

Pantheon Report

Generated at 2018-01-17 15:23:19 (UTC).

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

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.

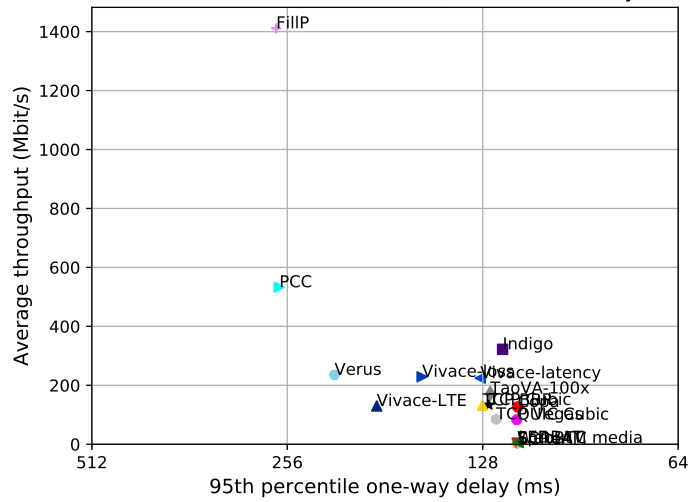
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

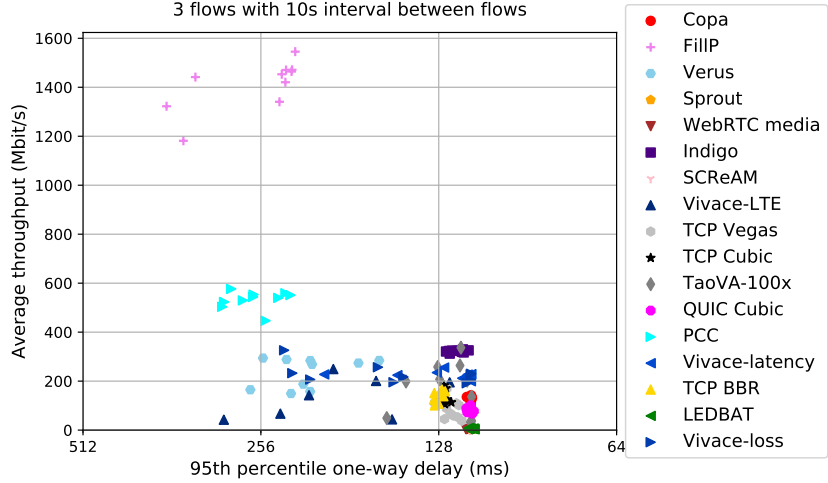
Git summary:

```
branch: master @ 54510ce29f849c716ac5c8199ca1604b6abdfbc3
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
M datagrump/sender.cc
third_party/fillp @ ec9585325218d5048c4d4152fa42240af54c6e67
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ b19f3730105f9aa95452552af924e3719b03cc55
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
M receiver/src/buffer.h
M receiver/src/core.cpp
M sender/src/buffer.h
M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaaeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
M src/examples/cellsim.cc
M src/examples/sproutbt2.cc
M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
M src/verus.hpp
M tools/plot.py
third_party/vivace @ 423cbca3e8ea1d599e7b5cf725835e8a2b6bfac6
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	61.01	70.91	72.94	127.23	128.83	127.90	0.34	0.35	0.11
TCP Cubic	10	65.18	65.03	75.39	124.14	125.27	126.94	0.05	0.04	0.12
LEDBAT	10	3.23	2.61	1.66	112.94	112.81	112.73	0.37	0.55	0.00
PCC	10	447.81	108.11	39.73	272.27	235.97	225.53	3.50	2.20	2.63
QUIC Cubic	10	46.51	41.05	29.95	112.73	112.49	111.67	0.00	0.00	0.00
SCReAM	10	0.22	0.18	0.22	112.76	112.55	112.40	0.00	0.00	0.00
WebRTC media	10	2.09	1.30	0.46	113.26	112.69	112.99	0.00	0.00	0.02
Sprout	10	2.04	2.15	1.70	113.25	113.13	113.45	0.79	0.95	0.82
TaoVA-100x	10	95.40	86.15	75.71	120.84	115.99	125.55	0.01	0.03	0.00
TCP Vegas	10	35.07	44.97	58.95	117.77	121.04	124.51	0.71	0.35	0.20
Verus	10	137.90	109.95	76.85	247.60	181.80	222.81	3.25	0.48	1.27
Copa	10	69.01	67.88	49.23	113.04	112.69	112.24	0.02	0.00	0.00
FillP	10	743.00	692.30	625.96	255.16	274.47	233.88	11.26	15.08	17.88
Indigo	10	168.03	163.36	143.94	117.36	122.41	119.61	0.03	0.05	0.04
Vivace-latency	10	119.22	116.23	84.19	143.68	118.39	128.82	0.09	0.00	0.00
Vivace-loss	10	134.32	105.50	74.19	155.55	128.00	132.45	0.25	0.35	0.03
Vivace-LTE	8	86.30	37.85	76.23	214.14	145.26	144.47	2.78	0.06	0.20

Run 1: Statistics of TCP BBR

Start at: 2018-01-17 09:19:02

End at: 2018-01-17 09:19:32

Below is generated by plot.py at 2018-01-17 13:53:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.12 Mbit/s

95th percentile per-packet one-way delay: 130.213 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 68.91 Mbit/s

95th percentile per-packet one-way delay: 128.531 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 98.49 Mbit/s

95th percentile per-packet one-way delay: 131.463 ms

Loss rate: 0.19%

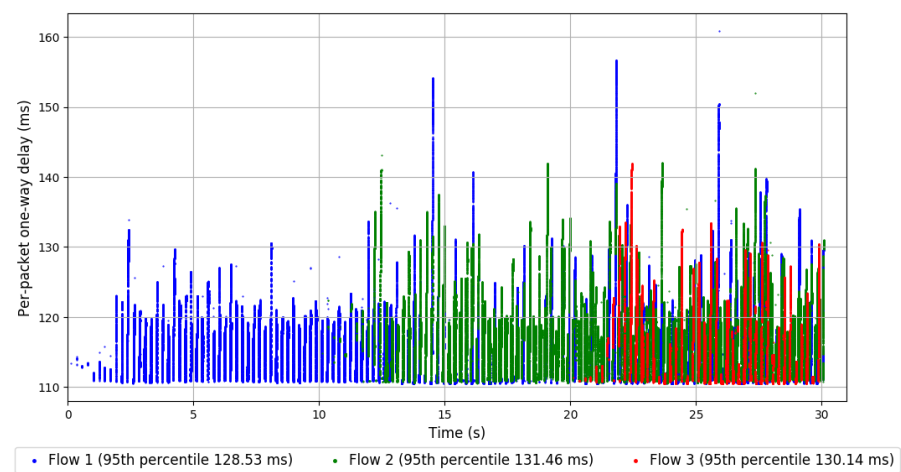
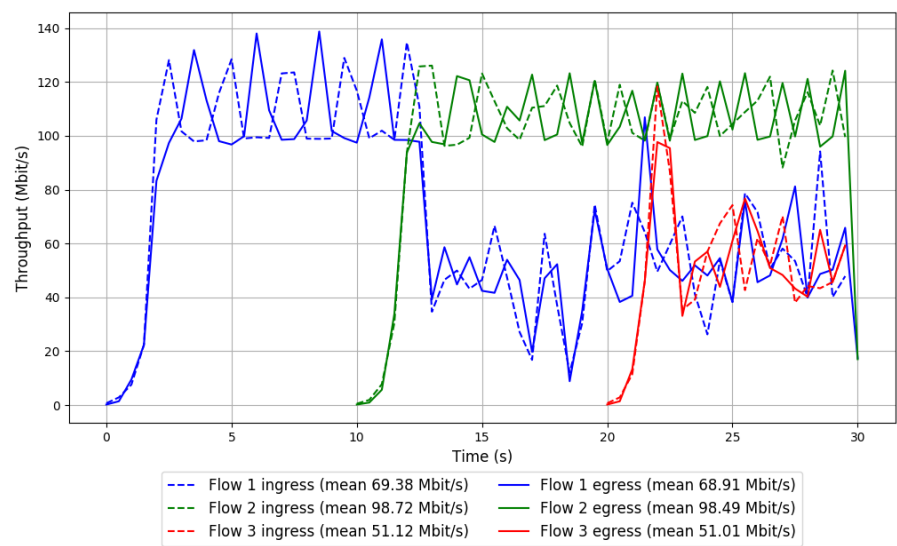
-- Flow 3:

Average throughput: 51.01 Mbit/s

95th percentile per-packet one-way delay: 130.143 ms

Loss rate: 0.01%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-17 09:37:35

End at: 2018-01-17 09:38:05

Below is generated by plot.py at 2018-01-17 13:53:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 150.78 Mbit/s

95th percentile per-packet one-way delay: 127.722 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 75.16 Mbit/s

95th percentile per-packet one-way delay: 127.901 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 69.85 Mbit/s

95th percentile per-packet one-way delay: 127.179 ms

Loss rate: 0.01%

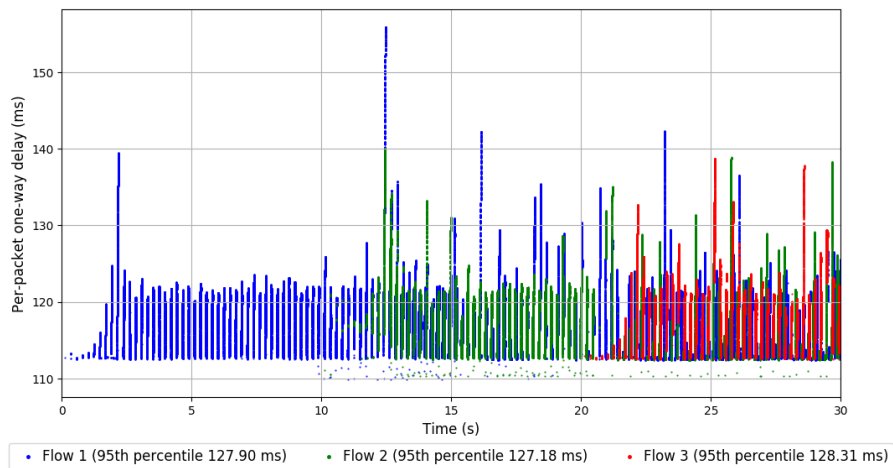
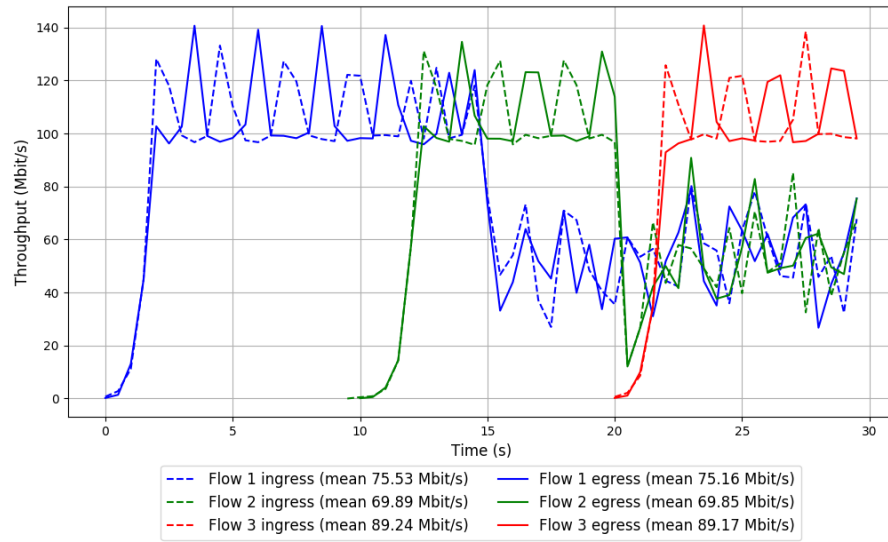
-- Flow 3:

Average throughput: 89.17 Mbit/s

95th percentile per-packet one-way delay: 128.312 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-17 09:56:46

End at: 2018-01-17 09:57:17

Below is generated by plot.py at 2018-01-17 13:54:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 158.76 Mbit/s

95th percentile per-packet one-way delay: 124.860 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 68.51 Mbit/s

95th percentile per-packet one-way delay: 123.863 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 92.61 Mbit/s

95th percentile per-packet one-way delay: 125.713 ms

Loss rate: 0.00%

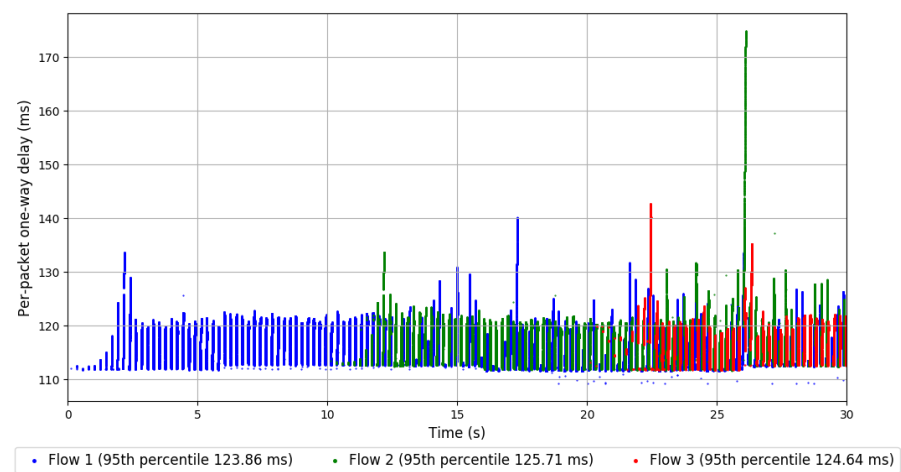
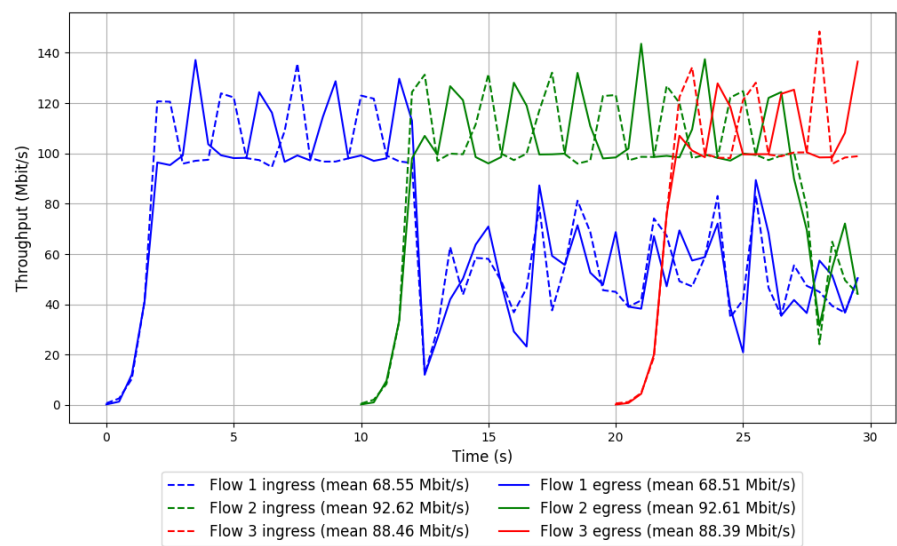
-- Flow 3:

Average throughput: 88.39 Mbit/s

95th percentile per-packet one-way delay: 124.642 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-17 10:15:07

End at: 2018-01-17 10:15:37

Below is generated by plot.py at 2018-01-17 13:54:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.01 Mbit/s

95th percentile per-packet one-way delay: 128.364 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 48.90 Mbit/s

95th percentile per-packet one-way delay: 129.176 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 57.94 Mbit/s

95th percentile per-packet one-way delay: 127.897 ms

Loss rate: 0.00%

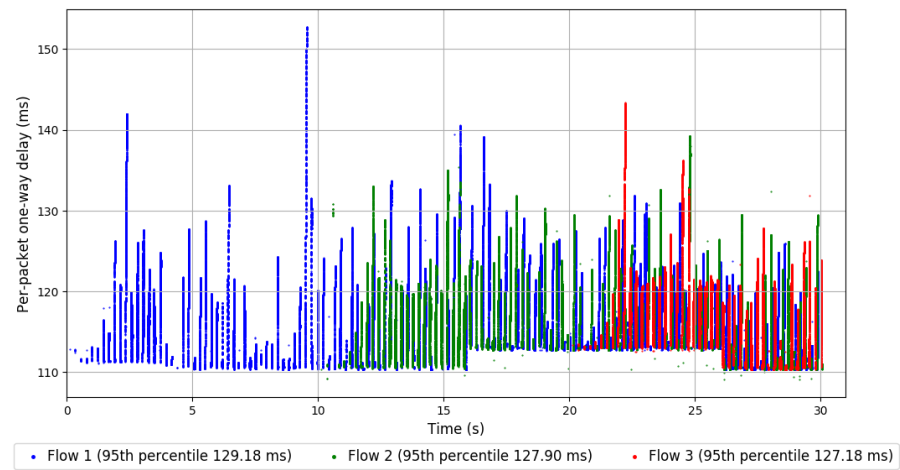
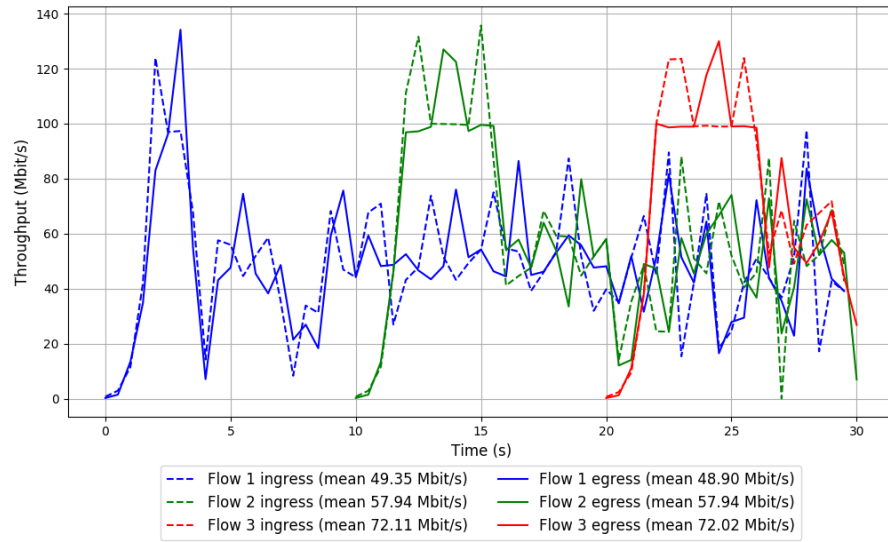
-- Flow 3:

Average throughput: 72.02 Mbit/s

95th percentile per-packet one-way delay: 127.177 ms

Loss rate: 0.02%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-17 10:33:15

End at: 2018-01-17 10:33:45

Below is generated by plot.py at 2018-01-17 13:54:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.29 Mbit/s

95th percentile per-packet one-way delay: 128.057 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 48.80 Mbit/s

95th percentile per-packet one-way delay: 127.630 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 45.31 Mbit/s

95th percentile per-packet one-way delay: 129.169 ms

Loss rate: 1.83%

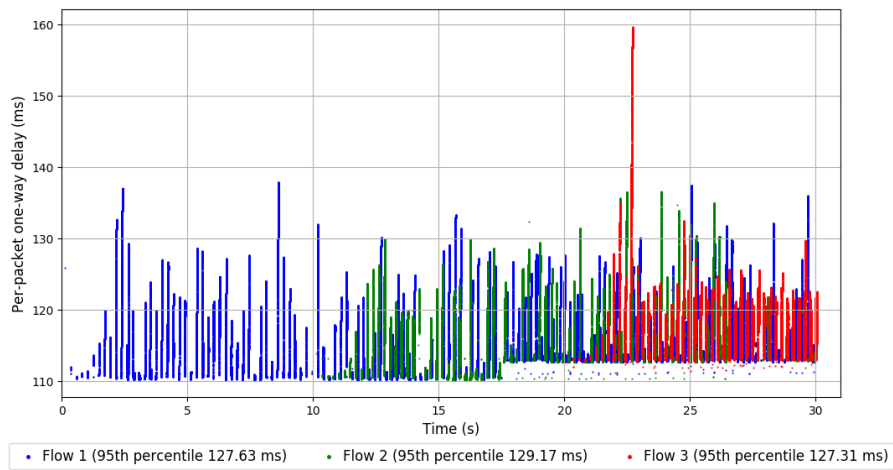
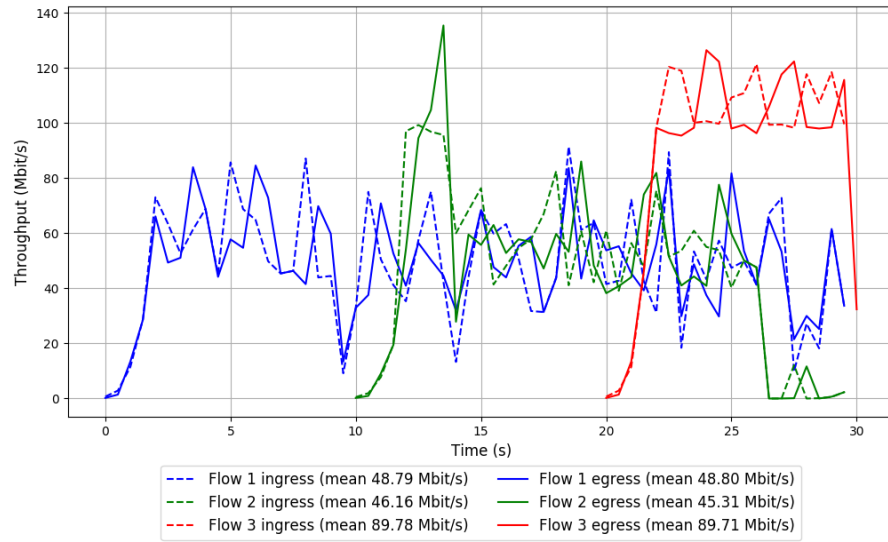
-- Flow 3:

Average throughput: 89.71 Mbit/s

95th percentile per-packet one-way delay: 127.307 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-17 10:52:06

End at: 2018-01-17 10:52:36

Below is generated by plot.py at 2018-01-17 13:54:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.32 Mbit/s

95th percentile per-packet one-way delay: 125.719 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 64.28 Mbit/s

95th percentile per-packet one-way delay: 126.281 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 77.49 Mbit/s

95th percentile per-packet one-way delay: 125.978 ms

Loss rate: 0.18%

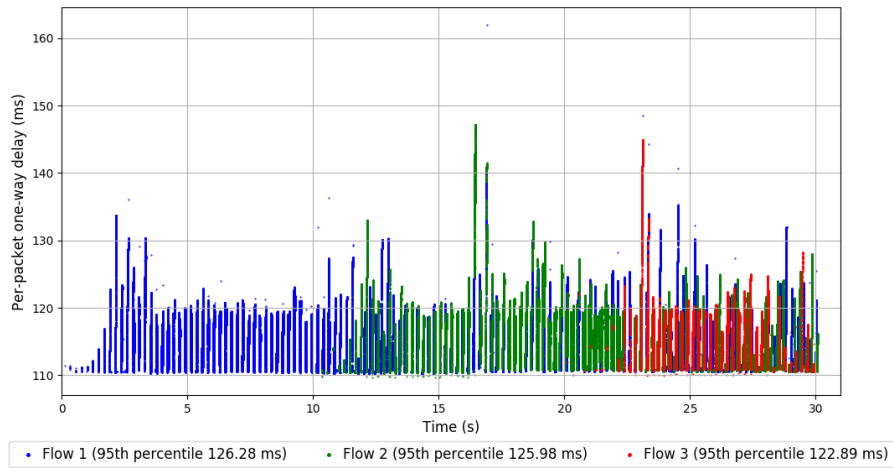
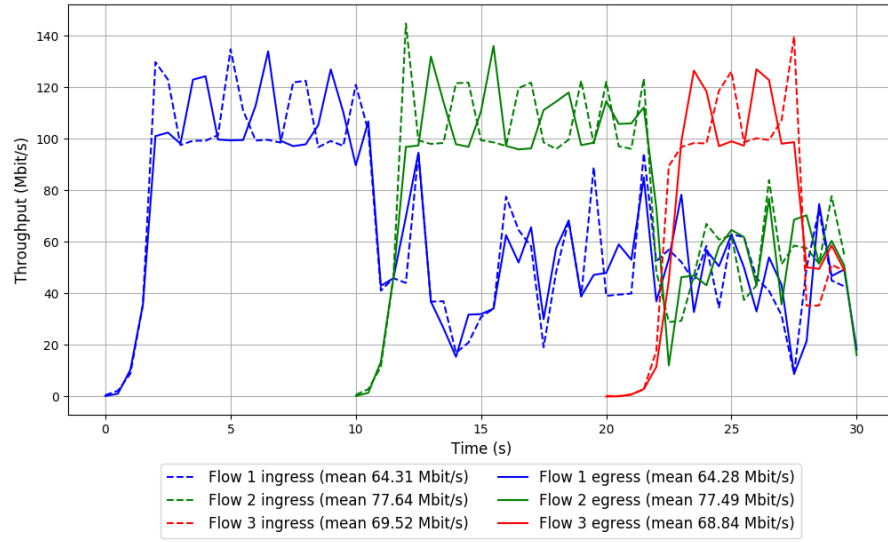
-- Flow 3:

Average throughput: 68.84 Mbit/s

95th percentile per-packet one-way delay: 122.891 ms

Loss rate: 0.98%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-17 11:11:02

End at: 2018-01-17 11:11:32

Below is generated by plot.py at 2018-01-17 13:54:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 166.55 Mbit/s

95th percentile per-packet one-way delay: 126.444 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 80.32 Mbit/s

95th percentile per-packet one-way delay: 124.172 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 98.69 Mbit/s

95th percentile per-packet one-way delay: 130.317 ms

Loss rate: 0.00%

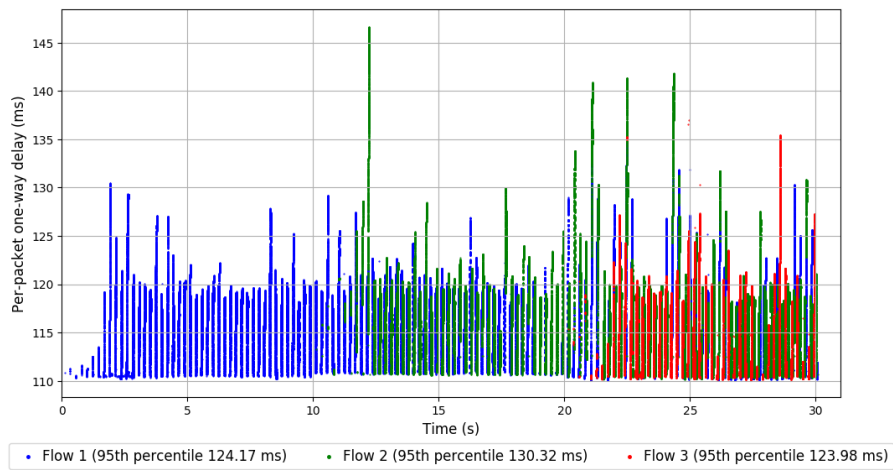
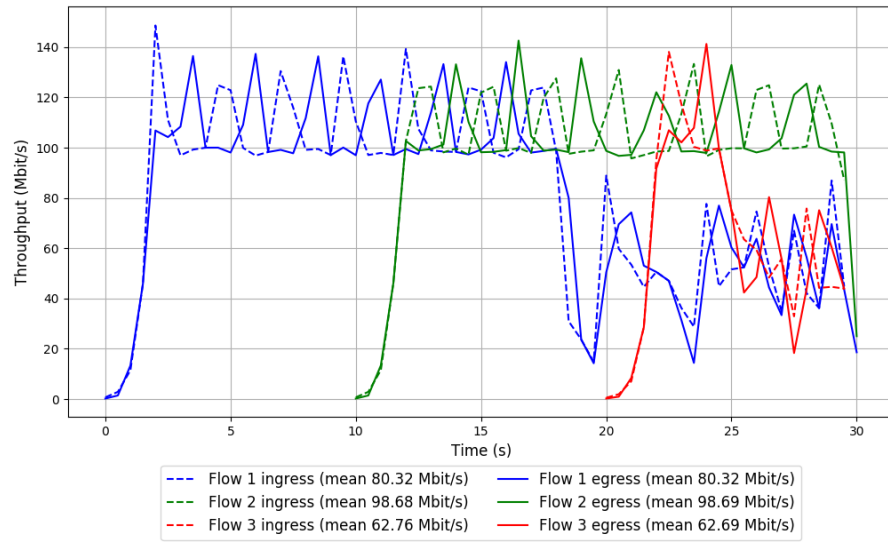
-- Flow 3:

Average throughput: 62.69 Mbit/s

95th percentile per-packet one-way delay: 123.976 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-01-17 11:29:51

End at: 2018-01-17 11:30:21

Below is generated by plot.py at 2018-01-17 13:54:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.91 Mbit/s

95th percentile per-packet one-way delay: 129.977 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 49.85 Mbit/s

95th percentile per-packet one-way delay: 128.613 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 49.61 Mbit/s

95th percentile per-packet one-way delay: 131.798 ms

Loss rate: 0.05%

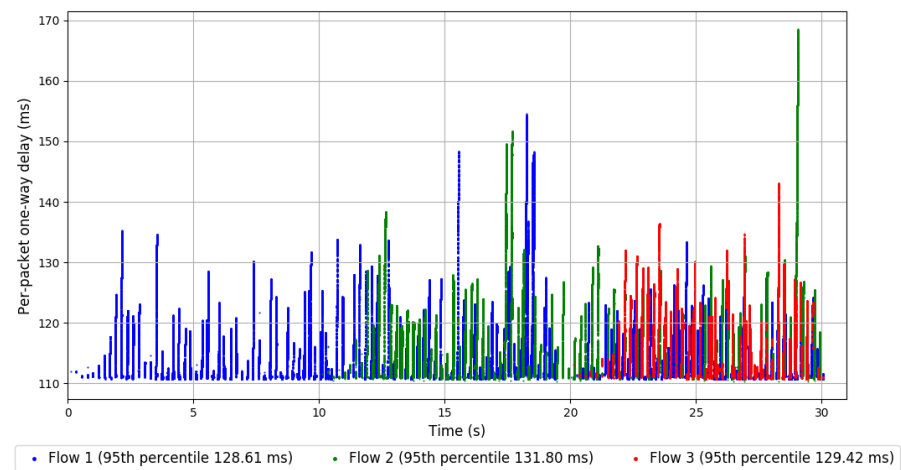
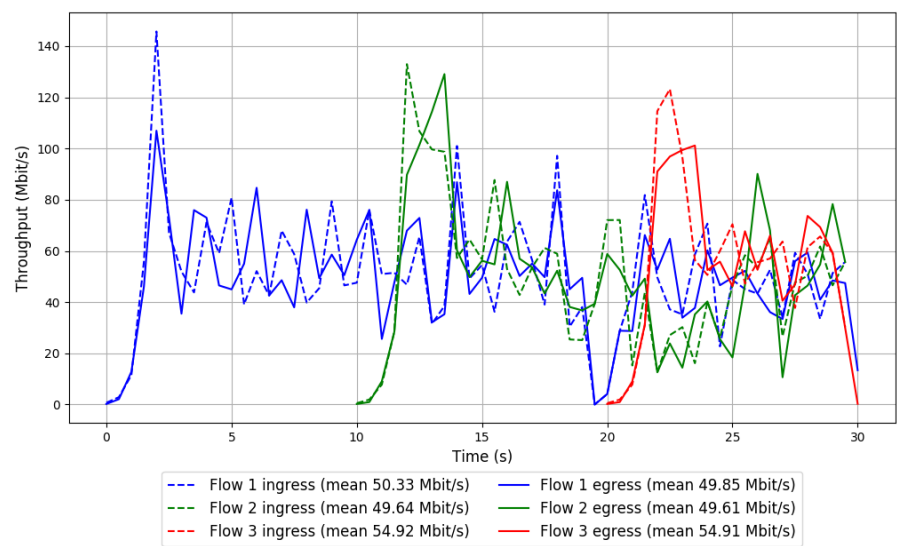
-- Flow 3:

Average throughput: 54.91 Mbit/s

95th percentile per-packet one-way delay: 129.418 ms

Loss rate: 0.04%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-17 11:48:49

End at: 2018-01-17 11:49:19

Below is generated by plot.py at 2018-01-17 13:54:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.61 Mbit/s

95th percentile per-packet one-way delay: 129.502 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 52.05 Mbit/s

95th percentile per-packet one-way delay: 127.320 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 54.99 Mbit/s

95th percentile per-packet one-way delay: 131.505 ms

Loss rate: 0.00%

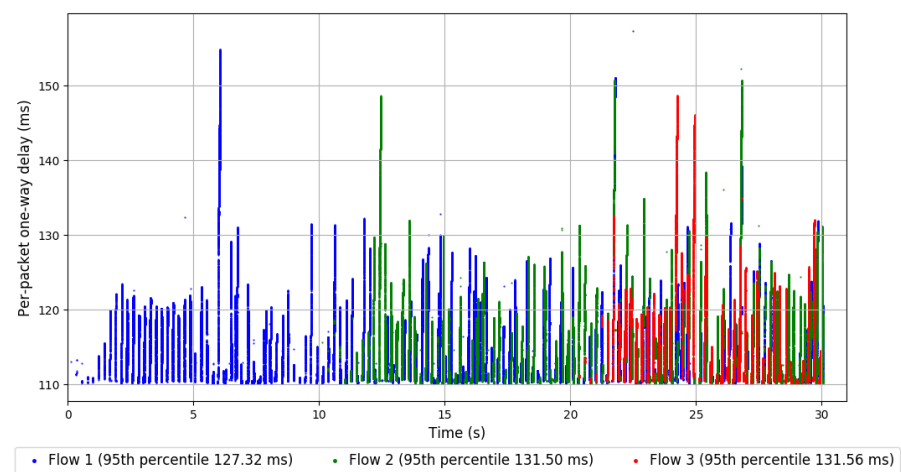
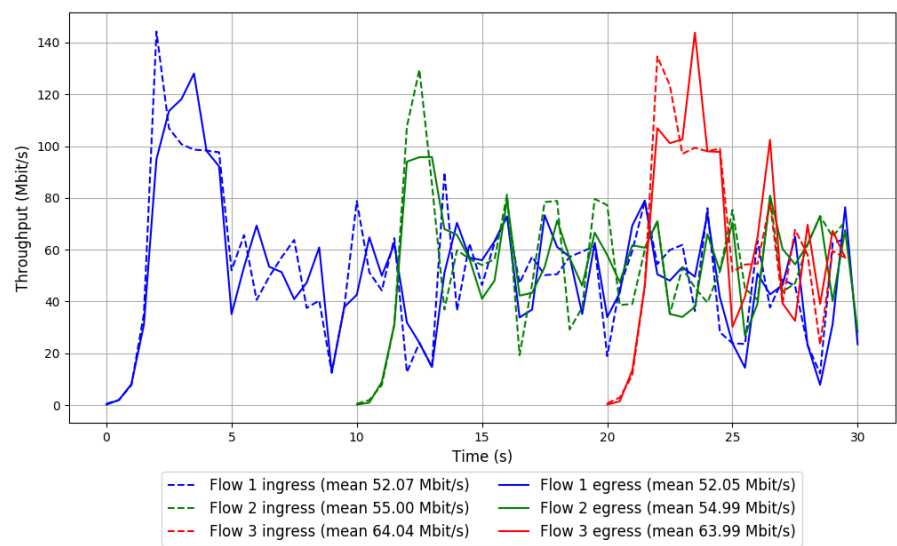
-- Flow 3:

Average throughput: 63.99 Mbit/s

95th percentile per-packet one-way delay: 131.563 ms

Loss rate: 0.04%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-17 12:06:43

End at: 2018-01-17 12:07:13

Below is generated by plot.py at 2018-01-17 13:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.79 Mbit/s

95th percentile per-packet one-way delay: 130.360 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 53.33 Mbit/s

95th percentile per-packet one-way delay: 128.837 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 64.16 Mbit/s

95th percentile per-packet one-way delay: 127.298 ms

Loss rate: 1.25%

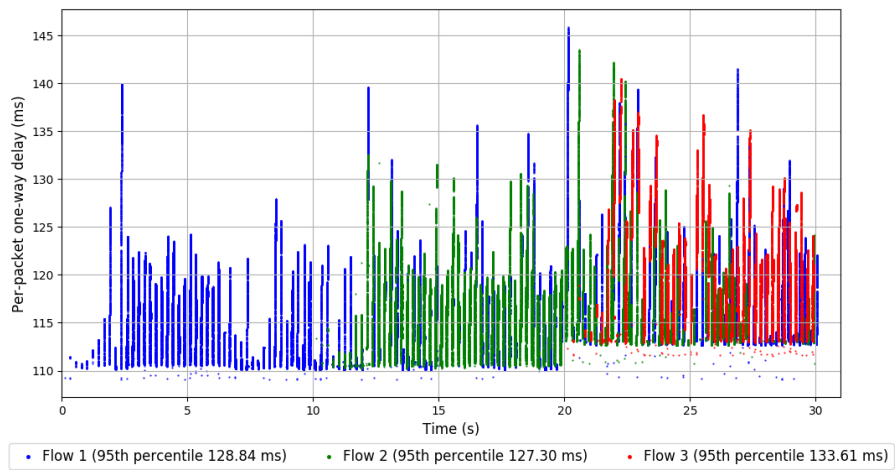
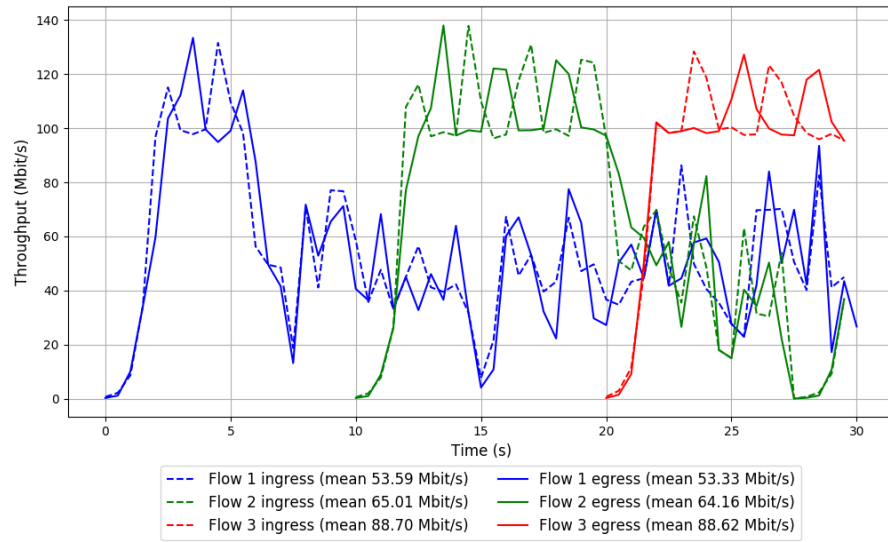
-- Flow 3:

Average throughput: 88.62 Mbit/s

95th percentile per-packet one-way delay: 133.606 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-17 09:19:58

End at: 2018-01-17 09:20:28

Below is generated by plot.py at 2018-01-17 13:55:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.03 Mbit/s

95th percentile per-packet one-way delay: 125.697 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 126.098 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.67 Mbit/s

95th percentile per-packet one-way delay: 118.235 ms

Loss rate: 0.02%

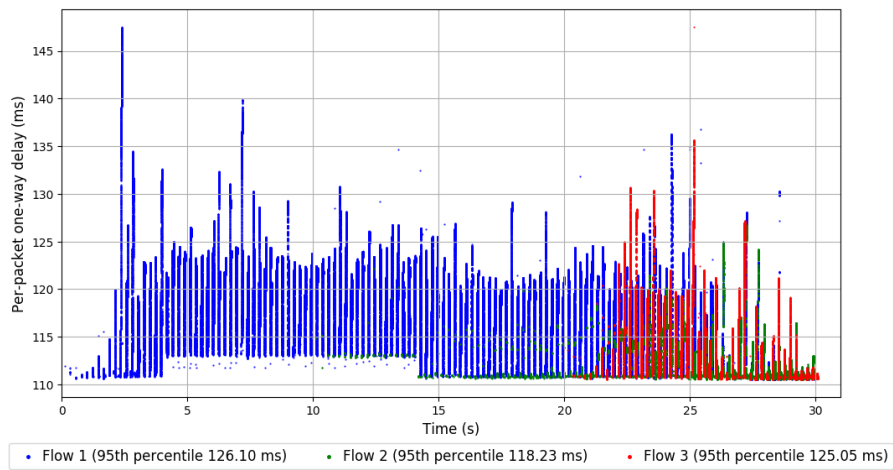
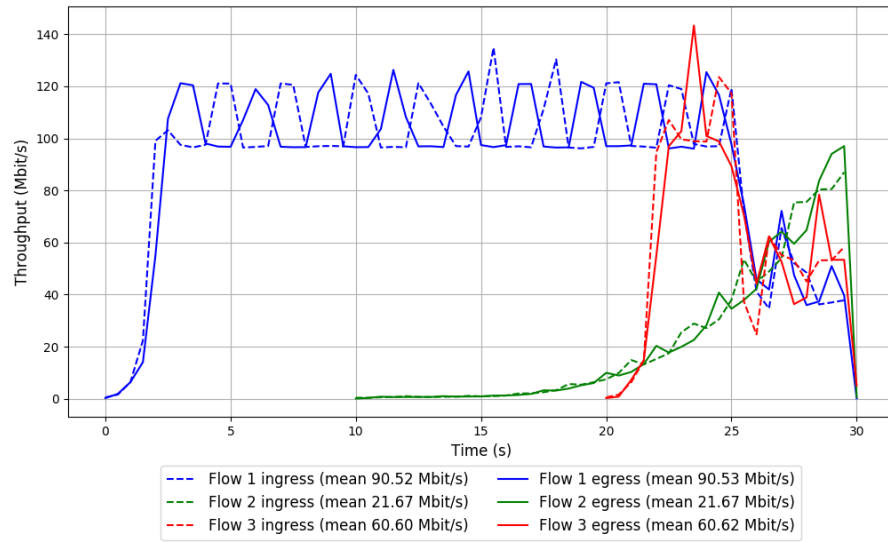
-- Flow 3:

Average throughput: 60.62 Mbit/s

95th percentile per-packet one-way delay: 125.045 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-17 09:38:32

End at: 2018-01-17 09:39:02

Below is generated by plot.py at 2018-01-17 13:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.11 Mbit/s

95th percentile per-packet one-way delay: 124.493 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 74.10 Mbit/s

95th percentile per-packet one-way delay: 121.900 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 99.20 Mbit/s

95th percentile per-packet one-way delay: 128.608 ms

Loss rate: 0.14%

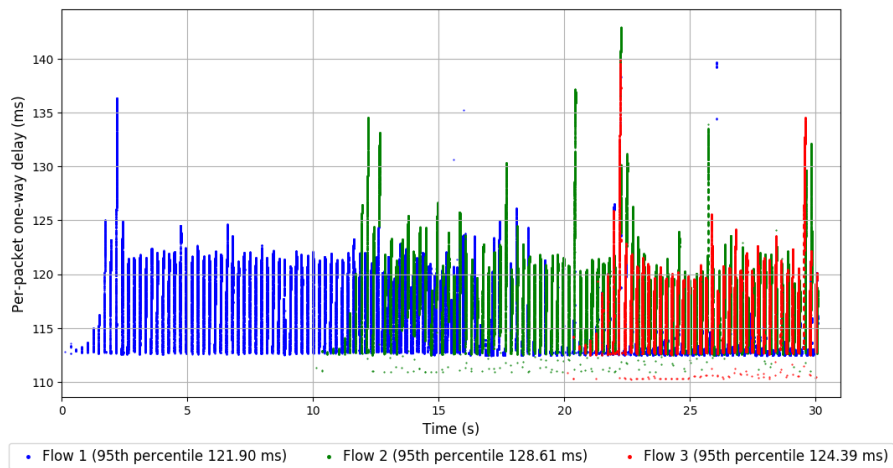
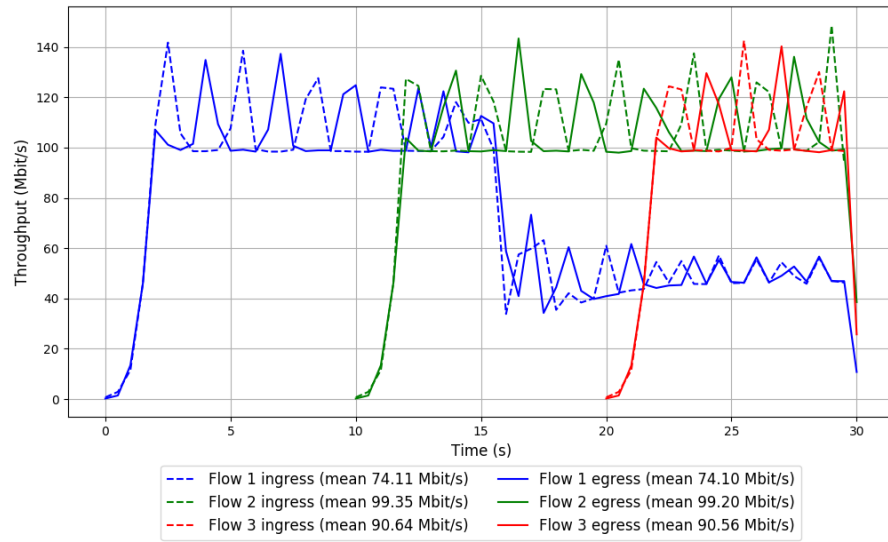
-- Flow 3:

Average throughput: 90.56 Mbit/s

95th percentile per-packet one-way delay: 124.388 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-17 09:57:44

End at: 2018-01-17 09:58:14

Below is generated by plot.py at 2018-01-17 13:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.17 Mbit/s

95th percentile per-packet one-way delay: 123.816 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 63.22 Mbit/s

95th percentile per-packet one-way delay: 123.443 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 65.91 Mbit/s

95th percentile per-packet one-way delay: 123.273 ms

Loss rate: 0.00%

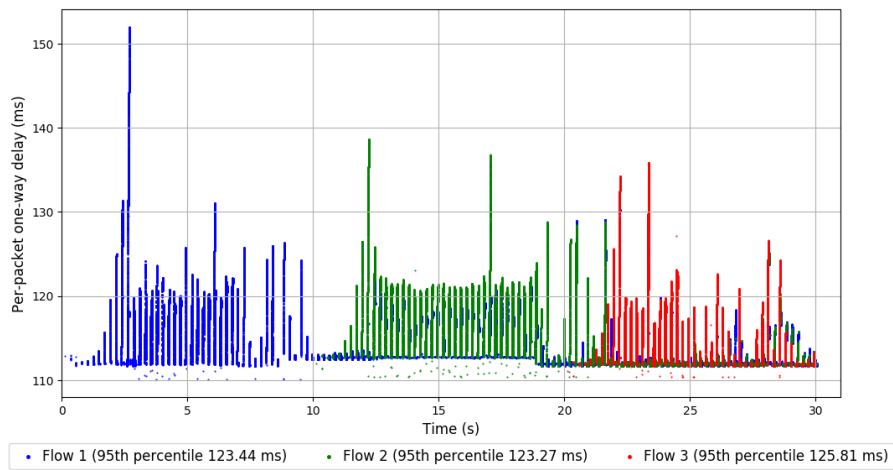
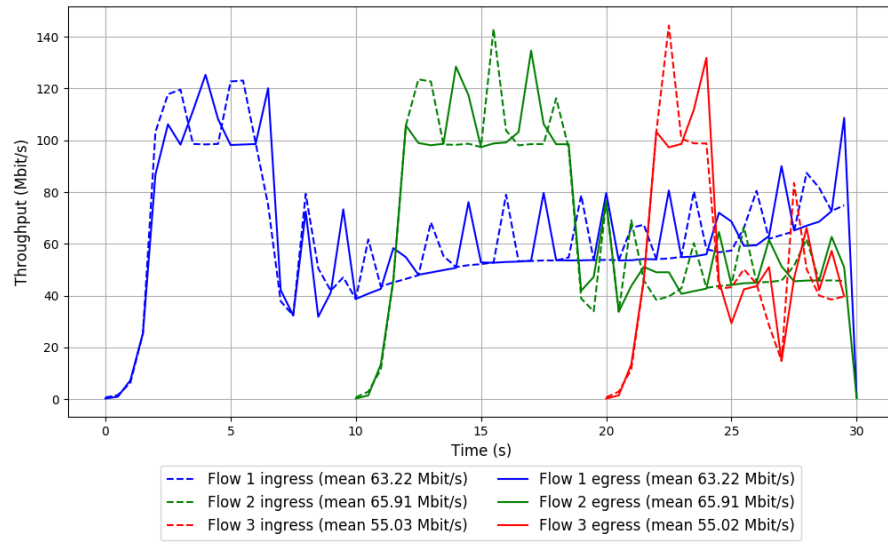
-- Flow 3:

Average throughput: 55.02 Mbit/s

95th percentile per-packet one-way delay: 125.815 ms

Loss rate: 0.01%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-17 10:16:01

End at: 2018-01-17 10:16:31

Below is generated by plot.py at 2018-01-17 13:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.06 Mbit/s

95th percentile per-packet one-way delay: 125.487 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 74.86 Mbit/s

95th percentile per-packet one-way delay: 123.187 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 62.95 Mbit/s

95th percentile per-packet one-way delay: 126.410 ms

Loss rate: 0.00%

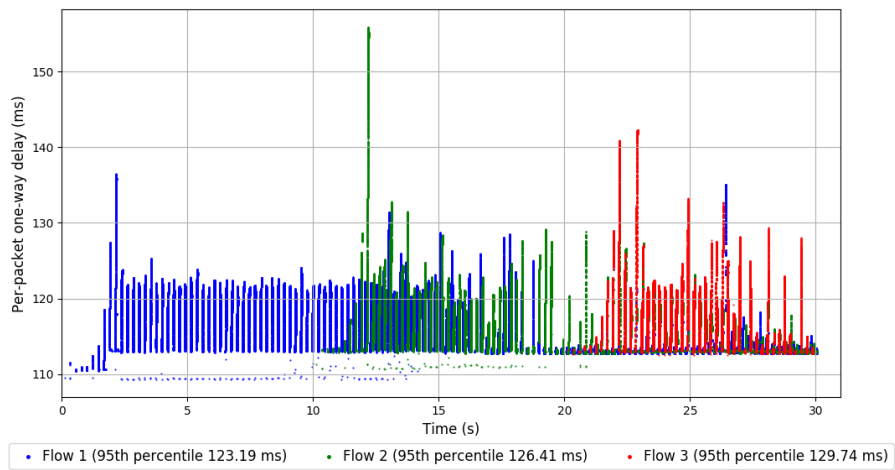
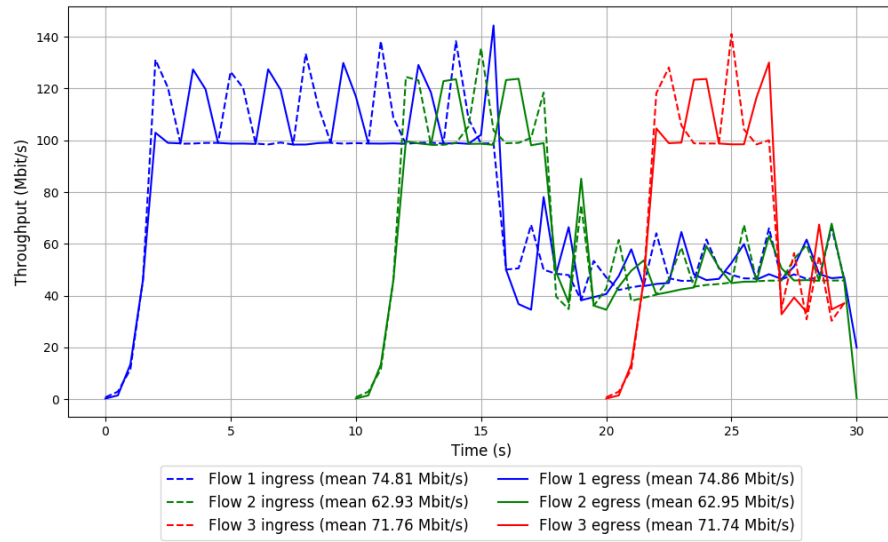
-- Flow 3:

Average throughput: 71.74 Mbit/s

95th percentile per-packet one-way delay: 129.737 ms

Loss rate: 0.02%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-17 10:34:09

End at: 2018-01-17 10:34:39

Below is generated by plot.py at 2018-01-17 13:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.26 Mbit/s

95th percentile per-packet one-way delay: 124.960 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 31.17 Mbit/s

95th percentile per-packet one-way delay: 126.166 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 68.64 Mbit/s

95th percentile per-packet one-way delay: 125.096 ms

Loss rate: 0.00%

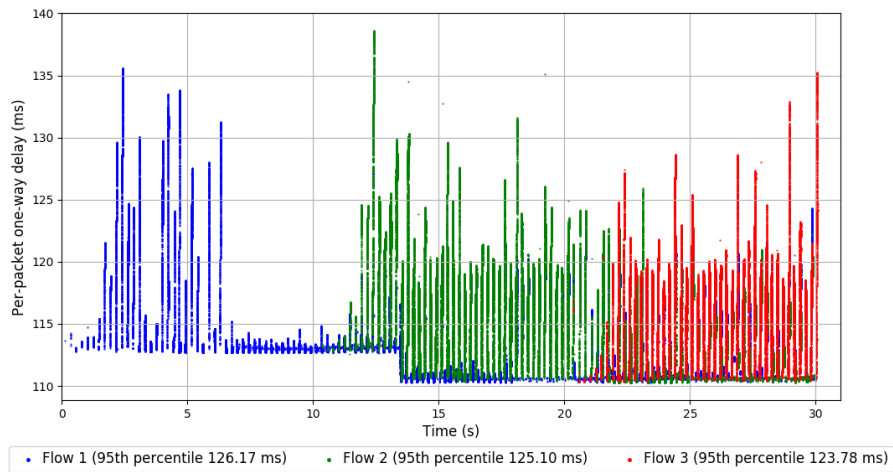
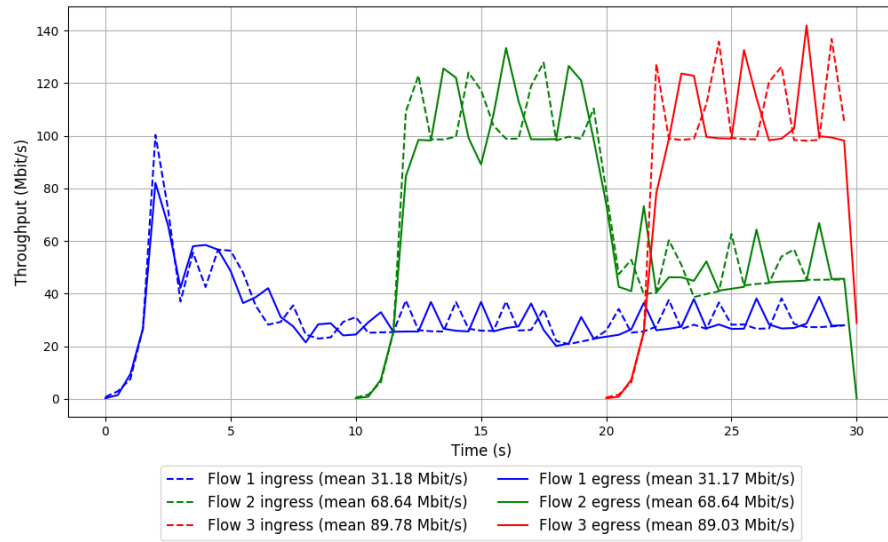
-- Flow 3:

Average throughput: 89.03 Mbit/s

95th percentile per-packet one-way delay: 123.777 ms

Loss rate: 0.89%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-17 10:53:02

End at: 2018-01-17 10:53:32

Below is generated by plot.py at 2018-01-17 13:56:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.41 Mbit/s

95th percentile per-packet one-way delay: 121.921 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 47.15 Mbit/s

95th percentile per-packet one-way delay: 121.219 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 62.75 Mbit/s

95th percentile per-packet one-way delay: 120.389 ms

Loss rate: 0.15%

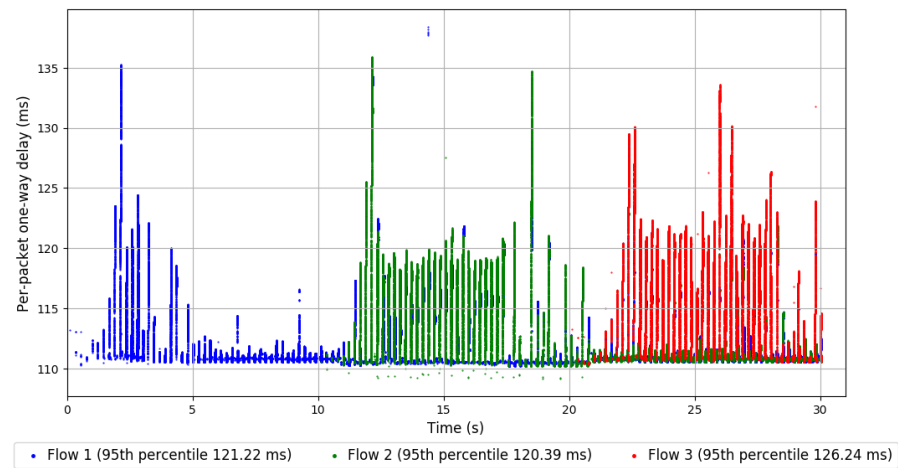
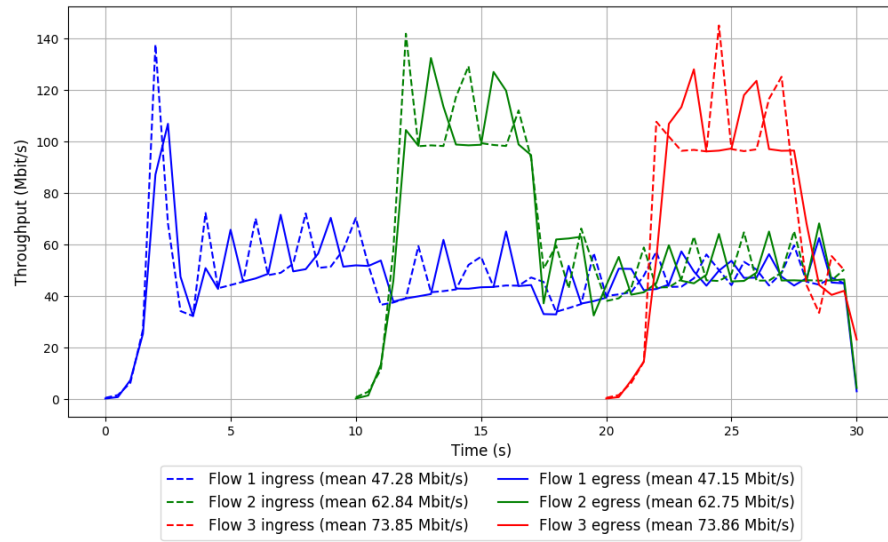
-- Flow 3:

Average throughput: 73.86 Mbit/s

95th percentile per-packet one-way delay: 126.242 ms

Loss rate: 0.01%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-17 11:12:00

End at: 2018-01-17 11:12:30

Below is generated by plot.py at 2018-01-17 13:57:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.39 Mbit/s

95th percentile per-packet one-way delay: 126.815 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 50.73 Mbit/s

95th percentile per-packet one-way delay: 124.859 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 71.09 Mbit/s

95th percentile per-packet one-way delay: 128.982 ms

Loss rate: 0.01%

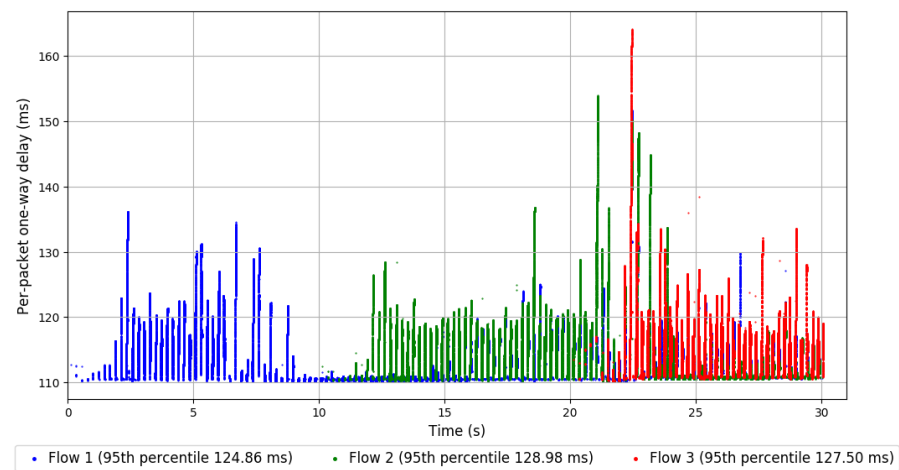
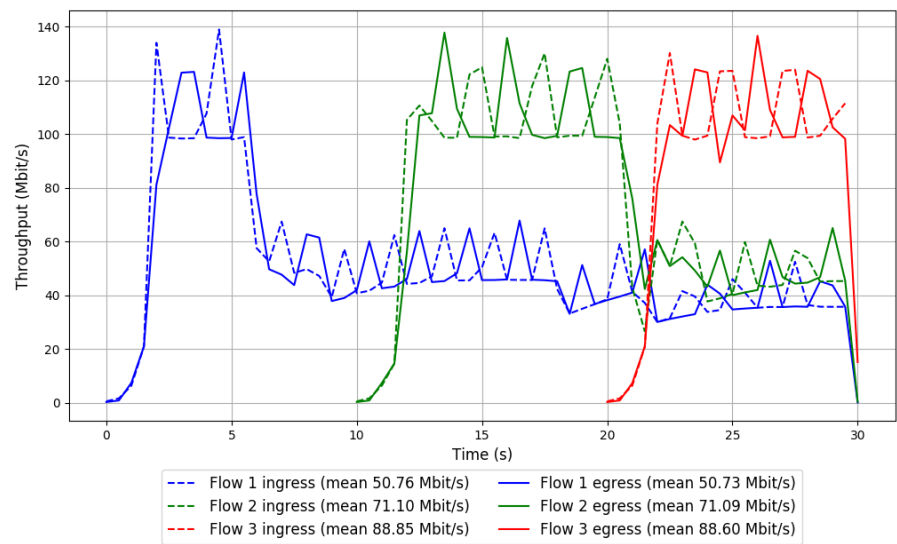
-- Flow 3:

Average throughput: 88.60 Mbit/s

95th percentile per-packet one-way delay: 127.497 ms

Loss rate: 0.28%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-17 11:30:55

End at: 2018-01-17 11:31:25

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 182.26 Mbit/s

95th percentile per-packet one-way delay: 125.387 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 102.89 Mbit/s

95th percentile per-packet one-way delay: 124.513 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 93.79 Mbit/s

95th percentile per-packet one-way delay: 125.765 ms

Loss rate: 0.00%

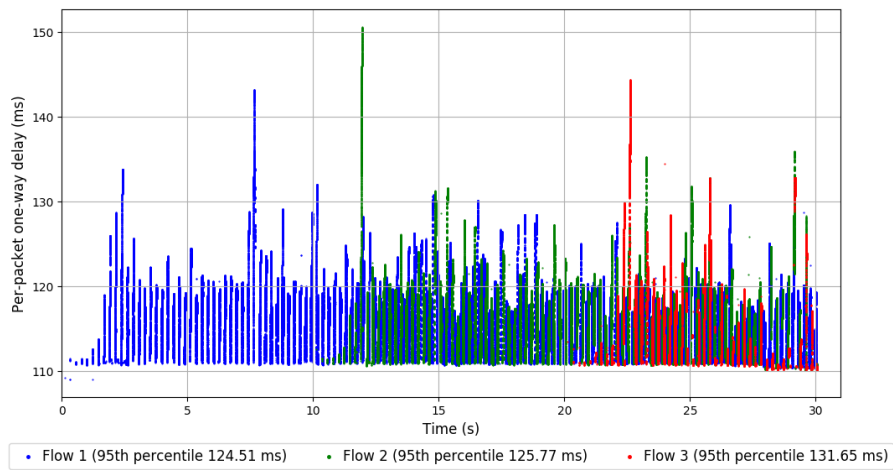
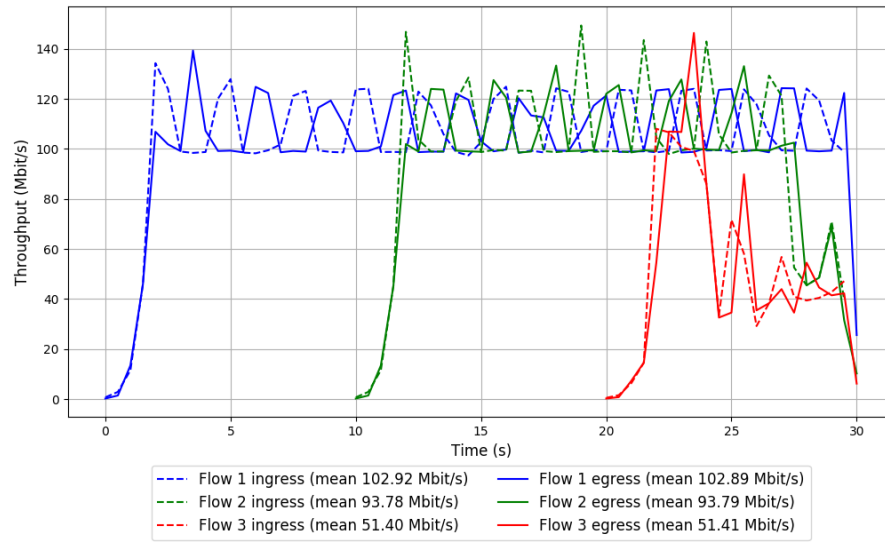
-- Flow 3:

Average throughput: 51.41 Mbit/s

95th percentile per-packet one-way delay: 131.649 ms

Loss rate: 0.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-17 11:49:44

End at: 2018-01-17 11:50:14

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.66 Mbit/s

95th percentile per-packet one-way delay: 127.542 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 57.39 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 57.35 Mbit/s

95th percentile per-packet one-way delay: 128.828 ms

Loss rate: 0.06%

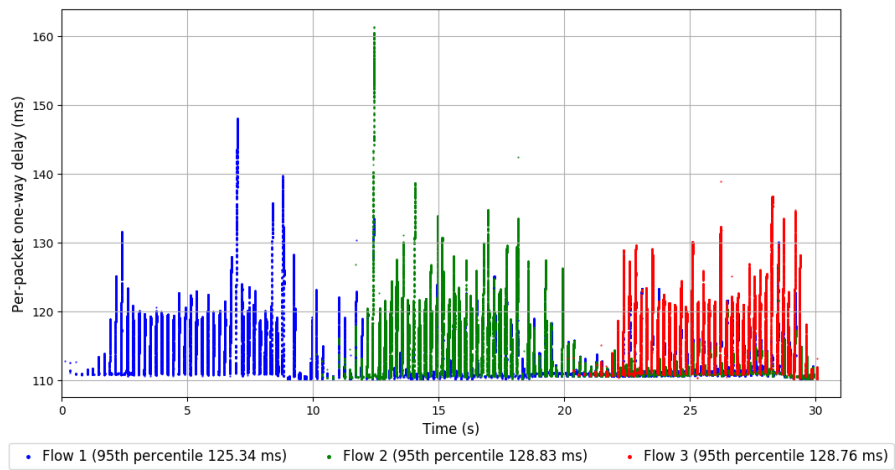
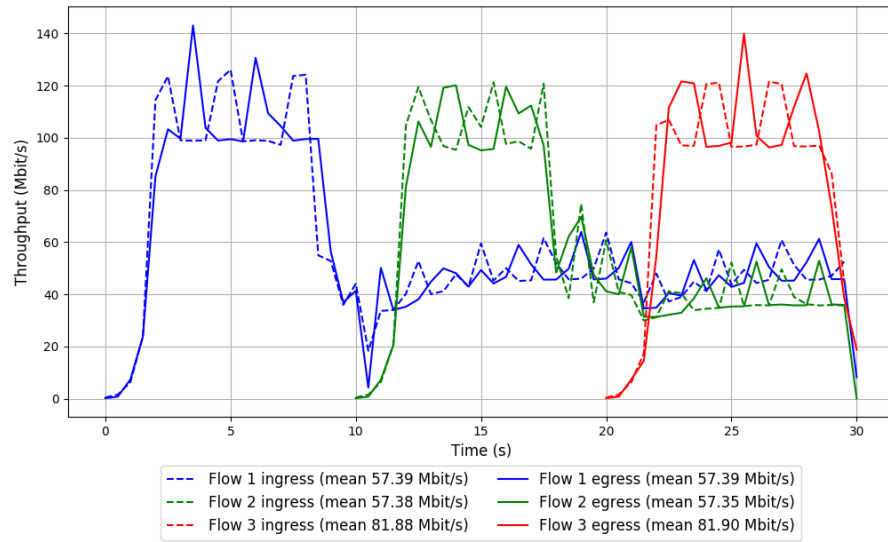
-- Flow 3:

Average throughput: 81.90 Mbit/s

95th percentile per-packet one-way delay: 128.762 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-17 12:07:38

End at: 2018-01-17 12:08:08

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.00 Mbit/s

95th percentile per-packet one-way delay: 125.846 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 59.73 Mbit/s

95th percentile per-packet one-way delay: 124.698 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.90 Mbit/s

95th percentile per-packet one-way delay: 127.078 ms

Loss rate: 0.03%

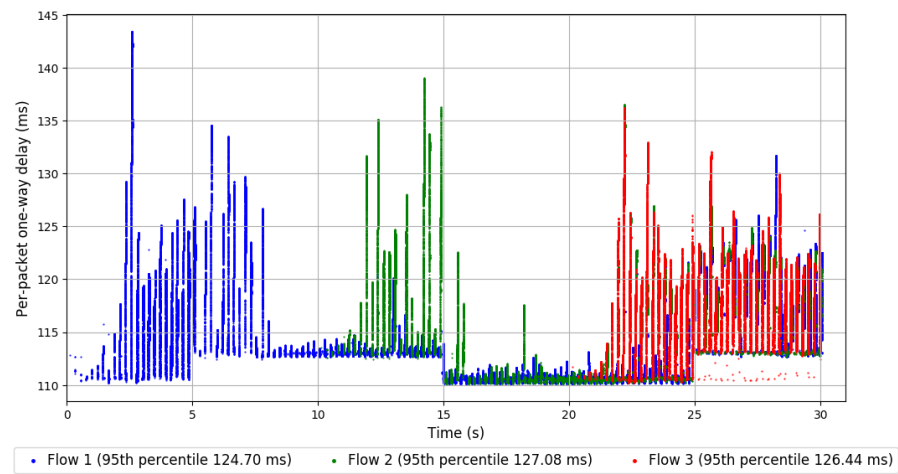
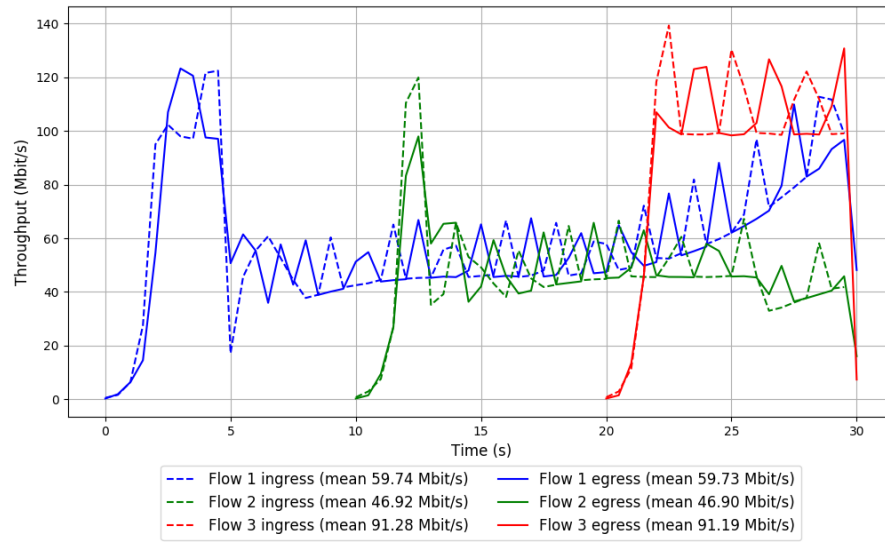
-- Flow 3:

Average throughput: 91.19 Mbit/s

95th percentile per-packet one-way delay: 126.442 ms

Loss rate: 0.00%

Run 10: Report of TCP Cubic — Data Link

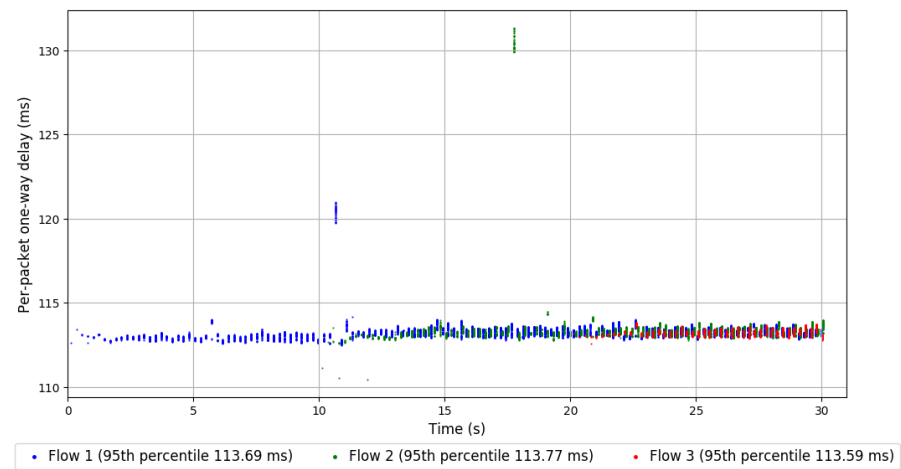
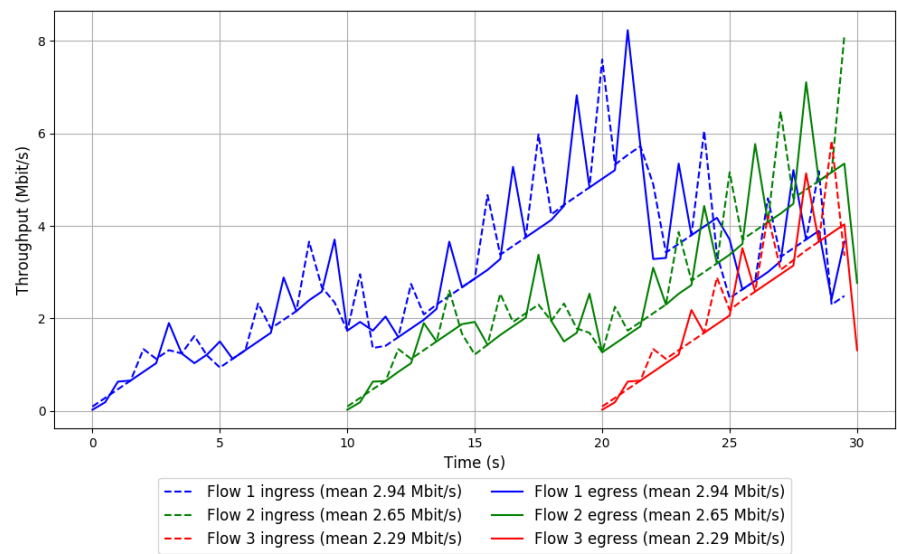


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-17 09:29:01
End at: 2018-01-17 09:29:31

# Below is generated by plot.py at 2018-01-17 13:58:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 113.703 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 2.94 Mbit/s
95th percentile per-packet one-way delay: 113.690 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 2.65 Mbit/s
95th percentile per-packet one-way delay: 113.766 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 113.588 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

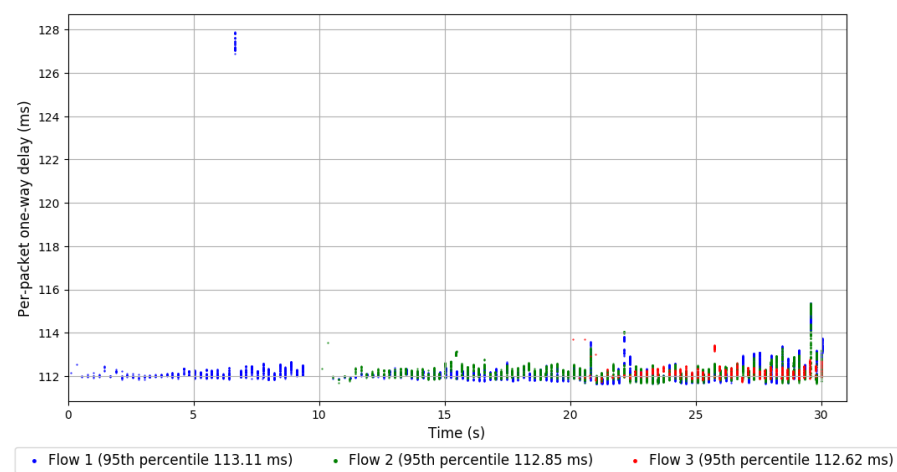
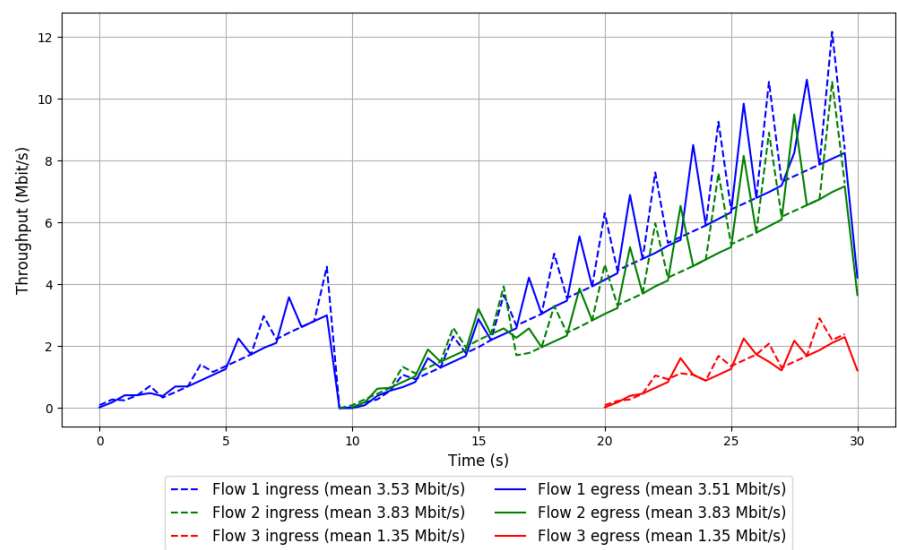


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-17 09:47:42
End at: 2018-01-17 09:48:13

# Below is generated by plot.py at 2018-01-17 13:58:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.50 Mbit/s
95th percentile per-packet one-way delay: 113.006 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 113.107 ms
Loss rate: 0.74%
-- Flow 2:
Average throughput: 3.83 Mbit/s
95th percentile per-packet one-way delay: 112.851 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 112.619 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-17 10:06:40

End at: 2018-01-17 10:07:10

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.07 Mbit/s

95th percentile per-packet one-way delay: 113.741 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 3.27 Mbit/s

95th percentile per-packet one-way delay: 113.854 ms

Loss rate: 0.16%

-- Flow 2:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 113.553 ms

Loss rate: 0.00%

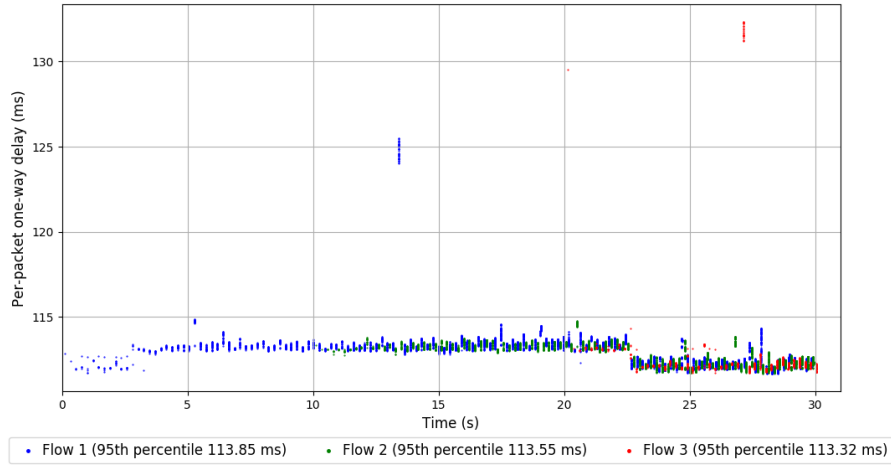
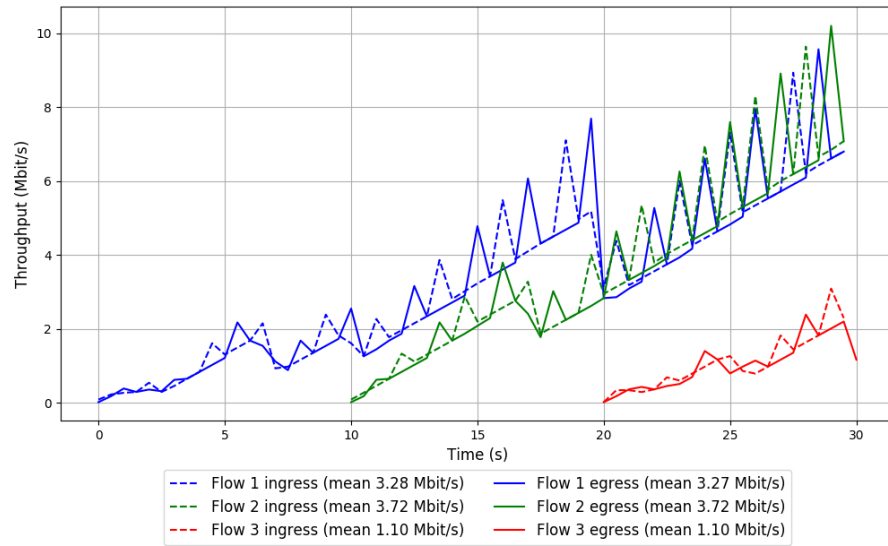
-- Flow 3:

Average throughput: 1.10 Mbit/s

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

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-17 10:24:59

End at: 2018-01-17 10:25:29

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.25 Mbit/s

95th percentile per-packet one-way delay: 111.283 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 111.502 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.38 Mbit/s

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

Loss rate: 0.00%

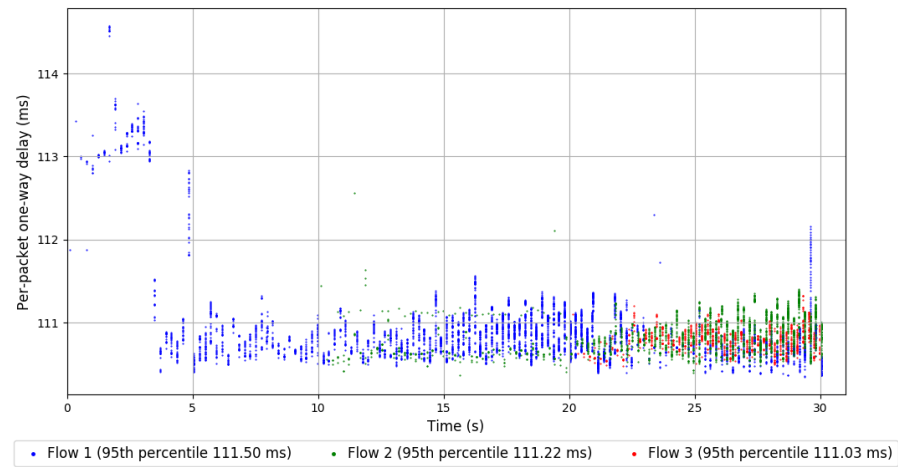
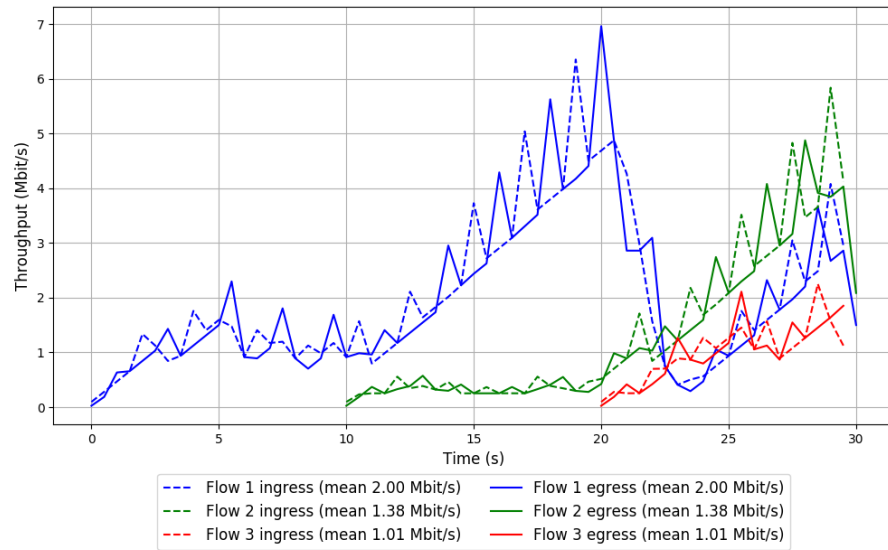
-- Flow 3:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 111.030 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-17 10:43:22

End at: 2018-01-17 10:43:52

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.43 Mbit/s

95th percentile per-packet one-way delay: 113.457 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.64 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 113.449 ms

Loss rate: 0.00%

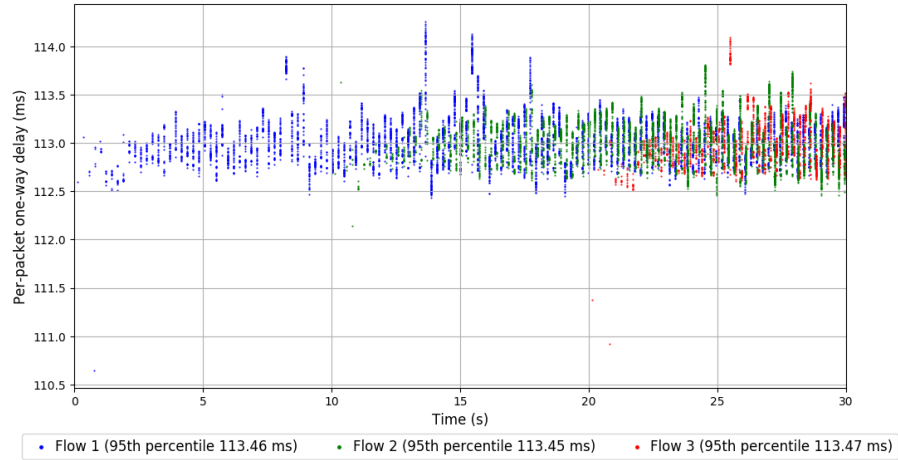
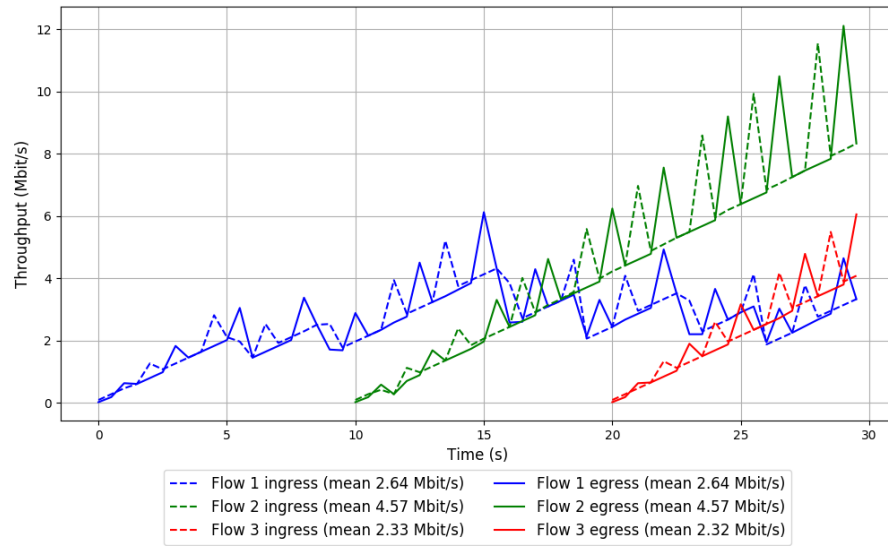
-- Flow 3:

Average throughput: 2.32 Mbit/s

95th percentile per-packet one-way delay: 113.473 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-17 11:02:09

End at: 2018-01-17 11:02:39

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 111.837 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 111.912 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 111.654 ms

Loss rate: 0.00%

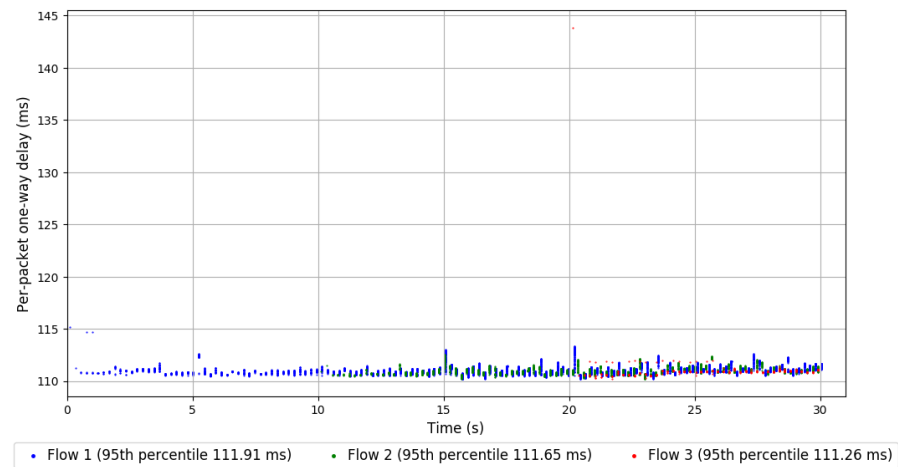
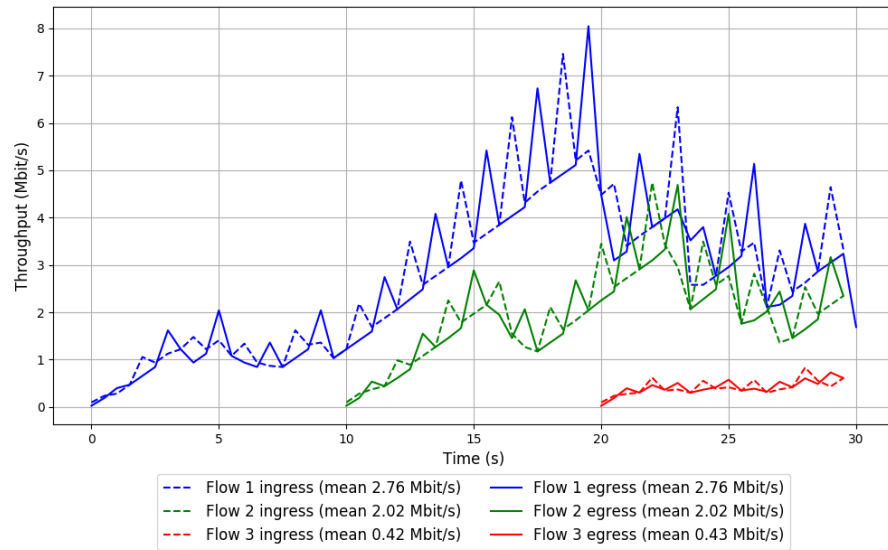
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 111.261 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-17 11:21:07

End at: 2018-01-17 11:21:37

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.21 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.20 Mbit/s

95th percentile per-packet one-way delay: 111.523 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 111.510 ms

Loss rate: 0.00%

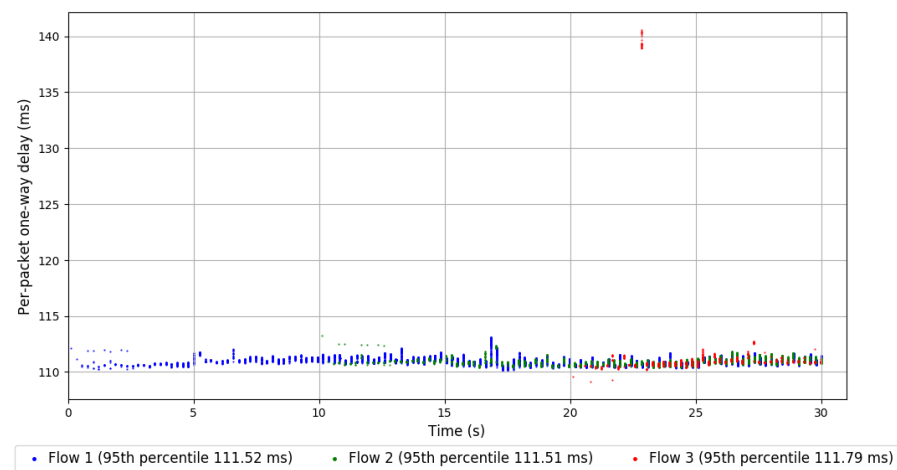
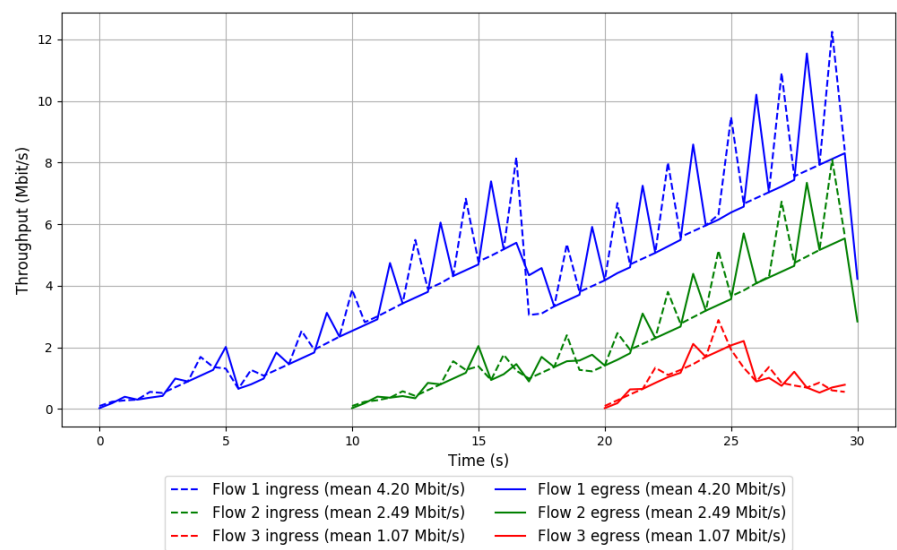
-- Flow 3:

Average throughput: 1.07 Mbit/s

95th percentile per-packet one-way delay: 111.794 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-17 11:40:17

End at: 2018-01-17 11:40:47

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.76 Mbit/s

95th percentile per-packet one-way delay: 112.044 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 4.54 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 111.616 ms

Loss rate: 0.26%

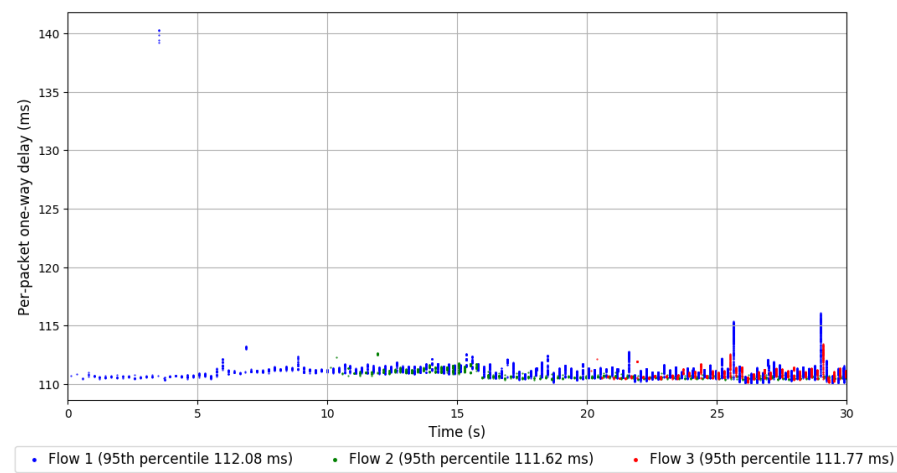
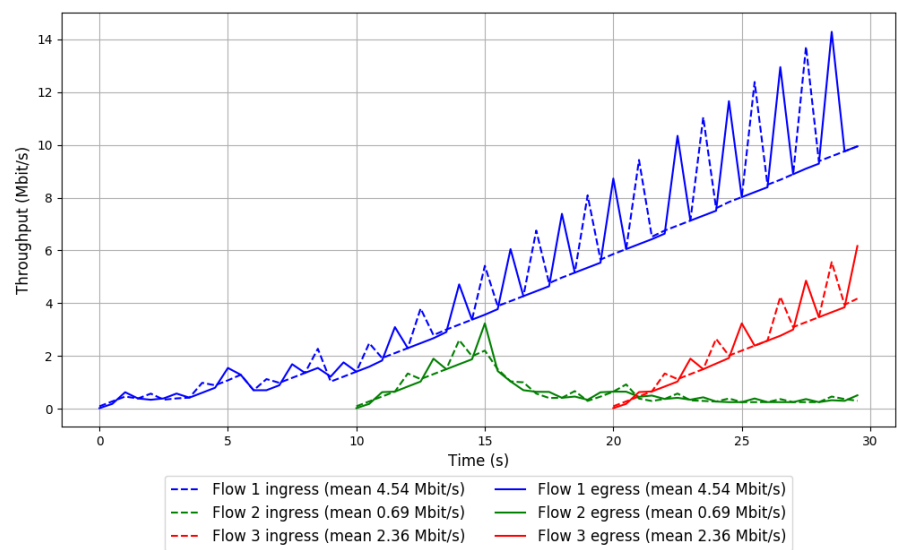
-- Flow 3:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 111.768 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-17 11:58:31

End at: 2018-01-17 11:59:01

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 114.159 ms

Loss rate: 2.81%

-- Flow 1:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 114.200 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 1.70 Mbit/s

95th percentile per-packet one-way delay: 113.956 ms

Loss rate: 5.11%

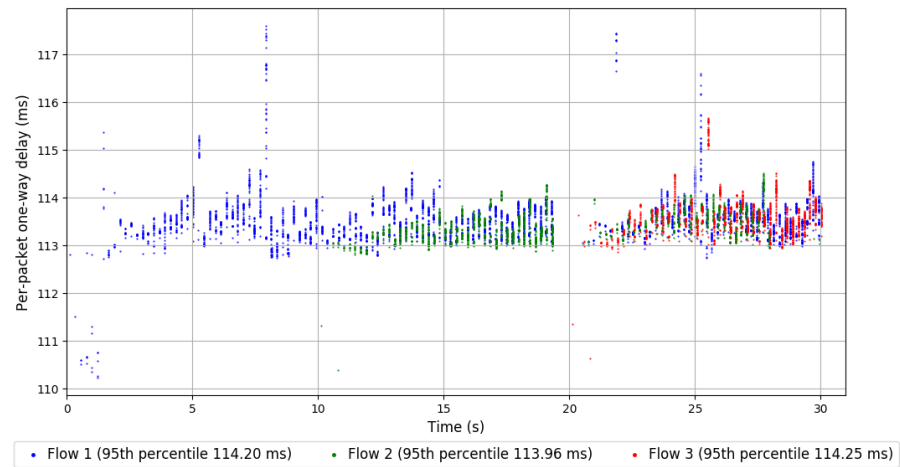
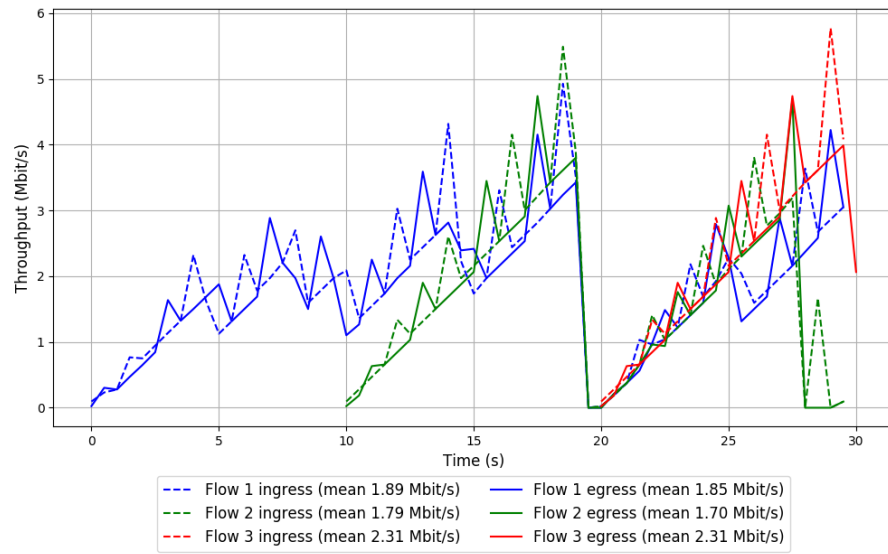
-- Flow 3:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 114.246 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-01-17 12:16:41

End at: 2018-01-17 12:17:11

Below is generated by plot.py at 2018-01-17 13:58:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.39 Mbit/s

95th percentile per-packet one-way delay: 114.238 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 114.101 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 3.04 Mbit/s

95th percentile per-packet one-way delay: 114.518 ms

Loss rate: 0.04%

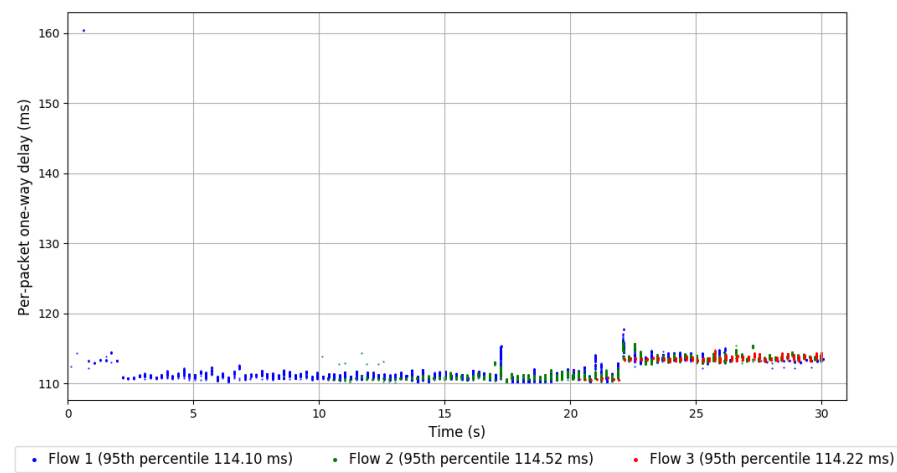
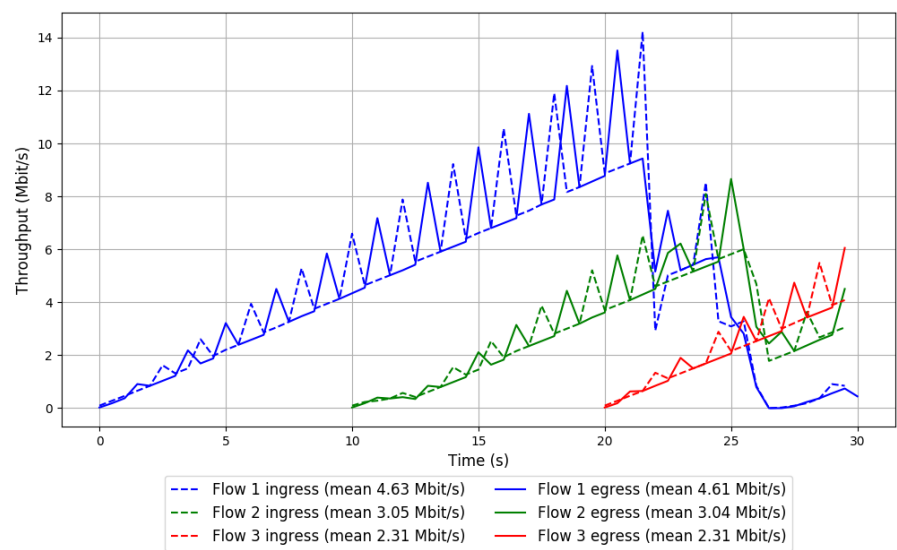
-- Flow 3:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 114.217 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

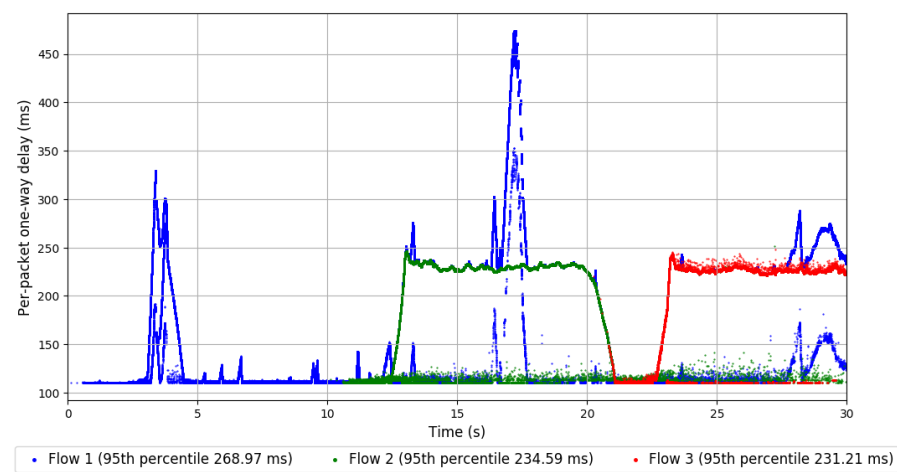
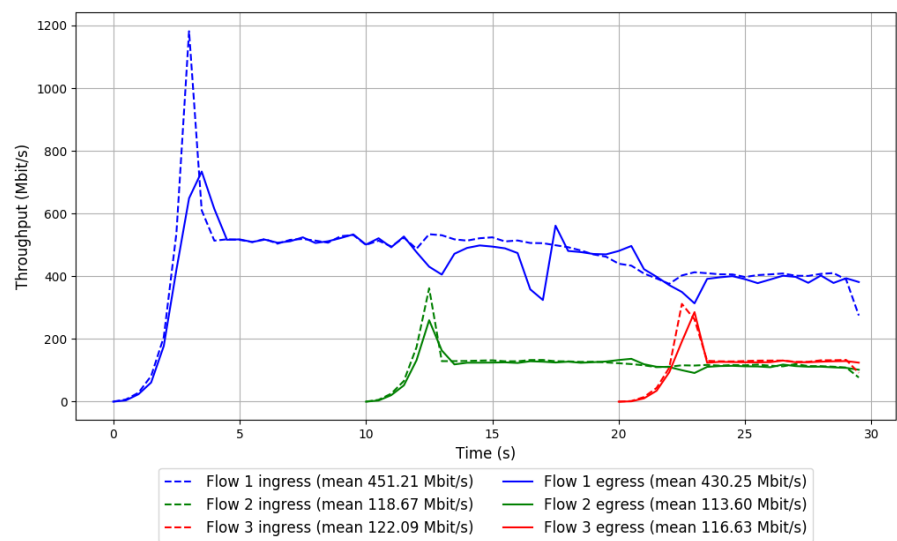


