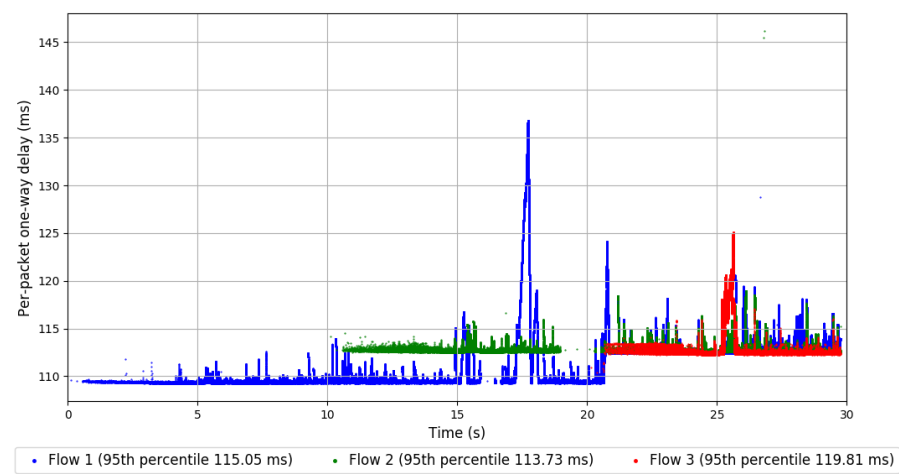
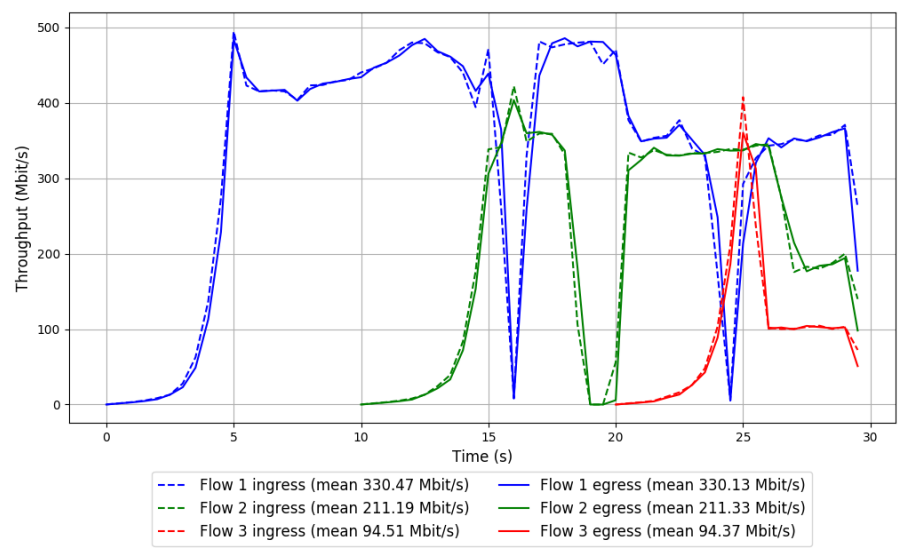
-- Flow 3:

Average throughput: 94.37 Mbit/s

95th percentile per-packet one-way delay: 119.805 ms

Loss rate: 2.42%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-06 18:22:14

End at: 2018-03-06 18:22:44

Below is generated by plot.py at 2018-03-07 01:13:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.19 Mbit/s

95th percentile per-packet one-way delay: 131.269 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 266.89 Mbit/s

95th percentile per-packet one-way delay: 144.381 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 208.25 Mbit/s

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

Loss rate: 0.82%

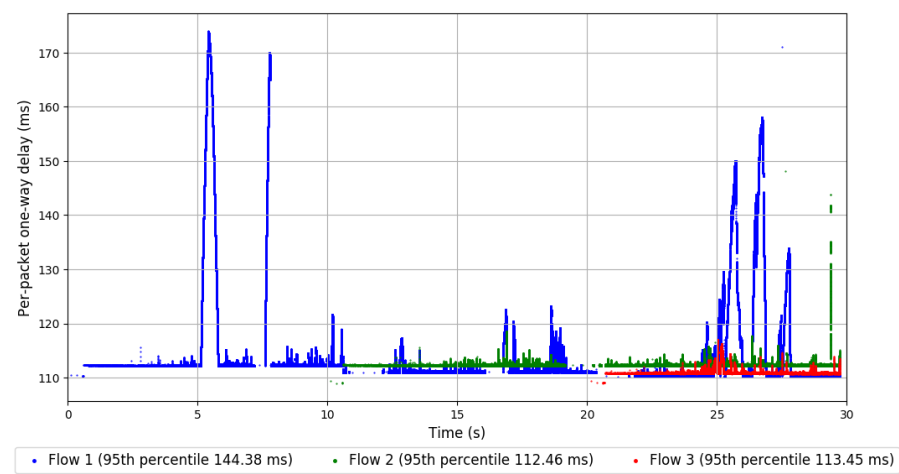
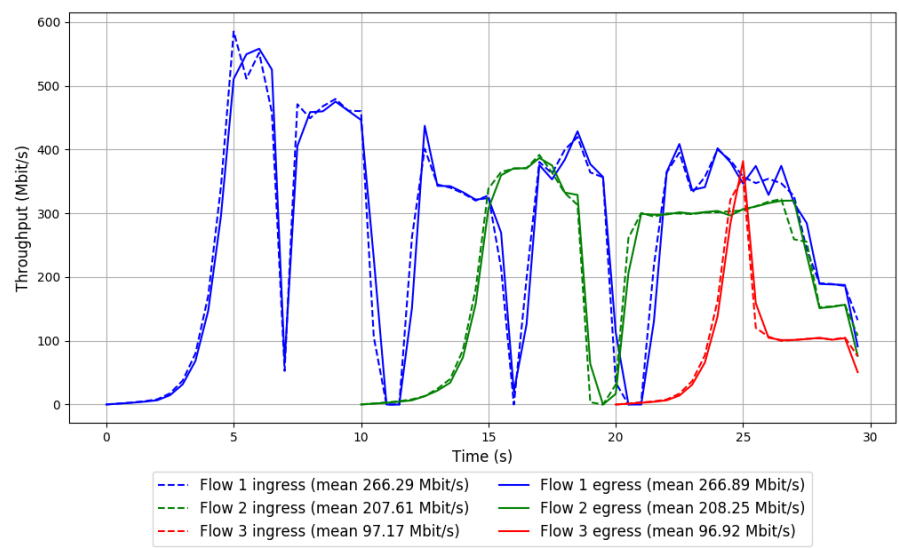
-- Flow 3:

Average throughput: 96.92 Mbit/s

95th percentile per-packet one-way delay: 113.455 ms

Loss rate: 2.53%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-06 18:41:37

End at: 2018-03-06 18:42:07

Below is generated by plot.py at 2018-03-07 01:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.07 Mbit/s

95th percentile per-packet one-way delay: 114.177 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 290.69 Mbit/s

95th percentile per-packet one-way delay: 114.077 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 267.00 Mbit/s

