

Pantheon Report

Generated at 2018-03-14 15:50:34 (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.

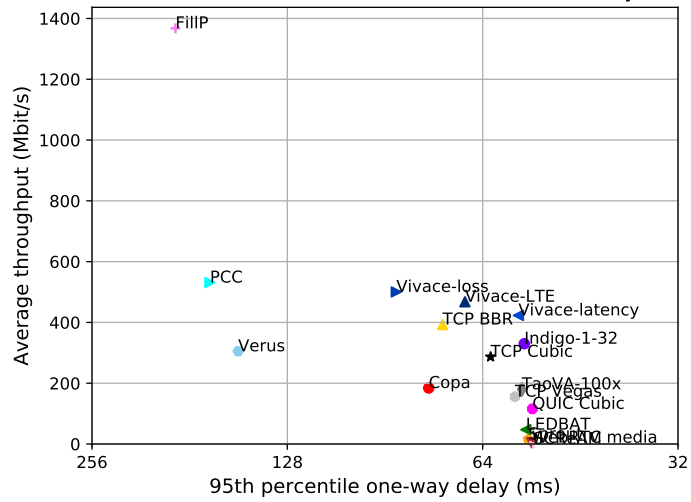
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

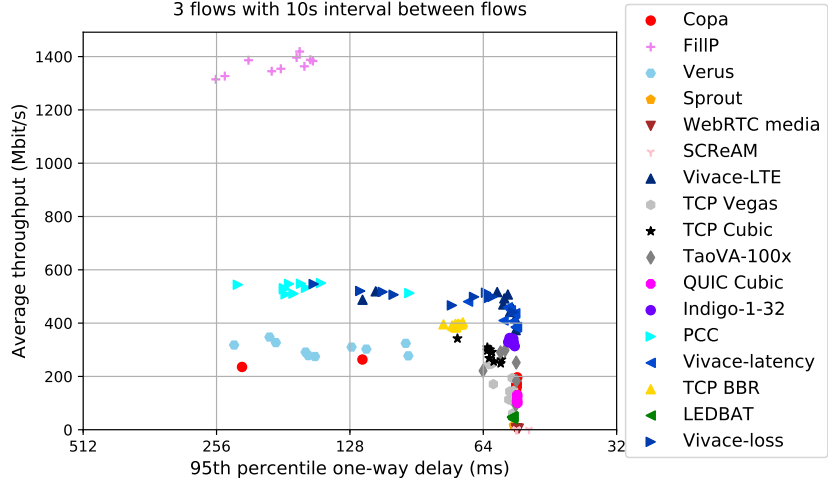
Git summary:

```
branch: master @ f12c42a2c63fdd9a862eefa0468859bf379b6623
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 9249eea3238475c4d8cca1443d28df70bff6c4a2
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 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	203.24	196.65	179.81	72.03	73.87	75.95	0.38	0.59	1.32
TCP Cubic	10	150.66	147.71	115.59	62.57	61.54	61.55	0.38	0.57	1.52
LEDBAT	10	30.35	20.36	10.18	54.94	54.91	54.69	0.70	1.04	2.17
PCC	10	489.66	50.52	24.30	168.82	154.49	140.03	1.39	1.31	1.84
QUIC Cubic	10	61.46	57.23	49.73	51.85	52.89	52.38	0.44	0.75	1.16
SCReAM	10	0.21	0.21	0.22	53.10	53.07	51.40	0.27	0.45	1.11
WebRTC media	10	2.28	1.47	0.64	53.03	52.80	53.26	0.56	0.64	1.34
Sprout	10	7.77	7.66	7.36	54.48	54.41	54.46	0.33	0.50	1.27
TaoVA-100x	10	113.28	71.65	159.20	54.10	55.10	57.37	0.25	0.33	1.05
TCP Vegas	10	87.83	64.75	75.49	56.44	57.11	57.03	0.34	0.50	1.11
Verus	10	178.32	152.86	78.13	136.16	161.74	145.75	0.60	1.69	1.65
Copa	10	105.97	74.20	107.04	71.56	59.98	69.21	2.44	0.39	1.65
FillP	10	699.91	693.25	631.56	172.27	198.98	174.58	11.61	9.68	8.77
Indigo-1-32	10	180.10	156.52	142.54	54.85	55.55	55.69	0.32	0.52	1.29
Vivace-latency	10	246.92	215.69	101.17	56.71	63.28	52.98	0.34	1.01	1.65
Vivace-loss	10	260.57	253.32	219.64	102.67	72.42	95.26	0.59	1.09	1.53
Vivace-LTE	10	259.82	229.20	173.58	59.21	76.07	56.55	0.41	0.95	1.53

Run 1: Statistics of TCP BBR

Start at: 2018-03-14 07:07:41

End at: 2018-03-14 07:08:11

Below is generated by plot.py at 2018-03-14 13:13:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 394.50 Mbit/s

95th percentile per-packet one-way delay: 72.182 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 206.56 Mbit/s

95th percentile per-packet one-way delay: 69.733 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 193.71 Mbit/s

95th percentile per-packet one-way delay: 72.405 ms

Loss rate: 0.62%

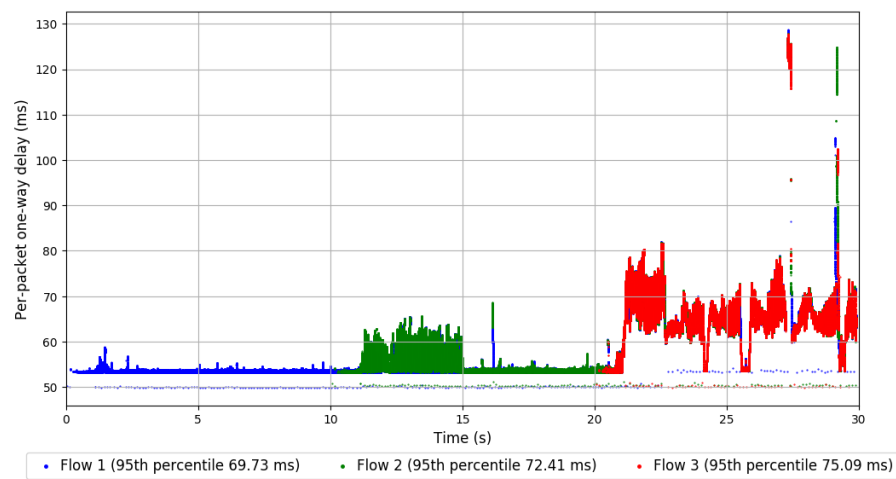
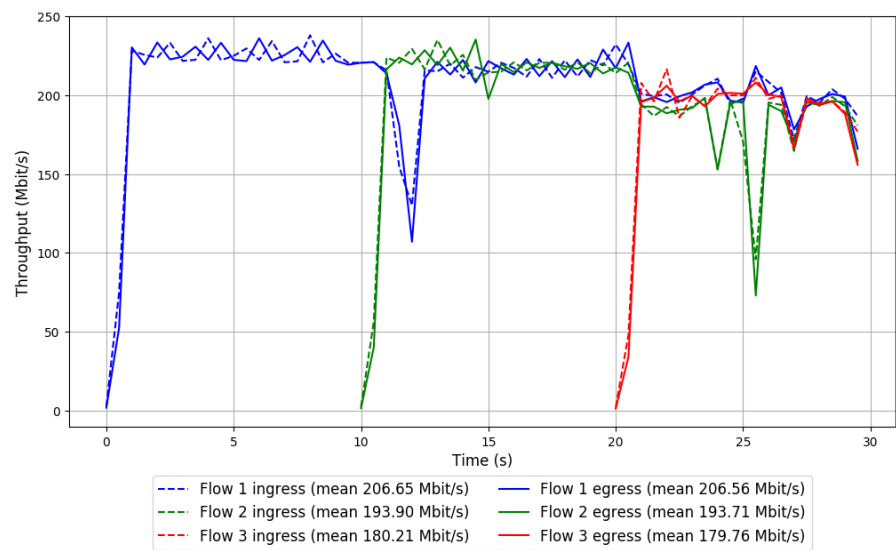
-- Flow 3:

Average throughput: 179.76 Mbit/s

95th percentile per-packet one-way delay: 75.086 ms

Loss rate: 1.30%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-14 07:24:42

End at: 2018-03-14 07:25:12

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.75 Mbit/s

95th percentile per-packet one-way delay: 71.148 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 204.83 Mbit/s

95th percentile per-packet one-way delay: 69.502 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 203.40 Mbit/s

95th percentile per-packet one-way delay: 71.461 ms

Loss rate: 0.60%

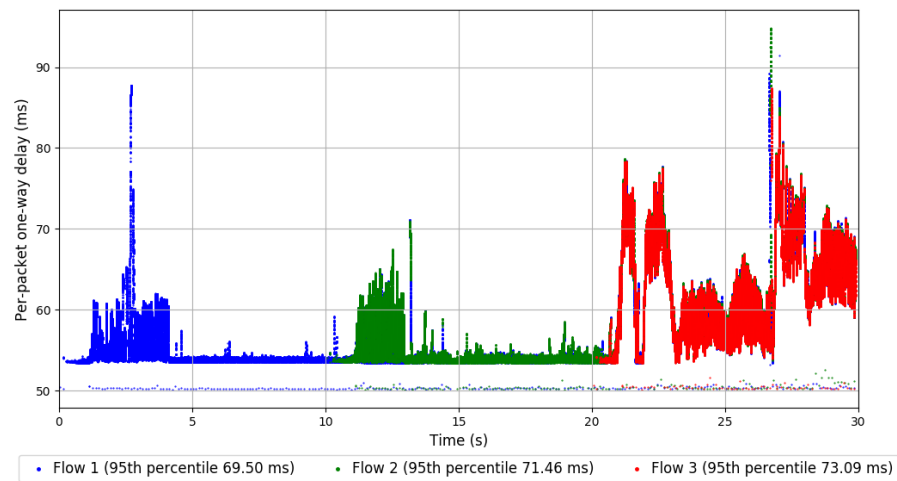
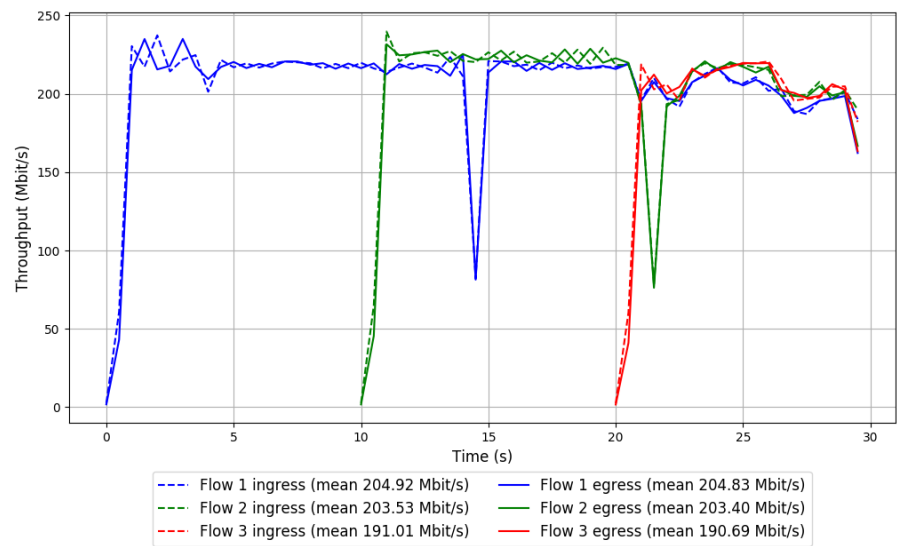
-- Flow 3:

Average throughput: 190.69 Mbit/s

95th percentile per-packet one-way delay: 73.094 ms

Loss rate: 1.21%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-14 07:41:41

End at: 2018-03-14 07:42:11

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 387.34 Mbit/s

95th percentile per-packet one-way delay: 74.614 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 200.42 Mbit/s

95th percentile per-packet one-way delay: 73.125 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 190.84 Mbit/s

95th percentile per-packet one-way delay: 74.803 ms

Loss rate: 0.60%

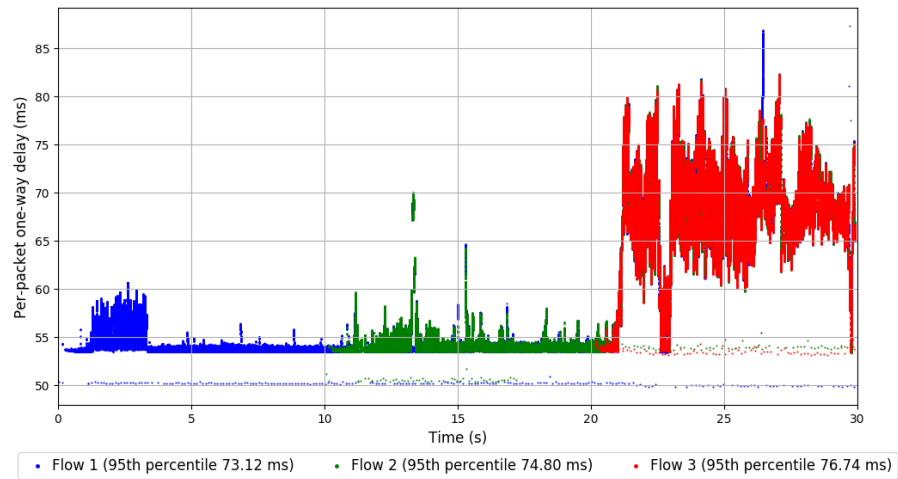
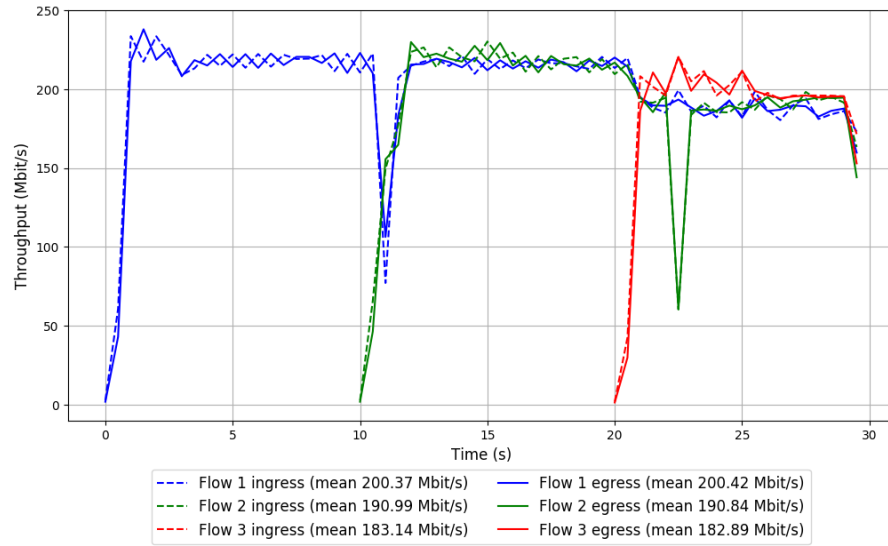
-- Flow 3:

Average throughput: 182.89 Mbit/s

95th percentile per-packet one-way delay: 76.742 ms

Loss rate: 1.24%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-14 07:58:43

End at: 2018-03-14 07:59:13

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 395.58 Mbit/s

95th percentile per-packet one-way delay: 78.716 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 199.32 Mbit/s

95th percentile per-packet one-way delay: 77.420 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 204.79 Mbit/s

95th percentile per-packet one-way delay: 79.539 ms

Loss rate: 0.61%

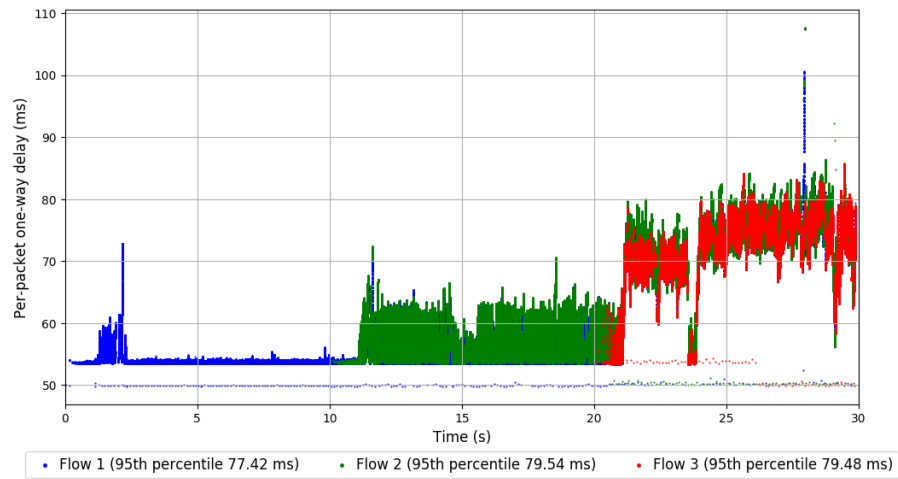
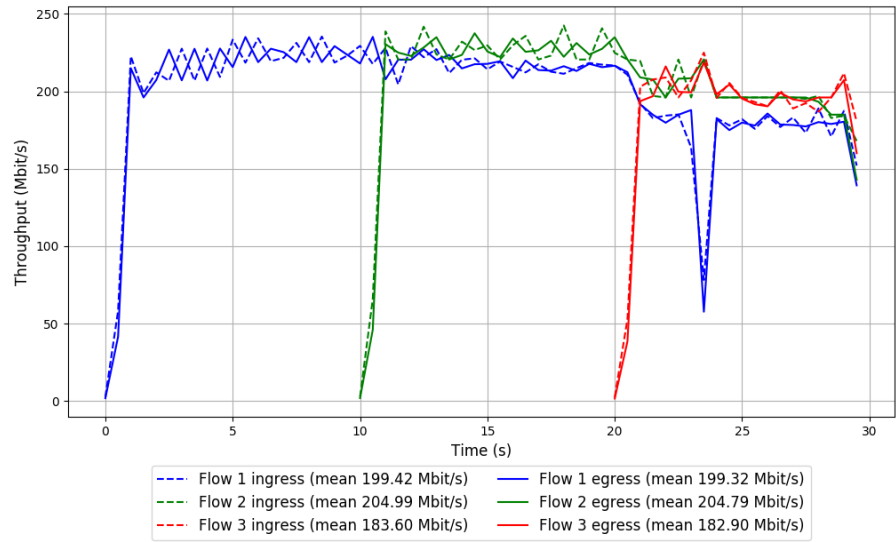
-- Flow 3:

Average throughput: 182.90 Mbit/s

95th percentile per-packet one-way delay: 79.476 ms

Loss rate: 1.36%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-14 08:15:40

End at: 2018-03-14 08:16:10

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 397.08 Mbit/s

95th percentile per-packet one-way delay: 73.945 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 206.22 Mbit/s

95th percentile per-packet one-way delay: 72.334 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 197.85 Mbit/s

95th percentile per-packet one-way delay: 74.103 ms

Loss rate: 0.62%

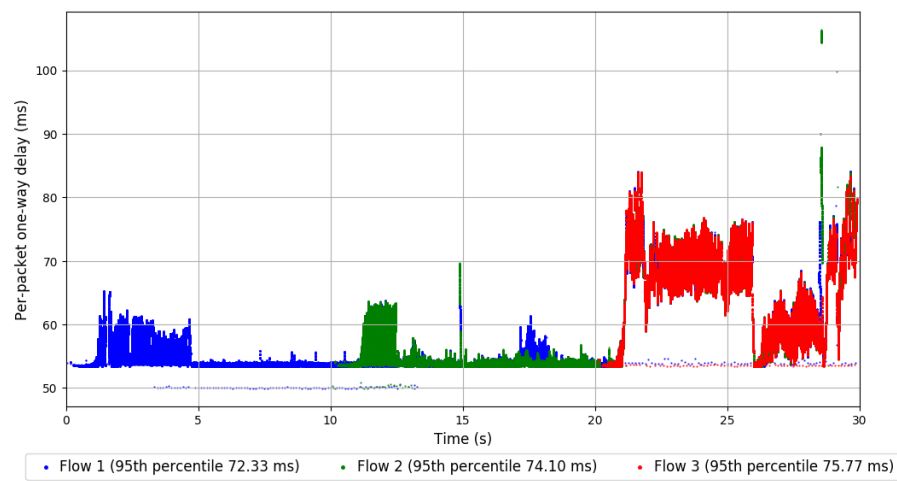
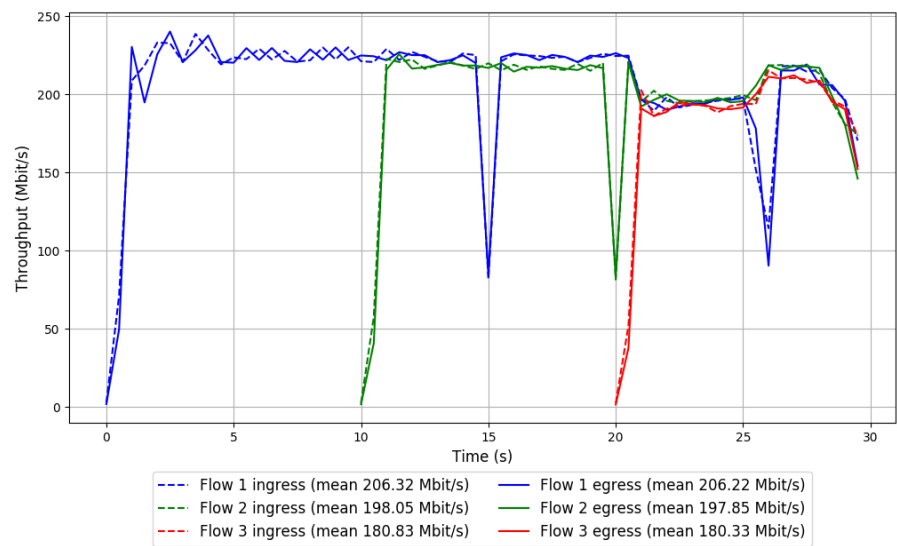
-- Flow 3:

Average throughput: 180.33 Mbit/s

95th percentile per-packet one-way delay: 75.769 ms

Loss rate: 1.36%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-14 08:32:28

End at: 2018-03-14 08:32:58

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 397.44 Mbit/s

95th percentile per-packet one-way delay: 72.936 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 201.93 Mbit/s

95th percentile per-packet one-way delay: 71.187 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 205.77 Mbit/s

95th percentile per-packet one-way delay: 72.163 ms

Loss rate: 0.54%

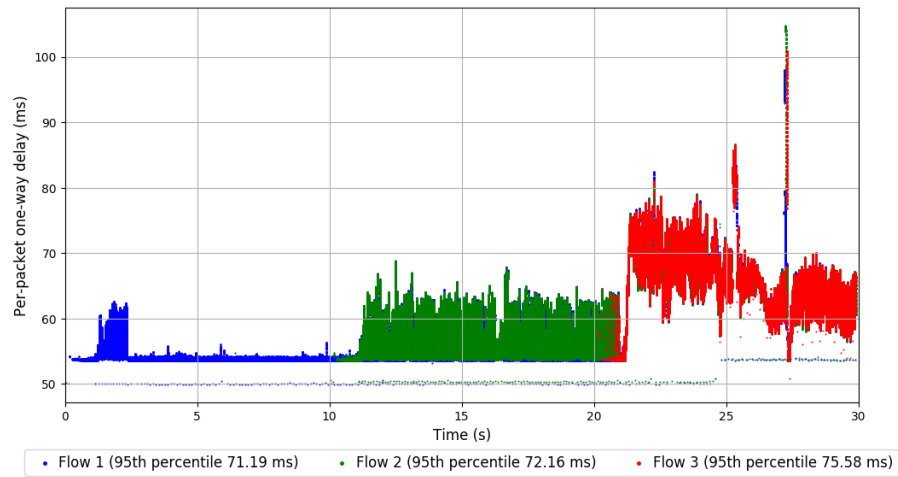
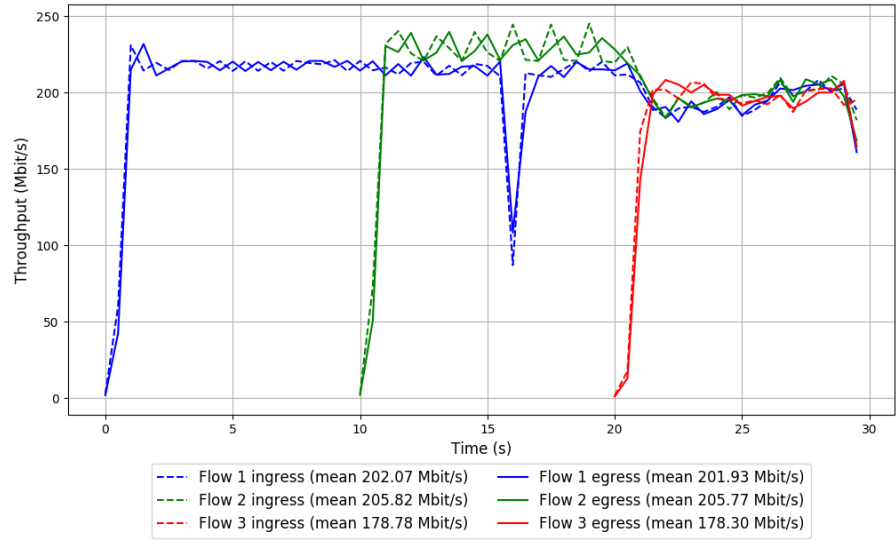
-- Flow 3:

Average throughput: 178.30 Mbit/s

95th percentile per-packet one-way delay: 75.581 ms

Loss rate: 1.37%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-14 08:49:34

End at: 2018-03-14 08:50:04

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.00 Mbit/s

95th percentile per-packet one-way delay: 71.599 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 201.91 Mbit/s

95th percentile per-packet one-way delay: 70.294 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 201.28 Mbit/s

95th percentile per-packet one-way delay: 71.132 ms

Loss rate: 0.57%

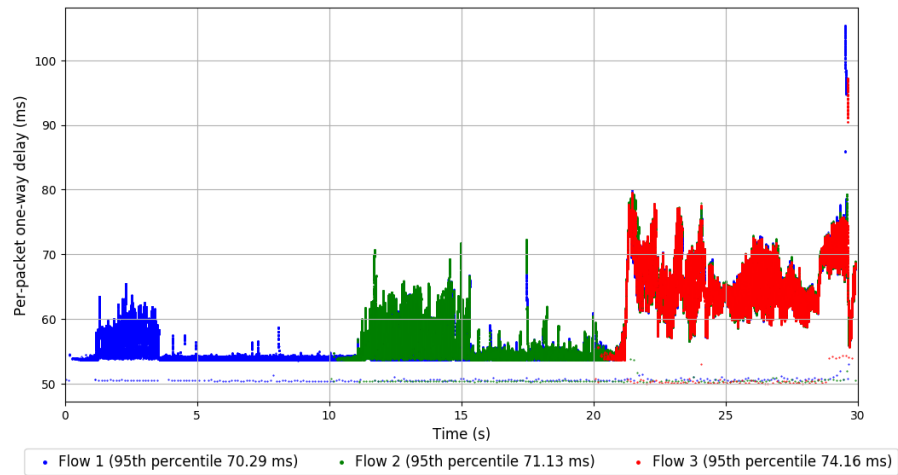
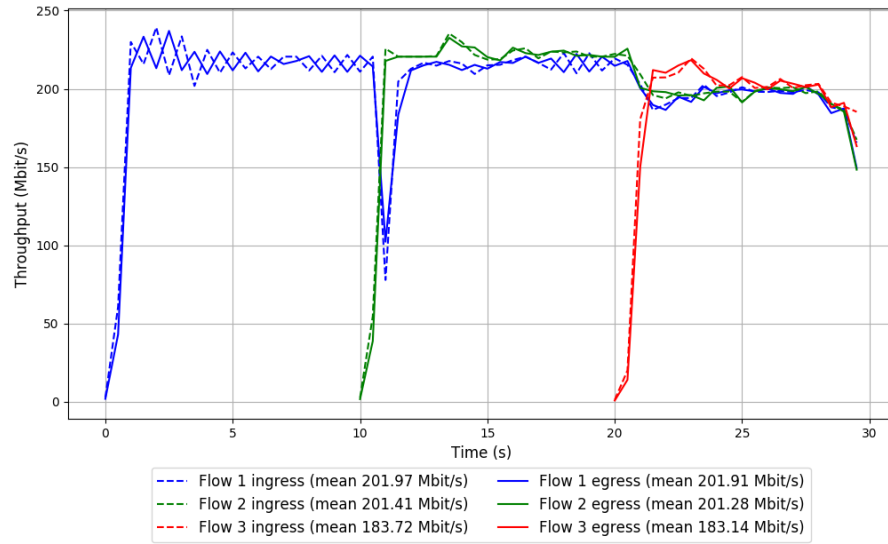
-- Flow 3:

Average throughput: 183.14 Mbit/s

95th percentile per-packet one-way delay: 74.157 ms

Loss rate: 1.34%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-14 09:07:02

End at: 2018-03-14 09:07:32

Below is generated by plot.py at 2018-03-14 13:14:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 391.11 Mbit/s

95th percentile per-packet one-way delay: 75.210 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 203.70 Mbit/s

95th percentile per-packet one-way delay: 73.313 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 191.28 Mbit/s

95th percentile per-packet one-way delay: 75.308 ms

Loss rate: 0.57%

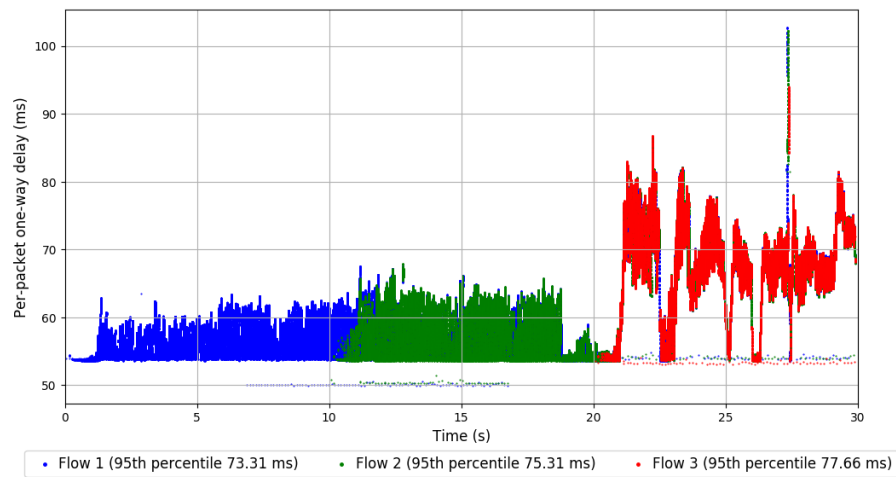
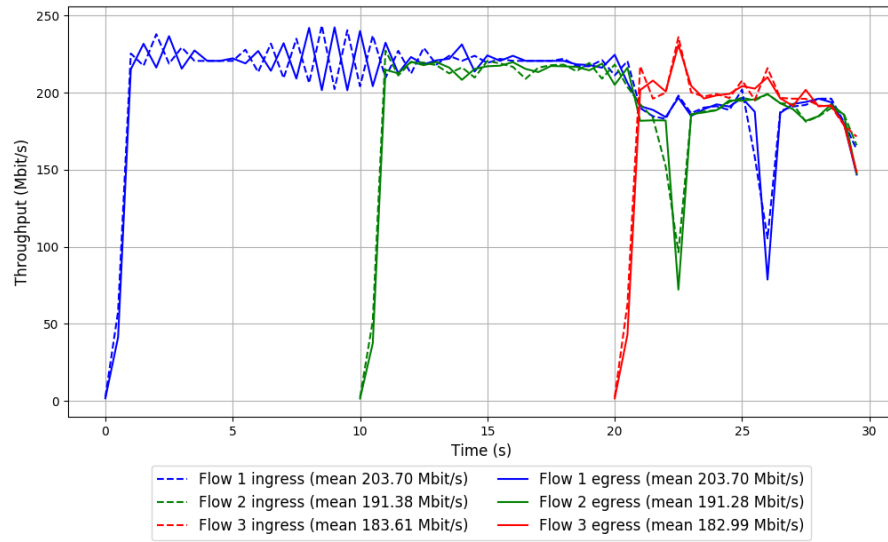
-- Flow 3:

Average throughput: 182.99 Mbit/s

95th percentile per-packet one-way delay: 77.660 ms

Loss rate: 1.30%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-14 09:24:10

End at: 2018-03-14 09:24:40

Below is generated by plot.py at 2018-03-14 13:21:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.47 Mbit/s

95th percentile per-packet one-way delay: 73.895 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 204.54 Mbit/s

95th percentile per-packet one-way delay: 71.666 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 189.70 Mbit/s

95th percentile per-packet one-way delay: 73.917 ms

Loss rate: 0.58%

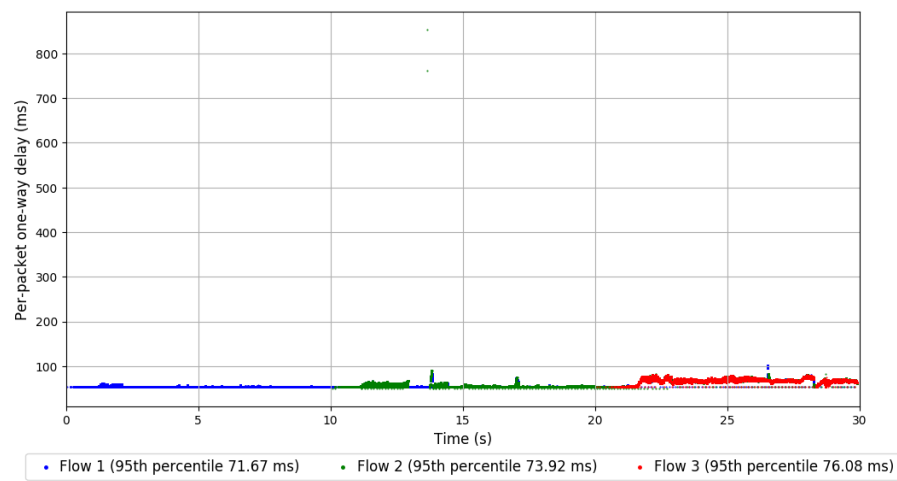
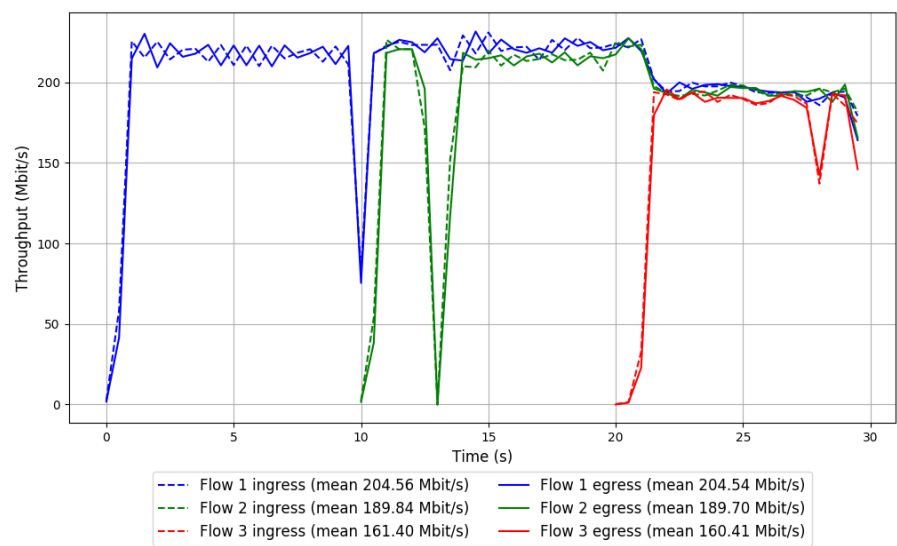
-- Flow 3:

Average throughput: 160.41 Mbit/s

95th percentile per-packet one-way delay: 76.079 ms

Loss rate: 1.47%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-14 09:41:06

End at: 2018-03-14 09:41:36

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 386.04 Mbit/s

95th percentile per-packet one-way delay: 73.618 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 203.01 Mbit/s

95th percentile per-packet one-way delay: 71.741 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 187.87 Mbit/s

95th percentile per-packet one-way delay: 73.914 ms

Loss rate: 0.60%

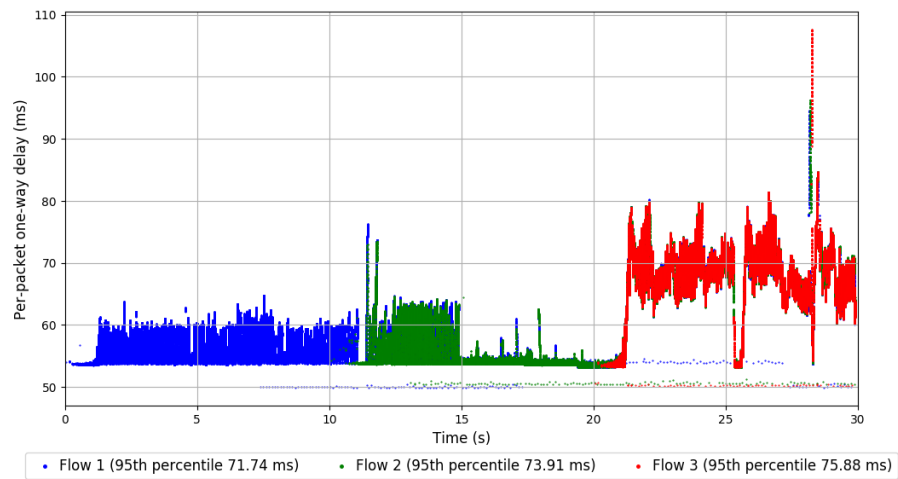
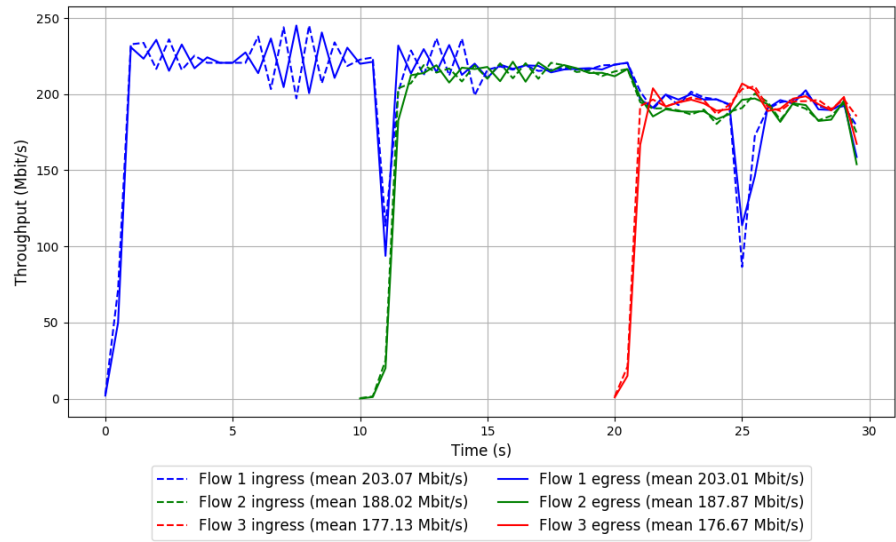
-- Flow 3:

Average throughput: 176.67 Mbit/s

95th percentile per-packet one-way delay: 75.883 ms

Loss rate: 1.27%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-14 07:20:09

End at: 2018-03-14 07:20:39

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 300.67 Mbit/s

95th percentile per-packet one-way delay: 61.833 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 167.68 Mbit/s

95th percentile per-packet one-way delay: 62.299 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 139.19 Mbit/s

95th percentile per-packet one-way delay: 61.400 ms

Loss rate: 0.61%

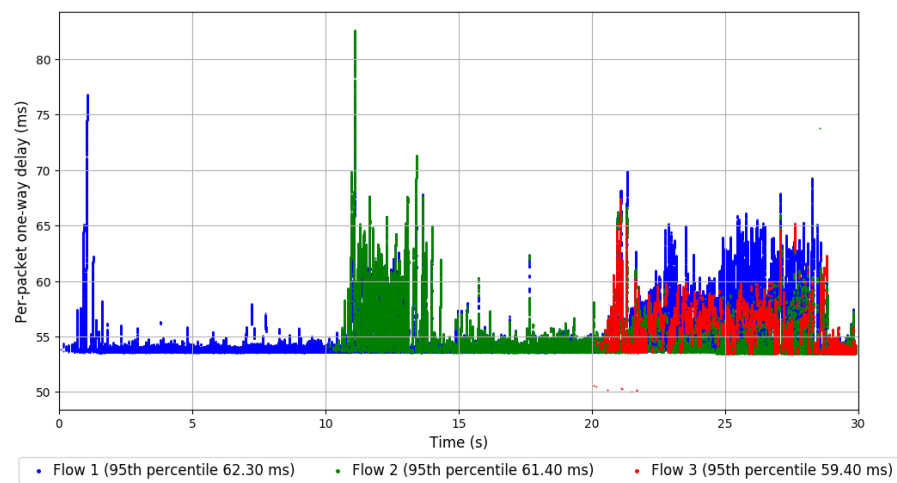
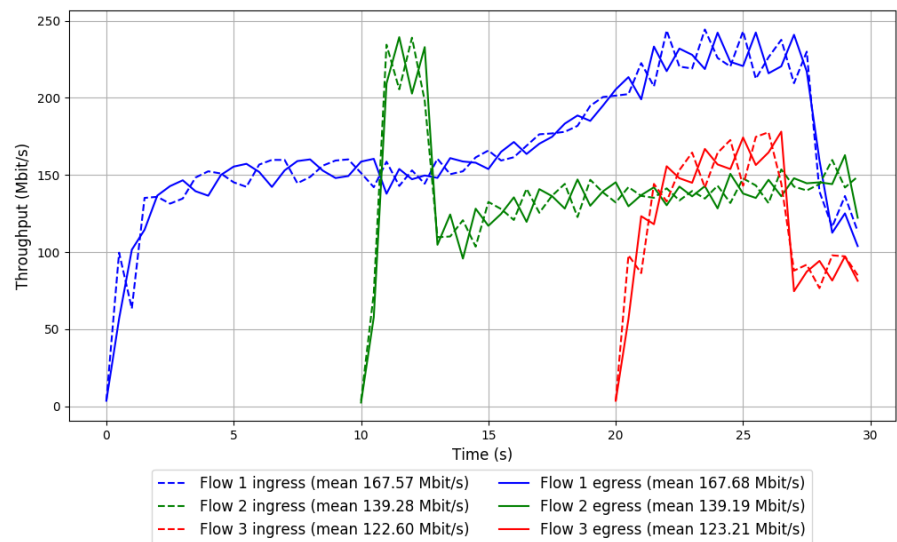
-- Flow 3:

Average throughput: 123.21 Mbit/s

95th percentile per-packet one-way delay: 59.404 ms

Loss rate: 0.84%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 07:37:09

End at: 2018-03-14 07:37:39

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.50 Mbit/s

95th percentile per-packet one-way delay: 62.644 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 169.93 Mbit/s

95th percentile per-packet one-way delay: 62.518 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 144.94 Mbit/s

95th percentile per-packet one-way delay: 62.499 ms

Loss rate: 0.38%

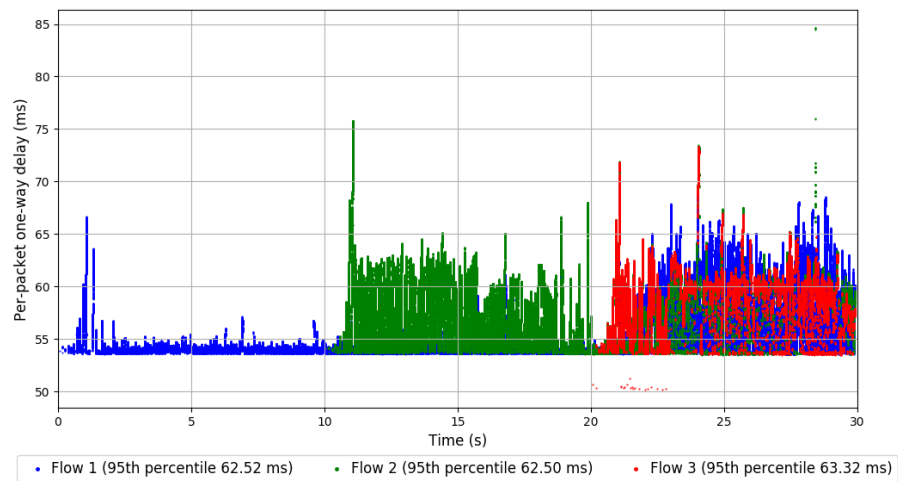
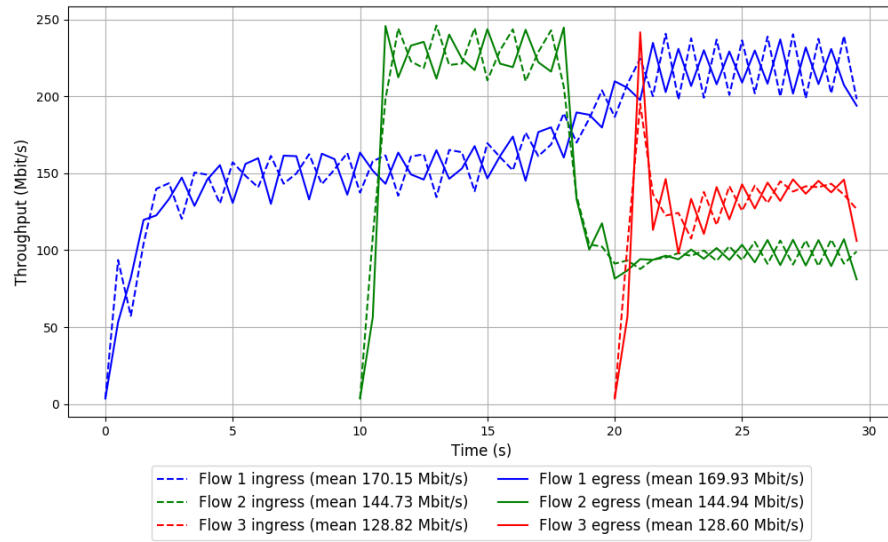
-- Flow 3:

Average throughput: 128.60 Mbit/s

95th percentile per-packet one-way delay: 63.318 ms

Loss rate: 1.22%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 07:54:12

End at: 2018-03-14 07:54:42

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 342.29 Mbit/s

95th percentile per-packet one-way delay: 73.194 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 159.49 Mbit/s

95th percentile per-packet one-way delay: 71.957 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 180.38 Mbit/s

95th percentile per-packet one-way delay: 73.446 ms

Loss rate: 0.43%

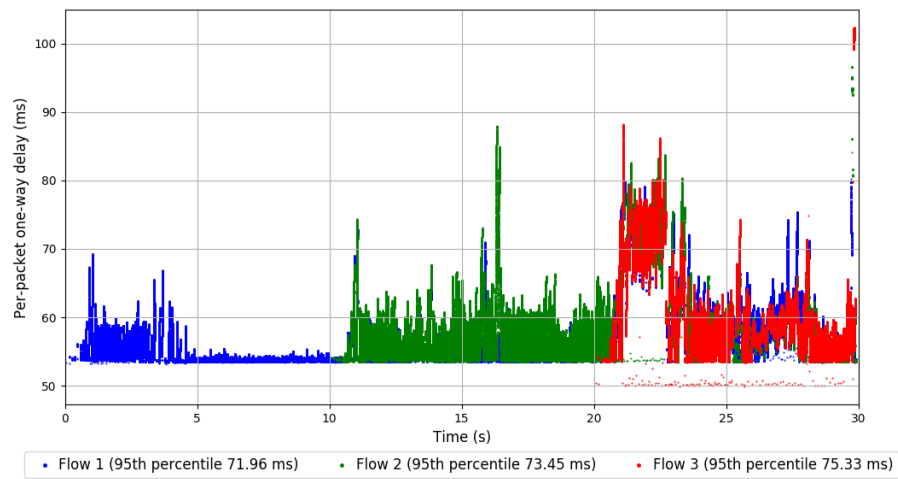
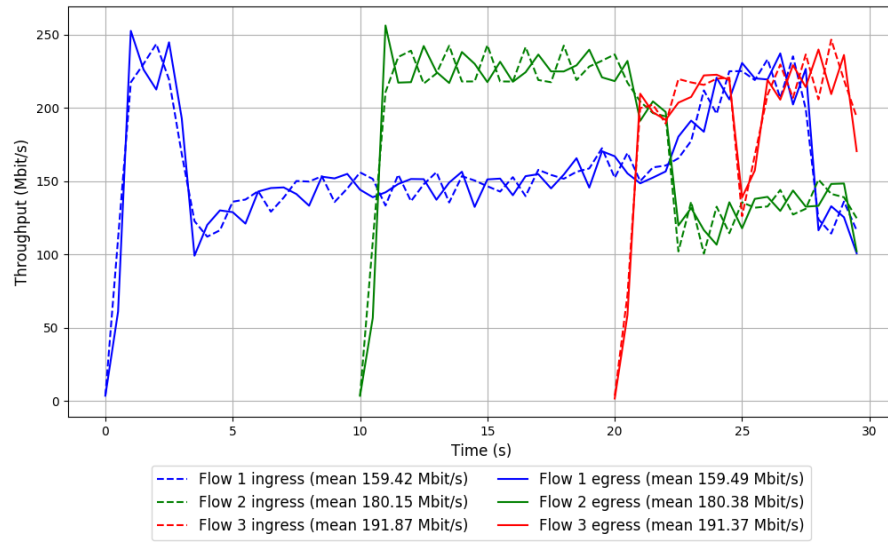
-- Flow 3:

Average throughput: 191.37 Mbit/s

95th percentile per-packet one-way delay: 75.330 ms

Loss rate: 1.26%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 08:11:12

End at: 2018-03-14 08:11:42

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.24 Mbit/s

95th percentile per-packet one-way delay: 58.465 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 157.48 Mbit/s

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

Loss rate: 0.33%

-- Flow 2:

Average throughput: 135.71 Mbit/s

95th percentile per-packet one-way delay: 55.714 ms

Loss rate: 0.73%

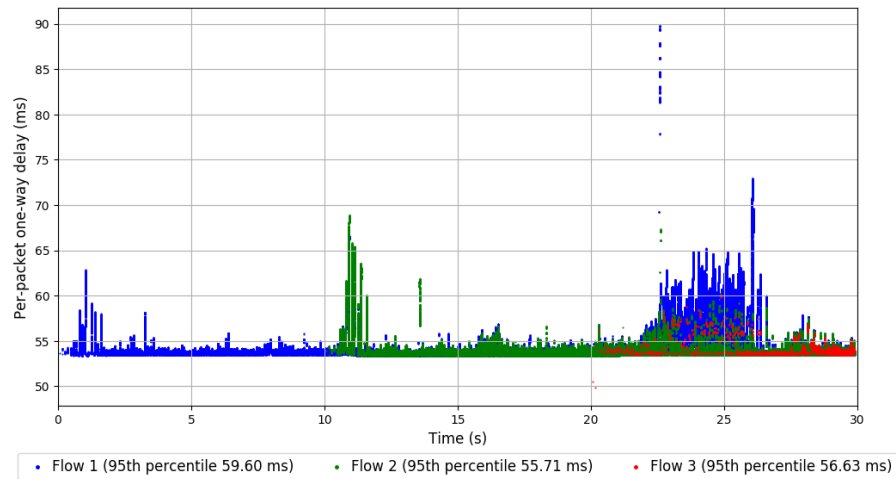
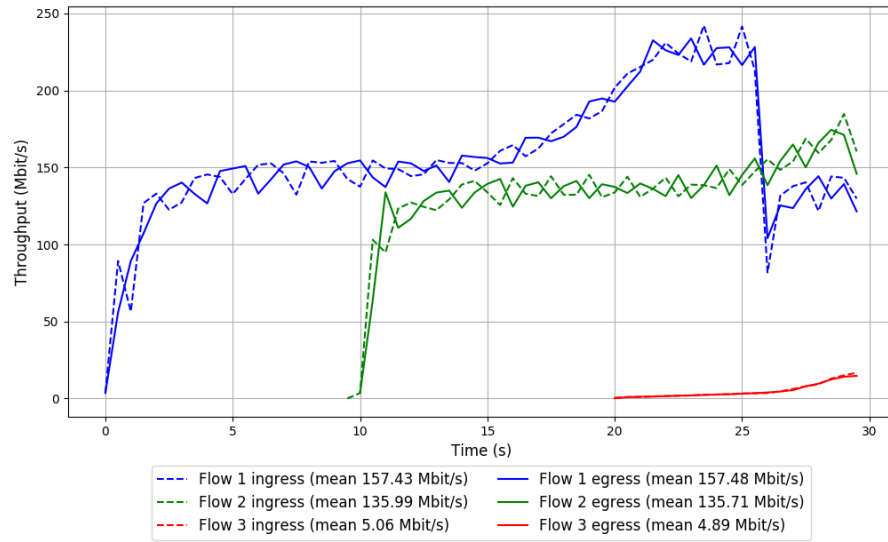
-- Flow 3:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 56.635 ms

Loss rate: 4.37%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 08:28:08

End at: 2018-03-14 08:28:38

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 256.25 Mbit/s

95th percentile per-packet one-way delay: 60.619 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 135.29 Mbit/s

95th percentile per-packet one-way delay: 61.431 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 131.76 Mbit/s

95th percentile per-packet one-way delay: 58.944 ms

Loss rate: 0.38%

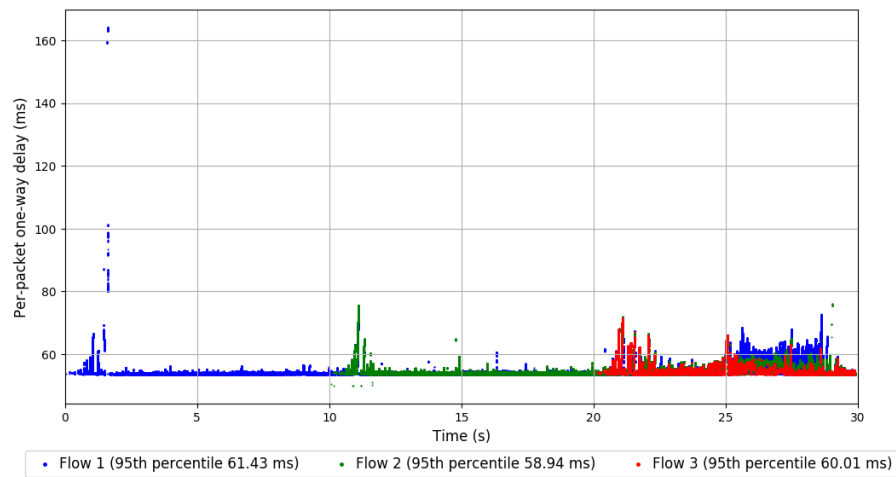
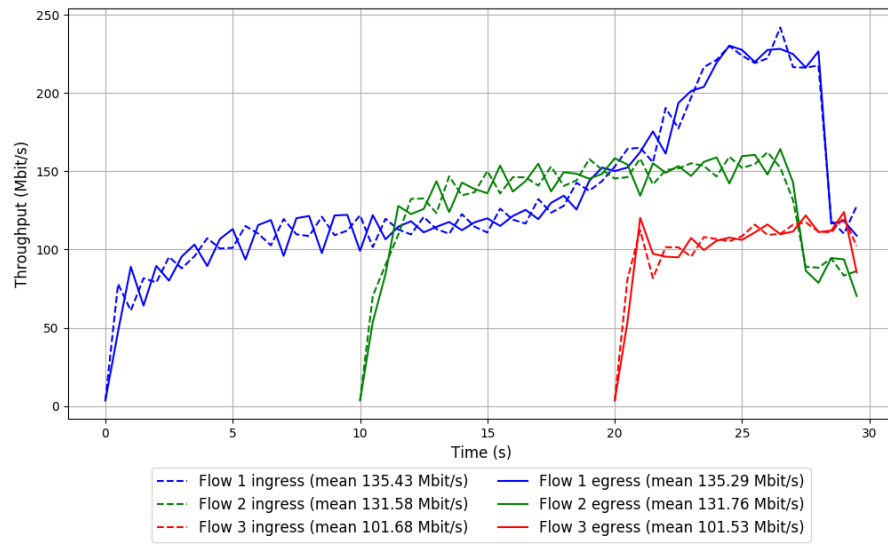
-- Flow 3:

Average throughput: 101.53 Mbit/s

95th percentile per-packet one-way delay: 60.013 ms

Loss rate: 1.23%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 08:45:02

End at: 2018-03-14 08:45:32

Below is generated by plot.py at 2018-03-14 13:22:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.31 Mbit/s

95th percentile per-packet one-way delay: 62.045 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 138.90 Mbit/s

95th percentile per-packet one-way delay: 62.116 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 146.03 Mbit/s

95th percentile per-packet one-way delay: 62.204 ms

Loss rate: 0.57%

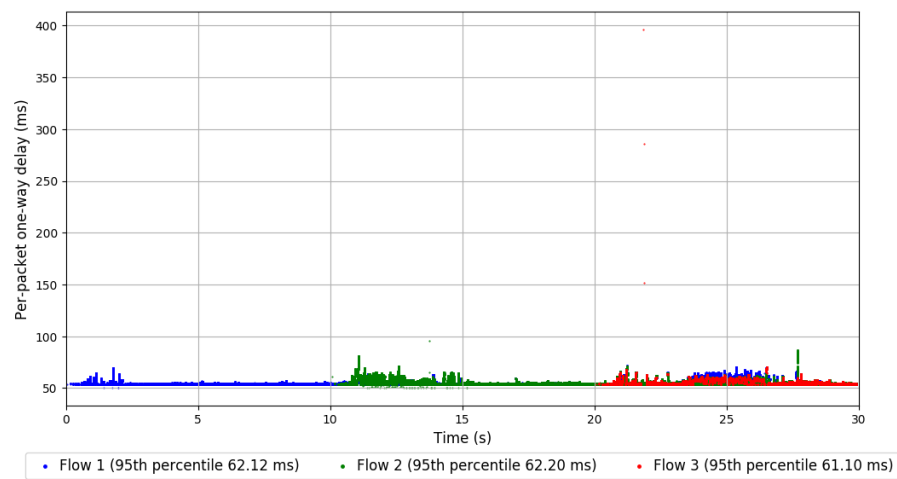
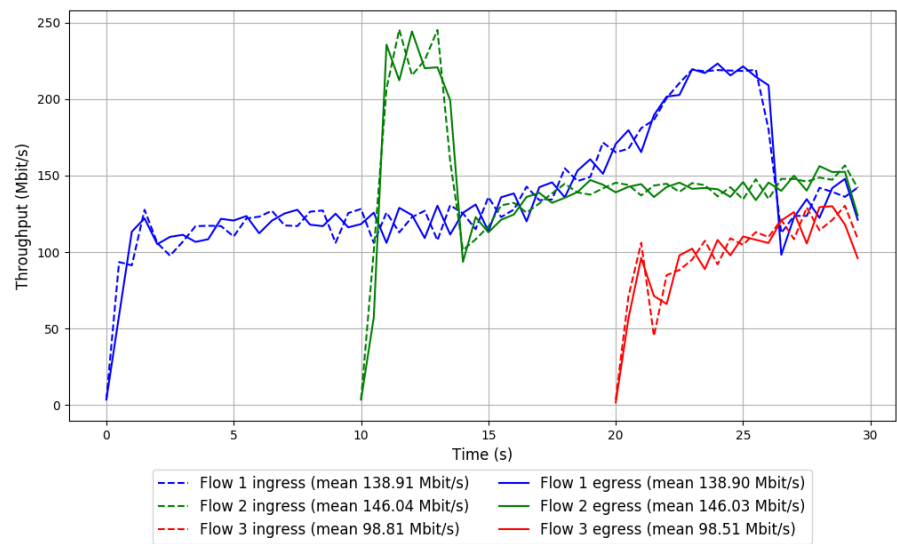
-- Flow 3:

Average throughput: 98.51 Mbit/s

95th percentile per-packet one-way delay: 61.104 ms

Loss rate: 1.35%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-14 09:02:14

End at: 2018-03-14 09:02:44

Below is generated by plot.py at 2018-03-14 13:25:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 297.40 Mbit/s

95th percentile per-packet one-way delay: 62.647 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 144.45 Mbit/s

95th percentile per-packet one-way delay: 62.739 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 183.17 Mbit/s

95th percentile per-packet one-way delay: 62.595 ms

Loss rate: 0.42%

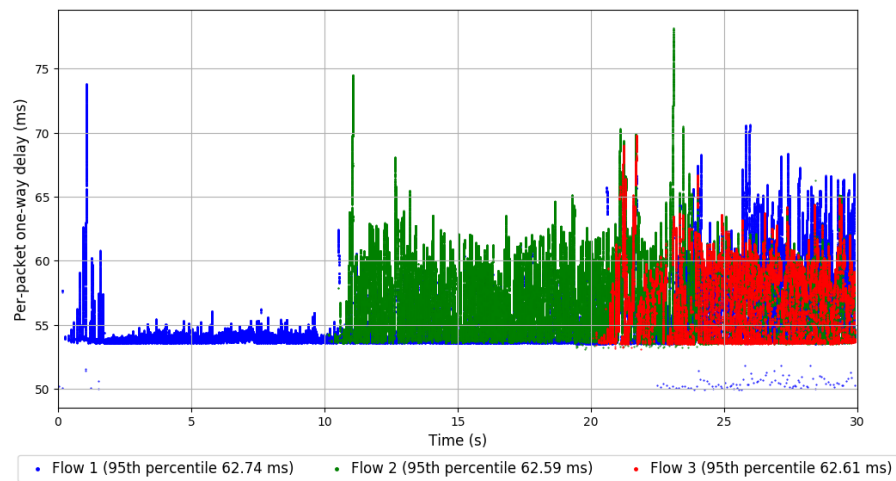
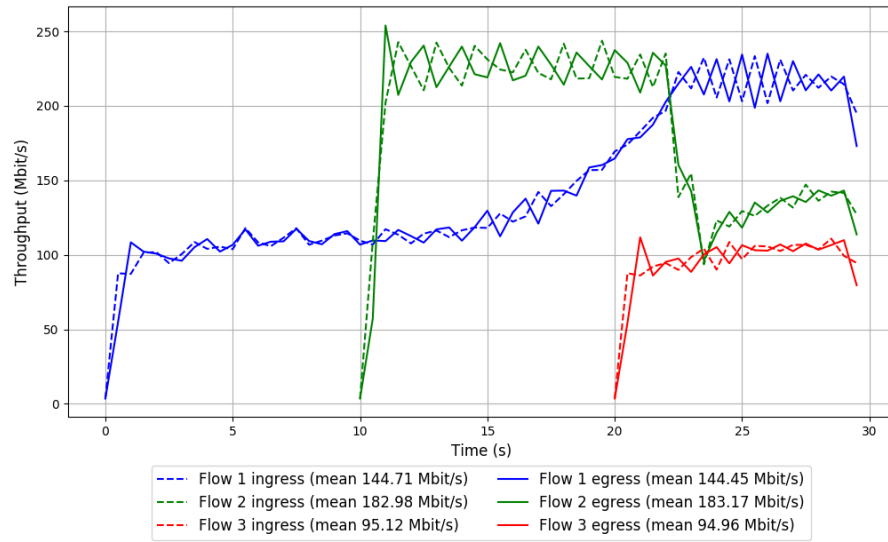
-- Flow 3:

Average throughput: 94.96 Mbit/s

95th percentile per-packet one-way delay: 62.614 ms

Loss rate: 1.21%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-14 09:19:42

End at: 2018-03-14 09:20:12

Below is generated by plot.py at 2018-03-14 13:26:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.61 Mbit/s

95th percentile per-packet one-way delay: 61.416 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 156.30 Mbit/s

95th percentile per-packet one-way delay: 62.553 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 119.03 Mbit/s

95th percentile per-packet one-way delay: 60.028 ms

Loss rate: 0.76%

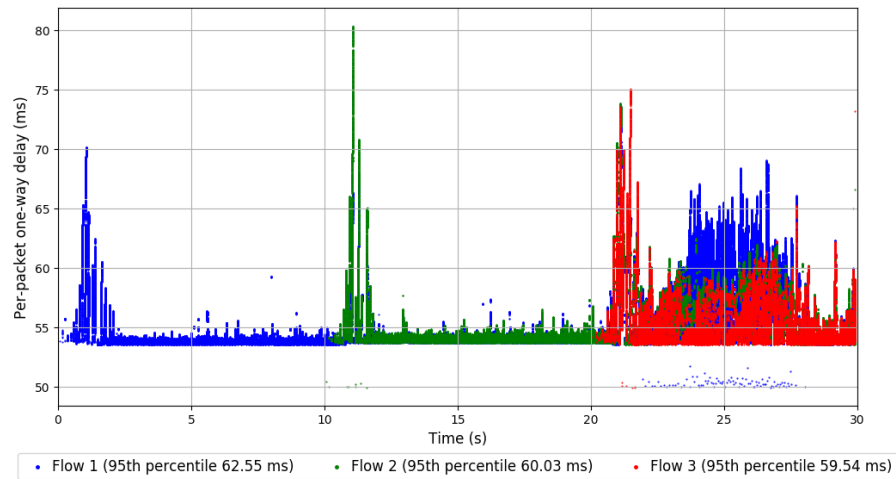
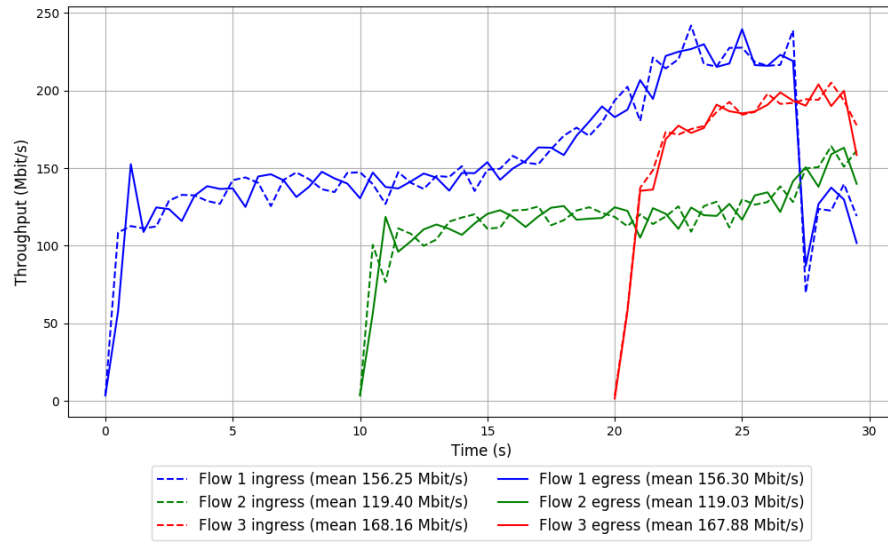
-- Flow 3:

Average throughput: 167.88 Mbit/s

95th percentile per-packet one-way delay: 59.537 ms

Loss rate: 1.22%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-14 09:36:45

End at: 2018-03-14 09:37:15

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 291.57 Mbit/s

95th percentile per-packet one-way delay: 61.184 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 149.62 Mbit/s

95th percentile per-packet one-way delay: 62.421 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 152.31 Mbit/s

95th percentile per-packet one-way delay: 60.174 ms

Loss rate: 0.71%

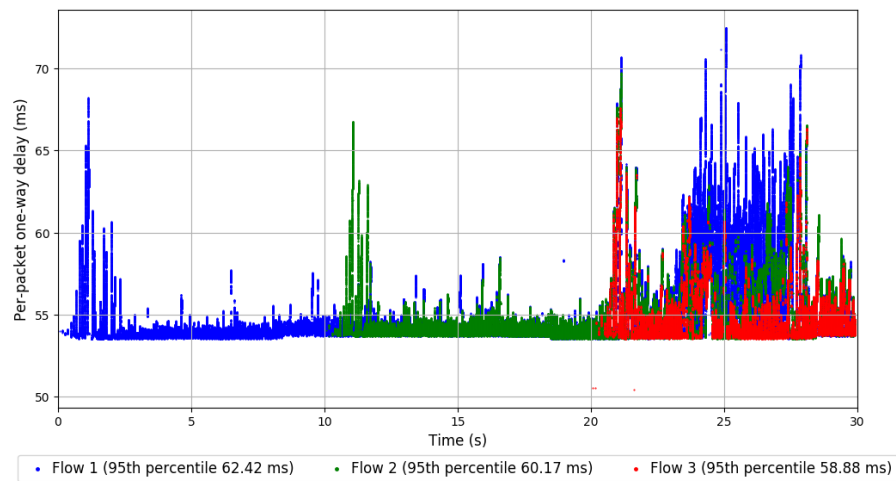
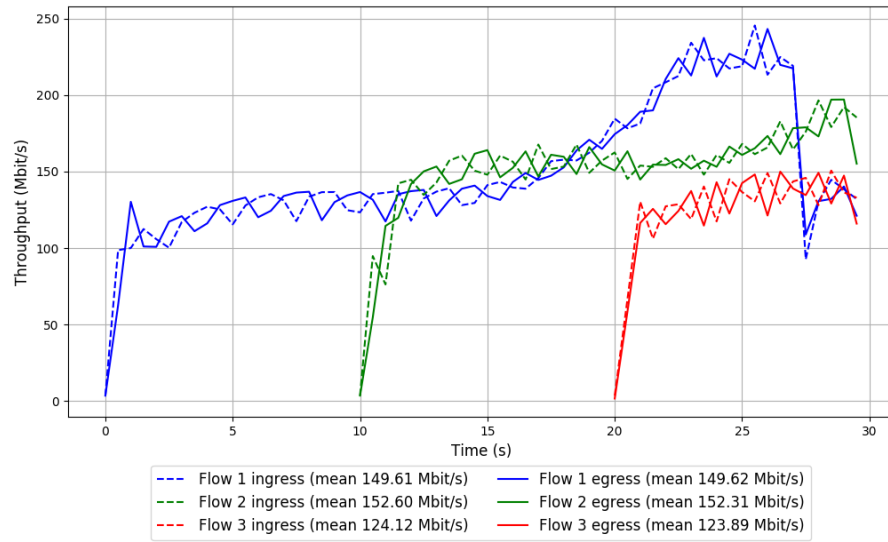
-- Flow 3:

Average throughput: 123.89 Mbit/s

95th percentile per-packet one-way delay: 58.878 ms

Loss rate: 1.23%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-14 09:53:28

End at: 2018-03-14 09:53:58

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.29 Mbit/s

95th percentile per-packet one-way delay: 58.254 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 127.45 Mbit/s

95th percentile per-packet one-way delay: 58.050 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 144.56 Mbit/s

95th percentile per-packet one-way delay: 58.399 ms

Loss rate: 0.72%

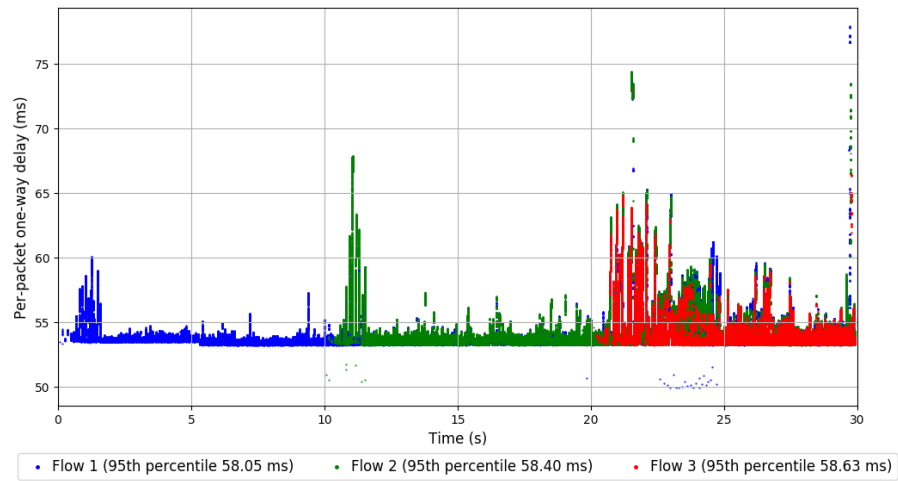
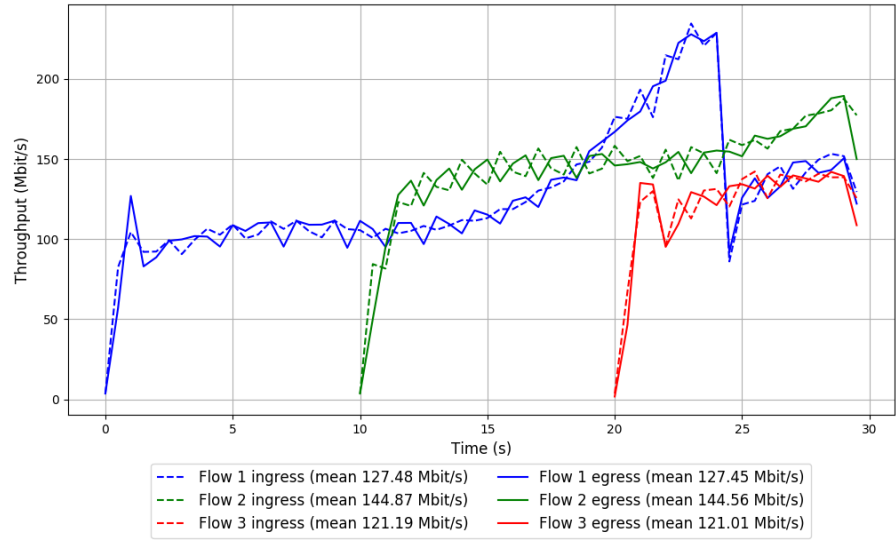
-- Flow 3:

Average throughput: 121.01 Mbit/s

95th percentile per-packet one-way delay: 58.635 ms

Loss rate: 1.24%

Run 10: Report of TCP Cubic — Data Link

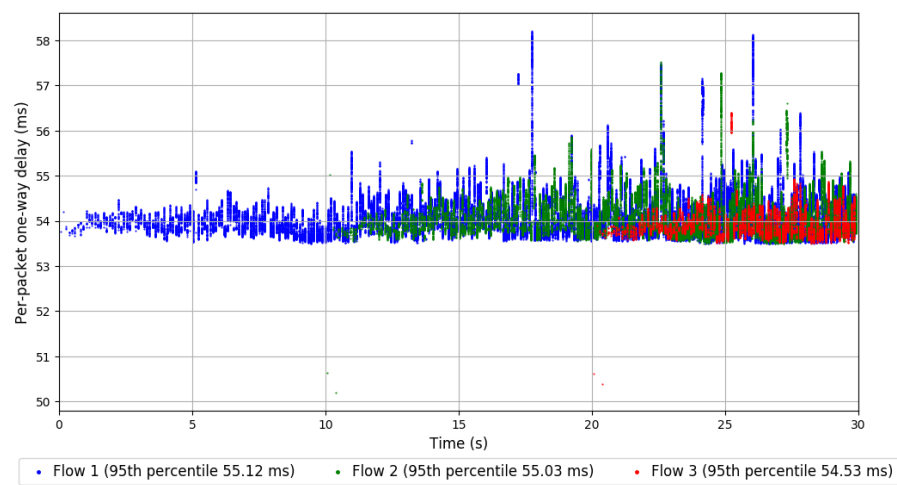
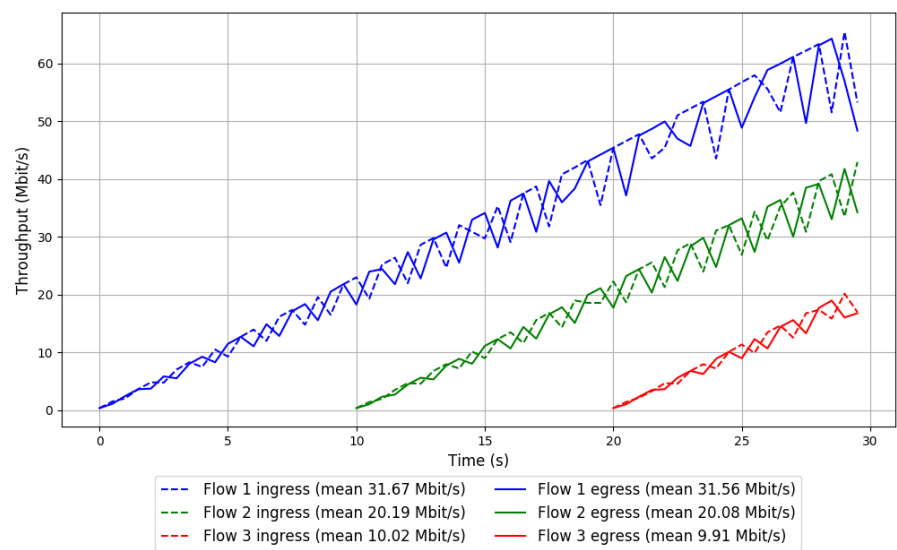


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-14 07:11:29
End at: 2018-03-14 07:11:59

# Below is generated by plot.py at 2018-03-14 13:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.07 Mbit/s
95th percentile per-packet one-way delay: 55.070 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 31.56 Mbit/s
95th percentile per-packet one-way delay: 55.118 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 20.08 Mbit/s
95th percentile per-packet one-way delay: 55.034 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 9.91 Mbit/s
95th percentile per-packet one-way delay: 54.534 ms
Loss rate: 2.18%
```


