

Pantheon Report

Generated at 2018-02-14 13:50:46 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

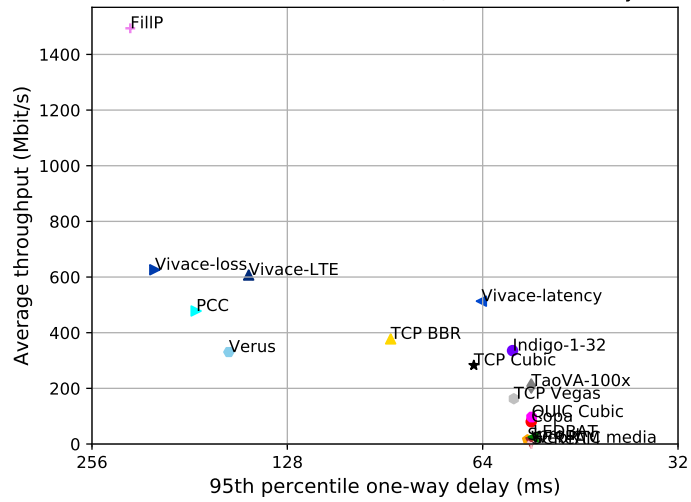
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

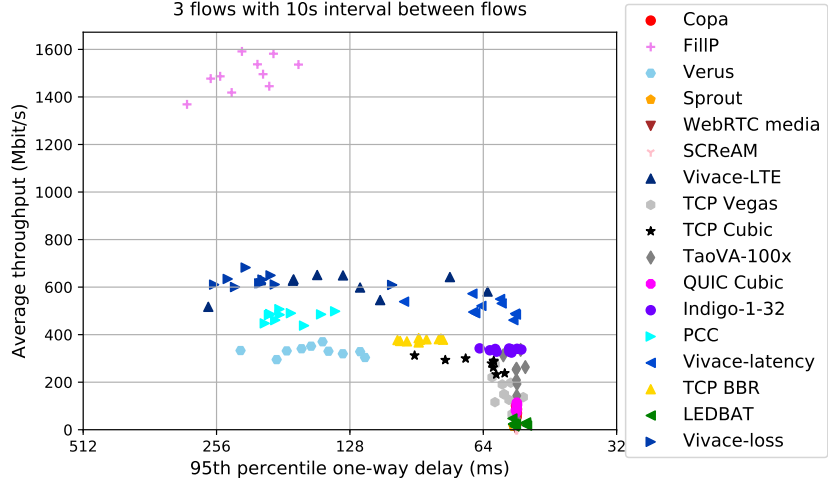
Git summary:

```
branch: master @ 2efdad57c2c56a9458b0d01ff33345e11732665
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



test from GCE Tokyo Ethernet to GCE Sydney 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	200.71	187.38	159.94	86.05	88.92	92.84	0.46	0.61	1.43
TCP Cubic	10	142.12	141.56	143.64	64.82	65.17	66.70	0.45	0.70	1.26
LEDBAT	10	13.38	13.54	8.46	53.85	52.88	52.44	0.92	1.06	2.14
PCC	10	451.18	27.09	27.28	177.25	174.47	176.20	1.38	1.54	2.43
QUIC Cubic	10	51.32	52.10	33.85	52.76	52.80	52.50	0.50	0.69	0.89
SCReAM	10	0.21	0.21	0.22	52.83	51.65	53.10	0.27	0.49	1.10
WebRTC media	10	2.38	1.46	0.63	53.62	52.50	53.24	0.47	0.63	1.32
Sprout	10	7.80	7.71	7.49	54.59	54.31	54.12	0.60	0.63	1.20
TaoVA-100x	10	144.54	94.51	70.47	53.40	53.81	53.78	0.24	0.59	1.09
TCP Vegas	10	89.17	70.96	80.41	57.11	56.32	56.30	0.38	0.52	1.17
Verus	10	202.78	139.13	111.51	152.47	150.49	175.40	1.01	0.89	2.55
Copa	10	39.91	39.35	42.61	53.14	53.83	53.58	0.17	0.32	1.00
FillP	10	787.60	724.19	685.75	206.19	226.26	220.26	8.97	11.40	13.57
Indigo-1-32	10	179.55	164.57	145.47	56.43	57.74	59.71	0.35	0.50	1.16
Vivace-latency	10	315.09	259.64	81.08	66.26	62.49	68.23	0.37	0.57	2.39
Vivace-loss	10	355.62	286.12	249.43	201.46	173.15	148.23	3.51	2.23	3.53
Vivace-LTE	10	332.57	300.02	232.16	139.43	109.17	135.05	1.51	0.88	2.08

Run 1: Statistics of TCP BBR

Start at: 2018-02-14 05:47:09

End at: 2018-02-14 05:47:39

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.65 Mbit/s

95th percentile per-packet one-way delay: 79.758 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 201.73 Mbit/s

95th percentile per-packet one-way delay: 78.803 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 191.56 Mbit/s

95th percentile per-packet one-way delay: 79.901 ms

Loss rate: 0.61%

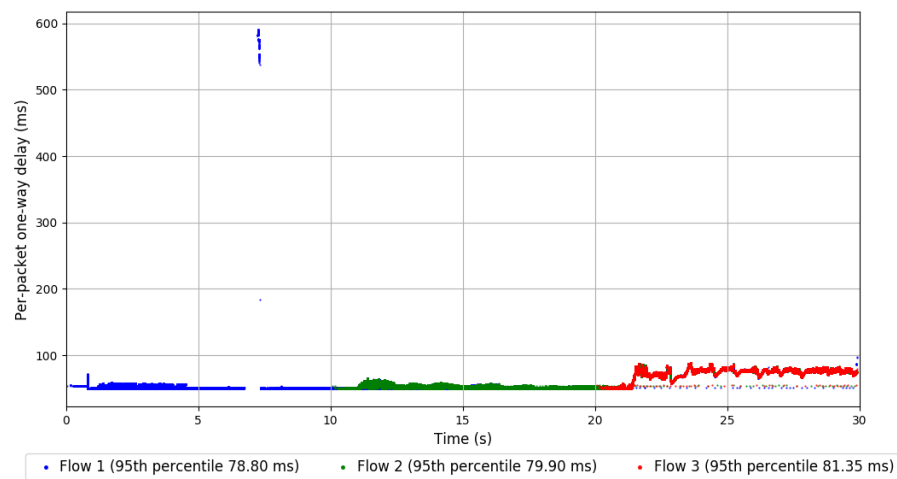
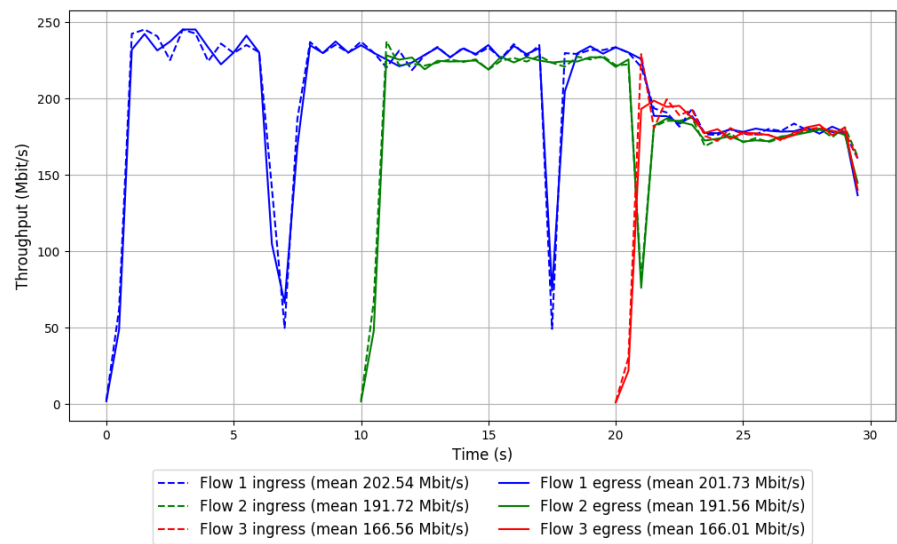
-- Flow 3:

Average throughput: 166.01 Mbit/s

95th percentile per-packet one-way delay: 81.353 ms

Loss rate: 1.36%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-14 06:04:32

End at: 2018-02-14 06:05:02

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 373.54 Mbit/s

95th percentile per-packet one-way delay: 98.579 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 196.00 Mbit/s

95th percentile per-packet one-way delay: 95.763 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 187.85 Mbit/s

95th percentile per-packet one-way delay: 98.582 ms

Loss rate: 0.62%

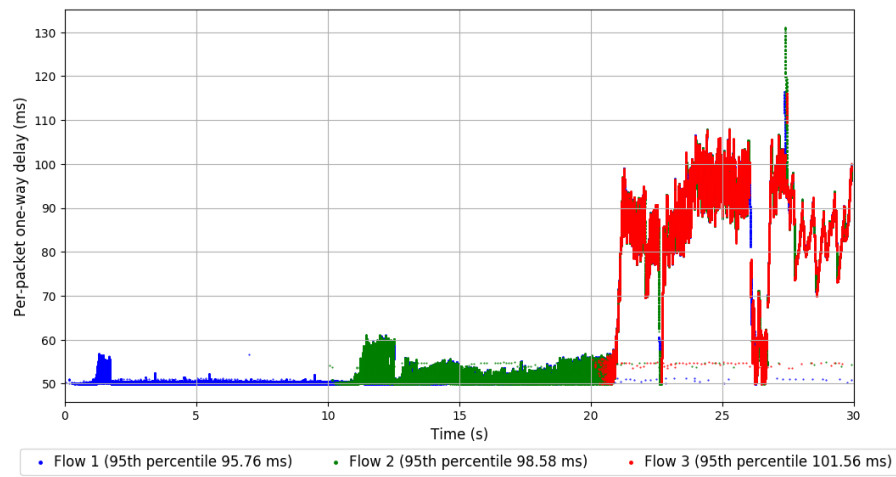
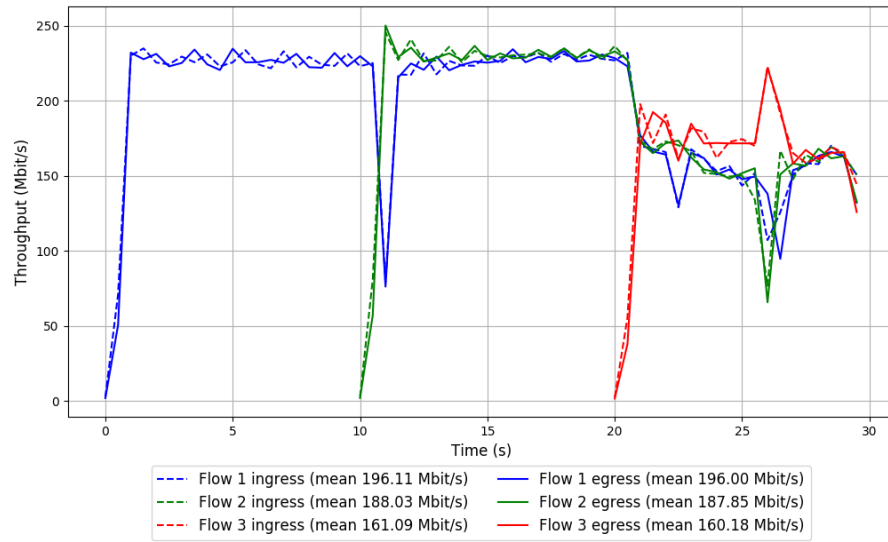
-- Flow 3:

Average throughput: 160.18 Mbit/s

95th percentile per-packet one-way delay: 101.565 ms

Loss rate: 1.48%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-14 06:22:02

End at: 2018-02-14 06:22:32

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.33 Mbit/s

95th percentile per-packet one-way delay: 89.064 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 201.17 Mbit/s

95th percentile per-packet one-way delay: 85.237 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 191.41 Mbit/s

95th percentile per-packet one-way delay: 89.010 ms

Loss rate: 0.60%

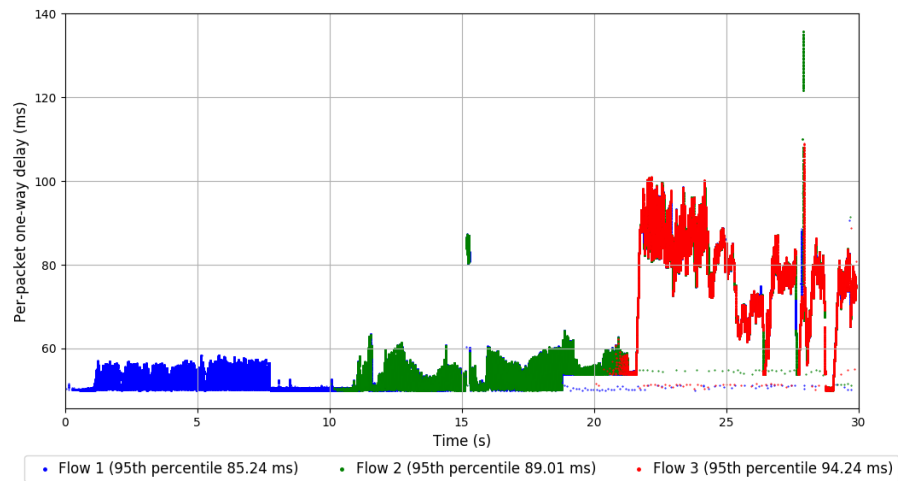
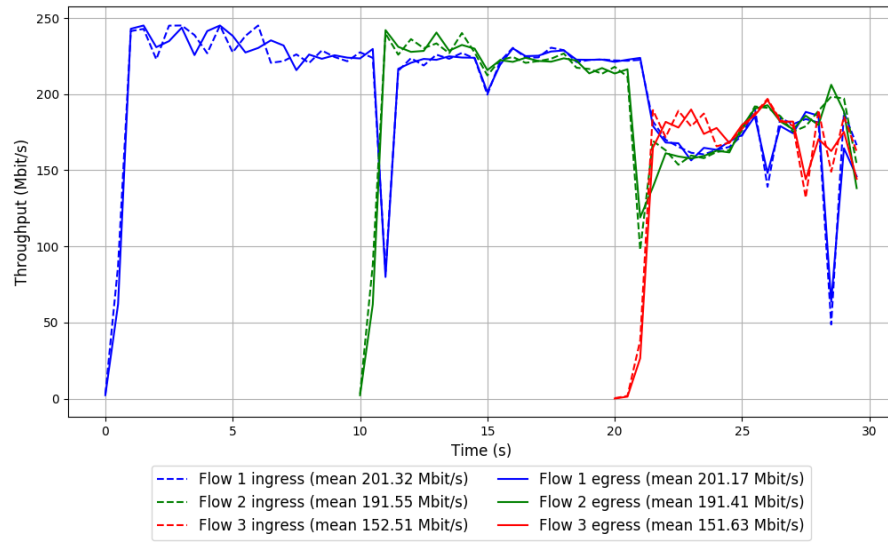
-- Flow 3:

Average throughput: 151.63 Mbit/s

95th percentile per-packet one-way delay: 94.237 ms

Loss rate: 1.56%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-02-14 06:39:29

End at: 2018-02-14 06:39:59

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 381.24 Mbit/s

95th percentile per-packet one-way delay: 80.605 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 203.94 Mbit/s

95th percentile per-packet one-way delay: 78.812 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 186.04 Mbit/s

95th percentile per-packet one-way delay: 80.691 ms

Loss rate: 0.53%

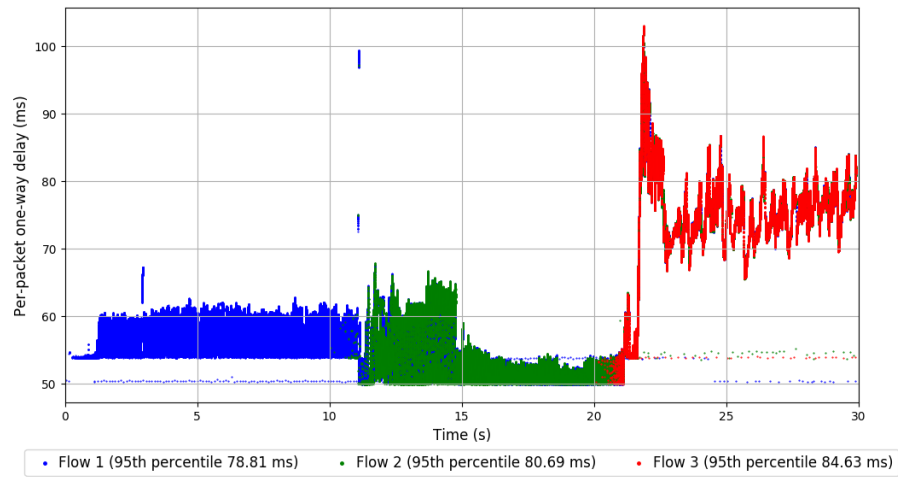
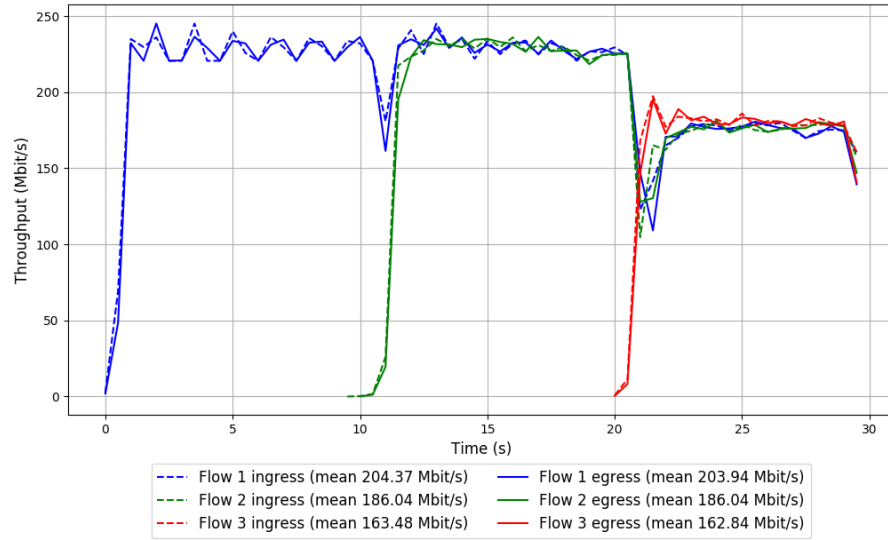
-- Flow 3:

Average throughput: 162.84 Mbit/s

95th percentile per-packet one-way delay: 84.627 ms

Loss rate: 1.41%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-02-14 06:56:52

End at: 2018-02-14 06:57:22

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.94 Mbit/s

95th percentile per-packet one-way delay: 78.901 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 200.27 Mbit/s

95th percentile per-packet one-way delay: 77.037 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 197.50 Mbit/s

95th percentile per-packet one-way delay: 79.047 ms

Loss rate: 0.58%

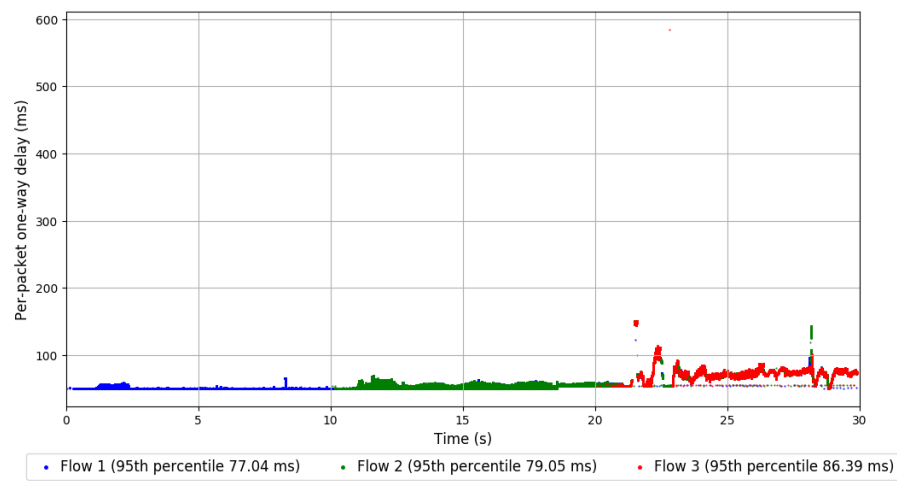
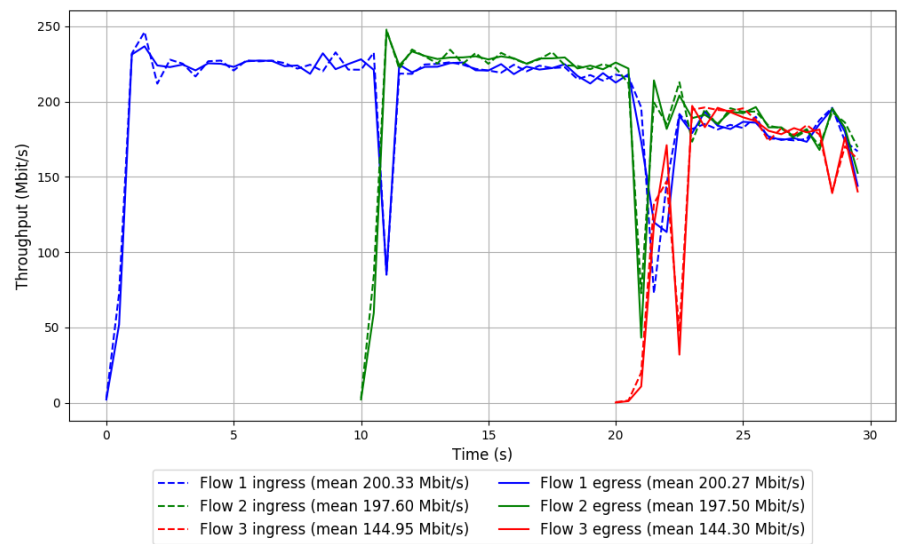
-- Flow 3:

Average throughput: 144.30 Mbit/s

95th percentile per-packet one-way delay: 86.393 ms

Loss rate: 1.49%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-02-14 07:14:30

End at: 2018-02-14 07:15:00

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 372.05 Mbit/s

95th percentile per-packet one-way delay: 95.180 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 200.17 Mbit/s

95th percentile per-packet one-way delay: 93.303 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 174.92 Mbit/s

95th percentile per-packet one-way delay: 95.606 ms

Loss rate: 0.73%

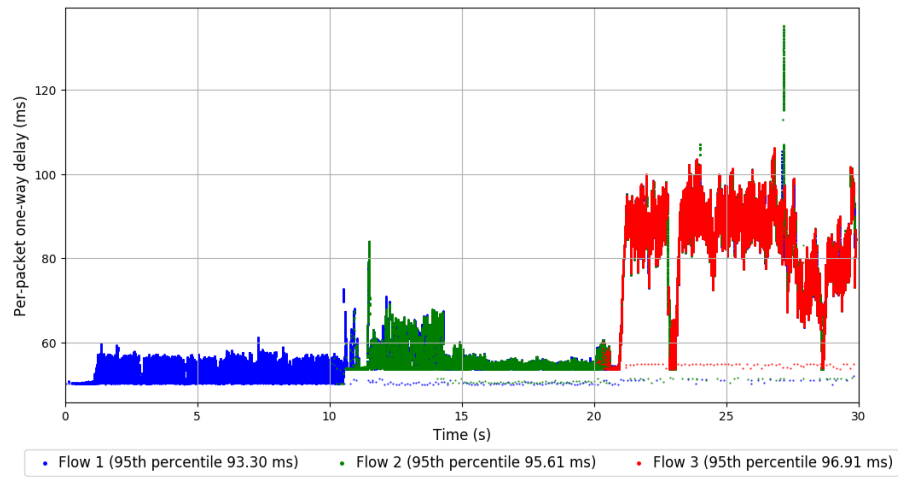
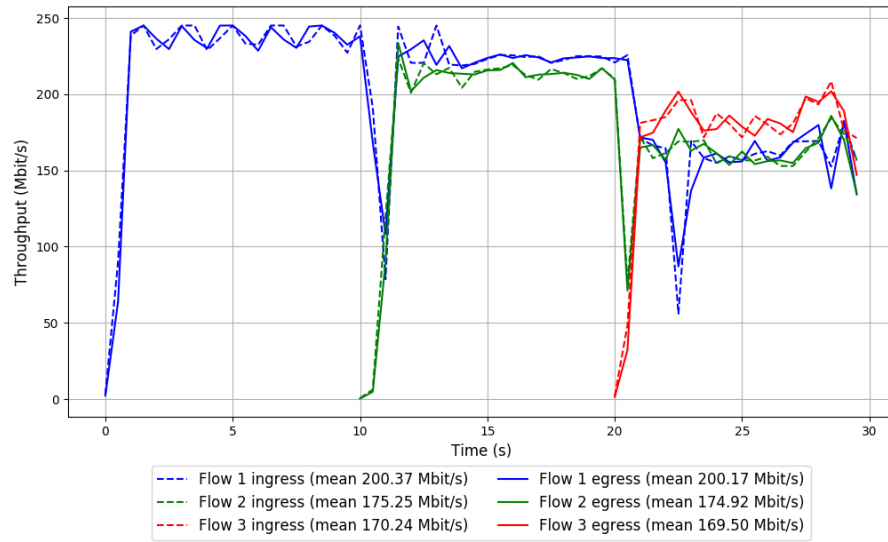
-- Flow 3:

Average throughput: 169.50 Mbit/s

95th percentile per-packet one-way delay: 96.907 ms

Loss rate: 1.45%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-02-14 07:31:33

End at: 2018-02-14 07:32:03

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 367.31 Mbit/s

95th percentile per-packet one-way delay: 89.529 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 195.35 Mbit/s

95th percentile per-packet one-way delay: 86.218 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 184.28 Mbit/s

95th percentile per-packet one-way delay: 90.165 ms

Loss rate: 0.59%

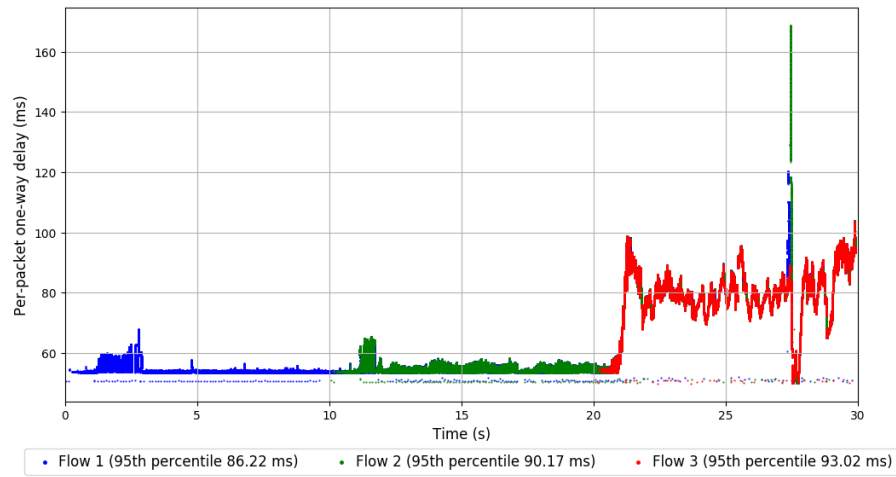
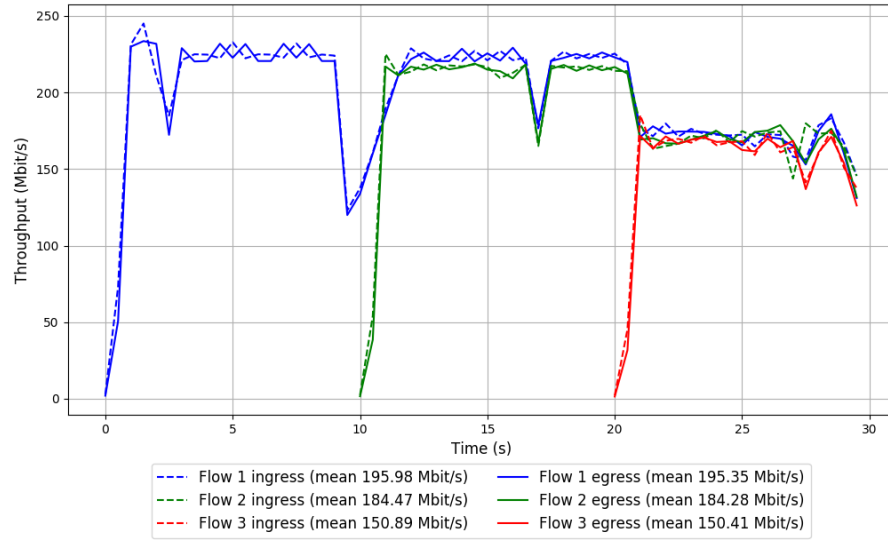
-- Flow 3:

Average throughput: 150.41 Mbit/s

95th percentile per-packet one-way delay: 93.018 ms

Loss rate: 1.34%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-02-14 07:48:57

End at: 2018-02-14 07:49:27

Below is generated by plot.py at 2018-02-14 11:45:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 377.45 Mbit/s

95th percentile per-packet one-way delay: 99.955 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 202.33 Mbit/s

95th percentile per-packet one-way delay: 95.251 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 185.22 Mbit/s

95th percentile per-packet one-way delay: 101.010 ms

Loss rate: 0.62%

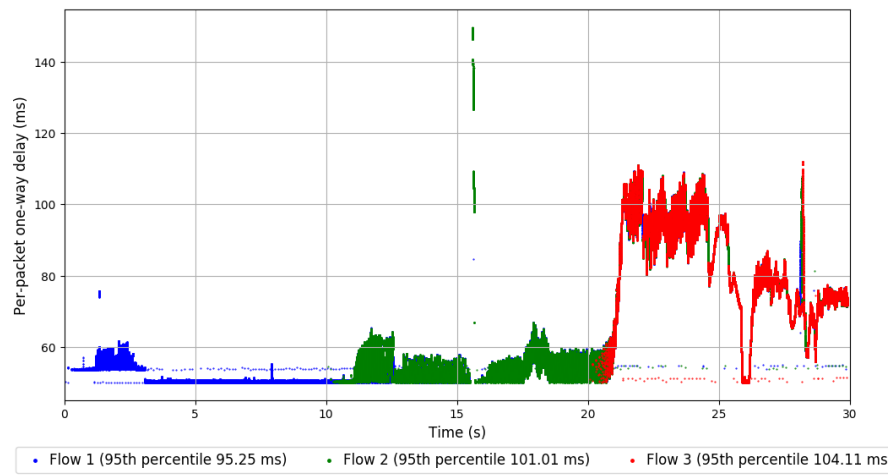
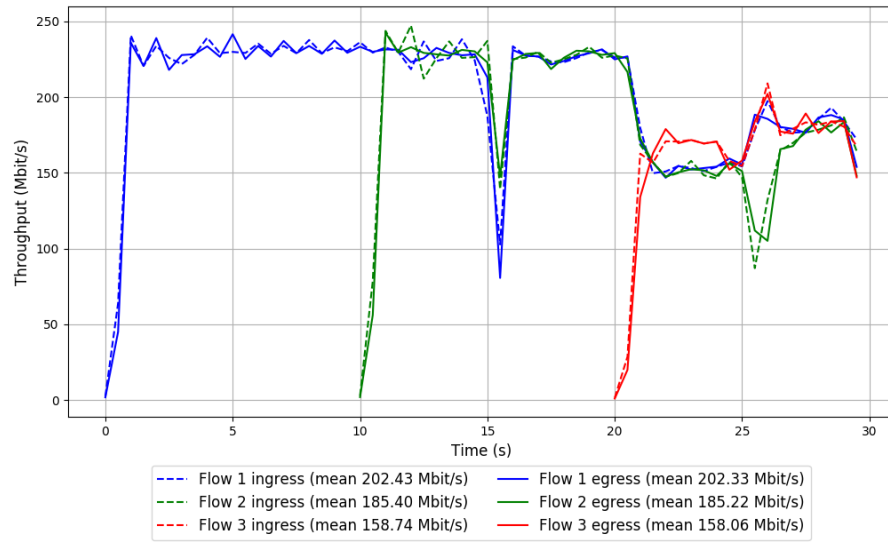
-- Flow 3:

Average throughput: 158.06 Mbit/s

95th percentile per-packet one-way delay: 104.105 ms

Loss rate: 1.45%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-02-14 08:06:20

End at: 2018-02-14 08:06:50

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 385.55 Mbit/s

95th percentile per-packet one-way delay: 89.552 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 202.33 Mbit/s

95th percentile per-packet one-way delay: 86.445 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 190.72 Mbit/s

95th percentile per-packet one-way delay: 89.349 ms

Loss rate: 0.61%

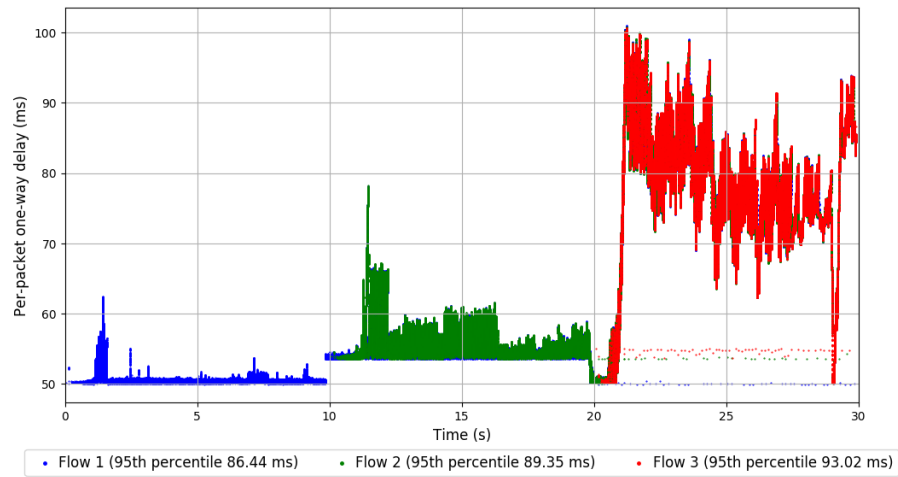
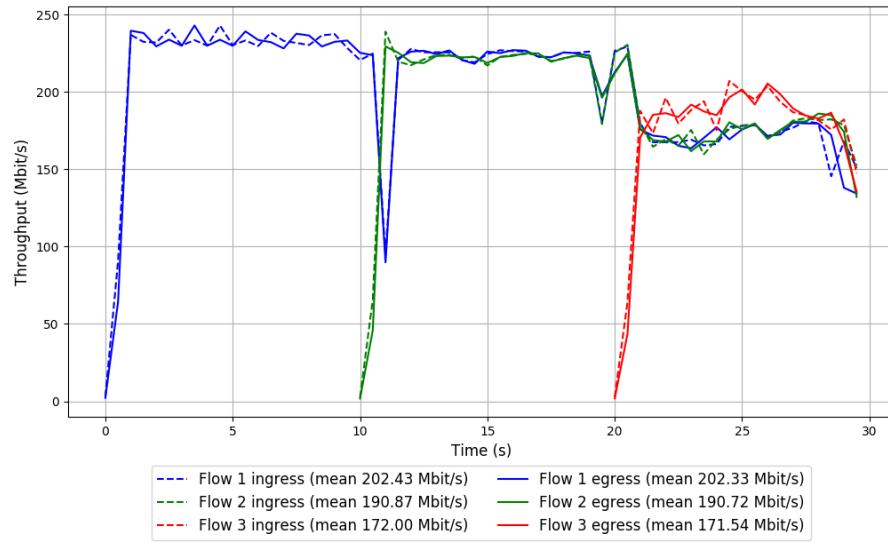
-- Flow 3:

Average throughput: 171.54 Mbit/s

95th percentile per-packet one-way delay: 93.024 ms

Loss rate: 1.33%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-02-14 08:23:31

End at: 2018-02-14 08:24:01

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 380.57 Mbit/s

95th percentile per-packet one-way delay: 85.975 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 203.80 Mbit/s

95th percentile per-packet one-way delay: 83.622 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 184.28 Mbit/s

95th percentile per-packet one-way delay: 85.799 ms

Loss rate: 0.63%

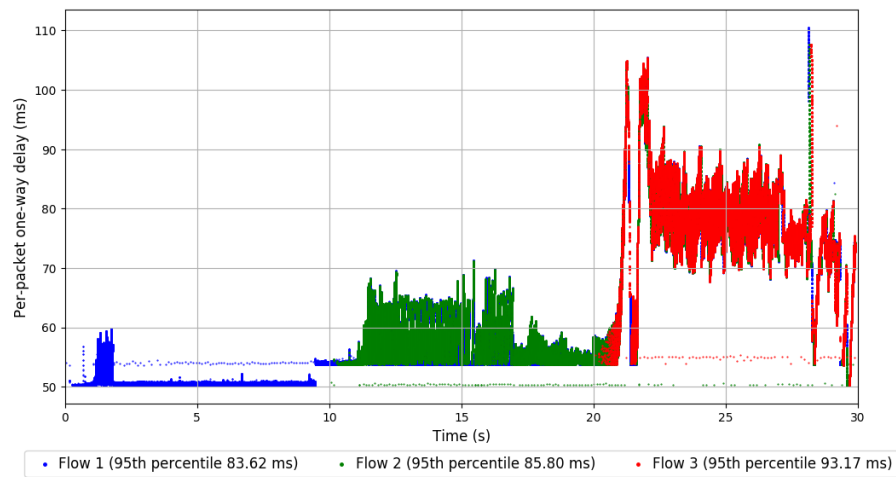
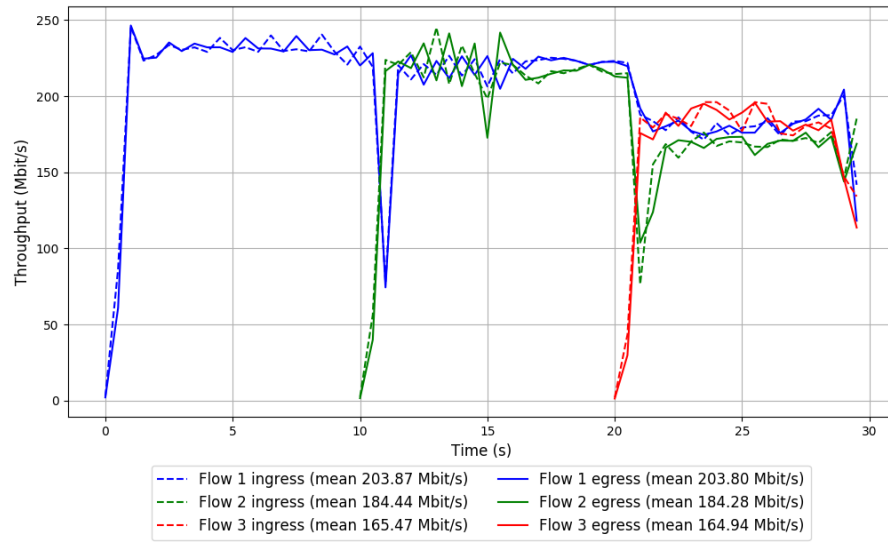
-- Flow 3:

Average throughput: 164.94 Mbit/s

95th percentile per-packet one-way delay: 93.165 ms

Loss rate: 1.38%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-02-14 05:38:52

End at: 2018-02-14 05:39:22

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 278.38 Mbit/s

95th percentile per-packet one-way delay: 61.304 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 121.65 Mbit/s

95th percentile per-packet one-way delay: 59.735 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 163.10 Mbit/s

95th percentile per-packet one-way delay: 61.581 ms

Loss rate: 0.85%

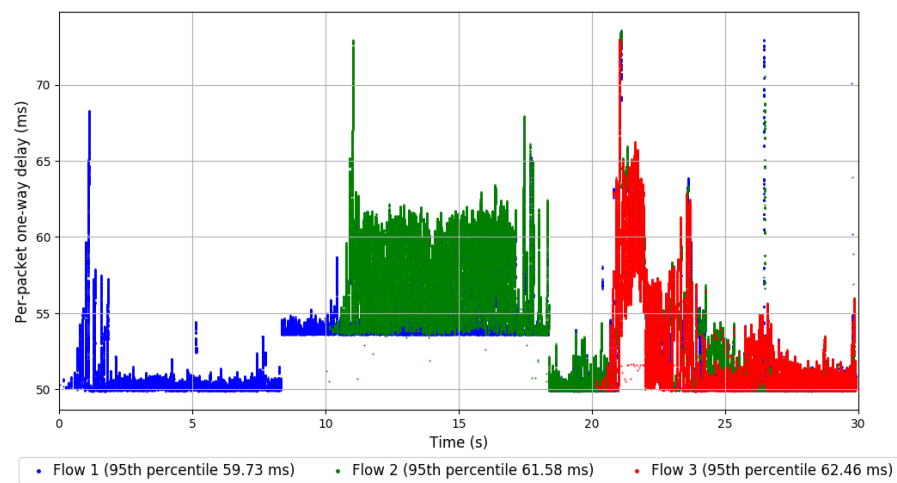
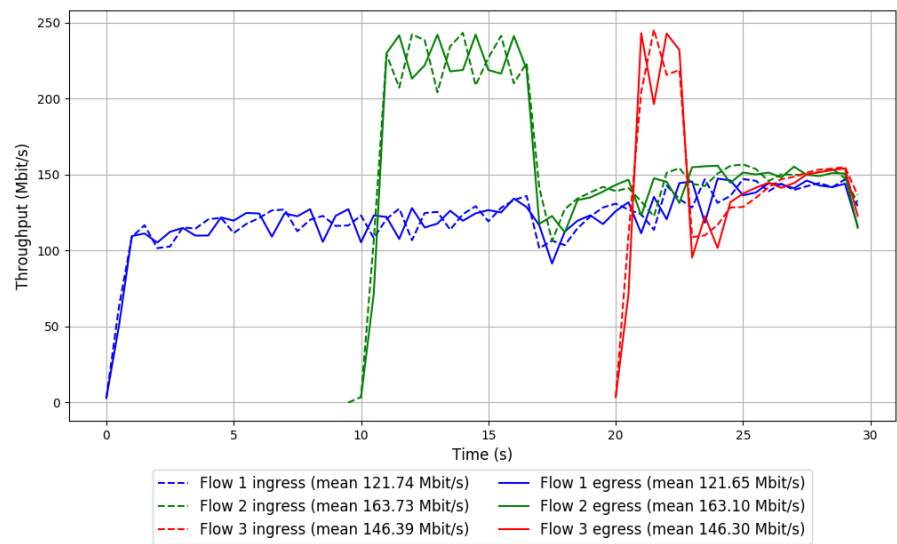
-- Flow 3:

Average throughput: 146.30 Mbit/s

95th percentile per-packet one-way delay: 62.458 ms

Loss rate: 1.07%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-14 05:56:14

End at: 2018-02-14 05:56:44

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.31 Mbit/s

95th percentile per-packet one-way delay: 91.462 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 131.54 Mbit/s

95th percentile per-packet one-way delay: 89.407 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 184.78 Mbit/s

95th percentile per-packet one-way delay: 89.449 ms

Loss rate: 0.63%

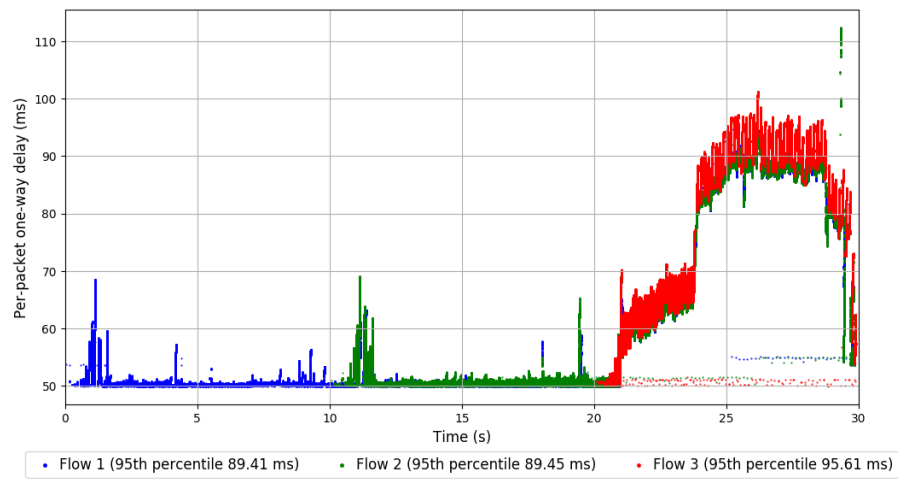
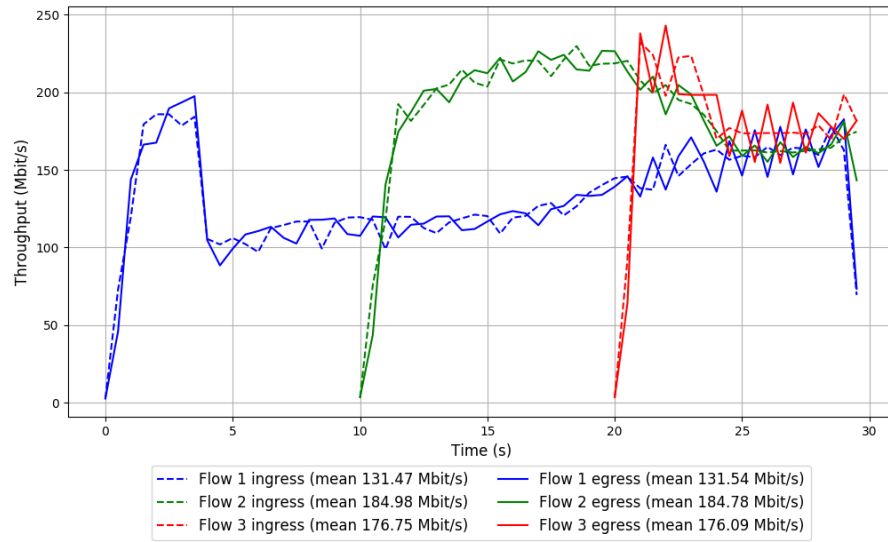
-- Flow 3:

Average throughput: 176.09 Mbit/s

95th percentile per-packet one-way delay: 95.608 ms

Loss rate: 1.40%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-02-14 06:13:43

End at: 2018-02-14 06:14:13

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 286.60 Mbit/s

95th percentile per-packet one-way delay: 60.591 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 161.12 Mbit/s

95th percentile per-packet one-way delay: 60.767 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 104.75 Mbit/s

95th percentile per-packet one-way delay: 59.294 ms

Loss rate: 0.76%

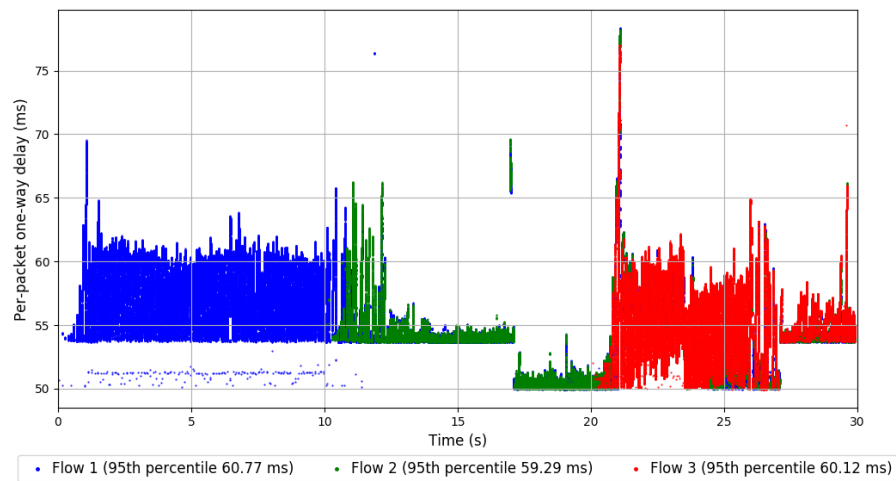
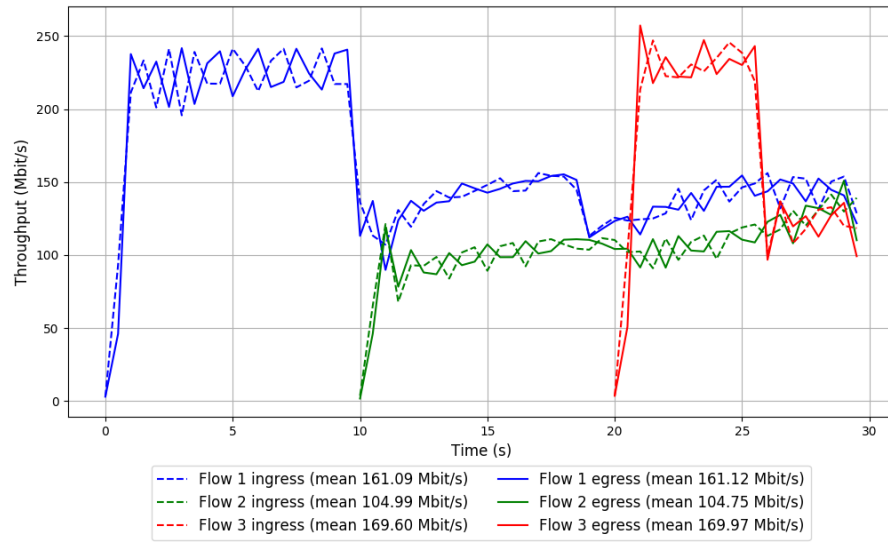
-- Flow 3:

Average throughput: 169.97 Mbit/s

95th percentile per-packet one-way delay: 60.124 ms

Loss rate: 0.83%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-02-14 06:31:04

End at: 2018-02-14 06:31:34

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.33 Mbit/s

95th percentile per-packet one-way delay: 77.960 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 133.47 Mbit/s

95th percentile per-packet one-way delay: 75.335 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 151.62 Mbit/s

95th percentile per-packet one-way delay: 78.487 ms

Loss rate: 0.56%

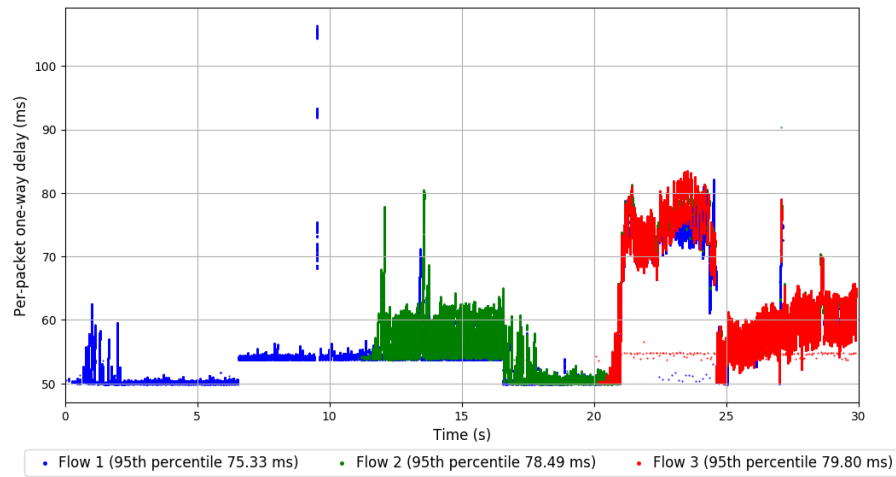
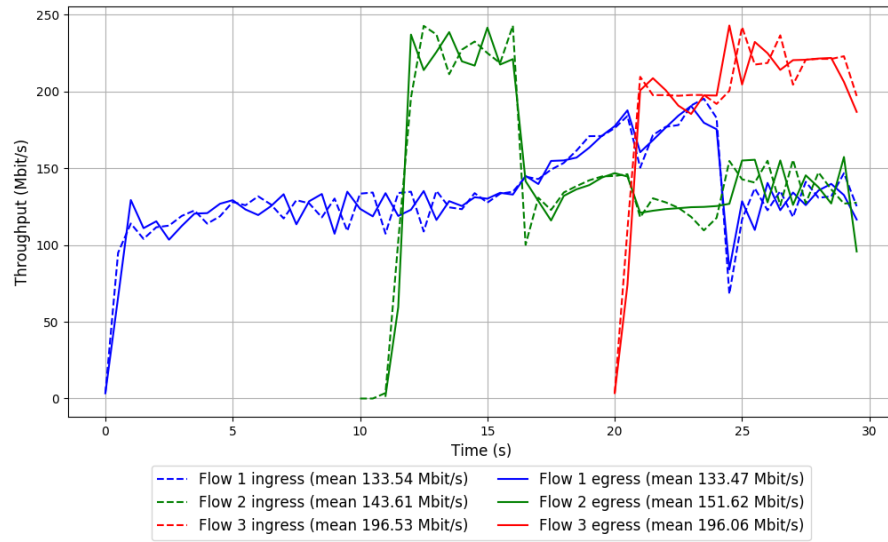
-- Flow 3:

Average throughput: 196.06 Mbit/s

95th percentile per-packet one-way delay: 79.803 ms

Loss rate: 1.30%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-02-14 06:48:32

End at: 2018-02-14 06:49:02

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 232.56 Mbit/s

95th percentile per-packet one-way delay: 59.825 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 108.84 Mbit/s

95th percentile per-packet one-way delay: 59.605 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 184.78 Mbit/s

95th percentile per-packet one-way delay: 59.921 ms

Loss rate: 0.76%

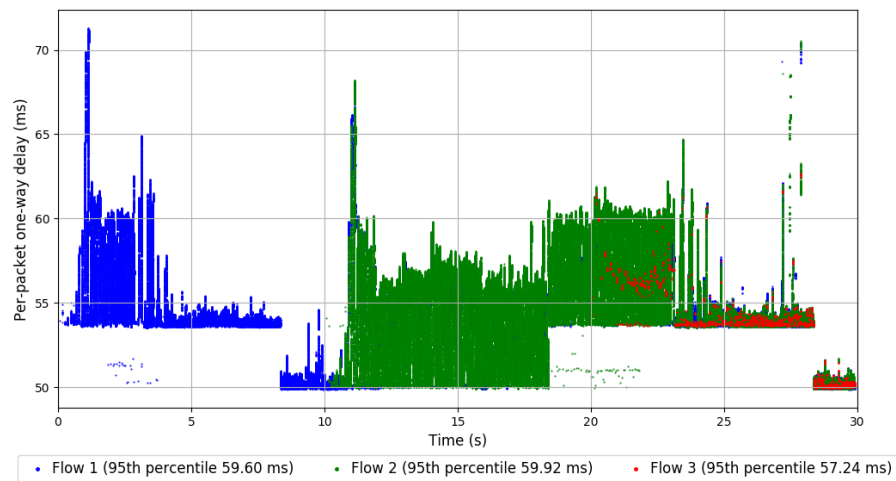
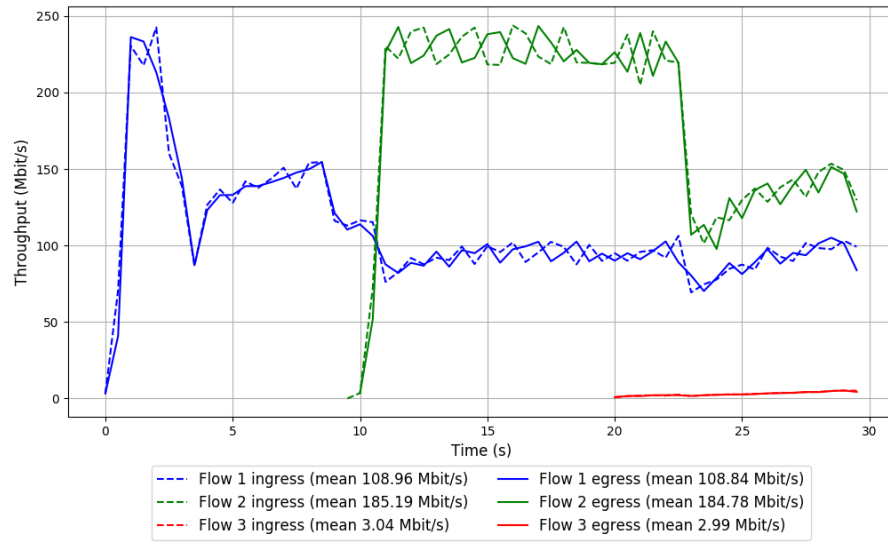
-- Flow 3:

Average throughput: 2.99 Mbit/s

95th percentile per-packet one-way delay: 57.239 ms

Loss rate: 2.43%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-02-14 07:06:02

End at: 2018-02-14 07:06:32

Below is generated by plot.py at 2018-02-14 11:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.66 Mbit/s

95th percentile per-packet one-way delay: 57.259 ms

Loss rate: 0.75%

-- Flow 1:

Average throughput: 106.36 Mbit/s

95th percentile per-packet one-way delay: 55.887 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 92.85 Mbit/s

95th percentile per-packet one-way delay: 57.716 ms

Loss rate: 0.88%

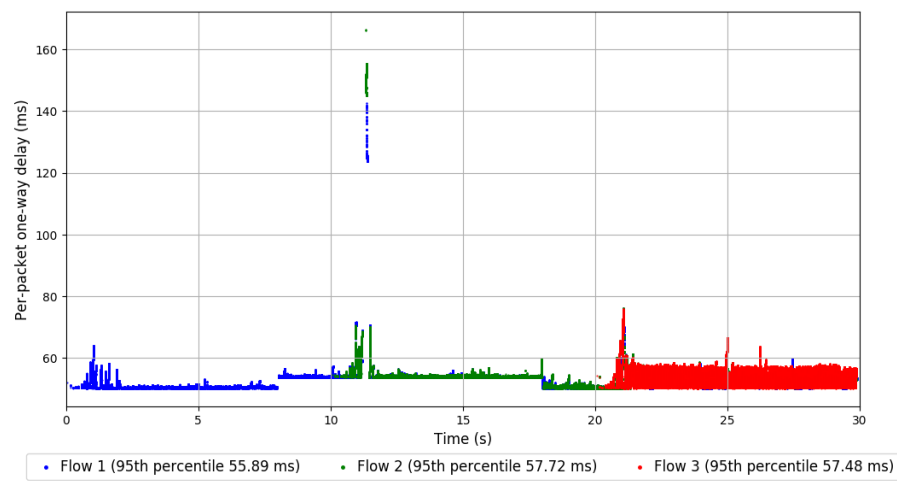
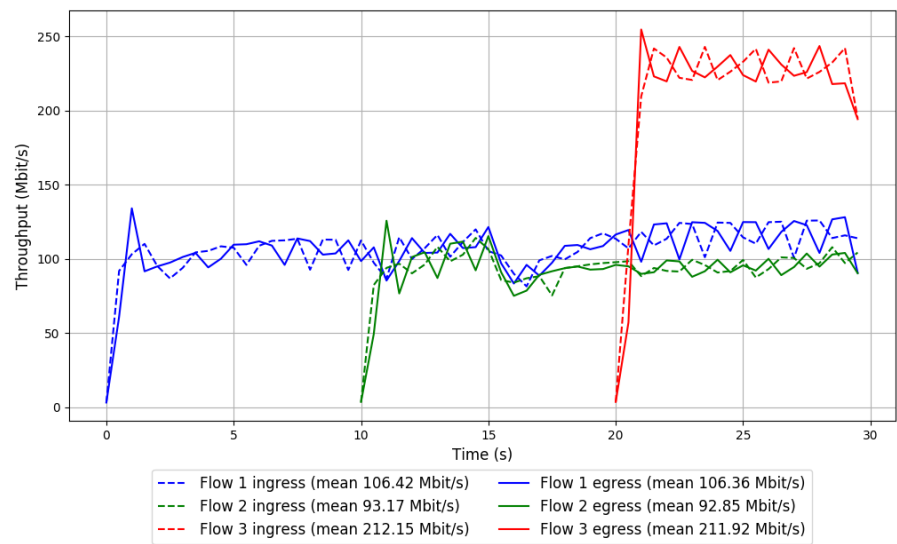
-- Flow 3:

Average throughput: 211.92 Mbit/s

95th percentile per-packet one-way delay: 57.479 ms

Loss rate: 1.15%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-02-14 07:23:34

End at: 2018-02-14 07:24:04

Below is generated by plot.py at 2018-02-14 11:53:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 261.80 Mbit/s

95th percentile per-packet one-way delay: 60.789 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 173.56 Mbit/s

95th percentile per-packet one-way delay: 60.962 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 85.24 Mbit/s

95th percentile per-packet one-way delay: 59.923 ms

Loss rate: 0.73%

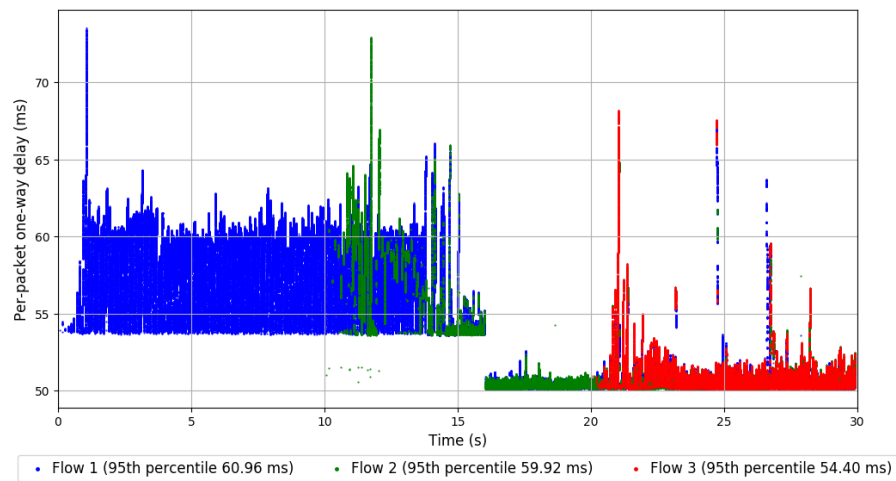
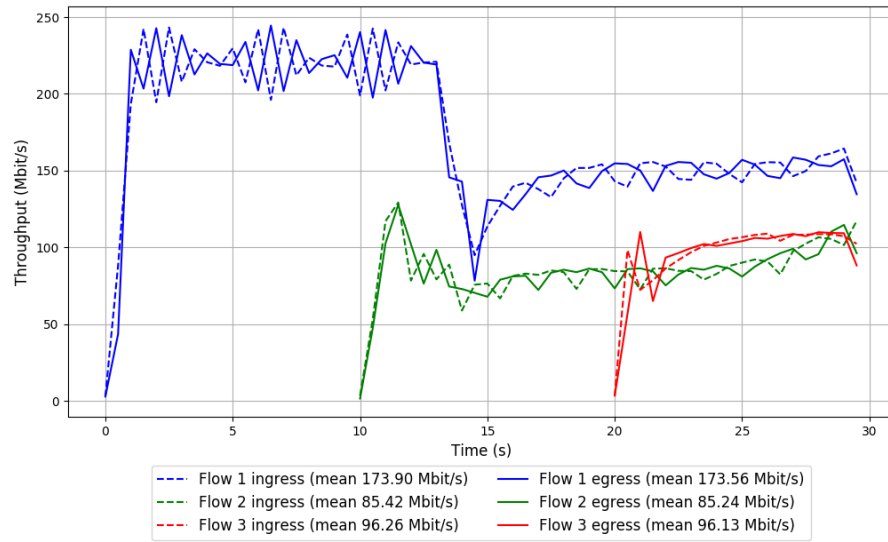
-- Flow 3:

Average throughput: 96.13 Mbit/s

95th percentile per-packet one-way delay: 54.403 ms

Loss rate: 1.16%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-02-14 07:40:37

End at: 2018-02-14 07:41:07

Below is generated by plot.py at 2018-02-14 11:54:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.81 Mbit/s

95th percentile per-packet one-way delay: 70.155 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 167.32 Mbit/s

95th percentile per-packet one-way delay: 66.676 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 131.56 Mbit/s

95th percentile per-packet one-way delay: 66.885 ms

Loss rate: 0.71%

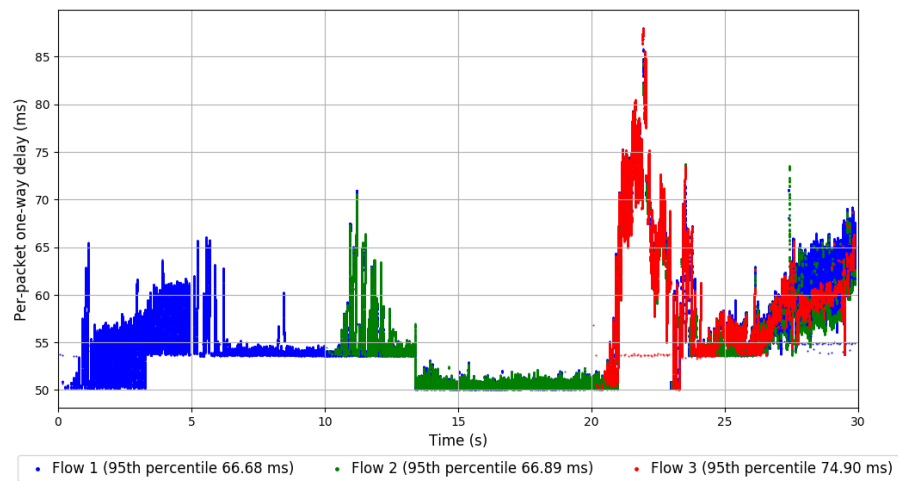
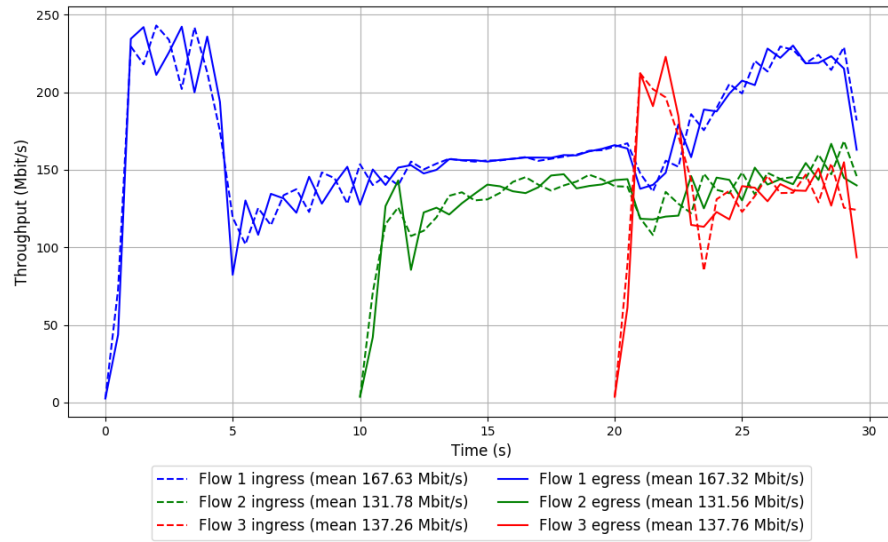
-- Flow 3:

Average throughput: 137.76 Mbit/s

95th percentile per-packet one-way delay: 74.899 ms

Loss rate: 1.15%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-02-14 07:58:07

End at: 2018-02-14 07:58:37

Below is generated by plot.py at 2018-02-14 11:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.89 Mbit/s

95th percentile per-packet one-way delay: 60.496 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 171.02 Mbit/s

95th percentile per-packet one-way delay: 59.818 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 171.18 Mbit/s

95th percentile per-packet one-way delay: 57.643 ms

Loss rate: 0.46%

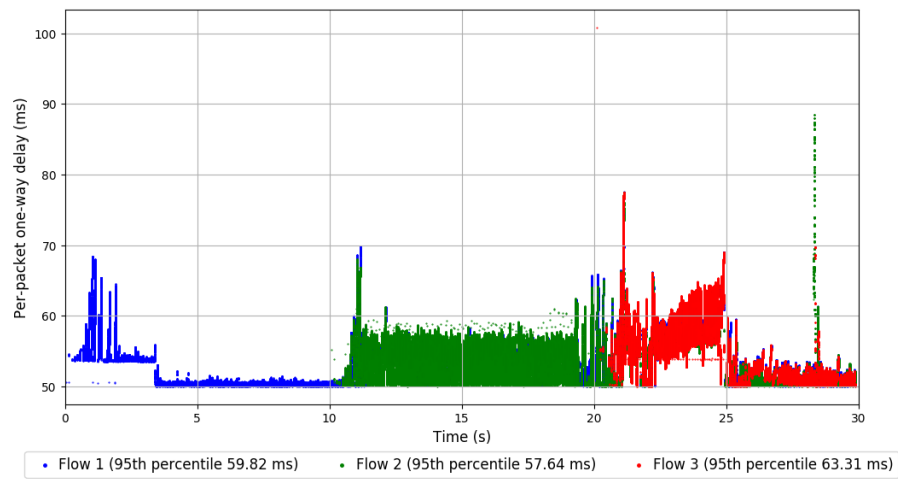
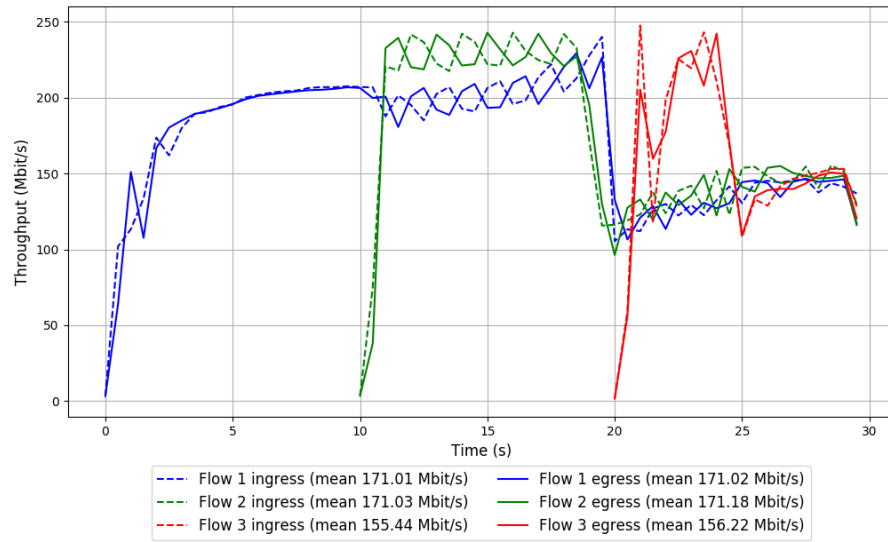
-- Flow 3:

Average throughput: 156.22 Mbit/s

95th percentile per-packet one-way delay: 63.315 ms

Loss rate: 1.01%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-02-14 08:15:30

End at: 2018-02-14 08:16:00

Below is generated by plot.py at 2018-02-14 11:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.11 Mbit/s

95th percentile per-packet one-way delay: 60.624 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 146.29 Mbit/s

95th percentile per-packet one-way delay: 60.025 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 145.71 Mbit/s

95th percentile per-packet one-way delay: 60.805 ms

Loss rate: 0.67%

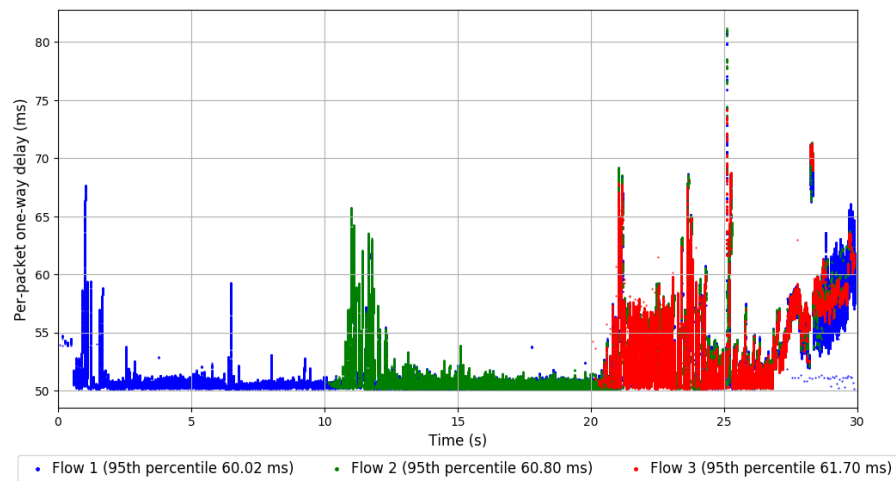
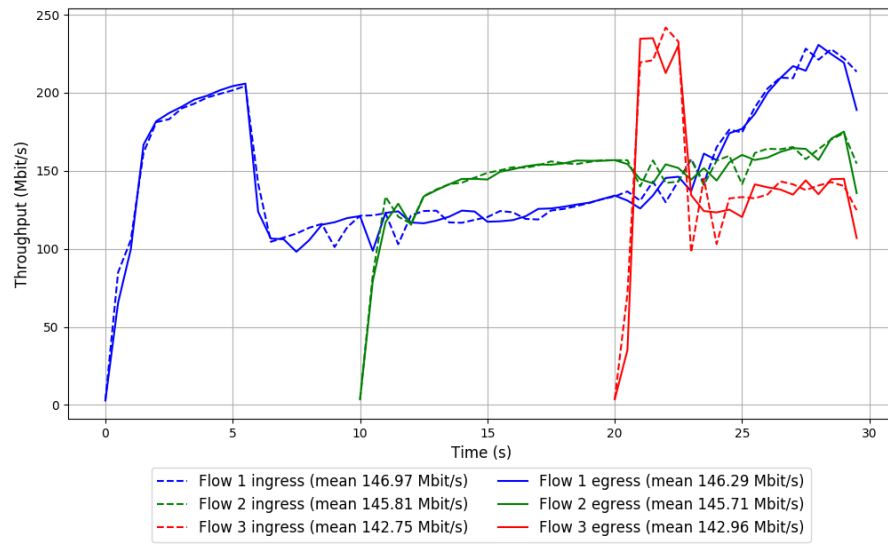
-- Flow 3:

Average throughput: 142.96 Mbit/s

95th percentile per-packet one-way delay: 61.700 ms

Loss rate: 1.10%

Run 10: Report of TCP Cubic — Data Link

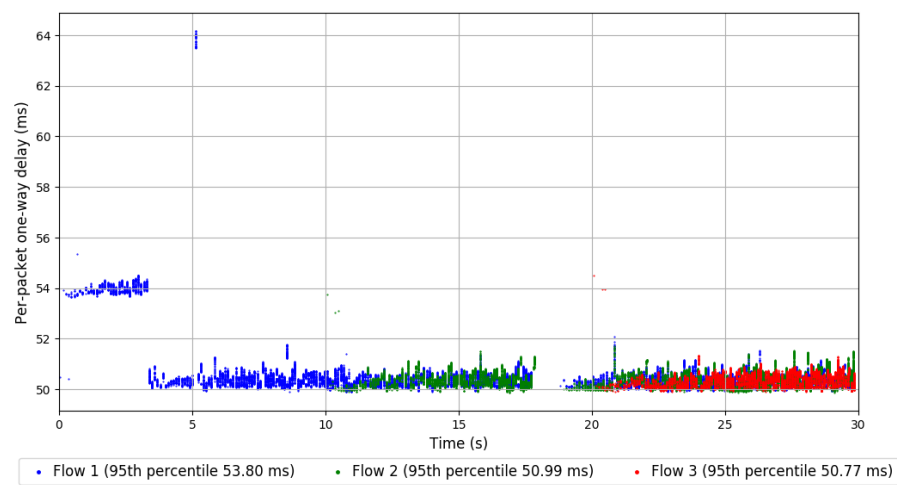
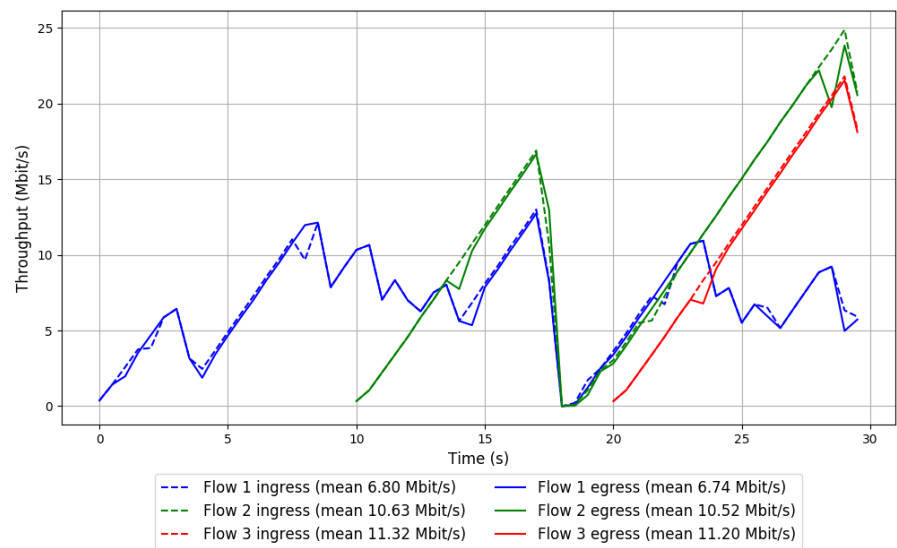


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-14 05:49:27
End at: 2018-02-14 05:49:57

# Below is generated by plot.py at 2018-02-14 11:55:24
# Datalink statistics
-- Total of 3 flows:
Average throughput: 17.38 Mbit/s
95th percentile per-packet one-way delay: 50.986 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 6.74 Mbit/s
95th percentile per-packet one-way delay: 53.803 ms
Loss rate: 1.22%
-- Flow 2:
Average throughput: 10.52 Mbit/s
95th percentile per-packet one-way delay: 50.987 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 11.20 Mbit/s
95th percentile per-packet one-way delay: 50.765 ms
Loss rate: 2.08%
```


Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-02-14 06:06:49

End at: 2018-02-14 06:07:19

Below is generated by plot.py at 2018-02-14 11:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 22.33 Mbit/s

95th percentile per-packet one-way delay: 54.545 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 11.11 Mbit/s

95th percentile per-packet one-way delay: 54.530 ms

Loss rate: 1.33%

-- Flow 2:

Average throughput: 11.90 Mbit/s

95th percentile per-packet one-way delay: 54.540 ms

Loss rate: 1.20%

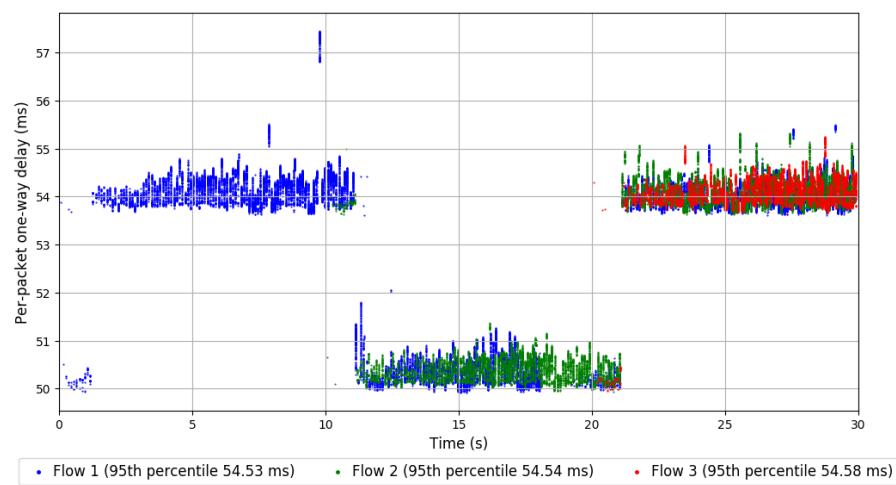
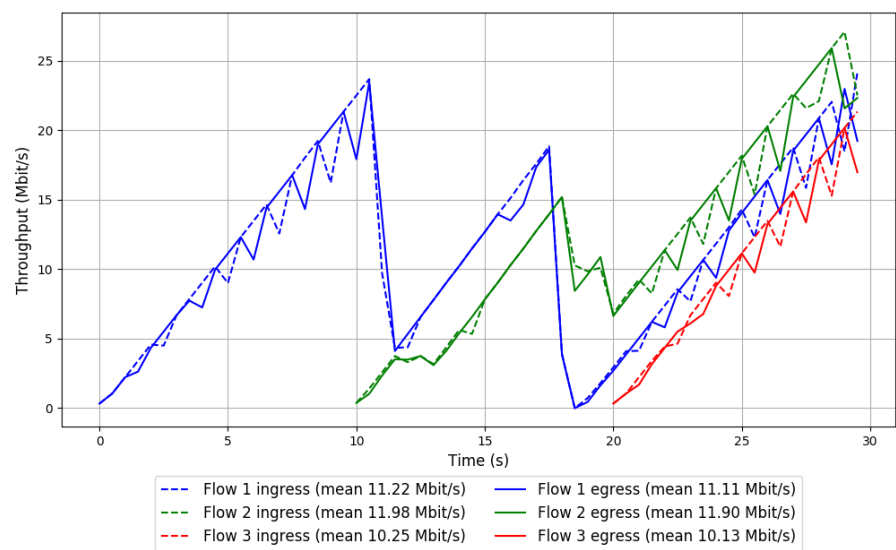
-- Flow 3:

Average throughput: 10.13 Mbit/s

95th percentile per-packet one-way delay: 54.582 ms

Loss rate: 2.14%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-02-14 06:24:19

End at: 2018-02-14 06:24:49

Below is generated by plot.py at 2018-02-14 11:55:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 20.17 Mbit/s

95th percentile per-packet one-way delay: 54.202 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 9.86 Mbit/s

95th percentile per-packet one-way delay: 54.349 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 12.03 Mbit/s

95th percentile per-packet one-way delay: 50.950 ms

Loss rate: 1.01%

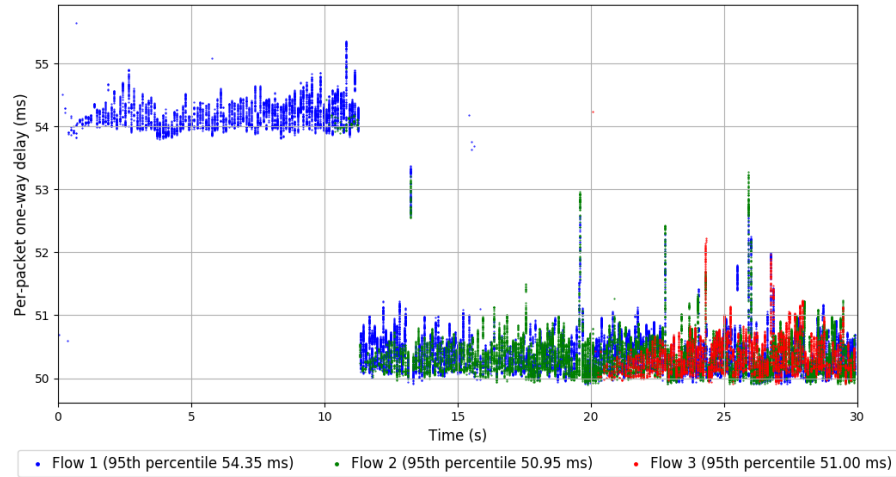
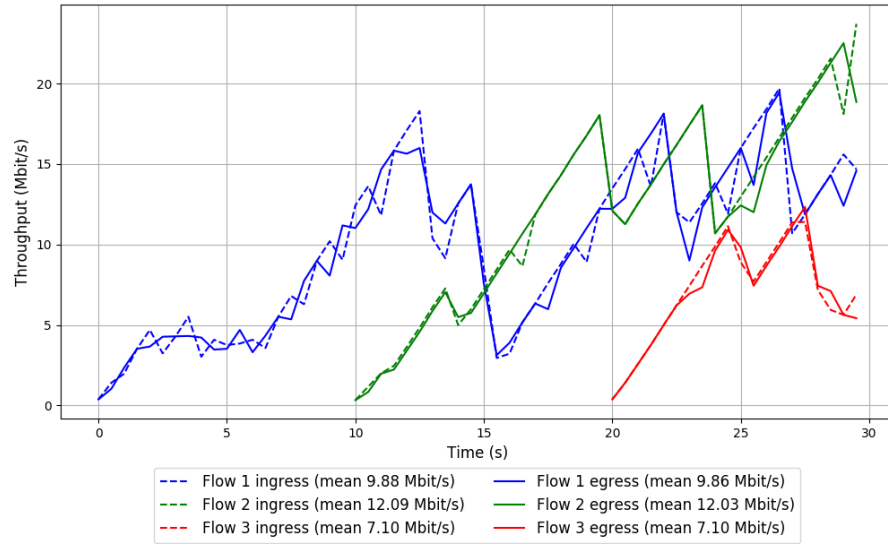
-- Flow 3:

Average throughput: 7.10 Mbit/s

95th percentile per-packet one-way delay: 51.001 ms

Loss rate: 1.05%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-02-14 06:41:46

End at: 2018-02-14 06:42:16

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.68 Mbit/s

95th percentile per-packet one-way delay: 54.857 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 12.47 Mbit/s

95th percentile per-packet one-way delay: 54.949 ms

Loss rate: 1.18%

-- Flow 2:

Average throughput: 12.87 Mbit/s

95th percentile per-packet one-way delay: 54.803 ms

Loss rate: 0.17%

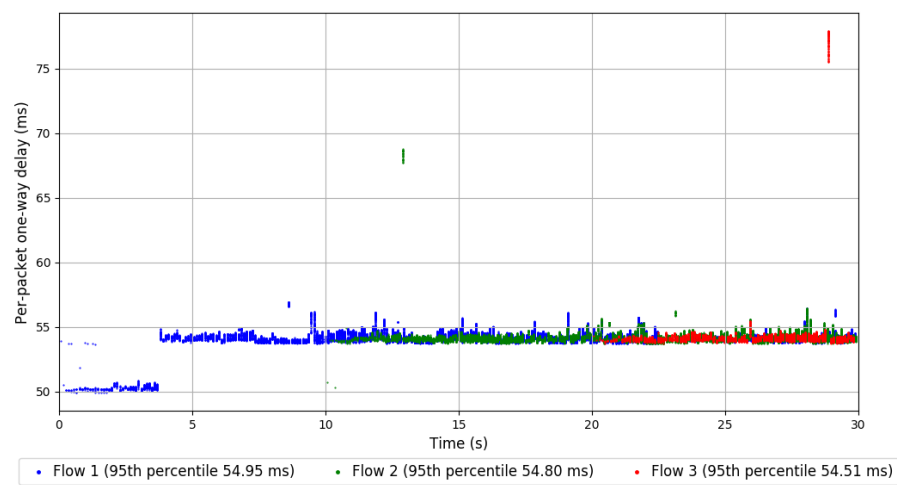
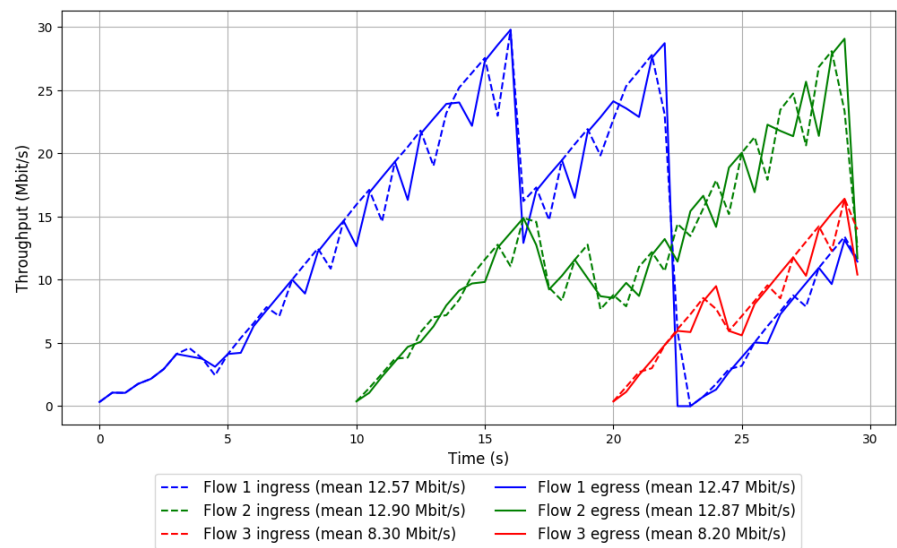
-- Flow 3:

Average throughput: 8.20 Mbit/s

95th percentile per-packet one-way delay: 54.505 ms

Loss rate: 2.18%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-02-14 06:59:09

End at: 2018-02-14 06:59:39

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.82 Mbit/s

95th percentile per-packet one-way delay: 51.237 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 19.86 Mbit/s

95th percentile per-packet one-way delay: 51.283 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 12.95 Mbit/s

95th percentile per-packet one-way delay: 51.115 ms

Loss rate: 0.74%

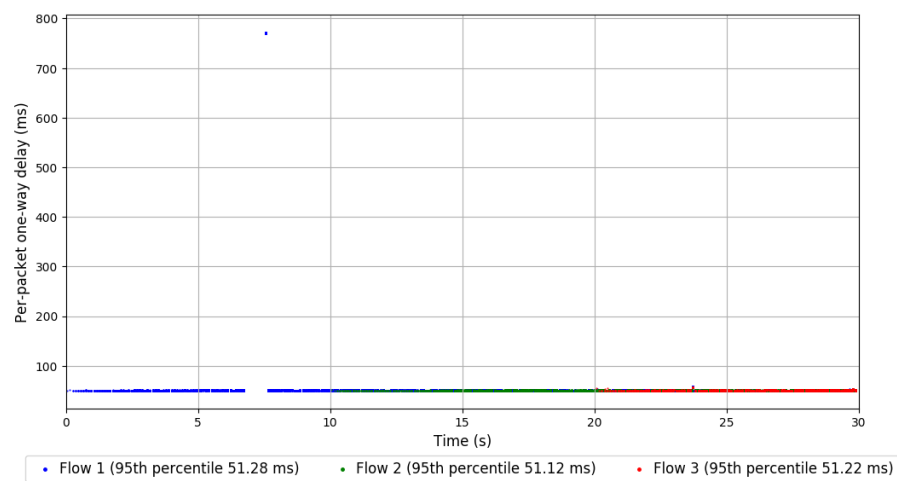
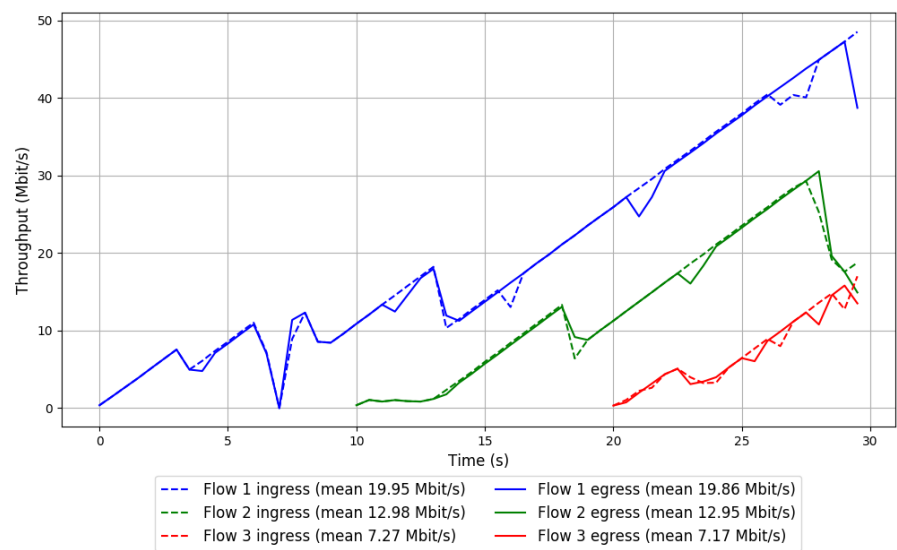
-- Flow 3:

Average throughput: 7.17 Mbit/s

95th percentile per-packet one-way delay: 51.217 ms

Loss rate: 2.42%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-02-14 07:16:47

End at: 2018-02-14 07:17:17

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.42 Mbit/s

95th percentile per-packet one-way delay: 55.026 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 30.45 Mbit/s

95th percentile per-packet one-way delay: 54.968 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 20.55 Mbit/s

95th percentile per-packet one-way delay: 55.033 ms

Loss rate: 1.08%

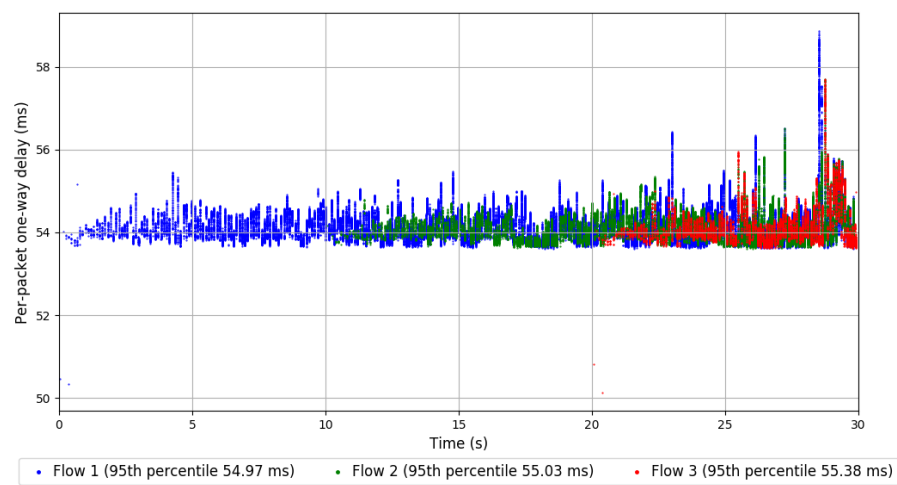
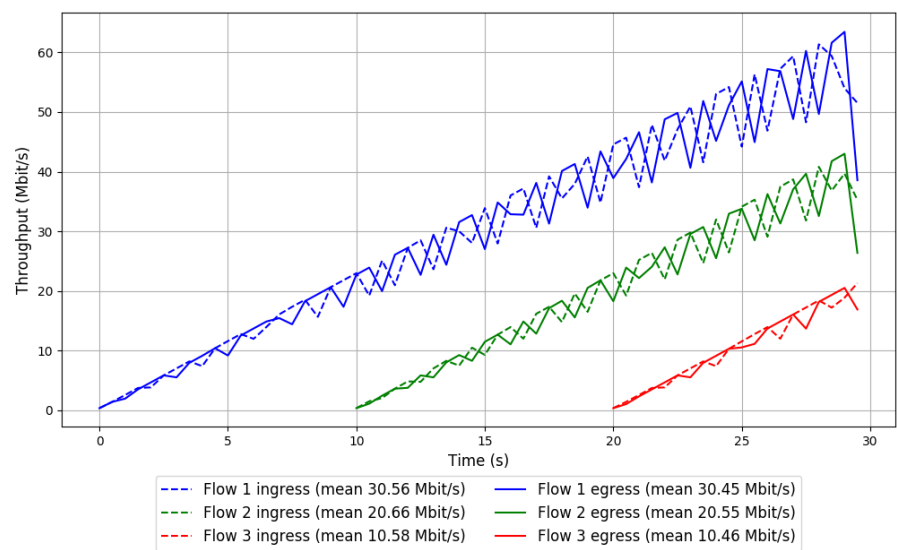
-- Flow 3:

Average throughput: 10.46 Mbit/s

95th percentile per-packet one-way delay: 55.384 ms

Loss rate: 2.10%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-02-14 07:33:49

End at: 2018-02-14 07:34:19

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.37 Mbit/s

95th percentile per-packet one-way delay: 54.413 ms

Loss rate: 1.89%

-- Flow 1:

Average throughput: 7.40 Mbit/s

95th percentile per-packet one-way delay: 54.500 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 6.62 Mbit/s

95th percentile per-packet one-way delay: 54.268 ms

Loss rate: 2.50%

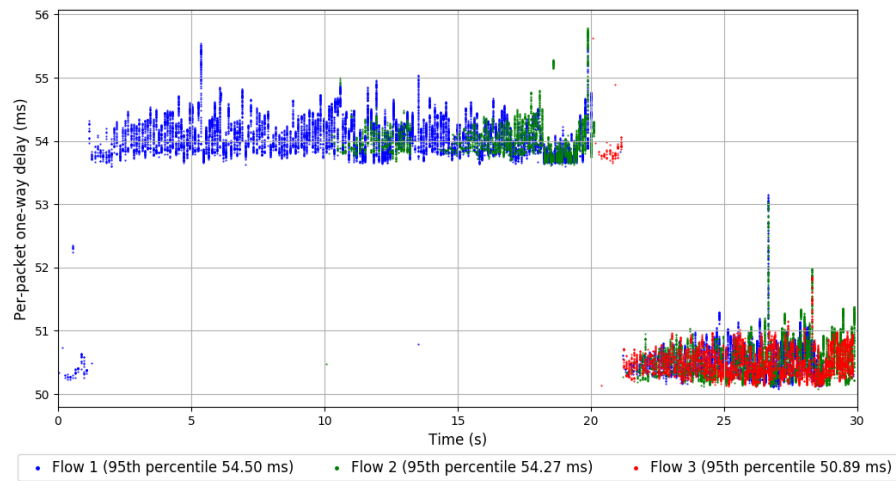
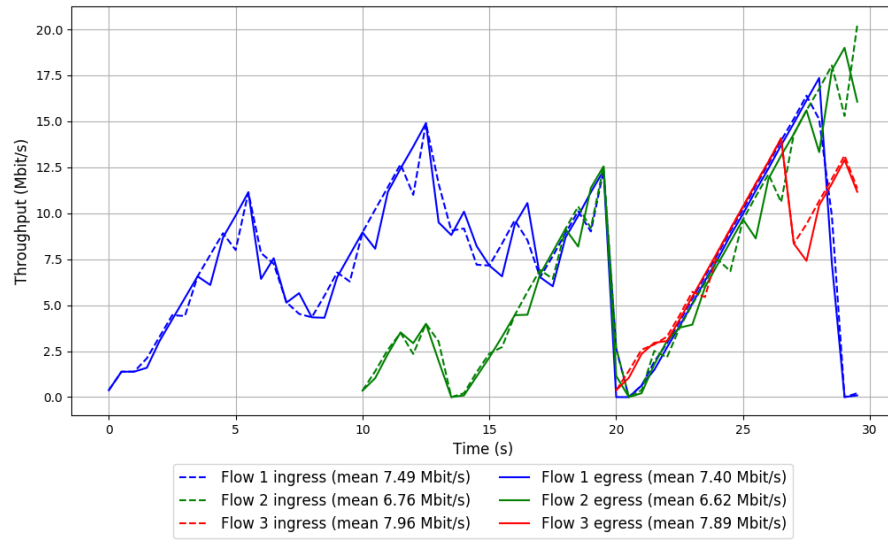
-- Flow 3:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 50.891 ms

Loss rate: 1.85%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-02-14 07:51:14

End at: 2018-02-14 07:51:44

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.82 Mbit/s

95th percentile per-packet one-way delay: 54.656 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 11.89 Mbit/s

95th percentile per-packet one-way delay: 54.625 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 15.96 Mbit/s

95th percentile per-packet one-way delay: 54.868 ms

Loss rate: 0.64%

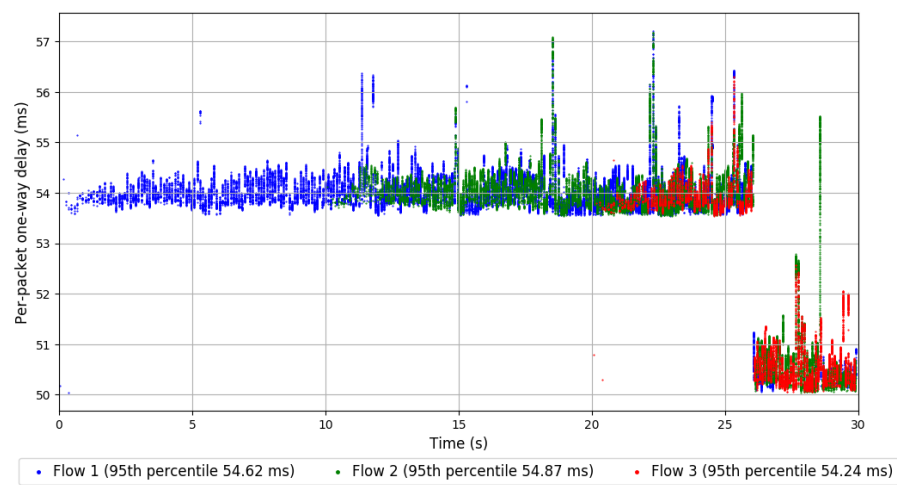
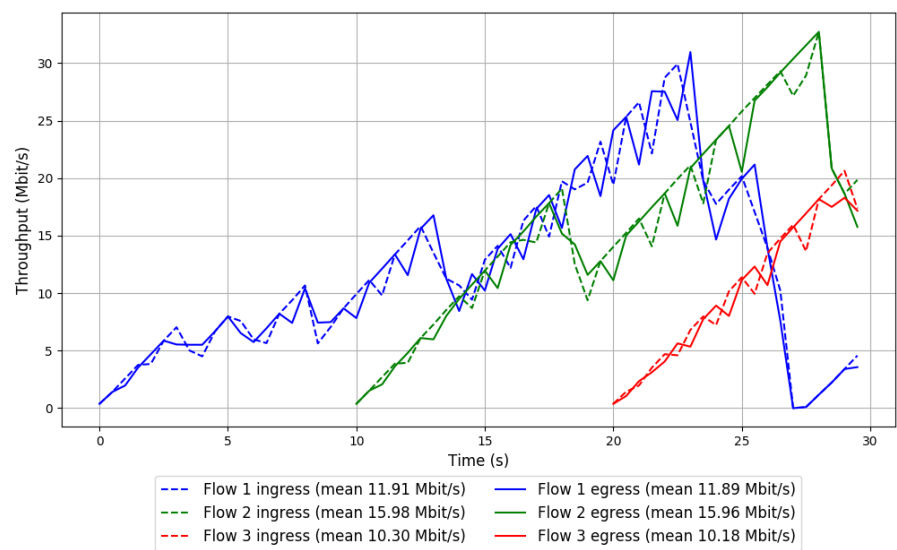
-- Flow 3:

Average throughput: 10.18 Mbit/s

95th percentile per-packet one-way delay: 54.240 ms

Loss rate: 2.17%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-02-14 08:08:39

End at: 2018-02-14 08:09:09

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 23.12 Mbit/s

95th percentile per-packet one-way delay: 54.014 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 9.11 Mbit/s

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

Loss rate: 0.76%

-- Flow 2:

Average throughput: 19.20 Mbit/s

95th percentile per-packet one-way delay: 50.942 ms

Loss rate: 0.76%

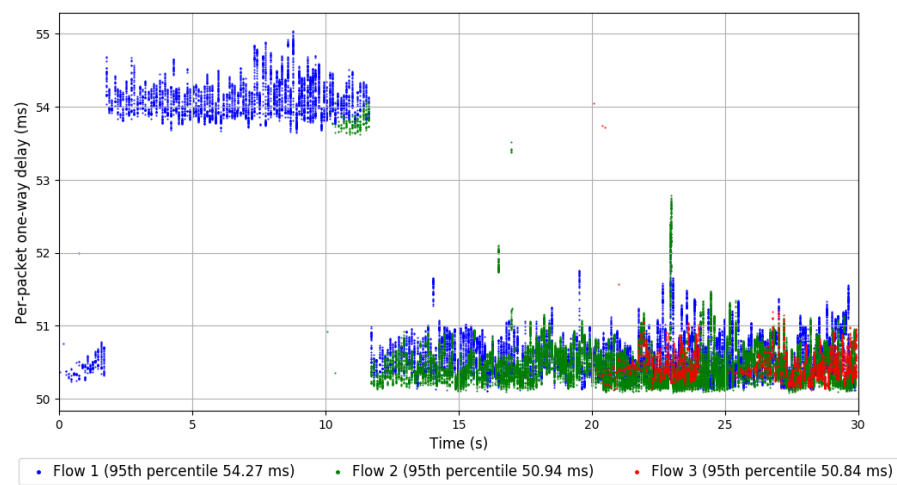
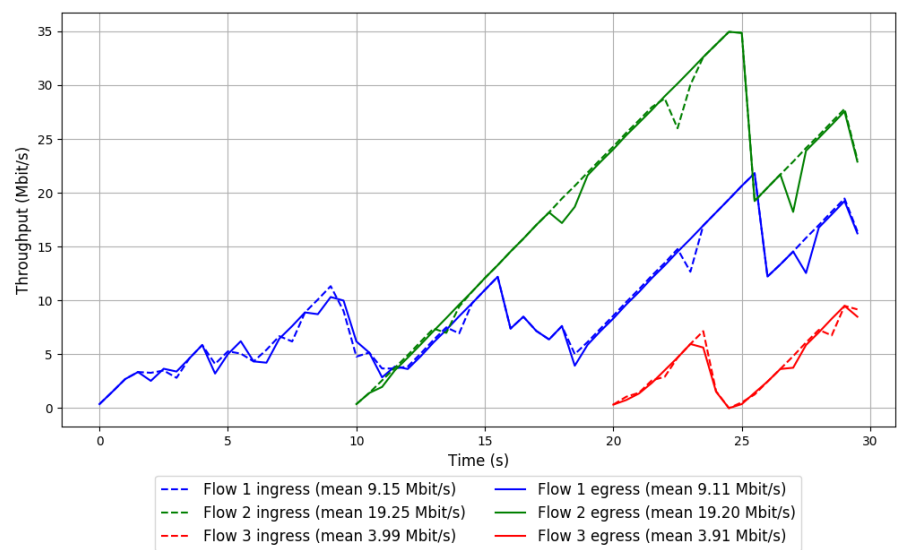
-- Flow 3:

Average throughput: 3.91 Mbit/s

95th percentile per-packet one-way delay: 50.842 ms

Loss rate: 2.84%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-02-14 08:25:49

End at: 2018-02-14 08:26:19

Below is generated by plot.py at 2018-02-14 11:55:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.15 Mbit/s

95th percentile per-packet one-way delay: 51.264 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 14.93 Mbit/s

95th percentile per-packet one-way delay: 51.274 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 12.77 Mbit/s

95th percentile per-packet one-way delay: 51.315 ms

Loss rate: 0.98%

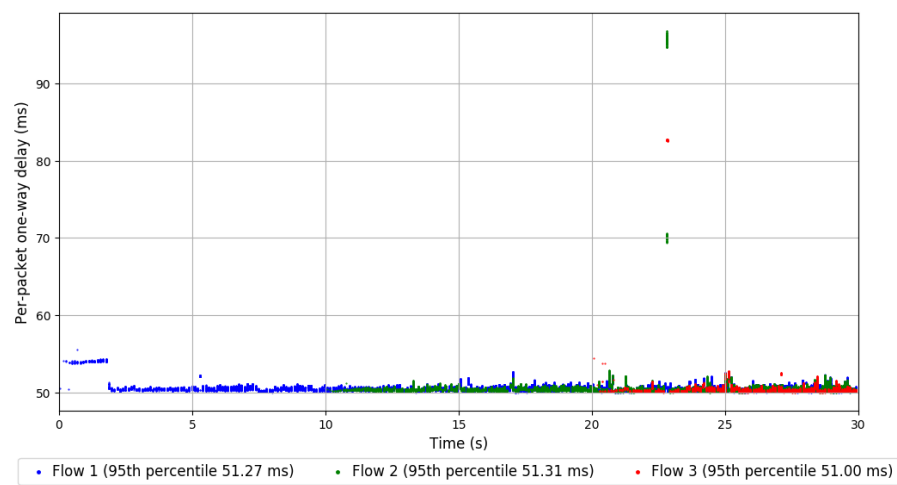
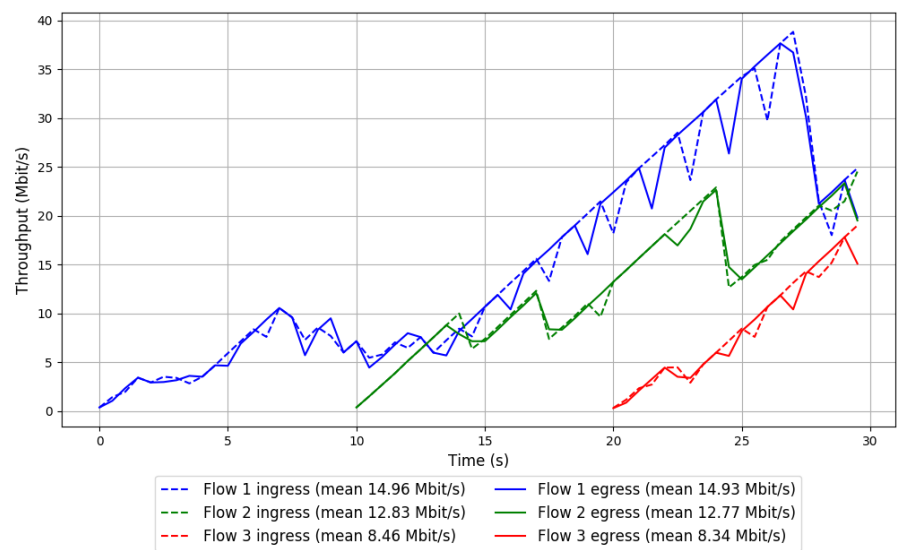
-- Flow 3:

Average throughput: 8.34 Mbit/s

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

Loss rate: 2.60%

Run 10: Report of LEDBAT — Data Link

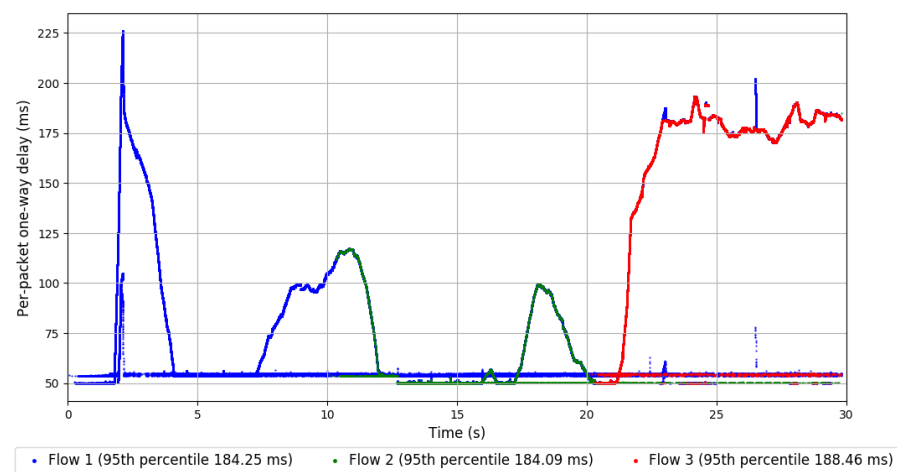
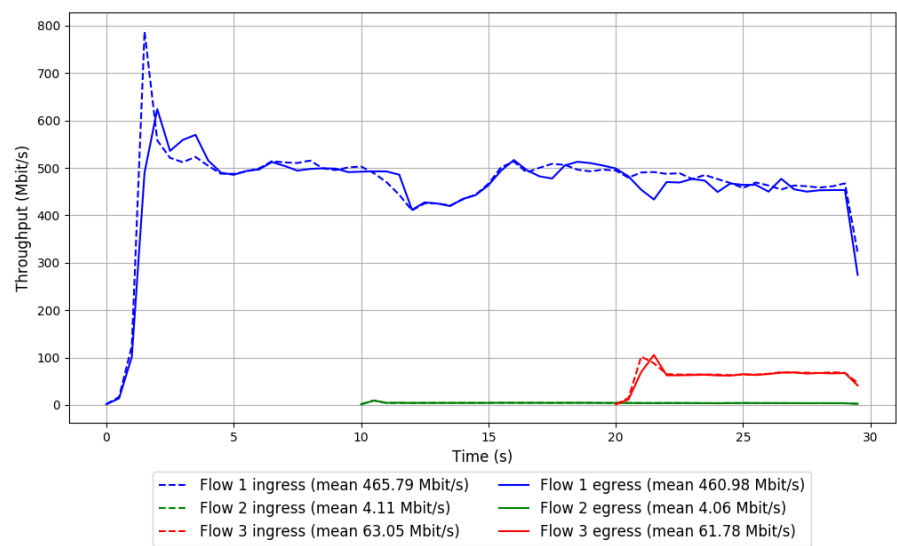


```
Run 1: Statistics of PCC

Start at: 2018-02-14 05:50:08
End at: 2018-02-14 05:50:38

# Below is generated by plot.py at 2018-02-14 12:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 483.77 Mbit/s
95th percentile per-packet one-way delay: 184.416 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 460.98 Mbit/s
95th percentile per-packet one-way delay: 184.251 ms
Loss rate: 1.38%
-- Flow 2:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 184.086 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 61.78 Mbit/s
95th percentile per-packet one-way delay: 188.459 ms
Loss rate: 3.07%
```

Run 1: Report of PCC — Data Link

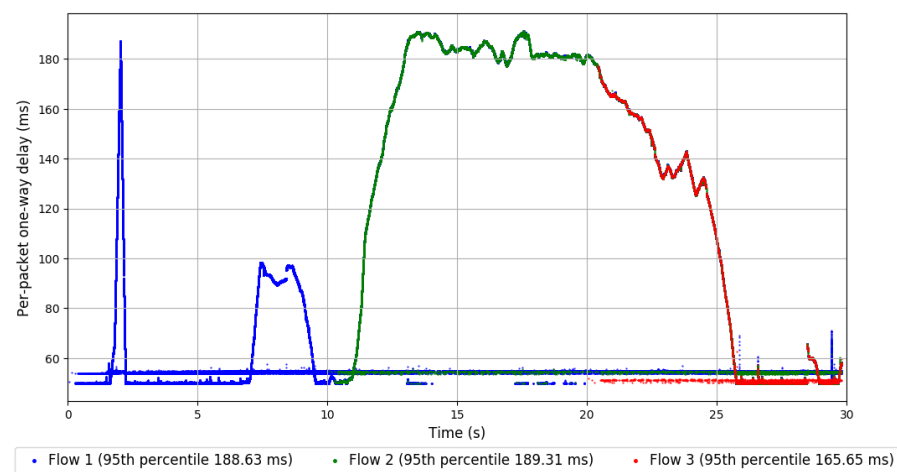
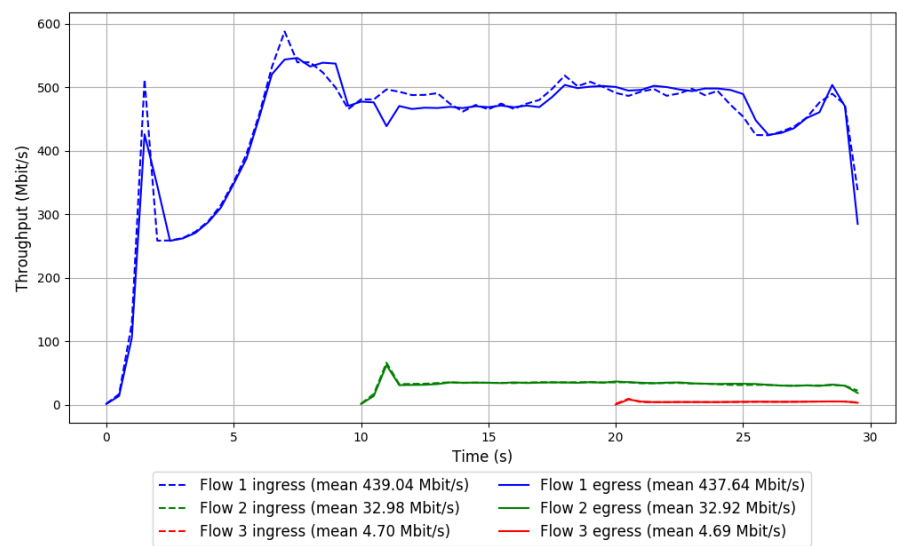


```
Run 2: Statistics of PCC

Start at: 2018-02-14 06:07:30
End at: 2018-02-14 06:08:00

# Below is generated by plot.py at 2018-02-14 12:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 460.98 Mbit/s
95th percentile per-packet one-way delay: 188.679 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 437.64 Mbit/s
95th percentile per-packet one-way delay: 188.635 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 32.92 Mbit/s
95th percentile per-packet one-way delay: 189.308 ms
Loss rate: 0.74%
-- Flow 3:
Average throughput: 4.69 Mbit/s
95th percentile per-packet one-way delay: 165.651 ms
Loss rate: 1.22%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-02-14 06:25:00

End at: 2018-02-14 06:25:30

Below is generated by plot.py at 2018-02-14 12:00:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 438.01 Mbit/s

95th percentile per-packet one-way delay: 162.426 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 433.89 Mbit/s

95th percentile per-packet one-way delay: 162.218 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 4.02 Mbit/s

95th percentile per-packet one-way delay: 165.177 ms

Loss rate: 0.55%

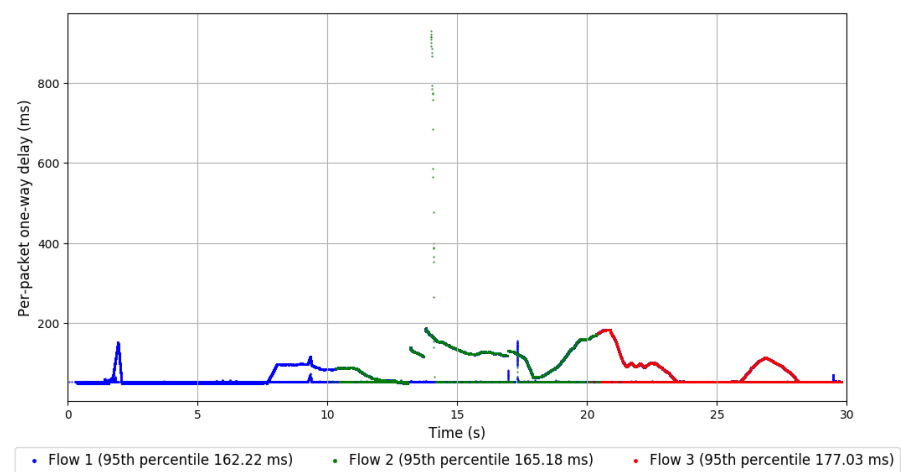
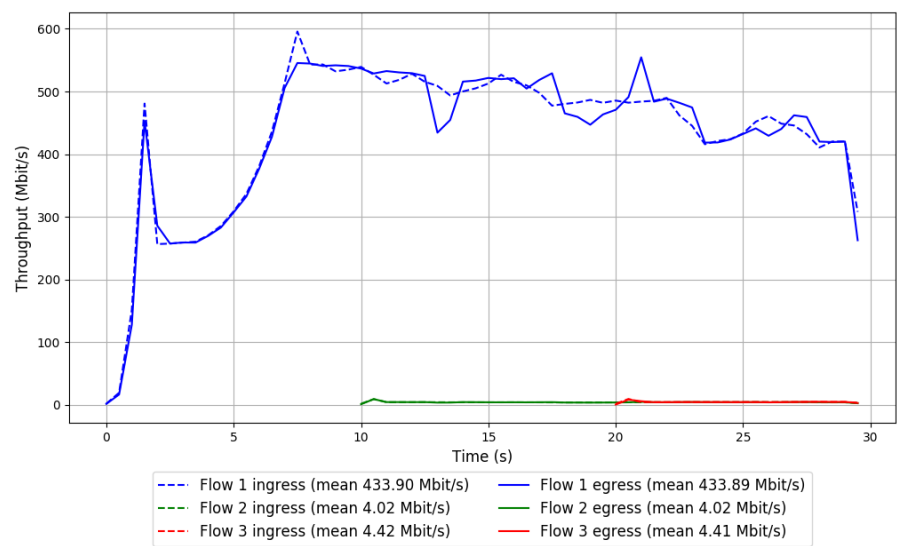
-- Flow 3:

Average throughput: 4.41 Mbit/s

95th percentile per-packet one-way delay: 177.030 ms

Loss rate: 1.11%

Run 3: Report of PCC — Data Link

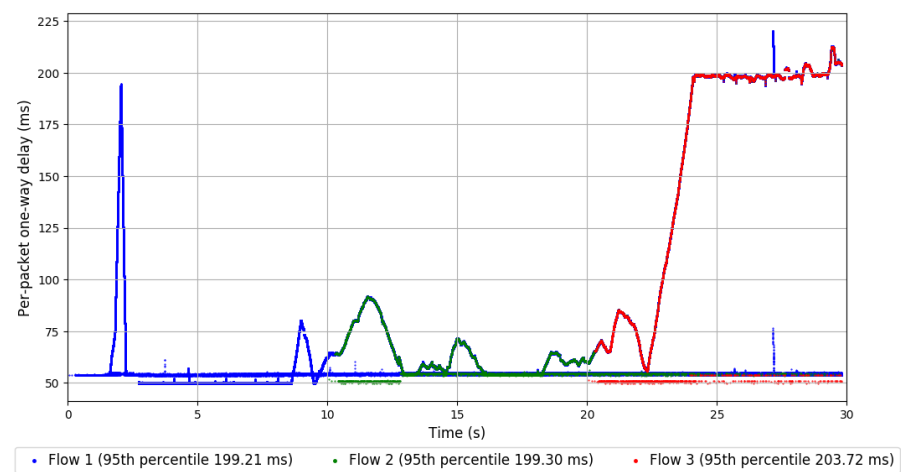
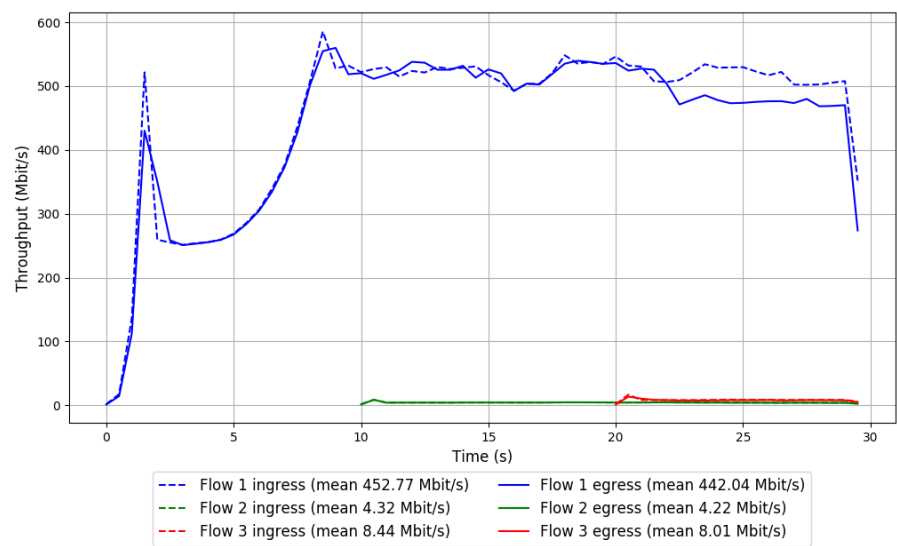


```
Run 4: Statistics of PCC

Start at: 2018-02-14 06:42:27
End at: 2018-02-14 06:42:57

# Below is generated by plot.py at 2018-02-14 12:00:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 447.45 Mbit/s
95th percentile per-packet one-way delay: 199.219 ms
Loss rate: 2.74%
-- Flow 1:
Average throughput: 442.04 Mbit/s
95th percentile per-packet one-way delay: 199.210 ms
Loss rate: 2.71%
-- Flow 2:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 199.299 ms
Loss rate: 3.03%
-- Flow 3:
Average throughput: 8.01 Mbit/s
95th percentile per-packet one-way delay: 203.715 ms
Loss rate: 6.09%
```

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-02-14 06:59:51

End at: 2018-02-14 07:00:21

Below is generated by plot.py at 2018-02-14 12:02:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 490.32 Mbit/s

95th percentile per-packet one-way delay: 173.931 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 435.14 Mbit/s

95th percentile per-packet one-way delay: 174.212 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 67.14 Mbit/s

95th percentile per-packet one-way delay: 172.022 ms

Loss rate: 0.53%

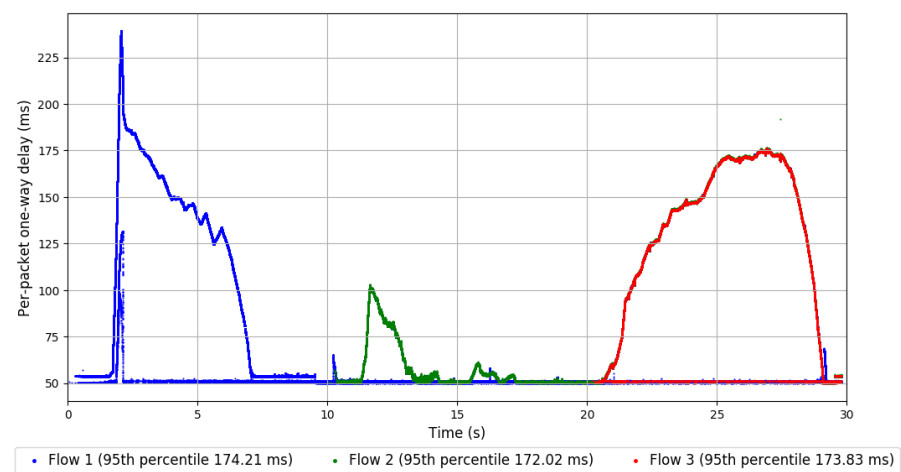
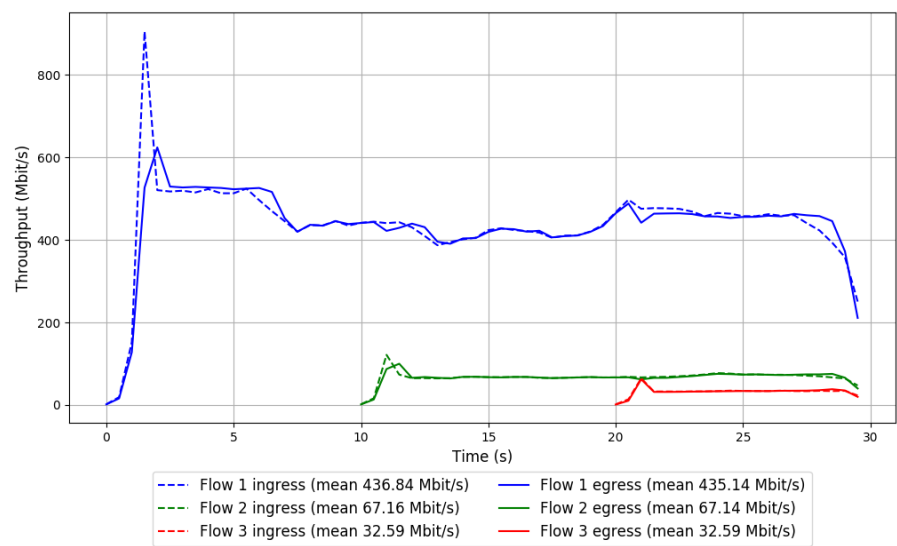
-- Flow 3:

Average throughput: 32.59 Mbit/s

95th percentile per-packet one-way delay: 173.831 ms

Loss rate: 1.04%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-02-14 07:17:30

End at: 2018-02-14 07:18:00

Below is generated by plot.py at 2018-02-14 12:02:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 482.32 Mbit/s

95th percentile per-packet one-way delay: 194.942 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 436.08 Mbit/s

95th percentile per-packet one-way delay: 194.578 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 40.11 Mbit/s

95th percentile per-packet one-way delay: 195.415 ms

Loss rate: 2.21%

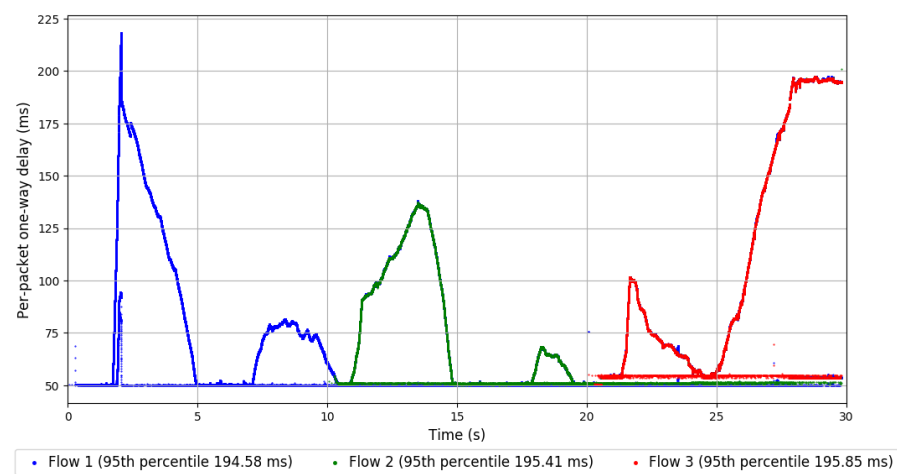
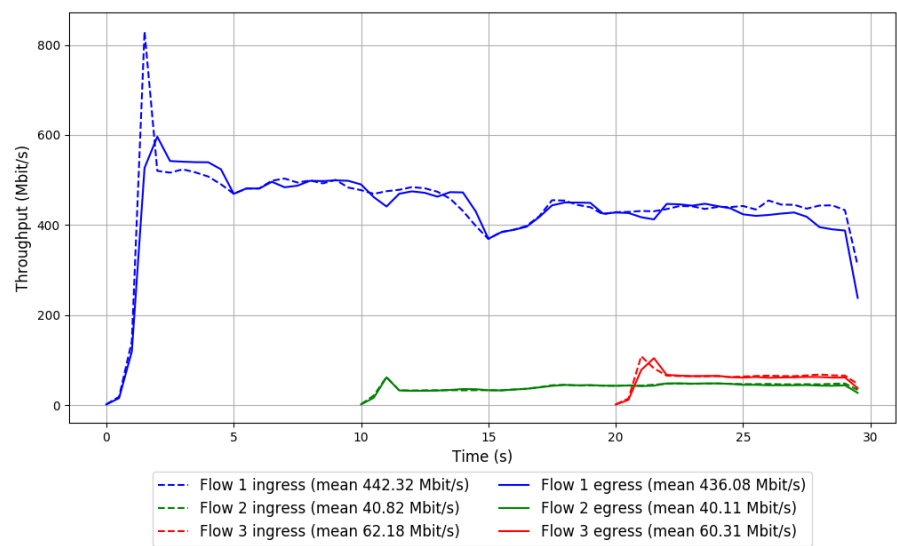
-- Flow 3:

Average throughput: 60.31 Mbit/s

95th percentile per-packet one-way delay: 195.849 ms

Loss rate: 4.07%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-02-14 07:34:30

End at: 2018-02-14 07:35:00

Below is generated by plot.py at 2018-02-14 12:03:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 485.36 Mbit/s

95th percentile per-packet one-way delay: 148.667 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 453.89 Mbit/s

95th percentile per-packet one-way delay: 148.892 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 31.17 Mbit/s

95th percentile per-packet one-way delay: 140.327 ms

Loss rate: 0.54%

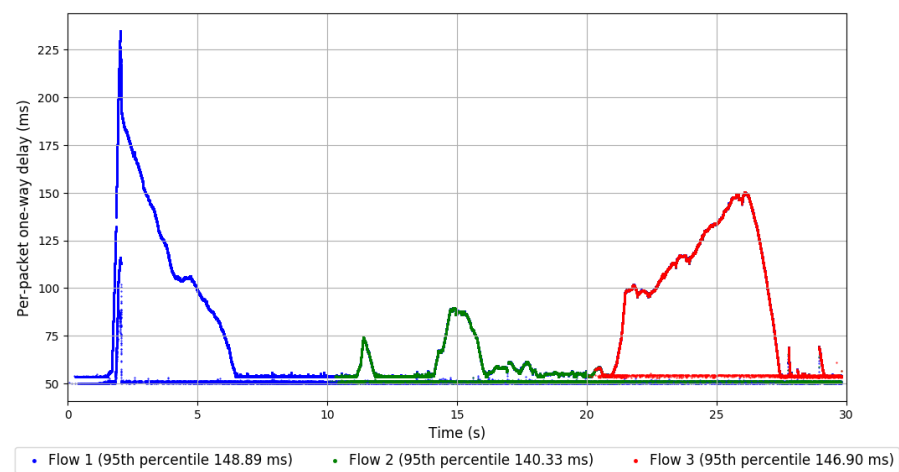
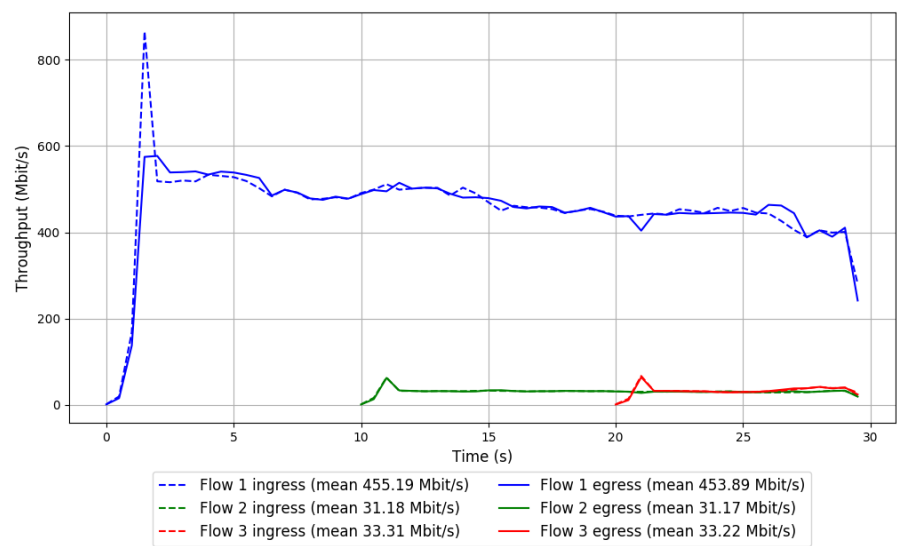
-- Flow 3:

Average throughput: 33.22 Mbit/s

95th percentile per-packet one-way delay: 146.898 ms

Loss rate: 1.30%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-02-14 07:51:55

End at: 2018-02-14 07:52:25

Below is generated by plot.py at 2018-02-14 12:04:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 498.23 Mbit/s

95th percentile per-packet one-way delay: 138.191 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 476.01 Mbit/s

95th percentile per-packet one-way delay: 142.132 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 4.22 Mbit/s

95th percentile per-packet one-way delay: 121.730 ms

Loss rate: 1.00%

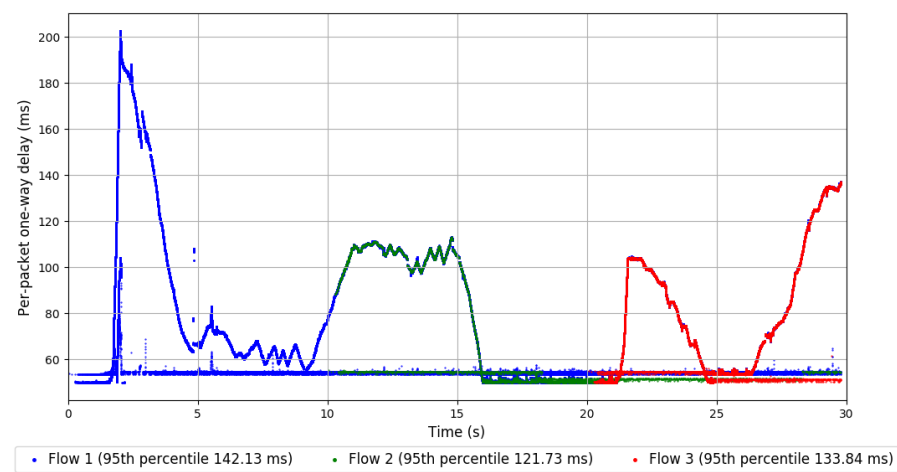
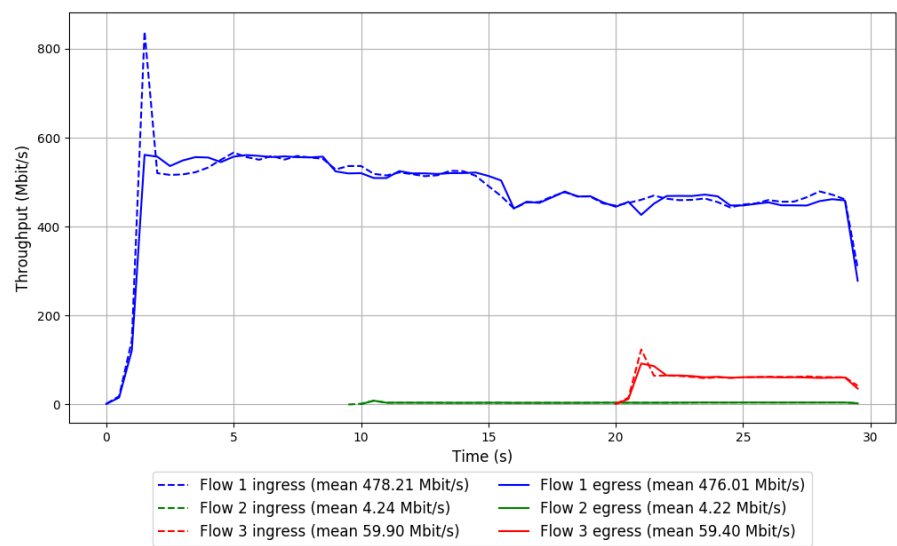
-- Flow 3:

Average throughput: 59.40 Mbit/s

95th percentile per-packet one-way delay: 133.839 ms

Loss rate: 1.91%

Run 8: Report of PCC — Data Link

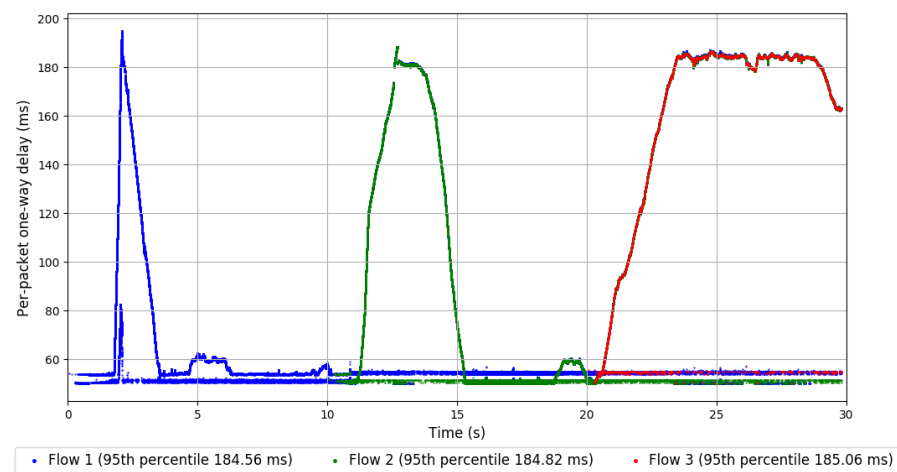
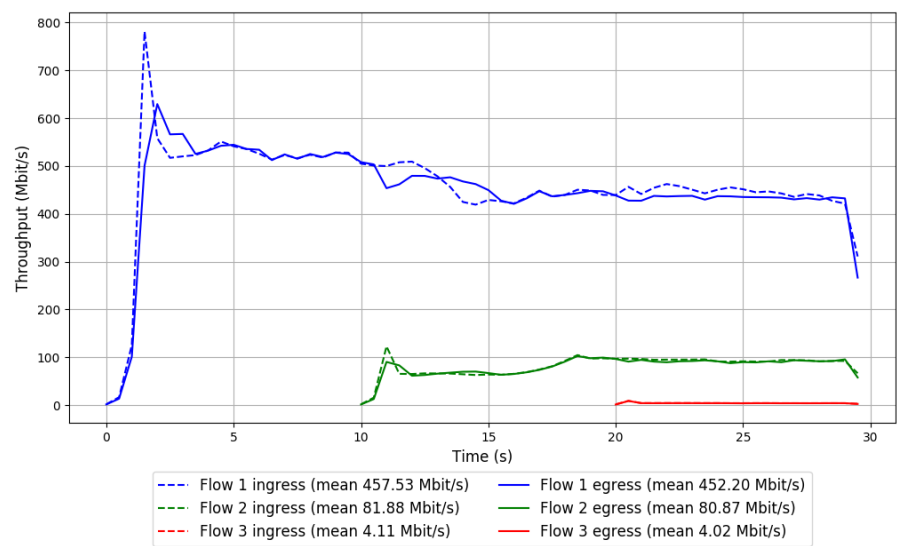


```
Run 9: Statistics of PCC

Start at: 2018-02-14 08:09:19
End at: 2018-02-14 08:09:49

# Below is generated by plot.py at 2018-02-14 12:08:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 507.19 Mbit/s
95th percentile per-packet one-way delay: 184.605 ms
Loss rate: 1.54%
-- Flow 1:
Average throughput: 452.20 Mbit/s
95th percentile per-packet one-way delay: 184.565 ms
Loss rate: 1.51%
-- Flow 2:
Average throughput: 80.87 Mbit/s
95th percentile per-packet one-way delay: 184.825 ms
Loss rate: 1.74%
-- Flow 3:
Average throughput: 4.02 Mbit/s
95th percentile per-packet one-way delay: 185.062 ms
Loss rate: 3.36%
```

Run 9: Report of PCC — Data Link

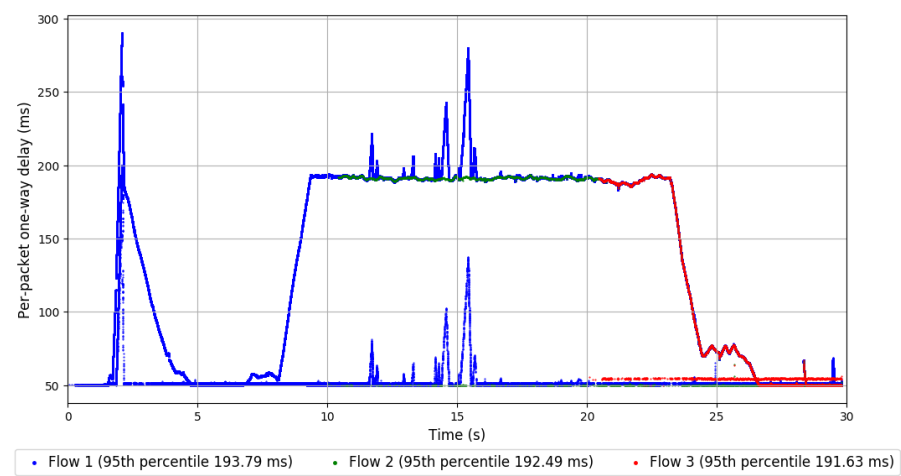
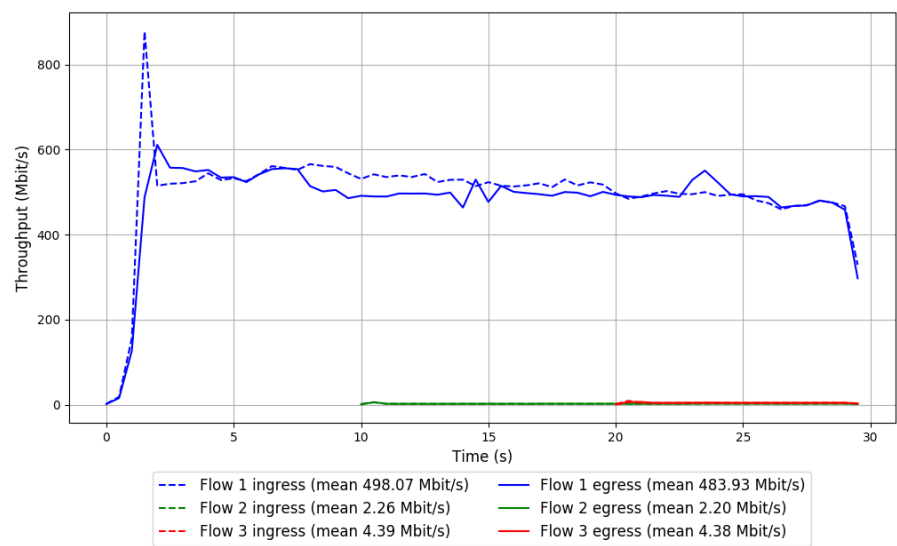


