

Pantheon Report

Generated at 2018-03-07 11:18:50 (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.

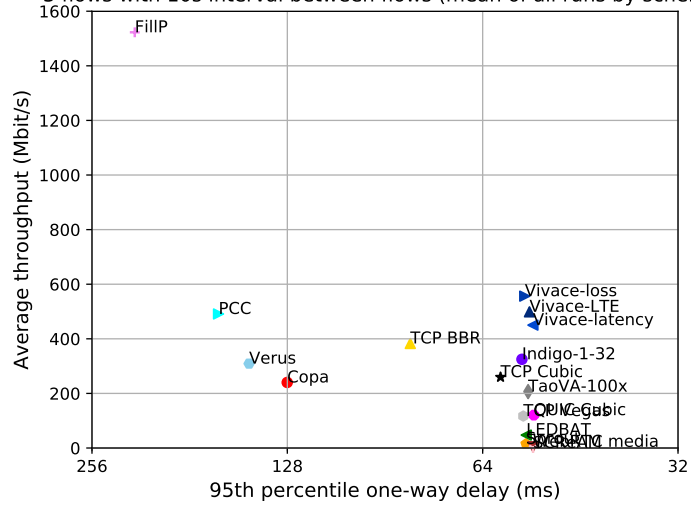
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

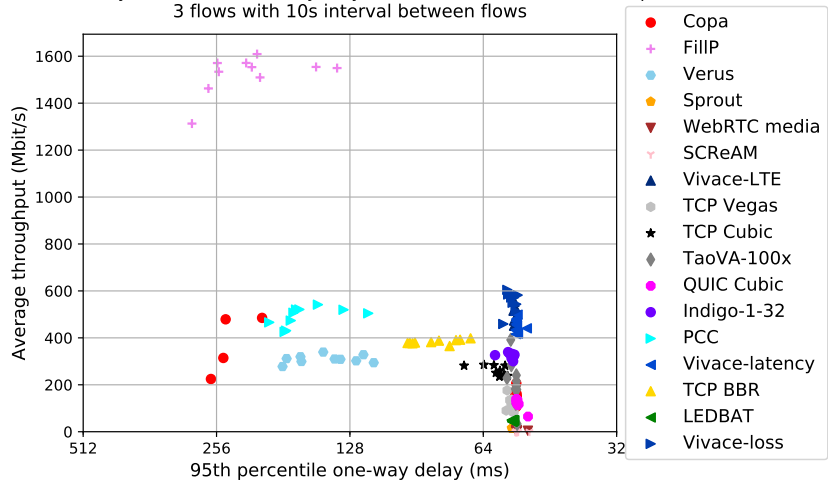
Git summary:

```
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	200.28	190.36	171.03	80.12	82.66	87.00	0.37	0.57	1.34
TCP Cubic	10	143.17	121.84	107.82	59.16	60.06	61.55	0.35	0.83	1.66
LEDBAT	10	30.16	20.91	10.31	54.81	54.97	54.54	0.71	1.02	2.15
PCC	10	435.21	70.23	28.30	162.85	163.43	144.06	0.83	0.98	1.74
QUIC Cubic	10	60.99	62.52	54.86	52.65	52.59	52.07	0.28	0.38	1.19
SCReAM	10	0.20	0.20	0.22	52.07	52.45	52.79	0.25	0.50	1.04
WebRTC media	10	2.28	1.55	0.64	52.42	51.79	53.81	0.38	0.68	1.26
Sprout	10	7.75	7.62	7.44	54.90	54.87	55.00	0.38	0.41	1.22
TaoVA-100x	10	102.02	104.29	123.10	54.14	54.55	55.00	0.27	0.36	1.20
TCP Vegas	10	47.06	80.96	49.25	55.01	55.68	55.47	0.34	0.48	1.25
Verus	10	174.94	152.19	103.08	127.37	151.31	172.09	0.69	1.30	2.74
Copa	10	159.43	108.10	50.48	107.20	105.75	99.14	5.88	6.83	3.88
FillP	10	803.00	750.53	676.88	215.29	200.16	202.61	3.16	3.94	6.73
Indigo-1-32	10	177.41	155.25	138.25	55.13	55.95	56.62	0.35	0.58	1.18
Vivace-latency	10	258.79	234.60	109.68	52.41	53.05	53.48	0.38	0.84	1.54
Vivace-loss	10	302.31	276.48	216.22	53.69	60.28	57.75	0.36	0.86	1.32
Vivace-LTE	10	274.28	250.23	179.53	54.15	53.67	53.91	0.58	0.59	1.40

Run 1: Statistics of TCP BBR

Start at: 2018-03-07 03:19:12

End at: 2018-03-07 03:19:42

Below is generated by plot.py at 2018-03-07 09:20:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 381.90 Mbit/s

95th percentile per-packet one-way delay: 83.925 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 198.91 Mbit/s

95th percentile per-packet one-way delay: 80.371 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 192.34 Mbit/s

95th percentile per-packet one-way delay: 83.712 ms

Loss rate: 0.59%

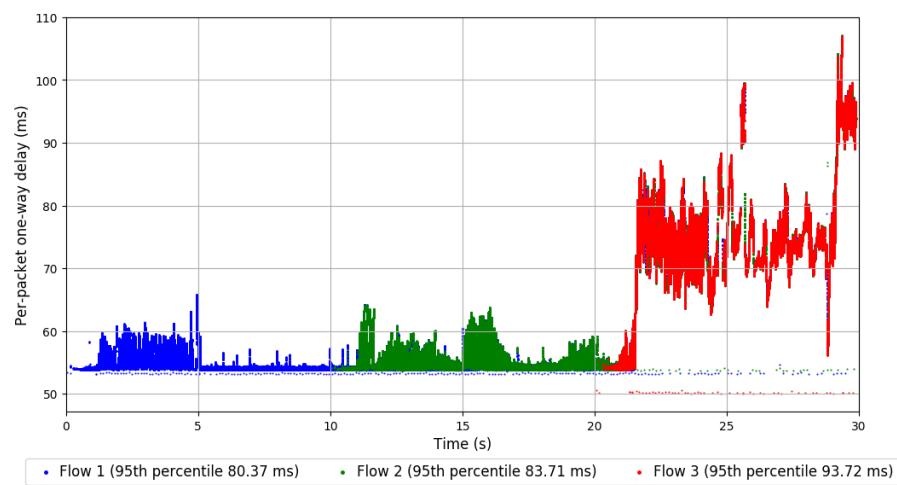
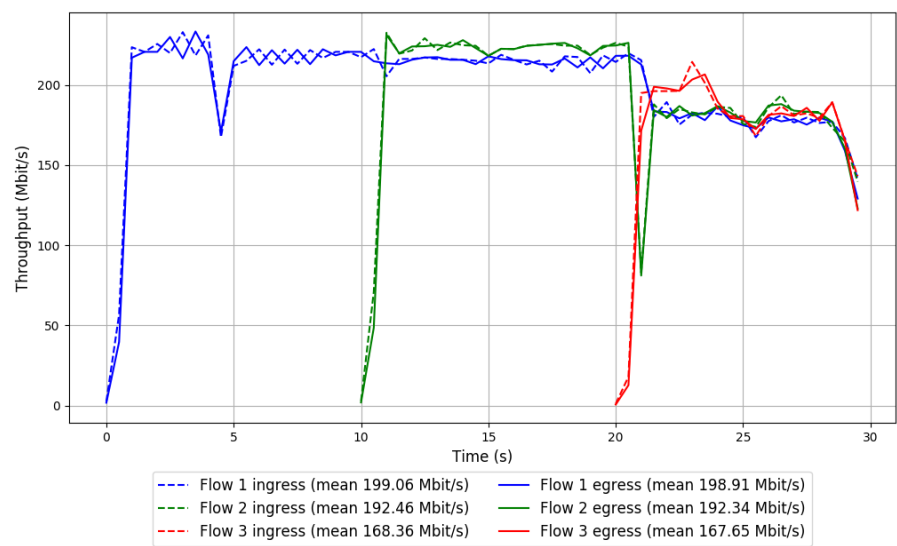
-- Flow 3:

Average throughput: 167.65 Mbit/s

95th percentile per-packet one-way delay: 93.720 ms

Loss rate: 1.47%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-07 03:36:18

End at: 2018-03-07 03:36:48

Below is generated by plot.py at 2018-03-07 09:20:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 376.97 Mbit/s

95th percentile per-packet one-way delay: 92.450 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 200.16 Mbit/s

95th percentile per-packet one-way delay: 88.499 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 184.29 Mbit/s

95th percentile per-packet one-way delay: 92.552 ms

Loss rate: 0.59%

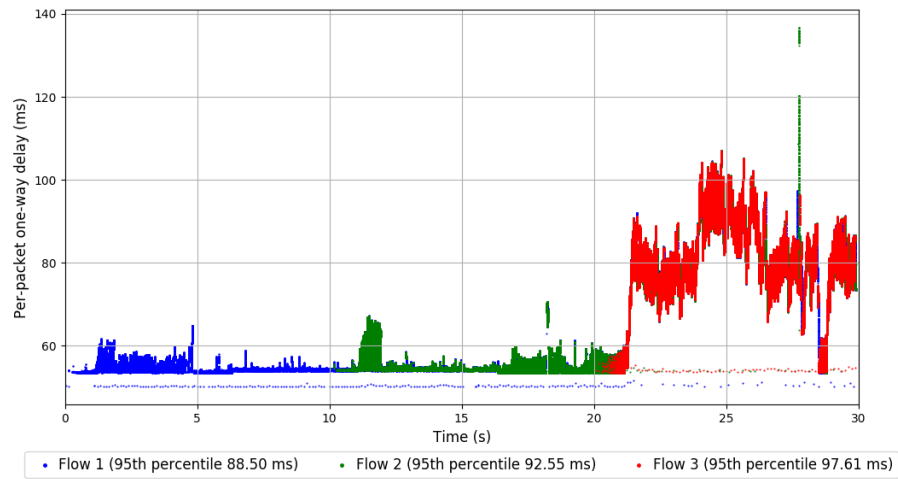
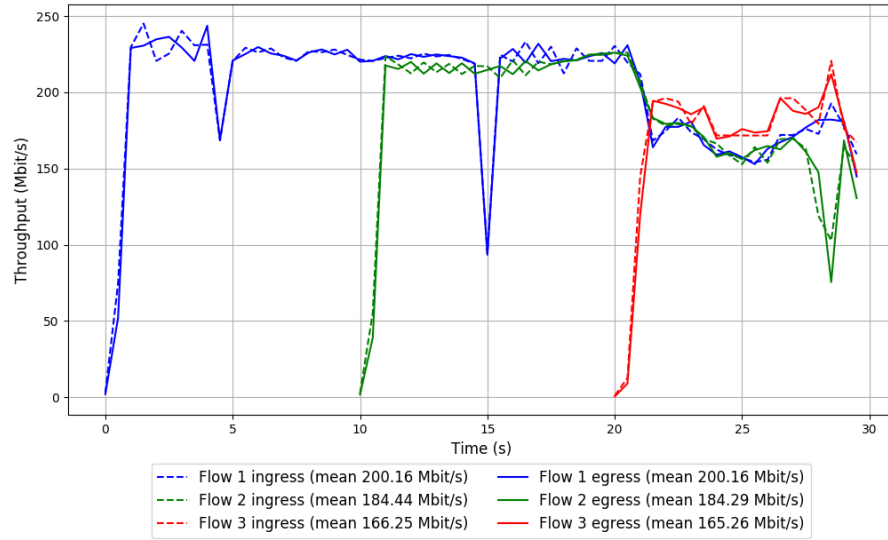
-- Flow 3:

Average throughput: 165.26 Mbit/s

95th percentile per-packet one-way delay: 97.610 ms

Loss rate: 1.49%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-07 03:53:29

End at: 2018-03-07 03:53:59

Below is generated by plot.py at 2018-03-07 09:20:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.22 Mbit/s

95th percentile per-packet one-way delay: 94.860 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 202.92 Mbit/s

95th percentile per-packet one-way delay: 91.255 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 182.67 Mbit/s

95th percentile per-packet one-way delay: 94.653 ms

Loss rate: 0.60%

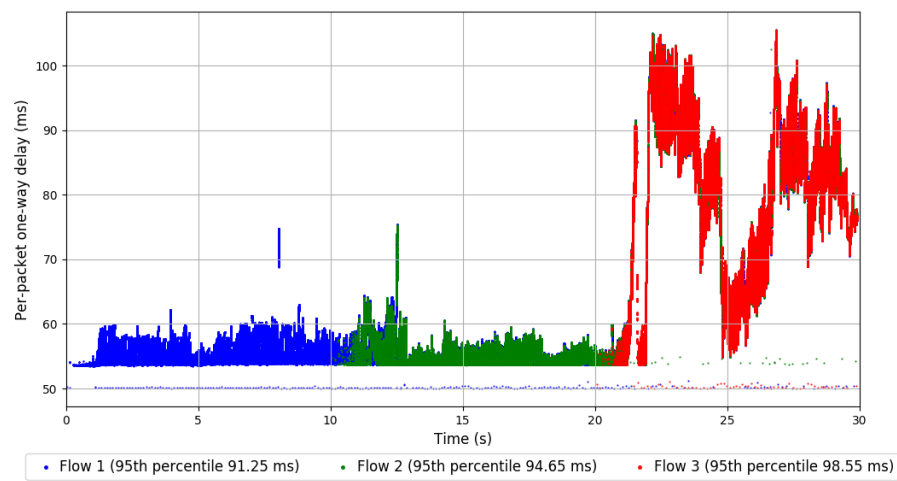
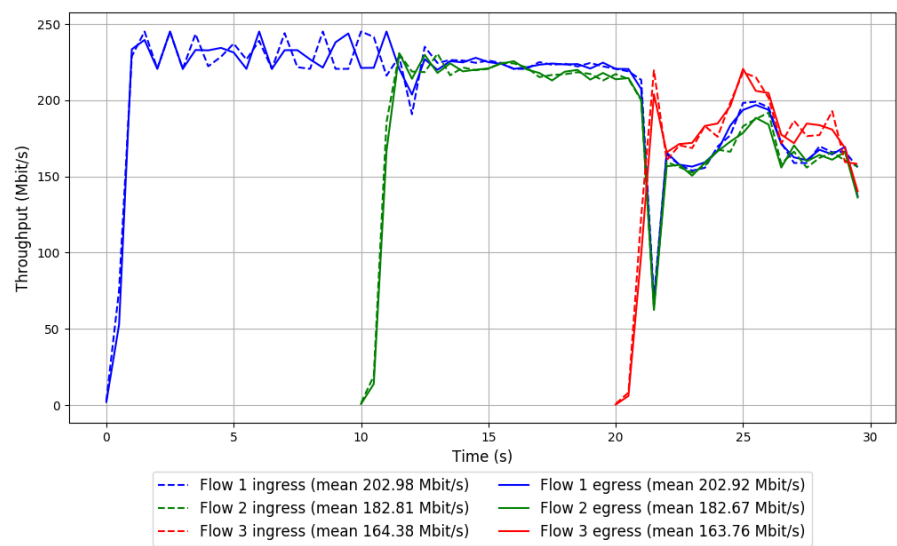
-- Flow 3:

Average throughput: 163.76 Mbit/s

95th percentile per-packet one-way delay: 98.547 ms

Loss rate: 1.39%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-07 04:10:47

End at: 2018-03-07 04:11:17

Below is generated by plot.py at 2018-03-07 09:20:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 388.25 Mbit/s

95th percentile per-packet one-way delay: 80.596 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 203.04 Mbit/s

95th percentile per-packet one-way delay: 78.841 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 193.79 Mbit/s

95th percentile per-packet one-way delay: 80.702 ms

Loss rate: 0.58%

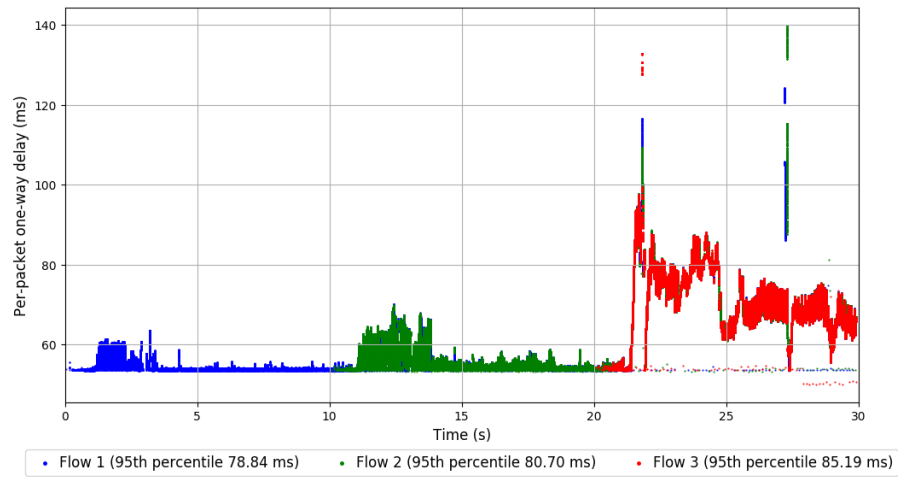
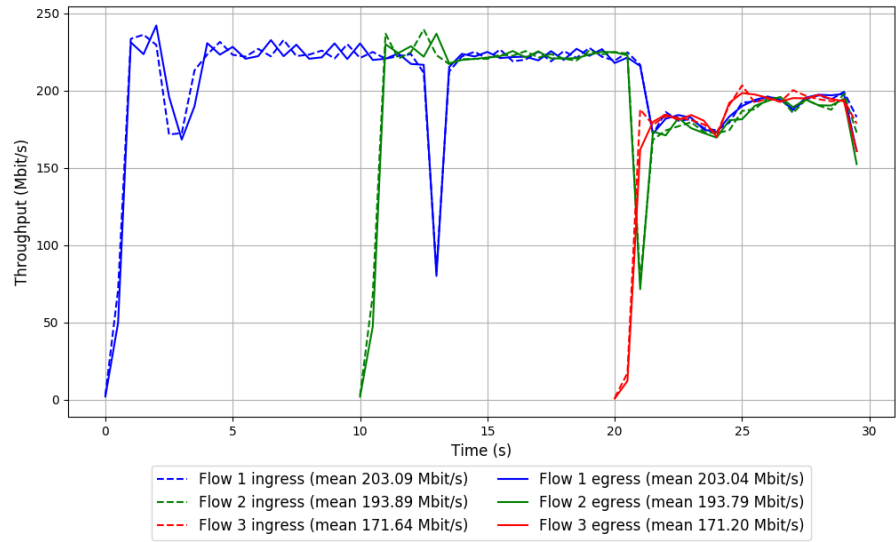
-- Flow 3:

Average throughput: 171.20 Mbit/s

95th percentile per-packet one-way delay: 85.195 ms

Loss rate: 1.32%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-07 04:28:13

End at: 2018-03-07 04:28:43

Below is generated by plot.py at 2018-03-07 09:20:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 365.10 Mbit/s

95th percentile per-packet one-way delay: 76.240 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 194.43 Mbit/s

95th percentile per-packet one-way delay: 75.021 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 173.79 Mbit/s

95th percentile per-packet one-way delay: 76.610 ms

Loss rate: 0.38%

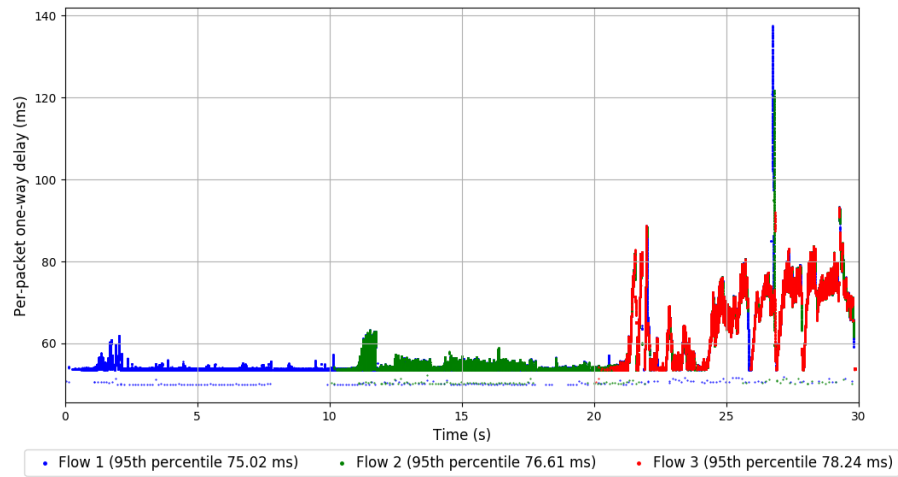
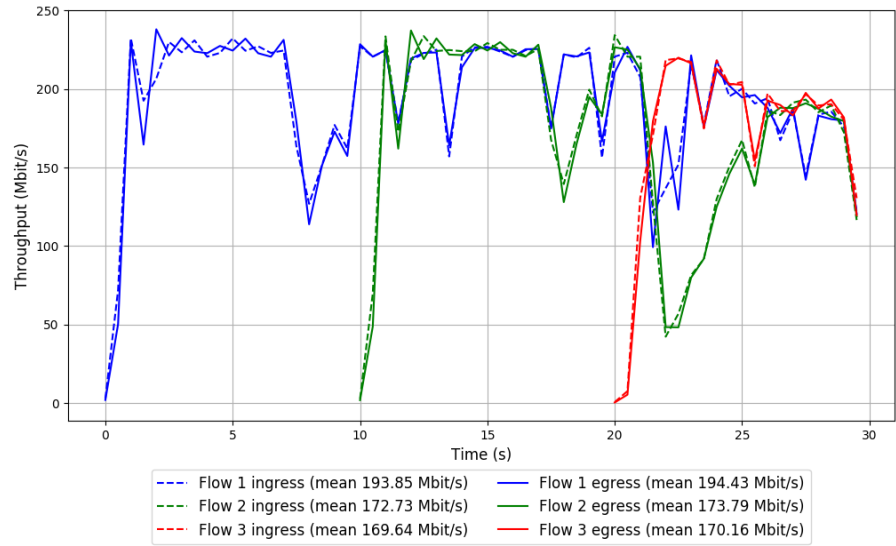
-- Flow 3:

Average throughput: 170.16 Mbit/s

95th percentile per-packet one-way delay: 78.239 ms

Loss rate: 1.10%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-07 04:45:05

End at: 2018-03-07 04:45:35

Below is generated by plot.py at 2018-03-07 09:20:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 390.39 Mbit/s

95th percentile per-packet one-way delay: 73.748 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 199.93 Mbit/s

95th percentile per-packet one-way delay: 72.253 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 197.40 Mbit/s

95th percentile per-packet one-way delay: 73.481 ms

Loss rate: 0.59%

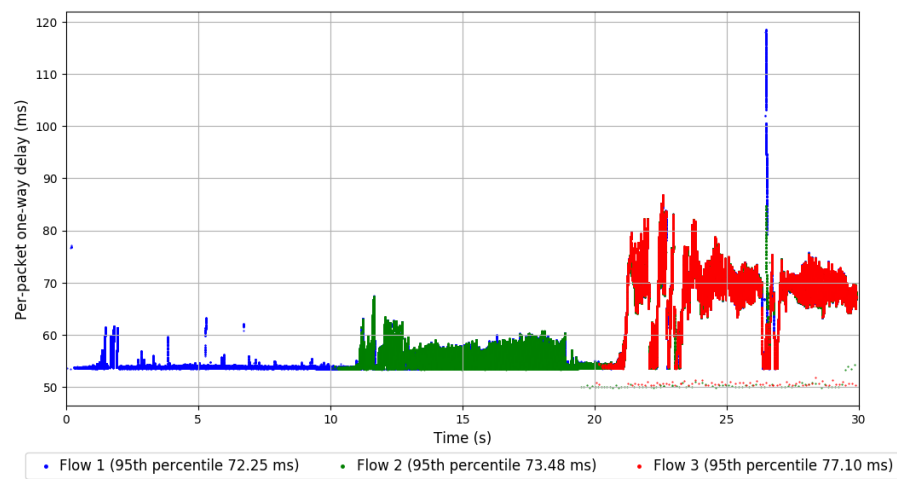
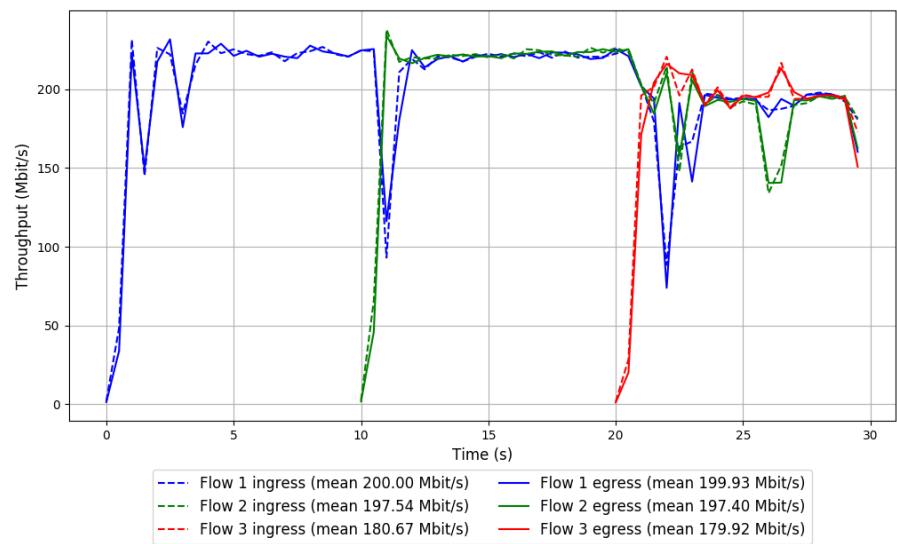
-- Flow 3:

Average throughput: 179.92 Mbit/s

95th percentile per-packet one-way delay: 77.104 ms

Loss rate: 1.34%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-07 05:02:03

End at: 2018-03-07 05:02:33

Below is generated by plot.py at 2018-03-07 09:20:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 398.18 Mbit/s

95th percentile per-packet one-way delay: 68.372 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 200.71 Mbit/s

95th percentile per-packet one-way delay: 67.559 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 203.87 Mbit/s

95th percentile per-packet one-way delay: 67.900 ms

Loss rate: 0.58%

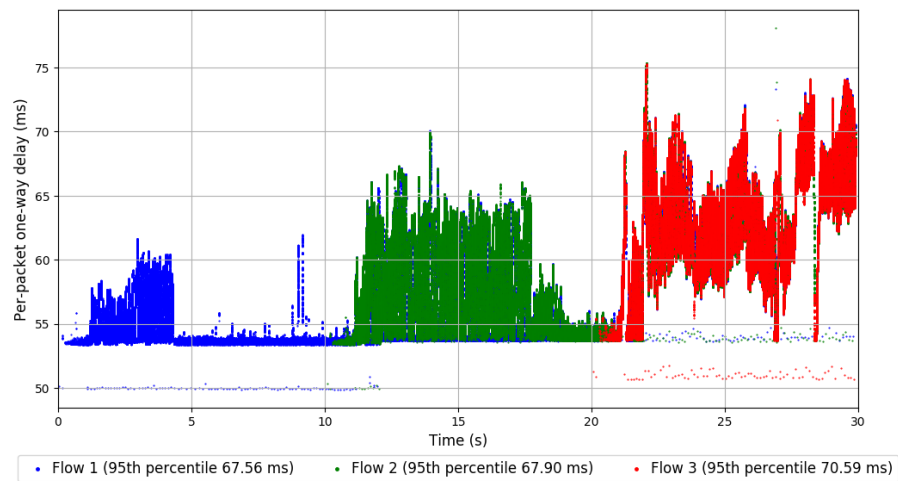
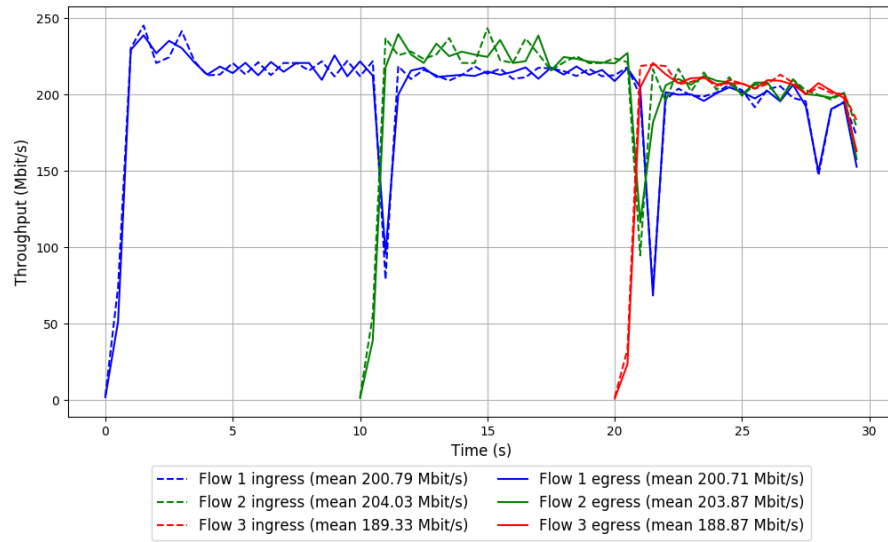
-- Flow 3:

Average throughput: 188.87 Mbit/s

95th percentile per-packet one-way delay: 70.594 ms

Loss rate: 1.27%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-07 05:19:03

End at: 2018-03-07 05:19:33

Below is generated by plot.py at 2018-03-07 09:20:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 380.23 Mbit/s

95th percentile per-packet one-way delay: 91.292 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 200.52 Mbit/s

95th percentile per-packet one-way delay: 88.523 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 191.04 Mbit/s

95th percentile per-packet one-way delay: 91.361 ms

Loss rate: 0.57%

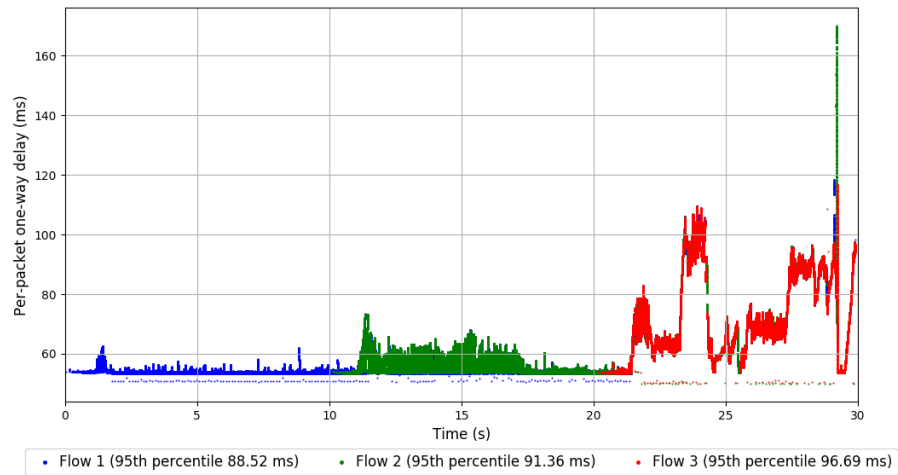
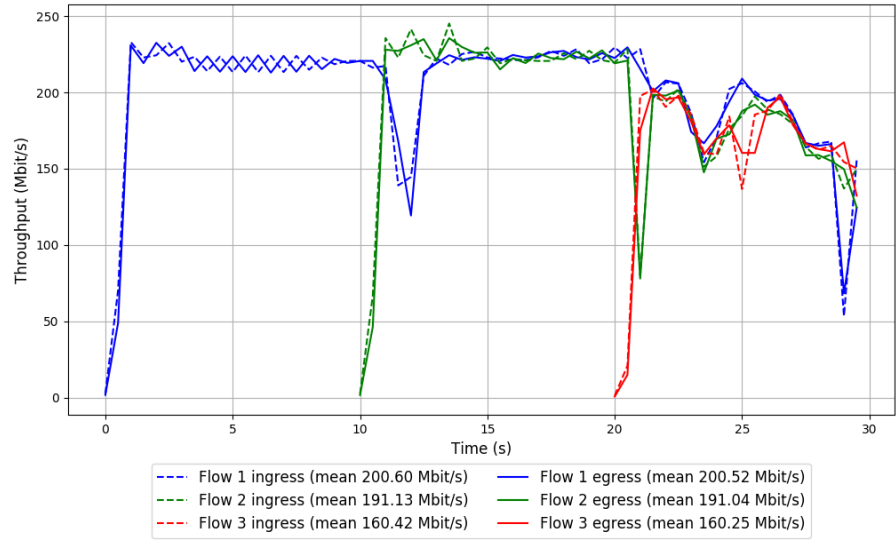
-- Flow 3:

Average throughput: 160.25 Mbit/s

95th percentile per-packet one-way delay: 96.685 ms

Loss rate: 1.16%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-07 05:36:24

End at: 2018-03-07 05:36:54

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.32 Mbit/s

95th percentile per-packet one-way delay: 72.188 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 203.69 Mbit/s

95th percentile per-packet one-way delay: 71.042 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 197.31 Mbit/s

95th percentile per-packet one-way delay: 71.323 ms

Loss rate: 0.60%

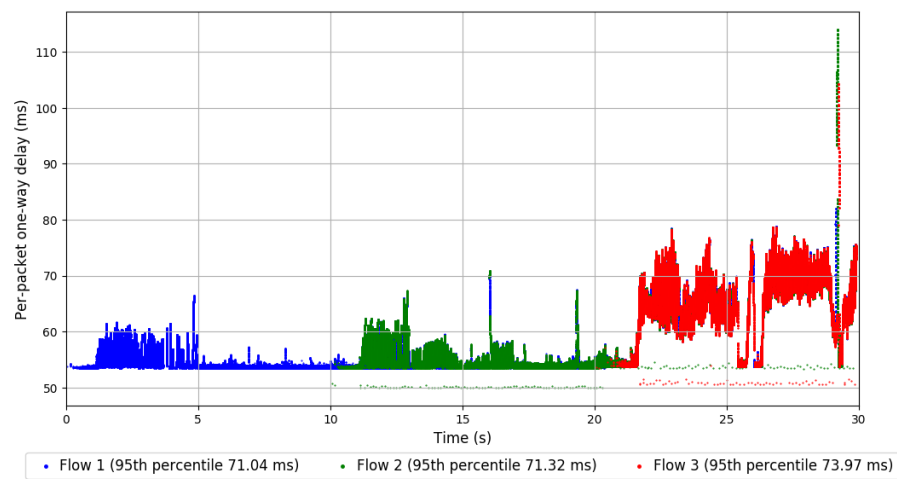
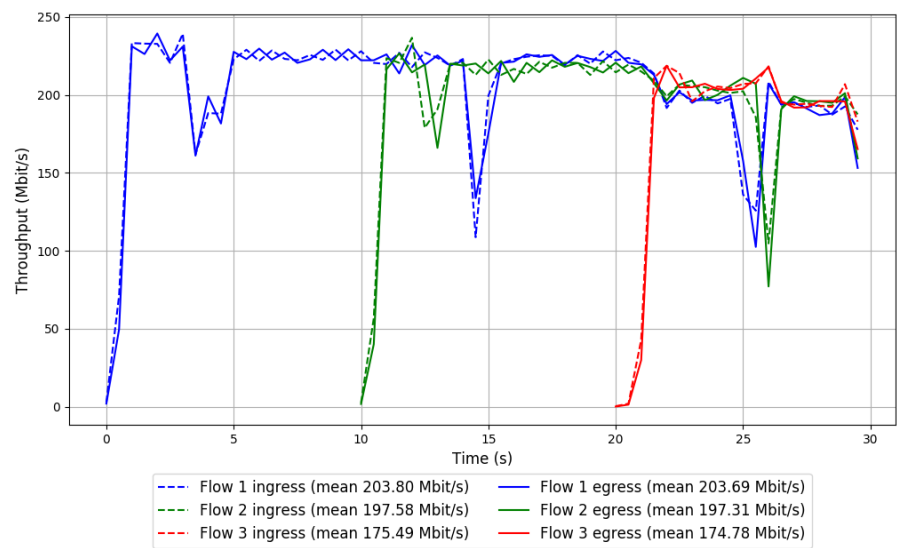
-- Flow 3:

Average throughput: 174.78 Mbit/s

95th percentile per-packet one-way delay: 73.966 ms

Loss rate: 1.45%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-07 05:53:34

End at: 2018-03-07 05:54:04

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 378.28 Mbit/s

95th percentile per-packet one-way delay: 93.753 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 198.51 Mbit/s

95th percentile per-packet one-way delay: 87.855 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 187.11 Mbit/s

95th percentile per-packet one-way delay: 94.271 ms

Loss rate: 0.65%

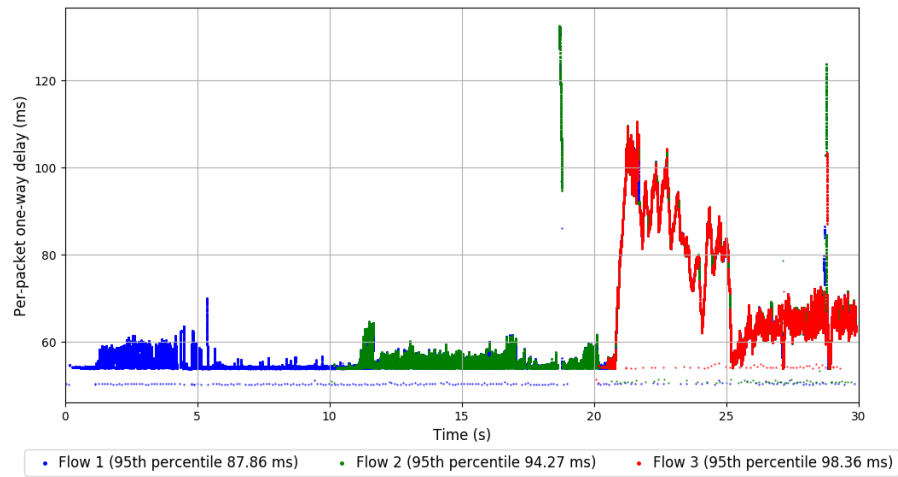
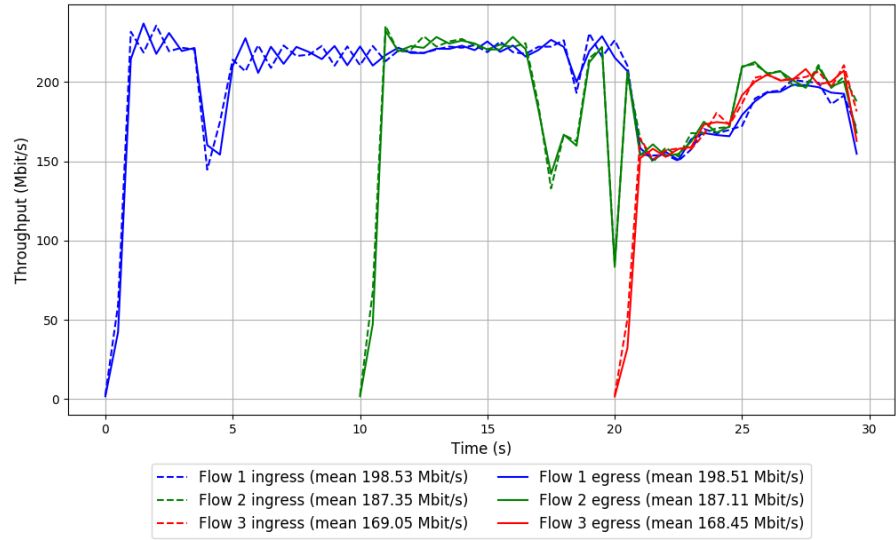
-- Flow 3:

Average throughput: 168.45 Mbit/s

95th percentile per-packet one-way delay: 98.356 ms

Loss rate: 1.38%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-07 03:18:19

End at: 2018-03-07 03:18:49

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 260.04 Mbit/s

95th percentile per-packet one-way delay: 58.702 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 146.26 Mbit/s

95th percentile per-packet one-way delay: 58.413 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 114.34 Mbit/s

95th percentile per-packet one-way delay: 58.620 ms

Loss rate: 0.75%

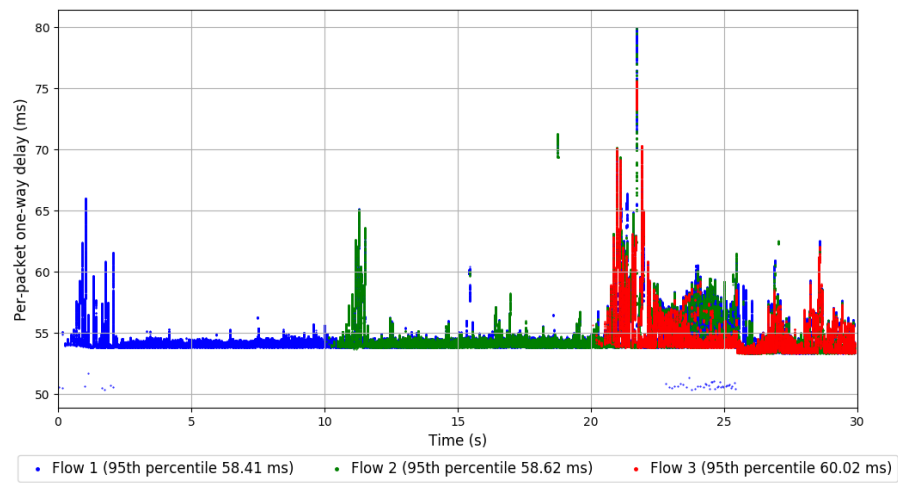
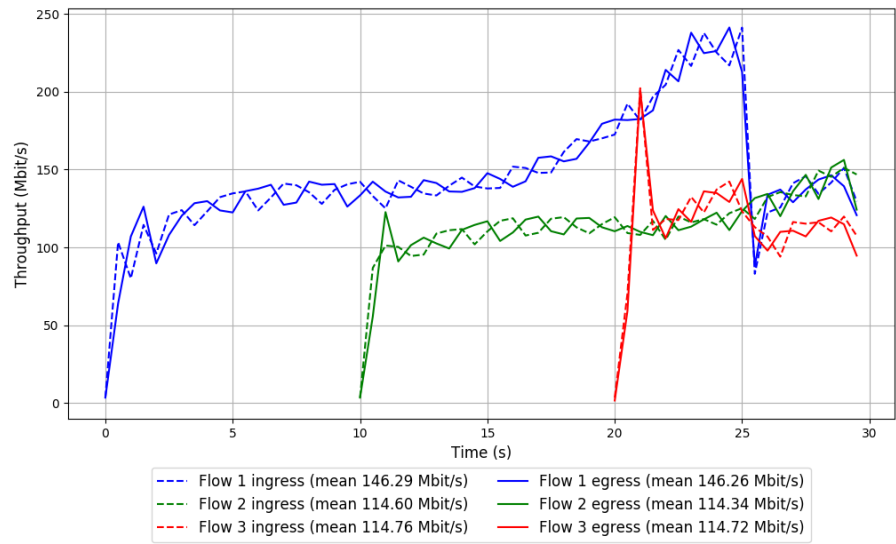
-- Flow 3:

Average throughput: 114.72 Mbit/s

95th percentile per-packet one-way delay: 60.015 ms

Loss rate: 1.09%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-07 03:35:24

End at: 2018-03-07 03:35:54

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.59 Mbit/s

95th percentile per-packet one-way delay: 70.715 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 128.01 Mbit/s

95th percentile per-packet one-way delay: 68.693 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 143.50 Mbit/s

95th percentile per-packet one-way delay: 70.951 ms

Loss rate: 0.63%

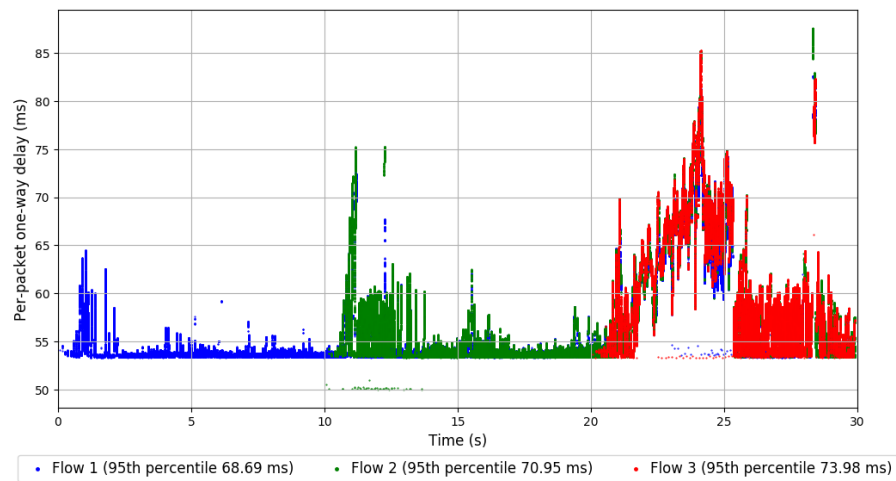
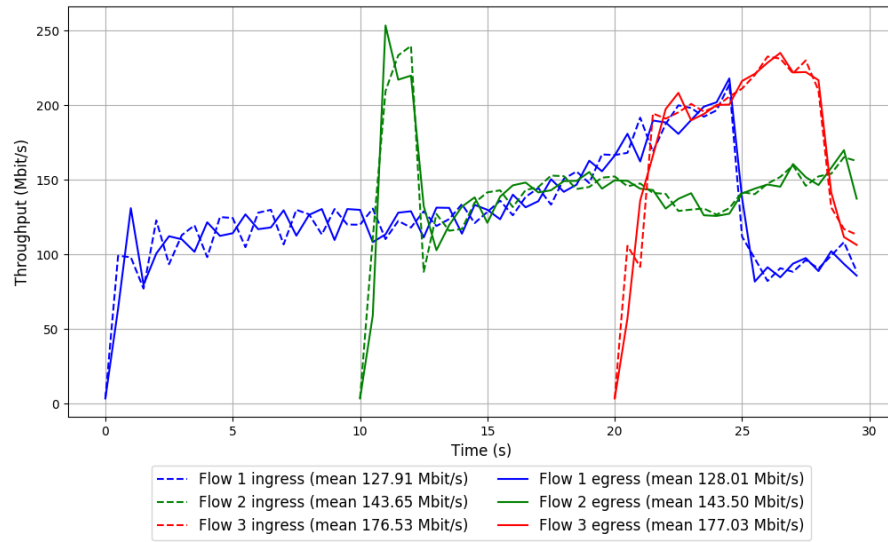
-- Flow 3:

Average throughput: 177.03 Mbit/s

95th percentile per-packet one-way delay: 73.985 ms

Loss rate: 0.77%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-07 03:52:38

End at: 2018-03-07 03:53:08

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 234.77 Mbit/s

95th percentile per-packet one-way delay: 58.853 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 152.25 Mbit/s

95th percentile per-packet one-way delay: 56.313 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 50.90 Mbit/s

95th percentile per-packet one-way delay: 59.239 ms

Loss rate: 2.19%

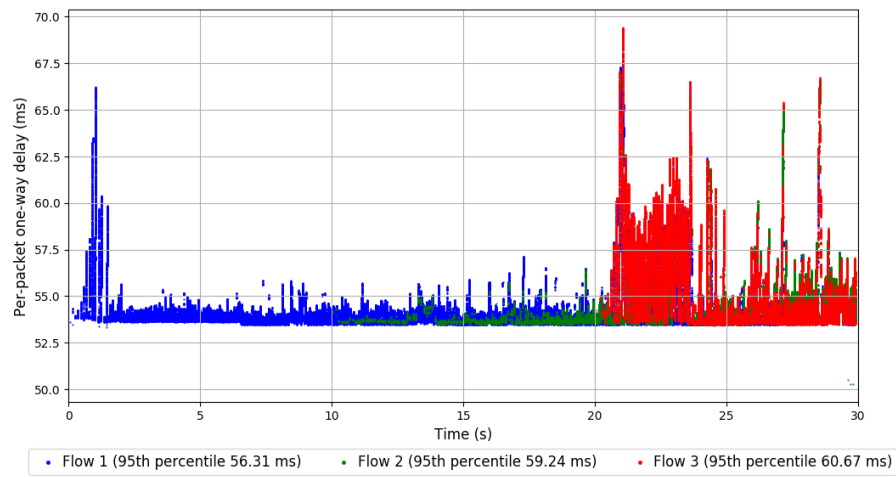
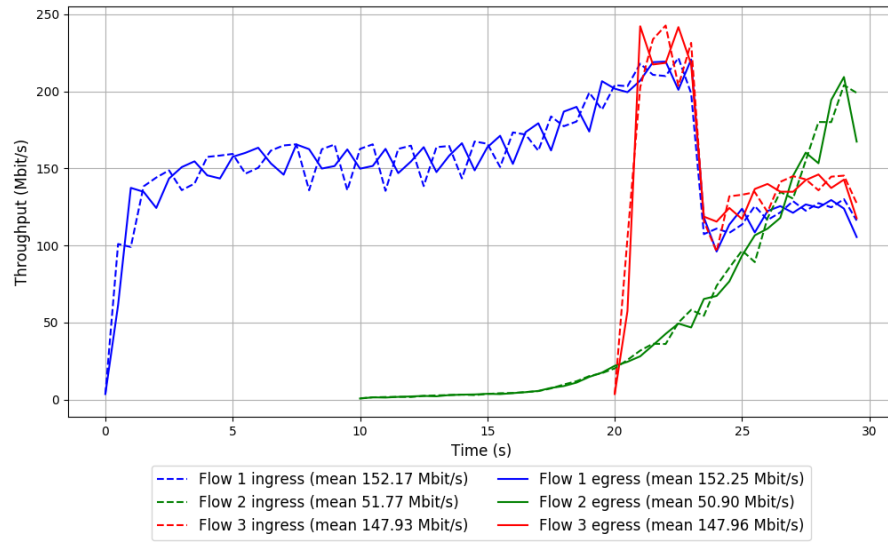
-- Flow 3:

Average throughput: 147.96 Mbit/s

95th percentile per-packet one-way delay: 60.675 ms

Loss rate: 1.06%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-07 04:09:53

End at: 2018-03-07 04:10:23

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 285.30 Mbit/s

95th percentile per-packet one-way delay: 63.783 ms

Loss rate: 0.47%

-- Flow 1:

Average throughput: 126.04 Mbit/s

95th percentile per-packet one-way delay: 60.868 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 159.30 Mbit/s

95th percentile per-packet one-way delay: 63.128 ms

Loss rate: 0.39%

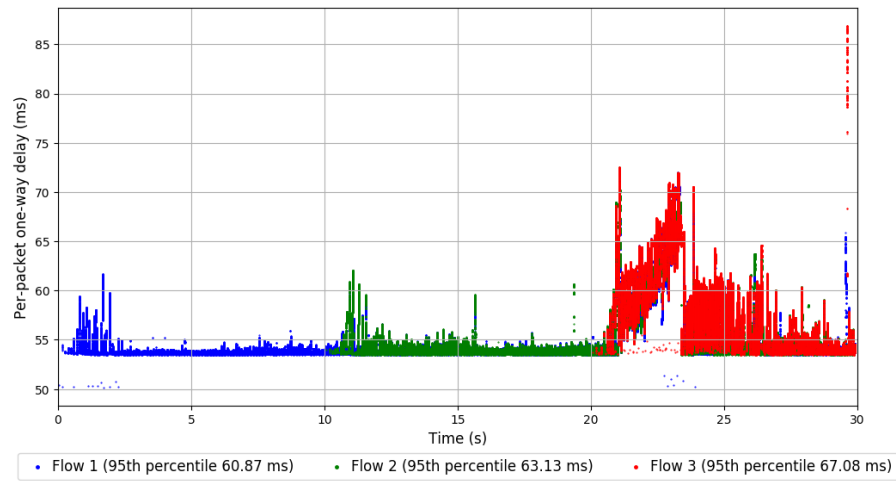
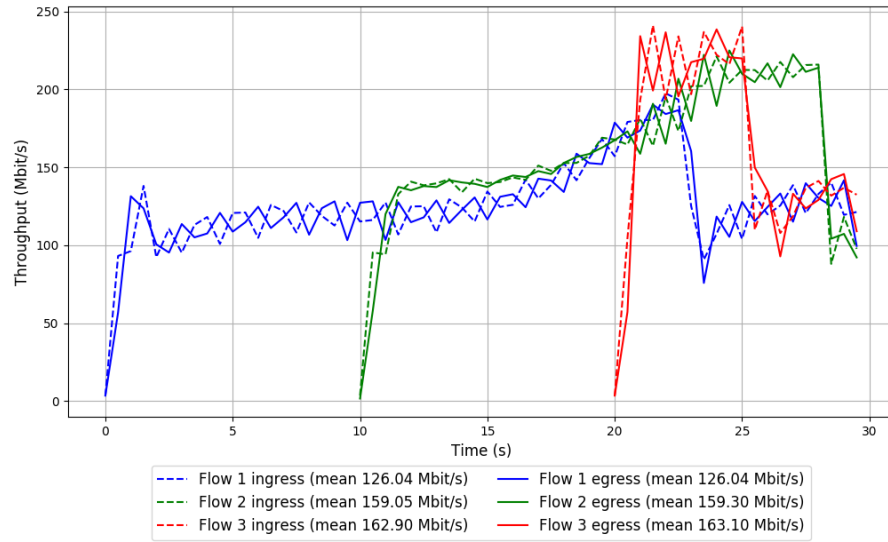
-- Flow 3:

Average throughput: 163.10 Mbit/s

95th percentile per-packet one-way delay: 67.084 ms

Loss rate: 0.93%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-07 04:27:21

End at: 2018-03-07 04:27:51

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 237.88 Mbit/s

95th percentile per-packet one-way delay: 56.411 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 122.95 Mbit/s

95th percentile per-packet one-way delay: 56.590 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 121.79 Mbit/s

95th percentile per-packet one-way delay: 56.348 ms

Loss rate: 0.72%

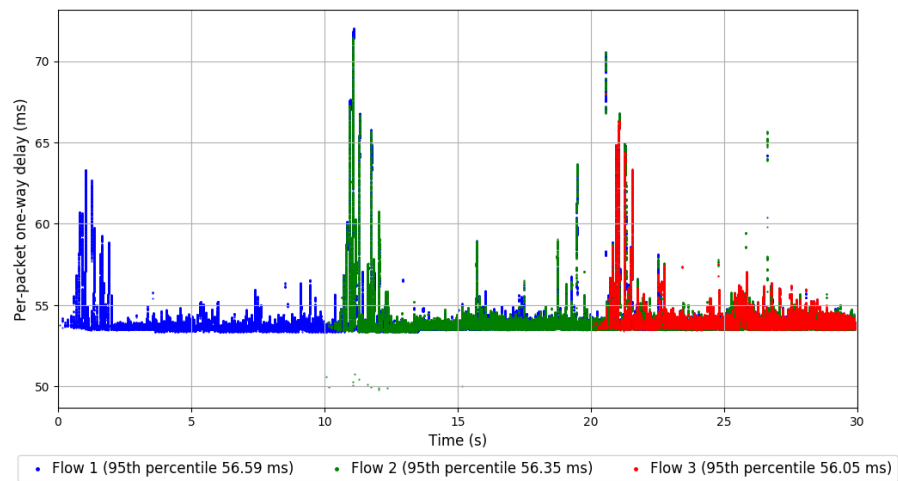
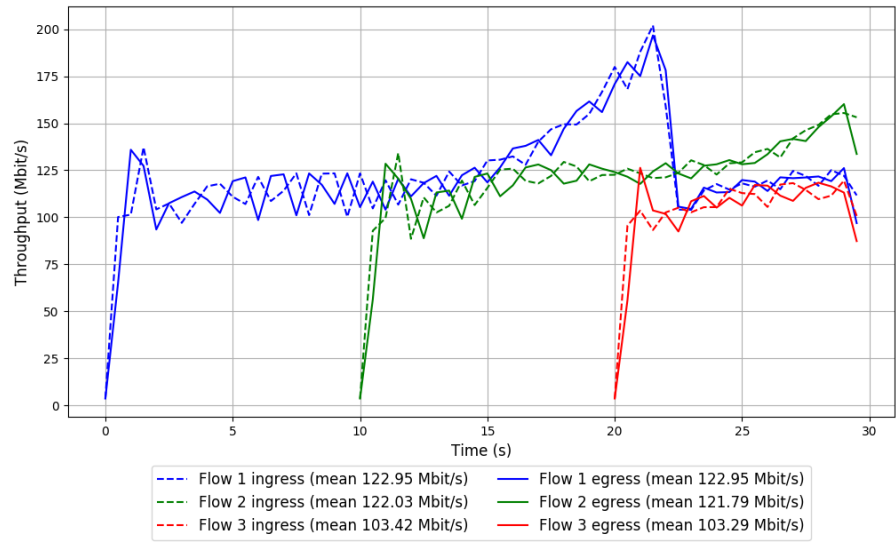
-- Flow 3:

Average throughput: 103.29 Mbit/s

95th percentile per-packet one-way delay: 56.047 ms

Loss rate: 1.17%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-07 04:44:14

End at: 2018-03-07 04:44:44

Below is generated by plot.py at 2018-03-07 09:26:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.10 Mbit/s

95th percentile per-packet one-way delay: 57.186 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 166.42 Mbit/s

95th percentile per-packet one-way delay: 56.970 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 106.98 Mbit/s

95th percentile per-packet one-way delay: 57.656 ms

Loss rate: 0.79%

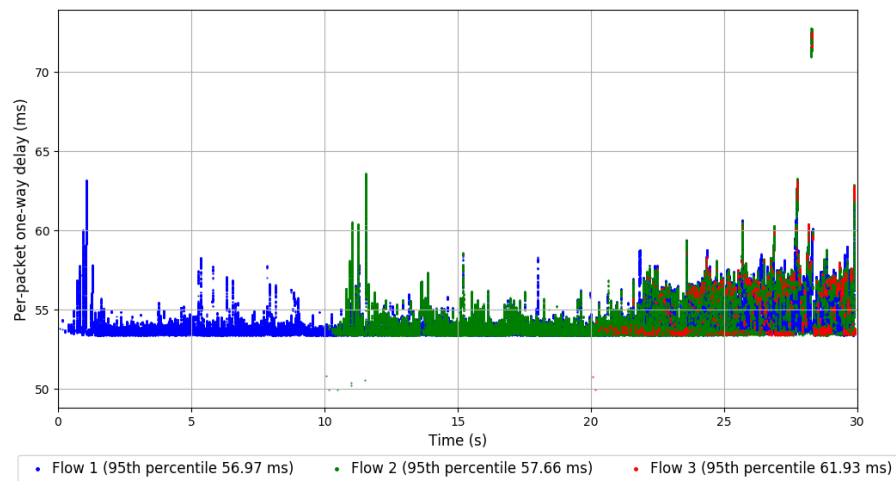
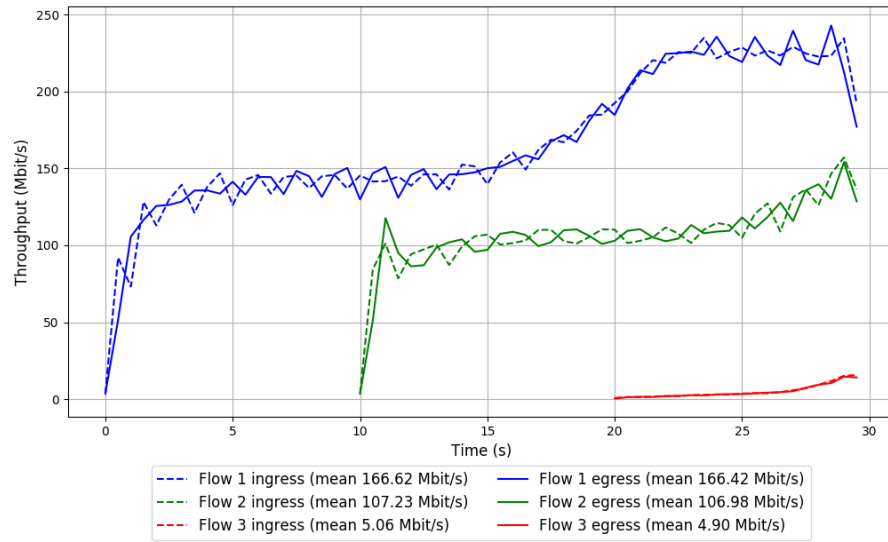
-- Flow 3:

Average throughput: 4.90 Mbit/s

95th percentile per-packet one-way delay: 61.929 ms

Loss rate: 4.13%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-07 05:01:09

End at: 2018-03-07 05:01:39

Below is generated by plot.py at 2018-03-07 09:28:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.59 Mbit/s

95th percentile per-packet one-way delay: 57.133 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 156.42 Mbit/s

95th percentile per-packet one-way delay: 56.639 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 121.22 Mbit/s

95th percentile per-packet one-way delay: 56.816 ms

Loss rate: 0.70%

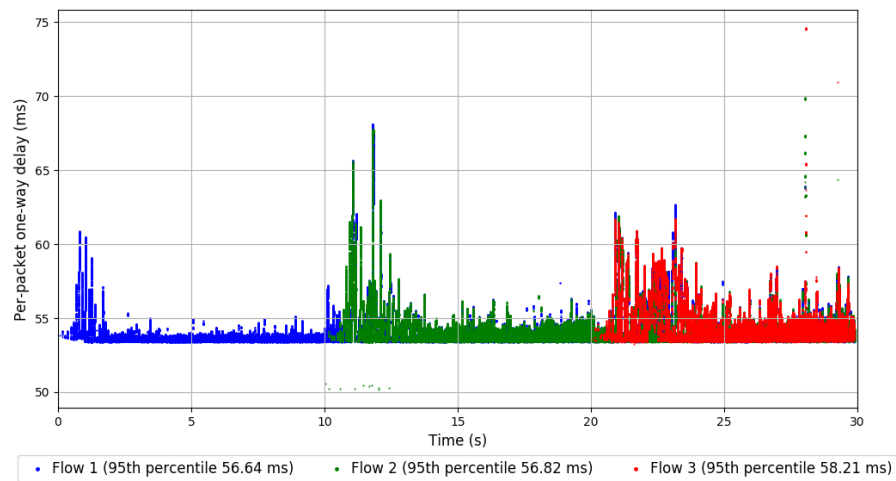
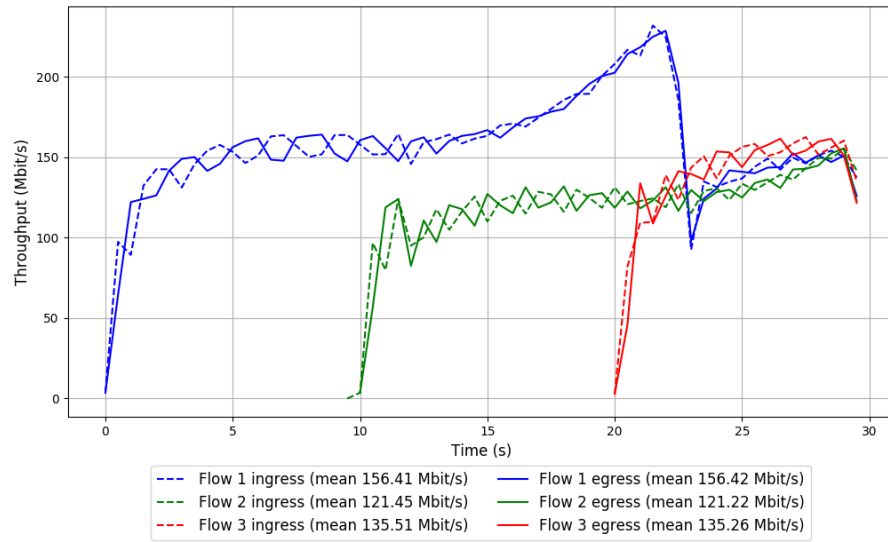
-- Flow 3:

Average throughput: 135.26 Mbit/s

95th percentile per-packet one-way delay: 58.212 ms

Loss rate: 1.24%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-07 05:18:11

End at: 2018-03-07 05:18:41

Below is generated by plot.py at 2018-03-07 09:28:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 241.08 Mbit/s

95th percentile per-packet one-way delay: 57.425 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 141.52 Mbit/s

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

Loss rate: 0.37%

-- Flow 2:

Average throughput: 147.37 Mbit/s

95th percentile per-packet one-way delay: 58.021 ms

Loss rate: 0.71%

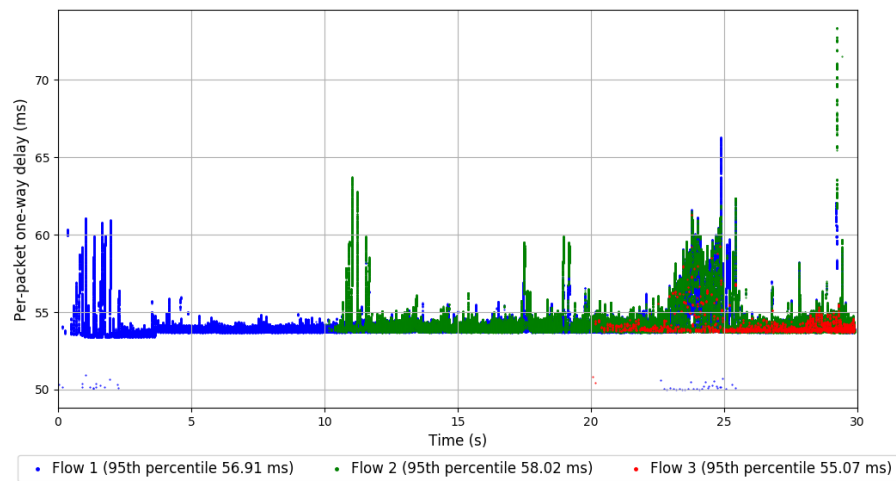
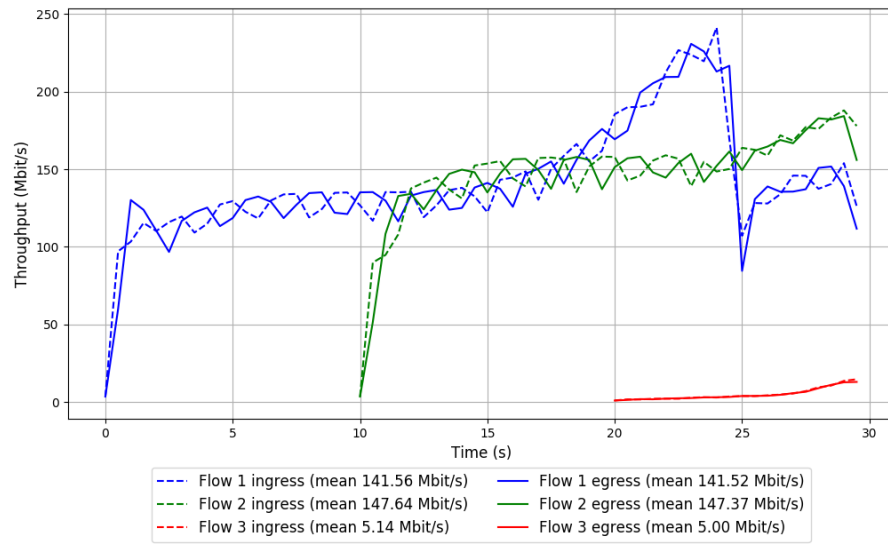
-- Flow 3:

Average throughput: 5.00 Mbit/s

95th percentile per-packet one-way delay: 55.070 ms

Loss rate: 3.77%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-07 05:35:32

End at: 2018-03-07 05:36:02

Below is generated by plot.py at 2018-03-07 09:28:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.97 Mbit/s

95th percentile per-packet one-way delay: 59.938 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 132.68 Mbit/s

95th percentile per-packet one-way delay: 59.523 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 125.71 Mbit/s

95th percentile per-packet one-way delay: 60.301 ms

Loss rate: 0.69%

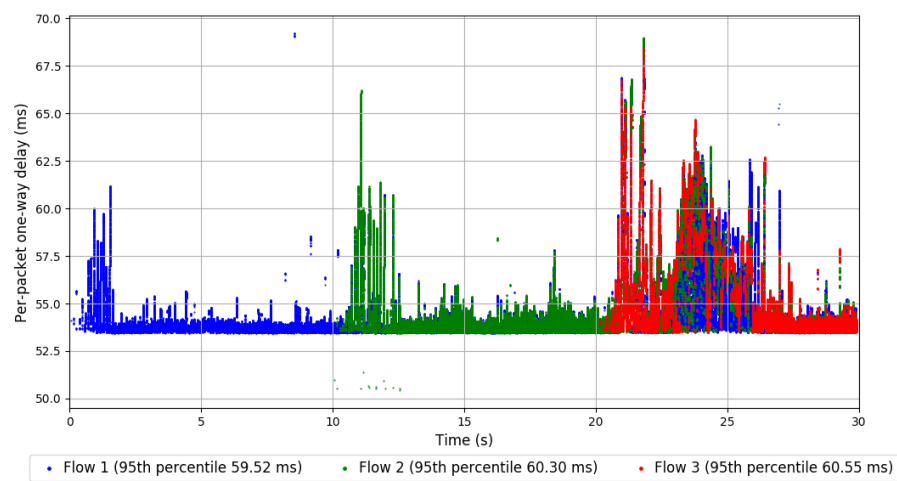
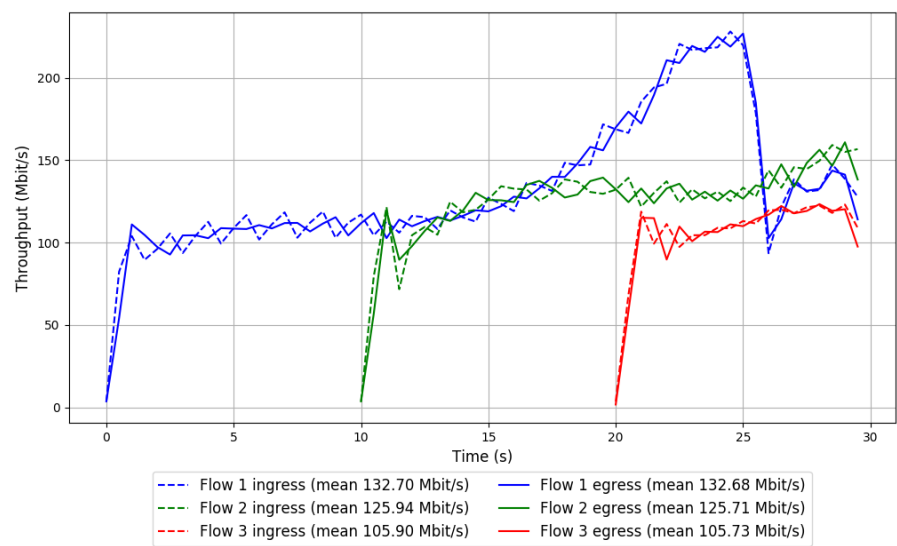
-- Flow 3:

Average throughput: 105.73 Mbit/s

95th percentile per-packet one-way delay: 60.551 ms

Loss rate: 1.24%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-07 05:52:40

End at: 2018-03-07 05:53:10

Below is generated by plot.py at 2018-03-07 09:29:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 283.66 Mbit/s

95th percentile per-packet one-way delay: 60.559 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 159.15 Mbit/s

95th percentile per-packet one-way delay: 60.714 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 127.29 Mbit/s

95th percentile per-packet one-way delay: 59.562 ms

Loss rate: 0.74%

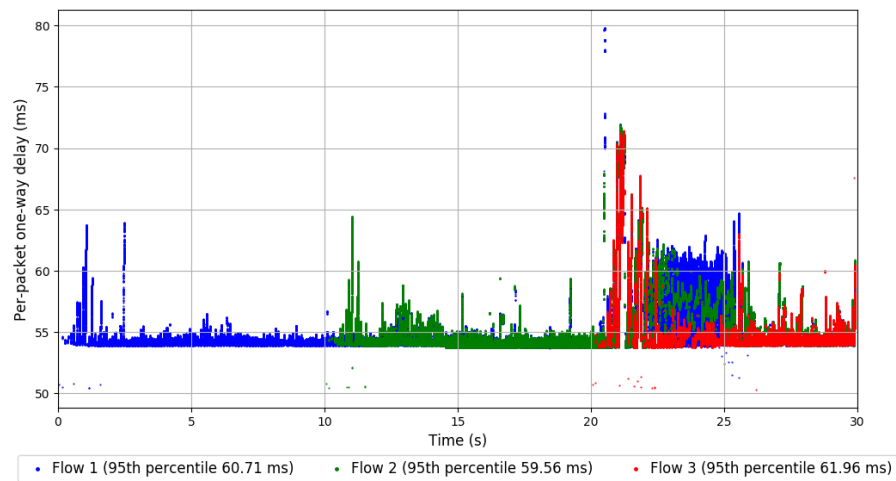
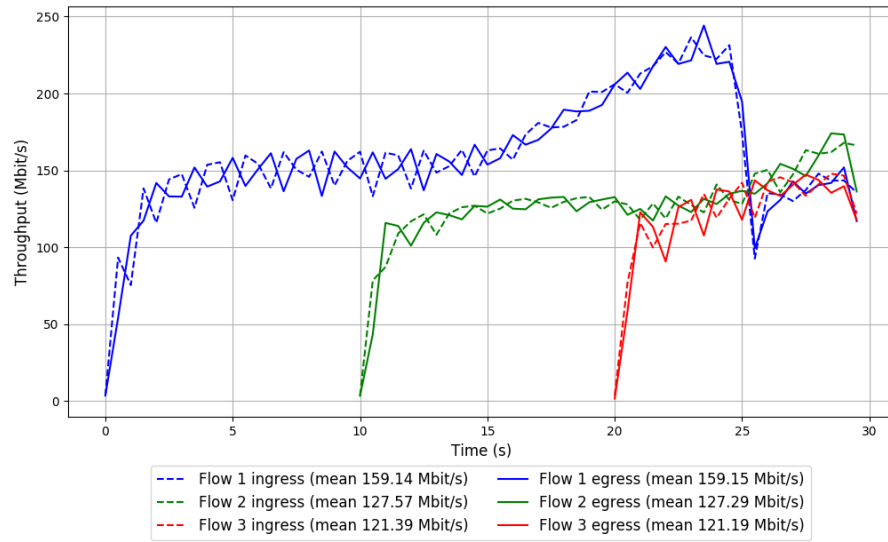
-- Flow 3:

Average throughput: 121.19 Mbit/s

95th percentile per-packet one-way delay: 61.960 ms

Loss rate: 1.24%

Run 10: Report of TCP Cubic — Data Link

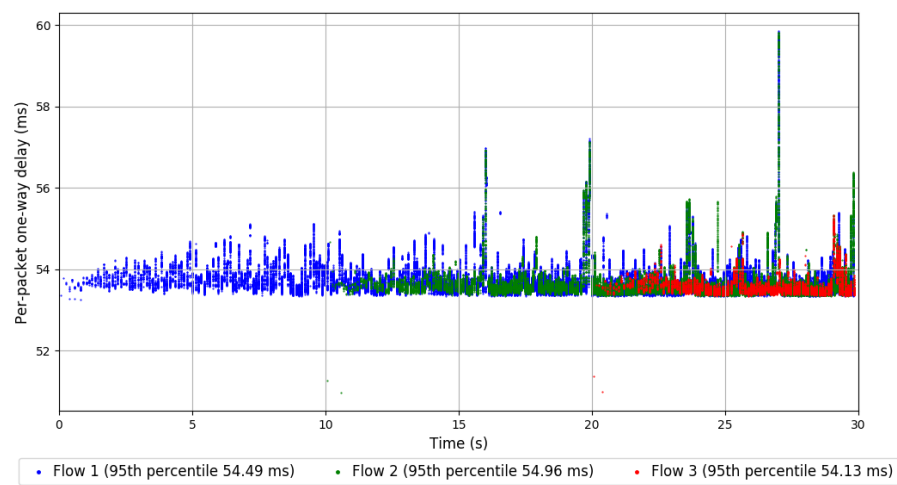
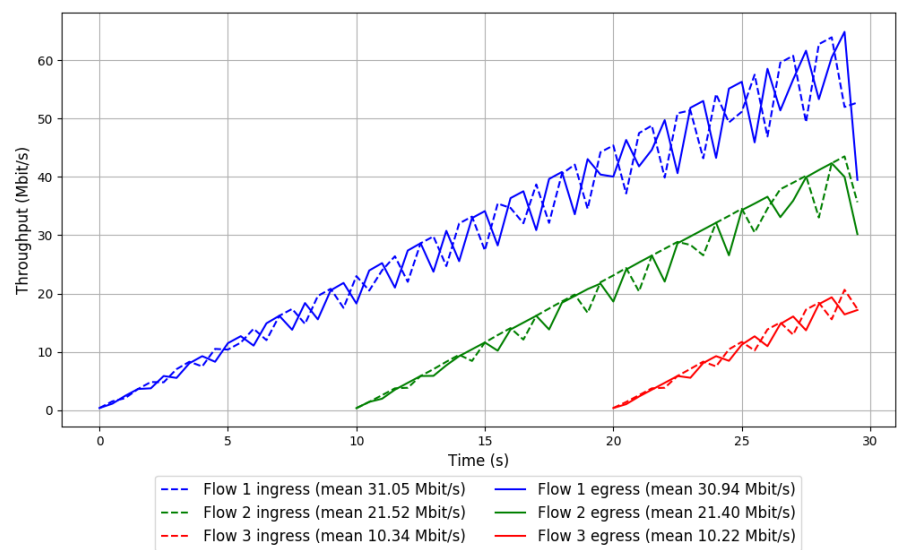


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-07 03:15:22
End at: 2018-03-07 03:15:52

# Below is generated by plot.py at 2018-03-07 09:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.48 Mbit/s
95th percentile per-packet one-way delay: 54.557 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 54.488 ms
Loss rate: 0.71%
-- Flow 2:
Average throughput: 21.40 Mbit/s
95th percentile per-packet one-way delay: 54.959 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 10.22 Mbit/s
95th percentile per-packet one-way delay: 54.135 ms
Loss rate: 2.16%
```


