

Pantheon Report

Generated at 2018-03-14 18:39:26 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

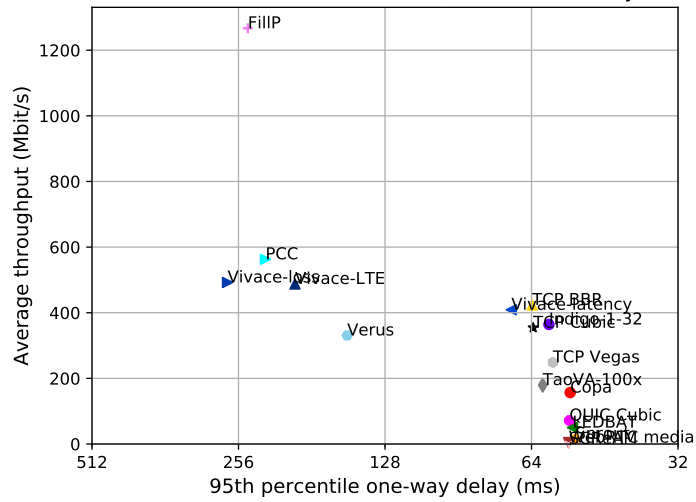
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

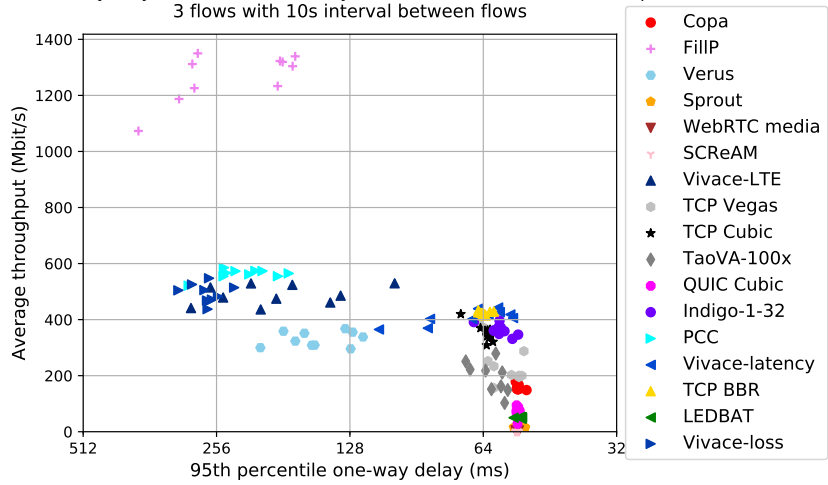
Git summary:

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

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	215.58	210.65	204.50	62.86	63.94	65.23	0.01	0.03	0.04
TCP Cubic	10	192.74	191.53	103.08	62.11	63.68	62.53	0.01	0.01	0.10
LEDBAT	10	32.16	21.37	10.93	52.82	52.67	52.05	0.00	0.00	0.00
PCC	10	467.87	122.08	42.10	232.72	158.21	148.90	4.08	0.95	1.61
QUIC Cubic	10	42.39	34.58	19.53	52.04	51.75	52.64	0.00	0.00	0.00
SCReAM	10	0.21	0.21	0.22	53.25	52.77	52.01	0.00	0.00	0.00
WebRTC media	10	2.28	1.46	0.64	52.71	52.83	52.21	0.00	0.00	0.01
Sprout	10	7.87	7.72	7.46	52.11	52.05	51.88	0.02	0.02	0.00
TaoVA-100x	10	93.09	75.11	119.74	58.12	59.62	58.80	0.00	0.00	0.00
TCP Vegas	10	167.86	102.48	37.82	57.81	55.98	54.01	0.01	0.01	0.08
Verus	10	186.58	158.12	119.86	148.82	154.87	137.61	1.02	0.25	0.19
Copa	10	78.08	78.66	79.28	52.52	52.16	52.36	0.00	0.00	0.00
FillP	10	661.30	627.50	568.27	215.22	246.64	246.83	14.53	15.48	17.48
Indigo-1-32	10	192.52	179.49	163.16	56.59	62.86	57.16	0.01	0.02	0.03
Vivace-latency	10	231.83	209.42	115.46	84.79	60.32	61.79	0.06	0.00	0.01
Vivace-loss	10	278.89	250.61	142.11	269.93	261.36	258.14	3.18	4.44	7.73
Vivace-LTE	10	266.26	240.99	185.88	194.93	170.48	136.46	1.08	0.38	0.47

Run 1: Statistics of TCP BBR

Start at: 2018-03-14 10:10:07

End at: 2018-03-14 10:10:37

Below is generated by plot.py at 2018-03-14 16:00:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 423.27 Mbit/s

95th percentile per-packet one-way delay: 64.173 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 216.71 Mbit/s

95th percentile per-packet one-way delay: 63.043 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 204.27 Mbit/s

95th percentile per-packet one-way delay: 63.642 ms

Loss rate: 0.05%

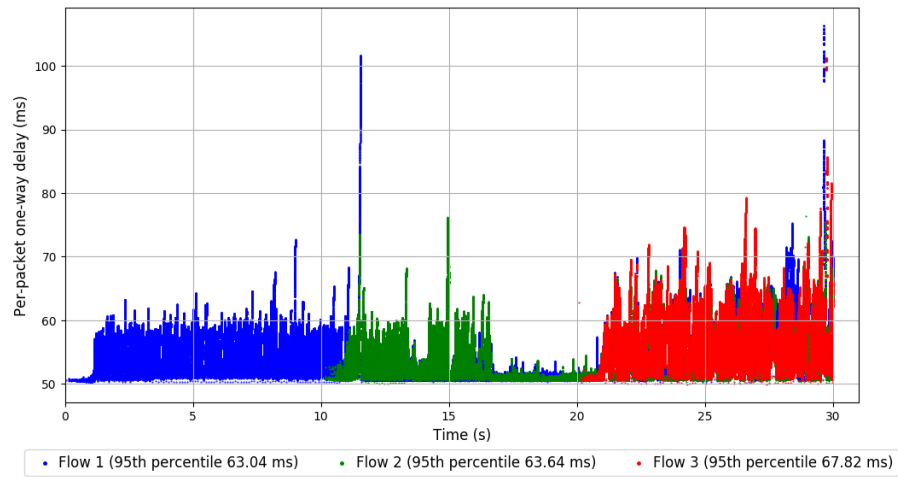
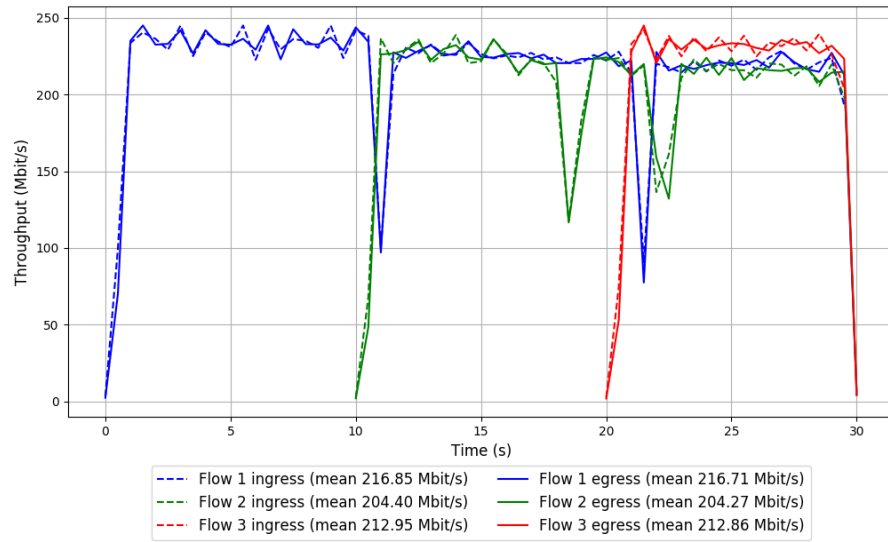
-- Flow 3:

Average throughput: 212.86 Mbit/s

95th percentile per-packet one-way delay: 67.824 ms

Loss rate: 0.19%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-14 10:27:39

End at: 2018-03-14 10:28:09

Below is generated by plot.py at 2018-03-14 16:00:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.03 Mbit/s

95th percentile per-packet one-way delay: 63.530 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 212.63 Mbit/s

95th percentile per-packet one-way delay: 61.464 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 210.12 Mbit/s

95th percentile per-packet one-way delay: 63.490 ms

Loss rate: 0.00%

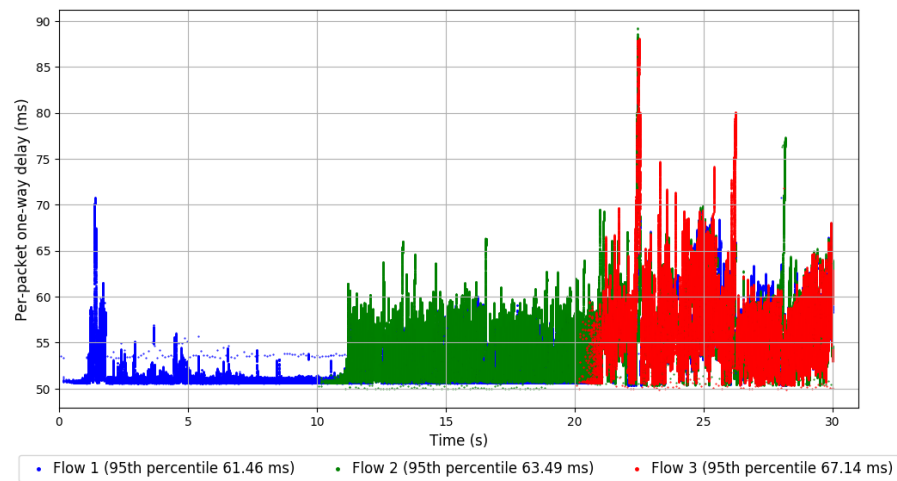
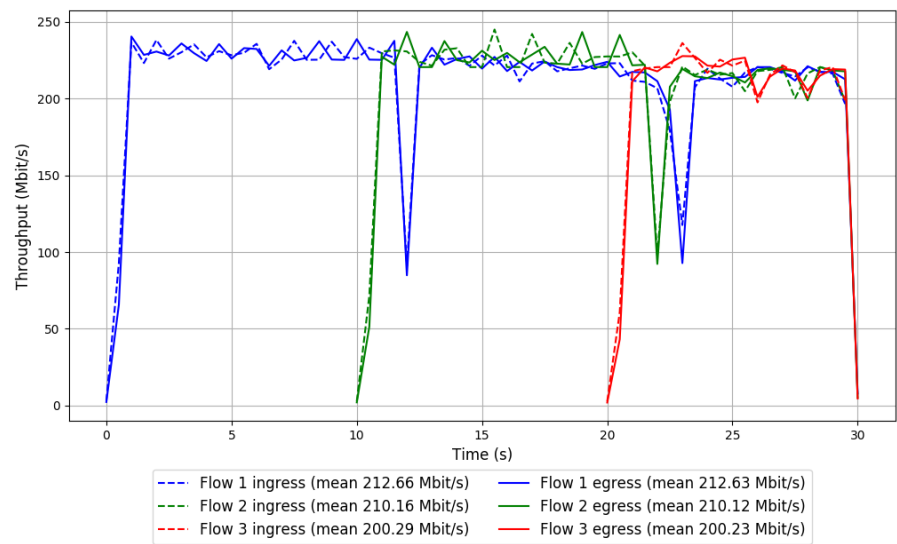
-- Flow 3:

Average throughput: 200.23 Mbit/s

95th percentile per-packet one-way delay: 67.142 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-14 10:45:04

End at: 2018-03-14 10:45:34

Below is generated by plot.py at 2018-03-14 16:00:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 427.98 Mbit/s

95th percentile per-packet one-way delay: 61.826 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 219.17 Mbit/s

95th percentile per-packet one-way delay: 60.605 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 214.65 Mbit/s

95th percentile per-packet one-way delay: 62.173 ms

Loss rate: 0.00%

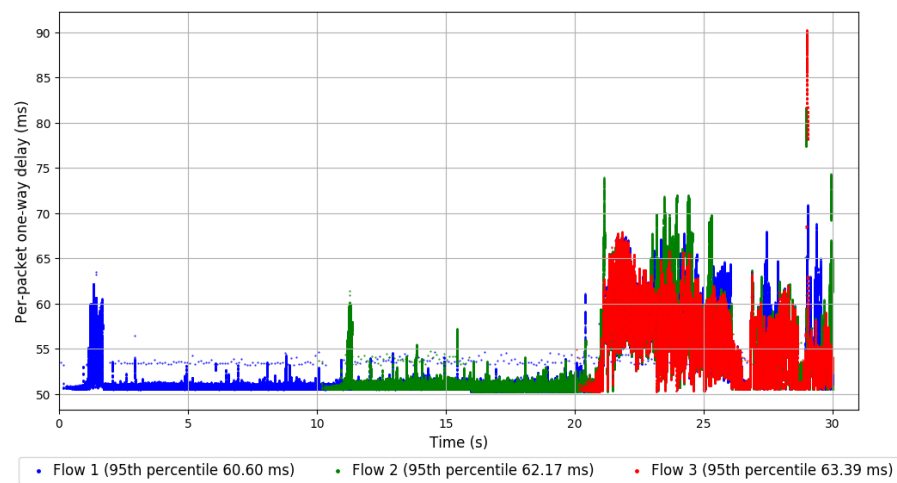
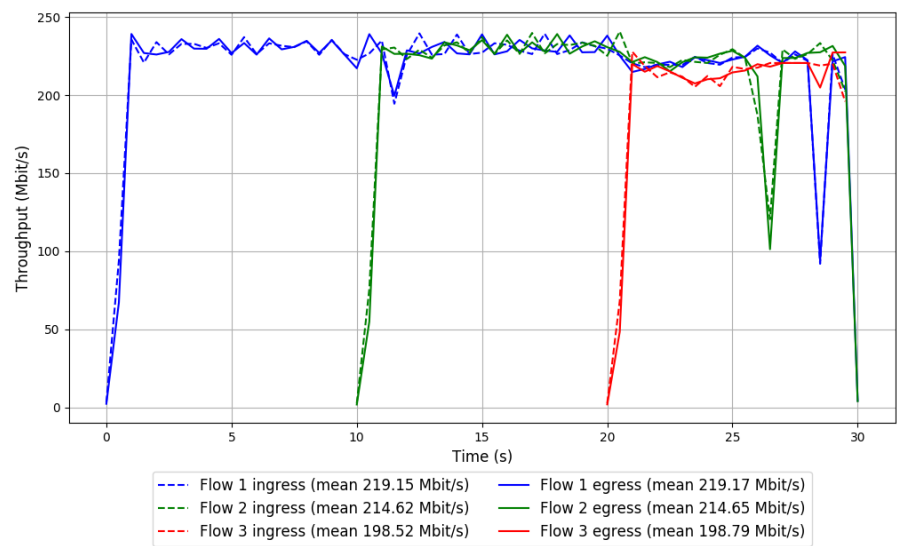
-- Flow 3:

Average throughput: 198.79 Mbit/s

95th percentile per-packet one-way delay: 63.386 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-14 11:02:10

End at: 2018-03-14 11:02:40

Below is generated by plot.py at 2018-03-14 16:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 433.55 Mbit/s

95th percentile per-packet one-way delay: 65.656 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 219.02 Mbit/s

95th percentile per-packet one-way delay: 65.343 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 217.12 Mbit/s

95th percentile per-packet one-way delay: 65.916 ms

Loss rate: 0.13%

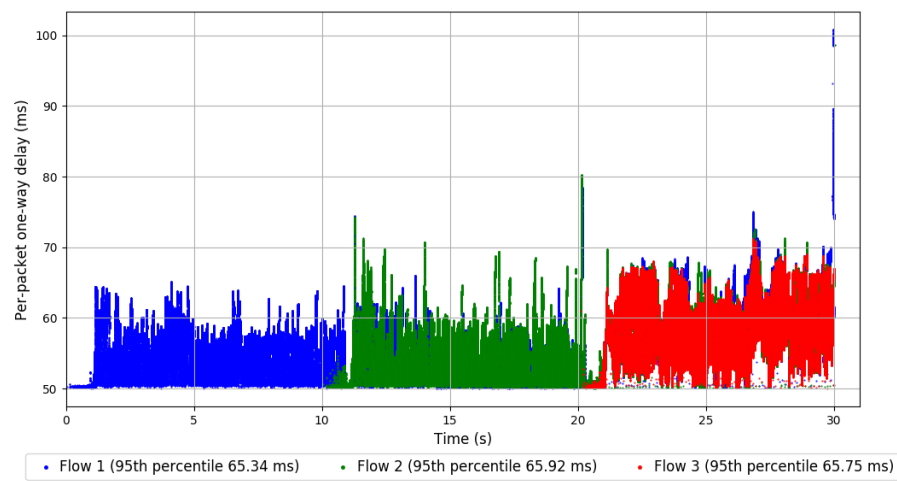
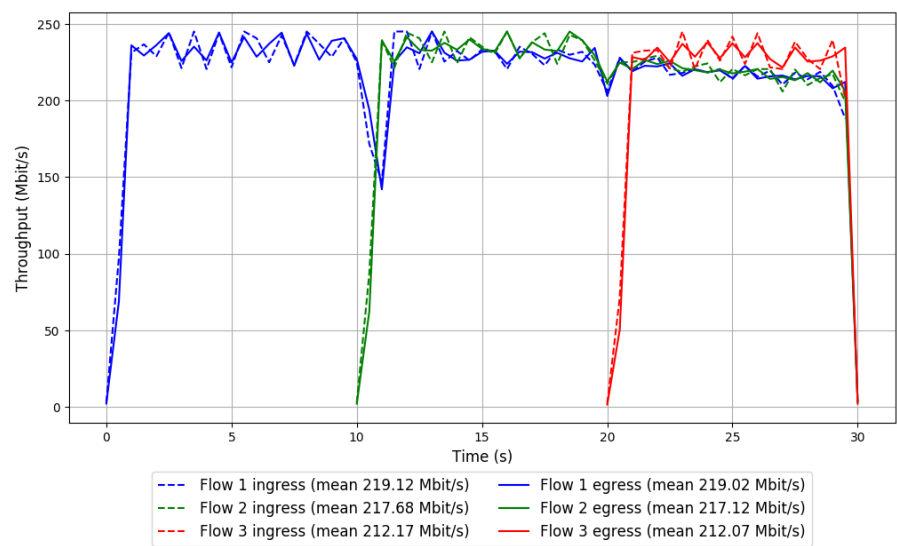
-- Flow 3:

Average throughput: 212.07 Mbit/s

95th percentile per-packet one-way delay: 65.749 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-14 11:19:27

End at: 2018-03-14 11:19:57

Below is generated by plot.py at 2018-03-14 16:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 422.19 Mbit/s

95th percentile per-packet one-way delay: 64.225 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 215.08 Mbit/s

95th percentile per-packet one-way delay: 63.955 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 208.25 Mbit/s

95th percentile per-packet one-way delay: 64.403 ms

Loss rate: 0.00%

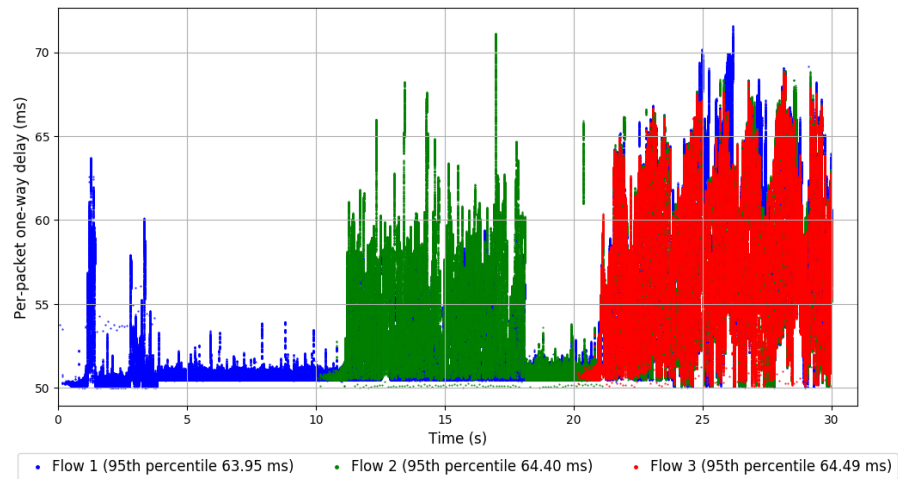
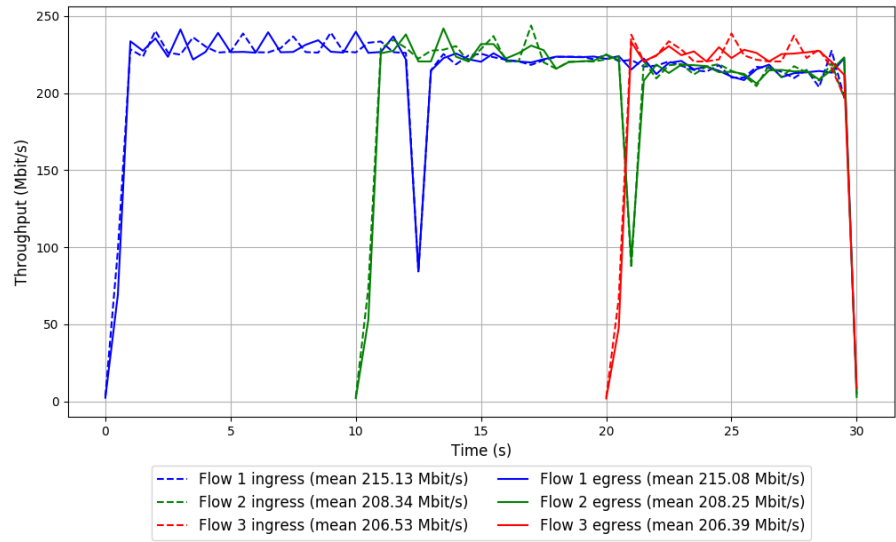
-- Flow 3:

Average throughput: 206.39 Mbit/s

95th percentile per-packet one-way delay: 64.489 ms

Loss rate: 0.05%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-14 11:36:36

End at: 2018-03-14 11:37:06

Below is generated by plot.py at 2018-03-14 16:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 424.70 Mbit/s

95th percentile per-packet one-way delay: 64.774 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 215.23 Mbit/s

95th percentile per-packet one-way delay: 62.574 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 210.89 Mbit/s

95th percentile per-packet one-way delay: 65.048 ms

Loss rate: 0.00%

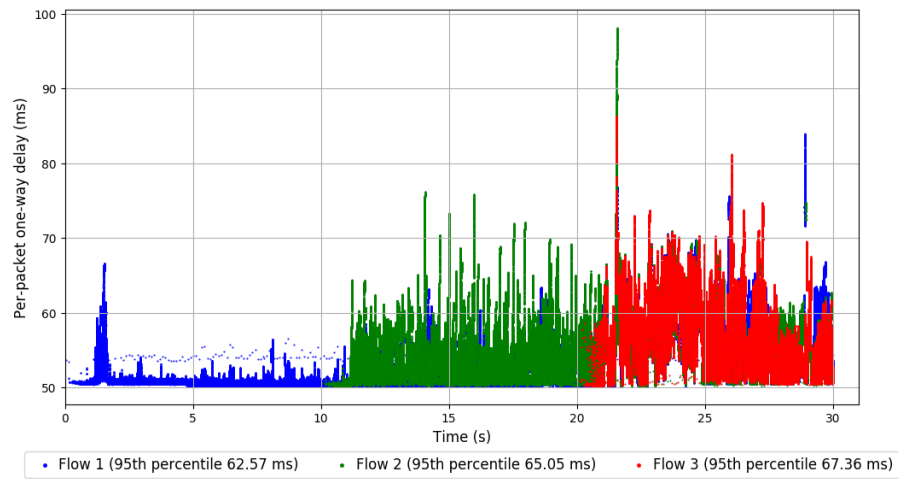
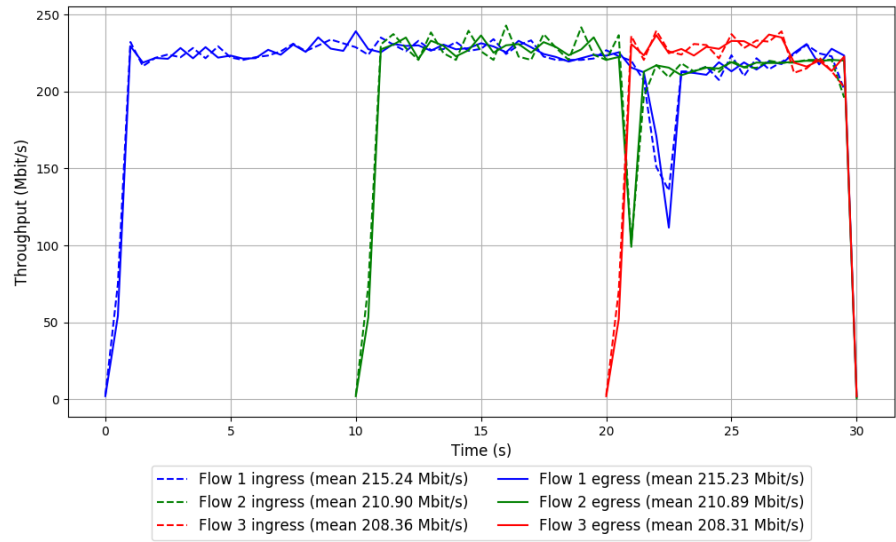
-- Flow 3:

Average throughput: 208.31 Mbit/s

95th percentile per-packet one-way delay: 67.364 ms

Loss rate: 0.02%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-14 11:53:56

End at: 2018-03-14 11:54:26

Below is generated by plot.py at 2018-03-14 16:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 414.44 Mbit/s

95th percentile per-packet one-way delay: 63.228 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 206.79 Mbit/s

95th percentile per-packet one-way delay: 62.956 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 211.70 Mbit/s

95th percentile per-packet one-way delay: 63.779 ms

Loss rate: 0.03%

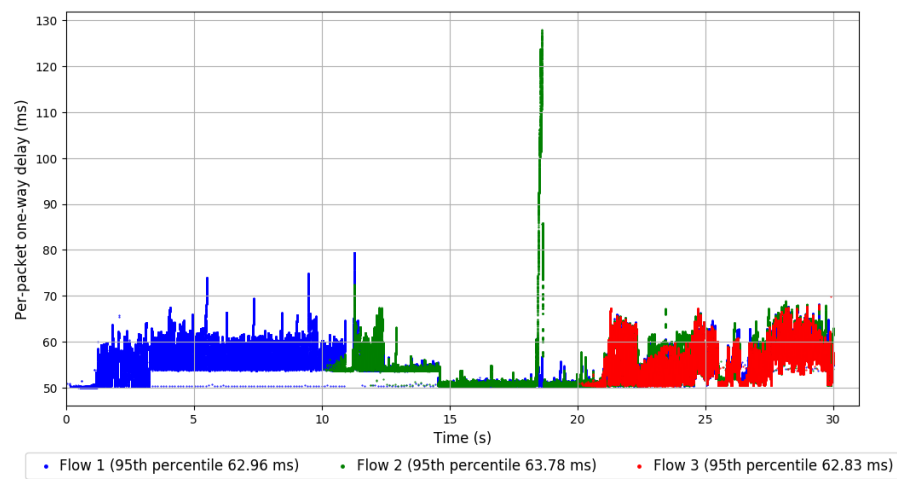
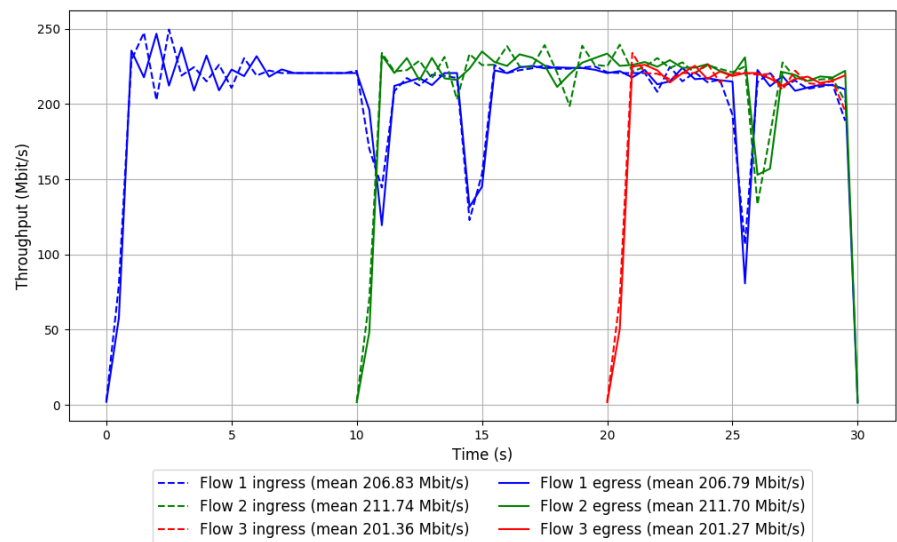
-- Flow 3:

Average throughput: 201.27 Mbit/s

95th percentile per-packet one-way delay: 62.830 ms

Loss rate: 0.00%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-14 12:11:17

End at: 2018-03-14 12:11:47

Below is generated by plot.py at 2018-03-14 16:00:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 416.07 Mbit/s

95th percentile per-packet one-way delay: 64.177 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 217.67 Mbit/s

95th percentile per-packet one-way delay: 63.791 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 201.77 Mbit/s

95th percentile per-packet one-way delay: 65.278 ms

Loss rate: 0.04%

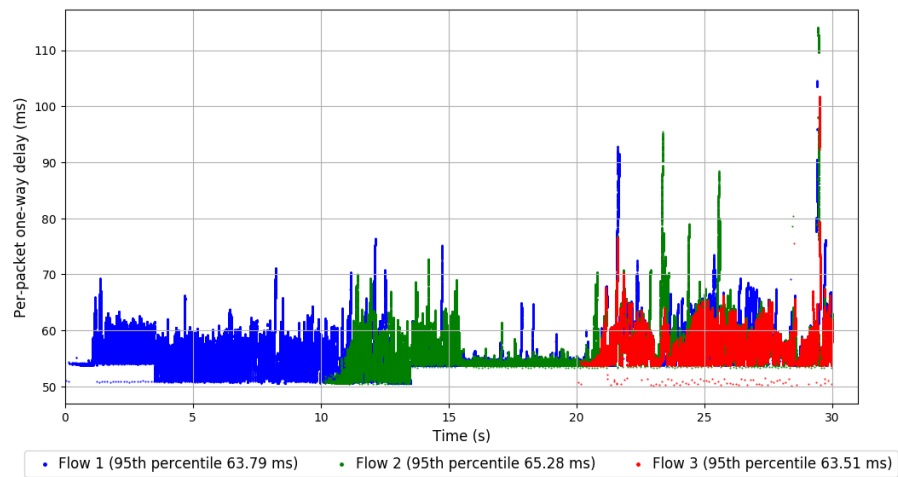
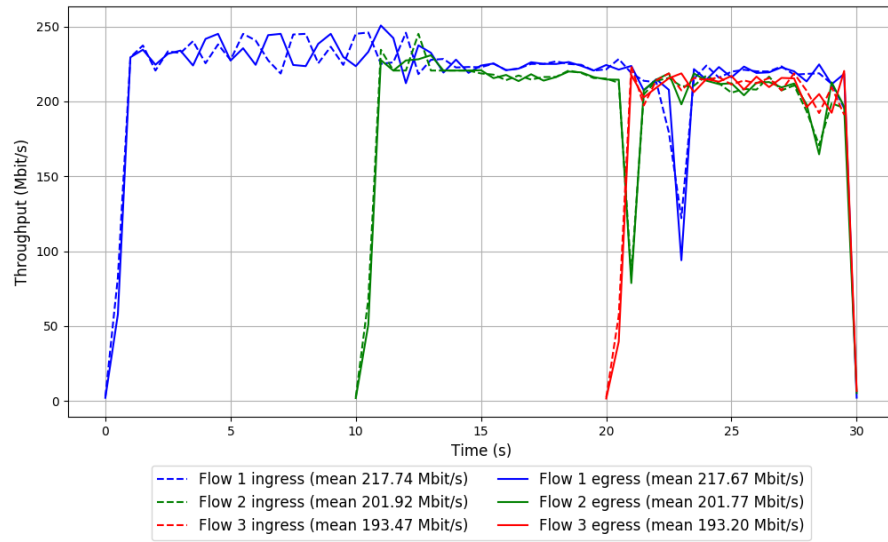
-- Flow 3:

Average throughput: 193.20 Mbit/s

95th percentile per-packet one-way delay: 63.506 ms

Loss rate: 0.11%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-14 12:28:38

End at: 2018-03-14 12:29:08

Below is generated by plot.py at 2018-03-14 16:09:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 426.06 Mbit/s

95th percentile per-packet one-way delay: 65.722 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 216.54 Mbit/s

95th percentile per-packet one-way delay: 64.361 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 213.28 Mbit/s

95th percentile per-packet one-way delay: 64.880 ms

Loss rate: 0.00%

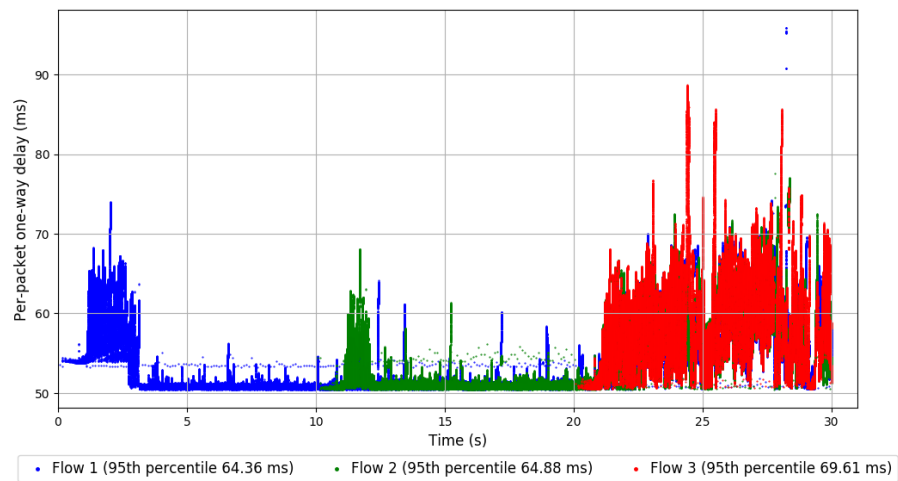
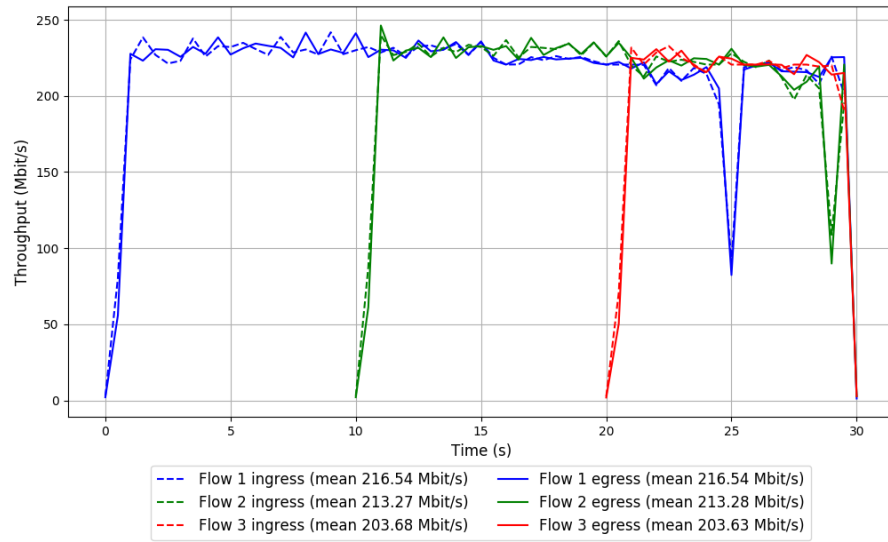
-- Flow 3:

Average throughput: 203.63 Mbit/s

95th percentile per-packet one-way delay: 69.607 ms

Loss rate: 0.00%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-14 12:45:50

End at: 2018-03-14 12:46:20

Below is generated by plot.py at 2018-03-14 16:09:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 428.82 Mbit/s

95th percentile per-packet one-way delay: 60.560 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 216.96 Mbit/s

95th percentile per-packet one-way delay: 60.530 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 214.48 Mbit/s

95th percentile per-packet one-way delay: 60.766 ms

Loss rate: 0.00%

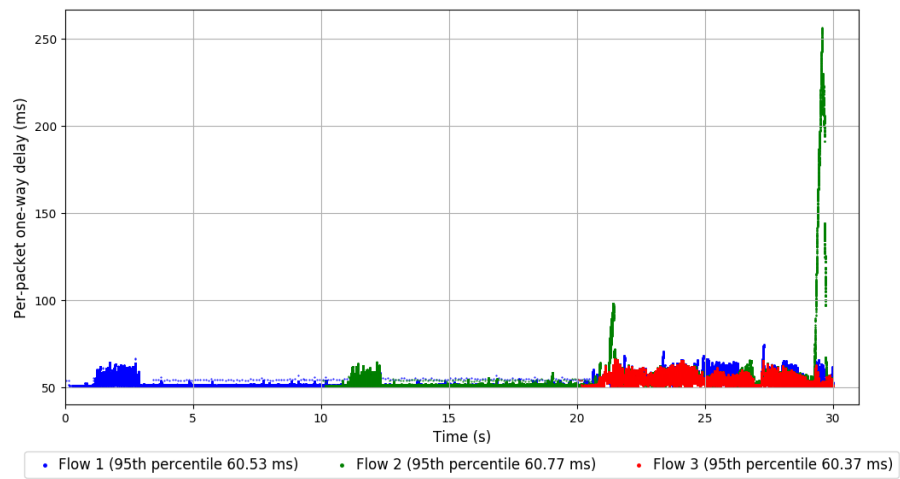
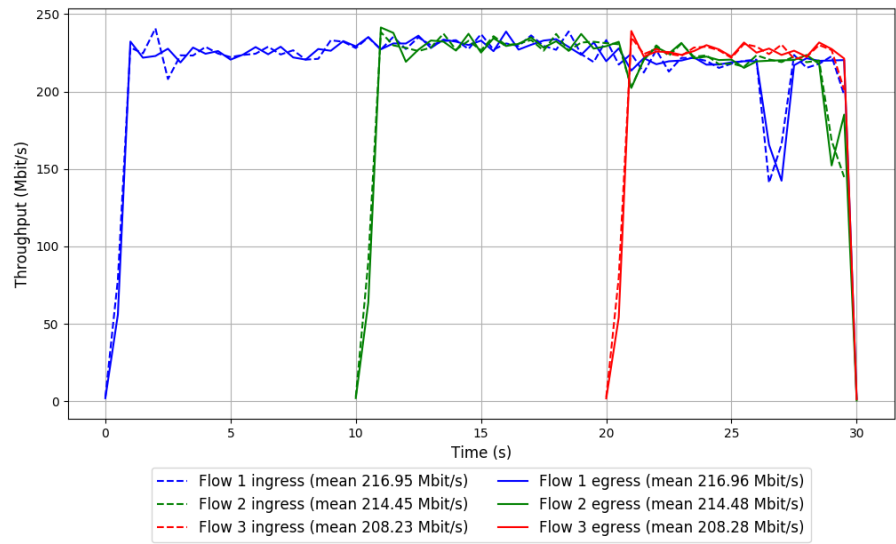
-- Flow 3:

Average throughput: 208.28 Mbit/s

95th percentile per-packet one-way delay: 60.369 ms

Loss rate: 0.01%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-14 09:57:37

End at: 2018-03-14 09:58:07

Below is generated by plot.py at 2018-03-14 16:09:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.81 Mbit/s

95th percentile per-packet one-way delay: 71.948 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 219.66 Mbit/s

95th percentile per-packet one-way delay: 68.314 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 199.79 Mbit/s

95th percentile per-packet one-way delay: 71.937 ms

Loss rate: 0.00%

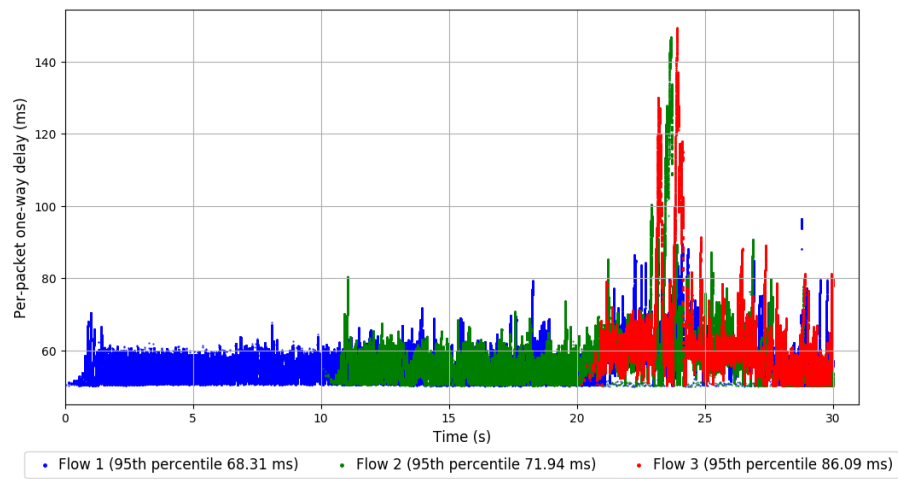
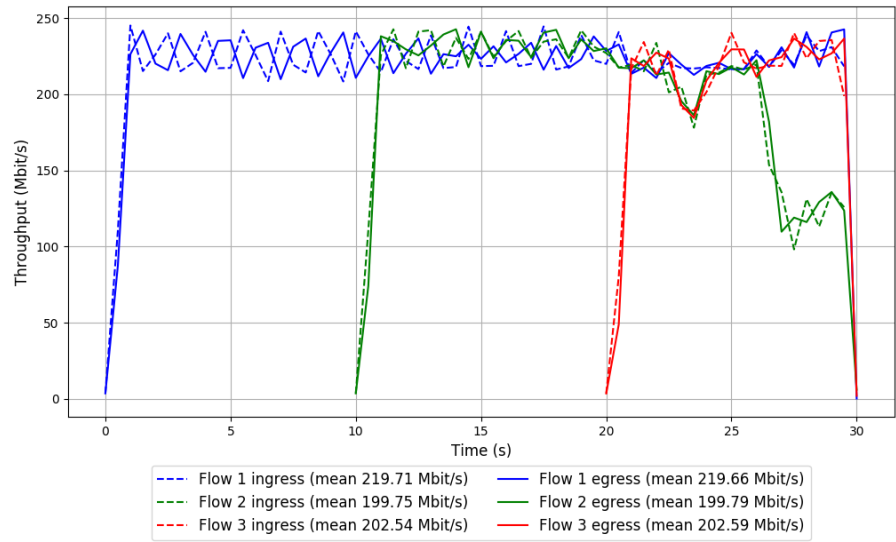
-- Flow 3:

Average throughput: 202.59 Mbit/s

95th percentile per-packet one-way delay: 86.086 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-14 10:14:37

End at: 2018-03-14 10:15:07

Below is generated by plot.py at 2018-03-14 16:09:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 364.13 Mbit/s

95th percentile per-packet one-way delay: 61.771 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 212.13 Mbit/s

95th percentile per-packet one-way delay: 62.433 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 122.02 Mbit/s

95th percentile per-packet one-way delay: 57.819 ms

Loss rate: 0.00%

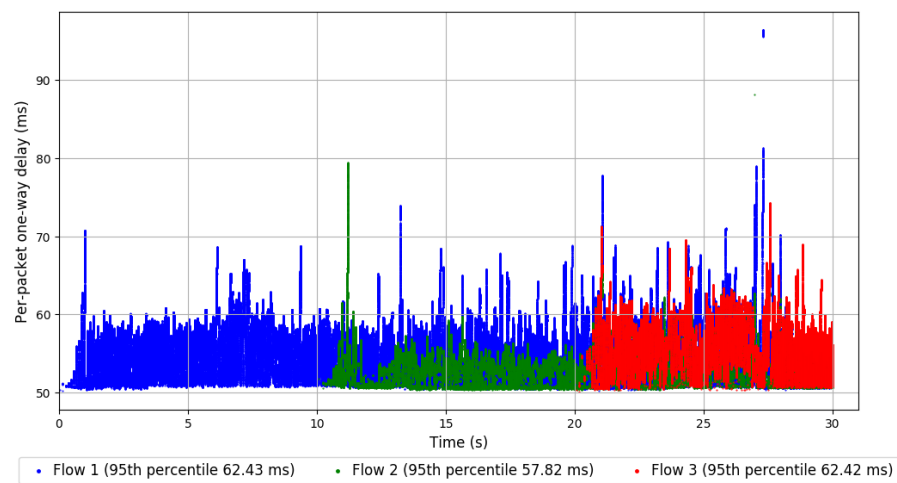
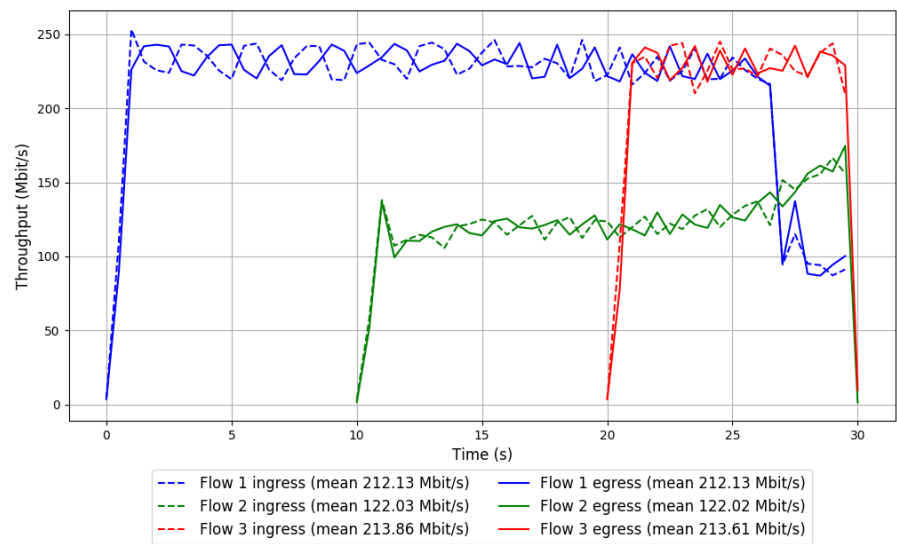
-- Flow 3:

Average throughput: 213.61 Mbit/s

95th percentile per-packet one-way delay: 62.420 ms

Loss rate: 0.08%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-14 10:32:18

End at: 2018-03-14 10:32:48

Below is generated by plot.py at 2018-03-14 16:09:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.15 Mbit/s

95th percentile per-packet one-way delay: 62.053 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 176.62 Mbit/s

95th percentile per-packet one-way delay: 62.320 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 145.35 Mbit/s

95th percentile per-packet one-way delay: 62.054 ms

Loss rate: 0.01%

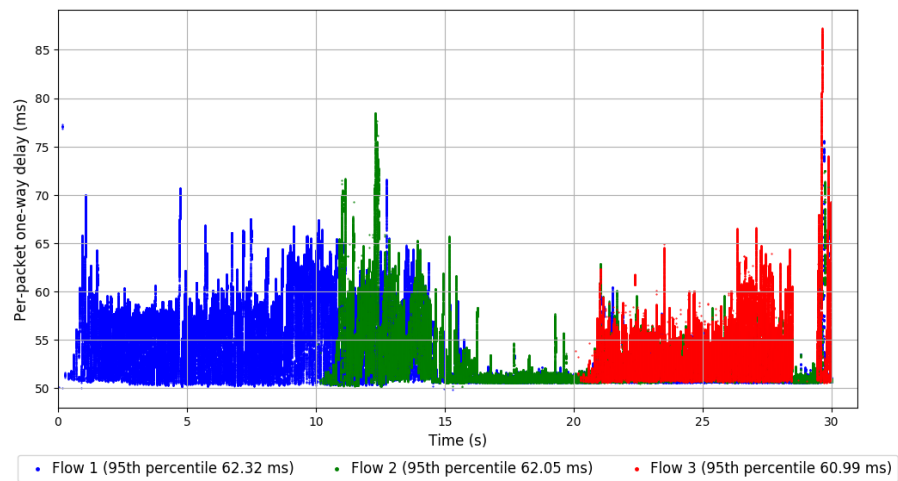
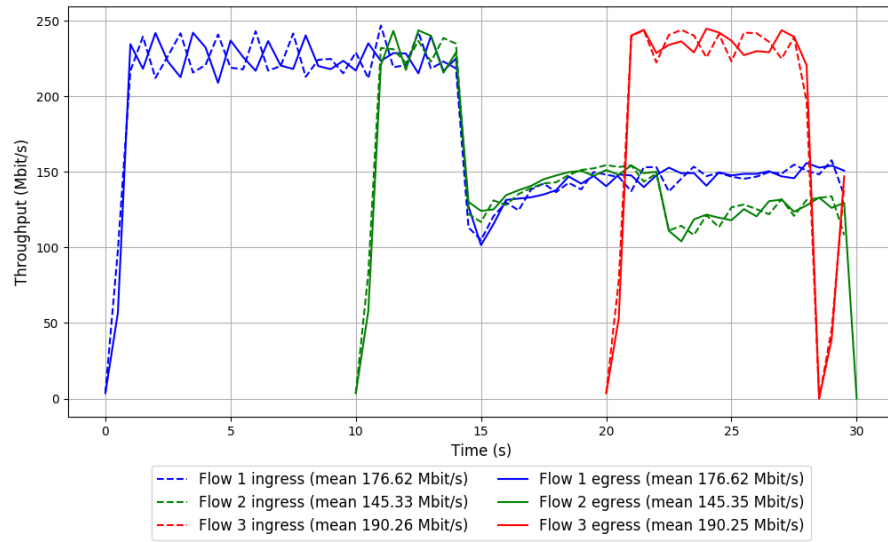
-- Flow 3:

Average throughput: 190.25 Mbit/s

95th percentile per-packet one-way delay: 60.987 ms

Loss rate: 0.00%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-14 10:49:31

End at: 2018-03-14 10:50:01

Below is generated by plot.py at 2018-03-14 16:09:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 321.01 Mbit/s

95th percentile per-packet one-way delay: 60.872 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 181.33 Mbit/s

95th percentile per-packet one-way delay: 58.724 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 207.29 Mbit/s

95th percentile per-packet one-way delay: 62.661 ms

Loss rate: 0.01%

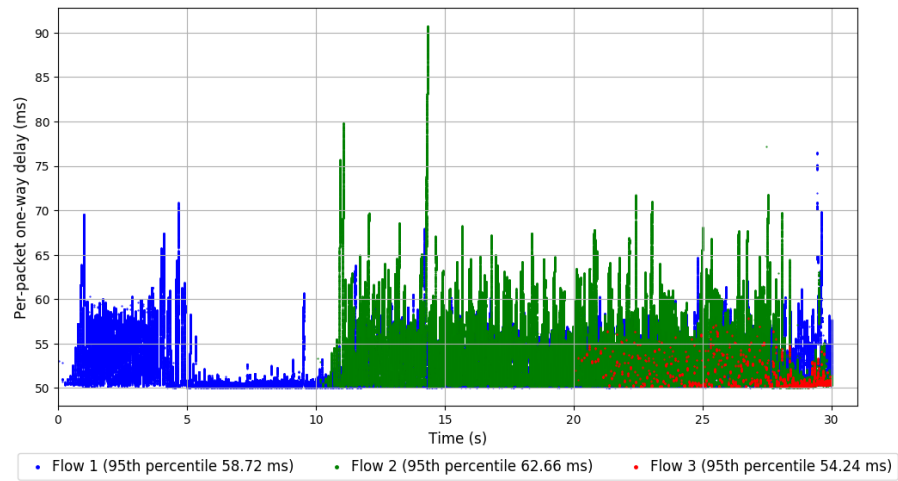
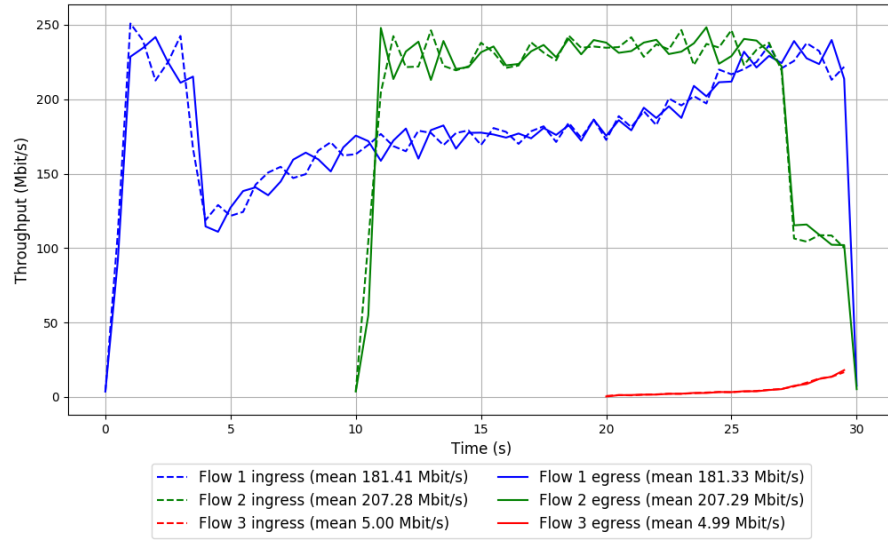
-- Flow 3:

Average throughput: 4.99 Mbit/s

95th percentile per-packet one-way delay: 54.243 ms

Loss rate: 0.19%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-14 11:06:41

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

Below is generated by plot.py at 2018-03-14 16:09:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.67 Mbit/s

95th percentile per-packet one-way delay: 61.916 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 219.53 Mbit/s

95th percentile per-packet one-way delay: 61.359 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 209.60 Mbit/s

95th percentile per-packet one-way delay: 62.773 ms

Loss rate: 0.00%

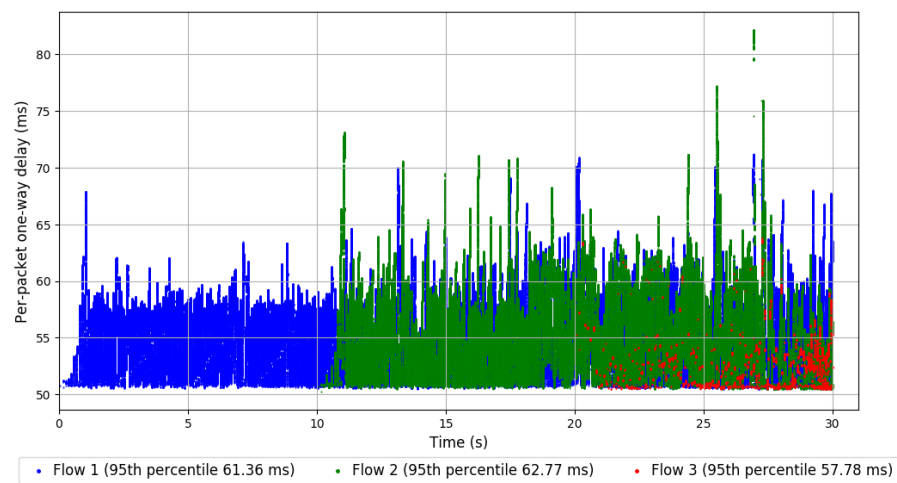
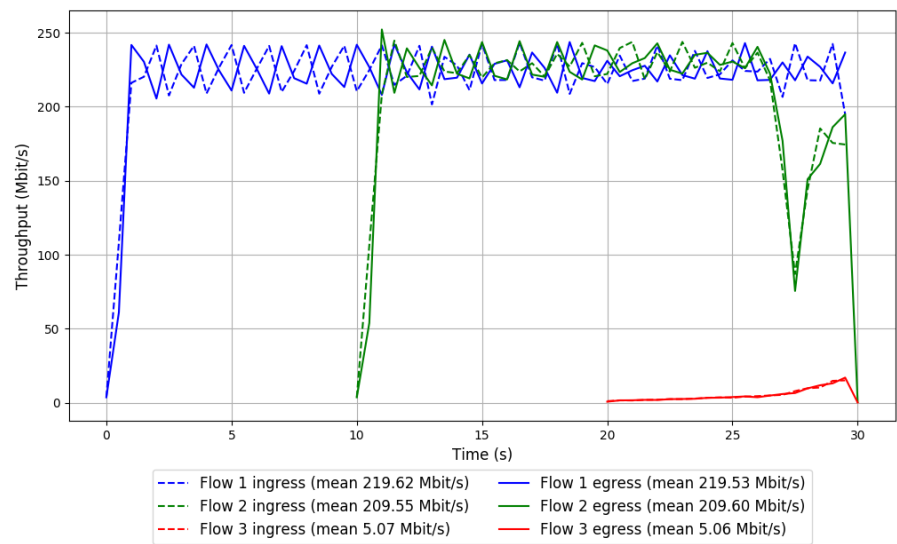
-- Flow 3:

Average throughput: 5.06 Mbit/s

95th percentile per-packet one-way delay: 57.776 ms

Loss rate: 0.12%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-14 11:23:55

End at: 2018-03-14 11:24:25

Below is generated by plot.py at 2018-03-14 16:09:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.44 Mbit/s

95th percentile per-packet one-way delay: 62.609 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 214.13 Mbit/s

95th percentile per-packet one-way delay: 62.282 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 218.34 Mbit/s

95th percentile per-packet one-way delay: 62.996 ms

Loss rate: 0.00%

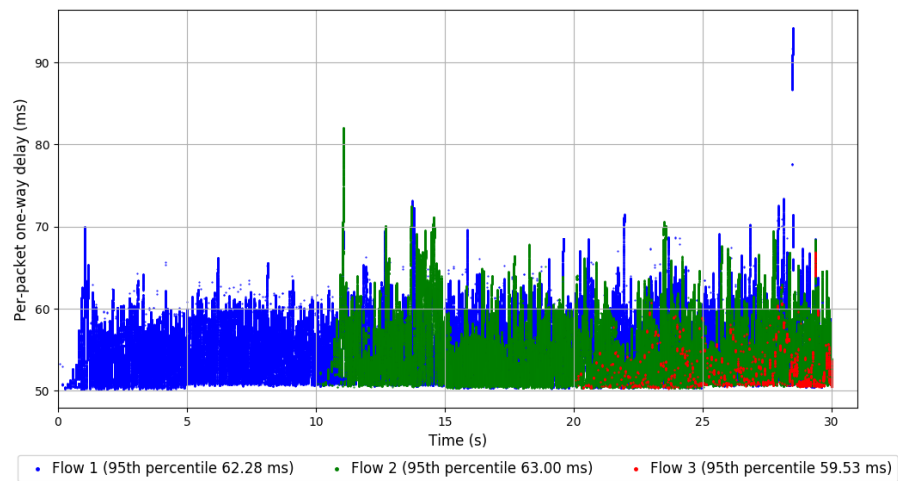
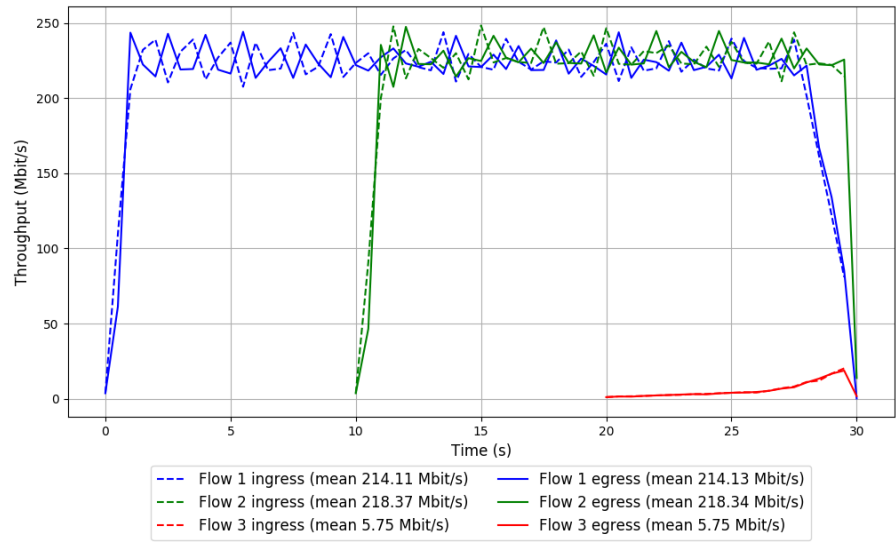
-- Flow 3:

Average throughput: 5.75 Mbit/s

95th percentile per-packet one-way delay: 59.533 ms

Loss rate: 0.04%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-14 11:41:05

End at: 2018-03-14 11:41:35

Below is generated by plot.py at 2018-03-14 16:14:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 340.67 Mbit/s

95th percentile per-packet one-way delay: 62.722 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 143.10 Mbit/s

95th percentile per-packet one-way delay: 61.366 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 204.81 Mbit/s

95th percentile per-packet one-way delay: 63.701 ms

Loss rate: 0.05%

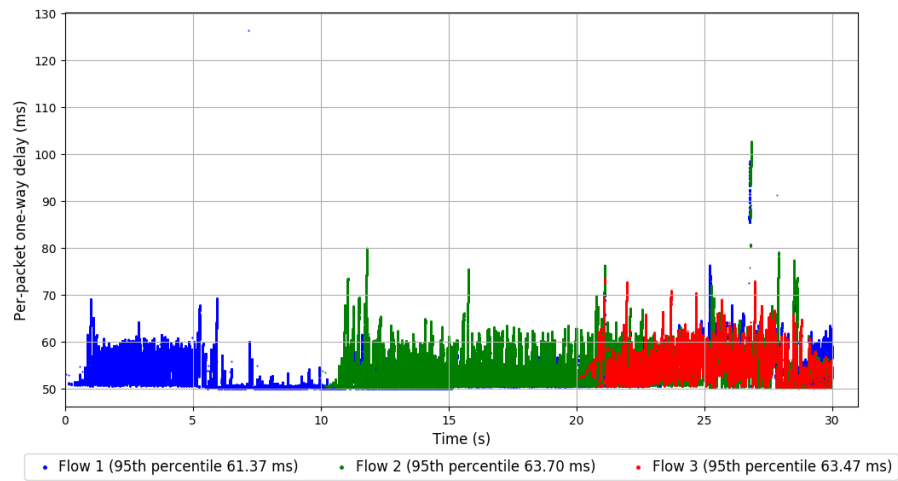
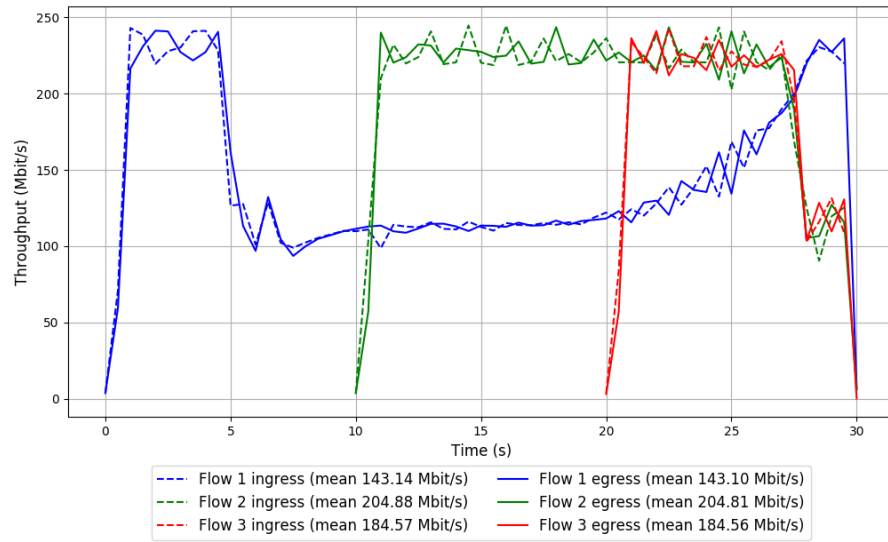
-- Flow 3:

Average throughput: 184.56 Mbit/s

95th percentile per-packet one-way delay: 63.468 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-14 11:58:29

End at: 2018-03-14 11:58:59

Below is generated by plot.py at 2018-03-14 16:15:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.06 Mbit/s

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

Loss rate: 0.03%

-- Flow 1:

Average throughput: 225.07 Mbit/s

95th percentile per-packet one-way delay: 63.251 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 200.44 Mbit/s

95th percentile per-packet one-way delay: 63.488 ms

Loss rate: 0.00%

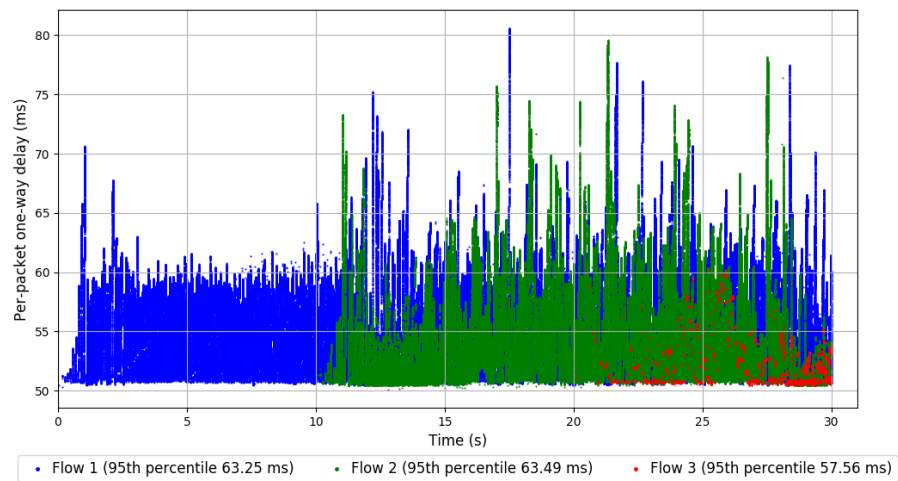
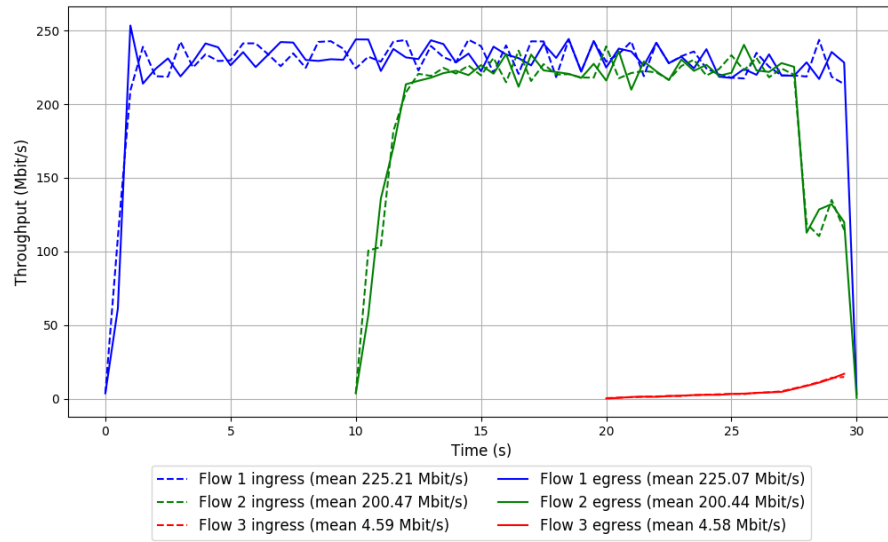
-- Flow 3:

Average throughput: 4.58 Mbit/s

95th percentile per-packet one-way delay: 57.560 ms

Loss rate: 0.26%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-14 12:15:49

End at: 2018-03-14 12:16:19

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 369.99 Mbit/s

95th percentile per-packet one-way delay: 64.924 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 220.65 Mbit/s

95th percentile per-packet one-way delay: 63.724 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 222.35 Mbit/s

95th percentile per-packet one-way delay: 66.226 ms

Loss rate: 0.00%

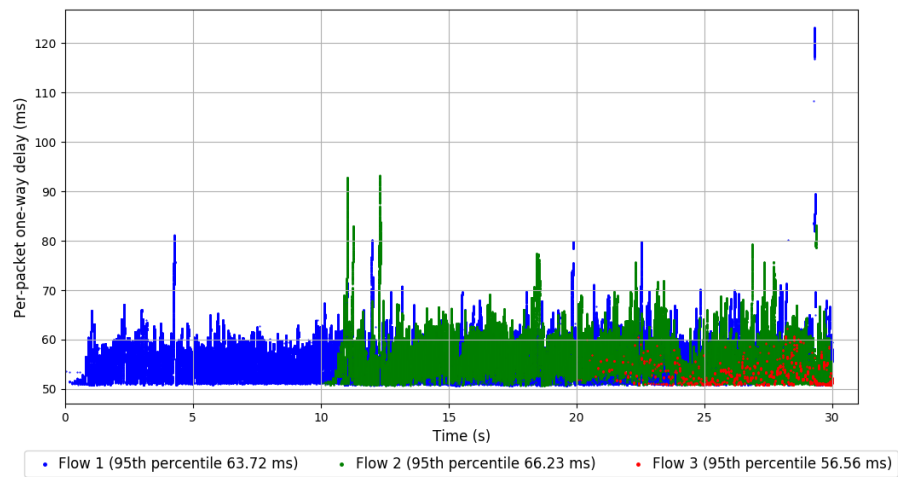
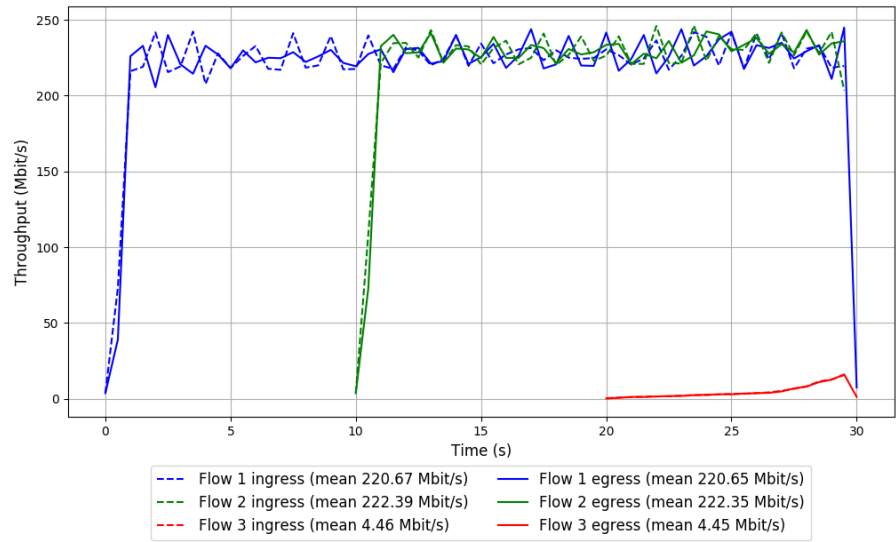
-- Flow 3:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 56.558 ms

Loss rate: 0.27%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

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

End at: 2018-03-14 12:33:42

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.67 Mbit/s

95th percentile per-packet one-way delay: 62.910 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 115.14 Mbit/s

95th percentile per-packet one-way delay: 57.321 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 185.27 Mbit/s