```
Run 10: Statistics of PCC

Start at: 2018-02-14 08:26:29
End at: 2018-02-14 08:26:59

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 486.82 Mbit/s
95th percentile per-packet one-way delay: 193.731 ms
Loss rate: 3.23%
-- Flow 1:
Average throughput: 483.93 Mbit/s
95th percentile per-packet one-way delay: 193.786 ms
Loss rate: 3.24%
-- Flow 2:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 192.487 ms
Loss rate: 3.56%
-- Flow 3:
Average throughput: 4.38 Mbit/s
95th percentile per-packet one-way delay: 191.632 ms
Loss rate: 1.17%
```

Run 10: Report of PCC — Data Link

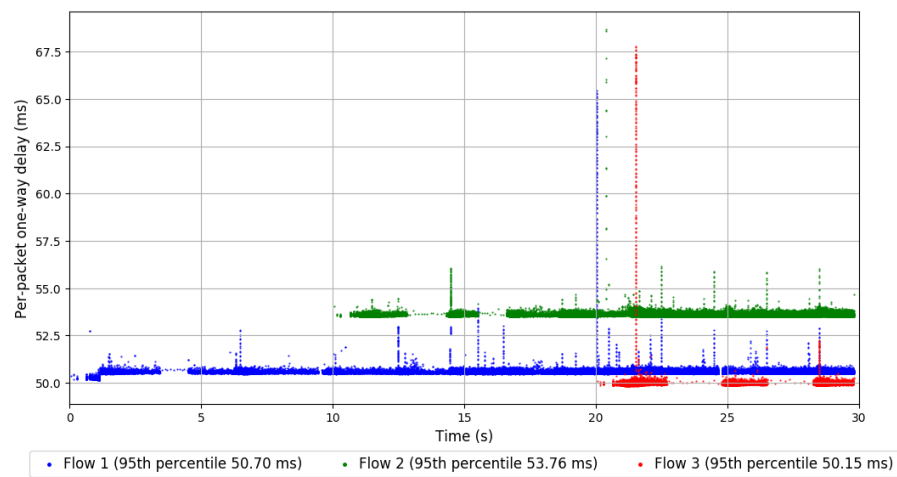
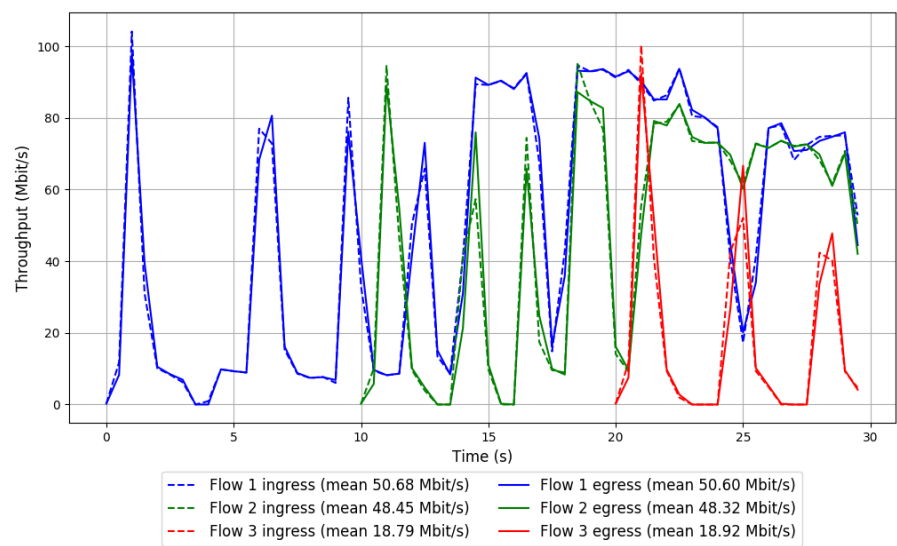


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-14 05:42:39
End at: 2018-02-14 05:43:09

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.85 Mbit/s
95th percentile per-packet one-way delay: 53.689 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 50.60 Mbit/s
95th percentile per-packet one-way delay: 50.702 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 48.32 Mbit/s
95th percentile per-packet one-way delay: 53.758 ms
Loss rate: 0.80%
-- Flow 3:
Average throughput: 18.92 Mbit/s
95th percentile per-packet one-way delay: 50.146 ms
Loss rate: 0.35%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-14 06:00:02

End at: 2018-02-14 06:00:32

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.24 Mbit/s

95th percentile per-packet one-way delay: 53.770 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 49.69 Mbit/s

95th percentile per-packet one-way delay: 53.809 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 41.78 Mbit/s

95th percentile per-packet one-way delay: 50.163 ms

Loss rate: 0.80%

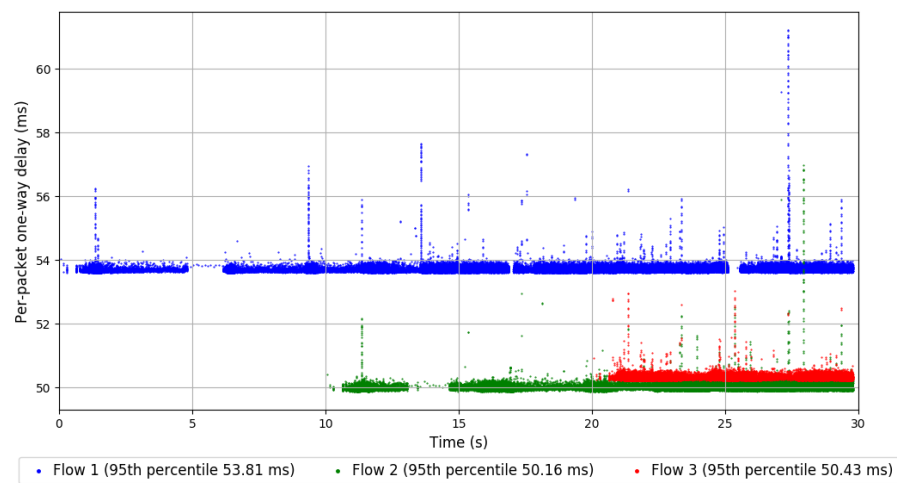
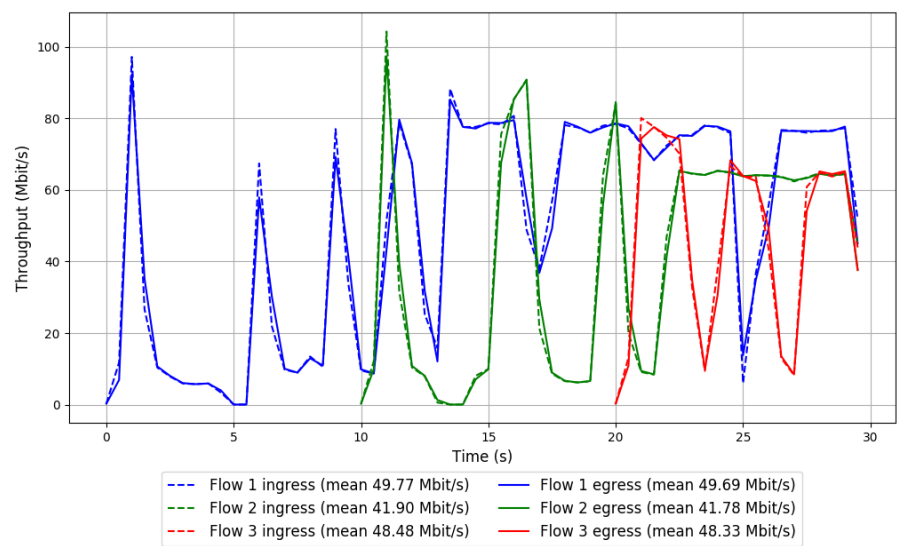
-- Flow 3:

Average throughput: 48.33 Mbit/s

95th percentile per-packet one-way delay: 50.426 ms

Loss rate: 1.33%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-14 06:17:25

End at: 2018-02-14 06:17:55

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.18 Mbit/s

95th percentile per-packet one-way delay: 53.603 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 55.63 Mbit/s

95th percentile per-packet one-way delay: 50.136 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 70.96 Mbit/s

95th percentile per-packet one-way delay: 50.409 ms

Loss rate: 0.55%

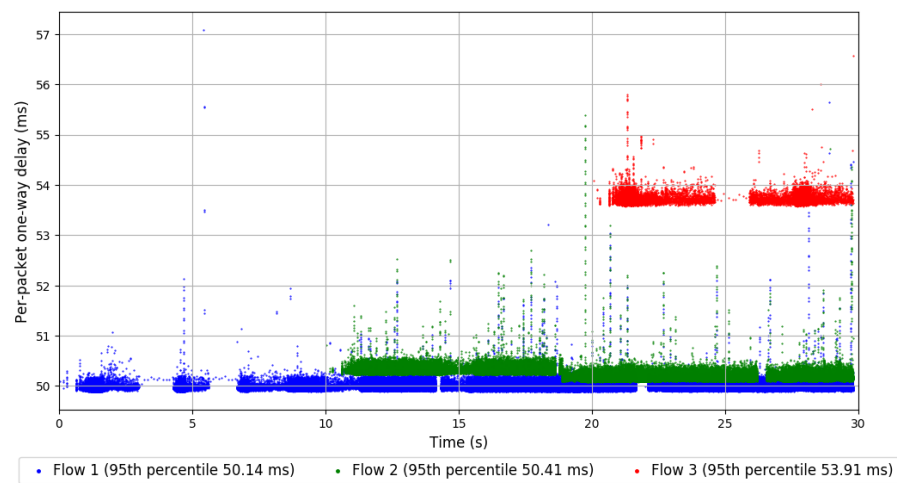
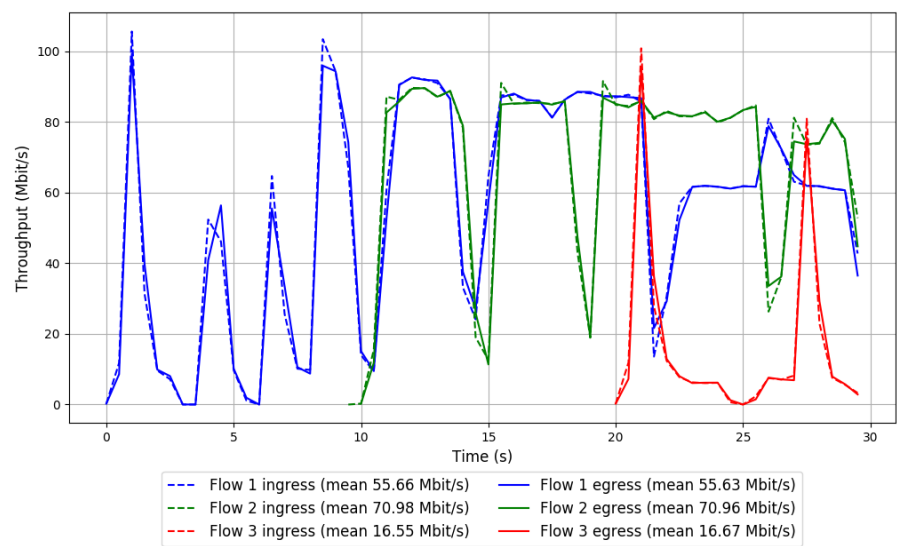
-- Flow 3:

Average throughput: 16.67 Mbit/s

95th percentile per-packet one-way delay: 53.913 ms

Loss rate: 0.30%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-02-14 06:34:47

End at: 2018-02-14 06:35:17

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.18 Mbit/s

95th percentile per-packet one-way delay: 53.819 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 58.47 Mbit/s

95th percentile per-packet one-way delay: 53.758 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 41.59 Mbit/s

95th percentile per-packet one-way delay: 53.865 ms

Loss rate: 0.08%

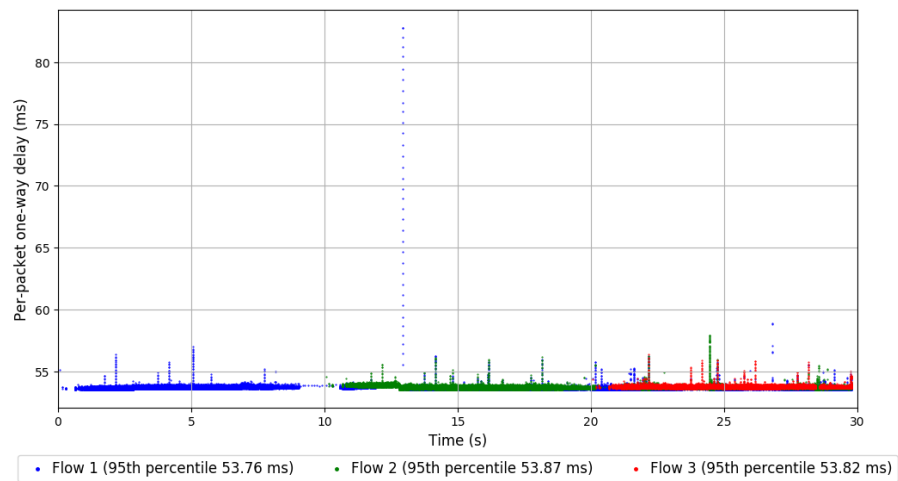
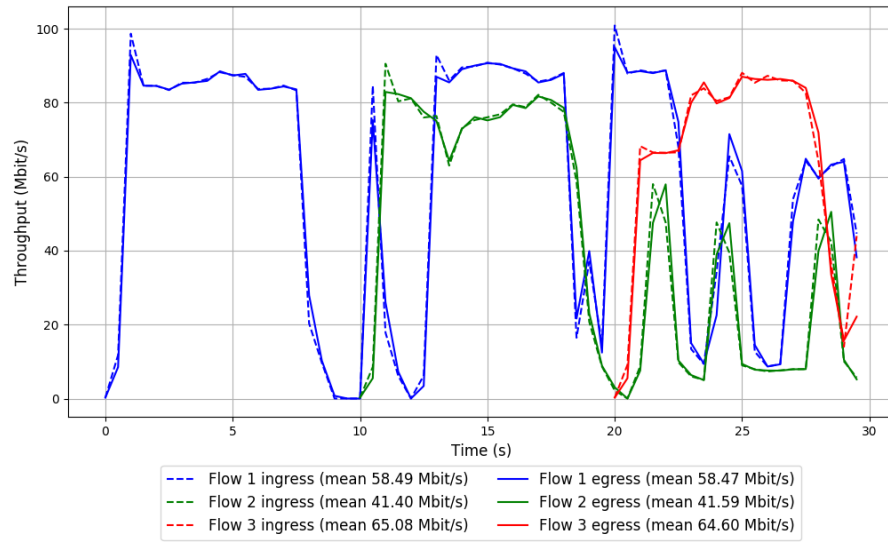
-- Flow 3:

Average throughput: 64.60 Mbit/s

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

Loss rate: 1.79%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-02-14 06:52:16

End at: 2018-02-14 06:52:46

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.06 Mbit/s

95th percentile per-packet one-way delay: 53.785 ms

Loss rate: 0.38%

-- Flow 1:

Average throughput: 40.14 Mbit/s

95th percentile per-packet one-way delay: 53.733 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 42.66 Mbit/s

95th percentile per-packet one-way delay: 53.827 ms

Loss rate: 0.98%

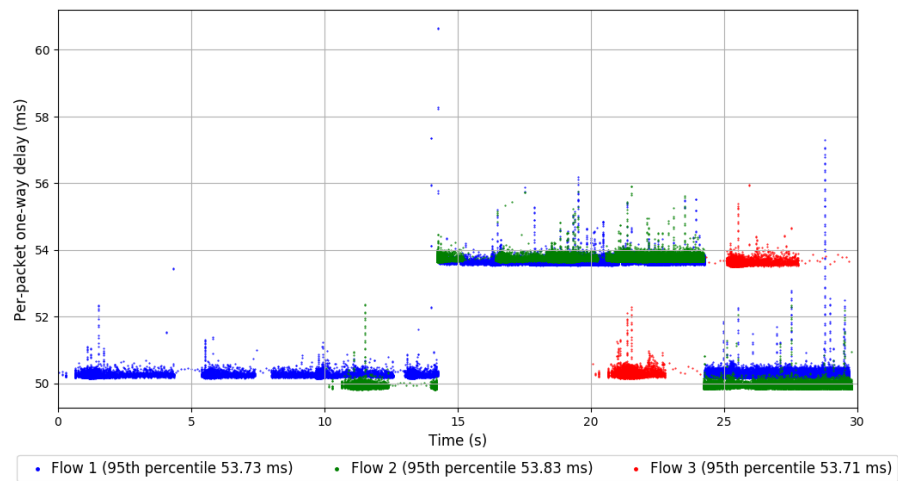
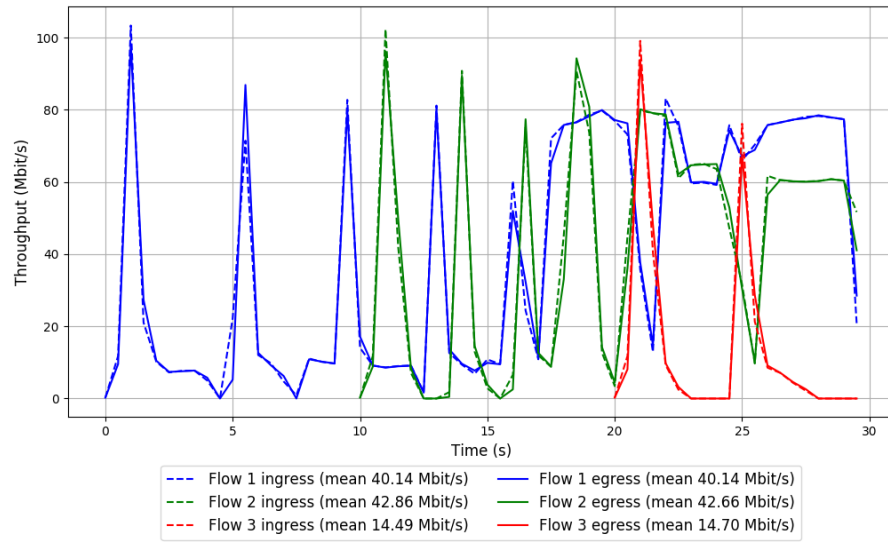
-- Flow 3:

Average throughput: 14.70 Mbit/s

95th percentile per-packet one-way delay: 53.710 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-02-14 07:09:47

End at: 2018-02-14 07:10:17

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.06 Mbit/s

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

Loss rate: 0.72%

-- Flow 1:

Average throughput: 53.93 Mbit/s

95th percentile per-packet one-way delay: 53.657 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 46.87 Mbit/s

95th percentile per-packet one-way delay: 53.766 ms

Loss rate: 0.81%

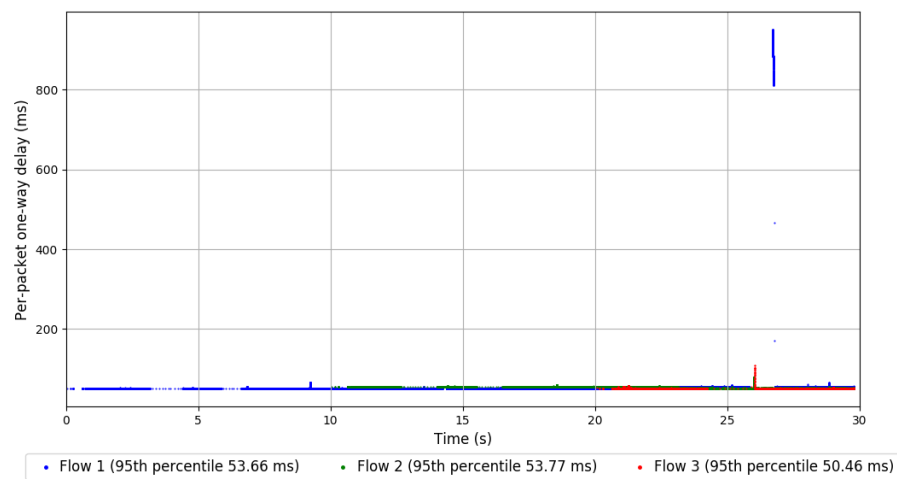
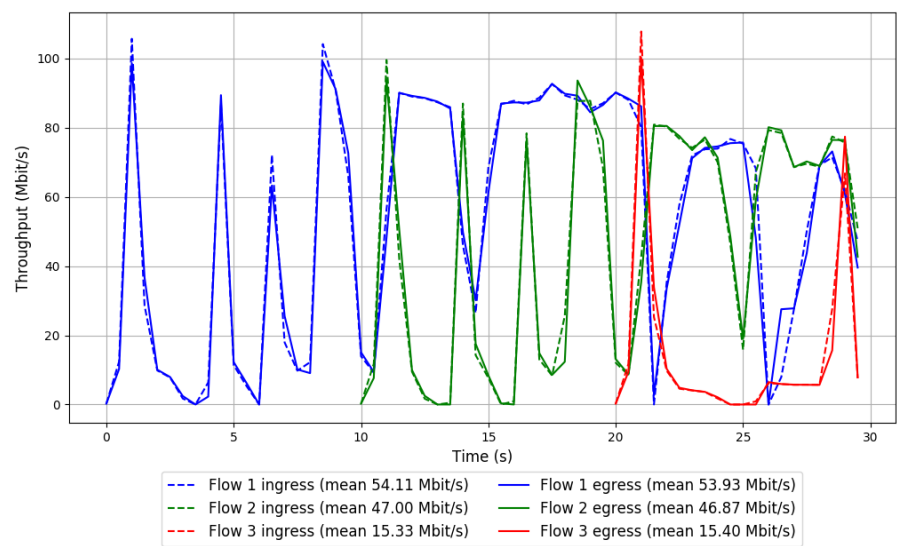
-- Flow 3:

Average throughput: 15.40 Mbit/s

95th percentile per-packet one-way delay: 50.459 ms

Loss rate: 0.59%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-02-14 07:27:18

End at: 2018-02-14 07:27:48

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.40 Mbit/s

95th percentile per-packet one-way delay: 53.846 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 53.13 Mbit/s

95th percentile per-packet one-way delay: 53.789 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 67.45 Mbit/s

95th percentile per-packet one-way delay: 50.697 ms

Loss rate: 0.58%

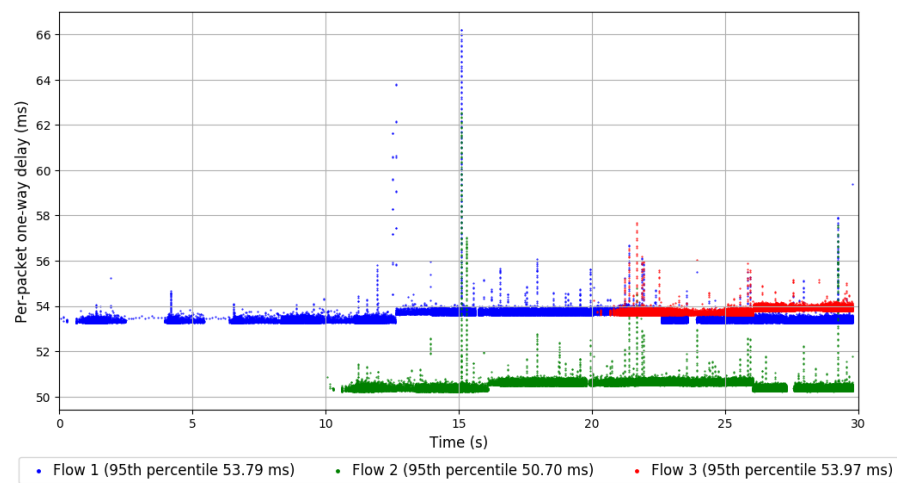
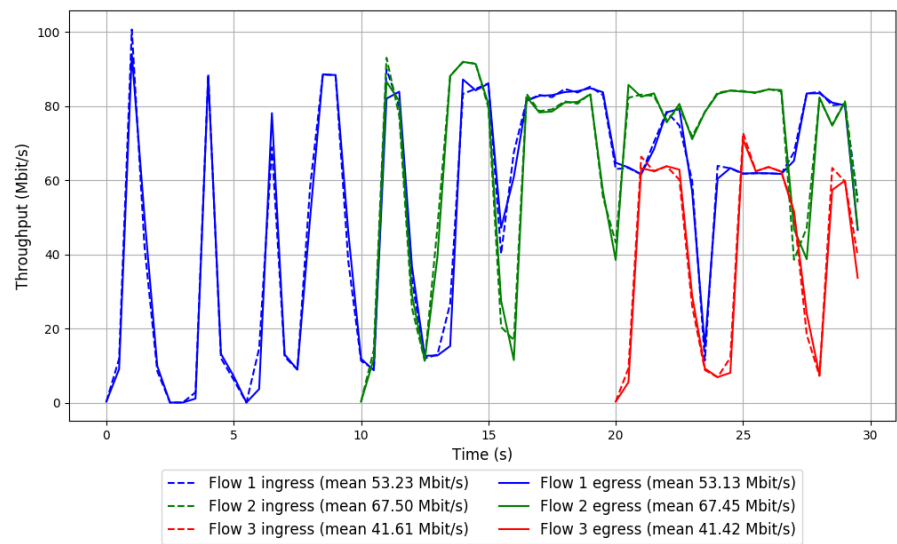
-- Flow 3:

Average throughput: 41.42 Mbit/s

95th percentile per-packet one-way delay: 53.974 ms

Loss rate: 1.52%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-02-14 07:44:23

End at: 2018-02-14 07:44:53

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.72 Mbit/s

95th percentile per-packet one-way delay: 53.889 ms

Loss rate: 0.69%

-- Flow 1:

Average throughput: 53.80 Mbit/s

95th percentile per-packet one-way delay: 53.803 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 43.46 Mbit/s

95th percentile per-packet one-way delay: 53.711 ms

Loss rate: 0.85%

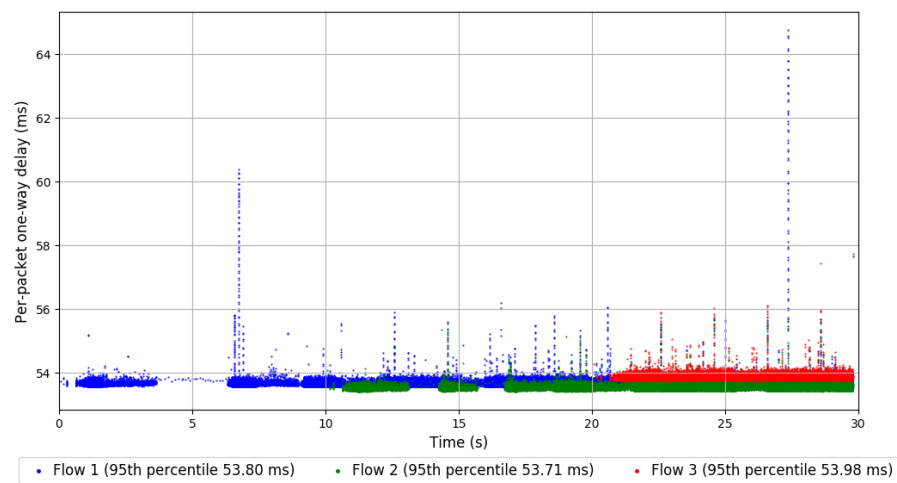
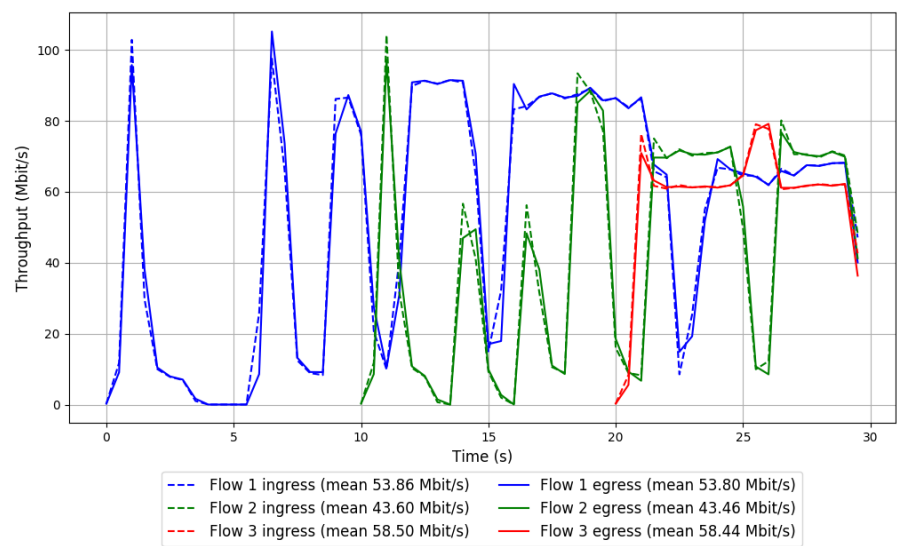
-- Flow 3:

Average throughput: 58.44 Mbit/s

95th percentile per-packet one-way delay: 53.981 ms

Loss rate: 1.12%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-02-14 08:01:53

End at: 2018-02-14 08:02:23

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 114.99 Mbit/s

95th percentile per-packet one-way delay: 53.760 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 51.91 Mbit/s

95th percentile per-packet one-way delay: 50.133 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 73.12 Mbit/s

95th percentile per-packet one-way delay: 53.715 ms

Loss rate: 0.57%

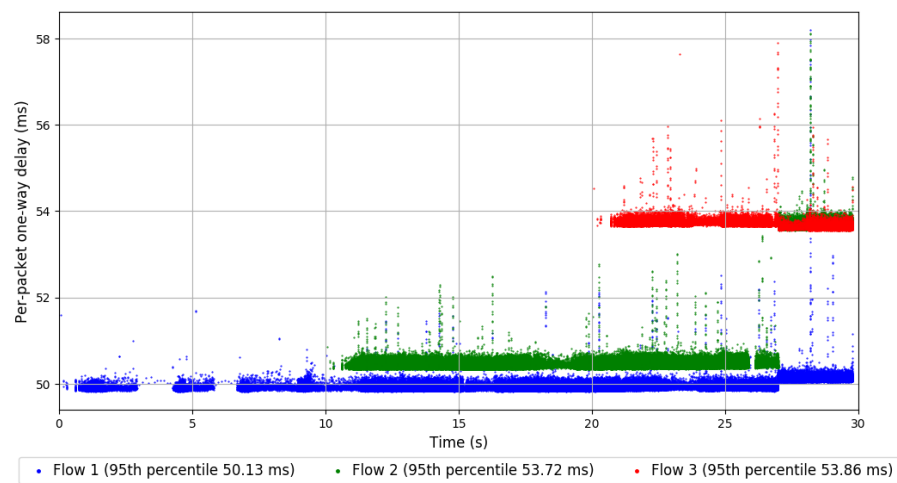
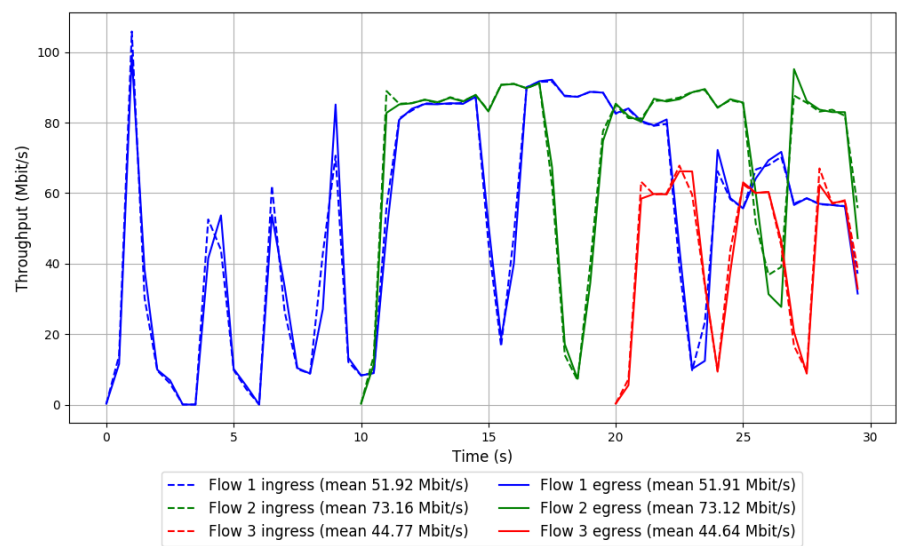
-- Flow 3:

Average throughput: 44.64 Mbit/s

95th percentile per-packet one-way delay: 53.860 ms

Loss rate: 1.37%

Run 9: Report of QUIC Cubic — Data Link

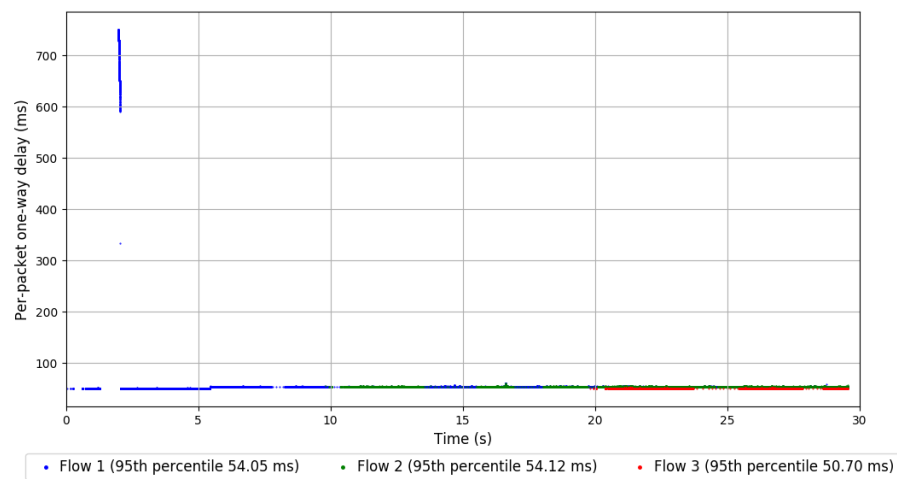
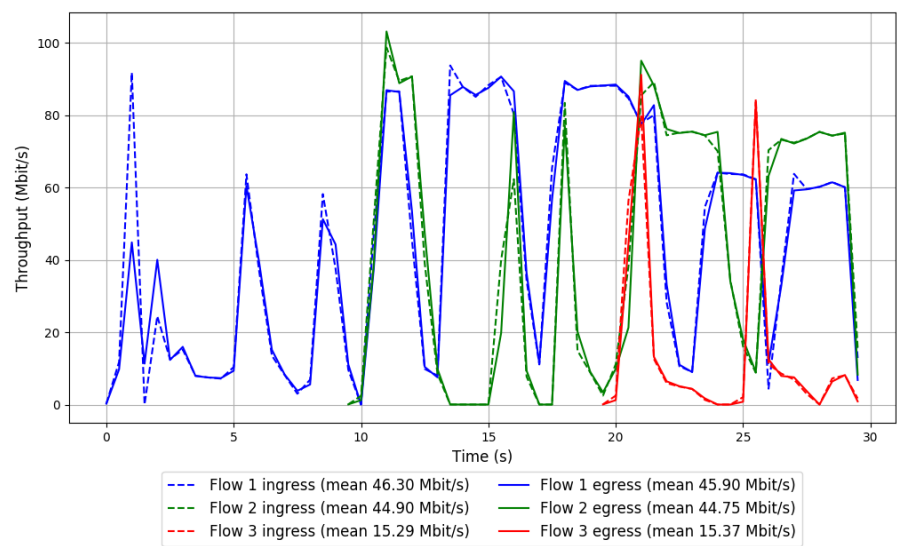


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-14 08:19:15
End at: 2018-02-14 08:19:45

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 80.89 Mbit/s
95th percentile per-packet one-way delay: 54.086 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 45.90 Mbit/s
95th percentile per-packet one-way delay: 54.055 ms
Loss rate: 1.21%
-- Flow 2:
Average throughput: 44.75 Mbit/s
95th percentile per-packet one-way delay: 54.122 ms
Loss rate: 0.86%
-- Flow 3:
Average throughput: 15.37 Mbit/s
95th percentile per-packet one-way delay: 50.699 ms
Loss rate: 0.53%
```

Run 10: Report of QUIC Cubic — Data Link

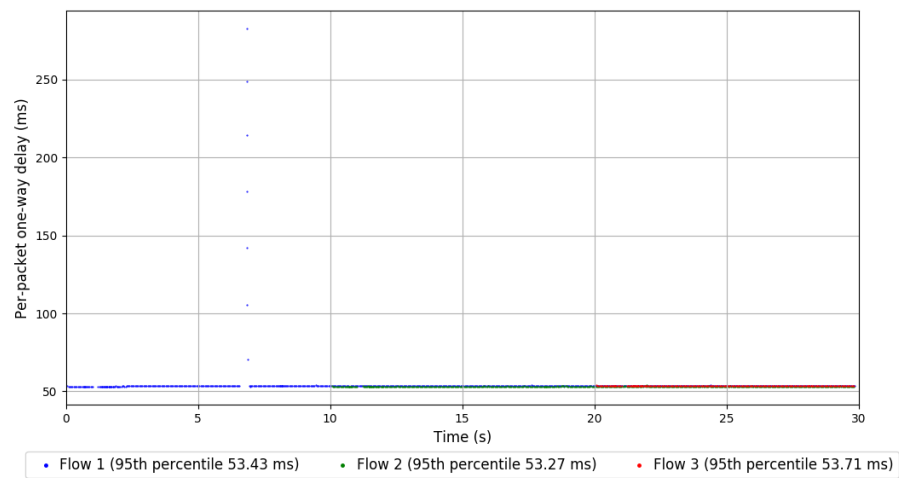
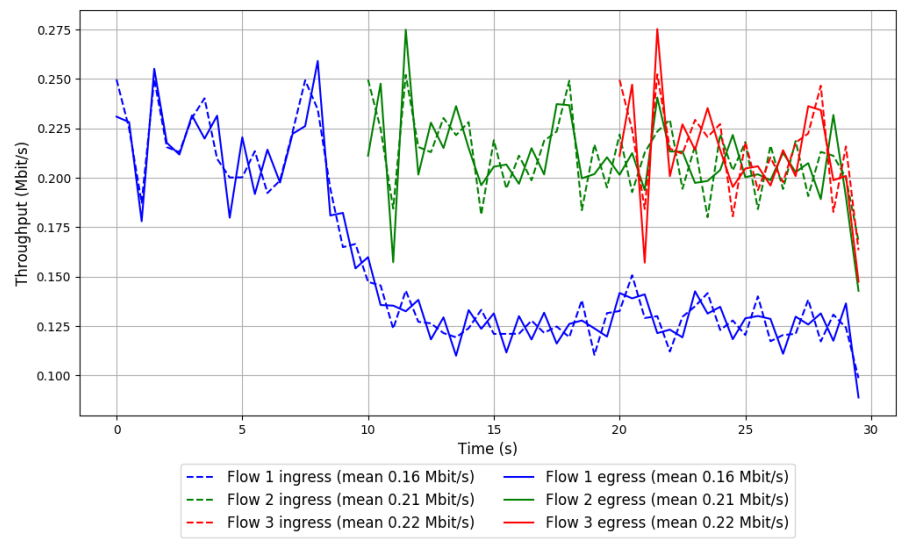


```
Run 1: Statistics of SCReAM

Start at: 2018-02-14 05:48:08
End at: 2018-02-14 05:48:38

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 53.663 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 53.430 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.268 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.710 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

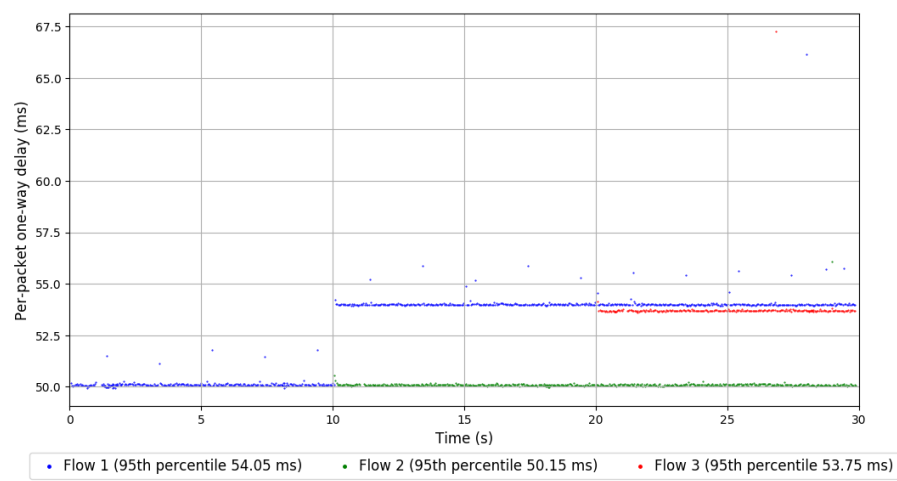
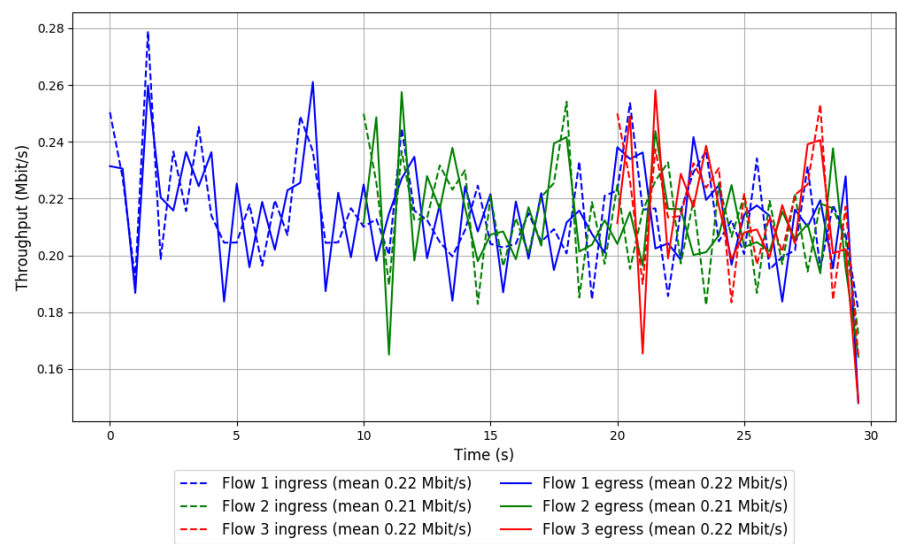


```
Run 2: Statistics of SCReAM

Start at: 2018-02-14 06:05:30
End at: 2018-02-14 06:06:00

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.028 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.055 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.150 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.751 ms
Loss rate: 1.10%
```

Run 2: Report of SReAM — Data Link

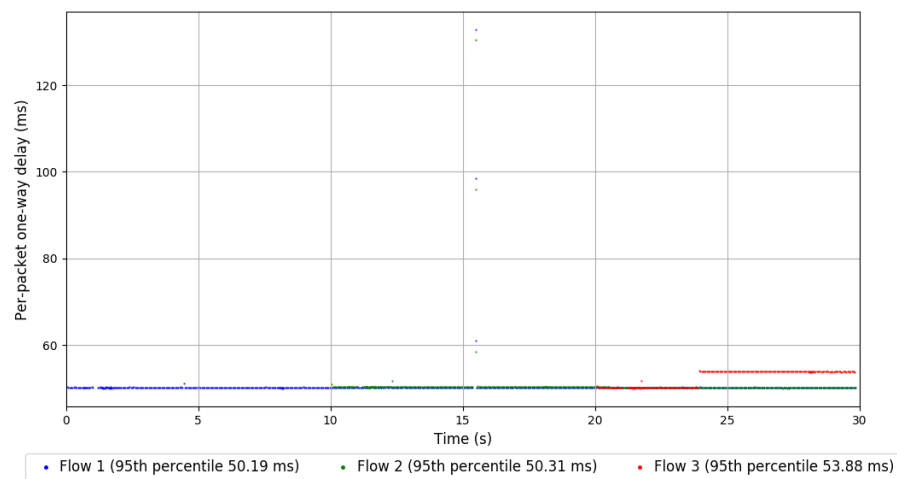
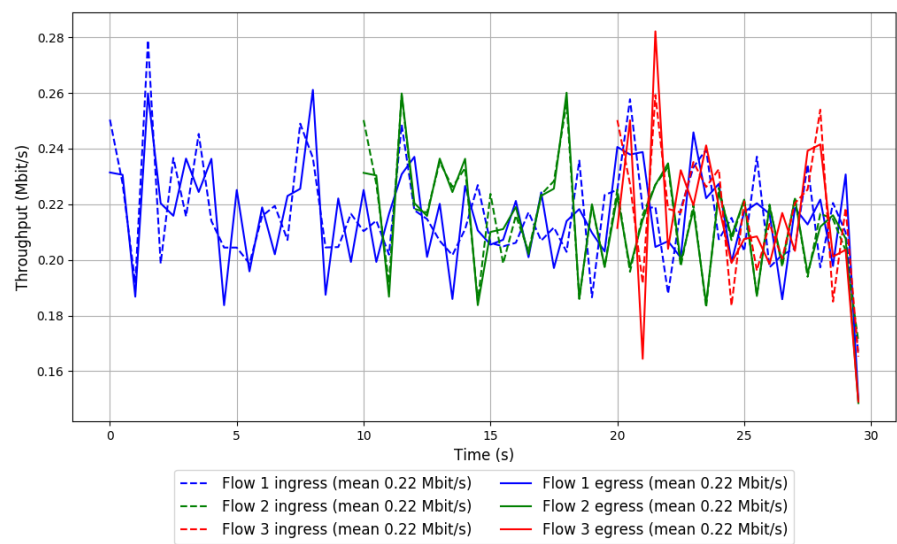


```
Run 3: Statistics of SCReAM

Start at: 2018-02-14 06:23:00
End at: 2018-02-14 06:23:30

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.818 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.191 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.879 ms
Loss rate: 1.10%
```


Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-02-14 06:40:28

End at: 2018-02-14 06:40:58

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.790 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.807 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.059 ms

Loss rate: 0.43%

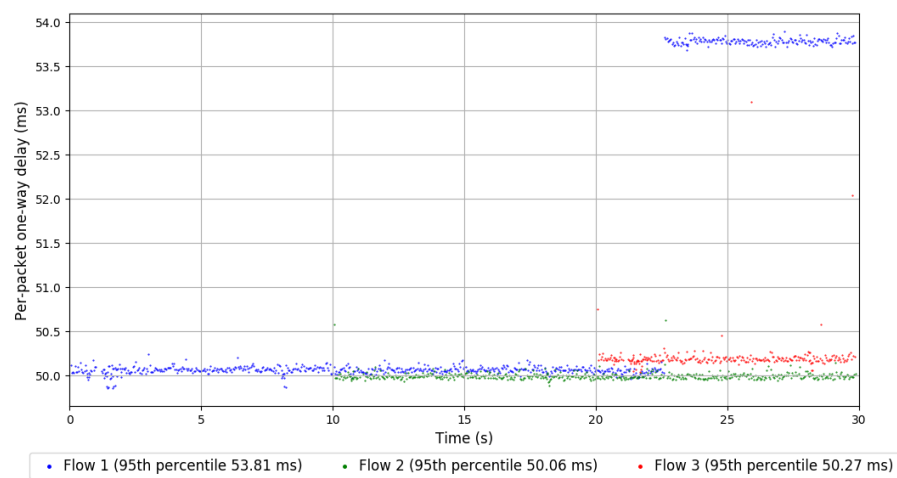
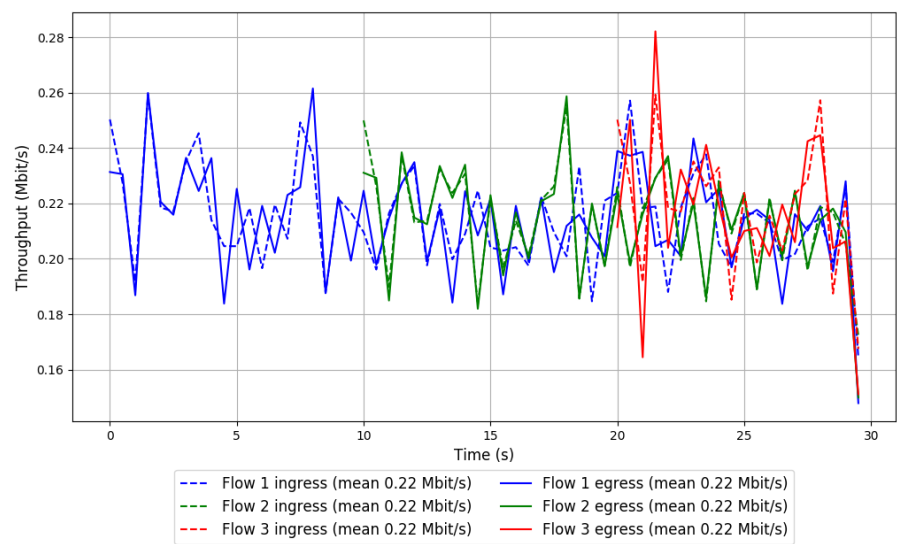
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.265 ms

Loss rate: 1.11%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-02-14 06:57:50

End at: 2018-02-14 06:58:20

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.793 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.808 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.421 ms

Loss rate: 0.43%

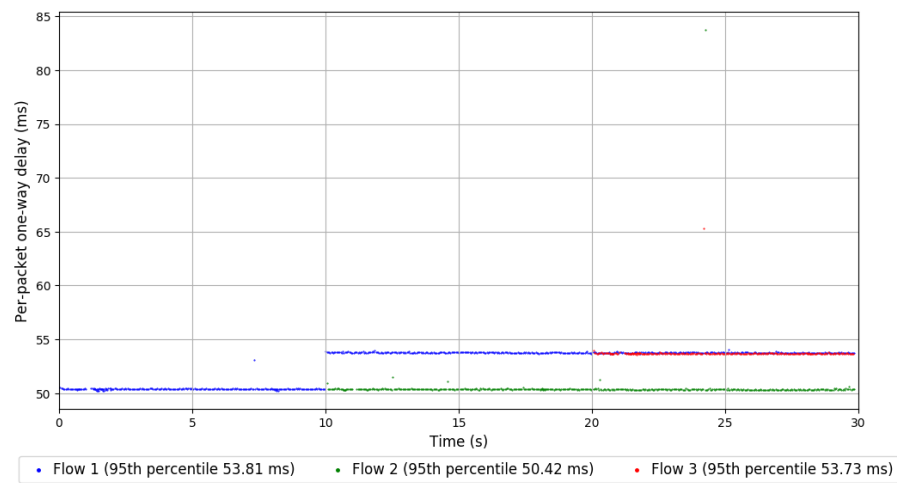
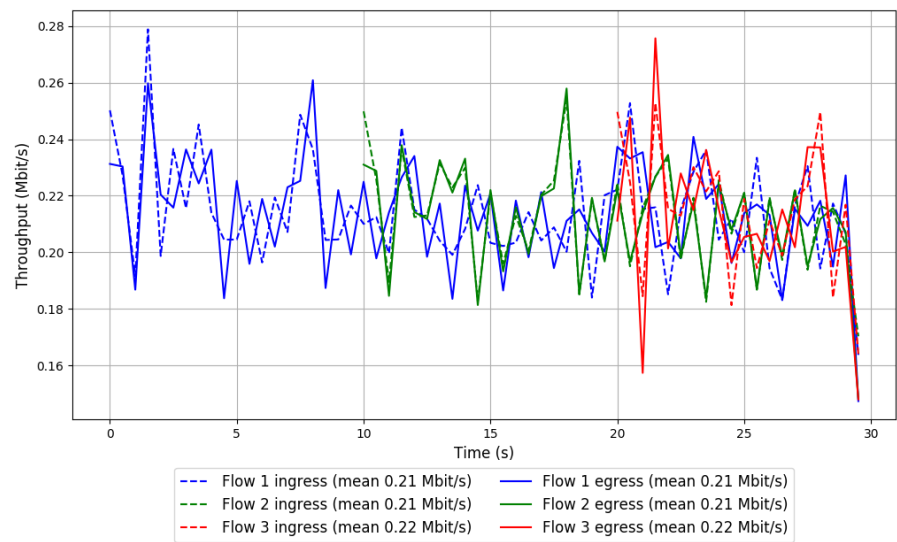
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.730 ms

Loss rate: 1.11%

Run 5: Report of SReAM — Data Link

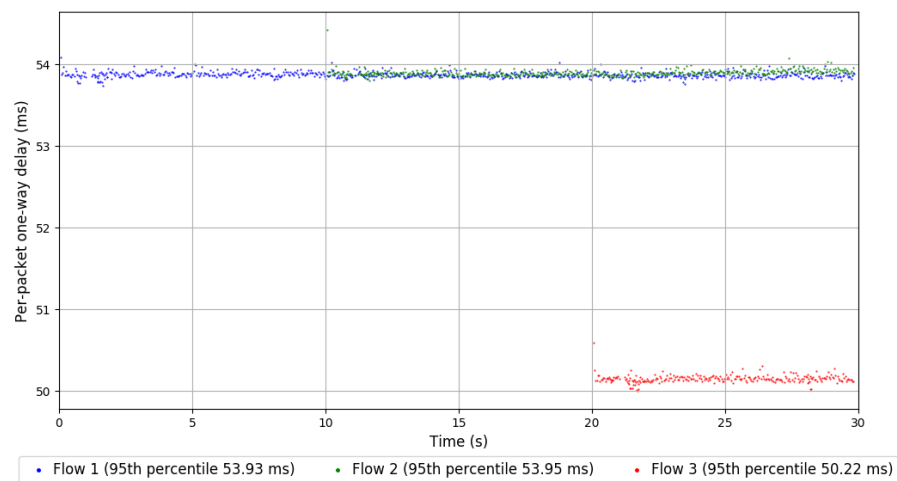
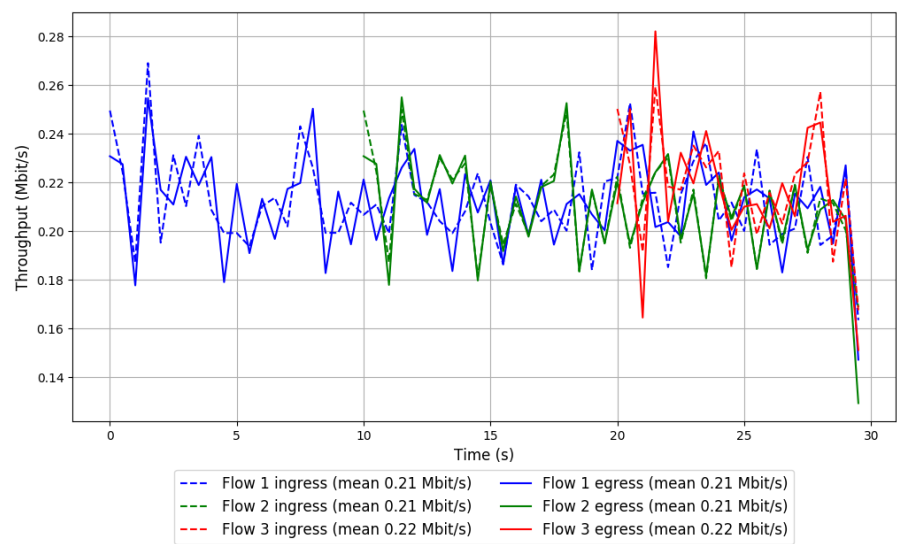


```
Run 6: Statistics of SReAM

Start at: 2018-02-14 07:15:28
End at: 2018-02-14 07:15:58

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.939 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.934 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.952 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.222 ms
Loss rate: 1.11%
```

Run 6: Report of SReAM — Data Link

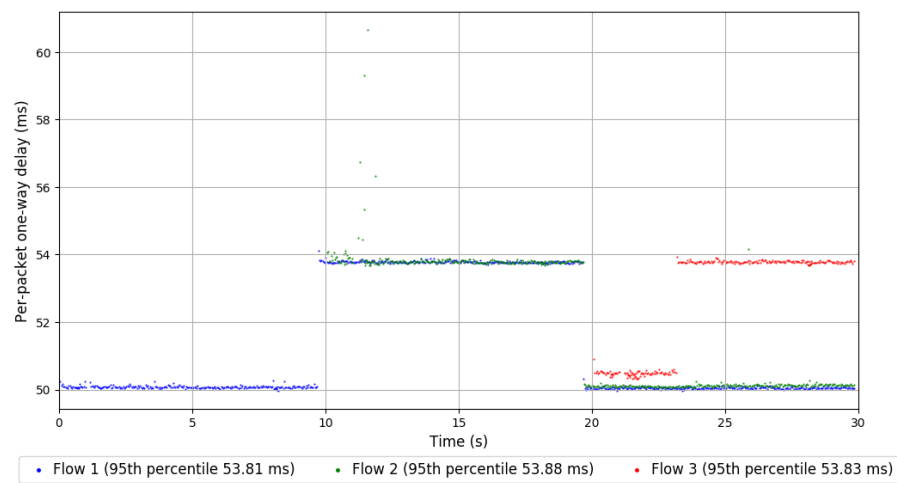
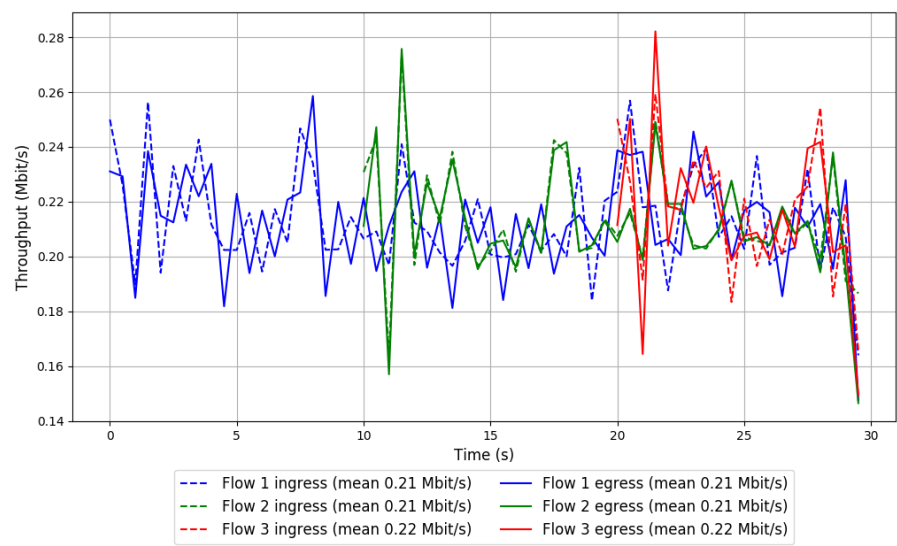


```
Run 7: Statistics of SReAM

Start at: 2018-02-14 07:32:31
End at: 2018-02-14 07:33:01

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.830 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.807 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.877 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.832 ms
Loss rate: 1.10%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-02-14 07:49:55

End at: 2018-02-14 07:50:25

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.732 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.935 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.089 ms

Loss rate: 0.43%

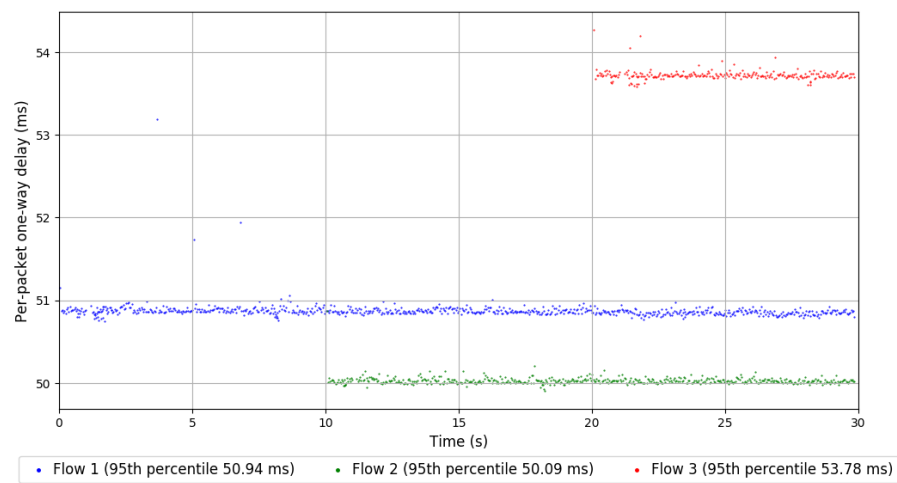
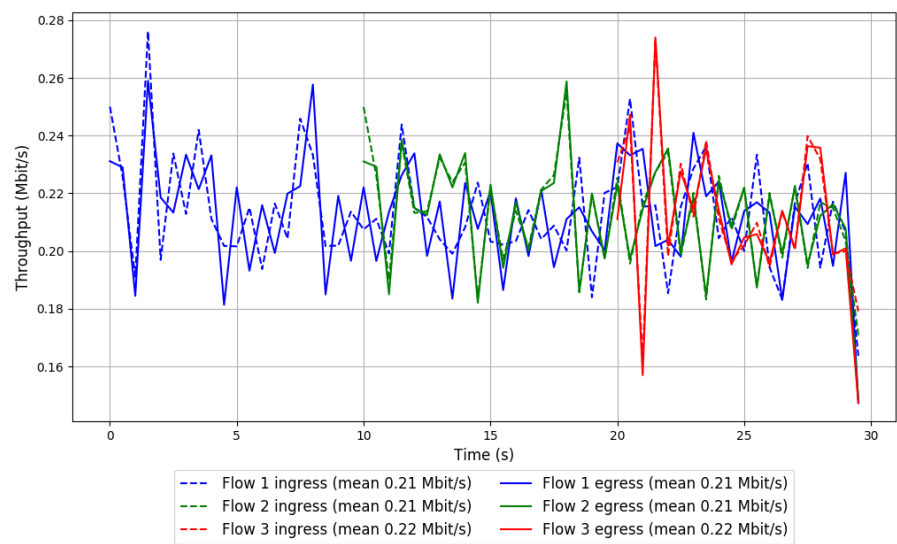
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.778 ms

Loss rate: 1.11%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-02-14 08:07:20

End at: 2018-02-14 08:07:50

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.880 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.490 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.454 ms

Loss rate: 0.43%

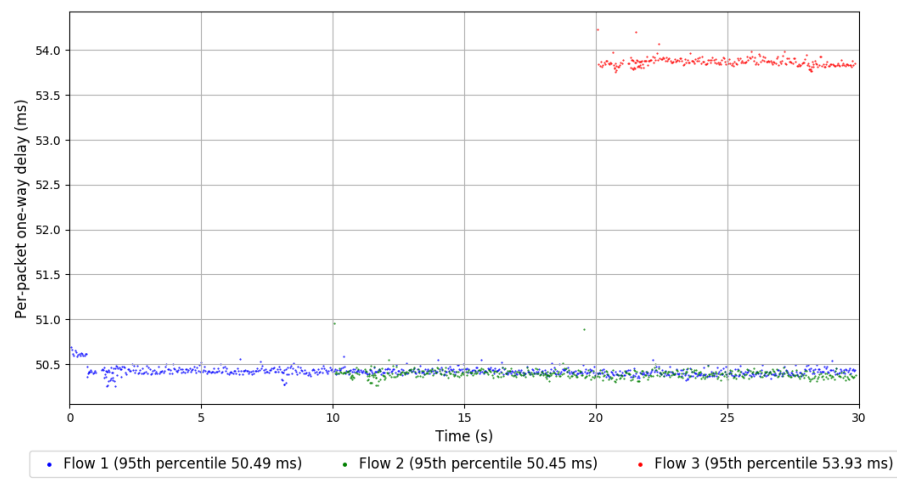
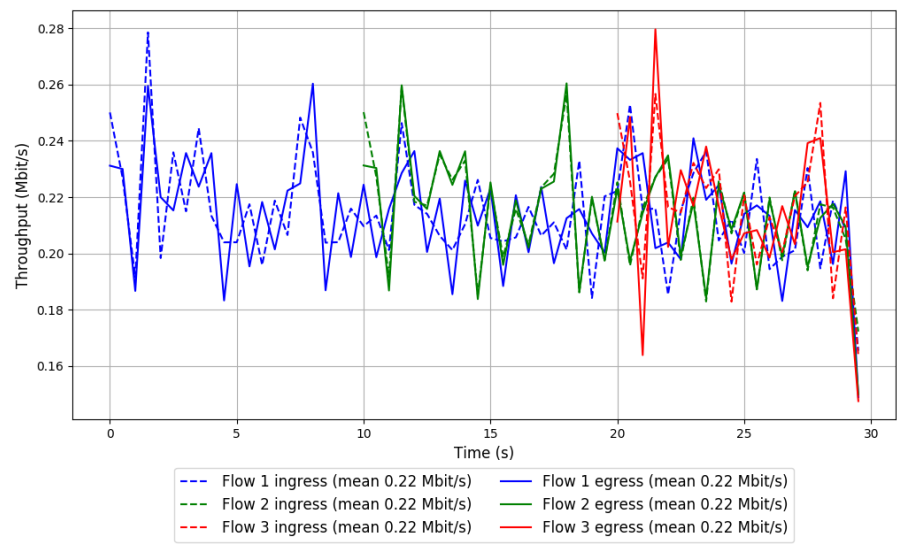
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.927 ms