```
Run 1: Statistics of PCC

Start at: 2018-01-17 09:20:53
End at: 2018-01-17 09:21:23

# Below is generated by plot.py at 2018-01-17 14:04:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 543.67 Mbit/s
95th percentile per-packet one-way delay: 263.892 ms
Loss rate: 4.65%
-- Flow 1:
Average throughput: 430.25 Mbit/s
95th percentile per-packet one-way delay: 268.972 ms
Loss rate: 4.64%
-- Flow 2:
Average throughput: 113.60 Mbit/s
95th percentile per-packet one-way delay: 234.587 ms
Loss rate: 4.28%
-- Flow 3:
Average throughput: 116.63 Mbit/s
95th percentile per-packet one-way delay: 231.208 ms
Loss rate: 5.52%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-01-17 09:39:30

End at: 2018-01-17 09:40:00

Below is generated by plot.py at 2018-01-17 14:04:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 558.85 Mbit/s

95th percentile per-packet one-way delay: 232.620 ms

Loss rate: 3.26%

-- Flow 1:

Average throughput: 526.08 Mbit/s

95th percentile per-packet one-way delay: 232.639 ms

Loss rate: 3.34%

-- Flow 2:

Average throughput: 32.93 Mbit/s

95th percentile per-packet one-way delay: 232.059 ms

Loss rate: 1.56%

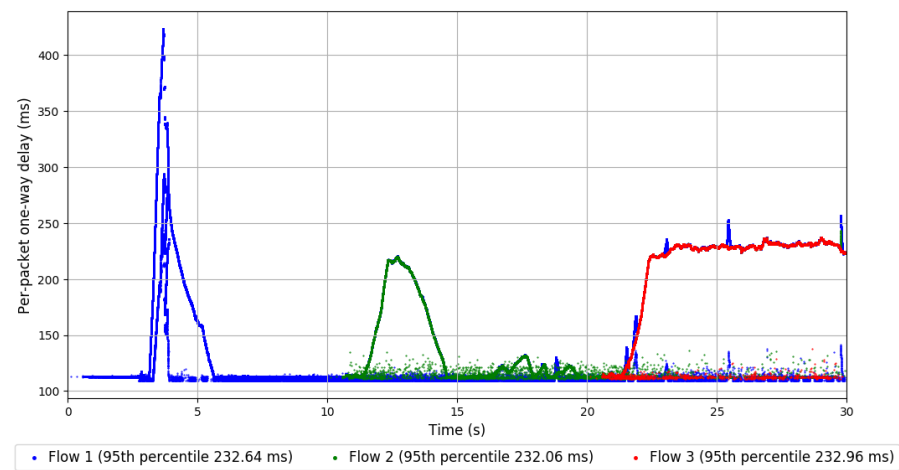
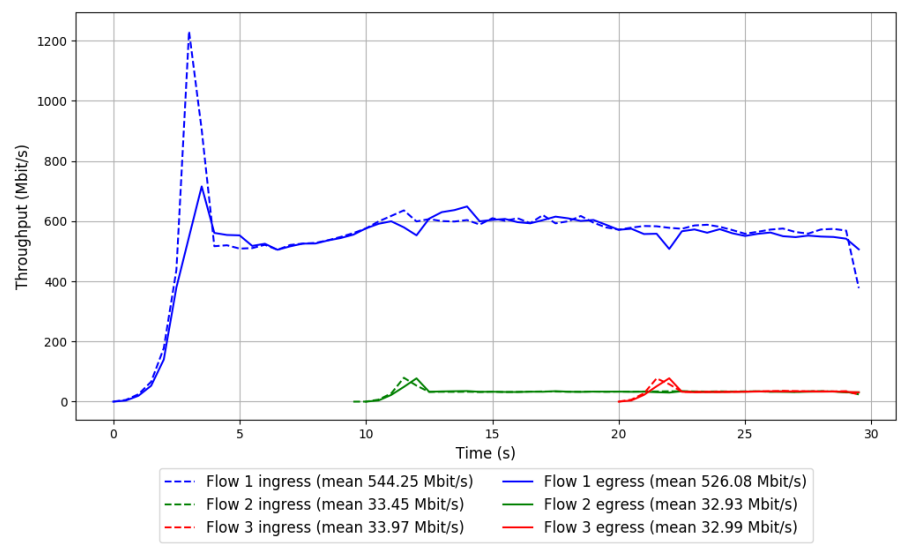
-- Flow 3:

Average throughput: 32.99 Mbit/s

95th percentile per-packet one-way delay: 232.959 ms

Loss rate: 2.90%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-17 09:58:38

End at: 2018-01-17 09:59:08

Below is generated by plot.py at 2018-01-17 14:04:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 553.36 Mbit/s

95th percentile per-packet one-way delay: 263.368 ms

Loss rate: 3.37%

-- Flow 1:

Average throughput: 530.51 Mbit/s

95th percentile per-packet one-way delay: 263.476 ms

Loss rate: 3.40%

-- Flow 2:

Average throughput: 32.33 Mbit/s

95th percentile per-packet one-way delay: 261.734 ms

Loss rate: 2.51%

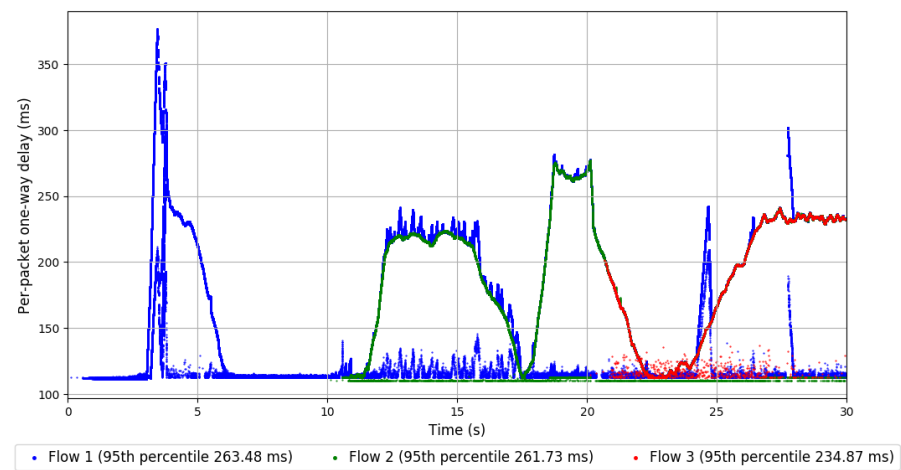
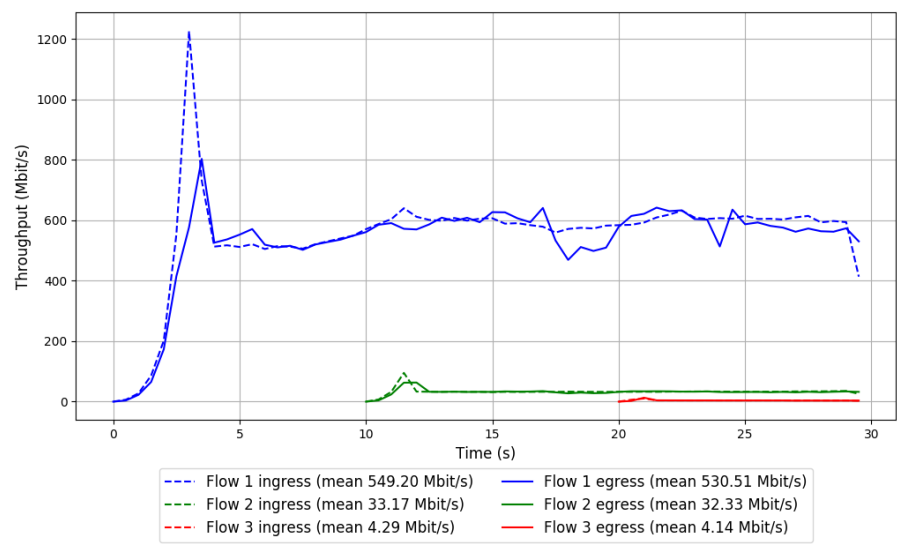
-- Flow 3:

Average throughput: 4.14 Mbit/s

95th percentile per-packet one-way delay: 234.874 ms

Loss rate: 3.52%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-17 10:16:57

End at: 2018-01-17 10:17:27

Below is generated by plot.py at 2018-01-17 14:04:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 540.06 Mbit/s

95th percentile per-packet one-way delay: 239.225 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 486.94 Mbit/s

95th percentile per-packet one-way delay: 239.440 ms

Loss rate: 2.47%

-- Flow 2:

Average throughput: 63.15 Mbit/s

95th percentile per-packet one-way delay: 237.945 ms

Loss rate: 1.08%

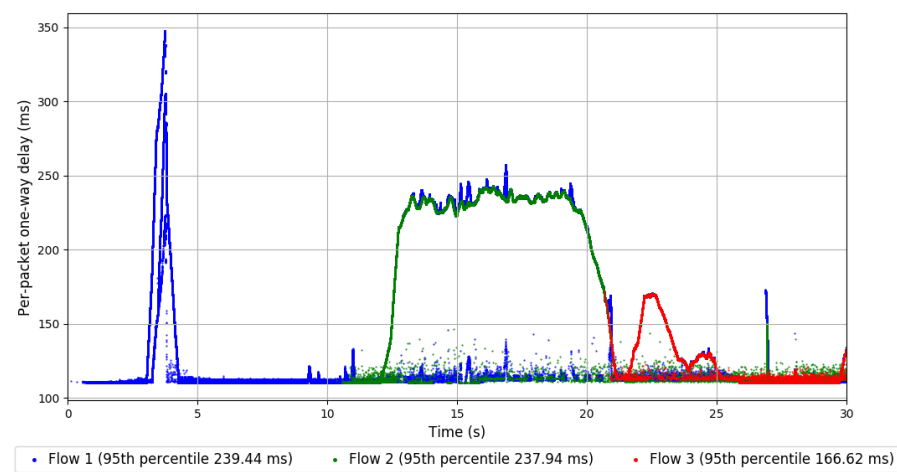
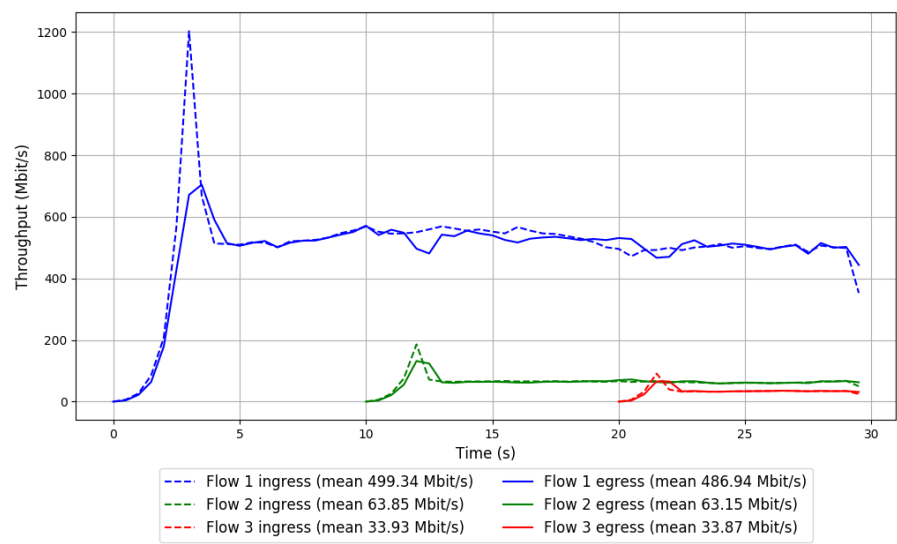
-- Flow 3:

Average throughput: 33.87 Mbit/s

95th percentile per-packet one-way delay: 166.625 ms

Loss rate: 0.19%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-01-17 10:35:02

End at: 2018-01-17 10:35:32

Below is generated by plot.py at 2018-01-17 14:05:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 576.49 Mbit/s

95th percentile per-packet one-way delay: 287.324 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 472.29 Mbit/s

95th percentile per-packet one-way delay: 301.338 ms

Loss rate: 2.70%

-- Flow 2:

Average throughput: 126.66 Mbit/s

95th percentile per-packet one-way delay: 224.742 ms

Loss rate: 2.45%

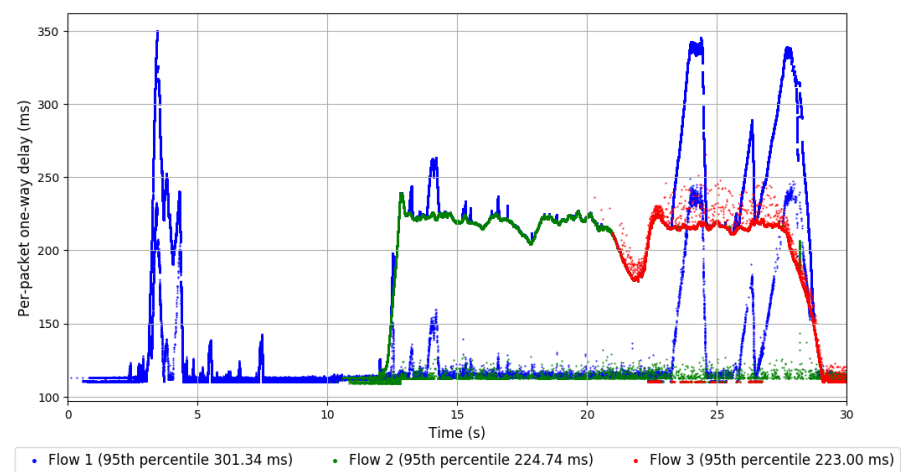
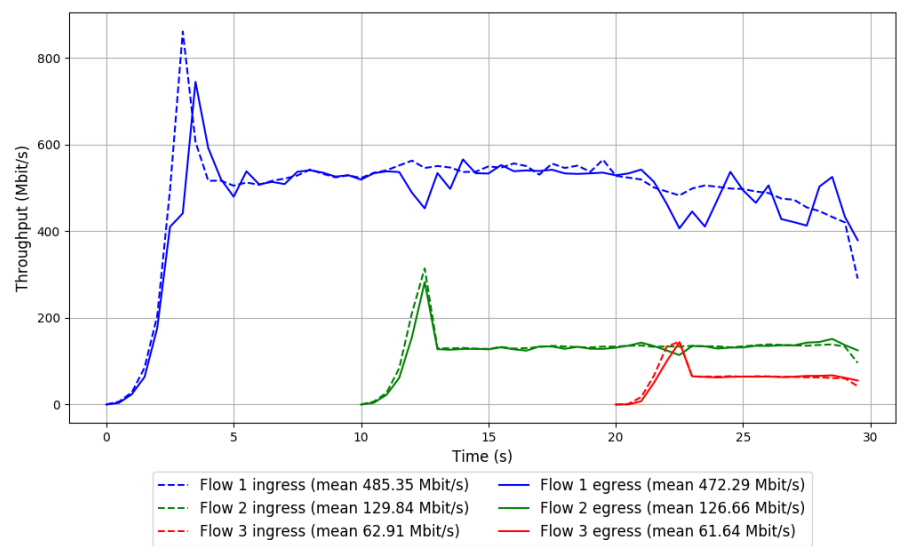
-- Flow 3:

Average throughput: 61.64 Mbit/s

95th percentile per-packet one-way delay: 222.999 ms

Loss rate: 3.28%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-17 10:53:55

End at: 2018-01-17 10:54:25

Below is generated by plot.py at 2018-01-17 14:05:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 551.16 Mbit/s

95th percentile per-packet one-way delay: 228.134 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 485.41 Mbit/s

95th percentile per-packet one-way delay: 228.437 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 67.13 Mbit/s

95th percentile per-packet one-way delay: 227.111 ms

Loss rate: 0.11%

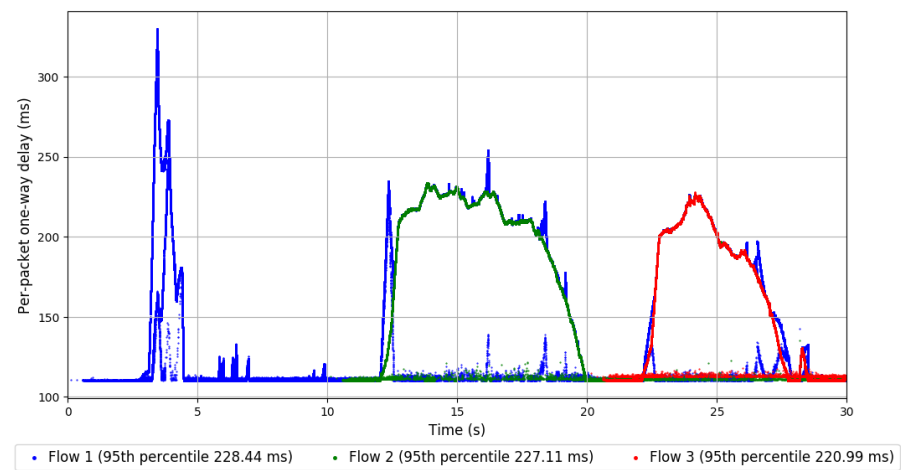
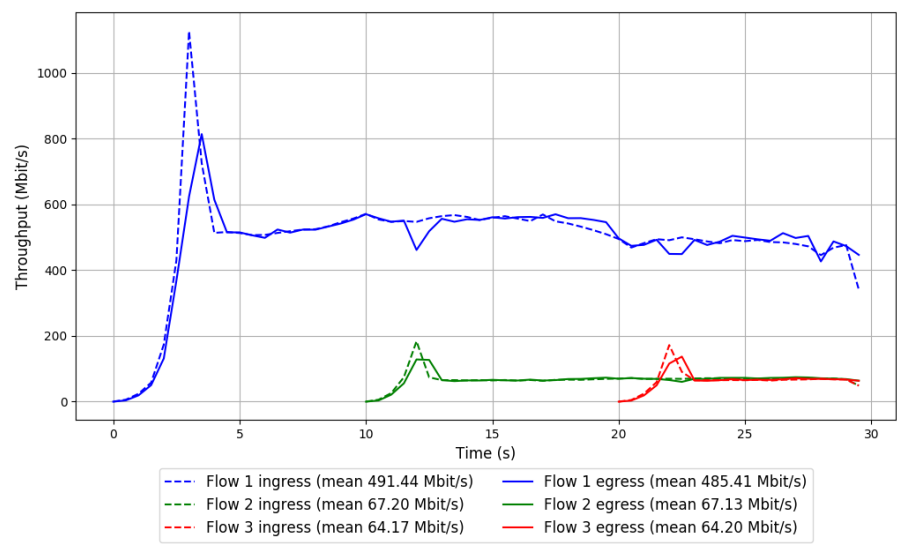
-- Flow 3:

Average throughput: 64.20 Mbit/s

95th percentile per-packet one-way delay: 220.988 ms

Loss rate: 0.01%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-17 11:12:54

End at: 2018-01-17 11:13:24

Below is generated by plot.py at 2018-01-17 14:05:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 523.33 Mbit/s

95th percentile per-packet one-way delay: 295.497 ms

Loss rate: 5.86%

-- Flow 1:

Average throughput: 436.53 Mbit/s

95th percentile per-packet one-way delay: 303.122 ms

Loss rate: 6.24%

-- Flow 2:

Average throughput: 128.46 Mbit/s

95th percentile per-packet one-way delay: 232.899 ms

Loss rate: 3.90%

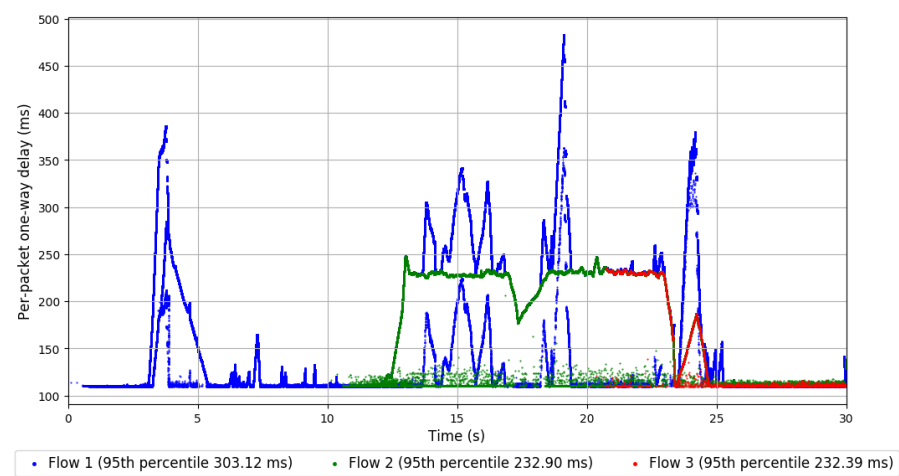
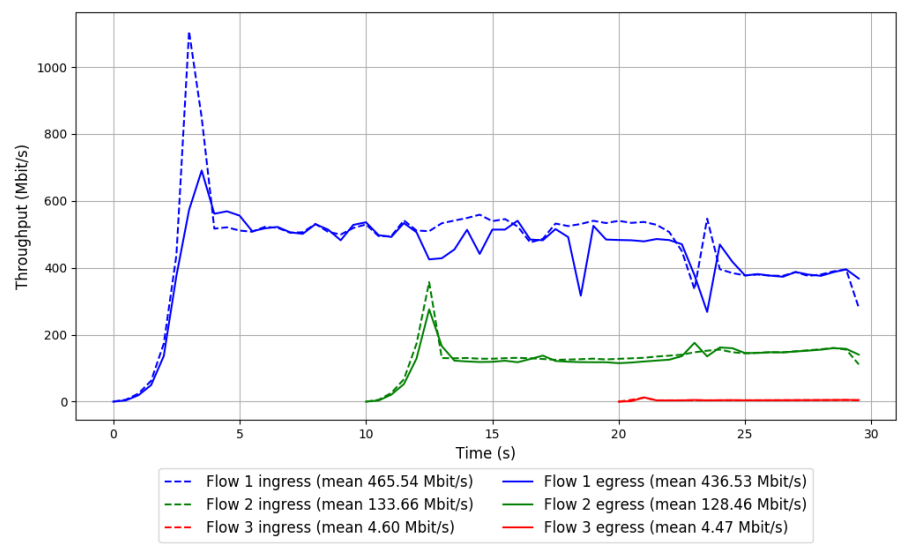
-- Flow 3:

Average throughput: 4.47 Mbit/s

95th percentile per-packet one-way delay: 232.393 ms

Loss rate: 2.66%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-17 11:31:56

End at: 2018-01-17 11:32:26

Below is generated by plot.py at 2018-01-17 14:06:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 529.60 Mbit/s

95th percentile per-packet one-way delay: 274.610 ms

Loss rate: 3.78%

-- Flow 1:

Average throughput: 447.59 Mbit/s

95th percentile per-packet one-way delay: 282.125 ms

Loss rate: 4.02%

-- Flow 2:

Average throughput: 122.29 Mbit/s

95th percentile per-packet one-way delay: 237.260 ms

Loss rate: 2.43%

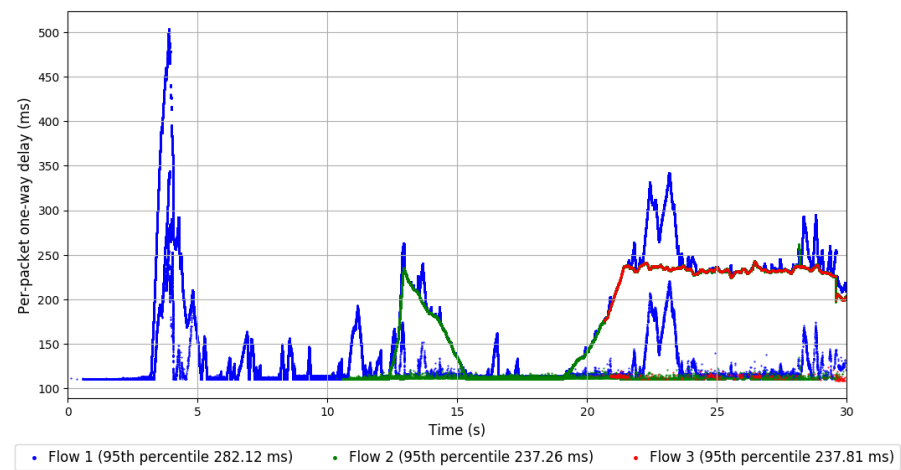
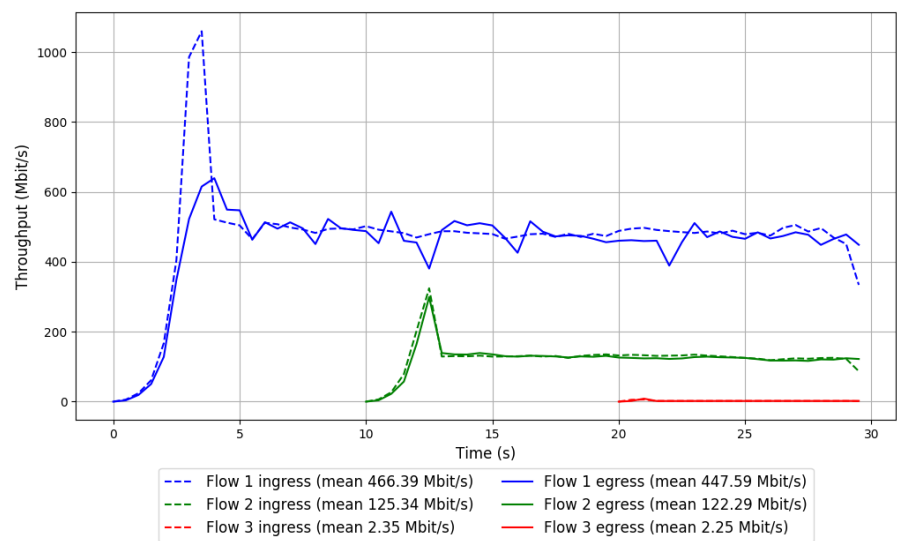
-- Flow 3:

Average throughput: 2.25 Mbit/s

95th percentile per-packet one-way delay: 237.810 ms

Loss rate: 3.90%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-17 11:50:38

End at: 2018-01-17 11:51:08

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.56 Mbit/s

95th percentile per-packet one-way delay: 297.578 ms

Loss rate: 4.03%

-- Flow 1:

Average throughput: 403.01 Mbit/s

95th percentile per-packet one-way delay: 306.171 ms

Loss rate: 4.59%

-- Flow 2:

Average throughput: 121.21 Mbit/s

95th percentile per-packet one-way delay: 233.534 ms

Loss rate: 1.54%

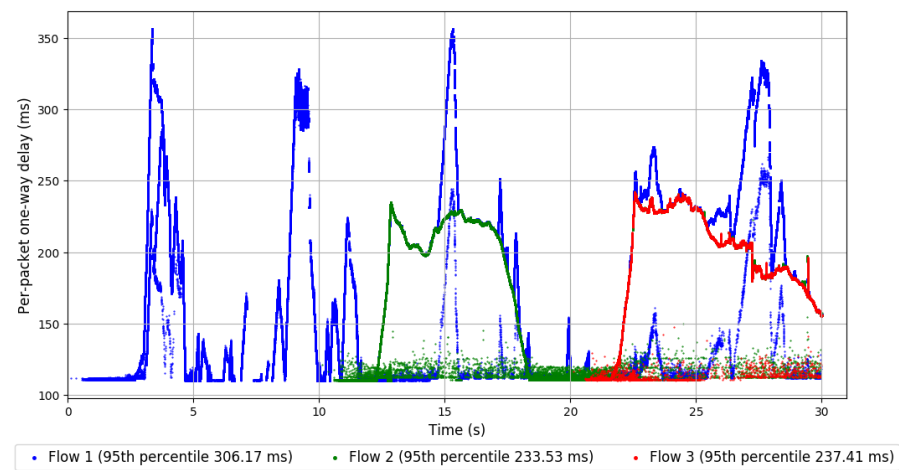
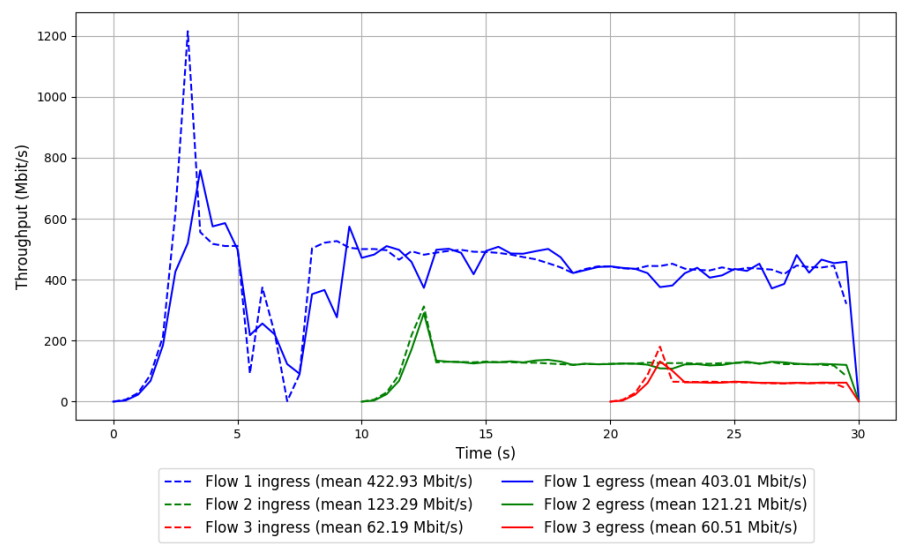
-- Flow 3:

Average throughput: 60.51 Mbit/s

95th percentile per-packet one-way delay: 237.409 ms

Loss rate: 2.40%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-01-17 12:08:32

End at: 2018-01-17 12:09:02

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.65 Mbit/s

95th percentile per-packet one-way delay: 251.348 ms

Loss rate: 2.29%

-- Flow 1:

Average throughput: 259.48 Mbit/s

95th percentile per-packet one-way delay: 296.991 ms

Loss rate: 2.40%

-- Flow 2:

Average throughput: 273.33 Mbit/s

95th percentile per-packet one-way delay: 237.825 ms

Loss rate: 2.16%

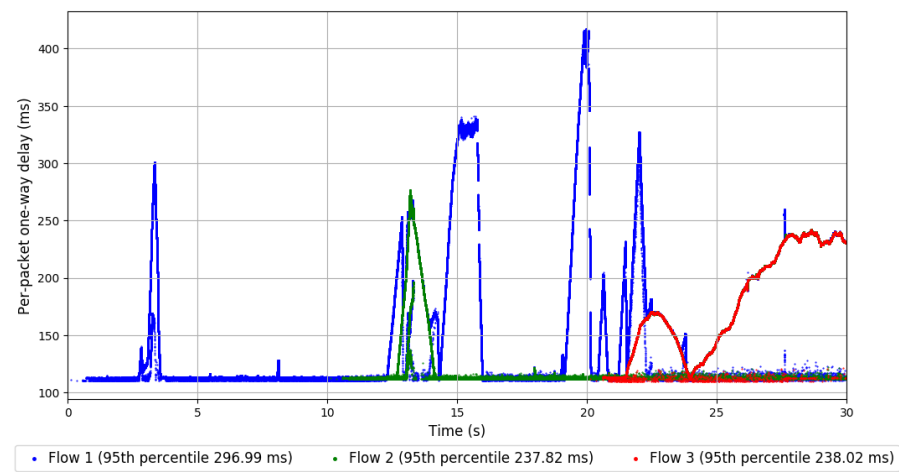
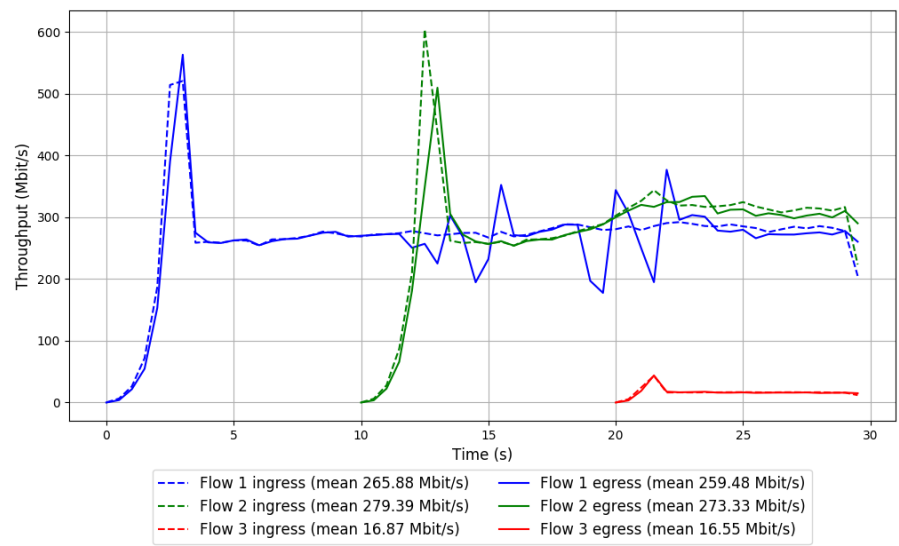
-- Flow 3:

Average throughput: 16.55 Mbit/s

95th percentile per-packet one-way delay: 238.019 ms

Loss rate: 1.89%

Run 10: Report of PCC — Data Link

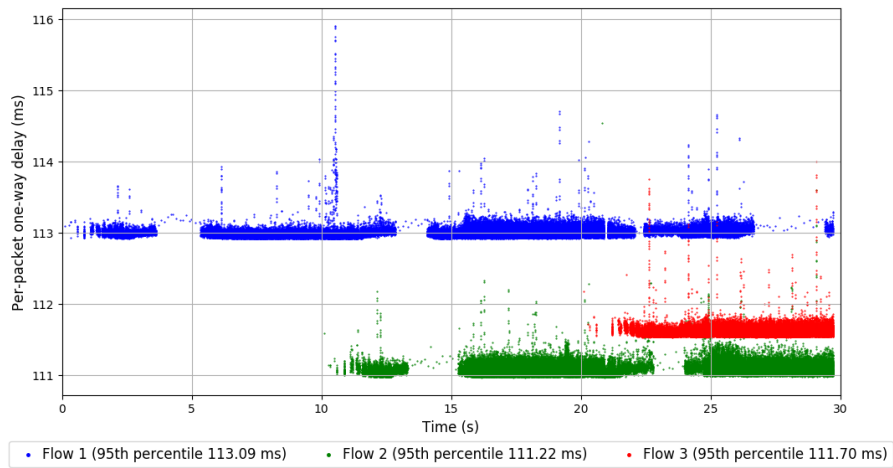
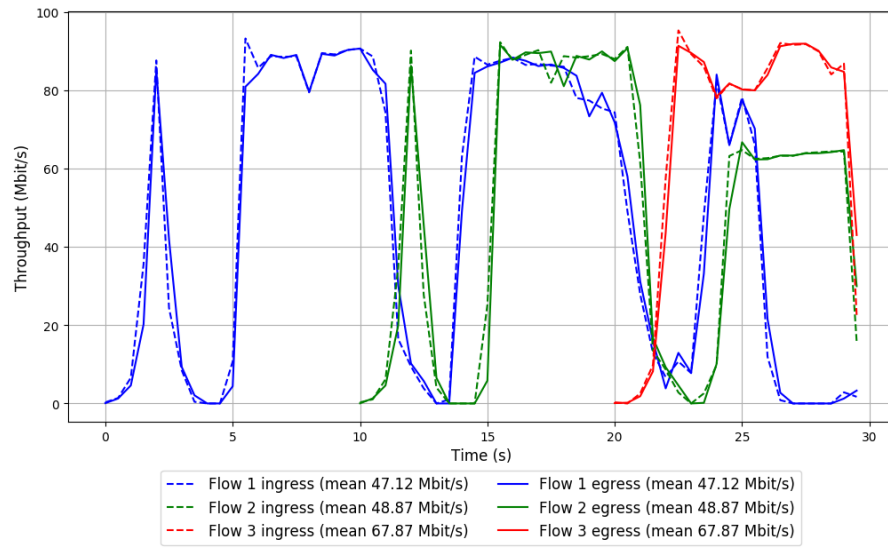


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-17 09:29:48
End at: 2018-01-17 09:30:18

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.51 Mbit/s
95th percentile per-packet one-way delay: 113.052 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.12 Mbit/s
95th percentile per-packet one-way delay: 113.088 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 48.87 Mbit/s
95th percentile per-packet one-way delay: 111.219 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 67.87 Mbit/s
95th percentile per-packet one-way delay: 111.704 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-17 09:48:29