95th percentile per-packet one-way delay: 115.009 ms

Loss rate: 1.51%

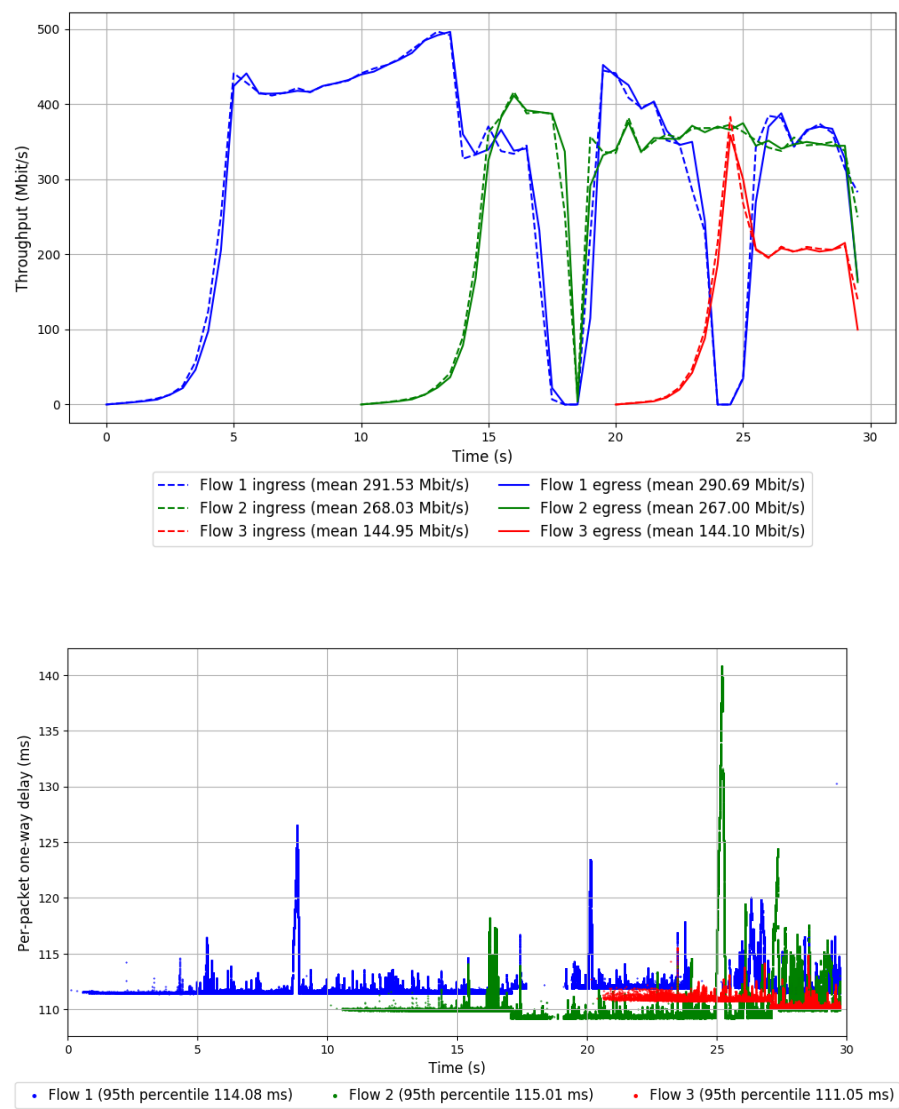
-- Flow 3:

Average throughput: 144.10 Mbit/s

95th percentile per-packet one-way delay: 111.050 ms

Loss rate: 3.00%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-06 19:00:57

End at: 2018-03-06 19:01:27

Below is generated by plot.py at 2018-03-07 01:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.37 Mbit/s

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

Loss rate: 1.28%

-- Flow 1:

Average throughput: 262.78 Mbit/s

95th percentile per-packet one-way delay: 113.498 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 198.53 Mbit/s

95th percentile per-packet one-way delay: 110.699 ms

Loss rate: 1.81%

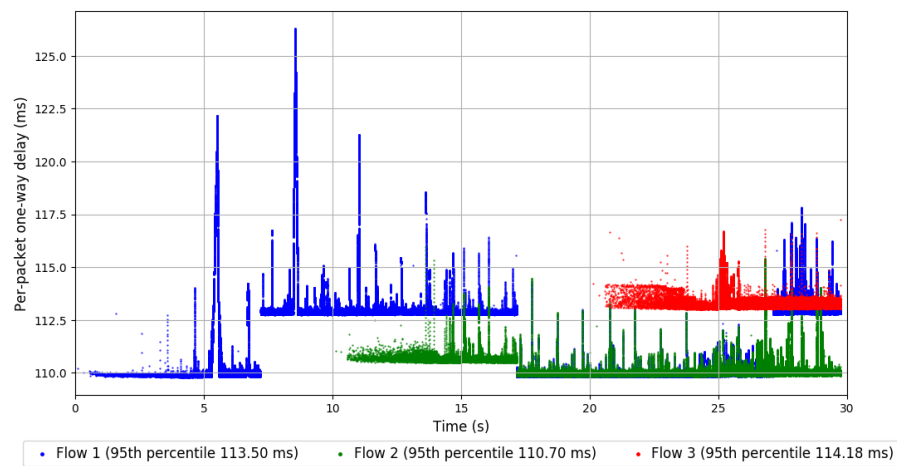
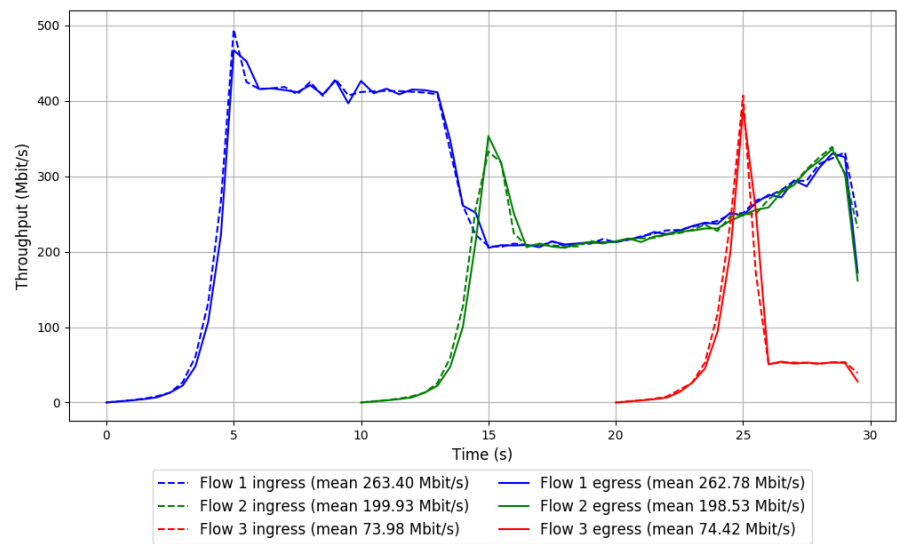
-- Flow 3:

Average throughput: 74.42 Mbit/s

95th percentile per-packet one-way delay: 114.181 ms

Loss rate: 1.67%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-06 19:20:18

End at: 2018-03-06 19:20:48

Below is generated by plot.py at 2018-03-07 01:15:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 422.07 Mbit/s

95th percentile per-packet one-way delay: 122.271 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 234.18 Mbit/s

95th percentile per-packet one-way delay: 129.040 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 198.82 Mbit/s