Loss rate: 1.09%

Run 9: Report of SReAM — Data Link

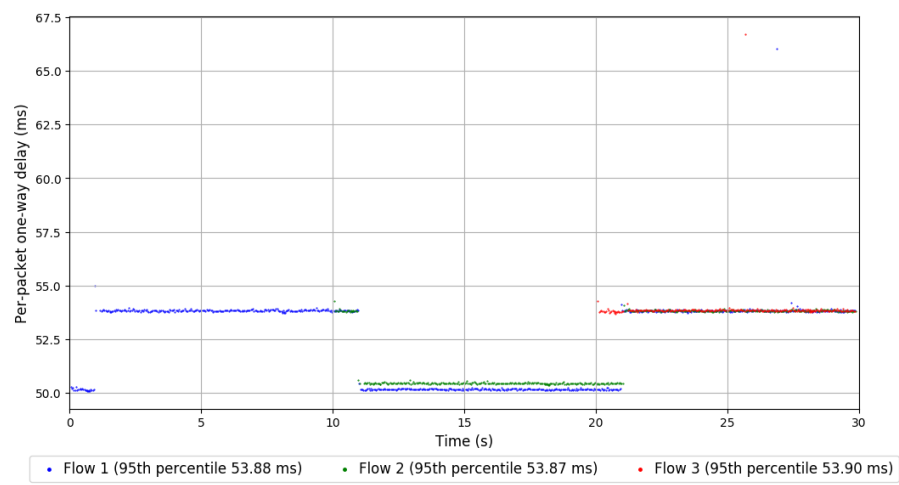
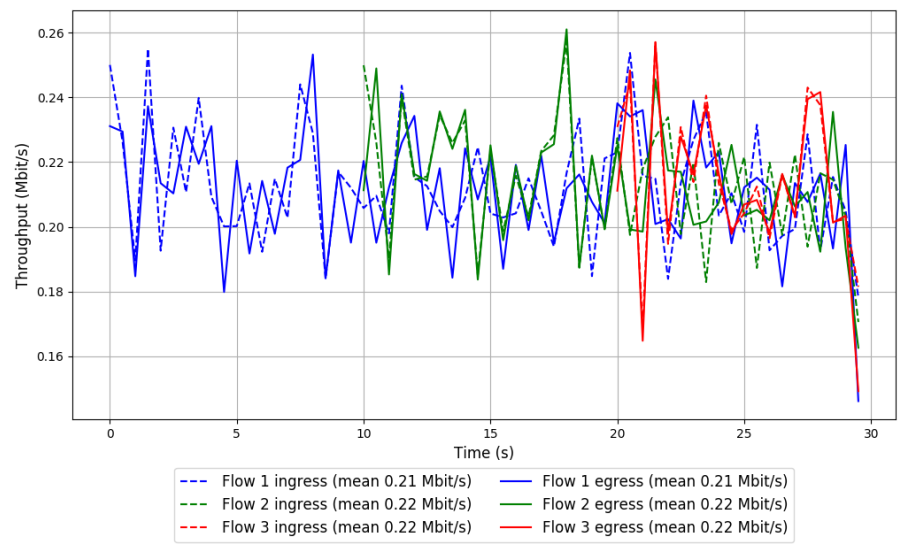


```
Run 10: Statistics of SReAM

Start at: 2018-02-14 08:24:29
End at: 2018-02-14 08:24:59

# Below is generated by plot.py at 2018-02-14 12:08:53
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.882 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.880 ms
Loss rate: 0.38%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.870 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.899 ms
Loss rate: 1.11%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-02-14 05:48:47

End at: 2018-02-14 05:49:17

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.39 Mbit/s

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

Loss rate: 0.57%

-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 53.992 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 53.236 ms

Loss rate: 0.51%

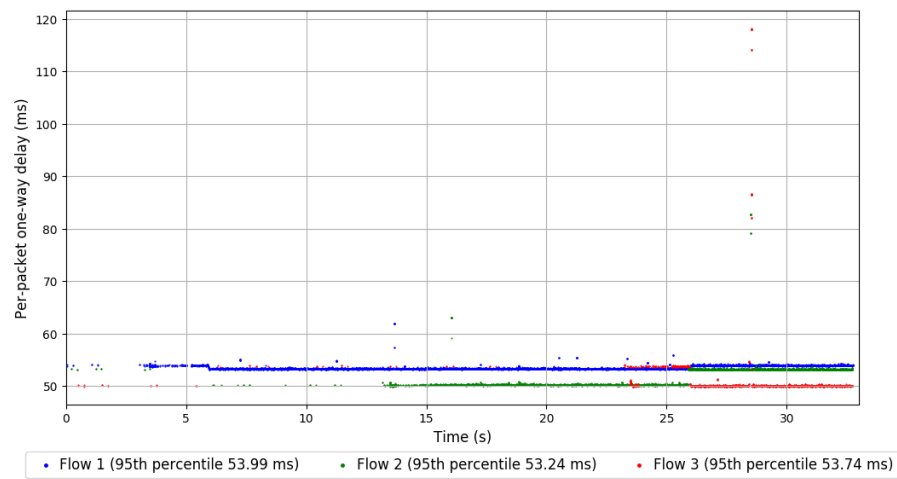
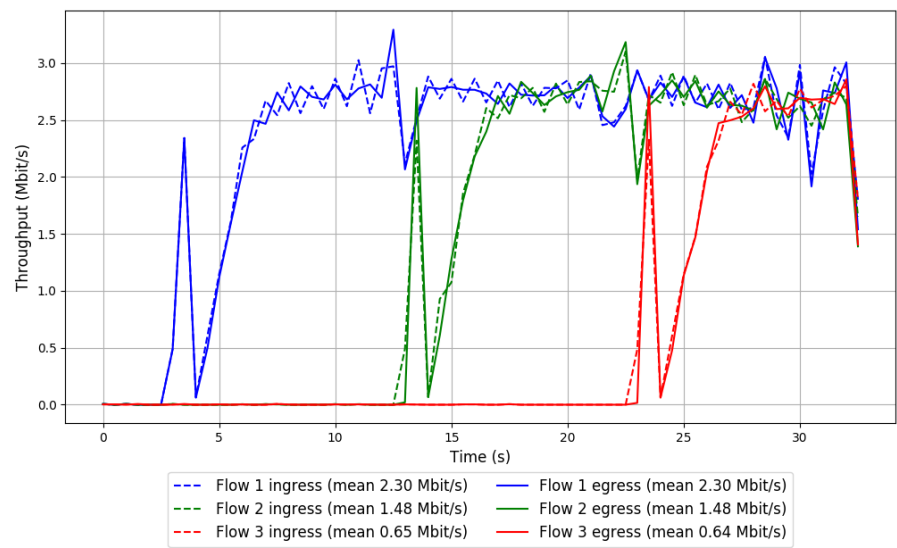
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.744 ms

Loss rate: 1.51%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-02-14 06:06:10

End at: 2018-02-14 06:06:40

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 54.061 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 54.100 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 50.543 ms

Loss rate: 0.64%

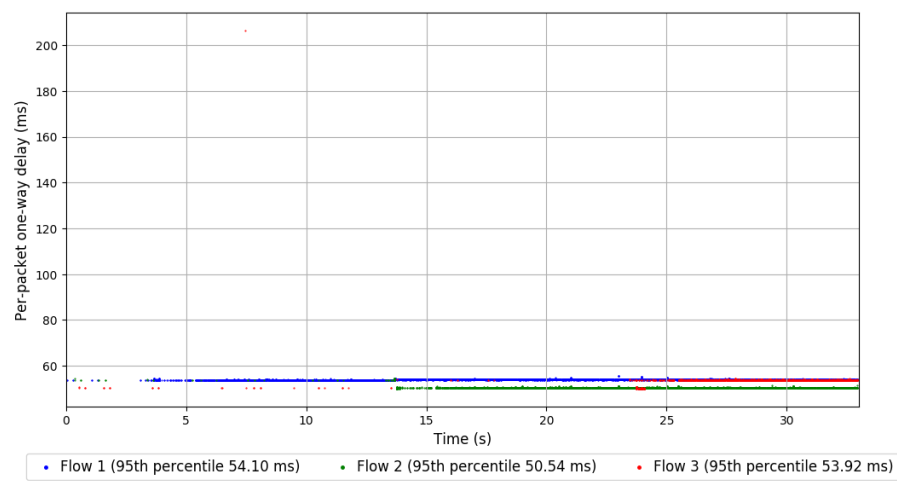
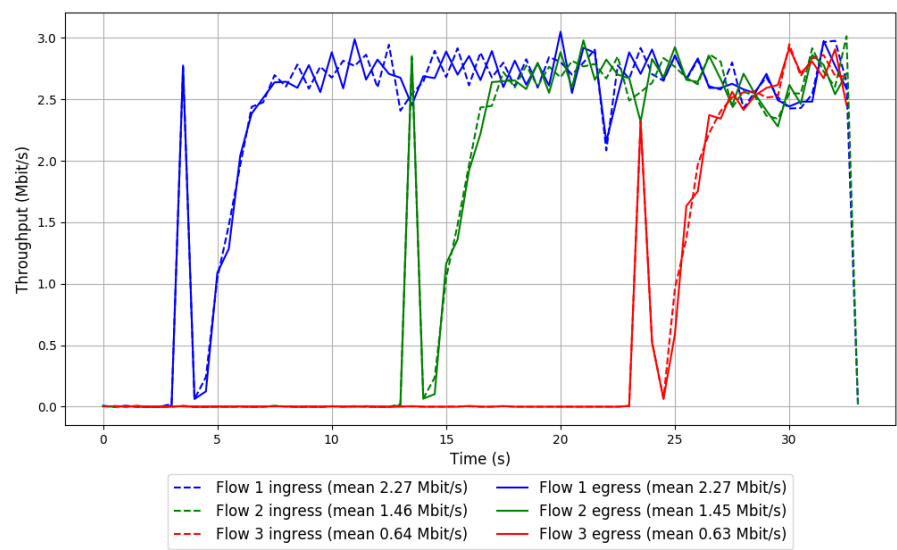
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.916 ms

Loss rate: 1.09%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-02-14 06:23:39

End at: 2018-02-14 06:24:09

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.942 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.982 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.902 ms

Loss rate: 0.68%

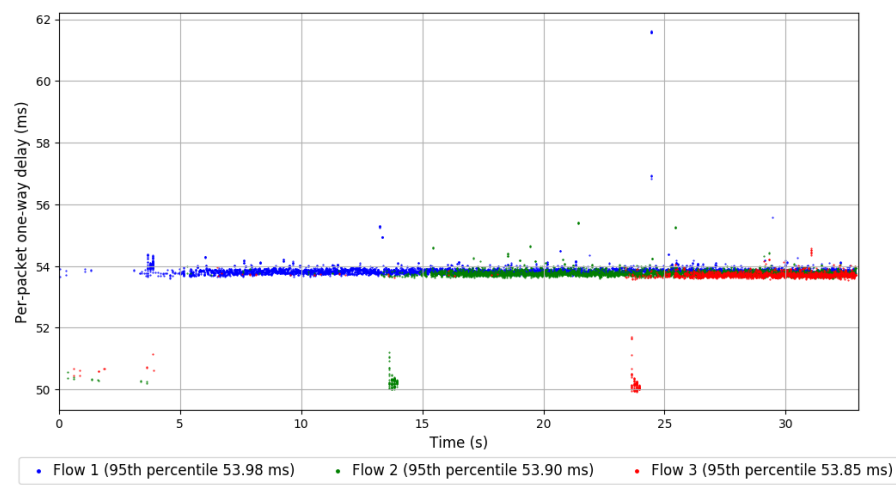
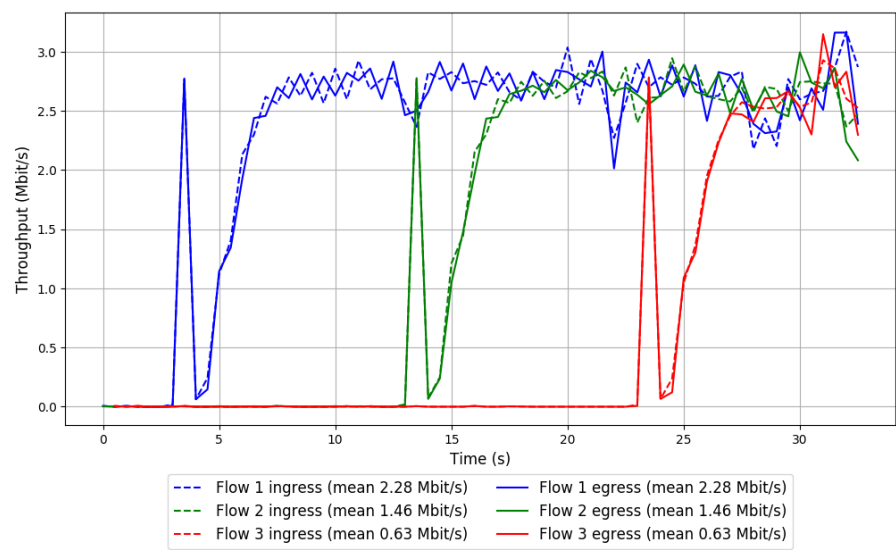
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.847 ms

Loss rate: 1.10%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-02-14 06:41:07

End at: 2018-02-14 06:41:37

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 53.882 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.52 Mbit/s

95th percentile per-packet one-way delay: 53.878 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 53.900 ms

Loss rate: 0.54%

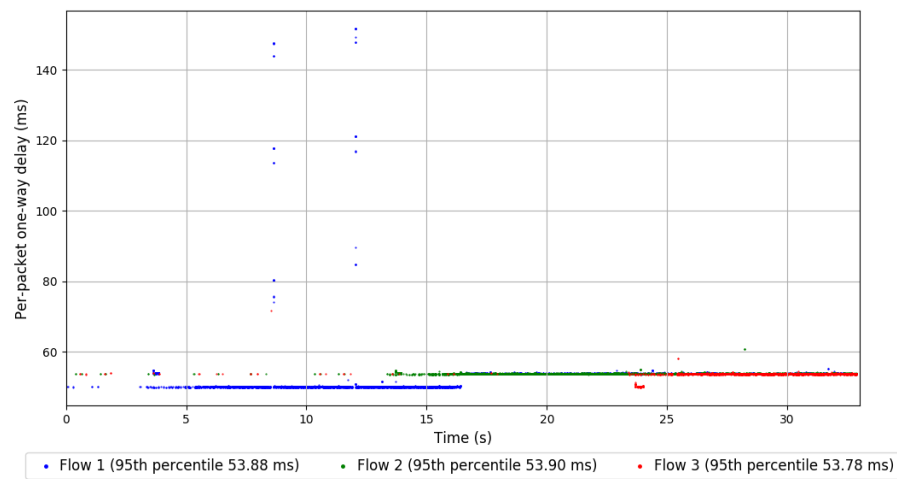
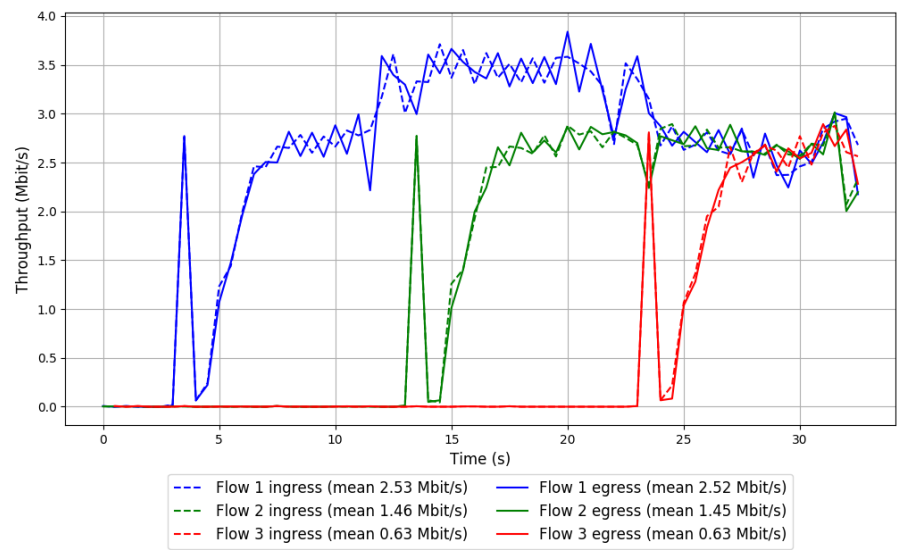
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.785 ms

Loss rate: 1.24%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-02-14 06:58:30

End at: 2018-02-14 06:59:00

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 53.814 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.837 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 50.313 ms

Loss rate: 0.64%

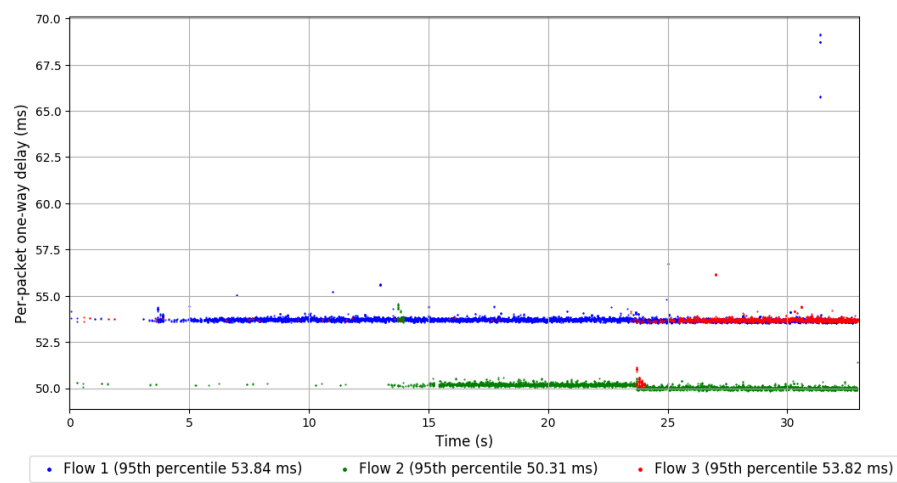
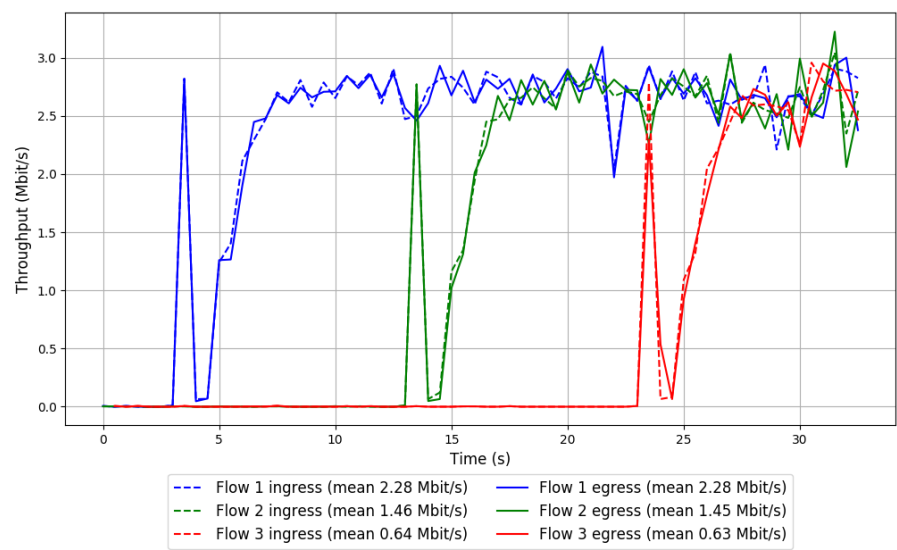
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.824 ms

Loss rate: 1.17%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-02-14 07:16:07

End at: 2018-02-14 07:16:37

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.19 Mbit/s

95th percentile per-packet one-way delay: 53.981 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 3.14 Mbit/s

95th percentile per-packet one-way delay: 54.009 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.929 ms

Loss rate: 0.77%

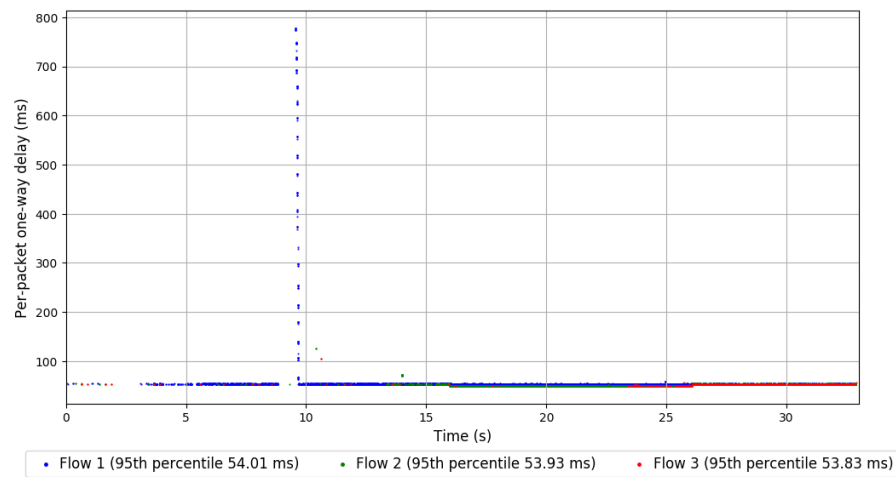
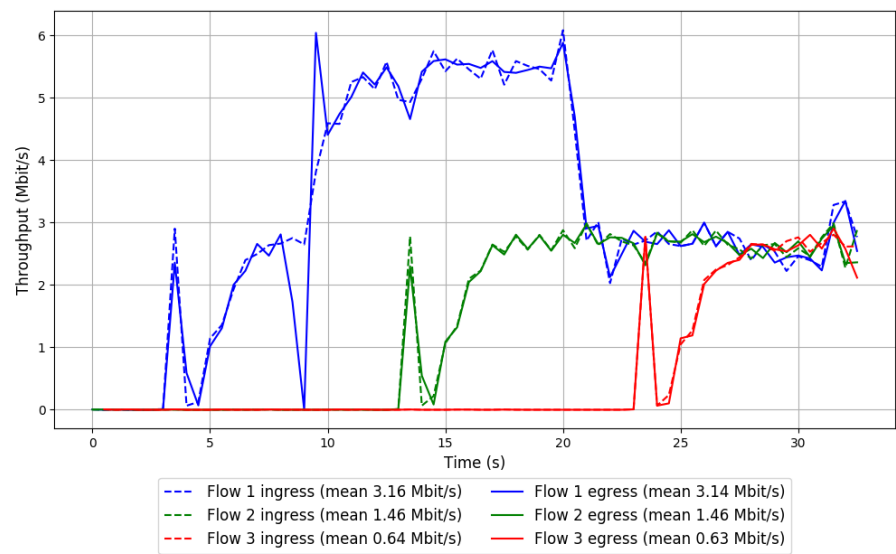
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.828 ms

Loss rate: 1.81%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-02-14 07:33:10

End at: 2018-02-14 07:33:40

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.32 Mbit/s

95th percentile per-packet one-way delay: 53.973 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.995 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 50.807 ms

Loss rate: 0.57%

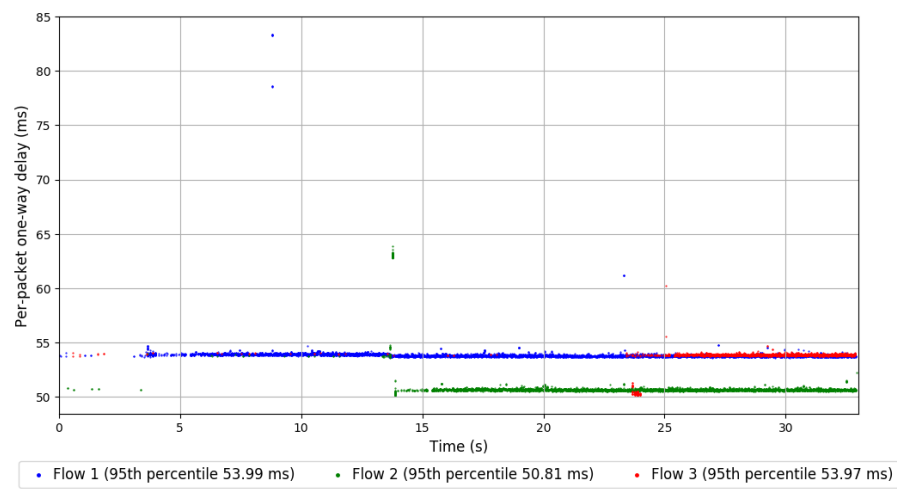
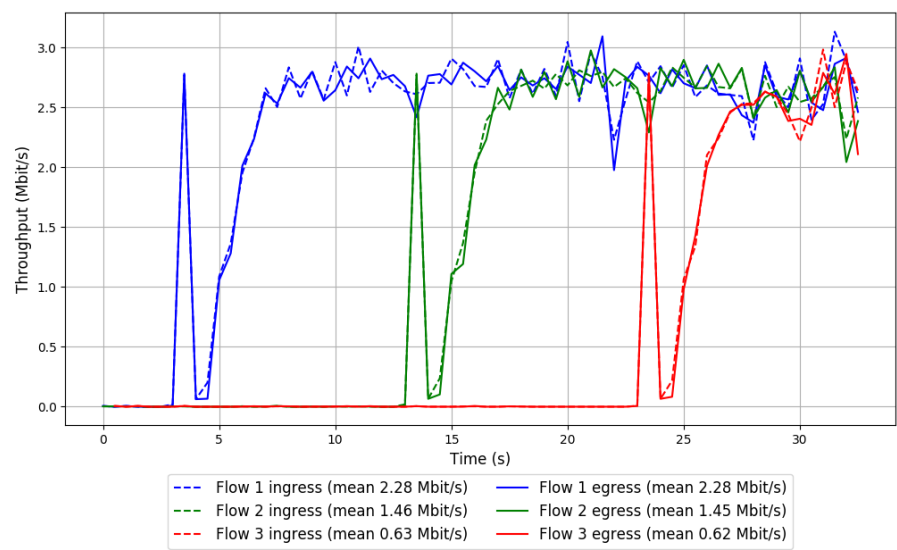
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 53.973 ms

Loss rate: 1.90%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-02-14 07:50:35

End at: 2018-02-14 07:51:05

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.906 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.846 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.646 ms

Loss rate: 0.70%

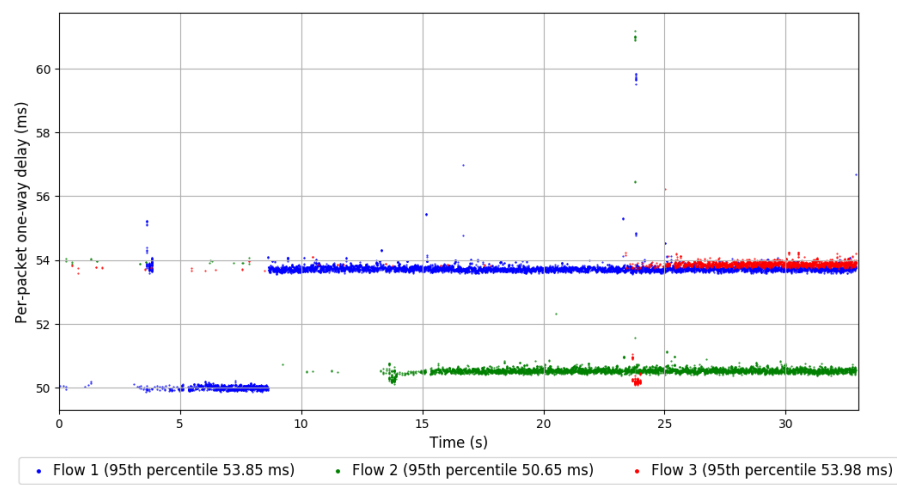
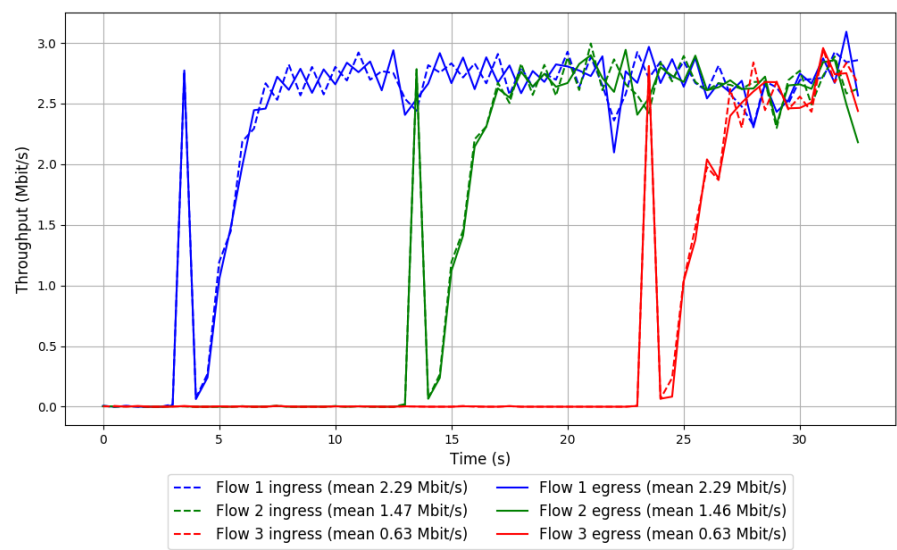
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.983 ms

Loss rate: 1.13%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-02-14 08:07:59

End at: 2018-02-14 08:08:29

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 53.819 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.19 Mbit/s

95th percentile per-packet one-way delay: 53.830 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 53.827 ms

Loss rate: 0.54%

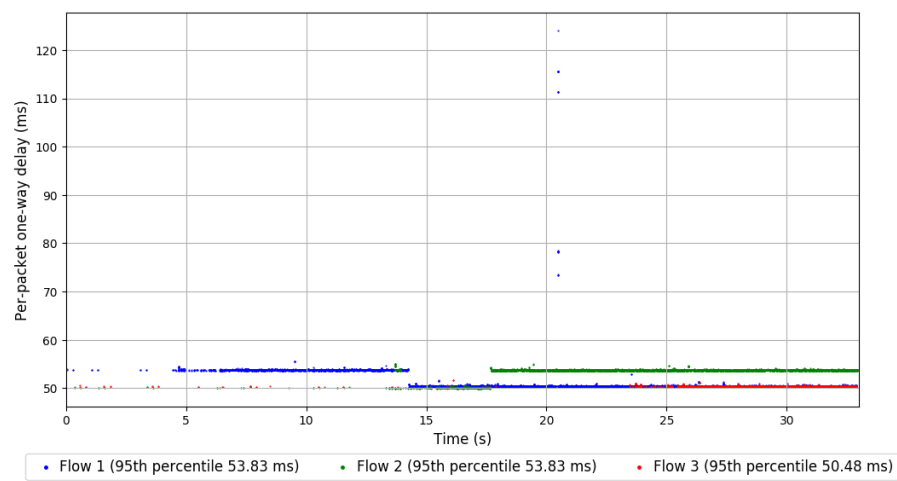
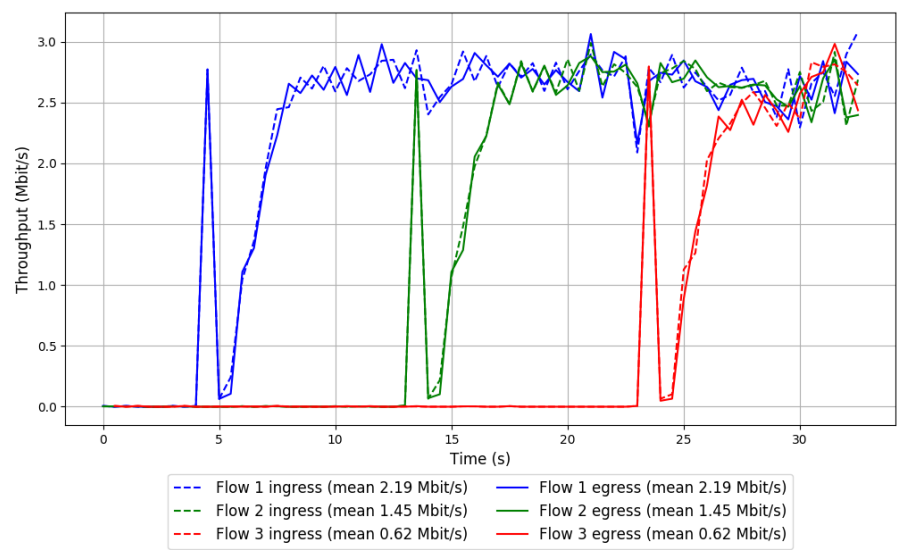
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 50.484 ms

Loss rate: 1.16%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-02-14 08:25:09

End at: 2018-02-14 08:25:39

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.865 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.765 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.924 ms

Loss rate: 0.66%

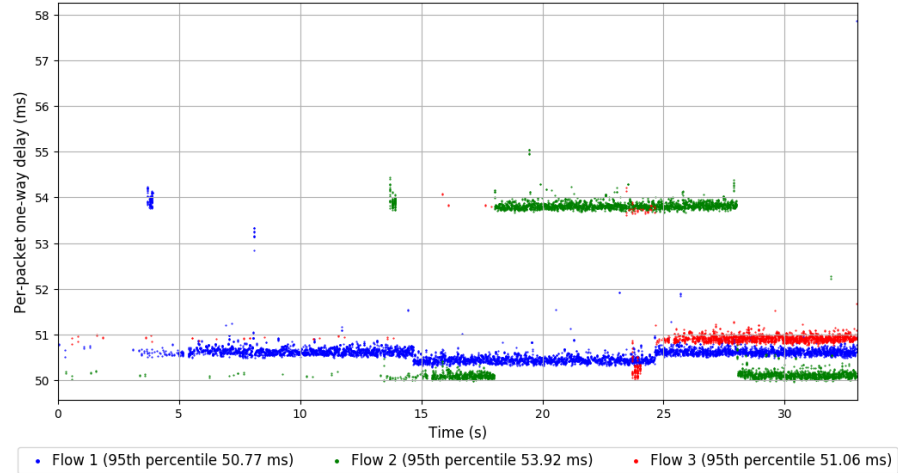
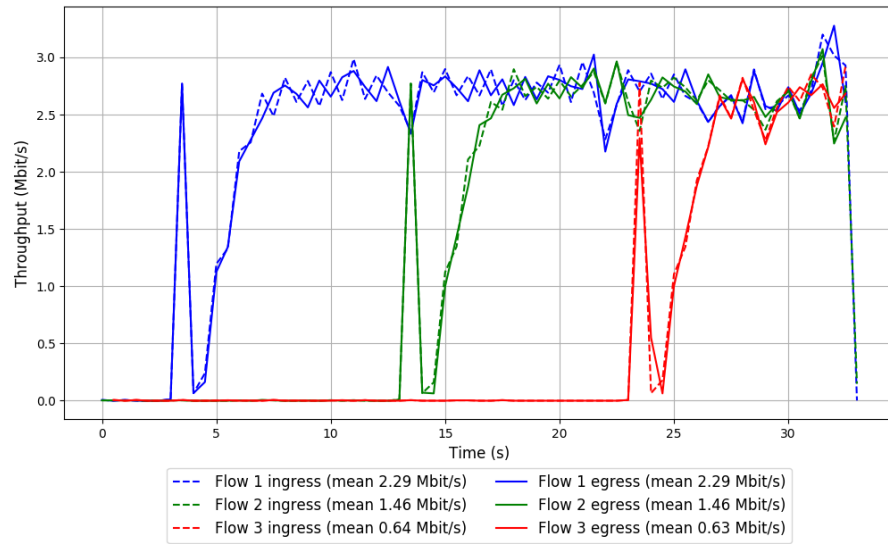
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 51.062 ms

Loss rate: 1.13%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-02-14 05:37:09

End at: 2018-02-14 05:37:39

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.43 Mbit/s

95th percentile per-packet one-way delay: 54.537 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 54.493 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 54.468 ms

Loss rate: 0.66%

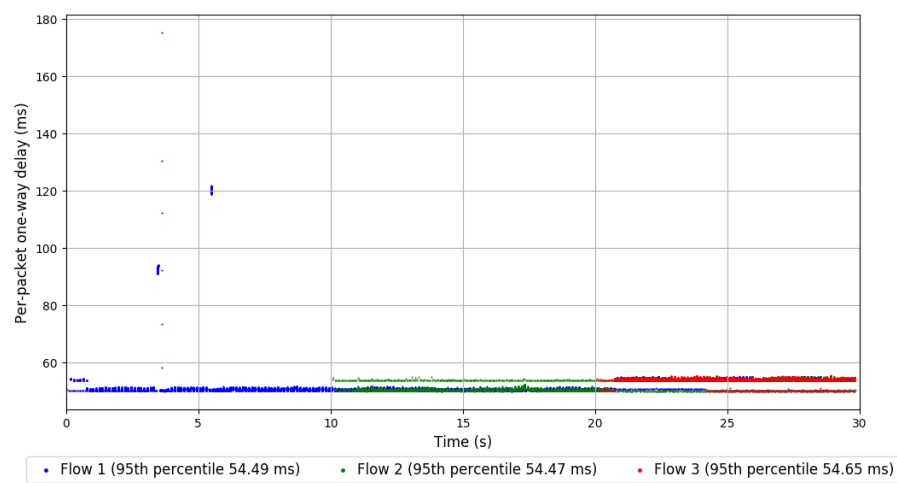
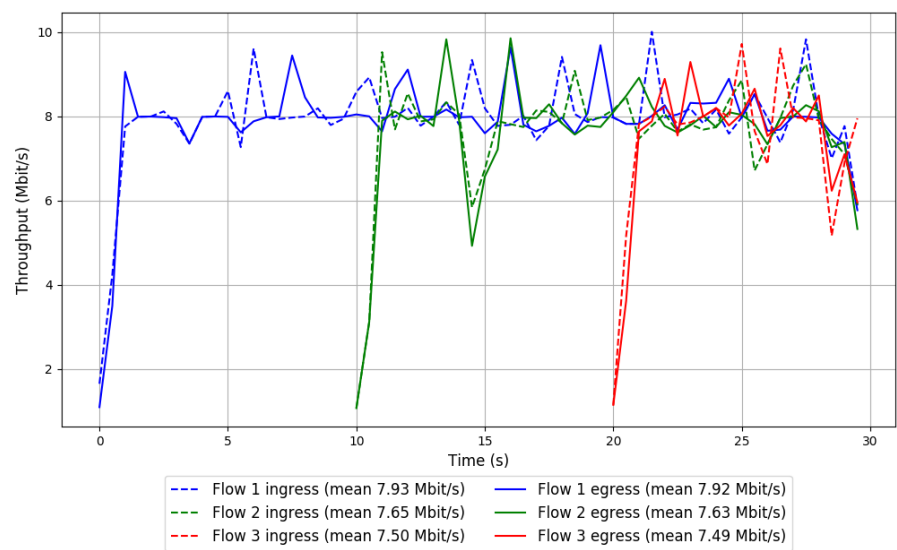
-- Flow 3:

Average throughput: 7.49 Mbit/s

95th percentile per-packet one-way delay: 54.649 ms

Loss rate: 1.35%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-02-14 05:54:33

End at: 2018-02-14 05:55:03

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.63 Mbit/s

95th percentile per-packet one-way delay: 54.647 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 7.88 Mbit/s

95th percentile per-packet one-way delay: 54.662 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 54.683 ms

Loss rate: 0.63%

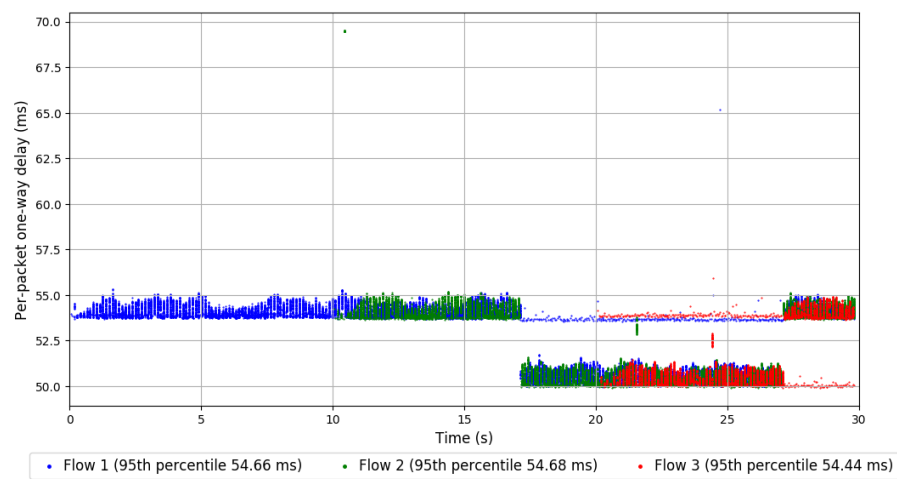
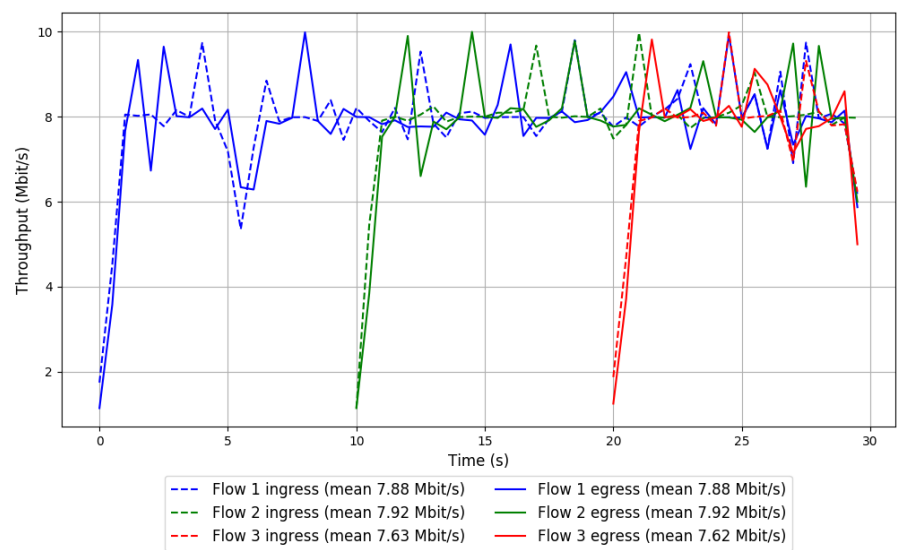
-- Flow 3:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 54.441 ms

Loss rate: 1.48%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-02-14 06:12:00

End at: 2018-02-14 06:12:30

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.38 Mbit/s

95th percentile per-packet one-way delay: 54.664 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 54.581 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 54.761 ms

Loss rate: 0.68%

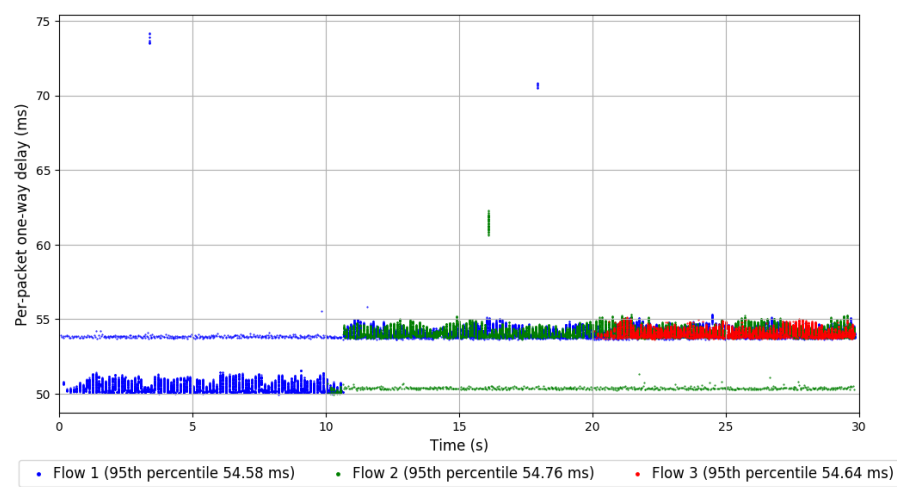
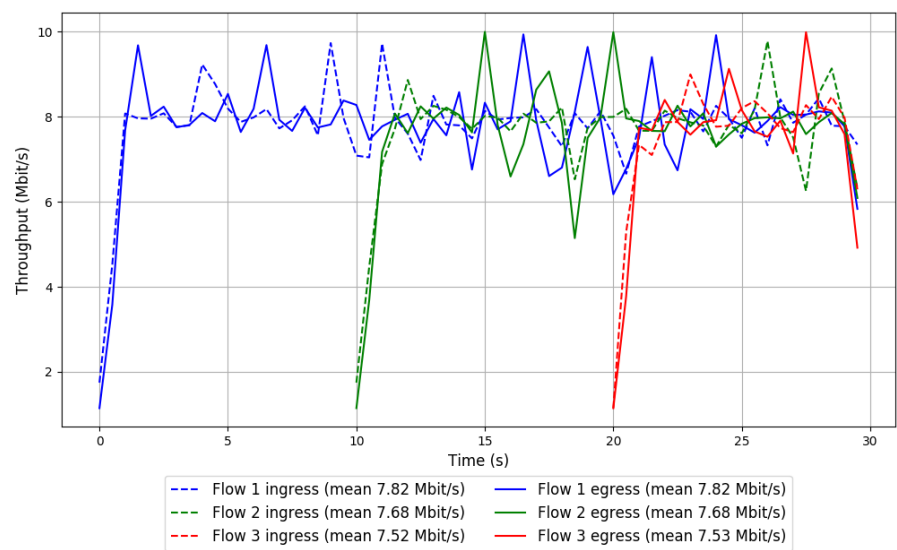
-- Flow 3:

Average throughput: 7.53 Mbit/s

95th percentile per-packet one-way delay: 54.639 ms

Loss rate: 1.41%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-02-14 06:29:25

End at: 2018-02-14 06:29:55

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.32 Mbit/s

95th percentile per-packet one-way delay: 54.768 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.758 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 54.778 ms

Loss rate: 0.94%

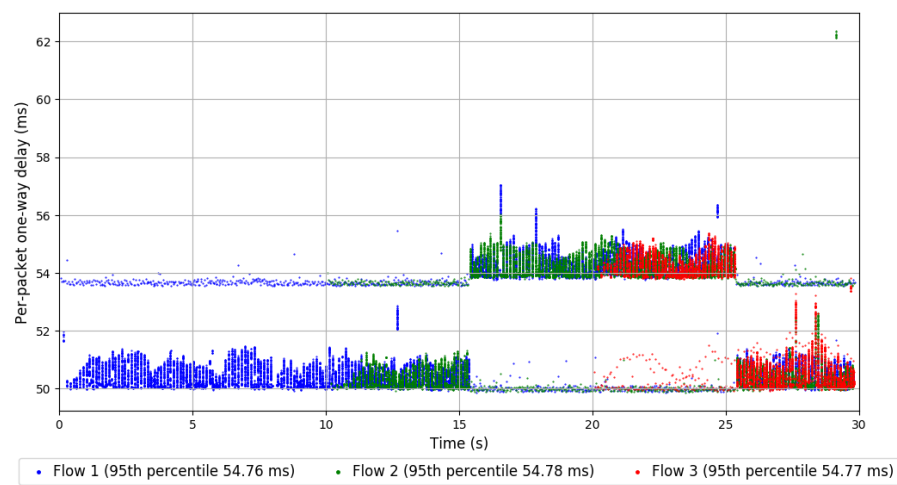
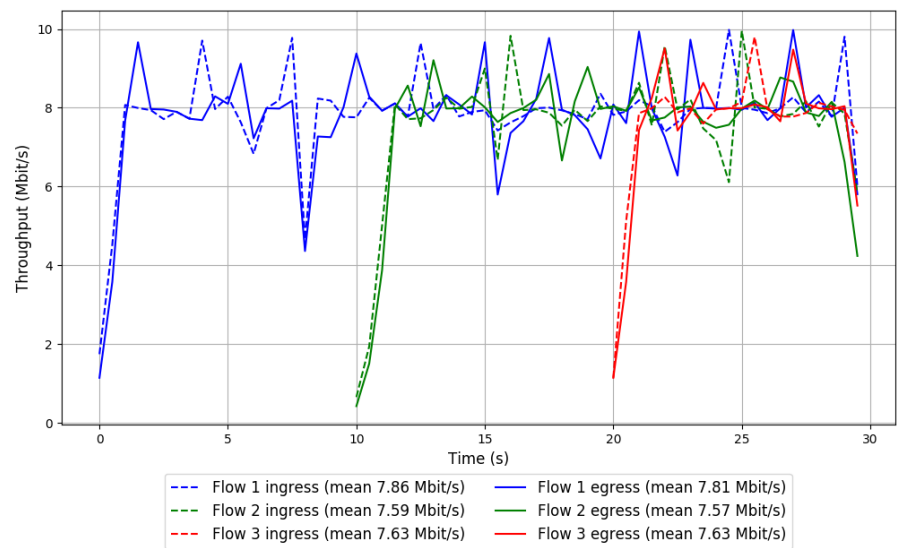
-- Flow 3:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 54.774 ms

Loss rate: 1.29%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-02-14 06:46:50

End at: 2018-02-14 06:47:20

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.54 Mbit/s

95th percentile per-packet one-way delay: 54.293 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 54.493 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.74 Mbit/s

95th percentile per-packet one-way delay: 51.308 ms

Loss rate: 0.09%

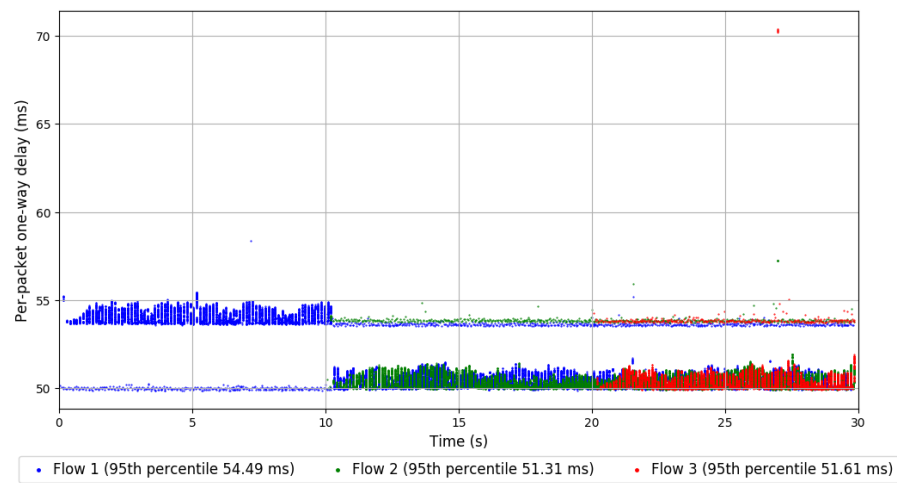
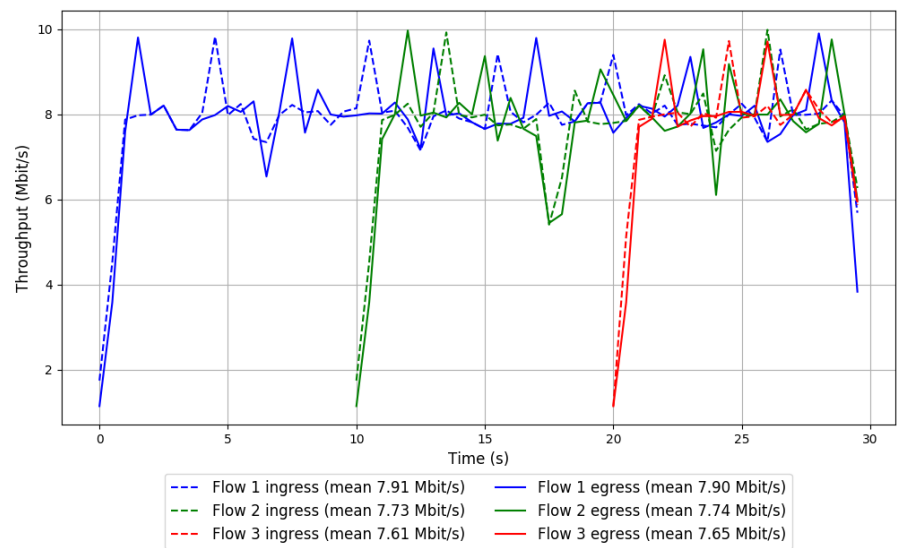
-- Flow 3:

Average throughput: 7.65 Mbit/s

95th percentile per-packet one-way delay: 51.608 ms

Loss rate: 0.10%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-02-14 07:04:22

End at: 2018-02-14 07:04:52

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.31 Mbit/s

95th percentile per-packet one-way delay: 54.535 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 54.588 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 54.547 ms

Loss rate: 0.65%

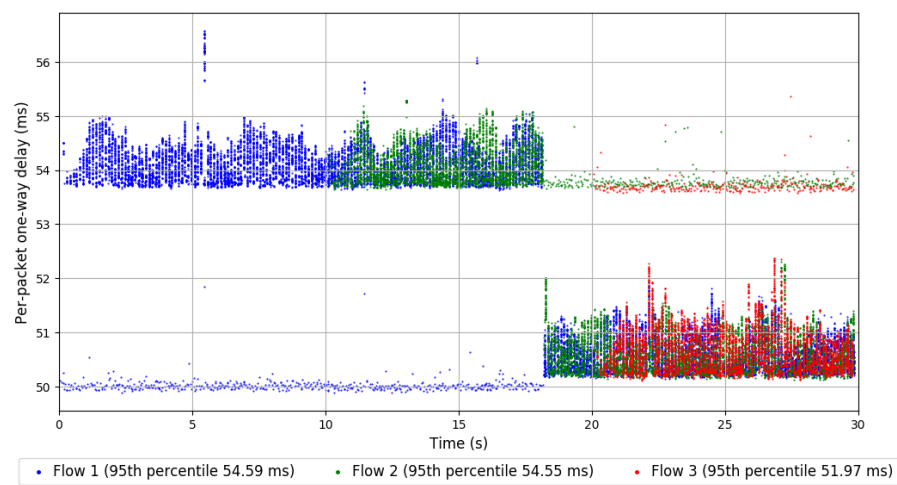
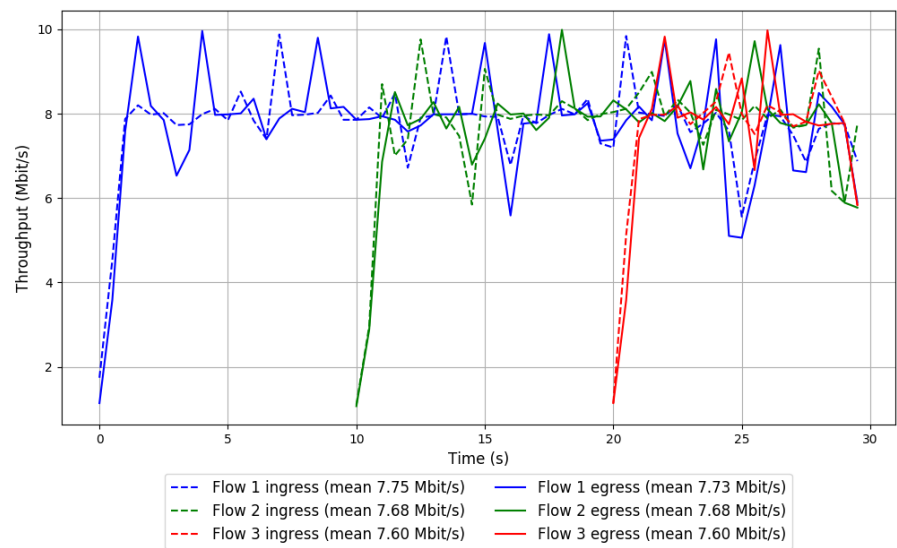
-- Flow 3:

Average throughput: 7.60 Mbit/s

95th percentile per-packet one-way delay: 51.965 ms

Loss rate: 1.30%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-02-14 07:21:55

End at: 2018-02-14 07:22:25

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.42 Mbit/s

95th percentile per-packet one-way delay: 54.563 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 54.431 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 54.575 ms

Loss rate: 0.74%

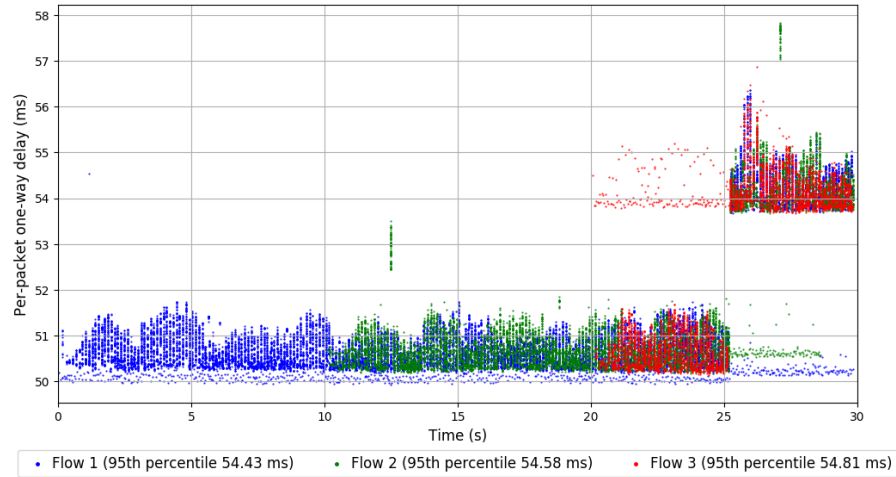
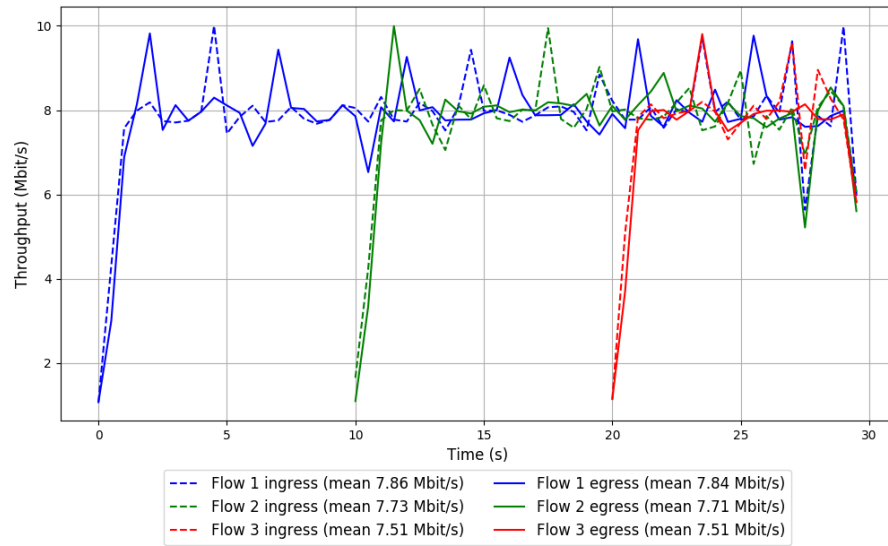
-- Flow 3:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 54.807 ms

Loss rate: 1.22%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-02-14 07:38:56

End at: 2018-02-14 07:39:26

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.27 Mbit/s

95th percentile per-packet one-way delay: 54.737 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 7.74 Mbit/s

95th percentile per-packet one-way delay: 54.760 ms

Loss rate: 1.28%

-- Flow 2:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 54.679 ms

Loss rate: 0.73%

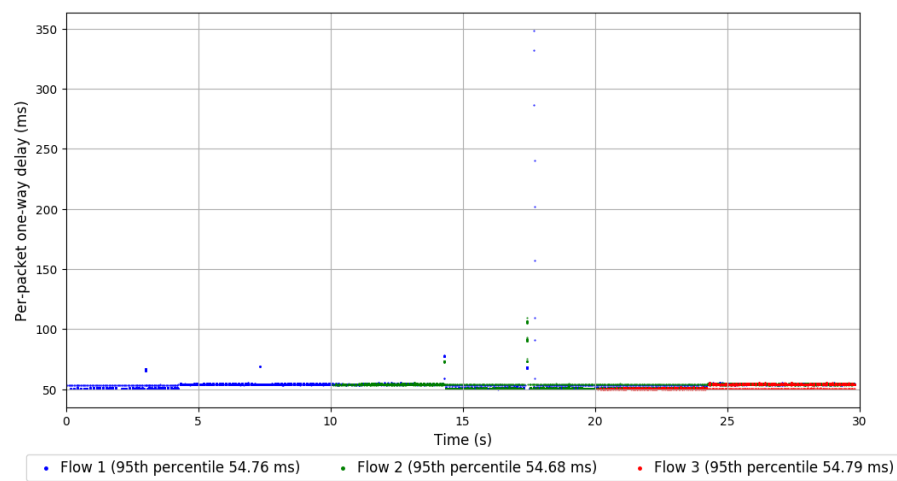
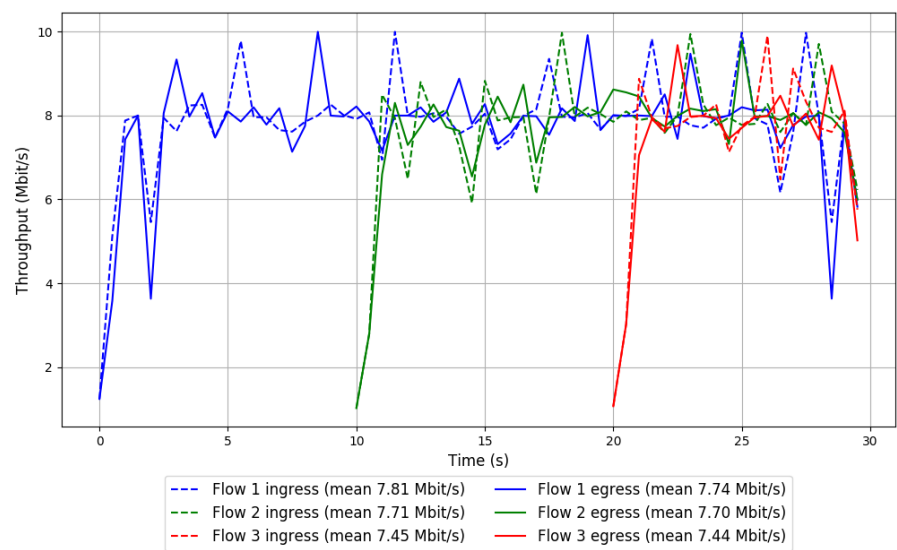
-- Flow 3:

Average throughput: 7.44 Mbit/s

95th percentile per-packet one-way delay: 54.787 ms

Loss rate: 0.85%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-02-14 07:56:26

End at: 2018-02-14 07:56:56

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.13 Mbit/s

95th percentile per-packet one-way delay: 54.594 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 54.511 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 54.567 ms

Loss rate: 0.57%

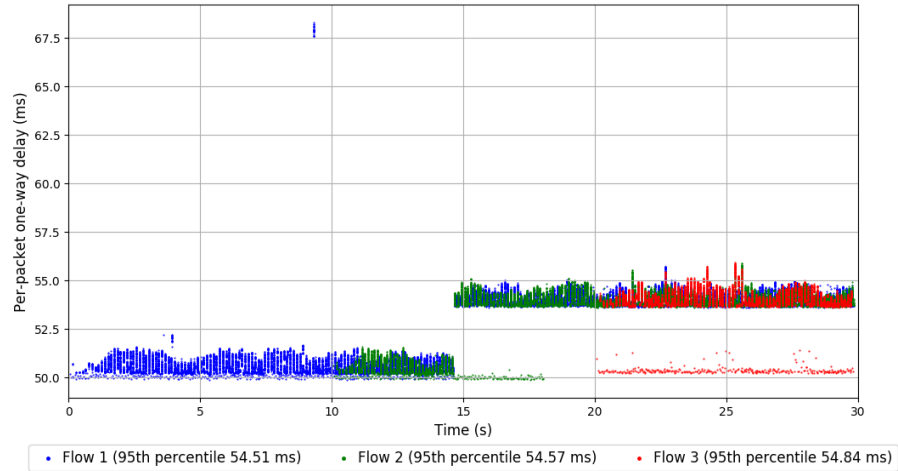
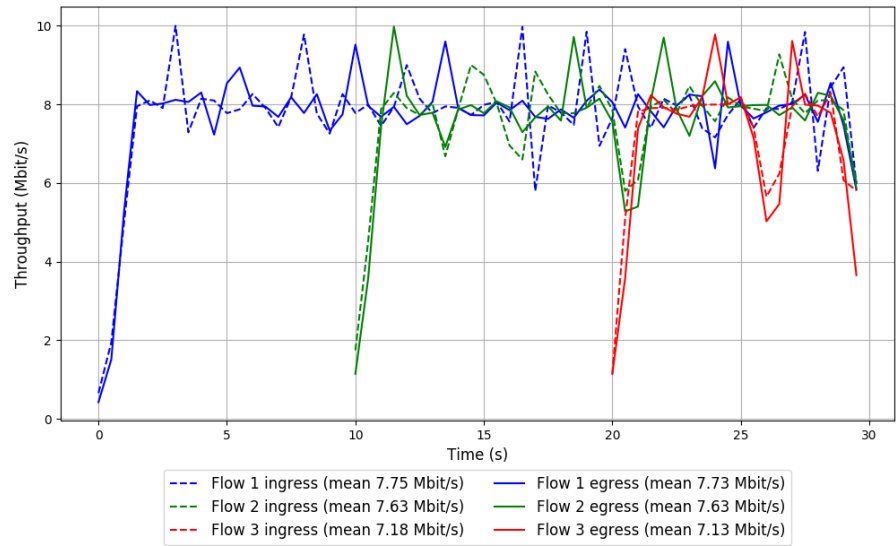
-- Flow 3:

Average throughput: 7.13 Mbit/s

95th percentile per-packet one-way delay: 54.842 ms

Loss rate: 1.52%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-02-14 08:13:49

End at: 2018-02-14 08:14:19

Below is generated by plot.py at 2018-02-14 12:08:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.22 Mbit/s

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

Loss rate: 0.86%

-- Flow 1:

Average throughput: 7.64 Mbit/s

95th percentile per-packet one-way delay: 54.639 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.761 ms

Loss rate: 0.65%

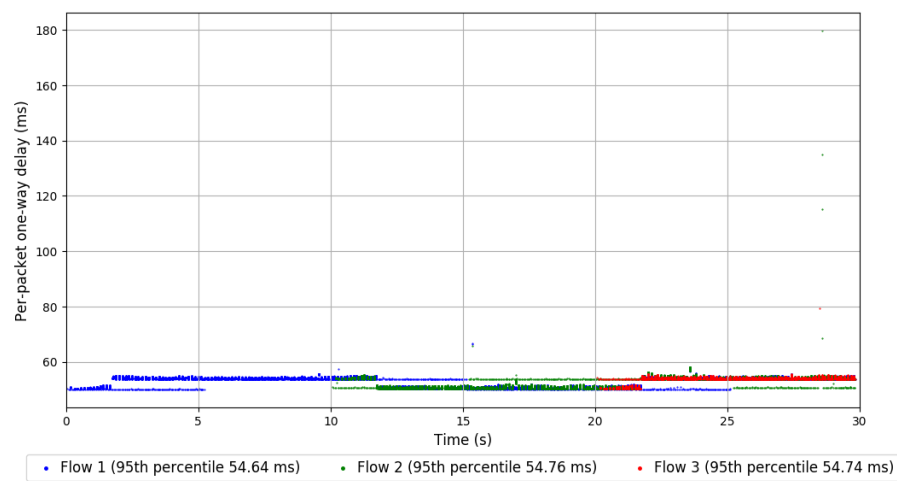
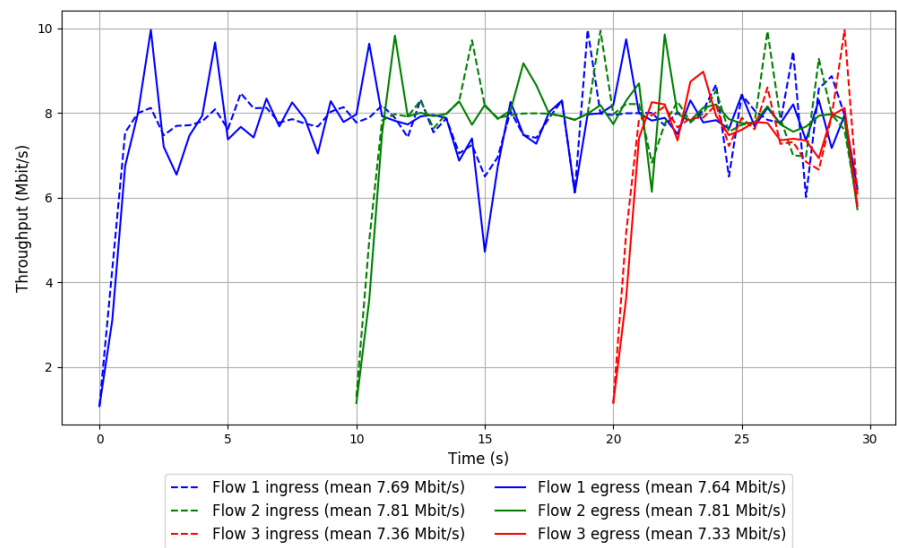
-- Flow 3:

Average throughput: 7.33 Mbit/s

95th percentile per-packet one-way delay: 54.736 ms

Loss rate: 1.45%

Run 10: Report of Sprout — Data Link

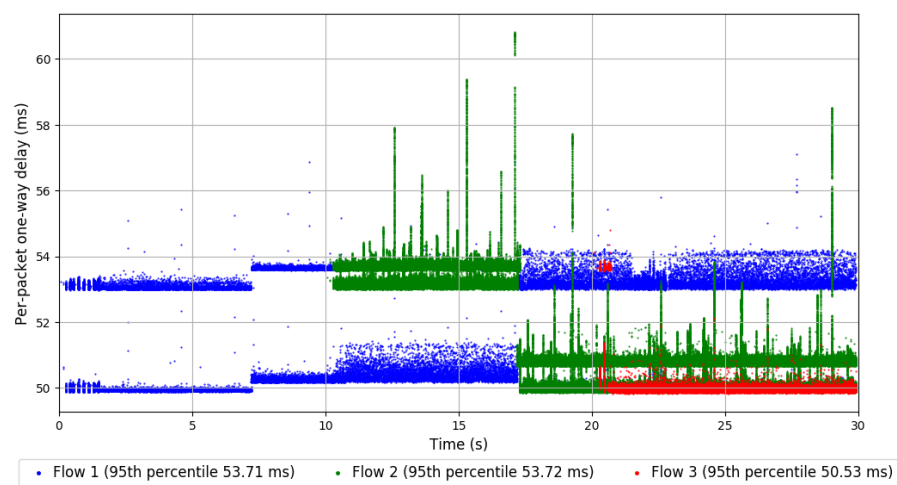
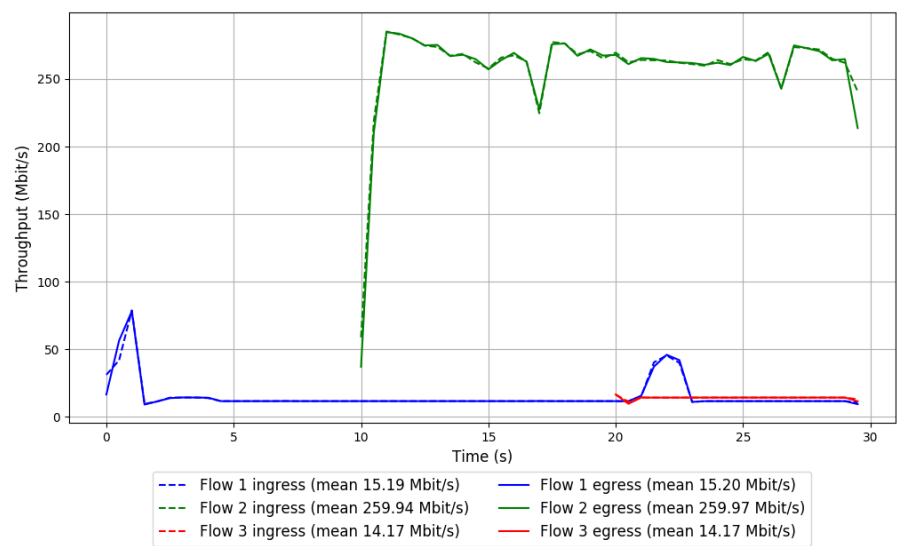


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-14 05:46:13
End at: 2018-02-14 05:46:43

# Below is generated by plot.py at 2018-02-14 12:12:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 192.62 Mbit/s
95th percentile per-packet one-way delay: 53.716 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 15.20 Mbit/s
95th percentile per-packet one-way delay: 53.712 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 259.97 Mbit/s
95th percentile per-packet one-way delay: 53.717 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 14.17 Mbit/s
95th percentile per-packet one-way delay: 50.527 ms
Loss rate: 1.02%
```


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

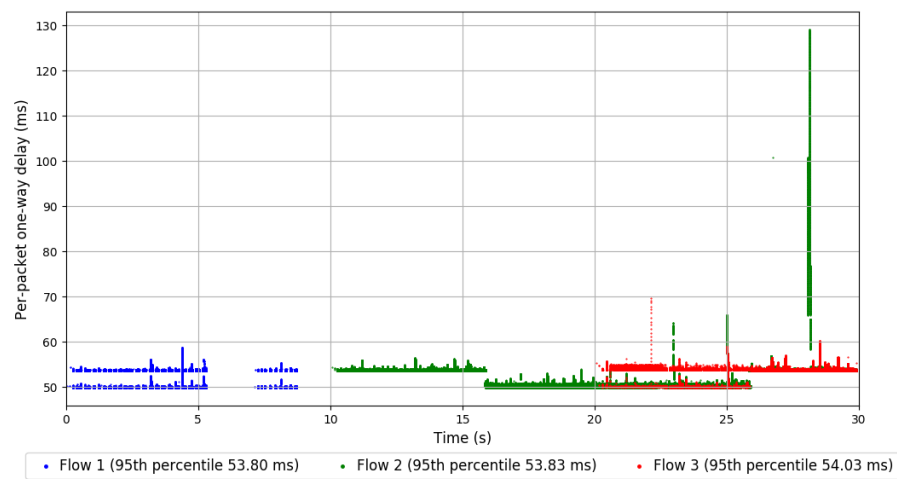
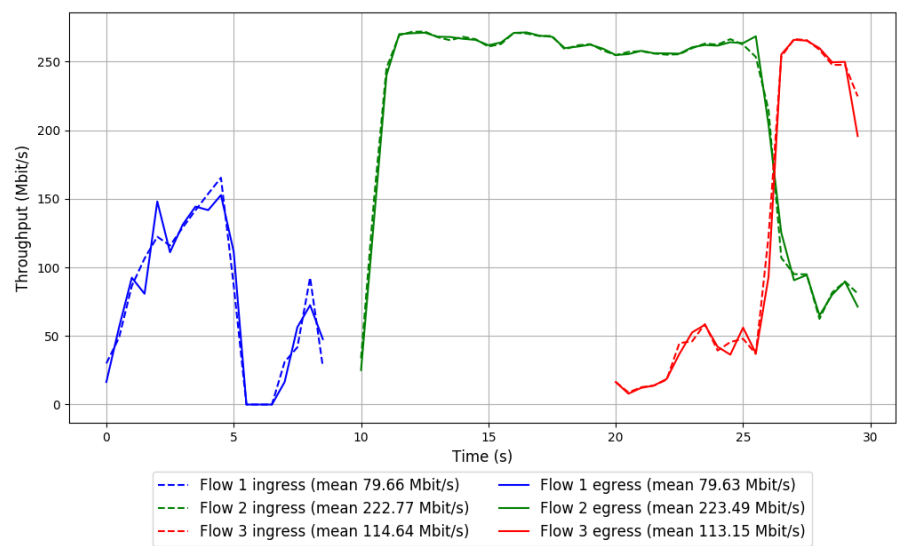


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-14 06:03:34
End at: 2018-02-14 06:04:04