End at: 2018-01-17 09:48:59

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.65 Mbit/s

95th percentile per-packet one-way delay: 113.028 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.38 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.70 Mbit/s

95th percentile per-packet one-way delay: 113.062 ms

Loss rate: 0.00%

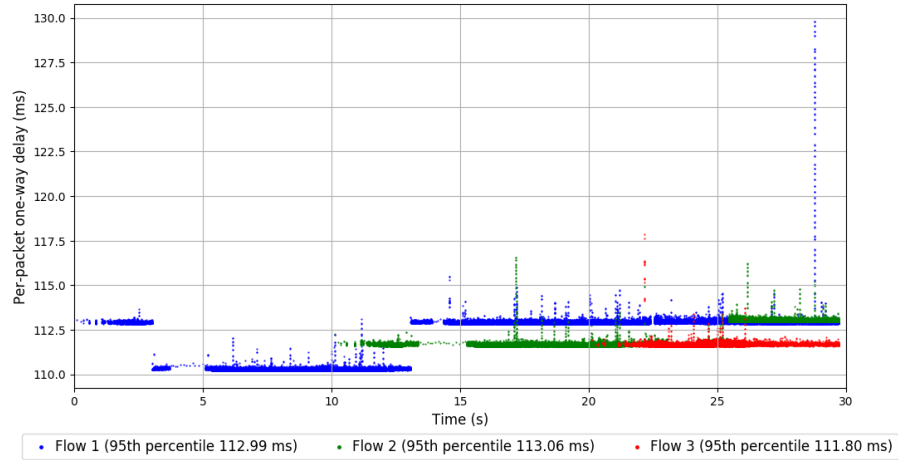
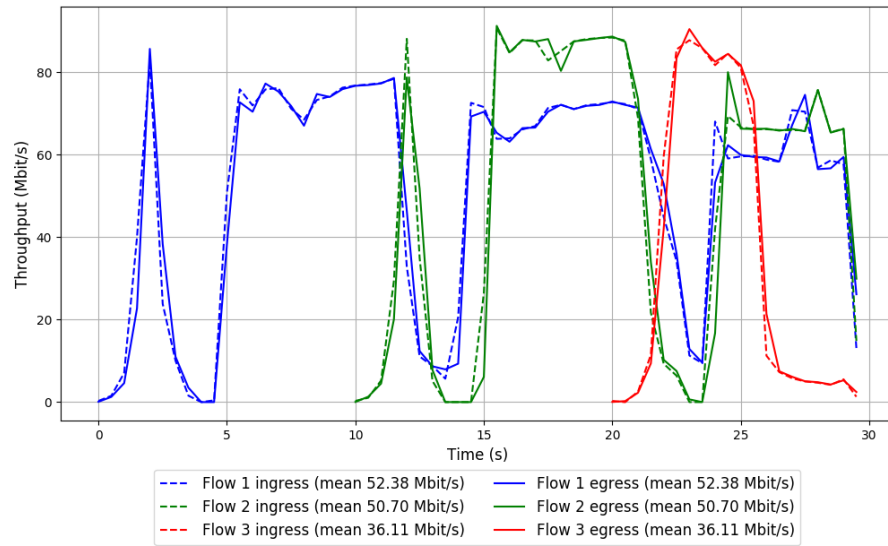
-- Flow 3:

Average throughput: 36.11 Mbit/s

95th percentile per-packet one-way delay: 111.799 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-17 10:07:27

End at: 2018-01-17 10:07:57

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.10 Mbit/s

95th percentile per-packet one-way delay: 114.683 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.90 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.81 Mbit/s

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

Loss rate: 0.00%

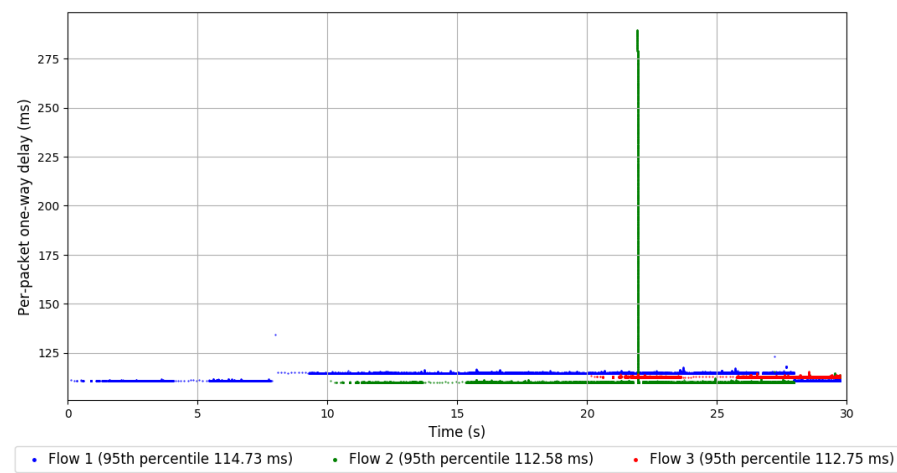
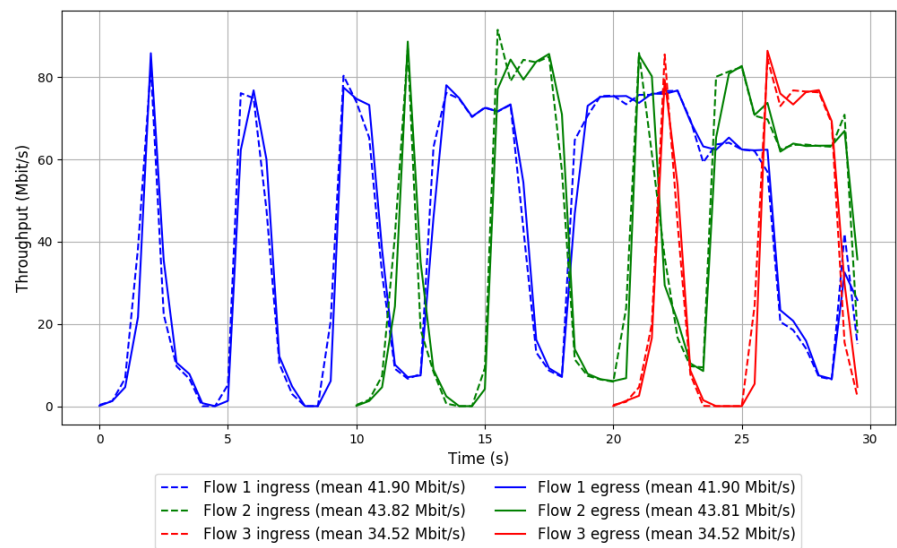
-- Flow 3:

Average throughput: 34.52 Mbit/s

95th percentile per-packet one-way delay: 112.752 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-17 10:25:46

End at: 2018-01-17 10:26:16

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.29 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.51 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.83 Mbit/s

95th percentile per-packet one-way delay: 112.669 ms

Loss rate: 0.00%

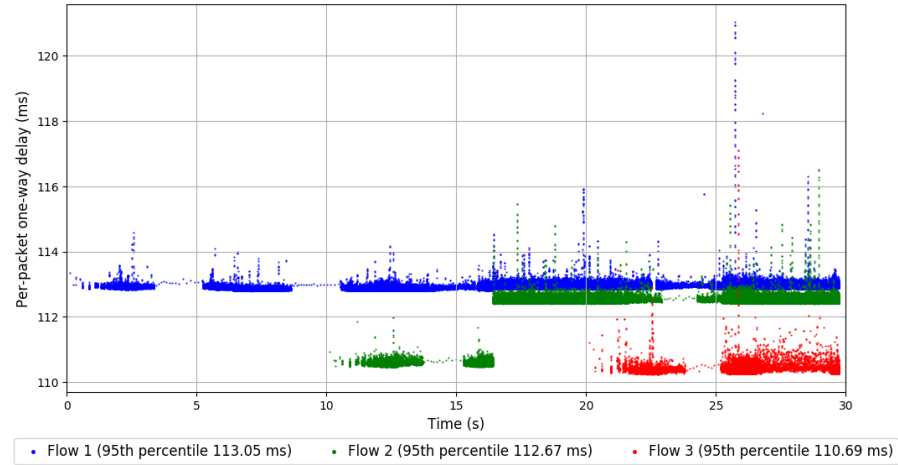
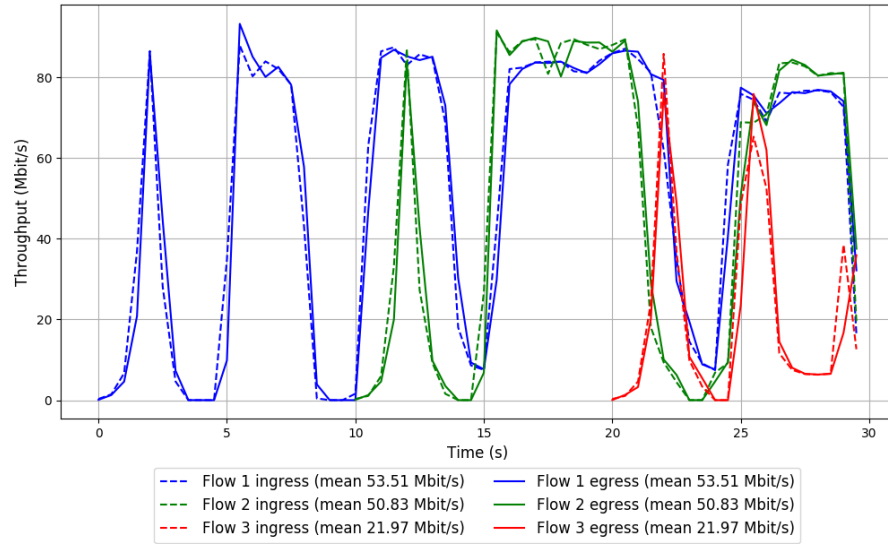
-- Flow 3:

Average throughput: 21.97 Mbit/s

95th percentile per-packet one-way delay: 110.687 ms

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-17 10:44:09

End at: 2018-01-17 10:44:39

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.77 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.87 Mbit/s

95th percentile per-packet one-way delay: 113.054 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.12 Mbit/s

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

Loss rate: 0.01%

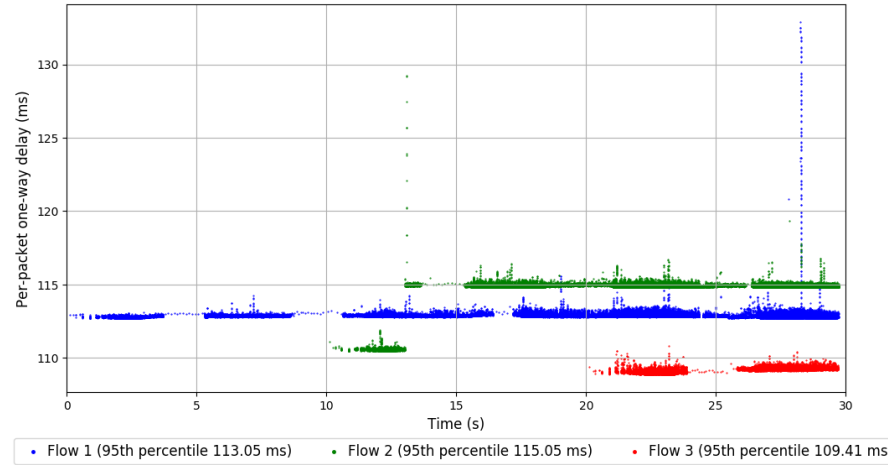
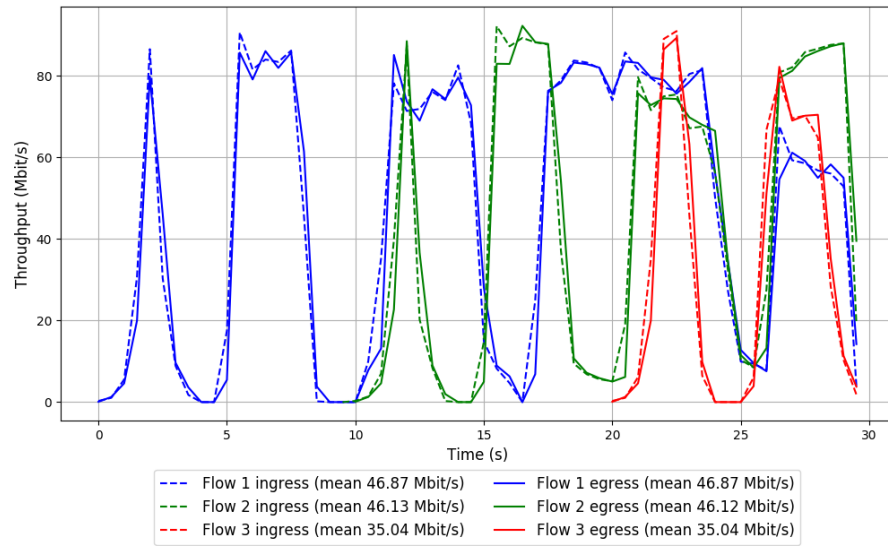
-- Flow 3:

Average throughput: 35.04 Mbit/s

95th percentile per-packet one-way delay: 109.413 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-17 11:02:56

End at: 2018-01-17 11:03:26

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.86 Mbit/s

95th percentile per-packet one-way delay: 114.526 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 53.03 Mbit/s

95th percentile per-packet one-way delay: 110.788 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.52 Mbit/s

95th percentile per-packet one-way delay: 112.683 ms

Loss rate: 0.00%

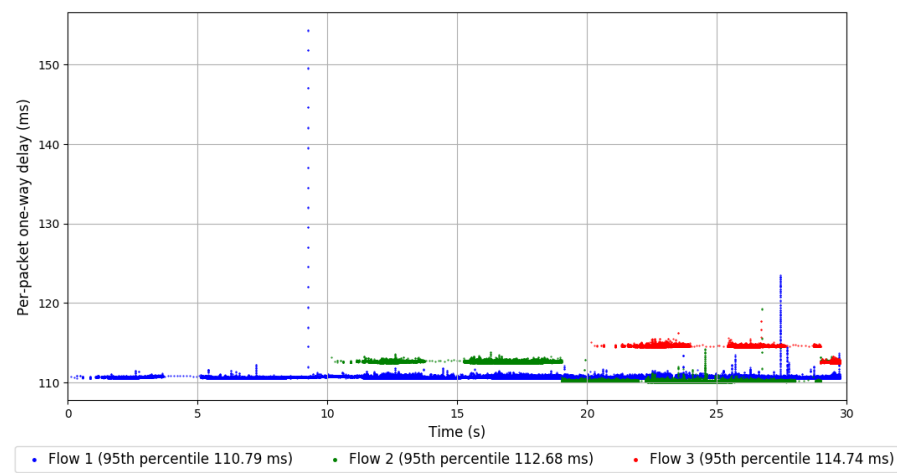
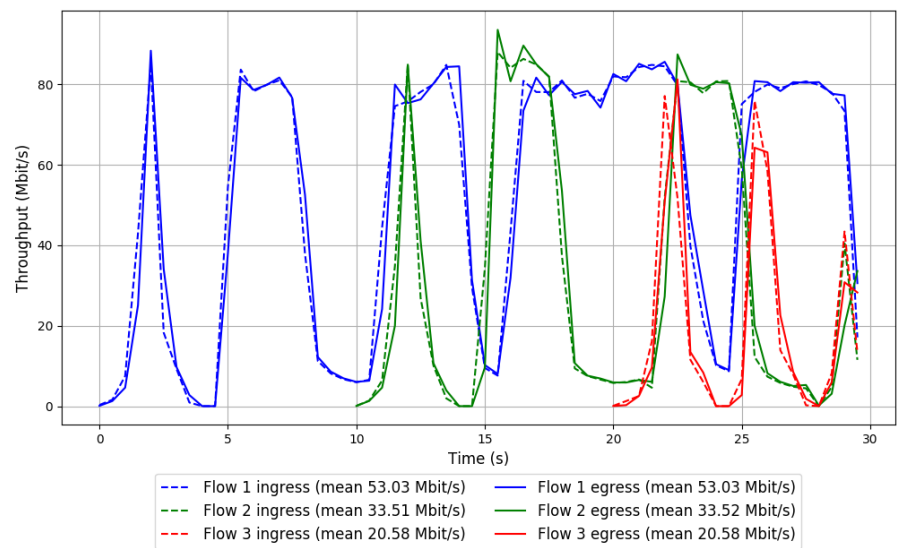
-- Flow 3:

Average throughput: 20.58 Mbit/s

95th percentile per-packet one-way delay: 114.736 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-17 11:21:54

End at: 2018-01-17 11:22:24

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.03 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.27 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.94 Mbit/s

95th percentile per-packet one-way delay: 111.569 ms

Loss rate: 0.00%

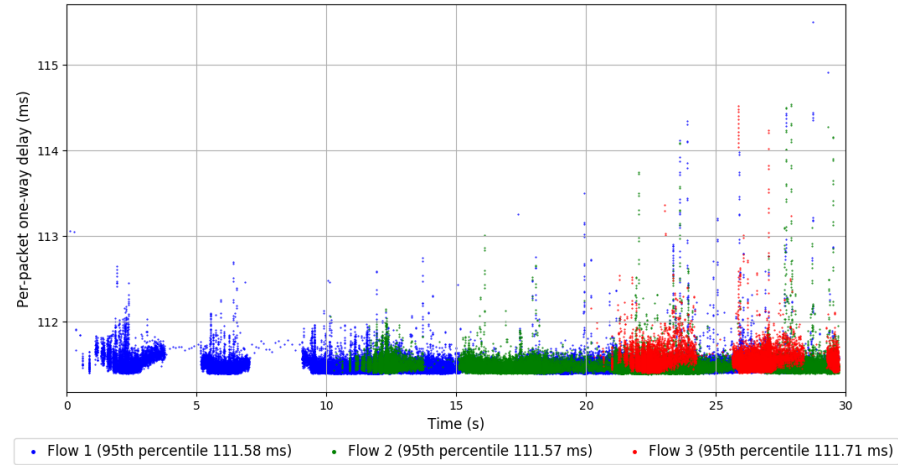
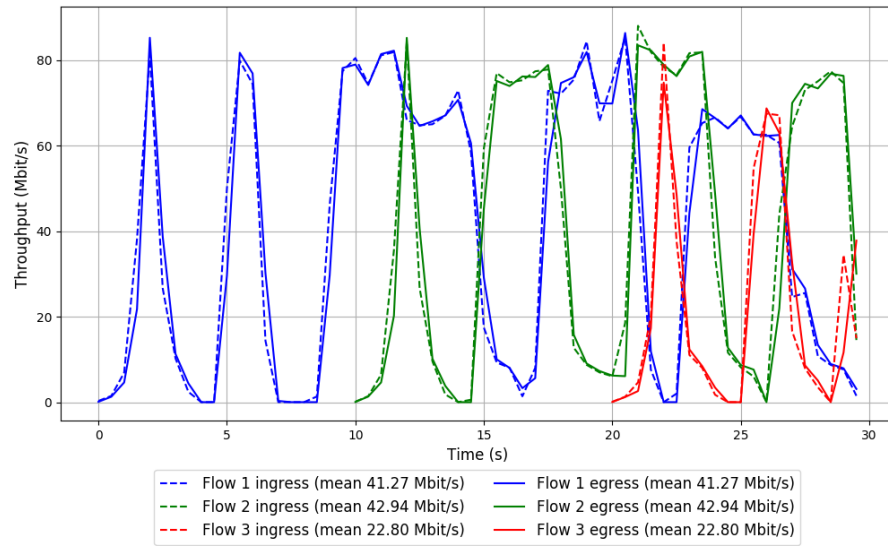
-- Flow 3:

Average throughput: 22.80 Mbit/s

95th percentile per-packet one-way delay: 111.714 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-17 11:41:04

End at: 2018-01-17 11:41:34

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.23 Mbit/s

95th percentile per-packet one-way delay: 114.537 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 45.98 Mbit/s

95th percentile per-packet one-way delay: 114.560 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 29.69 Mbit/s

95th percentile per-packet one-way delay: 112.646 ms

Loss rate: 0.00%

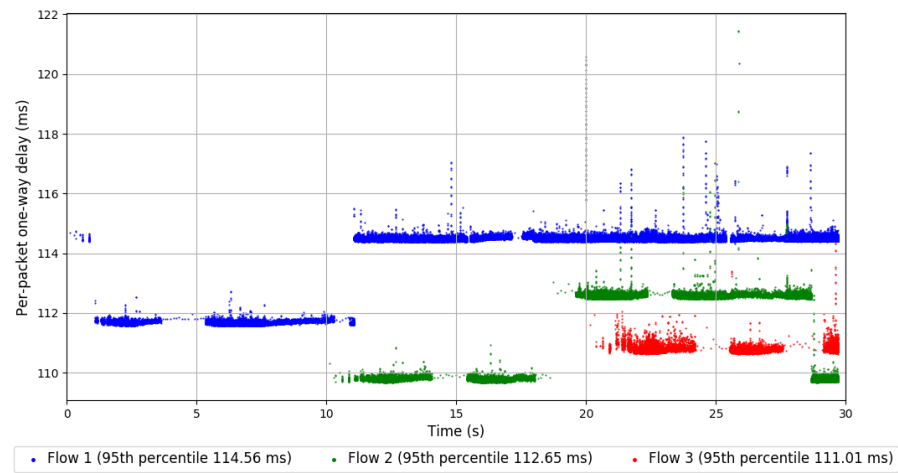
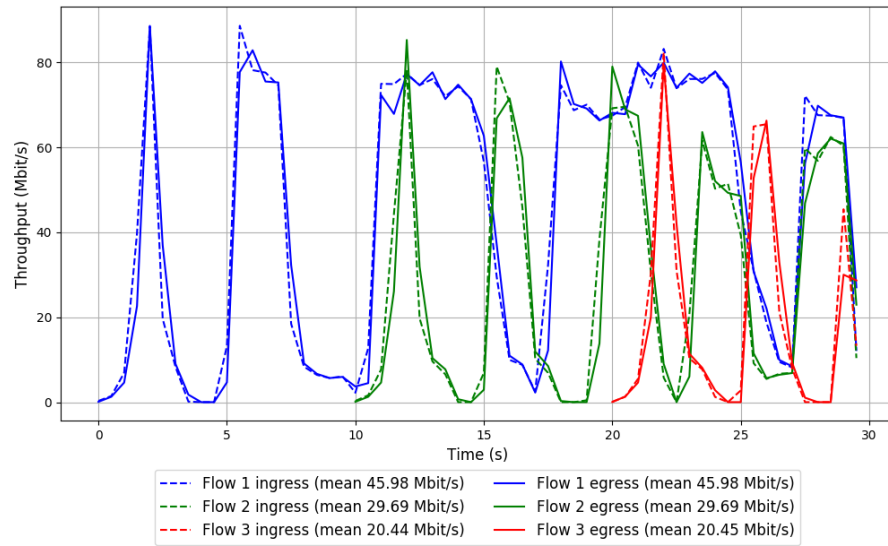
-- Flow 3:

Average throughput: 20.45 Mbit/s

95th percentile per-packet one-way delay: 111.008 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-17 11:59:18

End at: 2018-01-17 11:59:48

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.20 Mbit/s

95th percentile per-packet one-way delay: 112.557 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 42.84 Mbit/s

95th percentile per-packet one-way delay: 112.637 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 32.88 Mbit/s

95th percentile per-packet one-way delay: 112.400 ms

Loss rate: 0.00%

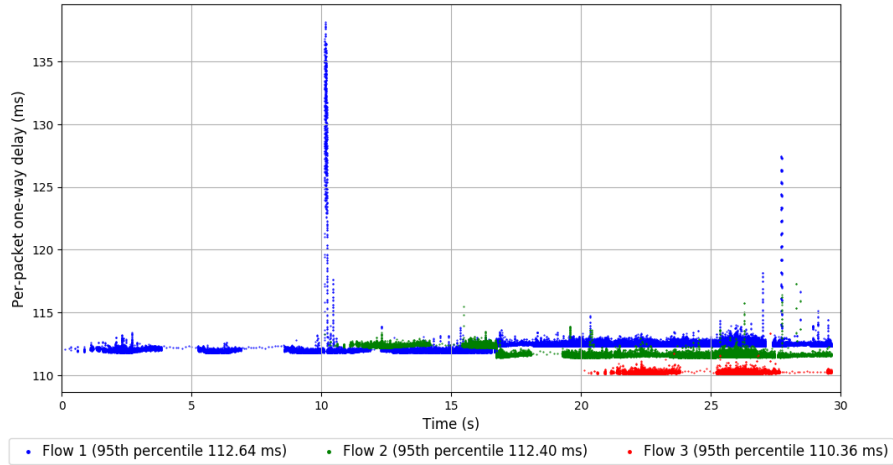
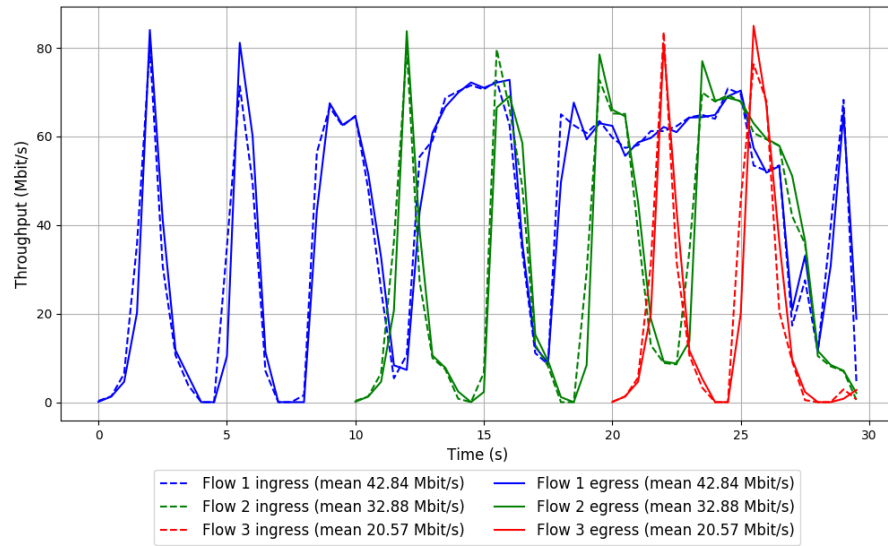
-- Flow 3:

Average throughput: 20.57 Mbit/s

95th percentile per-packet one-way delay: 110.362 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-17 12:17:28

End at: 2018-01-17 12:17:58

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.97 Mbit/s

95th percentile per-packet one-way delay: 112.345 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.20 Mbit/s

95th percentile per-packet one-way delay: 110.833 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.13 Mbit/s

95th percentile per-packet one-way delay: 111.057 ms

Loss rate: 0.00%

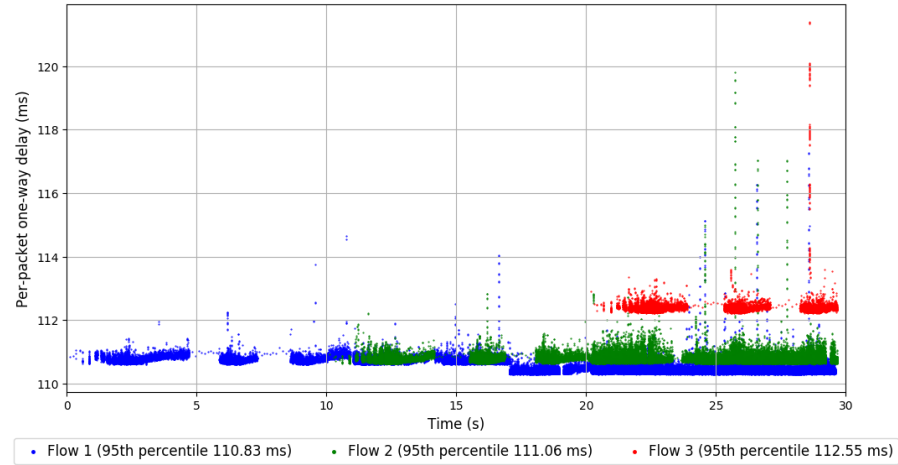
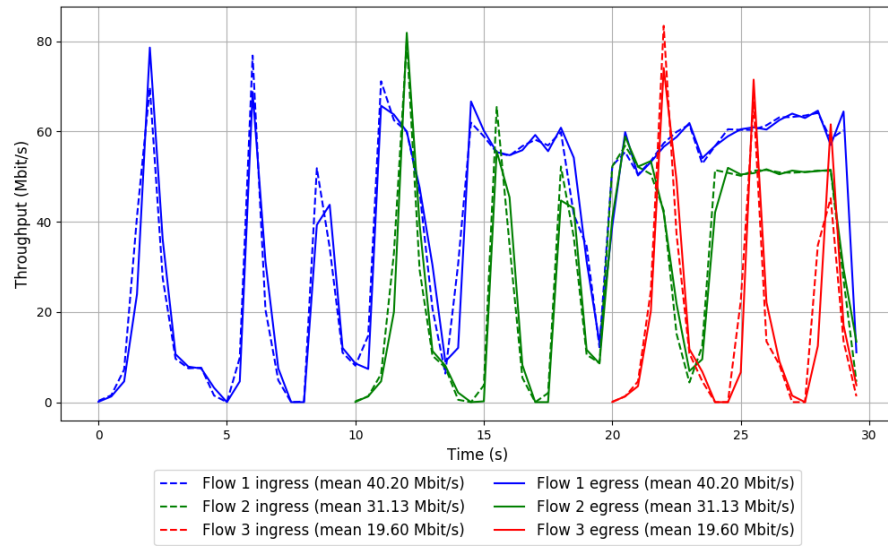
-- Flow 3:

Average throughput: 19.60 Mbit/s

95th percentile per-packet one-way delay: 112.546 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

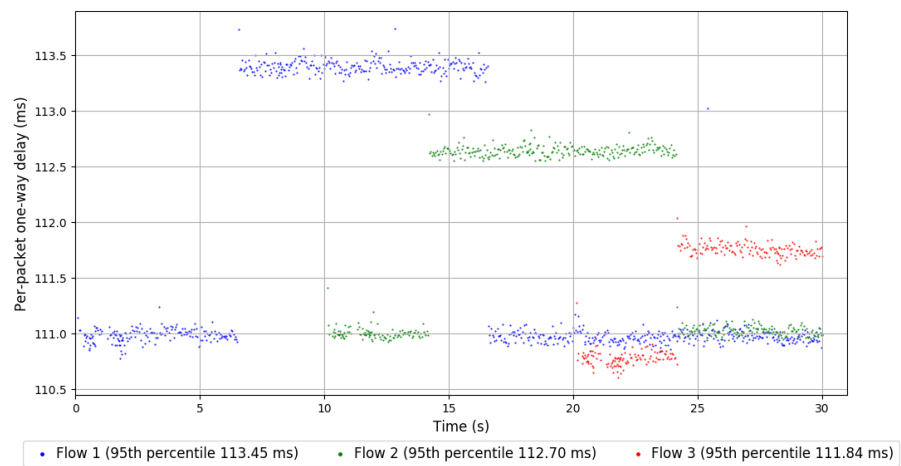
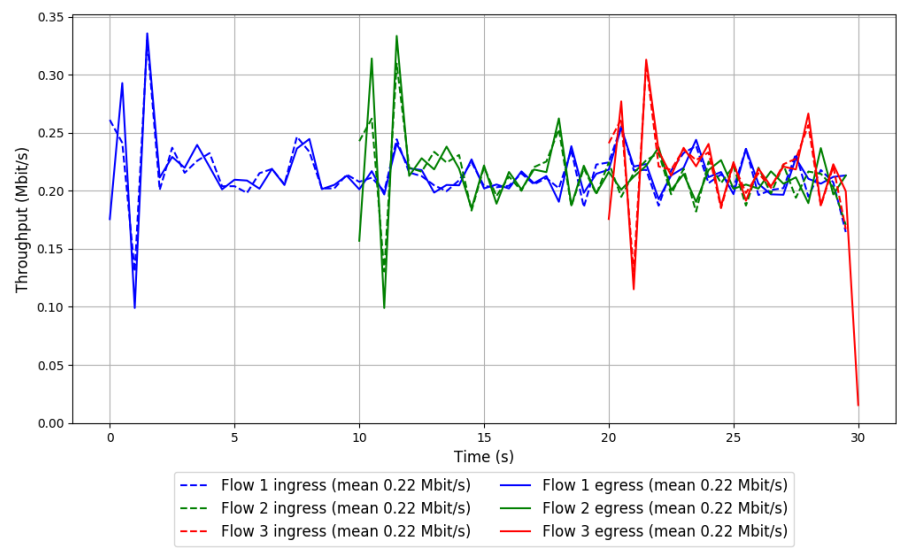


```
Run 1: Statistics of SCReAM

Start at: 2018-01-17 09:17:28
End at: 2018-01-17 09:17:58

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.425 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.448 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.696 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.837 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

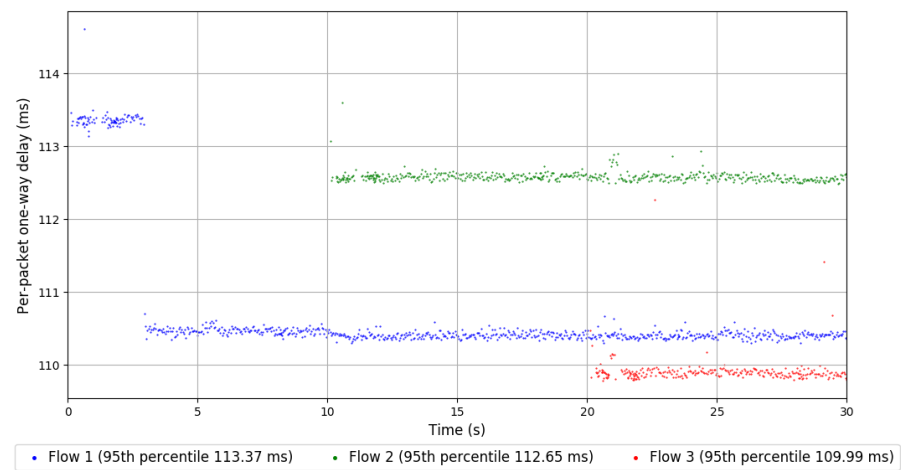
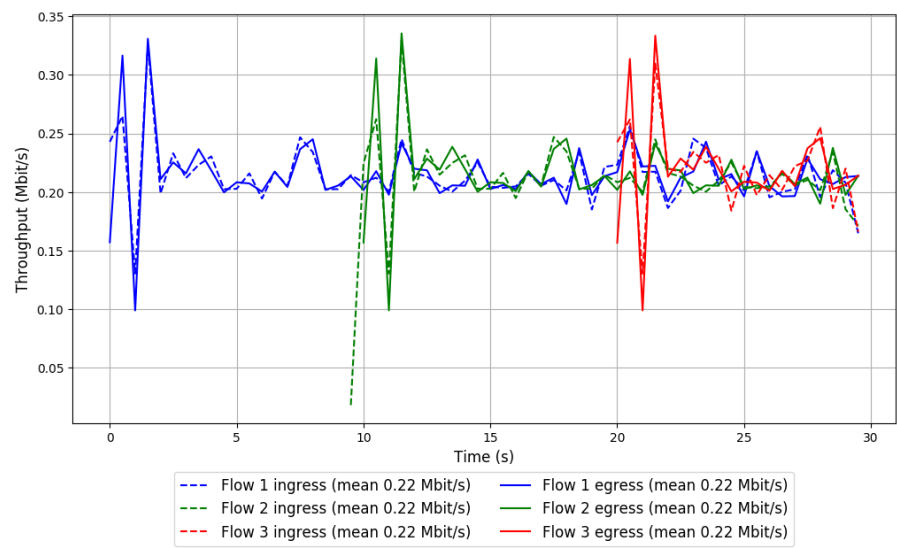


```
Run 2: Statistics of SReAM

Start at: 2018-01-17 09:36:02
End at: 2018-01-17 09:36:32

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 113.301 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.373 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.652 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.993 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SReAM

Start at: 2018-01-17 09:55:14

End at: 2018-01-17 09:55:44

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 112.782 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.698 ms

Loss rate: 0.00%

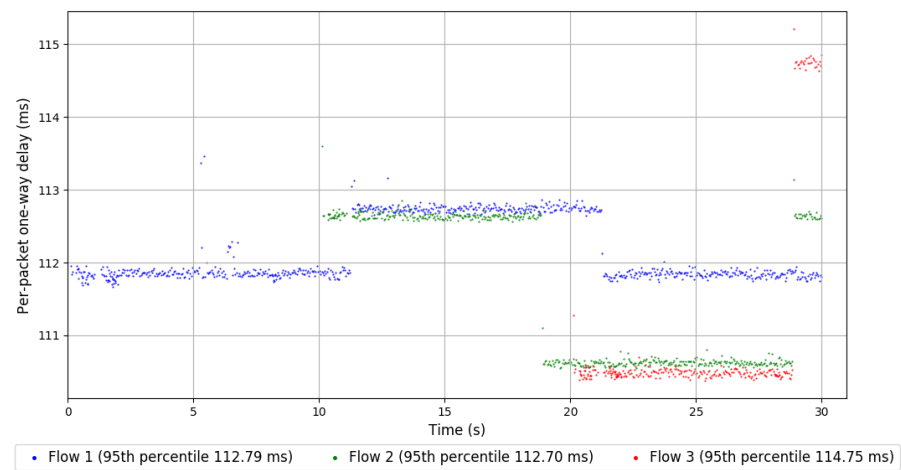
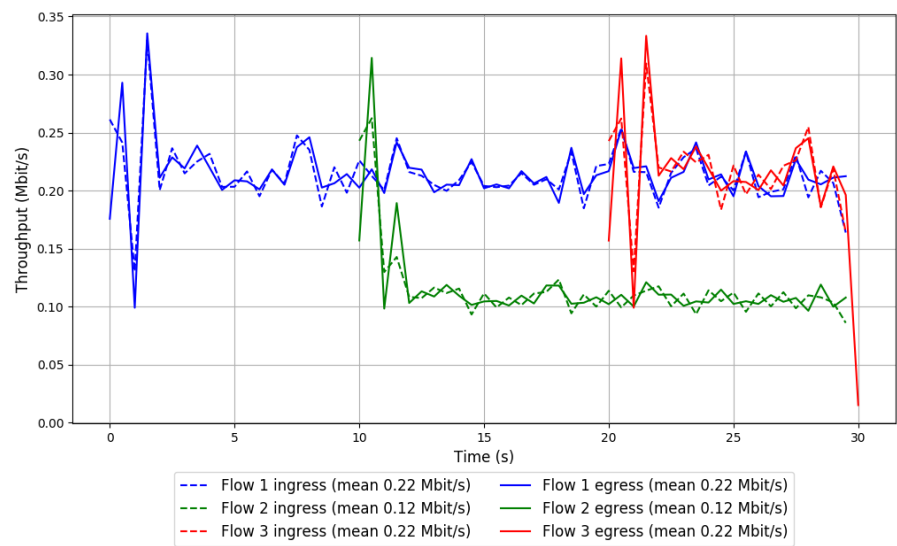
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 114.752 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-01-17 10:13:34

End at: 2018-01-17 10:14:04

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

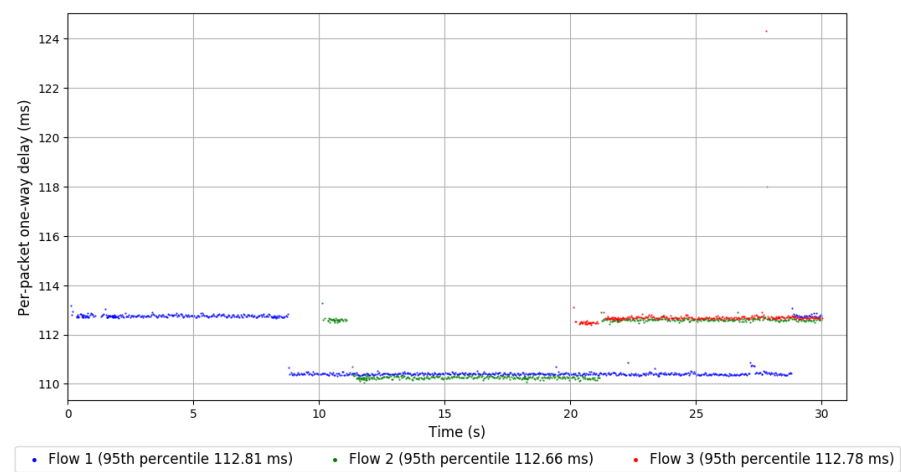
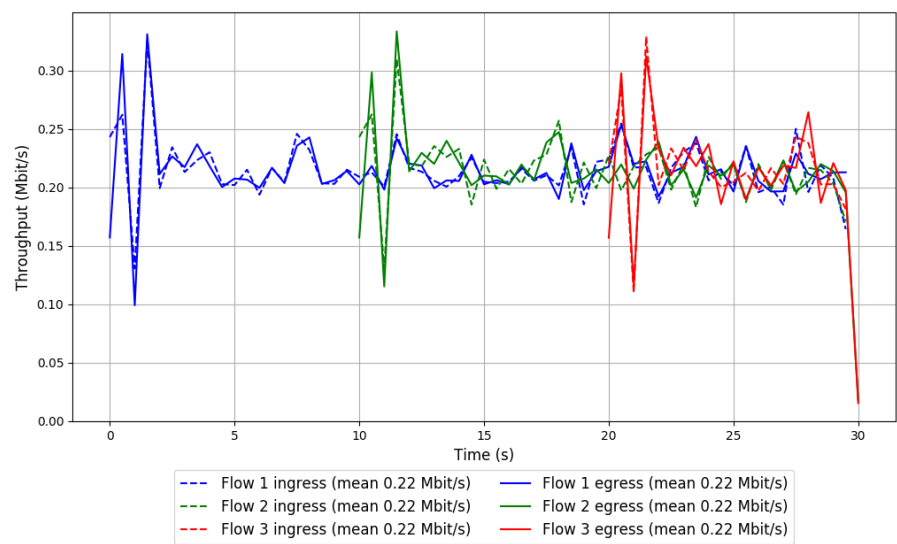
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.778 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-01-17 10:31:42

End at: 2018-01-17 10:32:12

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 113.133 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 113.162 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.812 ms

Loss rate: 0.00%

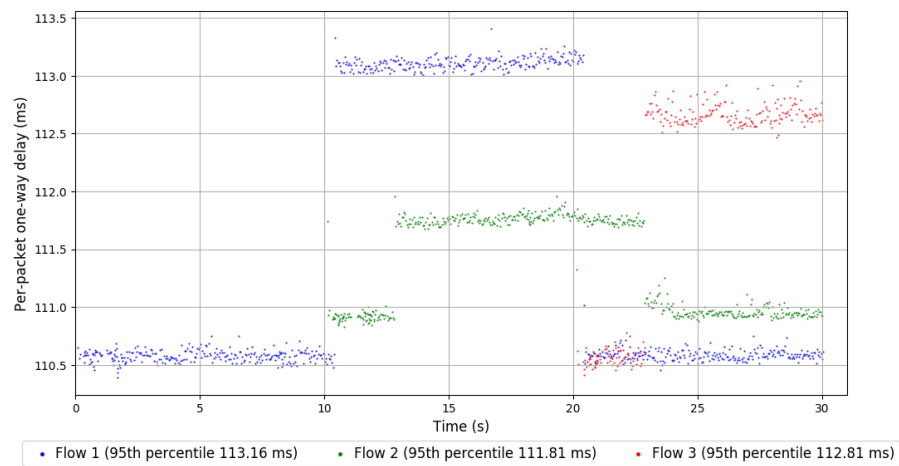
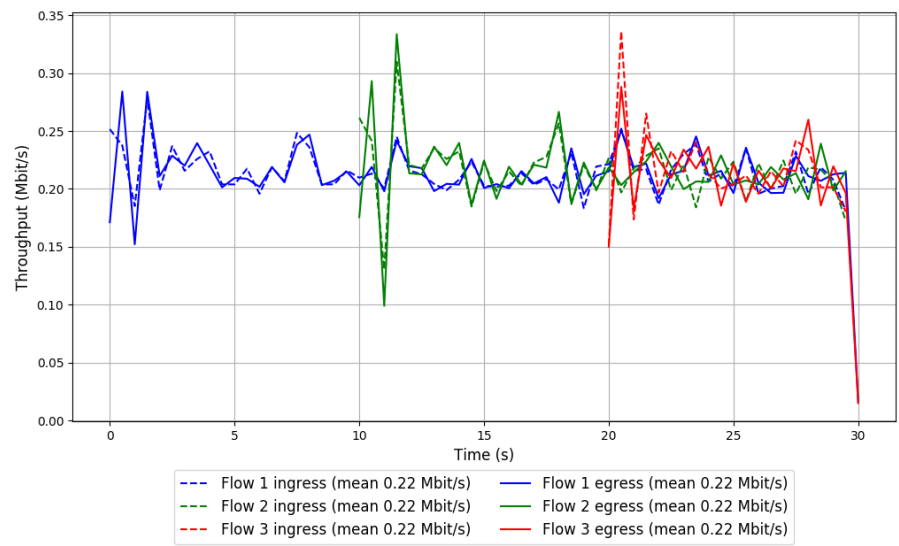
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-01-17 10:50:33

End at: 2018-01-17 10:51:03

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 113.123 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 113.126 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 113.132 ms

Loss rate: 0.00%

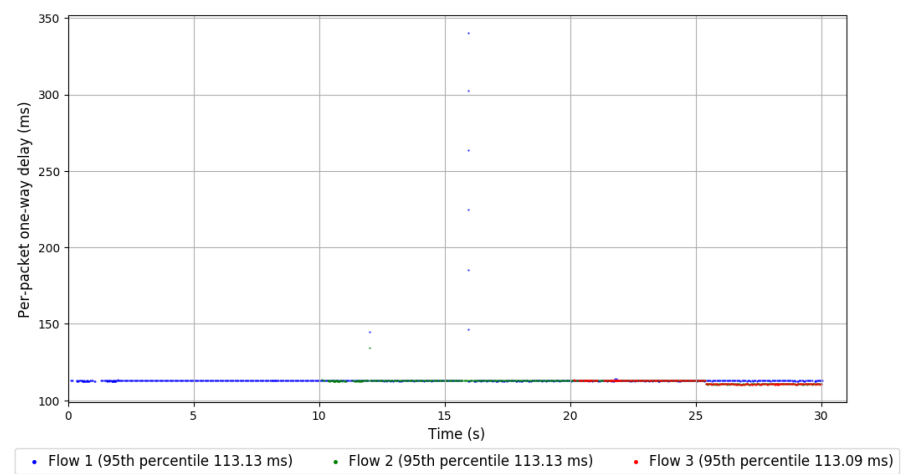
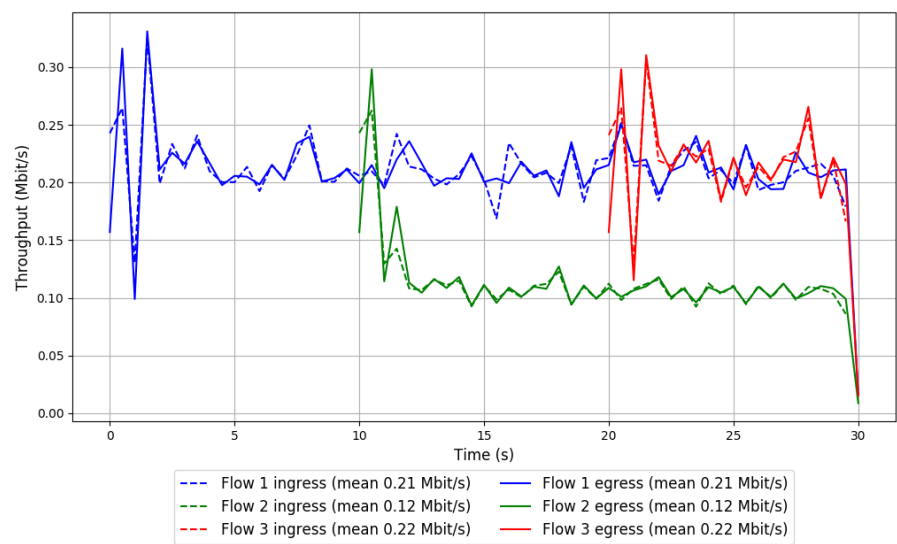
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of SCReAM — Data Link

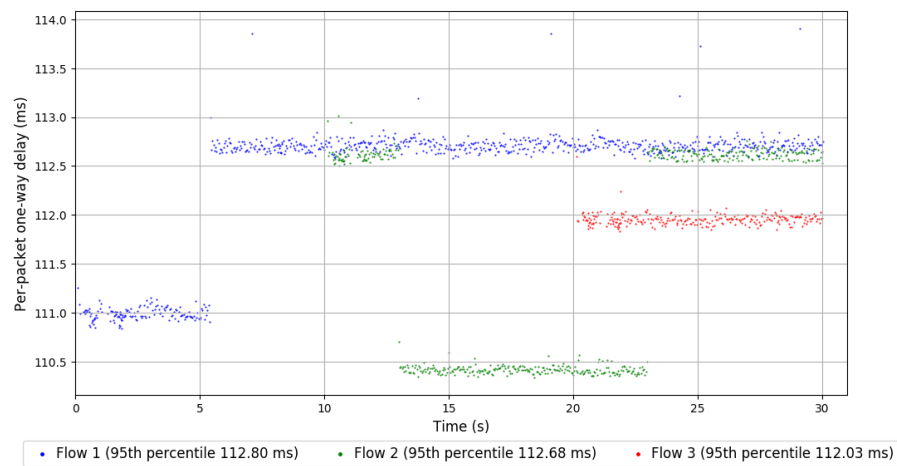
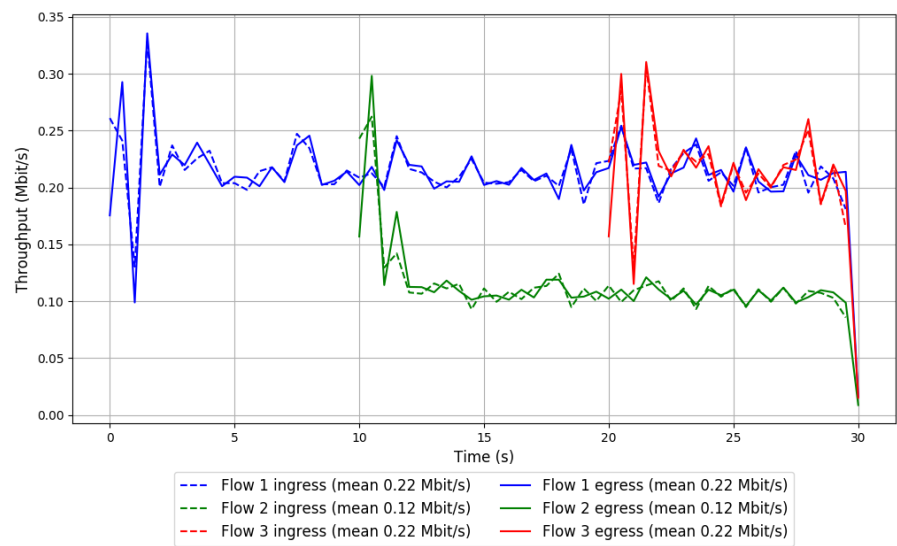


```
Run 7: Statistics of SReAM

Start at: 2018-01-17 11:09:30
End at: 2018-01-17 11:10:00

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 112.772 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.796 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 112.676 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.029 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-17 11:28:17

End at: 2018-01-17 11:28:47

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.713 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.660 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.700 ms

Loss rate: 0.00%

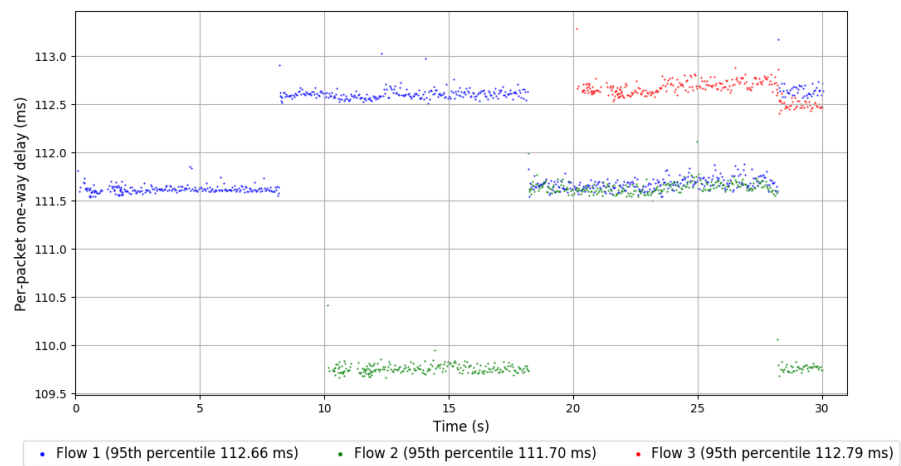
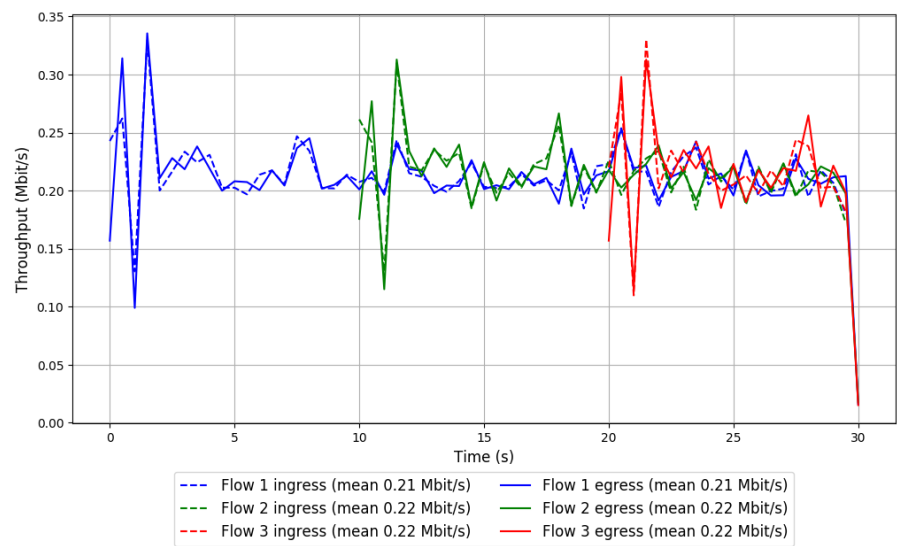
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-01-17 11:47:16

End at: 2018-01-17 11:47:46

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.37 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 112.797 ms

Loss rate: 0.00%

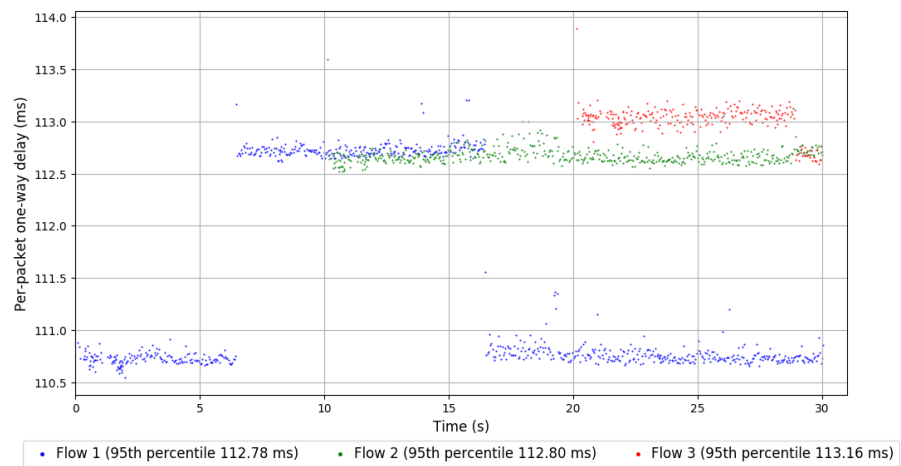
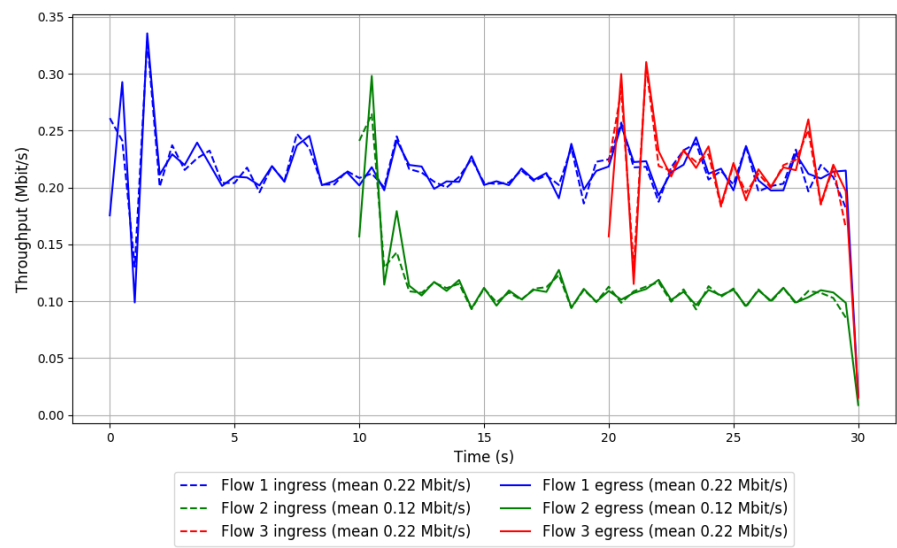
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of SCReAM — Data Link

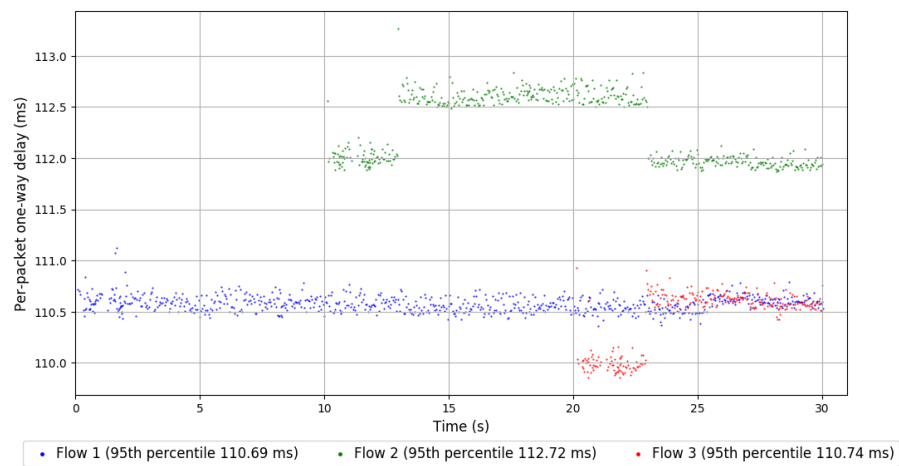
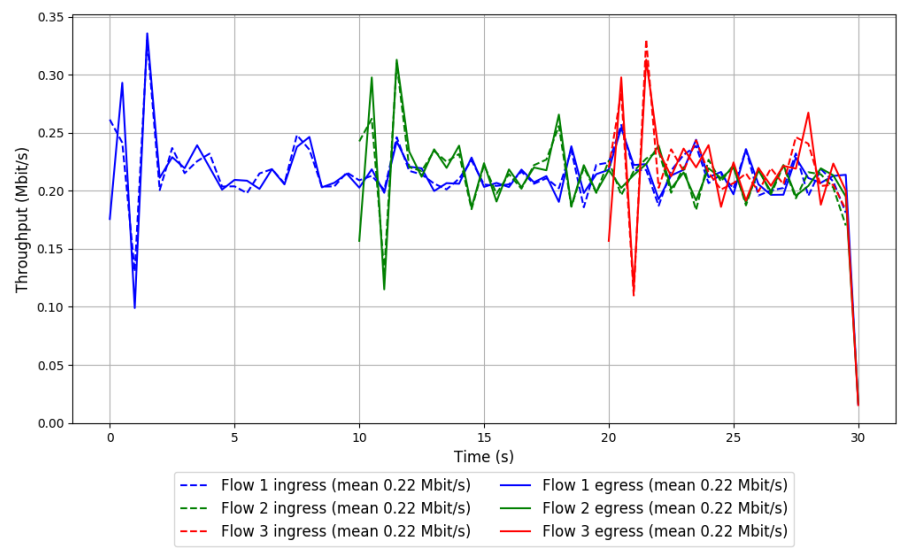


```
Run 10: Statistics of SCReAM

Start at: 2018-01-17 12:05:10
End at: 2018-01-17 12:05:40

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.655 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.694 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.717 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.737 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

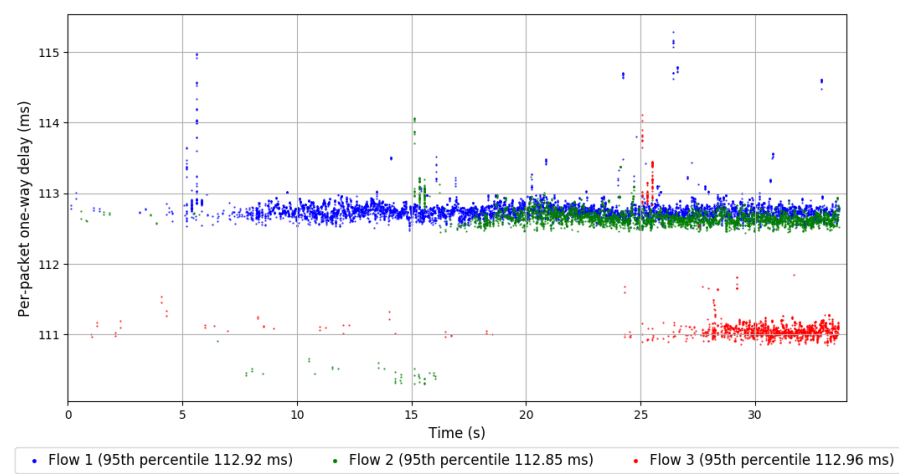
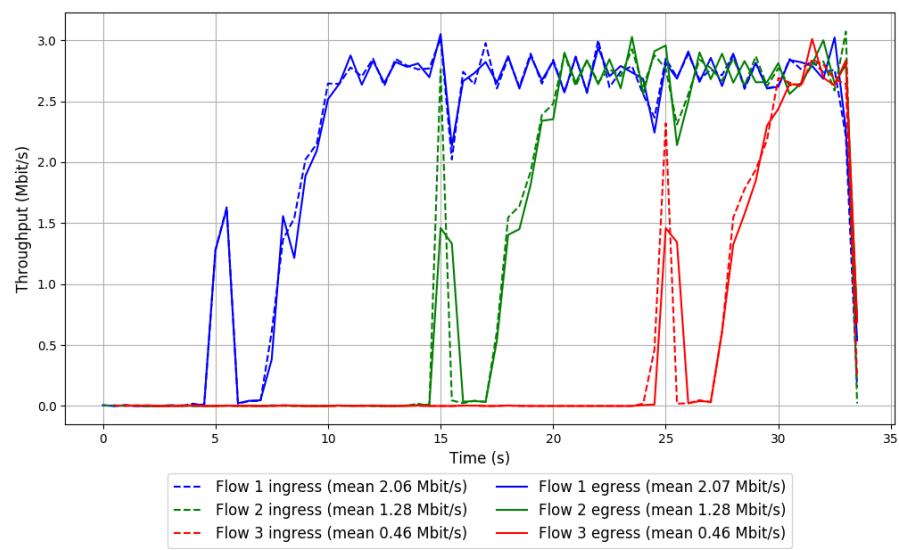


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-17 09:23:12
End at: 2018-01-17 09:23:42

# Below is generated by plot.py at 2018-01-17 14:12:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.78 Mbit/s
95th percentile per-packet one-way delay: 112.914 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 112.923 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 112.852 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 112.960 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-17 09:41:51

End at: 2018-01-17 09:42:21

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.88 Mbit/s

95th percentile per-packet one-way delay: 112.846 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.14 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 112.888 ms

Loss rate: 0.00%

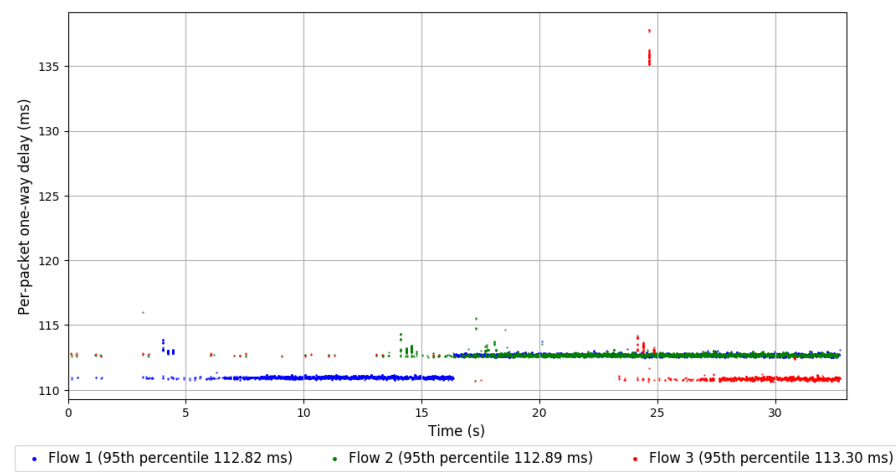
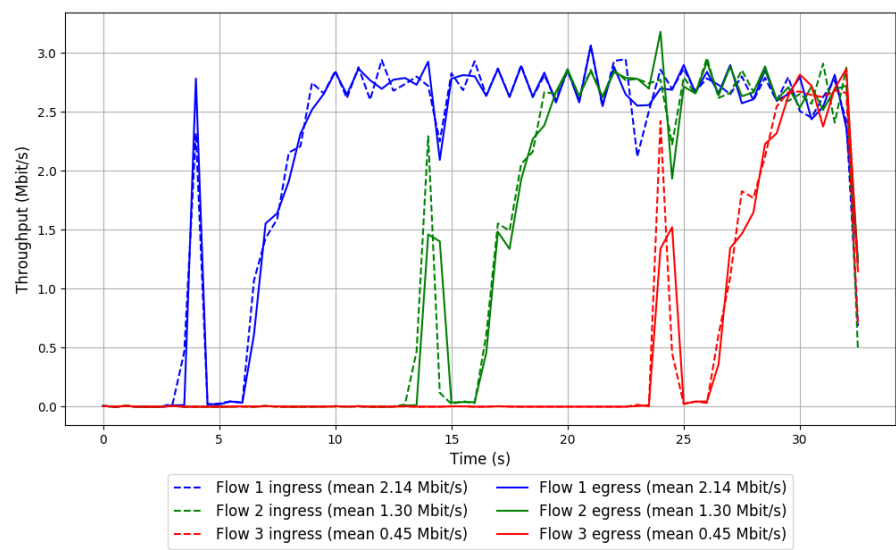
-- Flow 3:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 113.297 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-17 10:01:00

End at: 2018-01-17 10:01:30

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.78 Mbit/s

95th percentile per-packet one-way delay: 115.119 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.28 Mbit/s

95th percentile per-packet one-way delay: 112.705 ms

Loss rate: 0.00%

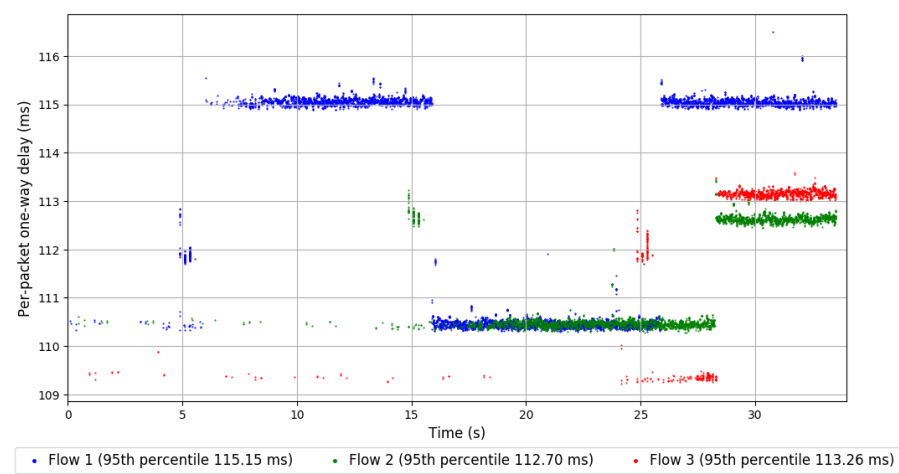
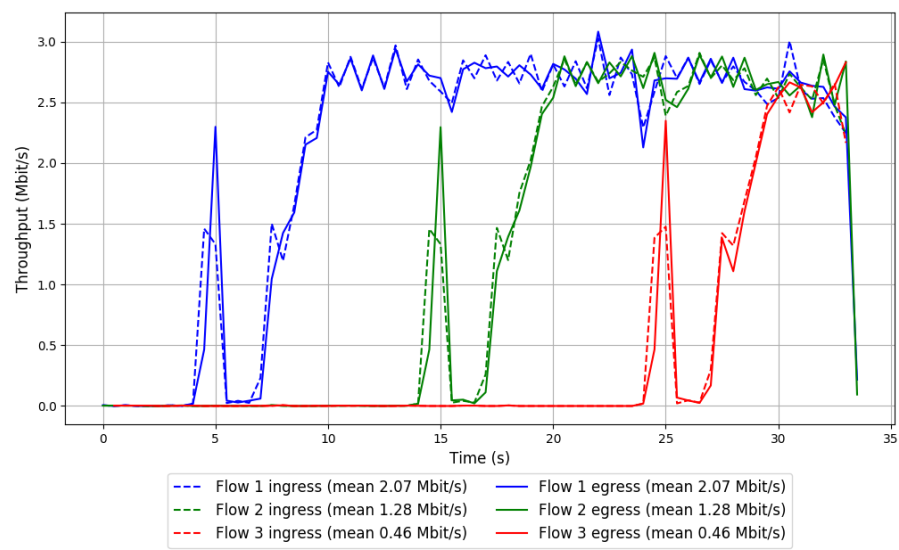
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 113.259 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-17 10:19:16

End at: 2018-01-17 10:19:46

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.76 Mbit/s

95th percentile per-packet one-way delay: 113.363 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 113.103 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 113.433 ms

Loss rate: 0.00%

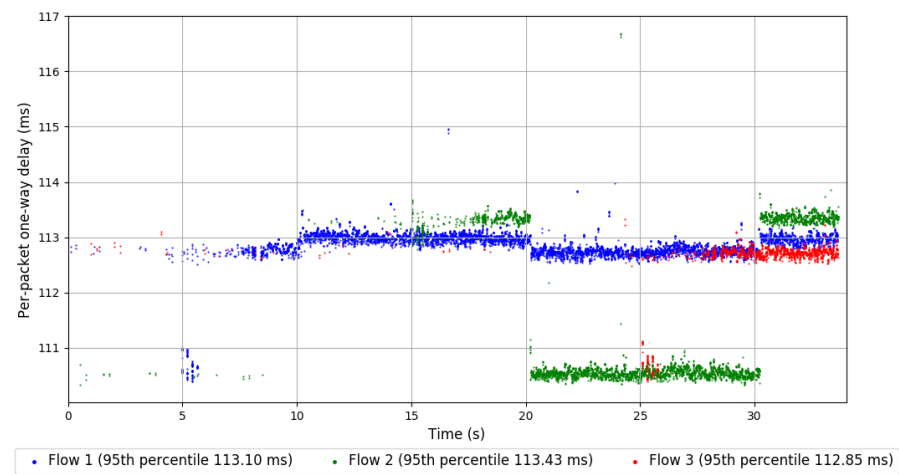
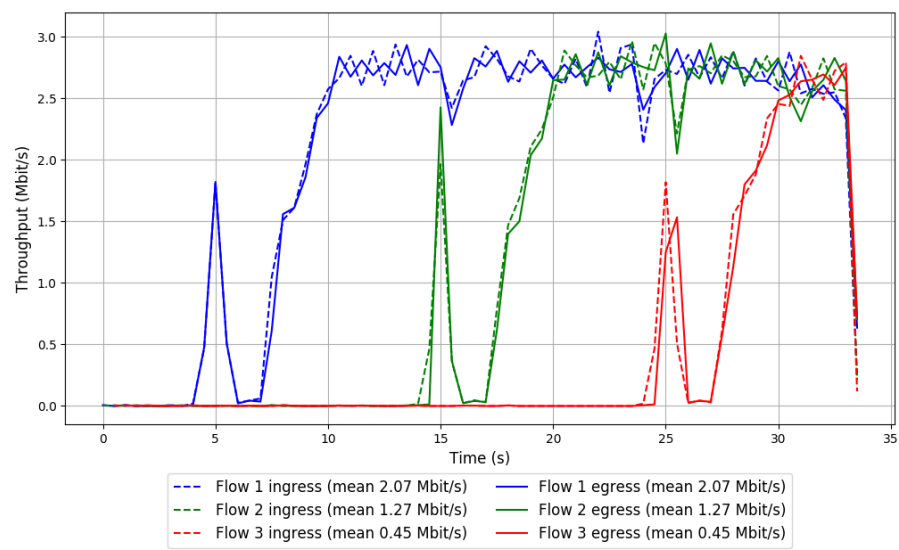
-- Flow 3:

Average throughput: 0.45 Mbit/s

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

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-17 10:37:28

End at: 2018-01-17 10:37:58

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.80 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 112.647 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 111.115 ms

Loss rate: 0.00%

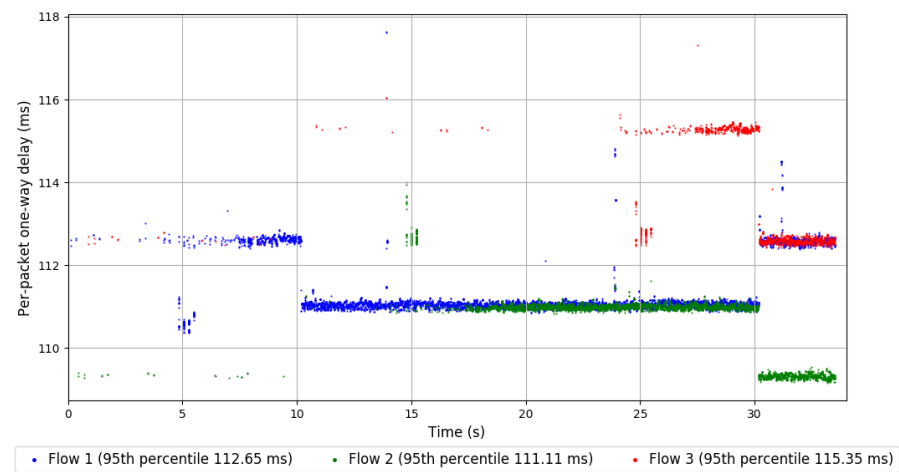
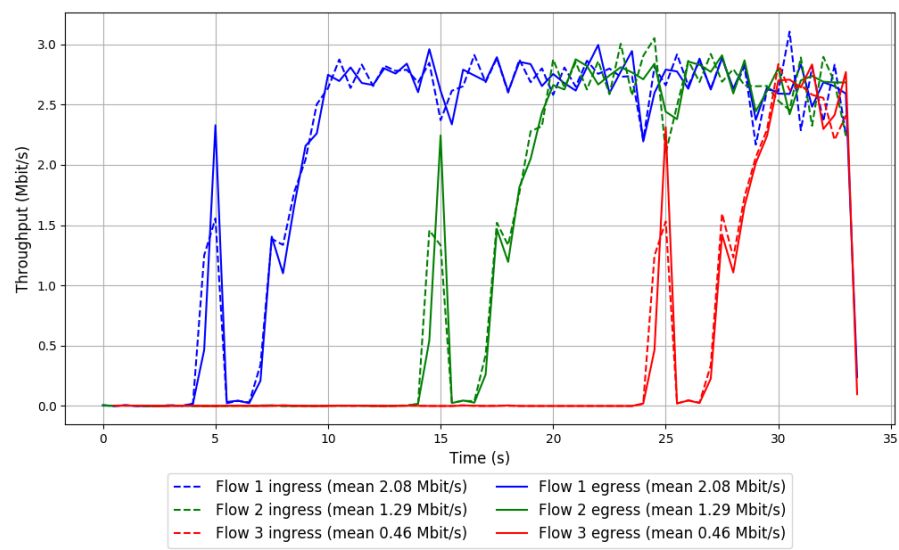
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 115.346 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-17 10:56:16

End at: 2018-01-17 10:56:46

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.75 Mbit/s

95th percentile per-packet one-way delay: 112.732 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 114.666 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 110.995 ms

Loss rate: 0.00%

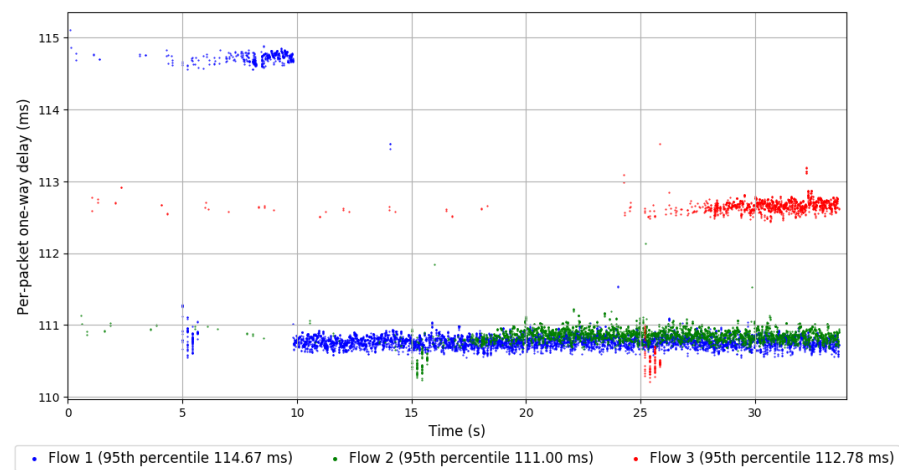
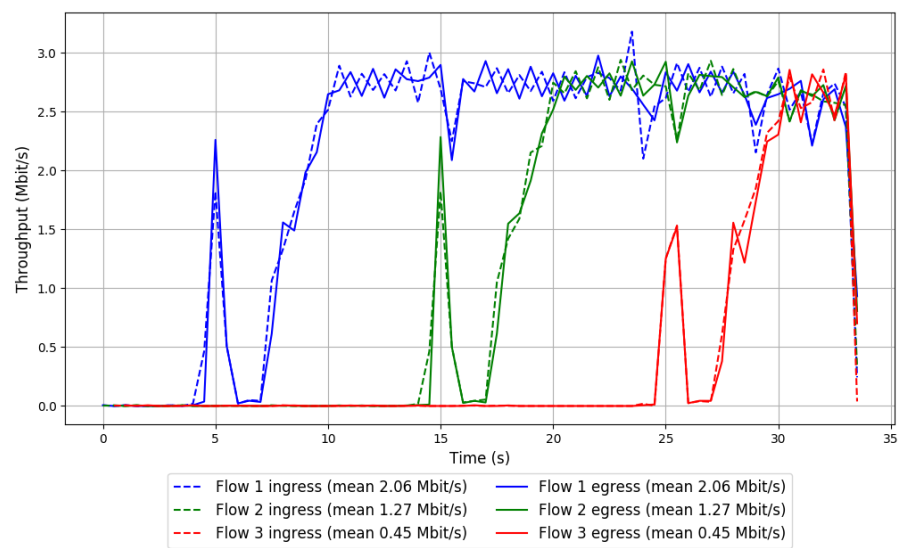
-- Flow 3:

Average throughput: 0.45 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-17 11:15:16

End at: 2018-01-17 11:15:46

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.74 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 112.957 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 114.758 ms

Loss rate: 0.00%

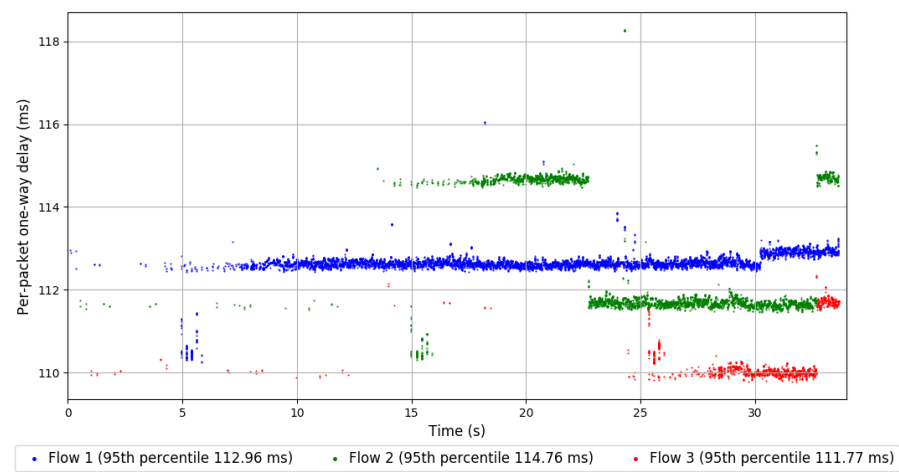
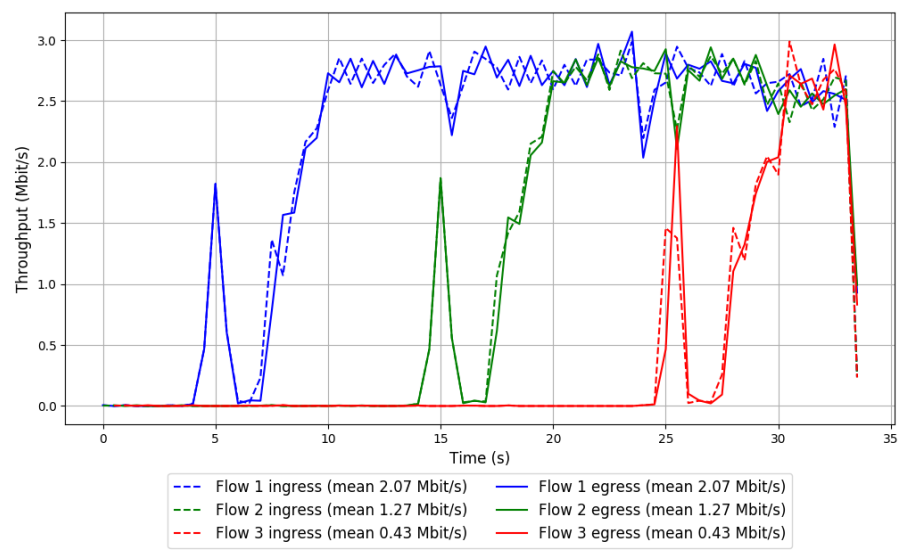
-- Flow 3:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-17 11:34:21

End at: 2018-01-17 11:34:51

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.45 Mbit/s

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

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.24 Mbit/s

95th percentile per-packet one-way delay: 112.792 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.62 Mbit/s

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

Loss rate: 0.00%

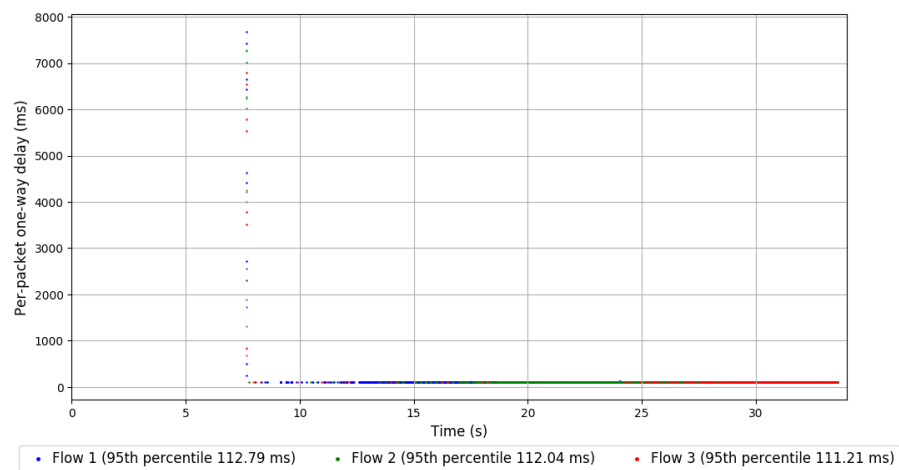
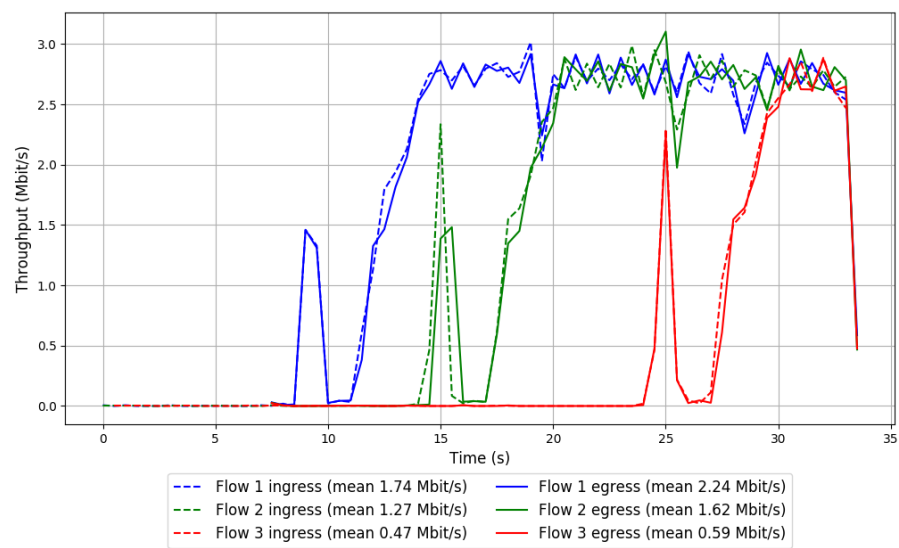
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 111.214 ms

Loss rate: 0.16%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-17 11:52:59

End at: 2018-01-17 11:53:29

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.63 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 112.760 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 112.844 ms

Loss rate: 0.00%

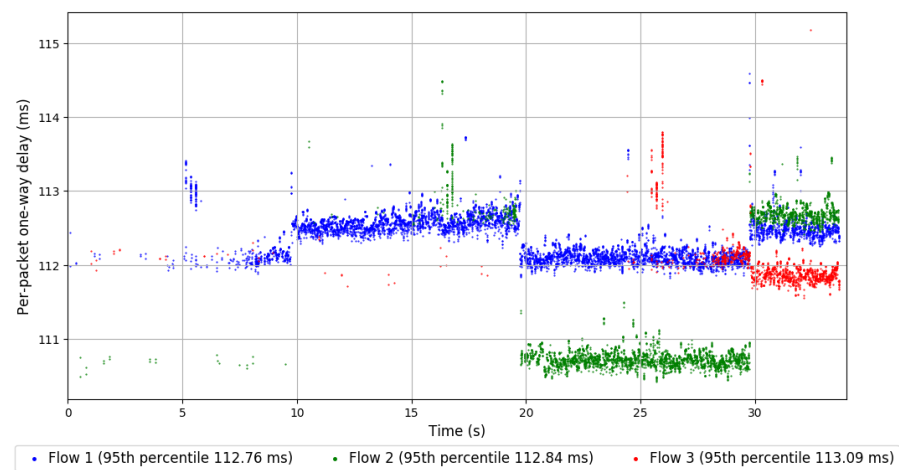
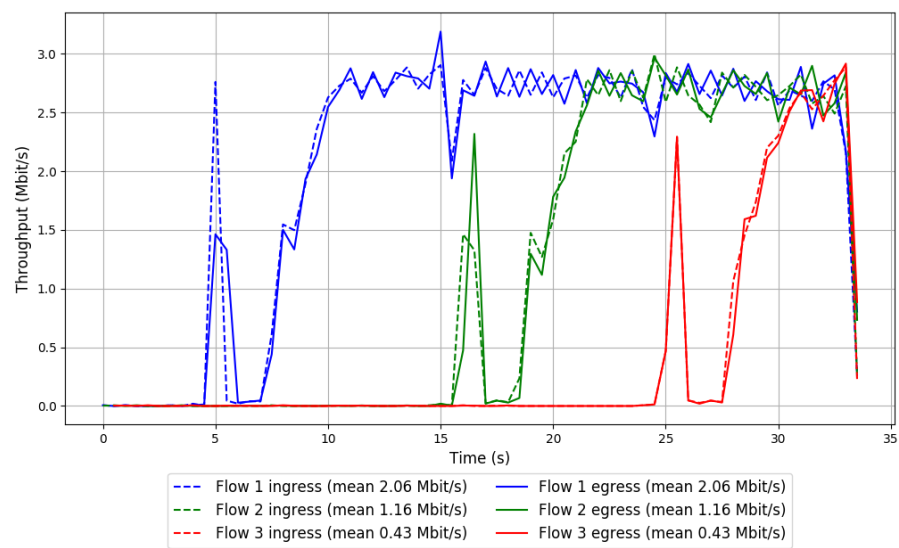
-- Flow 3:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-17 12:10:51

End at: 2018-01-17 12:11:21

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 113.163 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 112.780 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 113.227 ms

Loss rate: 0.00%

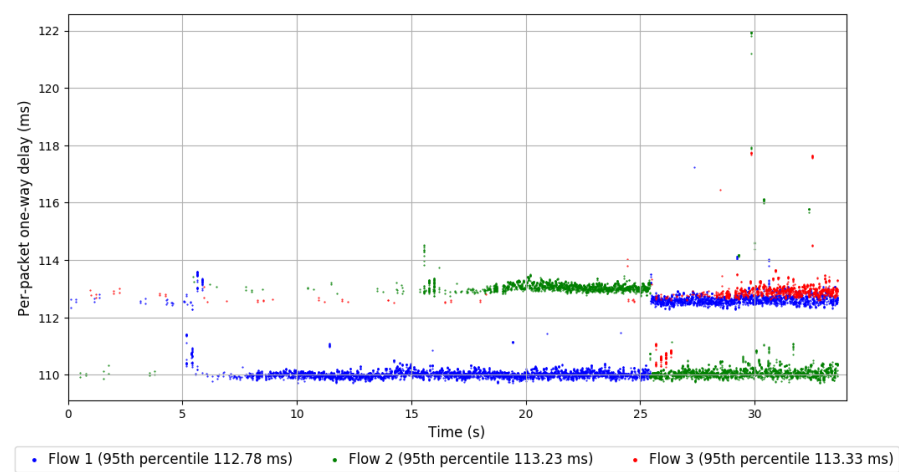
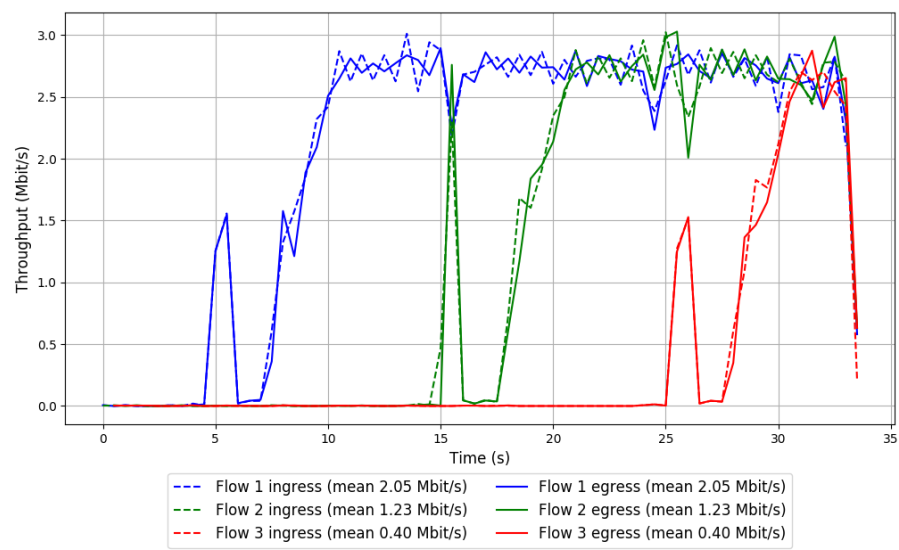
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 113.334 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-17 09:18:14

End at: 2018-01-17 09:18:44

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.31 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.15 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.58 Mbit/s

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

Loss rate: 0.02%

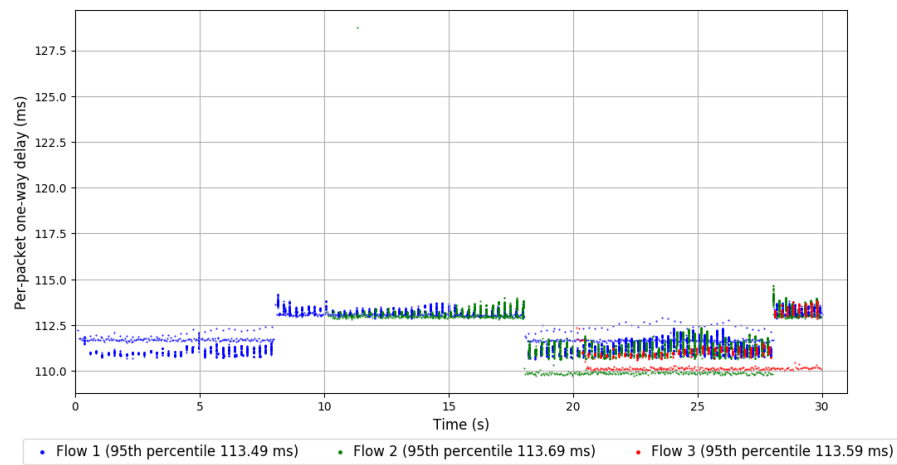
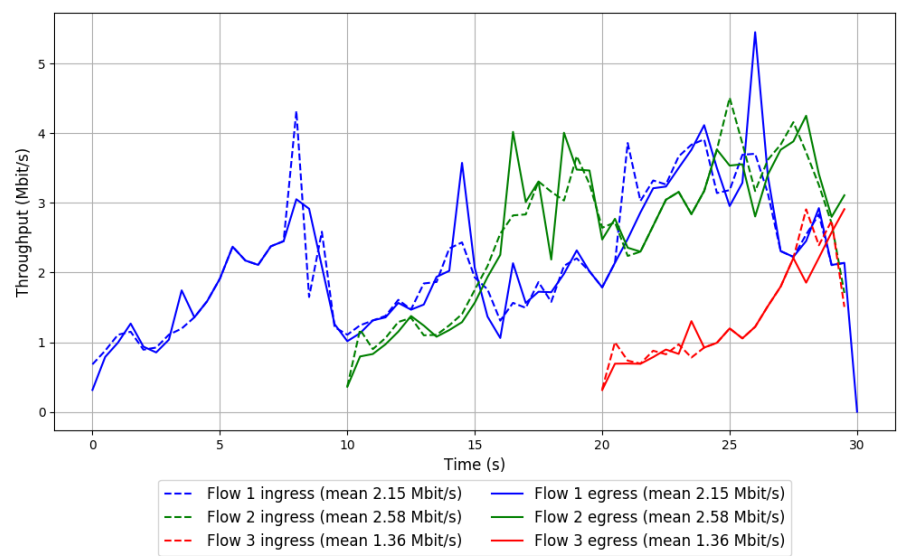
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 113.591 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-17 09:36:48

End at: 2018-01-17 09:37:18

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 113.761 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 113.763 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 113.728 ms

Loss rate: 0.00%

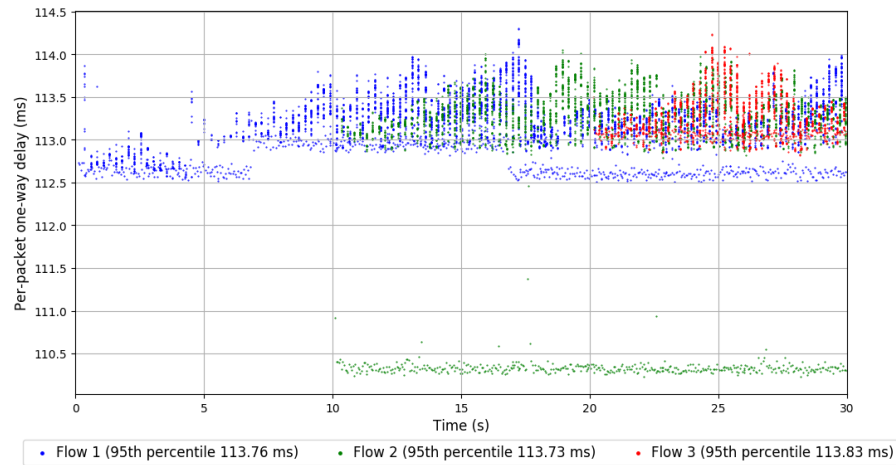
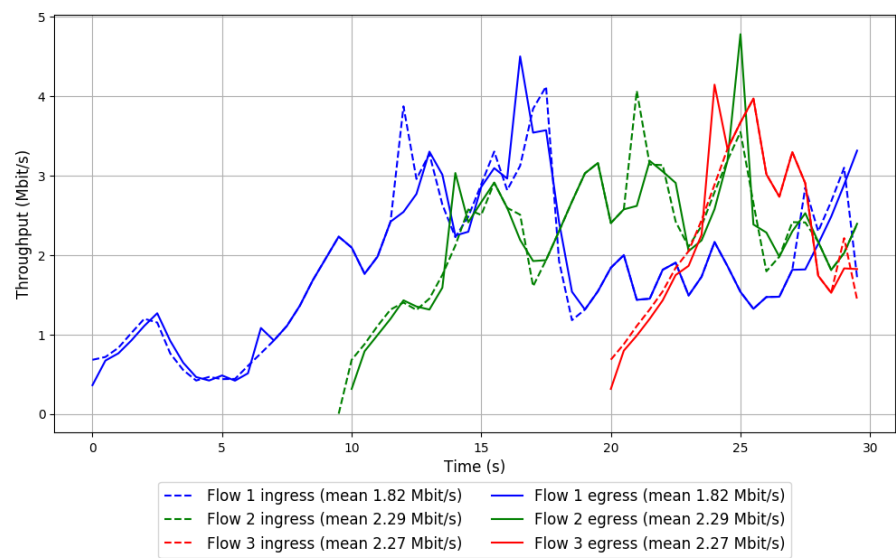
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 113.827 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-17 09:56:00

End at: 2018-01-17 09:56:30

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.24 Mbit/s

95th percentile per-packet one-way delay: 113.709 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 113.793 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.15 Mbit/s

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

Loss rate: 1.94%

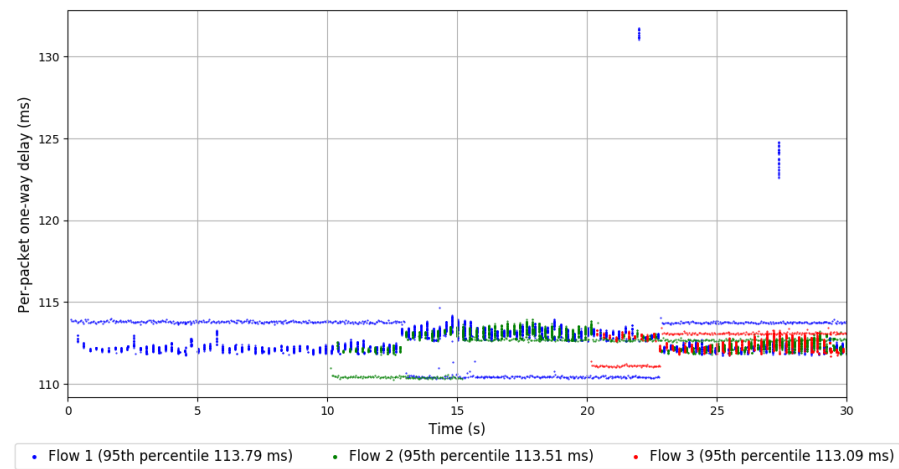
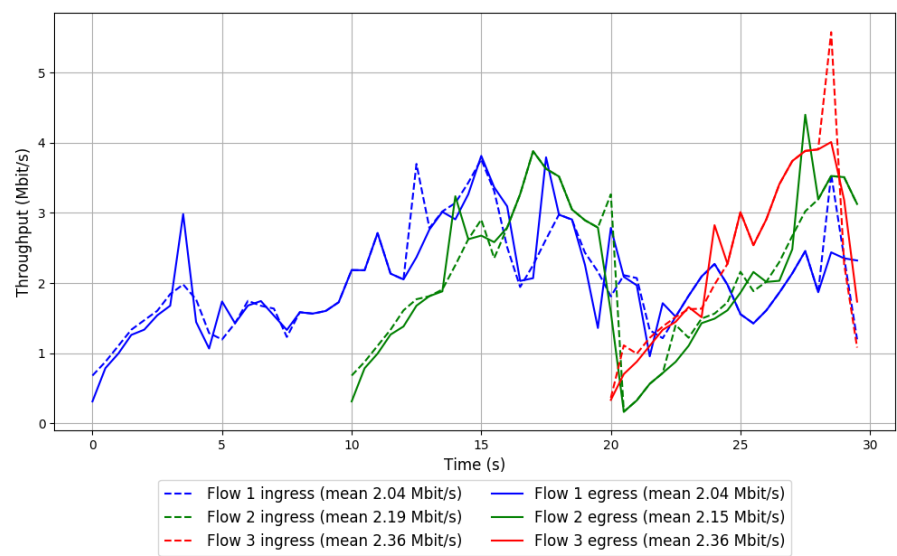
-- Flow 3:

Average throughput: 2.36 Mbit/s

95th percentile per-packet one-way delay: 113.089 ms

Loss rate: 0.05%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-17 10:14:20

End at: 2018-01-17 10:14:50

Below is generated by plot.py at 2018-01-17 14:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.34 Mbit/s

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

Loss rate: 0.67%

-- Flow 1:

Average throughput: 2.66 Mbit/s

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

Loss rate: 0.03%

-- Flow 2:

Average throughput: 1.68 Mbit/s

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

Loss rate: 2.50%

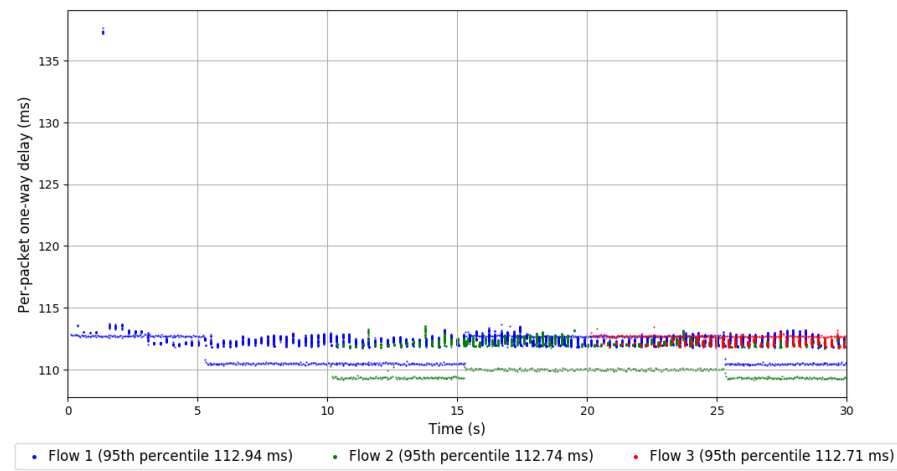
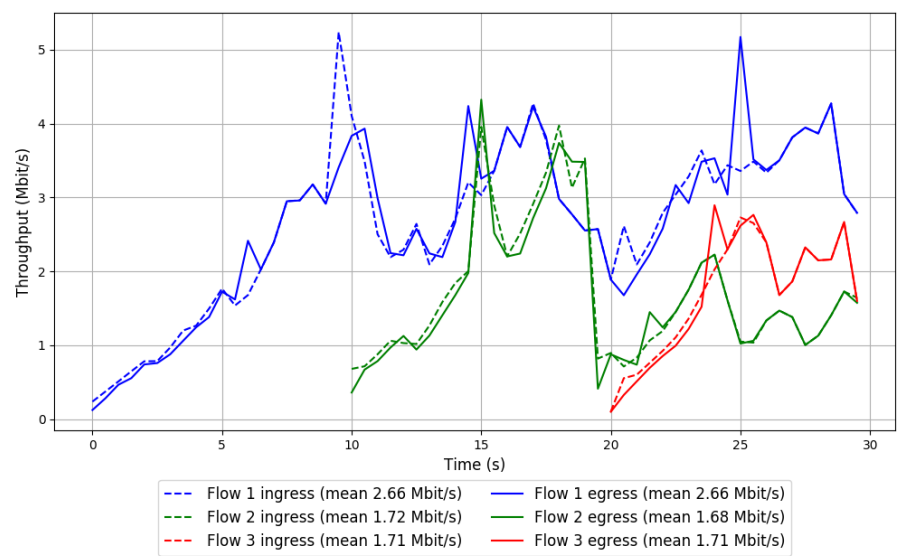
-- Flow 3:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 112.713 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-17 10:32:28

End at: 2018-01-17 10:32:58

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 113.634 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 1.71 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 113.618 ms

Loss rate: 0.47%

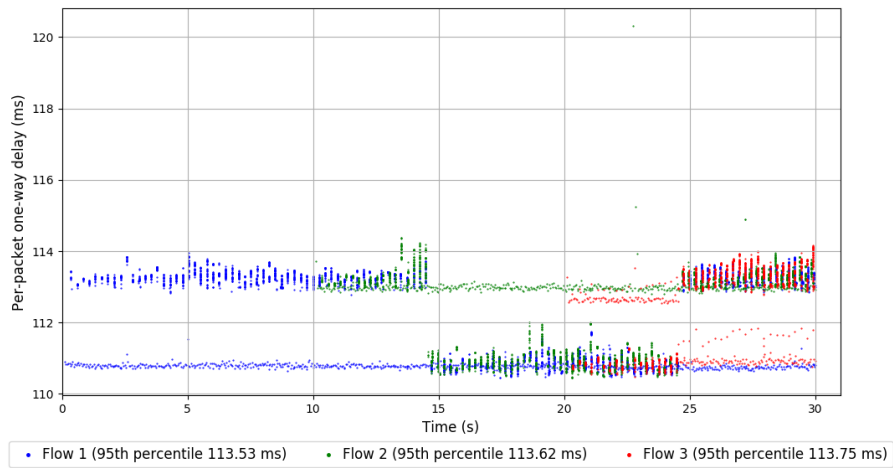
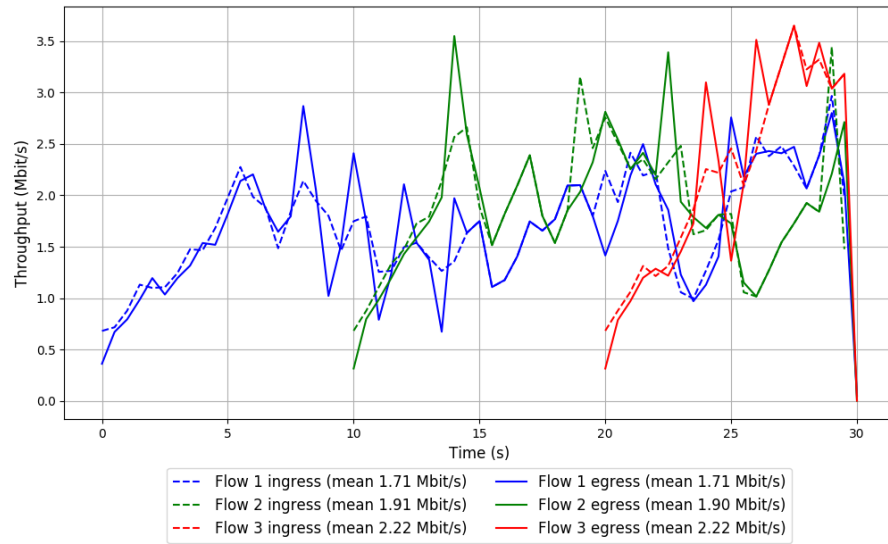
-- Flow 3:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 113.745 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-17 10:51:19

End at: 2018-01-17 10:51:49

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.61 Mbit/s

95th percentile per-packet one-way delay: 113.714 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.31 Mbit/s

95th percentile per-packet one-way delay: 113.598 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 2.93 Mbit/s

95th percentile per-packet one-way delay: 113.837 ms

Loss rate: 0.00%

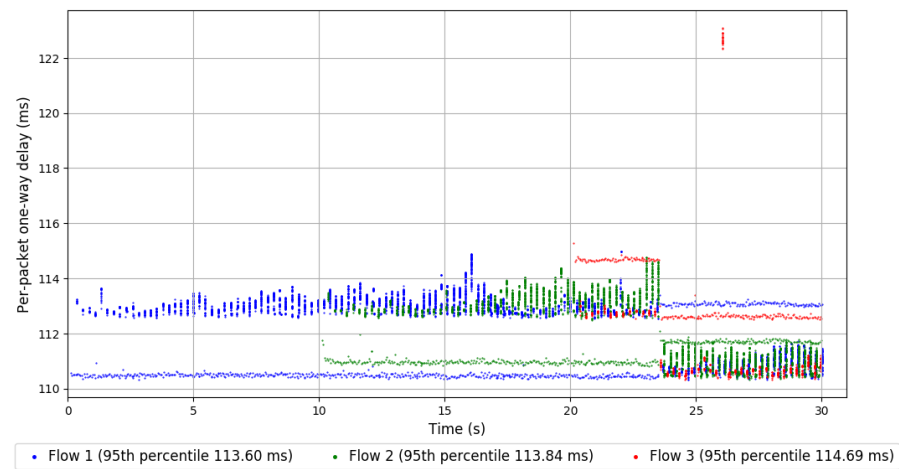
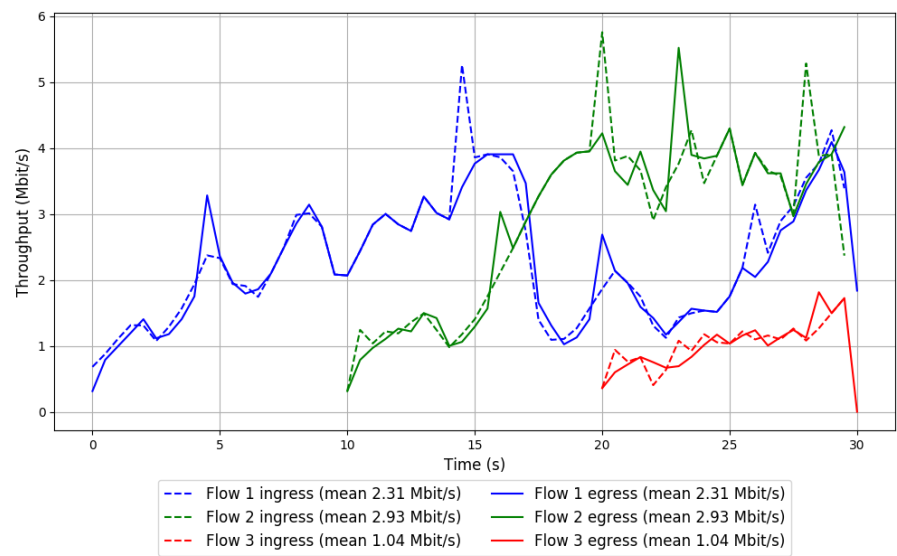
-- Flow 3:

Average throughput: 1.04 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-17 11:10:16

End at: 2018-01-17 11:10:46

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.41 Mbit/s

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

Loss rate: 2.16%

-- Flow 1:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 112.646 ms

Loss rate: 3.45%

-- Flow 2:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 111.851 ms

Loss rate: 2.12%

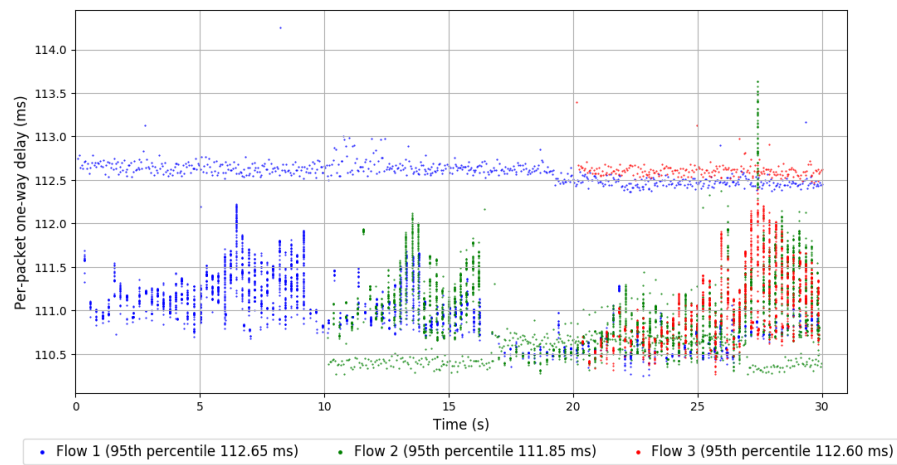
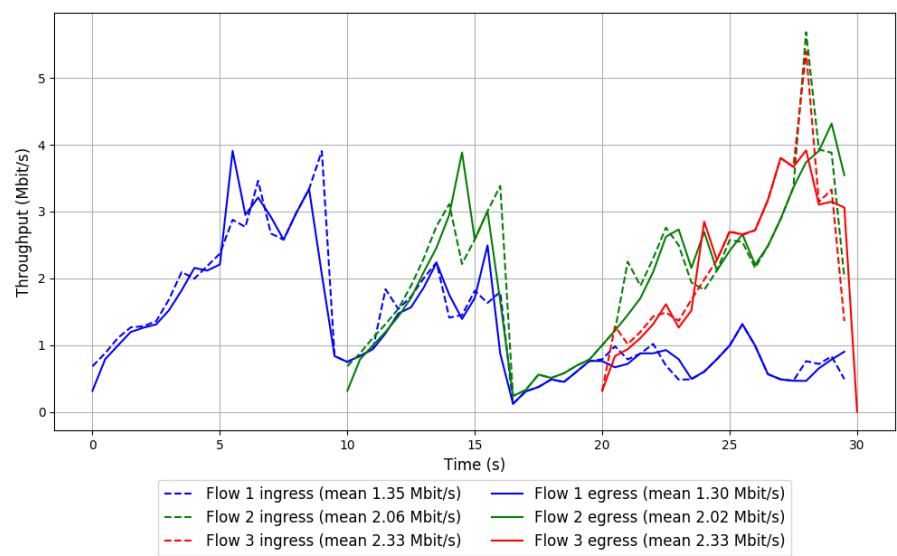
-- Flow 3:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 112.604 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-17 11:29:04

End at: 2018-01-17 11:29:34

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.32 Mbit/s

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

Loss rate: 2.58%

-- Flow 1:

Average throughput: 1.94 Mbit/s

95th percentile per-packet one-way delay: 112.820 ms

Loss rate: 2.20%

-- Flow 2:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 111.858 ms

Loss rate: 2.39%

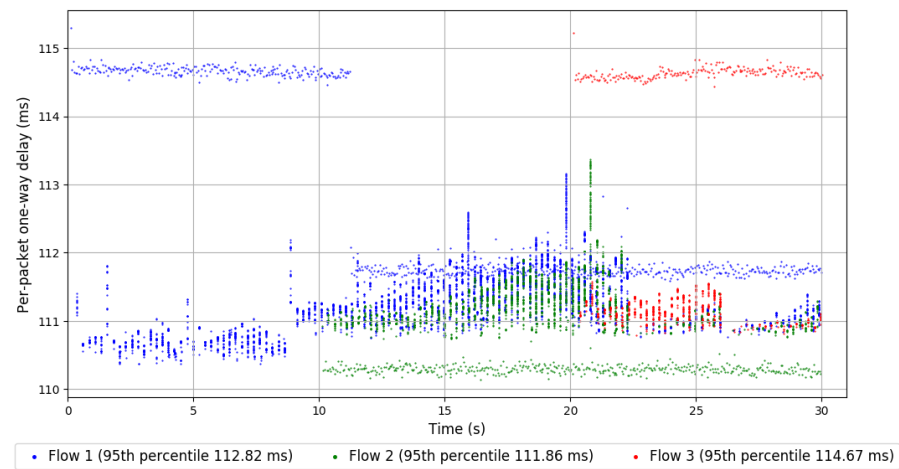
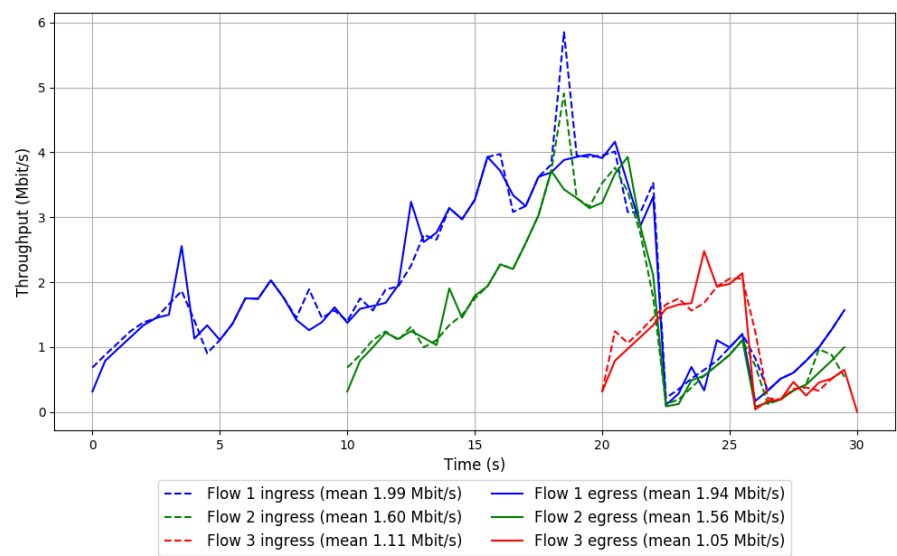
-- Flow 3:

Average throughput: 1.05 Mbit/s

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

Loss rate: 5.21%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-17 11:48:02

End at: 2018-01-17 11:48:32

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 112.112 ms

Loss rate: 0.17%

-- Flow 1:

Average throughput: 2.20 Mbit/s

95th percentile per-packet one-way delay: 111.820 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 2.61 Mbit/s

95th percentile per-packet one-way delay: 112.651 ms

Loss rate: 0.11%

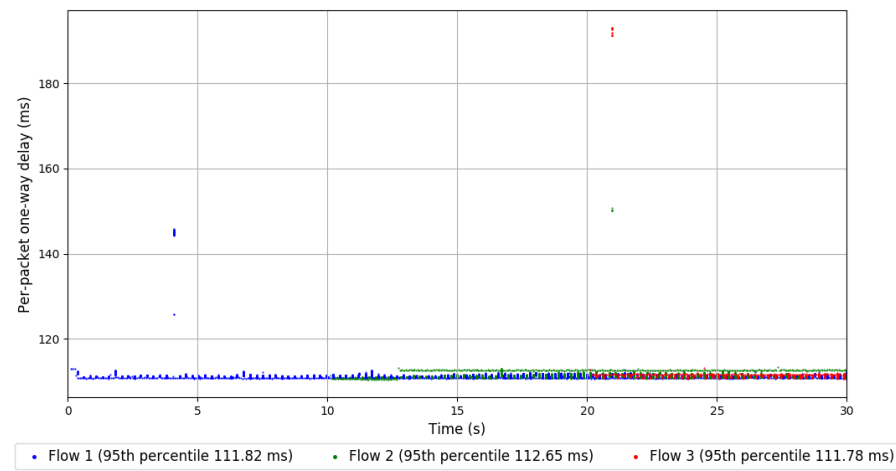
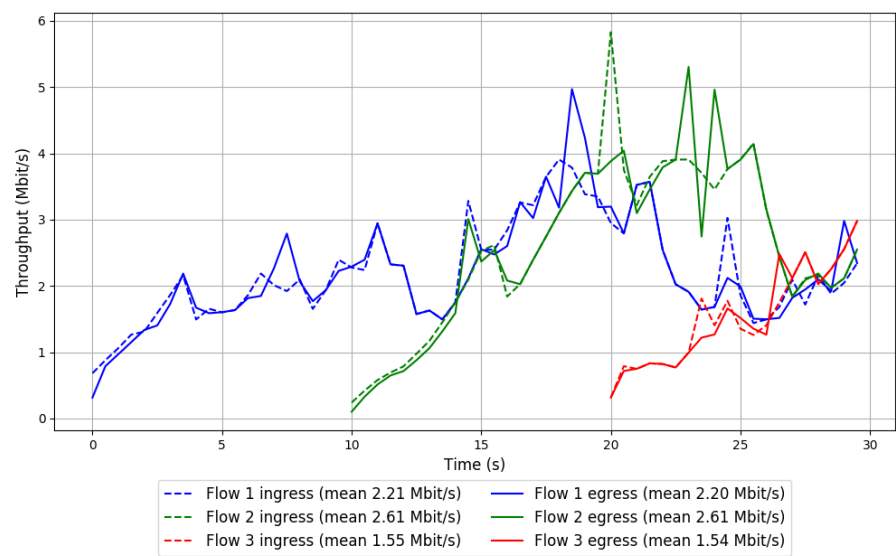
-- Flow 3:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 111.776 ms

Loss rate: 0.23%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-17 12:05:56

End at: 2018-01-17 12:06:26

Below is generated by plot.py at 2018-01-17 14:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.80 Mbit/s

95th percentile per-packet one-way delay: 113.983 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 114.103 ms

Loss rate: 2.01%

-- Flow 2:

Average throughput: 1.77 Mbit/s

95th percentile per-packet one-way delay: 113.803 ms

Loss rate: 0.00%

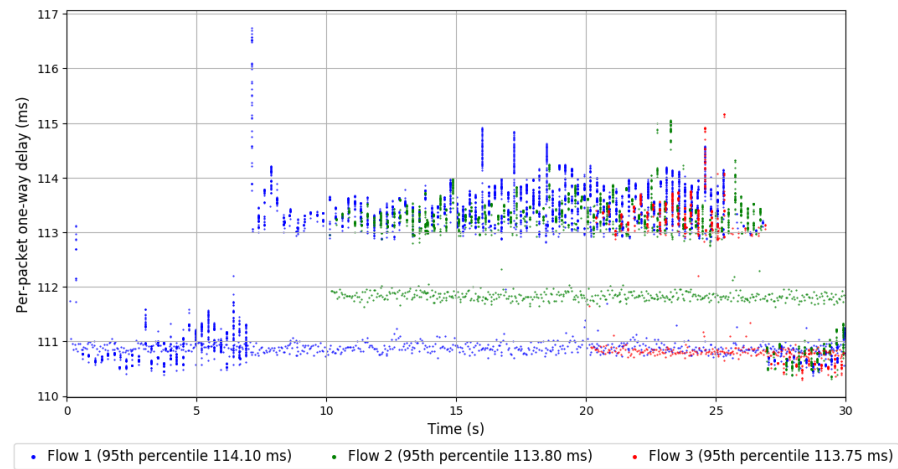
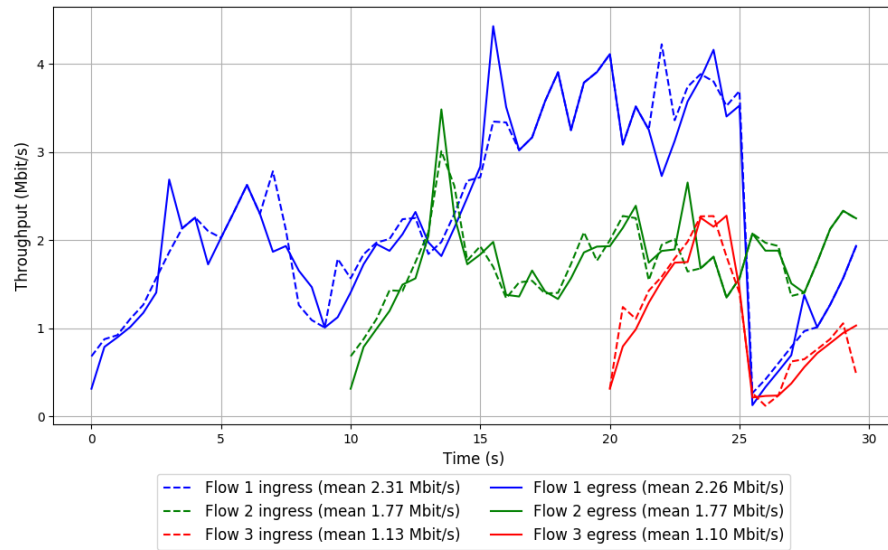
-- Flow 3:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 113.750 ms

Loss rate: 2.66%

Run 10: Report of Sprout — Data Link

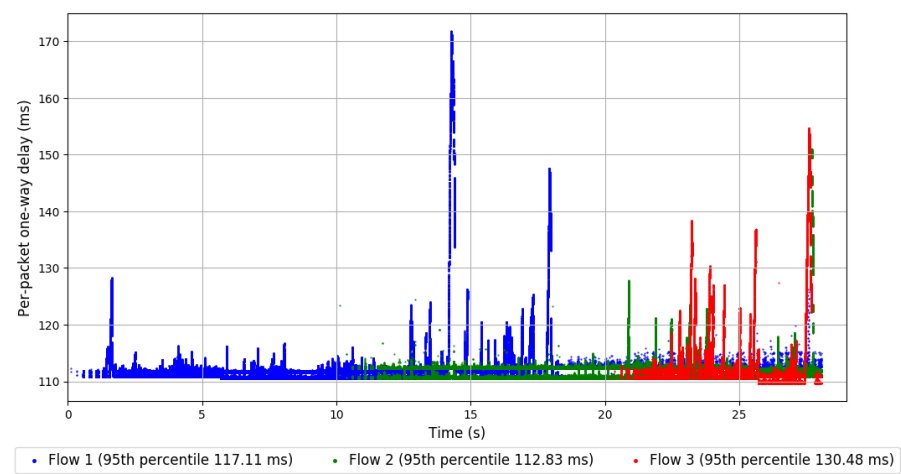
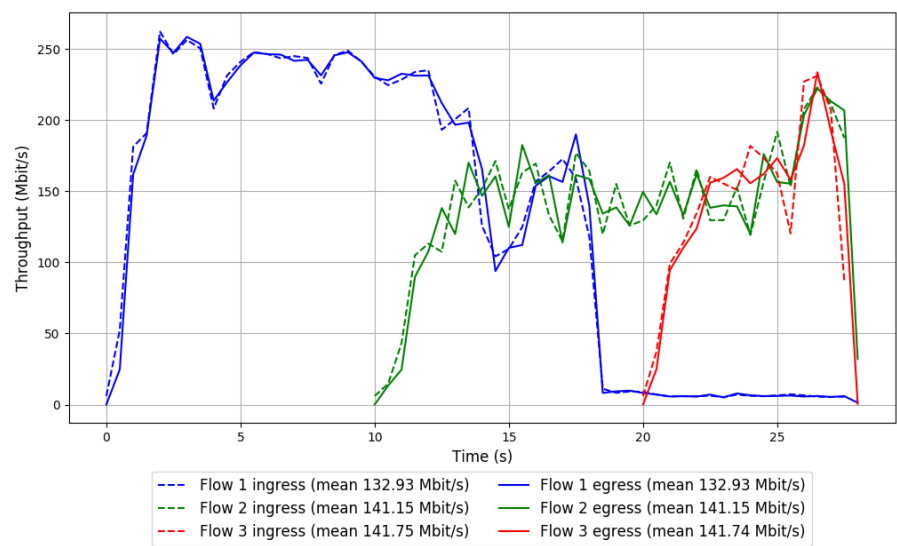


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-17 09:11:45
End at: 2018-01-17 09:12:15

# Below is generated by plot.py at 2018-01-17 14:15:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 263.73 Mbit/s
95th percentile per-packet one-way delay: 117.819 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 132.93 Mbit/s
95th percentile per-packet one-way delay: 117.111 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 141.15 Mbit/s
95th percentile per-packet one-way delay: 112.826 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 141.74 Mbit/s
95th percentile per-packet one-way delay: 130.483 ms
Loss rate: 0.00%
```


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

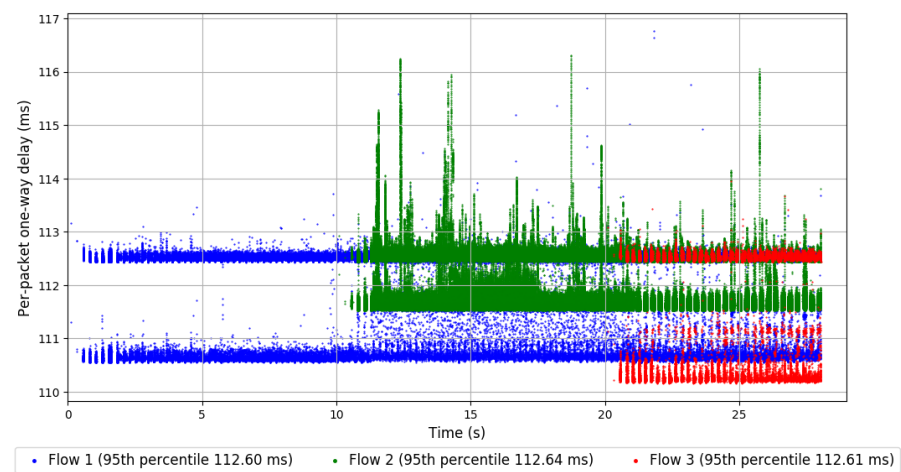
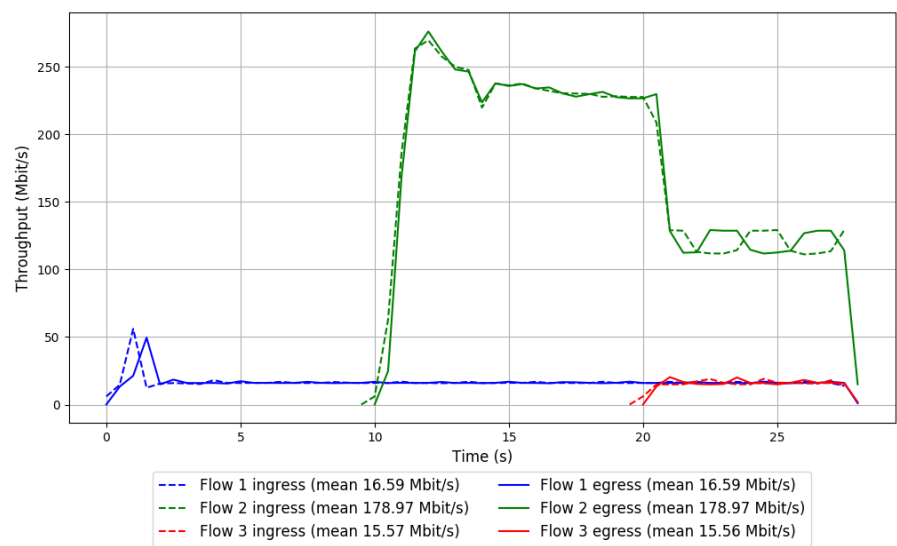


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-17 09:30:42
End at: 2018-01-17 09:31:12

# Below is generated by plot.py at 2018-01-17 14:15:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 136.02 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 16.59 Mbit/s
95th percentile per-packet one-way delay: 112.604 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 178.97 Mbit/s
95th percentile per-packet one-way delay: 112.644 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 15.56 Mbit/s
95th percentile per-packet one-way delay: 112.611 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-01-17 09:49:23

End at: 2018-01-17 09:49:53

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.67 Mbit/s

95th percentile per-packet one-way delay: 117.401 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 183.80 Mbit/s

95th percentile per-packet one-way delay: 118.176 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 166.95 Mbit/s

95th percentile per-packet one-way delay: 113.309 ms

Loss rate: 0.00%

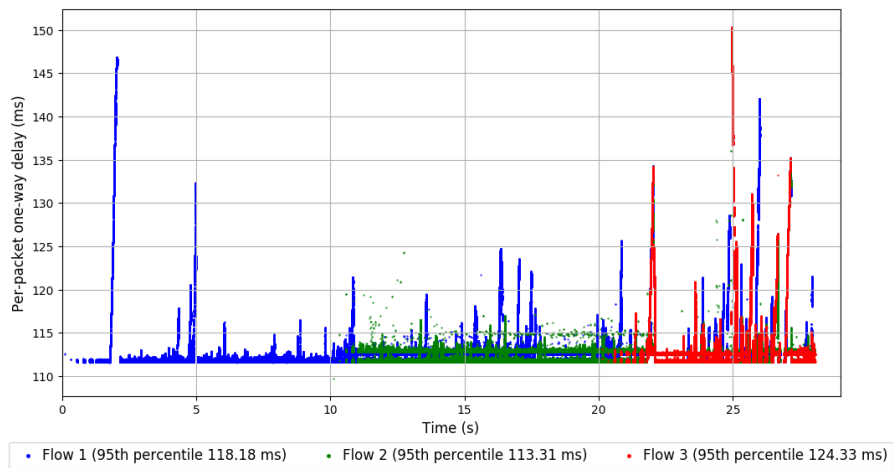
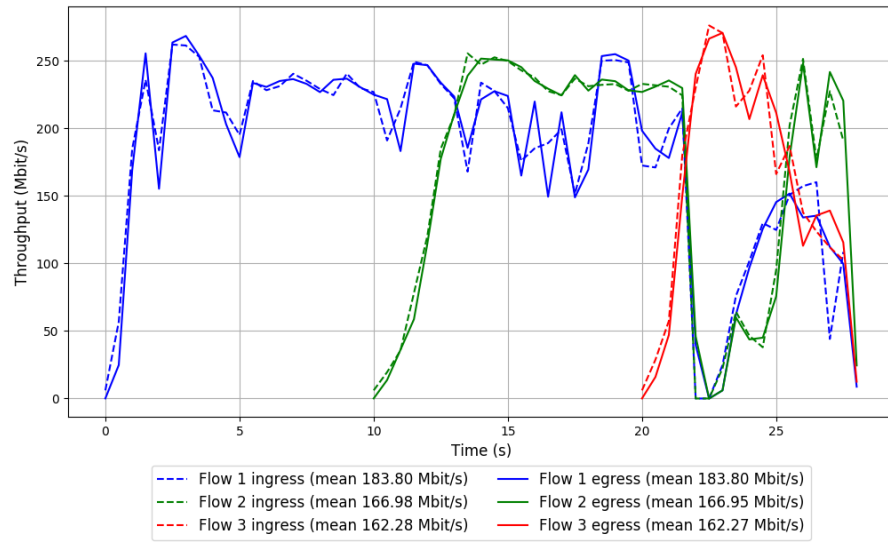
-- Flow 3:

Average throughput: 162.27 Mbit/s

95th percentile per-packet one-way delay: 124.325 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-17 10:08:19

End at: 2018-01-17 10:08:49

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.09 Mbit/s

95th percentile per-packet one-way delay: 156.738 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 15.92 Mbit/s

95th percentile per-packet one-way delay: 112.886 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 12.81 Mbit/s

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

Loss rate: 0.00%

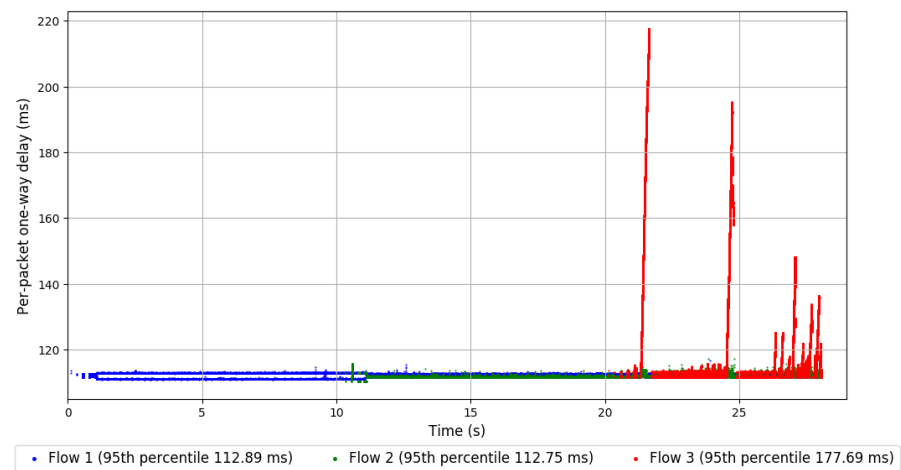
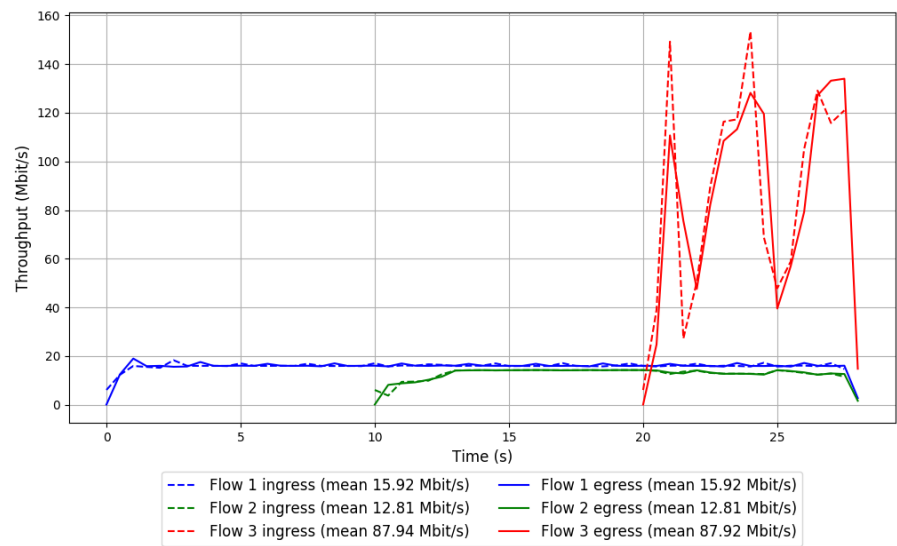
-- Flow 3:

Average throughput: 87.92 Mbit/s

95th percentile per-packet one-way delay: 177.689 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-17 10:26:38

End at: 2018-01-17 10:27:08

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 33.08 Mbit/s

95th percentile per-packet one-way delay: 113.145 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 20.80 Mbit/s

95th percentile per-packet one-way delay: 113.649 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.47 Mbit/s

95th percentile per-packet one-way delay: 113.141 ms

Loss rate: 0.00%

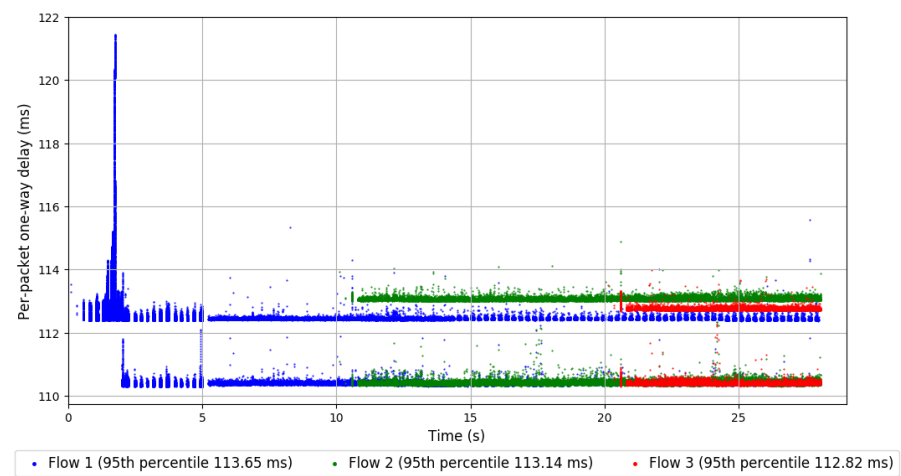
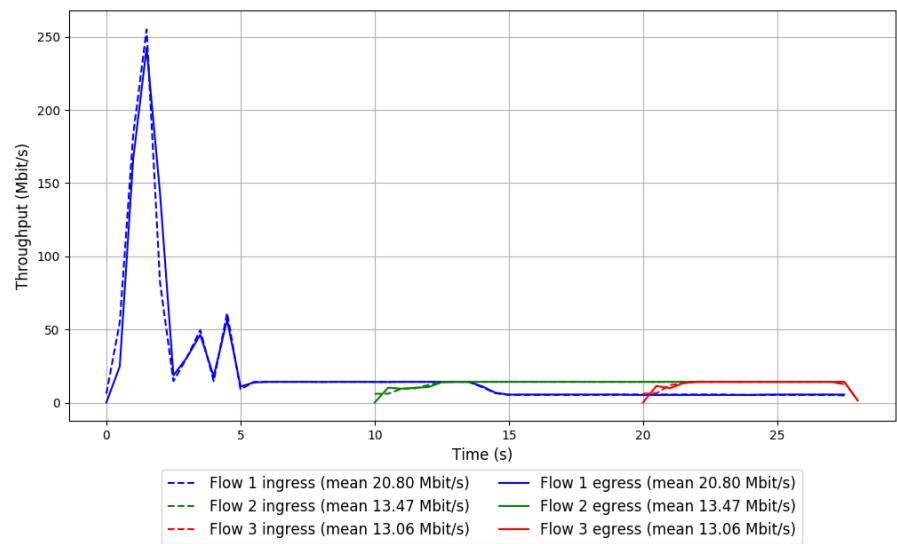
-- Flow 3:

Average throughput: 13.06 Mbit/s

95th percentile per-packet one-way delay: 112.824 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-17 10:45:02

End at: 2018-01-17 10:45:32

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 201.94 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.85 Mbit/s

95th percentile per-packet one-way delay: 113.350 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 117.91 Mbit/s

95th percentile per-packet one-way delay: 116.723 ms

Loss rate: 0.00%

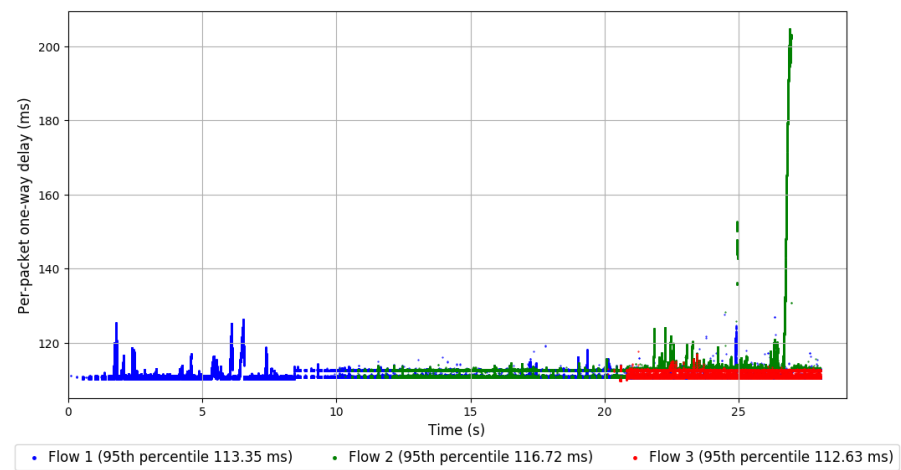
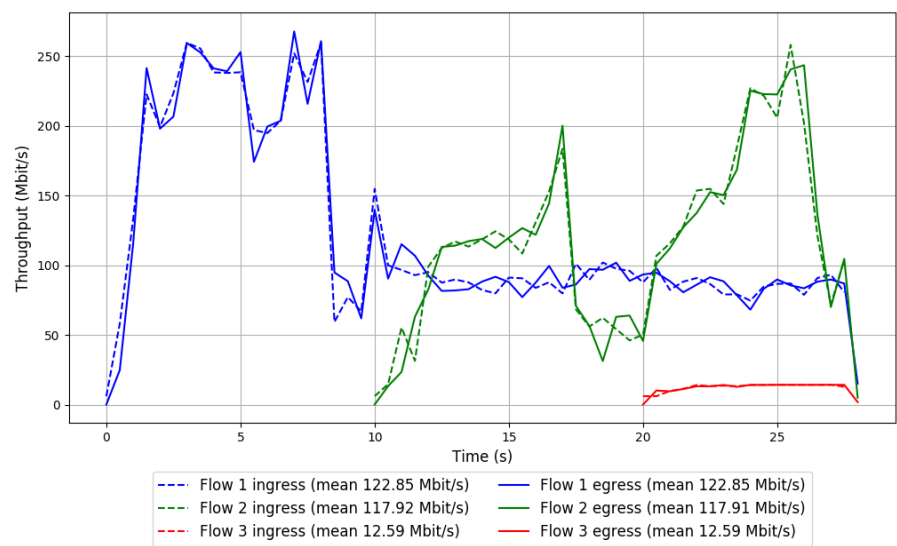
-- Flow 3:

Average throughput: 12.59 Mbit/s

95th percentile per-packet one-way delay: 112.634 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-17 11:03:48

End at: 2018-01-17 11:04:18

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 257.59 Mbit/s

95th percentile per-packet one-way delay: 128.545 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 150.66 Mbit/s

95th percentile per-packet one-way delay: 133.350 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 99.75 Mbit/s

95th percentile per-packet one-way delay: 118.537 ms

Loss rate: 0.00%

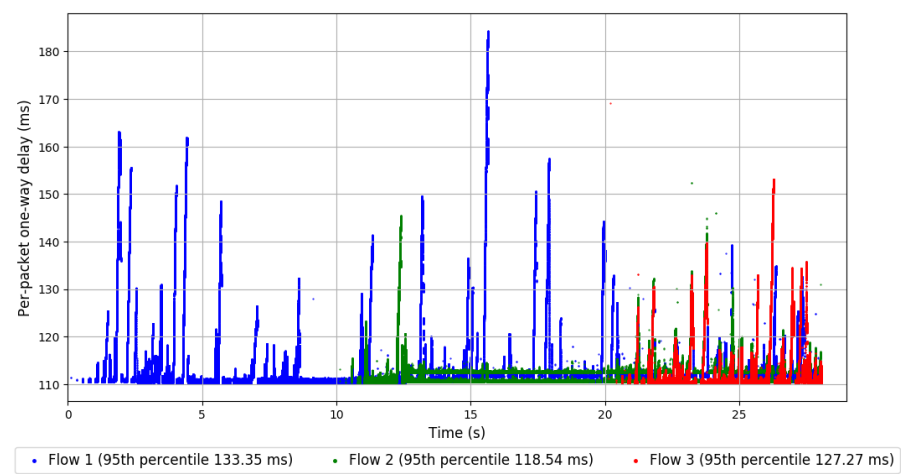
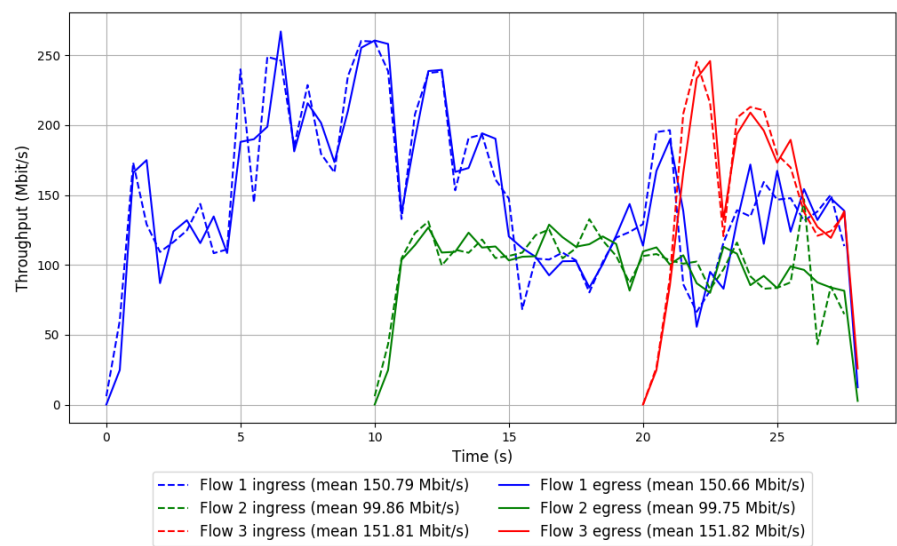
-- Flow 3:

Average throughput: 151.82 Mbit/s

95th percentile per-packet one-way delay: 127.270 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-17 11:22:46

End at: 2018-01-17 11:23:16

Below is generated by plot.py at 2018-01-17 14:17:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 207.02 Mbit/s

95th percentile per-packet one-way delay: 127.583 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 157.07 Mbit/s

95th percentile per-packet one-way delay: 127.864 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.65 Mbit/s

95th percentile per-packet one-way delay: 113.618 ms

Loss rate: 0.00%

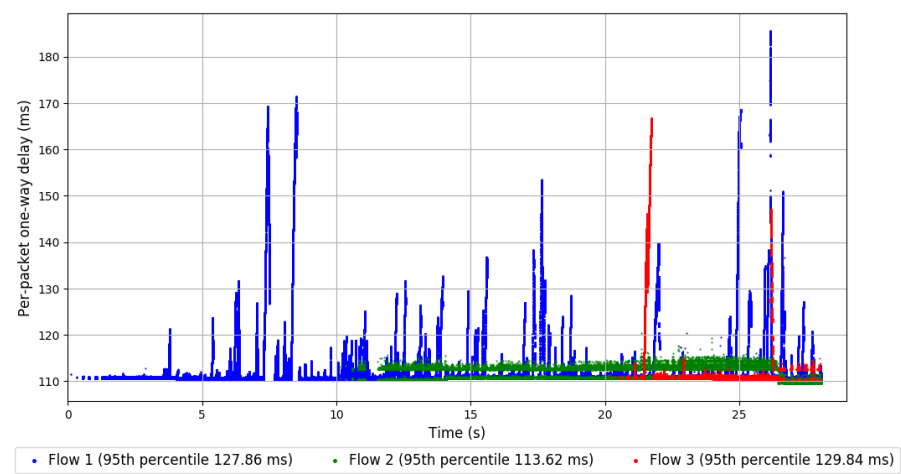
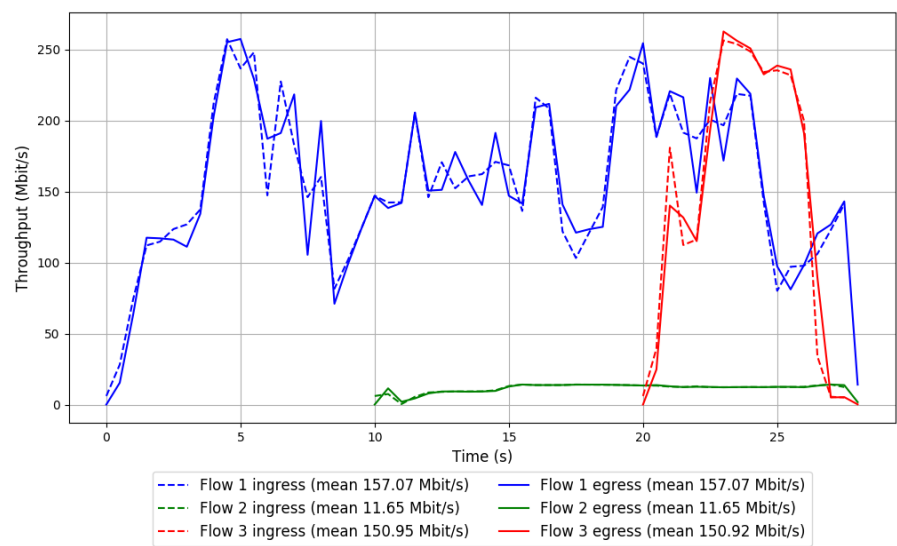
-- Flow 3:

Average throughput: 150.92 Mbit/s

95th percentile per-packet one-way delay: 129.838 ms

Loss rate: 0.00%

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

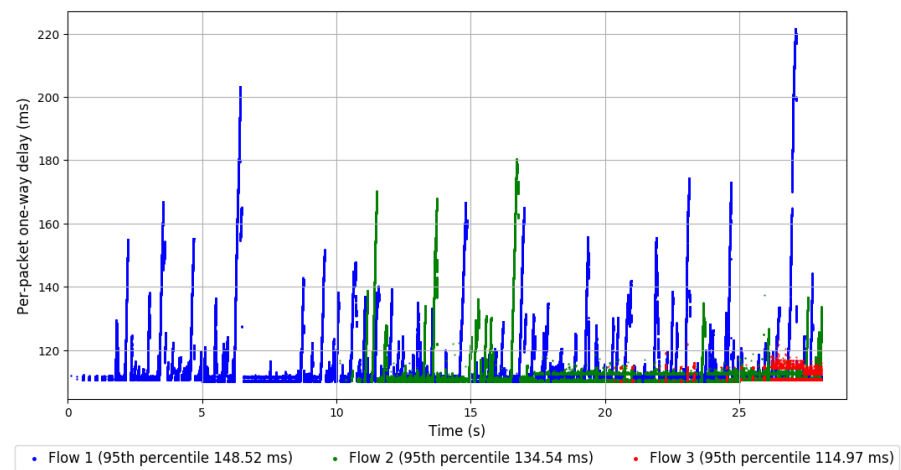
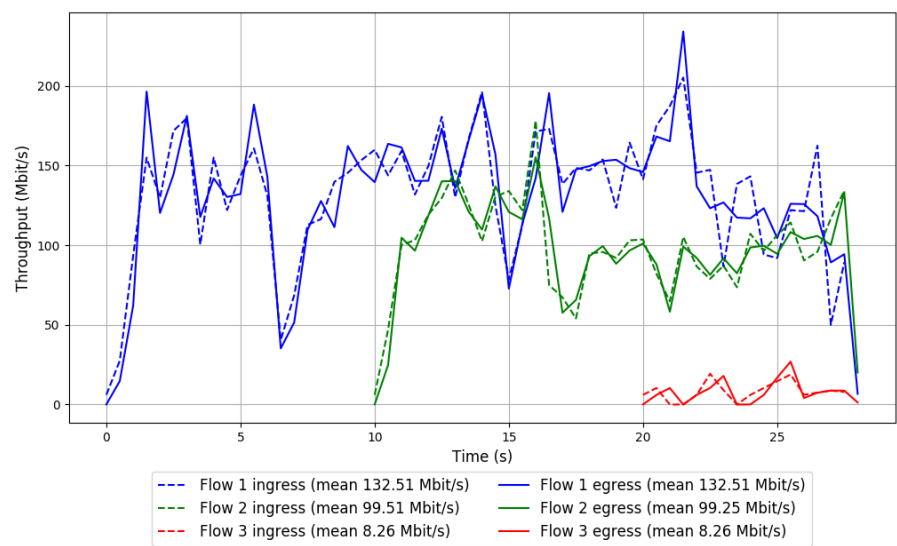


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-17 11:41:56
End at: 2018-01-17 11:42:26

# Below is generated by plot.py at 2018-01-17 14:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 198.54 Mbit/s
95th percentile per-packet one-way delay: 145.412 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 132.51 Mbit/s
95th percentile per-packet one-way delay: 148.520 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 99.25 Mbit/s
95th percentile per-packet one-way delay: 134.545 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 8.26 Mbit/s
95th percentile per-packet one-way delay: 114.973 ms
Loss rate: 0.00%
```