Run 1: Report of LEDBAT — Data Link

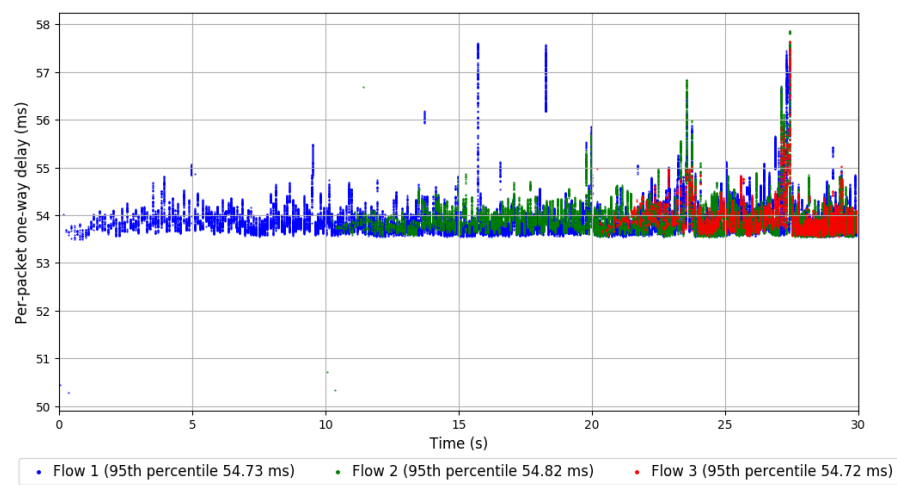
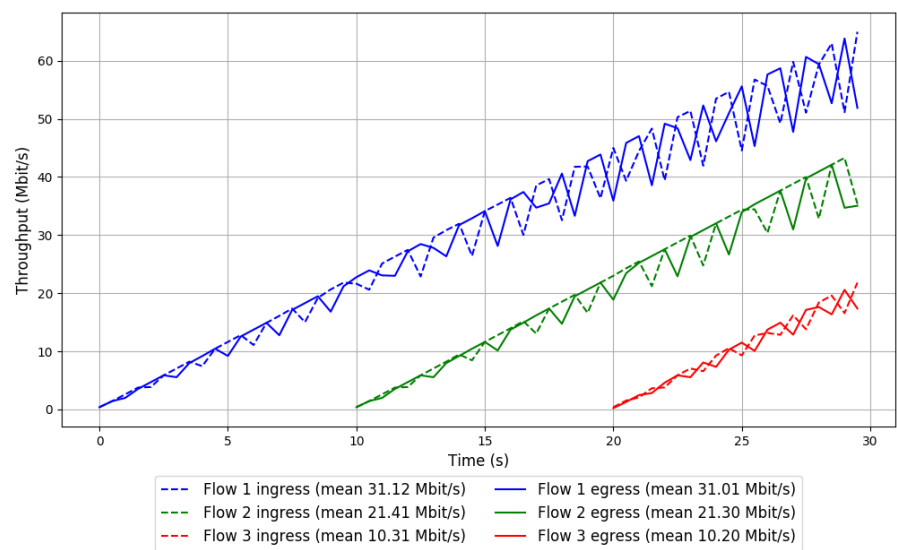


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 07:28:31
End at: 2018-03-14 07:29:01

# Below is generated by plot.py at 2018-03-14 13:26:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.47 Mbit/s
95th percentile per-packet one-way delay: 54.757 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 31.01 Mbit/s
95th percentile per-packet one-way delay: 54.735 ms
Loss rate: 0.70%
-- Flow 2:
Average throughput: 21.30 Mbit/s
95th percentile per-packet one-way delay: 54.819 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 54.717 ms
Loss rate: 2.17%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-14 07:45:27

End at: 2018-03-14 07:45:57

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.19 Mbit/s

95th percentile per-packet one-way delay: 54.860 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 31.87 Mbit/s

95th percentile per-packet one-way delay: 54.893 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 21.14 Mbit/s

95th percentile per-packet one-way delay: 54.865 ms

Loss rate: 1.07%

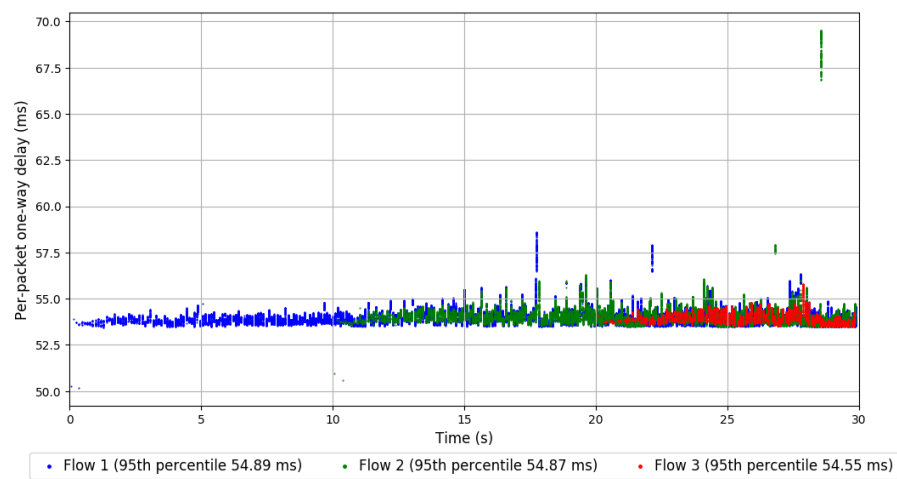
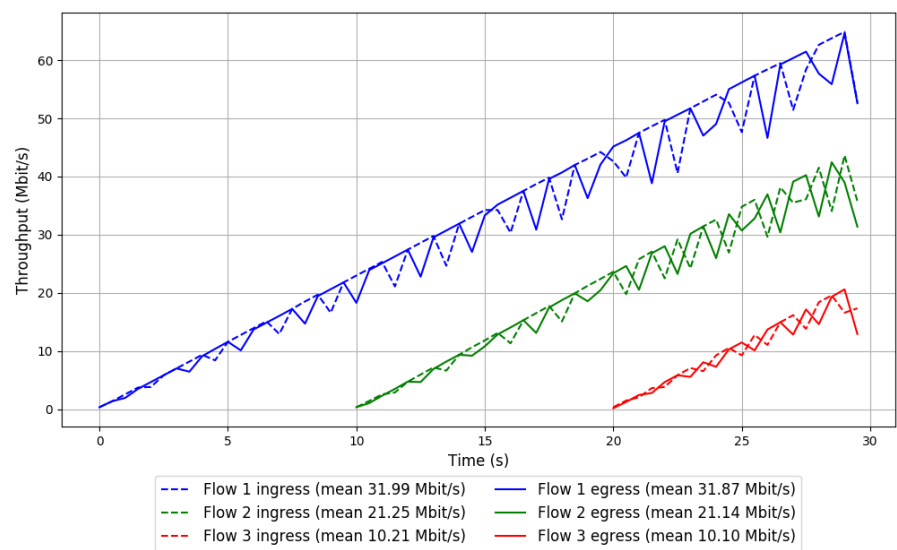
-- Flow 3:

Average throughput: 10.10 Mbit/s

95th percentile per-packet one-way delay: 54.550 ms

Loss rate: 2.19%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-14 08:02:31

End at: 2018-03-14 08:03:01

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.91 Mbit/s

95th percentile per-packet one-way delay: 55.135 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 31.97 Mbit/s

95th percentile per-packet one-way delay: 55.317 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 20.38 Mbit/s

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

Loss rate: 1.07%

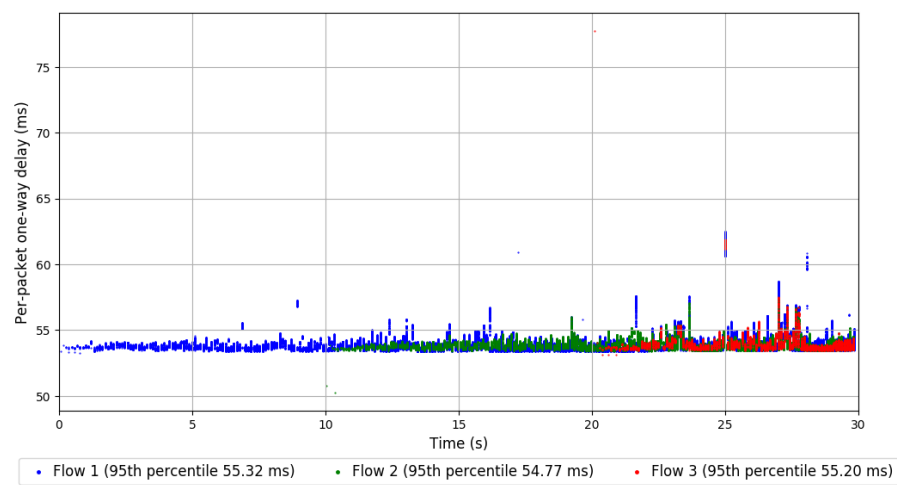
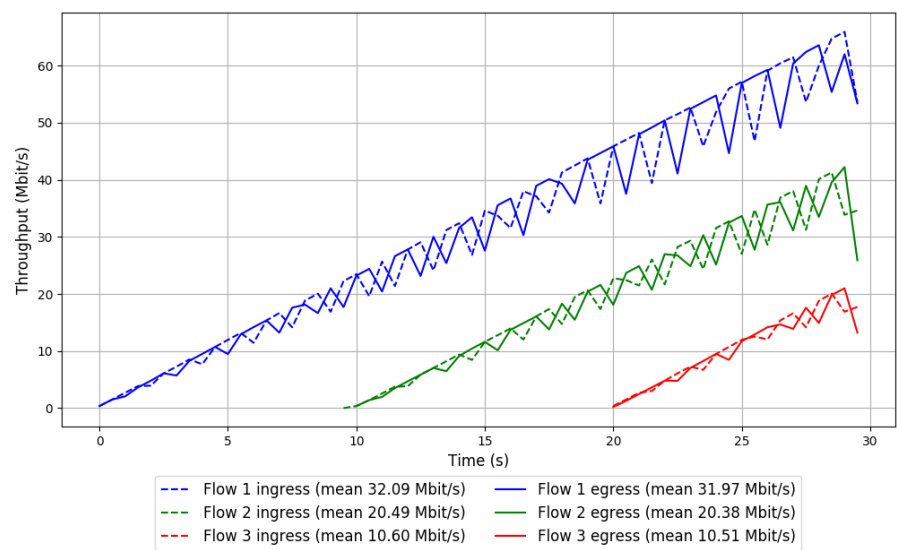
-- Flow 3:

Average throughput: 10.51 Mbit/s

95th percentile per-packet one-way delay: 55.196 ms

Loss rate: 2.16%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-14 08:19:26

End at: 2018-03-14 08:19:56

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.24 Mbit/s

95th percentile per-packet one-way delay: 54.834 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 30.82 Mbit/s

95th percentile per-packet one-way delay: 54.871 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 21.28 Mbit/s

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

Loss rate: 1.06%

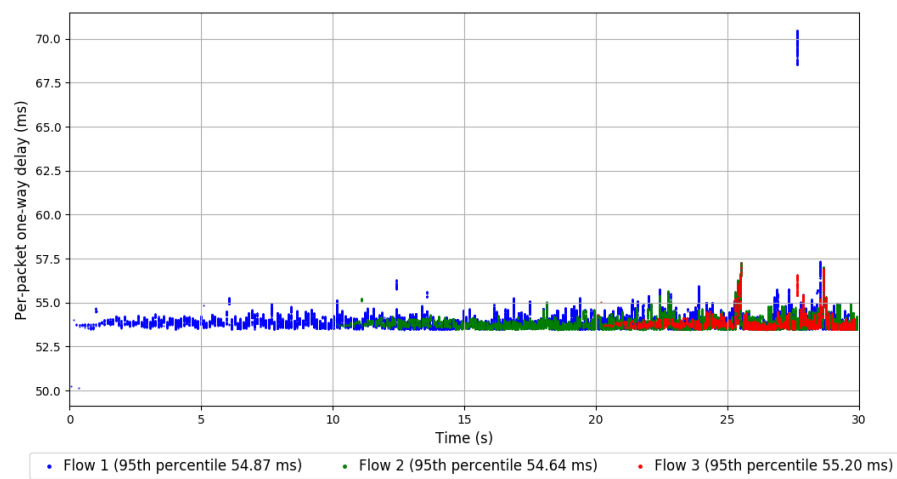
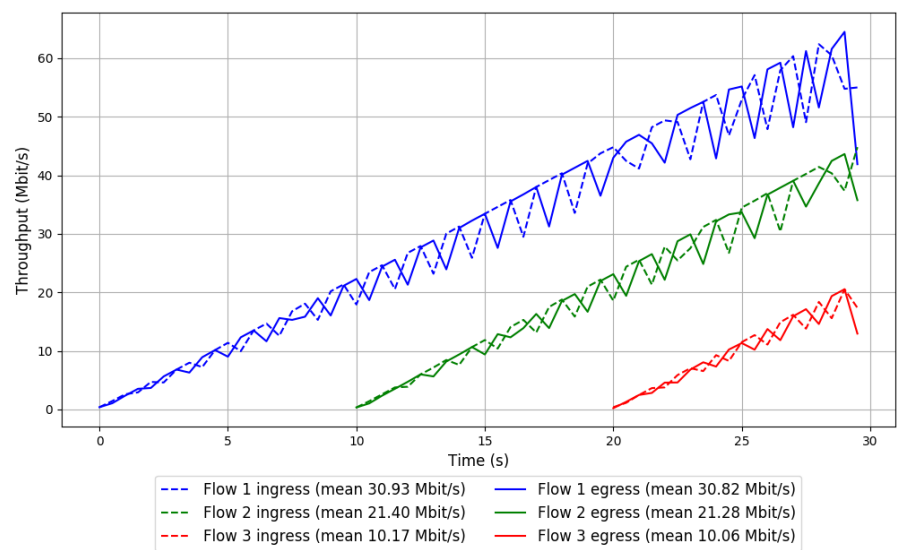
-- Flow 3:

Average throughput: 10.06 Mbit/s

95th percentile per-packet one-way delay: 55.199 ms

Loss rate: 2.20%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-14 08:36:18

End at: 2018-03-14 08:36:49

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.20 Mbit/s

95th percentile per-packet one-way delay: 54.862 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 30.50 Mbit/s

95th percentile per-packet one-way delay: 54.820 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 21.75 Mbit/s

95th percentile per-packet one-way delay: 55.128 ms

Loss rate: 1.05%

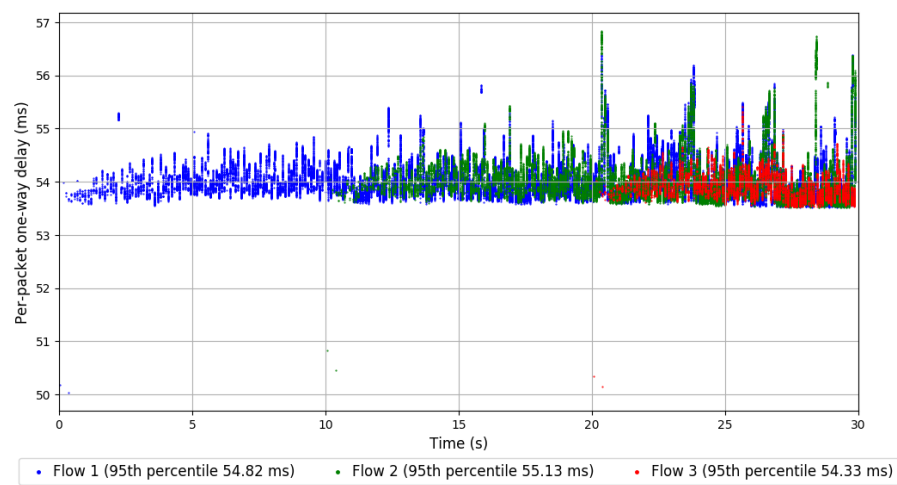
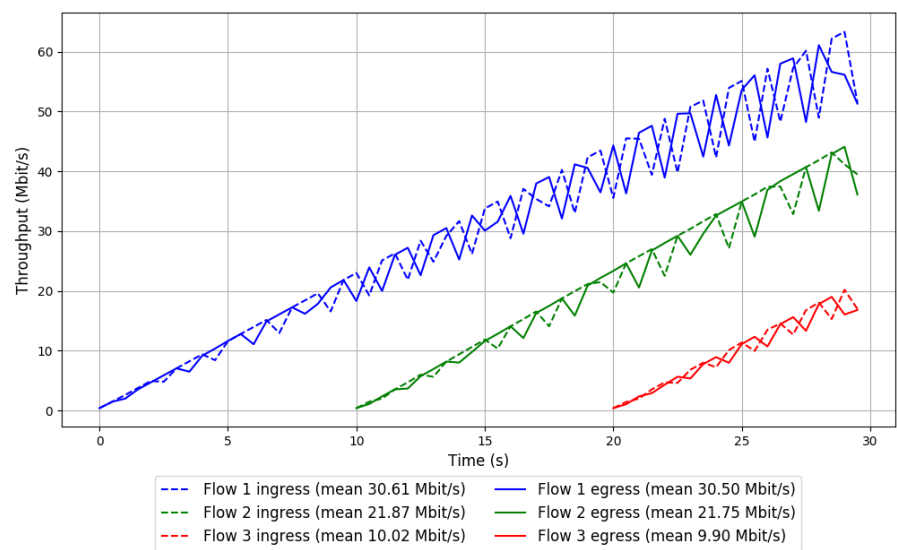
-- Flow 3:

Average throughput: 9.90 Mbit/s

95th percentile per-packet one-way delay: 54.326 ms

Loss rate: 2.18%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-14 08:53:28

End at: 2018-03-14 08:53:58

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.16 Mbit/s

95th percentile per-packet one-way delay: 54.763 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 31.97 Mbit/s

95th percentile per-packet one-way delay: 54.697 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 20.69 Mbit/s

95th percentile per-packet one-way delay: 54.915 ms

Loss rate: 1.07%

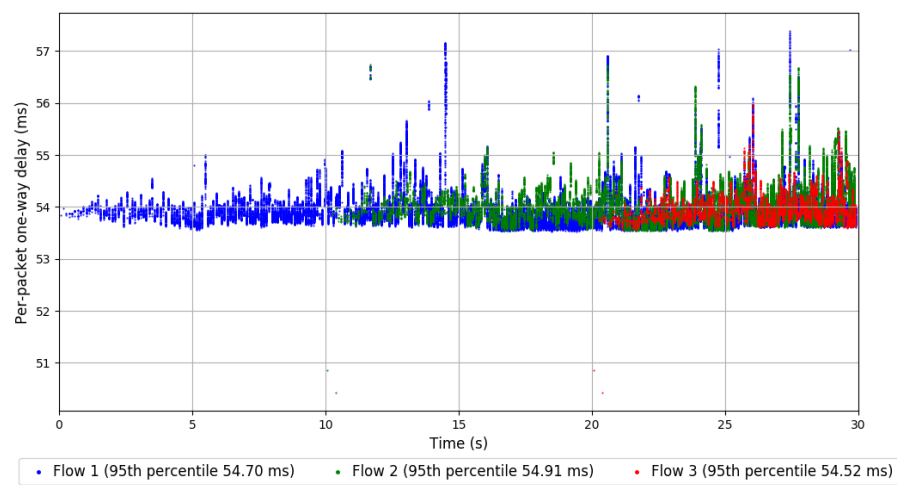
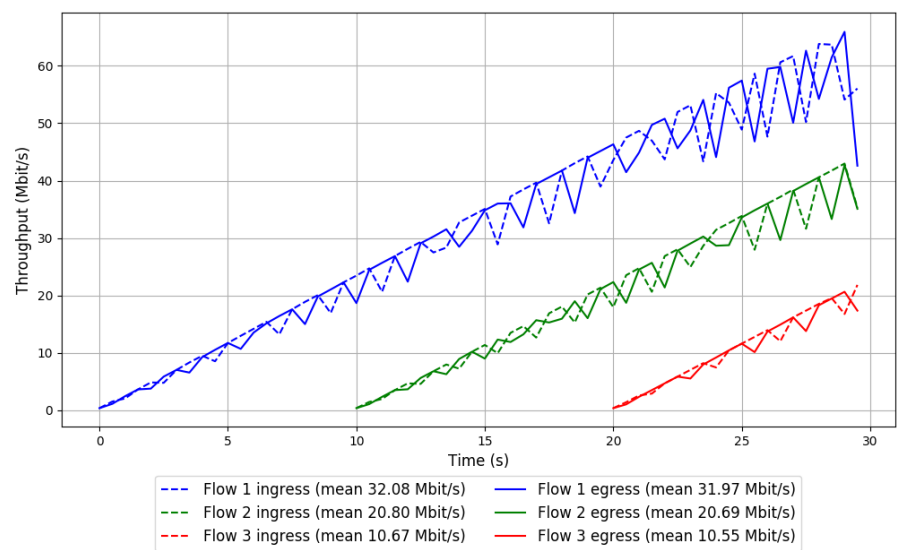
-- Flow 3:

Average throughput: 10.55 Mbit/s

95th percentile per-packet one-way delay: 54.523 ms

Loss rate: 2.12%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-14 09:10:44

End at: 2018-03-14 09:11:14

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.04 Mbit/s

95th percentile per-packet one-way delay: 54.965 ms

Loss rate: 0.92%

-- Flow 1:

Average throughput: 30.20 Mbit/s

95th percentile per-packet one-way delay: 54.954 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 20.23 Mbit/s

95th percentile per-packet one-way delay: 54.956 ms

Loss rate: 1.08%

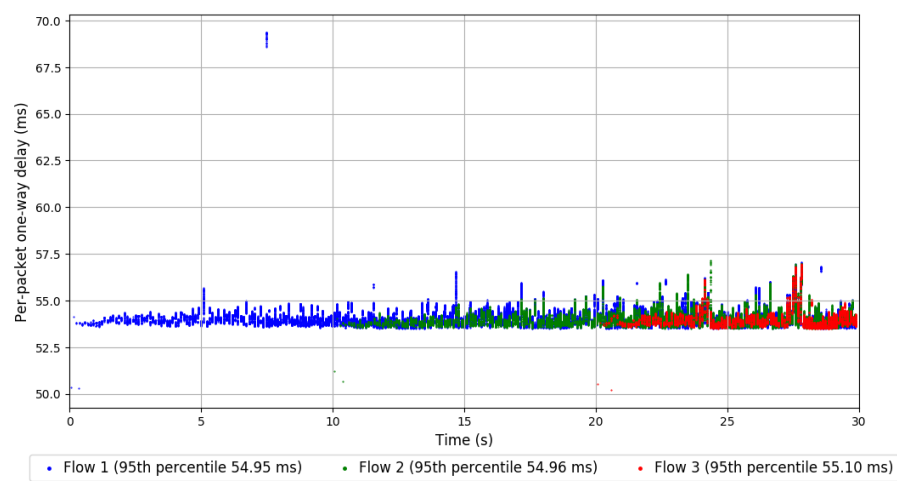
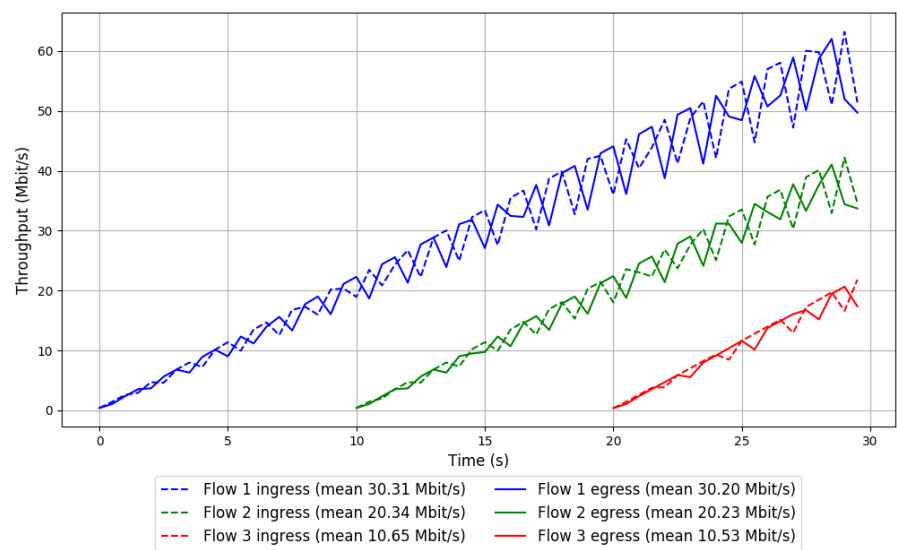
-- Flow 3:

Average throughput: 10.53 Mbit/s

95th percentile per-packet one-way delay: 55.100 ms

Loss rate: 2.11%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-14 09:28:01

End at: 2018-03-14 09:28:31

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.54 Mbit/s

95th percentile per-packet one-way delay: 55.144 ms

Loss rate: 0.84%

-- Flow 1:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 55.206 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 16.95 Mbit/s

95th percentile per-packet one-way delay: 55.015 ms

Loss rate: 0.83%

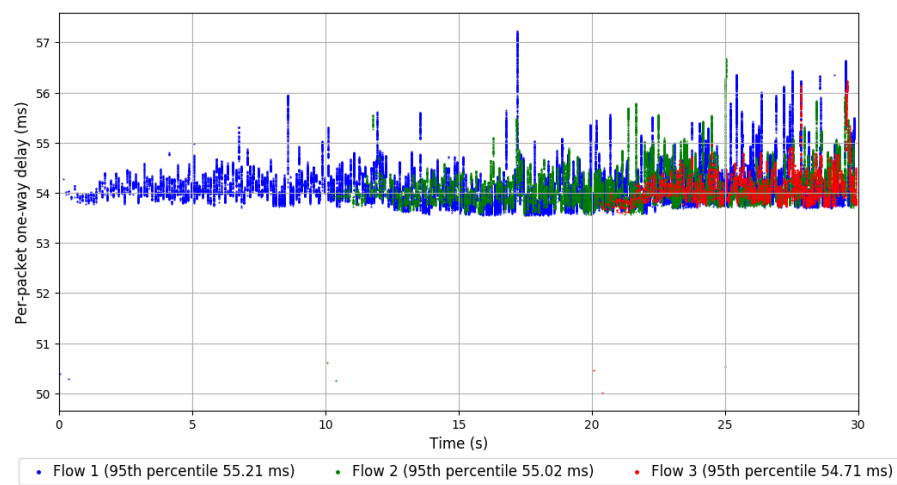
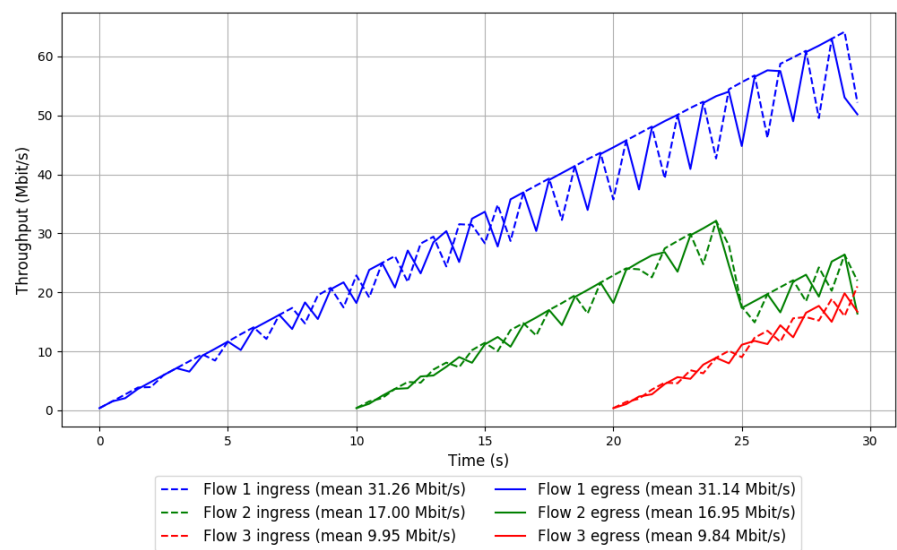
-- Flow 3:

Average throughput: 9.84 Mbit/s

95th percentile per-packet one-way delay: 54.711 ms

Loss rate: 2.17%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-14 09:44:51

End at: 2018-03-14 09:45:21

Below is generated by plot.py at 2018-03-14 13:26:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 38.92 Mbit/s

95th percentile per-packet one-way delay: 54.814 ms

Loss rate: 0.93%

-- Flow 1:

Average throughput: 22.45 Mbit/s

95th percentile per-packet one-way delay: 54.756 ms

Loss rate: 0.65%

-- Flow 2:

Average throughput: 19.79 Mbit/s

95th percentile per-packet one-way delay: 54.990 ms

Loss rate: 1.08%

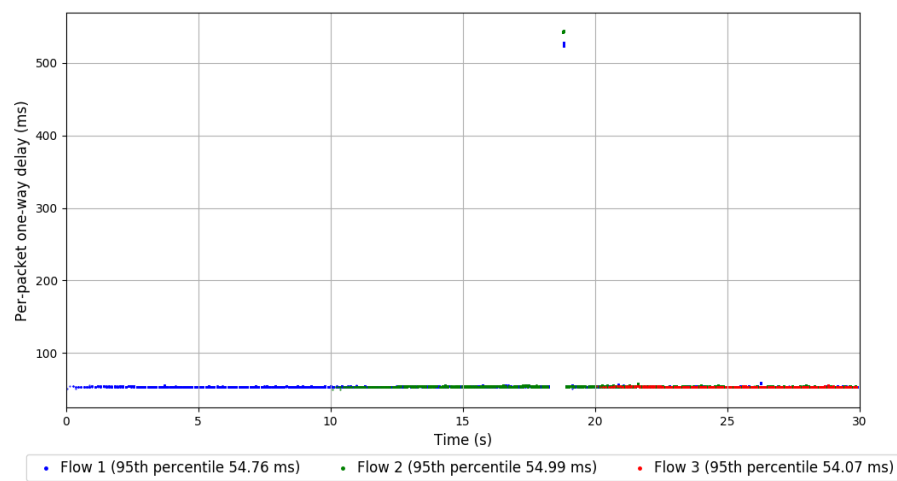
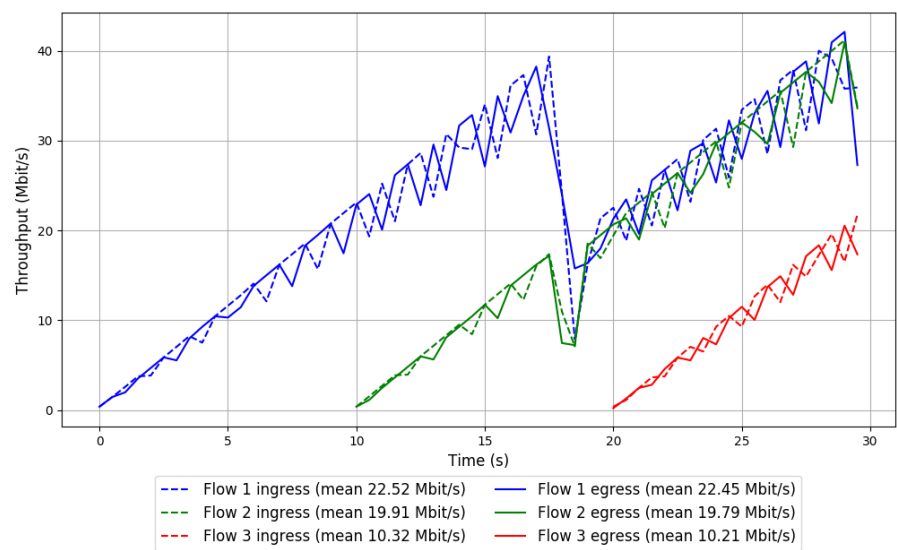
-- Flow 3:

Average throughput: 10.21 Mbit/s

95th percentile per-packet one-way delay: 54.069 ms

Loss rate: 2.18%

Run 10: Report of LEDBAT — Data Link

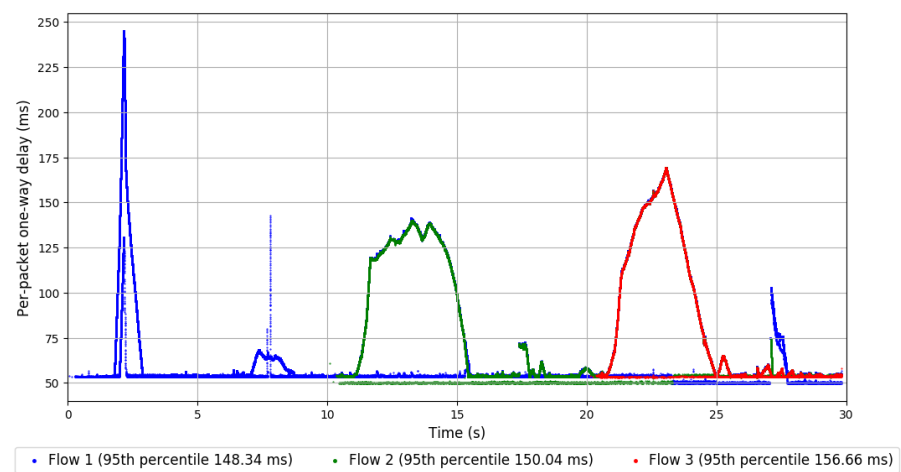
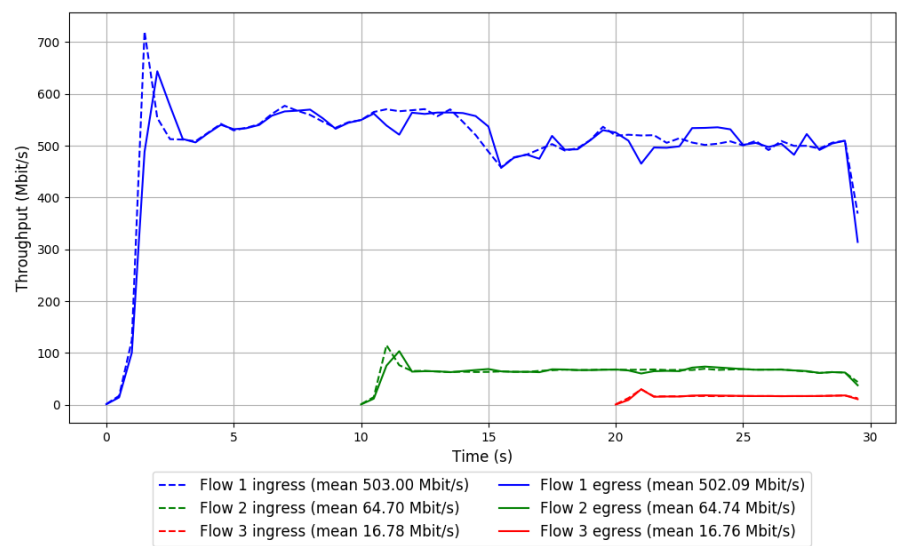


```
Run 1: Statistics of PCC

Start at: 2018-03-14 07:08:40
End at: 2018-03-14 07:09:10

# Below is generated by plot.py at 2018-03-14 13:36:36
# Datalink statistics
-- Total of 3 flows:
Average throughput: 550.38 Mbit/s
95th percentile per-packet one-way delay: 148.735 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 502.09 Mbit/s
95th percentile per-packet one-way delay: 148.338 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 64.74 Mbit/s
95th percentile per-packet one-way delay: 150.044 ms
Loss rate: 0.52%
-- Flow 3:
Average throughput: 16.76 Mbit/s
95th percentile per-packet one-way delay: 156.662 ms
Loss rate: 1.15%
```

Run 1: Report of PCC — Data Link

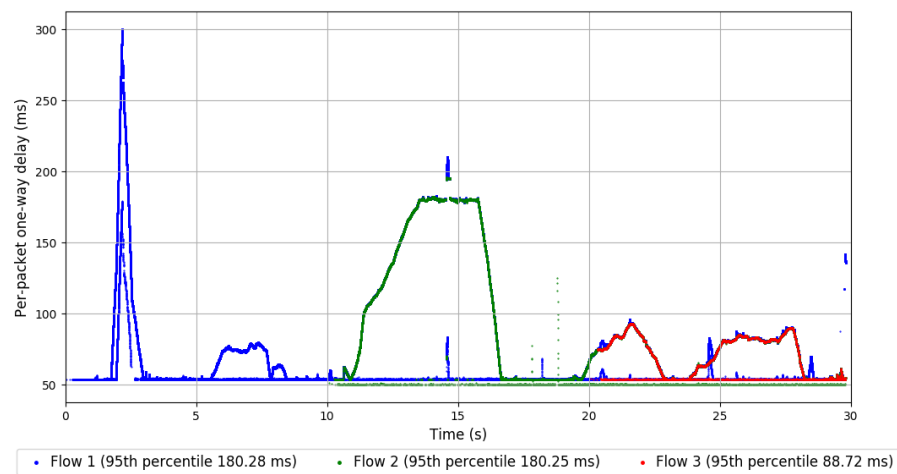
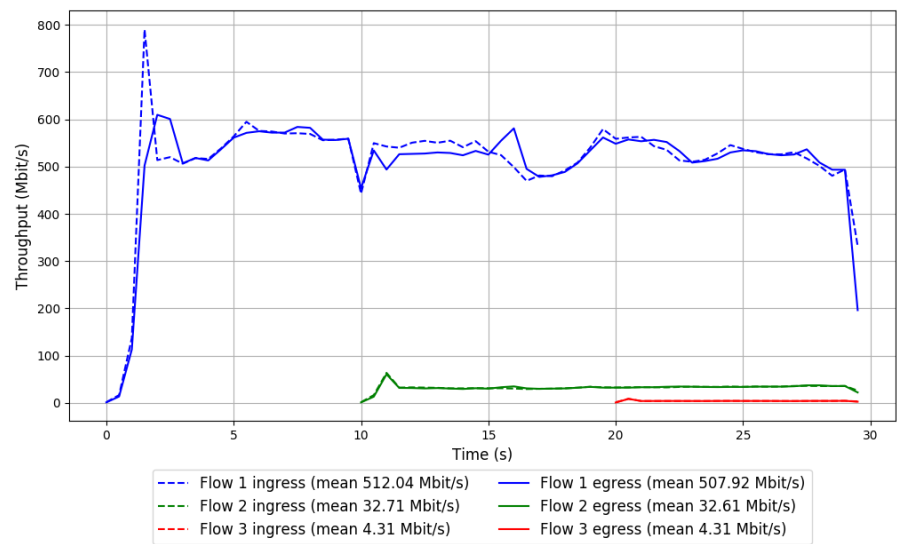


```
Run 2: Statistics of PCC

Start at: 2018-03-14 07:25:41
End at: 2018-03-14 07:26:11

# Below is generated by plot.py at 2018-03-14 13:36:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 530.97 Mbit/s
95th percentile per-packet one-way delay: 180.280 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 507.92 Mbit/s
95th percentile per-packet one-way delay: 180.285 ms
Loss rate: 1.15%
-- Flow 2:
Average throughput: 32.61 Mbit/s
95th percentile per-packet one-way delay: 180.248 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 4.31 Mbit/s
95th percentile per-packet one-way delay: 88.717 ms
Loss rate: 1.12%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-14 07:42:40

End at: 2018-03-14 07:43:10

Below is generated by plot.py at 2018-03-14 13:36:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 512.59 Mbit/s

95th percentile per-packet one-way delay: 93.980 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 456.25 Mbit/s

95th percentile per-packet one-way delay: 94.620 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 80.99 Mbit/s

95th percentile per-packet one-way delay: 91.336 ms

Loss rate: 0.61%

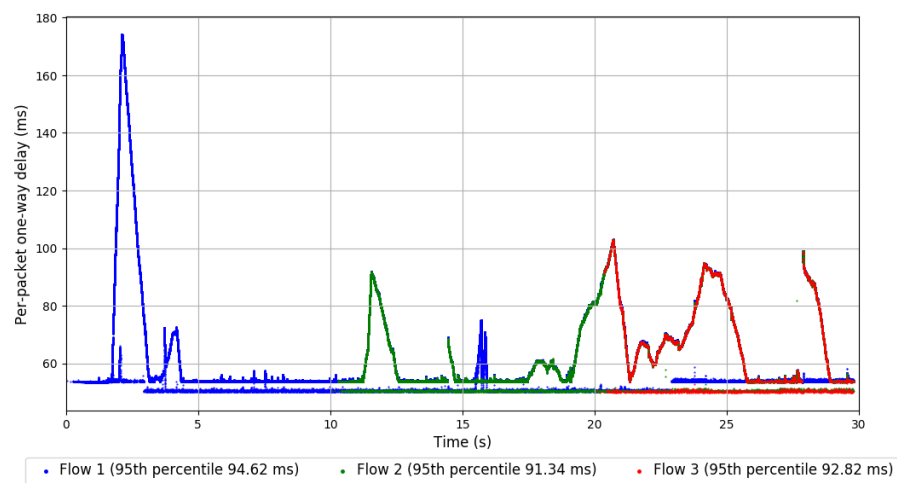
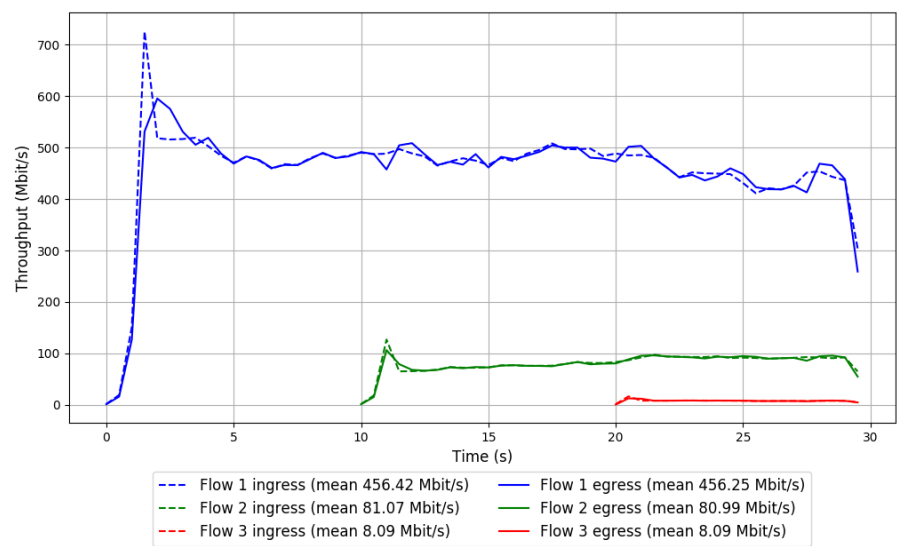
-- Flow 3:

Average throughput: 8.09 Mbit/s

95th percentile per-packet one-way delay: 92.819 ms

Loss rate: 1.05%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-14 07:59:41

End at: 2018-03-14 08:00:11

Below is generated by plot.py at 2018-03-14 13:36:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 510.52 Mbit/s

95th percentile per-packet one-way delay: 171.626 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 474.86 Mbit/s

95th percentile per-packet one-way delay: 173.814 ms

Loss rate: 2.37%

-- Flow 2:

Average throughput: 23.61 Mbit/s

95th percentile per-packet one-way delay: 92.309 ms

Loss rate: 0.66%

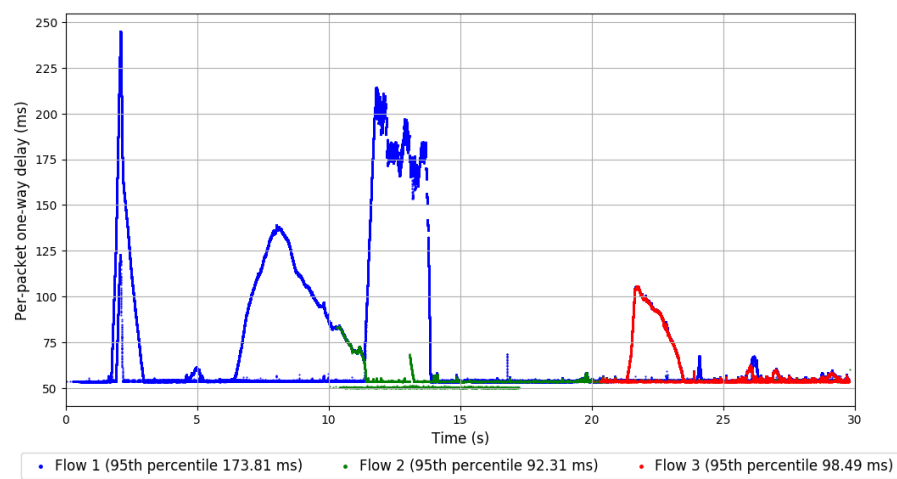
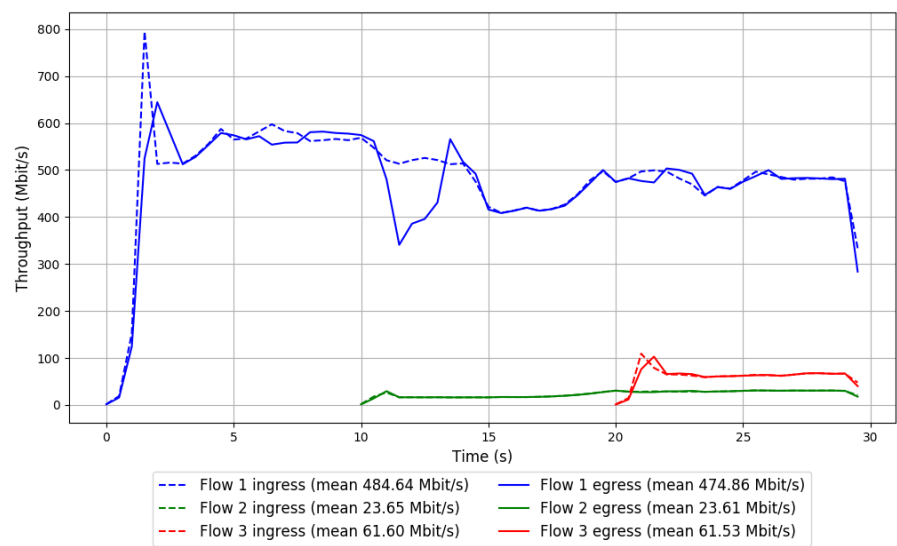
-- Flow 3:

Average throughput: 61.53 Mbit/s

95th percentile per-packet one-way delay: 98.491 ms

Loss rate: 1.21%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-14 08:16:39

End at: 2018-03-14 08:17:09

Below is generated by plot.py at 2018-03-14 13:37:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 532.27 Mbit/s

95th percentile per-packet one-way delay: 160.794 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 499.92 Mbit/s

95th percentile per-packet one-way delay: 160.834 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 46.71 Mbit/s

95th percentile per-packet one-way delay: 160.166 ms

Loss rate: 1.84%

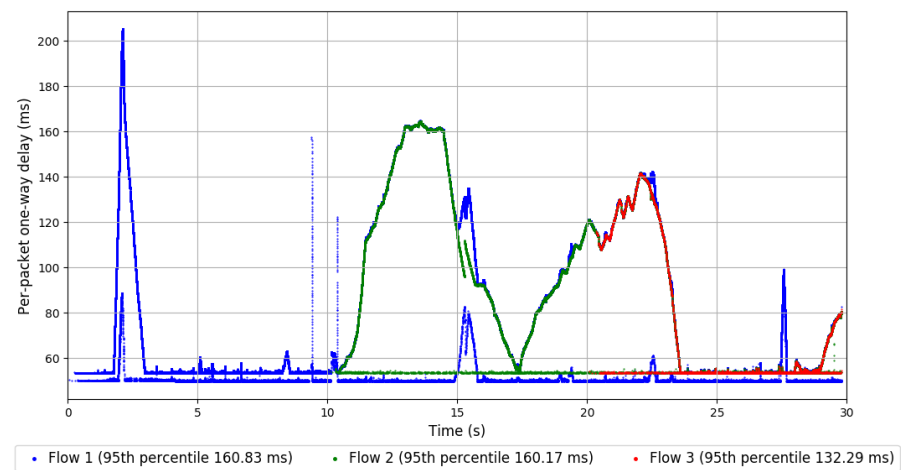
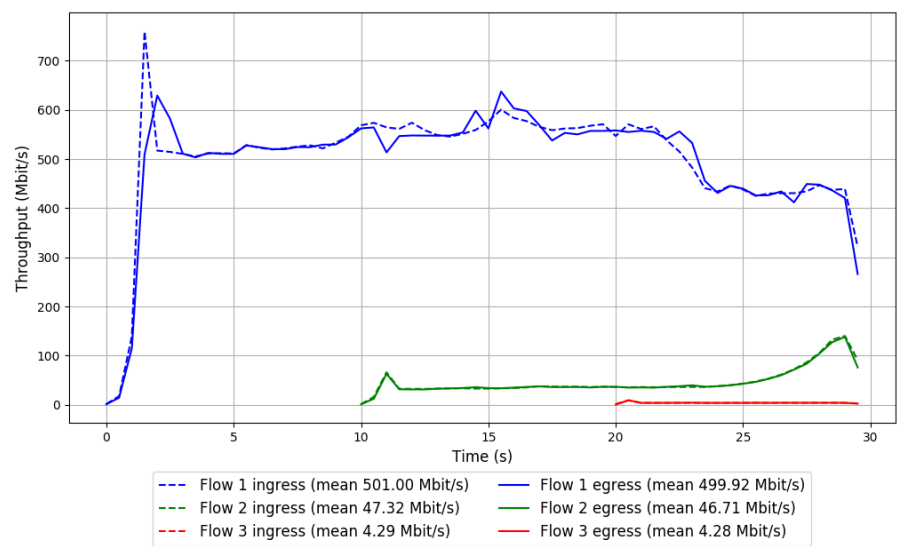
-- Flow 3:

Average throughput: 4.28 Mbit/s

95th percentile per-packet one-way delay: 132.293 ms

Loss rate: 1.32%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-14 08:33:27

End at: 2018-03-14 08:33:57

Below is generated by plot.py at 2018-03-14 13:37:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.25 Mbit/s

95th percentile per-packet one-way delay: 178.792 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 438.98 Mbit/s

95th percentile per-packet one-way delay: 178.592 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 44.37 Mbit/s

95th percentile per-packet one-way delay: 178.812 ms

Loss rate: 1.91%

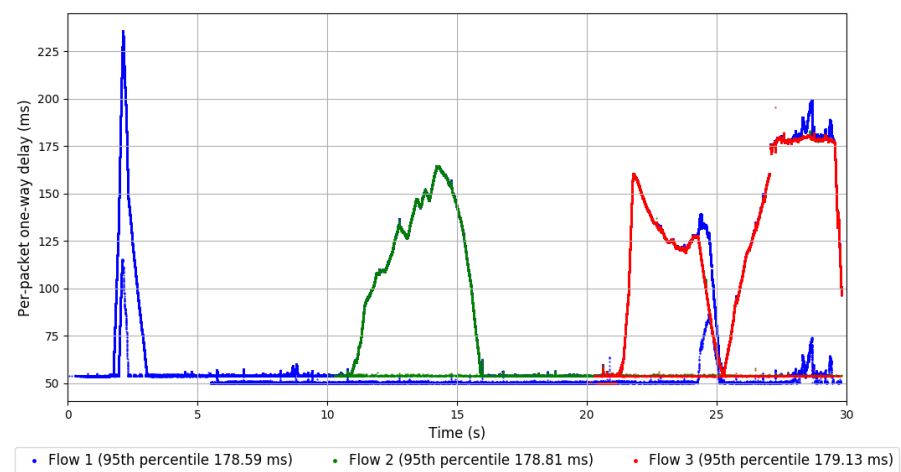
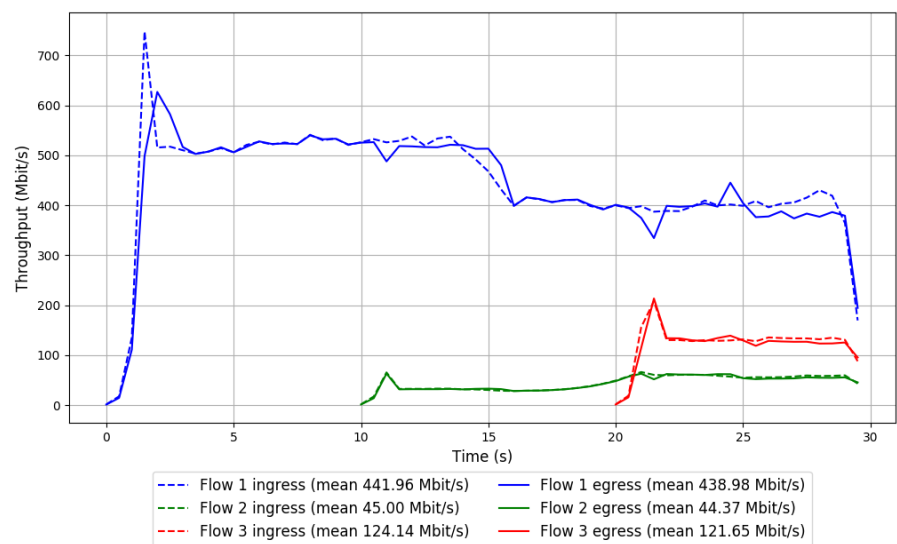
-- Flow 3:

Average throughput: 121.65 Mbit/s

95th percentile per-packet one-way delay: 179.130 ms

Loss rate: 3.03%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-14 08:50:35

End at: 2018-03-14 08:51:05

Below is generated by plot.py at 2018-03-14 13:38:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 547.12 Mbit/s

95th percentile per-packet one-way delay: 175.654 ms

Loss rate: 3.32%

-- Flow 1:

Average throughput: 472.15 Mbit/s

95th percentile per-packet one-way delay: 176.243 ms

Loss rate: 3.28%

-- Flow 2:

Average throughput: 111.95 Mbit/s

95th percentile per-packet one-way delay: 173.221 ms

Loss rate: 3.53%

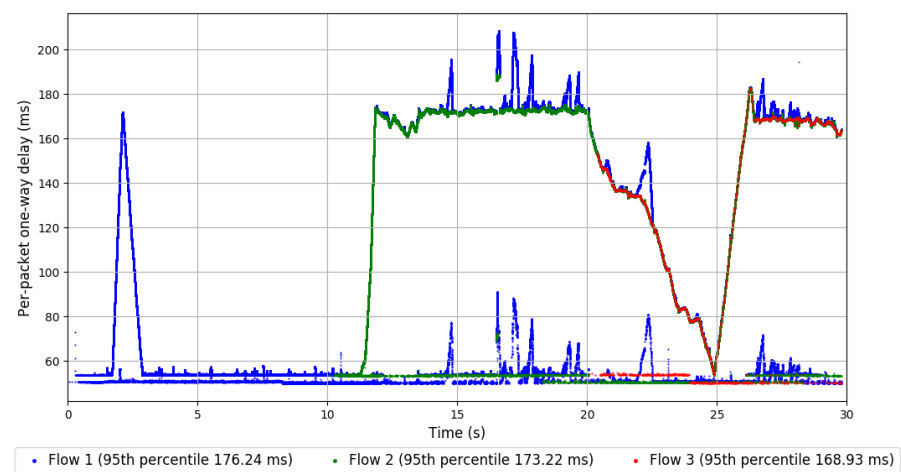
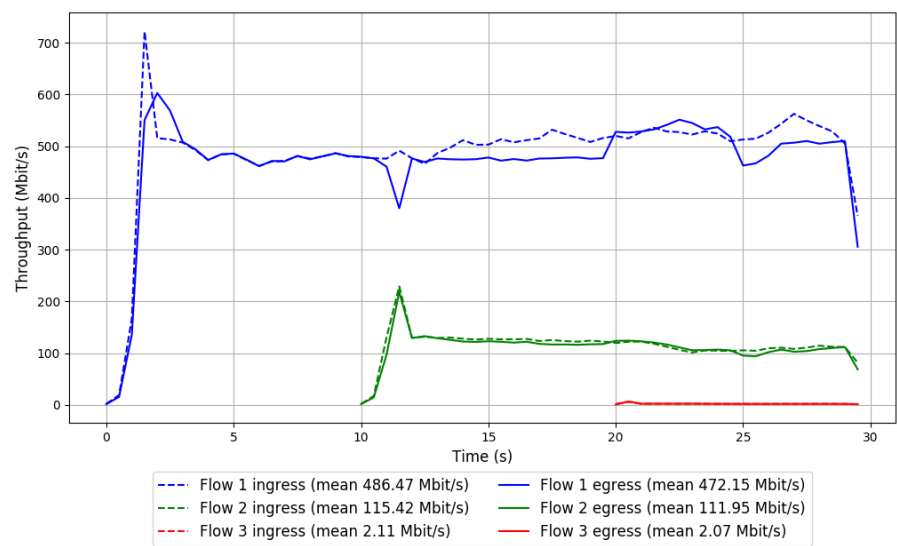
-- Flow 3:

Average throughput: 2.07 Mbit/s

95th percentile per-packet one-way delay: 168.926 ms

Loss rate: 3.06%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-14 09:08:00

End at: 2018-03-14 09:08:31

Below is generated by plot.py at 2018-03-14 13:38:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.98 Mbit/s

95th percentile per-packet one-way delay: 229.178 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 539.80 Mbit/s

95th percentile per-packet one-way delay: 229.929 ms

Loss rate: 2.51%

-- Flow 2:

Average throughput: 4.17 Mbit/s

95th percentile per-packet one-way delay: 174.063 ms

Loss rate: 1.15%

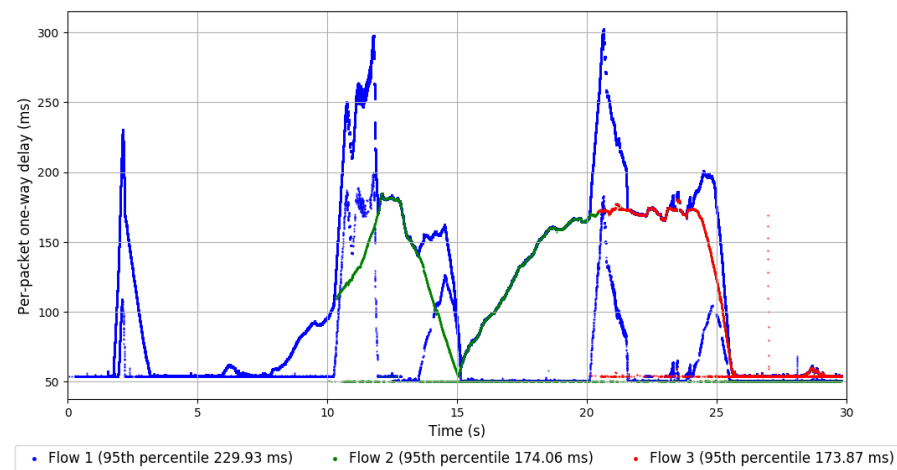
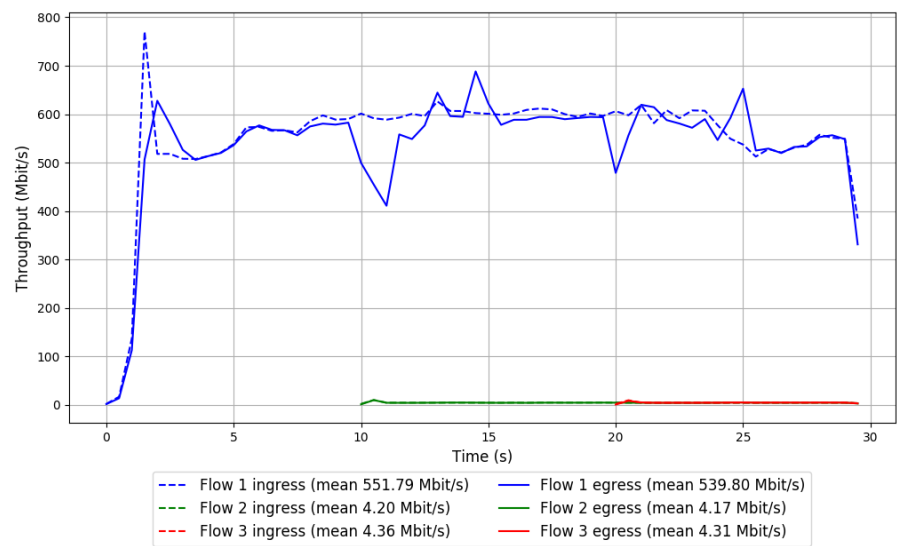
-- Flow 3:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 173.867 ms

Loss rate: 2.01%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-14 09:25:09

End at: 2018-03-14 09:25:39

Below is generated by plot.py at 2018-03-14 13:48:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 527.03 Mbit/s

95th percentile per-packet one-way delay: 180.364 ms

Loss rate: 1.56%

-- Flow 1:

Average throughput: 499.78 Mbit/s

95th percentile per-packet one-way delay: 180.334 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 33.31 Mbit/s

95th percentile per-packet one-way delay: 180.498 ms

Loss rate: 1.42%

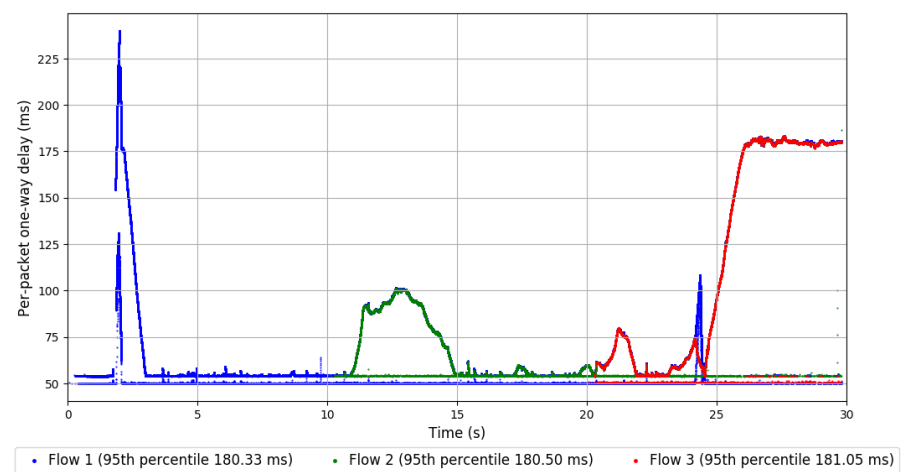
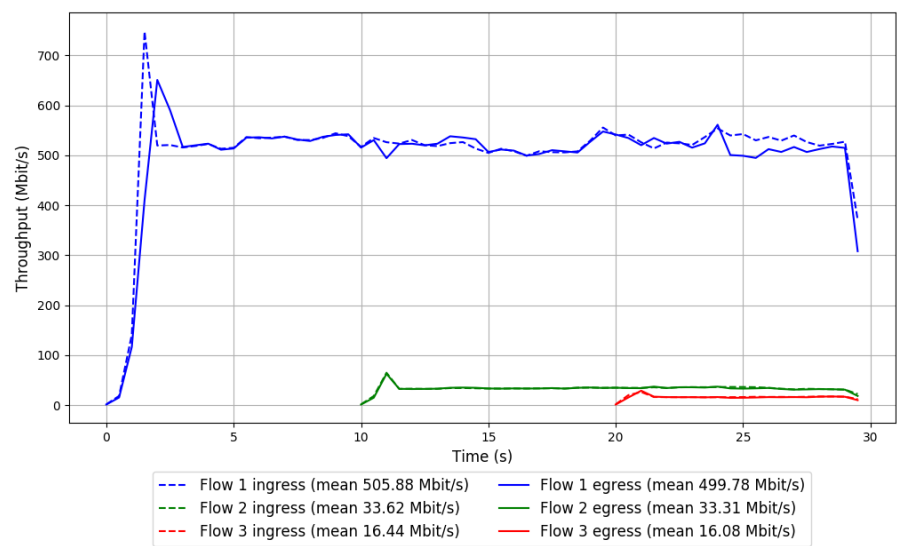
-- Flow 3:

Average throughput: 16.08 Mbit/s

95th percentile per-packet one-way delay: 181.046 ms

Loss rate: 3.25%

Run 9: Report of PCC — Data Link

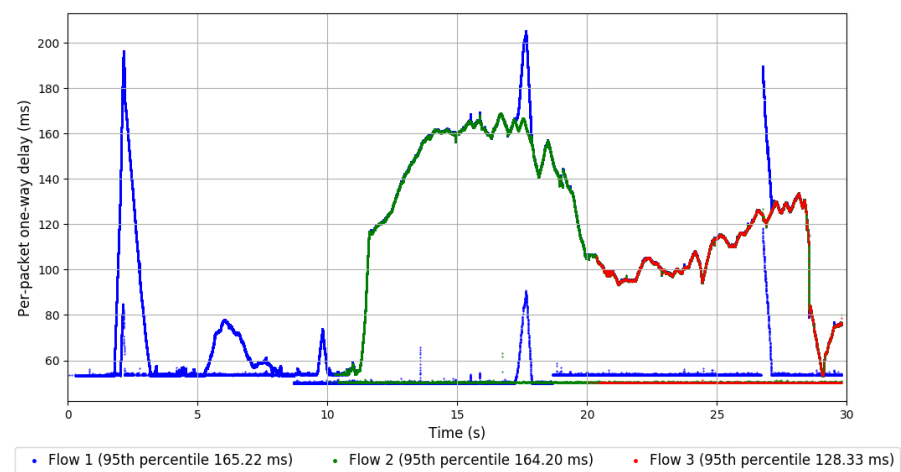
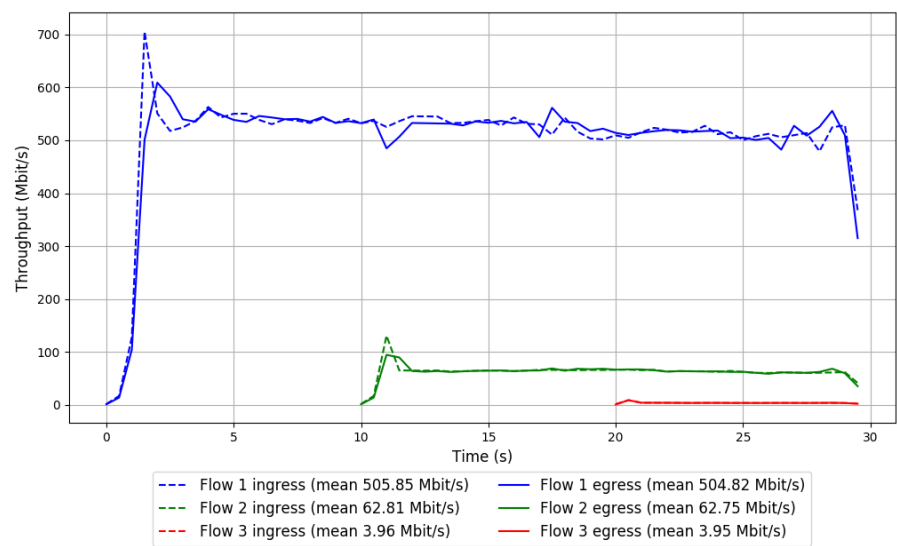