95th percentile per-packet one-way delay: 63.179 ms

Loss rate: 0.00%

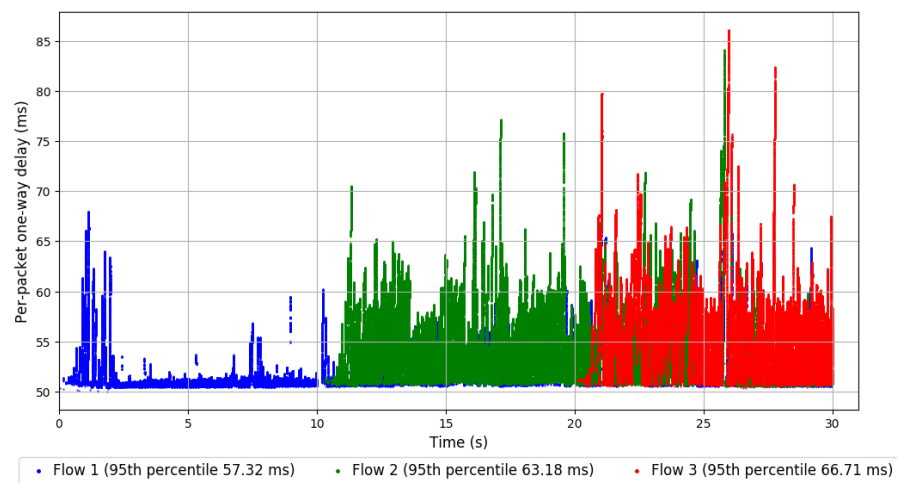
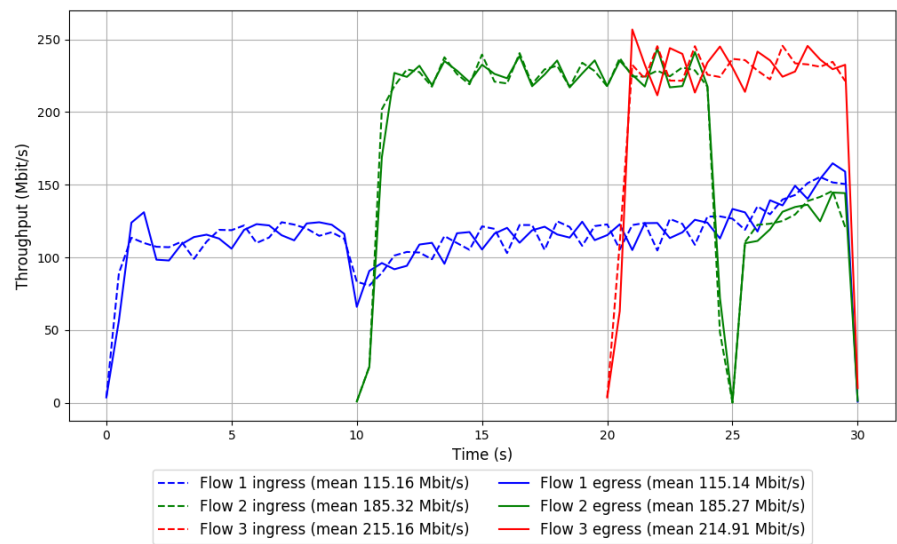
-- Flow 3:

Average throughput: 214.91 Mbit/s

95th percentile per-packet one-way delay: 66.713 ms

Loss rate: 0.08%

Run 10: Report of TCP Cubic — Data Link

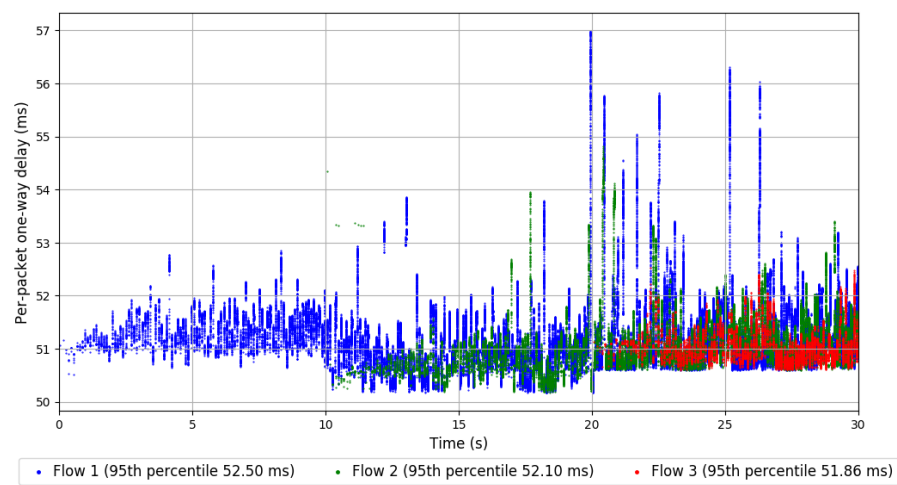
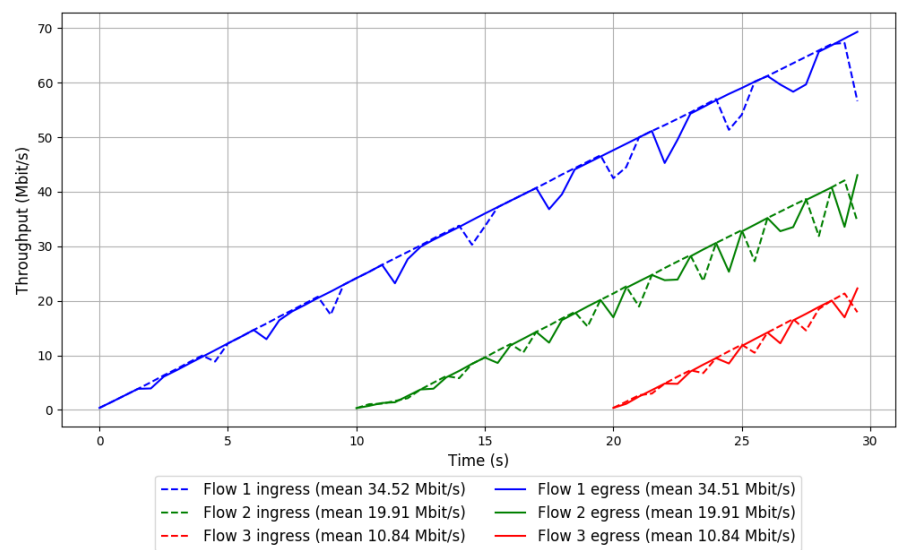


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-14 10:01:30
End at: 2018-03-14 10:02:00

# Below is generated by plot.py at 2018-03-14 16:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 51.32 Mbit/s
95th percentile per-packet one-way delay: 52.359 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 34.51 Mbit/s
95th percentile per-packet one-way delay: 52.498 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 19.91 Mbit/s
95th percentile per-packet one-way delay: 52.096 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 10.84 Mbit/s
95th percentile per-packet one-way delay: 51.861 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

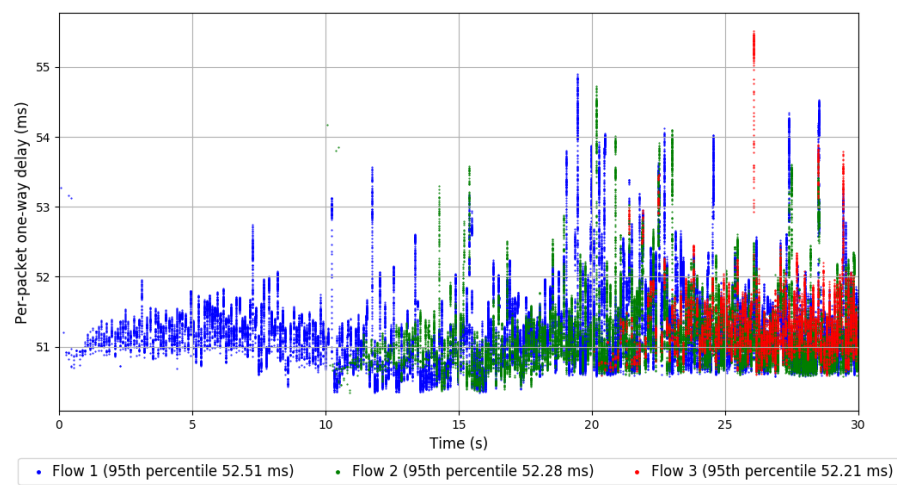
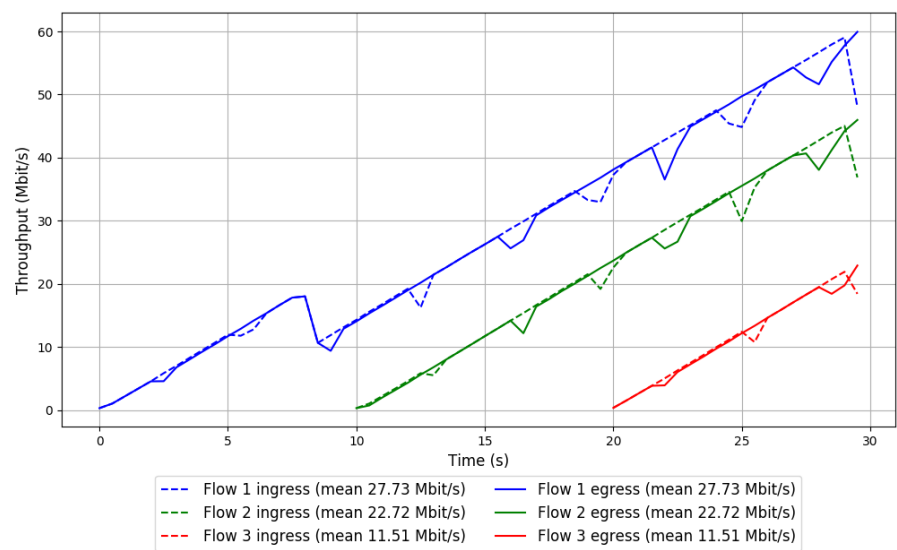


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-14 10:18:52
End at: 2018-03-14 10:19:22

# Below is generated by plot.py at 2018-03-14 16:16:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 46.64 Mbit/s
95th percentile per-packet one-way delay: 52.422 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 27.73 Mbit/s
95th percentile per-packet one-way delay: 52.514 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 22.72 Mbit/s
95th percentile per-packet one-way delay: 52.284 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 11.51 Mbit/s
95th percentile per-packet one-way delay: 52.214 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-14 10:36:28

End at: 2018-03-14 10:36:58

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.61 Mbit/s

95th percentile per-packet one-way delay: 52.371 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 33.21 Mbit/s

95th percentile per-packet one-way delay: 52.369 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.61 Mbit/s

95th percentile per-packet one-way delay: 52.426 ms

Loss rate: 0.00%

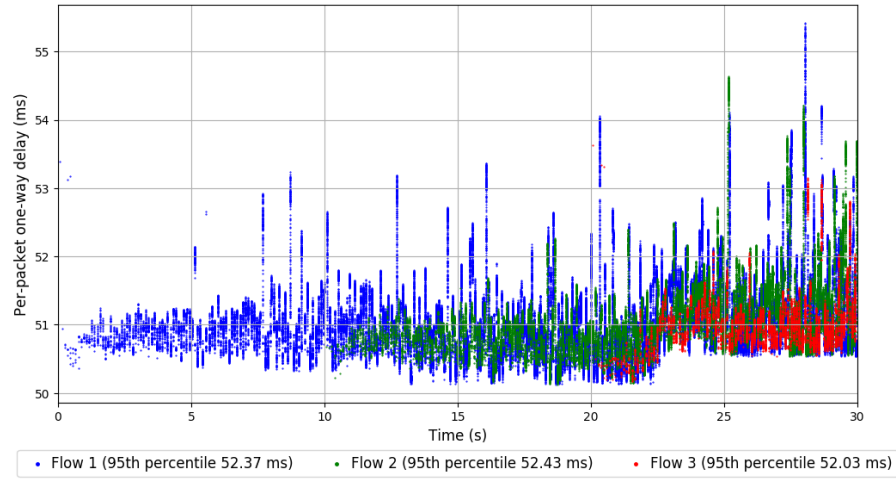
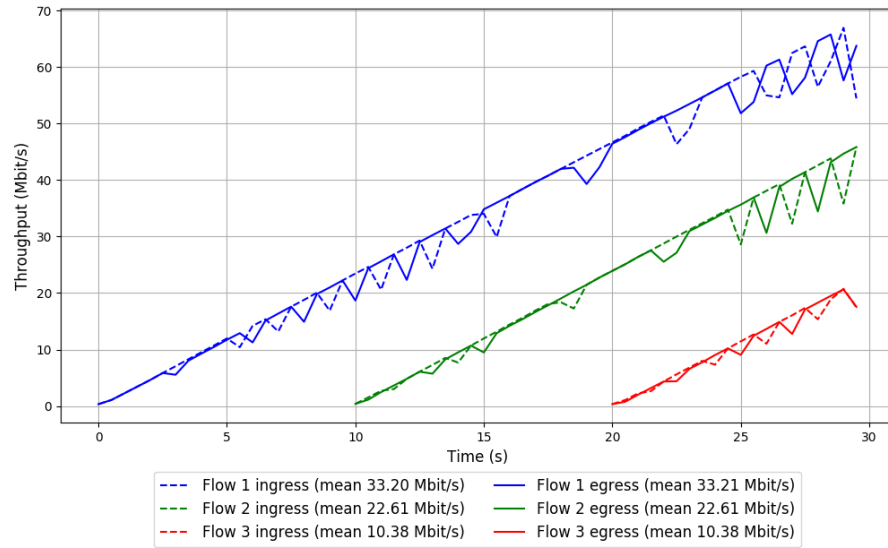
-- Flow 3:

Average throughput: 10.38 Mbit/s

95th percentile per-packet one-way delay: 52.029 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-14 10:53:31

End at: 2018-03-14 10:54:01

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.06 Mbit/s

95th percentile per-packet one-way delay: 52.704 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.02 Mbit/s

95th percentile per-packet one-way delay: 52.887 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.64 Mbit/s

95th percentile per-packet one-way delay: 52.419 ms

Loss rate: 0.00%

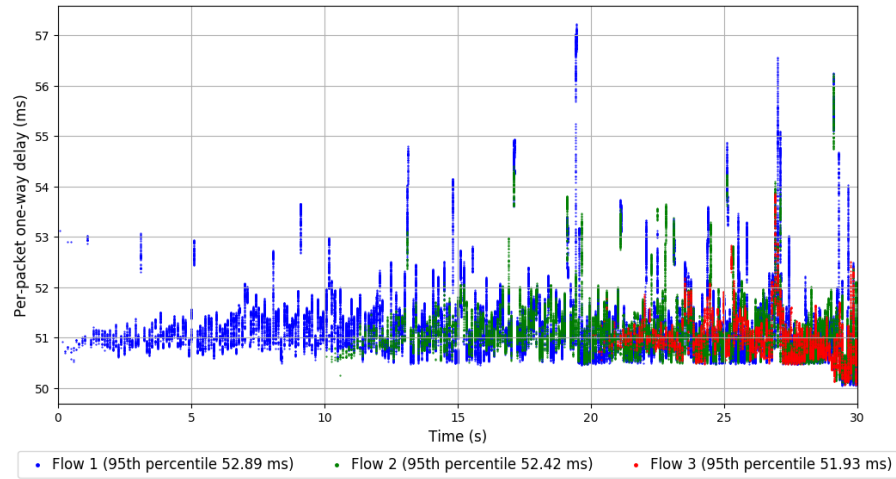
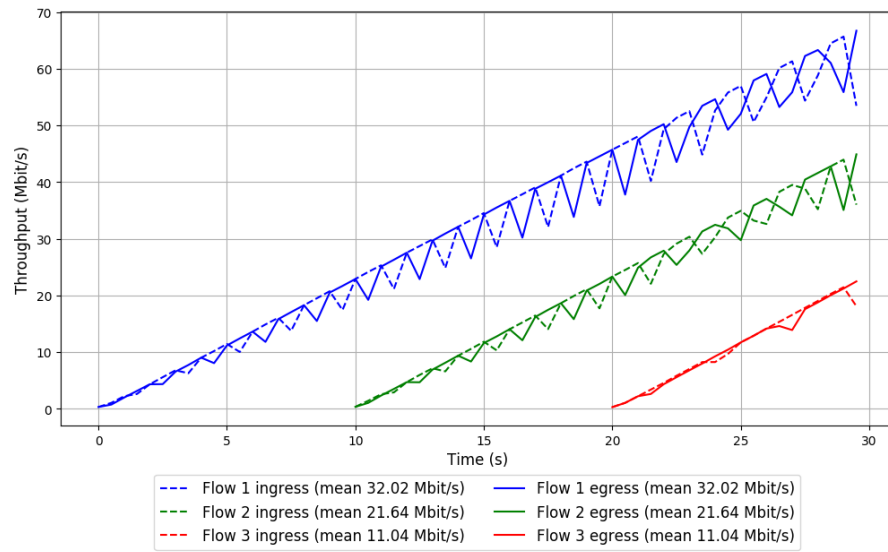
-- Flow 3:

Average throughput: 11.04 Mbit/s

95th percentile per-packet one-way delay: 51.927 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-14 11:10:49

End at: 2018-03-14 11:11:19

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.35 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 34.27 Mbit/s

95th percentile per-packet one-way delay: 52.493 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 17.25 Mbit/s

95th percentile per-packet one-way delay: 52.136 ms

Loss rate: 0.00%

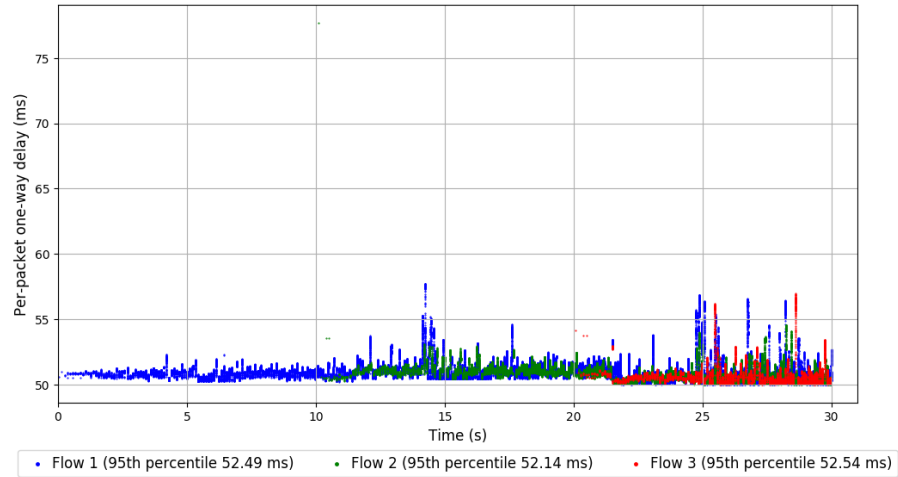
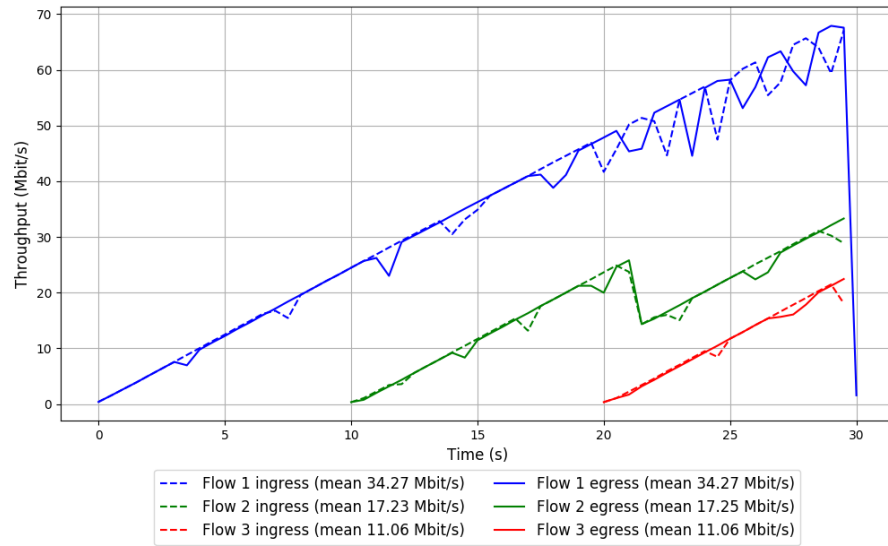
-- Flow 3:

Average throughput: 11.06 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-14 11:28:07

End at: 2018-03-14 11:28:37

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.62 Mbit/s

95th percentile per-packet one-way delay: 52.652 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.74 Mbit/s

95th percentile per-packet one-way delay: 52.782 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.73 Mbit/s

95th percentile per-packet one-way delay: 52.389 ms

Loss rate: 0.00%

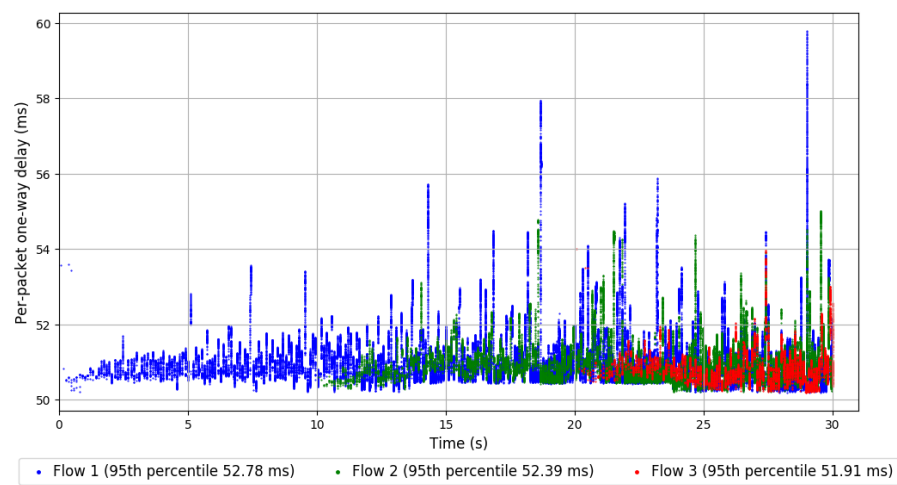
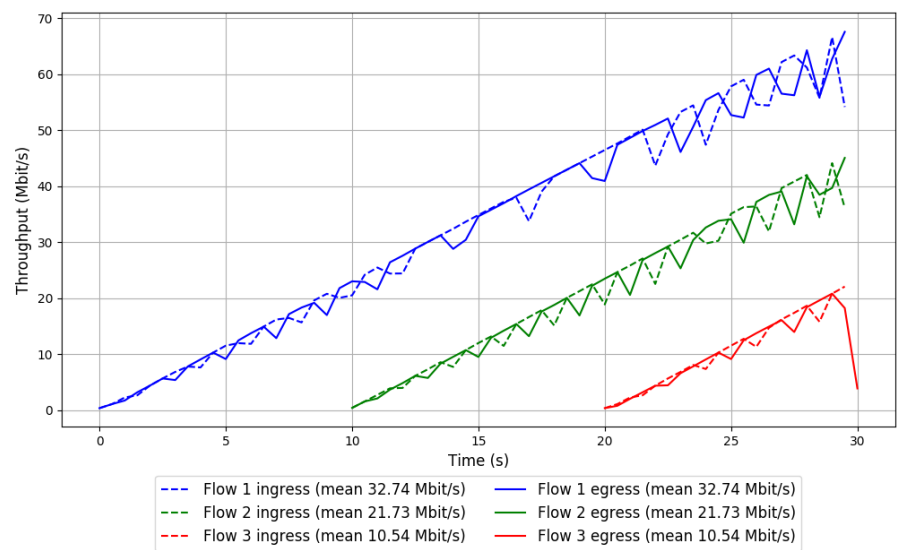
-- Flow 3:

Average throughput: 10.54 Mbit/s

95th percentile per-packet one-way delay: 51.912 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-14 11:45:20

End at: 2018-03-14 11:45:50

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.24 Mbit/s

95th percentile per-packet one-way delay: 52.605 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 29.61 Mbit/s

95th percentile per-packet one-way delay: 52.695 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.29 Mbit/s

95th percentile per-packet one-way delay: 52.641 ms

Loss rate: 0.00%

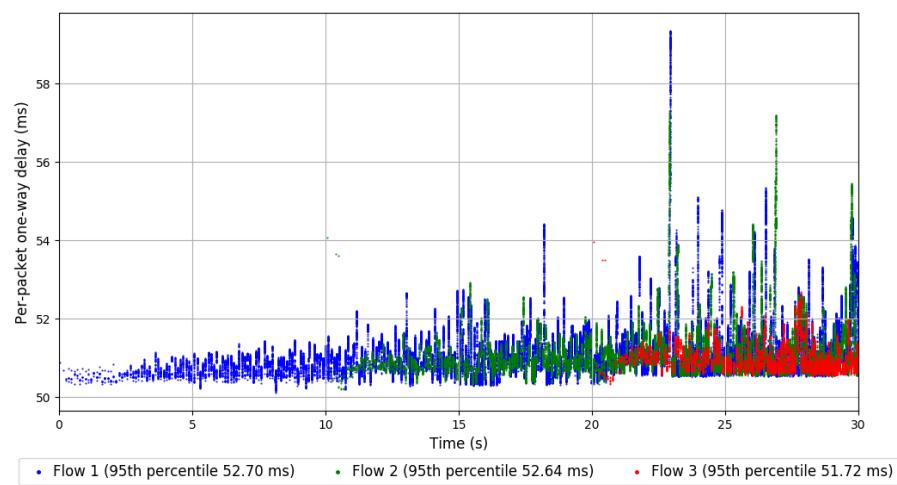
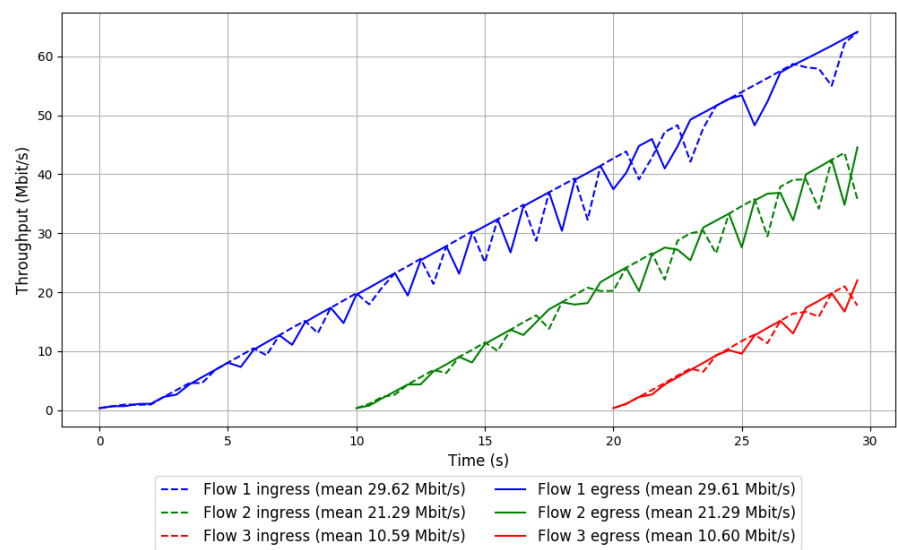
-- Flow 3:

Average throughput: 10.60 Mbit/s

95th percentile per-packet one-way delay: 51.722 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-14 12:02:37

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

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 49.44 Mbit/s

95th percentile per-packet one-way delay: 52.432 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 31.15 Mbit/s

95th percentile per-packet one-way delay: 52.247 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.80 Mbit/s

95th percentile per-packet one-way delay: 53.019 ms

Loss rate: 0.00%

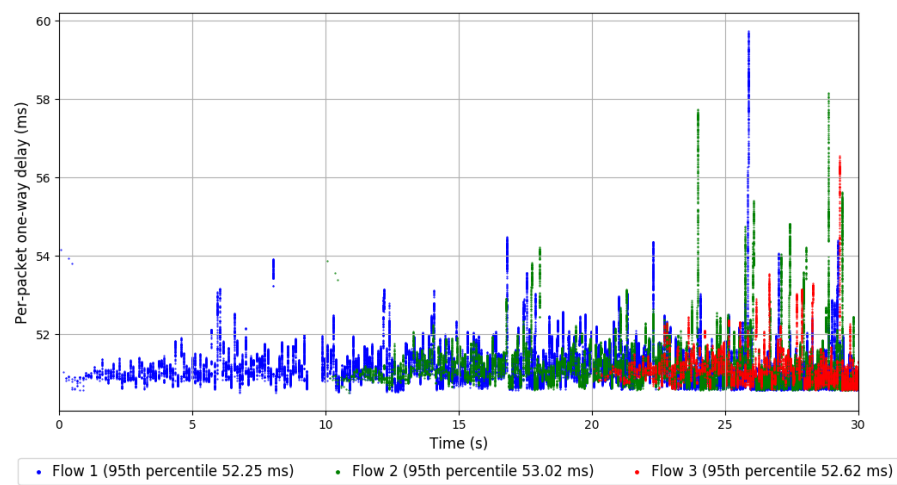
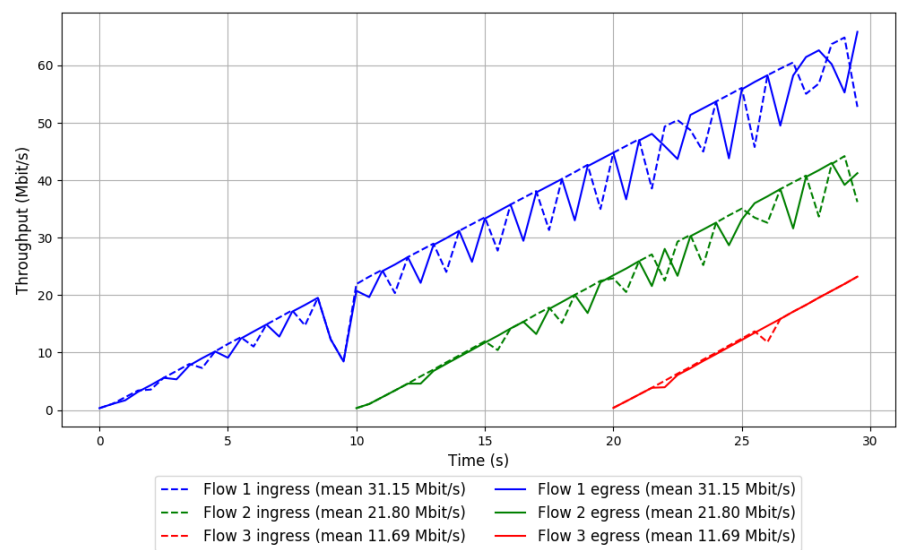
-- Flow 3:

Average throughput: 11.69 Mbit/s

95th percentile per-packet one-way delay: 52.623 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-14 12:20:05

End at: 2018-03-14 12:20:35

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.14 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 34.73 Mbit/s

95th percentile per-packet one-way delay: 52.906 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.52 Mbit/s

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

Loss rate: 0.00%

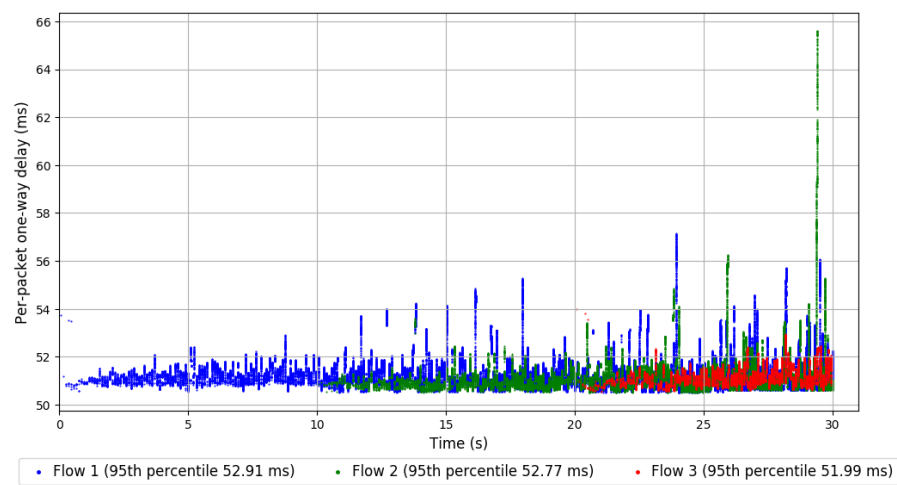
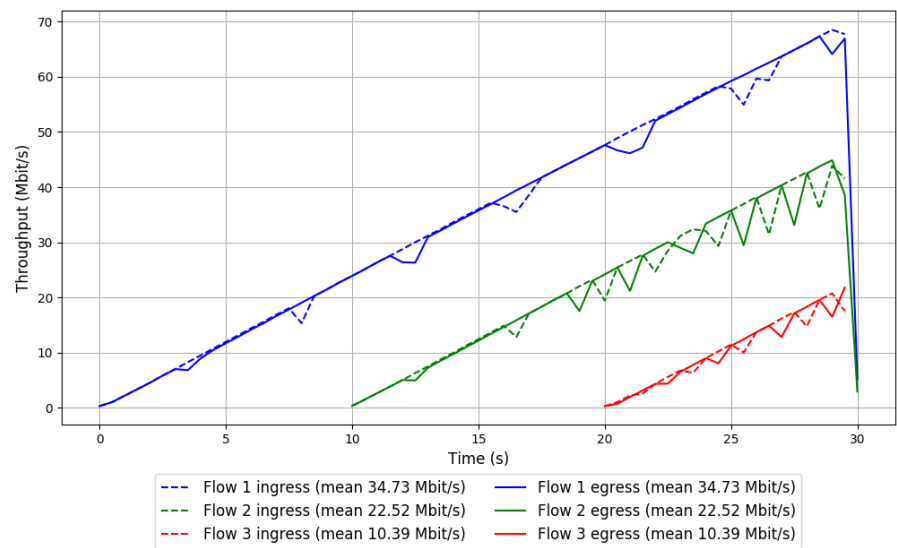
-- Flow 3:

Average throughput: 10.39 Mbit/s

95th percentile per-packet one-way delay: 51.994 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link



Run 10: Statistics of LEDBAT

Start at: 2018-03-14 12:37:13

End at: 2018-03-14 12:37:43

Below is generated by plot.py at 2018-03-14 16:16:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.05 Mbit/s

95th percentile per-packet one-way delay: 54.691 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 31.60 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.22 Mbit/s

95th percentile per-packet one-way delay: 54.488 ms

Loss rate: 0.00%

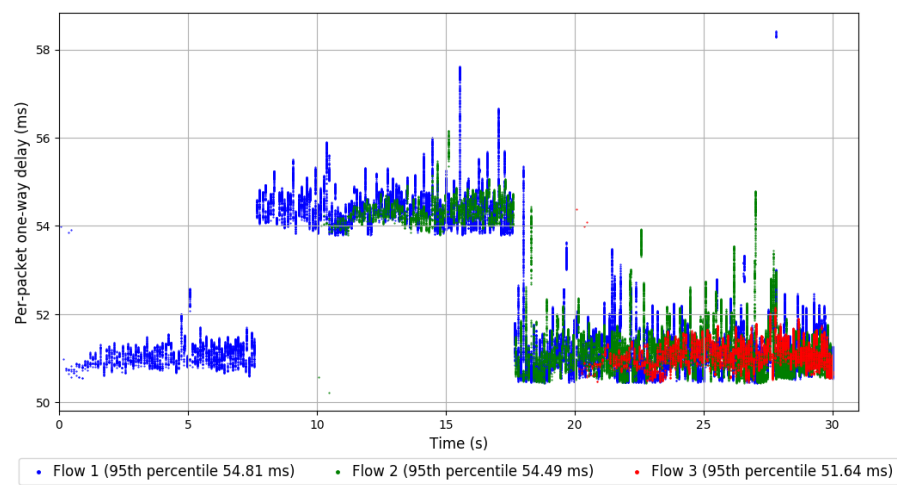
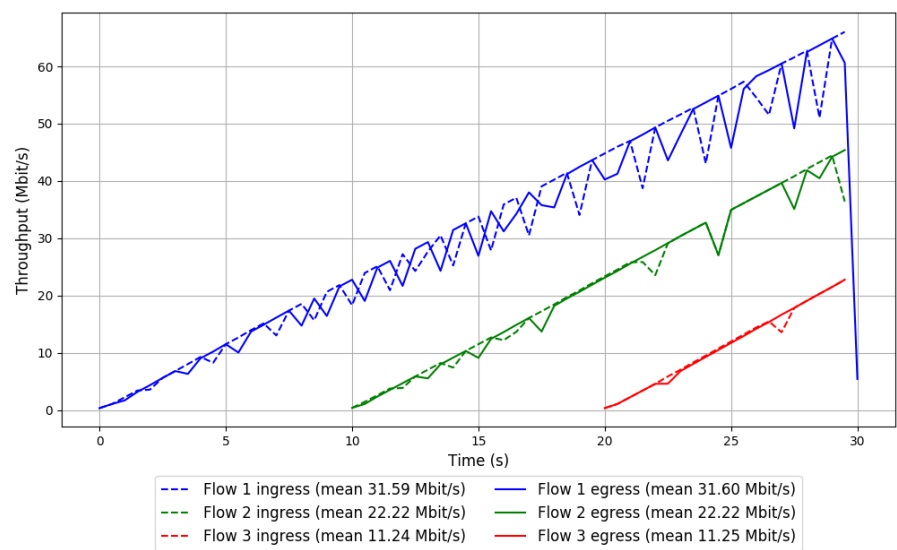
-- Flow 3:

Average throughput: 11.25 Mbit/s

95th percentile per-packet one-way delay: 51.638 ms

Loss rate: 0.00%

Run 10: Report of LEDBAT — Data Link

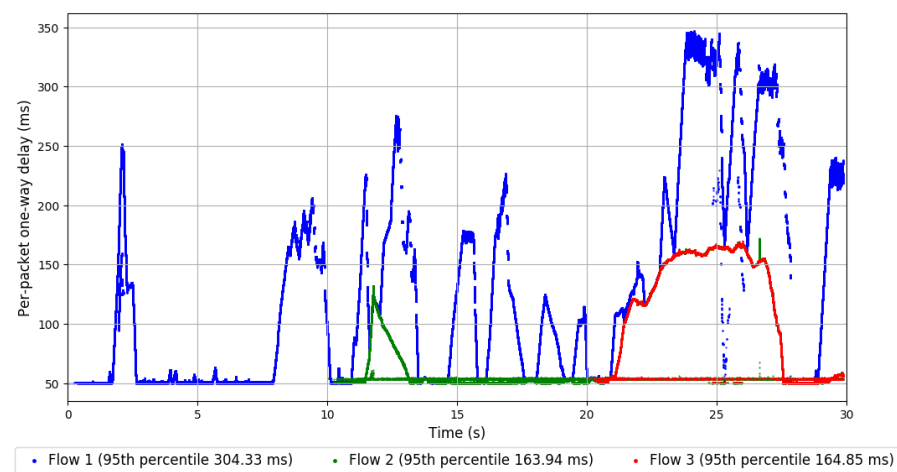
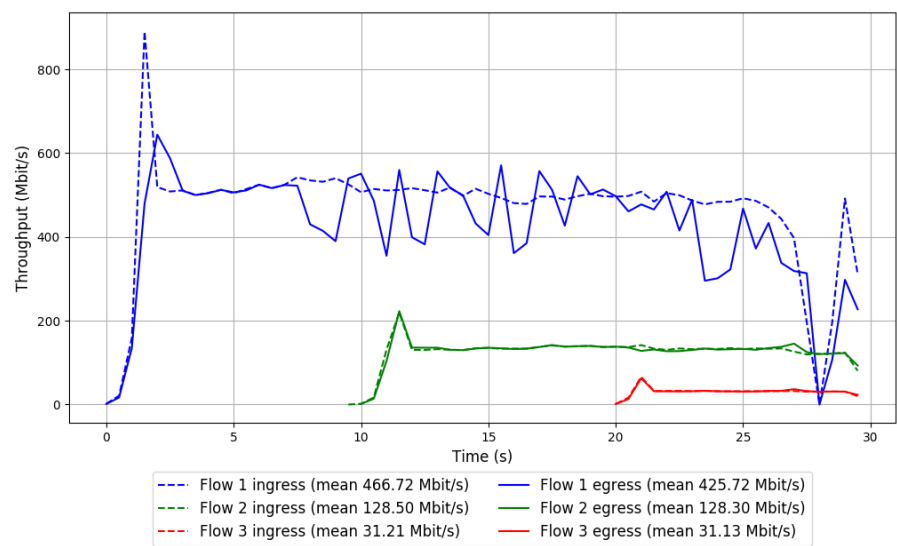


```
Run 1: Statistics of PCC

Start at: 2018-03-14 10:09:08
End at: 2018-03-14 10:09:38

# Below is generated by plot.py at 2018-03-14 16:23:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 521.30 Mbit/s
95th percentile per-packet one-way delay: 295.870 ms
Loss rate: 7.32%
-- Flow 1:
Average throughput: 425.72 Mbit/s
95th percentile per-packet one-way delay: 304.328 ms
Loss rate: 8.78%
-- Flow 2:
Average throughput: 128.30 Mbit/s
95th percentile per-packet one-way delay: 163.936 ms
Loss rate: 0.17%
-- Flow 3:
Average throughput: 31.13 Mbit/s
95th percentile per-packet one-way delay: 164.854 ms
Loss rate: 0.27%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-14 10:26:35

End at: 2018-03-14 10:27:05

Below is generated by plot.py at 2018-03-14 16:25:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 585.18 Mbit/s

95th percentile per-packet one-way delay: 246.329 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 541.11 Mbit/s

95th percentile per-packet one-way delay: 246.695 ms

Loss rate: 2.38%

-- Flow 2:

Average throughput: 65.31 Mbit/s

95th percentile per-packet one-way delay: 162.965 ms

Loss rate: 0.99%

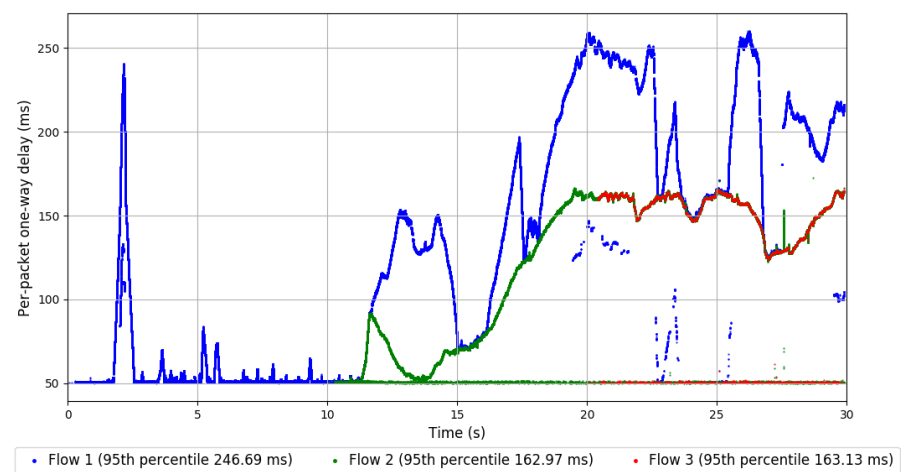
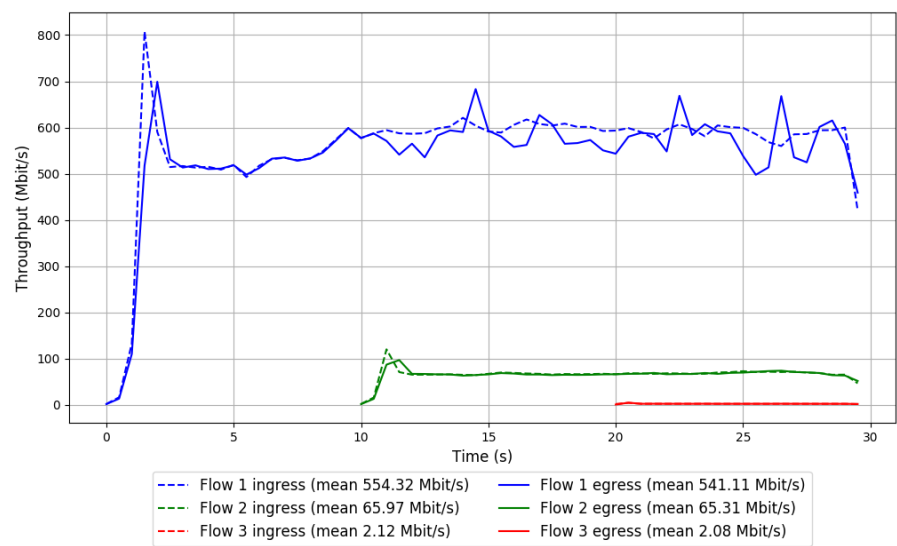
-- Flow 3:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 163.133 ms

Loss rate: 1.79%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-14 10:44:04

End at: 2018-03-14 10:44:34

Below is generated by plot.py at 2018-03-14 16:25:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 573.84 Mbit/s

95th percentile per-packet one-way delay: 209.128 ms

Loss rate: 3.31%

-- Flow 1:

Average throughput: 476.58 Mbit/s

95th percentile per-packet one-way delay: 217.711 ms

Loss rate: 3.69%

-- Flow 2:

Average throughput: 130.73 Mbit/s

95th percentile per-packet one-way delay: 164.918 ms

Loss rate: 1.34%

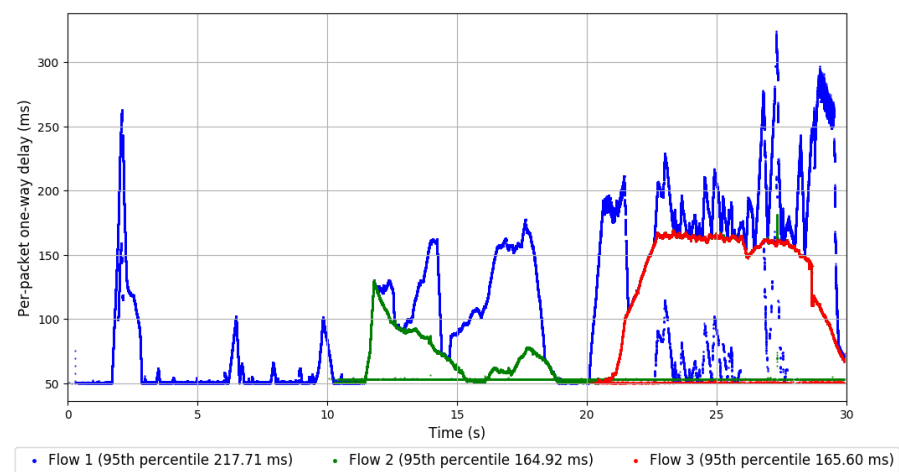
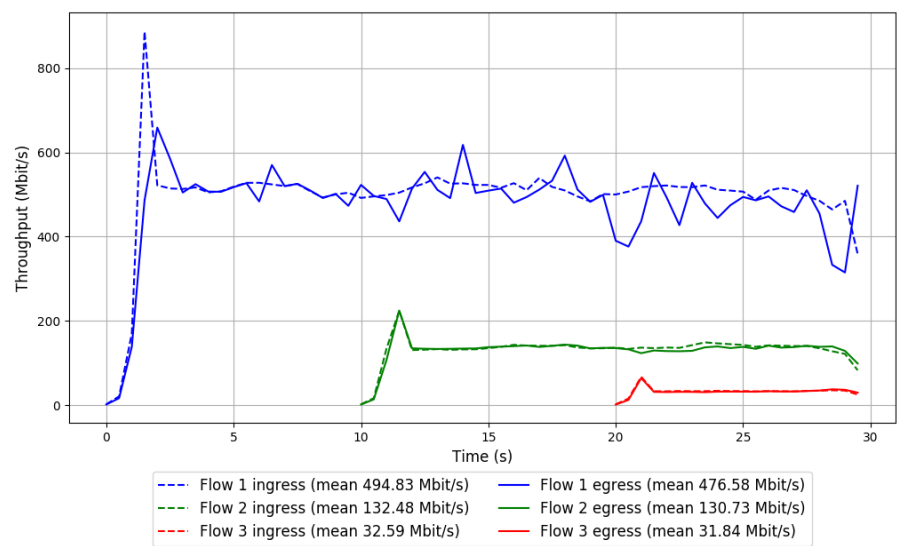
-- Flow 3:

Average throughput: 31.84 Mbit/s

95th percentile per-packet one-way delay: 165.603 ms

Loss rate: 2.25%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-14 11:01:10

End at: 2018-03-14 11:01:40

Below is generated by plot.py at 2018-03-14 16:25:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 561.47 Mbit/s

95th percentile per-packet one-way delay: 215.920 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 448.89 Mbit/s

95th percentile per-packet one-way delay: 225.317 ms

Loss rate: 2.92%

-- Flow 2:

Average throughput: 138.96 Mbit/s

95th percentile per-packet one-way delay: 160.729 ms

Loss rate: 0.25%

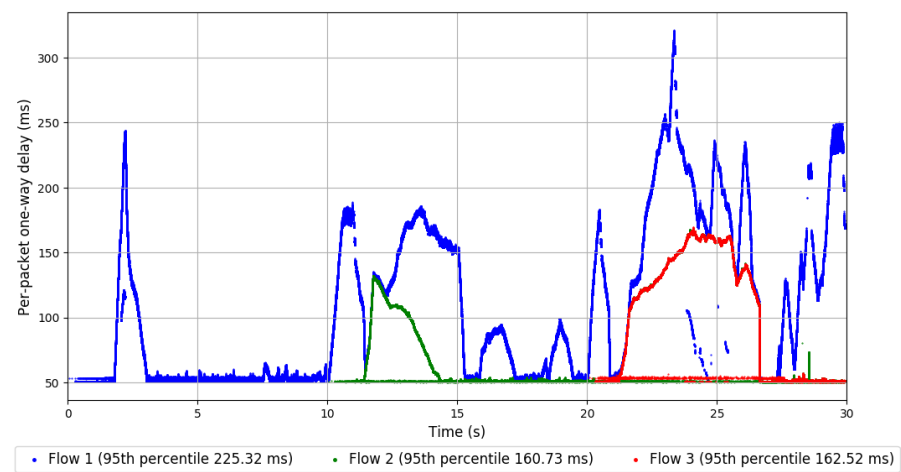
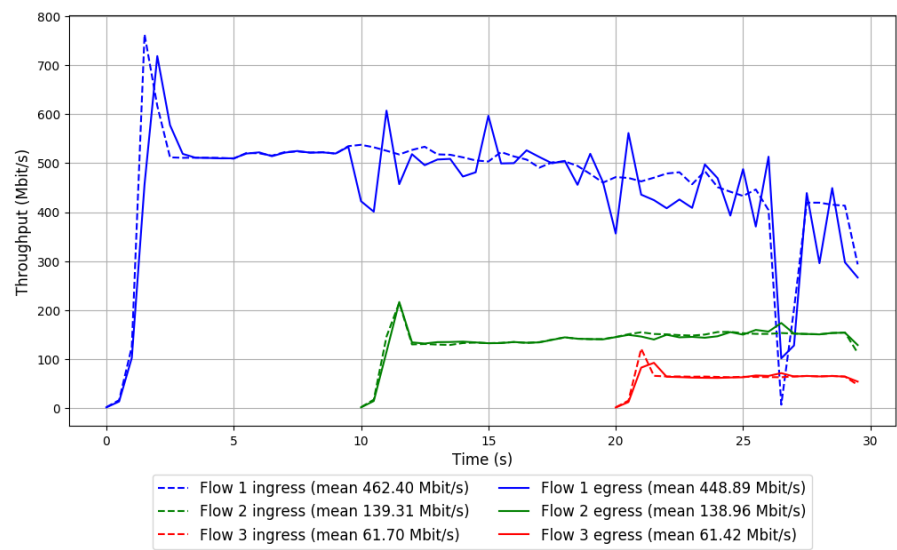
-- Flow 3:

Average throughput: 61.42 Mbit/s

95th percentile per-packet one-way delay: 162.521 ms

Loss rate: 0.47%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-14 11:18:27

End at: 2018-03-14 11:18:57

Below is generated by plot.py at 2018-03-14 16:27:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.79 Mbit/s

95th percentile per-packet one-way delay: 186.050 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 465.20 Mbit/s

95th percentile per-packet one-way delay: 189.295 ms

Loss rate: 2.65%

-- Flow 2:

Average throughput: 102.50 Mbit/s

95th percentile per-packet one-way delay: 155.979 ms

Loss rate: 0.25%

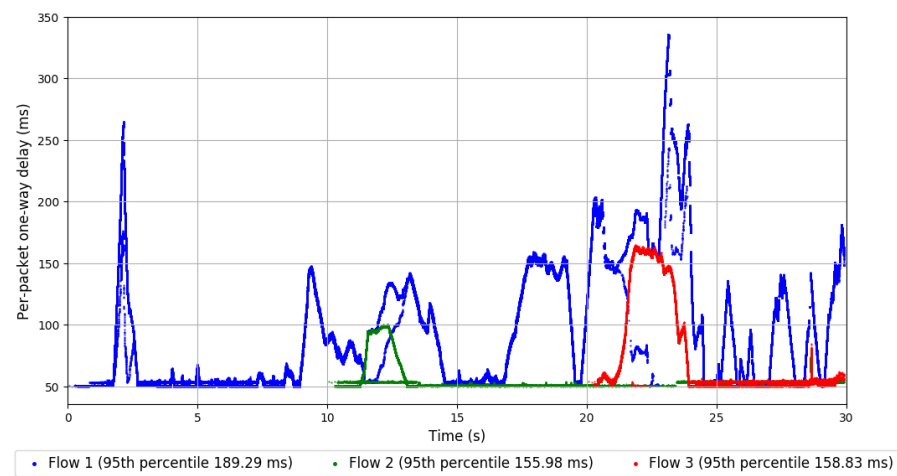
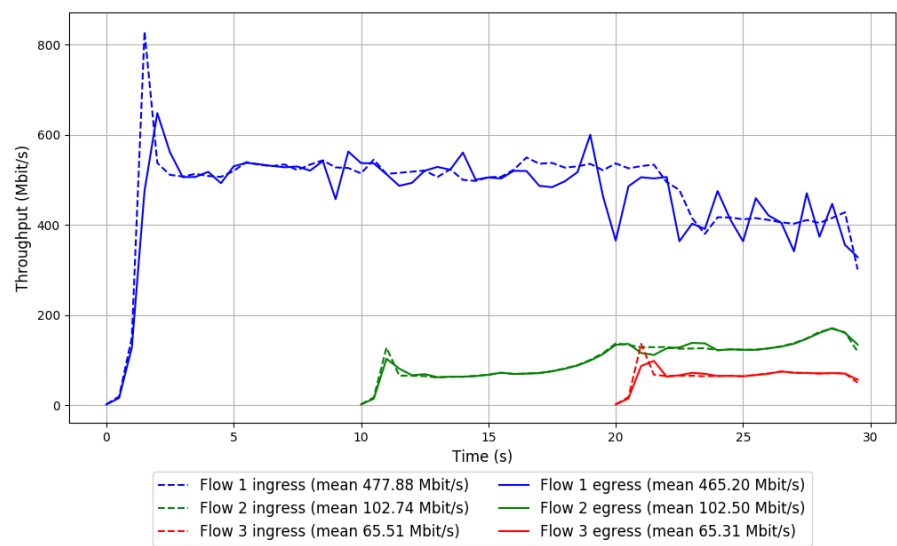
-- Flow 3:

Average throughput: 65.31 Mbit/s

95th percentile per-packet one-way delay: 158.834 ms

Loss rate: 0.32%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-14 11:35:36

End at: 2018-03-14 11:36:06

Below is generated by plot.py at 2018-03-14 16:28:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 572.85 Mbit/s

95th percentile per-packet one-way delay: 231.914 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 481.71 Mbit/s

95th percentile per-packet one-way delay: 238.529 ms

Loss rate: 2.24%

-- Flow 2:

Average throughput: 129.21 Mbit/s

95th percentile per-packet one-way delay: 170.349 ms

Loss rate: 1.15%

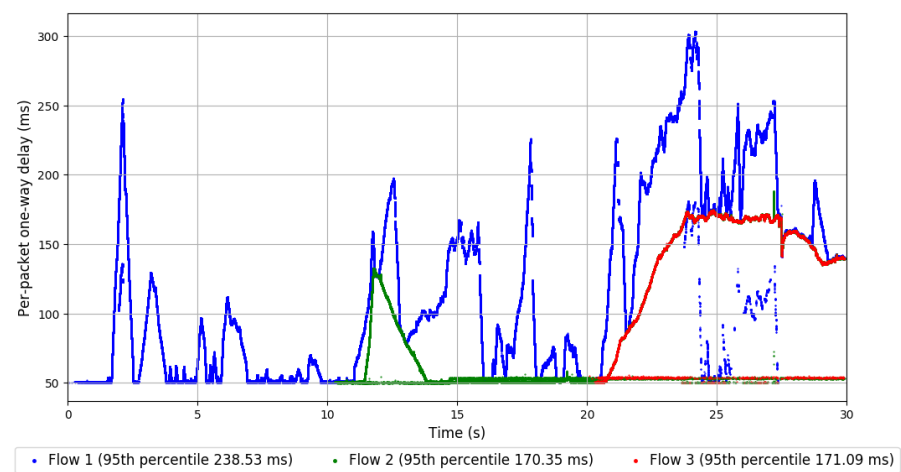
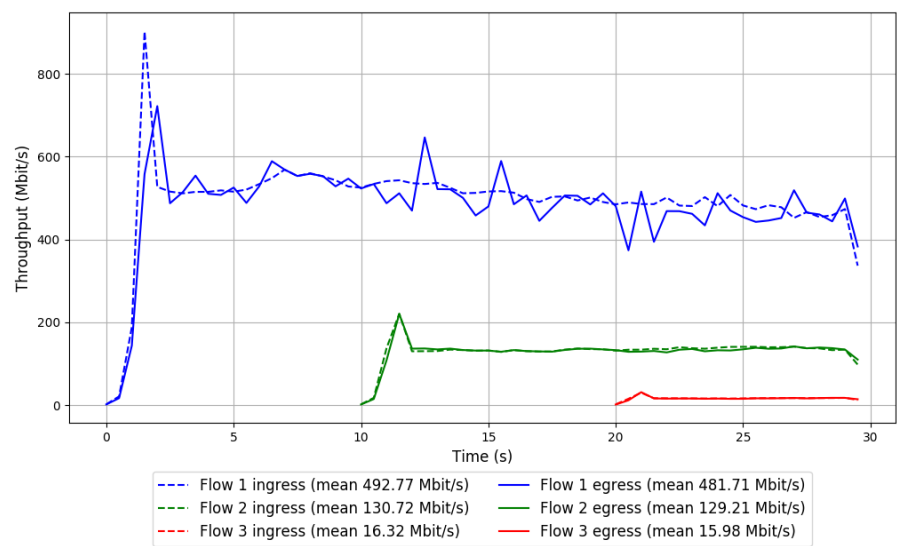
-- Flow 3:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 171.092 ms

Loss rate: 2.10%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-14 11:52:55

End at: 2018-03-14 11:53:25

Below is generated by plot.py at 2018-03-14 16:28:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 573.35 Mbit/s

95th percentile per-packet one-way delay: 201.559 ms

Loss rate: 2.44%

-- Flow 1:

Average throughput: 465.74 Mbit/s

95th percentile per-packet one-way delay: 211.935 ms

Loss rate: 2.96%

-- Flow 2:

Average throughput: 145.60 Mbit/s

95th percentile per-packet one-way delay: 123.249 ms

Loss rate: 0.11%

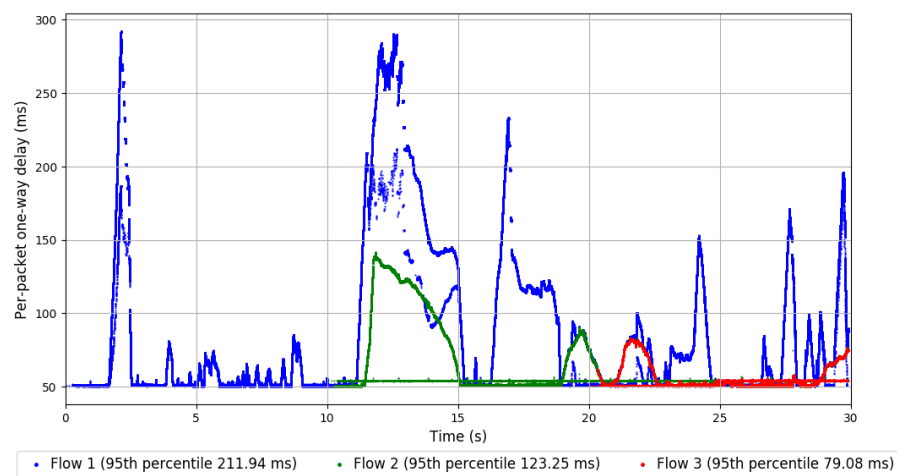
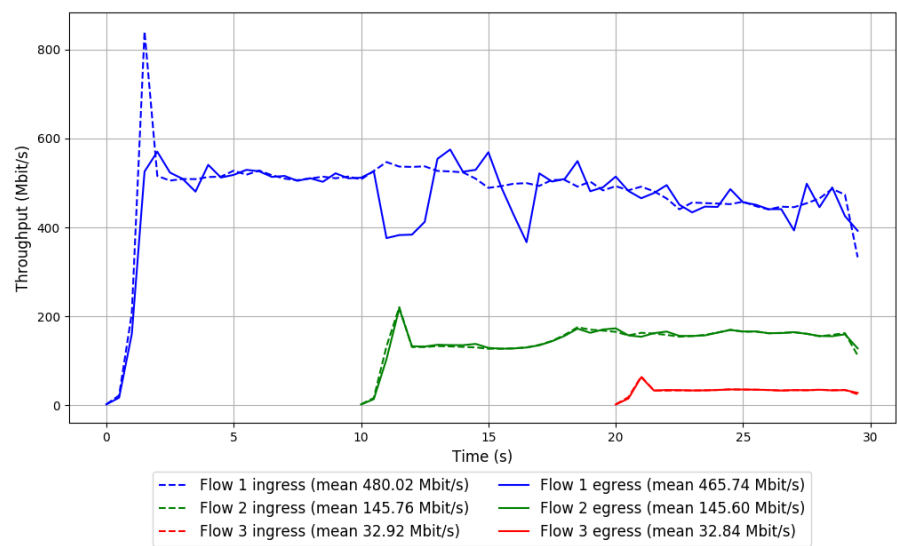
-- Flow 3:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 79.075 ms

Loss rate: 0.22%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-14 12:10:17

End at: 2018-03-14 12:10:47

Below is generated by plot.py at 2018-03-14 16:29:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 564.95 Mbit/s

95th percentile per-packet one-way delay: 175.900 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 469.27 Mbit/s

95th percentile per-packet one-way delay: 179.284 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 139.72 Mbit/s

95th percentile per-packet one-way delay: 148.641 ms

Loss rate: 0.04%

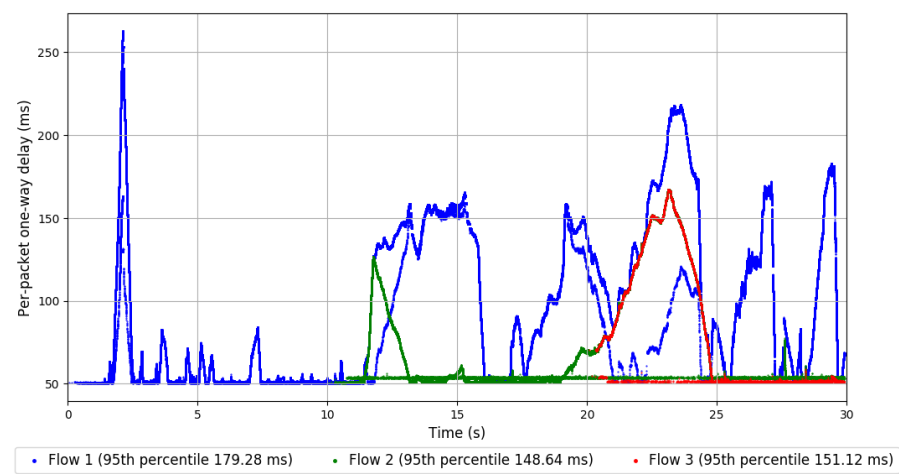
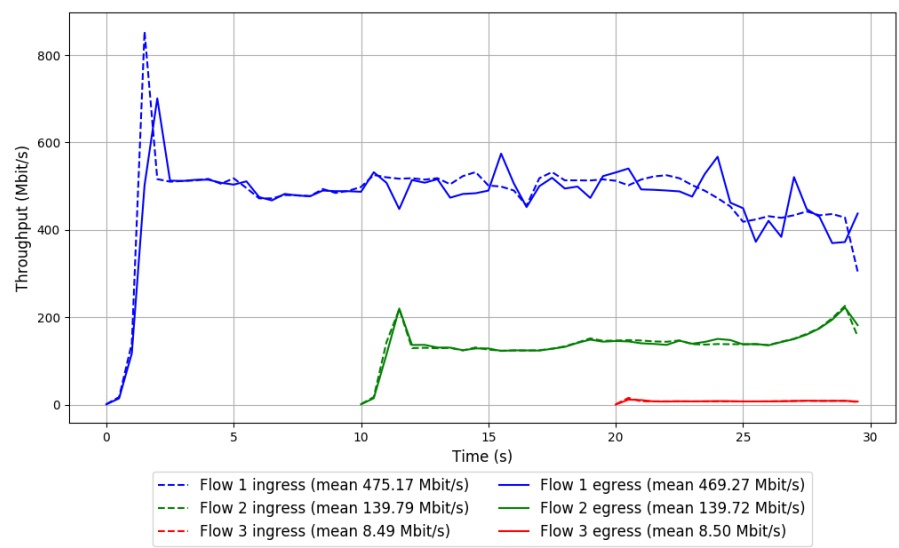
-- Flow 3:

Average throughput: 8.50 Mbit/s

95th percentile per-packet one-way delay: 151.125 ms

Loss rate: 0.07%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-14 12:27:37

End at: 2018-03-14 12:28:07

Below is generated by plot.py at 2018-03-14 16:37:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 566.41 Mbit/s

95th percentile per-packet one-way delay: 243.510 ms

Loss rate: 5.04%

-- Flow 1:

Average throughput: 457.48 Mbit/s

95th percentile per-packet one-way delay: 249.518 ms

Loss rate: 6.12%

-- Flow 2:

Average throughput: 133.15 Mbit/s

95th percentile per-packet one-way delay: 159.529 ms

Loss rate: 0.29%

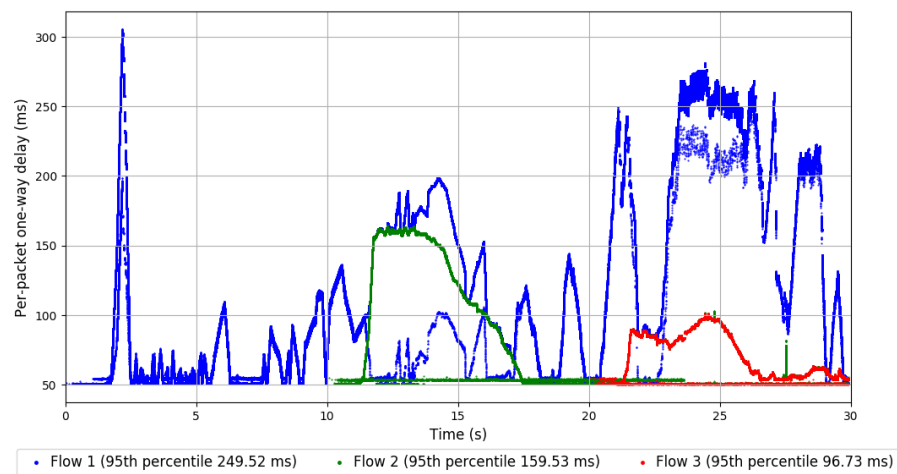
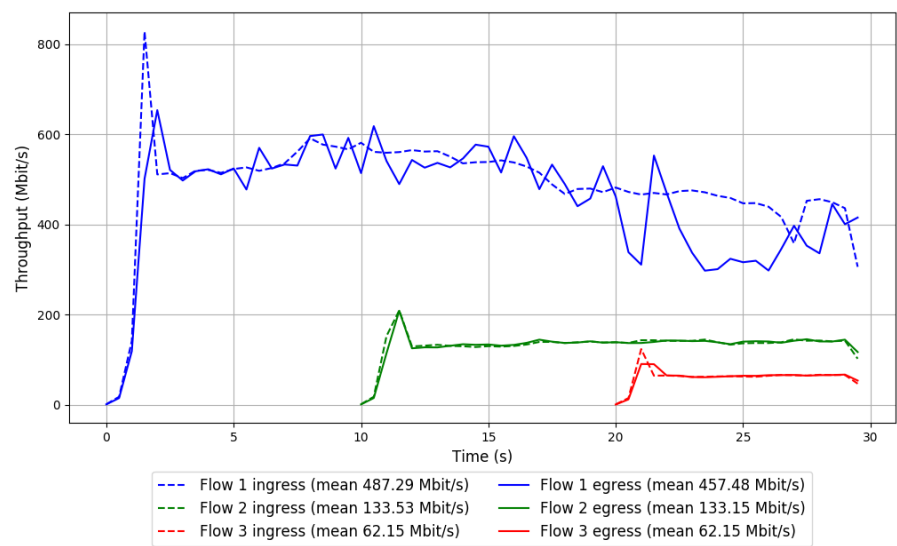
-- Flow 3:

Average throughput: 62.15 Mbit/s

95th percentile per-packet one-way delay: 96.730 ms

Loss rate: 0.04%

Run 9: Report of PCC — Data Link

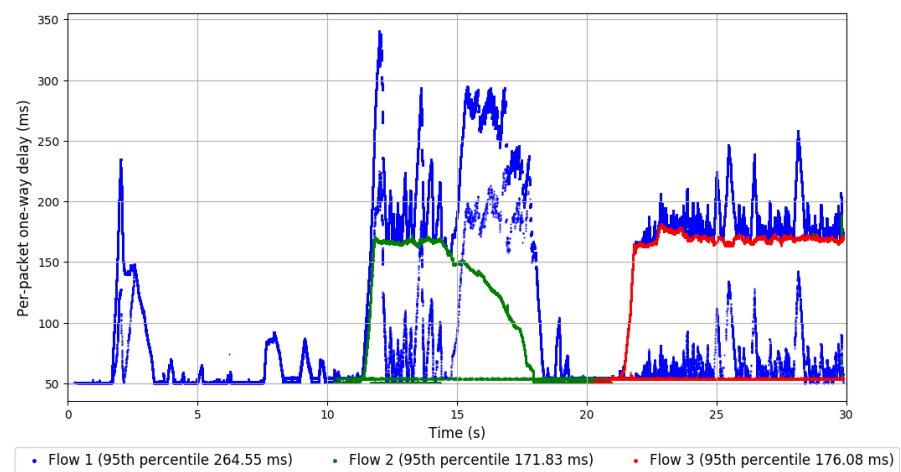
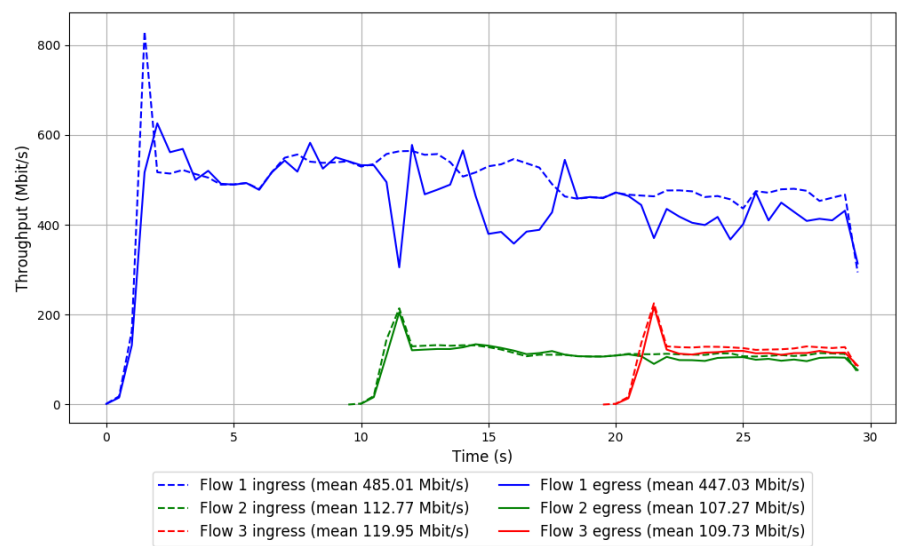