95th percentile per-packet one-way delay: 119.949 ms

Loss rate: 0.93%

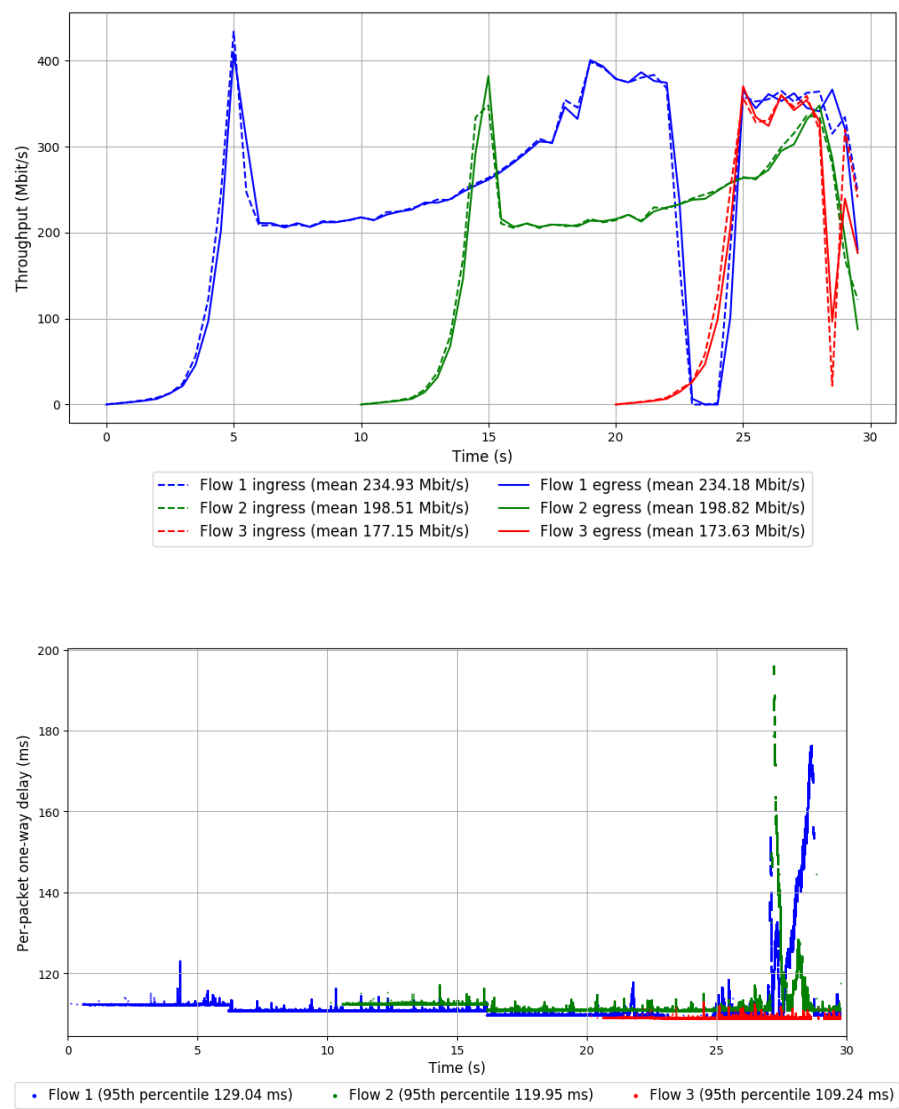
-- Flow 3:

Average throughput: 173.63 Mbit/s

95th percentile per-packet one-way delay: 109.239 ms

Loss rate: 4.17%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-06 19:39:38

End at: 2018-03-06 19:40:08

Below is generated by plot.py at 2018-03-07 01:16:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 502.37 Mbit/s

95th percentile per-packet one-way delay: 133.003 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 304.67 Mbit/s

95th percentile per-packet one-way delay: 129.876 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 199.95 Mbit/s

95th percentile per-packet one-way delay: 112.870 ms

Loss rate: 1.98%

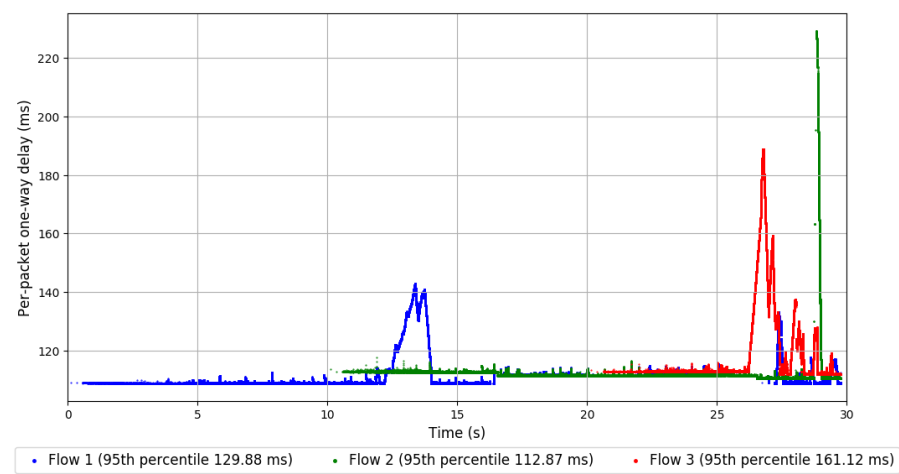
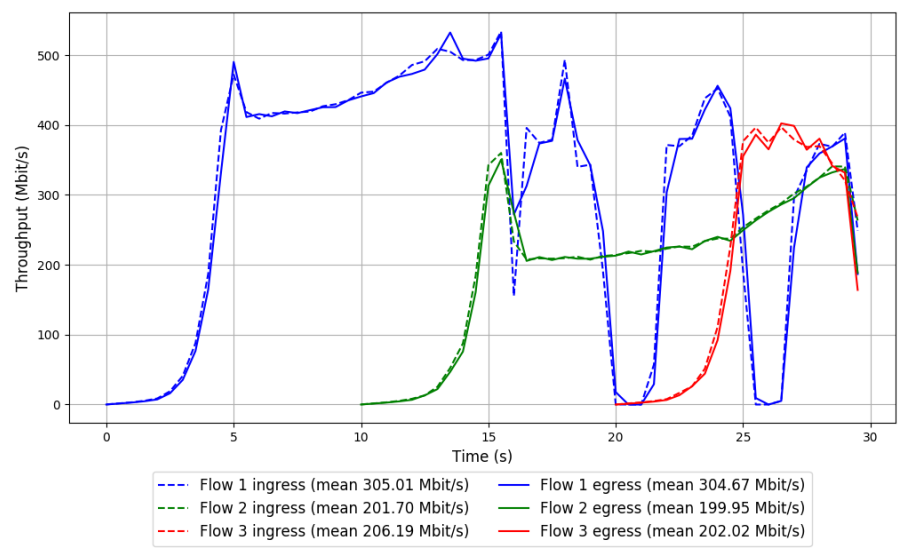
-- Flow 3:

Average throughput: 202.02 Mbit/s

95th percentile per-packet one-way delay: 161.121 ms

Loss rate: 4.26%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-06 19:58:57

End at: 2018-03-06 19:59:27

Below is generated by plot.py at 2018-03-07 01:18:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 512.17 Mbit/s

95th percentile per-packet one-way delay: 174.984 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 278.12 Mbit/s

95th percentile per-packet one-way delay: 147.522 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 287.17 Mbit/s