```
Run 10: Statistics of PCC

Start at: 2018-03-14 09:42:04
End at: 2018-03-14 09:42:34

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 547.66 Mbit/s
95th percentile per-packet one-way delay: 165.038 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 504.82 Mbit/s
95th percentile per-packet one-way delay: 165.217 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 62.75 Mbit/s
95th percentile per-packet one-way delay: 164.202 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 128.334 ms
Loss rate: 1.17%
```

Run 10: Report of PCC — Data Link

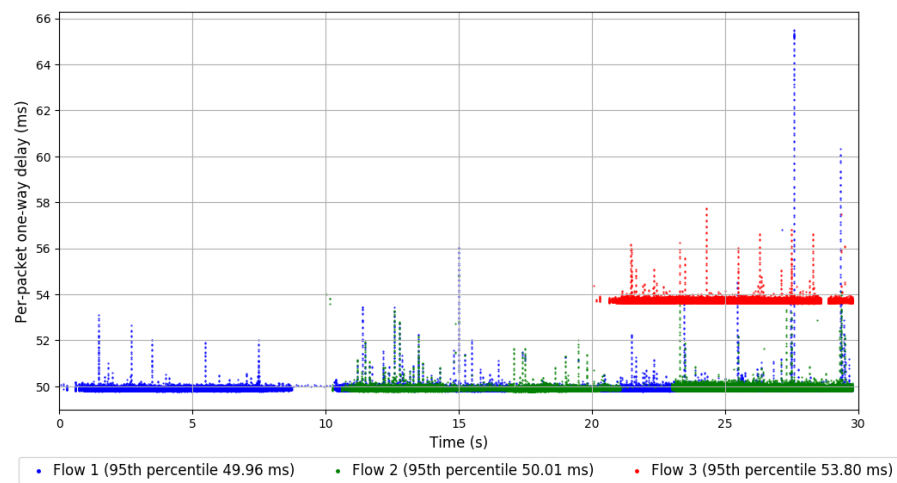
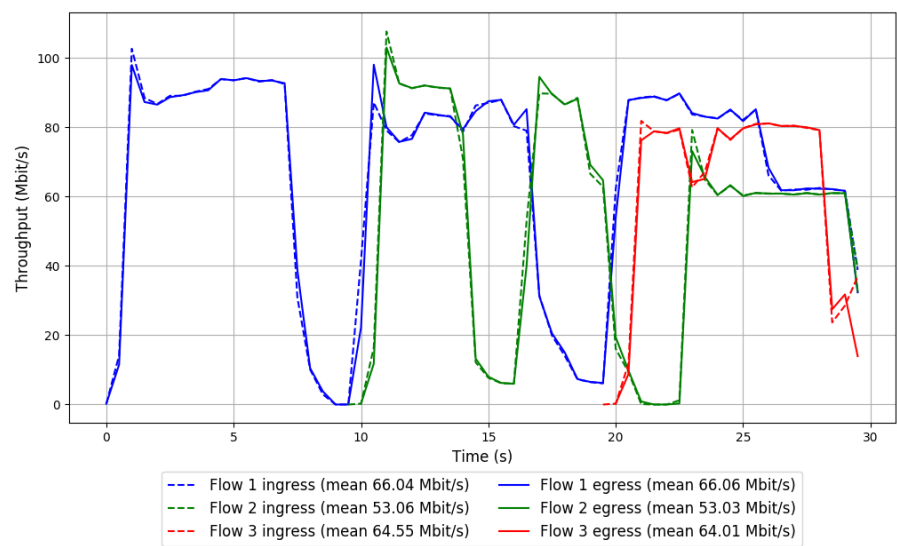


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-14 07:18:43
End at: 2018-03-14 07:19:13

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 122.18 Mbit/s
95th percentile per-packet one-way delay: 53.728 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 66.06 Mbit/s
95th percentile per-packet one-way delay: 49.963 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 53.03 Mbit/s
95th percentile per-packet one-way delay: 50.012 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 64.01 Mbit/s
95th percentile per-packet one-way delay: 53.803 ms
Loss rate: 1.93%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 07:35:44

End at: 2018-03-14 07:36:14

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.00 Mbit/s

95th percentile per-packet one-way delay: 53.619 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 48.72 Mbit/s

95th percentile per-packet one-way delay: 53.542 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 54.53 Mbit/s

95th percentile per-packet one-way delay: 53.634 ms

Loss rate: 0.88%

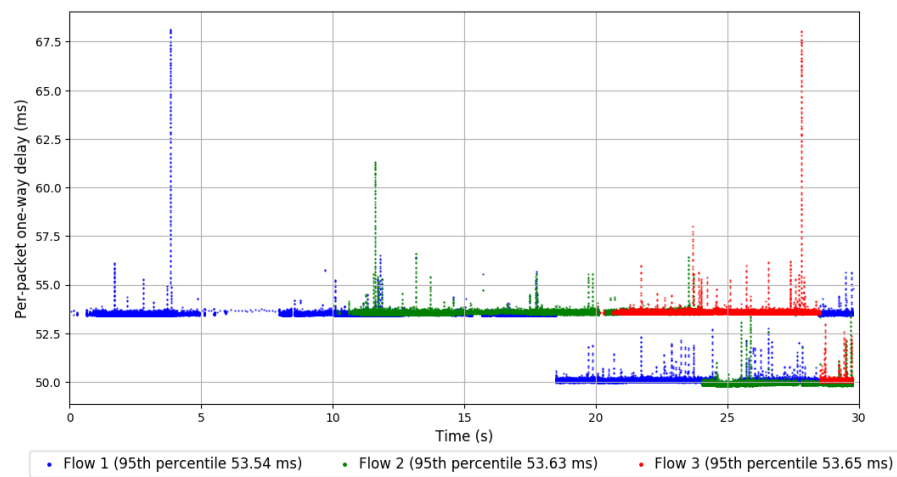
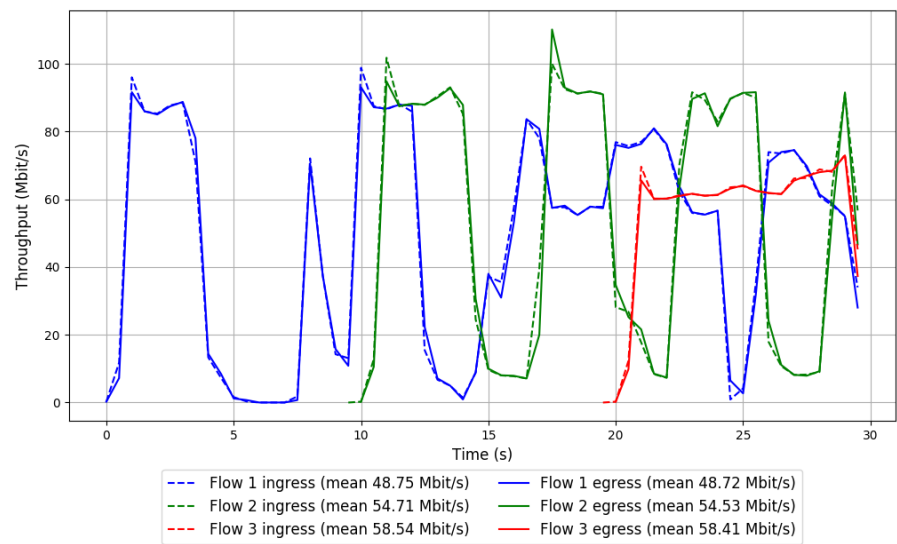
-- Flow 3:

Average throughput: 58.41 Mbit/s

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

Loss rate: 1.33%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 07:52:45

End at: 2018-03-14 07:53:15

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.47 Mbit/s

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

Loss rate: 0.53%

-- Flow 1:

Average throughput: 72.96 Mbit/s

95th percentile per-packet one-way delay: 50.030 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 63.64 Mbit/s

95th percentile per-packet one-way delay: 50.224 ms

Loss rate: 0.53%

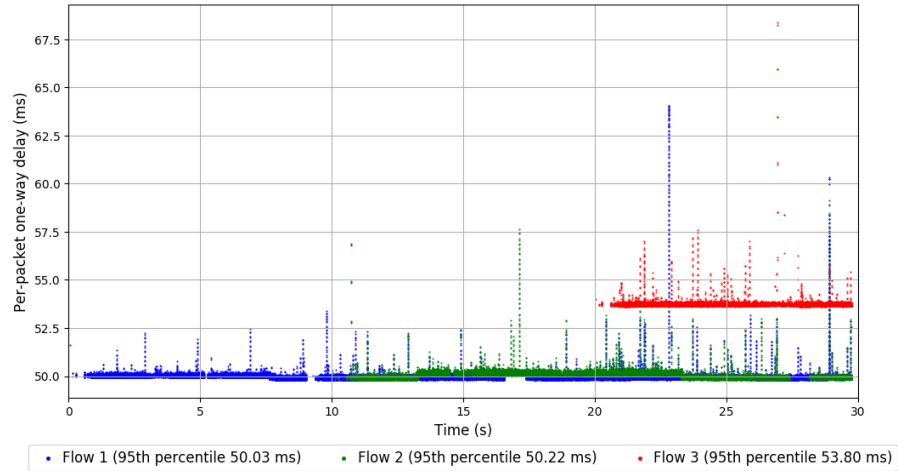
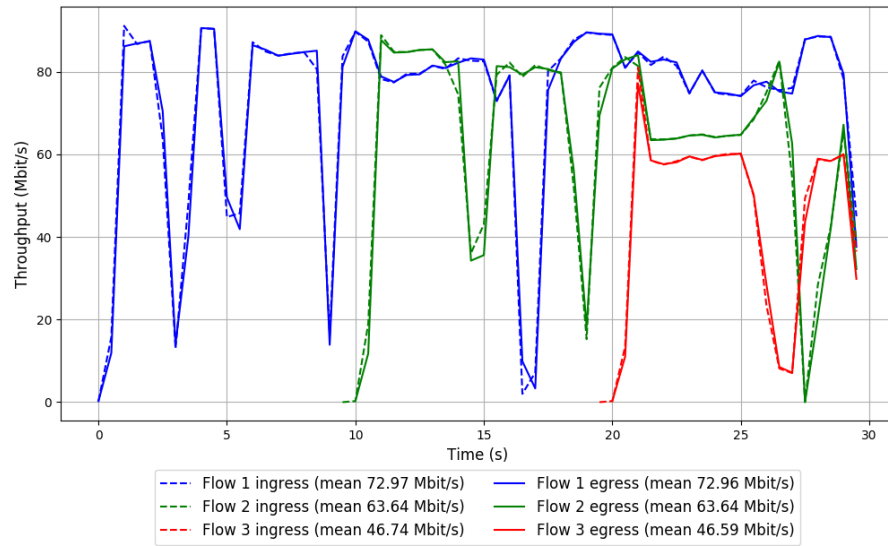
-- Flow 3:

Average throughput: 46.59 Mbit/s

95th percentile per-packet one-way delay: 53.795 ms

Loss rate: 1.41%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 08:09:46

End at: 2018-03-14 08:10:16

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.25 Mbit/s

95th percentile per-packet one-way delay: 53.559 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 64.19 Mbit/s

95th percentile per-packet one-way delay: 53.580 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 71.84 Mbit/s

95th percentile per-packet one-way delay: 53.478 ms

Loss rate: 0.64%

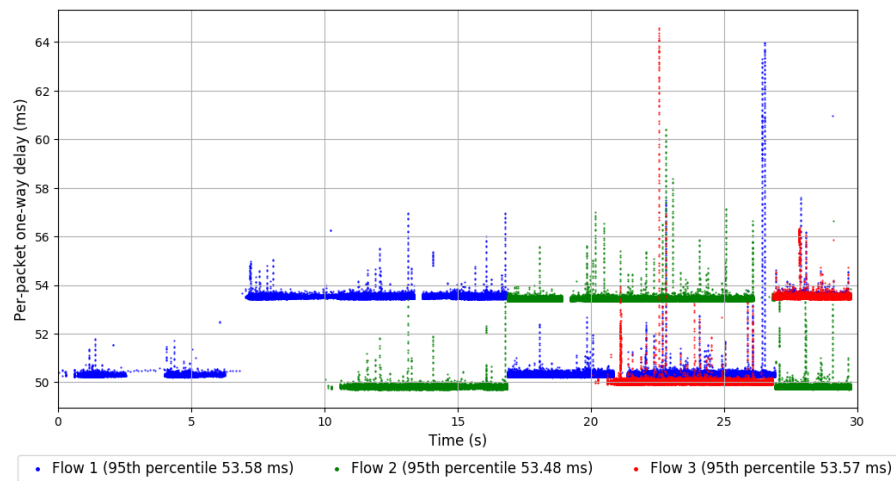
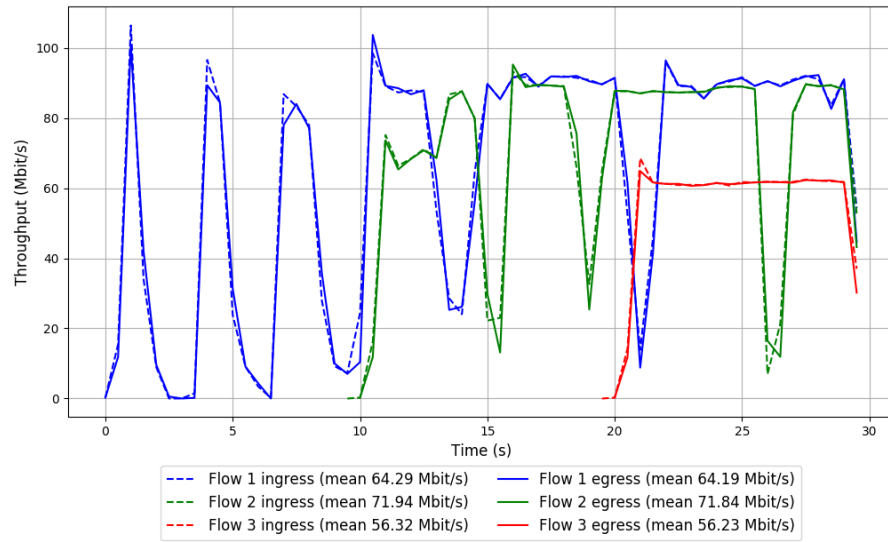
-- Flow 3:

Average throughput: 56.23 Mbit/s

95th percentile per-packet one-way delay: 53.570 ms

Loss rate: 1.21%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 08:26:43

End at: 2018-03-14 08:27:13

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.98 Mbit/s

95th percentile per-packet one-way delay: 53.728 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 53.660 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 47.82 Mbit/s

95th percentile per-packet one-way delay: 53.777 ms

Loss rate: 0.92%

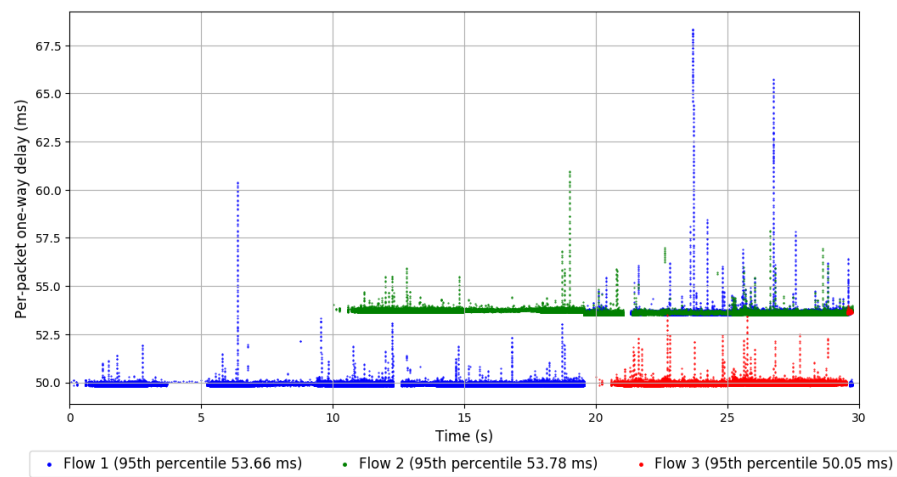
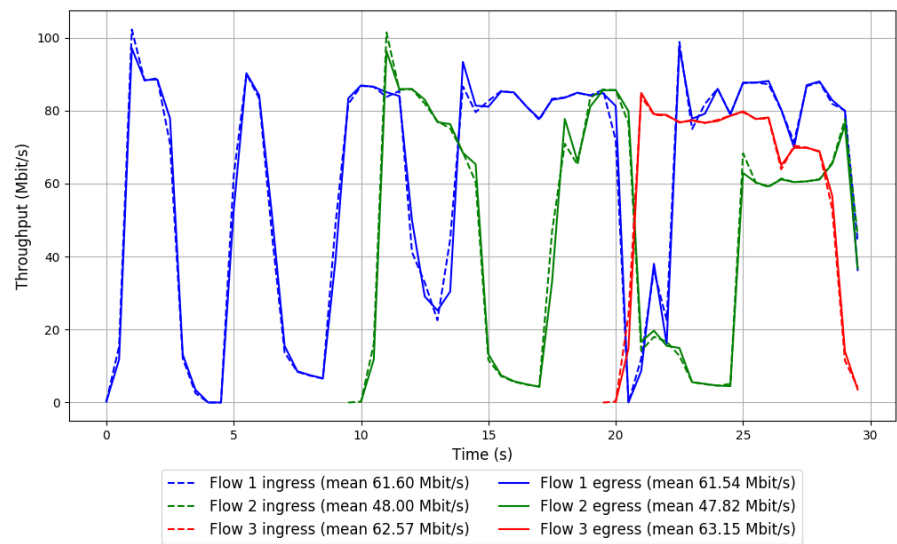
-- Flow 3:

Average throughput: 63.15 Mbit/s

95th percentile per-packet one-way delay: 50.053 ms

Loss rate: 0.12%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 08:43:37

End at: 2018-03-14 08:44:07

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.32 Mbit/s

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

Loss rate: 0.92%

-- Flow 1:

Average throughput: 60.76 Mbit/s

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

Loss rate: 0.50%

-- Flow 2:

Average throughput: 47.08 Mbit/s

95th percentile per-packet one-way delay: 53.761 ms

Loss rate: 1.28%

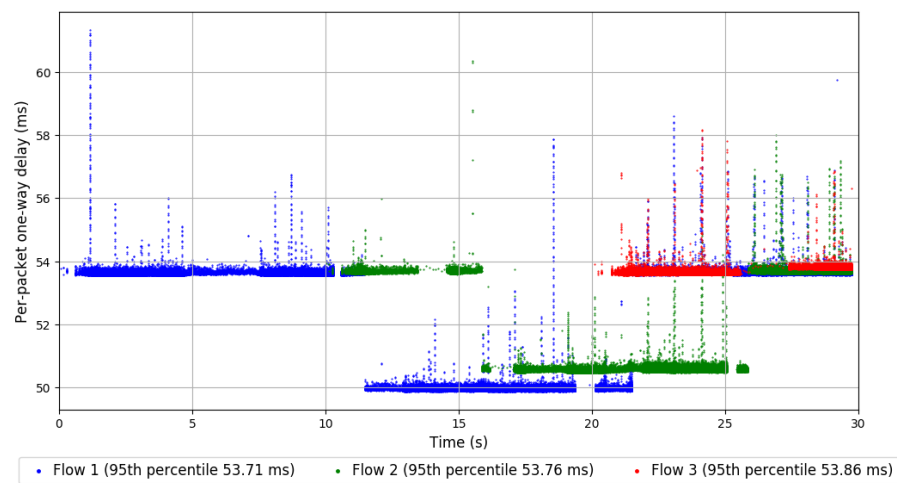
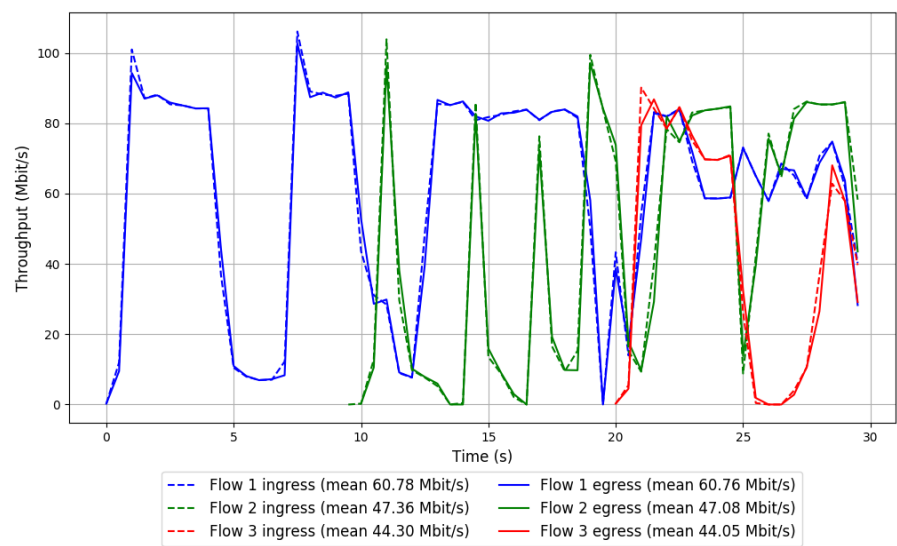
-- Flow 3:

Average throughput: 44.05 Mbit/s

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

Loss rate: 1.94%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-14 09:00:48

End at: 2018-03-14 09:01:18

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.08 Mbit/s

95th percentile per-packet one-way delay: 53.607 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 62.64 Mbit/s

95th percentile per-packet one-way delay: 53.637 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 68.94 Mbit/s

95th percentile per-packet one-way delay: 53.184 ms

Loss rate: 0.53%

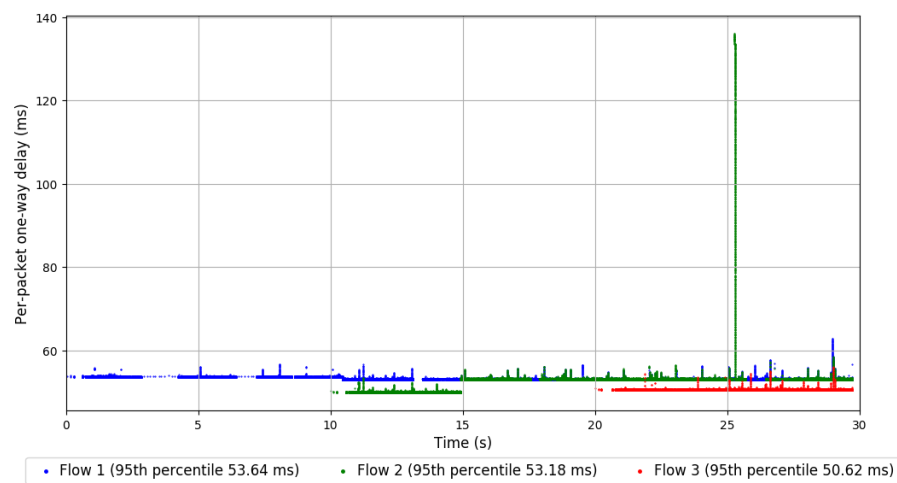
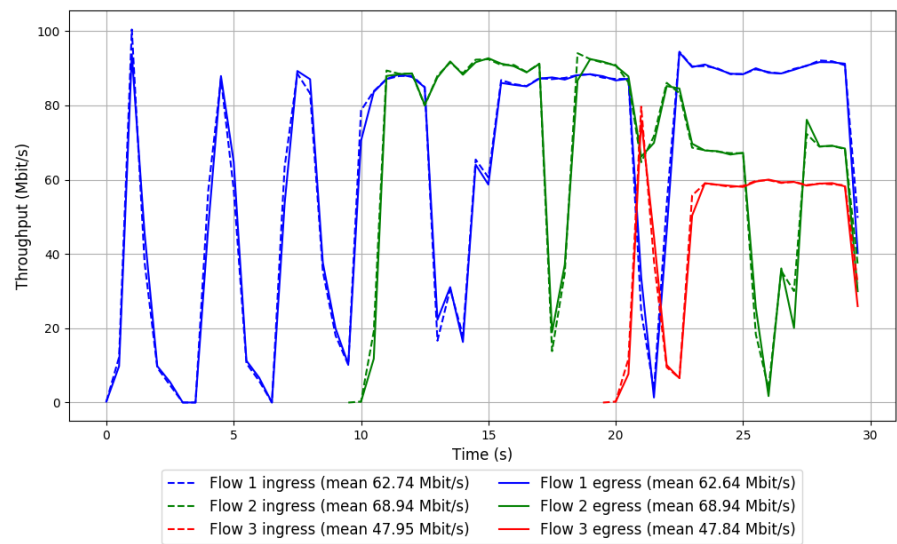
-- Flow 3:

Average throughput: 47.84 Mbit/s

95th percentile per-packet one-way delay: 50.625 ms

Loss rate: 1.29%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-14 09:18:17

End at: 2018-03-14 09:18:47

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.69 Mbit/s

95th percentile per-packet one-way delay: 53.575 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 62.63 Mbit/s

95th percentile per-packet one-way delay: 50.017 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 57.72 Mbit/s

95th percentile per-packet one-way delay: 53.618 ms

Loss rate: 0.58%

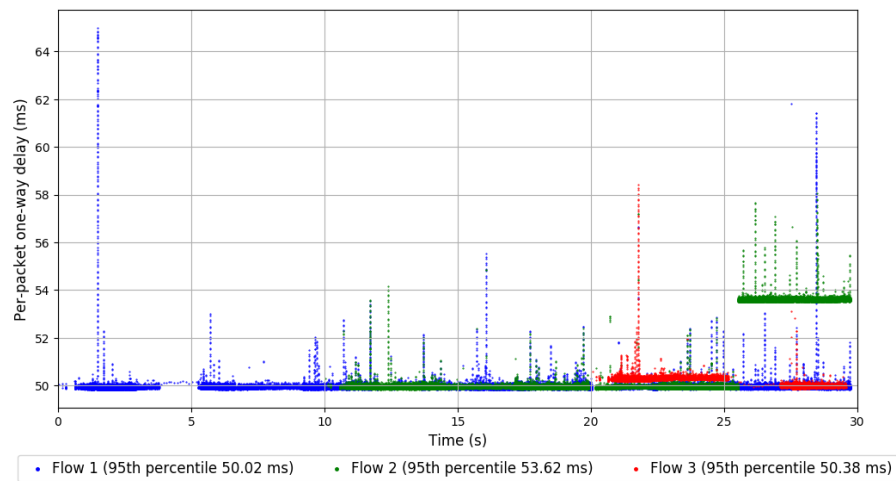
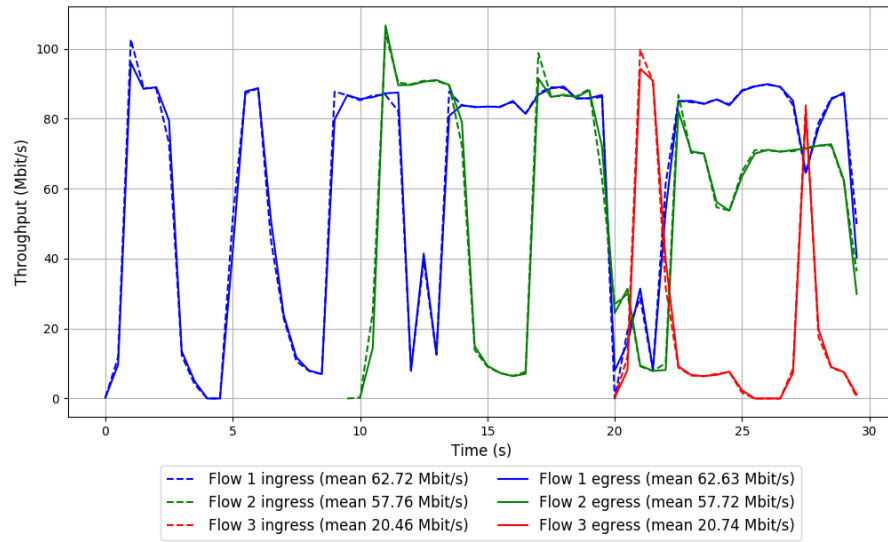
-- Flow 3:

Average throughput: 20.74 Mbit/s

95th percentile per-packet one-way delay: 50.377 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-14 09:35:19

End at: 2018-03-14 09:35:49

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.41 Mbit/s

95th percentile per-packet one-way delay: 53.635 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 64.64 Mbit/s

95th percentile per-packet one-way delay: 50.016 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 64.03 Mbit/s

95th percentile per-packet one-way delay: 53.647 ms

Loss rate: 0.71%

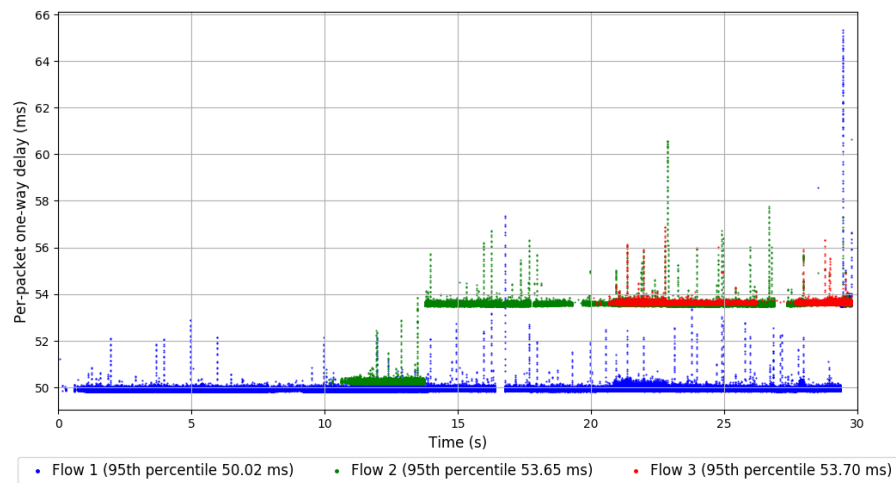
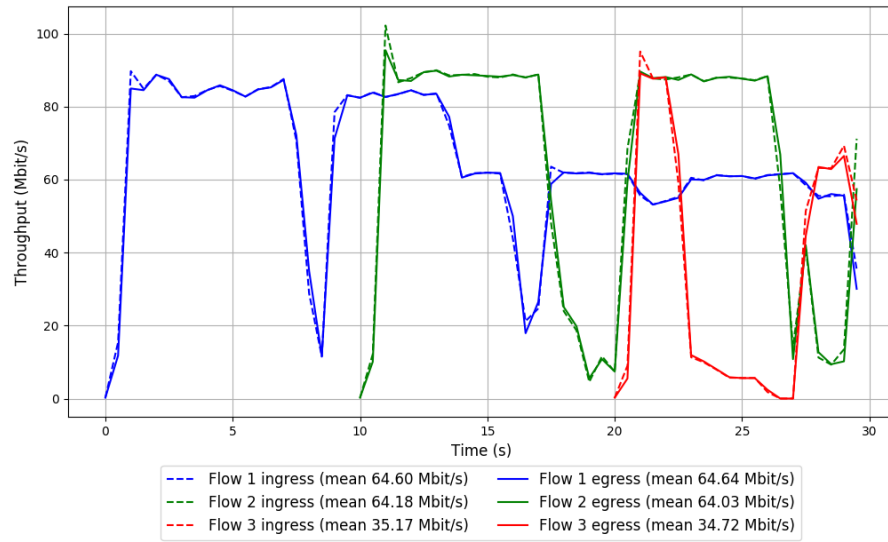
-- Flow 3:

Average throughput: 34.72 Mbit/s

95th percentile per-packet one-way delay: 53.700 ms

Loss rate: 2.33%

Run 9: Report of QUIC Cubic — Data Link

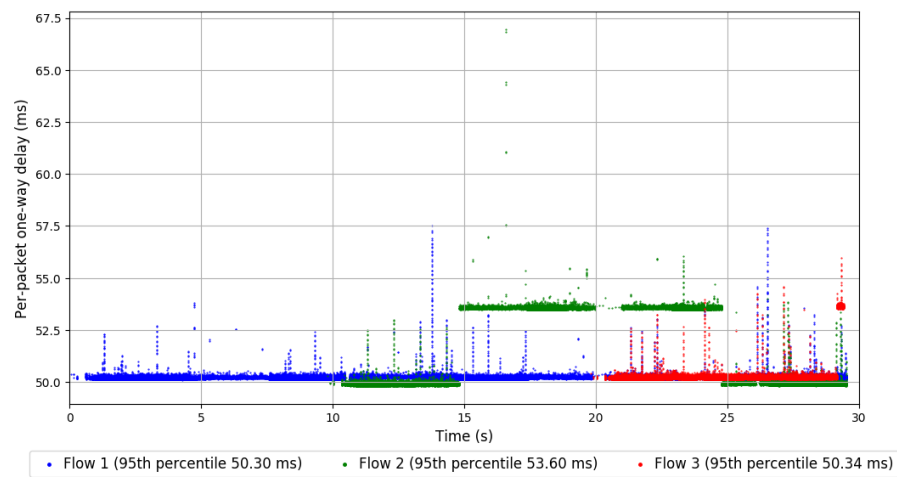
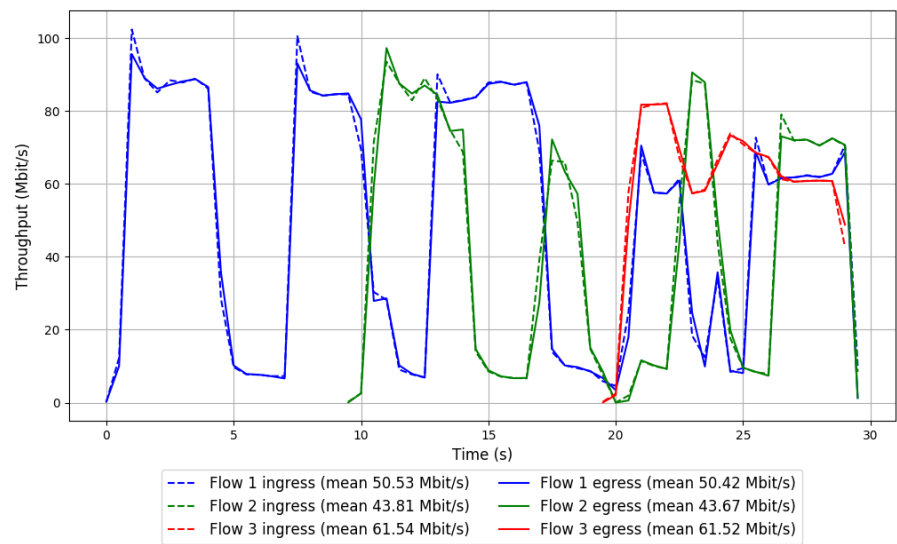


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-14 09:52:04
End at: 2018-03-14 09:52:34

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 99.72 Mbit/s
95th percentile per-packet one-way delay: 53.550 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 50.42 Mbit/s
95th percentile per-packet one-way delay: 50.300 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 43.67 Mbit/s
95th percentile per-packet one-way delay: 53.600 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 61.52 Mbit/s
95th percentile per-packet one-way delay: 50.343 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

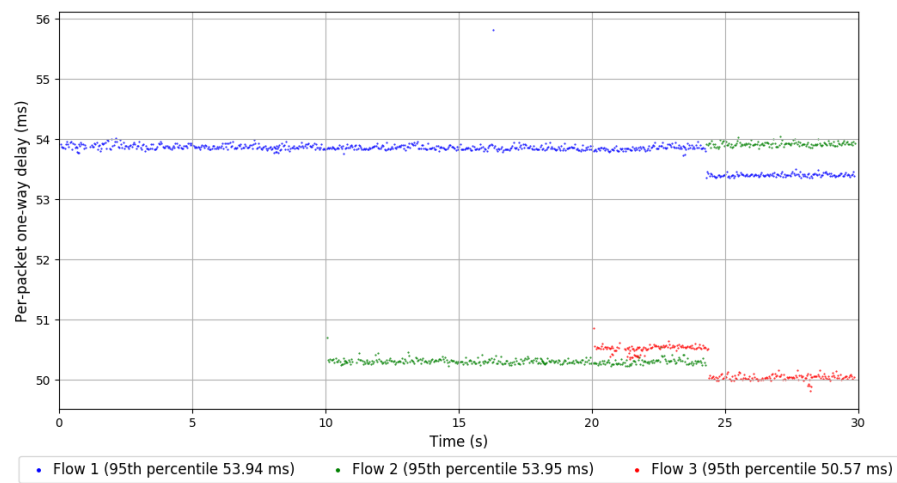
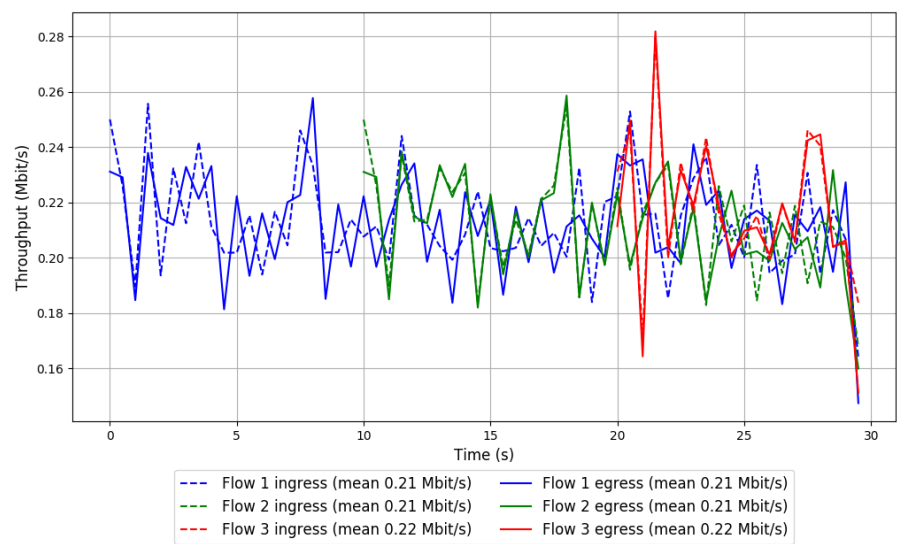


```
Run 1: Statistics of SCReAM

Start at: 2018-03-14 07:09:39
End at: 2018-03-14 07:10:09

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.936 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.935 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.948 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.570 ms
Loss rate: 1.11%
```

Run 1: Report of SReAM — Data Link

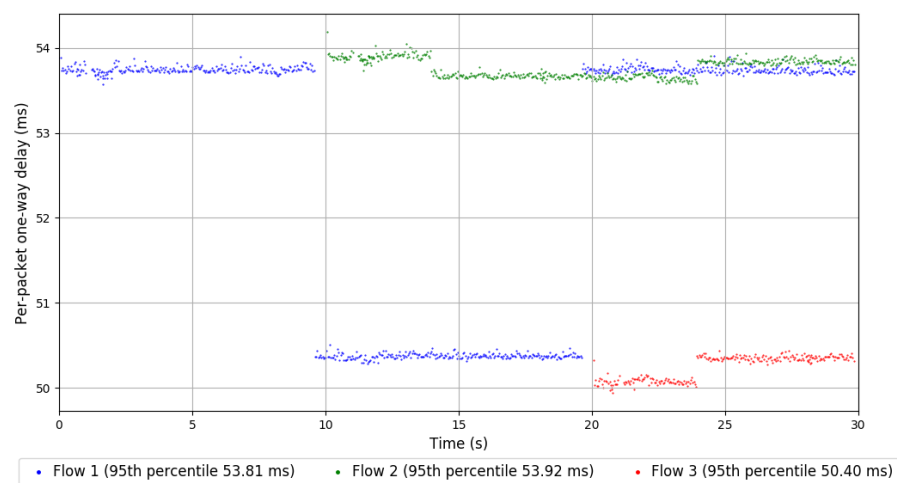
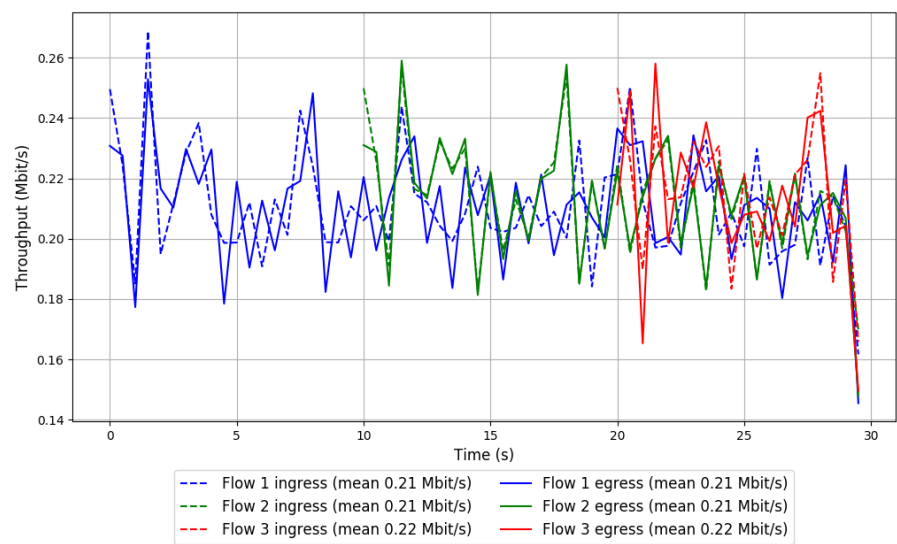


```
Run 2: Statistics of SCReAM

Start at: 2018-03-14 07:26:39
End at: 2018-03-14 07:27:09

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.890 ms
Loss rate: 0.46%
-- 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: 53.923 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.396 ms
Loss rate: 1.11%
```

Run 2: Report of SReAM — Data Link

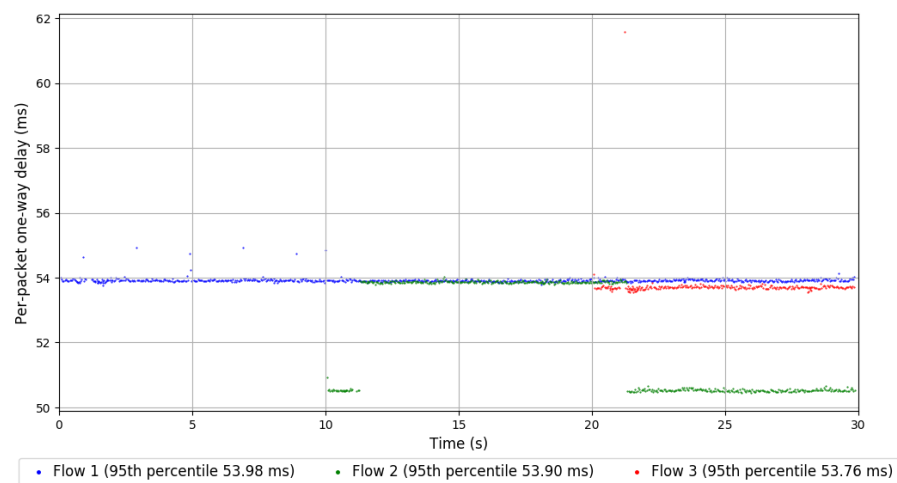
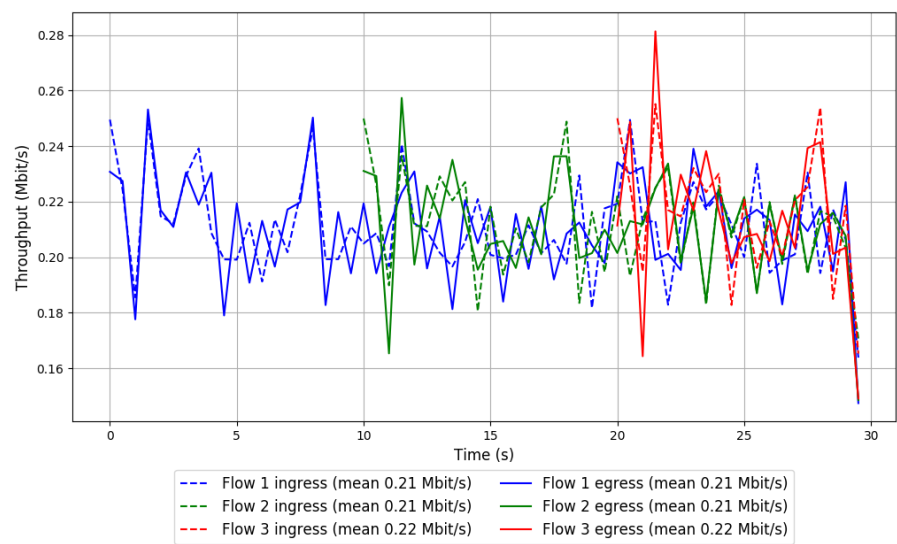


```
Run 3: Statistics of SCReAM

Start at: 2018-03-14 07:43:37
End at: 2018-03-14 07:44:07

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 53.957 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.975 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.903 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.764 ms
Loss rate: 1.10%
```


Run 3: Report of SReAM — Data Link



Run 4: Statistics of SCReAM

Start at: 2018-03-14 08:00:39

End at: 2018-03-14 08:01:09

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.719 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.42%

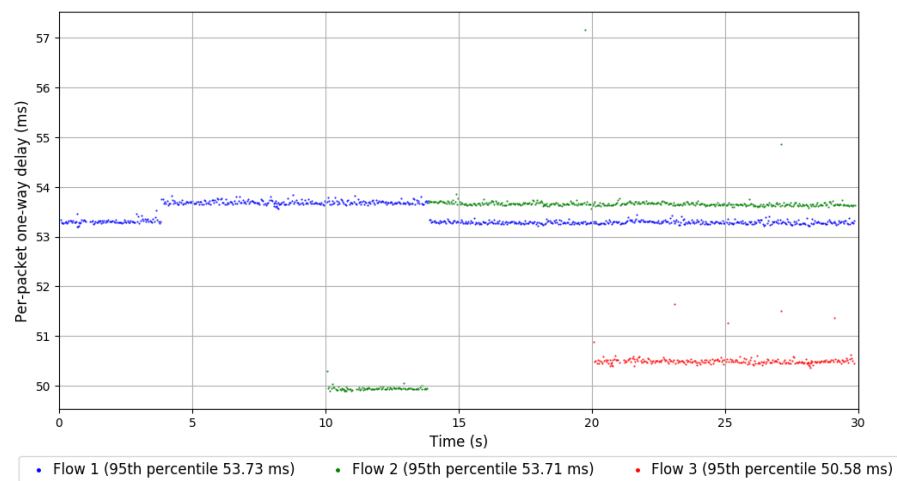
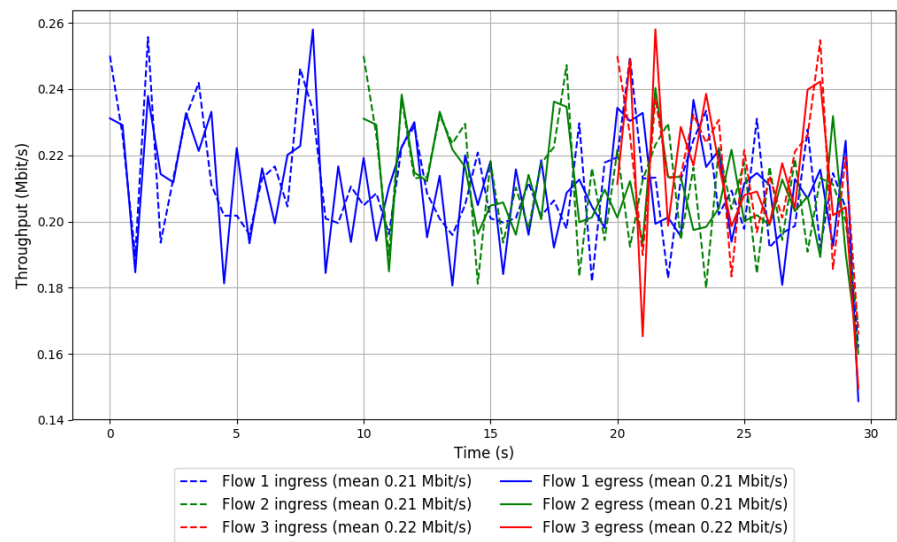
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.580 ms

Loss rate: 1.11%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-03-14 08:17:37

End at: 2018-03-14 08:18:07

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.872 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.893 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.708 ms

Loss rate: 0.63%

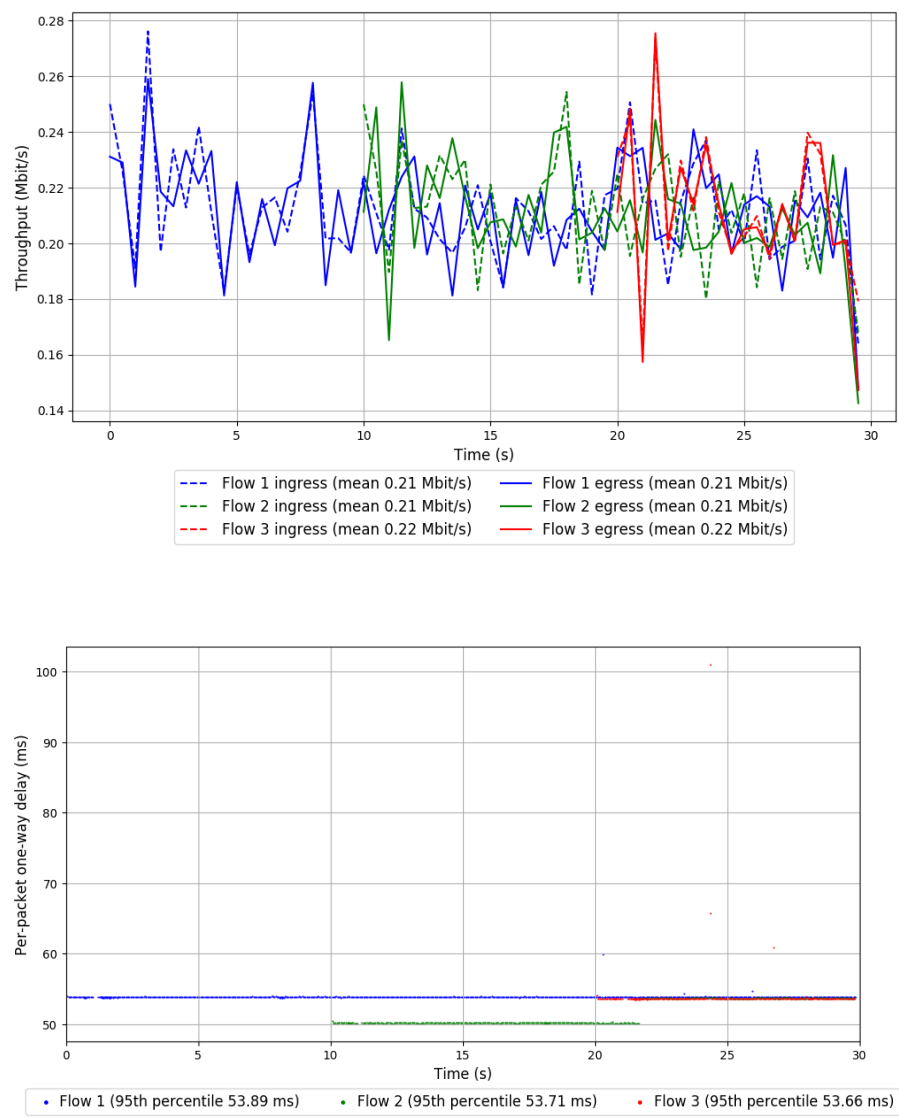
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.656 ms

Loss rate: 1.11%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-14 08:34:25

End at: 2018-03-14 08:34:55

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.472 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.182 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.507 ms

Loss rate: 0.43%

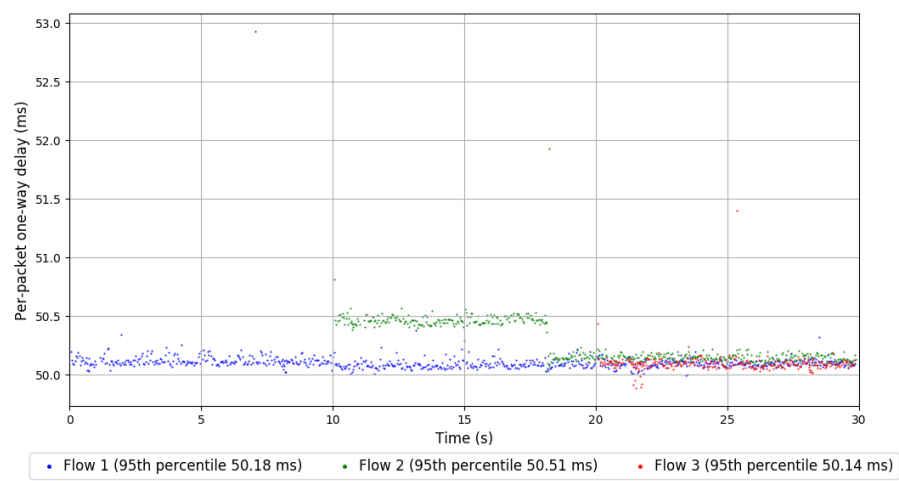
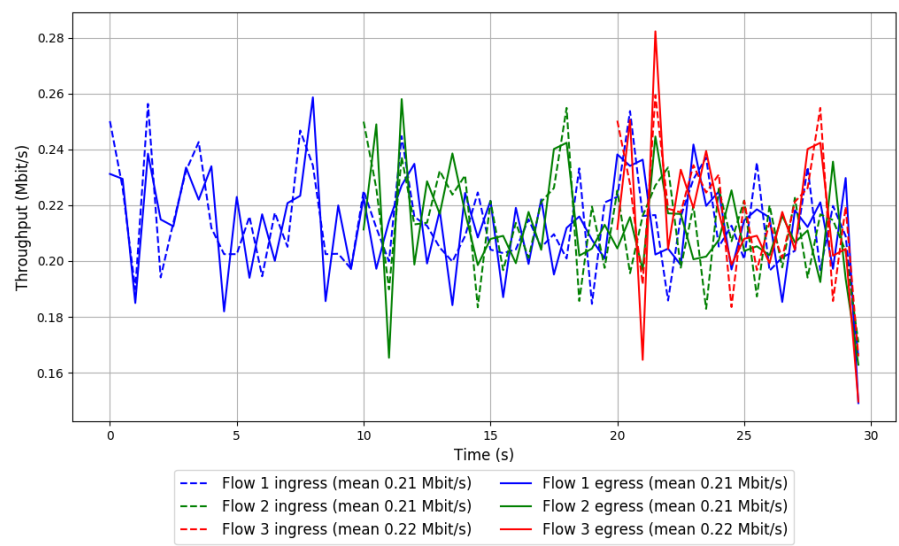
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.143 ms

Loss rate: 1.10%

Run 6: Report of SReAM — Data Link

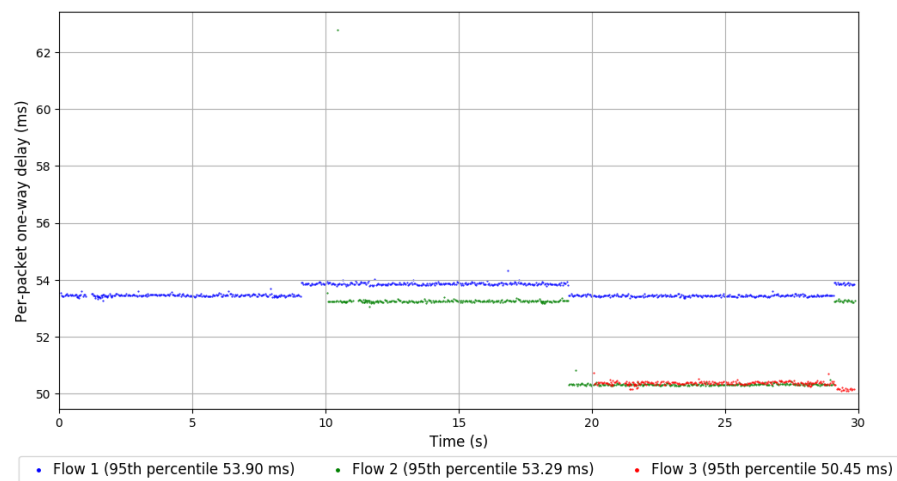
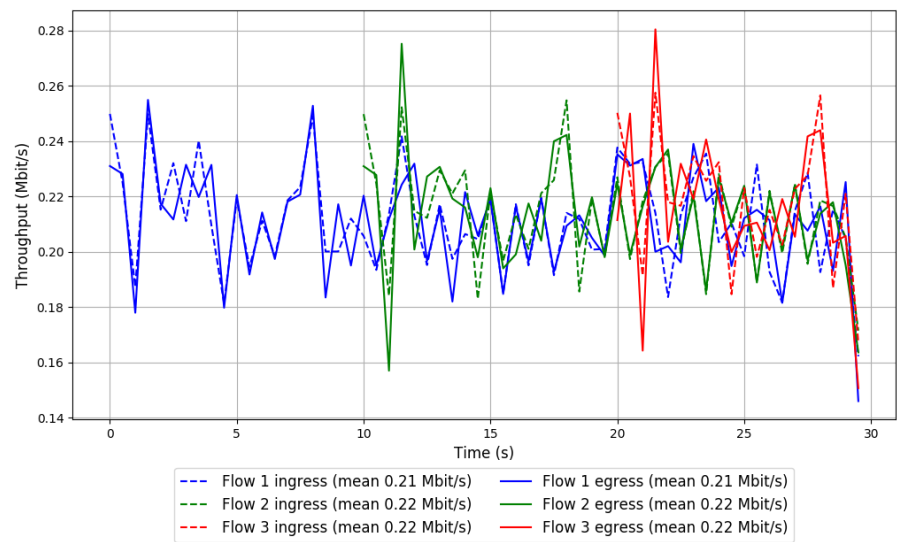


```
Run 7: Statistics of SReAM

Start at: 2018-03-14 08:51:34
End at: 2018-03-14 08:52:04

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.879 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.900 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.288 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.448 ms
Loss rate: 1.11%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SReAM

Start at: 2018-03-14 09:08:59

End at: 2018-03-14 09:09:29

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.762 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.390 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.782 ms

Loss rate: 0.43%

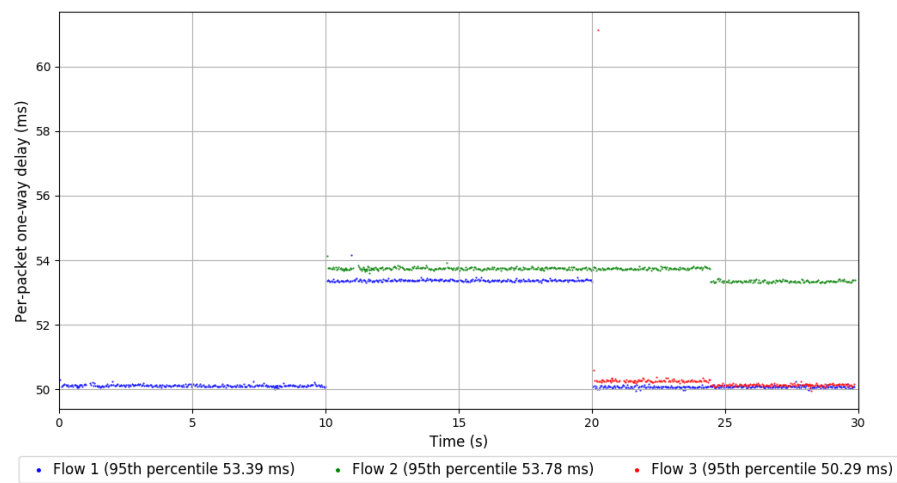
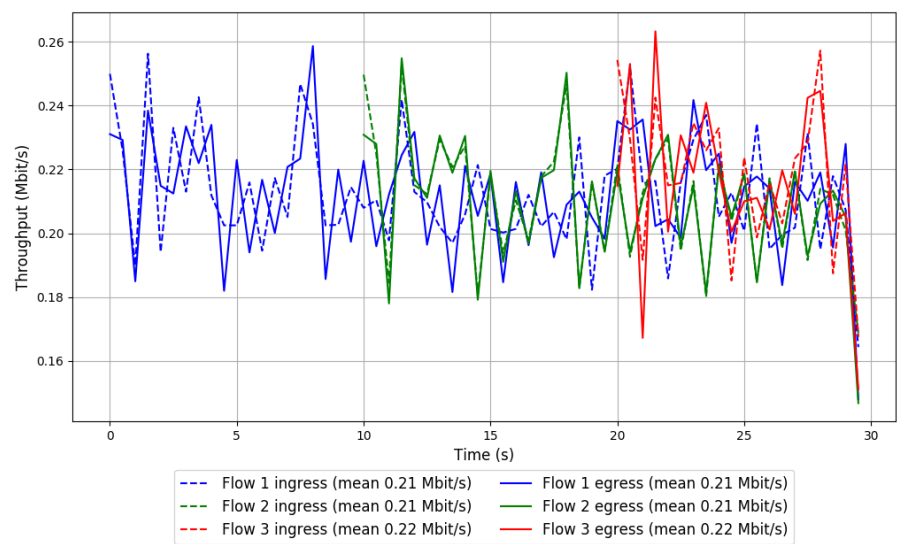
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.294 ms

Loss rate: 1.11%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-03-14 09:26:07

End at: 2018-03-14 09:26:37

Below is generated by plot.py at 2018-03-14 13:48:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.835 ms

Loss rate: 0.42%

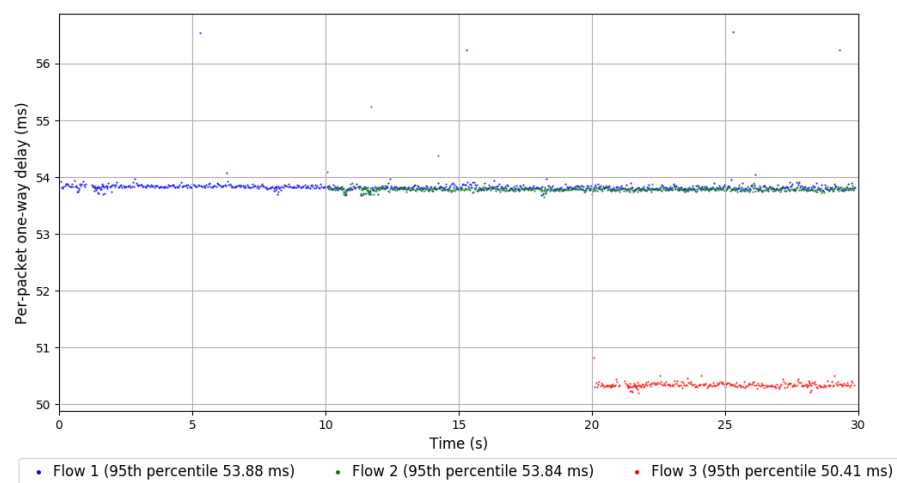
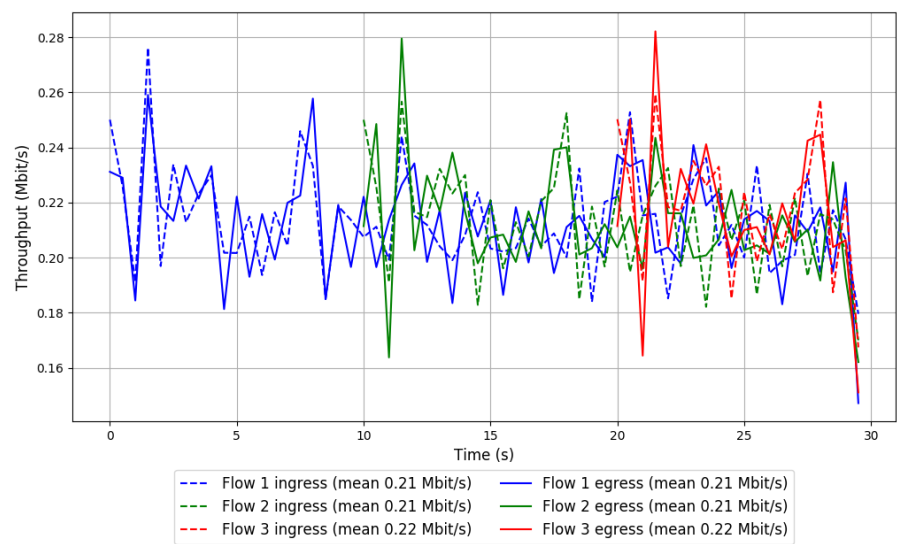
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.410 ms

Loss rate: 1.11%

Run 9: Report of SReAM — Data Link

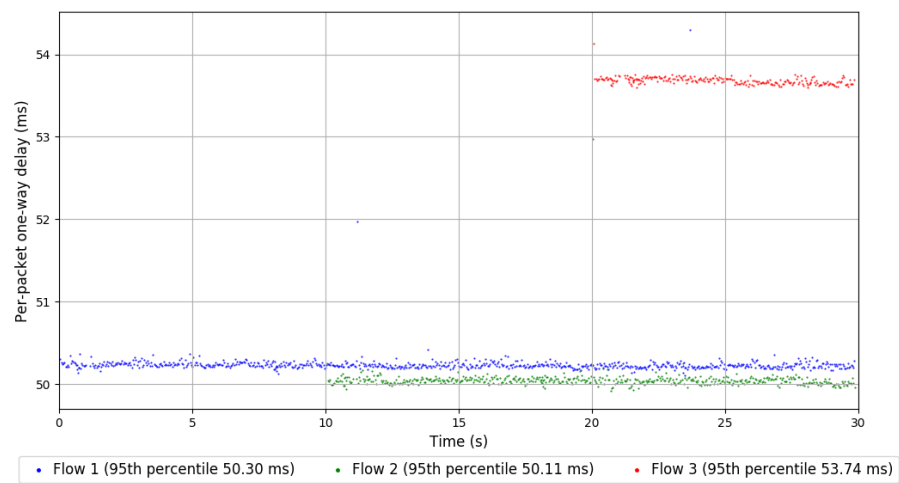
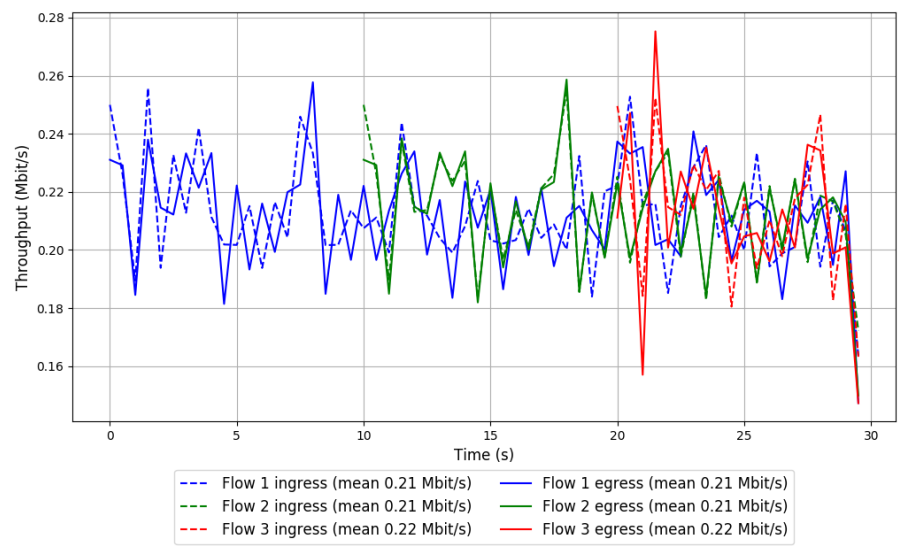


```
Run 10: Statistics of SReAM

Start at: 2018-03-14 09:43:03
End at: 2018-03-14 09:43:33

# Below is generated by plot.py at 2018-03-14 13:48:29
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.703 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.297 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.108 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.741 ms
Loss rate: 1.11%
```

Run 10: Report of SCReAM — Data Link

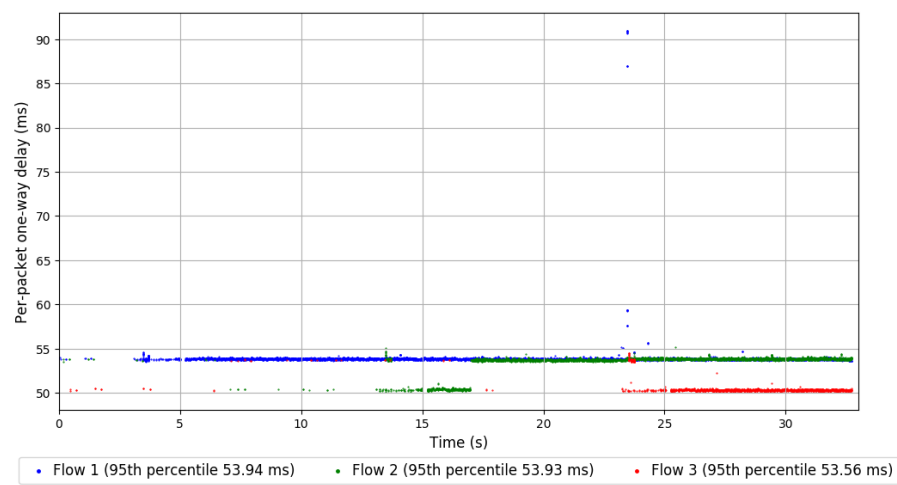
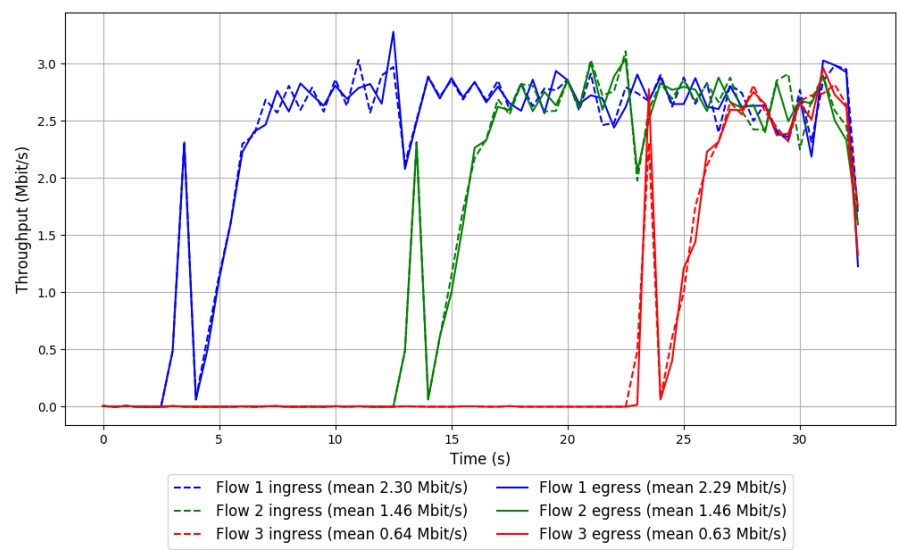


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-14 07:19:29
End at: 2018-03-14 07:19:59

# Below is generated by plot.py at 2018-03-14 13:48:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 53.933 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 53.944 ms
Loss rate: 0.48%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 53.933 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 53.557 ms
Loss rate: 1.81%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-14 07:36:29

End at: 2018-03-14 07:36:59

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

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

Loss rate: 0.50%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 50.192 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 1.46 Mbit/s

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

Loss rate: 0.56%

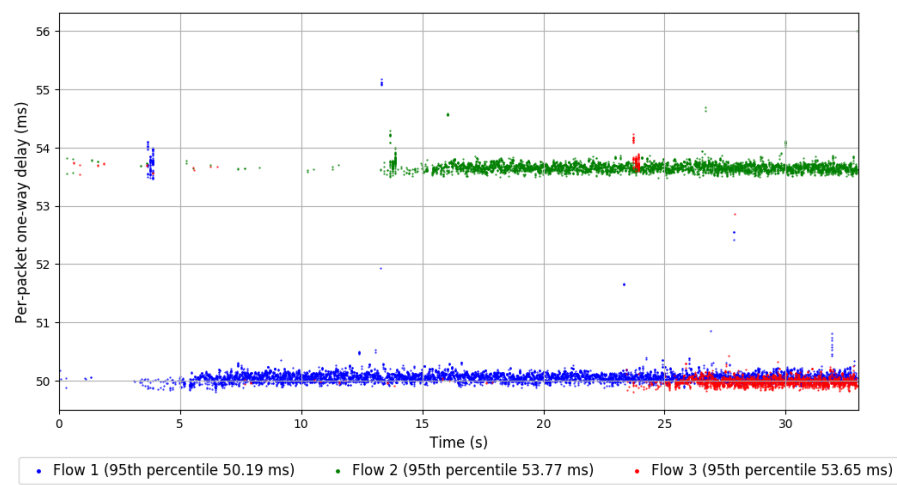
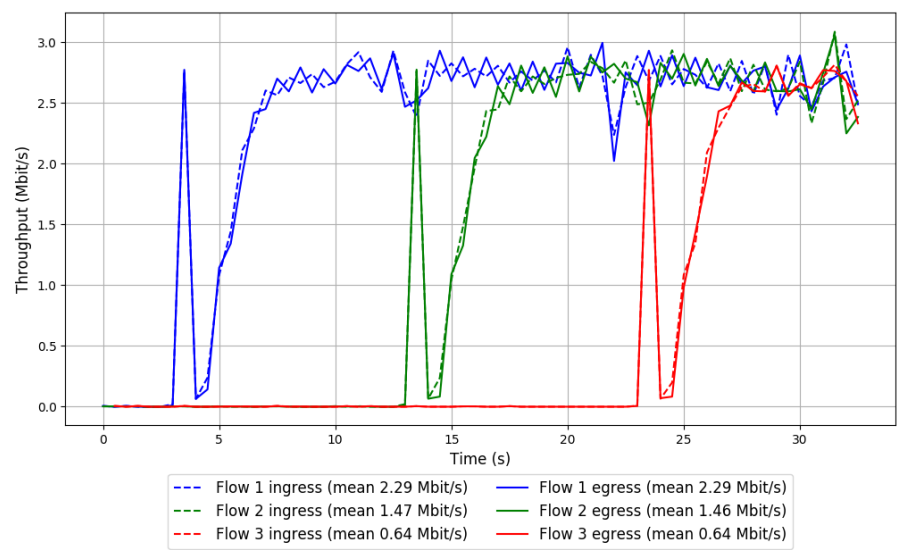
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.651 ms

Loss rate: 1.06%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-14 07:53:32

End at: 2018-03-14 07:54:02

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.221 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.235 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 50.115 ms

Loss rate: 0.71%

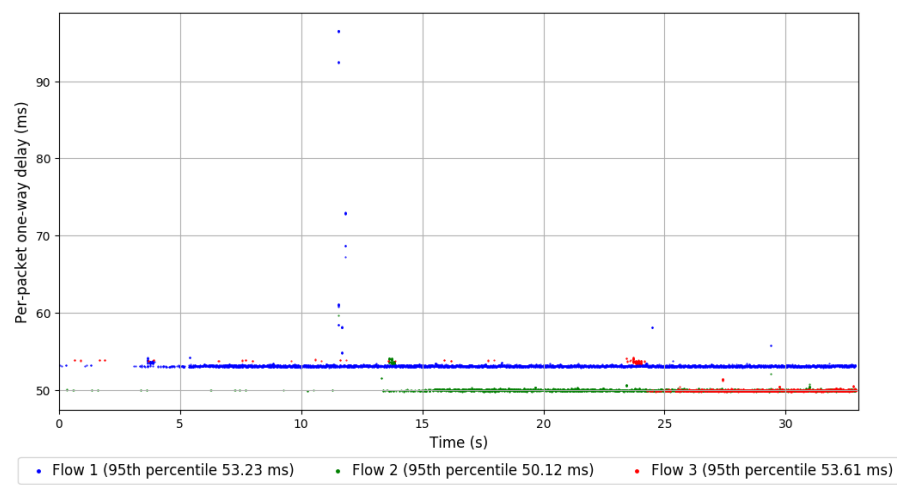
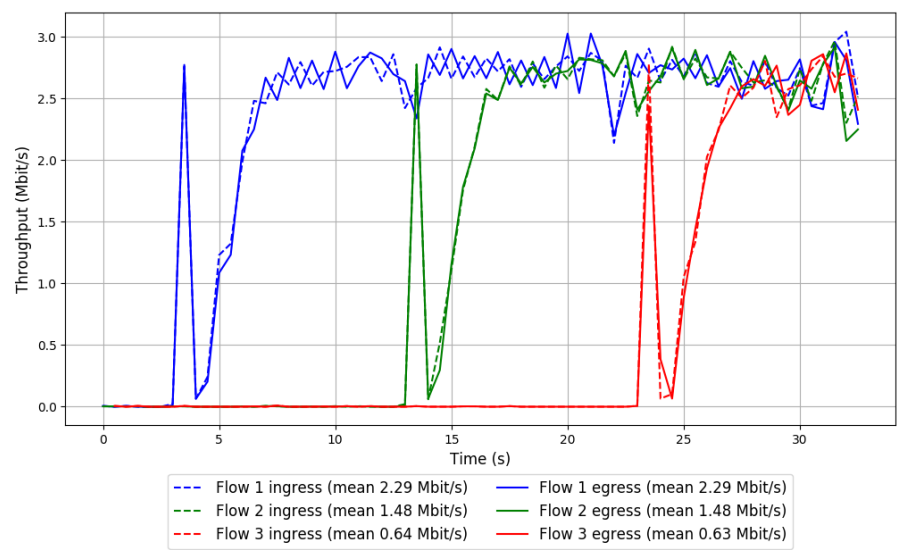
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.608 ms

Loss rate: 1.21%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-14 08:10:32

End at: 2018-03-14 08:11:02

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.19 Mbit/s

95th percentile per-packet one-way delay: 53.693 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 2.08 Mbit/s

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

Loss rate: 0.90%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 50.185 ms

Loss rate: 0.68%

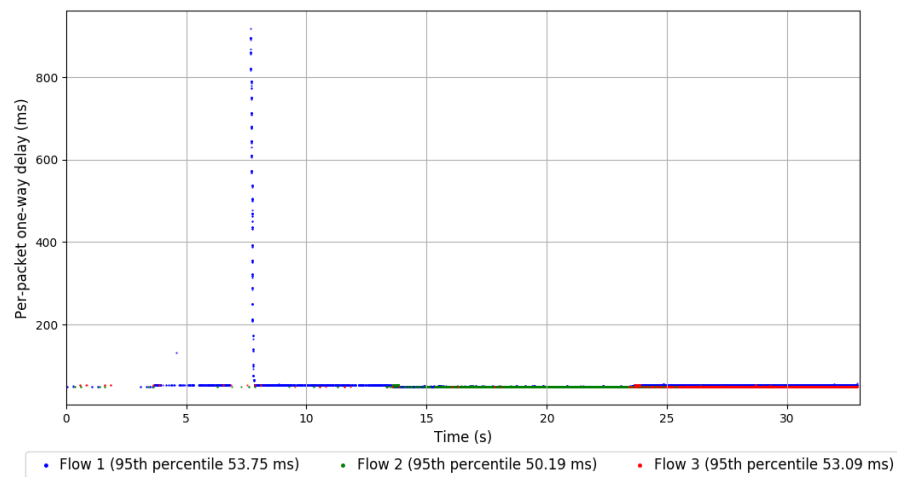
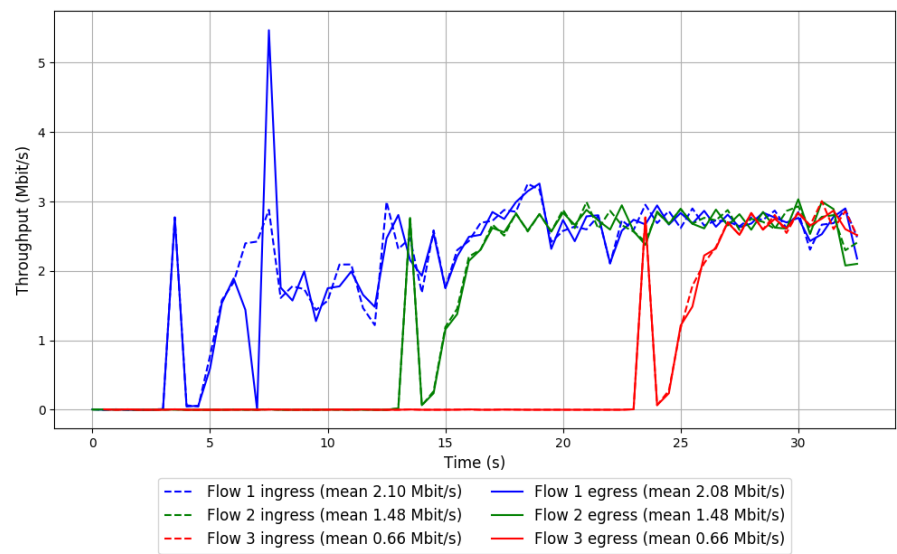
-- Flow 3:

Average throughput: 0.66 Mbit/s

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

Loss rate: 1.08%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-14 08:27:29

End at: 2018-03-14 08:27:59

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.977 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.46 Mbit/s

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

Loss rate: 0.51%

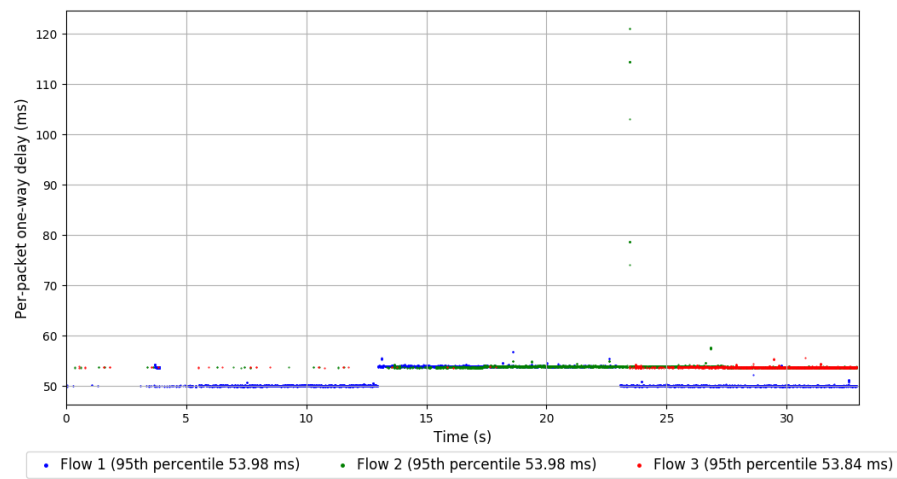
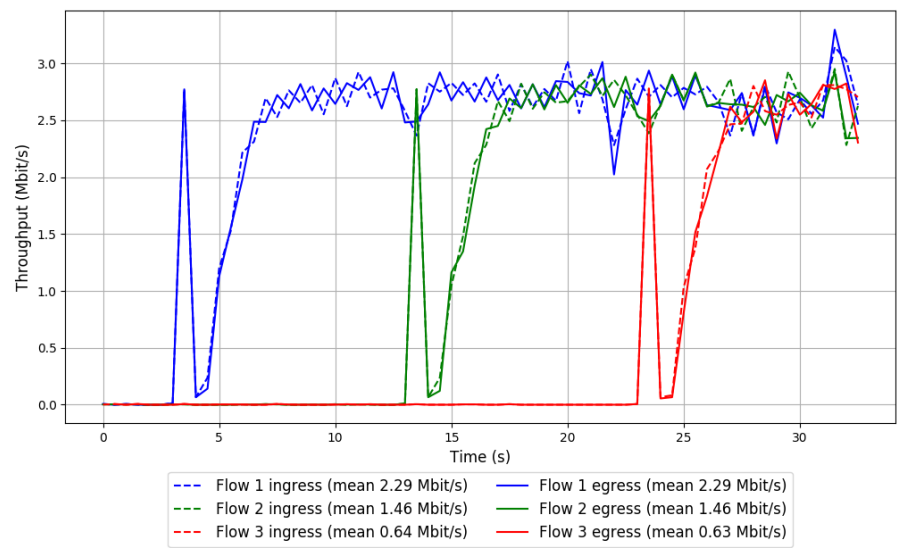
-- Flow 3:

Average throughput: 0.63 Mbit/s

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

Loss rate: 1.58%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-14 08:44:22

End at: 2018-03-14 08:44:52

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 53.879 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 2.28 Mbit/s

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

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.332 ms

Loss rate: 0.73%

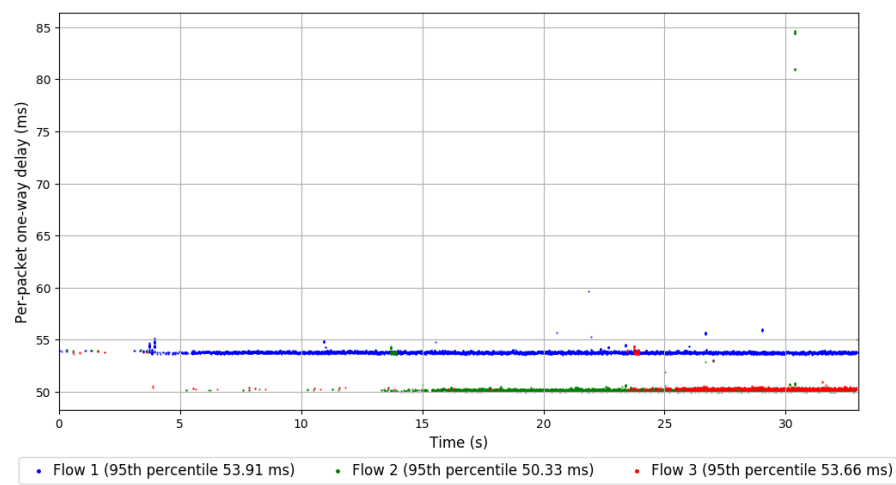
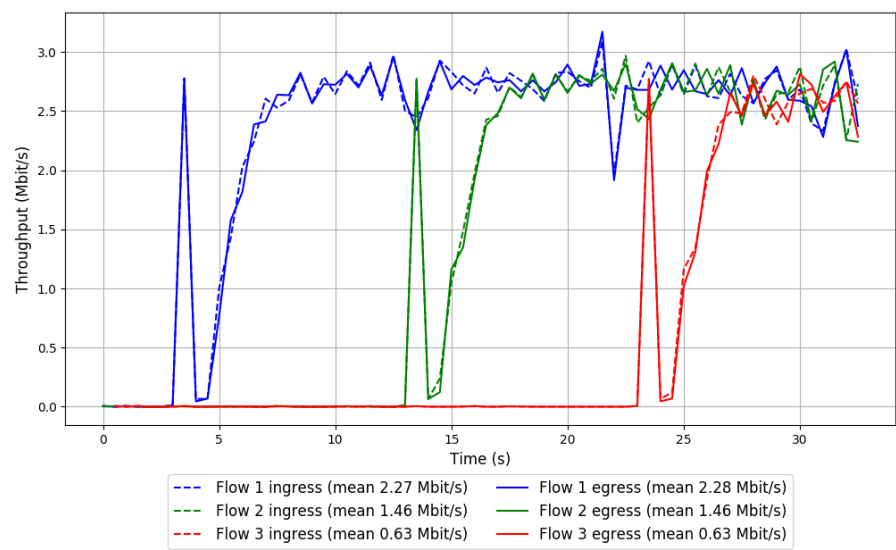
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.661 ms

Loss rate: 1.27%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-14 09:01:34

End at: 2018-03-14 09:02:04

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.820 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 54.001 ms

Loss rate: 0.78%

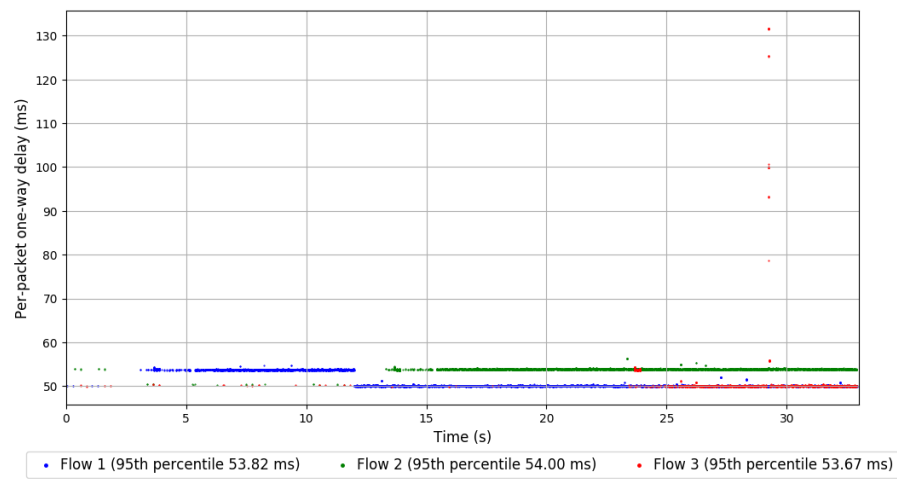
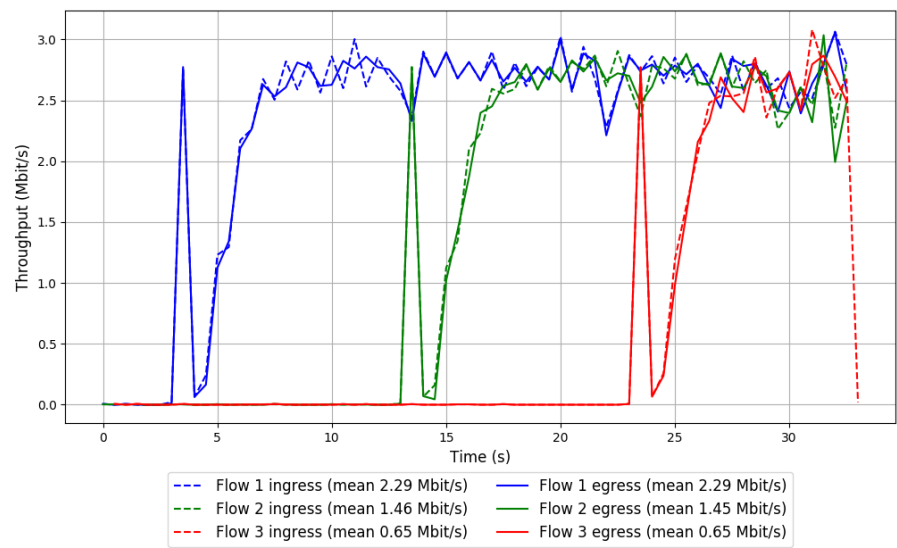
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 53.668 ms

Loss rate: 1.02%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-14 09:19:03

End at: 2018-03-14 09:19:33

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.57 Mbit/s

95th percentile per-packet one-way delay: 53.881 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 53.883 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.895 ms

Loss rate: 0.72%

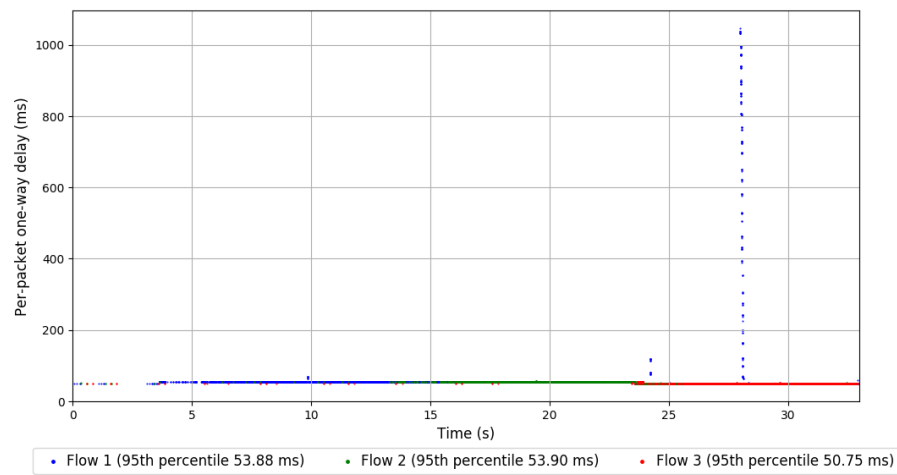
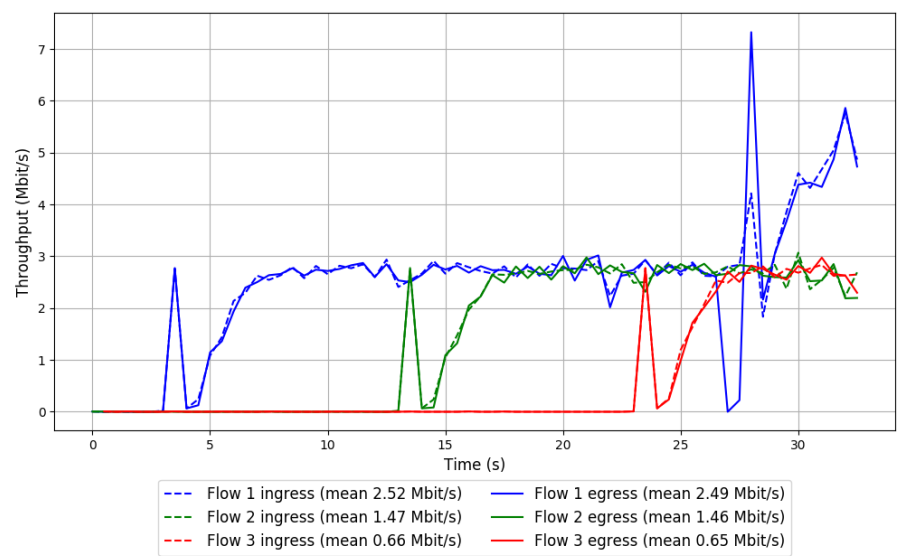
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 50.751 ms

Loss rate: 1.32%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-14 09:36:05

End at: 2018-03-14 09:36:35

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.27 Mbit/s

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

Loss rate: 0.70%

-- Flow 1:

Average throughput: 2.18 Mbit/s

95th percentile per-packet one-way delay: 50.148 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 53.930 ms

Loss rate: 0.71%

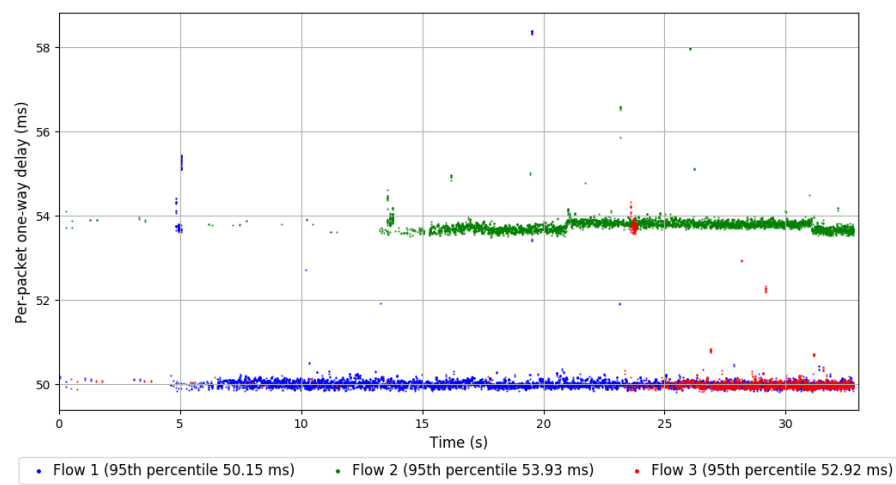
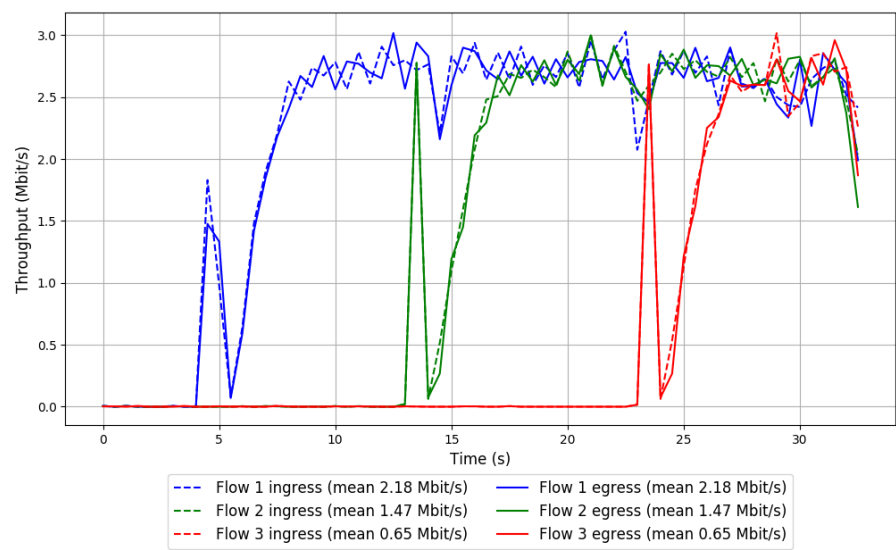
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 52.923 ms

Loss rate: 1.50%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-14 09:52:48

End at: 2018-03-14 09:53:18

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 53.788 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.409 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 1.47 Mbit/s

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

Loss rate: 0.48%

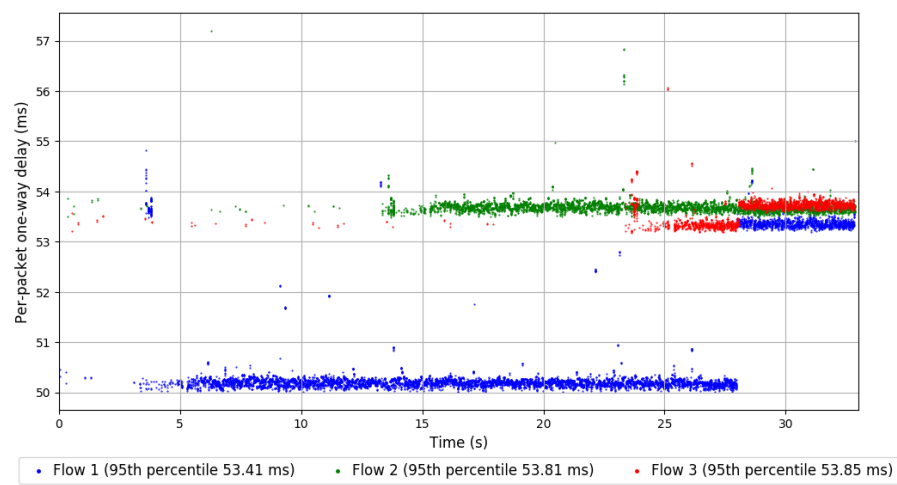
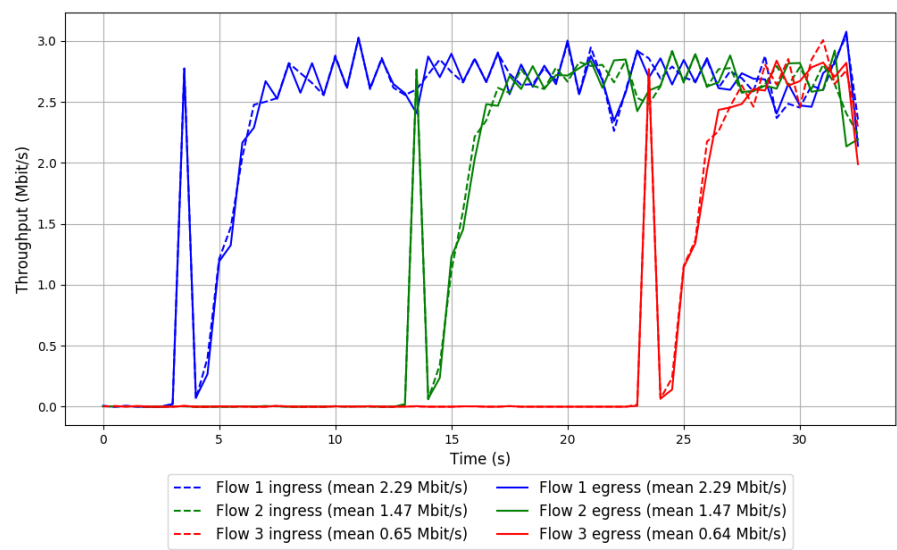
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.848 ms

Loss rate: 1.59%

Run 10: Report of WebRTC media — Data Link

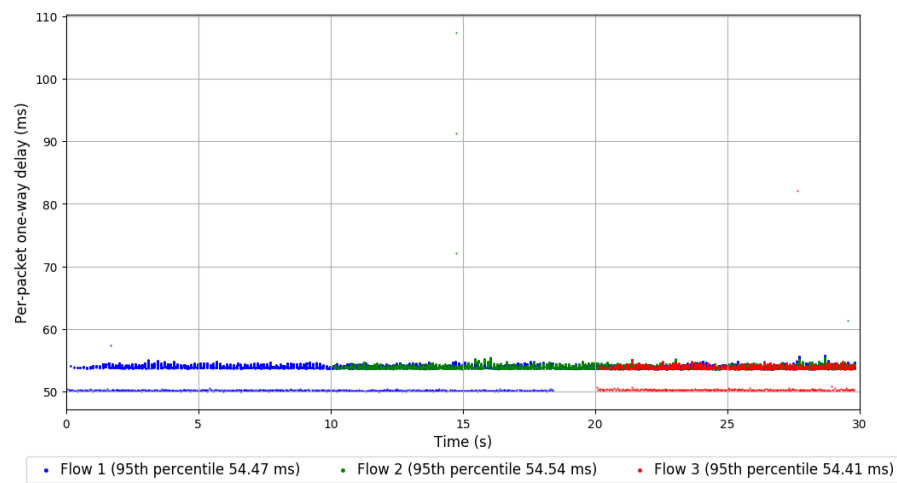
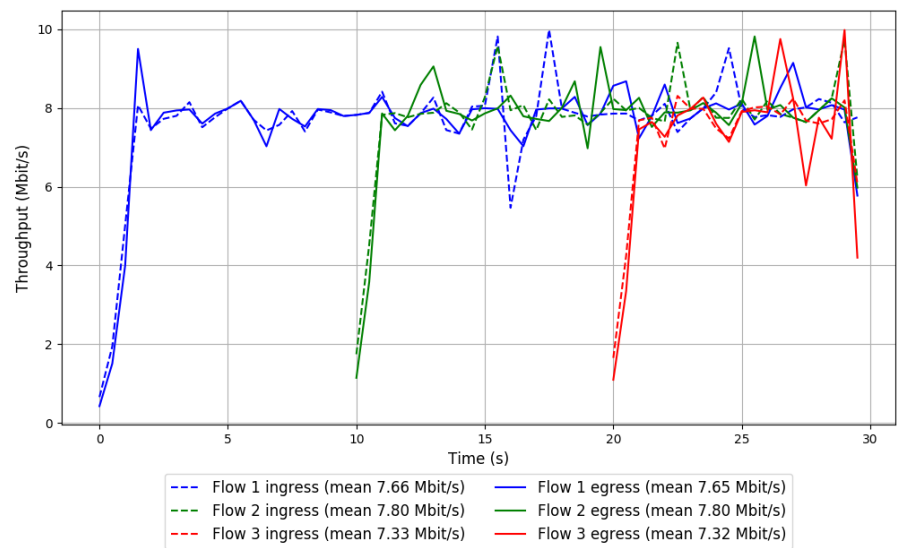


```
Run 1: Statistics of Sprout

Start at: 2018-03-14 07:13:25
End at: 2018-03-14 07:13:55

# Below is generated by plot.py at 2018-03-14 13:48:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.23 Mbit/s
95th percentile per-packet one-way delay: 54.475 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 7.65 Mbit/s
95th percentile per-packet one-way delay: 54.466 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 7.80 Mbit/s
95th percentile per-packet one-way delay: 54.538 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 7.32 Mbit/s
95th percentile per-packet one-way delay: 54.413 ms
Loss rate: 1.45%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-14 07:30:27

End at: 2018-03-14 07:30:57

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.33 Mbit/s

95th percentile per-packet one-way delay: 54.430 ms

Loss rate: 0.23%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.391 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 54.469 ms

Loss rate: 0.03%

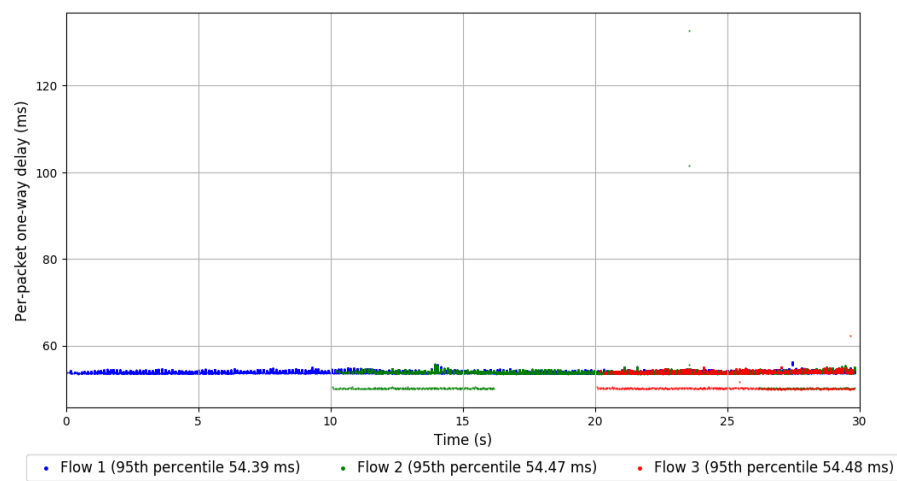
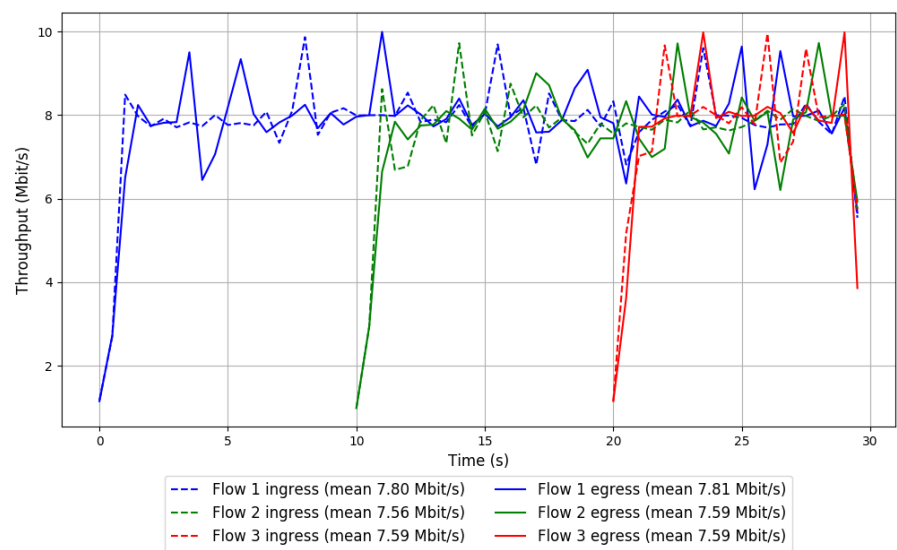
-- Flow 3:

Average throughput: 7.59 Mbit/s

95th percentile per-packet one-way delay: 54.482 ms

Loss rate: 1.27%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-14 07:47:22

End at: 2018-03-14 07:47:52

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.09 Mbit/s

95th percentile per-packet one-way delay: 54.442 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 7.68 Mbit/s

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

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.65 Mbit/s

95th percentile per-packet one-way delay: 54.369 ms

Loss rate: 0.66%

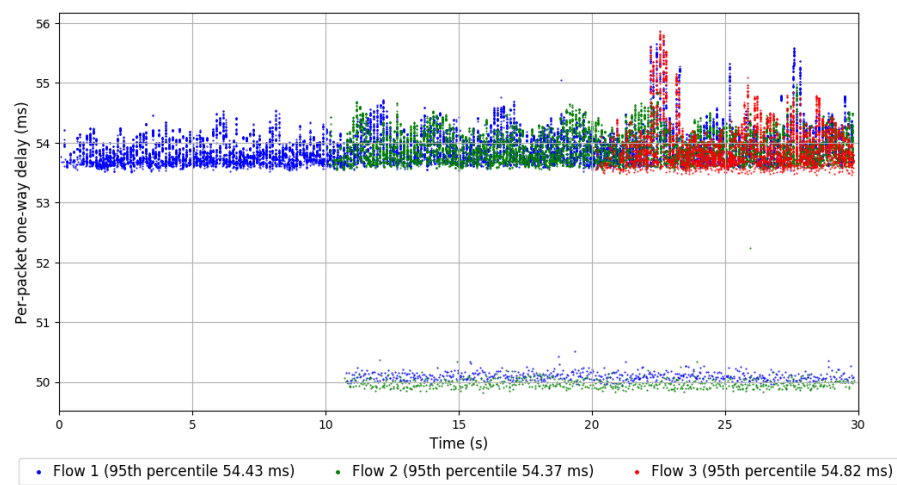
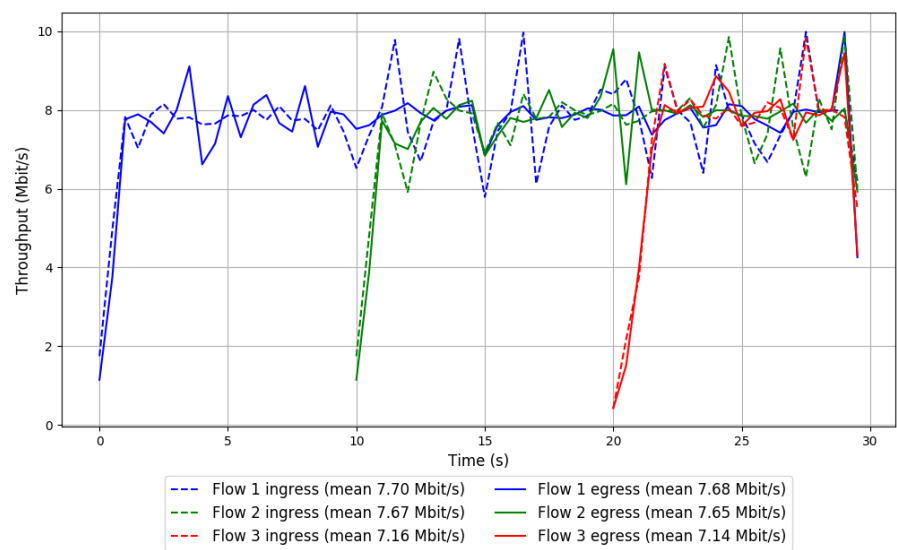
-- Flow 3:

Average throughput: 7.14 Mbit/s

95th percentile per-packet one-way delay: 54.822 ms

Loss rate: 1.10%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-14 08:04:27

End at: 2018-03-14 08:04:57

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.22 Mbit/s

95th percentile per-packet one-way delay: 54.337 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 54.367 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 54.250 ms

Loss rate: 0.55%

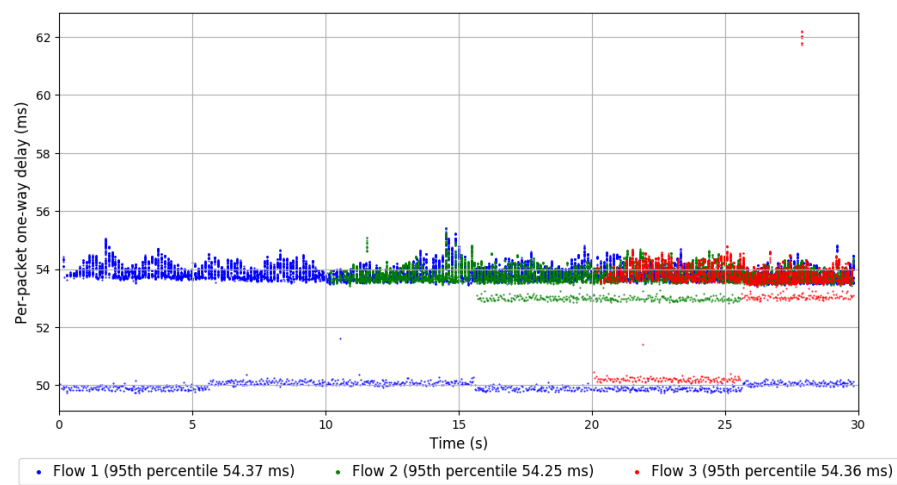
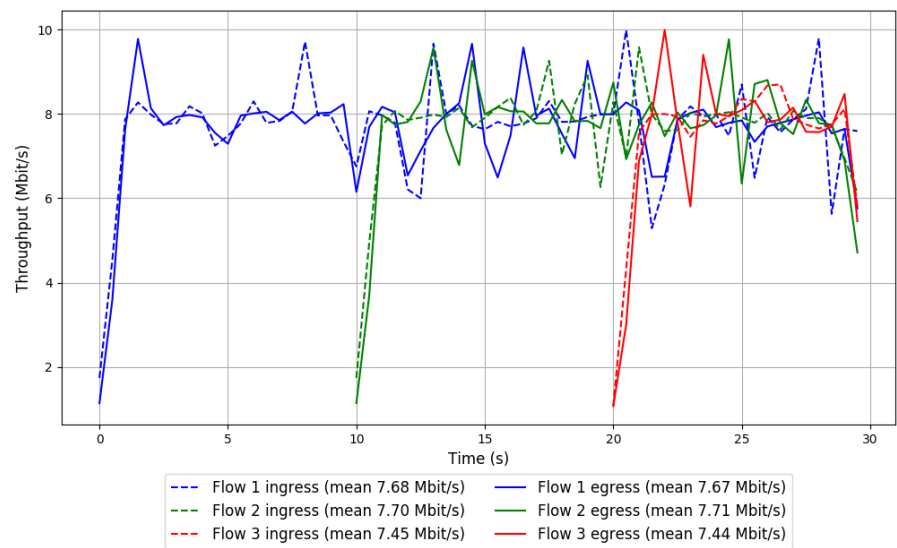
-- Flow 3:

Average throughput: 7.44 Mbit/s

95th percentile per-packet one-way delay: 54.364 ms

Loss rate: 1.36%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-14 08:21:24

End at: 2018-03-14 08:21:54

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.25 Mbit/s

95th percentile per-packet one-way delay: 54.376 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.76 Mbit/s

95th percentile per-packet one-way delay: 54.375 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 54.383 ms

Loss rate: 0.64%

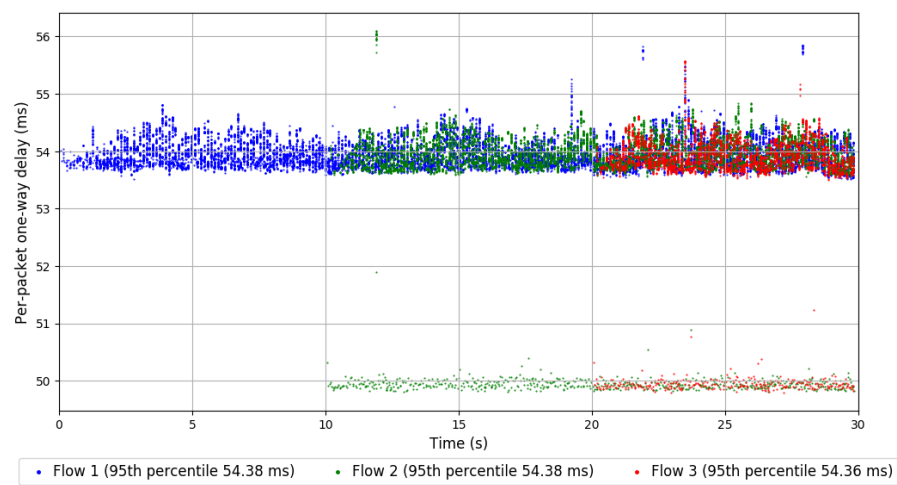
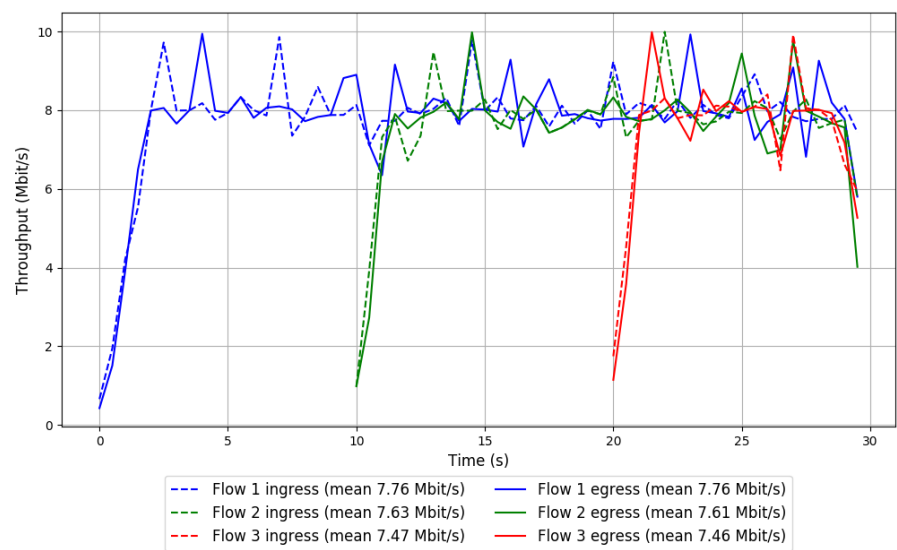
-- Flow 3:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 54.358 ms

Loss rate: 1.32%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-14 08:38:15

End at: 2018-03-14 08:38:45

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.41 Mbit/s

95th percentile per-packet one-way delay: 54.501 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 7.87 Mbit/s

95th percentile per-packet one-way delay: 54.524 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 7.73 Mbit/s

95th percentile per-packet one-way delay: 54.366 ms

Loss rate: 0.17%

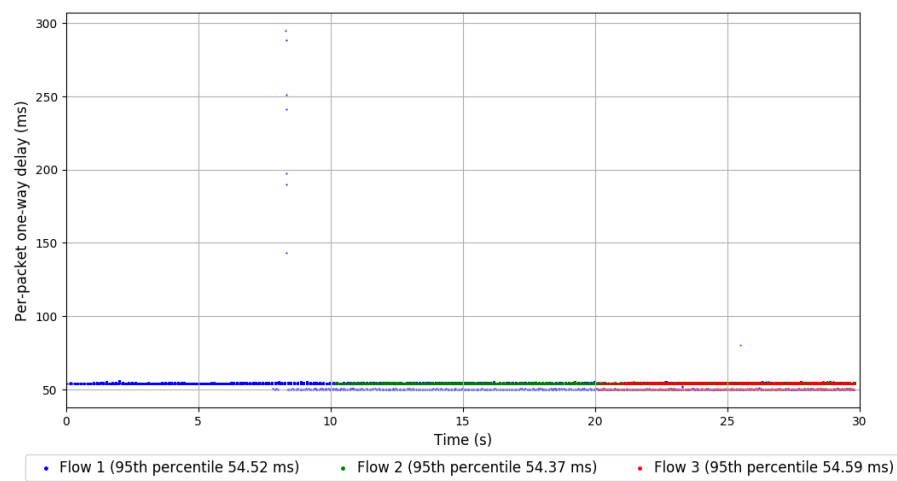
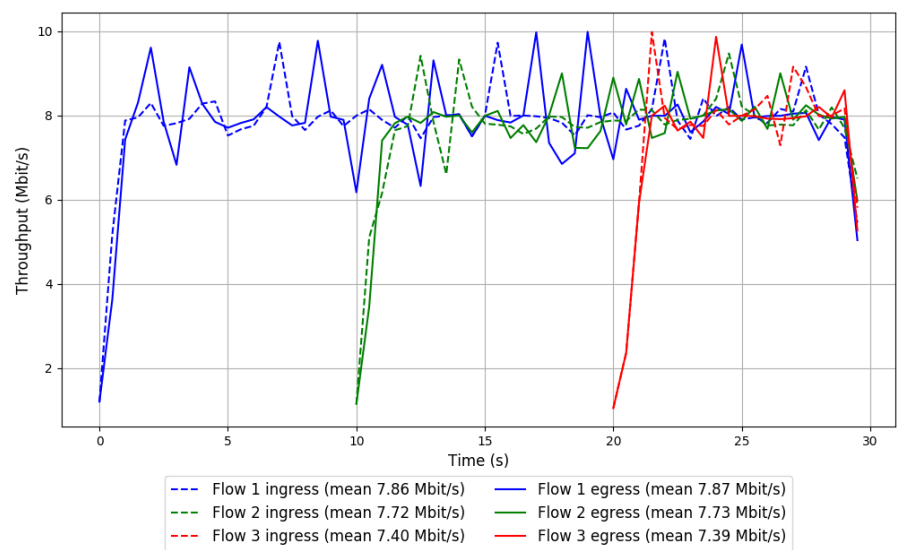
-- Flow 3:

Average throughput: 7.39 Mbit/s

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

Loss rate: 1.33%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-14 08:55:26

End at: 2018-03-14 08:55:57

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.30 Mbit/s

95th percentile per-packet one-way delay: 54.543 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 54.561 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 54.560 ms

Loss rate: 0.48%

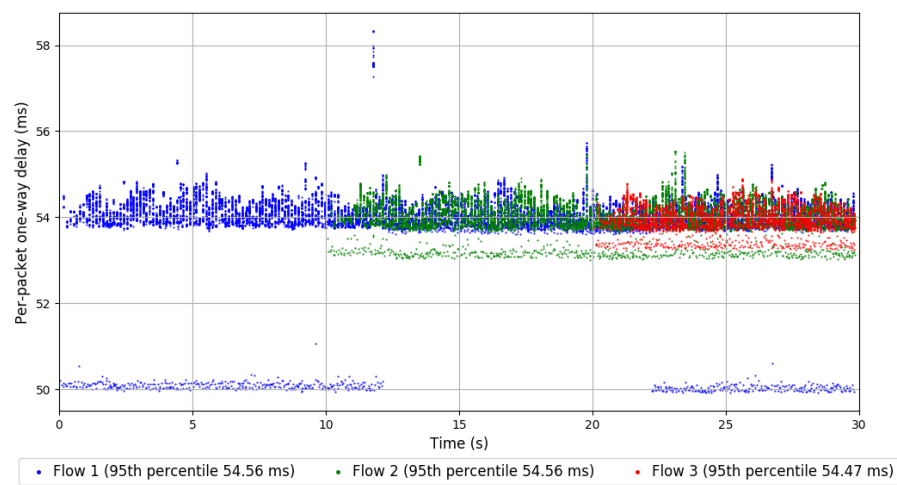
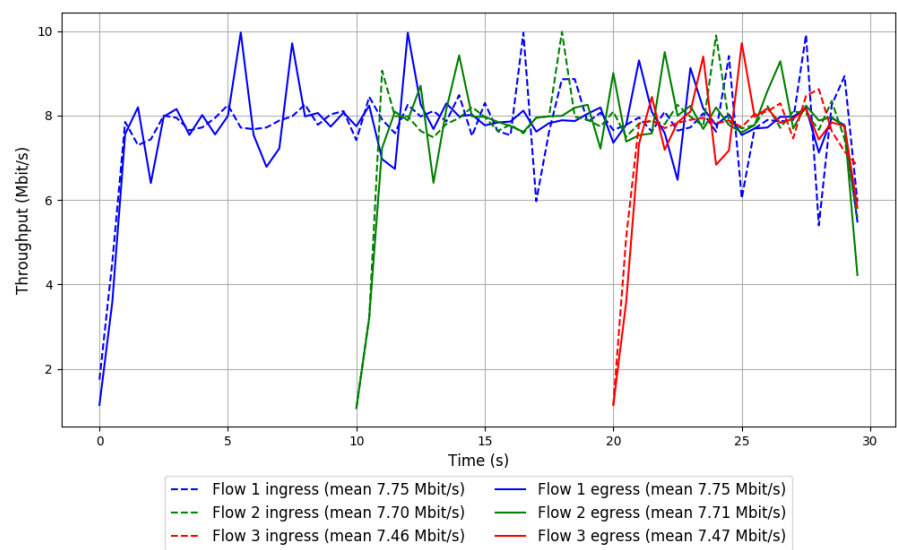
-- Flow 3:

Average throughput: 7.47 Mbit/s

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

Loss rate: 1.15%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-14 09:12:53

End at: 2018-03-14 09:13:23

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.04 Mbit/s

95th percentile per-packet one-way delay: 54.447 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 54.479 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.59 Mbit/s

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

Loss rate: 0.55%

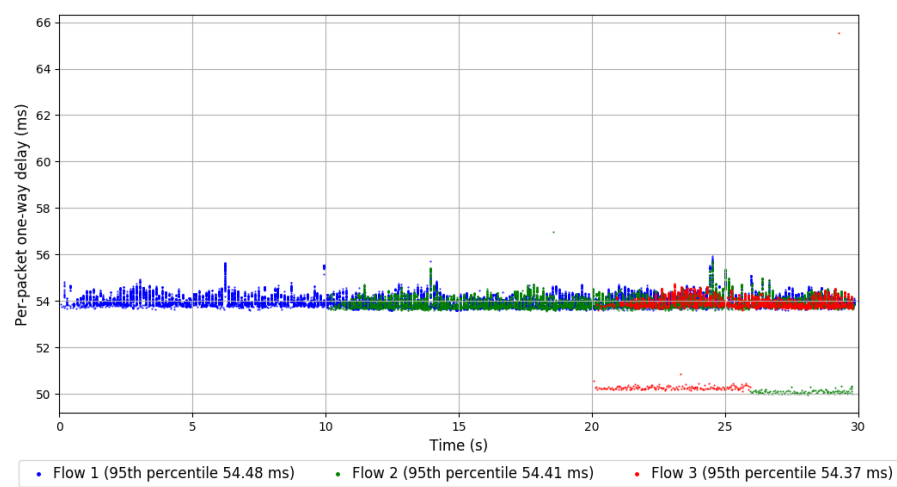
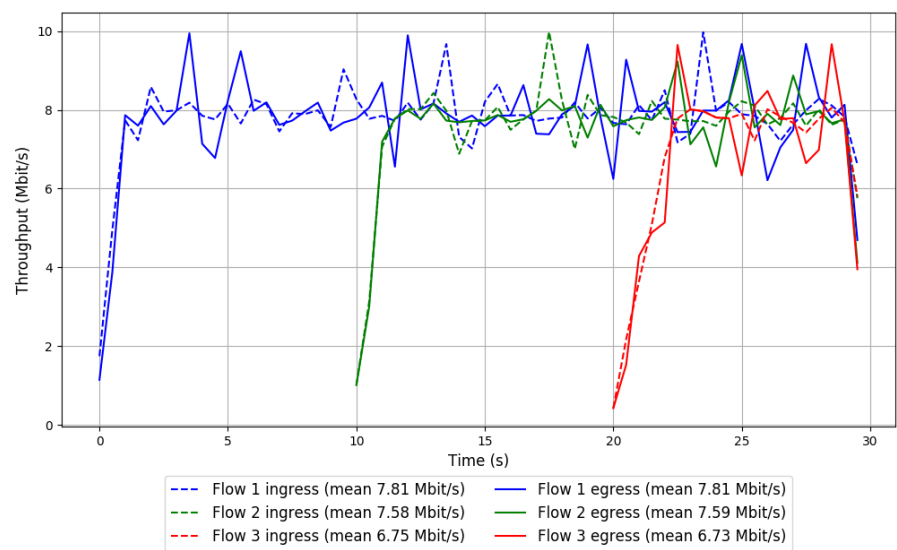
-- Flow 3:

Average throughput: 6.73 Mbit/s

95th percentile per-packet one-way delay: 54.369 ms

Loss rate: 1.46%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-14 09:29:54

End at: 2018-03-14 09:30:24

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.27 Mbit/s

95th percentile per-packet one-way delay: 54.644 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 54.670 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 54.633 ms

Loss rate: 0.63%

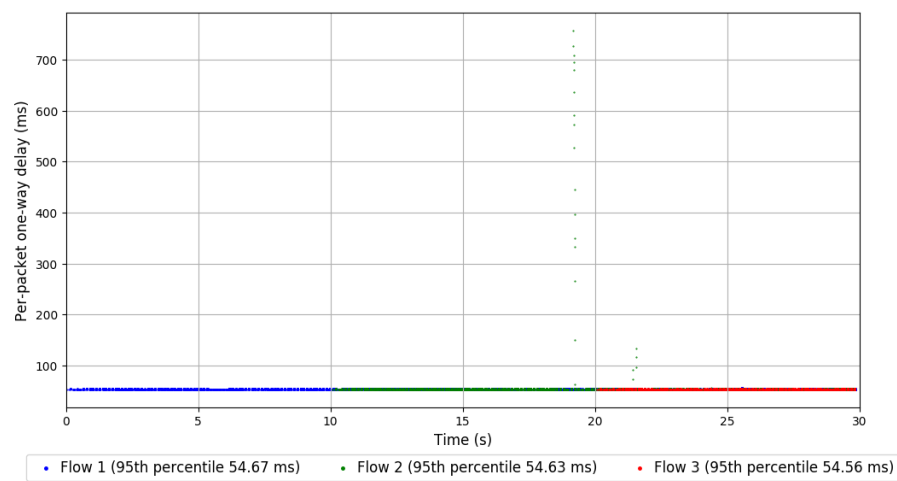
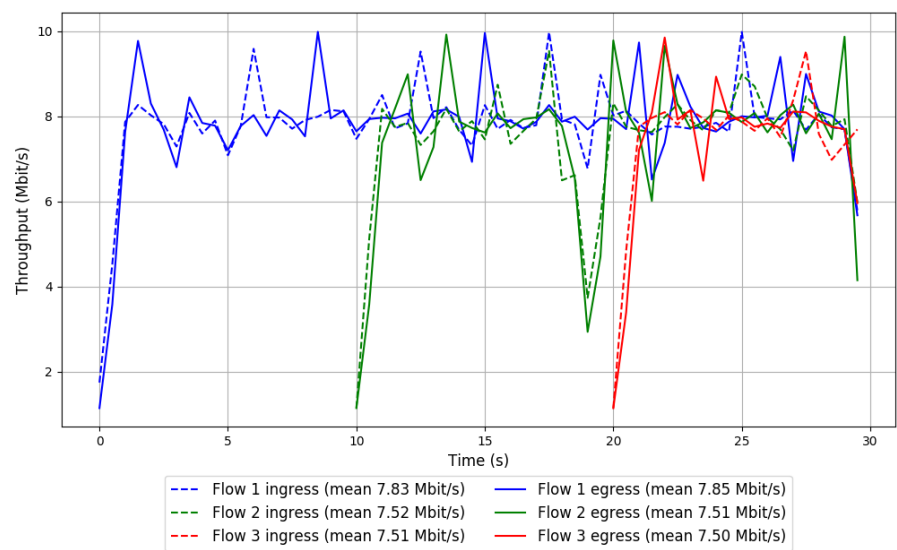
-- Flow 3:

Average throughput: 7.50 Mbit/s

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

Loss rate: 1.34%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-14 09:46:41

End at: 2018-03-14 09:47:11

Below is generated by plot.py at 2018-03-14 13:48:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.43 Mbit/s

95th percentile per-packet one-way delay: 54.385 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 54.491 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 7.70 Mbit/s

95th percentile per-packet one-way delay: 54.080 ms

Loss rate: 0.65%

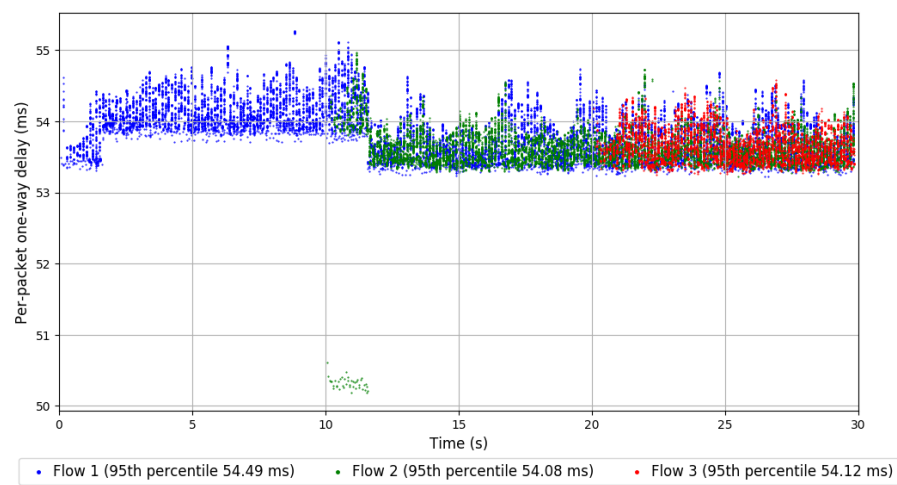
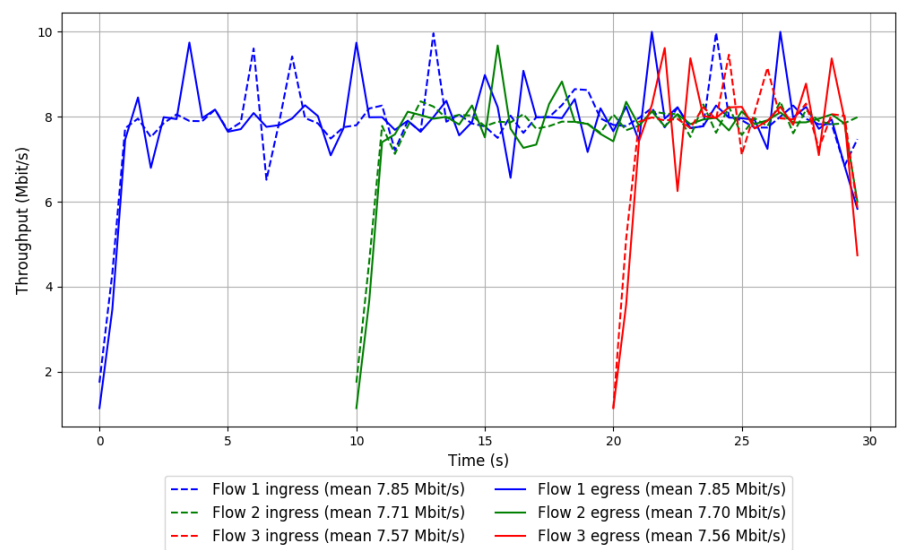
-- Flow 3:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 54.121 ms

Loss rate: 0.94%

Run 10: Report of Sprout — Data Link

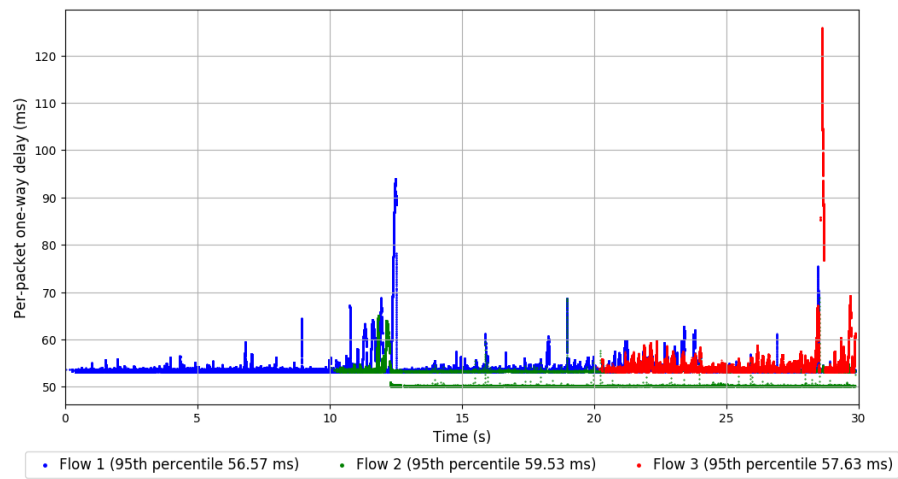
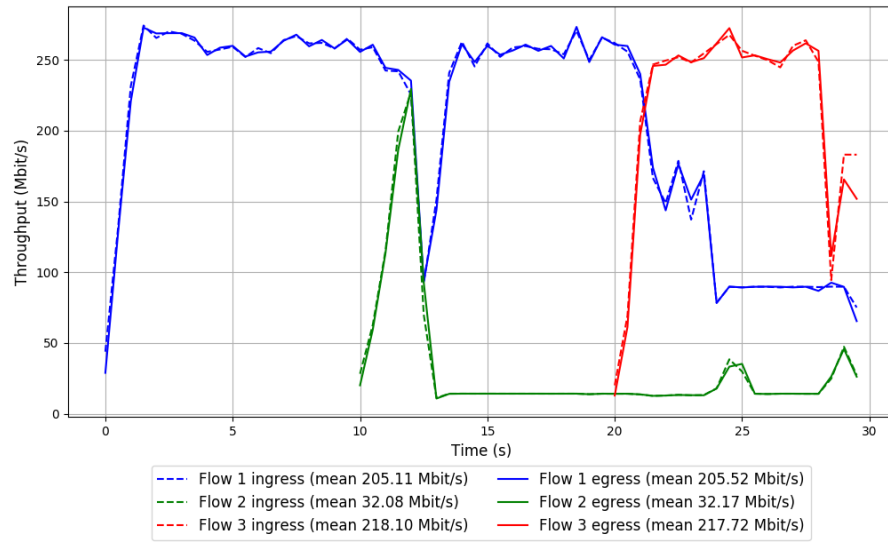


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-14 07:05:36
End at: 2018-03-14 07:06:06

# Below is generated by plot.py at 2018-03-14 13:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 298.26 Mbit/s
95th percentile per-packet one-way delay: 57.132 ms
Loss rate: 0.43%
-- Flow 1:
Average throughput: 205.52 Mbit/s
95th percentile per-packet one-way delay: 56.569 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 59.531 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 217.72 Mbit/s
95th percentile per-packet one-way delay: 57.634 ms
Loss rate: 1.27%
```


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

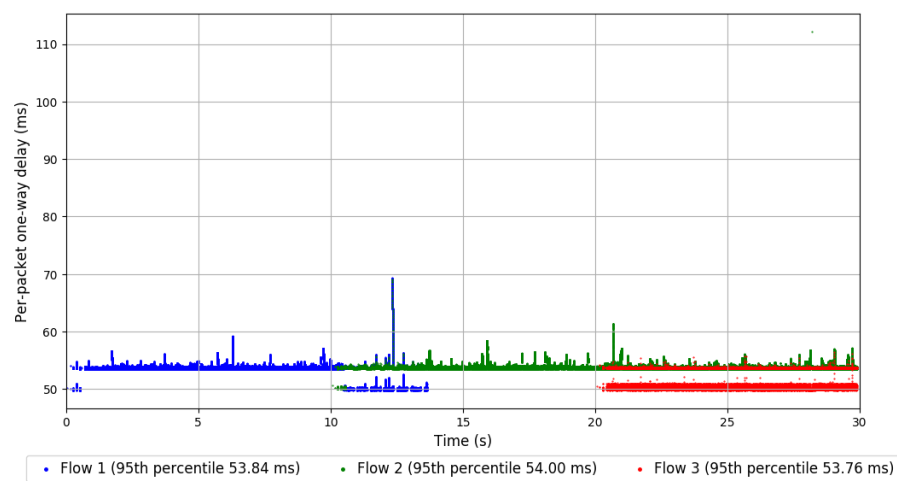
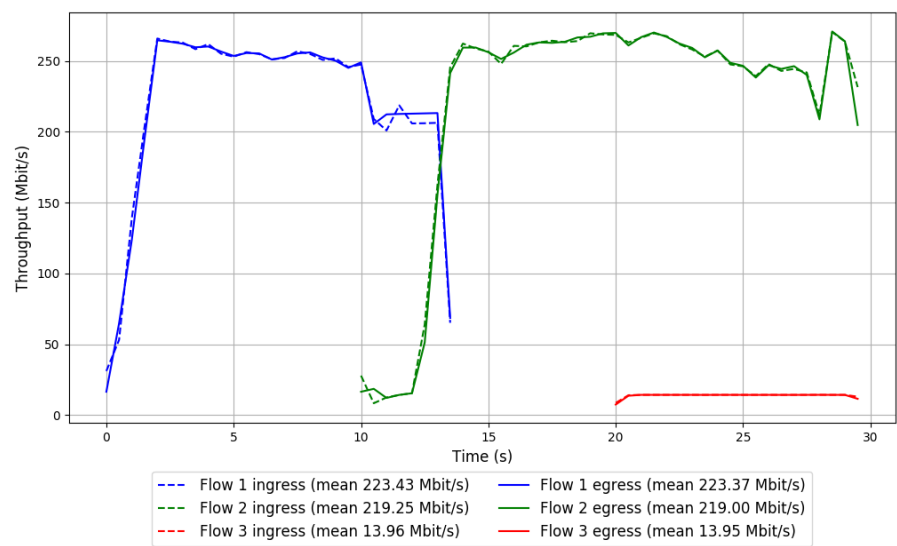


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-14 07:22:43
End at: 2018-03-14 07:23:13