```
Run 10: Statistics of PCC

Start at: 2018-03-14 12:44:49
End at: 2018-03-14 12:45:19

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 554.46 Mbit/s
95th percentile per-packet one-way delay: 246.877 ms
Loss rate: 7.51%
-- Flow 1:
Average throughput: 447.03 Mbit/s
95th percentile per-packet one-way delay: 264.546 ms
Loss rate: 7.83%
-- Flow 2:
Average throughput: 107.27 Mbit/s
95th percentile per-packet one-way delay: 171.829 ms
Loss rate: 4.87%
-- Flow 3:
Average throughput: 109.73 Mbit/s
95th percentile per-packet one-way delay: 176.079 ms
Loss rate: 8.56%
```

Run 10: Report of PCC — Data Link

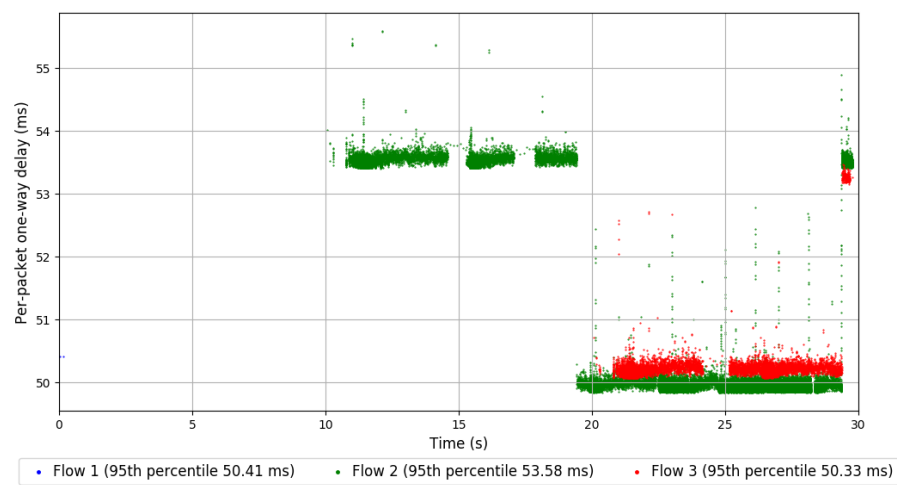
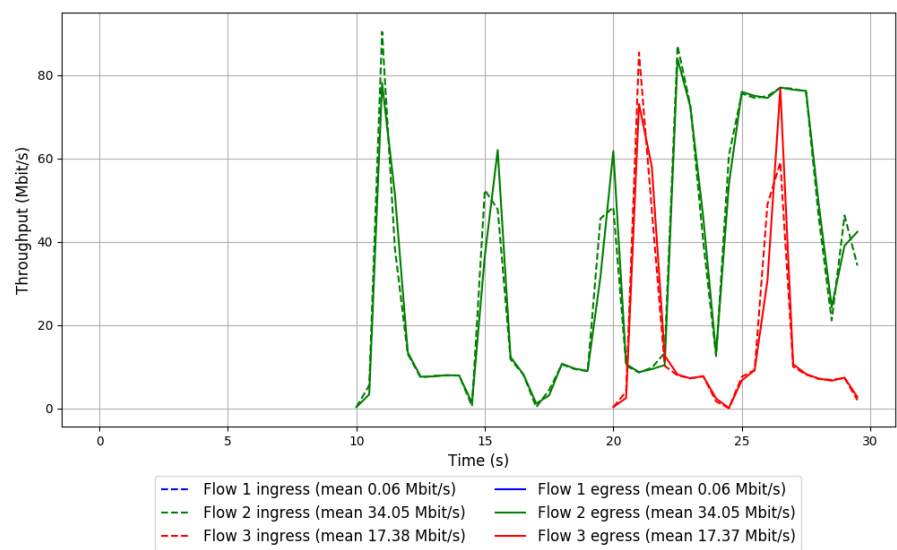


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-14 09:58:38
End at: 2018-03-14 09:59:08

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 28.25 Mbit/s
95th percentile per-packet one-way delay: 53.562 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 0.06 Mbit/s
95th percentile per-packet one-way delay: 50.414 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 34.05 Mbit/s
95th percentile per-packet one-way delay: 53.577 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 17.37 Mbit/s
95th percentile per-packet one-way delay: 50.331 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link

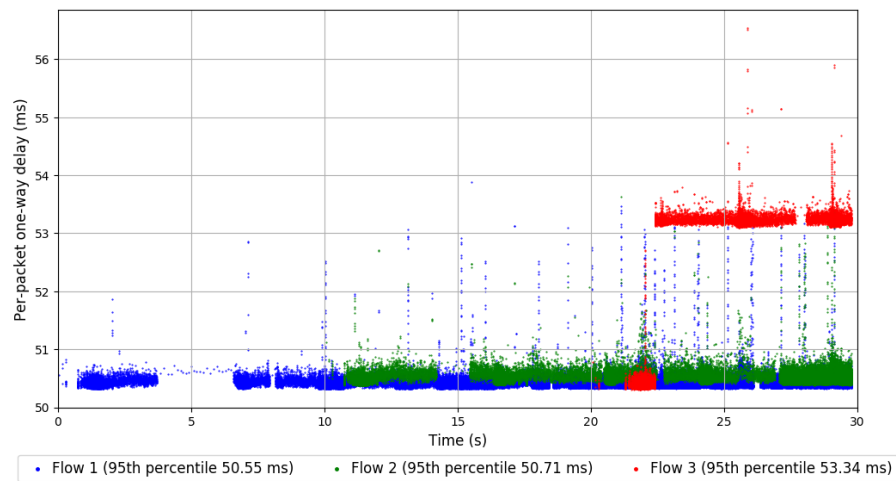
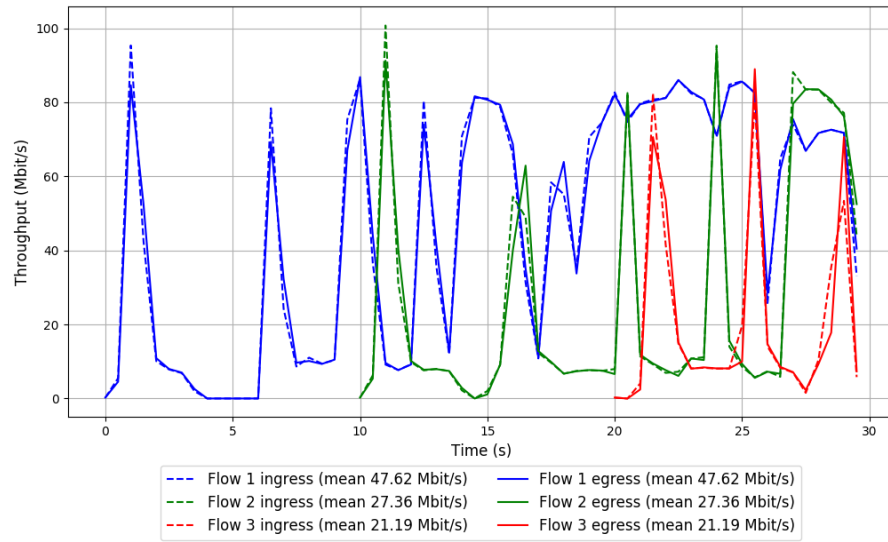


```
Run 2: Statistics of QUIC Cubic

Start at: 2018-03-14 10:15:35
End at: 2018-03-14 10:16:05

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 72.69 Mbit/s
95th percentile per-packet one-way delay: 53.184 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 47.62 Mbit/s
95th percentile per-packet one-way delay: 50.547 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 27.36 Mbit/s
95th percentile per-packet one-way delay: 50.707 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 21.19 Mbit/s
95th percentile per-packet one-way delay: 53.343 ms
Loss rate: 0.01%
```

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-14 10:33:14

End at: 2018-03-14 10:33:44

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 73.91 Mbit/s

95th percentile per-packet one-way delay: 52.934 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.70 Mbit/s

95th percentile per-packet one-way delay: 50.219 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.84 Mbit/s

95th percentile per-packet one-way delay: 50.516 ms

Loss rate: 0.00%

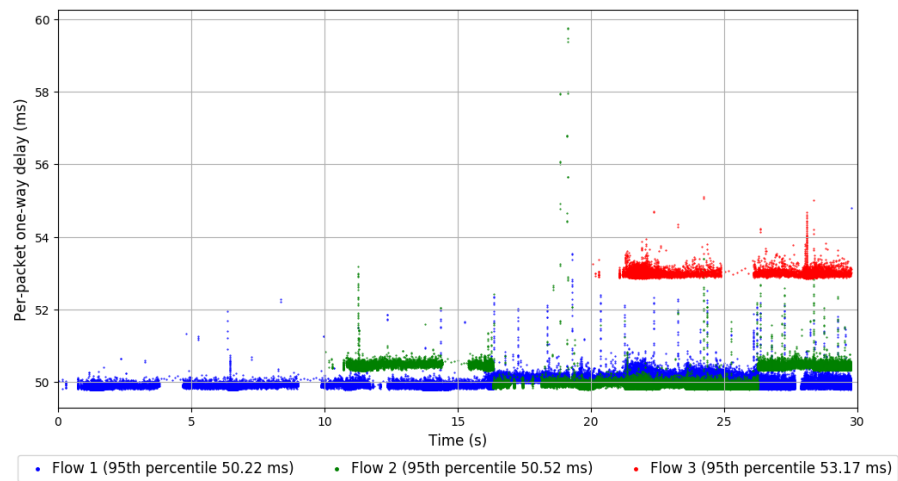
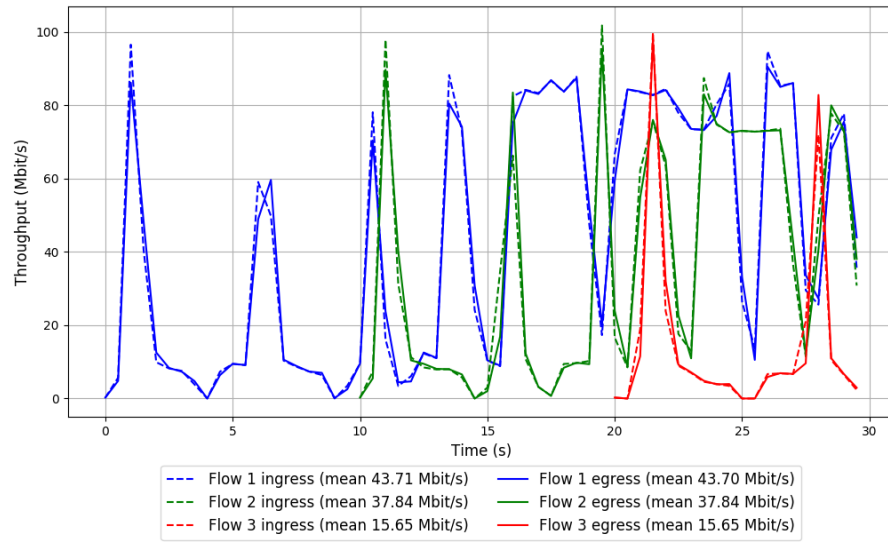
-- Flow 3:

Average throughput: 15.65 Mbit/s

95th percentile per-packet one-way delay: 53.172 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-14 10:50:26

End at: 2018-03-14 10:50:56

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.54 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.85 Mbit/s

95th percentile per-packet one-way delay: 53.165 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.15 Mbit/s

95th percentile per-packet one-way delay: 49.983 ms

Loss rate: 0.00%

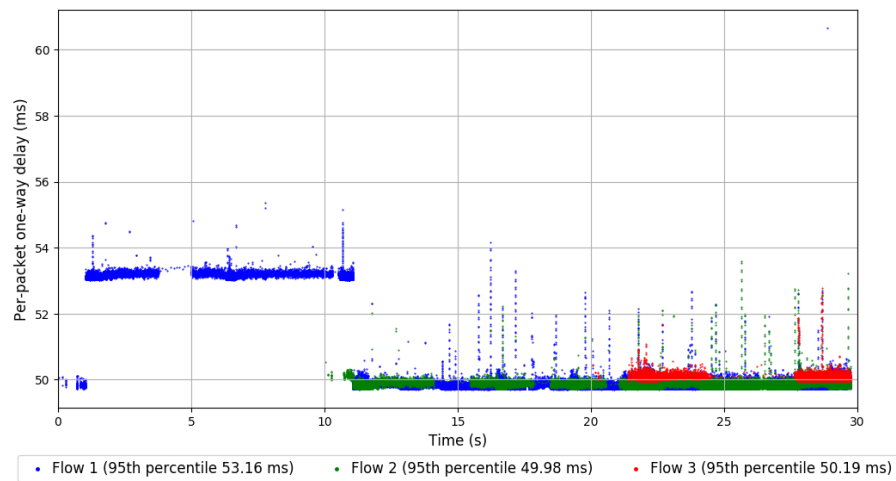
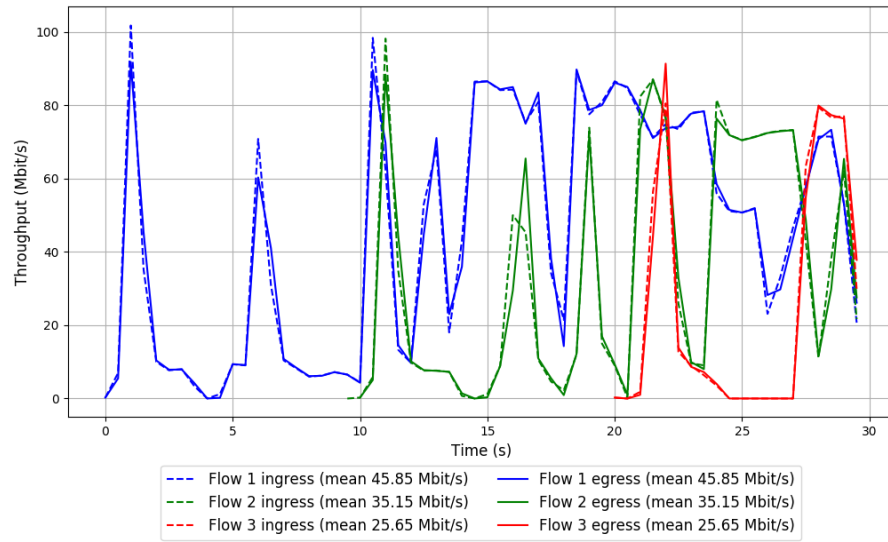
-- Flow 3:

Average throughput: 25.65 Mbit/s

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

Loss rate: 0.00%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-14 11:07:38

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

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.30 Mbit/s

95th percentile per-packet one-way delay: 53.645 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 38.02 Mbit/s

95th percentile per-packet one-way delay: 53.692 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 35.32 Mbit/s

95th percentile per-packet one-way delay: 50.716 ms

Loss rate: 0.00%

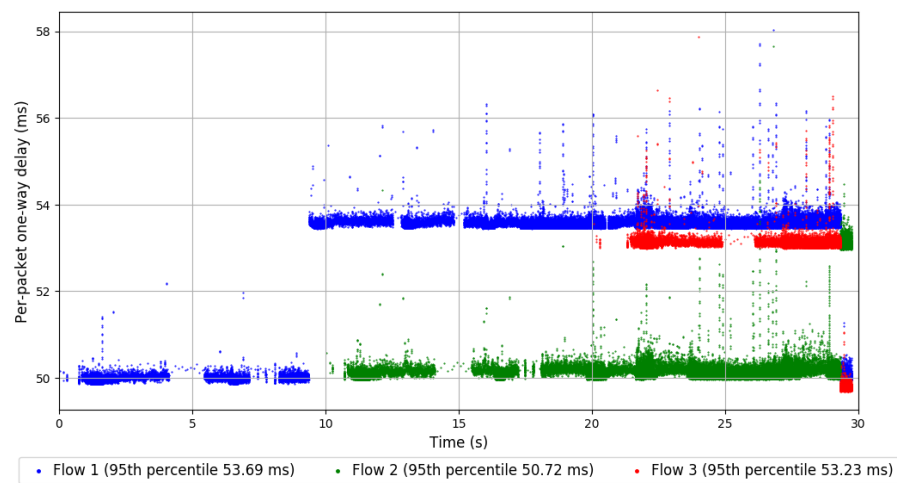
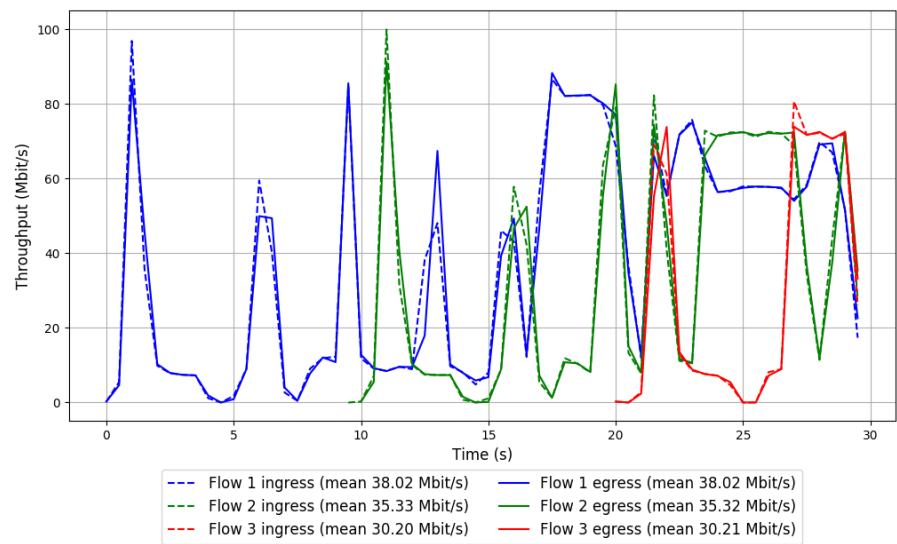
-- Flow 3:

Average throughput: 30.21 Mbit/s

95th percentile per-packet one-way delay: 53.229 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-14 11:24:53

End at: 2018-03-14 11:25:23

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.83 Mbit/s

95th percentile per-packet one-way delay: 53.652 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 46.08 Mbit/s

95th percentile per-packet one-way delay: 53.539 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.23 Mbit/s

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

Loss rate: 0.00%

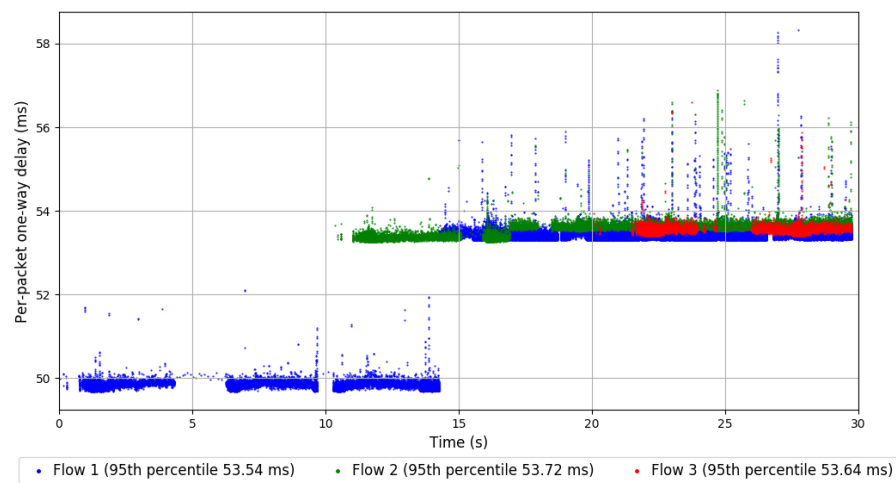
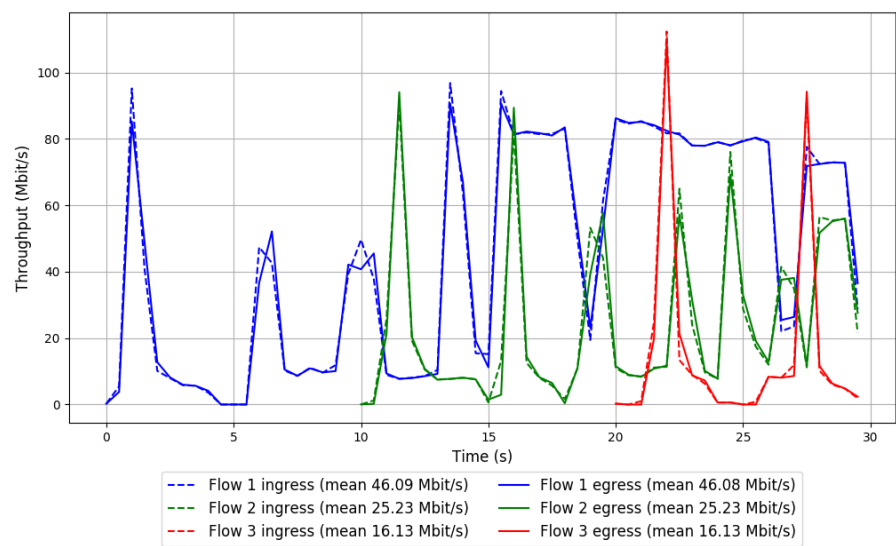
-- Flow 3:

Average throughput: 16.13 Mbit/s

95th percentile per-packet one-way delay: 53.640 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-14 11:42:02

End at: 2018-03-14 11:42:32

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.84 Mbit/s

95th percentile per-packet one-way delay: 53.353 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 43.49 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 58.63 Mbit/s

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

Loss rate: 0.00%

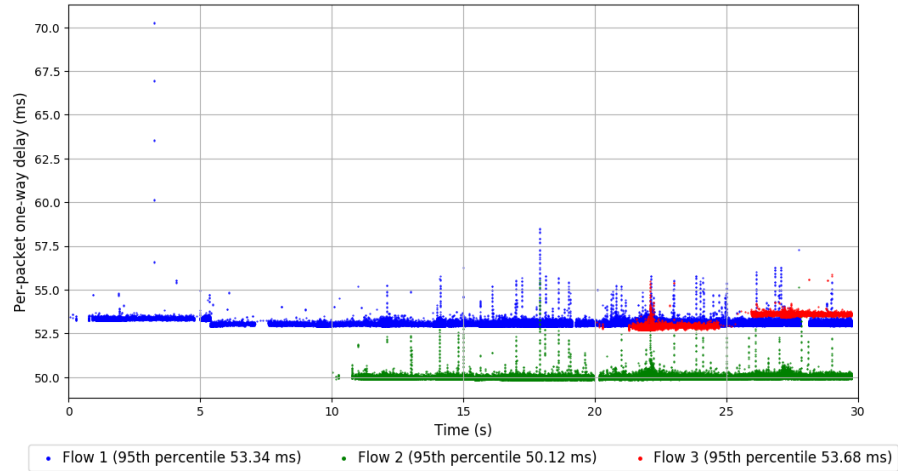
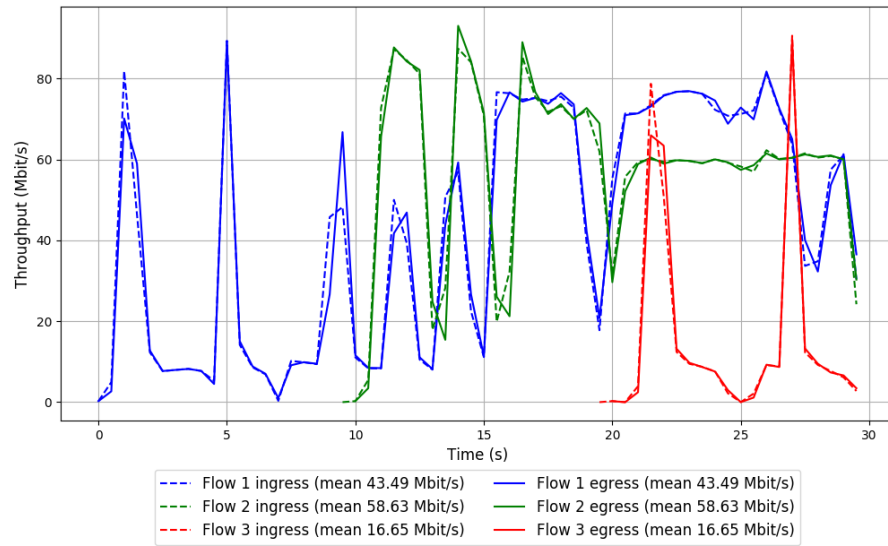
-- Flow 3:

Average throughput: 16.65 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-14 11:59:26

End at: 2018-03-14 11:59:56

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 74.29 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 49.10 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.74 Mbit/s

95th percentile per-packet one-way delay: 50.352 ms

Loss rate: 0.00%

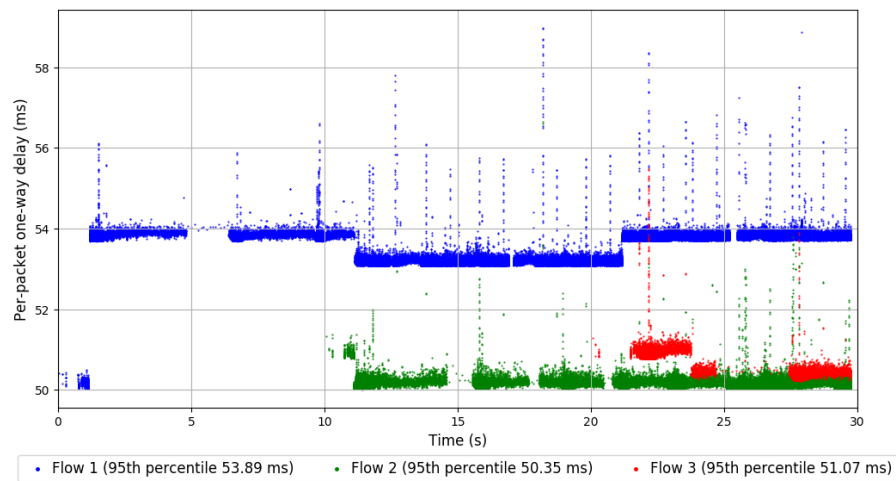
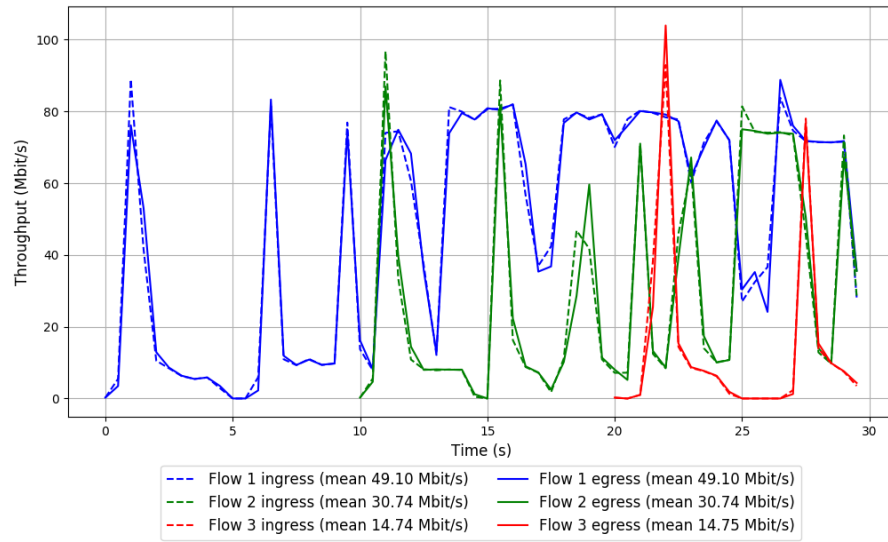
-- Flow 3:

Average throughput: 14.75 Mbit/s

95th percentile per-packet one-way delay: 51.072 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-14 12:16:47

End at: 2018-03-14 12:17:17

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.44 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.48 Mbit/s

95th percentile per-packet one-way delay: 50.821 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 30.05 Mbit/s

95th percentile per-packet one-way delay: 53.918 ms

Loss rate: 0.00%

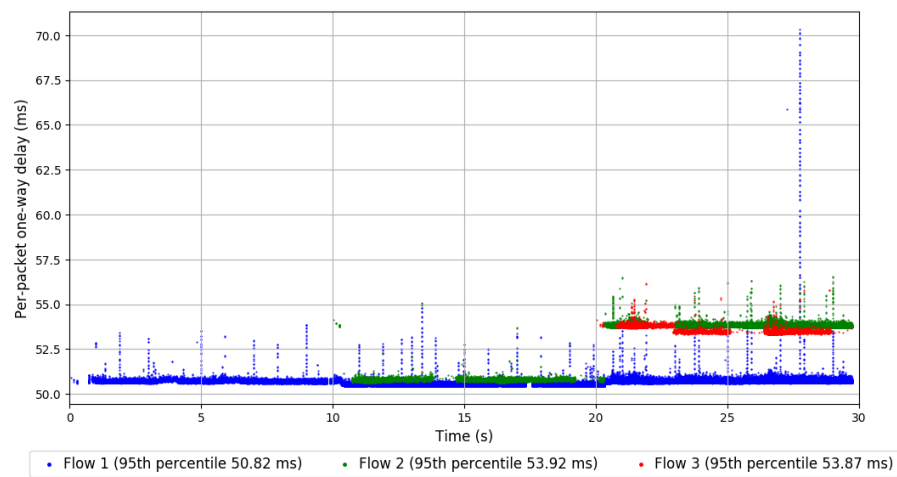
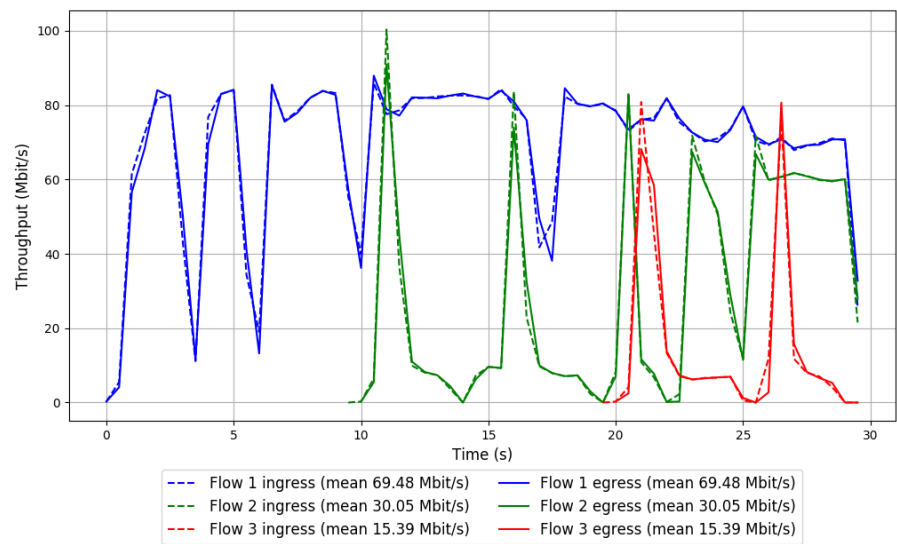
-- Flow 3:

Average throughput: 15.39 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link

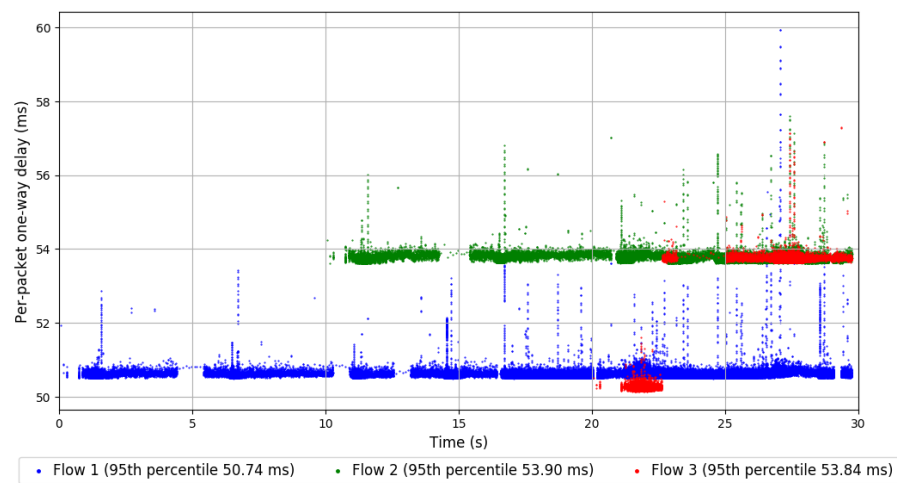
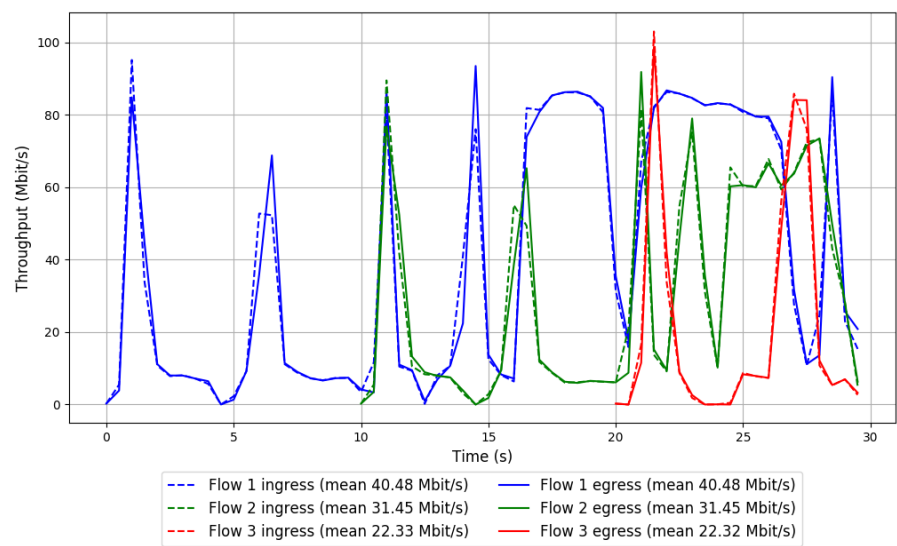


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-03-14 12:34:07
End at: 2018-03-14 12:34:37

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 68.62 Mbit/s
95th percentile per-packet one-way delay: 53.827 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 40.48 Mbit/s
95th percentile per-packet one-way delay: 50.740 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 31.45 Mbit/s
95th percentile per-packet one-way delay: 53.903 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 22.32 Mbit/s
95th percentile per-packet one-way delay: 53.838 ms
Loss rate: 0.00%
```

Run 10: Report of QUIC Cubic — Data Link

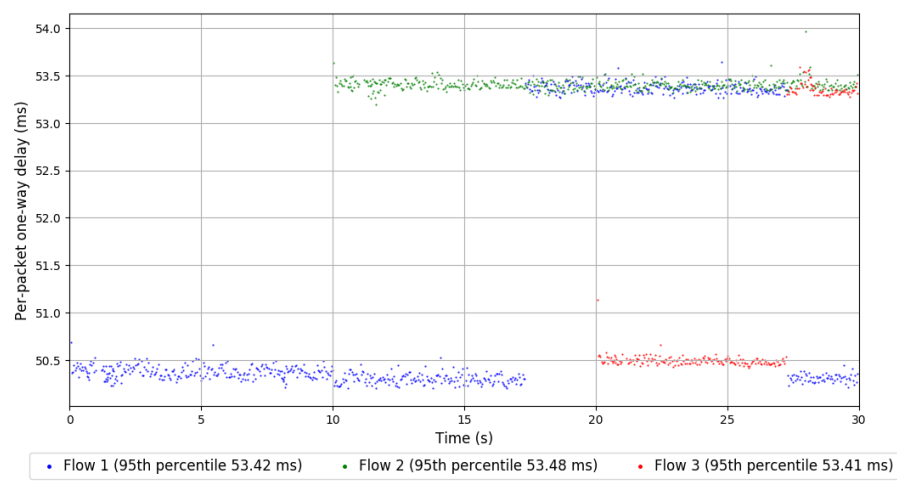
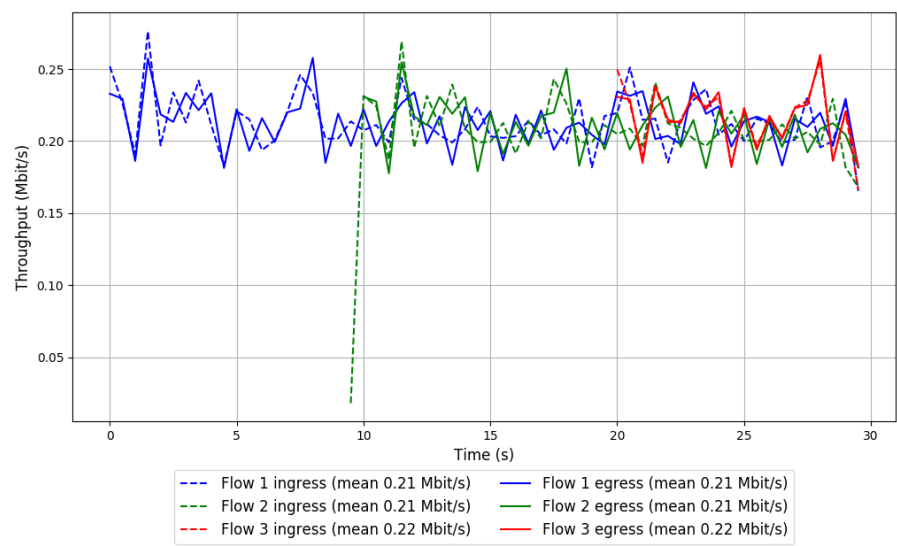


```
Run 1: Statistics of SCReAM

Start at: 2018-03-14 10:02:13
End at: 2018-03-14 10:02:43

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.457 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.425 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.479 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.411 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

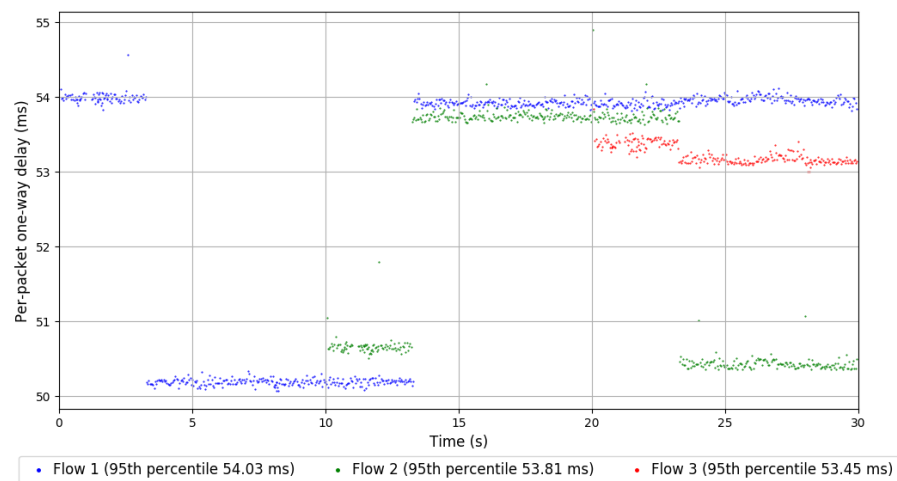
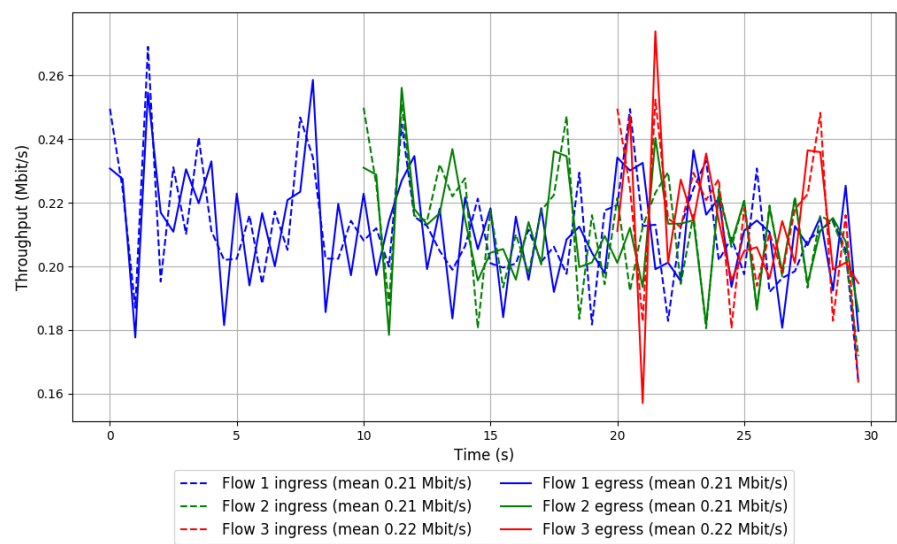


```
Run 2: Statistics of SCReAM

Start at: 2018-03-14 10:19:34
End at: 2018-03-14 10:20:04

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.004 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.031 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.809 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.445 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link

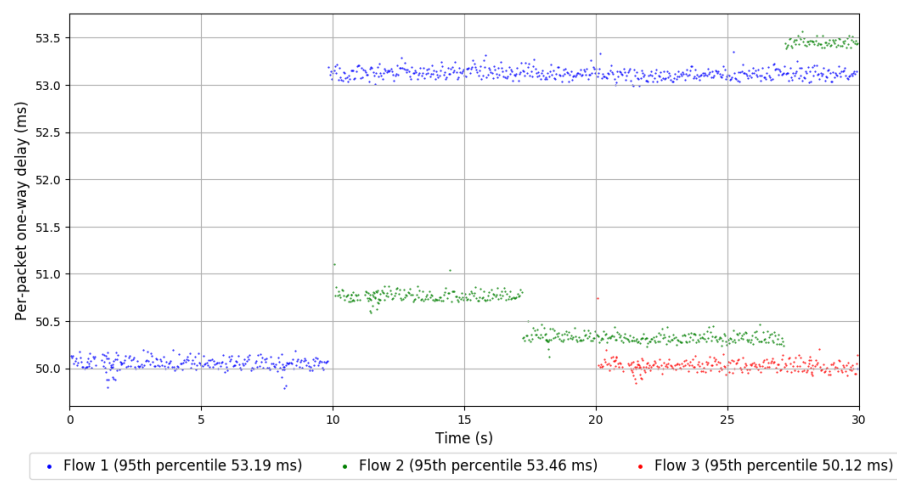
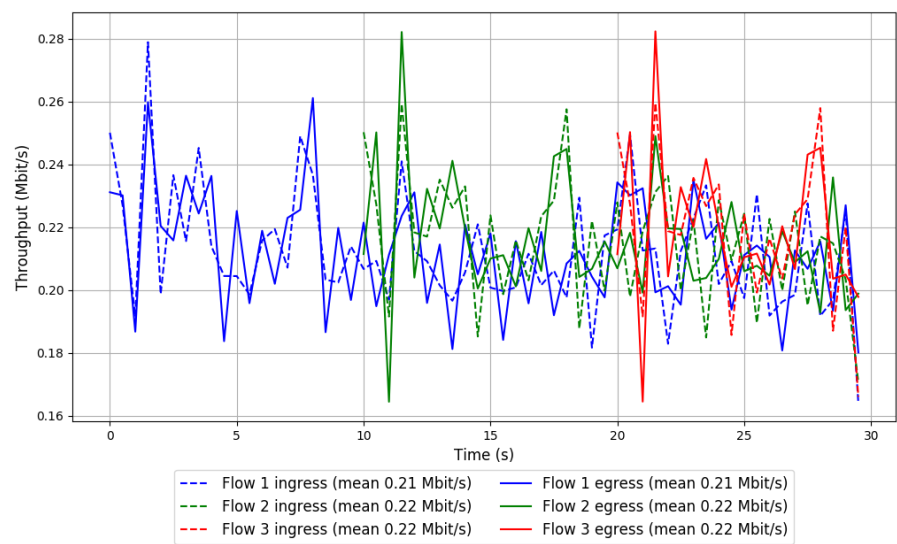


```
Run 3: Statistics of SCReAM

Start at: 2018-03-14 10:37:10
End at: 2018-03-14 10:37:40

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.257 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.194 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.462 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.117 ms
Loss rate: 0.00%
```


Run 3: Report of SReAM — Data Link

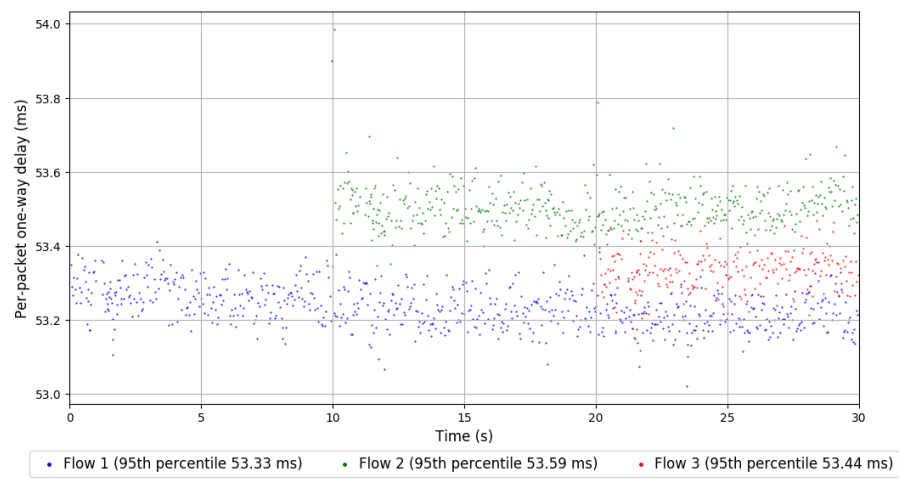
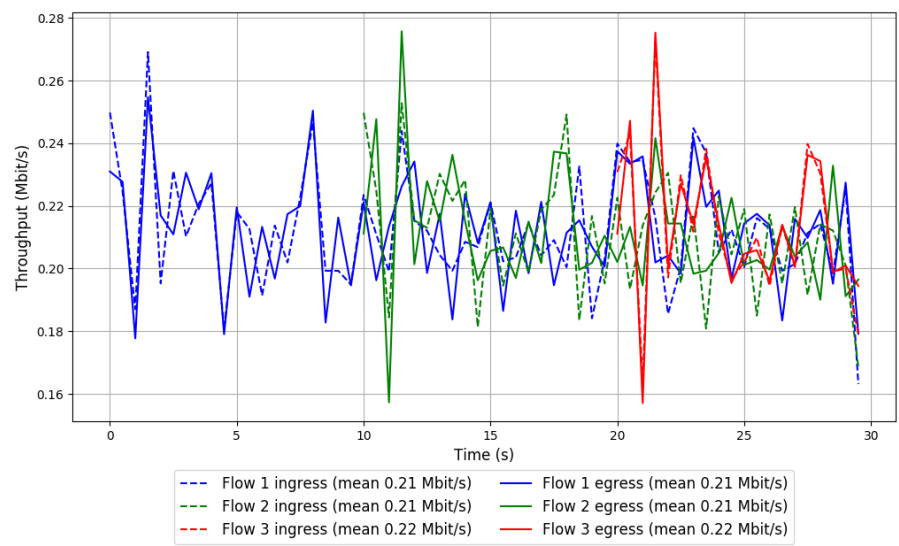


```
Run 4: Statistics of SCReAM

Start at: 2018-03-14 10:54:14
End at: 2018-03-14 10:54:44

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.332 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.588 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.442 ms
Loss rate: 0.00%
```

Run 4: Report of SReAM — Data Link

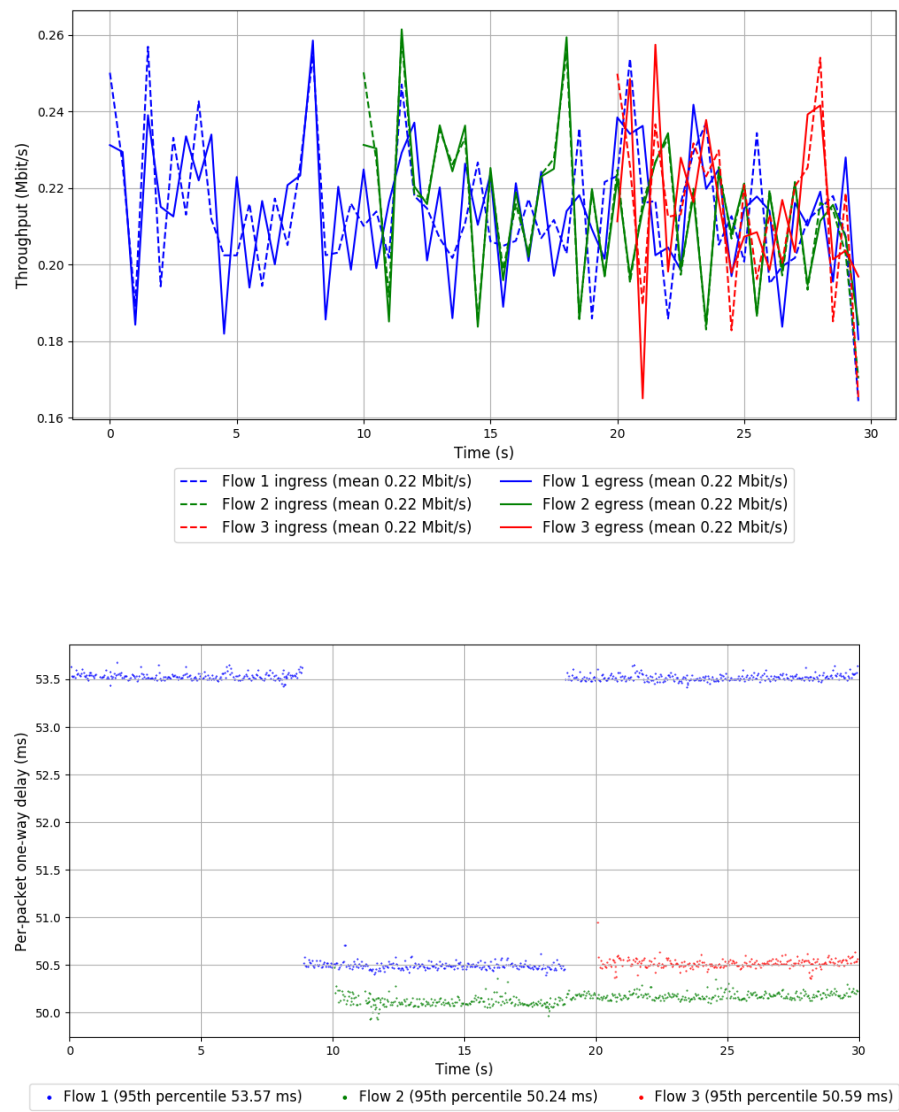


```
Run 5: Statistics of SCReAM

Start at: 2018-03-14 11:11:31
End at: 2018-03-14 11:12:01

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.556 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.572 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.239 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.588 ms
Loss rate: 0.00%
```

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-03-14 11:28:49

End at: 2018-03-14 11:29:19

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 53.140 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 53.163 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.360 ms

Loss rate: 0.00%

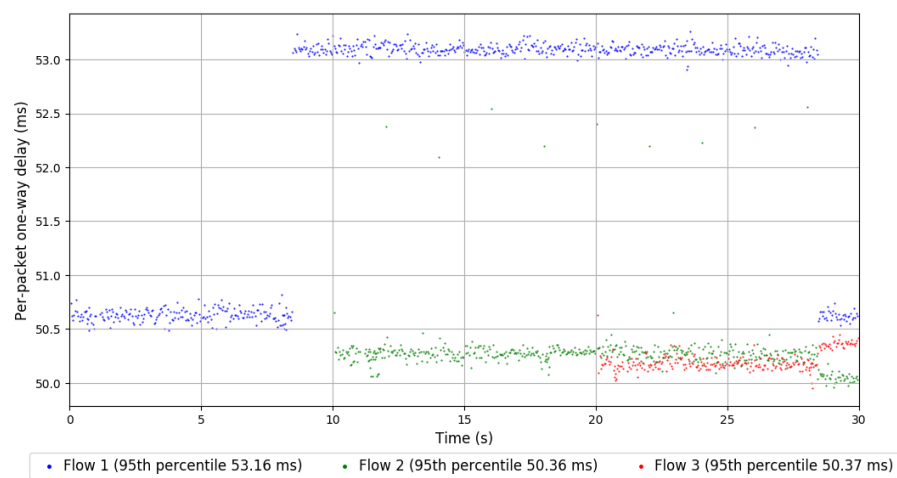
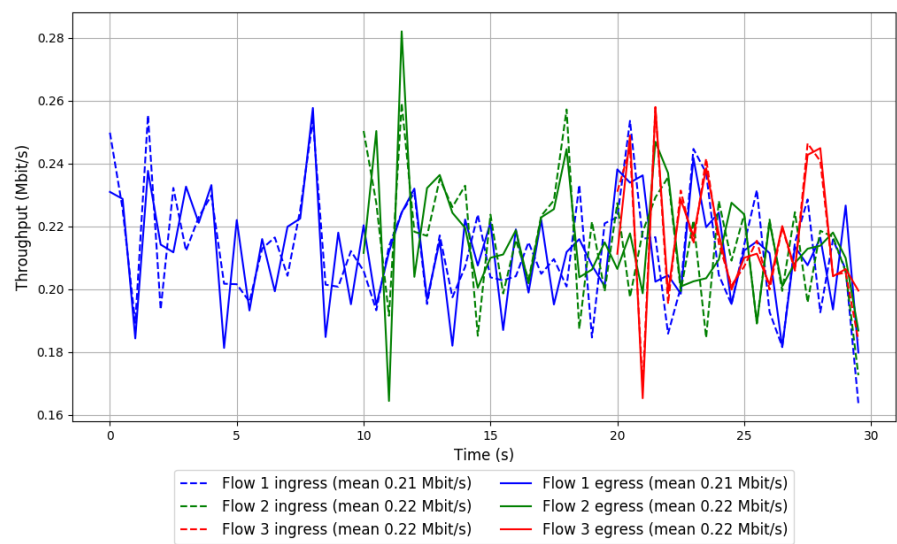
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.370 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link

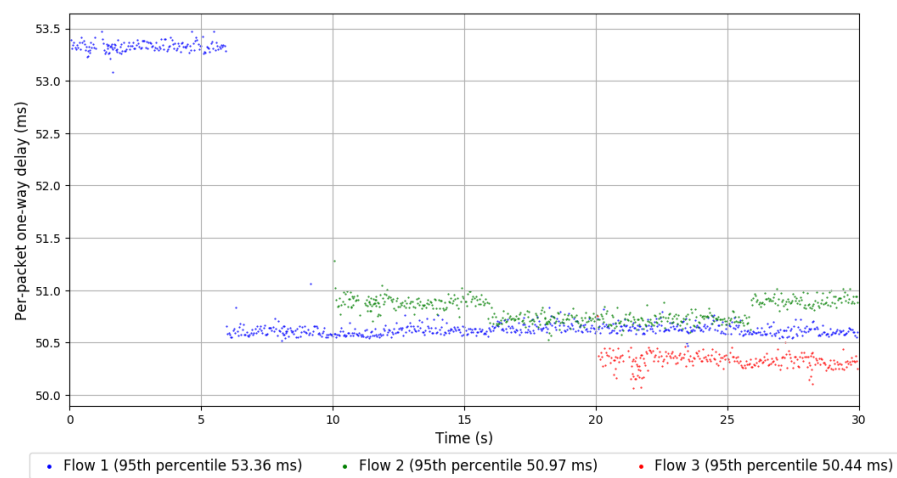
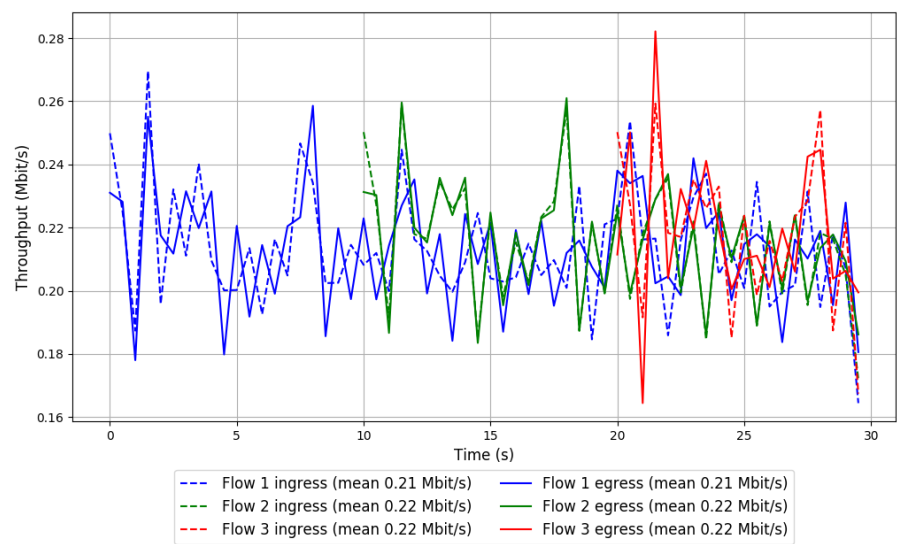


```
Run 7: Statistics of SCReAM

Start at: 2018-03-14 11:46:02
End at: 2018-03-14 11:46:32

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 53.328 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.360 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.965 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.435 ms
Loss rate: 0.00%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-14 12:03:20

End at: 2018-03-14 12:03:50

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 54.163 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 53.515 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

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

Loss rate: 0.00%

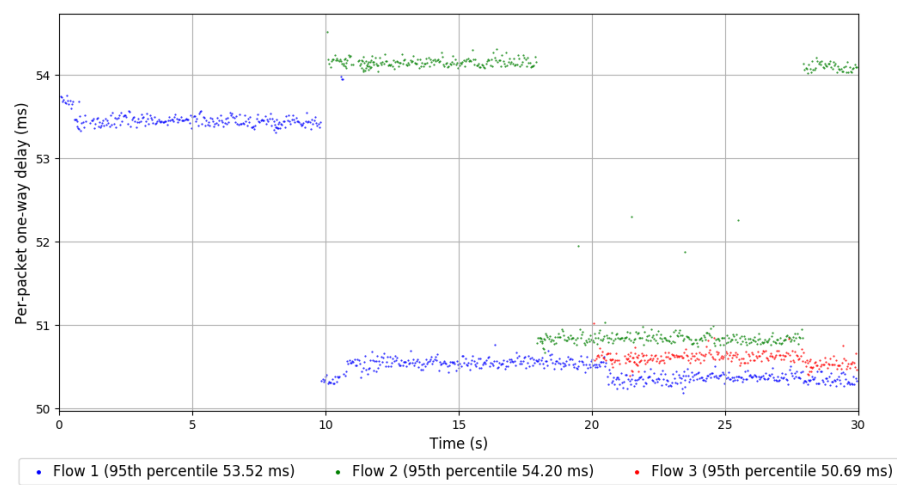
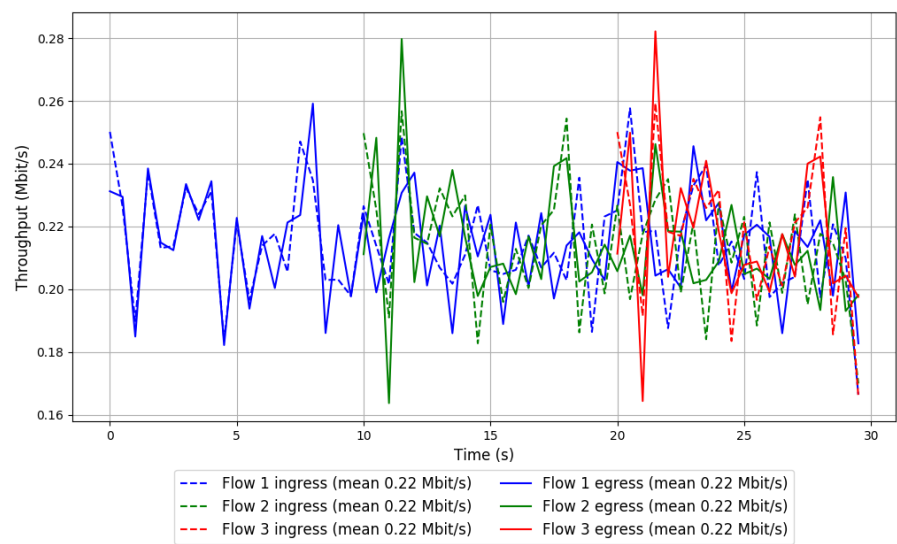
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 50.694 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link

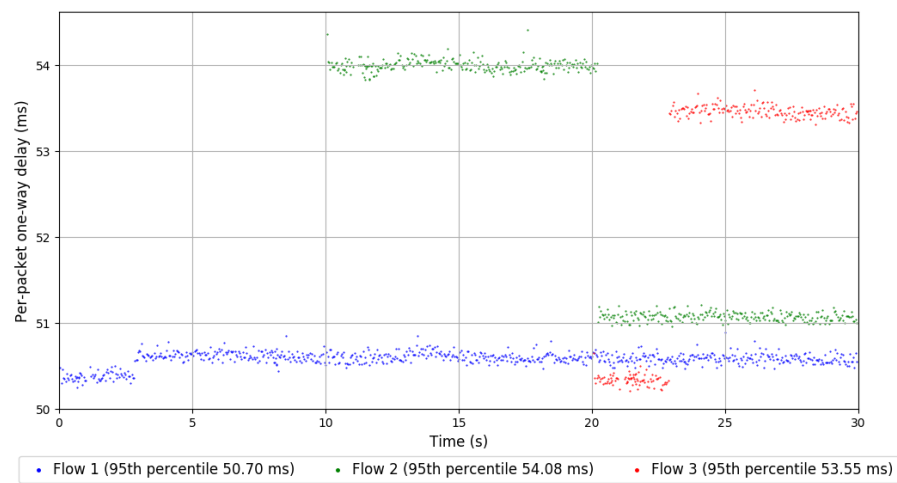
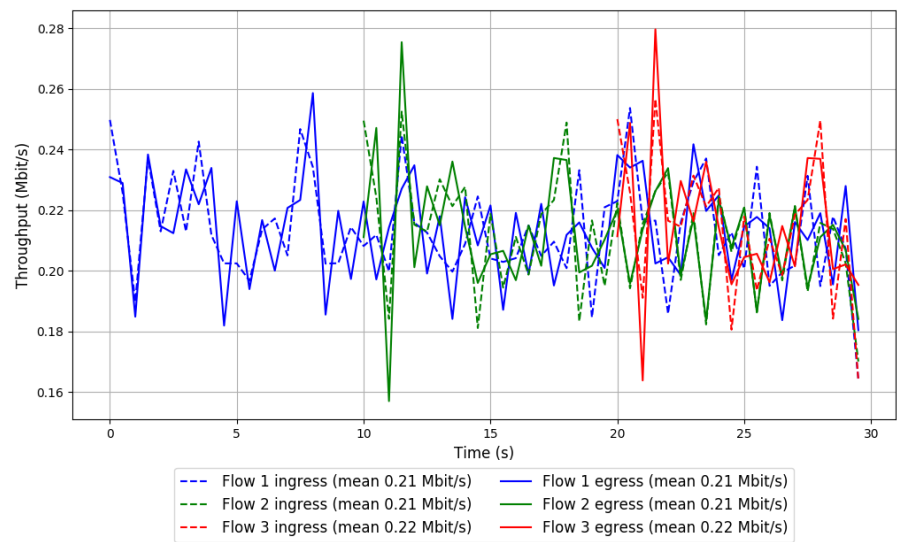


```
Run 9: Statistics of SCReAM

Start at: 2018-03-14 12:20:47
End at: 2018-03-14 12:21:17

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 54.028 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 50.701 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.075 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.553 ms
Loss rate: 0.00%
```

Run 9: Report of SReAM — Data Link

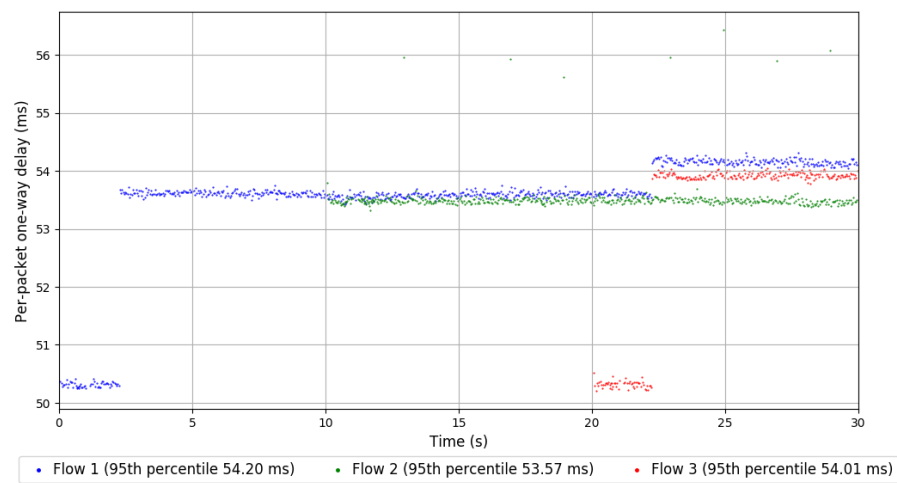
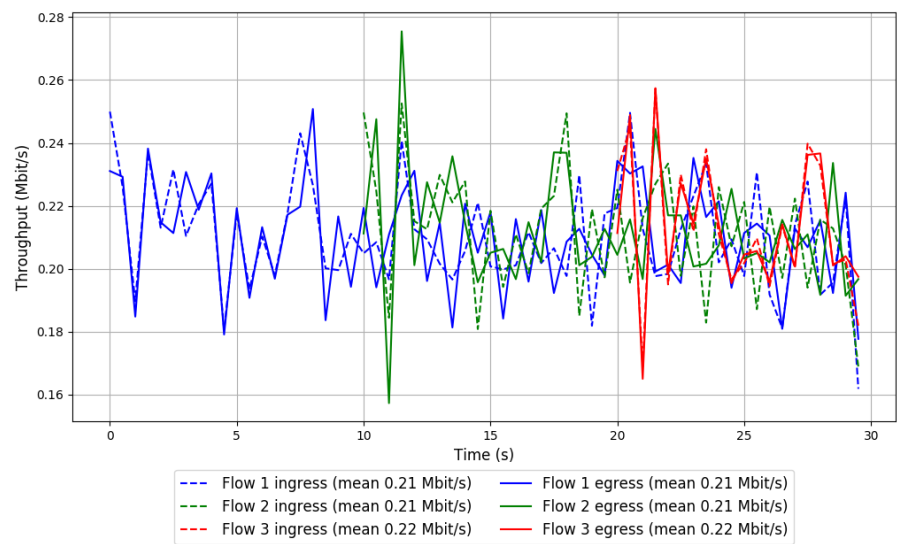


```
Run 10: Statistics of SCReAM

Start at: 2018-03-14 12:37:55
End at: 2018-03-14 12:38:25

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 54.172 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 54.198 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 53.568 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 54.005 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

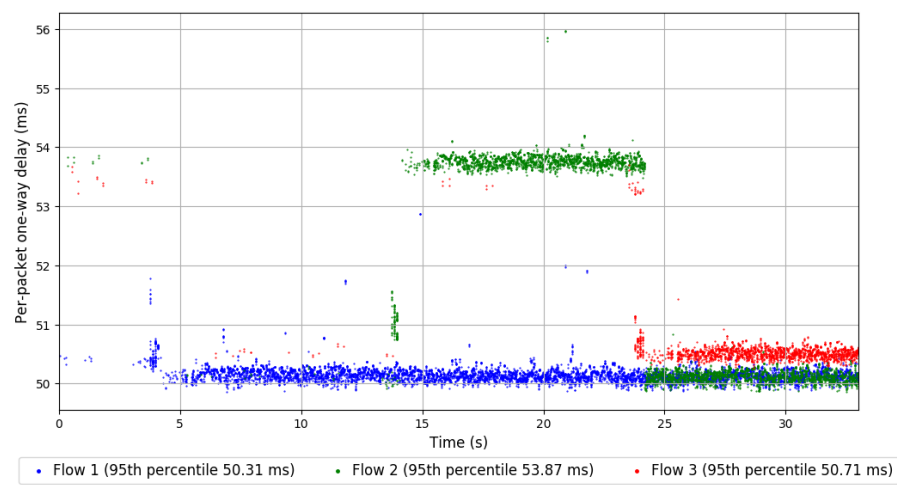
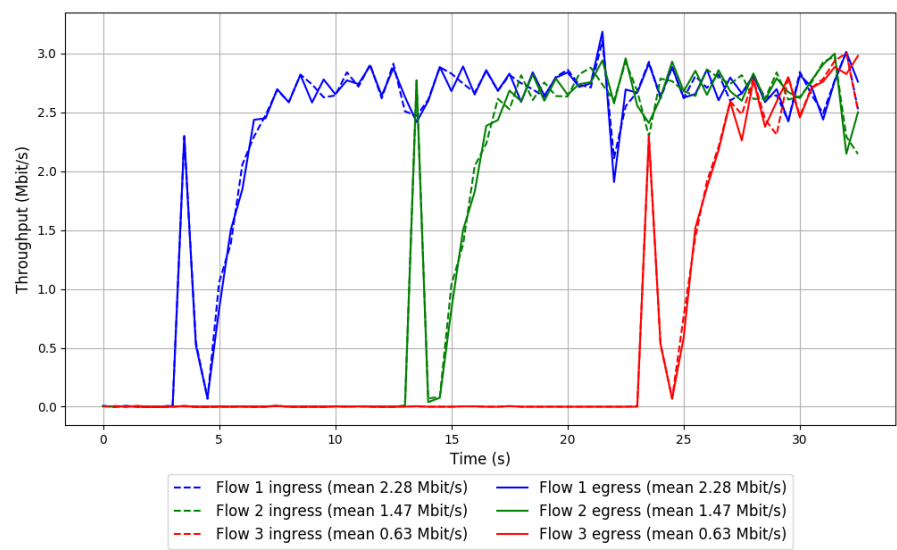


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-14 10:00:06
End at: 2018-03-14 10:00:37

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 53.808 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 2.28 Mbit/s
95th percentile per-packet one-way delay: 50.312 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 53.867 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 50.714 ms
Loss rate: 0.05%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-14 10:17:08

End at: 2018-03-14 10:17:38

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.40 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.30 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