95th percentile per-packet one-way delay: 189.391 ms

Loss rate: 1.73%

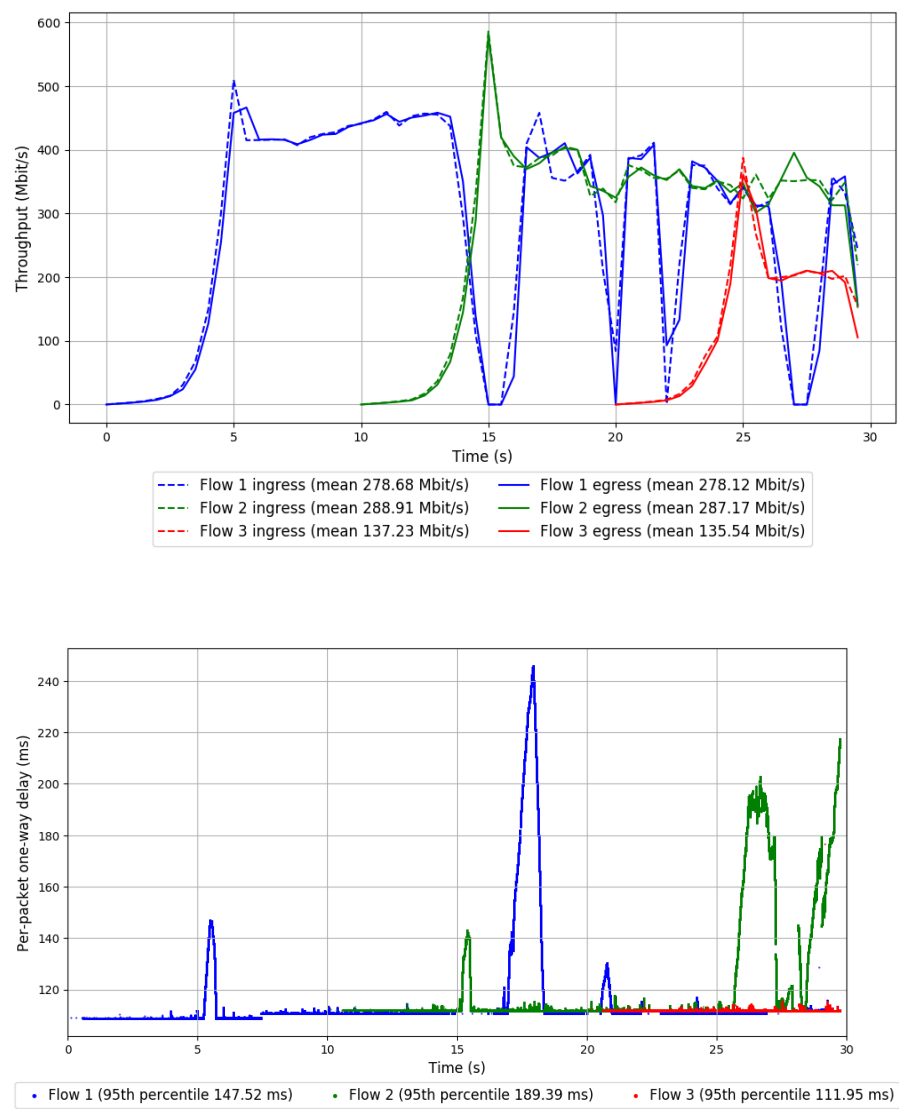
-- Flow 3:

Average throughput: 135.54 Mbit/s

95th percentile per-packet one-way delay: 111.954 ms

Loss rate: 3.50%

Run 10: Report of Vivace-loss — Data Link

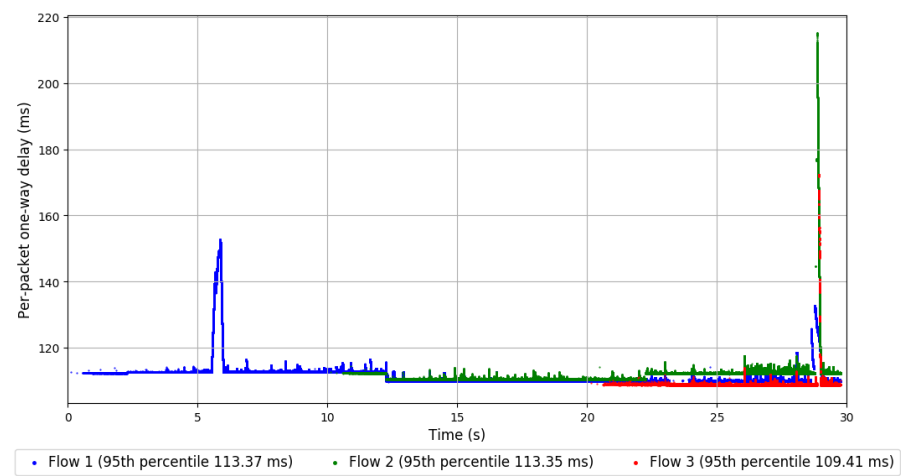
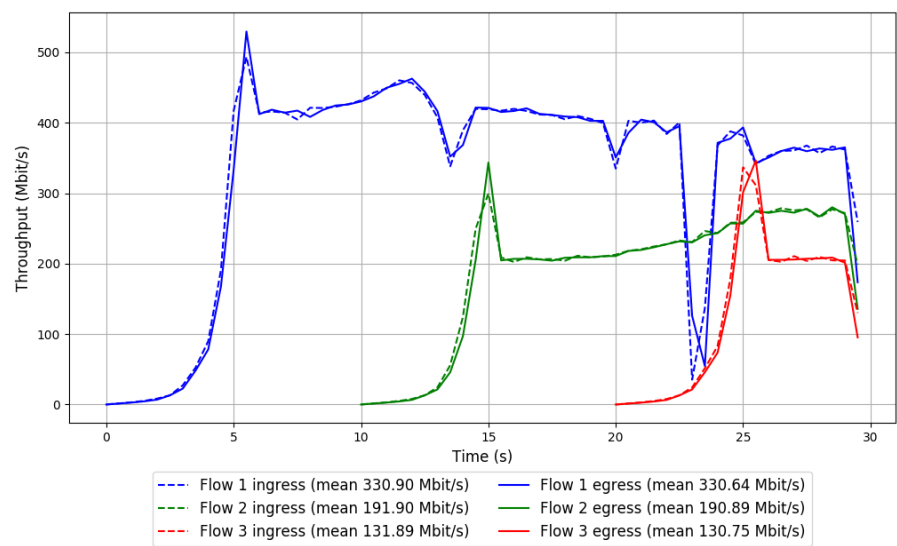


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-06 17:12:02
End at: 2018-03-06 17:12:32

