

Pantheon Report

Generated at 2018-02-21 14:26:20 (UTC).

Data path: GCE Sydney 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.

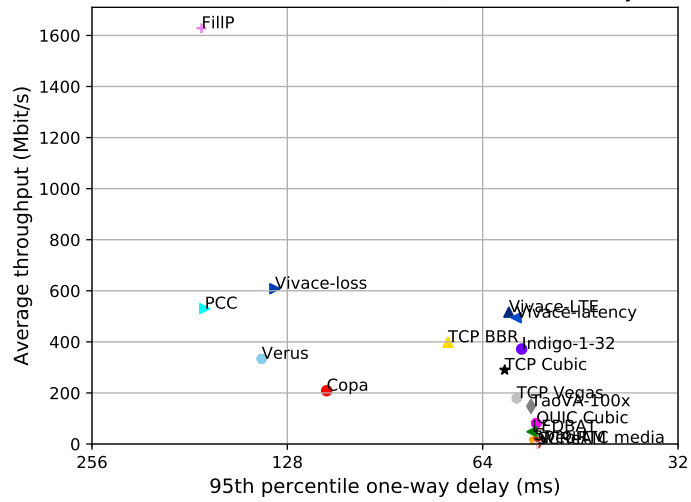
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

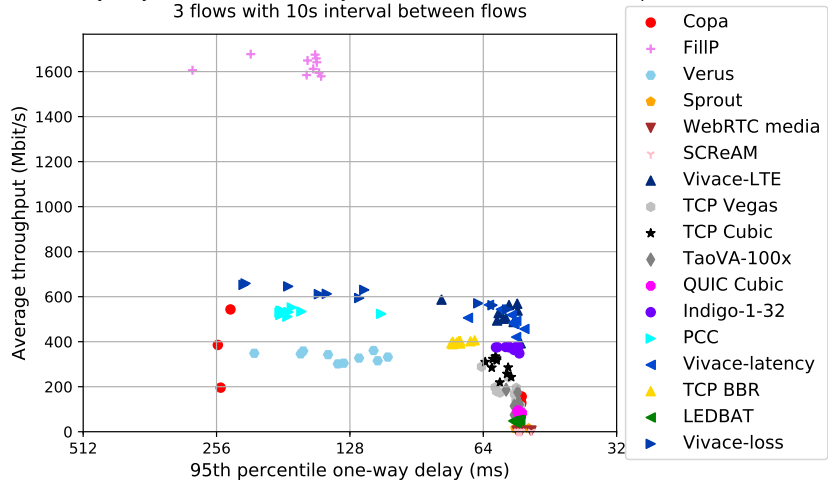
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

test from GCE Sydney 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 Sydney 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	206.46	197.09	183.20	70.77	72.40	74.58	0.04	0.06	0.13
TCP Cubic	10	158.30	157.41	80.93	58.84	59.41	57.37	0.01	0.02	0.07
LEDBAT	10	30.81	21.08	10.53	53.80	53.29	52.86	0.01	0.00	0.00
PCC	10	477.55	59.66	38.99	171.50	169.55	160.33	1.01	0.98	1.23
QUIC Cubic	10	46.91	34.50	35.07	51.93	52.61	51.72	0.00	0.01	0.01
SCReAM	10	0.22	0.21	0.22	51.71	51.28	52.05	0.00	0.00	0.00
WebRTC media	10	2.30	1.47	0.64	52.09	51.15	51.49	0.01	0.00	0.01
Sprout	10	7.78	7.66	7.36	53.32	52.91	52.75	0.00	0.00	0.02
TaoVA-100x	10	64.41	96.37	153.17	53.31	54.01	53.67	0.00	0.01	0.06
TCP Vegas	10	63.70	127.81	91.74	54.92	57.10	55.40	0.00	0.01	0.04
Verus	10	211.08	124.07	123.67	130.56	146.07	134.09	0.31	0.40	0.75
Copa	10	133.48	89.37	49.66	111.51	84.69	94.95	9.80	5.52	5.56
FillP	10	855.58	829.43	664.02	154.14	162.97	183.98	7.04	7.26	14.67
Indigo-1-32	10	201.80	185.36	146.36	54.76	56.02	56.74	0.01	0.00	0.01
Vivace-latency	10	306.40	236.39	94.62	57.22	74.00	52.00	0.02	0.07	0.00
Vivace-loss	10	339.21	289.14	233.50	118.19	112.97	140.60	0.34	0.87	0.96
Vivace-LTE	10	297.70	251.08	157.97	59.96	57.28	52.63	0.03	0.01	0.01

Run 1: Statistics of TCP BBR

Start at: 2018-02-21 06:39:23

End at: 2018-02-21 06:39:53

Below is generated by plot.py at 2018-02-21 12:12:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.11 Mbit/s

95th percentile per-packet one-way delay: 74.916 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 200.75 Mbit/s

95th percentile per-packet one-way delay: 73.514 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 192.83 Mbit/s

95th percentile per-packet one-way delay: 74.893 ms

Loss rate: 0.09%

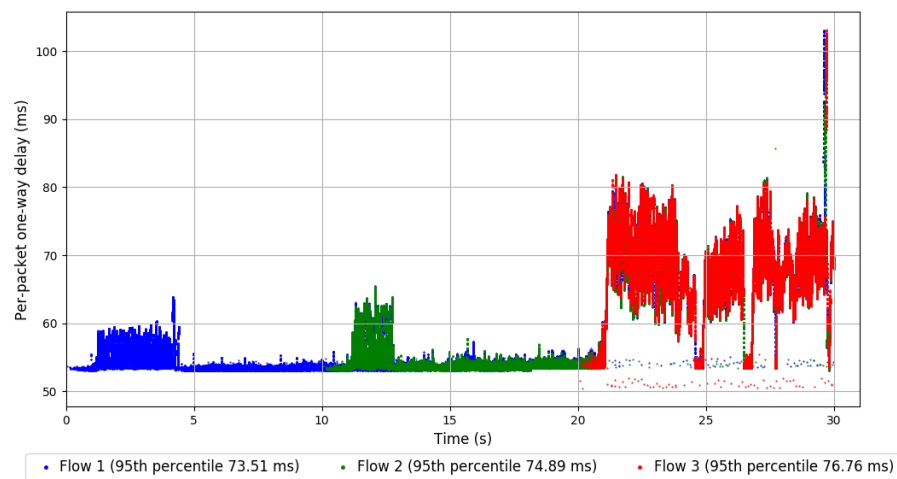
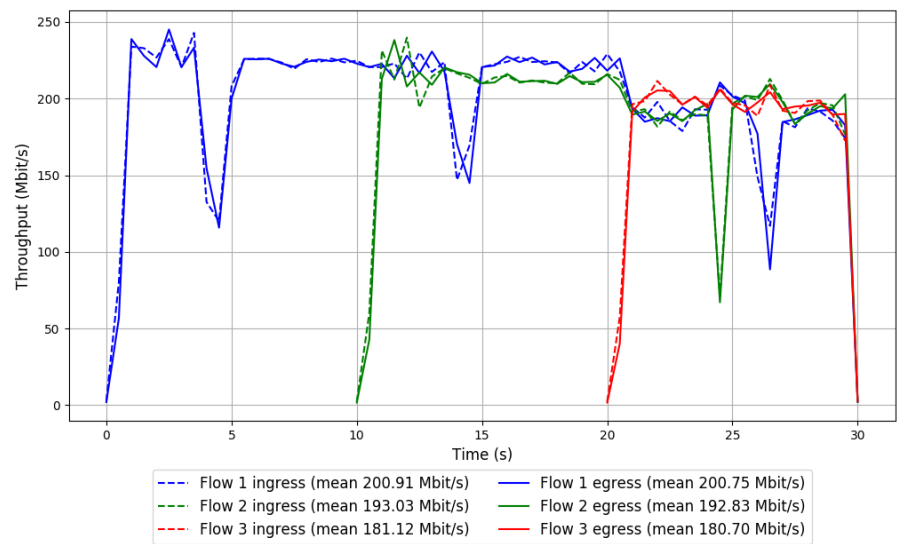
-- Flow 3:

Average throughput: 180.70 Mbit/s

95th percentile per-packet one-way delay: 76.758 ms

Loss rate: 0.19%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-21 06:57:22

End at: 2018-02-21 06:57:52

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 406.14 Mbit/s

95th percentile per-packet one-way delay: 66.930 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 212.66 Mbit/s

95th percentile per-packet one-way delay: 65.141 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 197.03 Mbit/s

95th percentile per-packet one-way delay: 66.731 ms

Loss rate: 0.02%

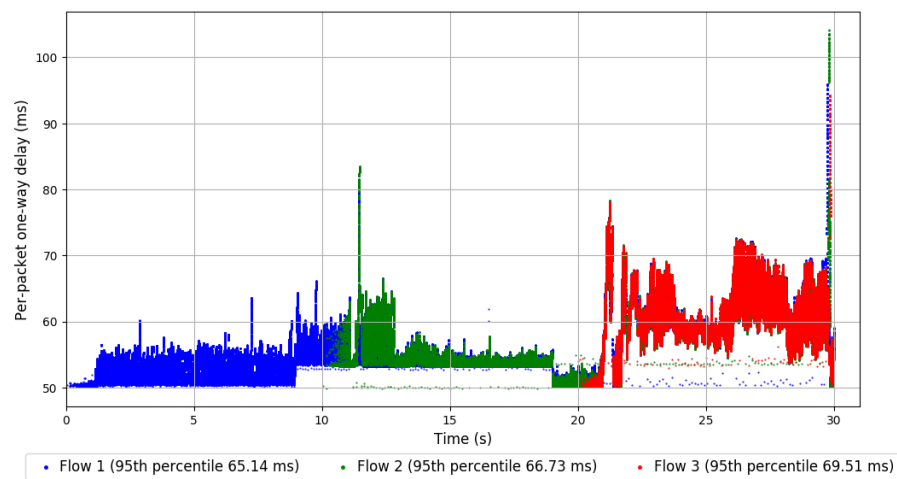
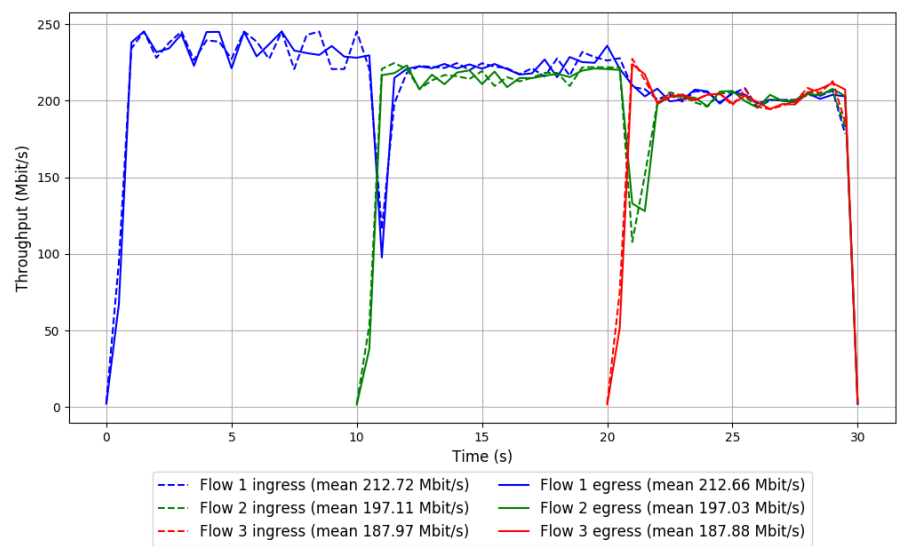
-- Flow 3:

Average throughput: 187.88 Mbit/s

95th percentile per-packet one-way delay: 69.511 ms

Loss rate: 0.06%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-21 07:15:08

End at: 2018-02-21 07:15:38

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.85 Mbit/s

95th percentile per-packet one-way delay: 68.420 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 210.53 Mbit/s

95th percentile per-packet one-way delay: 66.158 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 194.22 Mbit/s

95th percentile per-packet one-way delay: 68.429 ms

Loss rate: 0.06%

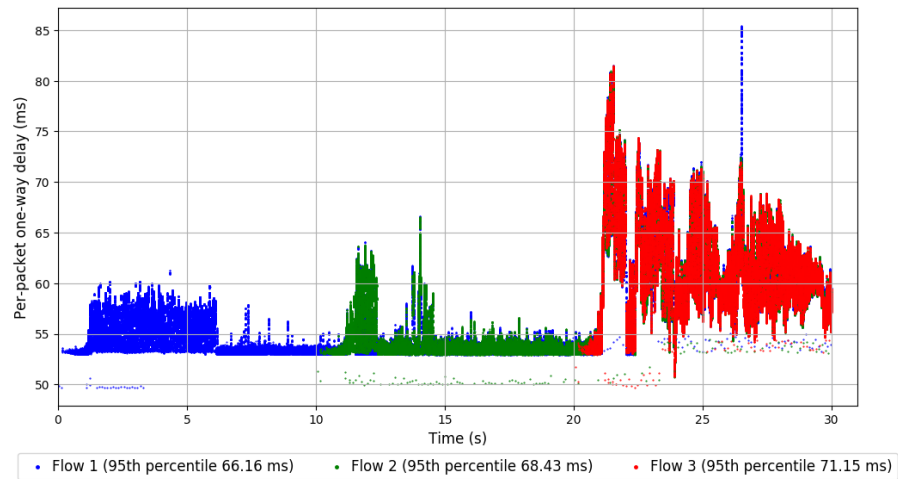
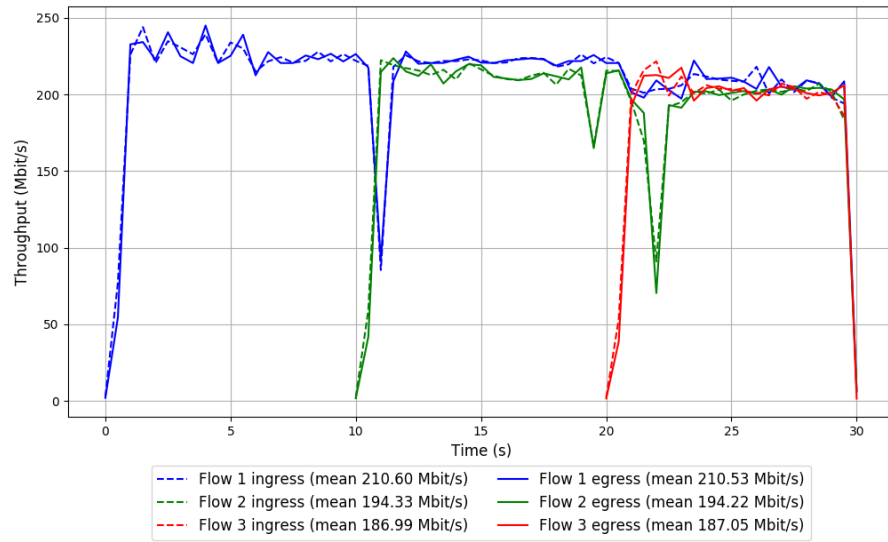
-- Flow 3:

Average throughput: 187.05 Mbit/s

95th percentile per-packet one-way delay: 71.149 ms

Loss rate: 0.06%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-02-21 07:33:04

End at: 2018-02-21 07:33:34

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.40 Mbit/s

95th percentile per-packet one-way delay: 75.511 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 204.07 Mbit/s

95th percentile per-packet one-way delay: 73.378 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 197.27 Mbit/s

95th percentile per-packet one-way delay: 75.911 ms

Loss rate: 0.04%

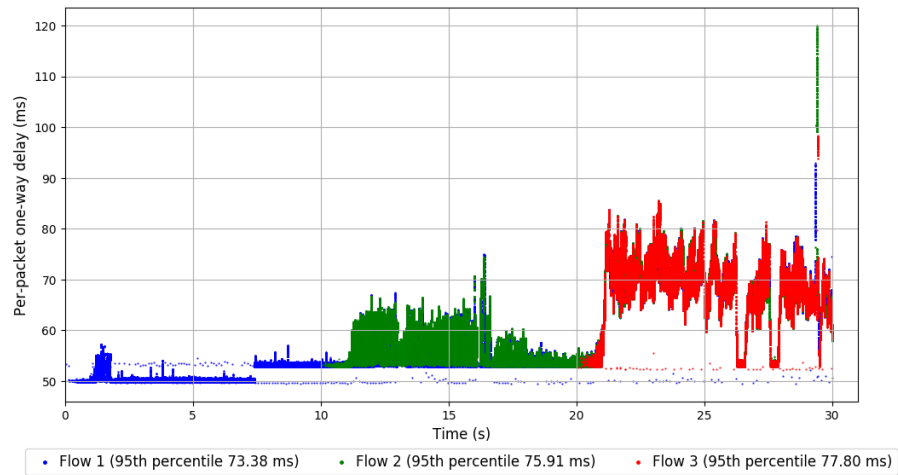
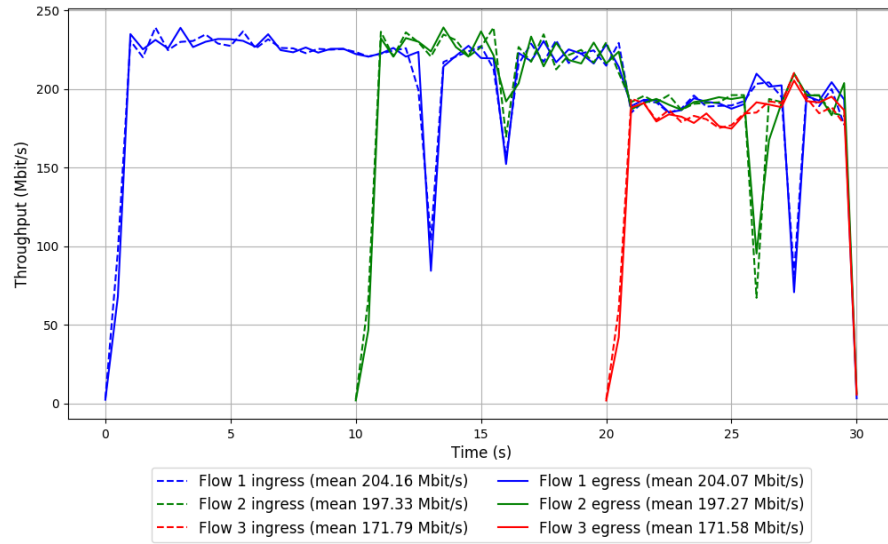
-- Flow 3:

Average throughput: 171.58 Mbit/s

95th percentile per-packet one-way delay: 77.804 ms

Loss rate: 0.12%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-02-21 07:50:56

End at: 2018-02-21 07:51:26

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 399.73 Mbit/s

95th percentile per-packet one-way delay: 75.002 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 204.75 Mbit/s

95th percentile per-packet one-way delay: 73.254 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 201.16 Mbit/s

95th percentile per-packet one-way delay: 74.872 ms

Loss rate: 0.07%

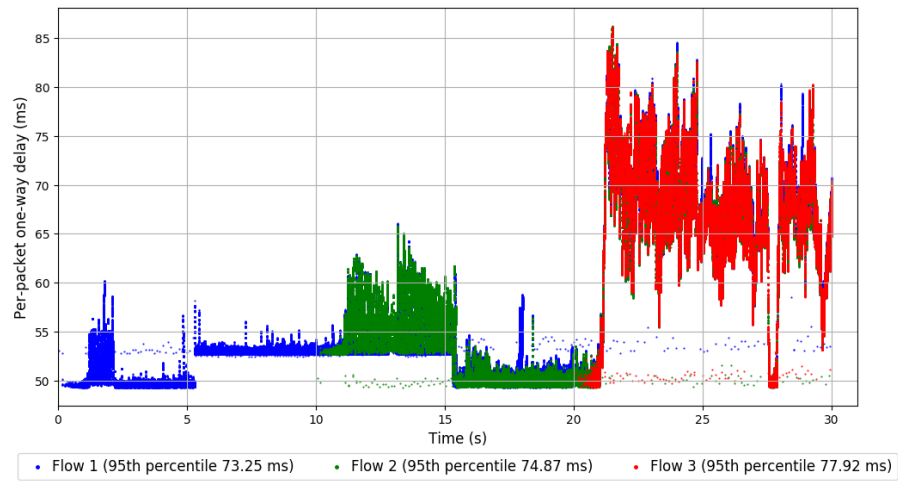
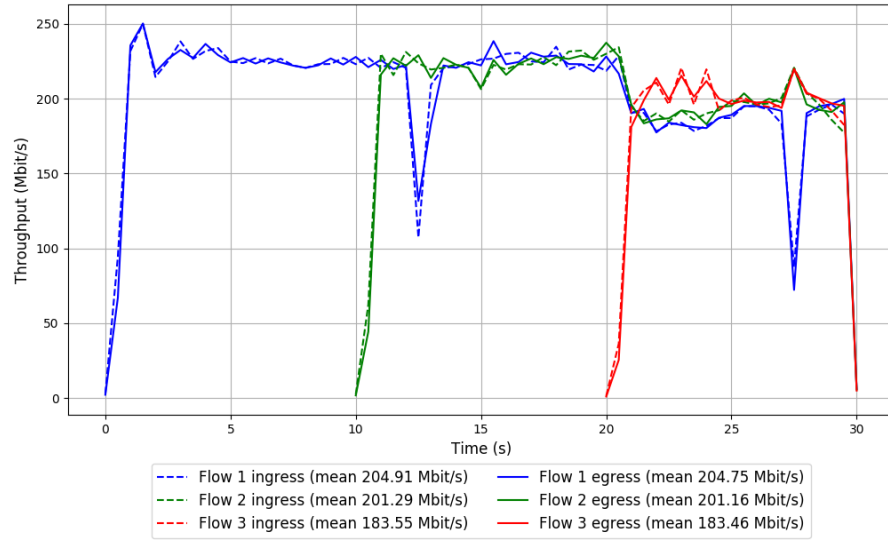
-- Flow 3:

Average throughput: 183.46 Mbit/s

95th percentile per-packet one-way delay: 77.922 ms

Loss rate: 0.04%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-02-21 08:08:22

End at: 2018-02-21 08:08:52

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.82 Mbit/s

95th percentile per-packet one-way delay: 73.439 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 206.65 Mbit/s

95th percentile per-packet one-way delay: 72.127 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 195.10 Mbit/s

95th percentile per-packet one-way delay: 73.072 ms

Loss rate: 0.10%

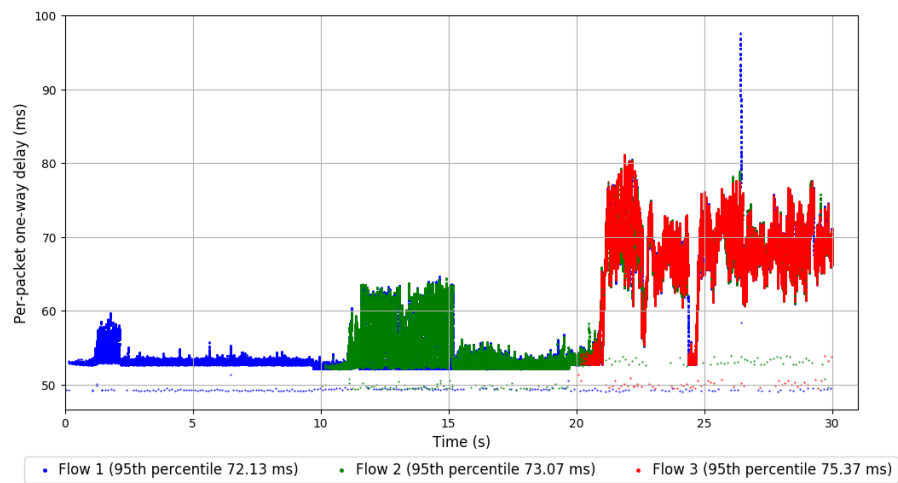
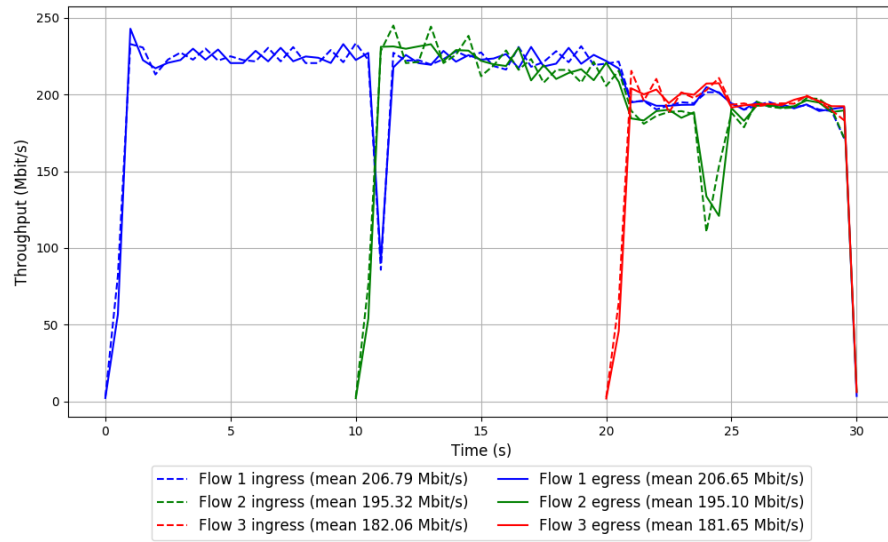
-- Flow 3:

Average throughput: 181.65 Mbit/s

95th percentile per-packet one-way delay: 75.368 ms

Loss rate: 0.21%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-02-21 08:25:58

End at: 2018-02-21 08:26:28

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.99 Mbit/s

95th percentile per-packet one-way delay: 72.622 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 207.44 Mbit/s

95th percentile per-packet one-way delay: 71.497 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 200.86 Mbit/s

95th percentile per-packet one-way delay: 72.222 ms

Loss rate: 0.09%

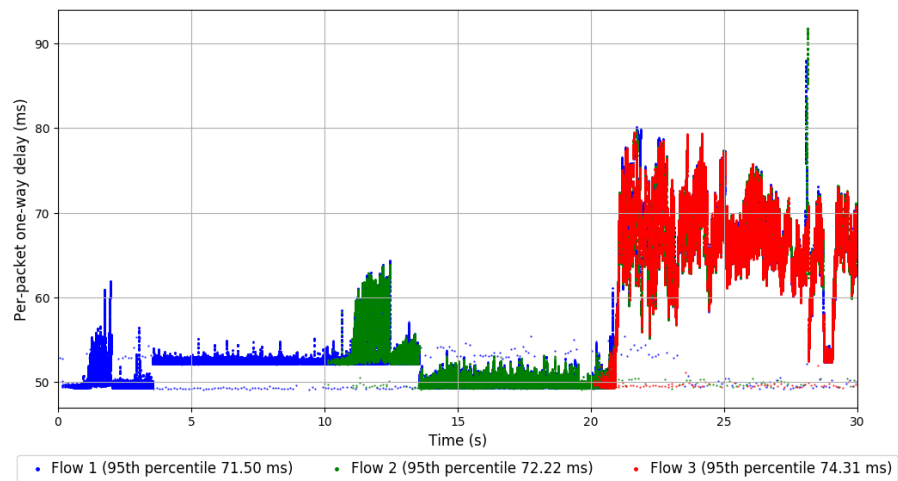
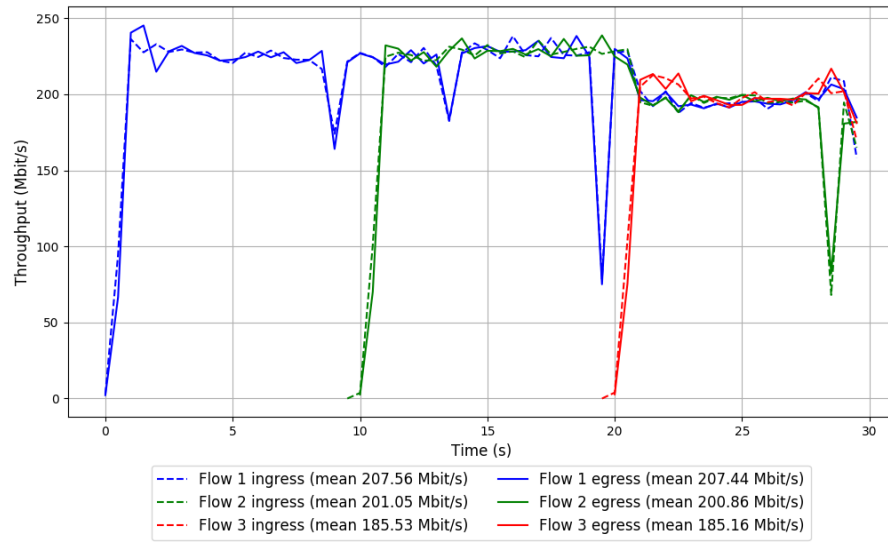
-- Flow 3:

Average throughput: 185.16 Mbit/s

95th percentile per-packet one-way delay: 74.312 ms

Loss rate: 0.20%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-02-21 08:43:29

End at: 2018-02-21 08:43:59

Below is generated by plot.py at 2018-02-21 12:12:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.02 Mbit/s

95th percentile per-packet one-way delay: 72.176 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 203.18 Mbit/s

95th percentile per-packet one-way delay: 70.494 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 193.78 Mbit/s

95th percentile per-packet one-way delay: 72.979 ms

Loss rate: 0.07%

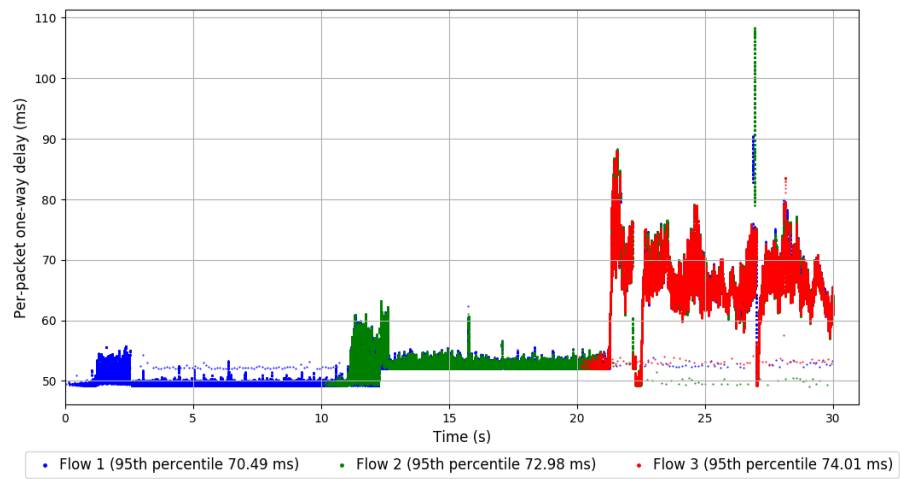
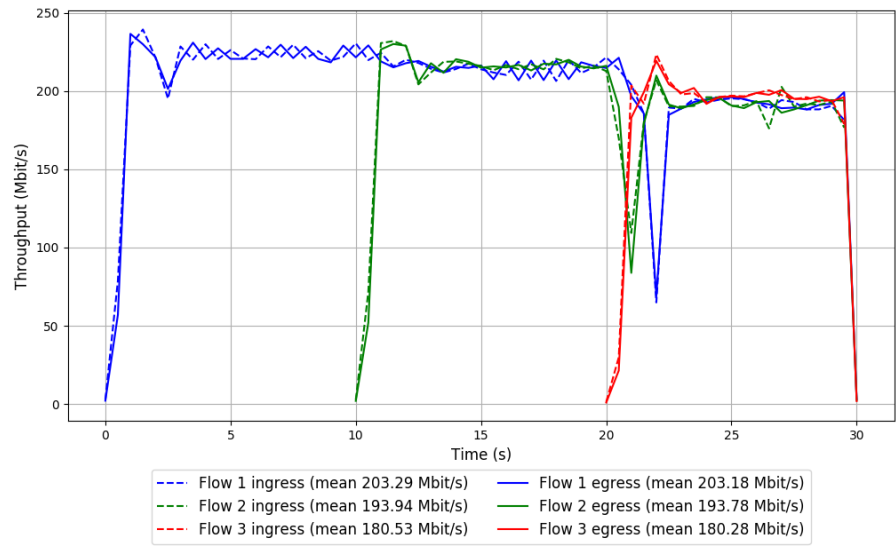
-- Flow 3:

Average throughput: 180.28 Mbit/s

95th percentile per-packet one-way delay: 74.012 ms

Loss rate: 0.16%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-02-21 09:01:20

End at: 2018-02-21 09:01:50

Below is generated by plot.py at 2018-02-21 12:19:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 401.10 Mbit/s

95th percentile per-packet one-way delay: 72.590 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 207.92 Mbit/s

95th percentile per-packet one-way delay: 70.755 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 196.31 Mbit/s

95th percentile per-packet one-way delay: 72.902 ms

Loss rate: 0.02%

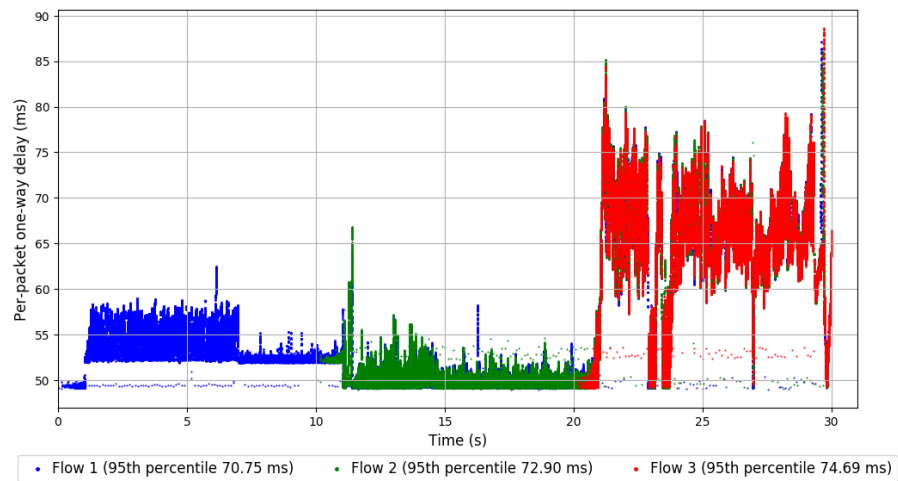
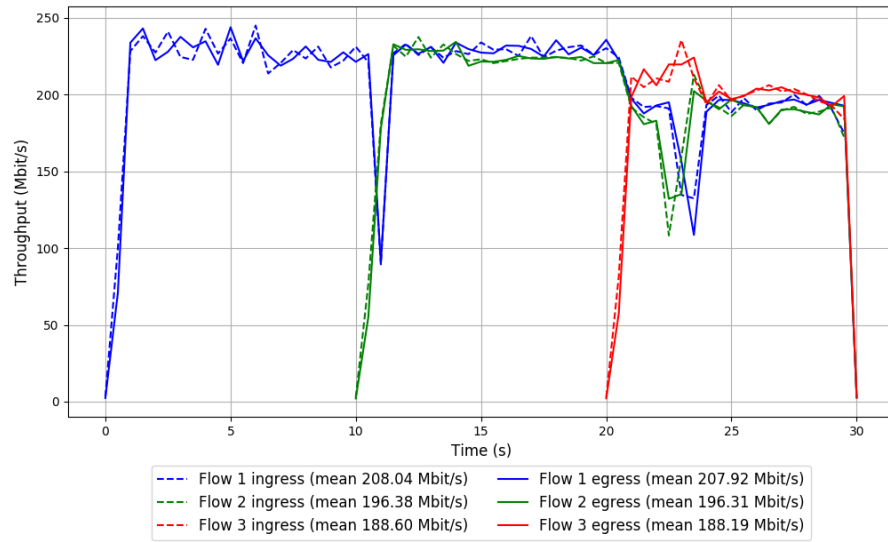
-- Flow 3:

Average throughput: 188.19 Mbit/s

95th percentile per-packet one-way delay: 74.695 ms

Loss rate: 0.19%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-02-21 09:18:37

End at: 2018-02-21 09:19:07

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 403.13 Mbit/s

95th percentile per-packet one-way delay: 72.226 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 206.65 Mbit/s

95th percentile per-packet one-way delay: 71.405 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 202.32 Mbit/s

95th percentile per-packet one-way delay: 71.951 ms

Loss rate: 0.03%

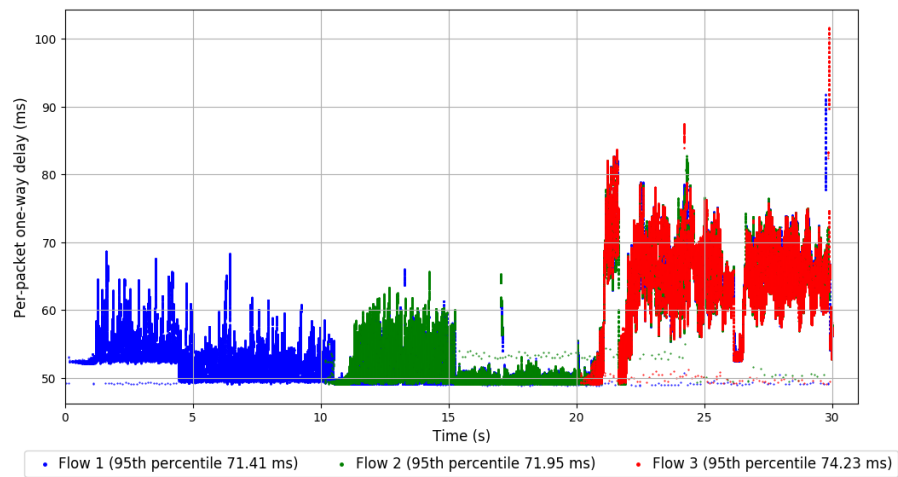
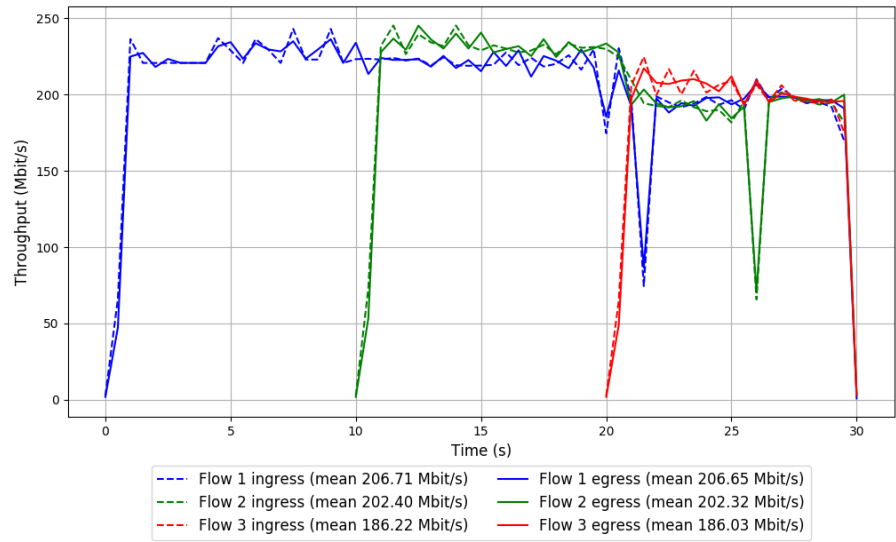
-- Flow 3:

Average throughput: 186.03 Mbit/s

95th percentile per-packet one-way delay: 74.235 ms

Loss rate: 0.06%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-02-21 06:35:50

End at: 2018-02-21 06:36:20

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 284.77 Mbit/s

95th percentile per-packet one-way delay: 61.237 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 112.86 Mbit/s

95th percentile per-packet one-way delay: 61.297 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 205.60 Mbit/s

95th percentile per-packet one-way delay: 61.537 ms

Loss rate: 0.00%

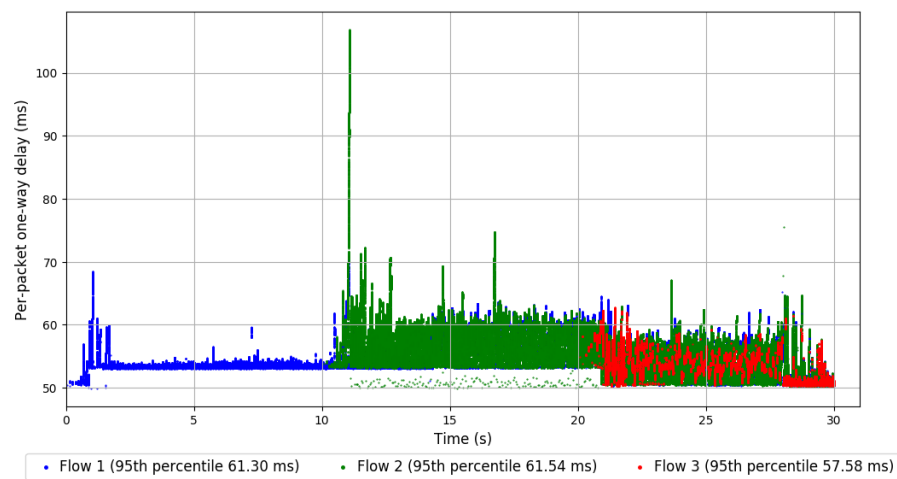
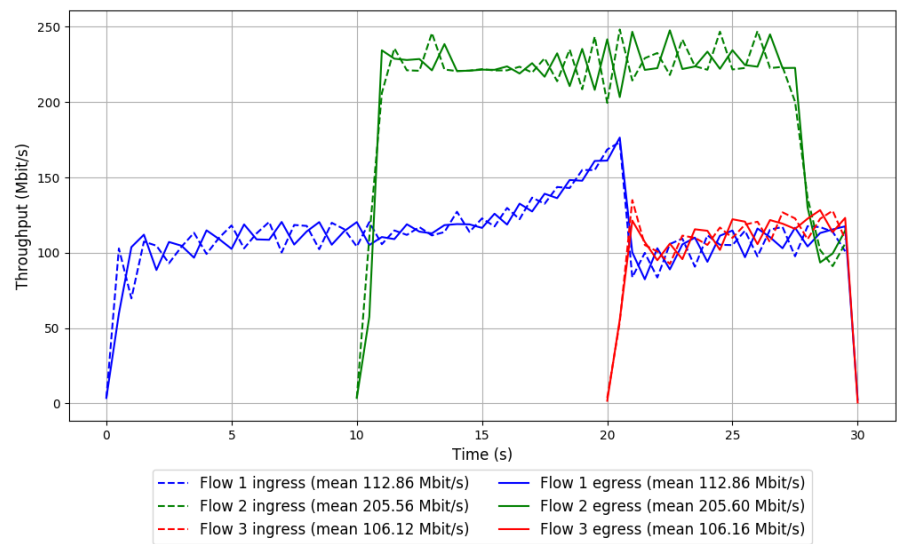
-- Flow 3:

Average throughput: 106.16 Mbit/s

95th percentile per-packet one-way delay: 57.581 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-21 06:53:41

End at: 2018-02-21 06:54:11

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 310.02 Mbit/s

95th percentile per-packet one-way delay: 63.349 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 166.92 Mbit/s

95th percentile per-packet one-way delay: 62.580 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 111.10 Mbit/s

95th percentile per-packet one-way delay: 61.667 ms

Loss rate: 0.09%

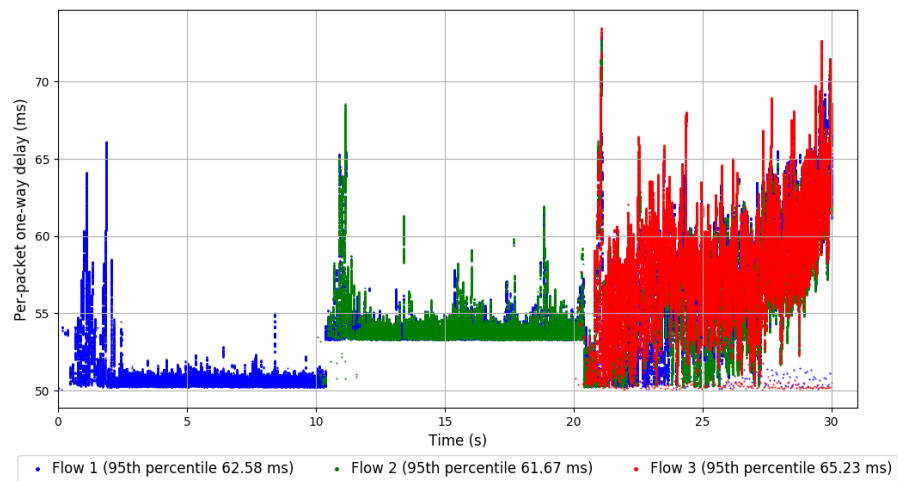
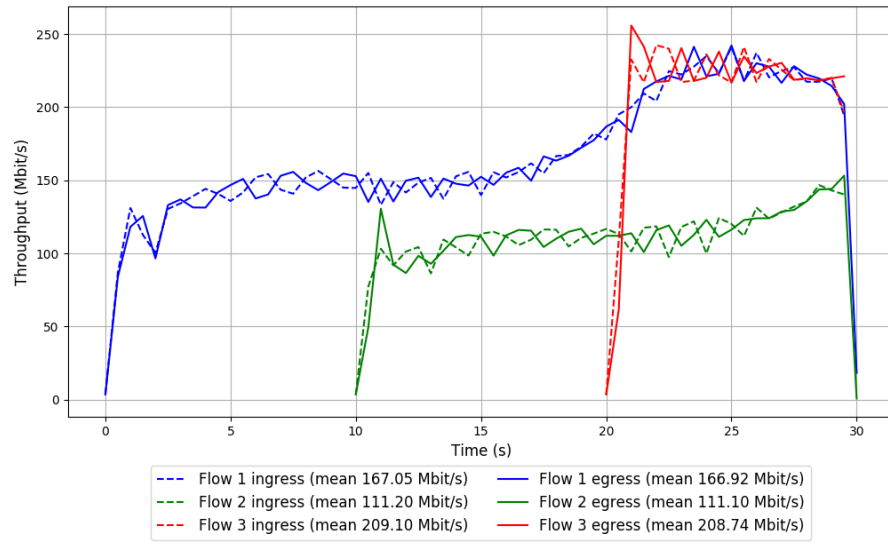
-- Flow 3:

Average throughput: 208.74 Mbit/s

95th percentile per-packet one-way delay: 65.226 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-02-21 07:11:32

End at: 2018-02-21 07:12:02

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.29 Mbit/s

95th percentile per-packet one-way delay: 60.890 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 177.84 Mbit/s

95th percentile per-packet one-way delay: 59.856 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 216.21 Mbit/s

95th percentile per-packet one-way delay: 61.851 ms

Loss rate: 0.02%

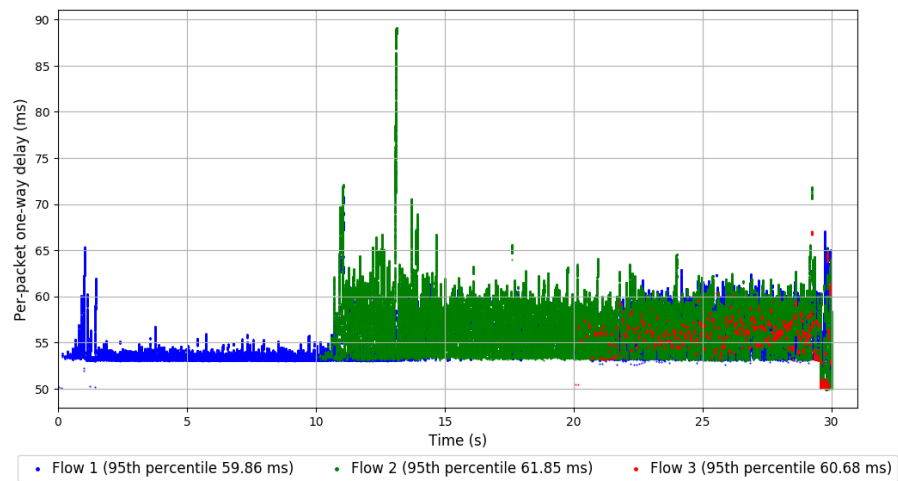
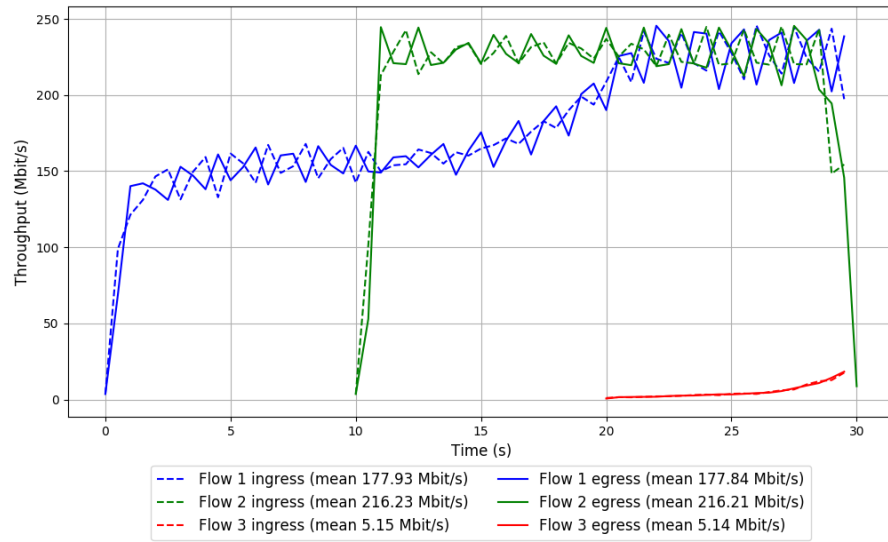
-- Flow 3:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 60.678 ms

Loss rate: 0.12%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-02-21 07:29:42

End at: 2018-02-21 07:30:12

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.94 Mbit/s

95th percentile per-packet one-way delay: 58.727 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 125.47 Mbit/s

95th percentile per-packet one-way delay: 57.510 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 137.95 Mbit/s

95th percentile per-packet one-way delay: 59.652 ms

Loss rate: 0.03%

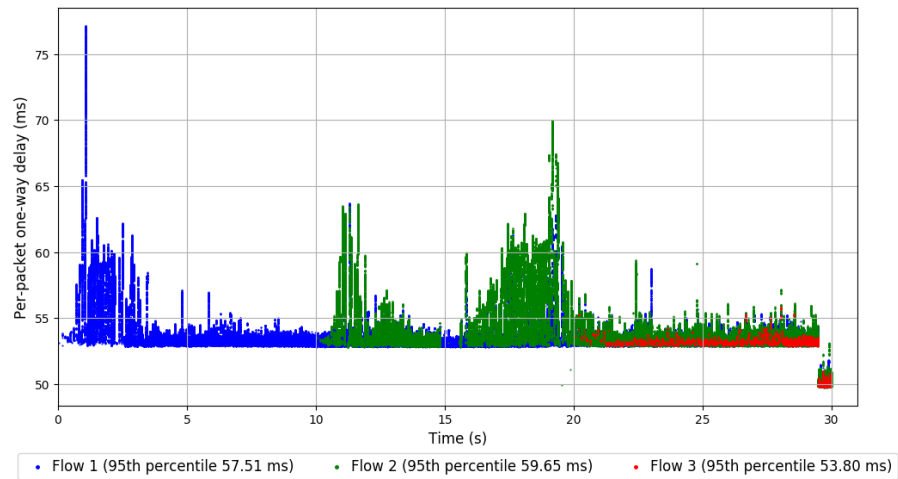
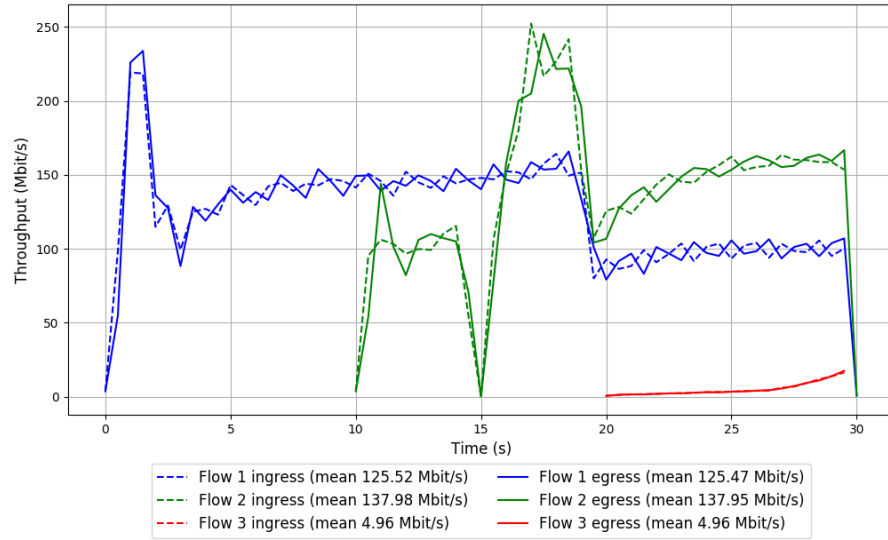
-- Flow 3:

Average throughput: 4.96 Mbit/s

95th percentile per-packet one-way delay: 53.799 ms

Loss rate: 0.17%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-02-21 07:47:27

End at: 2018-02-21 07:47:57

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 257.24 Mbit/s

95th percentile per-packet one-way delay: 56.572 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 162.50 Mbit/s

95th percentile per-packet one-way delay: 56.410 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 139.57 Mbit/s

95th percentile per-packet one-way delay: 56.915 ms

Loss rate: 0.00%

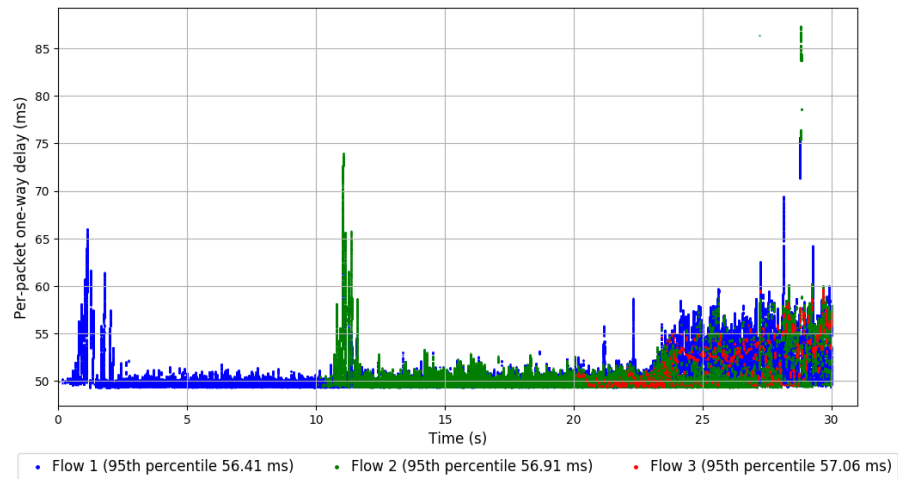
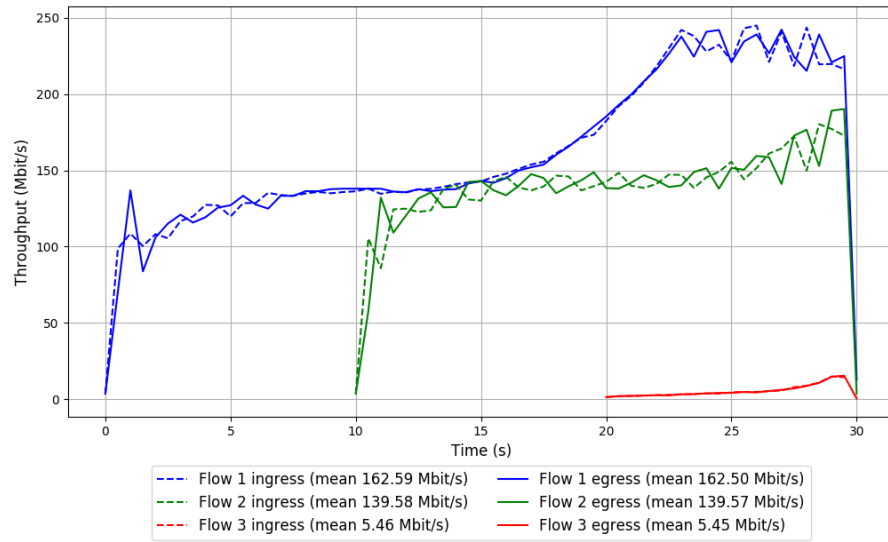
-- Flow 3:

Average throughput: 5.45 Mbit/s

95th percentile per-packet one-way delay: 57.058 ms

Loss rate: 0.02%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-02-21 08:04:49

End at: 2018-02-21 08:05:19

Below is generated by plot.py at 2018-02-21 12:19:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 334.05 Mbit/s

95th percentile per-packet one-way delay: 60.078 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 172.46 Mbit/s

95th percentile per-packet one-way delay: 60.037 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 138.32 Mbit/s

95th percentile per-packet one-way delay: 60.600 ms

Loss rate: 0.04%

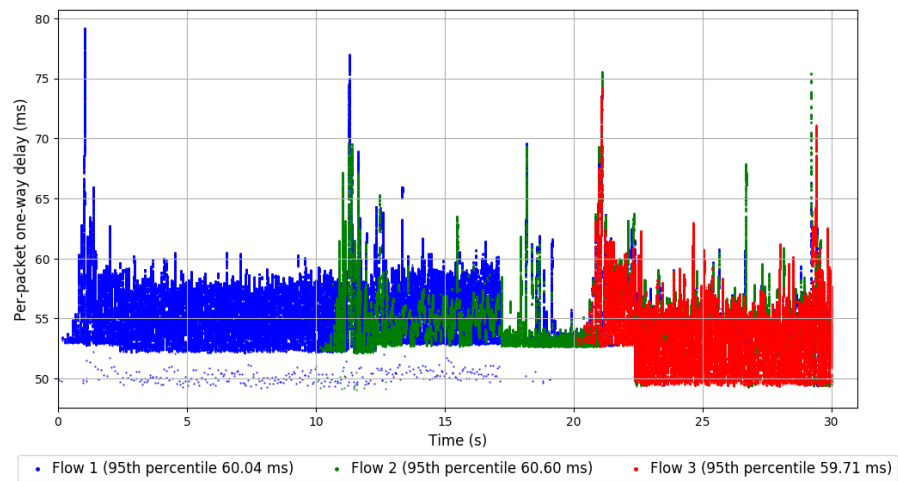
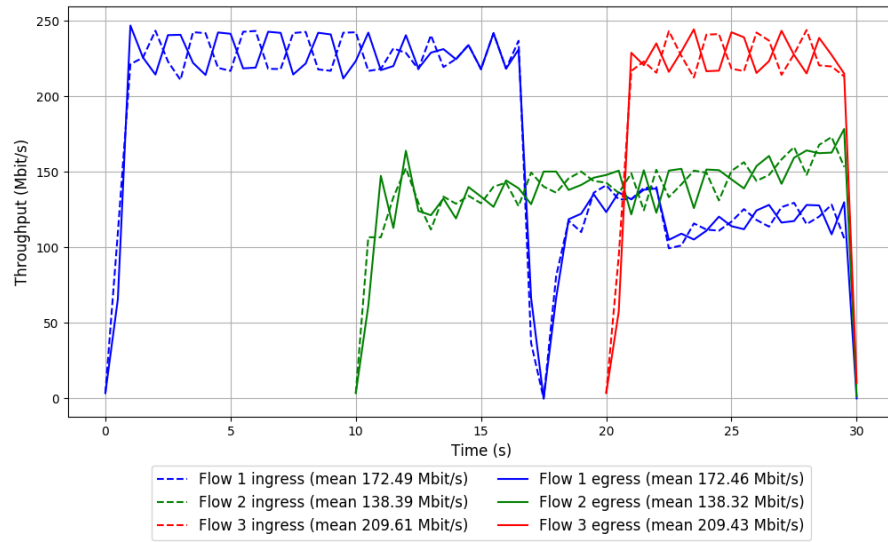
-- Flow 3:

Average throughput: 209.43 Mbit/s

95th percentile per-packet one-way delay: 59.707 ms

Loss rate: 0.11%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-02-21 08:22:28

End at: 2018-02-21 08:22:58

Below is generated by plot.py at 2018-02-21 12:21:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.34 Mbit/s

95th percentile per-packet one-way delay: 56.230 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.19 Mbit/s

95th percentile per-packet one-way delay: 56.349 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 192.91 Mbit/s

95th percentile per-packet one-way delay: 56.074 ms

Loss rate: 0.00%

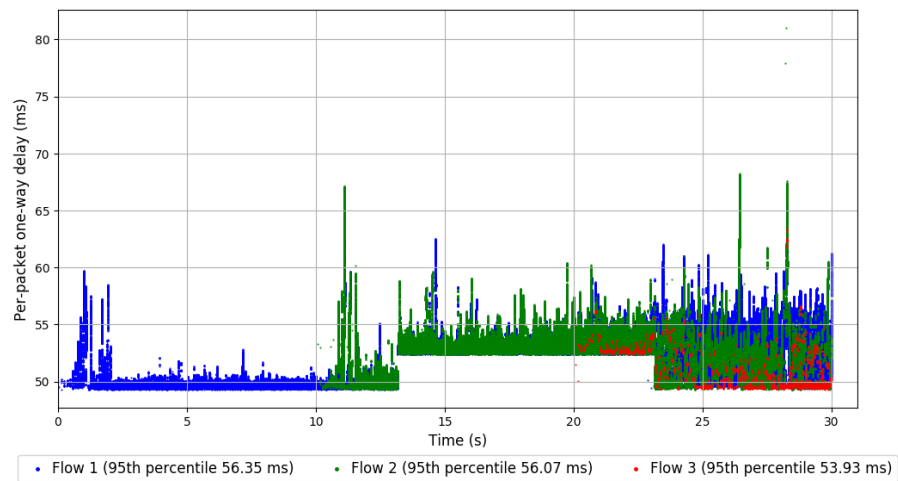
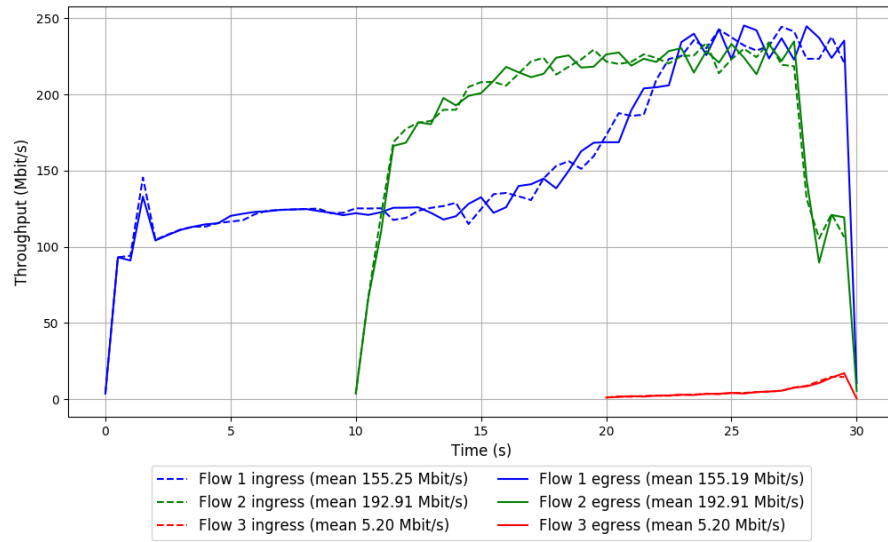
-- Flow 3:

Average throughput: 5.20 Mbit/s

95th percentile per-packet one-way delay: 53.932 ms

Loss rate: 0.07%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-02-21 08:40:00

End at: 2018-02-21 08:40:30

Below is generated by plot.py at 2018-02-21 12:22:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 325.44 Mbit/s

95th percentile per-packet one-way delay: 59.727 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 172.18 Mbit/s

95th percentile per-packet one-way delay: 58.934 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 165.64 Mbit/s

95th percentile per-packet one-way delay: 61.035 ms

Loss rate: 0.00%

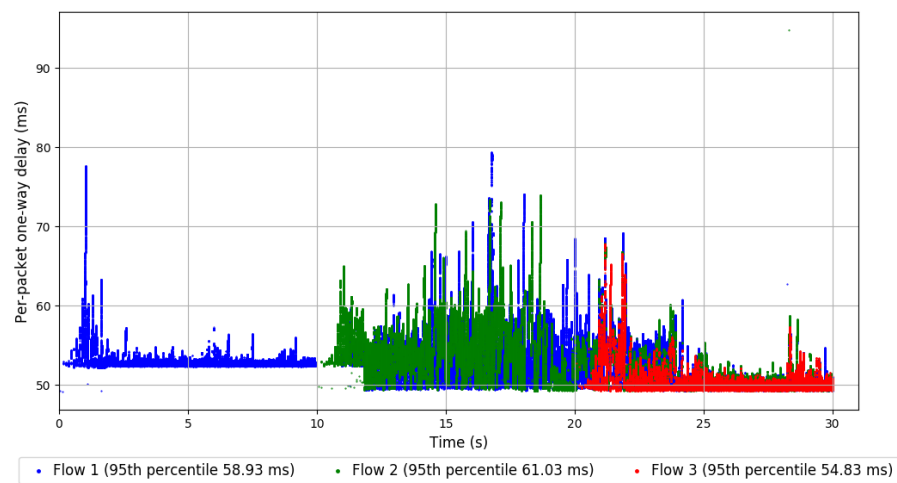
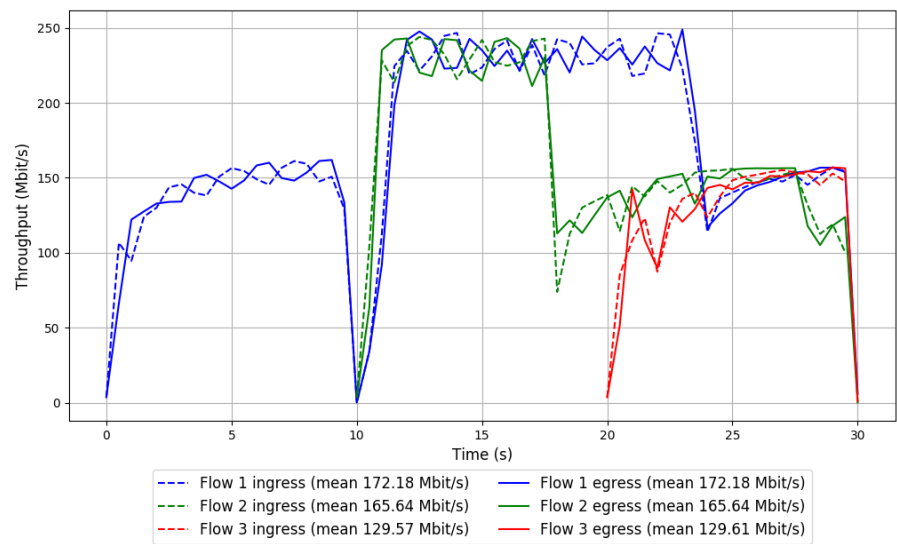
-- Flow 3:

Average throughput: 129.61 Mbit/s

95th percentile per-packet one-way delay: 54.827 ms

Loss rate: 0.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-02-21 08:57:43

End at: 2018-02-21 08:58:13

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 316.90 Mbit/s

95th percentile per-packet one-way delay: 59.719 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 182.22 Mbit/s

95th percentile per-packet one-way delay: 59.783 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 137.68 Mbit/s

95th percentile per-packet one-way delay: 59.981 ms

Loss rate: 0.02%

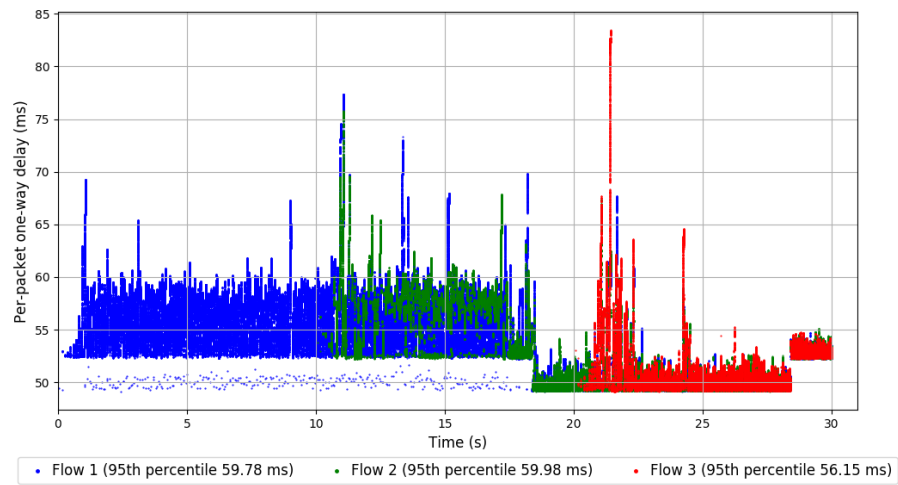
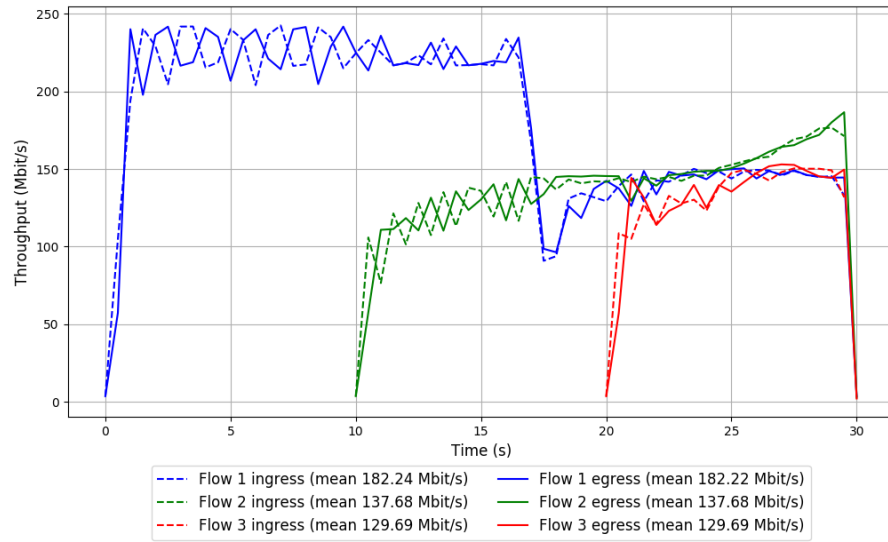
-- Flow 3:

Average throughput: 129.69 Mbit/s

95th percentile per-packet one-way delay: 56.150 ms

Loss rate: 0.02%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-02-21 09:15:09

End at: 2018-02-21 09:15:39

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 242.91 Mbit/s

95th percentile per-packet one-way delay: 55.368 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 155.32 Mbit/s

95th percentile per-packet one-way delay: 55.653 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 129.11 Mbit/s

95th percentile per-packet one-way delay: 54.742 ms

Loss rate: 0.00%

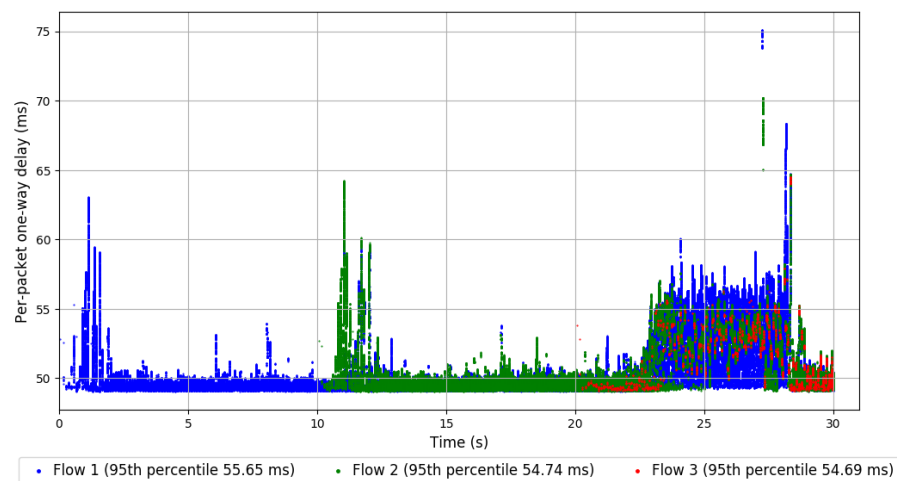
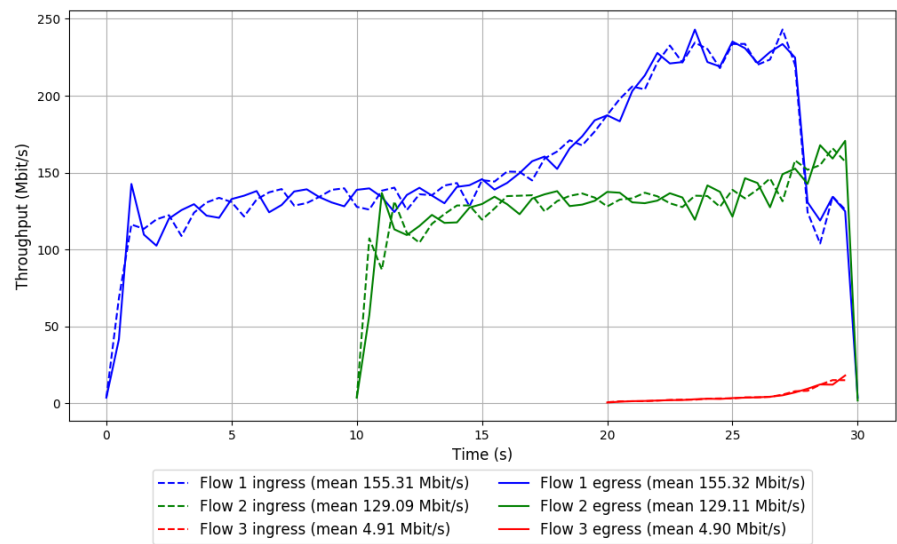
-- Flow 3:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 54.694 ms