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

Loss rate: 0.00%

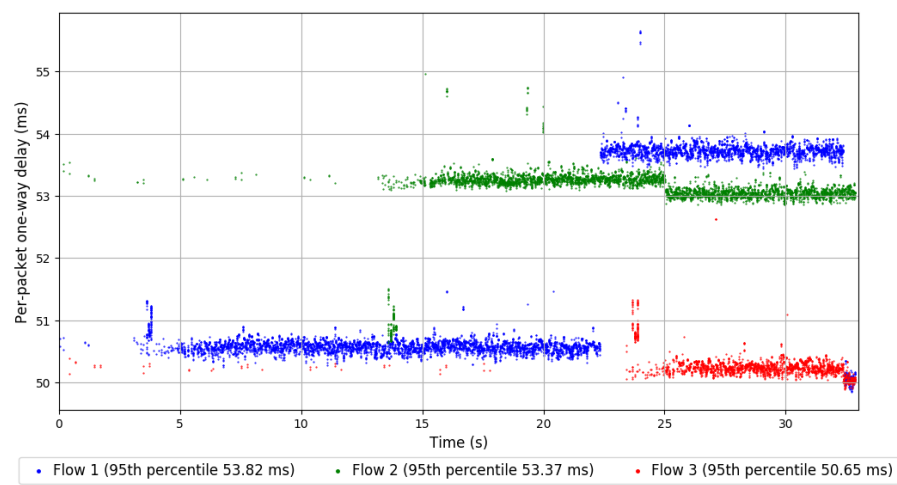
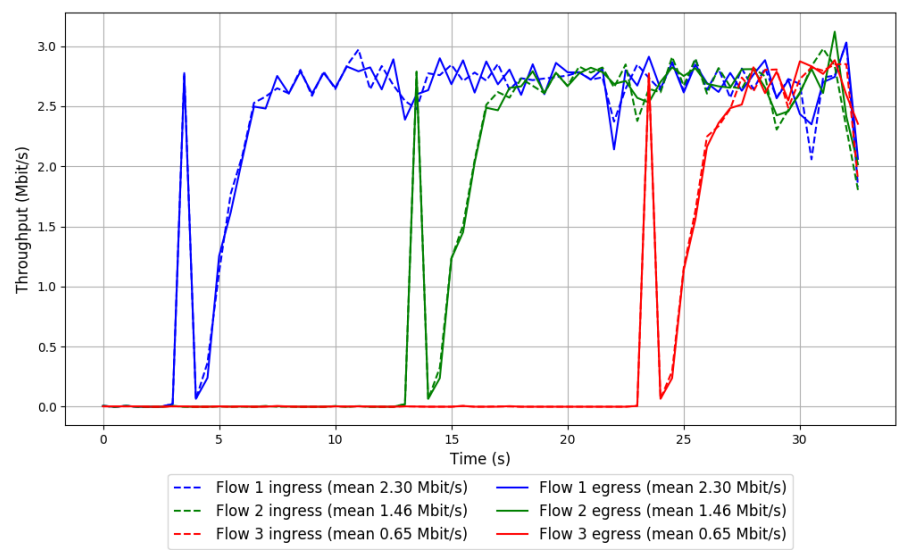
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 50.645 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-14 10:34:49

End at: 2018-03-14 10:35:19

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.195 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 50.731 ms

Loss rate: 0.00%

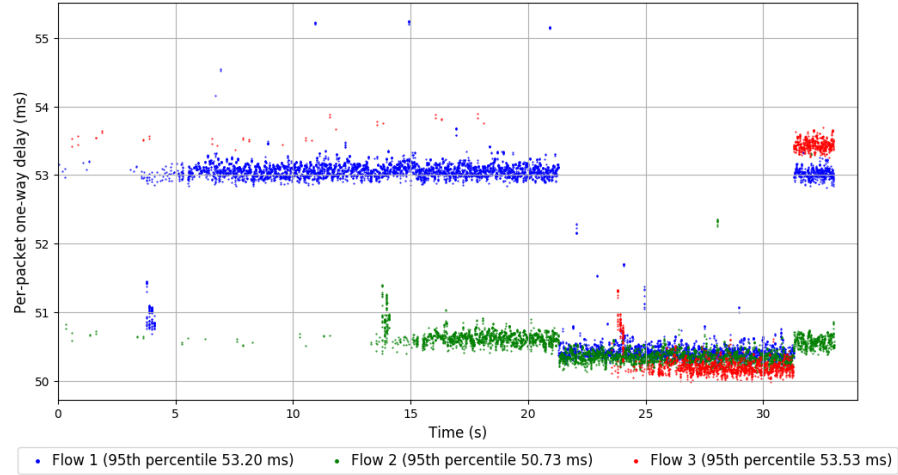
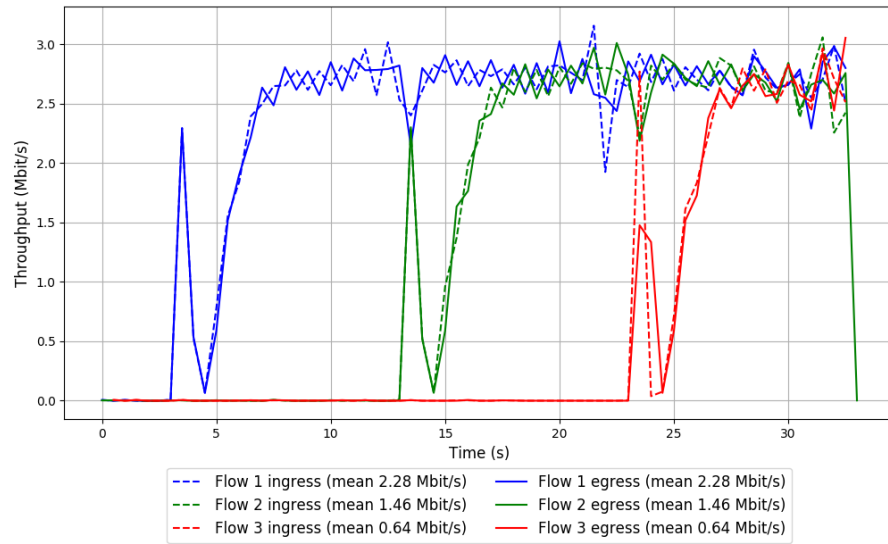
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.526 ms

Loss rate: 0.00%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-14 10:52:03

End at: 2018-03-14 10:52:33

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.36 Mbit/s

95th percentile per-packet one-way delay: 53.261 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 53.277 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 53.251 ms

Loss rate: 0.02%

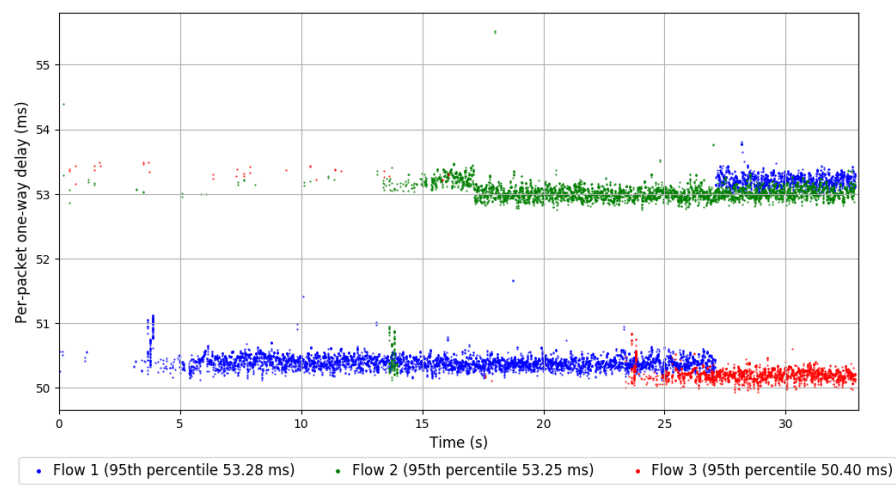
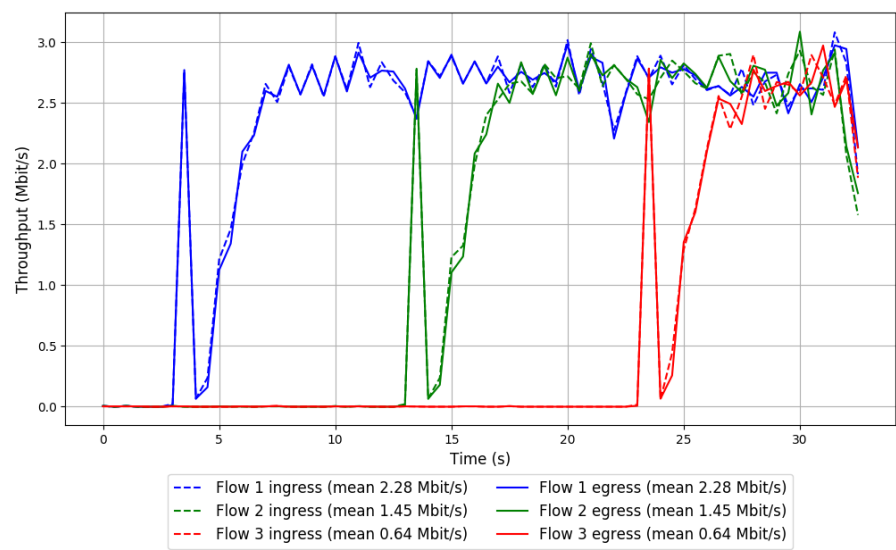
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 50.396 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

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

End at: 2018-03-14 11:09:41

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.39 Mbit/s

95th percentile per-packet one-way delay: 53.687 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 53.633 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 50.877 ms

Loss rate: 0.00%

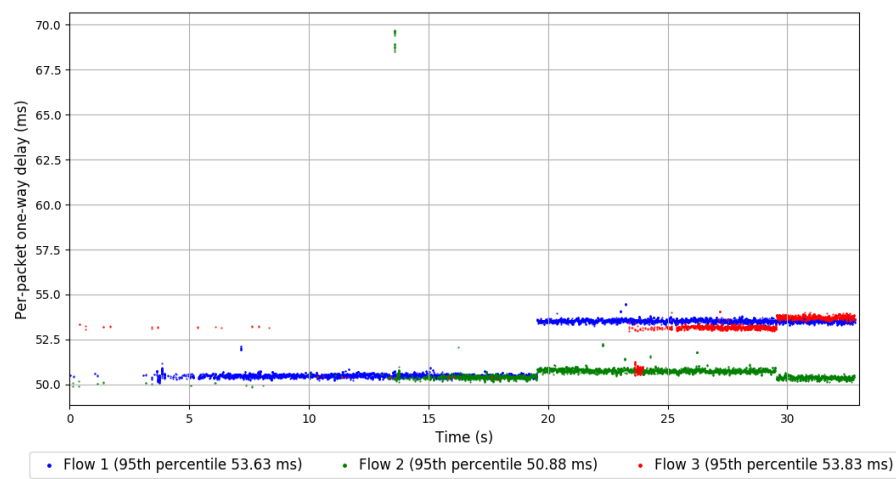
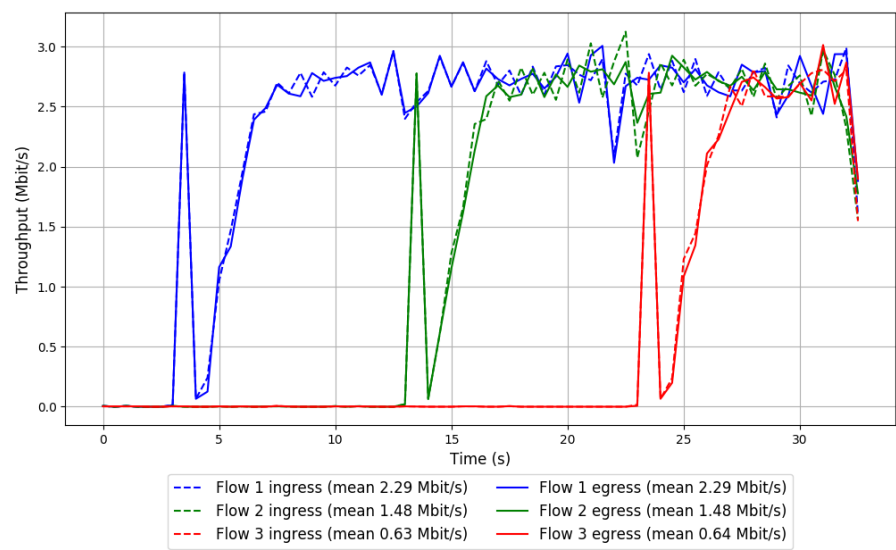
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 53.832 ms

Loss rate: 0.05%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-14 11:26:34

End at: 2018-03-14 11:27:04

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.775 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 53.806 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.720 ms

Loss rate: 0.00%

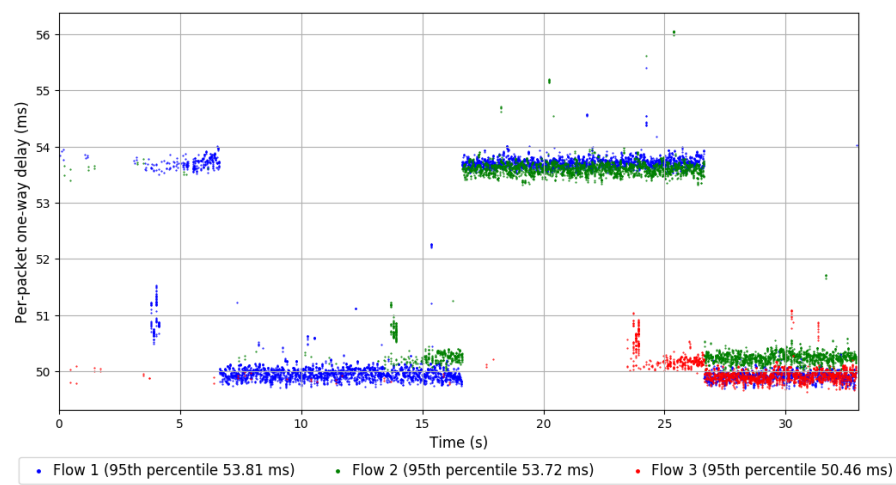
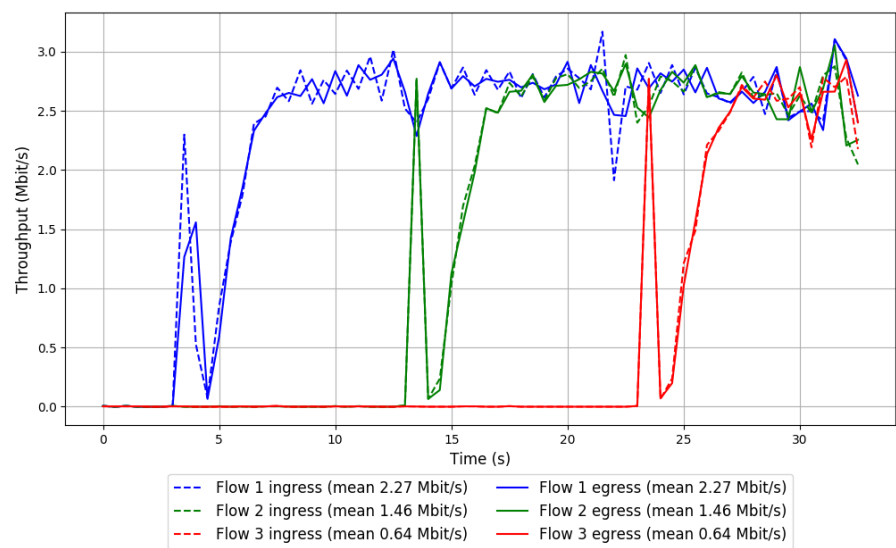
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 50.456 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-14 11:43:38

End at: 2018-03-14 11:44:08

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

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

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.27 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 53.894 ms

Loss rate: 0.00%

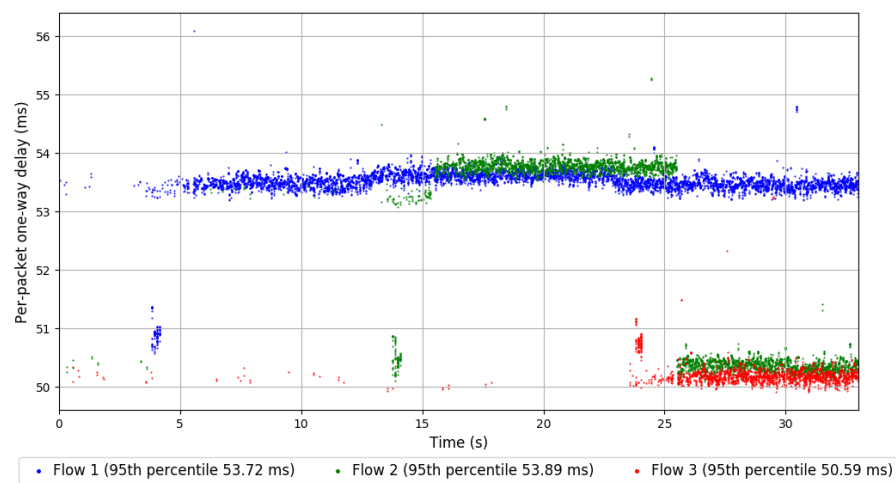
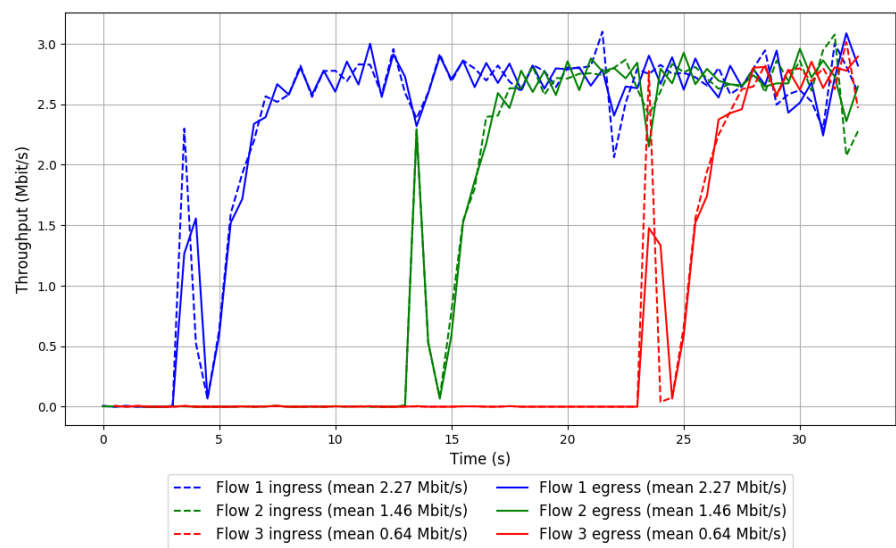
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 50.591 ms

Loss rate: 0.04%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-14 12:00:59

End at: 2018-03-14 12:01:29

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.35 Mbit/s

95th percentile per-packet one-way delay: 53.535 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.27 Mbit/s

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

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.47 Mbit/s

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

Loss rate: 0.00%

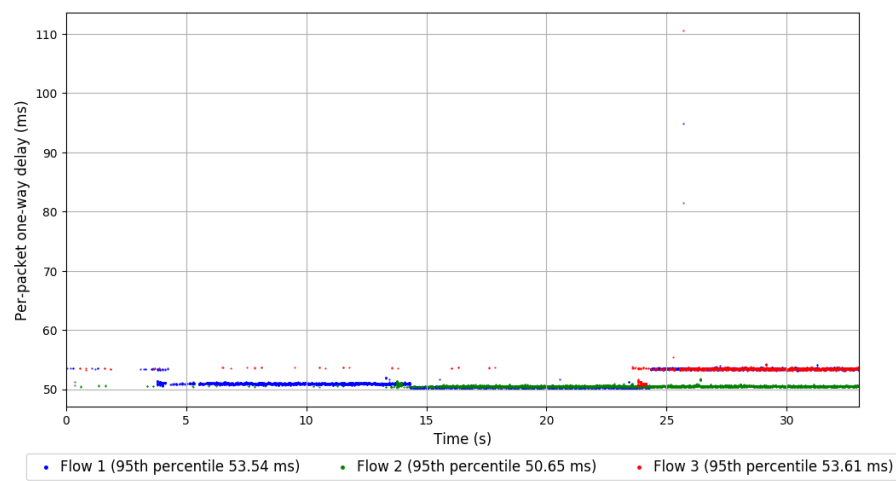
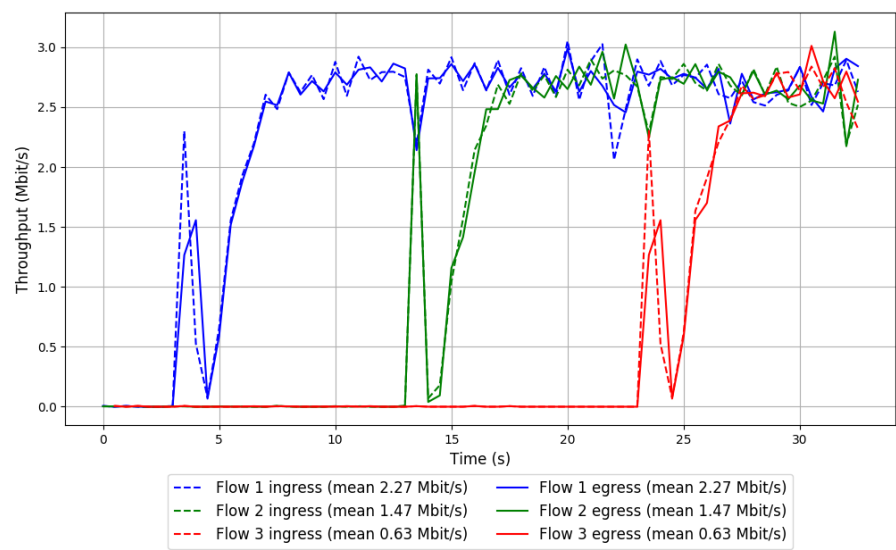
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 53.613 ms

Loss rate: 0.00%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-14 12:18:31

End at: 2018-03-14 12:19:01

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.37 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.28 Mbit/s

95th percentile per-packet one-way delay: 51.108 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.46 Mbit/s

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

Loss rate: 0.00%

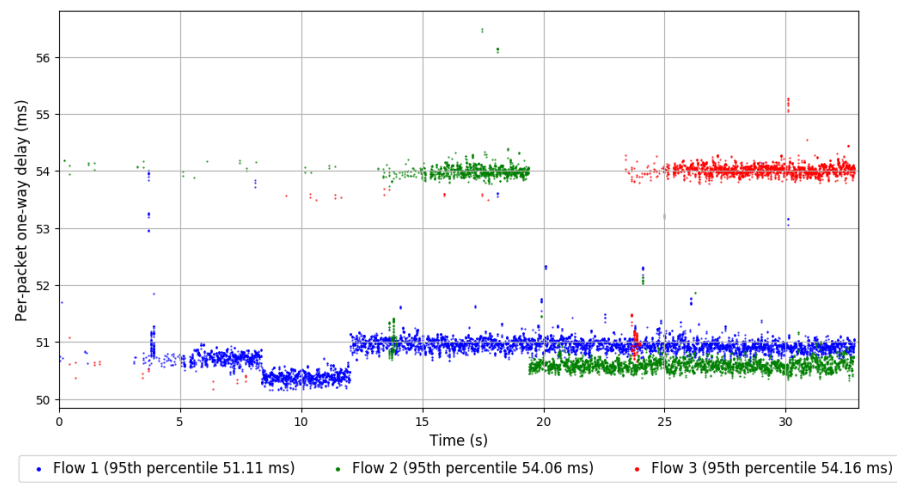
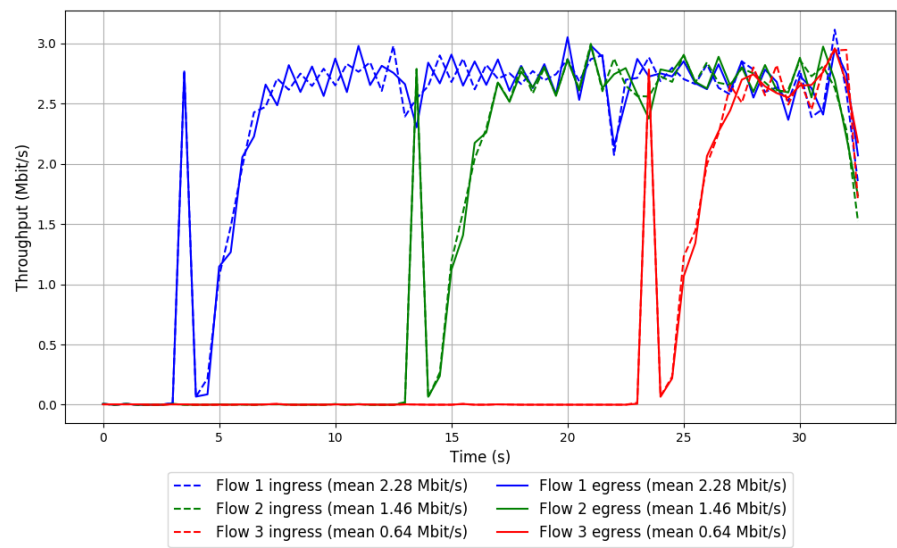
-- Flow 3:

Average throughput: 0.64 Mbit/s

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

Loss rate: 0.00%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-14 12:35:40

End at: 2018-03-14 12:36:10

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 54.032 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 50.736 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 53.896 ms

Loss rate: 0.00%

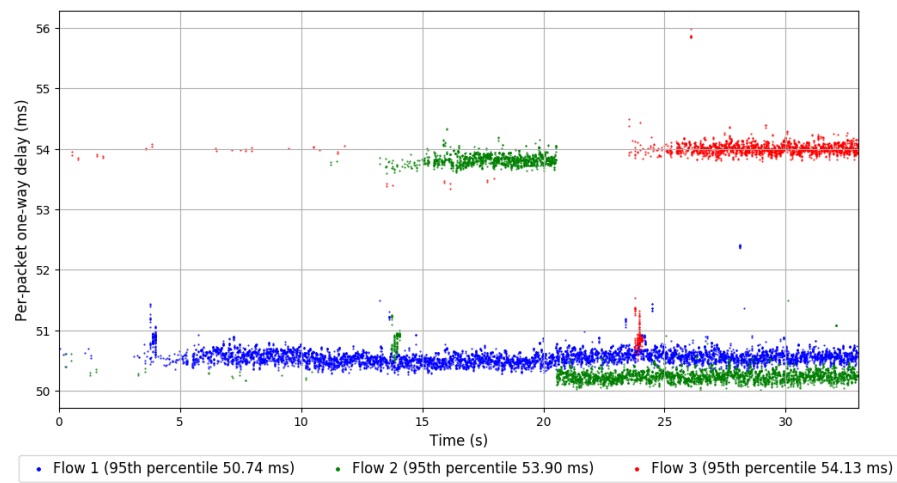
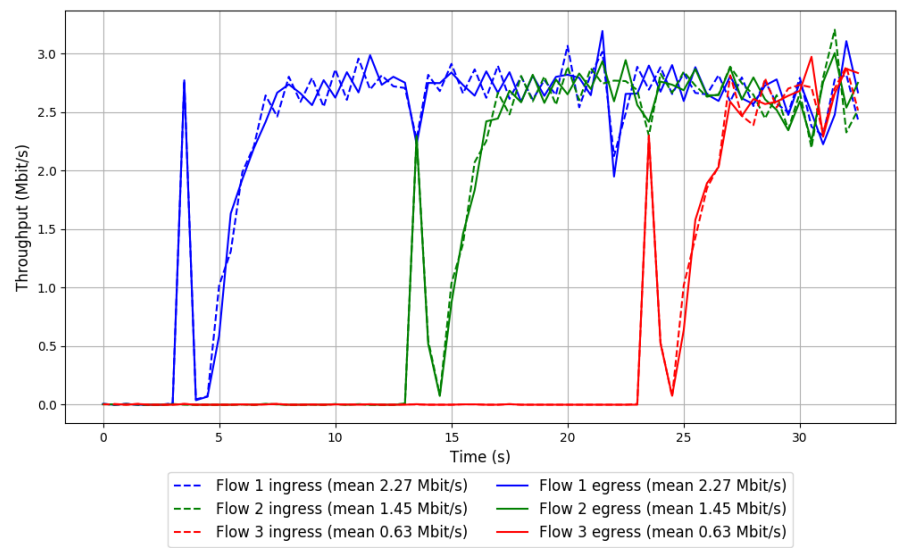
-- Flow 3:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 54.135 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link

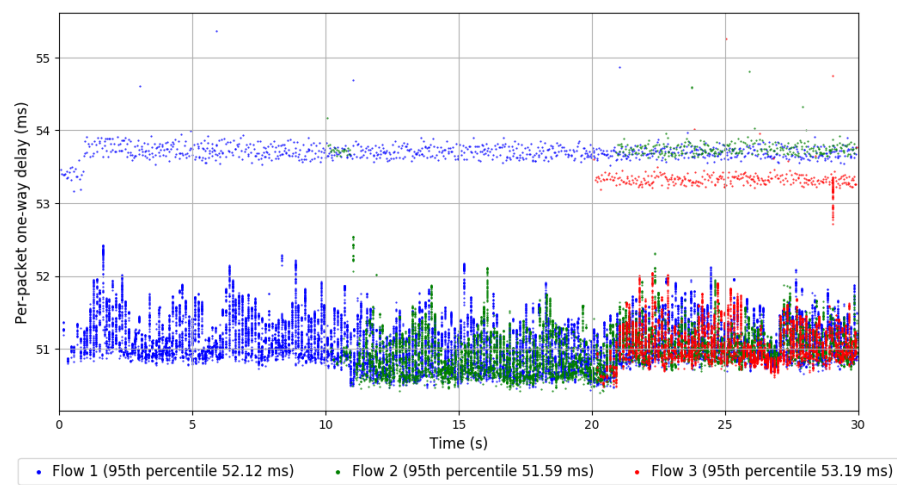
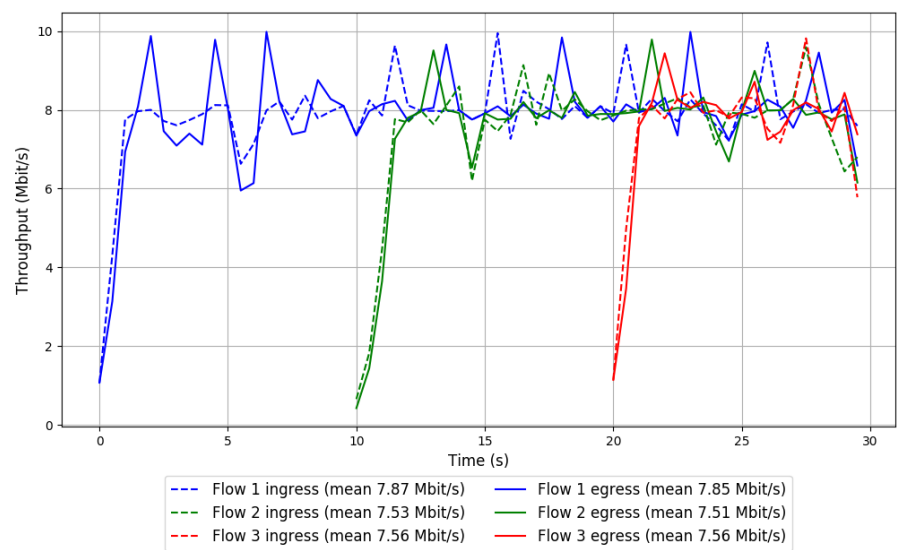


```
Run 1: Statistics of Sprout

Start at: 2018-03-14 10:03:59
End at: 2018-03-14 10:04:29

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 15.34 Mbit/s
95th percentile per-packet one-way delay: 51.913 ms
Loss rate: 0.18%
-- Flow 1:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 52.124 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 7.51 Mbit/s
95th percentile per-packet one-way delay: 51.592 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 53.185 ms
Loss rate: 0.00%
```

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-14 10:21:24

End at: 2018-03-14 10:21:54

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.41 Mbit/s

95th percentile per-packet one-way delay: 51.579 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 51.669 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 51.502 ms

Loss rate: 0.00%

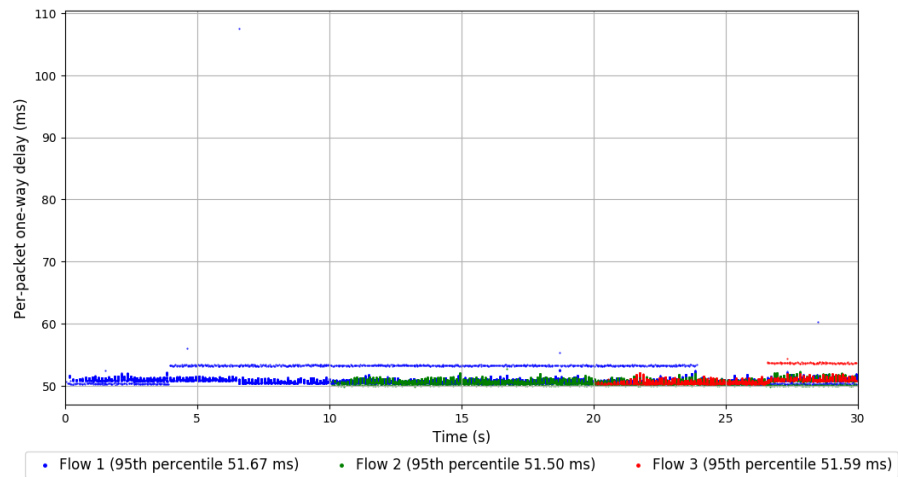
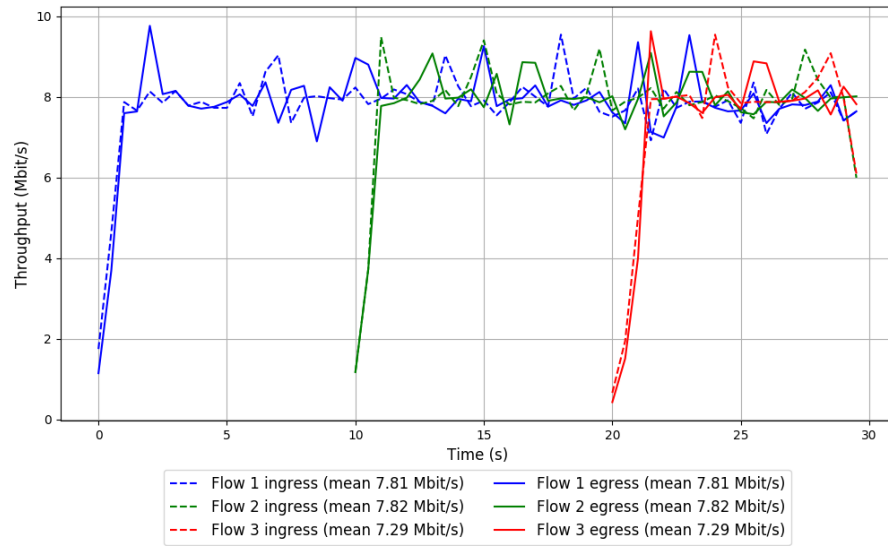
-- Flow 3:

Average throughput: 7.29 Mbit/s

95th percentile per-packet one-way delay: 51.593 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-14 10:38:57

End at: 2018-03-14 10:39:27

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.36 Mbit/s

95th percentile per-packet one-way delay: 51.879 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.86 Mbit/s

95th percentile per-packet one-way delay: 52.286 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.75 Mbit/s

95th percentile per-packet one-way delay: 51.732 ms

Loss rate: 0.00%

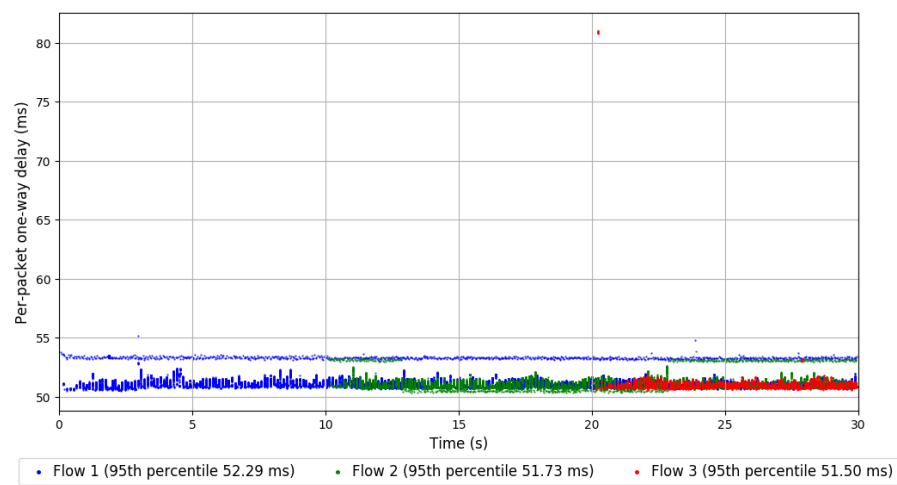
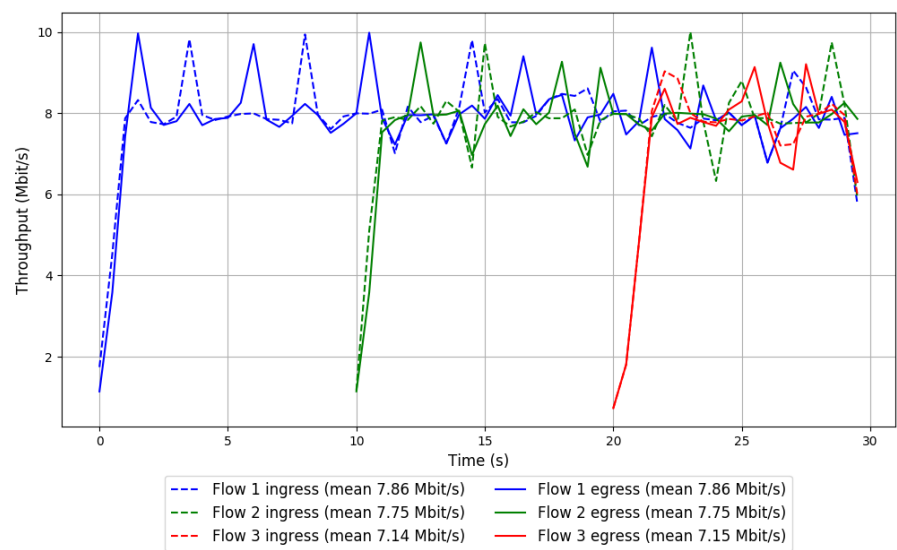
-- Flow 3:

Average throughput: 7.15 Mbit/s

95th percentile per-packet one-way delay: 51.498 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-14 10:56:00

End at: 2018-03-14 10:56:30

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.62 Mbit/s

95th percentile per-packet one-way delay: 51.578 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.92 Mbit/s

95th percentile per-packet one-way delay: 51.617 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.81 Mbit/s

95th percentile per-packet one-way delay: 51.663 ms

Loss rate: 0.00%

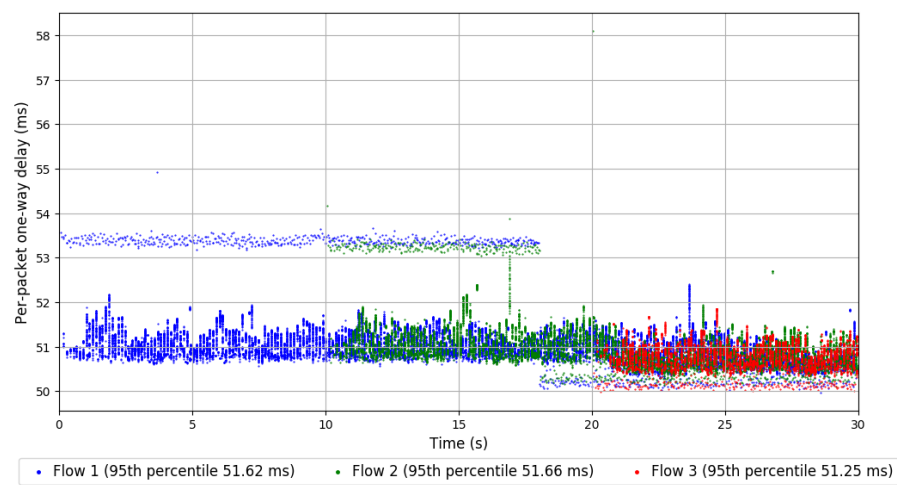
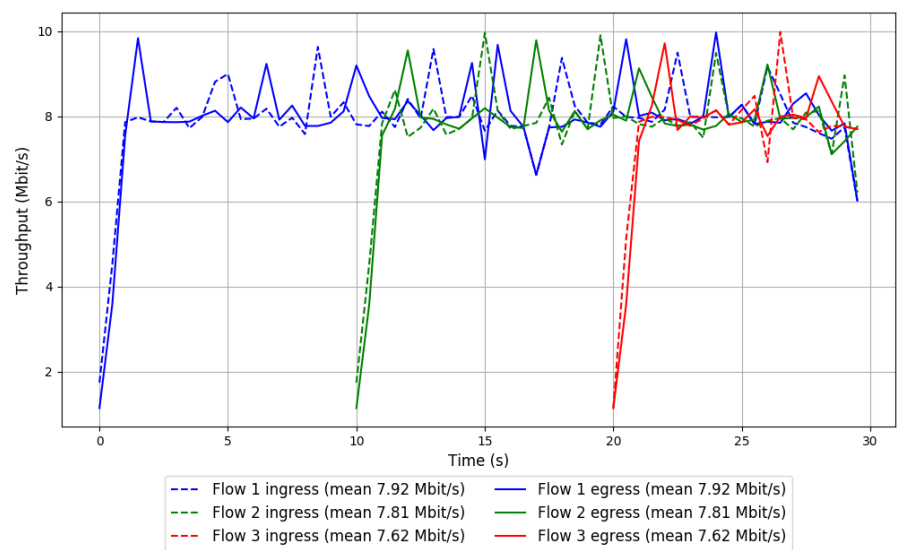
-- Flow 3:

Average throughput: 7.62 Mbit/s

95th percentile per-packet one-way delay: 51.249 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-14 11:13:20

End at: 2018-03-14 11:13:50

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.46 Mbit/s

95th percentile per-packet one-way delay: 51.449 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.83 Mbit/s

95th percentile per-packet one-way delay: 51.515 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.82 Mbit/s

95th percentile per-packet one-way delay: 51.429 ms

Loss rate: 0.00%

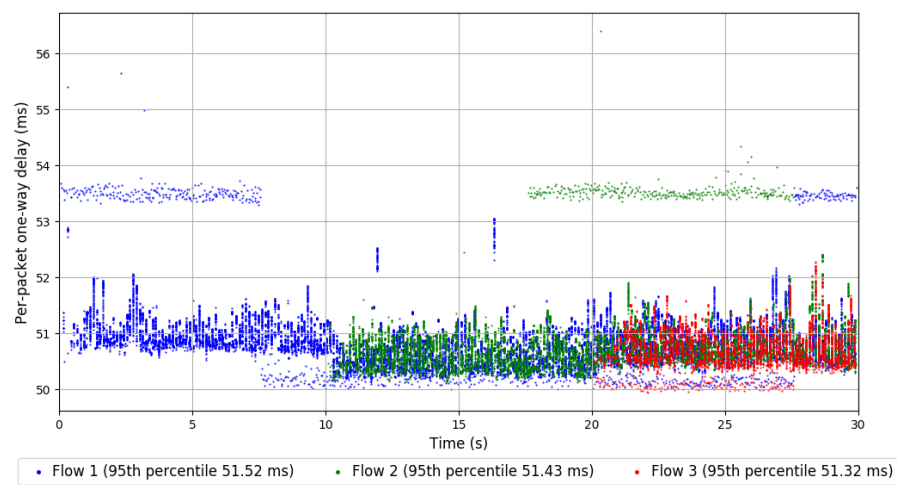
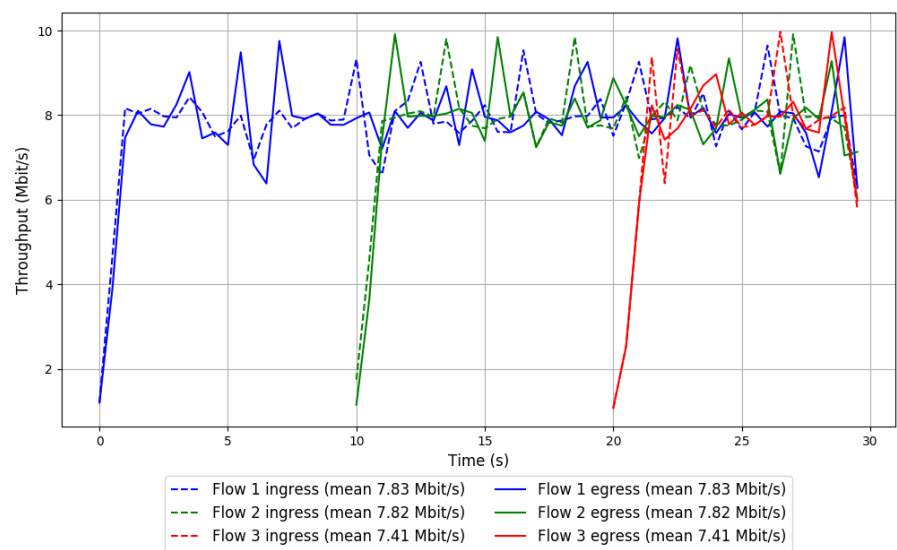
-- Flow 3:

Average throughput: 7.41 Mbit/s

95th percentile per-packet one-way delay: 51.316 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-14 11:30:33

End at: 2018-03-14 11:31:03

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.37 Mbit/s

95th percentile per-packet one-way delay: 51.824 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.80 Mbit/s

95th percentile per-packet one-way delay: 52.129 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.63 Mbit/s

95th percentile per-packet one-way delay: 51.641 ms

Loss rate: 0.00%

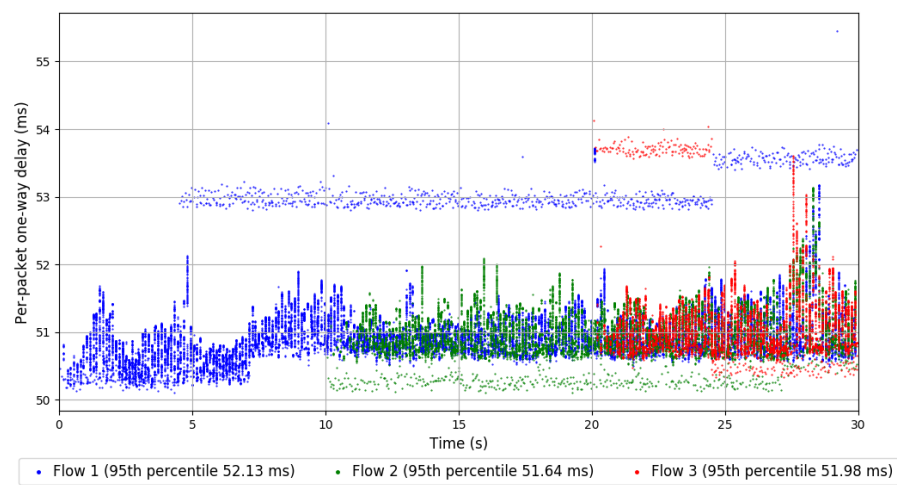
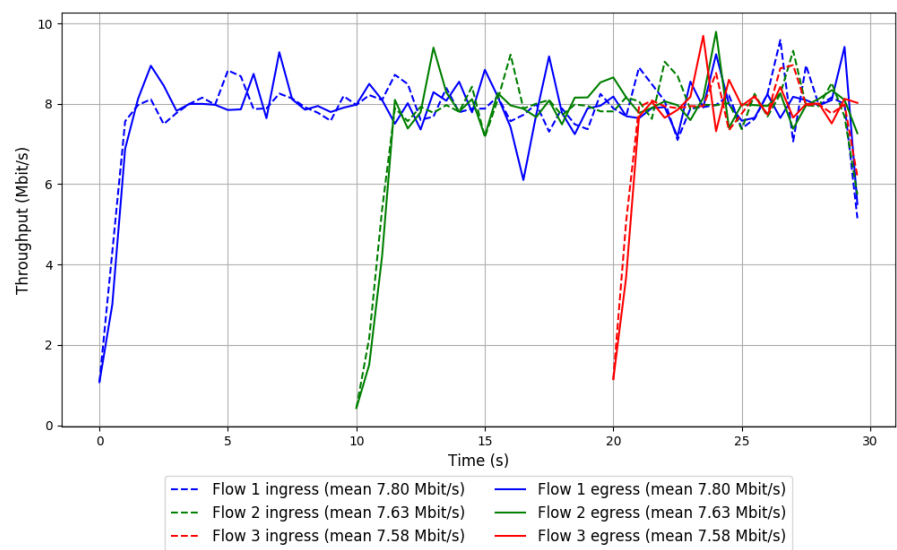
-- Flow 3:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 51.982 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-03-14 11:47:49

End at: 2018-03-14 11:48:19

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.47 Mbit/s

95th percentile per-packet one-way delay: 51.706 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.89 Mbit/s

95th percentile per-packet one-way delay: 51.591 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.71 Mbit/s

95th percentile per-packet one-way delay: 52.463 ms

Loss rate: 0.00%

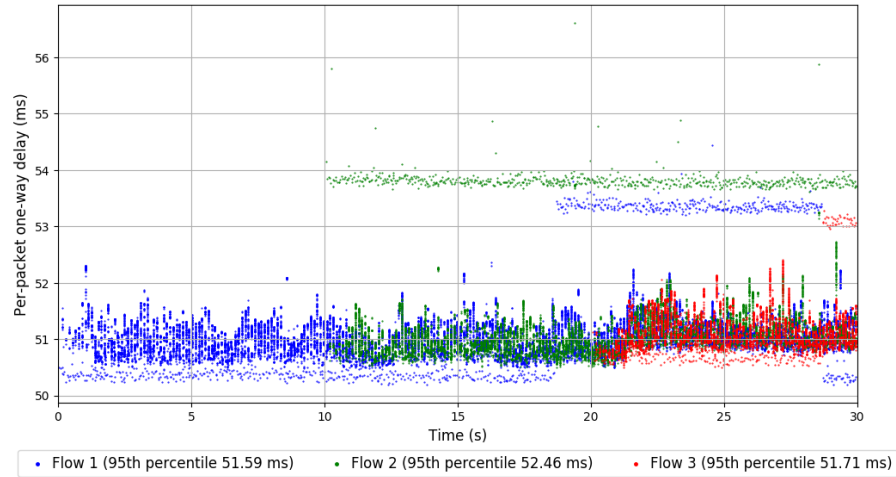
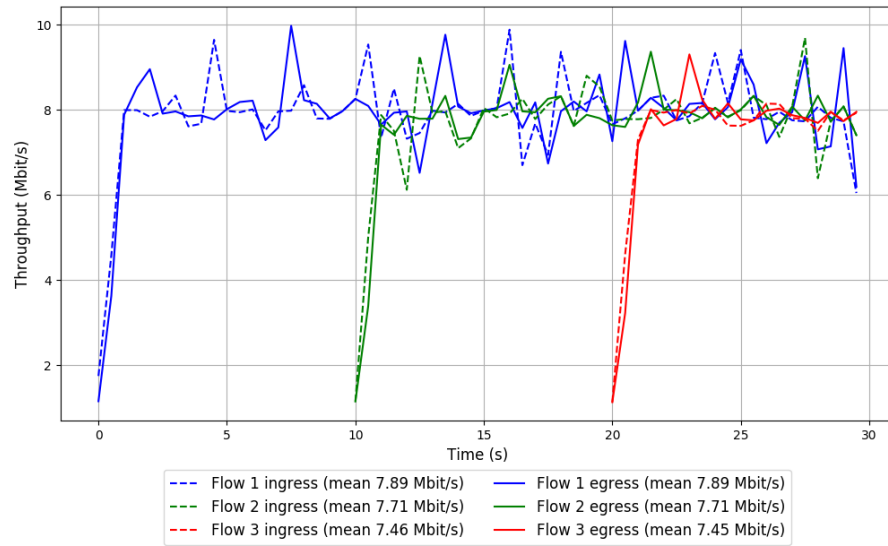
-- Flow 3:

Average throughput: 7.45 Mbit/s

95th percentile per-packet one-way delay: 51.711 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-03-14 12:05:09

End at: 2018-03-14 12:05:39

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.44 Mbit/s

95th percentile per-packet one-way delay: 51.741 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.84 Mbit/s

95th percentile per-packet one-way delay: 51.804 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 51.769 ms

Loss rate: 0.00%

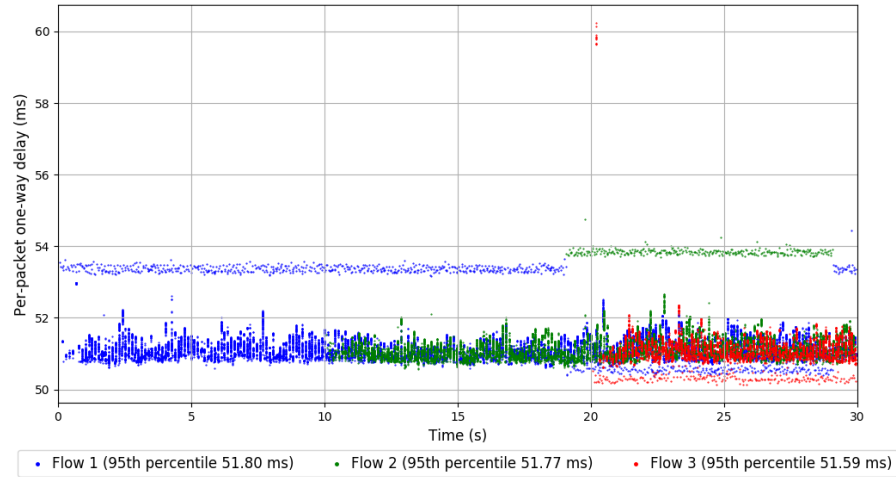
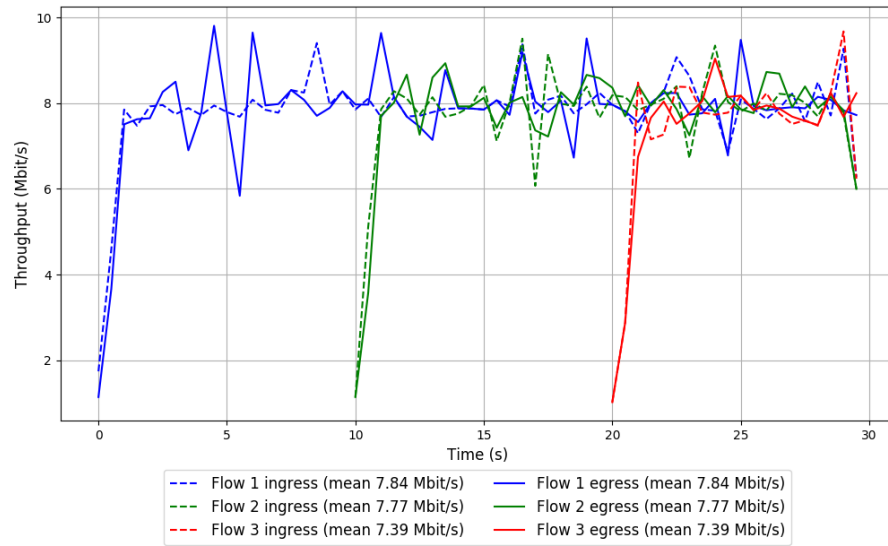
-- Flow 3:

Average throughput: 7.39 Mbit/s

95th percentile per-packet one-way delay: 51.593 ms

Loss rate: 0.00%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-14 12:22:31

End at: 2018-03-14 12:23:01

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.57 Mbit/s

95th percentile per-packet one-way delay: 54.676 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.97 Mbit/s

95th percentile per-packet one-way delay: 54.776 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.66 Mbit/s

95th percentile per-packet one-way delay: 54.601 ms

Loss rate: 0.00%

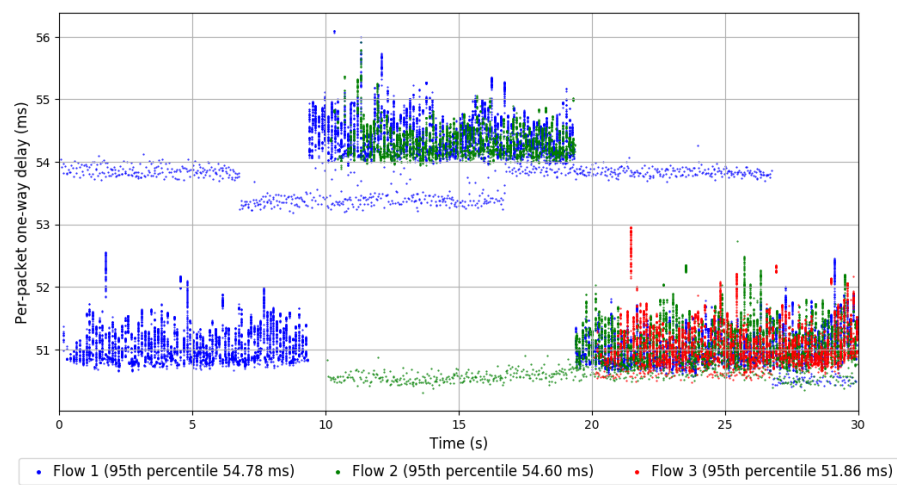
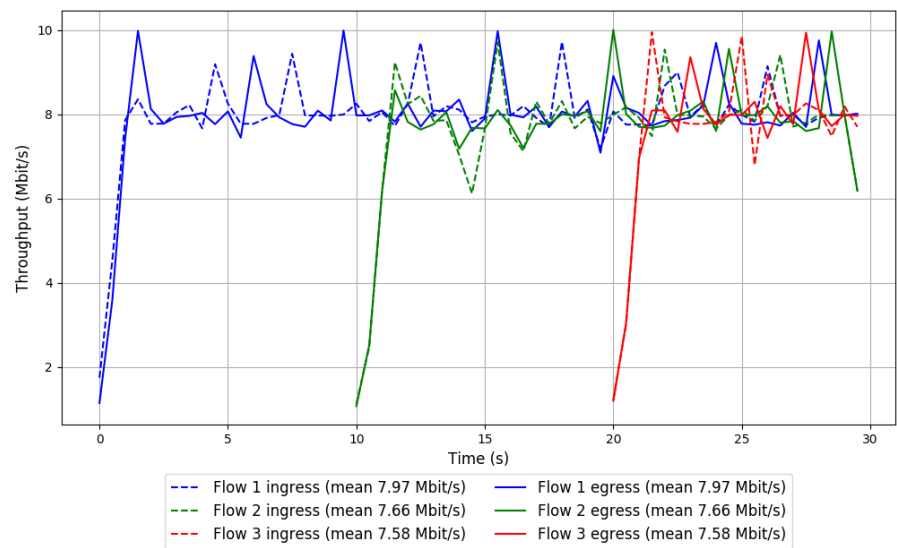
-- Flow 3:

Average throughput: 7.58 Mbit/s

95th percentile per-packet one-way delay: 51.860 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-14 12:39:41

End at: 2018-03-14 12:40:11

Below is generated by plot.py at 2018-03-14 16:38:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.60 Mbit/s

95th percentile per-packet one-way delay: 51.688 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.95 Mbit/s

95th percentile per-packet one-way delay: 51.571 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.77 Mbit/s

95th percentile per-packet one-way delay: 52.154 ms

Loss rate: 0.00%

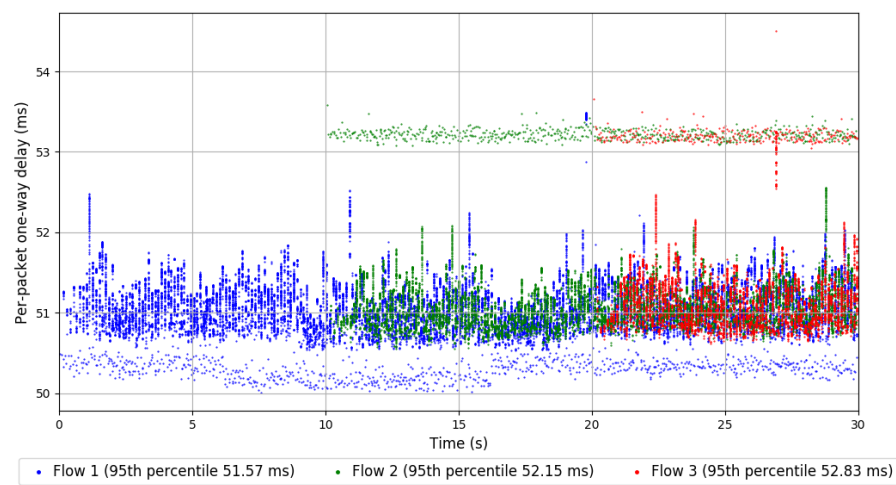
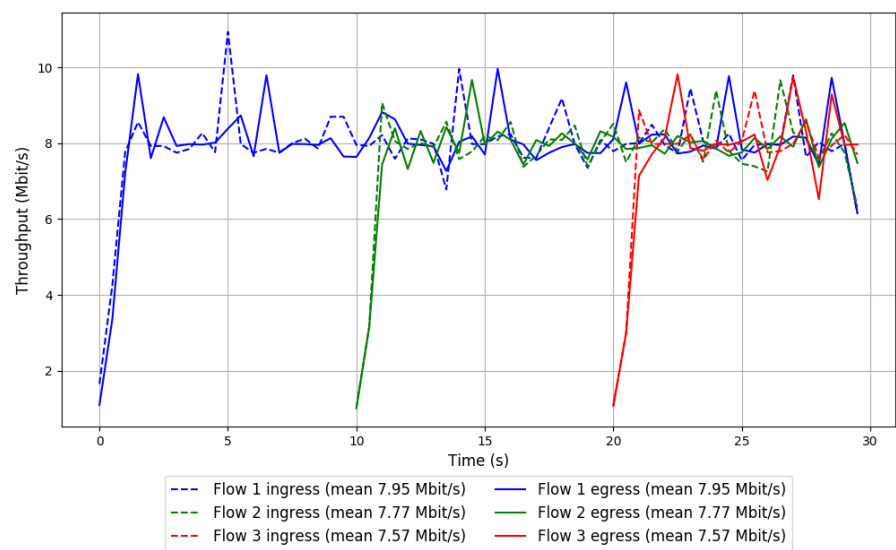
-- Flow 3:

Average throughput: 7.57 Mbit/s

95th percentile per-packet one-way delay: 52.825 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

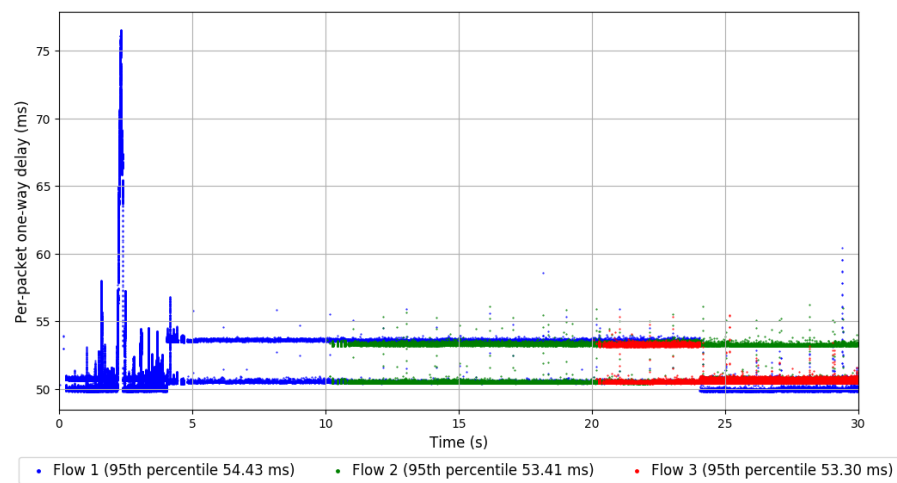
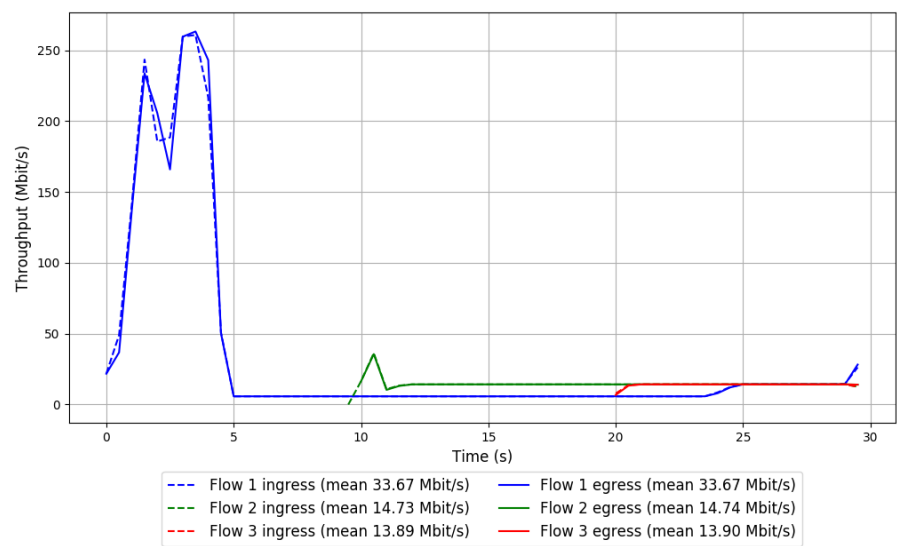


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-14 10:00:46
End at: 2018-03-14 10:01:16

# Below is generated by plot.py at 2018-03-14 16:38:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 48.05 Mbit/s
95th percentile per-packet one-way delay: 53.719 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 33.67 Mbit/s
95th percentile per-packet one-way delay: 54.429 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 14.74 Mbit/s
95th percentile per-packet one-way delay: 53.408 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.90 Mbit/s
95th percentile per-packet one-way delay: 53.304 ms
Loss rate: 0.00%
```


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

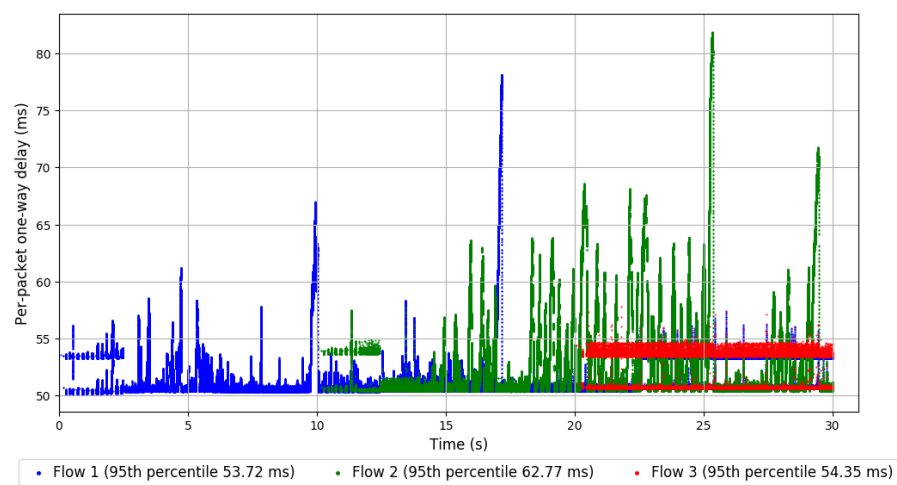
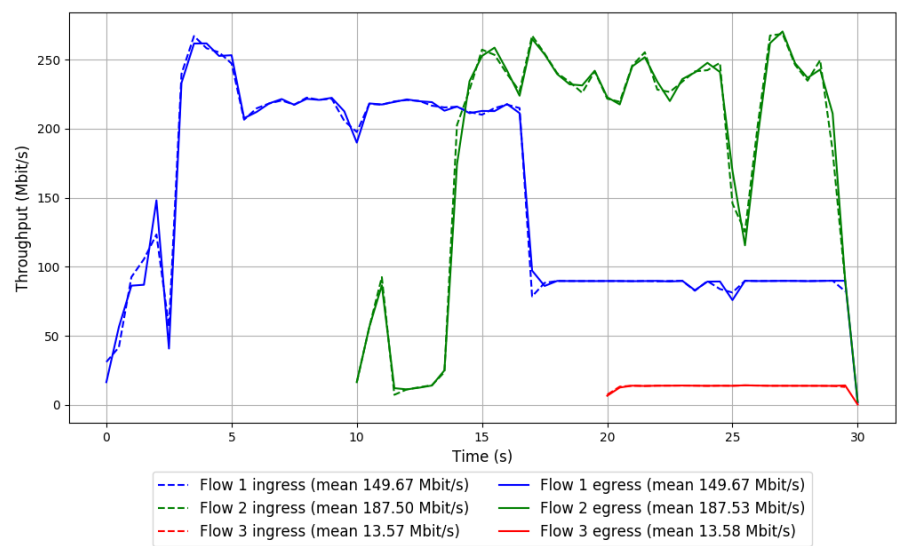


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-14 10:17:48
End at: 2018-03-14 10:18:18

# Below is generated by plot.py at 2018-03-14 16:43:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 279.03 Mbit/s
95th percentile per-packet one-way delay: 59.976 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 149.67 Mbit/s
95th percentile per-packet one-way delay: 53.724 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 187.53 Mbit/s
95th percentile per-packet one-way delay: 62.769 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 13.58 Mbit/s
95th percentile per-packet one-way delay: 54.355 ms
Loss rate: 0.00%
```

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-03-14 10:35:29

End at: 2018-03-14 10:35:59

Below is generated by plot.py at 2018-03-14 16:43:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.12 Mbit/s

95th percentile per-packet one-way delay: 63.248 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 165.12 Mbit/s

95th percentile per-packet one-way delay: 65.187 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.07 Mbit/s

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

Loss rate: 0.00%

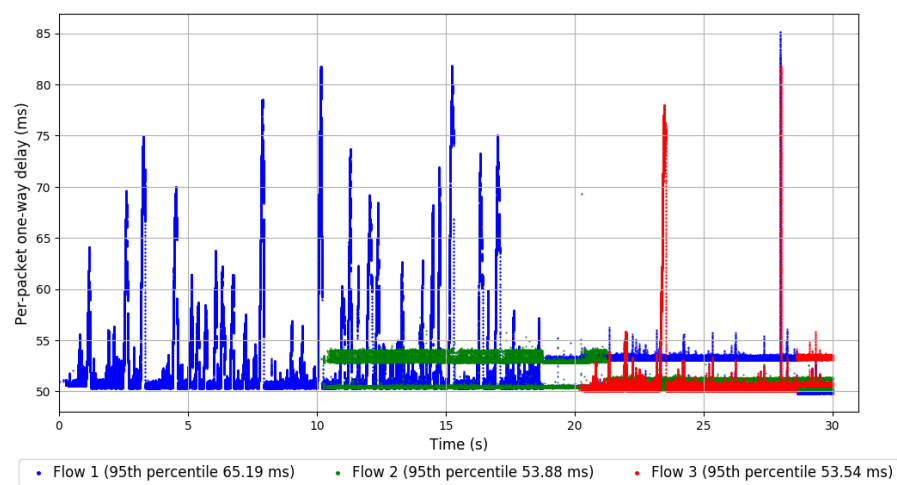
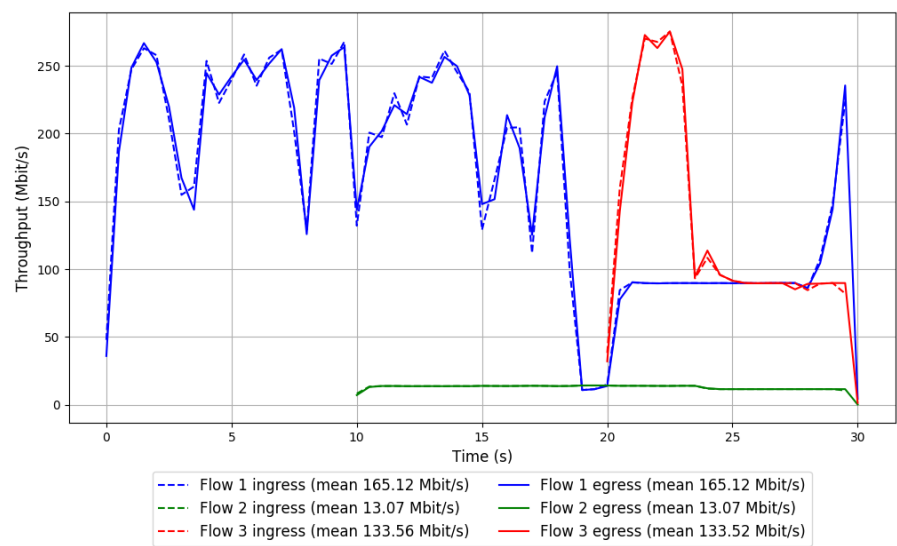
-- Flow 3:

Average throughput: 133.52 Mbit/s

95th percentile per-packet one-way delay: 53.539 ms

Loss rate: 0.00%

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-14 10:52:43

End at: 2018-03-14 10:53:13

Below is generated by plot.py at 2018-03-14 16:43:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.74 Mbit/s

95th percentile per-packet one-way delay: 57.276 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 28.66 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.84 Mbit/s

95th percentile per-packet one-way delay: 67.227 ms

Loss rate: 0.00%

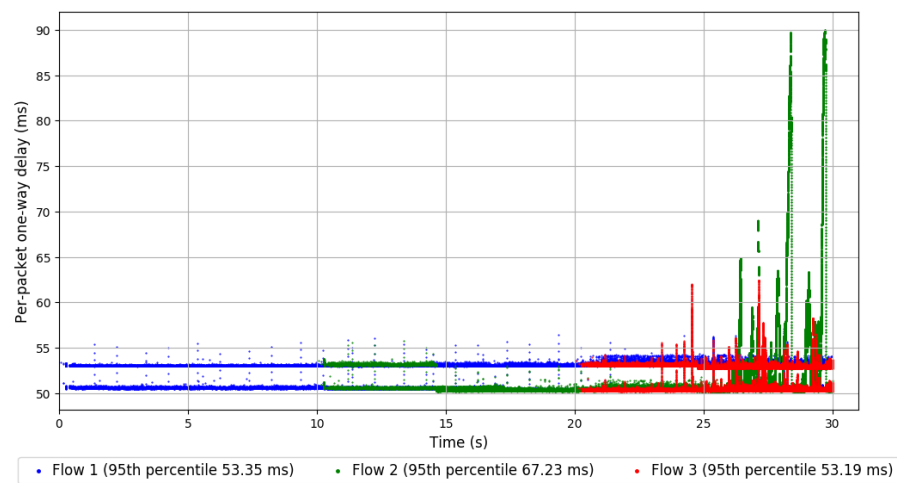
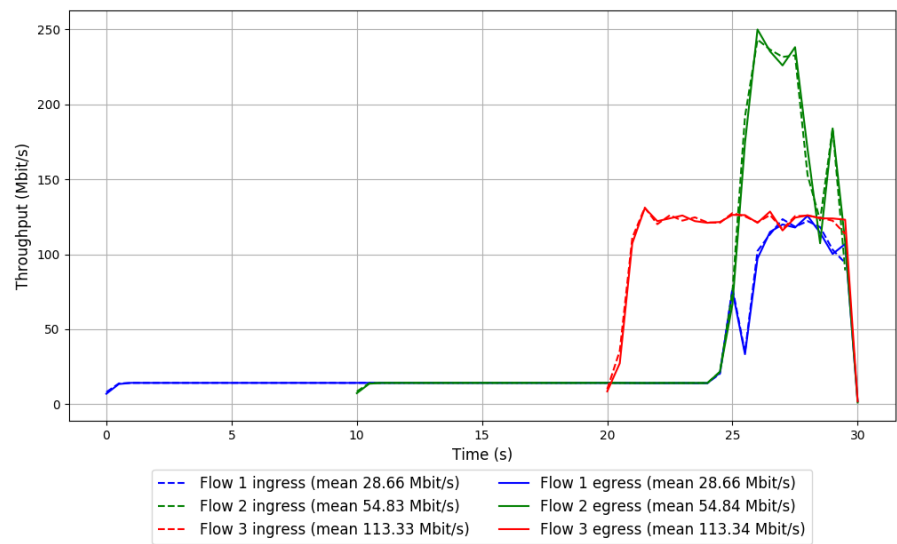
-- Flow 3:

Average throughput: 113.34 Mbit/s

95th percentile per-packet one-way delay: 53.193 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-14 11:09:51

End at: 2018-03-14 11:10:21

Below is generated by plot.py at 2018-03-14 16:43:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 211.58 Mbit/s

95th percentile per-packet one-way delay: 57.987 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 124.73 Mbit/s

95th percentile per-packet one-way delay: 58.657 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 25.66 Mbit/s

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

Loss rate: 0.00%

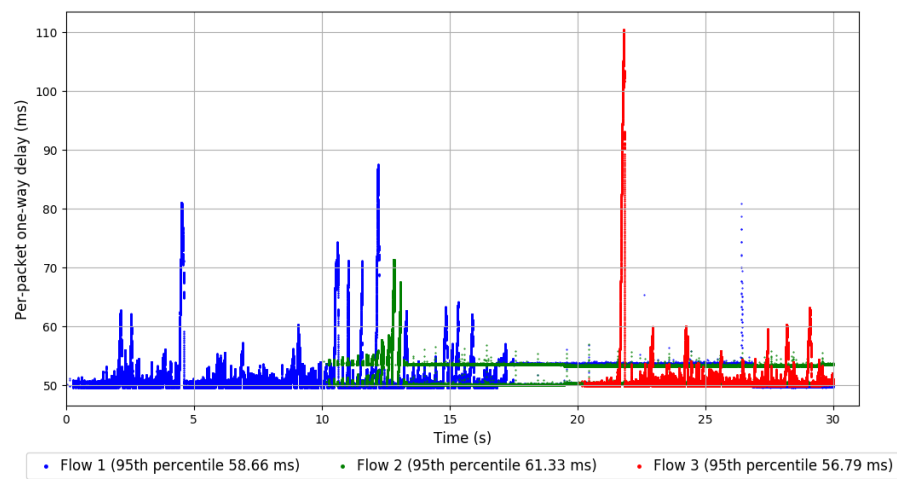
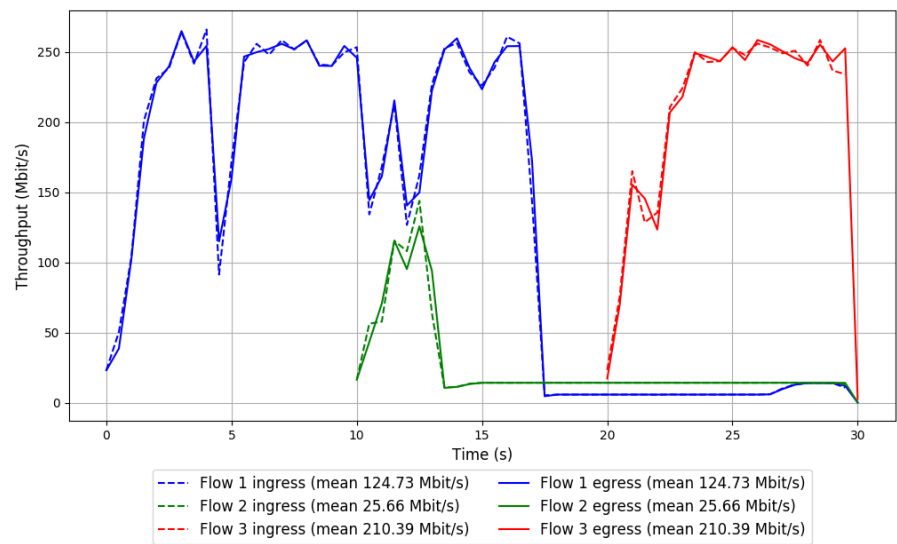
-- Flow 3:

Average throughput: 210.39 Mbit/s

95th percentile per-packet one-way delay: 56.791 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-14 11:27:14

End at: 2018-03-14 11:27:44

Below is generated by plot.py at 2018-03-14 16:43:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.89 Mbit/s

95th percentile per-packet one-way delay: 61.340 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 138.34 Mbit/s

95th percentile per-packet one-way delay: 61.743 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.22 Mbit/s

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

Loss rate: 0.00%

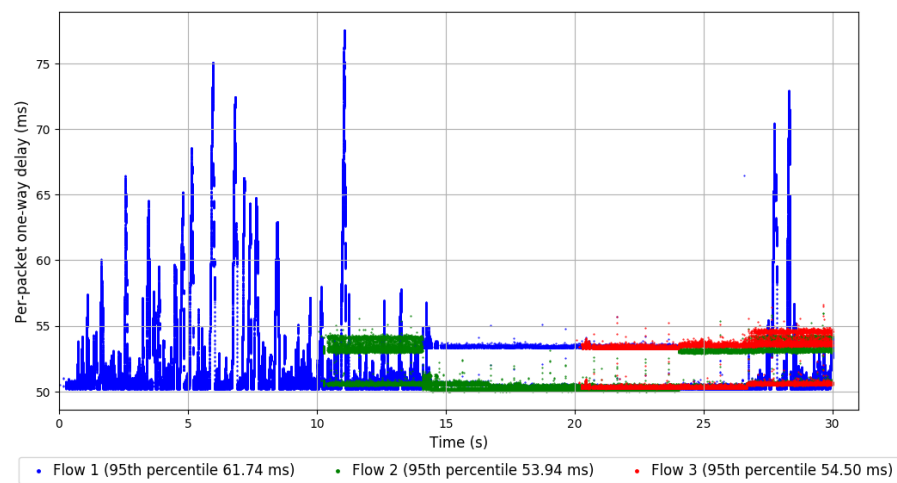
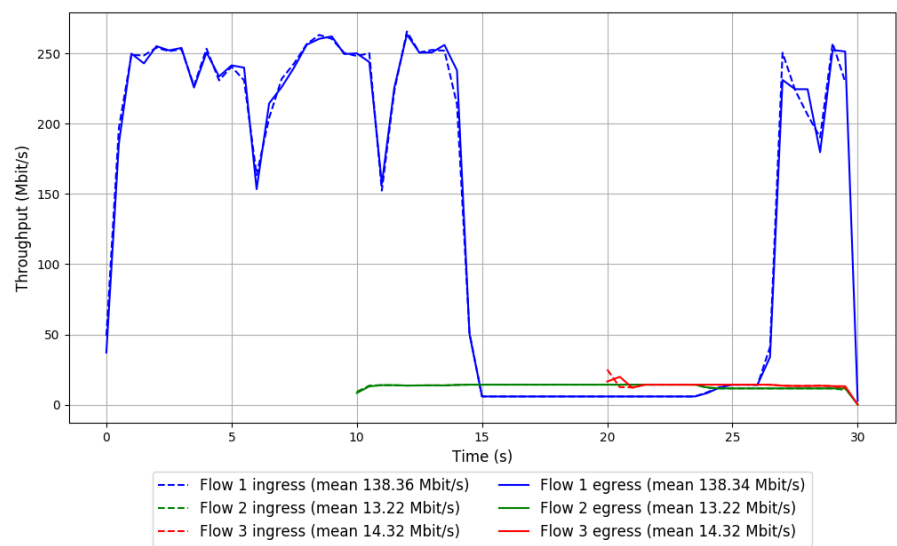
-- Flow 3:

Average throughput: 14.32 Mbit/s

95th percentile per-packet one-way delay: 54.503 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-14 11:44:18

End at: 2018-03-14 11:44:48

Below is generated by plot.py at 2018-03-14 16:43:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 250.86 Mbit/s

95th percentile per-packet one-way delay: 70.101 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 86.90 Mbit/s

95th percentile per-packet one-way delay: 57.240 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 170.37 Mbit/s

95th percentile per-packet one-way delay: 70.686 ms

Loss rate: 0.00%

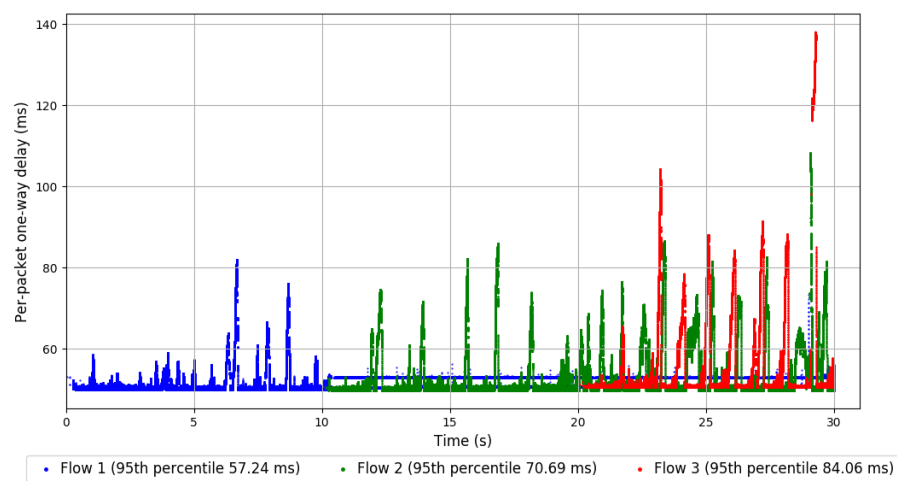
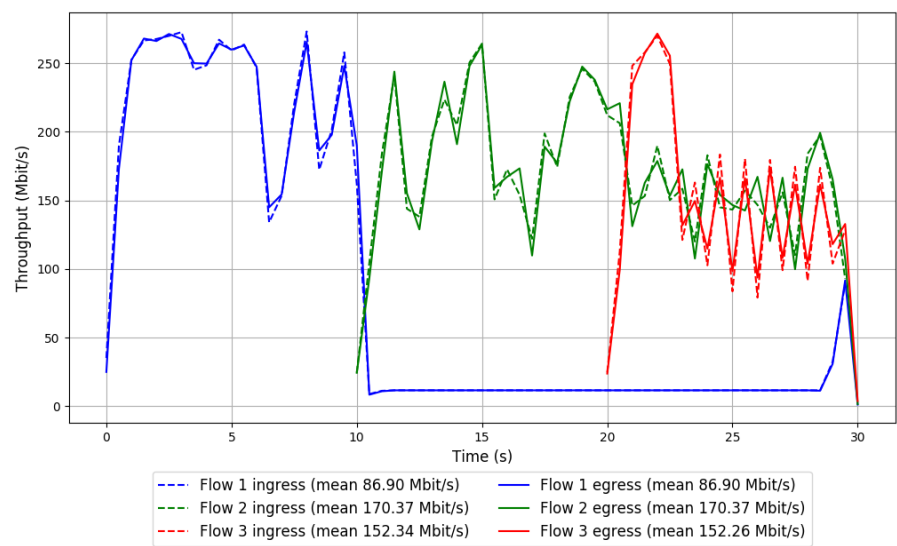
-- Flow 3:

Average throughput: 152.26 Mbit/s

95th percentile per-packet one-way delay: 84.063 ms

Loss rate: 0.03%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-14 12:01:39

End at: 2018-03-14 12:02:09

Below is generated by plot.py at 2018-03-14 16:45:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 222.10 Mbit/s

95th percentile per-packet one-way delay: 68.523 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 170.22 Mbit/s

95th percentile per-packet one-way delay: 68.784 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 36.49 Mbit/s

95th percentile per-packet one-way delay: 54.230 ms

Loss rate: 0.00%

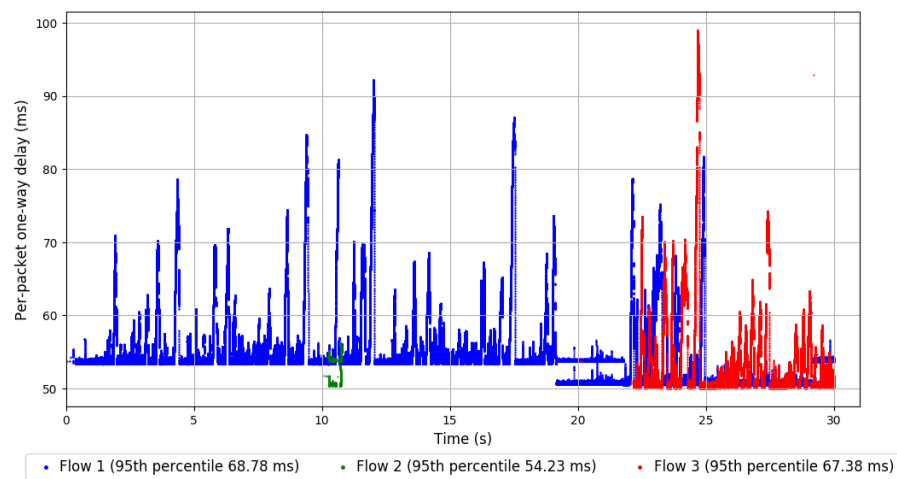
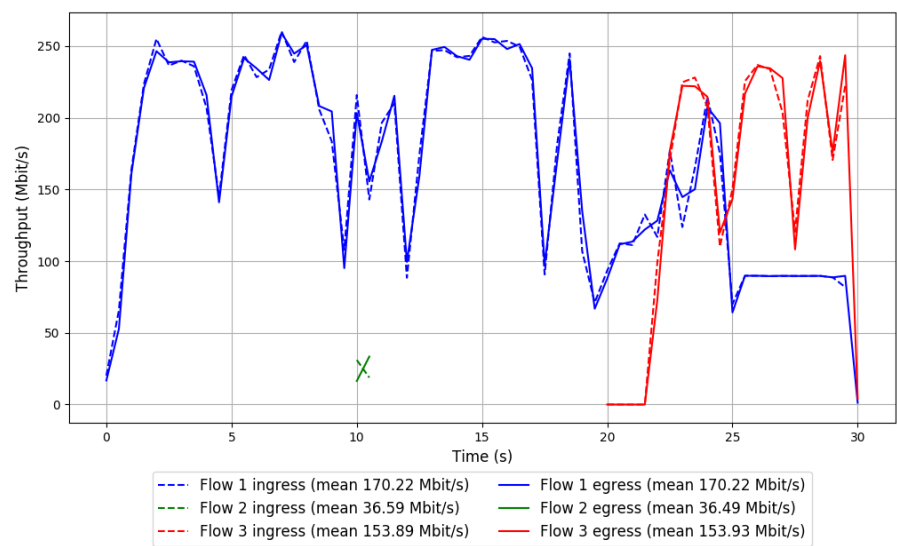
-- Flow 3:

Average throughput: 153.93 Mbit/s

95th percentile per-packet one-way delay: 67.377 ms

Loss rate: 0.00%

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

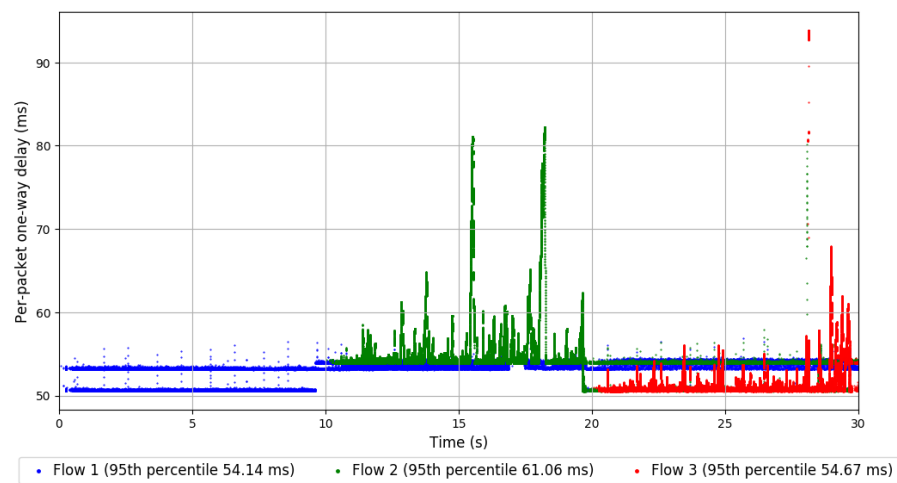
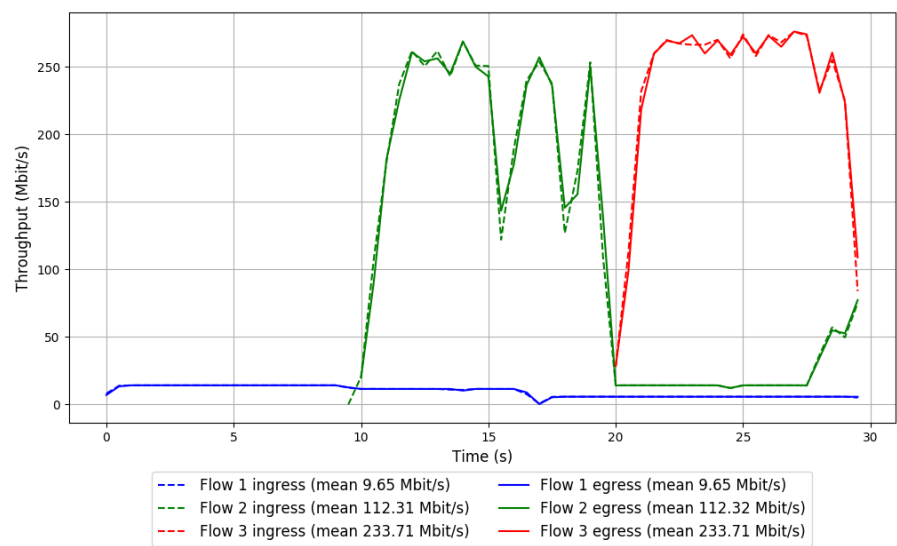


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-03-14 12:19:11
End at: 2018-03-14 12:19:41