Run 1: Report of LEDBAT — Data Link

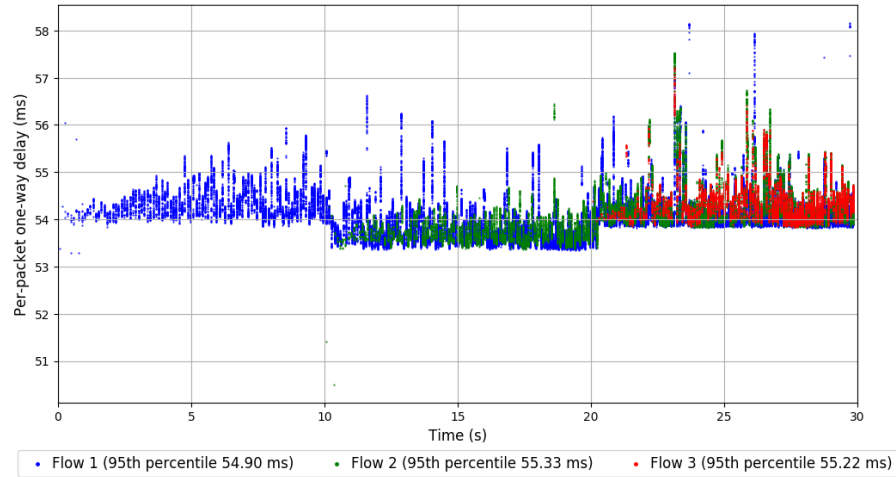
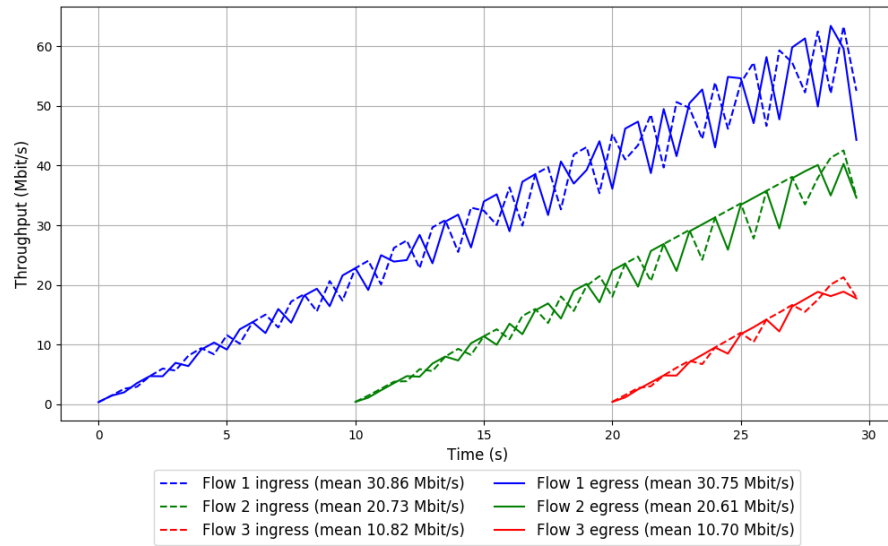


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-07 03:32:34
End at: 2018-03-07 03:33:04

# Below is generated by plot.py at 2018-03-07 09:29:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 47.93 Mbit/s
95th percentile per-packet one-way delay: 55.069 ms
Loss rate: 0.92%
-- Flow 1:
Average throughput: 30.75 Mbit/s
95th percentile per-packet one-way delay: 54.903 ms
Loss rate: 0.72%
-- Flow 2:
Average throughput: 20.61 Mbit/s
95th percentile per-packet one-way delay: 55.328 ms
Loss rate: 1.06%
-- Flow 3:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 55.219 ms
Loss rate: 2.13%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-07 03:49:44

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

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.28 Mbit/s

95th percentile per-packet one-way delay: 54.913 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 32.35 Mbit/s

95th percentile per-packet one-way delay: 54.921 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 21.91 Mbit/s

95th percentile per-packet one-way delay: 54.940 ms

Loss rate: 1.04%

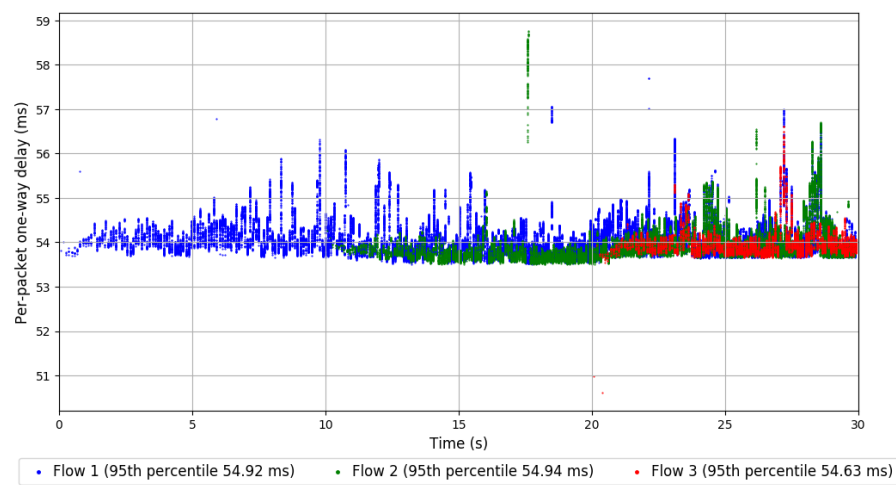
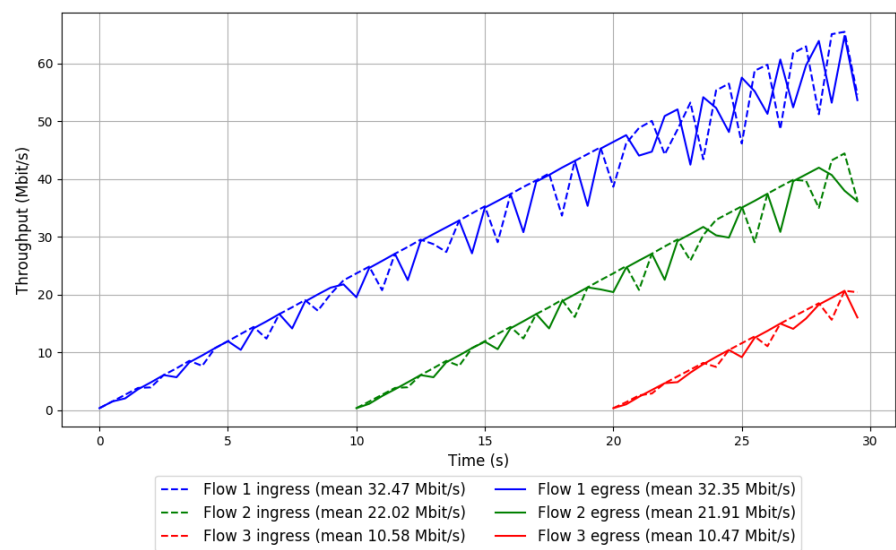
-- Flow 3:

Average throughput: 10.47 Mbit/s

95th percentile per-packet one-way delay: 54.629 ms

Loss rate: 2.07%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-07 04:06:58

End at: 2018-03-07 04:07:28

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.06 Mbit/s

95th percentile per-packet one-way delay: 54.719 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 31.47 Mbit/s

95th percentile per-packet one-way delay: 54.750 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 18.46 Mbit/s

95th percentile per-packet one-way delay: 54.714 ms

Loss rate: 0.64%

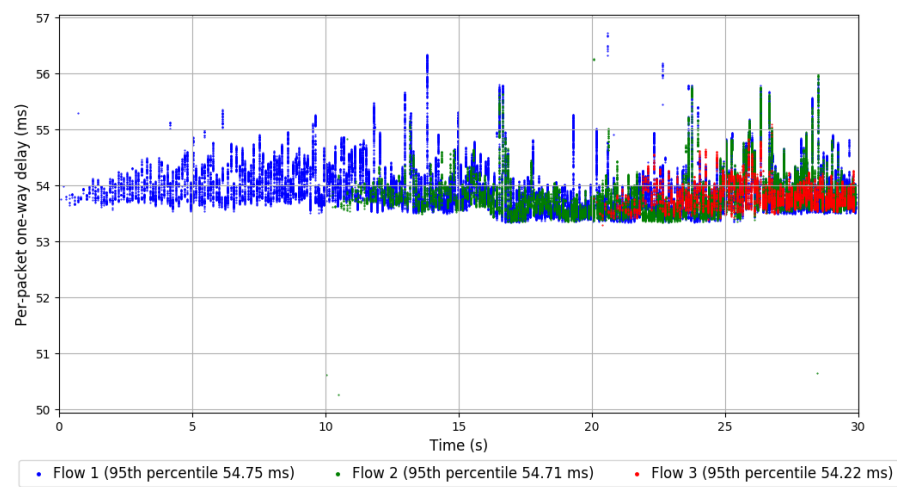
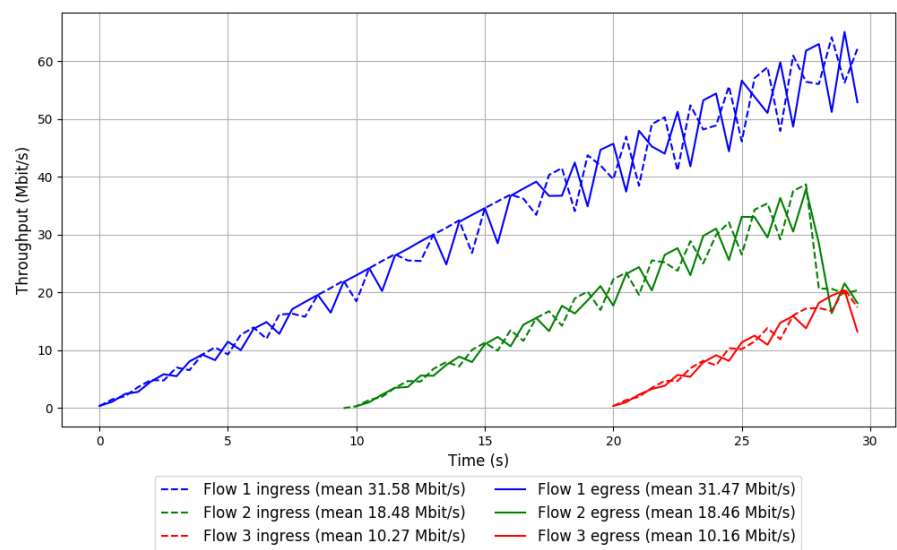
-- Flow 3:

Average throughput: 10.16 Mbit/s

95th percentile per-packet one-way delay: 54.216 ms

Loss rate: 2.19%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-07 04:24:31

End at: 2018-03-07 04:25:01

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.72 Mbit/s

95th percentile per-packet one-way delay: 54.658 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 31.23 Mbit/s

95th percentile per-packet one-way delay: 54.626 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 21.30 Mbit/s

95th percentile per-packet one-way delay: 54.783 ms

Loss rate: 1.06%

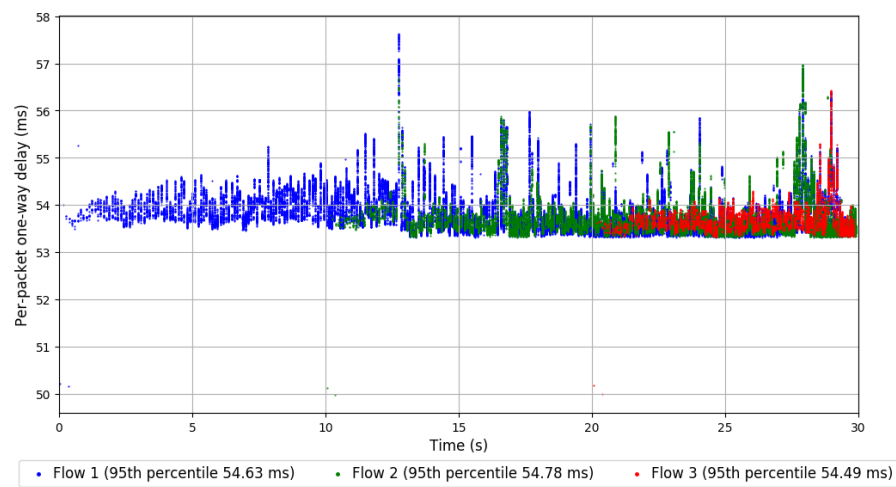
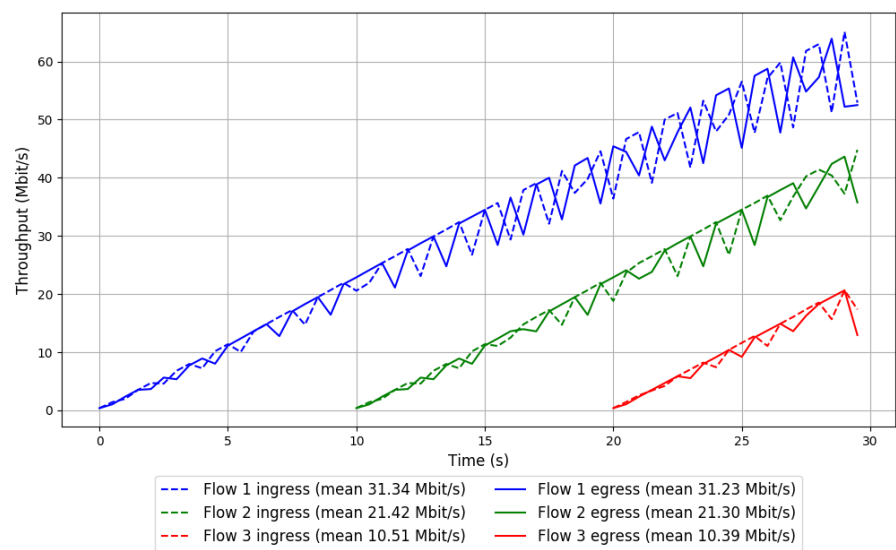
-- Flow 3:

Average throughput: 10.39 Mbit/s

95th percentile per-packet one-way delay: 54.486 ms

Loss rate: 2.13%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-07 04:41:20

End at: 2018-03-07 04:41:50

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.40 Mbit/s

95th percentile per-packet one-way delay: 54.764 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 31.07 Mbit/s

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

Loss rate: 0.71%

-- Flow 2:

Average throughput: 21.22 Mbit/s

95th percentile per-packet one-way delay: 55.210 ms

Loss rate: 1.05%

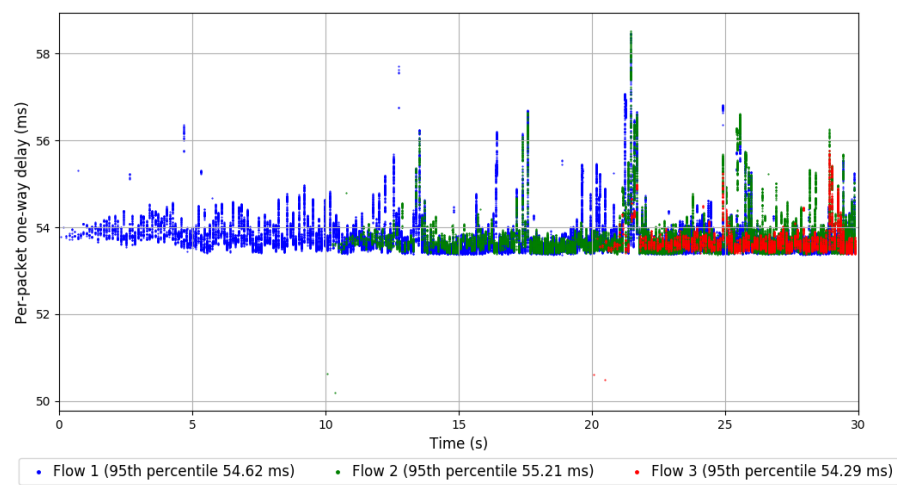
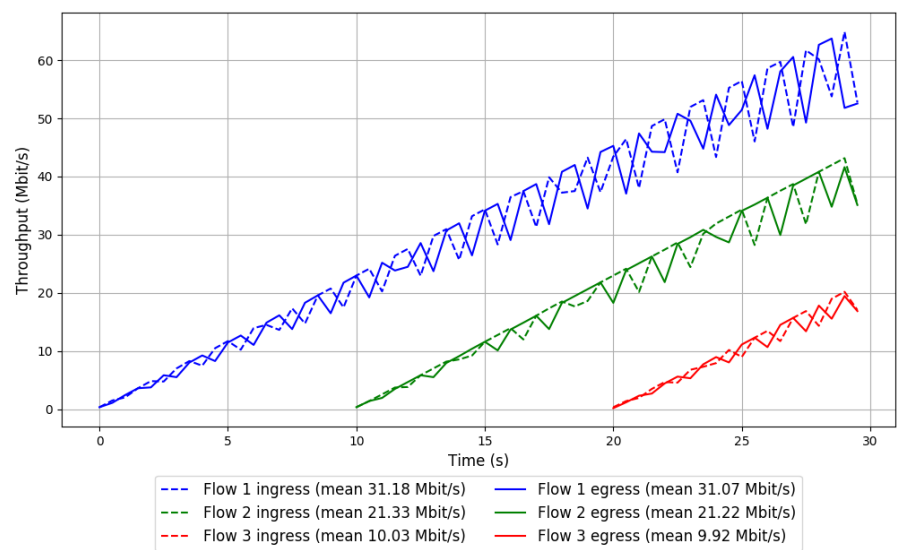
-- Flow 3:

Average throughput: 9.92 Mbit/s

95th percentile per-packet one-way delay: 54.287 ms

Loss rate: 2.18%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-07 04:58:19

End at: 2018-03-07 04:58:49

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.04 Mbit/s

95th percentile per-packet one-way delay: 55.087 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 25.64 Mbit/s

95th percentile per-packet one-way delay: 54.909 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 21.02 Mbit/s

95th percentile per-packet one-way delay: 55.513 ms

Loss rate: 1.05%

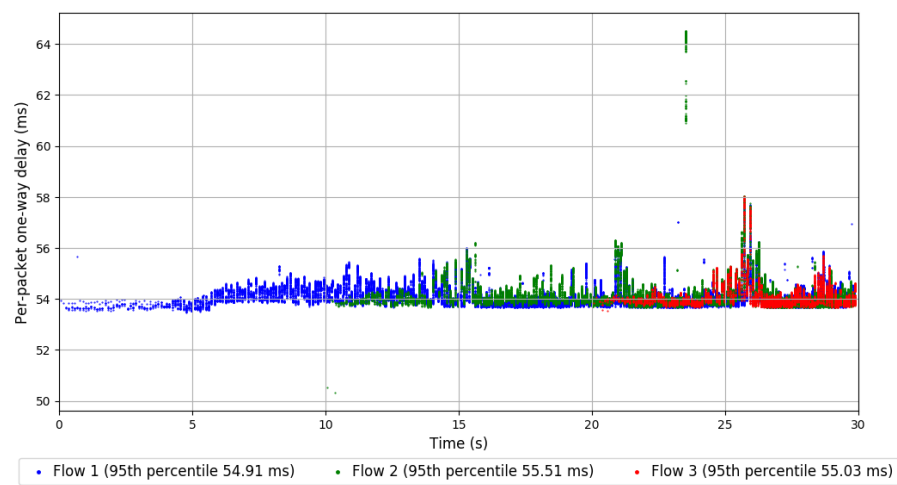
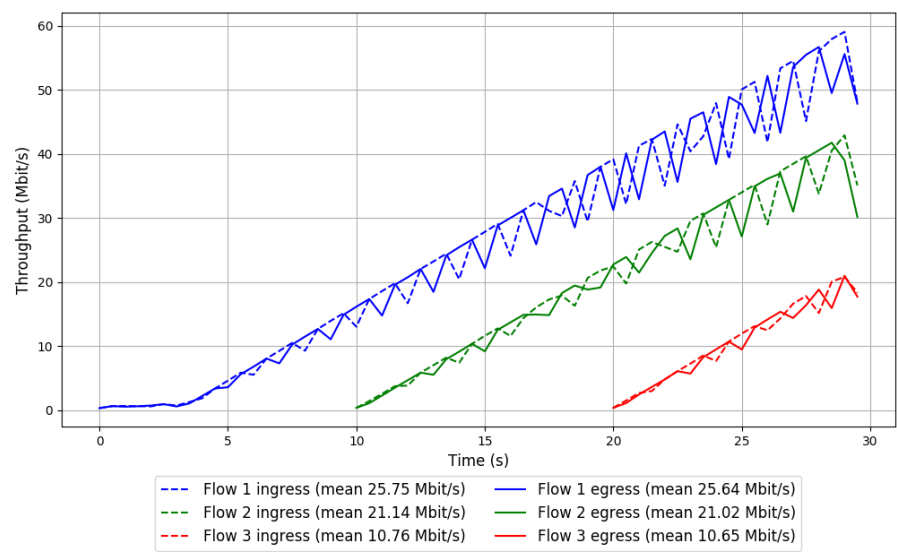
-- Flow 3:

Average throughput: 10.65 Mbit/s

95th percentile per-packet one-way delay: 55.027 ms

Loss rate: 2.13%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-07 05:15:22

End at: 2018-03-07 05:15:52

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 48.42 Mbit/s

95th percentile per-packet one-way delay: 54.474 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 31.05 Mbit/s

95th percentile per-packet one-way delay: 54.620 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 21.16 Mbit/s

95th percentile per-packet one-way delay: 53.923 ms

Loss rate: 1.07%

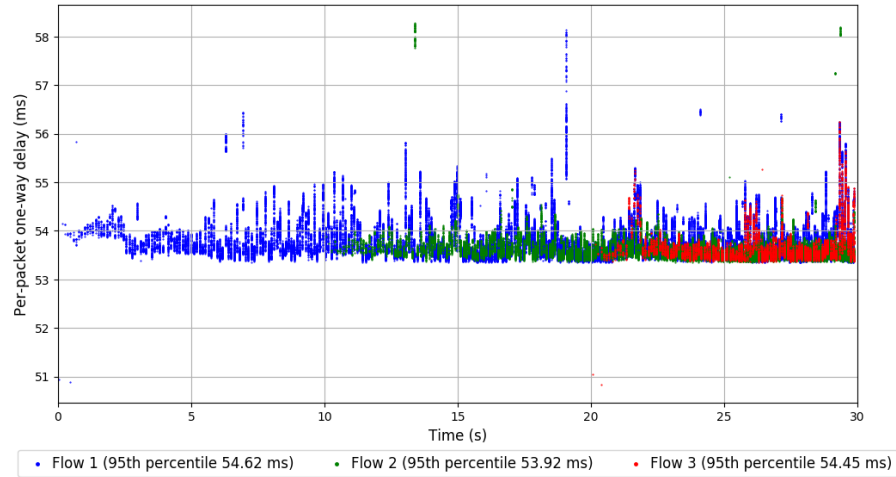
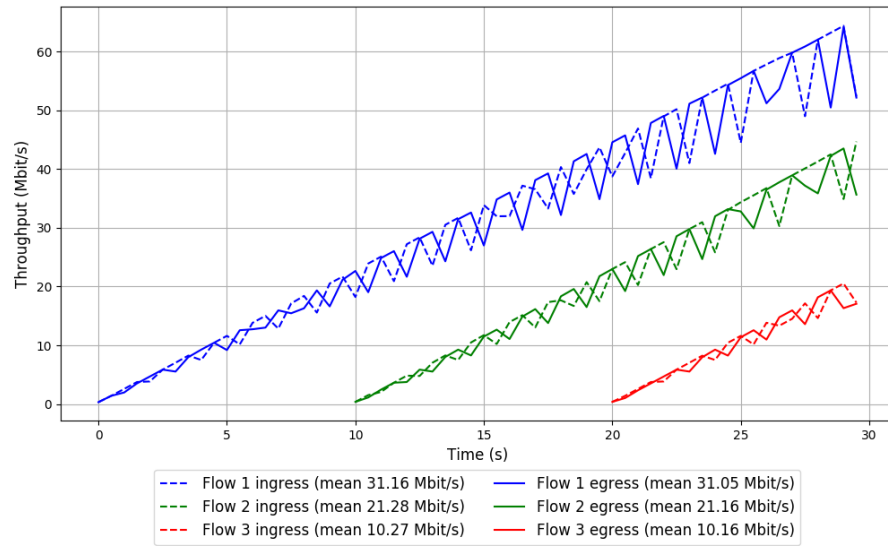
-- Flow 3:

Average throughput: 10.16 Mbit/s

95th percentile per-packet one-way delay: 54.452 ms

Loss rate: 2.16%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-07 05:32:37

End at: 2018-03-07 05:33:07

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 41.90 Mbit/s

95th percentile per-packet one-way delay: 54.939 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 25.16 Mbit/s

95th percentile per-packet one-way delay: 55.096 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 20.16 Mbit/s

95th percentile per-packet one-way delay: 54.775 ms

Loss rate: 1.08%

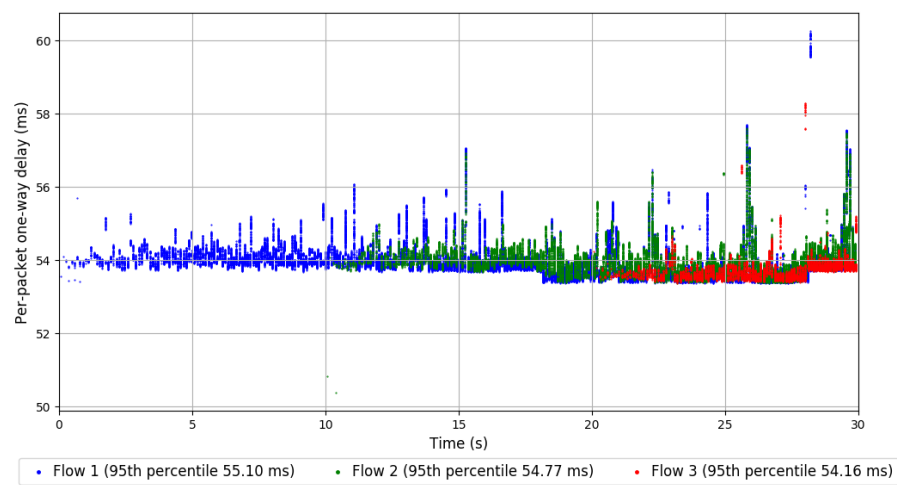
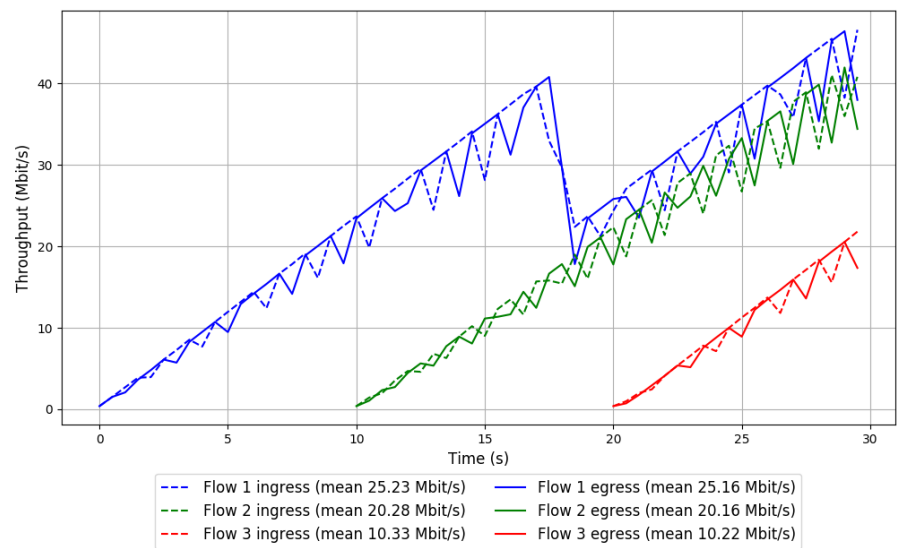
-- Flow 3:

Average throughput: 10.22 Mbit/s

95th percentile per-packet one-way delay: 54.160 ms

Loss rate: 2.17%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-07 05:49:50

End at: 2018-03-07 05:50:20

Below is generated by plot.py at 2018-03-07 09:29:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.82 Mbit/s

95th percentile per-packet one-way delay: 55.244 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 31.93 Mbit/s

95th percentile per-packet one-way delay: 55.163 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 21.88 Mbit/s

95th percentile per-packet one-way delay: 55.509 ms

Loss rate: 1.05%

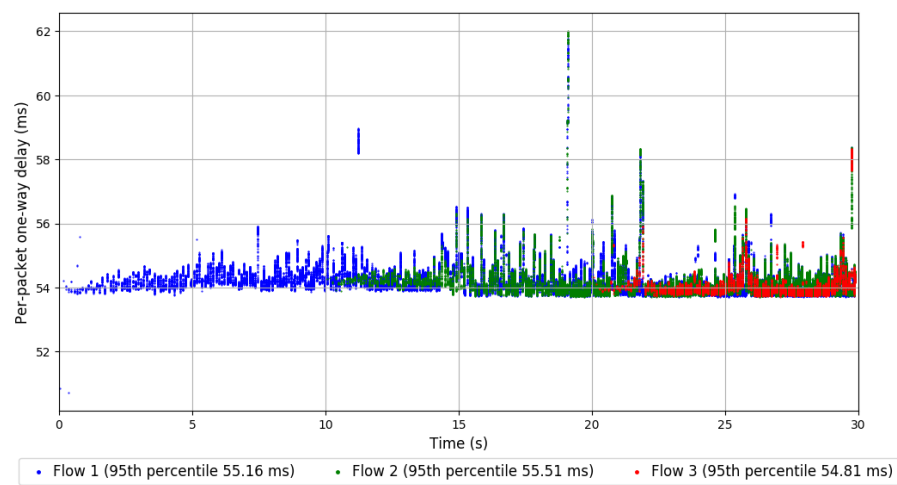
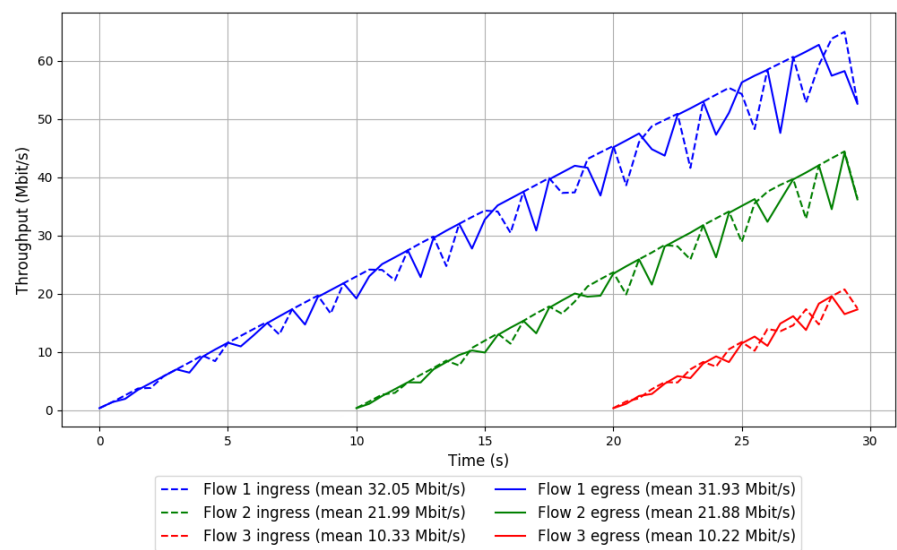
-- Flow 3:

Average throughput: 10.22 Mbit/s

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

Loss rate: 2.18%

Run 10: Report of LEDBAT — Data Link

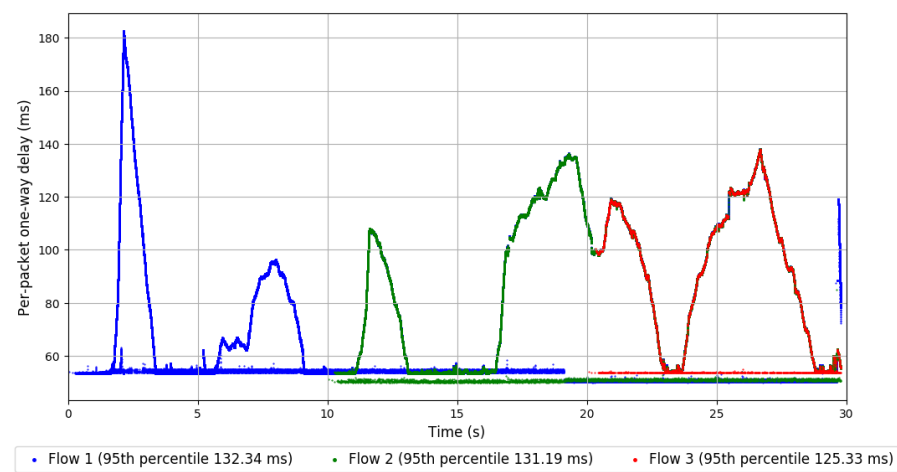
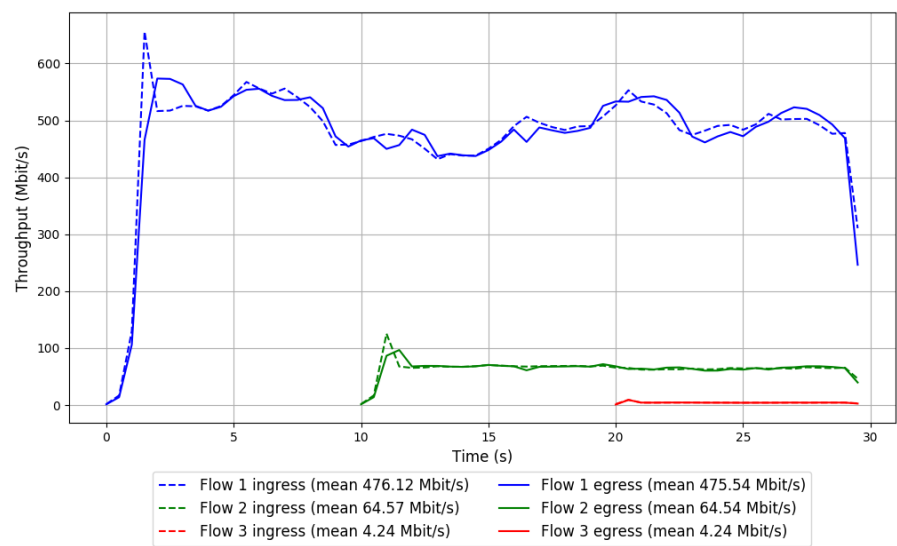


```
Run 1: Statistics of PCC

Start at: 2018-03-07 03:16:05
End at: 2018-03-07 03:16:35

# Below is generated by plot.py at 2018-03-07 09:35:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 519.73 Mbit/s
95th percentile per-packet one-way delay: 132.282 ms
Loss rate: 0.48%
-- Flow 1:
Average throughput: 475.54 Mbit/s
95th percentile per-packet one-way delay: 132.339 ms
Loss rate: 0.47%
-- Flow 2:
Average throughput: 64.54 Mbit/s
95th percentile per-packet one-way delay: 131.193 ms
Loss rate: 0.56%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 125.335 ms
Loss rate: 1.05%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-07 03:33:17

End at: 2018-03-07 03:33:47

Below is generated by plot.py at 2018-03-07 09:35:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 466.02 Mbit/s

95th percentile per-packet one-way delay: 194.633 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 443.27 Mbit/s

95th percentile per-packet one-way delay: 194.616 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 33.30 Mbit/s

95th percentile per-packet one-way delay: 194.852 ms

Loss rate: 0.92%

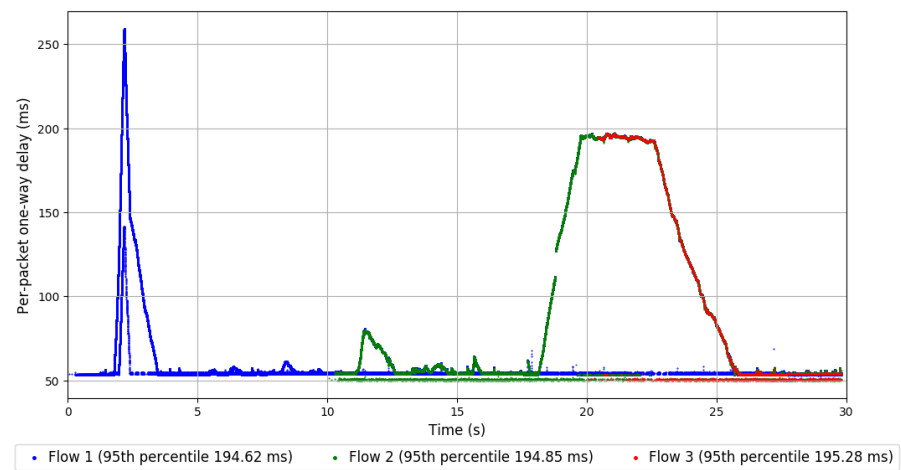
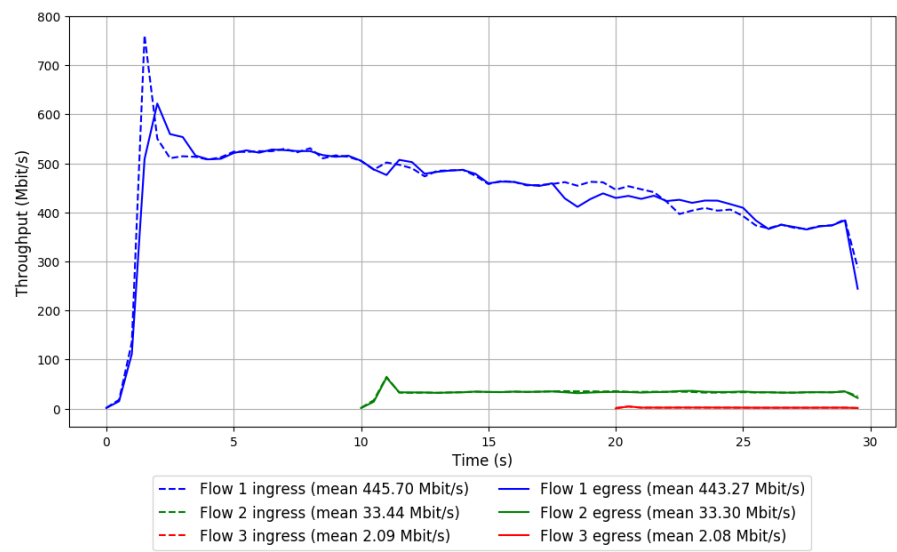
-- Flow 3:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 195.284 ms

Loss rate: 1.60%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-07 03:50:27

End at: 2018-03-07 03:50:57

Below is generated by plot.py at 2018-03-07 09:35:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 507.06 Mbit/s

95th percentile per-packet one-way delay: 171.617 ms

Loss rate: 1.79%

-- Flow 1:

Average throughput: 445.03 Mbit/s

95th percentile per-packet one-way delay: 171.171 ms

Loss rate: 1.57%

-- Flow 2:

Average throughput: 34.75 Mbit/s

95th percentile per-packet one-way delay: 176.179 ms

Loss rate: 1.92%

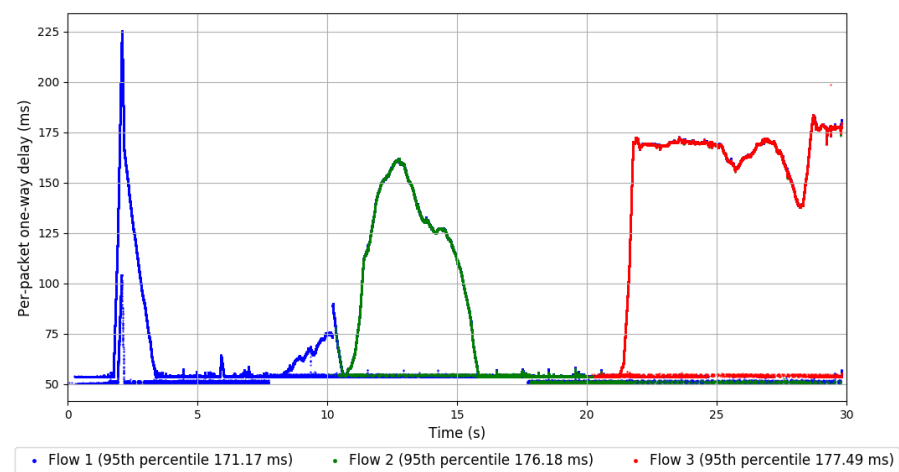
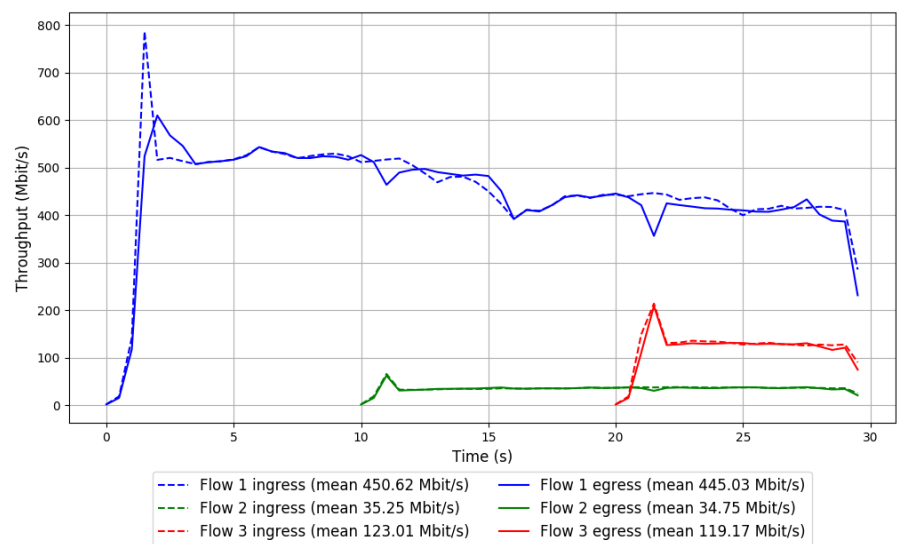
-- Flow 3:

Average throughput: 119.17 Mbit/s

95th percentile per-packet one-way delay: 177.492 ms

Loss rate: 4.15%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-07 04:07:41

End at: 2018-03-07 04:08:11

Below is generated by plot.py at 2018-03-07 09:35:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 473.69 Mbit/s

95th percentile per-packet one-way delay: 174.039 ms

Loss rate: 0.99%

-- Flow 1:

Average throughput: 458.10 Mbit/s

95th percentile per-packet one-way delay: 174.026 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 21.50 Mbit/s

95th percentile per-packet one-way delay: 174.273 ms

Loss rate: 1.13%

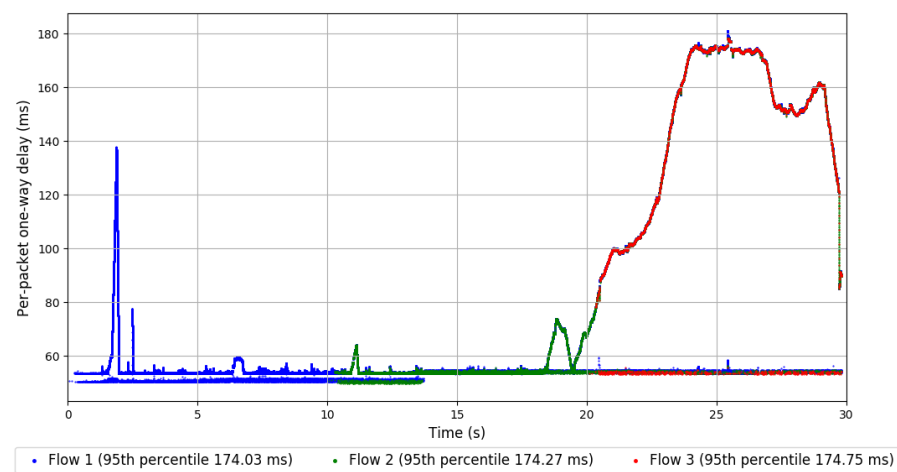
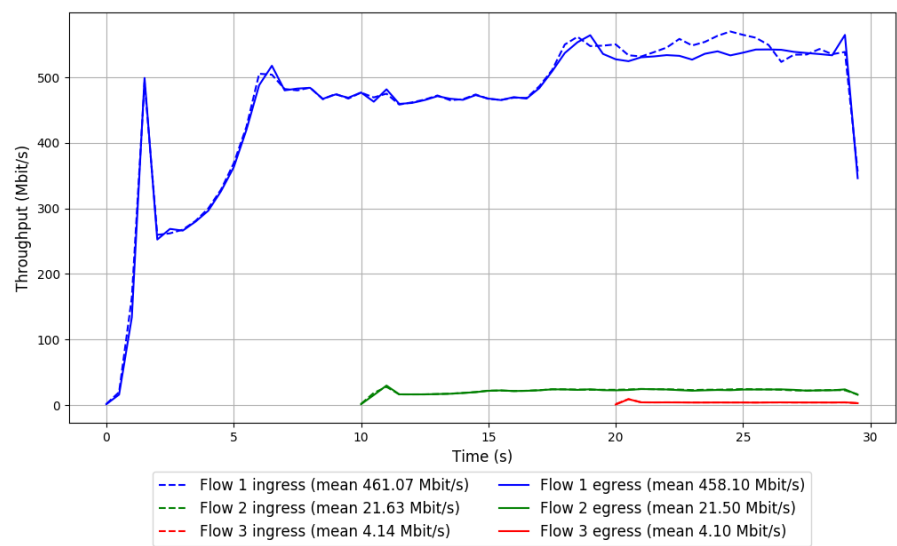
-- Flow 3:

Average throughput: 4.10 Mbit/s

95th percentile per-packet one-way delay: 174.752 ms

Loss rate: 2.08%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-07 04:25:14

End at: 2018-03-07 04:25:44

Below is generated by plot.py at 2018-03-07 09:35:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.51 Mbit/s

95th percentile per-packet one-way delay: 179.672 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 261.06 Mbit/s

95th percentile per-packet one-way delay: 179.056 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 232.32 Mbit/s

95th percentile per-packet one-way delay: 180.311 ms

Loss rate: 0.83%

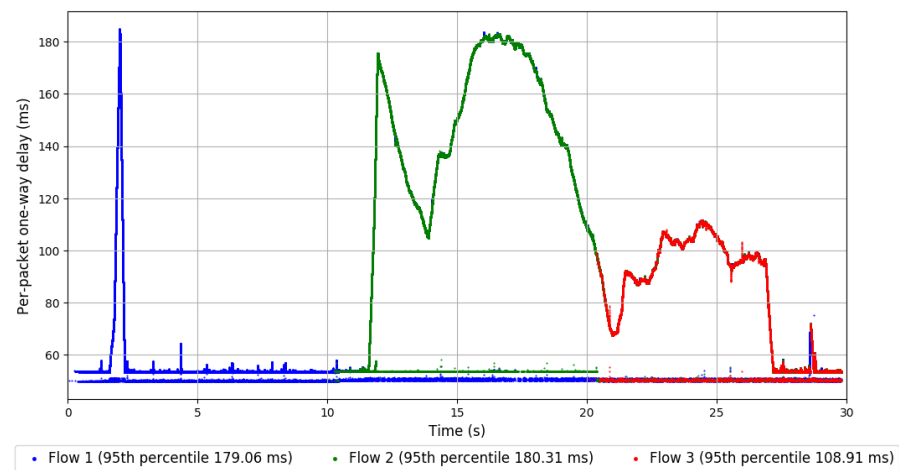
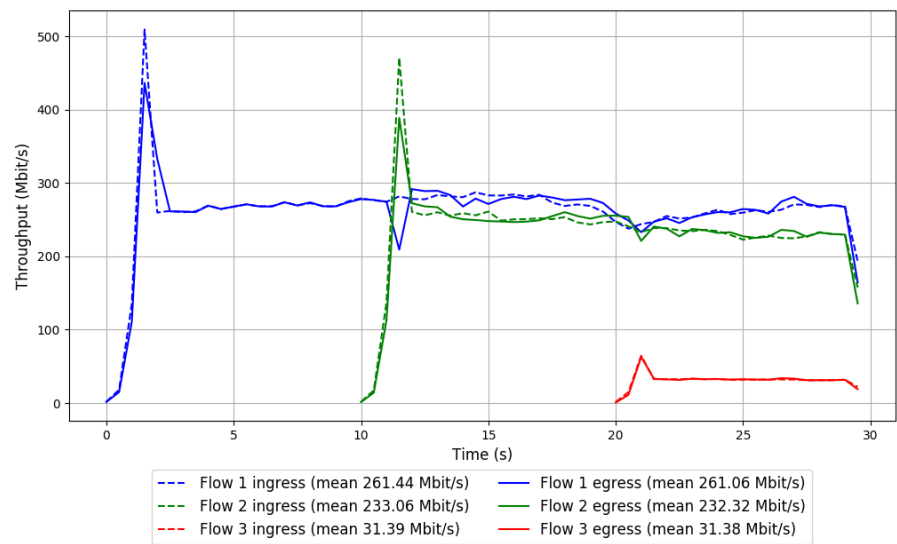
-- Flow 3:

Average throughput: 31.38 Mbit/s

95th percentile per-packet one-way delay: 108.908 ms

Loss rate: 1.06%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-07 04:42:03

End at: 2018-03-07 04:42:33

Below is generated by plot.py at 2018-03-07 09:36:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 504.49 Mbit/s

95th percentile per-packet one-way delay: 116.360 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 455.50 Mbit/s

95th percentile per-packet one-way delay: 116.545 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 65.34 Mbit/s

95th percentile per-packet one-way delay: 110.570 ms

Loss rate: 0.58%

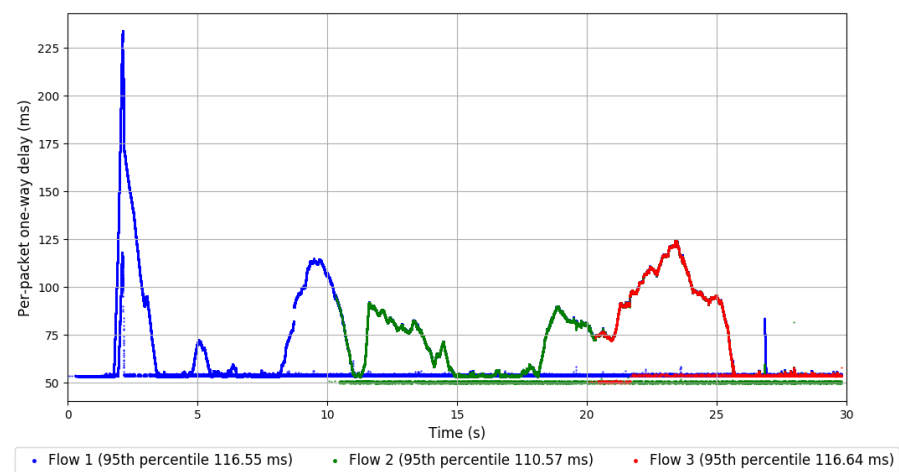
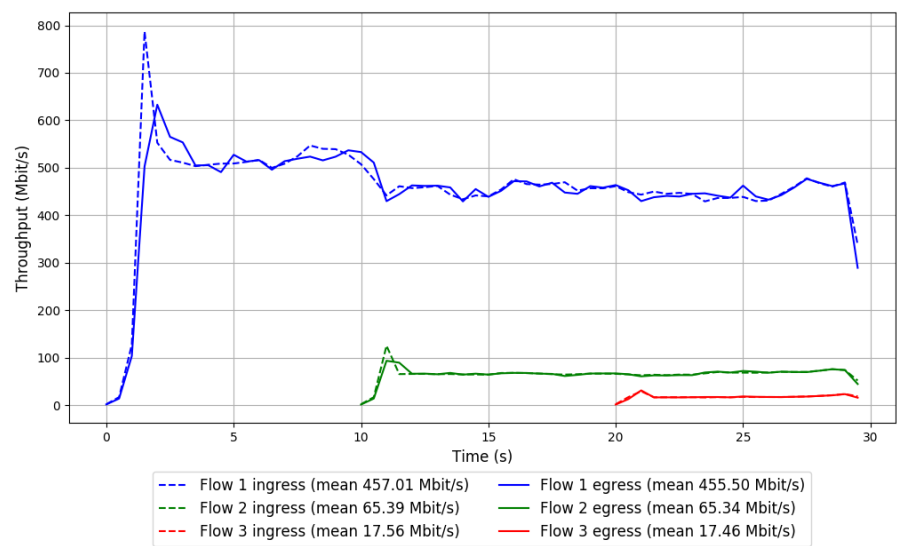
-- Flow 3:

Average throughput: 17.46 Mbit/s

95th percentile per-packet one-way delay: 116.641 ms

Loss rate: 1.59%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-07 04:59:01

End at: 2018-03-07 04:59:31

Below is generated by plot.py at 2018-03-07 09:37:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.04 Mbit/s

95th percentile per-packet one-way delay: 166.414 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 499.54 Mbit/s

95th percentile per-packet one-way delay: 166.336 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 30.17 Mbit/s

95th percentile per-packet one-way delay: 167.411 ms

Loss rate: 0.63%

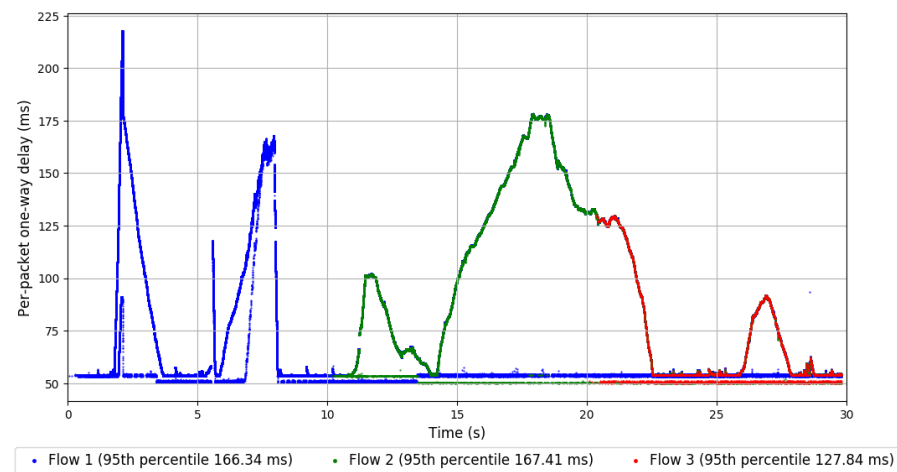
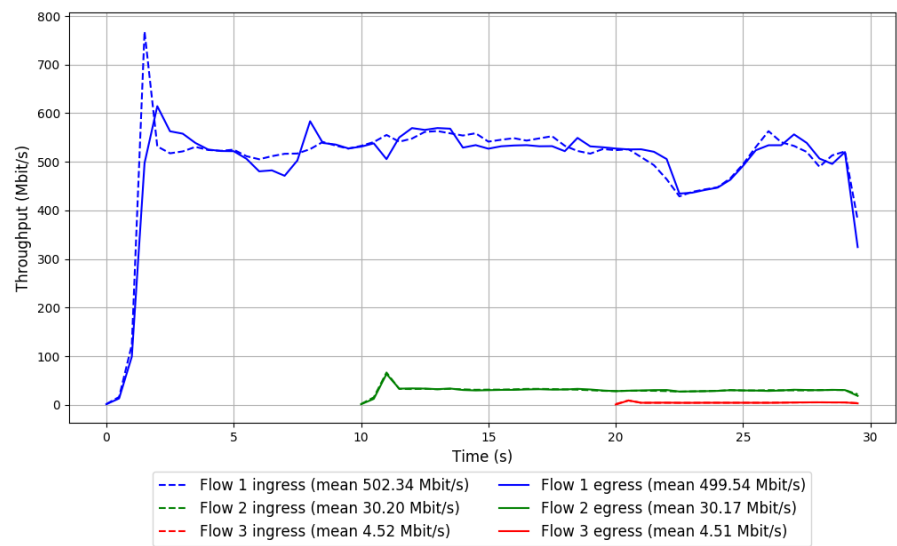
-- Flow 3:

Average throughput: 4.51 Mbit/s

95th percentile per-packet one-way delay: 127.839 ms

Loss rate: 1.18%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-07 05:16:05

End at: 2018-03-07 05:16:35

Below is generated by plot.py at 2018-03-07 09:37:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 430.66 Mbit/s

95th percentile per-packet one-way delay: 178.317 ms

Loss rate: 0.76%

-- Flow 1:

Average throughput: 349.91 Mbit/s

95th percentile per-packet one-way delay: 174.021 ms

Loss rate: 0.67%

-- Flow 2:

Average throughput: 89.01 Mbit/s

95th percentile per-packet one-way delay: 179.237 ms

Loss rate: 0.98%

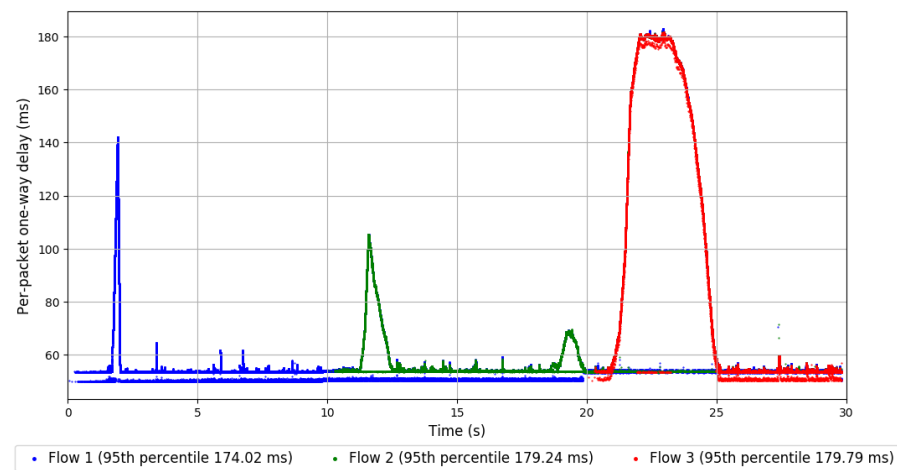
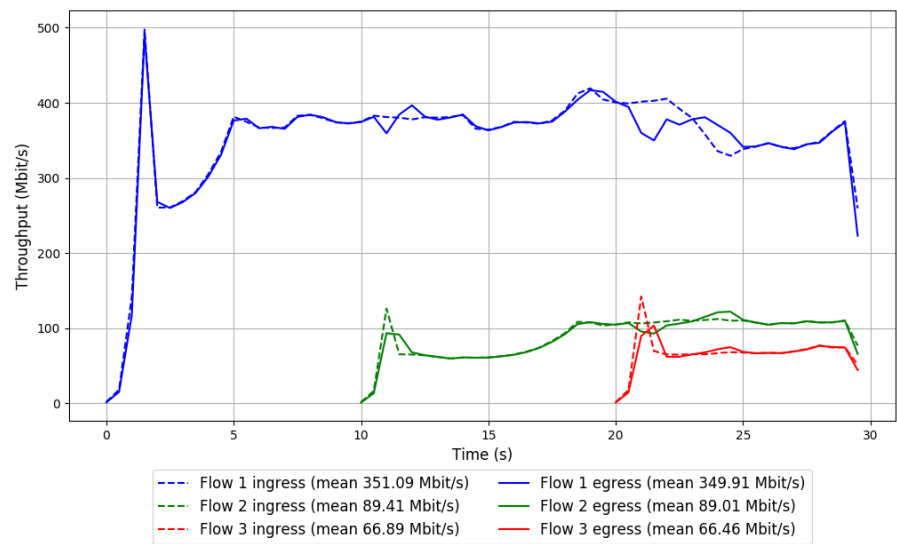
-- Flow 3:

Average throughput: 66.46 Mbit/s

95th percentile per-packet one-way delay: 179.794 ms

Loss rate: 1.65%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-07 05:33:19

End at: 2018-03-07 05:33:49

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.51 Mbit/s

95th percentile per-packet one-way delay: 151.141 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 491.01 Mbit/s

95th percentile per-packet one-way delay: 151.090 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 68.23 Mbit/s

95th percentile per-packet one-way delay: 150.895 ms

Loss rate: 0.90%

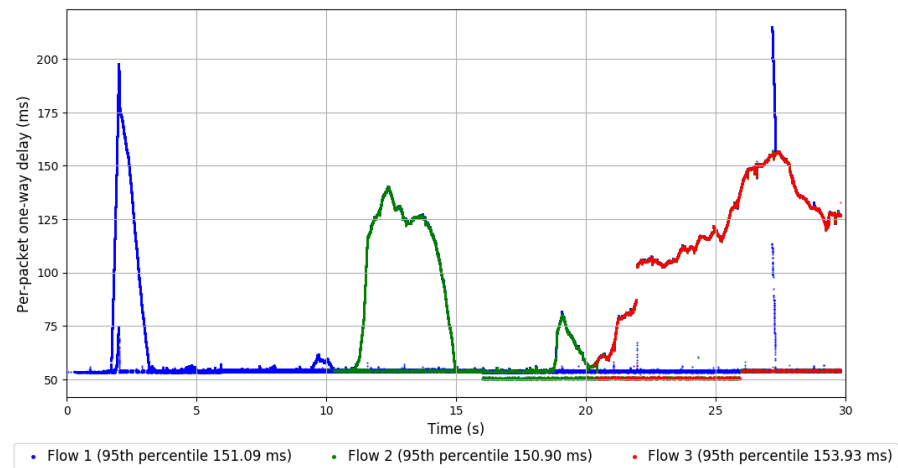
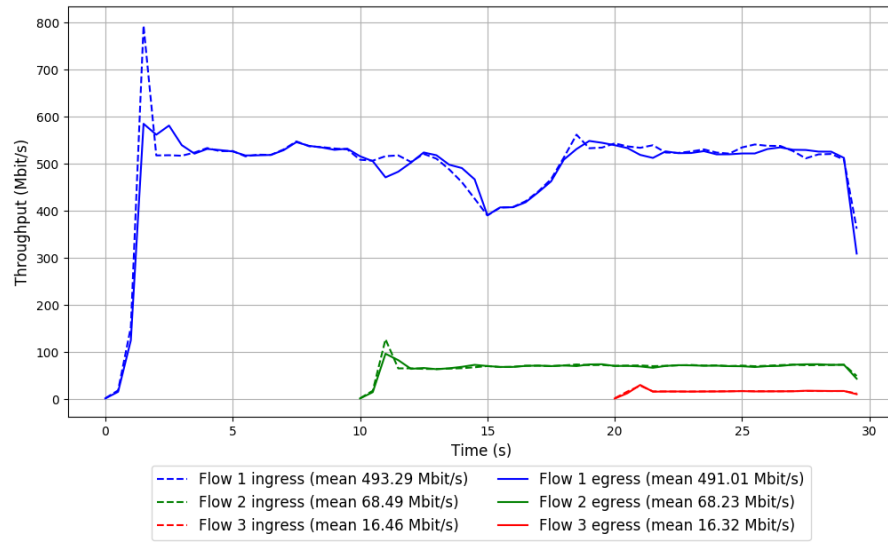
-- Flow 3:

Average throughput: 16.32 Mbit/s

95th percentile per-packet one-way delay: 153.926 ms

Loss rate: 1.82%

Run 9: Report of PCC — Data Link

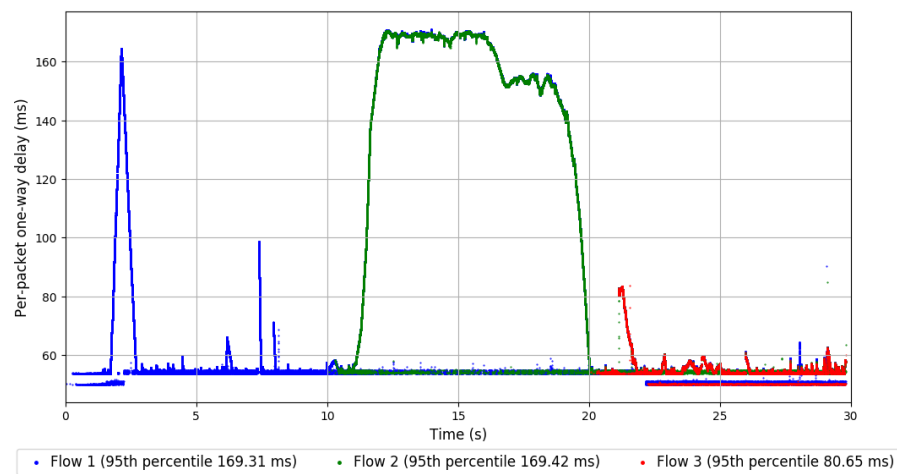
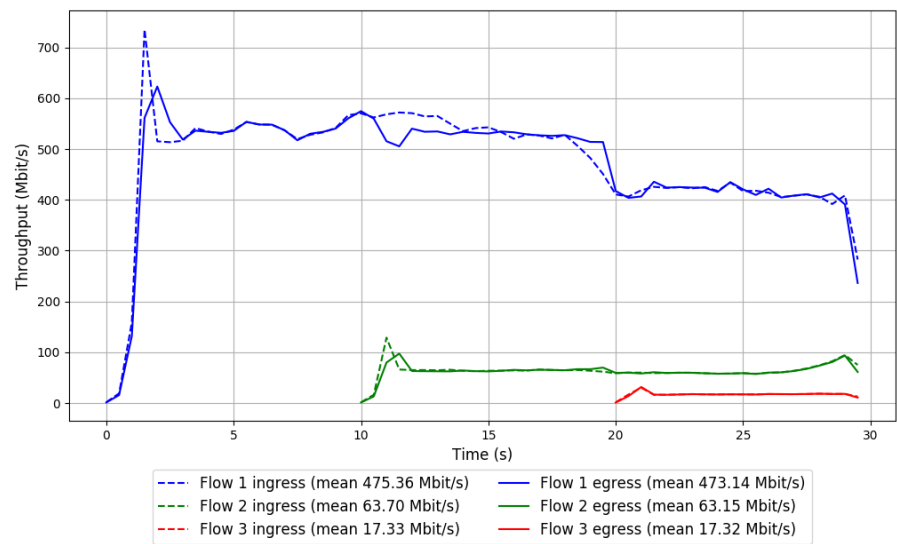