# Below is generated by plot.py at 2018-02-14 12:12:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 208.86 Mbit/s
95th percentile per-packet one-way delay: 53.863 ms
Loss rate: 0.58%
-- Flow 1:
Average throughput: 79.63 Mbit/s
95th percentile per-packet one-way delay: 53.797 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 223.49 Mbit/s
95th percentile per-packet one-way delay: 53.827 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 113.15 Mbit/s
95th percentile per-packet one-way delay: 54.034 ms
Loss rate: 2.33%
```

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

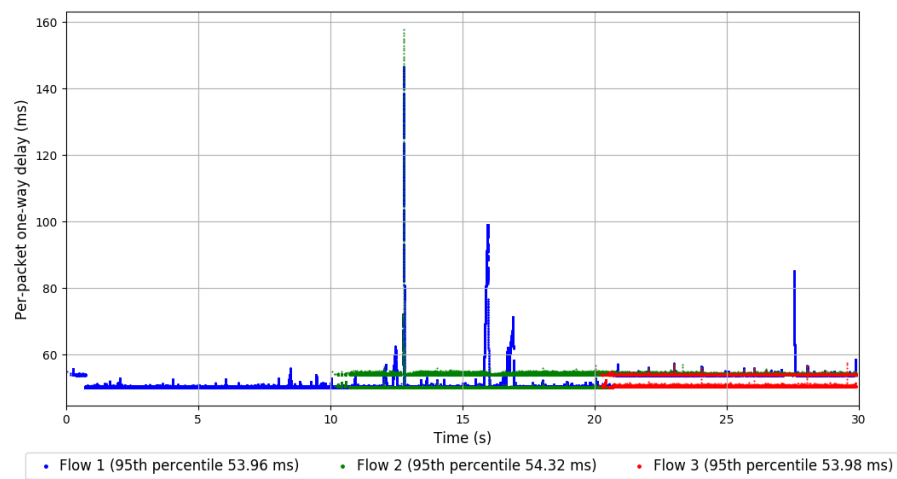
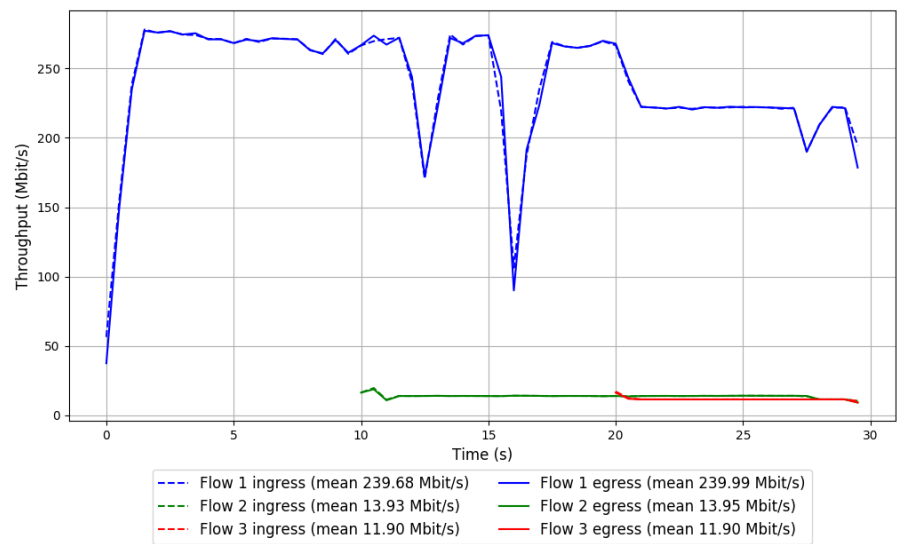


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-14 06:21:00
End at: 2018-02-14 06:21:30

# Below is generated by plot.py at 2018-02-14 12:14:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 253.17 Mbit/s
95th percentile per-packet one-way delay: 53.978 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 239.99 Mbit/s
95th percentile per-packet one-way delay: 53.958 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 54.317 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 11.90 Mbit/s
95th percentile per-packet one-way delay: 53.983 ms
Loss rate: 1.02%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-02-14 06:38:20

End at: 2018-02-14 06:38:50

Below is generated by plot.py at 2018-02-14 12:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 335.95 Mbit/s

95th percentile per-packet one-way delay: 52.714 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 171.55 Mbit/s

95th percentile per-packet one-way delay: 50.749 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 135.74 Mbit/s

95th percentile per-packet one-way delay: 51.575 ms

Loss rate: 0.05%

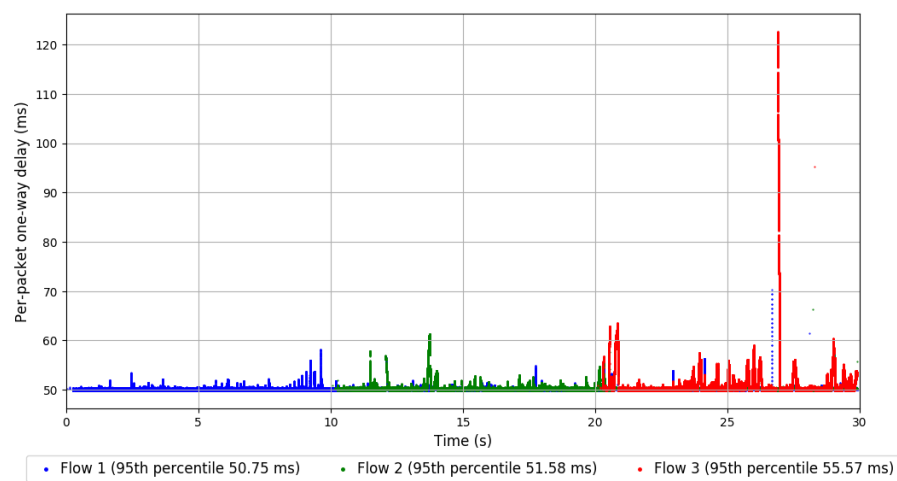
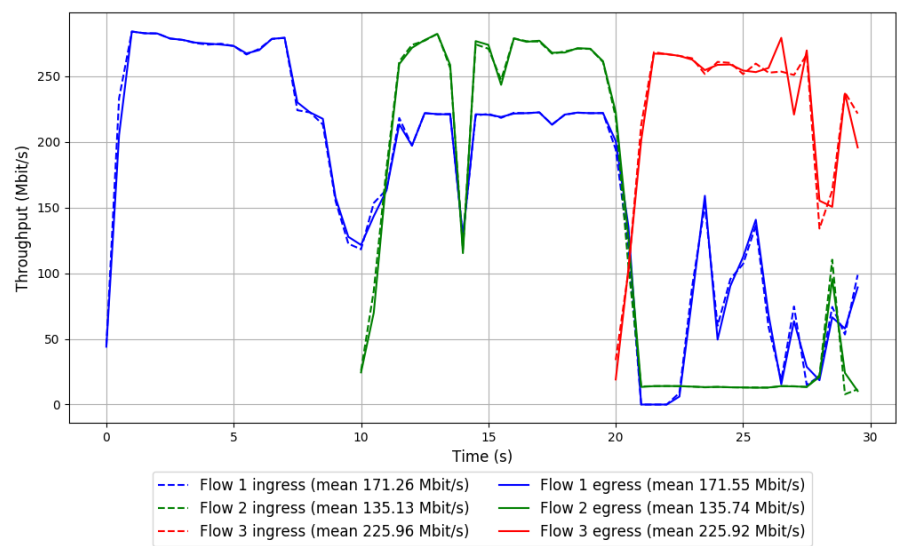
-- Flow 3:

Average throughput: 225.92 Mbit/s

95th percentile per-packet one-way delay: 55.567 ms

Loss rate: 1.04%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-02-14 06:55:50

End at: 2018-02-14 06:56:20

Below is generated by plot.py at 2018-02-14 12:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.50 Mbit/s

95th percentile per-packet one-way delay: 53.837 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 225.93 Mbit/s

95th percentile per-packet one-way delay: 53.838 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 13.10 Mbit/s

95th percentile per-packet one-way delay: 53.738 ms

Loss rate: 0.54%

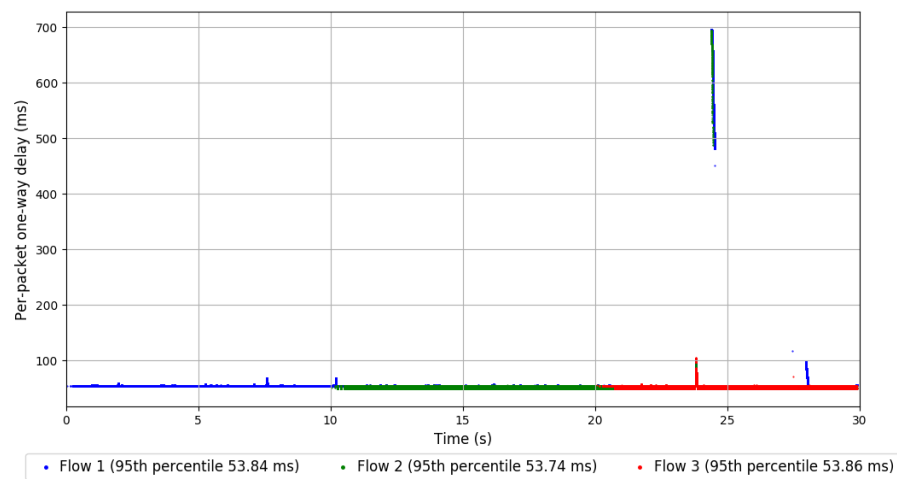
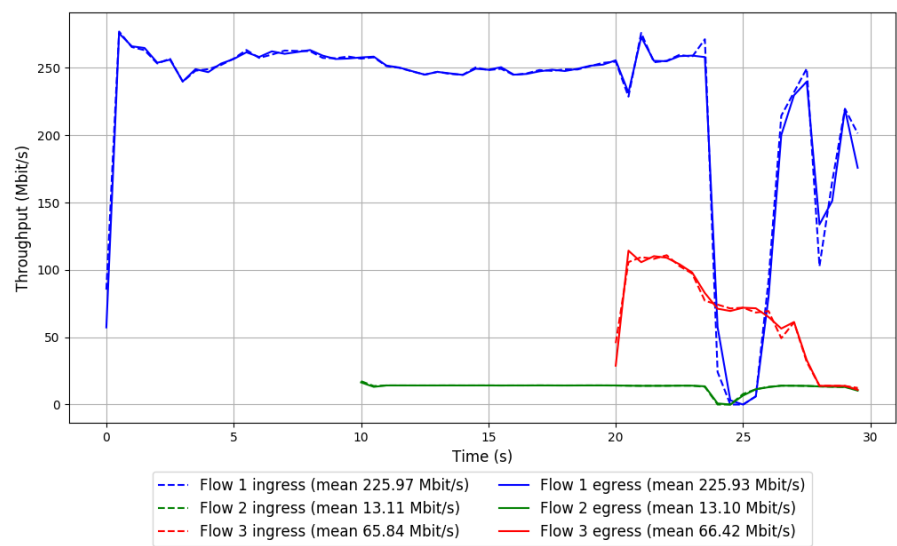
-- Flow 3:

Average throughput: 66.42 Mbit/s

95th percentile per-packet one-way delay: 53.859 ms

Loss rate: 0.21%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-02-14 07:13:22

End at: 2018-02-14 07:13:52

Below is generated by plot.py at 2018-02-14 12:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.05 Mbit/s

95th percentile per-packet one-way delay: 57.658 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 236.67 Mbit/s

95th percentile per-packet one-way delay: 59.358 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 108.26 Mbit/s

95th percentile per-packet one-way delay: 54.751 ms

Loss rate: 1.32%

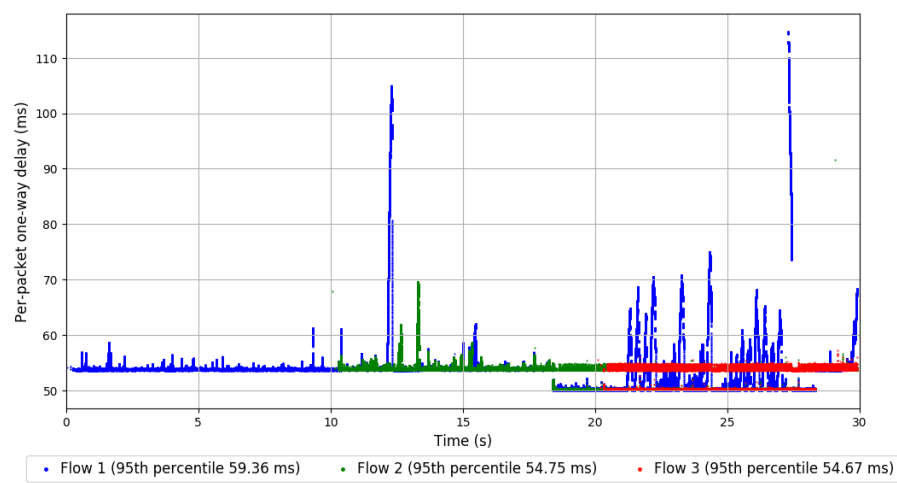
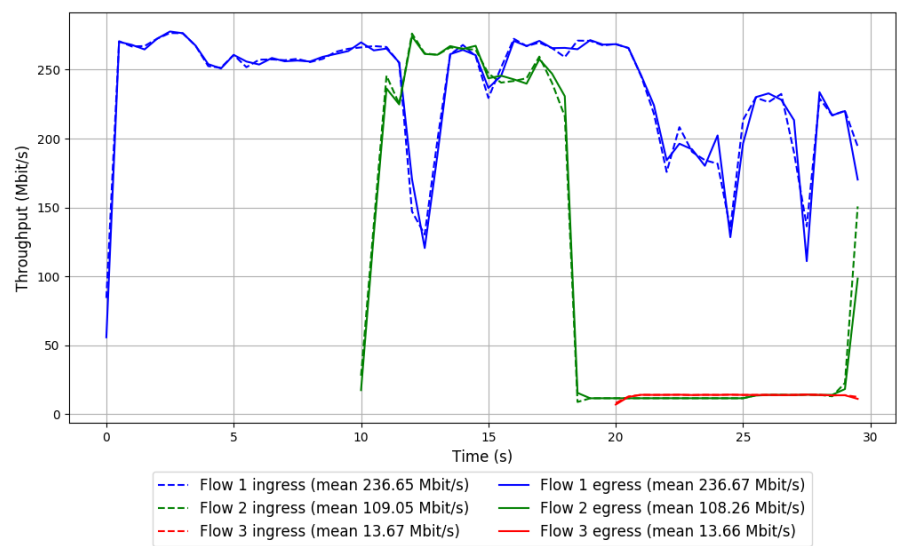
-- Flow 3:

Average throughput: 13.66 Mbit/s

95th percentile per-packet one-way delay: 54.667 ms

Loss rate: 1.08%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-02-14 07:30:50

End at: 2018-02-14 07:31:20

Below is generated by plot.py at 2018-02-14 12:17:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.16 Mbit/s

95th percentile per-packet one-way delay: 53.880 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 105.06 Mbit/s

95th percentile per-packet one-way delay: 53.941 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 112.35 Mbit/s

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

Loss rate: 0.00%

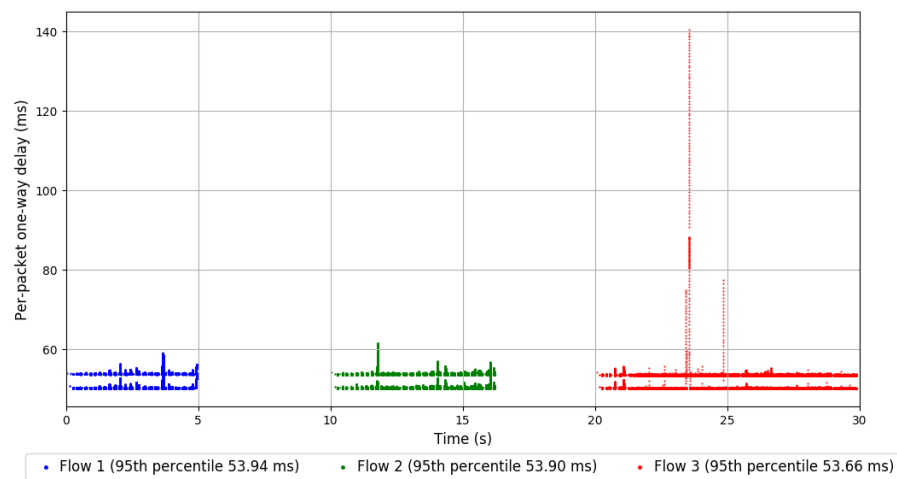
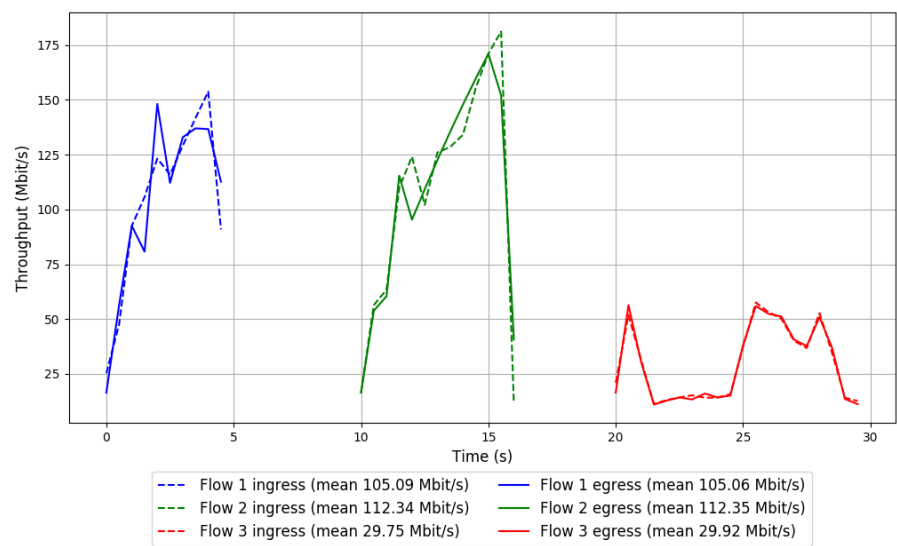
-- Flow 3:

Average throughput: 29.92 Mbit/s

95th percentile per-packet one-way delay: 53.664 ms

Loss rate: 0.49%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-02-14 07:47:55

End at: 2018-02-14 07:48:25

Below is generated by plot.py at 2018-02-14 12:17:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.53 Mbit/s

95th percentile per-packet one-way delay: 51.430 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 244.62 Mbit/s

95th percentile per-packet one-way delay: 50.380 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 22.53 Mbit/s

95th percentile per-packet one-way delay: 54.527 ms

Loss rate: 0.26%

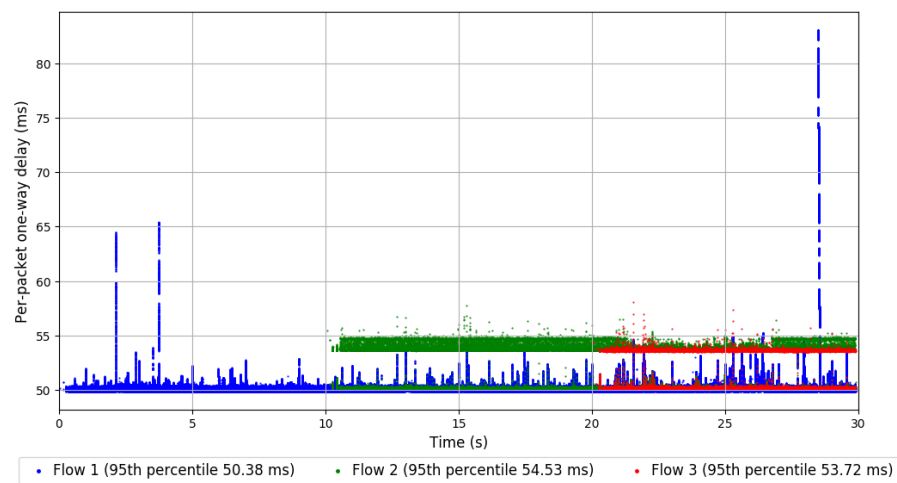
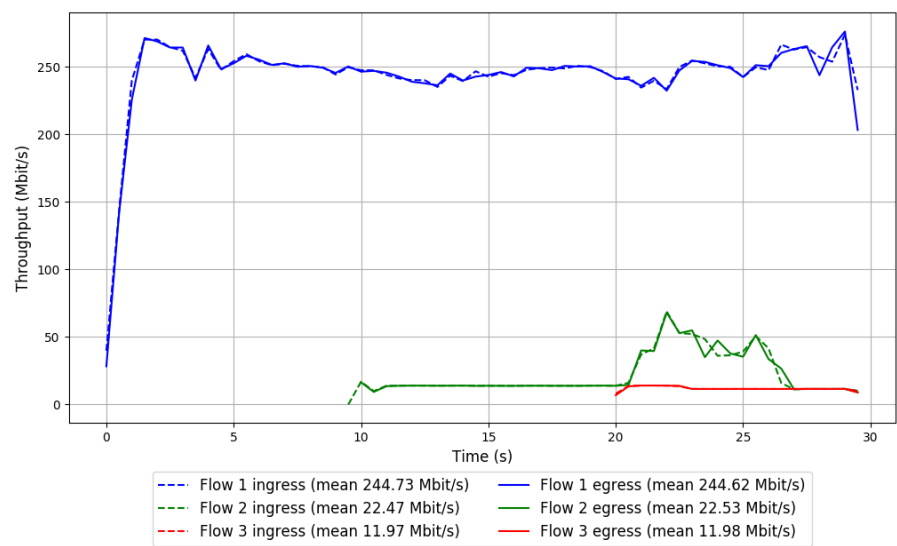
-- Flow 3:

Average throughput: 11.98 Mbit/s

95th percentile per-packet one-way delay: 53.722 ms

Loss rate: 0.98%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-02-14 08:05:28

End at: 2018-02-14 08:05:58

Below is generated by plot.py at 2018-02-14 12:17:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.13 Mbit/s

95th percentile per-packet one-way delay: 53.781 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 110.45 Mbit/s

95th percentile per-packet one-way delay: 50.440 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 15.83 Mbit/s

95th percentile per-packet one-way delay: 53.870 ms

Loss rate: 2.61%

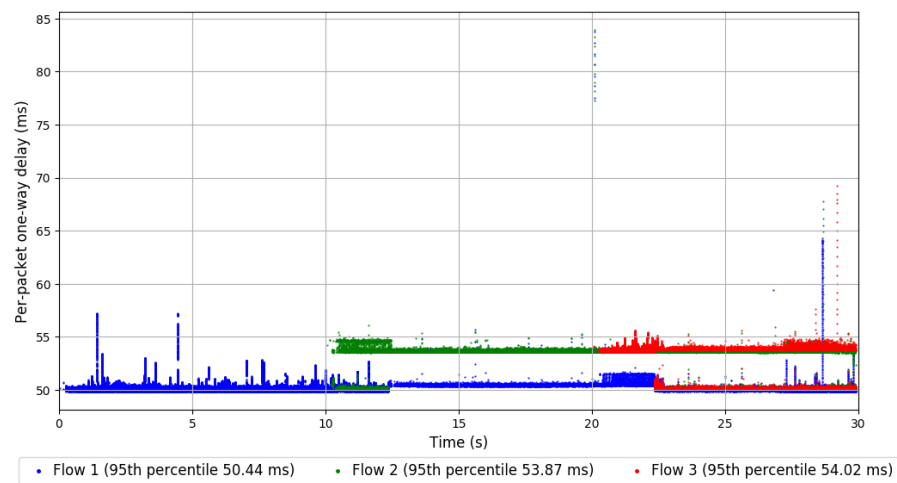
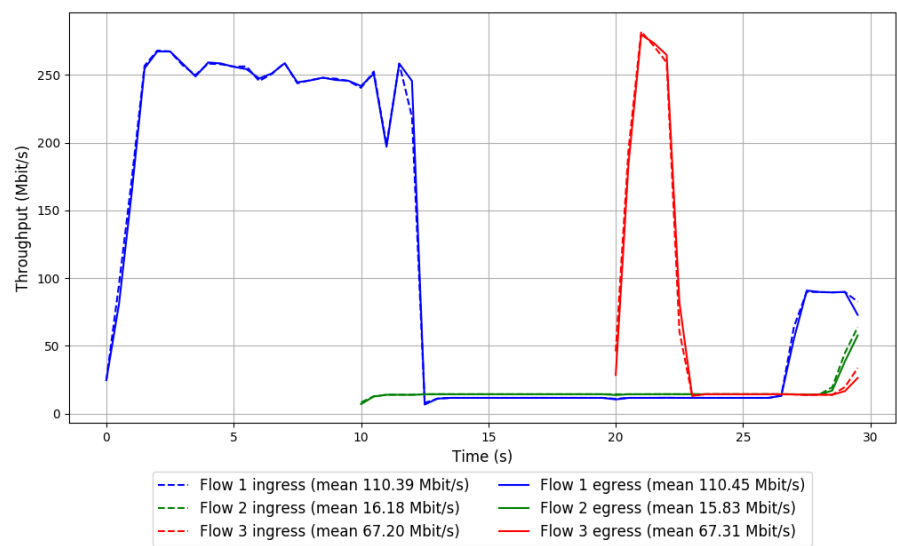
-- Flow 3:

Average throughput: 67.31 Mbit/s

95th percentile per-packet one-way delay: 54.015 ms

Loss rate: 0.88%

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

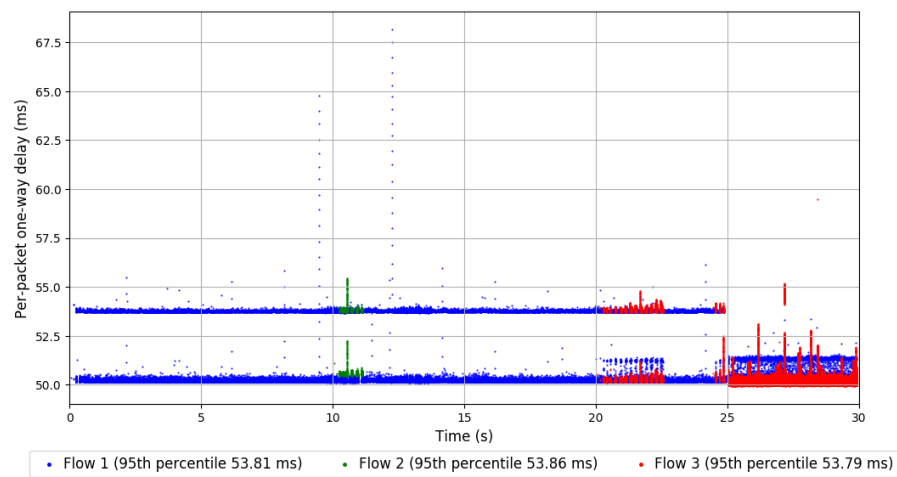
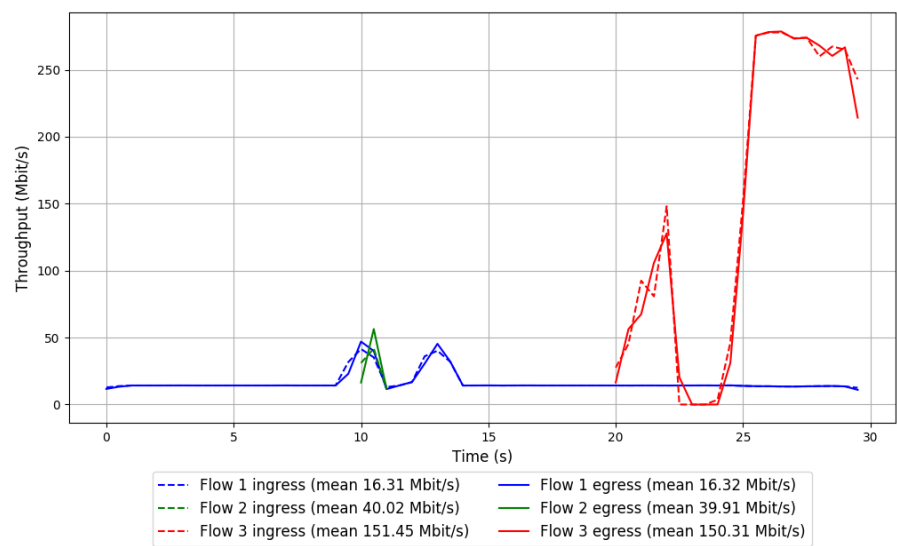


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-14 08:22:45
End at: 2018-02-14 08:23:15

# Below is generated by plot.py at 2018-02-14 12:17:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 67.25 Mbit/s
95th percentile per-packet one-way delay: 53.801 ms
Loss rate: 1.40%
-- Flow 1:
Average throughput: 16.32 Mbit/s
95th percentile per-packet one-way delay: 53.808 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 39.91 Mbit/s
95th percentile per-packet one-way delay: 53.863 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 150.31 Mbit/s
95th percentile per-packet one-way delay: 53.788 ms
Loss rate: 1.80%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-14 05:34:59

End at: 2018-02-14 05:35:29

Below is generated by plot.py at 2018-02-14 12:17:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 220.47 Mbit/s

95th percentile per-packet one-way delay: 61.156 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 160.46 Mbit/s

95th percentile per-packet one-way delay: 61.402 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 32.96 Mbit/s

95th percentile per-packet one-way delay: 59.594 ms

Loss rate: 0.25%

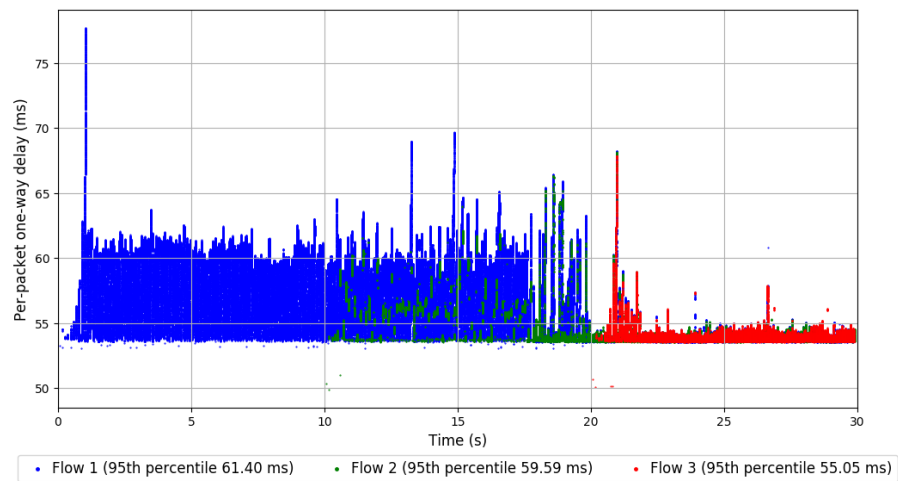
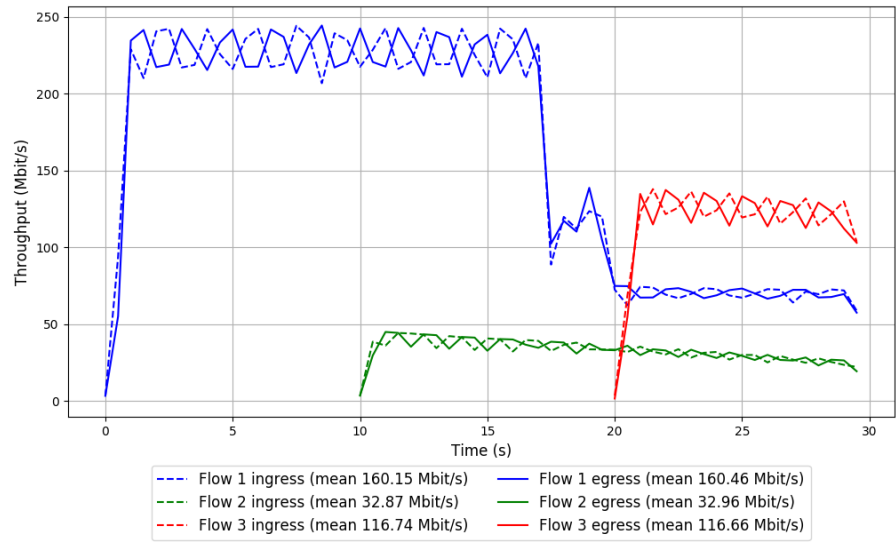
-- Flow 3:

Average throughput: 116.66 Mbit/s

95th percentile per-packet one-way delay: 55.049 ms

Loss rate: 1.12%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-14 05:52:26

End at: 2018-02-14 05:52:57

Below is generated by plot.py at 2018-02-14 12:17:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.96 Mbit/s

95th percentile per-packet one-way delay: 60.229 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 90.65 Mbit/s

95th percentile per-packet one-way delay: 60.399 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 21.39 Mbit/s

95th percentile per-packet one-way delay: 54.395 ms

Loss rate: 0.39%

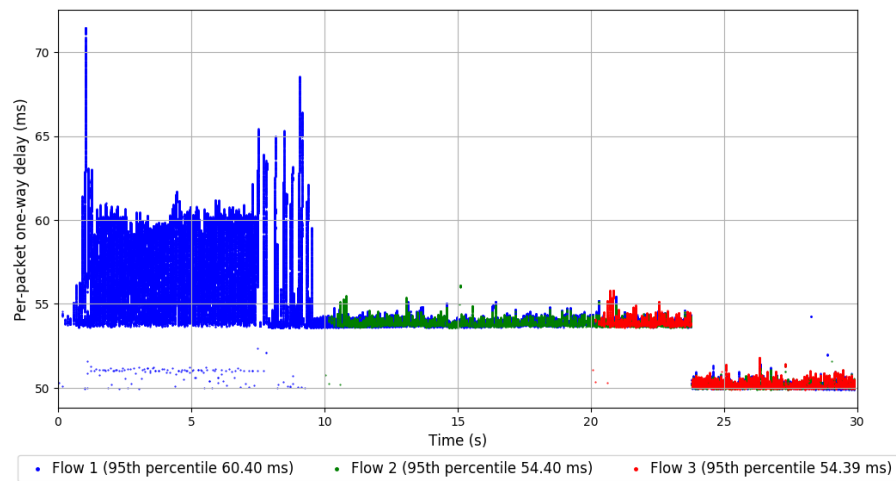
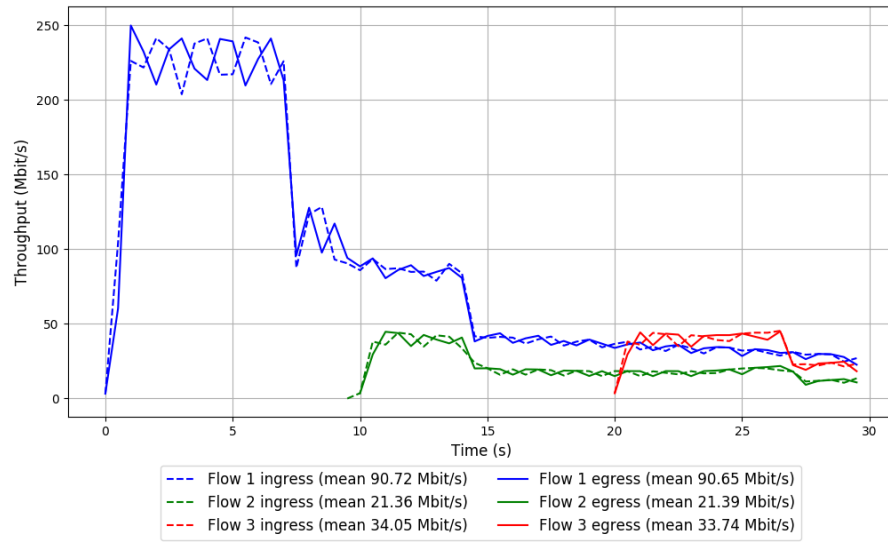
-- Flow 3:

Average throughput: 33.74 Mbit/s

95th percentile per-packet one-way delay: 54.390 ms

Loss rate: 1.94%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-02-14 06:09:48

End at: 2018-02-14 06:10:18

Below is generated by plot.py at 2018-02-14 12:17:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 190.69 Mbit/s

95th percentile per-packet one-way delay: 57.990 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 20.42 Mbit/s

95th percentile per-packet one-way delay: 55.085 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 223.15 Mbit/s

95th percentile per-packet one-way delay: 58.324 ms

Loss rate: 0.56%

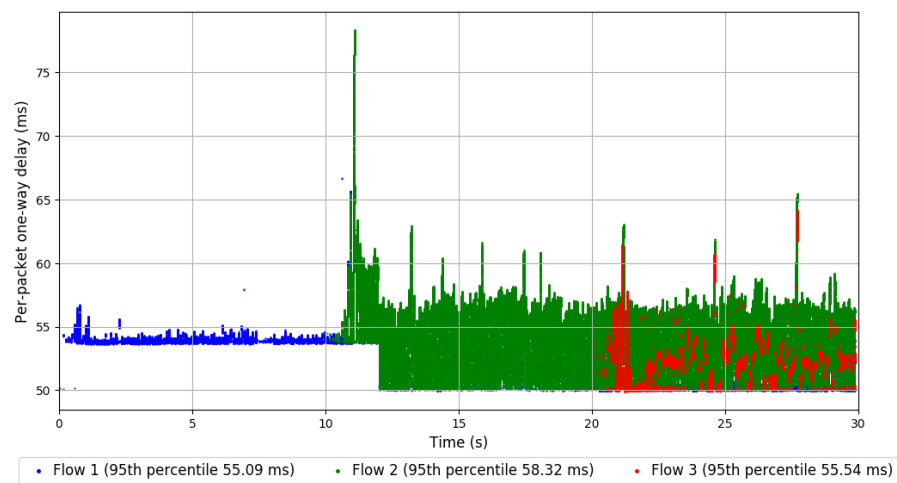
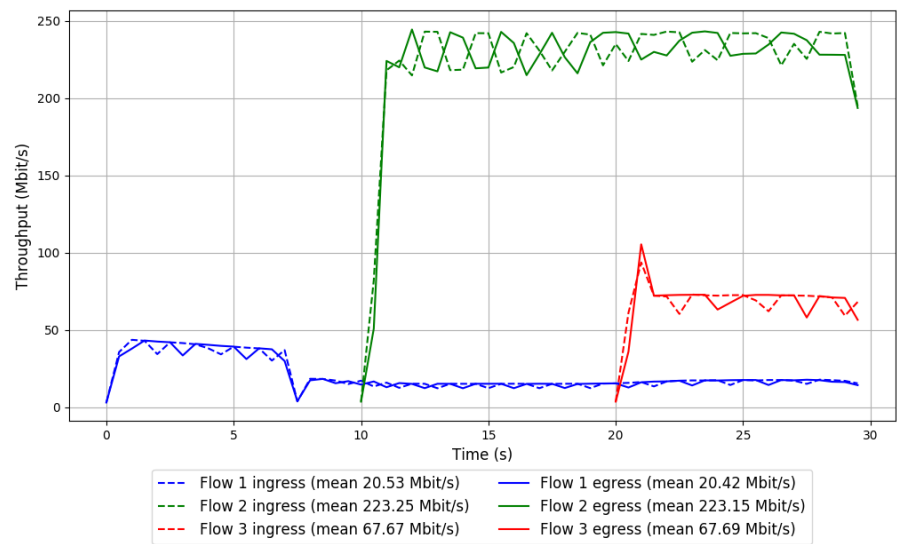
-- Flow 3:

Average throughput: 67.69 Mbit/s

95th percentile per-packet one-way delay: 55.539 ms

Loss rate: 1.05%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-02-14 06:27:12

End at: 2018-02-14 06:27:42

Below is generated by plot.py at 2018-02-14 12:19:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 275.31 Mbit/s

95th percentile per-packet one-way delay: 60.200 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 217.19 Mbit/s

95th percentile per-packet one-way delay: 57.602 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 8.98 Mbit/s

95th percentile per-packet one-way delay: 60.824 ms

Loss rate: 1.00%

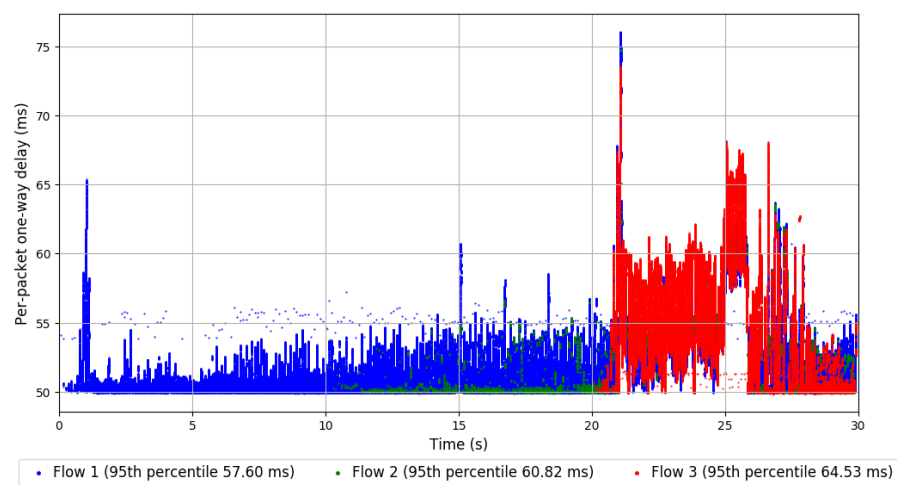
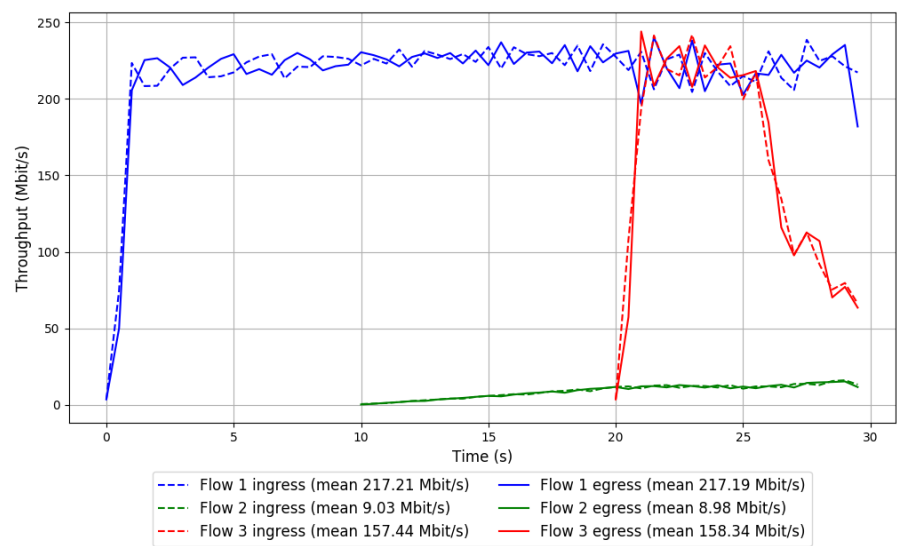
-- Flow 3:

Average throughput: 158.34 Mbit/s

95th percentile per-packet one-way delay: 64.535 ms

Loss rate: 0.46%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-02-14 06:44:47

End at: 2018-02-14 06:45:17

Below is generated by plot.py at 2018-02-14 12:19:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.16 Mbit/s

95th percentile per-packet one-way delay: 55.120 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 30.04 Mbit/s

95th percentile per-packet one-way delay: 57.019 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 9.84 Mbit/s

95th percentile per-packet one-way delay: 54.268 ms

Loss rate: 0.84%

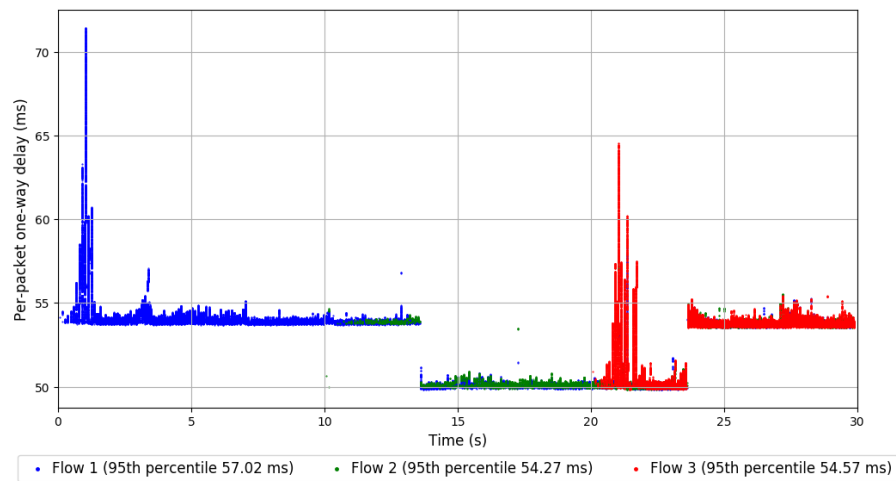
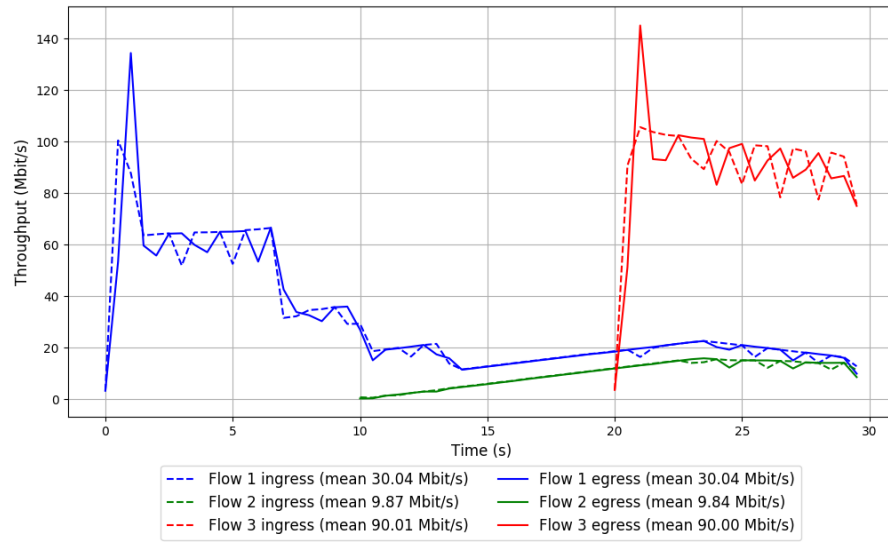
-- Flow 3:

Average throughput: 90.00 Mbit/s

95th percentile per-packet one-way delay: 54.570 ms

Loss rate: 1.06%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-02-14 07:02:08

End at: 2018-02-14 07:02:38

Below is generated by plot.py at 2018-02-14 12:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 197.75 Mbit/s

95th percentile per-packet one-way delay: 55.491 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 99.51 Mbit/s

95th percentile per-packet one-way delay: 57.527 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 81.10 Mbit/s

95th percentile per-packet one-way delay: 54.463 ms

Loss rate: 0.52%

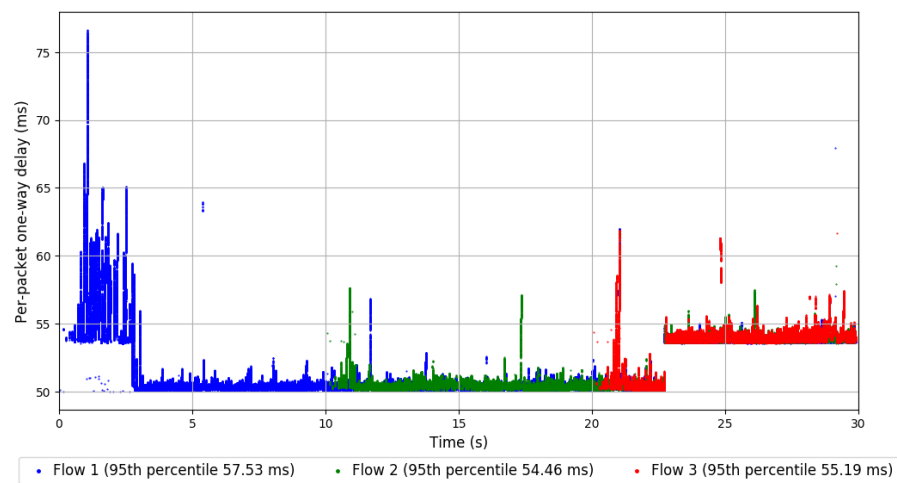
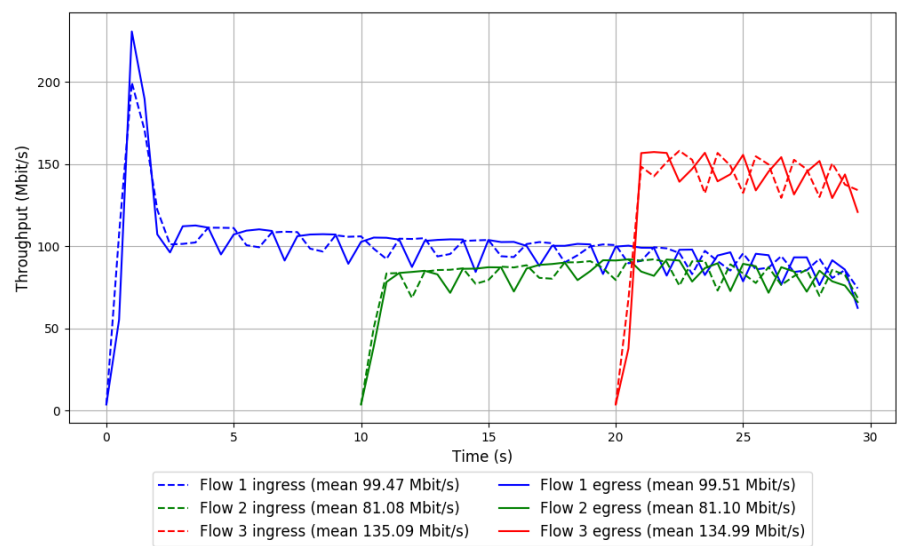
-- Flow 3:

Average throughput: 134.99 Mbit/s

95th percentile per-packet one-way delay: 55.187 ms

Loss rate: 1.13%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-02-14 07:19:49

End at: 2018-02-14 07:20:19

Below is generated by plot.py at 2018-02-14 12:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 125.67 Mbit/s

95th percentile per-packet one-way delay: 56.007 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 73.17 Mbit/s

95th percentile per-packet one-way delay: 57.219 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 48.59 Mbit/s

95th percentile per-packet one-way delay: 54.530 ms

Loss rate: 0.31%

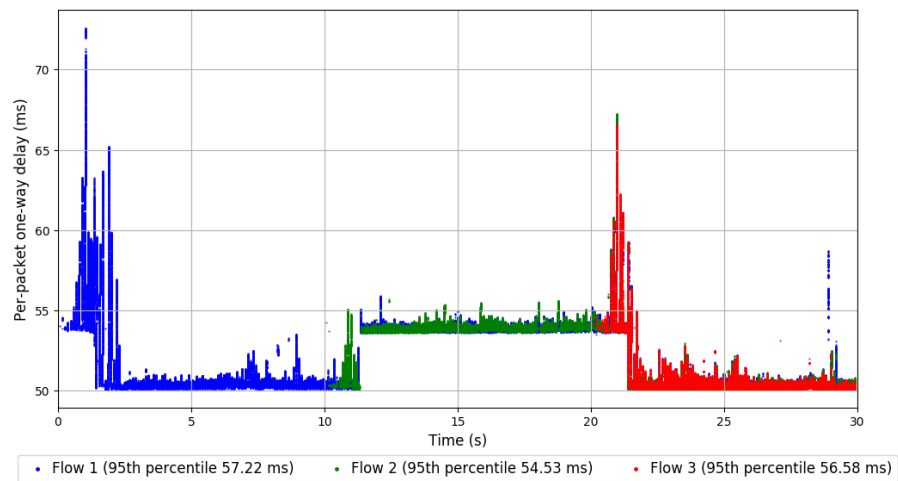
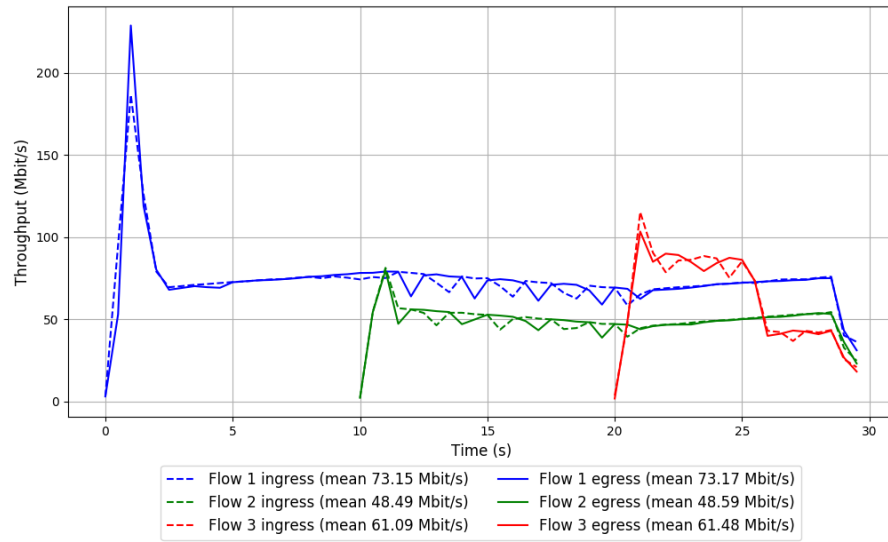
-- Flow 3:

Average throughput: 61.48 Mbit/s

95th percentile per-packet one-way delay: 56.582 ms

Loss rate: 0.43%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-02-14 07:36:49

End at: 2018-02-14 07:37:19

Below is generated by plot.py at 2018-02-14 12:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.02 Mbit/s

95th percentile per-packet one-way delay: 57.523 ms

Loss rate: 0.26%

-- Flow 1:

Average throughput: 72.69 Mbit/s

95th percentile per-packet one-way delay: 56.331 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 96.69 Mbit/s

95th percentile per-packet one-way delay: 57.670 ms

Loss rate: 0.17%

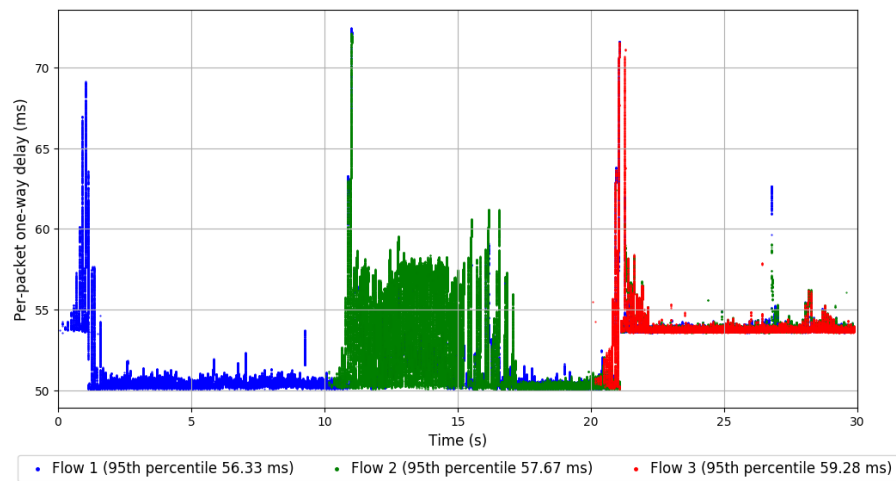
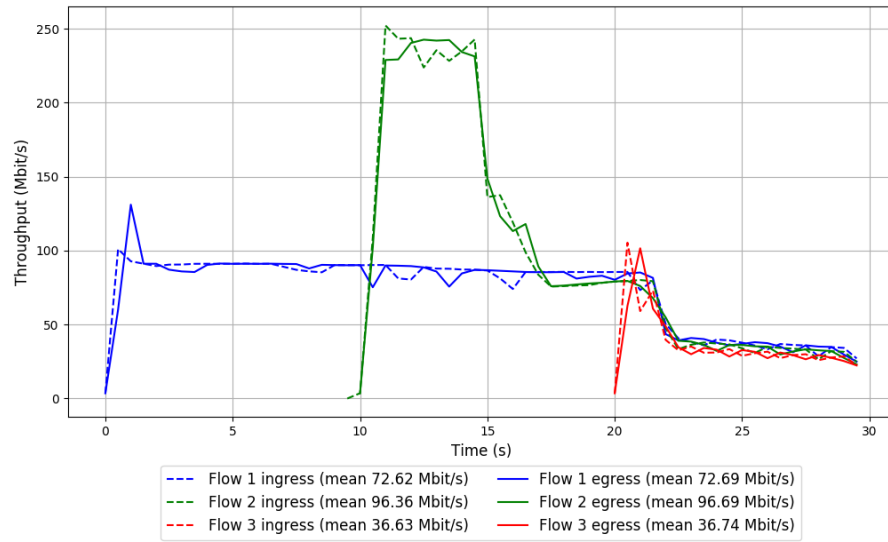
-- Flow 3:

Average throughput: 36.74 Mbit/s

95th percentile per-packet one-way delay: 59.280 ms

Loss rate: 0.79%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-02-14 07:54:16

End at: 2018-02-14 07:54:46

Below is generated by plot.py at 2018-02-14 12:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.04 Mbit/s

95th percentile per-packet one-way delay: 51.988 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 96.88 Mbit/s

95th percentile per-packet one-way delay: 51.848 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 11.24 Mbit/s

95th percentile per-packet one-way delay: 51.734 ms

Loss rate: 1.06%

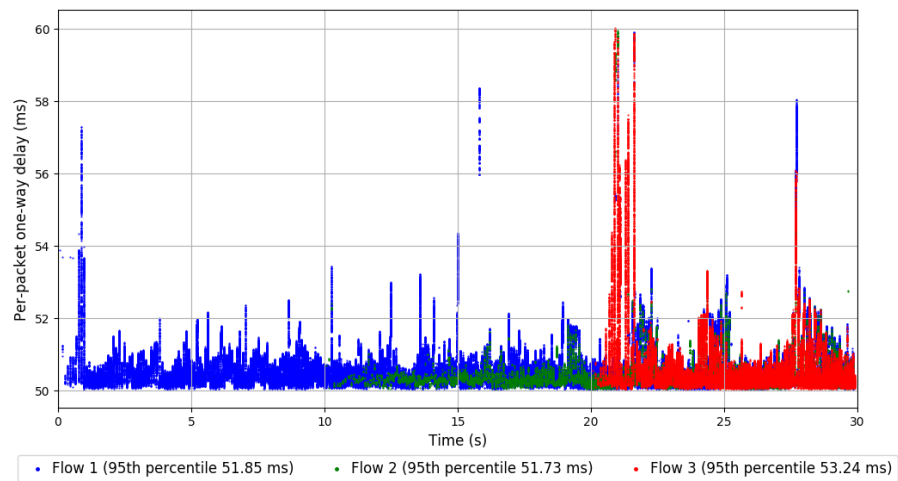
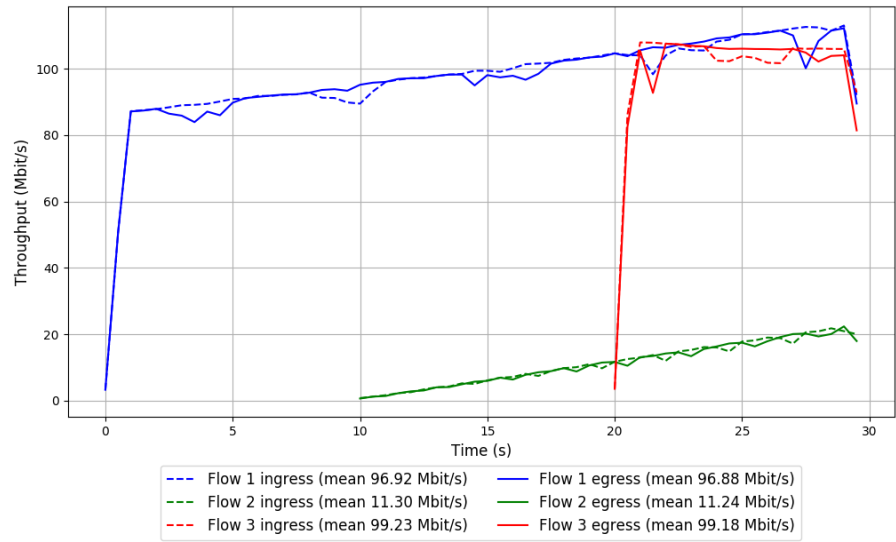
-- Flow 3:

Average throughput: 99.18 Mbit/s

95th percentile per-packet one-way delay: 53.243 ms

Loss rate: 1.07%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-02-14 08:11:36

End at: 2018-02-14 08:12:06

Below is generated by plot.py at 2018-02-14 12:19:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.16 Mbit/s

95th percentile per-packet one-way delay: 57.351 ms

Loss rate: 0.21%

-- Flow 1:

Average throughput: 30.68 Mbit/s

95th percentile per-packet one-way delay: 56.629 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 175.69 Mbit/s

95th percentile per-packet one-way delay: 57.445 ms

Loss rate: 0.13%

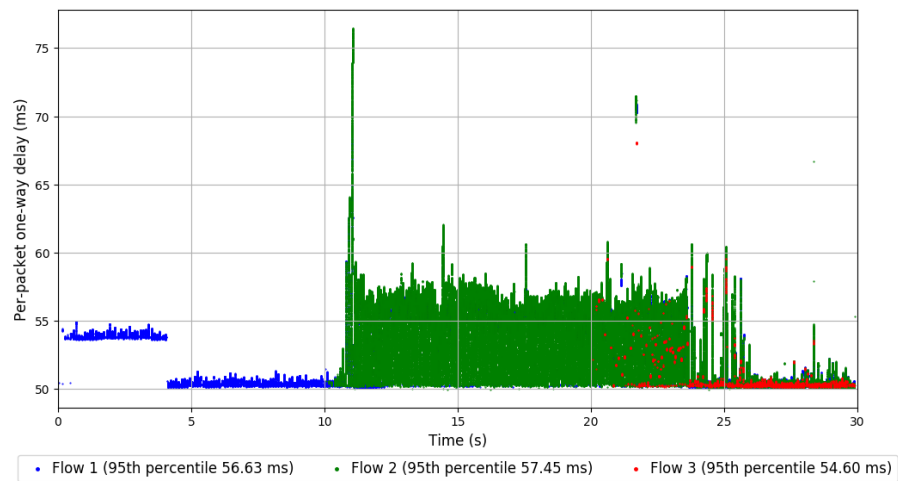
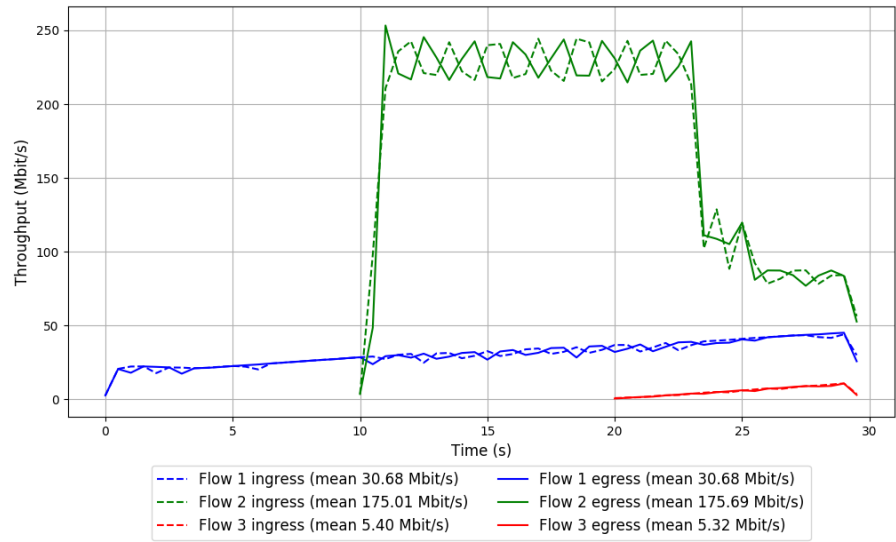
-- Flow 3:

Average throughput: 5.32 Mbit/s

95th percentile per-packet one-way delay: 54.605 ms

Loss rate: 2.66%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-02-14 05:37:49

End at: 2018-02-14 05:38:19

Below is generated by plot.py at 2018-02-14 12:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 351.50 Mbit/s

95th percentile per-packet one-way delay: 156.589 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 210.93 Mbit/s

95th percentile per-packet one-way delay: 129.150 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 152.36 Mbit/s

95th percentile per-packet one-way delay: 187.318 ms

Loss rate: 0.49%

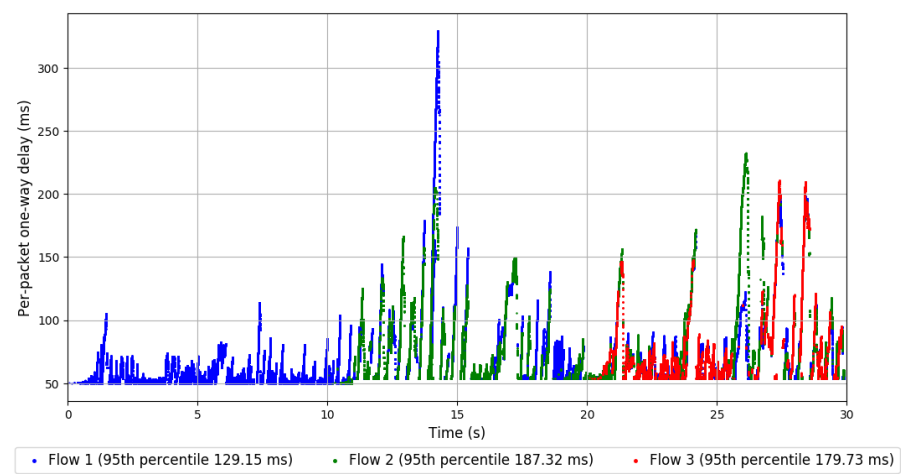
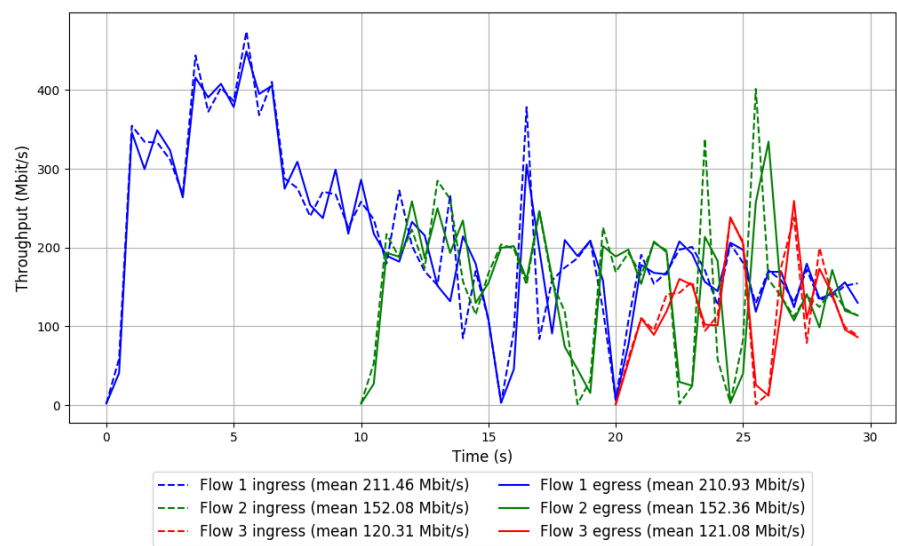
-- Flow 3:

Average throughput: 121.08 Mbit/s

95th percentile per-packet one-way delay: 179.729 ms

Loss rate: 1.49%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-14 05:55:13

End at: 2018-02-14 05:55:43

Below is generated by plot.py at 2018-02-14 12:24:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.39 Mbit/s

95th percentile per-packet one-way delay: 121.370 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 195.76 Mbit/s

95th percentile per-packet one-way delay: 127.176 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 170.17 Mbit/s

95th percentile per-packet one-way delay: 118.053 ms

Loss rate: 1.12%

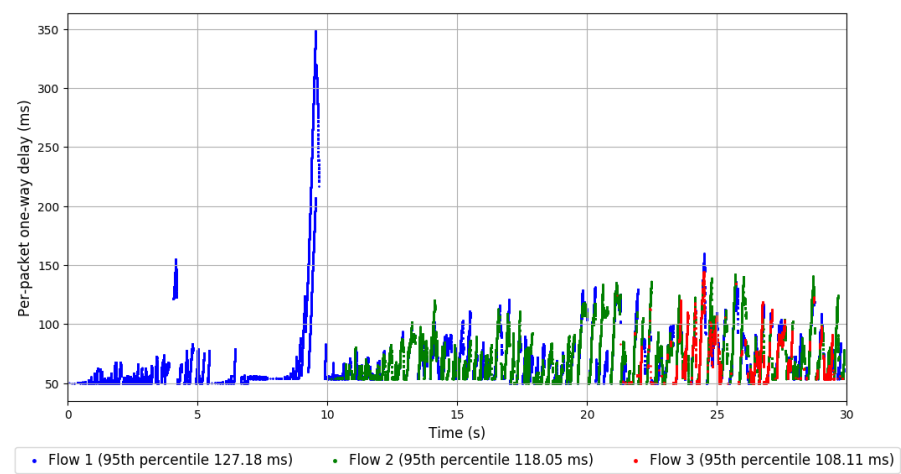
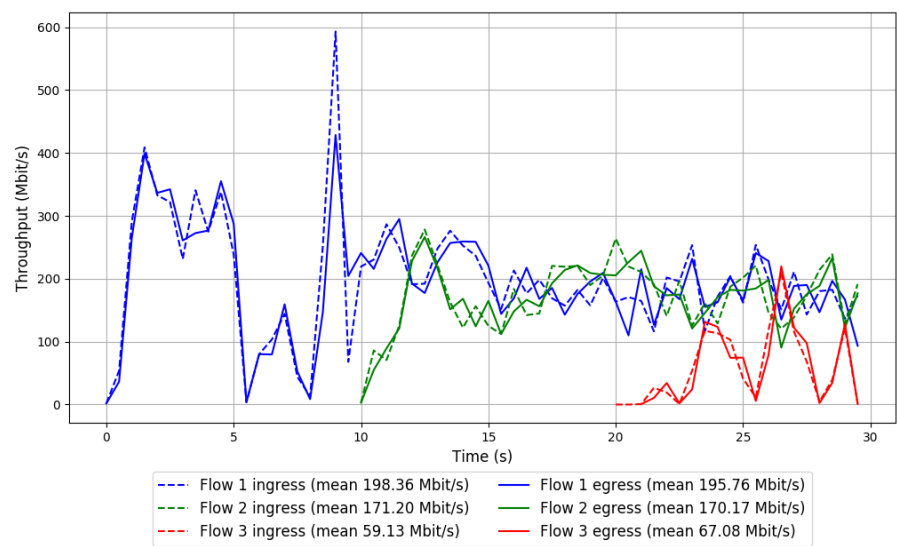
-- Flow 3:

Average throughput: 67.08 Mbit/s

95th percentile per-packet one-way delay: 108.113 ms

Loss rate: 0.06%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-14 06:12:40

End at: 2018-02-14 06:13:10

Below is generated by plot.py at 2018-02-14 12:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 370.11 Mbit/s

95th percentile per-packet one-way delay: 147.539 ms

Loss rate: 0.87%

-- Flow 1:

Average throughput: 217.87 Mbit/s

95th percentile per-packet one-way delay: 144.022 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 171.04 Mbit/s

95th percentile per-packet one-way delay: 138.278 ms

Loss rate: 0.82%

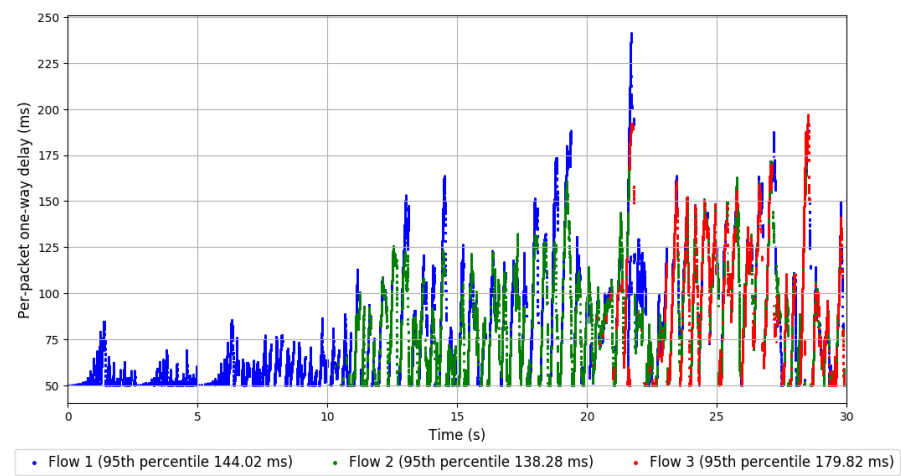
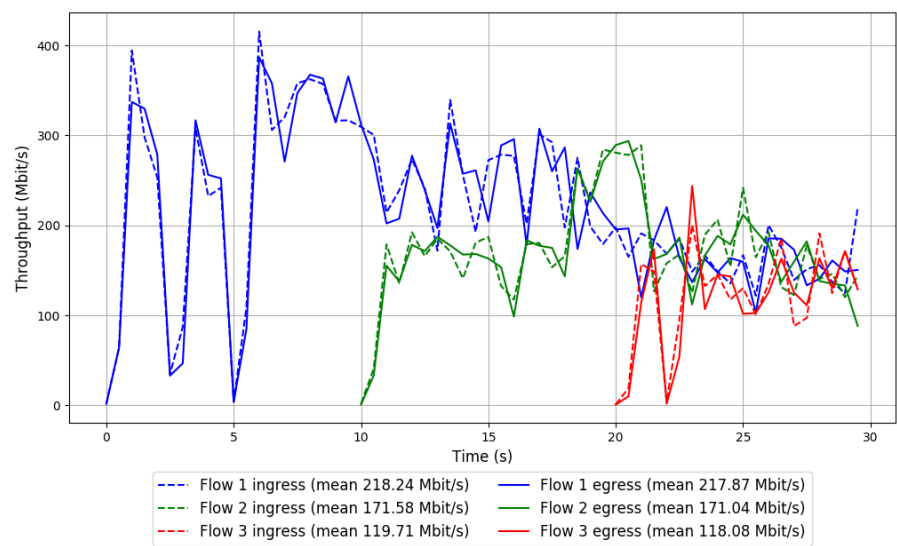
-- Flow 3:

Average throughput: 118.08 Mbit/s

95th percentile per-packet one-way delay: 179.816 ms

Loss rate: 2.42%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-02-14 06:30:05

End at: 2018-02-14 06:30:35

Below is generated by plot.py at 2018-02-14 12:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 295.06 Mbit/s

95th percentile per-packet one-way delay: 187.302 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 172.58 Mbit/s

95th percentile per-packet one-way delay: 189.548 ms

Loss rate: 1.53%

-- Flow 2:

Average throughput: 117.17 Mbit/s

95th percentile per-packet one-way delay: 187.182 ms

Loss rate: 1.14%

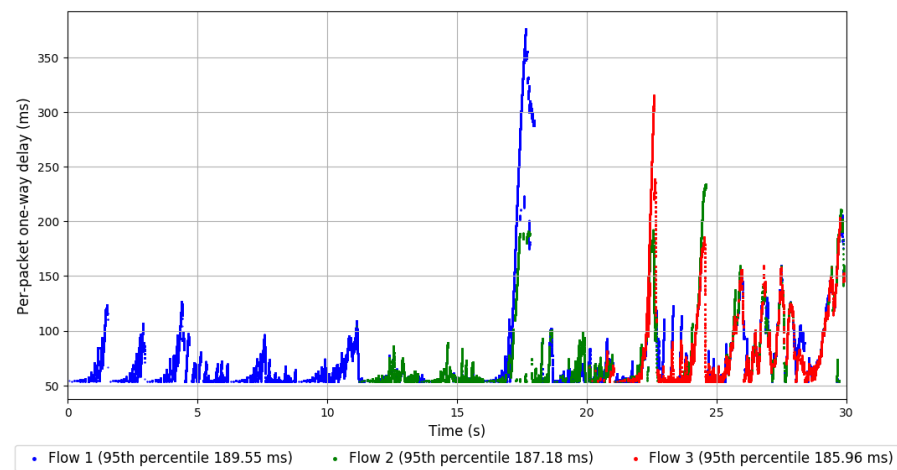
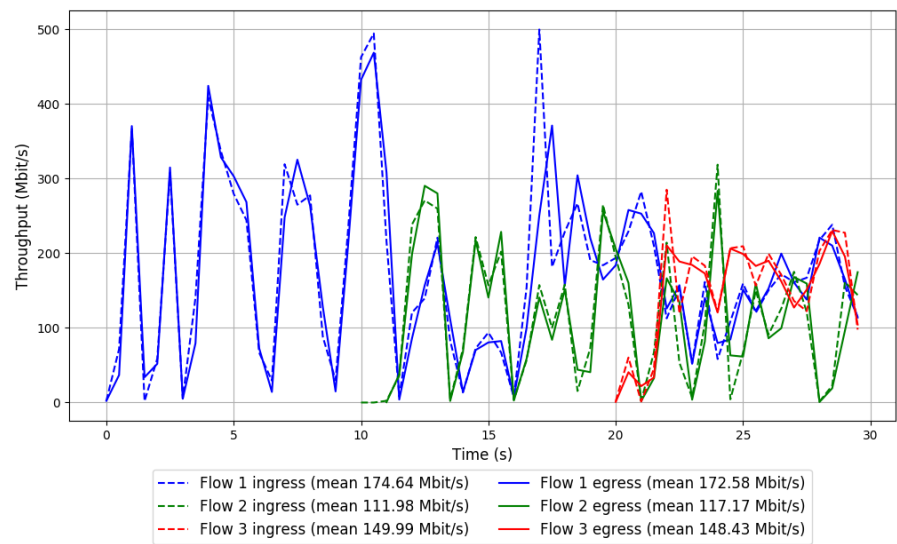
-- Flow 3:

Average throughput: 148.43 Mbit/s

95th percentile per-packet one-way delay: 185.964 ms

Loss rate: 2.23%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-02-14 06:47:30

End at: 2018-02-14 06:48:00

Below is generated by plot.py at 2018-02-14 12:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 340.82 Mbit/s

95th percentile per-packet one-way delay: 164.565 ms

Loss rate: 1.22%

-- Flow 1:

Average throughput: 210.39 Mbit/s

95th percentile per-packet one-way delay: 166.633 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 149.29 Mbit/s

95th percentile per-packet one-way delay: 129.403 ms

Loss rate: 0.04%

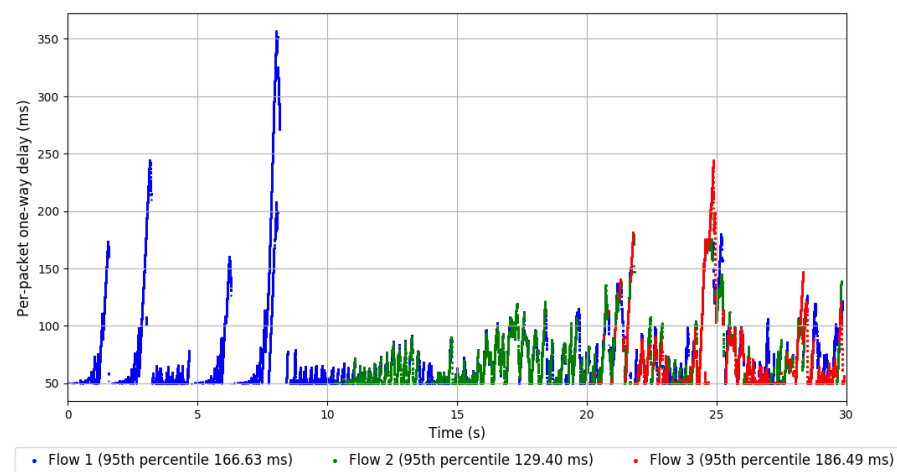
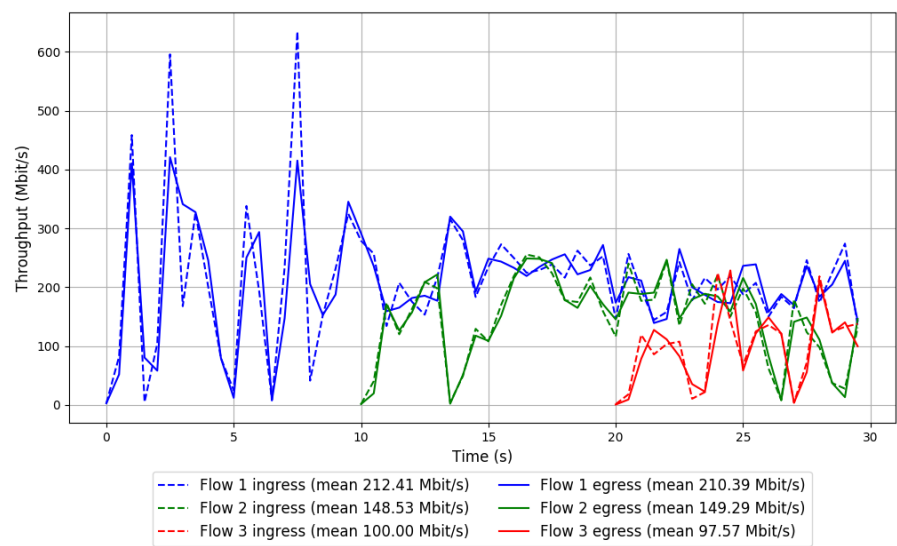
-- Flow 3:

Average throughput: 97.57 Mbit/s

95th percentile per-packet one-way delay: 186.486 ms

Loss rate: 2.94%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-02-14 07:05:02

End at: 2018-02-14 07:05:32

Below is generated by plot.py at 2018-02-14 12:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.63 Mbit/s

95th percentile per-packet one-way delay: 132.811 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 176.48 Mbit/s

95th percentile per-packet one-way delay: 122.393 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 163.06 Mbit/s

95th percentile per-packet one-way delay: 121.548 ms

Loss rate: 0.52%

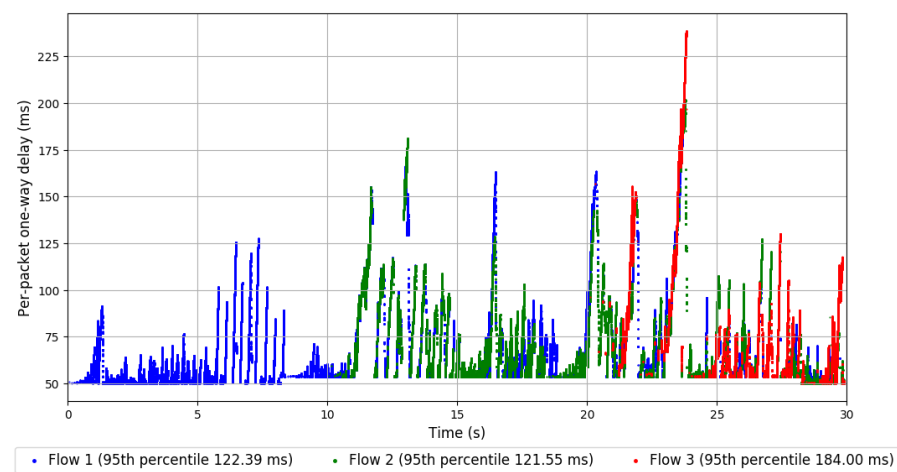
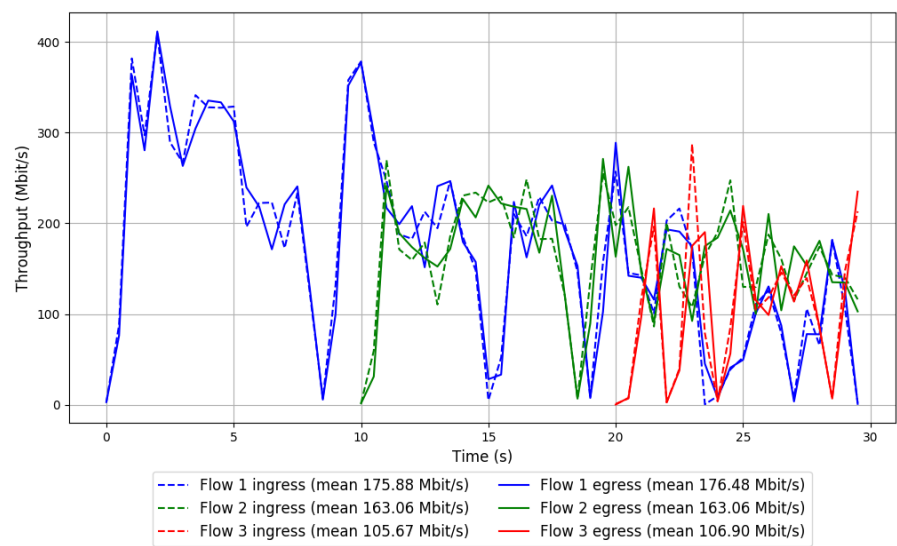
-- Flow 3:

Average throughput: 106.90 Mbit/s

95th percentile per-packet one-way delay: 183.998 ms

Loss rate: 0.34%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-02-14 07:22:35

End at: 2018-02-14 07:23:05

Below is generated by plot.py at 2018-02-14 12:25:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 303.88 Mbit/s

95th percentile per-packet one-way delay: 118.344 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 178.44 Mbit/s

95th percentile per-packet one-way delay: 117.134 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 146.56 Mbit/s

95th percentile per-packet one-way delay: 113.578 ms

Loss rate: 0.65%

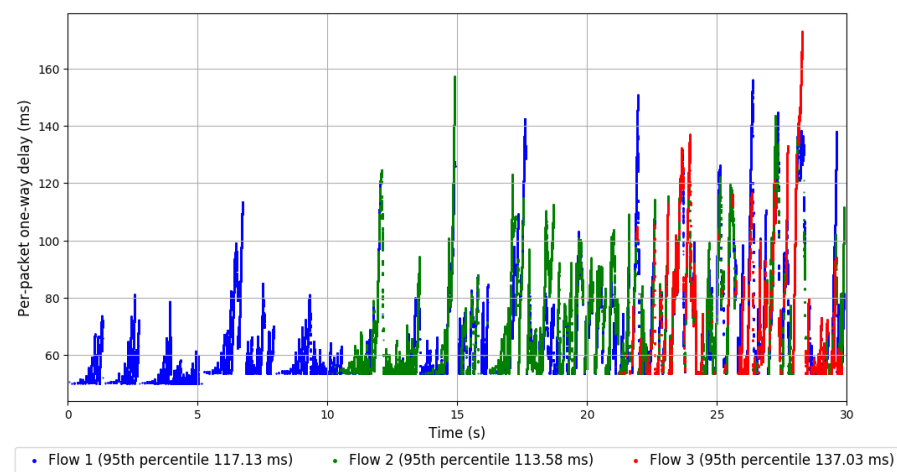
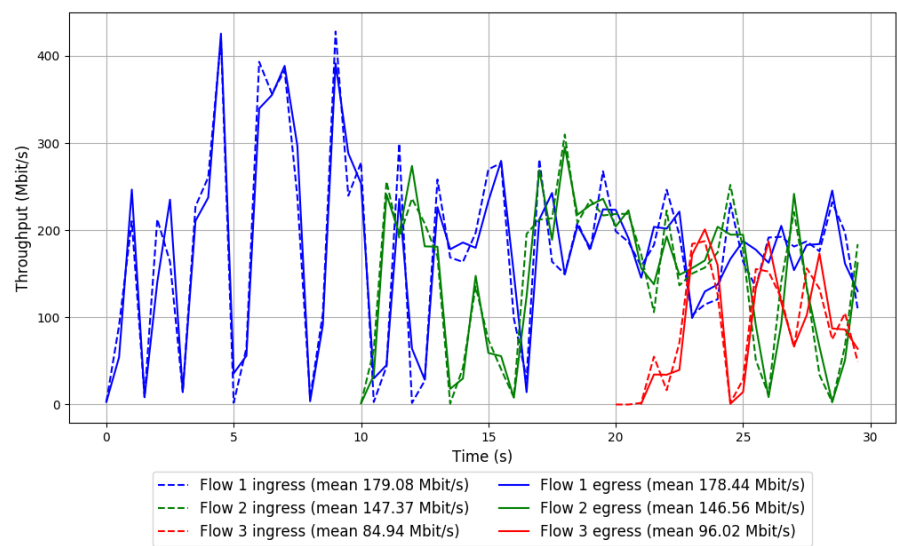
-- Flow 3:

Average throughput: 96.02 Mbit/s

95th percentile per-packet one-way delay: 137.035 ms

Loss rate: 0.66%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-02-14 07:39:36

End at: 2018-02-14 07:40:06

Below is generated by plot.py at 2018-02-14 12:25:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.20 Mbit/s

95th percentile per-packet one-way delay: 225.972 ms

Loss rate: 3.33%

-- Flow 1:

Average throughput: 252.64 Mbit/s

95th percentile per-packet one-way delay: 225.808 ms

Loss rate: 2.00%

-- Flow 2:

Average throughput: 54.18 Mbit/s

95th percentile per-packet one-way delay: 174.271 ms

Loss rate: 1.94%

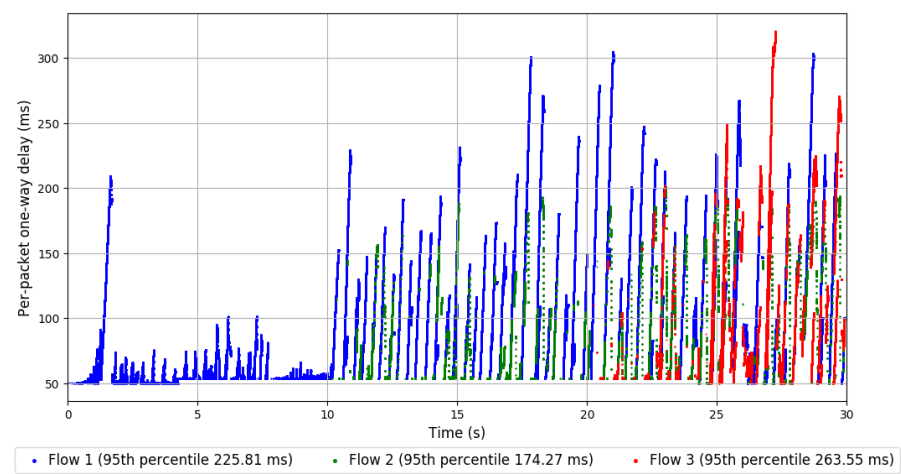
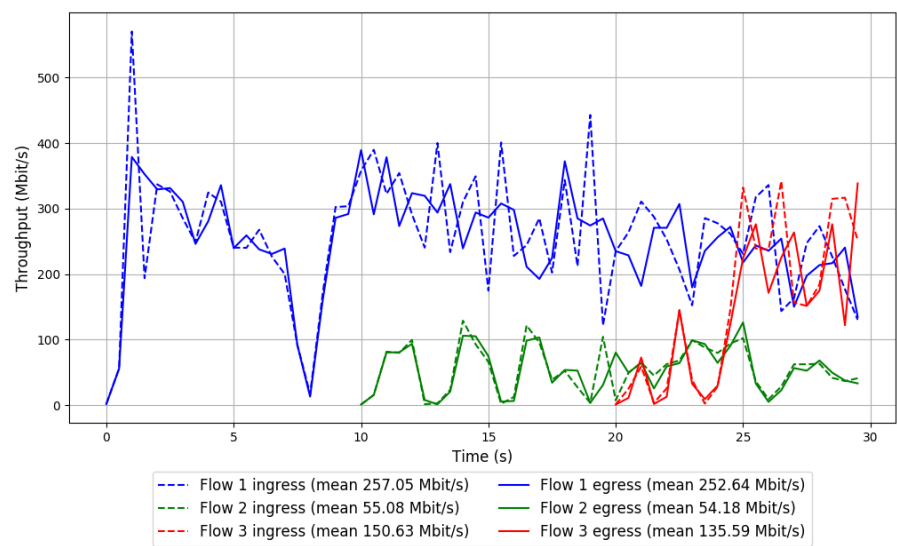
-- Flow 3:

Average throughput: 135.59 Mbit/s

95th percentile per-packet one-way delay: 263.545 ms

Loss rate: 11.22%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-02-14 07:57:06

End at: 2018-02-14 07:57:36

Below is generated by plot.py at 2018-02-14 12:29:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 330.24 Mbit/s

95th percentile per-packet one-way delay: 143.092 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 175.57 Mbit/s

95th percentile per-packet one-way delay: 126.204 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 190.78 Mbit/s

95th percentile per-packet one-way delay: 146.697 ms

Loss rate: 0.51%

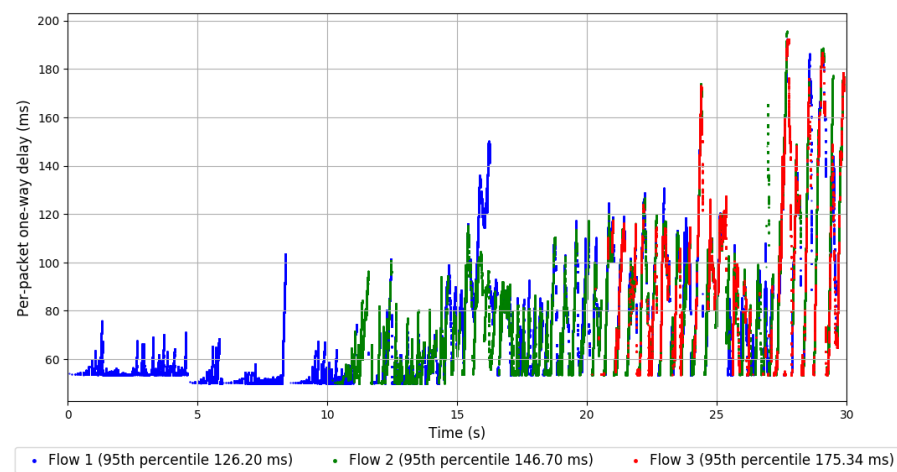
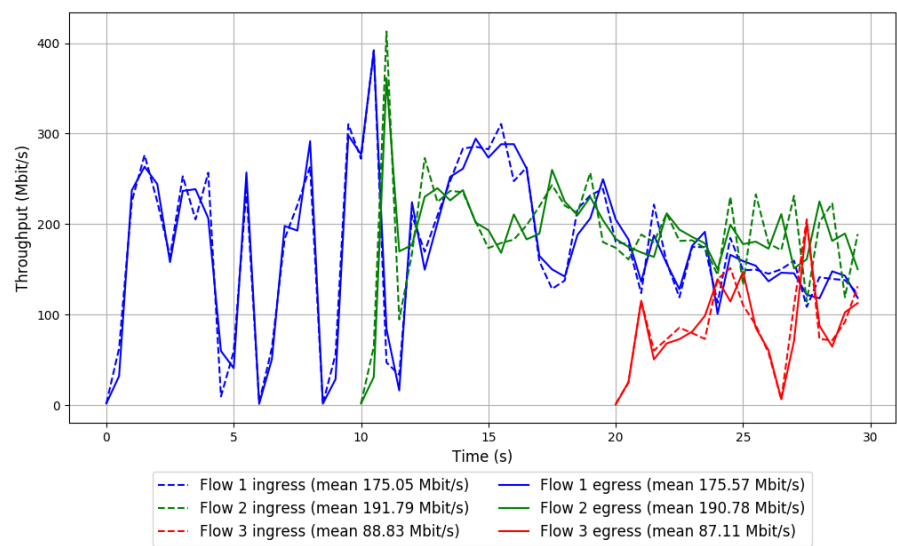
-- Flow 3:

Average throughput: 87.11 Mbit/s

95th percentile per-packet one-way delay: 175.339 ms

Loss rate: 2.43%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-02-14 08:14:29

End at: 2018-02-14 08:14:59

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.69 Mbit/s

95th percentile per-packet one-way delay: 177.739 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 237.16 Mbit/s

95th percentile per-packet one-way delay: 176.664 ms

Loss rate: 1.58%

-- Flow 2:

Average throughput: 76.66 Mbit/s

95th percentile per-packet one-way delay: 188.559 ms

Loss rate: 1.63%

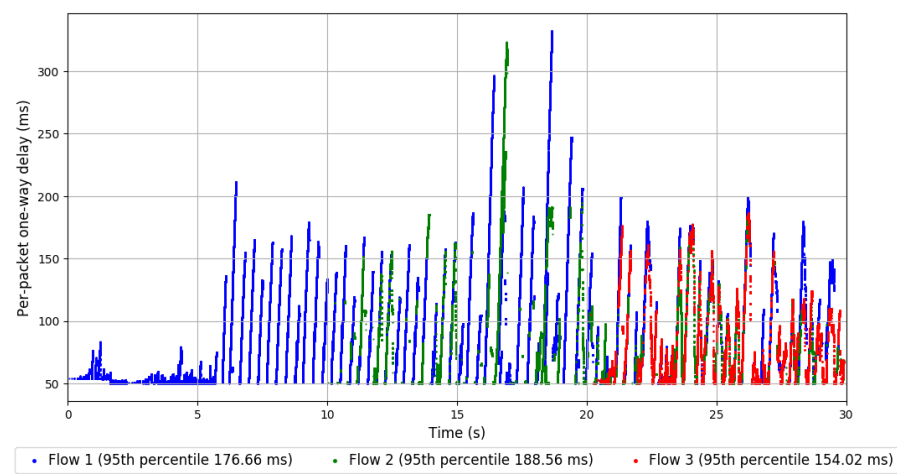
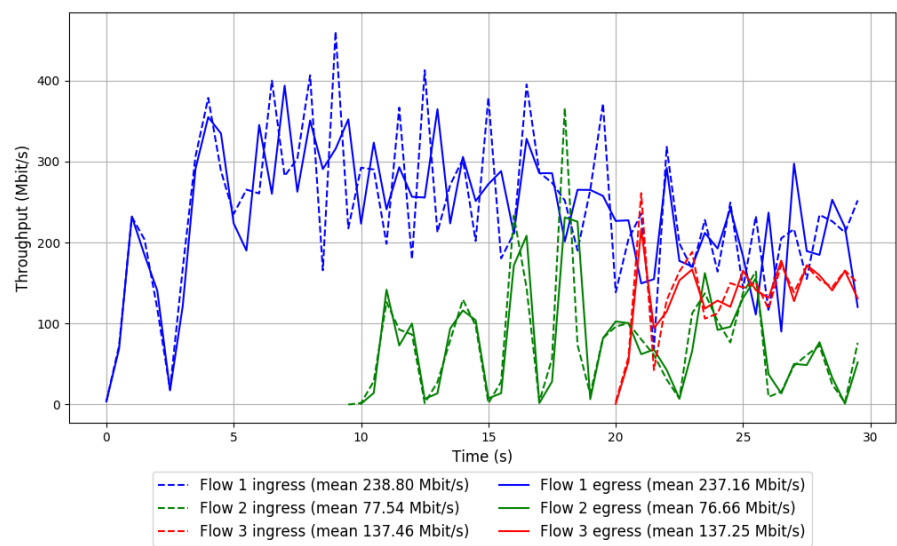
-- Flow 3:

Average throughput: 137.25 Mbit/s

95th percentile per-packet one-way delay: 154.021 ms

Loss rate: 1.68%

Run 10: Report of Verus — Data Link

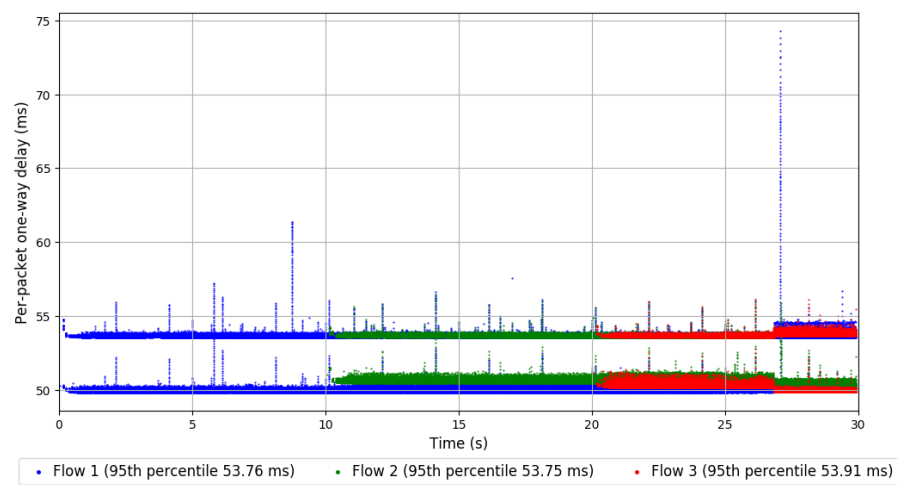
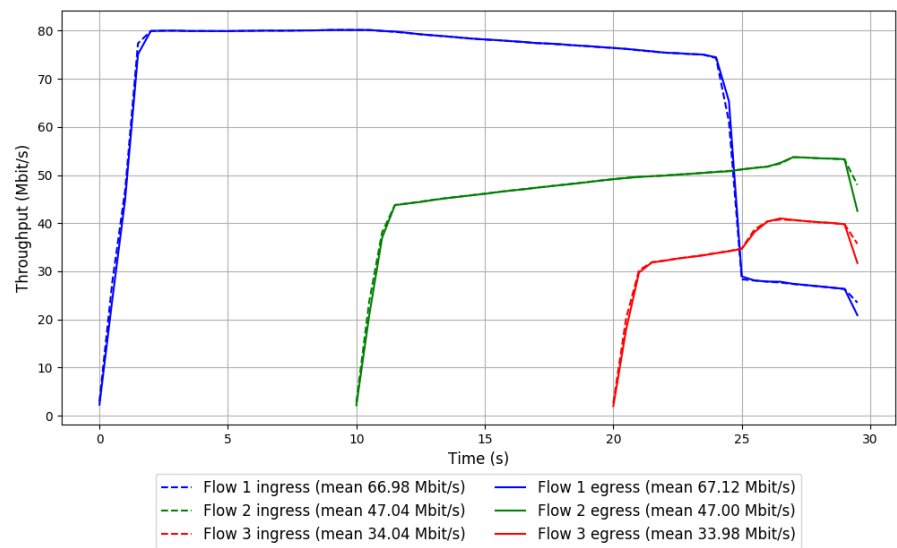