Loss rate: 0.20%

Run 10: Report of TCP Cubic — Data Link

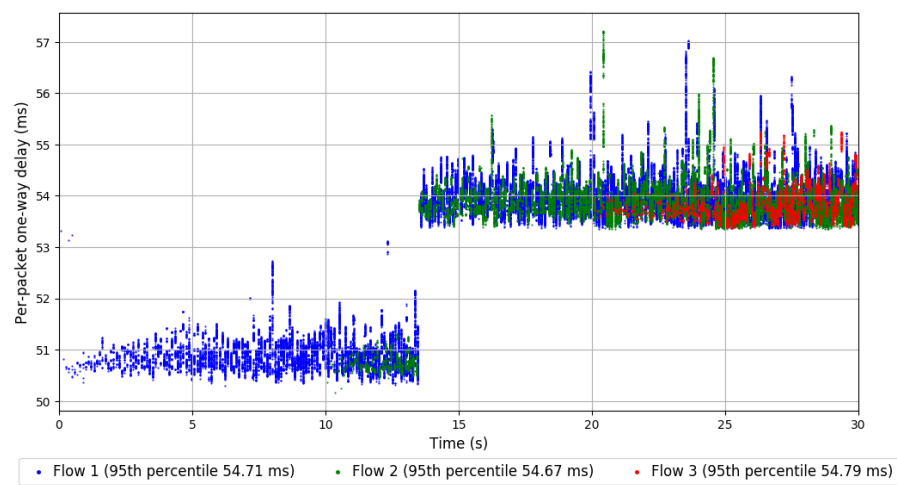
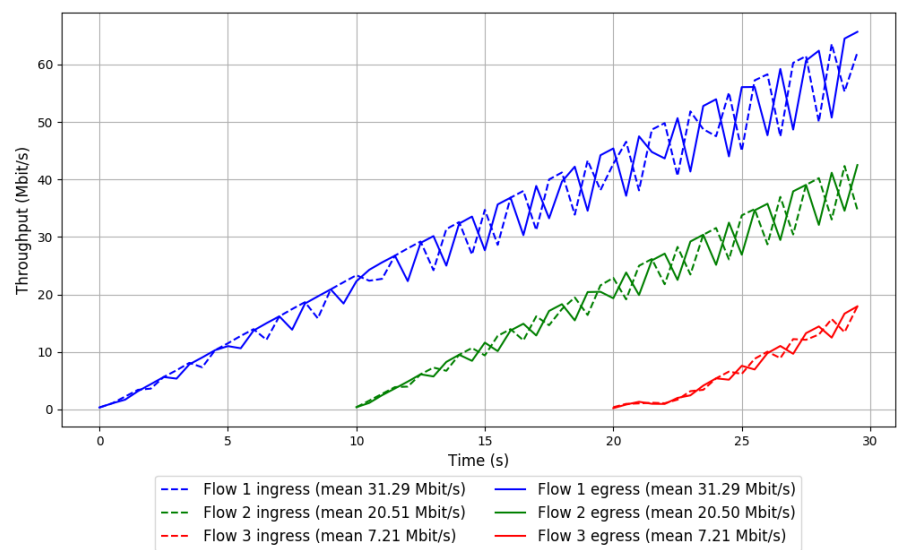


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-21 06:35:08
End at: 2018-02-21 06:35:38

# Below is generated by plot.py at 2018-02-21 12:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.29 Mbit/s
95th percentile per-packet one-way delay: 54.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 31.29 Mbit/s
95th percentile per-packet one-way delay: 54.706 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 20.50 Mbit/s
95th percentile per-packet one-way delay: 54.674 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.21 Mbit/s
95th percentile per-packet one-way delay: 54.794 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

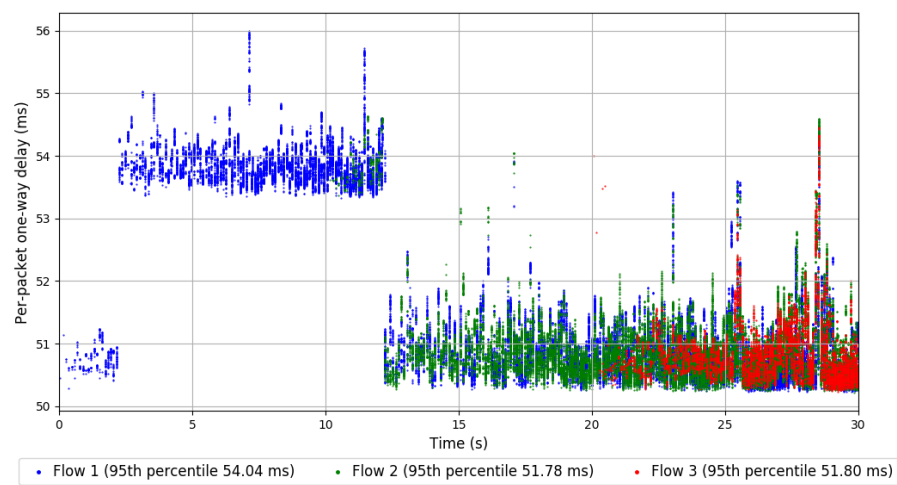
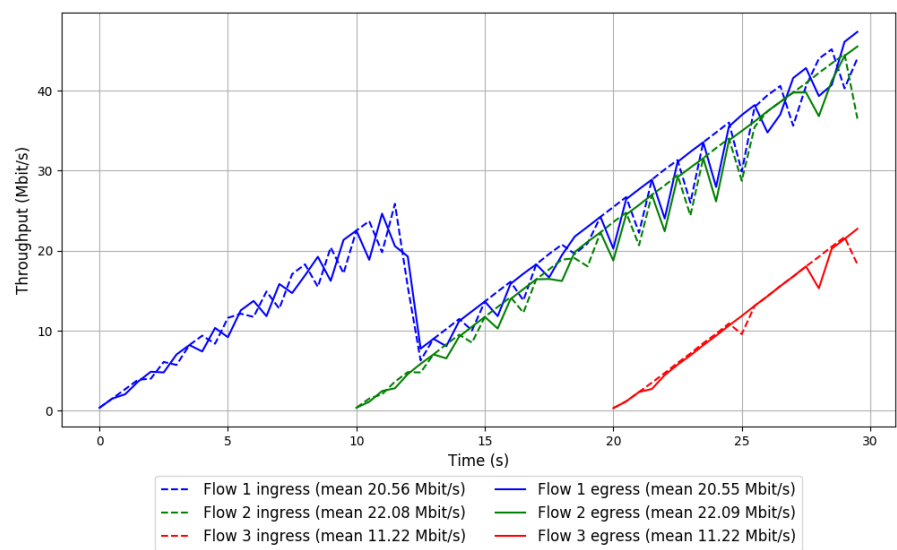


```
Run 2: Statistics of LEDBAT

Start at: 2018-02-21 06:52:59
End at: 2018-02-21 06:53:29

# Below is generated by plot.py at 2018-02-21 12:22:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 38.92 Mbit/s
95th percentile per-packet one-way delay: 53.891 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 20.55 Mbit/s
95th percentile per-packet one-way delay: 54.043 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.09 Mbit/s
95th percentile per-packet one-way delay: 51.780 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 51.803 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-02-21 07:10:49

End at: 2018-02-21 07:11:19

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.69 Mbit/s

95th percentile per-packet one-way delay: 54.055 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.43 Mbit/s

95th percentile per-packet one-way delay: 54.151 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.21 Mbit/s

95th percentile per-packet one-way delay: 53.921 ms

Loss rate: 0.00%

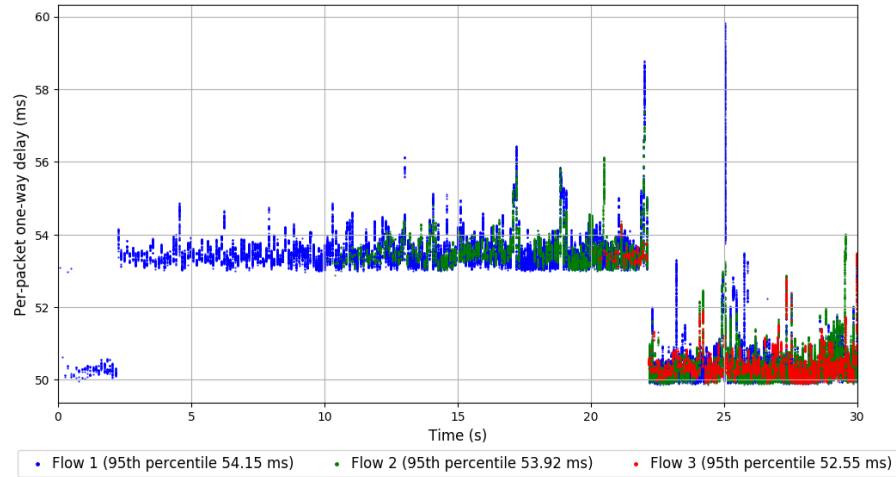
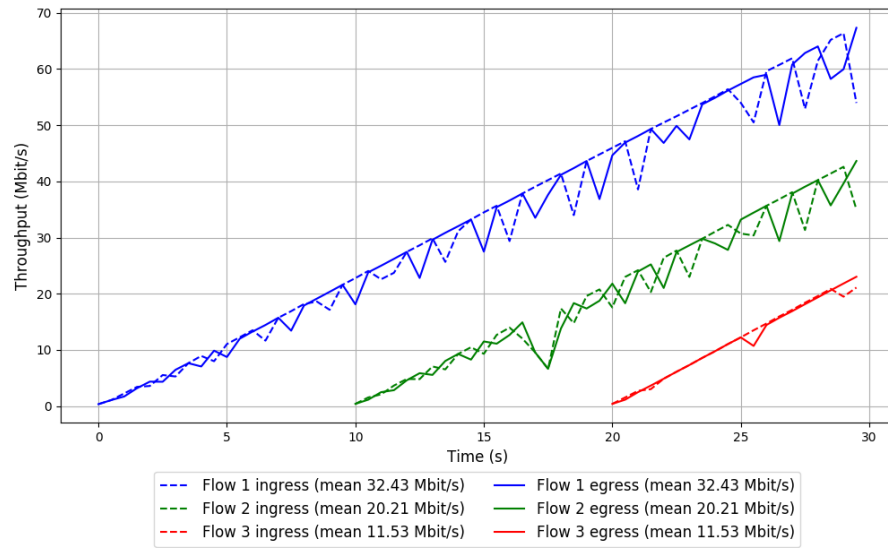
-- Flow 3:

Average throughput: 11.53 Mbit/s

95th percentile per-packet one-way delay: 52.553 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-02-21 07:28:59

End at: 2018-02-21 07:29:29

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.72 Mbit/s

95th percentile per-packet one-way delay: 54.684 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 31.16 Mbit/s

95th percentile per-packet one-way delay: 54.858 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.26 Mbit/s

95th percentile per-packet one-way delay: 54.521 ms

Loss rate: 0.00%

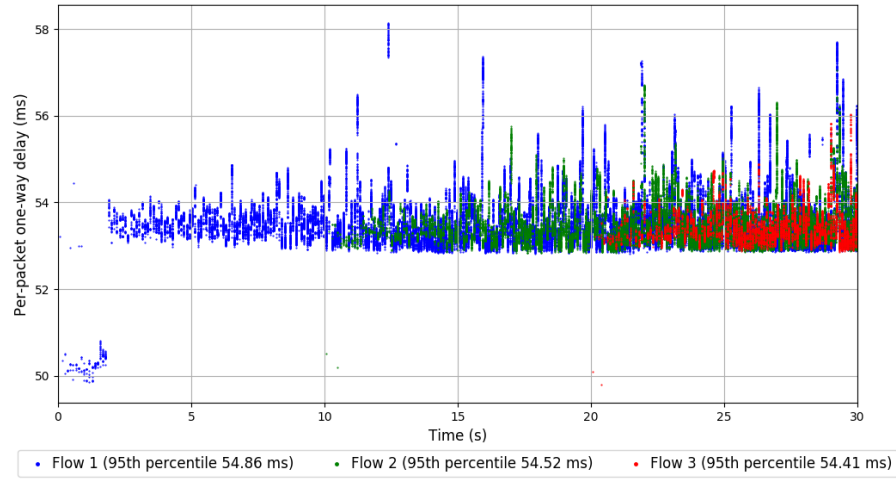
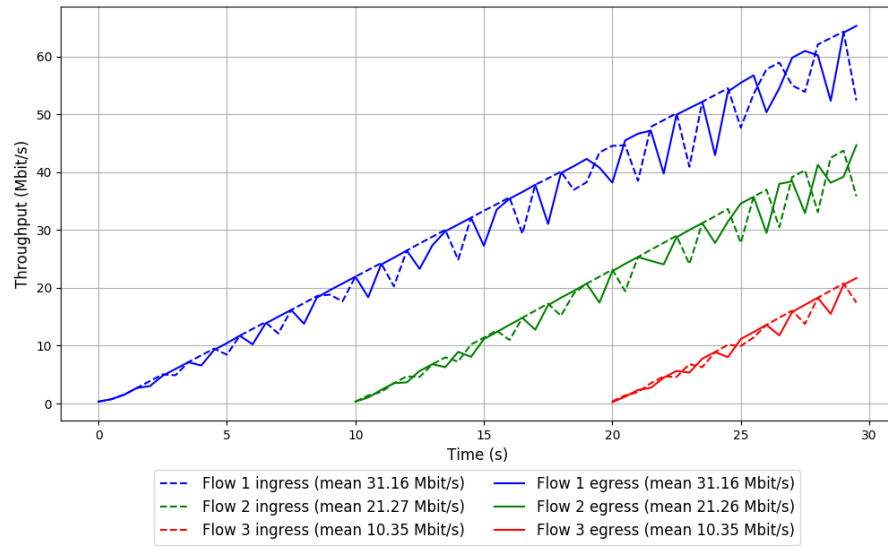
-- Flow 3:

Average throughput: 10.35 Mbit/s

95th percentile per-packet one-way delay: 54.415 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-02-21 07:46:44

End at: 2018-02-21 07:47:14

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.22 Mbit/s

95th percentile per-packet one-way delay: 53.240 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.64 Mbit/s

95th percentile per-packet one-way delay: 53.509 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.73 Mbit/s

95th percentile per-packet one-way delay: 52.785 ms

Loss rate: 0.00%

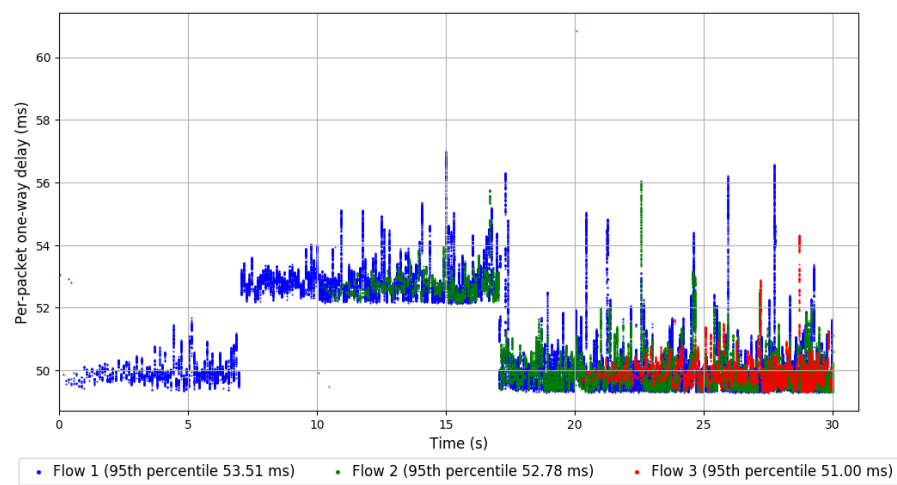
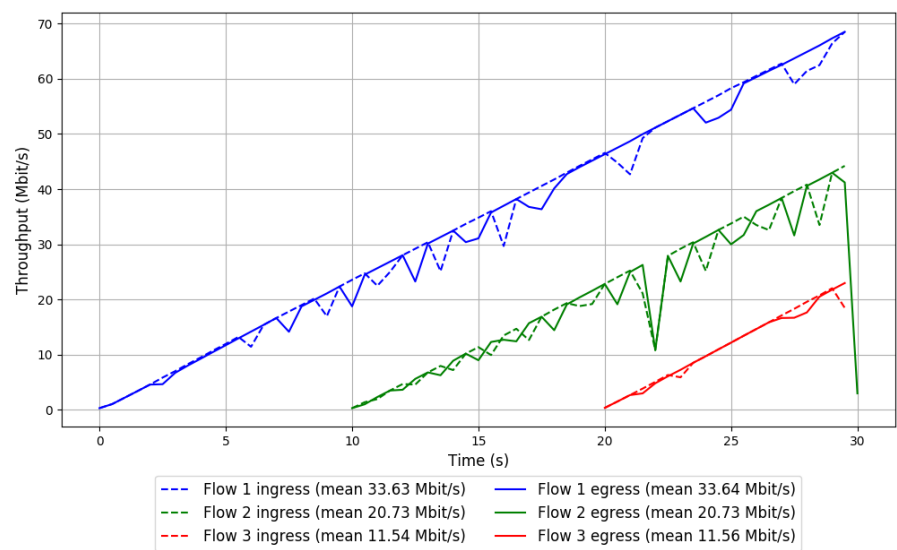
-- Flow 3:

Average throughput: 11.56 Mbit/s

95th percentile per-packet one-way delay: 51.003 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-02-21 08:04:07

End at: 2018-02-21 08:04:37

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 42.73 Mbit/s

95th percentile per-packet one-way delay: 53.887 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 25.80 Mbit/s

95th percentile per-packet one-way delay: 53.945 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 19.84 Mbit/s

95th percentile per-packet one-way delay: 53.885 ms

Loss rate: 0.00%

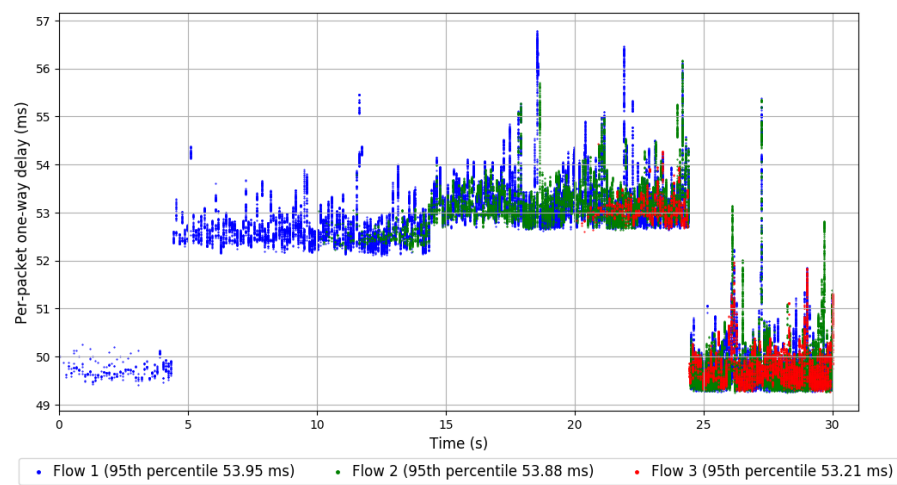
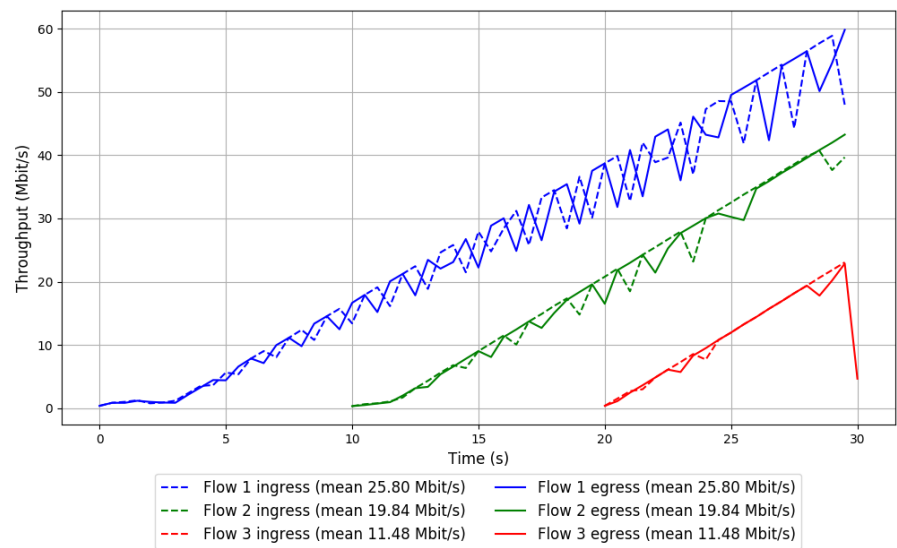
-- Flow 3:

Average throughput: 11.48 Mbit/s

95th percentile per-packet one-way delay: 53.206 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-02-21 08:21:46

End at: 2018-02-21 08:22:16

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.70 Mbit/s

95th percentile per-packet one-way delay: 53.541 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.34 Mbit/s

95th percentile per-packet one-way delay: 53.533 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.44 Mbit/s

95th percentile per-packet one-way delay: 53.666 ms

Loss rate: 0.00%

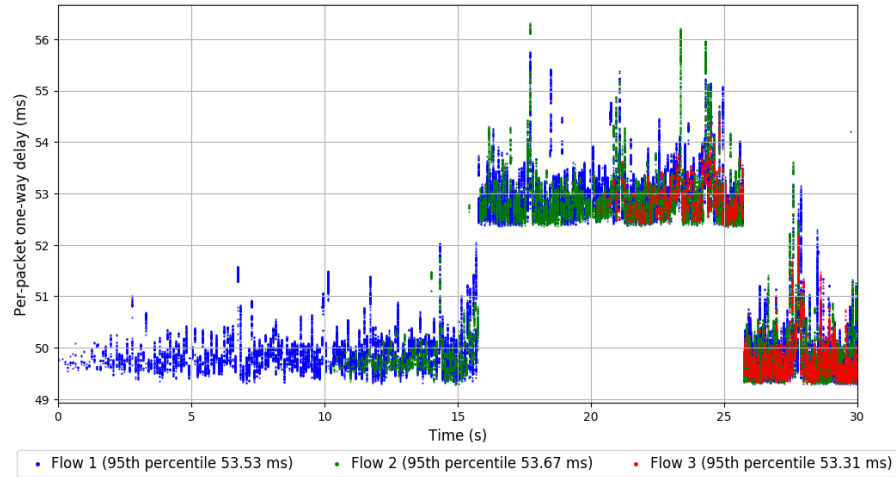
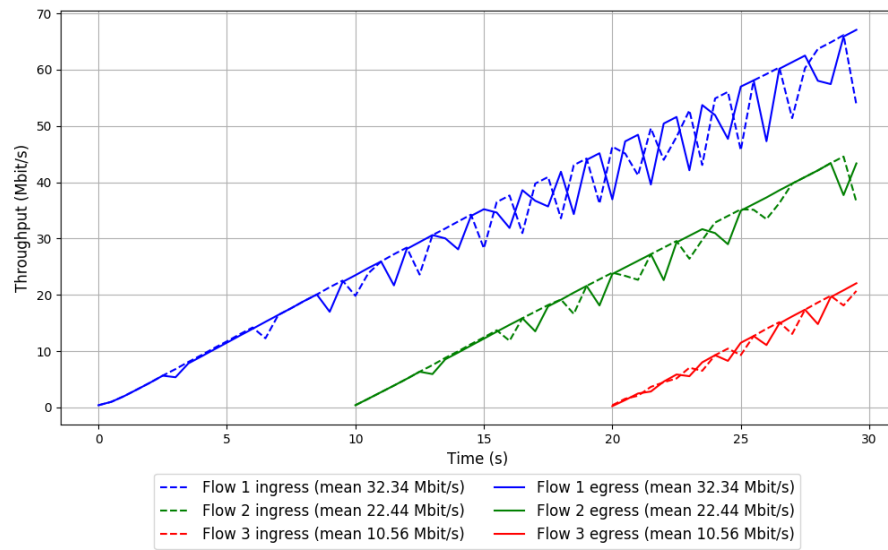
-- Flow 3:

Average throughput: 10.56 Mbit/s

95th percentile per-packet one-way delay: 53.314 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-02-21 08:39:17

End at: 2018-02-21 08:39:47

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.62 Mbit/s

95th percentile per-packet one-way delay: 53.183 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.37 Mbit/s

95th percentile per-packet one-way delay: 53.009 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.60 Mbit/s

95th percentile per-packet one-way delay: 53.301 ms

Loss rate: 0.00%

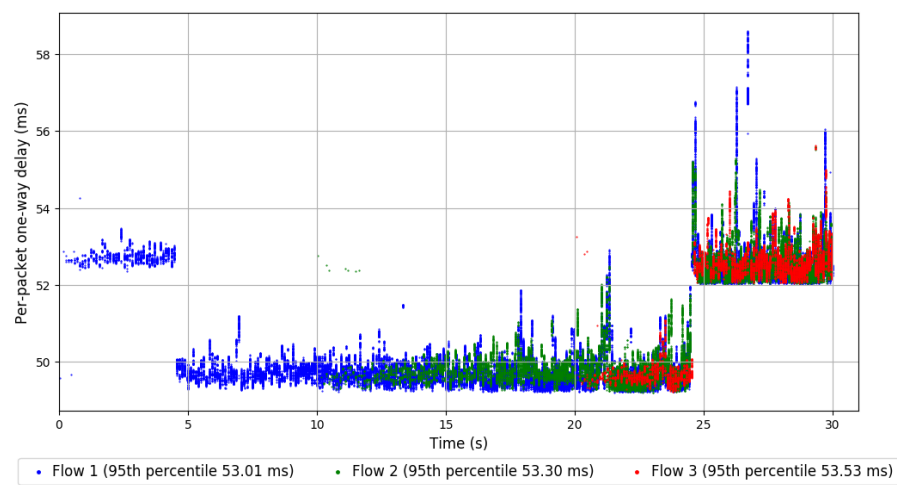
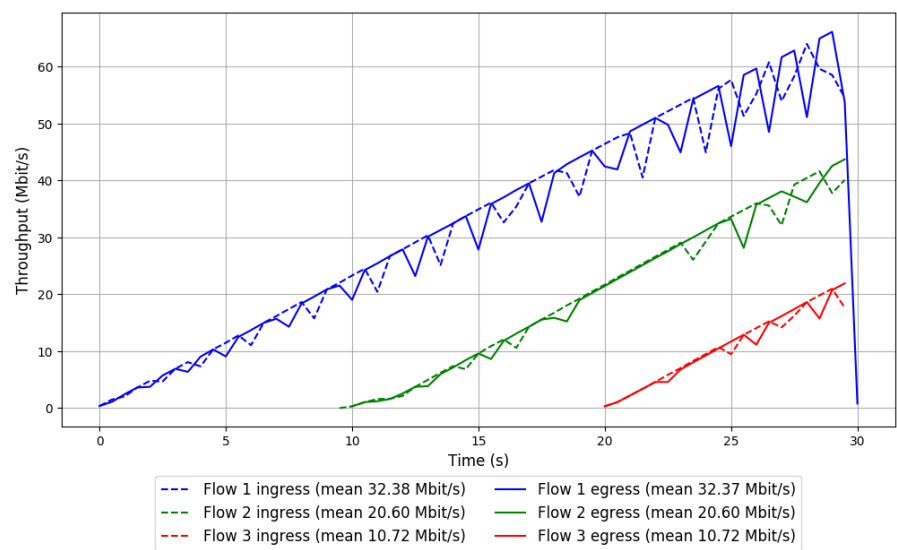
-- Flow 3:

Average throughput: 10.72 Mbit/s

95th percentile per-packet one-way delay: 53.534 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-02-21 08:57:00

End at: 2018-02-21 08:57:30

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.62 Mbit/s

95th percentile per-packet one-way delay: 52.813 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.80 Mbit/s

95th percentile per-packet one-way delay: 52.975 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.94 Mbit/s

95th percentile per-packet one-way delay: 50.976 ms

Loss rate: 0.00%

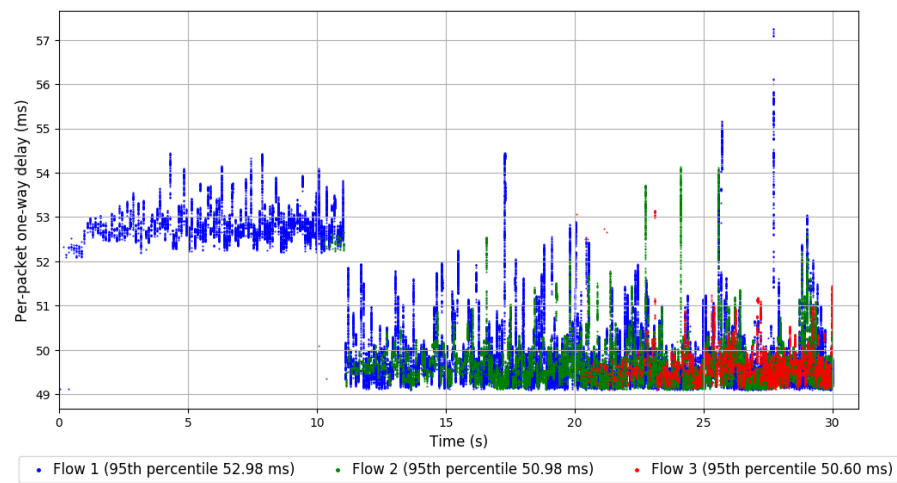
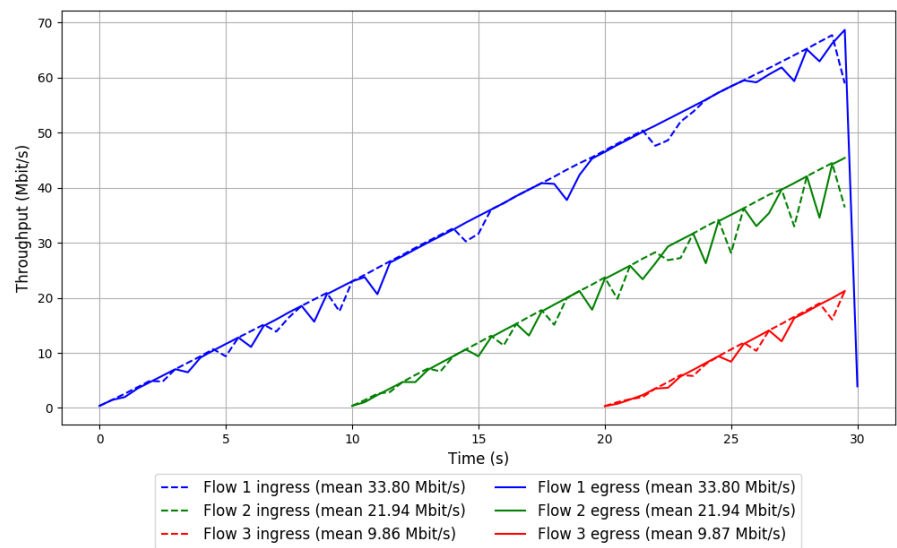
-- Flow 3:

Average throughput: 9.87 Mbit/s

95th percentile per-packet one-way delay: 50.598 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-02-21 09:14:27

End at: 2018-02-21 09:14:57

Below is generated by plot.py at 2018-02-21 12:22:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 52.32 Mbit/s

95th percentile per-packet one-way delay: 53.326 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 34.69 Mbit/s

95th percentile per-packet one-way delay: 53.283 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 21.19 Mbit/s

95th percentile per-packet one-way delay: 53.373 ms

Loss rate: 0.00%

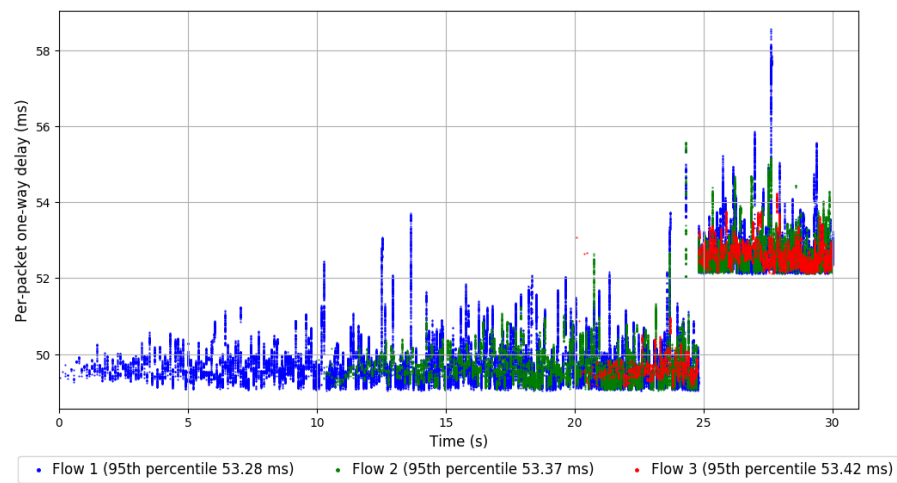
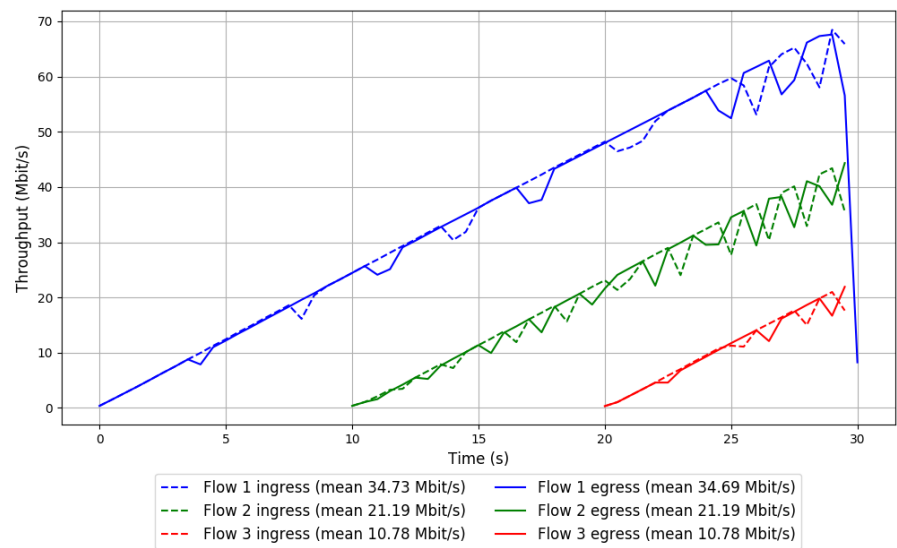
-- Flow 3:

Average throughput: 10.78 Mbit/s

95th percentile per-packet one-way delay: 53.424 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

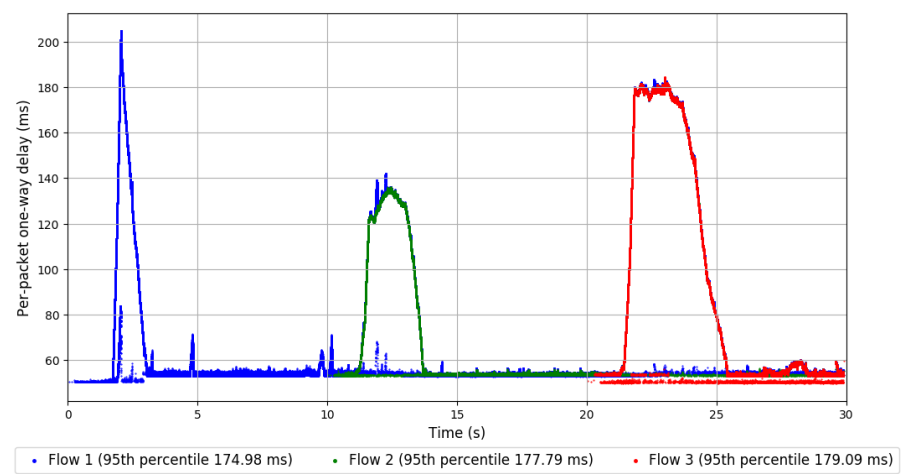
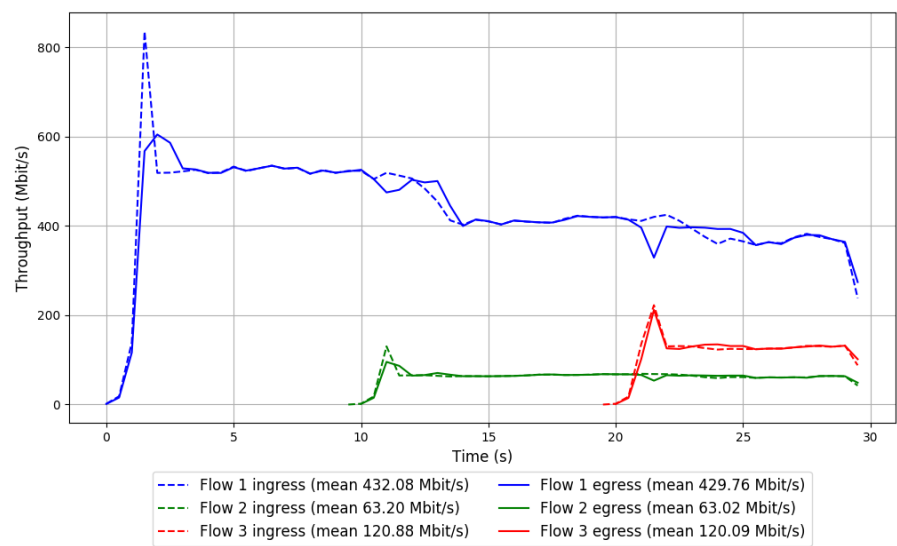


```
Run 1: Statistics of PCC

Start at: 2018-02-21 06:42:38
End at: 2018-02-21 06:43:08

# Below is generated by plot.py at 2018-02-21 12:29:37
# Datalink statistics
-- Total of 3 flows:
Average throughput: 511.27 Mbit/s
95th percentile per-packet one-way delay: 177.116 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 429.76 Mbit/s
95th percentile per-packet one-way delay: 174.980 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 63.02 Mbit/s
95th percentile per-packet one-way delay: 177.794 ms
Loss rate: 0.29%
-- Flow 3:
Average throughput: 120.09 Mbit/s
95th percentile per-packet one-way delay: 179.087 ms
Loss rate: 0.59%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-02-21 07:00:46

End at: 2018-02-21 07:01:16

Below is generated by plot.py at 2018-02-21 12:30:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 523.77 Mbit/s

95th percentile per-packet one-way delay: 108.773 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 520.39 Mbit/s

95th percentile per-packet one-way delay: 108.812 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 2.37 Mbit/s

95th percentile per-packet one-way delay: 89.608 ms

Loss rate: 0.16%

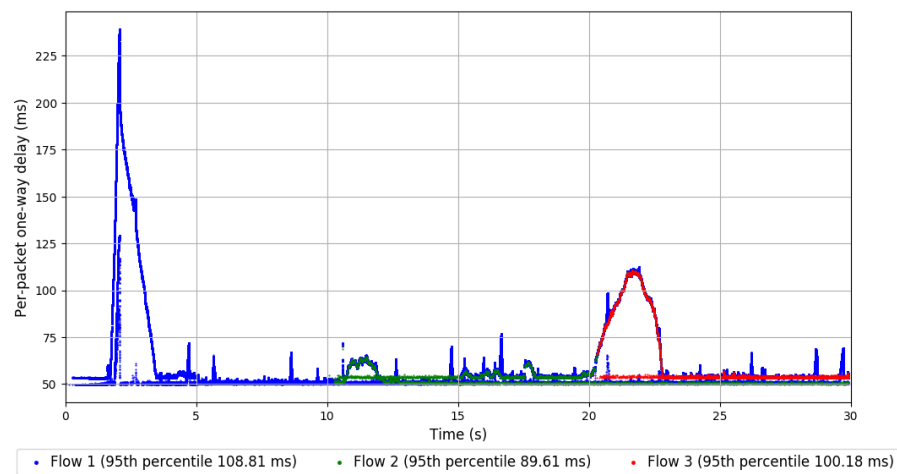
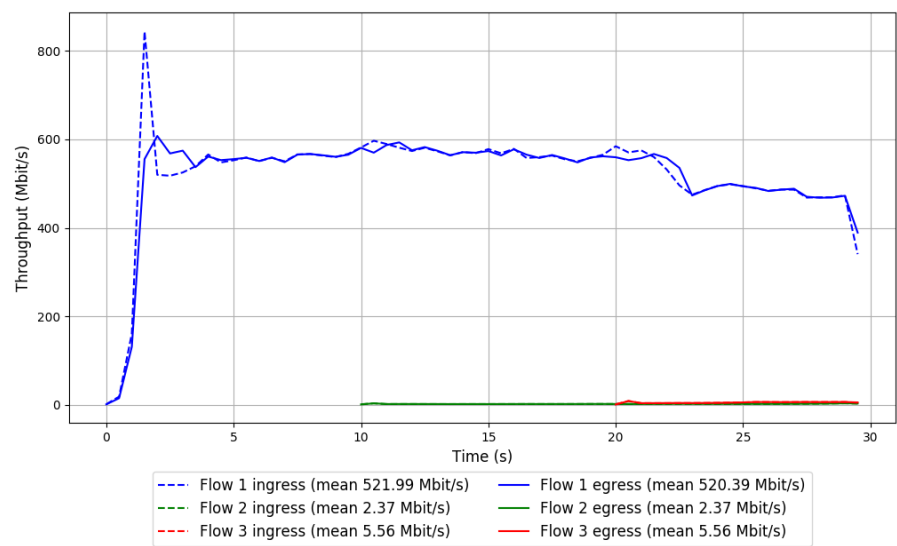
-- Flow 3:

Average throughput: 5.56 Mbit/s

95th percentile per-packet one-way delay: 100.178 ms

Loss rate: 0.02%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-02-21 07:18:29

End at: 2018-02-21 07:18:59

Below is generated by plot.py at 2018-02-21 12:30:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 534.15 Mbit/s

95th percentile per-packet one-way delay: 164.715 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 485.31 Mbit/s

95th percentile per-packet one-way delay: 165.840 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 39.74 Mbit/s

95th percentile per-packet one-way delay: 162.784 ms

Loss rate: 0.07%

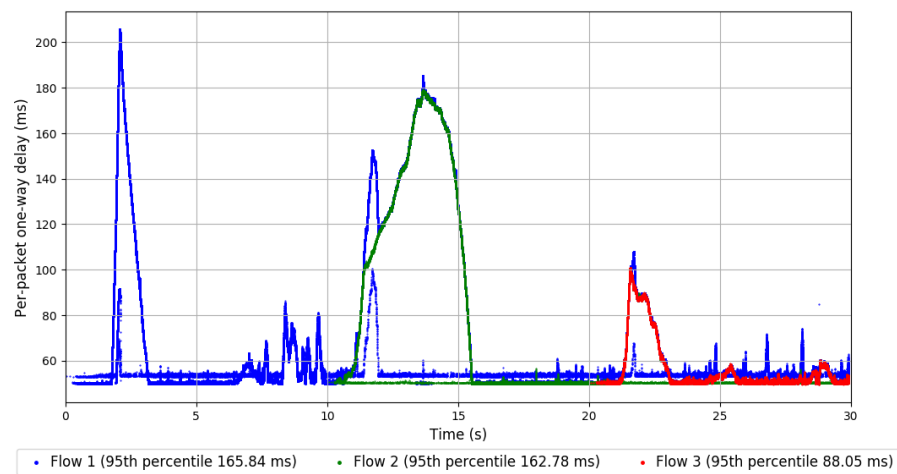
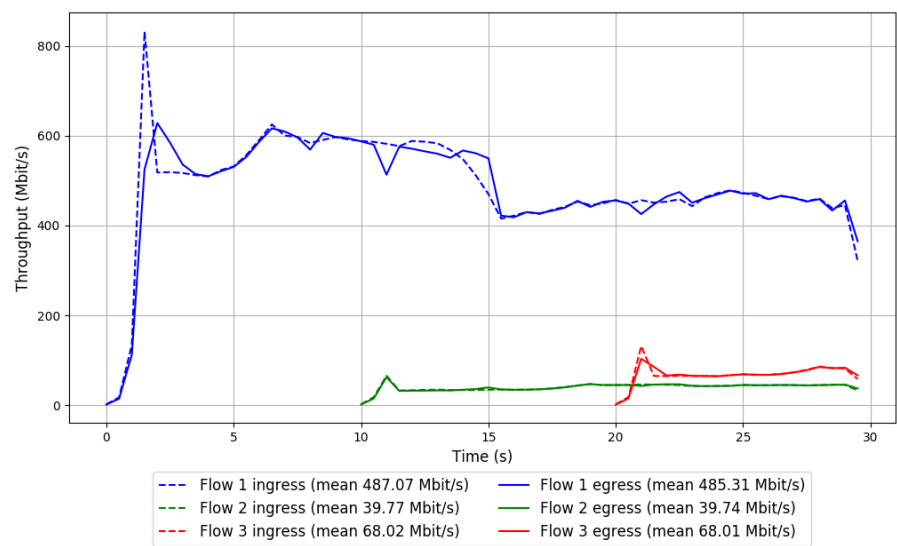
-- Flow 3:

Average throughput: 68.01 Mbit/s

95th percentile per-packet one-way delay: 88.047 ms

Loss rate: 0.00%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-02-21 07:36:26

End at: 2018-02-21 07:36:56

Below is generated by plot.py at 2018-02-21 12:30:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 531.41 Mbit/s

95th percentile per-packet one-way delay: 176.180 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 450.11 Mbit/s

95th percentile per-packet one-way delay: 176.445 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 106.98 Mbit/s

95th percentile per-packet one-way delay: 175.704 ms

Loss rate: 0.97%

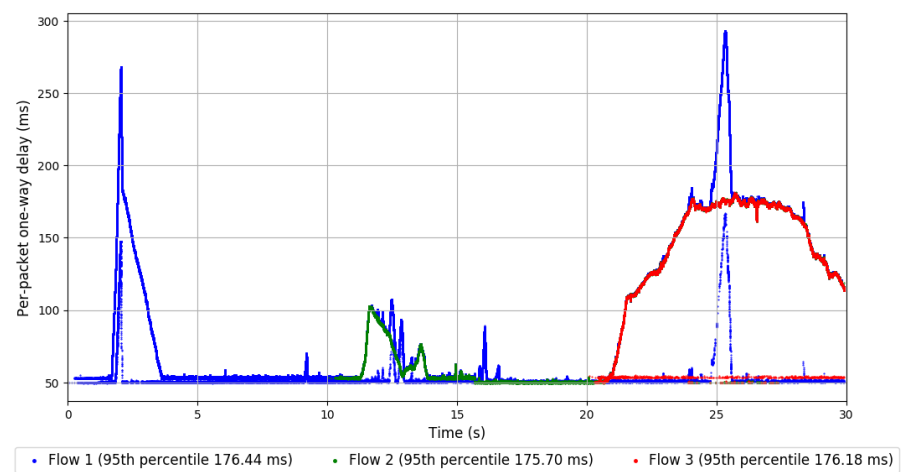
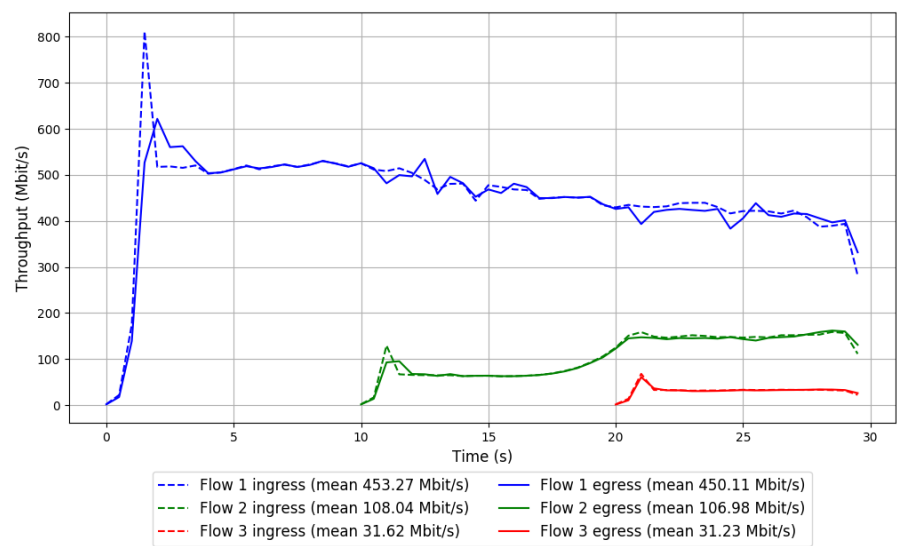
-- Flow 3:

Average throughput: 31.23 Mbit/s

95th percentile per-packet one-way delay: 176.176 ms

Loss rate: 1.27%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-02-21 07:54:14

End at: 2018-02-21 07:54:44

Below is generated by plot.py at 2018-02-21 12:31:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 552.00 Mbit/s

95th percentile per-packet one-way delay: 173.134 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 476.17 Mbit/s

95th percentile per-packet one-way delay: 173.259 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 113.03 Mbit/s

95th percentile per-packet one-way delay: 172.633 ms

Loss rate: 1.39%

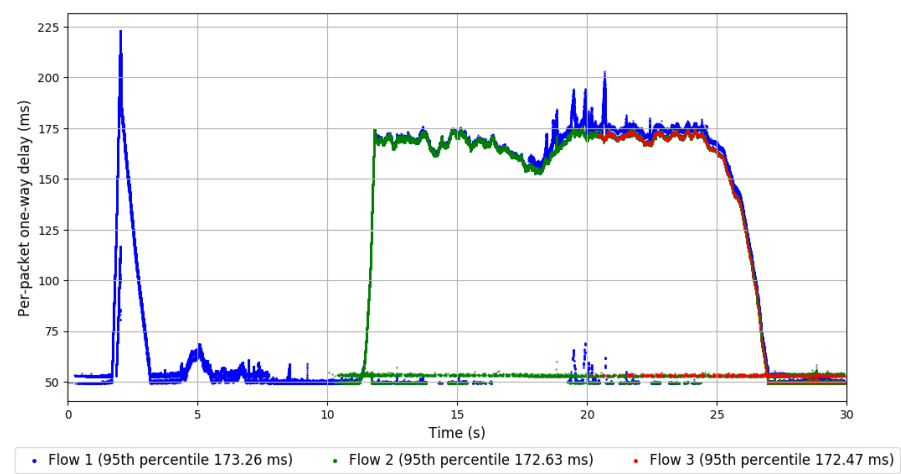
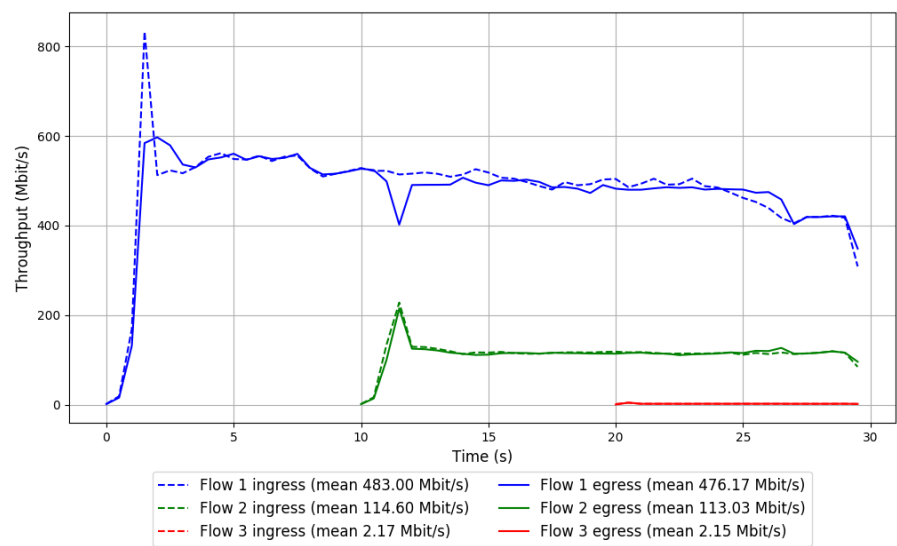
-- Flow 3:

Average throughput: 2.15 Mbit/s

95th percentile per-packet one-way delay: 172.469 ms

Loss rate: 0.68%

Run 5: Report of PCC — Data Link

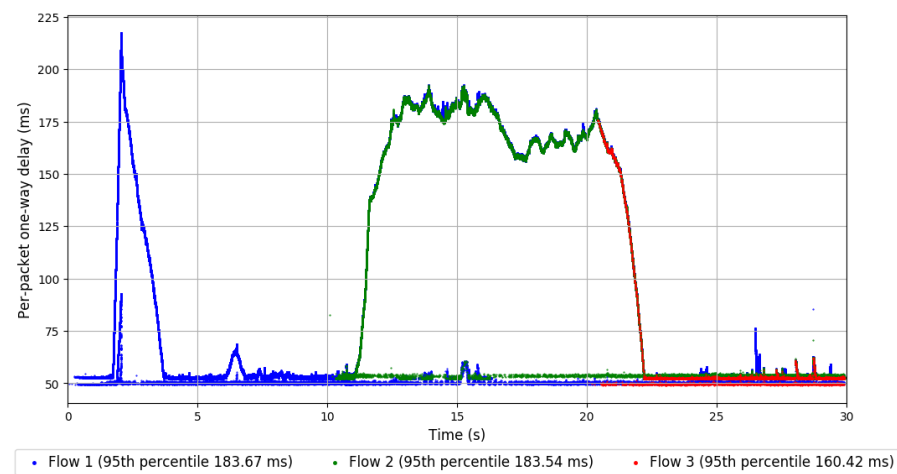
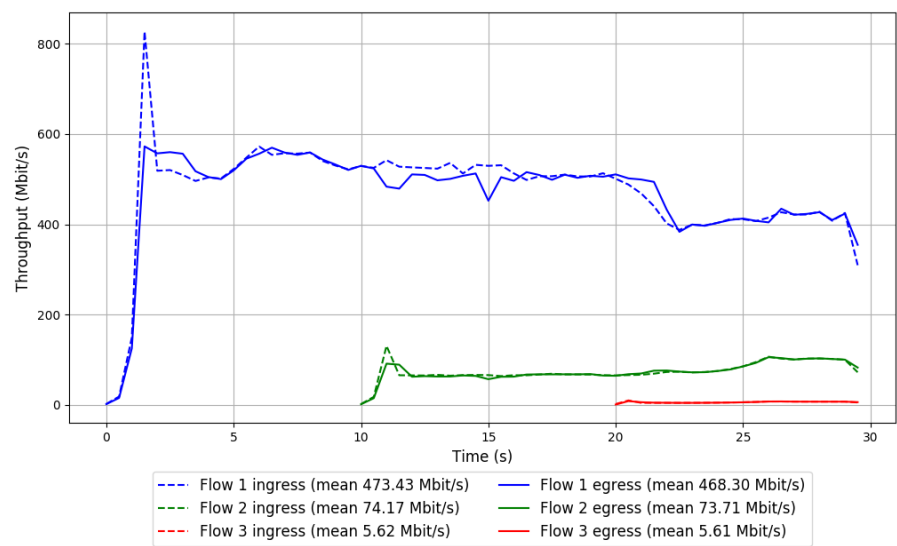


```
Run 6: Statistics of PCC

Start at: 2018-02-21 08:11:47
End at: 2018-02-21 08:12:17

# Below is generated by plot.py at 2018-02-21 12:31:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.07 Mbit/s
95th percentile per-packet one-way delay: 183.644 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 468.30 Mbit/s
95th percentile per-packet one-way delay: 183.674 ms
Loss rate: 1.07%
-- Flow 2:
Average throughput: 73.71 Mbit/s
95th percentile per-packet one-way delay: 183.537 ms
Loss rate: 0.78%
-- Flow 3:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 160.419 ms
Loss rate: 0.00%
```

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-02-21 08:29:21

End at: 2018-02-21 08:29:51

Below is generated by plot.py at 2018-02-21 12:32:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 529.36 Mbit/s

95th percentile per-packet one-way delay: 184.526 ms

Loss rate: 2.31%

-- Flow 1:

Average throughput: 485.99 Mbit/s

95th percentile per-packet one-way delay: 184.400 ms

Loss rate: 2.19%

-- Flow 2:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 184.802 ms

Loss rate: 2.47%

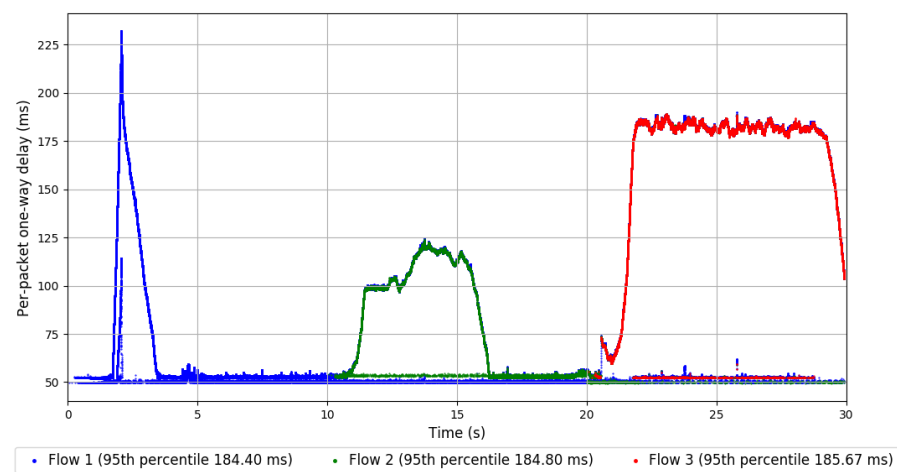
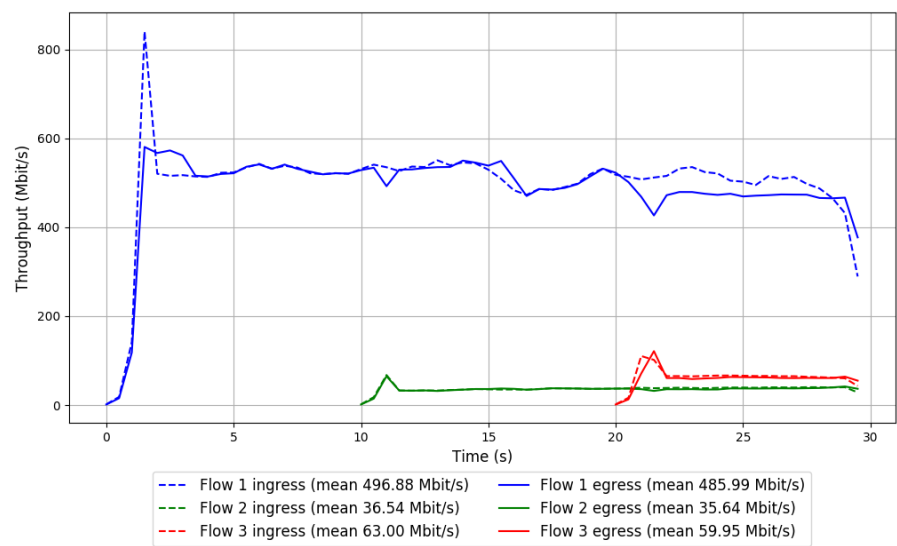
-- Flow 3:

Average throughput: 59.95 Mbit/s

95th percentile per-packet one-way delay: 185.670 ms

Loss rate: 4.89%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-02-21 08:46:45

End at: 2018-02-21 08:47:15

Below is generated by plot.py at 2018-02-21 12:32:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 537.18 Mbit/s

95th percentile per-packet one-way delay: 182.075 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 494.29 Mbit/s

95th percentile per-packet one-way delay: 182.294 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 34.40 Mbit/s

95th percentile per-packet one-way delay: 182.795 ms

Loss rate: 0.97%

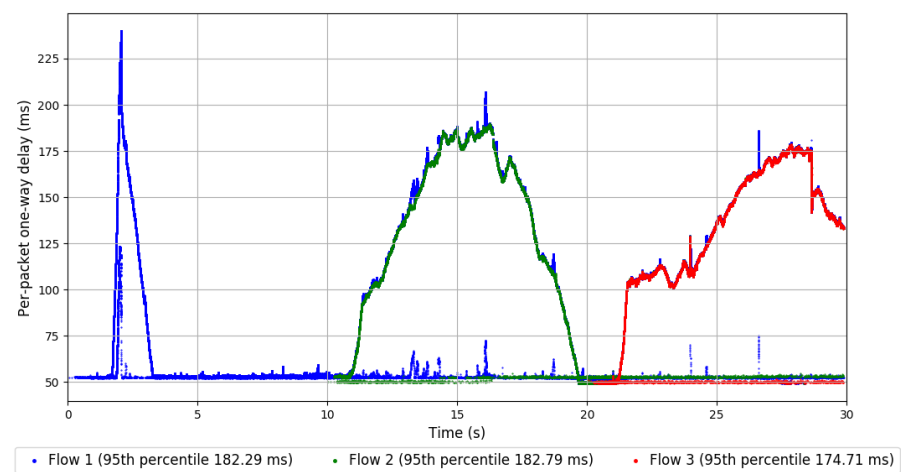
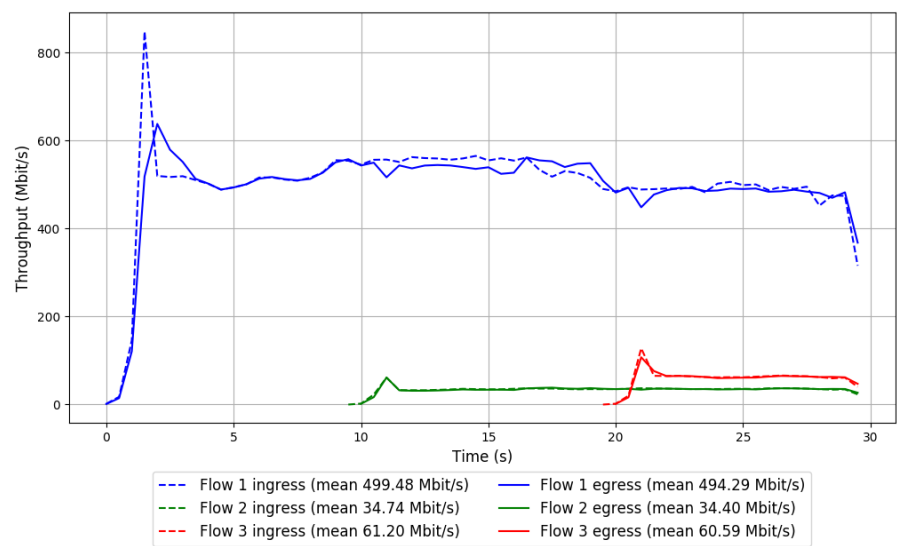
-- Flow 3:

Average throughput: 60.59 Mbit/s

95th percentile per-packet one-way delay: 174.710 ms

Loss rate: 1.00%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-02-21 09:04:32

End at: 2018-02-21 09:05:02

Below is generated by plot.py at 2018-02-21 12:39:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 537.55 Mbit/s

95th percentile per-packet one-way delay: 183.599 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 493.94 Mbit/s

95th percentile per-packet one-way delay: 183.595 ms

Loss rate: 1.63%

-- Flow 2:

Average throughput: 63.67 Mbit/s

95th percentile per-packet one-way delay: 183.645 ms

Loss rate: 1.72%

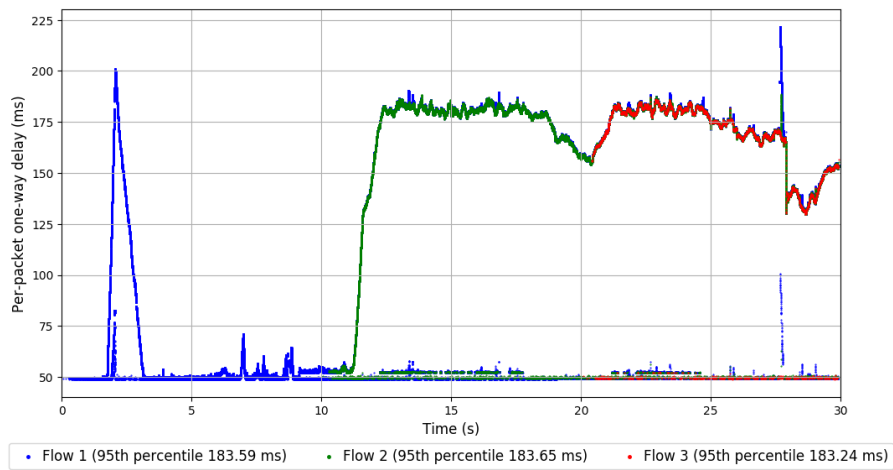
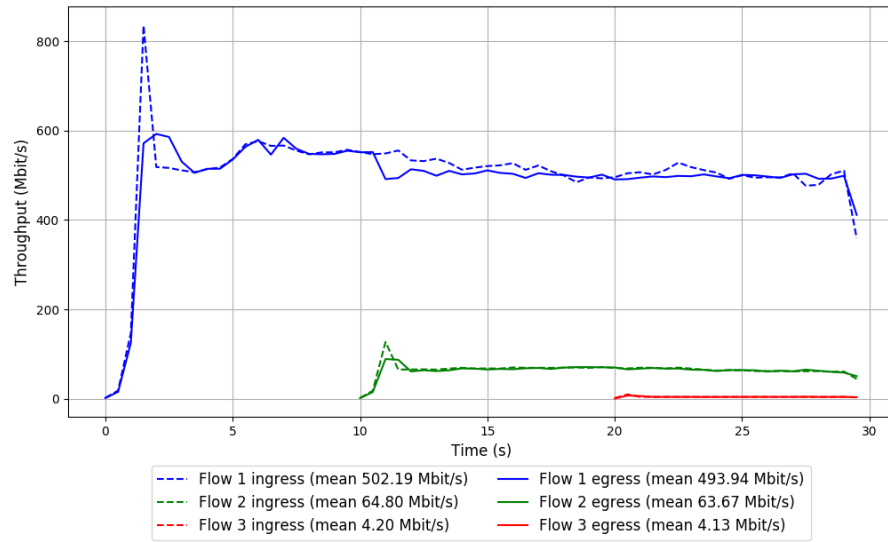
-- Flow 3:

Average throughput: 4.13 Mbit/s

95th percentile per-packet one-way delay: 183.237 ms

Loss rate: 1.80%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-02-21 09:22:00

End at: 2018-02-21 09:22:30

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 524.55 Mbit/s

95th percentile per-packet one-way delay: 181.947 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 471.27 Mbit/s

95th percentile per-packet one-way delay: 181.745 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 64.01 Mbit/s

95th percentile per-packet one-way delay: 182.236 ms

Loss rate: 0.95%

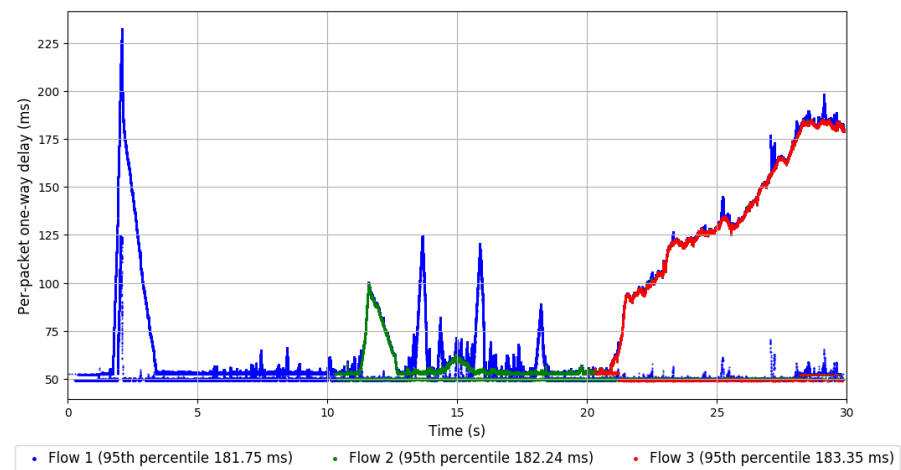
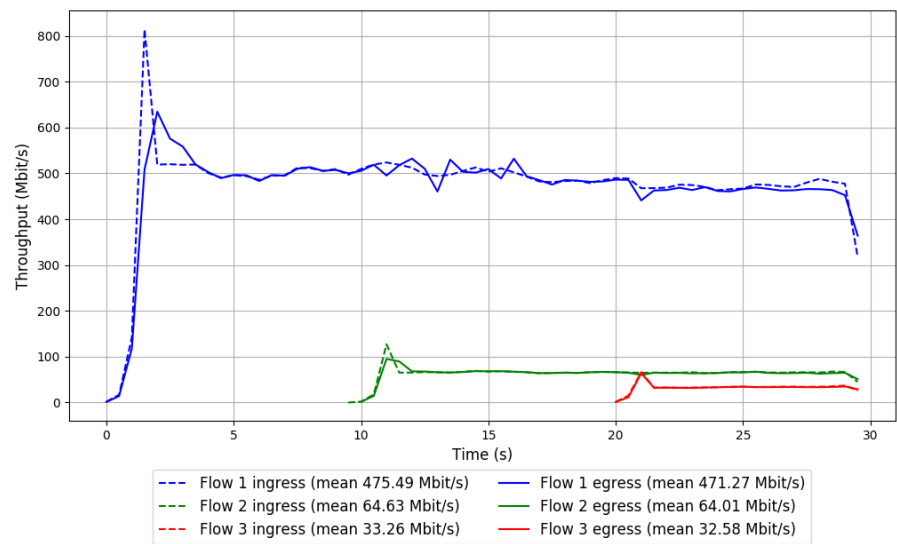
-- Flow 3:

Average throughput: 32.58 Mbit/s

95th percentile per-packet one-way delay: 183.354 ms

Loss rate: 2.07%

Run 10: Report of PCC — Data Link

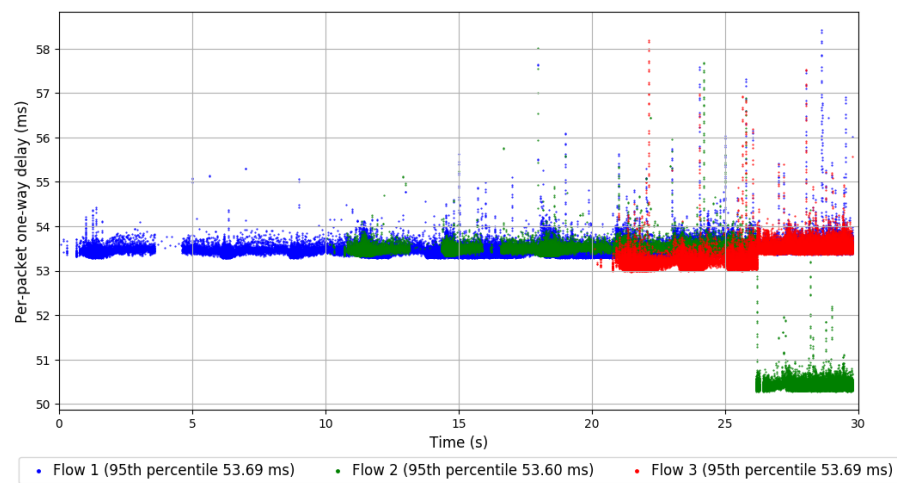
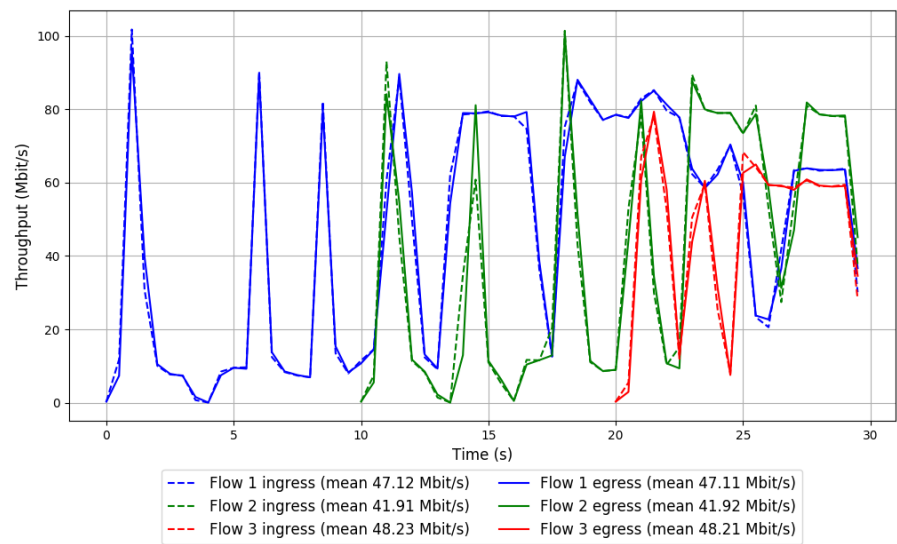


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-21 06:36:45
End at: 2018-02-21 06:37:15

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 90.63 Mbit/s
95th percentile per-packet one-way delay: 53.664 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 47.11 Mbit/s
95th percentile per-packet one-way delay: 53.687 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 41.92 Mbit/s
95th percentile per-packet one-way delay: 53.605 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 48.21 Mbit/s
95th percentile per-packet one-way delay: 53.693 ms
Loss rate: 0.03%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-21 06:54:37

End at: 2018-02-21 06:55:07

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.59 Mbit/s

95th percentile per-packet one-way delay: 53.404 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 51.60 Mbit/s

95th percentile per-packet one-way delay: 53.043 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 33.42 Mbit/s