# Below is generated by plot.py at 2018-03-14 16:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 162.07 Mbit/s
95th percentile per-packet one-way delay: 58.374 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 9.65 Mbit/s
95th percentile per-packet one-way delay: 54.144 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 112.32 Mbit/s
95th percentile per-packet one-way delay: 61.059 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 233.71 Mbit/s
95th percentile per-packet one-way delay: 54.670 ms
Loss rate: 0.00%
```


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

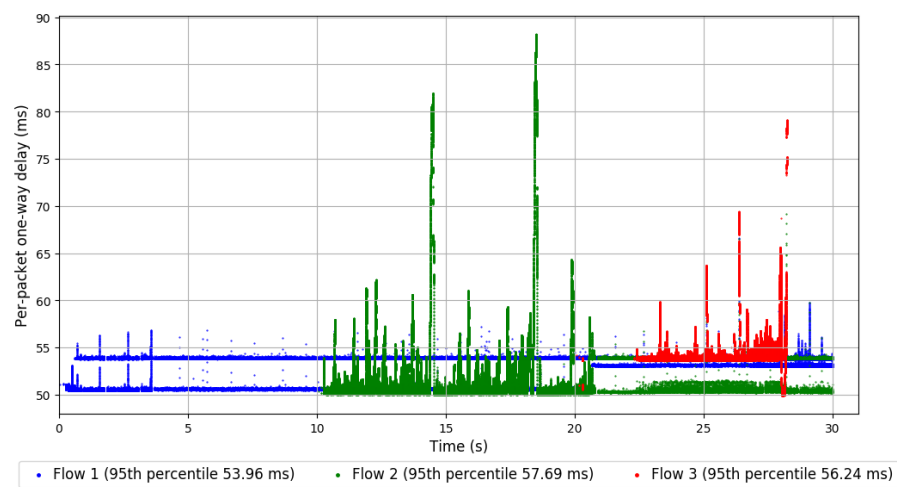
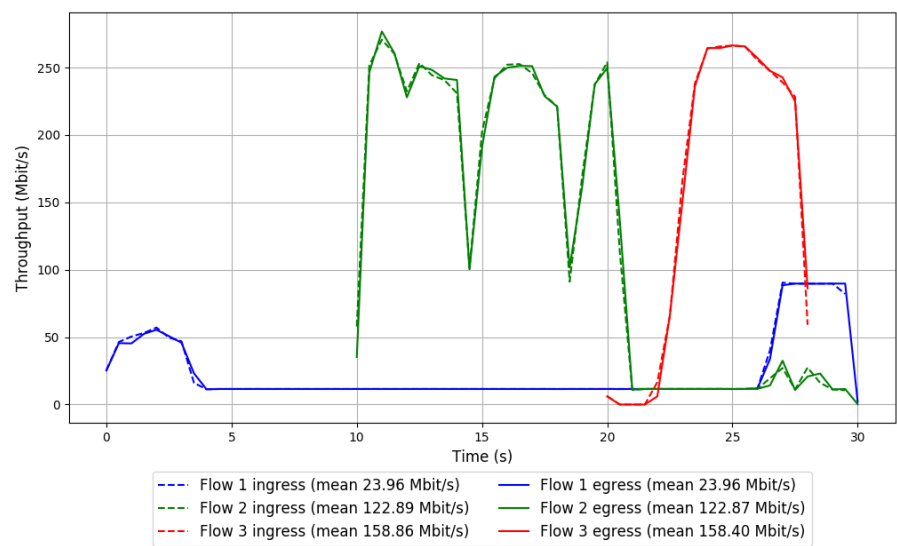


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-14 12:36:20
End at: 2018-03-14 12:36:50

# Below is generated by plot.py at 2018-03-14 16:45:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 148.89 Mbit/s
95th percentile per-packet one-way delay: 56.353 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 23.96 Mbit/s
95th percentile per-packet one-way delay: 53.964 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 122.87 Mbit/s
95th percentile per-packet one-way delay: 57.692 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 158.40 Mbit/s
95th percentile per-packet one-way delay: 56.236 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-14 09:59:19

End at: 2018-03-14 09:59:49

Below is generated by plot.py at 2018-03-14 16:45:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 156.37 Mbit/s

95th percentile per-packet one-way delay: 60.582 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 125.69 Mbit/s

95th percentile per-packet one-way delay: 61.000 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.29 Mbit/s

95th percentile per-packet one-way delay: 51.555 ms

Loss rate: 0.04%

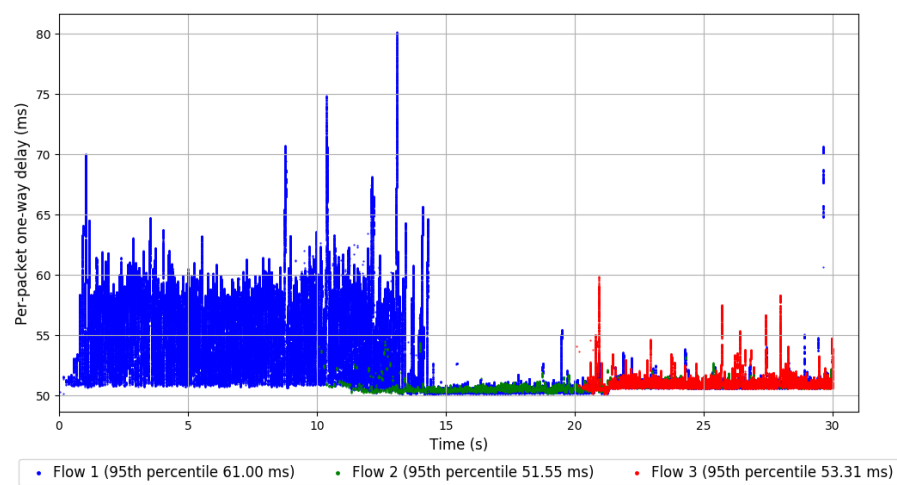
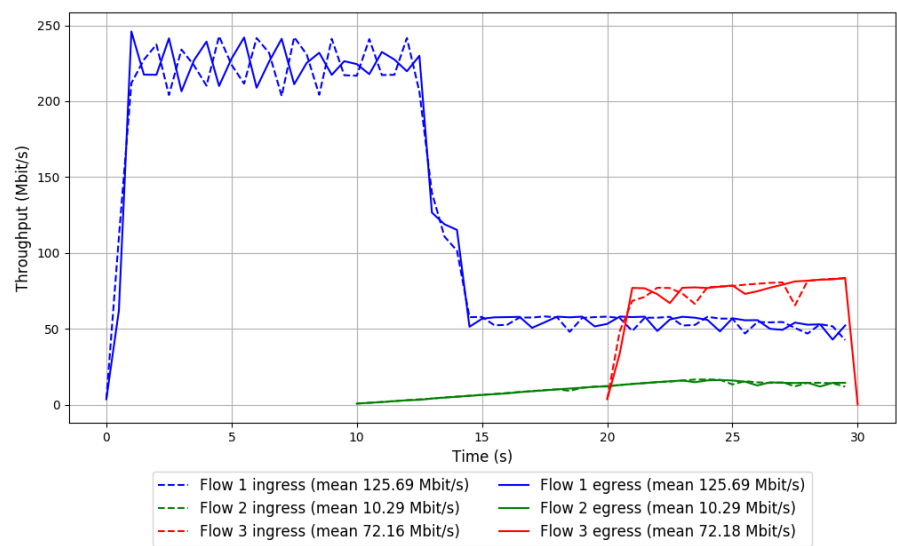
-- Flow 3:

Average throughput: 72.18 Mbit/s

95th percentile per-packet one-way delay: 53.309 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-14 10:16:18

End at: 2018-03-14 10:16:48

Below is generated by plot.py at 2018-03-14 16:45:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 199.72 Mbit/s

95th percentile per-packet one-way delay: 52.387 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 99.83 Mbit/s

95th percentile per-packet one-way delay: 52.210 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 147.09 Mbit/s

95th percentile per-packet one-way delay: 52.536 ms

Loss rate: 0.00%

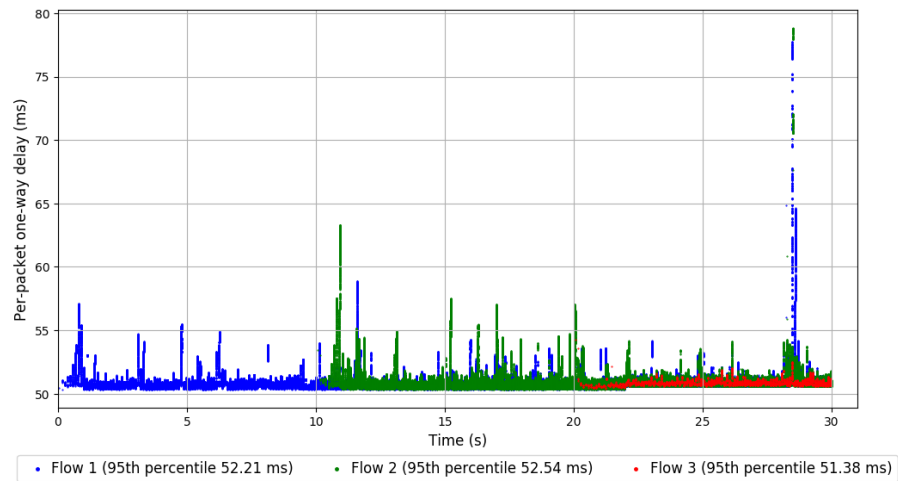
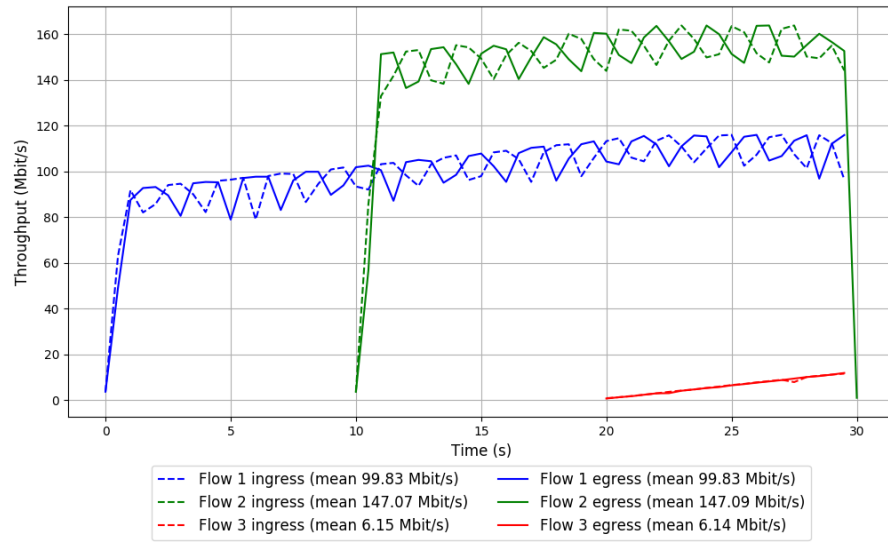
-- Flow 3:

Average throughput: 6.14 Mbit/s

95th percentile per-packet one-way delay: 51.376 ms

Loss rate: 0.12%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-14 10:33:57

End at: 2018-03-14 10:34:27

Below is generated by plot.py at 2018-03-14 16:46:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 252.01 Mbit/s

95th percentile per-packet one-way delay: 62.481 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 199.52 Mbit/s

95th percentile per-packet one-way delay: 63.374 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 71.78 Mbit/s

95th percentile per-packet one-way delay: 56.442 ms

Loss rate: 0.00%

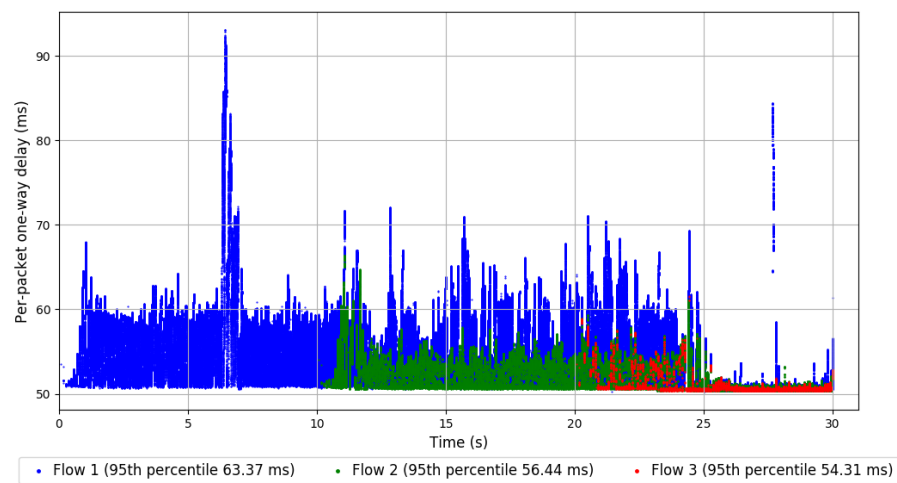
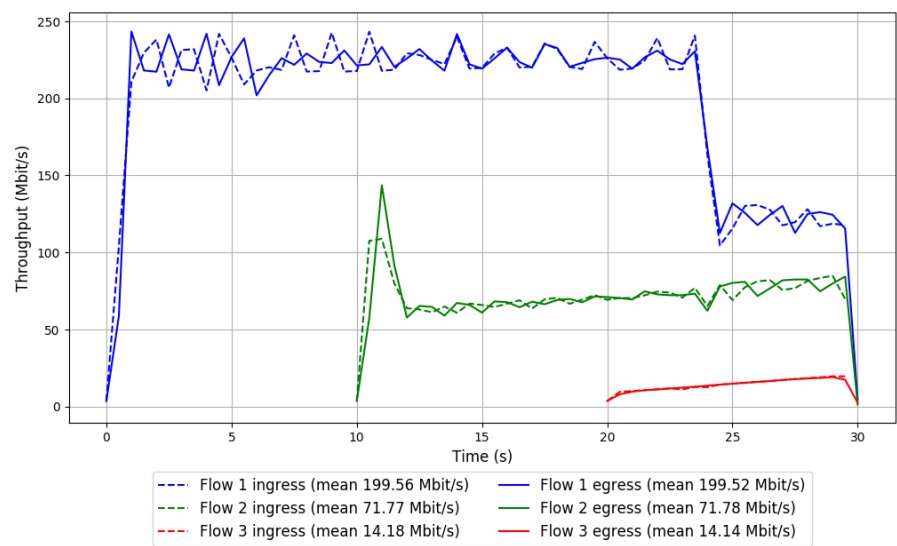
-- Flow 3:

Average throughput: 14.14 Mbit/s

95th percentile per-packet one-way delay: 54.315 ms

Loss rate: 0.35%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-14 10:51:10

End at: 2018-03-14 10:51:40

Below is generated by plot.py at 2018-03-14 16:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 287.44 Mbit/s

95th percentile per-packet one-way delay: 51.820 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 184.91 Mbit/s

95th percentile per-packet one-way delay: 52.167 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 151.13 Mbit/s

95th percentile per-packet one-way delay: 51.461 ms

Loss rate: 0.00%

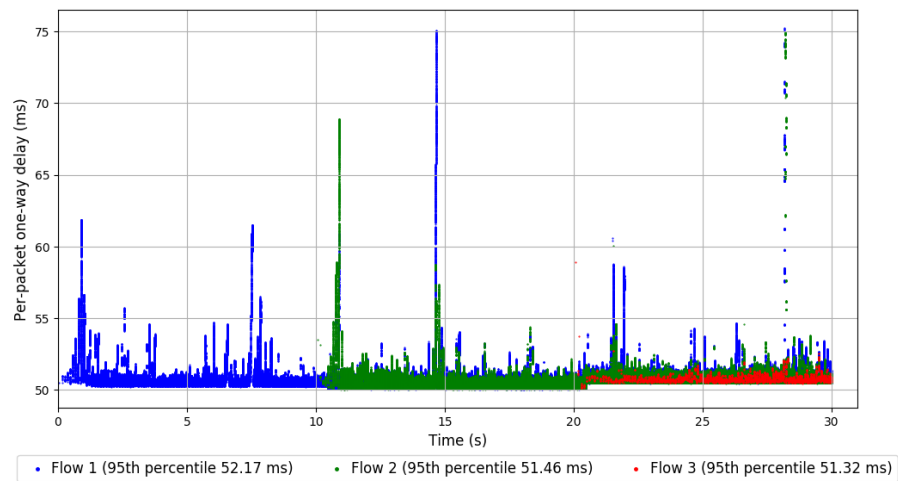
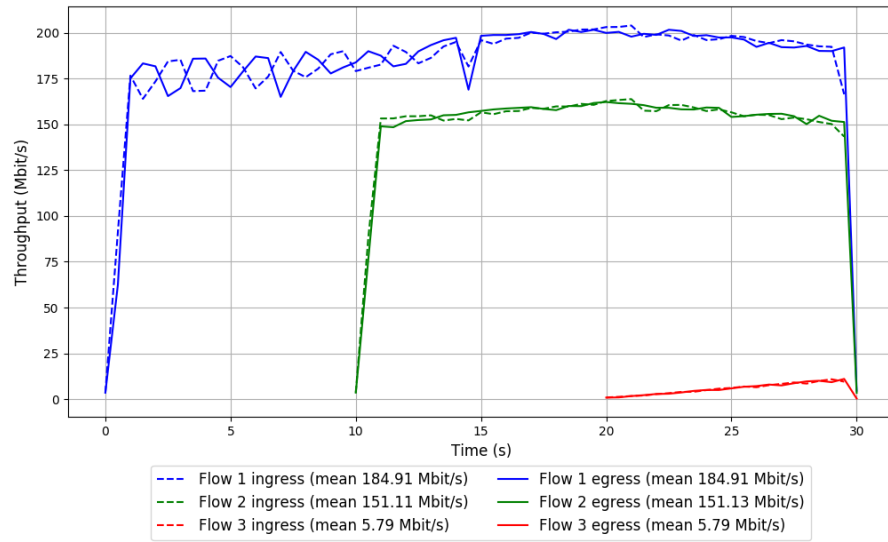
-- Flow 3:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 51.320 ms

Loss rate: 0.06%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-14 11:08:21

End at: 2018-03-14 11:08:51

Below is generated by plot.py at 2018-03-14 16:48:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 199.83 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 139.29 Mbit/s

95th percentile per-packet one-way delay: 52.886 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.59 Mbit/s

95th percentile per-packet one-way delay: 54.299 ms

Loss rate: 0.00%

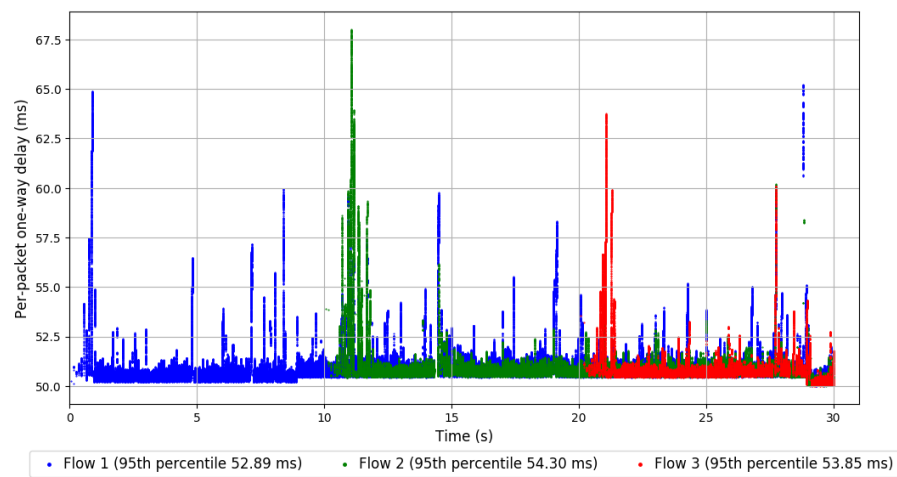
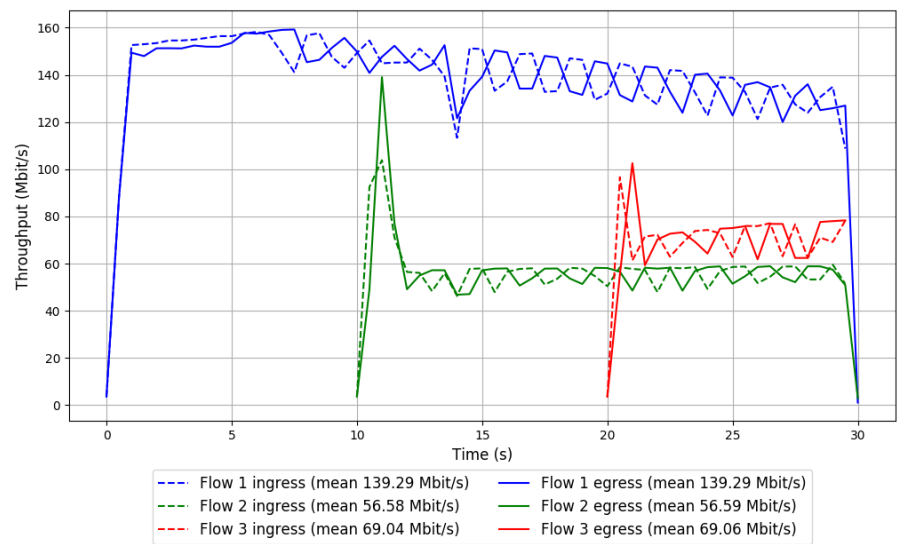
-- Flow 3:

Average throughput: 69.06 Mbit/s

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

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-14 11:25:36

End at: 2018-03-14 11:26:06

Below is generated by plot.py at 2018-03-14 16:51:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 369.93 Mbit/s

95th percentile per-packet one-way delay: 63.593 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 219.70 Mbit/s

95th percentile per-packet one-way delay: 62.471 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 223.06 Mbit/s

95th percentile per-packet one-way delay: 65.193 ms

Loss rate: 0.00%

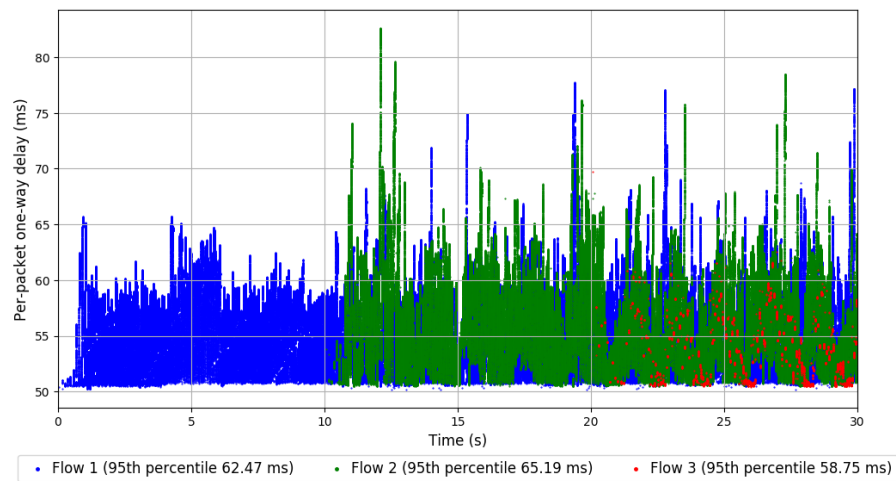
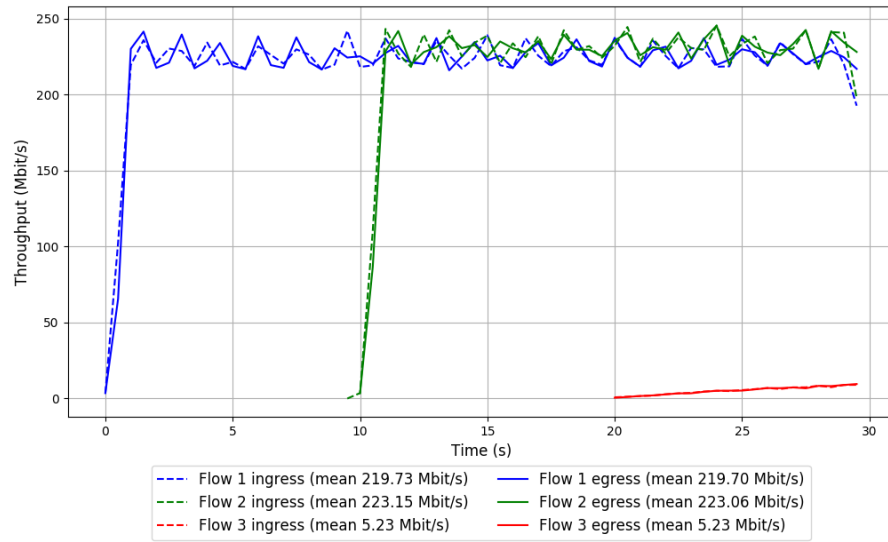
-- Flow 3:

Average throughput: 5.23 Mbit/s

95th percentile per-packet one-way delay: 58.754 ms

Loss rate: 0.12%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-14 11:42:47

End at: 2018-03-14 11:43:17

Below is generated by plot.py at 2018-03-14 16:51:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 233.45 Mbit/s

95th percentile per-packet one-way delay: 60.577 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 224.32 Mbit/s

95th percentile per-packet one-way delay: 60.669 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 11.25 Mbit/s

95th percentile per-packet one-way delay: 53.590 ms

Loss rate: 0.05%

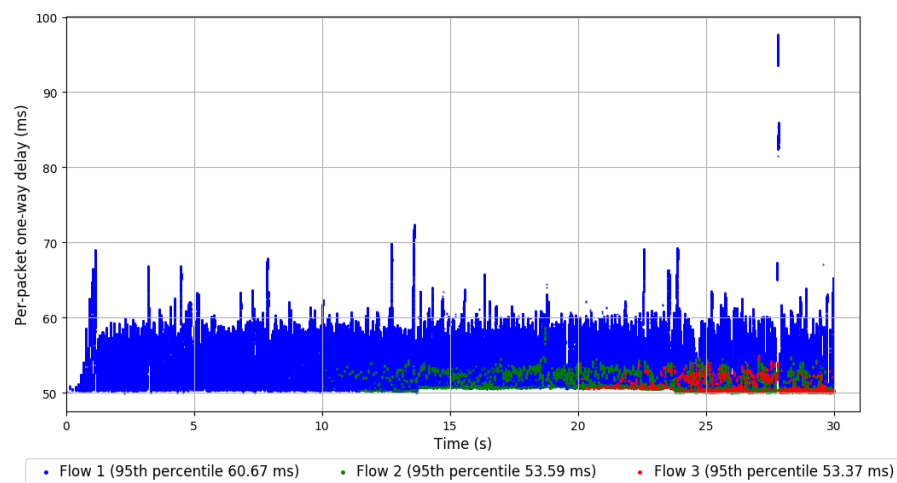
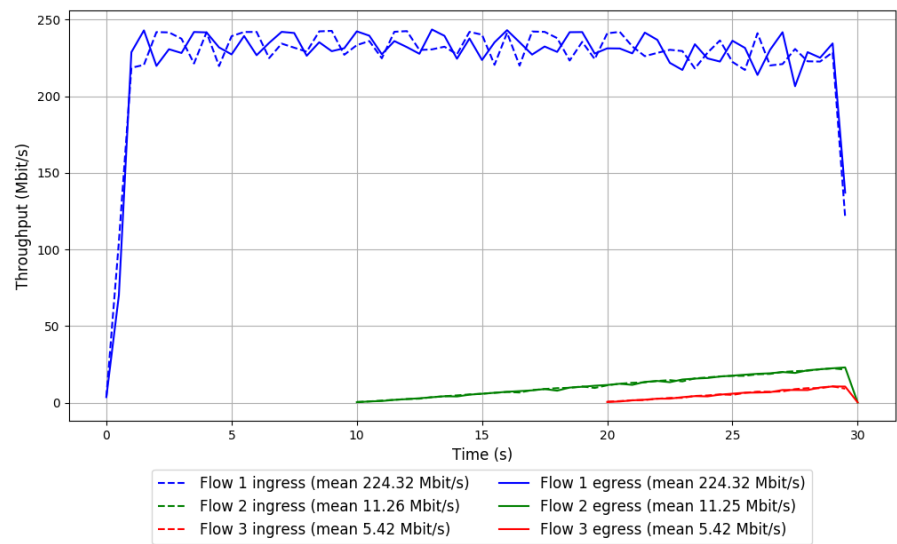
-- Flow 3:

Average throughput: 5.42 Mbit/s

95th percentile per-packet one-way delay: 53.374 ms

Loss rate: 0.18%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-14 12:00:10

End at: 2018-03-14 12:00:40

Below is generated by plot.py at 2018-03-14 16:51:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 195.12 Mbit/s

95th percentile per-packet one-way delay: 53.157 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 118.39 Mbit/s

95th percentile per-packet one-way delay: 52.956 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.83 Mbit/s

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

Loss rate: 0.00%

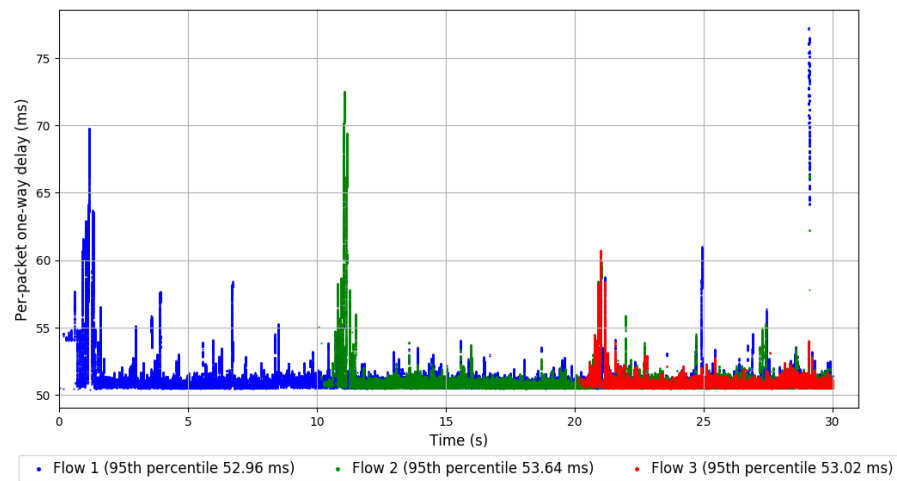
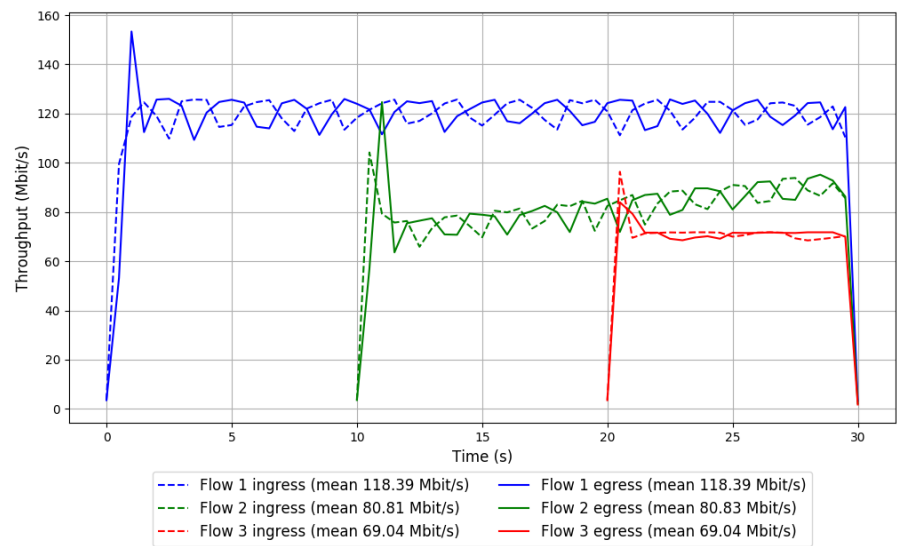
-- Flow 3:

Average throughput: 69.04 Mbit/s

95th percentile per-packet one-way delay: 53.016 ms

Loss rate: 0.00%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-14 12:17:32

End at: 2018-03-14 12:18:02

Below is generated by plot.py at 2018-03-14 16:53:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.41 Mbit/s

95th percentile per-packet one-way delay: 65.480 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 219.14 Mbit/s

95th percentile per-packet one-way delay: 64.887 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 220.53 Mbit/s

95th percentile per-packet one-way delay: 66.331 ms

Loss rate: 0.00%

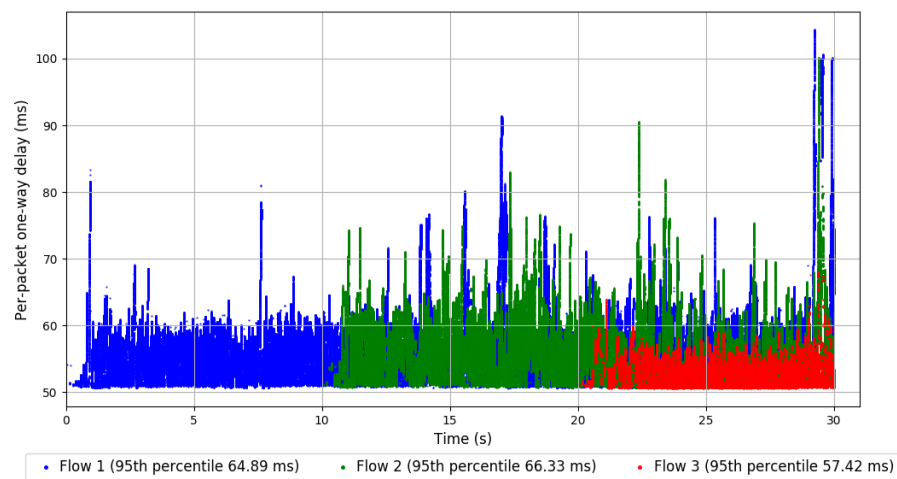
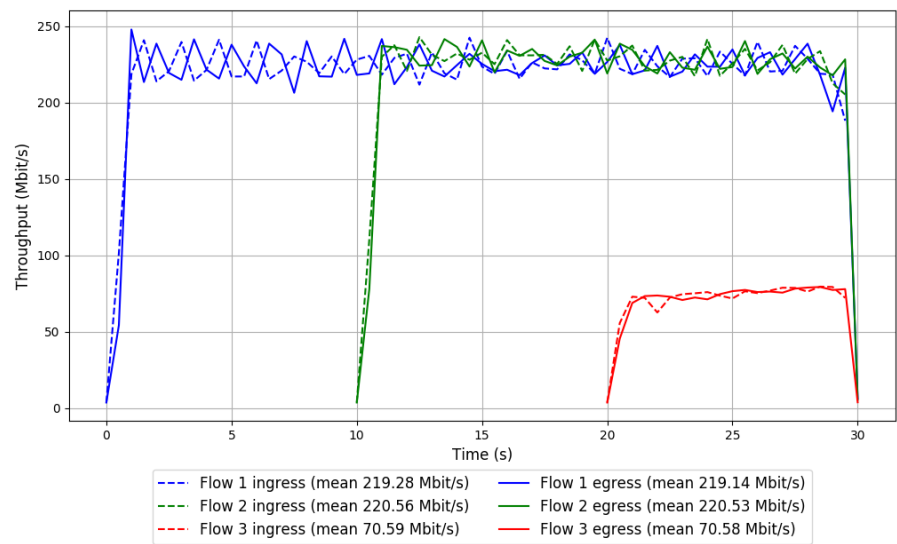
-- Flow 3:

Average throughput: 70.58 Mbit/s

95th percentile per-packet one-way delay: 57.418 ms

Loss rate: 0.00%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-14 12:34:51

End at: 2018-03-14 12:35:21

Below is generated by plot.py at 2018-03-14 16:53:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 202.67 Mbit/s

95th percentile per-packet one-way delay: 55.266 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 147.83 Mbit/s

95th percentile per-packet one-way delay: 55.507 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.23 Mbit/s

95th percentile per-packet one-way delay: 54.791 ms

Loss rate: 0.00%

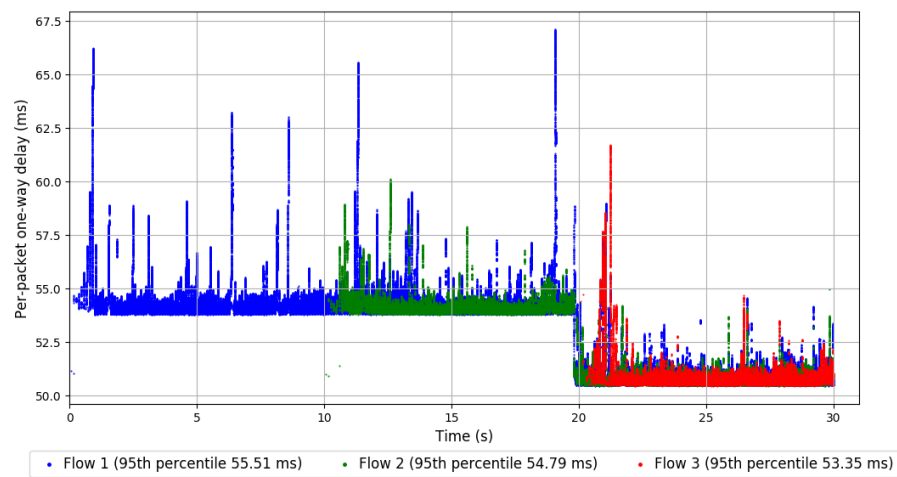
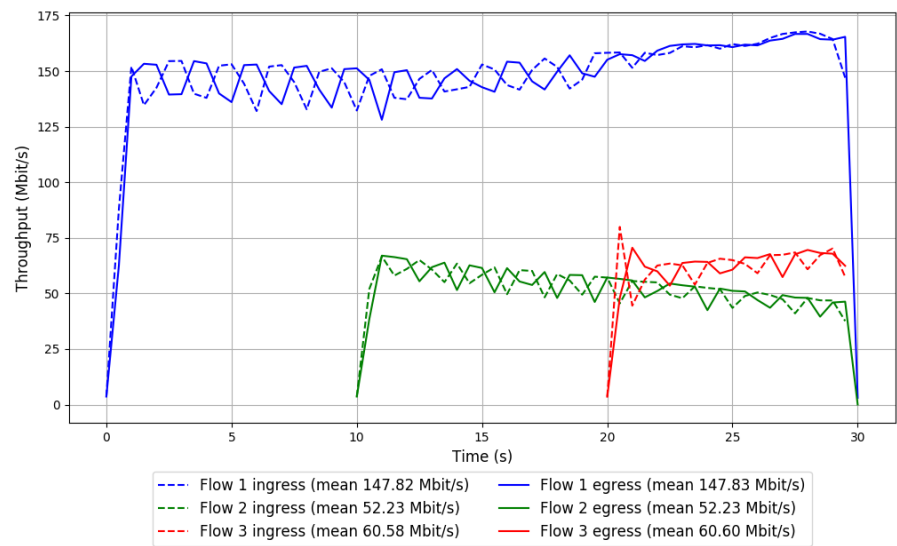
-- Flow 3:

Average throughput: 60.60 Mbit/s

95th percentile per-packet one-way delay: 53.351 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

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

End at: 2018-03-14 10:08:38

Below is generated by plot.py at 2018-03-14 16:53:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.06 Mbit/s

95th percentile per-packet one-way delay: 153.743 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 172.77 Mbit/s

95th percentile per-packet one-way delay: 143.900 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 139.83 Mbit/s

95th percentile per-packet one-way delay: 172.254 ms

Loss rate: 0.00%

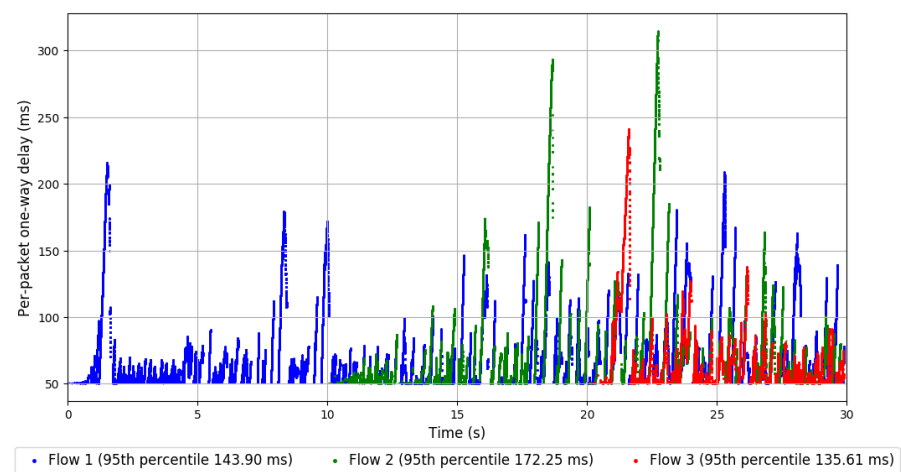
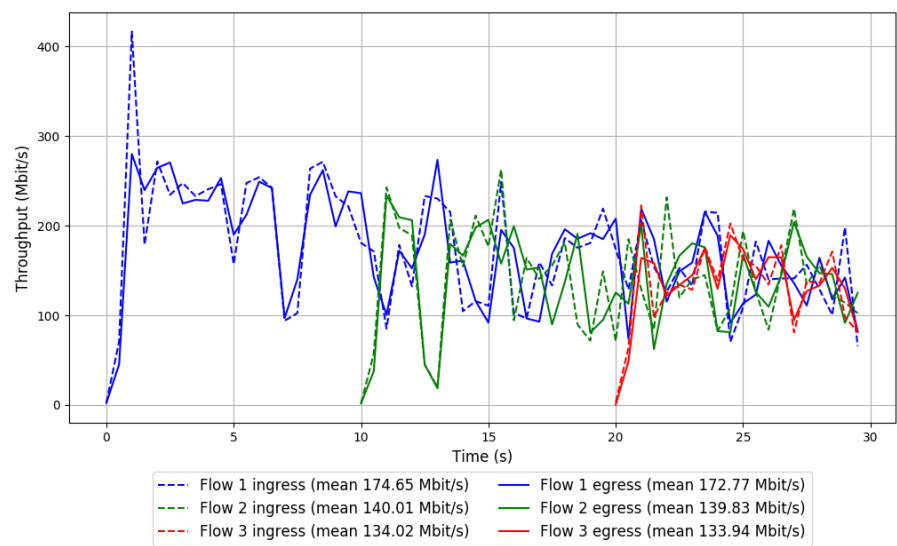
-- Flow 3:

Average throughput: 133.94 Mbit/s

95th percentile per-packet one-way delay: 135.610 ms

Loss rate: 0.00%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-14 10:25:29

End at: 2018-03-14 10:26:00

Below is generated by plot.py at 2018-03-14 16:55:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 351.34 Mbit/s

95th percentile per-packet one-way delay: 162.163 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 192.28 Mbit/s

95th percentile per-packet one-way delay: 125.044 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 154.24 Mbit/s

95th percentile per-packet one-way delay: 138.242 ms

Loss rate: 0.11%

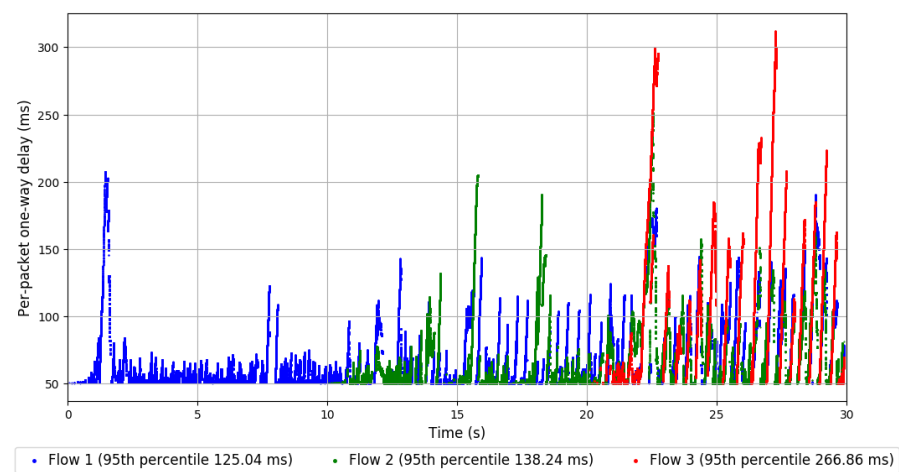
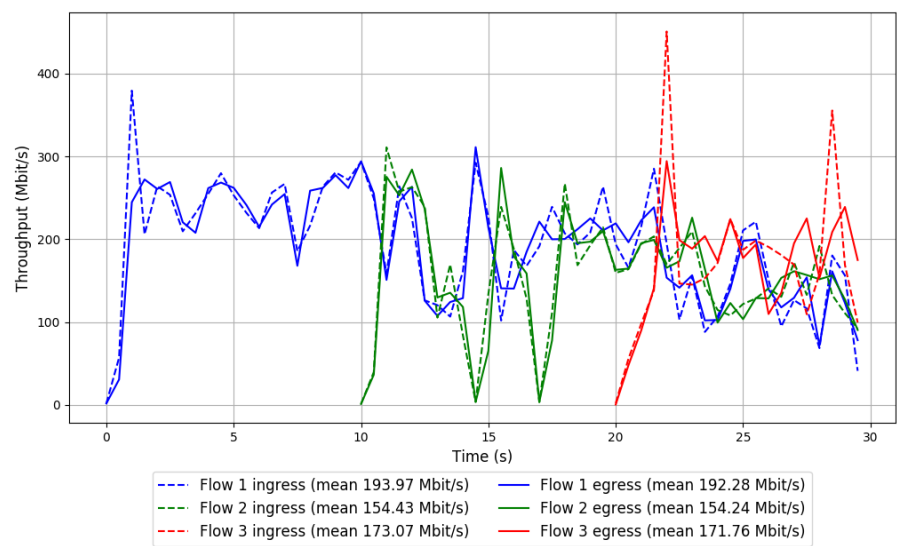
-- Flow 3:

Average throughput: 171.76 Mbit/s

95th percentile per-packet one-way delay: 266.861 ms

Loss rate: 0.83%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-14 10:43:02

End at: 2018-03-14 10:43:32

Below is generated by plot.py at 2018-03-14 16:56:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 355.31 Mbit/s

95th percentile per-packet one-way delay: 126.159 ms

Loss rate: 0.07%

-- Flow 1:

Average throughput: 194.66 Mbit/s

95th percentile per-packet one-way delay: 136.535 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 171.58 Mbit/s

95th percentile per-packet one-way delay: 112.853 ms

Loss rate: 0.00%

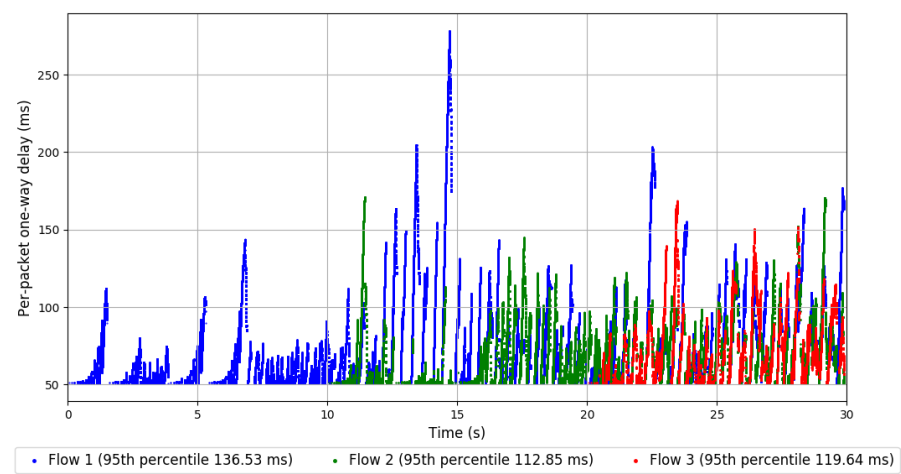
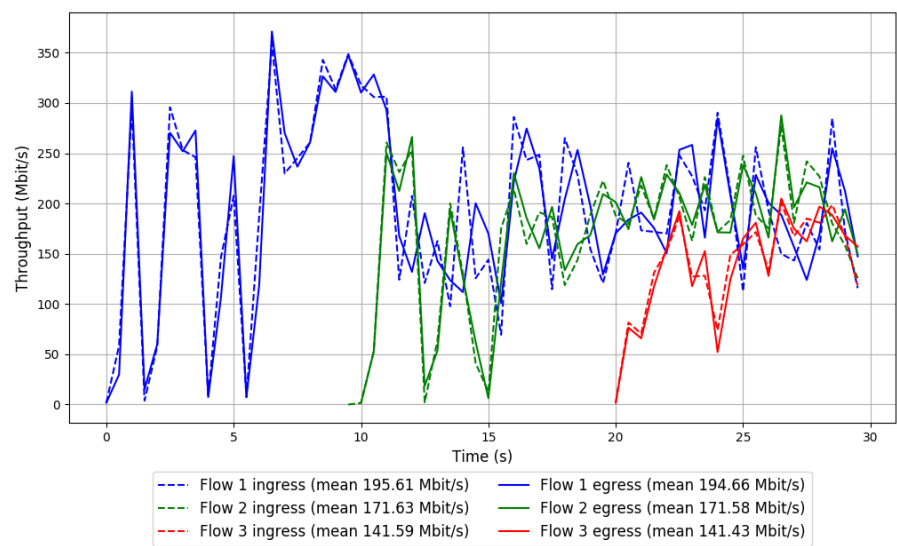
-- Flow 3:

Average throughput: 141.43 Mbit/s

95th percentile per-packet one-way delay: 119.637 ms

Loss rate: 0.11%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-03-14 11:00:07

End at: 2018-03-14 11:00:37

Below is generated by plot.py at 2018-03-14 16:57:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 367.70 Mbit/s

95th percentile per-packet one-way delay: 131.161 ms

Loss rate: 1.76%

-- Flow 1:

Average throughput: 209.83 Mbit/s

95th percentile per-packet one-way delay: 139.114 ms

Loss rate: 3.03%

-- Flow 2:

Average throughput: 150.97 Mbit/s

95th percentile per-packet one-way delay: 126.593 ms

Loss rate: 0.00%

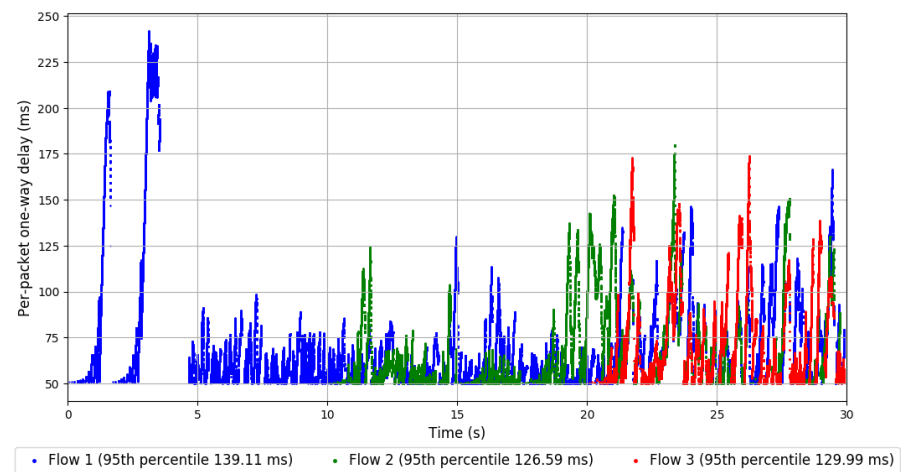
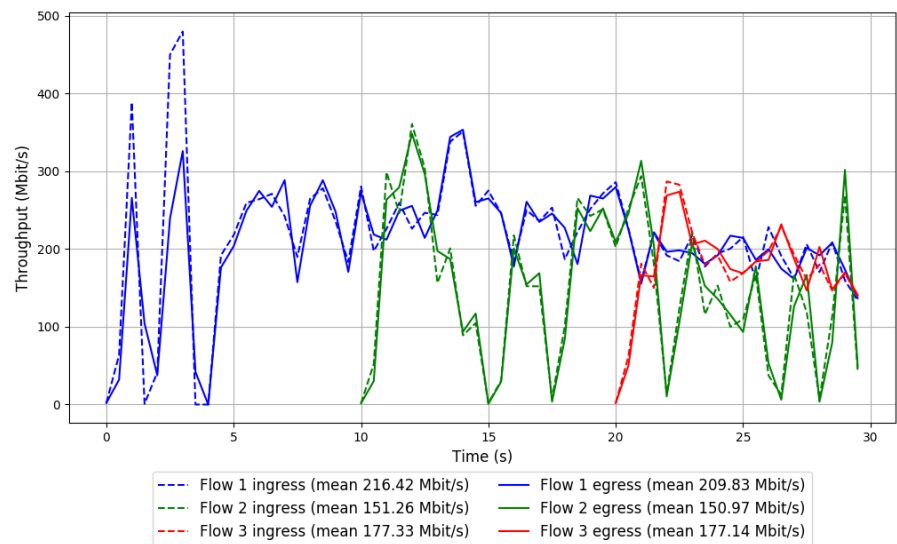
-- Flow 3:

Average throughput: 177.14 Mbit/s

95th percentile per-packet one-way delay: 129.986 ms

Loss rate: 0.05%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-14 11:17:27

End at: 2018-03-14 11:17:57

Below is generated by plot.py at 2018-03-14 16:57:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 308.70 Mbit/s

95th percentile per-packet one-way delay: 155.977 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 152.52 Mbit/s

95th percentile per-packet one-way delay: 170.694 ms

Loss rate: 1.34%

-- Flow 2:

Average throughput: 190.89 Mbit/s

95th percentile per-packet one-way delay: 139.593 ms

Loss rate: 0.98%

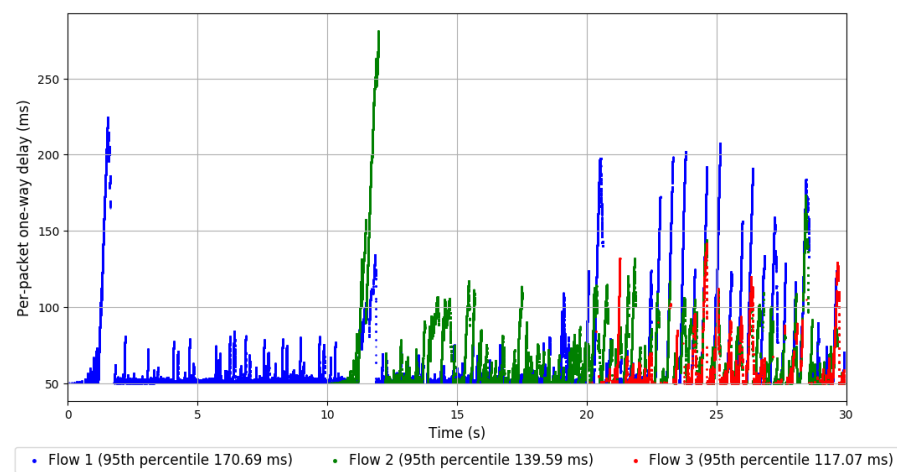
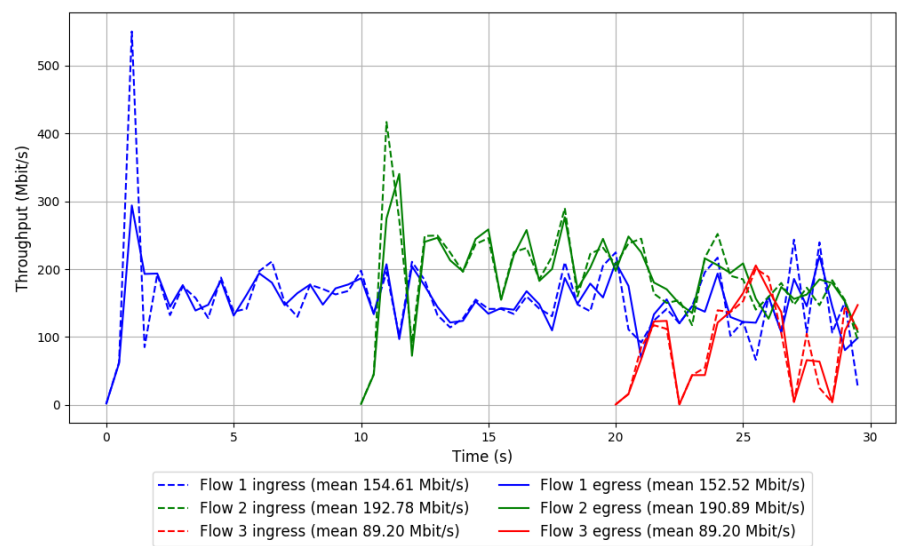
-- Flow 3:

Average throughput: 89.20 Mbit/s

95th percentile per-packet one-way delay: 117.069 ms

Loss rate: 0.00%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-14 11:34:35

End at: 2018-03-14 11:35:05

Below is generated by plot.py at 2018-03-14 16:57:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.33 Mbit/s

95th percentile per-packet one-way delay: 170.006 ms

Loss rate: 0.29%

-- Flow 1:

Average throughput: 186.56 Mbit/s

95th percentile per-packet one-way delay: 126.366 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 165.97 Mbit/s

95th percentile per-packet one-way delay: 201.453 ms

Loss rate: 0.47%

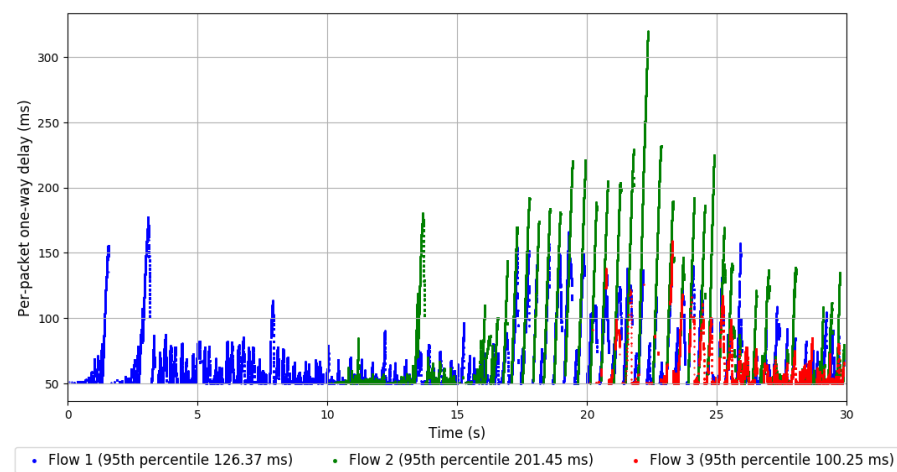
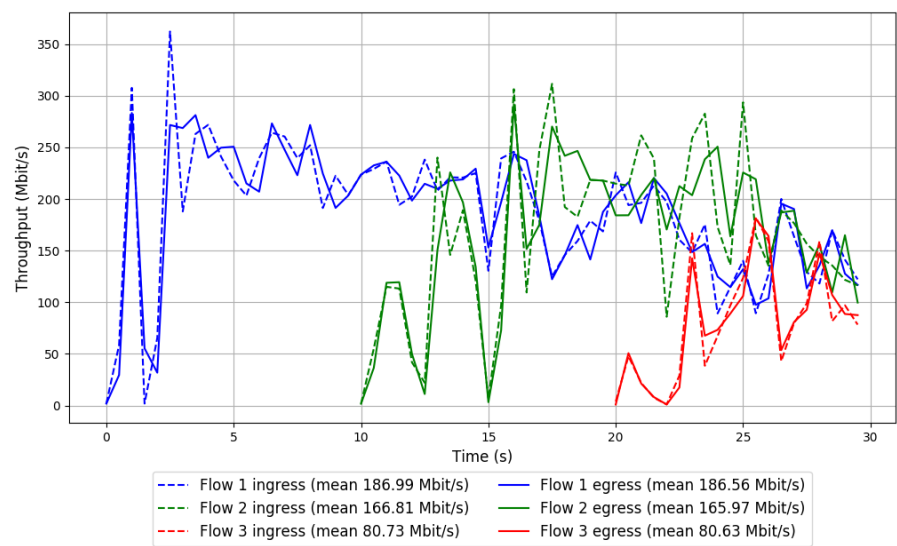
-- Flow 3:

Average throughput: 80.63 Mbit/s

95th percentile per-packet one-way delay: 100.250 ms

Loss rate: 0.16%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-14 11:51:53

End at: 2018-03-14 11:52:23

Below is generated by plot.py at 2018-03-14 17:00:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.62 Mbit/s

95th percentile per-packet one-way delay: 180.796 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 205.91 Mbit/s

95th percentile per-packet one-way delay: 198.108 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 176.79 Mbit/s

95th percentile per-packet one-way delay: 124.651 ms

Loss rate: 0.01%

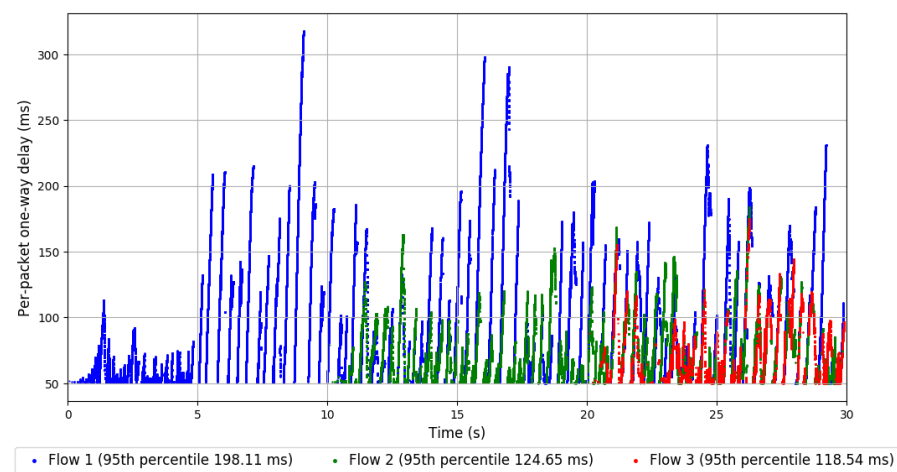
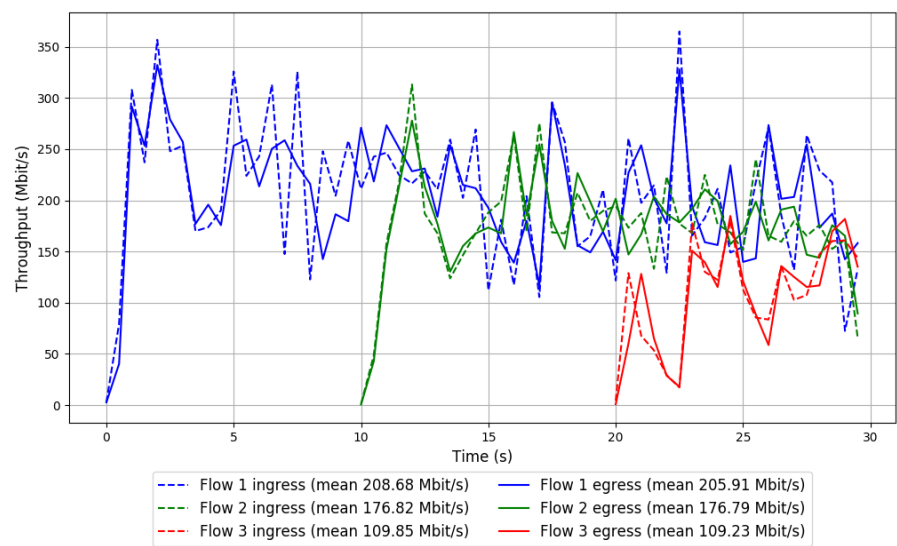
-- Flow 3:

Average throughput: 109.23 Mbit/s

95th percentile per-packet one-way delay: 118.539 ms

Loss rate: 0.54%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-14 12:09:18

End at: 2018-03-14 12:09:48

Below is generated by plot.py at 2018-03-14 17:00:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 299.83 Mbit/s

95th percentile per-packet one-way delay: 203.846 ms

Loss rate: 0.71%

-- Flow 1:

Average throughput: 189.72 Mbit/s

95th percentile per-packet one-way delay: 207.842 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 135.29 Mbit/s

95th percentile per-packet one-way delay: 198.623 ms

Loss rate: 0.38%

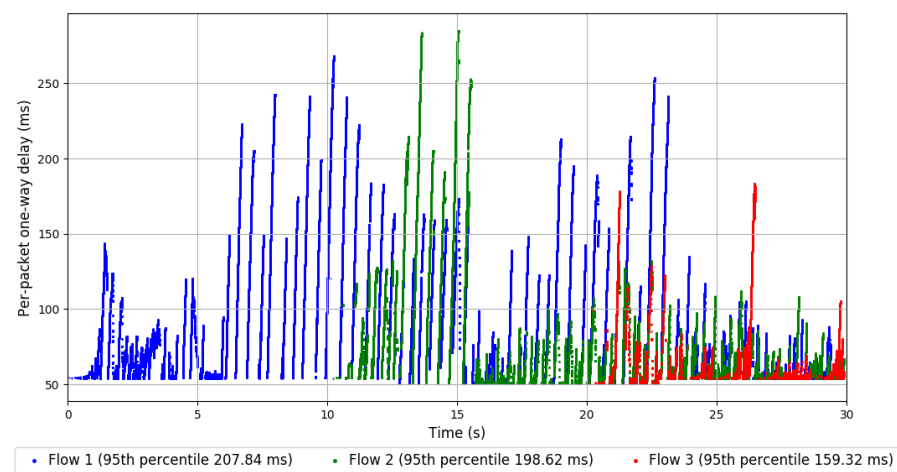
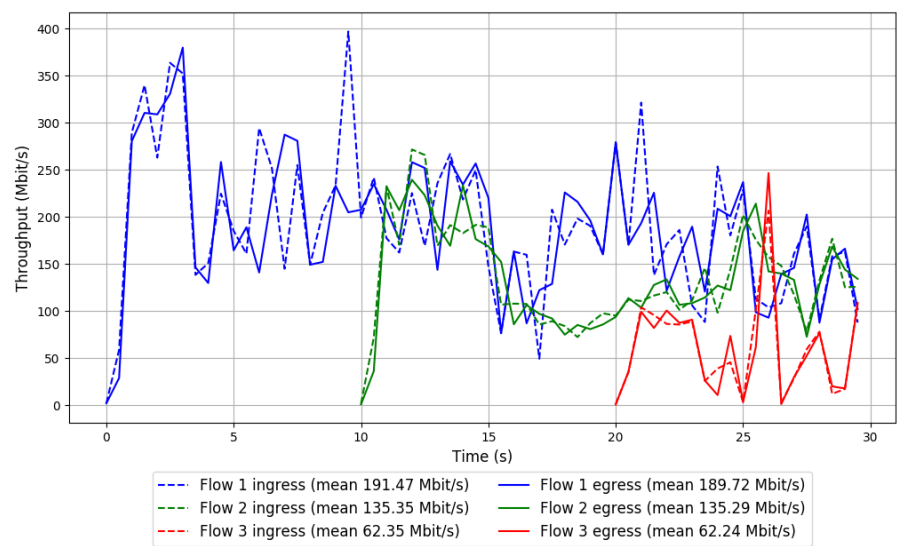
-- Flow 3:

Average throughput: 62.24 Mbit/s

95th percentile per-packet one-way delay: 159.322 ms

Loss rate: 0.18%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-14 12:26:35

End at: 2018-03-14 12:27:05

Below is generated by plot.py at 2018-03-14 17:01:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 338.14 Mbit/s

95th percentile per-packet one-way delay: 119.560 ms

Loss rate: 0.65%

-- Flow 1:

Average throughput: 189.78 Mbit/s

95th percentile per-packet one-way delay: 129.394 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 159.48 Mbit/s

95th percentile per-packet one-way delay: 112.709 ms

Loss rate: 0.09%

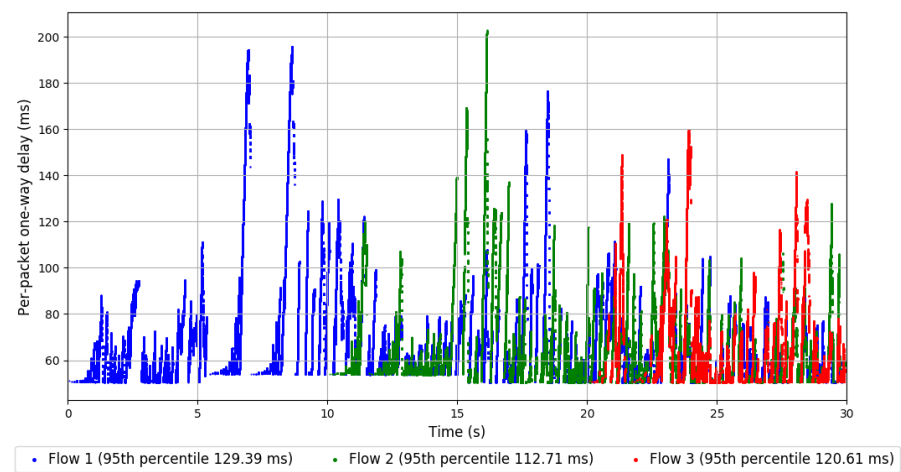
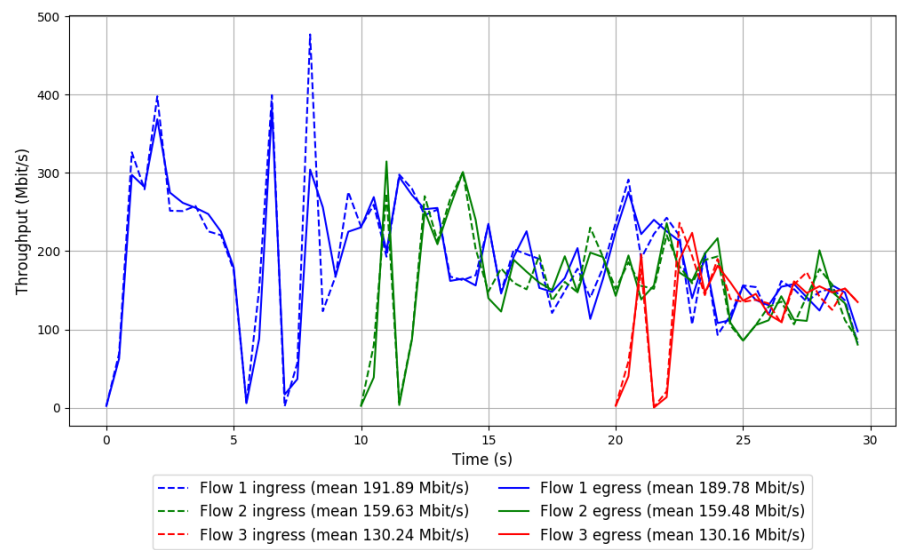
-- Flow 3:

Average throughput: 130.16 Mbit/s

95th percentile per-packet one-way delay: 120.615 ms

Loss rate: 0.01%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-14 12:43:50

End at: 2018-03-14 12:44:20

Below is generated by plot.py at 2018-03-14 17:02:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 295.74 Mbit/s

95th percentile per-packet one-way delay: 127.524 ms

Loss rate: 0.36%

-- Flow 1:

Average throughput: 171.82 Mbit/s

95th percentile per-packet one-way delay: 111.208 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 136.14 Mbit/s

95th percentile per-packet one-way delay: 221.725 ms

Loss rate: 0.45%

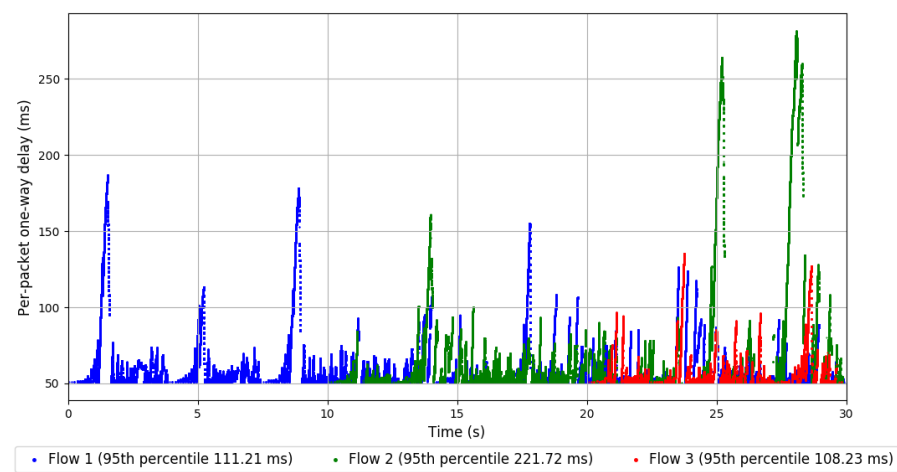
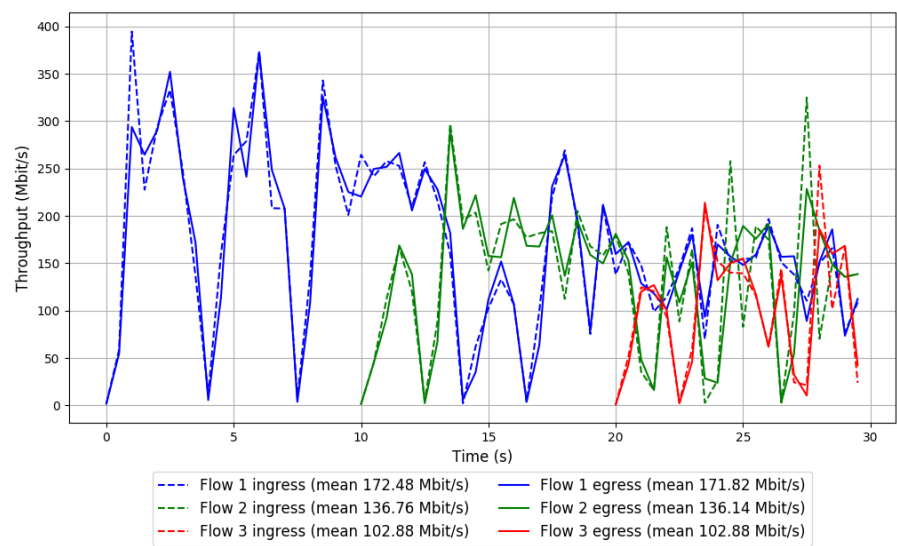
-- Flow 3:

Average throughput: 102.88 Mbit/s

95th percentile per-packet one-way delay: 108.226 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-03-14 10:12:11

End at: 2018-03-14 10:12:41

Below is generated by plot.py at 2018-03-14 17:02:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.36 Mbit/s

95th percentile per-packet one-way delay: 53.702 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 82.33 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 81.70 Mbit/s

95th percentile per-packet one-way delay: 53.667 ms

Loss rate: 0.00%

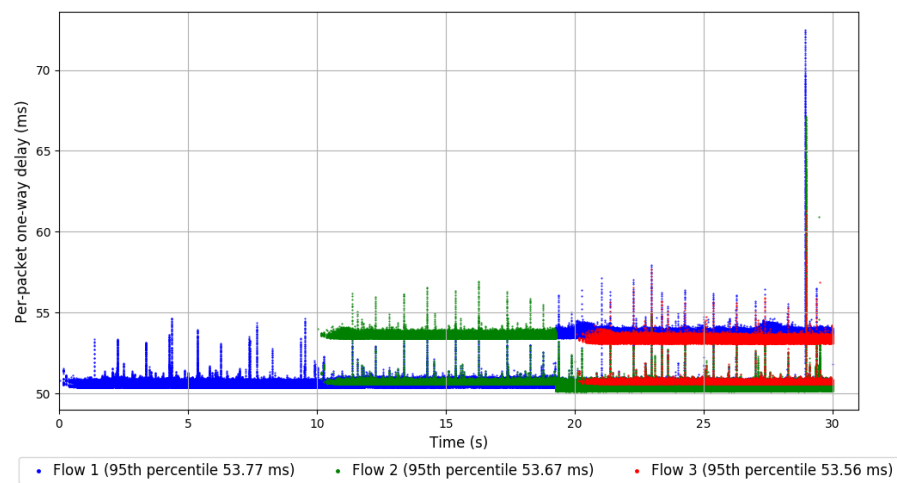
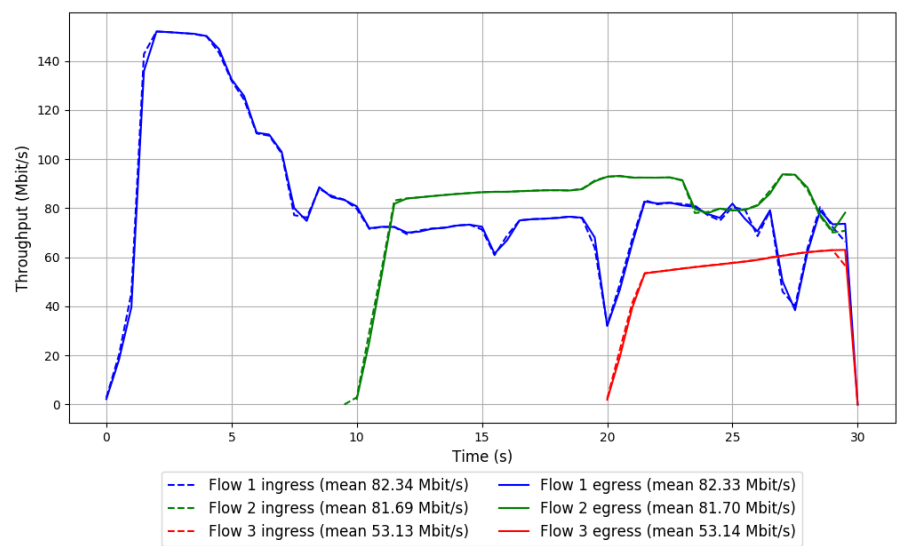
-- Flow 3:

Average throughput: 53.14 Mbit/s

95th percentile per-packet one-way delay: 53.561 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-14 10:29:51

End at: 2018-03-14 10:30:21

Below is generated by plot.py at 2018-03-14 17:02:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.54 Mbit/s

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

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.48 Mbit/s

95th percentile per-packet one-way delay: 50.814 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.09 Mbit/s

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

Loss rate: 0.00%

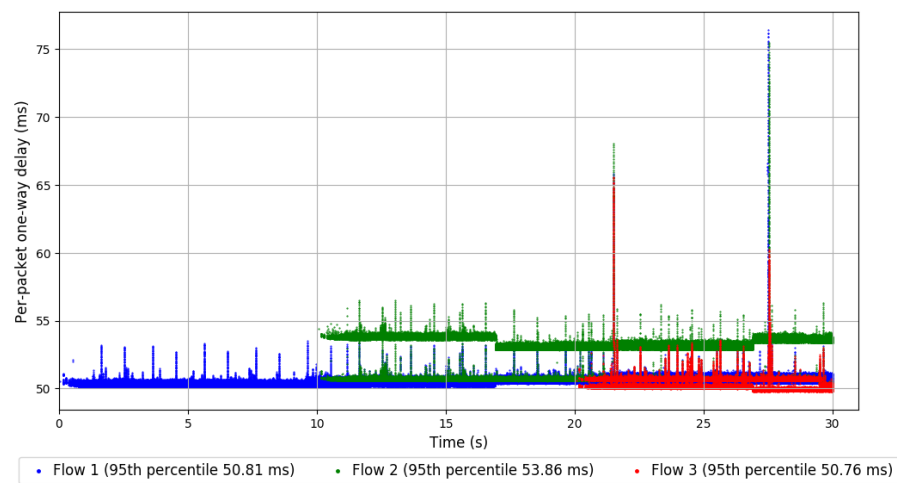
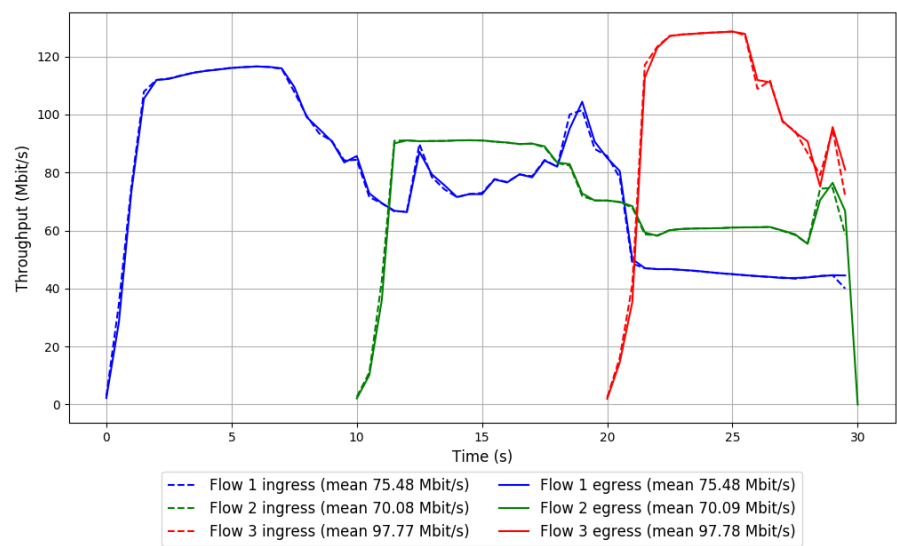
-- Flow 3:

Average throughput: 97.78 Mbit/s

95th percentile per-packet one-way delay: 50.757 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-14 10:47:07

End at: 2018-03-14 10:47:37

Below is generated by plot.py at 2018-03-14 17:03:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 167.62 Mbit/s

95th percentile per-packet one-way delay: 53.259 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 89.06 Mbit/s

95th percentile per-packet one-way delay: 50.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.36 Mbit/s

95th percentile per-packet one-way delay: 53.400 ms

Loss rate: 0.00%

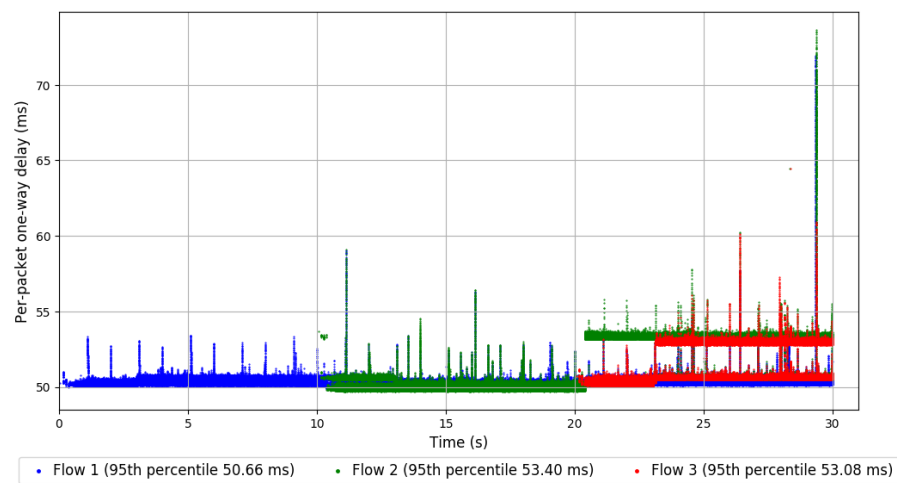
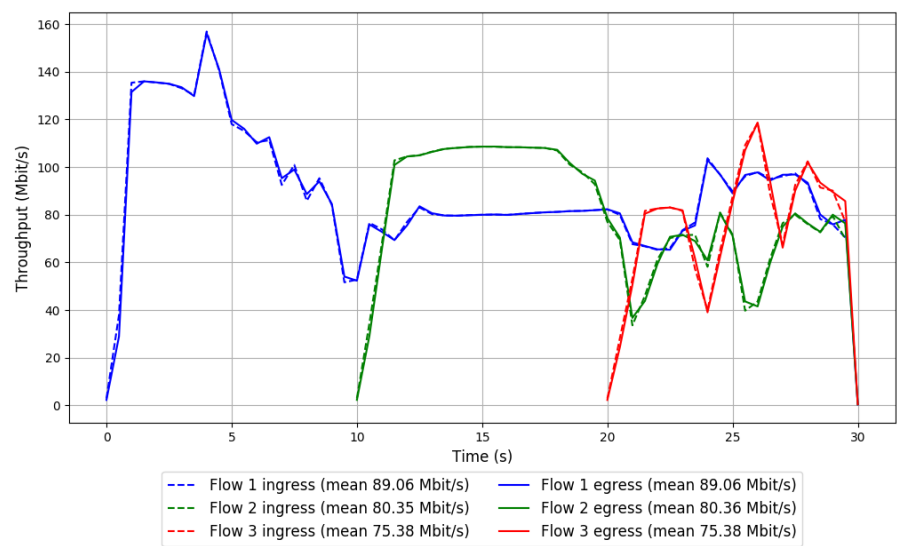
-- Flow 3:

Average throughput: 75.38 Mbit/s

95th percentile per-packet one-way delay: 53.083 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-14 11:04:16

End at: 2018-03-14 11:04:46

Below is generated by plot.py at 2018-03-14 17:03:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.12 Mbit/s

95th percentile per-packet one-way delay: 53.249 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.50 Mbit/s

95th percentile per-packet one-way delay: 53.329 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.06 Mbit/s

95th percentile per-packet one-way delay: 50.571 ms

Loss rate: 0.00%

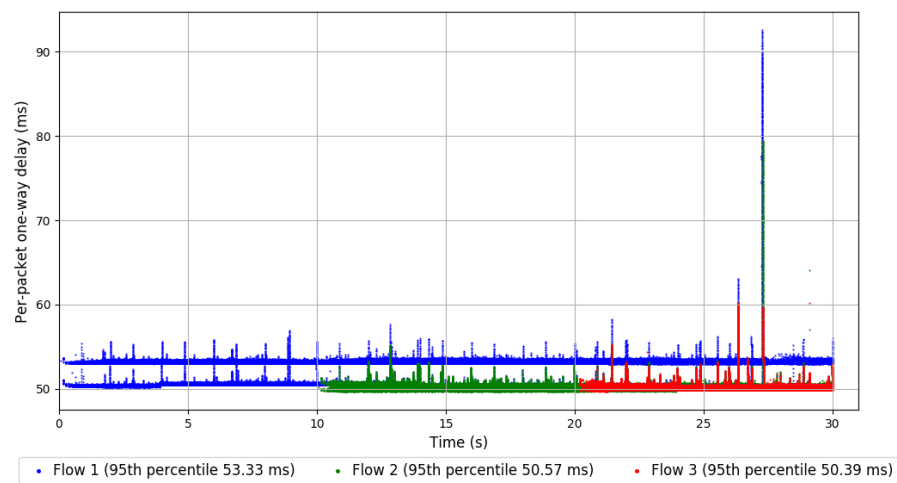
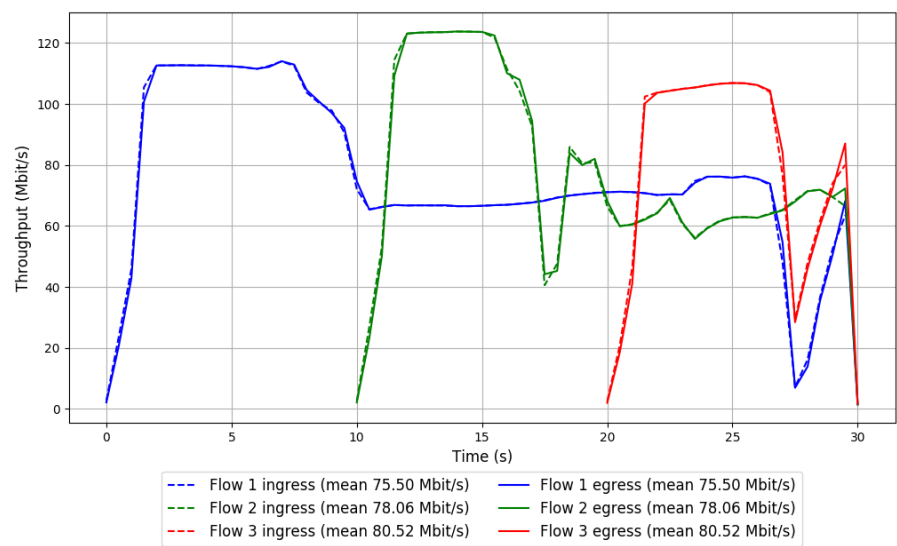
-- Flow 3:

Average throughput: 80.52 Mbit/s

95th percentile per-packet one-way delay: 50.391 ms

Loss rate: 0.00%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-14 11:21:31

End at: 2018-03-14 11:22:01

Below is generated by plot.py at 2018-03-14 17:06:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.06 Mbit/s

95th percentile per-packet one-way delay: 53.495 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.84 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 88.16 Mbit/s

95th percentile per-packet one-way delay: 50.667 ms

Loss rate: 0.00%

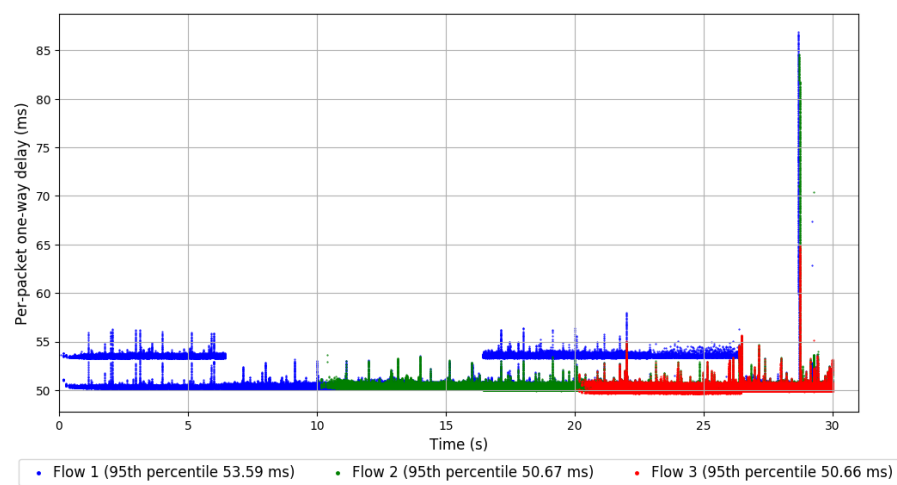
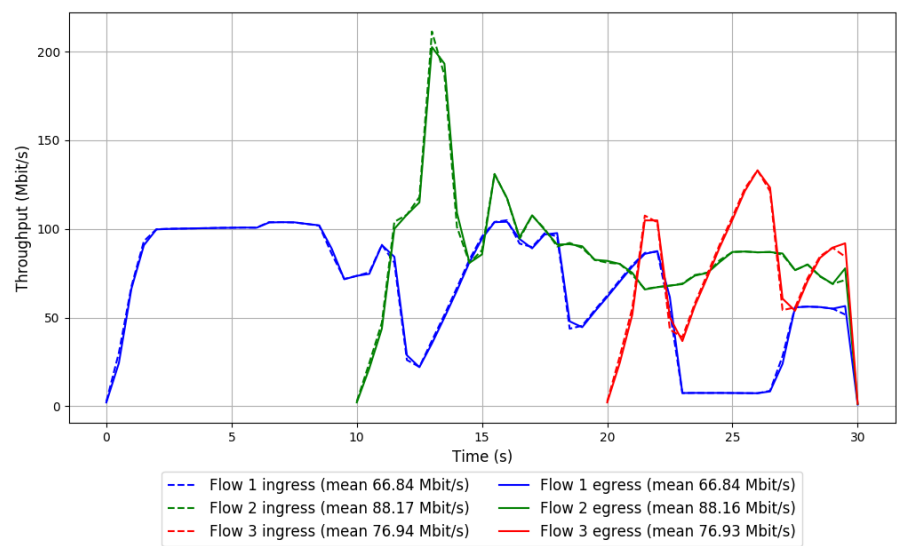
-- Flow 3:

Average throughput: 76.93 Mbit/s

95th percentile per-packet one-way delay: 50.664 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-14 11:38:39

End at: 2018-03-14 11:39:09

Below is generated by plot.py at 2018-03-14 17:06:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 151.87 Mbit/s

95th percentile per-packet one-way delay: 53.545 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 75.56 Mbit/s

95th percentile per-packet one-way delay: 53.483 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 80.35 Mbit/s

95th percentile per-packet one-way delay: 50.619 ms

Loss rate: 0.00%

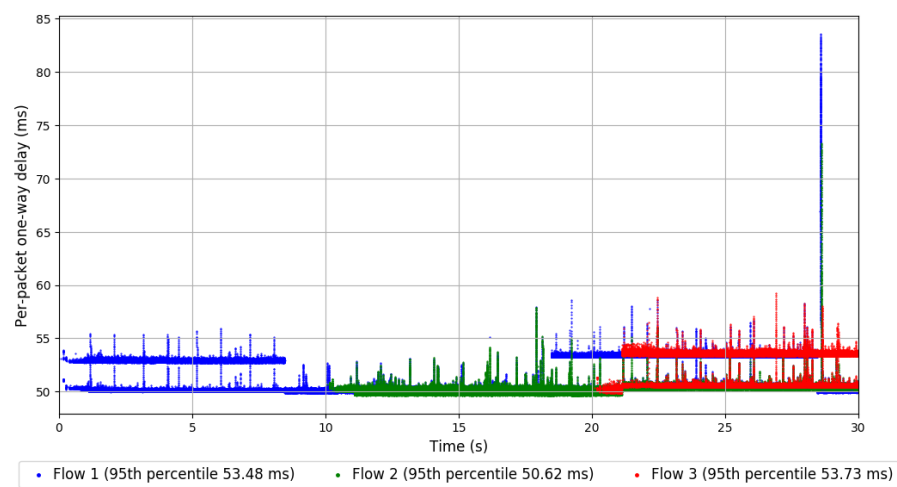
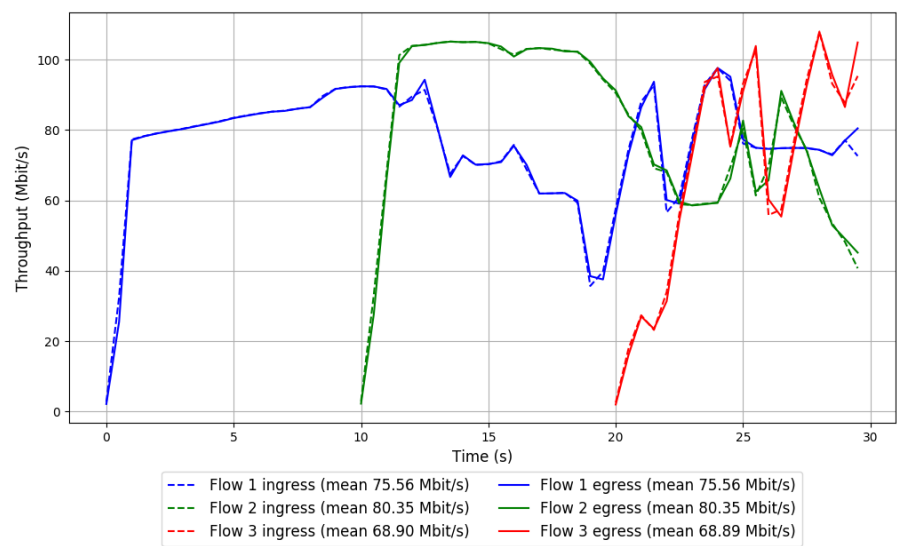
-- Flow 3:

Average throughput: 68.89 Mbit/s

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

Loss rate: 0.00%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-14 11:56:04

End at: 2018-03-14 11:56:34

Below is generated by plot.py at 2018-03-14 17:07:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 154.17 Mbit/s

95th percentile per-packet one-way delay: 53.731 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 76.05 Mbit/s

95th percentile per-packet one-way delay: 53.503 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.43 Mbit/s

95th percentile per-packet one-way delay: 53.695 ms

Loss rate: 0.00%

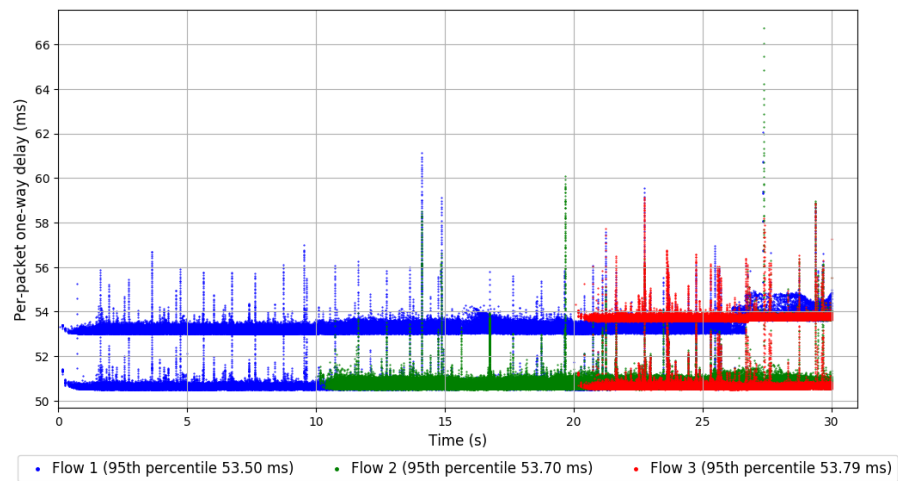
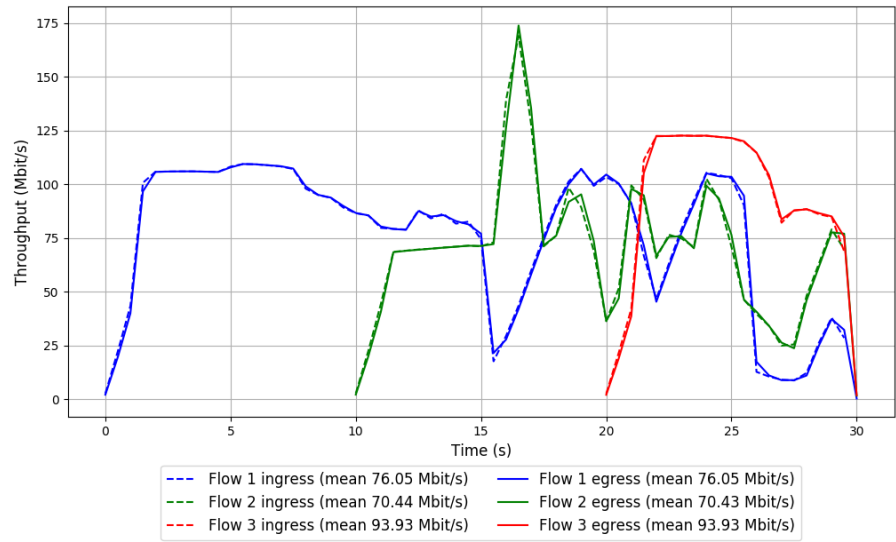
-- Flow 3:

Average throughput: 93.93 Mbit/s

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

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-14 12:13:22

End at: 2018-03-14 12:13:52

Below is generated by plot.py at 2018-03-14 17:09:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.14 Mbit/s

95th percentile per-packet one-way delay: 54.048 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 98.80 Mbit/s

95th percentile per-packet one-way delay: 54.072 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 76.19 Mbit/s

95th percentile per-packet one-way delay: 51.173 ms

Loss rate: 0.01%

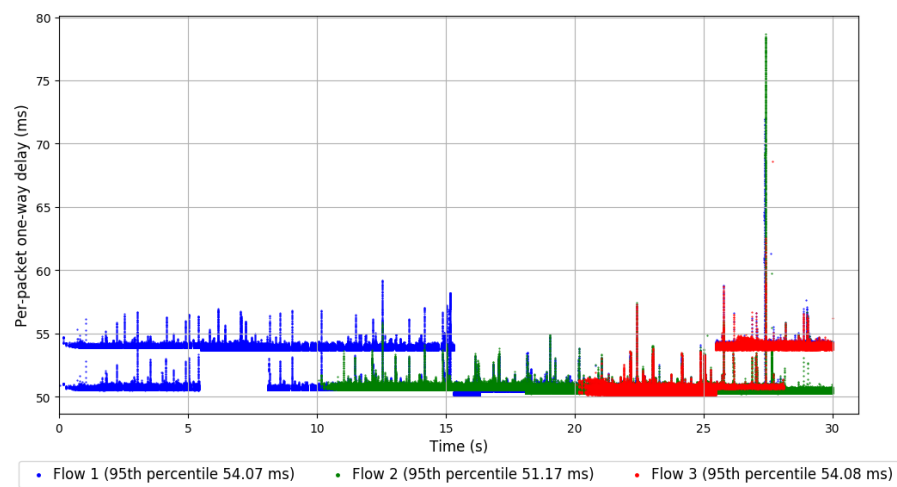
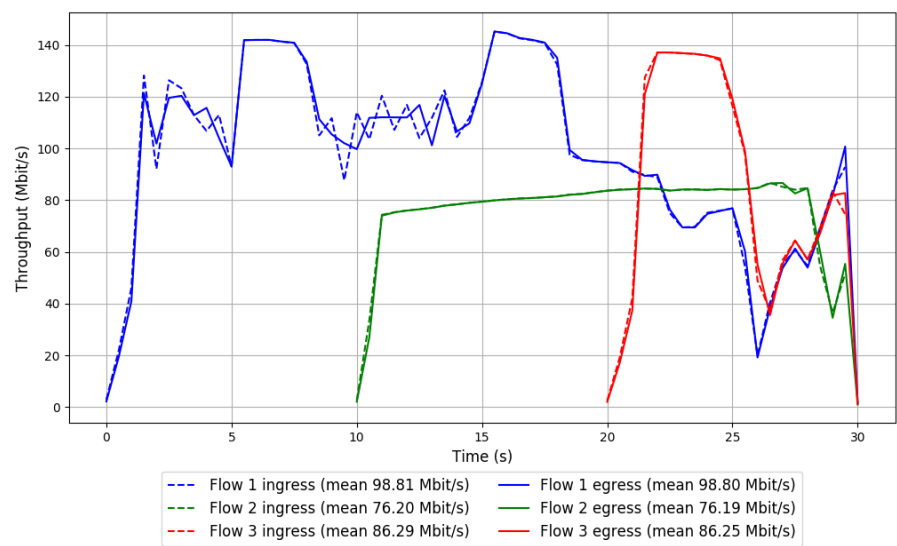
-- Flow 3:

Average throughput: 86.25 Mbit/s

95th percentile per-packet one-way delay: 54.082 ms

Loss rate: 0.02%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-14 12:30:47

End at: 2018-03-14 12:31:17

Below is generated by plot.py at 2018-03-14 17:09:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 152.72 Mbit/s

95th percentile per-packet one-way delay: 53.145 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 74.71 Mbit/s

95th percentile per-packet one-way delay: 50.754 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 81.88 Mbit/s

95th percentile per-packet one-way delay: 53.194 ms

Loss rate: 0.00%

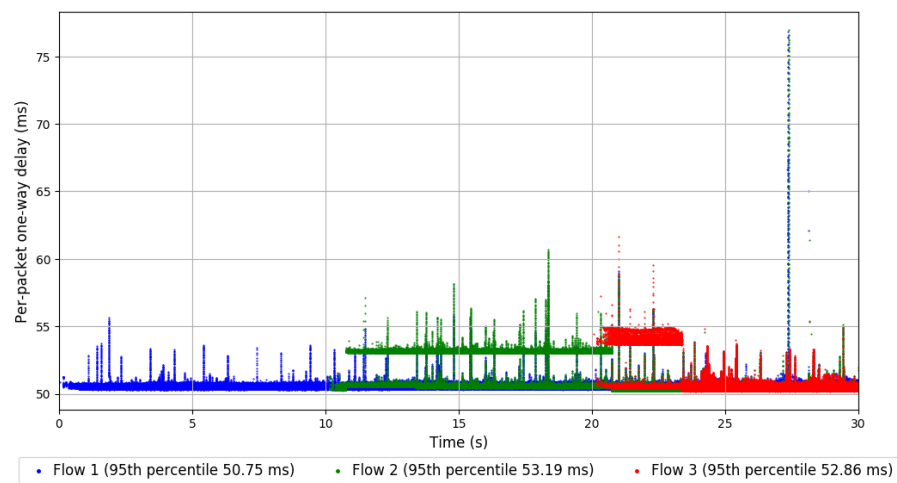
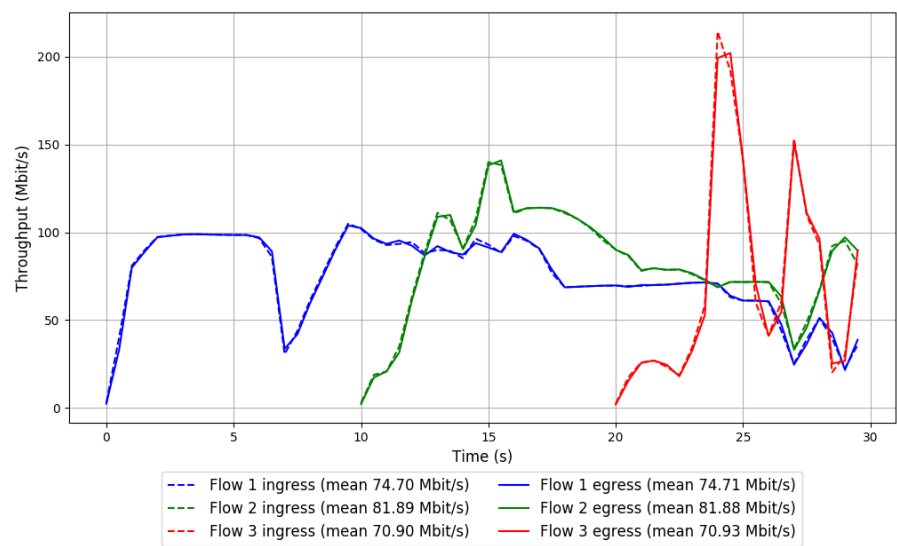
-- Flow 3:

Average throughput: 70.93 Mbit/s

95th percentile per-packet one-way delay: 52.862 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-14 12:47:54

End at: 2018-03-14 12:48:24

Below is generated by plot.py at 2018-03-14 17:09:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.73 Mbit/s

95th percentile per-packet one-way delay: 51.118 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 66.45 Mbit/s

95th percentile per-packet one-way delay: 51.258 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.34 Mbit/s

95th percentile per-packet one-way delay: 50.723 ms

Loss rate: 0.00%

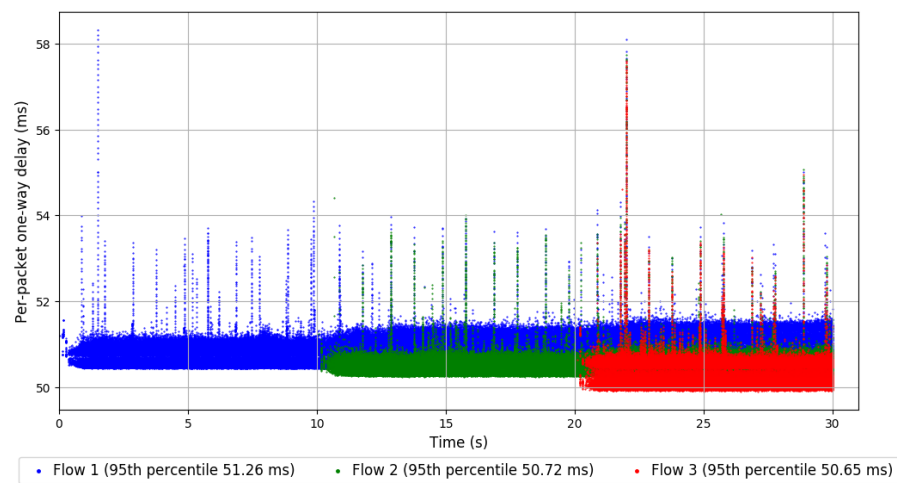
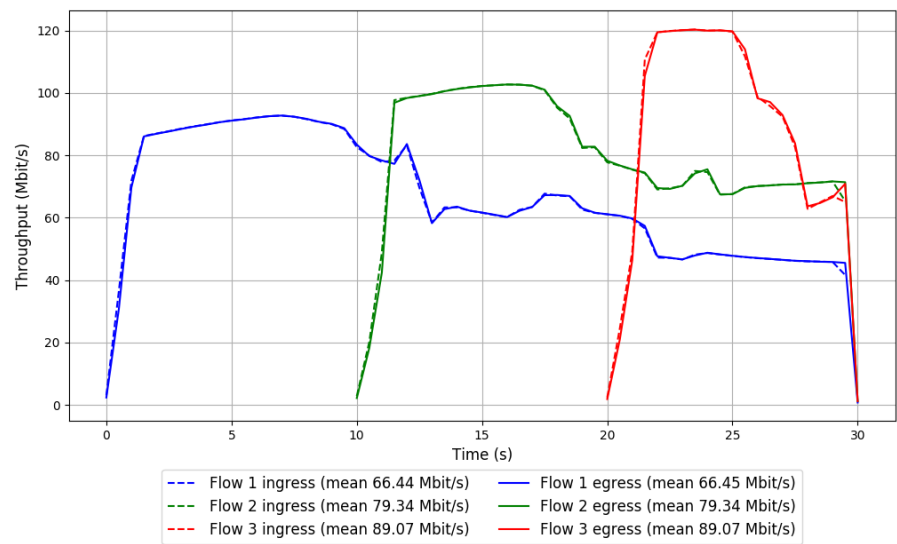
-- Flow 3:

Average throughput: 89.07 Mbit/s

95th percentile per-packet one-way delay: 50.653 ms

Loss rate: 0.00%

Run 10: Report of Copa — Data Link

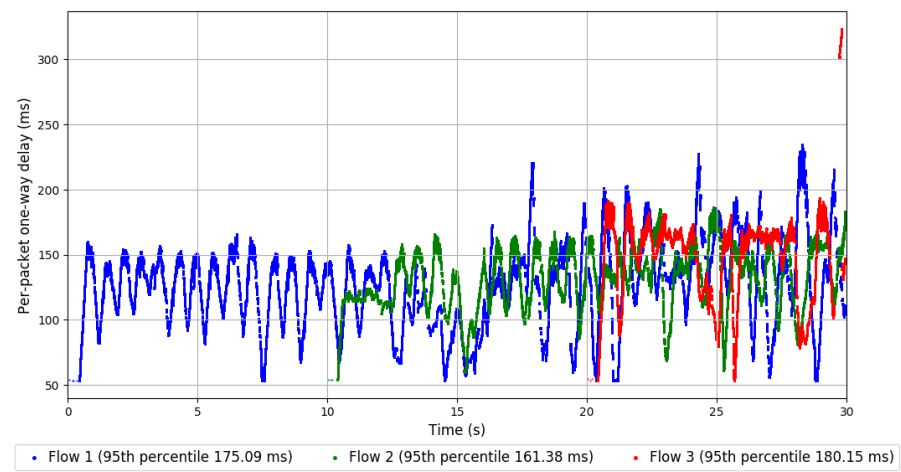
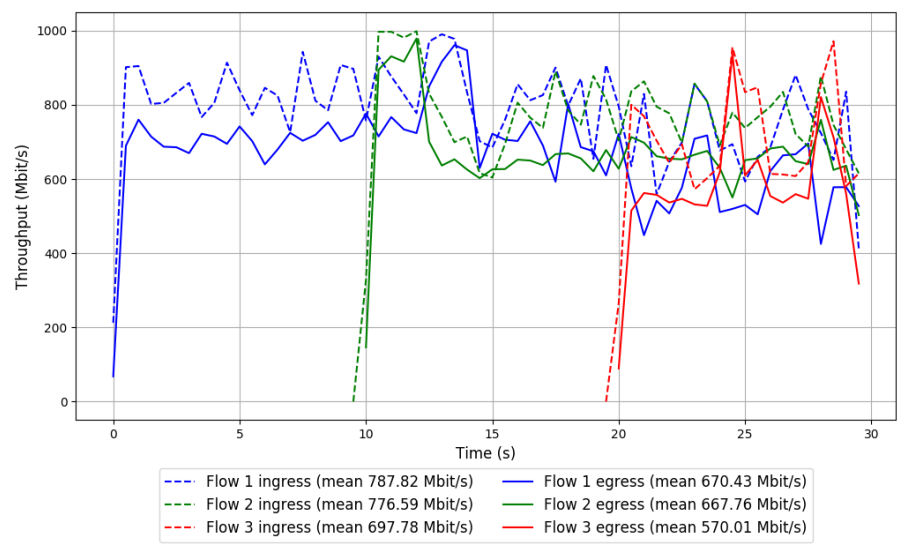


```
Run 1: Statistics of FillP

Start at: 2018-03-14 09:56:08
End at: 2018-03-14 09:56:38

# Below is generated by plot.py at 2018-03-14 17:36:17
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1304.21 Mbit/s
95th percentile per-packet one-way delay: 172.389 ms
Loss rate: 15.12%
-- Flow 1:
Average throughput: 670.43 Mbit/s
95th percentile per-packet one-way delay: 175.087 ms
Loss rate: 14.91%
-- Flow 2:
Average throughput: 667.76 Mbit/s
95th percentile per-packet one-way delay: 161.382 ms
Loss rate: 14.02%
-- Flow 3:
Average throughput: 570.01 Mbit/s
95th percentile per-packet one-way delay: 180.150 ms
Loss rate: 18.34%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-14 10:13:08

End at: 2018-03-14 10:13:38

Below is generated by plot.py at 2018-03-14 17:36:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 1187.36 Mbit/s

95th percentile per-packet one-way delay: 311.059 ms

Loss rate: 14.95%

-- Flow 1:

Average throughput: 617.68 Mbit/s

95th percentile per-packet one-way delay: 312.659 ms

Loss rate: 14.85%

-- Flow 2:

Average throughput: 591.01 Mbit/s

95th percentile per-packet one-way delay: 318.016 ms

Loss rate: 13.28%

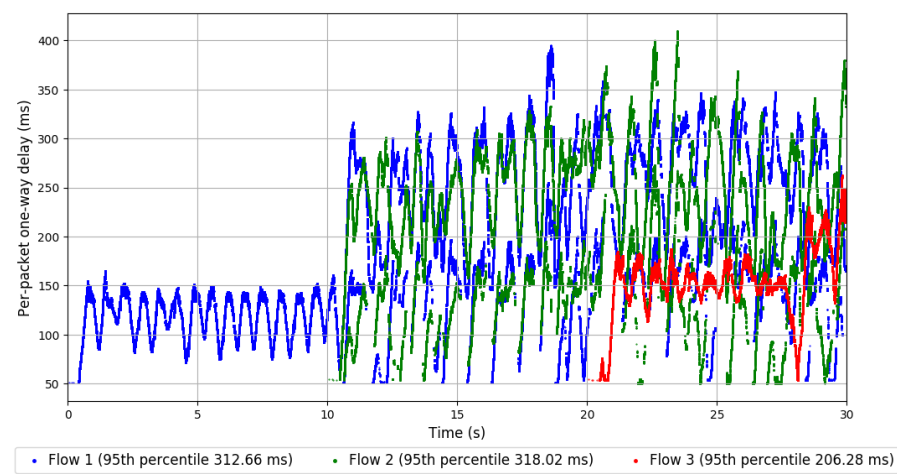
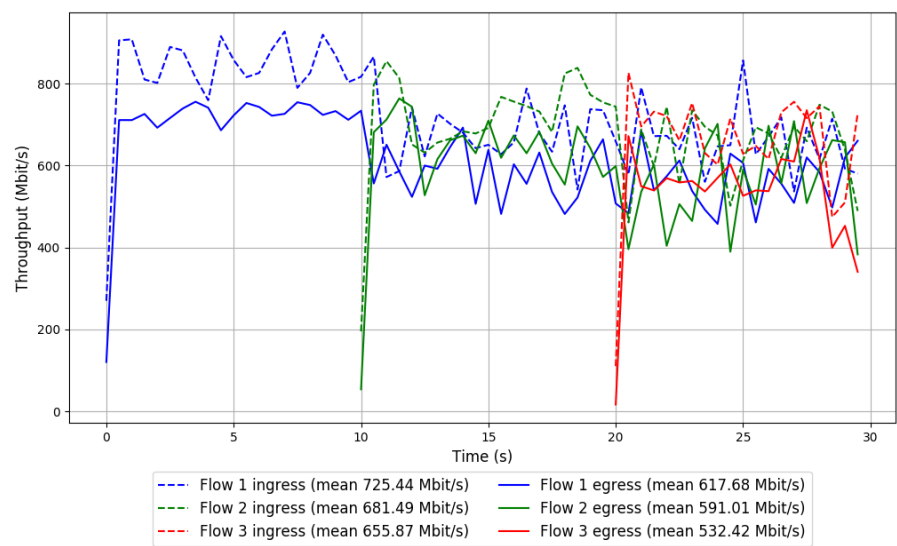
-- Flow 3:

Average throughput: 532.42 Mbit/s

95th percentile per-packet one-way delay: 206.277 ms

Loss rate: 18.82%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-14 10:30:47

End at: 2018-03-14 10:31:17

Below is generated by plot.py at 2018-03-14 17:39:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1322.68 Mbit/s

95th percentile per-packet one-way delay: 184.069 ms

Loss rate: 15.42%

-- Flow 1:

Average throughput: 655.39 Mbit/s

95th percentile per-packet one-way delay: 186.190 ms

Loss rate: 16.10%

-- Flow 2:

Average throughput: 662.58 Mbit/s

95th percentile per-packet one-way delay: 167.331 ms

Loss rate: 15.56%

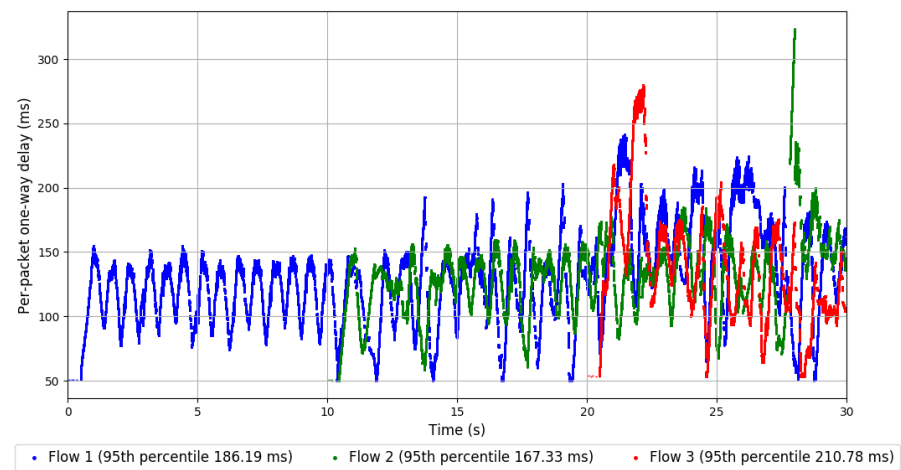
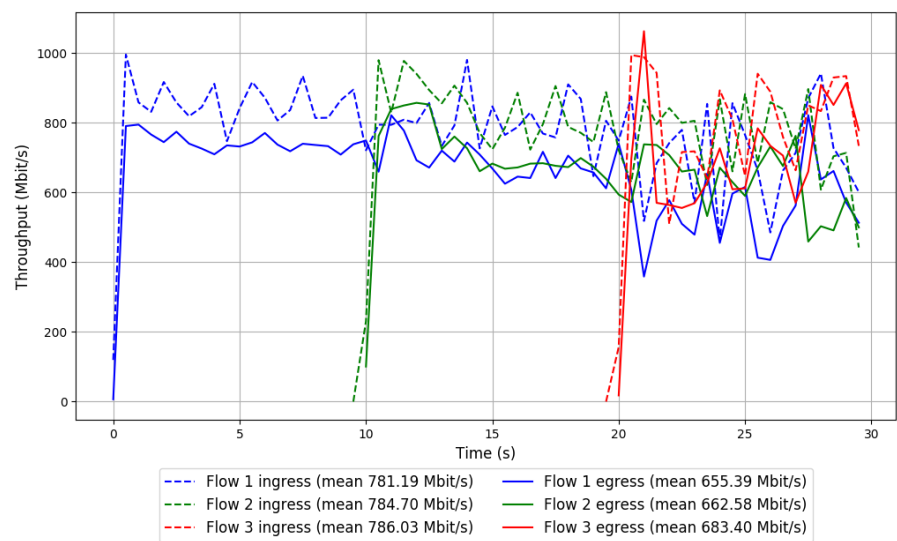
-- Flow 3:

Average throughput: 683.40 Mbit/s

95th percentile per-packet one-way delay: 210.781 ms

Loss rate: 13.08%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-14 10:48:03

End at: 2018-03-14 10:48:33

Below is generated by plot.py at 2018-03-14 17:39:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1225.88 Mbit/s

95th percentile per-packet one-way delay: 287.258 ms

Loss rate: 15.78%

-- Flow 1:

Average throughput: 626.14 Mbit/s

95th percentile per-packet one-way delay: 296.121 ms

Loss rate: 15.37%

-- Flow 2:

Average throughput: 624.80 Mbit/s

95th percentile per-packet one-way delay: 188.395 ms

Loss rate: 16.47%

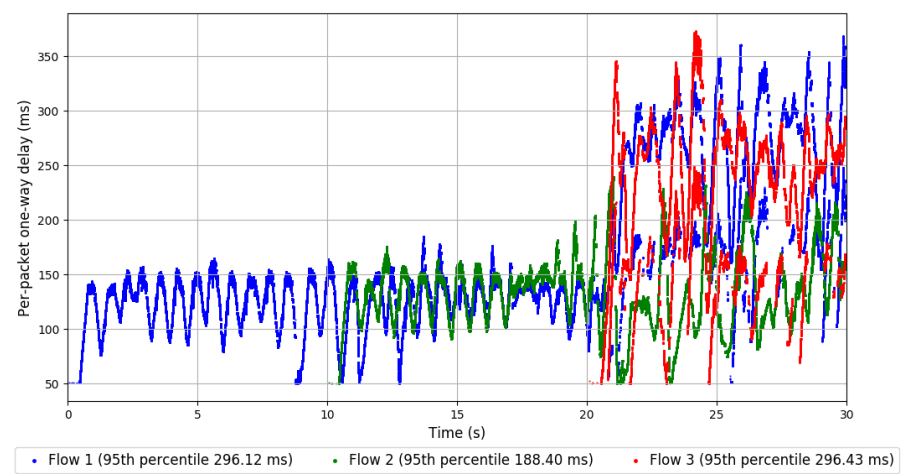
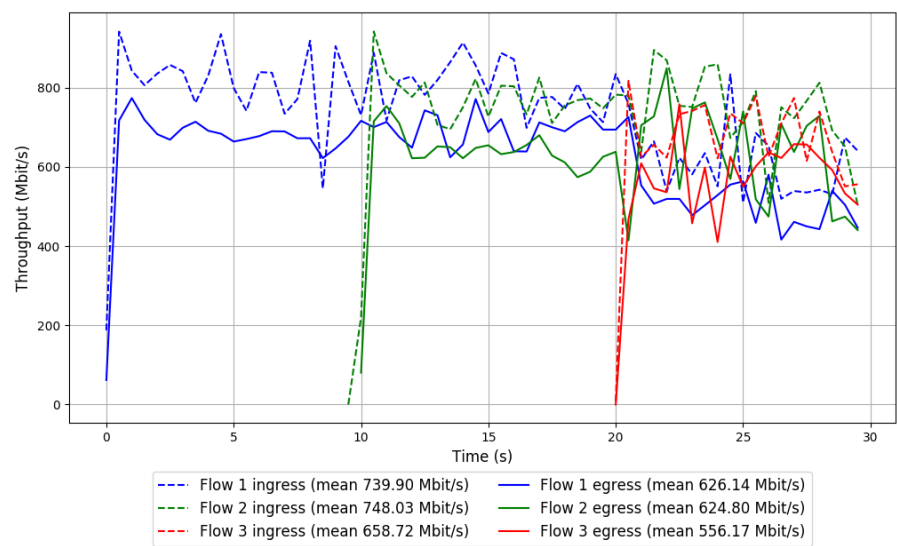
-- Flow 3:

Average throughput: 556.17 Mbit/s

95th percentile per-packet one-way delay: 296.429 ms

Loss rate: 15.58%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-14 11:05:13

End at: 2018-03-14 11:05:43

Below is generated by plot.py at 2018-03-14 17:39:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1233.23 Mbit/s

95th percentile per-packet one-way delay: 186.303 ms

Loss rate: 16.96%

-- Flow 1:

Average throughput: 650.98 Mbit/s

95th percentile per-packet one-way delay: 176.175 ms

Loss rate: 14.97%

-- Flow 2:

Average throughput: 567.82 Mbit/s

95th percentile per-packet one-way delay: 209.225 ms

Loss rate: 19.85%

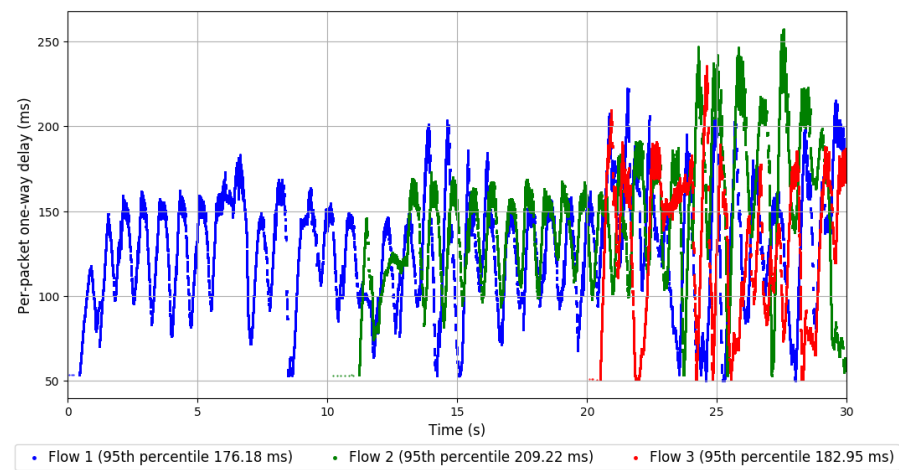
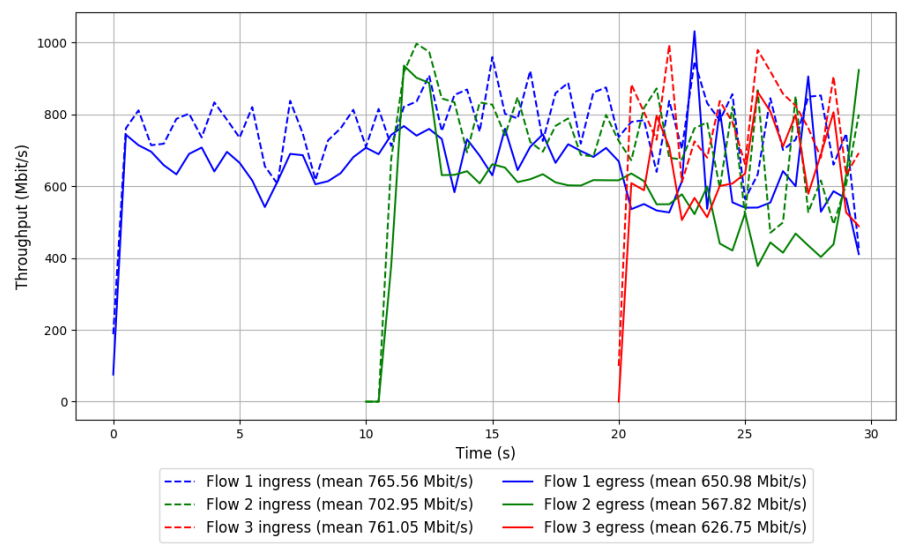
-- Flow 3:

Average throughput: 626.75 Mbit/s

95th percentile per-packet one-way delay: 182.947 ms

Loss rate: 17.65%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-14 11:22:26

End at: 2018-03-14 11:22:56

Below is generated by plot.py at 2018-03-14 17:39:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1073.11 Mbit/s

95th percentile per-packet one-way delay: 384.148 ms

Loss rate: 15.93%

-- Flow 1:

Average throughput: 611.46 Mbit/s

95th percentile per-packet one-way delay: 319.825 ms

Loss rate: 13.57%

-- Flow 2:

Average throughput: 501.53 Mbit/s

95th percentile per-packet one-way delay: 415.417 ms

Loss rate: 18.08%

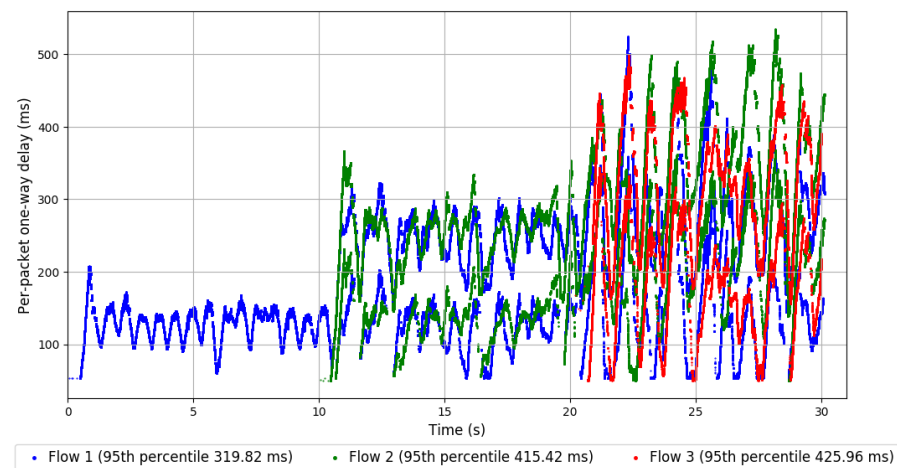
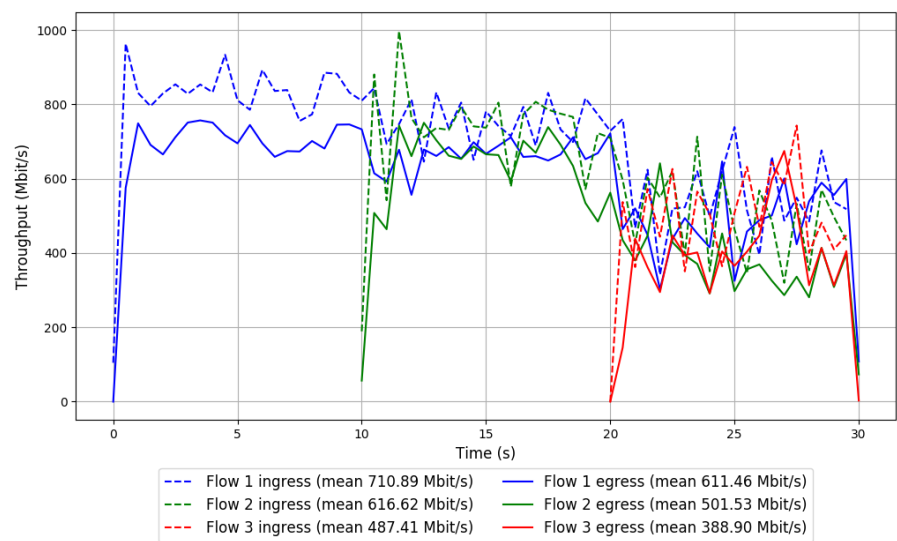
-- Flow 3:

Average throughput: 388.90 Mbit/s

95th percentile per-packet one-way delay: 425.961 ms

Loss rate: 20.84%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-14 11:39:34

End at: 2018-03-14 11:40:04

Below is generated by plot.py at 2018-03-14 17:42:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1349.98 Mbit/s

95th percentile per-packet one-way delay: 282.208 ms

Loss rate: 12.80%

-- Flow 1:

Average throughput: 720.67 Mbit/s

95th percentile per-packet one-way delay: 168.479 ms

Loss rate: 12.30%

-- Flow 2:

Average throughput: 645.02 Mbit/s

95th percentile per-packet one-way delay: 322.583 ms

Loss rate: 14.04%

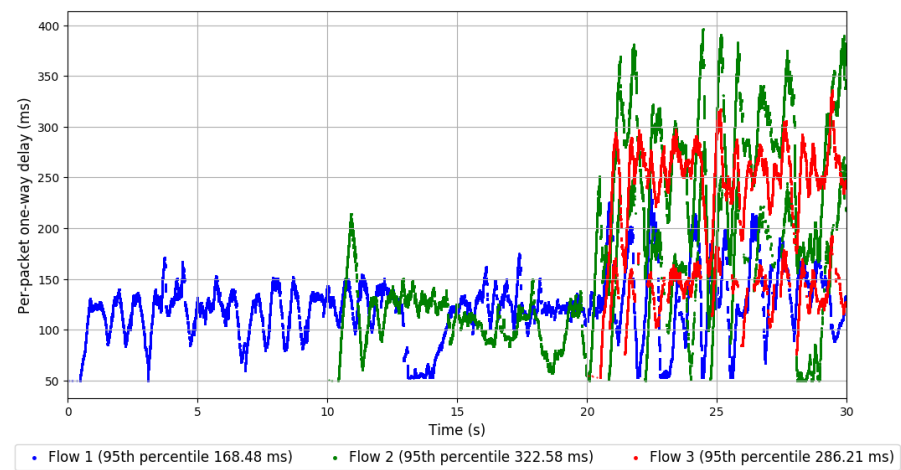
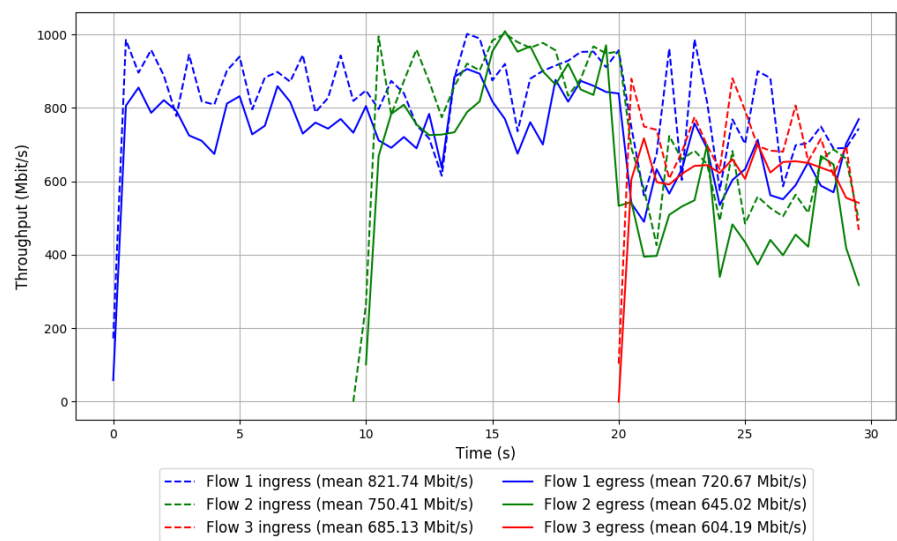
-- Flow 3:

Average throughput: 604.19 Mbit/s

95th percentile per-packet one-way delay: 286.213 ms

Loss rate: 11.85%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-14 11:56:58

End at: 2018-03-14 11:57:28

Below is generated by plot.py at 2018-03-14 17:44:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1339.29 Mbit/s

95th percentile per-packet one-way delay: 170.116 ms

Loss rate: 16.14%

-- Flow 1:

Average throughput: 702.54 Mbit/s

95th percentile per-packet one-way delay: 152.242 ms

Loss rate: 14.35%

-- Flow 2:

Average throughput: 669.76 Mbit/s

95th percentile per-packet one-way delay: 189.135 ms

Loss rate: 17.16%

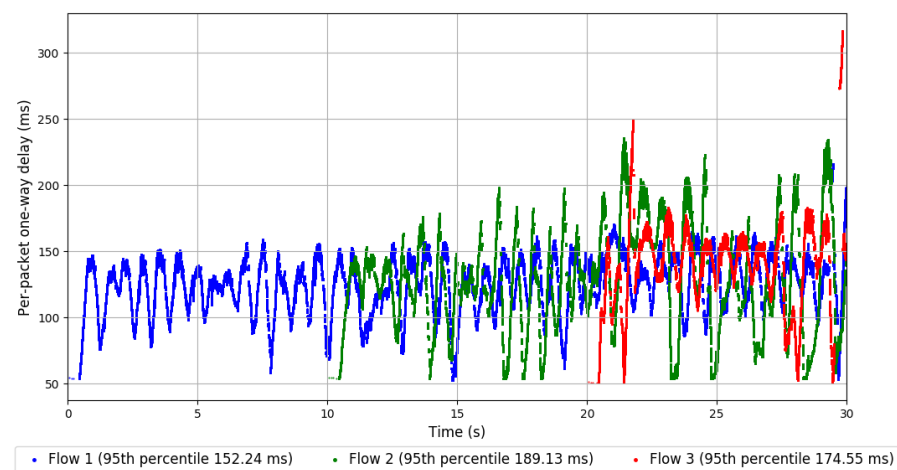
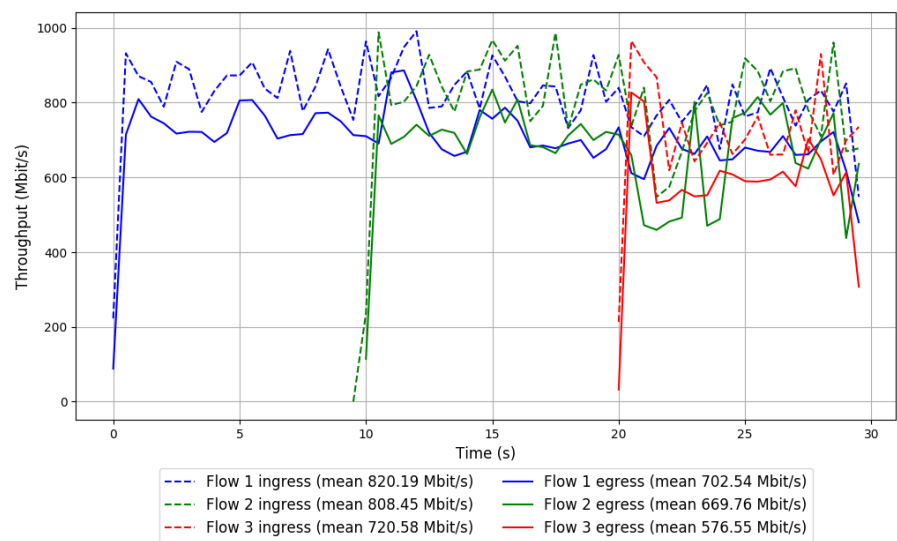
-- Flow 3:

Average throughput: 576.55 Mbit/s

95th percentile per-packet one-way delay: 174.551 ms

Loss rate: 19.98%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-14 12:14:18

End at: 2018-03-14 12:14:48

Below is generated by plot.py at 2018-03-14 18:07:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 1311.86 Mbit/s

95th percentile per-packet one-way delay: 290.317 ms

Loss rate: 14.74%

-- Flow 1:

Average throughput: 672.46 Mbit/s

95th percentile per-packet one-way delay: 188.400 ms

Loss rate: 15.93%

-- Flow 2:

Average throughput: 681.98 Mbit/s

95th percentile per-packet one-way delay: 310.266 ms

Loss rate: 11.83%

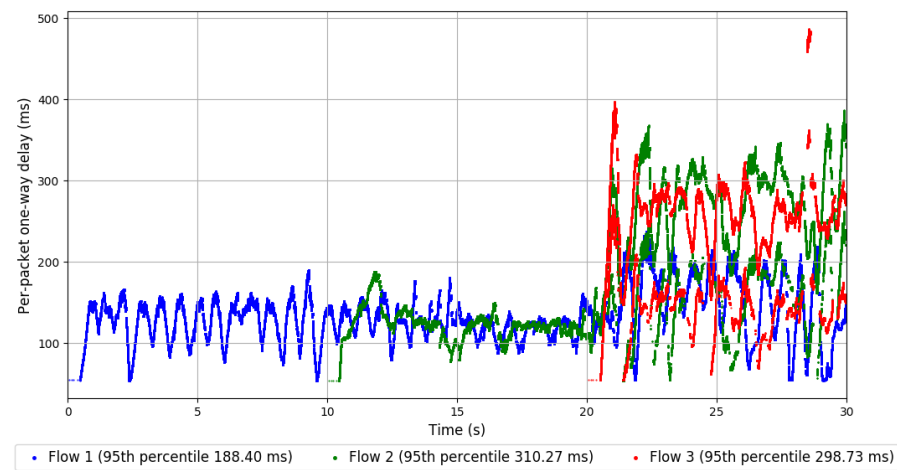
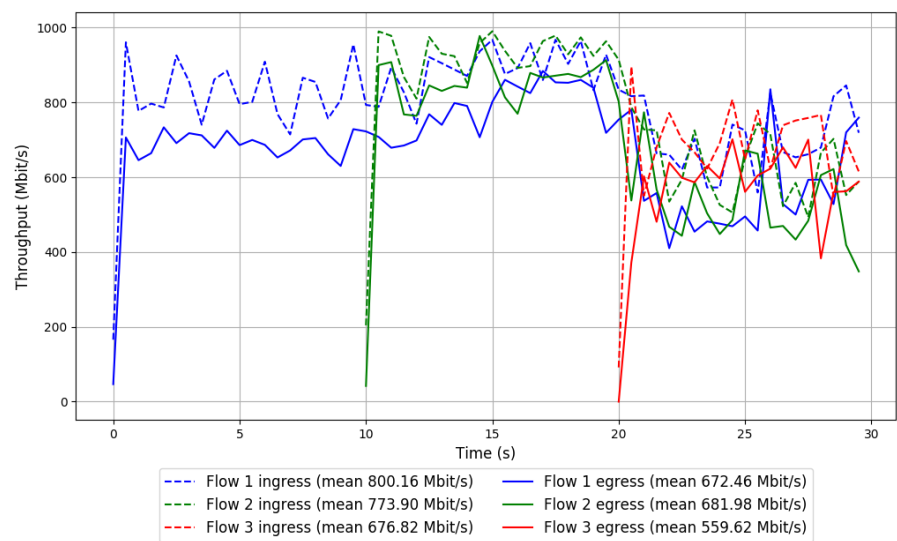
-- Flow 3:

Average throughput: 559.62 Mbit/s

95th percentile per-packet one-way delay: 298.733 ms

Loss rate: 17.23%

Run 9: Report of FillP — Data Link

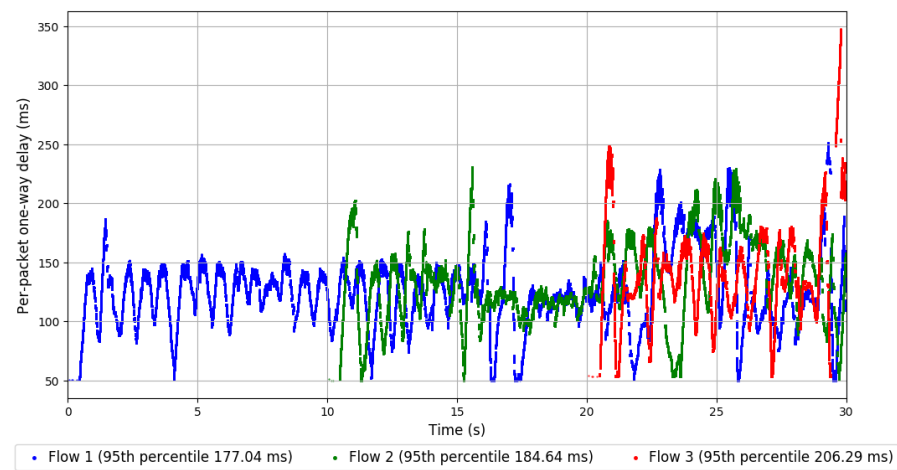
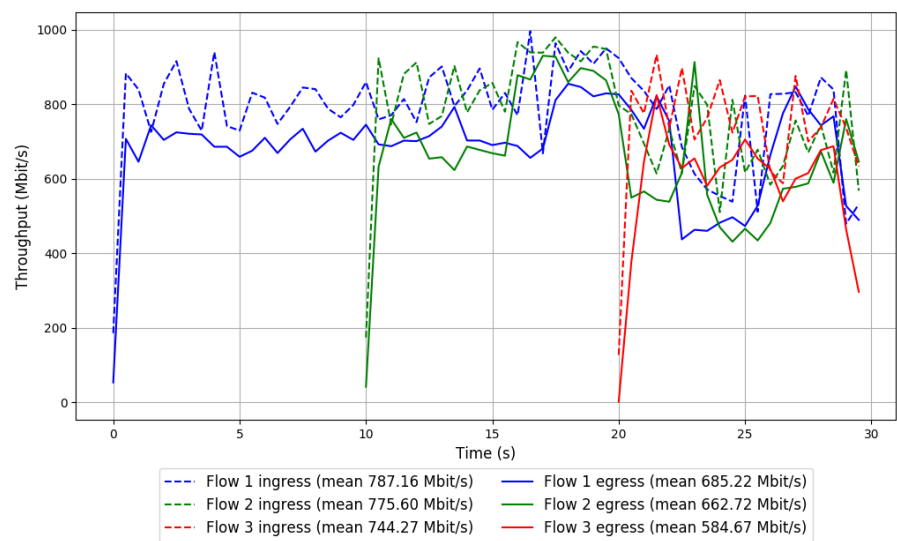


```
Run 10: Statistics of FillP

Start at: 2018-03-14 12:31:42
End at: 2018-03-14 12:32:12

# Below is generated by plot.py at 2018-03-14 18:10:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1319.34 Mbit/s
95th percentile per-packet one-way delay: 181.591 ms
Loss rate: 14.83%
-- Flow 1:
Average throughput: 685.22 Mbit/s
95th percentile per-packet one-way delay: 177.044 ms
Loss rate: 12.95%
-- Flow 2:
Average throughput: 662.72 Mbit/s
95th percentile per-packet one-way delay: 184.644 ms
Loss rate: 14.55%
-- Flow 3:
Average throughput: 584.67 Mbit/s
95th percentile per-packet one-way delay: 206.292 ms
Loss rate: 21.46%
```

Run 10: Report of FillP — Data Link

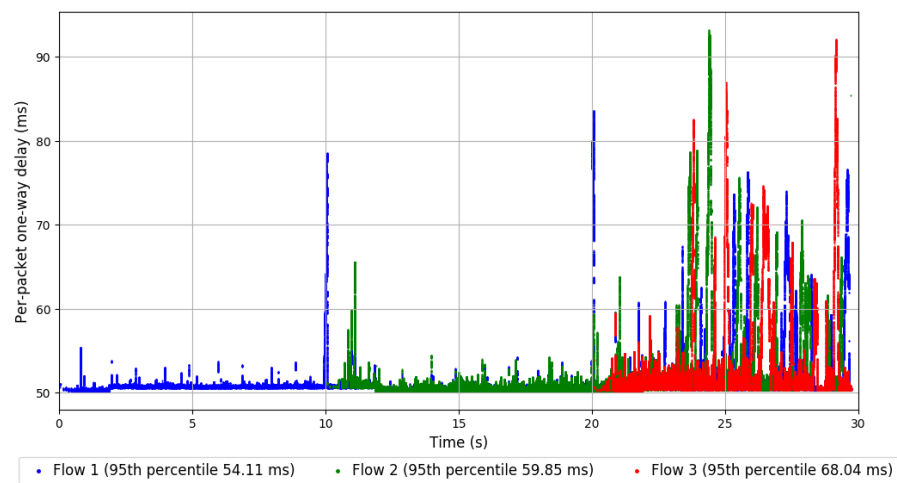
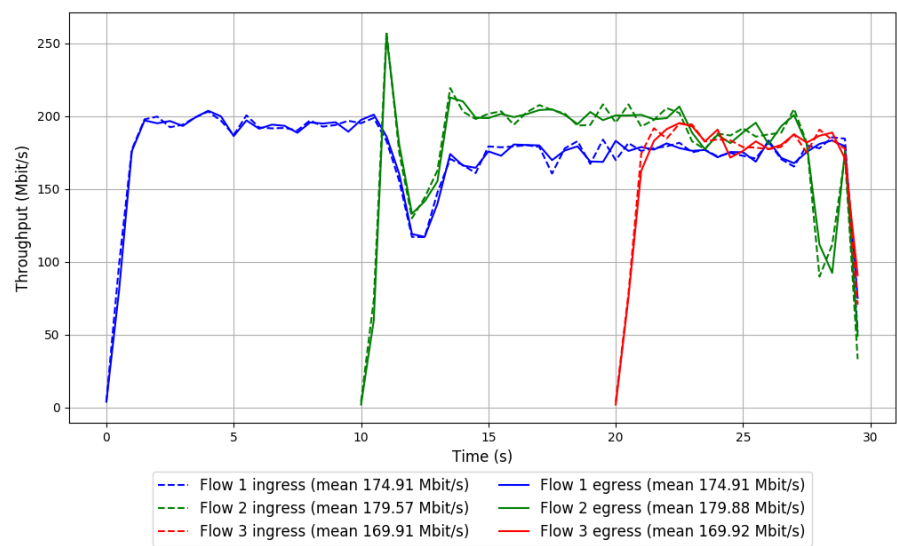


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-14 10:11:08
End at: 2018-03-14 10:11:38

# Below is generated by plot.py at 2018-03-14 18:10:27
# Datalink statistics
-- Total of 3 flows:
Average throughput: 348.97 Mbit/s
95th percentile per-packet one-way delay: 58.981 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 174.91 Mbit/s
95th percentile per-packet one-way delay: 54.112 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 179.88 Mbit/s
95th percentile per-packet one-way delay: 59.853 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 169.92 Mbit/s
95th percentile per-packet one-way delay: 68.042 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-03-14 10:28:43

End at: 2018-03-14 10:29:13

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 346.50 Mbit/s

95th percentile per-packet one-way delay: 53.396 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 182.94 Mbit/s

95th percentile per-packet one-way delay: 53.815 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 169.30 Mbit/s

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

Loss rate: 0.01%

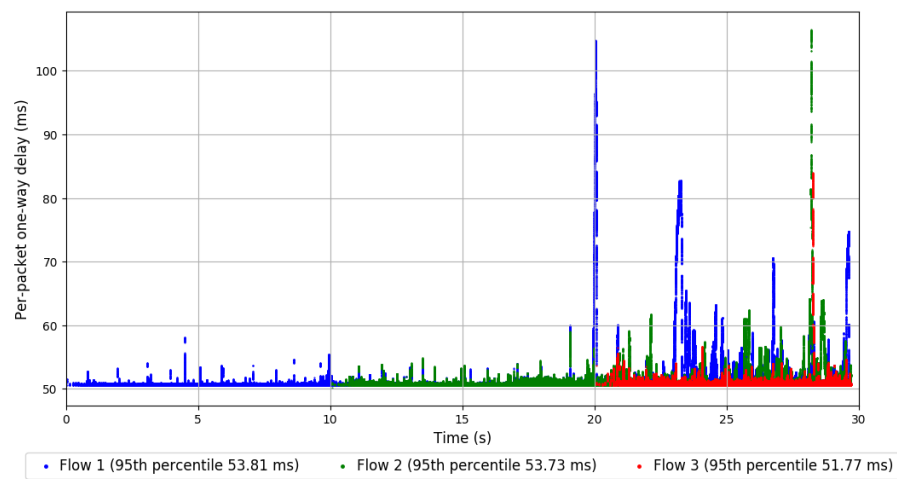
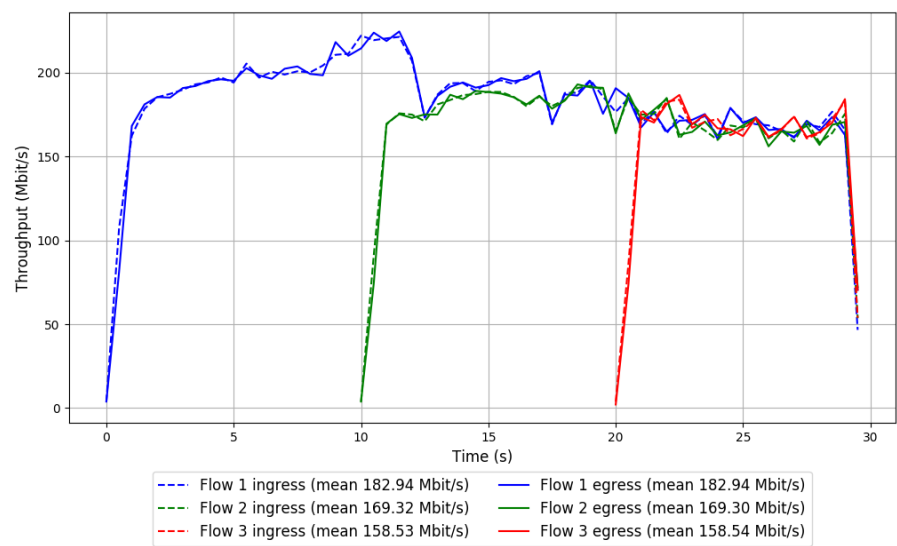
-- Flow 3:

Average throughput: 158.54 Mbit/s

95th percentile per-packet one-way delay: 51.774 ms

Loss rate: 0.00%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-14 10:46:05

End at: 2018-03-14 10:46:35

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 358.76 Mbit/s

95th percentile per-packet one-way delay: 57.326 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 185.58 Mbit/s

95th percentile per-packet one-way delay: 57.461 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 185.14 Mbit/s

95th percentile per-packet one-way delay: 60.351 ms

Loss rate: 0.00%

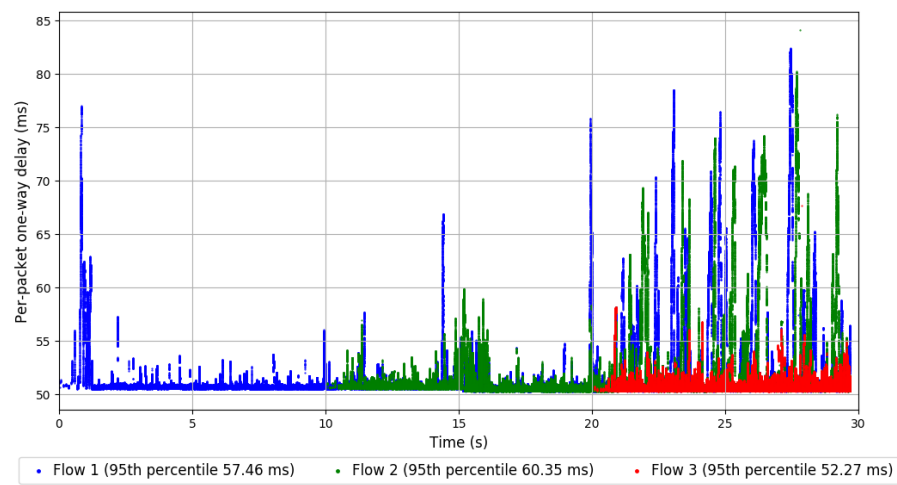
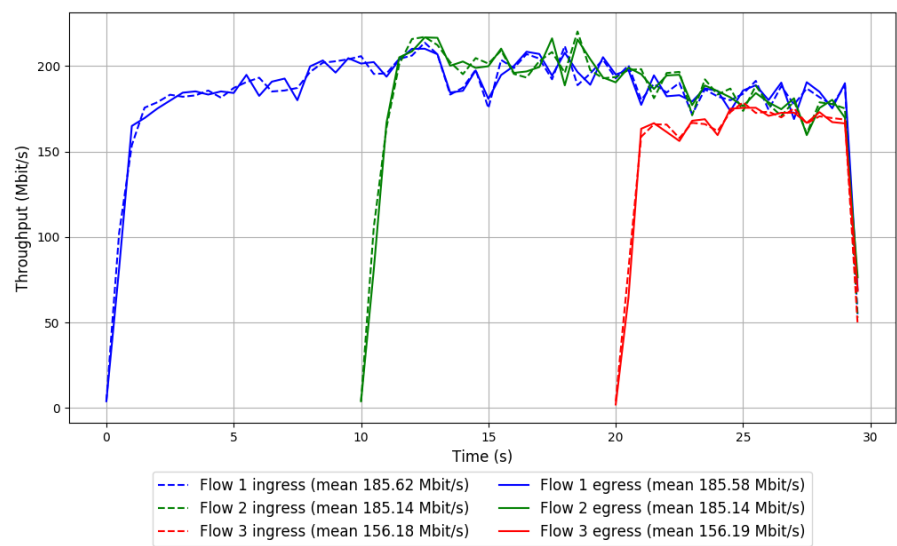
-- Flow 3:

Average throughput: 156.19 Mbit/s

95th percentile per-packet one-way delay: 52.266 ms

Loss rate: 0.00%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

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

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

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.27 Mbit/s

95th percentile per-packet one-way delay: 59.056 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 198.56 Mbit/s

95th percentile per-packet one-way delay: 59.712 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 180.44 Mbit/s

95th percentile per-packet one-way delay: 61.396 ms

Loss rate: 0.20%

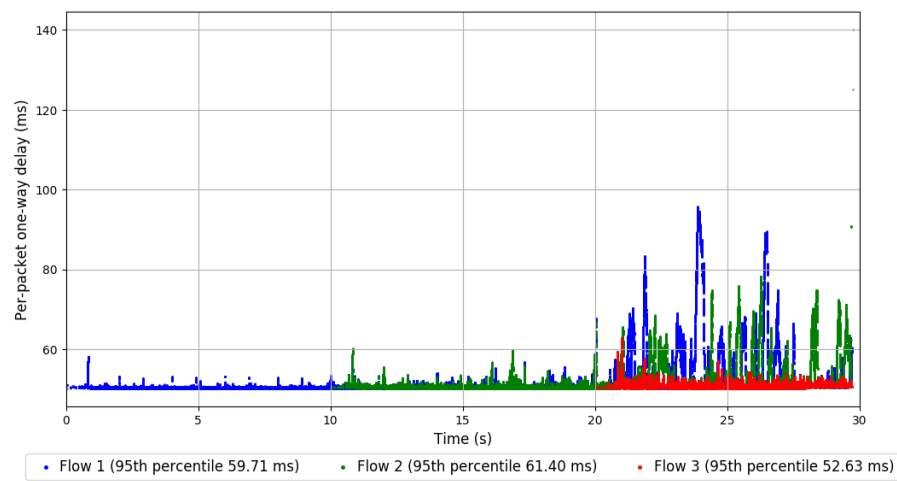
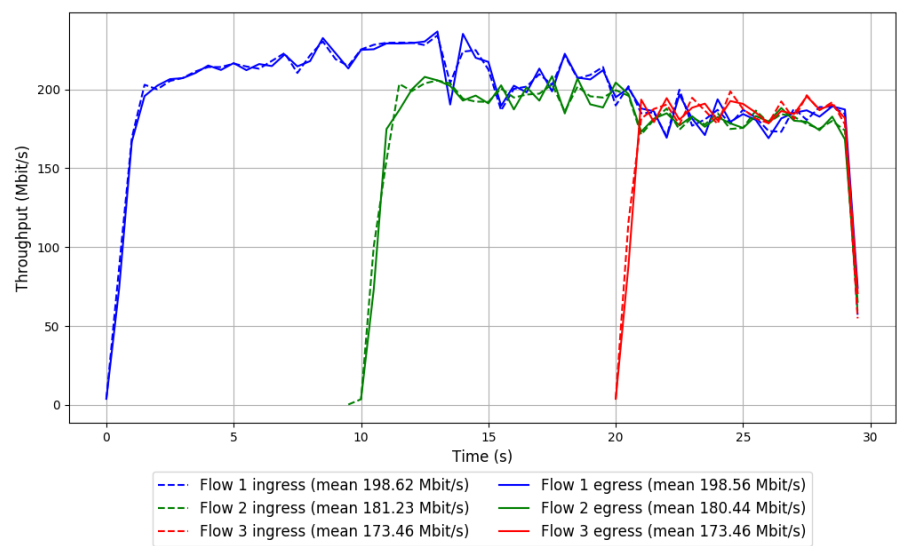
-- Flow 3:

Average throughput: 173.46 Mbit/s

95th percentile per-packet one-way delay: 52.633 ms

Loss rate: 0.00%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-14 11:20:27

End at: 2018-03-14 11:20:57

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 396.64 Mbit/s

95th percentile per-packet one-way delay: 58.818 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 211.17 Mbit/s

95th percentile per-packet one-way delay: 56.052 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 194.40 Mbit/s

95th percentile per-packet one-way delay: 68.454 ms

Loss rate: 0.00%

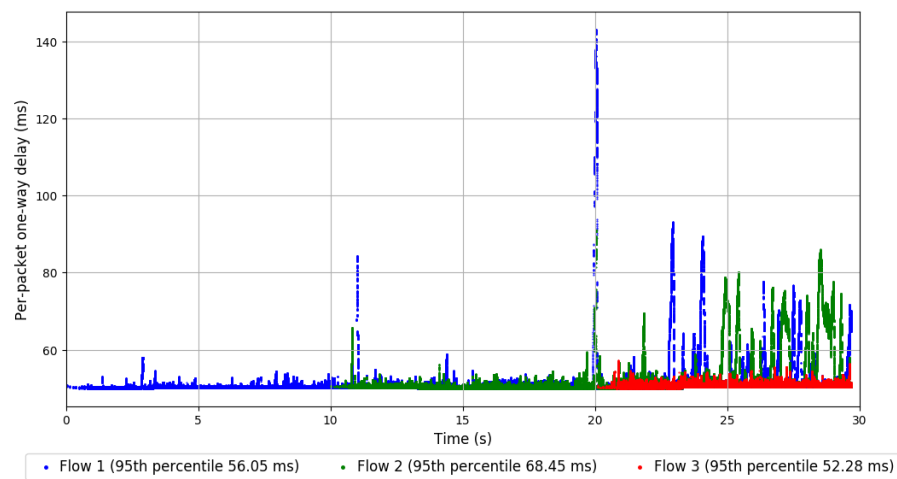
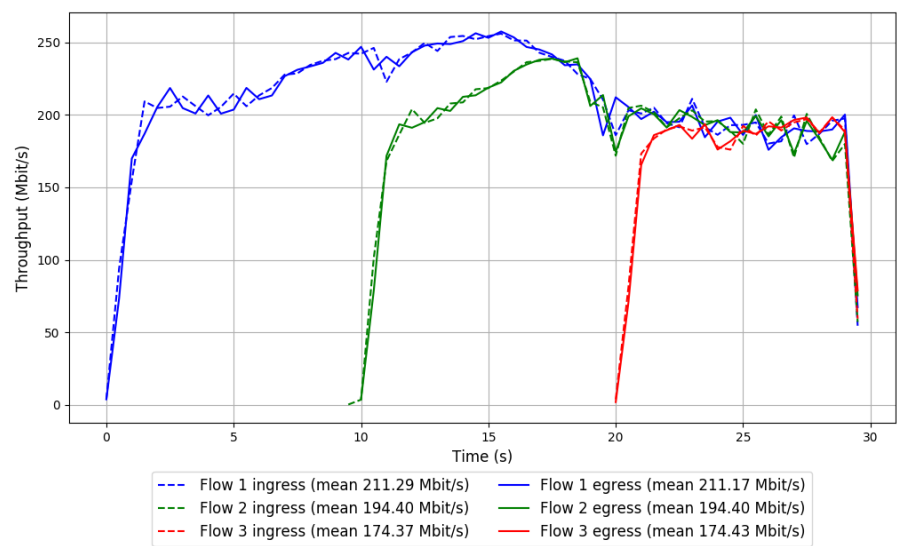
-- Flow 3:

Average throughput: 174.43 Mbit/s

95th percentile per-packet one-way delay: 52.281 ms

Loss rate: 0.00%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-14 11:37:36

End at: 2018-03-14 11:38:06

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 360.57 Mbit/s

95th percentile per-packet one-way delay: 60.609 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 185.84 Mbit/s

95th percentile per-packet one-way delay: 57.305 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 185.07 Mbit/s

95th percentile per-packet one-way delay: 65.317 ms

Loss rate: 0.00%

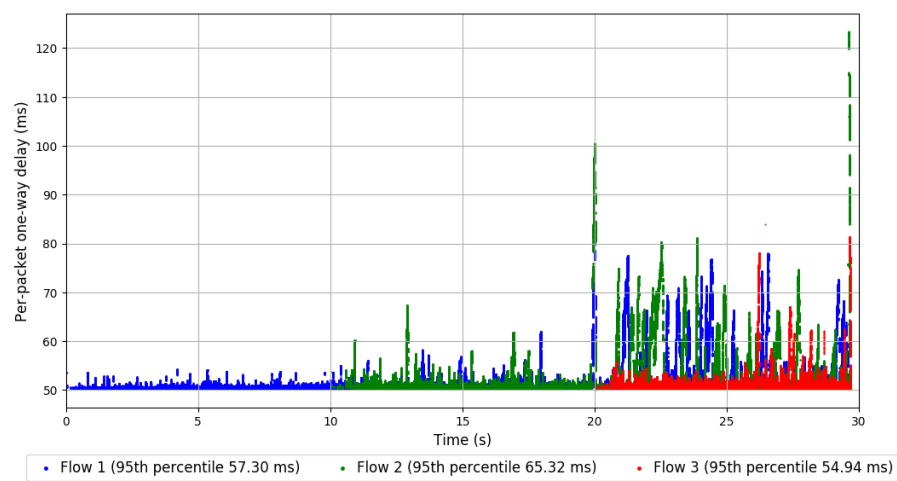
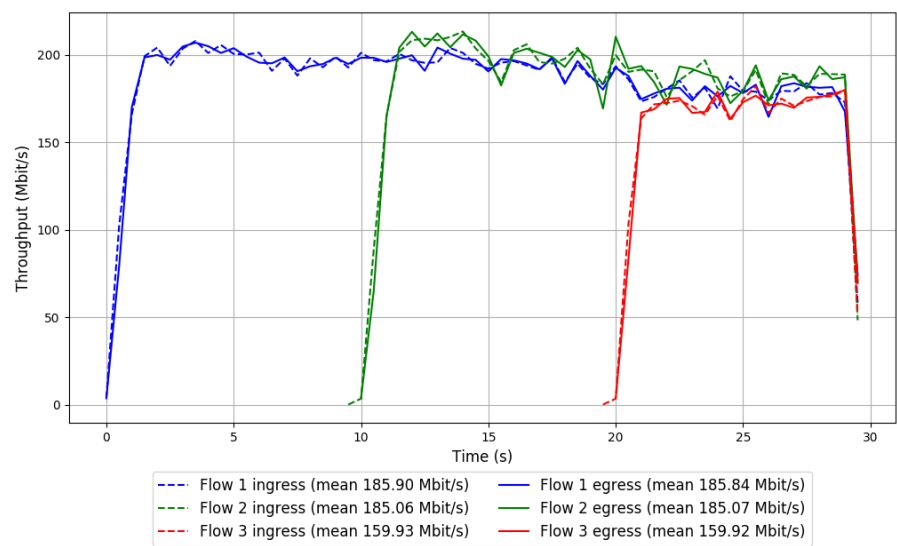
-- Flow 3:

Average throughput: 159.92 Mbit/s

95th percentile per-packet one-way delay: 54.935 ms

Loss rate: 0.00%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-14 11:54:57

End at: 2018-03-14 11:55:27

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 361.75 Mbit/s

95th percentile per-packet one-way delay: 60.514 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 189.99 Mbit/s

95th percentile per-packet one-way delay: 58.134 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 179.79 Mbit/s

95th percentile per-packet one-way delay: 70.240 ms

Loss rate: 0.00%

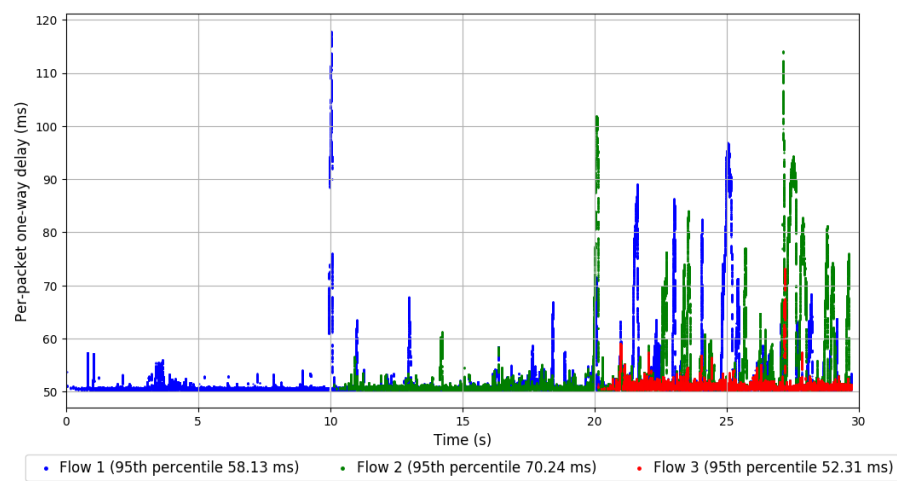
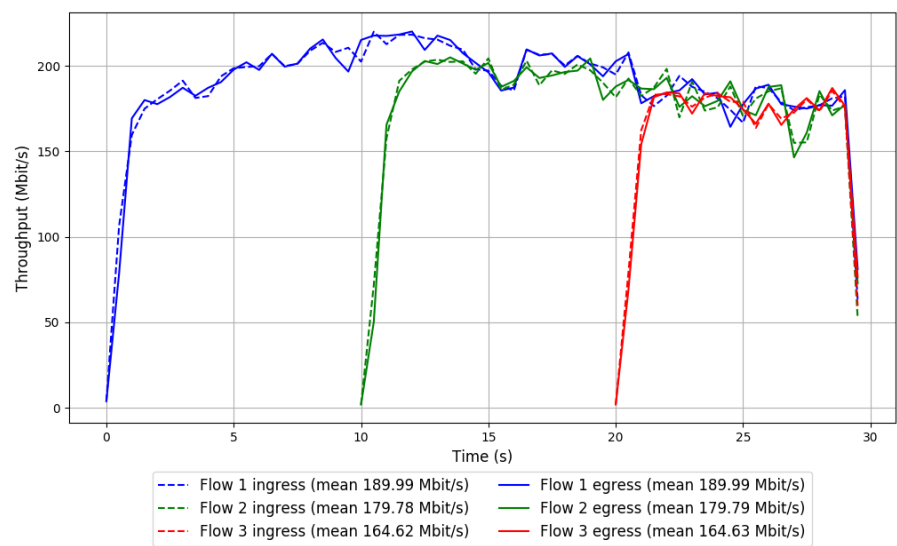
-- Flow 3:

Average throughput: 164.63 Mbit/s

95th percentile per-packet one-way delay: 52.309 ms

Loss rate: 0.00%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-14 12:12:17

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

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 391.27 Mbit/s

95th percentile per-packet one-way delay: 67.219 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 211.08 Mbit/s

95th percentile per-packet one-way delay: 58.829 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 188.97 Mbit/s

95th percentile per-packet one-way delay: 72.090 ms

Loss rate: 0.02%

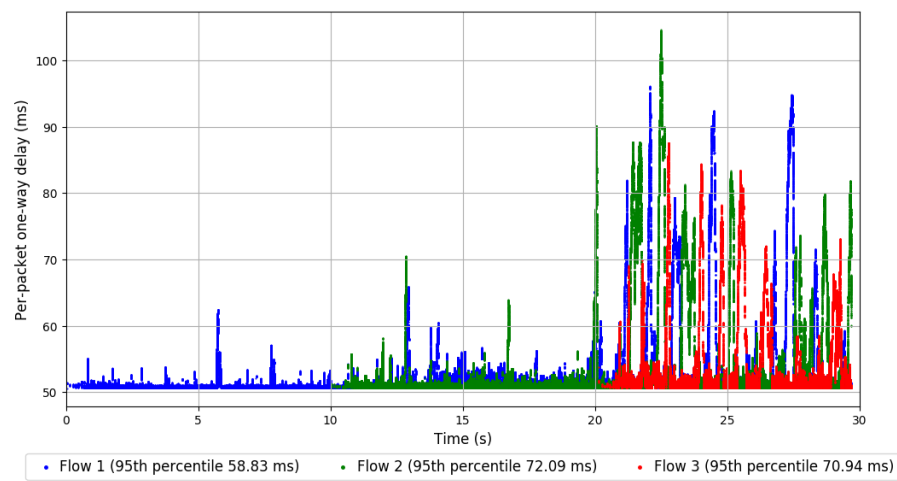
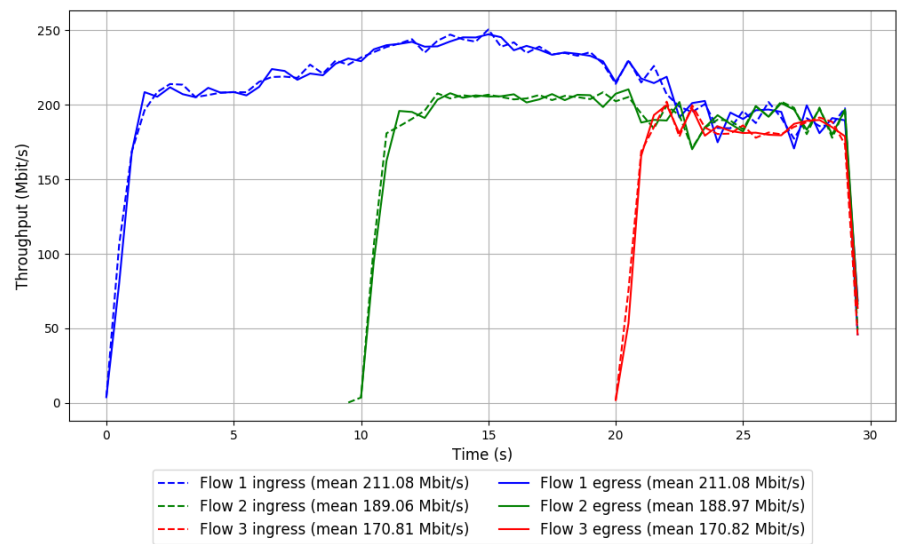
-- Flow 3:

Average throughput: 170.82 Mbit/s

95th percentile per-packet one-way delay: 70.936 ms

Loss rate: 0.00%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-14 12:29:38

End at: 2018-03-14 12:30:08

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 371.75 Mbit/s

95th percentile per-packet one-way delay: 58.423 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 206.50 Mbit/s

95th percentile per-packet one-way delay: 55.864 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 173.64 Mbit/s

95th percentile per-packet one-way delay: 60.542 ms

Loss rate: 0.00%

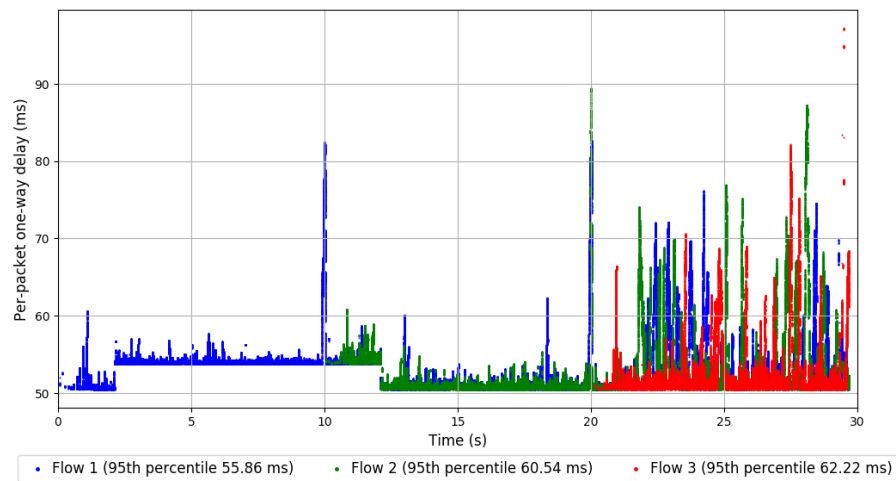
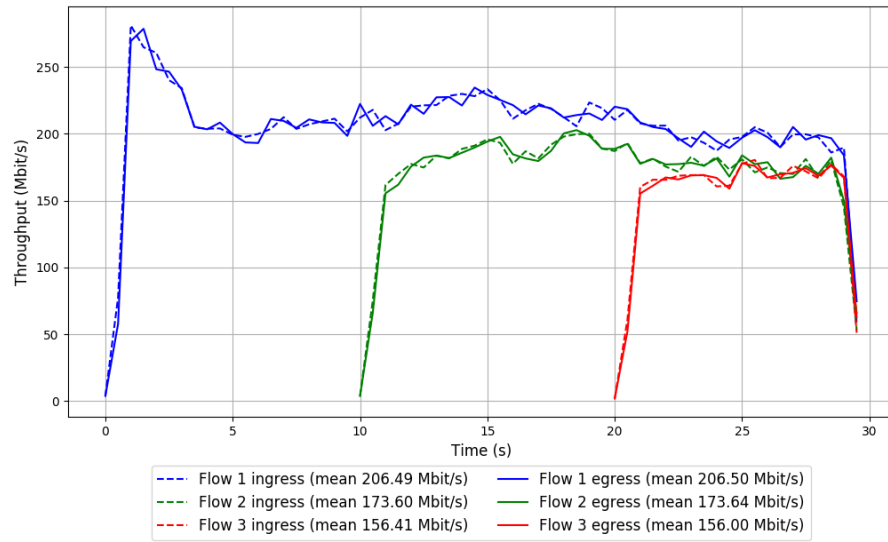
-- Flow 3:

Average throughput: 156.00 Mbit/s

95th percentile per-packet one-way delay: 62.224 ms

Loss rate: 0.26%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-14 12:46:51

End at: 2018-03-14 12:47:21

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 331.42 Mbit/s

95th percentile per-packet one-way delay: 55.017 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 178.59 Mbit/s

95th percentile per-packet one-way delay: 54.638 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 158.26 Mbit/s

95th percentile per-packet one-way delay: 56.608 ms

Loss rate: 0.00%

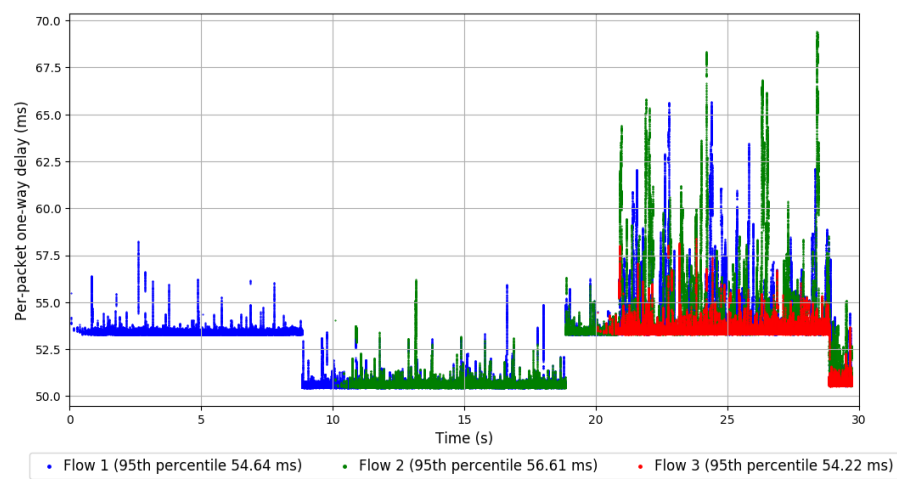
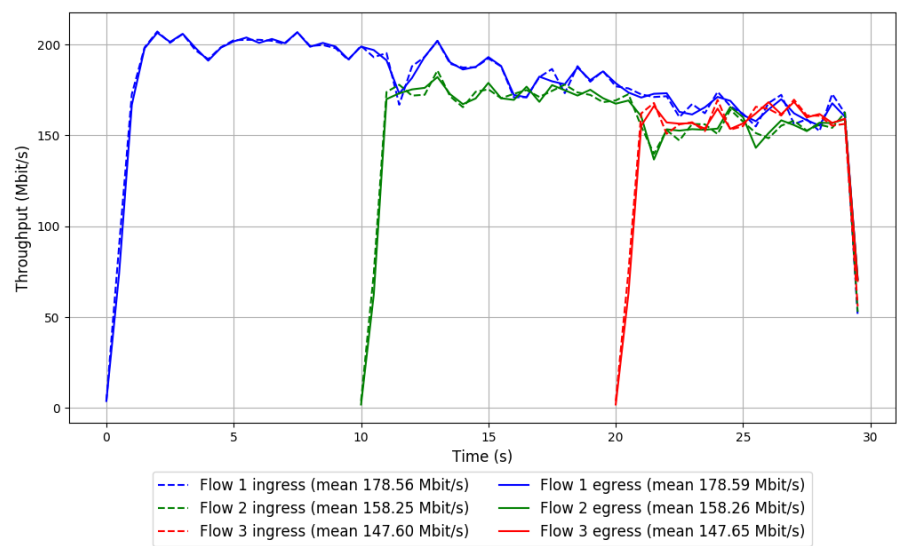
-- Flow 3:

Average throughput: 147.65 Mbit/s

95th percentile per-packet one-way delay: 54.218 ms

Loss rate: 0.00%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-14 10:02:52

End at: 2018-03-14 10:03:22

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 405.71 Mbit/s

95th percentile per-packet one-way delay: 54.837 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 228.52 Mbit/s

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

Loss rate: 0.00%

-- Flow 2:

Average throughput: 220.14 Mbit/s

95th percentile per-packet one-way delay: 55.833 ms

Loss rate: 0.00%

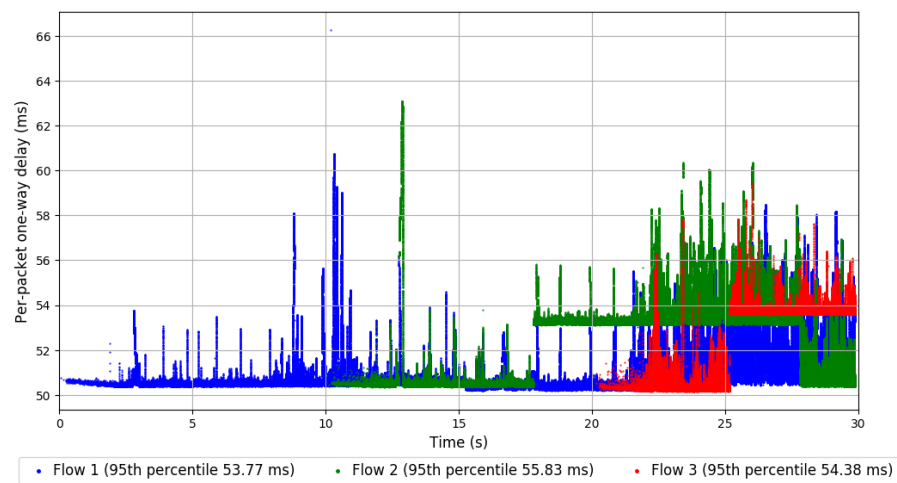
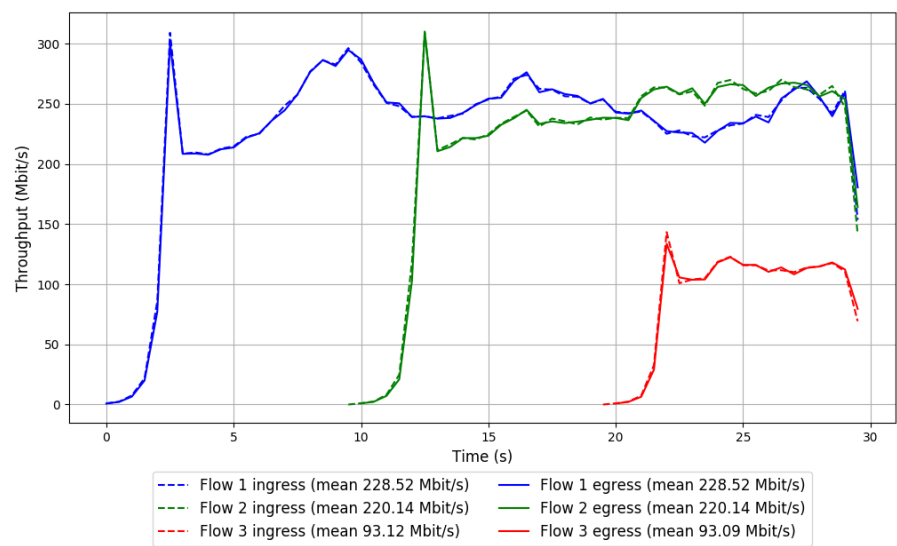
-- Flow 3:

Average throughput: 93.09 Mbit/s

95th percentile per-packet one-way delay: 54.381 ms

Loss rate: 0.02%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-14 10:20:14

End at: 2018-03-14 10:20:44

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 439.01 Mbit/s

95th percentile per-packet one-way delay: 65.788 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 241.54 Mbit/s

95th percentile per-packet one-way delay: 107.027 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 220.05 Mbit/s

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

Loss rate: 0.00%

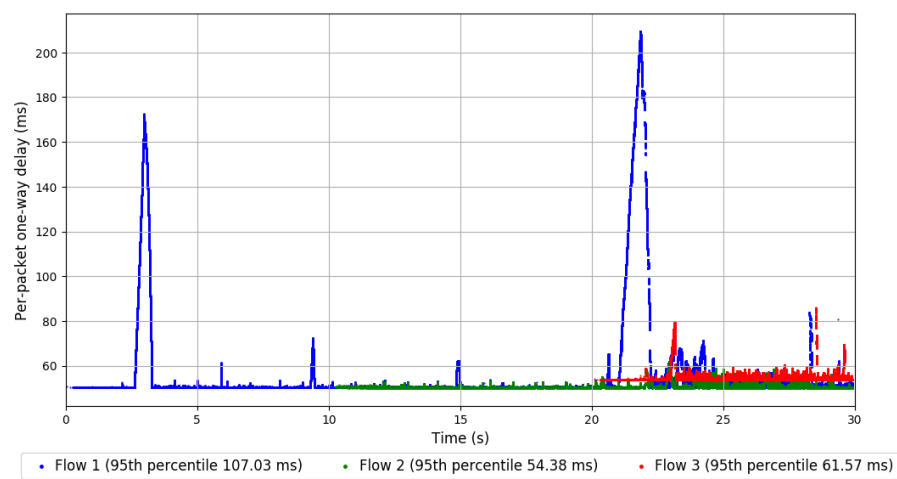
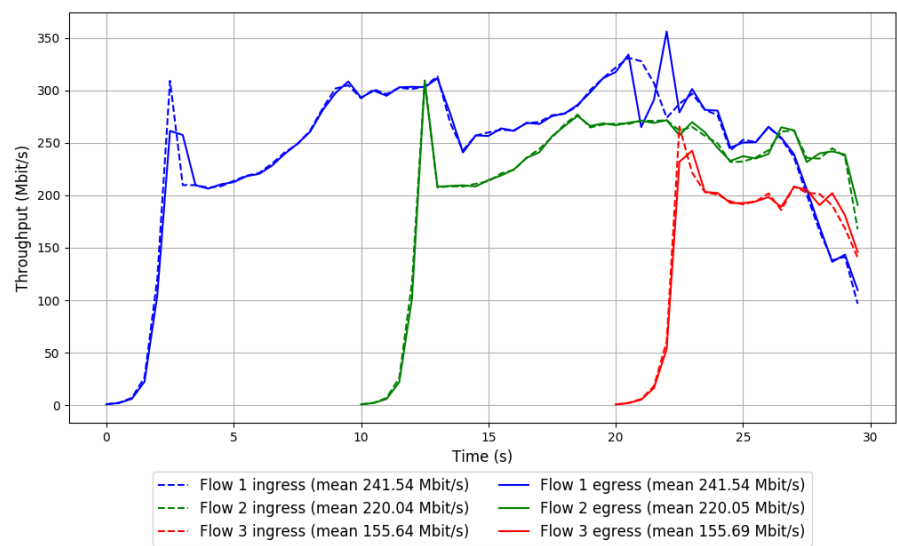
-- Flow 3:

Average throughput: 155.69 Mbit/s

95th percentile per-packet one-way delay: 61.571 ms

Loss rate: 0.01%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-14 10:37:50

End at: 2018-03-14 10:38:20

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.31 Mbit/s

95th percentile per-packet one-way delay: 62.290 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 229.63 Mbit/s

95th percentile per-packet one-way delay: 92.286 ms

Loss rate: 0.35%

-- Flow 2:

Average throughput: 193.82 Mbit/s

95th percentile per-packet one-way delay: 55.091 ms

Loss rate: 0.00%

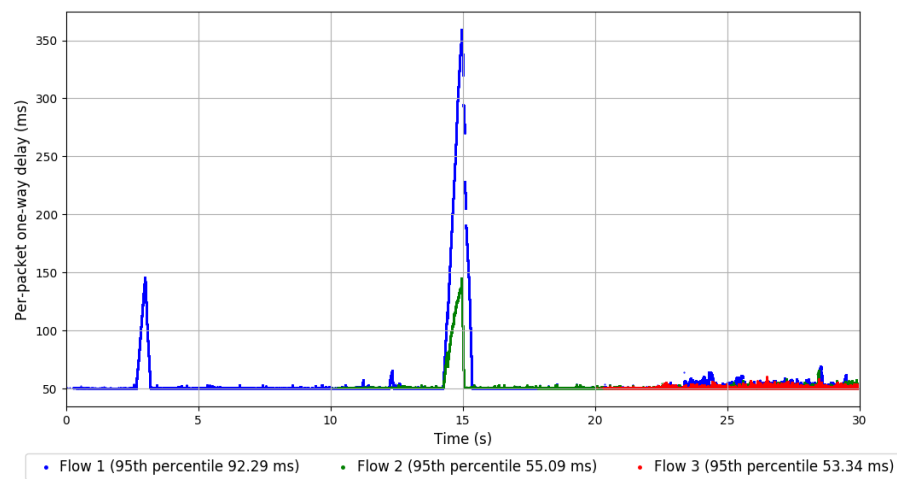
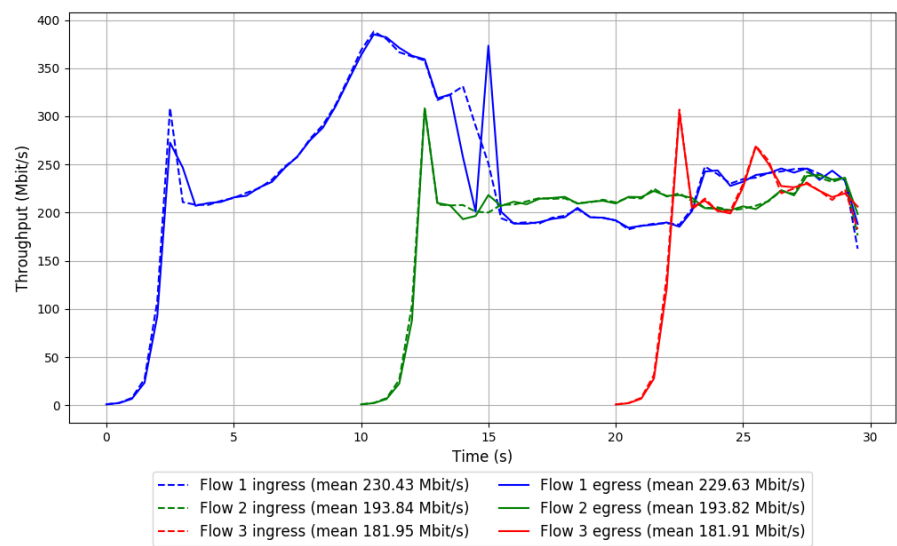
-- Flow 3:

Average throughput: 181.91 Mbit/s

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

Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-14 10:54:53

End at: 2018-03-14 10:55:23

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.68 Mbit/s

95th percentile per-packet one-way delay: 84.423 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 254.63 Mbit/s

95th percentile per-packet one-way delay: 102.841 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 191.91 Mbit/s