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

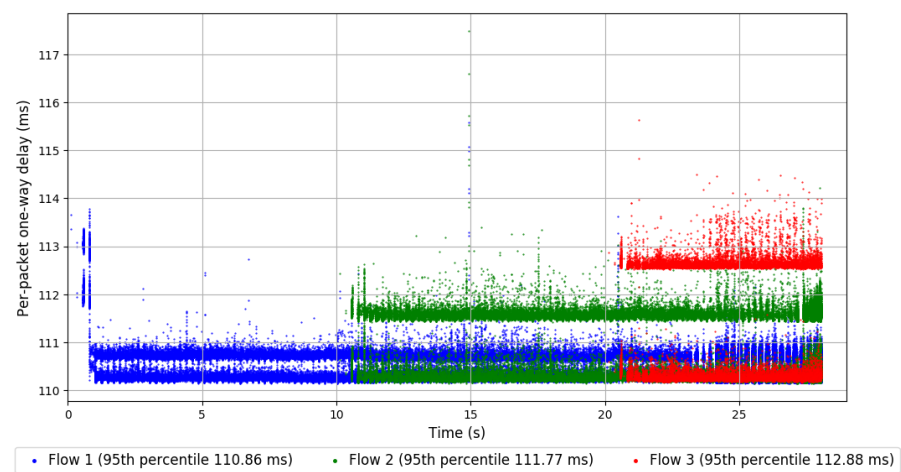
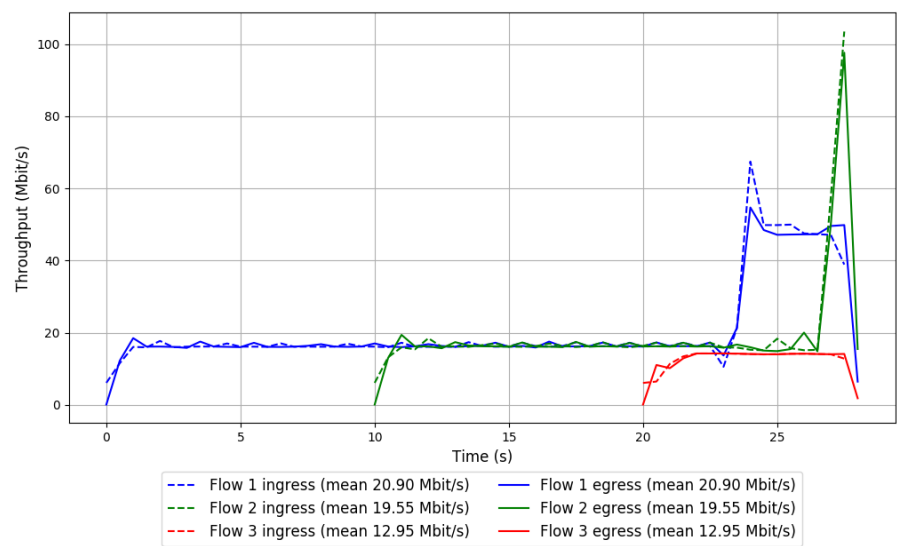


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-17 12:00:10
End at: 2018-01-17 12:00:40

# Below is generated by plot.py at 2018-01-17 14:17:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.12 Mbit/s
95th percentile per-packet one-way delay: 112.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.90 Mbit/s
95th percentile per-packet one-way delay: 110.864 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.55 Mbit/s
95th percentile per-packet one-way delay: 111.773 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 12.95 Mbit/s
95th percentile per-packet one-way delay: 112.883 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-17 09:27:00

End at: 2018-01-17 09:27:30

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 52.55 Mbit/s

95th percentile per-packet one-way delay: 118.856 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 28.86 Mbit/s

95th percentile per-packet one-way delay: 121.949 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.13 Mbit/s

95th percentile per-packet one-way delay: 114.343 ms

Loss rate: 0.00%

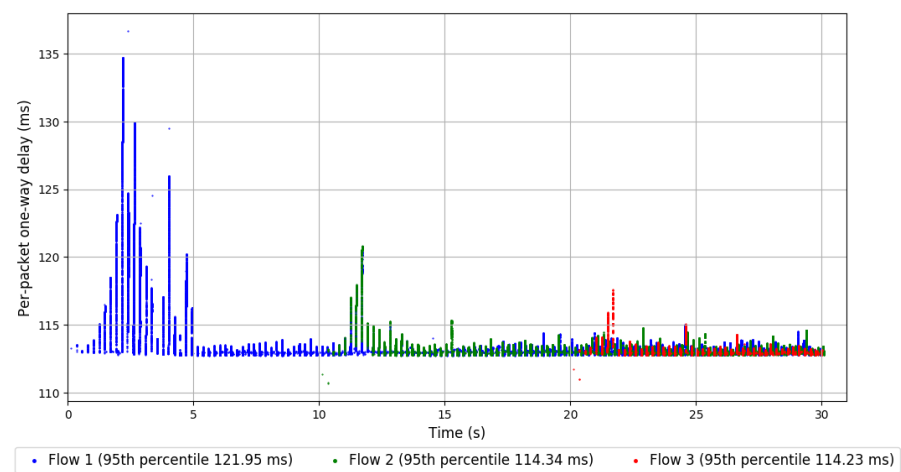
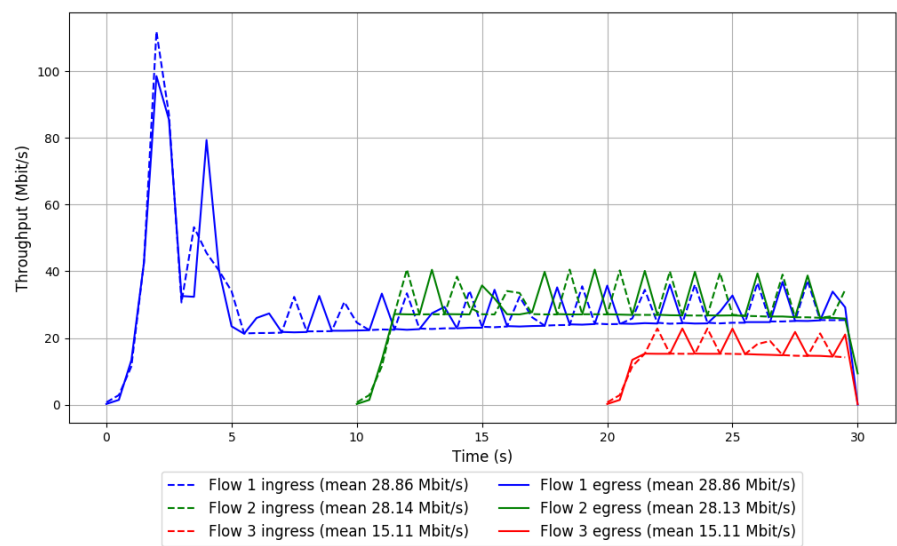
-- Flow 3:

Average throughput: 15.11 Mbit/s

95th percentile per-packet one-way delay: 114.226 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-17 09:45:33

End at: 2018-01-17 09:46:03

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.51 Mbit/s

95th percentile per-packet one-way delay: 124.004 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 95.12 Mbit/s

95th percentile per-packet one-way delay: 123.069 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.09 Mbit/s

95th percentile per-packet one-way delay: 126.053 ms

Loss rate: 0.00%

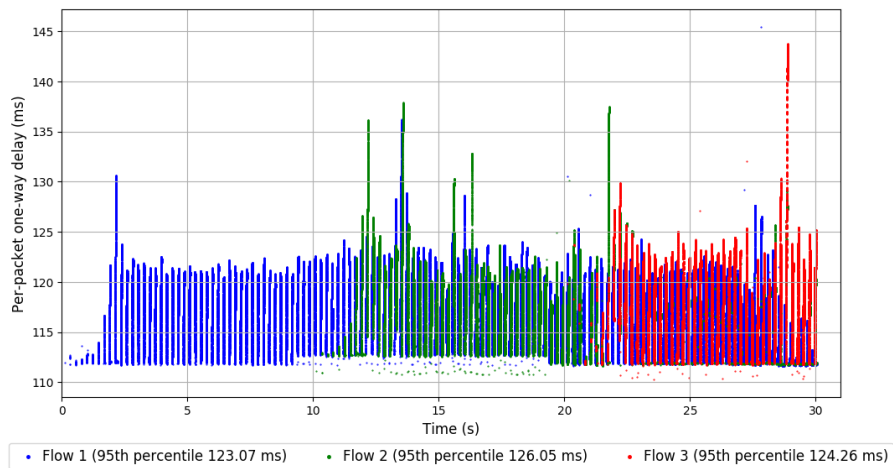
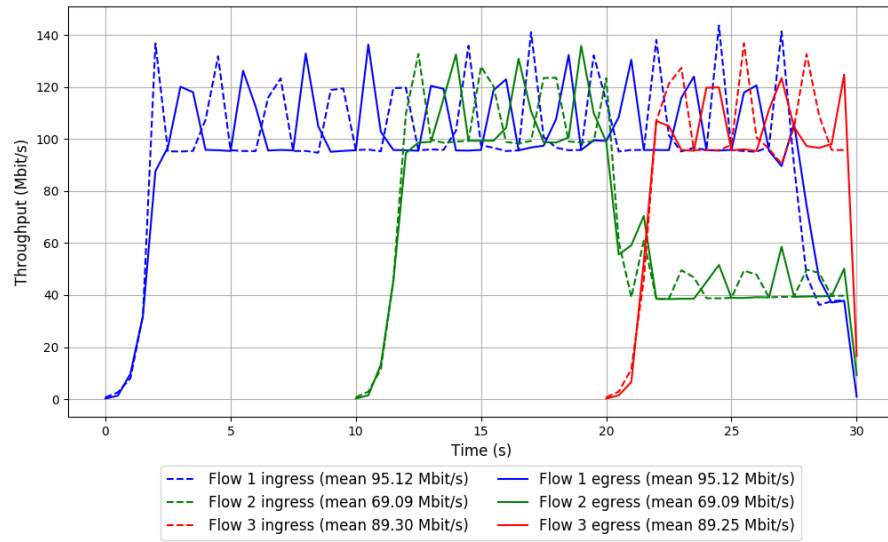
-- Flow 3:

Average throughput: 89.25 Mbit/s

95th percentile per-packet one-way delay: 124.263 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-17 10:04:39

End at: 2018-01-17 10:05:09

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.85 Mbit/s

95th percentile per-packet one-way delay: 125.141 ms

Loss rate: 1.77%

-- Flow 1:

Average throughput: 3.39 Mbit/s

95th percentile per-packet one-way delay: 117.389 ms

Loss rate: 2.49%

-- Flow 2:

Average throughput: 31.41 Mbit/s

95th percentile per-packet one-way delay: 120.911 ms

Loss rate: 1.49%

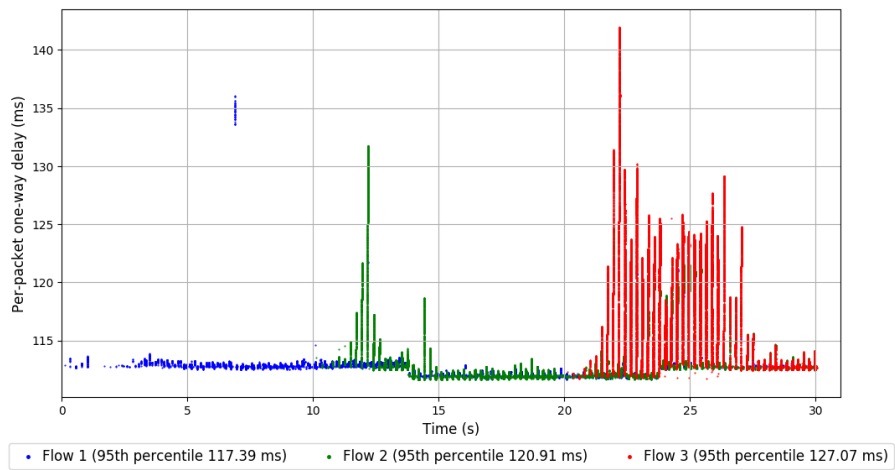
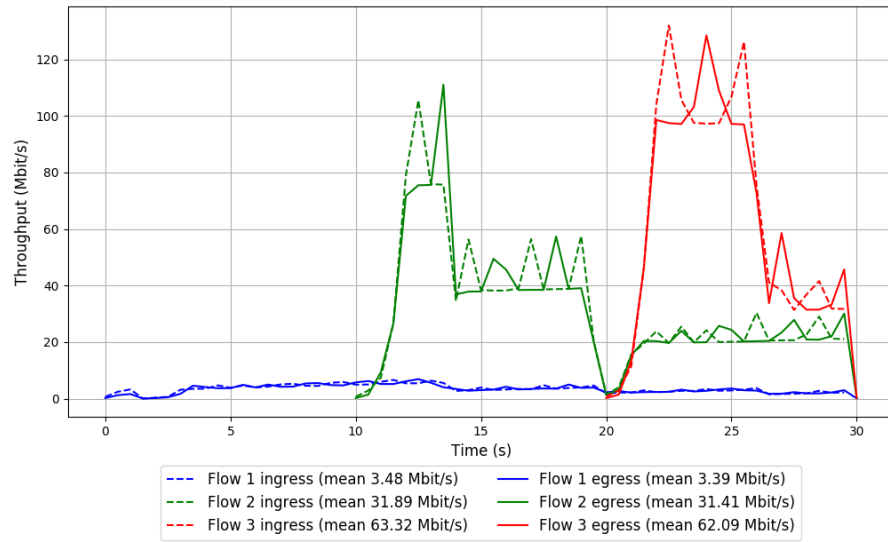
-- Flow 3:

Average throughput: 62.09 Mbit/s

95th percentile per-packet one-way delay: 127.066 ms

Loss rate: 1.94%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-17 10:22:57

End at: 2018-01-17 10:23:27

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.38 Mbit/s

95th percentile per-packet one-way delay: 122.456 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 16.32 Mbit/s

95th percentile per-packet one-way delay: 113.541 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.99 Mbit/s

95th percentile per-packet one-way delay: 118.451 ms

Loss rate: 0.00%

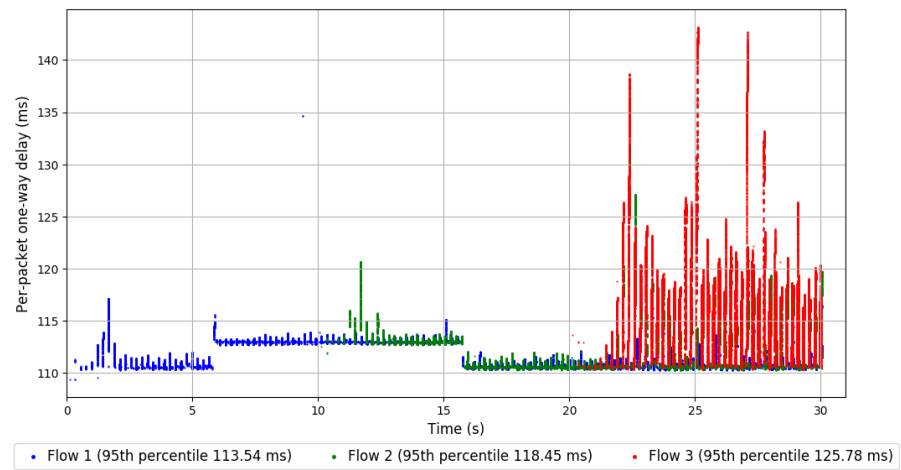
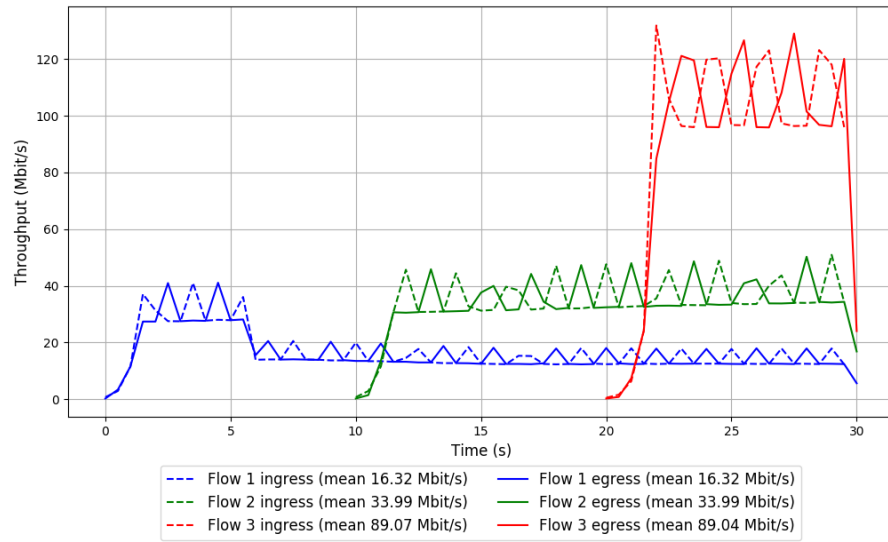
-- Flow 3:

Average throughput: 89.04 Mbit/s

95th percentile per-packet one-way delay: 125.785 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-17 10:41:20

End at: 2018-01-17 10:41:50

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.31 Mbit/s

95th percentile per-packet one-way delay: 121.046 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 5.05 Mbit/s

95th percentile per-packet one-way delay: 118.682 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 41.47 Mbit/s

95th percentile per-packet one-way delay: 123.525 ms

Loss rate: 0.77%

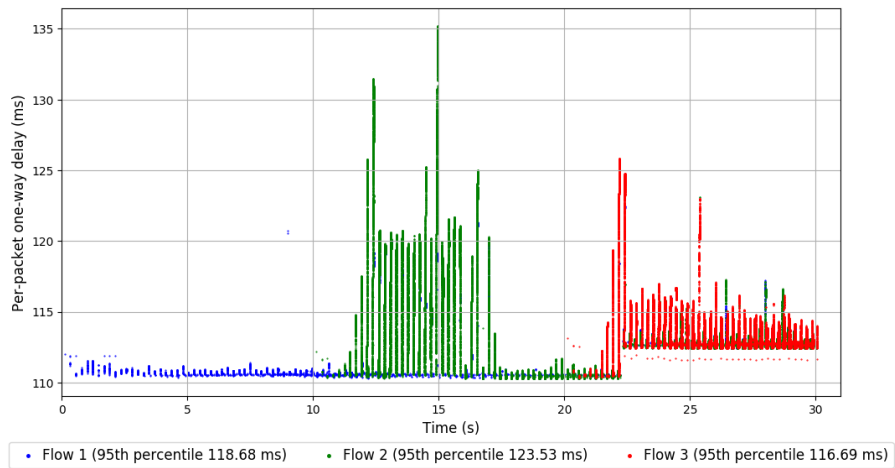
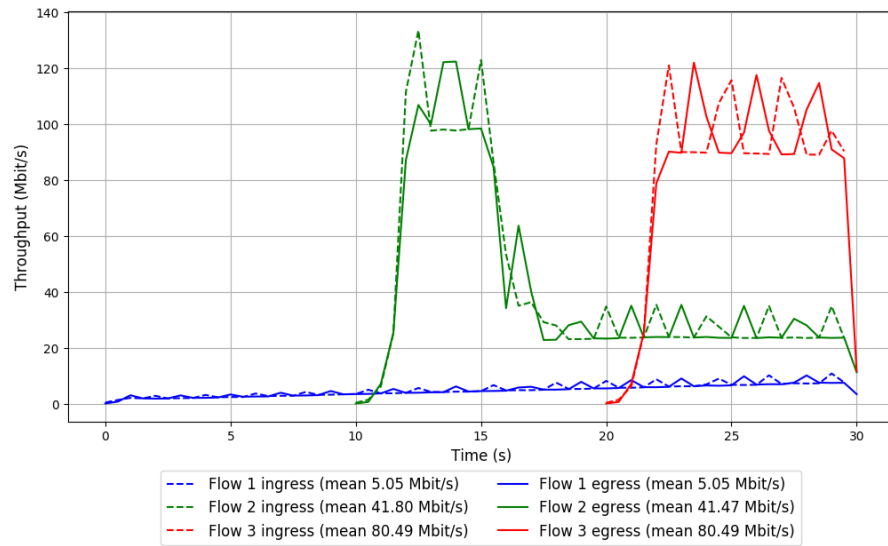
-- Flow 3:

Average throughput: 80.49 Mbit/s

95th percentile per-packet one-way delay: 116.695 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-17 11:00:05

End at: 2018-01-17 11:00:35

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 89.02 Mbit/s

95th percentile per-packet one-way delay: 124.226 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 18.45 Mbit/s

95th percentile per-packet one-way delay: 115.629 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 75.49 Mbit/s

95th percentile per-packet one-way delay: 124.086 ms

Loss rate: 0.00%

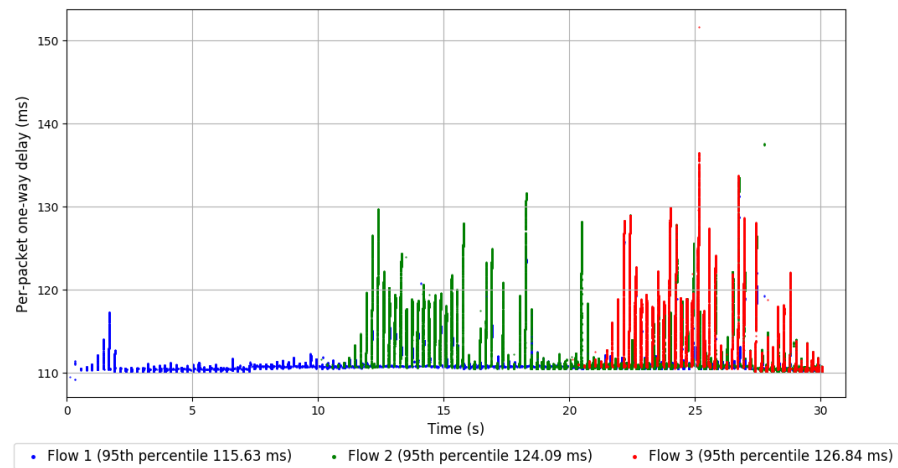
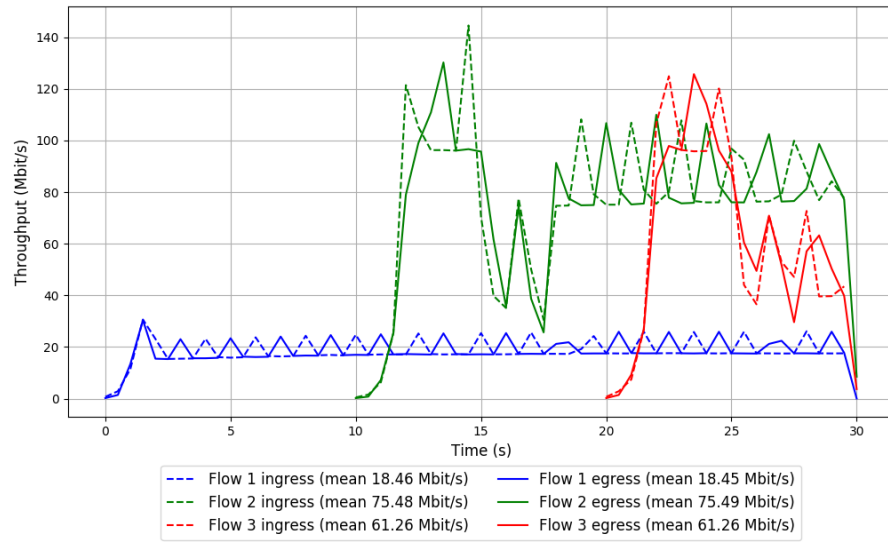
-- Flow 3:

Average throughput: 61.26 Mbit/s

95th percentile per-packet one-way delay: 126.842 ms

Loss rate: 0.02%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-17 11:19:02

End at: 2018-01-17 11:19:32

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.76 Mbit/s

95th percentile per-packet one-way delay: 118.352 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 59.48 Mbit/s

95th percentile per-packet one-way delay: 113.457 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 31.30 Mbit/s

95th percentile per-packet one-way delay: 114.981 ms

Loss rate: 0.00%

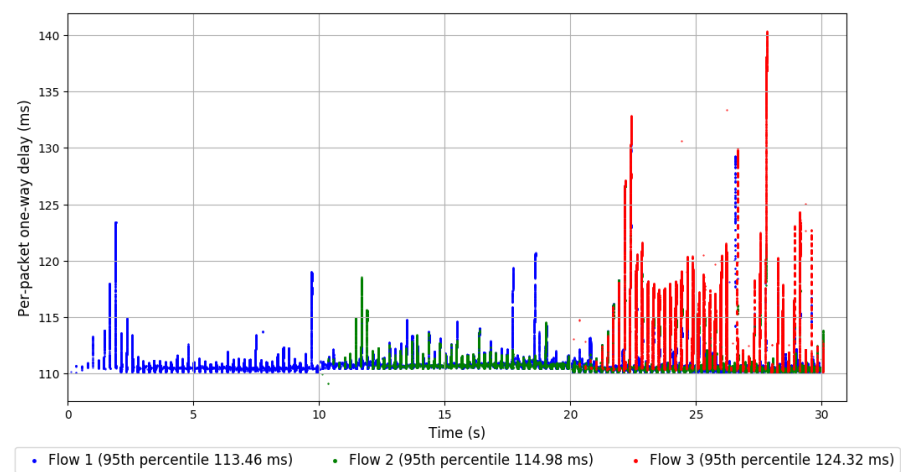
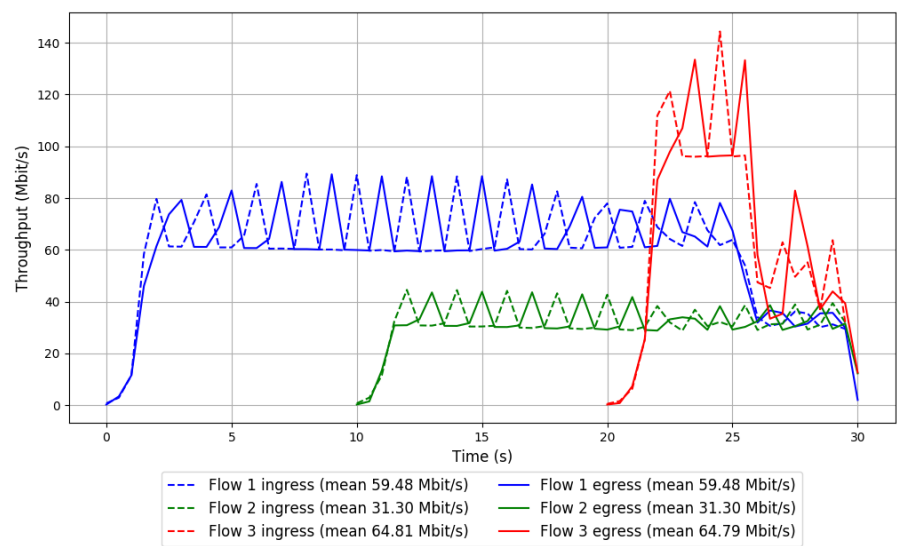
-- Flow 3:

Average throughput: 64.79 Mbit/s

95th percentile per-packet one-way delay: 124.320 ms

Loss rate: 0.04%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-17 11:38:11

End at: 2018-01-17 11:38:41

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.71 Mbit/s

95th percentile per-packet one-way delay: 119.496 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.50 Mbit/s

95th percentile per-packet one-way delay: 115.502 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 62.20 Mbit/s

95th percentile per-packet one-way delay: 116.111 ms

Loss rate: 0.00%

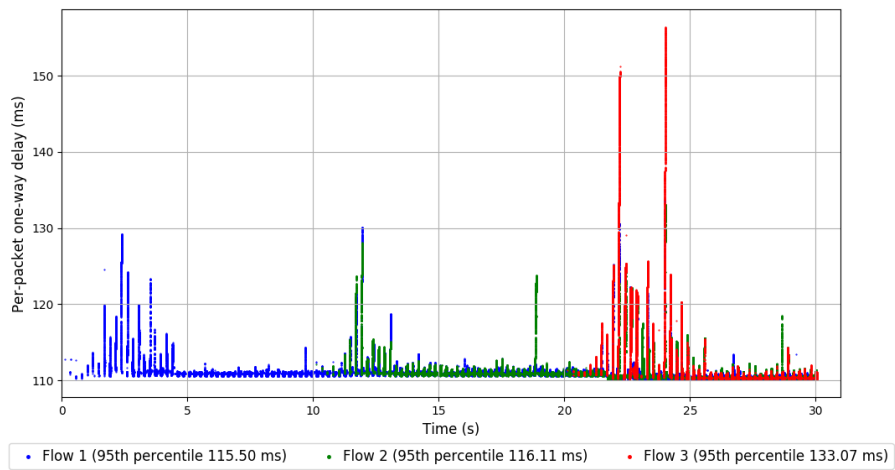
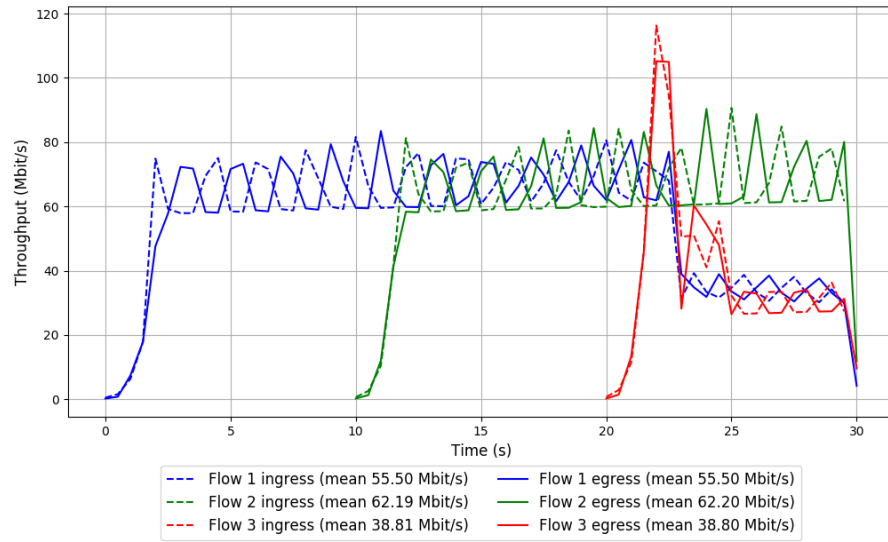
-- Flow 3:

Average throughput: 38.80 Mbit/s

95th percentile per-packet one-way delay: 133.067 ms

Loss rate: 0.03%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-17 11:56:31

End at: 2018-01-17 11:57:01

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.76 Mbit/s

95th percentile per-packet one-way delay: 116.985 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 4.11 Mbit/s

95th percentile per-packet one-way delay: 115.888 ms

Loss rate: 4.59%

-- Flow 2:

Average throughput: 33.37 Mbit/s

95th percentile per-packet one-way delay: 117.239 ms

Loss rate: 1.21%

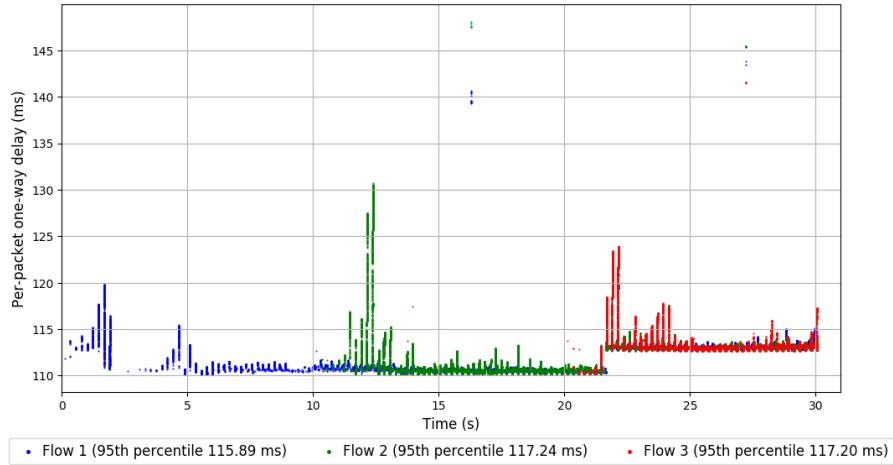
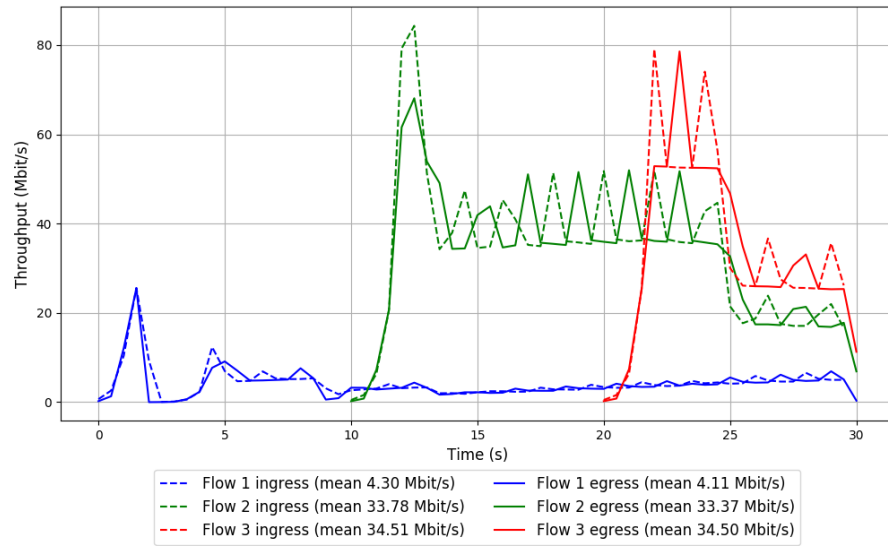
-- Flow 3:

Average throughput: 34.50 Mbit/s

95th percentile per-packet one-way delay: 117.198 ms

Loss rate: 0.01%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-01-17 12:14:35

End at: 2018-01-17 12:15:05

Below is generated by plot.py at 2018-01-17 14:17:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.10 Mbit/s

95th percentile per-packet one-way delay: 130.080 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 64.46 Mbit/s

95th percentile per-packet one-way delay: 122.580 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 43.21 Mbit/s

95th percentile per-packet one-way delay: 134.749 ms

Loss rate: 0.06%

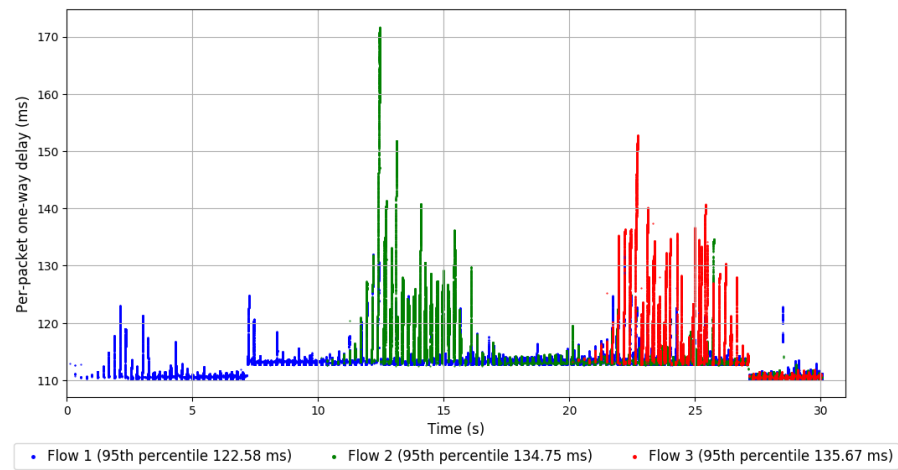
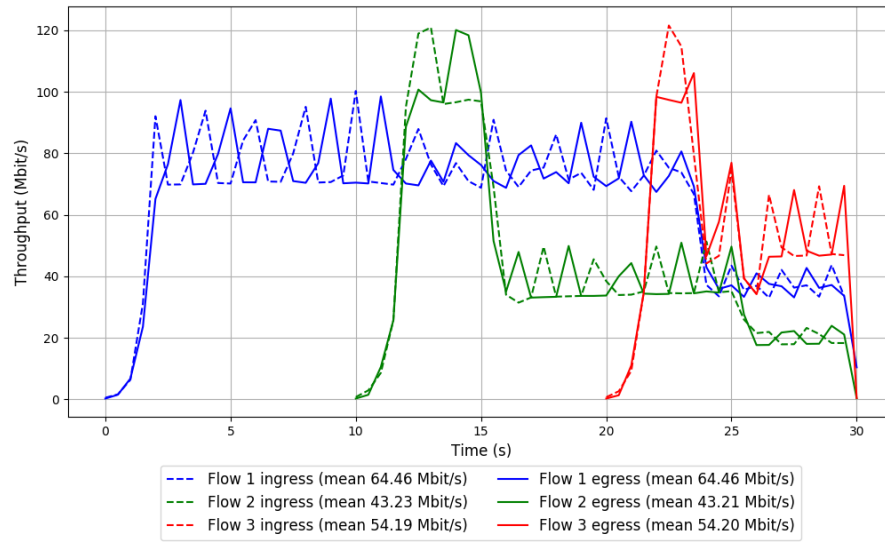
-- Flow 3:

Average throughput: 54.20 Mbit/s

95th percentile per-packet one-way delay: 135.674 ms

Loss rate: 0.01%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-17 09:25:52

End at: 2018-01-17 09:26:22

Below is generated by plot.py at 2018-01-17 14:20:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.56 Mbit/s

95th percentile per-packet one-way delay: 209.674 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 150.39 Mbit/s

95th percentile per-packet one-way delay: 200.448 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 120.66 Mbit/s

95th percentile per-packet one-way delay: 201.362 ms

Loss rate: 0.16%

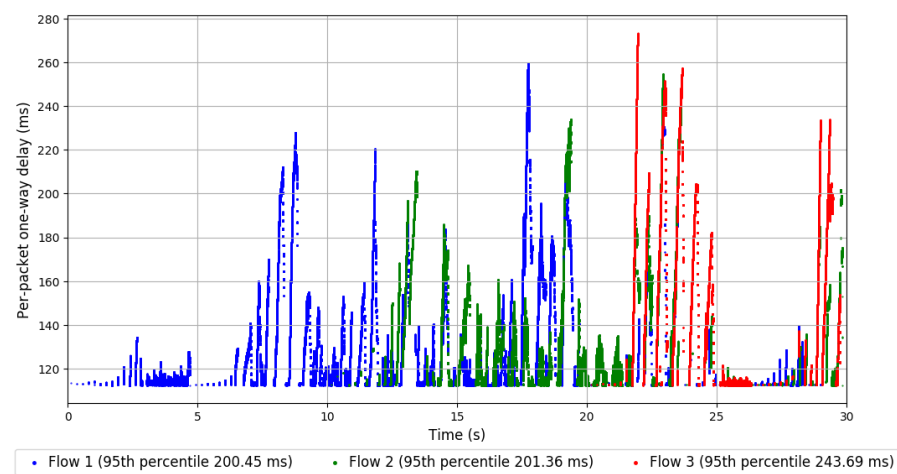
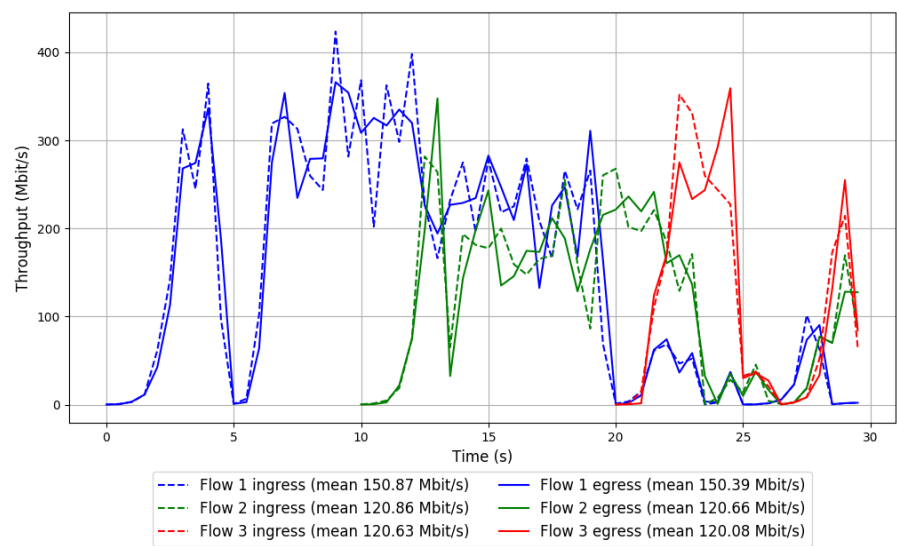
-- Flow 3:

Average throughput: 120.08 Mbit/s

95th percentile per-packet one-way delay: 243.691 ms

Loss rate: 0.34%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-17 09:44:30

End at: 2018-01-17 09:45:00

Below is generated by plot.py at 2018-01-17 14:20:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.59 Mbit/s

95th percentile per-packet one-way delay: 216.963 ms

Loss rate: 2.68%

-- Flow 1:

Average throughput: 98.59 Mbit/s

95th percentile per-packet one-way delay: 252.667 ms

Loss rate: 4.89%

-- Flow 2:

Average throughput: 95.17 Mbit/s

95th percentile per-packet one-way delay: 193.811 ms

Loss rate: 0.16%

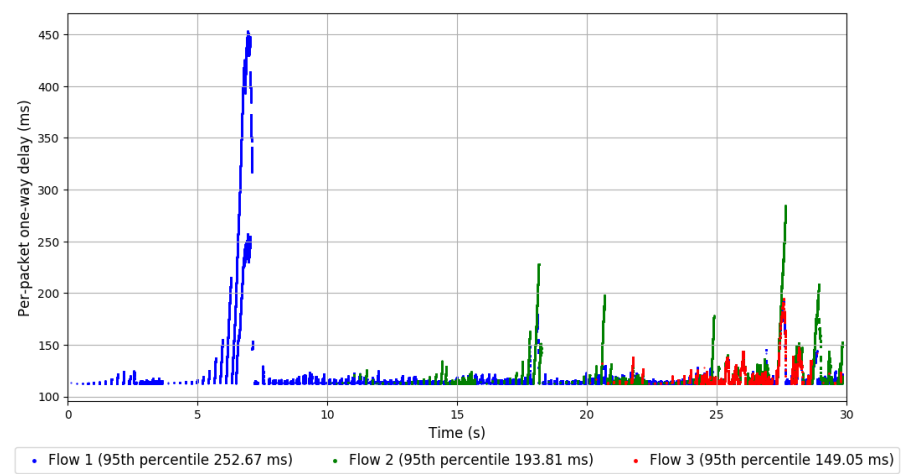
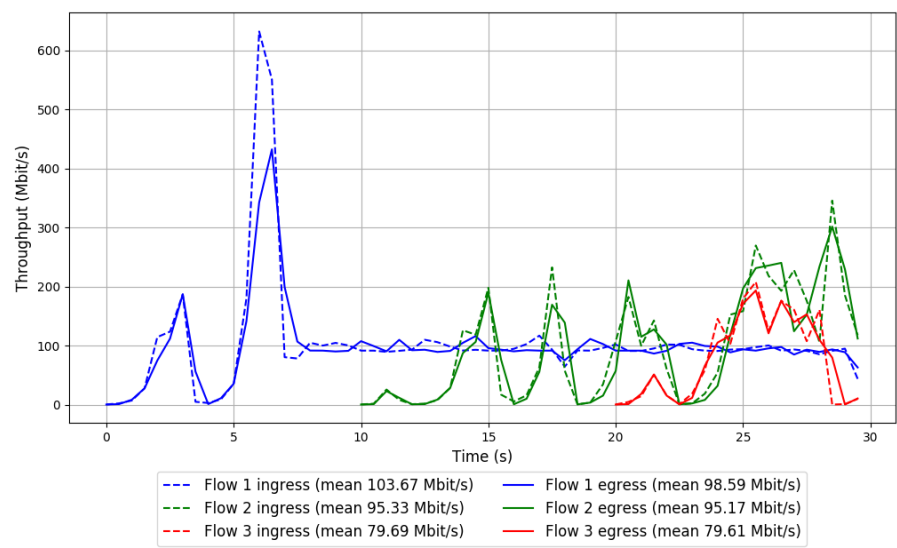
-- Flow 3:

Average throughput: 79.61 Mbit/s

95th percentile per-packet one-way delay: 149.053 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-17 10:03:40

End at: 2018-01-17 10:04:10

Below is generated by plot.py at 2018-01-17 14:20:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.41 Mbit/s

95th percentile per-packet one-way delay: 227.608 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 86.22 Mbit/s

95th percentile per-packet one-way delay: 230.730 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 70.57 Mbit/s

95th percentile per-packet one-way delay: 194.131 ms

Loss rate: 0.00%

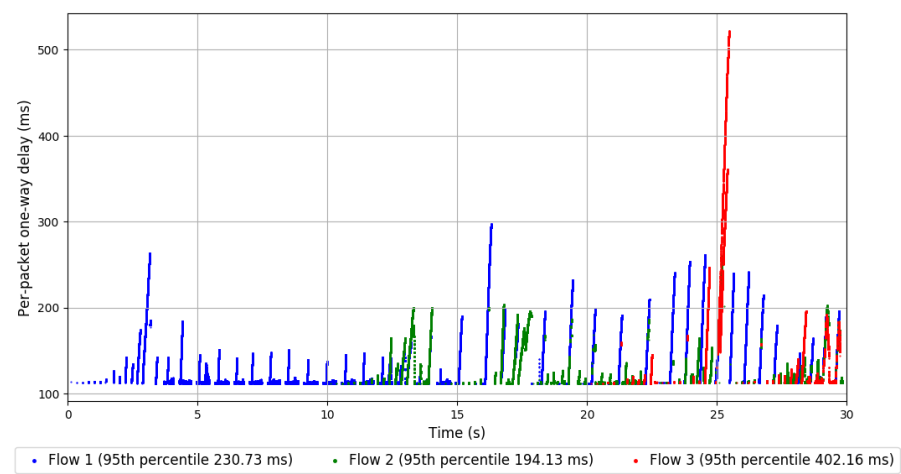
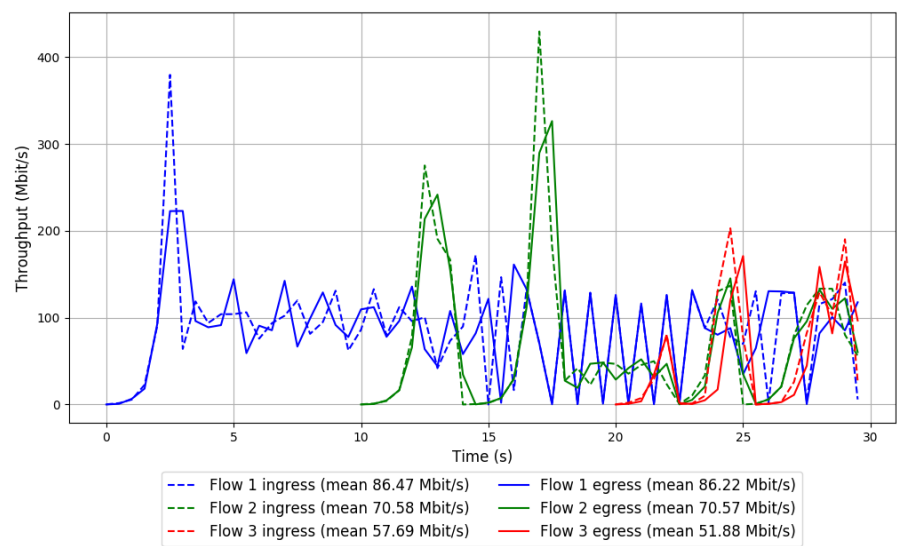
-- Flow 3:

Average throughput: 51.88 Mbit/s

95th percentile per-packet one-way delay: 402.158 ms

Loss rate: 9.78%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-17 10:21:56

End at: 2018-01-17 10:22:26

Below is generated by plot.py at 2018-01-17 14:20:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 164.83 Mbit/s

95th percentile per-packet one-way delay: 266.723 ms

Loss rate: 4.12%

-- Flow 1:

Average throughput: 113.33 Mbit/s

95th percentile per-packet one-way delay: 288.526 ms

Loss rate: 5.80%

-- Flow 2:

Average throughput: 51.99 Mbit/s

95th percentile per-packet one-way delay: 196.655 ms

Loss rate: 0.38%

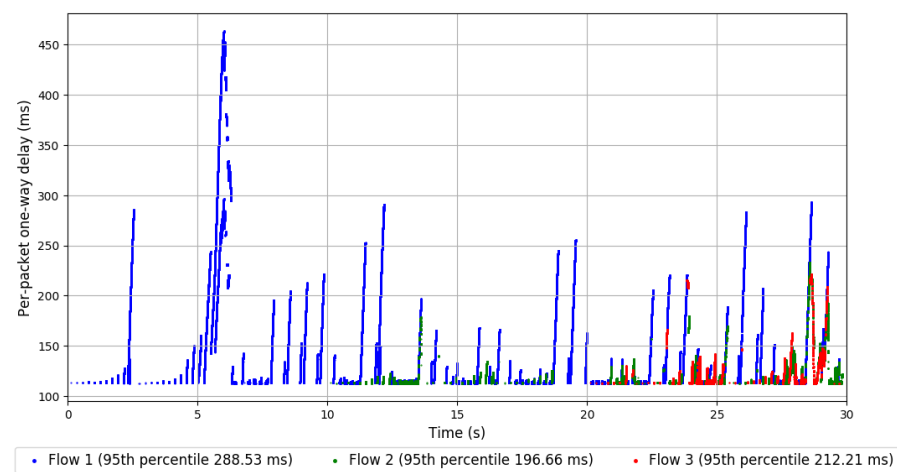
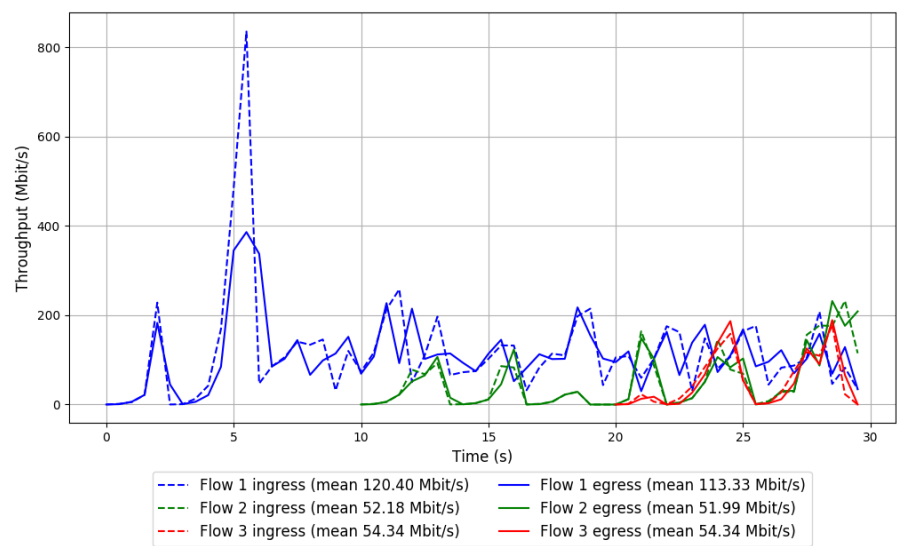
-- Flow 3:

Average throughput: 54.34 Mbit/s

95th percentile per-packet one-way delay: 212.212 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-17 10:40:11

End at: 2018-01-17 10:40:41

Below is generated by plot.py at 2018-01-17 14:21:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.51 Mbit/s

95th percentile per-packet one-way delay: 161.414 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 154.69 Mbit/s

95th percentile per-packet one-way delay: 197.103 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 165.35 Mbit/s

95th percentile per-packet one-way delay: 153.958 ms

Loss rate: 0.07%

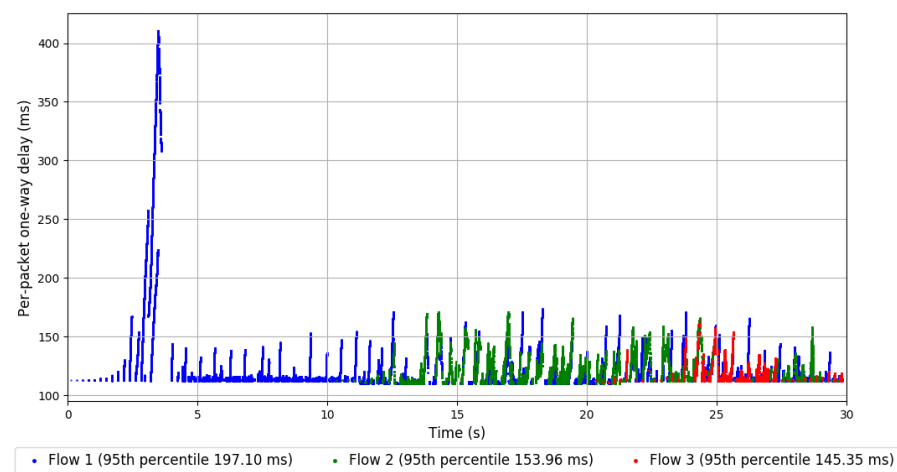
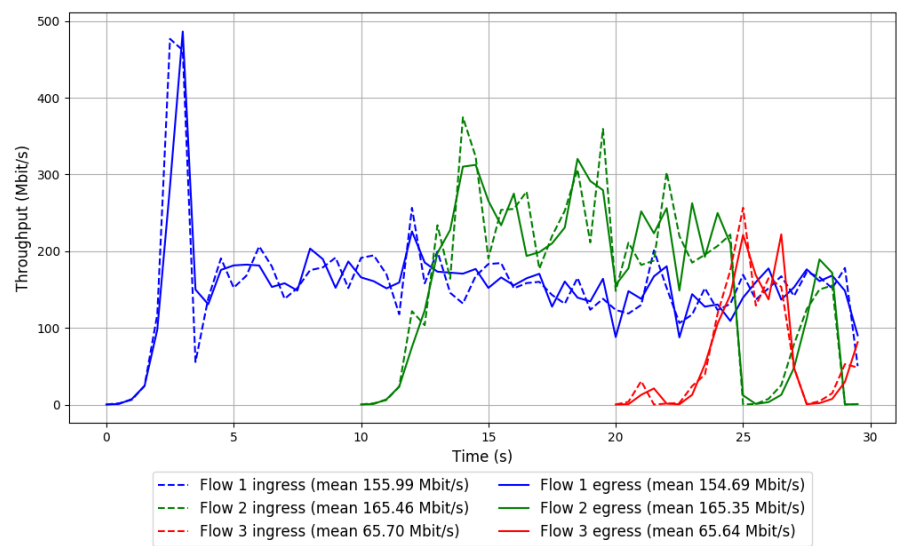
-- Flow 3:

Average throughput: 65.64 Mbit/s

95th percentile per-packet one-way delay: 145.346 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-17 10:58:57

End at: 2018-01-17 10:59:27

Below is generated by plot.py at 2018-01-17 14:21:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 273.83 Mbit/s

95th percentile per-packet one-way delay: 175.020 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 163.55 Mbit/s

95th percentile per-packet one-way delay: 199.346 ms

Loss rate: 3.20%

-- Flow 2:

Average throughput: 142.68 Mbit/s

95th percentile per-packet one-way delay: 144.994 ms

Loss rate: 0.34%

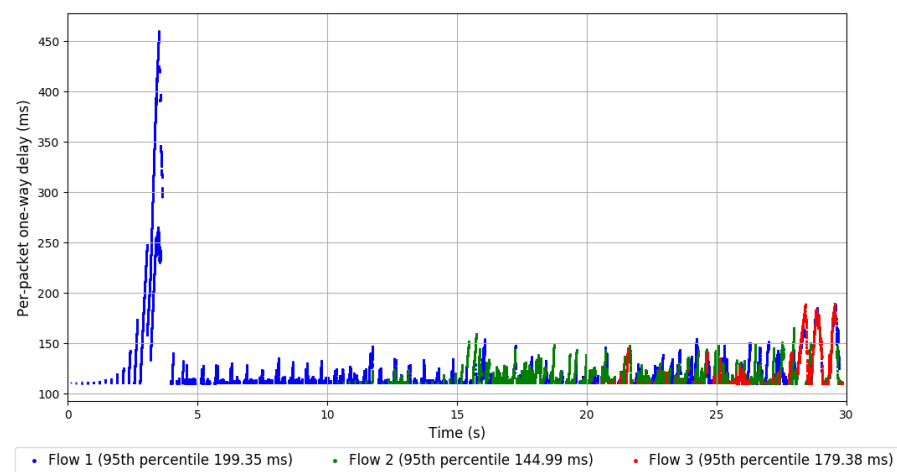
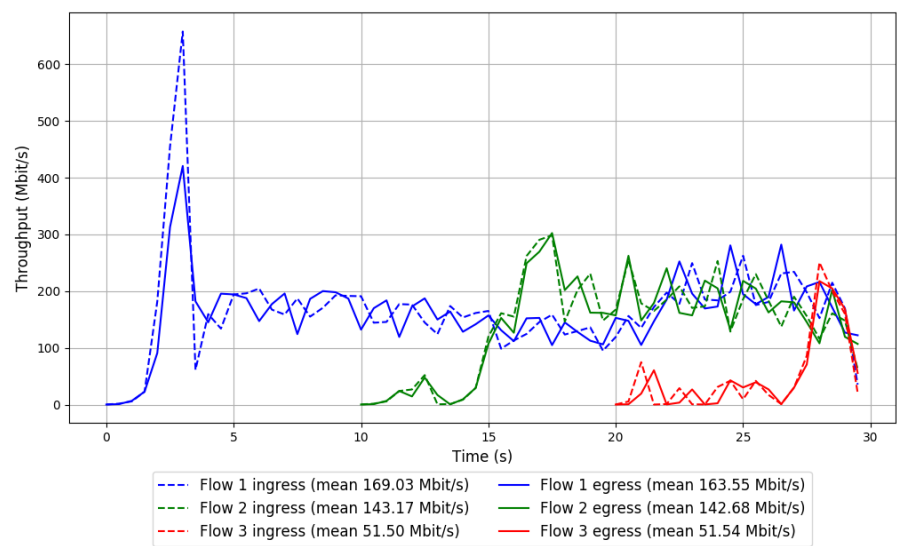
-- Flow 3:

Average throughput: 51.54 Mbit/s

95th percentile per-packet one-way delay: 179.378 ms

Loss rate: 0.00%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-17 11:17:53

End at: 2018-01-17 11:18:23

Below is generated by plot.py at 2018-01-17 14:21:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 283.96 Mbit/s

95th percentile per-packet one-way delay: 211.151 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 188.67 Mbit/s

95th percentile per-packet one-way delay: 210.447 ms

Loss rate: 2.12%

-- Flow 2:

Average throughput: 86.63 Mbit/s

95th percentile per-packet one-way delay: 175.033 ms

Loss rate: 0.27%

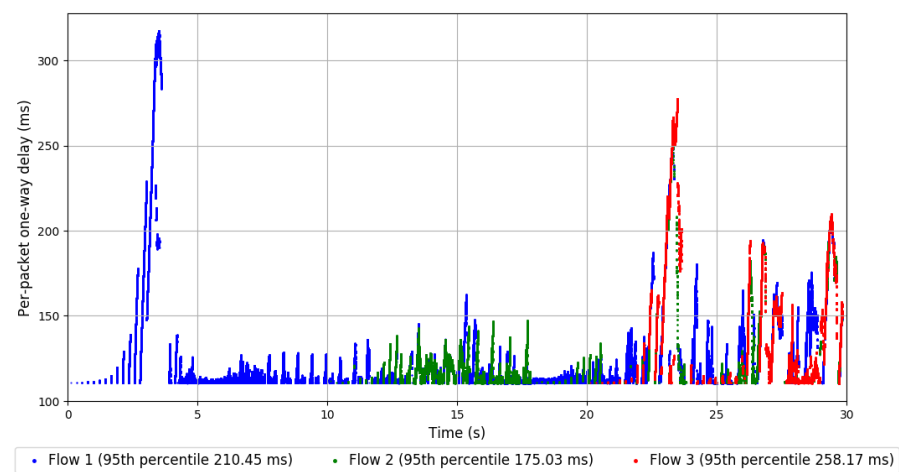
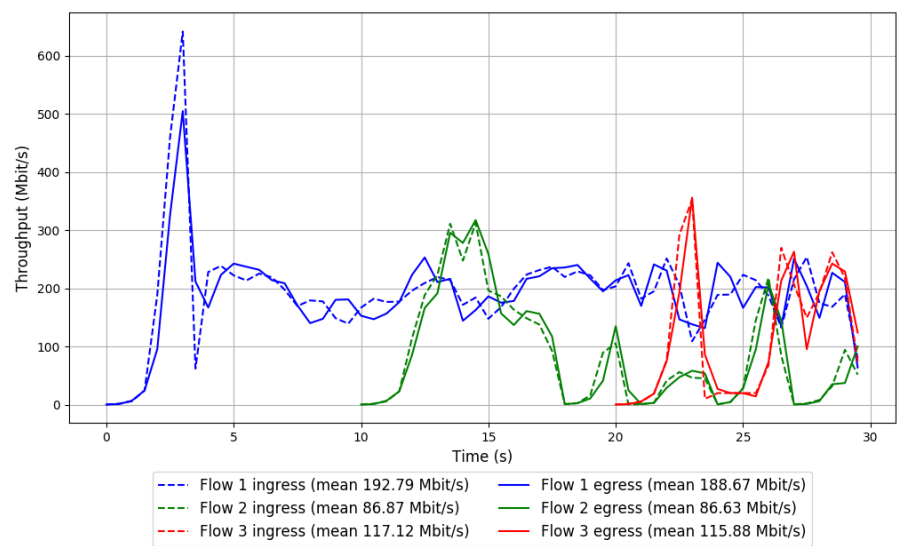
-- Flow 3:

Average throughput: 115.88 Mbit/s

95th percentile per-packet one-way delay: 258.171 ms

Loss rate: 1.06%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-17 11:37:01

End at: 2018-01-17 11:37:31

Below is generated by plot.py at 2018-01-17 14:22:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.42 Mbit/s

95th percentile per-packet one-way delay: 231.643 ms

Loss rate: 2.97%

-- Flow 1:

Average throughput: 161.10 Mbit/s

95th percentile per-packet one-way delay: 228.786 ms

Loss rate: 2.95%

-- Flow 2:

Average throughput: 158.91 Mbit/s

95th percentile per-packet one-way delay: 204.837 ms

Loss rate: 3.35%

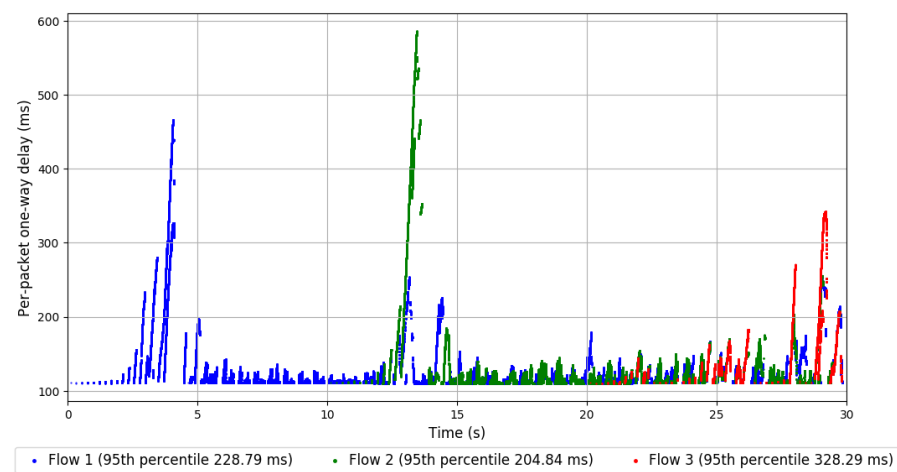
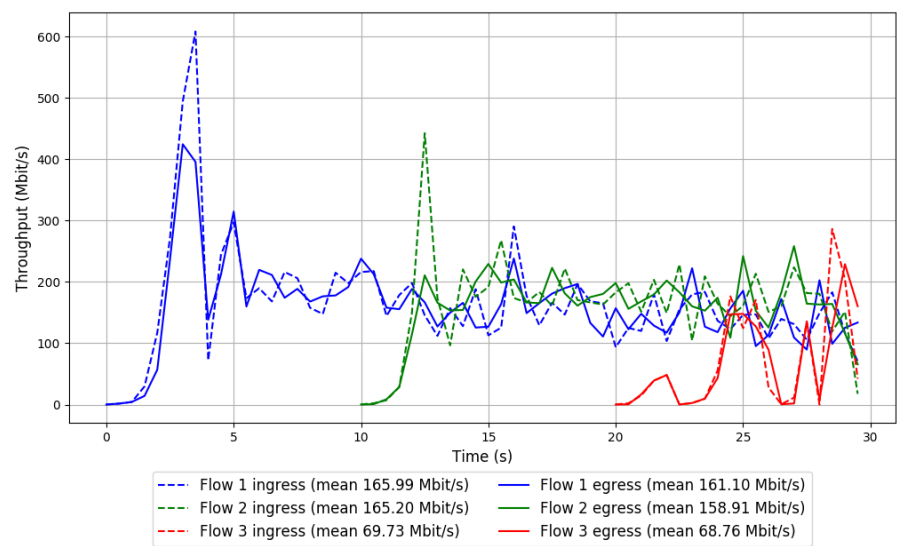
-- Flow 3:

Average throughput: 68.76 Mbit/s

95th percentile per-packet one-way delay: 328.293 ms

Loss rate: 1.36%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-17 11:55:32

End at: 2018-01-17 11:56:02

Below is generated by plot.py at 2018-01-17 14:22:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 157.66 Mbit/s

95th percentile per-packet one-way delay: 211.274 ms

Loss rate: 2.80%

-- Flow 1:

Average throughput: 34.40 Mbit/s

95th percentile per-packet one-way delay: 400.693 ms

Loss rate: 11.63%

-- Flow 2:

Average throughput: 116.04 Mbit/s

95th percentile per-packet one-way delay: 171.793 ms

Loss rate: 0.01%

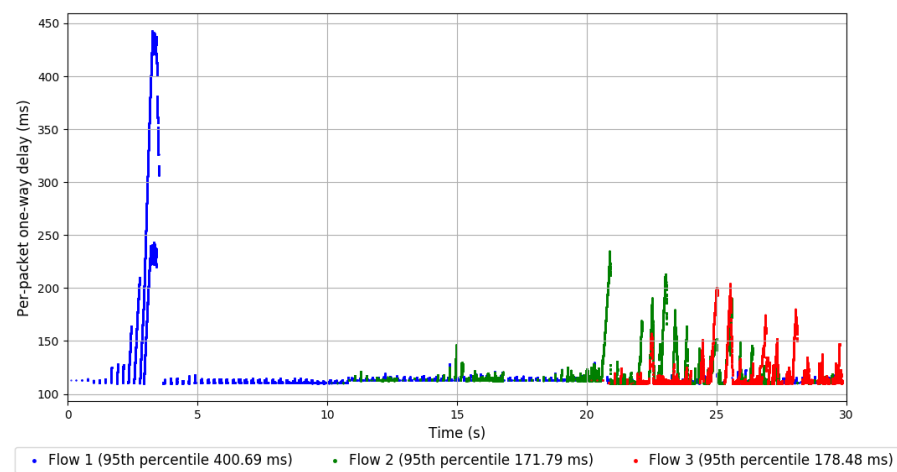
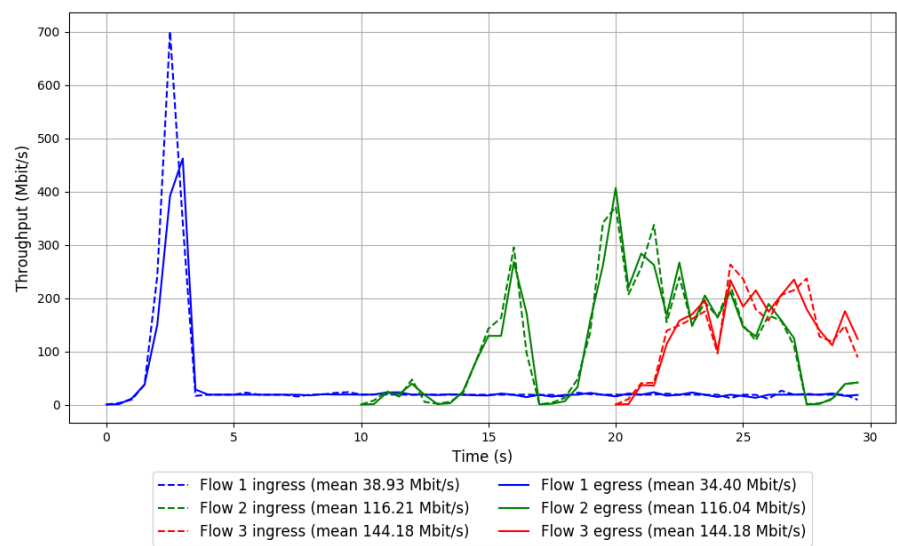
-- Flow 3:

Average throughput: 144.18 Mbit/s

95th percentile per-packet one-way delay: 178.483 ms

Loss rate: 0.01%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-17 12:13:26

End at: 2018-01-17 12:13:56

Below is generated by plot.py at 2018-01-17 14:24:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 294.10 Mbit/s

95th percentile per-packet one-way delay: 253.925 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 228.05 Mbit/s

95th percentile per-packet one-way delay: 267.289 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 91.55 Mbit/s

95th percentile per-packet one-way delay: 181.429 ms

Loss rate: 0.04%

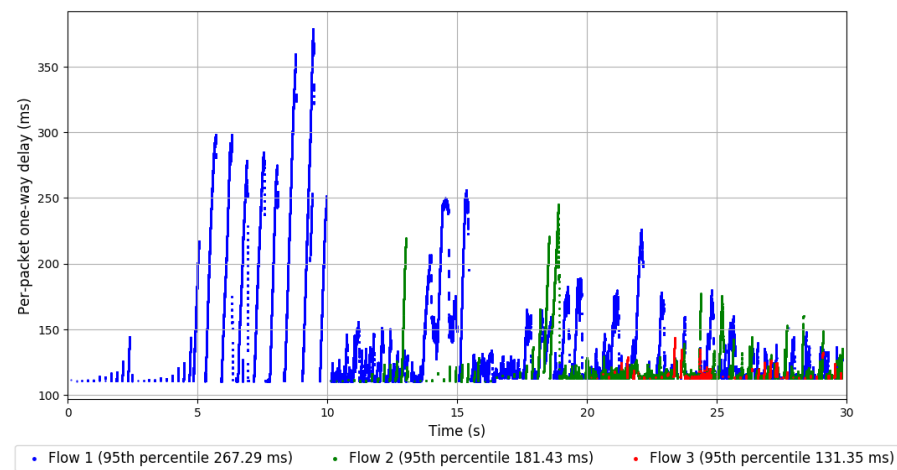
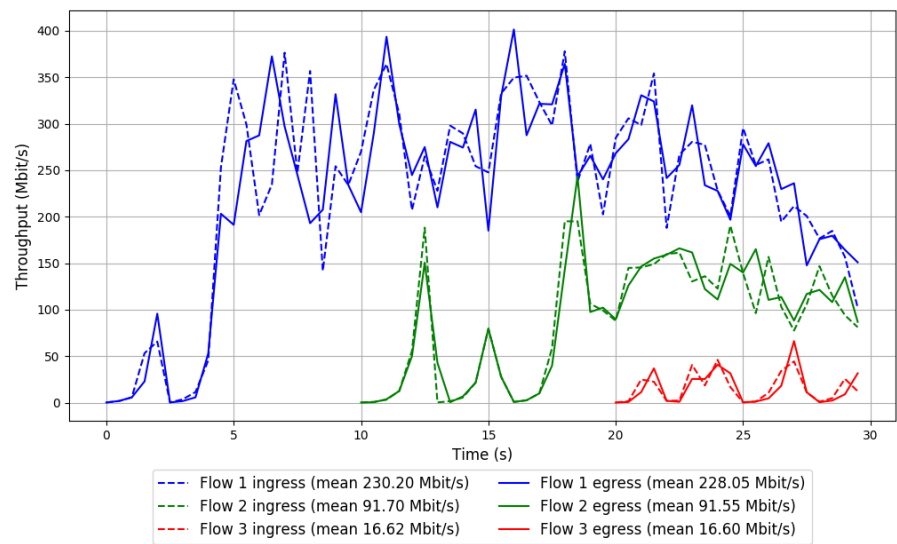
-- Flow 3:

Average throughput: 16.60 Mbit/s

95th percentile per-packet one-way delay: 131.347 ms

Loss rate: 0.11%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-17 09:12:58

End at: 2018-01-17 09:13:28

Below is generated by plot.py at 2018-01-17 14:24:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.81 Mbit/s

95th percentile per-packet one-way delay: 113.027 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 76.54 Mbit/s

95th percentile per-packet one-way delay: 113.054 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.37 Mbit/s

95th percentile per-packet one-way delay: 111.216 ms

Loss rate: 0.00%

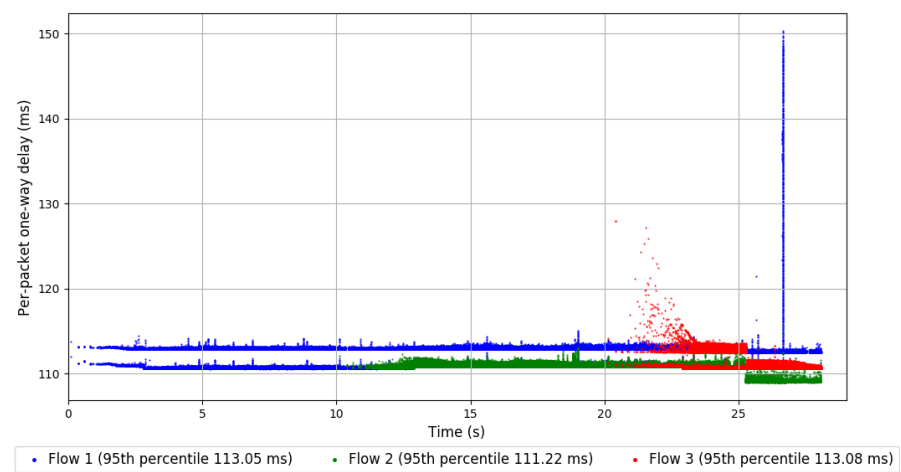
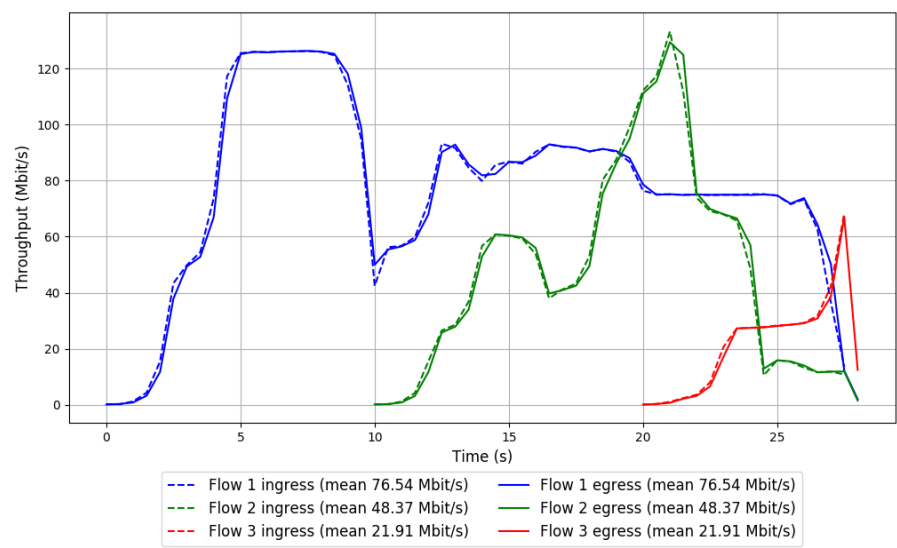
-- Flow 3:

Average throughput: 21.91 Mbit/s

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

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-17 09:31:42

End at: 2018-01-17 09:32:12

Below is generated by plot.py at 2018-01-17 14:24:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.15 Mbit/s

95th percentile per-packet one-way delay: 112.884 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 76.06 Mbit/s

95th percentile per-packet one-way delay: 112.879 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 74.46 Mbit/s

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

Loss rate: 0.00%

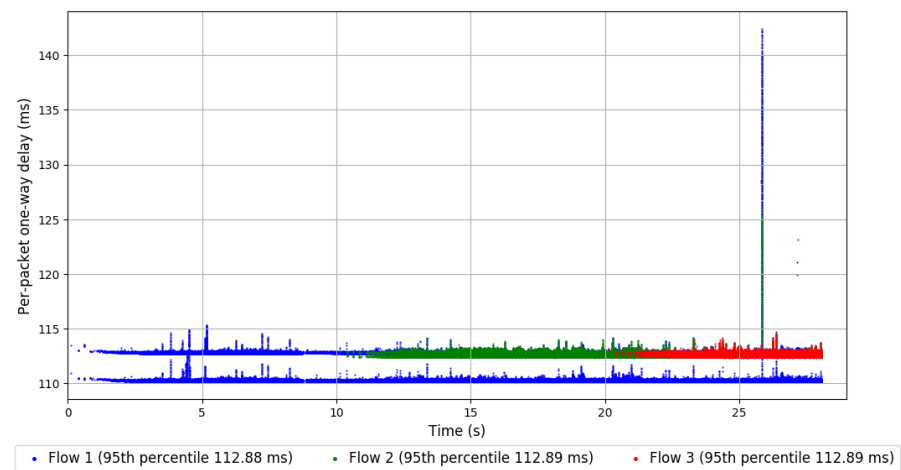
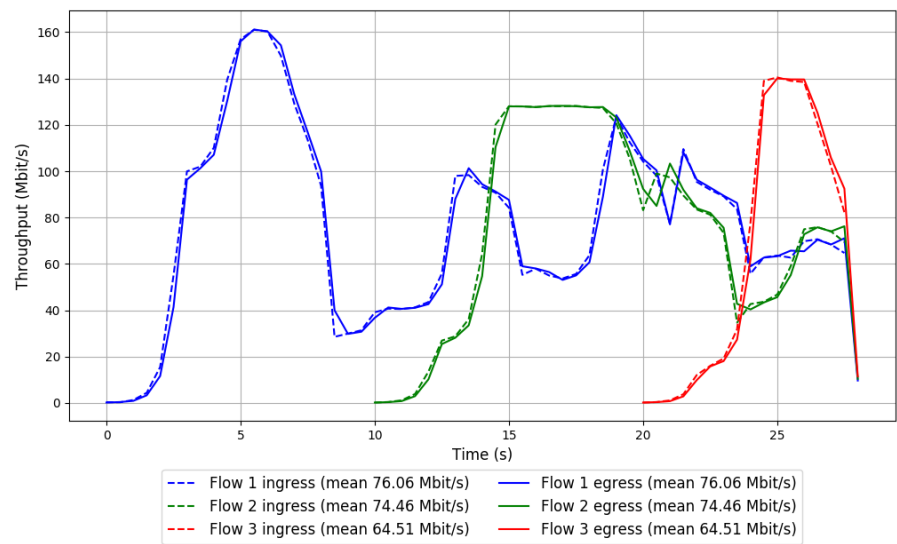
-- Flow 3:

Average throughput: 64.51 Mbit/s

95th percentile per-packet one-way delay: 112.892 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-17 09:50:43

End at: 2018-01-17 09:51:13

Below is generated by plot.py at 2018-01-17 14:24:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.42 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.98 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.30 Mbit/s

95th percentile per-packet one-way delay: 113.037 ms

Loss rate: 0.00%

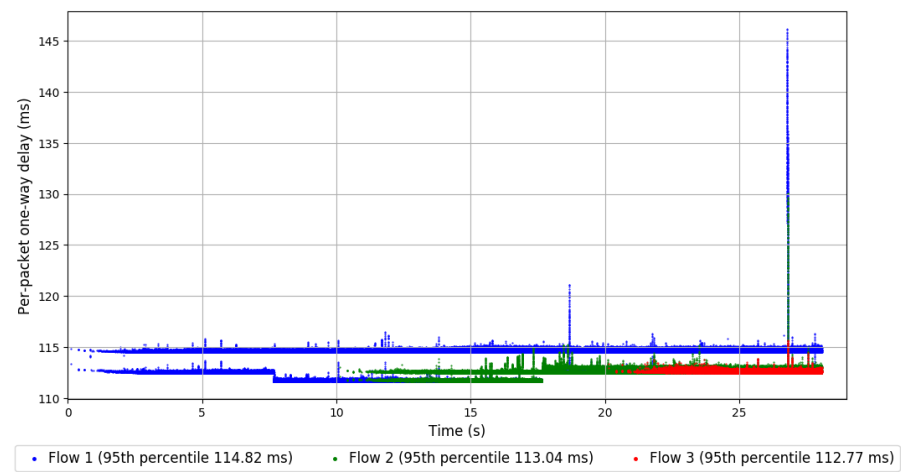
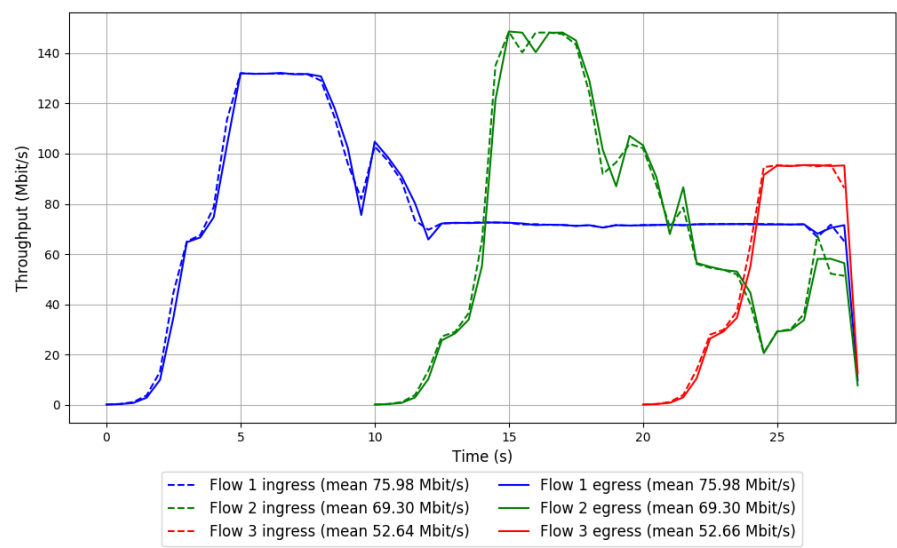
-- Flow 3:

Average throughput: 52.66 Mbit/s

95th percentile per-packet one-way delay: 112.768 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-17 10:09:11

End at: 2018-01-17 10:09:41

Below is generated by plot.py at 2018-01-17 14:24:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 100.78 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.07 Mbit/s

95th percentile per-packet one-way delay: 113.127 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 66.50 Mbit/s

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

Loss rate: 0.00%

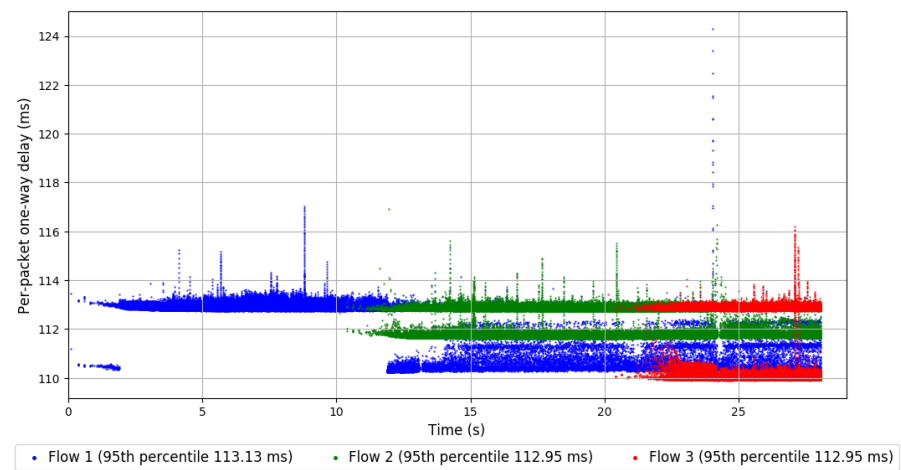
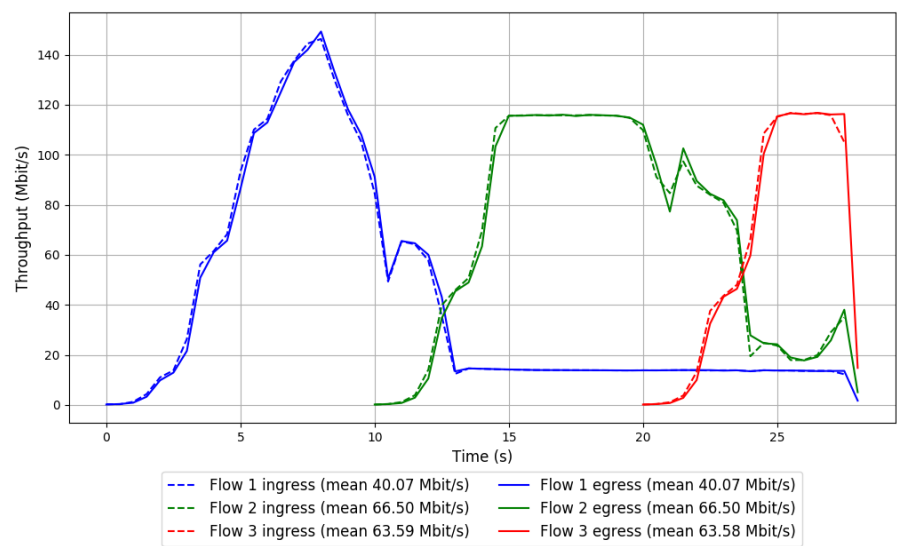
-- Flow 3:

Average throughput: 63.58 Mbit/s

95th percentile per-packet one-way delay: 112.951 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-17 10:27:28

End at: 2018-01-17 10:27:58

Below is generated by plot.py at 2018-01-17 14:25:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.66 Mbit/s

95th percentile per-packet one-way delay: 113.182 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 69.14 Mbit/s

95th percentile per-packet one-way delay: 112.886 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 67.76 Mbit/s

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

Loss rate: 0.01%

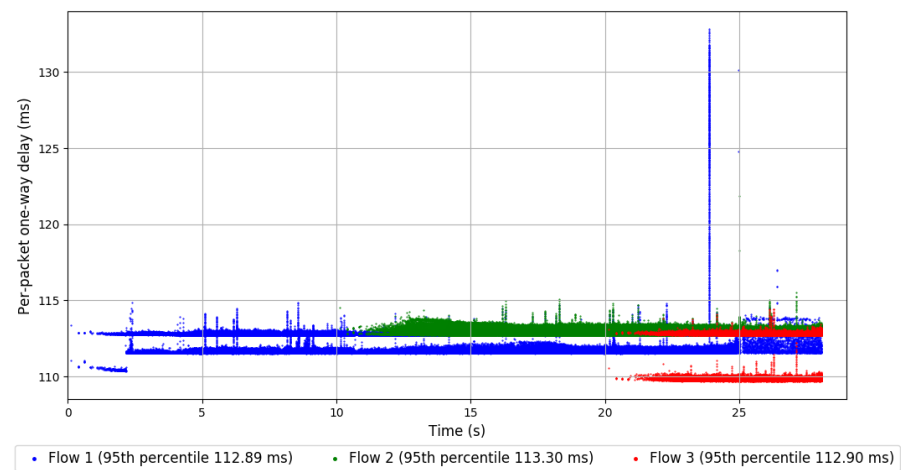
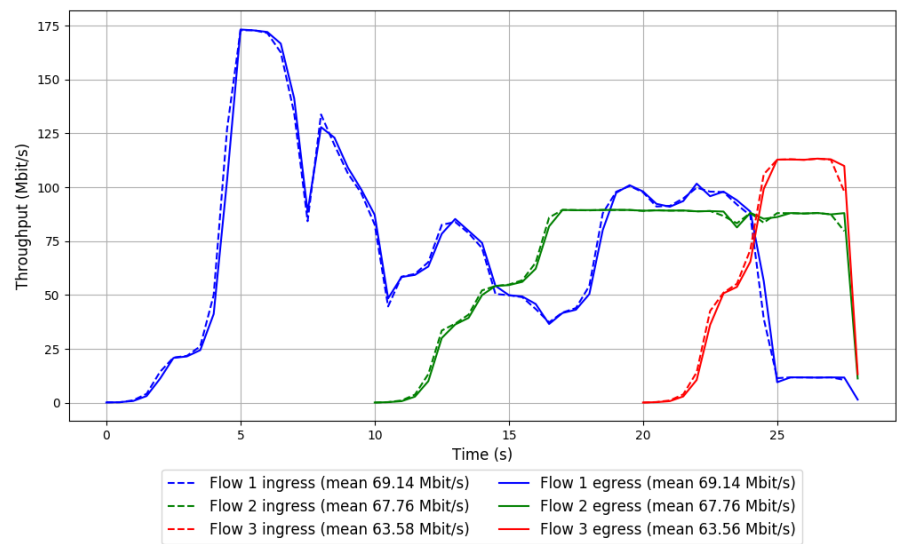
-- Flow 3:

Average throughput: 63.56 Mbit/s

95th percentile per-packet one-way delay: 112.897 ms

Loss rate: 0.02%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-17 10:46:09

End at: 2018-01-17 10:46:39

Below is generated by plot.py at 2018-01-17 14:25:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.10 Mbit/s

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

Loss rate: 0.10%

-- Flow 1:

Average throughput: 65.36 Mbit/s

95th percentile per-packet one-way delay: 113.038 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 72.58 Mbit/s

95th percentile per-packet one-way delay: 112.581 ms

Loss rate: 0.00%

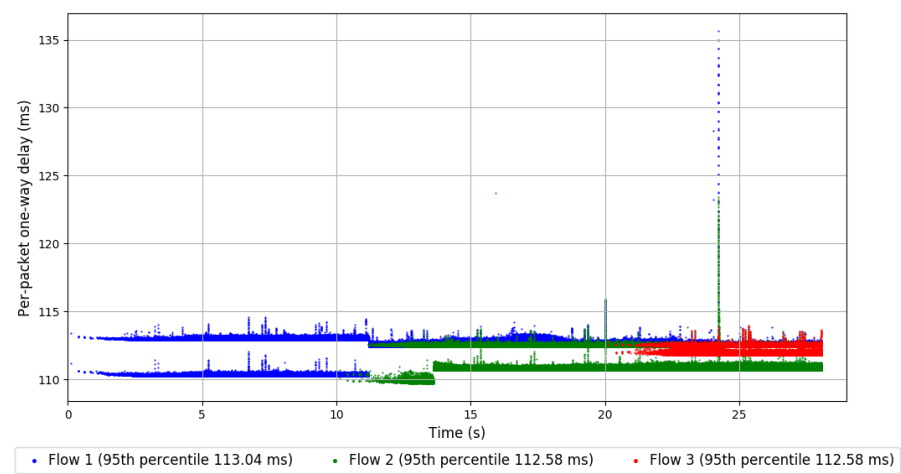
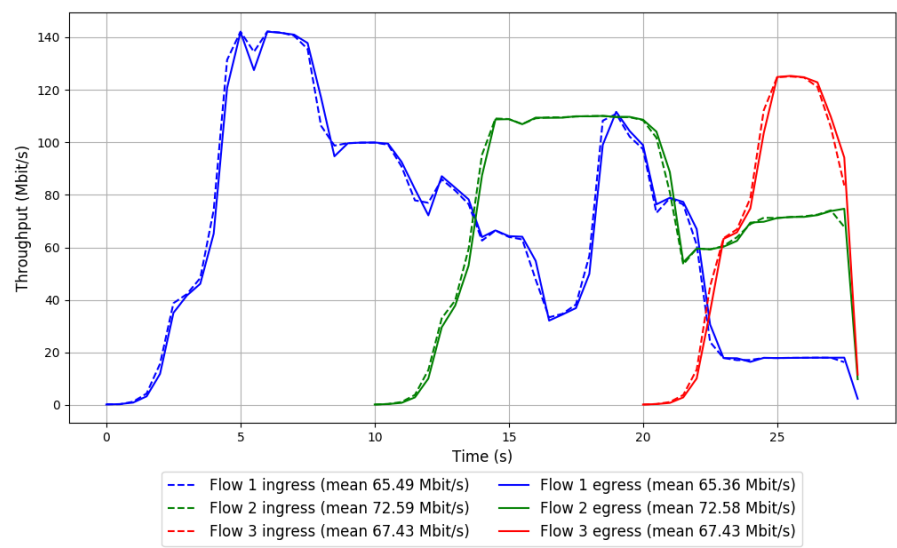
-- Flow 3:

Average throughput: 67.43 Mbit/s

95th percentile per-packet one-way delay: 112.581 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-17 11:05:00

End at: 2018-01-17 11:05:30

Below is generated by plot.py at 2018-01-17 14:25:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.50 Mbit/s

95th percentile per-packet one-way delay: 112.671 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.98 Mbit/s

95th percentile per-packet one-way delay: 112.685 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.07 Mbit/s

95th percentile per-packet one-way delay: 112.627 ms

Loss rate: 0.00%

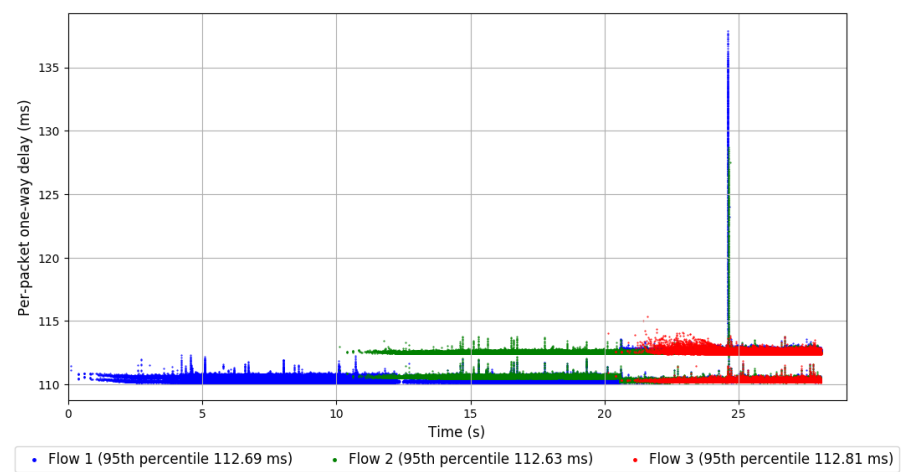
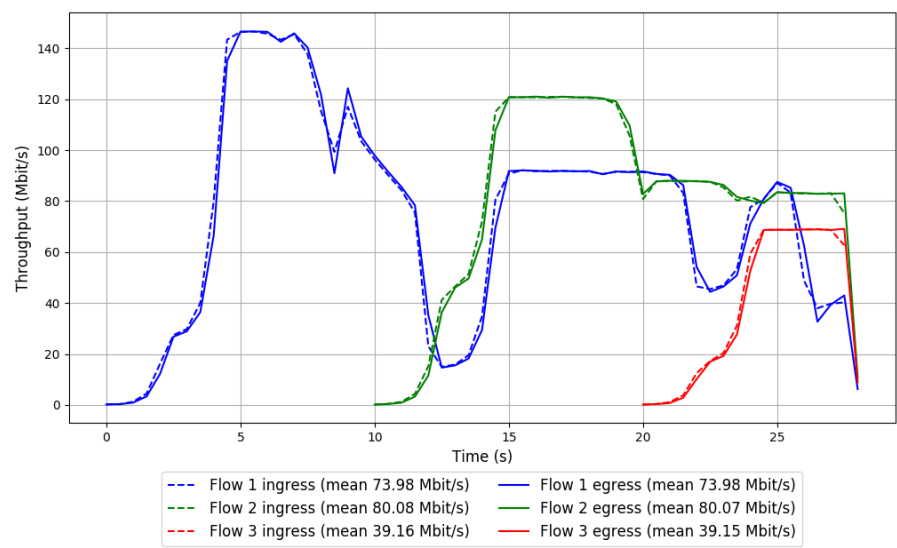
-- Flow 3:

Average throughput: 39.15 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-17 11:23:53

End at: 2018-01-17 11:24:23

Below is generated by plot.py at 2018-01-17 14:26:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.49 Mbit/s

95th percentile per-packet one-way delay: 112.440 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.47 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.98 Mbit/s

95th percentile per-packet one-way delay: 112.616 ms

Loss rate: 0.00%

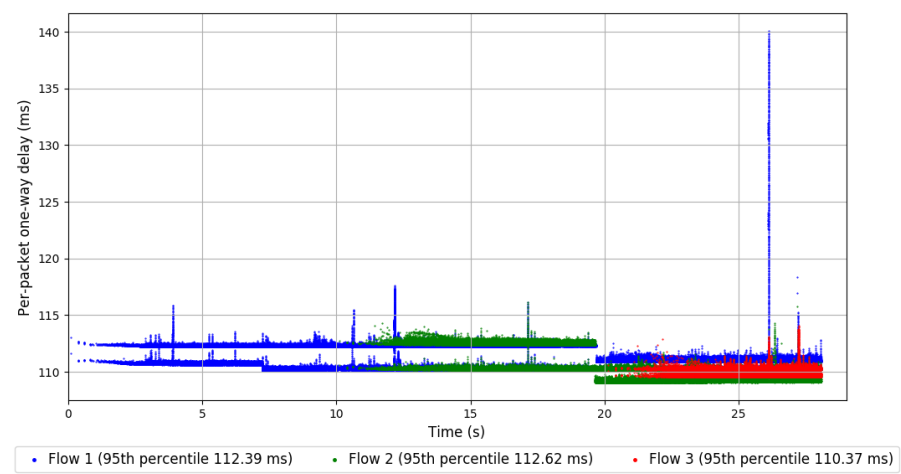
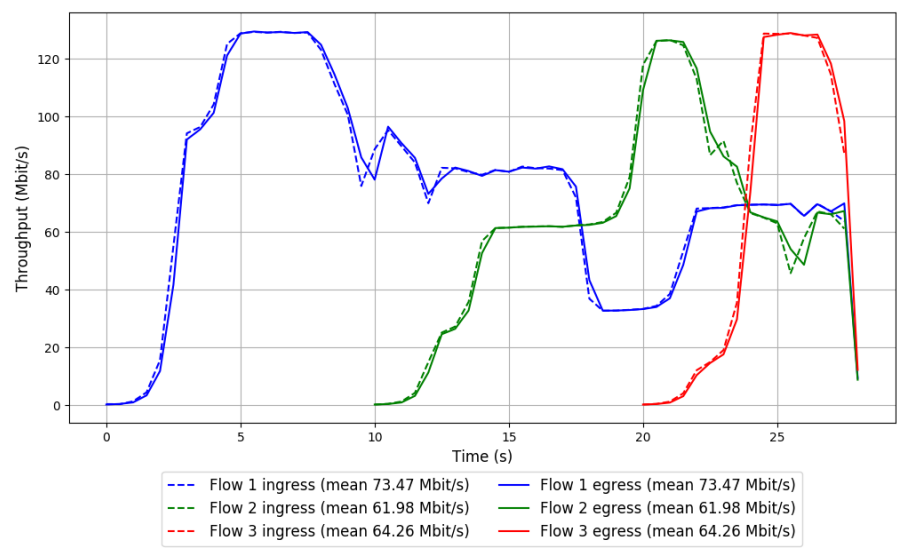
-- Flow 3:

Average throughput: 64.26 Mbit/s

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

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-17 11:43:02

End at: 2018-01-17 11:43:32

Below is generated by plot.py at 2018-01-17 14:27:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.79 Mbit/s

95th percentile per-packet one-way delay: 112.796 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 67.84 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.42 Mbit/s

95th percentile per-packet one-way delay: 112.833 ms

Loss rate: 0.00%

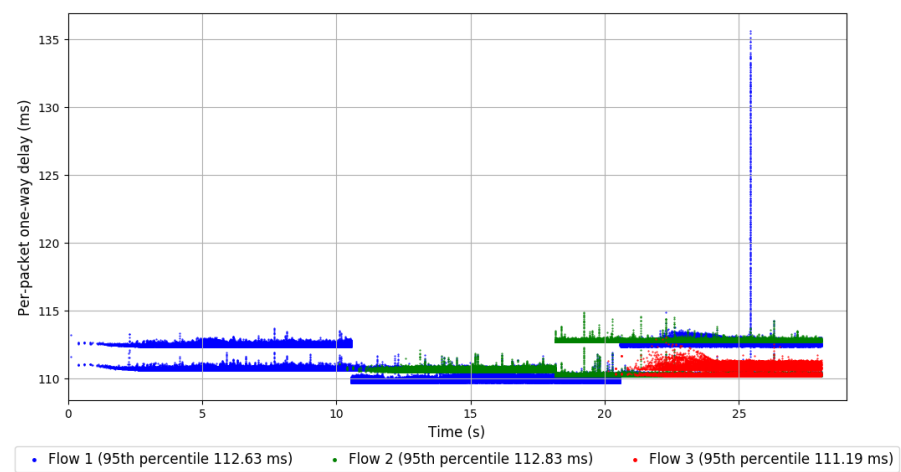
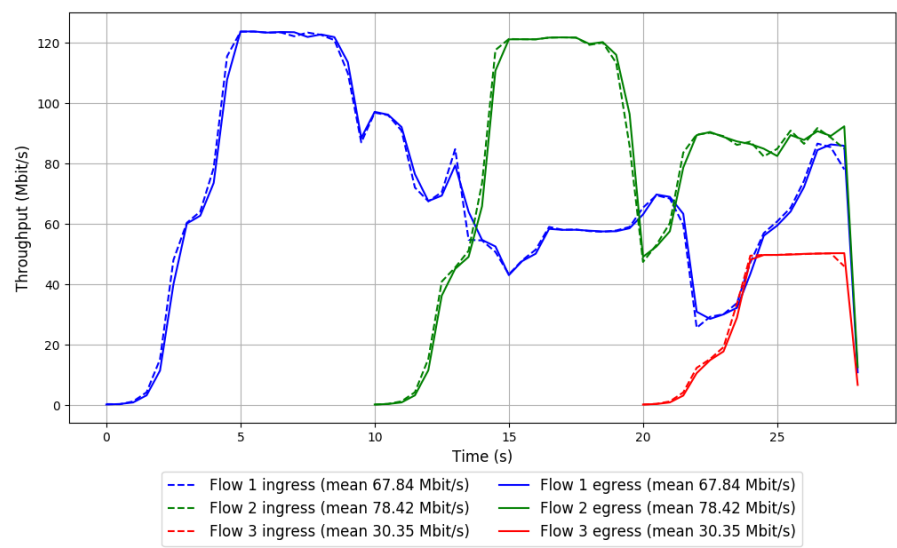
-- Flow 3:

Average throughput: 30.35 Mbit/s

95th percentile per-packet one-way delay: 111.189 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-17 12:01:00

End at: 2018-01-17 12:01:30

Below is generated by plot.py at 2018-01-17 14:27:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.80 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 71.64 Mbit/s

95th percentile per-packet one-way delay: 112.923 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 112.898 ms

Loss rate: 0.00%

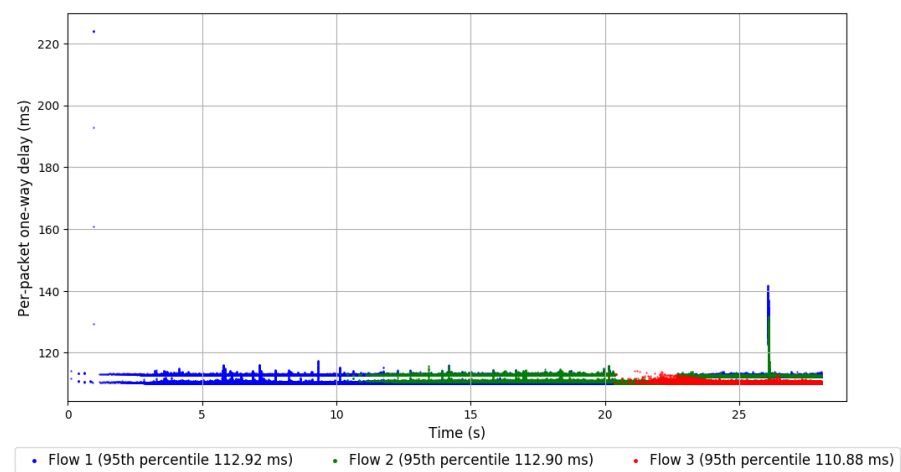
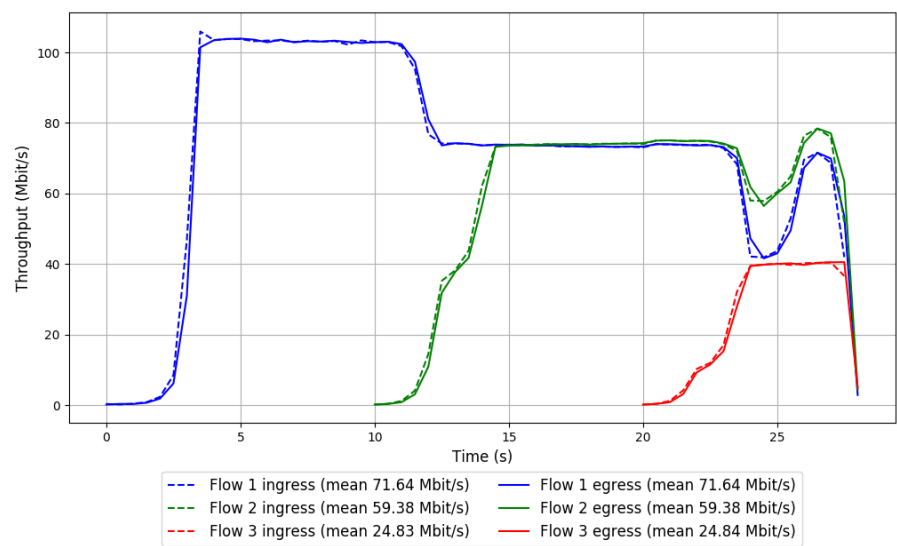
-- Flow 3:

Average throughput: 24.84 Mbit/s

95th percentile per-packet one-way delay: 110.879 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

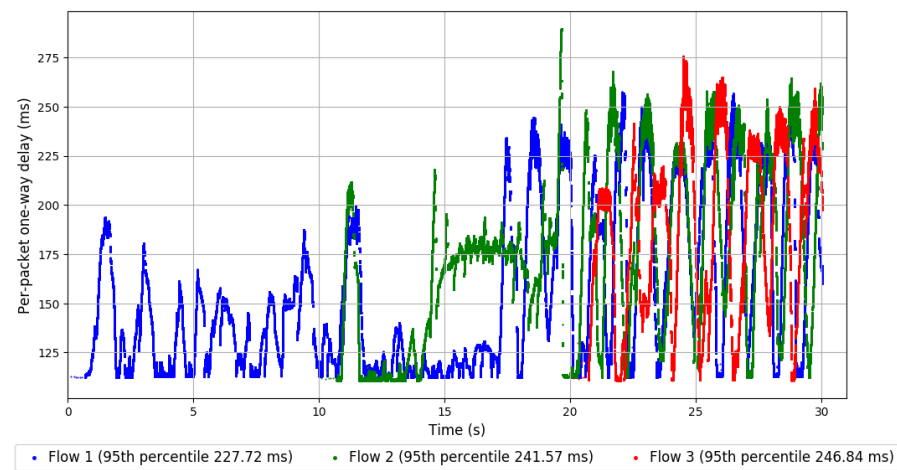
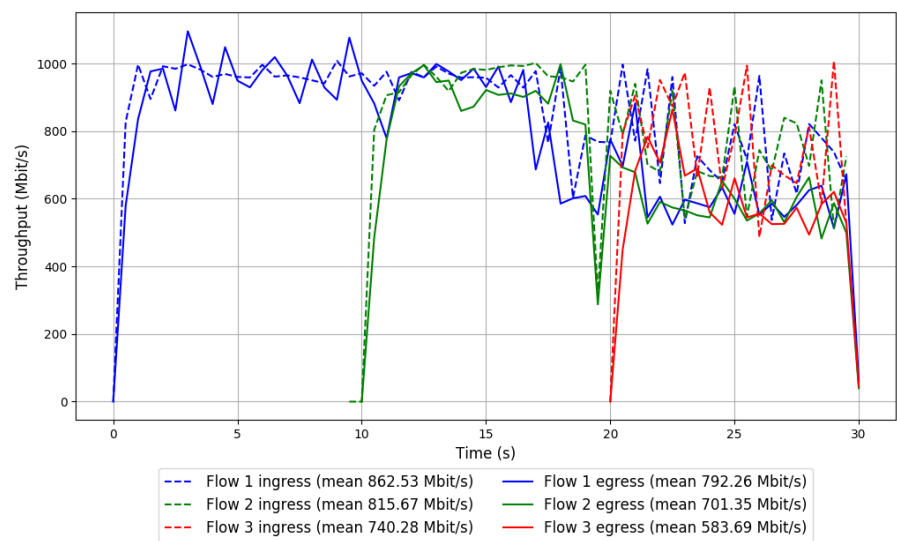


```
Run 1: Statistics of FillP

Start at: 2018-01-17 09:23:59
End at: 2018-01-17 09:24:29

# Below is generated by plot.py at 2018-01-17 14:49:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1453.08 Mbit/s
95th percentile per-packet one-way delay: 235.966 ms
Loss rate: 12.00%
-- Flow 1:
Average throughput: 792.26 Mbit/s
95th percentile per-packet one-way delay: 227.721 ms
Loss rate: 8.14%
-- Flow 2:
Average throughput: 701.35 Mbit/s
95th percentile per-packet one-way delay: 241.574 ms
Loss rate: 14.00%
-- Flow 3:
Average throughput: 583.69 Mbit/s
95th percentile per-packet one-way delay: 246.837 ms
Loss rate: 21.13%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-01-17 09:42:38

End at: 2018-01-17 09:43:08

Below is generated by plot.py at 2018-01-17 14:49:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1464.24 Mbit/s

95th percentile per-packet one-way delay: 227.167 ms

Loss rate: 11.83%

-- Flow 1:

Average throughput: 734.26 Mbit/s

95th percentile per-packet one-way delay: 224.145 ms

Loss rate: 11.46%

-- Flow 2:

Average throughput: 749.93 Mbit/s

95th percentile per-packet one-way delay: 234.645 ms

Loss rate: 11.67%

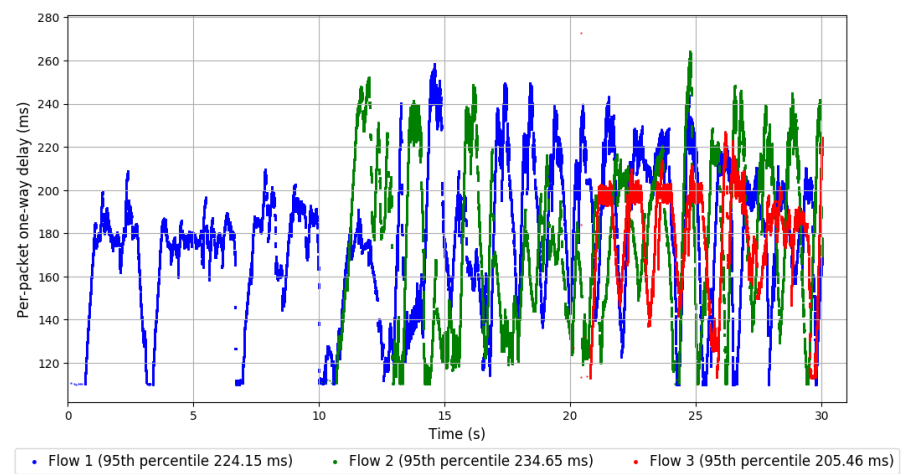
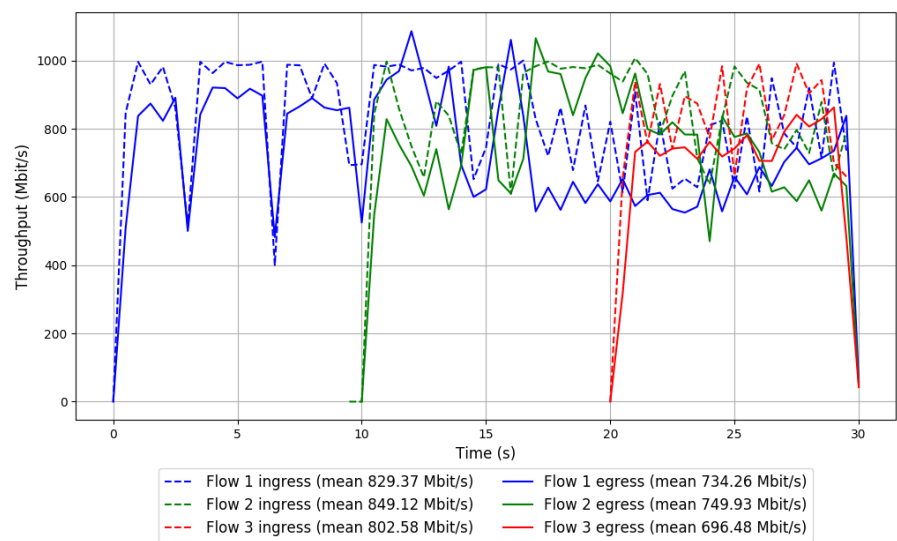
-- Flow 3:

Average throughput: 696.48 Mbit/s

95th percentile per-packet one-way delay: 205.455 ms

Loss rate: 13.34%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-17 10:01:47

End at: 2018-01-17 10:02:17

Below is generated by plot.py at 2018-01-17 14:49:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 1470.50 Mbit/s

95th percentile per-packet one-way delay: 232.105 ms

Loss rate: 12.32%

-- Flow 1:

Average throughput: 799.47 Mbit/s

95th percentile per-packet one-way delay: 228.275 ms

Loss rate: 8.97%

-- Flow 2:

Average throughput: 665.95 Mbit/s

95th percentile per-packet one-way delay: 238.362 ms

Loss rate: 17.28%

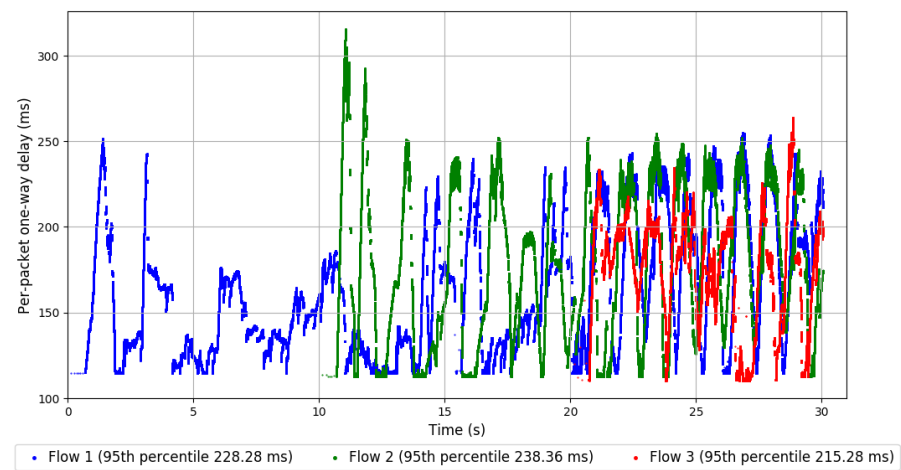
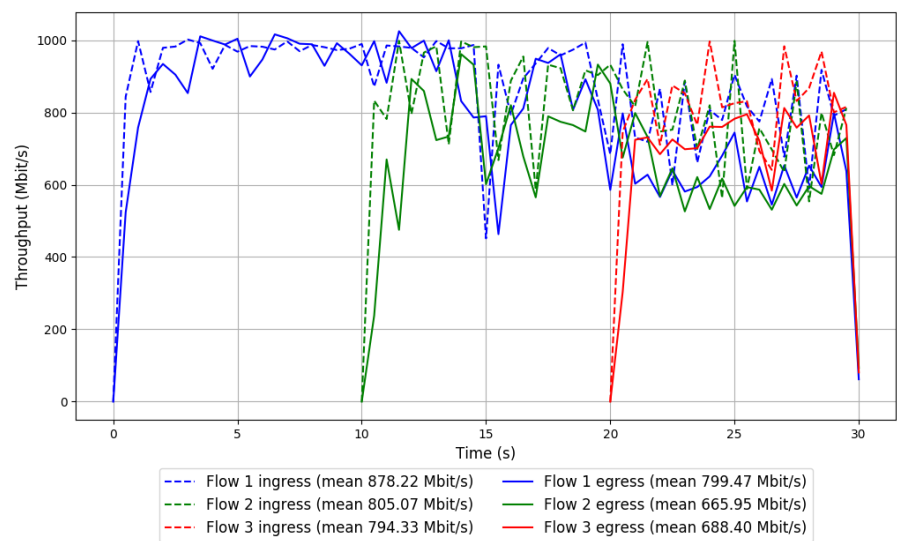
-- Flow 3:

Average throughput: 688.40 Mbit/s

95th percentile per-packet one-way delay: 215.282 ms

Loss rate: 13.39%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-17 10:20:02

End at: 2018-01-17 10:20:32

Below is generated by plot.py at 2018-01-17 14:50:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1471.34 Mbit/s

95th percentile per-packet one-way delay: 226.758 ms

Loss rate: 11.72%

-- Flow 1:

Average throughput: 787.54 Mbit/s

95th percentile per-packet one-way delay: 226.294 ms

Loss rate: 9.52%

-- Flow 2:

Average throughput: 721.29 Mbit/s

95th percentile per-packet one-way delay: 223.516 ms

Loss rate: 12.98%

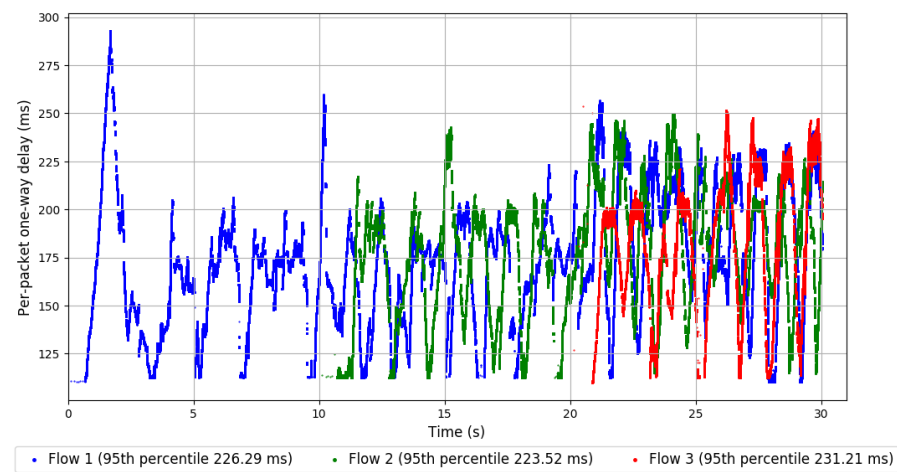
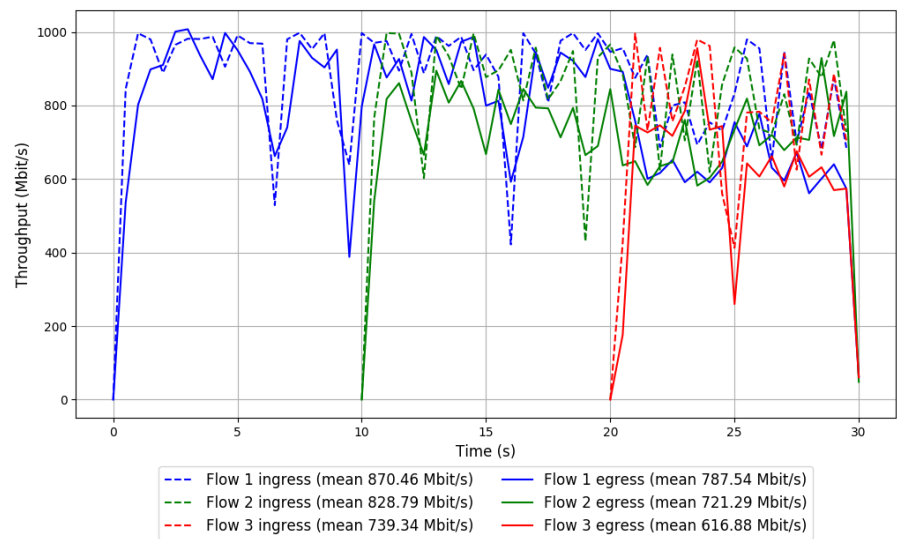
-- Flow 3:

Average throughput: 616.88 Mbit/s

95th percentile per-packet one-way delay: 231.209 ms

Loss rate: 16.69%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-17 10:38:15

End at: 2018-01-17 10:38:45

Below is generated by plot.py at 2018-01-17 14:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1545.40 Mbit/s

95th percentile per-packet one-way delay: 223.935 ms

Loss rate: 10.46%

-- Flow 1:

Average throughput: 841.72 Mbit/s

95th percentile per-packet one-way delay: 209.981 ms

Loss rate: 5.86%

-- Flow 2:

Average throughput: 726.05 Mbit/s

95th percentile per-packet one-way delay: 233.689 ms

Loss rate: 14.44%

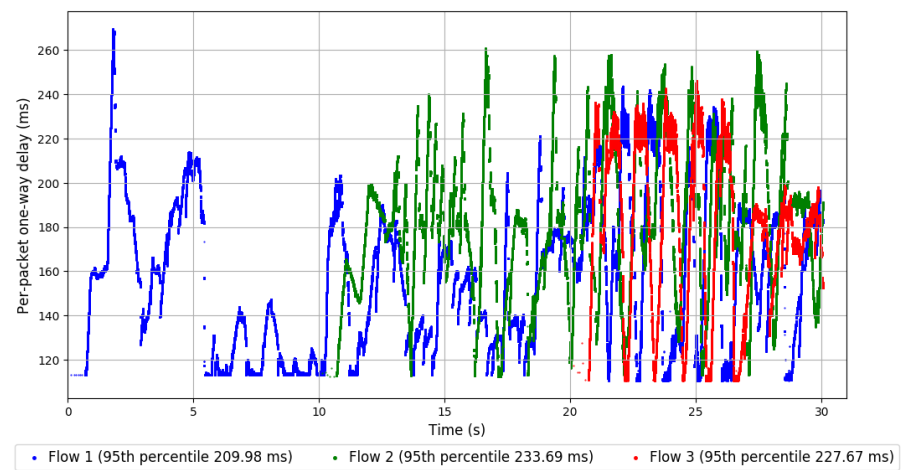
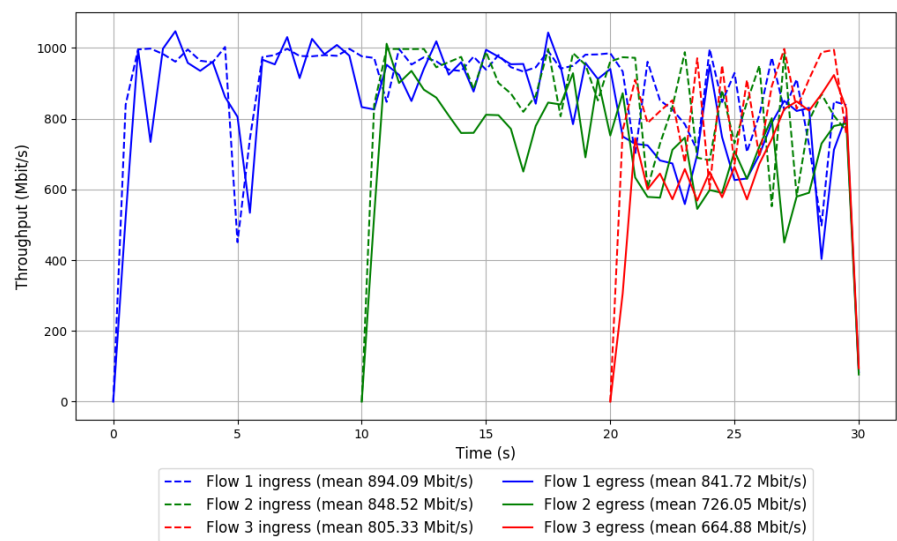
-- Flow 3:

Average throughput: 664.88 Mbit/s

95th percentile per-packet one-way delay: 227.672 ms

Loss rate: 17.47%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-17 10:57:03

End at: 2018-01-17 10:57:33

Below is generated by plot.py at 2018-01-17 14:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1441.61 Mbit/s

95th percentile per-packet one-way delay: 330.398 ms

Loss rate: 12.90%

-- Flow 1:

Average throughput: 758.05 Mbit/s

95th percentile per-packet one-way delay: 256.192 ms

Loss rate: 11.26%

-- Flow 2:

Average throughput: 725.51 Mbit/s

95th percentile per-packet one-way delay: 360.132 ms

Loss rate: 12.29%

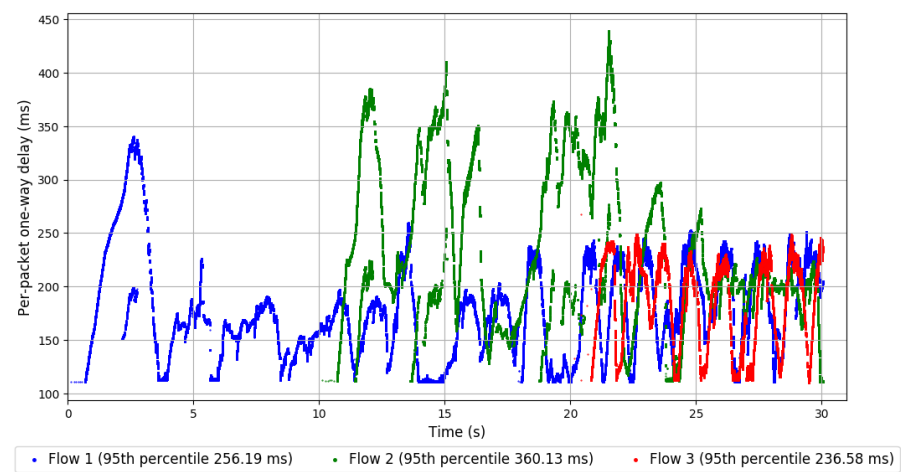
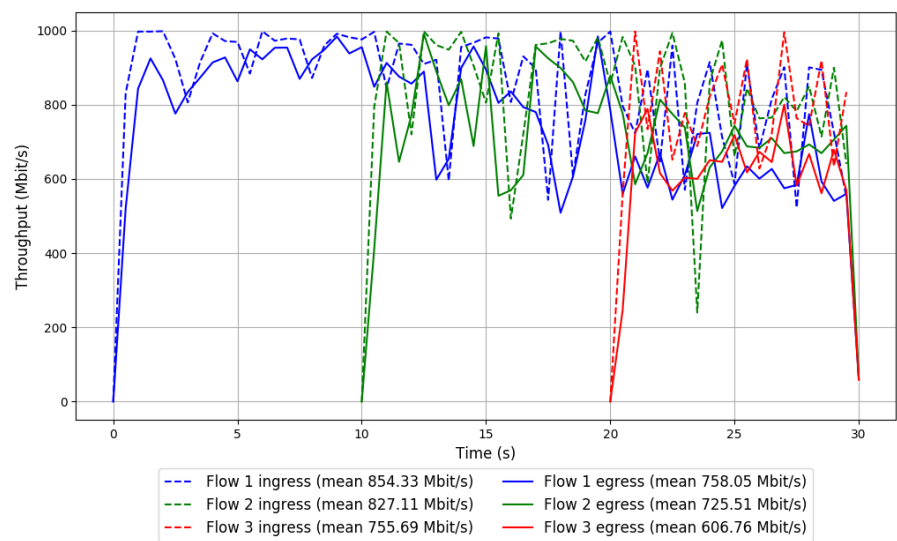
-- Flow 3:

Average throughput: 606.76 Mbit/s

95th percentile per-packet one-way delay: 236.578 ms

Loss rate: 19.86%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-17 11:16:02

End at: 2018-01-17 11:16:32

Below is generated by plot.py at 2018-01-17 14:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1420.61 Mbit/s

95th percentile per-packet one-way delay: 232.683 ms

Loss rate: 13.66%

-- Flow 1:

Average throughput: 748.76 Mbit/s

95th percentile per-packet one-way delay: 223.365 ms

Loss rate: 12.04%

-- Flow 2:

Average throughput: 679.67 Mbit/s

95th percentile per-packet one-way delay: 246.156 ms

Loss rate: 14.62%

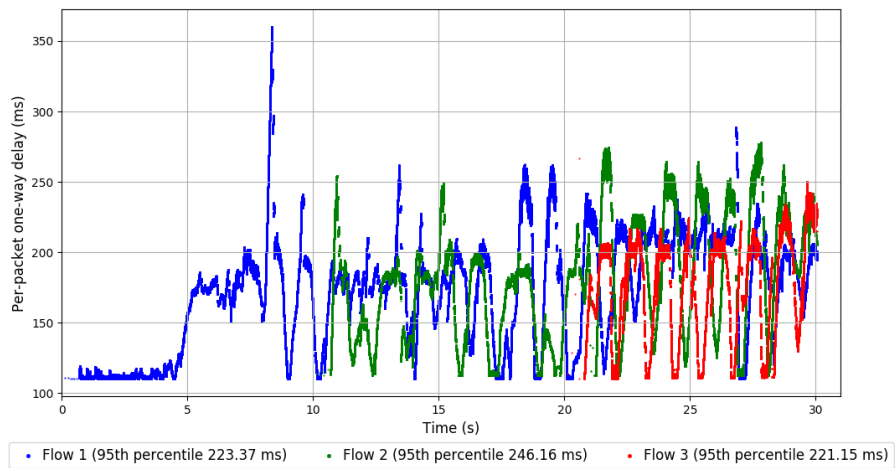
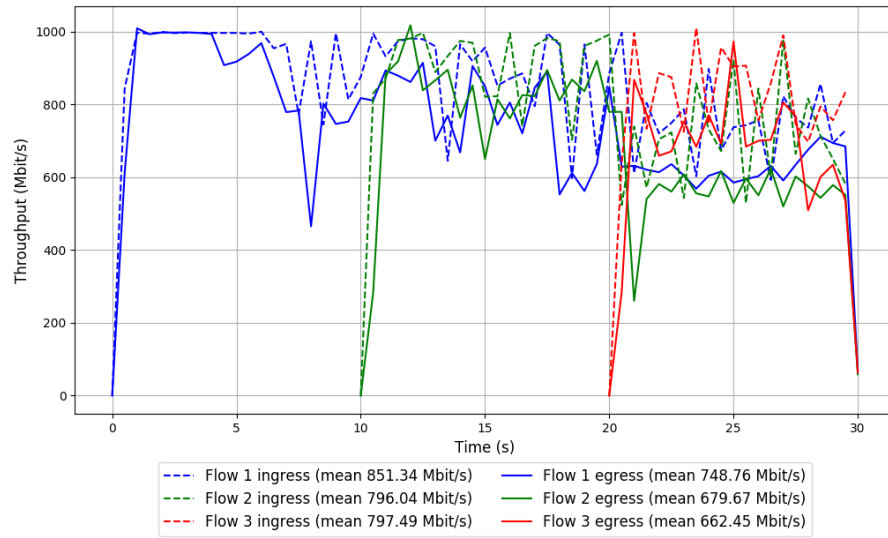
-- Flow 3:

Average throughput: 662.45 Mbit/s

95th percentile per-packet one-way delay: 221.154 ms

Loss rate: 16.92%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-17 11:35:07

End at: 2018-01-17 11:35:37

Below is generated by plot.py at 2018-01-17 14:51:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 1322.45 Mbit/s

95th percentile per-packet one-way delay: 369.708 ms

Loss rate: 17.06%

-- Flow 1:

Average throughput: 672.30 Mbit/s

95th percentile per-packet one-way delay: 373.252 ms

Loss rate: 16.15%

-- Flow 2:

Average throughput: 650.69 Mbit/s

95th percentile per-packet one-way delay: 380.997 ms

Loss rate: 18.99%

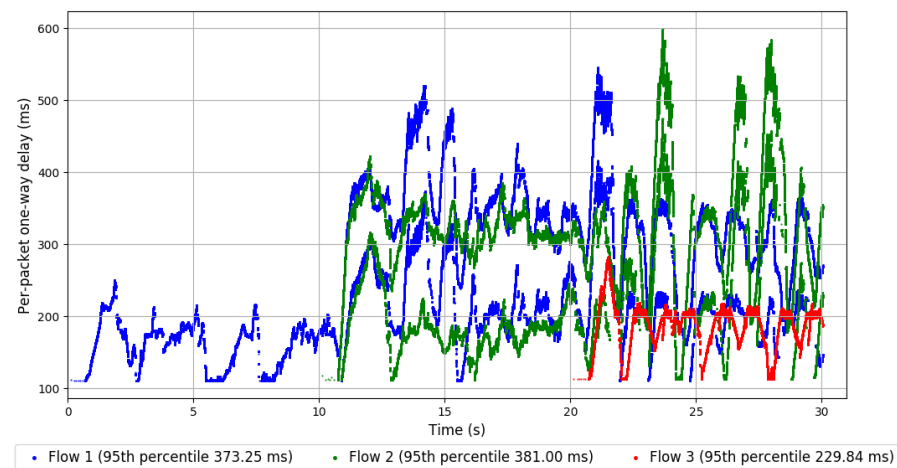
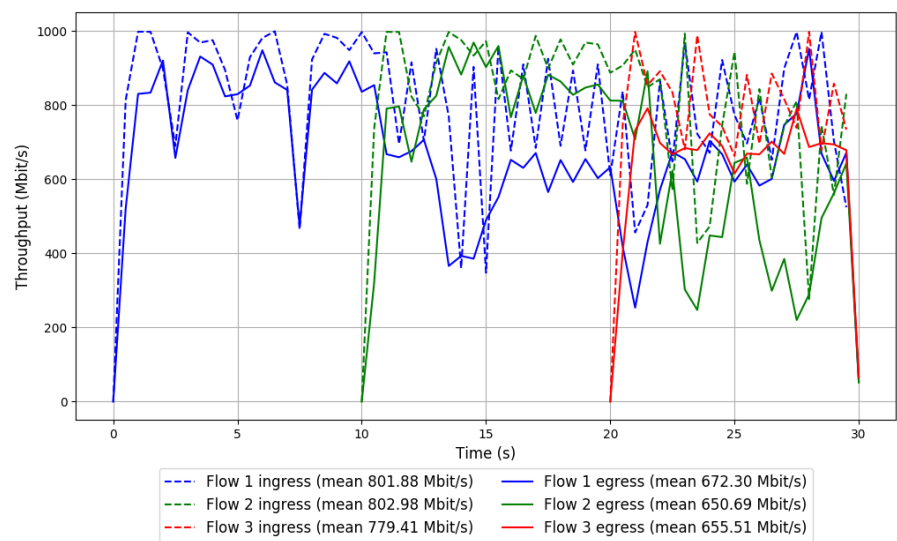
-- Flow 3:

Average throughput: 655.51 Mbit/s

95th percentile per-packet one-way delay: 229.839 ms

Loss rate: 15.90%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-01-17 11:53:45

End at: 2018-01-17 11:54:15

Below is generated by plot.py at 2018-01-17 15:10:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 1181.50 Mbit/s

95th percentile per-packet one-way delay: 346.262 ms

Loss rate: 16.90%

-- Flow 1:

Average throughput: 605.38 Mbit/s

95th percentile per-packet one-way delay: 349.450 ms

Loss rate: 13.29%

-- Flow 2:

Average throughput: 634.19 Mbit/s

95th percentile per-packet one-way delay: 347.963 ms

Loss rate: 18.52%

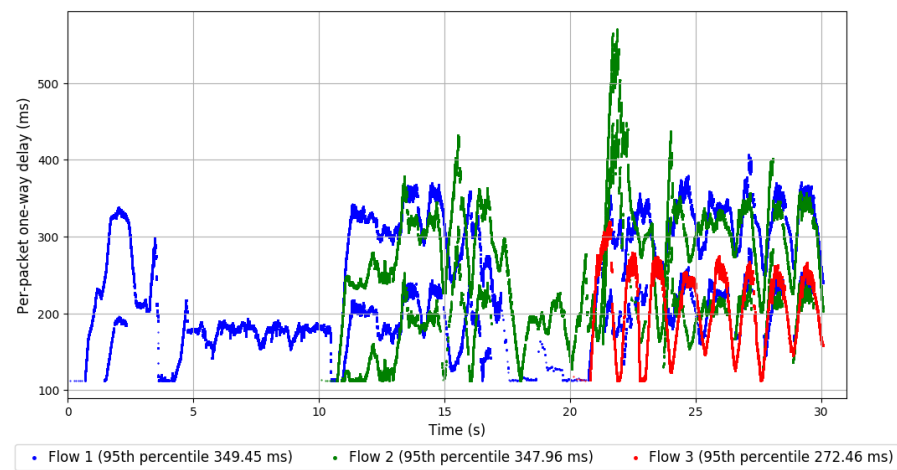
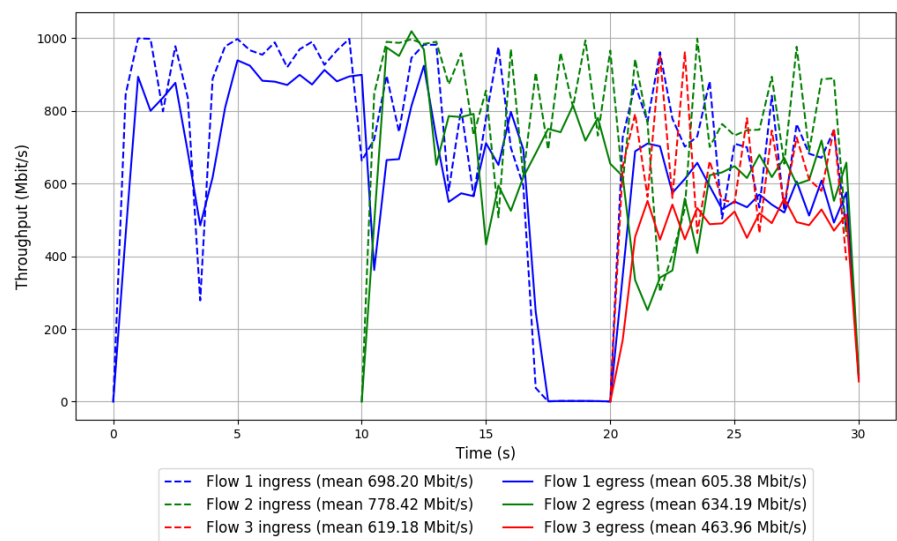
-- Flow 3:

Average throughput: 463.96 Mbit/s

95th percentile per-packet one-way delay: 272.460 ms

Loss rate: 25.10%

Run 9: Report of FillP — Data Link

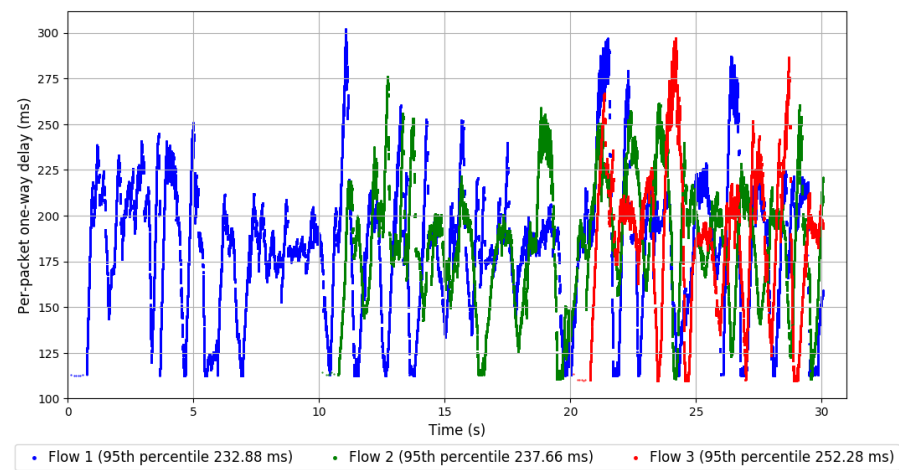
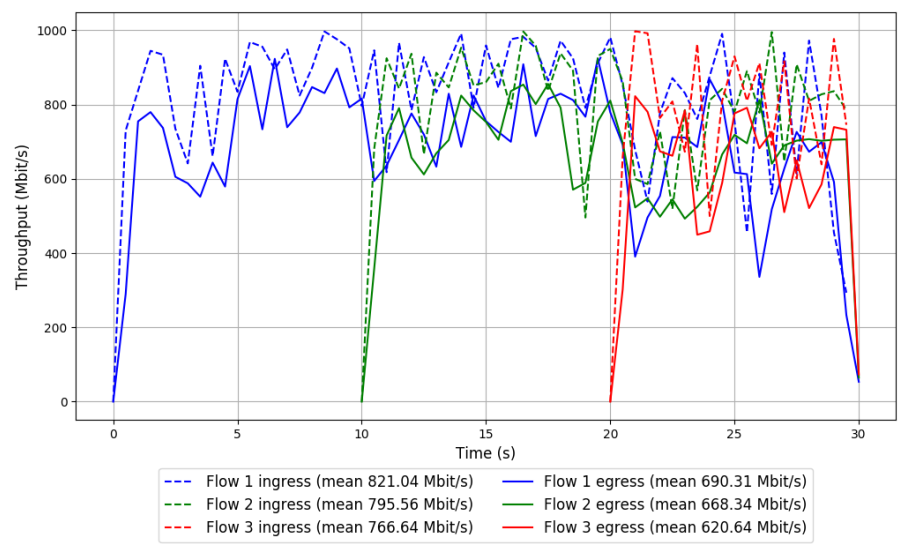