# Below is generated by plot.py at 2018-03-14 13:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 252.03 Mbit/s
95th percentile per-packet one-way delay: 53.920 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 223.37 Mbit/s
95th percentile per-packet one-way delay: 53.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 219.00 Mbit/s
95th percentile per-packet one-way delay: 53.996 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 13.95 Mbit/s
95th percentile per-packet one-way delay: 53.761 ms
Loss rate: 1.09%
```

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

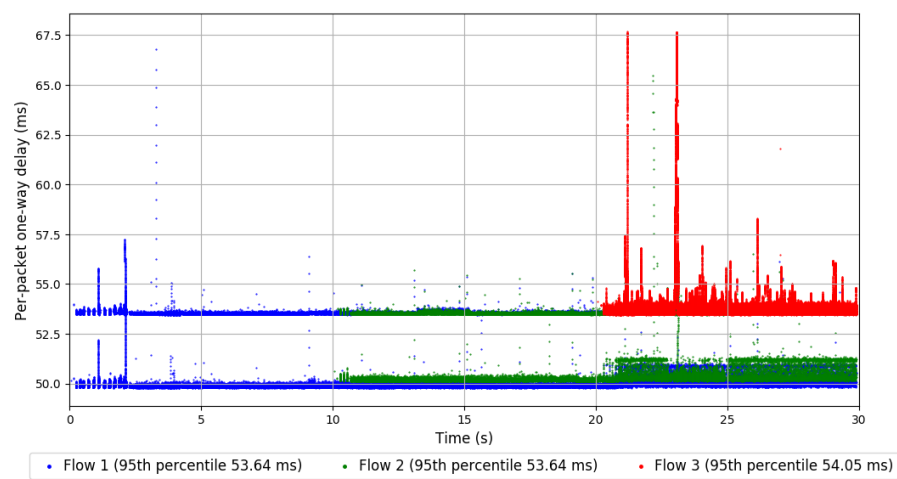
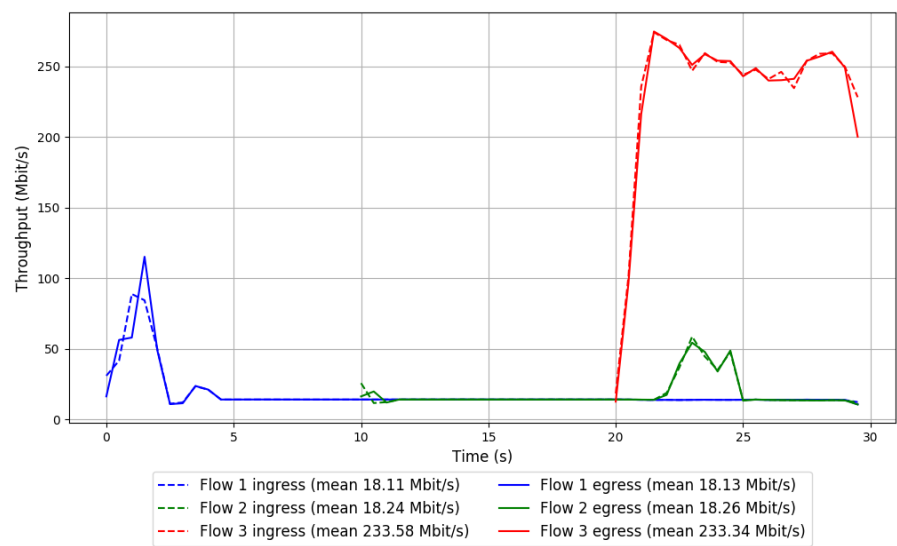


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 07:39:51
End at: 2018-03-14 07:40:21

# Below is generated by plot.py at 2018-03-14 13:55:10
# Datalink statistics
-- Total of 3 flows:
Average throughput: 107.03 Mbit/s
95th percentile per-packet one-way delay: 53.965 ms
Loss rate: 0.95%
-- Flow 1:
Average throughput: 18.13 Mbit/s
95th percentile per-packet one-way delay: 53.642 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 18.26 Mbit/s
95th percentile per-packet one-way delay: 53.637 ms
Loss rate: 0.40%
-- Flow 3:
Average throughput: 233.34 Mbit/s
95th percentile per-packet one-way delay: 54.051 ms
Loss rate: 1.20%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-14 07:56:53

End at: 2018-03-14 07:57:23

Below is generated by plot.py at 2018-03-14 13:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 115.67 Mbit/s

95th percentile per-packet one-way delay: 53.839 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 234.97 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 27.29 Mbit/s

95th percentile per-packet one-way delay: 53.659 ms

Loss rate: 0.27%

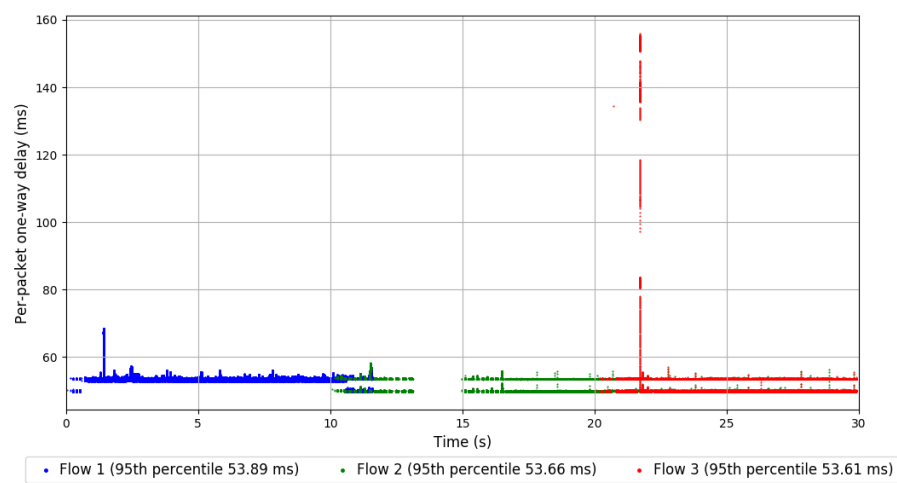
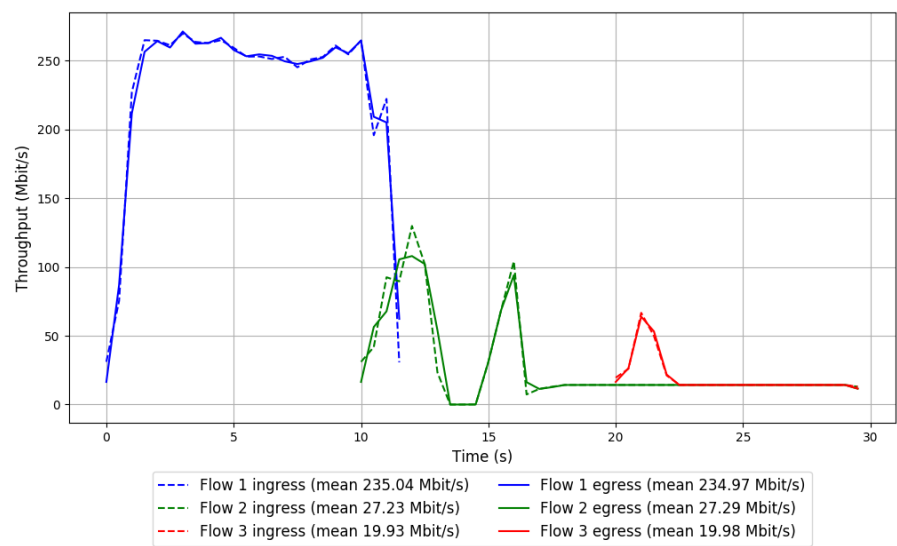
-- Flow 3:

Average throughput: 19.98 Mbit/s

95th percentile per-packet one-way delay: 53.612 ms

Loss rate: 0.75%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 08:13:44

End at: 2018-03-14 08:14:14

Below is generated by plot.py at 2018-03-14 13:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 183.40 Mbit/s

95th percentile per-packet one-way delay: 53.876 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 160.60 Mbit/s

95th percentile per-packet one-way delay: 53.883 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 14.43 Mbit/s

95th percentile per-packet one-way delay: 53.595 ms

Loss rate: 0.43%

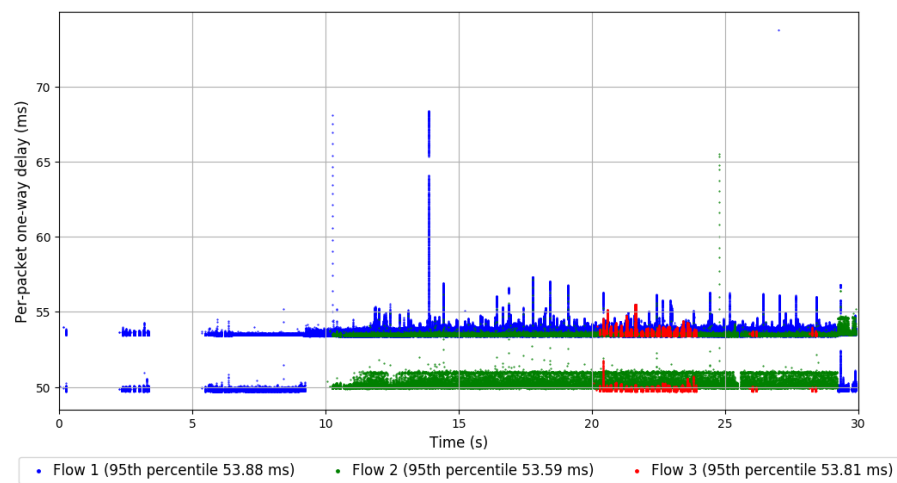
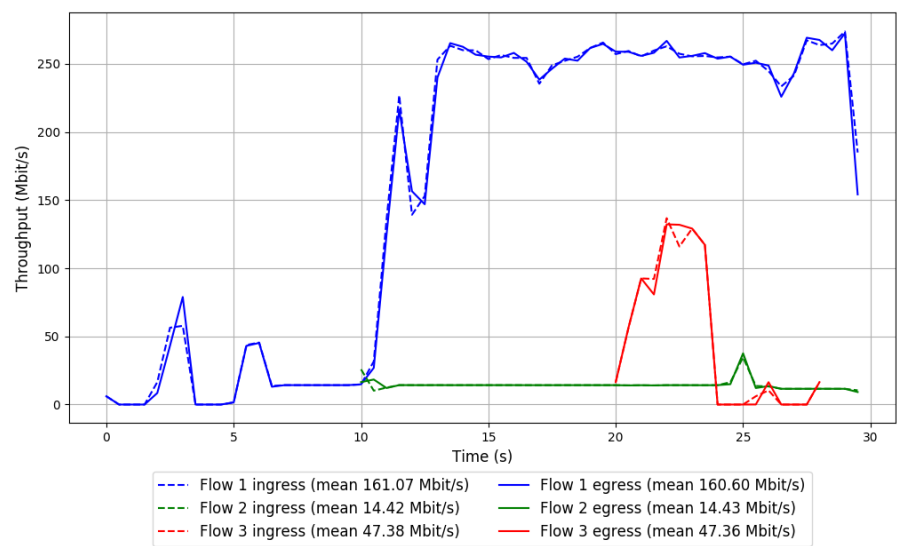
-- Flow 3:

Average throughput: 47.36 Mbit/s

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

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-14 08:30:40

End at: 2018-03-14 08:31:10

Below is generated by plot.py at 2018-03-14 13:55:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.16 Mbit/s

95th percentile per-packet one-way delay: 53.840 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 25.20 Mbit/s

95th percentile per-packet one-way delay: 53.755 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 26.98 Mbit/s

95th percentile per-packet one-way delay: 53.796 ms

Loss rate: 0.28%

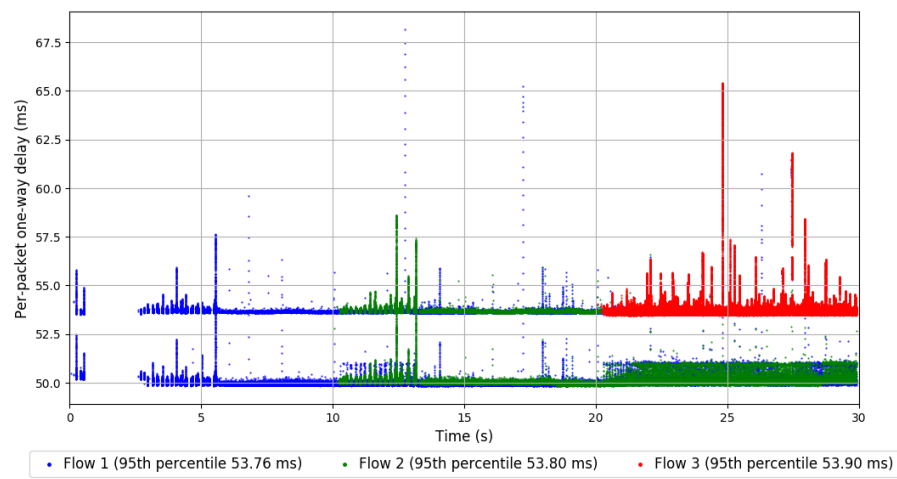
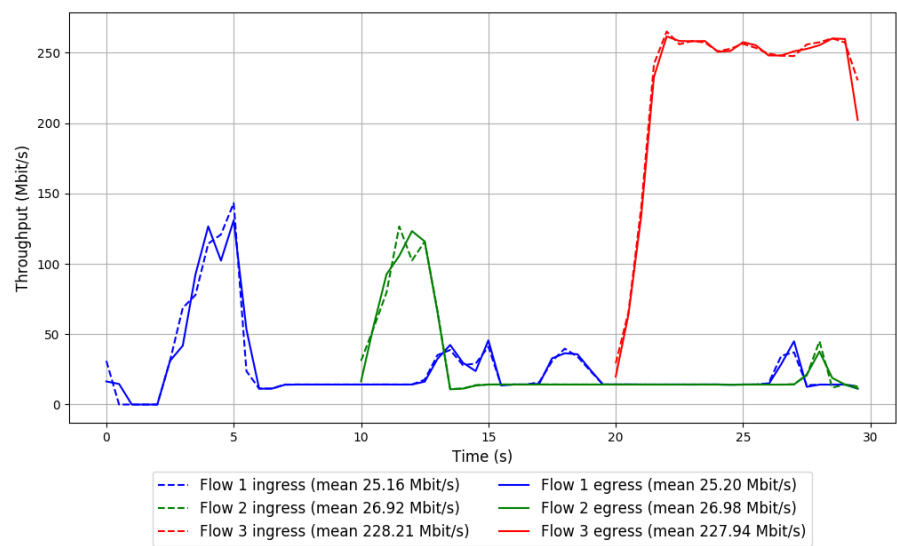
-- Flow 3:

Average throughput: 227.94 Mbit/s

95th percentile per-packet one-way delay: 53.901 ms

Loss rate: 1.20%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-14 08:47:36

End at: 2018-03-14 08:48:06

Below is generated by plot.py at 2018-03-14 13:56:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 221.15 Mbit/s

95th percentile per-packet one-way delay: 64.083 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 17.86 Mbit/s

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

Loss rate: 0.28%

-- Flow 2:

Average throughput: 225.61 Mbit/s

95th percentile per-packet one-way delay: 61.215 ms

Loss rate: 0.59%

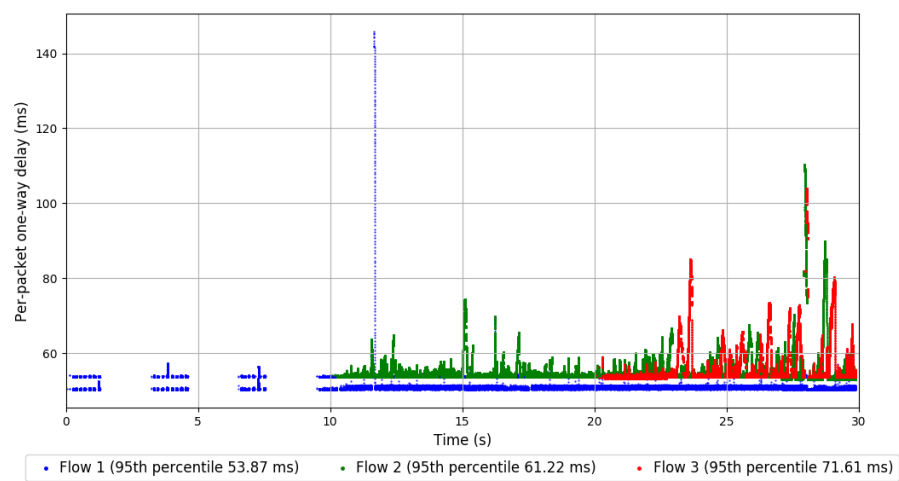
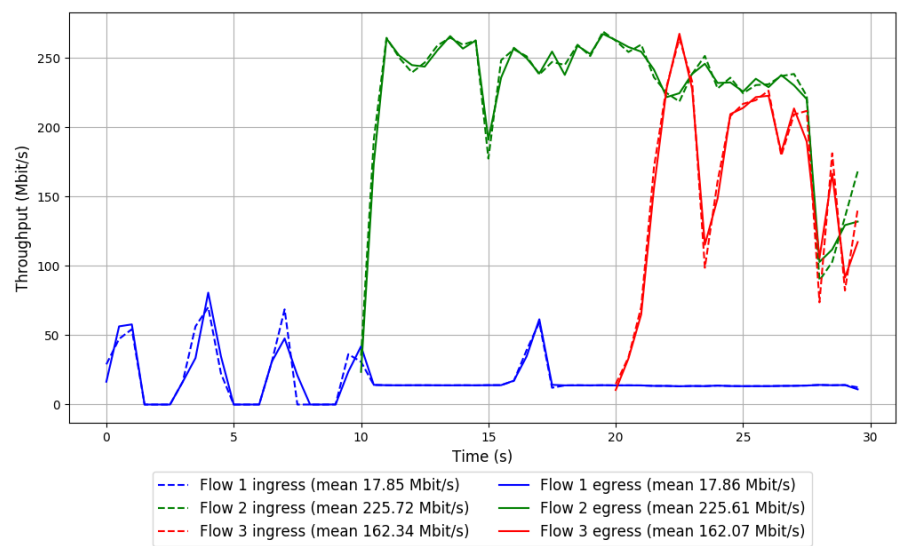
-- Flow 3:

Average throughput: 162.07 Mbit/s

95th percentile per-packet one-way delay: 71.608 ms

Loss rate: 1.25%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-14 09:04:55

End at: 2018-03-14 09:05:25

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 290.51 Mbit/s

95th percentile per-packet one-way delay: 58.521 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 209.51 Mbit/s

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

Loss rate: 0.38%

-- Flow 2:

Average throughput: 16.44 Mbit/s

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

Loss rate: 0.44%

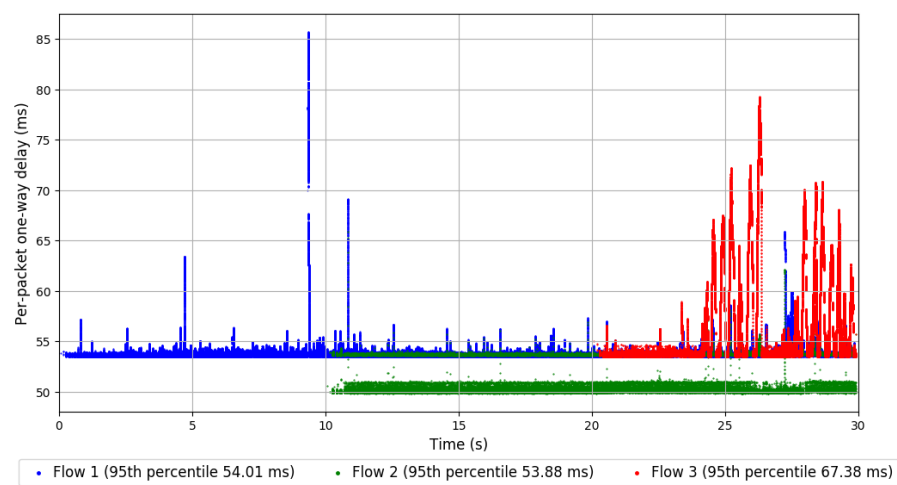
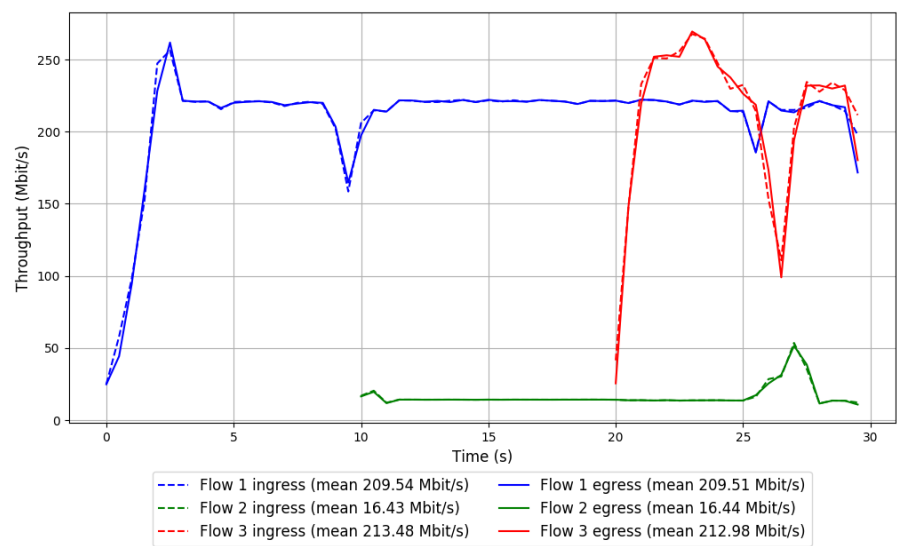
-- Flow 3:

Average throughput: 212.98 Mbit/s

95th percentile per-packet one-way delay: 67.376 ms

Loss rate: 1.31%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-14 09:22:20

End at: 2018-03-14 09:22:50

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.83 Mbit/s

95th percentile per-packet one-way delay: 53.810 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 22.56 Mbit/s

95th percentile per-packet one-way delay: 53.754 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 77.23 Mbit/s

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

Loss rate: 0.00%

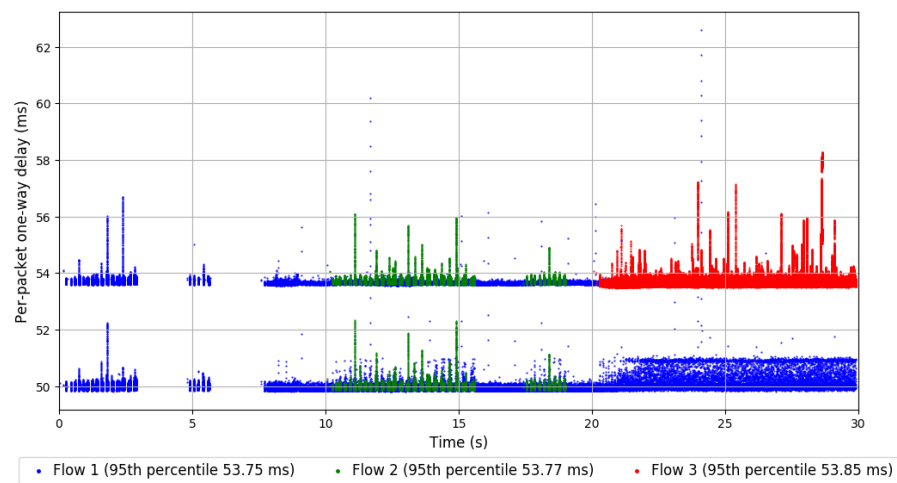
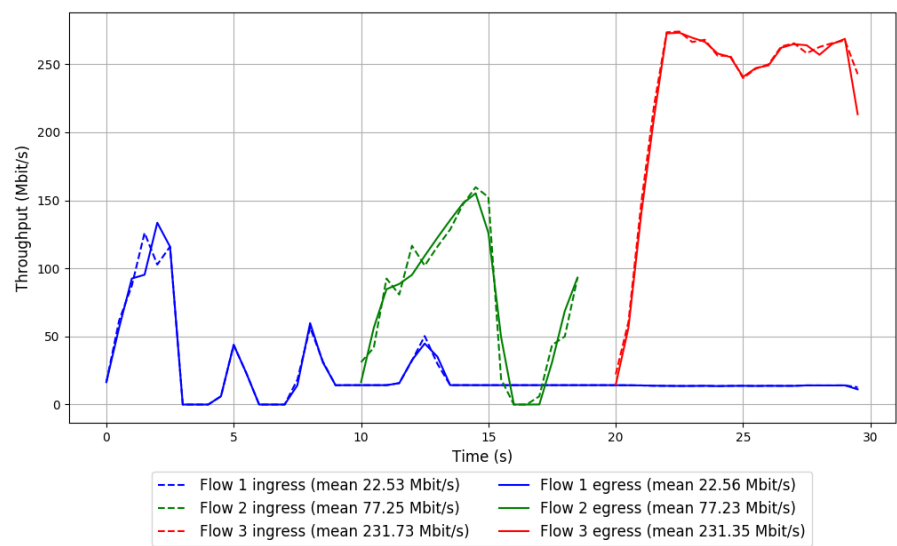
-- Flow 3:

Average throughput: 231.35 Mbit/s

95th percentile per-packet one-way delay: 53.851 ms

Loss rate: 1.25%

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

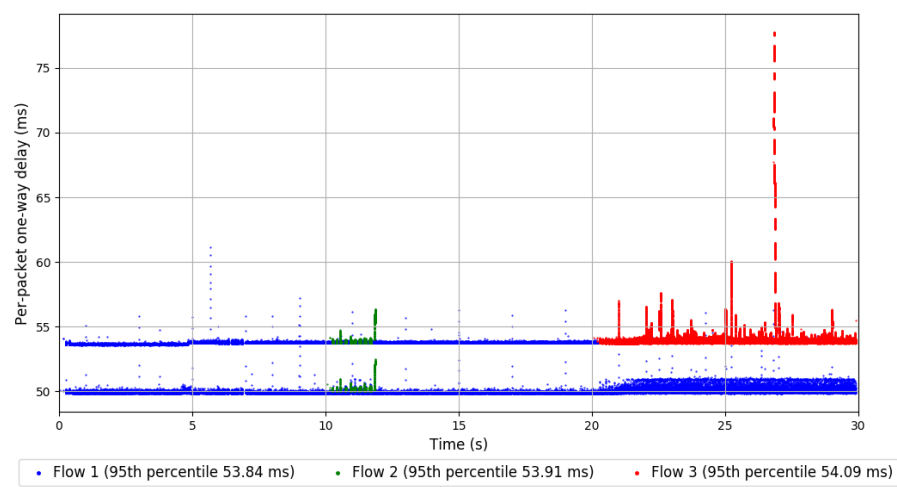
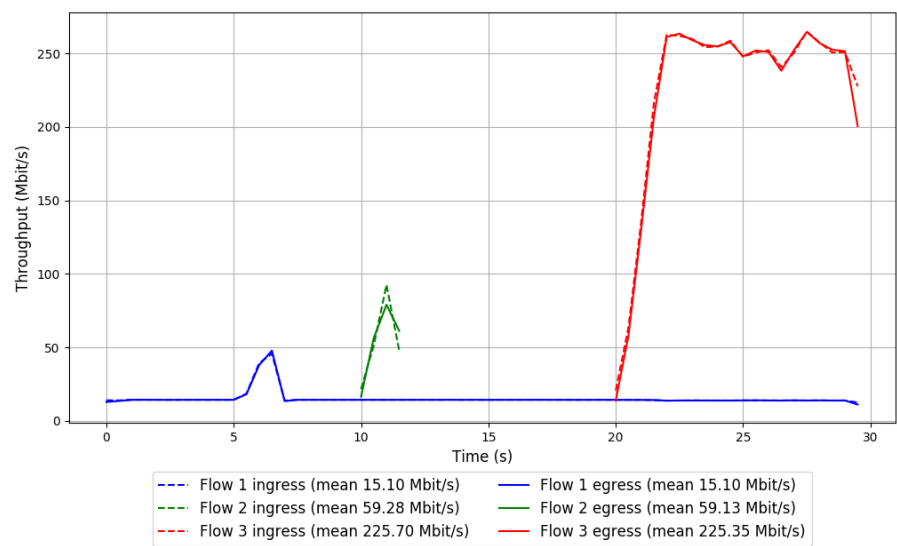


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-14 09:39:18
End at: 2018-03-14 09:39:48

# Below is generated by plot.py at 2018-03-14 13:59:58
# Datalink statistics
-- Total of 3 flows:
Average throughput: 92.86 Mbit/s
95th percentile per-packet one-way delay: 54.038 ms
Loss rate: 1.01%
-- Flow 1:
Average throughput: 15.10 Mbit/s
95th percentile per-packet one-way delay: 53.845 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 59.13 Mbit/s
95th percentile per-packet one-way delay: 53.909 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 225.35 Mbit/s
95th percentile per-packet one-way delay: 54.091 ms
Loss rate: 1.19%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-14 07:21:03

End at: 2018-03-14 07:21:33

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.57 Mbit/s

95th percentile per-packet one-way delay: 55.066 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 65.15 Mbit/s

95th percentile per-packet one-way delay: 54.908 ms

Loss rate: 0.58%

-- Flow 2:

Average throughput: 57.82 Mbit/s

95th percentile per-packet one-way delay: 55.514 ms

Loss rate: 0.45%

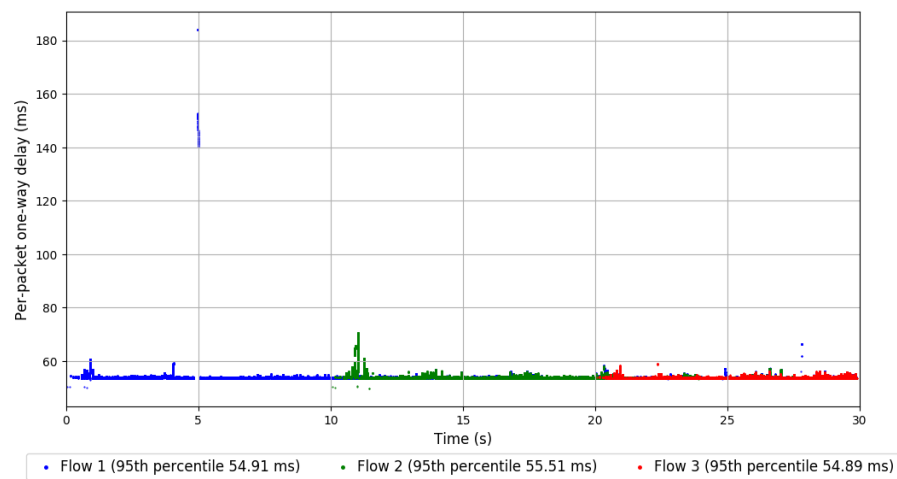
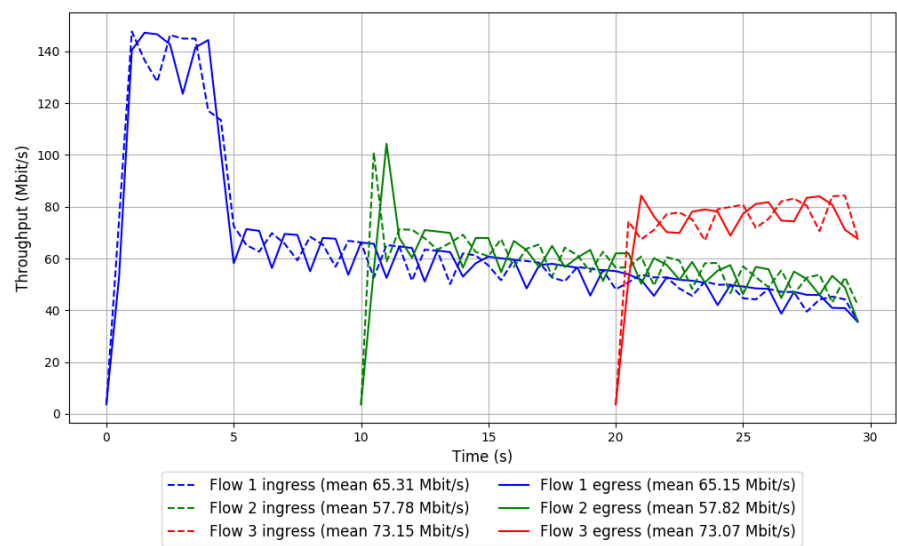
-- Flow 3:

Average throughput: 73.07 Mbit/s

95th percentile per-packet one-way delay: 54.888 ms

Loss rate: 1.17%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 07:38:04

End at: 2018-03-14 07:38:34

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.41 Mbit/s

95th percentile per-packet one-way delay: 62.201 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 82.24 Mbit/s

95th percentile per-packet one-way delay: 60.127 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 206.21 Mbit/s

95th percentile per-packet one-way delay: 62.740 ms

Loss rate: 0.18%

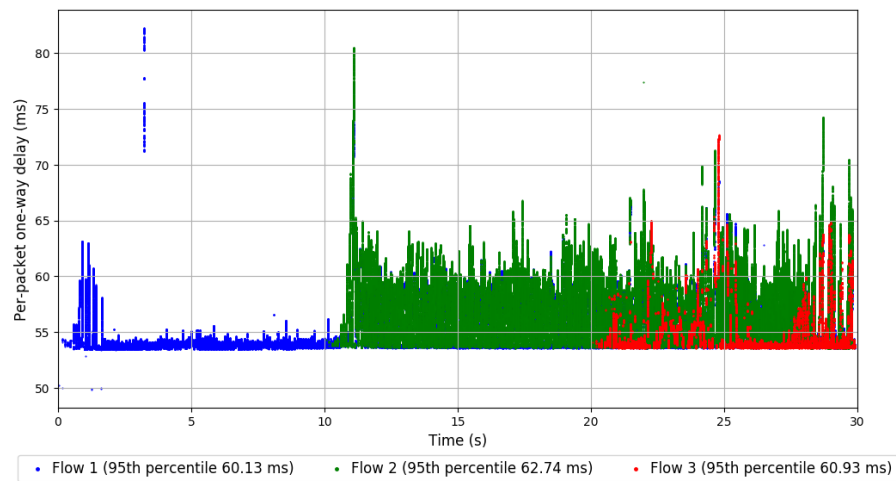
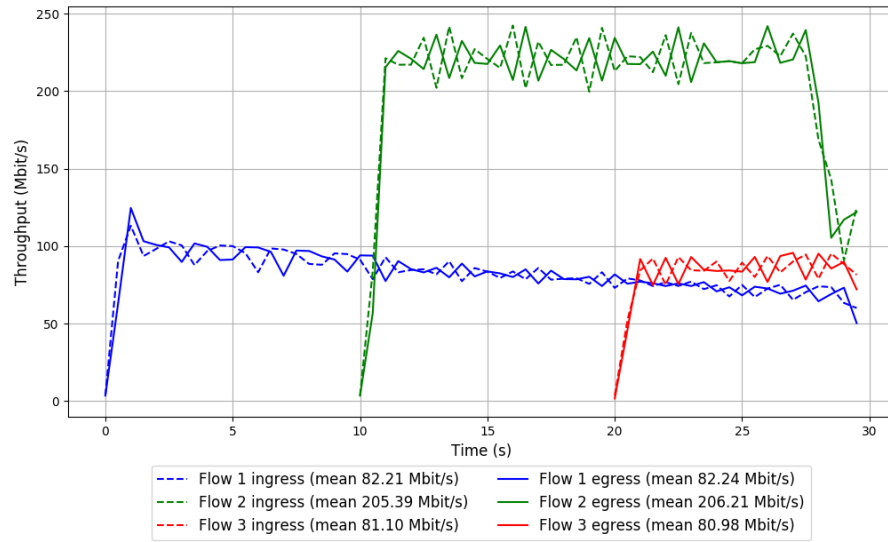
-- Flow 3:

Average throughput: 80.98 Mbit/s

95th percentile per-packet one-way delay: 60.926 ms

Loss rate: 1.20%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 07:55:09

End at: 2018-03-14 07:55:39

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 194.18 Mbit/s

95th percentile per-packet one-way delay: 55.089 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 165.99 Mbit/s

95th percentile per-packet one-way delay: 54.897 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 54.142 ms

Loss rate: 0.73%

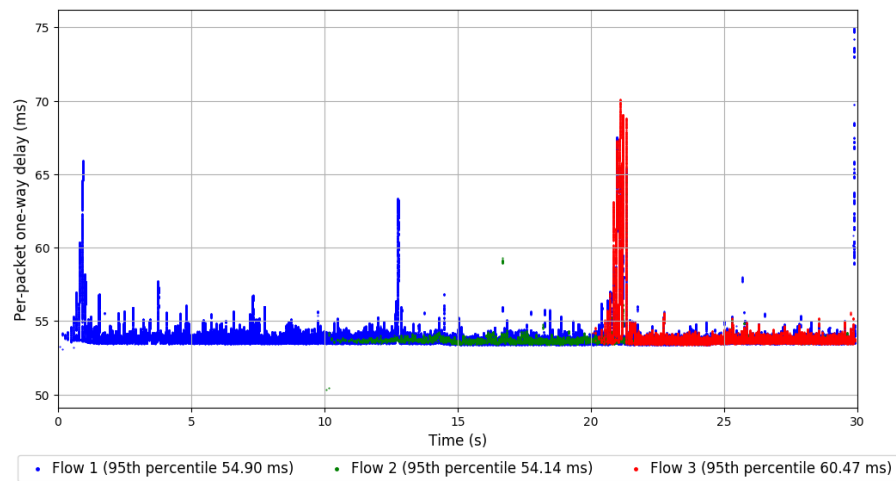
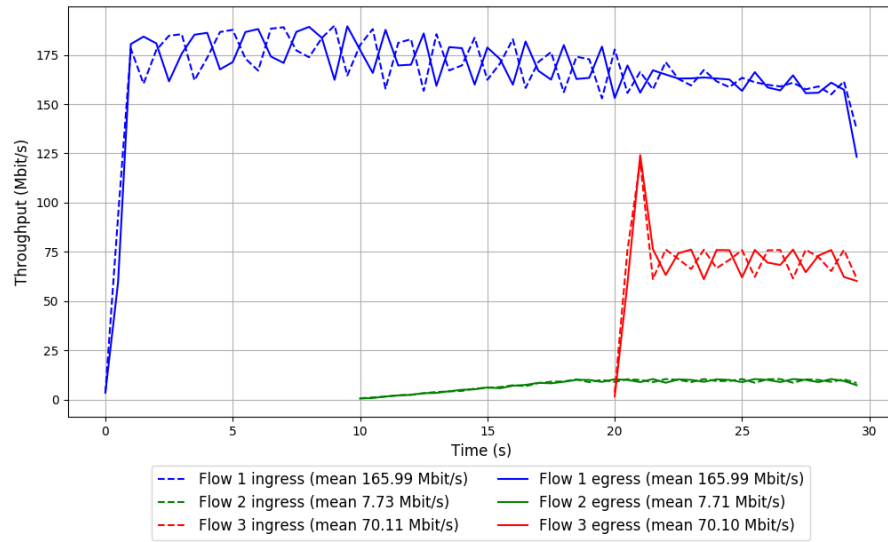
-- Flow 3:

Average throughput: 70.10 Mbit/s

95th percentile per-packet one-way delay: 60.465 ms

Loss rate: 1.10%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-14 08:12:04

End at: 2018-03-14 08:12:34

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.25 Mbit/s

95th percentile per-packet one-way delay: 56.067 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 49.27 Mbit/s

95th percentile per-packet one-way delay: 56.727 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 64.01 Mbit/s

95th percentile per-packet one-way delay: 55.775 ms

Loss rate: 0.53%

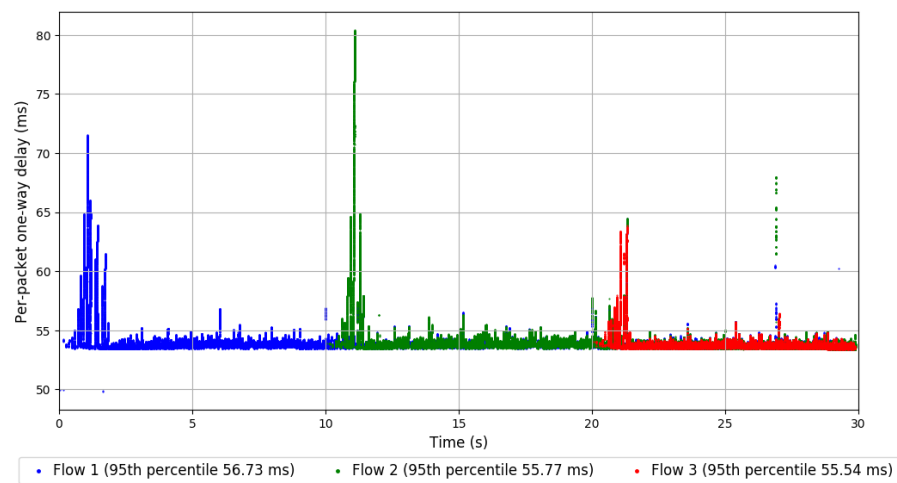
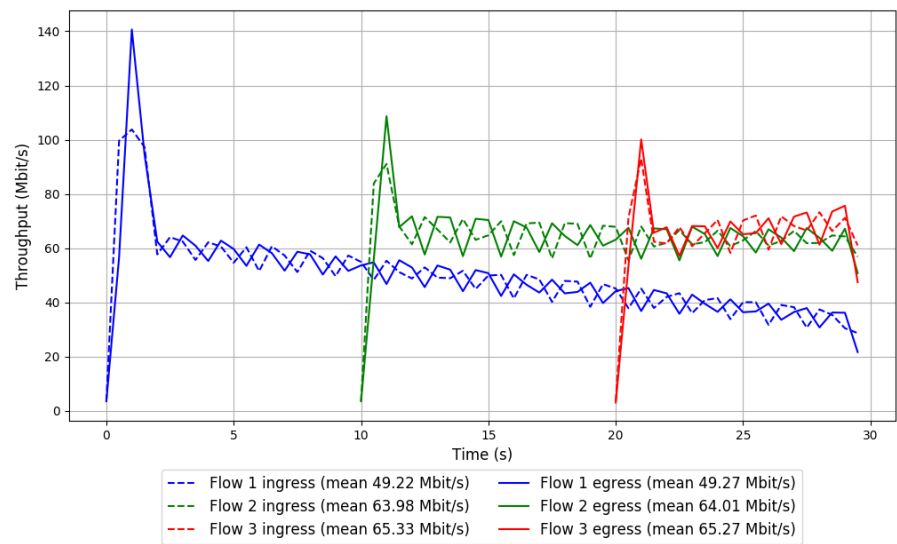
-- Flow 3:

Average throughput: 65.27 Mbit/s

95th percentile per-packet one-way delay: 55.540 ms

Loss rate: 1.18%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 08:29:01

End at: 2018-03-14 08:29:31

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.60 Mbit/s

95th percentile per-packet one-way delay: 54.956 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 18.38 Mbit/s

95th percentile per-packet one-way delay: 54.504 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 31.60 Mbit/s

95th percentile per-packet one-way delay: 54.549 ms

Loss rate: 0.41%

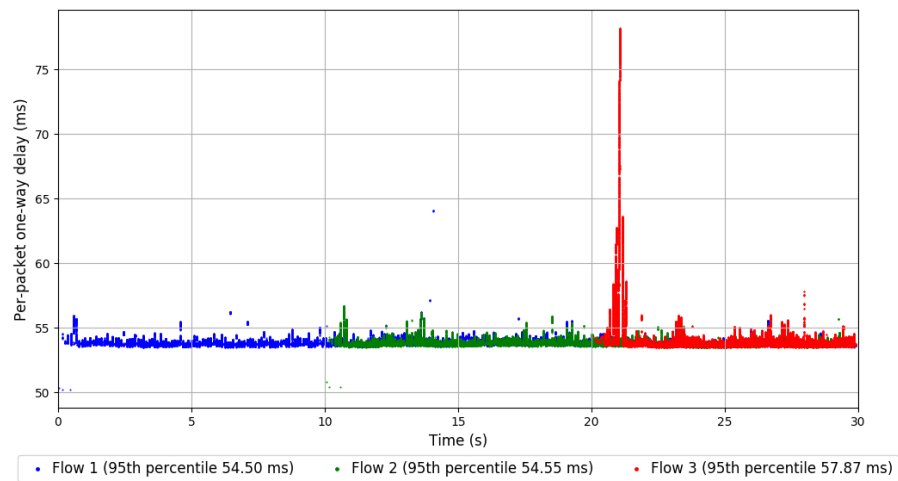
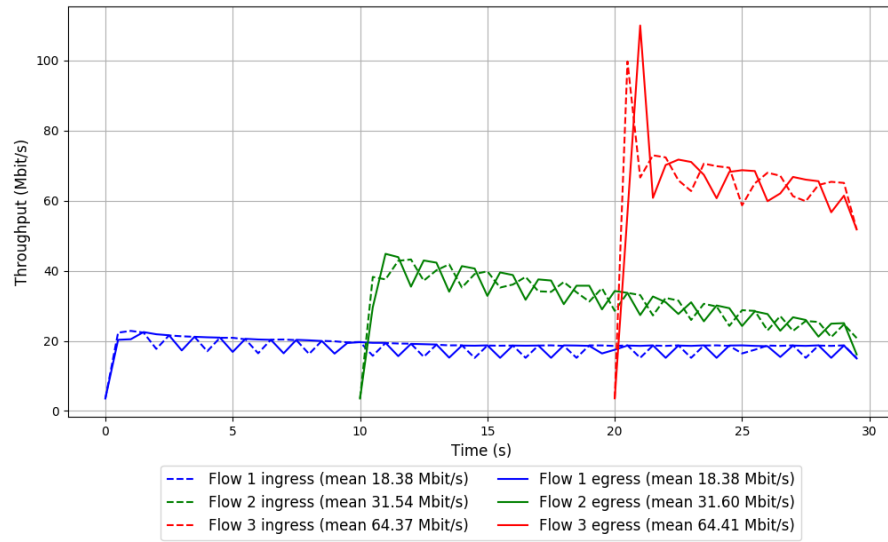
-- Flow 3:

Average throughput: 64.41 Mbit/s

95th percentile per-packet one-way delay: 57.869 ms

Loss rate: 1.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-14 08:45:55

End at: 2018-03-14 08:46:25

Below is generated by plot.py at 2018-03-14 13:59:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.94 Mbit/s

95th percentile per-packet one-way delay: 55.777 ms

Loss rate: 0.63%

-- Flow 1:

Average throughput: 51.68 Mbit/s

95th percentile per-packet one-way delay: 55.566 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 70.73 Mbit/s

95th percentile per-packet one-way delay: 57.208 ms

Loss rate: 0.53%

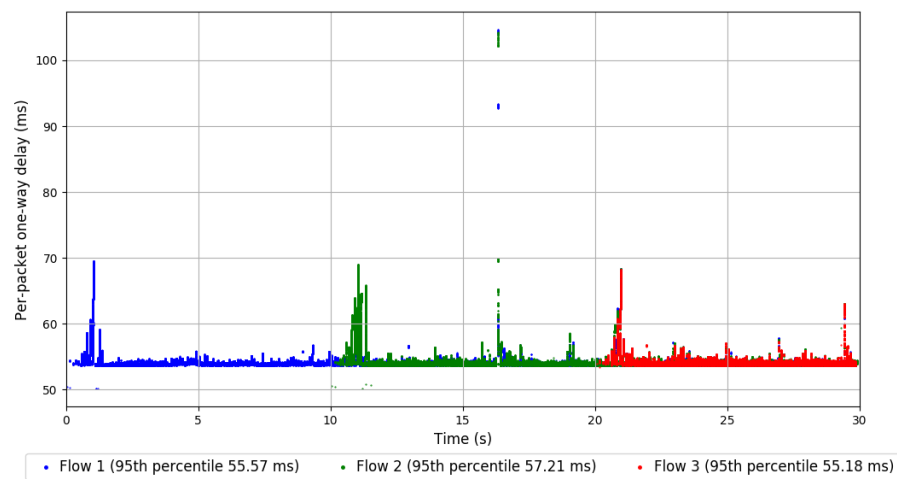
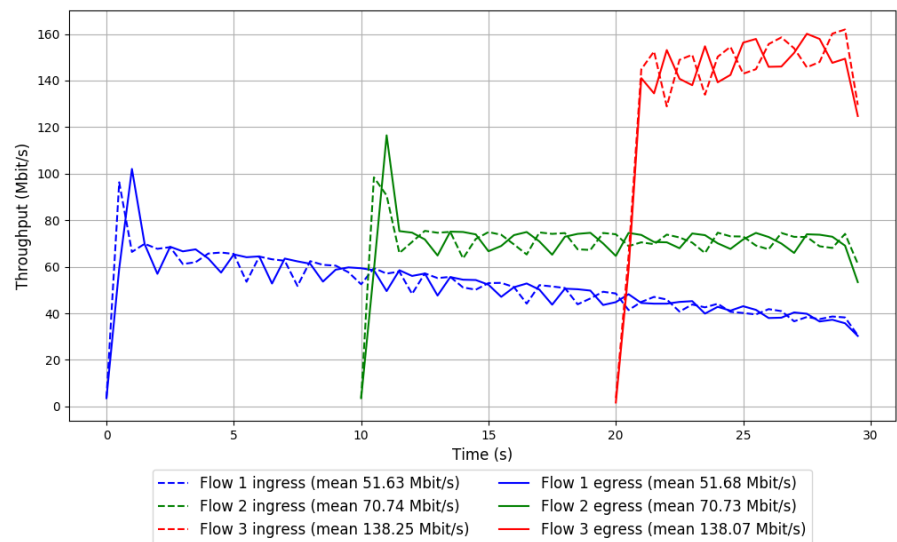
-- Flow 3:

Average throughput: 138.07 Mbit/s

95th percentile per-packet one-way delay: 55.180 ms

Loss rate: 1.18%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-14 09:03:09

End at: 2018-03-14 09:03:39

Below is generated by plot.py at 2018-03-14 14:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.00 Mbit/s

95th percentile per-packet one-way delay: 61.333 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 215.56 Mbit/s

95th percentile per-packet one-way delay: 61.458 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 18.06 Mbit/s

95th percentile per-packet one-way delay: 59.469 ms

Loss rate: 0.76%

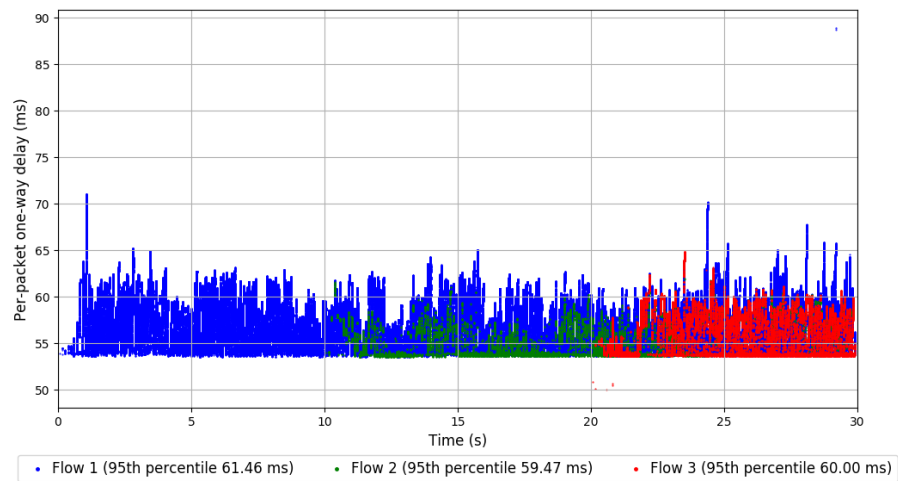
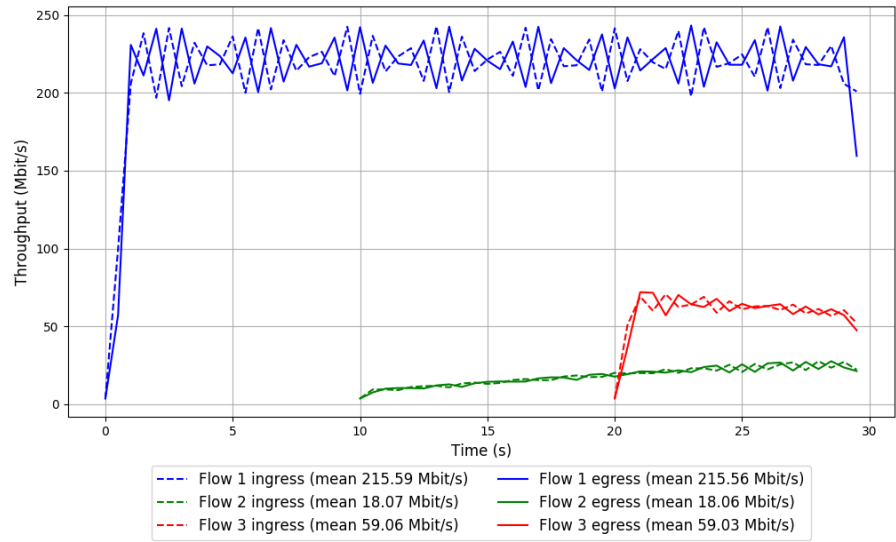
-- Flow 3:

Average throughput: 59.03 Mbit/s

95th percentile per-packet one-way delay: 59.996 ms

Loss rate: 1.06%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-14 09:20:37

End at: 2018-03-14 09:21:07

Below is generated by plot.py at 2018-03-14 14:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.96 Mbit/s

95th percentile per-packet one-way delay: 60.736 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 56.788 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 115.89 Mbit/s

95th percentile per-packet one-way delay: 62.291 ms

Loss rate: 0.40%

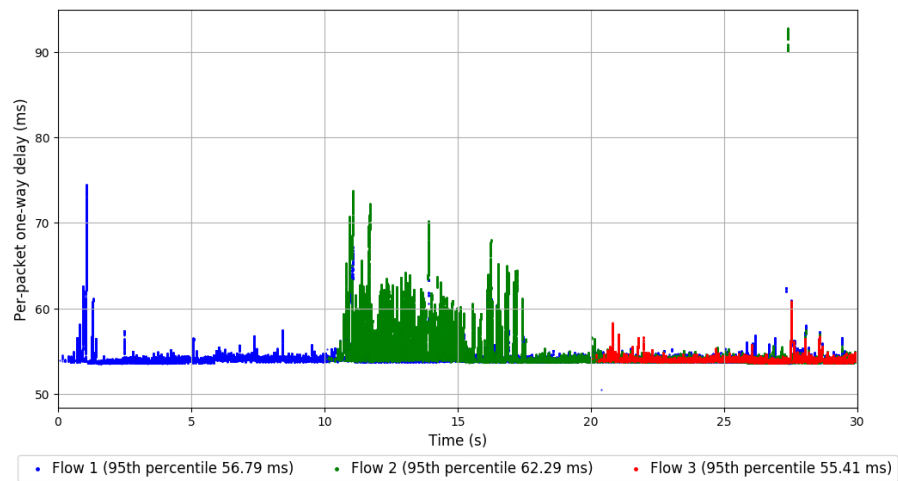
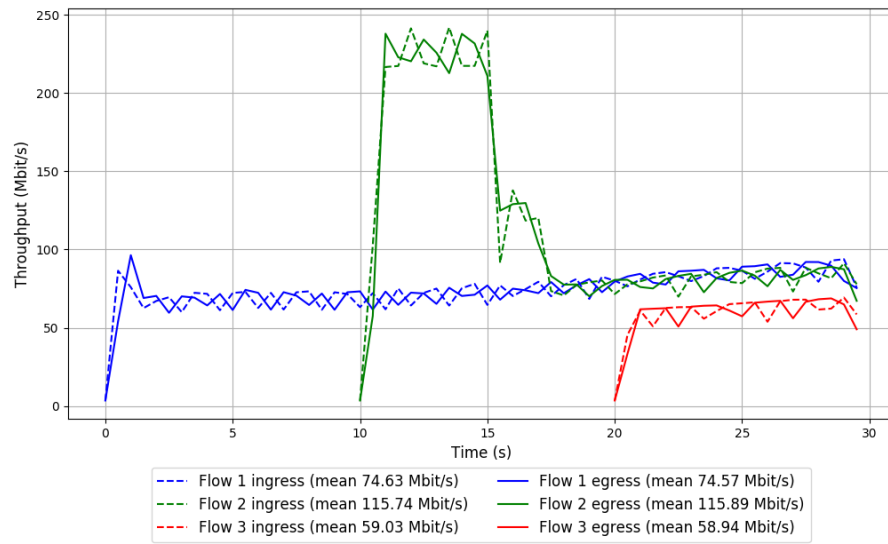
-- Flow 3:

Average throughput: 58.94 Mbit/s

95th percentile per-packet one-way delay: 55.415 ms

Loss rate: 1.20%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-14 09:37:39

End at: 2018-03-14 09:38:09

Below is generated by plot.py at 2018-03-14 14:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 107.16 Mbit/s

95th percentile per-packet one-way delay: 54.856 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 72.85 Mbit/s

95th percentile per-packet one-way delay: 54.801 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 34.00 Mbit/s

95th percentile per-packet one-way delay: 54.889 ms

Loss rate: 0.47%

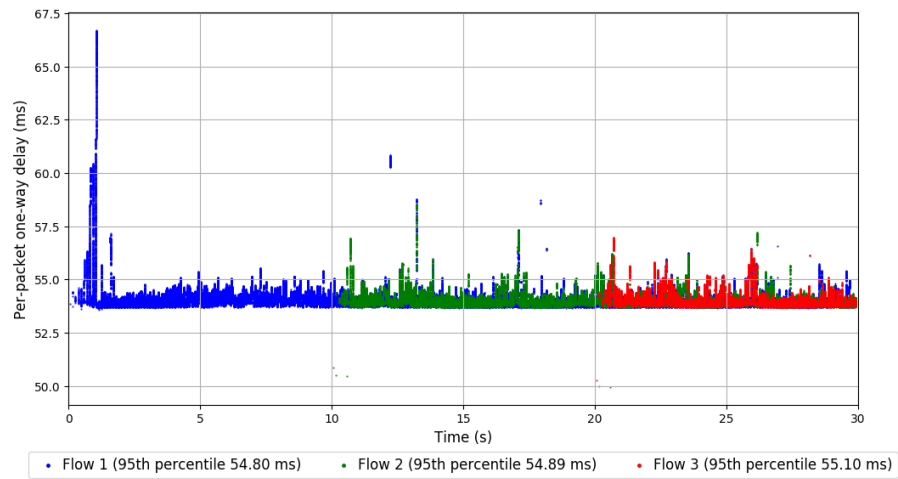
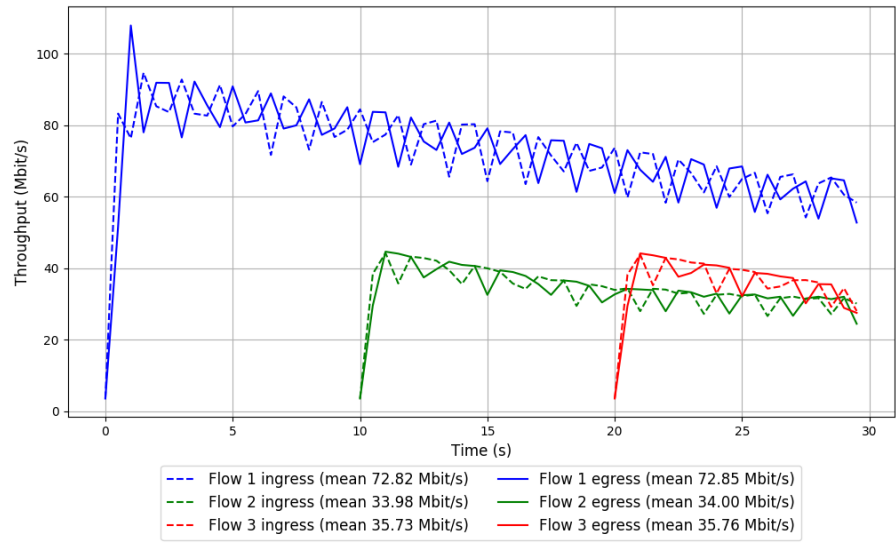
-- Flow 3:

Average throughput: 35.76 Mbit/s

95th percentile per-packet one-way delay: 55.102 ms

Loss rate: 0.96%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-14 09:54:22

End at: 2018-03-14 09:54:52

Below is generated by plot.py at 2018-03-14 14:00:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.09 Mbit/s

95th percentile per-packet one-way delay: 54.661 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 82.57 Mbit/s

95th percentile per-packet one-way delay: 54.614 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 41.50 Mbit/s

95th percentile per-packet one-way delay: 54.529 ms

Loss rate: 0.56%

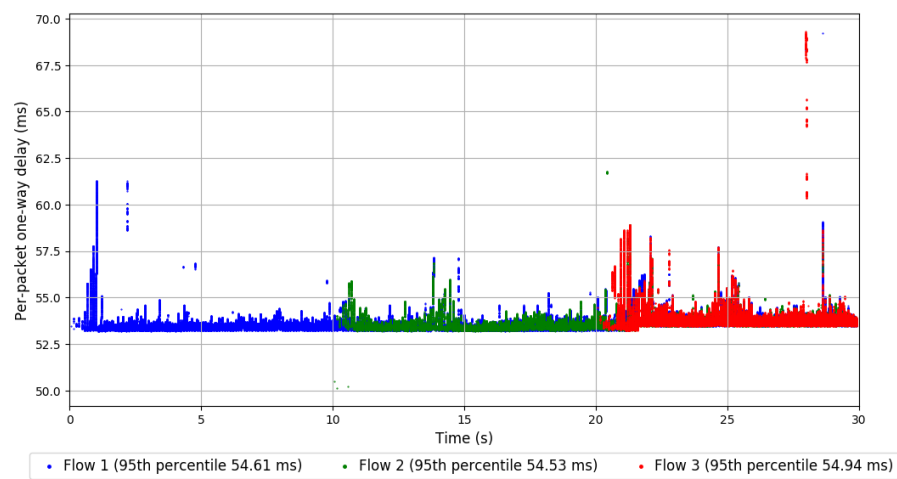
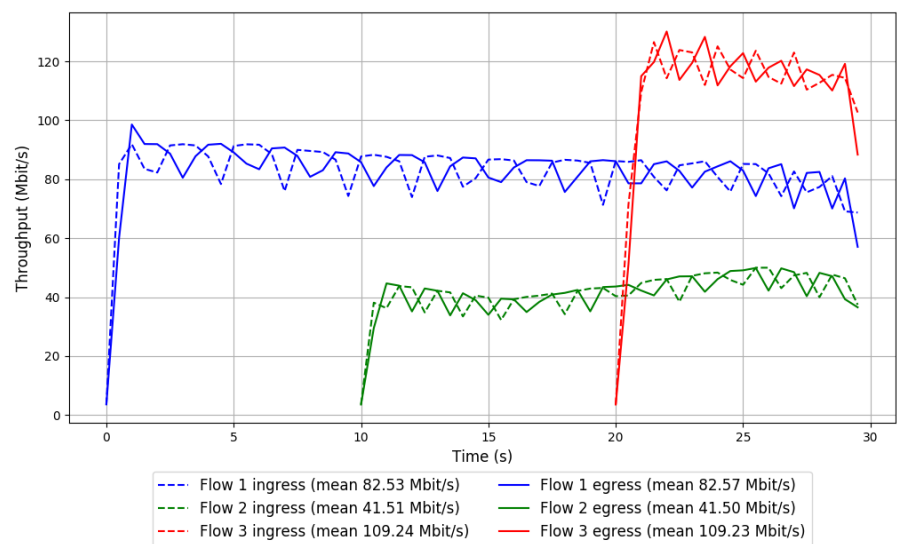
-- Flow 3:

Average throughput: 109.23 Mbit/s

95th percentile per-packet one-way delay: 54.944 ms

Loss rate: 1.07%

Run 10: Report of TCP Vegas — Data Link

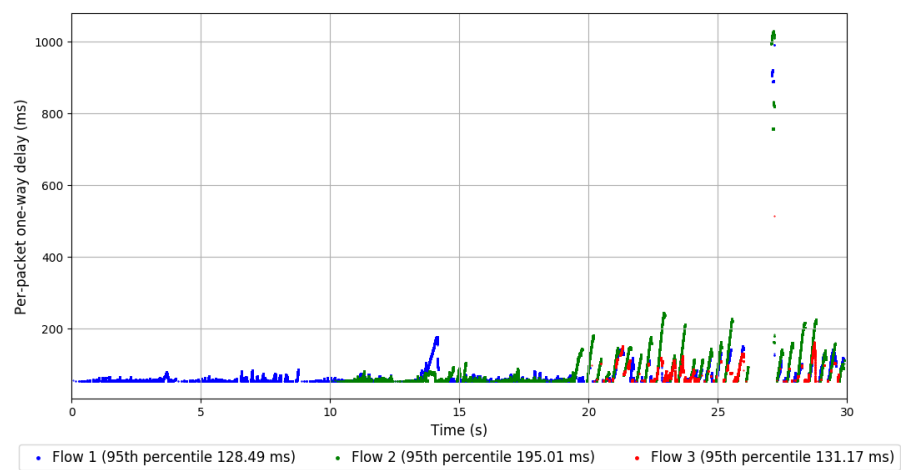
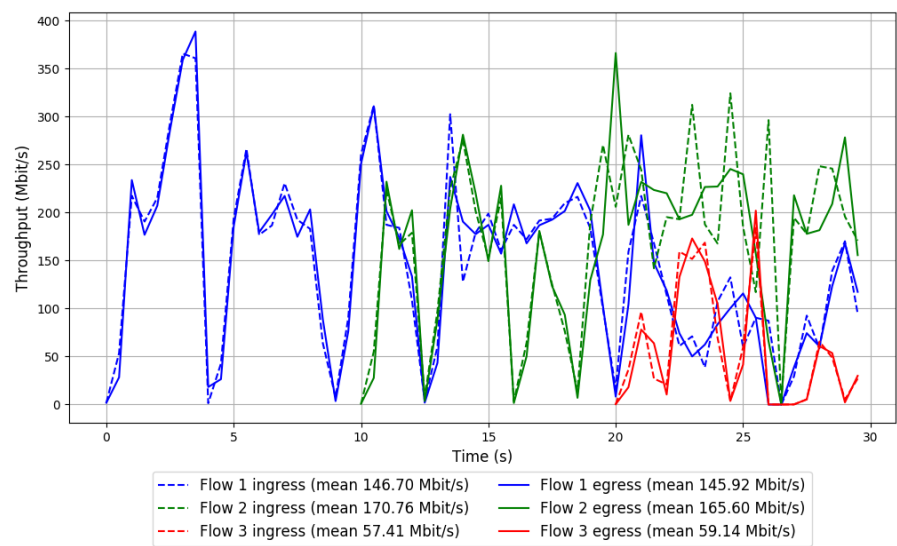