# Below is generated by plot.py at 2018-03-07 01:21:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 499.34 Mbit/s
95th percentile per-packet one-way delay: 113.223 ms
Loss rate: 1.23%
-- Flow 1:
Average throughput: 330.64 Mbit/s
95th percentile per-packet one-way delay: 113.370 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 190.89 Mbit/s
95th percentile per-packet one-way delay: 113.350 ms
Loss rate: 1.65%
-- Flow 3:
Average throughput: 130.75 Mbit/s
95th percentile per-packet one-way delay: 109.410 ms
Loss rate: 3.06%
```


Run 1: Report of Vivace-LTE — Data Link

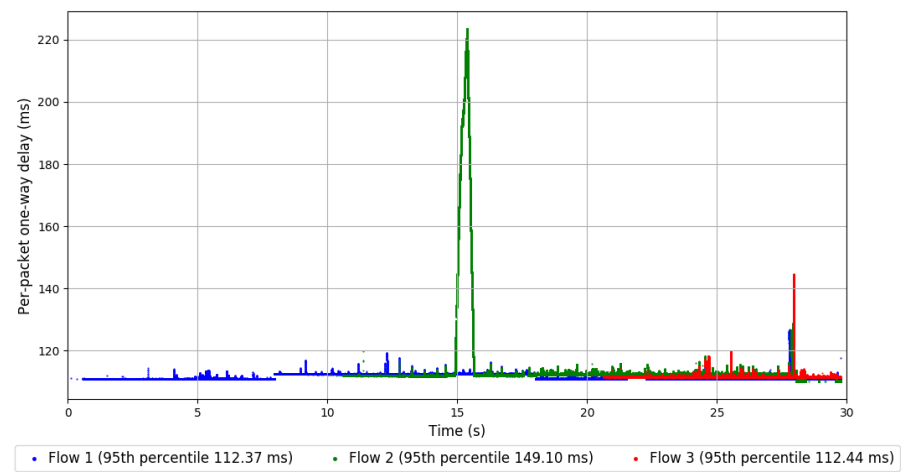
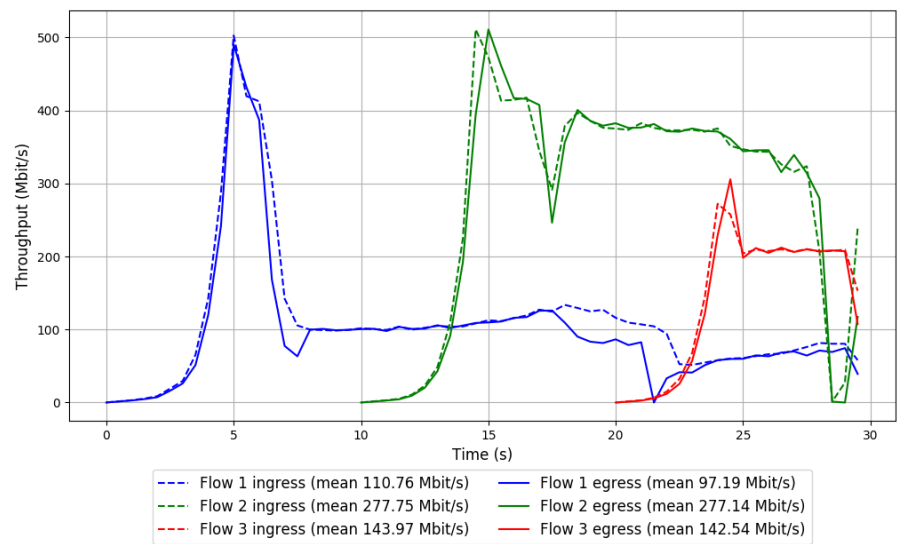


```
Run 2: Statistics of Vivace-LTE

Start at: 2018-03-06 17:31:36
End at: 2018-03-06 17:32:06

# Below is generated by plot.py at 2018-03-07 01:21:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 326.74 Mbit/s
95th percentile per-packet one-way delay: 114.414 ms
Loss rate: 5.34%
-- Flow 1:
Average throughput: 97.19 Mbit/s
95th percentile per-packet one-way delay: 112.366 ms
Loss rate: 12.89%
-- Flow 2:
Average throughput: 277.14 Mbit/s
95th percentile per-packet one-way delay: 149.101 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 142.54 Mbit/s
95th percentile per-packet one-way delay: 112.442 ms
Loss rate: 3.26%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-06 17:50:43

End at: 2018-03-06 17:51:13

Below is generated by plot.py at 2018-03-07 01:21:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 450.22 Mbit/s

95th percentile per-packet one-way delay: 113.490 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 271.72 Mbit/s

95th percentile per-packet one-way delay: 111.403 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 198.42 Mbit/s

95th percentile per-packet one-way delay: 113.906 ms

Loss rate: 1.35%

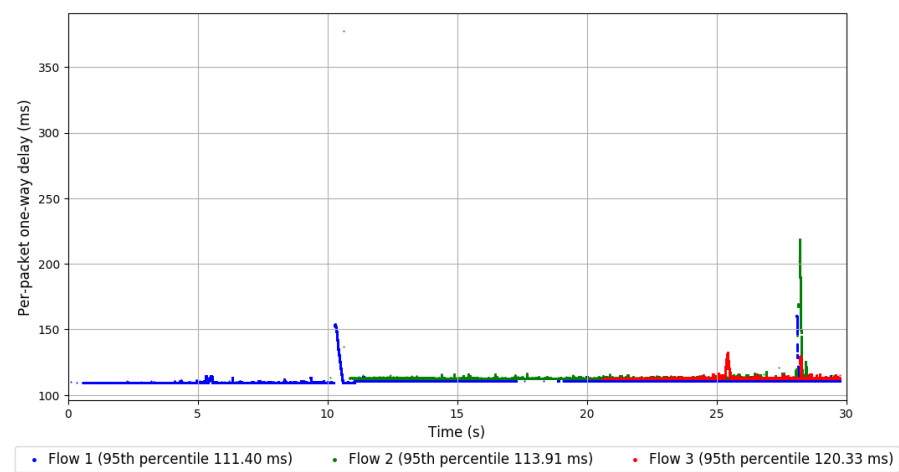
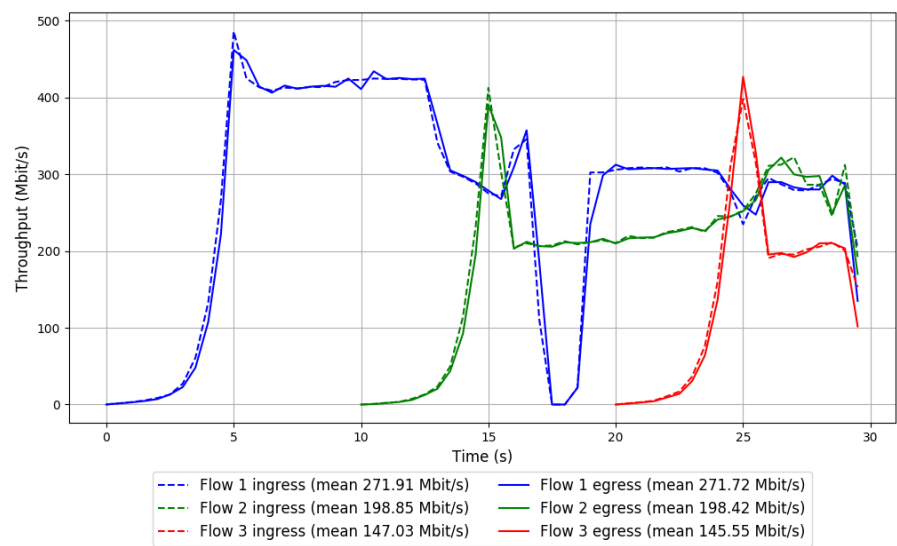
-- Flow 3:

Average throughput: 145.55 Mbit/s

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

Loss rate: 3.26%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-06 18:10:17

End at: 2018-03-06 18:10:47

Below is generated by plot.py at 2018-03-07 01:22:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 498.70 Mbit/s

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

Loss rate: 1.17%

-- Flow 1:

Average throughput: 303.09 Mbit/s

95th percentile per-packet one-way delay: 111.256 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 251.08 Mbit/s