```
Run 10: Statistics of PCC

Start at: 2018-03-07 05:50:32
End at: 2018-03-07 05:51:02

# Below is generated by plot.py at 2018-03-07 09:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 520.62 Mbit/s
95th percentile per-packet one-way delay: 169.318 ms
Loss rate: 0.86%
-- Flow 1:
Average throughput: 473.14 Mbit/s
95th percentile per-packet one-way delay: 169.314 ms
Loss rate: 0.81%
-- Flow 2:
Average throughput: 63.15 Mbit/s
95th percentile per-packet one-way delay: 169.422 ms
Loss rate: 1.38%
-- Flow 3:
Average throughput: 17.32 Mbit/s
95th percentile per-packet one-way delay: 80.646 ms
Loss rate: 1.17%
```

Run 10: Report of PCC — Data Link

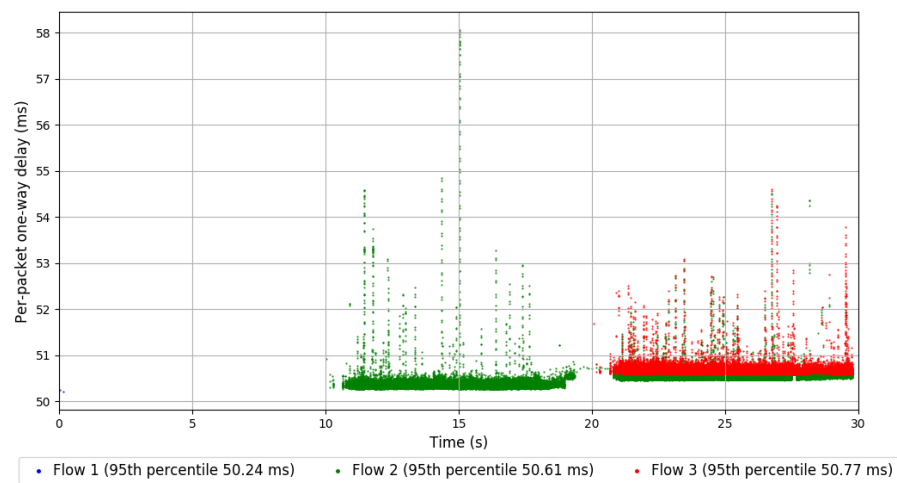
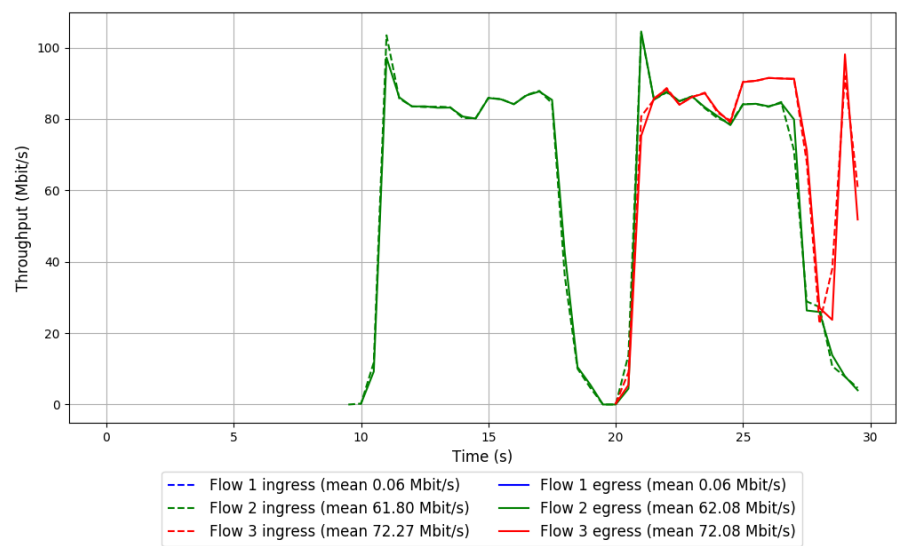


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-07 03:13:55
End at: 2018-03-07 03:14:26

# Below is generated by plot.py at 2018-03-07 09:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.77 Mbit/s
95th percentile per-packet one-way delay: 50.727 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.240 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 62.08 Mbit/s
95th percentile per-packet one-way delay: 50.606 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 72.08 Mbit/s
95th percentile per-packet one-way delay: 50.770 ms
Loss rate: 1.31%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-07 03:31:08

End at: 2018-03-07 03:31:38

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.02 Mbit/s

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

Loss rate: 0.28%

-- Flow 1:

Average throughput: 73.89 Mbit/s

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

Loss rate: 0.40%

-- Flow 2:

Average throughput: 64.49 Mbit/s

95th percentile per-packet one-way delay: 53.431 ms

Loss rate: 0.08%

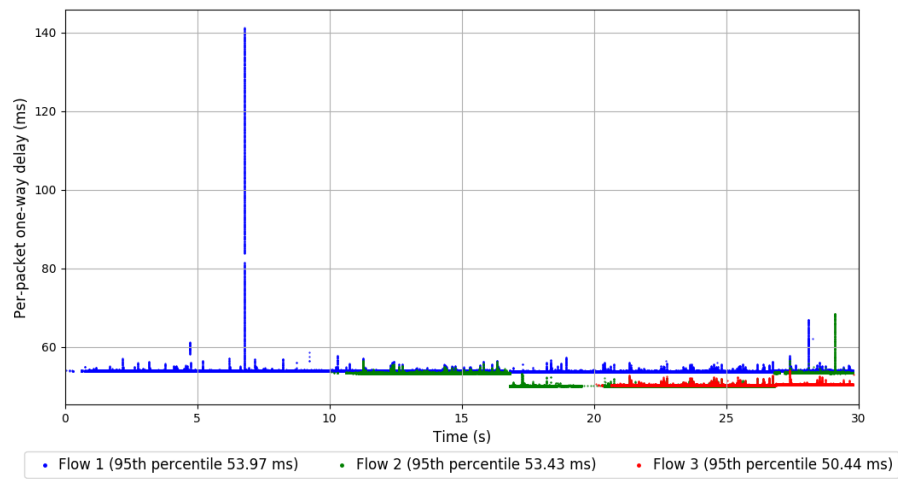
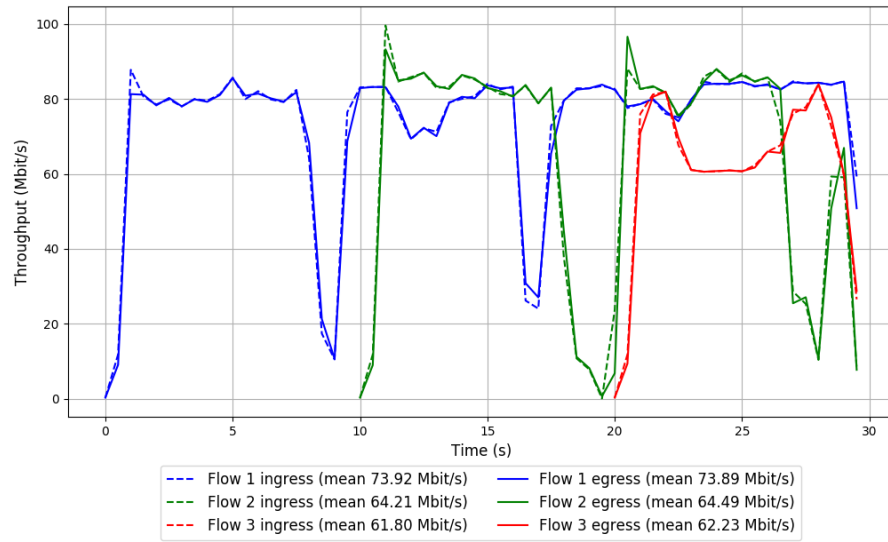
-- Flow 3:

Average throughput: 62.23 Mbit/s

95th percentile per-packet one-way delay: 50.437 ms

Loss rate: 0.29%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-07 03:48:17

End at: 2018-03-07 03:48:47

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.11 Mbit/s

95th percentile per-packet one-way delay: 53.862 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 73.32 Mbit/s

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

Loss rate: 0.32%

-- Flow 2:

Average throughput: 71.08 Mbit/s

95th percentile per-packet one-way delay: 53.465 ms

Loss rate: 0.69%

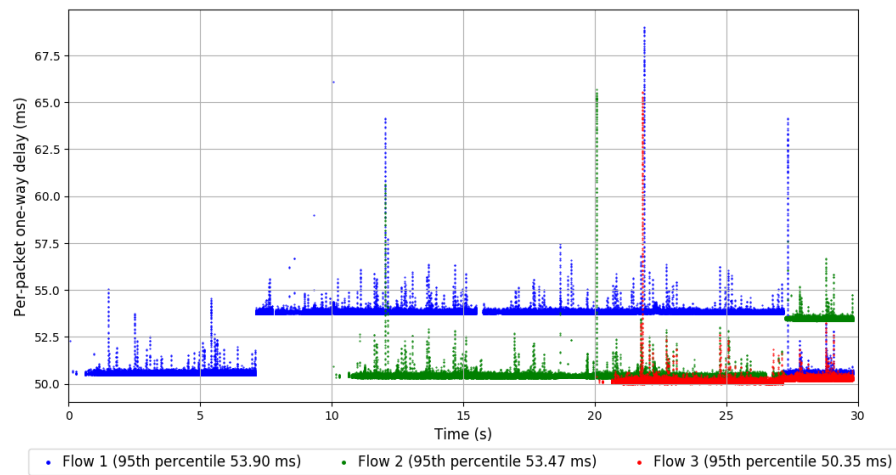
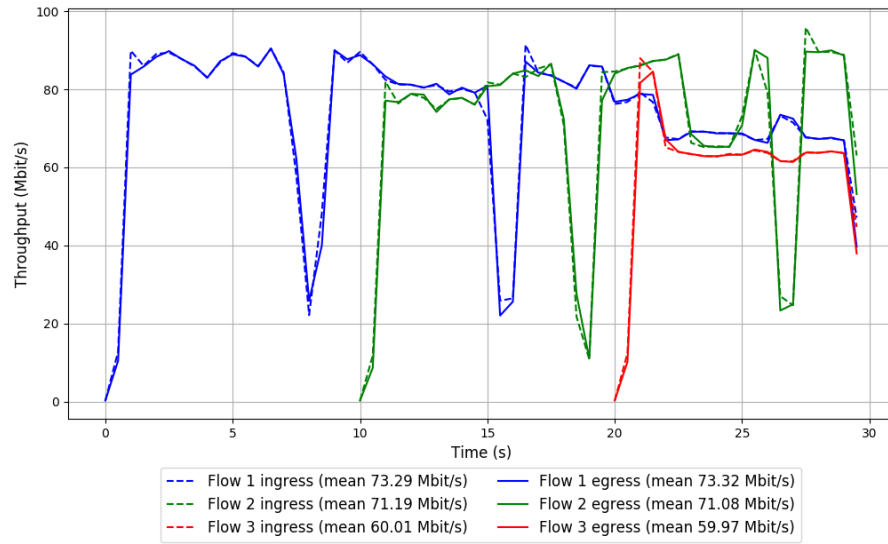
-- Flow 3:

Average throughput: 59.97 Mbit/s

95th percentile per-packet one-way delay: 50.348 ms

Loss rate: 1.12%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-07 04:05:33

End at: 2018-03-07 04:06:03

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.75 Mbit/s

95th percentile per-packet one-way delay: 53.499 ms

Loss rate: 0.25%

-- Flow 1:

Average throughput: 55.35 Mbit/s

95th percentile per-packet one-way delay: 53.518 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.60 Mbit/s

95th percentile per-packet one-way delay: 50.308 ms

Loss rate: 0.16%

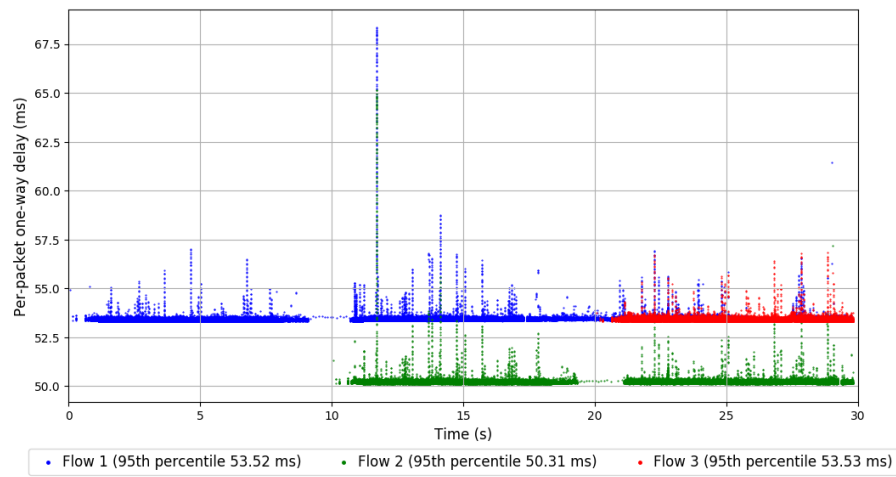
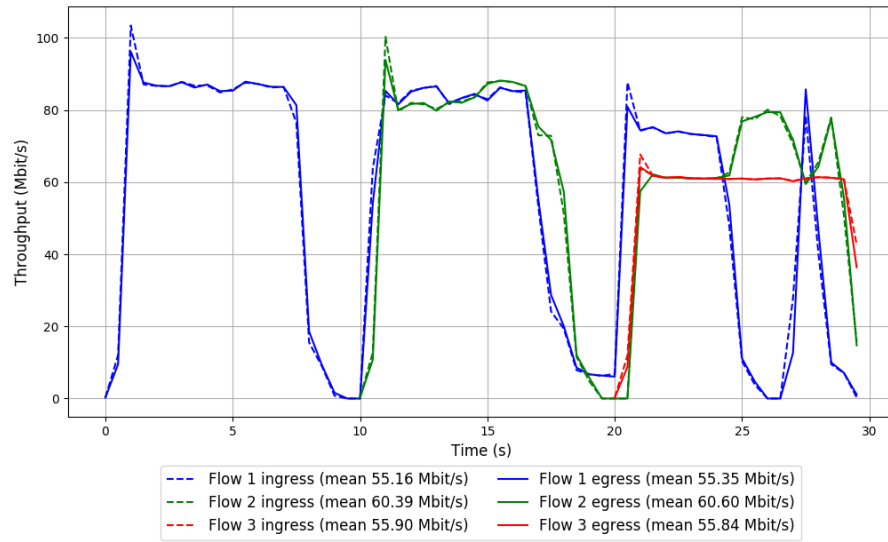
-- Flow 3:

Average throughput: 55.84 Mbit/s

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

Loss rate: 1.17%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-07 04:23:06

End at: 2018-03-07 04:23:36

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.94 Mbit/s

95th percentile per-packet one-way delay: 53.233 ms

Loss rate: 0.70%

-- Flow 1:

Average throughput: 74.97 Mbit/s

95th percentile per-packet one-way delay: 50.209 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 47.18 Mbit/s

95th percentile per-packet one-way delay: 53.296 ms

Loss rate: 0.00%

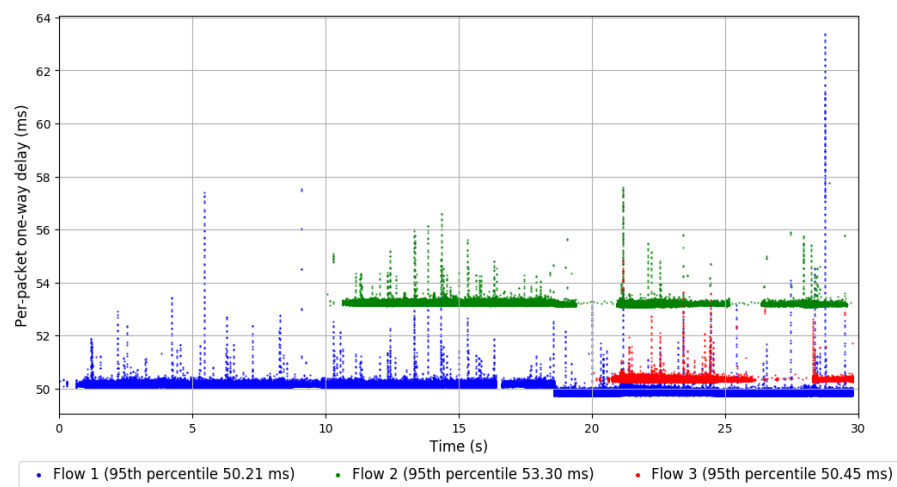
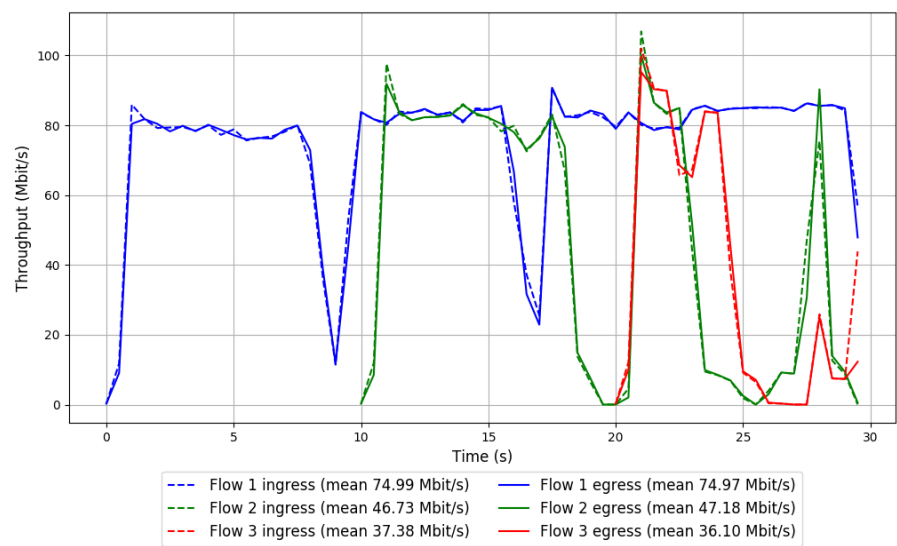
-- Flow 3:

Average throughput: 36.10 Mbit/s

95th percentile per-packet one-way delay: 50.450 ms

Loss rate: 4.40%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-07 04:39:54

End at: 2018-03-07 04:40:24

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 120.06 Mbit/s

95th percentile per-packet one-way delay: 53.636 ms

Loss rate: 0.39%

-- Flow 1:

Average throughput: 69.10 Mbit/s

95th percentile per-packet one-way delay: 53.620 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 50.22 Mbit/s

95th percentile per-packet one-way delay: 53.626 ms

Loss rate: 0.09%

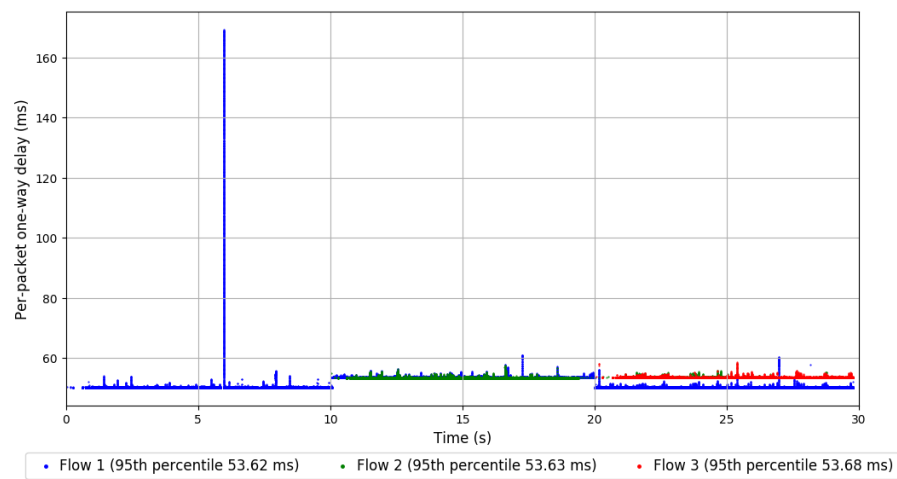
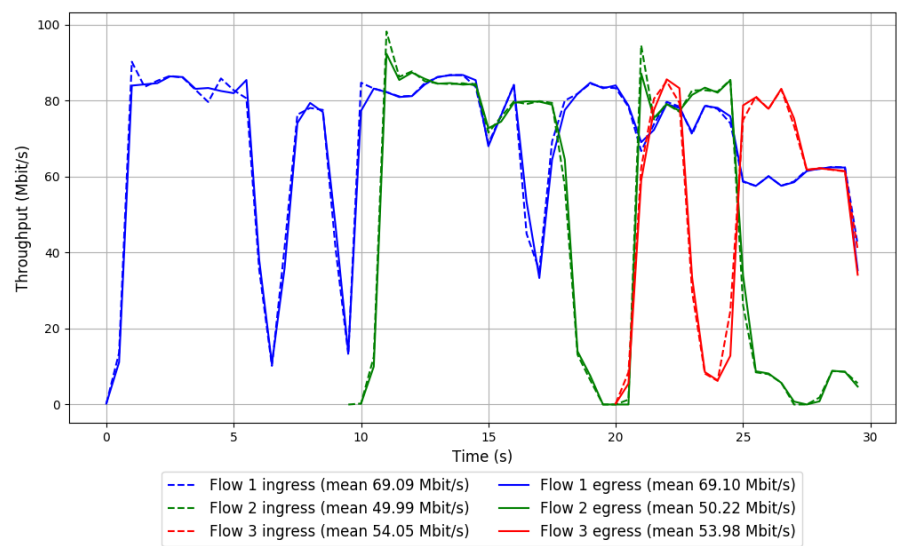
-- Flow 3:

Average throughput: 53.98 Mbit/s

95th percentile per-packet one-way delay: 53.677 ms

Loss rate: 1.24%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-07 04:56:53

End at: 2018-03-07 04:57:23

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.44 Mbit/s

95th percentile per-packet one-way delay: 53.587 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 70.58 Mbit/s

95th percentile per-packet one-way delay: 53.354 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 70.01 Mbit/s

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

Loss rate: 0.65%

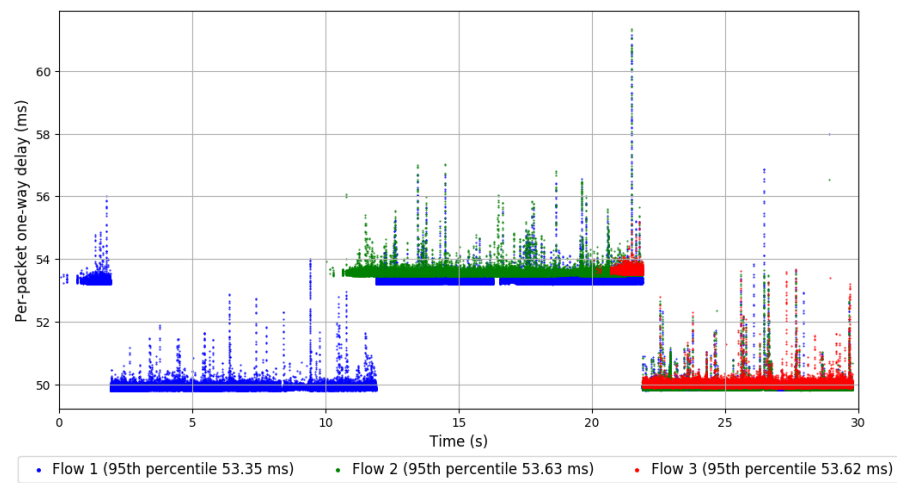
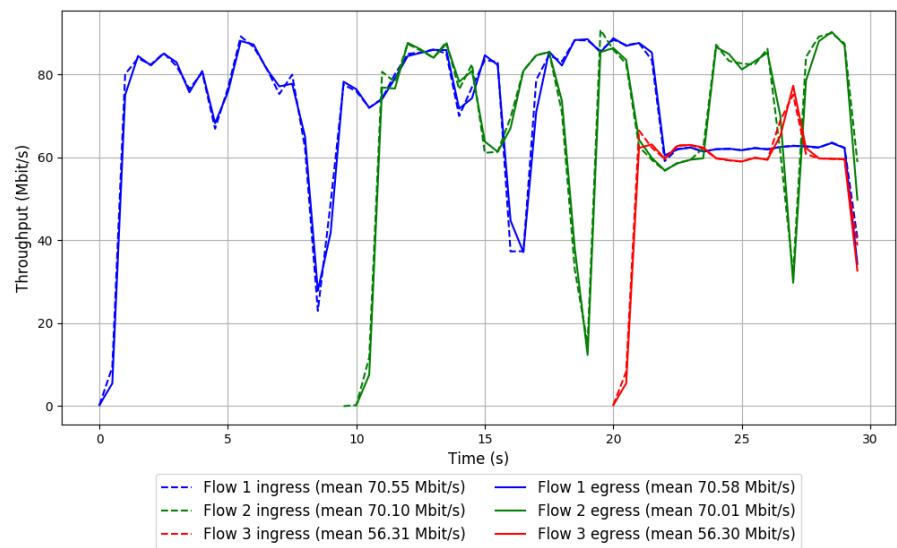
-- Flow 3:

Average throughput: 56.30 Mbit/s

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

Loss rate: 1.08%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-07 05:13:56

End at: 2018-03-07 05:14:26

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 129.37 Mbit/s

95th percentile per-packet one-way delay: 53.614 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 65.70 Mbit/s

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

Loss rate: 0.43%

-- Flow 2:

Average throughput: 64.52 Mbit/s

95th percentile per-packet one-way delay: 53.631 ms

Loss rate: 0.65%

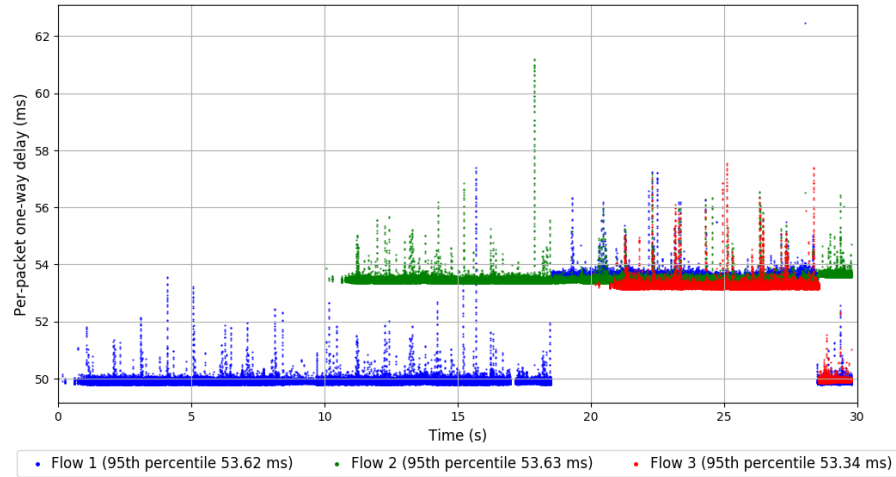
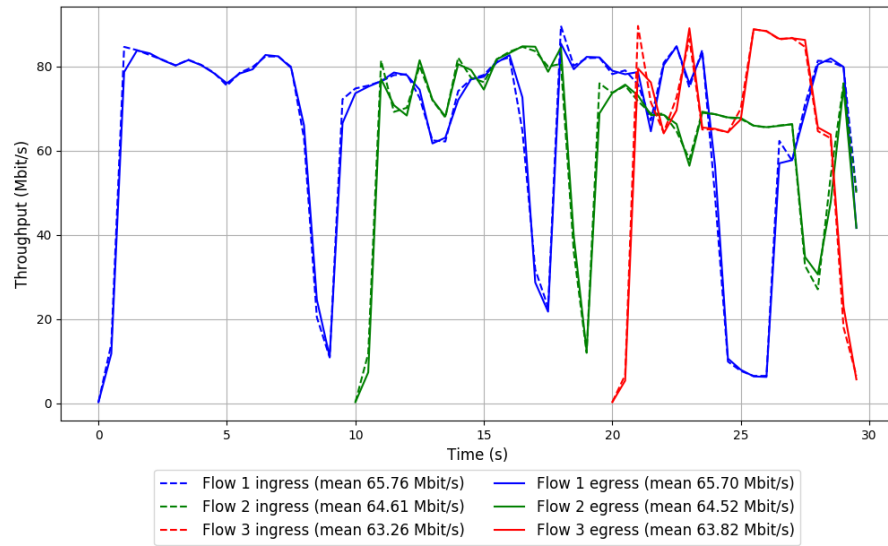
-- Flow 3:

Average throughput: 63.82 Mbit/s

95th percentile per-packet one-way delay: 53.341 ms

Loss rate: 0.15%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-07 05:31:11

End at: 2018-03-07 05:31:41

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 119.00 Mbit/s

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

Loss rate: 0.42%

-- Flow 1:

Average throughput: 55.40 Mbit/s

95th percentile per-packet one-way delay: 53.381 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 64.17 Mbit/s

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

Loss rate: 0.74%

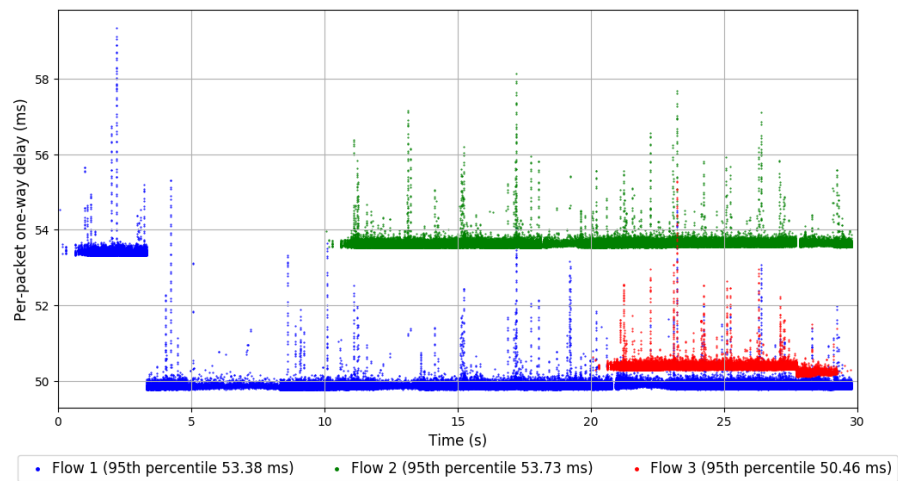
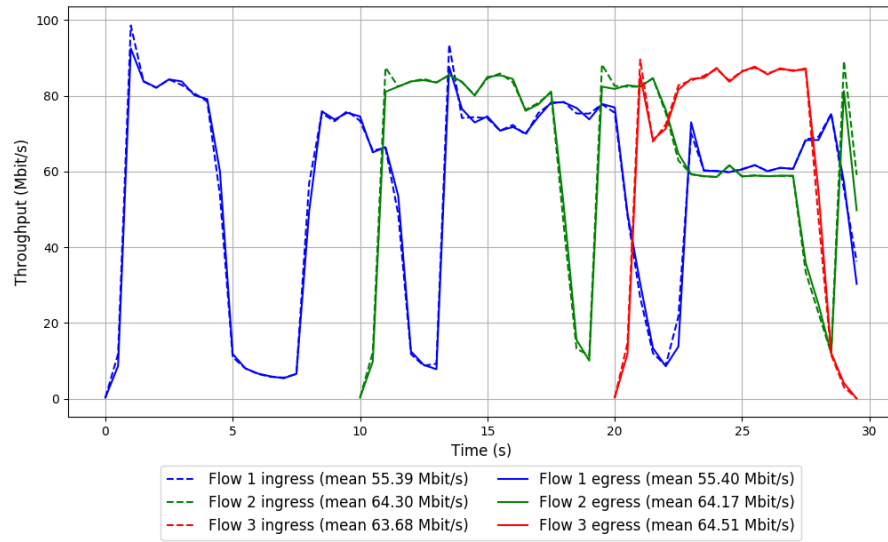
-- Flow 3:

Average throughput: 64.51 Mbit/s

95th percentile per-packet one-way delay: 50.463 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

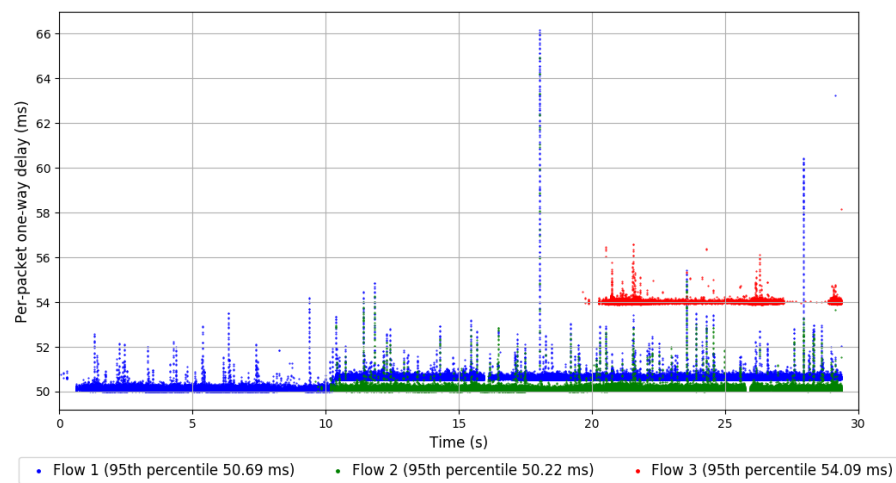
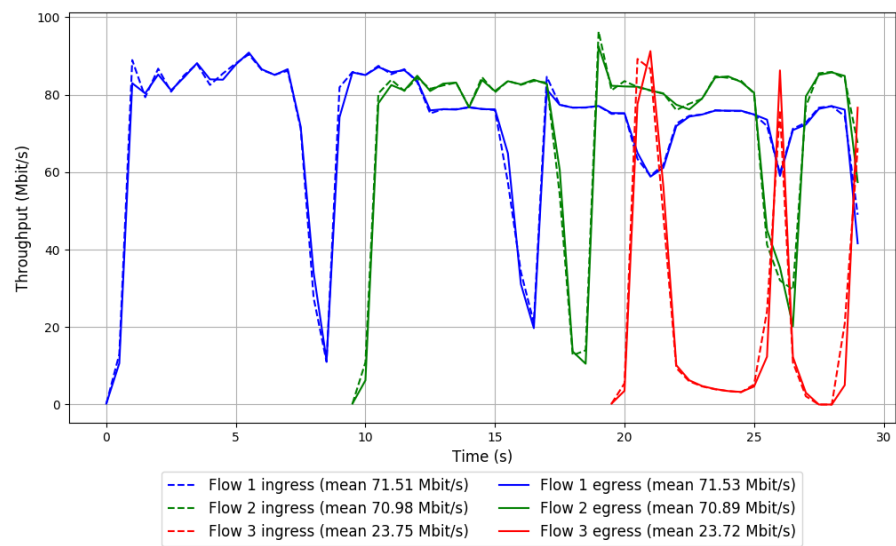


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-07 05:48:24
End at: 2018-03-07 05:48:54

# Below is generated by plot.py at 2018-03-07 09:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 127.14 Mbit/s
95th percentile per-packet one-way delay: 53.947 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 71.53 Mbit/s
95th percentile per-packet one-way delay: 50.693 ms
Loss rate: 0.32%
-- Flow 2:
Average throughput: 70.89 Mbit/s
95th percentile per-packet one-way delay: 50.216 ms
Loss rate: 0.64%
-- Flow 3:
Average throughput: 23.72 Mbit/s
95th percentile per-packet one-way delay: 54.095 ms
Loss rate: 1.17%
```

Run 10: Report of QUIC Cubic — Data Link

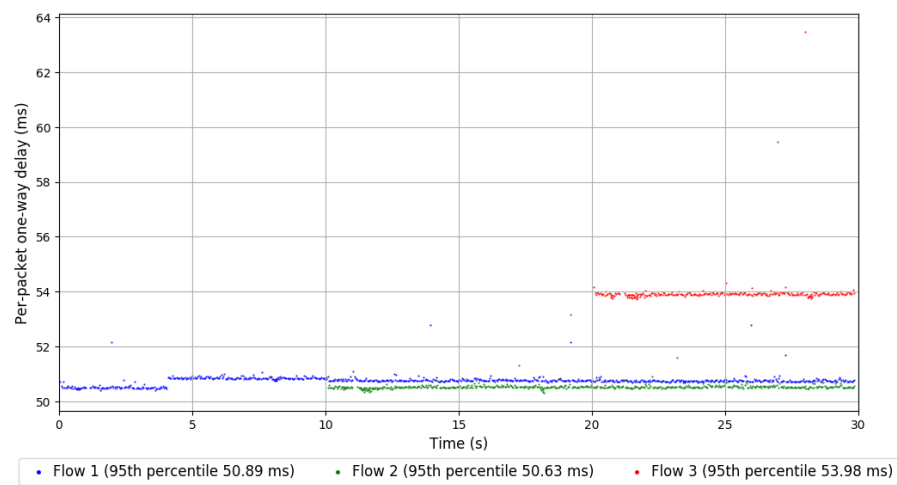
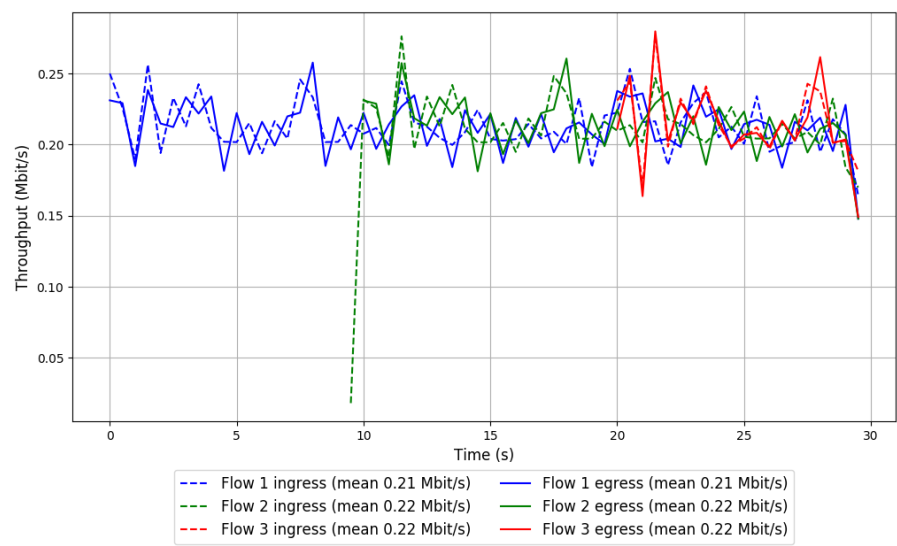


```
Run 1: Statistics of SCReAM

Start at: 2018-03-07 03:20:10
End at: 2018-03-07 03:20:40

# Below is generated by plot.py at 2018-03-07 09:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.929 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.891 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.633 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.981 ms
Loss rate: 1.10%
```

Run 1: Report of SReAM — Data Link

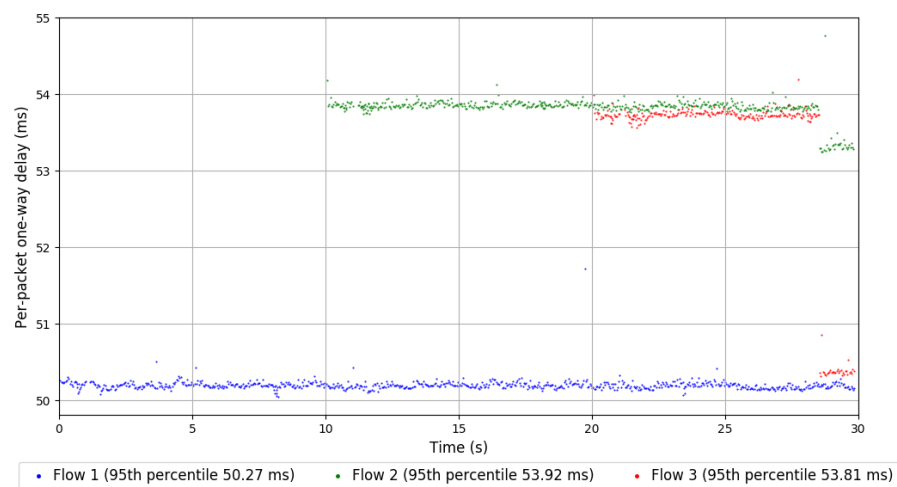
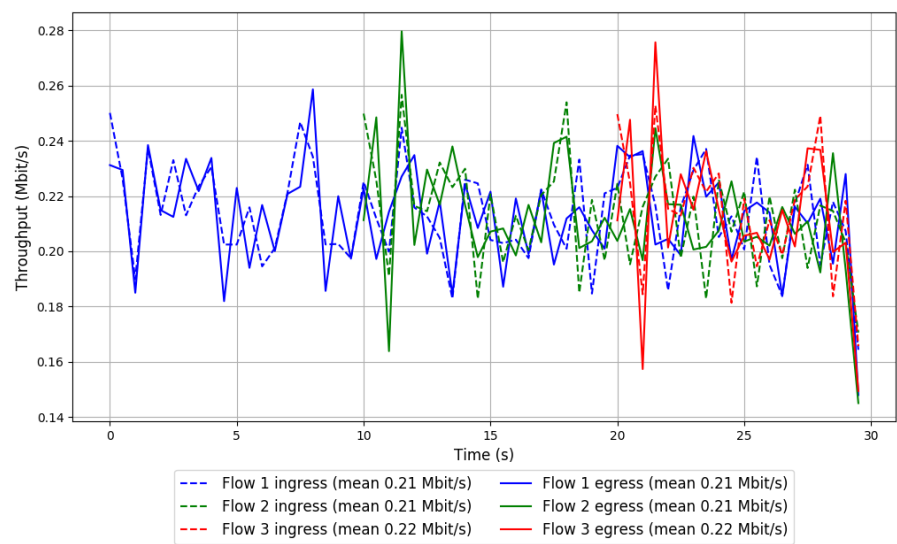


```
Run 2: Statistics of SCReAM

Start at: 2018-03-07 03:37:16
End at: 2018-03-07 03:37:46

# Below is generated by plot.py at 2018-03-07 09:43:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.893 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.266 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.922 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.806 ms
Loss rate: 1.12%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-03-07 03:54:27

End at: 2018-03-07 03:54:57

Below is generated by plot.py at 2018-03-07 09:43:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 53.857 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 50.435 ms

Loss rate: 0.63%

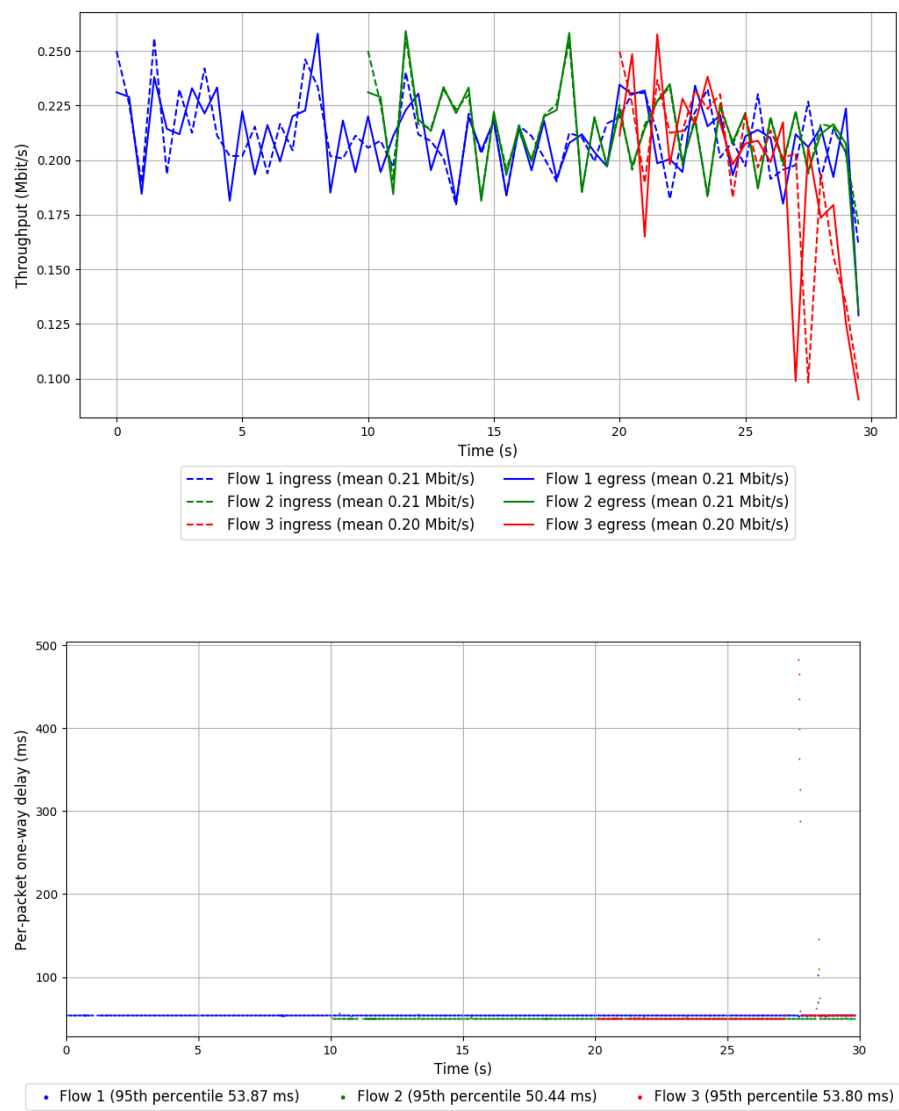
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 53.797 ms

Loss rate: 0.72%

Run 3: Report of SReAM — Data Link

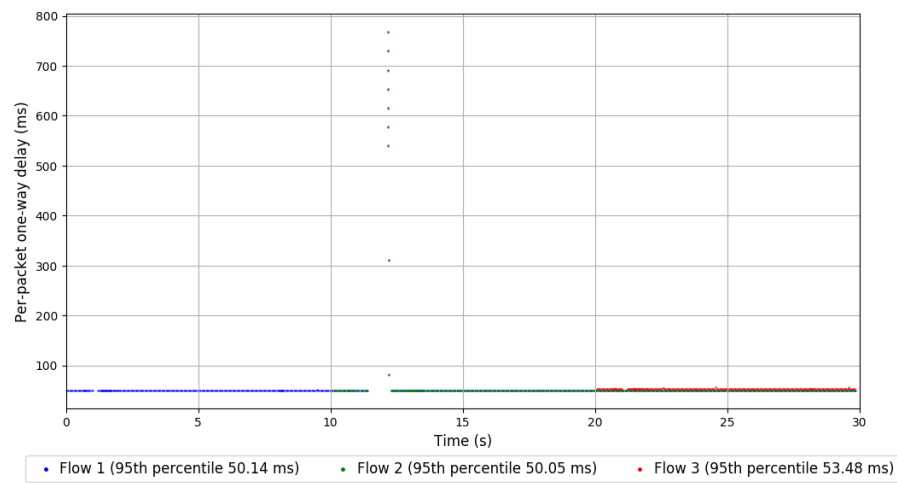
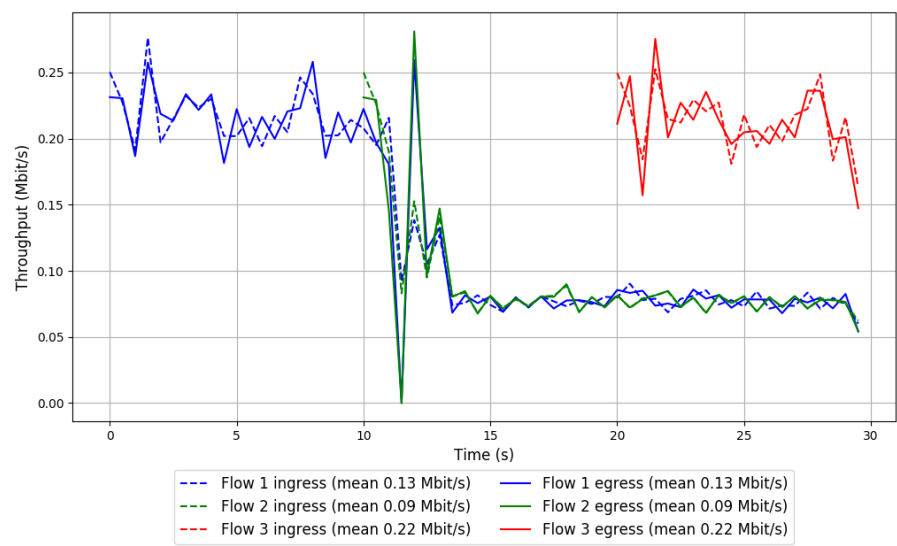


```
Run 4: Statistics of SCReAM

Start at: 2018-03-07 04:11:45
End at: 2018-03-07 04:12:15

# Below is generated by plot.py at 2018-03-07 09:43:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 53.414 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 50.140 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 50.054 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.477 ms
Loss rate: 1.11%
```

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-03-07 04:29:10

End at: 2018-03-07 04:29:40

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.100 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.779 ms

Loss rate: 0.43%

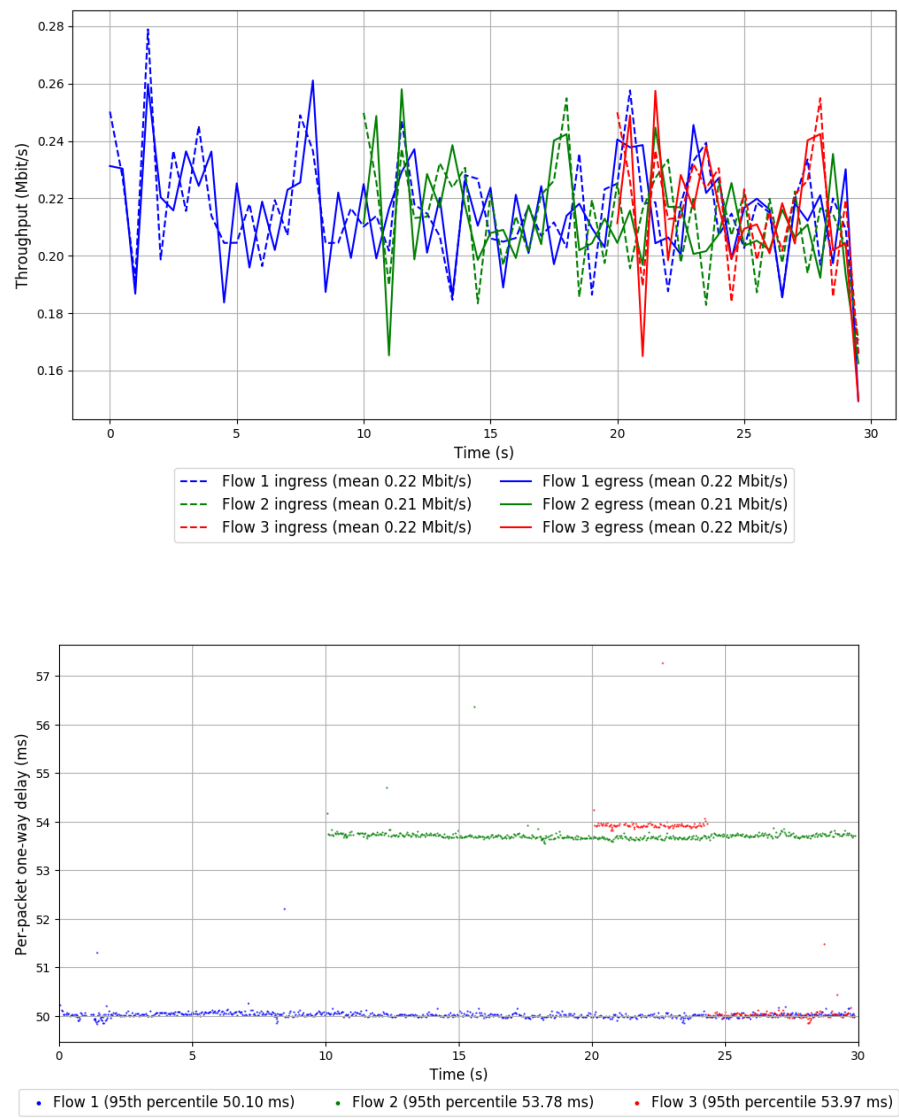
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 1.11%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SCReAM

Start at: 2018-03-07 04:46:04

End at: 2018-03-07 04:46:34

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 50.369 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.322 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.310 ms

Loss rate: 0.43%

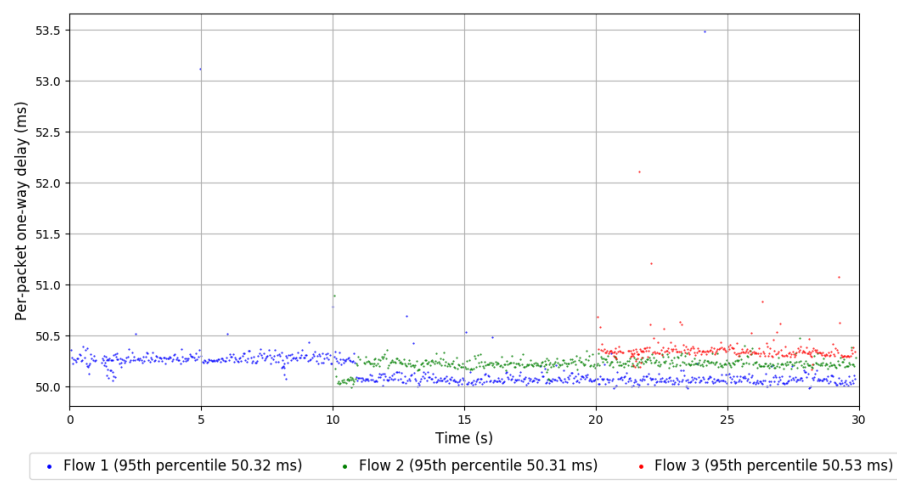
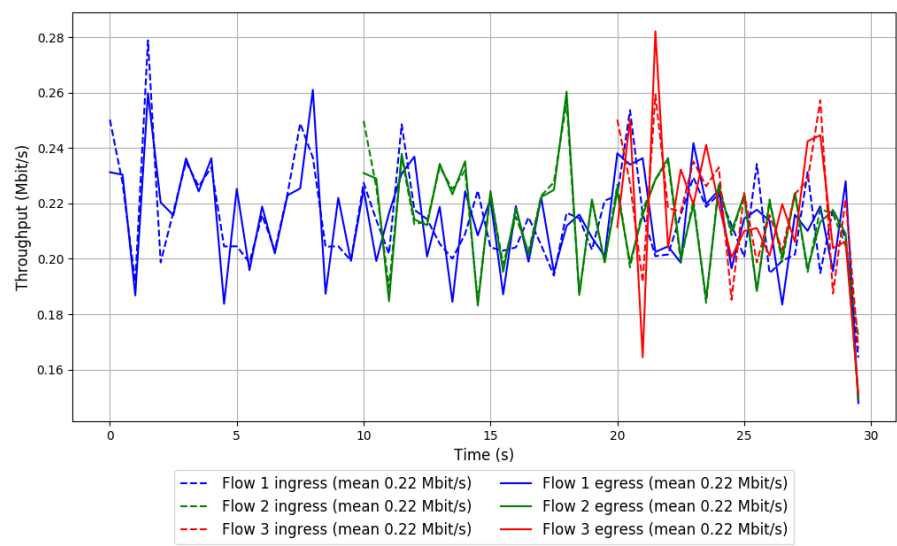
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.527 ms

Loss rate: 1.11%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SReAM

Start at: 2018-03-07 05:03:01

End at: 2018-03-07 05:03:31

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.741 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.487 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.767 ms

Loss rate: 0.43%

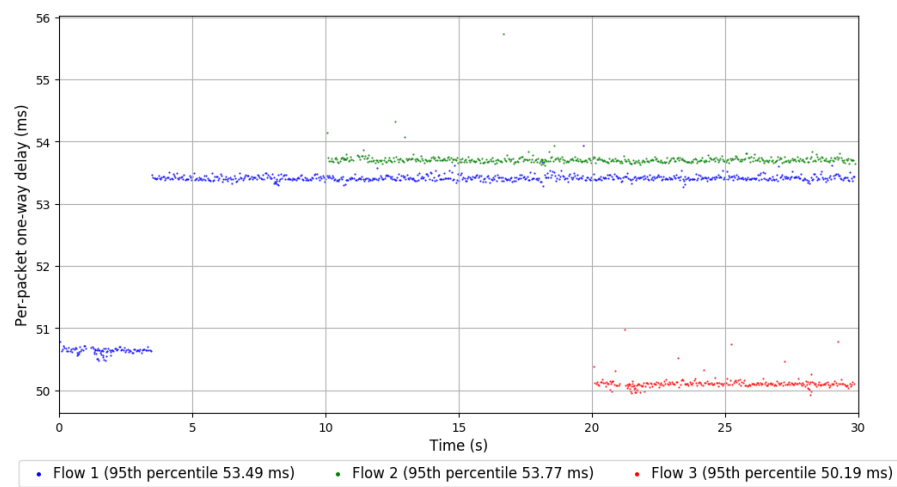
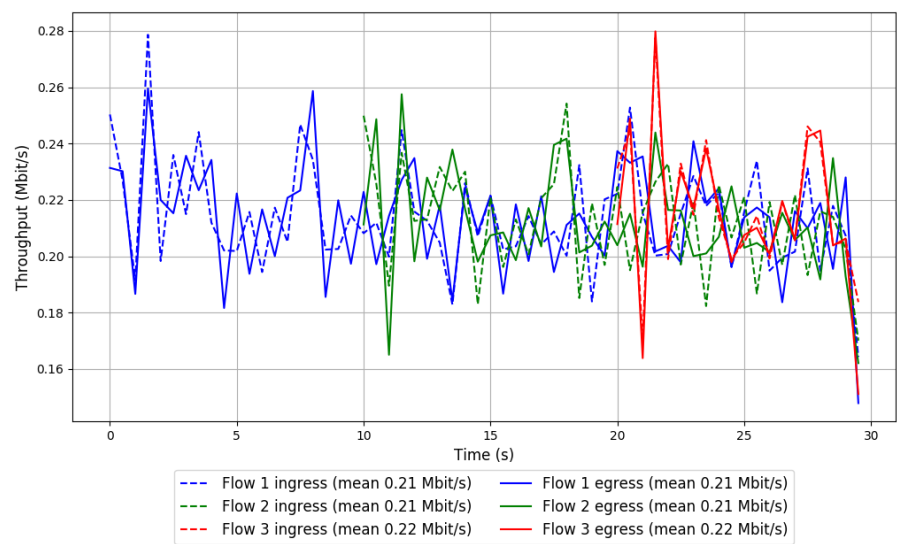
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.188 ms

Loss rate: 1.11%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-07 05:20:01

End at: 2018-03-07 05:20:31

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

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

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.477 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 0.21 Mbit/s

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

Loss rate: 0.63%

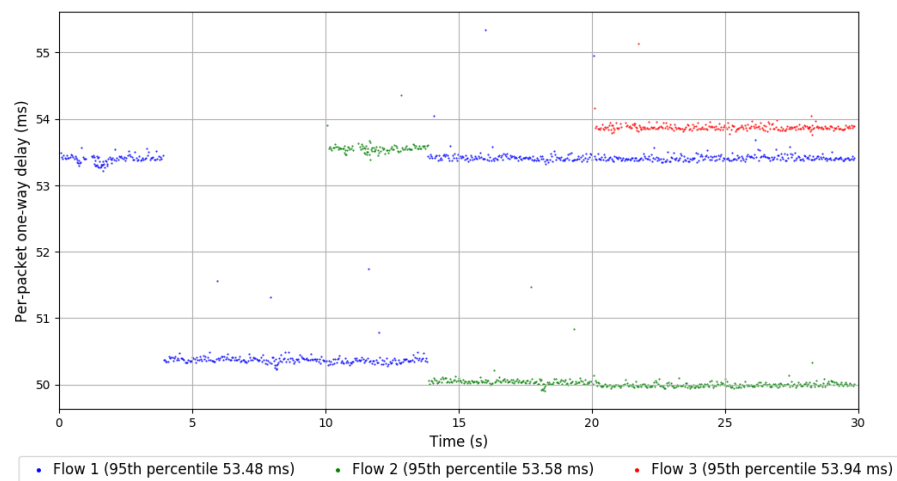
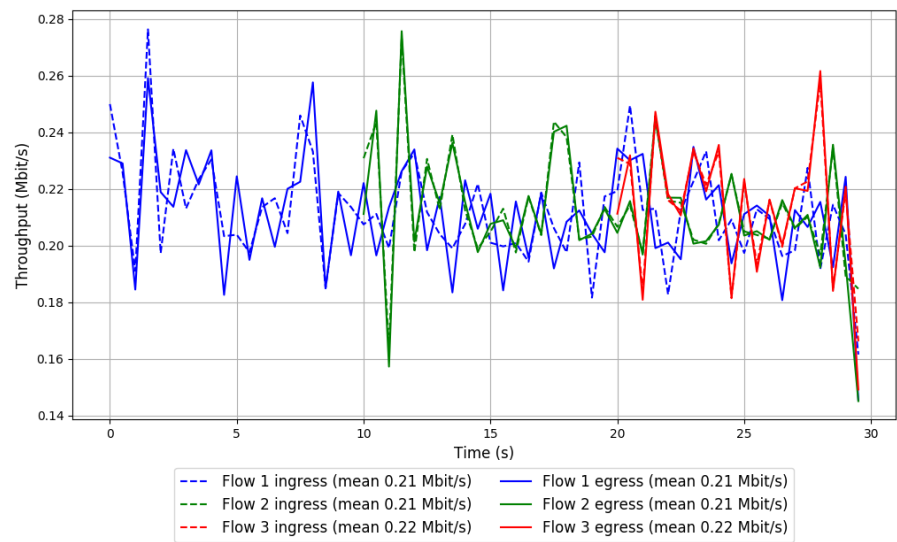
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.76%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SReAM

Start at: 2018-03-07 05:37:23

End at: 2018-03-07 05:37:53

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 54.053 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 54.071 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.816 ms

Loss rate: 0.42%

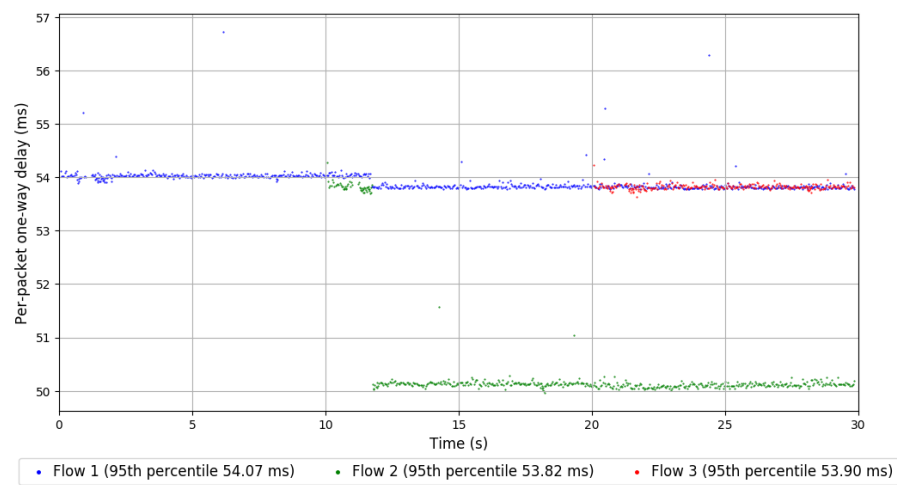
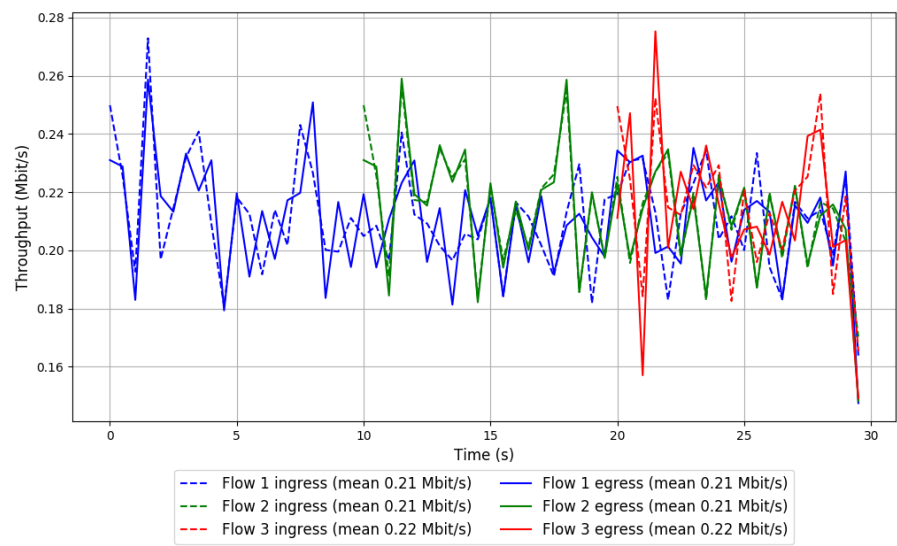
-- Flow 3:

Average throughput: 0.22 Mbit/s

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

Loss rate: 1.11%

Run 9: Report of SReAM — Data Link

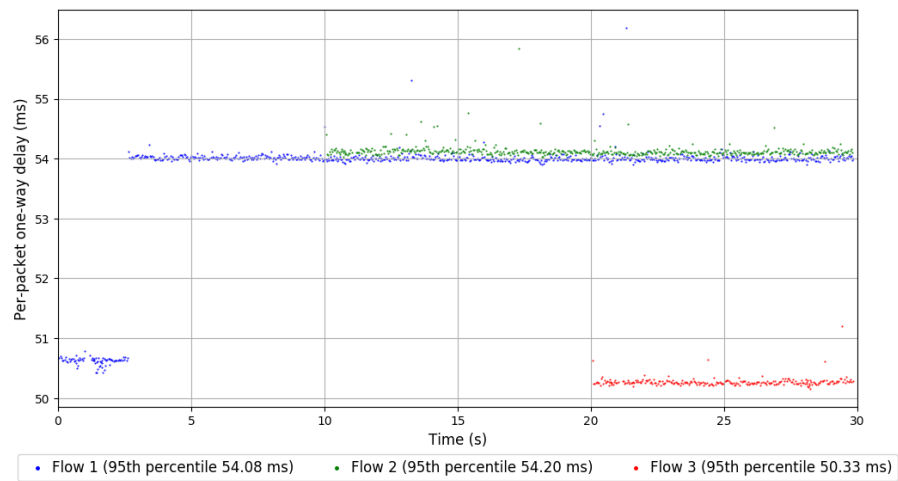
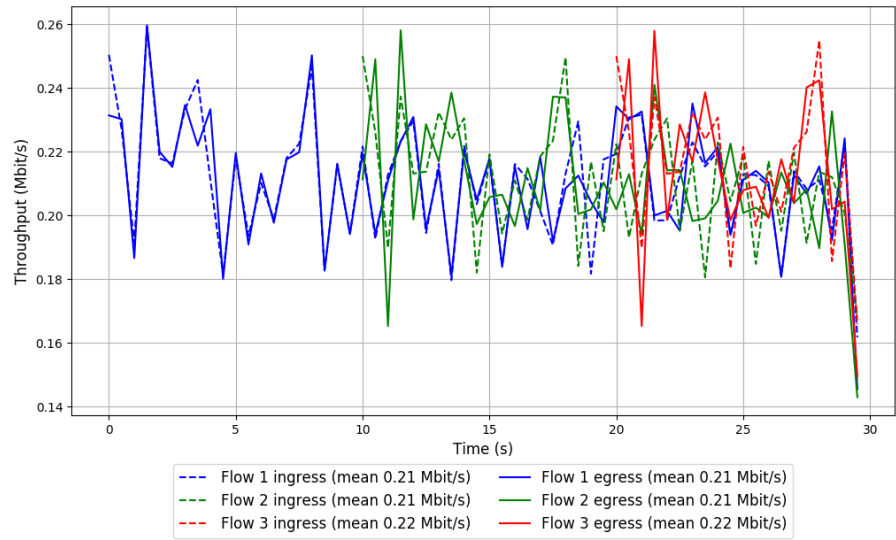