```
Run 1: Statistics of Copa

Start at: 2018-02-14 05:45:23
End at: 2018-02-14 05:45:53

# Below is generated by plot.py at 2018-02-14 12:30:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 109.54 Mbit/s
95th percentile per-packet one-way delay: 53.773 ms
Loss rate: 0.36%
-- Flow 1:
Average throughput: 67.12 Mbit/s
95th percentile per-packet one-way delay: 53.759 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 47.00 Mbit/s
95th percentile per-packet one-way delay: 53.753 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 33.98 Mbit/s
95th percentile per-packet one-way delay: 53.911 ms
Loss rate: 1.18%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-14 06:02:48

End at: 2018-02-14 06:03:18

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 75.37 Mbit/s

95th percentile per-packet one-way delay: 53.890 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 22.45 Mbit/s

95th percentile per-packet one-way delay: 53.871 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 63.27 Mbit/s

95th percentile per-packet one-way delay: 53.838 ms

Loss rate: 0.56%

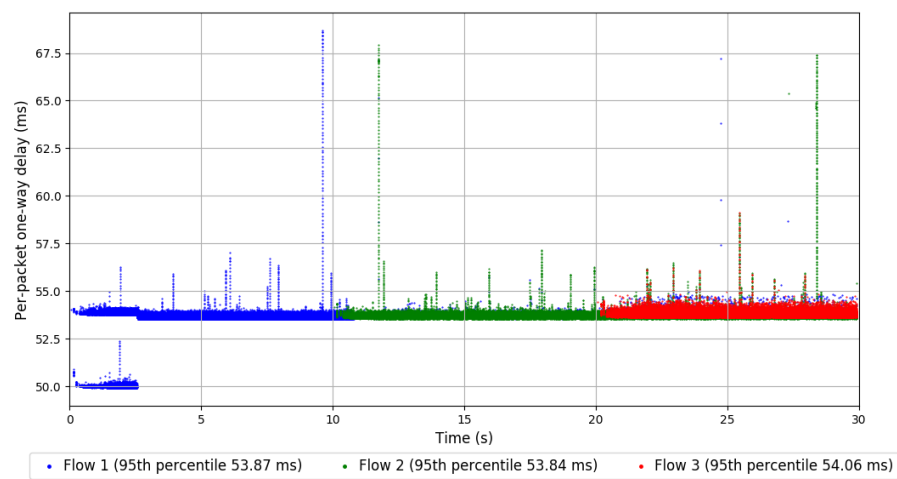
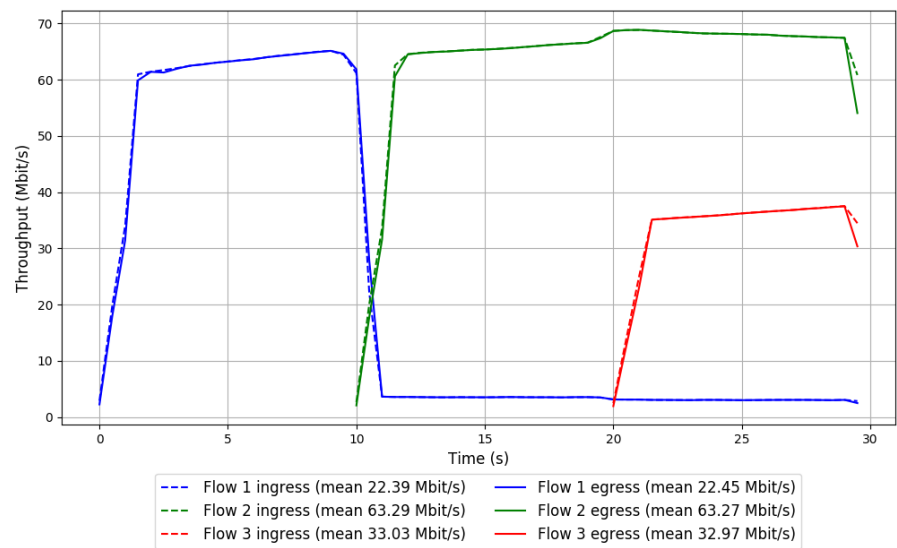
-- Flow 3:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 54.059 ms

Loss rate: 1.24%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-14 06:20:12

End at: 2018-02-14 06:20:42

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.05 Mbit/s

95th percentile per-packet one-way delay: 53.965 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 20.40 Mbit/s

95th percentile per-packet one-way delay: 53.937 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 69.00 Mbit/s

95th percentile per-packet one-way delay: 53.974 ms

Loss rate: 0.52%

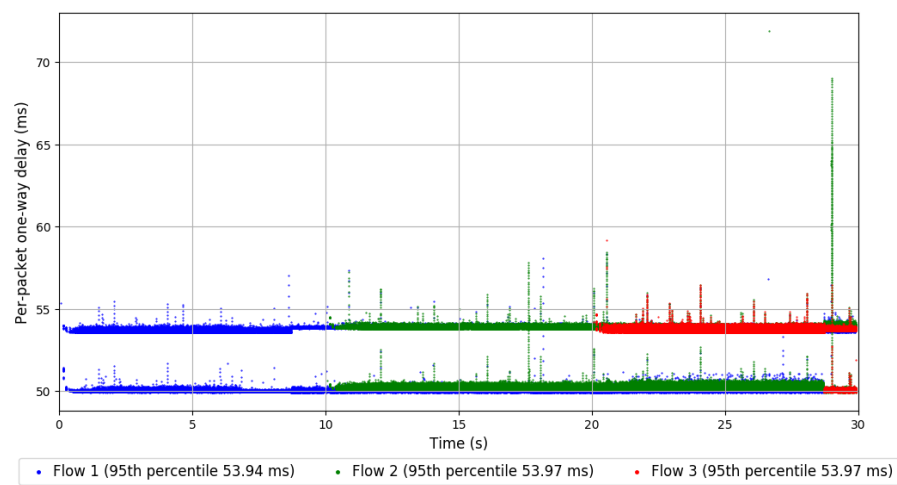
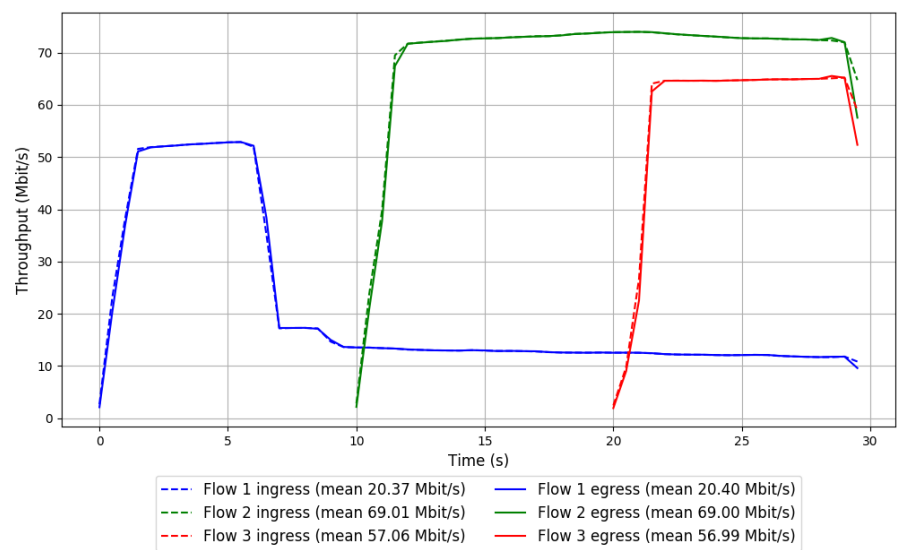
-- Flow 3:

Average throughput: 56.99 Mbit/s

95th percentile per-packet one-way delay: 53.971 ms

Loss rate: 1.16%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-02-14 06:37:35

End at: 2018-02-14 06:38:05

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.57 Mbit/s

95th percentile per-packet one-way delay: 53.818 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 31.89 Mbit/s

95th percentile per-packet one-way delay: 50.207 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 21.84 Mbit/s

95th percentile per-packet one-way delay: 53.771 ms

Loss rate: 0.08%

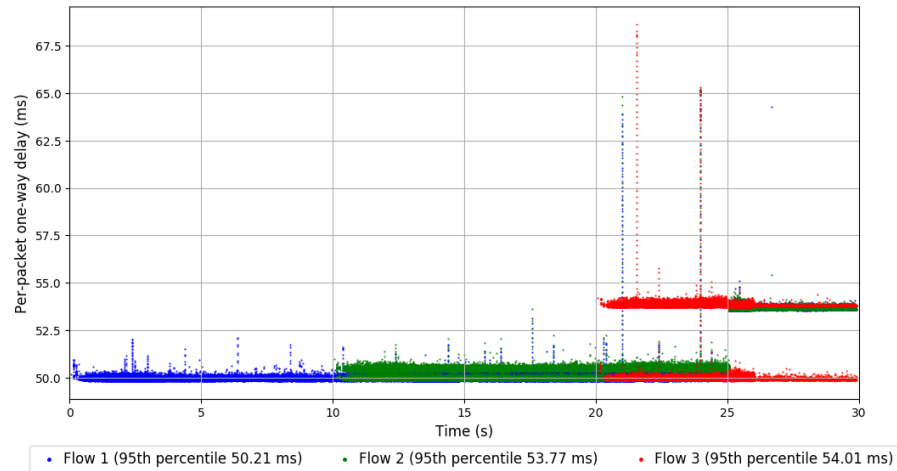
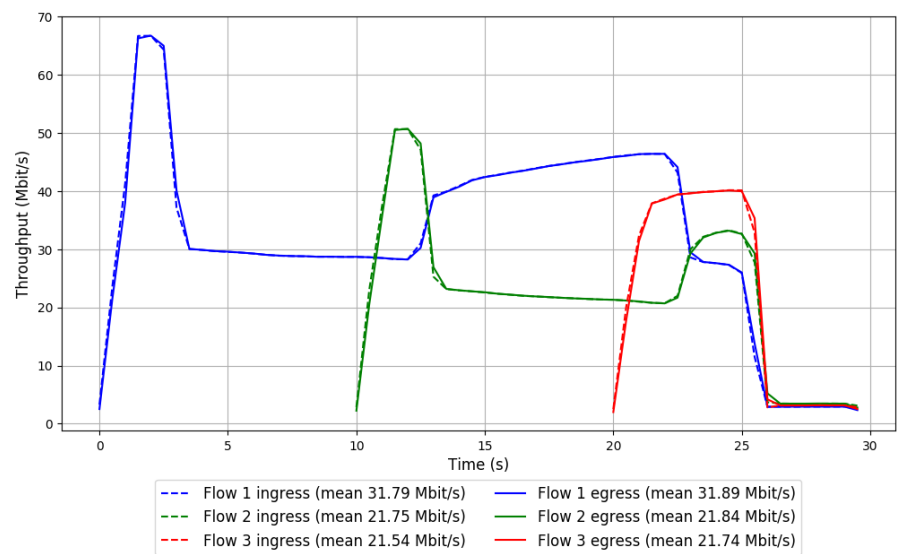
-- Flow 3:

Average throughput: 21.74 Mbit/s

95th percentile per-packet one-way delay: 54.005 ms

Loss rate: 0.15%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-02-14 06:55:02

End at: 2018-02-14 06:55:32

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.32 Mbit/s

95th percentile per-packet one-way delay: 53.713 ms

Loss rate: 0.27%

-- Flow 1:

Average throughput: 59.38 Mbit/s

95th percentile per-packet one-way delay: 53.712 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 23.45 Mbit/s

95th percentile per-packet one-way delay: 53.774 ms

Loss rate: 0.08%

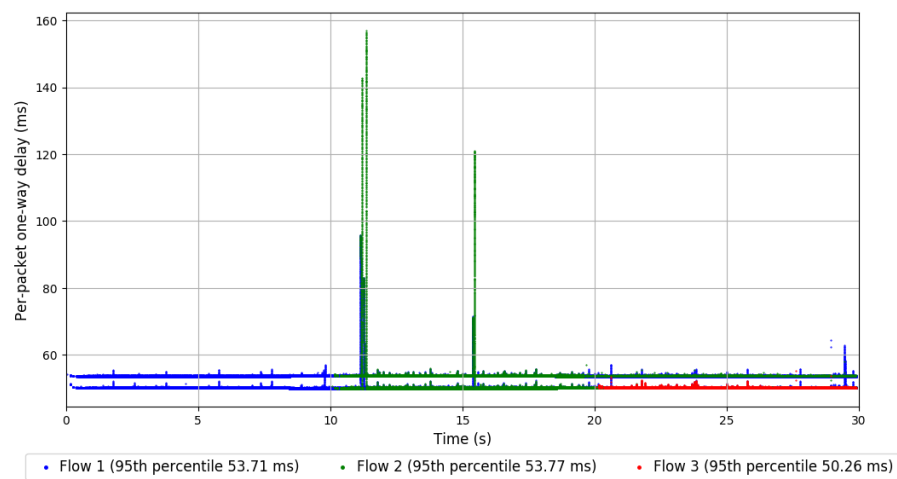
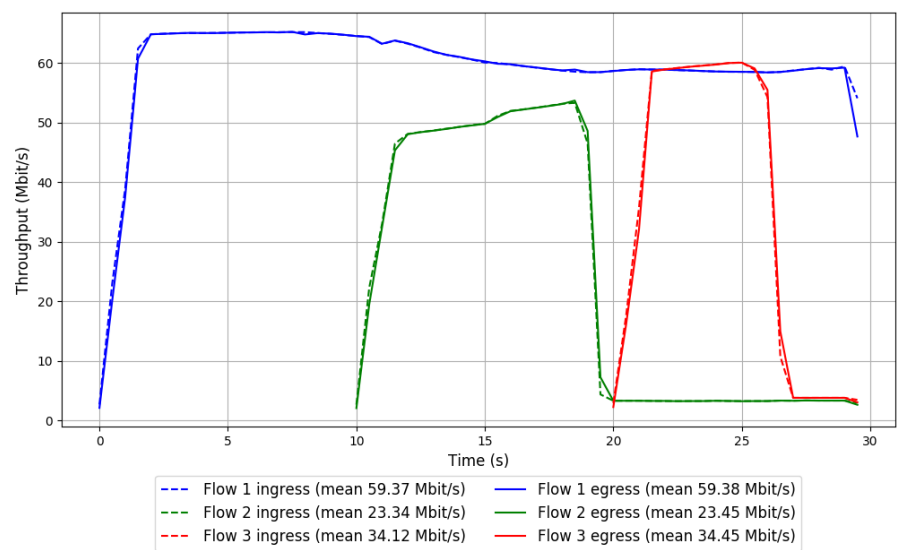
-- Flow 3:

Average throughput: 34.45 Mbit/s

95th percentile per-packet one-way delay: 50.257 ms

Loss rate: 0.12%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-02-14 07:12:33

End at: 2018-02-14 07:13:03

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.59 Mbit/s

95th percentile per-packet one-way delay: 54.008 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 60.80 Mbit/s

95th percentile per-packet one-way delay: 53.968 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 43.22 Mbit/s

95th percentile per-packet one-way delay: 54.028 ms

Loss rate: 0.50%

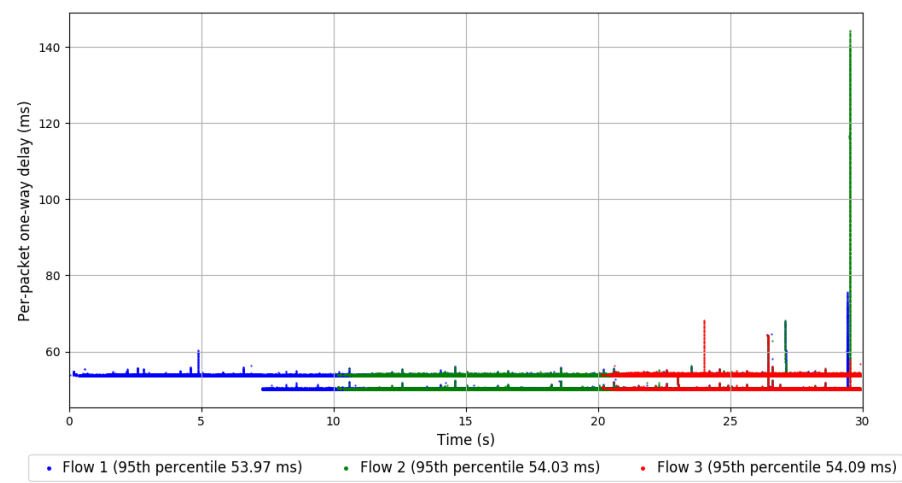
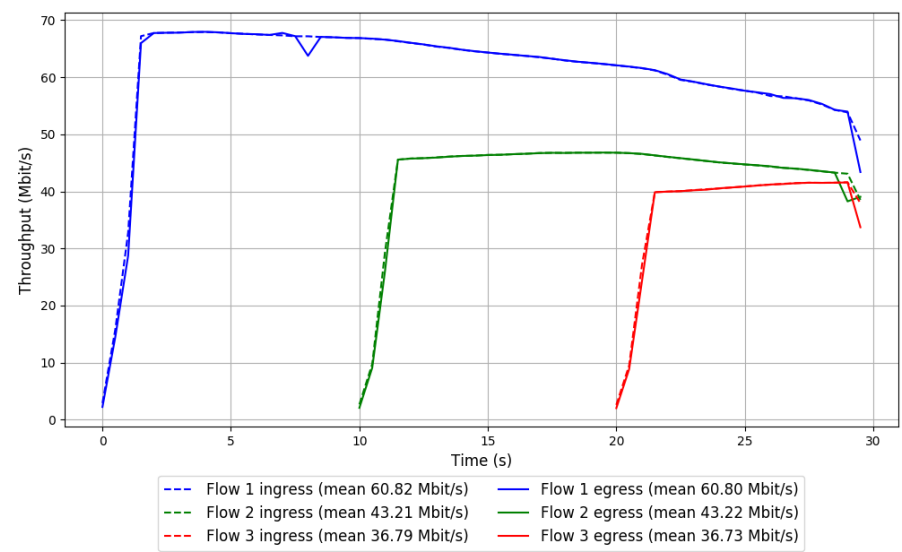
-- Flow 3:

Average throughput: 36.73 Mbit/s

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

Loss rate: 1.16%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-02-14 07:30:04

End at: 2018-02-14 07:30:34

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.58 Mbit/s

95th percentile per-packet one-way delay: 53.991 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 14.45 Mbit/s

95th percentile per-packet one-way delay: 53.740 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 52.13 Mbit/s

95th percentile per-packet one-way delay: 54.037 ms

Loss rate: 0.54%

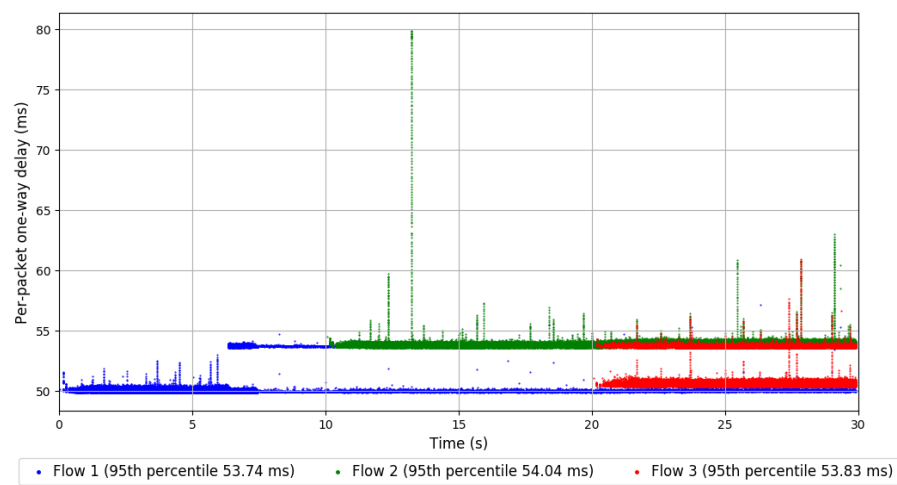
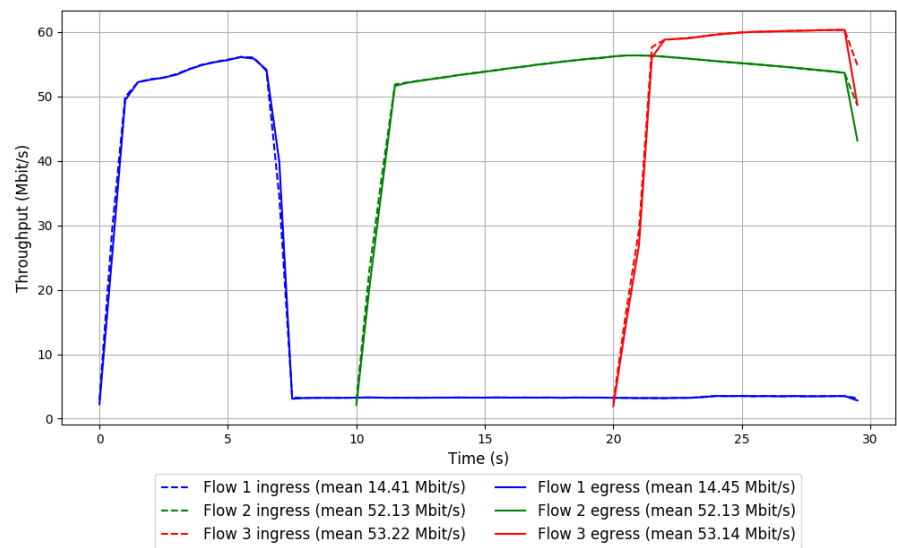
-- Flow 3:

Average throughput: 53.14 Mbit/s

95th percentile per-packet one-way delay: 53.828 ms

Loss rate: 1.19%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-02-14 07:47:09

End at: 2018-02-14 07:47:39

Below is generated by plot.py at 2018-02-14 12:30:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.22 Mbit/s

95th percentile per-packet one-way delay: 53.724 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 25.20 Mbit/s

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

Loss rate: 0.05%

-- Flow 2:

Average throughput: 42.84 Mbit/s

95th percentile per-packet one-way delay: 53.594 ms

Loss rate: 0.04%

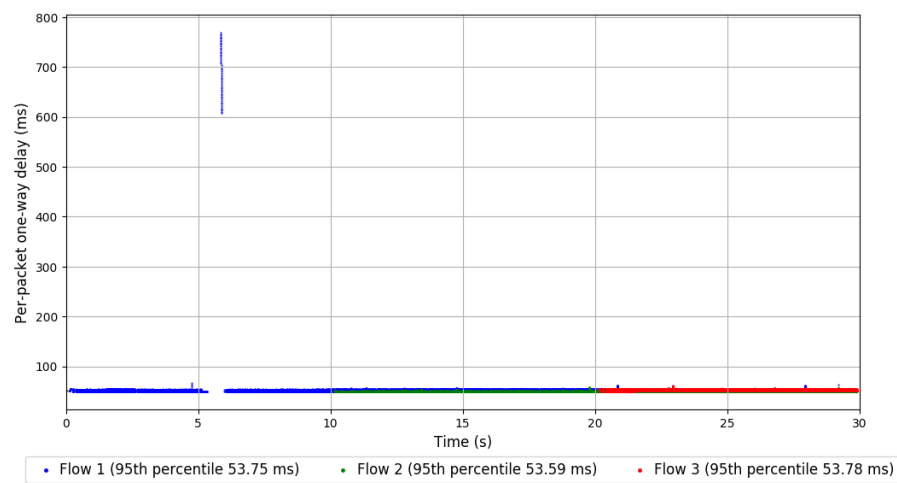
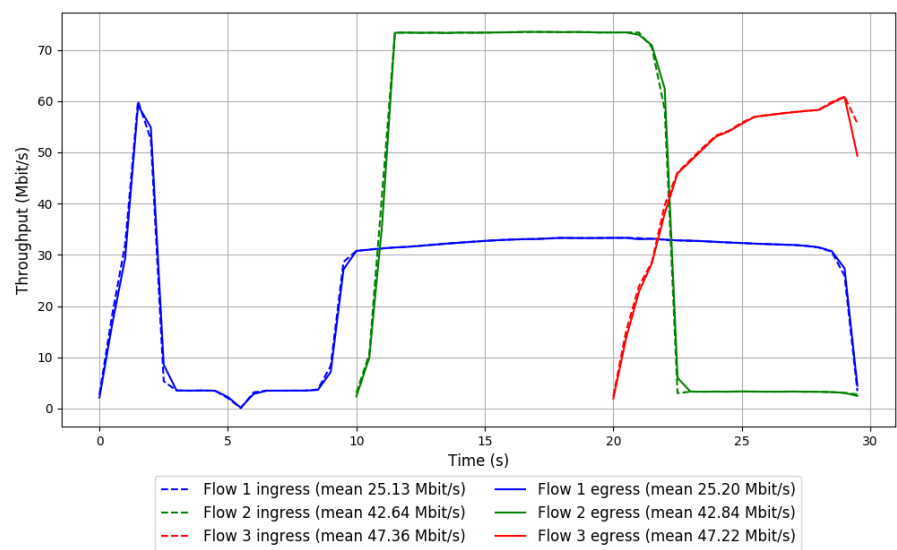
-- Flow 3:

Average throughput: 47.22 Mbit/s

95th percentile per-packet one-way delay: 53.784 ms

Loss rate: 1.37%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-02-14 08:04:41

End at: 2018-02-14 08:05:11

Below is generated by plot.py at 2018-02-14 12:30:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.70 Mbit/s

95th percentile per-packet one-way delay: 53.868 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 45.65 Mbit/s

95th percentile per-packet one-way delay: 50.496 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 27.01 Mbit/s

95th percentile per-packet one-way delay: 53.643 ms

Loss rate: 0.04%

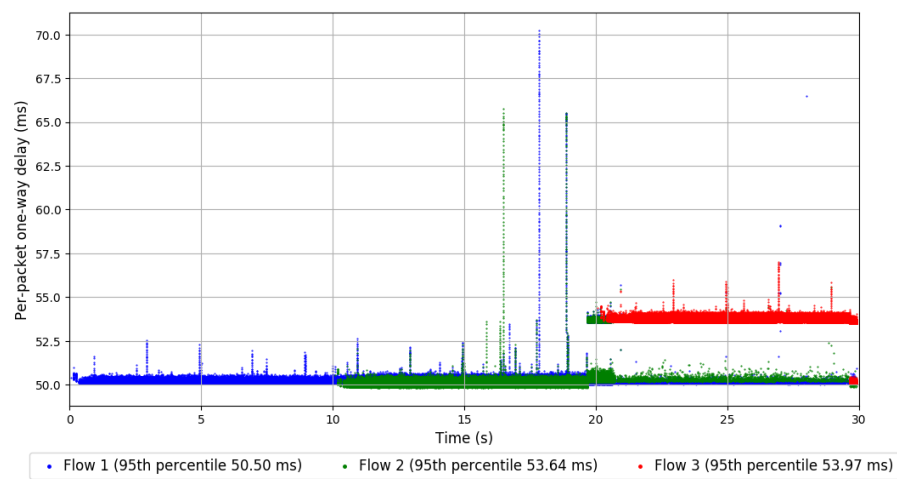
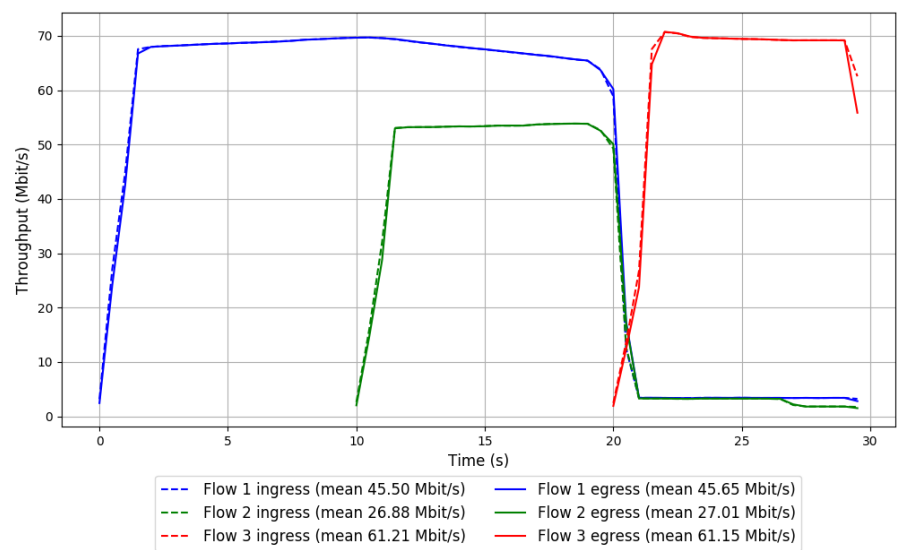
-- Flow 3:

Average throughput: 61.15 Mbit/s

95th percentile per-packet one-way delay: 53.971 ms

Loss rate: 1.16%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-02-14 08:21:59

End at: 2018-02-14 08:22:29

Below is generated by plot.py at 2018-02-14 12:30:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.89 Mbit/s

95th percentile per-packet one-way delay: 53.953 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 51.71 Mbit/s

95th percentile per-packet one-way delay: 53.969 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 53.933 ms

Loss rate: 0.28%

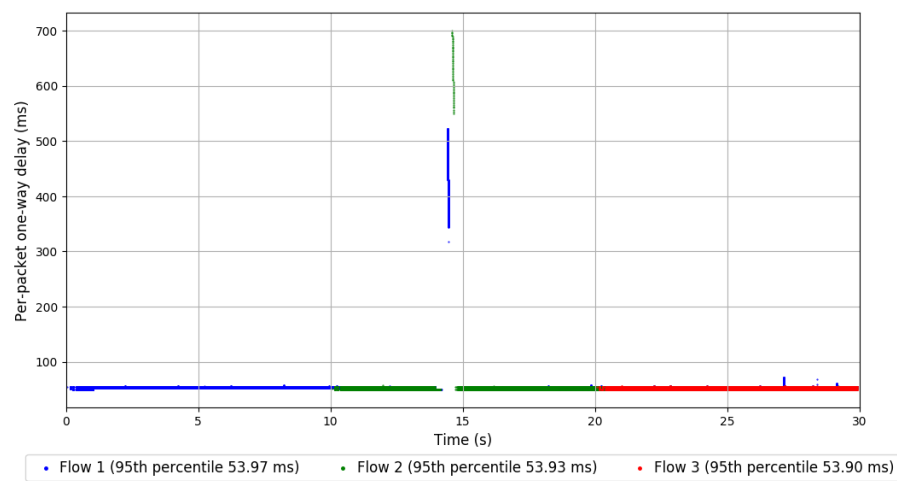
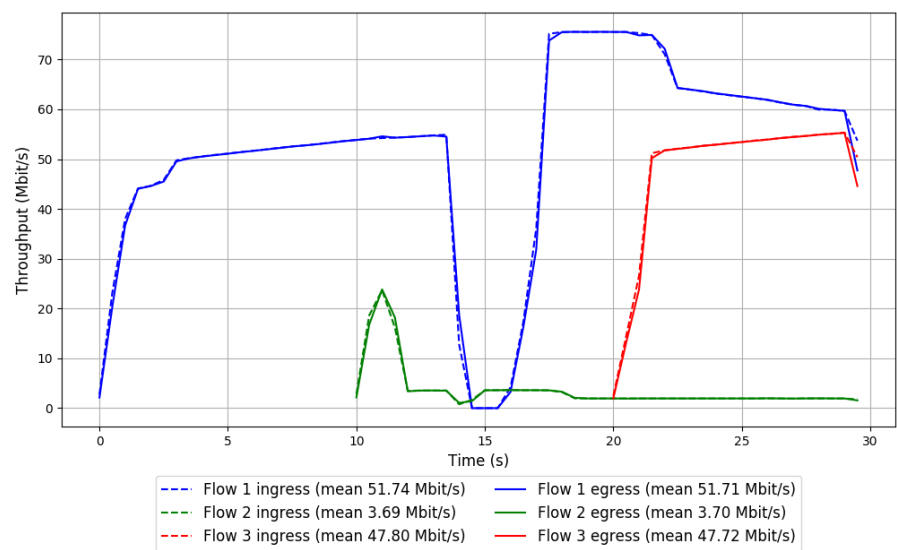
-- Flow 3:

Average throughput: 47.72 Mbit/s

95th percentile per-packet one-way delay: 53.899 ms

Loss rate: 1.24%

Run 10: Report of Copa — Data Link

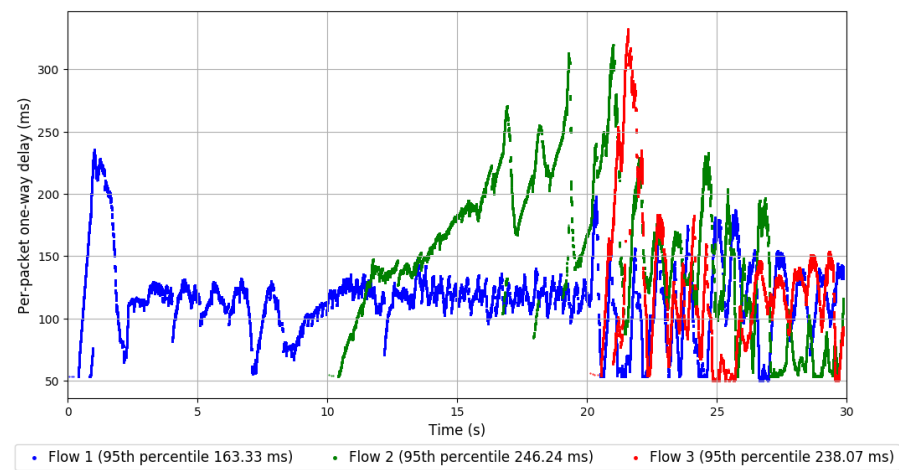
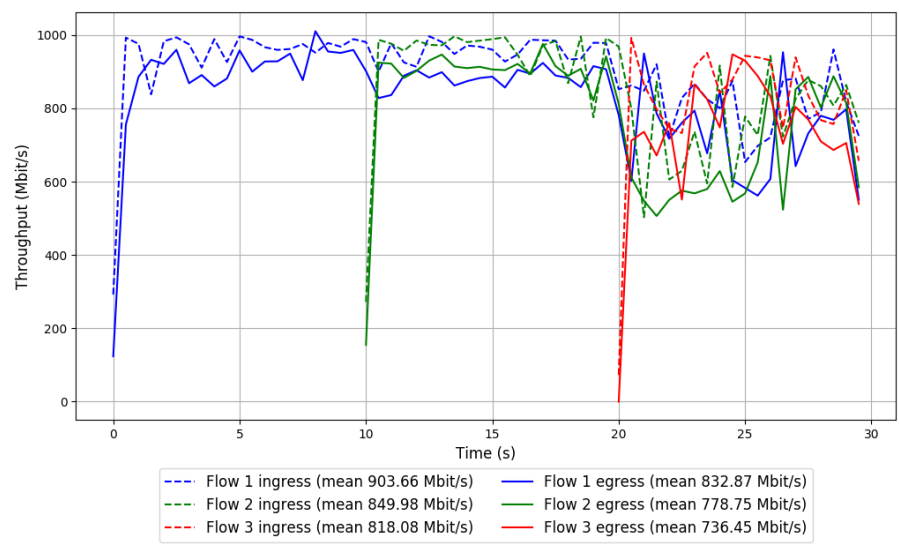


```
Run 1: Statistics of FillP

Start at: 2018-02-14 05:39:45
End at: 2018-02-14 05:40:15

# Below is generated by plot.py at 2018-02-14 12:58:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1591.57 Mbit/s
95th percentile per-packet one-way delay: 224.341 ms
Loss rate: 8.82%
-- Flow 1:
Average throughput: 832.87 Mbit/s
95th percentile per-packet one-way delay: 163.331 ms
Loss rate: 8.16%
-- Flow 2:
Average throughput: 778.75 Mbit/s
95th percentile per-packet one-way delay: 246.241 ms
Loss rate: 8.87%
-- Flow 3:
Average throughput: 736.45 Mbit/s
95th percentile per-packet one-way delay: 238.071 ms
Loss rate: 10.96%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-02-14 05:57:10

End at: 2018-02-14 05:57:40

Below is generated by plot.py at 2018-02-14 12:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1581.89 Mbit/s

95th percentile per-packet one-way delay: 190.443 ms

Loss rate: 9.33%

-- Flow 1:

Average throughput: 869.40 Mbit/s

95th percentile per-packet one-way delay: 146.750 ms

Loss rate: 6.73%

-- Flow 2:

Average throughput: 736.50 Mbit/s

95th percentile per-packet one-way delay: 190.456 ms

Loss rate: 11.85%

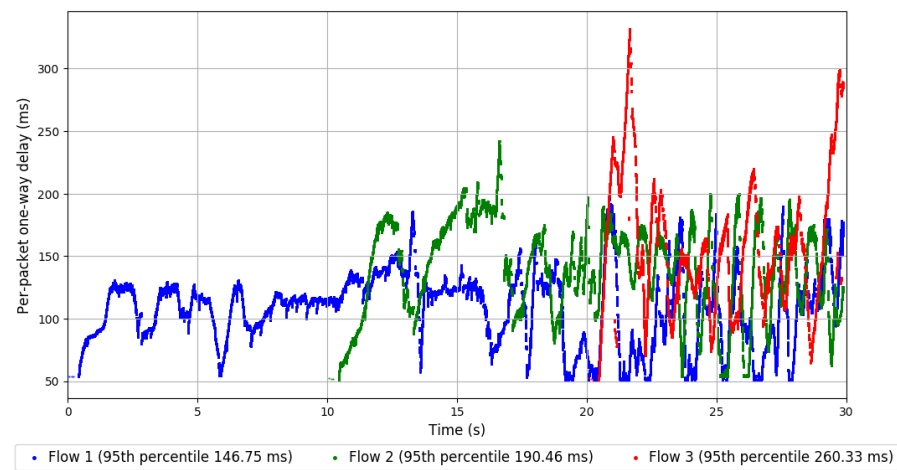
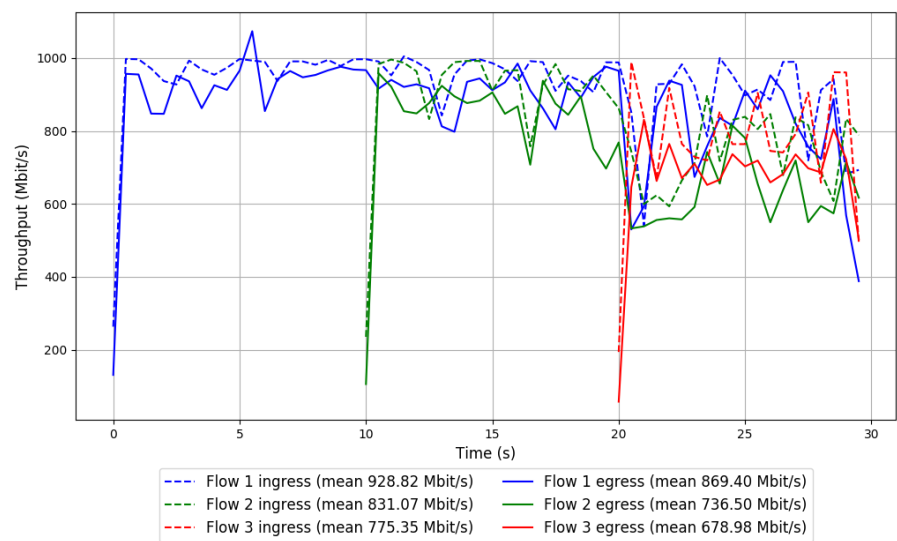
-- Flow 3:

Average throughput: 678.98 Mbit/s

95th percentile per-packet one-way delay: 260.329 ms

Loss rate: 13.35%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-02-14 06:14:37

End at: 2018-02-14 06:15:07

Below is generated by plot.py at 2018-02-14 12:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1537.26 Mbit/s

95th percentile per-packet one-way delay: 206.969 ms

Loss rate: 10.01%

-- Flow 1:

Average throughput: 808.41 Mbit/s

95th percentile per-packet one-way delay: 162.978 ms

Loss rate: 8.52%

-- Flow 2:

Average throughput: 762.00 Mbit/s

95th percentile per-packet one-way delay: 227.200 ms

Loss rate: 10.21%

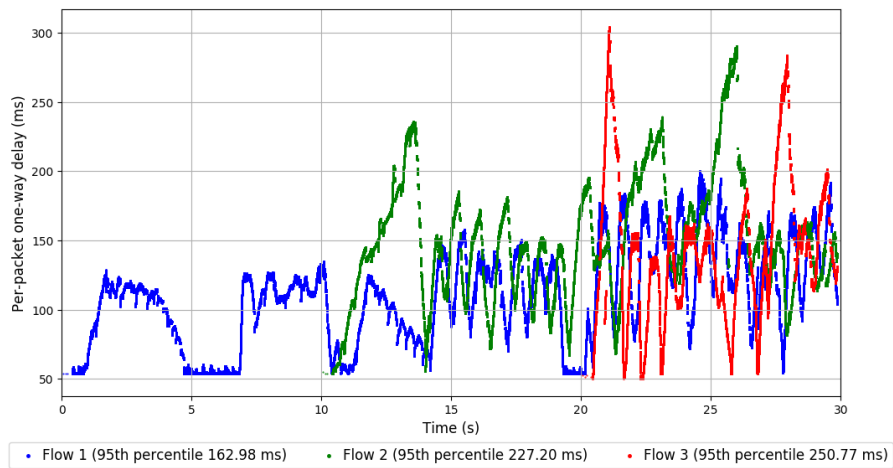
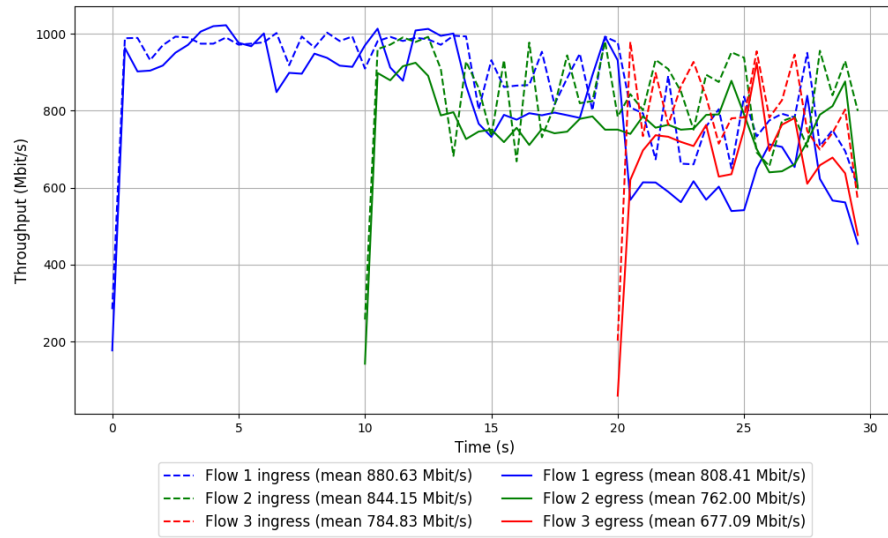
-- Flow 3:

Average throughput: 677.09 Mbit/s

95th percentile per-packet one-way delay: 250.770 ms

Loss rate: 14.63%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-02-14 06:31:58

End at: 2018-02-14 06:32:28

Below is generated by plot.py at 2018-02-14 12:58:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 1495.79 Mbit/s

95th percentile per-packet one-way delay: 201.025 ms

Loss rate: 11.42%

-- Flow 1:

Average throughput: 796.10 Mbit/s

95th percentile per-packet one-way delay: 211.949 ms

Loss rate: 10.08%

-- Flow 2:

Average throughput: 703.02 Mbit/s

95th percentile per-packet one-way delay: 172.291 ms

Loss rate: 13.44%

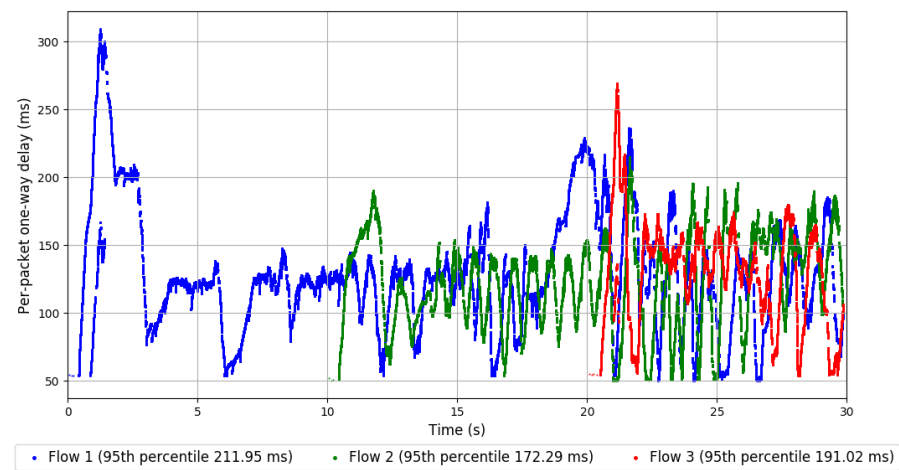
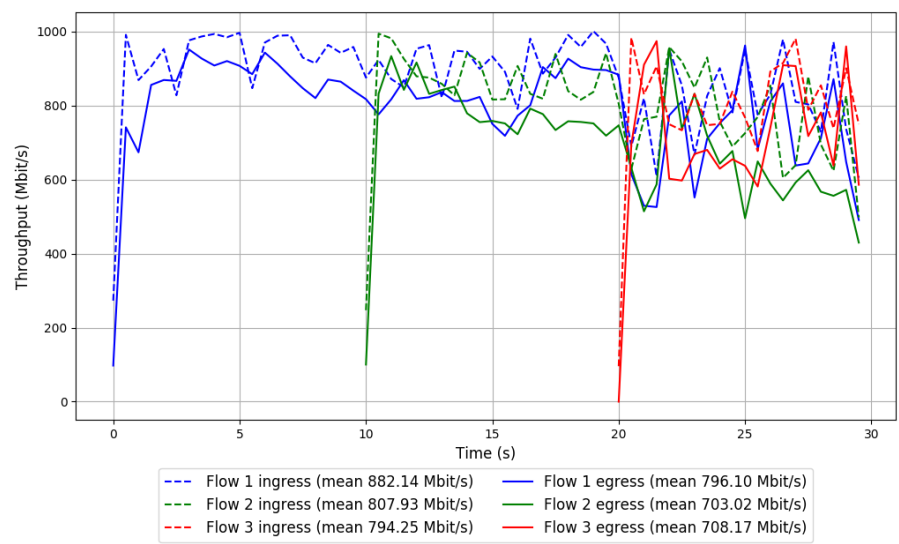
-- Flow 3:

Average throughput: 708.17 Mbit/s

95th percentile per-packet one-way delay: 191.021 ms

Loss rate: 11.81%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-02-14 06:49:24

End at: 2018-02-14 06:49:54

Below is generated by plot.py at 2018-02-14 12:58:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1536.19 Mbit/s

95th percentile per-packet one-way delay: 167.226 ms

Loss rate: 9.90%

-- Flow 1:

Average throughput: 809.32 Mbit/s

95th percentile per-packet one-way delay: 163.280 ms

Loss rate: 7.80%

-- Flow 2:

Average throughput: 753.75 Mbit/s

95th percentile per-packet one-way delay: 174.954 ms

Loss rate: 11.43%

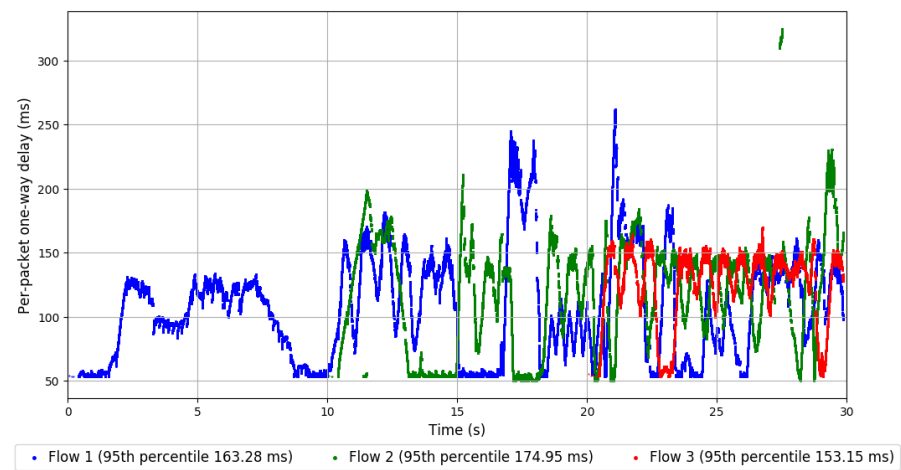
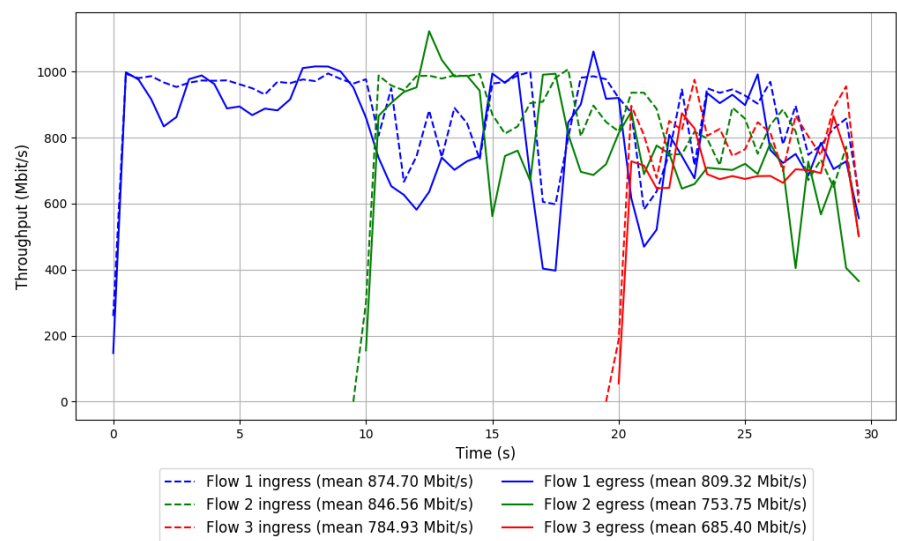
-- Flow 3:

Average throughput: 685.40 Mbit/s

95th percentile per-packet one-way delay: 153.145 ms

Loss rate: 13.62%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-02-14 07:06:54

End at: 2018-02-14 07:07:24

Below is generated by plot.py at 2018-02-14 12:58:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1477.11 Mbit/s

95th percentile per-packet one-way delay: 263.872 ms

Loss rate: 10.73%

-- Flow 1:

Average throughput: 796.78 Mbit/s

95th percentile per-packet one-way delay: 260.520 ms

Loss rate: 8.39%

-- Flow 2:

Average throughput: 680.92 Mbit/s

95th percentile per-packet one-way delay: 273.457 ms

Loss rate: 13.82%

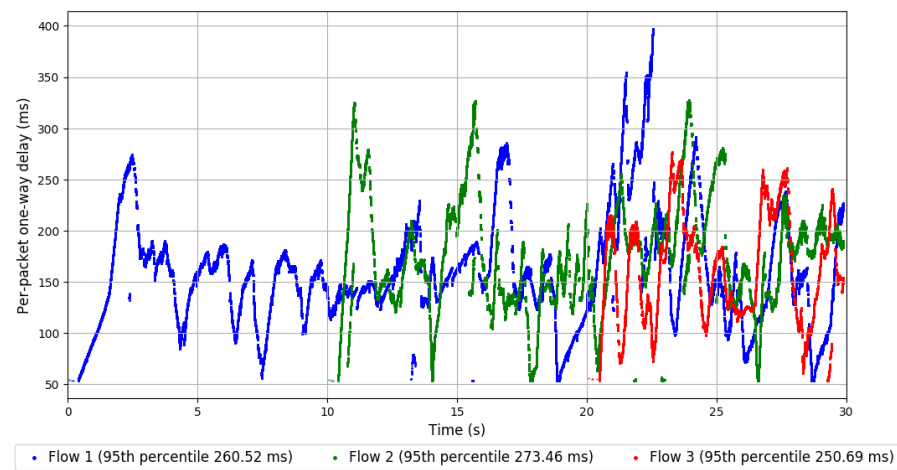
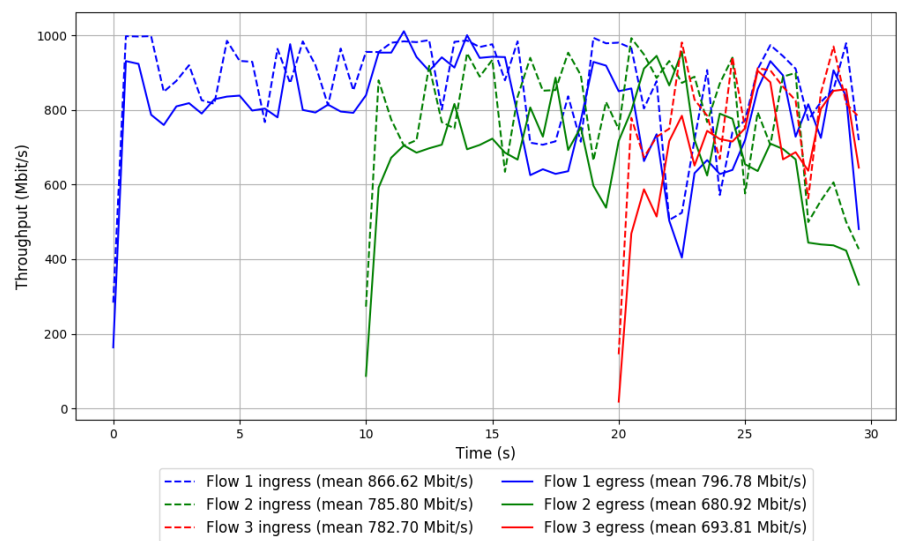
-- Flow 3:

Average throughput: 693.81 Mbit/s

95th percentile per-packet one-way delay: 250.689 ms

Loss rate: 12.34%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-02-14 07:24:27

End at: 2018-02-14 07:24:57

Below is generated by plot.py at 2018-02-14 12:58:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1445.19 Mbit/s

95th percentile per-packet one-way delay: 194.652 ms

Loss rate: 11.15%

-- Flow 1:

Average throughput: 686.08 Mbit/s

95th percentile per-packet one-way delay: 205.859 ms

Loss rate: 13.73%

-- Flow 2:

Average throughput: 766.71 Mbit/s

95th percentile per-packet one-way delay: 195.020 ms

Loss rate: 8.44%

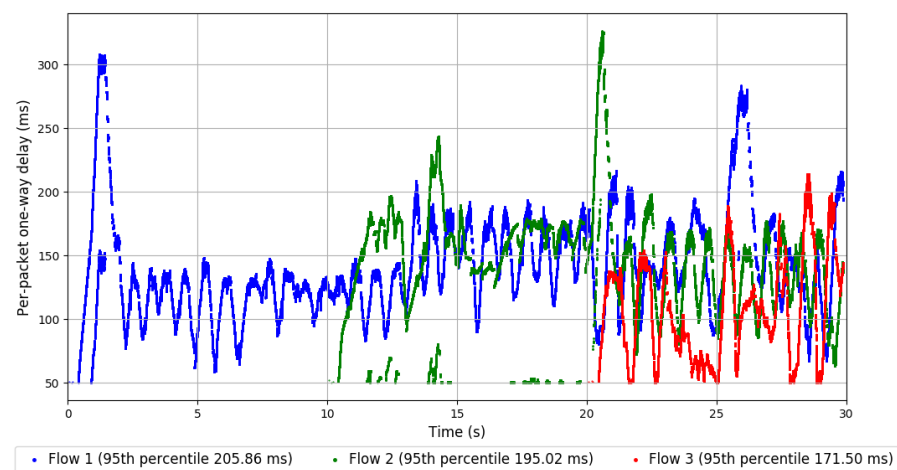
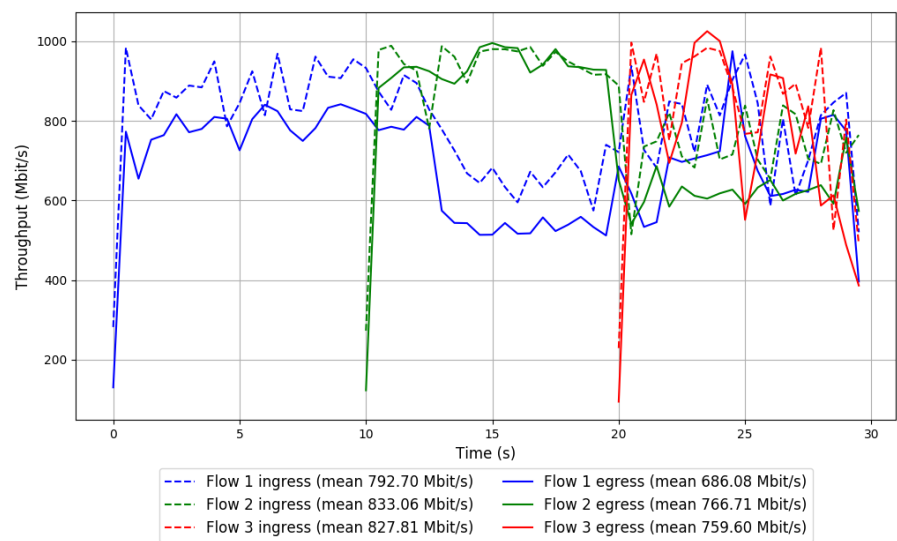
-- Flow 3:

Average throughput: 759.60 Mbit/s

95th percentile per-packet one-way delay: 171.497 ms

Loss rate: 9.19%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-02-14 07:41:32

End at: 2018-02-14 07:42:02

Below is generated by plot.py at 2018-02-14 12:58:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1418.50 Mbit/s

95th percentile per-packet one-way delay: 236.642 ms

Loss rate: 12.71%

-- Flow 1:

Average throughput: 720.37 Mbit/s

95th percentile per-packet one-way delay: 248.212 ms

Loss rate: 12.26%

-- Flow 2:

Average throughput: 749.69 Mbit/s

95th percentile per-packet one-way delay: 217.919 ms

Loss rate: 9.64%

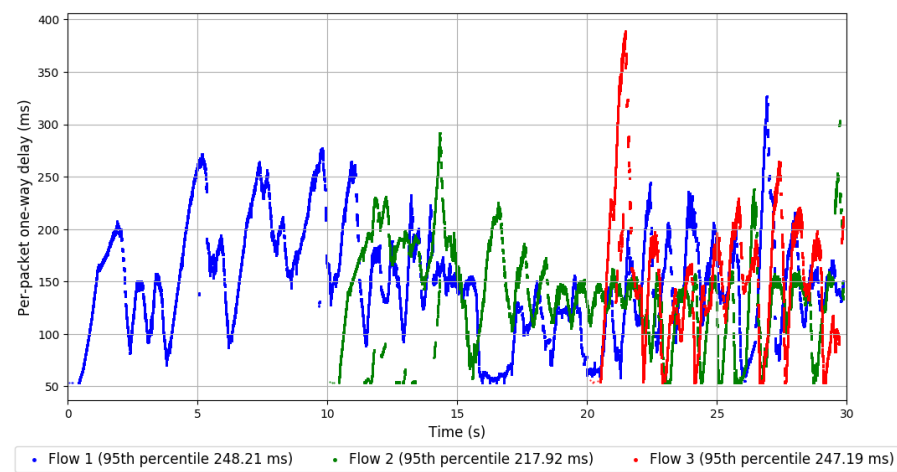
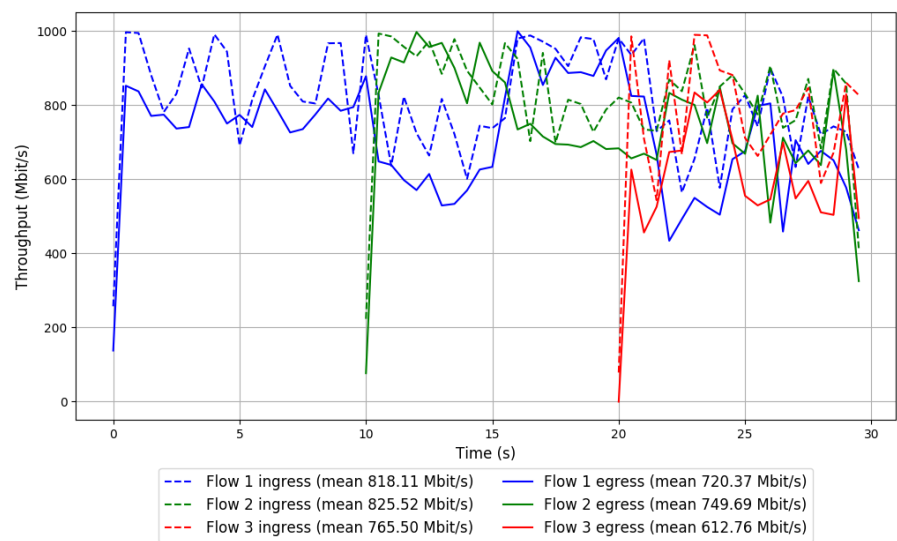
-- Flow 3:

Average throughput: 612.76 Mbit/s

95th percentile per-packet one-way delay: 247.192 ms

Loss rate: 20.84%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-02-14 07:59:03

End at: 2018-02-14 07:59:33

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1486.77 Mbit/s

95th percentile per-packet one-way delay: 251.224 ms

Loss rate: 11.37%

-- Flow 1:

Average throughput: 785.15 Mbit/s

95th percentile per-packet one-way delay: 223.711 ms

Loss rate: 9.83%

-- Flow 2:

Average throughput: 720.94 Mbit/s

95th percentile per-packet one-way delay: 256.403 ms

Loss rate: 13.11%

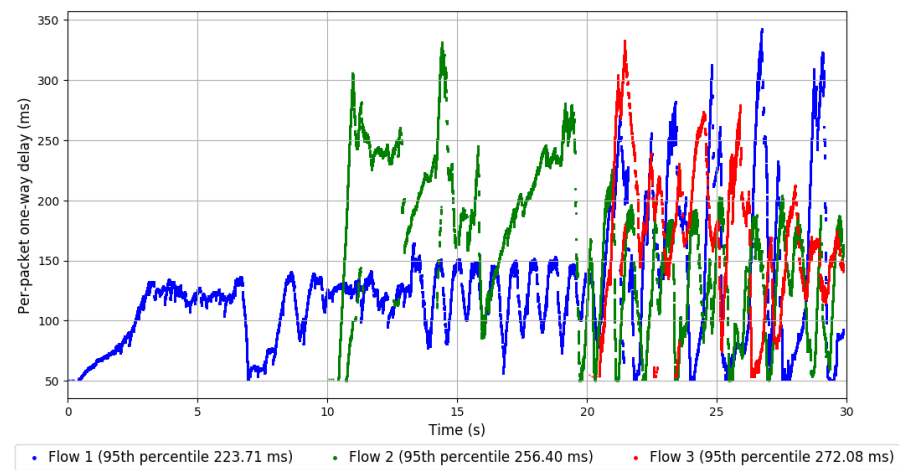
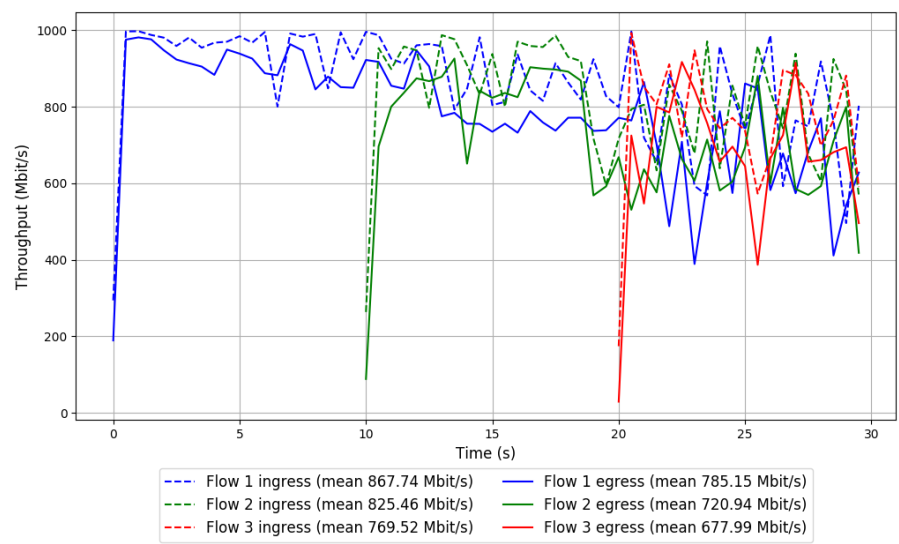
-- Flow 3:

Average throughput: 677.99 Mbit/s

95th percentile per-packet one-way delay: 272.077 ms

Loss rate: 12.84%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-02-14 08:16:24

End at: 2018-02-14 08:16:54

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1368.83 Mbit/s

95th percentile per-packet one-way delay: 298.441 ms

Loss rate: 8.88%

-- Flow 1:

Average throughput: 771.51 Mbit/s

95th percentile per-packet one-way delay: 275.265 ms

Loss rate: 4.24%

-- Flow 2:

Average throughput: 589.58 Mbit/s

95th percentile per-packet one-way delay: 308.698 ms

Loss rate: 13.24%

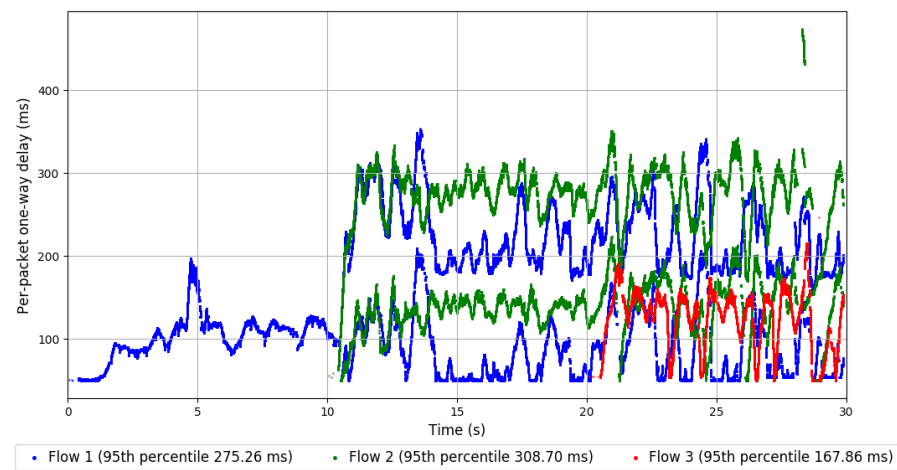
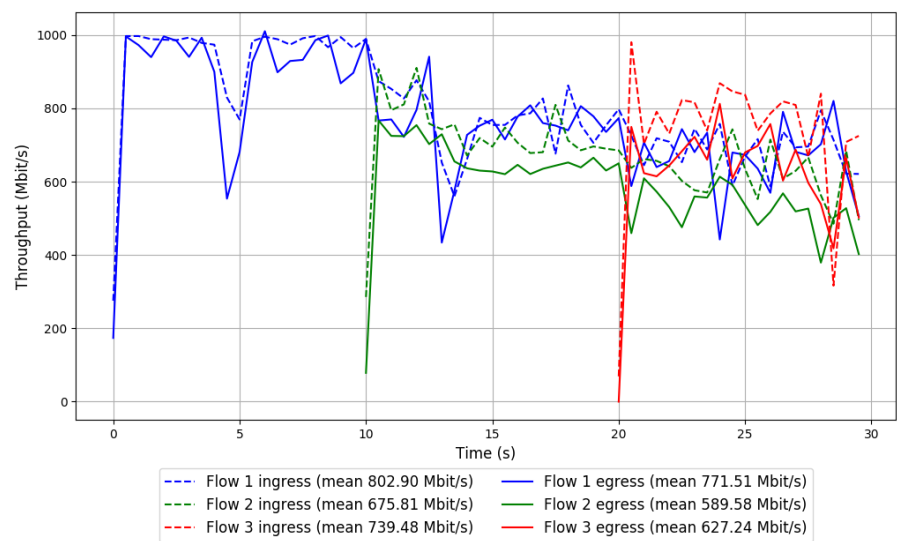
-- Flow 3:

Average throughput: 627.24 Mbit/s

95th percentile per-packet one-way delay: 167.857 ms

Loss rate: 16.10%

Run 10: Report of FillP — Data Link

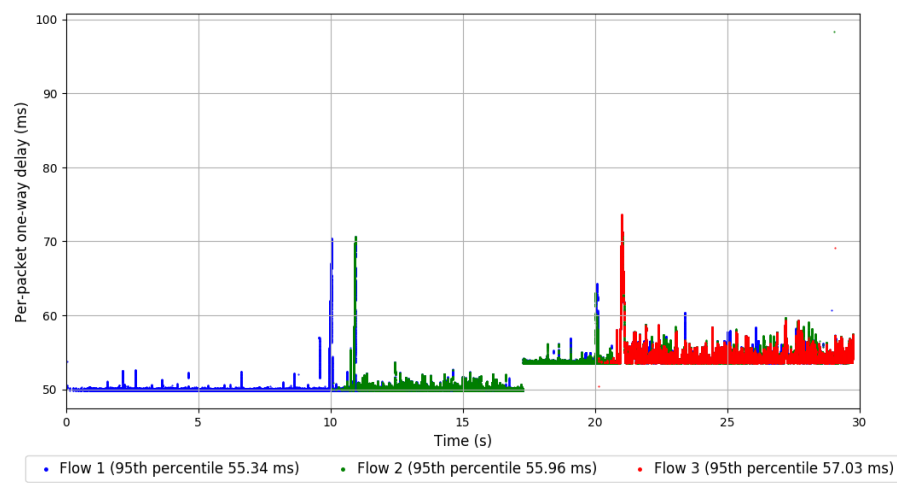
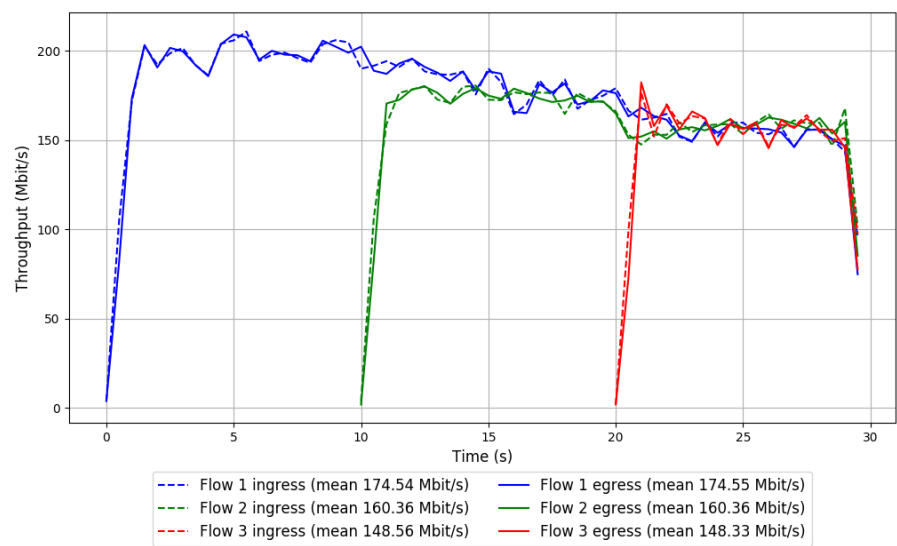


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-14 05:44:23
End at: 2018-02-14 05:44:53

# Below is generated by plot.py at 2018-02-14 13:26:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 328.74 Mbit/s
95th percentile per-packet one-way delay: 55.891 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 174.55 Mbit/s
95th percentile per-packet one-way delay: 55.336 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 160.36 Mbit/s
95th percentile per-packet one-way delay: 55.964 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 148.33 Mbit/s
95th percentile per-packet one-way delay: 57.030 ms
Loss rate: 1.20%
```