95th percentile per-packet one-way delay: 158.754 ms

Loss rate: 1.53%

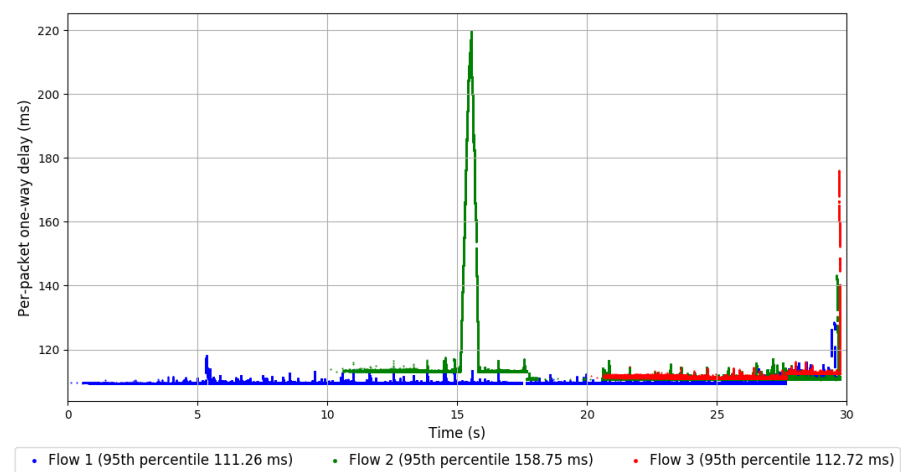
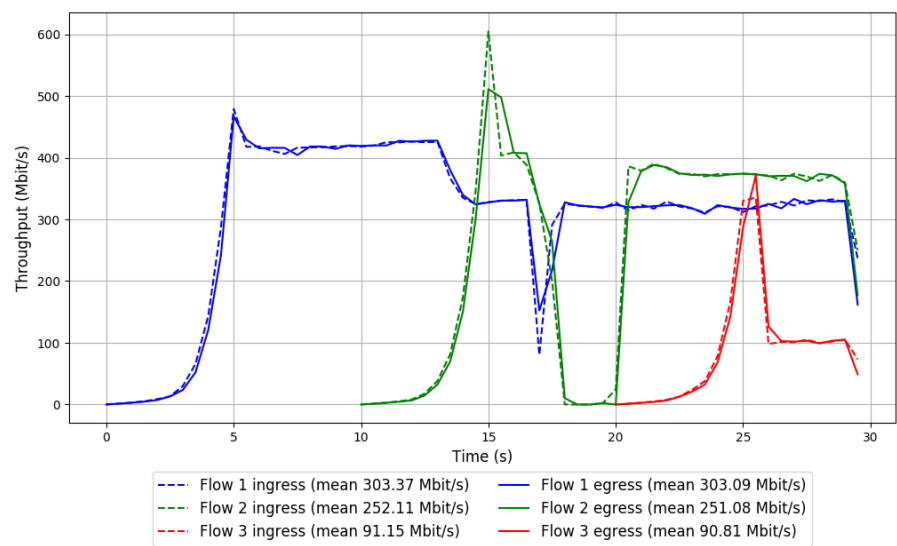
-- Flow 3:

Average throughput: 90.81 Mbit/s

95th percentile per-packet one-way delay: 112.720 ms

Loss rate: 2.63%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-06 18:29:20

End at: 2018-03-06 18:29:50

Below is generated by plot.py at 2018-03-07 01:22:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 496.77 Mbit/s

95th percentile per-packet one-way delay: 115.842 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 259.68 Mbit/s

95th percentile per-packet one-way delay: 114.513 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 252.98 Mbit/s

95th percentile per-packet one-way delay: 114.552 ms

Loss rate: 1.38%

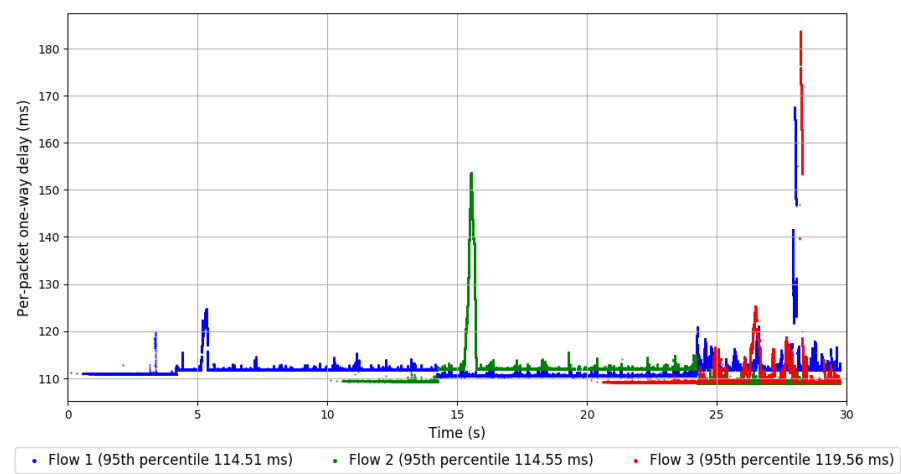
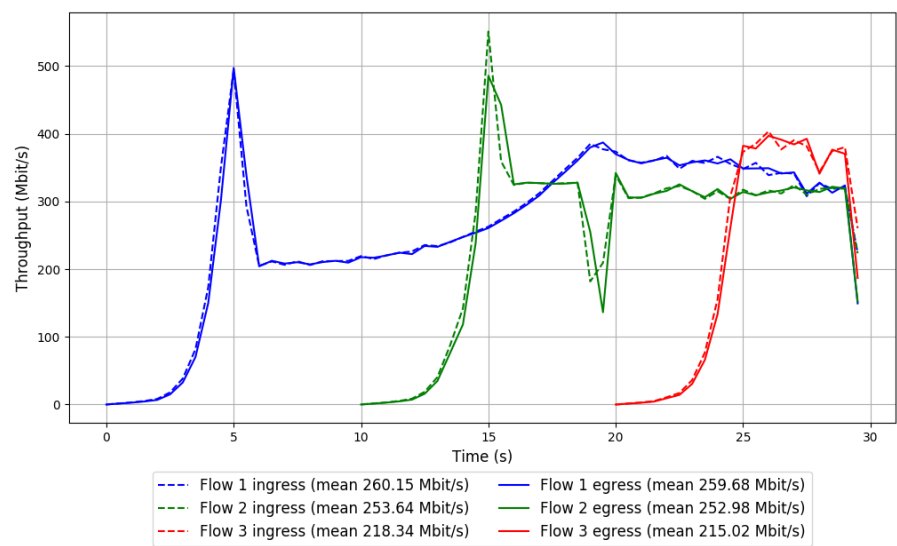
-- Flow 3:

Average throughput: 215.02 Mbit/s

95th percentile per-packet one-way delay: 119.557 ms

Loss rate: 3.76%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-06 18:48:47

End at: 2018-03-06 18:49:17

Below is generated by plot.py at 2018-03-07 01:22:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 443.25 Mbit/s

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

Loss rate: 1.31%

-- Flow 1:

Average throughput: 274.12 Mbit/s

95th percentile per-packet one-way delay: 111.422 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 187.74 Mbit/s