95th percentile per-packet one-way delay: 53.616 ms

Loss rate: 0.03%

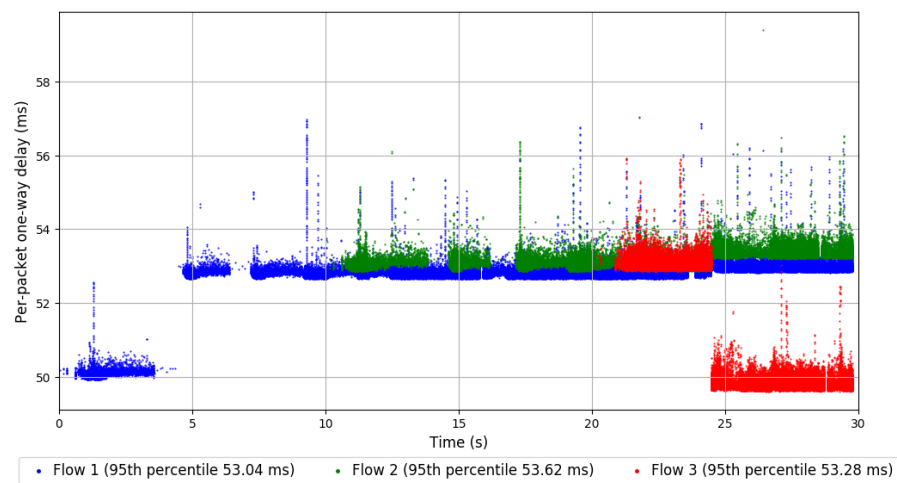
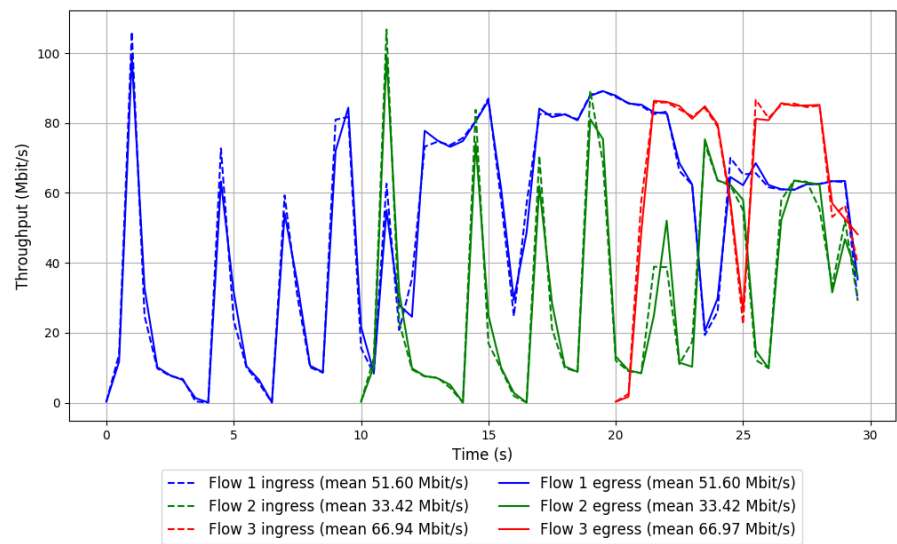
-- Flow 3:

Average throughput: 66.97 Mbit/s

95th percentile per-packet one-way delay: 53.282 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-21 07:12:27

End at: 2018-02-21 07:12:57

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.02 Mbit/s

95th percentile per-packet one-way delay: 52.574 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 52.95 Mbit/s

95th percentile per-packet one-way delay: 52.609 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.46 Mbit/s

95th percentile per-packet one-way delay: 49.965 ms

Loss rate: 0.00%

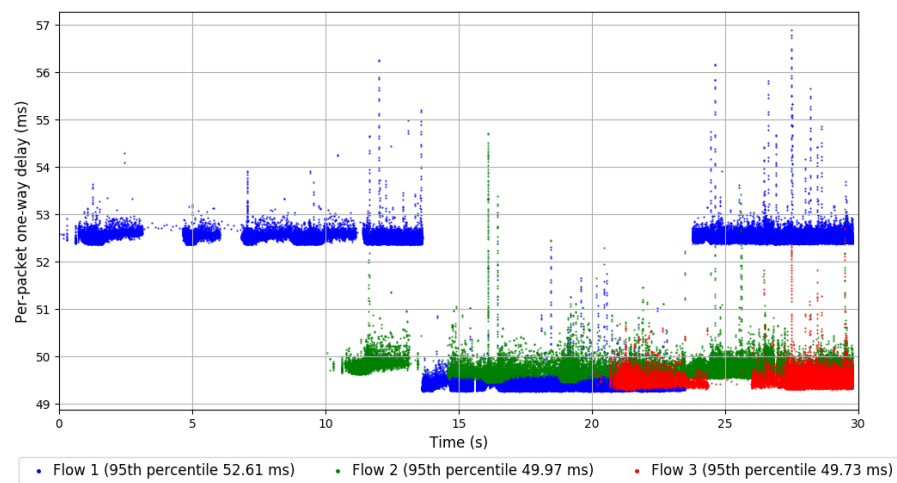
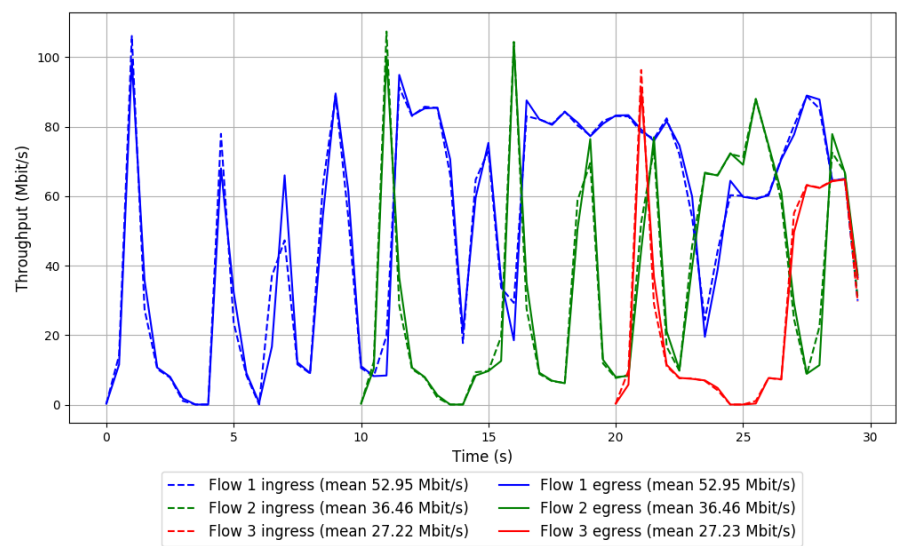
-- Flow 3:

Average throughput: 27.23 Mbit/s

95th percentile per-packet one-way delay: 49.728 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-02-21 07:30:33

End at: 2018-02-21 07:31:03

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 78.36 Mbit/s

95th percentile per-packet one-way delay: 53.209 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 46.16 Mbit/s

95th percentile per-packet one-way delay: 53.216 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.22 Mbit/s

95th percentile per-packet one-way delay: 53.219 ms

Loss rate: 0.03%

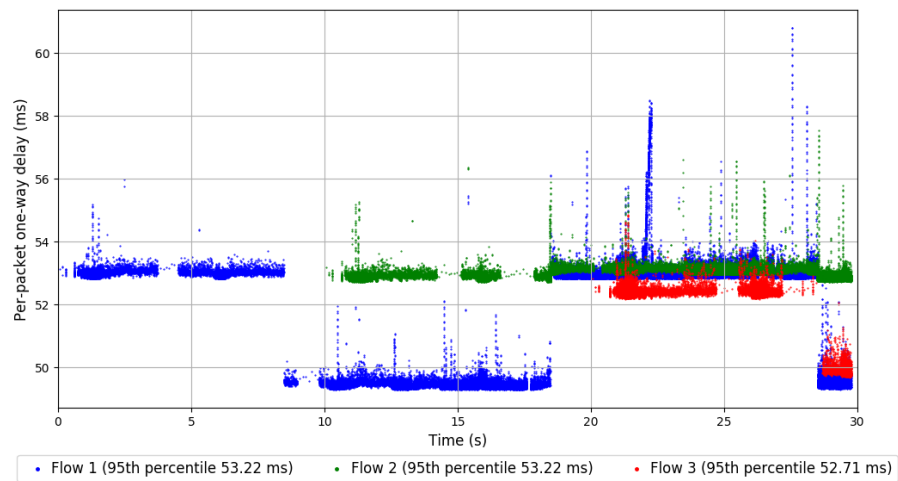
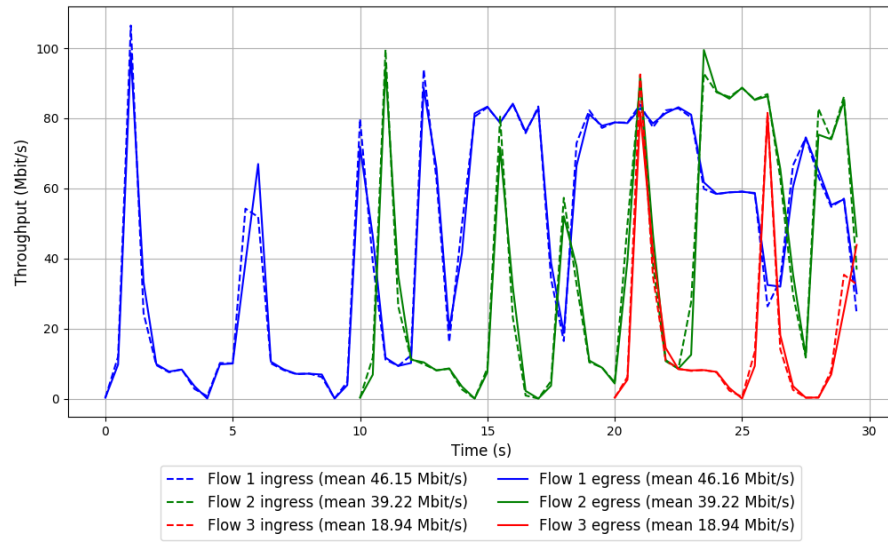
-- Flow 3:

Average throughput: 18.94 Mbit/s

95th percentile per-packet one-way delay: 52.707 ms

Loss rate: 0.01%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-02-21 07:48:20

End at: 2018-02-21 07:48:50

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.62 Mbit/s

95th percentile per-packet one-way delay: 52.903 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 50.35 Mbit/s

95th percentile per-packet one-way delay: 49.816 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 34.57 Mbit/s

95th percentile per-packet one-way delay: 52.620 ms

Loss rate: 0.02%

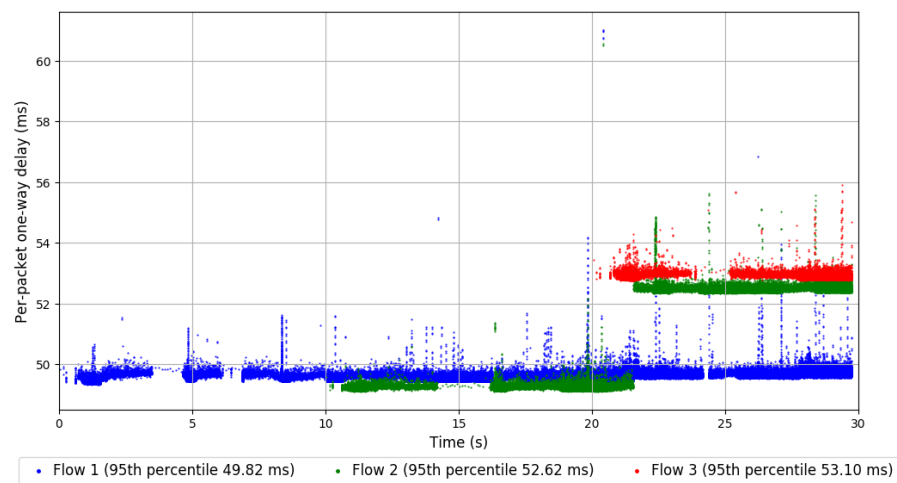
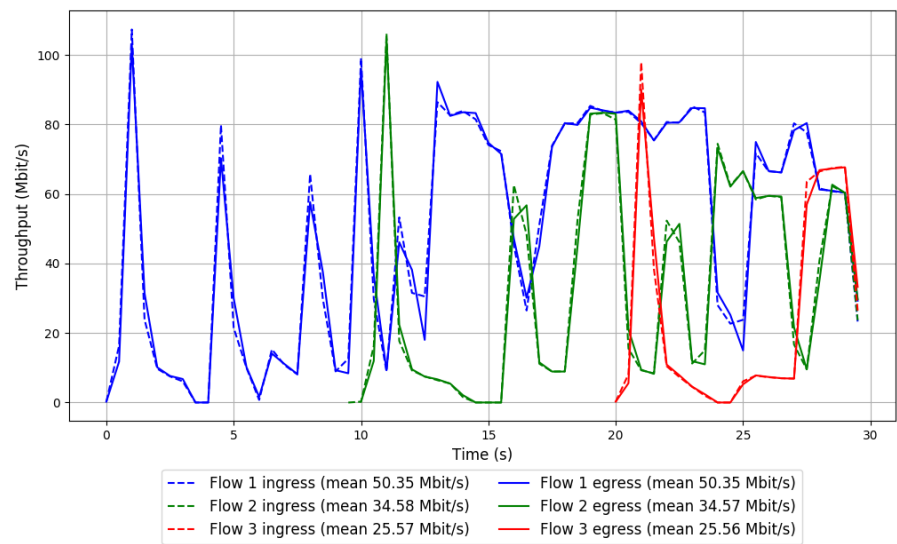
-- Flow 3:

Average throughput: 25.56 Mbit/s

95th percentile per-packet one-way delay: 53.103 ms

Loss rate: 0.07%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-02-21 08:05:46

End at: 2018-02-21 08:06:16

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 70.13 Mbit/s

95th percentile per-packet one-way delay: 53.024 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.11 Mbit/s

95th percentile per-packet one-way delay: 53.037 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.07 Mbit/s

95th percentile per-packet one-way delay: 53.021 ms

Loss rate: 0.00%

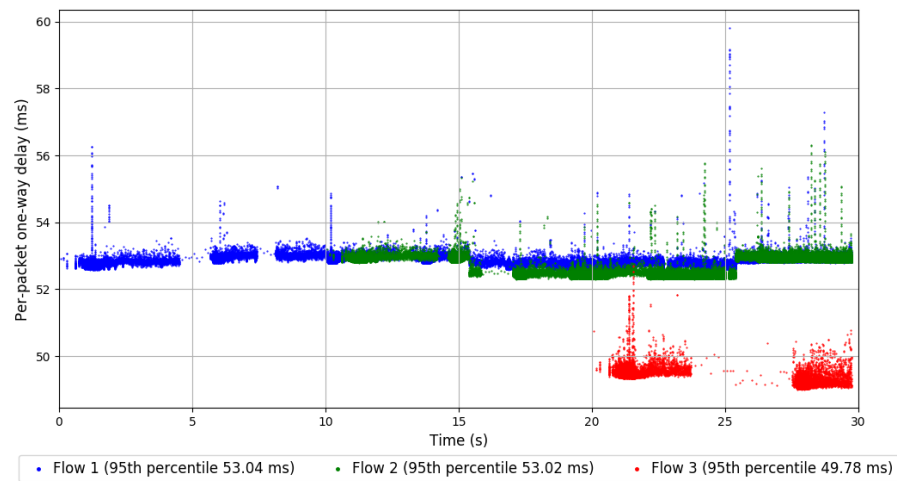
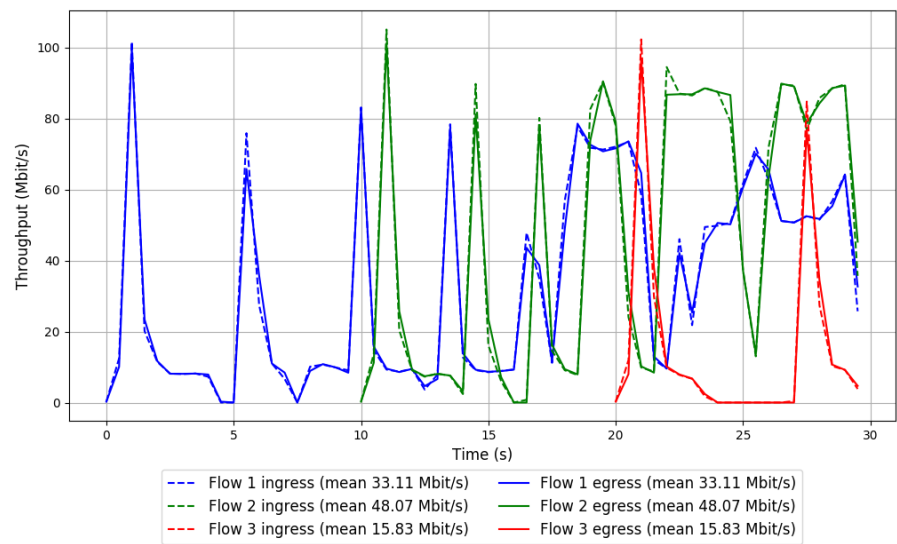
-- Flow 3:

Average throughput: 15.83 Mbit/s

95th percentile per-packet one-way delay: 49.782 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-02-21 08:23:22

End at: 2018-02-21 08:23:52

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.93 Mbit/s

95th percentile per-packet one-way delay: 52.977 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 51.99 Mbit/s

95th percentile per-packet one-way delay: 52.820 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 24.19 Mbit/s

95th percentile per-packet one-way delay: 52.772 ms

Loss rate: 0.01%

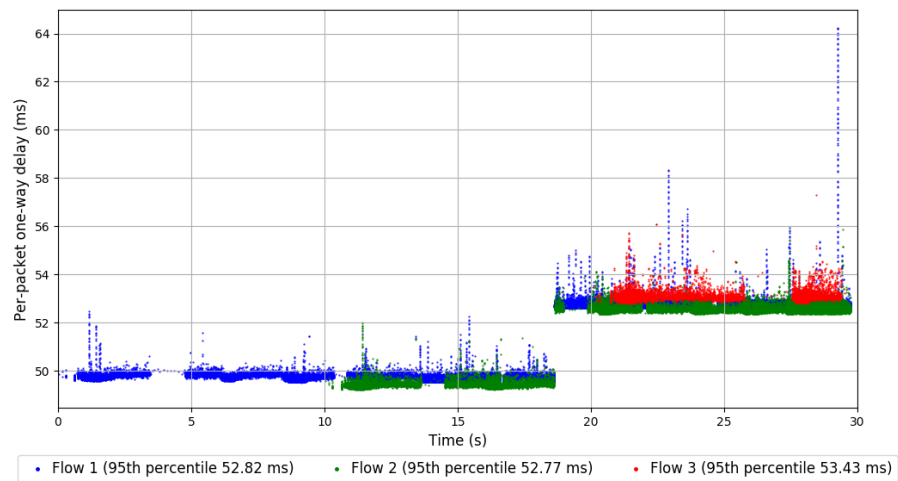
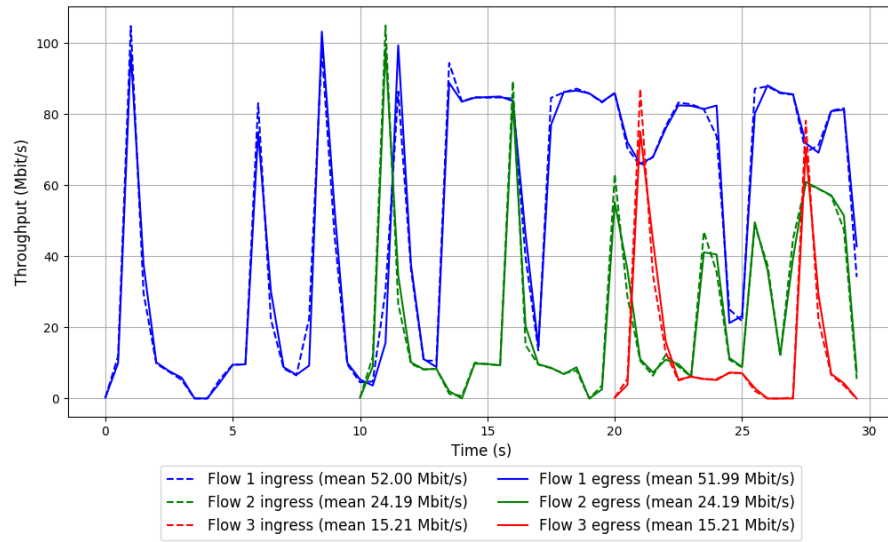
-- Flow 3:

Average throughput: 15.21 Mbit/s

95th percentile per-packet one-way delay: 53.430 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-02-21 08:40:56

End at: 2018-02-21 08:41:26

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.63 Mbit/s

95th percentile per-packet one-way delay: 52.529 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 40.75 Mbit/s

95th percentile per-packet one-way delay: 52.565 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 15.62 Mbit/s

95th percentile per-packet one-way delay: 52.541 ms

Loss rate: 0.00%

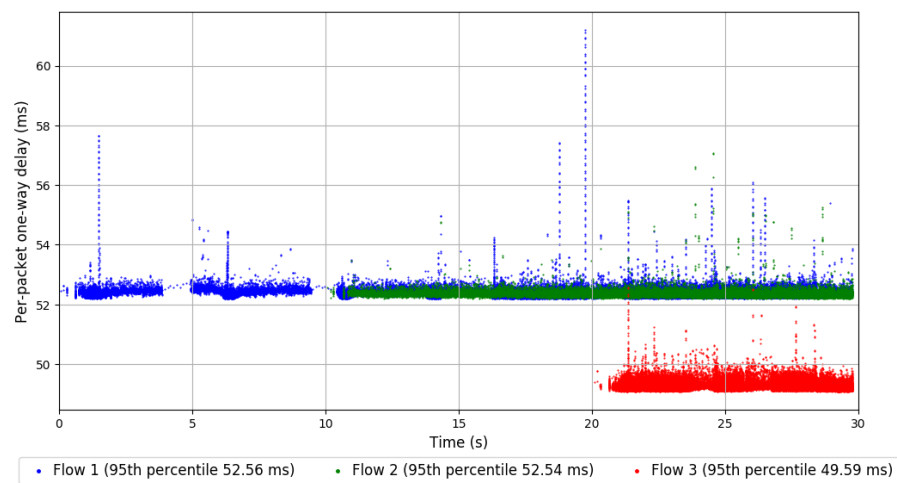
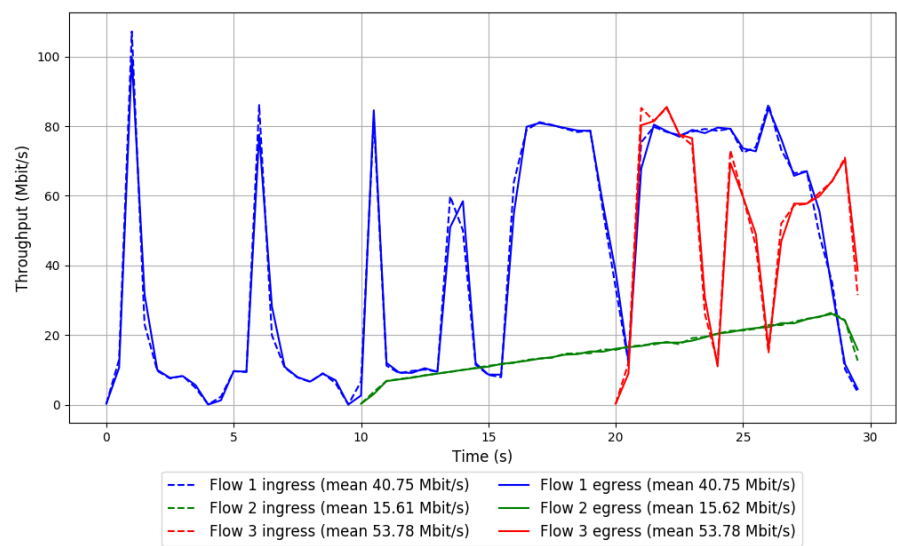
-- Flow 3:

Average throughput: 53.78 Mbit/s

95th percentile per-packet one-way delay: 49.589 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-02-21 08:58:39

End at: 2018-02-21 08:59:09

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.70 Mbit/s

95th percentile per-packet one-way delay: 52.285 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.15 Mbit/s

95th percentile per-packet one-way delay: 49.402 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 28.59 Mbit/s

95th percentile per-packet one-way delay: 52.078 ms

Loss rate: 0.00%

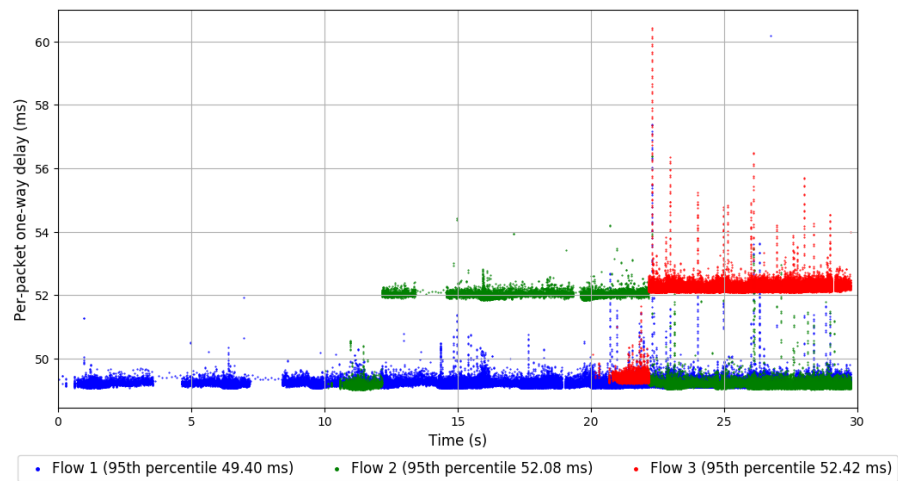
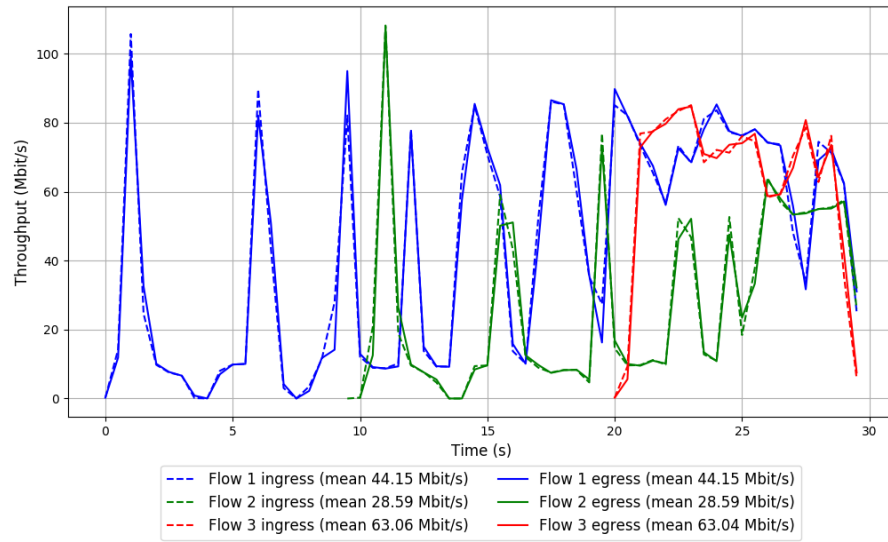
-- Flow 3:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 52.422 ms

Loss rate: 0.01%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-02-21 09:16:01

End at: 2018-02-21 09:16:31

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.56 Mbit/s

95th percentile per-packet one-way delay: 52.611 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.89 Mbit/s

95th percentile per-packet one-way delay: 49.131 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.95 Mbit/s

95th percentile per-packet one-way delay: 52.700 ms

Loss rate: 0.00%

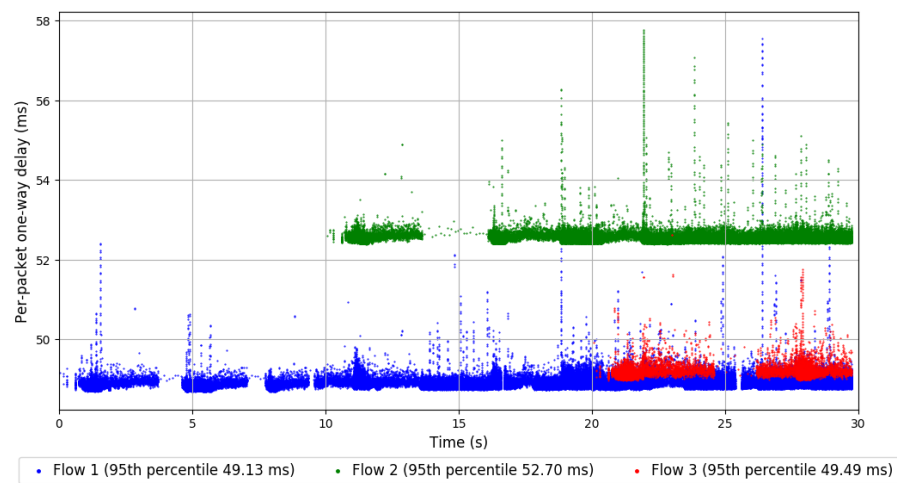
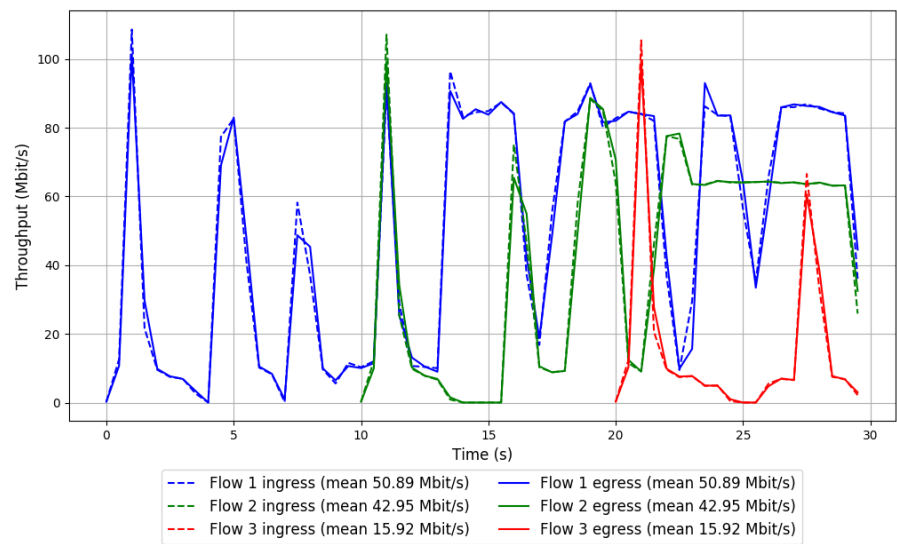
-- Flow 3:

Average throughput: 15.92 Mbit/s

95th percentile per-packet one-way delay: 49.491 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

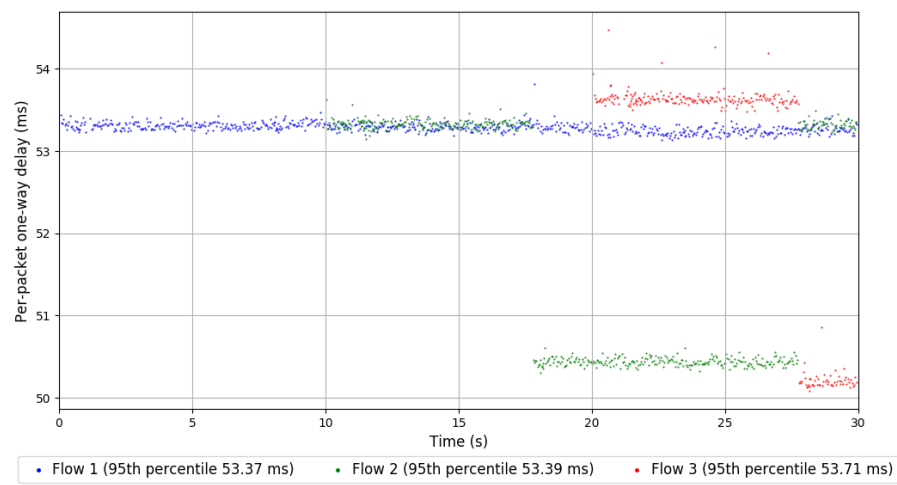
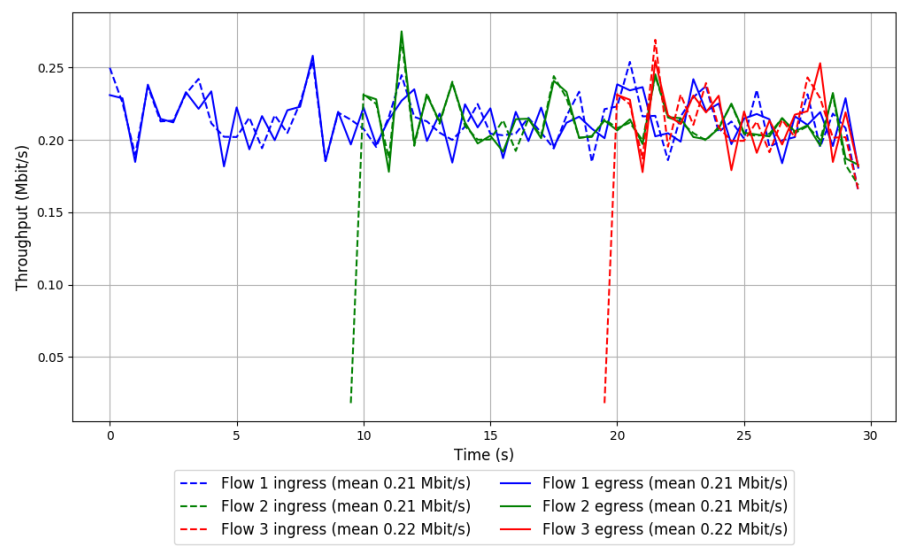


```
Run 1: Statistics of SCReAM

Start at: 2018-02-21 06:38:43
End at: 2018-02-21 06:39:13

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.635 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.374 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.388 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.710 ms
Loss rate: 0.00%
```

Run 1: Report of SCRaM — Data Link

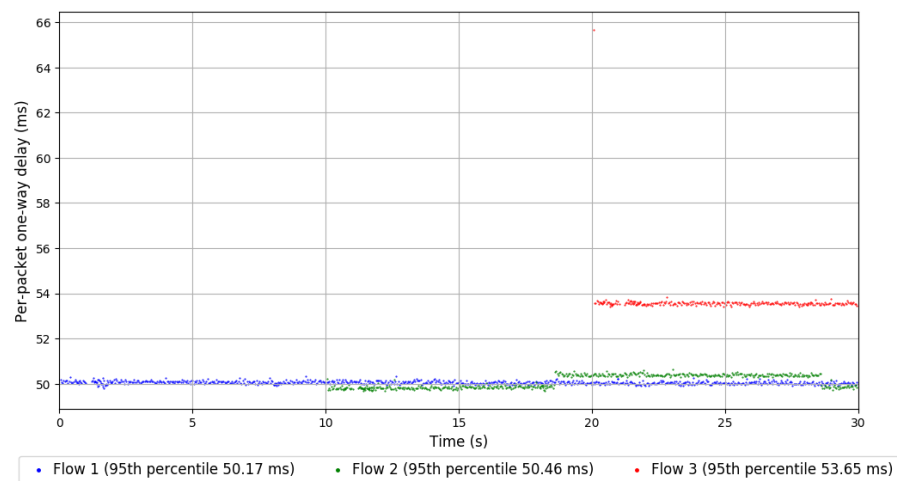
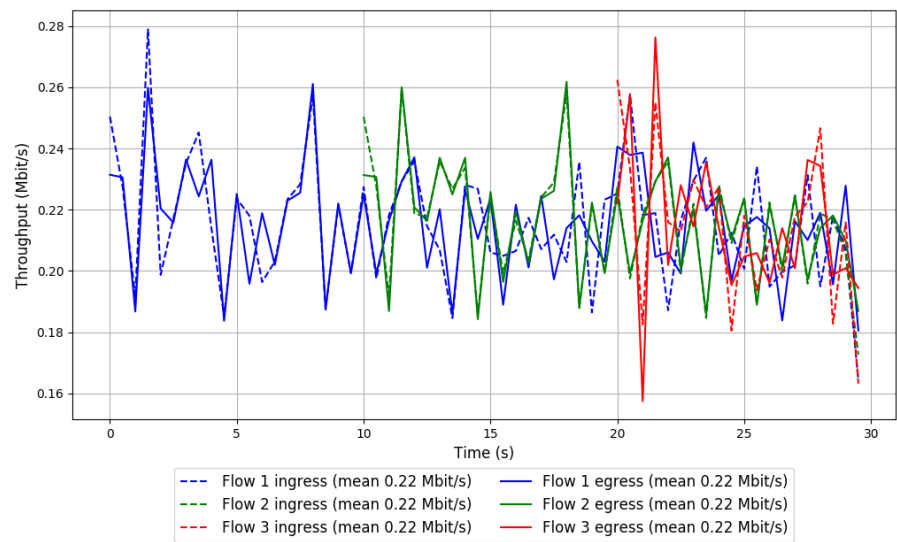


```
Run 2: Statistics of SCReAM

Start at: 2018-02-21 06:56:43
End at: 2018-02-21 06:57:13

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.586 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.168 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.461 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.645 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link

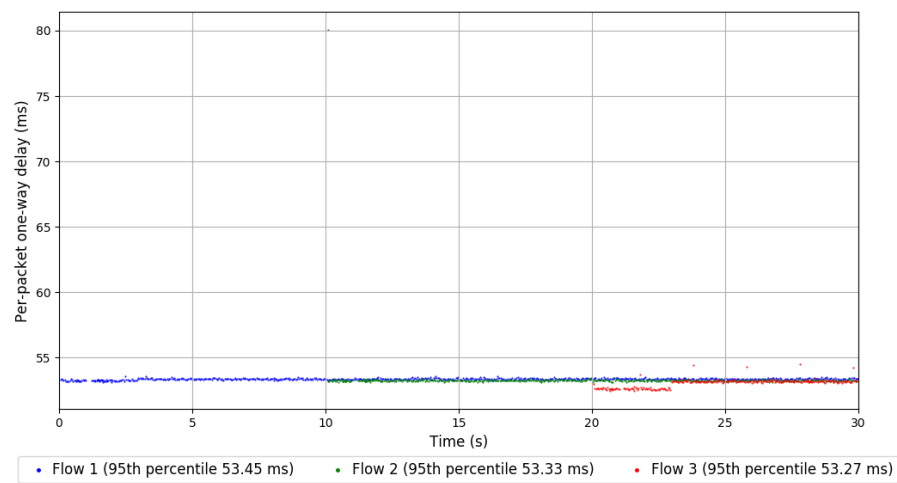
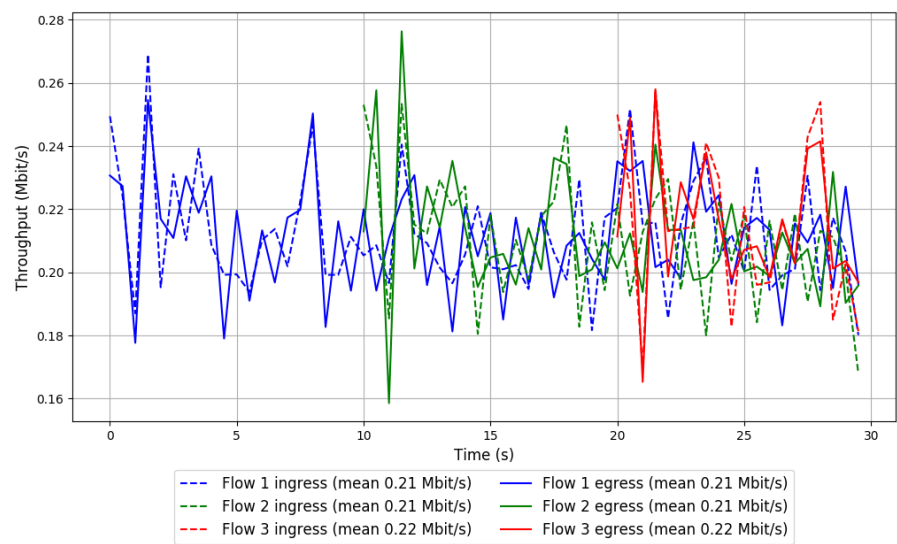


```
Run 3: Statistics of SCReAM

Start at: 2018-02-21 07:14:28
End at: 2018-02-21 07:14:58

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 53.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.445 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.326 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.271 ms
Loss rate: 0.00%
```


Run 3: Report of SReAM — Data Link

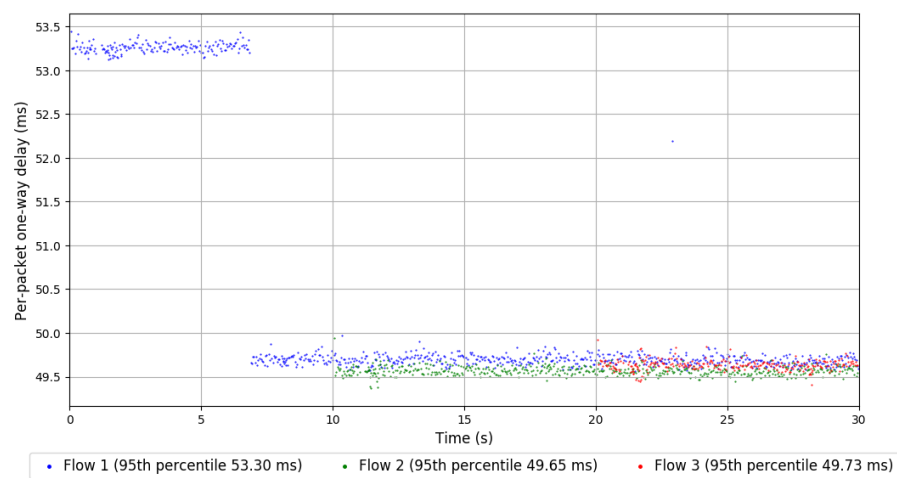
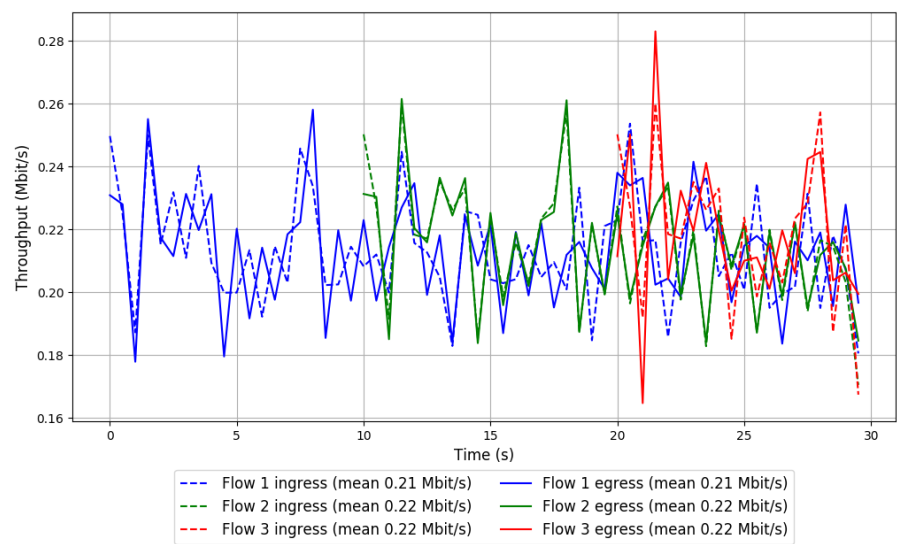


```
Run 4: Statistics of SCReAM

Start at: 2018-02-21 07:32:24
End at: 2018-02-21 07:32:54

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.269 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.298 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.646 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.732 ms
Loss rate: 0.00%
```

Run 4: Report of SReAM — Data Link

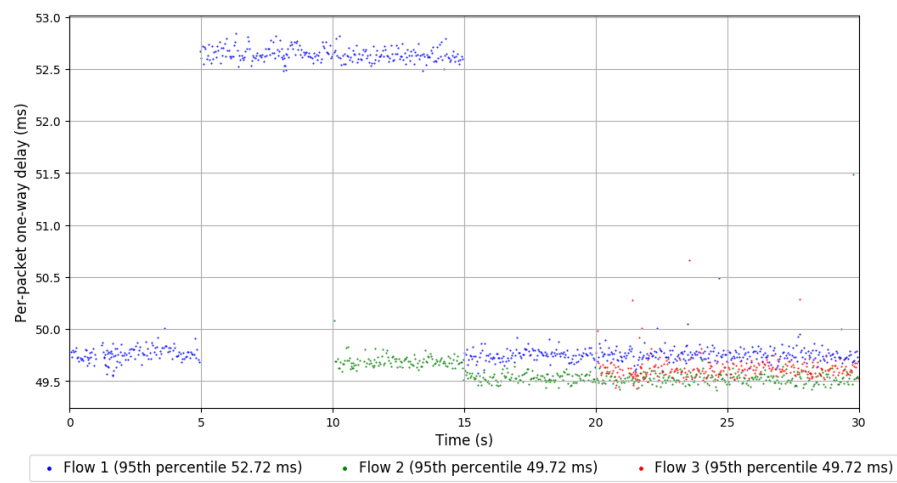
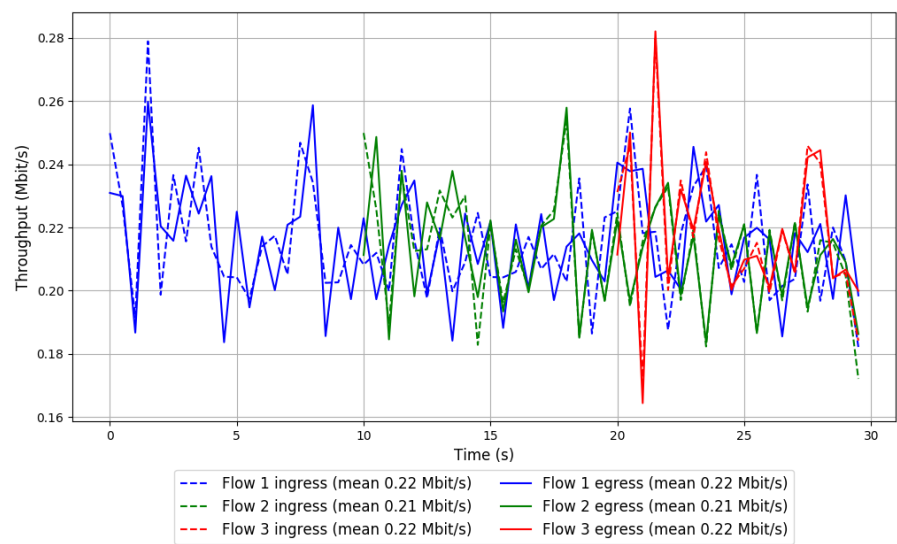


```
Run 5: Statistics of SReAM

Start at: 2018-02-21 07:50:16
End at: 2018-02-21 07:50:46

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 52.669 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.716 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 49.724 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.716 ms
Loss rate: 0.00%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-02-21 08:07:42

End at: 2018-02-21 08:08:12

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 49.862 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.884 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.437 ms

Loss rate: 0.00%

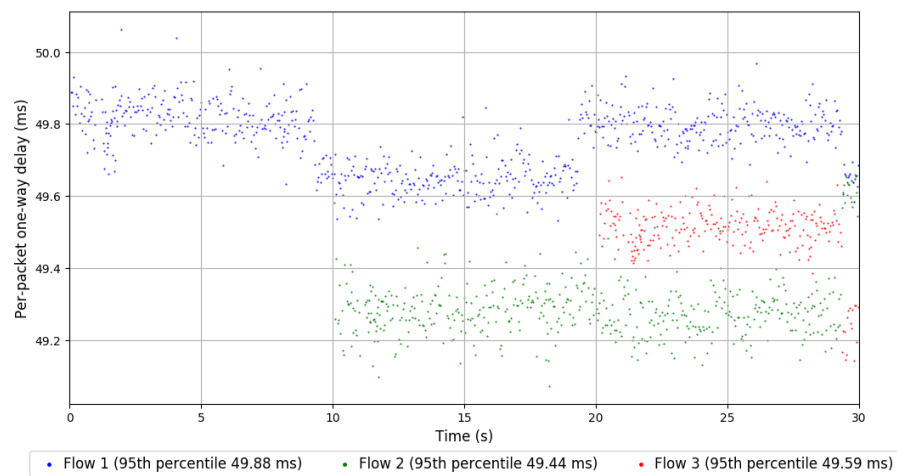
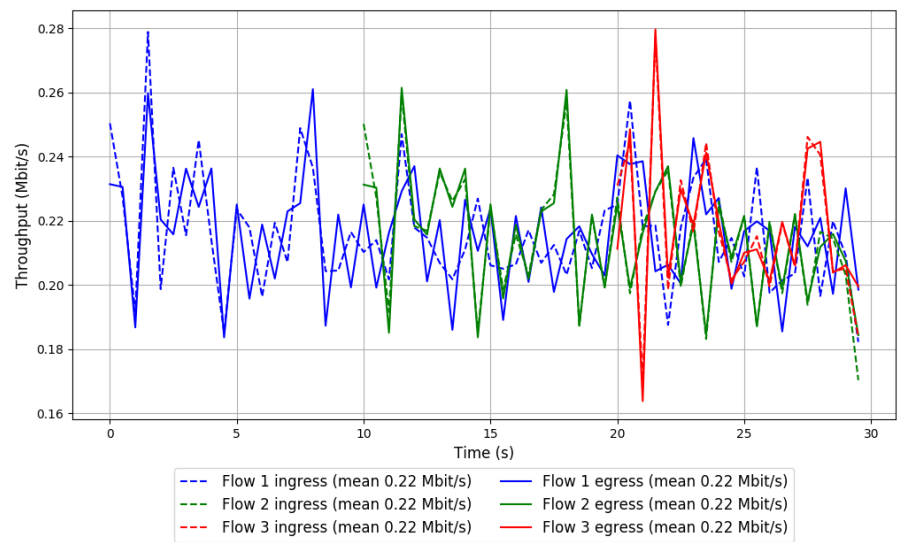
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.591 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

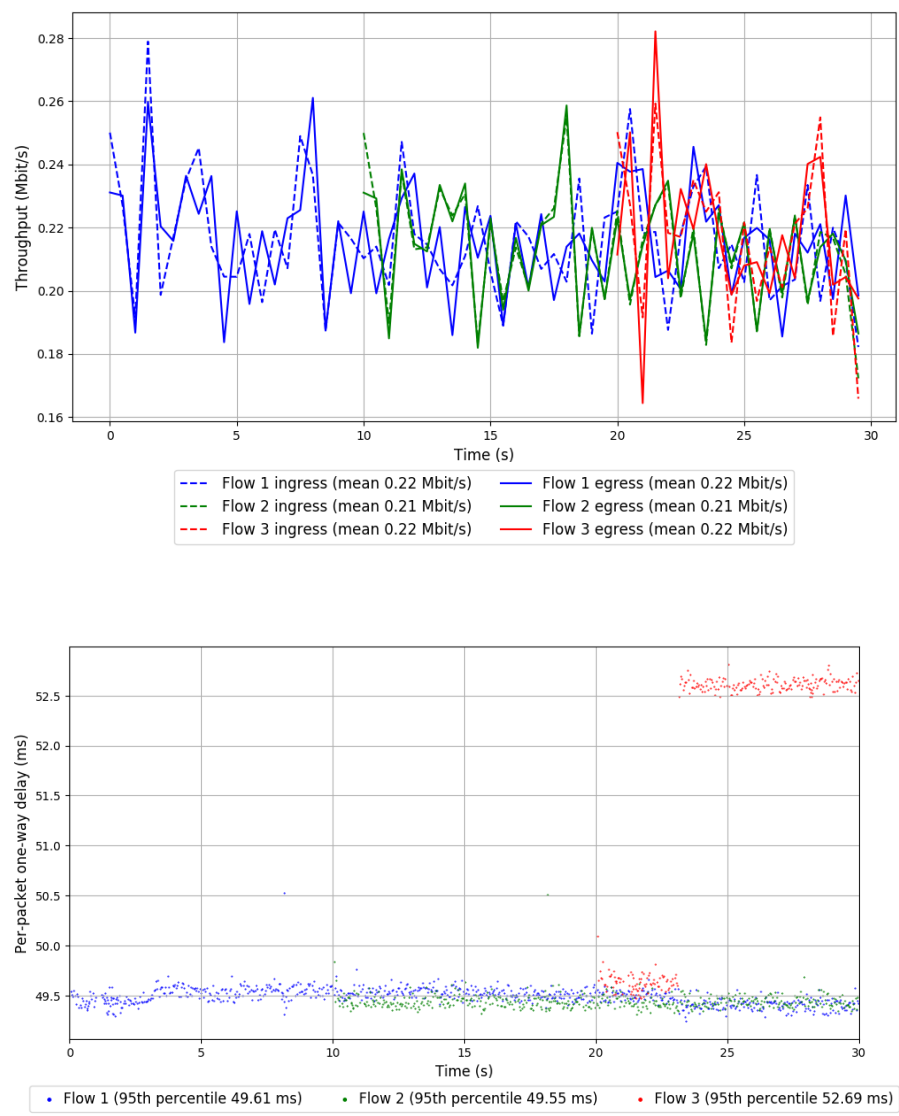


```
Run 7: Statistics of SReAM

Start at: 2018-02-21 08:25:18
End at: 2018-02-21 08:25:48

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 52.625 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 49.607 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 49.549 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.692 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-02-21 08:42:49

End at: 2018-02-21 08:43:20

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 52.744 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 52.767 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 52.425 ms

Loss rate: 0.00%

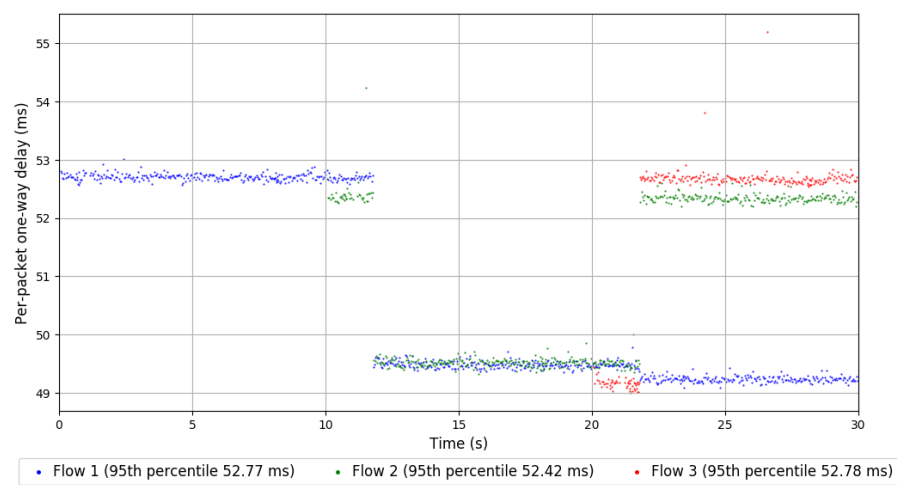
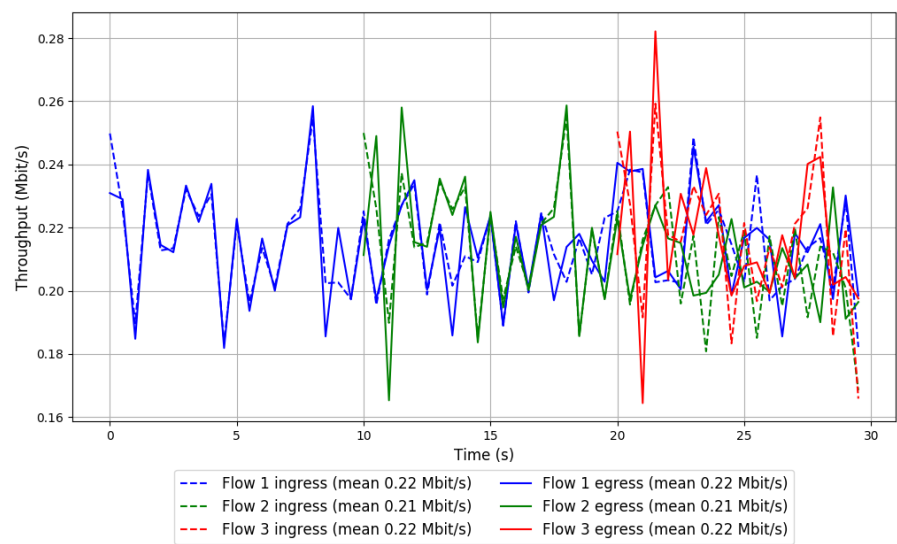
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 52.777 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link

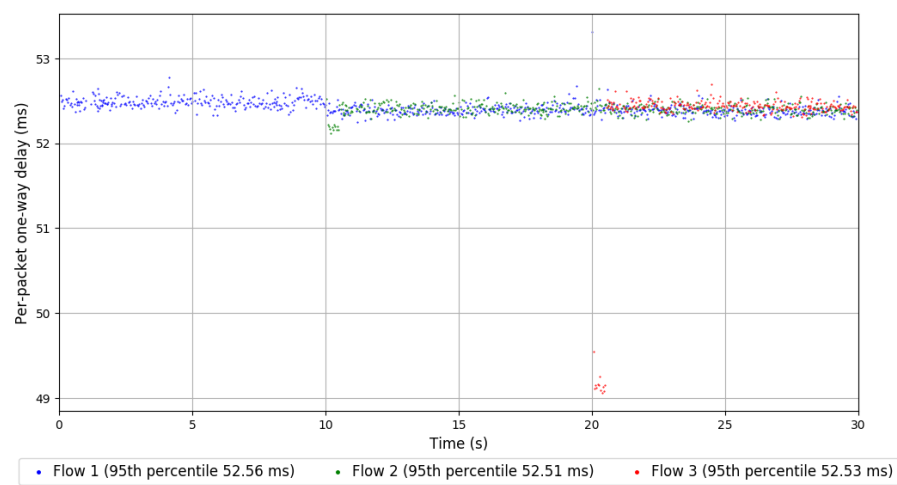
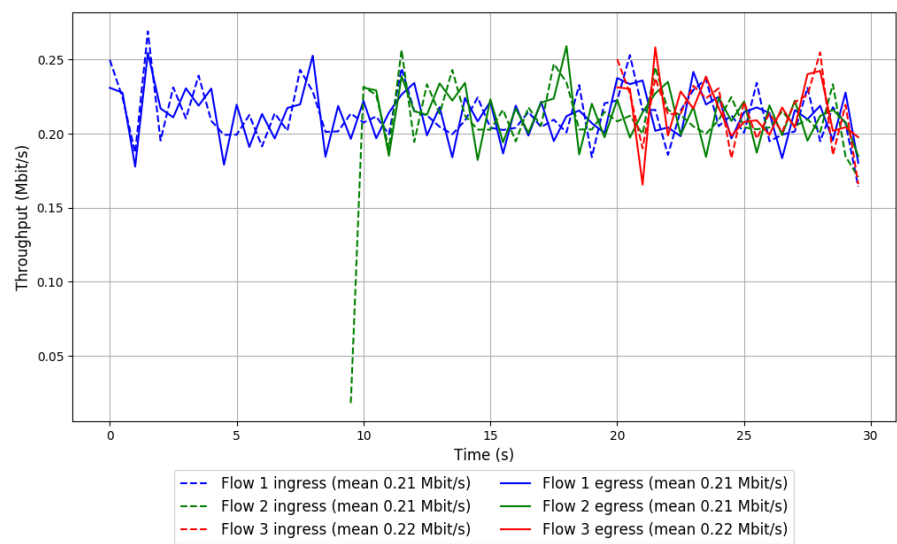