Run 1: Report of Indigo-1-32 — Data Link

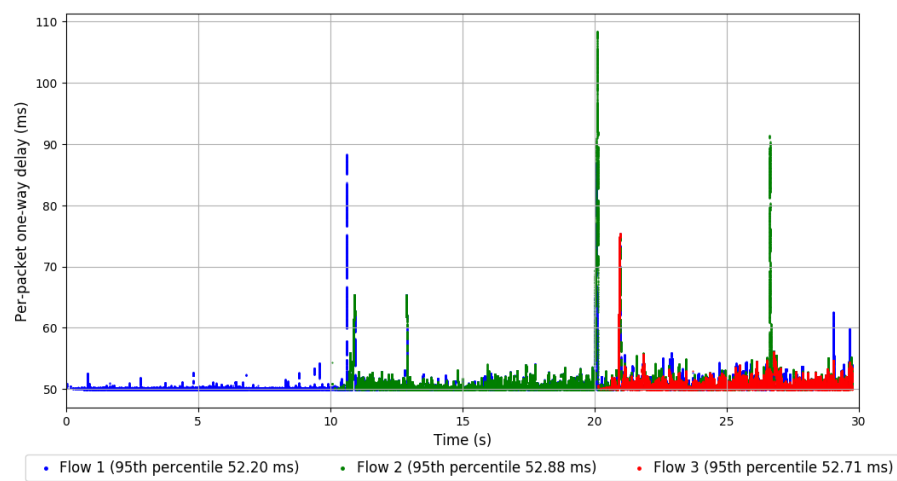
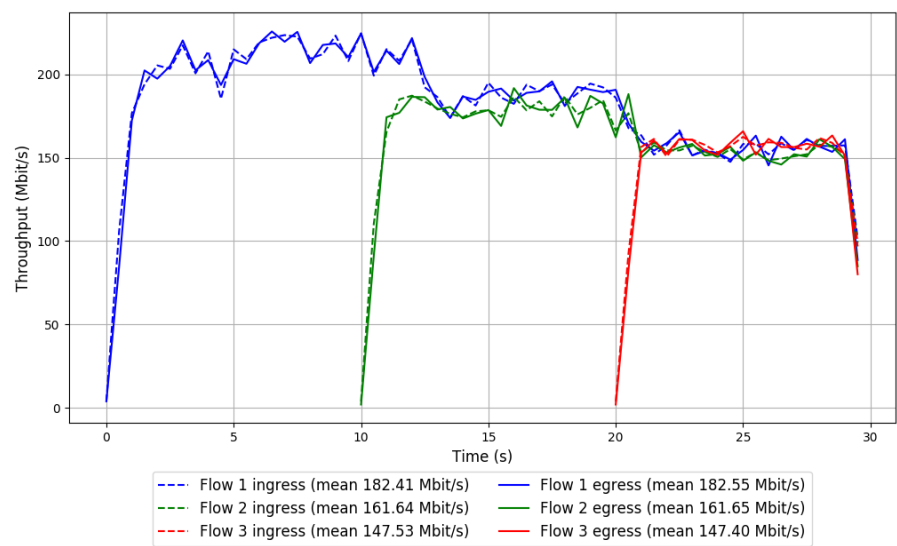


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-02-14 06:01:47
End at: 2018-02-14 06:02:17

# Below is generated by plot.py at 2018-02-14 13:26:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 337.46 Mbit/s
95th percentile per-packet one-way delay: 52.514 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 182.55 Mbit/s
95th percentile per-packet one-way delay: 52.200 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 161.65 Mbit/s
95th percentile per-packet one-way delay: 52.883 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 147.40 Mbit/s
95th percentile per-packet one-way delay: 52.709 ms
Loss rate: 1.13%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-02-14 06:19:11

End at: 2018-02-14 06:19:41

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.56 Mbit/s

95th percentile per-packet one-way delay: 55.263 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 161.39 Mbit/s

95th percentile per-packet one-way delay: 54.087 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 170.80 Mbit/s

95th percentile per-packet one-way delay: 55.383 ms

Loss rate: 0.50%

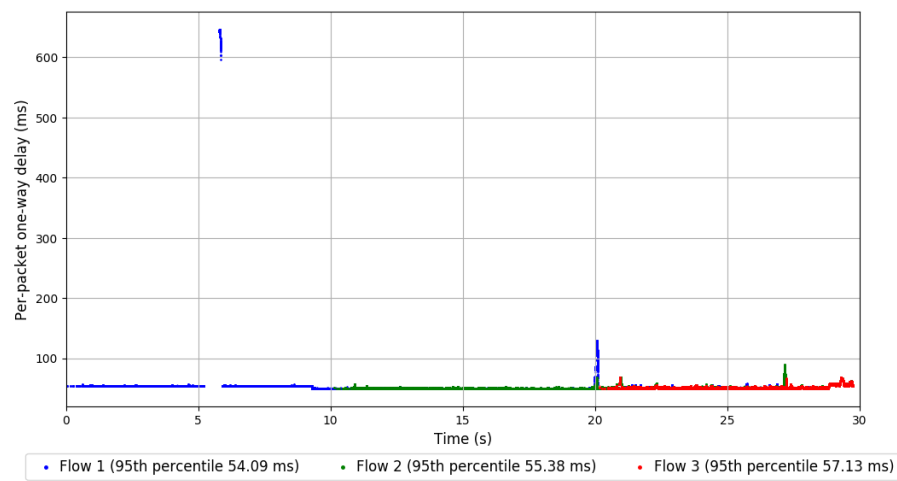
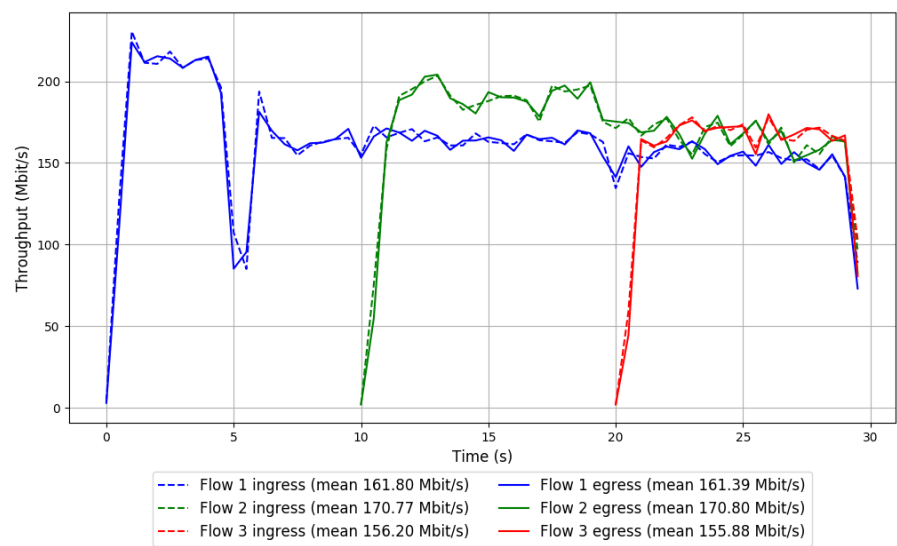
-- Flow 3:

Average throughput: 155.88 Mbit/s

95th percentile per-packet one-way delay: 57.129 ms

Loss rate: 1.26%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-02-14 06:36:33

End at: 2018-02-14 06:37:03

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 340.49 Mbit/s

95th percentile per-packet one-way delay: 53.701 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 186.89 Mbit/s

95th percentile per-packet one-way delay: 52.794 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 159.67 Mbit/s

95th percentile per-packet one-way delay: 53.772 ms

Loss rate: 0.52%

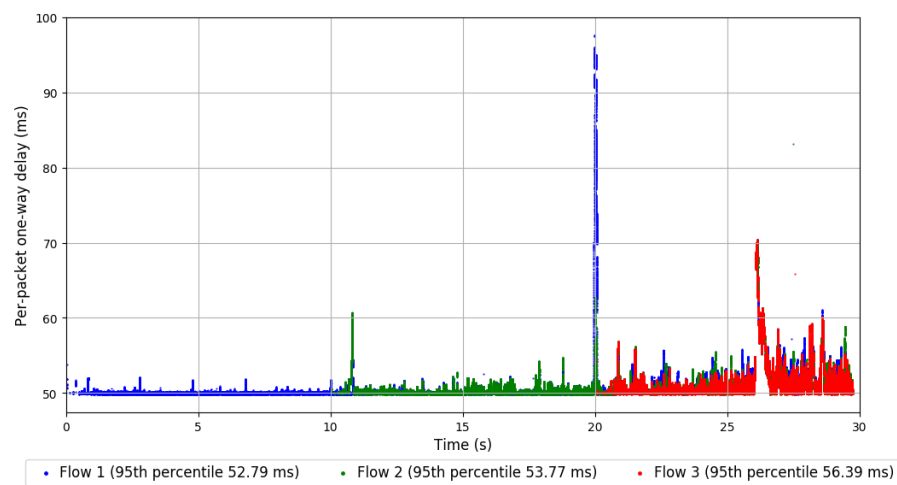
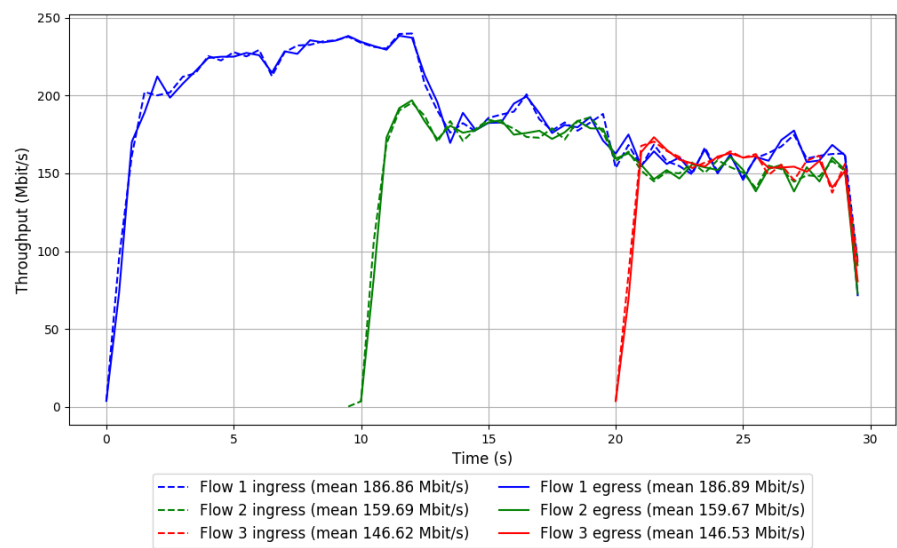
-- Flow 3:

Average throughput: 146.53 Mbit/s

95th percentile per-packet one-way delay: 56.390 ms

Loss rate: 1.10%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-02-14 06:54:00

End at: 2018-02-14 06:54:30

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 342.31 Mbit/s

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

Loss rate: 0.47%

-- Flow 1:

Average throughput: 182.44 Mbit/s

95th percentile per-packet one-way delay: 62.616 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 169.01 Mbit/s

95th percentile per-packet one-way delay: 65.229 ms

Loss rate: 0.47%

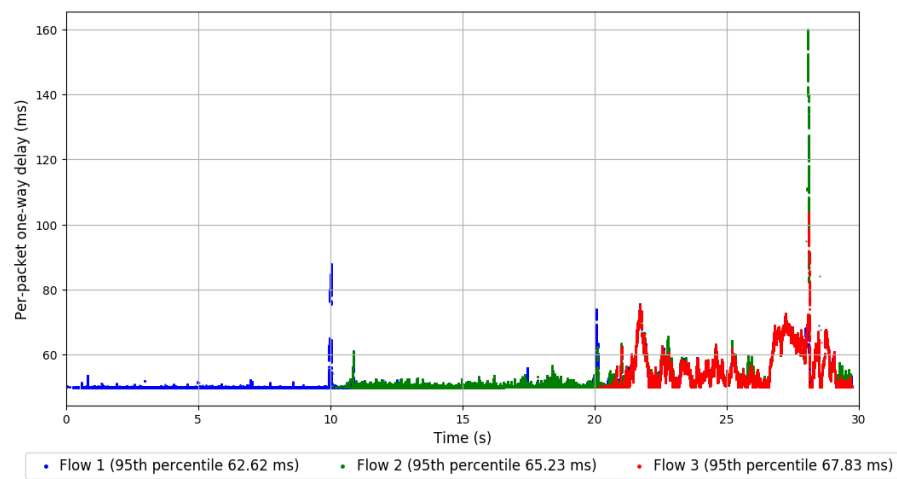
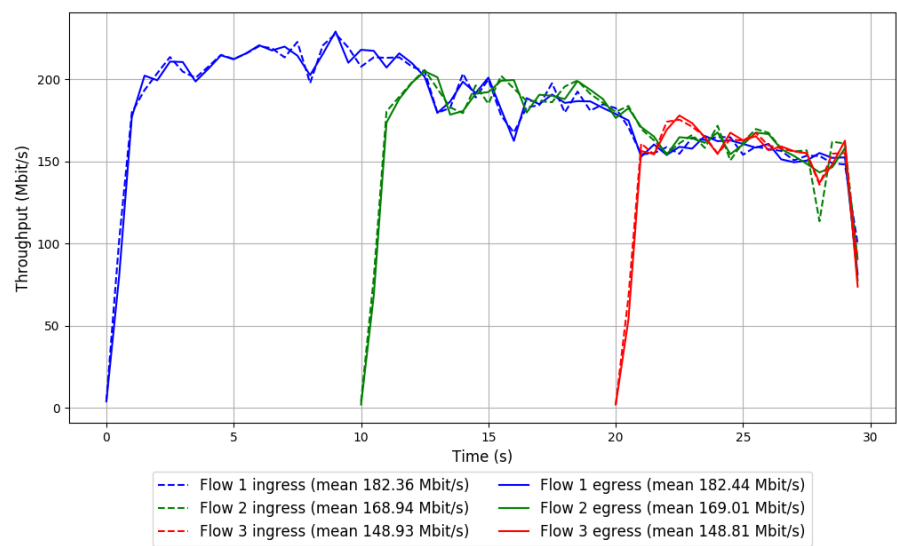
-- Flow 3:

Average throughput: 148.81 Mbit/s

95th percentile per-packet one-way delay: 67.826 ms

Loss rate: 1.13%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-02-14 07:11:32

End at: 2018-02-14 07:12:02

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.34 Mbit/s

95th percentile per-packet one-way delay: 55.343 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 182.57 Mbit/s

95th percentile per-packet one-way delay: 54.256 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 161.28 Mbit/s

95th percentile per-packet one-way delay: 55.729 ms

Loss rate: 0.46%

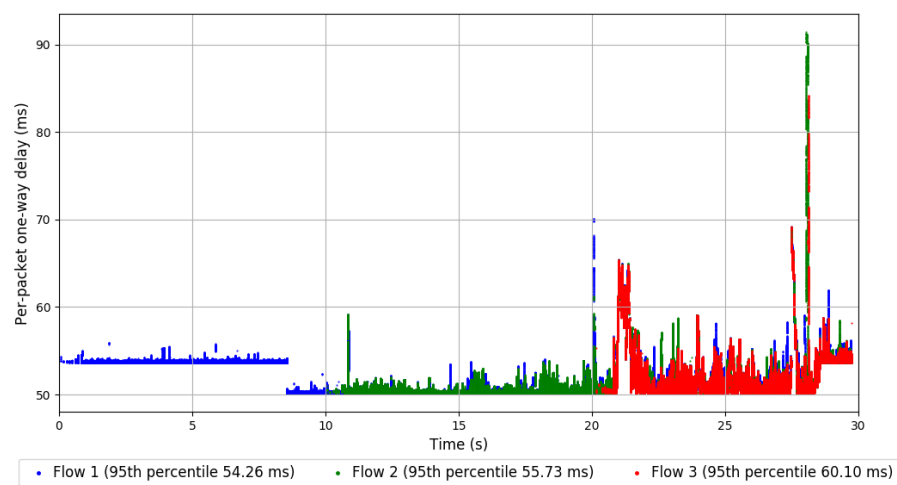
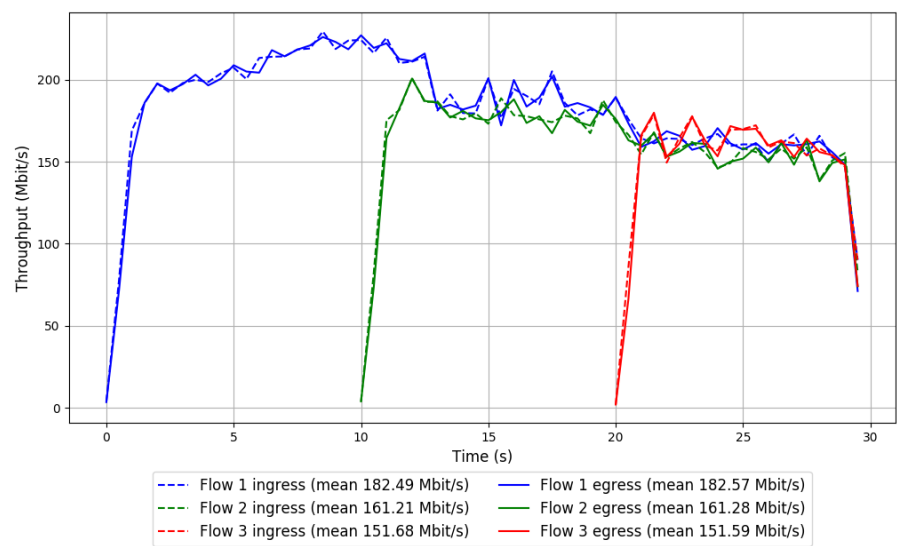
-- Flow 3:

Average throughput: 151.59 Mbit/s

95th percentile per-packet one-way delay: 60.097 ms

Loss rate: 1.06%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-02-14 07:29:03

End at: 2018-02-14 07:29:33

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 334.22 Mbit/s

95th percentile per-packet one-way delay: 61.858 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 184.72 Mbit/s

95th percentile per-packet one-way delay: 60.674 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 160.79 Mbit/s

95th percentile per-packet one-way delay: 62.184 ms

Loss rate: 0.54%

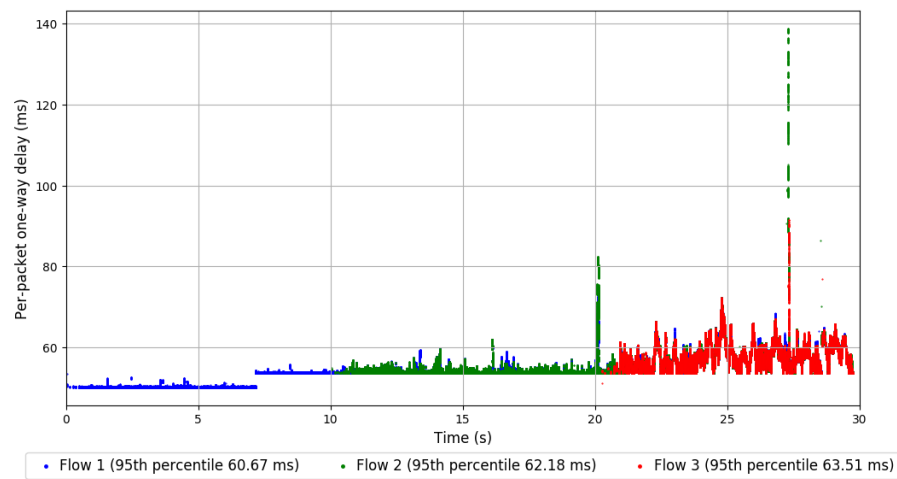
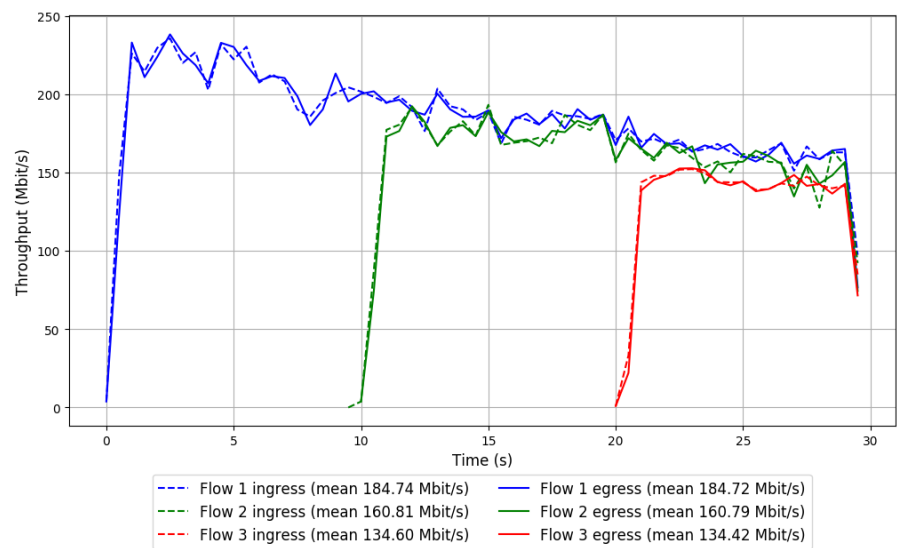
-- Flow 3:

Average throughput: 134.42 Mbit/s

95th percentile per-packet one-way delay: 63.509 ms

Loss rate: 1.20%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-02-14 07:46:08

End at: 2018-02-14 07:46:38

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.76 Mbit/s

95th percentile per-packet one-way delay: 60.138 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 183.18 Mbit/s

95th percentile per-packet one-way delay: 58.991 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 169.36 Mbit/s

95th percentile per-packet one-way delay: 60.147 ms

Loss rate: 0.47%

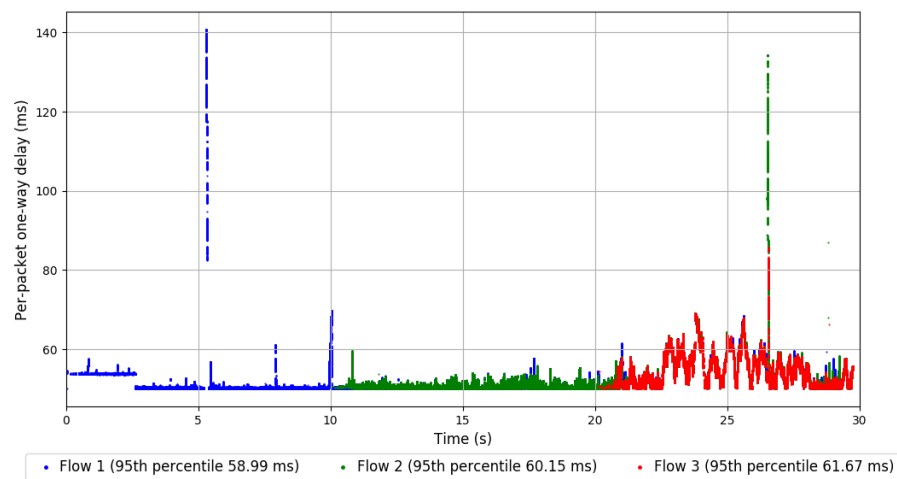
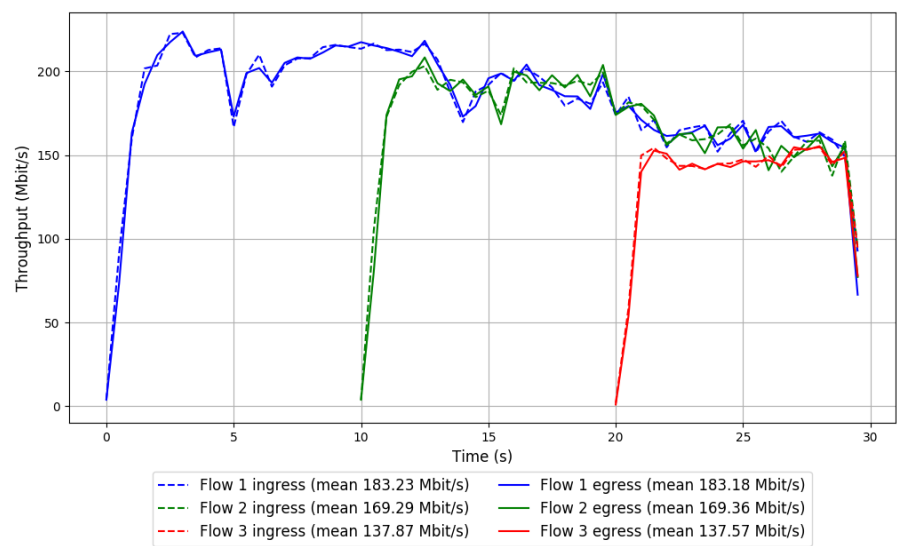
-- Flow 3:

Average throughput: 137.57 Mbit/s

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

Loss rate: 1.27%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-02-14 08:03:39

End at: 2018-02-14 08:04:09

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 341.73 Mbit/s

95th percentile per-packet one-way delay: 55.956 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 182.83 Mbit/s

95th percentile per-packet one-way delay: 55.526 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 169.07 Mbit/s

95th percentile per-packet one-way delay: 56.061 ms

Loss rate: 0.48%

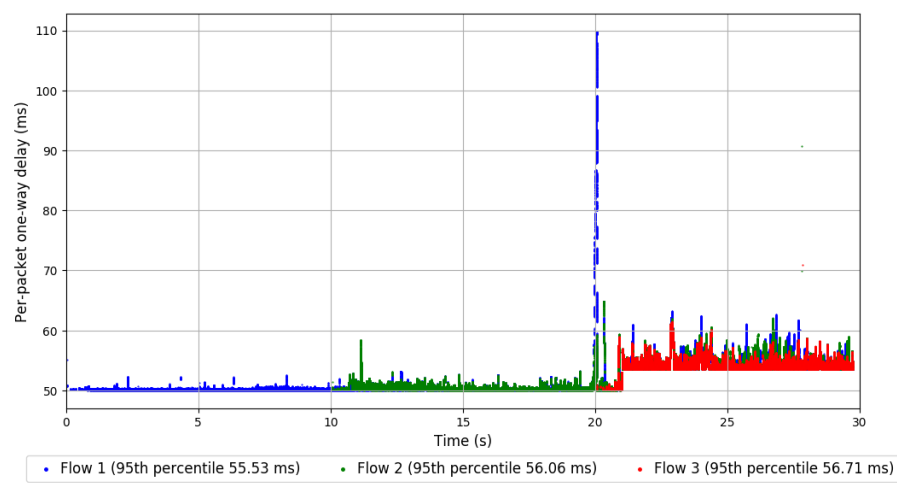
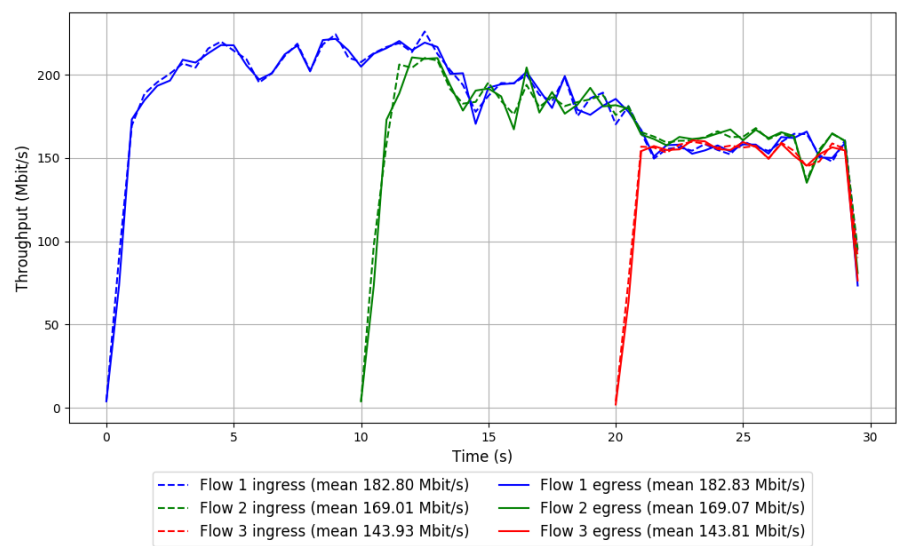
-- Flow 3:

Average throughput: 143.81 Mbit/s

95th percentile per-packet one-way delay: 56.708 ms

Loss rate: 1.13%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-02-14 08:20:59

End at: 2018-02-14 08:21:29

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.42 Mbit/s

95th percentile per-packet one-way delay: 59.723 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 174.38 Mbit/s

95th percentile per-packet one-way delay: 57.827 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 163.69 Mbit/s

95th percentile per-packet one-way delay: 60.023 ms

Loss rate: 0.56%

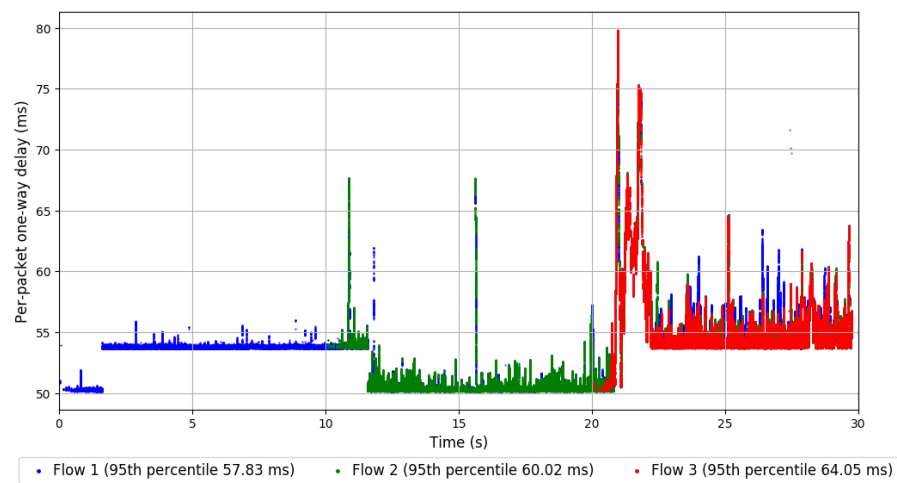
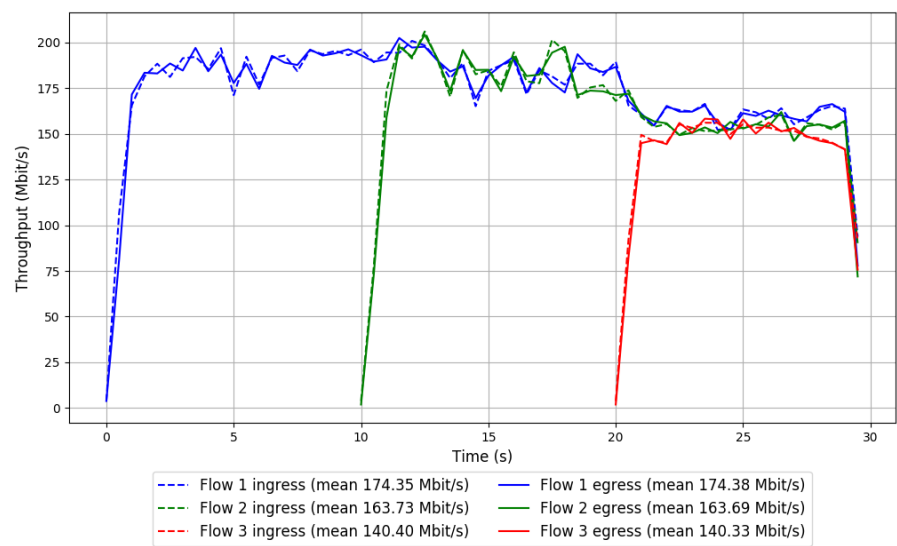
-- Flow 3:

Average throughput: 140.33 Mbit/s

95th percentile per-packet one-way delay: 64.050 ms

Loss rate: 1.13%

Run 10: Report of Indigo-1-32 — Data Link

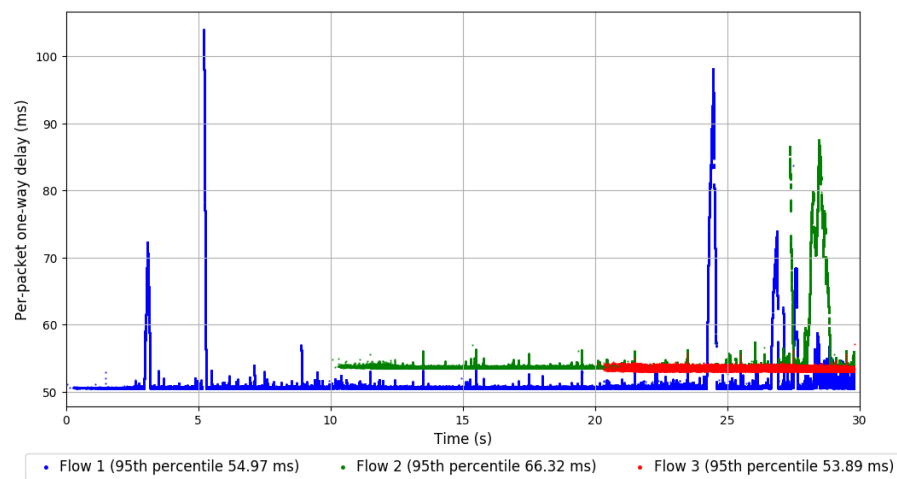
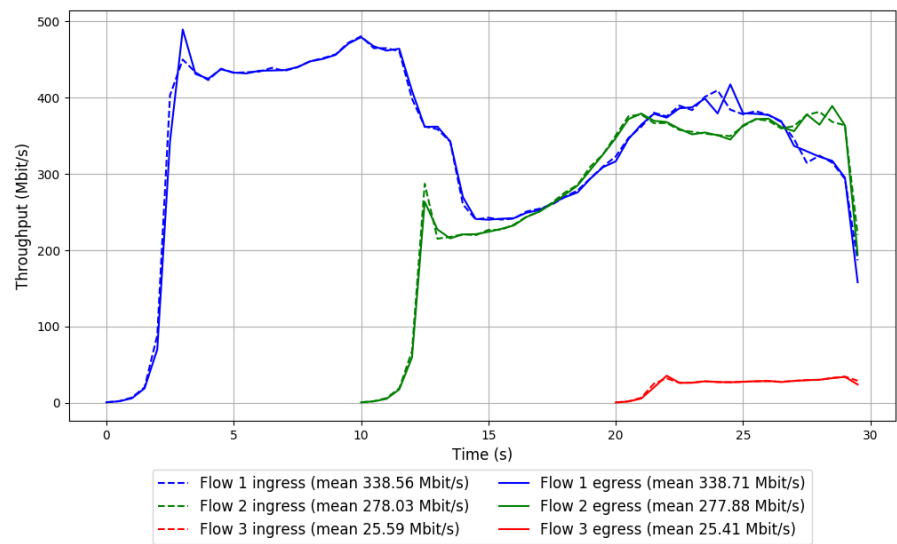


```
Run 1: Statistics of Vivace-latency

Start at: 2018-02-14 05:41:24
End at: 2018-02-14 05:41:54

# Below is generated by plot.py at 2018-02-14 13:26:12
# Datalink statistics
-- Total of 3 flows:
Average throughput: 531.30 Mbit/s
95th percentile per-packet one-way delay: 58.185 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 338.71 Mbit/s
95th percentile per-packet one-way delay: 54.973 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 277.88 Mbit/s
95th percentile per-packet one-way delay: 66.316 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 25.41 Mbit/s
95th percentile per-packet one-way delay: 53.887 ms
Loss rate: 1.75%
```


Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-02-14 05:58:50

End at: 2018-02-14 05:59:20

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 484.37 Mbit/s

95th percentile per-packet one-way delay: 54.020 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 296.54 Mbit/s

95th percentile per-packet one-way delay: 57.291 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 267.97 Mbit/s

95th percentile per-packet one-way delay: 50.935 ms

Loss rate: 0.70%

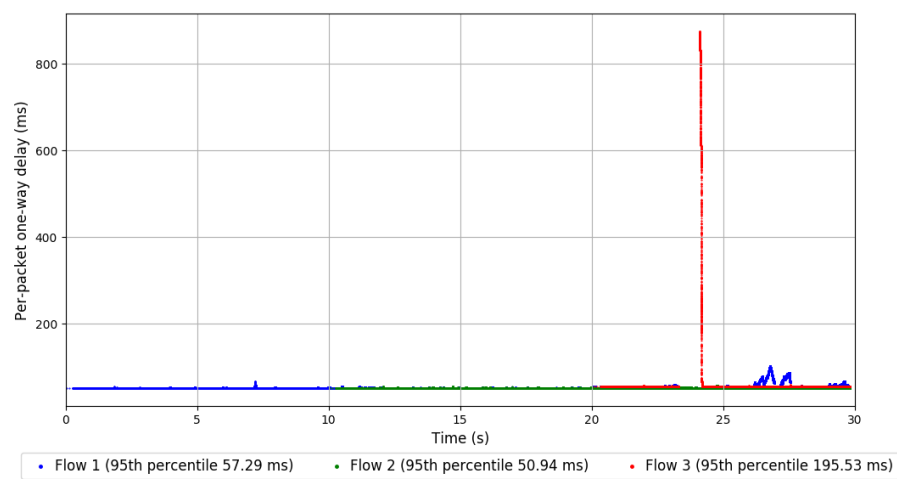
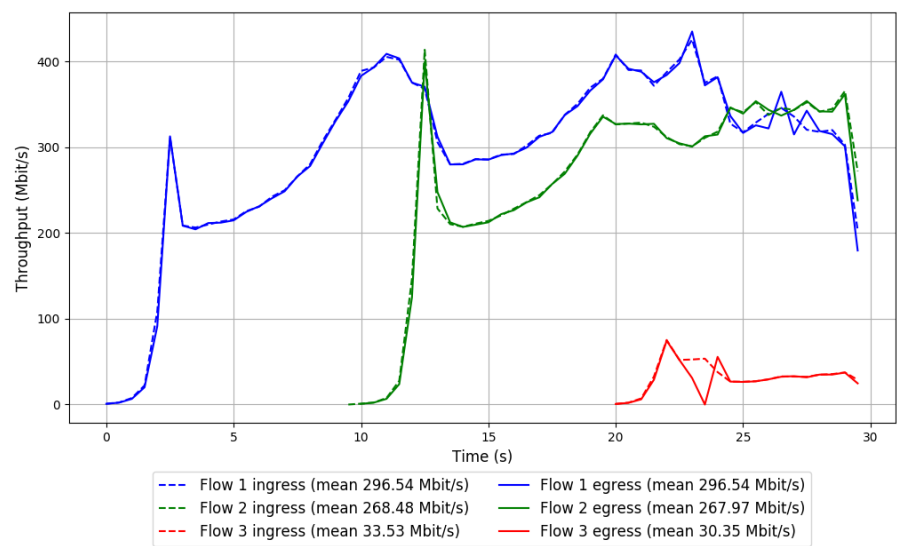
-- Flow 3:

Average throughput: 30.35 Mbit/s

95th percentile per-packet one-way delay: 195.535 ms

Loss rate: 10.46%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-02-14 06:16:14

End at: 2018-02-14 06:16:45

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 461.10 Mbit/s

95th percentile per-packet one-way delay: 54.739 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 271.26 Mbit/s

95th percentile per-packet one-way delay: 54.292 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 269.88 Mbit/s

95th percentile per-packet one-way delay: 60.009 ms

Loss rate: 0.62%

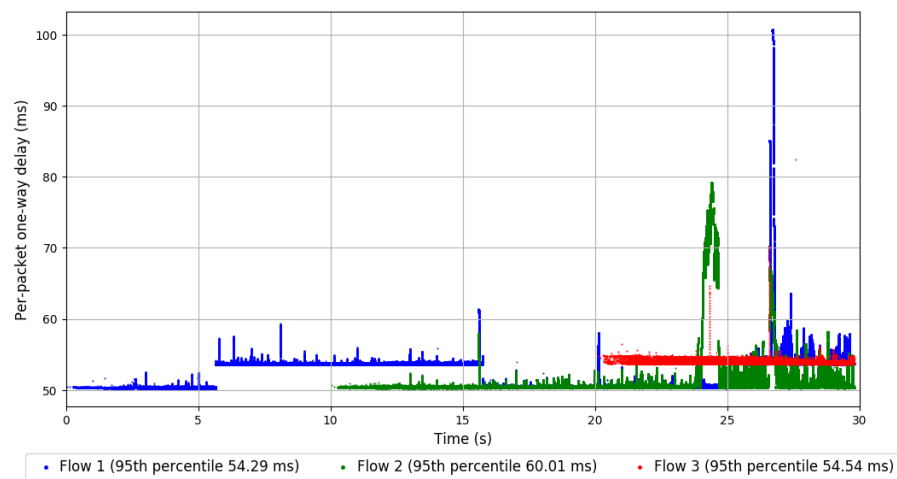
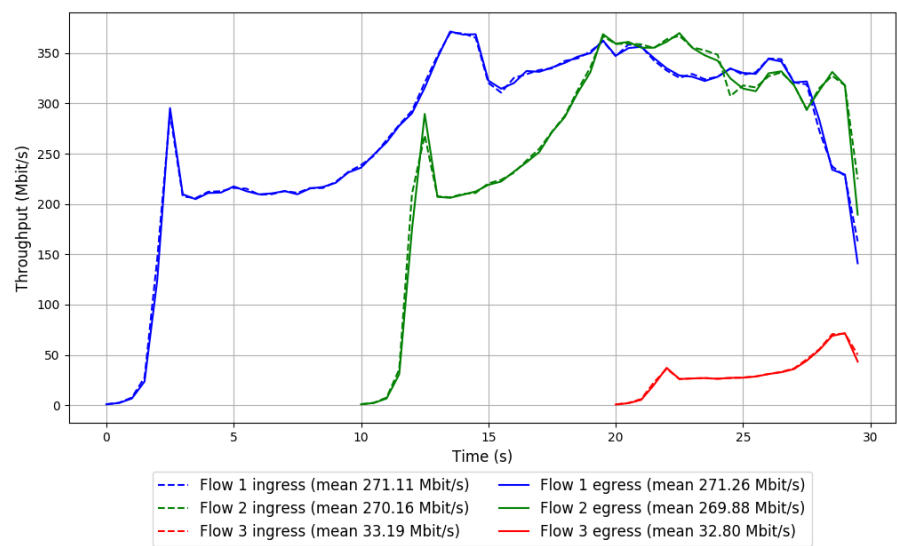
-- Flow 3:

Average throughput: 32.80 Mbit/s

95th percentile per-packet one-way delay: 54.544 ms

Loss rate: 2.23%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-02-14 06:33:35

End at: 2018-02-14 06:34:05

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 490.38 Mbit/s

95th percentile per-packet one-way delay: 66.728 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 294.09 Mbit/s

95th percentile per-packet one-way delay: 59.374 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 267.53 Mbit/s

95th percentile per-packet one-way delay: 77.444 ms

Loss rate: 0.66%

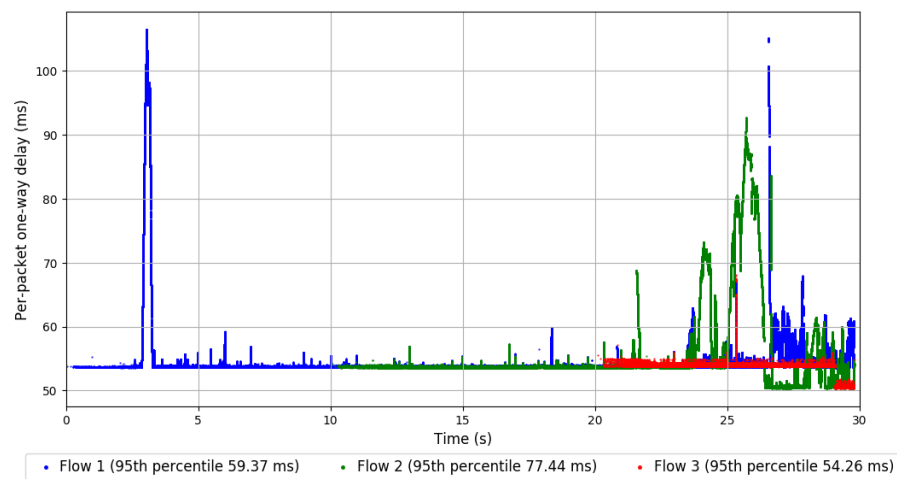
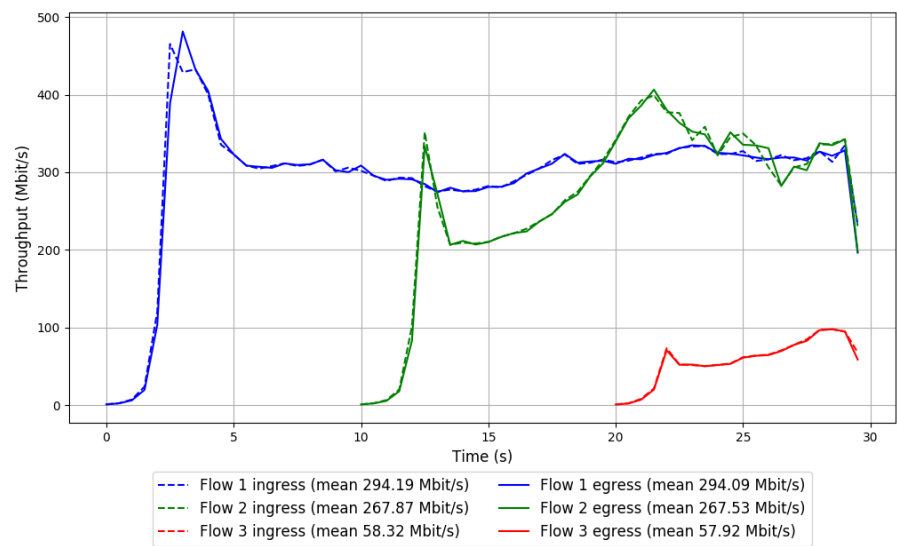
-- Flow 3:

Average throughput: 57.92 Mbit/s

95th percentile per-packet one-way delay: 54.264 ms

Loss rate: 1.72%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-02-14 06:51:01

End at: 2018-02-14 06:51:31

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.12 Mbit/s

95th percentile per-packet one-way delay: 64.643 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 327.85 Mbit/s

95th percentile per-packet one-way delay: 52.948 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 248.14 Mbit/s

95th percentile per-packet one-way delay: 73.952 ms

Loss rate: 0.55%

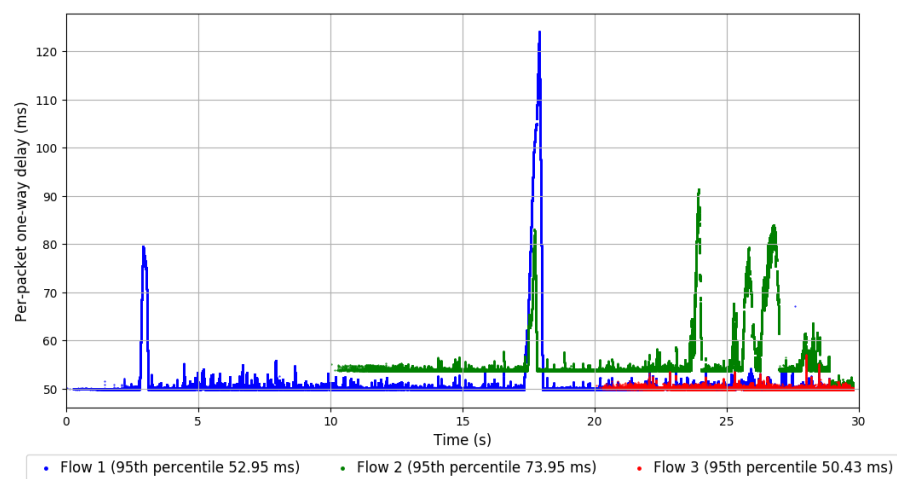
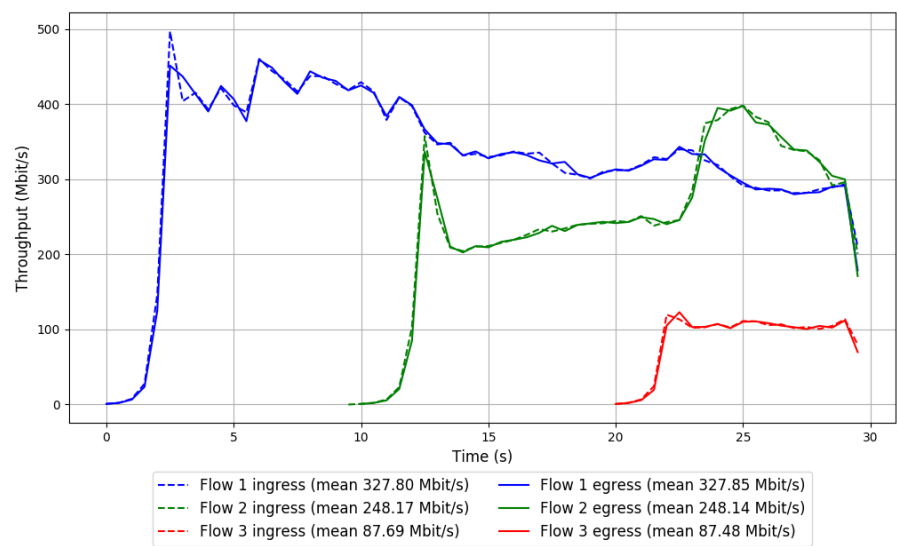
-- Flow 3:

Average throughput: 87.48 Mbit/s

95th percentile per-packet one-way delay: 50.428 ms

Loss rate: 1.28%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-02-14 07:08:29

End at: 2018-02-14 07:08:59

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 572.45 Mbit/s

95th percentile per-packet one-way delay: 67.728 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 353.41 Mbit/s

95th percentile per-packet one-way delay: 68.559 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 256.80 Mbit/s

95th percentile per-packet one-way delay: 70.788 ms

Loss rate: 0.54%

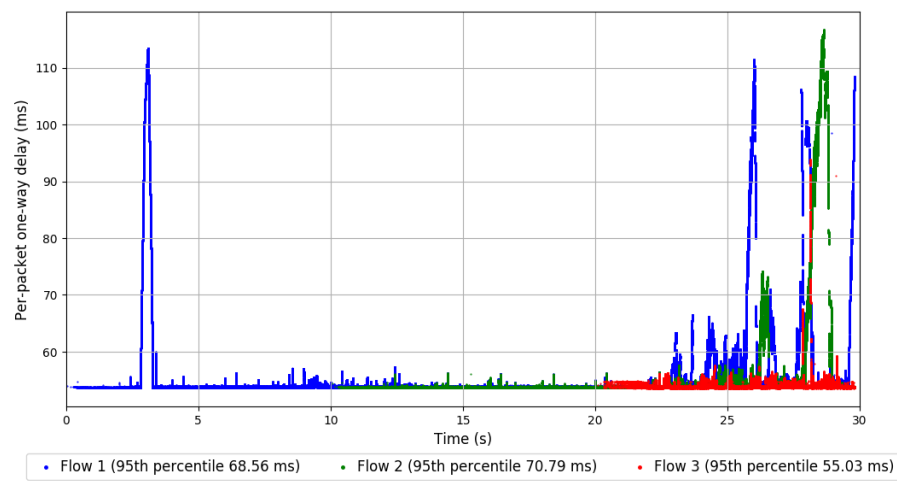
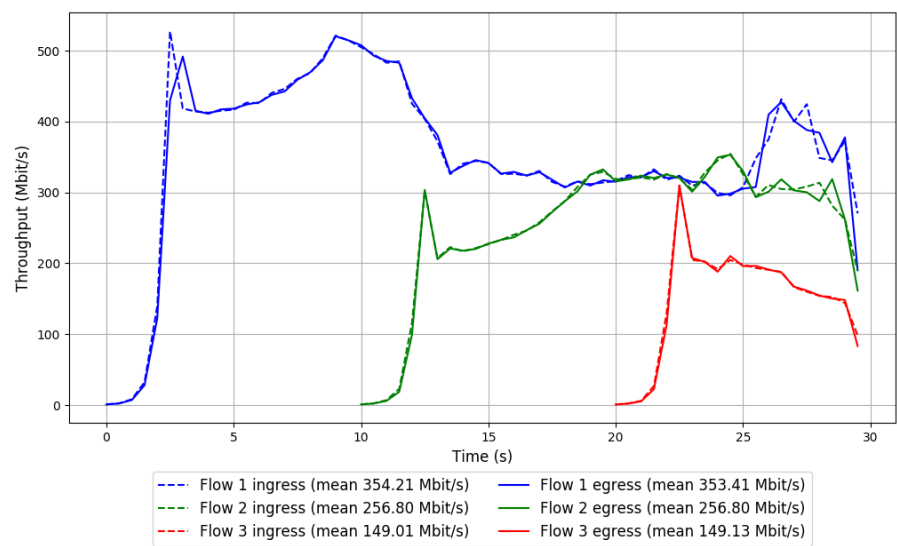
-- Flow 3:

Average throughput: 149.13 Mbit/s

95th percentile per-packet one-way delay: 55.031 ms

Loss rate: 0.99%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-02-14 07:26:01

End at: 2018-02-14 07:26:31

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 538.82 Mbit/s

95th percentile per-packet one-way delay: 96.607 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 348.95 Mbit/s

95th percentile per-packet one-way delay: 119.396 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 241.20 Mbit/s

95th percentile per-packet one-way delay: 56.793 ms

Loss rate: 0.68%

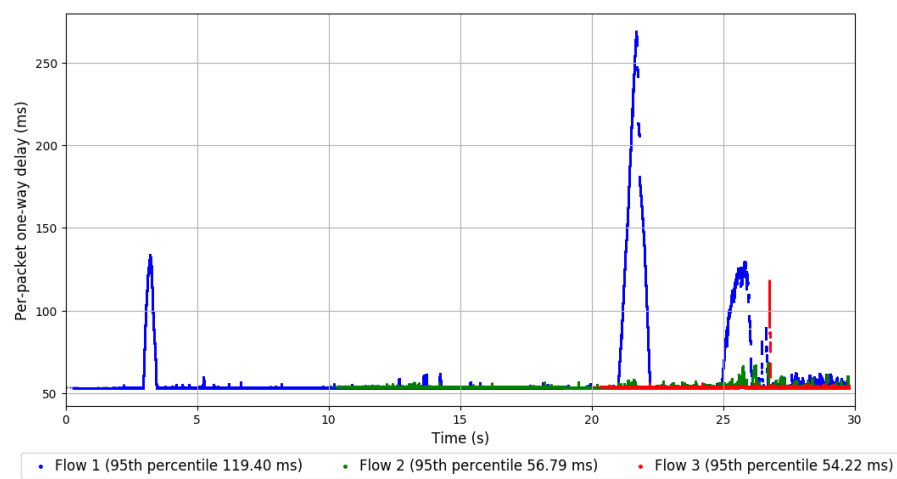
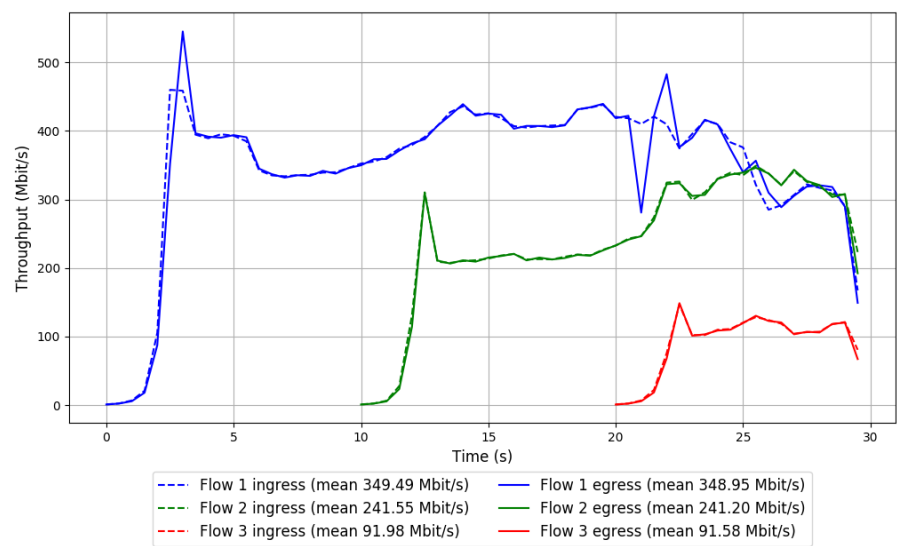
-- Flow 3:

Average throughput: 91.58 Mbit/s

95th percentile per-packet one-way delay: 54.221 ms

Loss rate: 1.49%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-02-14 07:43:06

End at: 2018-02-14 07:43:36

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 549.84 Mbit/s

95th percentile per-packet one-way delay: 58.647 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 326.39 Mbit/s

95th percentile per-packet one-way delay: 67.007 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 294.12 Mbit/s

95th percentile per-packet one-way delay: 58.142 ms

Loss rate: 0.64%

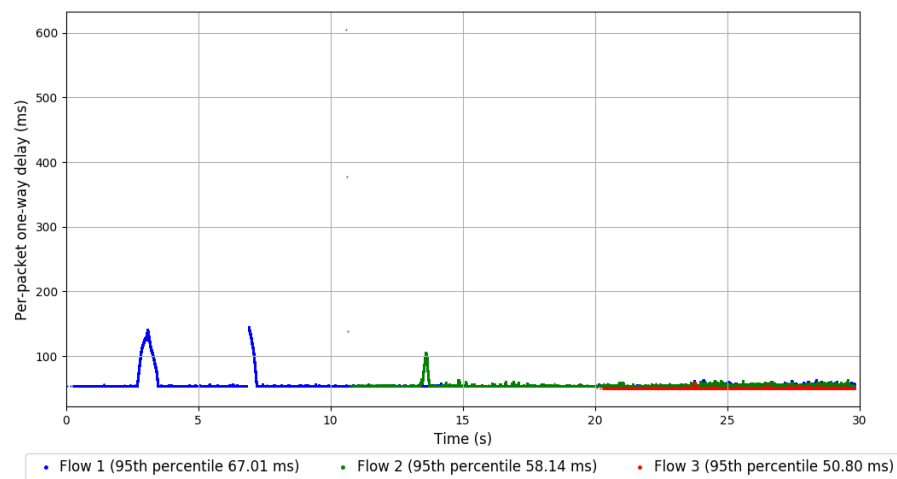
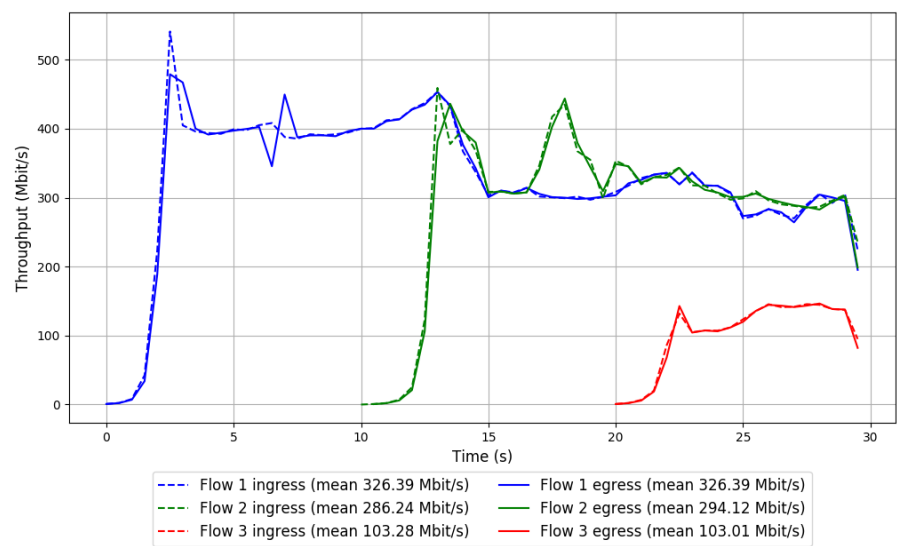
-- Flow 3:

Average throughput: 103.01 Mbit/s

95th percentile per-packet one-way delay: 50.803 ms

Loss rate: 1.30%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-02-14 08:00:40

End at: 2018-02-14 08:01:10

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 488.47 Mbit/s

95th percentile per-packet one-way delay: 54.244 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 290.49 Mbit/s

95th percentile per-packet one-way delay: 54.409 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 225.22 Mbit/s

95th percentile per-packet one-way delay: 53.096 ms

Loss rate: 0.24%

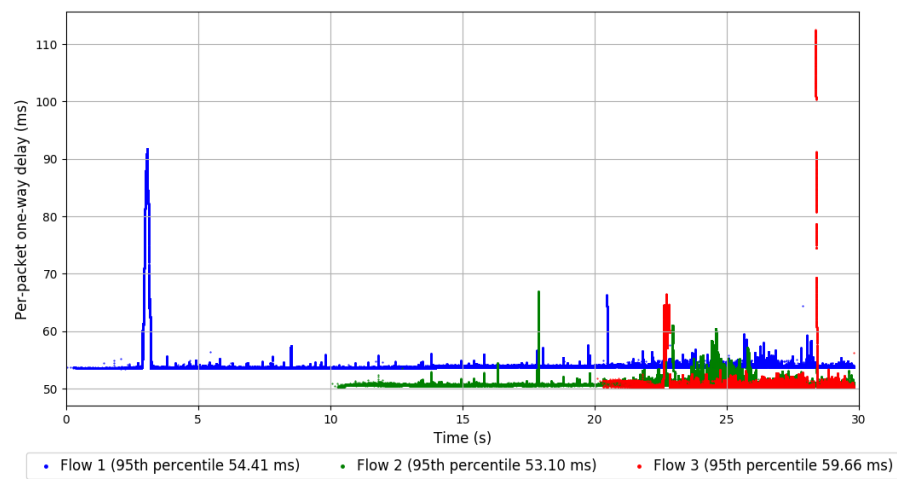
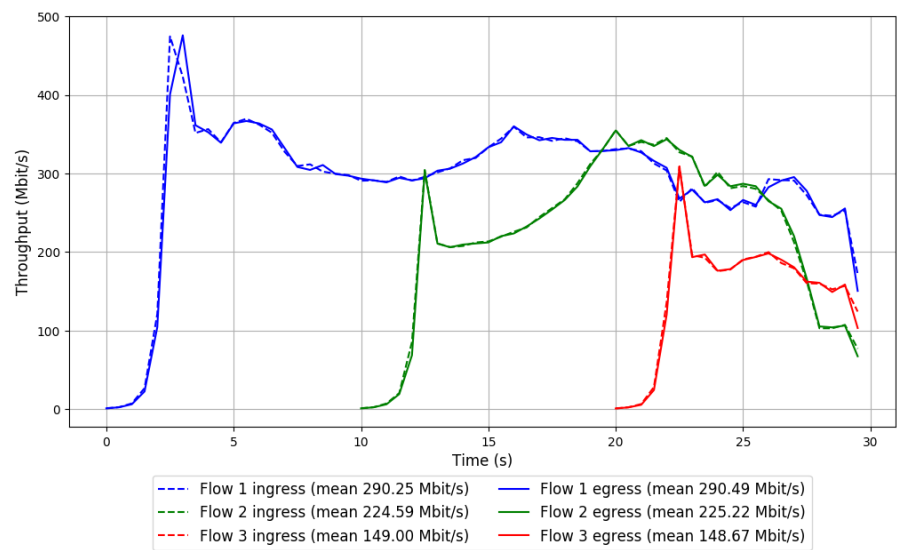
-- Flow 3:

Average throughput: 148.67 Mbit/s

95th percentile per-packet one-way delay: 59.663 ms

Loss rate: 1.20%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-02-14 08:18:01

End at: 2018-02-14 08:18:31

Below is generated by plot.py at 2018-02-14 13:26:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 495.13 Mbit/s

95th percentile per-packet one-way delay: 67.455 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 303.22 Mbit/s

95th percentile per-packet one-way delay: 74.389 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 247.68 Mbit/s

95th percentile per-packet one-way delay: 57.429 ms

Loss rate: 0.52%

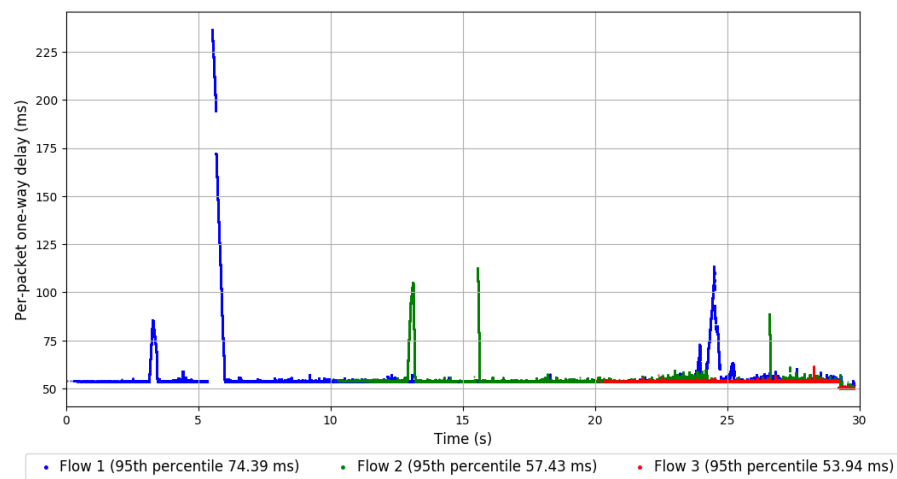
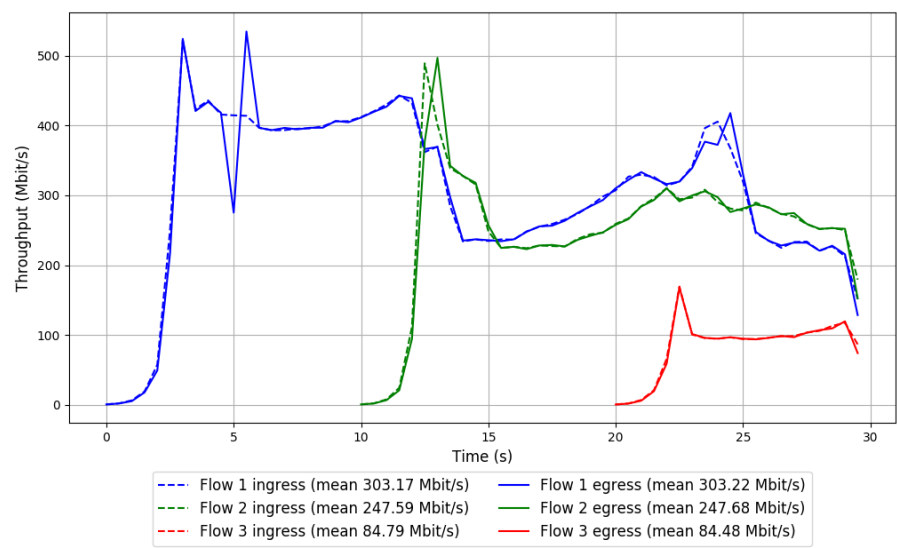
-- Flow 3:

Average throughput: 84.48 Mbit/s

95th percentile per-packet one-way delay: 53.942 ms

Loss rate: 1.47%

Run 10: Report of Vivace-latency — Data Link

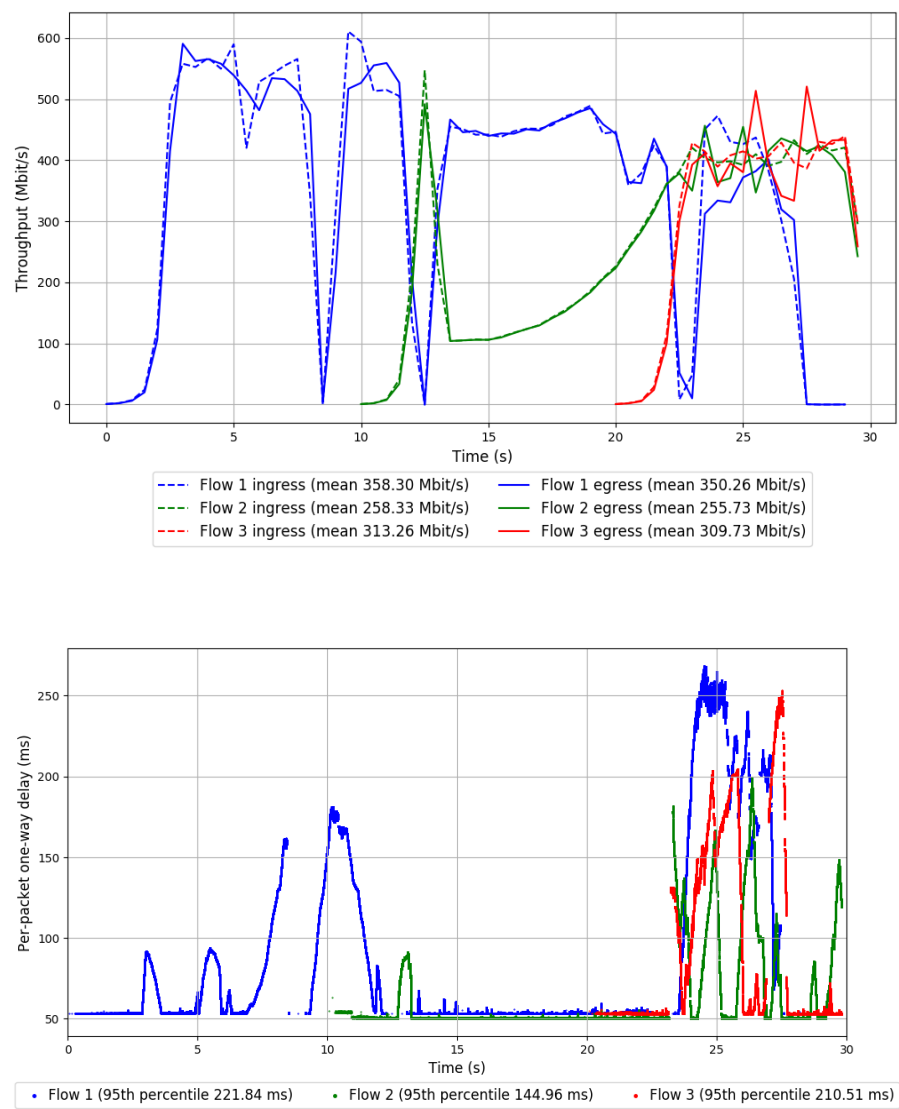


```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-14 05:35:49
End at: 2018-02-14 05:36:19

# Below is generated by plot.py at 2018-02-14 13:28:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 616.58 Mbit/s
95th percentile per-packet one-way delay: 203.044 ms
Loss rate: 2.04%
-- Flow 1:
Average throughput: 350.26 Mbit/s
95th percentile per-packet one-way delay: 221.845 ms
Loss rate: 2.24%
-- Flow 2:
Average throughput: 255.73 Mbit/s
95th percentile per-packet one-way delay: 144.956 ms
Loss rate: 1.53%
-- Flow 3:
Average throughput: 309.73 Mbit/s
95th percentile per-packet one-way delay: 210.509 ms
Loss rate: 2.20%
```

Run 1: Report of Vivace-loss — Data Link

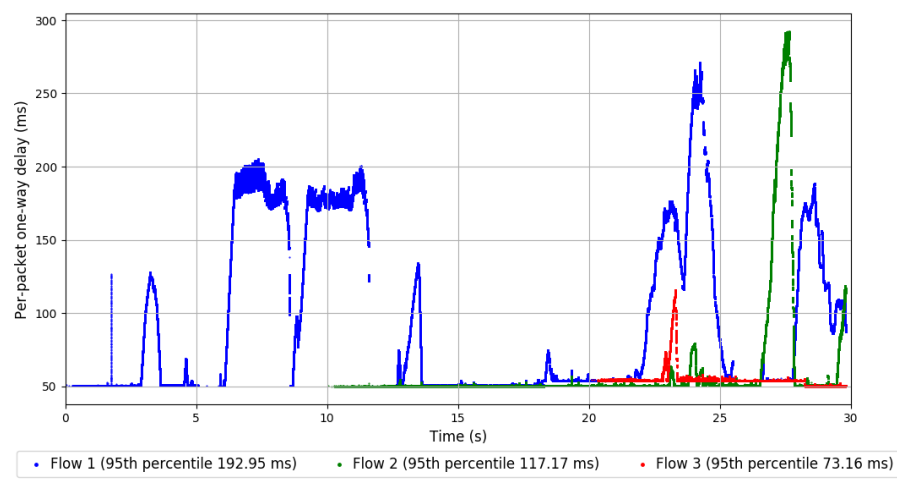
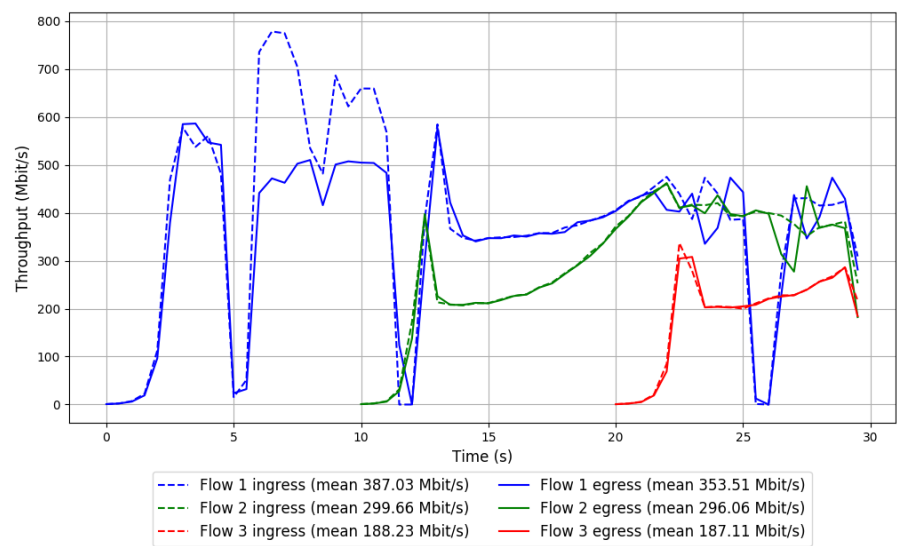


```
Run 2: Statistics of Vivace-loss

Start at: 2018-02-14 05:53:12
End at: 2018-02-14 05:53:42

# Below is generated by plot.py at 2018-02-14 13:30:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 611.08 Mbit/s
95th percentile per-packet one-way delay: 189.156 ms
Loss rate: 6.04%
-- Flow 1:
Average throughput: 353.51 Mbit/s
95th percentile per-packet one-way delay: 192.953 ms
Loss rate: 8.97%
-- Flow 2:
Average throughput: 296.06 Mbit/s
95th percentile per-packet one-way delay: 117.175 ms
Loss rate: 1.71%
-- Flow 3:
Average throughput: 187.11 Mbit/s
95th percentile per-packet one-way delay: 73.156 ms
Loss rate: 1.66%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-14 06:10:37

End at: 2018-02-14 06:11:07

Below is generated by plot.py at 2018-02-14 13:34:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 631.74 Mbit/s

95th percentile per-packet one-way delay: 201.599 ms

Loss rate: 0.72%

-- Flow 1:

Average throughput: 342.60 Mbit/s

95th percentile per-packet one-way delay: 206.516 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 345.81 Mbit/s

95th percentile per-packet one-way delay: 179.980 ms

Loss rate: 0.76%

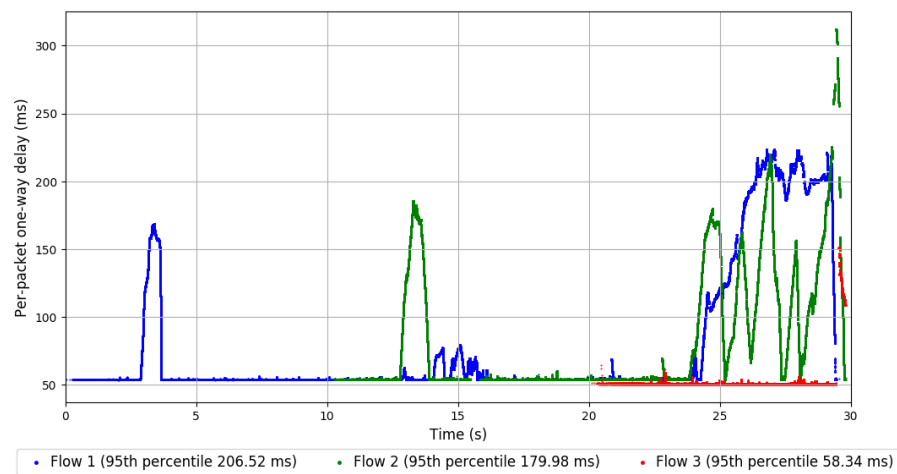
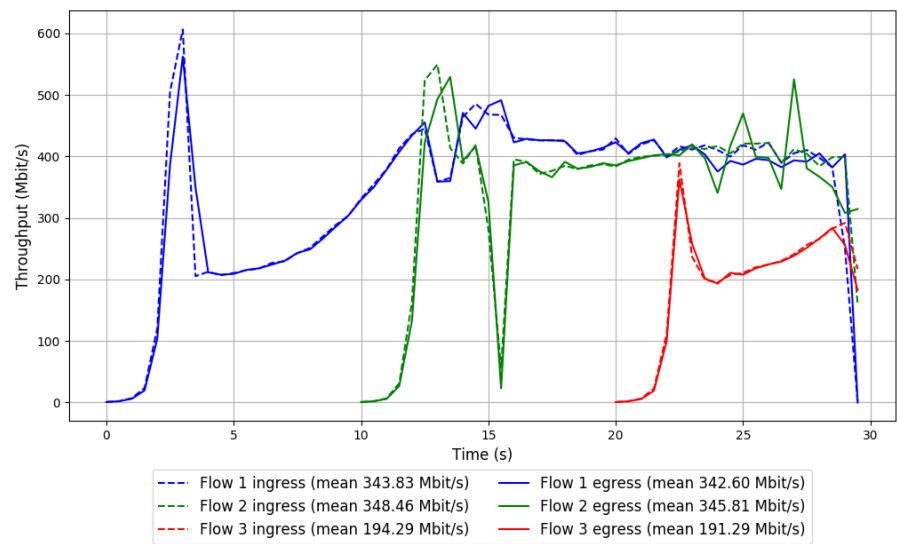
-- Flow 3:

Average throughput: 191.29 Mbit/s

95th percentile per-packet one-way delay: 58.341 ms

Loss rate: 2.57%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-02-14 06:28:05

End at: 2018-02-14 06:28:35

Below is generated by plot.py at 2018-02-14 13:34:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 600.21 Mbit/s

95th percentile per-packet one-way delay: 232.502 ms

Loss rate: 3.50%

-- Flow 1:

Average throughput: 369.51 Mbit/s

95th percentile per-packet one-way delay: 173.090 ms

Loss rate: 1.70%

-- Flow 2:

Average throughput: 204.98 Mbit/s

95th percentile per-packet one-way delay: 254.975 ms

Loss rate: 7.33%

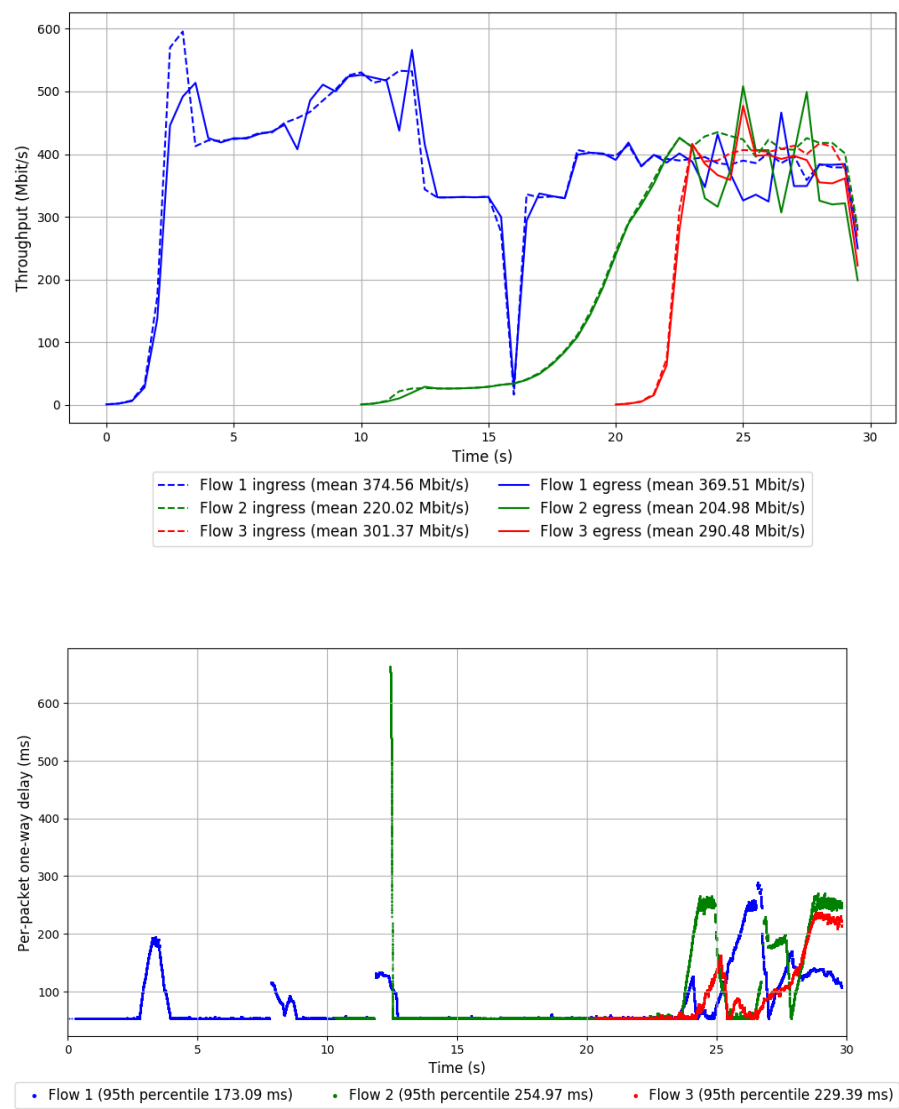
-- Flow 3:

Average throughput: 290.48 Mbit/s

95th percentile per-packet one-way delay: 229.386 ms

Loss rate: 4.66%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-02-14 06:45:29

End at: 2018-02-14 06:45:59

Below is generated by plot.py at 2018-02-14 13:34:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 616.04 Mbit/s

95th percentile per-packet one-way delay: 204.970 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 328.55 Mbit/s

95th percentile per-packet one-way delay: 199.002 ms

Loss rate: 2.57%

-- Flow 2:

Average throughput: 285.37 Mbit/s

95th percentile per-packet one-way delay: 219.826 ms

Loss rate: 3.69%

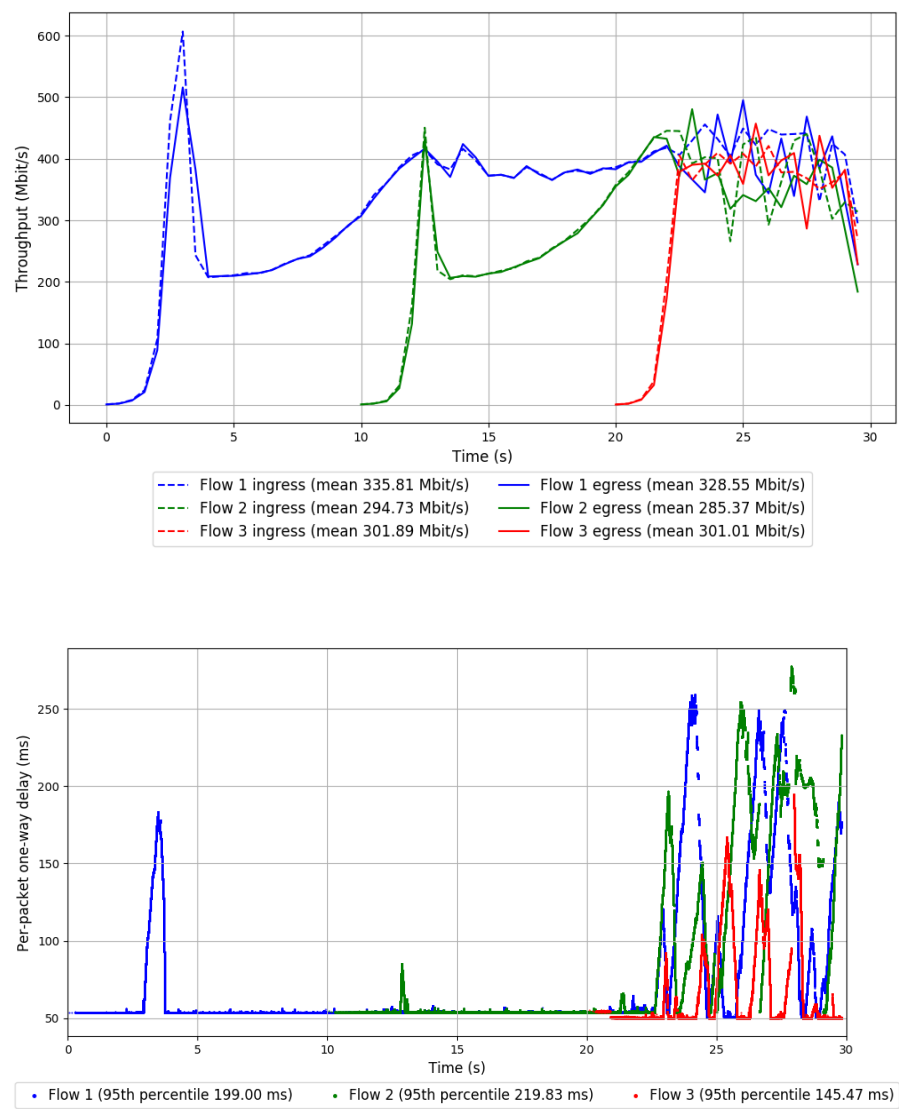
-- Flow 3:

Average throughput: 301.01 Mbit/s

95th percentile per-packet one-way delay: 145.467 ms

Loss rate: 1.38%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-02-14 07:02:57

End at: 2018-02-14 07:03:27

Below is generated by plot.py at 2018-02-14 13:37:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 682.25 Mbit/s

95th percentile per-packet one-way delay: 220.040 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 384.28 Mbit/s

95th percentile per-packet one-way delay: 186.822 ms

Loss rate: 1.59%

-- Flow 2:

Average throughput: 310.34 Mbit/s

95th percentile per-packet one-way delay: 200.461 ms

Loss rate: 1.40%

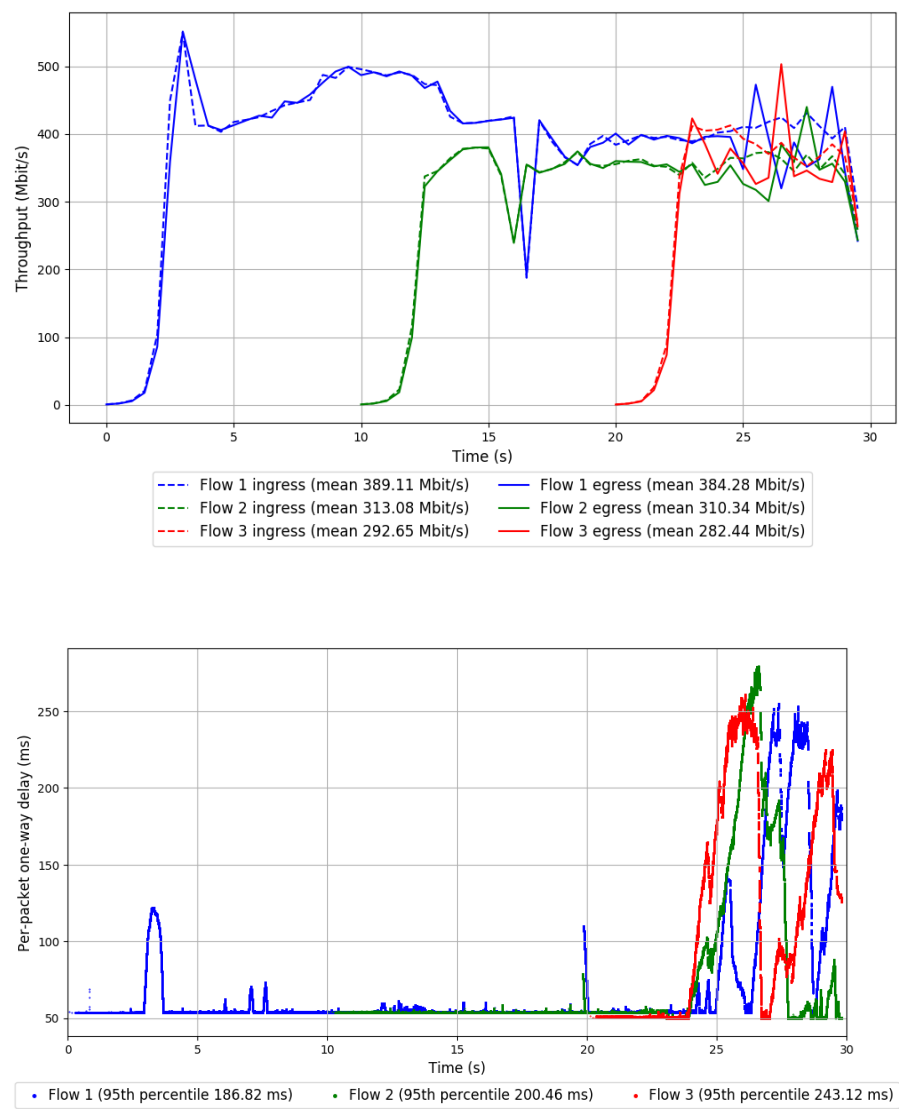
-- Flow 3:

Average throughput: 282.44 Mbit/s

95th percentile per-packet one-way delay: 243.120 ms

Loss rate: 4.49%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-02-14 07:20:35

End at: 2018-02-14 07:21:05

Below is generated by plot.py at 2018-02-14 13:37:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 610.38 Mbit/s

95th percentile per-packet one-way delay: 259.193 ms

Loss rate: 3.06%

-- Flow 1:

Average throughput: 343.02 Mbit/s

95th percentile per-packet one-way delay: 244.020 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 268.28 Mbit/s

95th percentile per-packet one-way delay: 156.057 ms

Loss rate: 0.42%

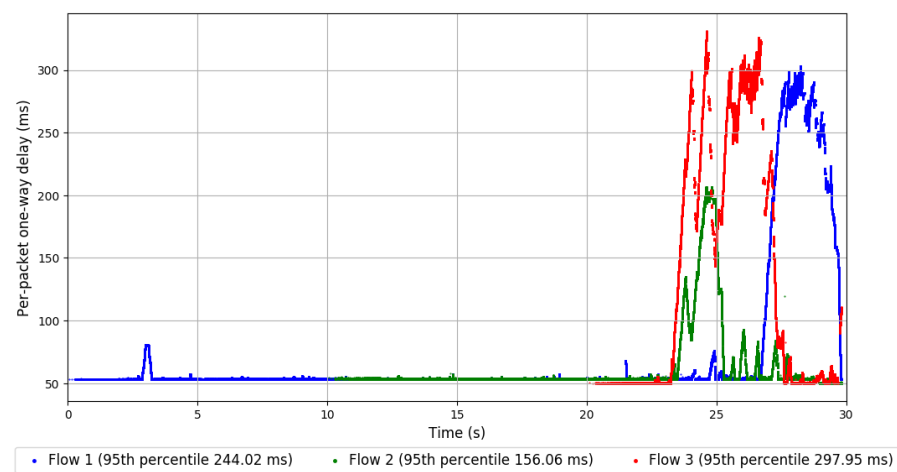
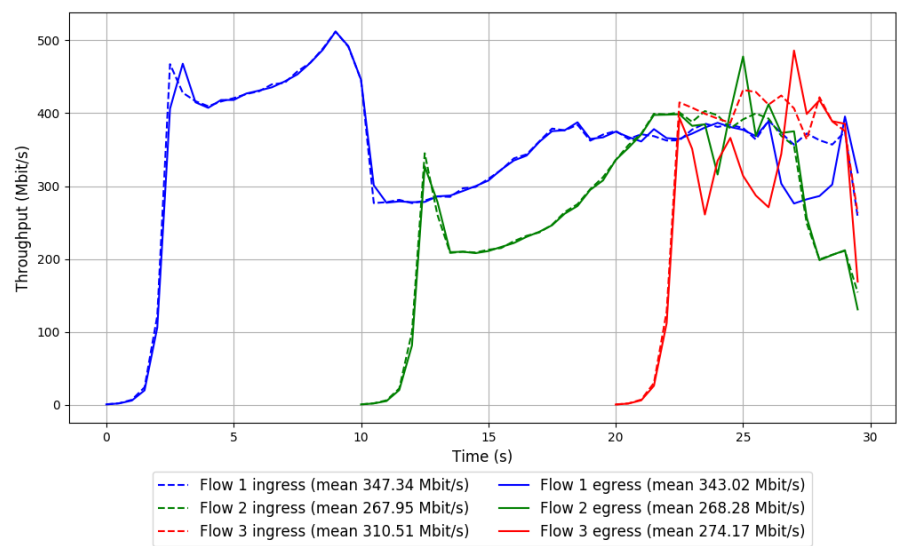
-- Flow 3:

Average throughput: 274.17 Mbit/s

95th percentile per-packet one-way delay: 297.955 ms

Loss rate: 12.64%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-02-14 07:37:36

End at: 2018-02-14 07:38:06

Below is generated by plot.py at 2018-02-14 13:37:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 609.19 Mbit/s

95th percentile per-packet one-way delay: 102.759 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 365.87 Mbit/s

95th percentile per-packet one-way delay: 129.519 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 277.04 Mbit/s

95th percentile per-packet one-way delay: 66.242 ms

Loss rate: 0.68%

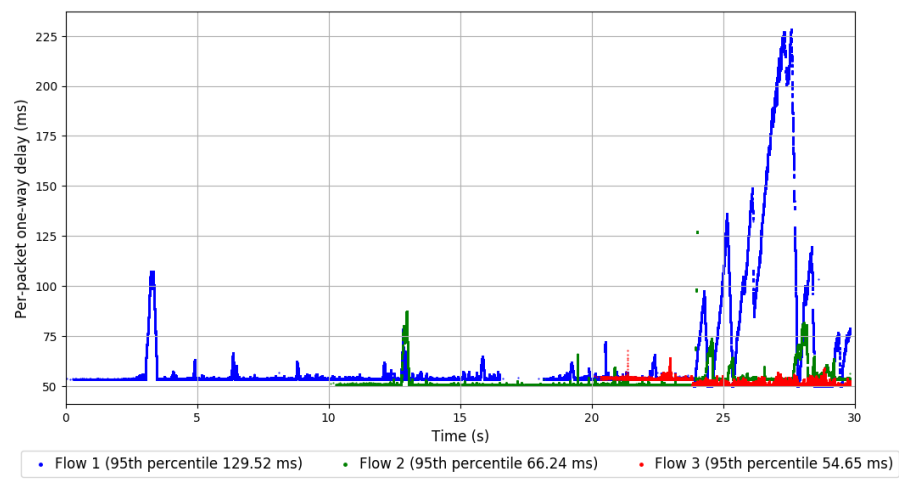
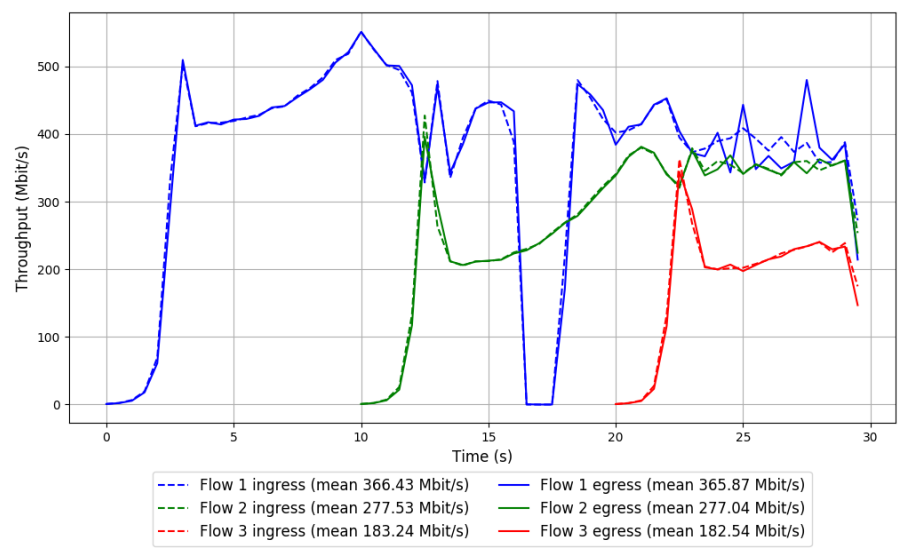
-- Flow 3:

Average throughput: 182.54 Mbit/s

95th percentile per-packet one-way delay: 54.649 ms

Loss rate: 1.48%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-02-14 07:55:02

End at: 2018-02-14 07:55:32

Below is generated by plot.py at 2018-02-14 13:40:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 634.28 Mbit/s

95th percentile per-packet one-way delay: 241.528 ms

Loss rate: 4.25%

-- Flow 1:

Average throughput: 343.28 Mbit/s

95th percentile per-packet one-way delay: 272.525 ms

Loss rate: 6.16%

-- Flow 2:

Average throughput: 291.62 Mbit/s

95th percentile per-packet one-way delay: 158.768 ms

Loss rate: 1.54%

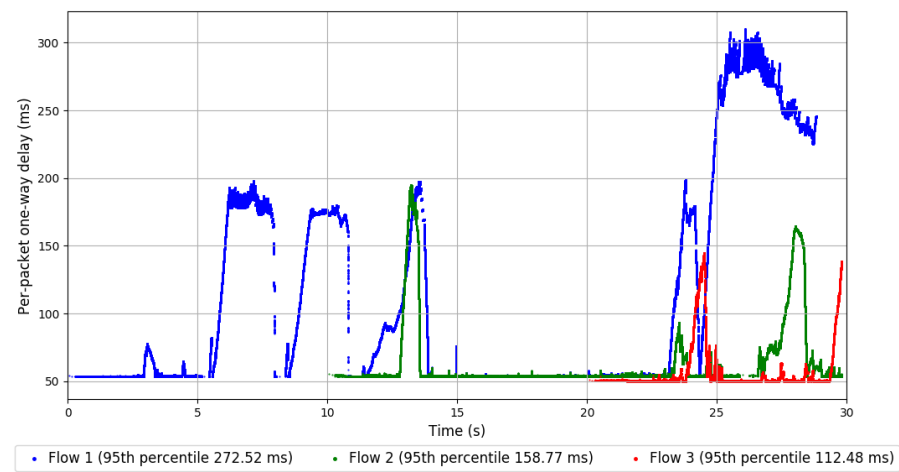
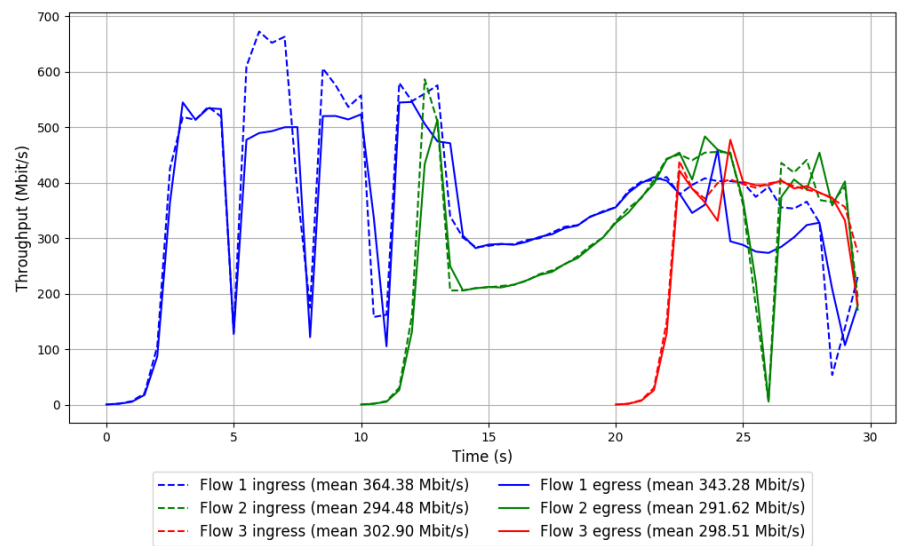
-- Flow 3:

Average throughput: 298.51 Mbit/s

95th percentile per-packet one-way delay: 112.478 ms

Loss rate: 2.57%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-02-14 08:12:23

End at: 2018-02-14 08:12:53

Below is generated by plot.py at 2018-02-14 13:42:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 649.29 Mbit/s

95th percentile per-packet one-way delay: 193.304 ms

Loss rate: 6.77%

-- Flow 1:

Average throughput: 375.27 Mbit/s

95th percentile per-packet one-way delay: 188.281 ms

Loss rate: 9.40%

-- Flow 2:

Average throughput: 325.94 Mbit/s

95th percentile per-packet one-way delay: 233.053 ms

Loss rate: 3.24%

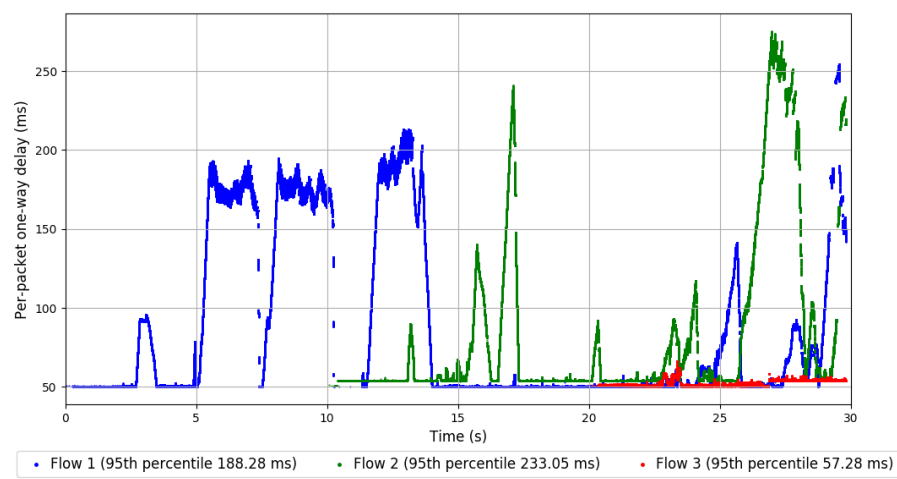
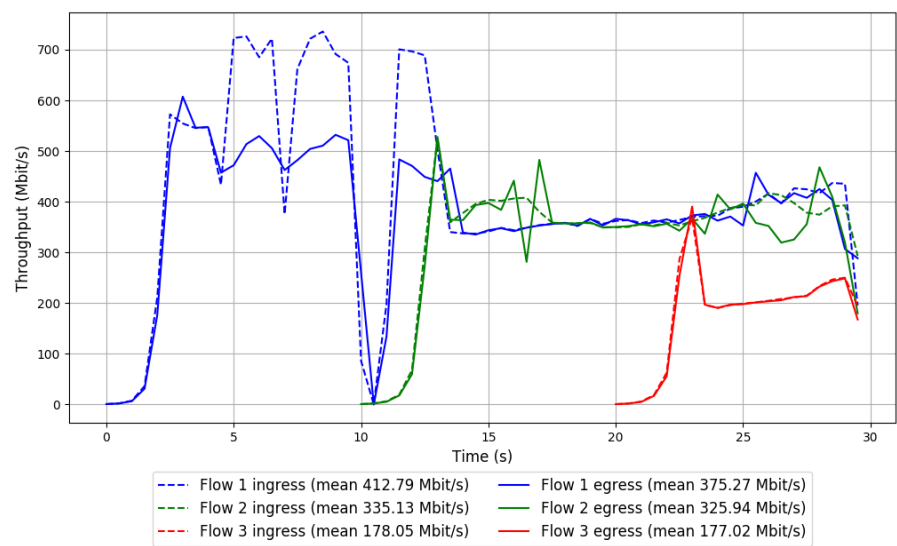
-- Flow 3:

Average throughput: 177.02 Mbit/s

95th percentile per-packet one-way delay: 57.279 ms

Loss rate: 1.62%

Run 10: Report of Vivace-loss — Data Link

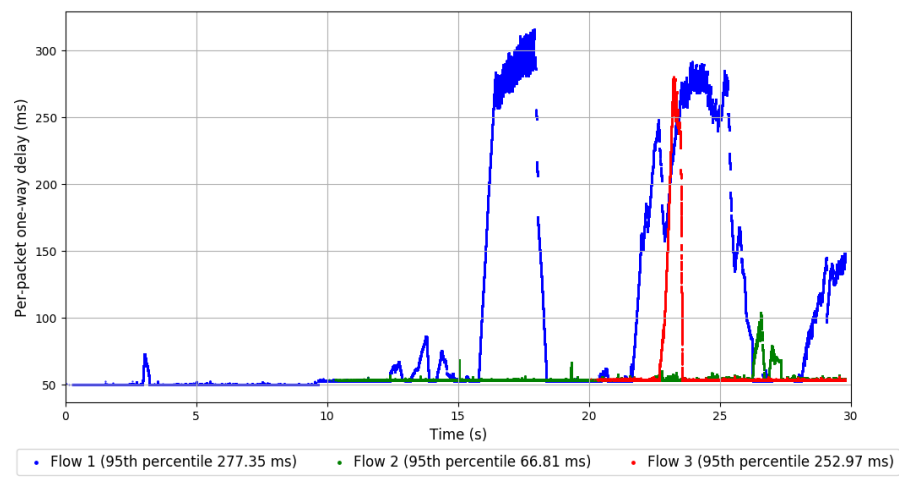
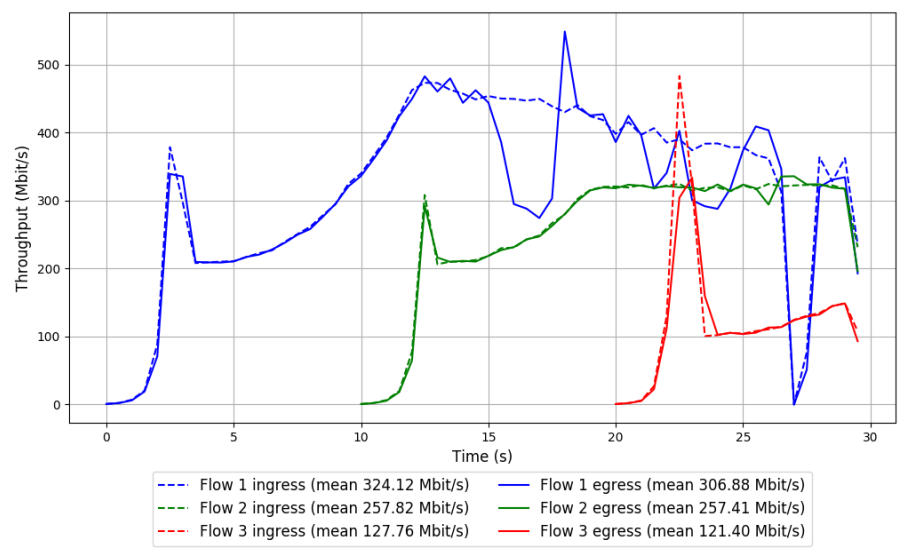


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-14 05:33:44
End at: 2018-02-14 05:34:14

# Below is generated by plot.py at 2018-02-14 13:43:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 517.18 Mbit/s
95th percentile per-packet one-way delay: 267.190 ms
Loss rate: 4.09%
-- Flow 1:
Average throughput: 306.88 Mbit/s
95th percentile per-packet one-way delay: 277.353 ms
Loss rate: 5.64%
-- Flow 2:
Average throughput: 257.41 Mbit/s
95th percentile per-packet one-way delay: 66.813 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 121.40 Mbit/s
95th percentile per-packet one-way delay: 252.968 ms
Loss rate: 6.05%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-02-14 05:51:05

End at: 2018-02-14 05:51:35

Below is generated by plot.py at 2018-02-14 13:46:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 628.96 Mbit/s

95th percentile per-packet one-way delay: 203.491 ms

Loss rate: 1.67%

-- Flow 1:

Average throughput: 353.85 Mbit/s

95th percentile per-packet one-way delay: 122.958 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 288.03 Mbit/s

95th percentile per-packet one-way delay: 136.263 ms

Loss rate: 2.09%

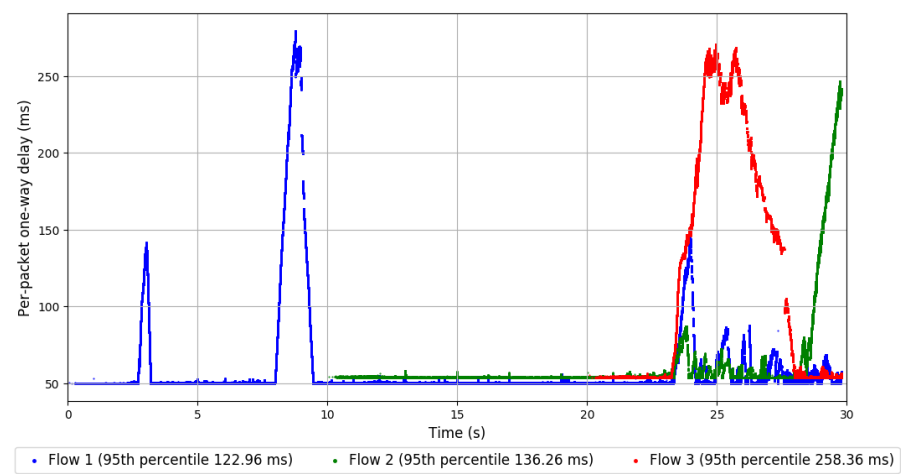
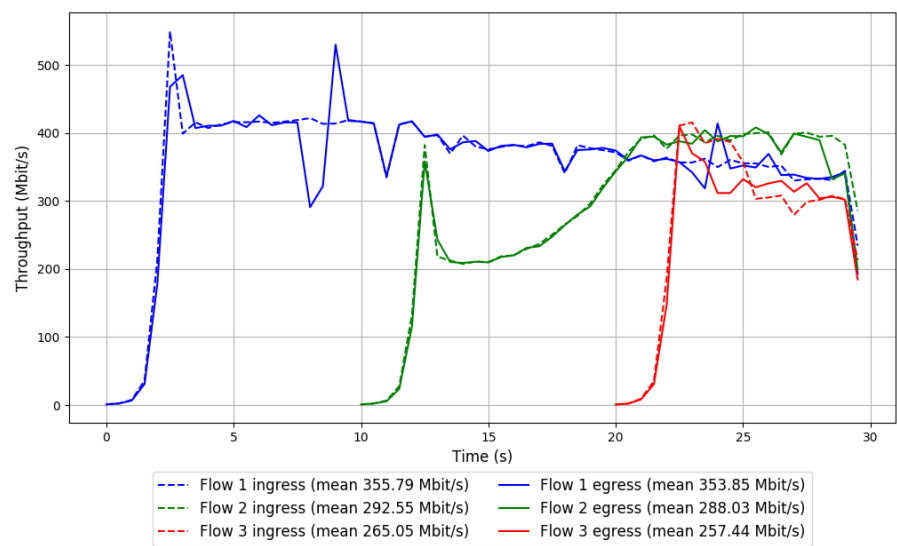
-- Flow 3:

Average throughput: 257.44 Mbit/s

95th percentile per-packet one-way delay: 258.356 ms

Loss rate: 3.95%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-14 06:08:27

End at: 2018-02-14 06:08:57

Below is generated by plot.py at 2018-02-14 13:46:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 632.77 Mbit/s

95th percentile per-packet one-way delay: 171.550 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 327.75 Mbit/s

95th percentile per-packet one-way delay: 197.123 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 322.65 Mbit/s

95th percentile per-packet one-way delay: 166.664 ms

Loss rate: 1.62%

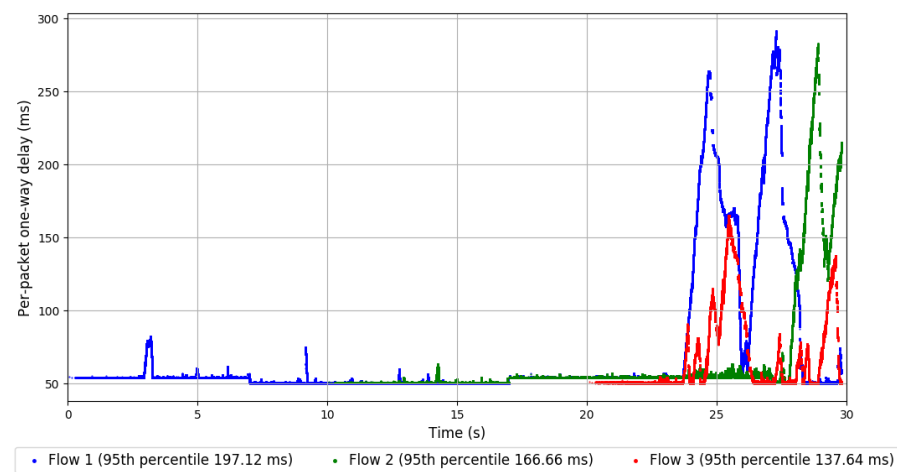
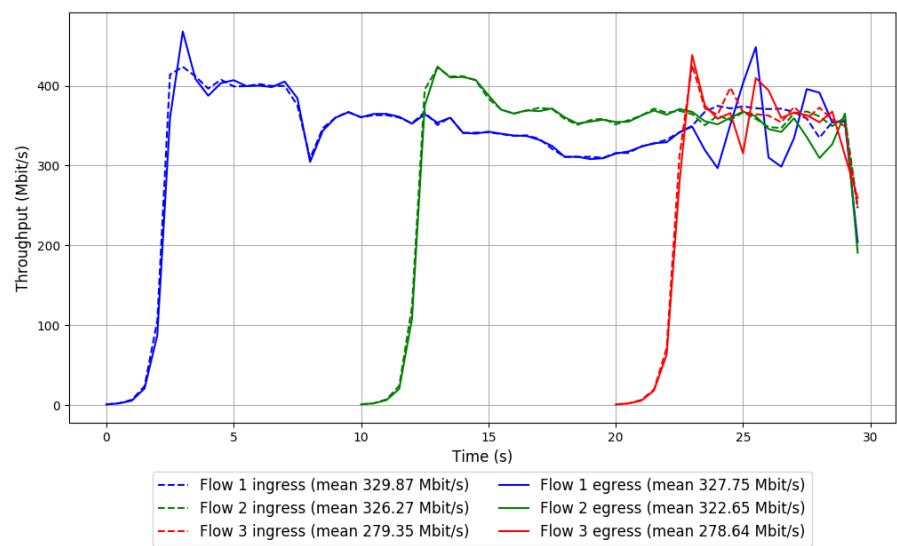
-- Flow 3:

Average throughput: 278.64 Mbit/s

95th percentile per-packet one-way delay: 137.641 ms

Loss rate: 1.29%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-02-14 06:25:55

End at: 2018-02-14 06:26:25

Below is generated by plot.py at 2018-02-14 13:46:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 545.52 Mbit/s

95th percentile per-packet one-way delay: 109.379 ms

Loss rate: 2.17%

-- Flow 1:

Average throughput: 269.43 Mbit/s

95th percentile per-packet one-way delay: 80.809 ms

Loss rate: 3.37%

-- Flow 2:

Average throughput: 274.55 Mbit/s

95th percentile per-packet one-way delay: 113.461 ms

Loss rate: 0.63%

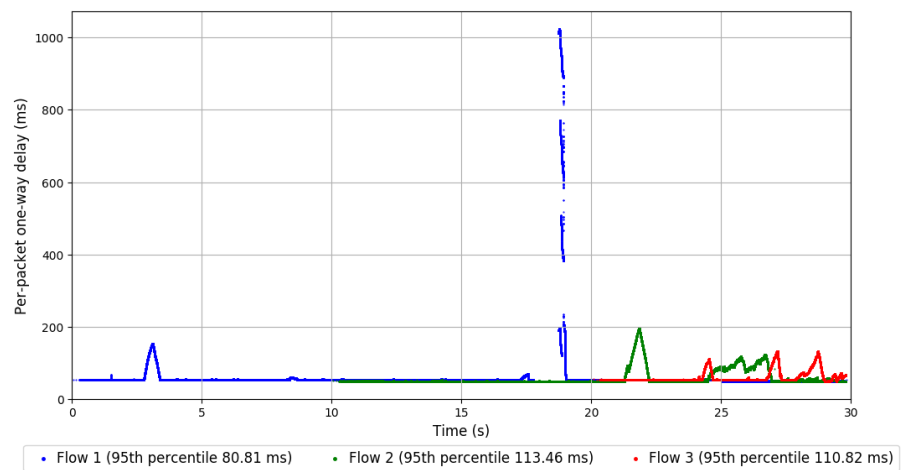
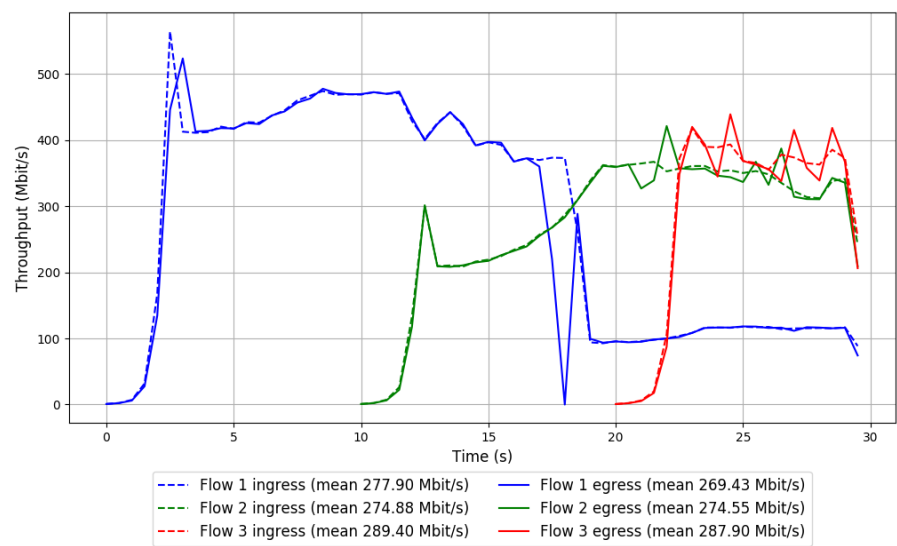
-- Flow 3:

Average throughput: 287.90 Mbit/s

95th percentile per-packet one-way delay: 110.819 ms

Loss rate: 1.60%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-02-14 06:43:24

End at: 2018-02-14 06:43:54

Below is generated by plot.py at 2018-02-14 13:48:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 650.96 Mbit/s

95th percentile per-packet one-way delay: 151.715 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 375.36 Mbit/s

95th percentile per-packet one-way delay: 183.761 ms

Loss rate: 1.19%

-- Flow 2:

Average throughput: 333.55 Mbit/s

95th percentile per-packet one-way delay: 73.267 ms

Loss rate: 0.57%

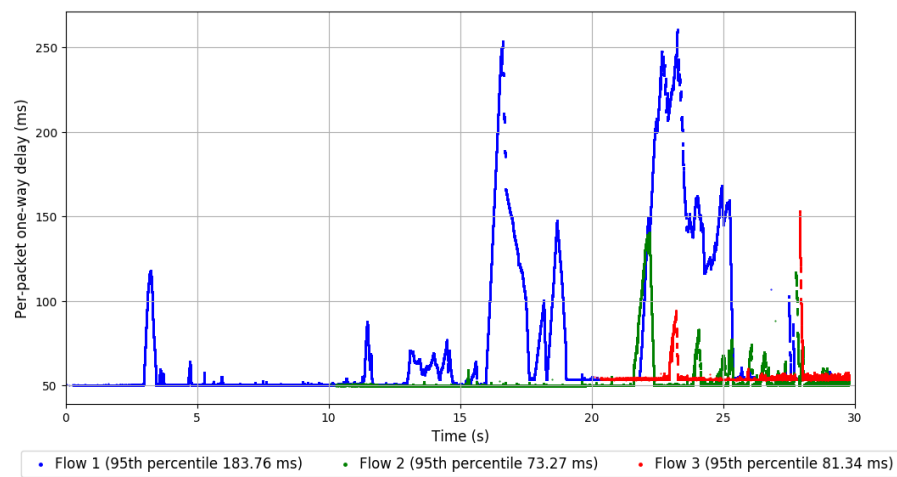
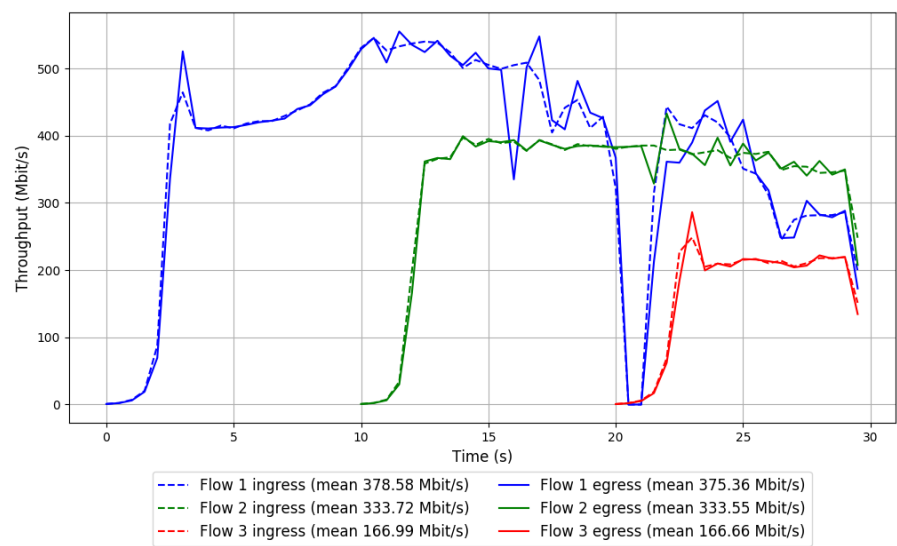
-- Flow 3:

Average throughput: 166.66 Mbit/s

95th percentile per-packet one-way delay: 81.341 ms

Loss rate: 1.29%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-02-14 07:00:48

End at: 2018-02-14 07:01:18

Below is generated by plot.py at 2018-02-14 13:48:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 598.38 Mbit/s

95th percentile per-packet one-way delay: 121.412 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 354.94 Mbit/s

95th percentile per-packet one-way delay: 104.844 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 283.13 Mbit/s

95th percentile per-packet one-way delay: 197.153 ms

Loss rate: 0.81%

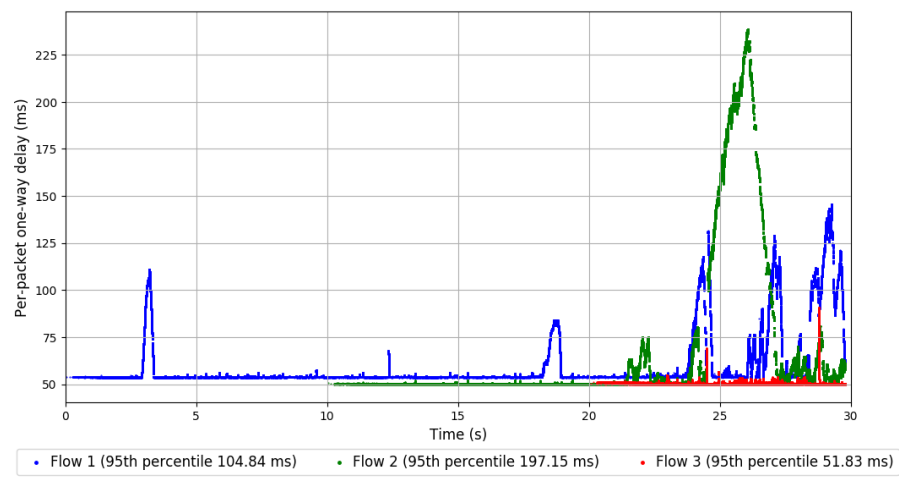
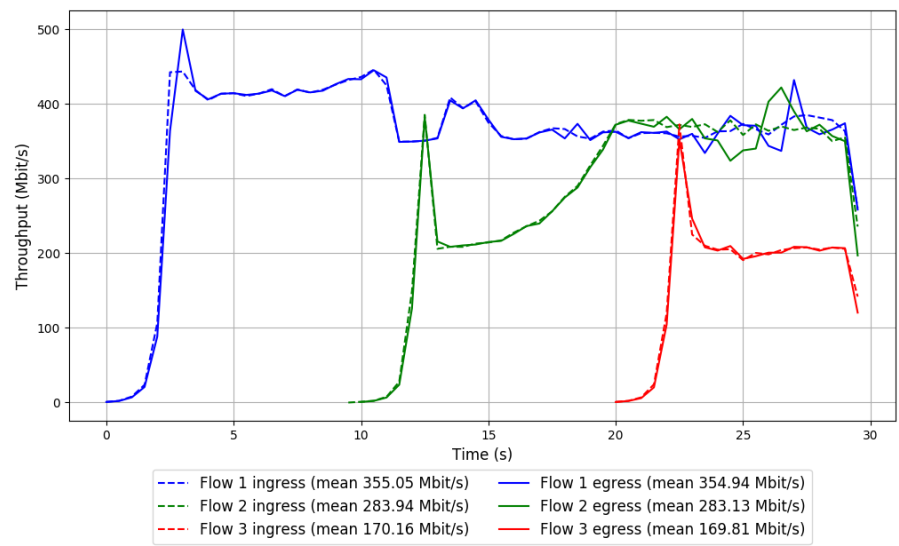
-- Flow 3:

Average throughput: 169.81 Mbit/s

95th percentile per-packet one-way delay: 51.830 ms

Loss rate: 1.27%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-02-14 07:18:27

End at: 2018-02-14 07:18:57

Below is generated by plot.py at 2018-02-14 13:49:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 627.06 Mbit/s

95th percentile per-packet one-way delay: 172.126 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 313.92 Mbit/s

95th percentile per-packet one-way delay: 240.033 ms

Loss rate: 1.51%

-- Flow 2:

Average throughput: 322.34 Mbit/s

95th percentile per-packet one-way delay: 120.759 ms

Loss rate: 0.60%

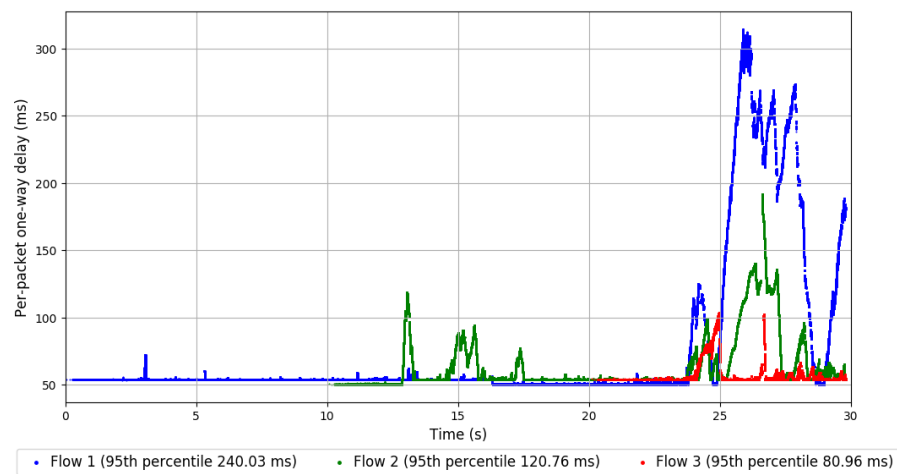
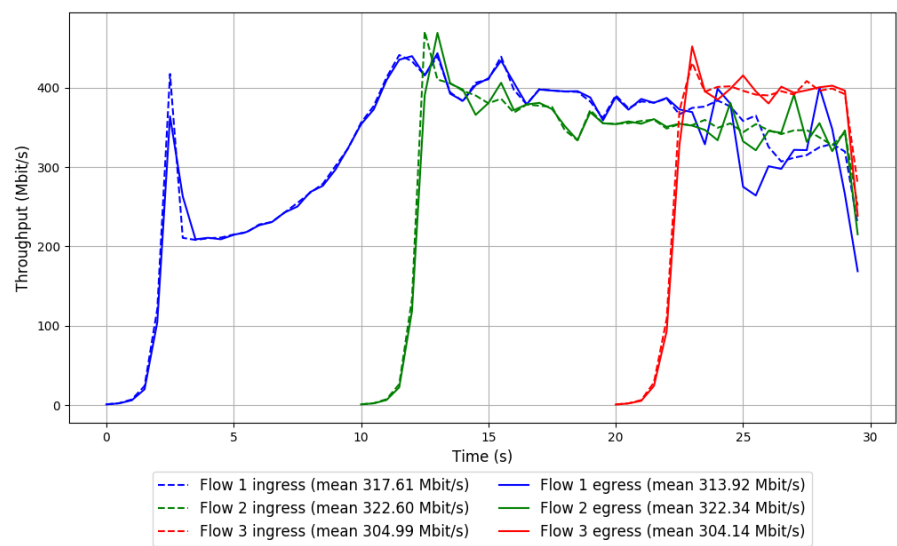
-- Flow 3:

Average throughput: 304.14 Mbit/s

95th percentile per-packet one-way delay: 80.964 ms

Loss rate: 1.35%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-02-14 07:35:27

End at: 2018-02-14 07:35:57

Below is generated by plot.py at 2018-02-14 13:50:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 642.26 Mbit/s

95th percentile per-packet one-way delay: 76.118 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 330.00 Mbit/s

95th percentile per-packet one-way delay: 62.101 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 332.36 Mbit/s

95th percentile per-packet one-way delay: 94.445 ms

Loss rate: 0.38%

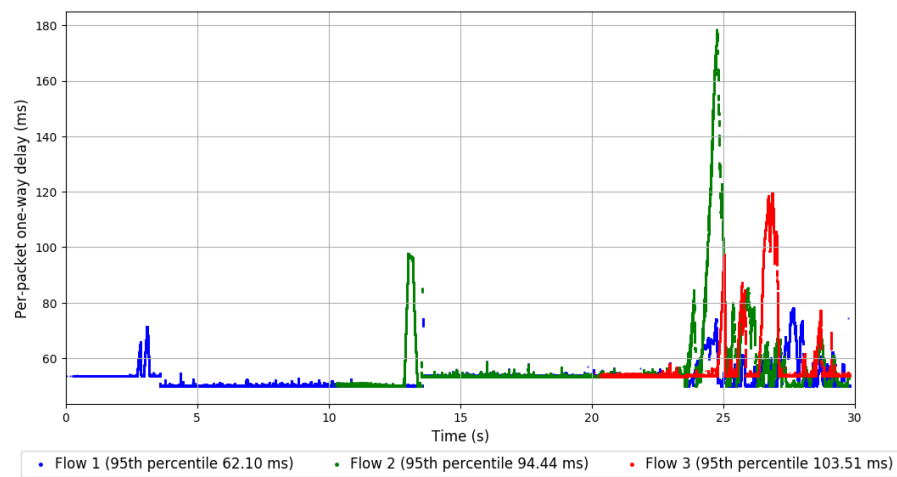
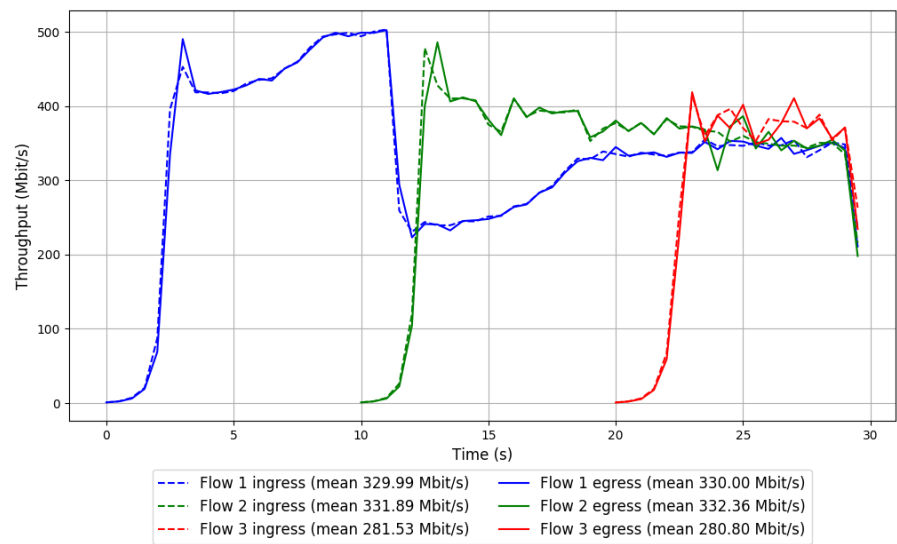
-- Flow 3:

Average throughput: 280.80 Mbit/s

95th percentile per-packet one-way delay: 103.510 ms

Loss rate: 1.33%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-02-14 07:52:53

End at: 2018-02-14 07:53:23

Below is generated by plot.py at 2018-02-14 13:50:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 649.35 Mbit/s

95th percentile per-packet one-way delay: 132.685 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 352.34 Mbit/s

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

Loss rate: 0.35%

-- Flow 2:

Average throughput: 307.46 Mbit/s

95th percentile per-packet one-way delay: 60.631 ms

Loss rate: 0.68%

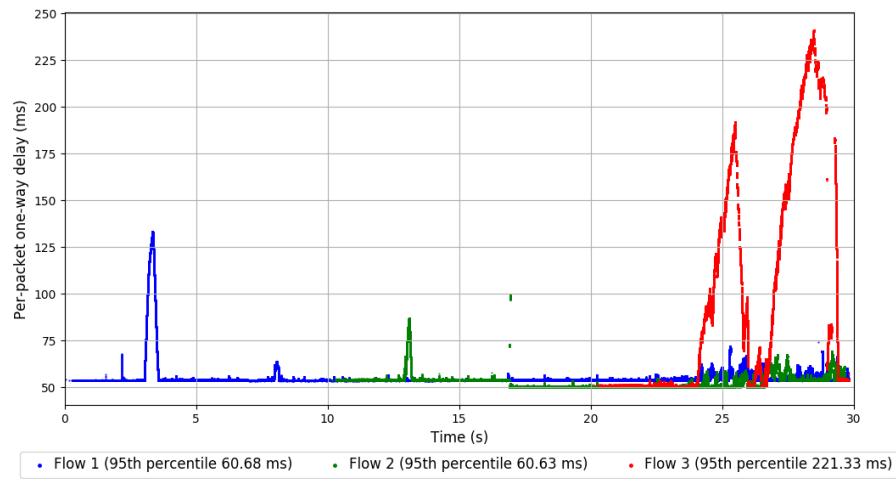
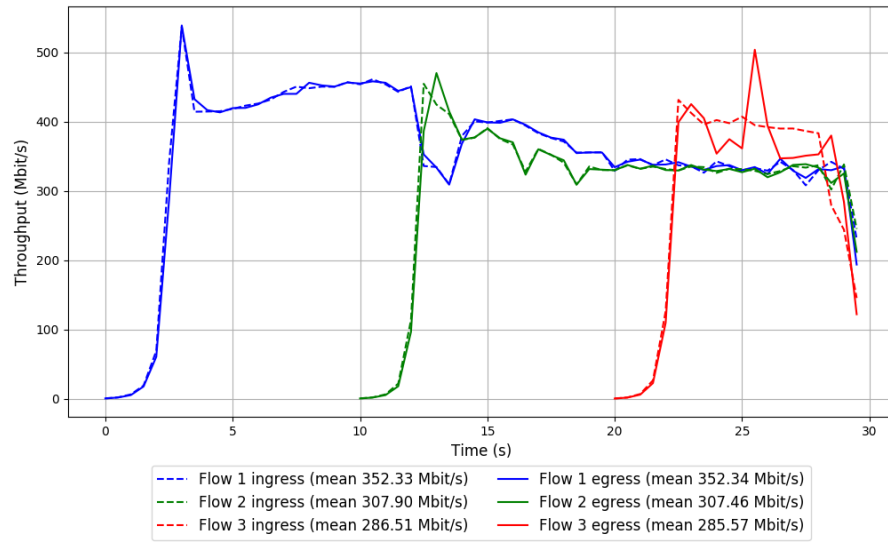
-- Flow 3:

Average throughput: 285.57 Mbit/s

95th percentile per-packet one-way delay: 221.331 ms

Loss rate: 1.31%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-02-14 08:10:18
End at: 2018-02-14 08:10:48

# Below is generated by plot.py at 2018-02-14 13:50:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 581.46 Mbit/s
95th percentile per-packet one-way delay: 62.576 ms
Loss rate: 0.63%
-- Flow 1:
Average throughput: 341.19 Mbit/s
95th percentile per-packet one-way delay: 64.622 ms
Loss rate: 0.45%
-- Flow 2:
Average throughput: 278.76 Mbit/s
95th percentile per-packet one-way delay: 62.225 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 169.21 Mbit/s
95th percentile per-packet one-way delay: 51.706 ms
Loss rate: 1.41%
```

Run 10: Report of Vivace-LTE — Data Link