95th percentile per-packet one-way delay: 112.721 ms

Loss rate: 1.64%

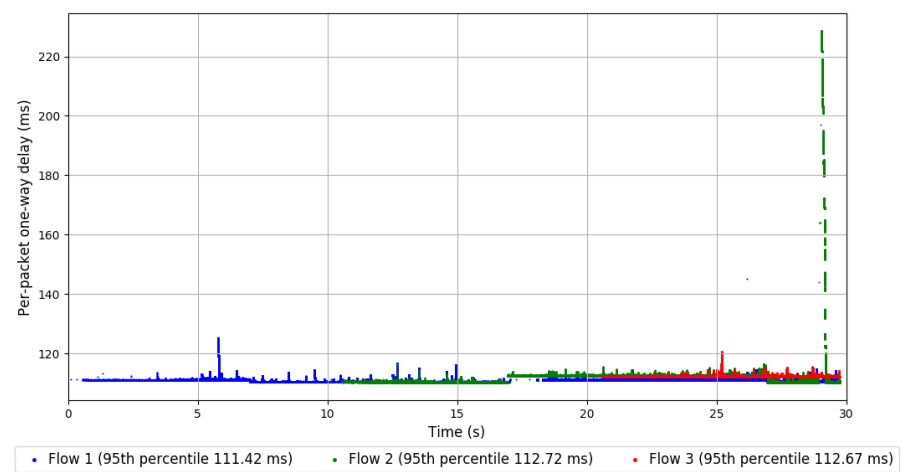
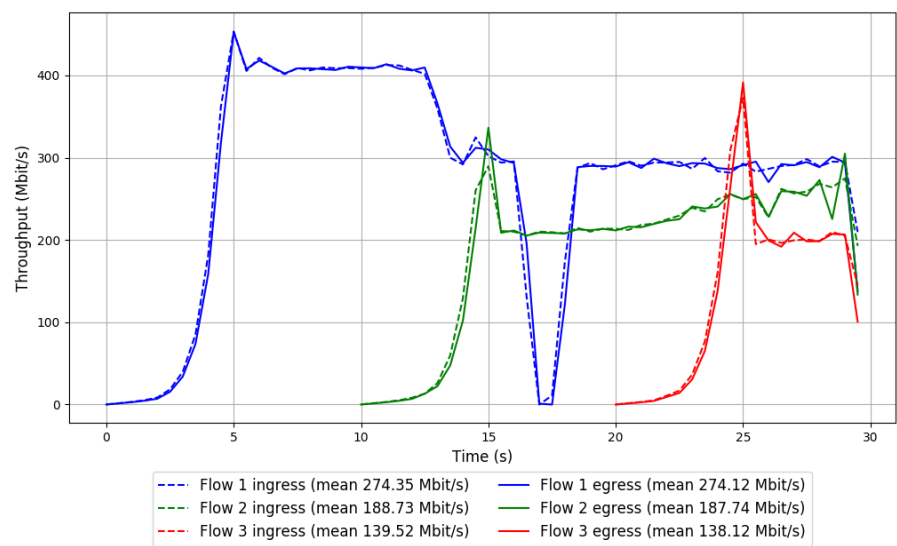
-- Flow 3:

Average throughput: 138.12 Mbit/s

95th percentile per-packet one-way delay: 112.668 ms

Loss rate: 3.26%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-06 19:08:00

End at: 2018-03-06 19:08:30

Below is generated by plot.py at 2018-03-07 01:23:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.96 Mbit/s

95th percentile per-packet one-way delay: 119.634 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 344.38 Mbit/s

95th percentile per-packet one-way delay: 124.110 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 182.17 Mbit/s

95th percentile per-packet one-way delay: 111.779 ms

Loss rate: 1.56%

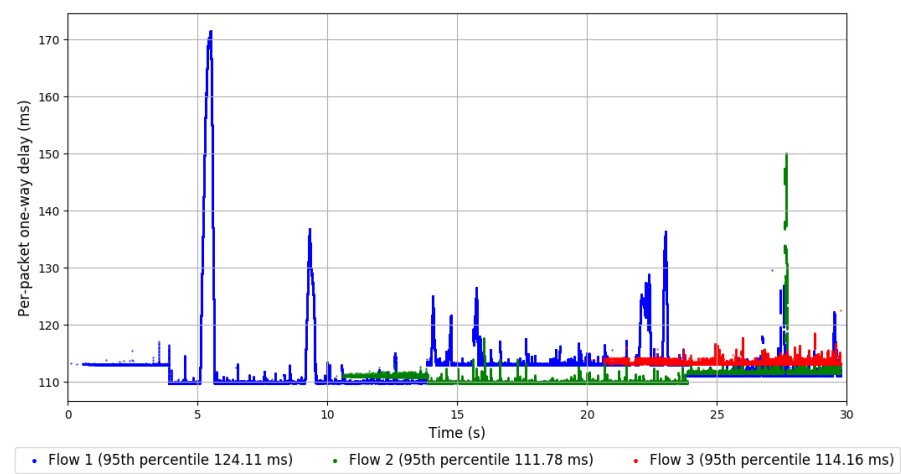
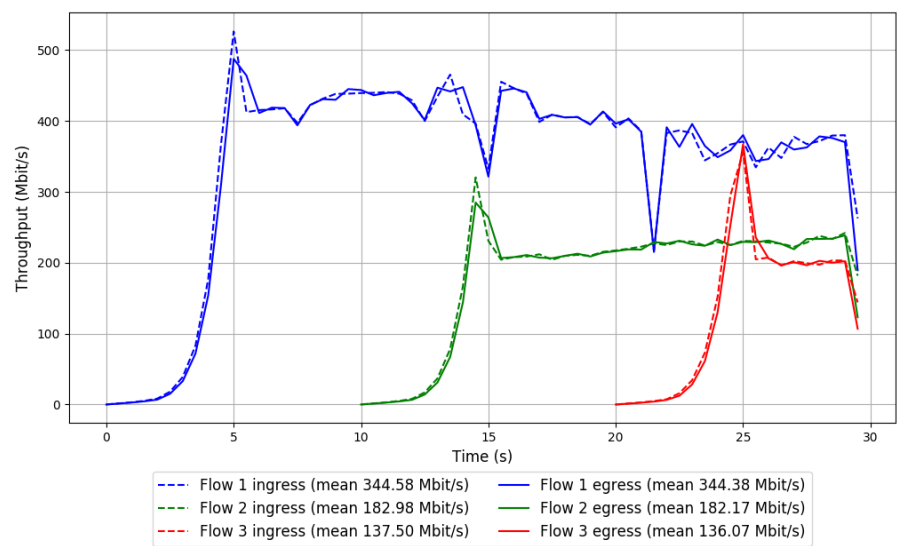
-- Flow 3:

Average throughput: 136.07 Mbit/s

95th percentile per-packet one-way delay: 114.156 ms

Loss rate: 3.22%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-06 19:27:24

End at: 2018-03-06 19:27:54

Below is generated by plot.py at 2018-03-07 01:24:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 484.95 Mbit/s

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

Loss rate: 1.29%

-- Flow 1:

Average throughput: 303.97 Mbit/s

95th percentile per-packet one-way delay: 112.168 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 206.94 Mbit/s