```
Run 1: Statistics of Verus

Start at: 2018-03-14 07:06:43
End at: 2018-03-14 07:07:13

# Below is generated by plot.py at 2018-03-14 14:02:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 274.72 Mbit/s
95th percentile per-packet one-way delay: 153.392 ms
Loss rate: 2.00%
-- Flow 1:
Average throughput: 145.92 Mbit/s
95th percentile per-packet one-way delay: 128.486 ms
Loss rate: 1.02%
-- Flow 2:
Average throughput: 165.60 Mbit/s
95th percentile per-packet one-way delay: 195.013 ms
Loss rate: 3.60%
-- Flow 3:
Average throughput: 59.14 Mbit/s
95th percentile per-packet one-way delay: 131.173 ms
Loss rate: 0.02%
```


Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-14 07:23:44

End at: 2018-03-14 07:24:14

Below is generated by plot.py at 2018-03-14 14:02:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 278.06 Mbit/s

95th percentile per-packet one-way delay: 158.878 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 177.78 Mbit/s

95th percentile per-packet one-way delay: 162.606 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 107.05 Mbit/s

95th percentile per-packet one-way delay: 159.259 ms

Loss rate: 0.97%

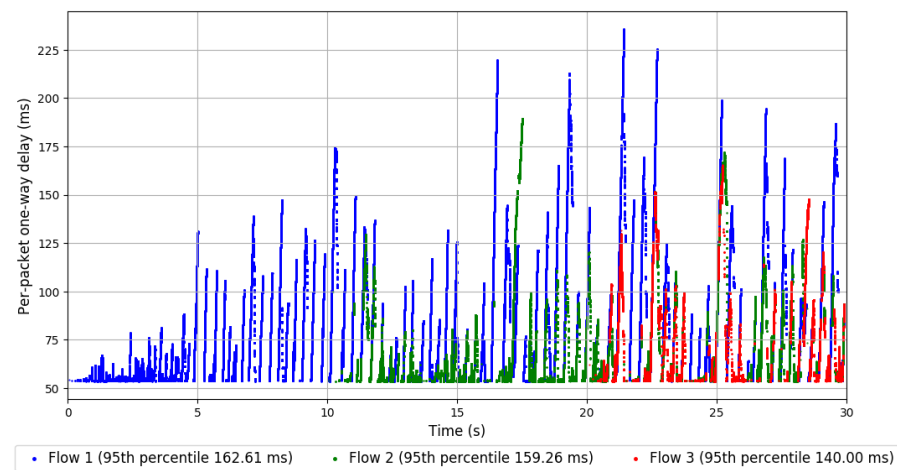
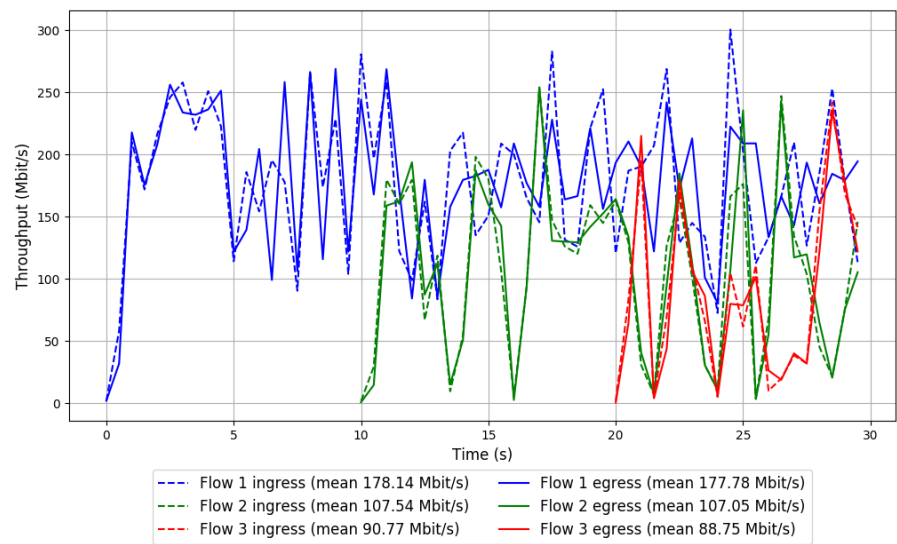
-- Flow 3:

Average throughput: 88.75 Mbit/s

95th percentile per-packet one-way delay: 140.000 ms

Loss rate: 2.78%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-14 07:40:40

End at: 2018-03-14 07:41:10

Below is generated by plot.py at 2018-03-14 14:04:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.90 Mbit/s

95th percentile per-packet one-way delay: 188.082 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 153.57 Mbit/s

95th percentile per-packet one-way delay: 125.844 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 218.91 Mbit/s

95th percentile per-packet one-way delay: 227.681 ms

Loss rate: 2.36%

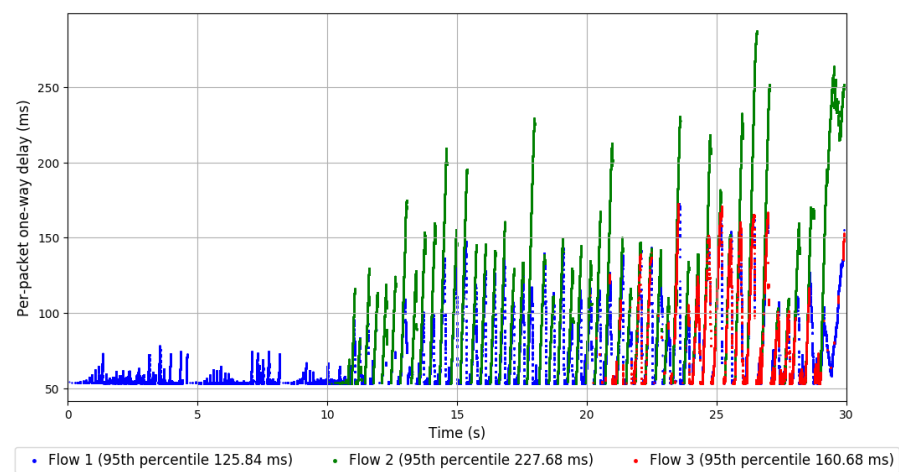
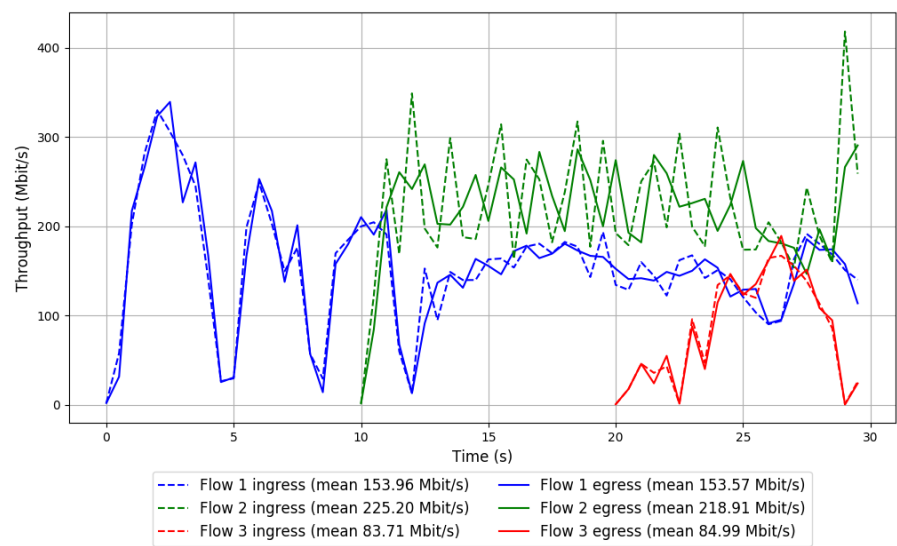
-- Flow 3:

Average throughput: 84.99 Mbit/s

95th percentile per-packet one-way delay: 160.683 ms

Loss rate: 0.16%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-14 07:57:42

End at: 2018-03-14 07:58:12

Below is generated by plot.py at 2018-03-14 14:04:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 310.18 Mbit/s

95th percentile per-packet one-way delay: 126.898 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 174.60 Mbit/s

95th percentile per-packet one-way delay: 118.062 ms

Loss rate: 0.50%

-- Flow 2:

Average throughput: 154.14 Mbit/s

95th percentile per-packet one-way delay: 143.679 ms

Loss rate: 0.63%

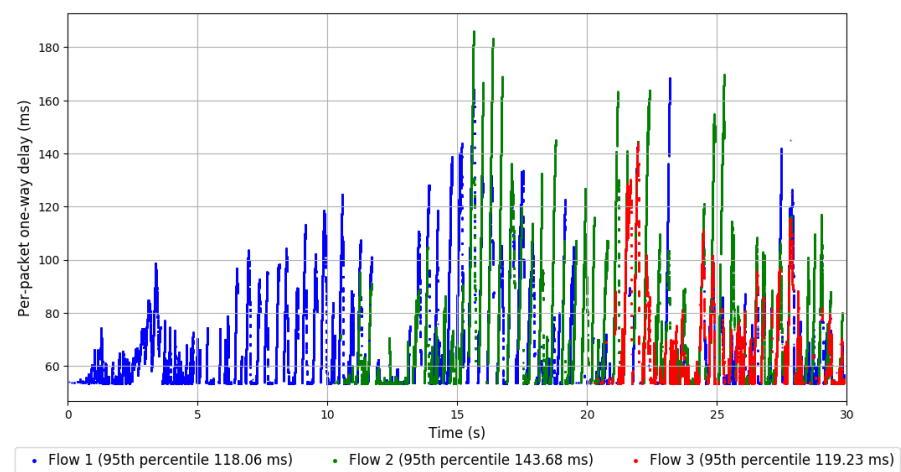
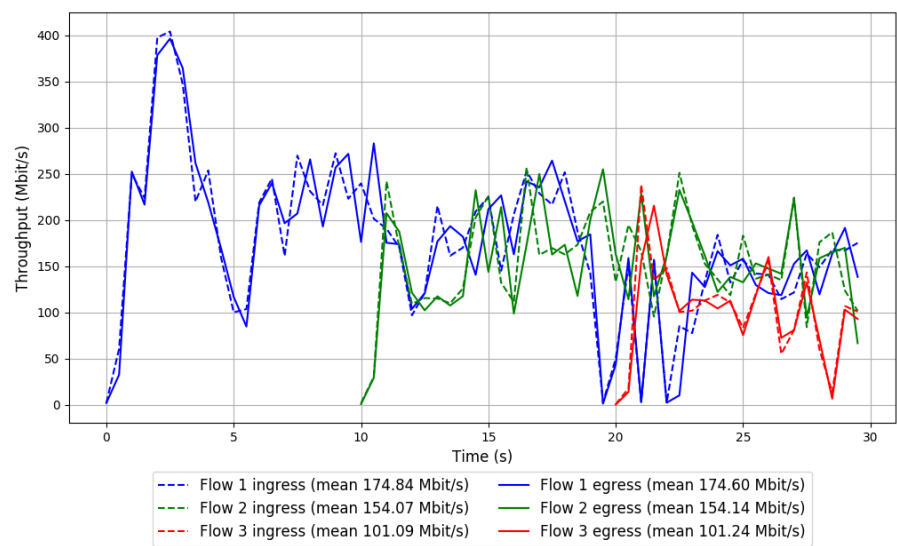
-- Flow 3:

Average throughput: 101.24 Mbit/s

95th percentile per-packet one-way delay: 119.228 ms

Loss rate: 0.94%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-14 08:14:39

End at: 2018-03-14 08:15:09

Below is generated by plot.py at 2018-03-14 14:06:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.17 Mbit/s

95th percentile per-packet one-way delay: 95.751 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 199.05 Mbit/s

95th percentile per-packet one-way delay: 91.950 ms

Loss rate: 0.23%

-- Flow 2:

Average throughput: 151.13 Mbit/s

95th percentile per-packet one-way delay: 105.718 ms

Loss rate: 1.03%

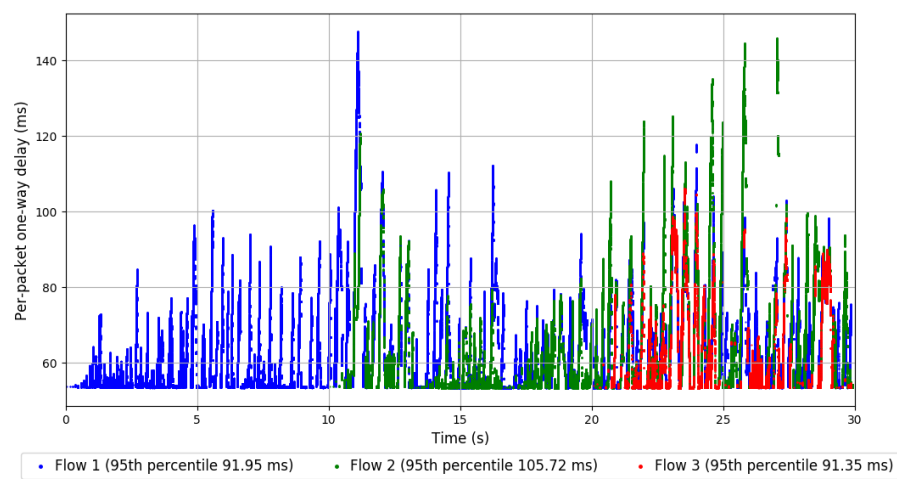
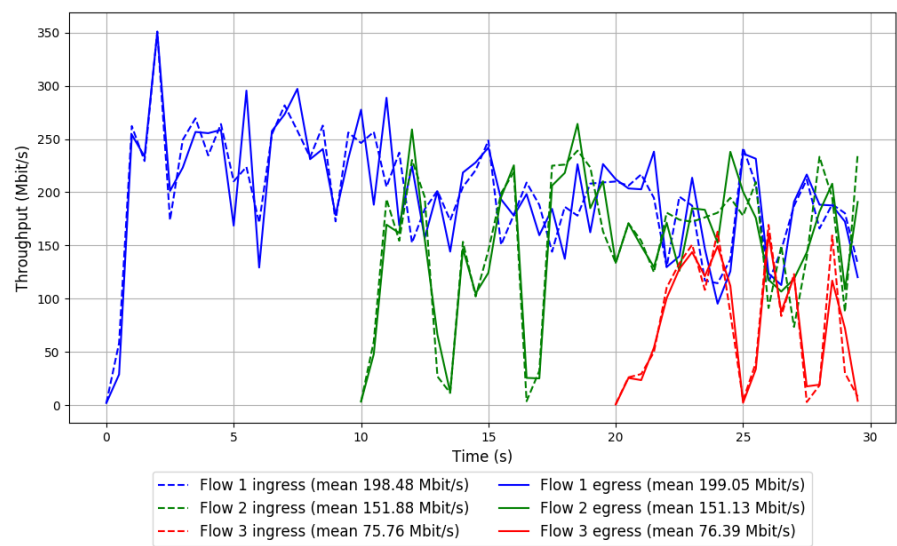
-- Flow 3:

Average throughput: 76.39 Mbit/s

95th percentile per-packet one-way delay: 91.346 ms

Loss rate: 0.28%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-14 08:31:30

End at: 2018-03-14 08:32:00

Below is generated by plot.py at 2018-03-14 14:06:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 291.15 Mbit/s

95th percentile per-packet one-way delay: 161.151 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 208.90 Mbit/s

95th percentile per-packet one-way delay: 168.712 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 92.87 Mbit/s

95th percentile per-packet one-way delay: 116.764 ms

Loss rate: 1.19%

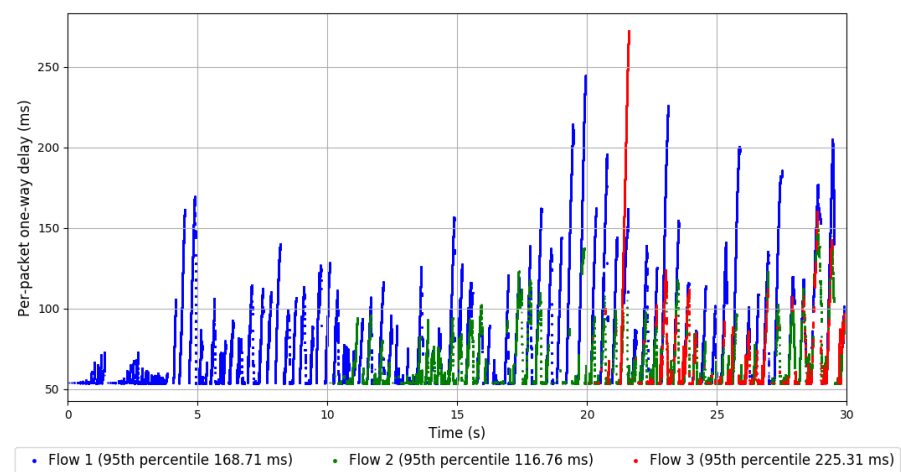
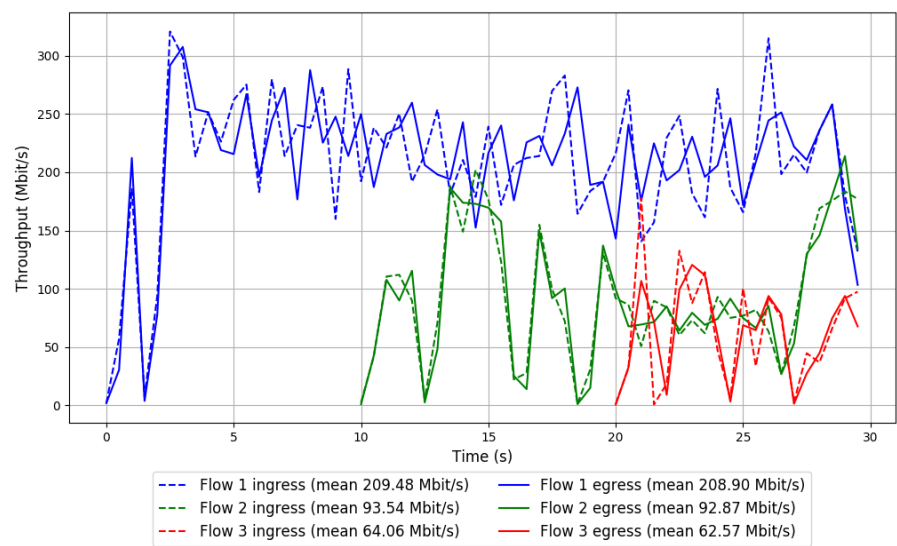
-- Flow 3:

Average throughput: 62.57 Mbit/s

95th percentile per-packet one-way delay: 225.314 ms

Loss rate: 2.37%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-14 08:48:36

End at: 2018-03-14 08:49:06

Below is generated by plot.py at 2018-03-14 14:06:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 277.31 Mbit/s

95th percentile per-packet one-way delay: 94.481 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 160.02 Mbit/s

95th percentile per-packet one-way delay: 94.633 ms

Loss rate: 0.66%

-- Flow 2:

Average throughput: 141.01 Mbit/s

95th percentile per-packet one-way delay: 93.792 ms

Loss rate: 0.28%

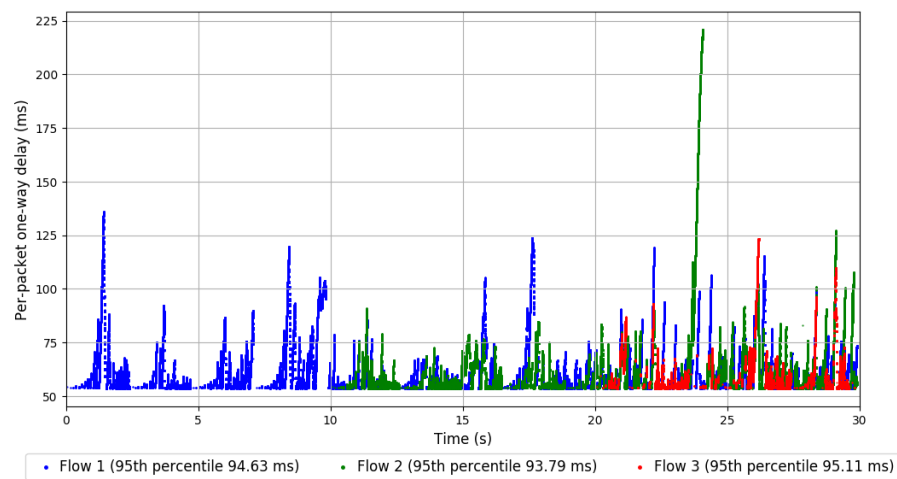
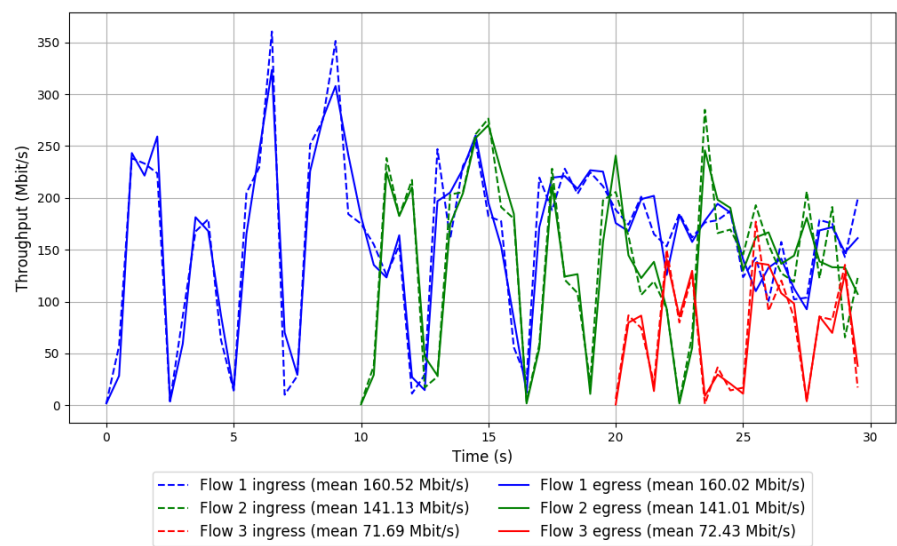
-- Flow 3:

Average throughput: 72.43 Mbit/s

95th percentile per-packet one-way delay: 95.106 ms

Loss rate: 0.04%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-14 09:05:59

End at: 2018-03-14 09:06:29

Below is generated by plot.py at 2018-03-14 14:08:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 347.73 Mbit/s

95th percentile per-packet one-way delay: 194.422 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 217.18 Mbit/s

95th percentile per-packet one-way delay: 197.791 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 165.72 Mbit/s

95th percentile per-packet one-way delay: 189.591 ms

Loss rate: 1.91%

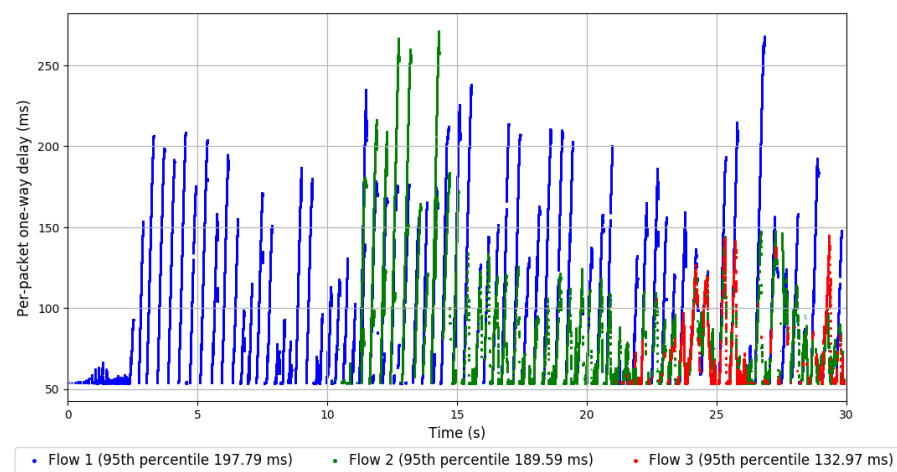
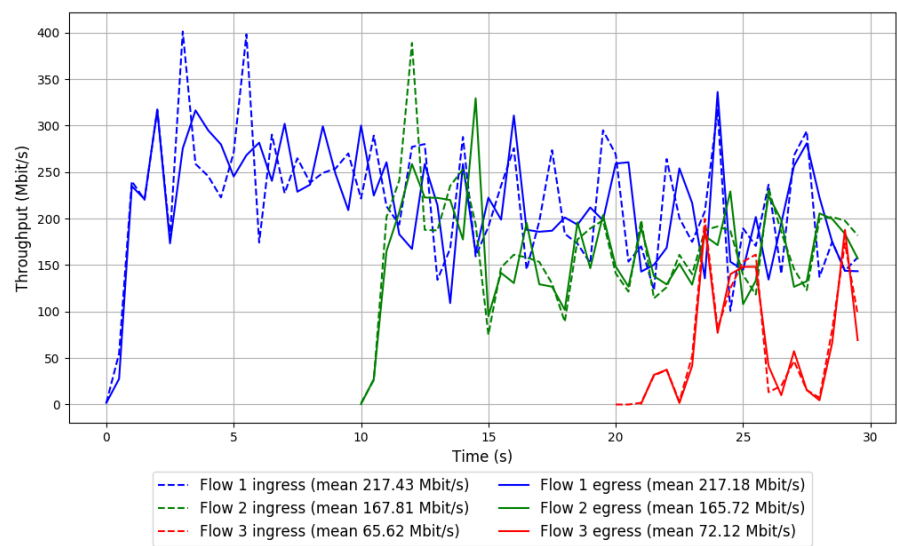
-- Flow 3:

Average throughput: 72.12 Mbit/s

95th percentile per-packet one-way delay: 132.969 ms

Loss rate: 2.34%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-14 09:23:10

End at: 2018-03-14 09:23:40

Below is generated by plot.py at 2018-03-14 14:10:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 317.82 Mbit/s

95th percentile per-packet one-way delay: 233.663 ms

Loss rate: 3.14%

-- Flow 1:

Average throughput: 164.18 Mbit/s

95th percentile per-packet one-way delay: 175.788 ms

Loss rate: 1.67%

-- Flow 2:

Average throughput: 195.74 Mbit/s

95th percentile per-packet one-way delay: 268.784 ms

Loss rate: 4.47%

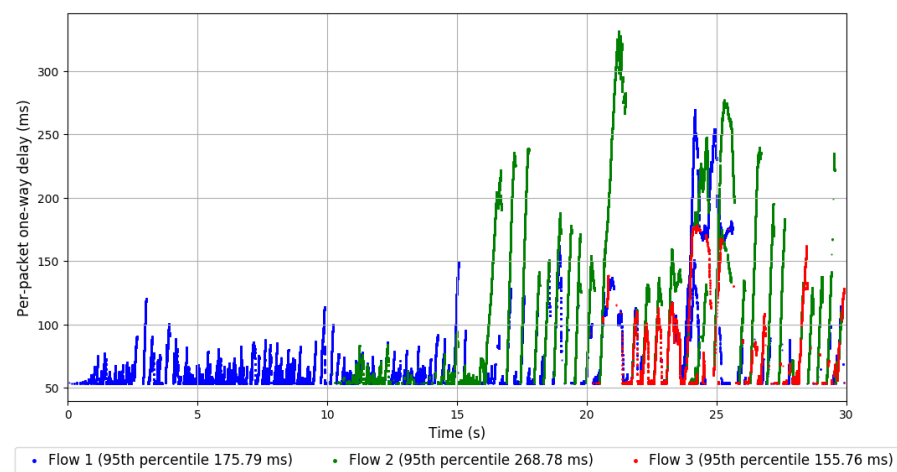
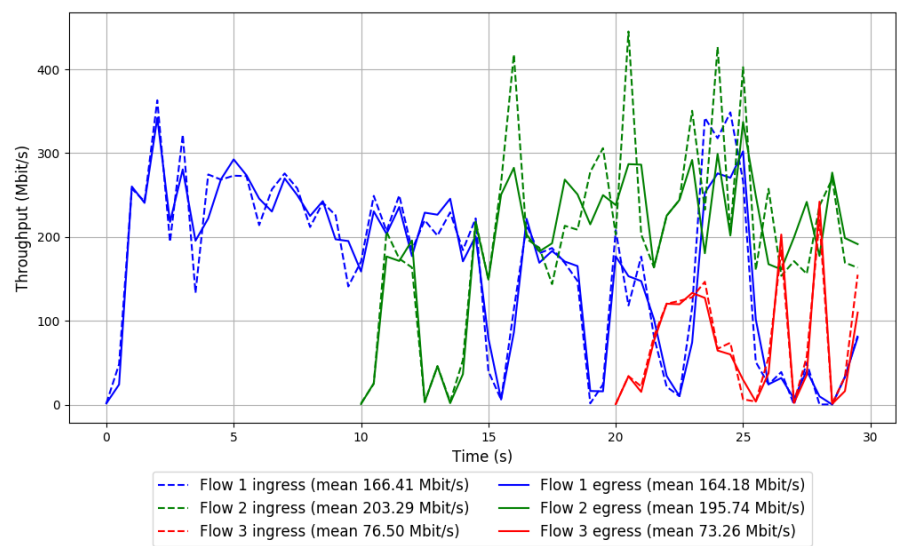
-- Flow 3:

Average throughput: 73.26 Mbit/s

95th percentile per-packet one-way delay: 155.756 ms

Loss rate: 5.62%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-14 09:40:06

End at: 2018-03-14 09:40:36

Below is generated by plot.py at 2018-03-14 14:10:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 302.47 Mbit/s

95th percentile per-packet one-way delay: 117.525 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 182.00 Mbit/s

95th percentile per-packet one-way delay: 97.745 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 136.45 Mbit/s

95th percentile per-packet one-way delay: 117.148 ms

Loss rate: 0.48%

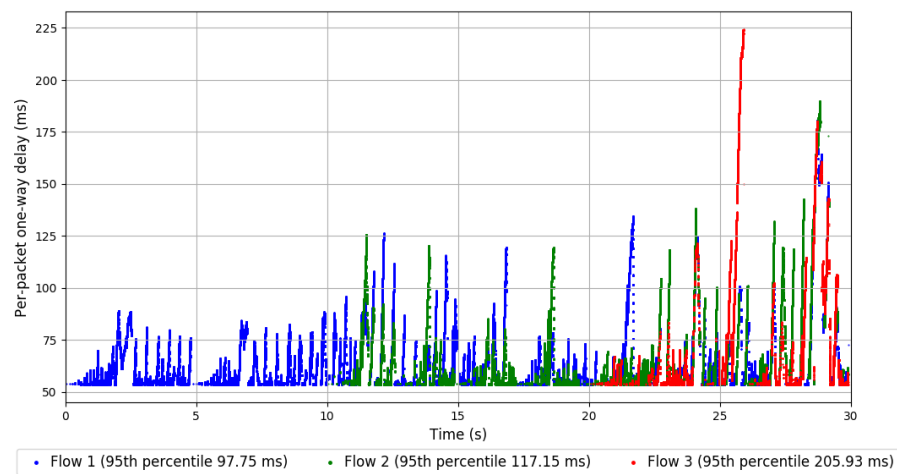
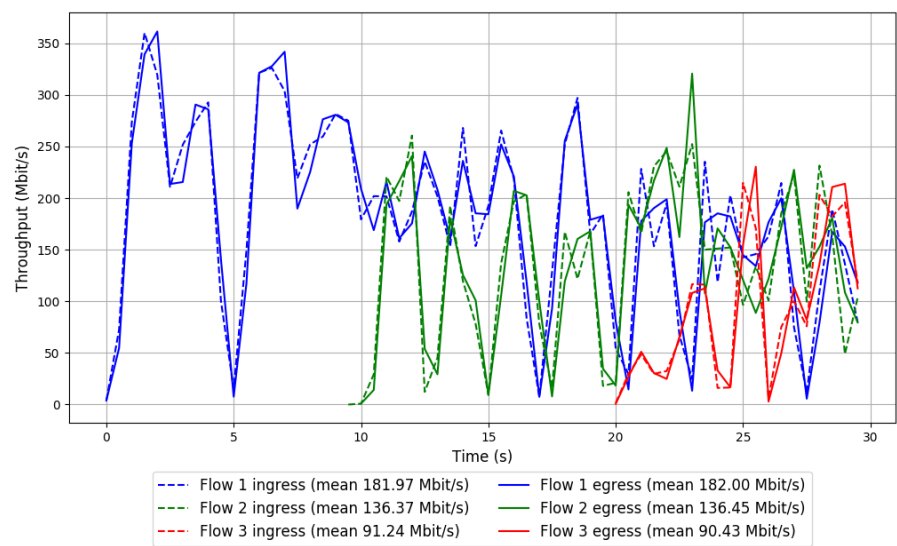
-- Flow 3:

Average throughput: 90.43 Mbit/s

95th percentile per-packet one-way delay: 205.929 ms

Loss rate: 1.95%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-14 07:21:49

End at: 2018-03-14 07:22:19

Below is generated by plot.py at 2018-03-14 14:11:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.02 Mbit/s

95th percentile per-packet one-way delay: 53.786 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 82.69 Mbit/s

95th percentile per-packet one-way delay: 53.678 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 93.87 Mbit/s

95th percentile per-packet one-way delay: 53.665 ms

Loss rate: 0.43%

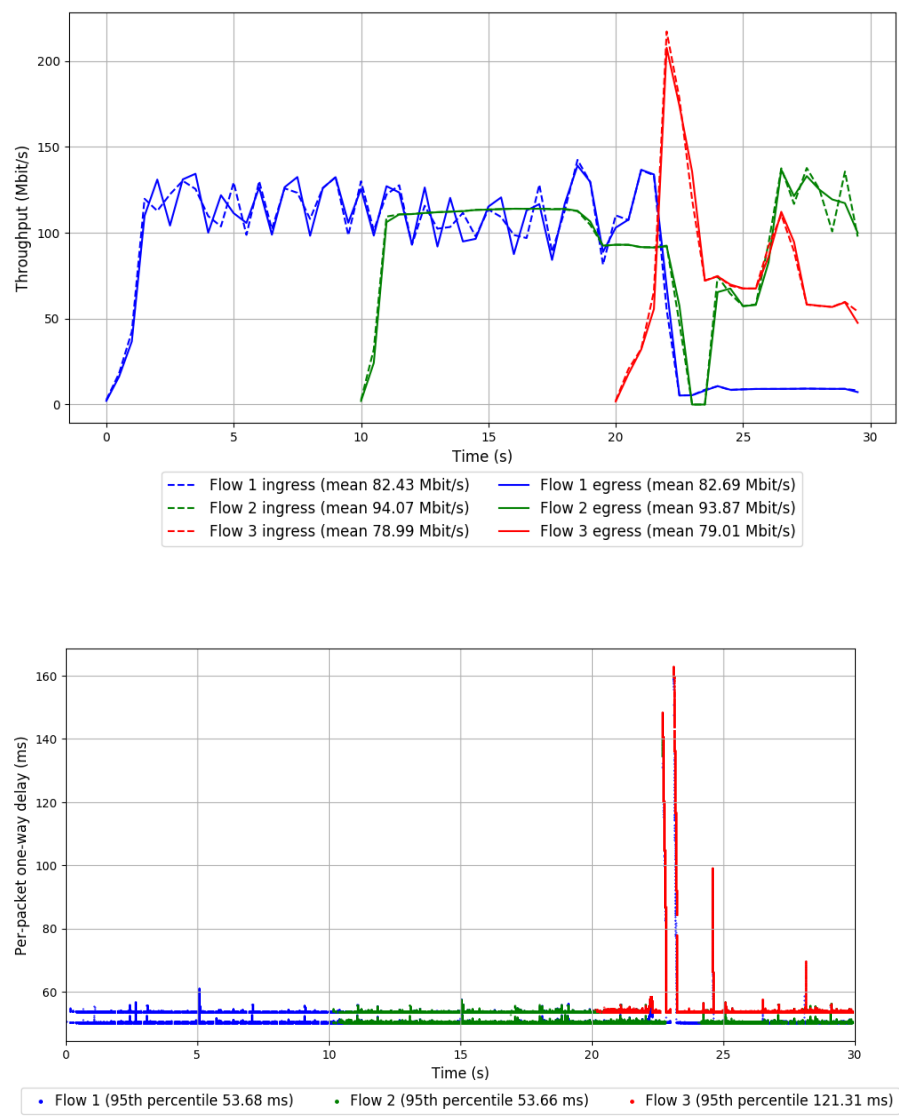
-- Flow 3:

Average throughput: 79.01 Mbit/s

95th percentile per-packet one-way delay: 121.315 ms

Loss rate: 1.07%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-14 07:38:56

End at: 2018-03-14 07:39:26

Below is generated by plot.py at 2018-03-14 14:11:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.00 Mbit/s

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

Loss rate: 0.43%

-- Flow 1:

Average throughput: 76.37 Mbit/s

95th percentile per-packet one-way delay: 53.935 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 68.06 Mbit/s

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

Loss rate: 0.35%

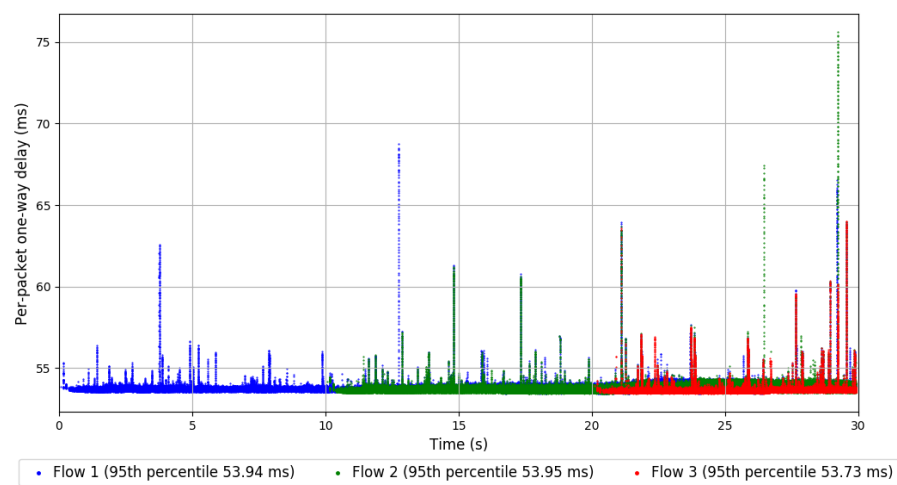
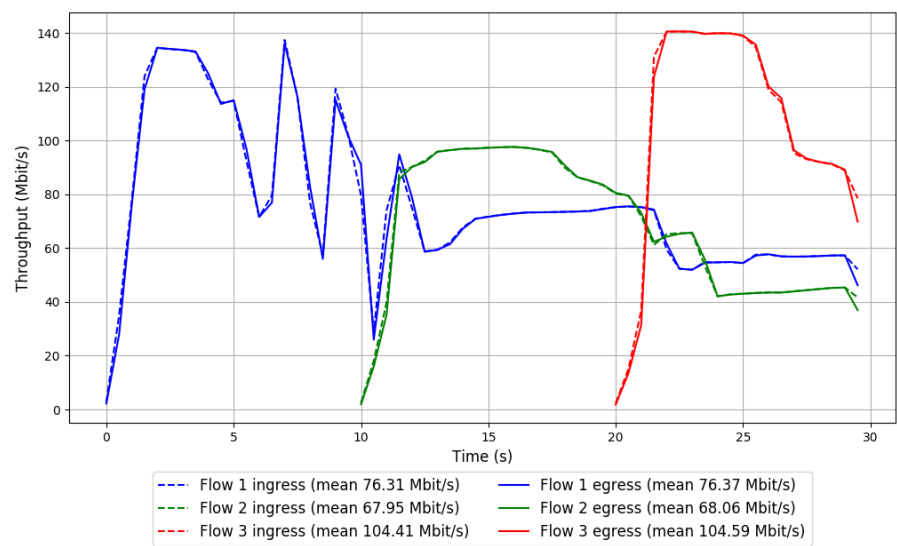
-- Flow 3:

Average throughput: 104.59 Mbit/s

95th percentile per-packet one-way delay: 53.729 ms

Loss rate: 0.88%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-14 07:55:57

End at: 2018-03-14 07:56:27

Below is generated by plot.py at 2018-03-14 14:13:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 196.53 Mbit/s

95th percentile per-packet one-way delay: 53.637 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 104.13 Mbit/s

95th percentile per-packet one-way delay: 53.647 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 98.83 Mbit/s

95th percentile per-packet one-way delay: 53.629 ms

Loss rate: 0.49%

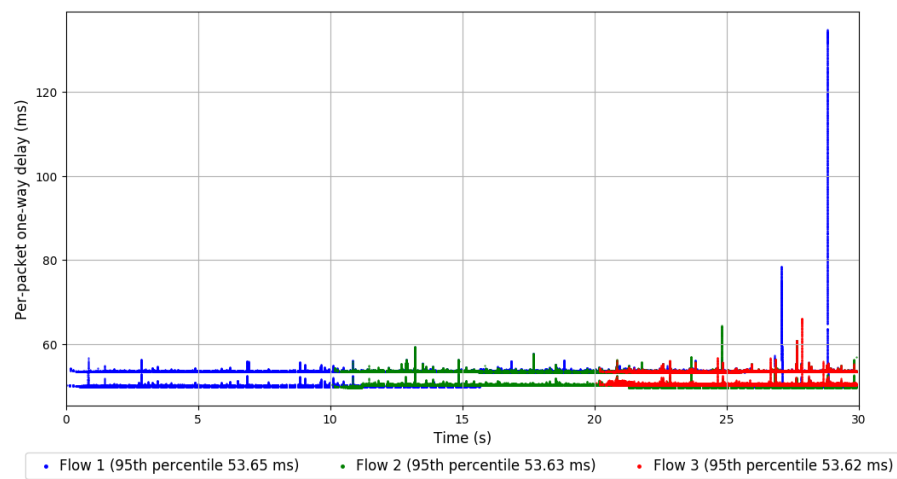
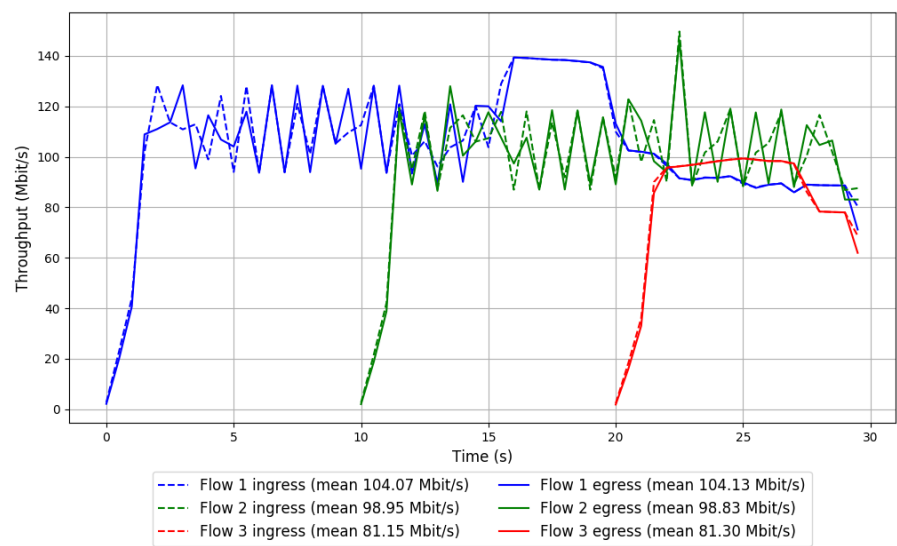
-- Flow 3:

Average throughput: 81.30 Mbit/s

95th percentile per-packet one-way delay: 53.618 ms

Loss rate: 0.93%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-14 08:12:50

End at: 2018-03-14 08:13:20

Below is generated by plot.py at 2018-03-14 14:13:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 160.94 Mbit/s

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

Loss rate: 0.47%

-- Flow 1:

Average throughput: 95.62 Mbit/s

95th percentile per-packet one-way delay: 53.768 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 80.26 Mbit/s

95th percentile per-packet one-way delay: 53.841 ms

Loss rate: 0.38%

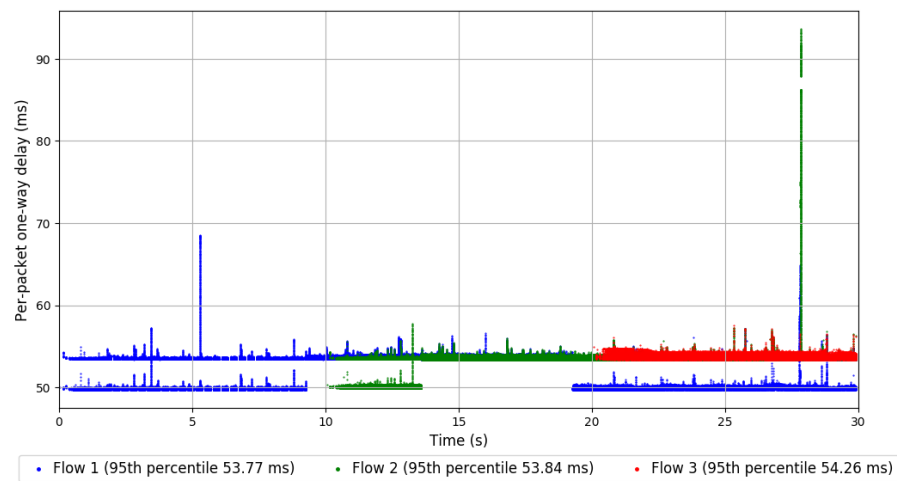
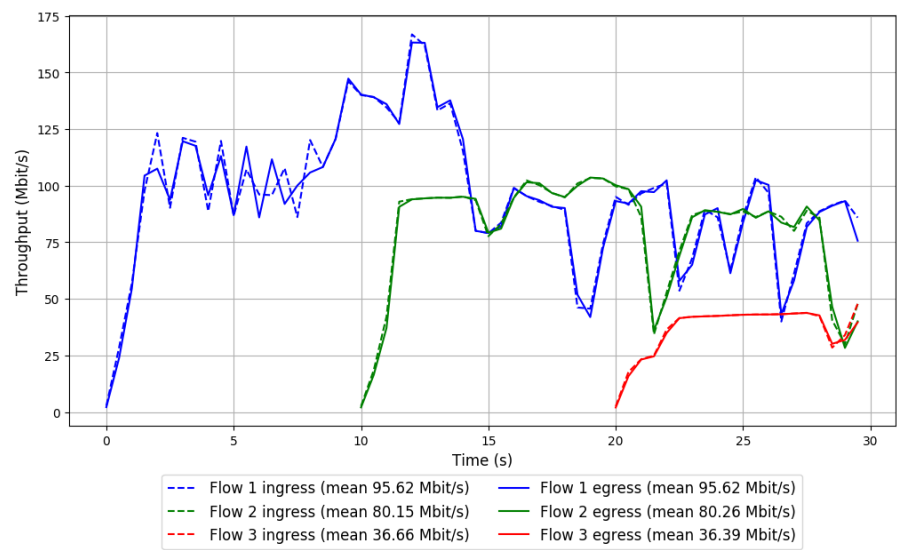
-- Flow 3:

Average throughput: 36.39 Mbit/s

95th percentile per-packet one-way delay: 54.263 ms

Loss rate: 1.78%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-14 08:29:43

End at: 2018-03-14 08:30:13

Below is generated by plot.py at 2018-03-14 14:16:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.56 Mbit/s

95th percentile per-packet one-way delay: 224.232 ms

Loss rate: 18.97%

-- Flow 1:

Average throughput: 250.12 Mbit/s

95th percentile per-packet one-way delay: 231.130 ms

Loss rate: 21.47%

-- Flow 2:

Average throughput: 41.16 Mbit/s

95th percentile per-packet one-way delay: 114.248 ms

Loss rate: 0.00%

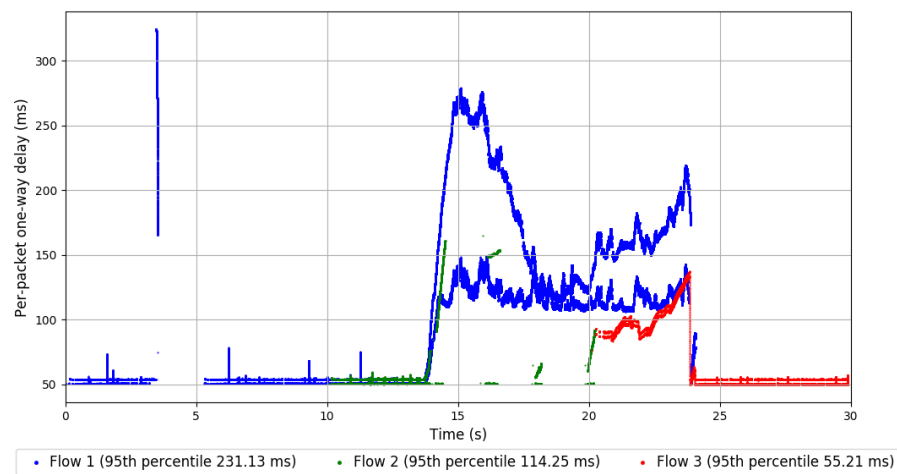
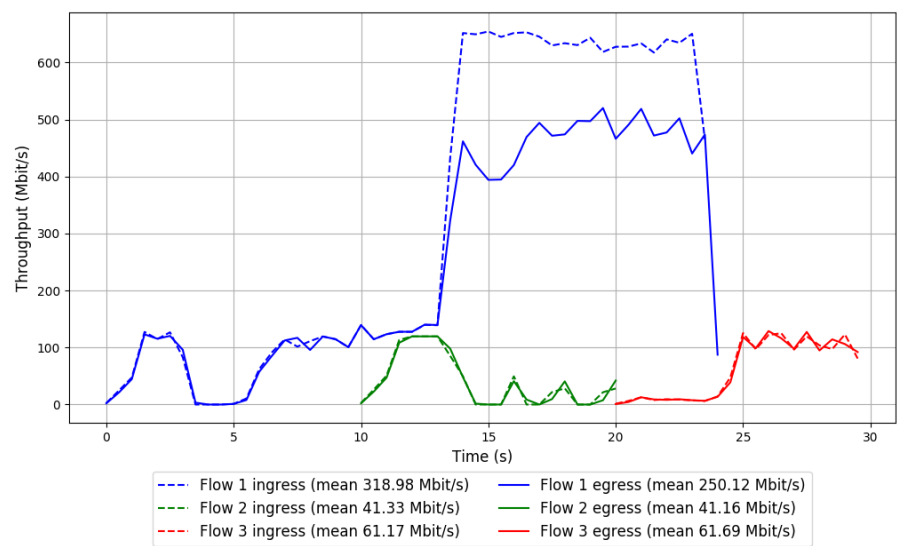
-- Flow 3:

Average throughput: 61.69 Mbit/s

95th percentile per-packet one-way delay: 55.213 ms

Loss rate: 0.47%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-14 08:46:42

End at: 2018-03-14 08:47:12

Below is generated by plot.py at 2018-03-14 14:16:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.84 Mbit/s

95th percentile per-packet one-way delay: 53.958 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 78.20 Mbit/s

95th percentile per-packet one-way delay: 53.869 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 60.89 Mbit/s

95th percentile per-packet one-way delay: 54.184 ms

Loss rate: 1.02%

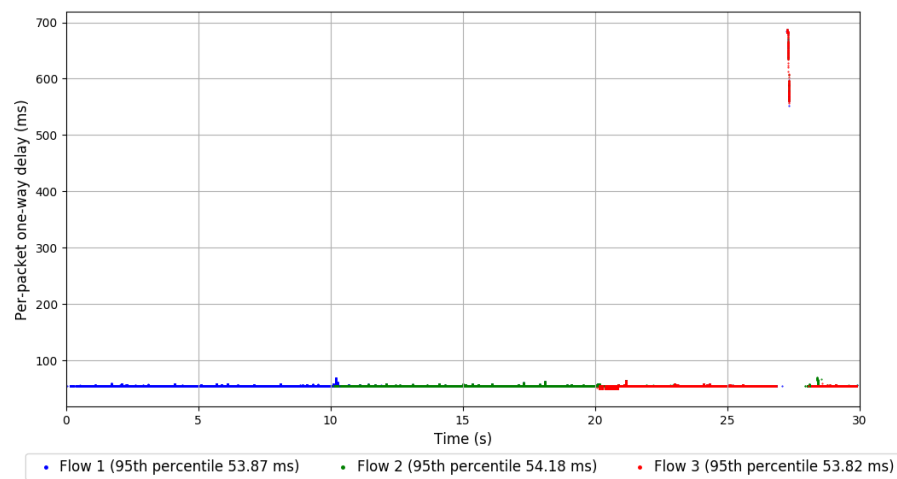
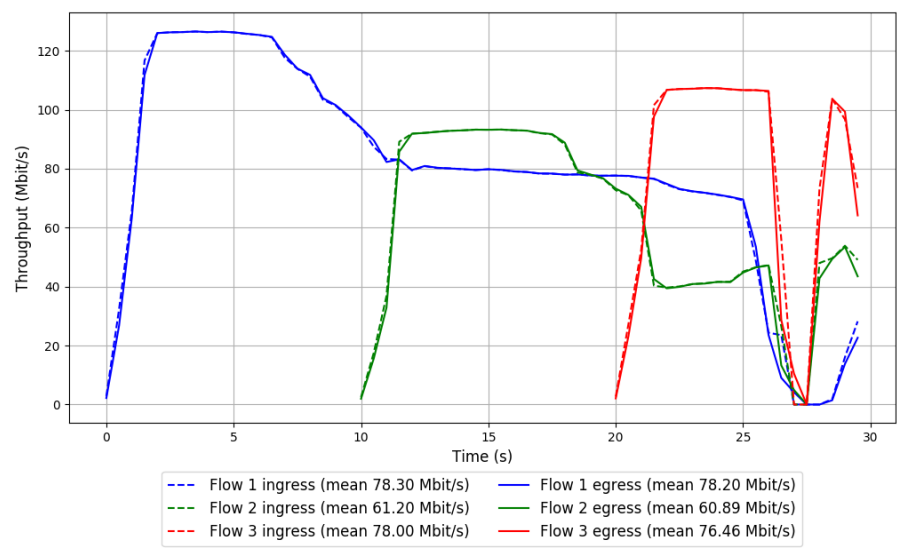
-- Flow 3:

Average throughput: 76.46 Mbit/s

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

Loss rate: 2.96%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-14 09:04:00

End at: 2018-03-14 09:04:30

Below is generated by plot.py at 2018-03-14 14:16:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.53 Mbit/s

95th percentile per-packet one-way delay: 53.883 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 83.66 Mbit/s

95th percentile per-packet one-way delay: 53.943 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 69.28 Mbit/s

95th percentile per-packet one-way delay: 53.833 ms

Loss rate: 0.06%

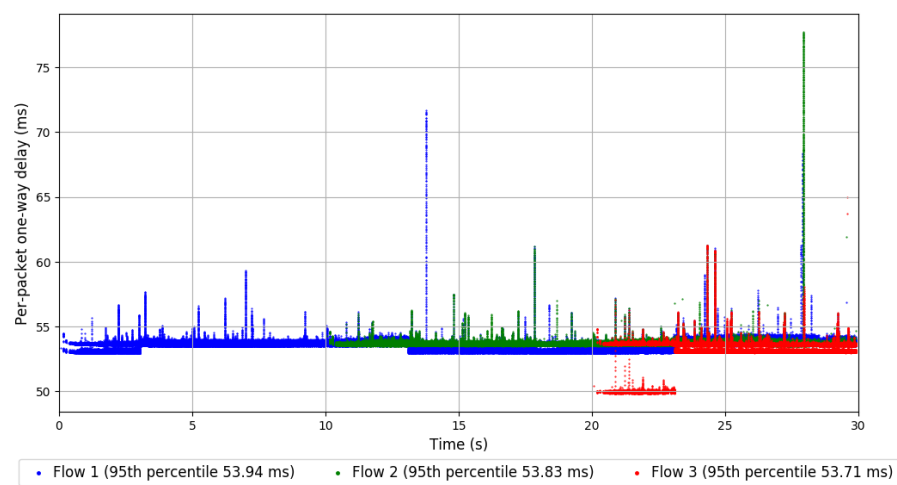
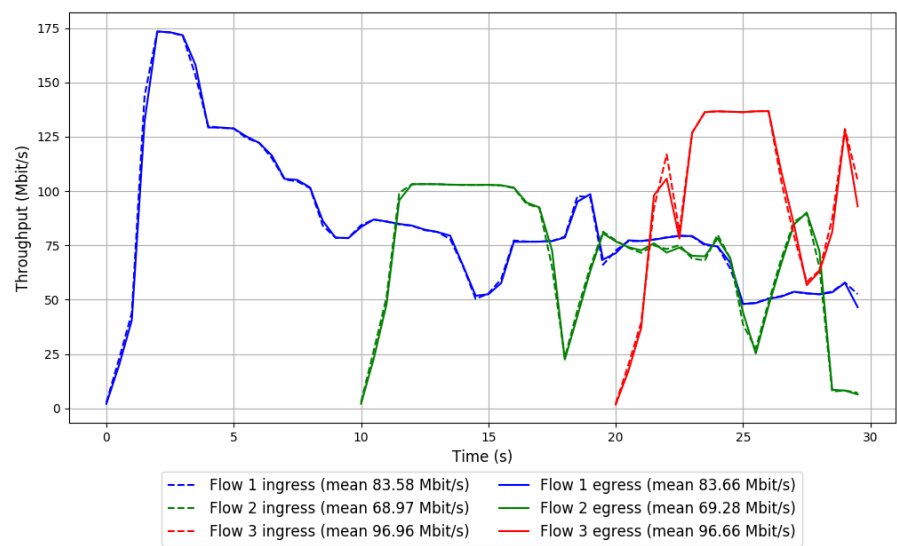
-- Flow 3:

Average throughput: 96.66 Mbit/s

95th percentile per-packet one-way delay: 53.714 ms

Loss rate: 1.33%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-14 09:21:26

End at: 2018-03-14 09:21:56

Below is generated by plot.py at 2018-03-14 14:17:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.12 Mbit/s

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

Loss rate: 0.46%

-- Flow 1:

Average throughput: 96.44 Mbit/s

95th percentile per-packet one-way delay: 53.844 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 73.27 Mbit/s

95th percentile per-packet one-way delay: 54.062 ms

Loss rate: 0.36%

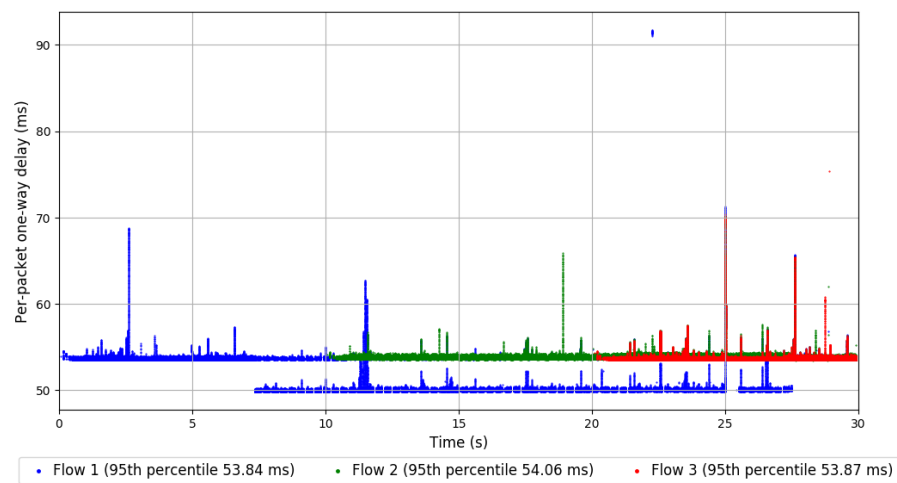
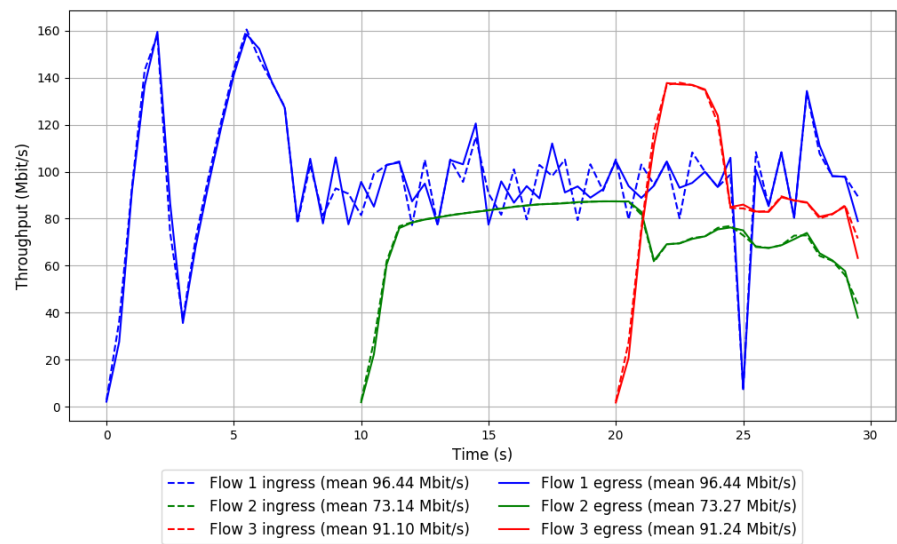
-- Flow 3:

Average throughput: 91.24 Mbit/s

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

Loss rate: 0.95%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-14 09:38:24

End at: 2018-03-14 09:38:54

Below is generated by plot.py at 2018-03-14 14:18:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.53 Mbit/s

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

Loss rate: 0.53%

-- Flow 1:

Average throughput: 97.24 Mbit/s

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

Loss rate: 0.47%

-- Flow 2:

Average throughput: 72.15 Mbit/s

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

Loss rate: 0.38%

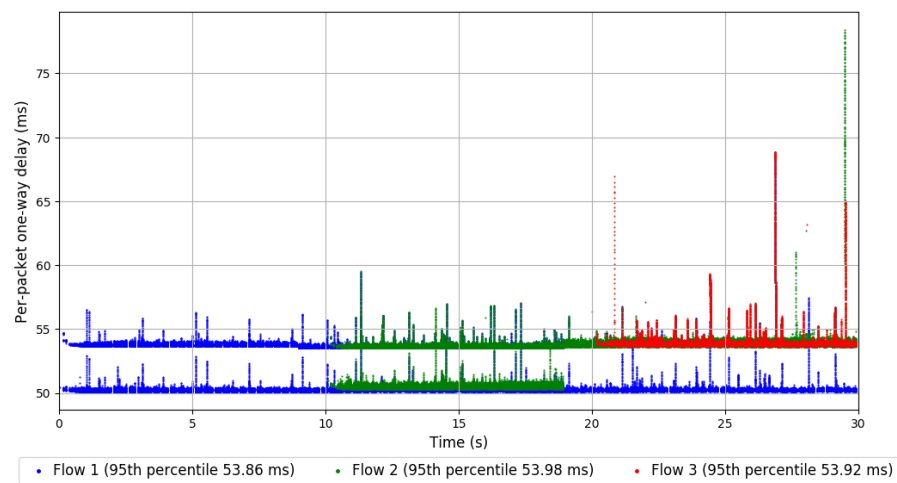
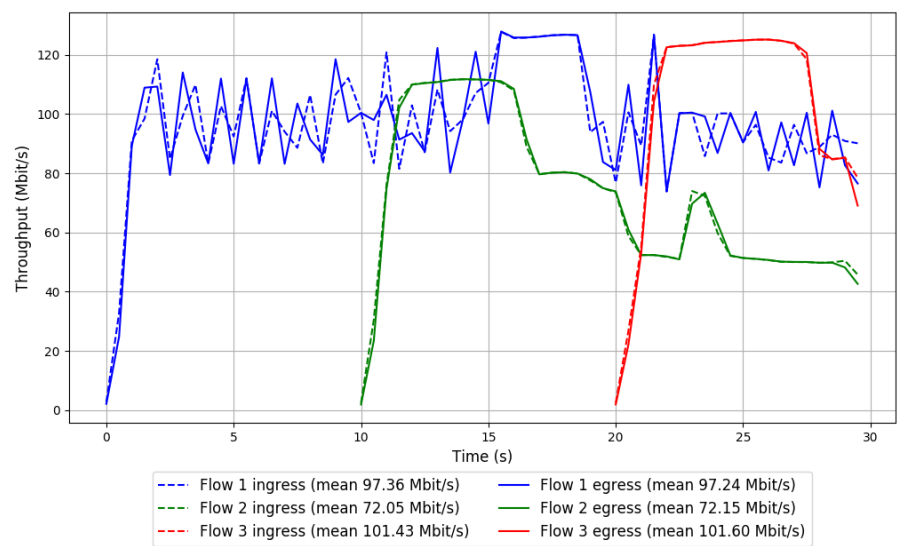
-- Flow 3:

Average throughput: 101.60 Mbit/s

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

Loss rate: 0.93%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-14 09:55:09

End at: 2018-03-14 09:55:39

Below is generated by plot.py at 2018-03-14 14:21:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.41 Mbit/s

95th percentile per-packet one-way delay: 119.937 ms

Loss rate: 2.51%

-- Flow 1:

Average throughput: 95.22 Mbit/s

95th percentile per-packet one-way delay: 53.881 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 84.18 Mbit/s

95th percentile per-packet one-way delay: 54.446 ms

Loss rate: 0.42%

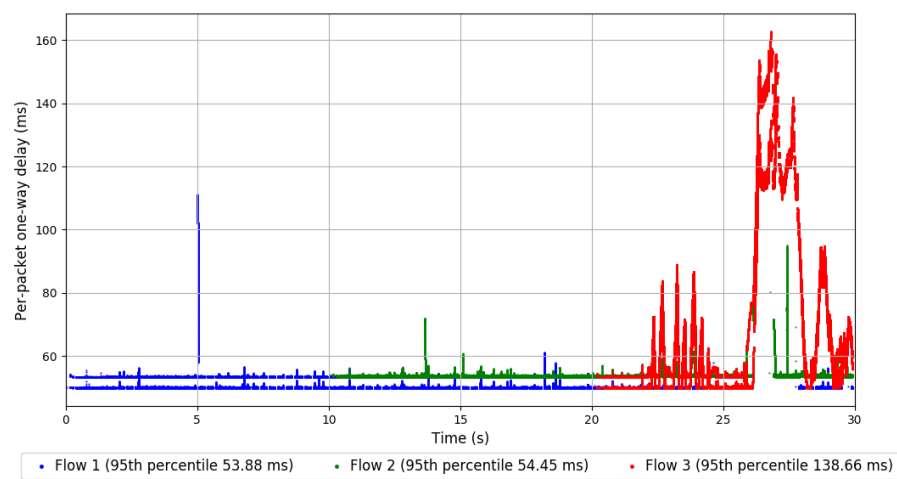
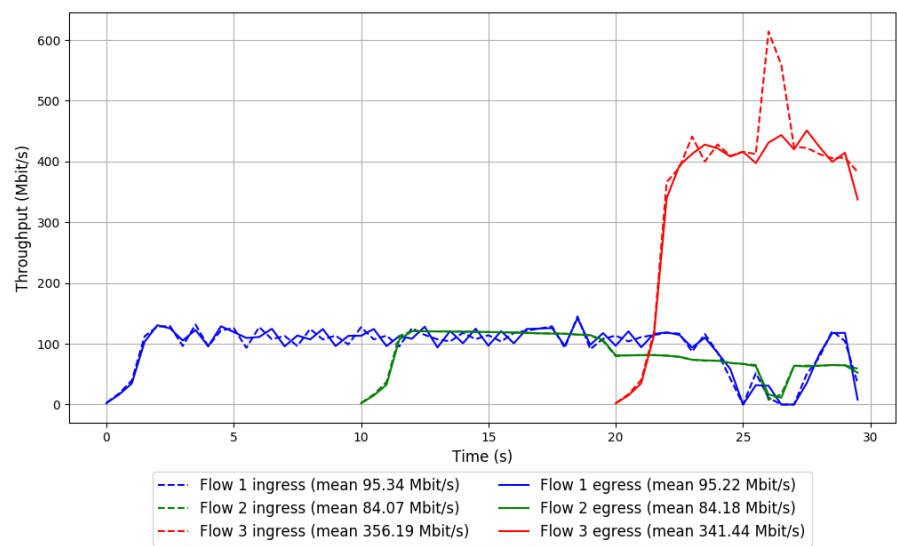
-- Flow 3:

Average throughput: 341.44 Mbit/s

95th percentile per-packet one-way delay: 138.662 ms

Loss rate: 5.15%

Run 10: Report of Copa — Data Link

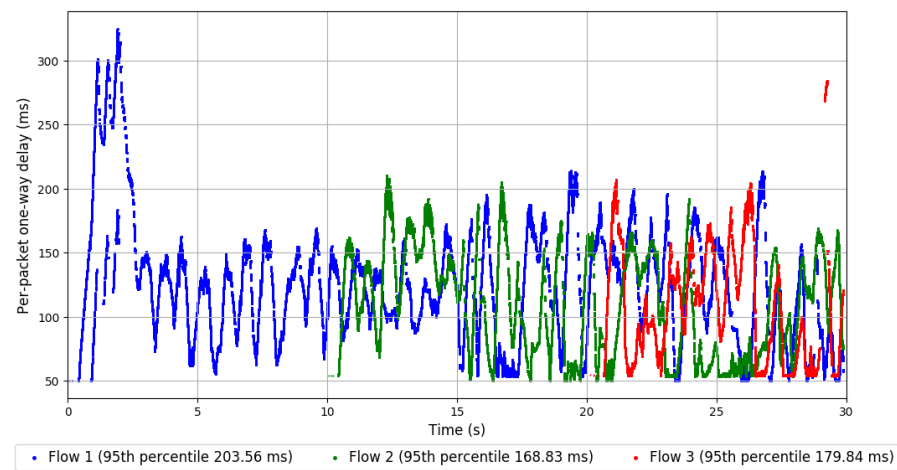
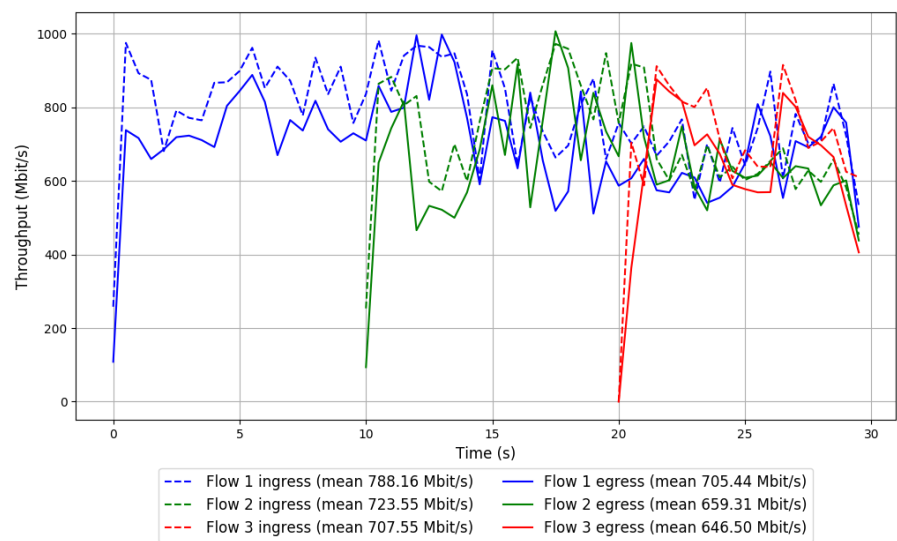


```
Run 1: Statistics of FillP

Start at: 2018-03-14 07:16:11
End at: 2018-03-14 07:16:41

# Below is generated by plot.py at 2018-03-14 14:45:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1354.32 Mbit/s
95th percentile per-packet one-way delay: 183.286 ms
Loss rate: 10.16%
-- Flow 1:
Average throughput: 705.44 Mbit/s
95th percentile per-packet one-way delay: 203.555 ms
Loss rate: 10.80%
-- Flow 2:
Average throughput: 659.31 Mbit/s
95th percentile per-packet one-way delay: 168.832 ms
Loss rate: 9.36%
-- Flow 3:
Average throughput: 646.50 Mbit/s
95th percentile per-packet one-way delay: 179.845 ms
Loss rate: 9.62%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-14 07:33:12

End at: 2018-03-14 07:33:42

Below is generated by plot.py at 2018-03-14 14:47:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 1363.47 Mbit/s

95th percentile per-packet one-way delay: 162.143 ms

Loss rate: 10.66%

-- Flow 1:

Average throughput: 708.75 Mbit/s

95th percentile per-packet one-way delay: 163.715 ms

Loss rate: 12.85%

-- Flow 2:

Average throughput: 674.70 Mbit/s

95th percentile per-packet one-way delay: 163.874 ms

Loss rate: 10.88%

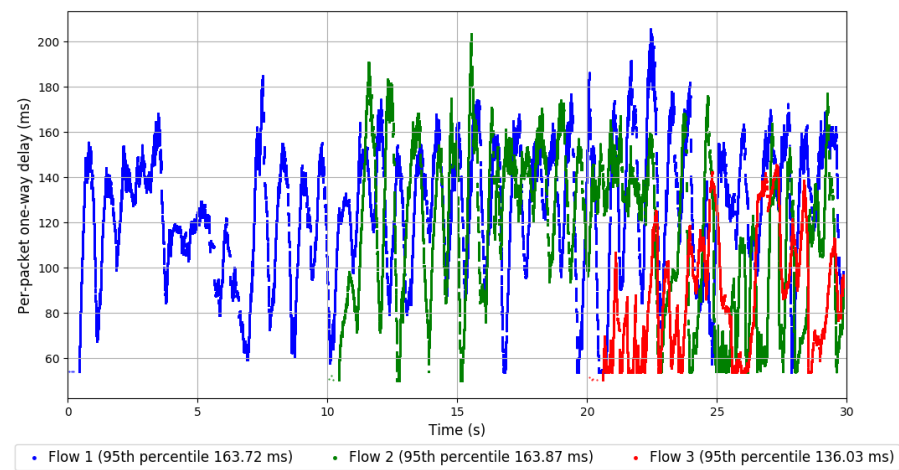
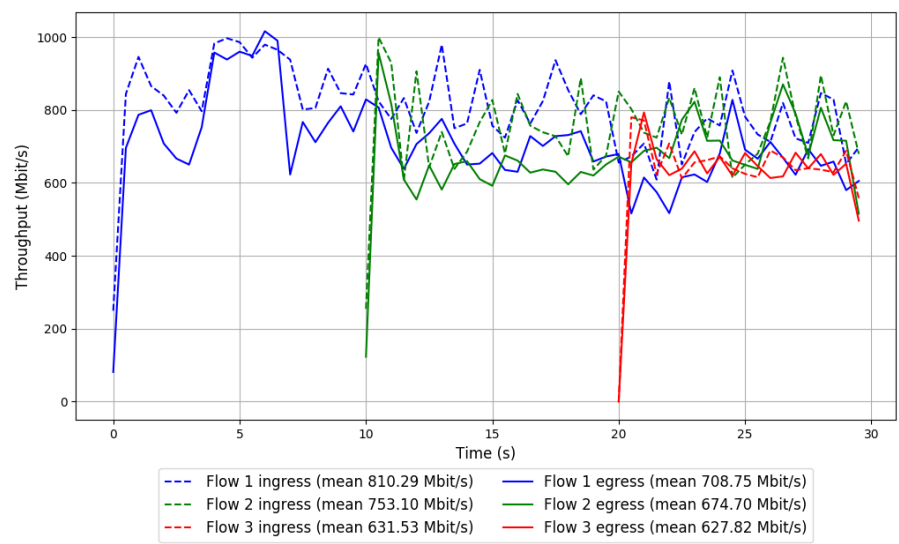
-- Flow 3:

Average throughput: 627.82 Mbit/s

95th percentile per-packet one-way delay: 136.035 ms

Loss rate: 1.64%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-14 07:50:11

End at: 2018-03-14 07:50:41

Below is generated by plot.py at 2018-03-14 14:49:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1418.80 Mbit/s

95th percentile per-packet one-way delay: 166.203 ms

Loss rate: 10.49%

-- Flow 1:

Average throughput: 735.64 Mbit/s

95th percentile per-packet one-way delay: 154.782 ms

Loss rate: 10.88%

-- Flow 2:

Average throughput: 714.99 Mbit/s

95th percentile per-packet one-way delay: 153.998 ms

Loss rate: 8.15%

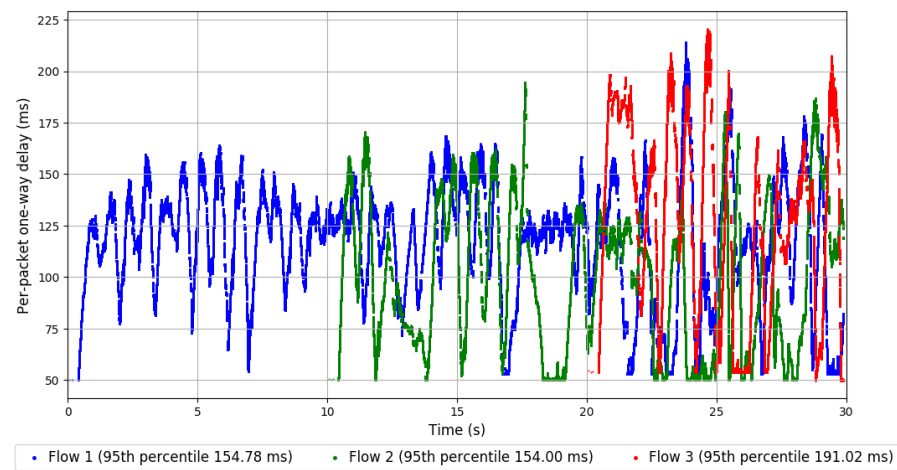
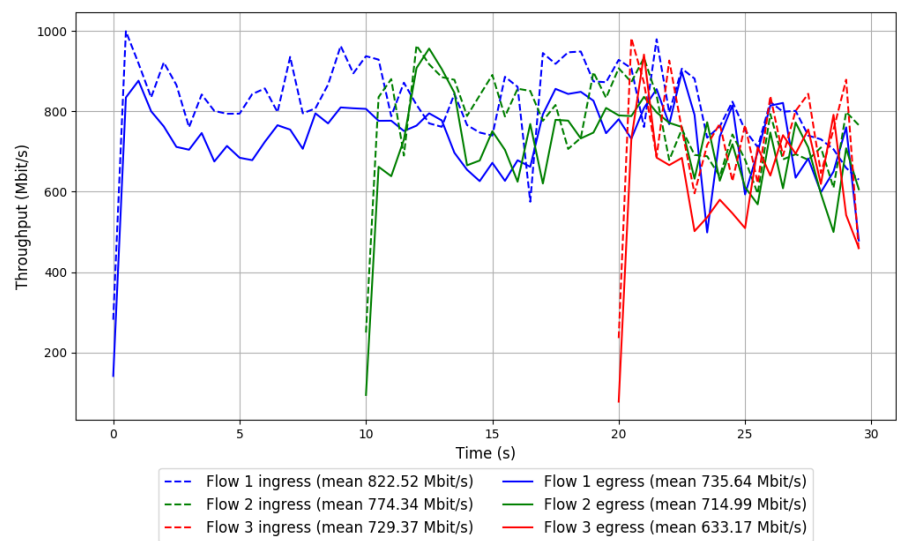
-- Flow 3:

Average throughput: 633.17 Mbit/s

95th percentile per-packet one-way delay: 191.024 ms

Loss rate: 14.15%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-14 08:07:14

End at: 2018-03-14 08:07:44

Below is generated by plot.py at 2018-03-14 14:49:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 1314.58 Mbit/s

95th percentile per-packet one-way delay: 256.946 ms

Loss rate: 10.69%

-- Flow 1:

Average throughput: 651.45 Mbit/s

95th percentile per-packet one-way delay: 176.107 ms

Loss rate: 9.44%

-- Flow 2:

Average throughput: 692.82 Mbit/s

95th percentile per-packet one-way delay: 294.229 ms

Loss rate: 10.77%

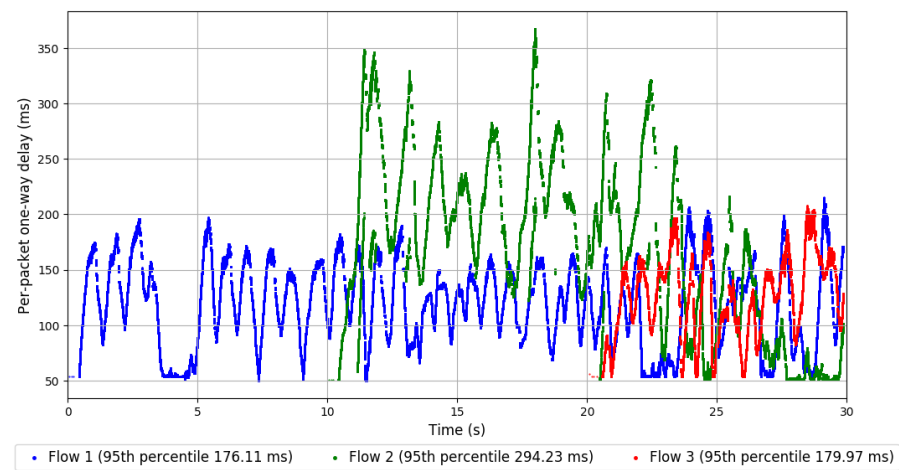
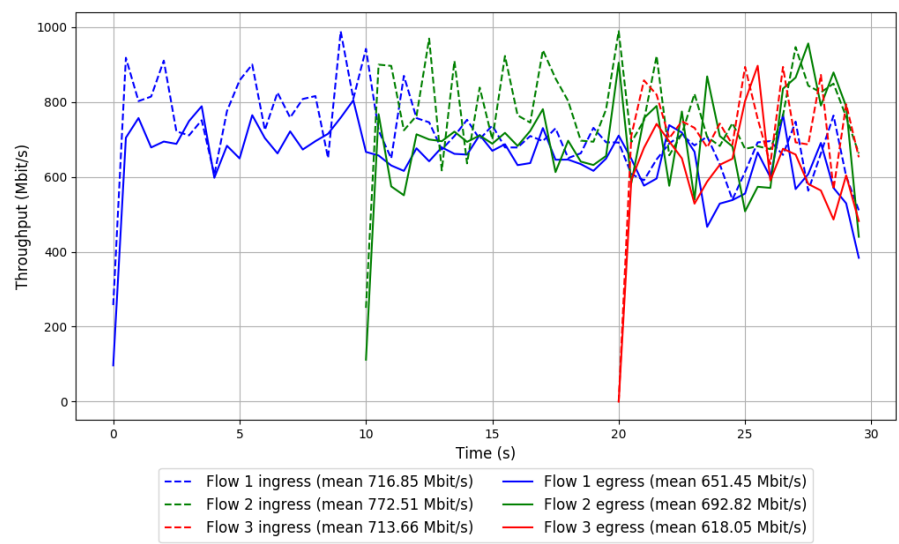
-- Flow 3:

Average throughput: 618.05 Mbit/s

95th percentile per-packet one-way delay: 179.972 ms

Loss rate: 14.33%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-14 08:24:10

End at: 2018-03-14 08:24:40

Below is generated by plot.py at 2018-03-14 14:50:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 1383.29 Mbit/s

95th percentile per-packet one-way delay: 155.145 ms

Loss rate: 8.61%

-- Flow 1:

Average throughput: 712.50 Mbit/s

95th percentile per-packet one-way delay: 156.845 ms

Loss rate: 10.71%

-- Flow 2:

Average throughput: 695.99 Mbit/s

95th percentile per-packet one-way delay: 150.048 ms

Loss rate: 6.22%

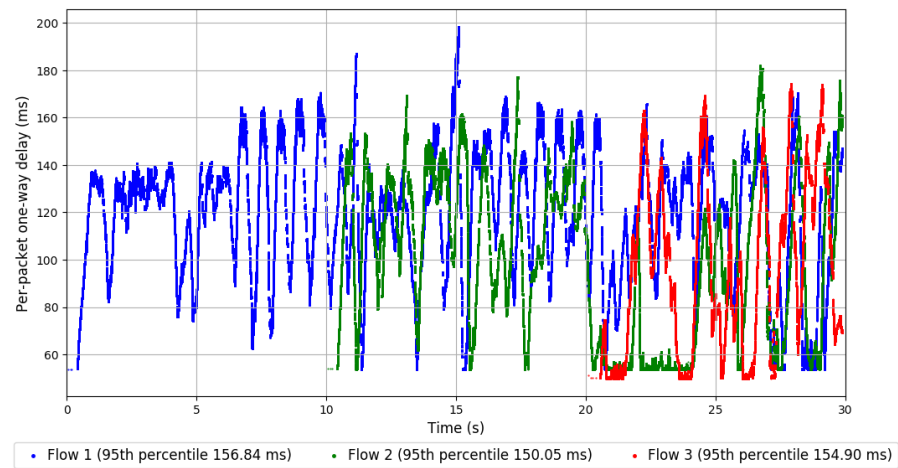
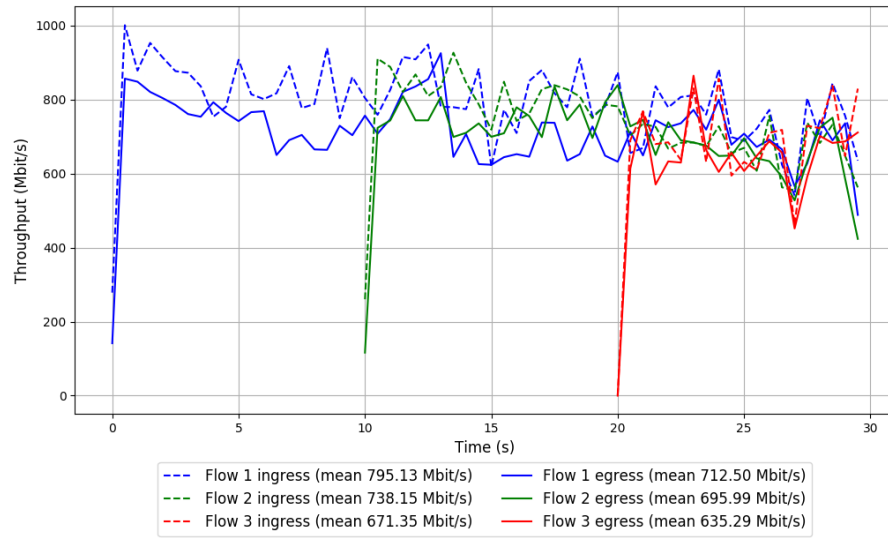
-- Flow 3:

Average throughput: 635.29 Mbit/s

95th percentile per-packet one-way delay: 154.898 ms

Loss rate: 6.36%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-14 08:41:05

End at: 2018-03-14 08:41:35

Below is generated by plot.py at 2018-03-14 14:51:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1388.06 Mbit/s

95th percentile per-packet one-way delay: 157.243 ms

Loss rate: 10.67%

-- Flow 1:

Average throughput: 717.68 Mbit/s

95th percentile per-packet one-way delay: 155.464 ms

Loss rate: 11.01%

-- Flow 2:

Average throughput: 675.88 Mbit/s

95th percentile per-packet one-way delay: 162.194 ms

Loss rate: 11.70%

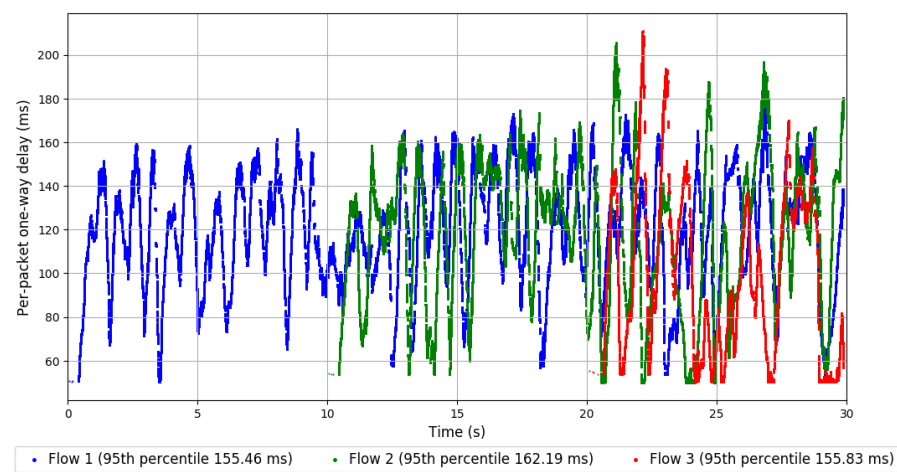
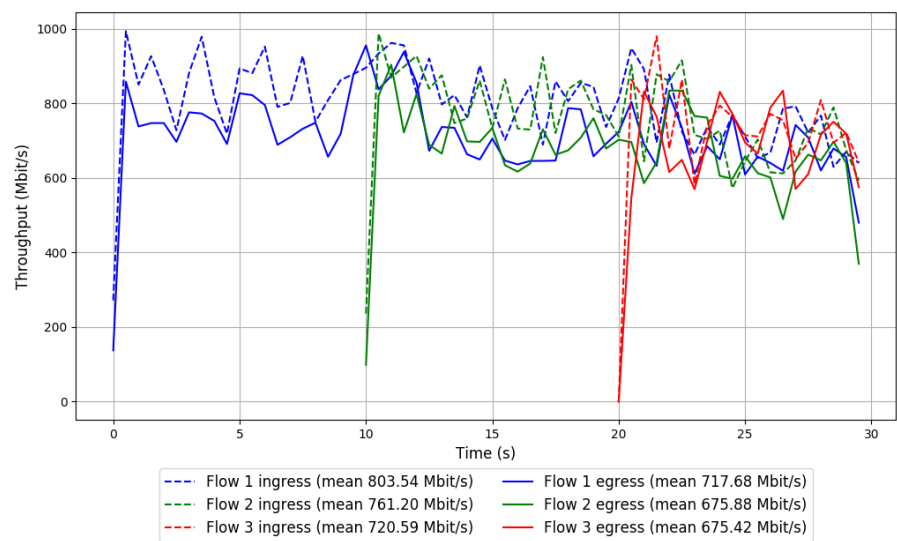
-- Flow 3:

Average throughput: 675.42 Mbit/s

95th percentile per-packet one-way delay: 155.830 ms

Loss rate: 7.33%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-14 08:58:14

End at: 2018-03-14 08:58:44

Below is generated by plot.py at 2018-03-14 14:51:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 1345.08 Mbit/s

95th percentile per-packet one-way delay: 192.172 ms

Loss rate: 11.61%

-- Flow 1:

Average throughput: 637.06 Mbit/s

95th percentile per-packet one-way delay: 199.638 ms

Loss rate: 15.45%

-- Flow 2:

Average throughput: 791.06 Mbit/s

95th percentile per-packet one-way delay: 162.376 ms

Loss rate: 5.92%

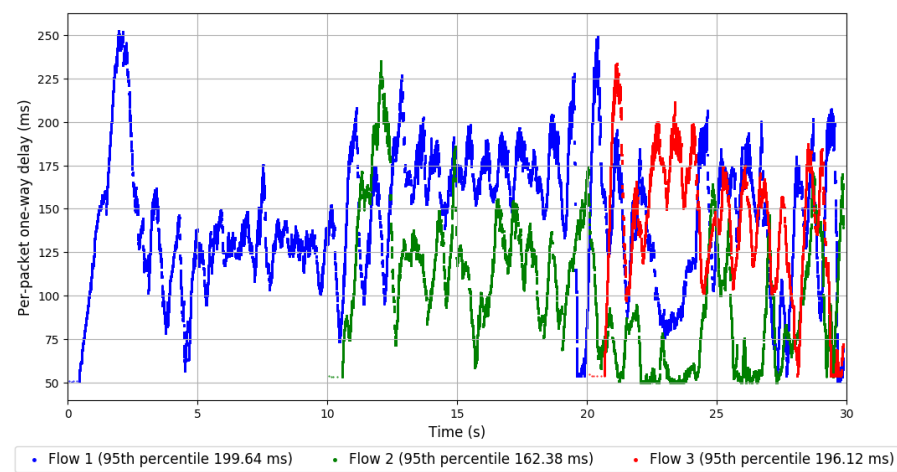
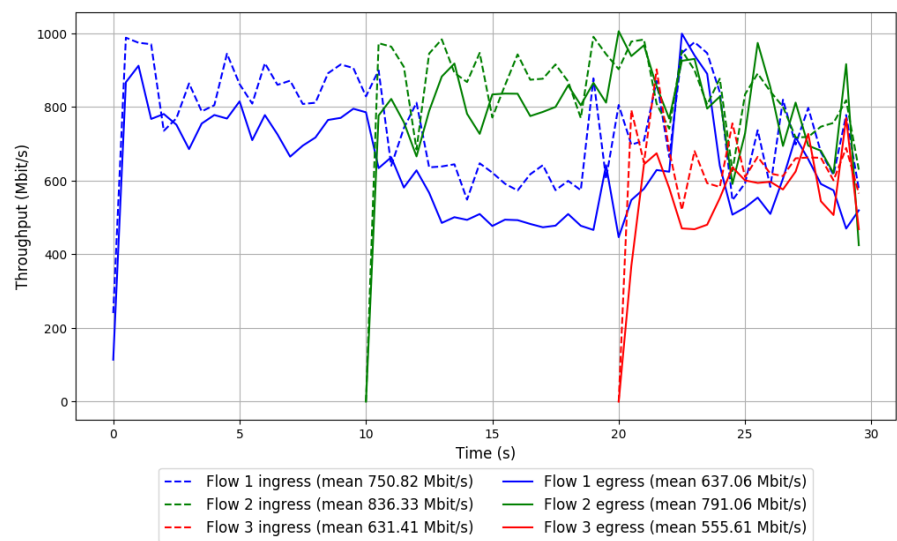
-- Flow 3:

Average throughput: 555.61 Mbit/s

95th percentile per-packet one-way delay: 196.120 ms

Loss rate: 12.97%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-14 09:15:43

End at: 2018-03-14 09:16:13

Below is generated by plot.py at 2018-03-14 14:58:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 1396.30 Mbit/s

95th percentile per-packet one-way delay: 168.845 ms

Loss rate: 9.36%

-- Flow 1:

Average throughput: 747.65 Mbit/s

95th percentile per-packet one-way delay: 166.267 ms

Loss rate: 11.17%

-- Flow 2:

Average throughput: 668.38 Mbit/s

95th percentile per-packet one-way delay: 192.399 ms

Loss rate: 9.11%

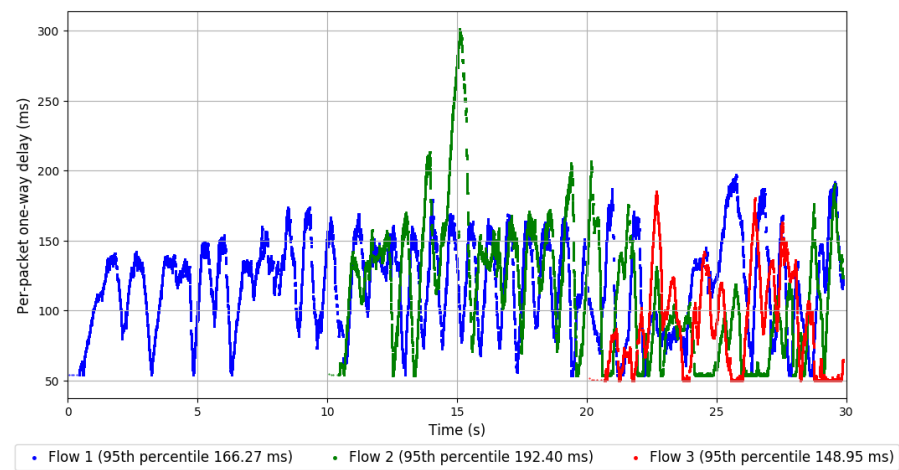
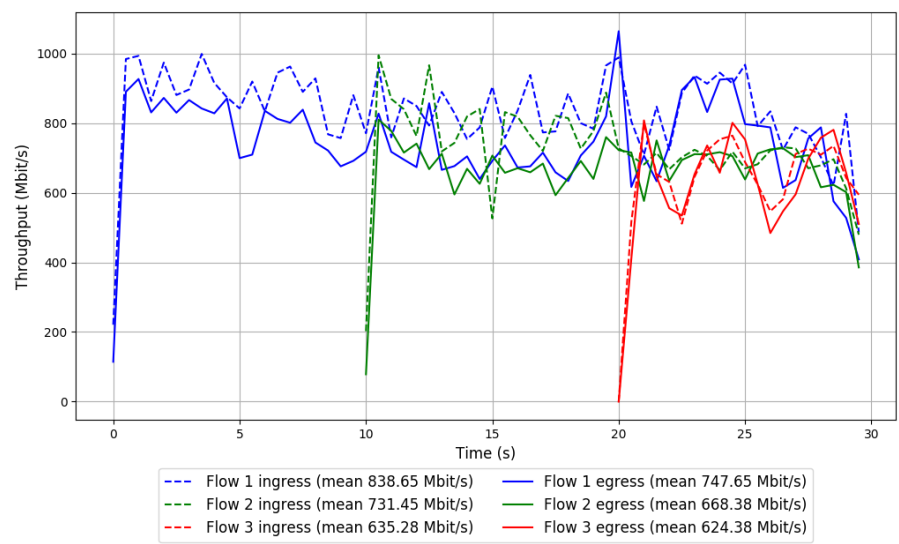
-- Flow 3:

Average throughput: 624.38 Mbit/s

95th percentile per-packet one-way delay: 148.954 ms

Loss rate: 2.74%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-14 09:32:46

End at: 2018-03-14 09:33:16

Below is generated by plot.py at 2018-03-14 15:20:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 1326.84 Mbit/s

95th percentile per-packet one-way delay: 245.199 ms

Loss rate: 13.38%

-- Flow 1:

Average throughput: 687.09 Mbit/s

95th percentile per-packet one-way delay: 159.641 ms

Loss rate: 13.42%

-- Flow 2:

Average throughput: 666.40 Mbit/s

95th percentile per-packet one-way delay: 296.382 ms

Loss rate: 14.76%

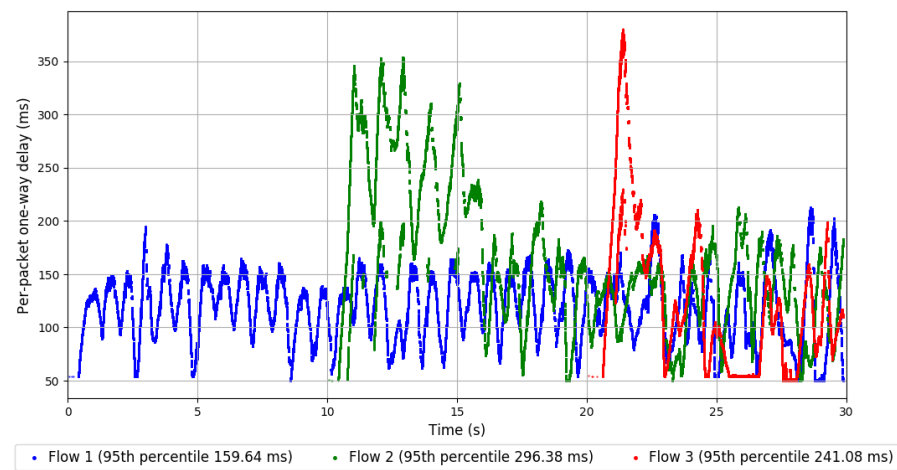
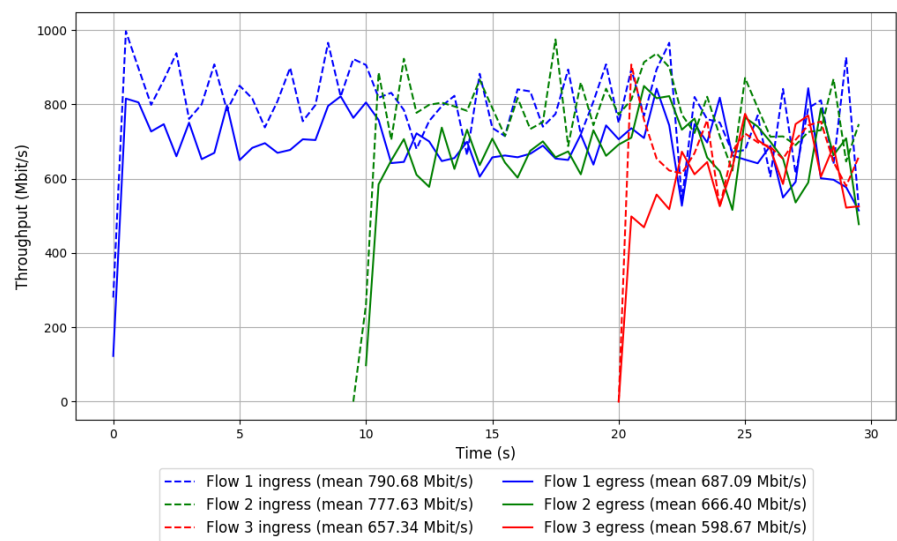
-- Flow 3:

Average throughput: 598.67 Mbit/s

95th percentile per-packet one-way delay: 241.080 ms

Loss rate: 9.94%

Run 9: Report of FillP — Data Link

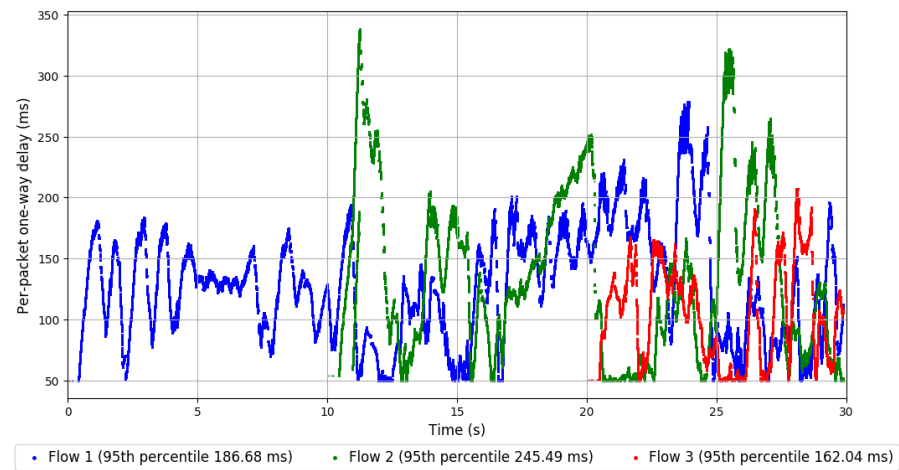
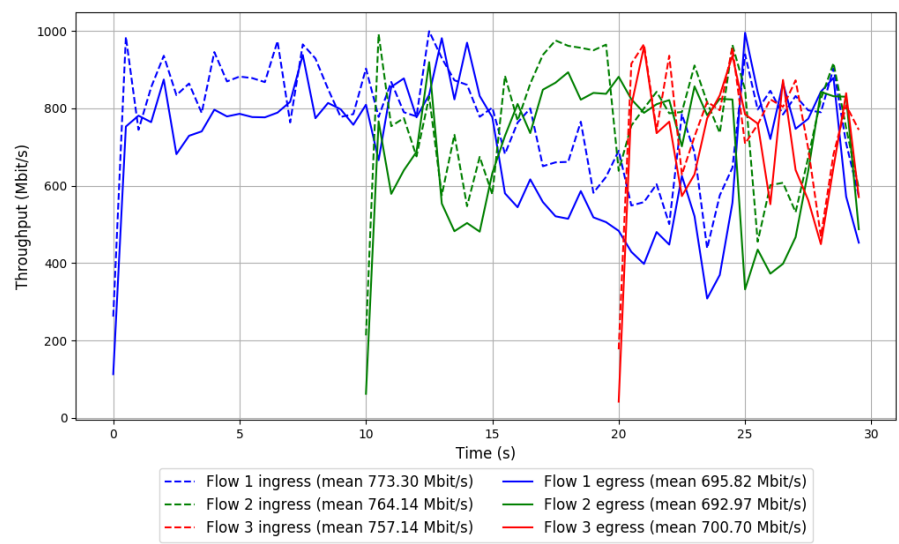


```
Run 10: Statistics of FillP

Start at: 2018-03-14 09:49:32
End at: 2018-03-14 09:50:02

# Below is generated by plot.py at 2018-03-14 15:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1386.28 Mbit/s
95th percentile per-packet one-way delay: 216.830 ms
Loss rate: 9.92%
-- Flow 1:
Average throughput: 695.82 Mbit/s
95th percentile per-packet one-way delay: 186.679 ms
Loss rate: 10.38%
-- Flow 2:
Average throughput: 692.97 Mbit/s
95th percentile per-packet one-way delay: 245.492 ms
Loss rate: 9.88%
-- Flow 3:
Average throughput: 700.70 Mbit/s
95th percentile per-packet one-way delay: 162.045 ms
Loss rate: 8.59%
```

Run 10: Report of FillP — Data Link

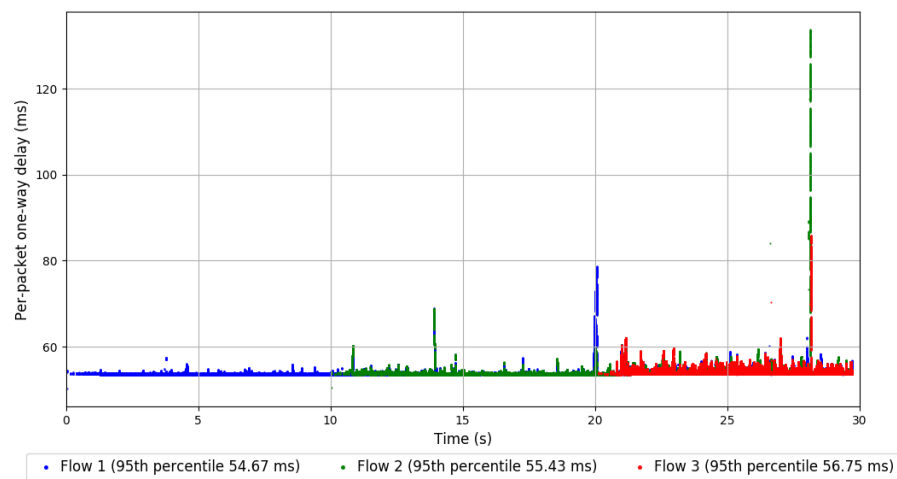
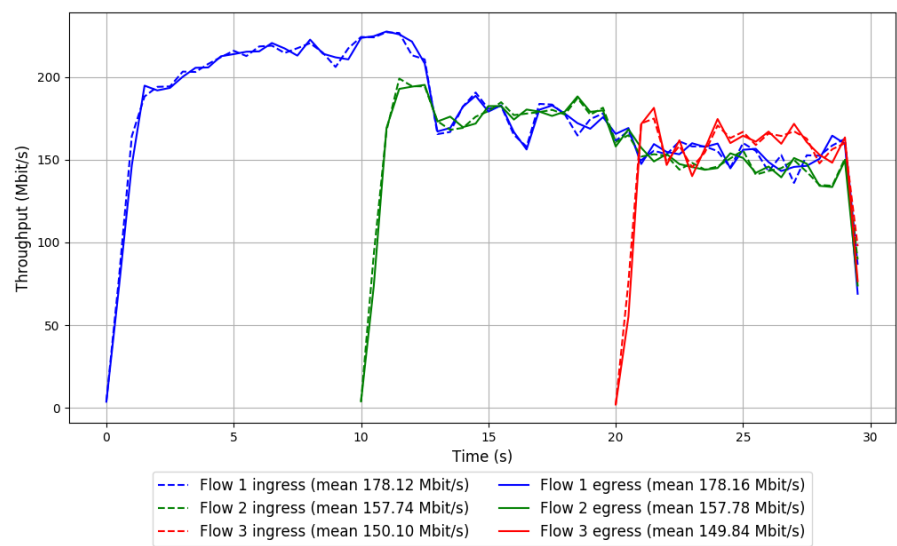


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-14 07:17:42
End at: 2018-03-14 07:18:12

# Below is generated by plot.py at 2018-03-14 15:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 331.23 Mbit/s
95th percentile per-packet one-way delay: 55.337 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 178.16 Mbit/s
95th percentile per-packet one-way delay: 54.675 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 157.78 Mbit/s
95th percentile per-packet one-way delay: 55.433 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 149.84 Mbit/s
95th percentile per-packet one-way delay: 56.746 ms
Loss rate: 1.29%
```

Run 1: Report of Indigo-1-32 — Data Link

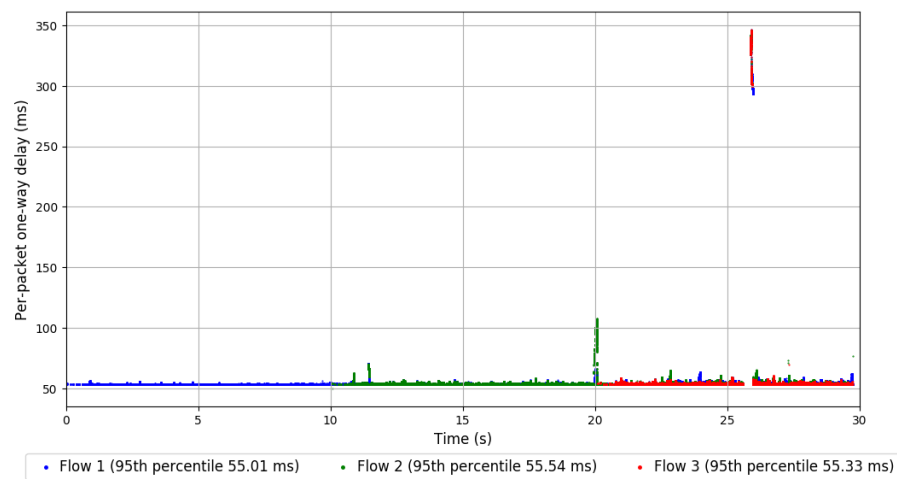
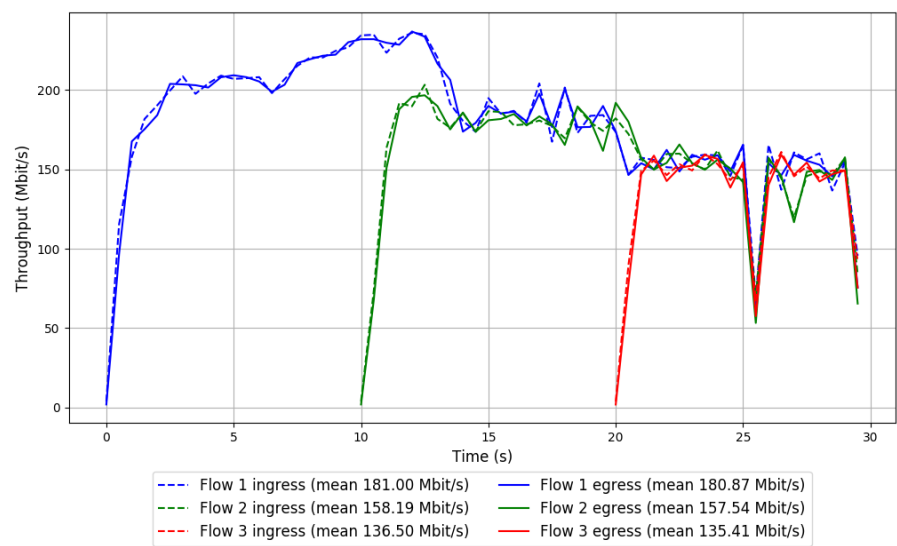


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 07:34:43
End at: 2018-03-14 07:35:13

# Below is generated by plot.py at 2018-03-14 15:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 329.23 Mbit/s
95th percentile per-packet one-way delay: 55.239 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 180.87 Mbit/s
95th percentile per-packet one-way delay: 55.006 ms
Loss rate: 0.43%
-- Flow 2:
Average throughput: 157.54 Mbit/s
95th percentile per-packet one-way delay: 55.542 ms
Loss rate: 0.83%
-- Flow 3:
Average throughput: 135.41 Mbit/s
95th percentile per-packet one-way delay: 55.325 ms
Loss rate: 1.87%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 07:51:44

End at: 2018-03-14 07:52:14

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.26 Mbit/s

95th percentile per-packet one-way delay: 54.719 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 176.92 Mbit/s

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

Loss rate: 0.29%

-- Flow 2:

Average throughput: 159.88 Mbit/s

95th percentile per-packet one-way delay: 54.839 ms

Loss rate: 0.51%

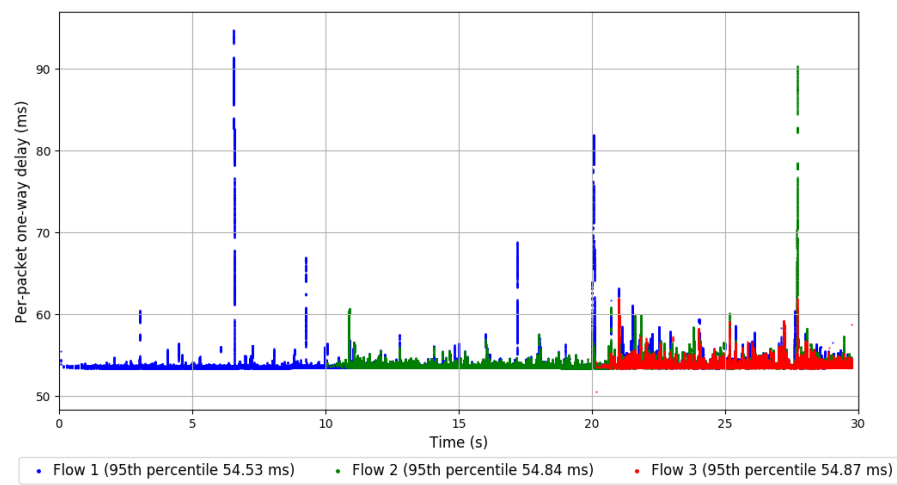
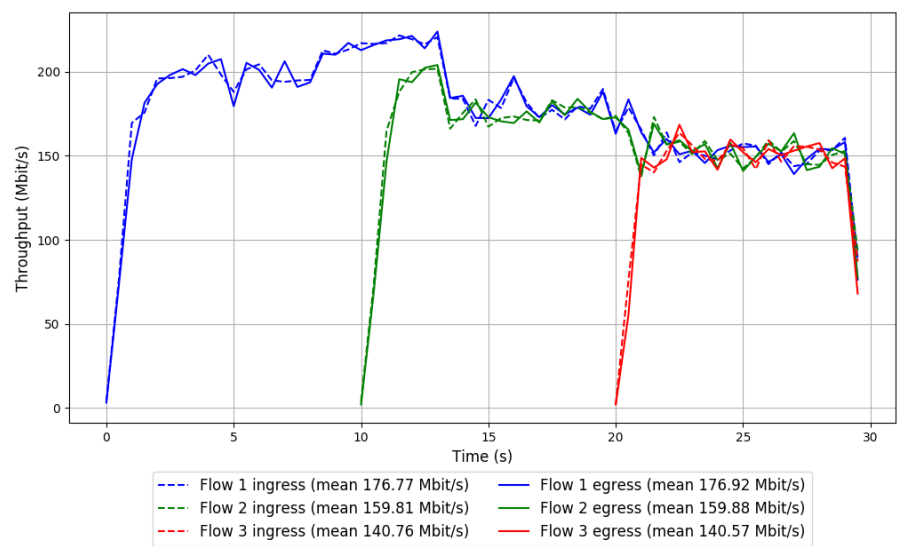
-- Flow 3:

Average throughput: 140.57 Mbit/s

95th percentile per-packet one-way delay: 54.872 ms

Loss rate: 1.17%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-14 08:08:44

End at: 2018-03-14 08:09:14

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 341.13 Mbit/s

95th percentile per-packet one-way delay: 54.752 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 185.39 Mbit/s

95th percentile per-packet one-way delay: 54.541 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 162.85 Mbit/s

95th percentile per-packet one-way delay: 54.871 ms

Loss rate: 0.48%

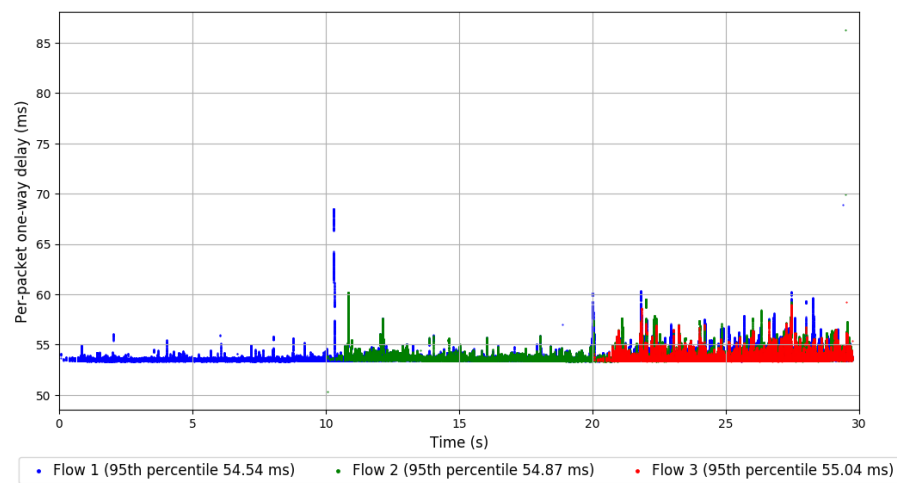
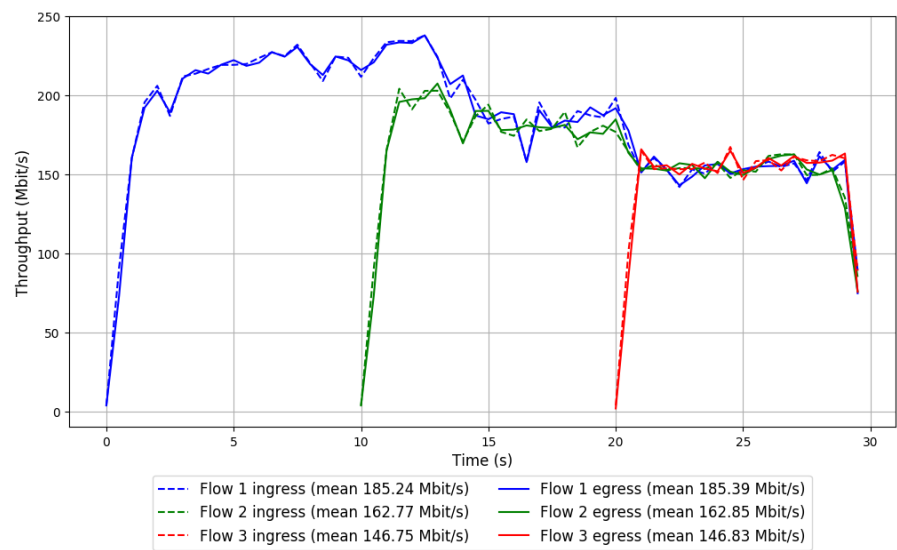
-- Flow 3:

Average throughput: 146.83 Mbit/s

95th percentile per-packet one-way delay: 55.042 ms

Loss rate: 1.04%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 08:25:42

End at: 2018-03-14 08:26:12

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.68 Mbit/s

95th percentile per-packet one-way delay: 54.681 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 180.38 Mbit/s

95th percentile per-packet one-way delay: 54.488 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 154.54 Mbit/s

95th percentile per-packet one-way delay: 54.665 ms

Loss rate: 0.37%

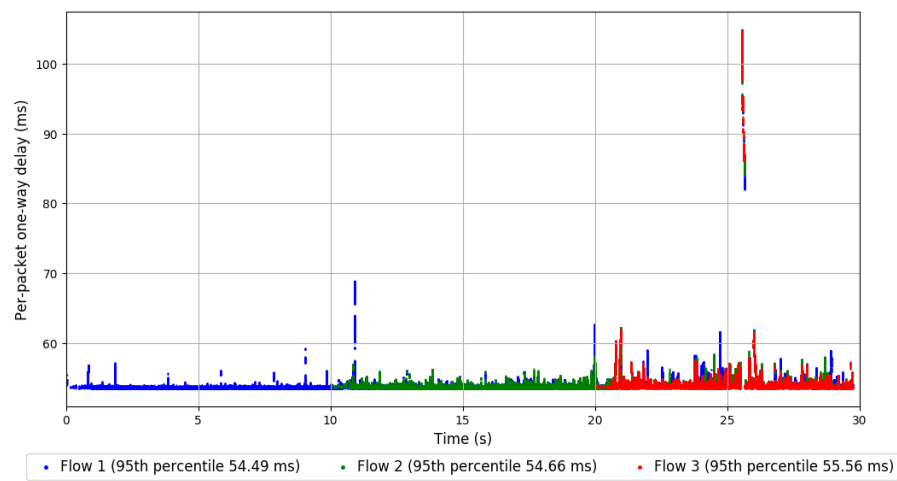
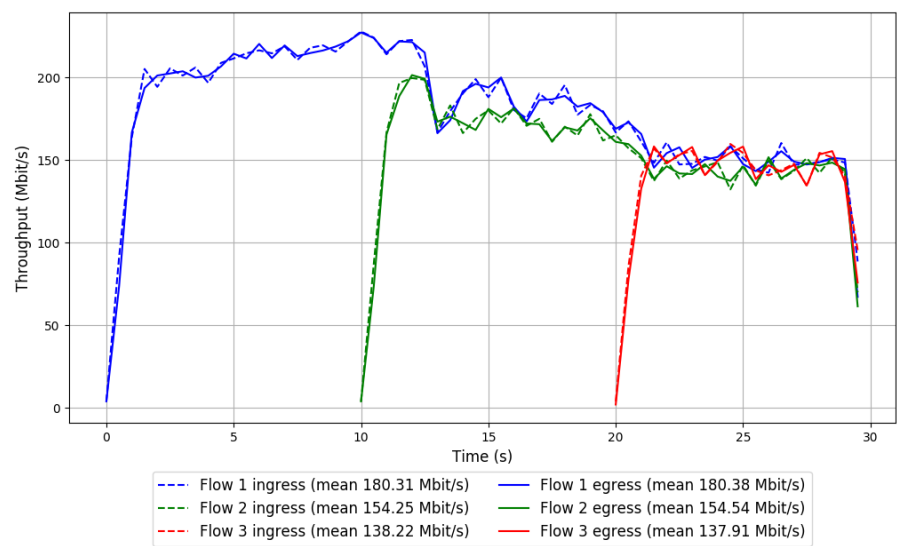
-- Flow 3:

Average throughput: 137.91 Mbit/s

95th percentile per-packet one-way delay: 55.559 ms

Loss rate: 1.33%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 08:42:37

End at: 2018-03-14 08:43:07

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 322.14 Mbit/s

95th percentile per-packet one-way delay: 55.060 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 182.51 Mbit/s

95th percentile per-packet one-way delay: 54.876 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 142.09 Mbit/s

95th percentile per-packet one-way delay: 55.141 ms

Loss rate: 0.46%

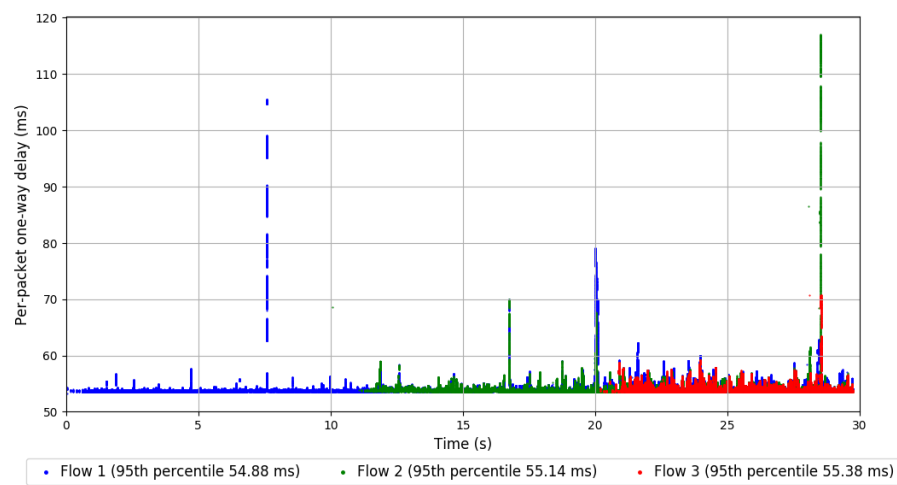
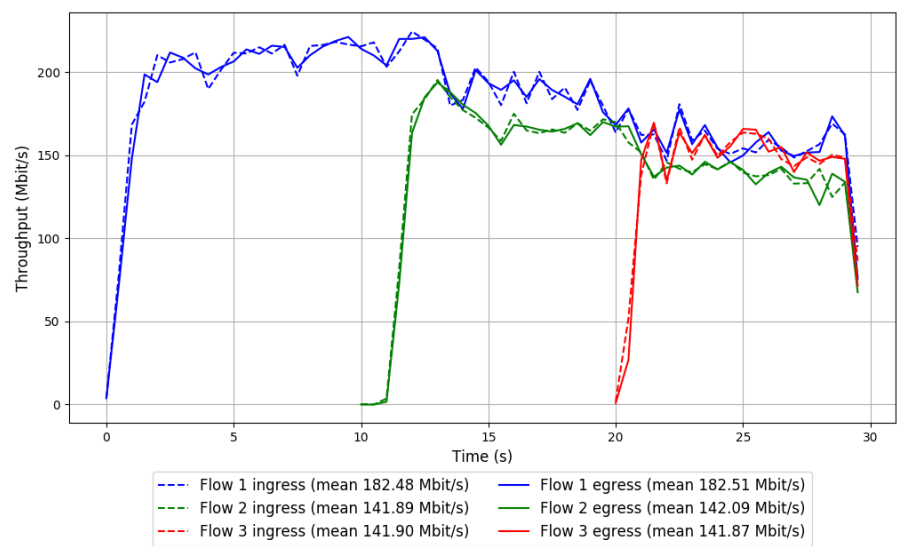
-- Flow 3:

Average throughput: 141.87 Mbit/s

95th percentile per-packet one-way delay: 55.376 ms

Loss rate: 1.10%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-14 08:59:46

End at: 2018-03-14 09:00:16

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.60 Mbit/s

95th percentile per-packet one-way delay: 56.226 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 179.37 Mbit/s

95th percentile per-packet one-way delay: 55.320 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 158.31 Mbit/s

95th percentile per-packet one-way delay: 57.832 ms

Loss rate: 0.47%

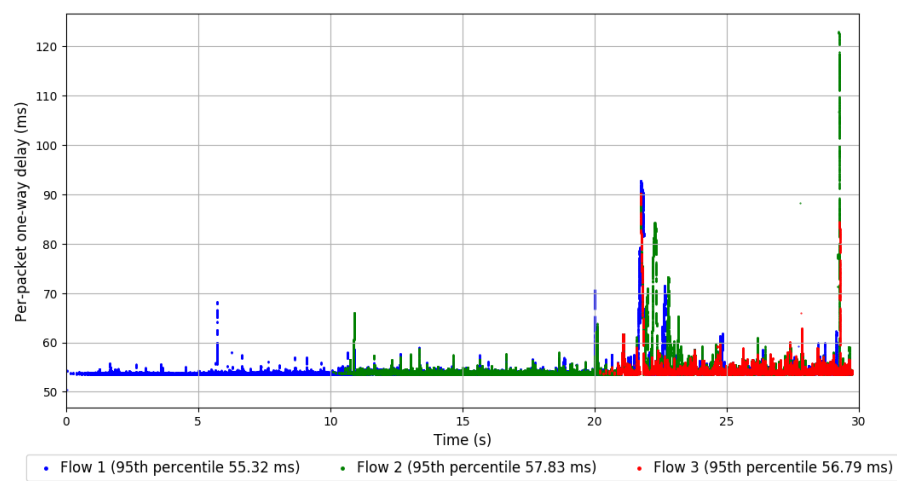
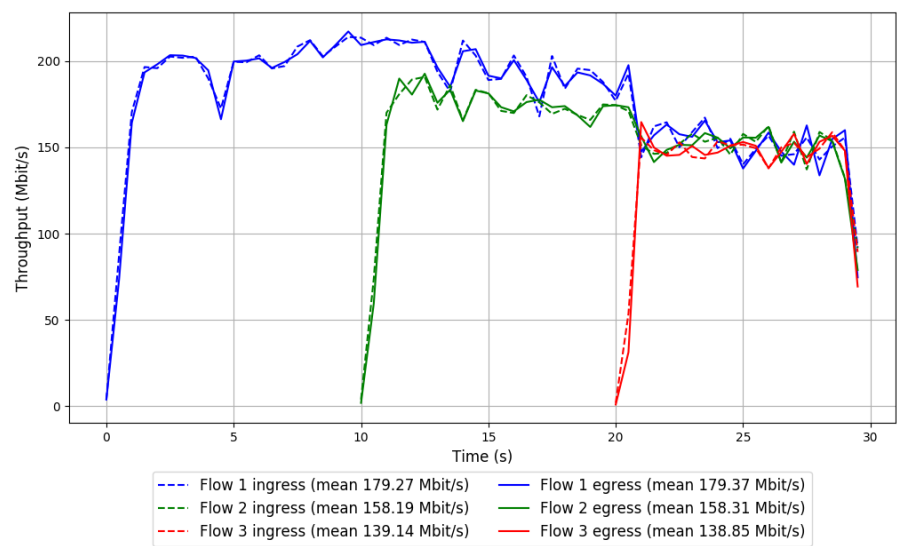
-- Flow 3:

Average throughput: 138.85 Mbit/s

95th percentile per-packet one-way delay: 56.791 ms

Loss rate: 1.32%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-14 09:17:16

End at: 2018-03-14 09:17:46

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 344.06 Mbit/s

95th percentile per-packet one-way delay: 55.830 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 187.25 Mbit/s

95th percentile per-packet one-way delay: 55.262 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 166.13 Mbit/s

95th percentile per-packet one-way delay: 56.533 ms

Loss rate: 0.48%

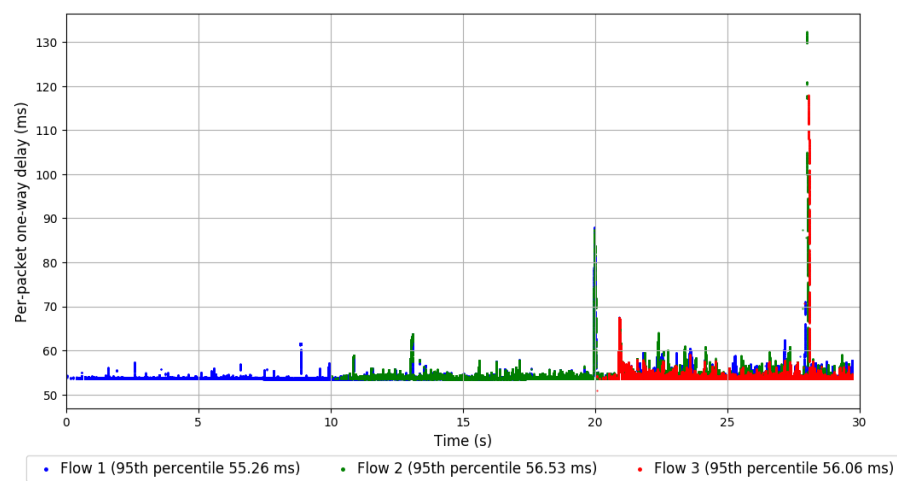
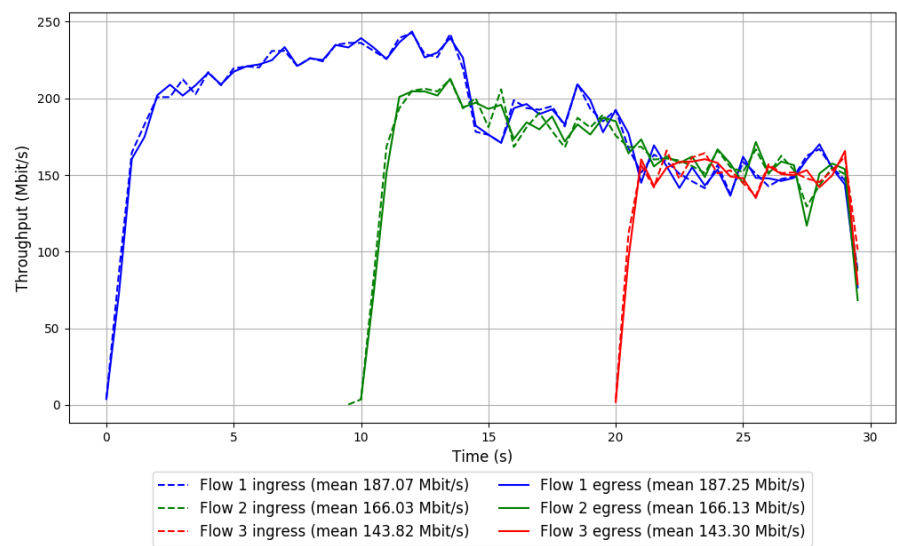
-- Flow 3:

Average throughput: 143.30 Mbit/s

95th percentile per-packet one-way delay: 56.063 ms

Loss rate: 1.39%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-14 09:34:18

End at: 2018-03-14 09:34:48

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 333.57 Mbit/s

95th percentile per-packet one-way delay: 56.000 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 180.24 Mbit/s

95th percentile per-packet one-way delay: 55.654 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 157.79 Mbit/s

95th percentile per-packet one-way delay: 56.140 ms

Loss rate: 0.53%

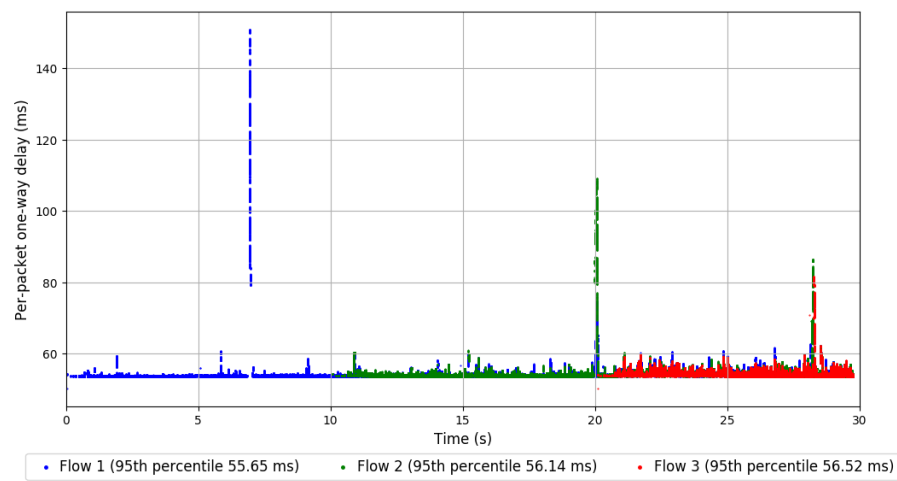
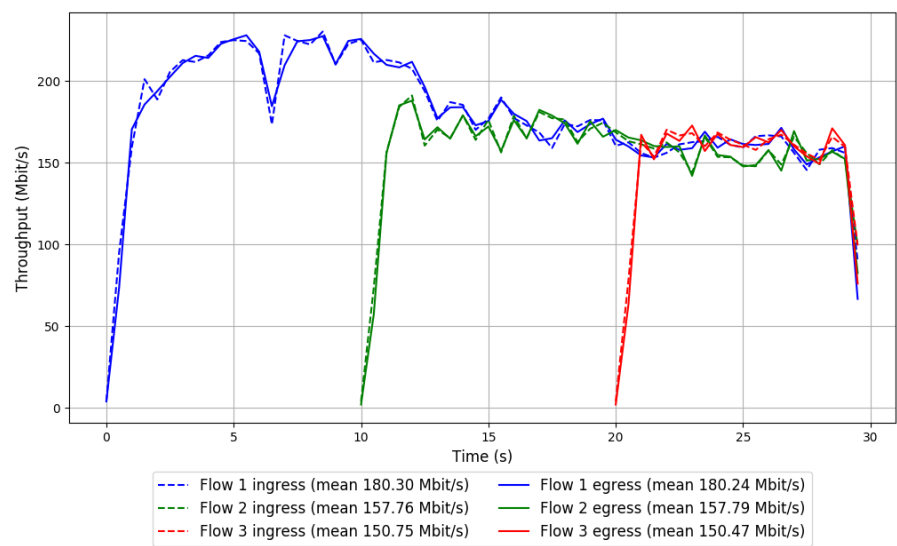
-- Flow 3:

Average throughput: 150.47 Mbit/s

95th percentile per-packet one-way delay: 56.519 ms

Loss rate: 1.26%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-14 09:51:04

End at: 2018-03-14 09:51:34

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 313.57 Mbit/s

95th percentile per-packet one-way delay: 54.340 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 169.94 Mbit/s

95th percentile per-packet one-way delay: 54.168 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 148.30 Mbit/s

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

Loss rate: 0.51%

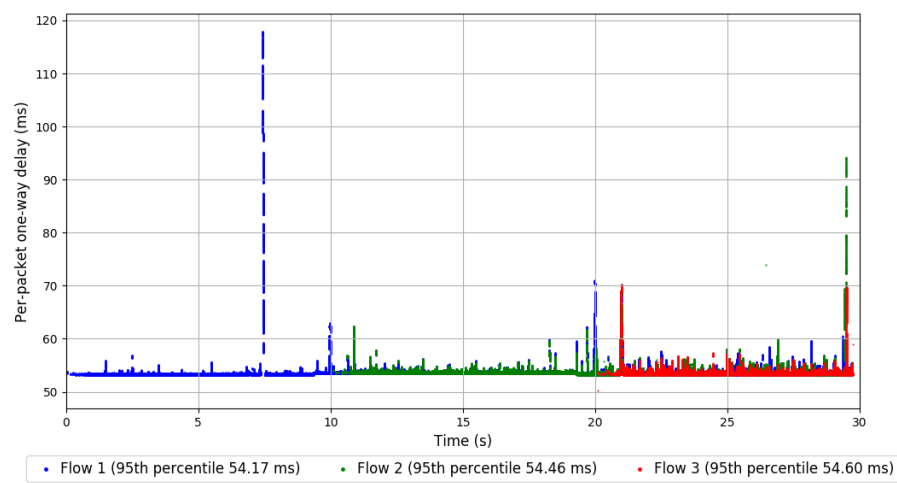
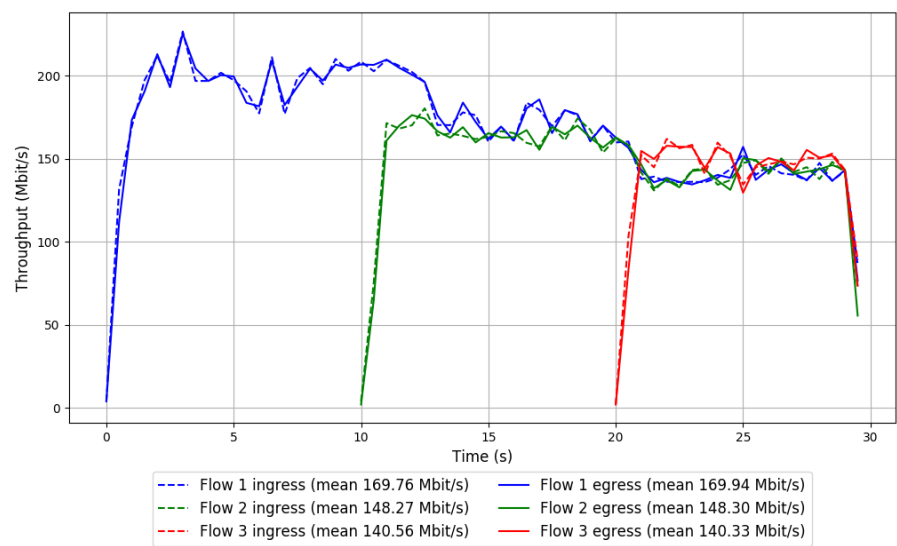
-- Flow 3:

Average throughput: 140.33 Mbit/s

95th percentile per-packet one-way delay: 54.596 ms

Loss rate: 1.14%

Run 10: Report of Indigo-1-32 — Data Link

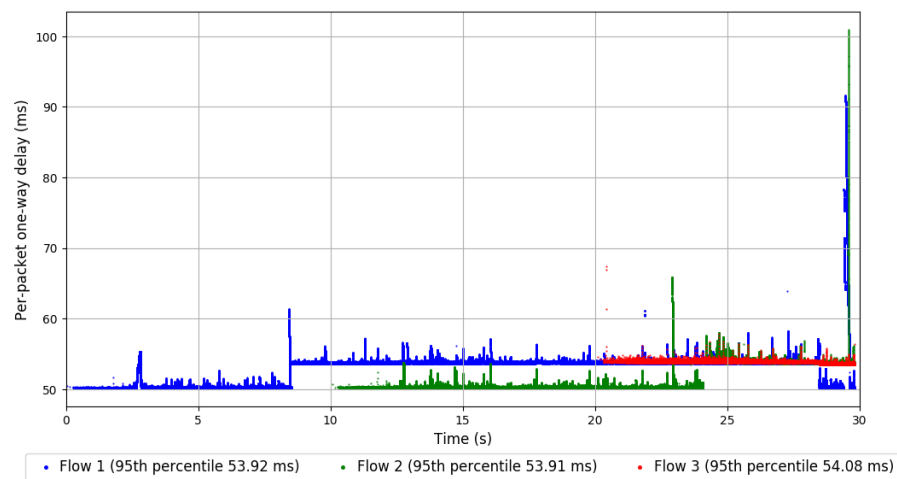
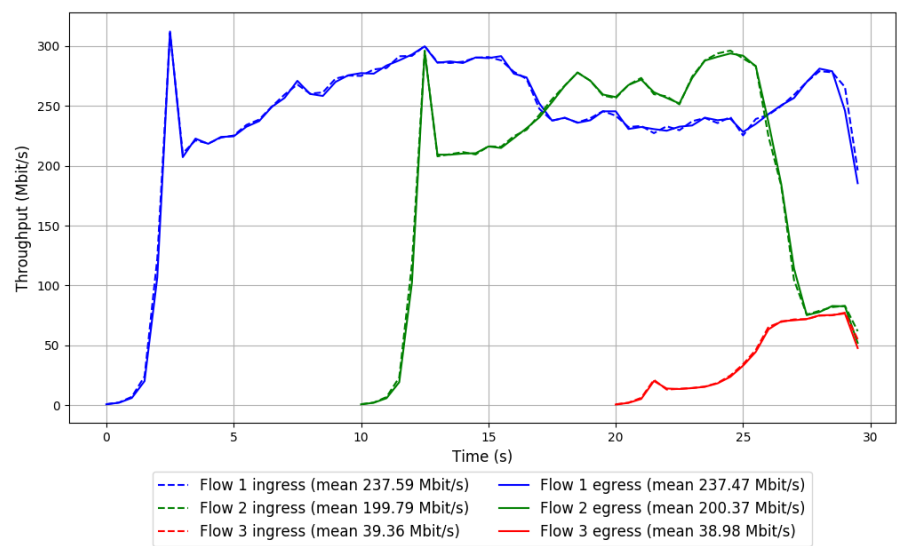