```
Run 10: Statistics of FillP

Start at: 2018-01-17 12:11:37
End at: 2018-01-17 12:12:07

# Below is generated by plot.py at 2018-01-17 15:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1340.71 Mbit/s
95th percentile per-packet one-way delay: 238.117 ms
Loss rate: 16.43%
-- Flow 1:
Average throughput: 690.31 Mbit/s
95th percentile per-packet one-way delay: 232.884 ms
Loss rate: 15.92%
-- Flow 2:
Average throughput: 668.34 Mbit/s
95th percentile per-packet one-way delay: 237.660 ms
Loss rate: 15.98%
-- Flow 3:
Average throughput: 620.64 Mbit/s
95th percentile per-packet one-way delay: 252.284 ms
Loss rate: 19.03%
```

Run 10: Report of FillP — Data Link

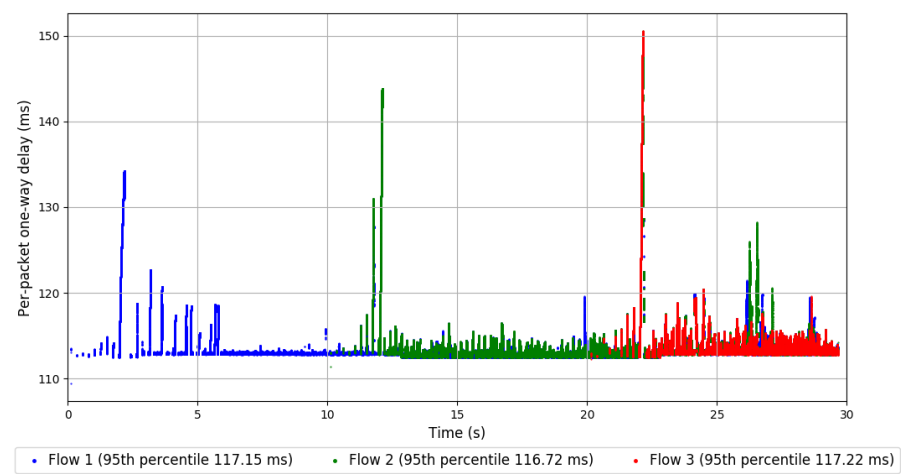
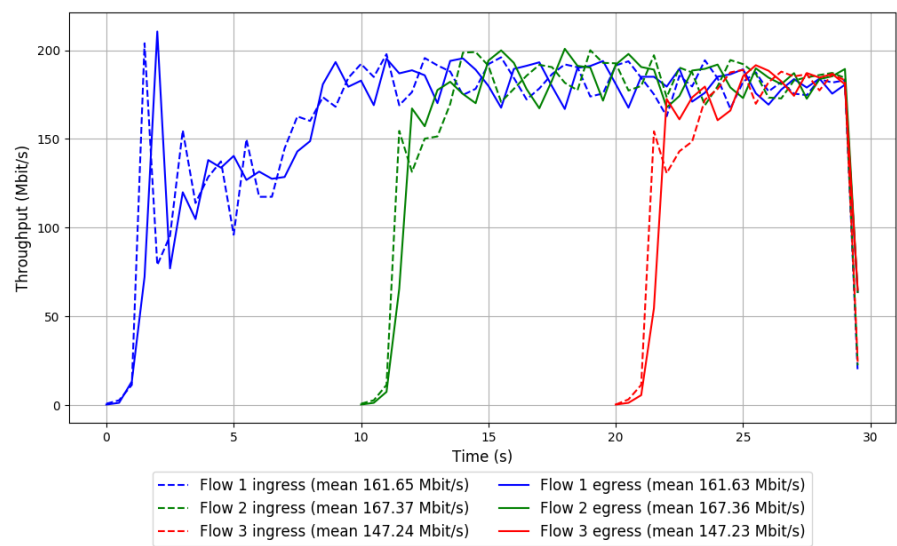


```
Run 1: Statistics of Indigo

Start at: 2018-01-17 09:27:49
End at: 2018-01-17 09:28:19

# Below is generated by plot.py at 2018-01-17 15:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 319.68 Mbit/s
95th percentile per-packet one-way delay: 116.982 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.63 Mbit/s
95th percentile per-packet one-way delay: 117.148 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 167.36 Mbit/s
95th percentile per-packet one-way delay: 116.715 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 147.23 Mbit/s
95th percentile per-packet one-way delay: 117.221 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo — Data Link

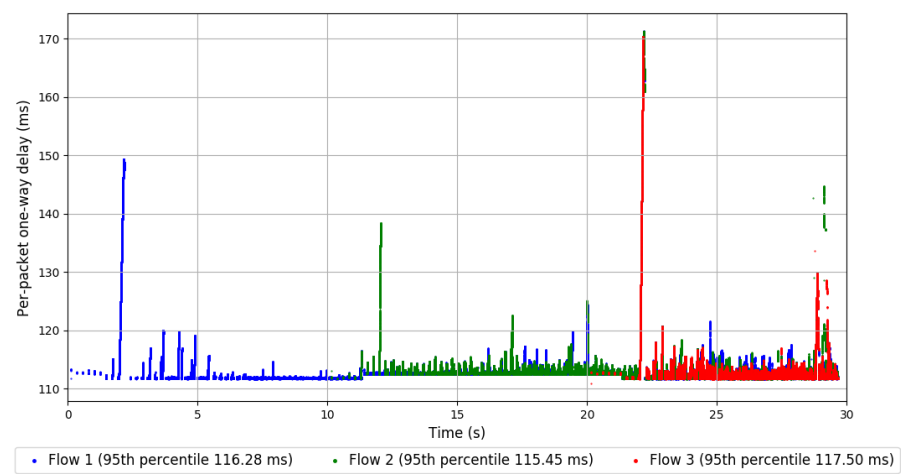
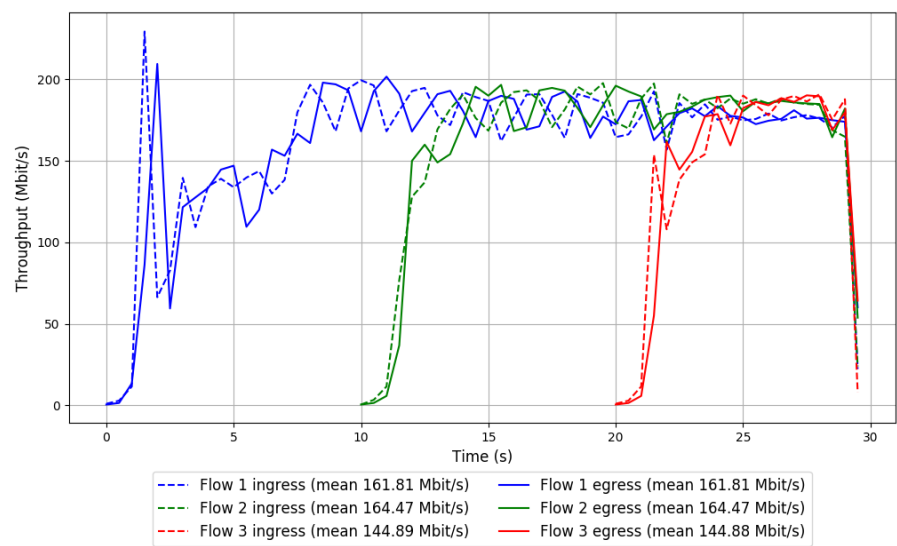


```
Run 2: Statistics of Indigo

Start at: 2018-01-17 09:46:31
End at: 2018-01-17 09:47:01

# Below is generated by plot.py at 2018-01-17 15:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 317.08 Mbit/s
95th percentile per-packet one-way delay: 116.176 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 161.81 Mbit/s
95th percentile per-packet one-way delay: 116.284 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 164.47 Mbit/s
95th percentile per-packet one-way delay: 115.454 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 144.88 Mbit/s
95th percentile per-packet one-way delay: 117.497 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-01-17 10:05:28

End at: 2018-01-17 10:05:58

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.31 Mbit/s

95th percentile per-packet one-way delay: 122.637 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 168.84 Mbit/s

95th percentile per-packet one-way delay: 117.287 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 148.57 Mbit/s

95th percentile per-packet one-way delay: 129.851 ms

Loss rate: 0.41%

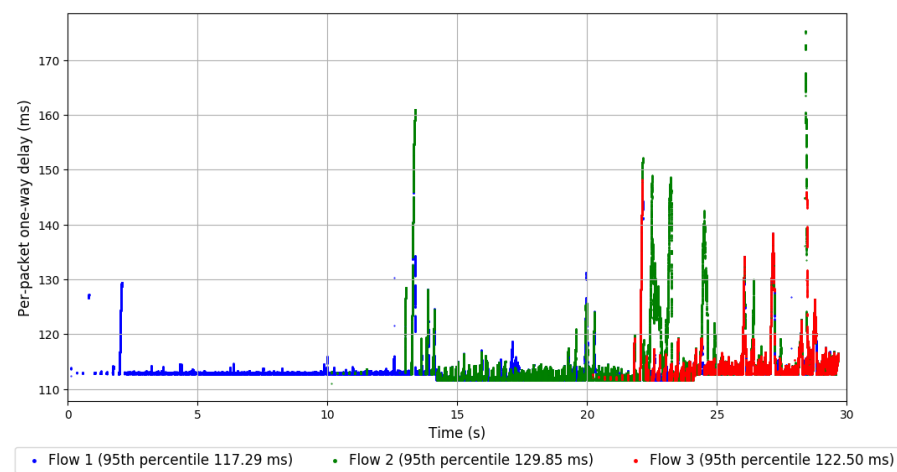
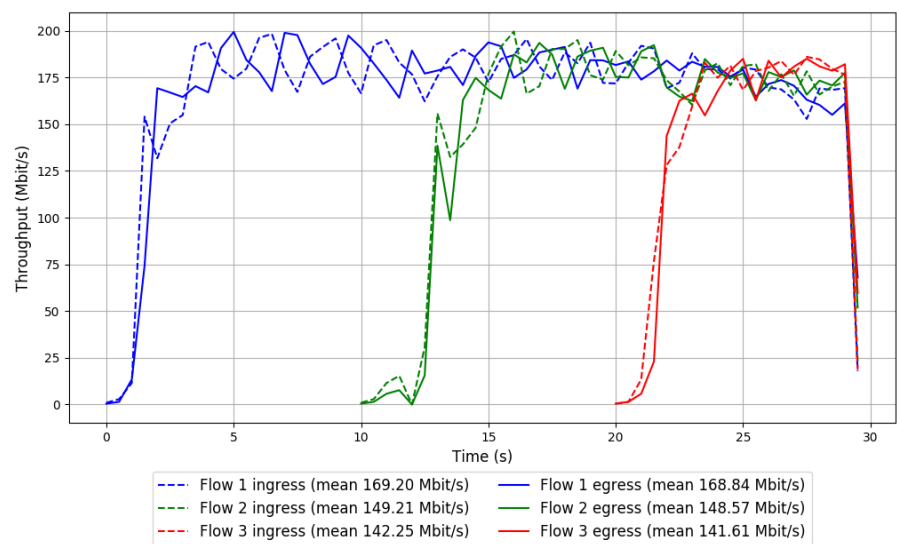
-- Flow 3:

Average throughput: 141.61 Mbit/s

95th percentile per-packet one-way delay: 122.498 ms

Loss rate: 0.42%

Run 3: Report of Indigo — Data Link



Run 4: Statistics of Indigo

Start at: 2018-01-17 10:23:47

End at: 2018-01-17 10:24:17

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.56 Mbit/s

95th percentile per-packet one-way delay: 118.422 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.72 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 164.27 Mbit/s

95th percentile per-packet one-way delay: 122.932 ms

Loss rate: 0.00%

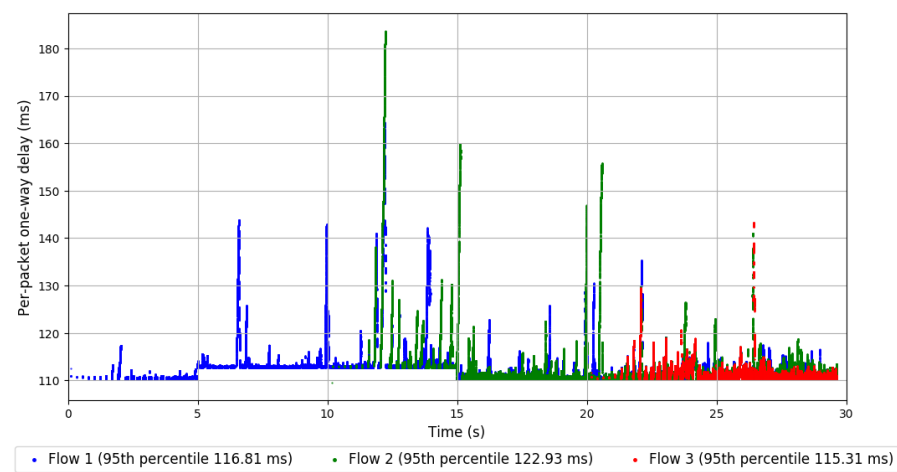
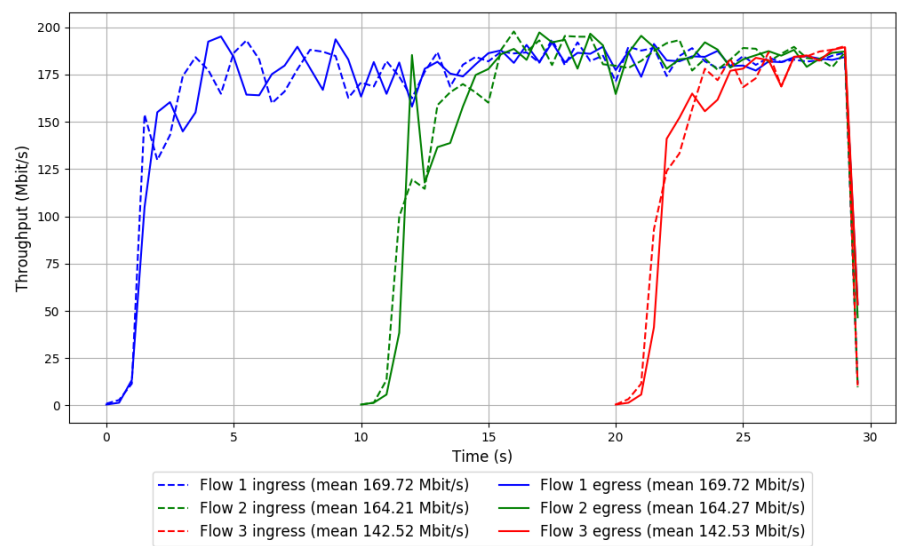
-- Flow 3:

Average throughput: 142.53 Mbit/s

95th percentile per-packet one-way delay: 115.313 ms

Loss rate: 0.00%

Run 4: Report of Indigo — Data Link



Run 5: Statistics of Indigo

Start at: 2018-01-17 10:42:10

End at: 2018-01-17 10:42:40

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.64 Mbit/s

95th percentile per-packet one-way delay: 113.941 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.71 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 165.31 Mbit/s

95th percentile per-packet one-way delay: 115.552 ms

Loss rate: 0.00%

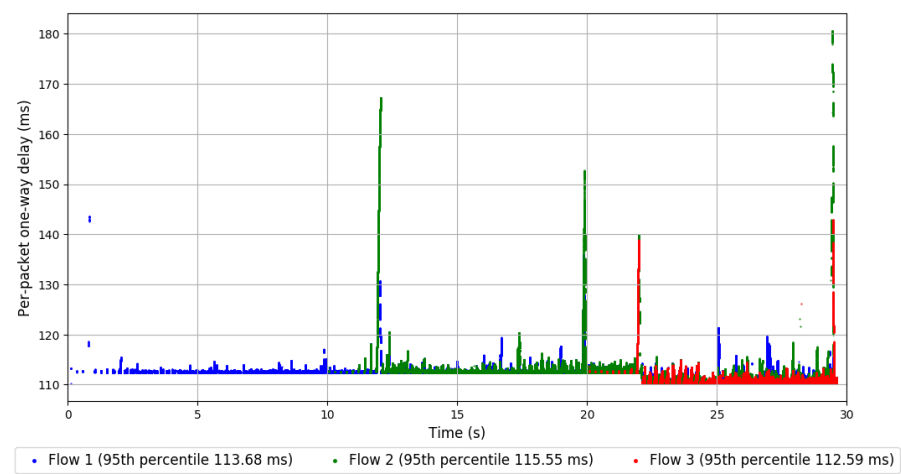
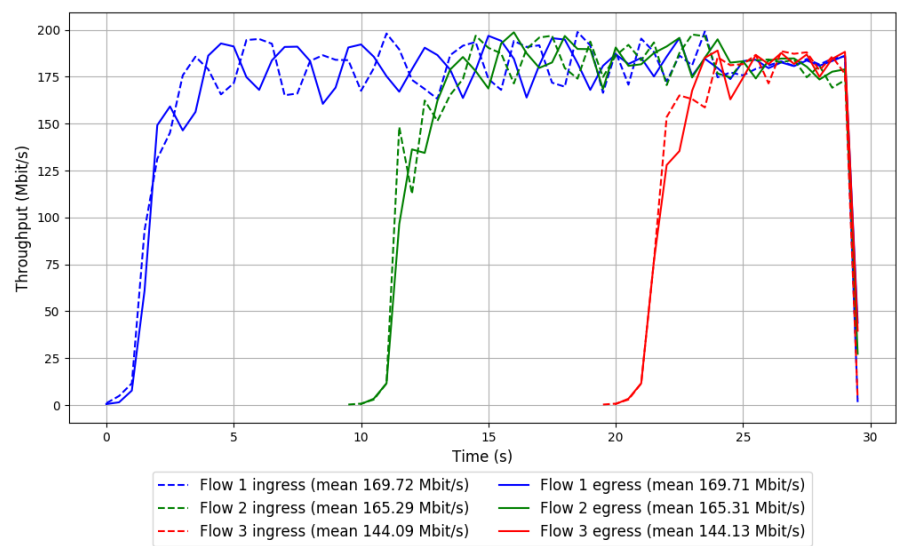
-- Flow 3:

Average throughput: 144.13 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of Indigo — Data Link



Run 6: Statistics of Indigo

Start at: 2018-01-17 11:00:57

End at: 2018-01-17 11:01:27

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.47 Mbit/s

95th percentile per-packet one-way delay: 121.552 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 168.71 Mbit/s

95th percentile per-packet one-way delay: 119.140 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 164.68 Mbit/s

95th percentile per-packet one-way delay: 123.663 ms

Loss rate: 0.00%

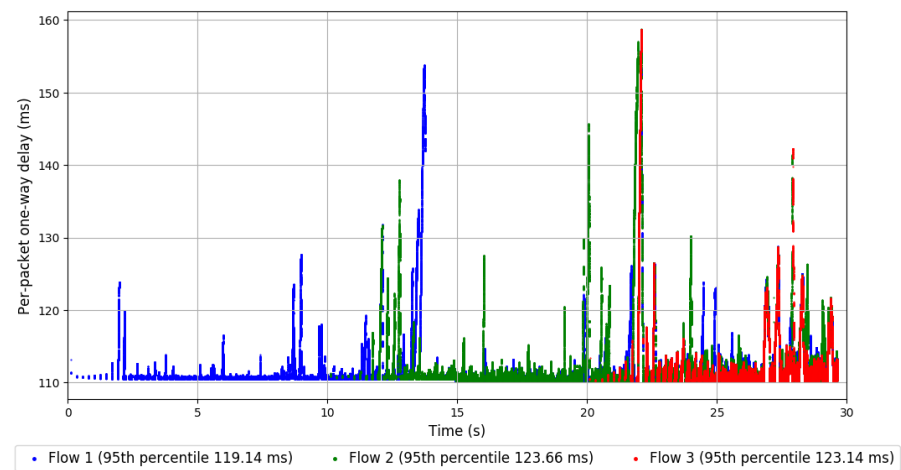
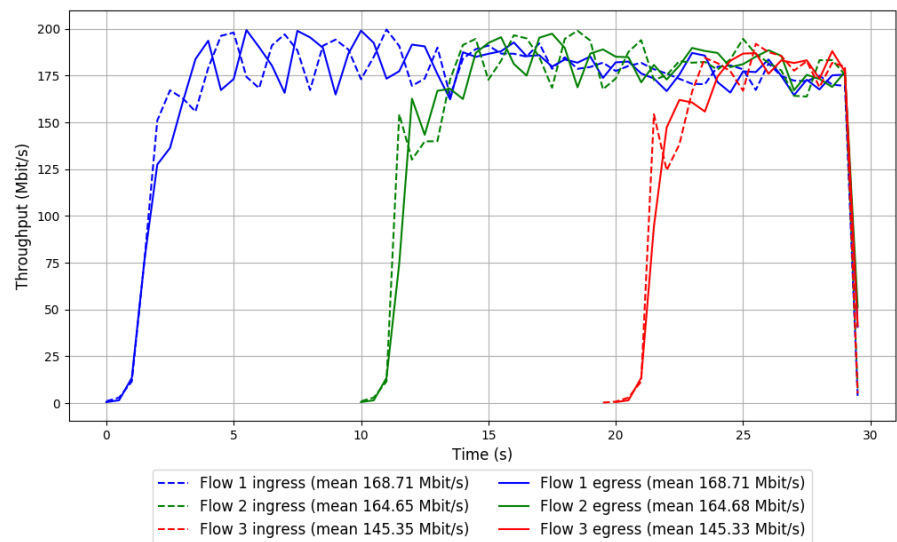
-- Flow 3:

Average throughput: 145.33 Mbit/s

95th percentile per-packet one-way delay: 123.141 ms

Loss rate: 0.00%

Run 6: Report of Indigo — Data Link



Run 7: Statistics of Indigo

Start at: 2018-01-17 11:19:55

End at: 2018-01-17 11:20:25

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.34 Mbit/s

95th percentile per-packet one-way delay: 119.106 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 169.58 Mbit/s

95th percentile per-packet one-way delay: 116.998 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 164.44 Mbit/s

95th percentile per-packet one-way delay: 119.023 ms

Loss rate: 0.00%

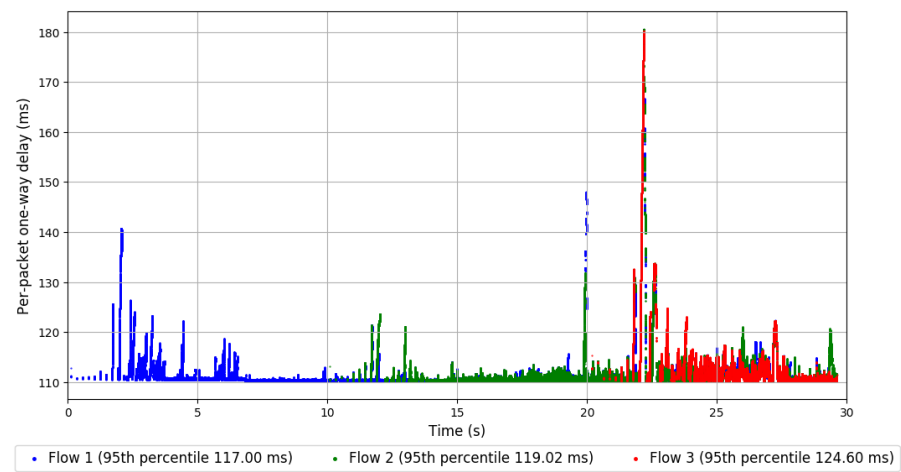
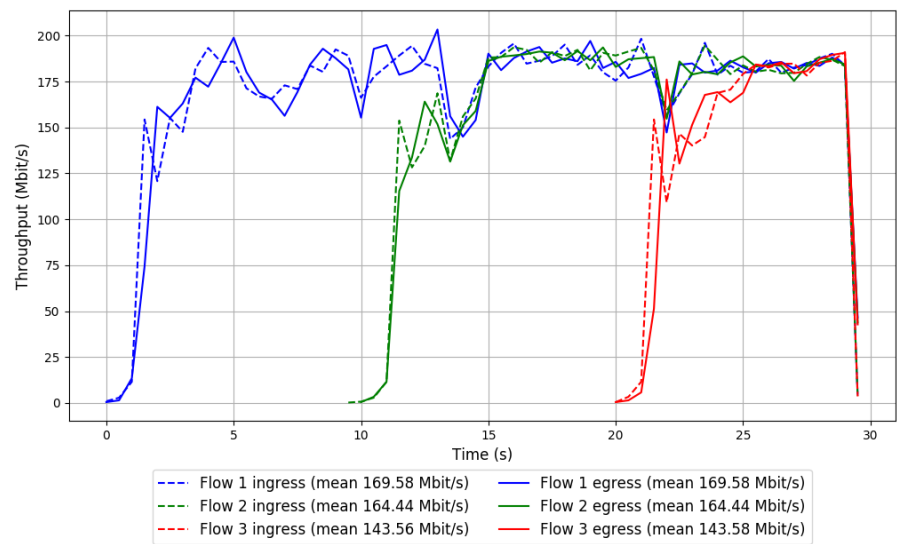
-- Flow 3:

Average throughput: 143.58 Mbit/s

95th percentile per-packet one-way delay: 124.596 ms

Loss rate: 0.00%

Run 7: Report of Indigo — Data Link



Run 8: Statistics of Indigo

Start at: 2018-01-17 11:39:04

End at: 2018-01-17 11:39:34

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.66 Mbit/s

95th percentile per-packet one-way delay: 116.487 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 171.67 Mbit/s

95th percentile per-packet one-way delay: 114.191 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 168.47 Mbit/s

95th percentile per-packet one-way delay: 123.634 ms

Loss rate: 0.02%

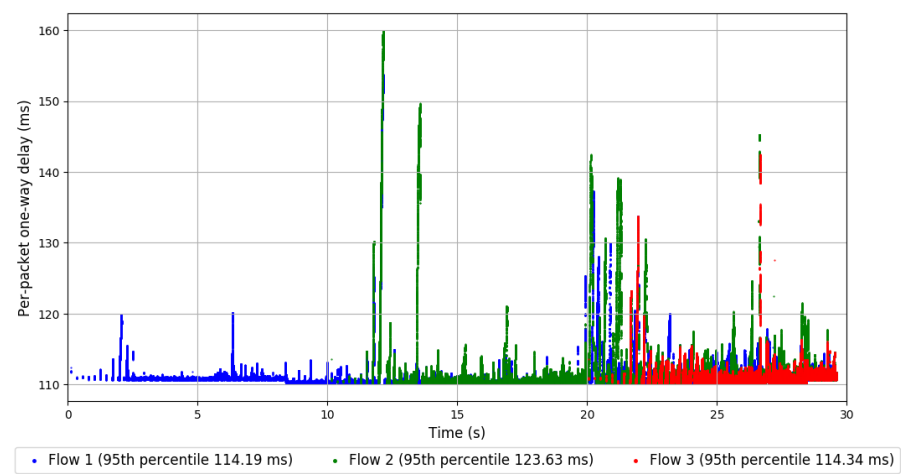
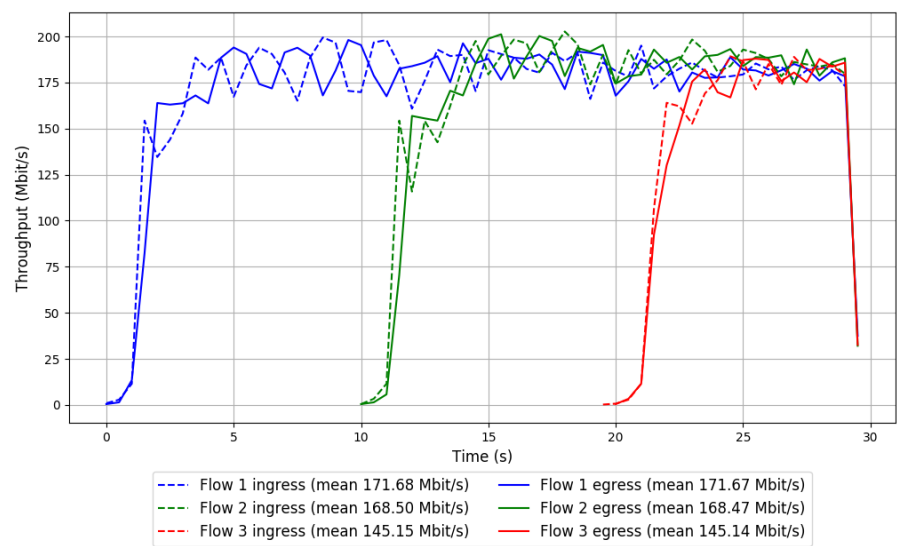
-- Flow 3:

Average throughput: 145.14 Mbit/s

95th percentile per-packet one-way delay: 114.339 ms

Loss rate: 0.01%

Run 8: Report of Indigo — Data Link



Run 9: Statistics of Indigo

Start at: 2018-01-17 11:57:19

End at: 2018-01-17 11:57:50

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 320.92 Mbit/s

95th percentile per-packet one-way delay: 124.422 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 169.04 Mbit/s

95th percentile per-packet one-way delay: 121.567 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 161.79 Mbit/s

95th percentile per-packet one-way delay: 126.977 ms

Loss rate: 0.01%

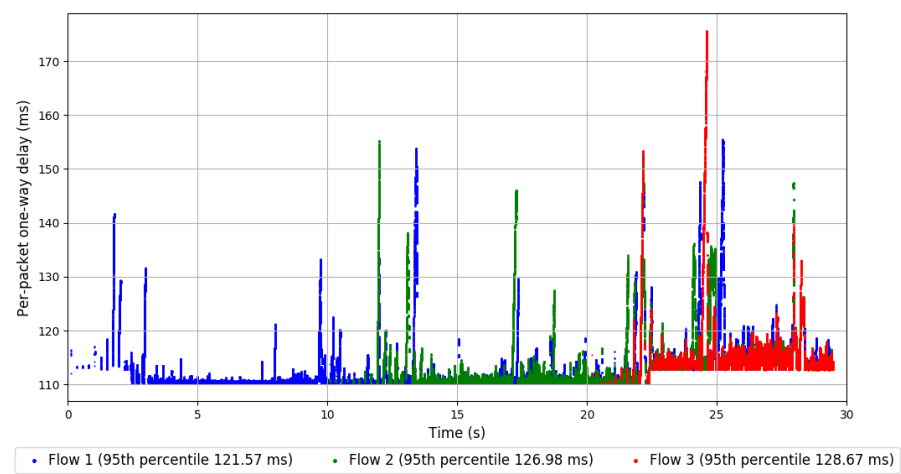
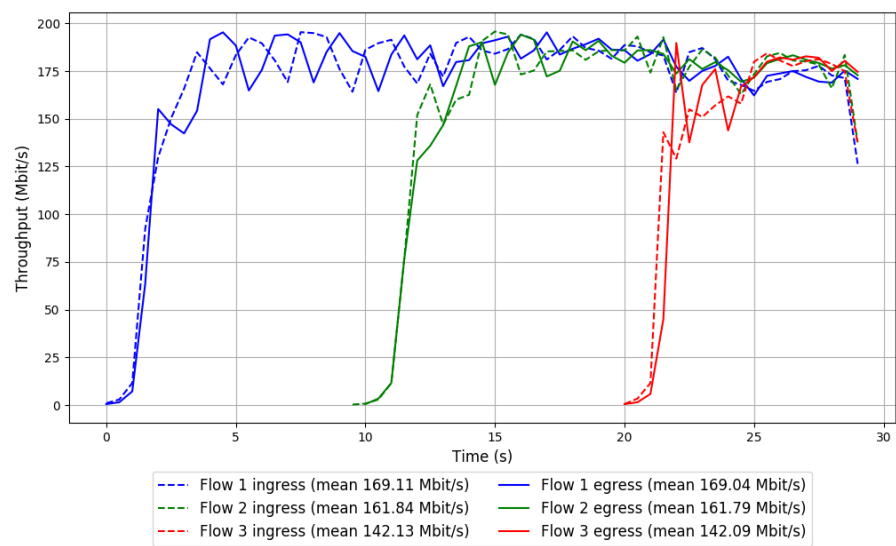
-- Flow 3:

Average throughput: 142.09 Mbit/s

95th percentile per-packet one-way delay: 128.670 ms

Loss rate: 0.01%

Run 9: Report of Indigo — Data Link



Run 10: Statistics of Indigo

Start at: 2018-01-17 12:15:29

End at: 2018-01-17 12:15:59

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.11 Mbit/s

95th percentile per-packet one-way delay: 123.060 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 169.64 Mbit/s

95th percentile per-packet one-way delay: 120.508 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 164.22 Mbit/s

95th percentile per-packet one-way delay: 130.285 ms

Loss rate: 0.03%

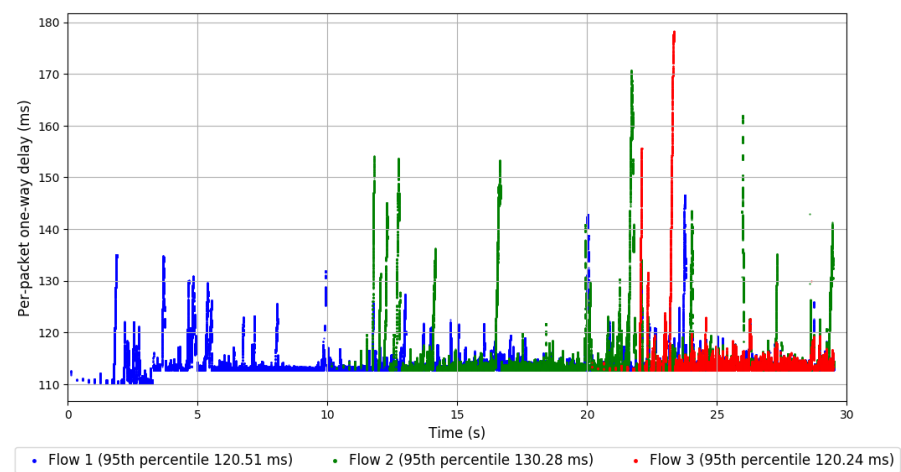
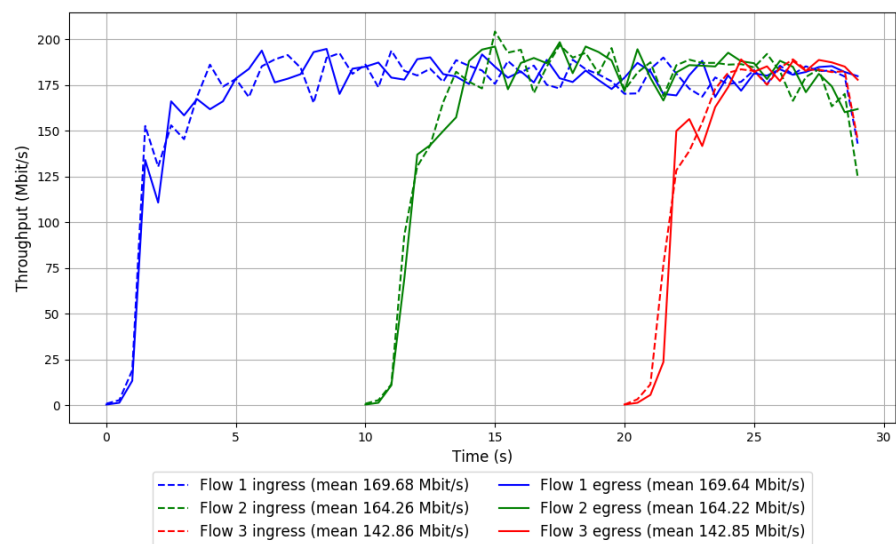
-- Flow 3:

Average throughput: 142.85 Mbit/s

95th percentile per-packet one-way delay: 120.239 ms

Loss rate: 0.00%

Run 10: Report of Indigo — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-17 09:22:03

End at: 2018-01-17 09:22:33

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 199.58 Mbit/s

95th percentile per-packet one-way delay: 112.923 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 108.90 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 100.31 Mbit/s

95th percentile per-packet one-way delay: 112.922 ms

Loss rate: 0.00%

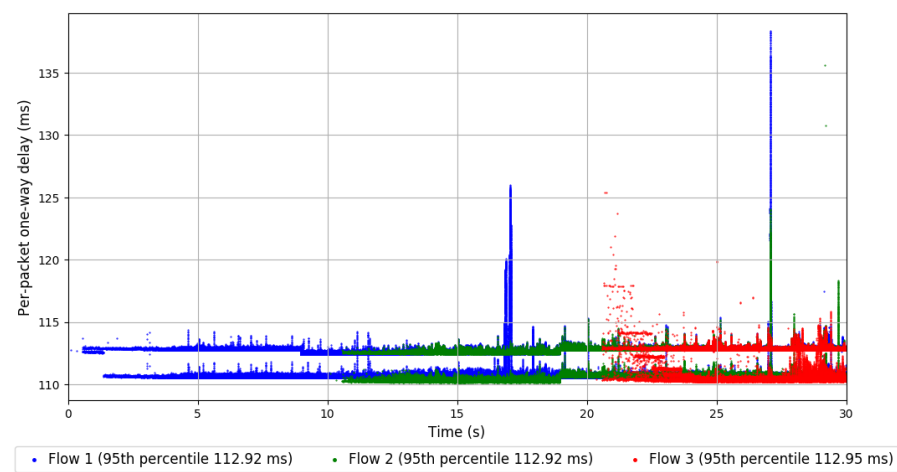
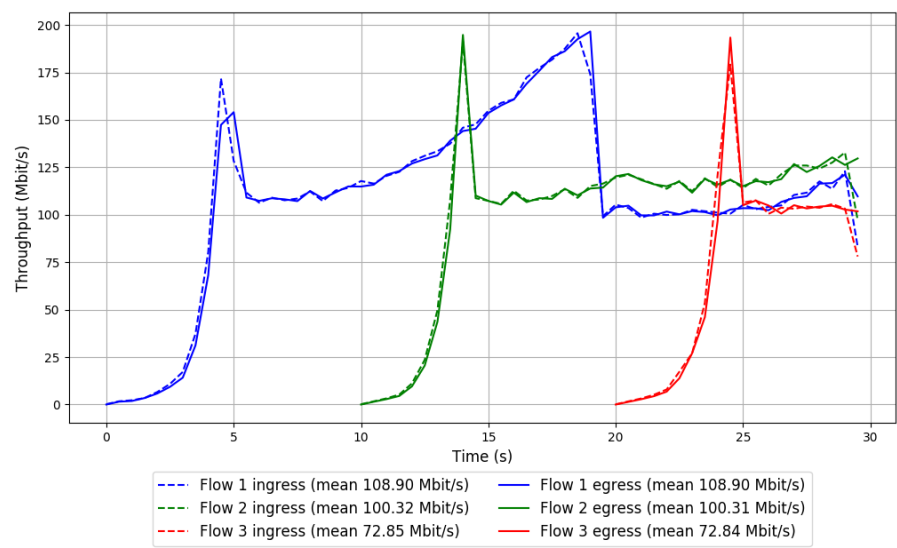
-- Flow 3:

Average throughput: 72.84 Mbit/s

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

Loss rate: 0.00%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-17 09:40:40

End at: 2018-01-17 09:41:10

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.69 Mbit/s

95th percentile per-packet one-way delay: 114.540 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 111.58 Mbit/s

95th percentile per-packet one-way delay: 112.948 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 142.59 Mbit/s

95th percentile per-packet one-way delay: 116.223 ms

Loss rate: 0.01%

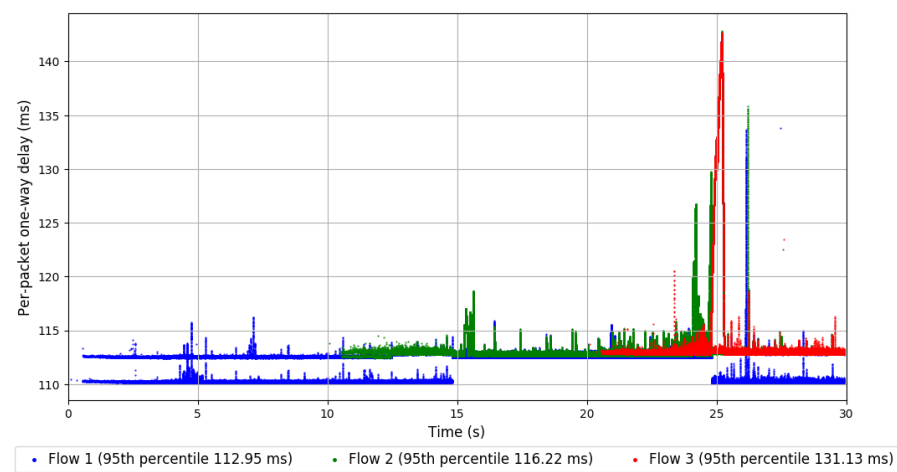
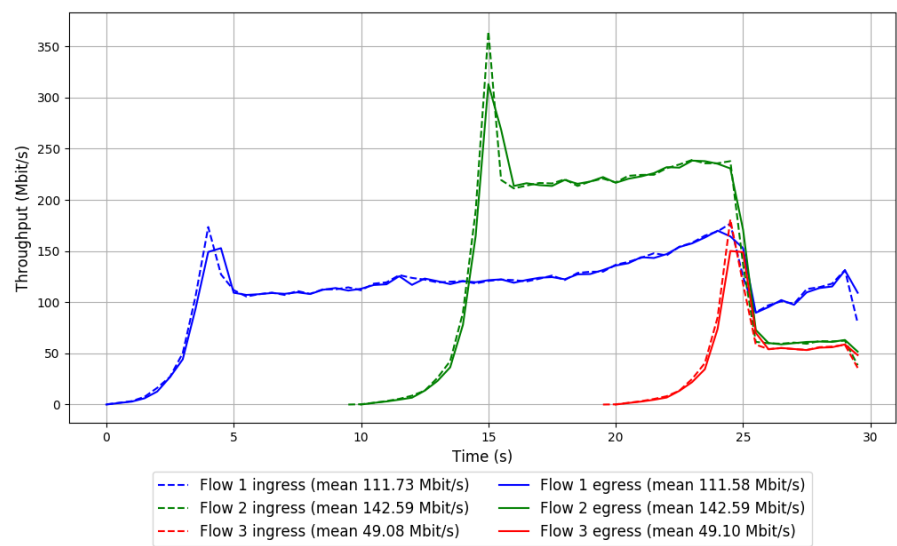
-- Flow 3:

Average throughput: 49.10 Mbit/s

95th percentile per-packet one-way delay: 131.135 ms

Loss rate: 0.00%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-17 09:59:49

End at: 2018-01-17 10:00:19

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 227.42 Mbit/s

95th percentile per-packet one-way delay: 200.011 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 136.92 Mbit/s

95th percentile per-packet one-way delay: 281.605 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 89.22 Mbit/s

95th percentile per-packet one-way delay: 119.839 ms

Loss rate: 0.00%

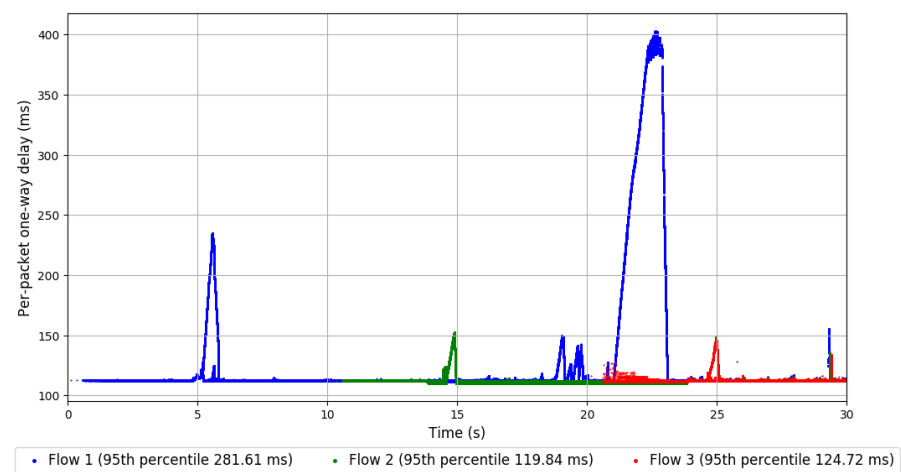
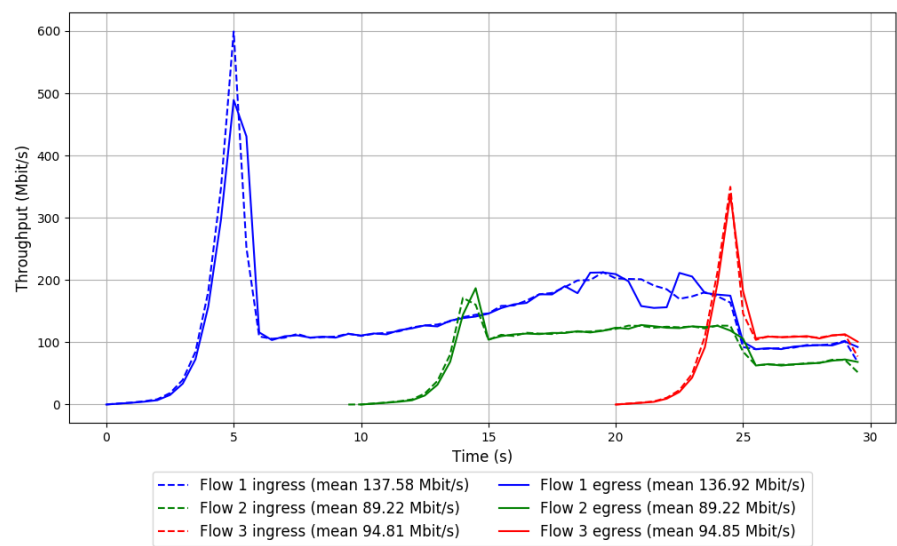
-- Flow 3:

Average throughput: 94.85 Mbit/s

95th percentile per-packet one-way delay: 124.715 ms

Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-17 10:18:06

End at: 2018-01-17 10:18:36

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 210.57 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 115.06 Mbit/s

95th percentile per-packet one-way delay: 110.551 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 94.11 Mbit/s

95th percentile per-packet one-way delay: 134.601 ms

Loss rate: 0.00%

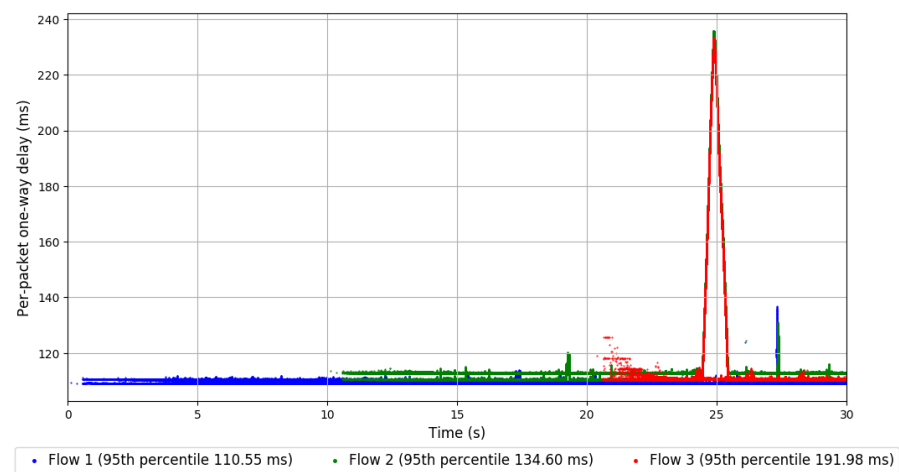
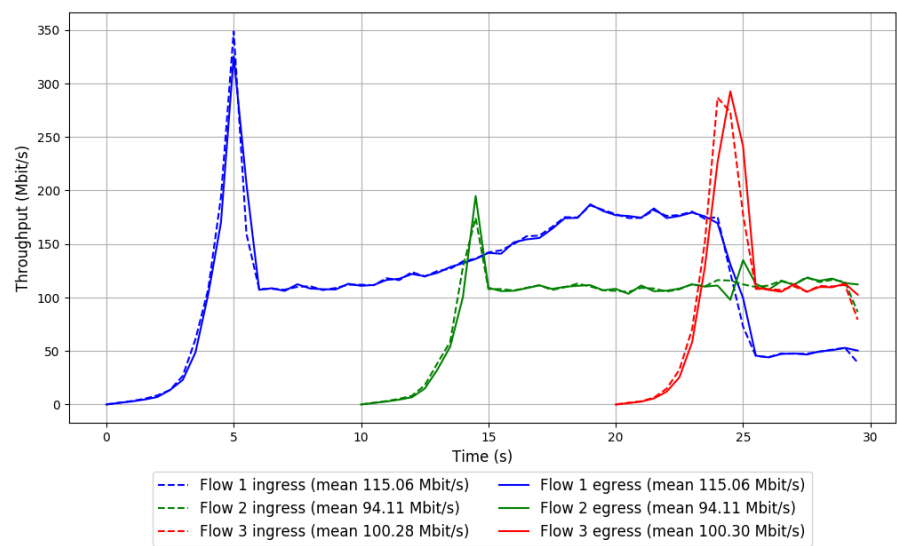
-- Flow 3:

Average throughput: 100.30 Mbit/s

95th percentile per-packet one-way delay: 191.984 ms

Loss rate: 0.00%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-17 10:36:14

End at: 2018-01-17 10:36:44

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 255.45 Mbit/s

95th percentile per-packet one-way delay: 125.351 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 110.22 Mbit/s

95th percentile per-packet one-way delay: 122.789 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 182.32 Mbit/s

95th percentile per-packet one-way delay: 131.231 ms

Loss rate: 0.00%

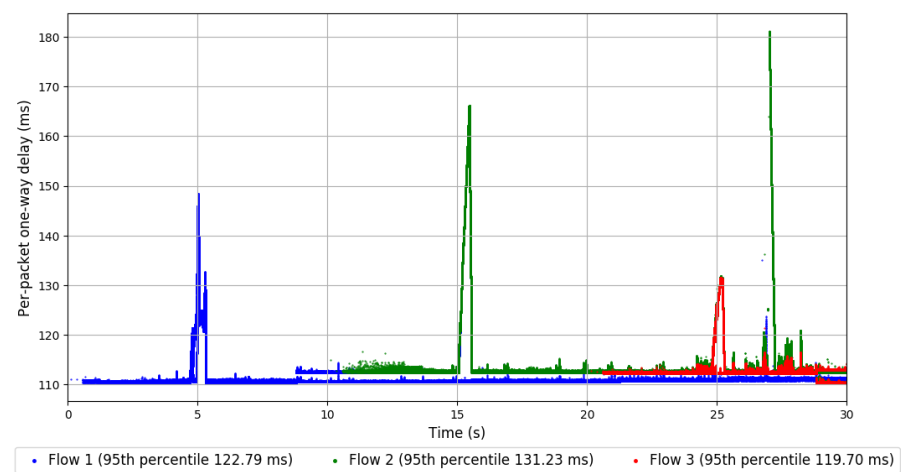
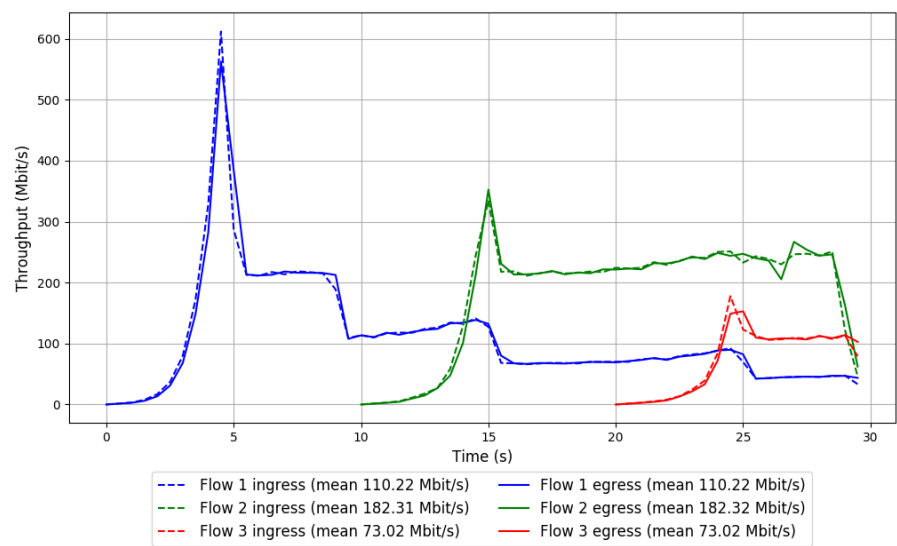
-- Flow 3:

Average throughput: 73.02 Mbit/s

95th percentile per-packet one-way delay: 119.700 ms

Loss rate: 0.00%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-01-17 10:55:06

End at: 2018-01-17 10:55:36

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 211.80 Mbit/s

95th percentile per-packet one-way delay: 116.843 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 106.40 Mbit/s

95th percentile per-packet one-way delay: 145.598 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 120.38 Mbit/s

95th percentile per-packet one-way delay: 111.584 ms

Loss rate: 0.00%

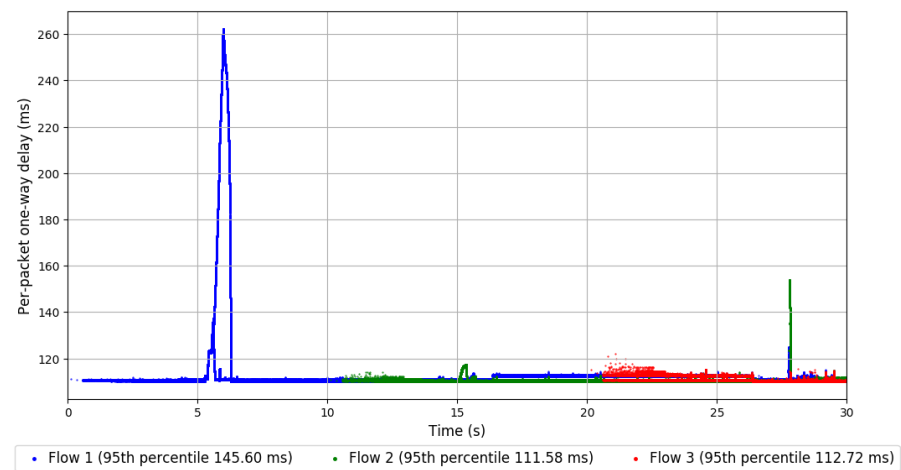
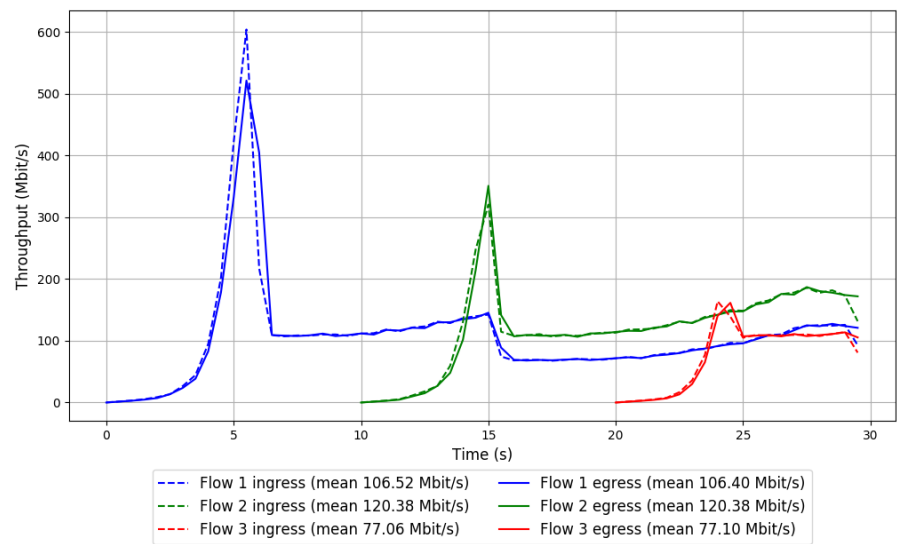
-- Flow 3:

Average throughput: 77.10 Mbit/s

95th percentile per-packet one-way delay: 112.719 ms

Loss rate: 0.00%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-17 11:14:03

End at: 2018-01-17 11:14:33

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 228.42 Mbit/s

95th percentile per-packet one-way delay: 112.734 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 121.78 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 121.64 Mbit/s

95th percentile per-packet one-way delay: 112.248 ms

Loss rate: 0.00%

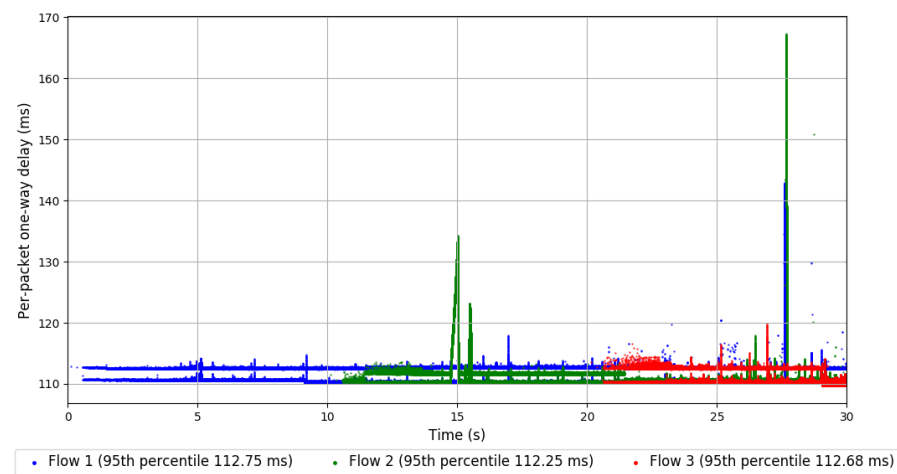
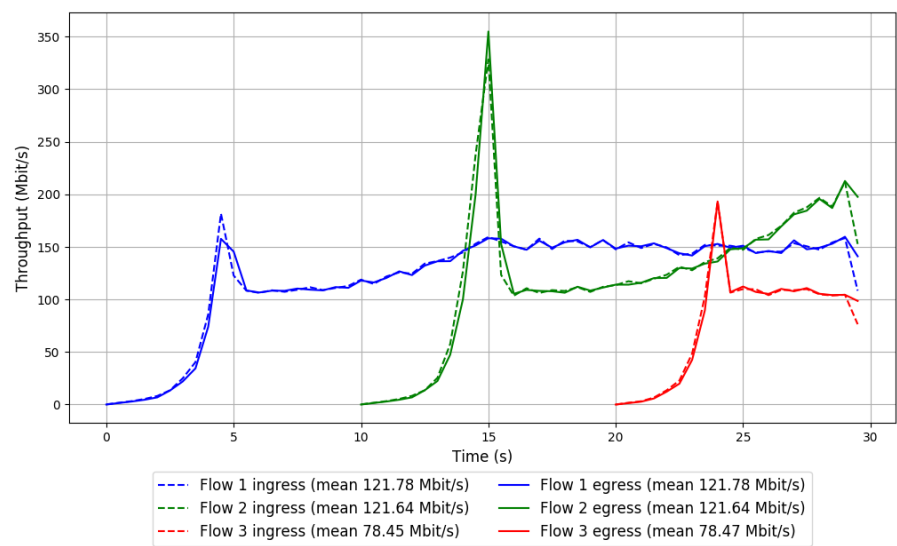
-- Flow 3:

Average throughput: 78.47 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-01-17 11:33:08

End at: 2018-01-17 11:33:38

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.98 Mbit/s

95th percentile per-packet one-way delay: 128.956 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 140.63 Mbit/s

95th percentile per-packet one-way delay: 135.727 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 102.26 Mbit/s

95th percentile per-packet one-way delay: 119.319 ms

Loss rate: 0.00%

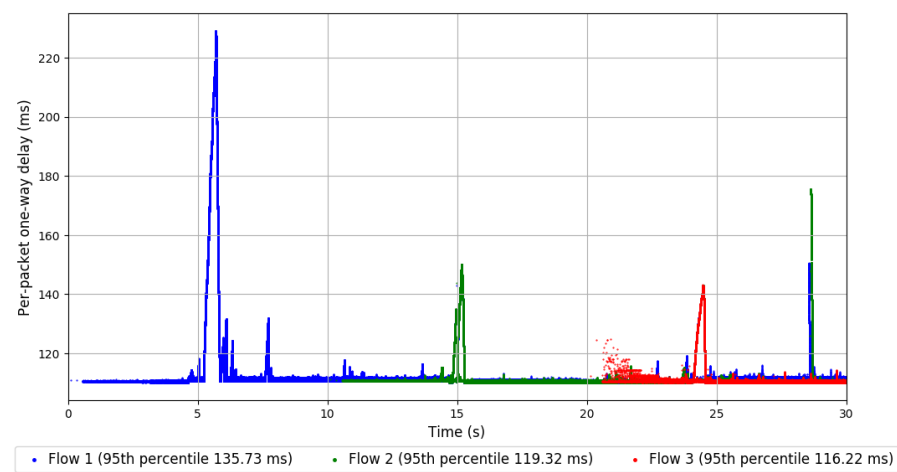
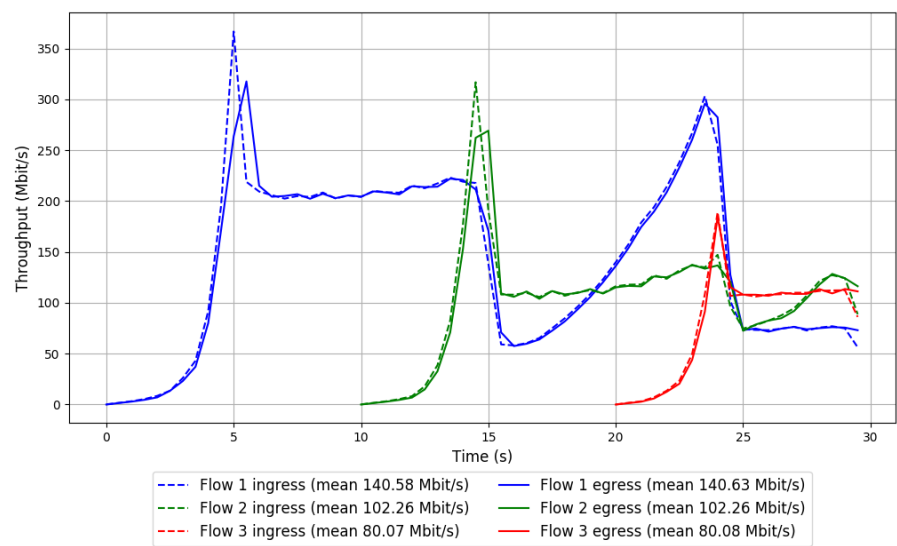
-- Flow 3:

Average throughput: 80.08 Mbit/s

95th percentile per-packet one-way delay: 116.221 ms

Loss rate: 0.01%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-17 11:51:47

End at: 2018-01-17 11:52:17

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 226.78 Mbit/s

95th percentile per-packet one-way delay: 114.332 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 121.71 Mbit/s

95th percentile per-packet one-way delay: 122.259 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 117.38 Mbit/s

95th percentile per-packet one-way delay: 112.843 ms

Loss rate: 0.01%

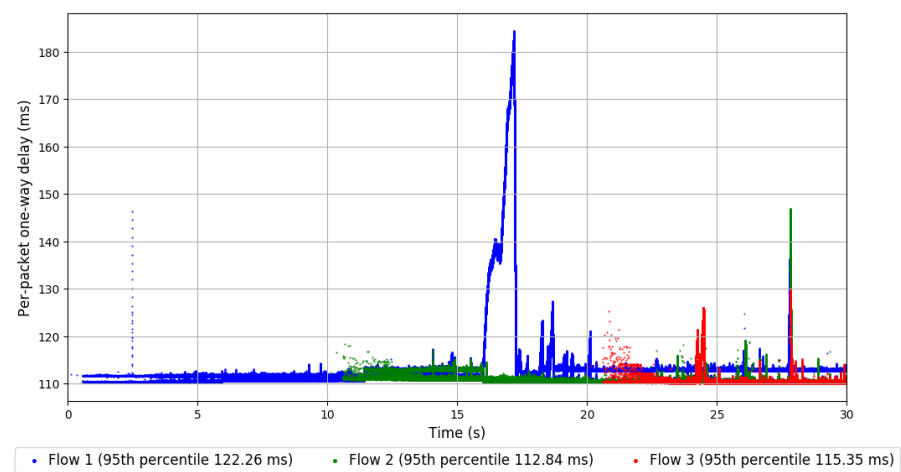
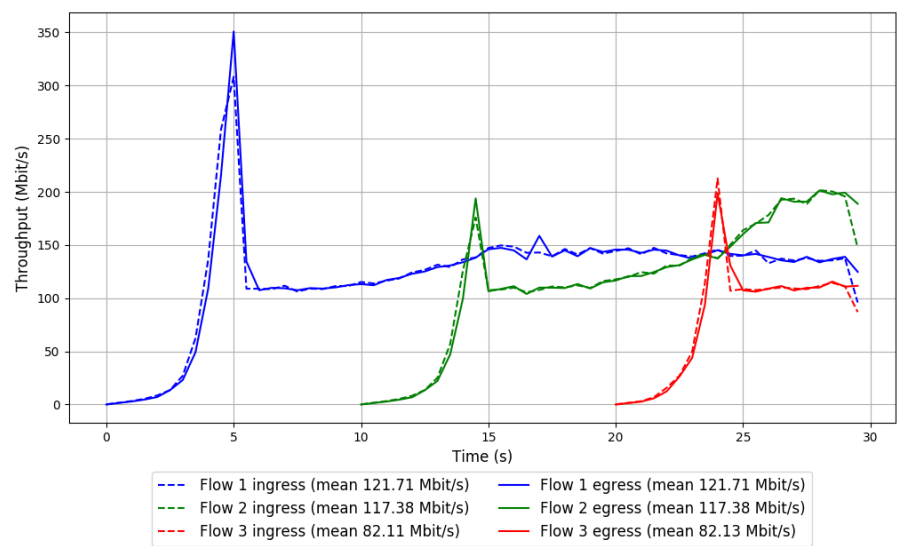
-- Flow 3:

Average throughput: 82.13 Mbit/s

95th percentile per-packet one-way delay: 115.353 ms

Loss rate: 0.02%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-17 12:09:38

End at: 2018-01-17 12:10:08

Below is generated by plot.py at 2018-01-17 15:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.27 Mbit/s

95th percentile per-packet one-way delay: 150.399 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 118.95 Mbit/s

95th percentile per-packet one-way delay: 179.675 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 92.05 Mbit/s

95th percentile per-packet one-way delay: 113.107 ms

Loss rate: 0.00%

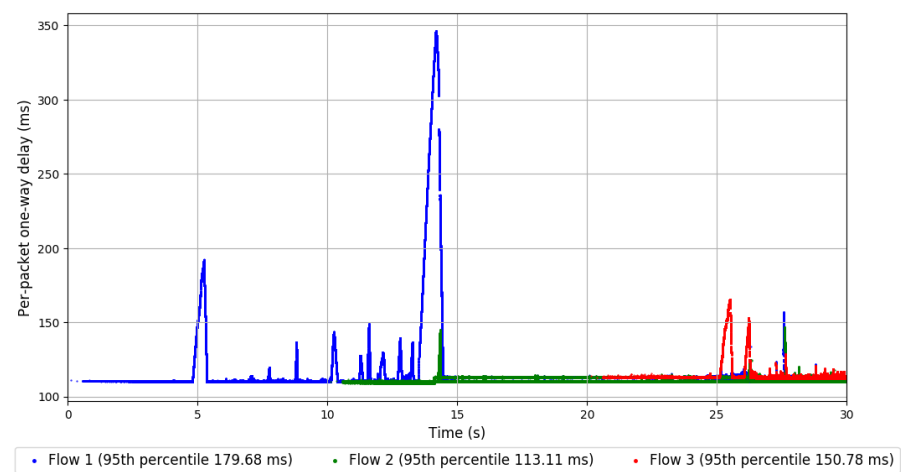
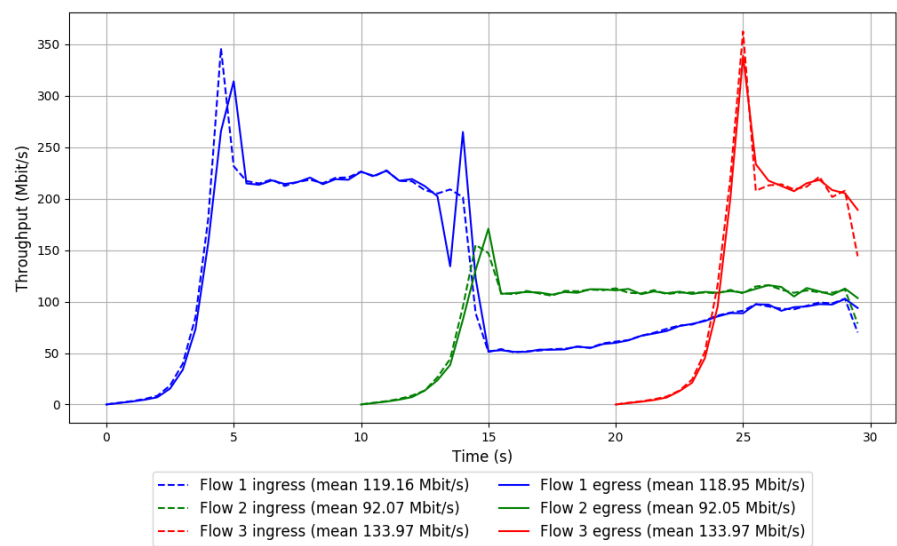
-- Flow 3:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 150.785 ms

Loss rate: 0.00%

Run 10: Report of Vivace-latency — Data Link

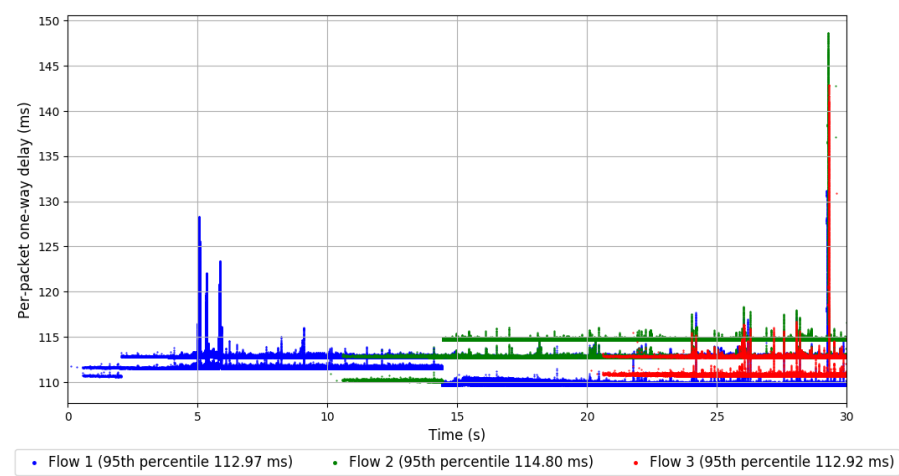
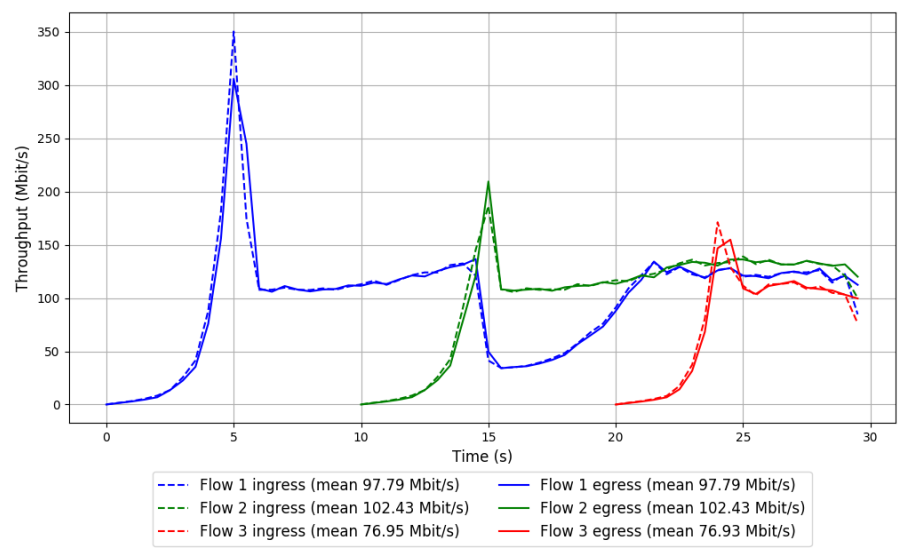