95th percentile per-packet one-way delay: 113.032 ms

Loss rate: 1.75%

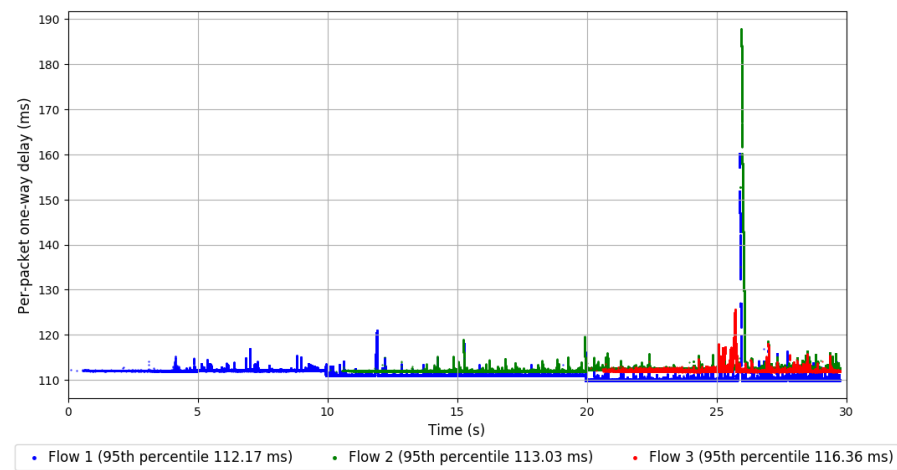
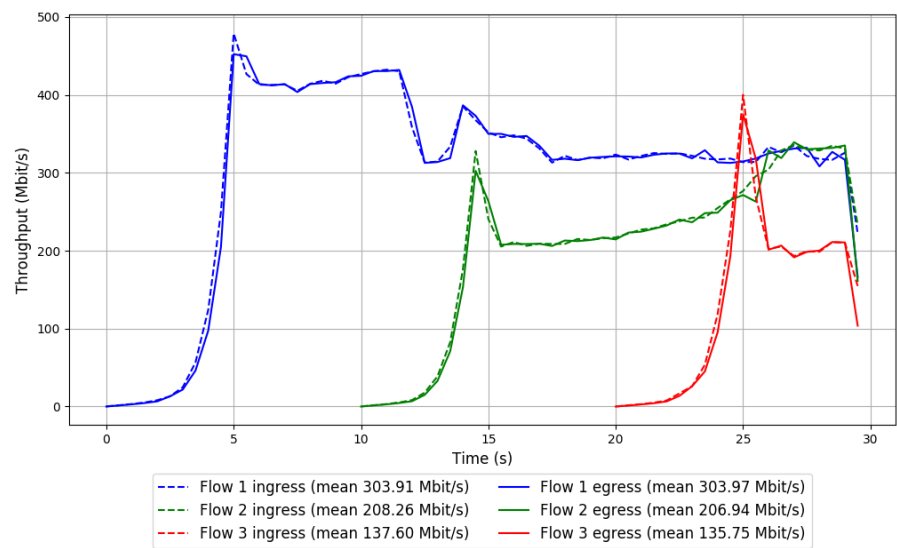
-- Flow 3:

Average throughput: 135.75 Mbit/s

95th percentile per-packet one-way delay: 116.361 ms

Loss rate: 3.60%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-06 19:46:44

End at: 2018-03-06 19:47:14

Below is generated by plot.py at 2018-03-07 01:24:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 467.48 Mbit/s

95th percentile per-packet one-way delay: 113.182 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 295.92 Mbit/s

95th percentile per-packet one-way delay: 111.349 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 191.68 Mbit/s

95th percentile per-packet one-way delay: 113.662 ms

Loss rate: 0.83%

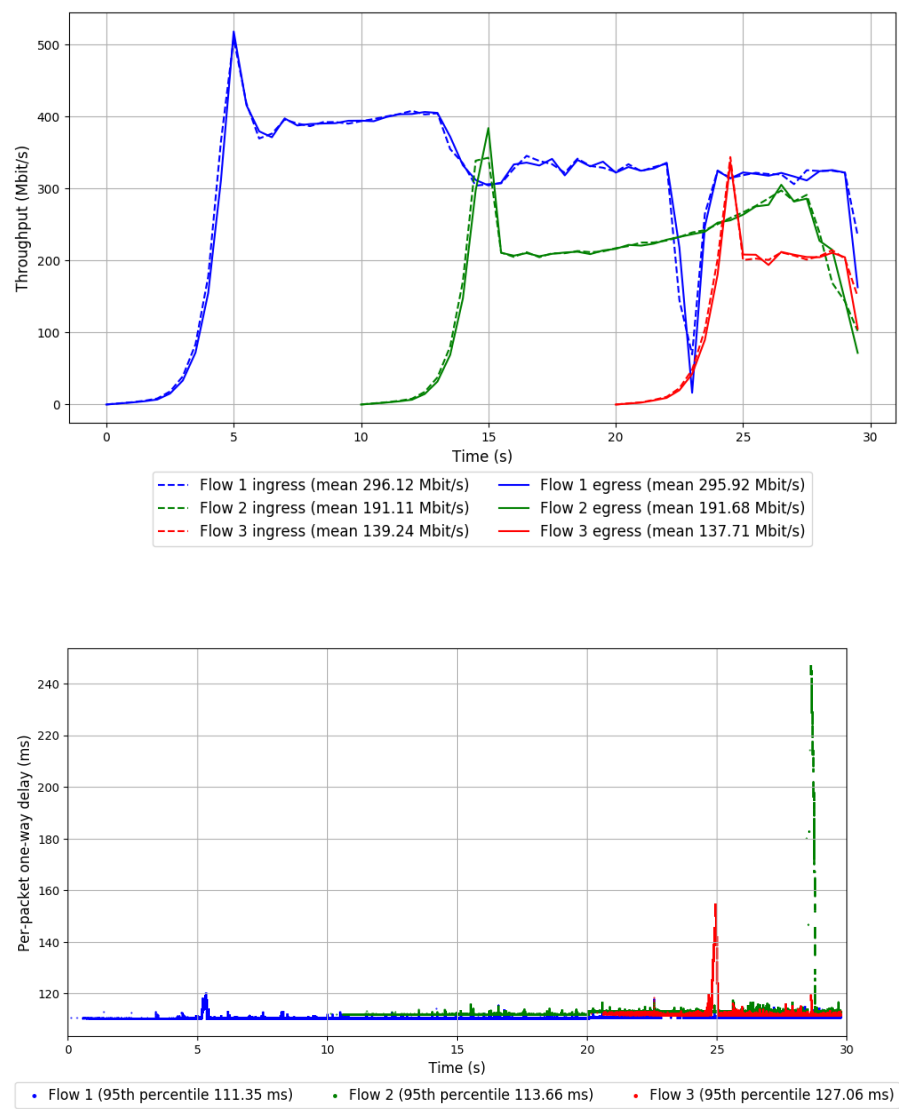
-- Flow 3:

Average throughput: 137.71 Mbit/s

95th percentile per-packet one-way delay: 127.062 ms

Loss rate: 3.34%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-06 20:06:08
End at: 2018-03-06 20:06:38

# Below is generated by plot.py at 2018-03-07 01:24:23
# Datalink statistics
-- Total of 3 flows:
Average throughput: 430.49 Mbit/s
95th percentile per-packet one-way delay: 128.052 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 249.41 Mbit/s
95th percentile per-packet one-way delay: 144.947 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 203.33 Mbit/s
95th percentile per-packet one-way delay: 115.960 ms
Loss rate: 1.73%
-- Flow 3:
Average throughput: 143.41 Mbit/s
95th percentile per-packet one-way delay: 110.834 ms
Loss rate: 2.83%
```

Run 10: Report of Vivace-LTE — Data Link