```
Run 10: Statistics of SReAM

Start at: 2018-03-07 05:54:32
End at: 2018-03-07 05:55:02

# Below is generated by plot.py at 2018-03-07 09:43:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 54.157 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.075 ms
Loss rate: 0.25%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.205 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.330 ms
Loss rate: 1.11%
```

Run 10: Report of SReAM — Data Link



Run 1: Statistics of WebRTC media

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

End at: 2018-03-07 03:15:08

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.24 Mbit/s

95th percentile per-packet one-way delay: 53.986 ms

Loss rate: 0.90%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.341 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 54.054 ms

Loss rate: 1.33%

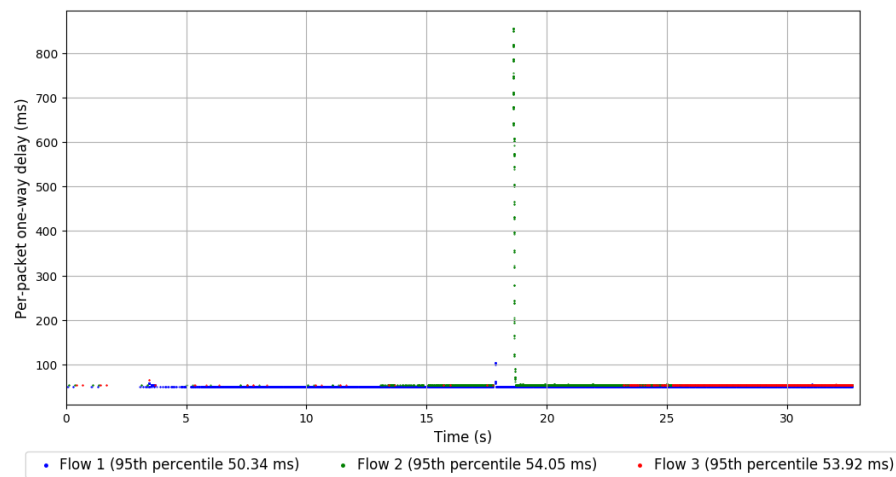
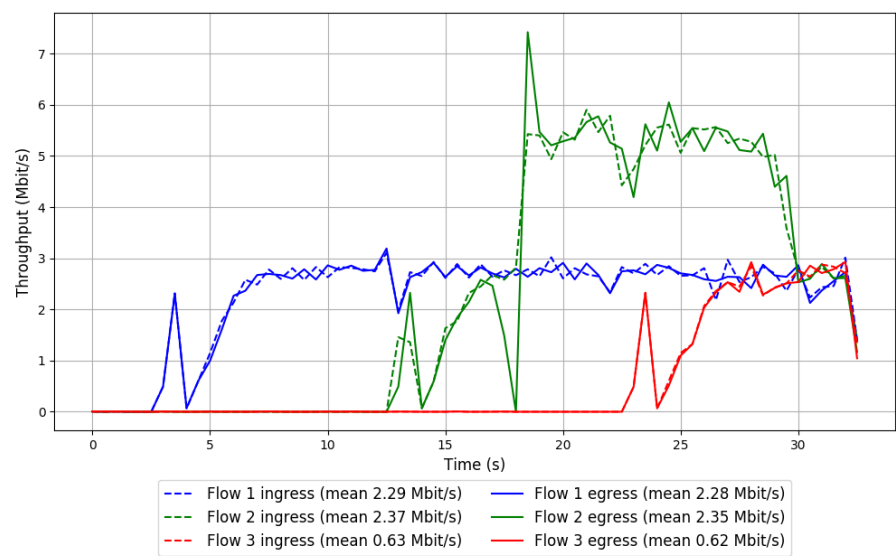
-- Flow 3:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 53.917 ms

Loss rate: 1.28%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-07 03:31:55

End at: 2018-03-07 03:32:25

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.863 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 2.30 Mbit/s

95th percentile per-packet one-way delay: 50.298 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 50.526 ms

Loss rate: 0.51%

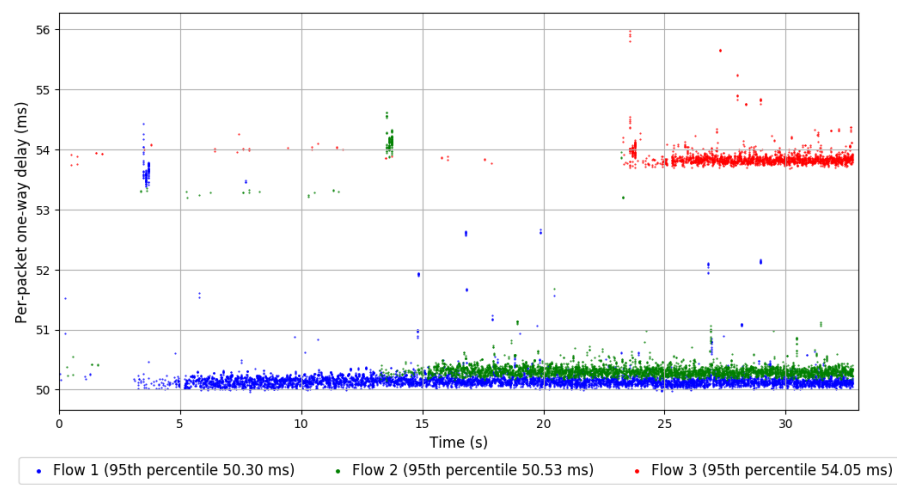
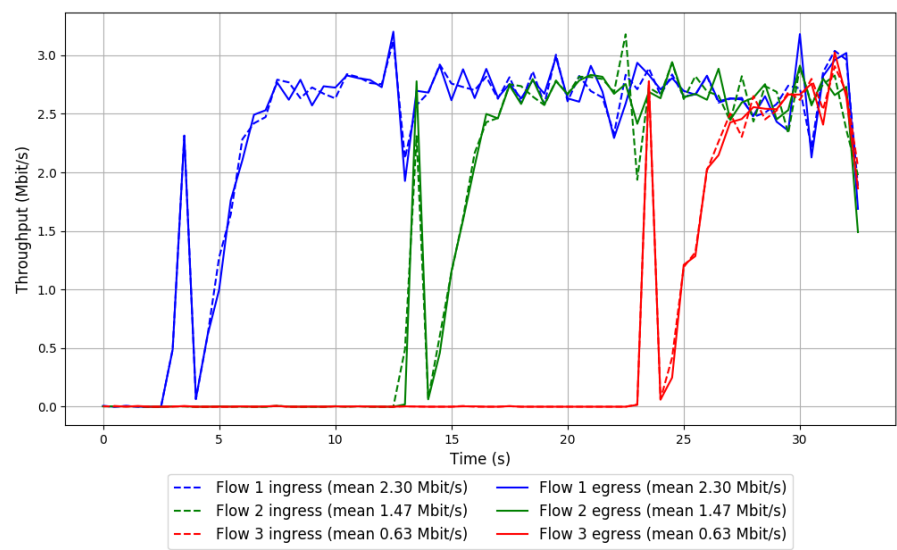
-- Flow 3:

Average throughput: 0.63 Mbit/s

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

Loss rate: 1.13%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-07 03:49:04

End at: 2018-03-07 03:49:34

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

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

Loss rate: 0.58%

-- Flow 1:

Average throughput: 2.29 Mbit/s

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

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 50.323 ms

Loss rate: 0.51%

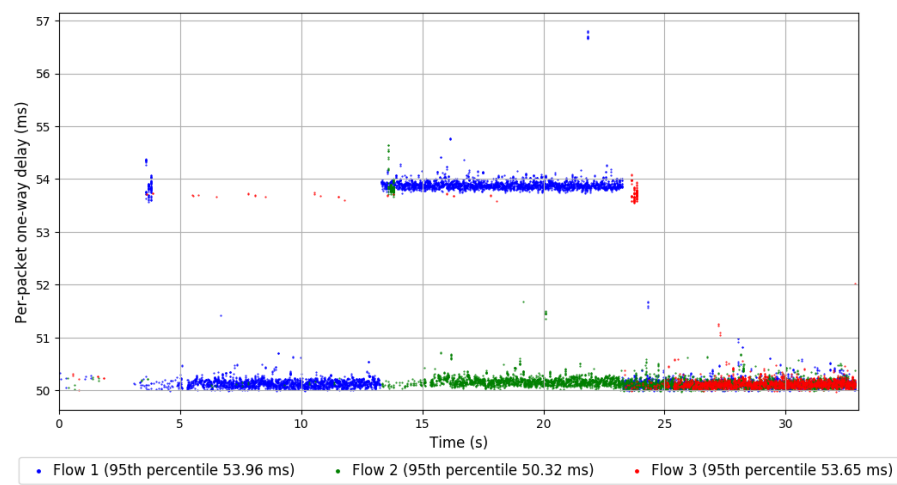
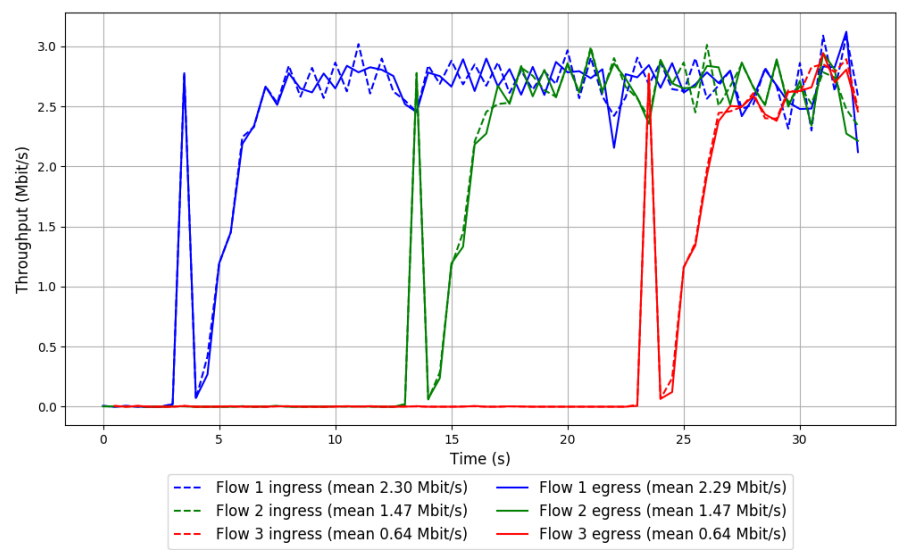
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.646 ms

Loss rate: 1.18%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-07 04:06:19

End at: 2018-03-07 04:06:49

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.34 Mbit/s

95th percentile per-packet one-way delay: 53.769 ms

Loss rate: 0.68%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 50.150 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 1.45 Mbit/s

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

Loss rate: 0.77%

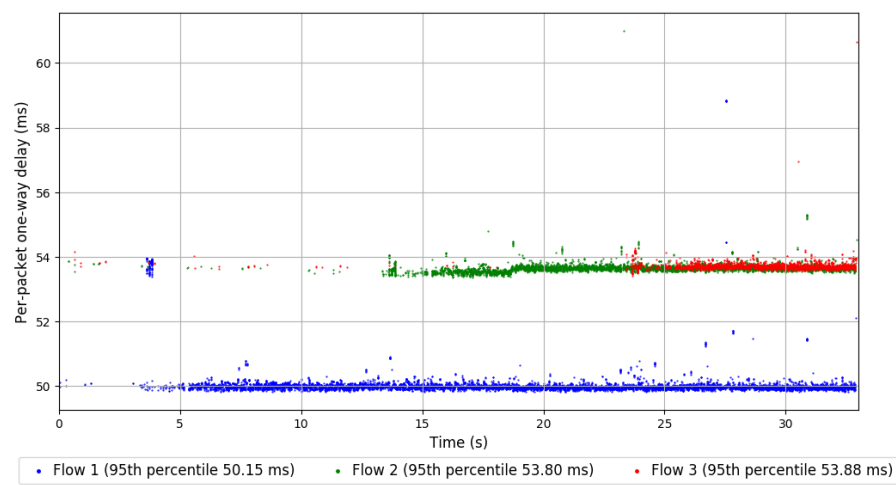
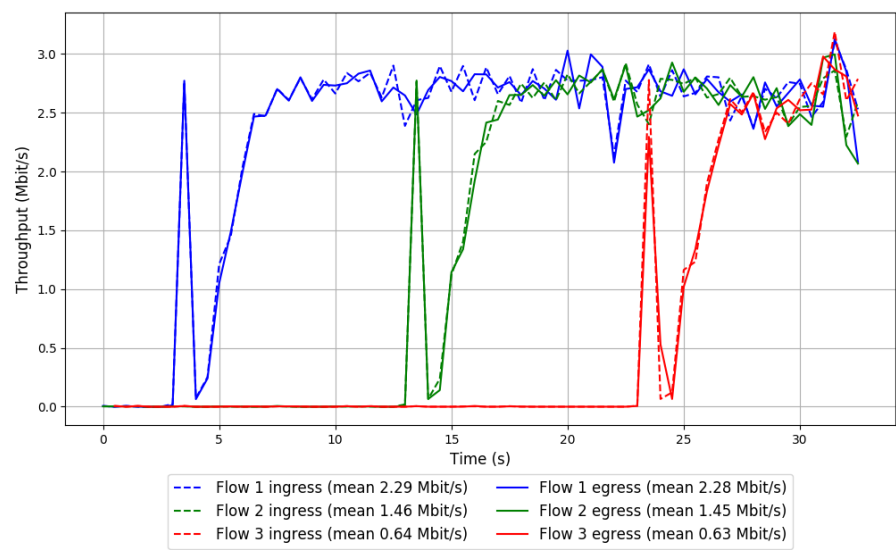
-- Flow 3:

Average throughput: 0.63 Mbit/s

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

Loss rate: 1.36%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-07 04:23:52

End at: 2018-03-07 04:24:22

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 53.737 ms

Loss rate: 0.58%

-- Flow 1:

Average throughput: 2.27 Mbit/s

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

Loss rate: 0.44%

-- Flow 2:

Average throughput: 1.45 Mbit/s

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

Loss rate: 0.48%

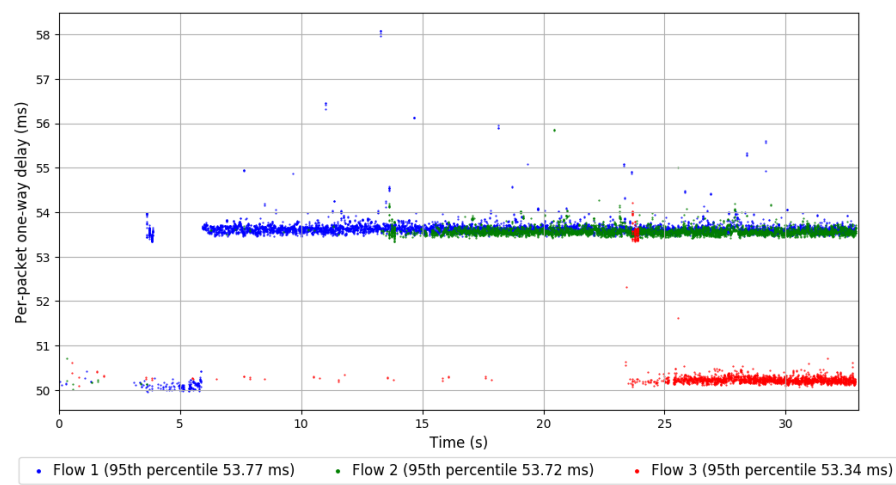
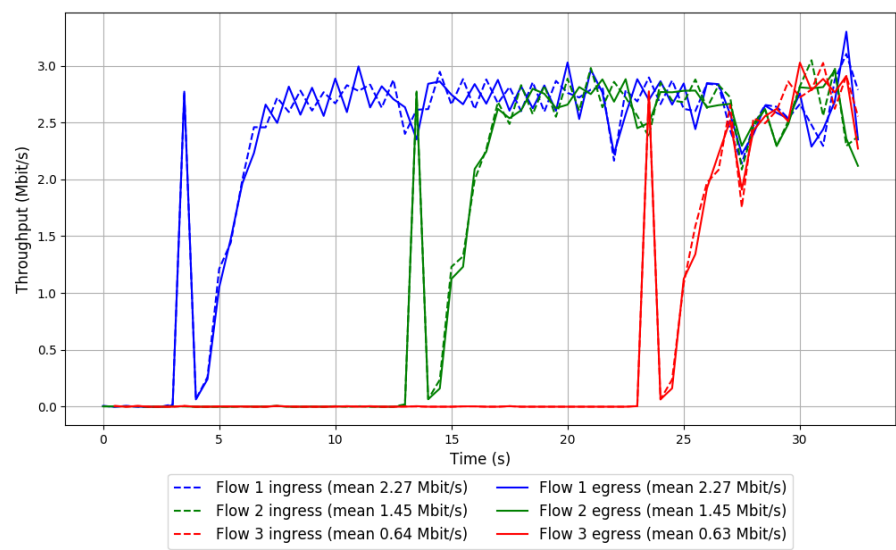
-- Flow 3:

Average throughput: 0.63 Mbit/s

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

Loss rate: 1.28%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-07 04:40:41

End at: 2018-03-07 04:41:11

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.759 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 2.29 Mbit/s

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

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.774 ms

Loss rate: 0.75%

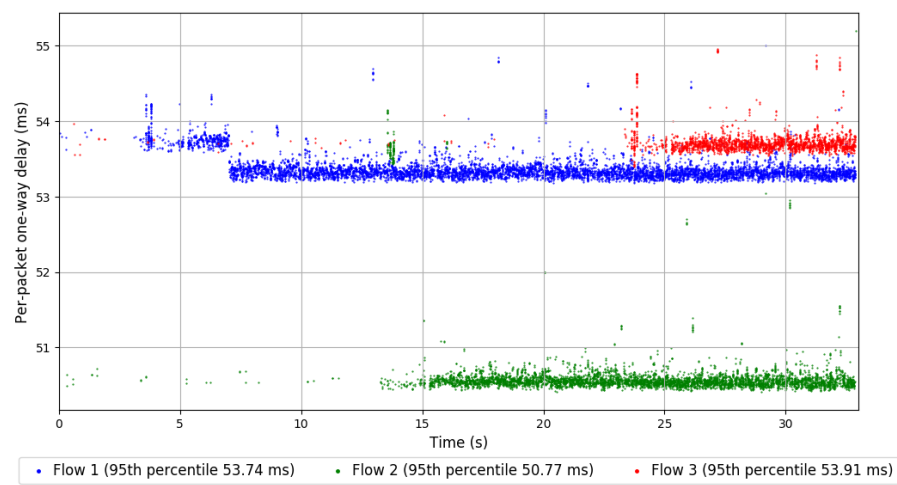
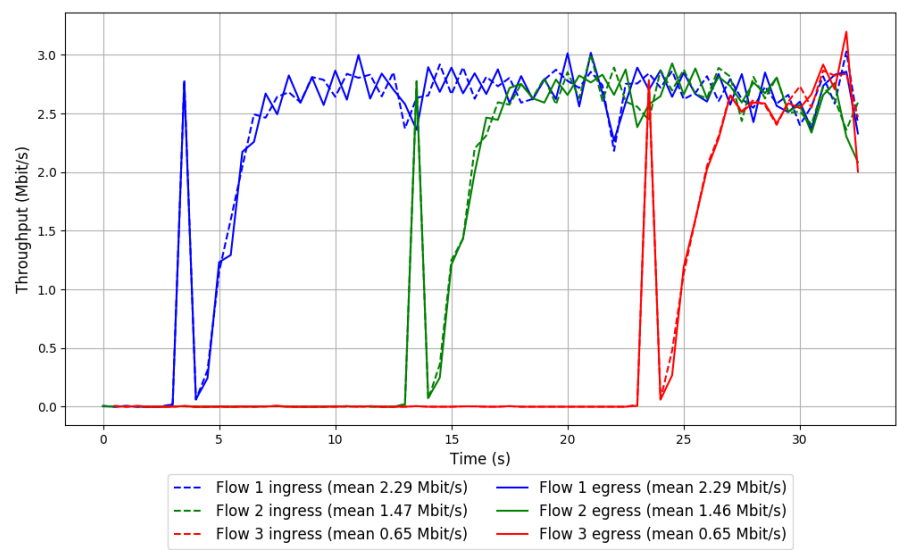
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 53.914 ms

Loss rate: 1.10%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-07 04:57:39

End at: 2018-03-07 04:58:09

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 53.850 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 2.28 Mbit/s

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

Loss rate: 0.31%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 53.821 ms

Loss rate: 0.51%

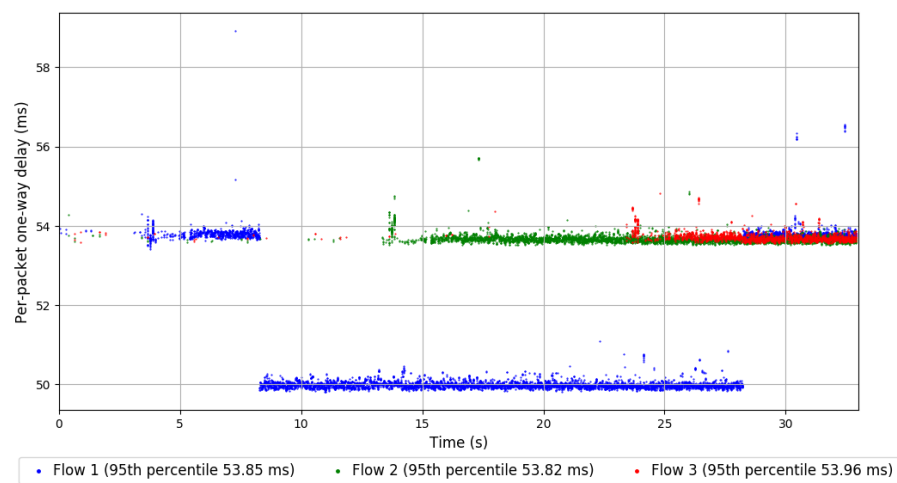
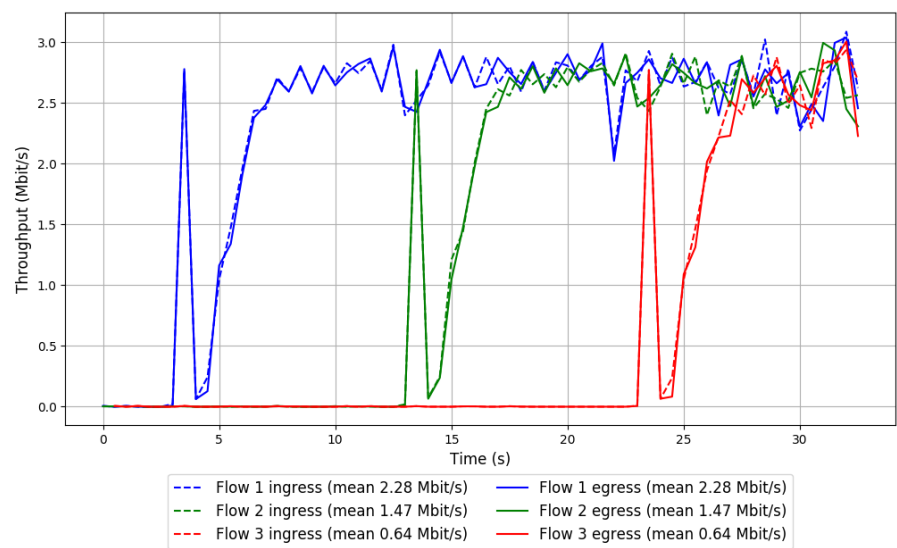
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.956 ms

Loss rate: 1.48%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-07 05:14:42

End at: 2018-03-07 05:15:12

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.39 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.911 ms

Loss rate: 0.46%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 50.166 ms

Loss rate: 0.51%

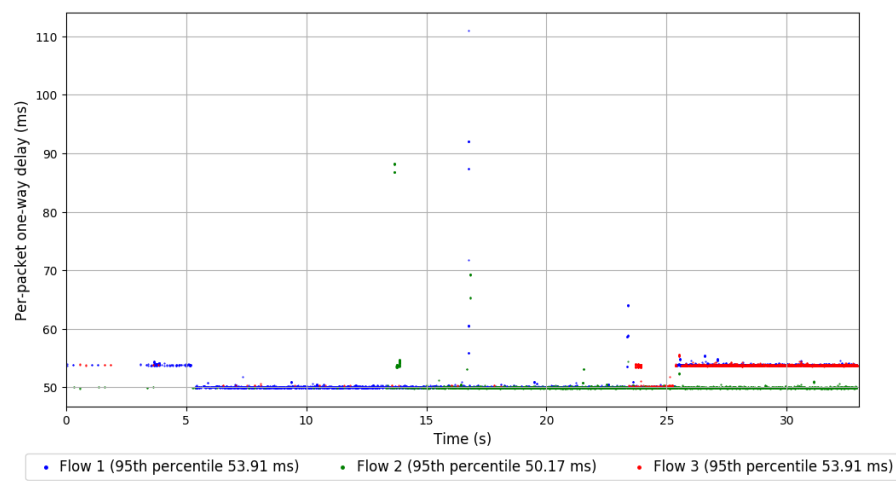
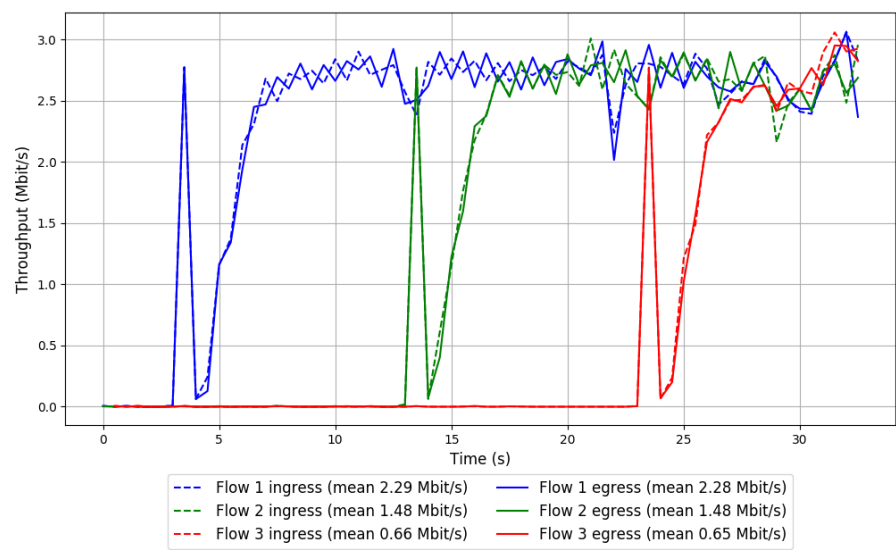
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 53.911 ms

Loss rate: 1.02%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-07 05:31:57

End at: 2018-03-07 05:32:27

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

95th percentile per-packet one-way delay: 53.811 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.857 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.308 ms

Loss rate: 0.77%

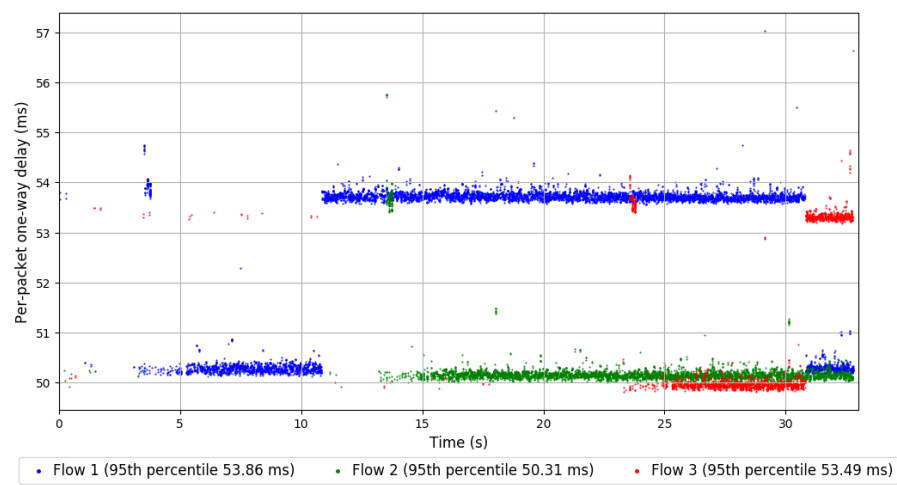
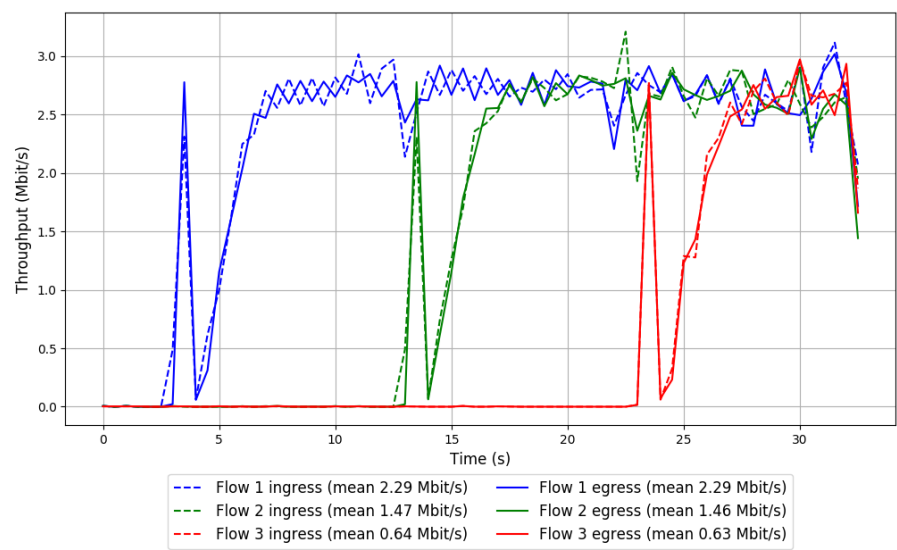
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.488 ms

Loss rate: 1.11%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-07 05:49:10

End at: 2018-03-07 05:49:40

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 50.753 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 50.371 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 50.397 ms

Loss rate: 0.66%

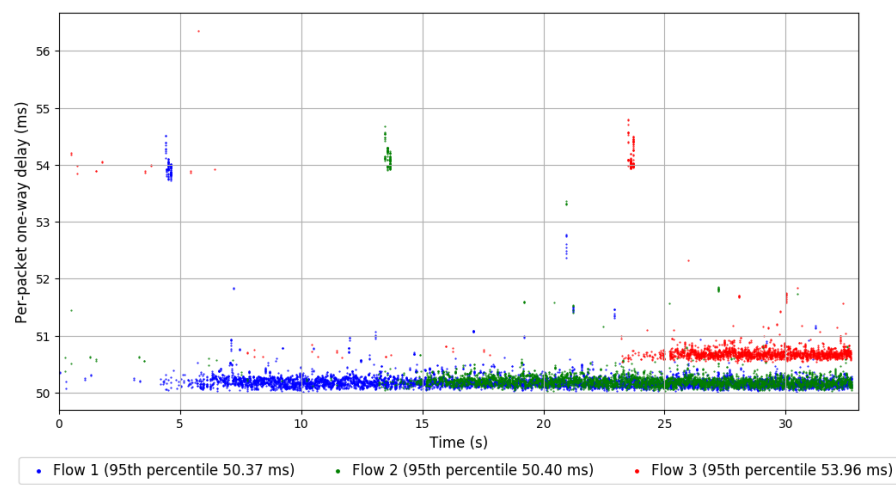
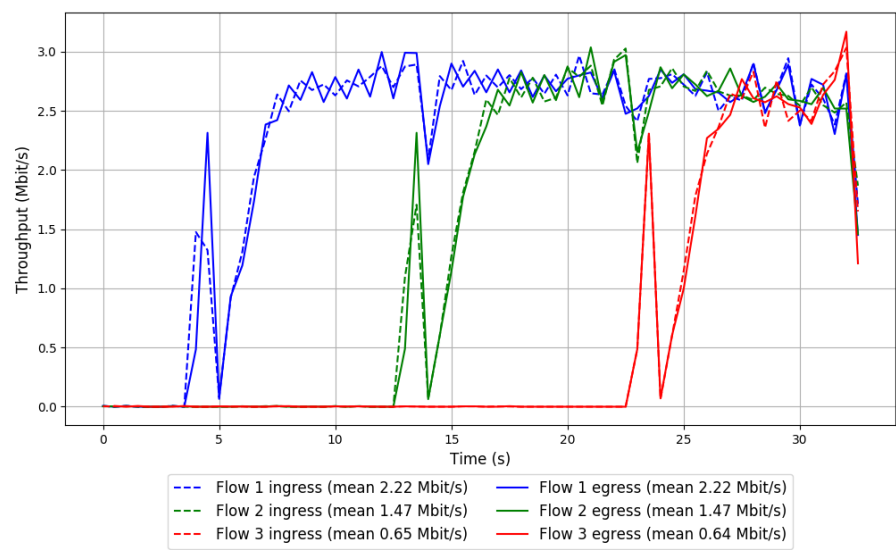
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.964 ms

Loss rate: 1.64%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-07 03:20:50

End at: 2018-03-07 03:21:20

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.33 Mbit/s

95th percentile per-packet one-way delay: 55.004 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 54.890 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 55.028 ms

Loss rate: 0.64%

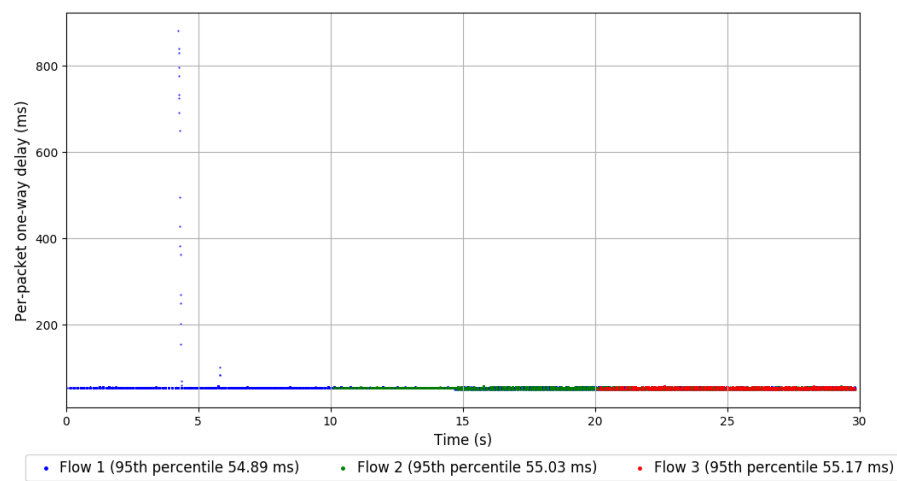
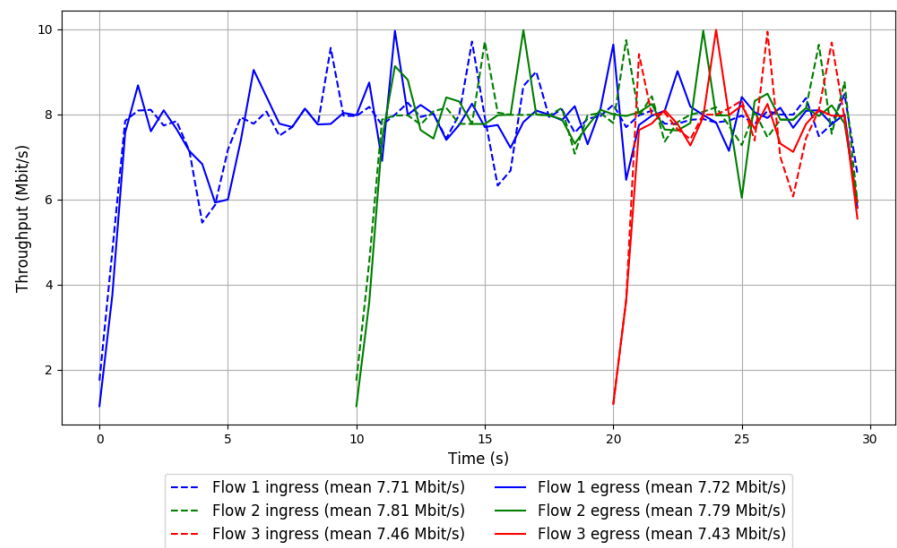
-- Flow 3:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 55.175 ms

Loss rate: 1.30%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-07 03:37:55

End at: 2018-03-07 03:38:25

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.12 Mbit/s

95th percentile per-packet one-way delay: 54.957 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 7.67 Mbit/s

95th percentile per-packet one-way delay: 54.952 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.65 Mbit/s

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

Loss rate: 0.04%

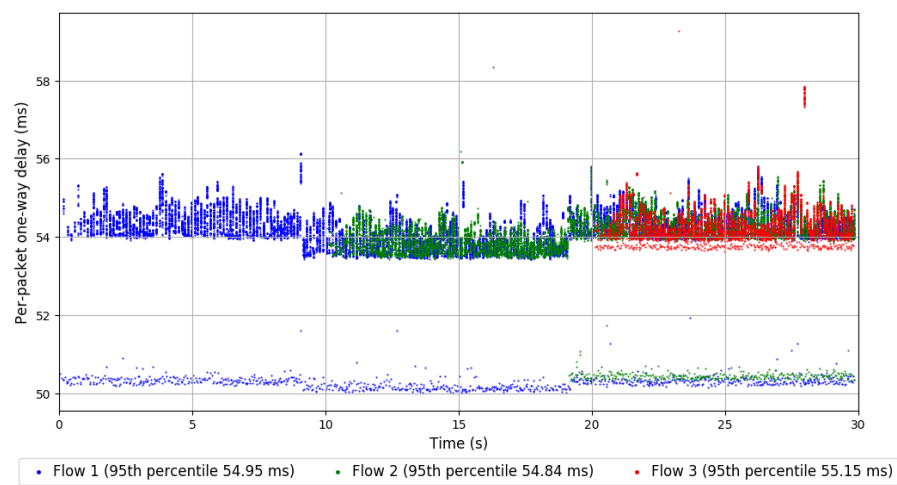
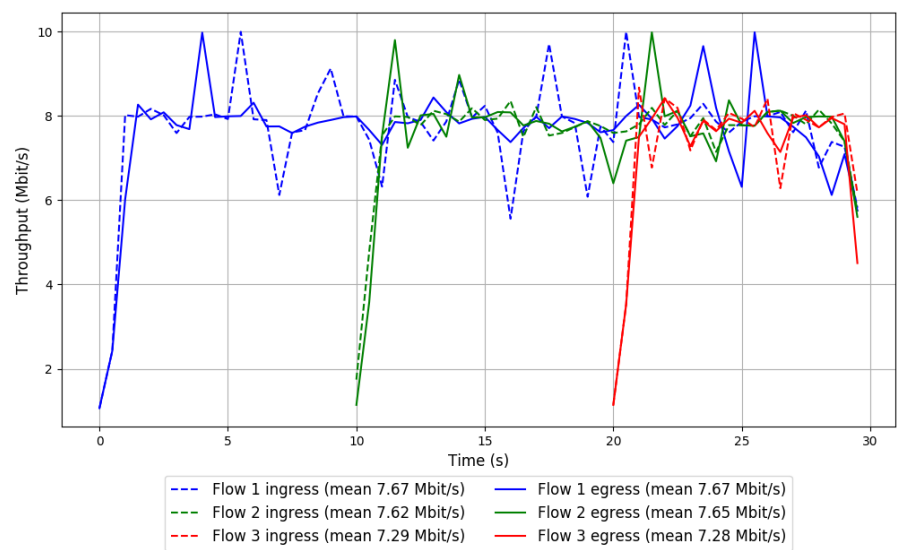
-- Flow 3:

Average throughput: 7.28 Mbit/s

95th percentile per-packet one-way delay: 55.147 ms

Loss rate: 1.35%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

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

End at: 2018-03-07 03:55:37

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.40 Mbit/s

95th percentile per-packet one-way delay: 54.750 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 7.79 Mbit/s

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

Loss rate: 0.42%

-- Flow 2:

Average throughput: 7.79 Mbit/s

95th percentile per-packet one-way delay: 54.657 ms

Loss rate: 0.60%

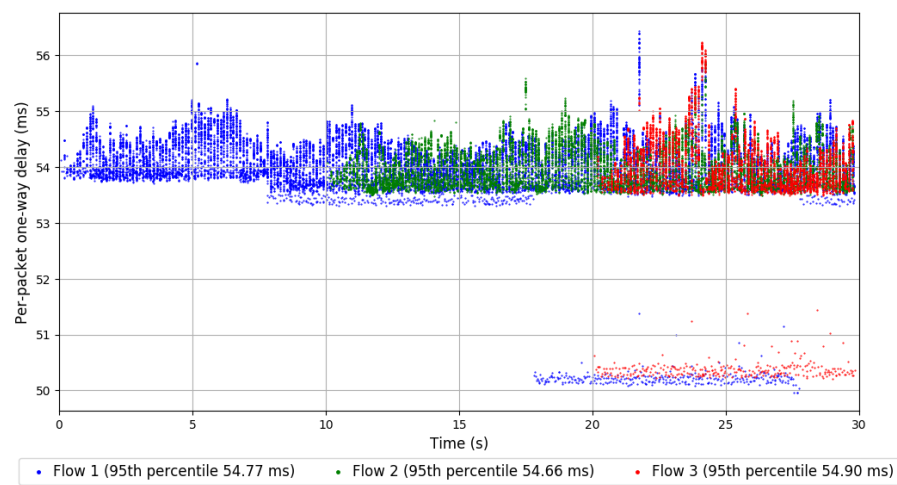
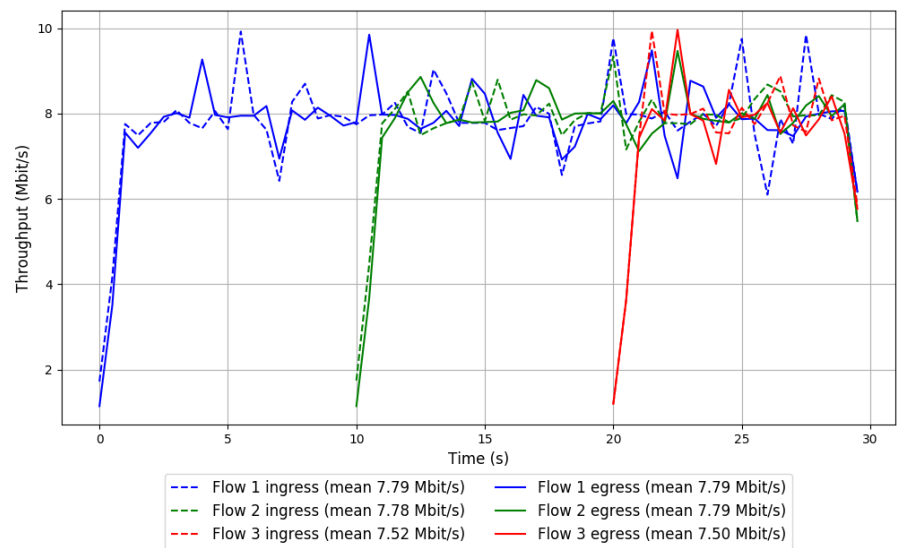
-- Flow 3:

Average throughput: 7.50 Mbit/s

95th percentile per-packet one-way delay: 54.900 ms

Loss rate: 1.28%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-07 04:12:25

End at: 2018-03-07 04:12:55

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.15 Mbit/s

95th percentile per-packet one-way delay: 54.636 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 54.643 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 7.46 Mbit/s

95th percentile per-packet one-way delay: 54.597 ms

Loss rate: 0.53%

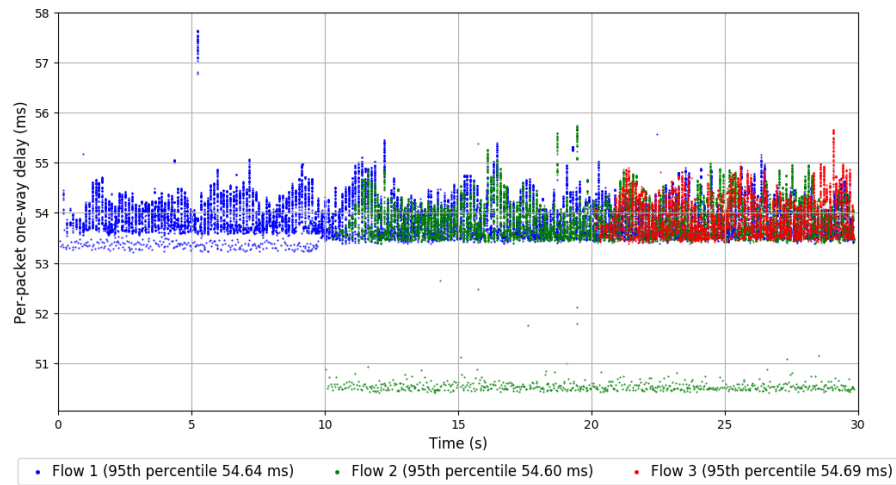
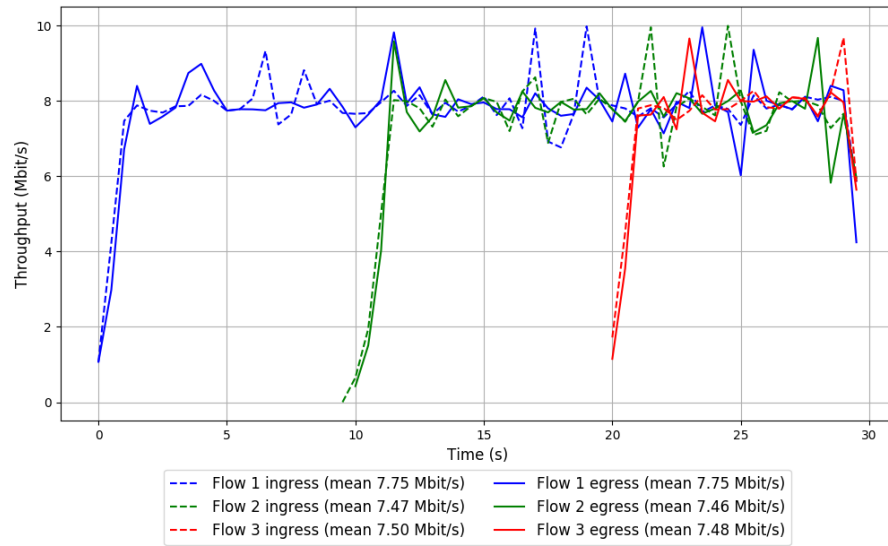
-- Flow 3:

Average throughput: 7.48 Mbit/s

95th percentile per-packet one-way delay: 54.688 ms

Loss rate: 1.30%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-07 04:29:50

End at: 2018-03-07 04:30:20

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.30 Mbit/s

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

Loss rate: 0.47%

-- Flow 1:

Average throughput: 7.68 Mbit/s

95th percentile per-packet one-way delay: 54.759 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 54.721 ms

Loss rate: 0.13%

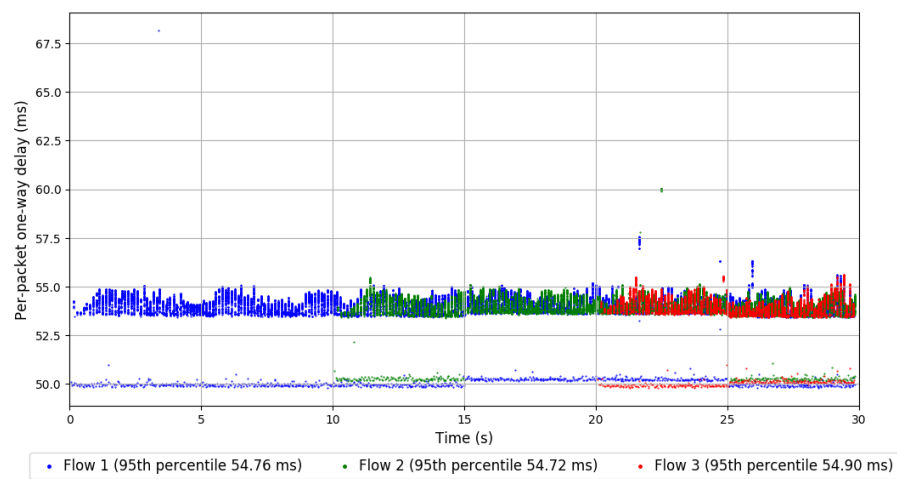
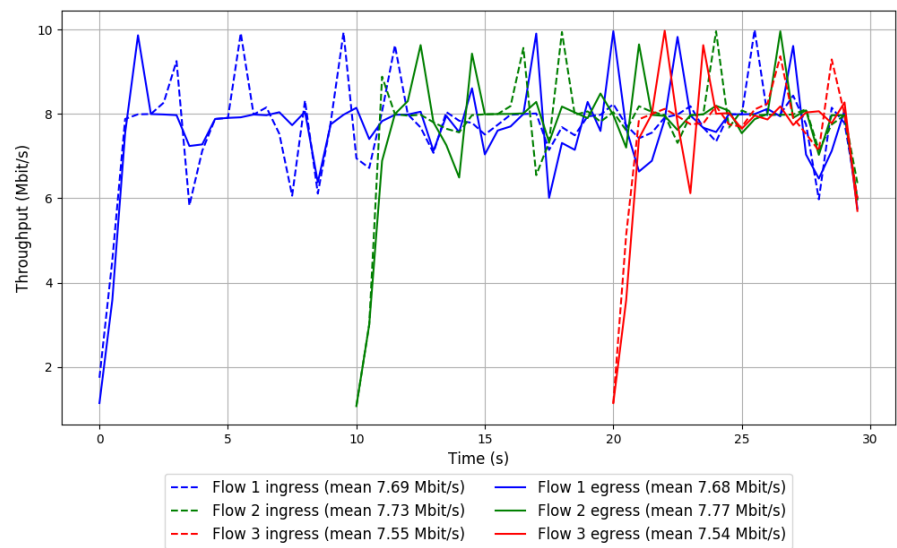
-- Flow 3:

Average throughput: 7.54 Mbit/s

95th percentile per-packet one-way delay: 54.903 ms

Loss rate: 1.35%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-07 04:46:43

End at: 2018-03-07 04:47:13

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.91 Mbit/s

95th percentile per-packet one-way delay: 54.875 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 54.899 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 7.39 Mbit/s

95th percentile per-packet one-way delay: 54.818 ms

Loss rate: 0.74%

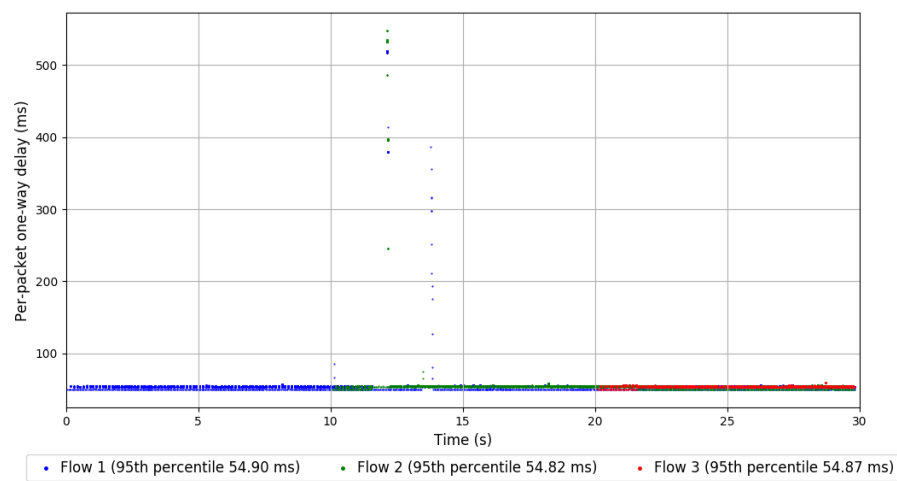
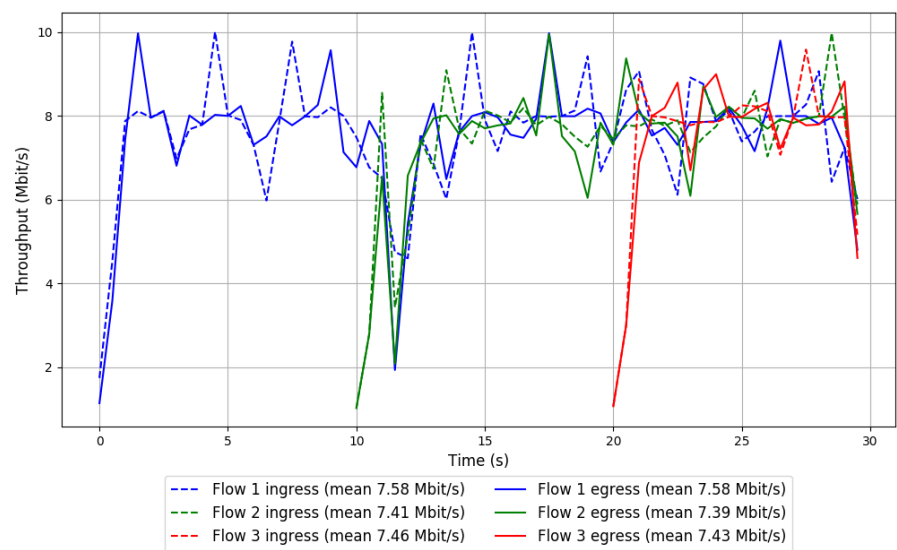
-- Flow 3:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 54.870 ms

Loss rate: 1.07%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-07 05:03:40

End at: 2018-03-07 05:04:10

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.21 Mbit/s

95th percentile per-packet one-way delay: 55.012 ms

Loss rate: 0.35%

-- Flow 1:

Average throughput: 7.72 Mbit/s

95th percentile per-packet one-way delay: 54.927 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 7.61 Mbit/s

95th percentile per-packet one-way delay: 55.138 ms

Loss rate: 0.00%

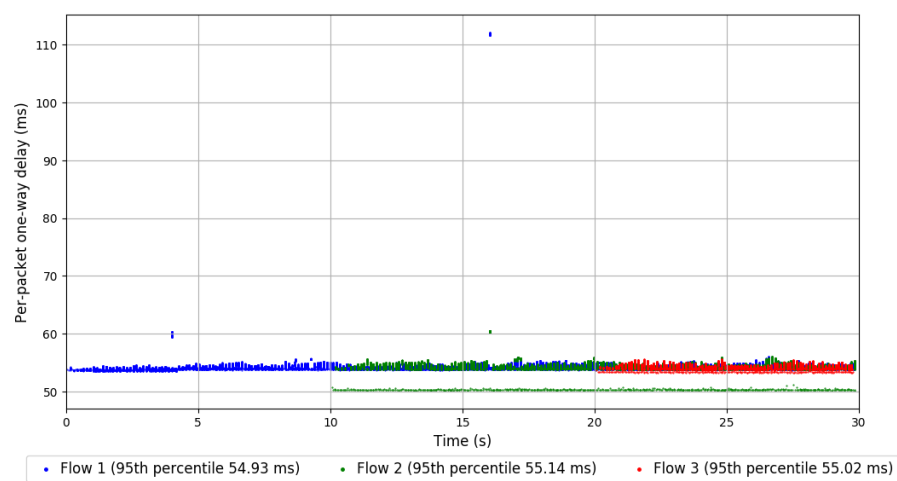
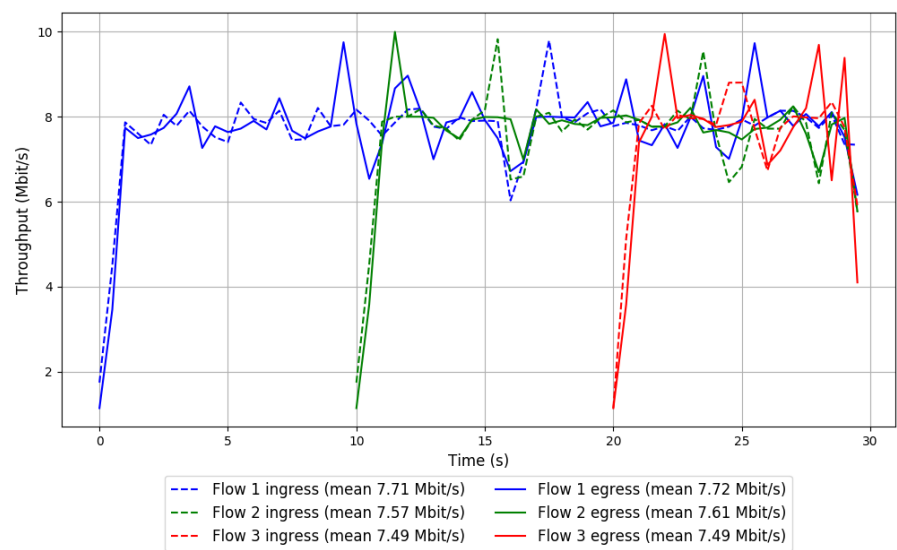
-- Flow 3:

Average throughput: 7.49 Mbit/s

95th percentile per-packet one-way delay: 55.018 ms

Loss rate: 1.37%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-07 05:20:40

End at: 2018-03-07 05:21:10

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.25 Mbit/s

95th percentile per-packet one-way delay: 54.792 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 54.781 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 7.51 Mbit/s

95th percentile per-packet one-way delay: 54.709 ms

Loss rate: 0.74%

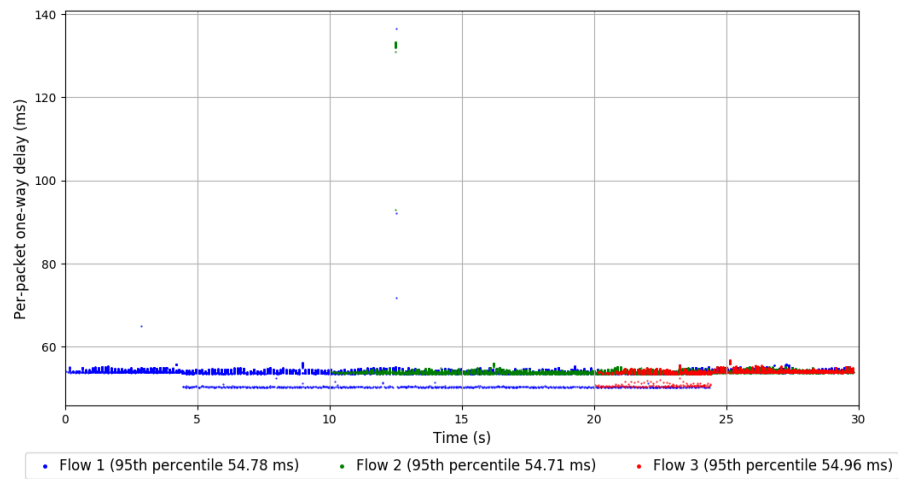
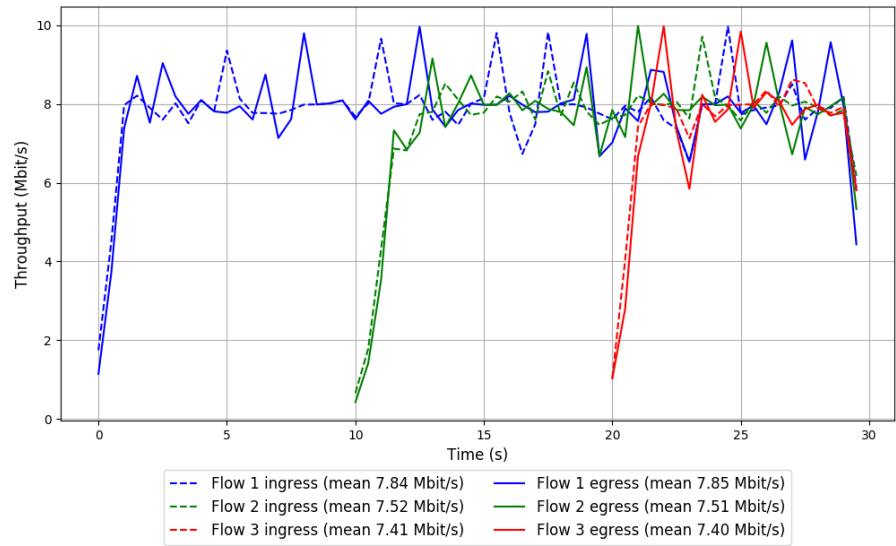
-- Flow 3:

Average throughput: 7.40 Mbit/s

95th percentile per-packet one-way delay: 54.962 ms

Loss rate: 1.32%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-07 05:38:02

End at: 2018-03-07 05:38:32

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.38 Mbit/s

95th percentile per-packet one-way delay: 55.061 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 7.85 Mbit/s

95th percentile per-packet one-way delay: 55.108 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 7.69 Mbit/s

95th percentile per-packet one-way delay: 54.997 ms

Loss rate: 0.61%

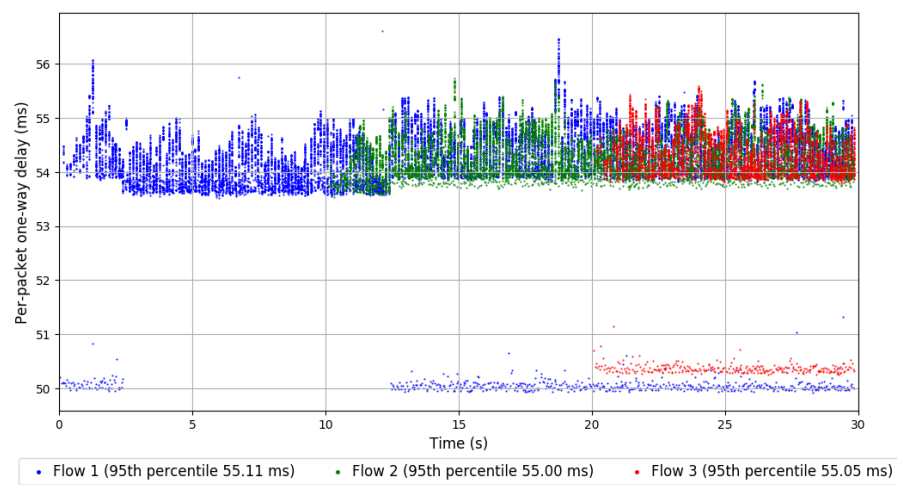
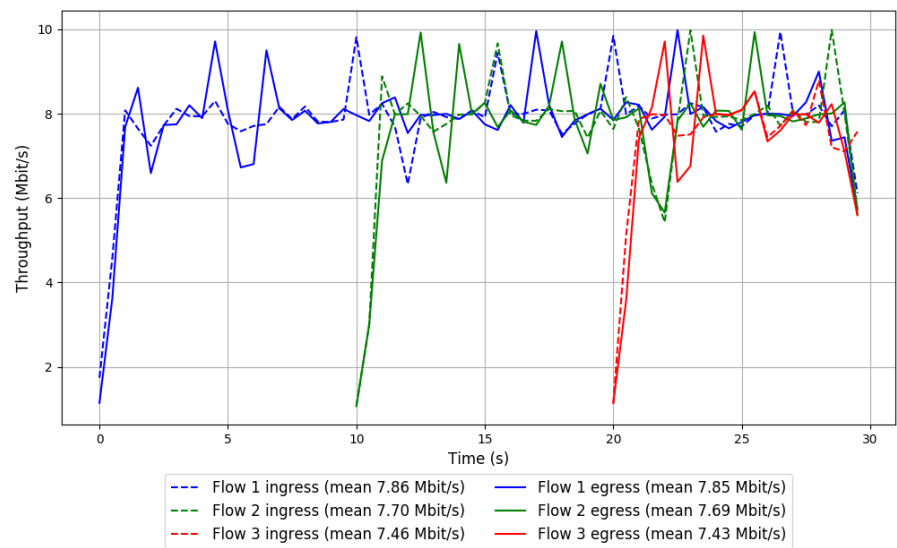
-- Flow 3:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 55.055 ms

Loss rate: 1.35%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-07 05:55:11

End at: 2018-03-07 05:55:41

Below is generated by plot.py at 2018-03-07 09:43:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.34 Mbit/s

95th percentile per-packet one-way delay: 55.224 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 7.90 Mbit/s

95th percentile per-packet one-way delay: 55.231 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 7.55 Mbit/s

95th percentile per-packet one-way delay: 55.197 ms

Loss rate: 0.06%

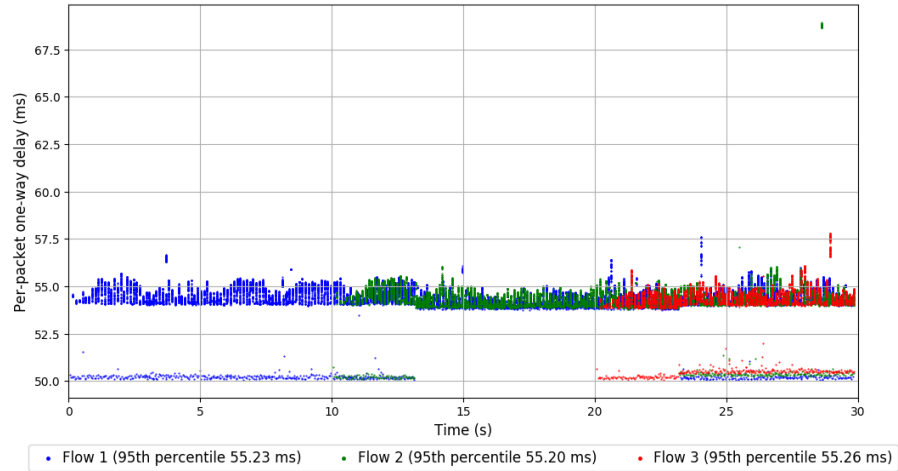
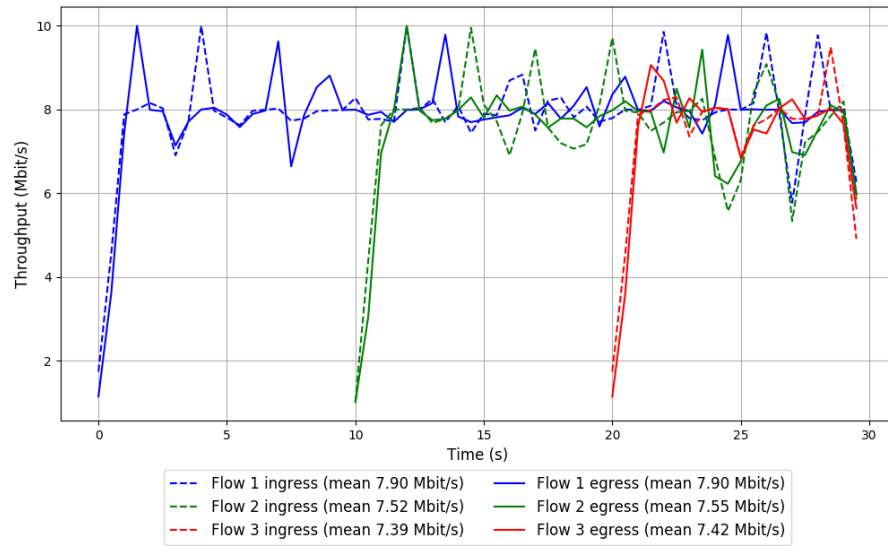
-- Flow 3:

Average throughput: 7.42 Mbit/s

95th percentile per-packet one-way delay: 55.258 ms

Loss rate: 0.48%

Run 10: Report of Sprout — Data Link

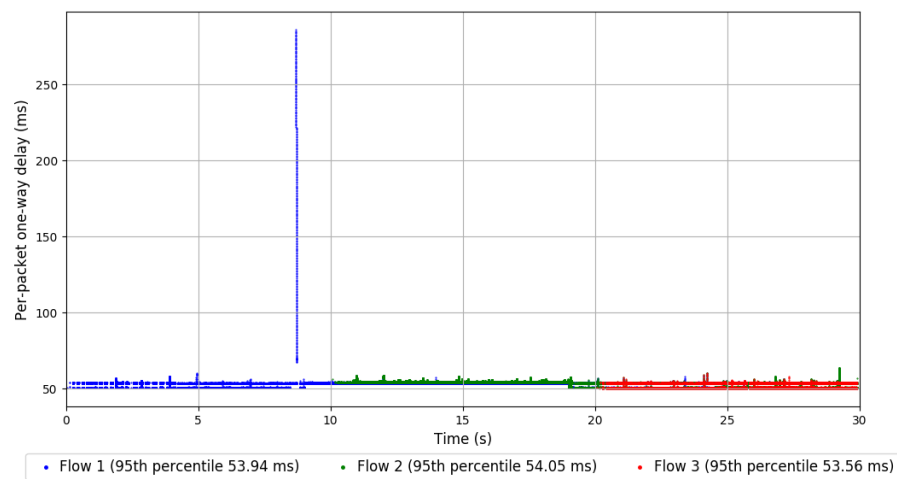
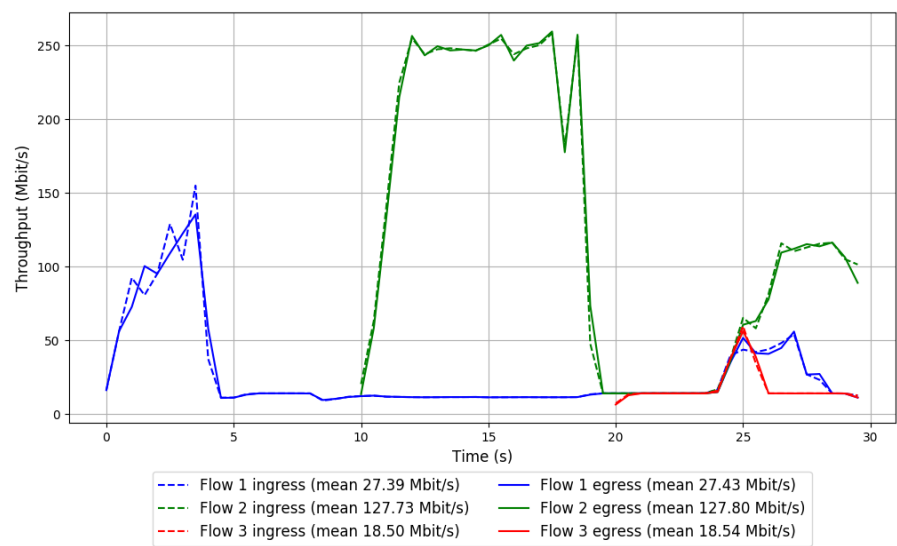


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-07 03:26:46
End at: 2018-03-07 03:27:16

# Below is generated by plot.py at 2018-03-07 09:43:49
# Datalink statistics
-- Total of 3 flows:
Average throughput: 118.45 Mbit/s
95th percentile per-packet one-way delay: 54.028 ms
Loss rate: 0.42%
-- Flow 1:
Average throughput: 27.43 Mbit/s
95th percentile per-packet one-way delay: 53.938 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 127.80 Mbit/s
95th percentile per-packet one-way delay: 54.048 ms
Loss rate: 0.46%
-- Flow 3:
Average throughput: 18.54 Mbit/s
95th percentile per-packet one-way delay: 53.557 ms
Loss rate: 0.80%
```


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

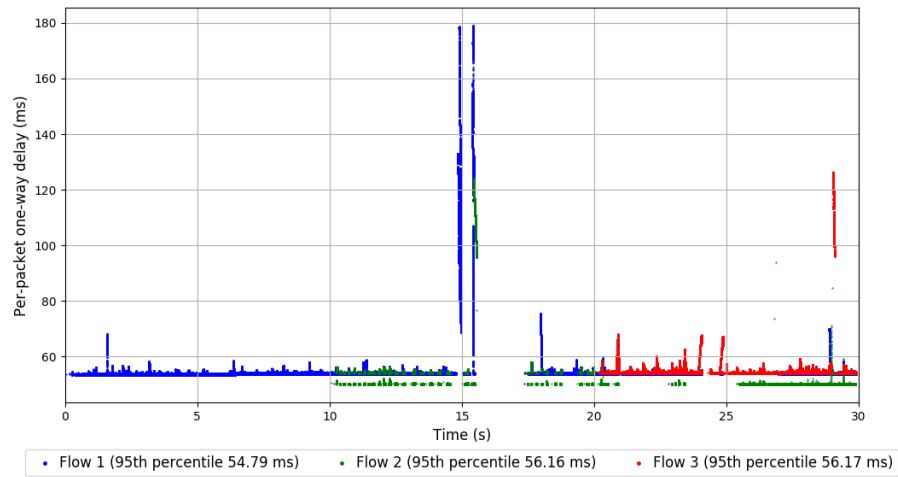
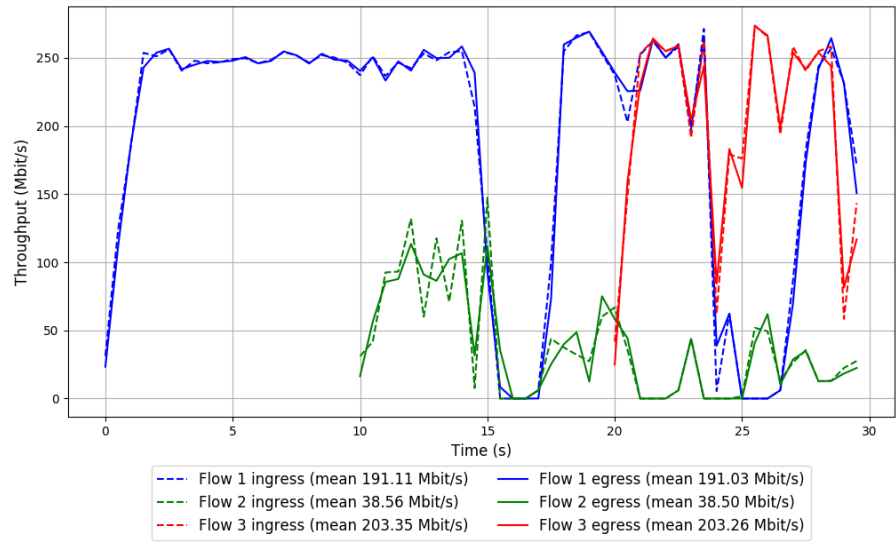


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-07 03:43:38
End at: 2018-03-07 03:44:08