```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-17 09:15:10
End at: 2018-01-17 09:15:40

# Below is generated by plot.py at 2018-01-17 15:13:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 191.21 Mbit/s
95th percentile per-packet one-way delay: 114.766 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 97.79 Mbit/s
95th percentile per-packet one-way delay: 112.974 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 102.43 Mbit/s
95th percentile per-packet one-way delay: 114.798 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.93 Mbit/s
95th percentile per-packet one-way delay: 112.919 ms
Loss rate: 0.01%
```

Run 1: Report of Vivace-loss — Data Link

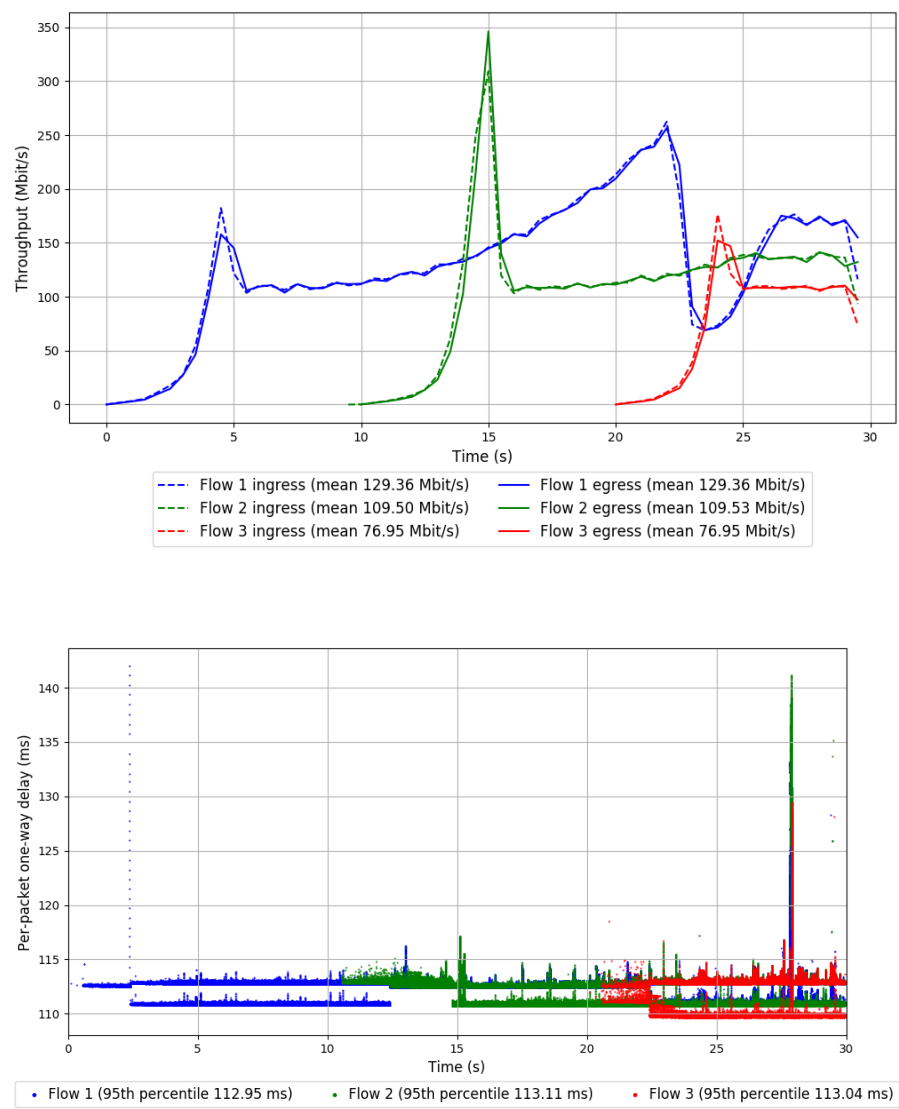


```
Run 2: Statistics of Vivace-loss

Start at: 2018-01-17 09:33:40
End at: 2018-01-17 09:34:10

# Below is generated by plot.py at 2018-01-17 15:13:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 227.58 Mbit/s
95th percentile per-packet one-way delay: 113.003 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 129.36 Mbit/s
95th percentile per-packet one-way delay: 112.955 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.53 Mbit/s
95th percentile per-packet one-way delay: 113.113 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 76.95 Mbit/s
95th percentile per-packet one-way delay: 113.043 ms
Loss rate: 0.00%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-17 09:52:52

End at: 2018-01-17 09:53:22

Below is generated by plot.py at 2018-01-17 15:16:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 230.03 Mbit/s

95th percentile per-packet one-way delay: 112.803 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 128.78 Mbit/s

95th percentile per-packet one-way delay: 113.091 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 108.85 Mbit/s

95th percentile per-packet one-way delay: 112.610 ms

Loss rate: 0.00%

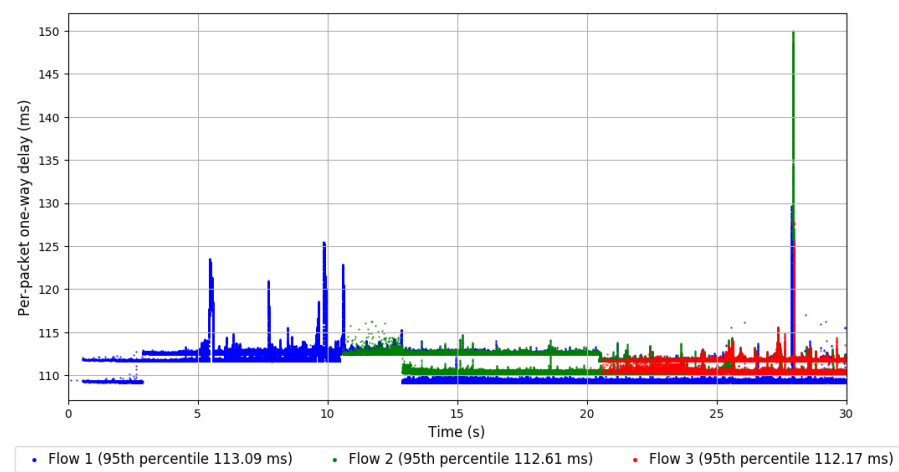
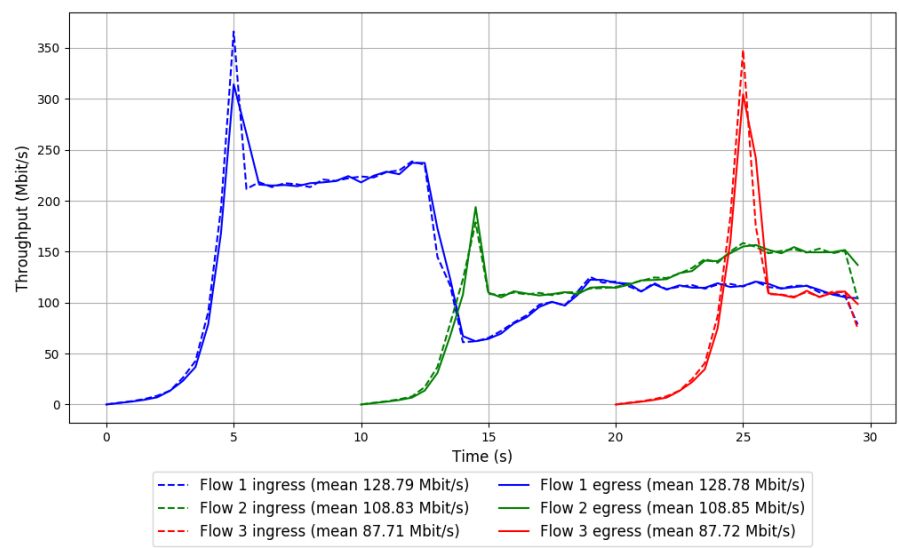
-- Flow 3:

Average throughput: 87.72 Mbit/s

95th percentile per-packet one-way delay: 112.167 ms

Loss rate: 0.00%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-17 10:11:11

End at: 2018-01-17 10:11:41

Below is generated by plot.py at 2018-01-17 15:17:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 232.40 Mbit/s

95th percentile per-packet one-way delay: 226.470 ms

Loss rate: 0.28%

-- Flow 1:

Average throughput: 164.94 Mbit/s

95th percentile per-packet one-way delay: 227.860 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 97.28 Mbit/s

95th percentile per-packet one-way delay: 111.917 ms

Loss rate: 0.00%

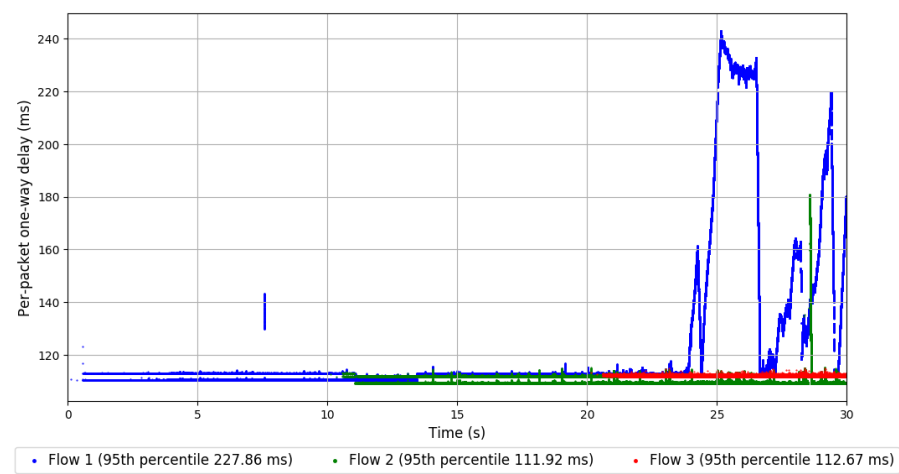
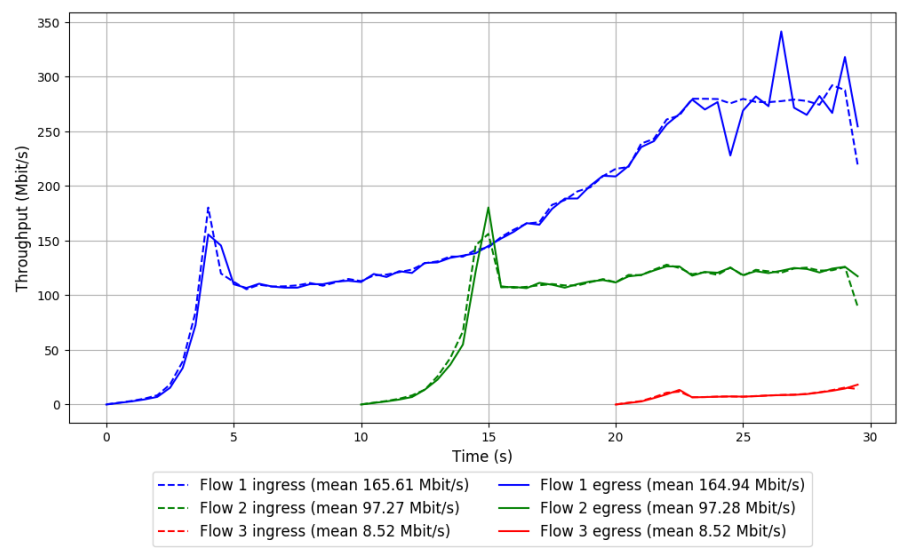
-- Flow 3:

Average throughput: 8.52 Mbit/s

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

Loss rate: 0.00%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-17 10:29:22

End at: 2018-01-17 10:29:52

Below is generated by plot.py at 2018-01-17 15:17:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 205.45 Mbit/s

95th percentile per-packet one-way delay: 113.222 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 113.09 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 102.85 Mbit/s

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

Loss rate: 0.00%

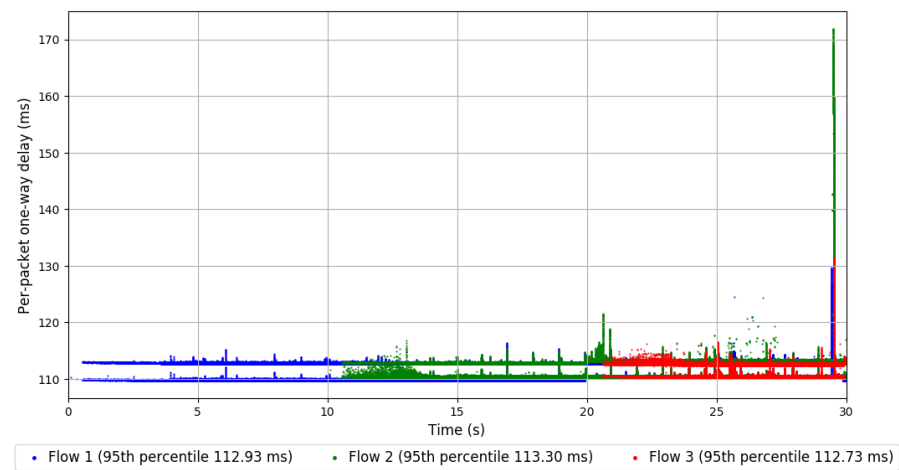
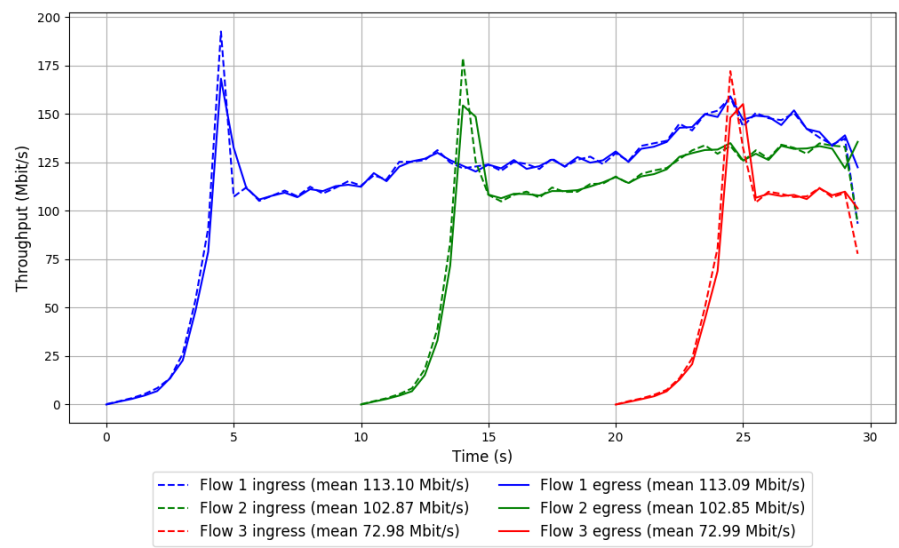
-- Flow 3:

Average throughput: 72.99 Mbit/s

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

Loss rate: 0.01%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-17 10:48:08

End at: 2018-01-17 10:48:38

Below is generated by plot.py at 2018-01-17 15:19:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.82 Mbit/s

95th percentile per-packet one-way delay: 162.230 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 171.05 Mbit/s

95th percentile per-packet one-way delay: 193.586 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 108.01 Mbit/s

95th percentile per-packet one-way delay: 128.141 ms

Loss rate: 0.00%

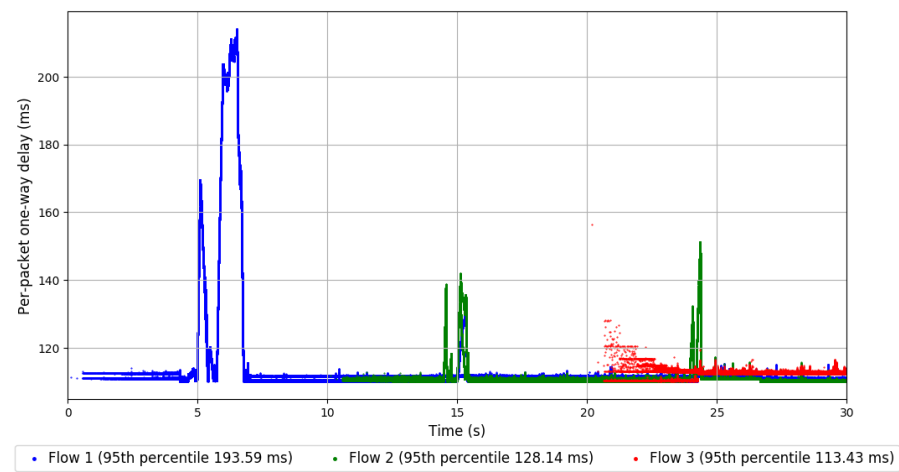
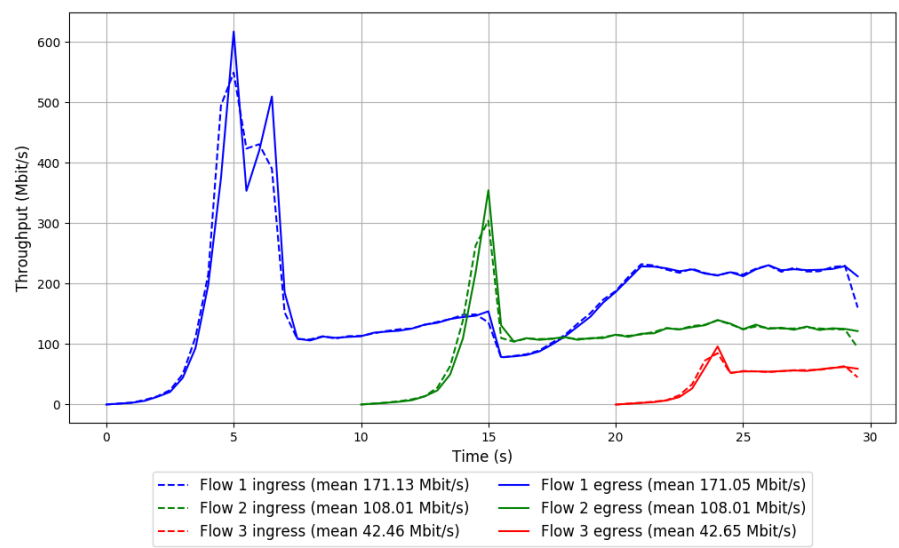
-- Flow 3:

Average throughput: 42.65 Mbit/s

95th percentile per-packet one-way delay: 113.431 ms

Loss rate: 0.00%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-17 11:07:10

End at: 2018-01-17 11:07:40

Below is generated by plot.py at 2018-01-17 15:19:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 217.19 Mbit/s

95th percentile per-packet one-way delay: 146.897 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 114.28 Mbit/s

95th percentile per-packet one-way delay: 182.282 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 109.75 Mbit/s

95th percentile per-packet one-way delay: 116.668 ms

Loss rate: 0.00%

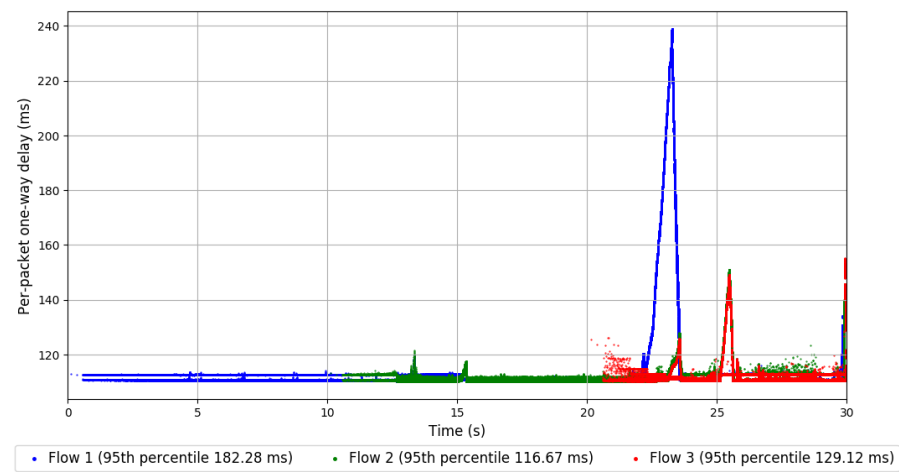
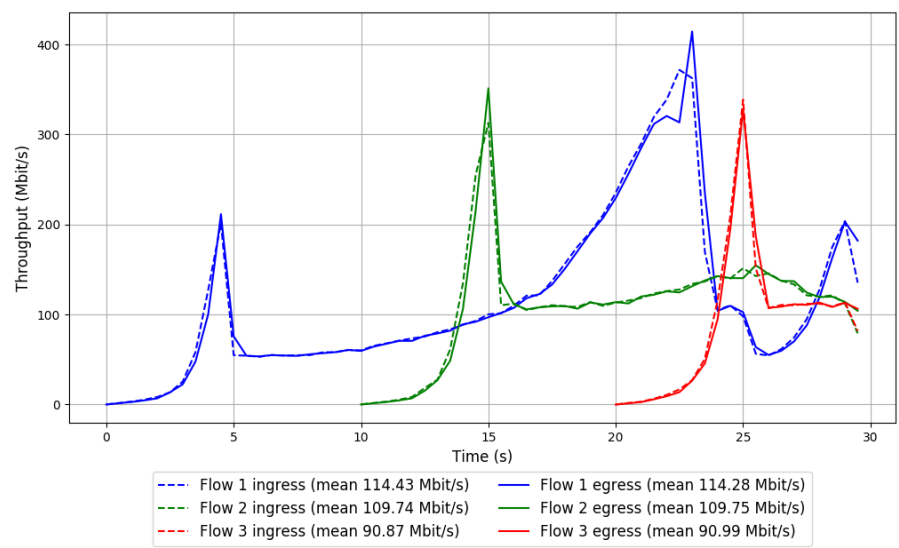
-- Flow 3:

Average throughput: 90.99 Mbit/s

95th percentile per-packet one-way delay: 129.121 ms

Loss rate: 0.00%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-17 11:25:45

End at: 2018-01-17 11:26:15

Below is generated by plot.py at 2018-01-17 15:22:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.93 Mbit/s

95th percentile per-packet one-way delay: 233.807 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 228.74 Mbit/s

95th percentile per-packet one-way delay: 237.210 ms

Loss rate: 1.91%

-- Flow 2:

Average throughput: 106.50 Mbit/s

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

Loss rate: 0.00%

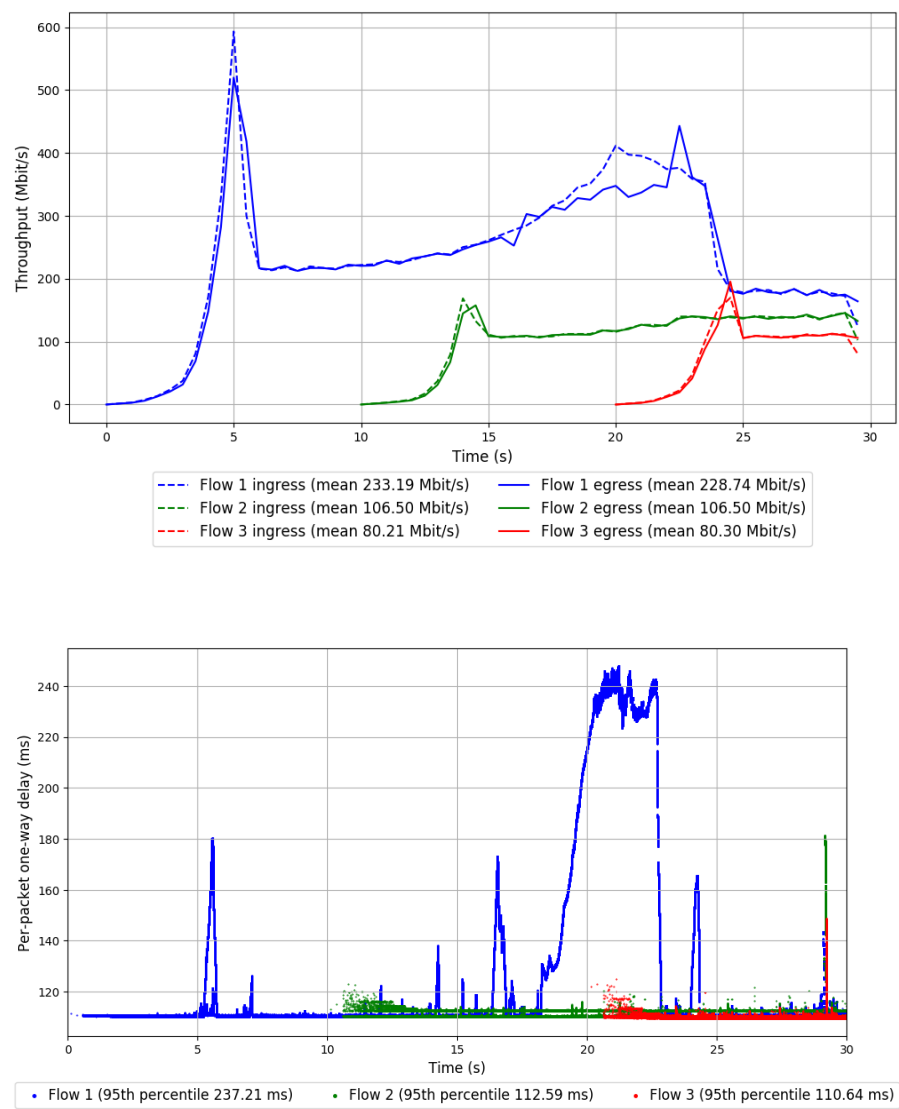
-- Flow 3:

Average throughput: 80.30 Mbit/s

95th percentile per-packet one-way delay: 110.641 ms

Loss rate: 0.00%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-17 11:44:58

End at: 2018-01-17 11:45:28

Below is generated by plot.py at 2018-01-17 15:22:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.57 Mbit/s

95th percentile per-packet one-way delay: 152.647 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 117.35 Mbit/s

95th percentile per-packet one-way delay: 149.491 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 82.87 Mbit/s

95th percentile per-packet one-way delay: 113.834 ms

Loss rate: 0.00%

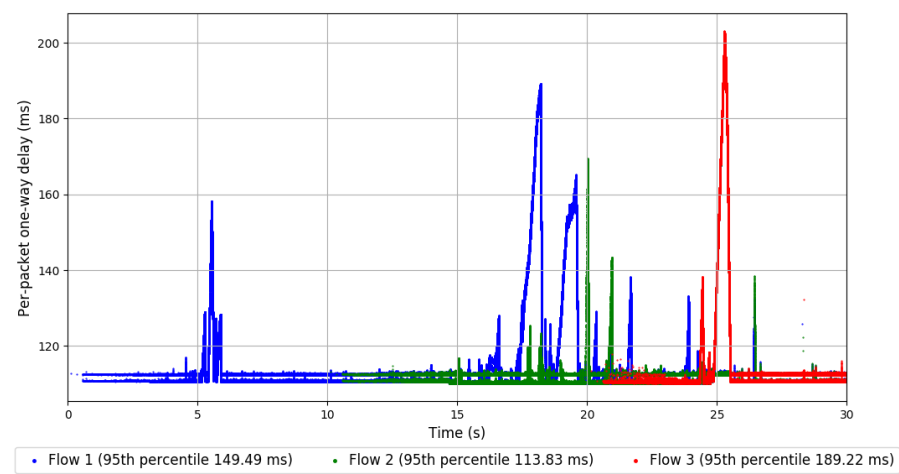
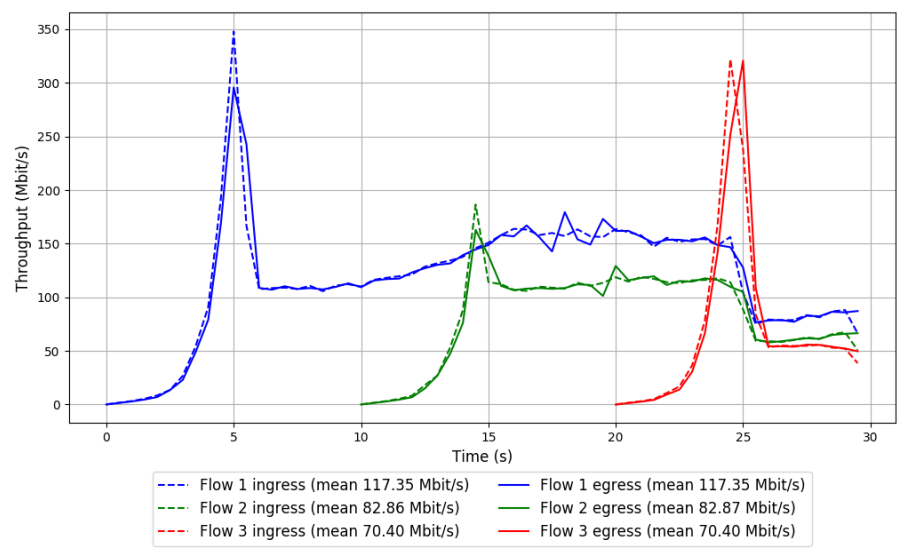
-- Flow 3:

Average throughput: 70.40 Mbit/s

95th percentile per-packet one-way delay: 189.225 ms

Loss rate: 0.01%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-17 12:02:50

End at: 2018-01-17 12:03:20

Below is generated by plot.py at 2018-01-17 15:22:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.45 Mbit/s

95th percentile per-packet one-way delay: 211.221 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 77.82 Mbit/s

95th percentile per-packet one-way delay: 113.124 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 126.89 Mbit/s

95th percentile per-packet one-way delay: 243.048 ms

Loss rate: 3.49%

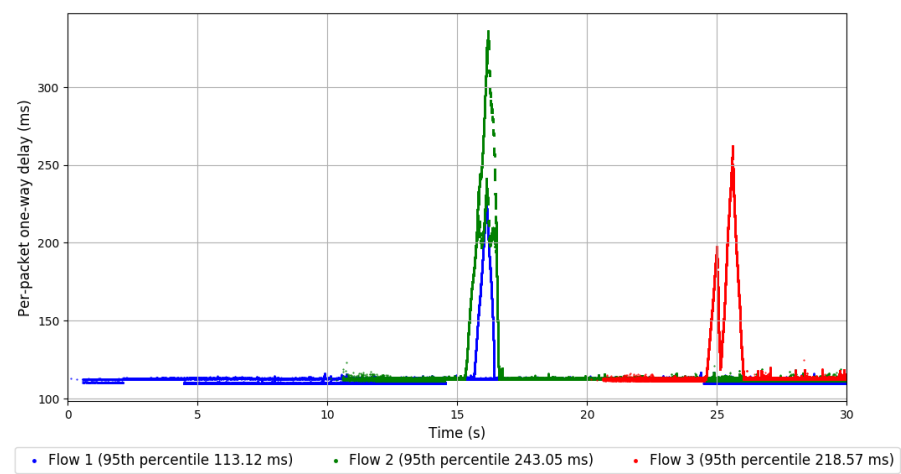
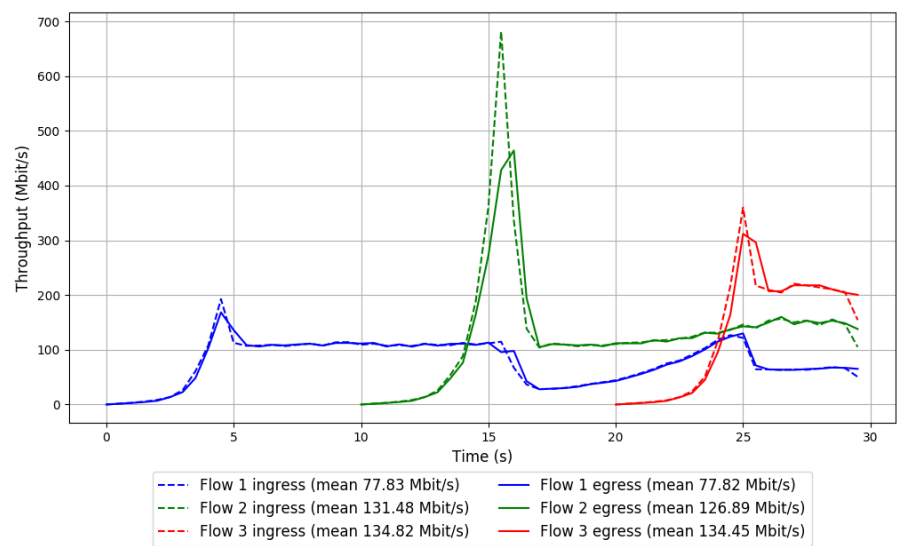
-- Flow 3:

Average throughput: 134.45 Mbit/s

95th percentile per-packet one-way delay: 218.566 ms

Loss rate: 0.27%

Run 10: Report of Vivace-loss — Data Link

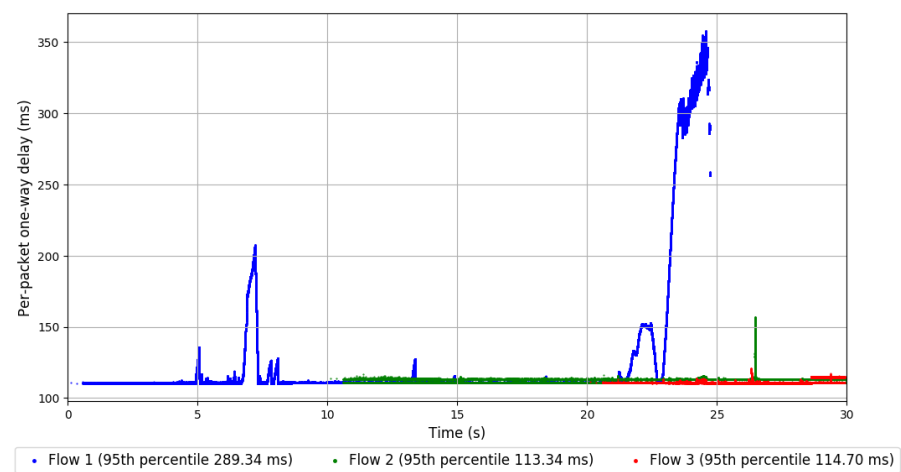
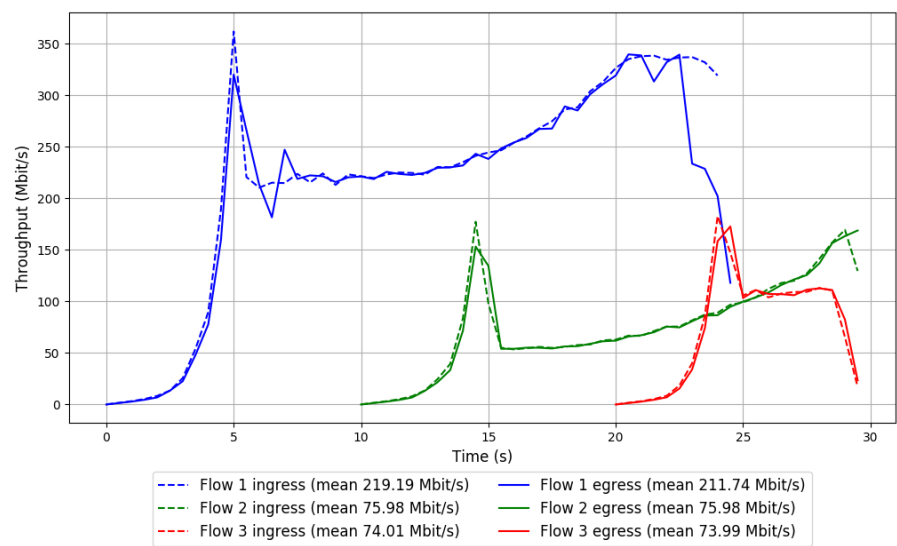


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-17 09:13:56
End at: 2018-01-17 09:14:26

# Below is generated by plot.py at 2018-01-17 15:23:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 249.31 Mbit/s
95th percentile per-packet one-way delay: 193.033 ms
Loss rate: 1.99%
-- Flow 1:
Average throughput: 211.74 Mbit/s
95th percentile per-packet one-way delay: 289.341 ms
Loss rate: 2.82%
-- Flow 2:
Average throughput: 75.98 Mbit/s
95th percentile per-packet one-way delay: 113.343 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 73.99 Mbit/s
95th percentile per-packet one-way delay: 114.704 ms
Loss rate: 0.00%
```


Run 1: Report of Vivace-LTE — Data Link

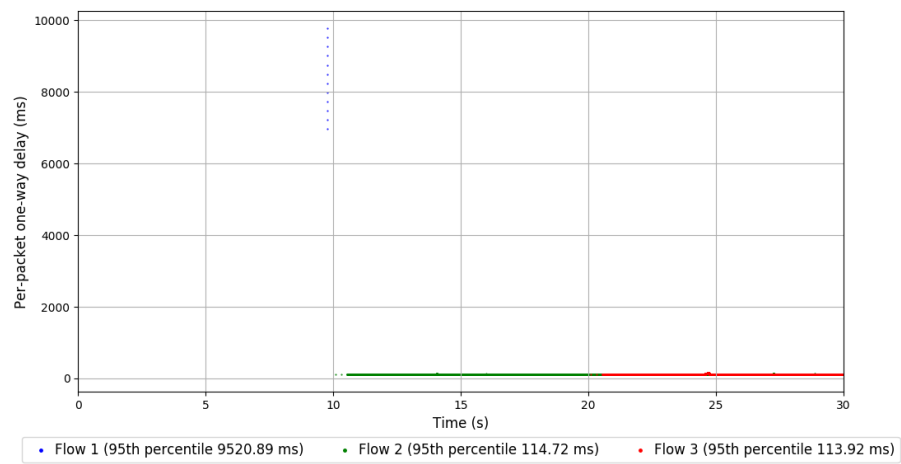
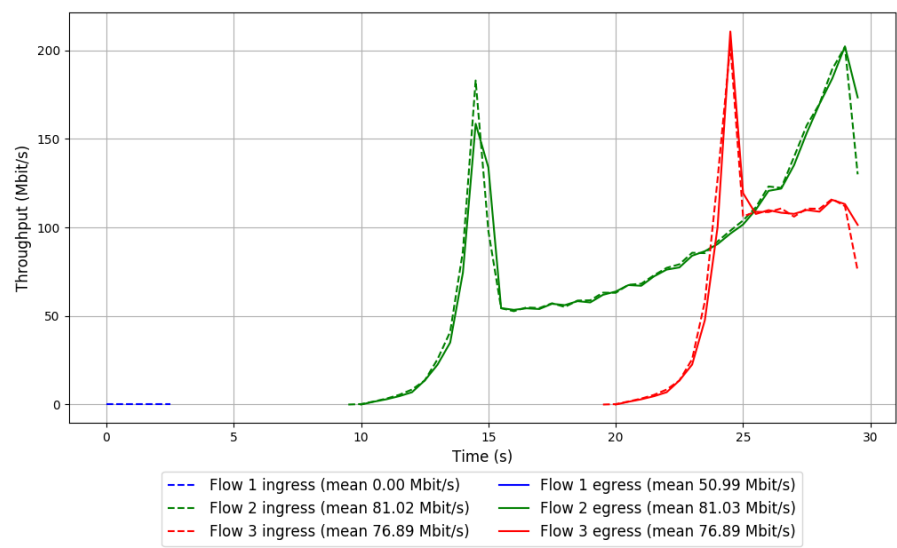


Run 2: Statistics of Vivace-LTE

Start at: 2018-01-17 09:32:44

End at: 2018-01-17 09:33:14

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-17 09:51:44

End at: 2018-01-17 09:52:14

Below is generated by plot.py at 2018-01-17 15:23:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.25 Mbit/s

95th percentile per-packet one-way delay: 122.679 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 167.80 Mbit/s

95th percentile per-packet one-way delay: 122.241 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.80 Mbit/s

95th percentile per-packet one-way delay: 124.656 ms

Loss rate: 0.00%

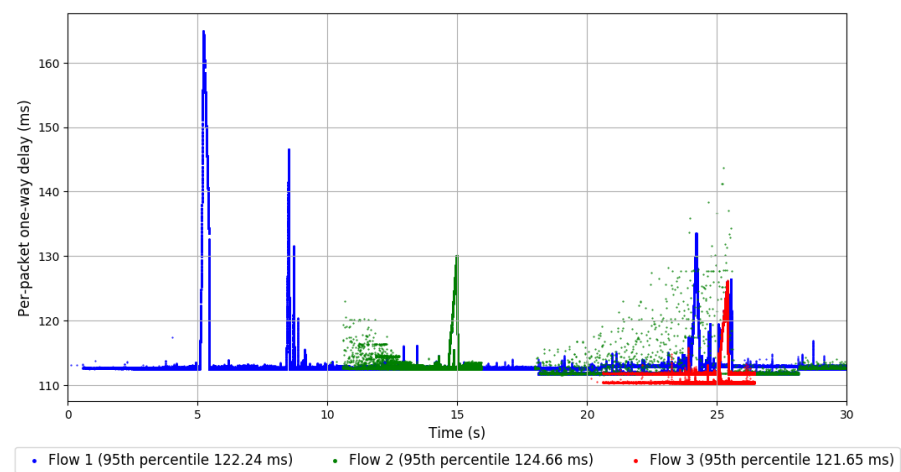
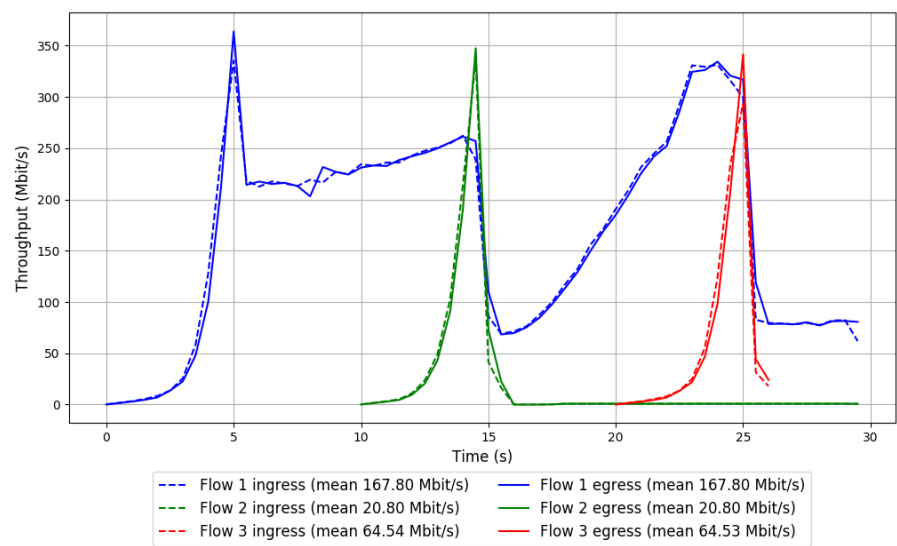
-- Flow 3:

Average throughput: 64.53 Mbit/s

95th percentile per-packet one-way delay: 121.649 ms

Loss rate: 0.00%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-17 10:10:09

End at: 2018-01-17 10:10:39

Below is generated by plot.py at 2018-01-17 15:23:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.39 Mbit/s

95th percentile per-packet one-way delay: 212.212 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 81.72 Mbit/s

95th percentile per-packet one-way delay: 243.421 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 22.17 Mbit/s

95th percentile per-packet one-way delay: 113.915 ms

Loss rate: 0.00%

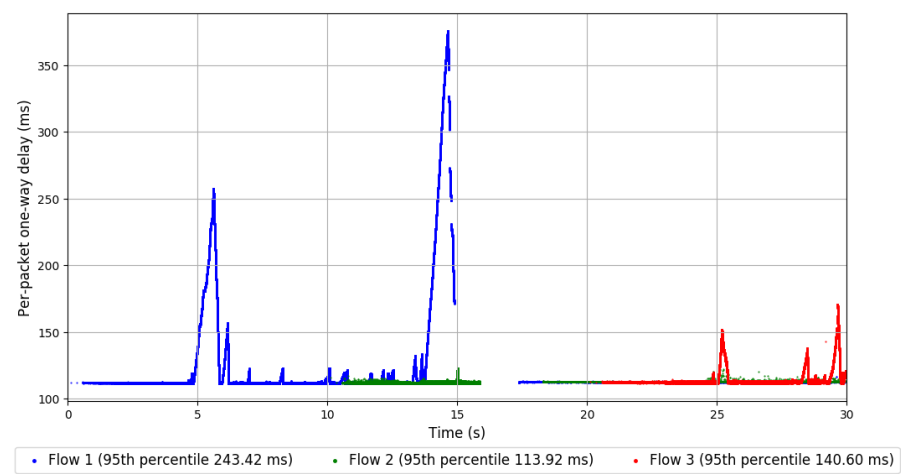
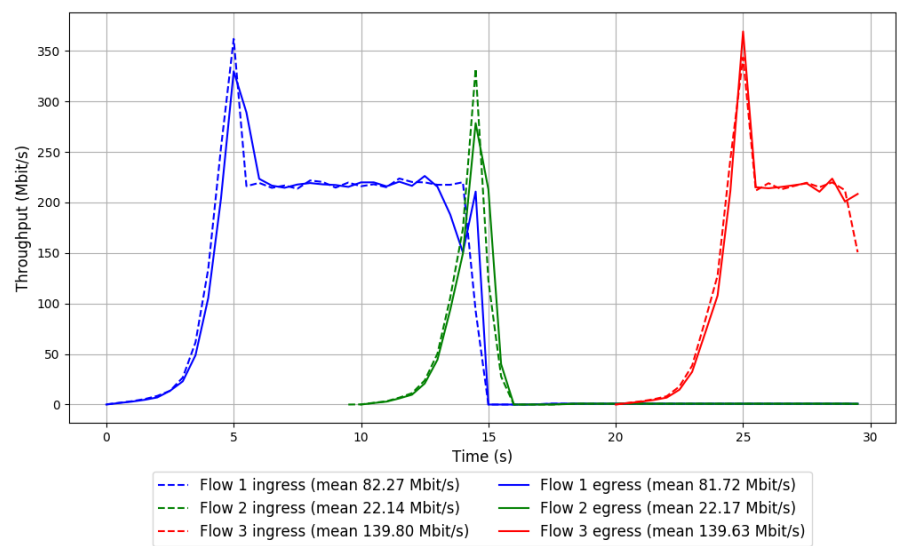
-- Flow 3:

Average throughput: 139.63 Mbit/s

95th percentile per-packet one-way delay: 140.602 ms

Loss rate: 0.12%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-17 10:28:29

End at: 2018-01-17 10:28:59

Below is generated by plot.py at 2018-01-17 15:23:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.23 Mbit/s

95th percentile per-packet one-way delay: 237.283 ms

Loss rate: 2.77%

-- Flow 1:

Average throughput: 23.20 Mbit/s

95th percentile per-packet one-way delay: 222.776 ms

Loss rate: 6.03%

-- Flow 2:

Average throughput: 33.48 Mbit/s

95th percentile per-packet one-way delay: 244.390 ms

Loss rate: 0.45%

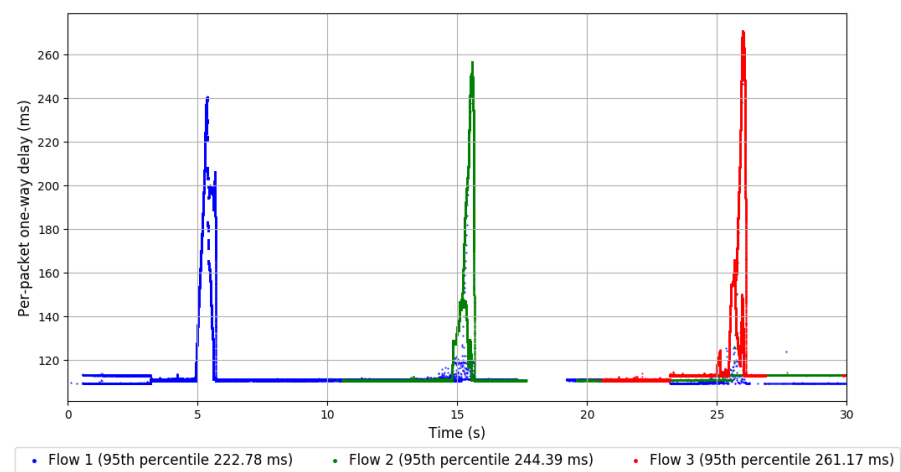
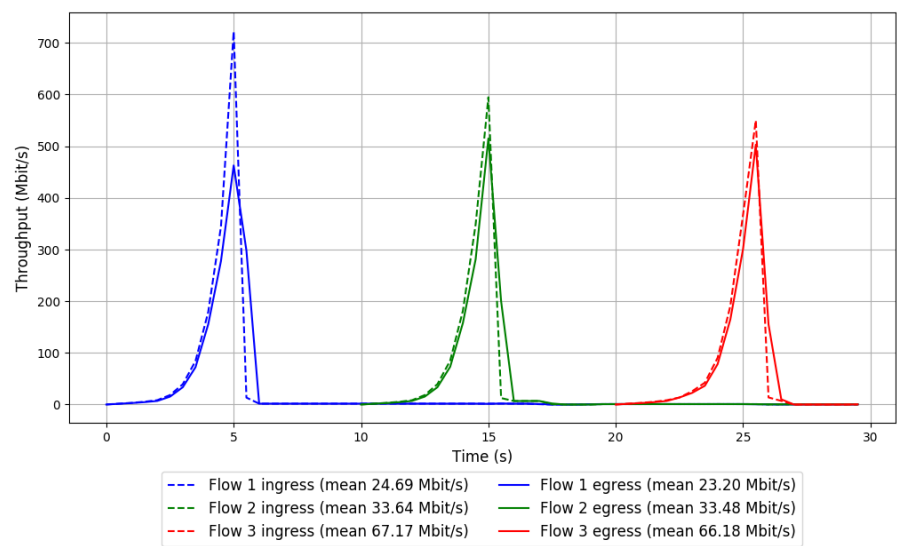
-- Flow 3:

Average throughput: 66.18 Mbit/s

95th percentile per-packet one-way delay: 261.172 ms

Loss rate: 1.47%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-17 10:47:10

End at: 2018-01-17 10:47:40

Below is generated by plot.py at 2018-01-17 15:23:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.22 Mbit/s

95th percentile per-packet one-way delay: 113.446 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 21.31 Mbit/s

95th percentile per-packet one-way delay: 192.560 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.92 Mbit/s

95th percentile per-packet one-way delay: 112.485 ms

Loss rate: 0.00%

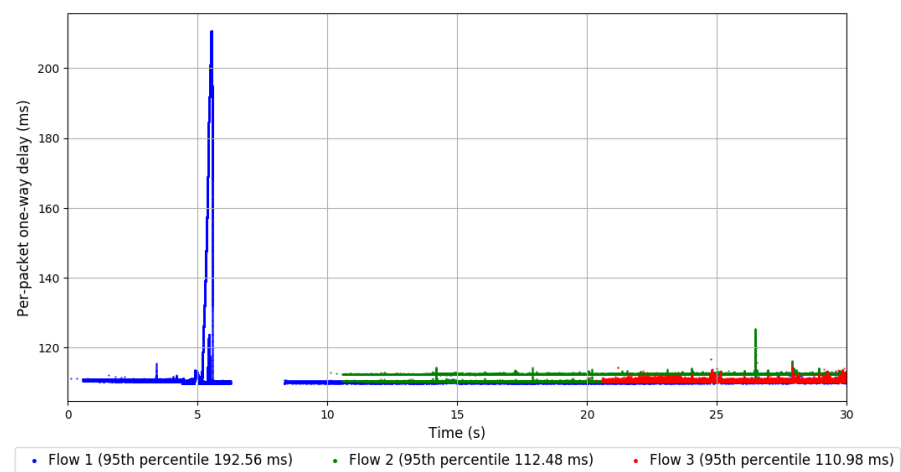
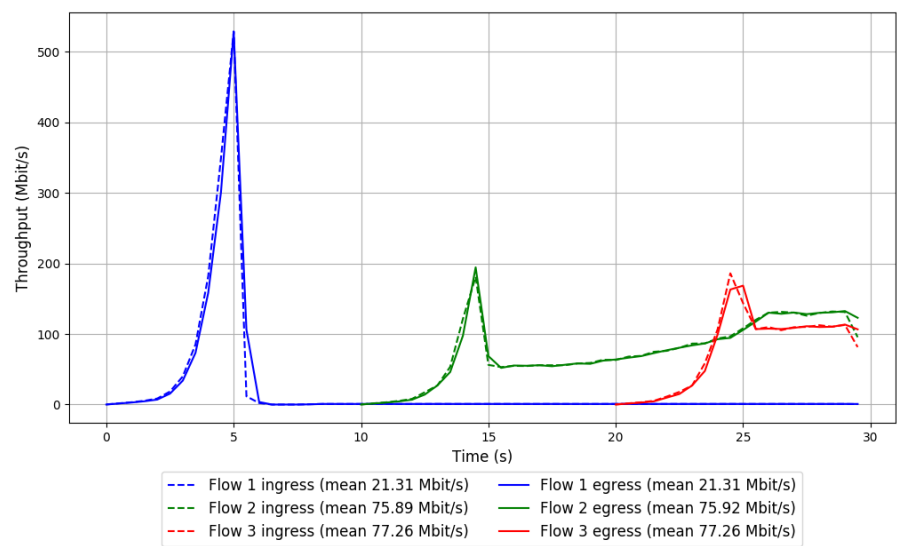
-- Flow 3:

Average throughput: 77.26 Mbit/s

95th percentile per-packet one-way delay: 110.983 ms

Loss rate: 0.00%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-17 11:06:02

End at: 2018-01-17 11:06:32

Below is generated by plot.py at 2018-01-17 15:23:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 200.76 Mbit/s

95th percentile per-packet one-way delay: 163.413 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.47 Mbit/s

95th percentile per-packet one-way delay: 168.918 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.93 Mbit/s

95th percentile per-packet one-way delay: 151.939 ms

Loss rate: 0.00%

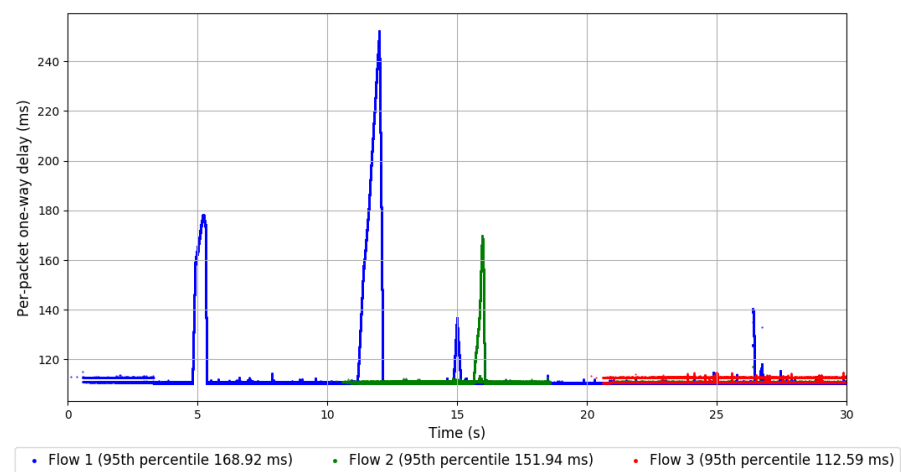
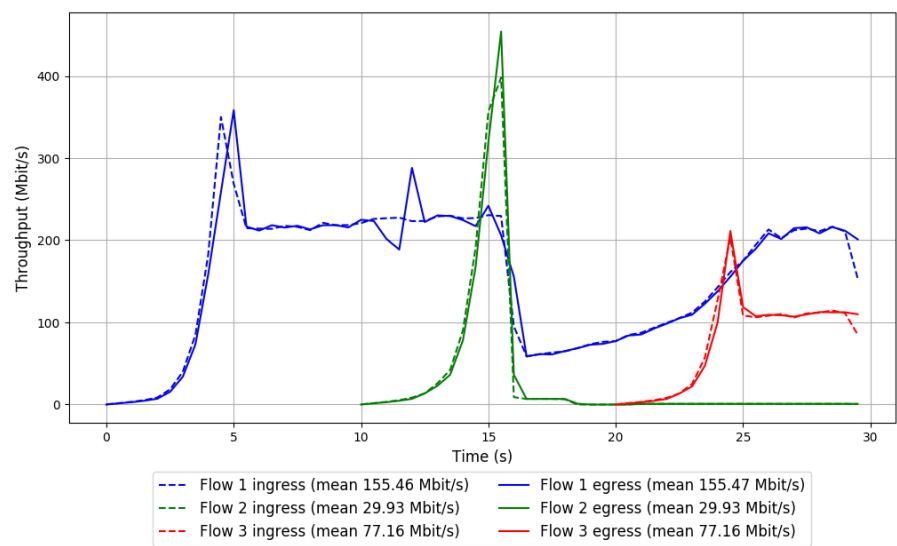
-- Flow 3:

Average throughput: 77.16 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-17 11:24:54

End at: 2018-01-17 11:25:24

Below is generated by plot.py at 2018-01-17 15:23:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 42.43 Mbit/s

95th percentile per-packet one-way delay: 295.755 ms

Loss rate: 4.63%

-- Flow 1:

Average throughput: 14.14 Mbit/s

95th percentile per-packet one-way delay: 335.657 ms

Loss rate: 12.71%

-- Flow 2:

Average throughput: 21.81 Mbit/s

95th percentile per-packet one-way delay: 138.352 ms

Loss rate: 0.00%

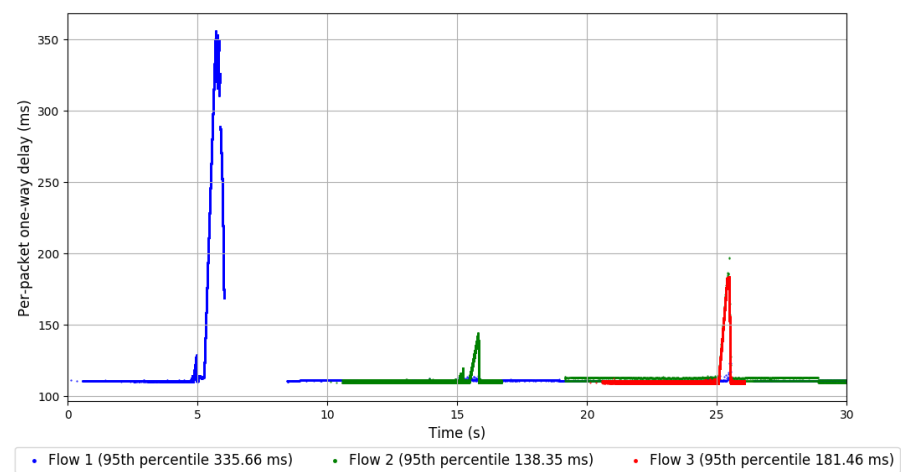
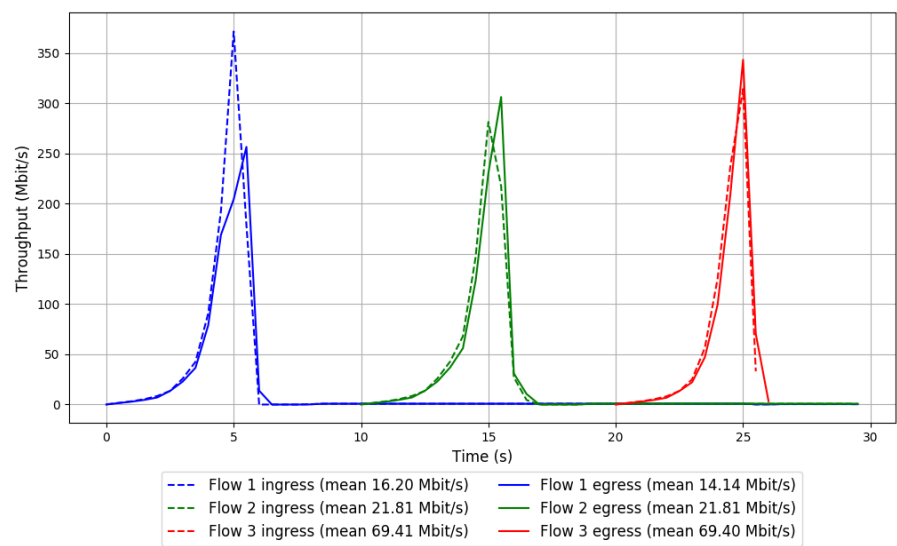
-- Flow 3:

Average throughput: 69.40 Mbit/s

95th percentile per-packet one-way delay: 181.461 ms

Loss rate: 0.00%

Run 8: Report of Vivace-LTE — Data Link

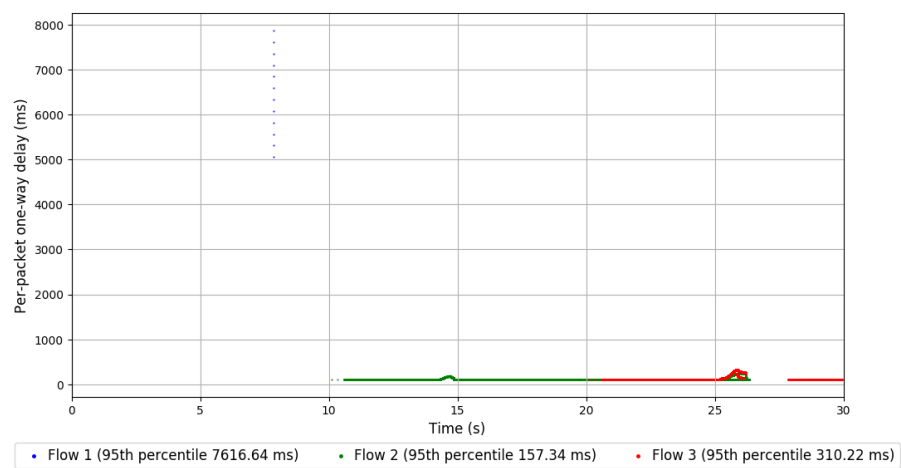
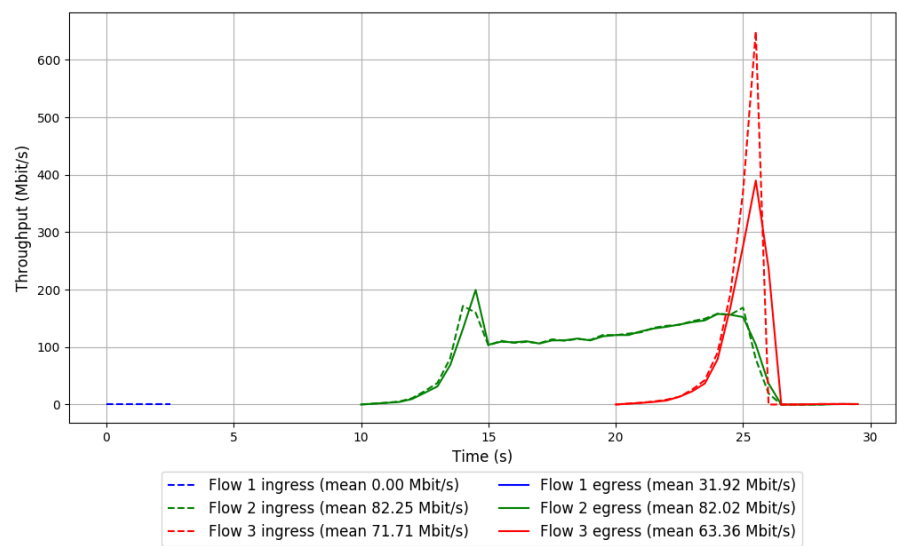


Run 9: Statistics of Vivace-LTE

Start at: 2018-01-17 11:44:03

End at: 2018-01-17 11:44:33

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-01-17 12:01:59

End at: 2018-01-17 12:02:29

Below is generated by plot.py at 2018-01-17 15:23:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.84 Mbit/s

95th percentile per-packet one-way delay: 153.556 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 14.98 Mbit/s

95th percentile per-packet one-way delay: 138.224 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.73 Mbit/s

95th percentile per-packet one-way delay: 162.987 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 41.71 Mbit/s

95th percentile per-packet one-way delay: 112.574 ms

Loss rate: 0.00%

Run 10: Report of Vivace-LTE — Data Link