```
Run 9: Statistics of SCReAM

Start at: 2018-02-21 09:00:41
End at: 2018-02-21 09:01:11

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 52.537 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 52.561 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 52.505 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.534 ms
Loss rate: 0.00%
```

Run 9: Report of SCReAM — Data Link



Run 10: Statistics of SCReAM

Start at: 2018-02-21 09:17:57

End at: 2018-02-21 09:18:27

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 52.742 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 49.323 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 52.355 ms

Loss rate: 0.00%

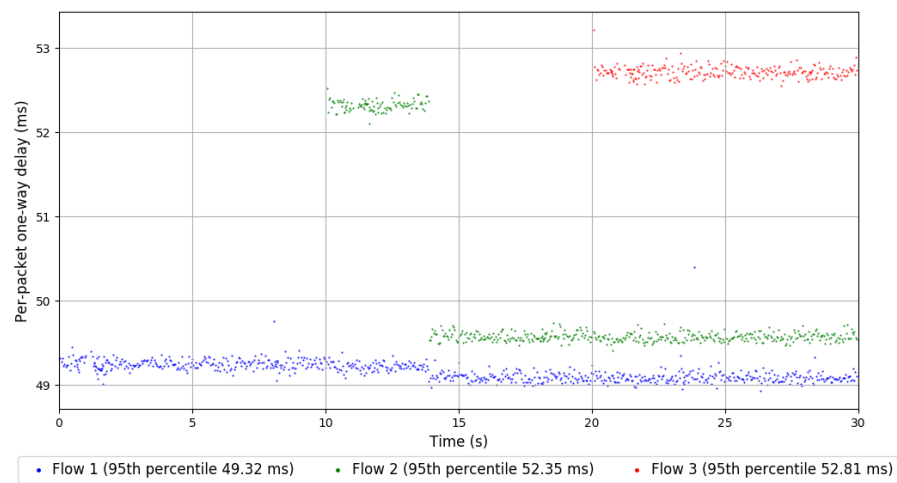
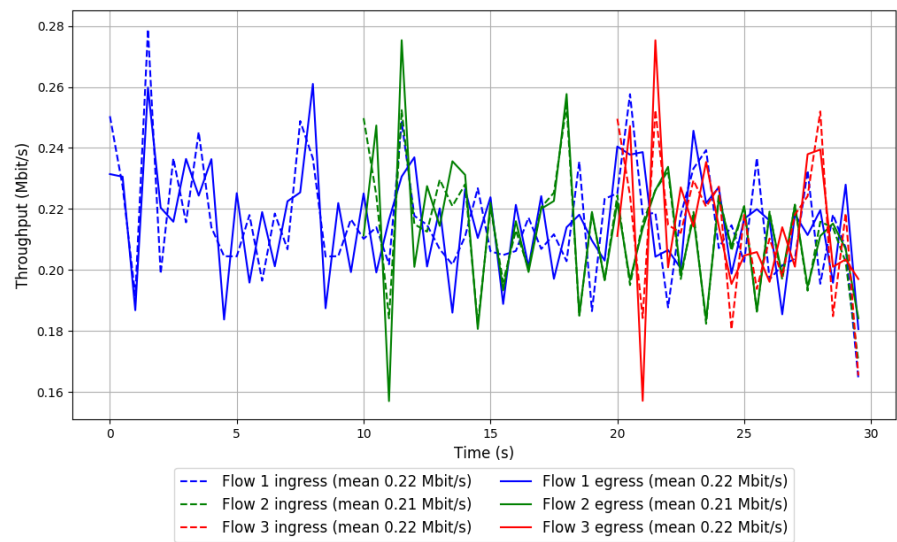
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 52.813 ms

Loss rate: 0.00%

Run 10: Report of SReAM — Data Link

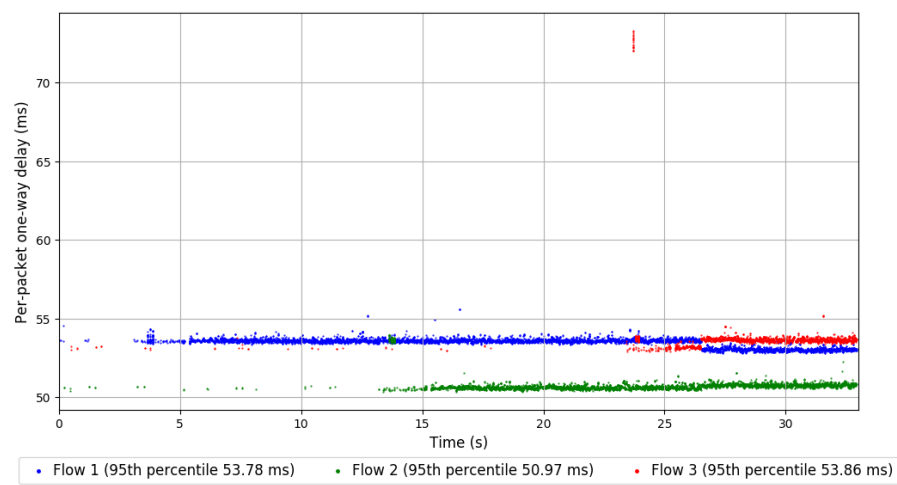
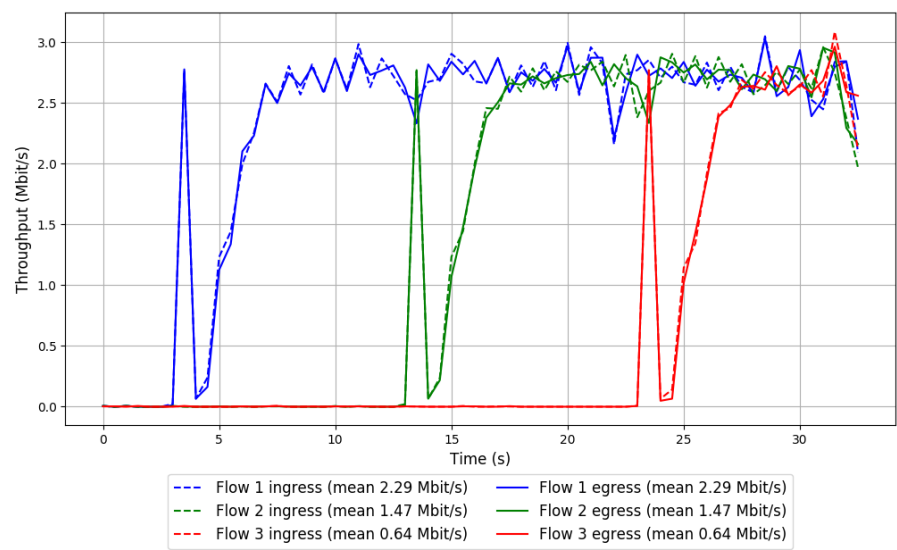


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-21 06:50:18
End at: 2018-02-21 06:50:48

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 53.778 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 53.780 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 50.966 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 53.863 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-02-21 07:08:27

End at: 2018-02-21 07:08:57

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.174 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 52.898 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.005 ms

Loss rate: 0.00%

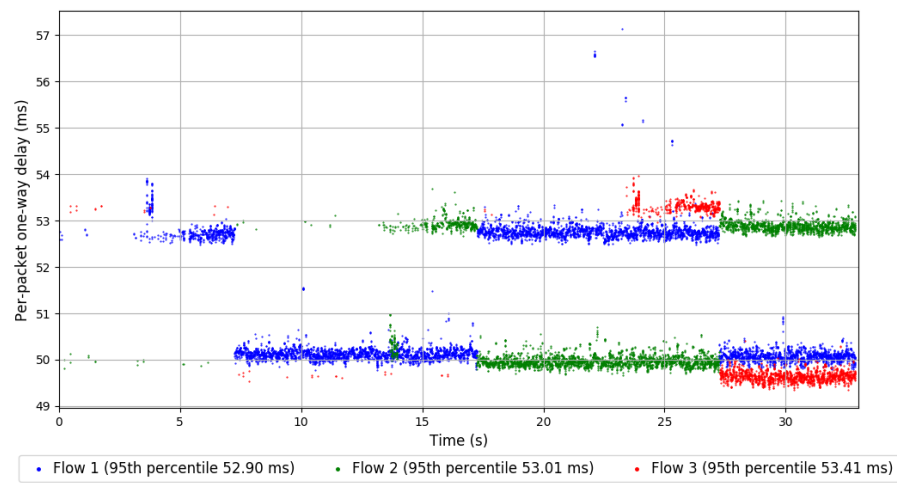
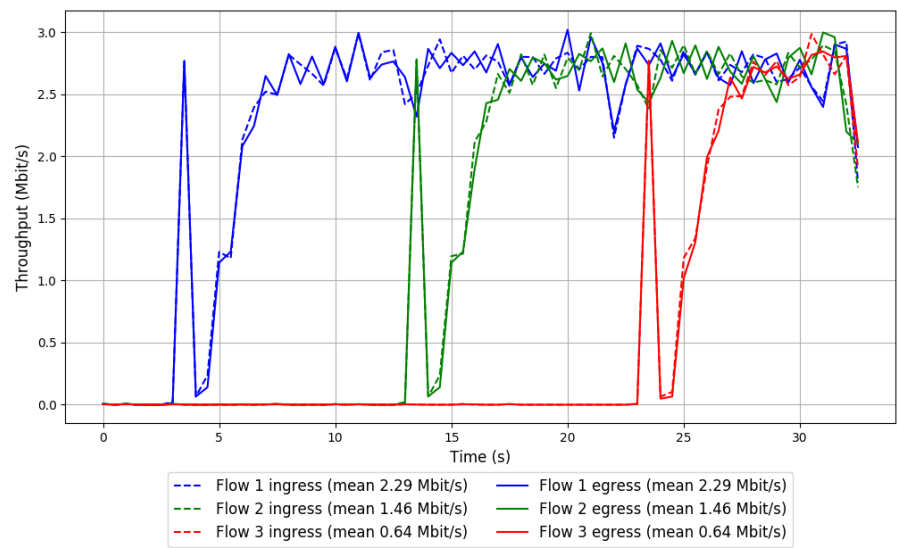
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.413 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-02-21 07:26:04

End at: 2018-02-21 07:26:34

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.347 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.368 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.319 ms

Loss rate: 0.00%

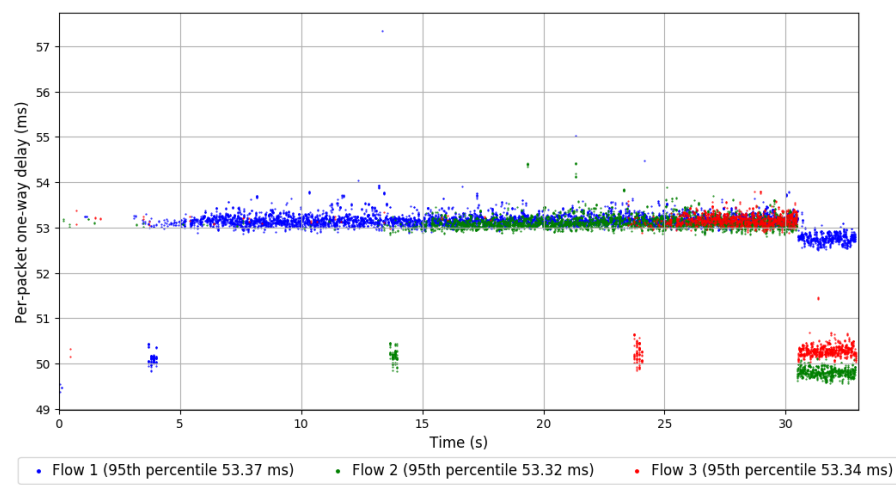
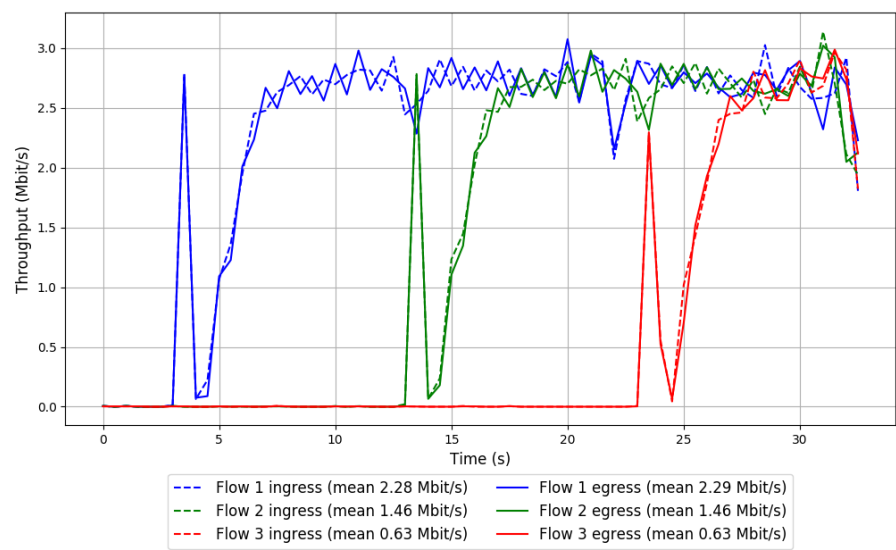
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.335 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-02-21 07:43:58

End at: 2018-02-21 07:44:28

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 53.090 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.204 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 53.155 ms

Loss rate: 0.00%

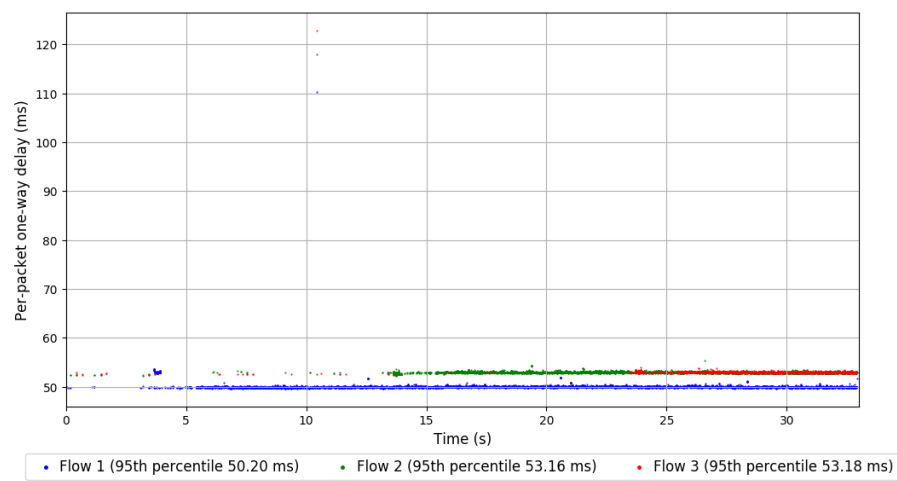
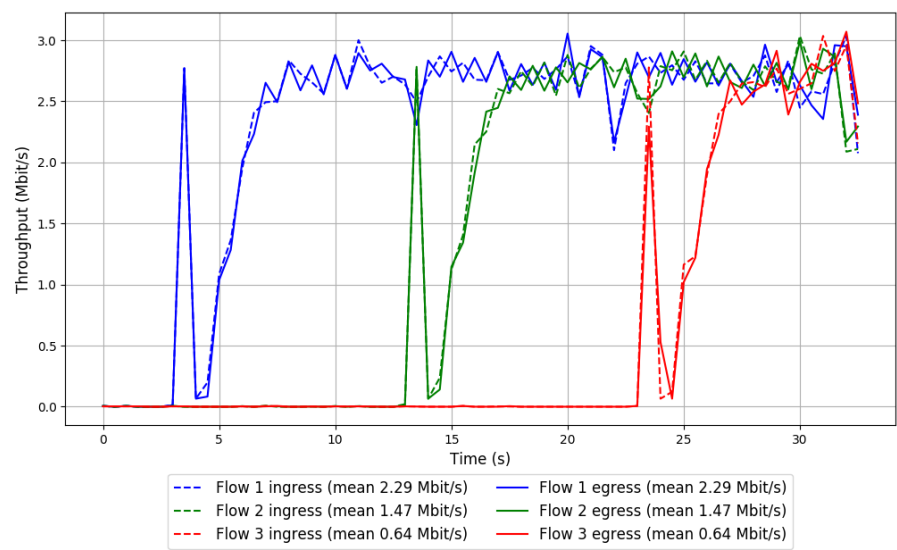
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.180 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-02-21 08:01:46

End at: 2018-02-21 08:02:16

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 50.006 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.005 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.037 ms

Loss rate: 0.00%

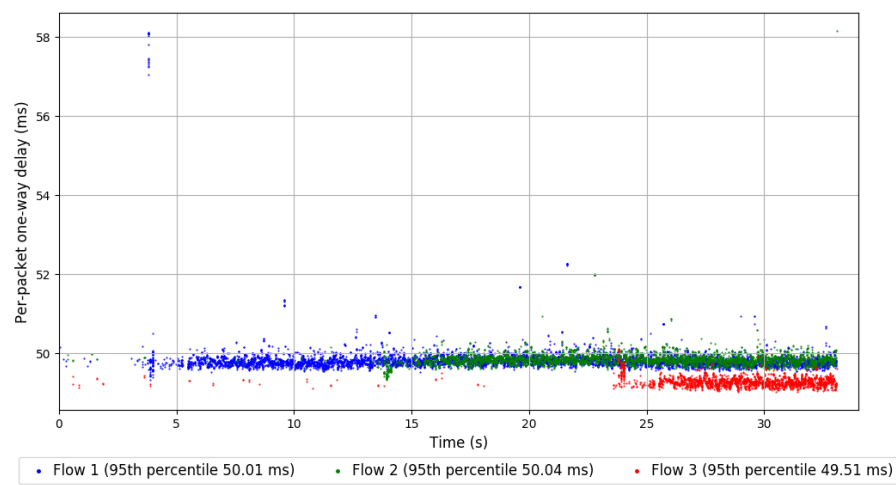
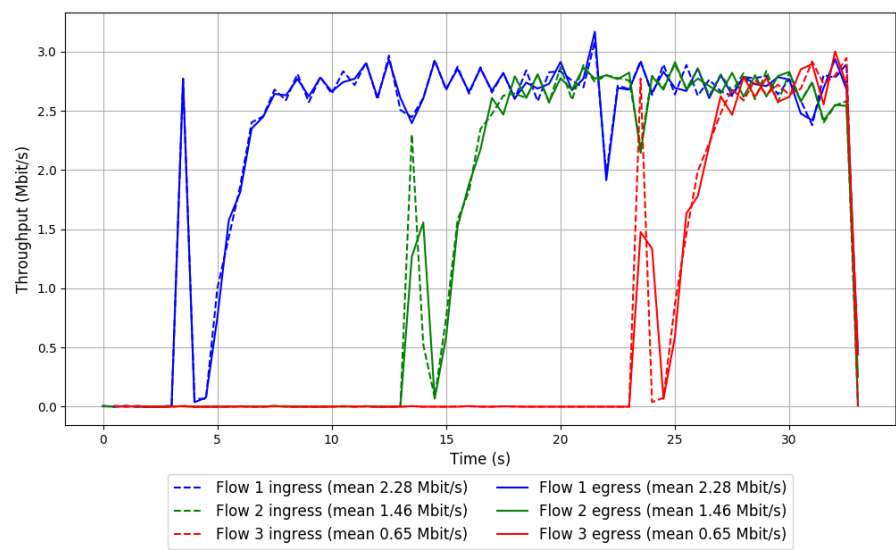
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 49.506 ms

Loss rate: 0.00%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-02-21 08:19:21

End at: 2018-02-21 08:19:51

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 53.034 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.093 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 49.563 ms

Loss rate: 0.00%

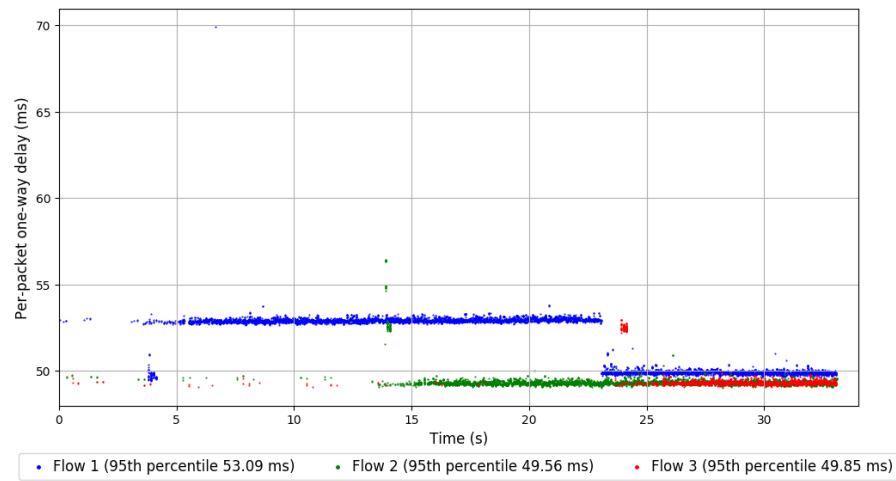
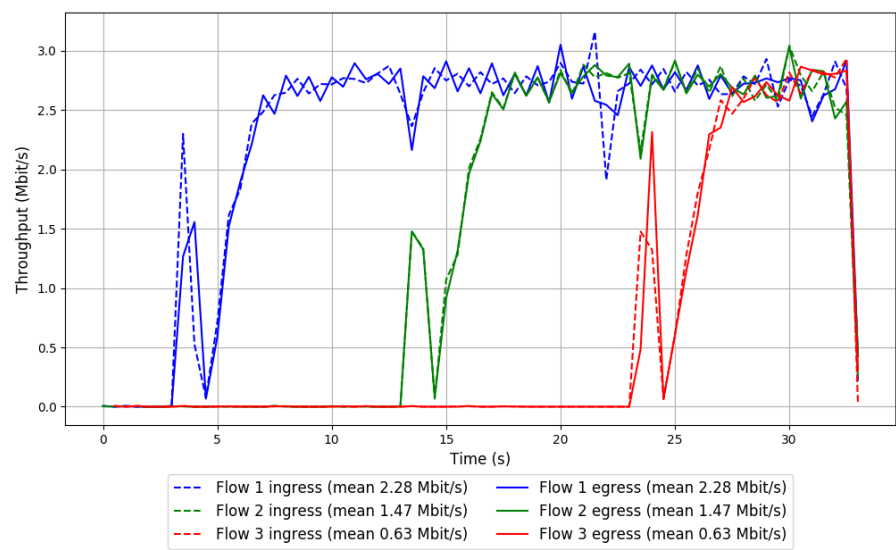
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 49.855 ms

Loss rate: 0.05%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-02-21 08:36:50

End at: 2018-02-21 08:37:20

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.56 Mbit/s

95th percentile per-packet one-way delay: 52.588 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 52.628 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 49.703 ms

Loss rate: 0.02%

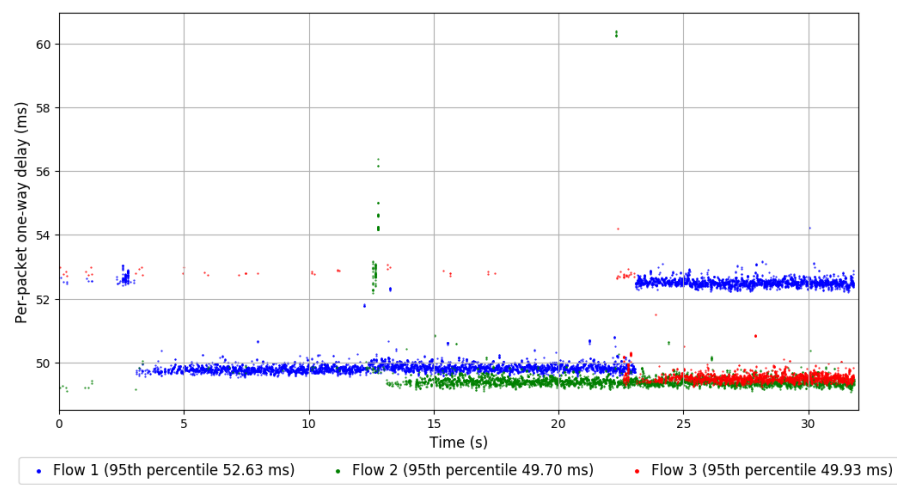
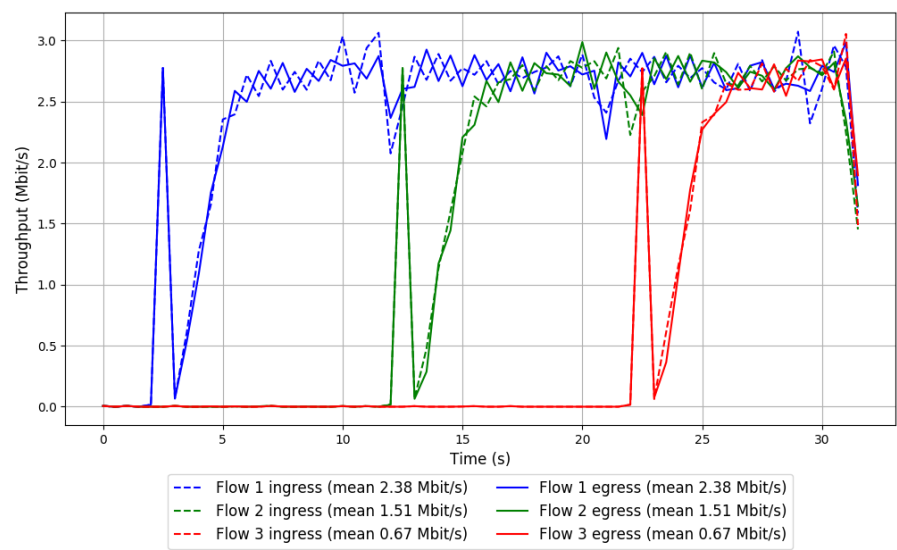
-- Flow 3:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 49.928 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-02-21 08:54:27

End at: 2018-02-21 08:54:57

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 49.814 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 49.873 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 49.486 ms

Loss rate: 0.00%

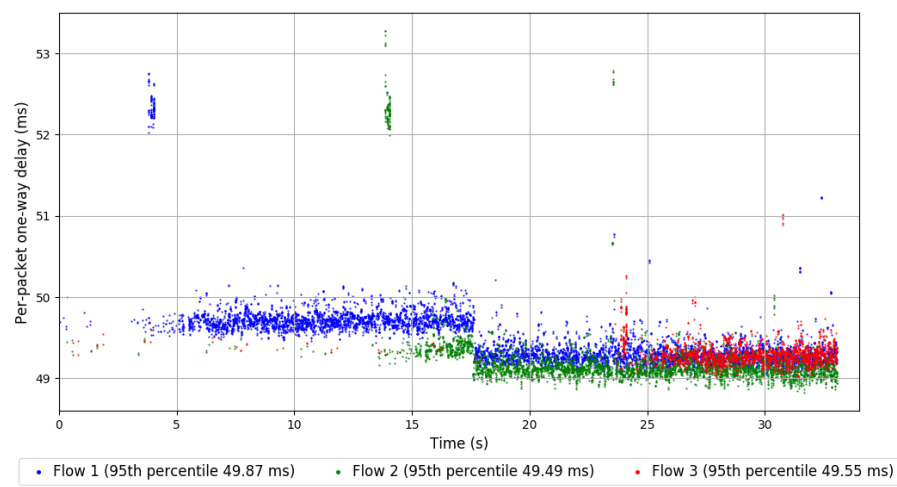
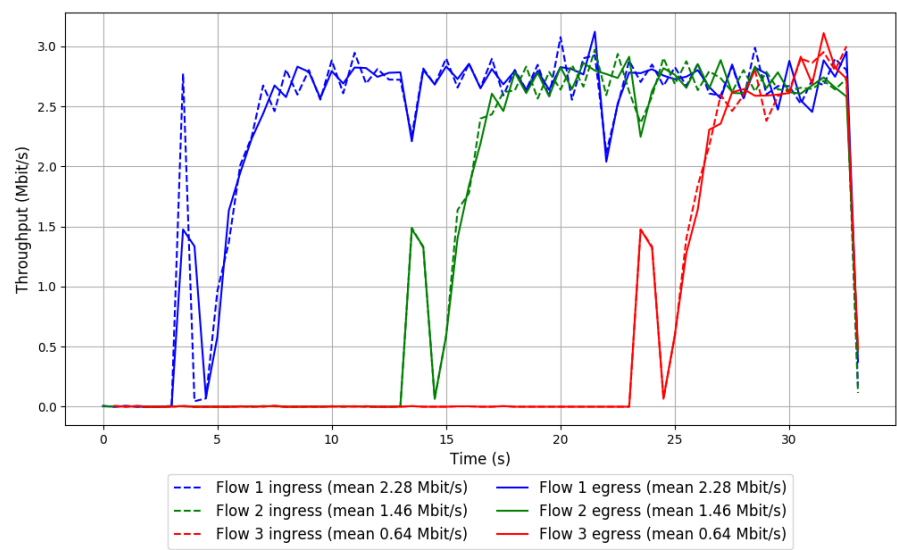
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 49.548 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-02-21 09:12:04

End at: 2018-02-21 09:12:34

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.42 Mbit/s

95th percentile per-packet one-way delay: 52.506 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 52.574 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 49.524 ms

Loss rate: 0.00%

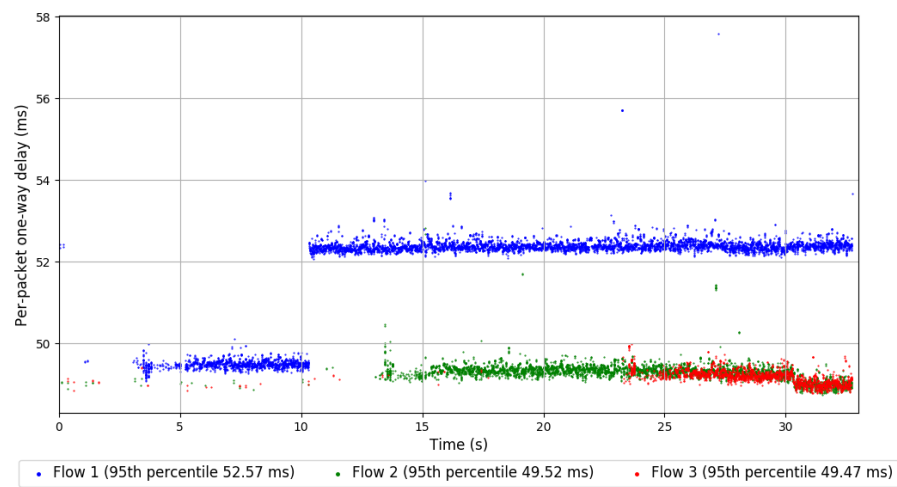
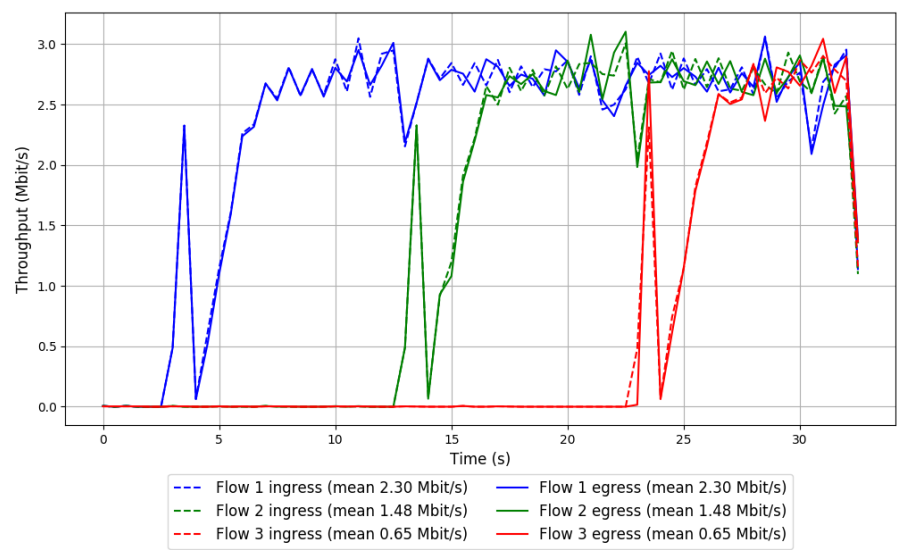
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 49.465 ms

Loss rate: 0.05%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-02-21 09:29:33

End at: 2018-02-21 09:30:03

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 52.750 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 52.457 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 52.784 ms

Loss rate: 0.00%

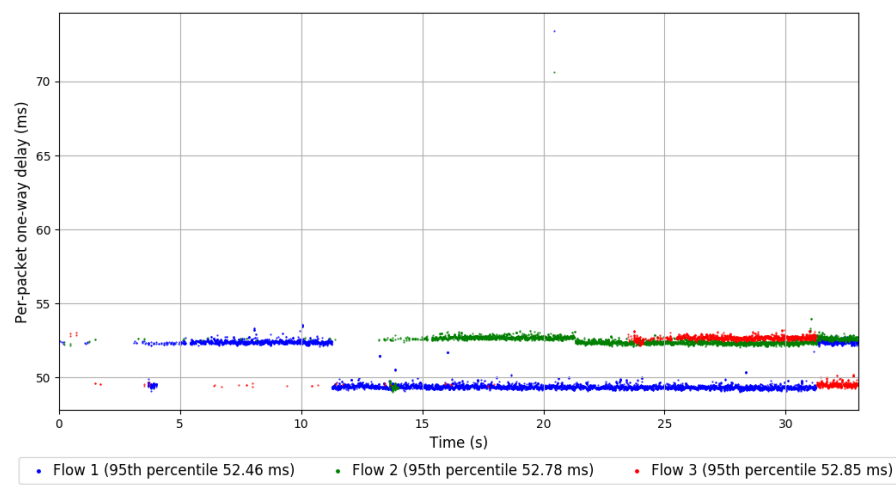
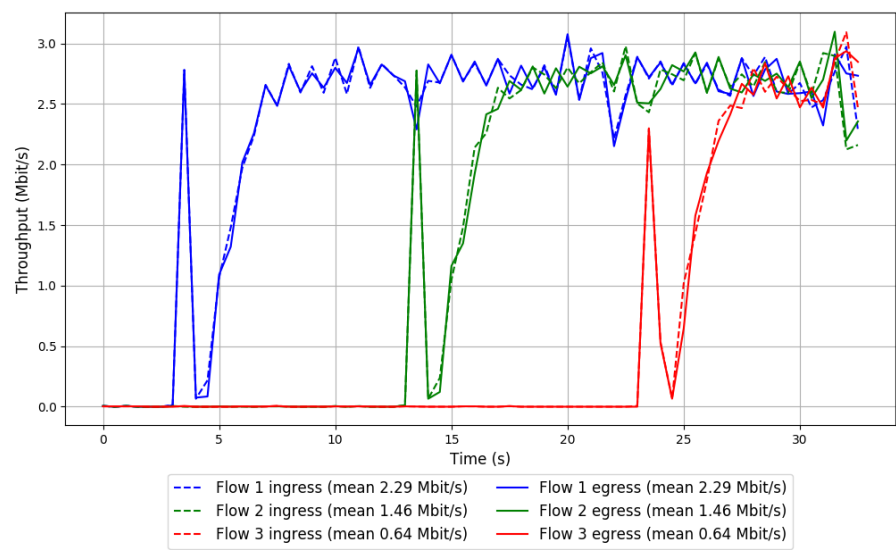
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 52.855 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

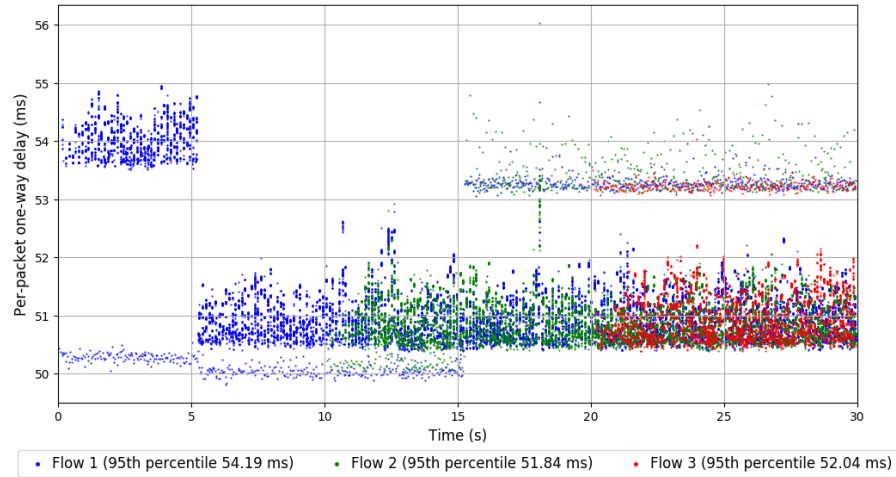
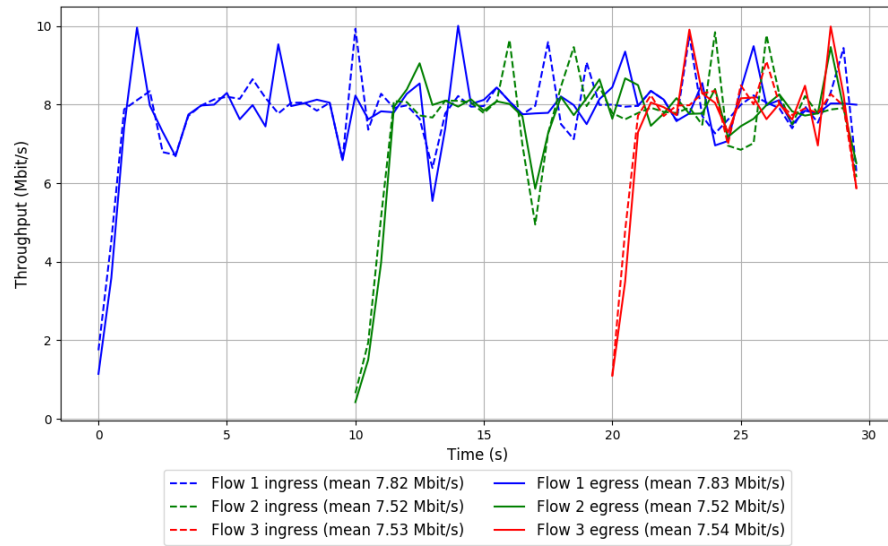


```
Run 1: Statistics of Sprout

Start at: 2018-02-21 06:43:36
End at: 2018-02-21 06:44:06

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.31 Mbit/s
95th percentile per-packet one-way delay: 53.944 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 7.83 Mbit/s
95th percentile per-packet one-way delay: 54.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 51.836 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 7.54 Mbit/s
95th percentile per-packet one-way delay: 52.044 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-02-21 07:01:44

End at: 2018-02-21 07:02:14

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.05 Mbit/s

95th percentile per-packet one-way delay: 54.233 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 54.117 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 54.269 ms

Loss rate: 0.00%

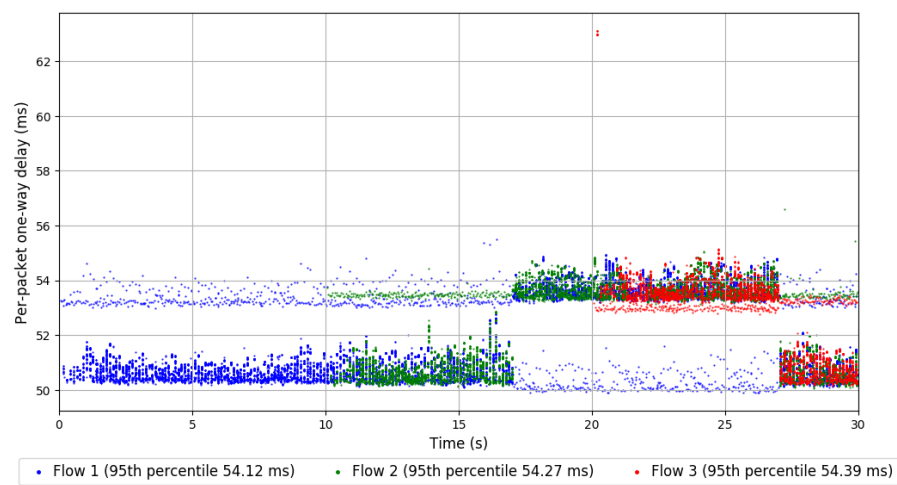
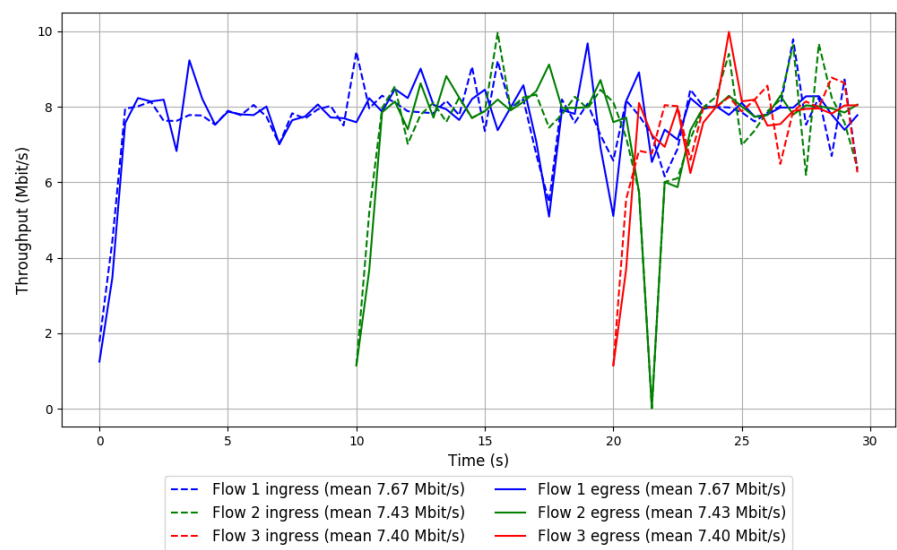
-- Flow 3:

Average throughput: 7.40 Mbit/s

95th percentile per-packet one-way delay: 54.394 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-02-21 07:19:28

End at: 2018-02-21 07:19:58

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.36 Mbit/s

95th percentile per-packet one-way delay: 54.002 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 7.96 Mbit/s

95th percentile per-packet one-way delay: 54.204 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 53.530 ms

Loss rate: 0.00%

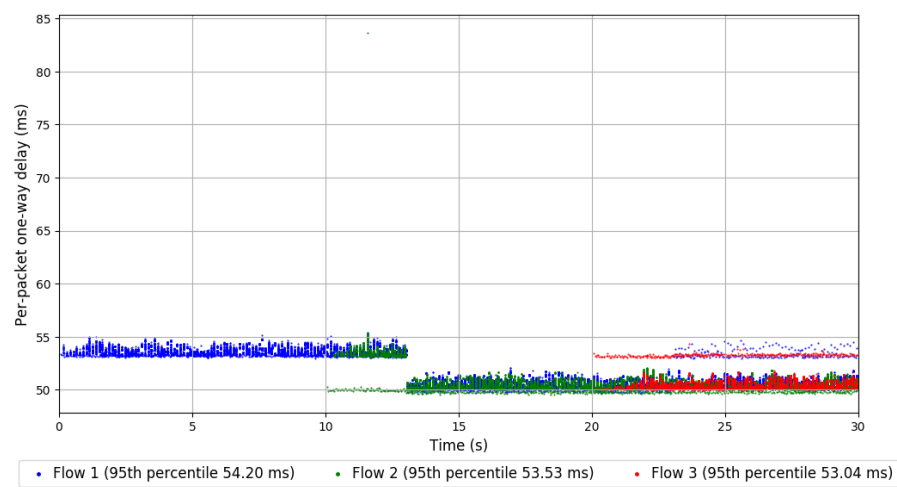
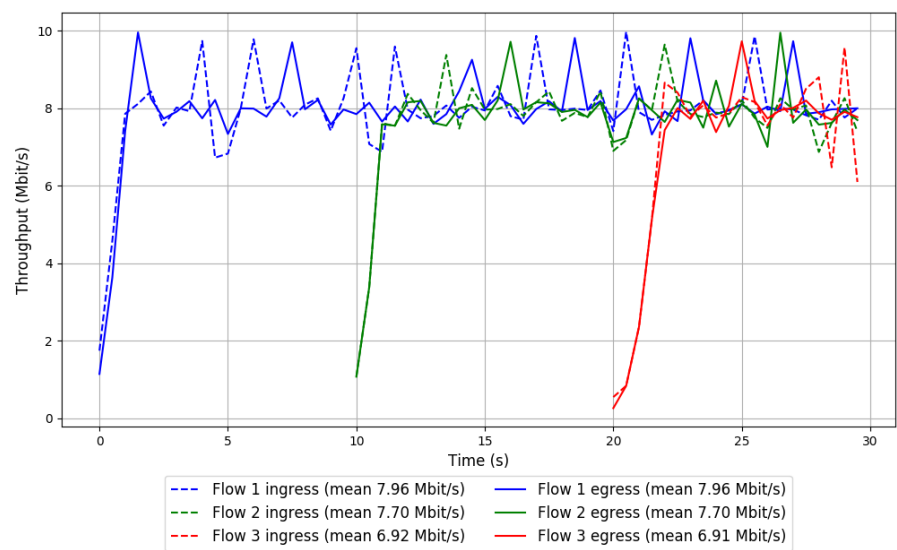
-- Flow 3:

Average throughput: 6.91 Mbit/s

95th percentile per-packet one-way delay: 53.042 ms

Loss rate: 0.21%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-02-21 07:37:24

End at: 2018-02-21 07:37:54

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.32 Mbit/s

95th percentile per-packet one-way delay: 53.684 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.69 Mbit/s

95th percentile per-packet one-way delay: 53.682 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 53.823 ms

Loss rate: 0.00%

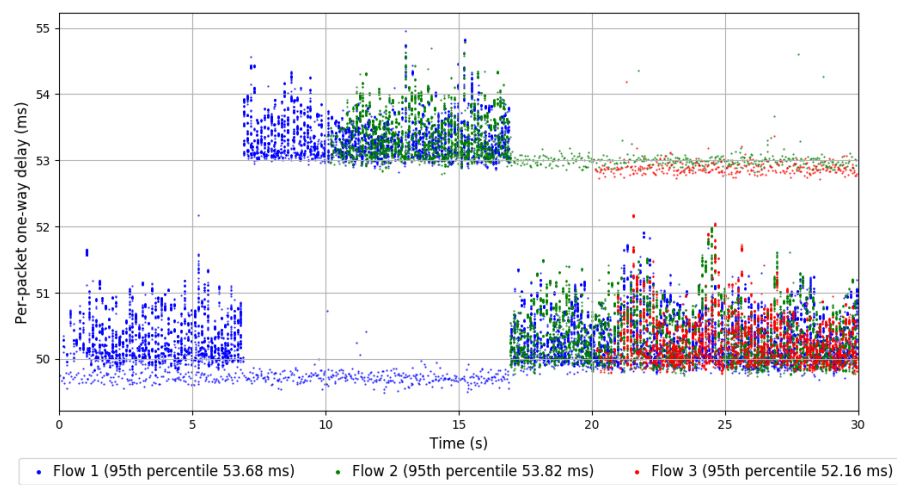
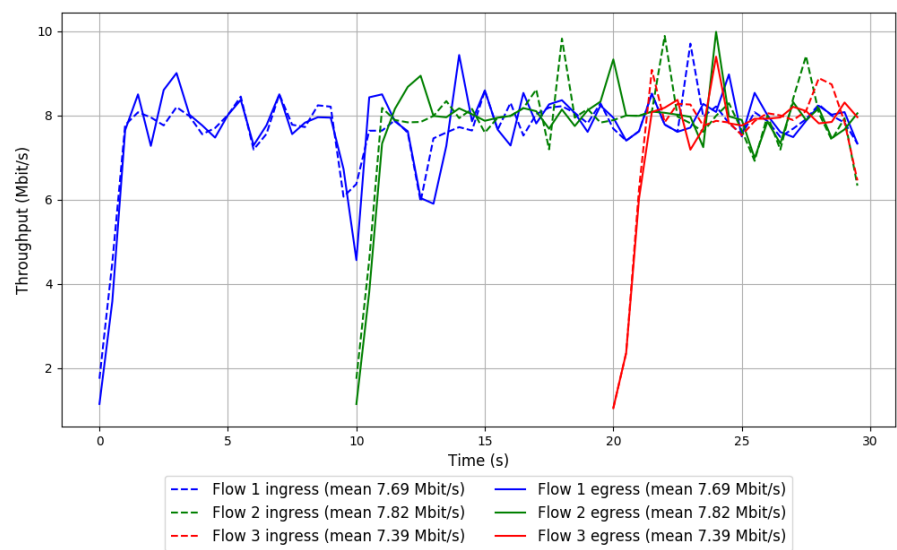
-- Flow 3:

Average throughput: 7.39 Mbit/s

95th percentile per-packet one-way delay: 52.158 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-02-21 07:55:13

End at: 2018-02-21 07:55:43

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.20 Mbit/s

95th percentile per-packet one-way delay: 53.654 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 53.573 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 53.536 ms

Loss rate: 0.00%

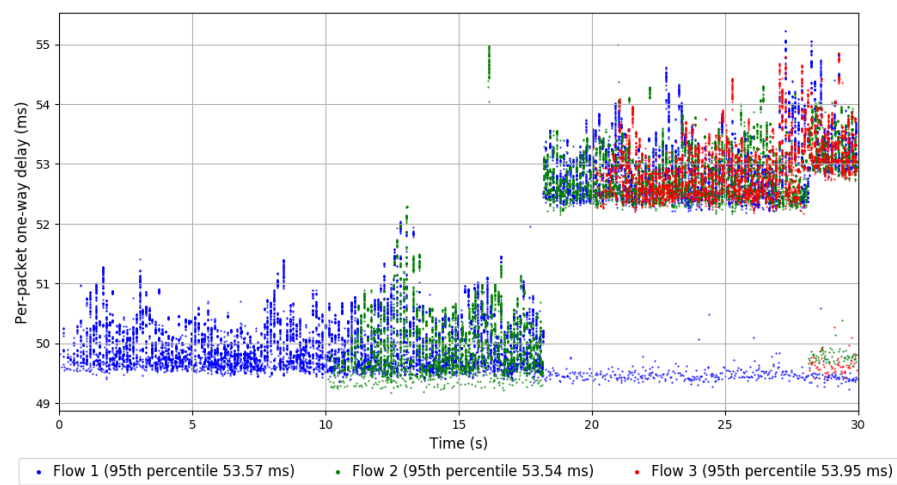
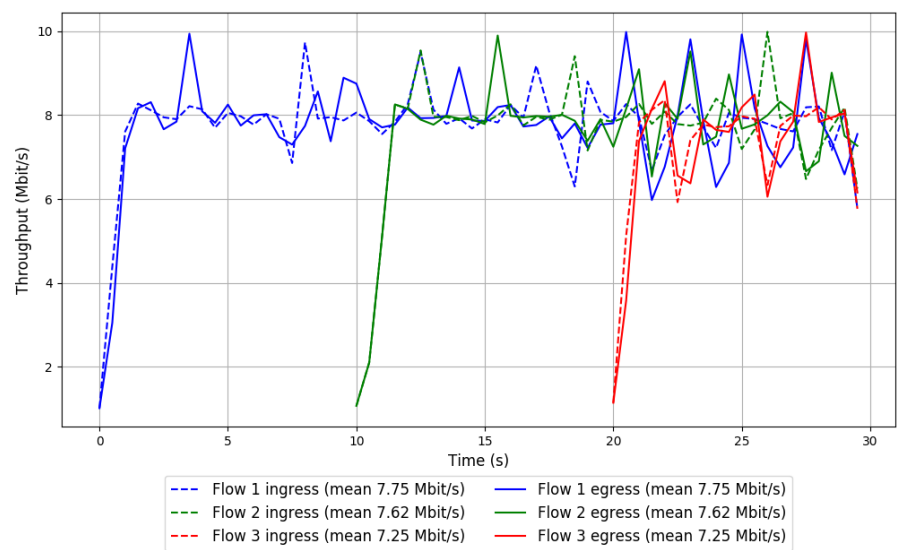
-- Flow 3:

Average throughput: 7.25 Mbit/s

95th percentile per-packet one-way delay: 53.952 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-02-21 08:12:45

End at: 2018-02-21 08:13:15

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.03 Mbit/s

95th percentile per-packet one-way delay: 53.464 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 53.544 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 53.327 ms

Loss rate: 0.00%

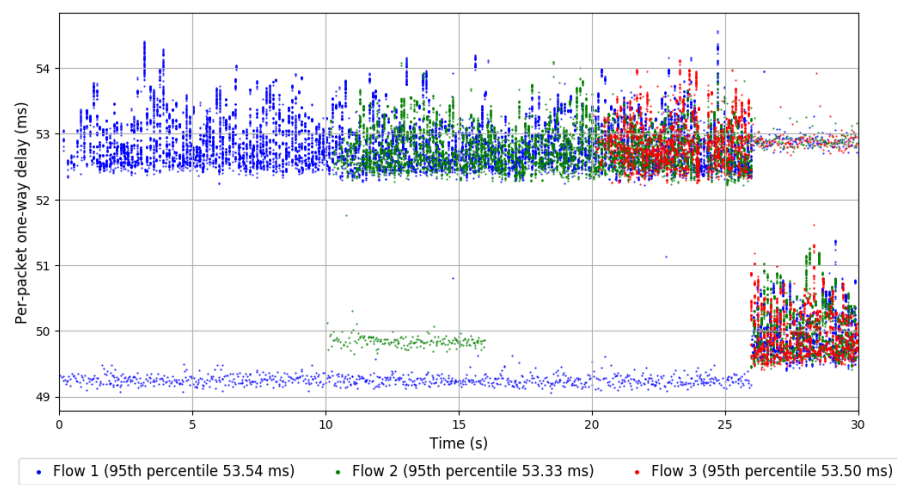
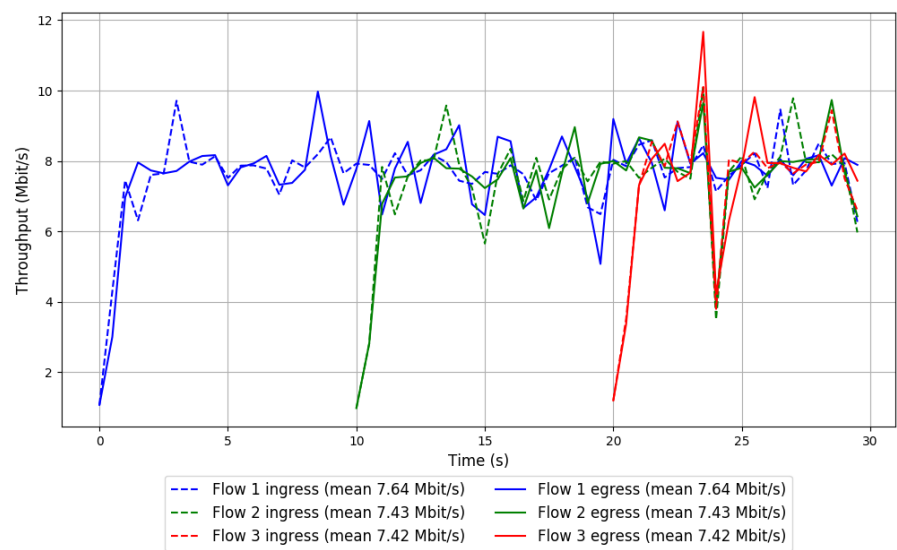
-- Flow 3:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 53.496 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-02-21 08:30:20

End at: 2018-02-21 08:30:50

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.38 Mbit/s

95th percentile per-packet one-way delay: 52.980 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 53.153 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 51.939 ms

Loss rate: 0.00%

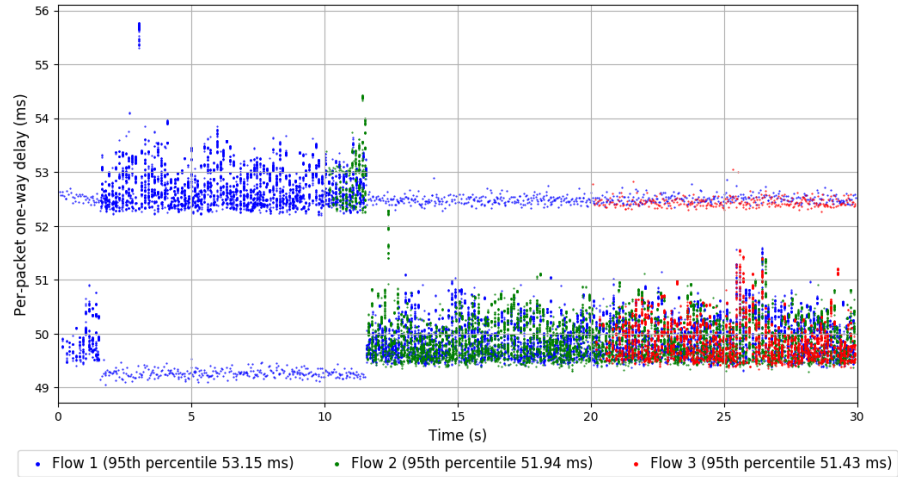
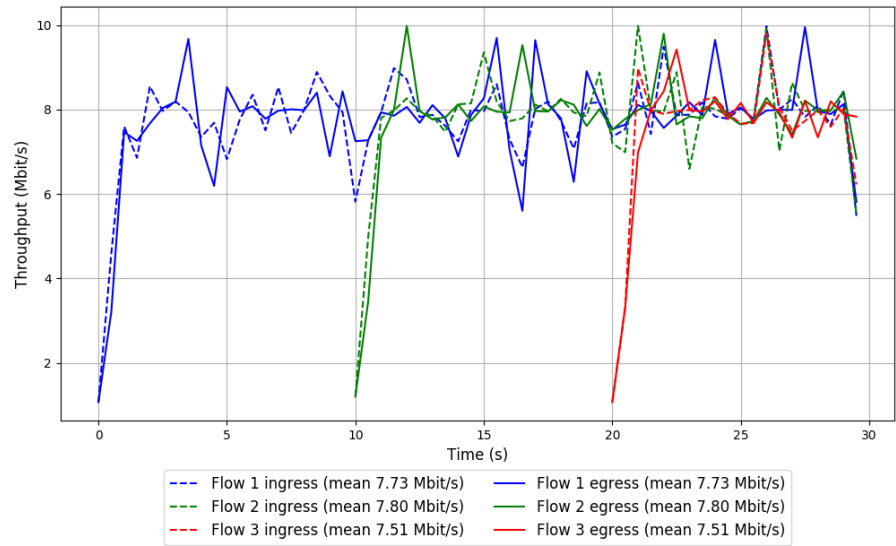
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 51.426 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-02-21 08:47:43

End at: 2018-02-21 08:48:13

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.43 Mbit/s

95th percentile per-packet one-way delay: 50.530 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 50.495 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 50.542 ms

Loss rate: 0.00%

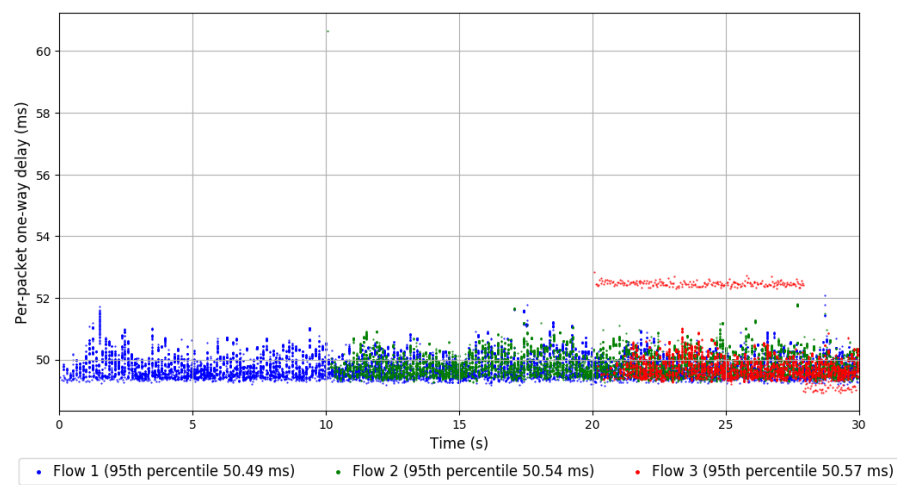
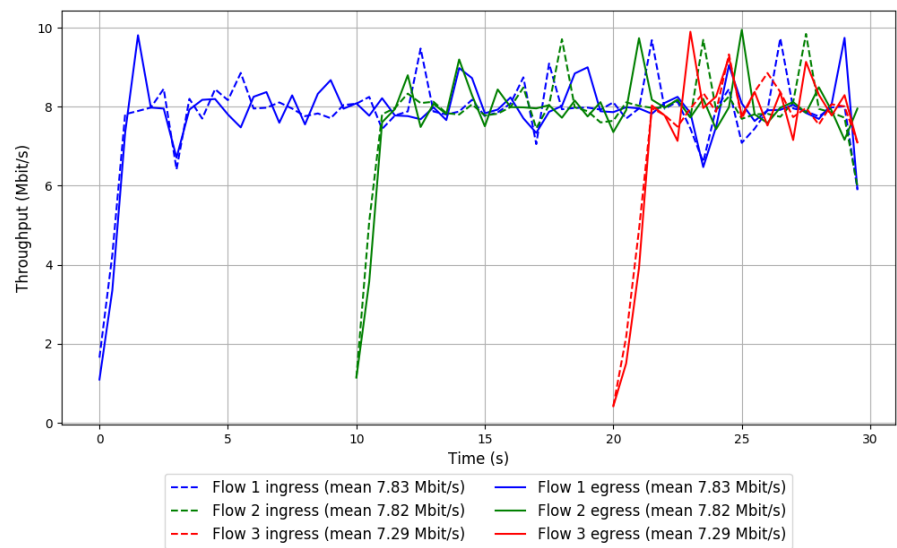
-- Flow 3:

Average throughput: 7.29 Mbit/s

95th percentile per-packet one-way delay: 50.567 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-02-21 09:05:30

End at: 2018-02-21 09:06:01

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.44 Mbit/s

95th percentile per-packet one-way delay: 53.128 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 53.123 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 53.067 ms

Loss rate: 0.00%

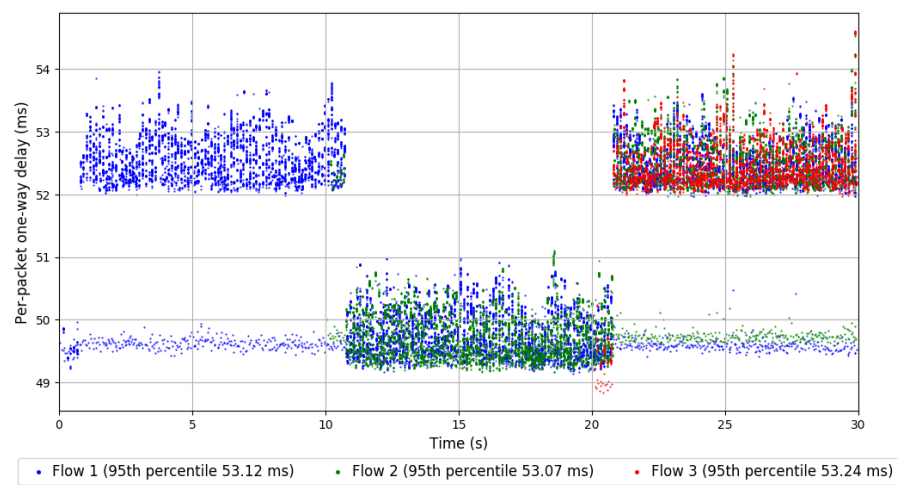
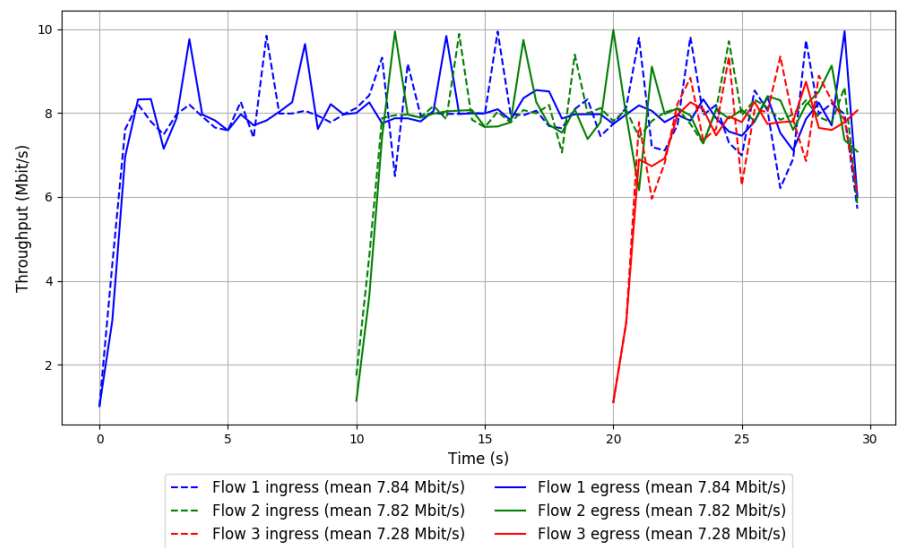
-- Flow 3:

Average throughput: 7.28 Mbit/s

95th percentile per-packet one-way delay: 53.244 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-02-21 09:22:58

End at: 2018-02-21 09:23:28

Below is generated by plot.py at 2018-02-21 12:39:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.41 Mbit/s

95th percentile per-packet one-way delay: 53.188 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 53.156 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 53.266 ms

Loss rate: 0.00%

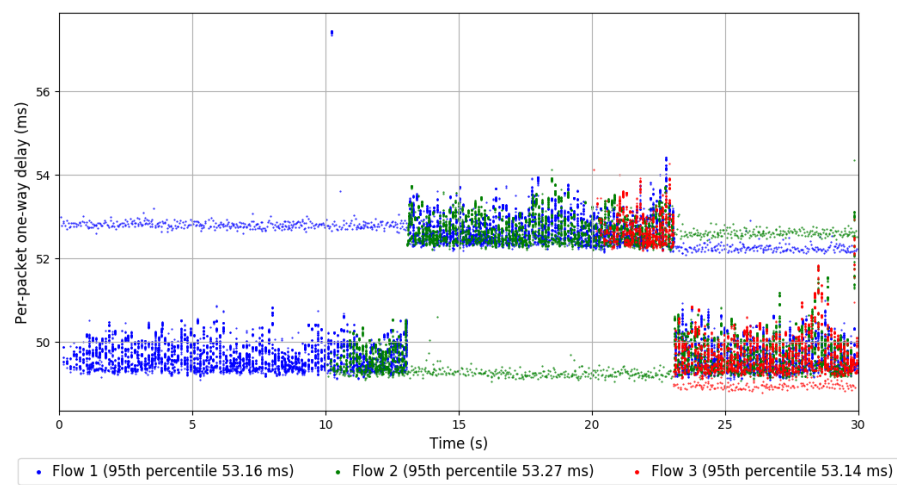
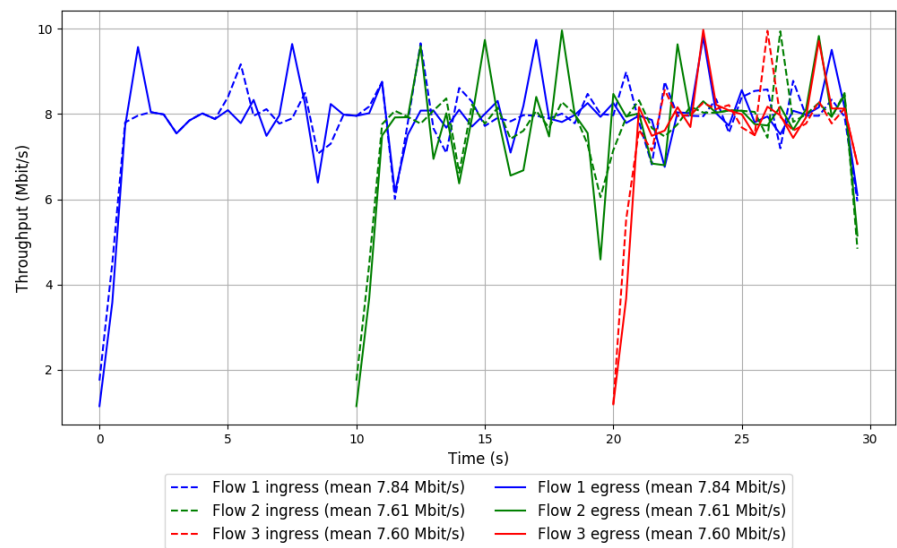
-- Flow 3:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 53.139 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

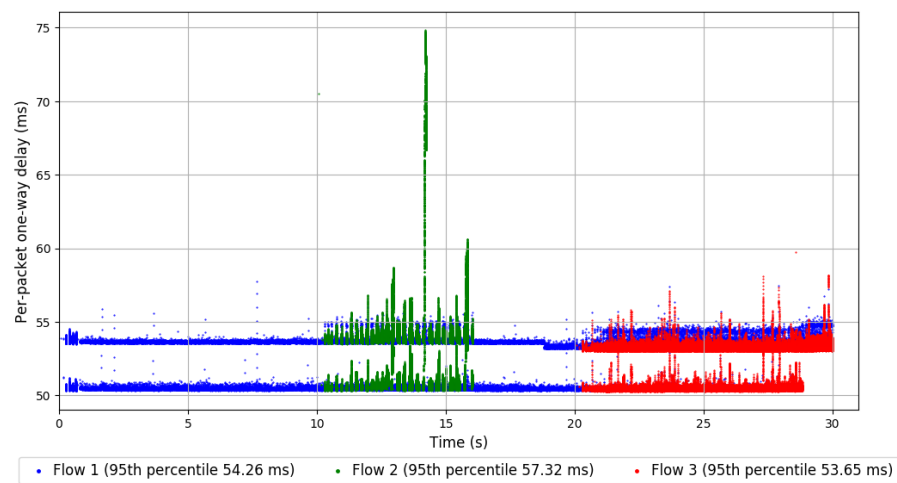
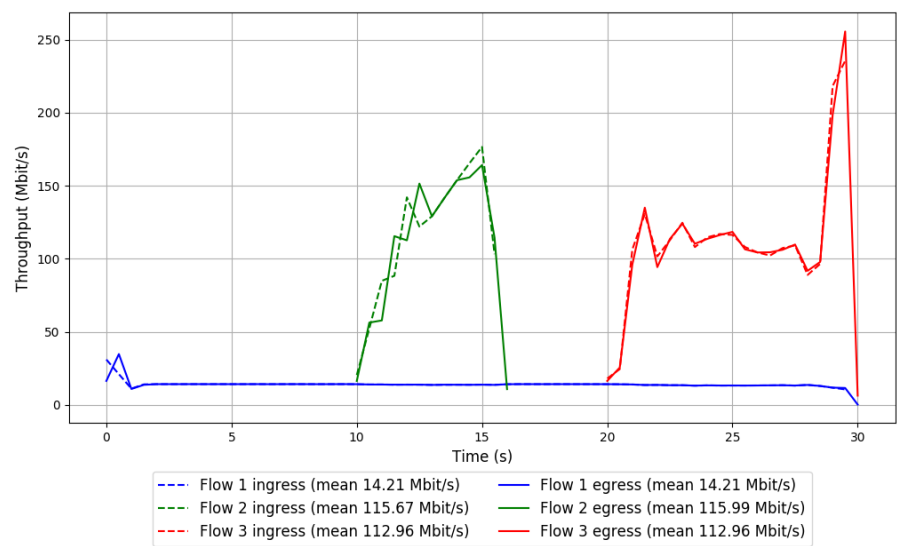


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-21 06:34:22
End at: 2018-02-21 06:34:52

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 74.70 Mbit/s
95th percentile per-packet one-way delay: 54.526 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 14.21 Mbit/s
95th percentile per-packet one-way delay: 54.256 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 115.99 Mbit/s
95th percentile per-packet one-way delay: 57.317 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 112.96 Mbit/s
95th percentile per-packet one-way delay: 53.648 ms
Loss rate: 0.00%
```


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

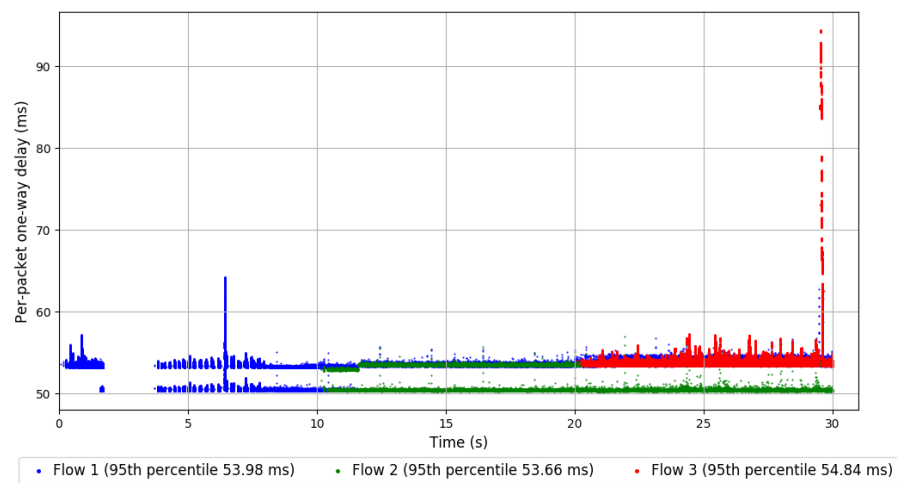
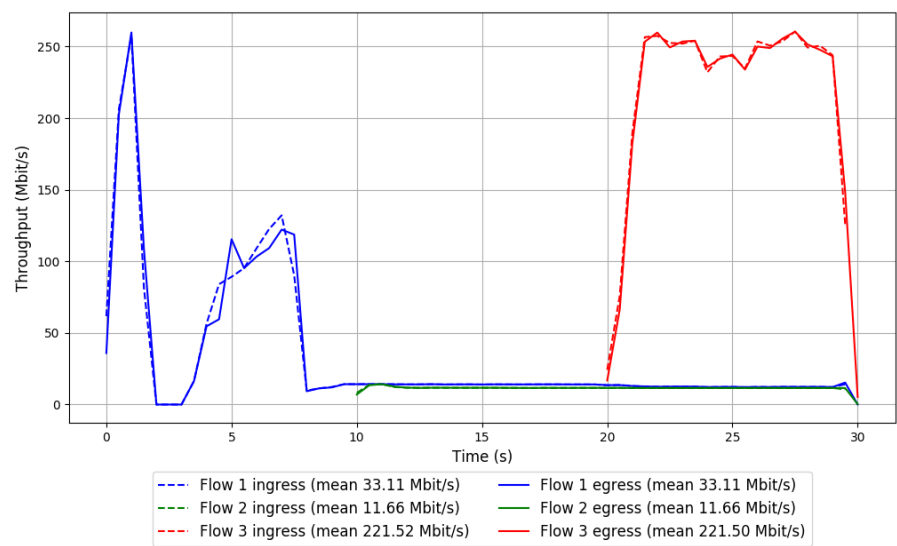


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-21 06:52:10
End at: 2018-02-21 06:52:40

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 114.34 Mbit/s
95th percentile per-packet one-way delay: 54.526 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 33.11 Mbit/s
95th percentile per-packet one-way delay: 53.979 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 11.66 Mbit/s
95th percentile per-packet one-way delay: 53.656 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 221.50 Mbit/s
95th percentile per-packet one-way delay: 54.839 ms
Loss rate: 0.04%
```

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

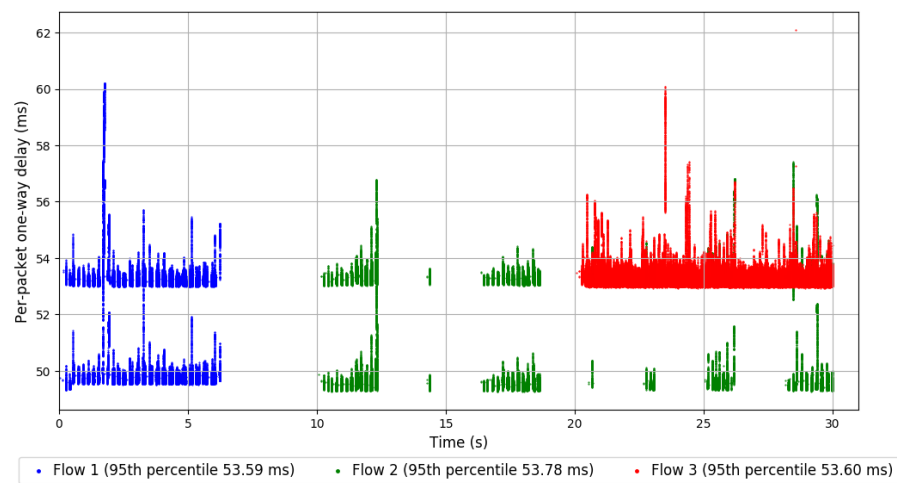
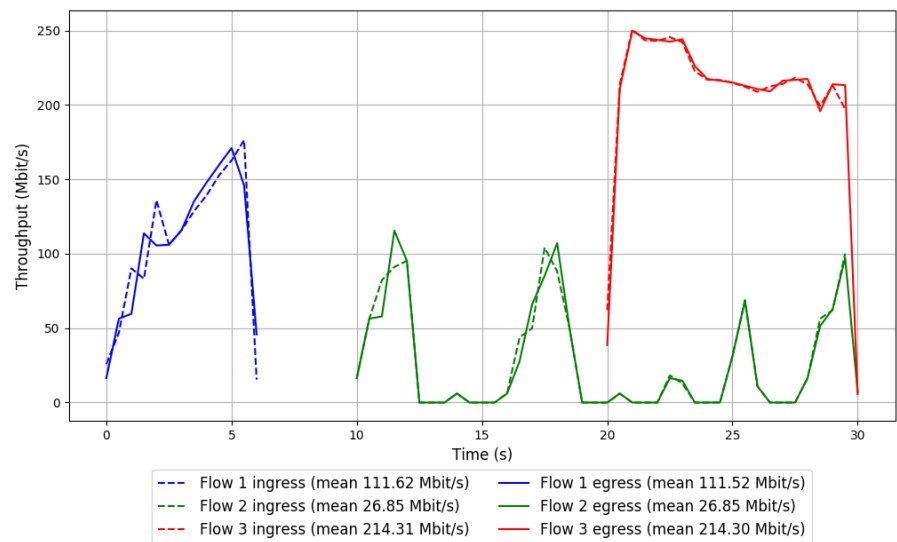


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-21 07:10:01
End at: 2018-02-21 07:10:31

# Below is generated by plot.py at 2018-02-21 12:39:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 111.98 Mbit/s
95th percentile per-packet one-way delay: 53.628 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 111.52 Mbit/s
95th percentile per-packet one-way delay: 53.588 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 26.85 Mbit/s
95th percentile per-packet one-way delay: 53.776 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 214.30 Mbit/s
95th percentile per-packet one-way delay: 53.598 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-02-21 07:28:10

End at: 2018-02-21 07:28:40

Below is generated by plot.py at 2018-02-21 12:39:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.77 Mbit/s

95th percentile per-packet one-way delay: 53.320 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.82 Mbit/s

95th percentile per-packet one-way delay: 54.157 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 137.33 Mbit/s

95th percentile per-packet one-way delay: 53.141 ms

Loss rate: 0.00%

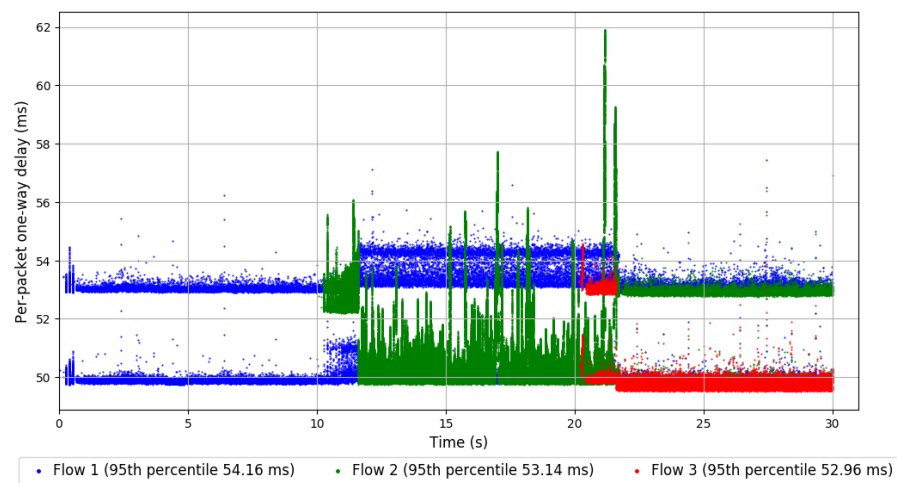
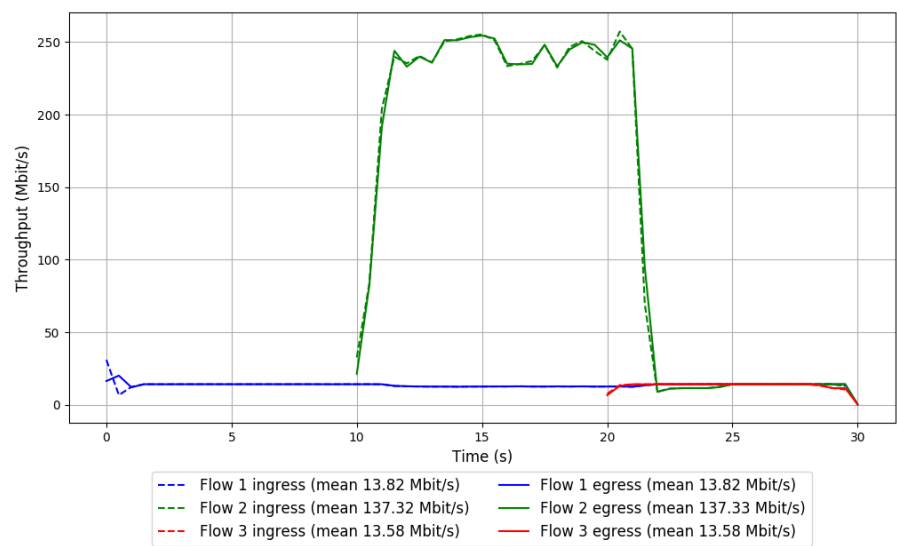
-- Flow 3:

Average throughput: 13.58 Mbit/s

95th percentile per-packet one-way delay: 52.961 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-02-21 07:45:33

End at: 2018-02-21 07:46:03

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 359.07 Mbit/s

95th percentile per-packet one-way delay: 53.125 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 193.02 Mbit/s

95th percentile per-packet one-way delay: 51.594 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 204.79 Mbit/s

95th percentile per-packet one-way delay: 53.371 ms

Loss rate: 0.01%

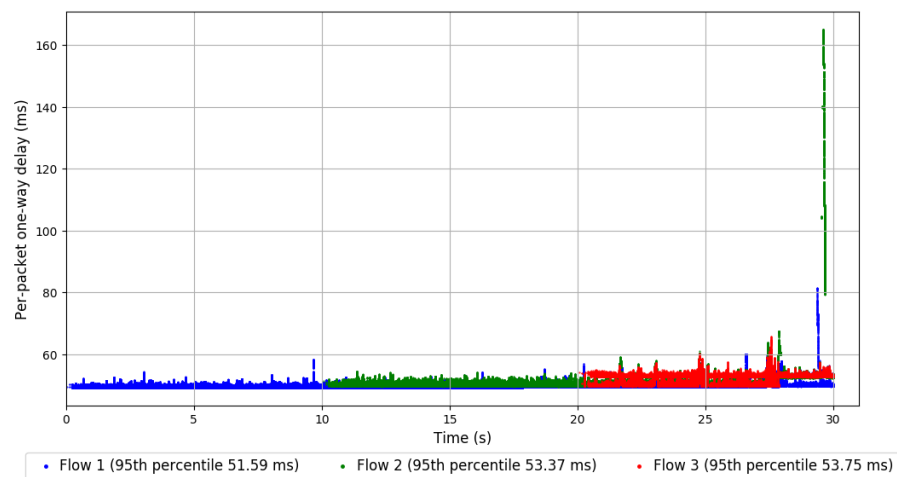
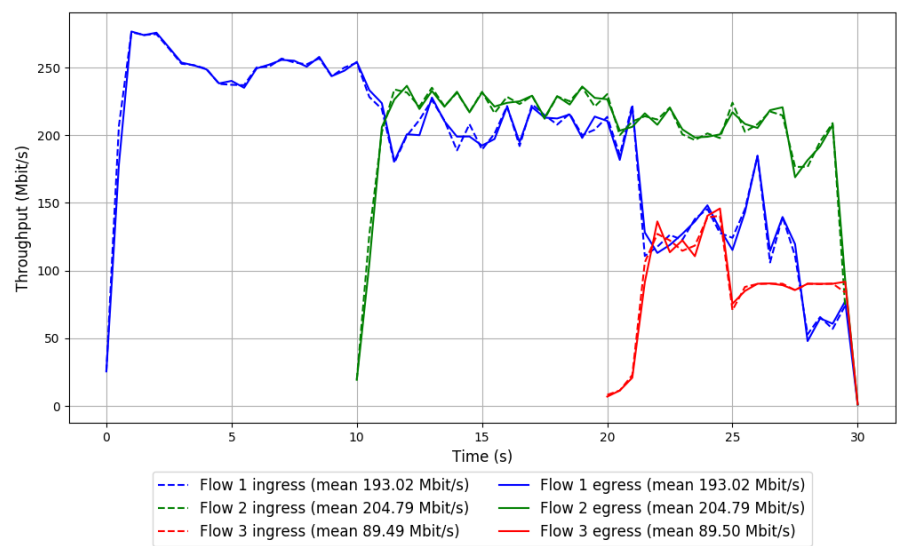
-- Flow 3:

Average throughput: 89.50 Mbit/s

95th percentile per-packet one-way delay: 53.746 ms

Loss rate: 0.04%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-02-21 08:03:17

End at: 2018-02-21 08:03:47

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.34 Mbit/s

95th percentile per-packet one-way delay: 53.057 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 22.35 Mbit/s

95th percentile per-packet one-way delay: 53.077 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.56 Mbit/s

95th percentile per-packet one-way delay: 53.142 ms

Loss rate: 0.00%

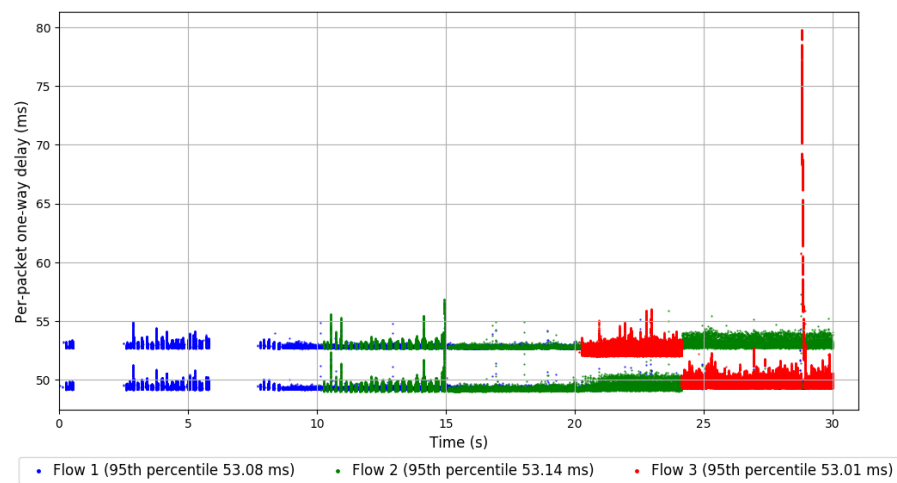
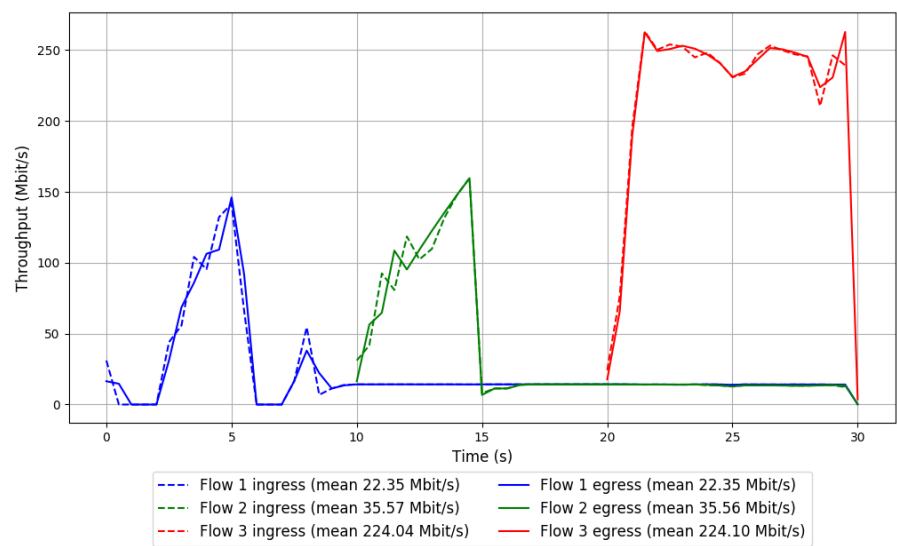
-- Flow 3:

Average throughput: 224.10 Mbit/s

95th percentile per-packet one-way delay: 53.008 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-02-21 08:20:58

End at: 2018-02-21 08:21:28

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.39 Mbit/s

95th percentile per-packet one-way delay: 53.358 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.80 Mbit/s

95th percentile per-packet one-way delay: 52.557 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 14.07 Mbit/s

95th percentile per-packet one-way delay: 52.507 ms

Loss rate: 0.00%

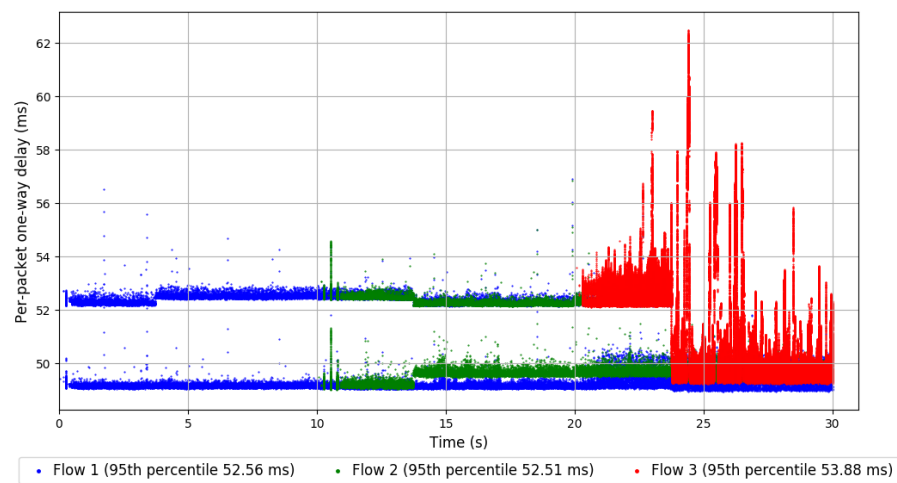
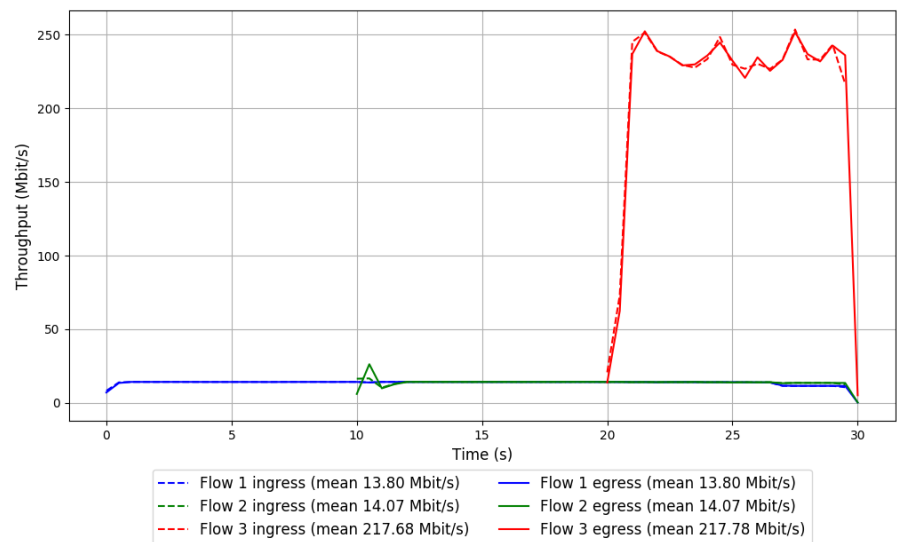
-- Flow 3:

Average throughput: 217.78 Mbit/s

95th percentile per-packet one-way delay: 53.884 ms

Loss rate: 0.00%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-02-21 08:38:22

End at: 2018-02-21 08:38:52

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.07 Mbit/s

95th percentile per-packet one-way delay: 53.512 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 110.77 Mbit/s

95th percentile per-packet one-way delay: 54.371 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 120.22 Mbit/s

95th percentile per-packet one-way delay: 52.161 ms

Loss rate: 0.00%

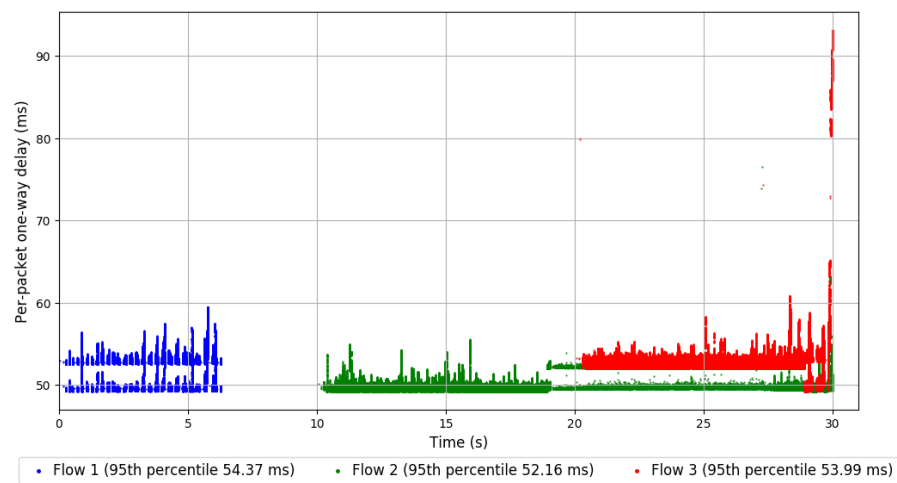
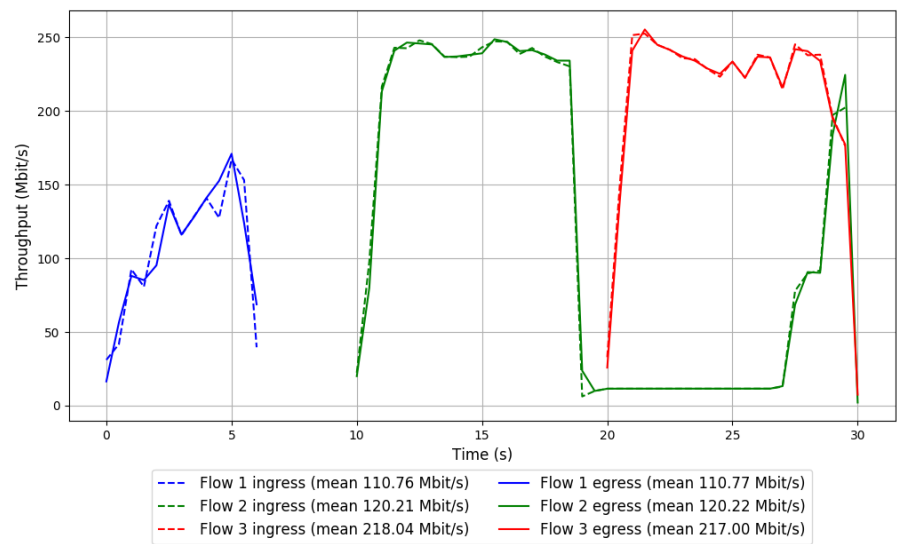
-- Flow 3:

Average throughput: 217.00 Mbit/s

95th percentile per-packet one-way delay: 53.987 ms

Loss rate: 0.48%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-02-21 08:56:03

End at: 2018-02-21 08:56:33

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 187.04 Mbit/s

95th percentile per-packet one-way delay: 56.814 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 23.92 Mbit/s

95th percentile per-packet one-way delay: 52.590 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 203.41 Mbit/s

95th percentile per-packet one-way delay: 58.352 ms

Loss rate: 0.04%

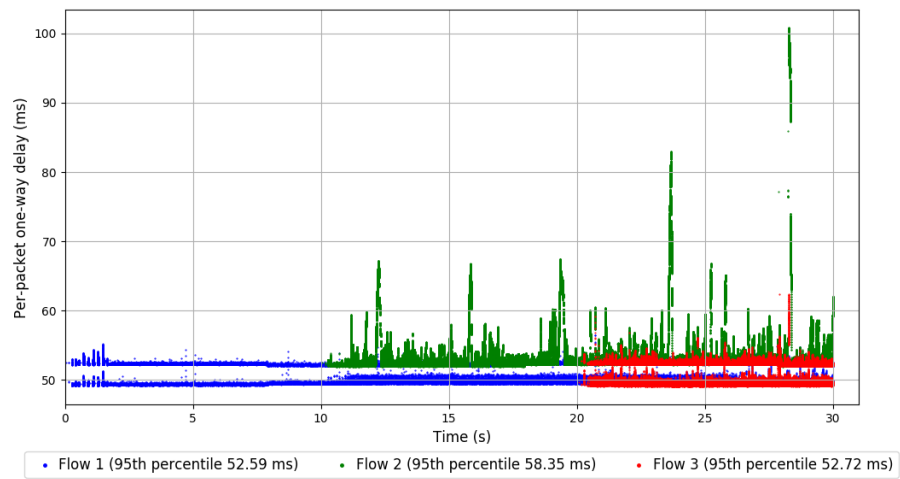
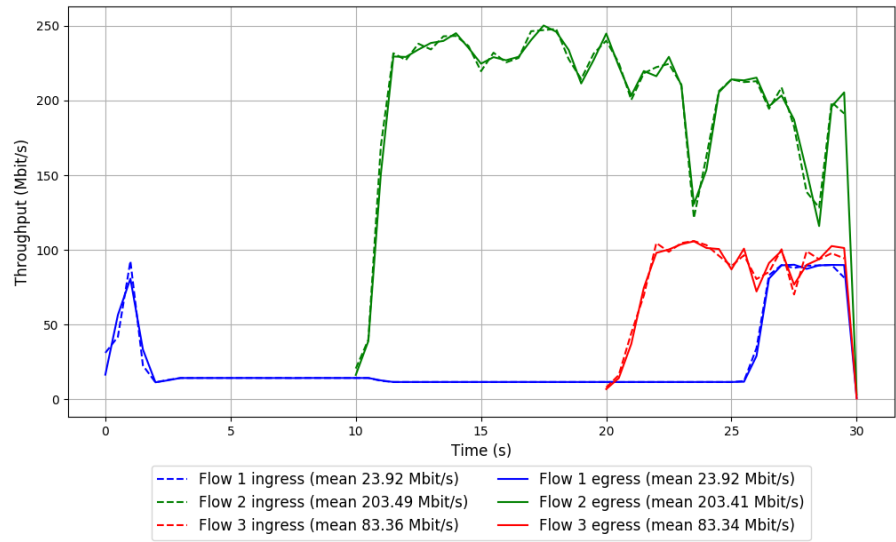
-- Flow 3:

Average throughput: 83.34 Mbit/s

95th percentile per-packet one-way delay: 52.721 ms

Loss rate: 0.00%

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

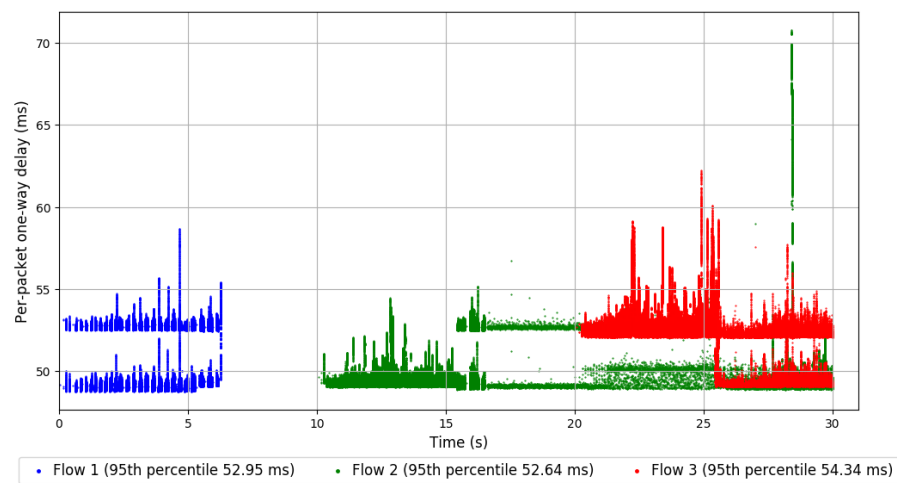
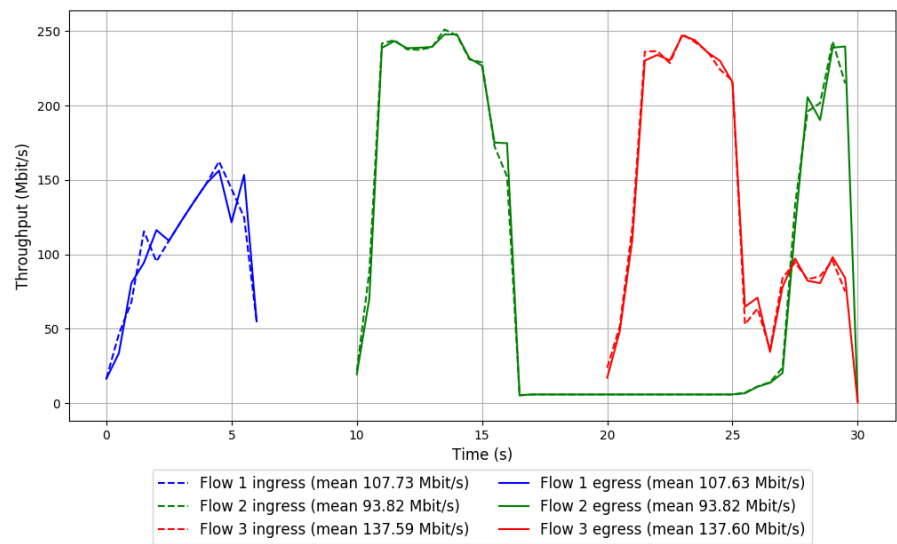


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-21 09:13:36
End at: 2018-02-21 09:14:06

# Below is generated by plot.py at 2018-02-21 12:46:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 130.51 Mbit/s
95th percentile per-packet one-way delay: 53.274 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 107.63 Mbit/s
95th percentile per-packet one-way delay: 52.947 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 93.82 Mbit/s
95th percentile per-packet one-way delay: 52.643 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 137.60 Mbit/s
95th percentile per-packet one-way delay: 54.344 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-21 06:48:19

End at: 2018-02-21 06:48:49

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 288.97 Mbit/s

95th percentile per-packet one-way delay: 64.600 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 122.47 Mbit/s

95th percentile per-packet one-way delay: 57.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 217.37 Mbit/s

95th percentile per-packet one-way delay: 67.085 ms

Loss rate: 0.00%

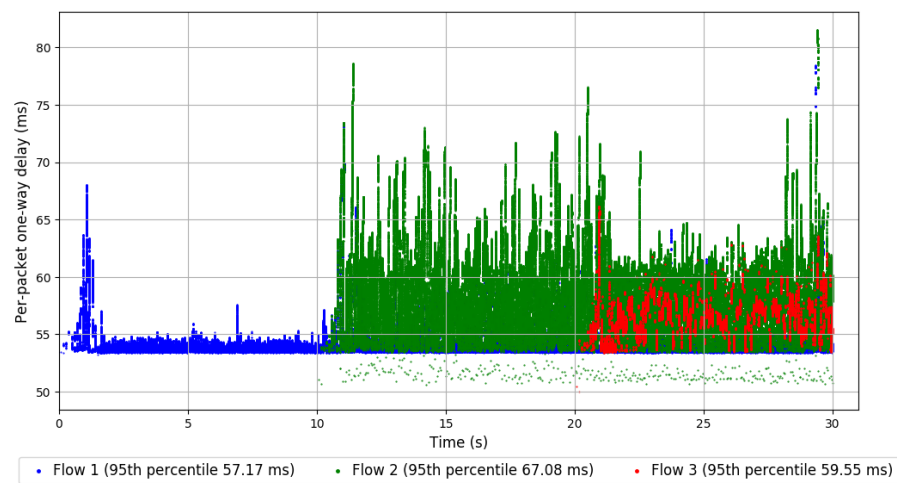
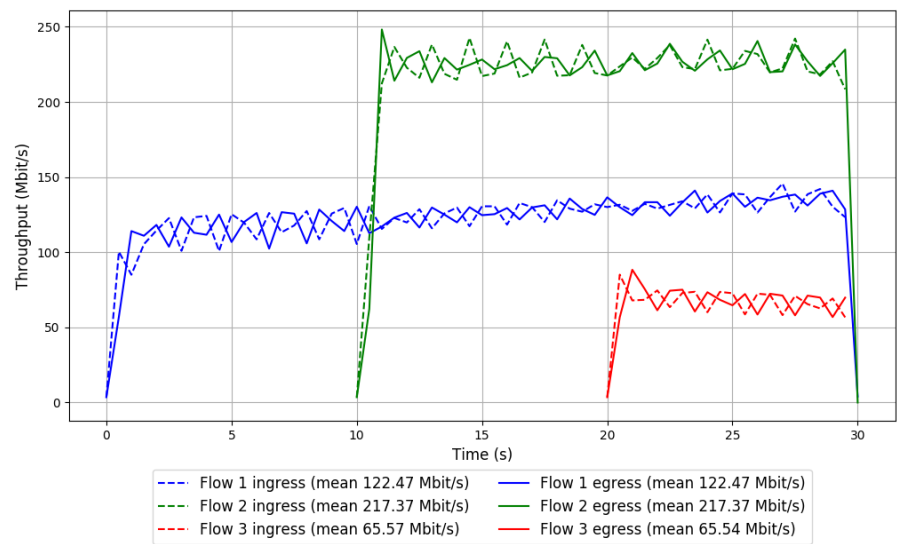
-- Flow 3:

Average throughput: 65.54 Mbit/s

95th percentile per-packet one-way delay: 59.551 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-21 07:06:33

End at: 2018-02-21 07:07:03

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 168.04 Mbit/s

95th percentile per-packet one-way delay: 54.434 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 65.62 Mbit/s

95th percentile per-packet one-way delay: 54.098 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 150.98 Mbit/s

95th percentile per-packet one-way delay: 54.651 ms

Loss rate: 0.00%

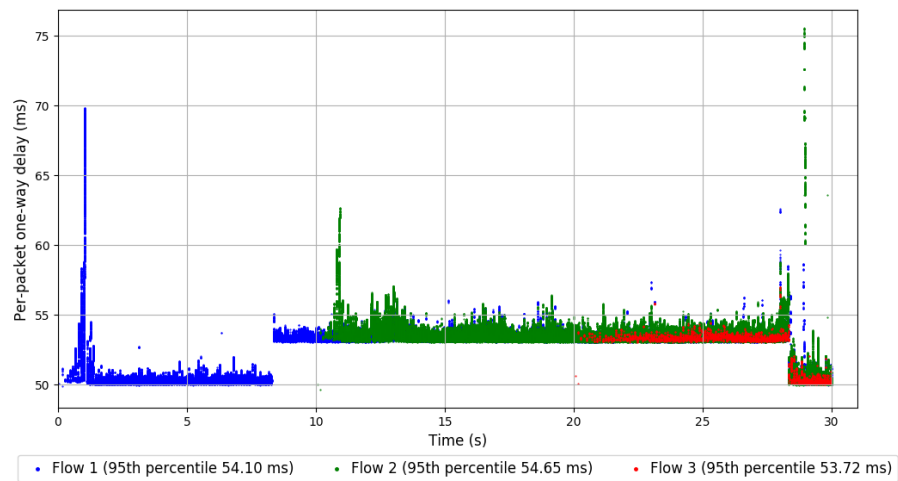
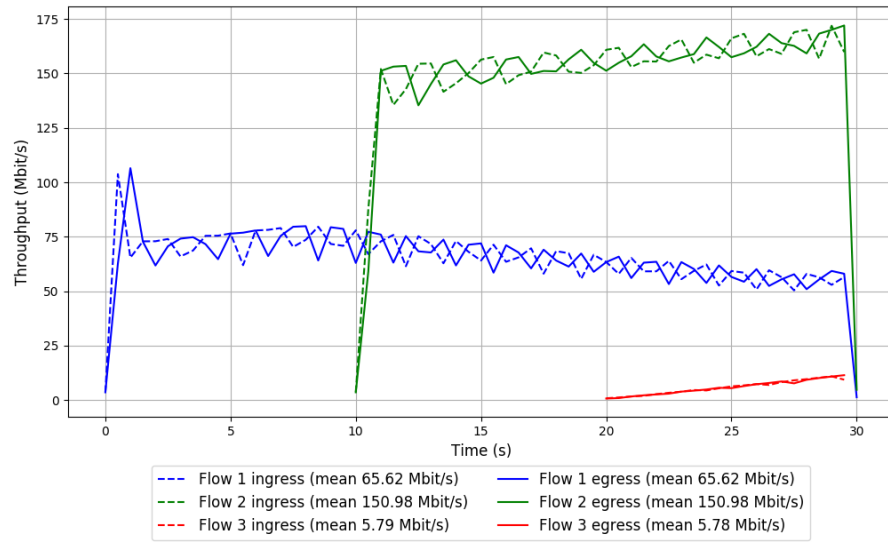
-- Flow 3:

Average throughput: 5.78 Mbit/s

95th percentile per-packet one-way delay: 53.723 ms

Loss rate: 0.10%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-02-21 07:24:12

End at: 2018-02-21 07:24:42

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 197.11 Mbit/s

95th percentile per-packet one-way delay: 60.150 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 44.63 Mbit/s

95th percentile per-packet one-way delay: 57.427 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 218.65 Mbit/s

95th percentile per-packet one-way delay: 60.368 ms

Loss rate: 0.00%

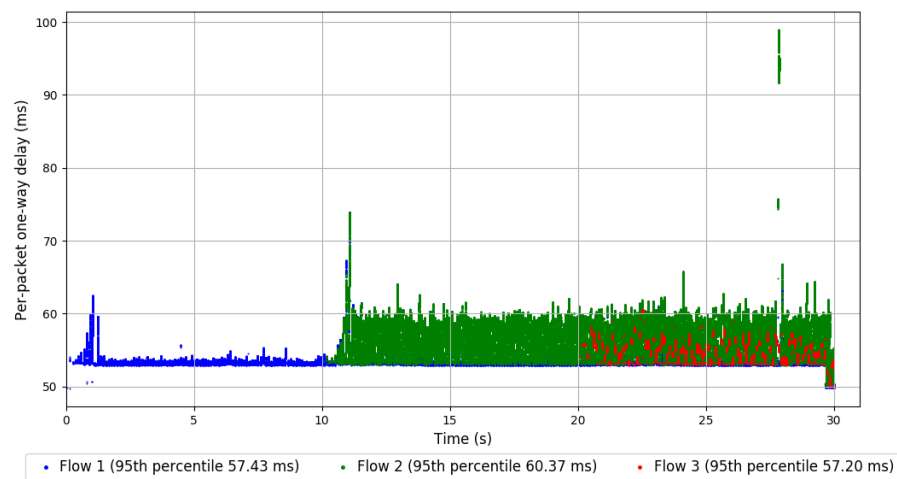
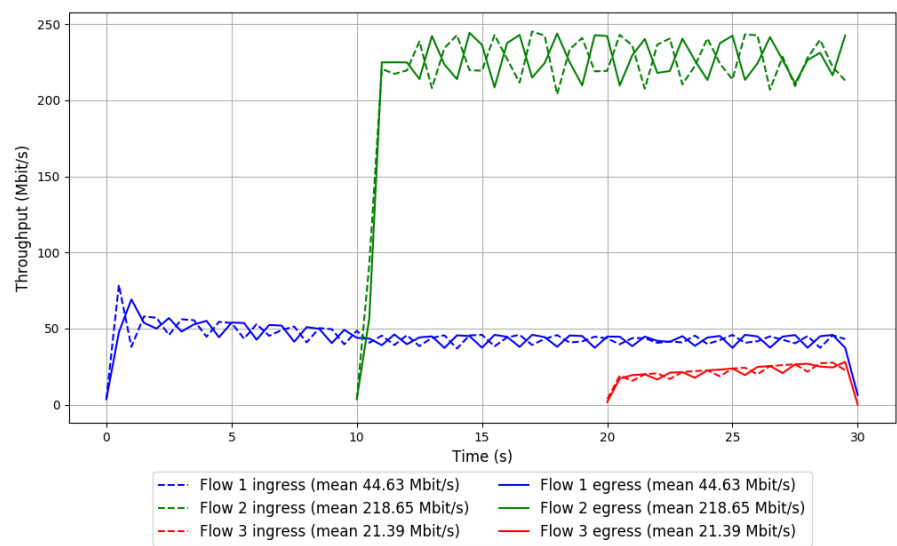
-- Flow 3:

Average throughput: 21.39 Mbit/s

95th percentile per-packet one-way delay: 57.204 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-02-21 07:42:05

End at: 2018-02-21 07:42:35

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 194.91 Mbit/s

95th percentile per-packet one-way delay: 53.898 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.96 Mbit/s

95th percentile per-packet one-way delay: 54.045 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 143.19 Mbit/s

95th percentile per-packet one-way delay: 53.582 ms

Loss rate: 0.00%

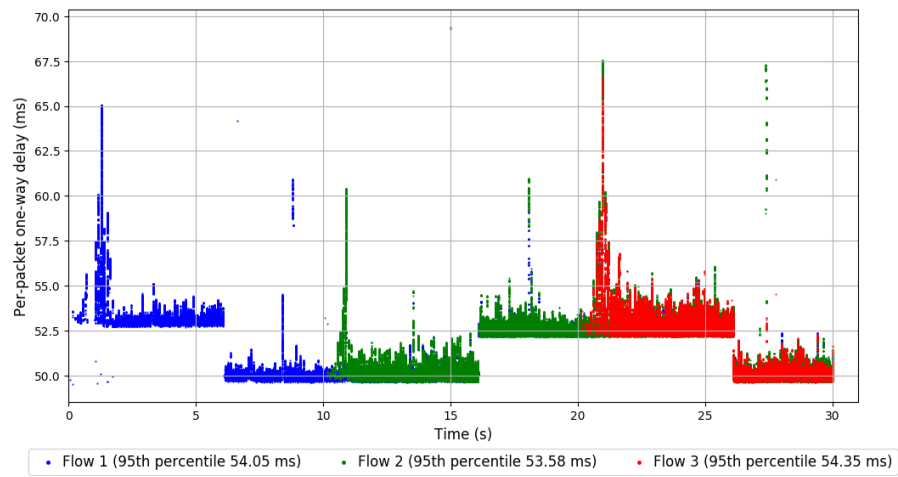
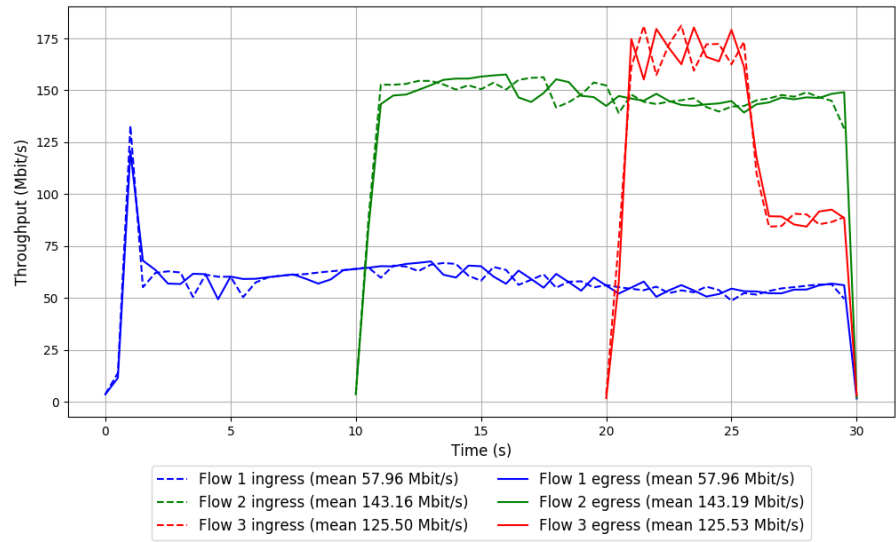
-- Flow 3:

Average throughput: 125.53 Mbit/s

95th percentile per-packet one-way delay: 54.348 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-02-21 07:59:58

End at: 2018-02-21 08:00:28

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.71 Mbit/s

95th percentile per-packet one-way delay: 52.856 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 34.06 Mbit/s

95th percentile per-packet one-way delay: 52.667 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.18 Mbit/s

95th percentile per-packet one-way delay: 53.048 ms

Loss rate: 0.00%

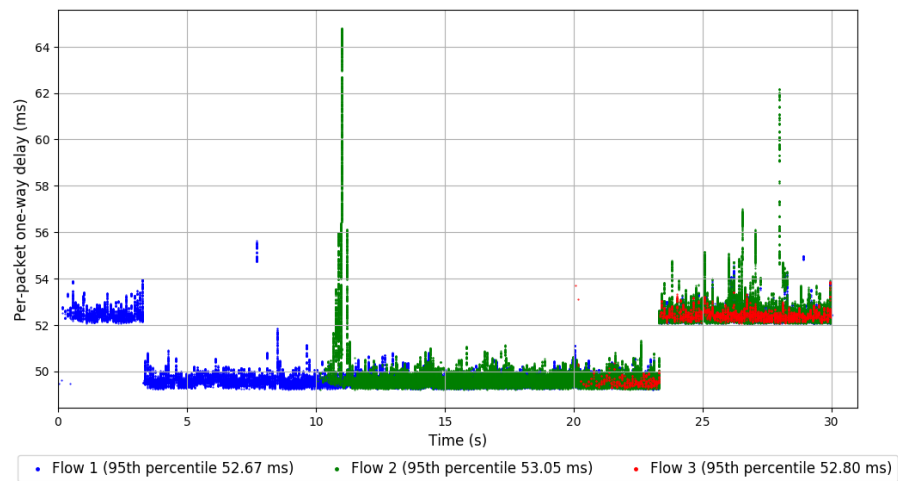
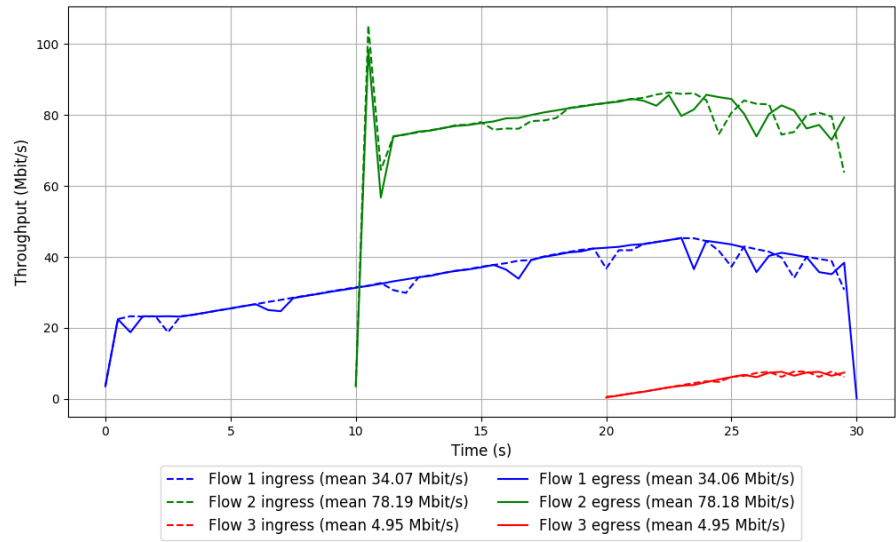
-- Flow 3:

Average throughput: 4.95 Mbit/s

95th percentile per-packet one-way delay: 52.797 ms

Loss rate: 0.22%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-02-21 08:17:30

End at: 2018-02-21 08:18:00

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.42 Mbit/s

95th percentile per-packet one-way delay: 58.682 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 27.03 Mbit/s

95th percentile per-packet one-way delay: 55.752 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 136.95 Mbit/s

95th percentile per-packet one-way delay: 60.830 ms

Loss rate: 0.00%

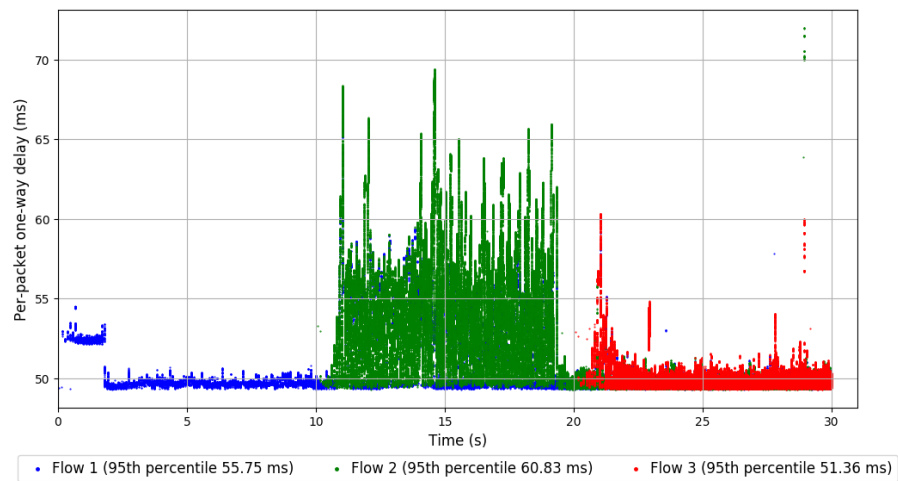
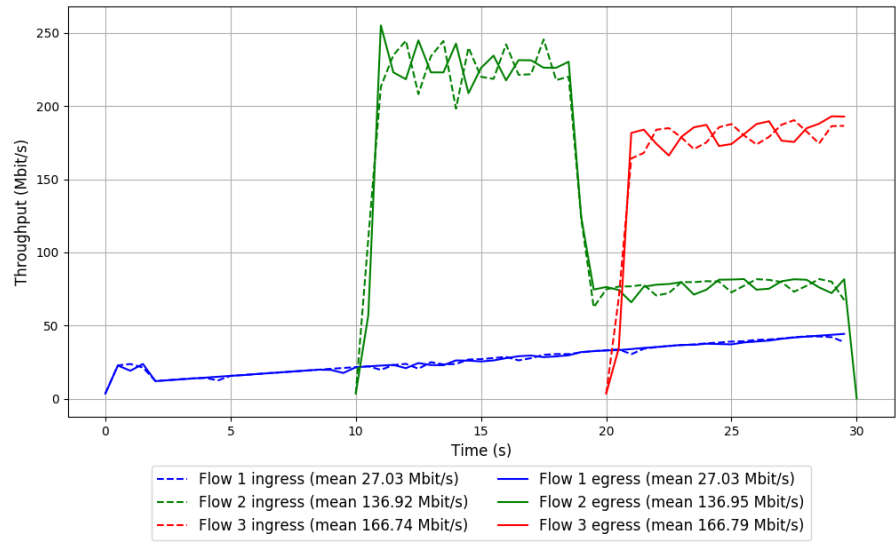
-- Flow 3:

Average throughput: 166.79 Mbit/s

95th percentile per-packet one-way delay: 51.363 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-02-21 08:35:01

End at: 2018-02-21 08:35:31

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.20 Mbit/s

95th percentile per-packet one-way delay: 52.773 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 58.69 Mbit/s

95th percentile per-packet one-way delay: 52.680 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 29.37 Mbit/s

95th percentile per-packet one-way delay: 52.889 ms

Loss rate: 0.00%

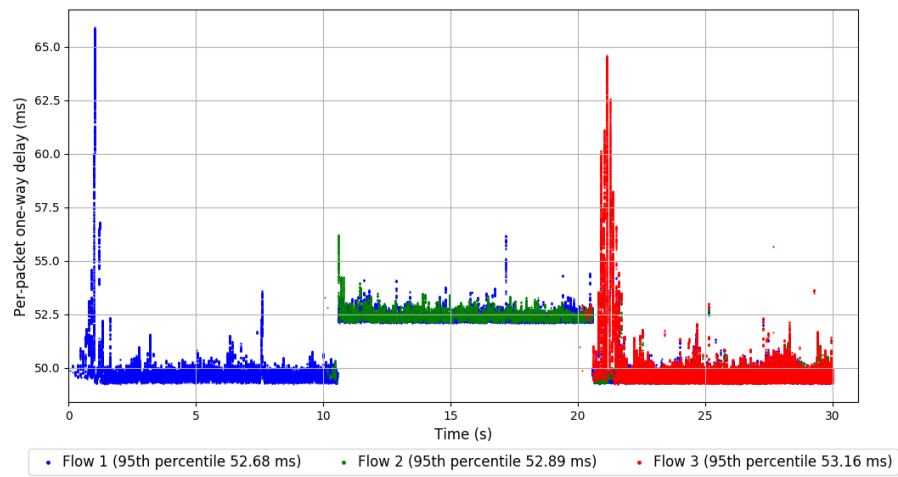
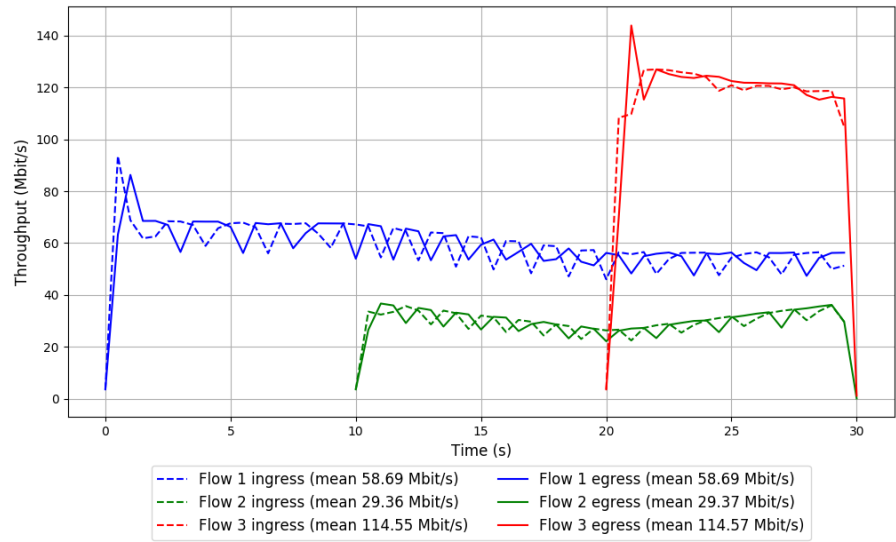
-- Flow 3:

Average throughput: 114.57 Mbit/s

95th percentile per-packet one-way delay: 53.158 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-02-21 08:52:30

End at: 2018-02-21 08:53:00

Below is generated by plot.py at 2018-02-21 12:46:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 144.06 Mbit/s

95th percentile per-packet one-way delay: 54.004 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 53.15 Mbit/s

95th percentile per-packet one-way delay: 53.721 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 107.58 Mbit/s

95th percentile per-packet one-way delay: 54.085 ms

Loss rate: 0.05%

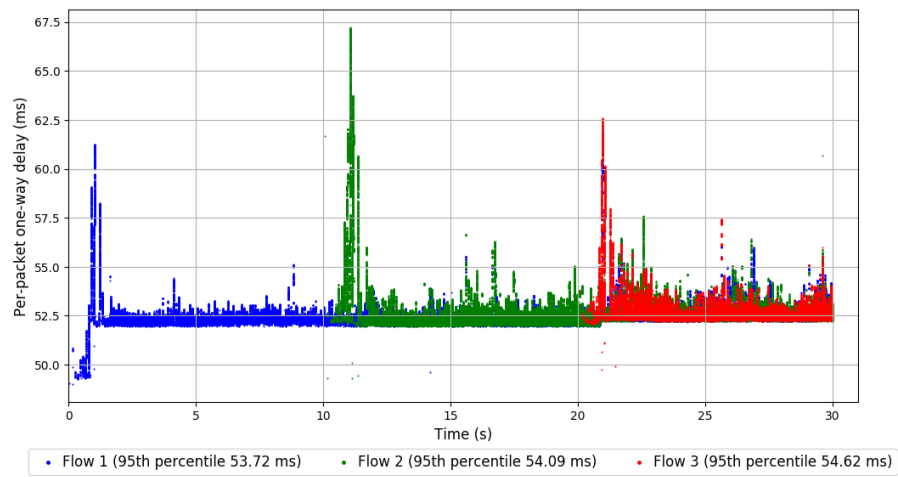
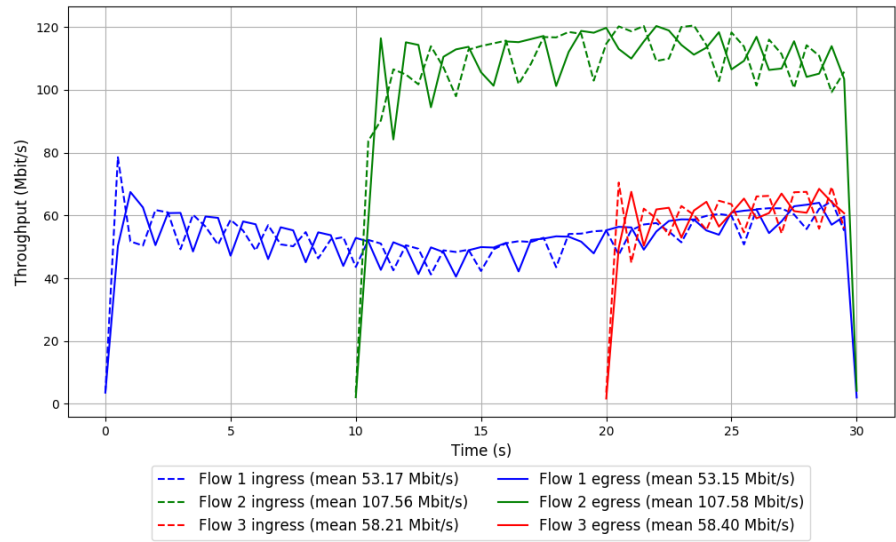
-- Flow 3:

Average throughput: 58.40 Mbit/s

95th percentile per-packet one-way delay: 54.623 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-02-21 09:10:08

End at: 2018-02-21 09:10:38

Below is generated by plot.py at 2018-02-21 12:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.75 Mbit/s

95th percentile per-packet one-way delay: 56.082 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 69.20 Mbit/s

95th percentile per-packet one-way delay: 54.722 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 186.06 Mbit/s

95th percentile per-packet one-way delay: 56.273 ms

Loss rate: 0.00%

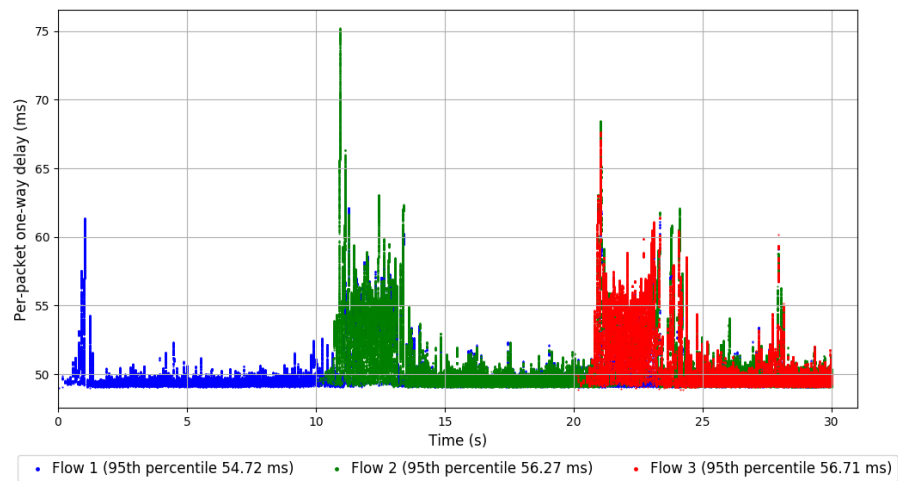
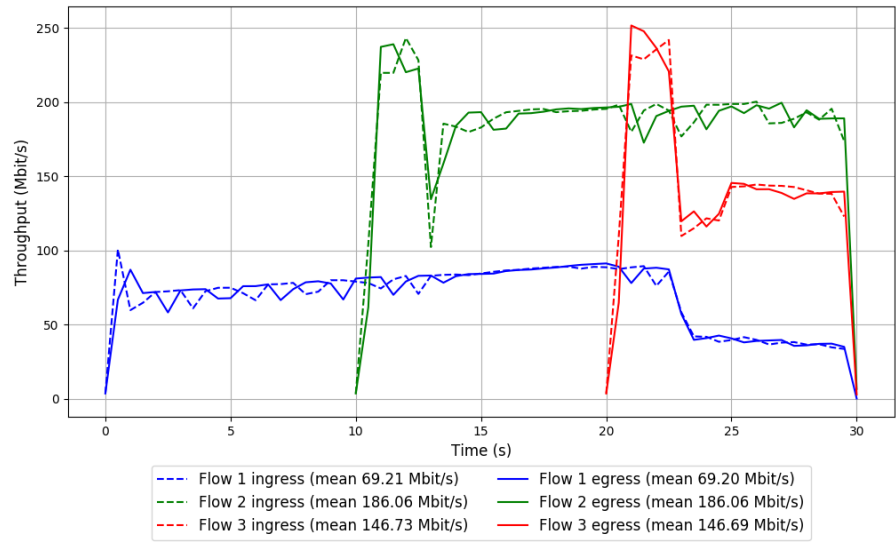
-- Flow 3:

Average throughput: 146.69 Mbit/s

95th percentile per-packet one-way delay: 56.714 ms

Loss rate: 0.03%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-02-21 09:27:42

End at: 2018-02-21 09:28:12

Below is generated by plot.py at 2018-02-21 12:47:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.56 Mbit/s

95th percentile per-packet one-way delay: 59.734 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 104.14 Mbit/s

95th percentile per-packet one-way delay: 56.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 9.78 Mbit/s

95th percentile per-packet one-way delay: 58.155 ms

Loss rate: 0.01%

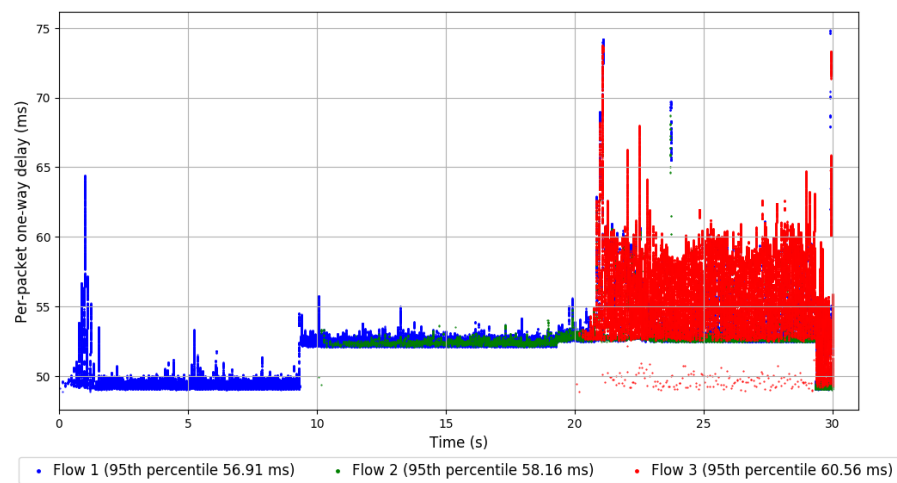
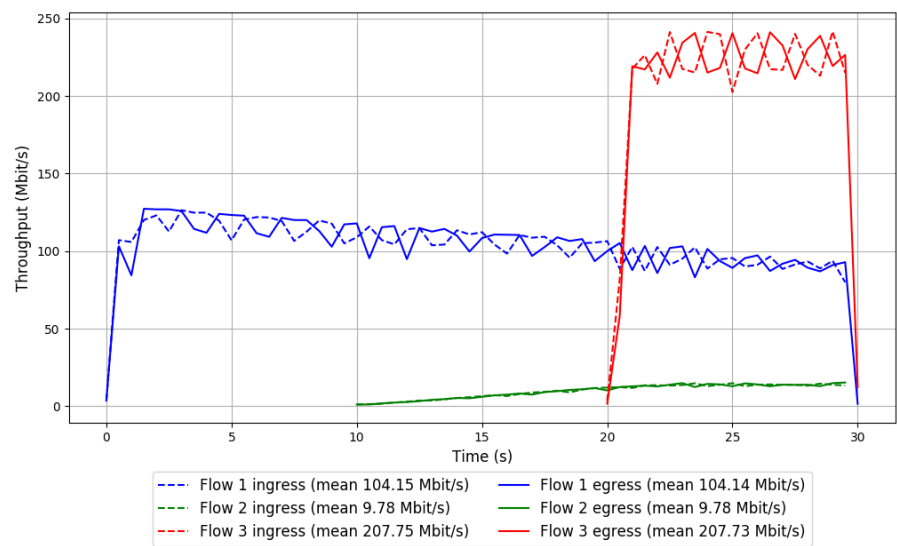
-- Flow 3:

Average throughput: 207.73 Mbit/s

95th percentile per-packet one-way delay: 60.563 ms

Loss rate: 0.01%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-02-21 06:47:17

End at: 2018-02-21 06:47:47

Below is generated by plot.py at 2018-02-21 12:50:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 345.89 Mbit/s

95th percentile per-packet one-way delay: 165.324 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 234.30 Mbit/s

95th percentile per-packet one-way delay: 172.222 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 127.29 Mbit/s

95th percentile per-packet one-way delay: 126.139 ms

Loss rate: 0.42%

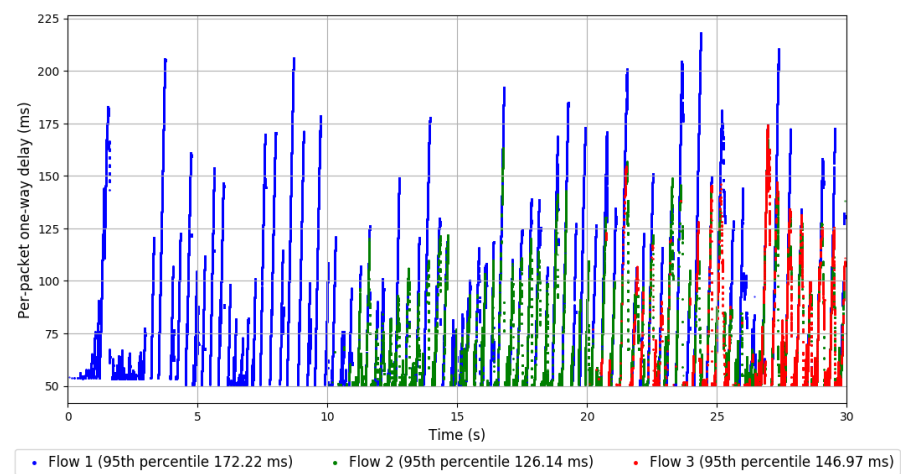
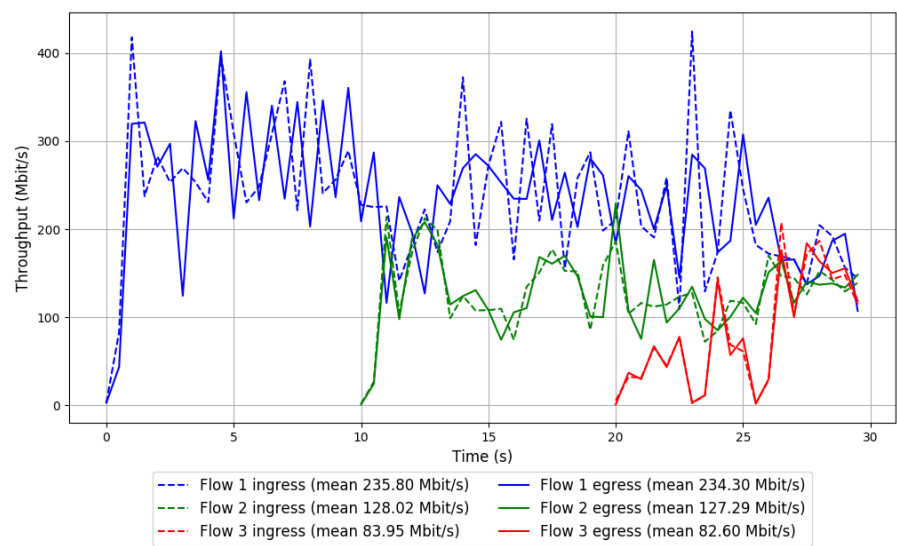
-- Flow 3:

Average throughput: 82.60 Mbit/s

95th percentile per-packet one-way delay: 146.965 ms

Loss rate: 1.53%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-21 07:05:29

End at: 2018-02-21 07:05:59

Below is generated by plot.py at 2018-02-21 12:50:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.83 Mbit/s

95th percentile per-packet one-way delay: 113.209 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 237.84 Mbit/s

95th percentile per-packet one-way delay: 106.221 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 112.31 Mbit/s

95th percentile per-packet one-way delay: 142.764 ms

Loss rate: 0.23%

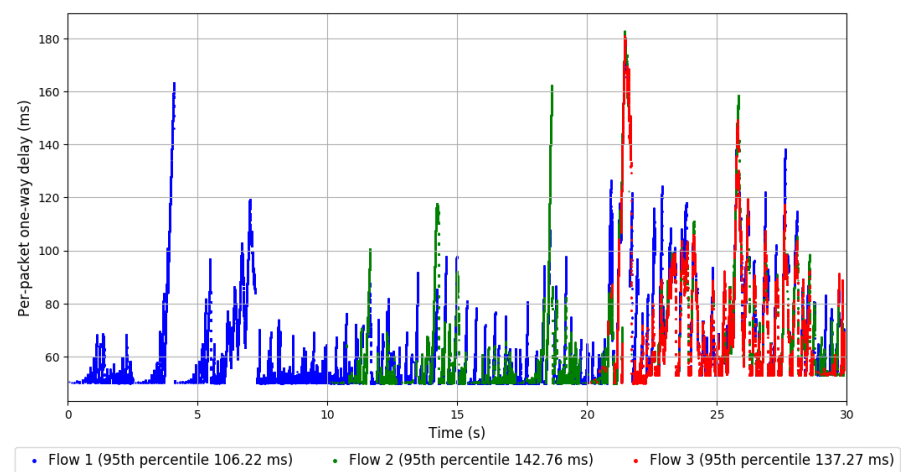
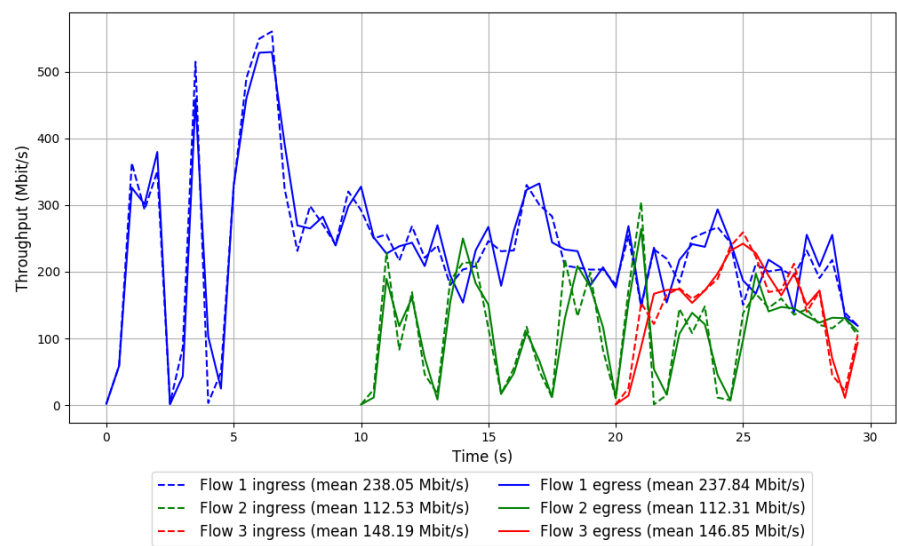
-- Flow 3:

Average throughput: 146.85 Mbit/s

95th percentile per-packet one-way delay: 137.269 ms

Loss rate: 0.90%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-21 07:23:10

End at: 2018-02-21 07:23:40

Below is generated by plot.py at 2018-02-21 12:51:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.76 Mbit/s

95th percentile per-packet one-way delay: 105.103 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 217.75 Mbit/s

95th percentile per-packet one-way delay: 103.573 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 79.72 Mbit/s

95th percentile per-packet one-way delay: 100.688 ms

Loss rate: 0.04%

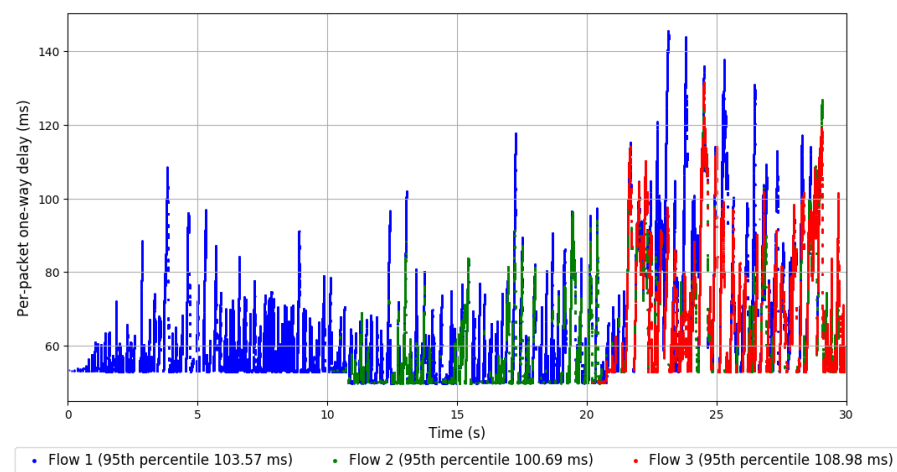
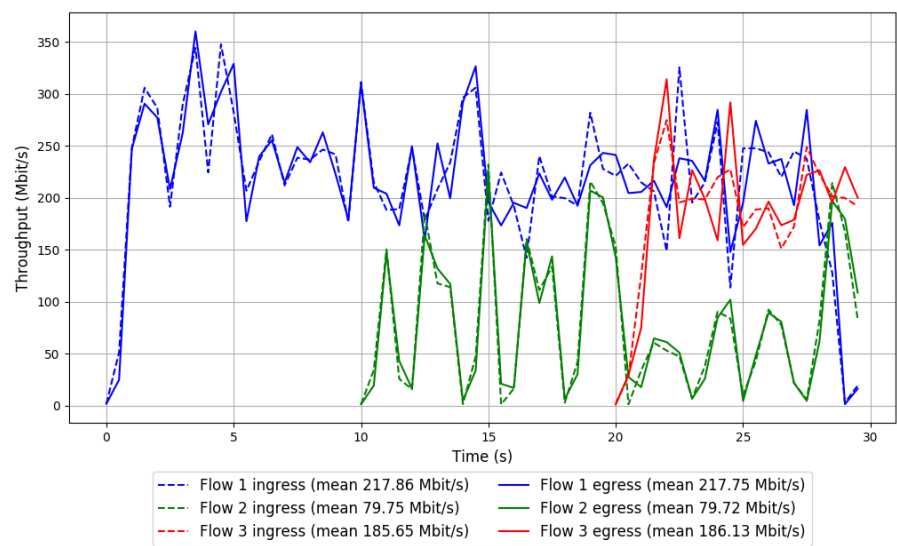
-- Flow 3:

Average throughput: 186.13 Mbit/s

95th percentile per-packet one-way delay: 108.982 ms

Loss rate: 0.07%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-02-21 07:41:06

End at: 2018-02-21 07:41:36

Below is generated by plot.py at 2018-02-21 12:51:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 301.41 Mbit/s

95th percentile per-packet one-way delay: 136.300 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 160.97 Mbit/s

95th percentile per-packet one-way delay: 97.315 ms

Loss rate: 0.19%

-- Flow 2:

Average throughput: 125.95 Mbit/s

95th percentile per-packet one-way delay: 121.663 ms

Loss rate: 0.18%

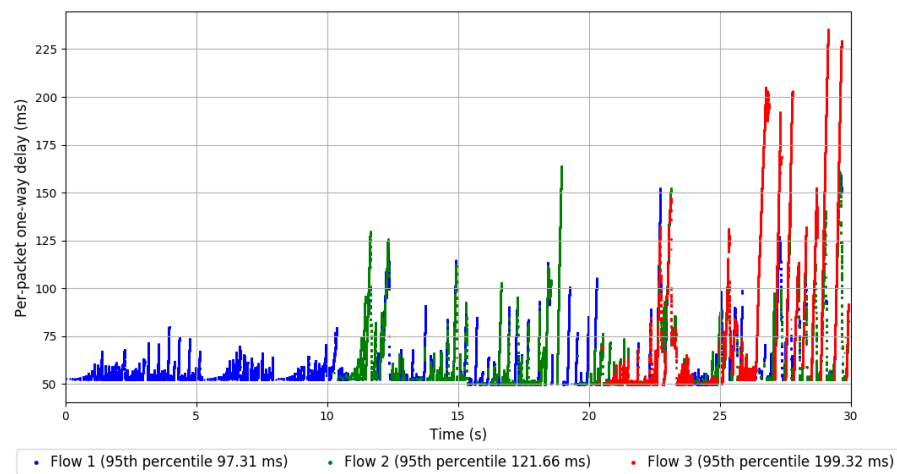
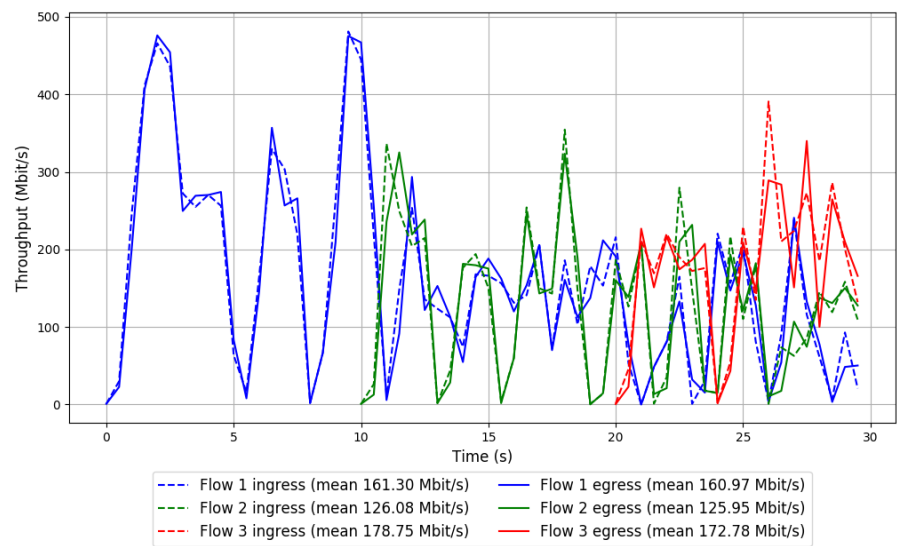
-- Flow 3:

Average throughput: 172.78 Mbit/s

95th percentile per-packet one-way delay: 199.321 ms

Loss rate: 3.34%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-02-21 07:58:58

End at: 2018-02-21 07:59:28

Below is generated by plot.py at 2018-02-21 12:51:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 304.60 Mbit/s

95th percentile per-packet one-way delay: 132.204 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 160.22 Mbit/s

95th percentile per-packet one-way delay: 127.389 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 140.66 Mbit/s

95th percentile per-packet one-way delay: 148.488 ms

Loss rate: 0.33%

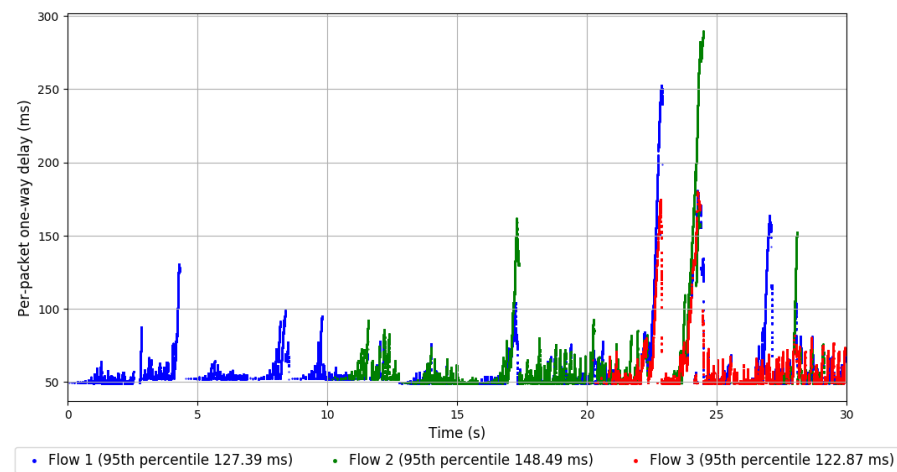
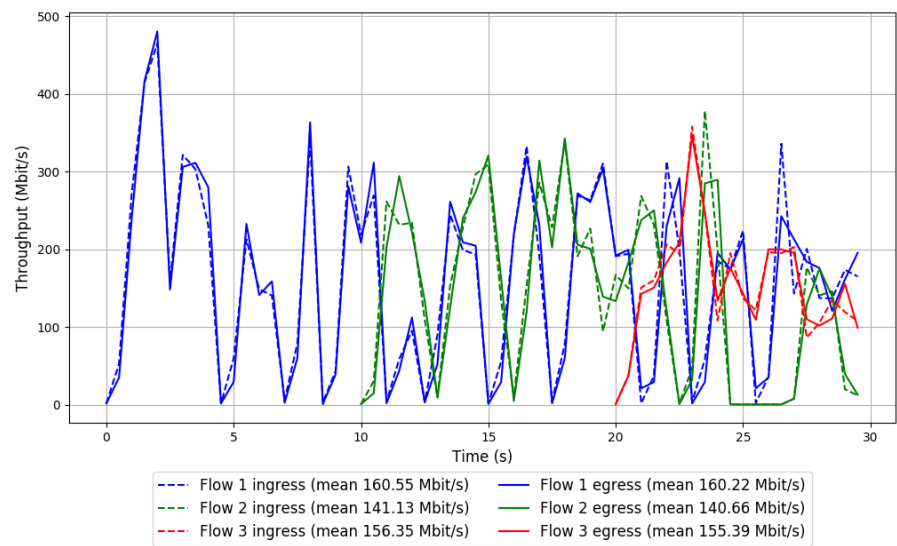
-- Flow 3:

Average throughput: 155.39 Mbit/s

95th percentile per-packet one-way delay: 122.873 ms

Loss rate: 0.45%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-02-21 08:16:27

End at: 2018-02-21 08:16:57

Below is generated by plot.py at 2018-02-21 12:52:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 348.55 Mbit/s

95th percentile per-packet one-way delay: 210.392 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 236.88 Mbit/s

95th percentile per-packet one-way delay: 214.348 ms

Loss rate: 1.68%

-- Flow 2:

Average throughput: 140.96 Mbit/s

95th percentile per-packet one-way delay: 173.997 ms

Loss rate: 2.12%

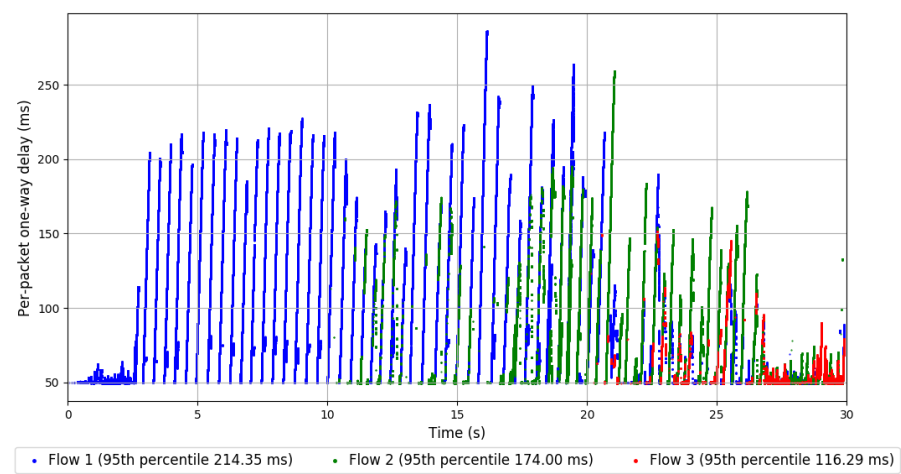
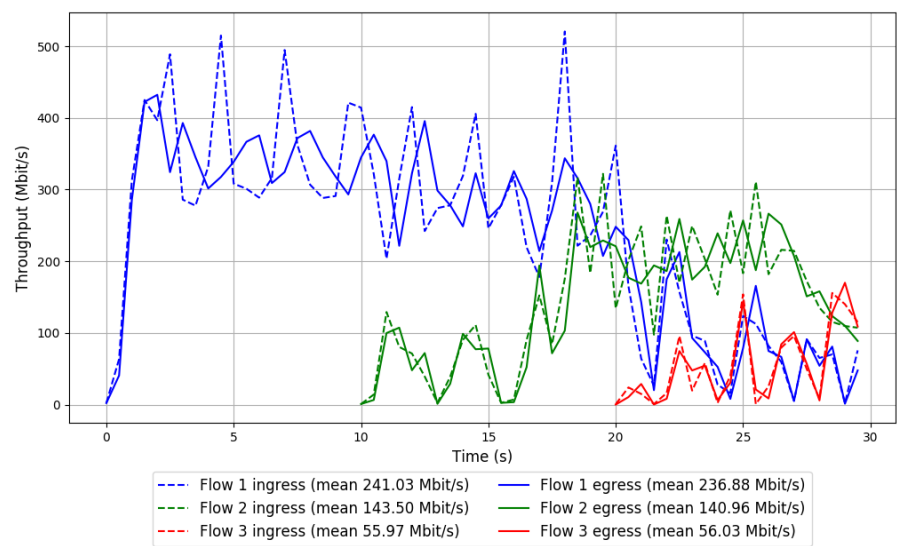
-- Flow 3:

Average throughput: 56.03 Mbit/s

95th percentile per-packet one-way delay: 116.292 ms

Loss rate: 0.56%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-02-21 08:33:57

End at: 2018-02-21 08:34:27

Below is generated by plot.py at 2018-02-21 12:53:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.73 Mbit/s

95th percentile per-packet one-way delay: 163.156 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 271.58 Mbit/s

95th percentile per-packet one-way delay: 162.575 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 96.09 Mbit/s

95th percentile per-packet one-way delay: 167.204 ms

Loss rate: 0.17%

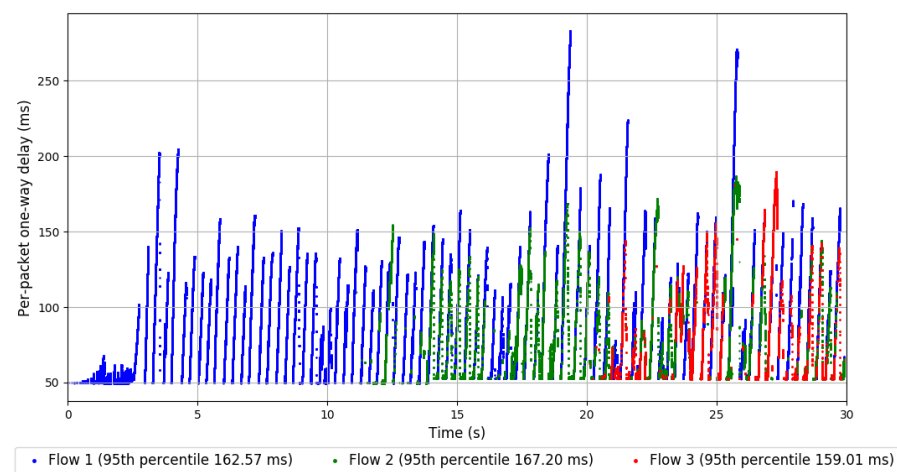
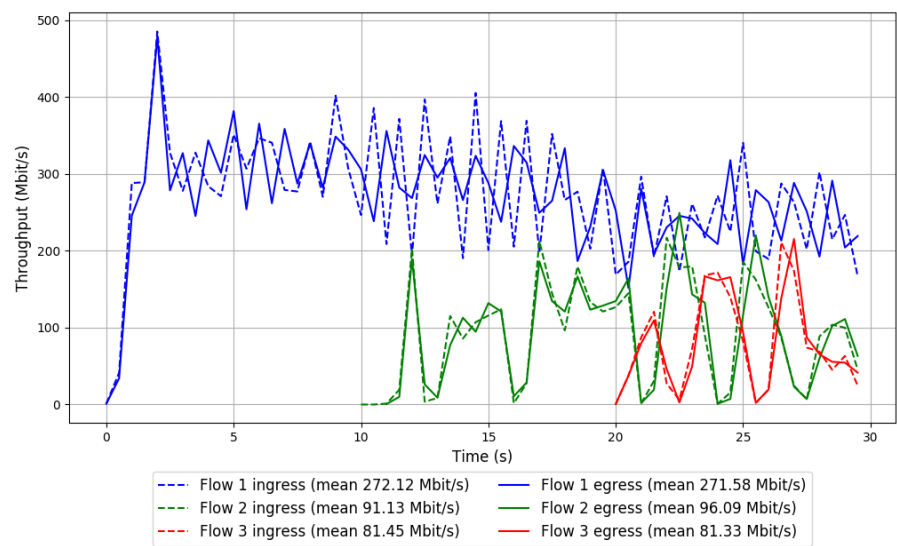
-- Flow 3:

Average throughput: 81.33 Mbit/s

95th percentile per-packet one-way delay: 159.008 ms

Loss rate: 0.16%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-02-21 08:51:28

End at: 2018-02-21 08:51:58

Below is generated by plot.py at 2018-02-21 12:54:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 342.58 Mbit/s

95th percentile per-packet one-way delay: 143.395 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 188.90 Mbit/s

95th percentile per-packet one-way delay: 106.663 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 163.71 Mbit/s

95th percentile per-packet one-way delay: 189.534 ms

Loss rate: 0.36%

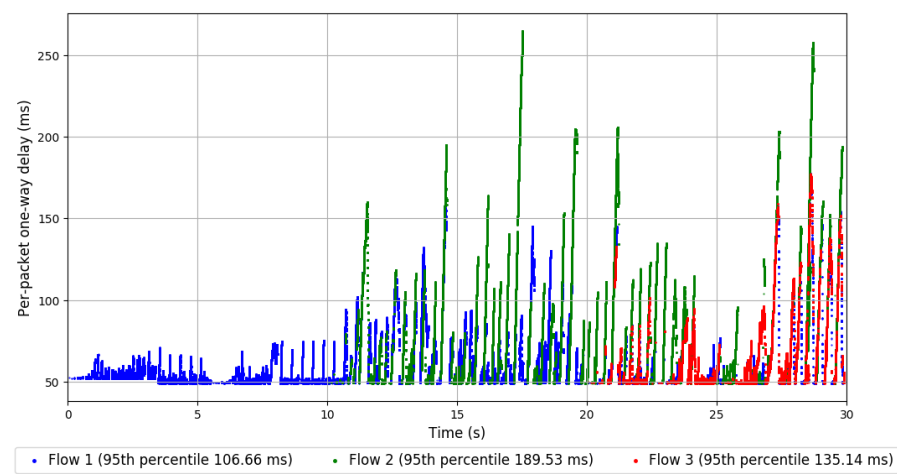
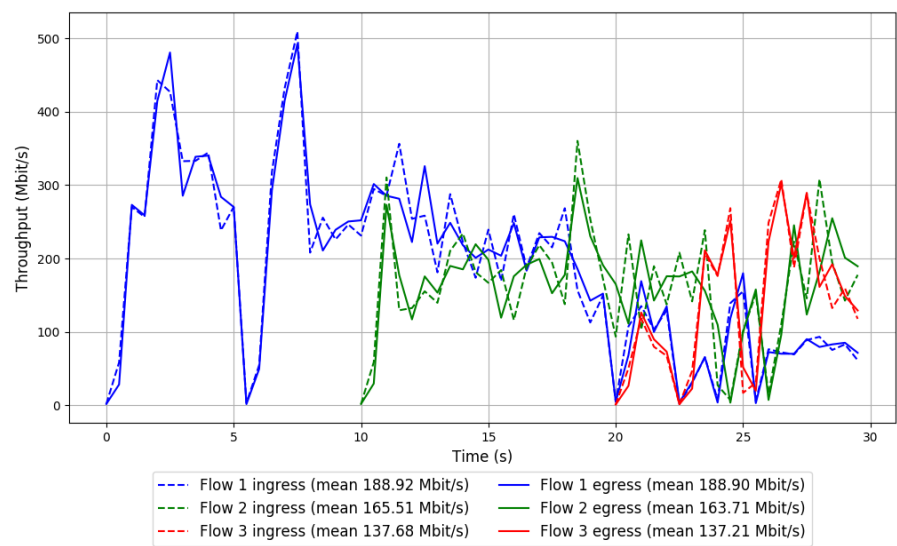
-- Flow 3:

Average throughput: 137.21 Mbit/s

95th percentile per-packet one-way delay: 135.143 ms

Loss rate: 0.28%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-02-21 09:09:07

End at: 2018-02-21 09:09:37

Below is generated by plot.py at 2018-02-21 12:55:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.23 Mbit/s

95th percentile per-packet one-way delay: 122.063 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 215.77 Mbit/s

95th percentile per-packet one-way delay: 112.088 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 115.71 Mbit/s

95th percentile per-packet one-way delay: 143.599 ms

Loss rate: 0.03%

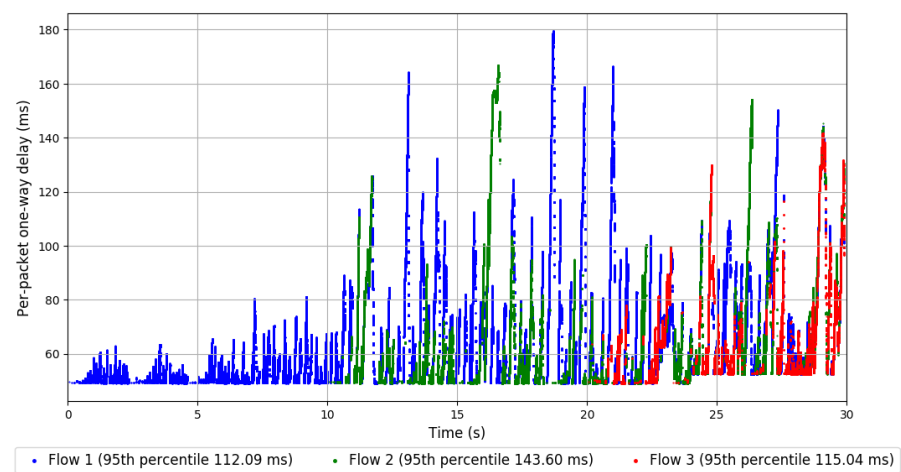
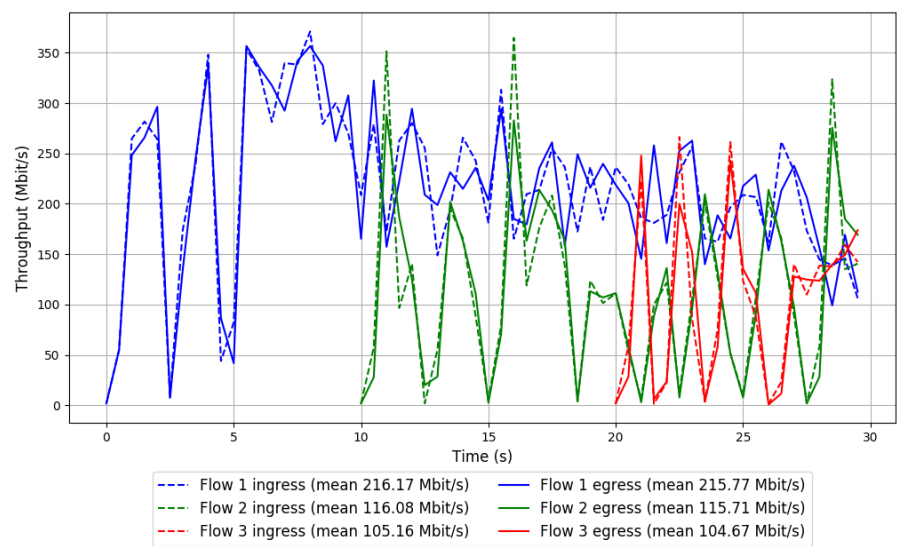
-- Flow 3:

Average throughput: 104.67 Mbit/s

95th percentile per-packet one-way delay: 115.043 ms

Loss rate: 0.05%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-02-21 09:26:41

End at: 2018-02-21 09:27:11

Below is generated by plot.py at 2018-02-21 12:55:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 315.30 Mbit/s

95th percentile per-packet one-way delay: 110.784 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 186.55 Mbit/s

95th percentile per-packet one-way delay: 103.226 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 138.25 Mbit/s

95th percentile per-packet one-way delay: 146.592 ms

Loss rate: 0.09%

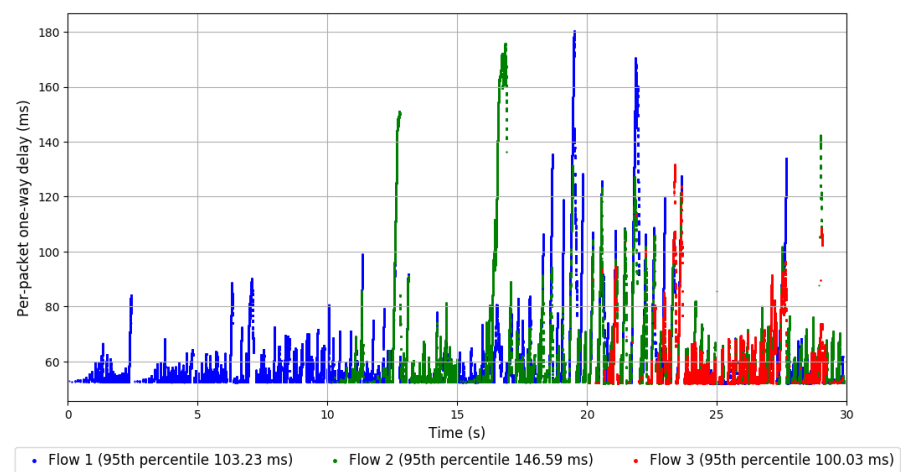
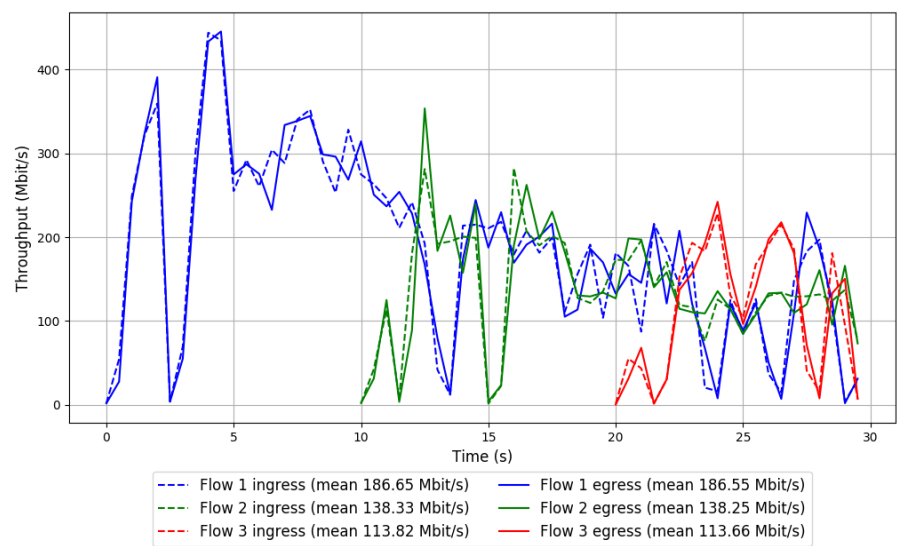
-- Flow 3:

Average throughput: 113.66 Mbit/s

95th percentile per-packet one-way delay: 100.033 ms

Loss rate: 0.12%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-02-21 06:33:31

End at: 2018-02-21 06:34:01

Below is generated by plot.py at 2018-02-21 12:55:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 128.99 Mbit/s

95th percentile per-packet one-way delay: 53.264 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 74.25 Mbit/s

95th percentile per-packet one-way delay: 53.179 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.59 Mbit/s

95th percentile per-packet one-way delay: 53.433 ms

Loss rate: 0.00%

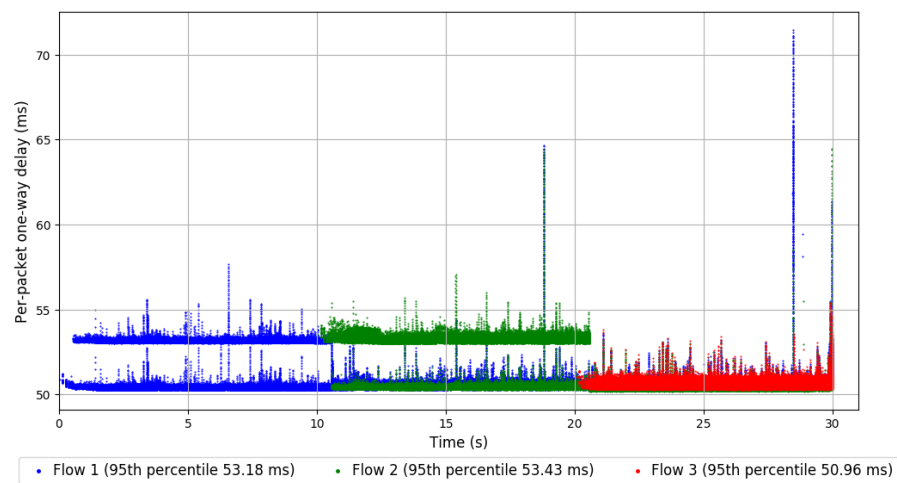
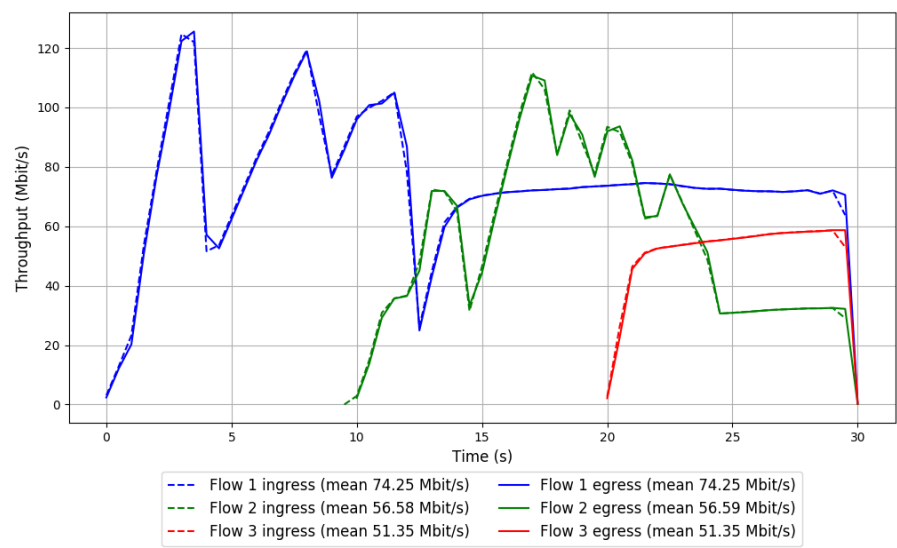
-- Flow 3:

Average throughput: 51.35 Mbit/s

95th percentile per-packet one-way delay: 50.964 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-21 06:50:58

End at: 2018-02-21 06:51:28

Below is generated by plot.py at 2018-02-21 13:05:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 385.54 Mbit/s

95th percentile per-packet one-way delay: 254.296 ms

Loss rate: 36.90%

-- Flow 1:

Average throughput: 385.19 Mbit/s

95th percentile per-packet one-way delay: 254.300 ms

Loss rate: 36.91%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 192.263 ms

Loss rate: 13.91%

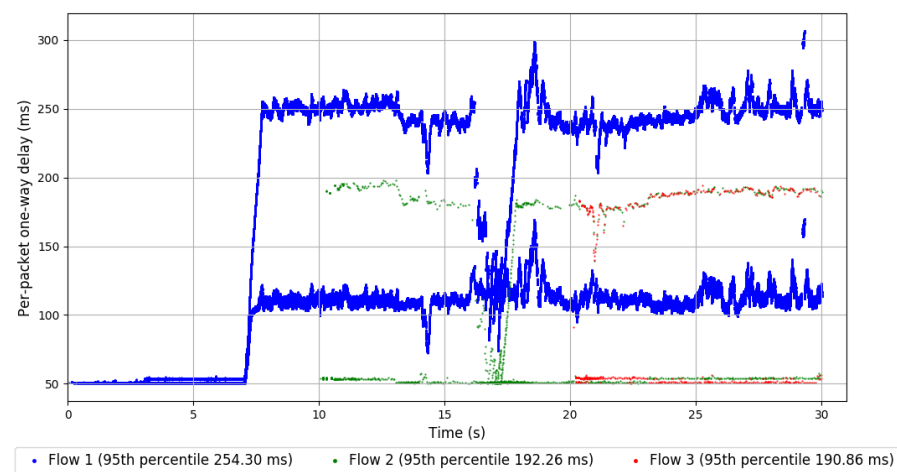
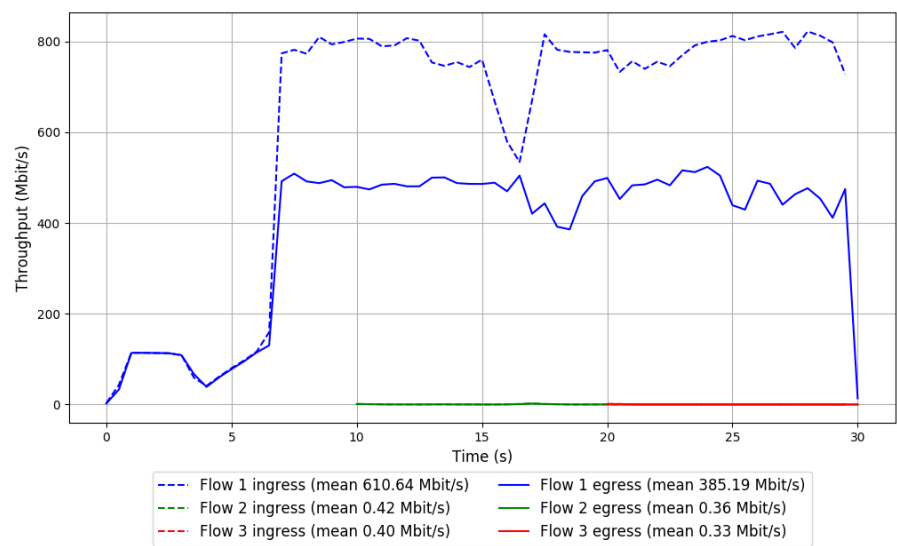
-- Flow 3:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 190.857 ms

Loss rate: 16.45%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-21 07:09:07

End at: 2018-02-21 07:09:37

Below is generated by plot.py at 2018-02-21 13:05:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.67 Mbit/s

95th percentile per-packet one-way delay: 53.248 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 73.03 Mbit/s

95th percentile per-packet one-way delay: 53.234 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.76 Mbit/s

95th percentile per-packet one-way delay: 53.264 ms

Loss rate: 0.01%

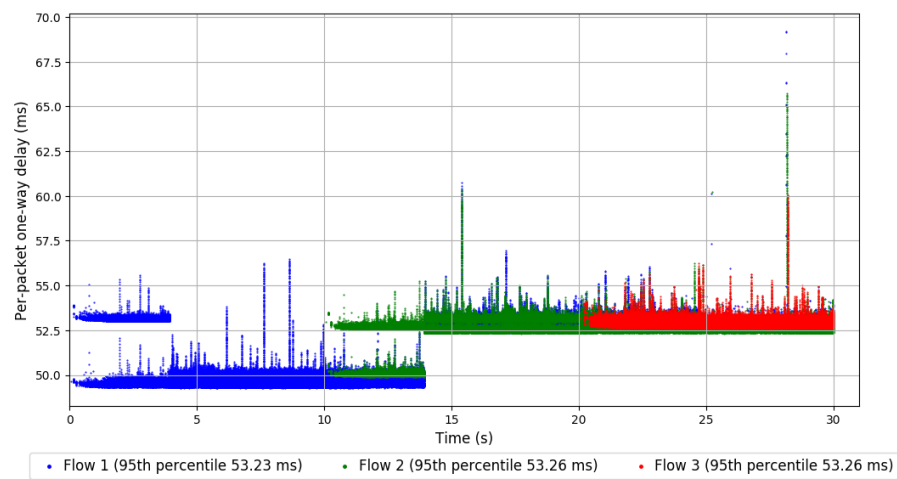
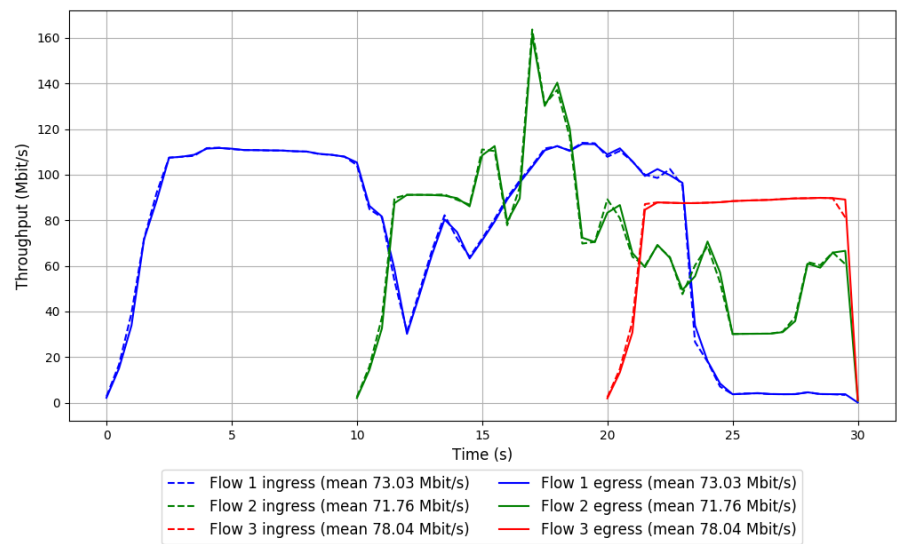
-- Flow 3:

Average throughput: 78.04 Mbit/s

95th percentile per-packet one-way delay: 53.257 ms

Loss rate: 0.03%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-02-21 07:26:44

End at: 2018-02-21 07:27:14

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.43 Mbit/s

95th percentile per-packet one-way delay: 238.132 ms

Loss rate: 40.05%

-- Flow 1:

Average throughput: 303.38 Mbit/s

95th percentile per-packet one-way delay: 239.443 ms

Loss rate: 39.07%

-- Flow 2:

Average throughput: 360.33 Mbit/s

95th percentile per-packet one-way delay: 234.633 ms

Loss rate: 41.23%

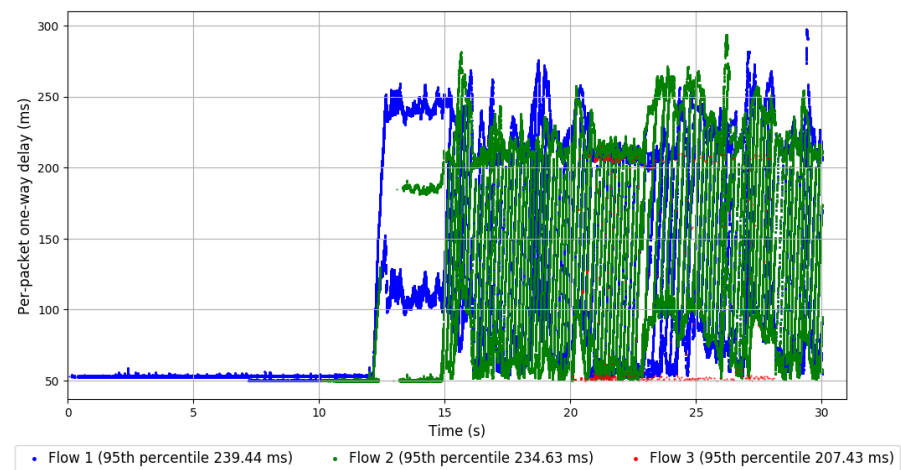
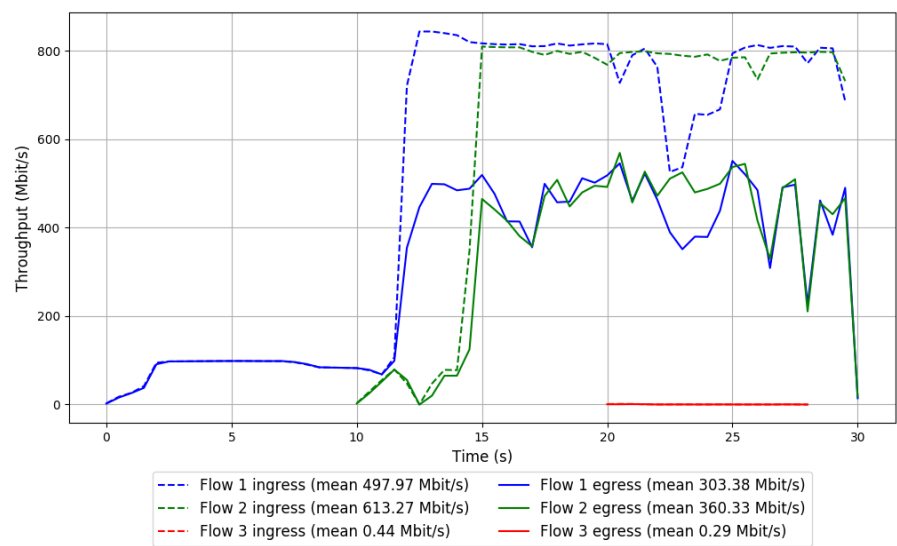
-- Flow 3:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 207.434 ms

Loss rate: 34.86%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-02-21 07:44:39

End at: 2018-02-21 07:45:09

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.69 Mbit/s

95th percentile per-packet one-way delay: 53.060 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 81.86 Mbit/s

95th percentile per-packet one-way delay: 52.986 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 74.92 Mbit/s

95th percentile per-packet one-way delay: 52.969 ms

Loss rate: 0.01%

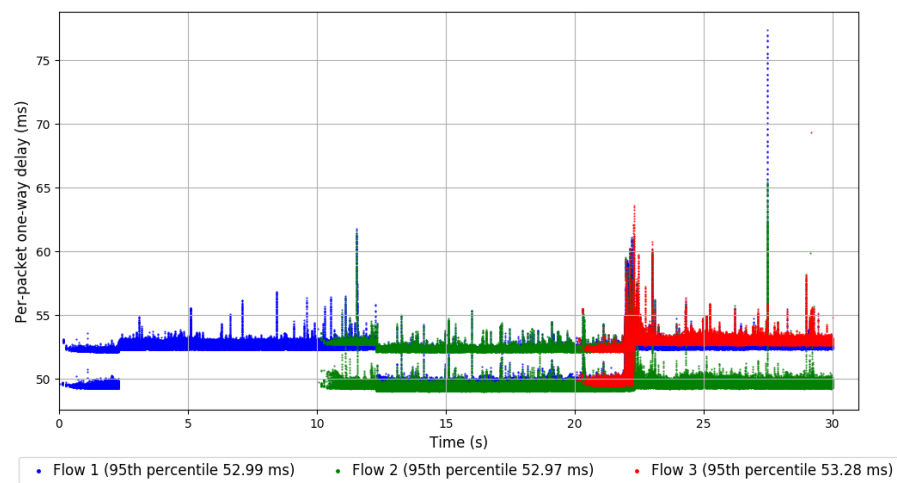
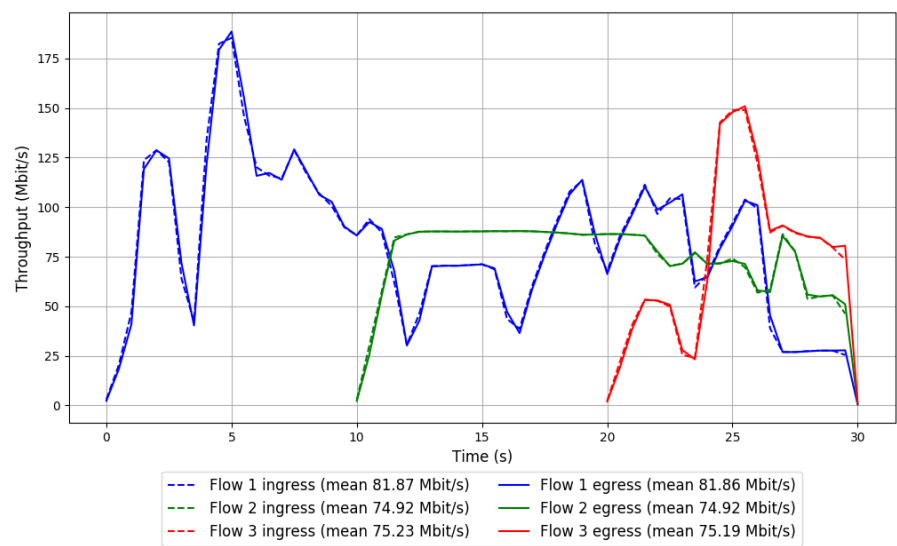
-- Flow 3:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 53.278 ms

Loss rate: 0.03%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-02-21 08:02:26

End at: 2018-02-21 08:02:56

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.18 Mbit/s

95th percentile per-packet one-way delay: 53.099 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.95 Mbit/s

95th percentile per-packet one-way delay: 53.124 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.71 Mbit/s

95th percentile per-packet one-way delay: 53.113 ms

Loss rate: 0.00%

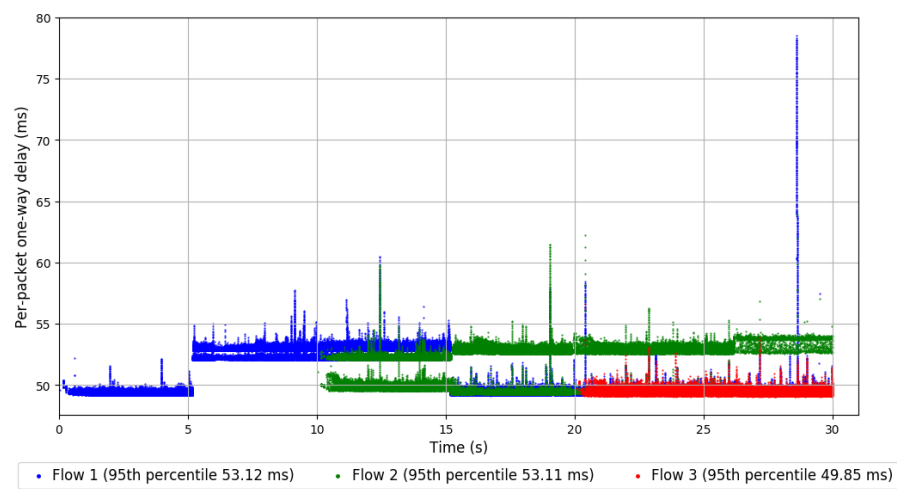
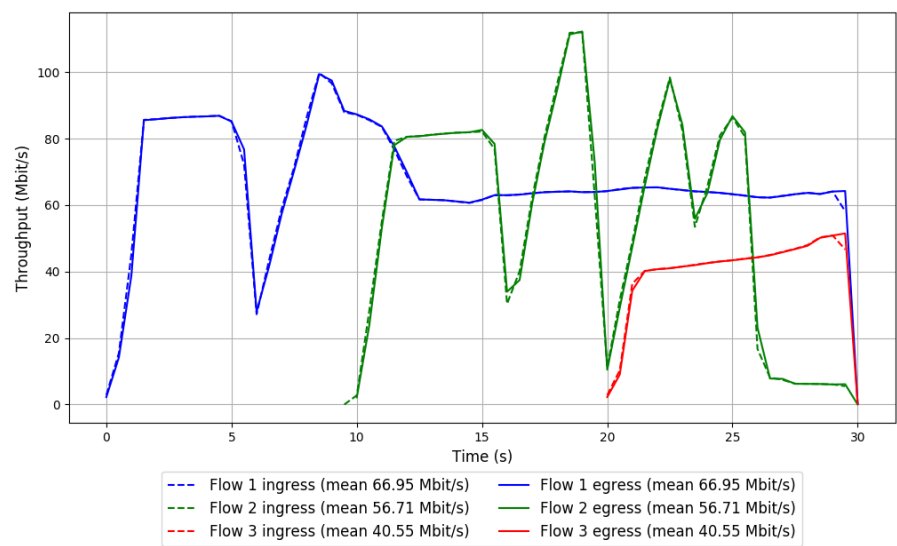
-- Flow 3:

Average throughput: 40.55 Mbit/s

95th percentile per-packet one-way delay: 49.849 ms

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-02-21 08:20:02

End at: 2018-02-21 08:20:32

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.88 Mbit/s

95th percentile per-packet one-way delay: 250.603 ms

Loss rate: 17.19%

-- Flow 1:

Average throughput: 142.12 Mbit/s

95th percentile per-packet one-way delay: 253.446 ms

Loss rate: 22.00%

-- Flow 2:

Average throughput: 71.33 Mbit/s

95th percentile per-packet one-way delay: 53.095 ms

Loss rate: 0.01%

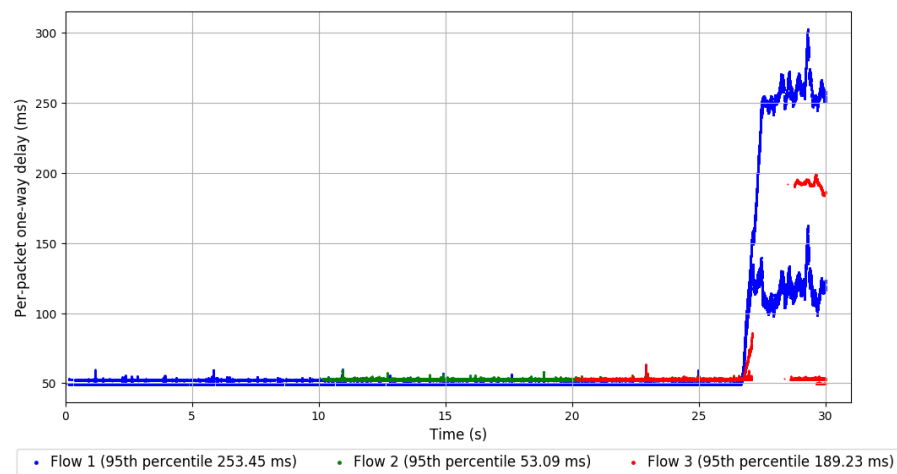
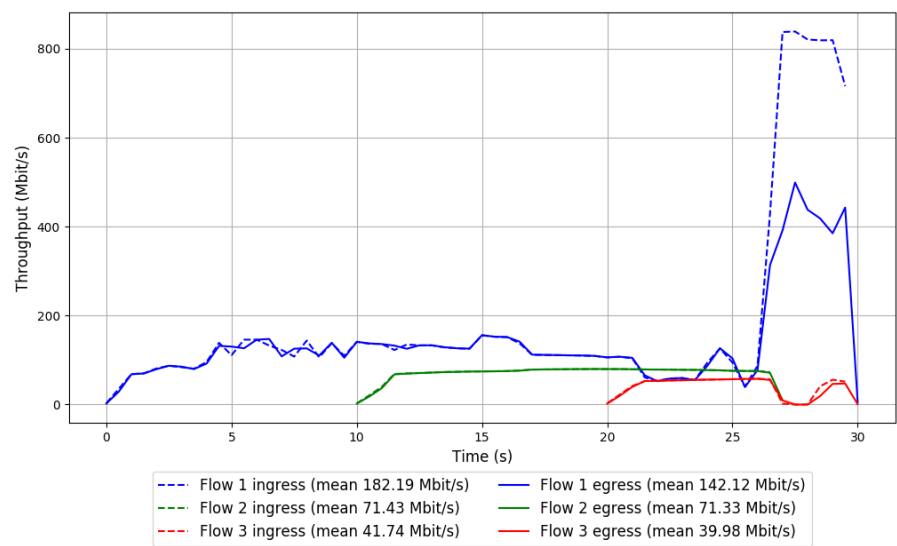
-- Flow 3:

Average throughput: 39.98 Mbit/s

95th percentile per-packet one-way delay: 189.228 ms

Loss rate: 4.25%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-02-21 08:37:30

End at: 2018-02-21 08:38:00

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 131.09 Mbit/s

95th percentile per-packet one-way delay: 52.566 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.00 Mbit/s

95th percentile per-packet one-way delay: 52.731 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 50.74 Mbit/s

95th percentile per-packet one-way delay: 50.158 ms

Loss rate: 0.00%

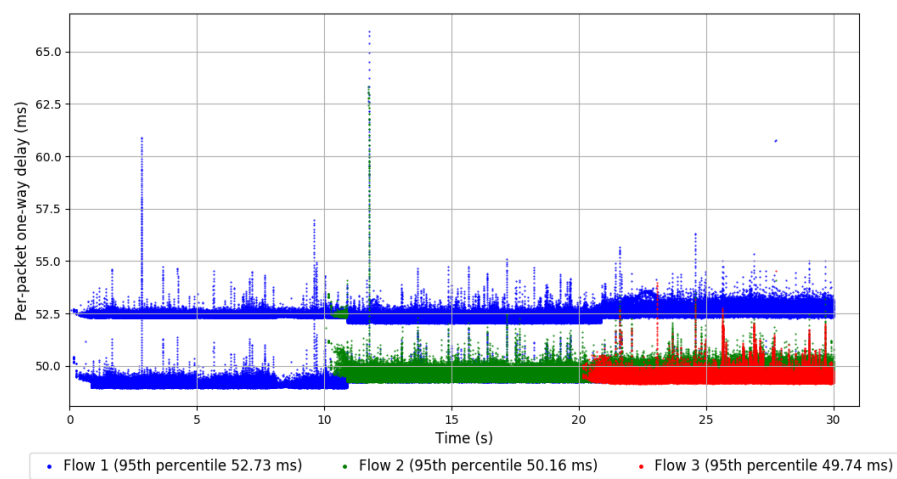
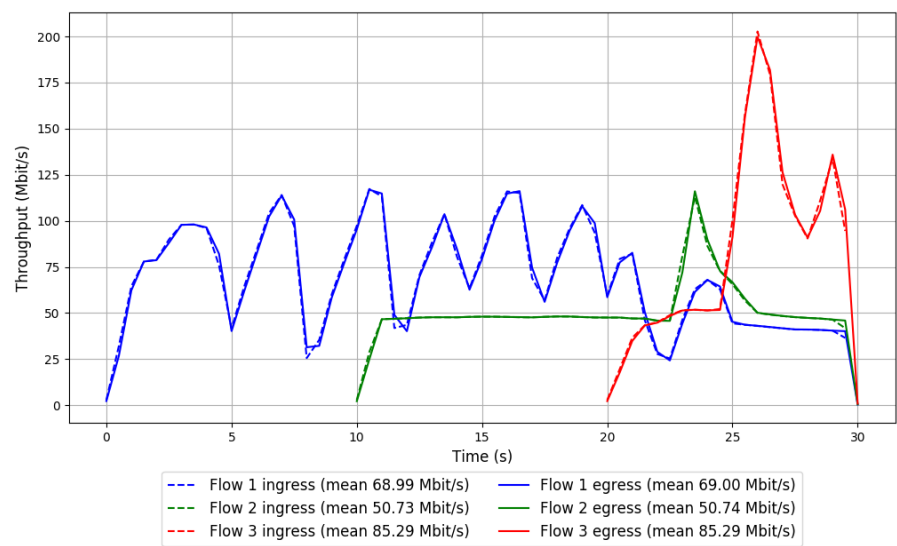
-- Flow 3:

Average throughput: 85.29 Mbit/s

95th percentile per-packet one-way delay: 49.737 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-02-21 08:55:07

End at: 2018-02-21 08:55:37

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.64 Mbit/s

95th percentile per-packet one-way delay: 52.425 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 84.33 Mbit/s

95th percentile per-packet one-way delay: 52.469 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.77 Mbit/s

95th percentile per-packet one-way delay: 52.226 ms

Loss rate: 0.00%

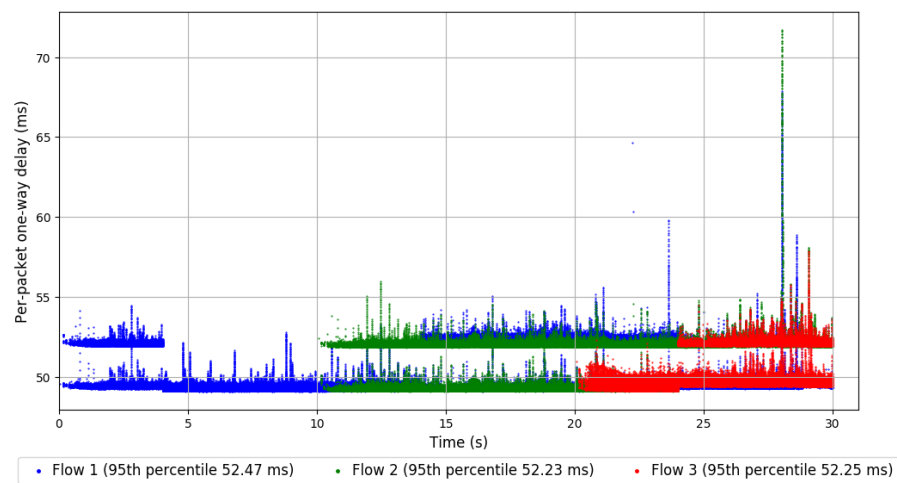
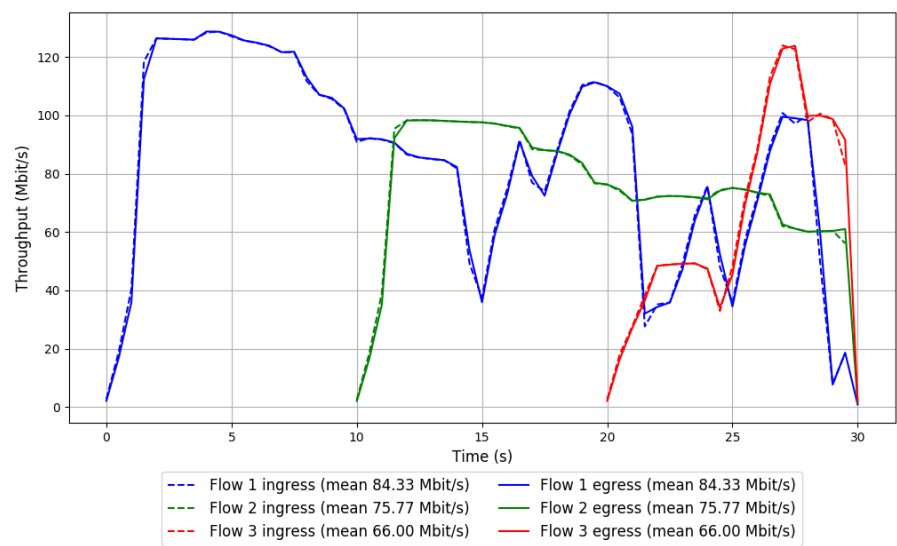
-- Flow 3:

Average throughput: 66.00 Mbit/s

95th percentile per-packet one-way delay: 52.249 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-02-21 09:12:44

End at: 2018-02-21 09:13:14

Below is generated by plot.py at 2018-02-21 13:12:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.61 Mbit/s

95th percentile per-packet one-way delay: 52.568 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.74 Mbit/s

95th percentile per-packet one-way delay: 50.228 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 75.19 Mbit/s

95th percentile per-packet one-way delay: 51.701 ms

Loss rate: 0.00%

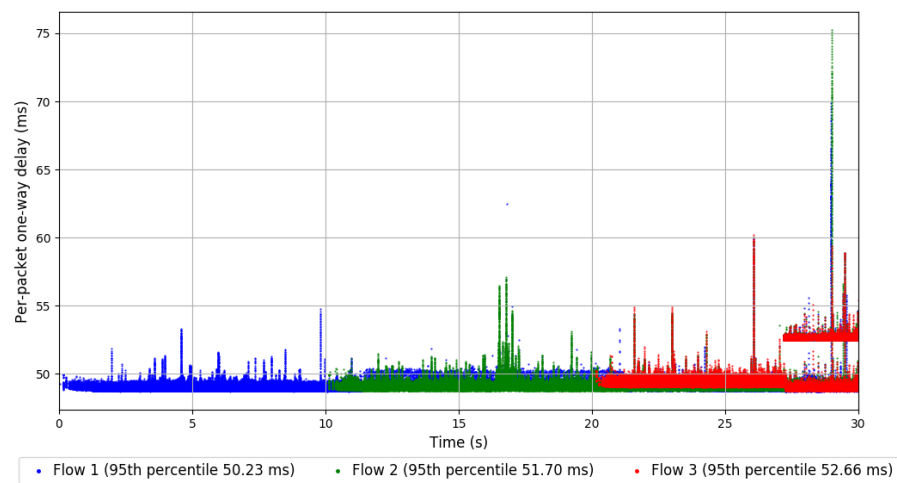
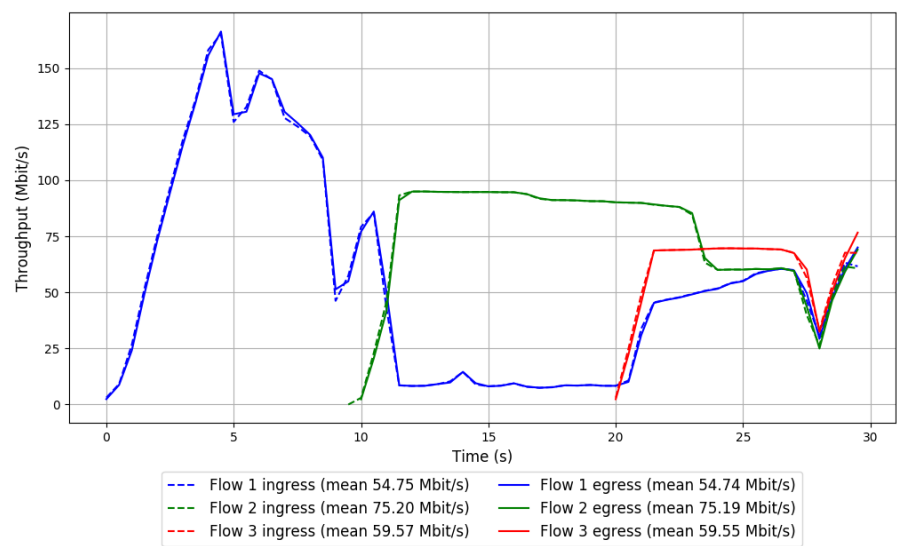
-- Flow 3:

Average throughput: 59.55 Mbit/s

95th percentile per-packet one-way delay: 52.662 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