# Below is generated by plot.py at 2018-03-07 09:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 283.51 Mbit/s
95th percentile per-packet one-way delay: 55.311 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 191.03 Mbit/s
95th percentile per-packet one-way delay: 54.786 ms
Loss rate: 0.39%
-- Flow 2:
Average throughput: 38.50 Mbit/s
95th percentile per-packet one-way delay: 56.162 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 203.26 Mbit/s
95th percentile per-packet one-way delay: 56.171 ms
Loss rate: 1.11%
```

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

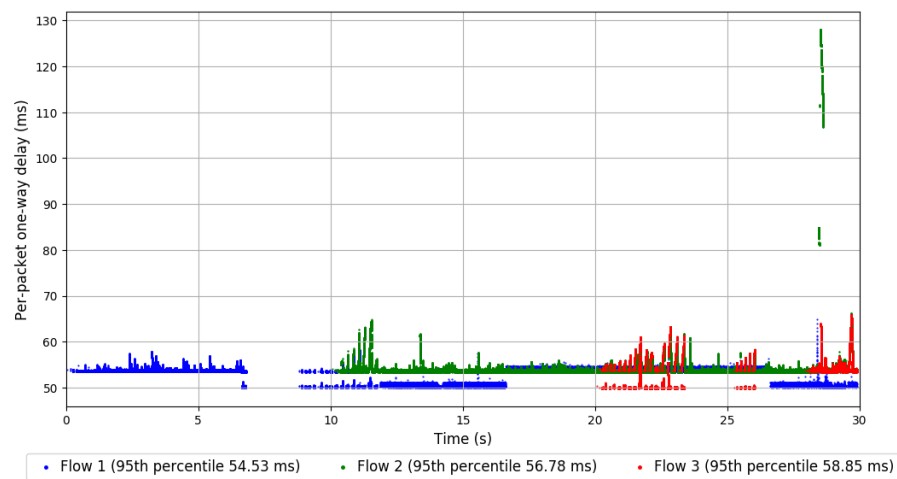
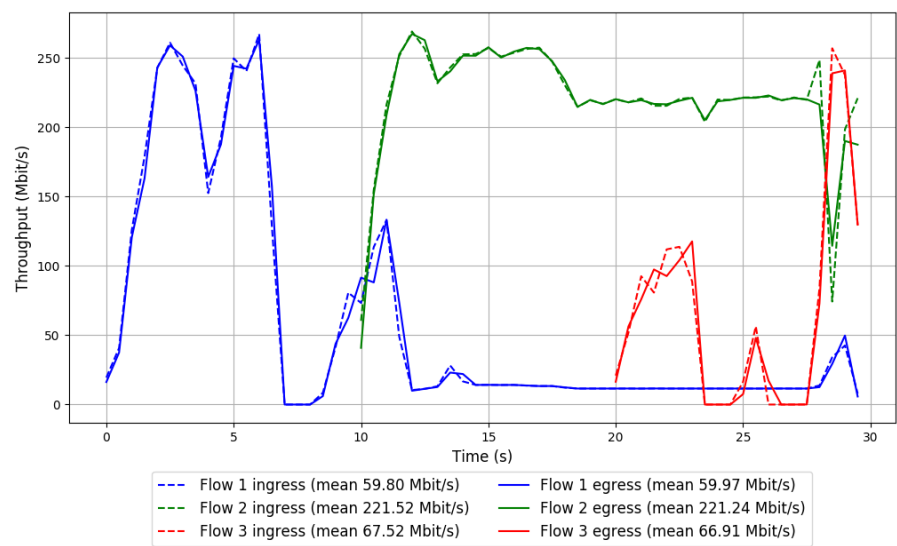


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-07 04:00:58
End at: 2018-03-07 04:01:28

# Below is generated by plot.py at 2018-03-07 09:48:47
# Datalink statistics
-- Total of 3 flows:
Average throughput: 229.08 Mbit/s
95th percentile per-packet one-way delay: 56.583 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 59.97 Mbit/s
95th percentile per-packet one-way delay: 54.529 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 221.24 Mbit/s
95th percentile per-packet one-way delay: 56.785 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 66.91 Mbit/s
95th percentile per-packet one-way delay: 58.855 ms
Loss rate: 1.91%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-07 04:18:29

End at: 2018-03-07 04:18:59

Below is generated by plot.py at 2018-03-07 09:48:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 215.03 Mbit/s

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

Loss rate: 0.62%

-- Flow 1:

Average throughput: 84.19 Mbit/s

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

Loss rate: 0.50%

-- Flow 2:

Average throughput: 130.61 Mbit/s

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

Loss rate: 0.14%

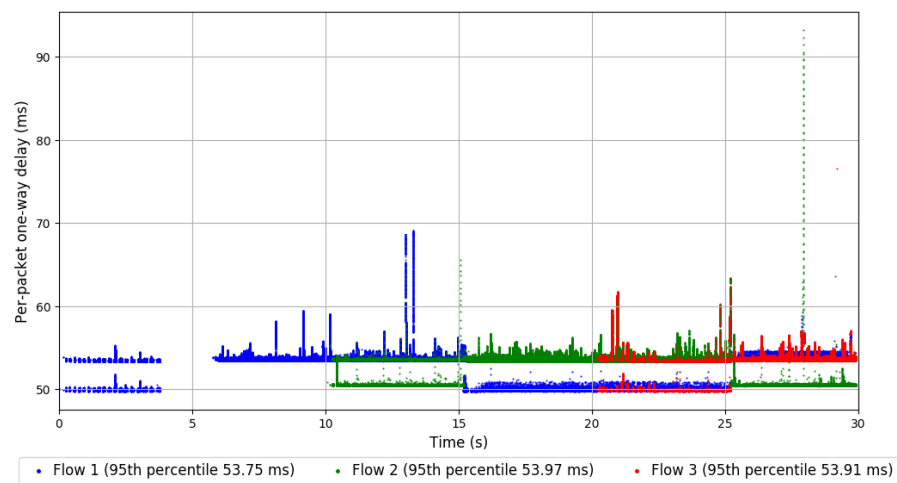
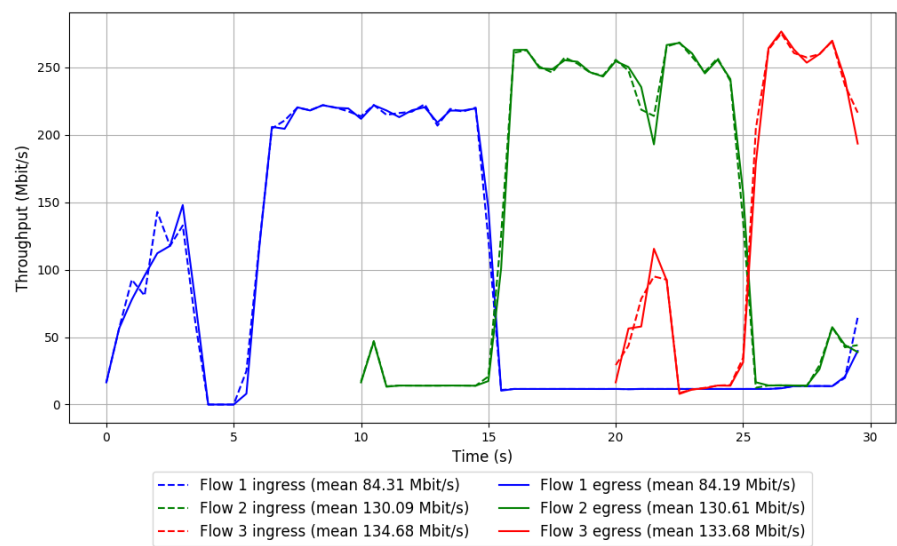
-- Flow 3:

Average throughput: 133.68 Mbit/s

95th percentile per-packet one-way delay: 53.909 ms

Loss rate: 1.78%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-07 04:35:34

End at: 2018-03-07 04:36:04

Below is generated by plot.py at 2018-03-07 09:48:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 32.85 Mbit/s

95th percentile per-packet one-way delay: 53.680 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 17.46 Mbit/s

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

Loss rate: 0.28%

-- Flow 2:

Average throughput: 16.49 Mbit/s

95th percentile per-packet one-way delay: 53.689 ms

Loss rate: 0.37%

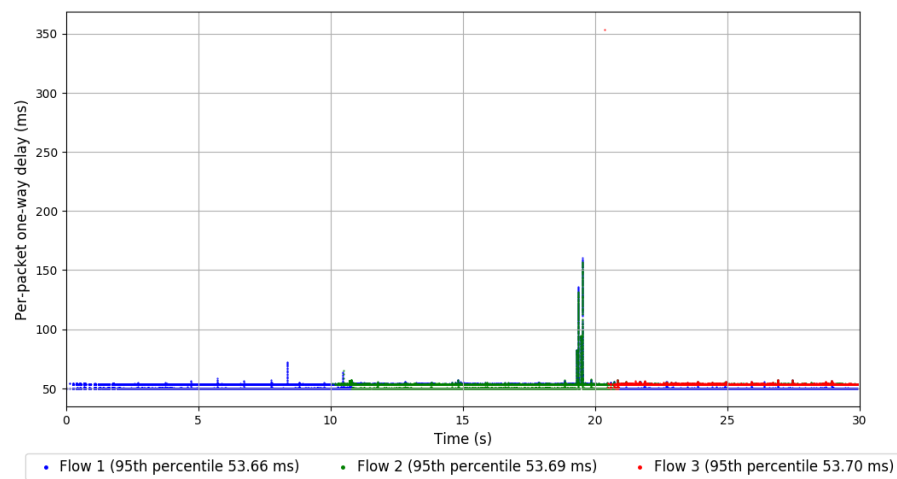
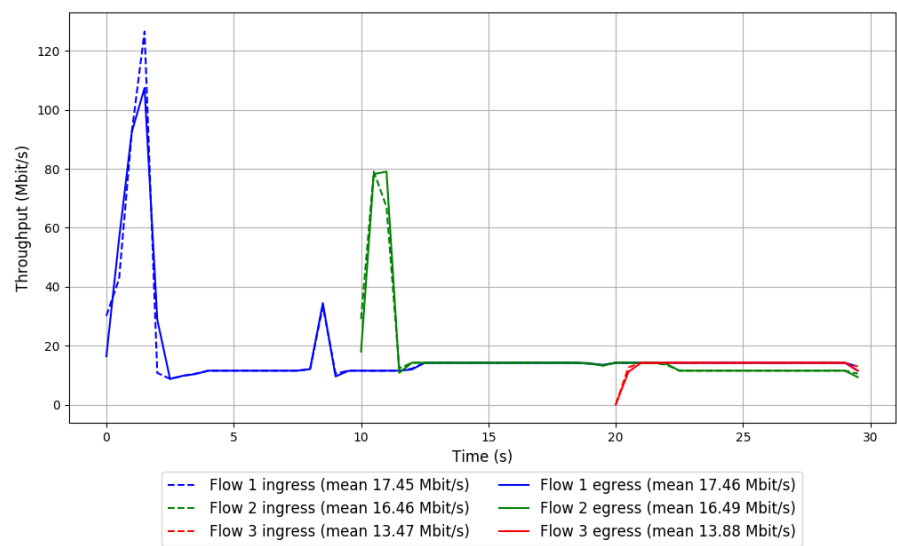
-- Flow 3:

Average throughput: 13.88 Mbit/s

95th percentile per-packet one-way delay: 53.703 ms

Loss rate: 1.10%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-07 04:52:24

End at: 2018-03-07 04:52:54

Below is generated by plot.py at 2018-03-07 09:48:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.64 Mbit/s

95th percentile per-packet one-way delay: 53.765 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 91.28 Mbit/s

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

Loss rate: 0.15%

-- Flow 2:

Average throughput: 17.85 Mbit/s

95th percentile per-packet one-way delay: 53.673 ms

Loss rate: 0.43%

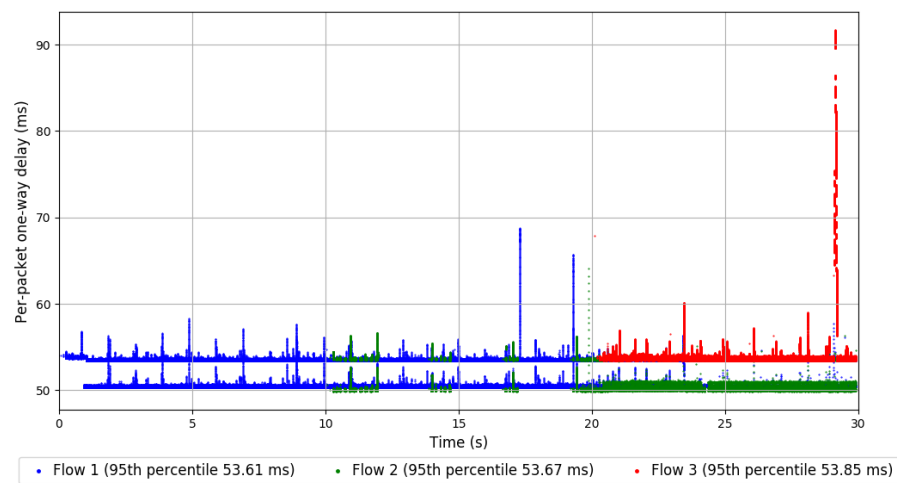
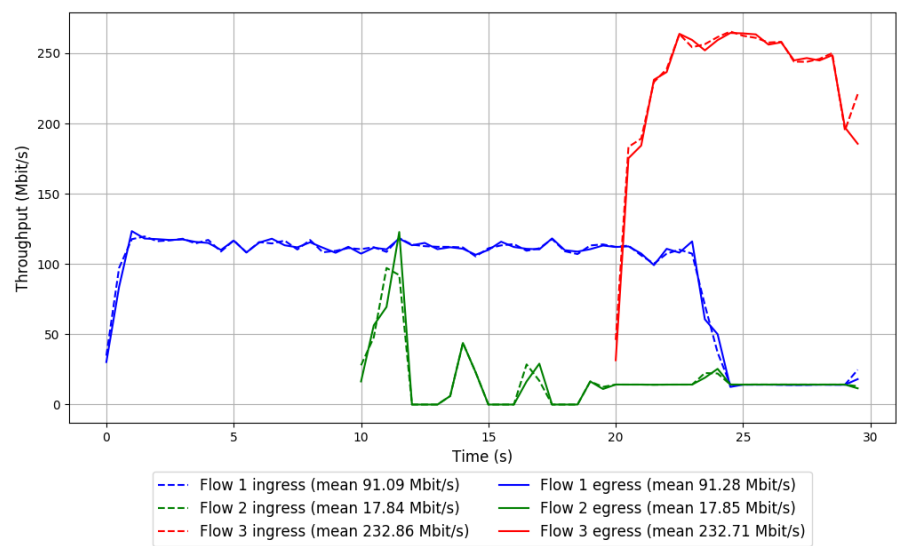
-- Flow 3:

Average throughput: 232.71 Mbit/s

95th percentile per-packet one-way delay: 53.853 ms

Loss rate: 1.30%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-07 05:09:22

End at: 2018-03-07 05:09:52

Below is generated by plot.py at 2018-03-07 09:48:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 193.70 Mbit/s

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

Loss rate: 0.69%

-- Flow 1:

Average throughput: 101.53 Mbit/s

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

Loss rate: 0.37%

-- Flow 2:

Average throughput: 102.16 Mbit/s

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

Loss rate: 0.00%

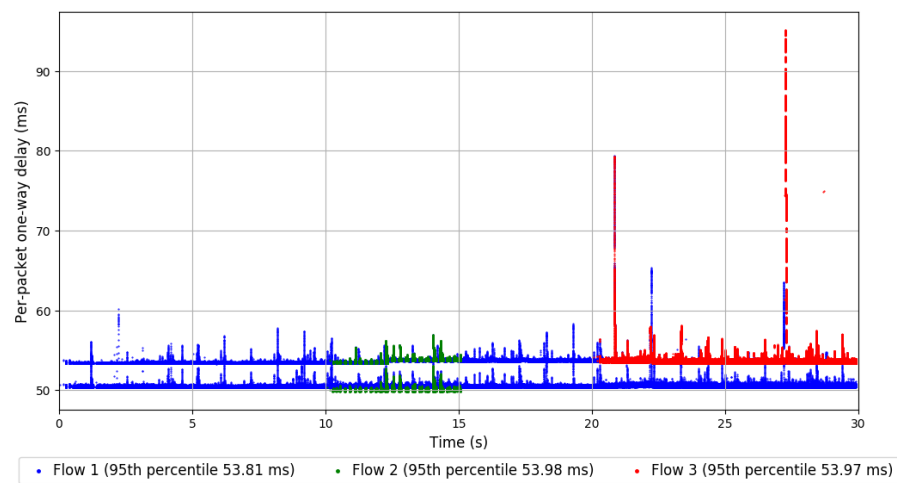
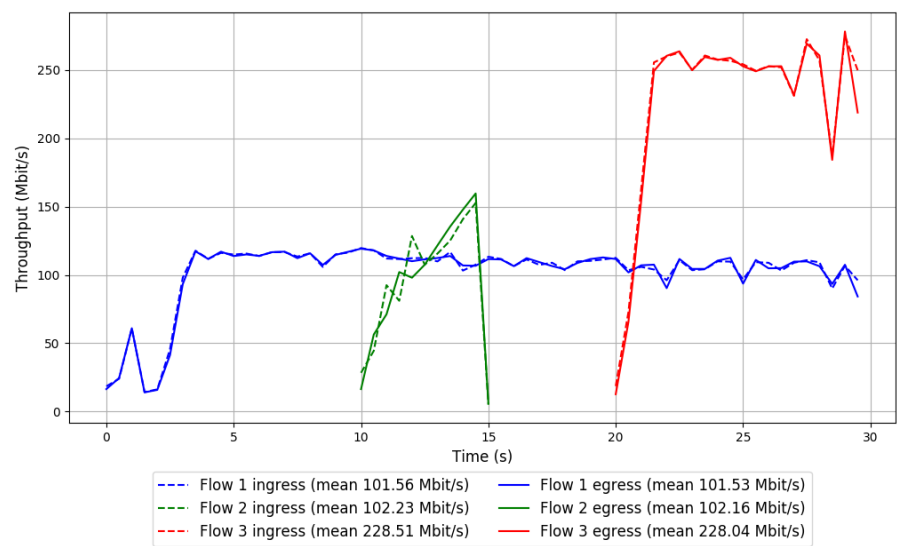
-- Flow 3:

Average throughput: 228.04 Mbit/s

95th percentile per-packet one-way delay: 53.972 ms

Loss rate: 1.26%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-07 05:26:34

End at: 2018-03-07 05:27:04

Below is generated by plot.py at 2018-03-07 09:50:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 240.46 Mbit/s

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

Loss rate: 0.24%

-- Flow 1:

Average throughput: 194.96 Mbit/s

95th percentile per-packet one-way delay: 53.875 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 22.89 Mbit/s

95th percentile per-packet one-way delay: 53.801 ms

Loss rate: 0.26%

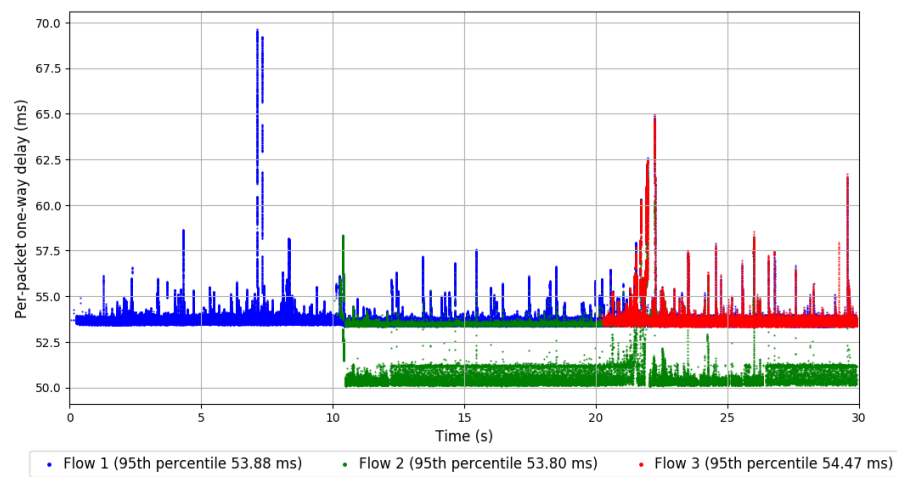
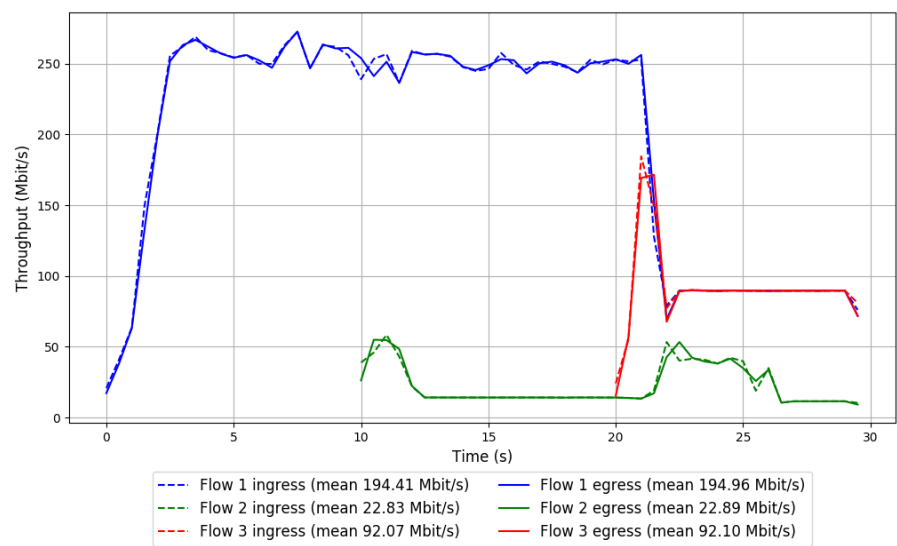
-- Flow 3:

Average throughput: 92.10 Mbit/s

95th percentile per-packet one-way delay: 54.466 ms

Loss rate: 1.03%

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

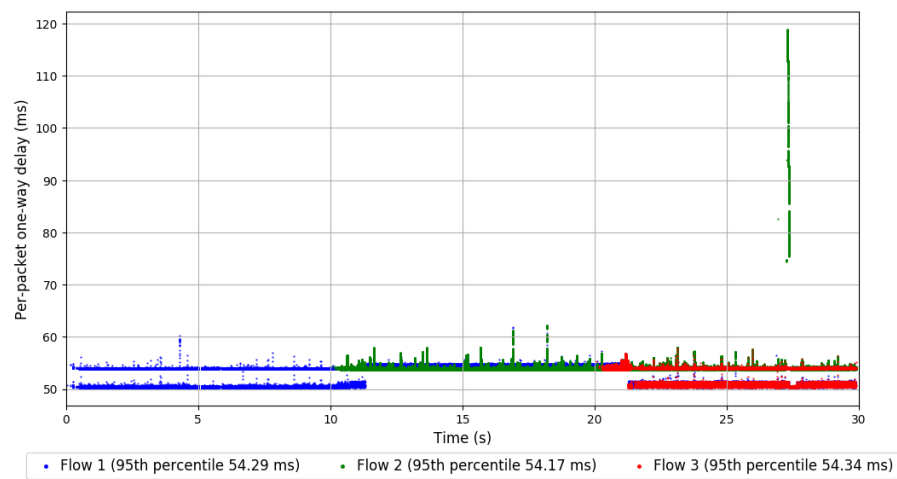
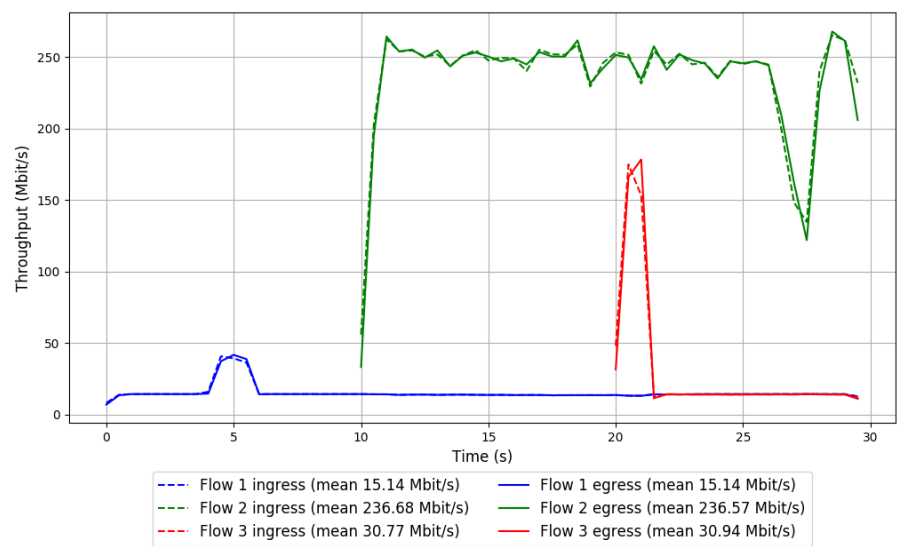


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-07 05:43:53
End at: 2018-03-07 05:44:23

# Below is generated by plot.py at 2018-03-07 09:50:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 182.51 Mbit/s
95th percentile per-packet one-way delay: 54.188 ms
Loss rate: 0.55%
-- Flow 1:
Average throughput: 15.14 Mbit/s
95th percentile per-packet one-way delay: 54.293 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 236.57 Mbit/s
95th percentile per-packet one-way delay: 54.172 ms
Loss rate: 0.58%
-- Flow 3:
Average throughput: 30.94 Mbit/s
95th percentile per-packet one-way delay: 54.341 ms
Loss rate: 0.48%
```


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

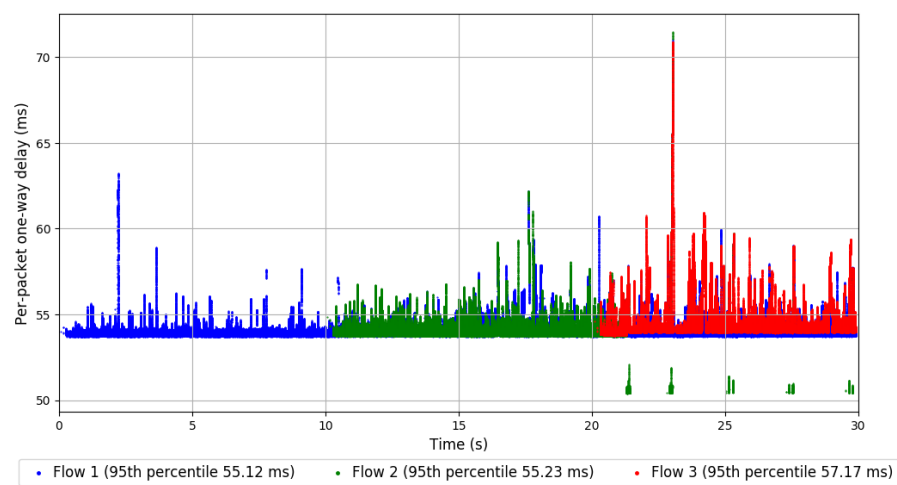
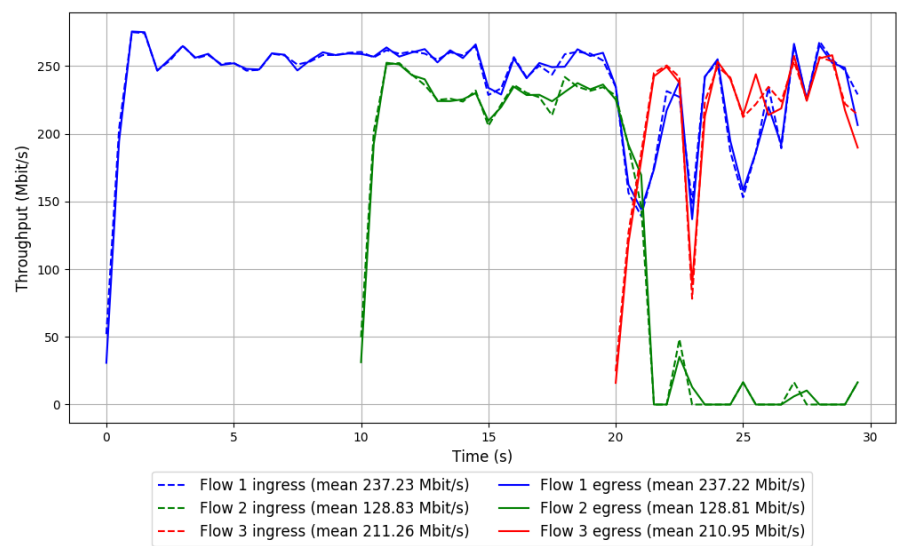


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-07 06:00:53
End at: 2018-03-07 06:01:23

# Below is generated by plot.py at 2018-03-07 09:56:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 391.61 Mbit/s
95th percentile per-packet one-way delay: 55.486 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 237.22 Mbit/s
95th percentile per-packet one-way delay: 55.116 ms
Loss rate: 0.36%
-- Flow 2:
Average throughput: 128.81 Mbit/s
95th percentile per-packet one-way delay: 55.228 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 210.95 Mbit/s
95th percentile per-packet one-way delay: 57.170 ms
Loss rate: 1.23%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-07 03:22:41

End at: 2018-03-07 03:23:11

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 92.28 Mbit/s

95th percentile per-packet one-way delay: 54.849 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 28.32 Mbit/s

95th percentile per-packet one-way delay: 54.718 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 78.19 Mbit/s

95th percentile per-packet one-way delay: 54.802 ms

Loss rate: 0.49%

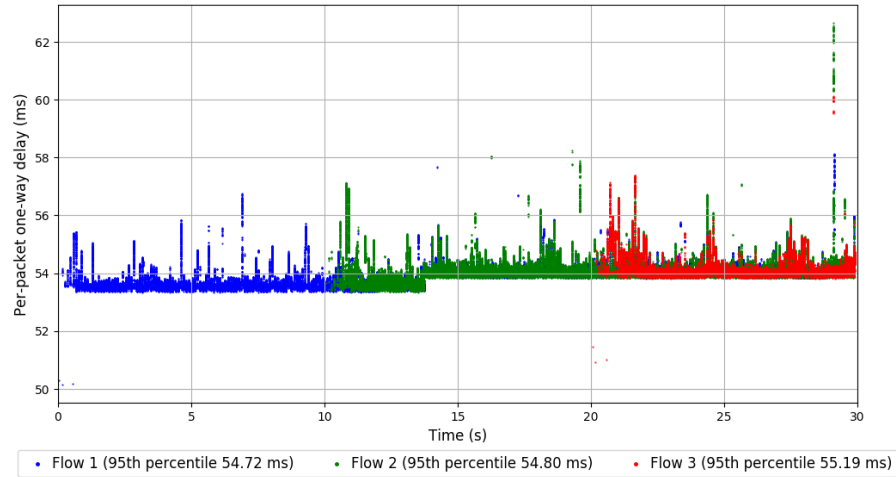
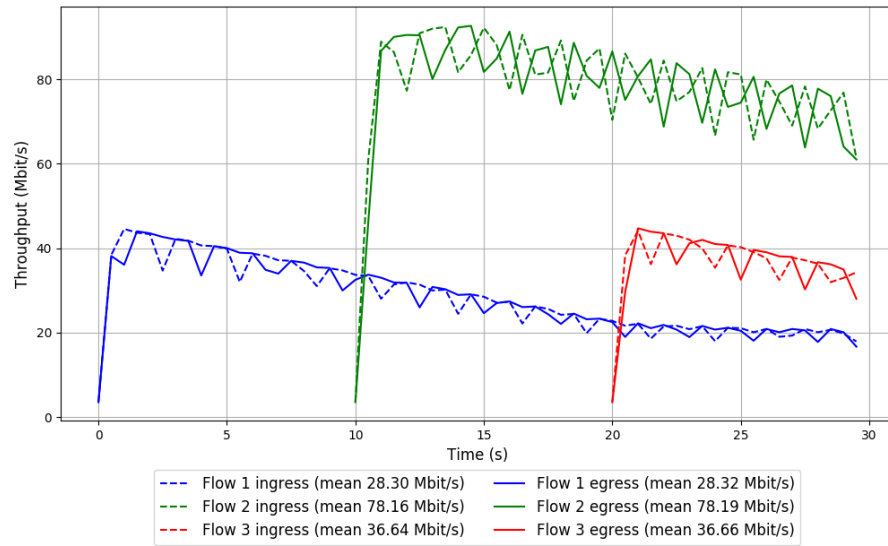
-- Flow 3:

Average throughput: 36.66 Mbit/s

95th percentile per-packet one-way delay: 55.186 ms

Loss rate: 0.95%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-07 03:39:26

End at: 2018-03-07 03:39:56

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.97 Mbit/s

95th percentile per-packet one-way delay: 55.319 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 75.73 Mbit/s

95th percentile per-packet one-way delay: 55.295 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 59.40 Mbit/s

95th percentile per-packet one-way delay: 55.419 ms

Loss rate: 0.46%

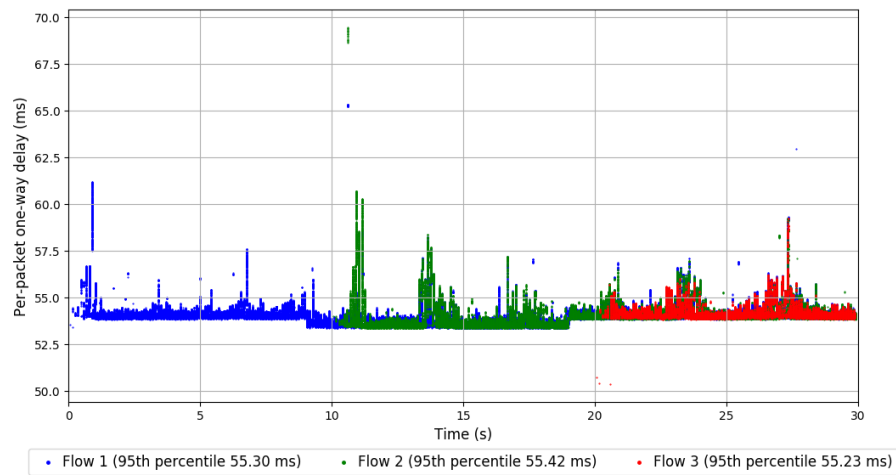
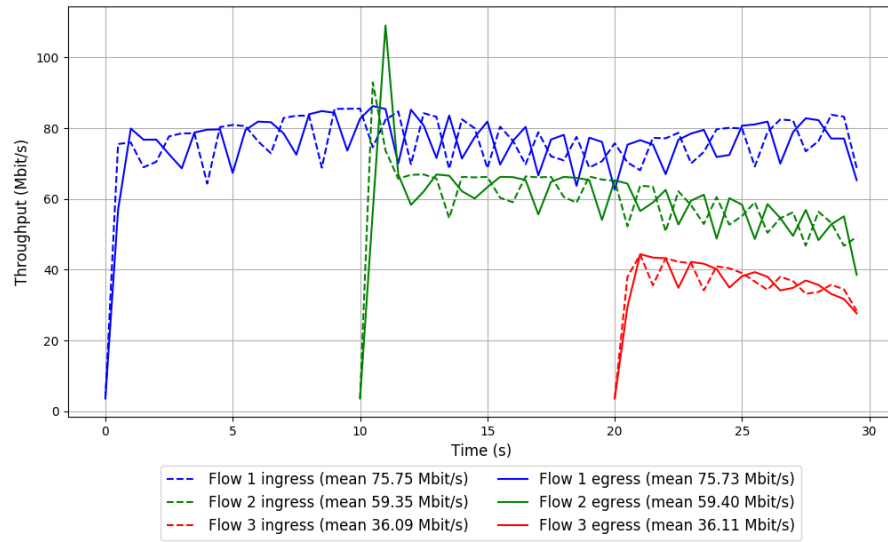
-- Flow 3:

Average throughput: 36.11 Mbit/s

95th percentile per-packet one-way delay: 55.228 ms

Loss rate: 0.97%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-07 03:56:42

End at: 2018-03-07 03:57:12

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 85.10 Mbit/s

95th percentile per-packet one-way delay: 54.538 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 18.99 Mbit/s

95th percentile per-packet one-way delay: 54.631 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 72.30 Mbit/s

95th percentile per-packet one-way delay: 54.541 ms

Loss rate: 0.55%

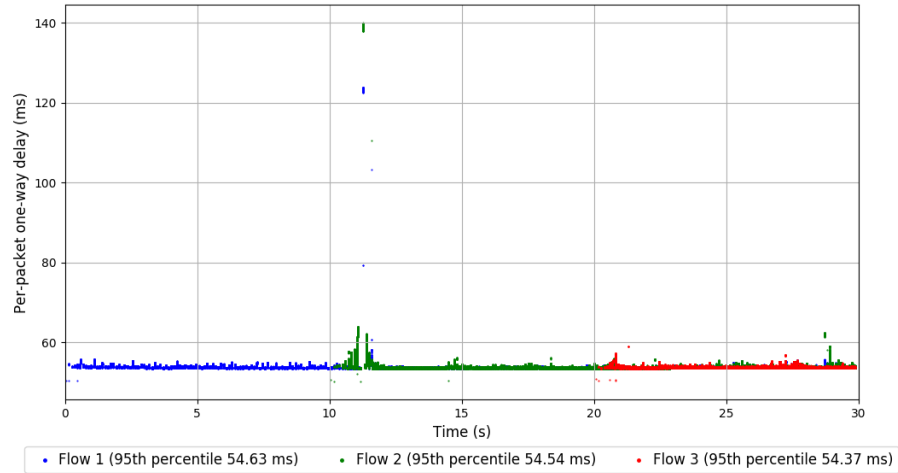
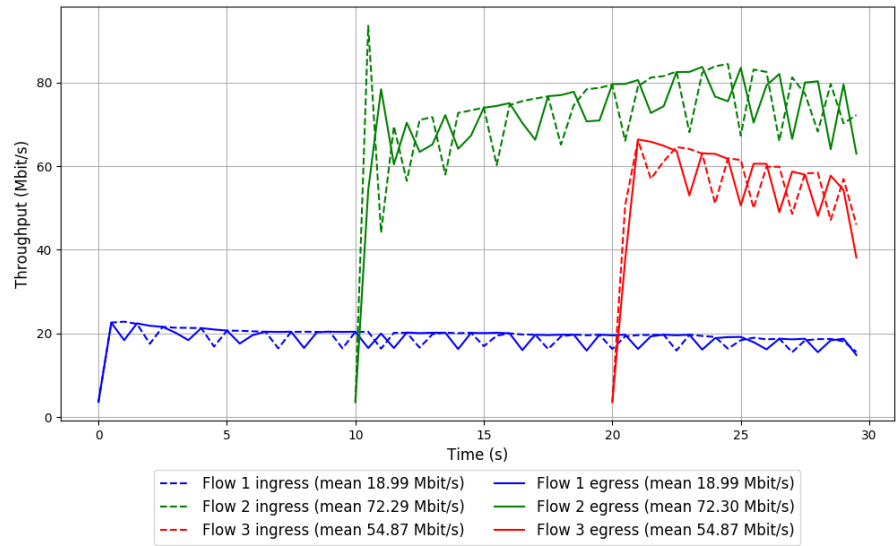
-- Flow 3:

Average throughput: 54.87 Mbit/s

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

Loss rate: 1.04%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-07 04:14:19

End at: 2018-03-07 04:14:49

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.02 Mbit/s

95th percentile per-packet one-way delay: 55.759 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 45.72 Mbit/s

95th percentile per-packet one-way delay: 54.798 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 98.12 Mbit/s

95th percentile per-packet one-way delay: 55.380 ms

Loss rate: 0.52%

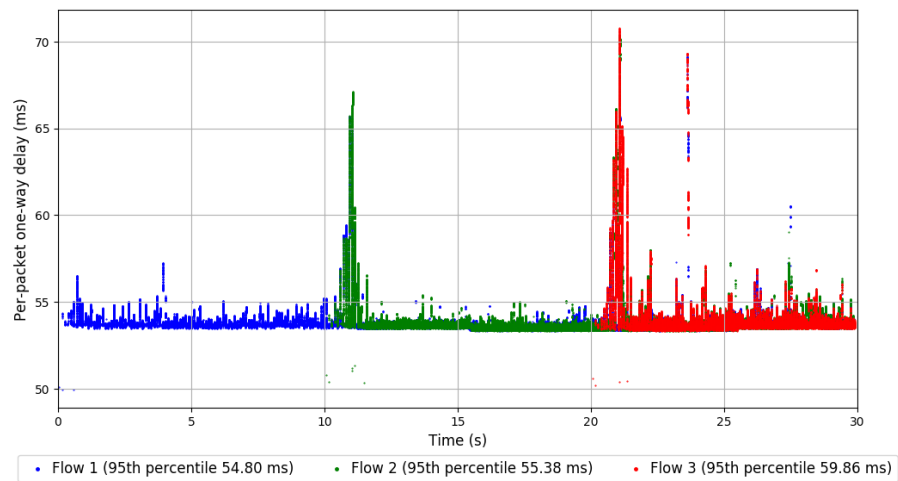
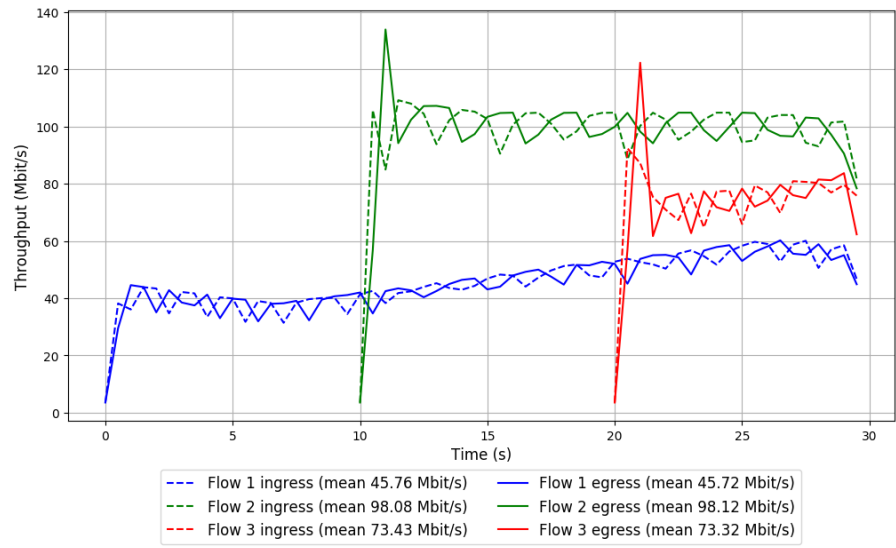
-- Flow 3:

Average throughput: 73.32 Mbit/s

95th percentile per-packet one-way delay: 59.859 ms

Loss rate: 1.16%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-07 04:31:26

End at: 2018-03-07 04:31:56

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.11 Mbit/s

95th percentile per-packet one-way delay: 56.812 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 20.66 Mbit/s

95th percentile per-packet one-way delay: 54.355 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 69.24 Mbit/s

95th percentile per-packet one-way delay: 58.445 ms

Loss rate: 0.40%

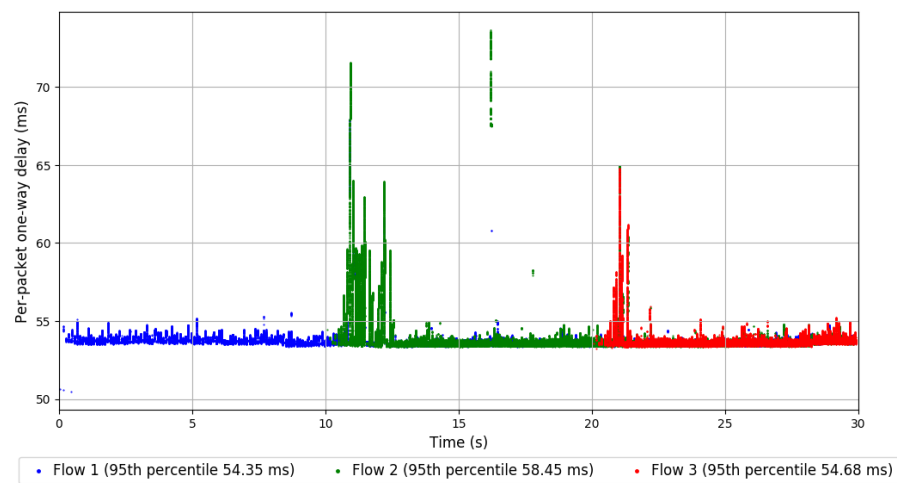
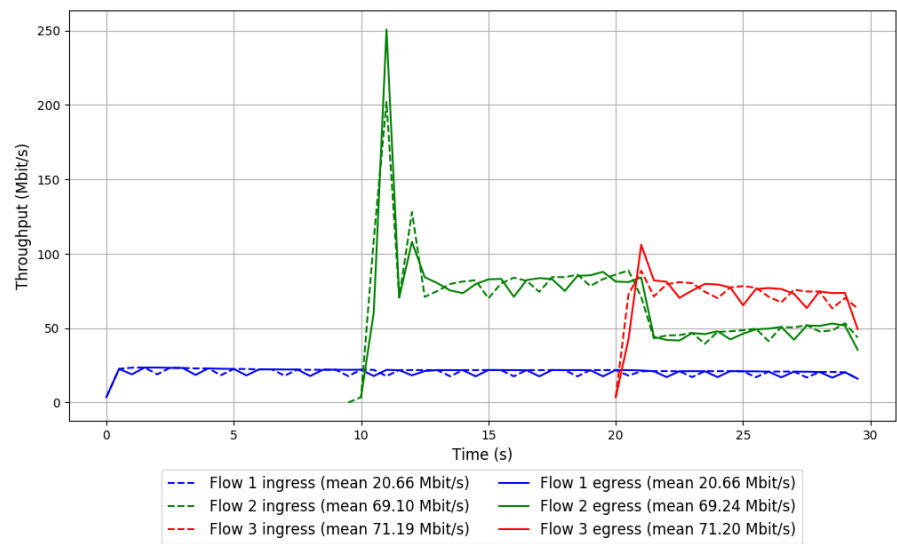
-- Flow 3:

Average throughput: 71.20 Mbit/s

95th percentile per-packet one-way delay: 54.680 ms

Loss rate: 1.03%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-07 04:48:10

End at: 2018-03-07 04:48:40

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 118.69 Mbit/s

95th percentile per-packet one-way delay: 55.402 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 45.46 Mbit/s

95th percentile per-packet one-way delay: 55.151 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 92.19 Mbit/s

95th percentile per-packet one-way delay: 55.809 ms

Loss rate: 0.48%

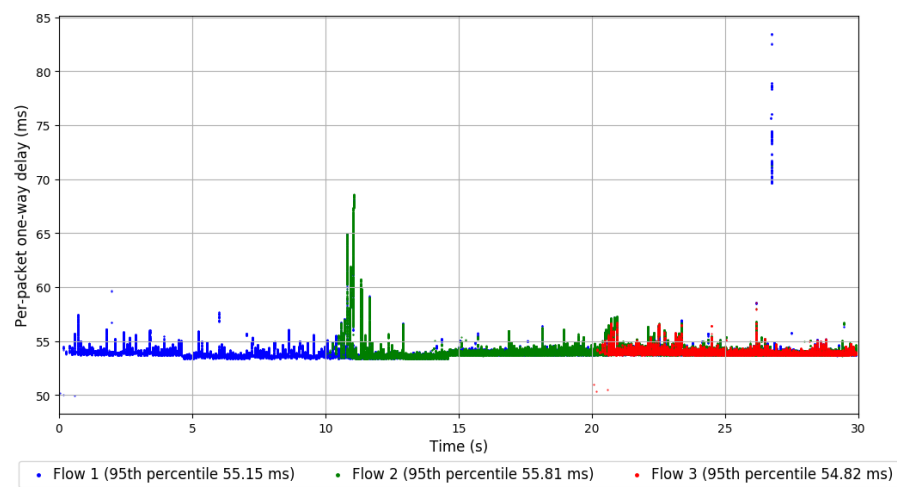
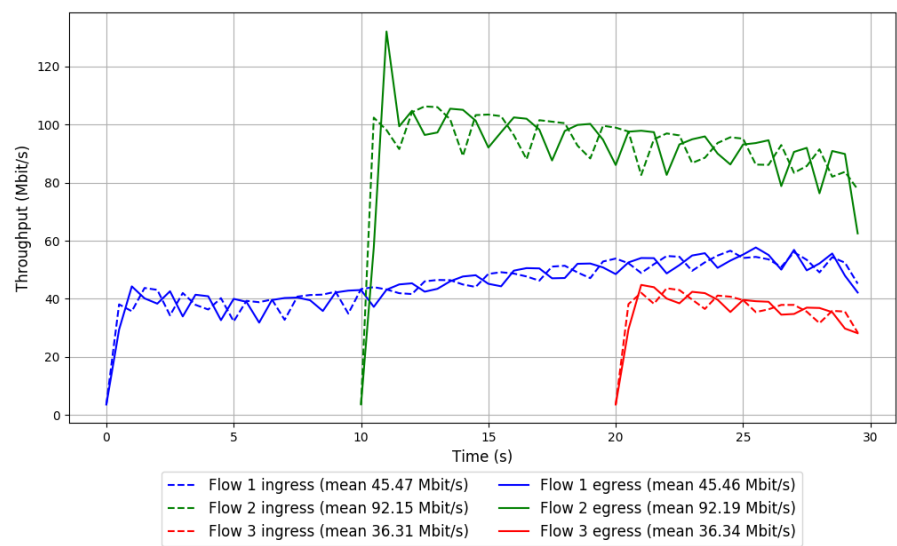
-- Flow 3:

Average throughput: 36.34 Mbit/s

95th percentile per-packet one-way delay: 54.823 ms

Loss rate: 0.96%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-07 05:05:14

End at: 2018-03-07 05:05:44

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.82 Mbit/s

95th percentile per-packet one-way delay: 54.910 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 54.17 Mbit/s

95th percentile per-packet one-way delay: 55.189 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 106.57 Mbit/s

95th percentile per-packet one-way delay: 54.749 ms

Loss rate: 0.57%

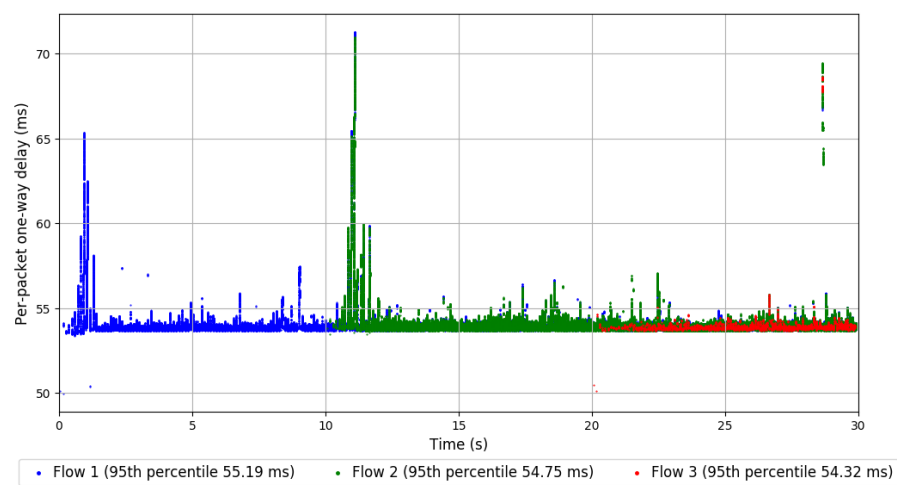
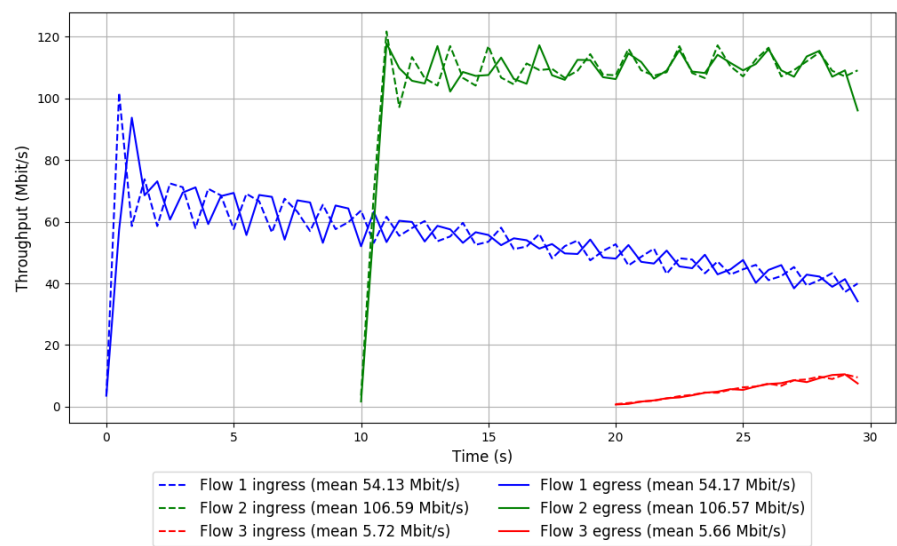
-- Flow 3:

Average throughput: 5.66 Mbit/s

95th percentile per-packet one-way delay: 54.321 ms

Loss rate: 2.14%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-07 05:22:22

End at: 2018-03-07 05:22:52

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.50 Mbit/s

95th percentile per-packet one-way delay: 54.767 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 22.20 Mbit/s

95th percentile per-packet one-way delay: 54.681 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 56.79 Mbit/s

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

Loss rate: 0.48%

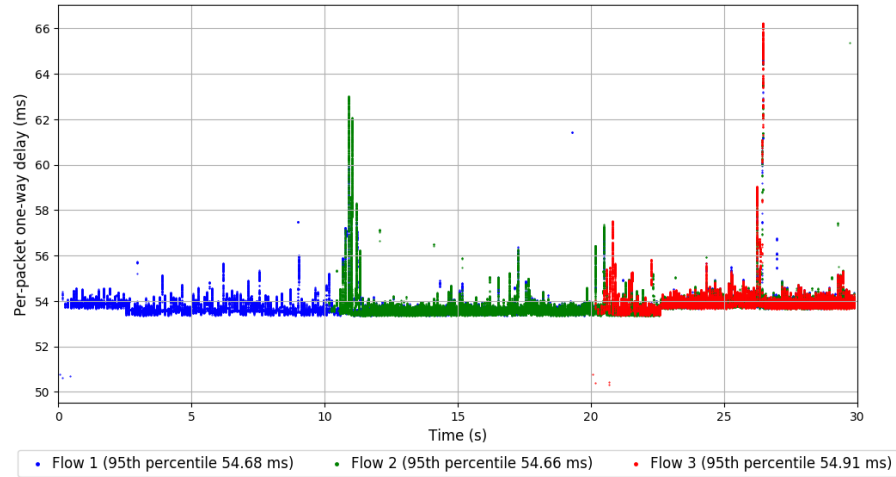
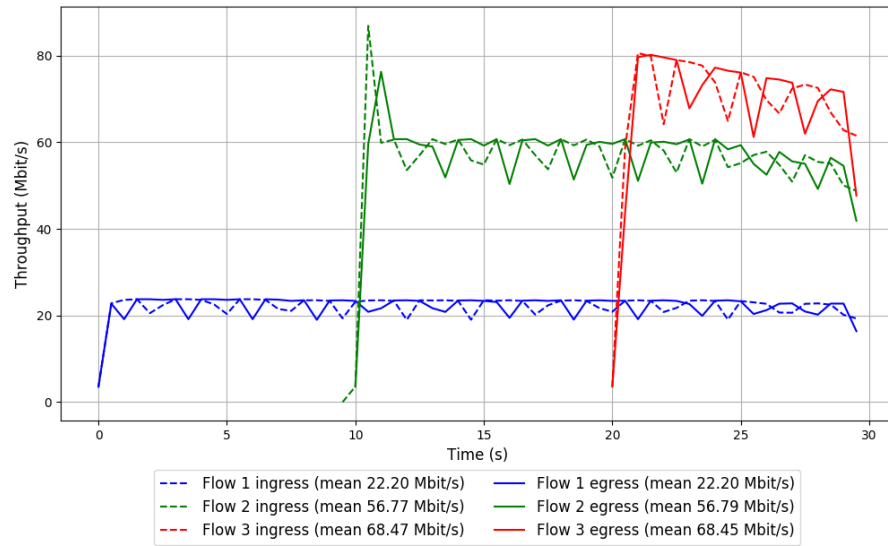
-- Flow 3:

Average throughput: 68.45 Mbit/s

95th percentile per-packet one-way delay: 54.914 ms

Loss rate: 1.04%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-07 05:39:37

End at: 2018-03-07 05:40:07

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 136.83 Mbit/s

95th percentile per-packet one-way delay: 55.225 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 63.70 Mbit/s

95th percentile per-packet one-way delay: 55.320 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 107.16 Mbit/s

95th percentile per-packet one-way delay: 55.202 ms

Loss rate: 0.57%

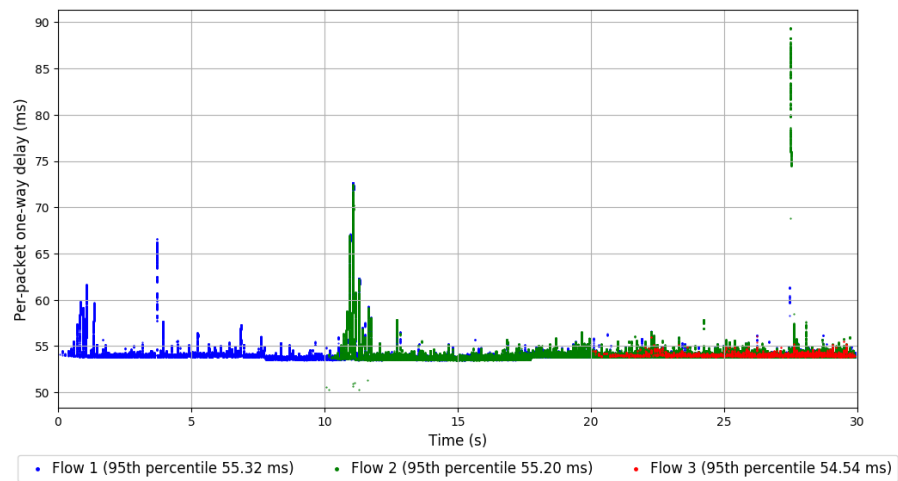
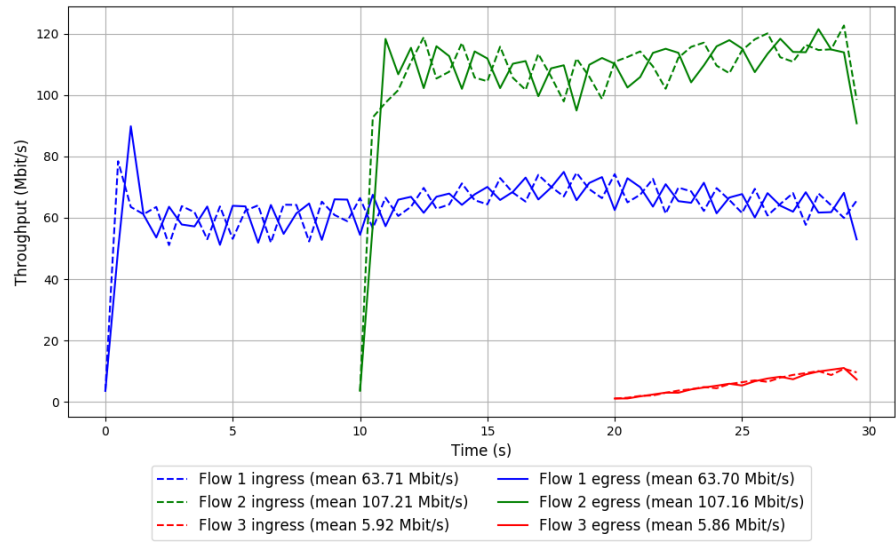
-- Flow 3:

Average throughput: 5.86 Mbit/s

95th percentile per-packet one-way delay: 54.536 ms

Loss rate: 2.02%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-07 05:56:43

End at: 2018-03-07 05:57:13

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.24 Mbit/s

95th percentile per-packet one-way delay: 56.530 ms

Loss rate: 0.52%

-- Flow 1:

Average throughput: 95.69 Mbit/s

95th percentile per-packet one-way delay: 55.943 ms

Loss rate: 0.41%

-- Flow 2:

Average throughput: 69.65 Mbit/s

95th percentile per-packet one-way delay: 57.810 ms

Loss rate: 0.25%

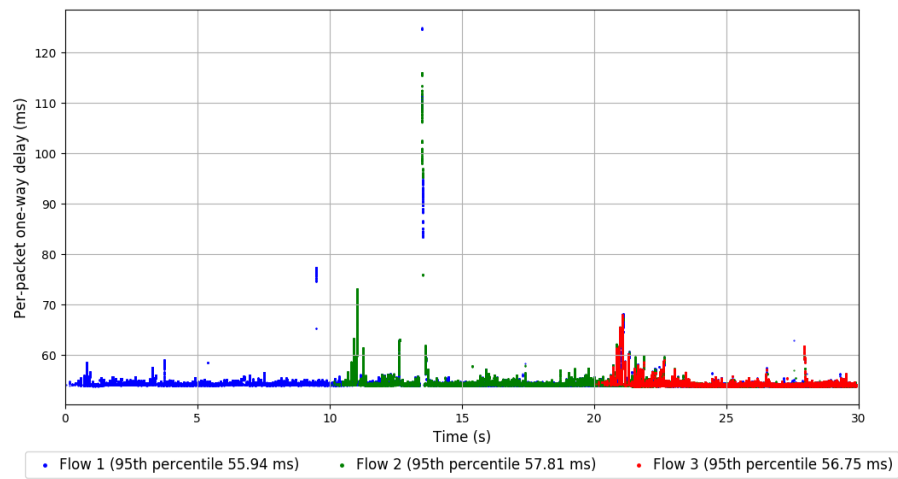
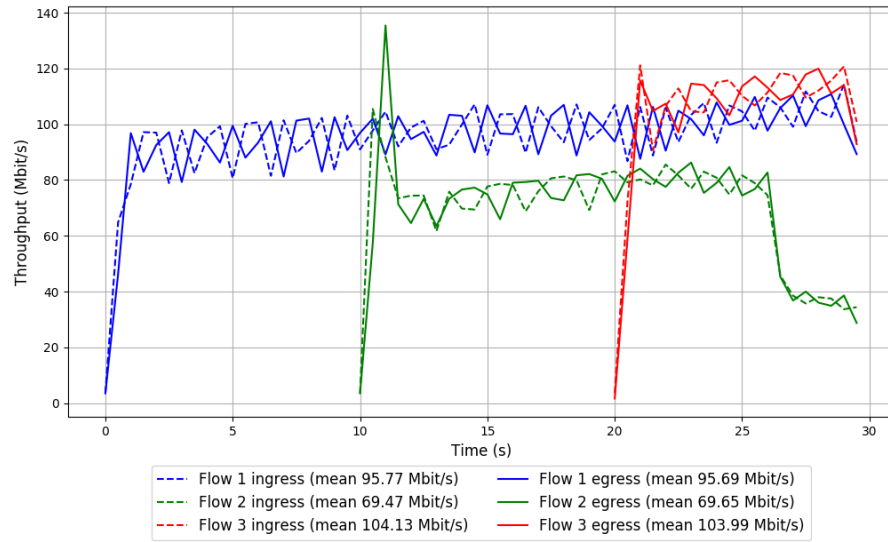
-- Flow 3:

Average throughput: 103.99 Mbit/s

95th percentile per-packet one-way delay: 56.746 ms

Loss rate: 1.18%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-07 03:25:45

End at: 2018-03-07 03:26:15

Below is generated by plot.py at 2018-03-07 09:56:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.20 Mbit/s

95th percentile per-packet one-way delay: 119.306 ms

Loss rate: 0.74%

-- Flow 1:

Average throughput: 171.47 Mbit/s

95th percentile per-packet one-way delay: 112.086 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 163.02 Mbit/s

95th percentile per-packet one-way delay: 116.289 ms

Loss rate: 0.77%

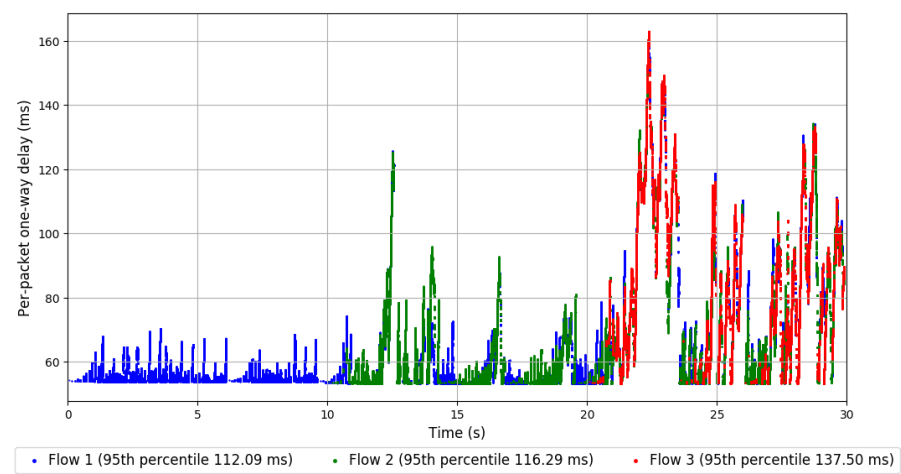
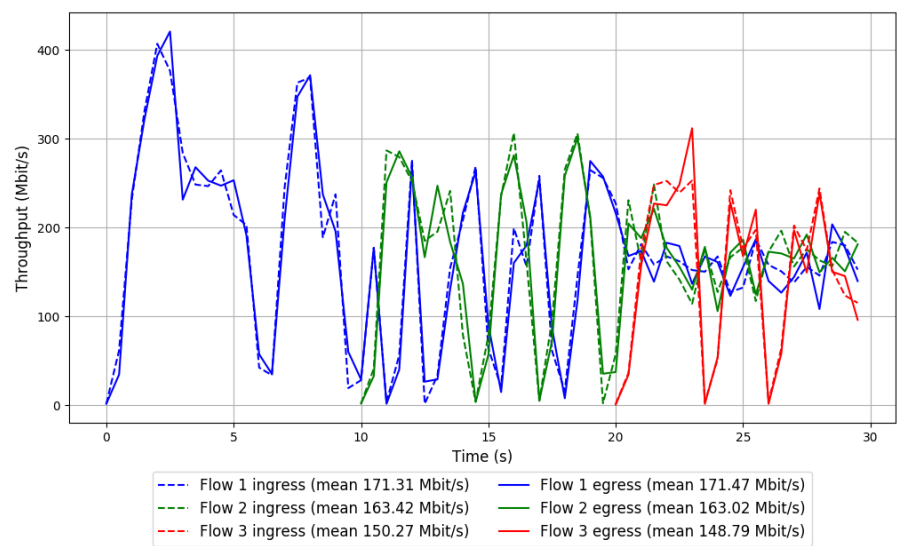
-- Flow 3:

Average throughput: 148.79 Mbit/s

95th percentile per-packet one-way delay: 137.499 ms

Loss rate: 1.45%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-07 03:42:36

End at: 2018-03-07 03:43:06

Below is generated by plot.py at 2018-03-07 09:56:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.36 Mbit/s

95th percentile per-packet one-way delay: 147.030 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 208.87 Mbit/s

95th percentile per-packet one-way delay: 145.485 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 151.27 Mbit/s

95th percentile per-packet one-way delay: 142.081 ms

Loss rate: 0.48%

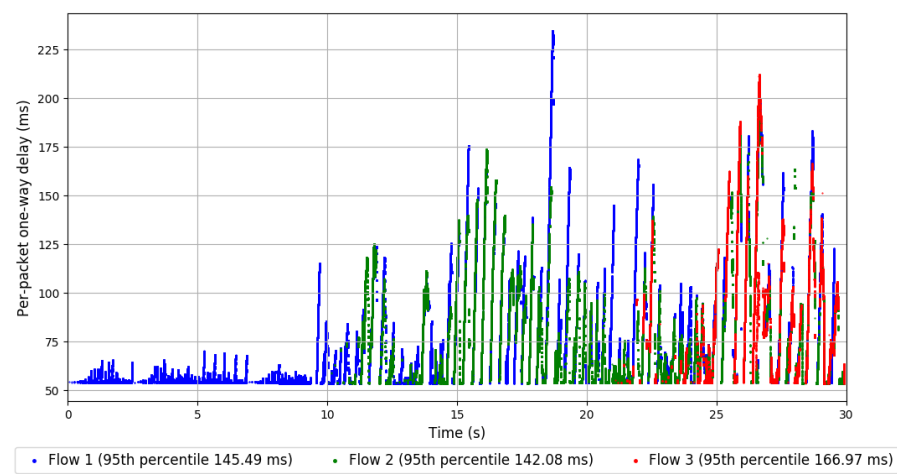
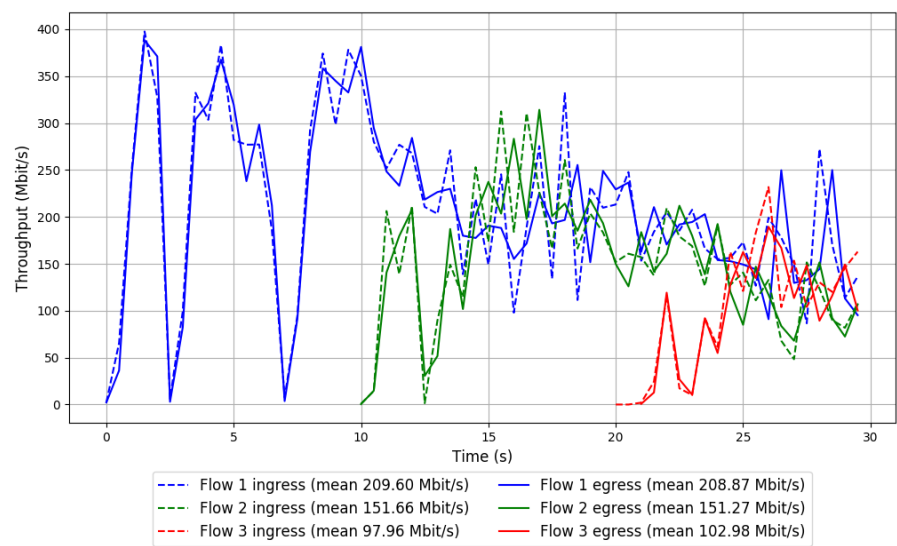
-- Flow 3:

Average throughput: 102.98 Mbit/s

95th percentile per-packet one-way delay: 166.970 ms

Loss rate: 6.55%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-07 03:59:58

End at: 2018-03-07 04:00:28

Below is generated by plot.py at 2018-03-07 09:56:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 319.58 Mbit/s

95th percentile per-packet one-way delay: 165.502 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 197.13 Mbit/s

95th percentile per-packet one-way delay: 145.925 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 140.60 Mbit/s

95th percentile per-packet one-way delay: 174.811 ms

Loss rate: 0.78%

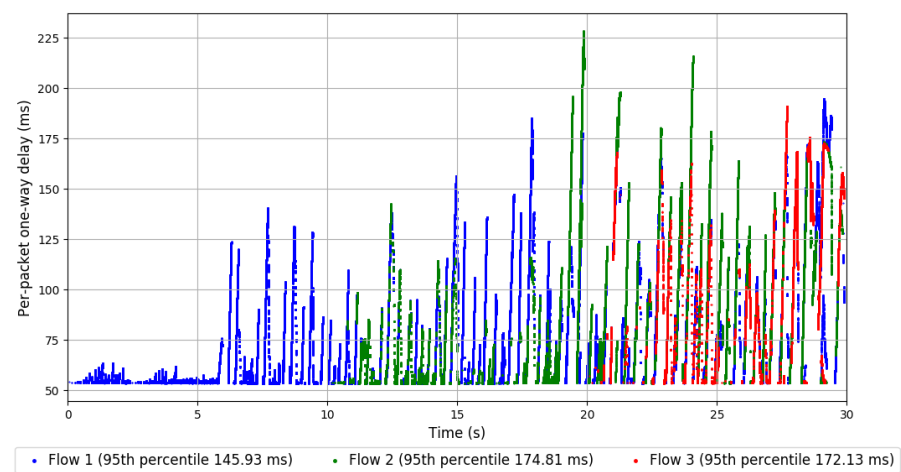
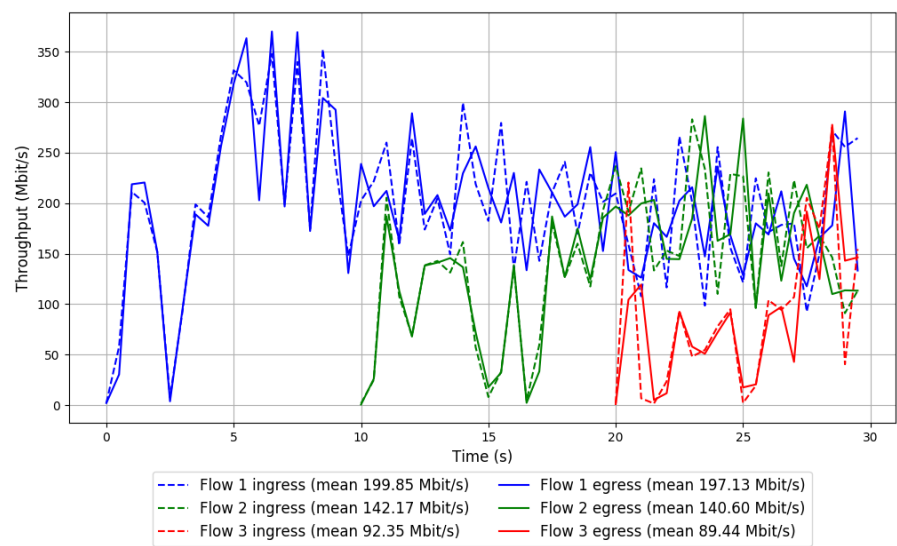
-- Flow 3:

Average throughput: 89.44 Mbit/s

95th percentile per-packet one-way delay: 172.132 ms

Loss rate: 2.37%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-07 04:17:32

End at: 2018-03-07 04:18:02

Below is generated by plot.py at 2018-03-07 09:56:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 277.83 Mbit/s

95th percentile per-packet one-way delay: 181.661 ms

Loss rate: 1.93%

-- Flow 1:

Average throughput: 195.81 Mbit/s

95th percentile per-packet one-way delay: 188.975 ms

Loss rate: 1.62%

-- Flow 2:

Average throughput: 99.65 Mbit/s

95th percentile per-packet one-way delay: 154.945 ms

Loss rate: 2.50%

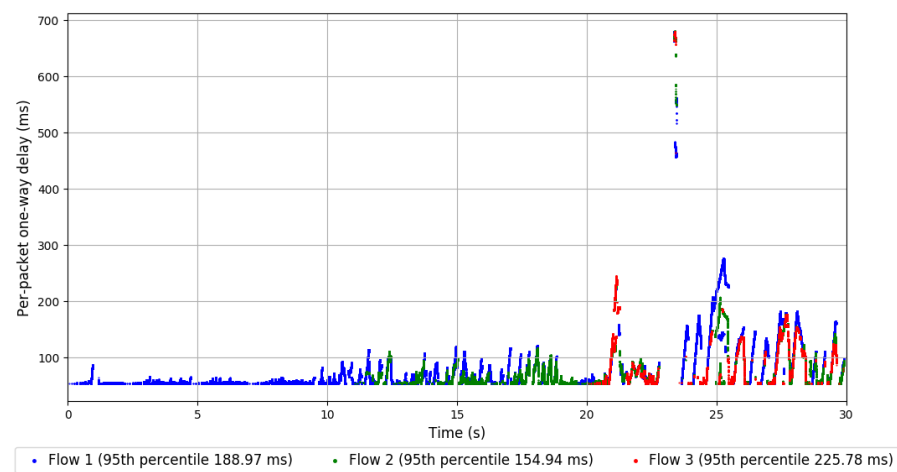
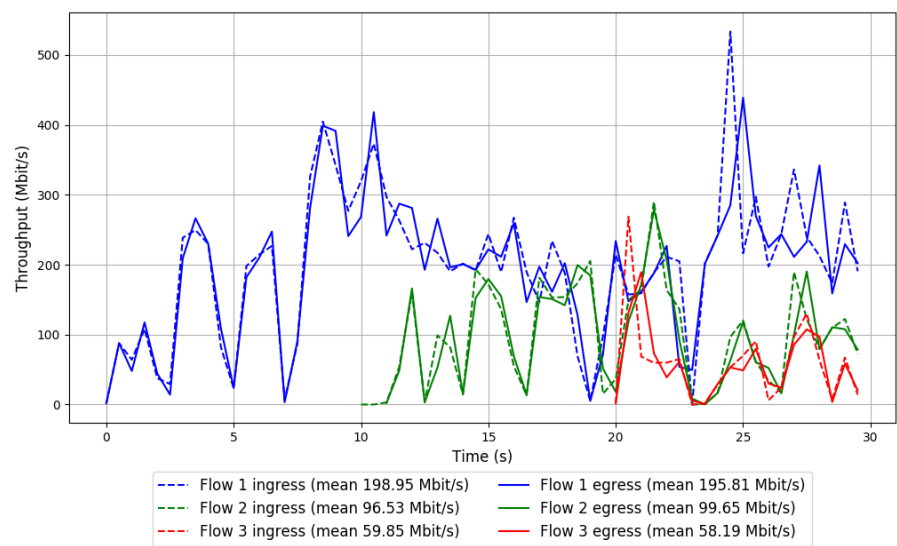
-- Flow 3:

Average throughput: 58.19 Mbit/s

95th percentile per-packet one-way delay: 225.780 ms

Loss rate: 3.13%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-07 04:34:34

End at: 2018-03-07 04:35:04

Below is generated by plot.py at 2018-03-07 09:56:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 302.18 Mbit/s

95th percentile per-packet one-way delay: 123.894 ms

Loss rate: 0.81%

-- Flow 1:

Average throughput: 162.67 Mbit/s

95th percentile per-packet one-way delay: 108.687 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 130.88 Mbit/s

95th percentile per-packet one-way delay: 121.543 ms

Loss rate: 1.18%

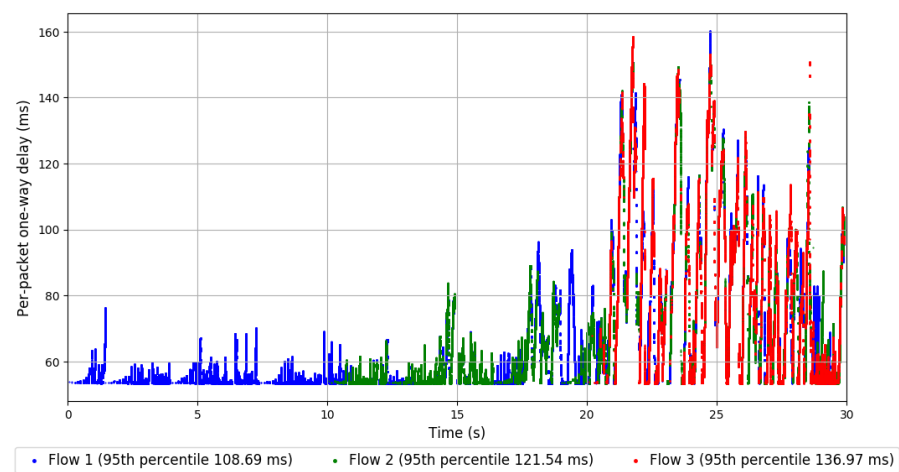
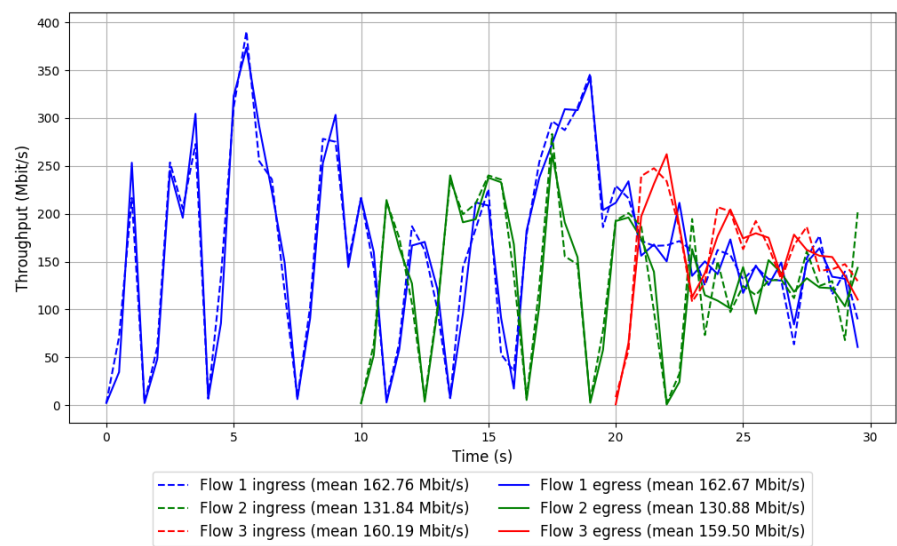
-- Flow 3:

Average throughput: 159.50 Mbit/s

95th percentile per-packet one-way delay: 136.972 ms

Loss rate: 1.48%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-07 04:51:24

End at: 2018-03-07 04:51:54

Below is generated by plot.py at 2018-03-07 09:56:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.92 Mbit/s

95th percentile per-packet one-way delay: 138.631 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 161.65 Mbit/s

95th percentile per-packet one-way delay: 105.615 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 178.84 Mbit/s

95th percentile per-packet one-way delay: 176.150 ms

Loss rate: 1.55%

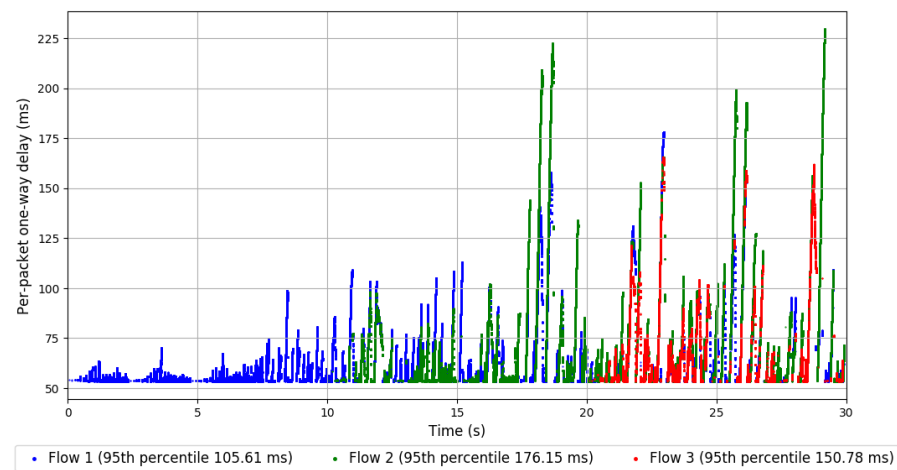
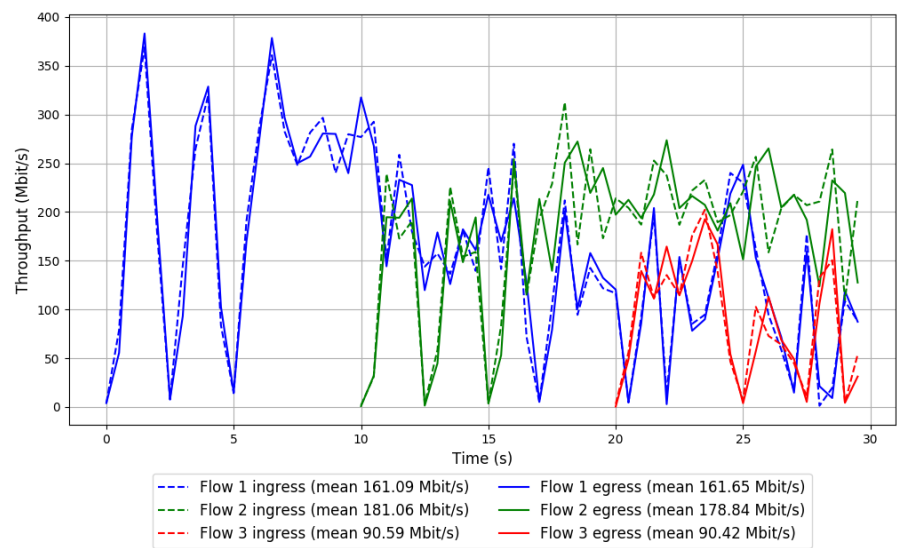
-- Flow 3:

Average throughput: 90.42 Mbit/s

95th percentile per-packet one-way delay: 150.780 ms

Loss rate: 1.31%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-07 05:08:23

End at: 2018-03-07 05:08:53

Below is generated by plot.py at 2018-03-07 09:57:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.36 Mbit/s

95th percentile per-packet one-way delay: 164.672 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 168.03 Mbit/s

95th percentile per-packet one-way delay: 132.496 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 165.97 Mbit/s

95th percentile per-packet one-way delay: 170.439 ms

Loss rate: 1.97%

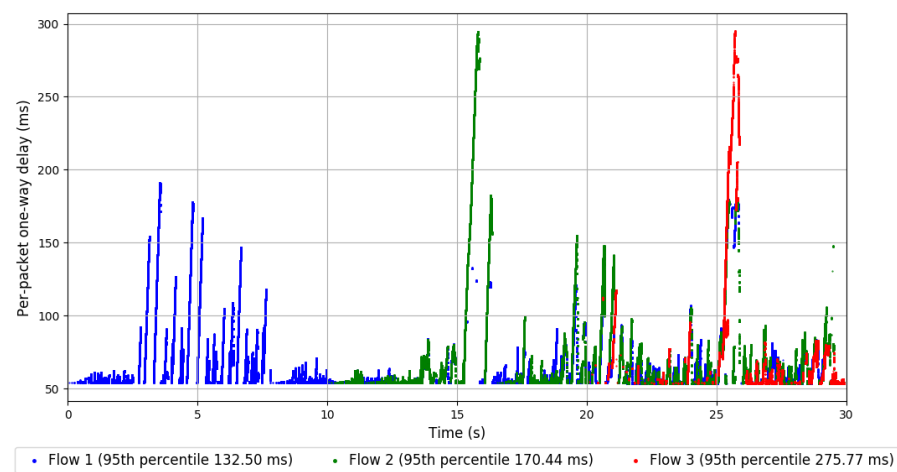
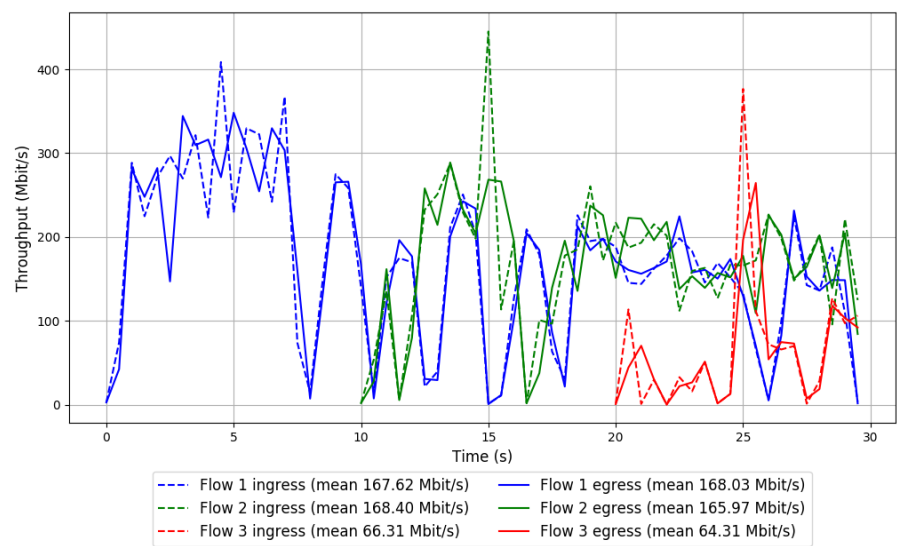
-- Flow 3:

Average throughput: 64.31 Mbit/s

95th percentile per-packet one-way delay: 275.775 ms

Loss rate: 4.07%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-07 05:25:35

End at: 2018-03-07 05:26:05

Below is generated by plot.py at 2018-03-07 09:59:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.65 Mbit/s

95th percentile per-packet one-way delay: 134.440 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 153.24 Mbit/s

95th percentile per-packet one-way delay: 94.963 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 189.67 Mbit/s

95th percentile per-packet one-way delay: 148.885 ms

Loss rate: 0.27%

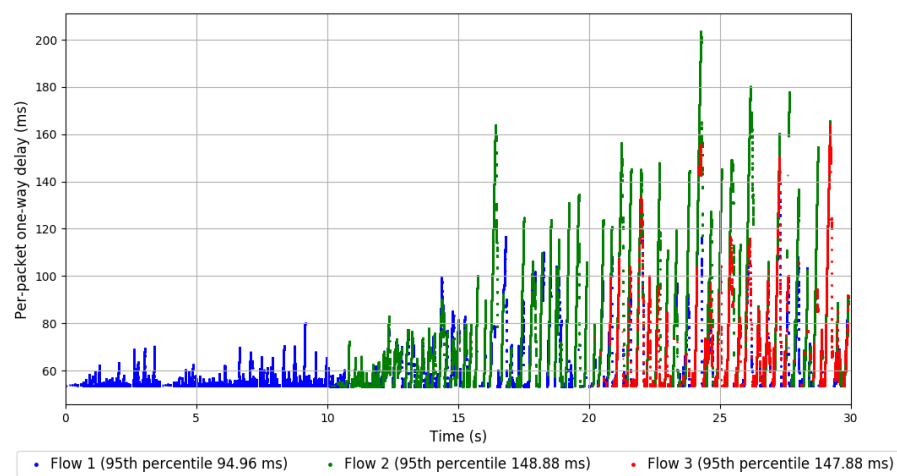
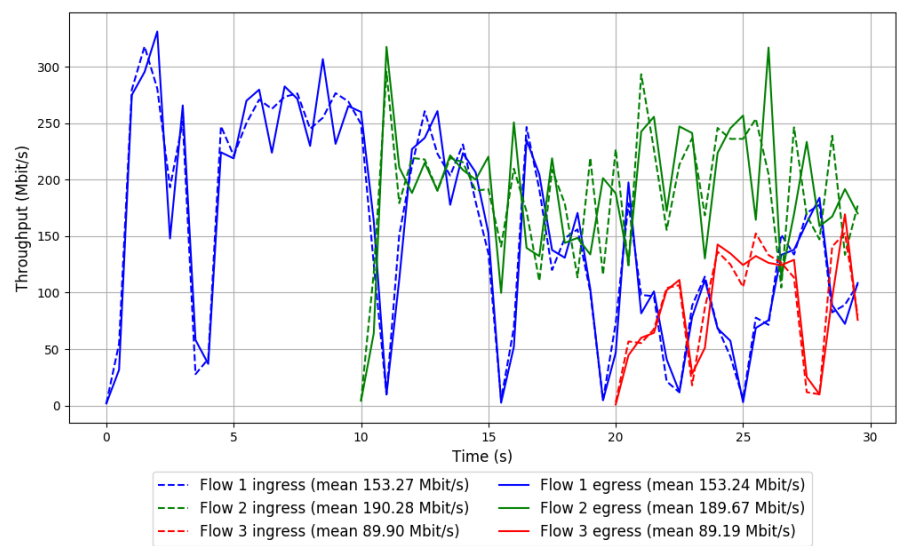
-- Flow 3:

Average throughput: 89.19 Mbit/s

95th percentile per-packet one-way delay: 147.878 ms

Loss rate: 1.80%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-07 05:42:53

End at: 2018-03-07 05:43:23

Below is generated by plot.py at 2018-03-07 10:00:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.63 Mbit/s

95th percentile per-packet one-way delay: 177.851 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 164.31 Mbit/s

95th percentile per-packet one-way delay: 150.418 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 172.08 Mbit/s

95th percentile per-packet one-way delay: 182.369 ms

Loss rate: 3.23%

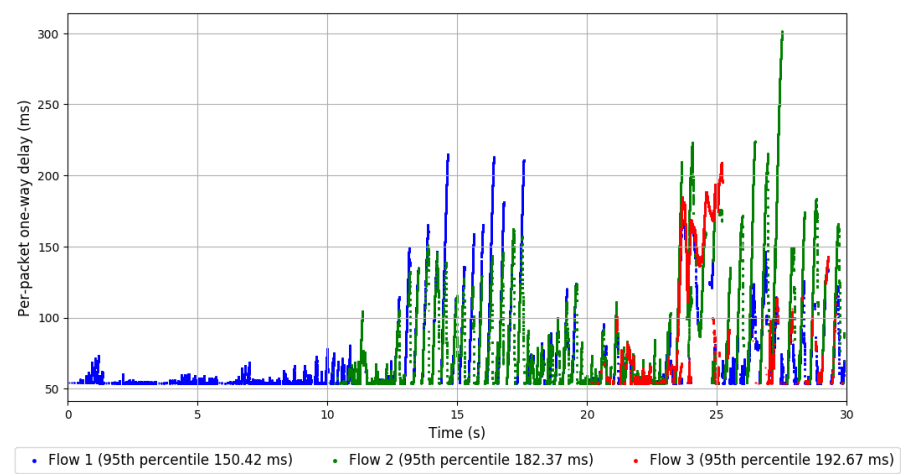
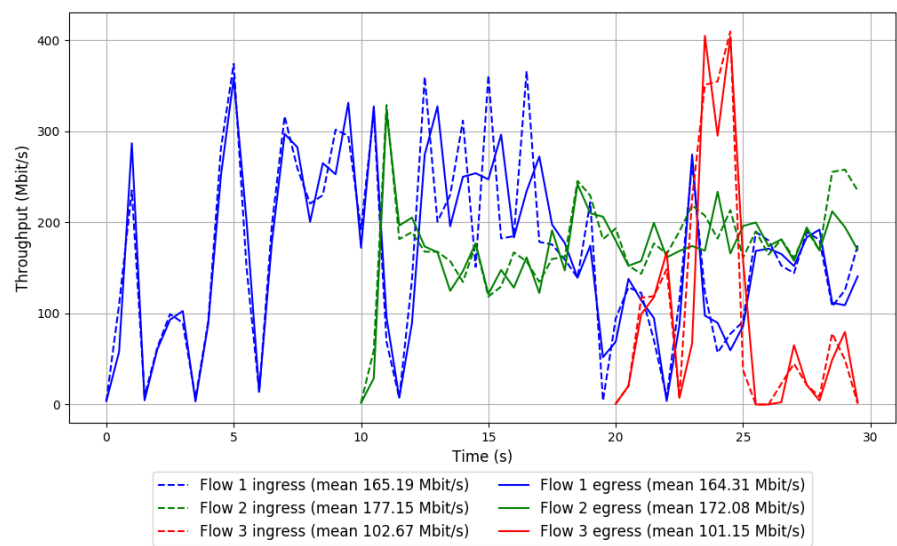
-- Flow 3:

Average throughput: 101.15 Mbit/s

95th percentile per-packet one-way delay: 192.674 ms

Loss rate: 2.56%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-07 05:59:55

End at: 2018-03-07 06:00:25

Below is generated by plot.py at 2018-03-07 10:00:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 294.14 Mbit/s

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

Loss rate: 0.64%

-- Flow 1:

Average throughput: 166.26 Mbit/s

95th percentile per-packet one-way delay: 89.023 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 129.93 Mbit/s

95th percentile per-packet one-way delay: 125.635 ms

Loss rate: 0.29%

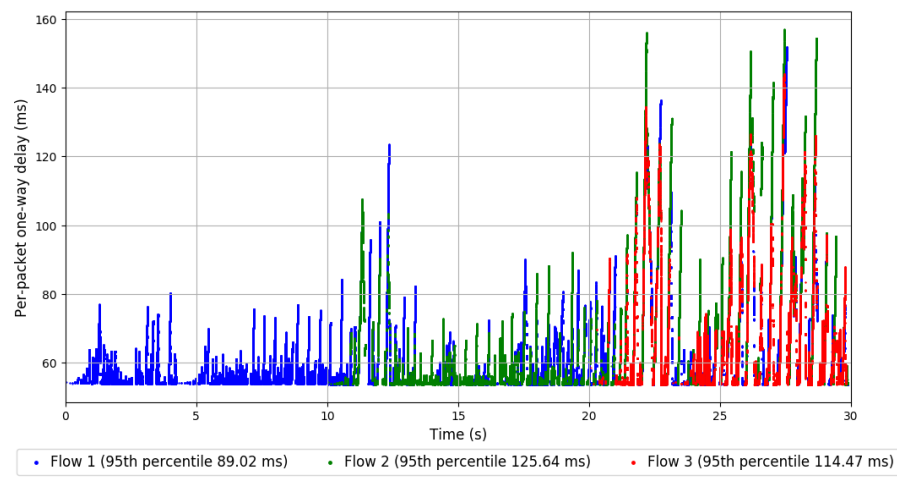
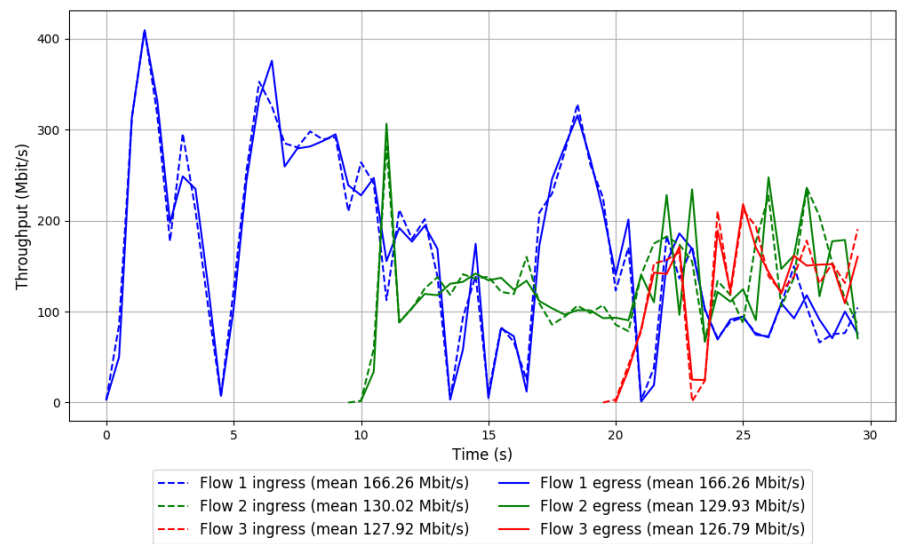
-- Flow 3:

Average throughput: 126.79 Mbit/s

95th percentile per-packet one-way delay: 114.474 ms

Loss rate: 2.71%

Run 10: Report of Verus — Data Link

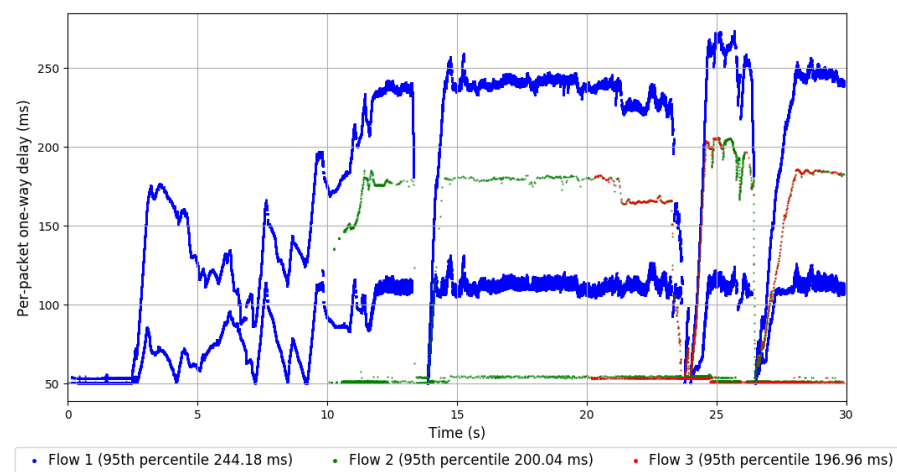
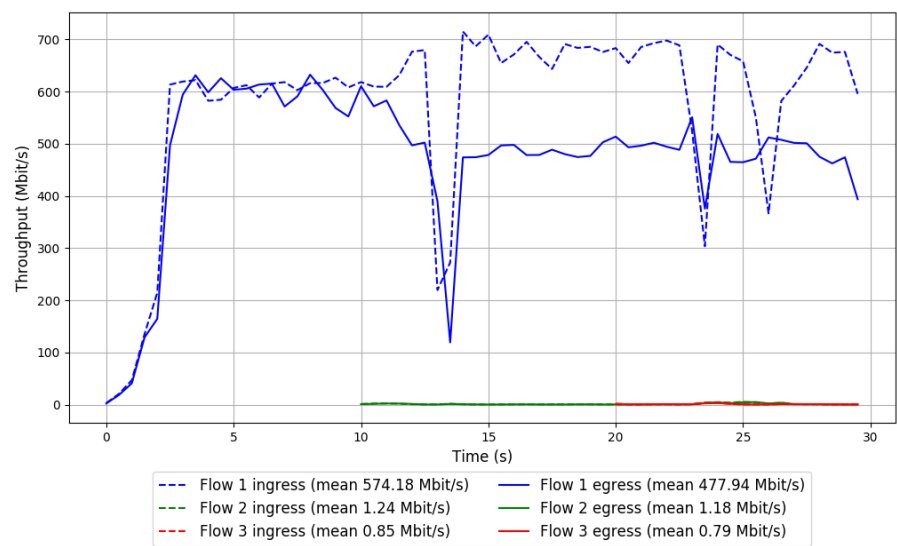


```
Run 1: Statistics of Copa

Start at: 2018-03-07 03:21:30
End at: 2018-03-07 03:22:00

# Below is generated by plot.py at 2018-03-07 10:10:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 478.99 Mbit/s
95th percentile per-packet one-way delay: 244.171 ms
Loss rate: 17.02%
-- Flow 1:
Average throughput: 477.94 Mbit/s
95th percentile per-packet one-way delay: 244.183 ms
Loss rate: 17.04%
-- Flow 2:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 200.039 ms
Loss rate: 5.58%
-- Flow 3:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 196.958 ms
Loss rate: 7.56%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-07 03:38:36

End at: 2018-03-07 03:39:06

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.72 Mbit/s

95th percentile per-packet one-way delay: 54.027 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 43.28 Mbit/s

95th percentile per-packet one-way delay: 54.020 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 61.50 Mbit/s

95th percentile per-packet one-way delay: 54.018 ms

Loss rate: 0.86%

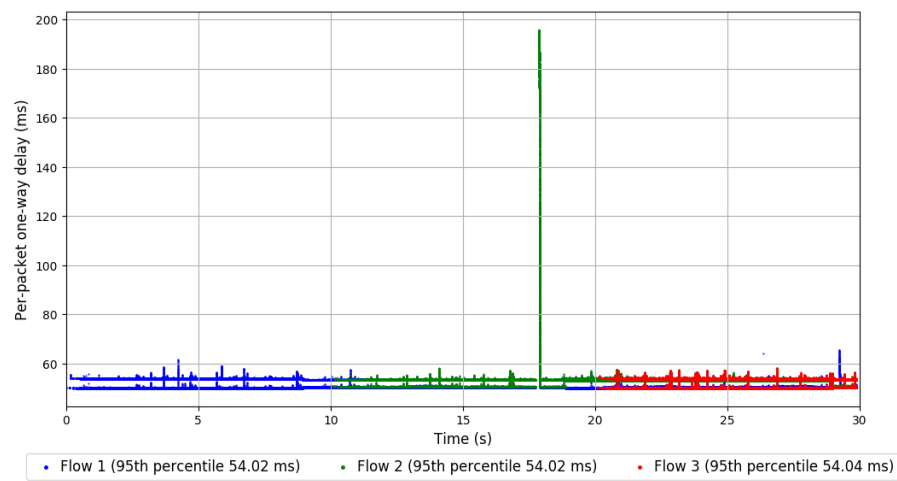
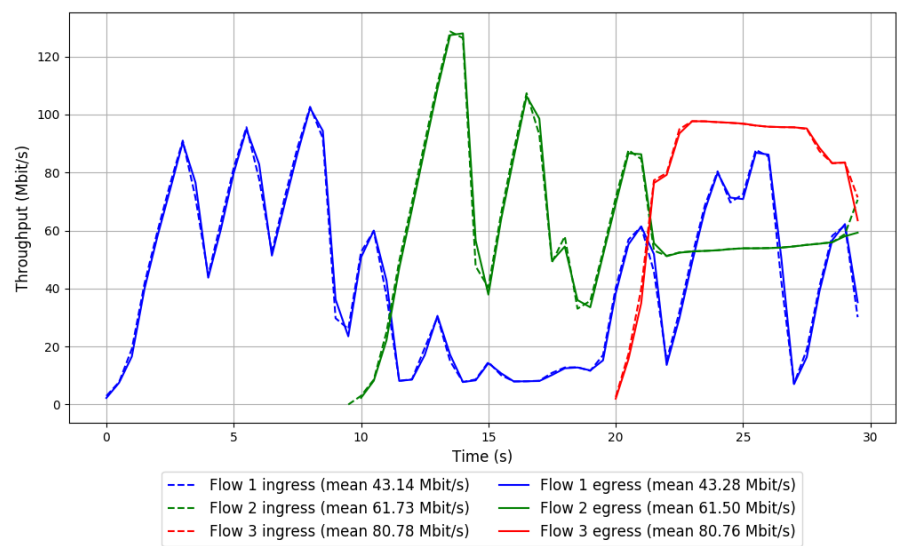
-- Flow 3:

Average throughput: 80.76 Mbit/s

95th percentile per-packet one-way delay: 54.043 ms

Loss rate: 1.04%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-07 03:55:47

End at: 2018-03-07 03:56:17

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

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.25 Mbit/s

95th percentile per-packet one-way delay: 53.912 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 122.02 Mbit/s

95th percentile per-packet one-way delay: 53.783 ms

Loss rate: 0.40%

-- Flow 2:

Average throughput: 85.06 Mbit/s

95th percentile per-packet one-way delay: 53.989 ms

Loss rate: 0.51%

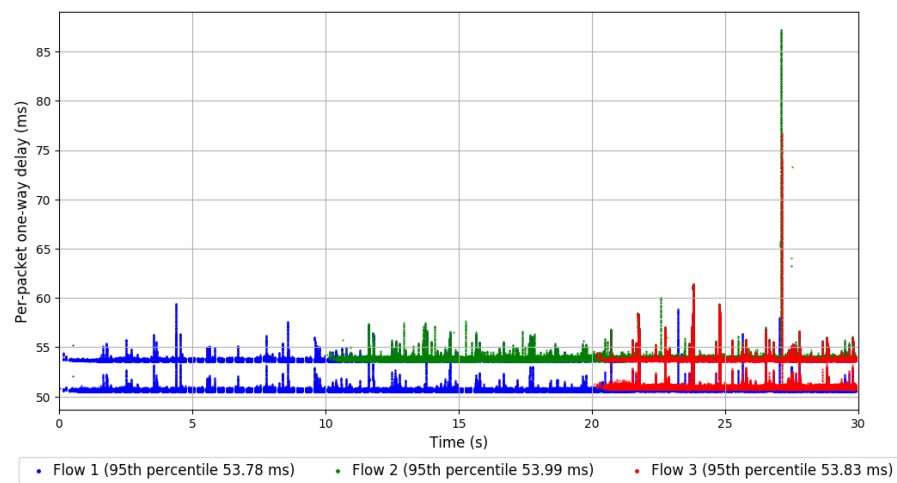
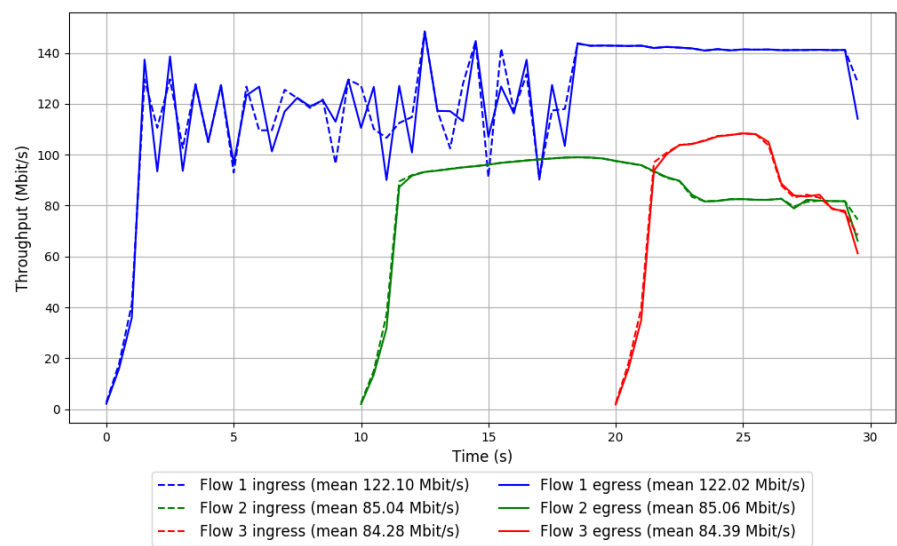
-- Flow 3:

Average throughput: 84.39 Mbit/s

95th percentile per-packet one-way delay: 53.831 ms

Loss rate: 0.90%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-07 04:13:05

End at: 2018-03-07 04:13:35

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 485.12 Mbit/s

95th percentile per-packet one-way delay: 202.033 ms

Loss rate: 23.01%

-- Flow 1:

Average throughput: 282.91 Mbit/s

95th percentile per-packet one-way delay: 203.053 ms

Loss rate: 22.22%

-- Flow 2:

Average throughput: 304.46 Mbit/s

95th percentile per-packet one-way delay: 200.650 ms

Loss rate: 24.10%

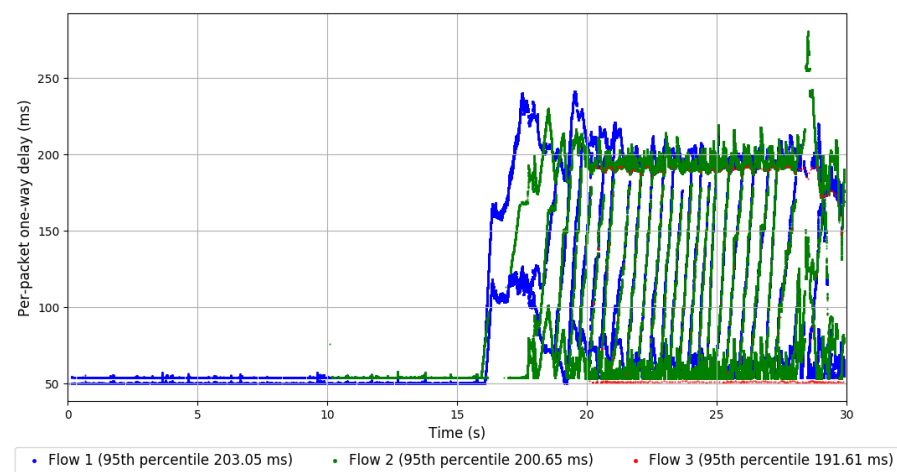
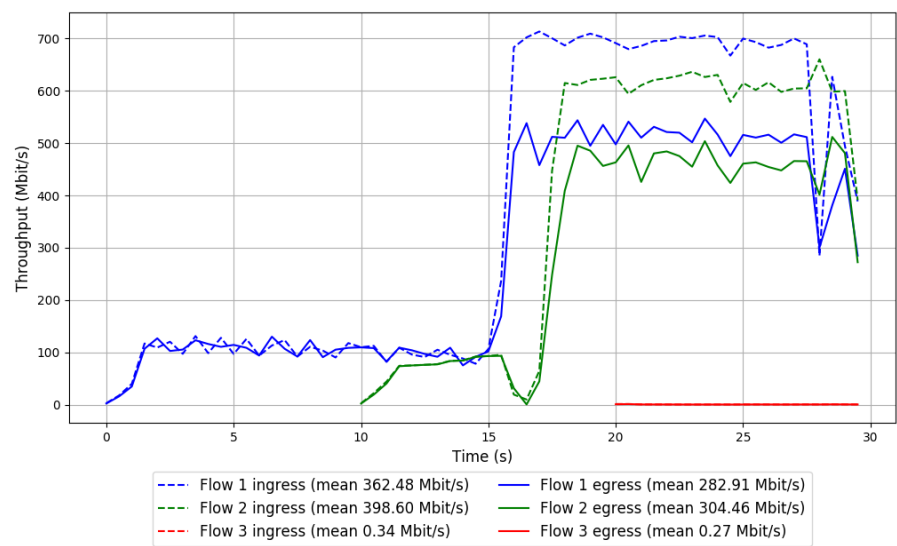
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 191.612 ms

Loss rate: 19.85%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-07 04:30:30

End at: 2018-03-07 04:31:00

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.75 Mbit/s

95th percentile per-packet one-way delay: 263.563 ms

Loss rate: 24.91%

-- Flow 1:

Average throughput: 75.39 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 217.48 Mbit/s

95th percentile per-packet one-way delay: 266.974 ms

Loss rate: 33.96%

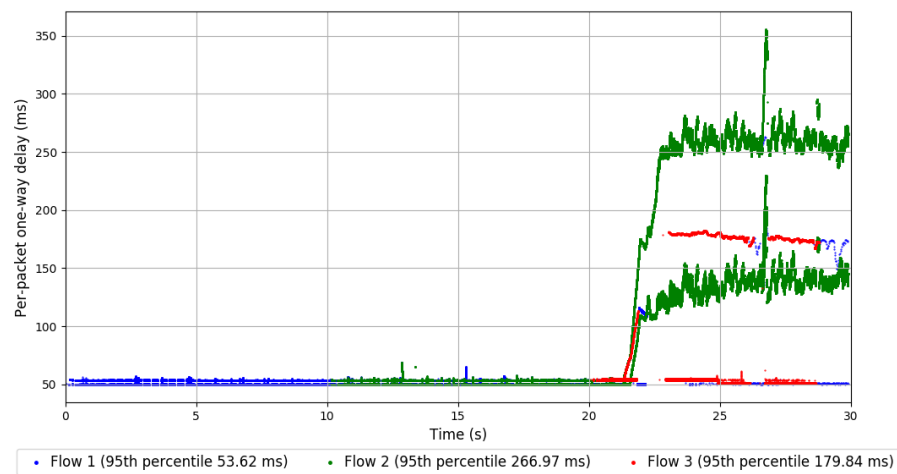
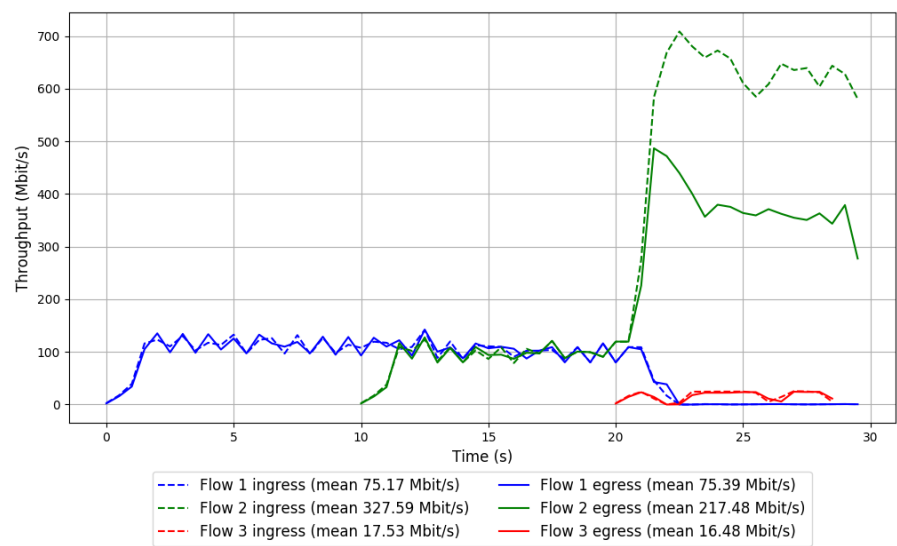
-- Flow 3:

Average throughput: 16.48 Mbit/s

95th percentile per-packet one-way delay: 179.836 ms

Loss rate: 4.71%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-07 04:47:23

End at: 2018-03-07 04:47:53

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.60 Mbit/s

95th percentile per-packet one-way delay: 53.910 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 83.88 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 121.66 Mbit/s

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

Loss rate: 0.30%

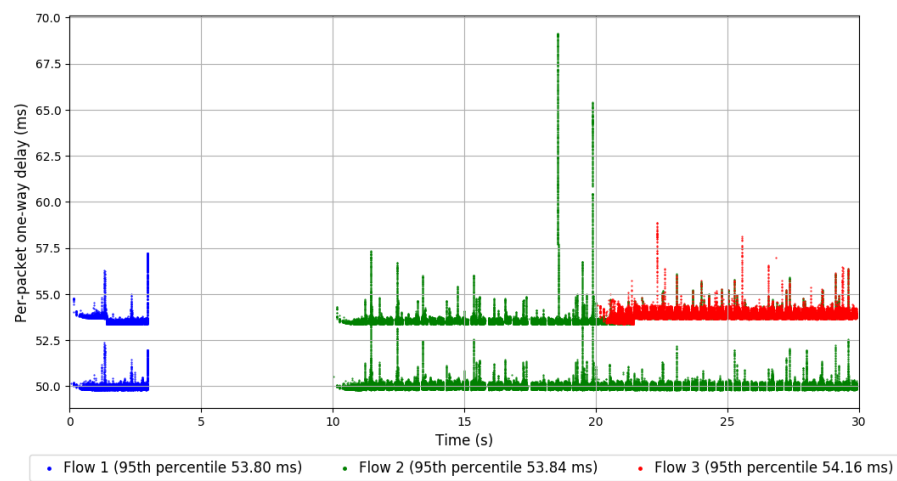
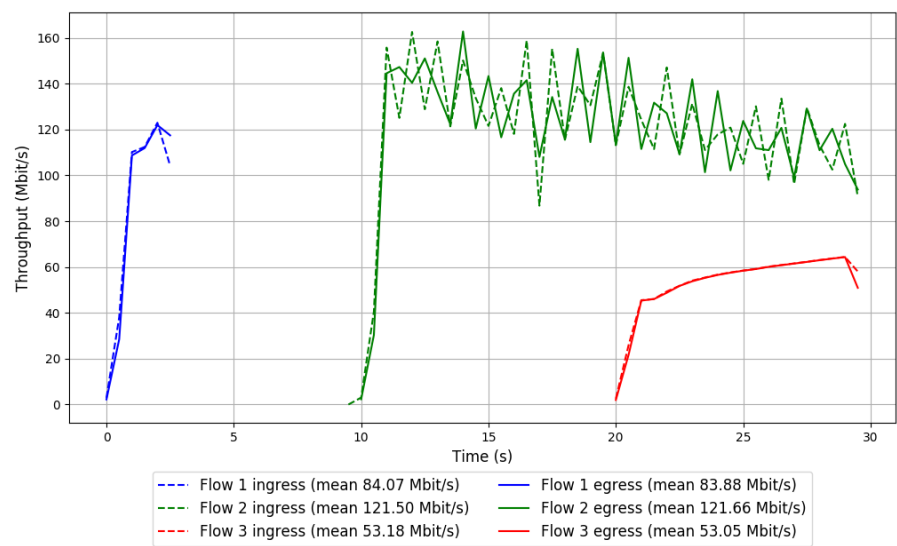
-- Flow 3:

Average throughput: 53.05 Mbit/s

95th percentile per-packet one-way delay: 54.164 ms

Loss rate: 1.33%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-07 05:04:21

End at: 2018-03-07 05:04:51

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.38 Mbit/s

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

Loss rate: 0.35%

-- Flow 1:

Average throughput: 69.56 Mbit/s

95th percentile per-packet one-way delay: 53.801 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 79.96 Mbit/s

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

Loss rate: 0.50%

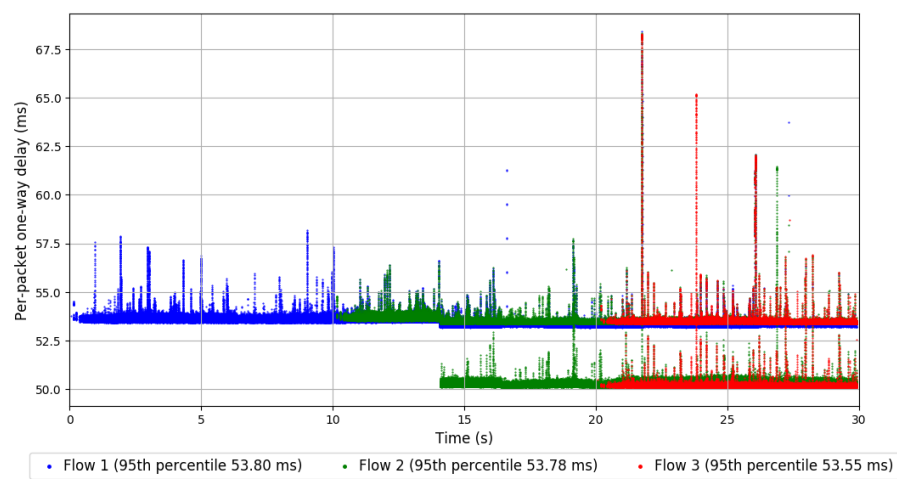
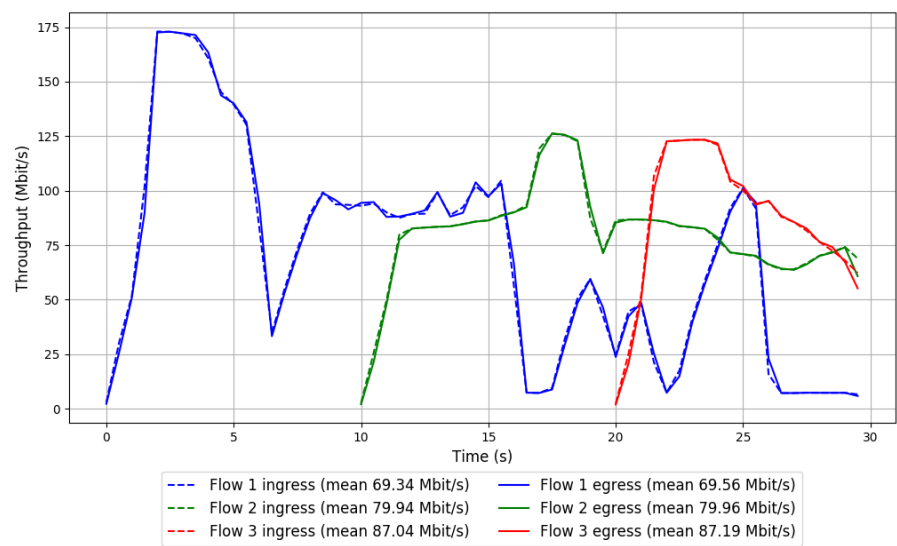
-- Flow 3:

Average throughput: 87.19 Mbit/s

95th percentile per-packet one-way delay: 53.552 ms

Loss rate: 0.83%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-07 05:21:20

End at: 2018-03-07 05:21:50

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 314.38 Mbit/s

95th percentile per-packet one-way delay: 247.120 ms

Loss rate: 16.85%

-- Flow 1:

Average throughput: 279.75 Mbit/s

95th percentile per-packet one-way delay: 247.743 ms

Loss rate: 18.45%

-- Flow 2:

Average throughput: 44.88 Mbit/s

95th percentile per-packet one-way delay: 66.124 ms

Loss rate: 1.37%

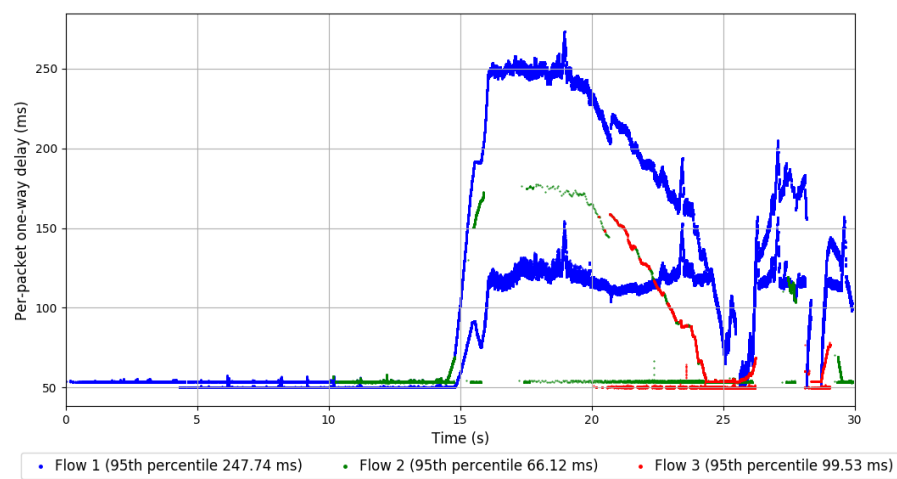
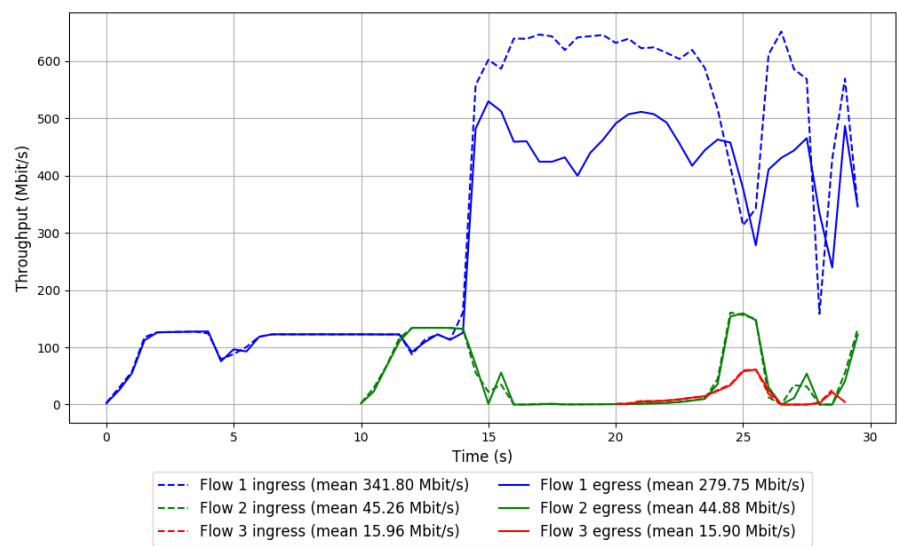
-- Flow 3:

Average throughput: 15.90 Mbit/s

95th percentile per-packet one-way delay: 99.535 ms

Loss rate: 0.12%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-07 05:38:42

End at: 2018-03-07 05:39:12

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.87 Mbit/s

95th percentile per-packet one-way delay: 53.834 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 89.49 Mbit/s

95th percentile per-packet one-way delay: 53.798 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 66.01 Mbit/s

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

Loss rate: 0.39%

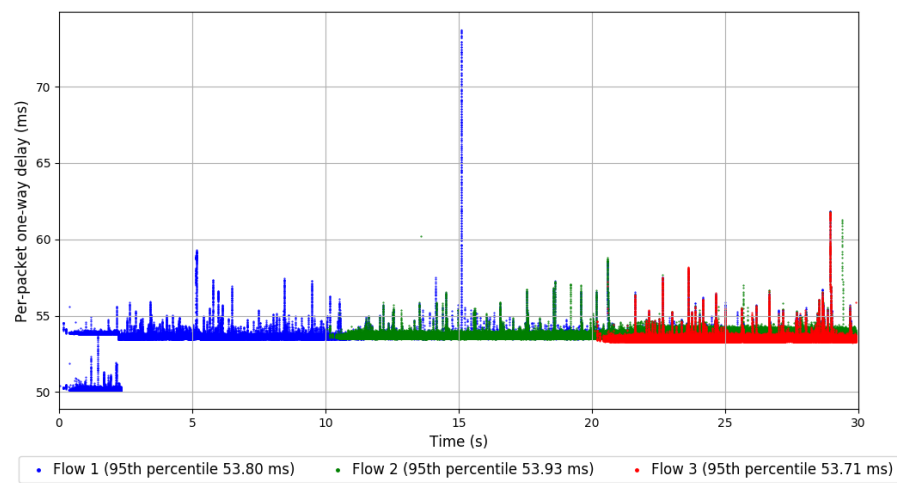
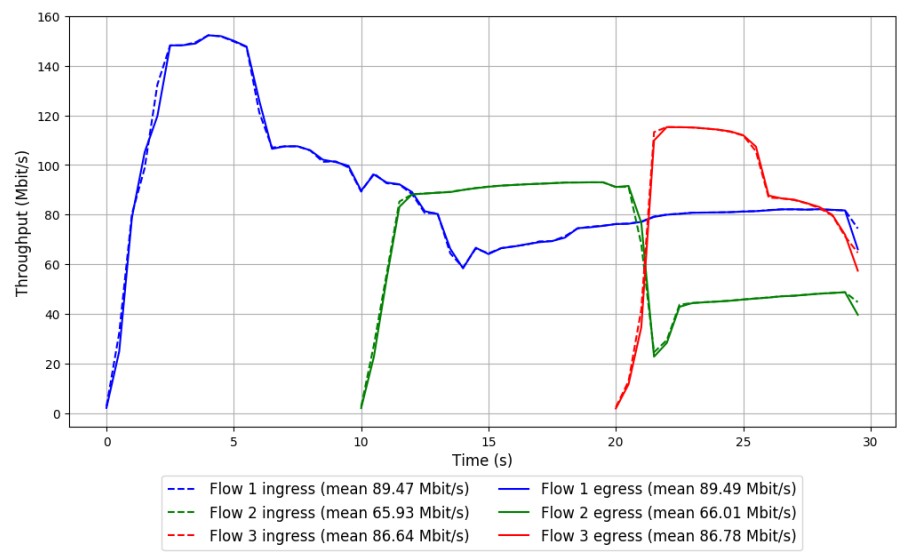
-- Flow 3:

Average throughput: 86.78 Mbit/s

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

Loss rate: 0.87%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-07 05:55:51

End at: 2018-03-07 05:56:21

Below is generated by plot.py at 2018-03-07 10:11:45

Datalink statistics

-- Total of 3 flows:

Average throughput: 161.79 Mbit/s

95th percentile per-packet one-way delay: 54.165 ms

Loss rate: 0.66%

-- Flow 1:

Average throughput: 70.09 Mbit/s

95th percentile per-packet one-way delay: 54.237 ms

Loss rate: 0.25%

-- Flow 2:

Average throughput: 98.83 Mbit/s

95th percentile per-packet one-way delay: 54.129 ms

Loss rate: 0.71%

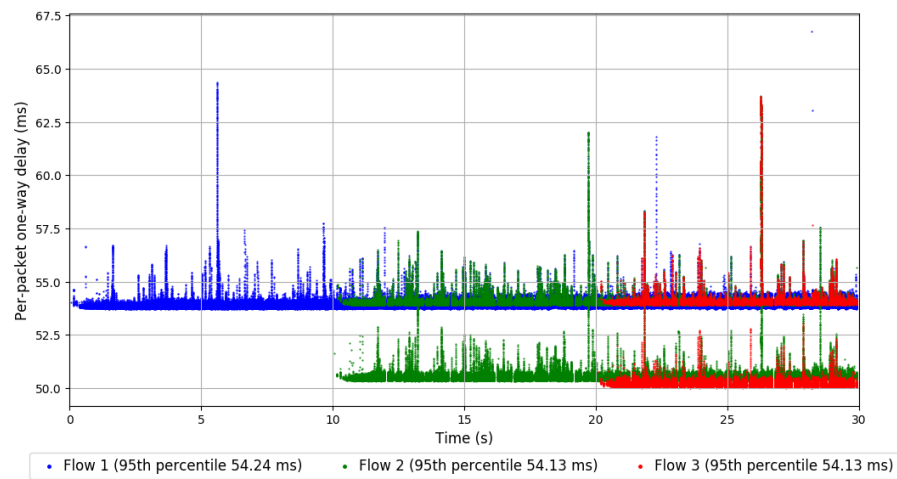
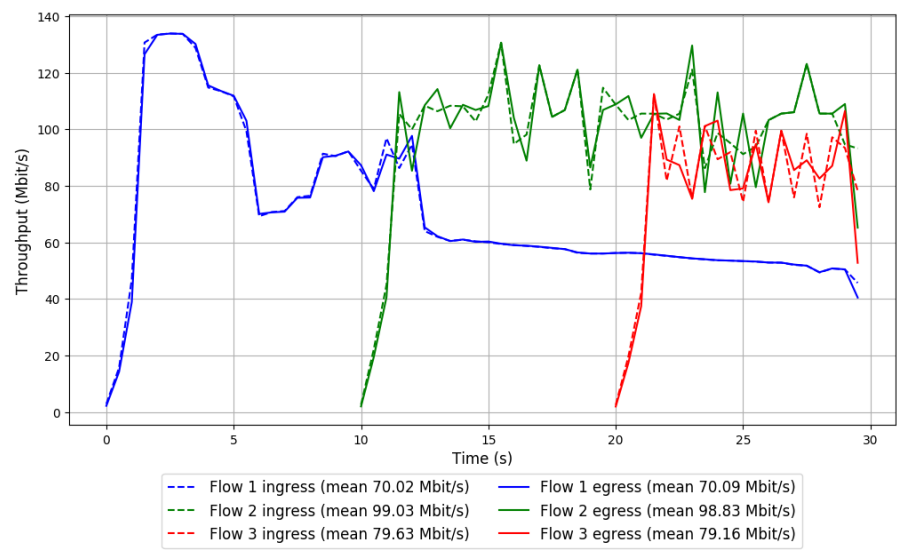
-- Flow 3:

Average throughput: 79.16 Mbit/s

95th percentile per-packet one-way delay: 54.134 ms

Loss rate: 1.61%

Run 10: Report of Copa — Data Link

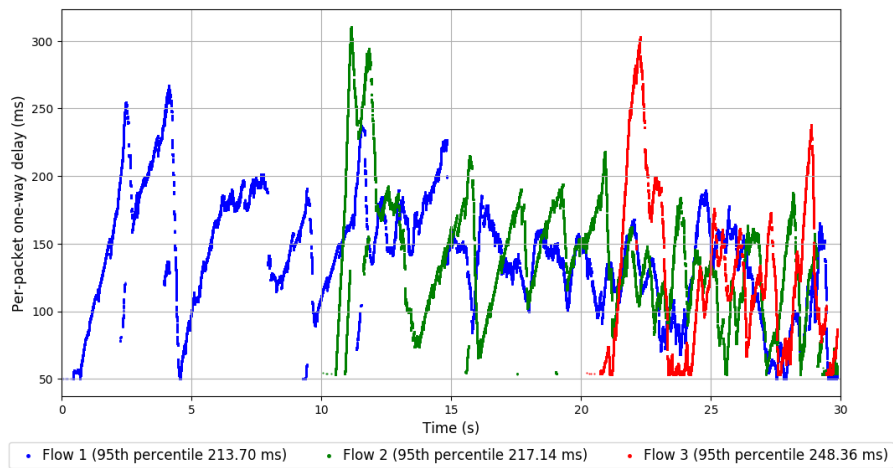
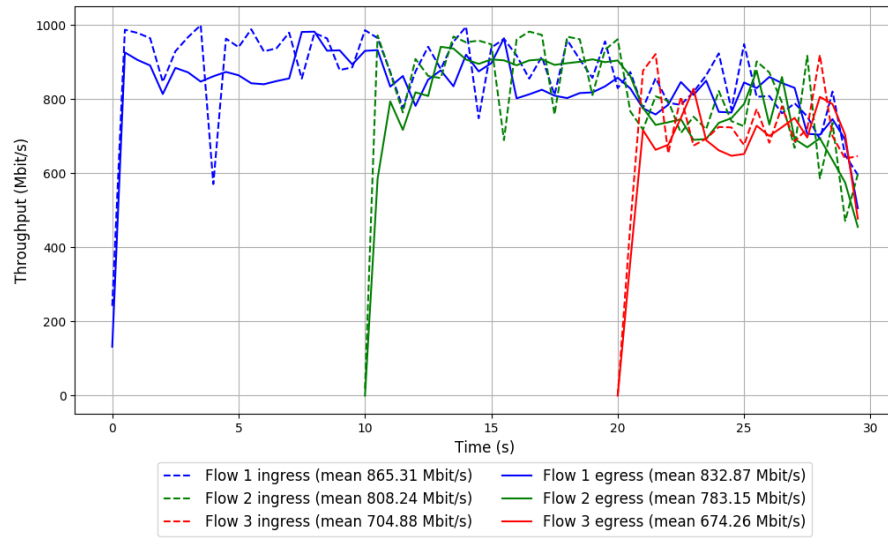


```
Run 1: Statistics of FillP

Start at: 2018-03-07 03:12:20
End at: 2018-03-07 03:12:50

# Below is generated by plot.py at 2018-03-07 10:27:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1571.33 Mbit/s
95th percentile per-packet one-way delay: 219.459 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 832.87 Mbit/s
95th percentile per-packet one-way delay: 213.696 ms
Loss rate: 4.07%
-- Flow 2:
Average throughput: 783.15 Mbit/s
95th percentile per-packet one-way delay: 217.141 ms
Loss rate: 3.62%
-- Flow 3:
Average throughput: 674.26 Mbit/s
95th percentile per-packet one-way delay: 248.364 ms
Loss rate: 5.38%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-07 03:29:35

End at: 2018-03-07 03:30:05

Below is generated by plot.py at 2018-03-07 10:27:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 1313.03 Mbit/s

95th percentile per-packet one-way delay: 290.907 ms

Loss rate: 2.62%

-- Flow 1:

Average throughput: 699.53 Mbit/s

95th percentile per-packet one-way delay: 289.234 ms

Loss rate: 2.54%

-- Flow 2:

Average throughput: 580.66 Mbit/s

95th percentile per-packet one-way delay: 309.903 ms

Loss rate: 2.37%

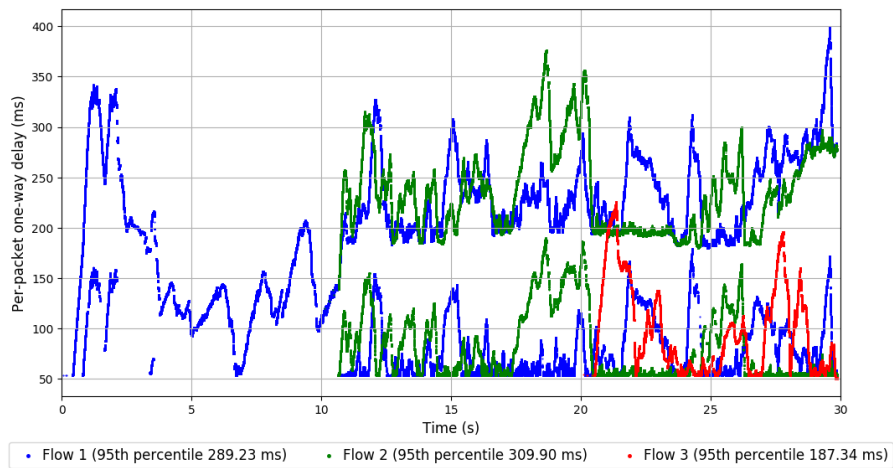
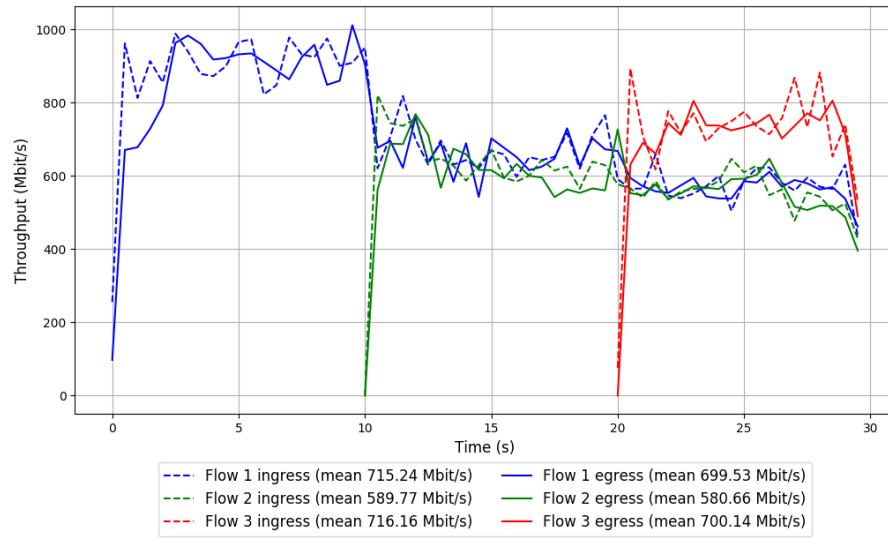
-- Flow 3:

Average throughput: 700.14 Mbit/s

95th percentile per-packet one-way delay: 187.342 ms

Loss rate: 3.28%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-07 03:46:42

End at: 2018-03-07 03:47:12

Below is generated by plot.py at 2018-03-07 10:30:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1554.31 Mbit/s

95th percentile per-packet one-way delay: 152.613 ms

Loss rate: 5.67%

-- Flow 1:

Average throughput: 823.52 Mbit/s

95th percentile per-packet one-way delay: 144.407 ms

Loss rate: 3.72%

-- Flow 2:

Average throughput: 741.62 Mbit/s

95th percentile per-packet one-way delay: 149.993 ms

Loss rate: 9.30%

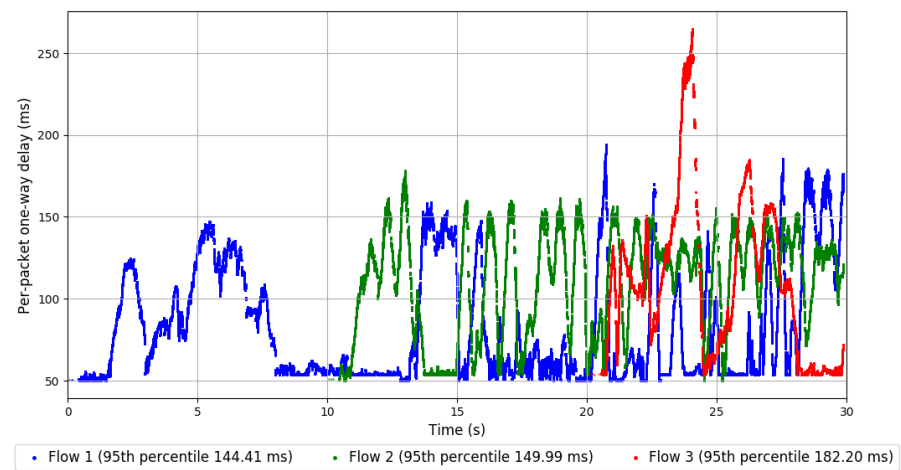
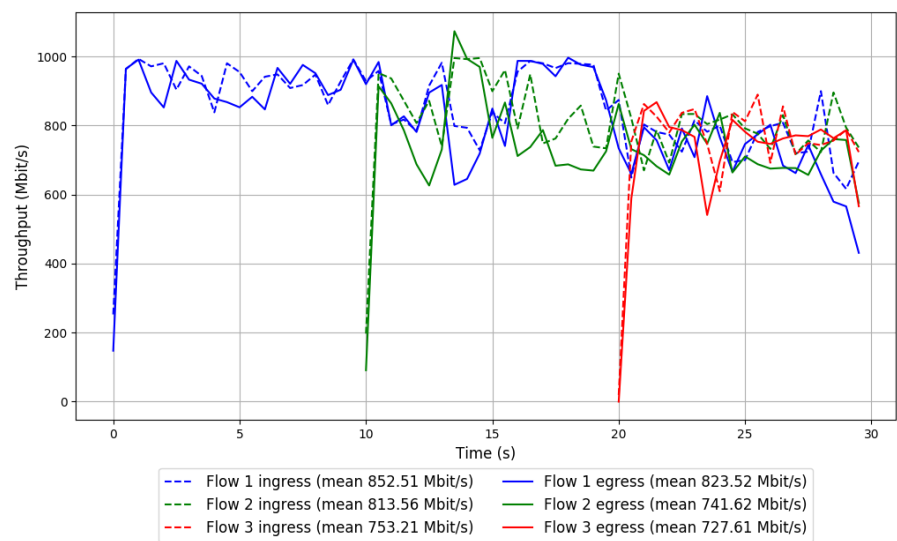
-- Flow 3:

Average throughput: 727.61 Mbit/s

95th percentile per-packet one-way delay: 182.201 ms

Loss rate: 4.41%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-07 04:03:59

End at: 2018-03-07 04:04:29

Below is generated by plot.py at 2018-03-07 10:30:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1549.57 Mbit/s

95th percentile per-packet one-way delay: 136.817 ms

Loss rate: 2.80%

-- Flow 1:

Average throughput: 807.03 Mbit/s

95th percentile per-packet one-way delay: 132.420 ms

Loss rate: 1.64%

-- Flow 2:

Average throughput: 781.86 Mbit/s

95th percentile per-packet one-way delay: 122.246 ms

Loss rate: 1.44%

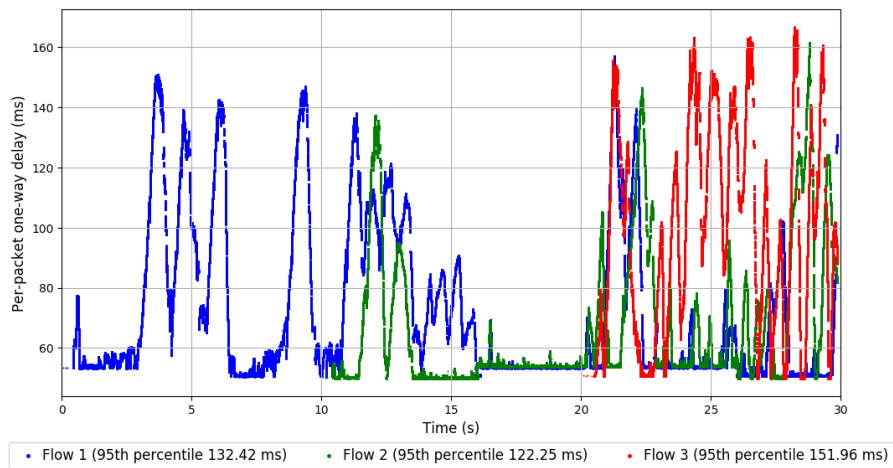
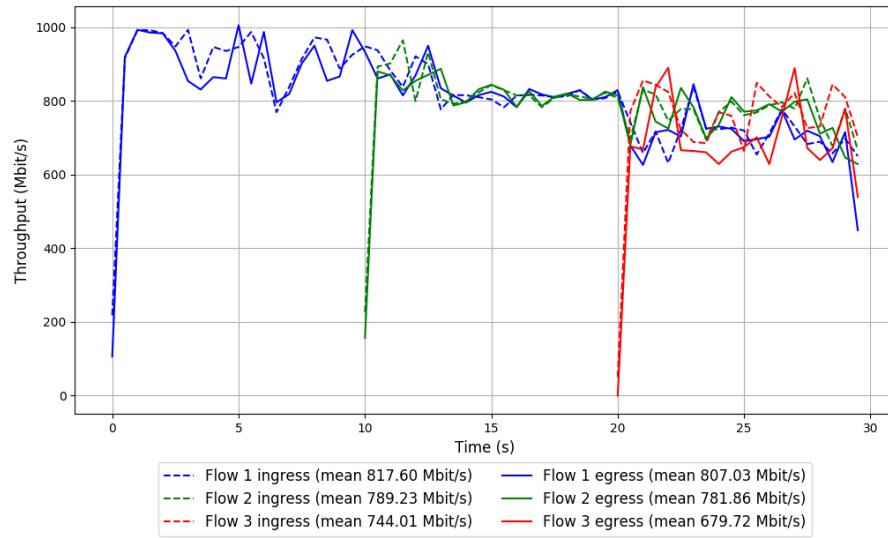
-- Flow 3:

Average throughput: 679.72 Mbit/s

95th percentile per-packet one-way delay: 151.960 ms

Loss rate: 9.58%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-07 04:21:31

End at: 2018-03-07 04:22:01

Below is generated by plot.py at 2018-03-07 10:32:58

Datalink statistics

-- Total of 3 flows:

Average throughput: 1533.87 Mbit/s

95th percentile per-packet one-way delay: 253.023 ms

Loss rate: 4.06%

-- Flow 1:

Average throughput: 816.25 Mbit/s

95th percentile per-packet one-way delay: 243.228 ms

Loss rate: 3.72%

-- Flow 2:

Average throughput: 742.45 Mbit/s

95th percentile per-packet one-way delay: 276.271 ms

Loss rate: 4.34%

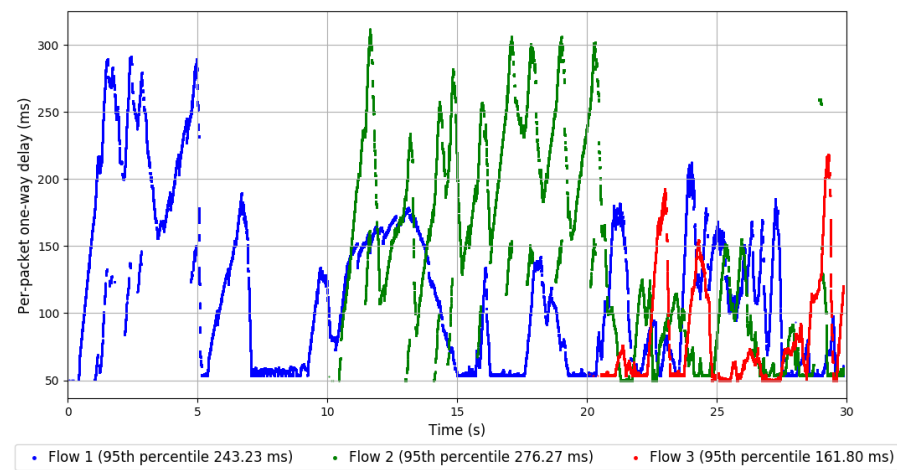
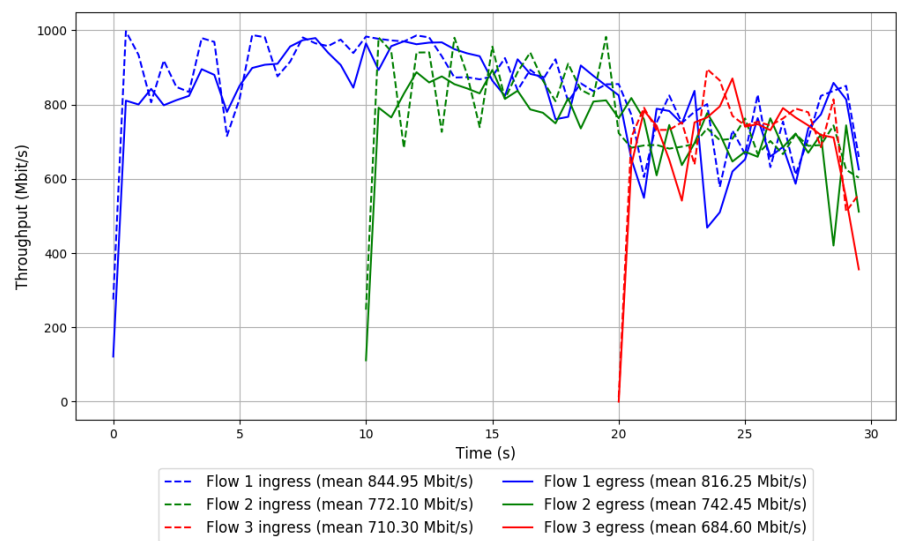
-- Flow 3:

Average throughput: 684.60 Mbit/s

95th percentile per-packet one-way delay: 161.798 ms

Loss rate: 4.65%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-07 04:38:17

End at: 2018-03-07 04:38:47

Below is generated by plot.py at 2018-03-07 10:37:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 1609.12 Mbit/s

95th percentile per-packet one-way delay: 207.364 ms

Loss rate: 4.35%

-- Flow 1:

Average throughput: 838.34 Mbit/s

95th percentile per-packet one-way delay: 231.045 ms

Loss rate: 2.75%

-- Flow 2:

Average throughput: 851.01 Mbit/s

95th percentile per-packet one-way delay: 132.081 ms

Loss rate: 3.86%

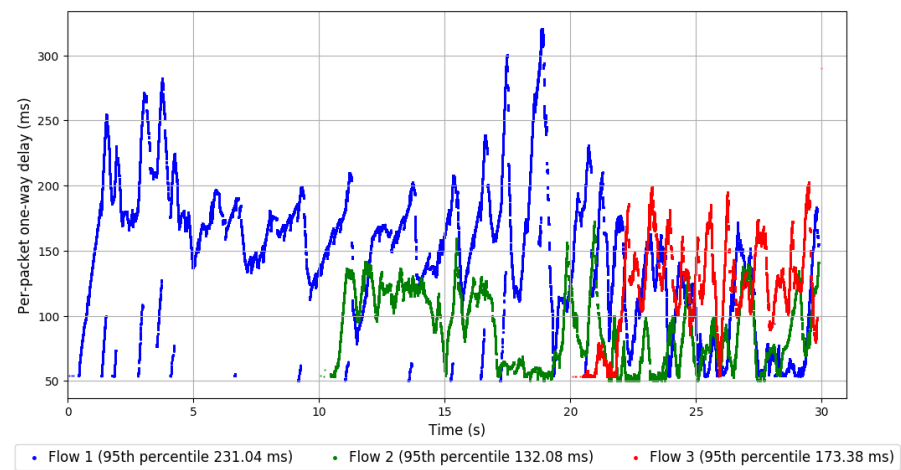
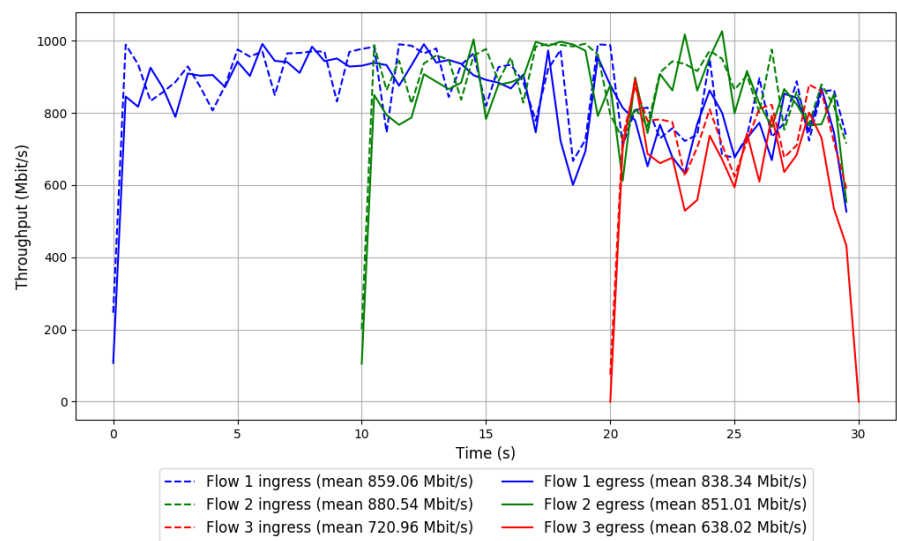
-- Flow 3:

Average throughput: 638.02 Mbit/s

95th percentile per-packet one-way delay: 173.384 ms

Loss rate: 11.29%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-07 04:55:20

End at: 2018-03-07 04:55:50

Below is generated by plot.py at 2018-03-07 10:37:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 1462.74 Mbit/s

95th percentile per-packet one-way delay: 267.042 ms

Loss rate: 4.50%

-- Flow 1:

Average throughput: 776.01 Mbit/s

95th percentile per-packet one-way delay: 241.012 ms

Loss rate: 2.29%

-- Flow 2:

Average throughput: 740.22 Mbit/s

95th percentile per-packet one-way delay: 254.283 ms

Loss rate: 5.44%

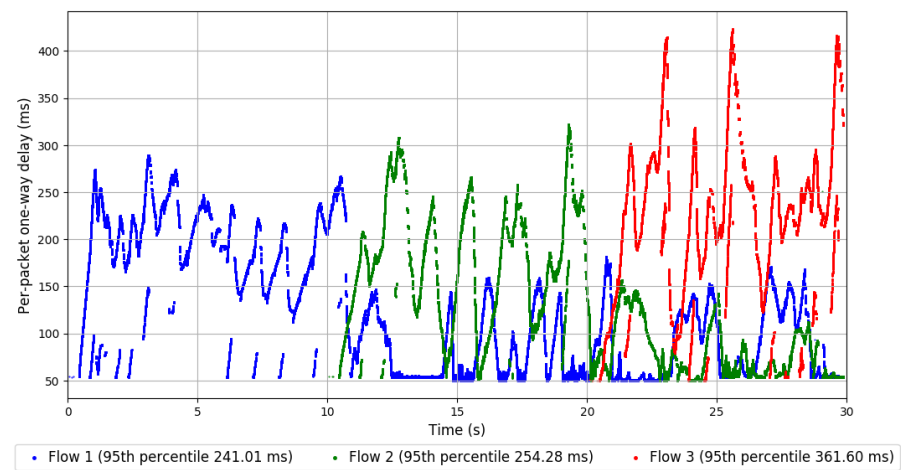
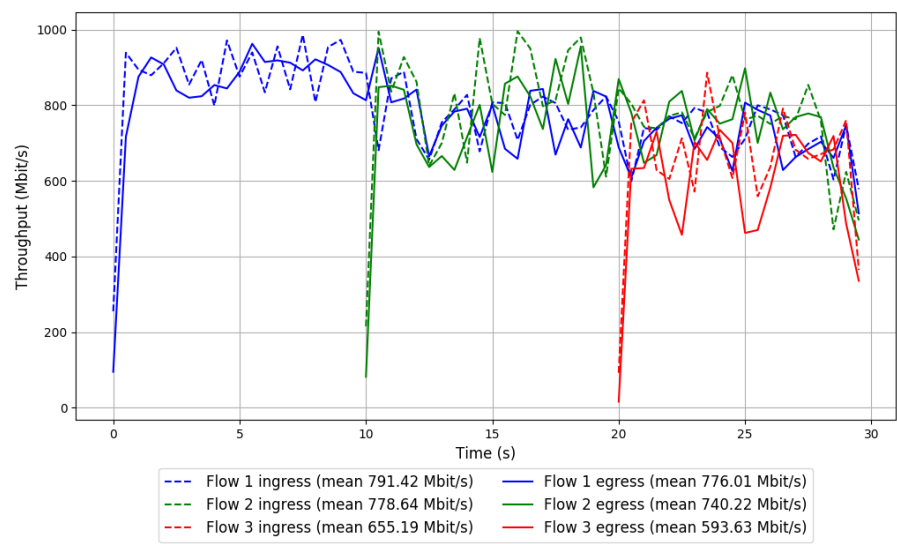
-- Flow 3:

Average throughput: 593.63 Mbit/s

95th percentile per-packet one-way delay: 361.595 ms

Loss rate: 10.32%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-07 05:12:20

End at: 2018-03-07 05:12:50

Below is generated by plot.py at 2018-03-07 10:40:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 1570.94 Mbit/s

95th percentile per-packet one-way delay: 254.908 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 815.81 Mbit/s

95th percentile per-packet one-way delay: 272.088 ms

Loss rate: 2.69%

-- Flow 2:

Average throughput: 769.70 Mbit/s

95th percentile per-packet one-way delay: 138.576 ms

Loss rate: 1.47%

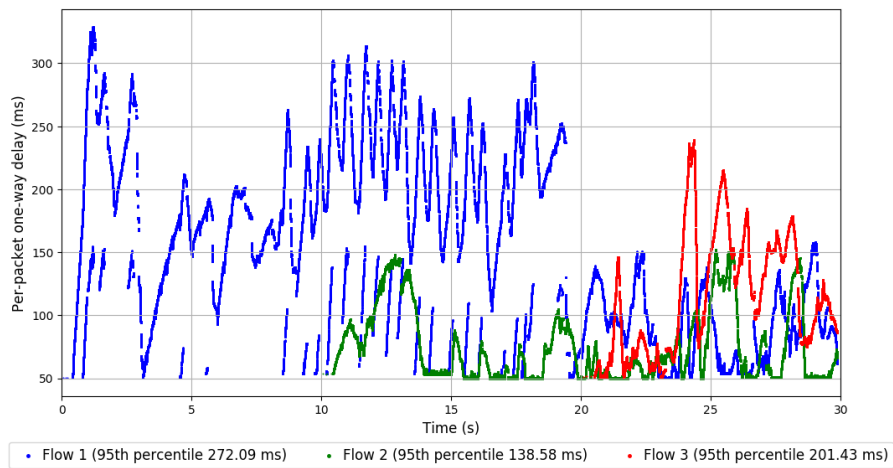
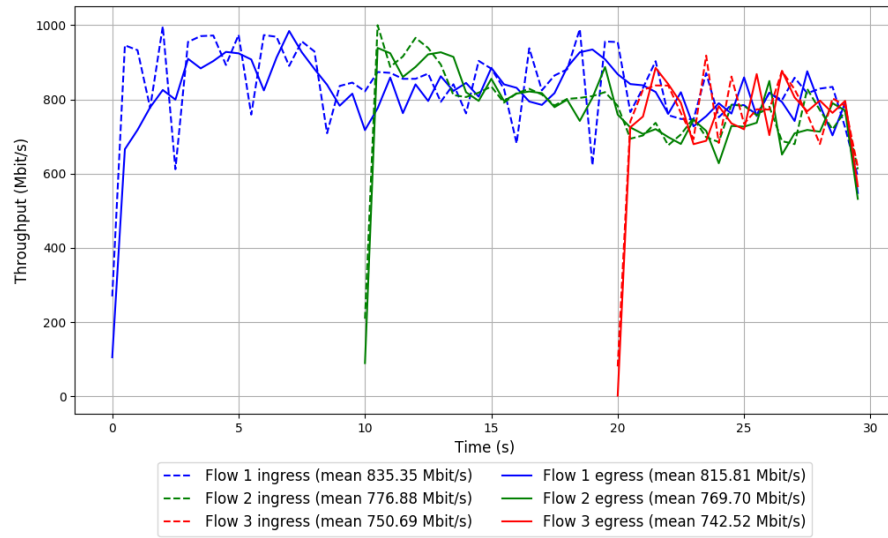
-- Flow 3:

Average throughput: 742.52 Mbit/s

95th percentile per-packet one-way delay: 201.426 ms

Loss rate: 2.15%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-07 05:29:36

End at: 2018-03-07 05:30:06

Below is generated by plot.py at 2018-03-07 10:55:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 1553.57 Mbit/s

95th percentile per-packet one-way delay: 213.116 ms

Loss rate: 5.27%

-- Flow 1:

Average throughput: 817.79 Mbit/s

95th percentile per-packet one-way delay: 159.239 ms

Loss rate: 4.26%

-- Flow 2:

Average throughput: 781.62 Mbit/s

95th percentile per-packet one-way delay: 232.116 ms

Loss rate: 5.09%

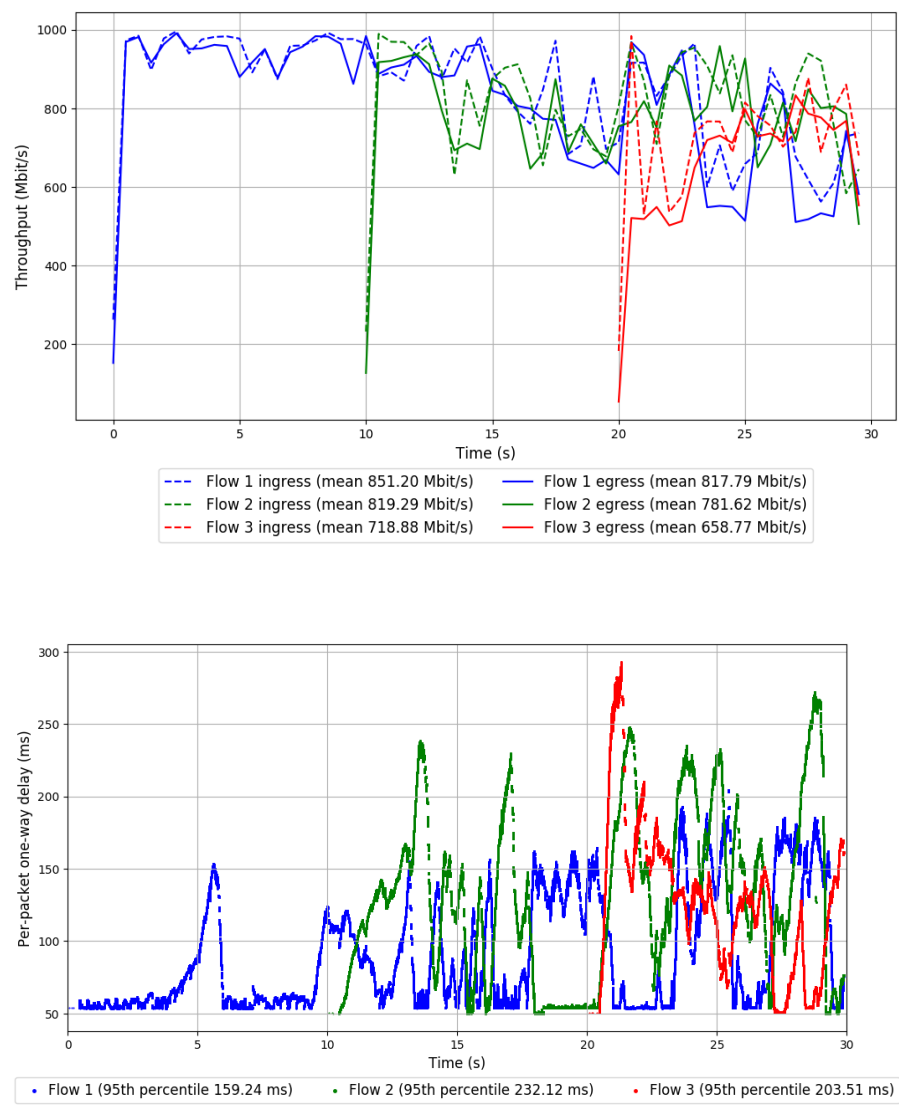
-- Flow 3:

Average throughput: 658.77 Mbit/s

95th percentile per-packet one-way delay: 203.508 ms

Loss rate: 9.31%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-07 05:46:49

End at: 2018-03-07 05:47:19

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1509.63 Mbit/s

95th percentile per-packet one-way delay: 204.207 ms

Loss rate: 3.91%

-- Flow 1:

Average throughput: 802.86 Mbit/s

95th percentile per-packet one-way delay: 226.579 ms

Loss rate: 3.94%

-- Flow 2:

Average throughput: 733.05 Mbit/s

95th percentile per-packet one-way delay: 168.997 ms

Loss rate: 2.46%

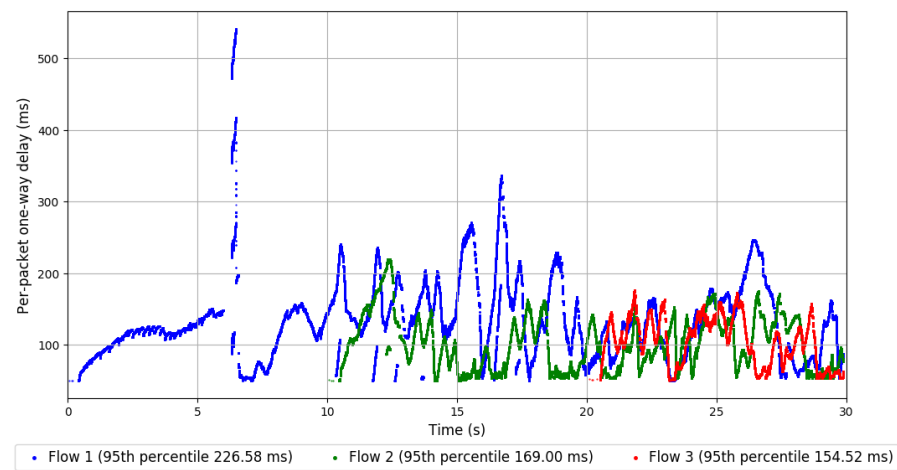
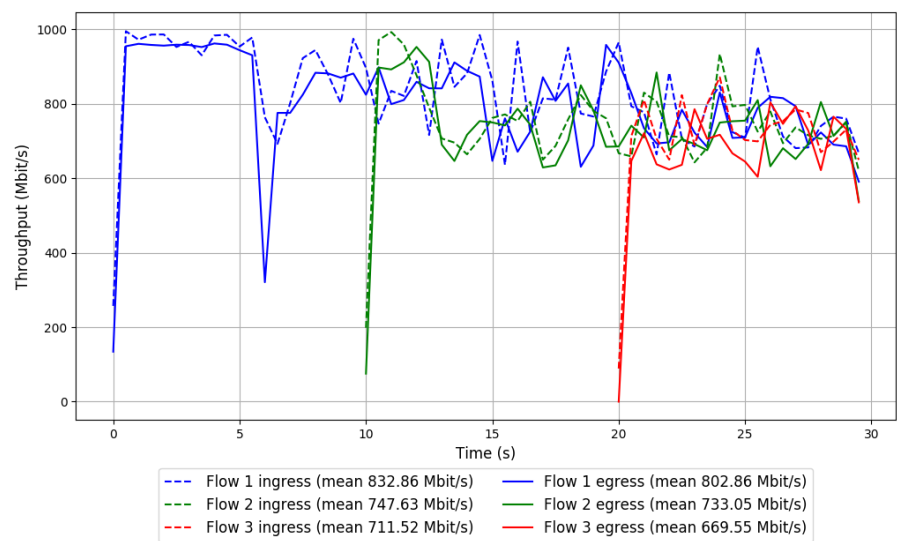
-- Flow 3:

Average throughput: 669.55 Mbit/s

95th percentile per-packet one-way delay: 154.516 ms

Loss rate: 6.90%

Run 10: Report of FillP — Data Link

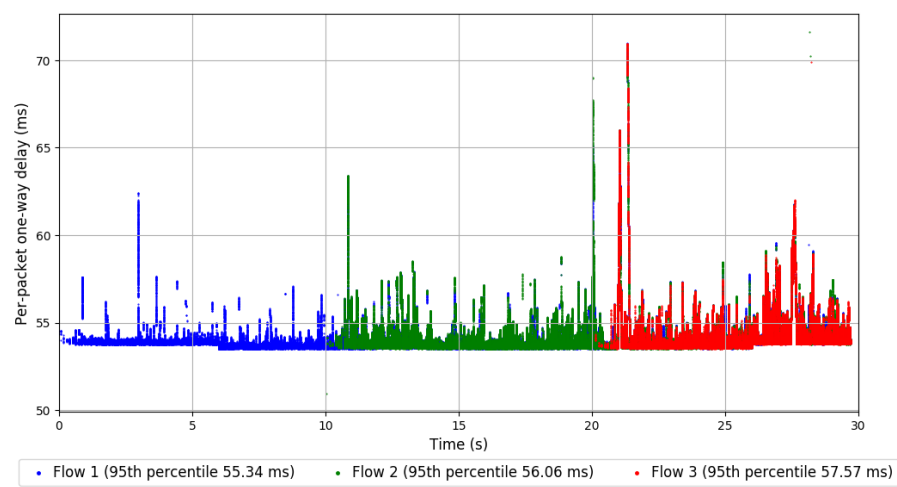
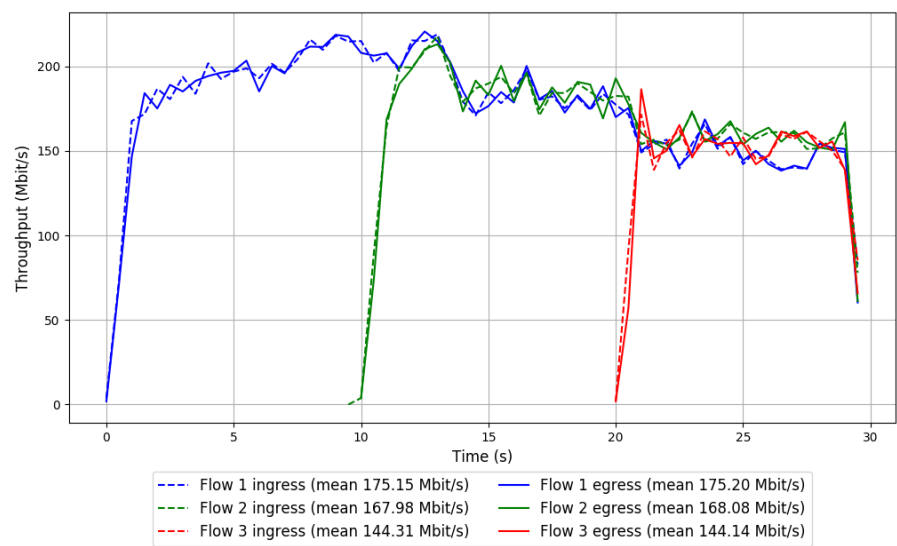


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-07 03:11:18
End at: 2018-03-07 03:11:48

# Below is generated by plot.py at 2018-03-07 10:56:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 333.10 Mbit/s
95th percentile per-packet one-way delay: 55.842 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 175.20 Mbit/s
95th percentile per-packet one-way delay: 55.338 ms
Loss rate: 0.34%
-- Flow 2:
Average throughput: 168.08 Mbit/s
95th percentile per-packet one-way delay: 56.060 ms
Loss rate: 0.48%
-- Flow 3:
Average throughput: 144.14 Mbit/s
95th percentile per-packet one-way delay: 57.574 ms
Loss rate: 1.24%
```

Run 1: Report of Indigo-1-32 — Data Link

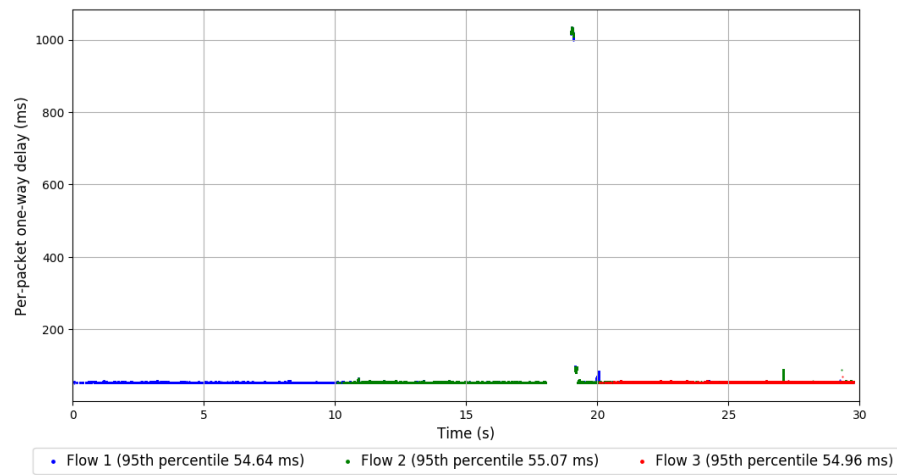
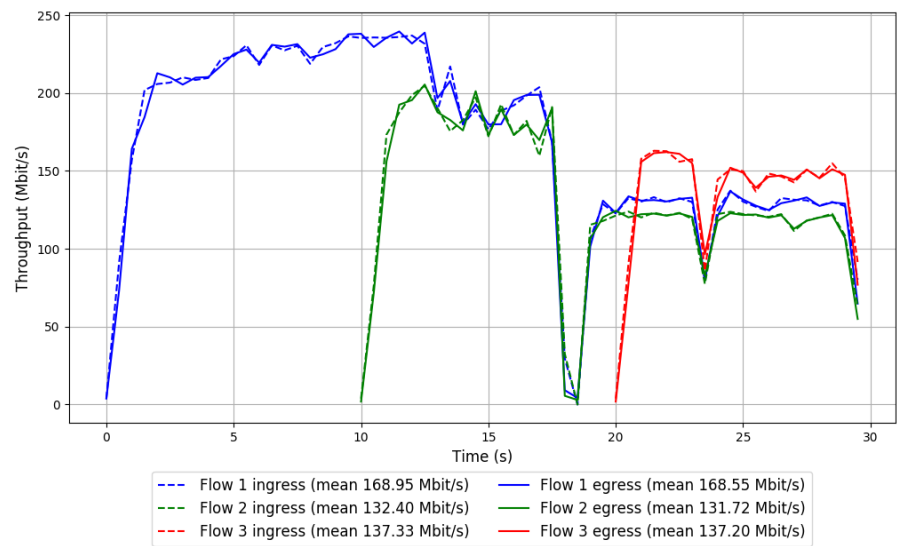


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-07 03:28:36
End at: 2018-03-07 03:29:06

# Below is generated by plot.py at 2018-03-07 10:56:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 300.44 Mbit/s
95th percentile per-packet one-way delay: 54.813 ms
Loss rate: 0.80%
-- Flow 1:
Average throughput: 168.55 Mbit/s
95th percentile per-packet one-way delay: 54.641 ms
Loss rate: 0.57%
-- Flow 2:
Average throughput: 131.72 Mbit/s
95th percentile per-packet one-way delay: 55.067 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 137.20 Mbit/s
95th percentile per-packet one-way delay: 54.959 ms
Loss rate: 1.17%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-07 03:45:41

End at: 2018-03-07 03:46:11

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.89 Mbit/s

95th percentile per-packet one-way delay: 55.000 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 183.21 Mbit/s

95th percentile per-packet one-way delay: 54.757 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 151.08 Mbit/s

95th percentile per-packet one-way delay: 55.391 ms

Loss rate: 0.55%

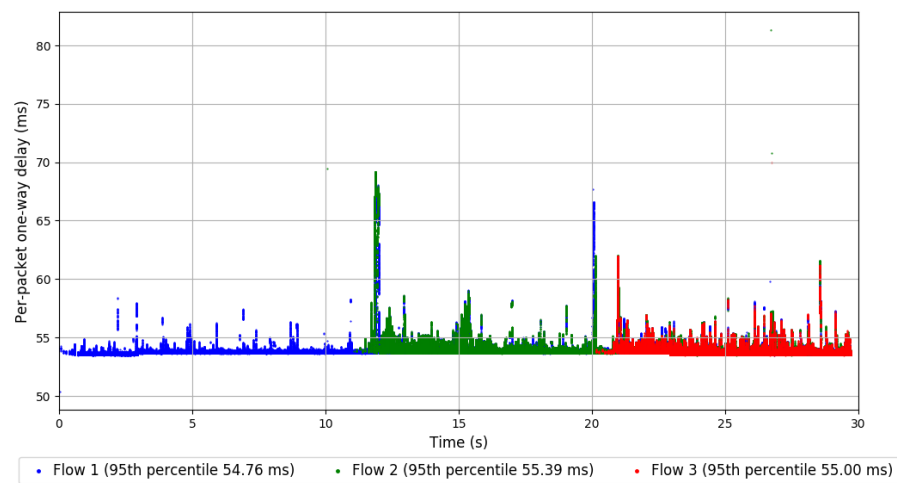
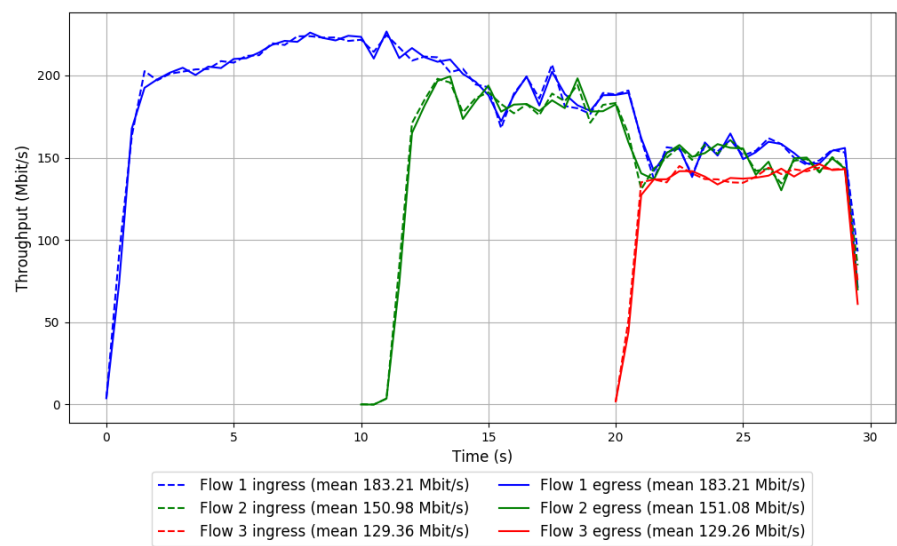
-- Flow 3:

Average throughput: 129.26 Mbit/s

95th percentile per-packet one-way delay: 55.000 ms

Loss rate: 1.16%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-07 04:02:58

End at: 2018-03-07 04:03:28

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 328.16 Mbit/s

95th percentile per-packet one-way delay: 54.421 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 180.68 Mbit/s

95th percentile per-packet one-way delay: 54.216 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 154.70 Mbit/s

95th percentile per-packet one-way delay: 54.516 ms

Loss rate: 0.59%

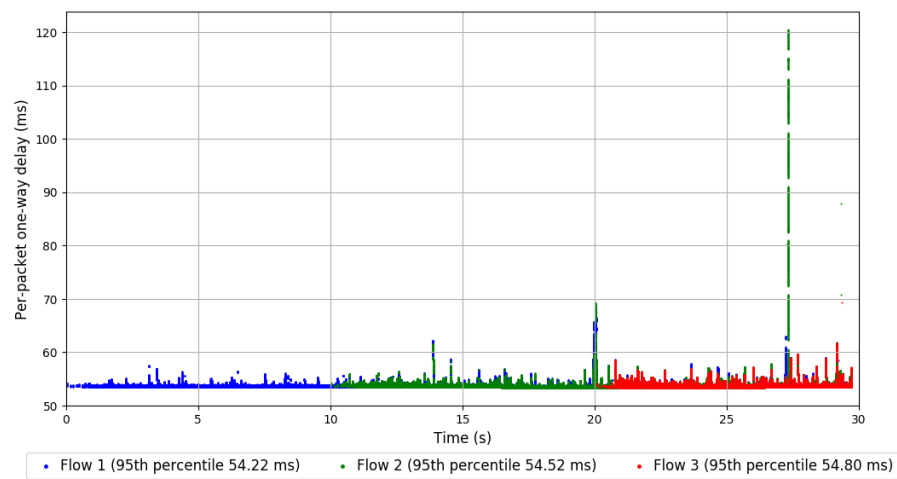
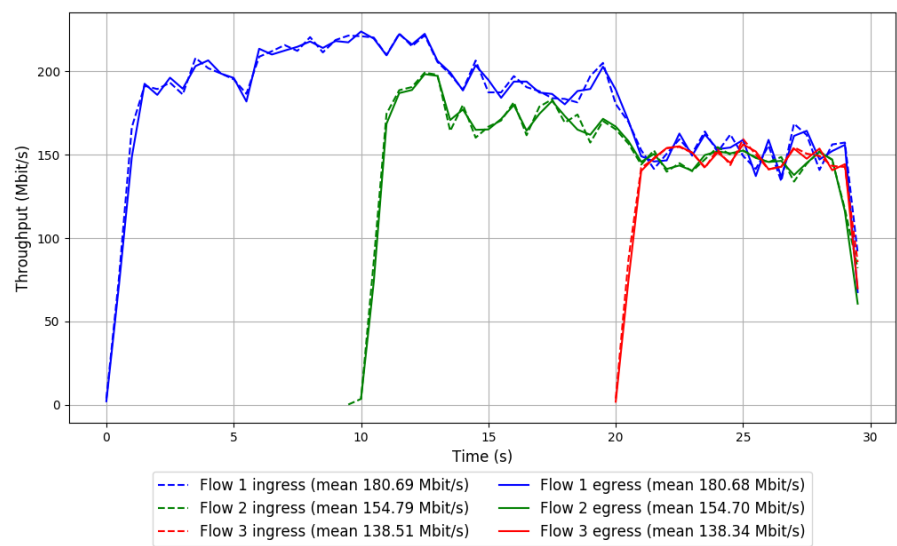
-- Flow 3:

Average throughput: 138.34 Mbit/s

95th percentile per-packet one-way delay: 54.802 ms

Loss rate: 1.20%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-07 04:20:29

End at: 2018-03-07 04:20:59

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.30 Mbit/s

95th percentile per-packet one-way delay: 56.253 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 183.37 Mbit/s

95th percentile per-packet one-way delay: 55.303 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 166.19 Mbit/s

95th percentile per-packet one-way delay: 56.646 ms

Loss rate: 0.47%

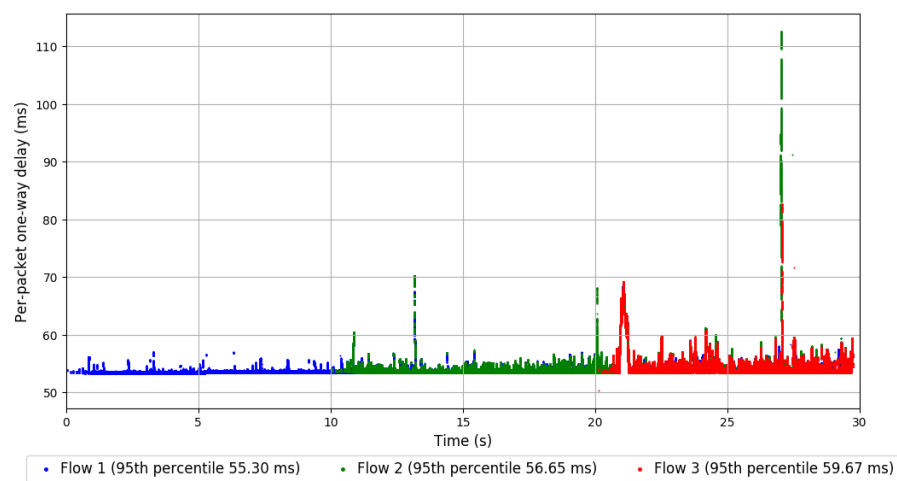
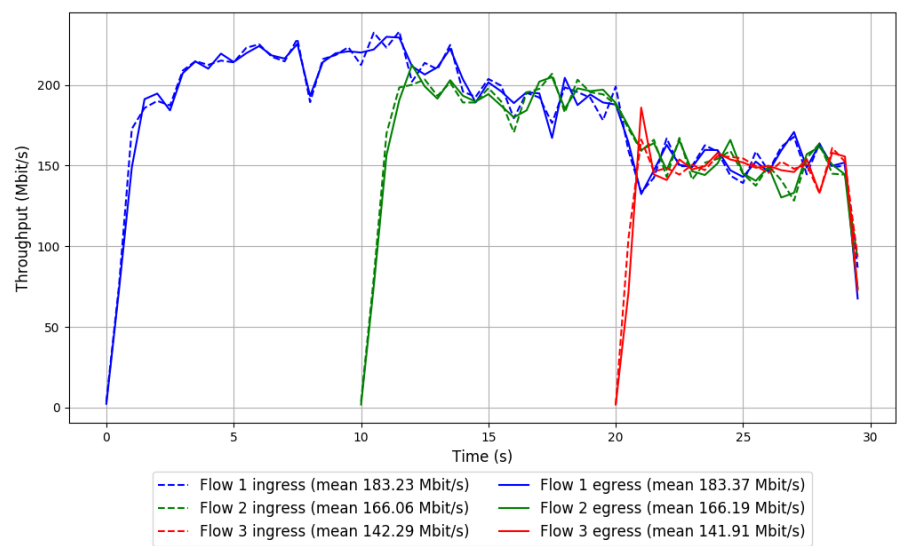
-- Flow 3:

Average throughput: 141.91 Mbit/s

95th percentile per-packet one-way delay: 59.674 ms

Loss rate: 1.32%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-07 04:37:16

End at: 2018-03-07 04:37:46

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.48 Mbit/s

95th percentile per-packet one-way delay: 54.590 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 175.35 Mbit/s

95th percentile per-packet one-way delay: 54.346 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 156.11 Mbit/s

95th percentile per-packet one-way delay: 54.729 ms

Loss rate: 0.56%

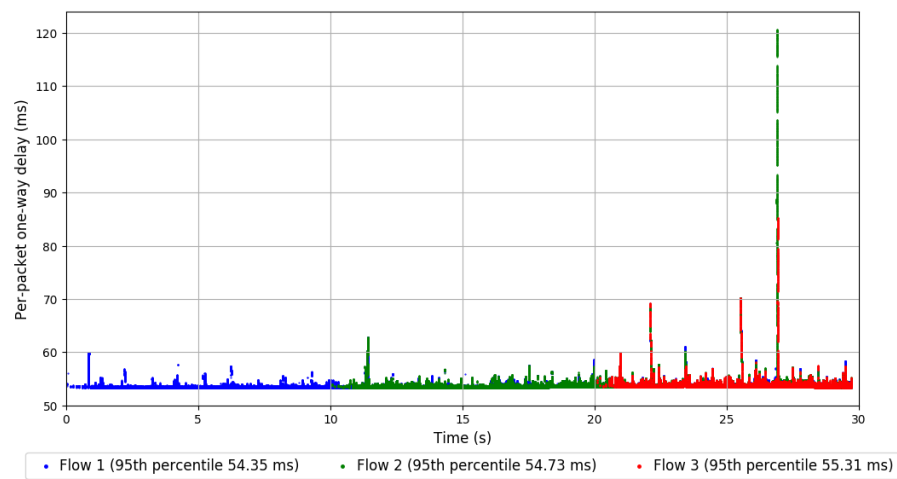
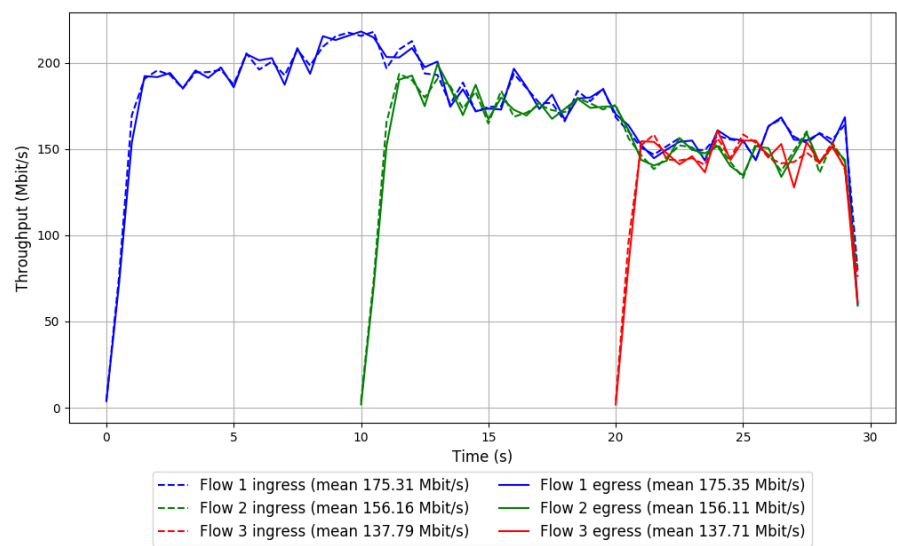
-- Flow 3:

Average throughput: 137.71 Mbit/s

95th percentile per-packet one-way delay: 55.311 ms

Loss rate: 1.12%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-07 04:54:19

End at: 2018-03-07 04:54:49

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.73 Mbit/s

95th percentile per-packet one-way delay: 55.170 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 181.50 Mbit/s

95th percentile per-packet one-way delay: 54.933 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 159.87 Mbit/s

95th percentile per-packet one-way delay: 55.485 ms

Loss rate: 0.54%

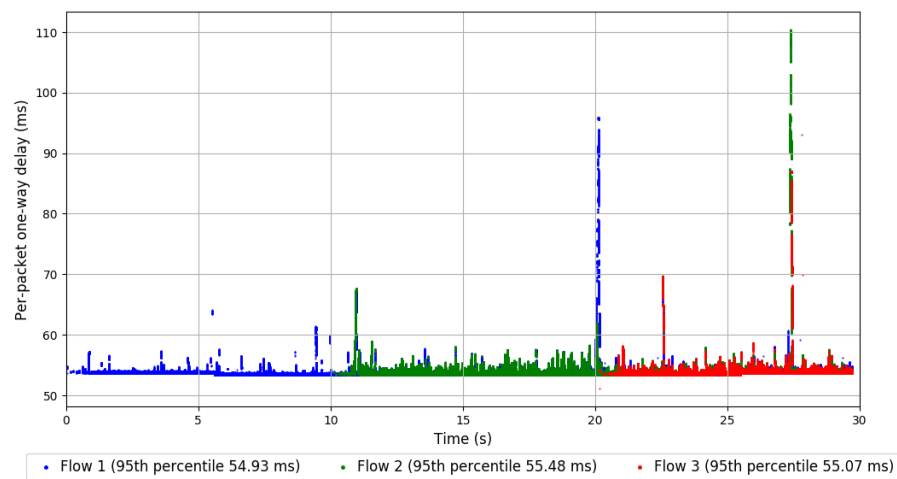
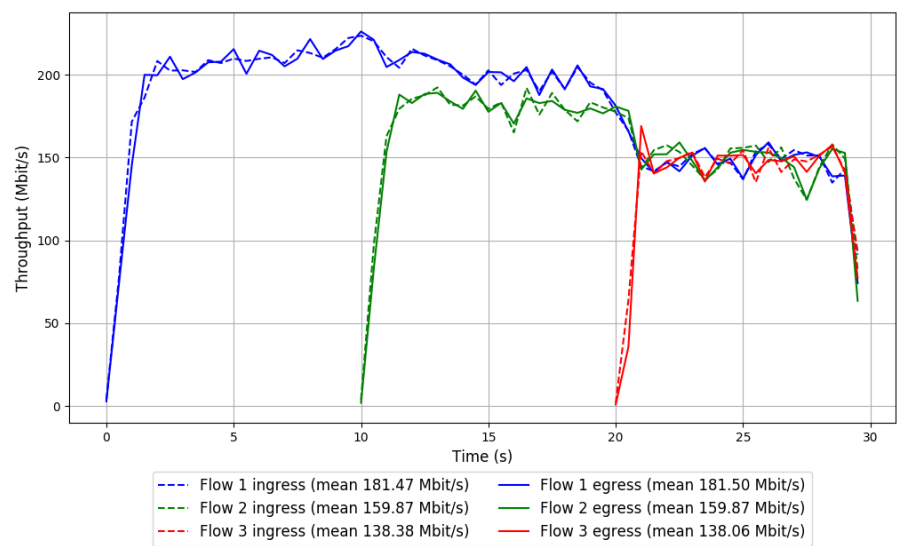
-- Flow 3:

Average throughput: 138.06 Mbit/s

95th percentile per-packet one-way delay: 55.070 ms

Loss rate: 1.27%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-07 05:11:19

End at: 2018-03-07 05:11:49

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 329.53 Mbit/s

95th percentile per-packet one-way delay: 55.215 ms

Loss rate: 0.51%

-- Flow 1:

Average throughput: 180.76 Mbit/s

95th percentile per-packet one-way delay: 54.876 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 156.59 Mbit/s

95th percentile per-packet one-way delay: 55.620 ms

Loss rate: 0.51%

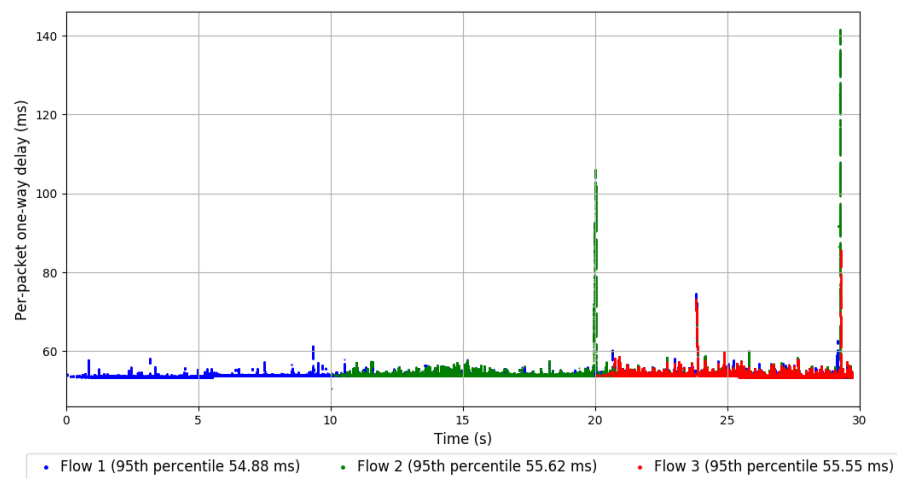
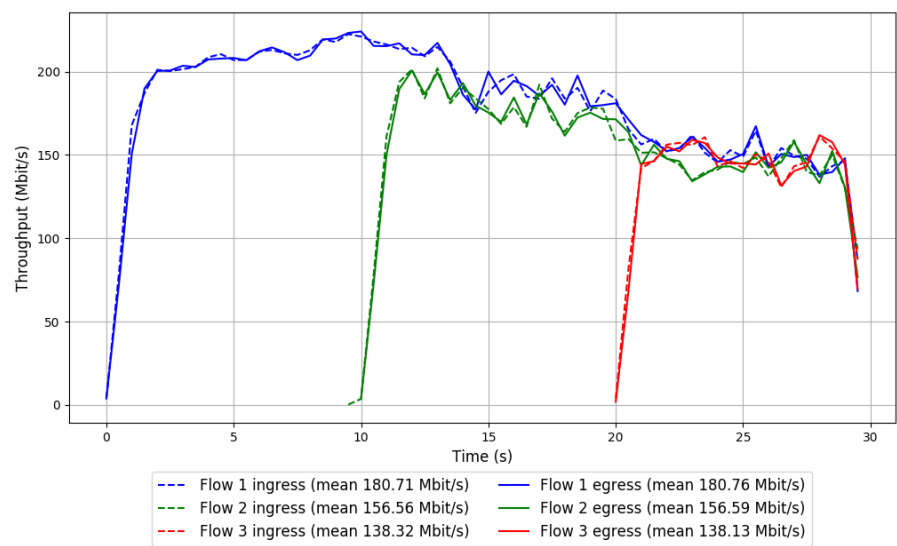
-- Flow 3:

Average throughput: 138.13 Mbit/s

95th percentile per-packet one-way delay: 55.554 ms

Loss rate: 1.23%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-07 05:28:36

End at: 2018-03-07 05:29:06

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.22 Mbit/s

95th percentile per-packet one-way delay: 60.211 ms

Loss rate: 0.45%

-- Flow 1:

Average throughput: 177.54 Mbit/s

95th percentile per-packet one-way delay: 57.987 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 159.08 Mbit/s

95th percentile per-packet one-way delay: 60.636 ms

Loss rate: 0.48%

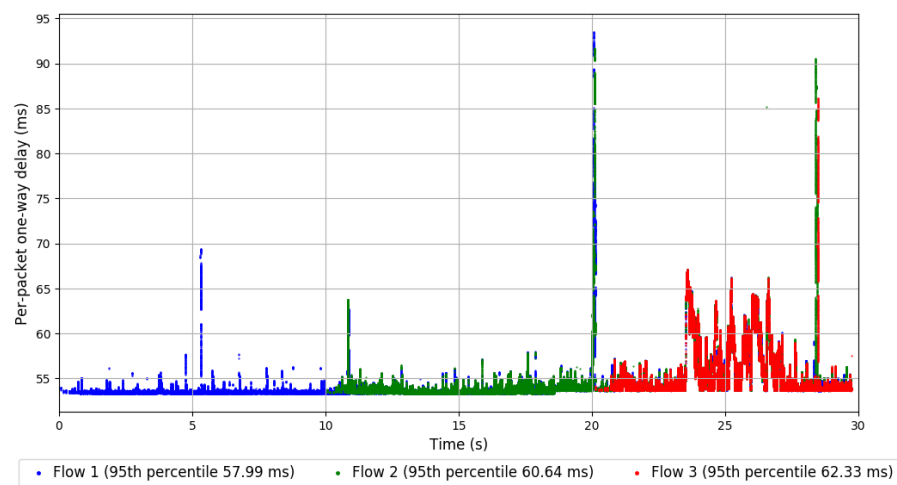
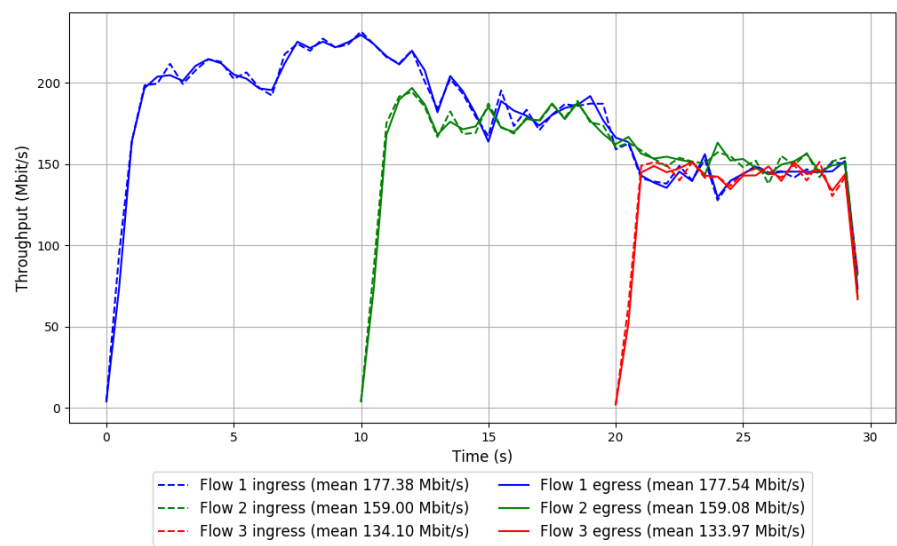
-- Flow 3:

Average throughput: 133.97 Mbit/s

95th percentile per-packet one-way delay: 62.328 ms

Loss rate: 1.14%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-07 05:45:50

End at: 2018-03-07 05:46:20

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 312.90 Mbit/s

95th percentile per-packet one-way delay: 55.257 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 167.99 Mbit/s

95th percentile per-packet one-way delay: 54.940 ms

Loss rate: 0.34%

-- Flow 2:

Average throughput: 149.07 Mbit/s

95th percentile per-packet one-way delay: 55.361 ms

Loss rate: 0.55%

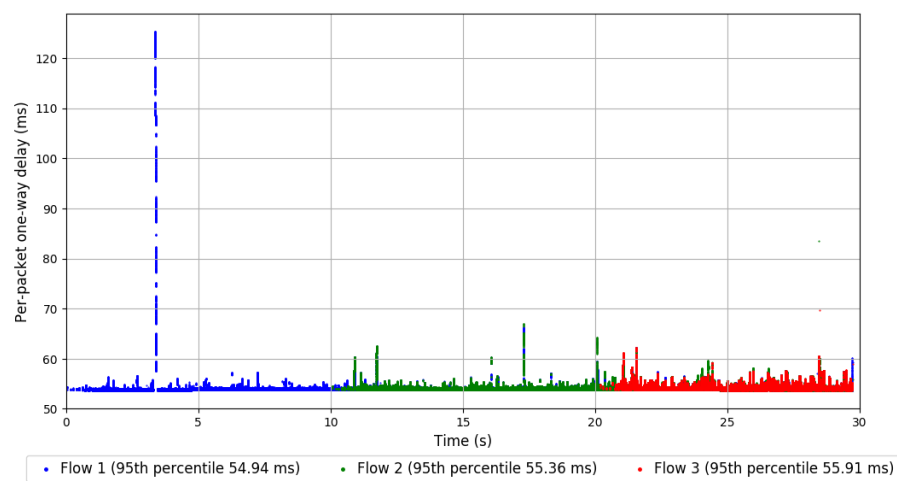
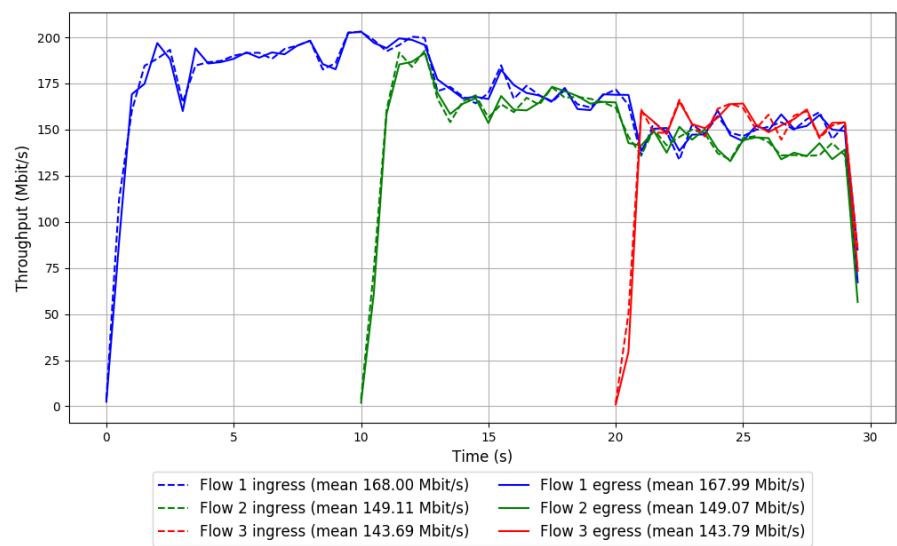
-- Flow 3:

Average throughput: 143.79 Mbit/s

95th percentile per-packet one-way delay: 55.913 ms

Loss rate: 0.96%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-07 03:23:25

End at: 2018-03-07 03:23:55

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 440.55 Mbit/s

95th percentile per-packet one-way delay: 51.046 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 267.13 Mbit/s

95th percentile per-packet one-way delay: 51.130 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 238.02 Mbit/s

95th percentile per-packet one-way delay: 50.996 ms

Loss rate: 3.50%

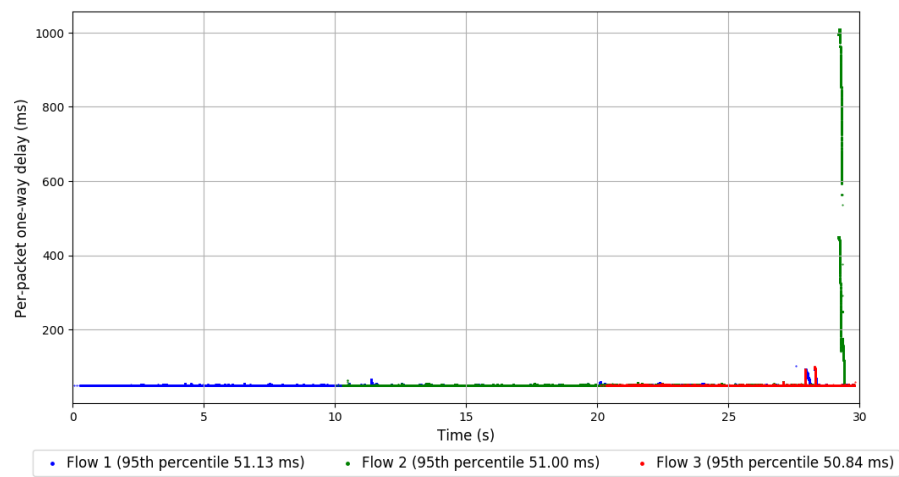
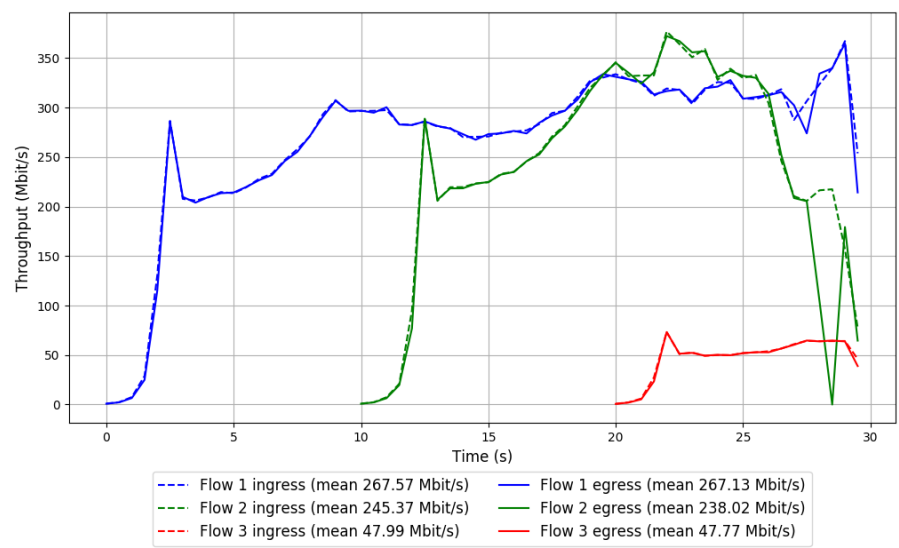
-- Flow 3:

Average throughput: 47.77 Mbit/s

95th percentile per-packet one-way delay: 50.845 ms

Loss rate: 1.44%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-07 03:40:12

End at: 2018-03-07 03:40:42

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 417.68 Mbit/s

95th percentile per-packet one-way delay: 53.450 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 249.32 Mbit/s

95th percentile per-packet one-way delay: 50.966 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 213.41 Mbit/s

95th percentile per-packet one-way delay: 50.587 ms

Loss rate: 0.23%

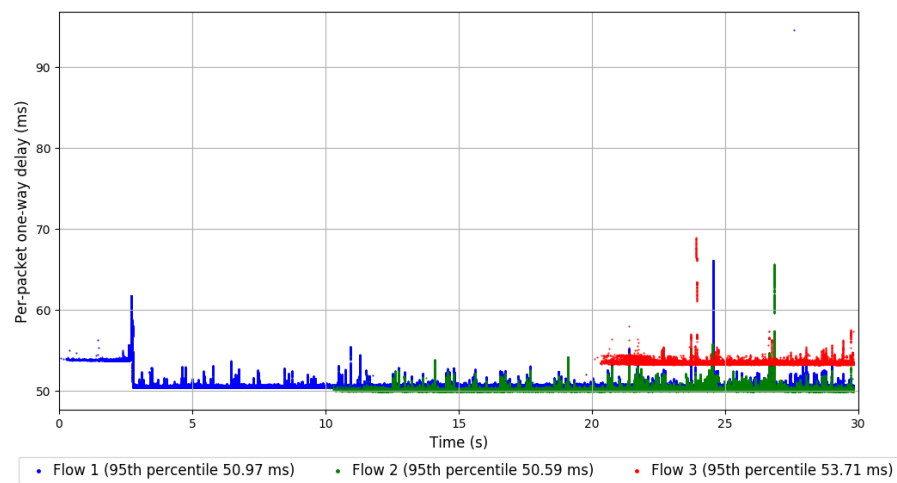
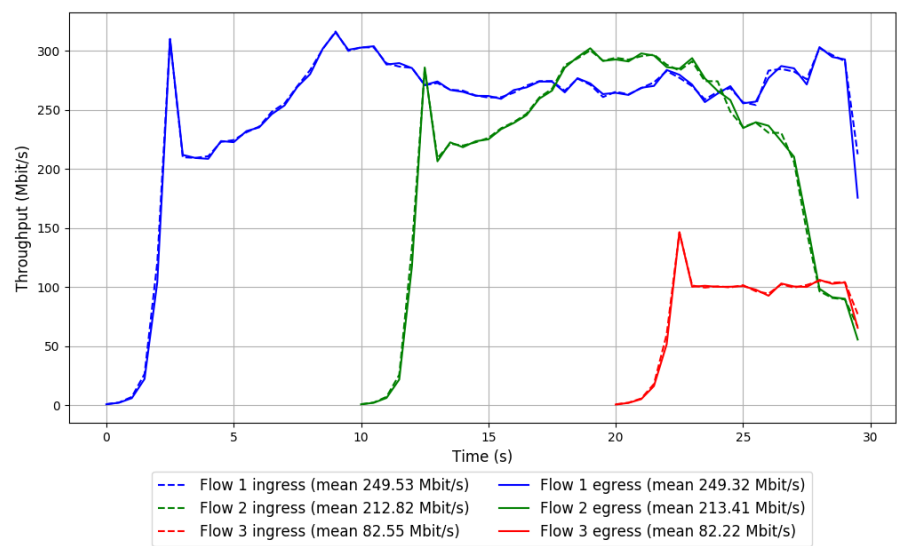
-- Flow 3:

Average throughput: 82.22 Mbit/s

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

Loss rate: 1.46%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-07 03:57:26

End at: 2018-03-07 03:57:56

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 498.74 Mbit/s

95th percentile per-packet one-way delay: 53.558 ms

Loss rate: 0.54%

-- Flow 1:

Average throughput: 309.62 Mbit/s

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

Loss rate: 0.38%

-- Flow 2:

Average throughput: 239.80 Mbit/s

95th percentile per-packet one-way delay: 51.501 ms

Loss rate: 0.68%

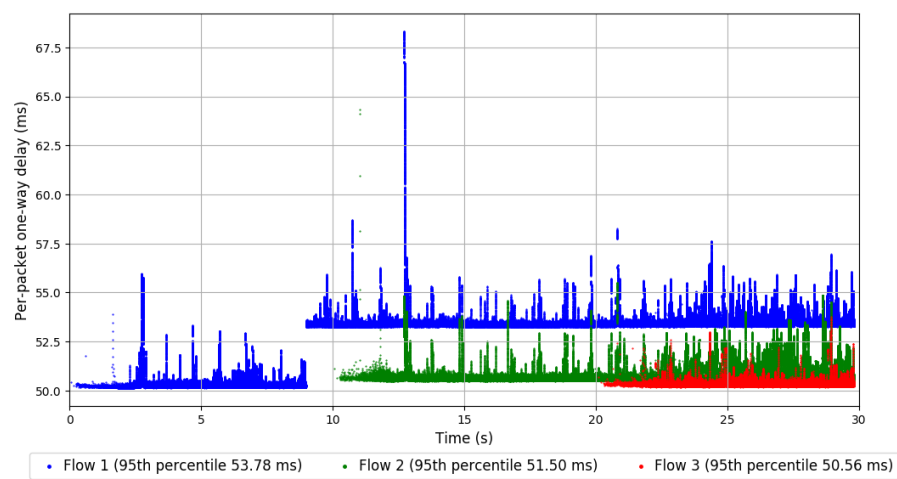
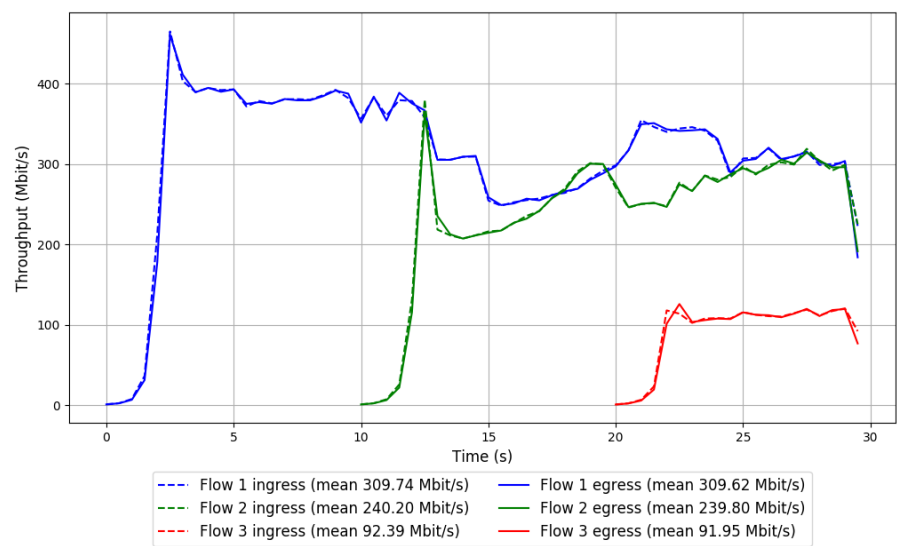
-- Flow 3:

Average throughput: 91.95 Mbit/s

95th percentile per-packet one-way delay: 50.559 ms

Loss rate: 1.50%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-07 04:15:05

End at: 2018-03-07 04:15:35

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 431.10 Mbit/s

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

Loss rate: 0.56%

-- Flow 1:

Average throughput: 239.04 Mbit/s

95th percentile per-packet one-way delay: 50.227 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 228.40 Mbit/s

95th percentile per-packet one-way delay: 54.034 ms

Loss rate: 0.59%

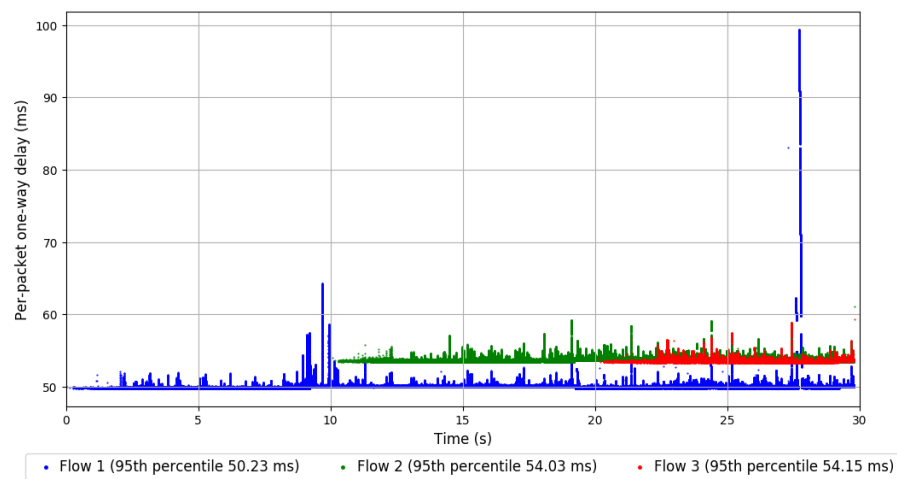
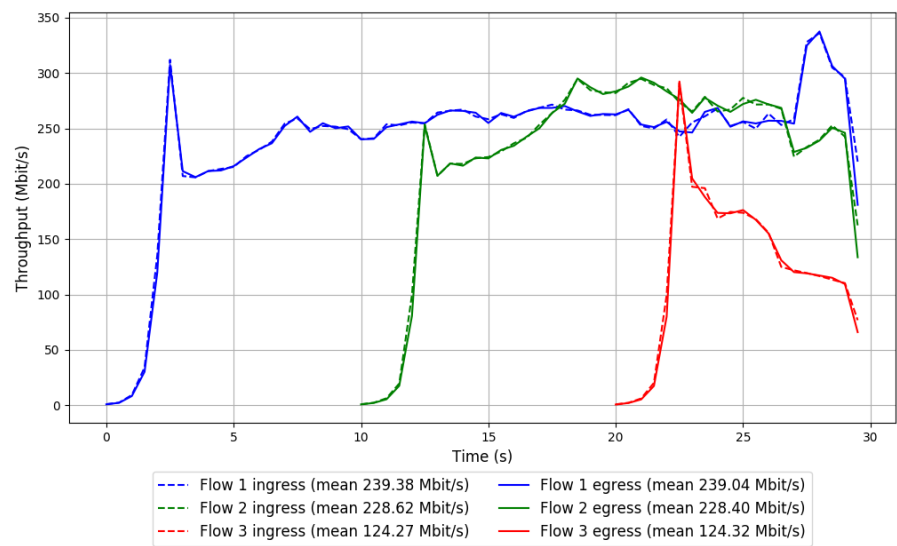
-- Flow 3:

Average throughput: 124.32 Mbit/s

95th percentile per-packet one-way delay: 54.149 ms

Loss rate: 0.95%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-07 04:32:10

End at: 2018-03-07 04:32:40

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 434.22 Mbit/s

95th percentile per-packet one-way delay: 54.038 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 241.77 Mbit/s

95th percentile per-packet one-way delay: 54.125 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 233.06 Mbit/s

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

Loss rate: 0.59%

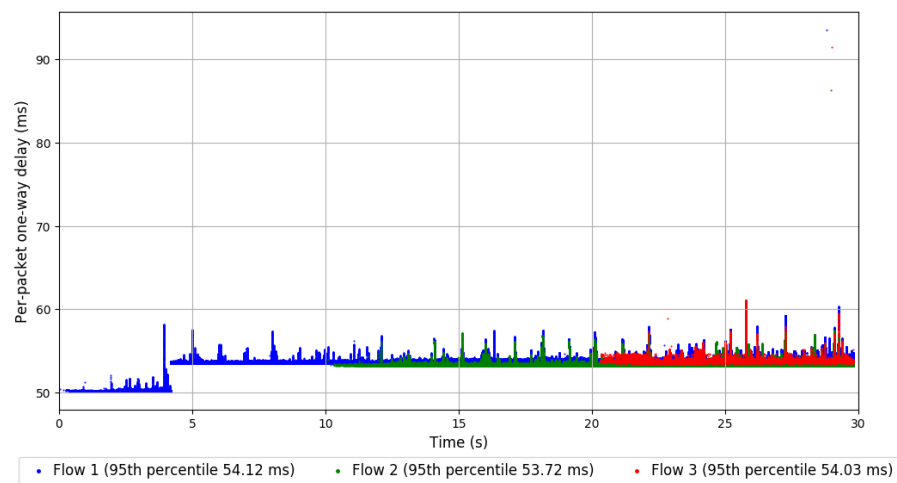
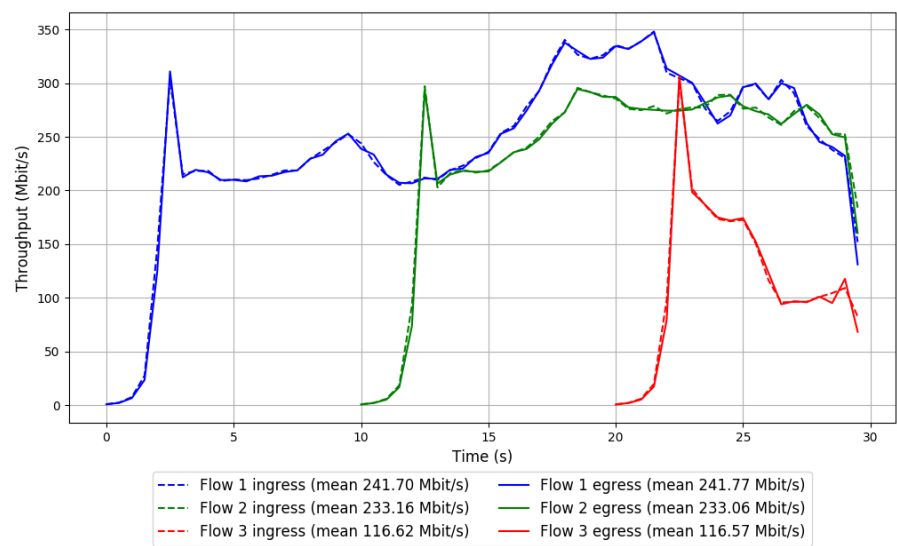
-- Flow 3:

Average throughput: 116.57 Mbit/s

95th percentile per-packet one-way delay: 54.034 ms

Loss rate: 1.11%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-07 04:48:55

End at: 2018-03-07 04:49:25

Below is generated by plot.py at 2018-03-07 10:56:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 470.76 Mbit/s

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

Loss rate: 0.59%

-- Flow 1:

Average throughput: 256.56 Mbit/s

95th percentile per-packet one-way delay: 50.483 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 232.98 Mbit/s

95th percentile per-packet one-way delay: 54.145 ms

Loss rate: 0.64%

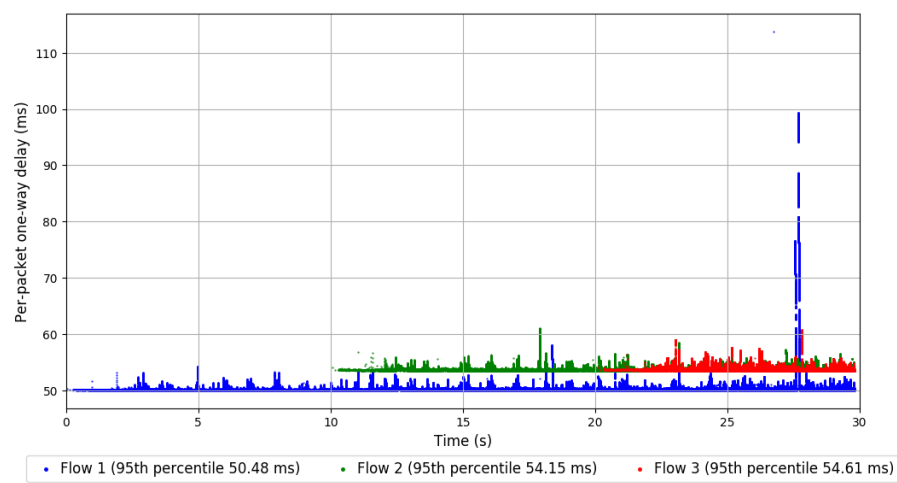
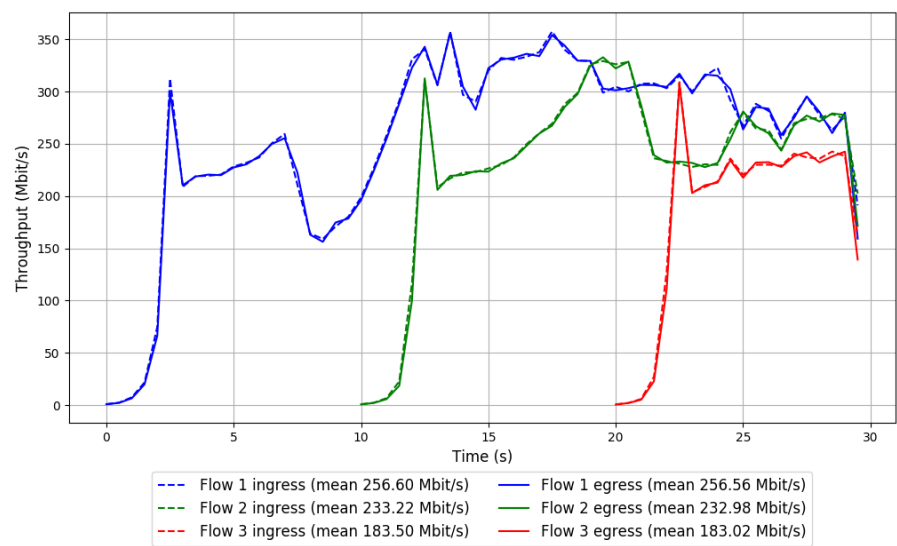
-- Flow 3:

Average throughput: 183.02 Mbit/s

95th percentile per-packet one-way delay: 54.612 ms

Loss rate: 1.36%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-07 05:06:00

End at: 2018-03-07 05:06:30

Below is generated by plot.py at 2018-03-07 10:56:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 453.33 Mbit/s

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

Loss rate: 0.58%

-- Flow 1:

Average throughput: 283.48 Mbit/s

95th percentile per-packet one-way delay: 51.441 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 222.21 Mbit/s

95th percentile per-packet one-way delay: 53.855 ms

Loss rate: 0.64%

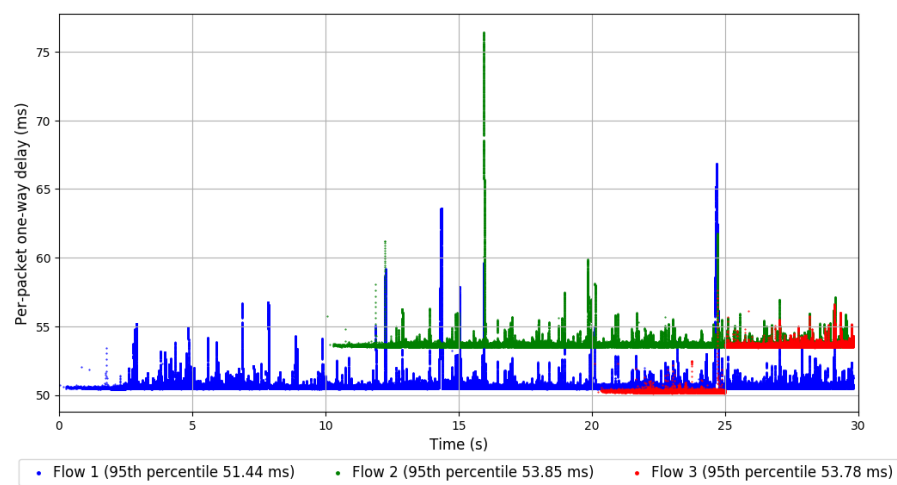
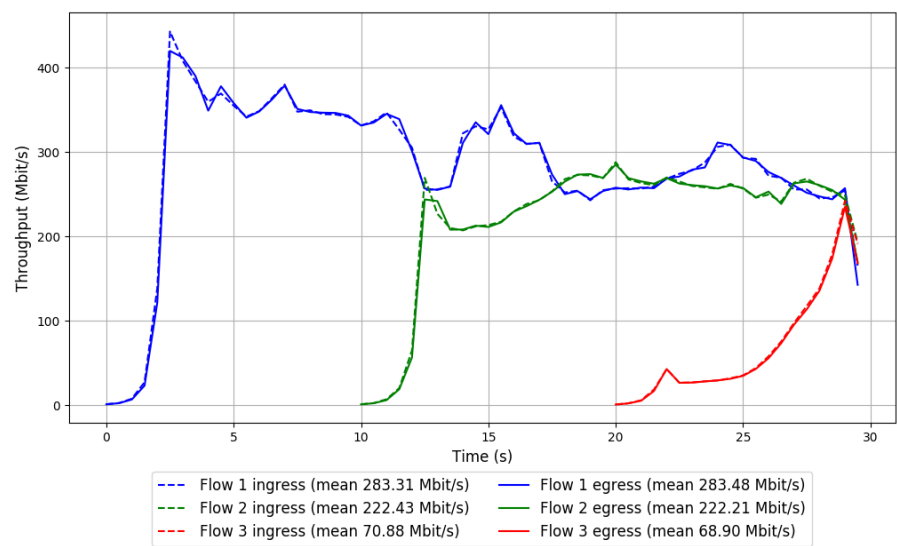
-- Flow 3:

Average throughput: 68.90 Mbit/s

95th percentile per-packet one-way delay: 53.783 ms

Loss rate: 3.83%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-07 05:23:06

End at: 2018-03-07 05:23:36

Below is generated by plot.py at 2018-03-07 10:56:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.25 Mbit/s

95th percentile per-packet one-way delay: 53.964 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 239.02 Mbit/s

95th percentile per-packet one-way delay: 53.955 ms

Loss rate: 0.37%

-- Flow 2:

Average throughput: 243.80 Mbit/s

95th percentile per-packet one-way delay: 53.787 ms

Loss rate: 0.65%

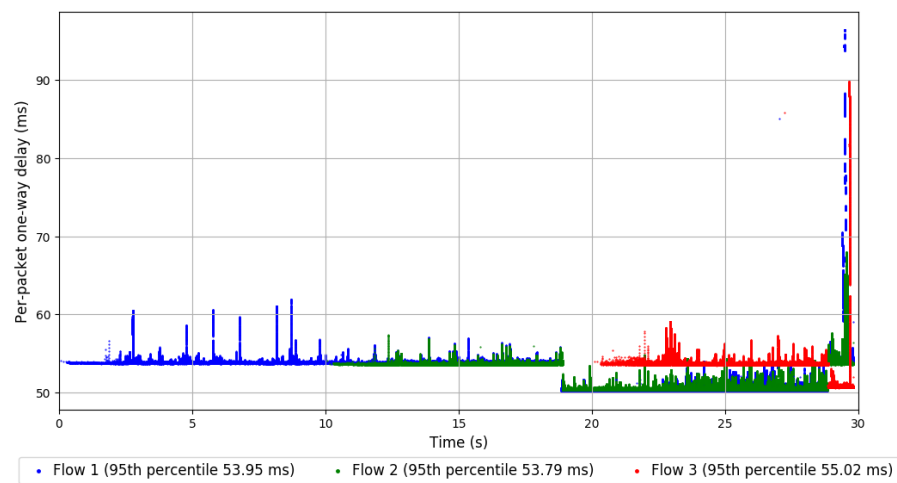
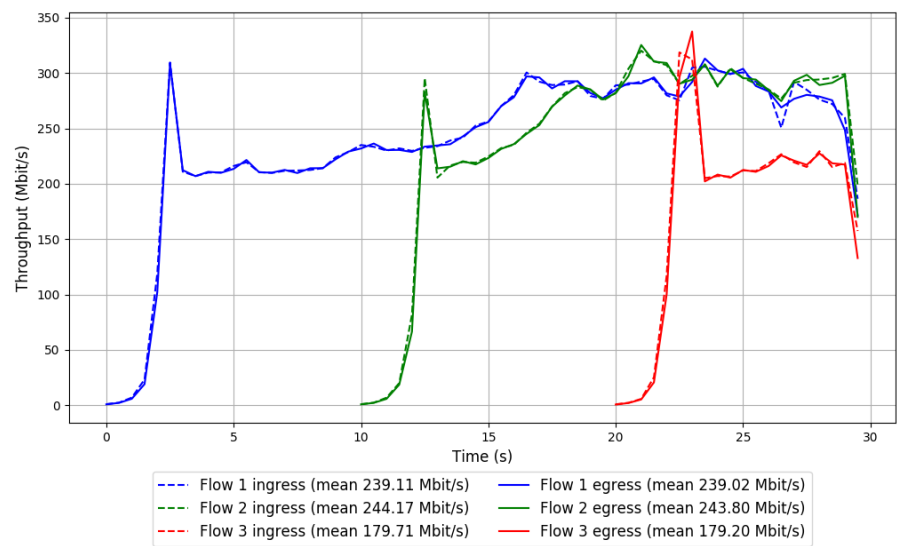
-- Flow 3:

Average throughput: 179.20 Mbit/s

95th percentile per-packet one-way delay: 55.023 ms

Loss rate: 1.33%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-07 05:40:23

End at: 2018-03-07 05:40:53

Below is generated by plot.py at 2018-03-07 10:59:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 479.90 Mbit/s

95th percentile per-packet one-way delay: 53.955 ms

Loss rate: 0.46%

-- Flow 1:

Average throughput: 263.74 Mbit/s

95th percentile per-packet one-way delay: 53.960 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 248.75 Mbit/s

95th percentile per-packet one-way delay: 53.910 ms

Loss rate: 0.54%

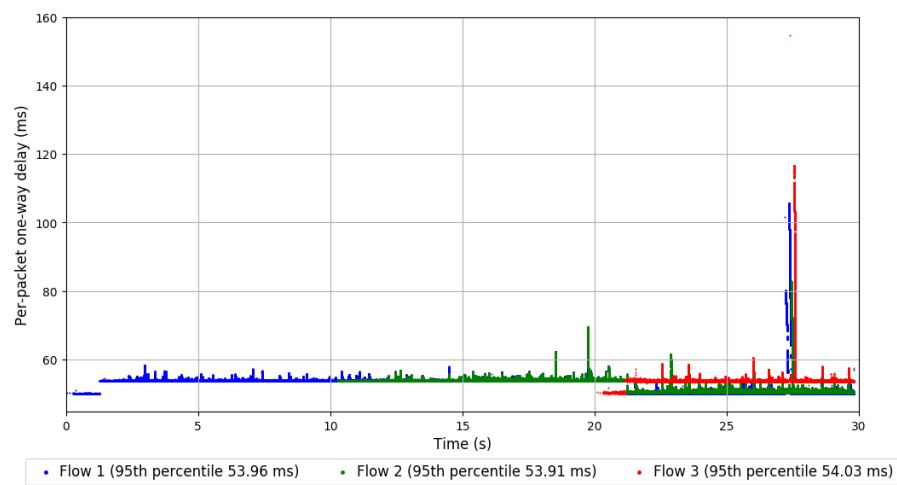
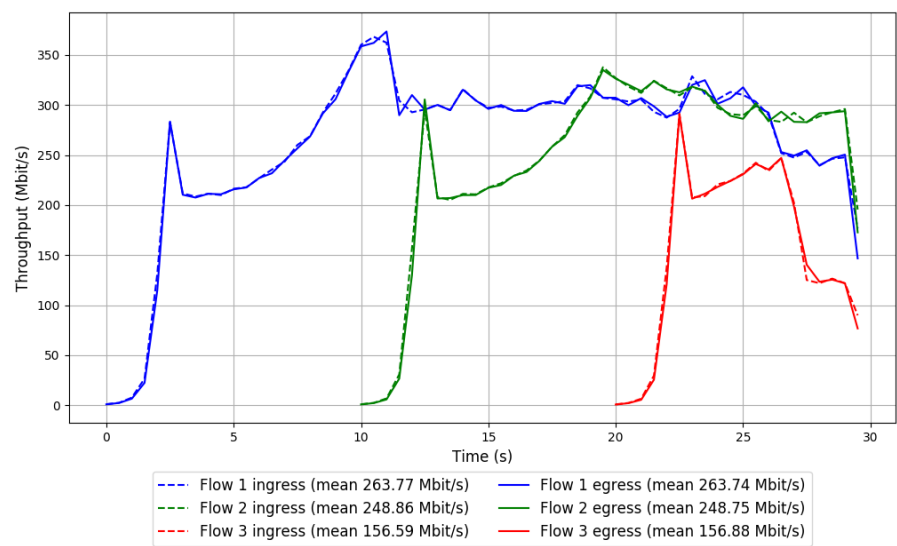
-- Flow 3:

Average throughput: 156.88 Mbit/s

95th percentile per-packet one-way delay: 54.032 ms

Loss rate: 0.85%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-07 05:57:31

End at: 2018-03-07 05:58:01

Below is generated by plot.py at 2018-03-07 10:59:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 416.03 Mbit/s

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

Loss rate: 0.41%

-- Flow 1:

Average throughput: 238.19 Mbit/s

95th percentile per-packet one-way delay: 53.994 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 245.60 Mbit/s

95th percentile per-packet one-way delay: 54.010 ms

Loss rate: 0.39%

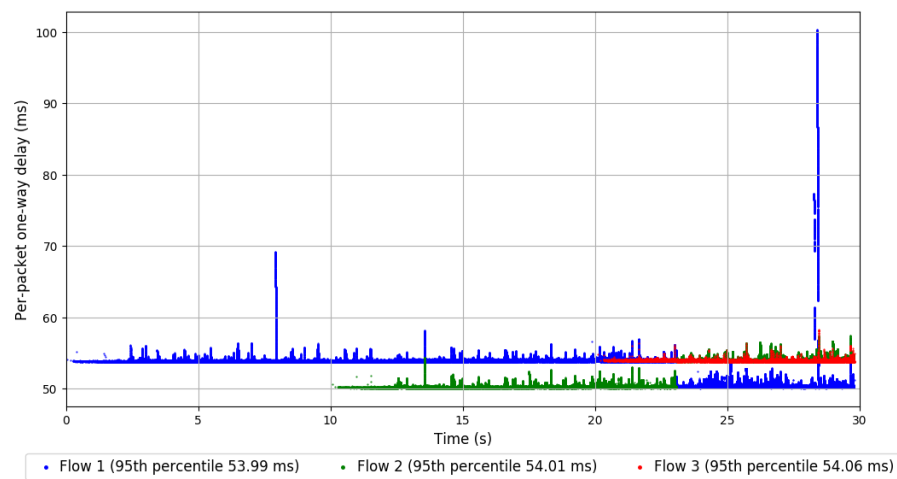
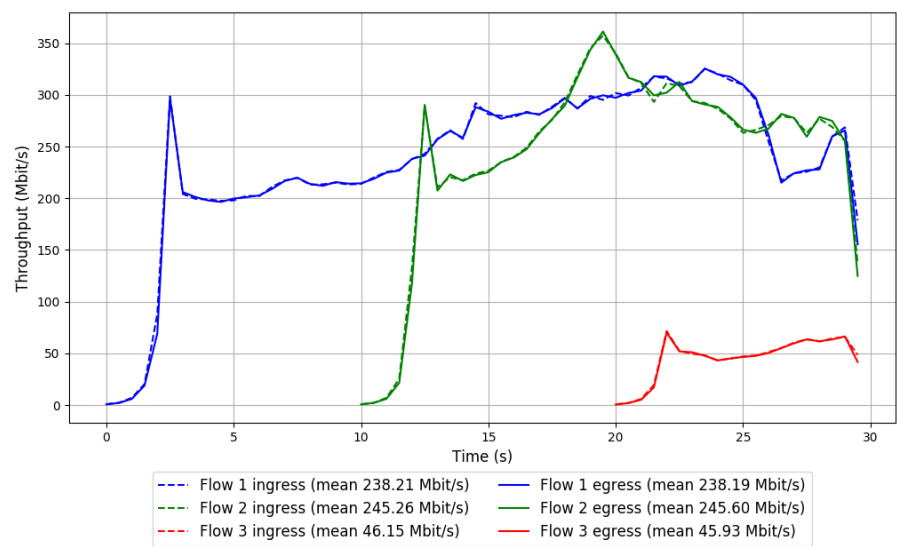
-- Flow 3:

Average throughput: 45.93 Mbit/s

95th percentile per-packet one-way delay: 54.064 ms

Loss rate: 1.53%

Run 10: Report of Vivace-latency — Data Link

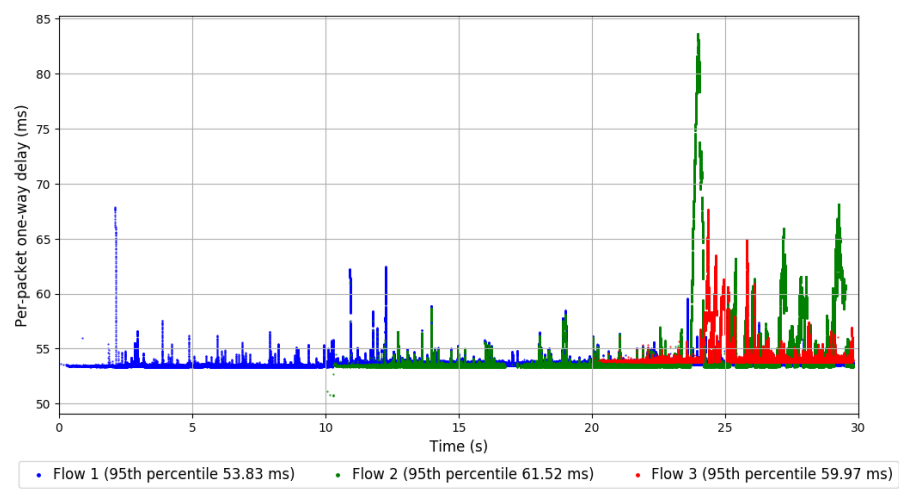
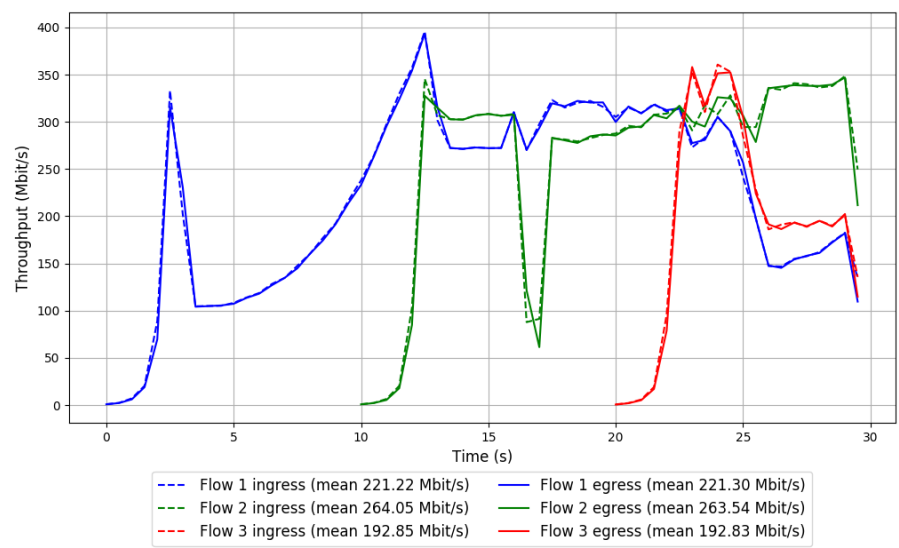


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-07 03:24:34
End at: 2018-03-07 03:25:04

# Below is generated by plot.py at 2018-03-07 11:01:18
# Datalink statistics
-- Total of 3 flows:
Average throughput: 459.10 Mbit/s
95th percentile per-packet one-way delay: 57.677 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 221.30 Mbit/s
95th percentile per-packet one-way delay: 53.826 ms
Loss rate: 0.33%
-- Flow 2:
Average throughput: 263.54 Mbit/s
95th percentile per-packet one-way delay: 61.516 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 192.83 Mbit/s
95th percentile per-packet one-way delay: 59.965 ms
Loss rate: 1.11%
```