```
Run 1: Statistics of Vivace-latency

Start at: 2018-03-14 07:14:04
End at: 2018-03-14 07:14:34

# Below is generated by plot.py at 2018-03-14 15:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 383.11 Mbit/s
95th percentile per-packet one-way delay: 53.937 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 237.47 Mbit/s
95th percentile per-packet one-way delay: 53.918 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 200.37 Mbit/s
95th percentile per-packet one-way delay: 53.914 ms
Loss rate: 0.23%
-- Flow 3:
Average throughput: 38.98 Mbit/s
95th percentile per-packet one-way delay: 54.079 ms
Loss rate: 2.04%
```


Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-14 07:31:07

End at: 2018-03-14 07:31:37

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 385.54 Mbit/s

95th percentile per-packet one-way delay: 53.709 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 231.37 Mbit/s

95th percentile per-packet one-way delay: 53.787 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 189.81 Mbit/s

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

Loss rate: 0.37%

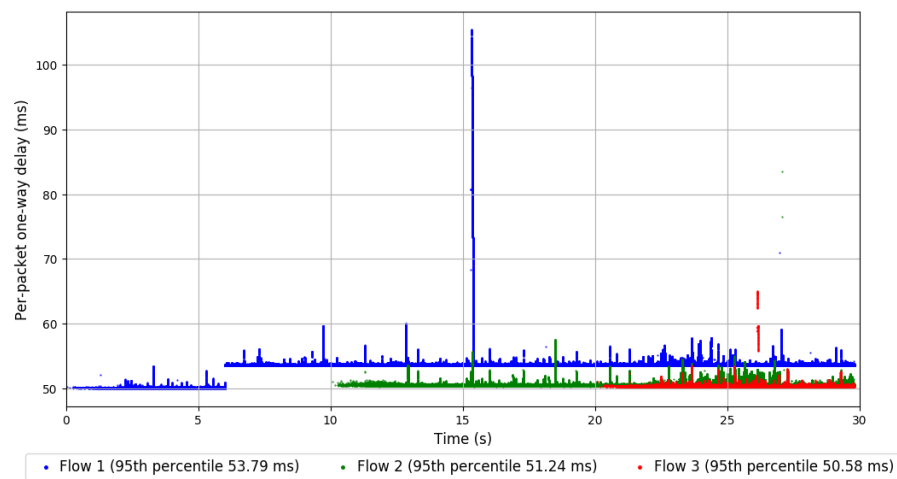
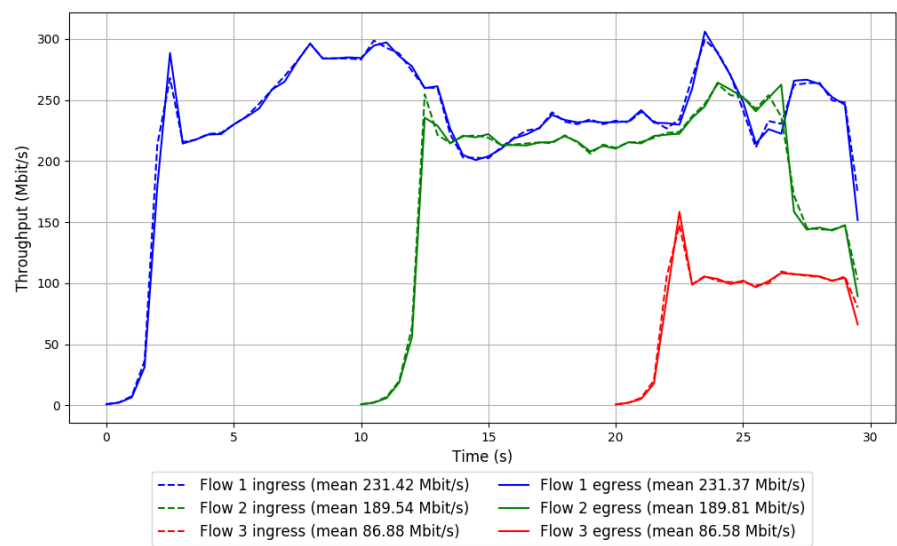
-- Flow 3:

Average throughput: 86.58 Mbit/s

95th percentile per-packet one-way delay: 50.577 ms

Loss rate: 1.44%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 07:48:02

End at: 2018-03-14 07:48:32

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.82 Mbit/s

95th percentile per-packet one-way delay: 54.205 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 256.13 Mbit/s

95th percentile per-packet one-way delay: 54.823 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 231.95 Mbit/s

95th percentile per-packet one-way delay: 51.014 ms

Loss rate: 0.60%

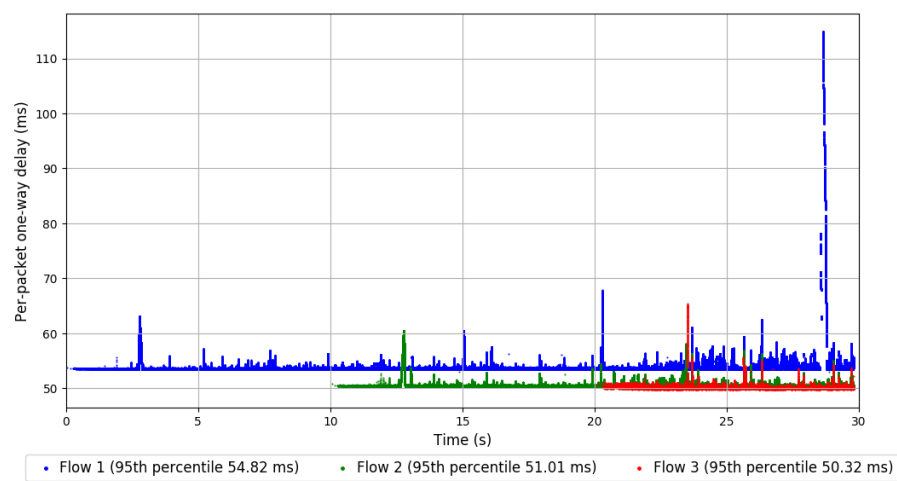
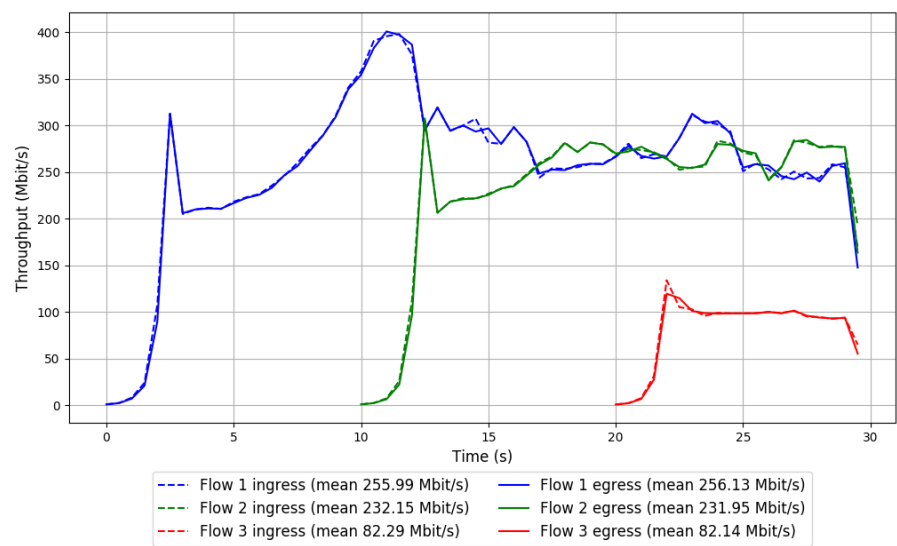
-- Flow 3:

Average throughput: 82.14 Mbit/s

95th percentile per-packet one-way delay: 50.319 ms

Loss rate: 1.19%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-14 08:05:08

End at: 2018-03-14 08:05:38

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.86 Mbit/s

95th percentile per-packet one-way delay: 57.609 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 261.23 Mbit/s

95th percentile per-packet one-way delay: 53.940 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 212.54 Mbit/s

95th percentile per-packet one-way delay: 97.286 ms

Loss rate: 0.42%

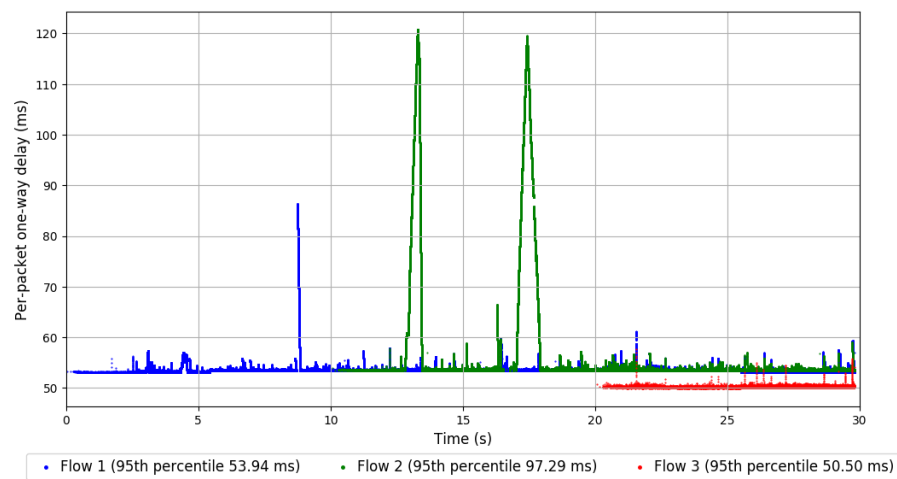
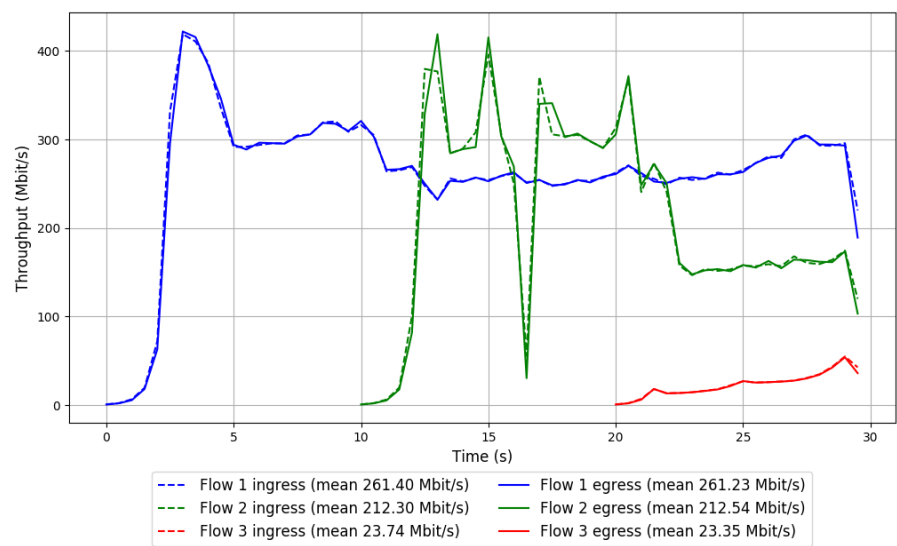
-- Flow 3:

Average throughput: 23.35 Mbit/s

95th percentile per-packet one-way delay: 50.503 ms

Loss rate: 2.63%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-14 08:22:04

End at: 2018-03-14 08:22:34

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 385.28 Mbit/s

95th percentile per-packet one-way delay: 54.115 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 236.54 Mbit/s

95th percentile per-packet one-way delay: 53.801 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 180.82 Mbit/s

95th percentile per-packet one-way delay: 57.248 ms

Loss rate: 5.87%

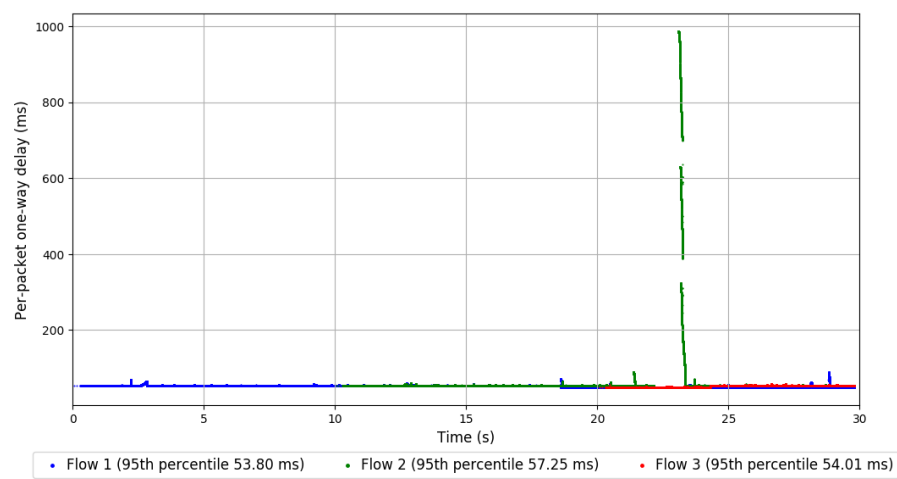
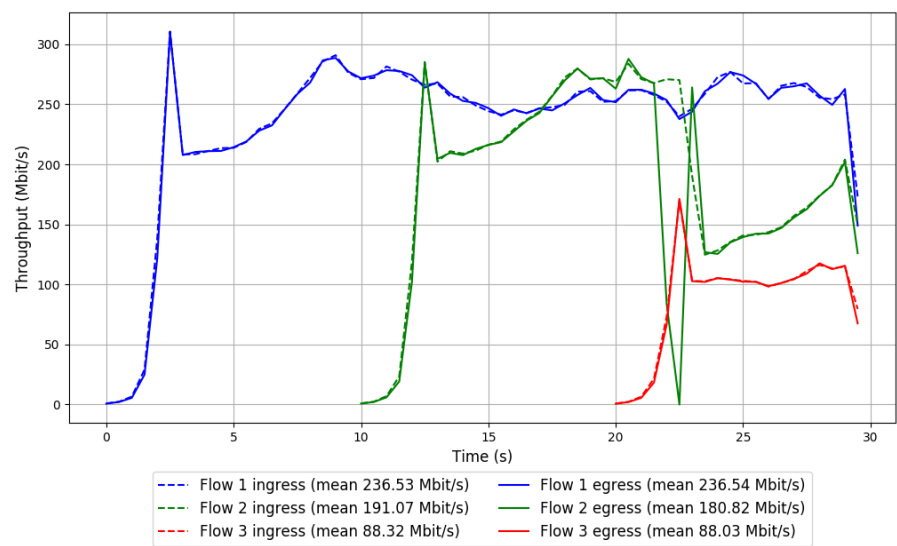
-- Flow 3:

Average throughput: 88.03 Mbit/s

95th percentile per-packet one-way delay: 54.006 ms

Loss rate: 1.37%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 08:38:55

End at: 2018-03-14 08:39:25

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 434.80 Mbit/s

95th percentile per-packet one-way delay: 54.426 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 232.84 Mbit/s

95th percentile per-packet one-way delay: 54.913 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 229.29 Mbit/s

95th percentile per-packet one-way delay: 53.013 ms

Loss rate: 0.57%

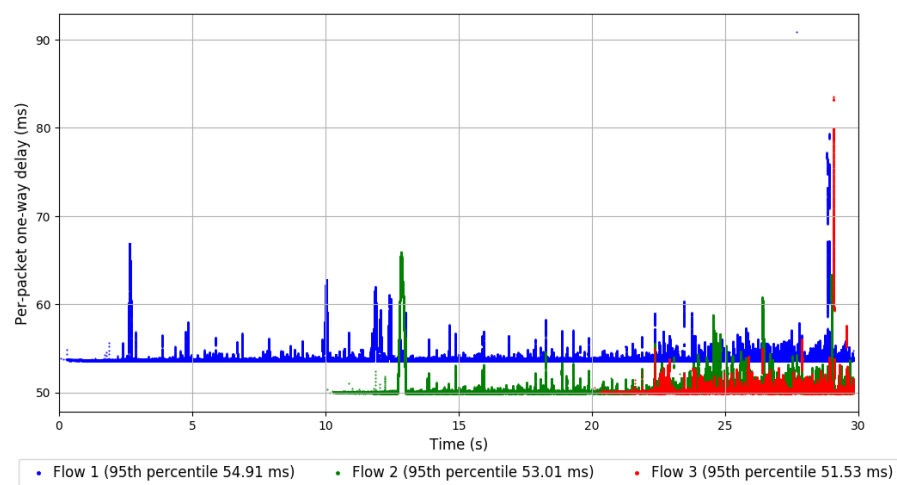
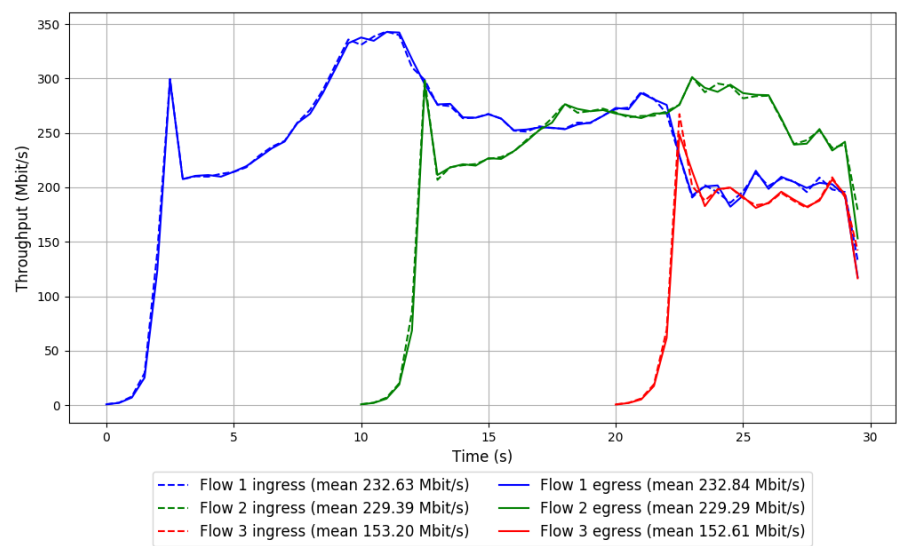
-- Flow 3:

Average throughput: 152.61 Mbit/s

95th percentile per-packet one-way delay: 51.528 ms

Loss rate: 1.44%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-14 08:56:07

End at: 2018-03-14 08:56:37

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 406.91 Mbit/s

95th percentile per-packet one-way delay: 54.832 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 240.98 Mbit/s

95th percentile per-packet one-way delay: 51.784 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 235.96 Mbit/s

95th percentile per-packet one-way delay: 77.518 ms

Loss rate: 0.49%

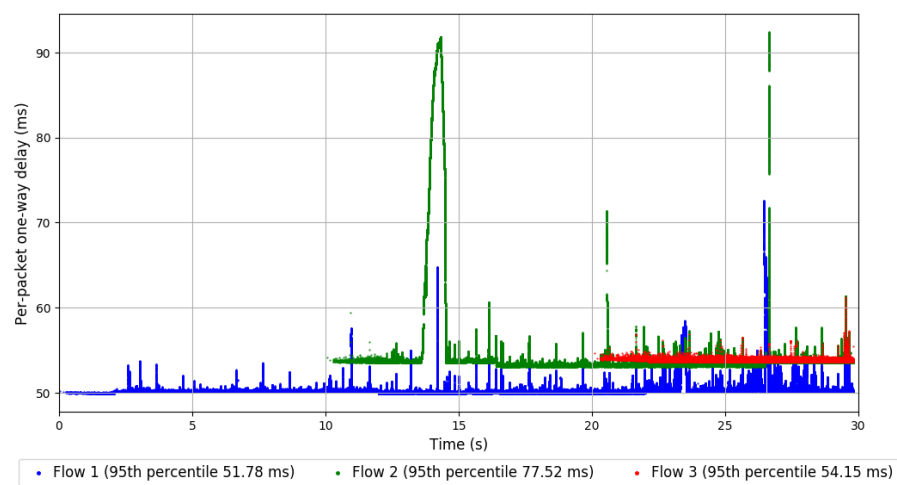
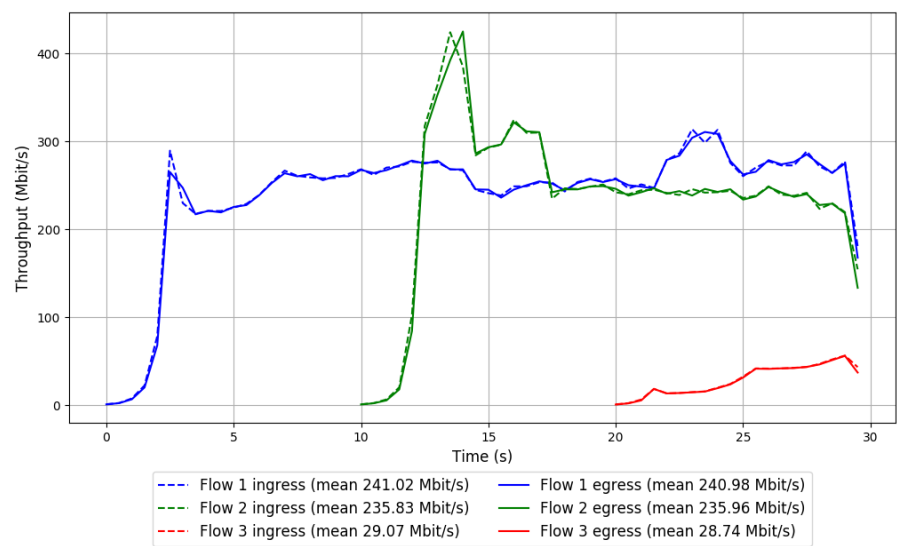
-- Flow 3:

Average throughput: 28.74 Mbit/s

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

Loss rate: 2.21%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-14 09:13:33

End at: 2018-03-14 09:14:03

Below is generated by plot.py at 2018-03-14 15:23:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 448.08 Mbit/s

95th percentile per-packet one-way delay: 55.457 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 251.59 Mbit/s

95th percentile per-packet one-way delay: 55.375 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 212.49 Mbit/s

95th percentile per-packet one-way delay: 55.396 ms

Loss rate: 0.44%

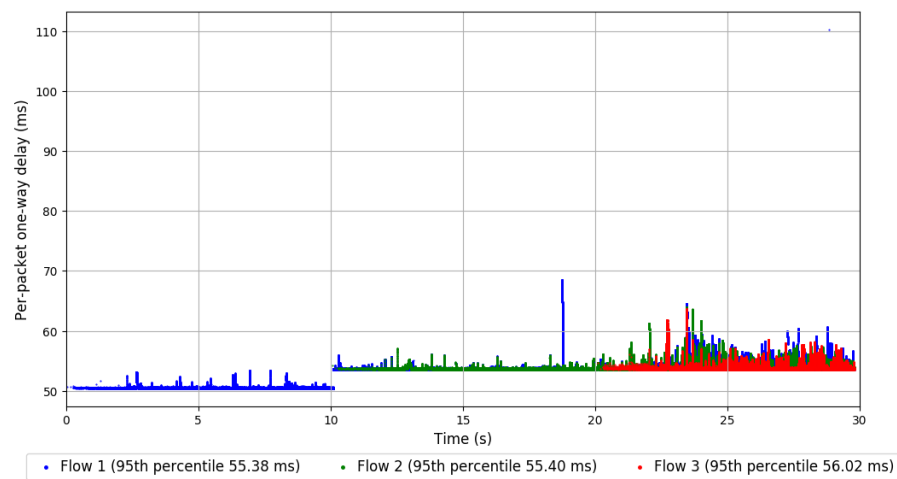
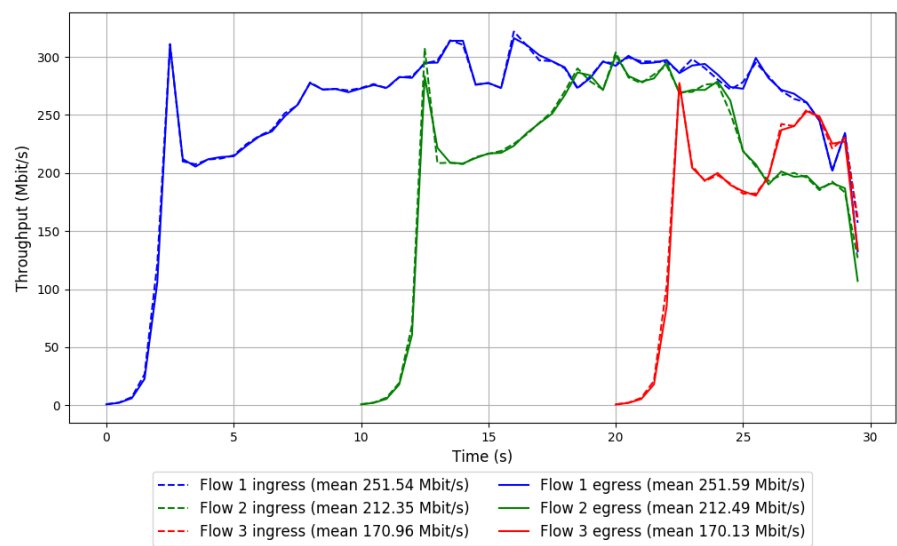
-- Flow 3:

Average throughput: 170.13 Mbit/s

95th percentile per-packet one-way delay: 56.025 ms

Loss rate: 1.59%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-14 09:30:34

End at: 2018-03-14 09:31:04

Below is generated by plot.py at 2018-03-14 15:25:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.58 Mbit/s

95th percentile per-packet one-way delay: 69.261 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 277.72 Mbit/s

95th percentile per-packet one-way delay: 79.540 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 221.72 Mbit/s

95th percentile per-packet one-way delay: 54.943 ms

Loss rate: 0.51%

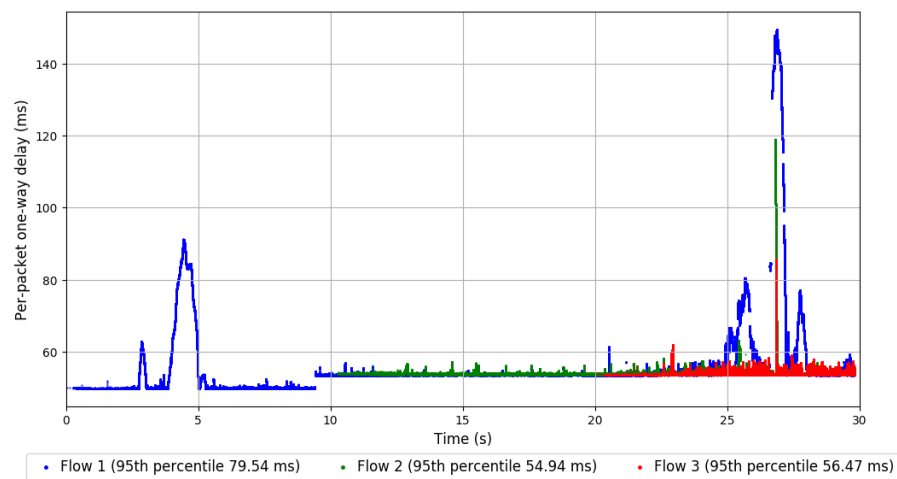
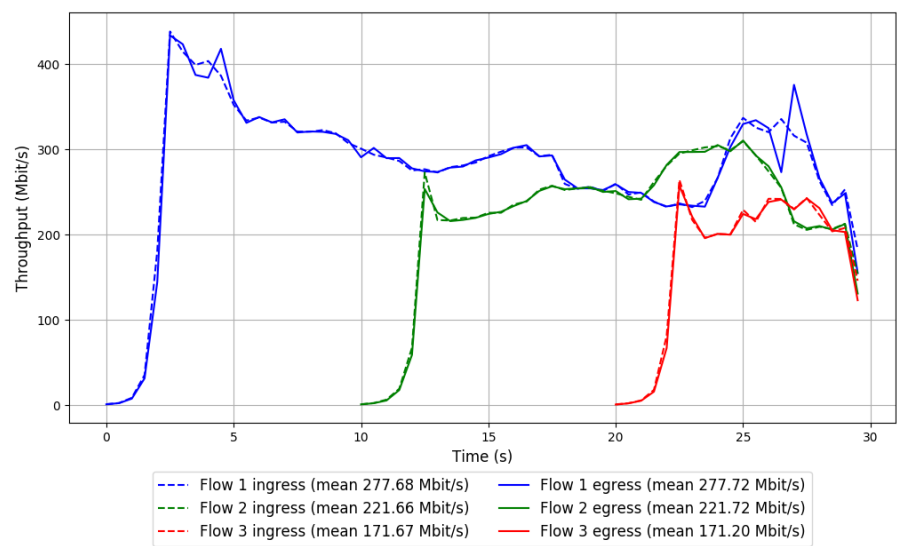
-- Flow 3:

Average throughput: 171.20 Mbit/s

95th percentile per-packet one-way delay: 56.470 ms

Loss rate: 1.37%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-14 09:47:22

End at: 2018-03-14 09:47:52

Below is generated by plot.py at 2018-03-14 15:26:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.35 Mbit/s

95th percentile per-packet one-way delay: 56.321 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 243.29 Mbit/s

95th percentile per-packet one-way delay: 55.268 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 241.93 Mbit/s

95th percentile per-packet one-way delay: 81.249 ms

Loss rate: 0.60%

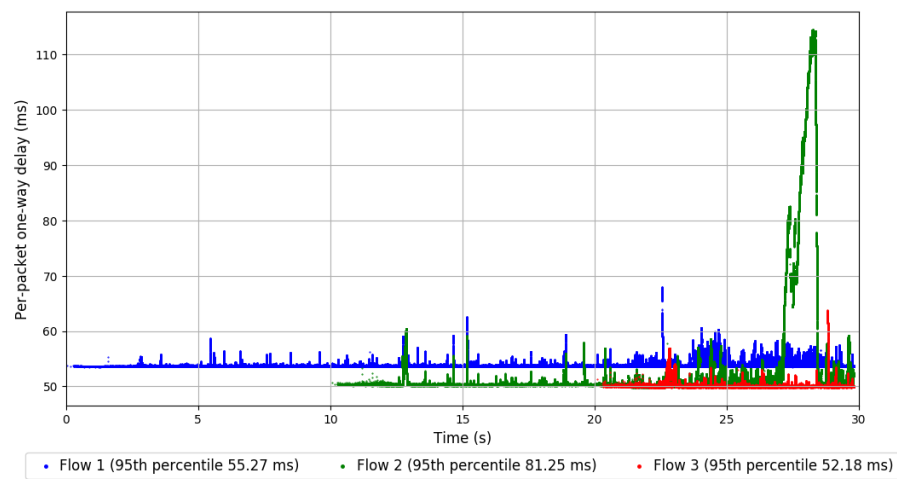
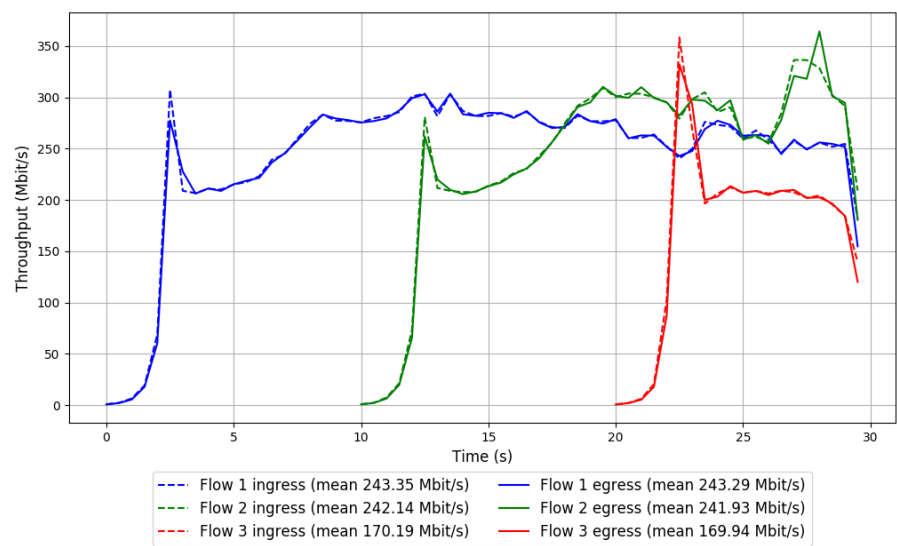
-- Flow 3:

Average throughput: 169.94 Mbit/s

95th percentile per-packet one-way delay: 52.178 ms

Loss rate: 1.18%

Run 10: Report of Vivace-latency — Data Link

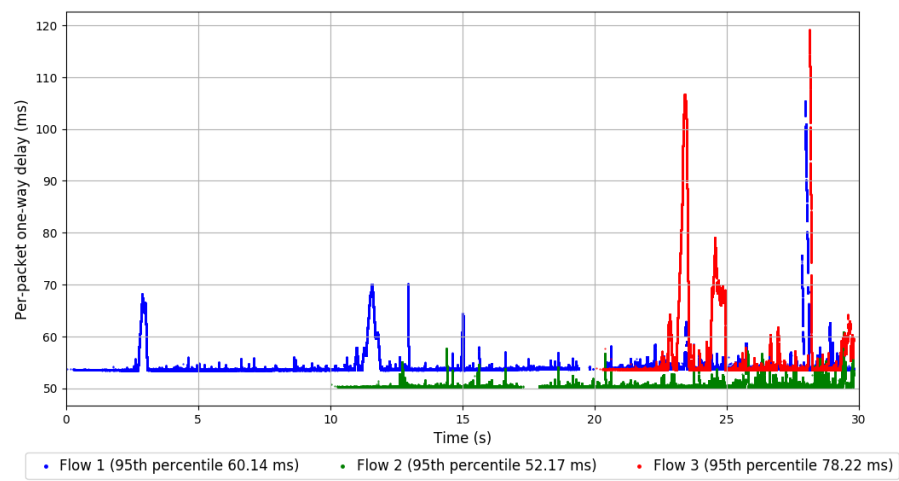
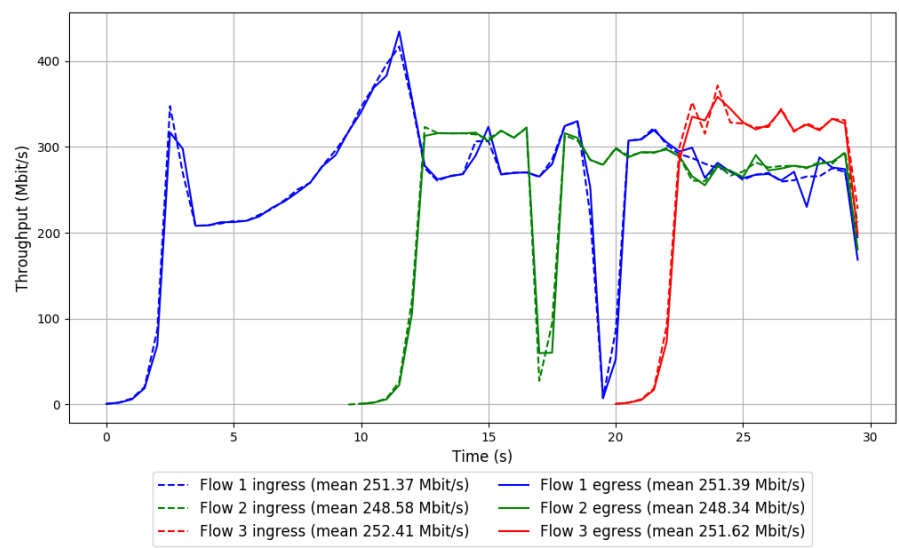


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-14 07:12:12
End at: 2018-03-14 07:12:42

# Below is generated by plot.py at 2018-03-14 15:27:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 498.50 Mbit/s
95th percentile per-packet one-way delay: 61.011 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 251.39 Mbit/s
95th percentile per-packet one-way delay: 60.136 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 248.34 Mbit/s
95th percentile per-packet one-way delay: 52.174 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 251.62 Mbit/s
95th percentile per-packet one-way delay: 78.220 ms
Loss rate: 1.40%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 07:29:13

End at: 2018-03-14 07:29:43

Below is generated by plot.py at 2018-03-14 15:29:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.05 Mbit/s

95th percentile per-packet one-way delay: 63.100 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 261.78 Mbit/s

95th percentile per-packet one-way delay: 67.232 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 262.56 Mbit/s

95th percentile per-packet one-way delay: 58.205 ms

Loss rate: 0.68%

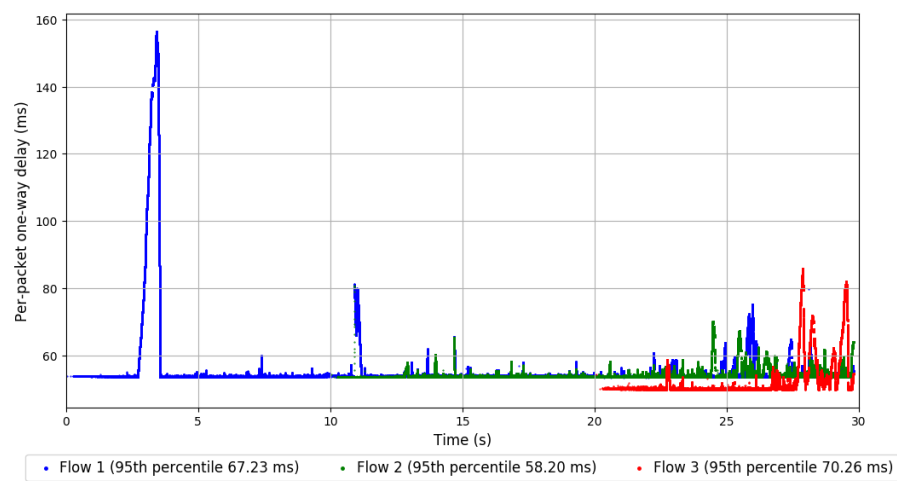
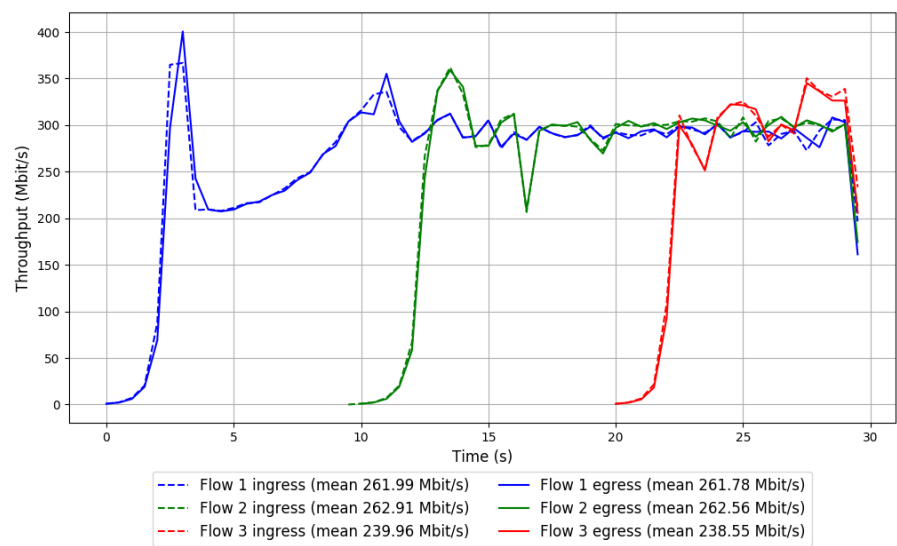
-- Flow 3:

Average throughput: 238.55 Mbit/s

95th percentile per-packet one-way delay: 70.263 ms

Loss rate: 1.68%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 07:46:09

End at: 2018-03-14 07:46:39

Below is generated by plot.py at 2018-03-14 15:30:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 498.40 Mbit/s

95th percentile per-packet one-way delay: 67.161 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 257.57 Mbit/s

95th percentile per-packet one-way delay: 54.964 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 231.03 Mbit/s

95th percentile per-packet one-way delay: 50.183 ms

Loss rate: 0.59%

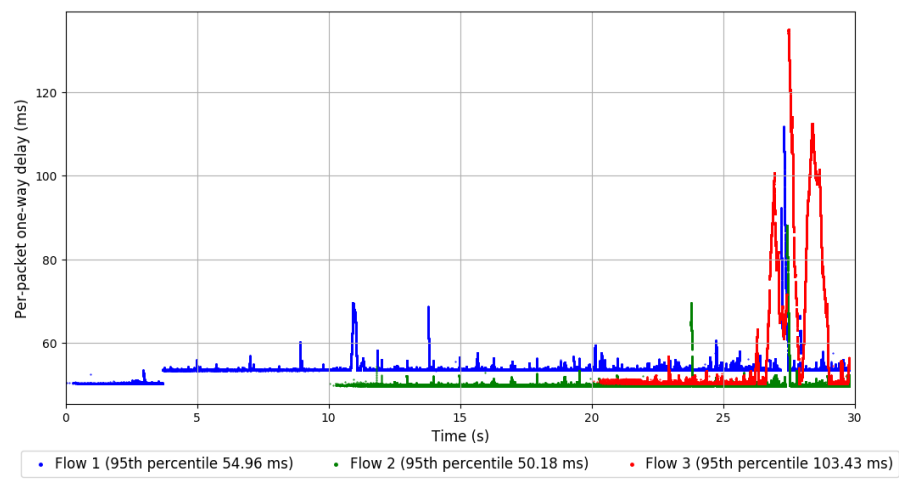
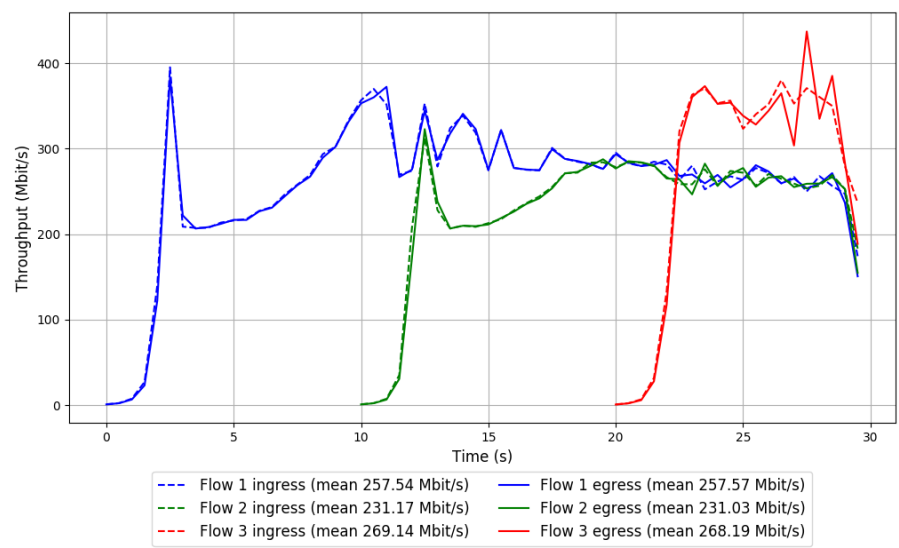
-- Flow 3:

Average throughput: 268.19 Mbit/s

95th percentile per-packet one-way delay: 103.428 ms

Loss rate: 1.42%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 08:03:13

End at: 2018-03-14 08:03:43

Below is generated by plot.py at 2018-03-14 15:33:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 517.20 Mbit/s

95th percentile per-packet one-way delay: 107.986 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 292.69 Mbit/s

95th percentile per-packet one-way delay: 204.187 ms

Loss rate: 1.46%

-- Flow 2:

Average throughput: 248.00 Mbit/s

95th percentile per-packet one-way delay: 54.922 ms

Loss rate: 0.56%

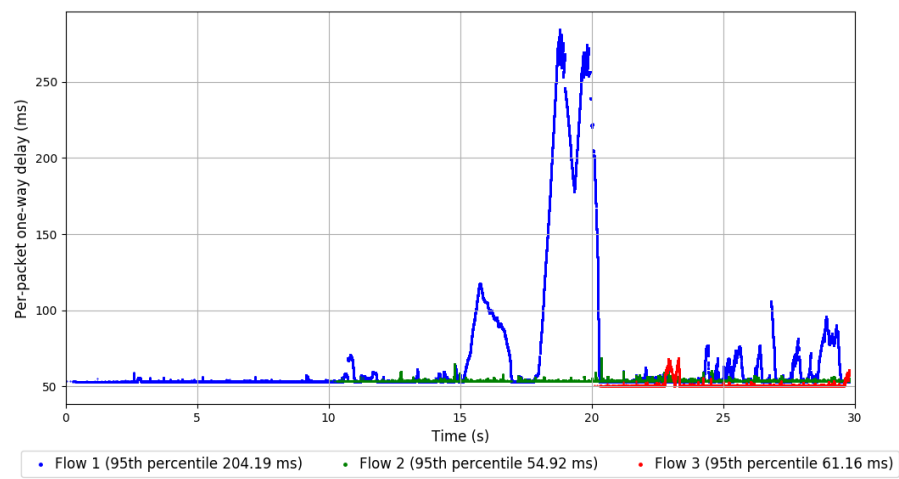
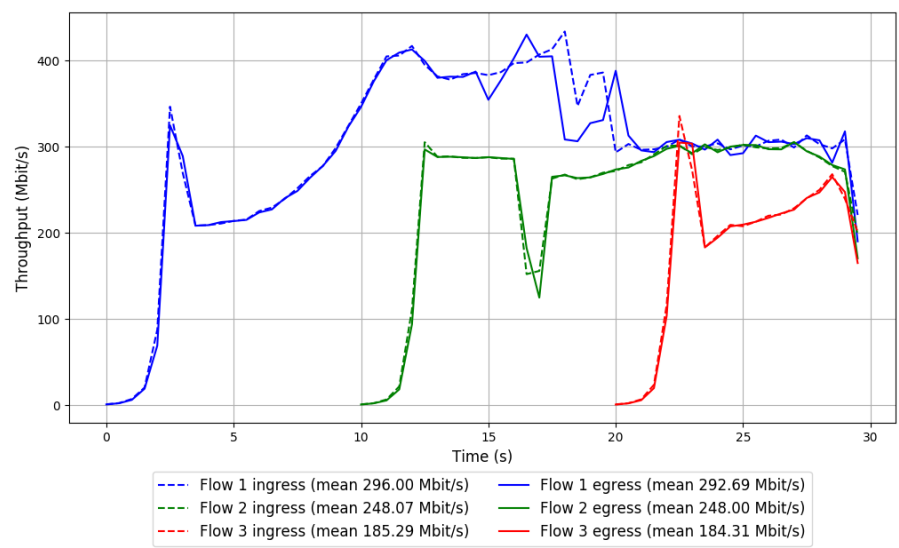
-- Flow 3:

Average throughput: 184.31 Mbit/s

95th percentile per-packet one-way delay: 61.160 ms

Loss rate: 1.57%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 08:20:09

End at: 2018-03-14 08:20:39

Below is generated by plot.py at 2018-03-14 15:36:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 546.53 Mbit/s

95th percentile per-packet one-way delay: 154.511 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 282.06 Mbit/s

95th percentile per-packet one-way delay: 244.508 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 293.88 Mbit/s

95th percentile per-packet one-way delay: 138.670 ms

Loss rate: 0.60%

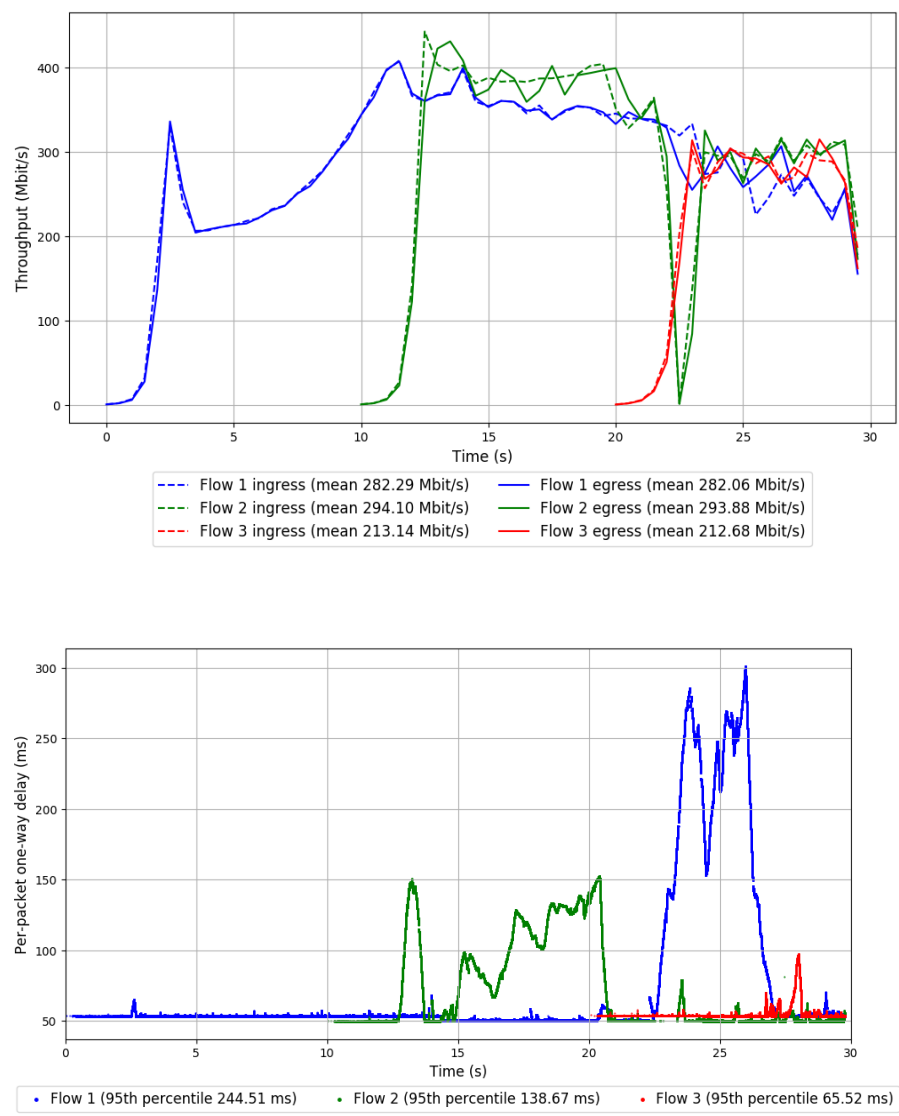
-- Flow 3:

Average throughput: 212.68 Mbit/s

95th percentile per-packet one-way delay: 65.518 ms

Loss rate: 1.31%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 08:37:01

End at: 2018-03-14 08:37:31

Below is generated by plot.py at 2018-03-14 15:36:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 494.06 Mbit/s

95th percentile per-packet one-way delay: 62.250 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 268.49 Mbit/s

95th percentile per-packet one-way delay: 62.317 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 238.75 Mbit/s

95th percentile per-packet one-way delay: 56.173 ms

Loss rate: 0.68%

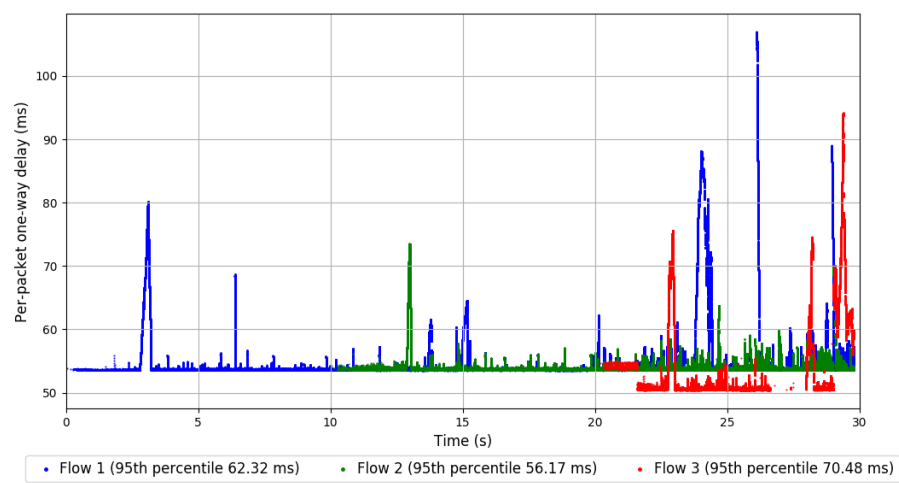
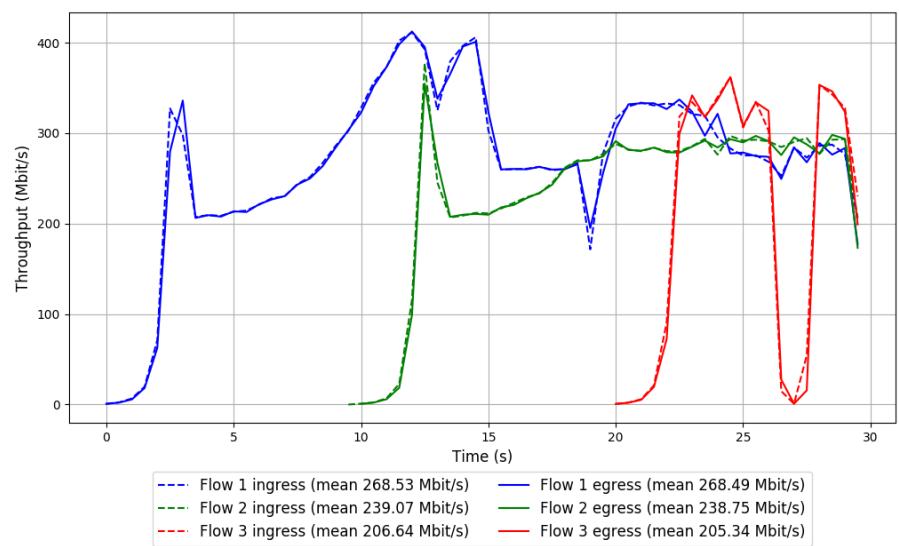
-- Flow 3:

Average throughput: 205.34 Mbit/s

95th percentile per-packet one-way delay: 70.485 ms

Loss rate: 1.74%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-14 08:54:10

End at: 2018-03-14 08:54:40

Below is generated by plot.py at 2018-03-14 15:37:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 506.46 Mbit/s

95th percentile per-packet one-way delay: 101.997 ms

Loss rate: 2.19%

-- Flow 1:

Average throughput: 254.75 Mbit/s

95th percentile per-packet one-way delay: 64.969 ms

Loss rate: 0.22%

-- Flow 2:

Average throughput: 267.41 Mbit/s

95th percentile per-packet one-way delay: 139.052 ms

Loss rate: 5.40%

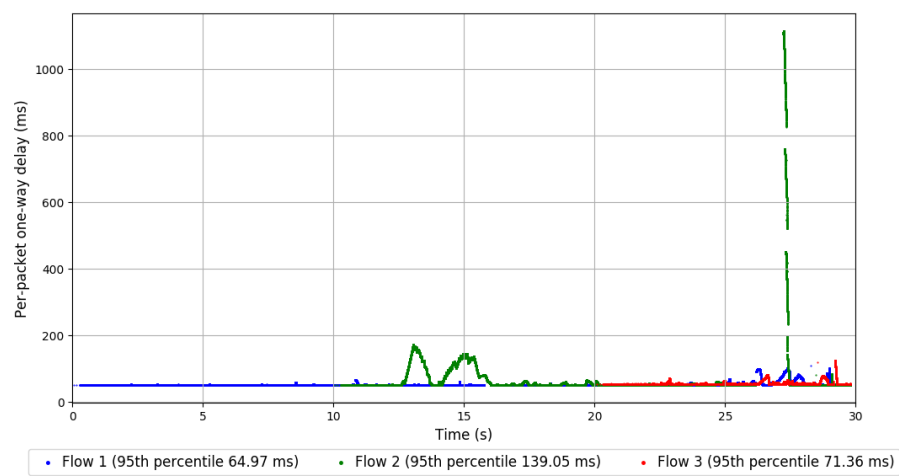
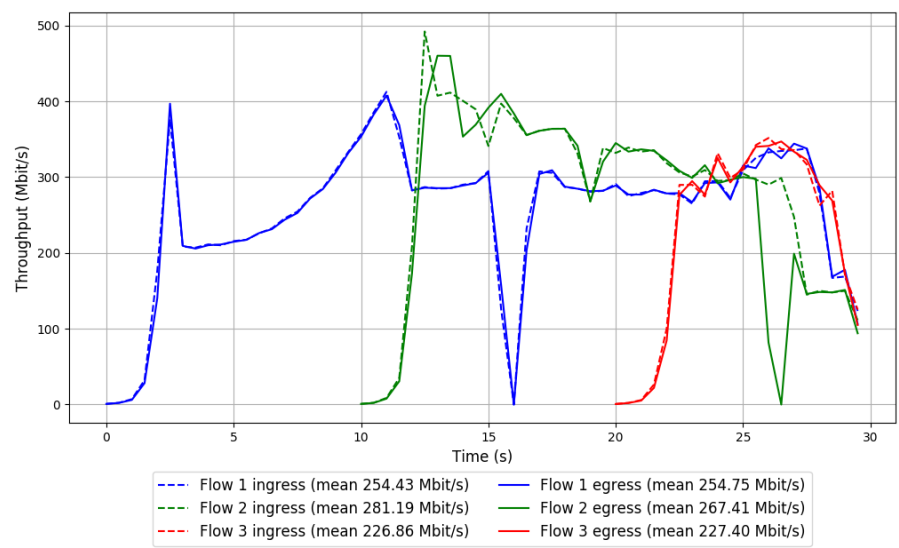
-- Flow 3:

Average throughput: 227.40 Mbit/s

95th percentile per-packet one-way delay: 71.357 ms

Loss rate: 0.86%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-14 09:11:26

End at: 2018-03-14 09:11:56

Below is generated by plot.py at 2018-03-14 15:38:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 520.60 Mbit/s

95th percentile per-packet one-way delay: 121.337 ms

Loss rate: 0.95%

-- Flow 1:

Average throughput: 279.12 Mbit/s

95th percentile per-packet one-way delay: 97.811 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 250.71 Mbit/s

95th percentile per-packet one-way delay: 55.285 ms

Loss rate: 0.61%

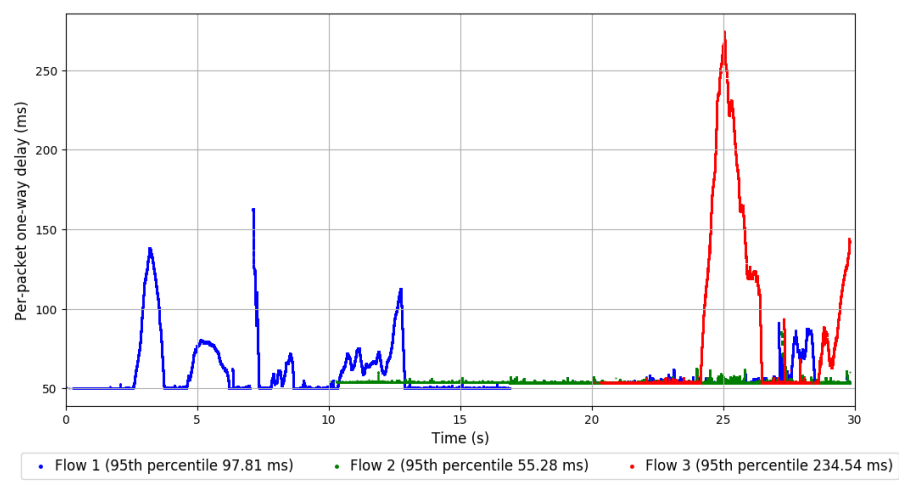
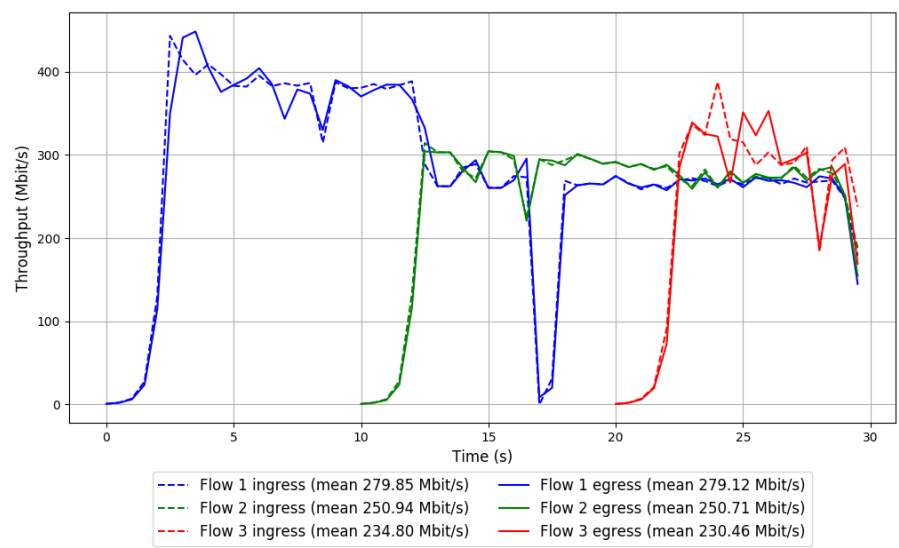
-- Flow 3:

Average throughput: 230.46 Mbit/s

95th percentile per-packet one-way delay: 234.539 ms

Loss rate: 2.93%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-14 09:28:43

End at: 2018-03-14 09:29:13

Below is generated by plot.py at 2018-03-14 15:38:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 466.59 Mbit/s

95th percentile per-packet one-way delay: 75.339 ms

Loss rate: 1.11%

-- Flow 1:

Average throughput: 225.65 Mbit/s

95th percentile per-packet one-way delay: 117.021 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 260.38 Mbit/s

95th percentile per-packet one-way delay: 64.353 ms

Loss rate: 0.72%

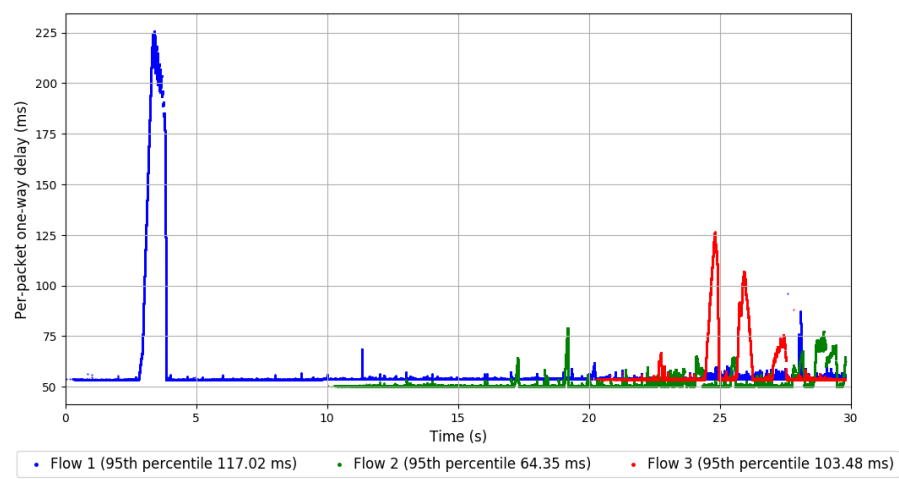
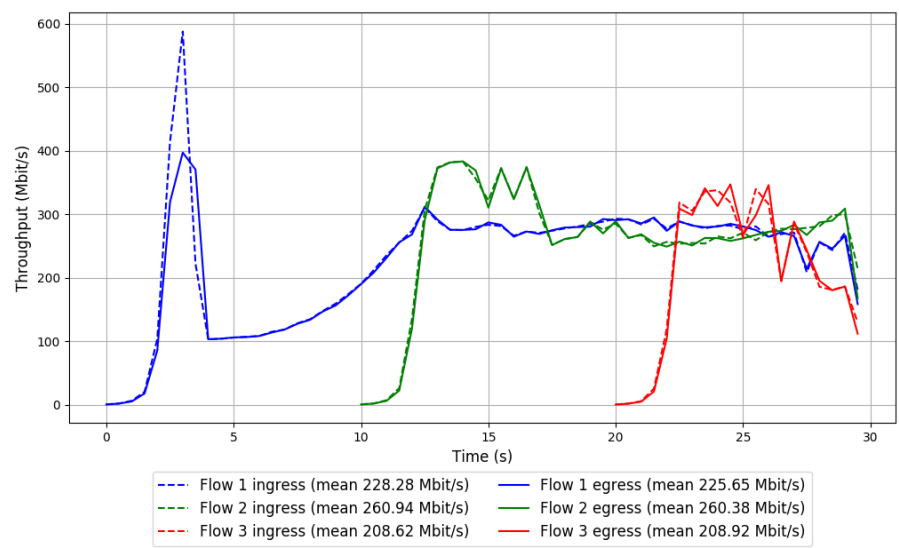
-- Flow 3:

Average throughput: 208.92 Mbit/s

95th percentile per-packet one-way delay: 103.476 ms

Loss rate: 0.93%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-14 09:45:33

End at: 2018-03-14 09:46:03

Below is generated by plot.py at 2018-03-14 15:39:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 441.13 Mbit/s

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

Loss rate: 0.43%

-- Flow 1:

Average throughput: 232.19 Mbit/s

95th percentile per-packet one-way delay: 53.527 ms

Loss rate: 0.20%

-- Flow 2:

Average throughput: 232.10 Mbit/s

95th percentile per-packet one-way delay: 55.208 ms

Loss rate: 0.40%

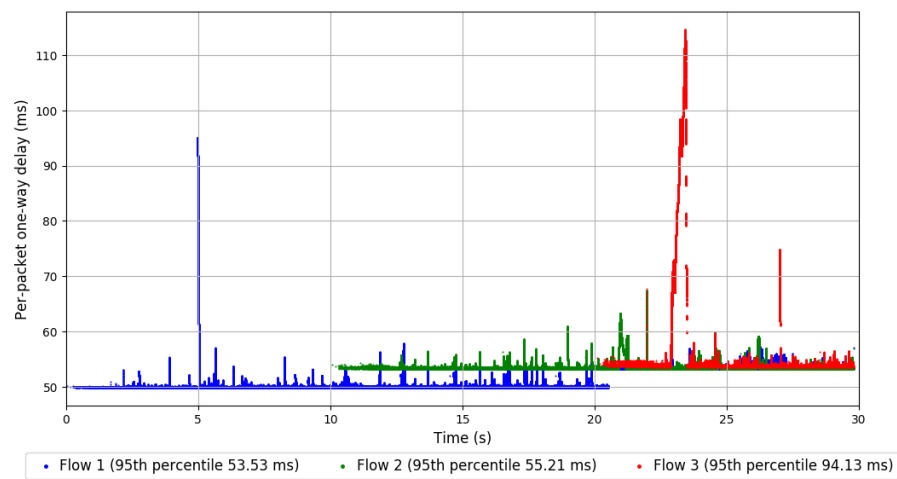
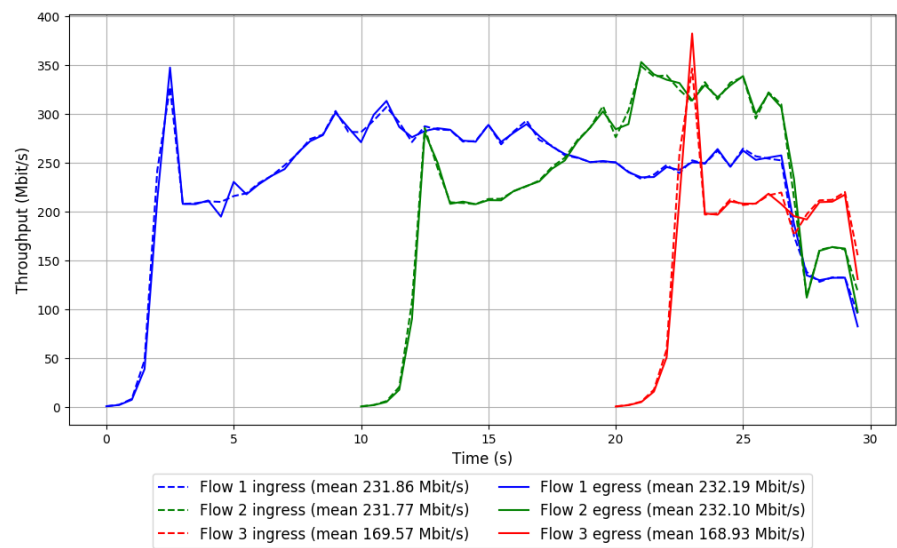
-- Flow 3:

Average throughput: 168.93 Mbit/s

95th percentile per-packet one-way delay: 94.131 ms

Loss rate: 1.48%

Run 10: Report of Vivace-loss — Data Link

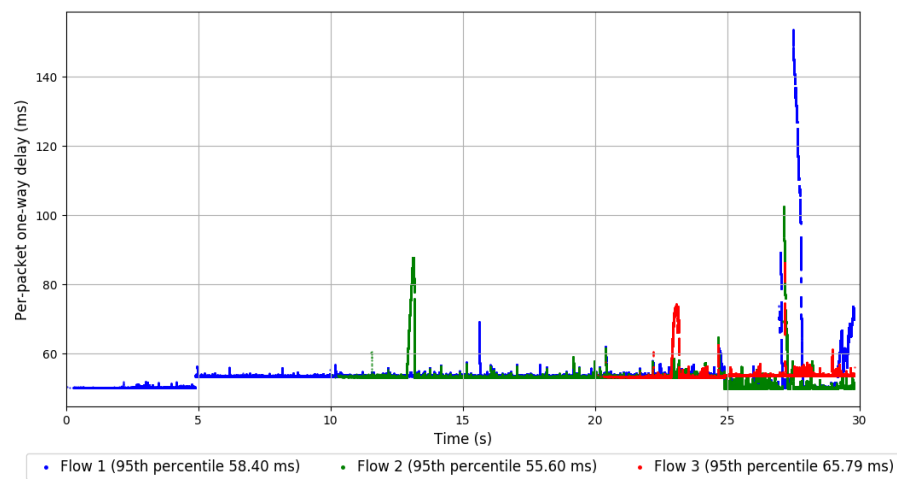
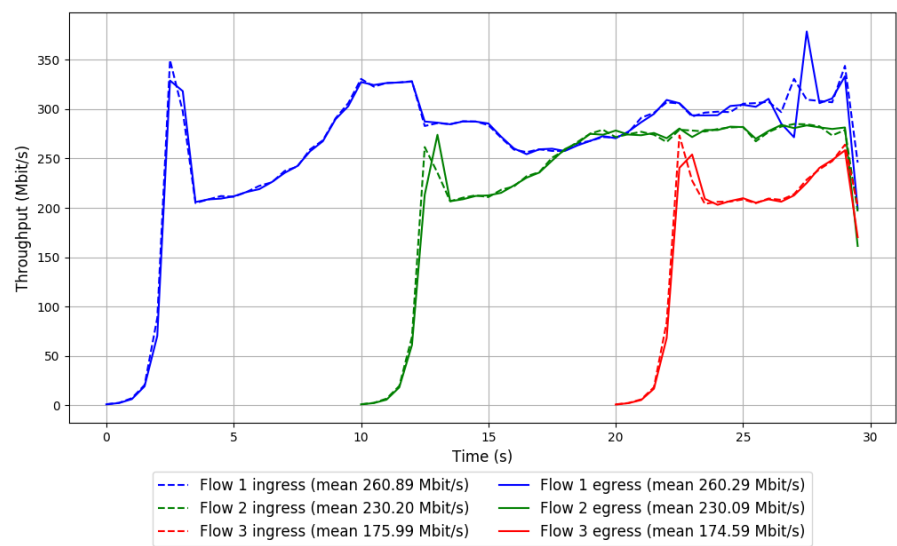


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-14 07:10:18
End at: 2018-03-14 07:10:48

# Below is generated by plot.py at 2018-03-14 15:42:32
# Datalink statistics
-- Total of 3 flows:
Average throughput: 469.96 Mbit/s
95th percentile per-packet one-way delay: 57.682 ms
Loss rate: 0.74%
-- Flow 1:
Average throughput: 260.29 Mbit/s
95th percentile per-packet one-way delay: 58.397 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 230.09 Mbit/s
95th percentile per-packet one-way delay: 55.601 ms
Loss rate: 0.62%
-- Flow 3:
Average throughput: 174.59 Mbit/s
95th percentile per-packet one-way delay: 65.792 ms
Loss rate: 1.83%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 07:27:18

End at: 2018-03-14 07:27:48

Below is generated by plot.py at 2018-03-14 15:45:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 492.73 Mbit/s

95th percentile per-packet one-way delay: 57.367 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 283.28 Mbit/s

95th percentile per-packet one-way delay: 80.398 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 232.14 Mbit/s

95th percentile per-packet one-way delay: 51.395 ms

Loss rate: 0.45%

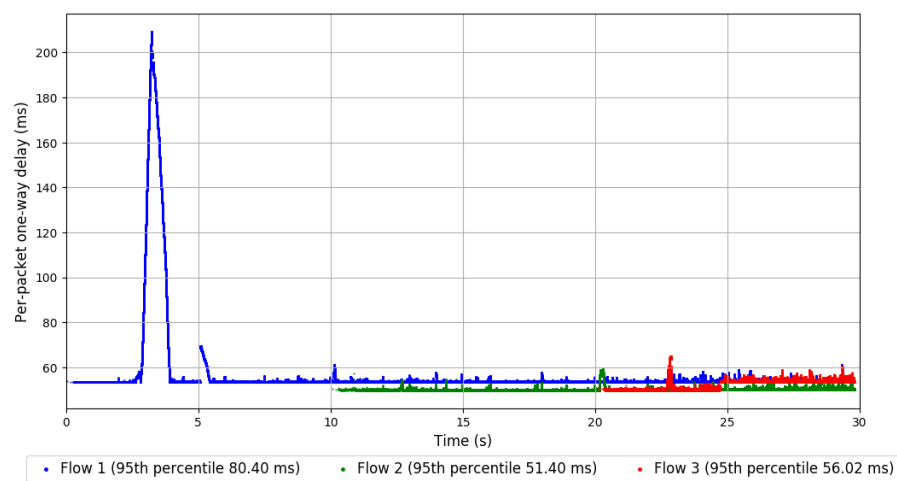
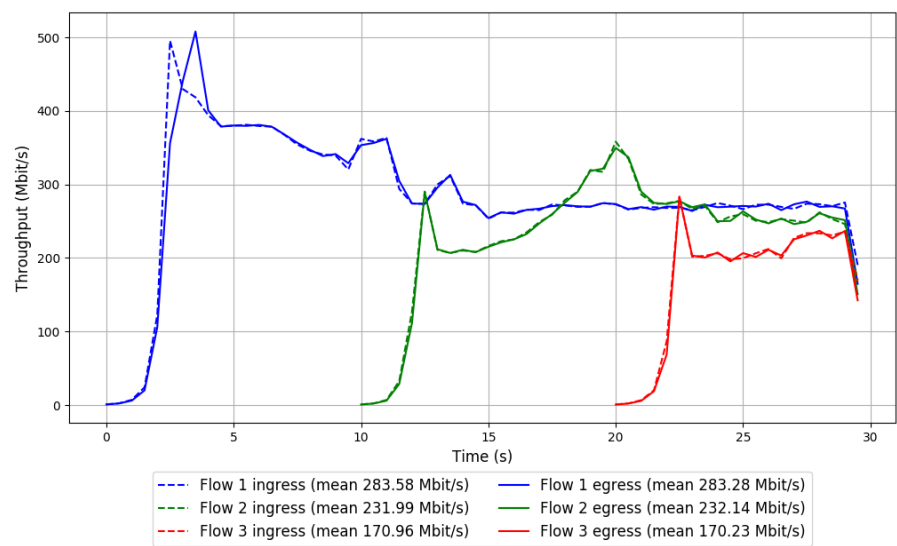
-- Flow 3:

Average throughput: 170.23 Mbit/s

95th percentile per-packet one-way delay: 56.017 ms

Loss rate: 1.46%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-14 07:44:17

End at: 2018-03-14 07:44:47

Below is generated by plot.py at 2018-03-14 15:46:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.32 Mbit/s

95th percentile per-packet one-way delay: 54.834 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 252.09 Mbit/s

95th percentile per-packet one-way delay: 55.135 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 212.61 Mbit/s

95th percentile per-packet one-way delay: 54.812 ms

Loss rate: 0.64%

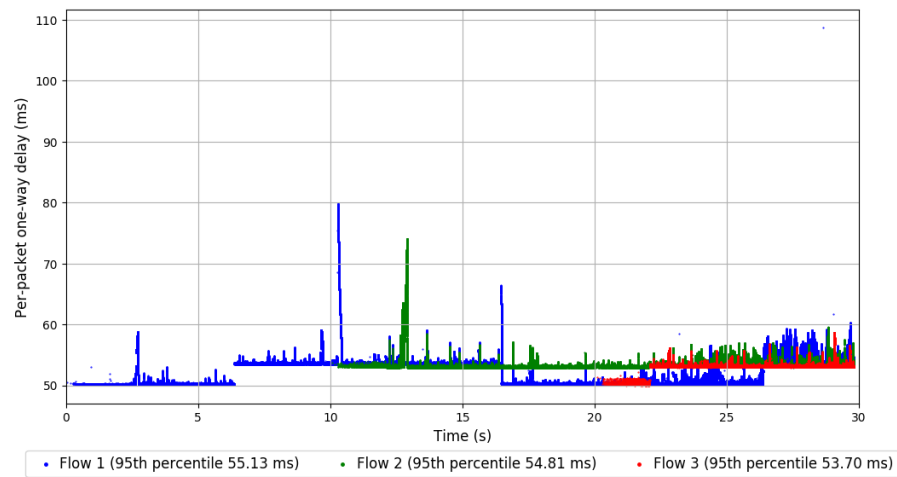
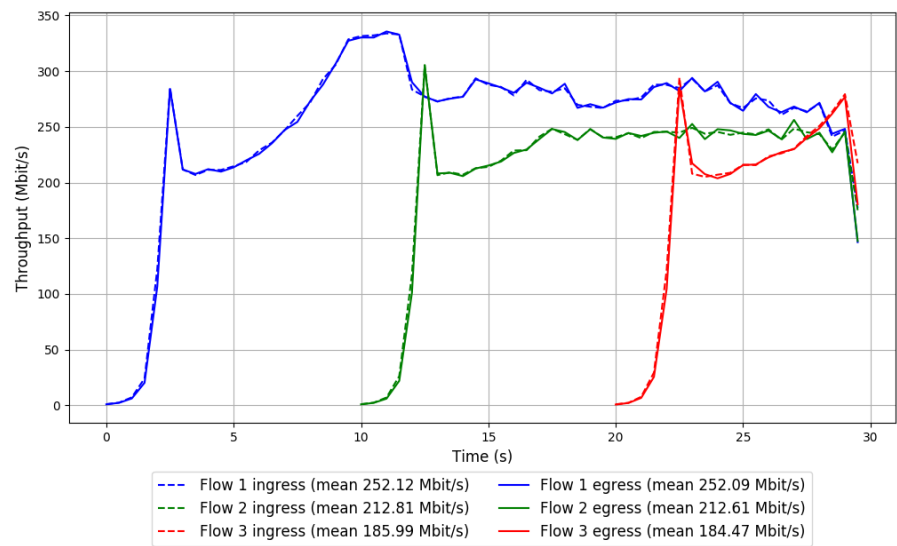
-- Flow 3:

Average throughput: 184.47 Mbit/s

95th percentile per-packet one-way delay: 53.702 ms

Loss rate: 1.88%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 08:01:18

End at: 2018-03-14 08:01:48

Below is generated by plot.py at 2018-03-14 15:47:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 487.80 Mbit/s

95th percentile per-packet one-way delay: 119.871 ms

Loss rate: 0.67%

-- Flow 1:

Average throughput: 251.62 Mbit/s

95th percentile per-packet one-way delay: 55.861 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 275.57 Mbit/s

95th percentile per-packet one-way delay: 159.798 ms

Loss rate: 0.88%

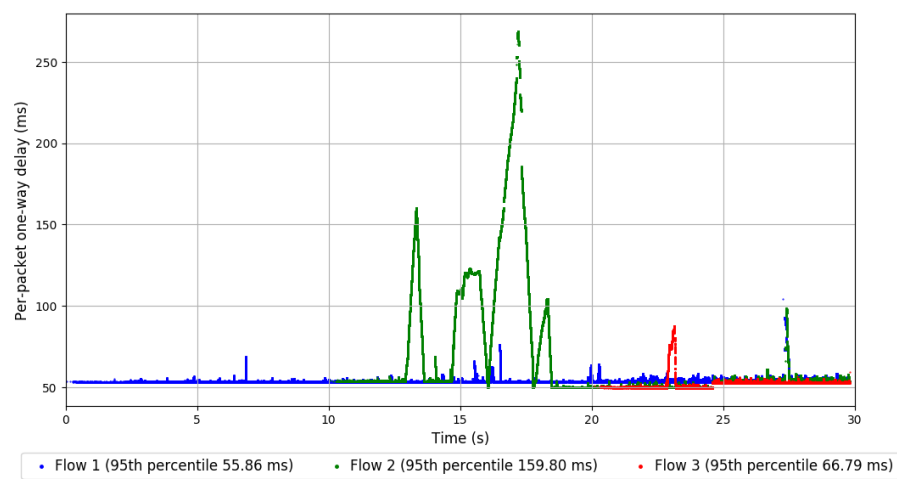
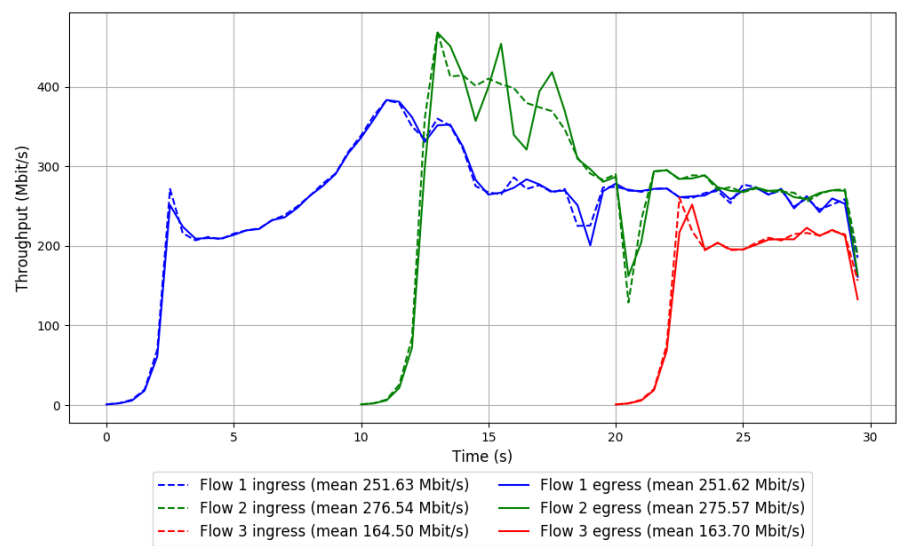
-- Flow 3:

Average throughput: 163.70 Mbit/s

95th percentile per-packet one-way delay: 66.793 ms

Loss rate: 1.46%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-14 08:18:16

End at: 2018-03-14 08:18:46

Below is generated by plot.py at 2018-03-14 15:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 442.17 Mbit/s

95th percentile per-packet one-way delay: 55.677 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 244.97 Mbit/s

95th percentile per-packet one-way delay: 55.249 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 209.38 Mbit/s

95th percentile per-packet one-way delay: 57.270 ms

Loss rate: 0.38%

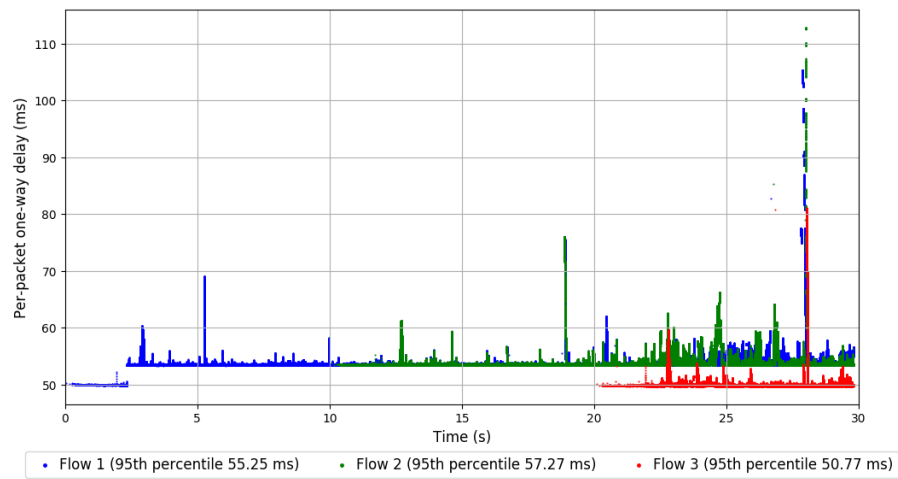
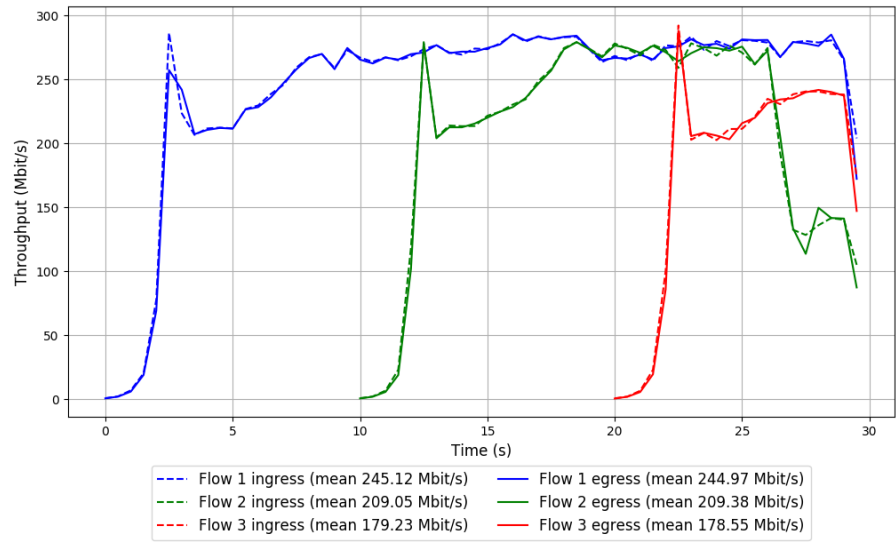
-- Flow 3:

Average throughput: 178.55 Mbit/s

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

Loss rate: 1.43%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-14 08:35:04

End at: 2018-03-14 08:35:34

Below is generated by plot.py at 2018-03-14 15:49:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 507.46 Mbit/s

95th percentile per-packet one-way delay: 56.336 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 295.20 Mbit/s

95th percentile per-packet one-way delay: 57.120 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 230.68 Mbit/s

95th percentile per-packet one-way delay: 55.311 ms

Loss rate: 0.65%

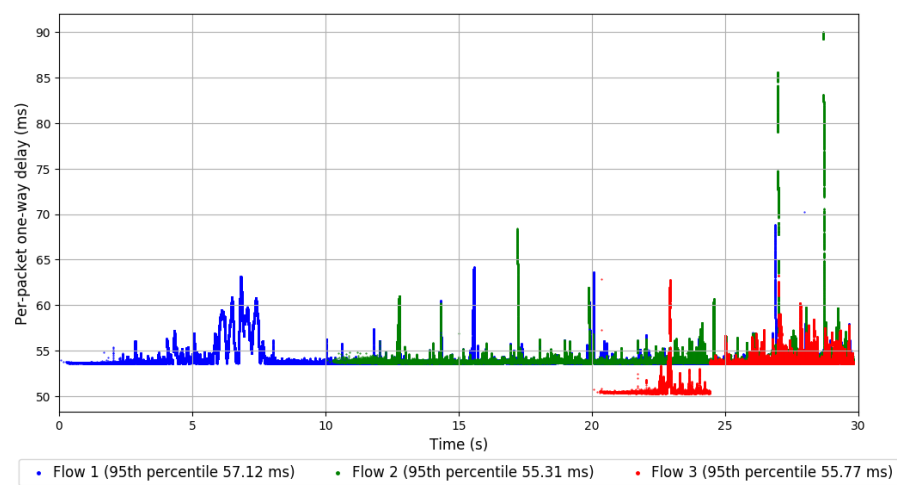
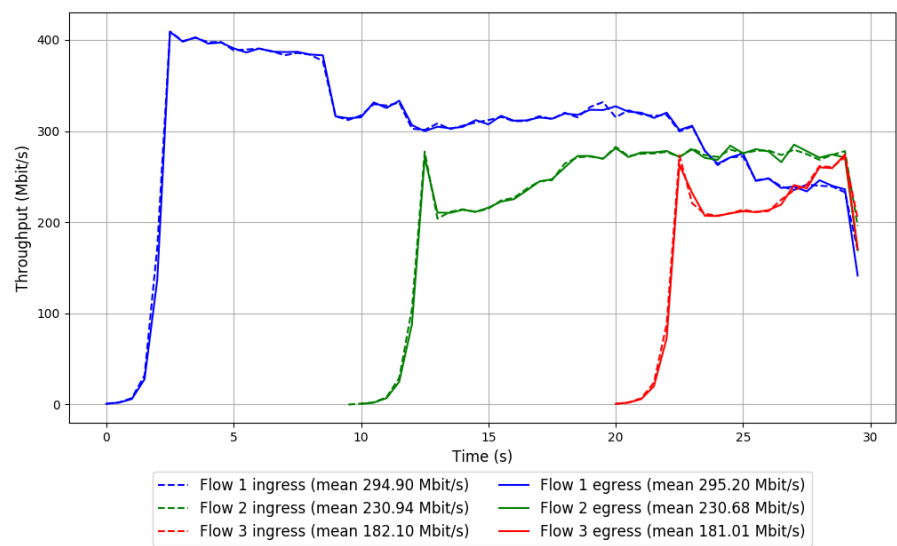
-- Flow 3:

Average throughput: 181.01 Mbit/s

95th percentile per-packet one-way delay: 55.773 ms

Loss rate: 1.66%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-14 08:52:13

End at: 2018-03-14 08:52:43

Below is generated by plot.py at 2018-03-14 15:49:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 519.31 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 278.58 Mbit/s

95th percentile per-packet one-way delay: 58.928 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 279.00 Mbit/s

95th percentile per-packet one-way delay: 165.291 ms

Loss rate: 0.58%

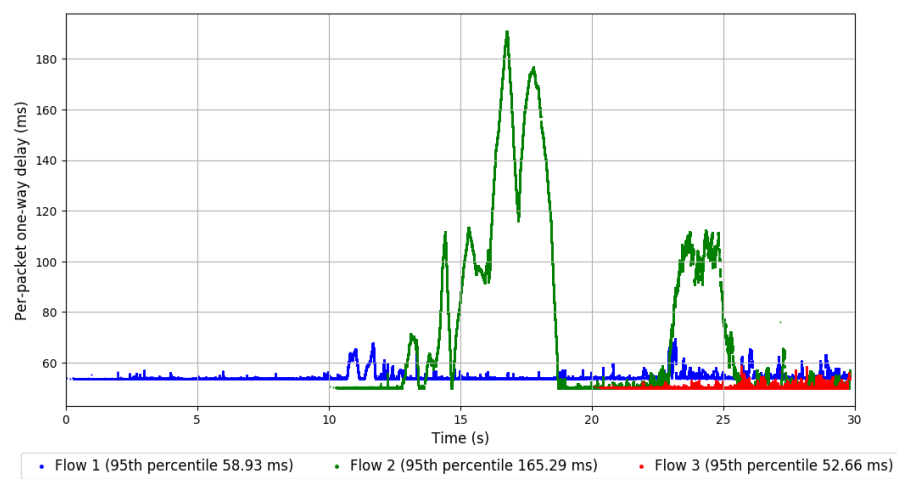
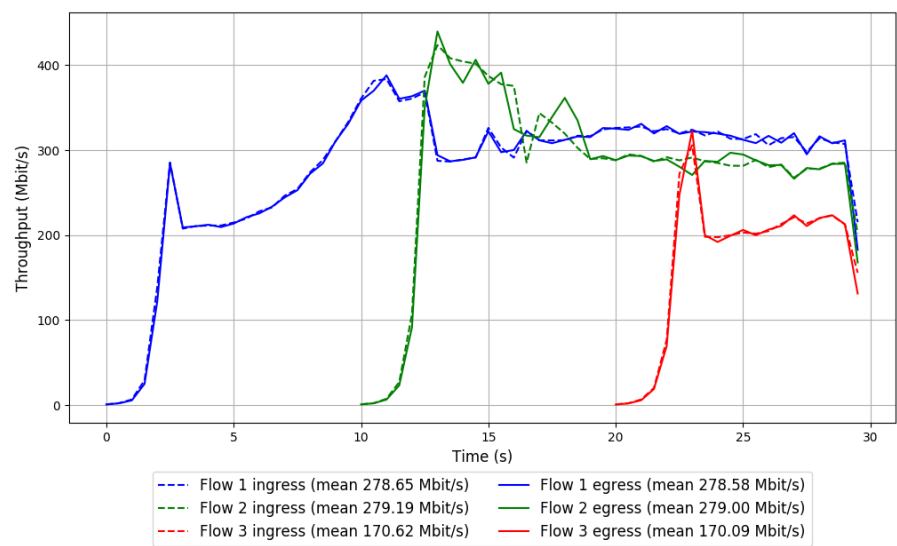
-- Flow 3:

Average throughput: 170.09 Mbit/s

95th percentile per-packet one-way delay: 52.660 ms

Loss rate: 1.35%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-14 09:09:38

End at: 2018-03-14 09:10:08

Below is generated by plot.py at 2018-03-14 15:49:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 373.83 Mbit/s

95th percentile per-packet one-way delay: 54.083 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 208.12 Mbit/s

95th percentile per-packet one-way delay: 56.098 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 165.76 Mbit/s

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

Loss rate: 0.51%

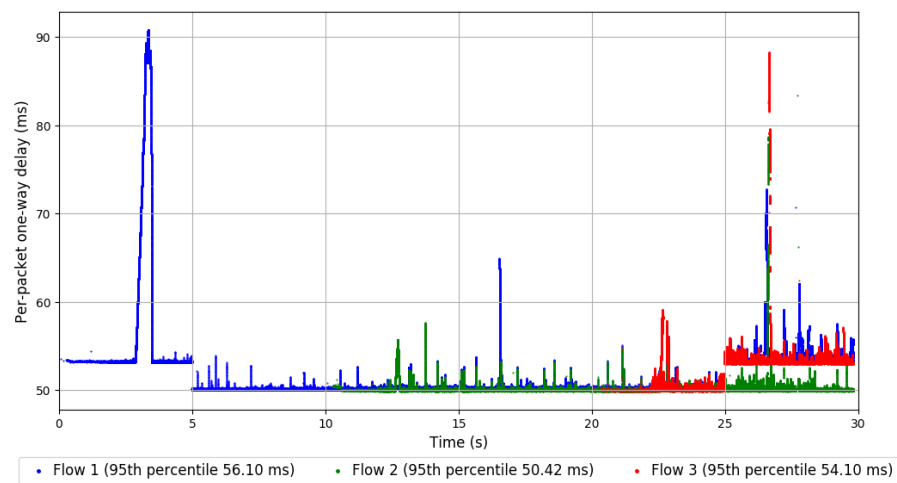
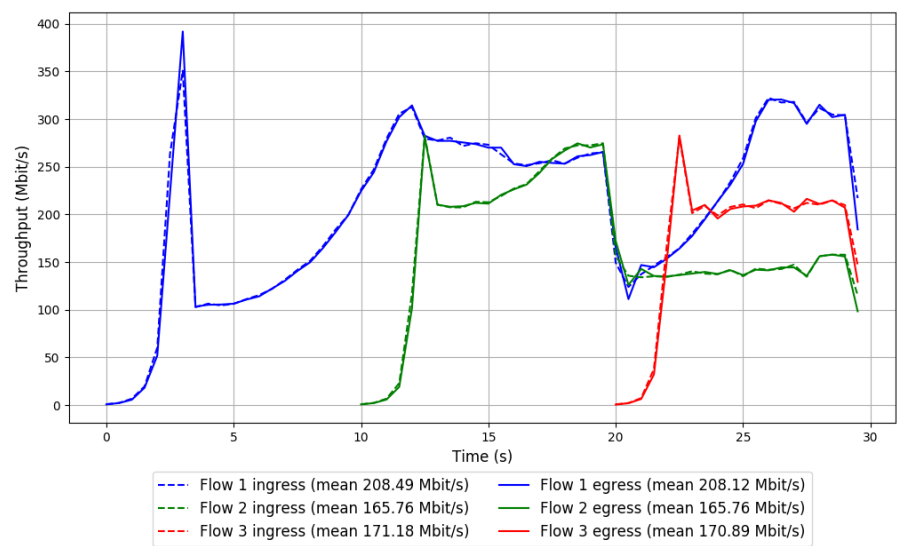
-- Flow 3:

Average throughput: 170.89 Mbit/s

95th percentile per-packet one-way delay: 54.101 ms

Loss rate: 1.21%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-14 09:26:46

End at: 2018-03-14 09:27:16

Below is generated by plot.py at 2018-03-14 15:50:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 516.48 Mbit/s

95th percentile per-packet one-way delay: 59.539 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 299.89 Mbit/s

95th percentile per-packet one-way delay: 60.658 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 239.63 Mbit/s

95th percentile per-packet one-way delay: 60.056 ms

Loss rate: 0.61%

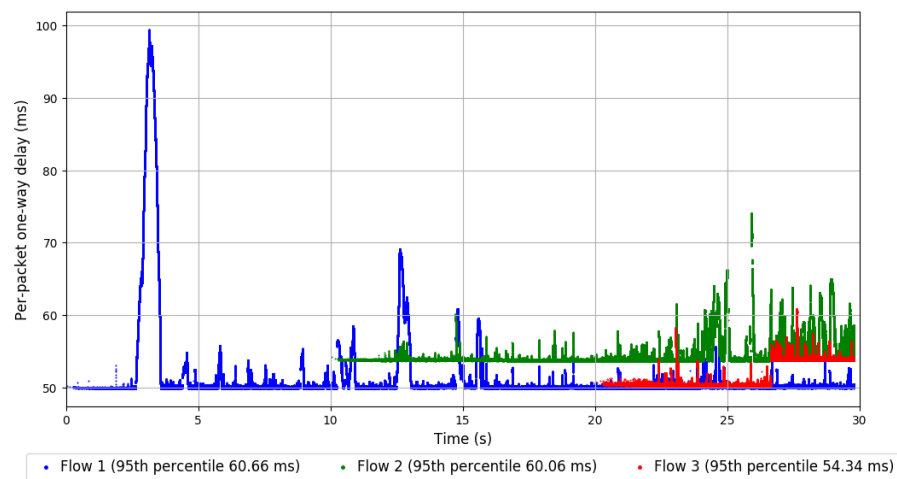
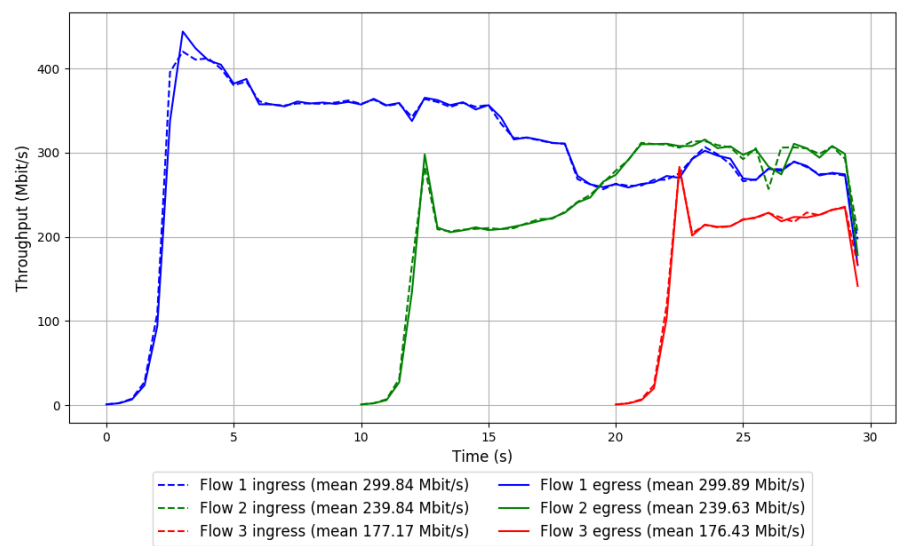
-- Flow 3:

Average throughput: 176.43 Mbit/s

95th percentile per-packet one-way delay: 54.339 ms

Loss rate: 1.45%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-14 09:43:43
End at: 2018-03-14 09:44:13

# Below is generated by plot.py at 2018-03-14 15:50:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 417.60 Mbit/s
95th percentile per-packet one-way delay: 54.230 ms
Loss rate: 1.86%
-- Flow 1:
Average throughput: 224.12 Mbit/s
95th percentile per-packet one-way delay: 54.249 ms
Loss rate: 0.41%
-- Flow 2:
Average throughput: 217.09 Mbit/s
95th percentile per-packet one-way delay: 50.697 ms
Loss rate: 4.21%
-- Flow 3:
Average throughput: 165.85 Mbit/s
95th percentile per-packet one-way delay: 55.607 ms
Loss rate: 1.57%
```

Run 10: Report of Vivace-LTE — Data Link