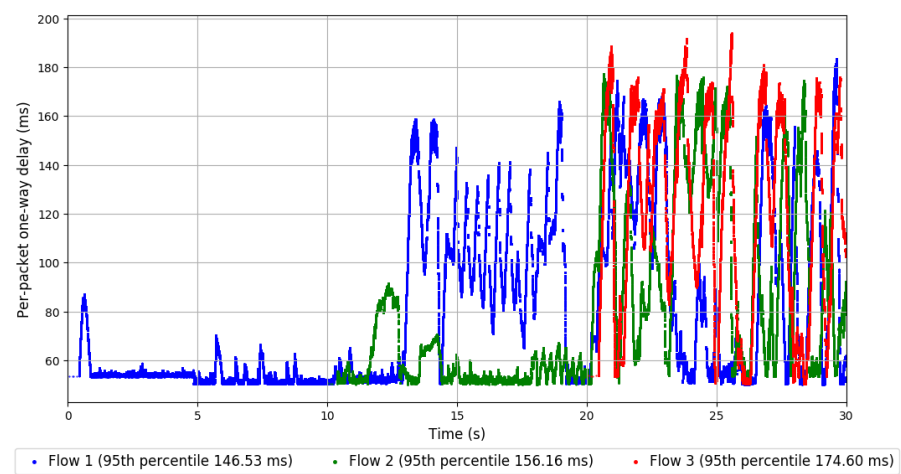
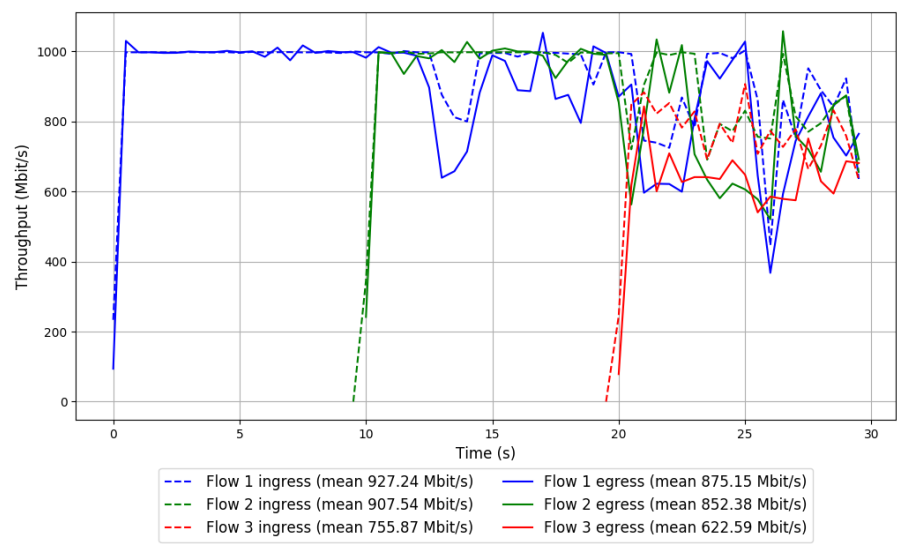


```
Run 1: Statistics of FillP

Start at: 2018-02-21 06:44:16
End at: 2018-02-21 06:44:46

# Below is generated by plot.py at 2018-02-21 13:27:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1649.46 Mbit/s
95th percentile per-packet one-way delay: 159.510 ms
Loss rate: 7.46%
-- Flow 1:
Average throughput: 875.15 Mbit/s
95th percentile per-packet one-way delay: 146.526 ms
Loss rate: 5.62%
-- Flow 2:
Average throughput: 852.38 Mbit/s
95th percentile per-packet one-way delay: 156.158 ms
Loss rate: 6.06%
-- Flow 3:
Average throughput: 622.59 Mbit/s
95th percentile per-packet one-way delay: 174.598 ms
Loss rate: 17.63%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-02-21 07:02:24

End at: 2018-02-21 07:02:54

Below is generated by plot.py at 2018-02-21 13:28:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 1612.22 Mbit/s

95th percentile per-packet one-way delay: 154.895 ms

Loss rate: 8.63%

-- Flow 1:

Average throughput: 840.54 Mbit/s

95th percentile per-packet one-way delay: 151.985 ms

Loss rate: 8.73%

-- Flow 2:

Average throughput: 843.08 Mbit/s

95th percentile per-packet one-way delay: 151.607 ms

Loss rate: 5.86%

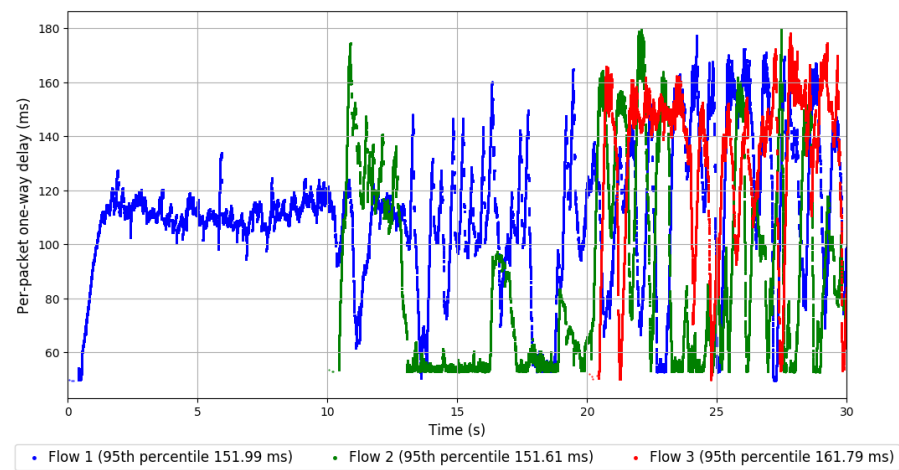
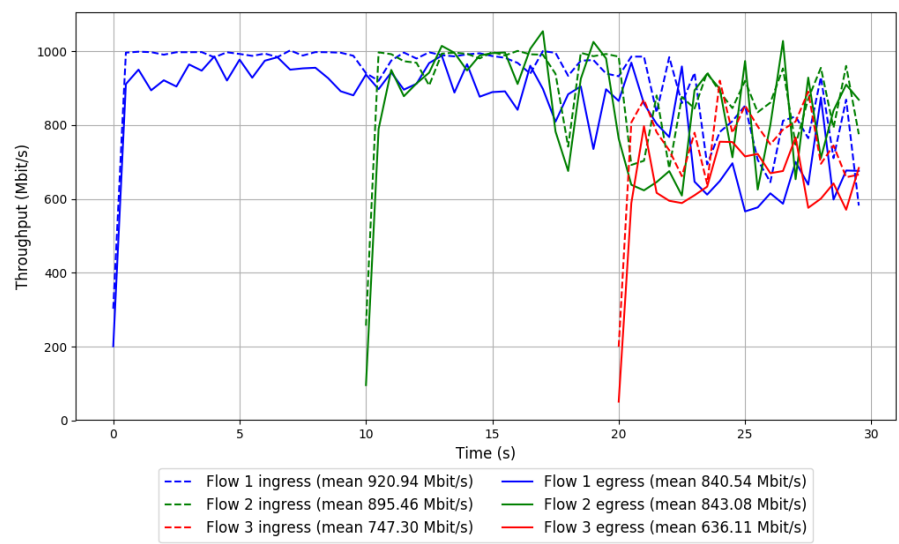
-- Flow 3:

Average throughput: 636.11 Mbit/s

95th percentile per-packet one-way delay: 161.790 ms

Loss rate: 14.89%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-02-21 07:20:08

End at: 2018-02-21 07:20:38

Below is generated by plot.py at 2018-02-21 13:29:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 1579.15 Mbit/s

95th percentile per-packet one-way delay: 148.651 ms

Loss rate: 11.77%

-- Flow 1:

Average throughput: 803.70 Mbit/s

95th percentile per-packet one-way delay: 146.003 ms

Loss rate: 11.31%

-- Flow 2:

Average throughput: 817.16 Mbit/s

95th percentile per-packet one-way delay: 153.807 ms

Loss rate: 11.00%

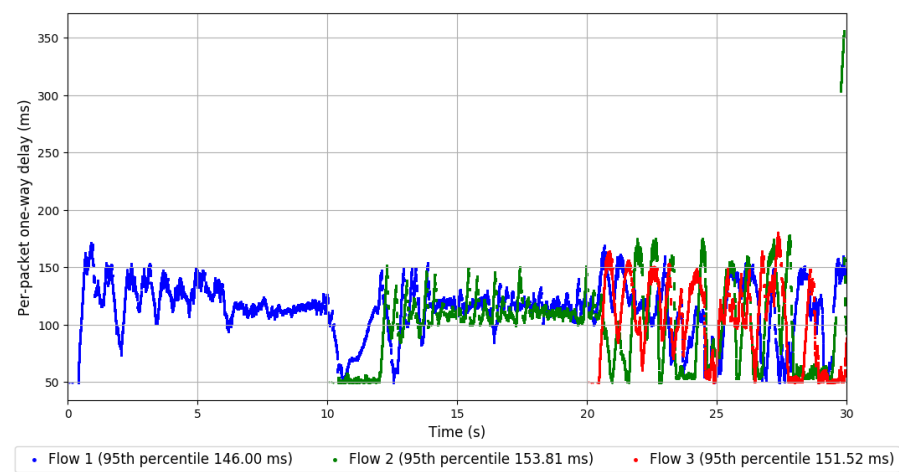
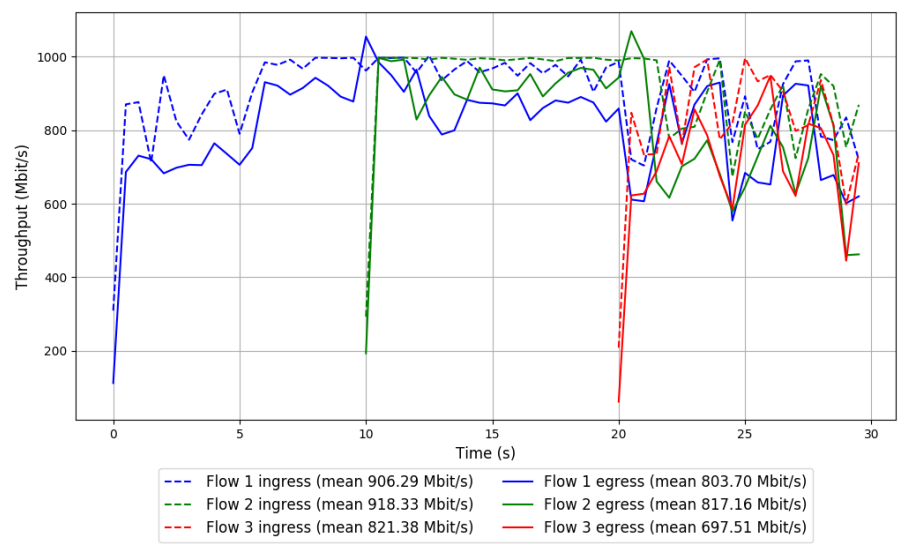
-- Flow 3:

Average throughput: 697.51 Mbit/s

95th percentile per-packet one-way delay: 151.516 ms

Loss rate: 15.06%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-02-21 07:38:05

End at: 2018-02-21 07:38:35

Below is generated by plot.py at 2018-02-21 13:30:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 1675.32 Mbit/s

95th percentile per-packet one-way delay: 153.383 ms

Loss rate: 7.49%

-- Flow 1:

Average throughput: 887.78 Mbit/s

95th percentile per-packet one-way delay: 144.403 ms

Loss rate: 5.75%

-- Flow 2:

Average throughput: 842.85 Mbit/s

95th percentile per-packet one-way delay: 146.449 ms

Loss rate: 6.49%

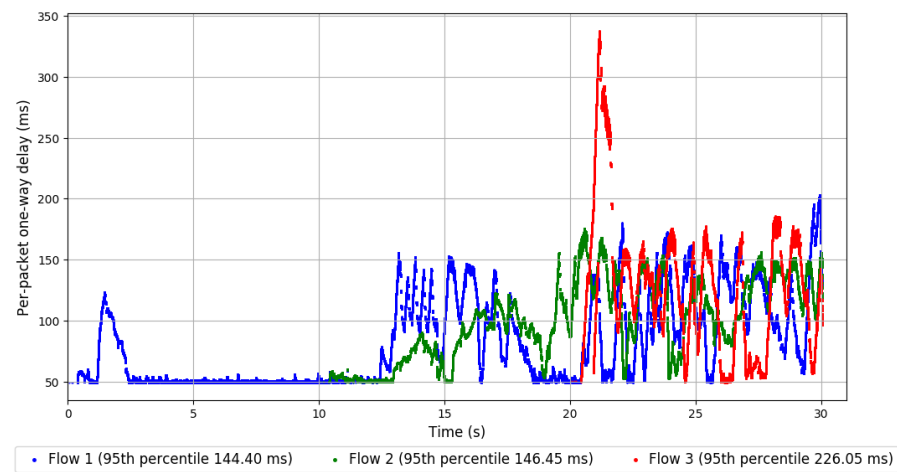
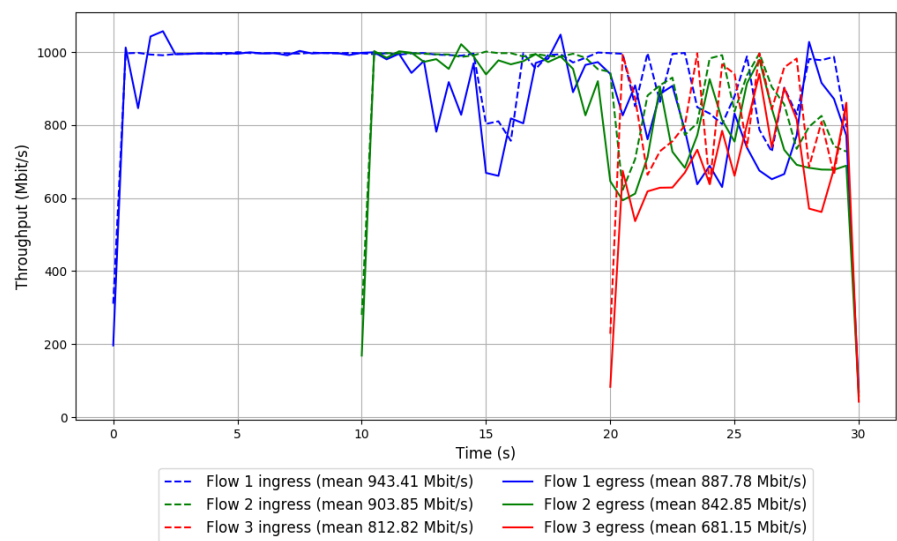
-- Flow 3:

Average throughput: 681.15 Mbit/s

95th percentile per-packet one-way delay: 226.049 ms

Loss rate: 15.81%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-02-21 07:55:53

End at: 2018-02-21 07:56:23

Below is generated by plot.py at 2018-02-21 13:30:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 1641.52 Mbit/s

95th percentile per-packet one-way delay: 151.994 ms

Loss rate: 8.43%

-- Flow 1:

Average throughput: 845.81 Mbit/s

95th percentile per-packet one-way delay: 151.688 ms

Loss rate: 7.59%

-- Flow 2:

Average throughput: 858.03 Mbit/s

95th percentile per-packet one-way delay: 137.477 ms

Loss rate: 6.69%

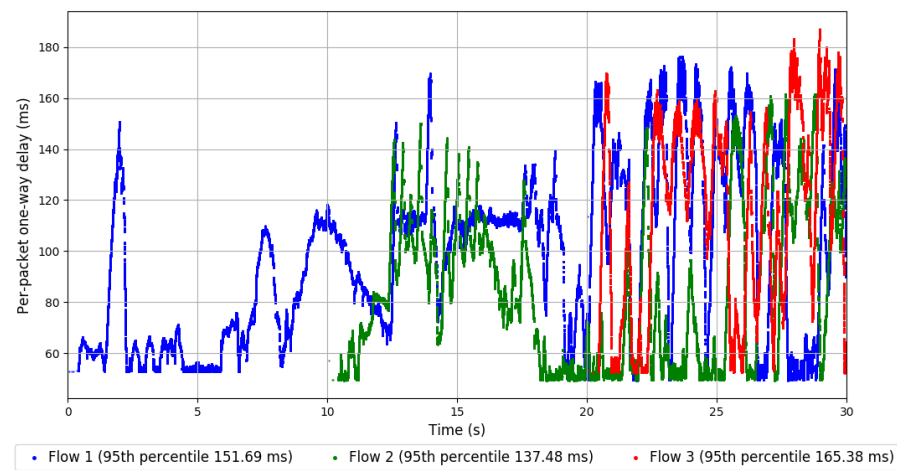
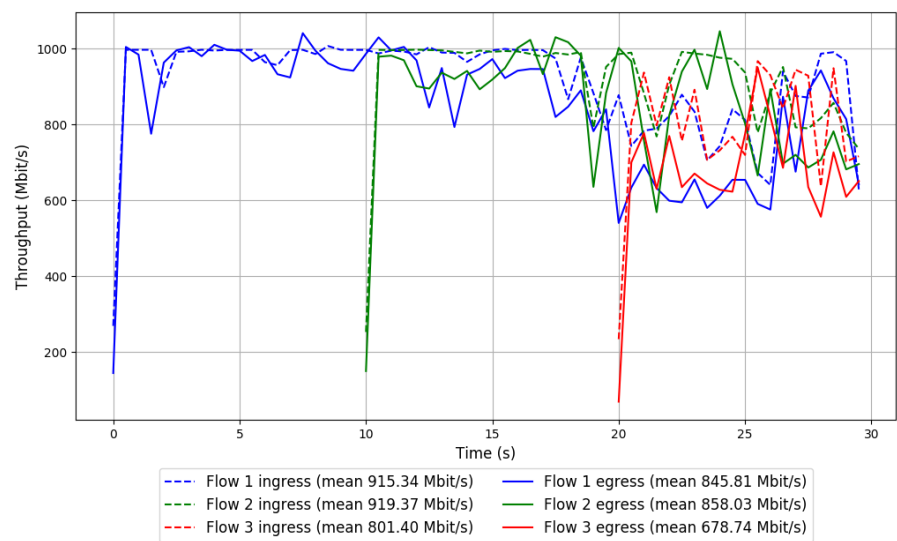
-- Flow 3:

Average throughput: 678.74 Mbit/s

95th percentile per-packet one-way delay: 165.385 ms

Loss rate: 15.30%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-02-21 08:13:26

End at: 2018-02-21 08:13:56

Below is generated by plot.py at 2018-02-21 13:32:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 1658.56 Mbit/s

95th percentile per-packet one-way delay: 152.479 ms

Loss rate: 7.76%

-- Flow 1:

Average throughput: 875.45 Mbit/s

95th percentile per-packet one-way delay: 146.237 ms

Loss rate: 5.93%

-- Flow 2:

Average throughput: 813.41 Mbit/s

95th percentile per-packet one-way delay: 159.620 ms

Loss rate: 9.09%

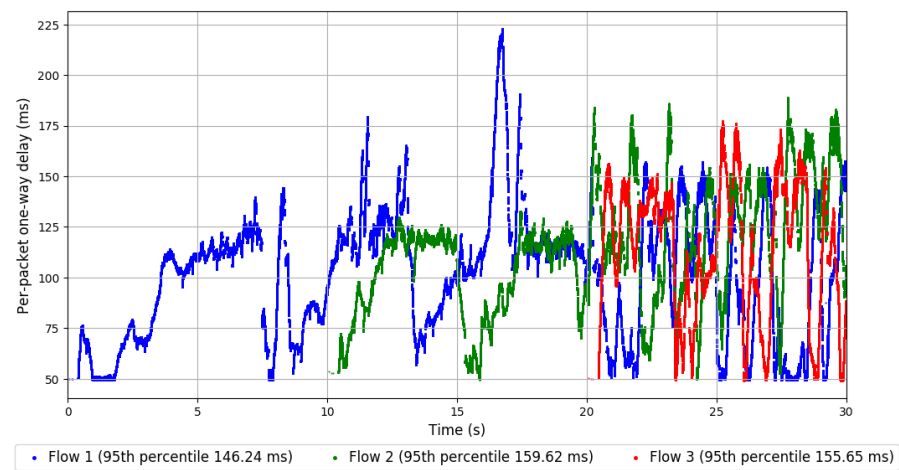
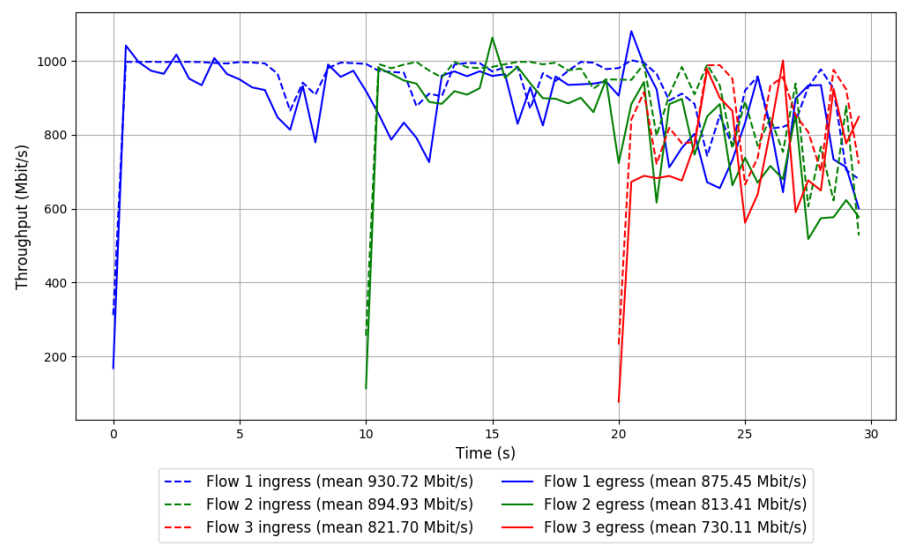
-- Flow 3:

Average throughput: 730.11 Mbit/s

95th percentile per-packet one-way delay: 155.648 ms

Loss rate: 11.12%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-02-21 08:31:00

End at: 2018-02-21 08:31:30

Below is generated by plot.py at 2018-02-21 13:37:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1606.16 Mbit/s

95th percentile per-packet one-way delay: 290.032 ms

Loss rate: 5.77%

-- Flow 1:

Average throughput: 919.49 Mbit/s

95th percentile per-packet one-way delay: 120.331 ms

Loss rate: 1.96%

-- Flow 2:

Average throughput: 763.00 Mbit/s

95th percentile per-packet one-way delay: 294.556 ms

Loss rate: 7.14%

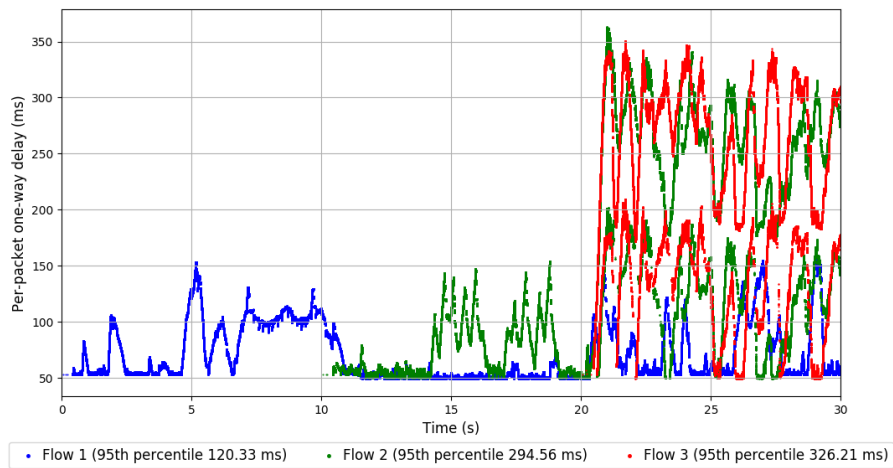
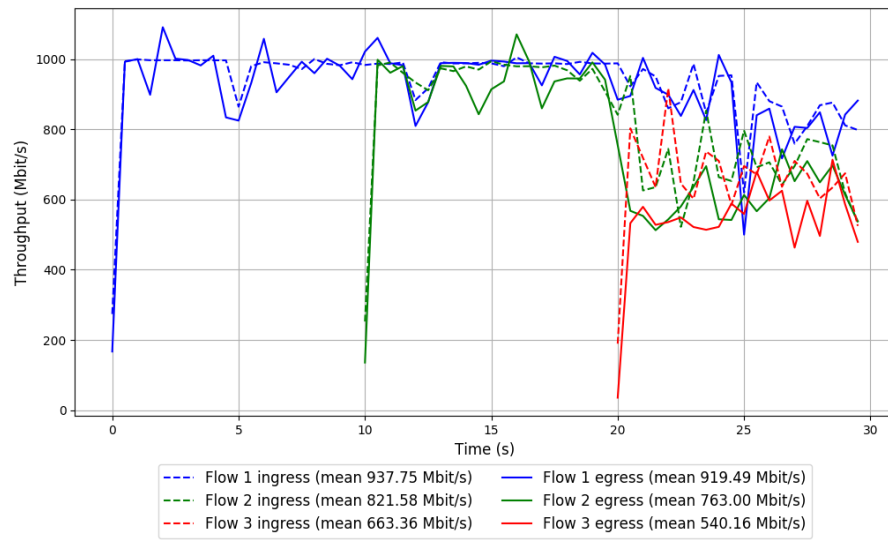
-- Flow 3:

Average throughput: 540.16 Mbit/s

95th percentile per-packet one-way delay: 326.214 ms

Loss rate: 18.60%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-02-21 08:48:24

End at: 2018-02-21 08:48:54

Below is generated by plot.py at 2018-02-21 13:48:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 1677.56 Mbit/s

95th percentile per-packet one-way delay: 214.326 ms

Loss rate: 7.24%

-- Flow 1:

Average throughput: 868.18 Mbit/s

95th percentile per-packet one-way delay: 232.626 ms

Loss rate: 6.90%

-- Flow 2:

Average throughput: 900.23 Mbit/s

95th percentile per-packet one-way delay: 114.128 ms

Loss rate: 3.93%

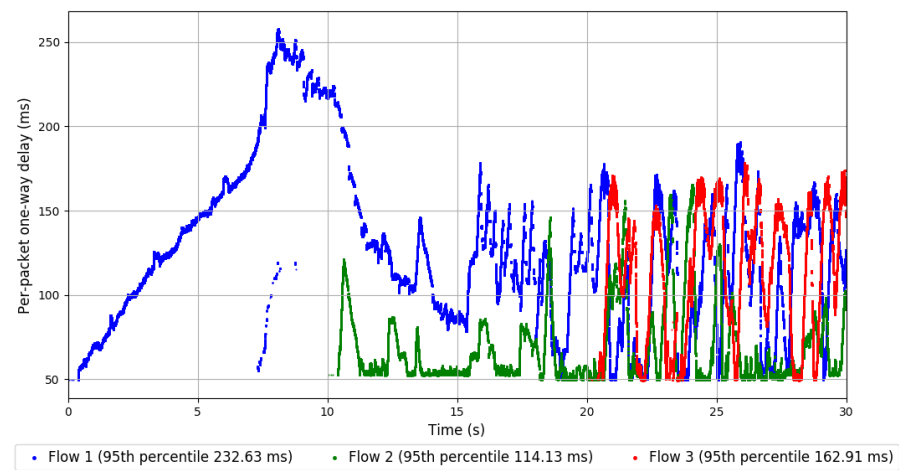
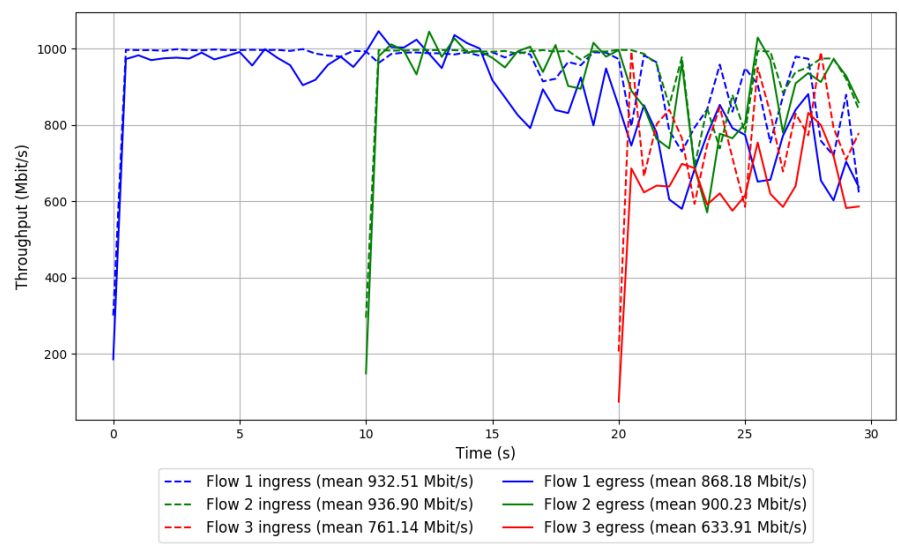
-- Flow 3:

Average throughput: 633.91 Mbit/s

95th percentile per-packet one-way delay: 162.906 ms

Loss rate: 16.72%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-02-21 09:06:11

End at: 2018-02-21 09:06:41

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1594.63 Mbit/s

95th percentile per-packet one-way delay: 150.227 ms

Loss rate: 8.38%

-- Flow 1:

Average throughput: 836.56 Mbit/s

95th percentile per-packet one-way delay: 141.300 ms

Loss rate: 7.43%

-- Flow 2:

Average throughput: 781.89 Mbit/s

95th percentile per-packet one-way delay: 155.782 ms

Loss rate: 8.65%

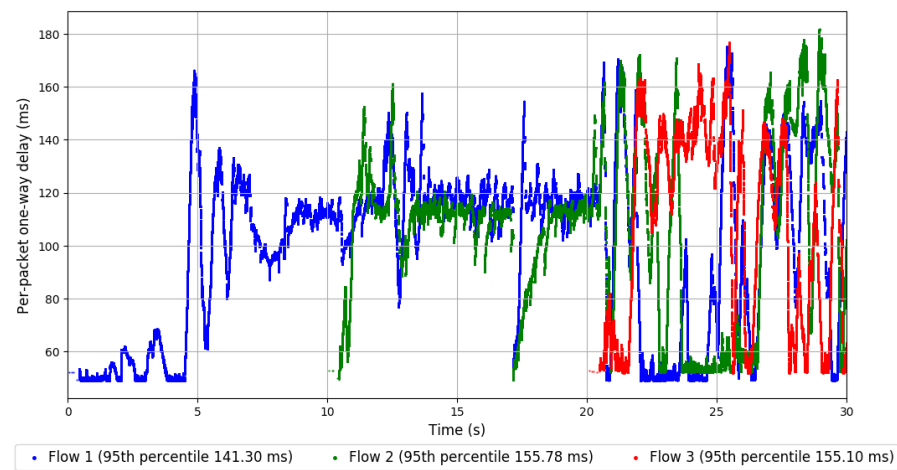
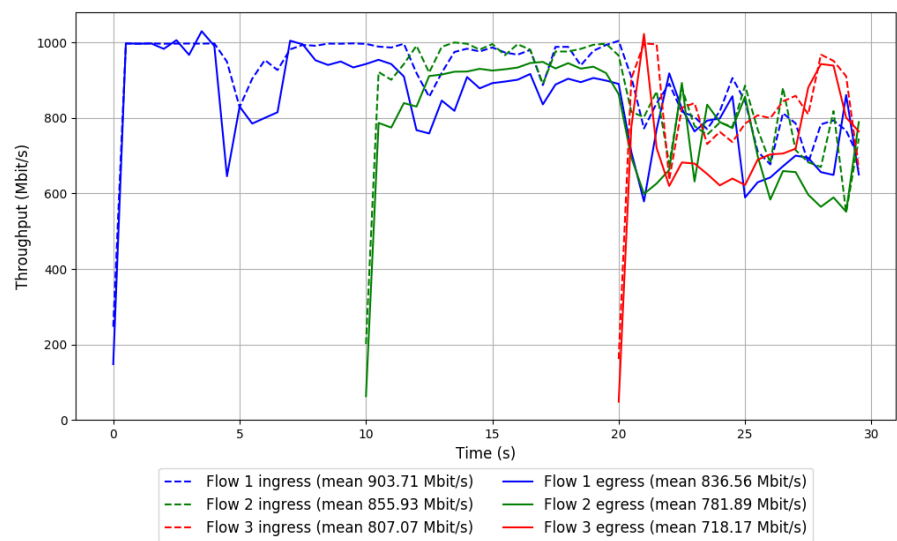
-- Flow 3:

Average throughput: 718.17 Mbit/s

95th percentile per-packet one-way delay: 155.098 ms

Loss rate: 11.02%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-02-21 09:23:38

End at: 2018-02-21 09:24:08

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1584.58 Mbit/s

95th percentile per-packet one-way delay: 160.278 ms

Loss rate: 8.87%

-- Flow 1:

Average throughput: 803.10 Mbit/s

95th percentile per-packet one-way delay: 160.342 ms

Loss rate: 9.16%

-- Flow 2:

Average throughput: 822.26 Mbit/s

95th percentile per-packet one-way delay: 160.100 ms

Loss rate: 7.70%

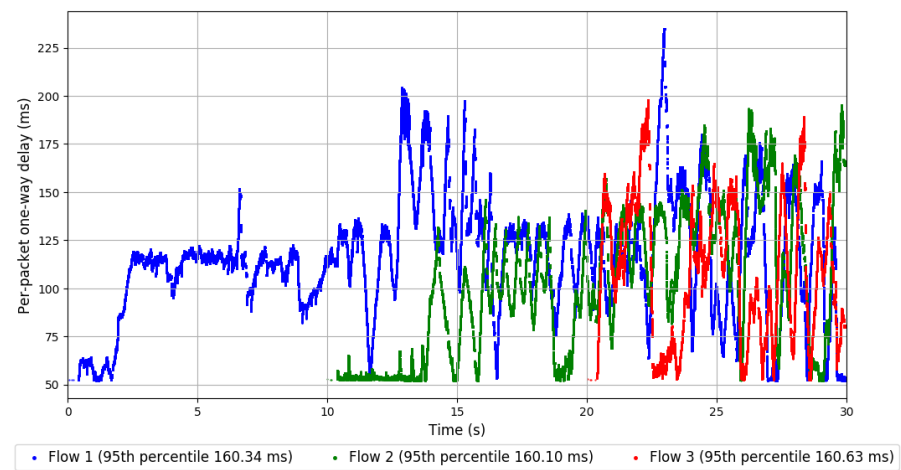
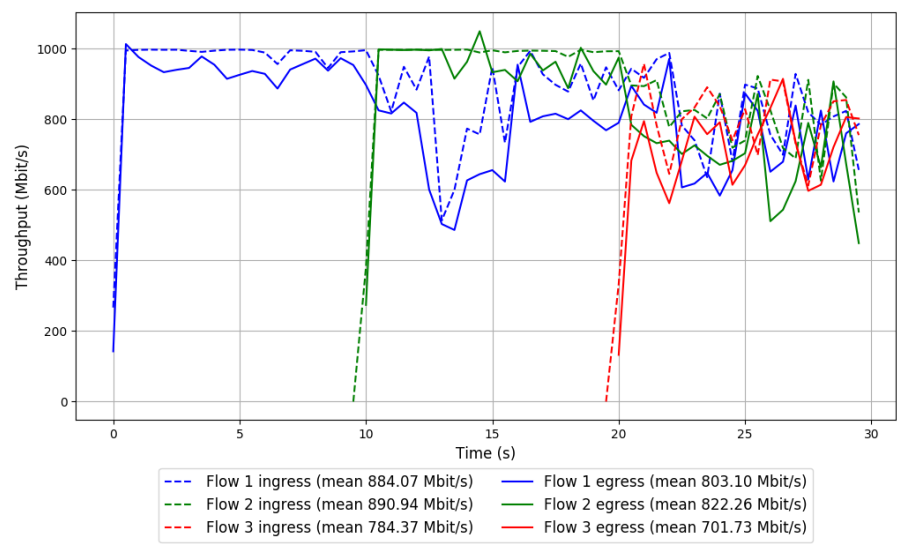
-- Flow 3:

Average throughput: 701.73 Mbit/s

95th percentile per-packet one-way delay: 160.629 ms

Loss rate: 10.53%

Run 10: Report of FillP — Data Link

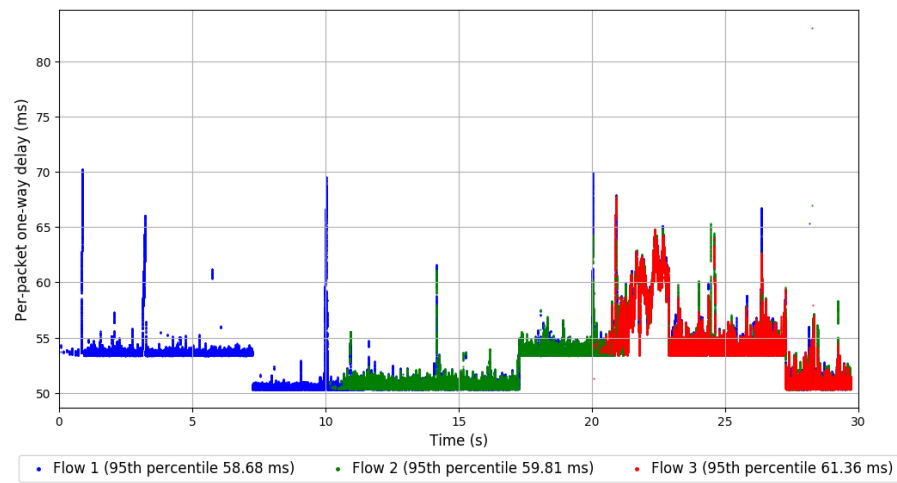
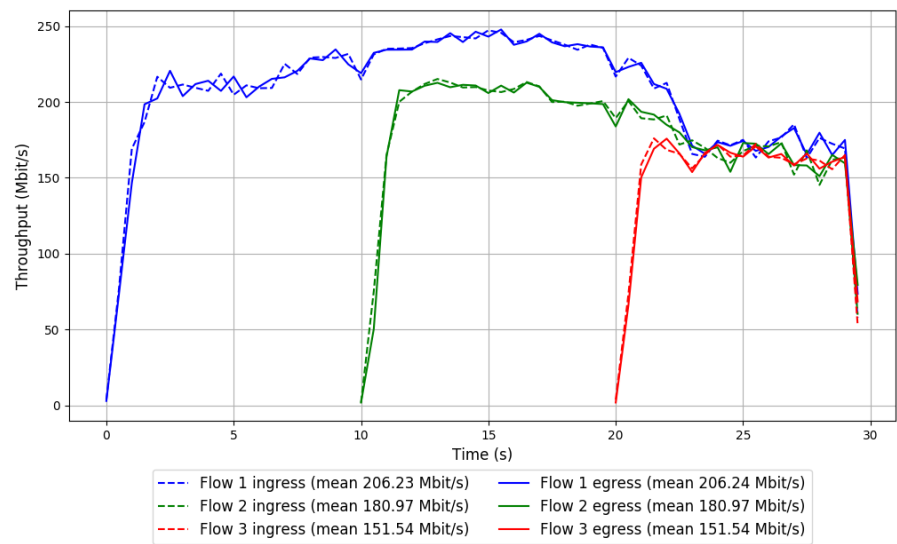


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-21 06:49:14
End at: 2018-02-21 06:49:44

# Below is generated by plot.py at 2018-02-21 13:59:33
# Datalink statistics
-- Total of 3 flows:
Average throughput: 374.90 Mbit/s
95th percentile per-packet one-way delay: 59.909 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 206.24 Mbit/s
95th percentile per-packet one-way delay: 58.683 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 180.97 Mbit/s
95th percentile per-packet one-way delay: 59.813 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 151.54 Mbit/s
95th percentile per-packet one-way delay: 61.356 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-02-21 07:07:22

End at: 2018-02-21 07:07:52

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 377.40 Mbit/s

95th percentile per-packet one-way delay: 53.330 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 205.90 Mbit/s

95th percentile per-packet one-way delay: 52.714 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 185.73 Mbit/s

95th percentile per-packet one-way delay: 53.564 ms

Loss rate: 0.00%

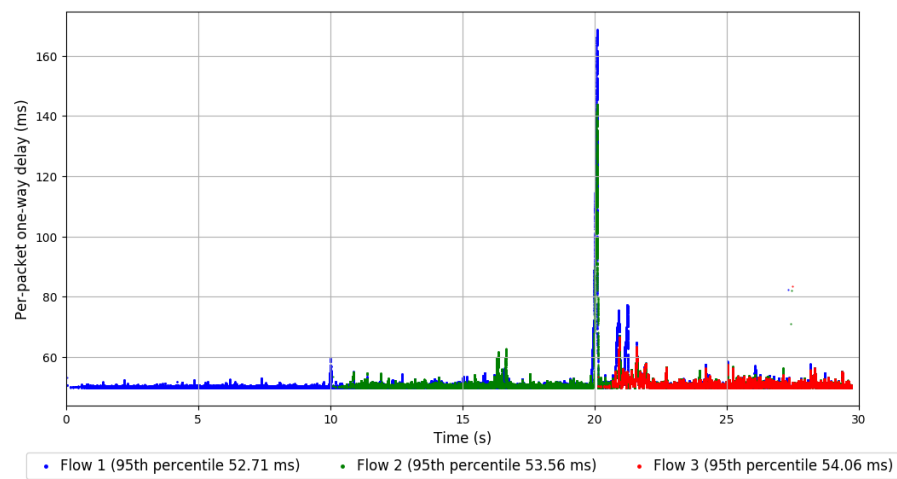
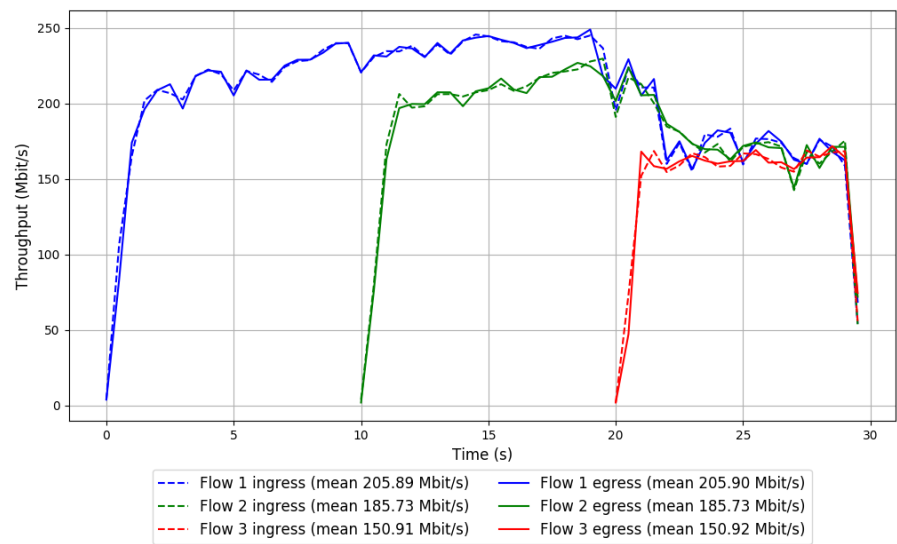
-- Flow 3:

Average throughput: 150.92 Mbit/s

95th percentile per-packet one-way delay: 54.057 ms

Loss rate: 0.00%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-02-21 07:25:01

End at: 2018-02-21 07:25:31

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 363.46 Mbit/s

95th percentile per-packet one-way delay: 54.539 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 193.75 Mbit/s

95th percentile per-packet one-way delay: 54.261 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 182.36 Mbit/s

95th percentile per-packet one-way delay: 54.843 ms

Loss rate: 0.00%

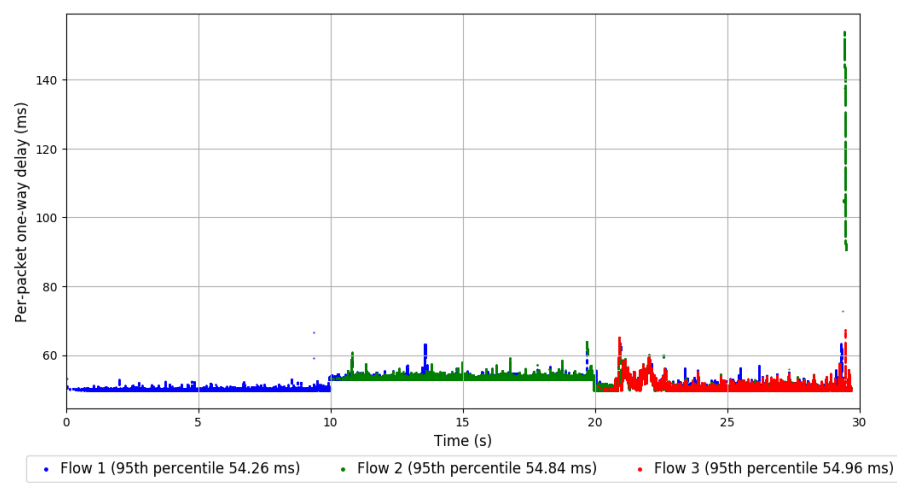
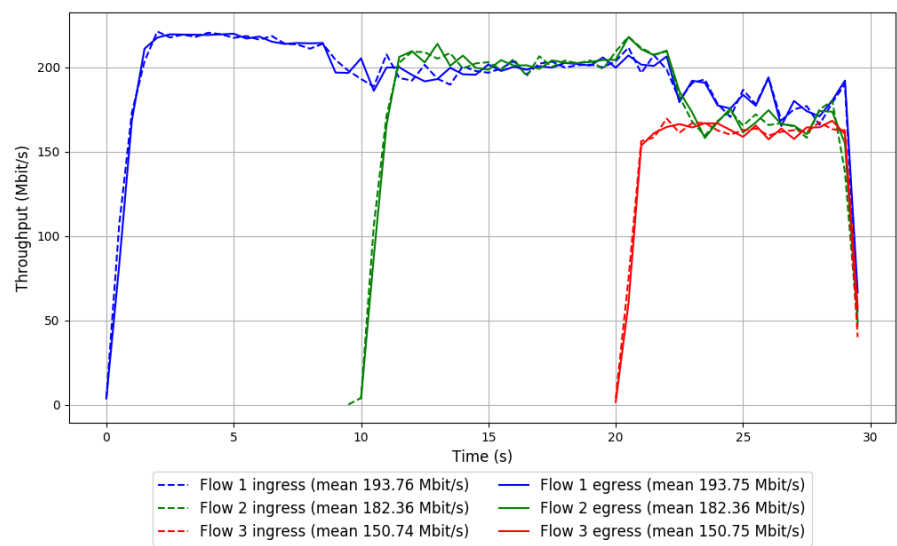
-- Flow 3:

Average throughput: 150.75 Mbit/s

95th percentile per-packet one-way delay: 54.964 ms

Loss rate: 0.01%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-02-21 07:42:55

End at: 2018-02-21 07:43:25

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.81 Mbit/s

95th percentile per-packet one-way delay: 54.151 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 204.12 Mbit/s

95th percentile per-packet one-way delay: 53.638 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 184.15 Mbit/s

95th percentile per-packet one-way delay: 54.469 ms

Loss rate: 0.02%

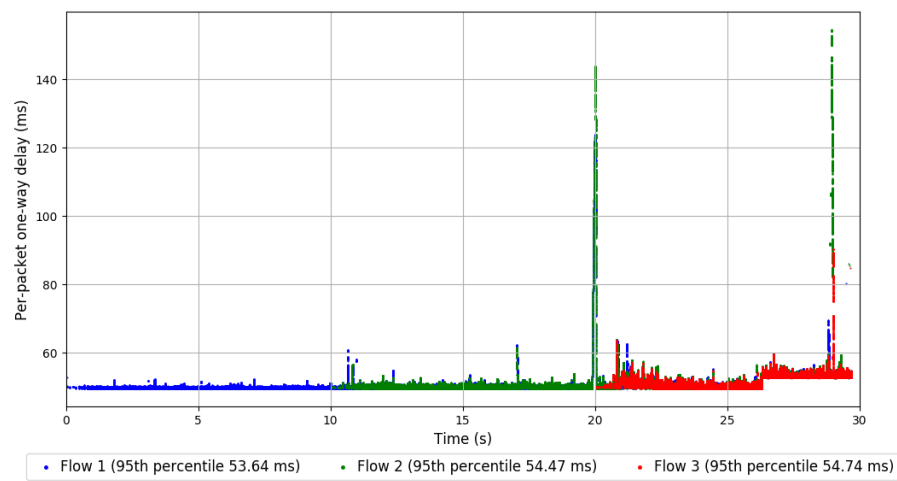
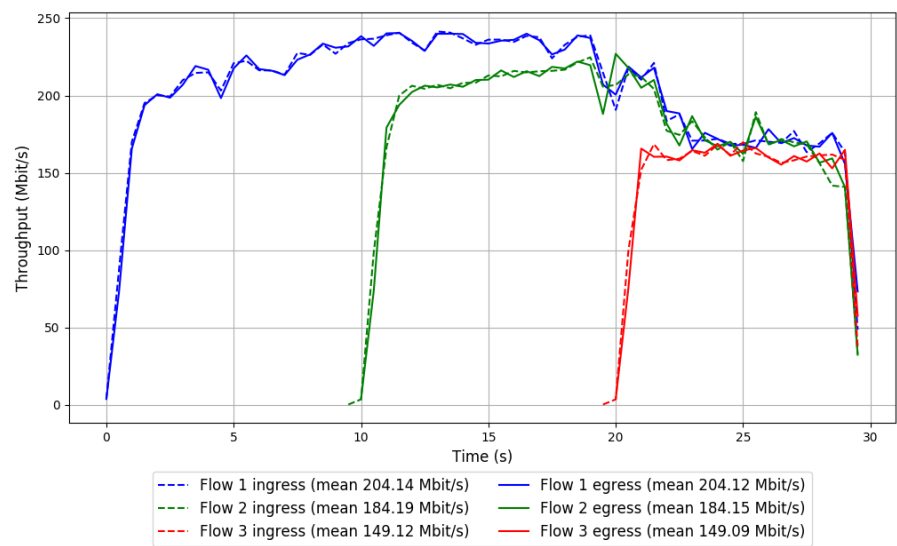
-- Flow 3:

Average throughput: 149.09 Mbit/s

95th percentile per-packet one-way delay: 54.740 ms

Loss rate: 0.02%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-02-21 08:00:42

End at: 2018-02-21 08:01:12

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 375.03 Mbit/s

95th percentile per-packet one-way delay: 55.935 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 198.27 Mbit/s

95th percentile per-packet one-way delay: 55.203 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.81 Mbit/s

95th percentile per-packet one-way delay: 56.084 ms

Loss rate: 0.00%

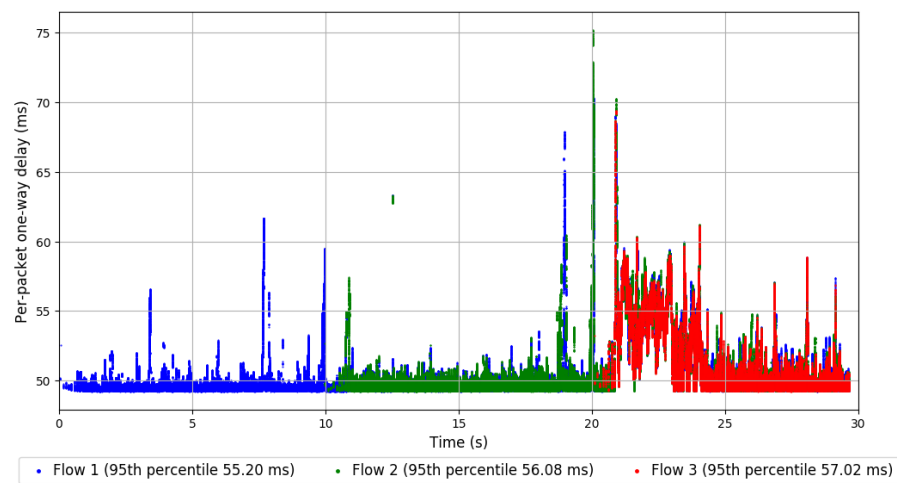
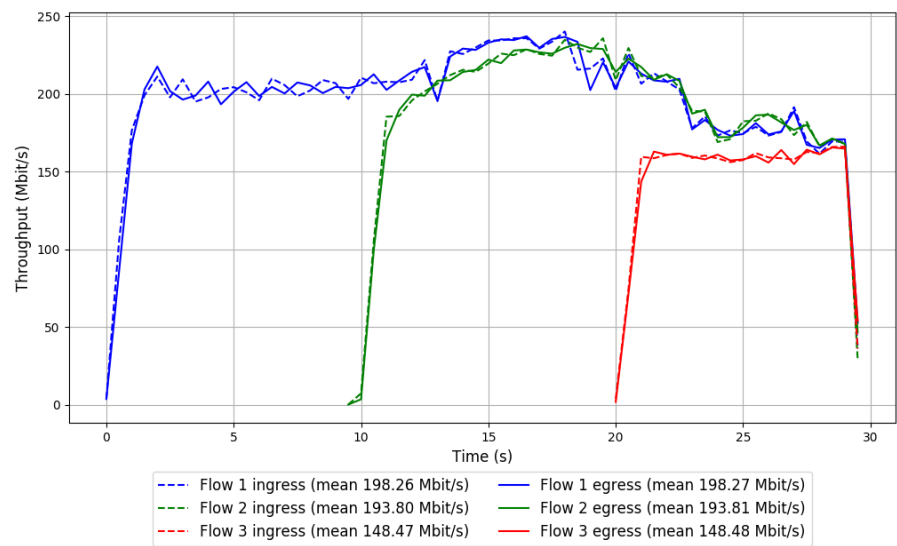
-- Flow 3:

Average throughput: 148.48 Mbit/s

95th percentile per-packet one-way delay: 57.016 ms

Loss rate: 0.00%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-02-21 08:18:18

End at: 2018-02-21 08:18:48

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 375.70 Mbit/s

95th percentile per-packet one-way delay: 59.494 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 204.21 Mbit/s

95th percentile per-packet one-way delay: 56.014 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 184.51 Mbit/s

95th percentile per-packet one-way delay: 60.299 ms

Loss rate: 0.01%

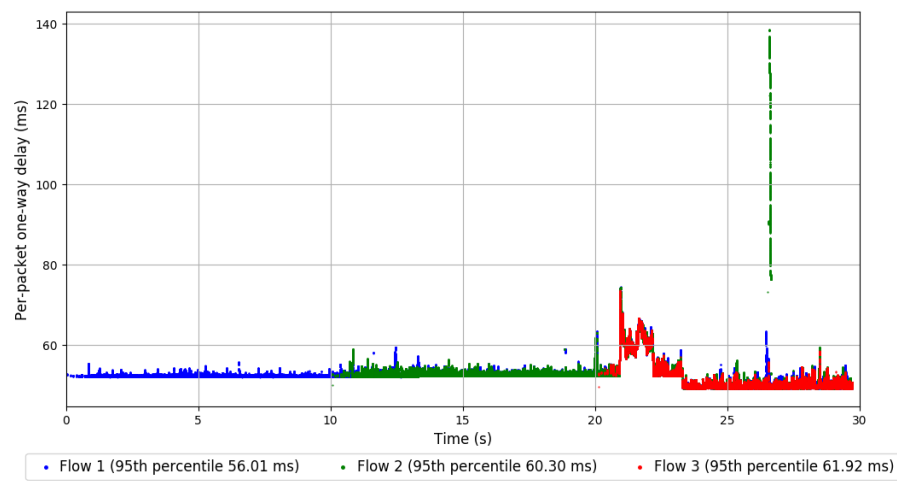
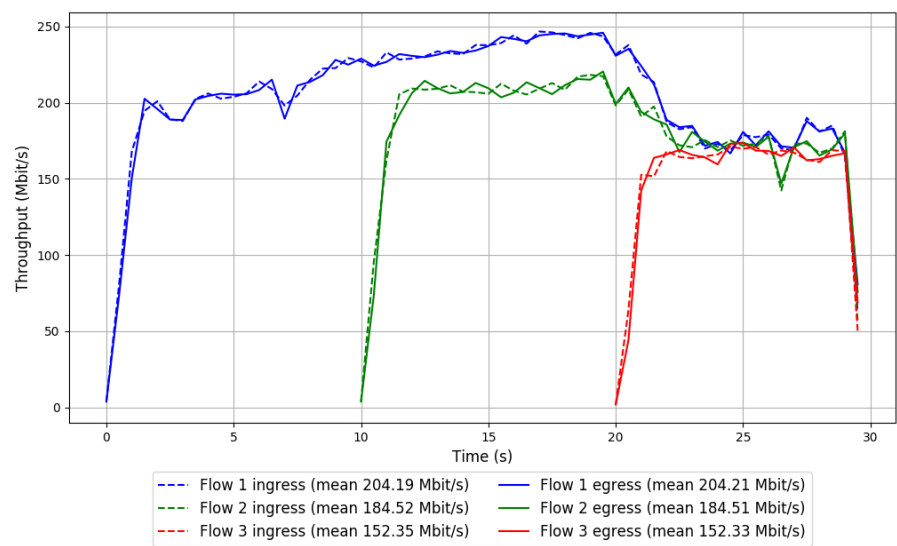
-- Flow 3:

Average throughput: 152.33 Mbit/s

95th percentile per-packet one-way delay: 61.925 ms

Loss rate: 0.01%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-02-21 08:35:46

End at: 2018-02-21 08:36:16

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.09 Mbit/s

95th percentile per-packet one-way delay: 56.055 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 205.69 Mbit/s

95th percentile per-packet one-way delay: 55.388 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 185.33 Mbit/s

95th percentile per-packet one-way delay: 56.352 ms

Loss rate: 0.00%

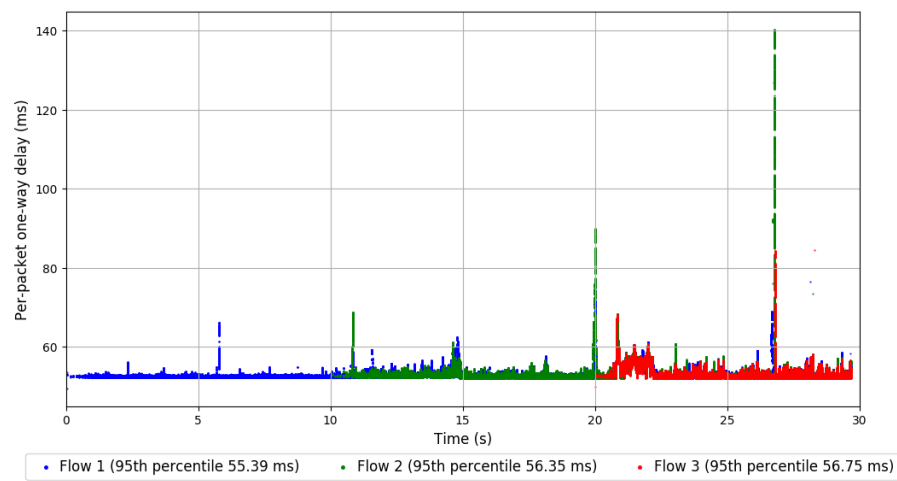
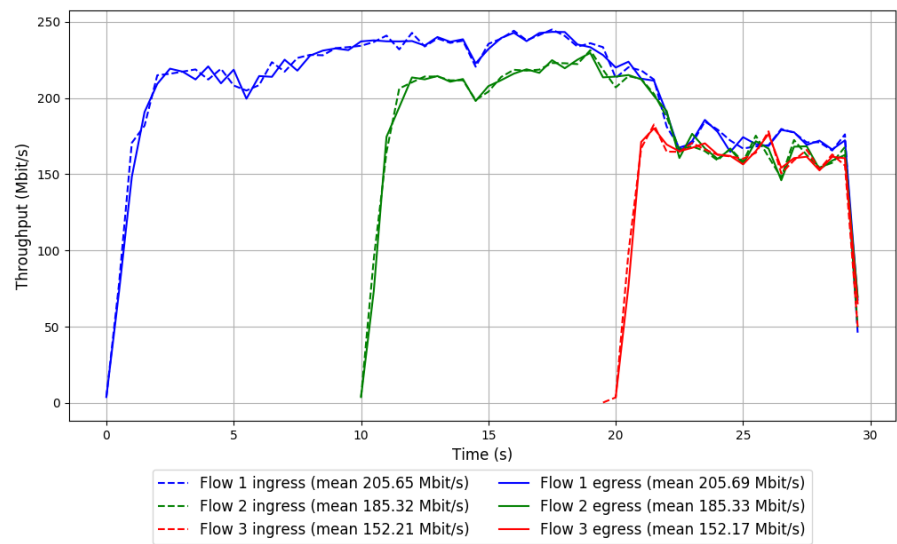
-- Flow 3:

Average throughput: 152.17 Mbit/s

95th percentile per-packet one-way delay: 56.747 ms

Loss rate: 0.00%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-02-21 08:53:18

End at: 2018-02-21 08:53:48

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 376.55 Mbit/s

95th percentile per-packet one-way delay: 56.919 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 202.87 Mbit/s

95th percentile per-packet one-way delay: 55.423 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 188.80 Mbit/s

95th percentile per-packet one-way delay: 57.426 ms

Loss rate: 0.00%

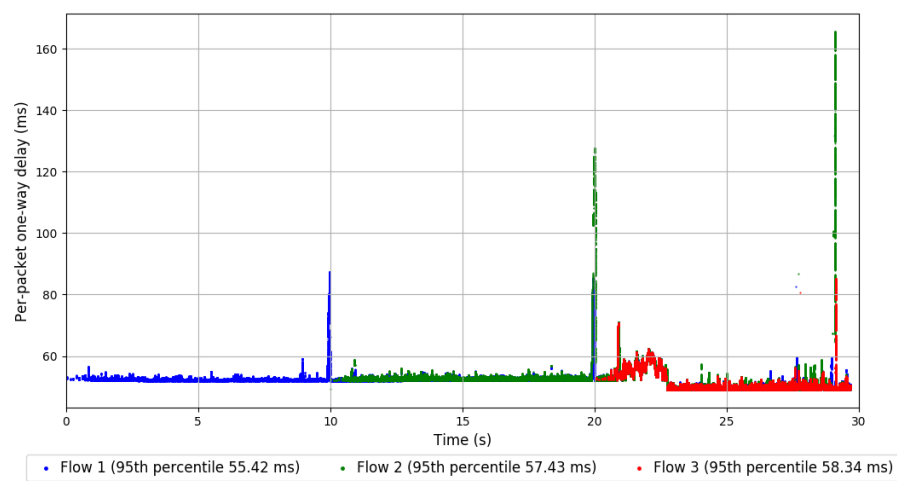
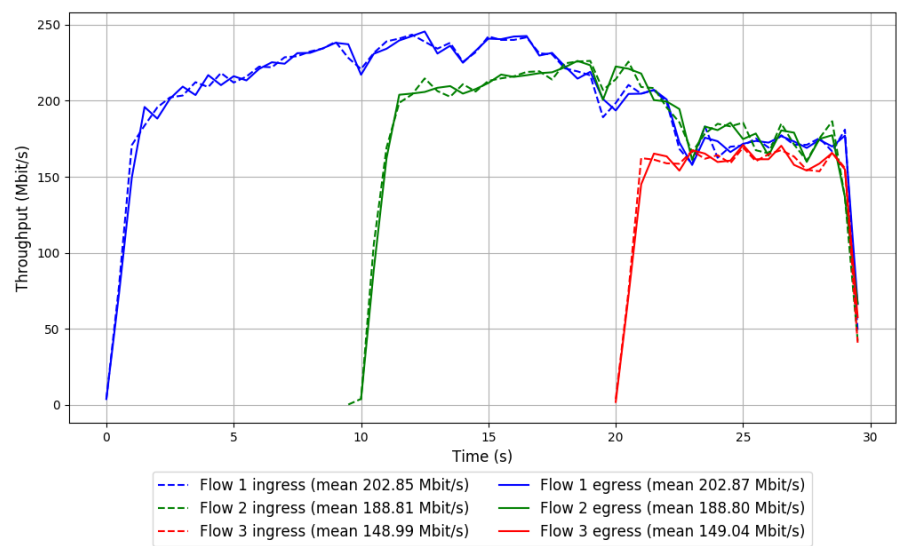
-- Flow 3:

Average throughput: 149.04 Mbit/s

95th percentile per-packet one-way delay: 58.345 ms

Loss rate: 0.00%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-02-21 09:11:00

End at: 2018-02-21 09:11:30

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 376.21 Mbit/s

95th percentile per-packet one-way delay: 53.886 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 192.99 Mbit/s

95th percentile per-packet one-way delay: 53.292 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 204.67 Mbit/s

95th percentile per-packet one-way delay: 54.145 ms

Loss rate: 0.01%

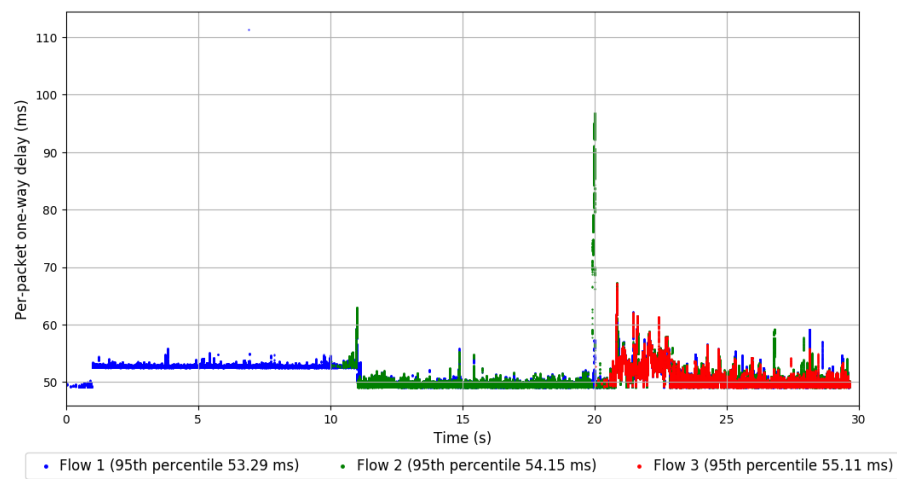
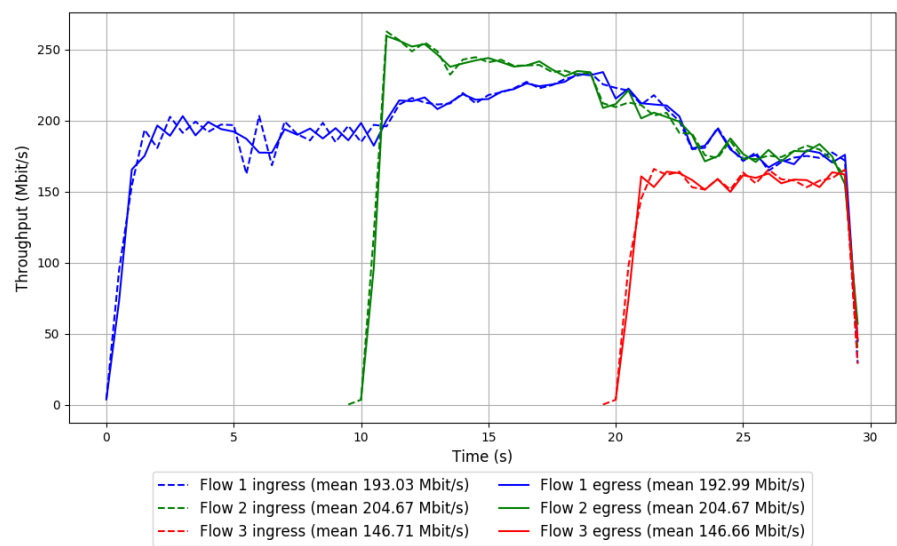
-- Flow 3:

Average throughput: 146.66 Mbit/s

95th percentile per-packet one-way delay: 55.111 ms

Loss rate: 0.04%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-02-21 09:28:31

End at: 2018-02-21 09:29:01

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 348.11 Mbit/s

95th percentile per-packet one-way delay: 53.074 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 204.00 Mbit/s

95th percentile per-packet one-way delay: 52.976 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 163.29 Mbit/s

95th percentile per-packet one-way delay: 53.213 ms

Loss rate: 0.00%

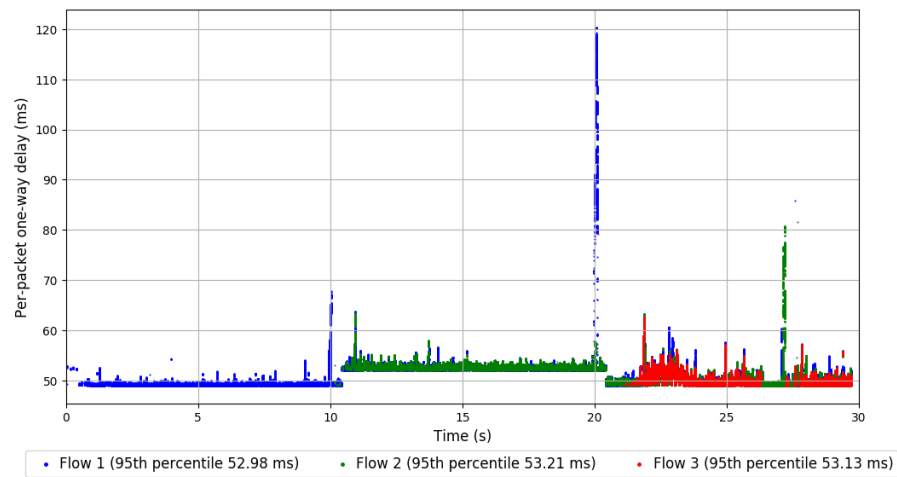
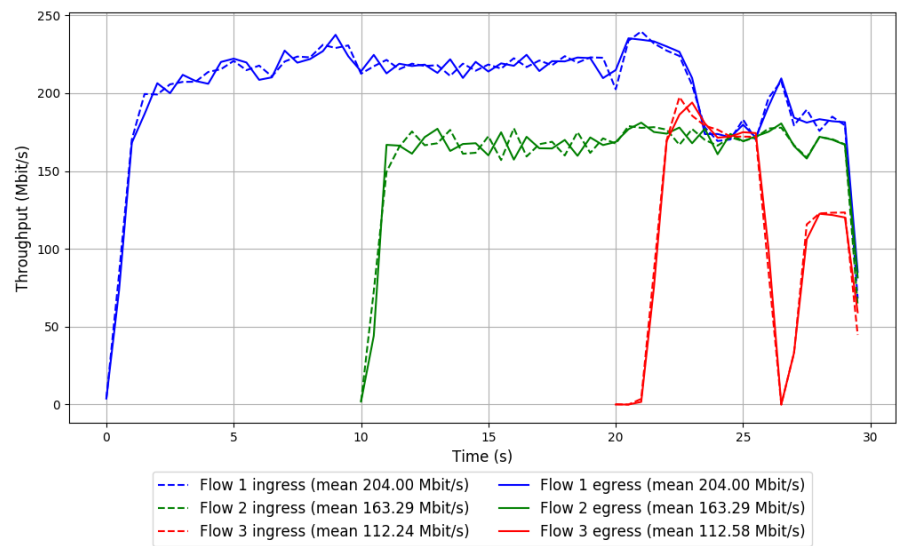
-- Flow 3:

Average throughput: 112.58 Mbit/s

95th percentile per-packet one-way delay: 53.133 ms

Loss rate: 0.01%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-02-21 06:37:29

End at: 2018-02-21 06:37:59

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 506.05 Mbit/s

95th percentile per-packet one-way delay: 69.313 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 337.97 Mbit/s

95th percentile per-packet one-way delay: 89.772 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 154.95 Mbit/s

95th percentile per-packet one-way delay: 54.016 ms

Loss rate: 0.00%

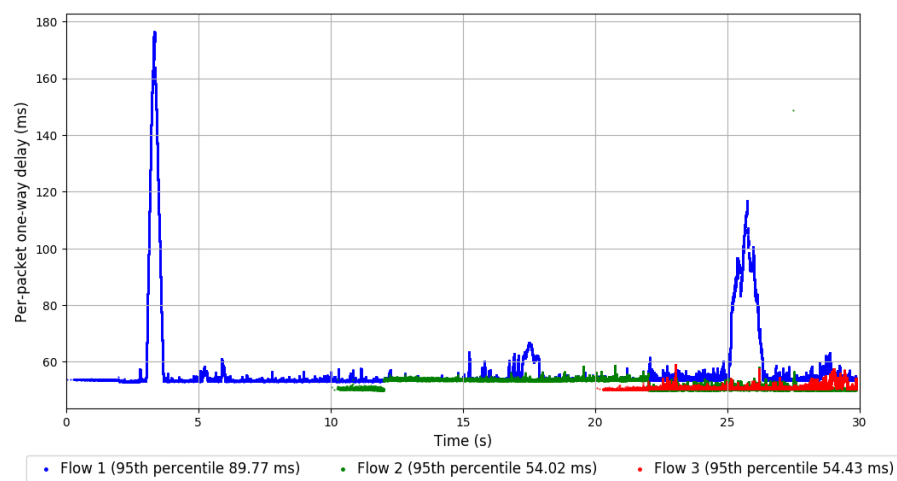
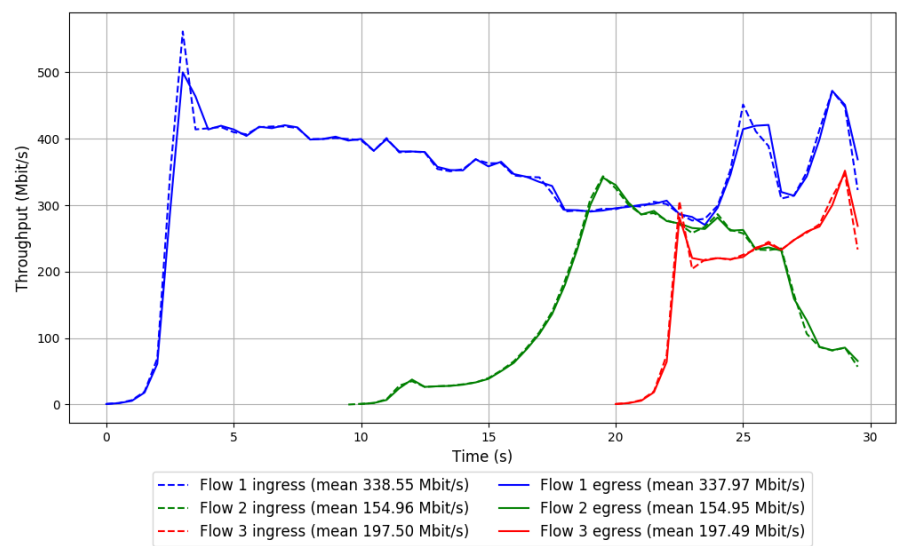
-- Flow 3:

Average throughput: 197.49 Mbit/s

95th percentile per-packet one-way delay: 54.428 ms

Loss rate: 0.00%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-02-21 06:55:22

End at: 2018-02-21 06:55:52

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 518.71 Mbit/s

95th percentile per-packet one-way delay: 55.242 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 342.78 Mbit/s

95th percentile per-packet one-way delay: 56.585 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 252.27 Mbit/s

95th percentile per-packet one-way delay: 53.379 ms

Loss rate: 0.00%

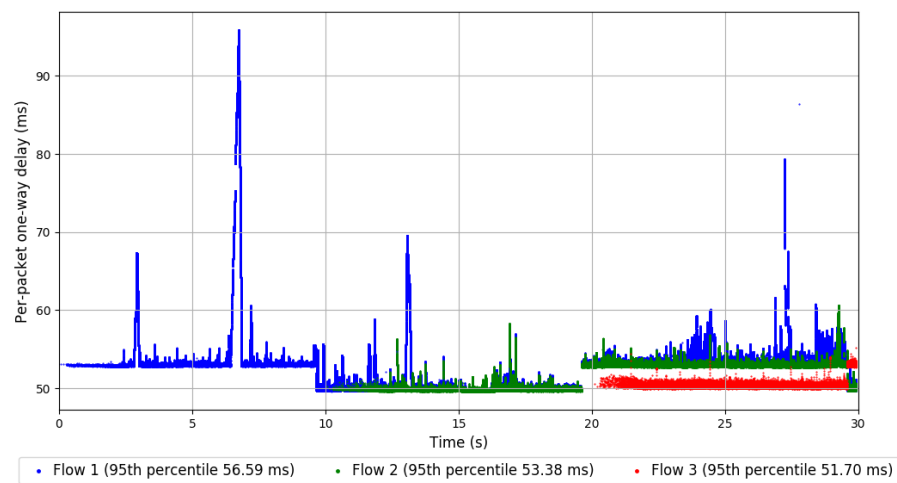
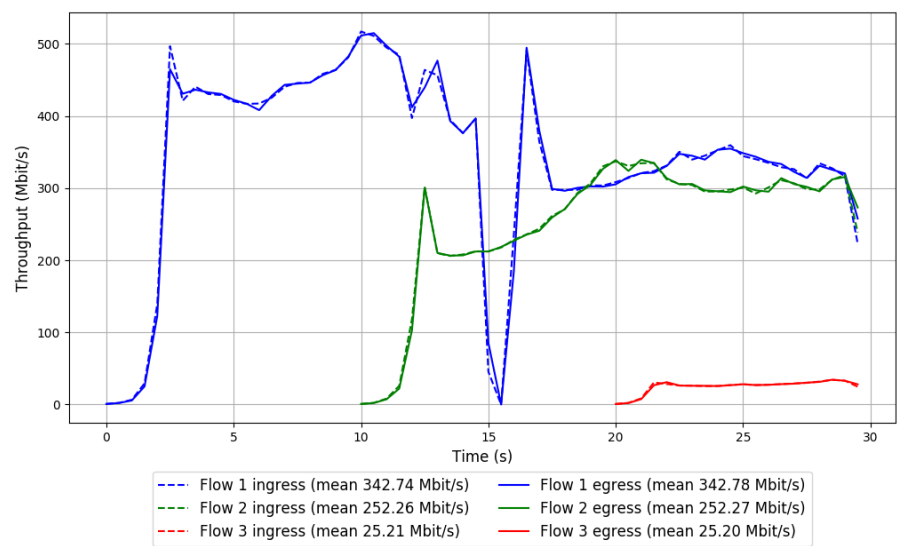
-- Flow 3:

Average throughput: 25.20 Mbit/s

95th percentile per-packet one-way delay: 51.695 ms

Loss rate: 0.00%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-02-21 07:13:12

End at: 2018-02-21 07:13:42

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.73 Mbit/s

95th percentile per-packet one-way delay: 58.415 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 314.18 Mbit/s

95th percentile per-packet one-way delay: 50.458 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 255.01 Mbit/s

95th percentile per-packet one-way delay: 200.075 ms

Loss rate: 0.72%

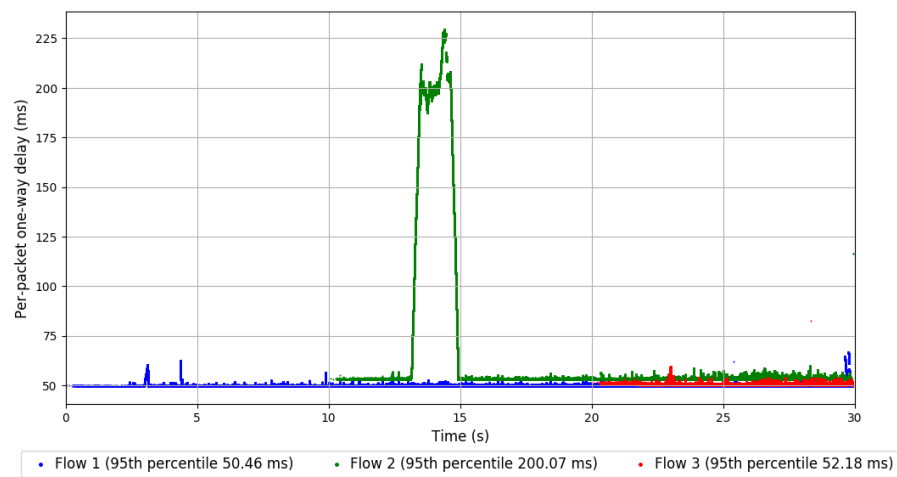
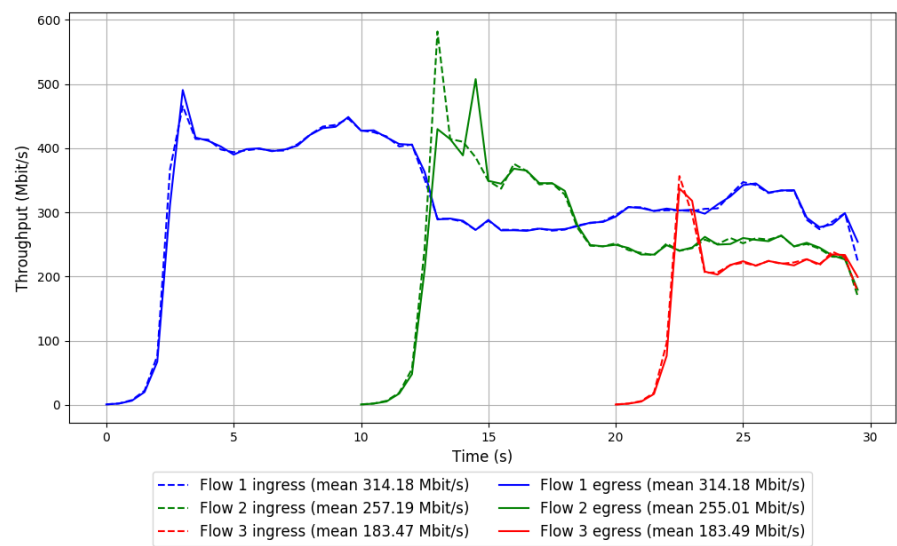
-- Flow 3:

Average throughput: 183.49 Mbit/s

95th percentile per-packet one-way delay: 52.176 ms

Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-02-21 07:31:16

End at: 2018-02-21 07:31:46

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 420.60 Mbit/s

95th percentile per-packet one-way delay: 53.963 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 265.90 Mbit/s

95th percentile per-packet one-way delay: 54.411 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 210.11 Mbit/s

95th percentile per-packet one-way delay: 52.998 ms

Loss rate: 0.00%

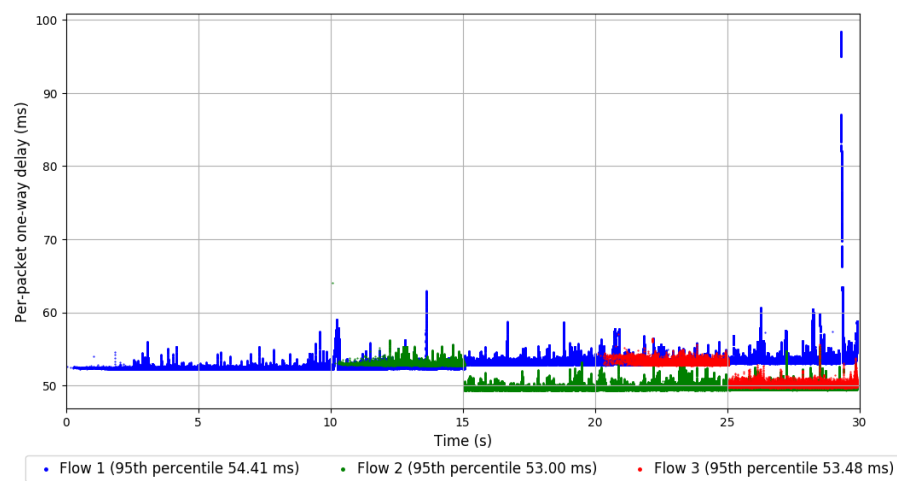
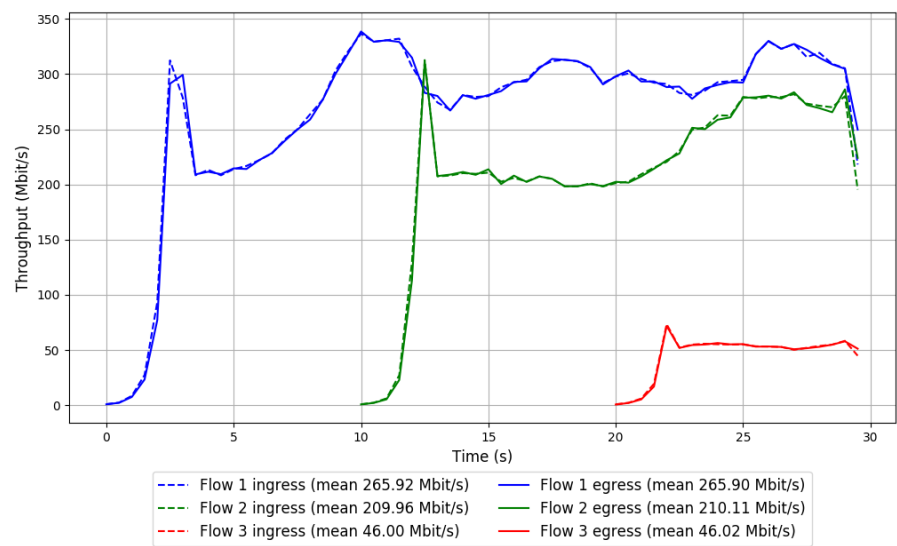
-- Flow 3:

Average throughput: 46.02 Mbit/s

95th percentile per-packet one-way delay: 53.485 ms

Loss rate: 0.00%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-02-21 07:49:04

End at: 2018-02-21 07:49:34

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 492.83 Mbit/s

95th percentile per-packet one-way delay: 53.925 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 317.87 Mbit/s

95th percentile per-packet one-way delay: 54.281 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 220.20 Mbit/s

95th percentile per-packet one-way delay: 53.549 ms

Loss rate: 0.00%

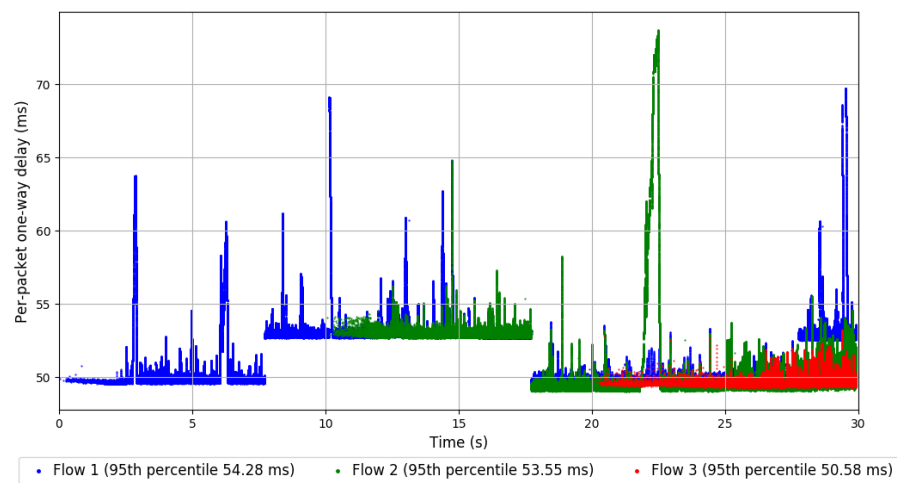
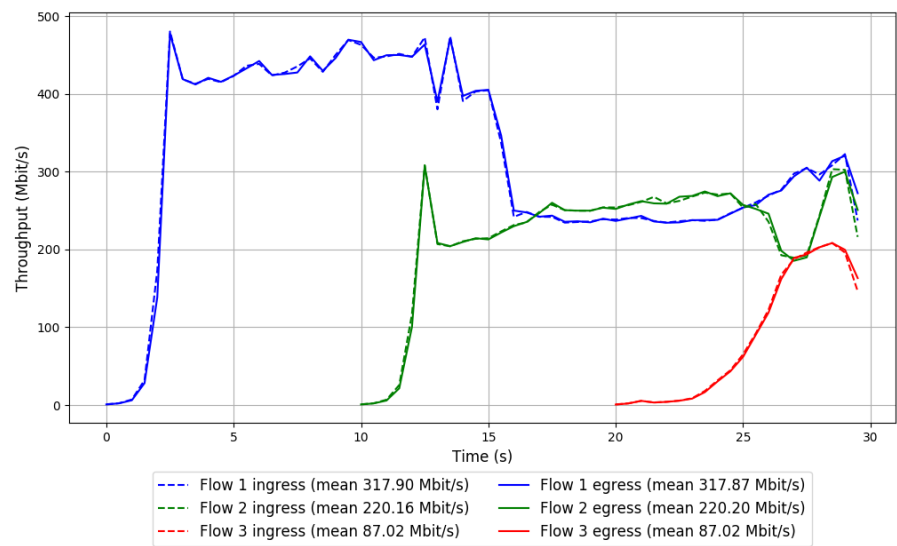
-- Flow 3:

Average throughput: 87.02 Mbit/s

95th percentile per-packet one-way delay: 50.583 ms

Loss rate: 0.00%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-02-21 08:06:29

End at: 2018-02-21 08:06:59

Below is generated by plot.py at 2018-02-21 13:59:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 486.32 Mbit/s

95th percentile per-packet one-way delay: 54.678 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 299.24 Mbit/s

95th percentile per-packet one-way delay: 55.728 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 255.08 Mbit/s

95th percentile per-packet one-way delay: 53.593 ms

Loss rate: 0.00%

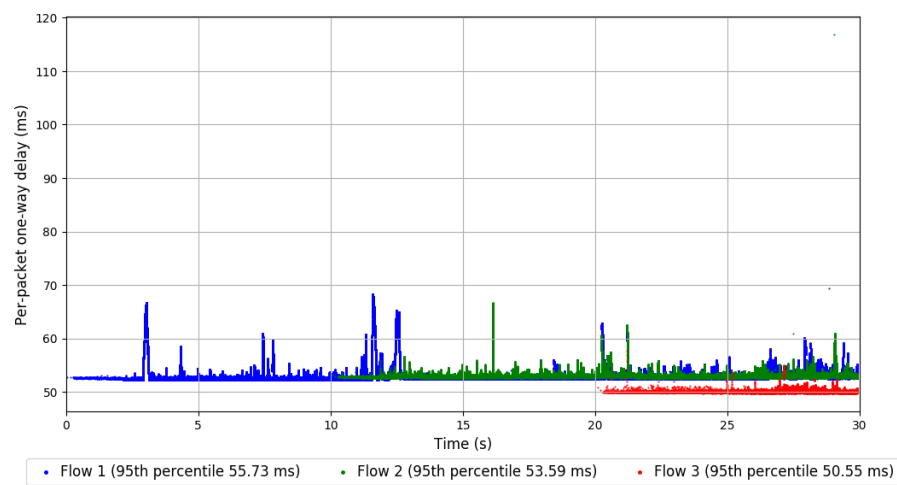
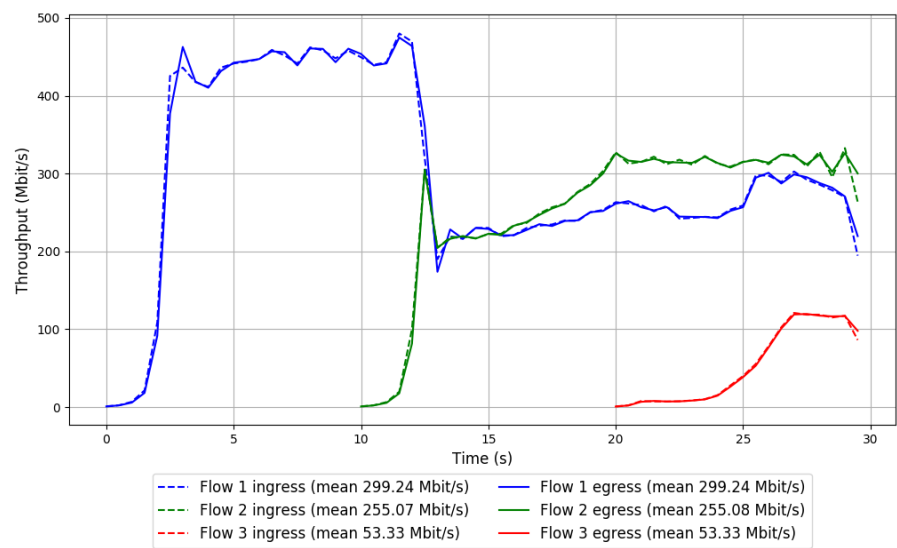
-- Flow 3:

Average throughput: 53.33 Mbit/s

95th percentile per-packet one-way delay: 50.554 ms

Loss rate: 0.00%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-02-21 08:24:06

End at: 2018-02-21 08:24:36

Below is generated by plot.py at 2018-02-21 14:01:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 478.47 Mbit/s

95th percentile per-packet one-way delay: 54.606 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 289.80 Mbit/s

95th percentile per-packet one-way delay: 53.668 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 258.29 Mbit/s

95th percentile per-packet one-way delay: 56.742 ms

Loss rate: 0.00%

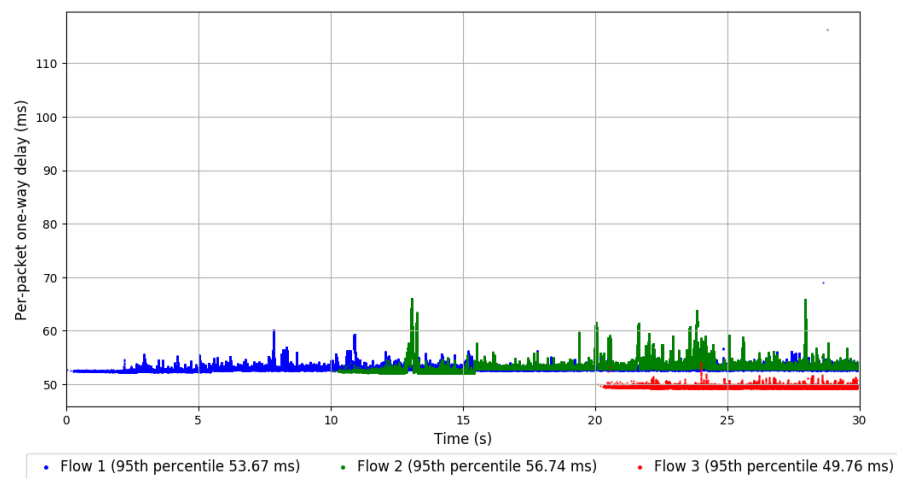
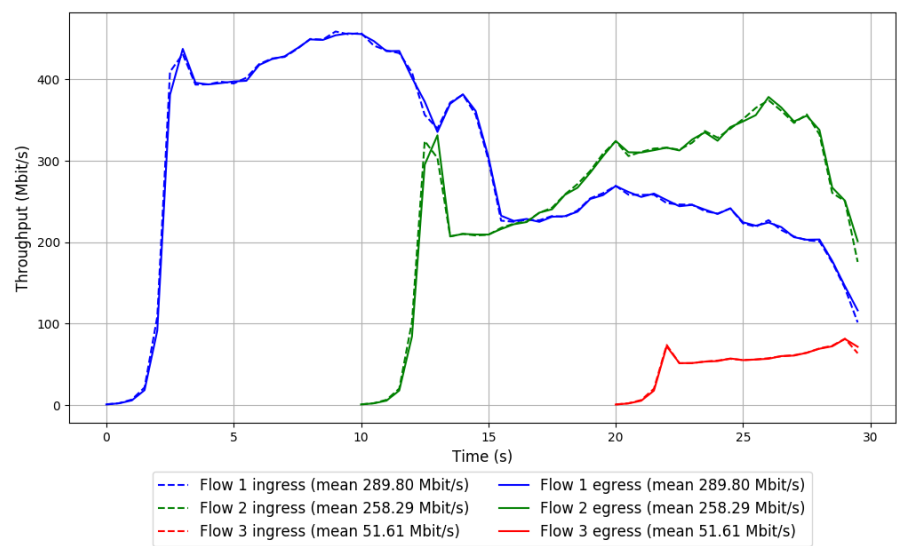
-- Flow 3:

Average throughput: 51.61 Mbit/s

95th percentile per-packet one-way delay: 49.757 ms

Loss rate: 0.00%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-02-21 08:41:39

End at: 2018-02-21 08:42:09

Below is generated by plot.py at 2018-02-21 14:01:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 456.65 Mbit/s

95th percentile per-packet one-way delay: 51.689 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 316.05 Mbit/s

95th percentile per-packet one-way delay: 50.422 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 188.79 Mbit/s

95th percentile per-packet one-way delay: 59.870 ms

Loss rate: 0.01%

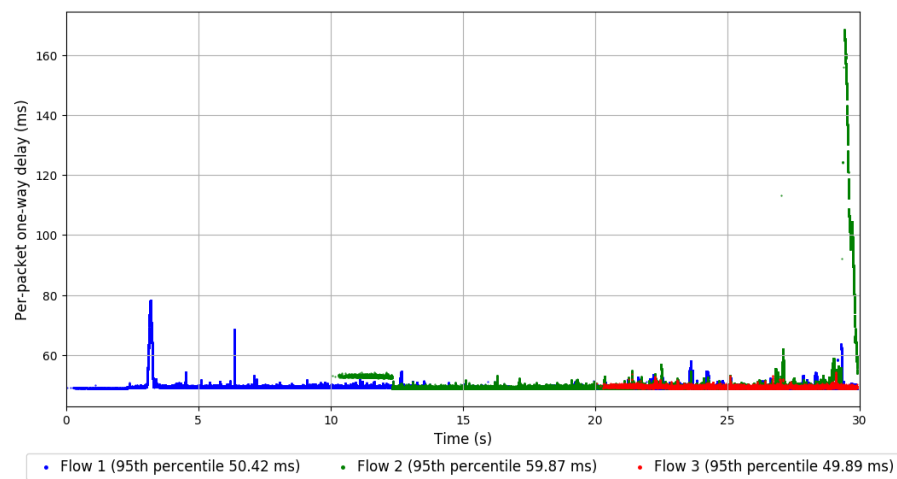
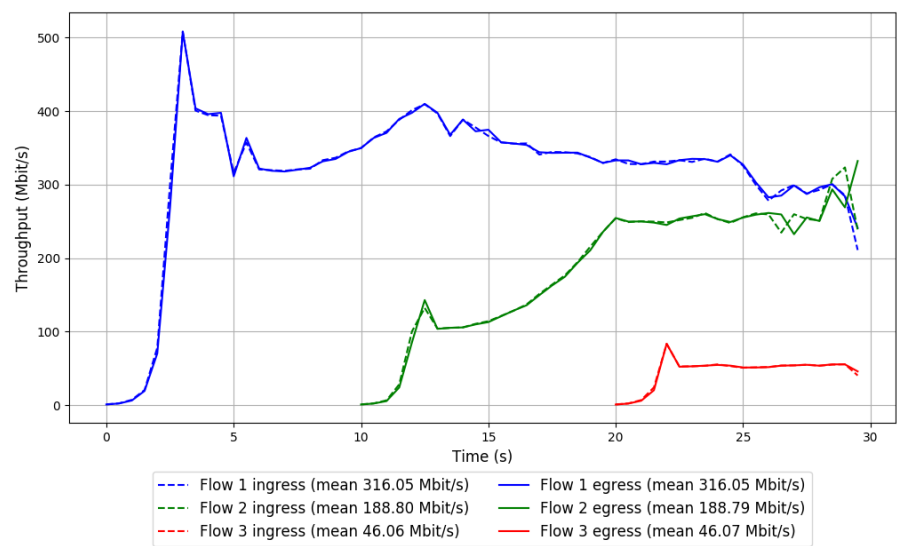
-- Flow 3:

Average throughput: 46.07 Mbit/s

95th percentile per-packet one-way delay: 49.889 ms

Loss rate: 0.00%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-02-21 08:59:23

End at: 2018-02-21 08:59:53

Below is generated by plot.py at 2018-02-21 14:03:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 563.71 Mbit/s

95th percentile per-packet one-way delay: 62.132 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 325.30 Mbit/s

95th percentile per-packet one-way delay: 53.597 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 274.33 Mbit/s

95th percentile per-packet one-way delay: 94.019 ms

Loss rate: 0.00%

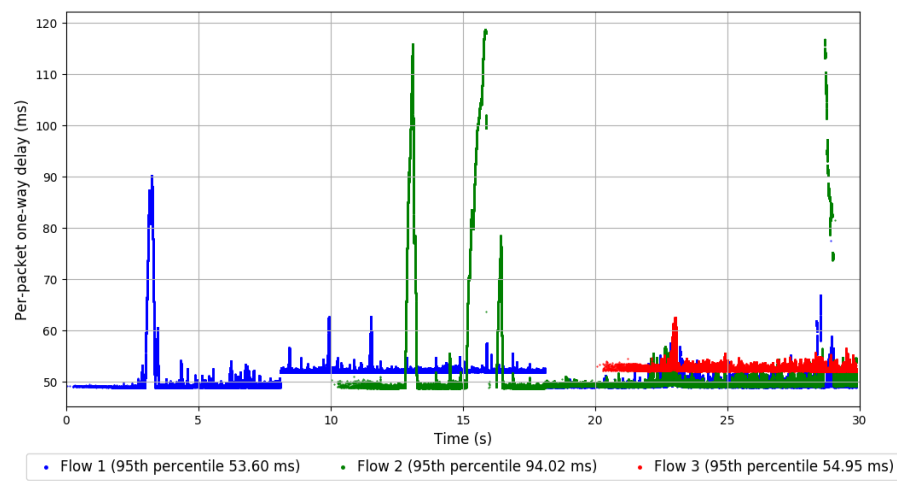
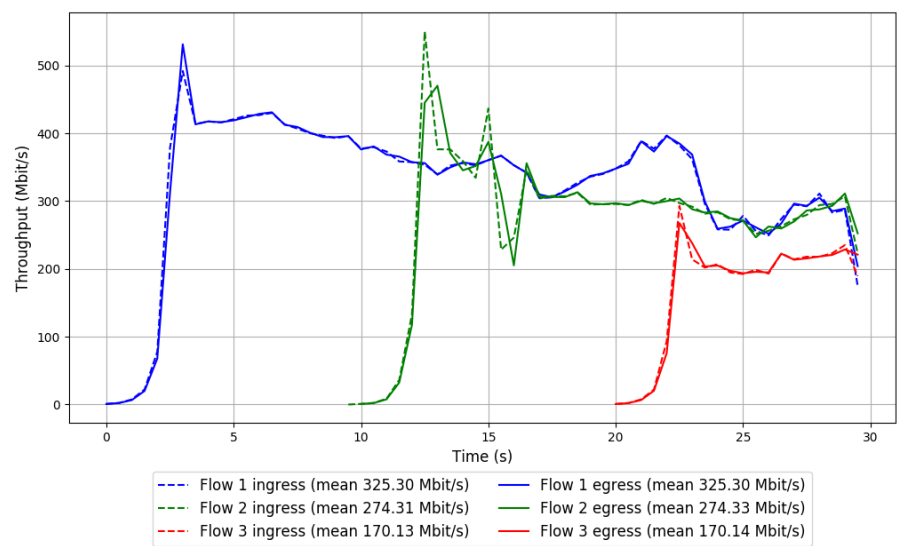
-- Flow 3:

Average throughput: 170.14 Mbit/s

95th percentile per-packet one-way delay: 54.955 ms

Loss rate: 0.00%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-02-21 09:16:45

End at: 2018-02-21 09:17:15

Below is generated by plot.py at 2018-02-21 14:03:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 479.15 Mbit/s

95th percentile per-packet one-way delay: 54.431 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 254.95 Mbit/s

95th percentile per-packet one-way delay: 53.273 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 294.87 Mbit/s

95th percentile per-packet one-way delay: 61.717 ms

Loss rate: 0.00%

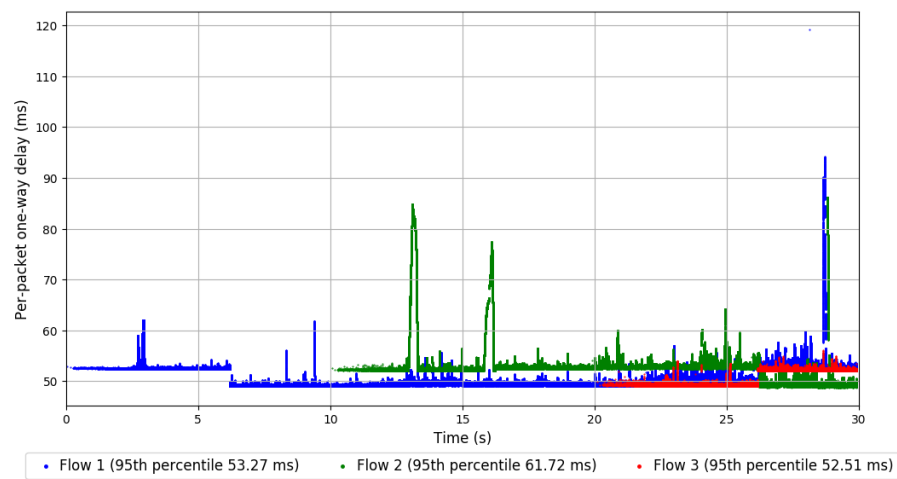
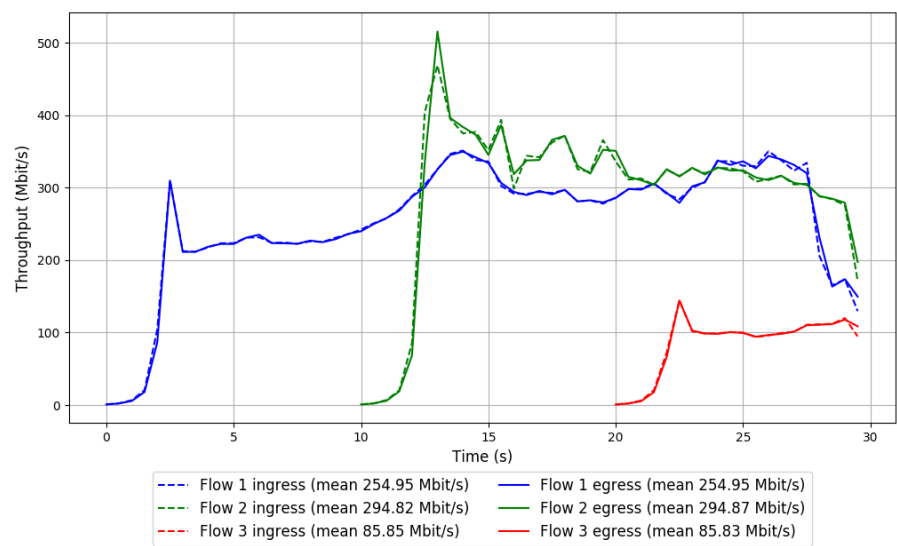
-- Flow 3:

Average throughput: 85.83 Mbit/s

95th percentile per-packet one-way delay: 52.513 ms

Loss rate: 0.00%

Run 10: Report of Vivace-latency — Data Link

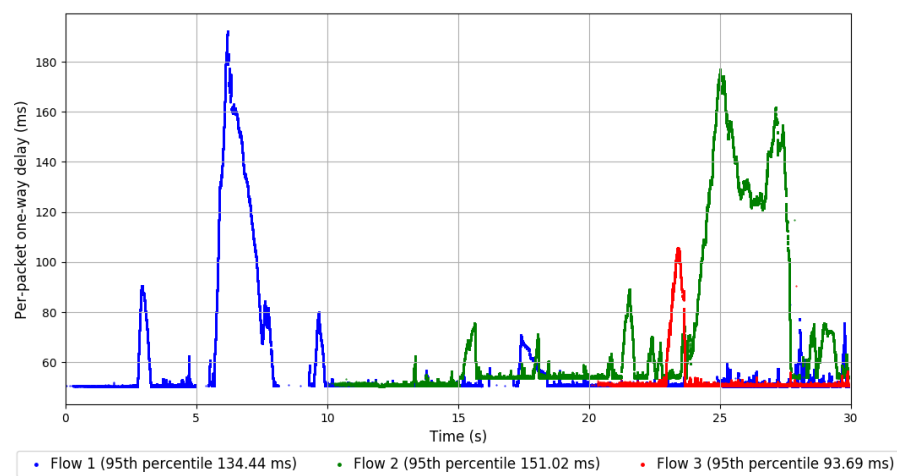
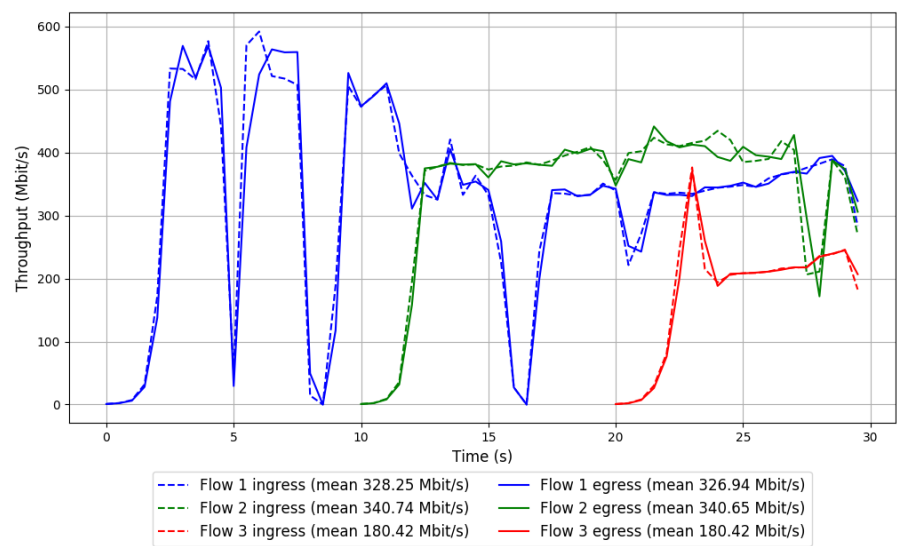