Run 1: Report of Vivace-loss — Data Link

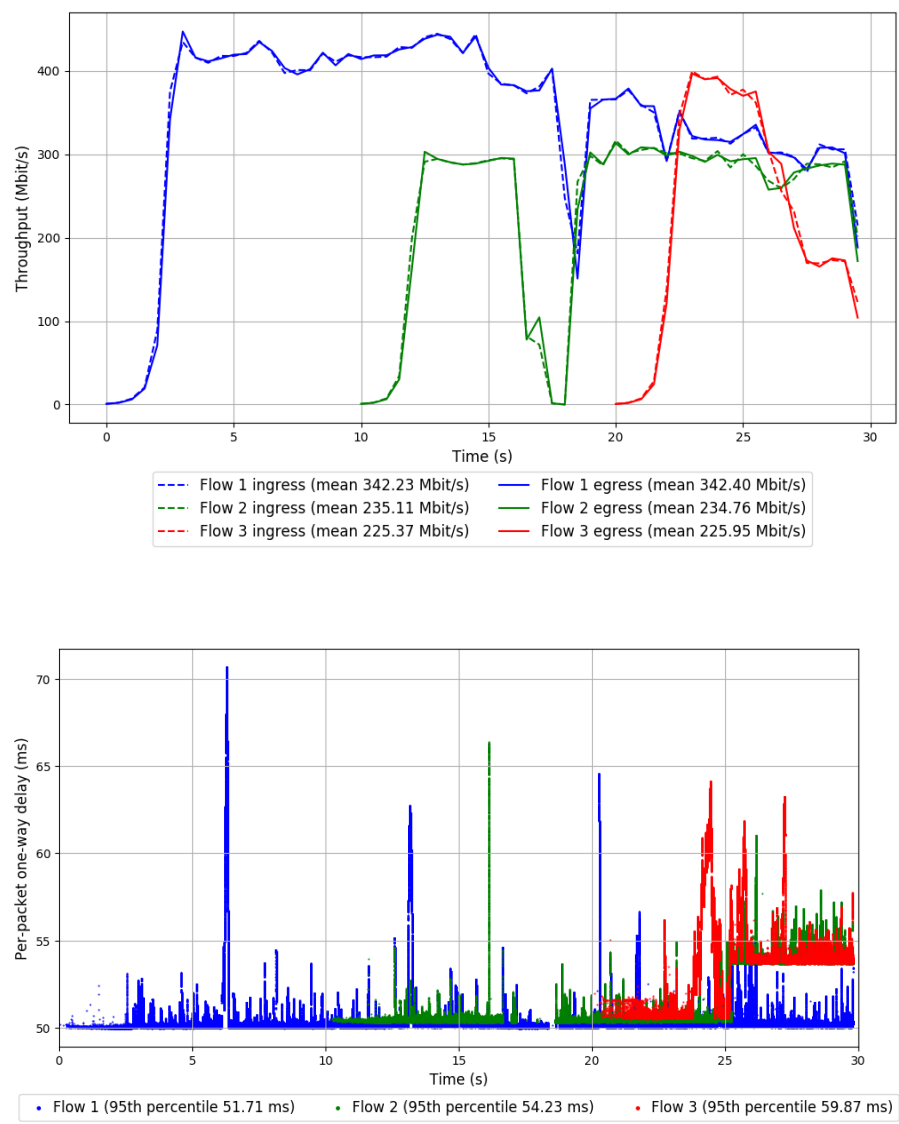


```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-07 03:41:19
End at: 2018-03-07 03:41:49

# Below is generated by plot.py at 2018-03-07 11:04:00
# Datalink statistics
-- Total of 3 flows:
Average throughput: 571.79 Mbit/s
95th percentile per-packet one-way delay: 54.565 ms
Loss rate: 0.46%
-- Flow 1:
Average throughput: 342.40 Mbit/s
95th percentile per-packet one-way delay: 51.711 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 234.76 Mbit/s
95th percentile per-packet one-way delay: 54.226 ms
Loss rate: 0.66%
-- Flow 3:
Average throughput: 225.95 Mbit/s
95th percentile per-packet one-way delay: 59.867 ms
Loss rate: 0.82%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-07 03:58:38

End at: 2018-03-07 03:59:08

Below is generated by plot.py at 2018-03-07 11:04:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 604.41 Mbit/s

95th percentile per-packet one-way delay: 56.465 ms

Loss rate: 0.53%

-- Flow 1:

Average throughput: 333.75 Mbit/s

95th percentile per-packet one-way delay: 51.897 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 315.40 Mbit/s

95th percentile per-packet one-way delay: 96.476 ms

Loss rate: 0.55%

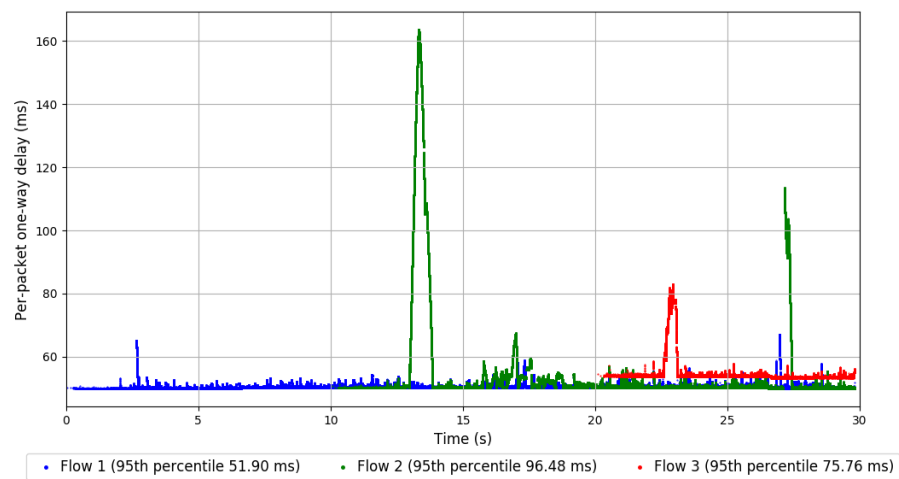
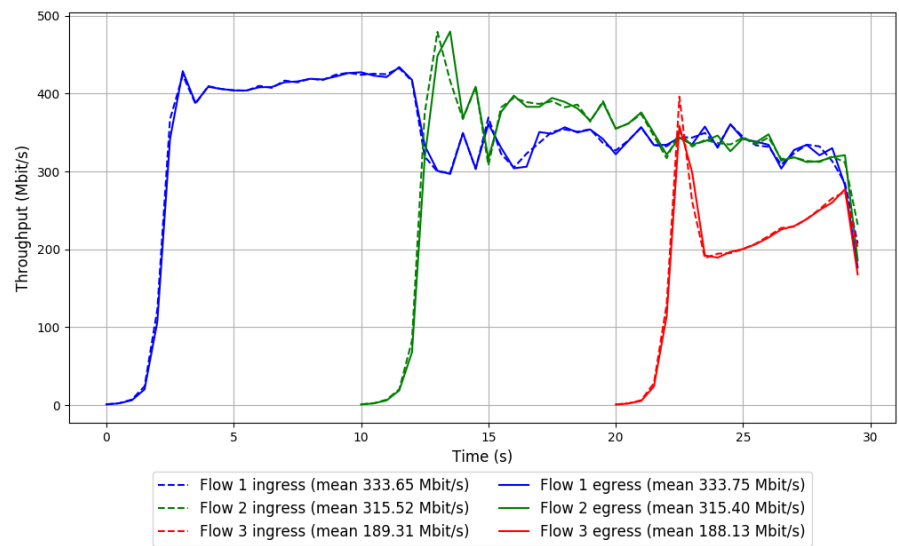
-- Flow 3:

Average throughput: 188.13 Mbit/s

95th percentile per-packet one-way delay: 75.762 ms

Loss rate: 1.69%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-07 04:16:13

End at: 2018-03-07 04:16:43

Below is generated by plot.py at 2018-03-07 11:05:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 581.63 Mbit/s

95th percentile per-packet one-way delay: 54.404 ms

Loss rate: 0.56%

-- Flow 1:

Average throughput: 314.54 Mbit/s

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

Loss rate: 0.34%

-- Flow 2:

Average throughput: 274.17 Mbit/s

95th percentile per-packet one-way delay: 54.314 ms

Loss rate: 0.58%

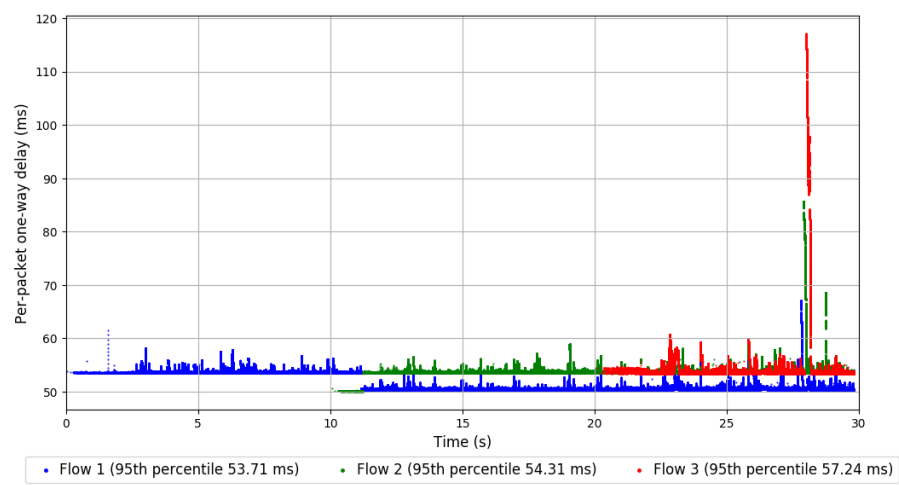
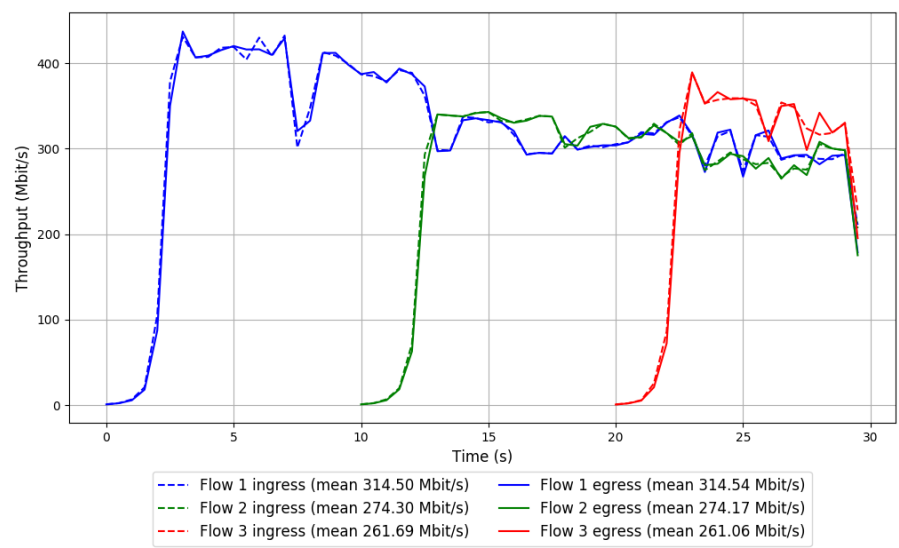
-- Flow 3:

Average throughput: 261.06 Mbit/s

95th percentile per-packet one-way delay: 57.236 ms

Loss rate: 1.34%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-07 04:33:19

End at: 2018-03-07 04:33:49

Below is generated by plot.py at 2018-03-07 11:05:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.21 Mbit/s

95th percentile per-packet one-way delay: 53.925 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 295.20 Mbit/s

95th percentile per-packet one-way delay: 54.163 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 253.55 Mbit/s

95th percentile per-packet one-way delay: 52.926 ms

Loss rate: 0.58%

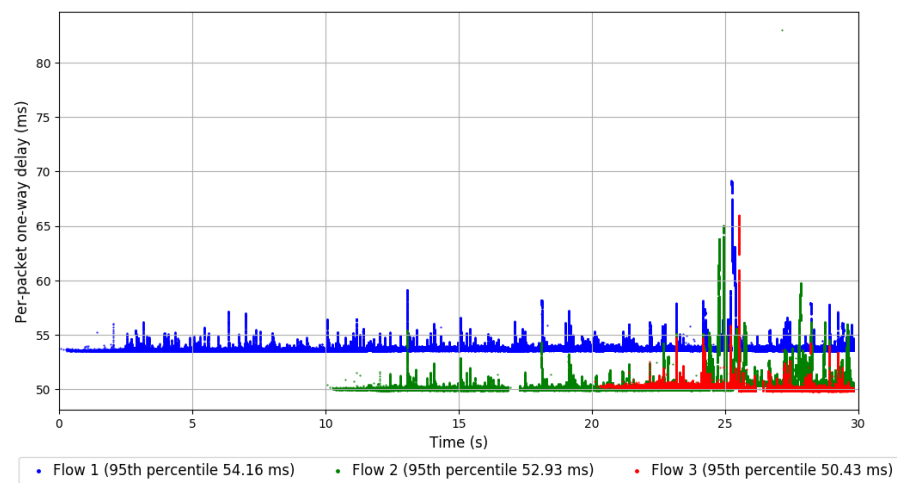
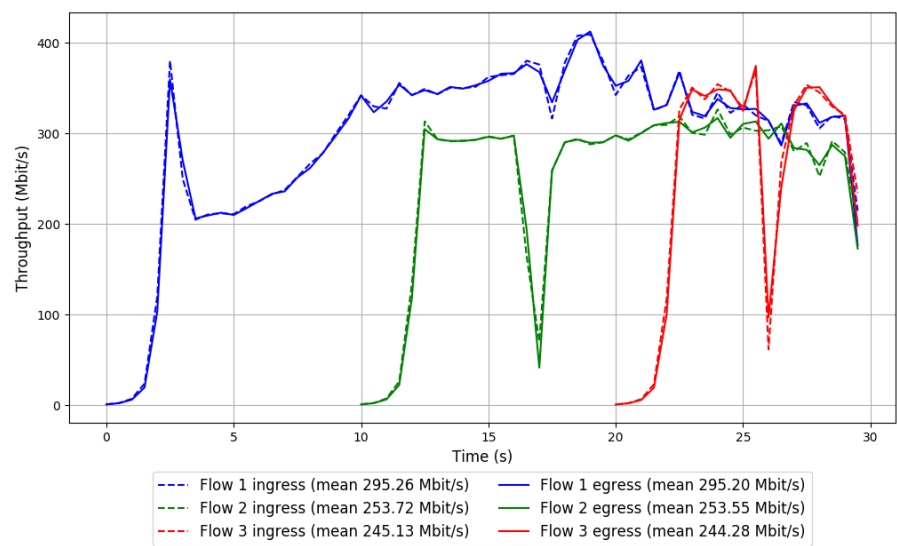
-- Flow 3:

Average throughput: 244.28 Mbit/s

95th percentile per-packet one-way delay: 50.430 ms

Loss rate: 1.38%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-07 04:50:06

End at: 2018-03-07 04:50:36

Below is generated by plot.py at 2018-03-07 11:06:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 571.89 Mbit/s

95th percentile per-packet one-way delay: 55.342 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 290.89 Mbit/s

95th percentile per-packet one-way delay: 53.696 ms

Loss rate: 0.31%

-- Flow 2:

Average throughput: 314.44 Mbit/s

95th percentile per-packet one-way delay: 62.202 ms

Loss rate: 0.61%

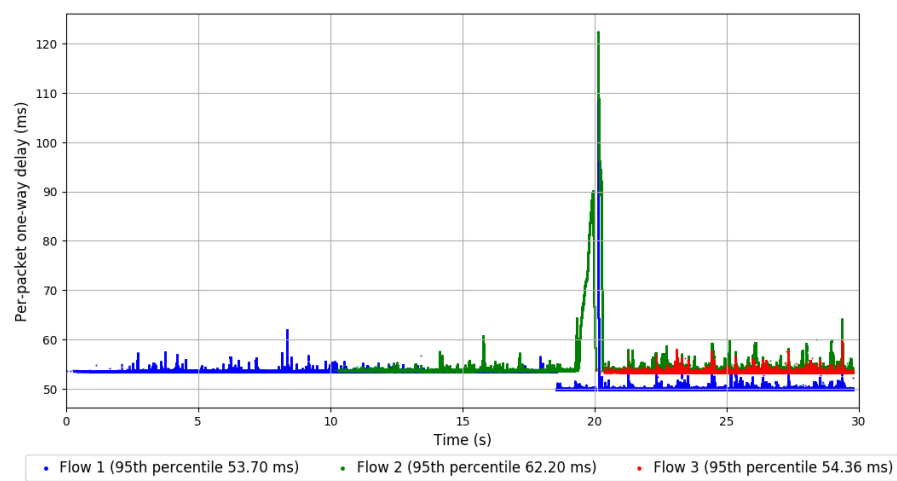
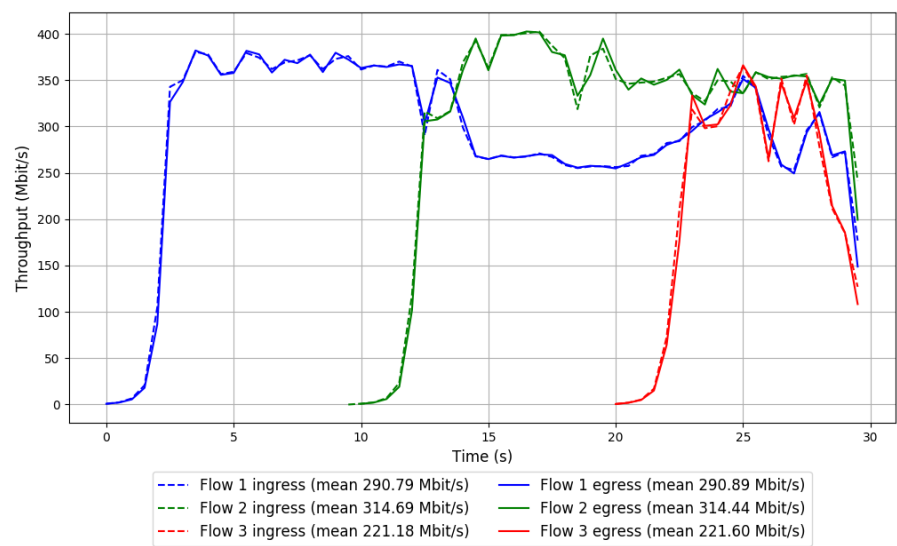
-- Flow 3:

Average throughput: 221.60 Mbit/s

95th percentile per-packet one-way delay: 54.361 ms

Loss rate: 0.88%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-07 05:07:09

End at: 2018-03-07 05:07:39

Below is generated by plot.py at 2018-03-07 11:07:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.54 Mbit/s

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

Loss rate: 0.64%

-- Flow 1:

Average throughput: 283.70 Mbit/s

95th percentile per-packet one-way delay: 53.525 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 259.57 Mbit/s

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

Loss rate: 0.59%

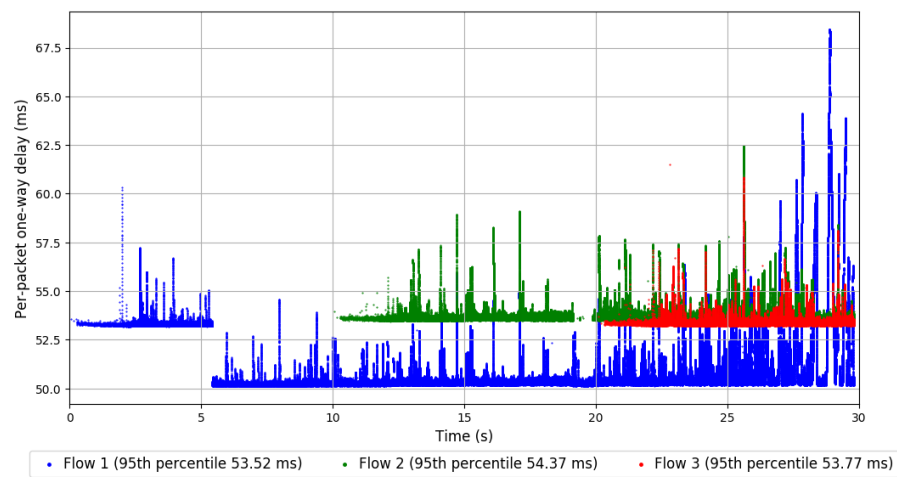
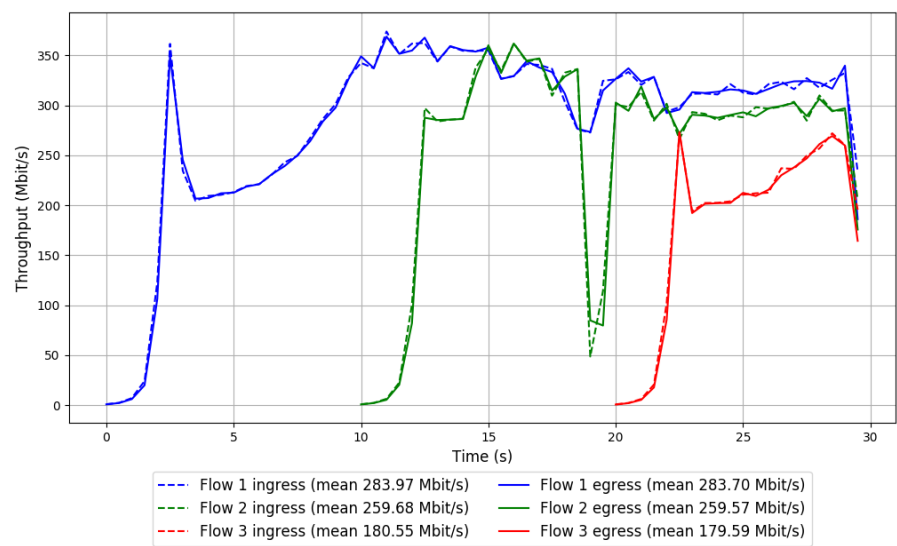
-- Flow 3:

Average throughput: 179.59 Mbit/s

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

Loss rate: 1.70%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-07 05:24:16

End at: 2018-03-07 05:24:46

Below is generated by plot.py at 2018-03-07 11:09:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 582.12 Mbit/s

95th percentile per-packet one-way delay: 53.519 ms

Loss rate: 0.44%

-- Flow 1:

Average throughput: 295.58 Mbit/s

95th percentile per-packet one-way delay: 51.585 ms

Loss rate: 0.33%

-- Flow 2:

Average throughput: 319.21 Mbit/s

95th percentile per-packet one-way delay: 57.605 ms

Loss rate: 0.25%

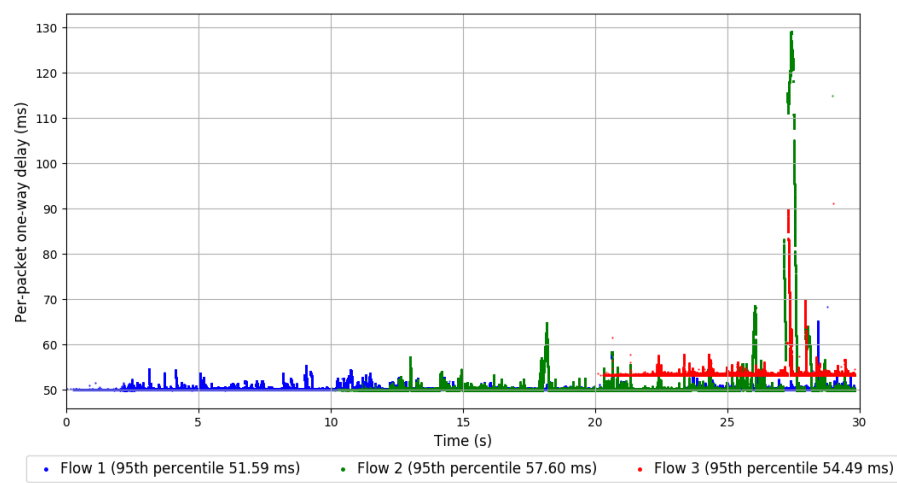
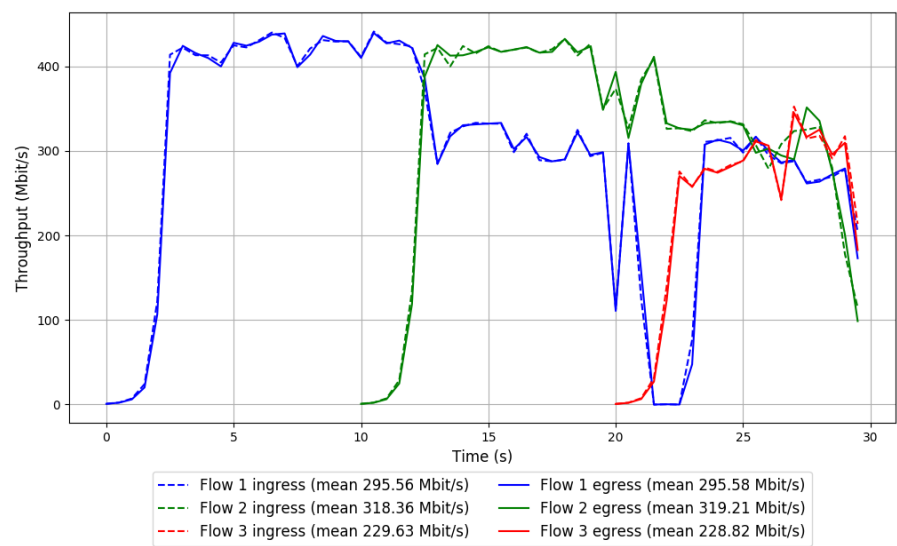
-- Flow 3:

Average throughput: 228.82 Mbit/s

95th percentile per-packet one-way delay: 54.492 ms

Loss rate: 1.40%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-07 05:41:35

End at: 2018-03-07 05:42:05

Below is generated by plot.py at 2018-03-07 11:11:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 584.79 Mbit/s

95th percentile per-packet one-way delay: 56.218 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 341.94 Mbit/s

95th percentile per-packet one-way delay: 58.226 ms

Loss rate: 0.45%

-- Flow 2:

Average throughput: 278.45 Mbit/s

95th percentile per-packet one-way delay: 54.459 ms

Loss rate: 0.66%

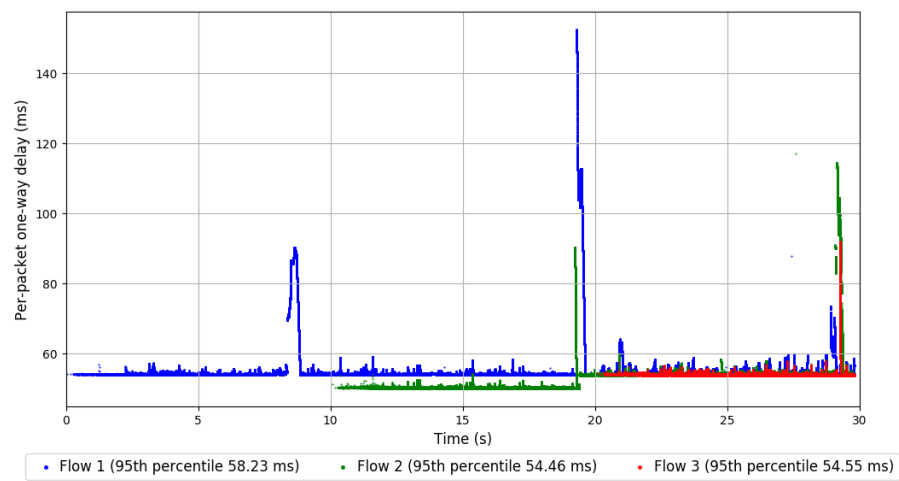
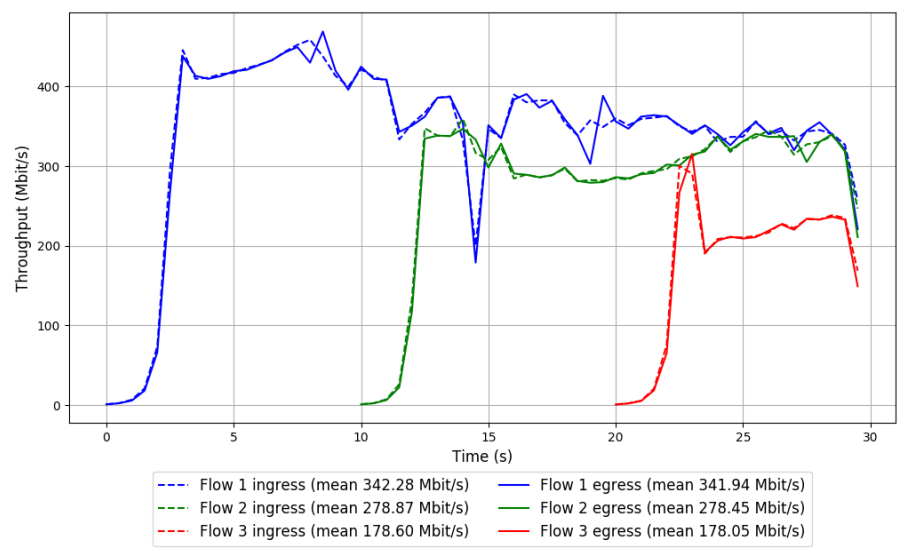
-- Flow 3:

Average throughput: 178.05 Mbit/s

95th percentile per-packet one-way delay: 54.555 ms

Loss rate: 1.38%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-07 05:58:39

End at: 2018-03-07 05:59:09

Below is generated by plot.py at 2018-03-07 11:13:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 549.65 Mbit/s

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

Loss rate: 1.46%

-- Flow 1:

Average throughput: 303.76 Mbit/s

95th percentile per-packet one-way delay: 54.600 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 251.71 Mbit/s

95th percentile per-packet one-way delay: 54.726 ms

Loss rate: 3.37%

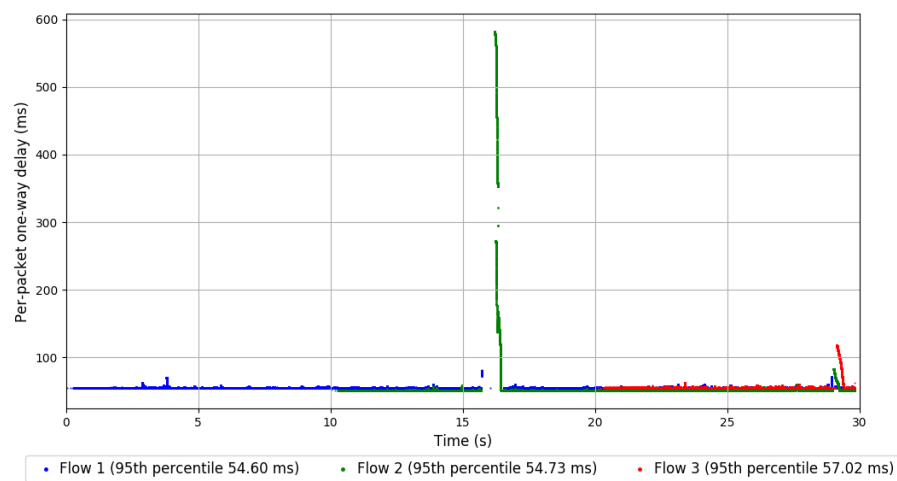
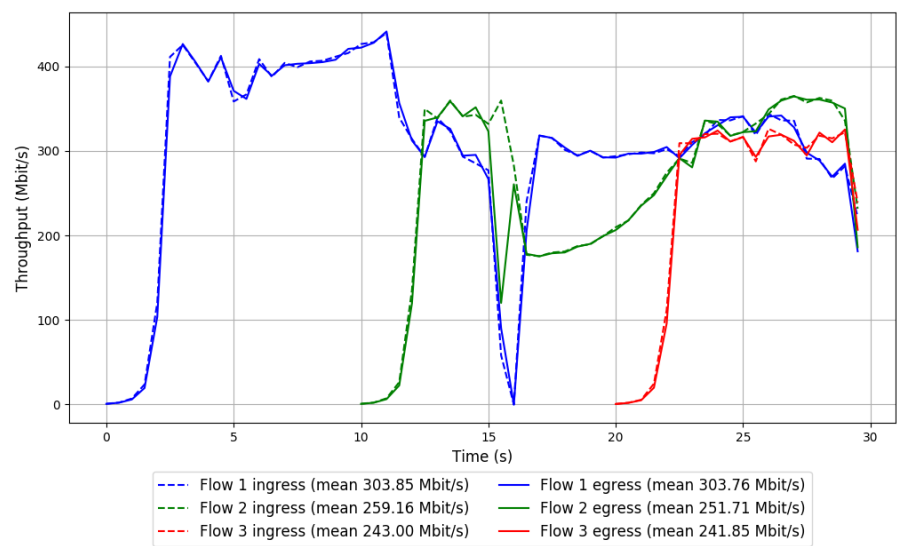
-- Flow 3:

Average throughput: 241.85 Mbit/s

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

Loss rate: 1.46%

Run 10: Report of Vivace-loss — Data Link

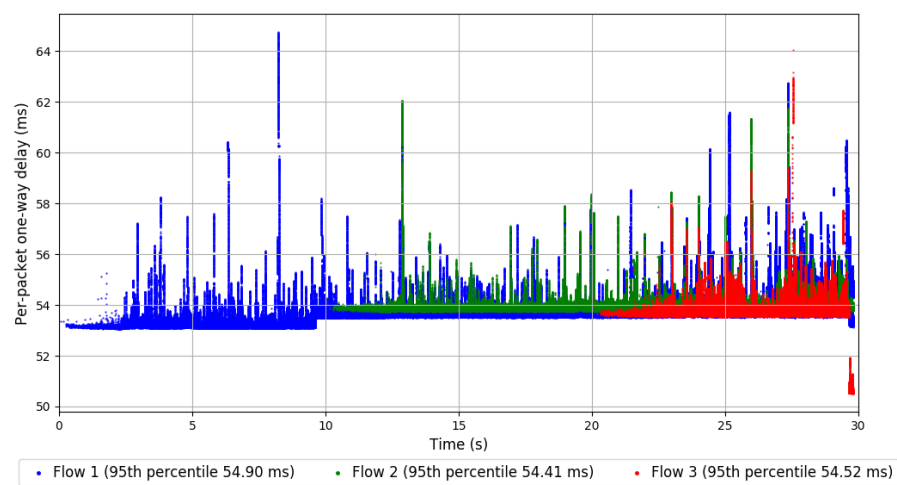
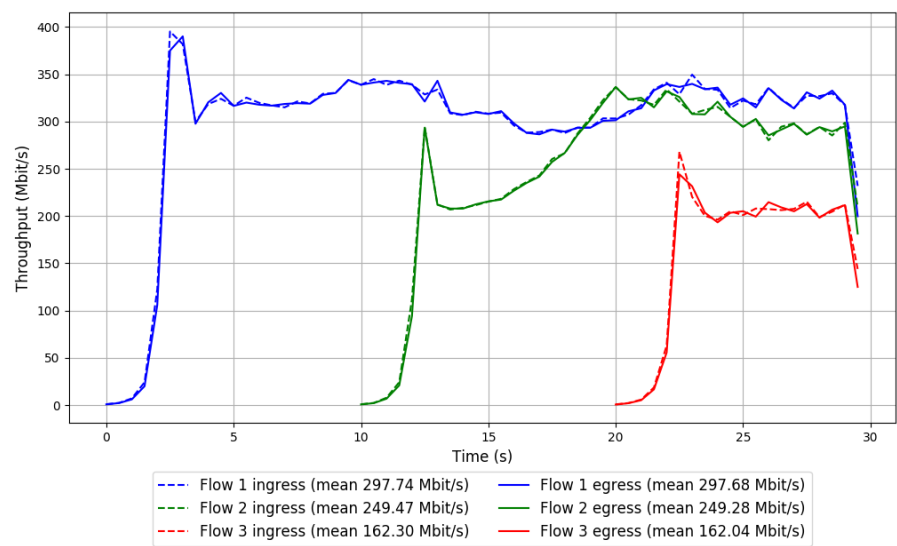


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-07 03:17:05
End at: 2018-03-07 03:17:35

# Below is generated by plot.py at 2018-03-07 11:13:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 515.91 Mbit/s
95th percentile per-packet one-way delay: 54.697 ms
Loss rate: 0.54%
-- Flow 1:
Average throughput: 297.68 Mbit/s
95th percentile per-packet one-way delay: 54.903 ms
Loss rate: 0.37%
-- Flow 2:
Average throughput: 249.28 Mbit/s
95th percentile per-packet one-way delay: 54.406 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 162.04 Mbit/s
95th percentile per-packet one-way delay: 54.520 ms
Loss rate: 1.31%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-07 03:34:13

End at: 2018-03-07 03:34:43

Below is generated by plot.py at 2018-03-07 11:13:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 473.66 Mbit/s

95th percentile per-packet one-way delay: 54.538 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 269.71 Mbit/s

95th percentile per-packet one-way delay: 54.610 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 227.16 Mbit/s

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

Loss rate: 0.63%

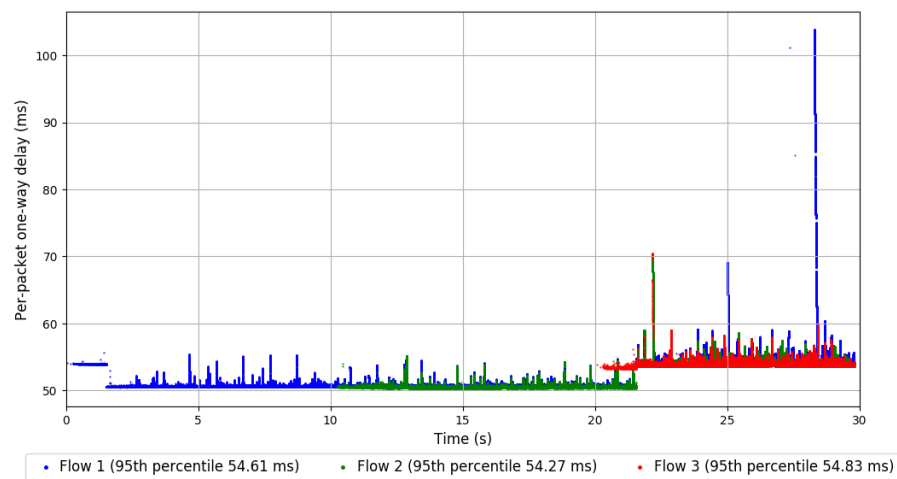
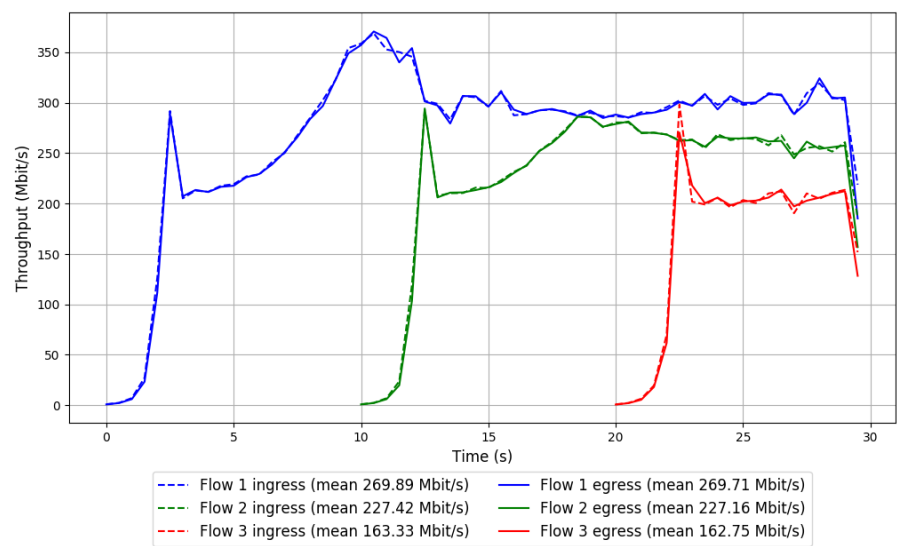
-- Flow 3:

Average throughput: 162.75 Mbit/s

95th percentile per-packet one-way delay: 54.833 ms

Loss rate: 1.43%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-07 03:51:24

End at: 2018-03-07 03:51:54

Below is generated by plot.py at 2018-03-07 11:14:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 517.41 Mbit/s

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

Loss rate: 0.62%

-- Flow 1:

Average throughput: 296.32 Mbit/s

95th percentile per-packet one-way delay: 53.526 ms

Loss rate: 0.42%

-- Flow 2:

Average throughput: 246.33 Mbit/s

95th percentile per-packet one-way delay: 53.920 ms

Loss rate: 0.62%

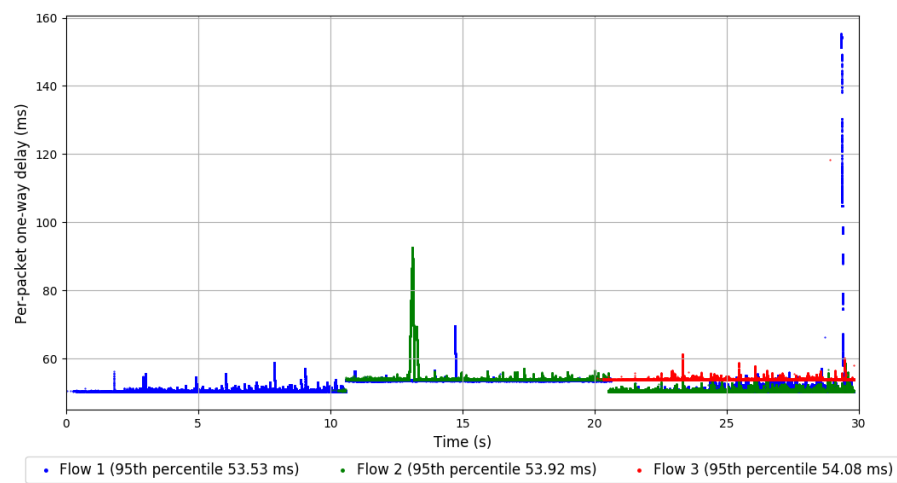
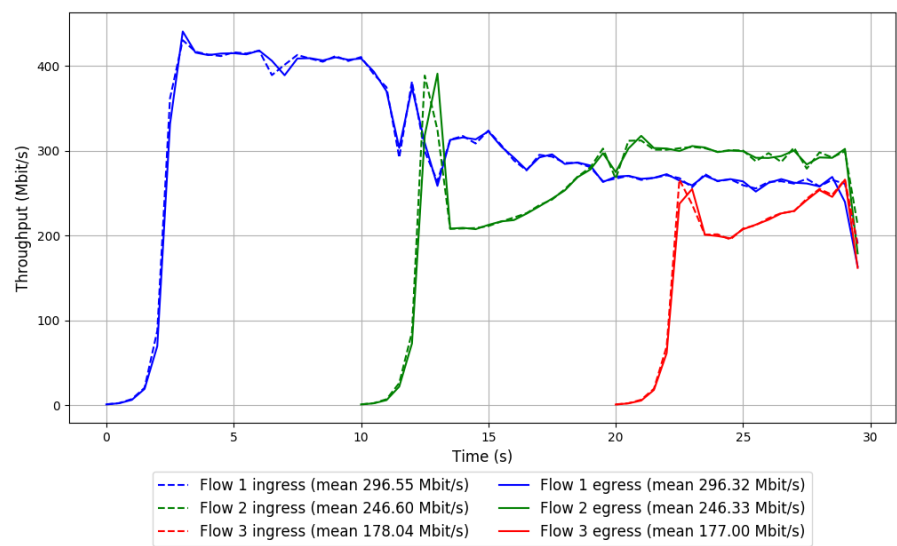
-- Flow 3:

Average throughput: 177.00 Mbit/s

95th percentile per-packet one-way delay: 54.076 ms

Loss rate: 1.61%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-07 04:08:37

End at: 2018-03-07 04:09:07

Below is generated by plot.py at 2018-03-07 11:15:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 553.69 Mbit/s

95th percentile per-packet one-way delay: 54.438 ms

Loss rate: 0.55%

-- Flow 1:

Average throughput: 311.57 Mbit/s

95th percentile per-packet one-way delay: 54.640 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 282.07 Mbit/s

95th percentile per-packet one-way delay: 54.218 ms

Loss rate: 0.58%

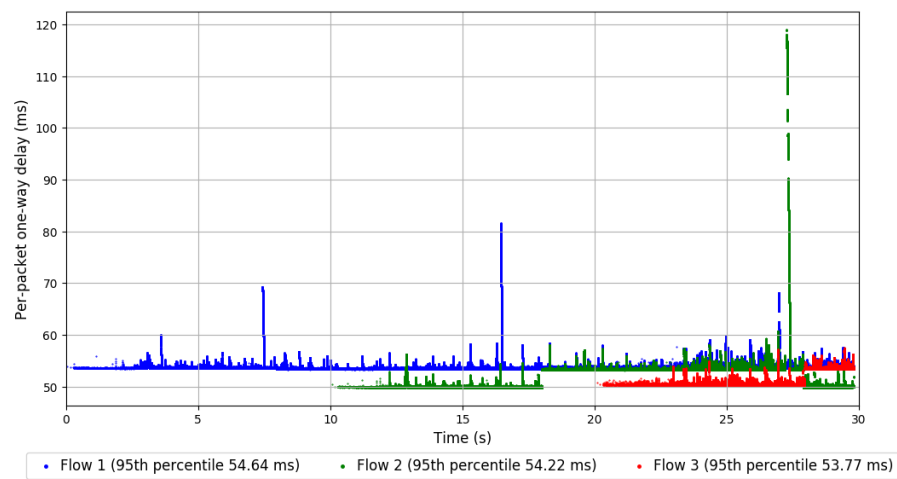
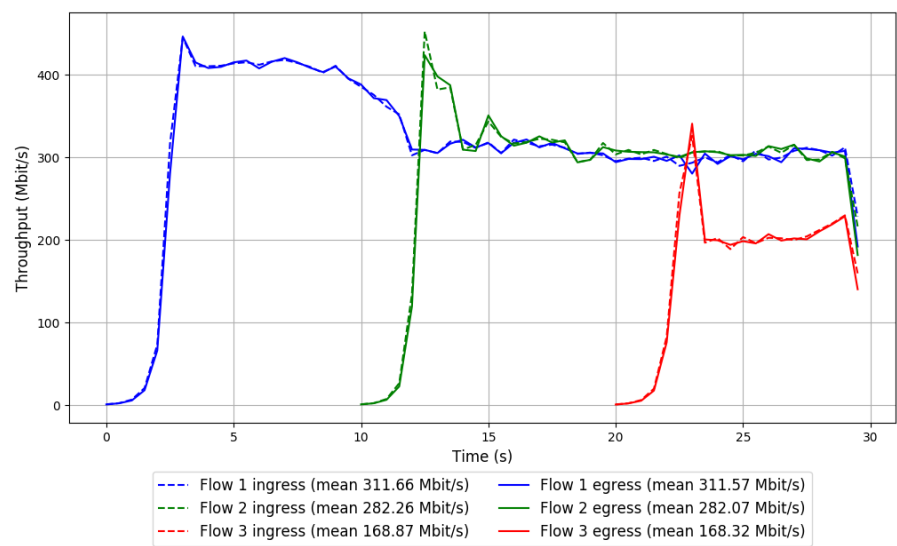
-- Flow 3:

Average throughput: 168.32 Mbit/s

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

Loss rate: 1.36%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-07 04:26:09

End at: 2018-03-07 04:26:39

Below is generated by plot.py at 2018-03-07 11:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 489.97 Mbit/s

95th percentile per-packet one-way delay: 53.731 ms

Loss rate: 0.57%

-- Flow 1:

Average throughput: 259.71 Mbit/s

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

Loss rate: 0.43%

-- Flow 2:

Average throughput: 264.33 Mbit/s

95th percentile per-packet one-way delay: 50.927 ms

Loss rate: 0.53%

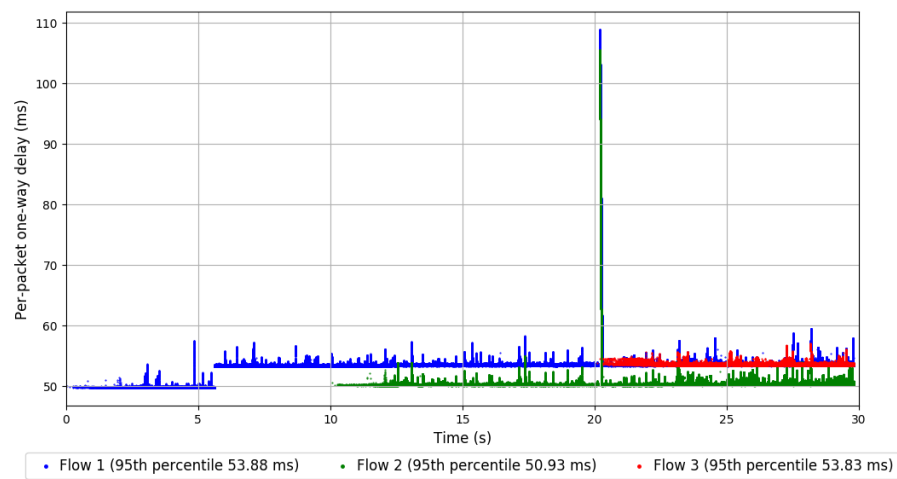
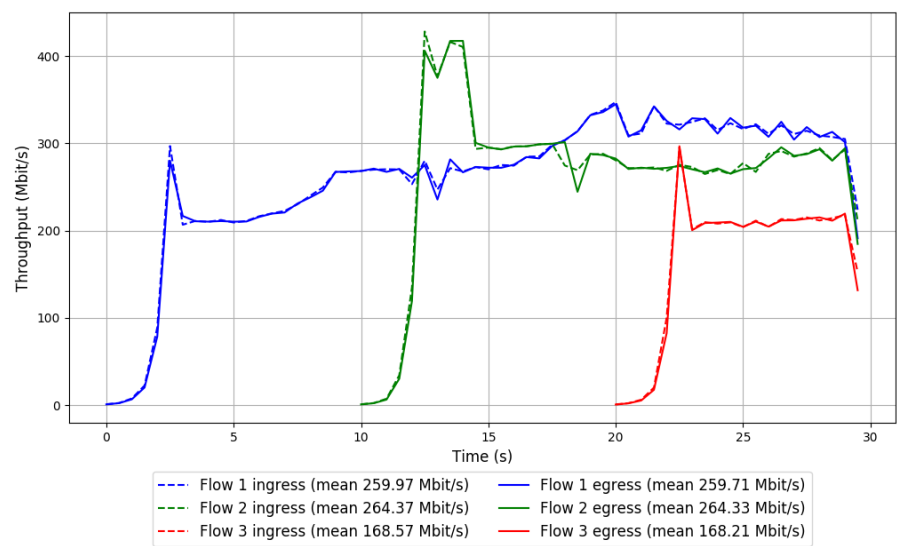
-- Flow 3:

Average throughput: 168.21 Mbit/s

95th percentile per-packet one-way delay: 53.831 ms

Loss rate: 1.30%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-07 04:43:00

End at: 2018-03-07 04:43:30

Below is generated by plot.py at 2018-03-07 11:17:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 516.00 Mbit/s

95th percentile per-packet one-way delay: 54.339 ms

Loss rate: 0.61%

-- Flow 1:

Average throughput: 259.88 Mbit/s

95th percentile per-packet one-way delay: 54.443 ms

Loss rate: 0.43%

-- Flow 2:

Average throughput: 304.67 Mbit/s

95th percentile per-packet one-way delay: 54.604 ms

Loss rate: 0.63%

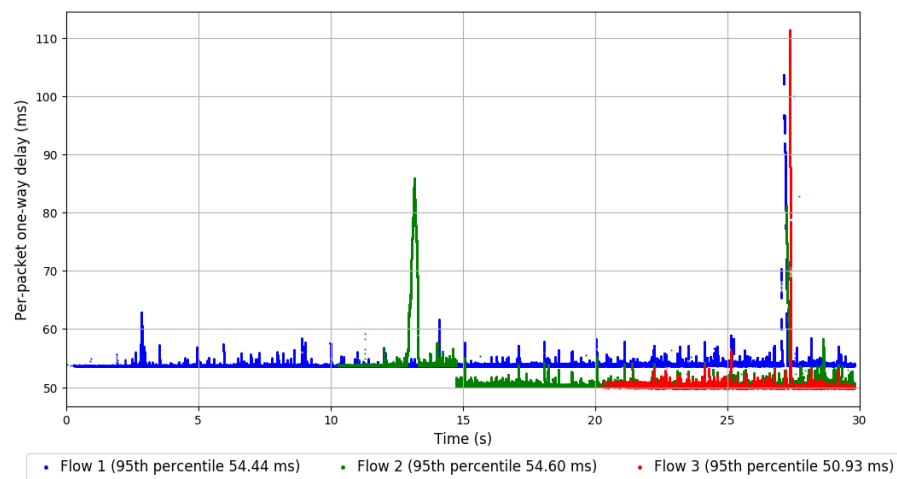
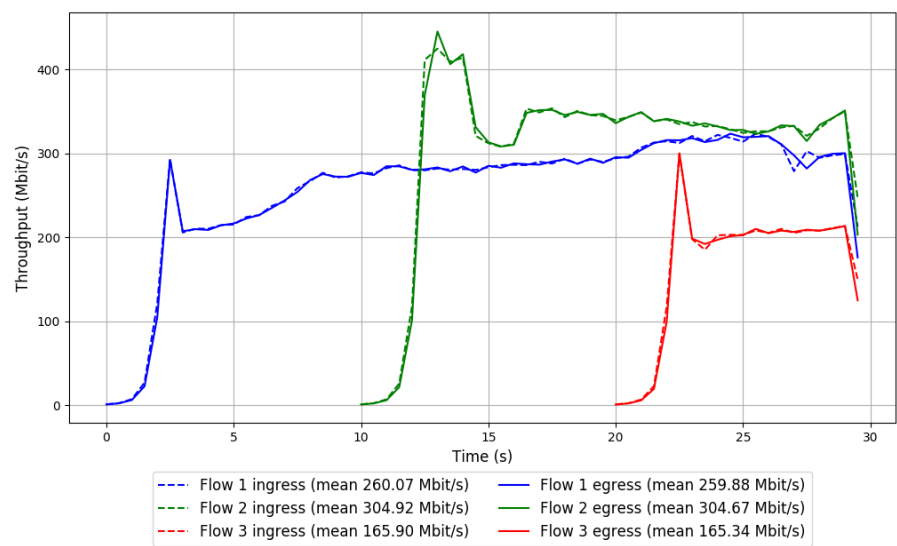
-- Flow 3:

Average throughput: 165.34 Mbit/s

95th percentile per-packet one-way delay: 50.931 ms

Loss rate: 1.40%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-07 04:59:59

End at: 2018-03-07 05:00:29

Below is generated by plot.py at 2018-03-07 11:17:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 459.23 Mbit/s

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

Loss rate: 0.54%

-- Flow 1:

Average throughput: 253.43 Mbit/s

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

Loss rate: 0.38%

-- Flow 2:

Average throughput: 218.60 Mbit/s

95th percentile per-packet one-way delay: 50.740 ms

Loss rate: 0.34%

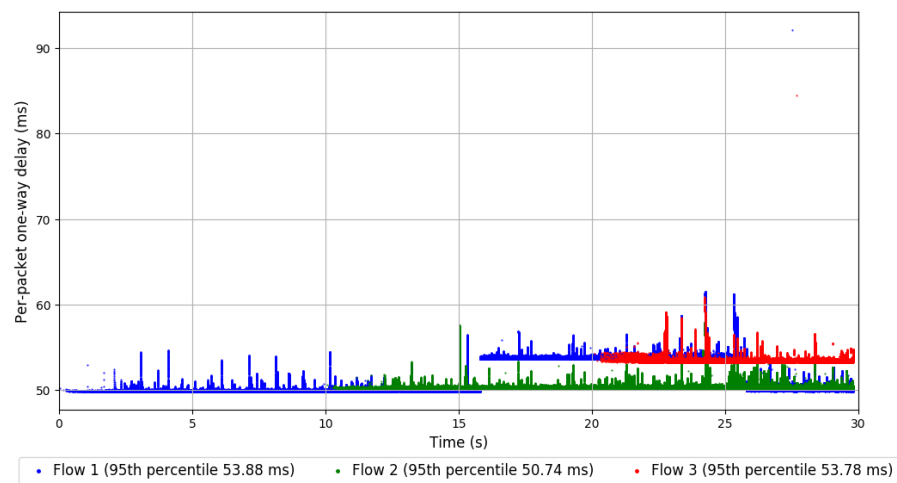
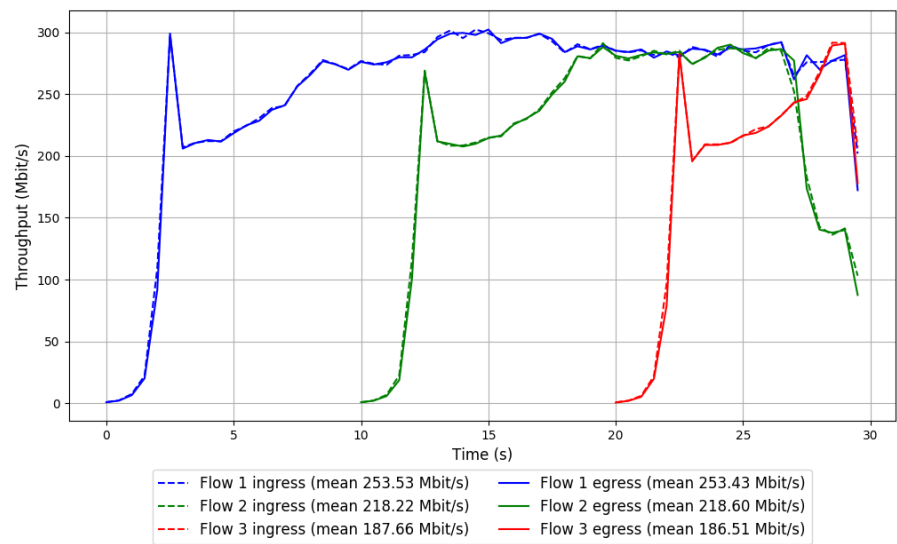
-- Flow 3:

Average throughput: 186.51 Mbit/s

95th percentile per-packet one-way delay: 53.783 ms

Loss rate: 1.67%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-07 05:16:59

End at: 2018-03-07 05:17:29

Below is generated by plot.py at 2018-03-07 11:18:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 484.16 Mbit/s

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

Loss rate: 0.59%

-- Flow 1:

Average throughput: 263.86 Mbit/s

95th percentile per-packet one-way delay: 53.539 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 245.52 Mbit/s

95th percentile per-packet one-way delay: 54.303 ms

Loss rate: 0.63%

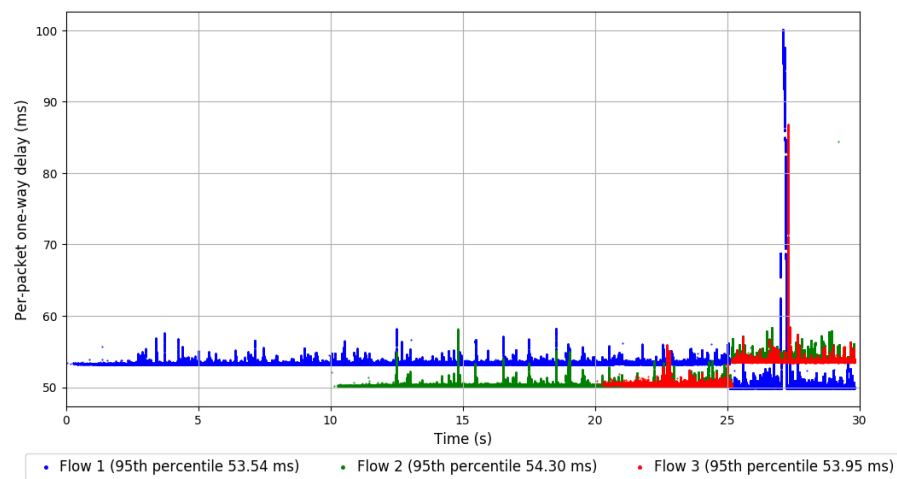
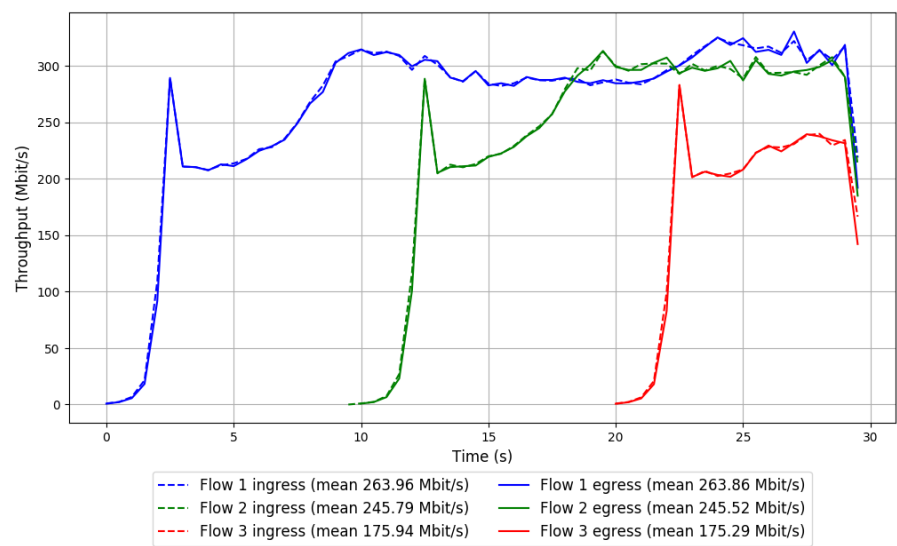
-- Flow 3:

Average throughput: 175.29 Mbit/s

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

Loss rate: 1.40%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-07 05:34:17

End at: 2018-03-07 05:34:47

Below is generated by plot.py at 2018-03-07 11:18:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 527.19 Mbit/s

95th percentile per-packet one-way delay: 54.168 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 287.77 Mbit/s

95th percentile per-packet one-way delay: 53.843 ms

Loss rate: 0.32%

-- Flow 2:

Average throughput: 229.60 Mbit/s

95th percentile per-packet one-way delay: 54.604 ms

Loss rate: 0.70%

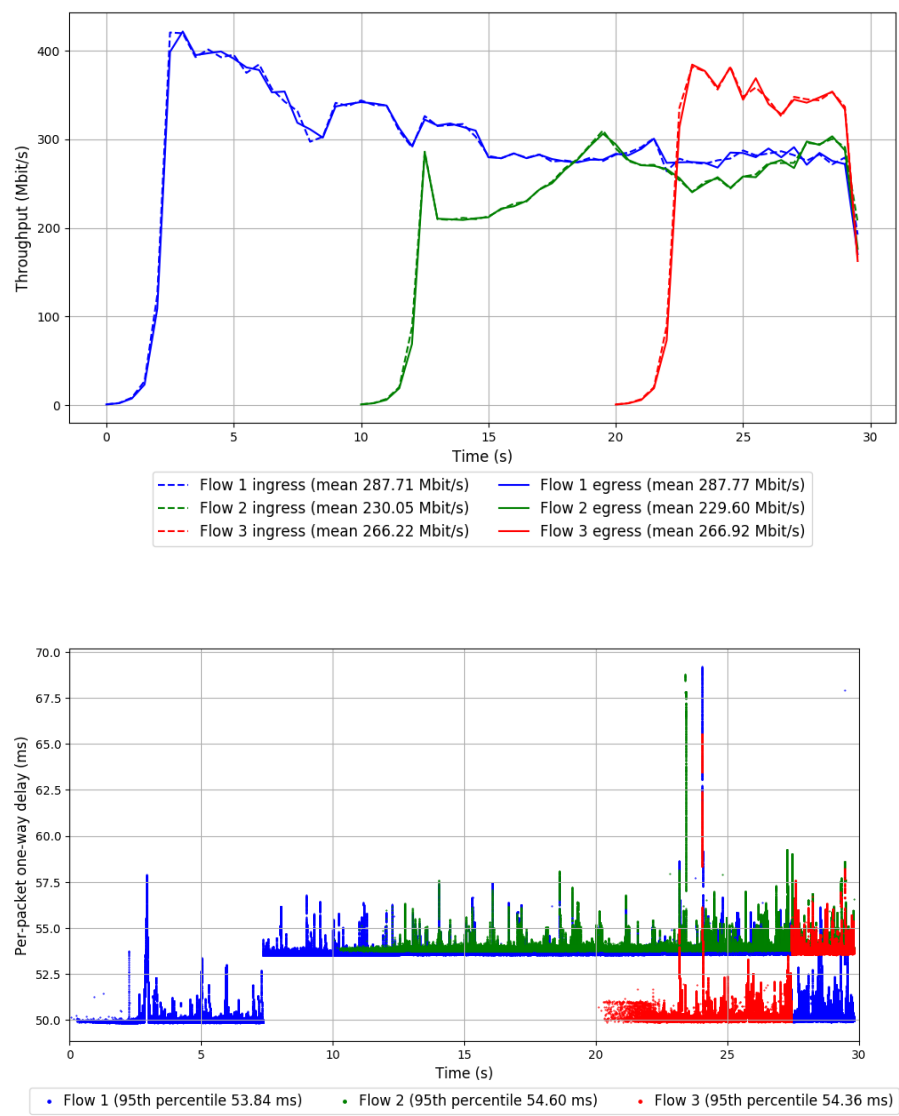
-- Flow 3:

Average throughput: 266.92 Mbit/s

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

Loss rate: 0.78%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-07 05:51:30
End at: 2018-03-07 05:52:00

# Below is generated by plot.py at 2018-03-07 11:18:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 451.72 Mbit/s
95th percentile per-packet one-way delay: 54.545 ms
Loss rate: 1.66%
-- Flow 1:
Average throughput: 242.88 Mbit/s
95th percentile per-packet one-way delay: 54.192 ms
Loss rate: 2.31%
-- Flow 2:
Average throughput: 234.72 Mbit/s
95th percentile per-packet one-way delay: 54.715 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 162.97 Mbit/s
95th percentile per-packet one-way delay: 55.049 ms
Loss rate: 1.72%
```

Run 10: Report of Vivace-LTE — Data Link