```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-21 06:45:56
End at: 2018-02-21 06:46:26

# Below is generated by plot.py at 2018-02-21 14:07:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 612.66 Mbit/s
95th percentile per-packet one-way delay: 144.342 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 326.94 Mbit/s
95th percentile per-packet one-way delay: 134.441 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 340.65 Mbit/s
95th percentile per-packet one-way delay: 151.019 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 180.42 Mbit/s
95th percentile per-packet one-way delay: 93.695 ms
Loss rate: 0.00%
```

Run 1: Report of Vivace-loss — Data Link

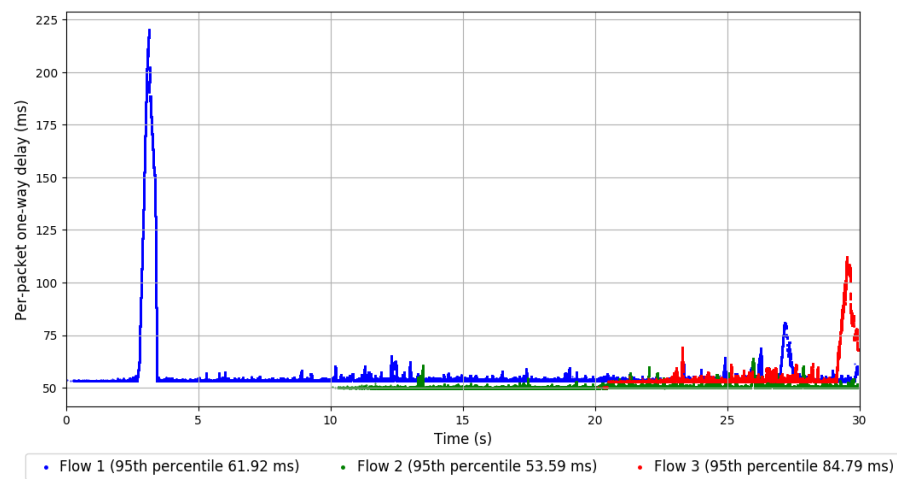
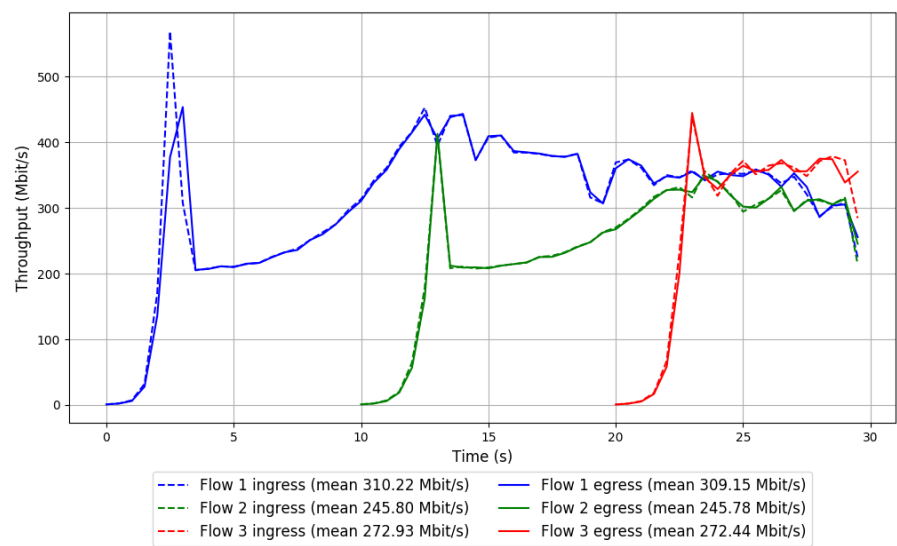


```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-21 07:04:11
End at: 2018-02-21 07:04:41

# Below is generated by plot.py at 2018-02-21 14:08:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 562.06 Mbit/s
95th percentile per-packet one-way delay: 61.001 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 309.15 Mbit/s
95th percentile per-packet one-way delay: 61.922 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 245.78 Mbit/s
95th percentile per-packet one-way delay: 53.589 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 272.44 Mbit/s
95th percentile per-packet one-way delay: 84.794 ms
Loss rate: 0.00%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-21 07:21:47

End at: 2018-02-21 07:22:17

Below is generated by plot.py at 2018-02-21 14:11:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 658.96 Mbit/s

95th percentile per-packet one-way delay: 220.121 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 371.58 Mbit/s

95th percentile per-packet one-way delay: 227.679 ms

Loss rate: 1.31%

-- Flow 2:

Average throughput: 288.53 Mbit/s

95th percentile per-packet one-way delay: 72.076 ms

Loss rate: 0.25%

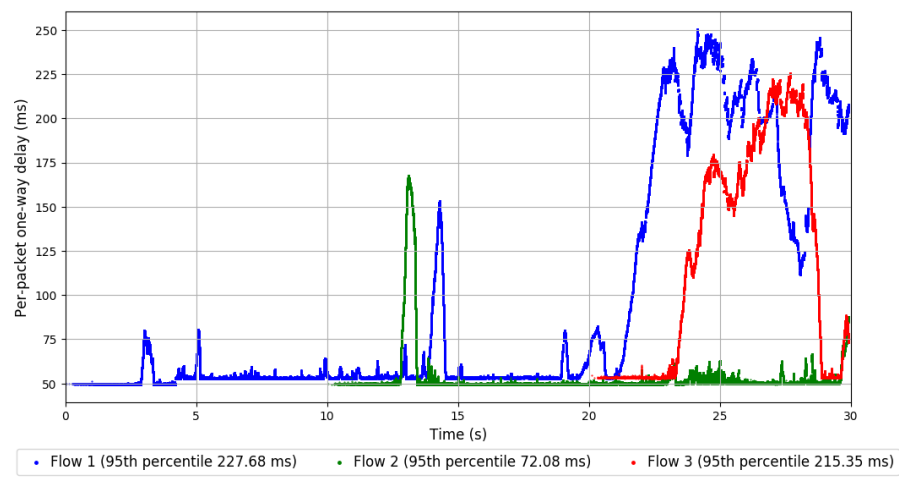
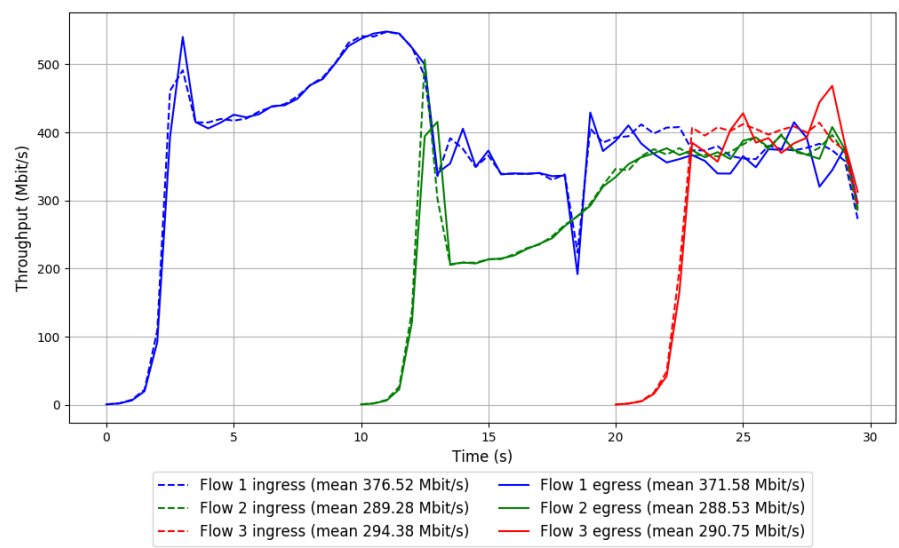
-- Flow 3:

Average throughput: 290.75 Mbit/s

95th percentile per-packet one-way delay: 215.354 ms

Loss rate: 1.26%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-02-21 07:39:46

End at: 2018-02-21 07:40:16

Below is generated by plot.py at 2018-02-21 14:11:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 594.04 Mbit/s

95th percentile per-packet one-way delay: 121.950 ms

Loss rate: 0.40%

-- Flow 1:

Average throughput: 352.03 Mbit/s

95th percentile per-packet one-way delay: 171.358 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 270.97 Mbit/s

95th percentile per-packet one-way delay: 59.492 ms

Loss rate: 0.00%

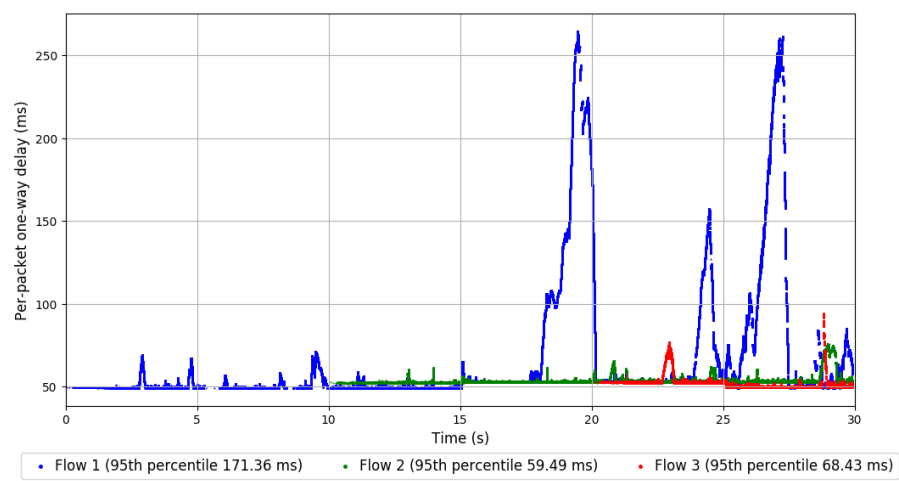
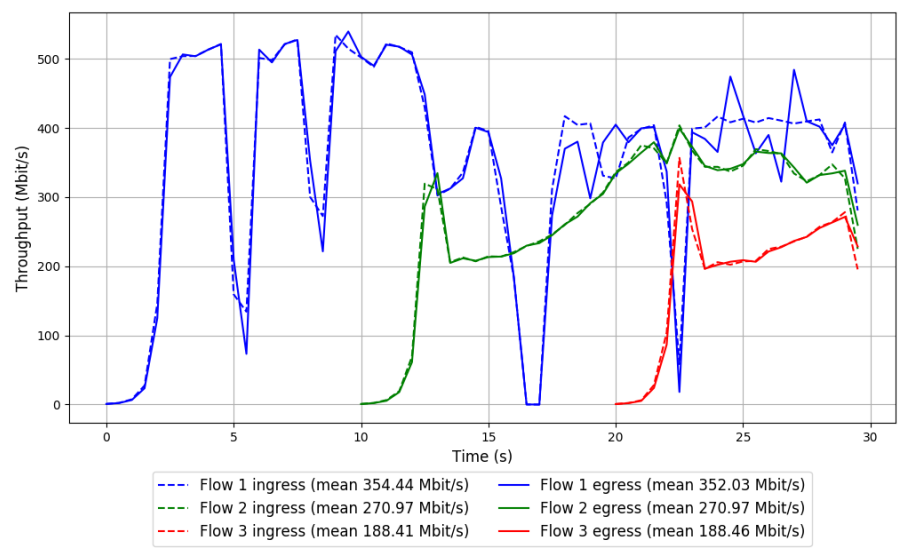
-- Flow 3:

Average throughput: 188.46 Mbit/s

95th percentile per-packet one-way delay: 68.430 ms

Loss rate: 0.00%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-02-21 07:57:36

End at: 2018-02-21 07:58:06

Below is generated by plot.py at 2018-02-21 14:12:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 630.24 Mbit/s

95th percentile per-packet one-way delay: 118.827 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 357.33 Mbit/s

95th percentile per-packet one-way delay: 125.125 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 319.64 Mbit/s

95th percentile per-packet one-way delay: 72.050 ms

Loss rate: 0.00%

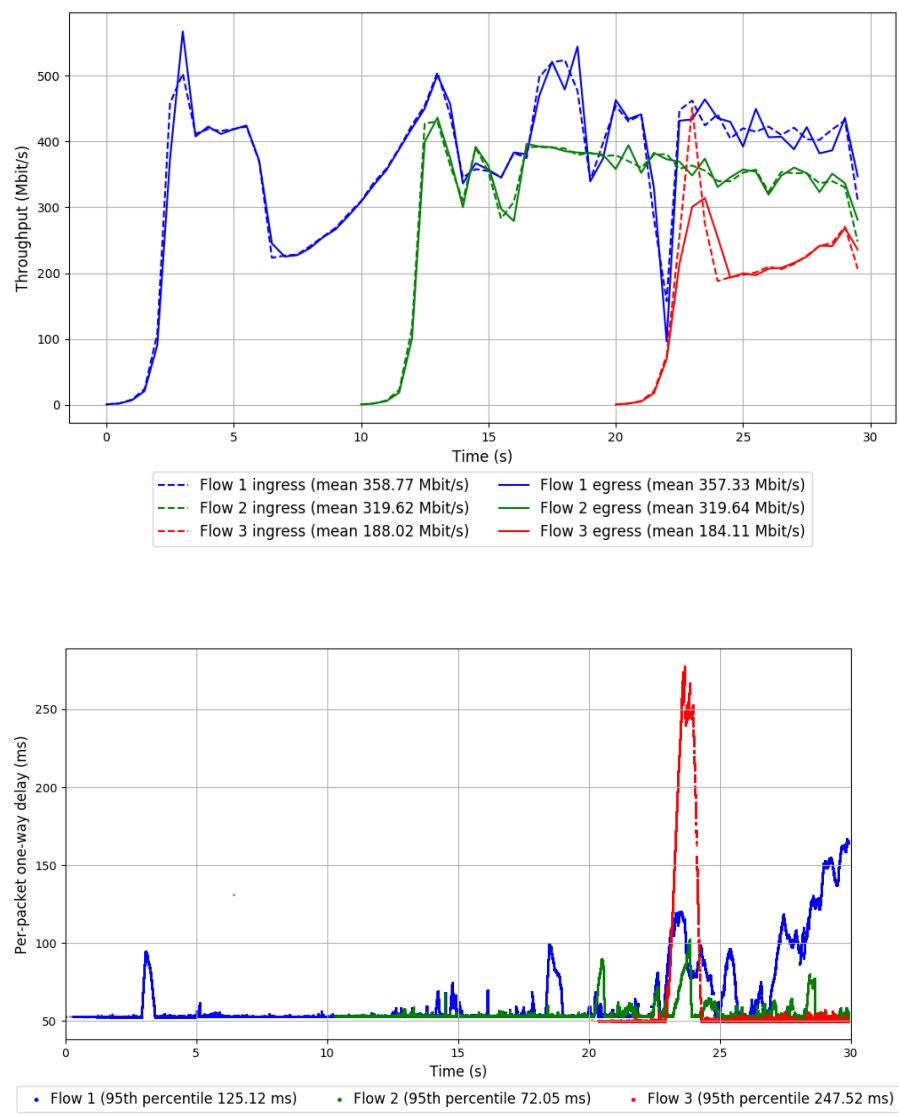
-- Flow 3:

Average throughput: 184.11 Mbit/s

95th percentile per-packet one-way delay: 247.517 ms

Loss rate: 2.08%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-02-21 08:15:06

End at: 2018-02-21 08:15:36

Below is generated by plot.py at 2018-02-21 14:12:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 611.16 Mbit/s

95th percentile per-packet one-way delay: 150.397 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 342.07 Mbit/s

95th percentile per-packet one-way delay: 129.171 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 263.11 Mbit/s

95th percentile per-packet one-way delay: 77.887 ms

Loss rate: 0.00%

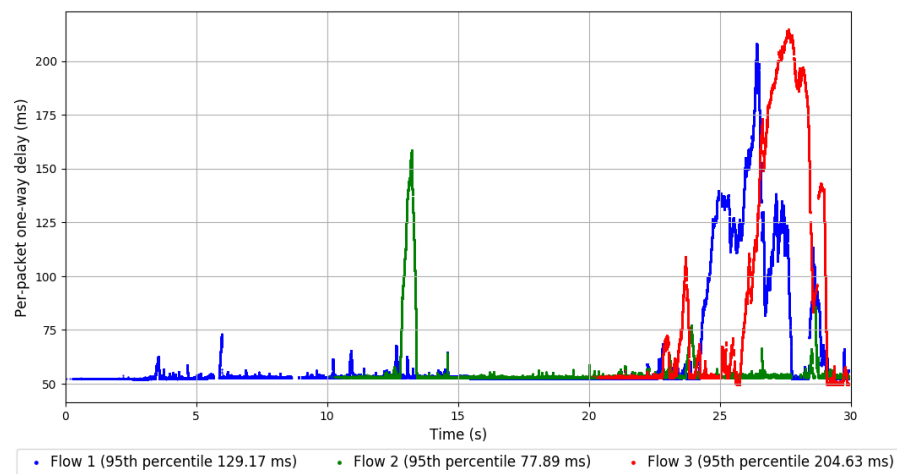
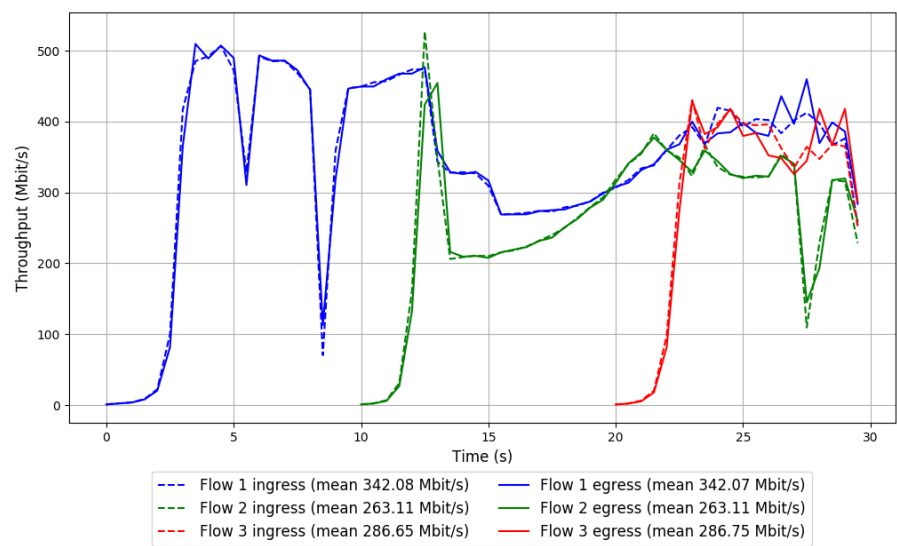
-- Flow 3:

Average throughput: 286.75 Mbit/s

95th percentile per-packet one-way delay: 204.629 ms

Loss rate: 0.00%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-02-21 08:32:41

End at: 2018-02-21 08:33:11

Below is generated by plot.py at 2018-02-21 14:13:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.40 Mbit/s

95th percentile per-packet one-way delay: 56.536 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 278.31 Mbit/s

95th percentile per-packet one-way delay: 54.091 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 254.93 Mbit/s

95th percentile per-packet one-way delay: 52.338 ms

Loss rate: 0.00%

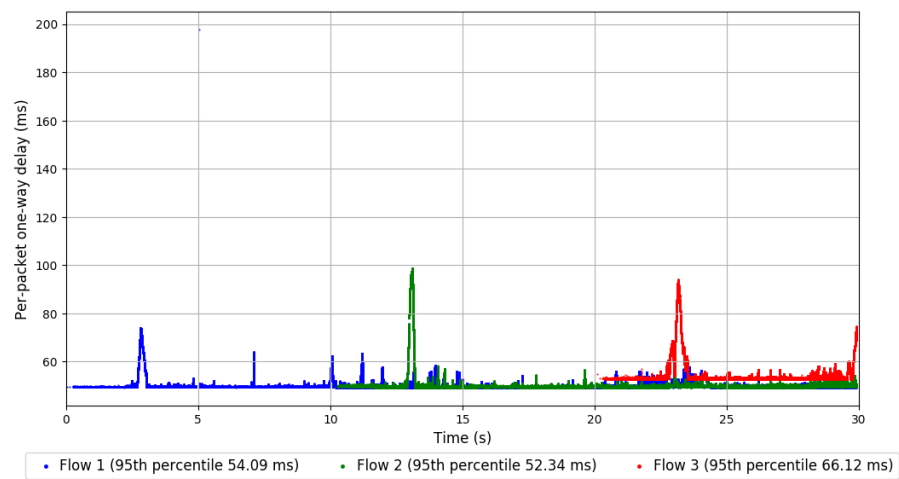
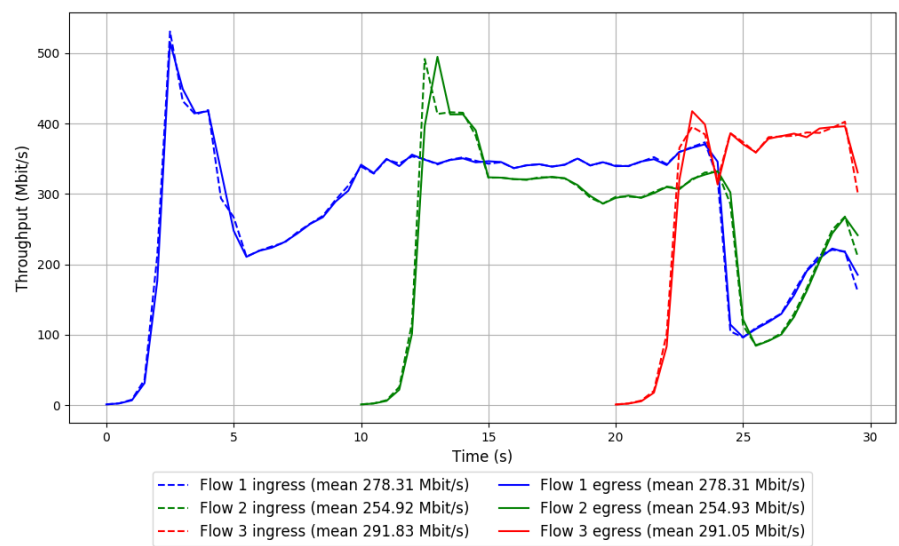
-- Flow 3:

Average throughput: 291.05 Mbit/s

95th percentile per-packet one-way delay: 66.123 ms

Loss rate: 0.29%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-02-21 08:50:05

End at: 2018-02-21 08:50:35

Below is generated by plot.py at 2018-02-21 14:16:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 645.81 Mbit/s

95th percentile per-packet one-way delay: 176.382 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 386.96 Mbit/s

95th percentile per-packet one-way delay: 160.405 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 296.70 Mbit/s

95th percentile per-packet one-way delay: 221.869 ms

Loss rate: 3.73%

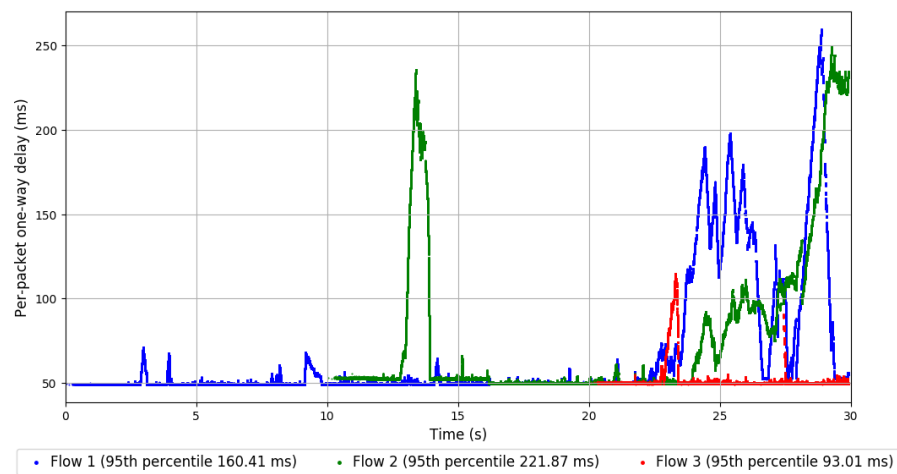
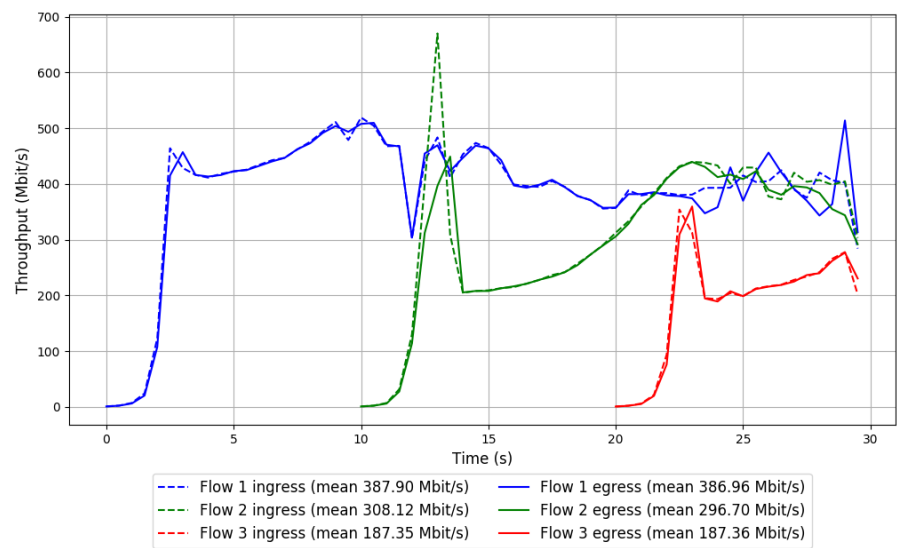
-- Flow 3:

Average throughput: 187.36 Mbit/s

95th percentile per-packet one-way delay: 93.006 ms

Loss rate: 0.01%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-02-21 09:07:49

End at: 2018-02-21 09:08:19

Below is generated by plot.py at 2018-02-21 14:18:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 570.40 Mbit/s

95th percentile per-packet one-way delay: 65.695 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 331.22 Mbit/s

95th percentile per-packet one-way delay: 62.945 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 270.51 Mbit/s

95th percentile per-packet one-way delay: 156.000 ms

Loss rate: 2.36%

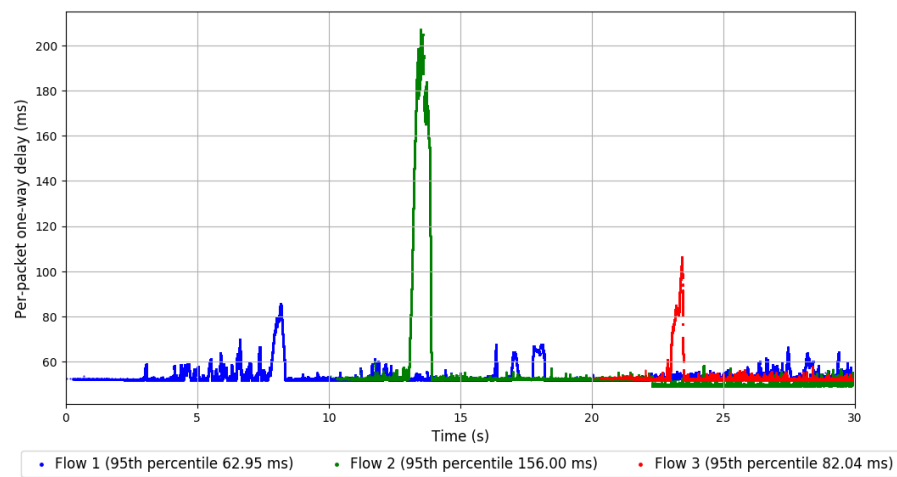
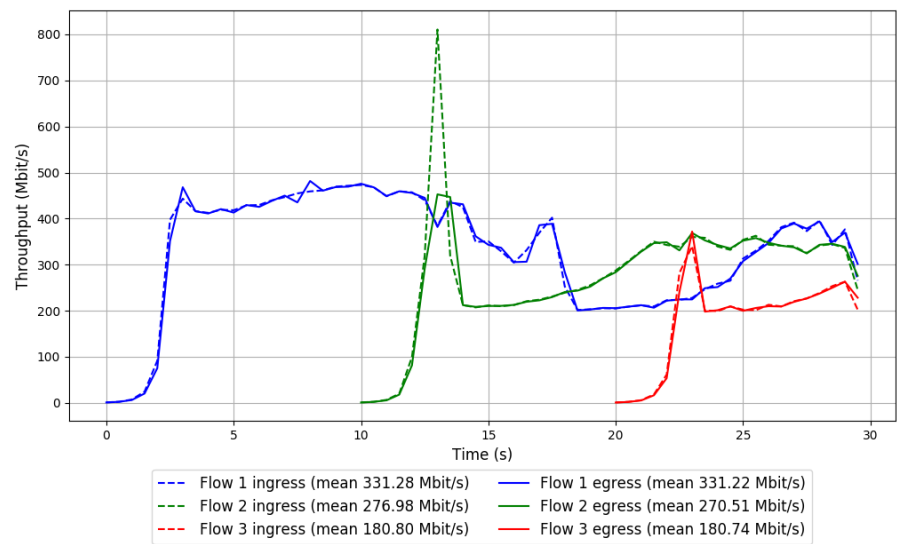
-- Flow 3:

Average throughput: 180.74 Mbit/s

95th percentile per-packet one-way delay: 82.041 ms

Loss rate: 0.06%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-02-21 09:25:18

End at: 2018-02-21 09:25:48

Below is generated by plot.py at 2018-02-21 14:21:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 652.60 Mbit/s

95th percentile per-packet one-way delay: 222.472 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 336.53 Mbit/s

95th percentile per-packet one-way delay: 54.804 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 340.58 Mbit/s

95th percentile per-packet one-way delay: 213.379 ms

Loss rate: 2.33%

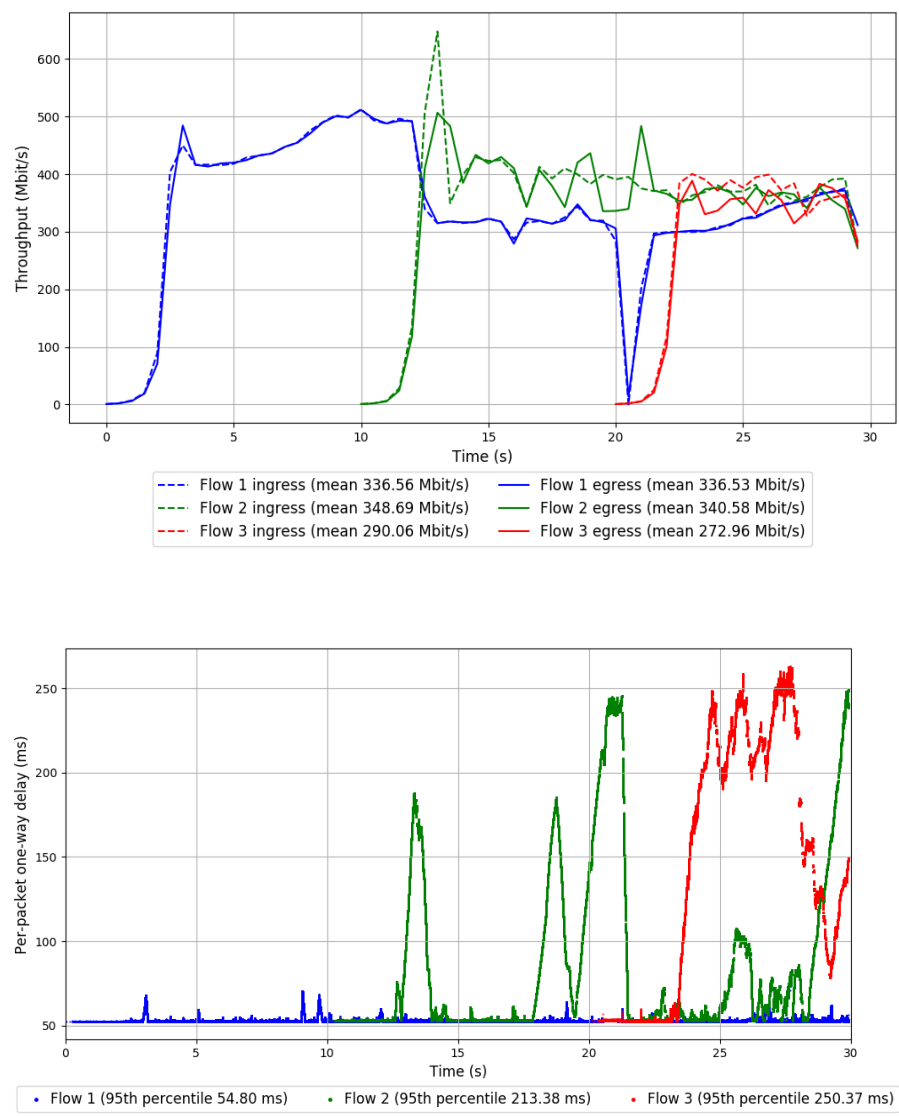
-- Flow 3:

Average throughput: 272.96 Mbit/s

95th percentile per-packet one-way delay: 250.365 ms

Loss rate: 5.89%

Run 10: Report of Vivace-loss — Data Link

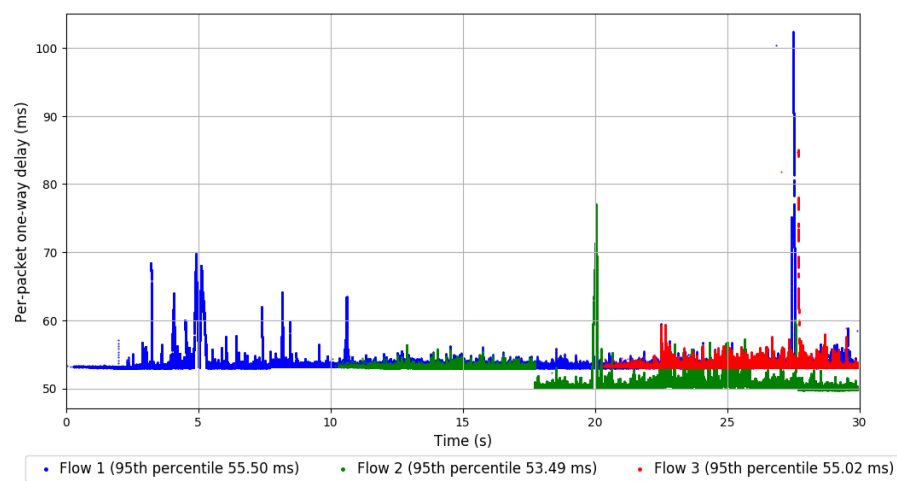
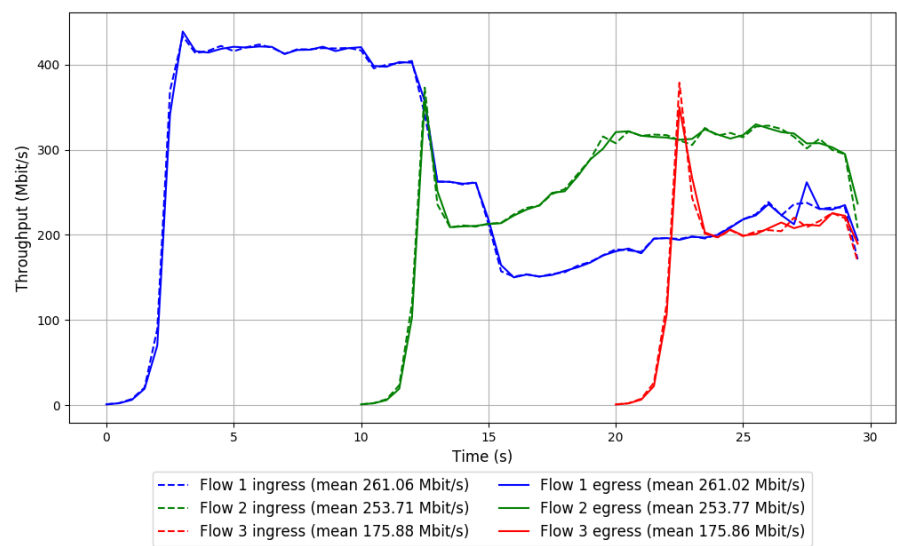


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-21 06:41:24
End at: 2018-02-21 06:41:54

# Below is generated by plot.py at 2018-02-21 14:21:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 487.46 Mbit/s
95th percentile per-packet one-way delay: 54.672 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 261.02 Mbit/s
95th percentile per-packet one-way delay: 55.496 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 253.77 Mbit/s
95th percentile per-packet one-way delay: 53.490 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 175.86 Mbit/s
95th percentile per-packet one-way delay: 55.016 ms
Loss rate: 0.05%
```


Run 1: Report of Vivace-LTE — Data Link

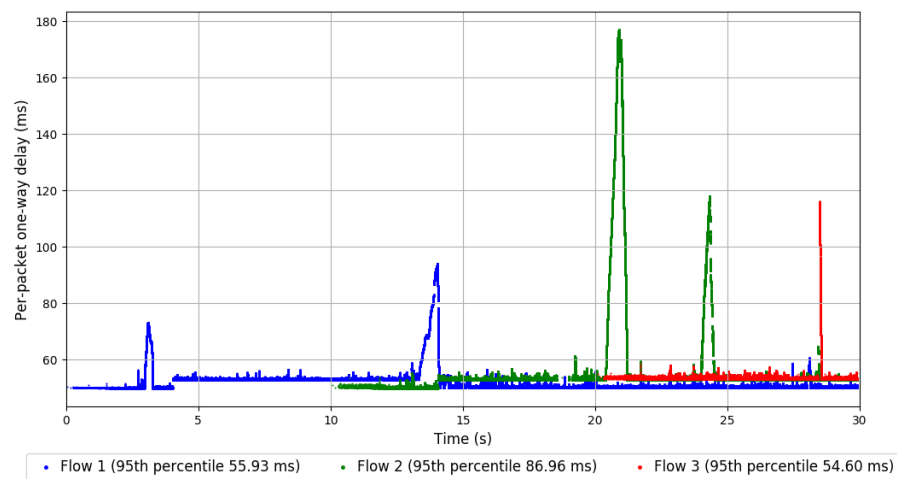
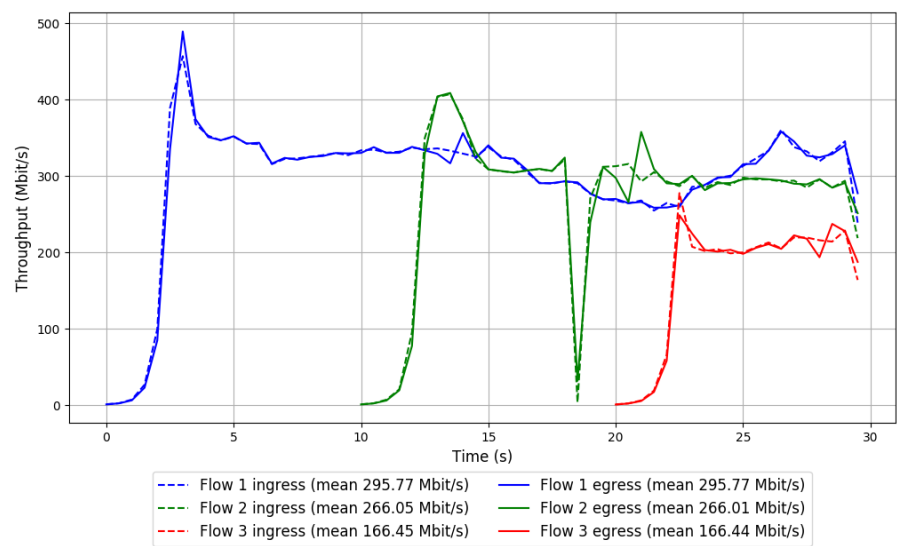


```
Run 2: Statistics of Vivace-LTE

Start at: 2018-02-21 06:59:27
End at: 2018-02-21 06:59:57

# Below is generated by plot.py at 2018-02-21 14:21:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 527.05 Mbit/s
95th percentile per-packet one-way delay: 59.104 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 295.77 Mbit/s
95th percentile per-packet one-way delay: 55.933 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 266.01 Mbit/s
95th percentile per-packet one-way delay: 86.959 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 166.44 Mbit/s
95th percentile per-packet one-way delay: 54.599 ms
Loss rate: 0.00%
```

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-21 07:17:11

End at: 2018-02-21 07:17:41

Below is generated by plot.py at 2018-02-21 14:22:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 538.27 Mbit/s

95th percentile per-packet one-way delay: 53.543 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 303.44 Mbit/s

95th percentile per-packet one-way delay: 53.869 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 266.95 Mbit/s

95th percentile per-packet one-way delay: 53.267 ms

Loss rate: 0.00%

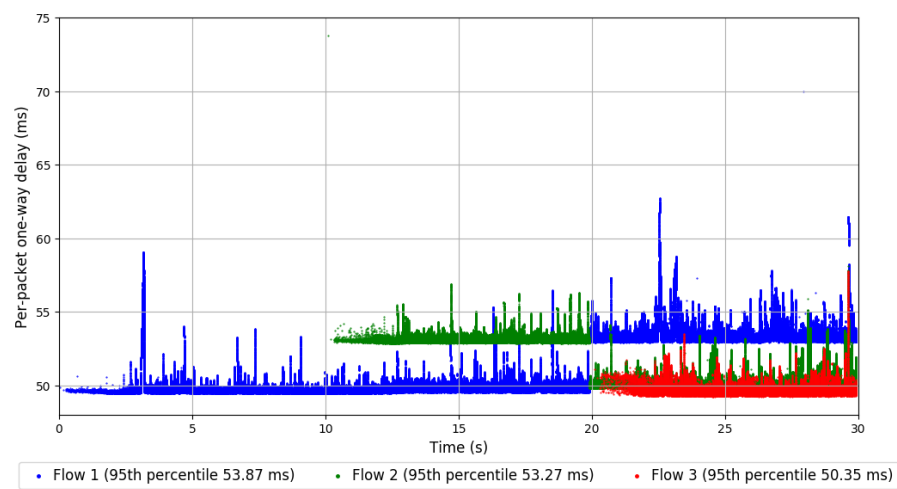
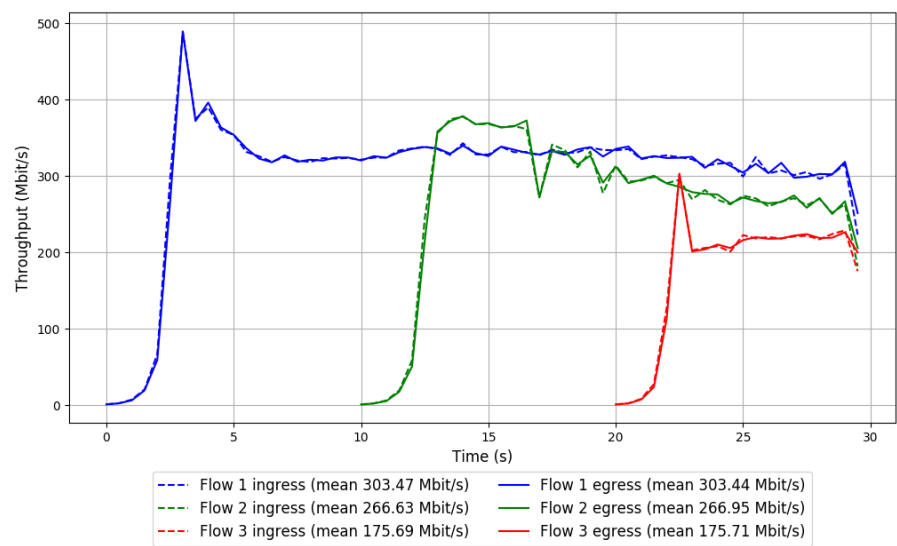
-- Flow 3:

Average throughput: 175.71 Mbit/s

95th percentile per-packet one-way delay: 50.352 ms

Loss rate: 0.00%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-02-21 07:35:08

End at: 2018-02-21 07:35:38

Below is generated by plot.py at 2018-02-21 14:23:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 568.91 Mbit/s

95th percentile per-packet one-way delay: 53.642 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 328.81 Mbit/s

95th percentile per-packet one-way delay: 52.222 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 282.46 Mbit/s

95th percentile per-packet one-way delay: 54.967 ms

Loss rate: 0.04%

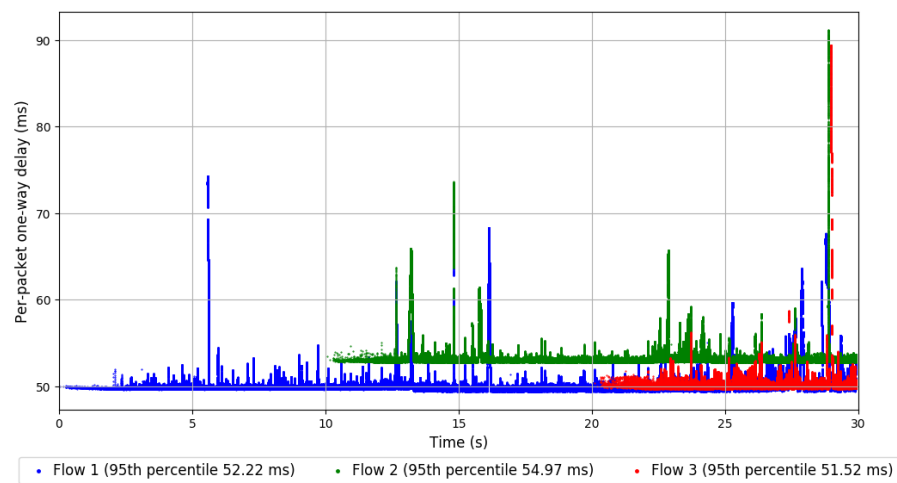
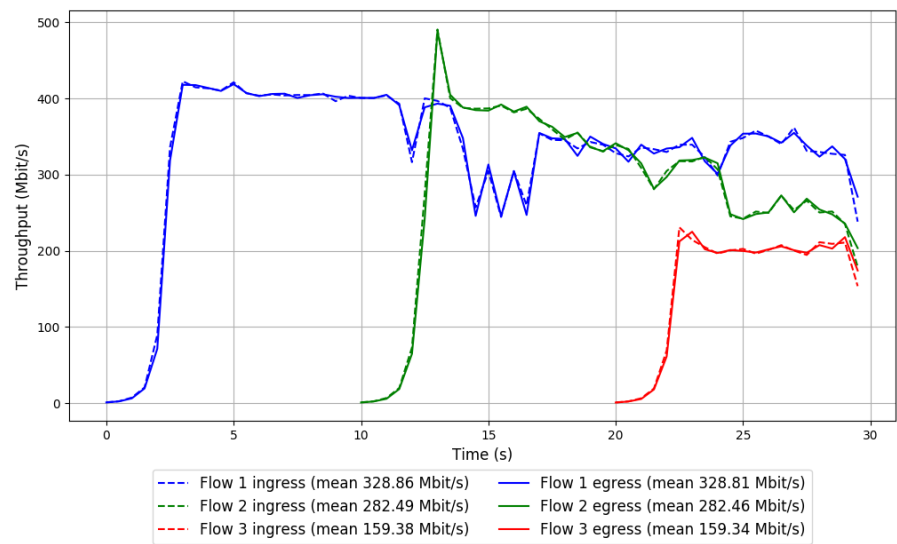
-- Flow 3:

Average throughput: 159.34 Mbit/s

95th percentile per-packet one-way delay: 51.516 ms

Loss rate: 0.02%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-02-21 07:52:57

End at: 2018-02-21 07:53:27

Below is generated by plot.py at 2018-02-21 14:23:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 502.38 Mbit/s

95th percentile per-packet one-way delay: 57.646 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 318.09 Mbit/s

95th percentile per-packet one-way delay: 60.818 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 194.50 Mbit/s

95th percentile per-packet one-way delay: 51.114 ms

Loss rate: 0.00%

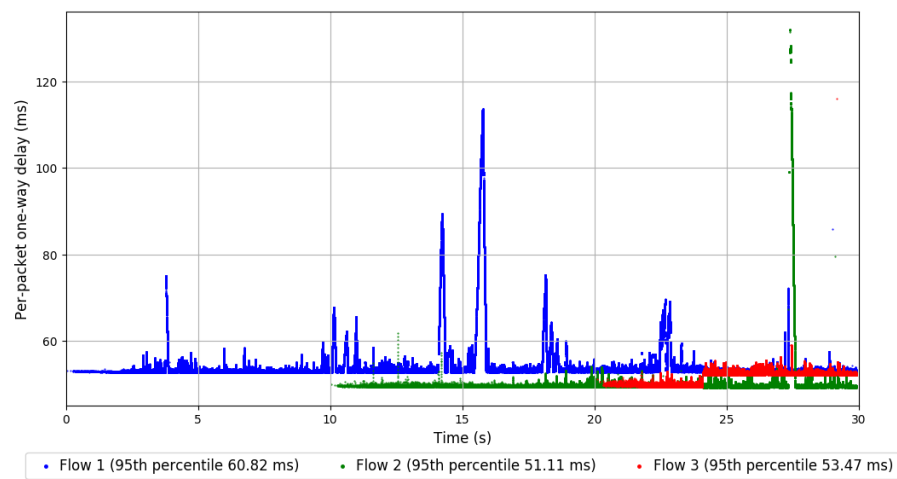
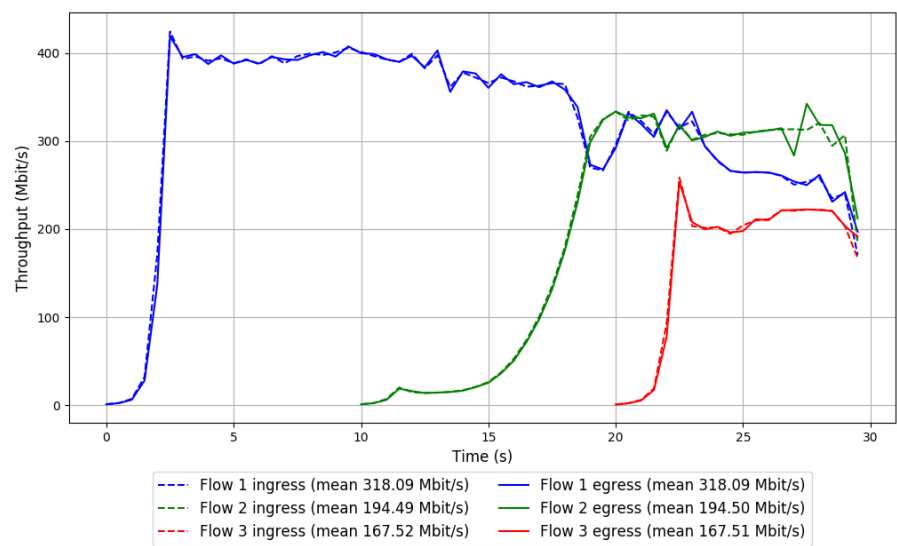
-- Flow 3:

Average throughput: 167.51 Mbit/s

95th percentile per-packet one-way delay: 53.473 ms

Loss rate: 0.00%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-02-21 08:10:23

End at: 2018-02-21 08:10:53

Below is generated by plot.py at 2018-02-21 14:25:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 562.69 Mbit/s

95th percentile per-packet one-way delay: 55.986 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 332.65 Mbit/s

95th percentile per-packet one-way delay: 60.225 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 262.32 Mbit/s

95th percentile per-packet one-way delay: 53.198 ms

Loss rate: 0.00%

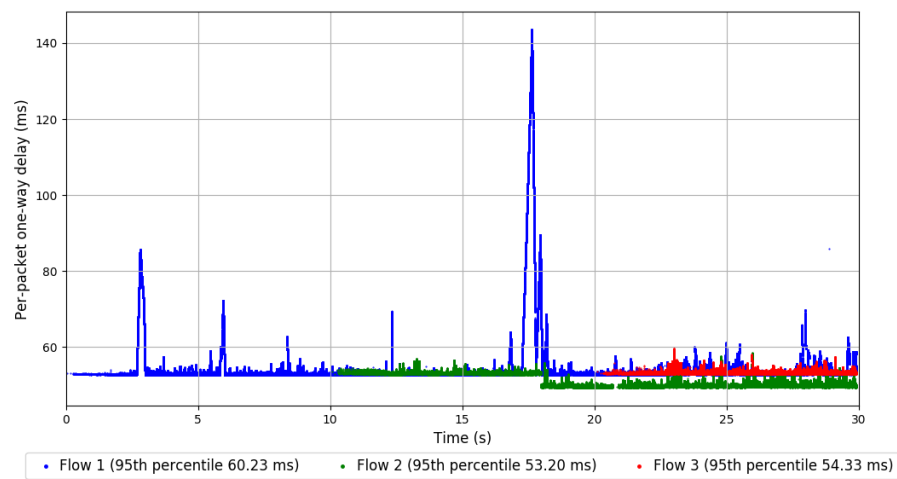
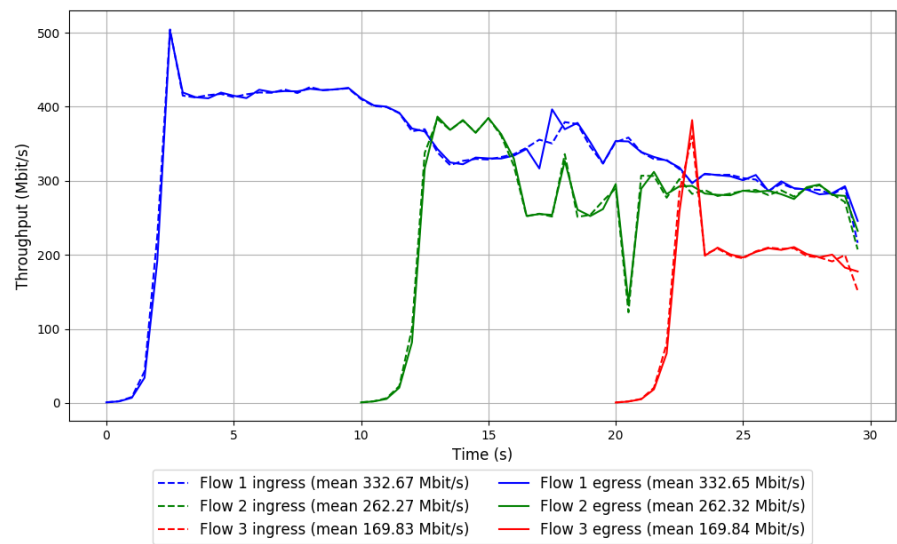
-- Flow 3:

Average throughput: 169.84 Mbit/s

95th percentile per-packet one-way delay: 54.334 ms

Loss rate: 0.00%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-02-21 08:28:01

End at: 2018-02-21 08:28:31

Below is generated by plot.py at 2018-02-21 14:26:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.94 Mbit/s

95th percentile per-packet one-way delay: 79.520 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 370.87 Mbit/s

95th percentile per-packet one-way delay: 90.094 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 241.55 Mbit/s

95th percentile per-packet one-way delay: 50.602 ms

Loss rate: 0.00%

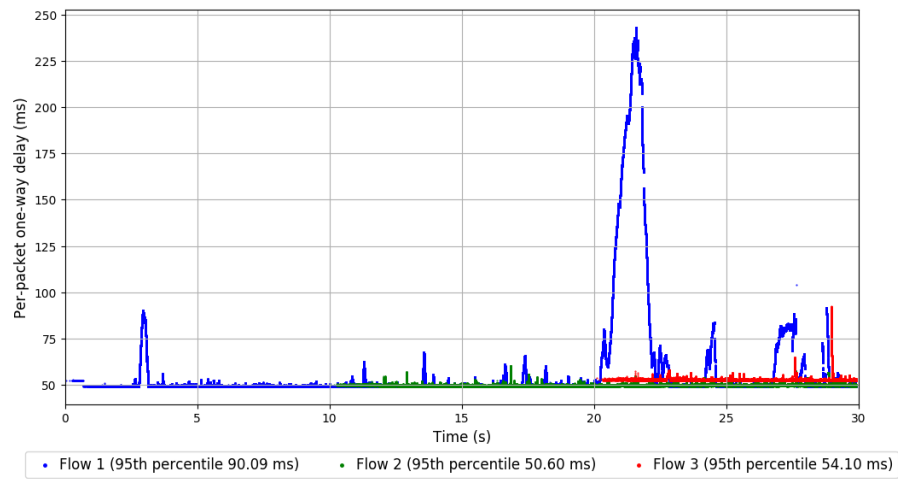
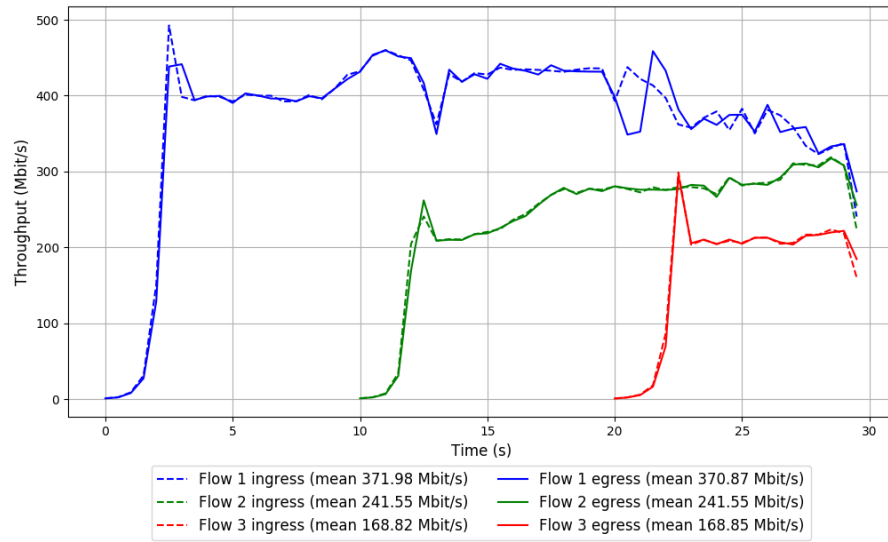
-- Flow 3:

Average throughput: 168.85 Mbit/s

95th percentile per-packet one-way delay: 54.105 ms

Loss rate: 0.00%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-02-21 08:45:30

End at: 2018-02-21 08:46:00

Below is generated by plot.py at 2018-02-21 14:26:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 494.08 Mbit/s

95th percentile per-packet one-way delay: 59.547 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 238.35 Mbit/s

95th percentile per-packet one-way delay: 53.823 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 303.94 Mbit/s

95th percentile per-packet one-way delay: 64.177 ms

Loss rate: 0.00%

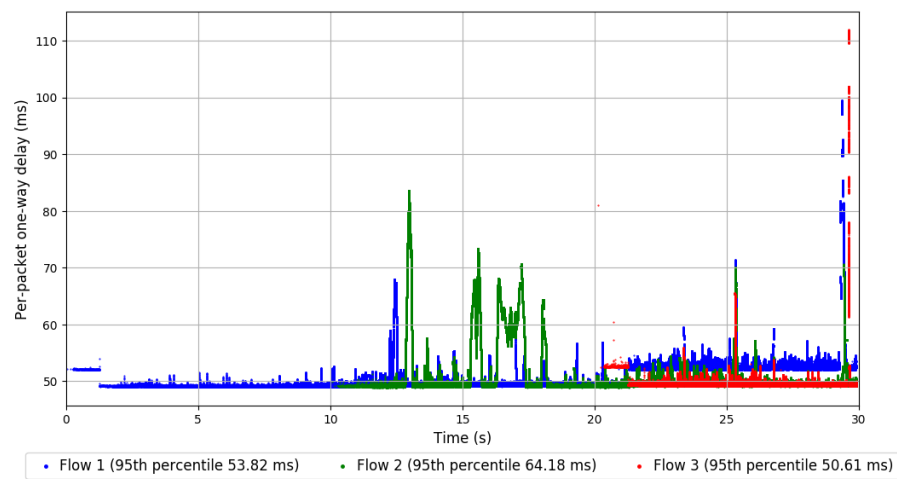
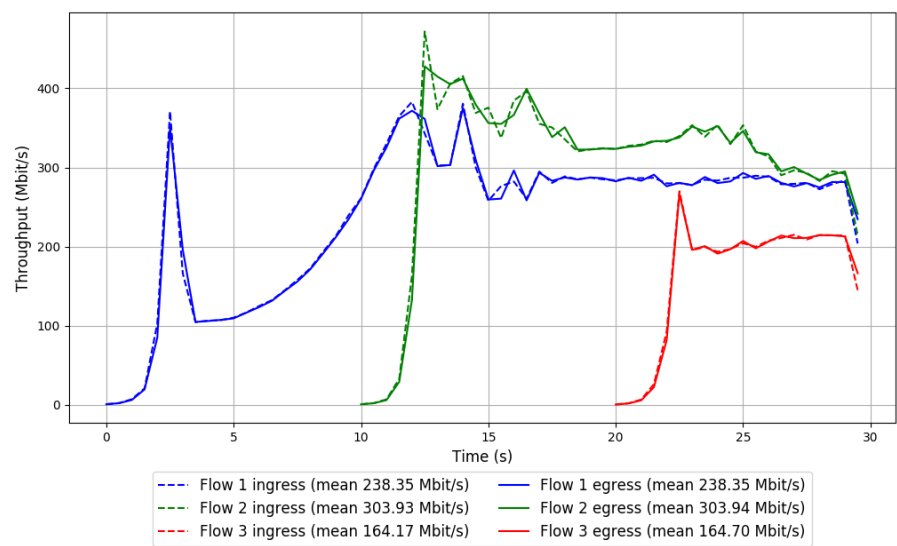
-- Flow 3:

Average throughput: 164.70 Mbit/s

95th percentile per-packet one-way delay: 50.611 ms

Loss rate: 0.00%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-02-21 09:03:20

End at: 2018-02-21 09:03:50

Below is generated by plot.py at 2018-02-21 14:26:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.67 Mbit/s

95th percentile per-packet one-way delay: 52.681 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 237.89 Mbit/s

95th percentile per-packet one-way delay: 52.611 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 198.88 Mbit/s

95th percentile per-packet one-way delay: 52.981 ms

Loss rate: 0.01%

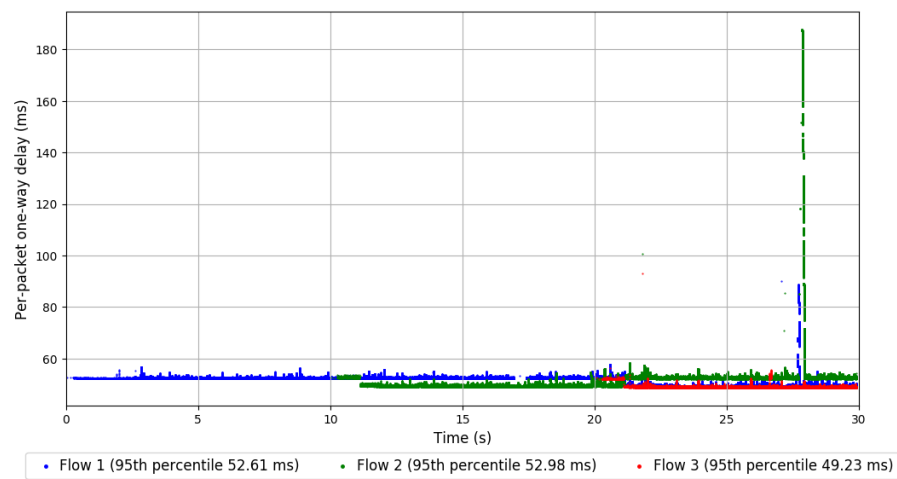
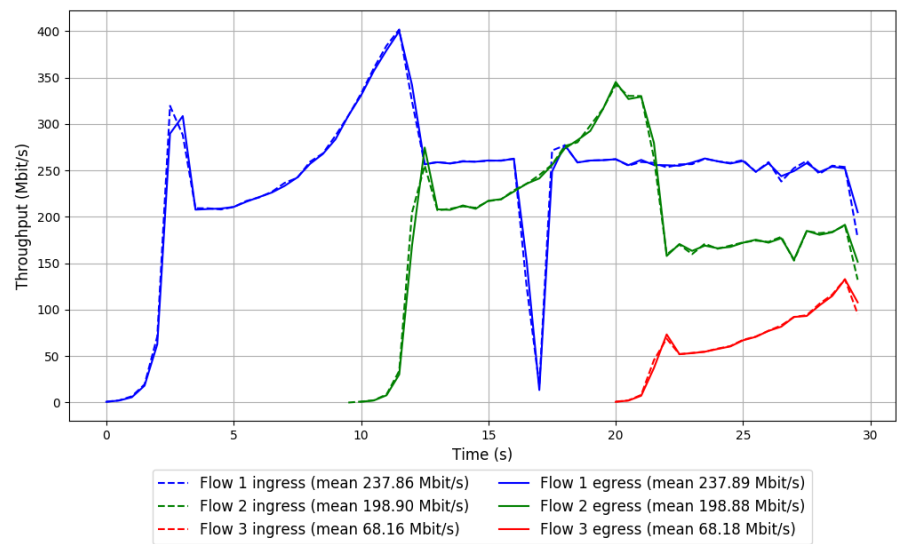
-- Flow 3:

Average throughput: 68.18 Mbit/s

95th percentile per-packet one-way delay: 49.233 ms

Loss rate: 0.00%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-02-21 09:20:42

End at: 2018-02-21 09:21:12

Below is generated by plot.py at 2018-02-21 14:26:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 503.50 Mbit/s

95th percentile per-packet one-way delay: 56.867 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 290.14 Mbit/s

95th percentile per-packet one-way delay: 64.529 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 240.44 Mbit/s

95th percentile per-packet one-way delay: 52.090 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 163.28 Mbit/s

95th percentile per-packet one-way delay: 53.067 ms

Loss rate: 0.03%

Run 10: Report of Vivace-LTE — Data Link