95th percentile per-packet one-way delay: 62.810 ms

Loss rate: 0.00%

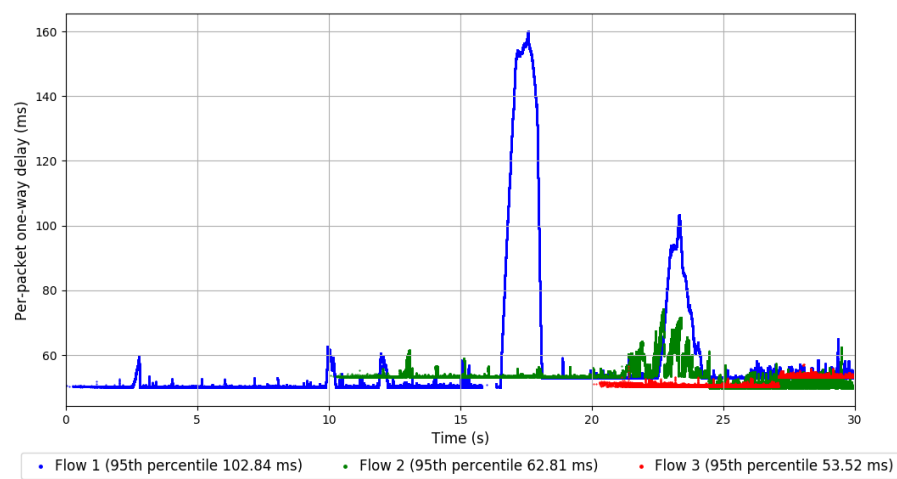
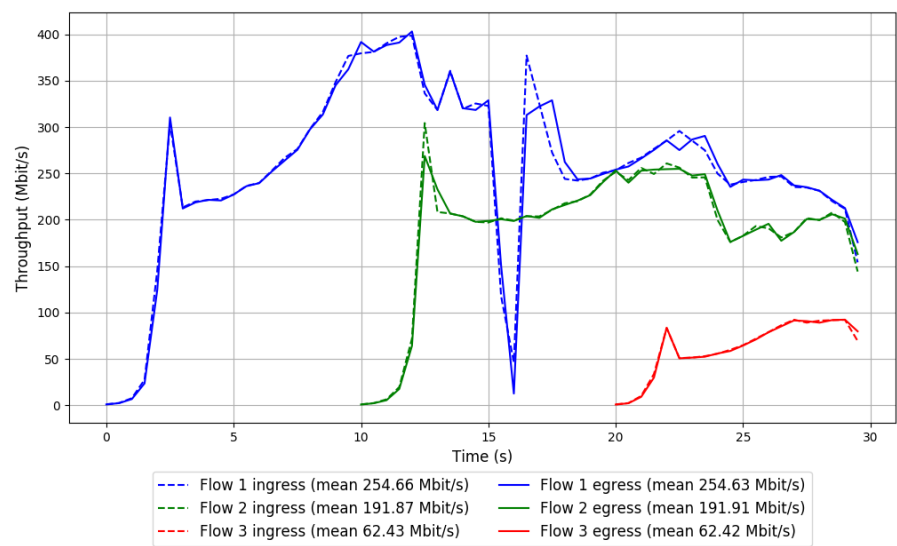
-- Flow 3:

Average throughput: 62.42 Mbit/s

95th percentile per-packet one-way delay: 53.522 ms

Loss rate: 0.00%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

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

End at: 2018-03-14 11:12:41

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 443.21 Mbit/s

95th percentile per-packet one-way delay: 59.246 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 245.93 Mbit/s

95th percentile per-packet one-way delay: 65.854 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 213.64 Mbit/s

95th percentile per-packet one-way delay: 58.546 ms

Loss rate: 0.00%

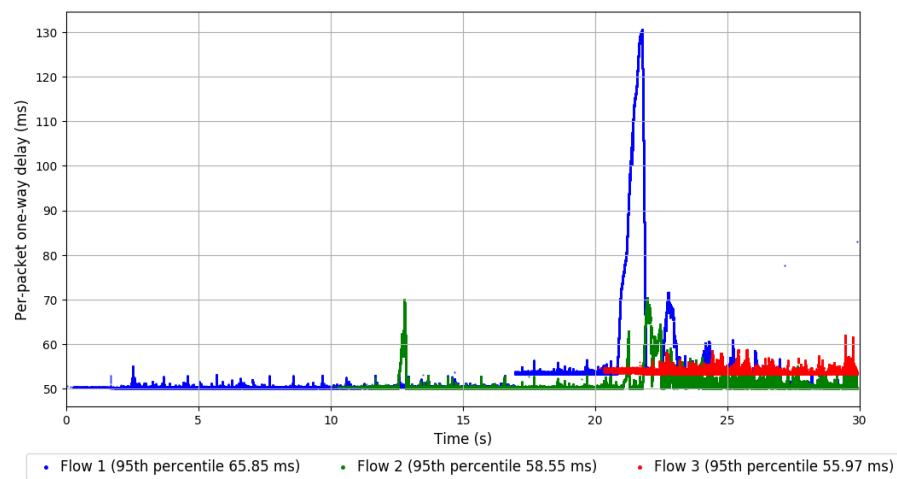
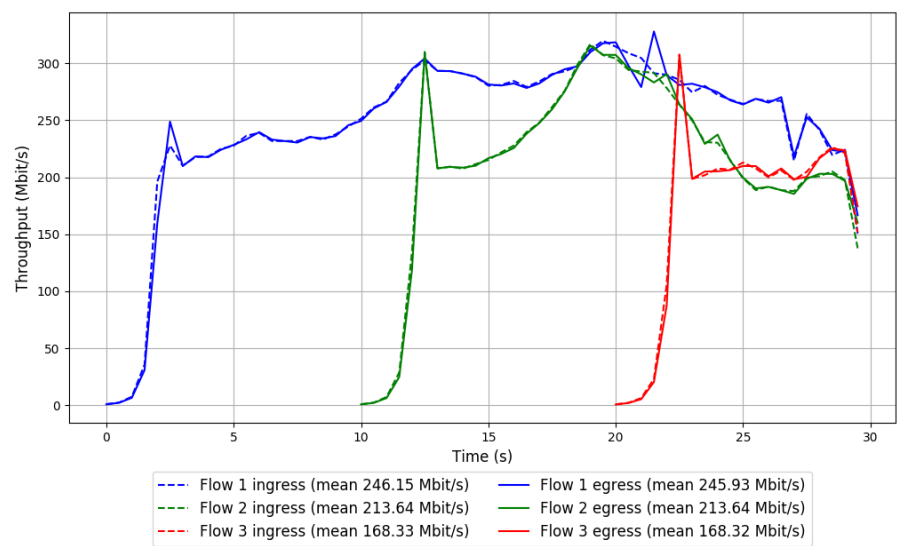
-- Flow 3:

Average throughput: 168.32 Mbit/s

95th percentile per-packet one-way delay: 55.969 ms

Loss rate: 0.03%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-14 11:29:28

End at: 2018-03-14 11:29:58

Below is generated by plot.py at 2018-03-14 18:10:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 369.49 Mbit/s

95th percentile per-packet one-way delay: 85.395 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 219.14 Mbit/s

95th percentile per-packet one-way delay: 101.263 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 199.48 Mbit/s

95th percentile per-packet one-way delay: 58.453 ms

Loss rate: 0.04%

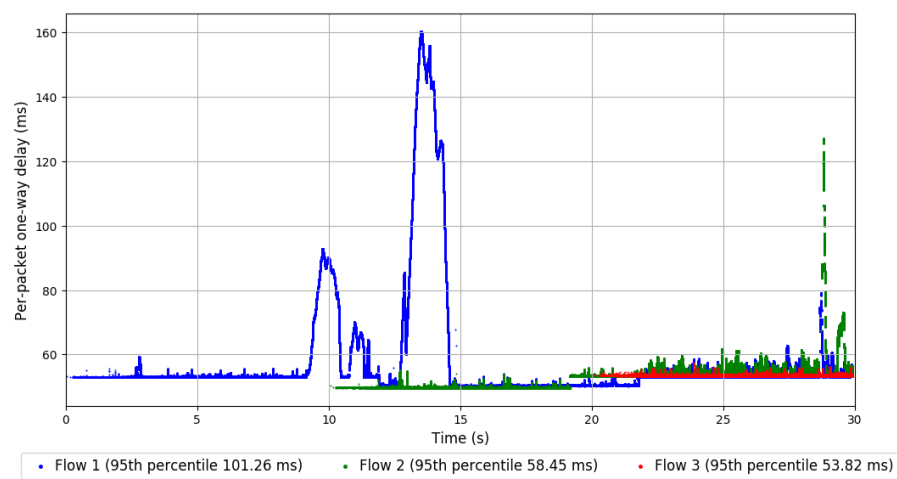
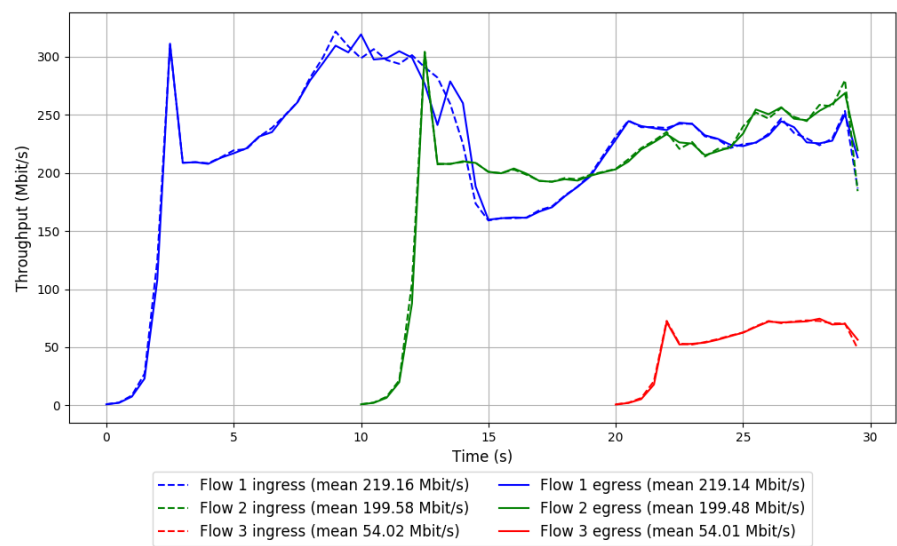
-- Flow 3:

Average throughput: 54.01 Mbit/s

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

Loss rate: 0.02%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-14 11:46:41

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

Below is generated by plot.py at 2018-03-14 18:11:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 418.30 Mbit/s

95th percentile per-packet one-way delay: 55.606 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 231.45 Mbit/s

95th percentile per-packet one-way delay: 56.861 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 212.28 Mbit/s

95th percentile per-packet one-way delay: 54.350 ms

Loss rate: 0.00%

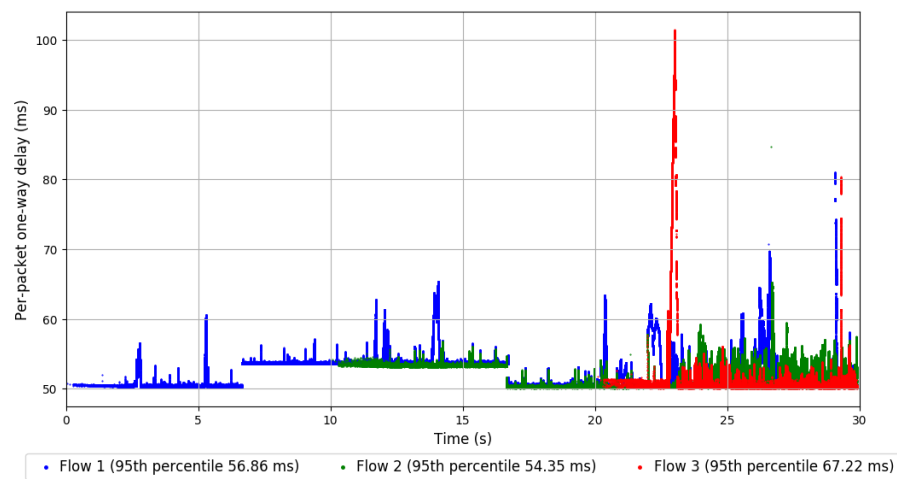
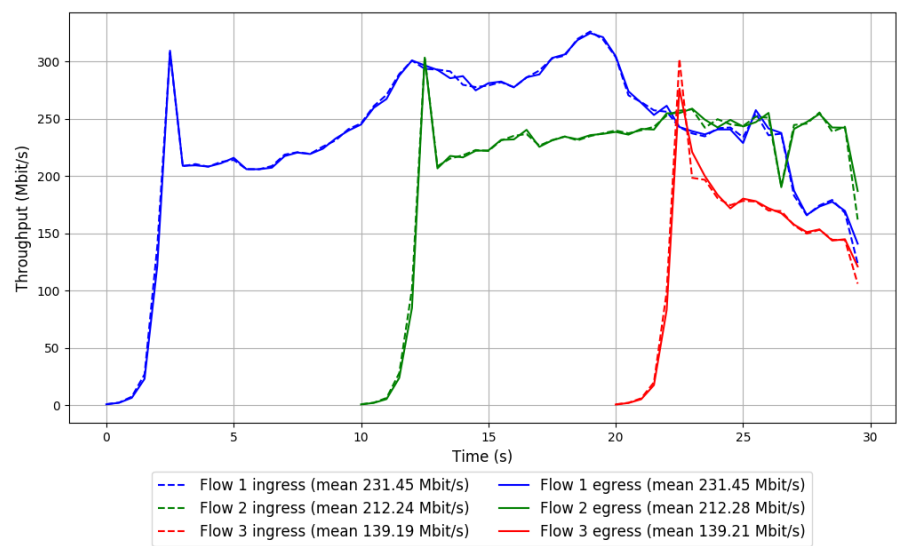
-- Flow 3:

Average throughput: 139.21 Mbit/s

95th percentile per-packet one-way delay: 67.220 ms

Loss rate: 0.00%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-14 12:03:59

End at: 2018-03-14 12:04:29

Below is generated by plot.py at 2018-03-14 18:12:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 426.72 Mbit/s

95th percentile per-packet one-way delay: 58.733 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 238.37 Mbit/s

95th percentile per-packet one-way delay: 57.668 ms

Loss rate: 0.24%

-- Flow 2:

Average throughput: 204.16 Mbit/s

95th percentile per-packet one-way delay: 59.218 ms

Loss rate: 0.00%

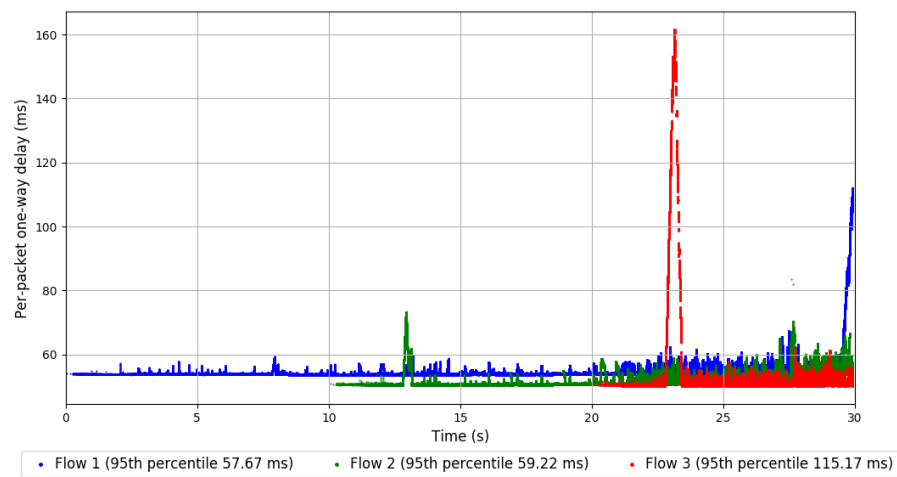
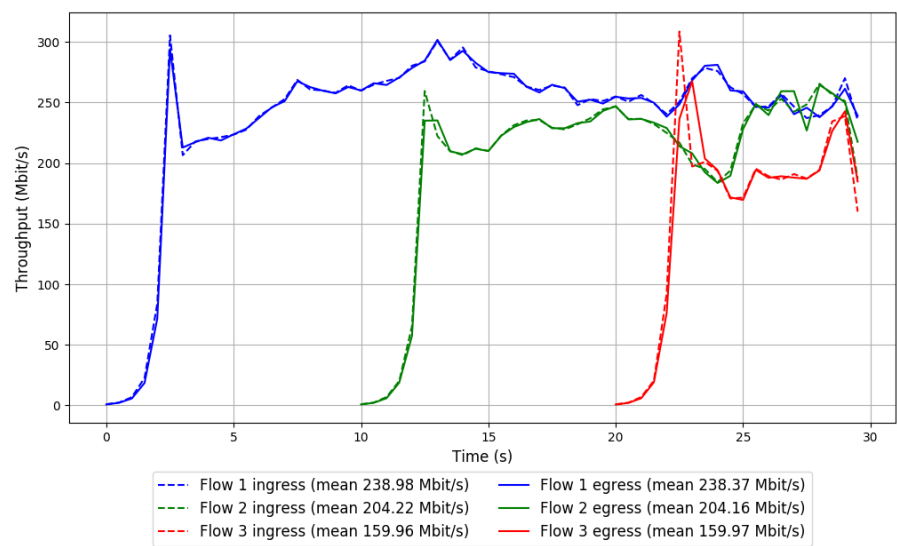
-- Flow 3:

Average throughput: 159.97 Mbit/s

95th percentile per-packet one-way delay: 115.169 ms

Loss rate: 0.00%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-14 12:21:27

End at: 2018-03-14 12:21:57

Below is generated by plot.py at 2018-03-14 18:12:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 364.80 Mbit/s

95th percentile per-packet one-way delay: 110.074 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 184.62 Mbit/s

95th percentile per-packet one-way delay: 146.731 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 222.99 Mbit/s

95th percentile per-packet one-way delay: 73.110 ms

Loss rate: 0.00%

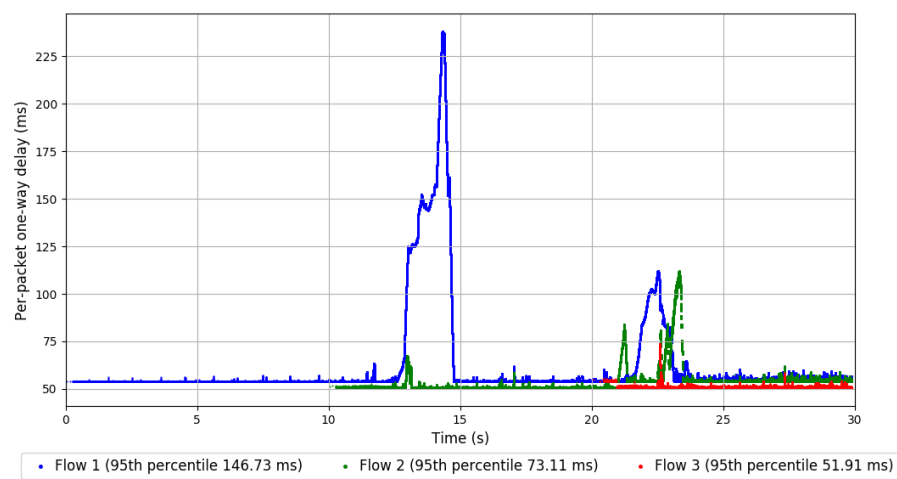
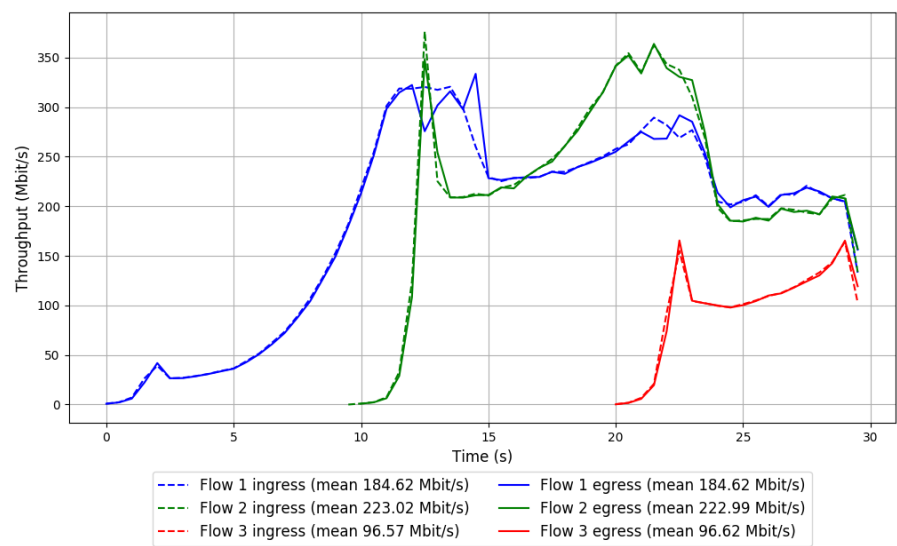
-- Flow 3:

Average throughput: 96.62 Mbit/s

95th percentile per-packet one-way delay: 51.914 ms

Loss rate: 0.00%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-14 12:38:35

End at: 2018-03-14 12:39:05

Below is generated by plot.py at 2018-03-14 18:13:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 402.14 Mbit/s

95th percentile per-packet one-way delay: 67.741 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 244.50 Mbit/s

95th percentile per-packet one-way delay: 63.577 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 215.70 Mbit/s

95th percentile per-packet one-way delay: 71.375 ms

Loss rate: 0.00%

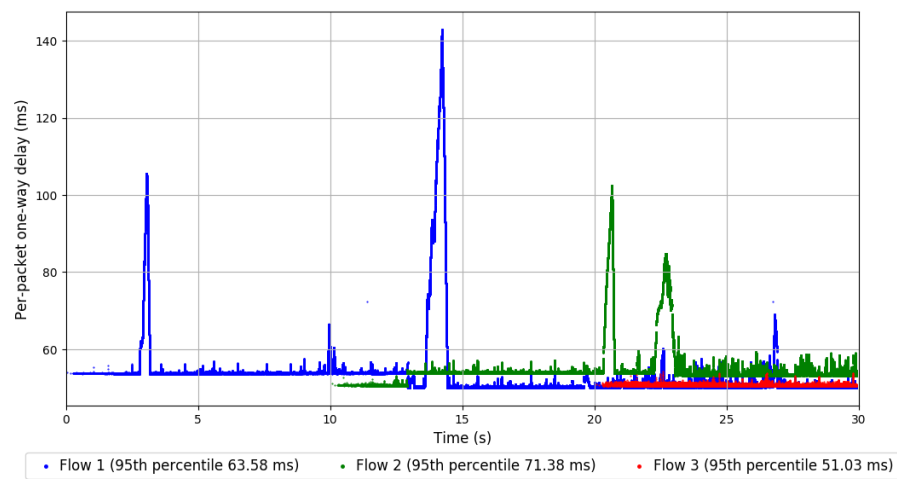
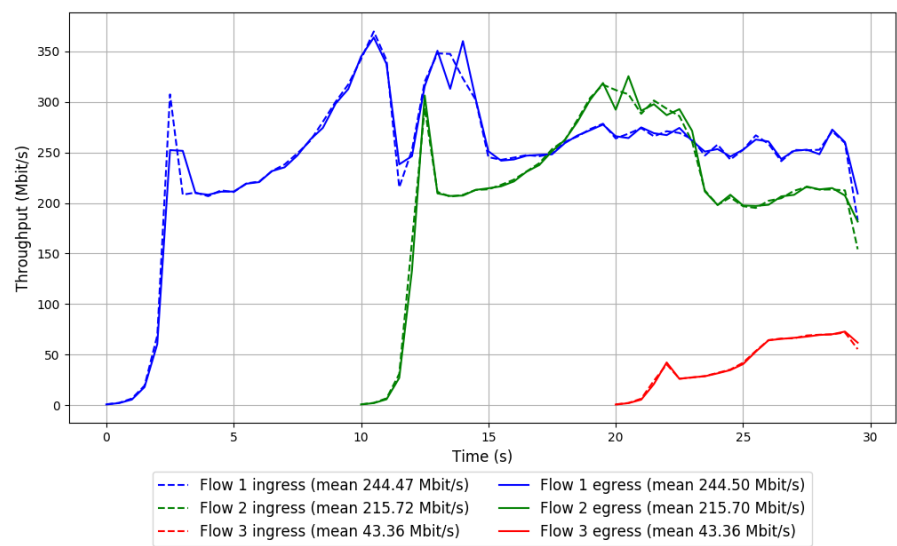
-- Flow 3:

Average throughput: 43.36 Mbit/s

95th percentile per-packet one-way delay: 51.030 ms

Loss rate: 0.00%

Run 10: Report of Vivace-latency — Data Link

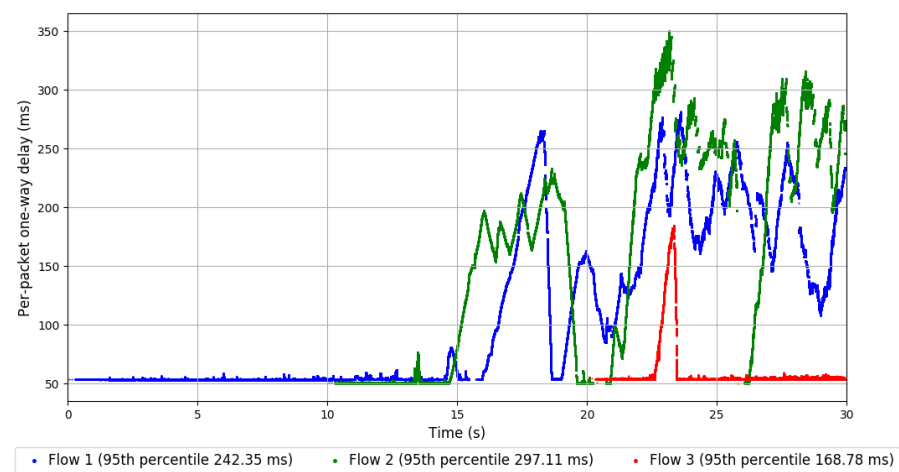
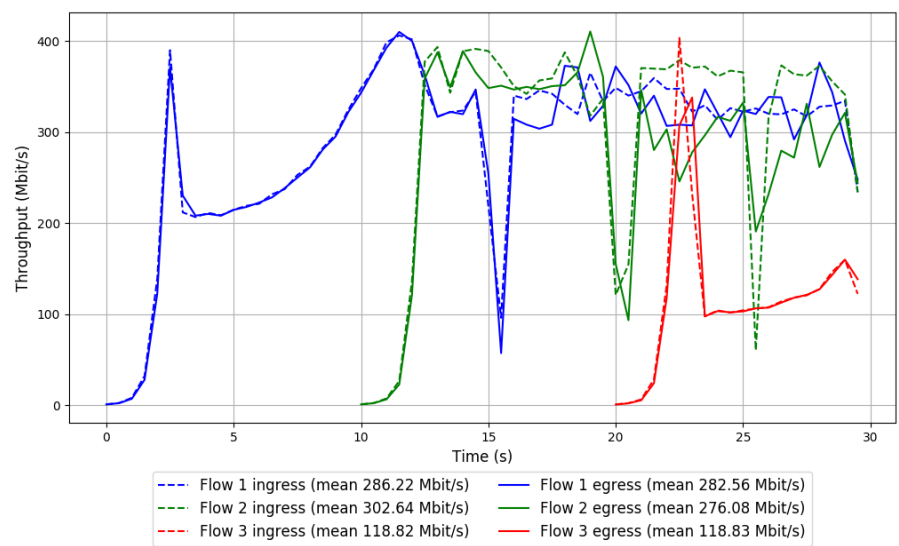


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-14 10:06:55
End at: 2018-03-14 10:07:25

# Below is generated by plot.py at 2018-03-14 18:16:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 505.21 Mbit/s
95th percentile per-packet one-way delay: 272.626 ms
Loss rate: 3.99%
-- Flow 1:
Average throughput: 282.56 Mbit/s
95th percentile per-packet one-way delay: 242.354 ms
Loss rate: 1.23%
-- Flow 2:
Average throughput: 276.08 Mbit/s
95th percentile per-packet one-way delay: 297.111 ms
Loss rate: 8.70%
-- Flow 3:
Average throughput: 118.83 Mbit/s
95th percentile per-packet one-way delay: 168.780 ms
Loss rate: 0.00%
```

Run 1: Report of Vivace-loss — Data Link

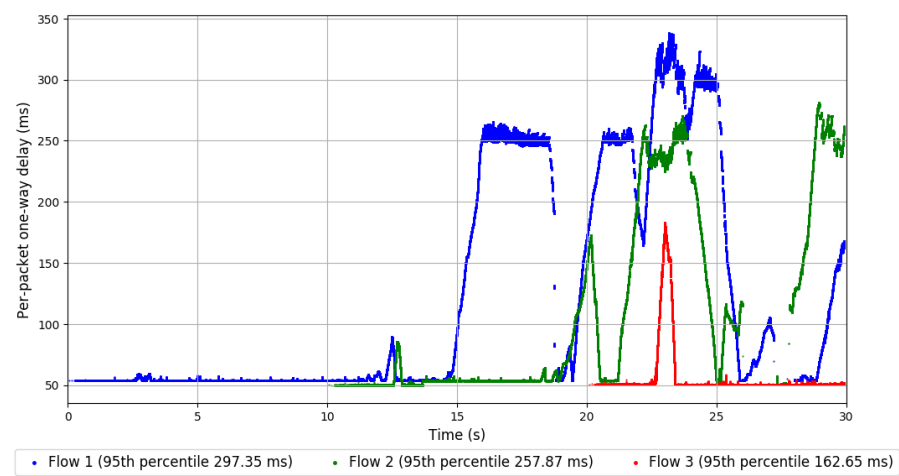
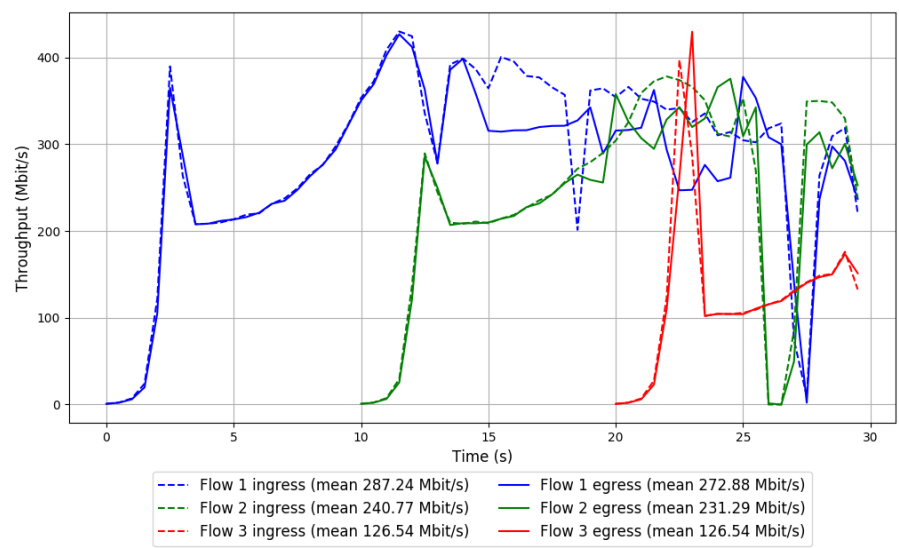


```
Run 2: Statistics of Vivace-loss

Start at: 2018-03-14 10:24:17
End at: 2018-03-14 10:24:47

# Below is generated by plot.py at 2018-03-14 18:16:59
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.34 Mbit/s
95th percentile per-packet one-way delay: 269.002 ms
Loss rate: 4.22%
-- Flow 1:
Average throughput: 272.88 Mbit/s
95th percentile per-packet one-way delay: 297.348 ms
Loss rate: 5.00%
-- Flow 2:
Average throughput: 231.29 Mbit/s
95th percentile per-packet one-way delay: 257.871 ms
Loss rate: 3.92%
-- Flow 3:
Average throughput: 126.54 Mbit/s
95th percentile per-packet one-way delay: 162.649 ms
Loss rate: 0.00%
```

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-14 10:41:50

End at: 2018-03-14 10:42:20

Below is generated by plot.py at 2018-03-14 18:19:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 471.46 Mbit/s

95th percentile per-packet one-way delay: 262.208 ms

Loss rate: 4.13%

-- Flow 1:

Average throughput: 292.73 Mbit/s

95th percentile per-packet one-way delay: 264.113 ms

Loss rate: 3.41%

-- Flow 2:

Average throughput: 209.74 Mbit/s

95th percentile per-packet one-way delay: 256.229 ms

Loss rate: 5.18%

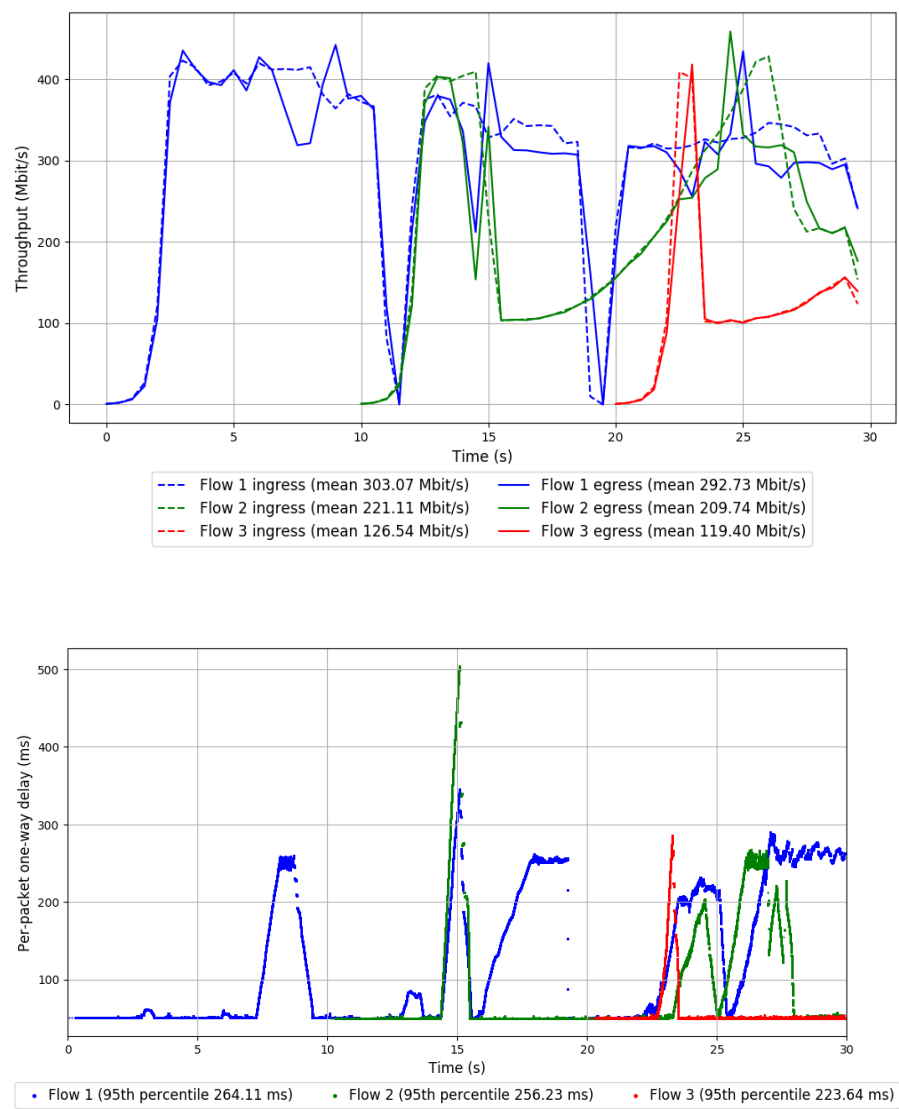
-- Flow 3:

Average throughput: 119.40 Mbit/s

95th percentile per-packet one-way delay: 223.643 ms

Loss rate: 5.65%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-14 10:58:55

End at: 2018-03-14 10:59:25

Below is generated by plot.py at 2018-03-14 18:21:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 482.73 Mbit/s

95th percentile per-packet one-way delay: 254.031 ms

Loss rate: 2.48%

-- Flow 1:

Average throughput: 244.24 Mbit/s

95th percentile per-packet one-way delay: 259.983 ms

Loss rate: 2.01%

-- Flow 2:

Average throughput: 299.68 Mbit/s

95th percentile per-packet one-way delay: 251.384 ms

Loss rate: 2.32%

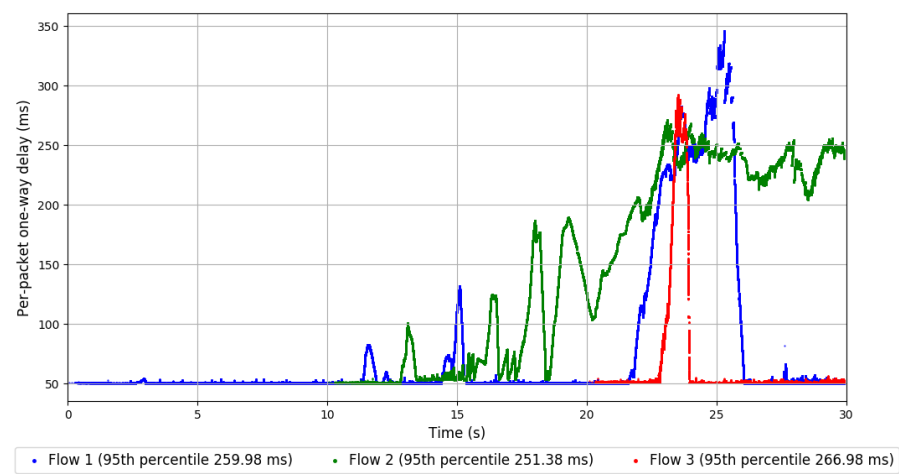
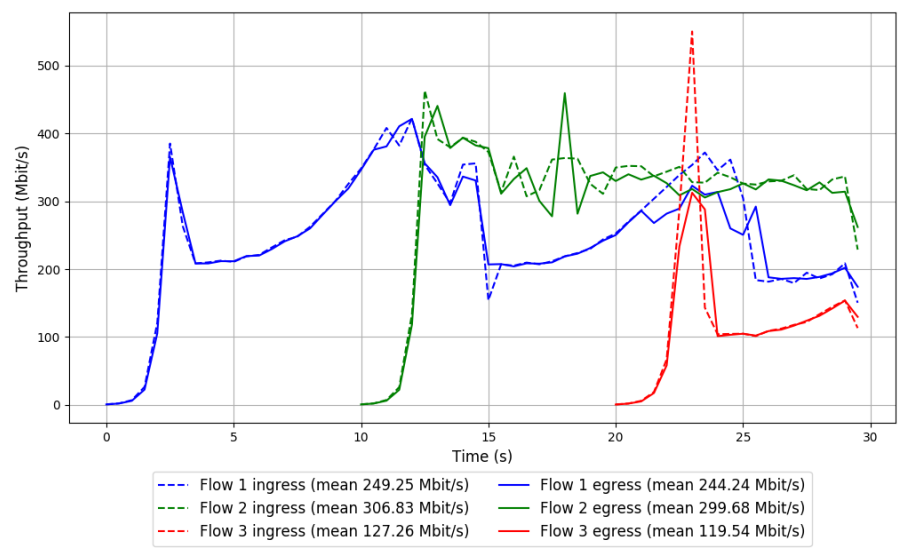
-- Flow 3:

Average throughput: 119.54 Mbit/s

95th percentile per-packet one-way delay: 266.984 ms

Loss rate: 6.07%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-14 11:16:13

End at: 2018-03-14 11:16:43

Below is generated by plot.py at 2018-03-14 18:23:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.28 Mbit/s

95th percentile per-packet one-way delay: 233.613 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 303.78 Mbit/s

95th percentile per-packet one-way delay: 241.090 ms

Loss rate: 0.84%

-- Flow 2:

Average throughput: 284.73 Mbit/s

95th percentile per-packet one-way delay: 206.932 ms

Loss rate: 1.62%

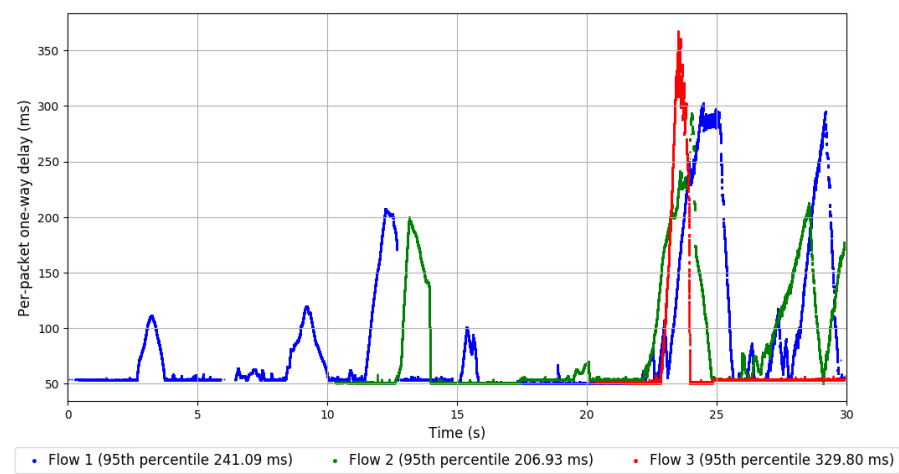
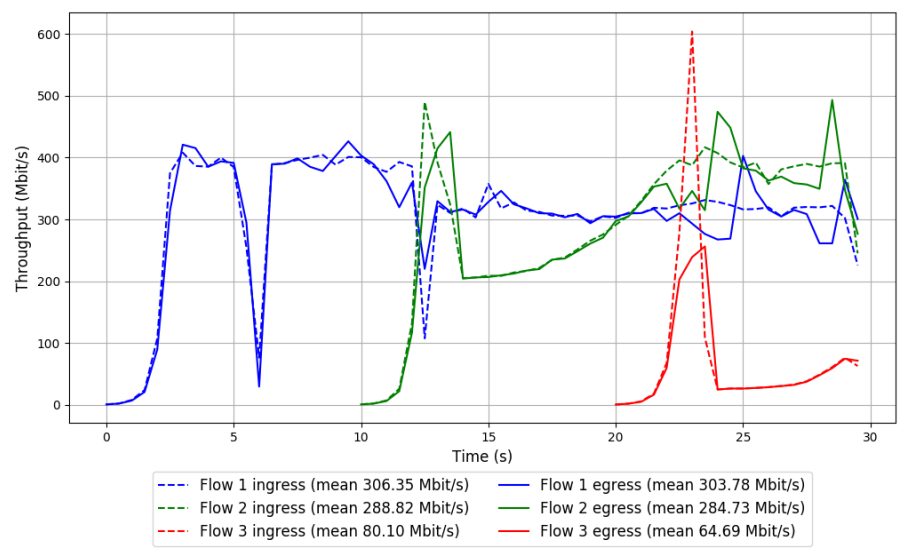
-- Flow 3:

Average throughput: 64.69 Mbit/s

95th percentile per-packet one-way delay: 329.804 ms

Loss rate: 19.20%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-14 11:33:24

End at: 2018-03-14 11:33:54

Below is generated by plot.py at 2018-03-14 18:23:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 465.18 Mbit/s

95th percentile per-packet one-way delay: 267.300 ms

Loss rate: 3.74%

-- Flow 1:

Average throughput: 262.01 Mbit/s

95th percentile per-packet one-way delay: 273.751 ms

Loss rate: 4.51%

-- Flow 2:

Average throughput: 266.10 Mbit/s

95th percentile per-packet one-way delay: 229.075 ms

Loss rate: 0.70%

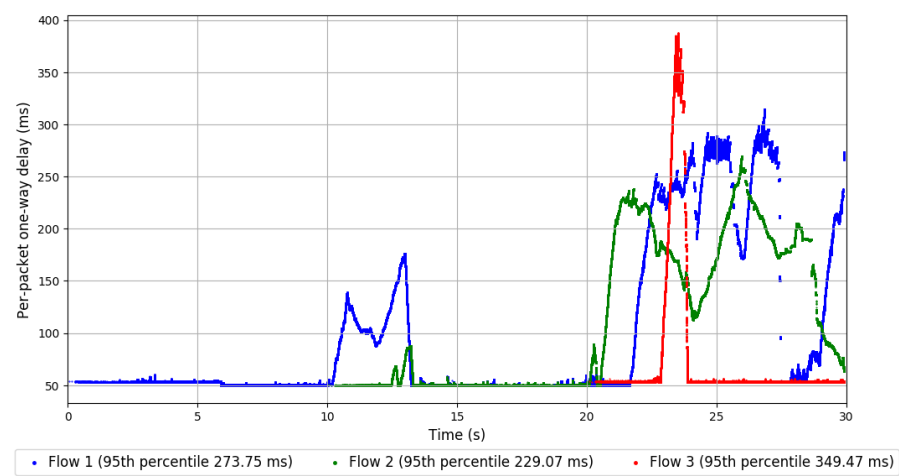
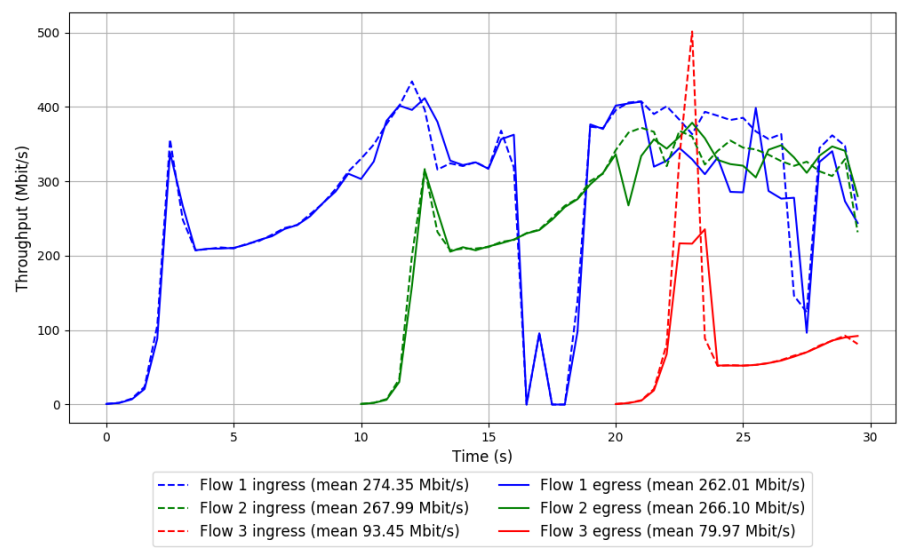
-- Flow 3:

Average throughput: 79.97 Mbit/s

95th percentile per-packet one-way delay: 349.470 ms

Loss rate: 14.45%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-14 11:50:38

End at: 2018-03-14 11:51:08

Below is generated by plot.py at 2018-03-14 18:24:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 504.50 Mbit/s

95th percentile per-packet one-way delay: 312.121 ms

Loss rate: 7.10%

-- Flow 1:

Average throughput: 266.78 Mbit/s

95th percentile per-packet one-way delay: 306.286 ms

Loss rate: 6.13%

-- Flow 2:

Average throughput: 258.31 Mbit/s

95th percentile per-packet one-way delay: 320.027 ms

Loss rate: 6.37%

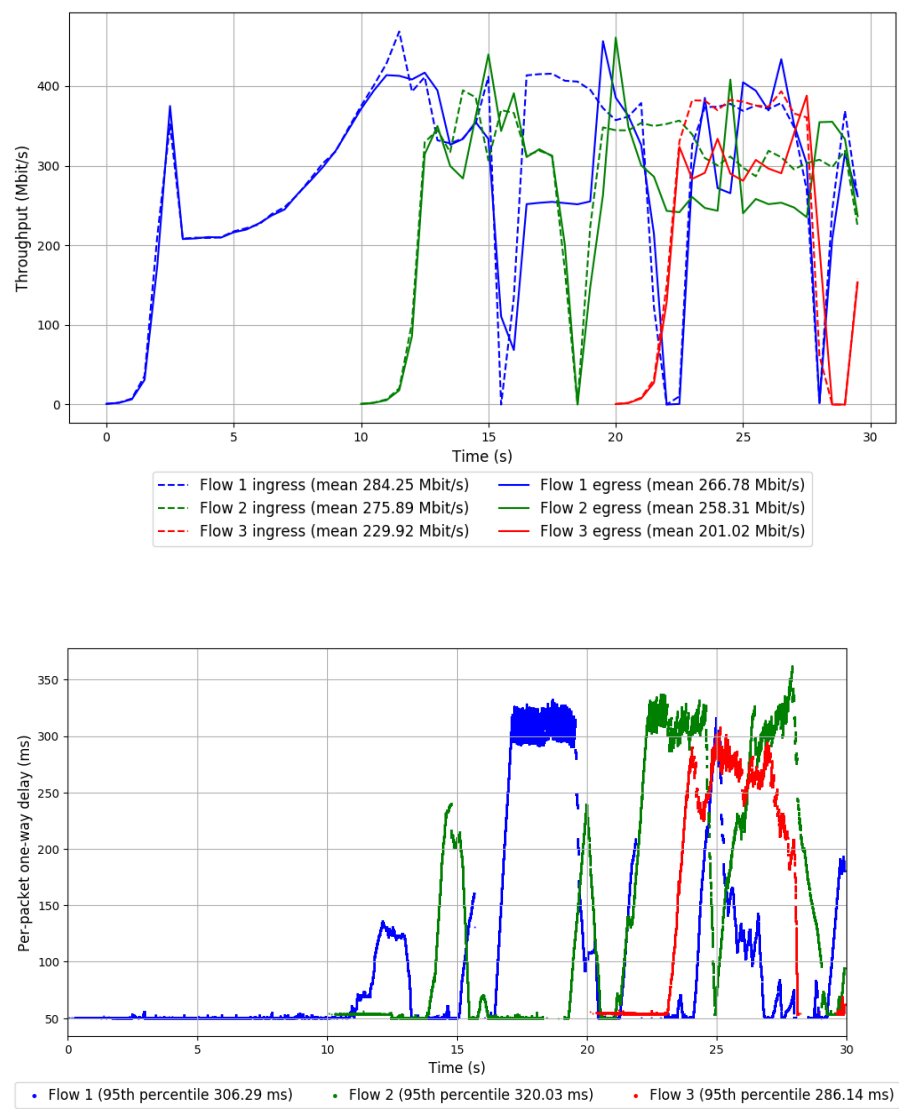
-- Flow 3:

Average throughput: 201.02 Mbit/s

95th percentile per-packet one-way delay: 286.138 ms

Loss rate: 12.57%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

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

End at: 2018-03-14 12:08:33

Below is generated by plot.py at 2018-03-14 18:25:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 525.46 Mbit/s

95th percentile per-packet one-way delay: 290.737 ms

Loss rate: 5.18%

-- Flow 1:

Average throughput: 321.08 Mbit/s

95th percentile per-packet one-way delay: 252.240 ms

Loss rate: 2.95%

-- Flow 2:

Average throughput: 220.44 Mbit/s

95th percentile per-packet one-way delay: 316.357 ms

Loss rate: 4.73%

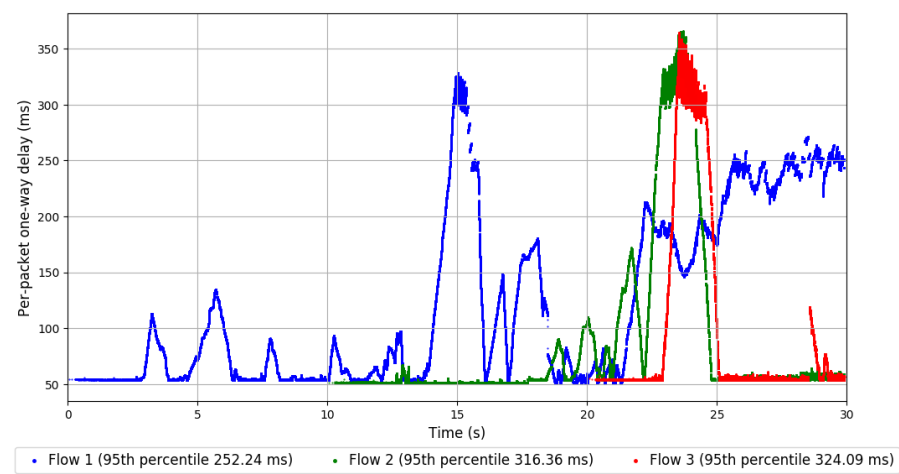
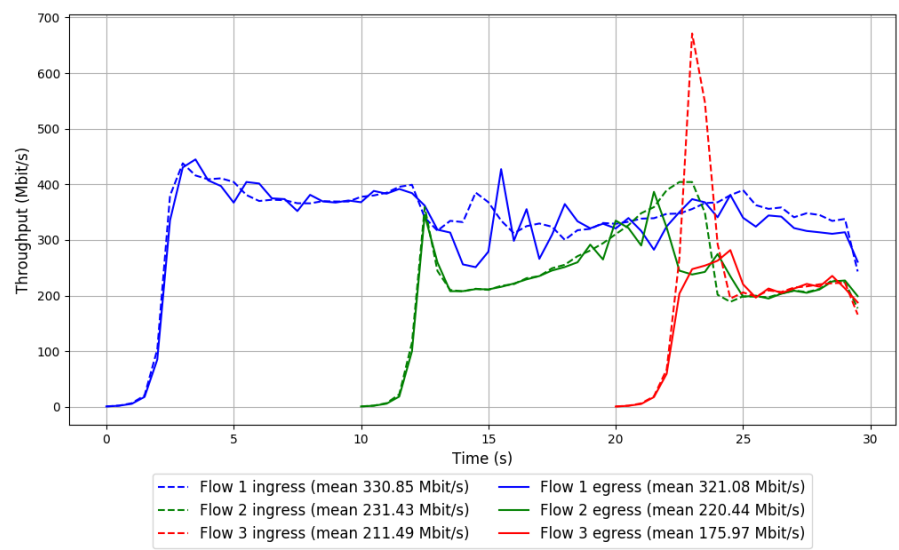
-- Flow 3:

Average throughput: 175.97 Mbit/s

95th percentile per-packet one-way delay: 324.094 ms

Loss rate: 16.79%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-14 12:25:25

End at: 2018-03-14 12:25:55

Below is generated by plot.py at 2018-03-14 18:27:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 437.46 Mbit/s

95th percentile per-packet one-way delay: 268.166 ms

Loss rate: 3.78%

-- Flow 1:

Average throughput: 238.32 Mbit/s

95th percentile per-packet one-way delay: 277.644 ms

Loss rate: 1.94%

-- Flow 2:

Average throughput: 182.65 Mbit/s

95th percentile per-packet one-way delay: 235.793 ms

Loss rate: 9.03%

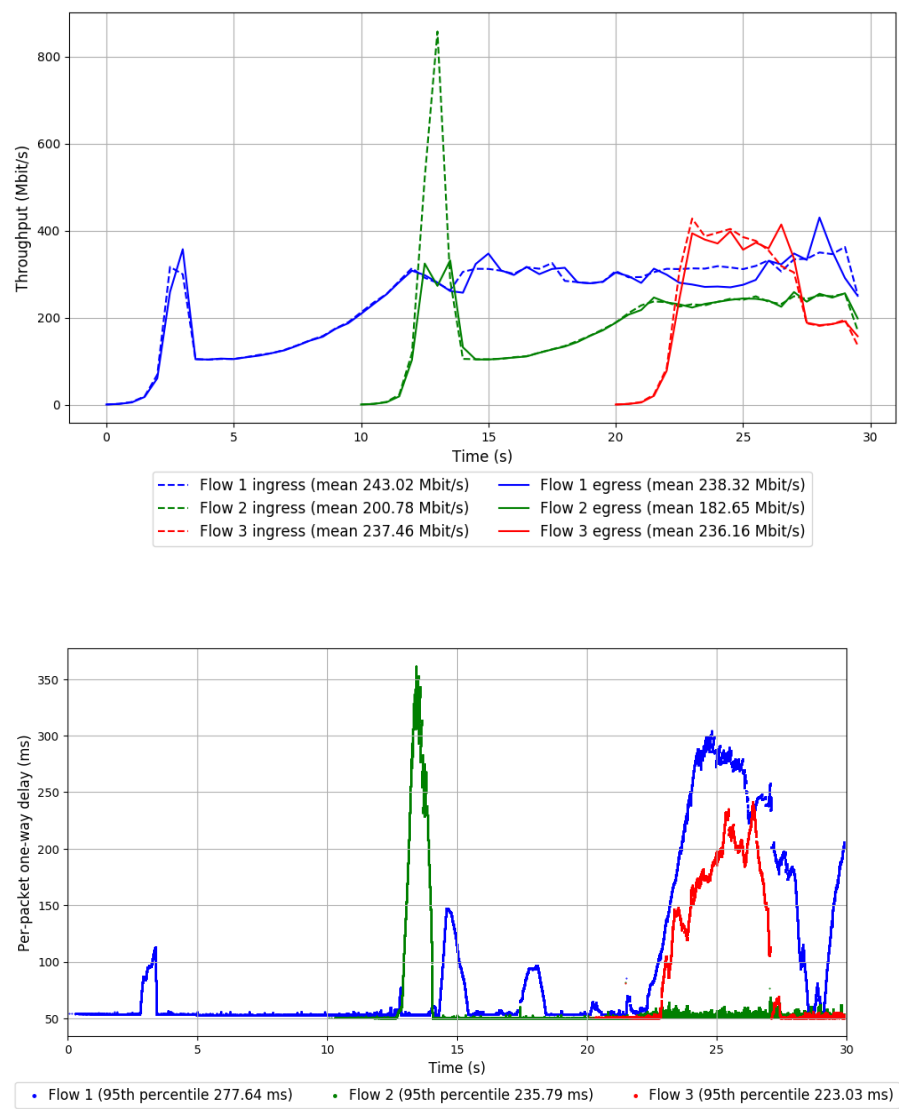
-- Flow 3:

Average throughput: 236.16 Mbit/s

95th percentile per-packet one-way delay: 223.033 ms

Loss rate: 0.56%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-14 12:42:33

End at: 2018-03-14 12:43:03

Below is generated by plot.py at 2018-03-14 18:30:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 547.60 Mbit/s

95th percentile per-packet one-way delay: 266.134 ms

Loss rate: 2.92%

-- Flow 1:

Average throughput: 304.49 Mbit/s

95th percentile per-packet one-way delay: 284.514 ms

Loss rate: 3.74%

-- Flow 2:

Average throughput: 277.07 Mbit/s

95th percentile per-packet one-way delay: 242.869 ms

Loss rate: 1.81%

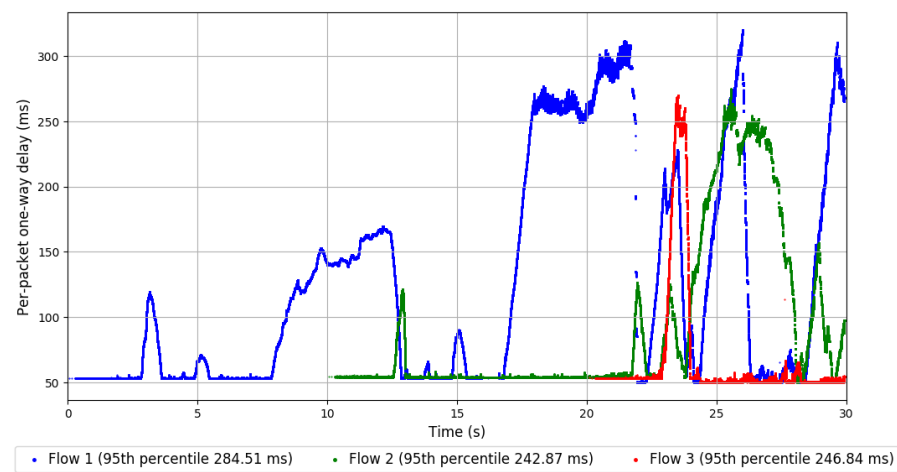
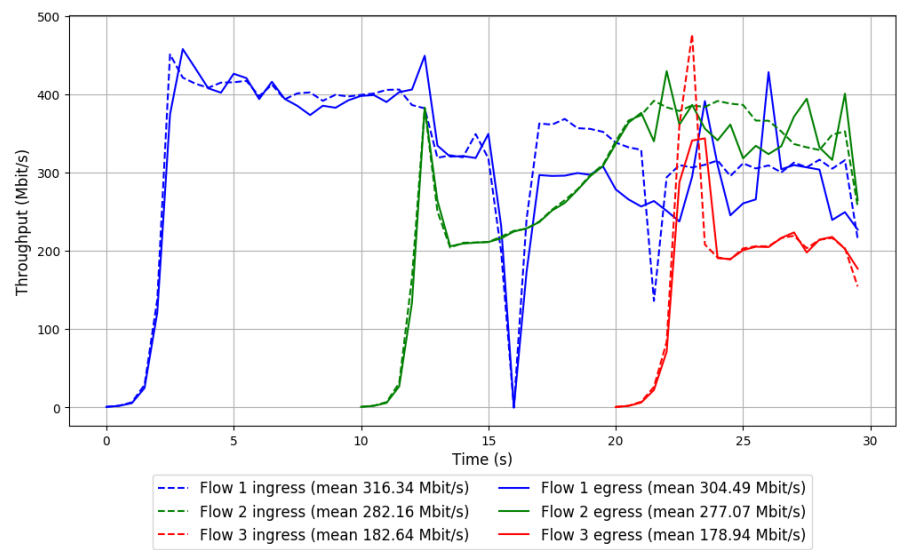
-- Flow 3:

Average throughput: 178.94 Mbit/s

95th percentile per-packet one-way delay: 246.837 ms

Loss rate: 2.02%

Run 10: Report of Vivace-loss — Data Link

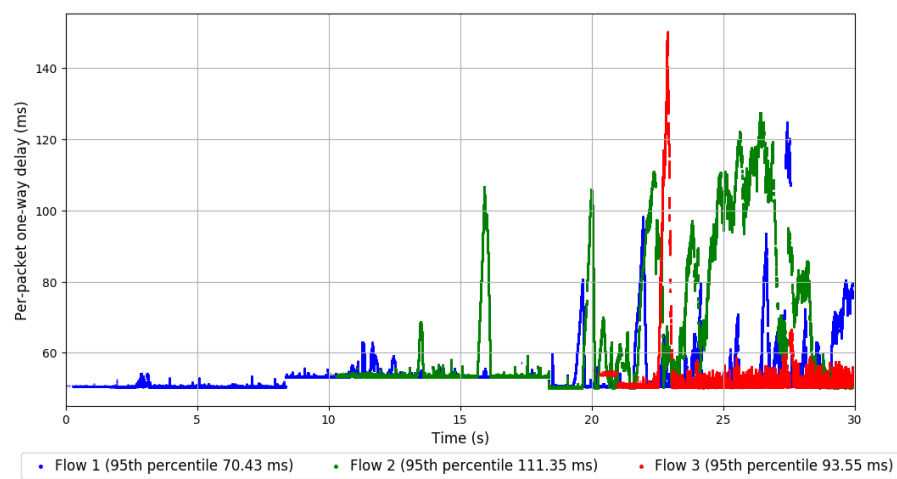
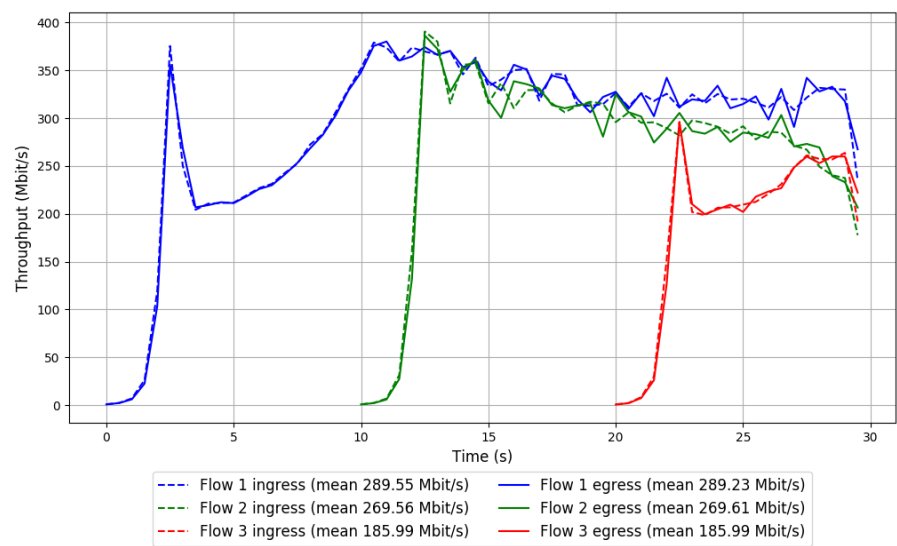


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-14 10:04:39
End at: 2018-03-14 10:05:09

# Below is generated by plot.py at 2018-03-14 18:32:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 529.64 Mbit/s
95th percentile per-packet one-way delay: 101.453 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 289.23 Mbit/s
95th percentile per-packet one-way delay: 70.429 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 269.61 Mbit/s
95th percentile per-packet one-way delay: 111.346 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 185.99 Mbit/s
95th percentile per-packet one-way delay: 93.551 ms
Loss rate: 0.00%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-14 10:22:04

End at: 2018-03-14 10:22:34

Below is generated by plot.py at 2018-03-14 18:33:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 474.81 Mbit/s

95th percentile per-packet one-way delay: 187.661 ms

Loss rate: 1.17%

-- Flow 1:

Average throughput: 272.68 Mbit/s

95th percentile per-packet one-way delay: 256.707 ms

Loss rate: 1.99%

-- Flow 2:

Average throughput: 219.91 Mbit/s

95th percentile per-packet one-way delay: 82.828 ms

Loss rate: 0.03%

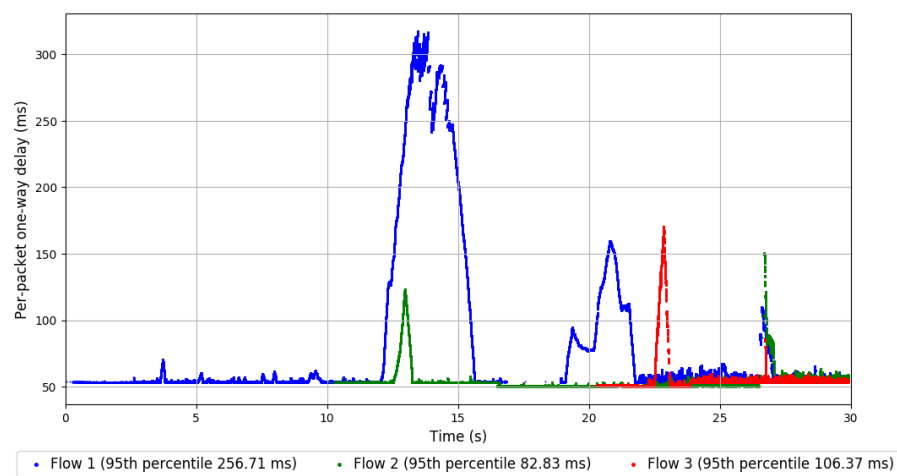
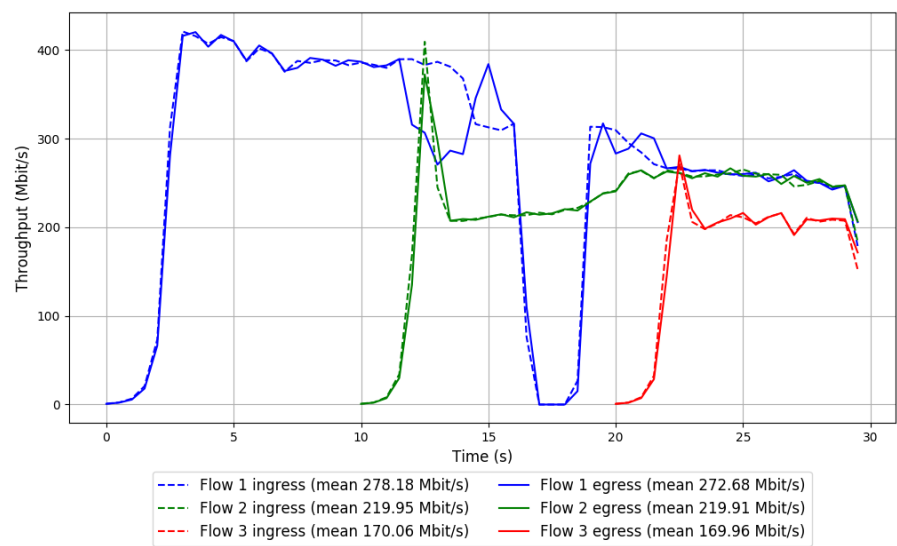
-- Flow 3:

Average throughput: 169.96 Mbit/s

95th percentile per-packet one-way delay: 106.368 ms

Loss rate: 0.05%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-14 10:39:37

End at: 2018-03-14 10:40:07

Below is generated by plot.py at 2018-03-14 18:35:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 478.97 Mbit/s

95th percentile per-packet one-way delay: 247.365 ms

Loss rate: 0.41%

-- Flow 1:

Average throughput: 255.97 Mbit/s

95th percentile per-packet one-way delay: 259.855 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 251.55 Mbit/s

95th percentile per-packet one-way delay: 243.177 ms

Loss rate: 0.31%

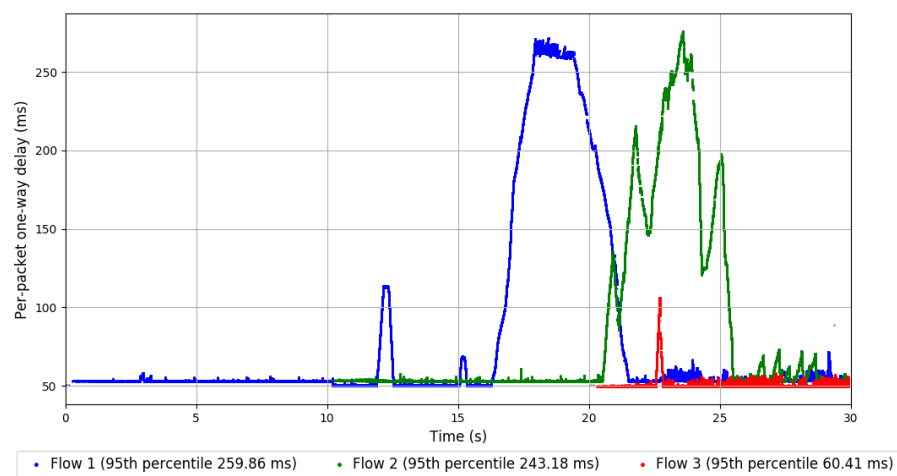
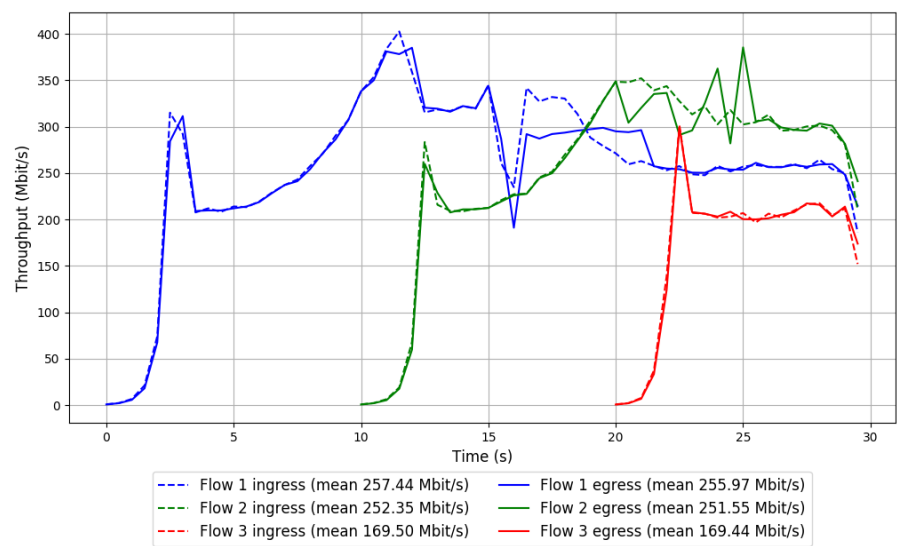
-- Flow 3:

Average throughput: 169.44 Mbit/s

95th percentile per-packet one-way delay: 60.407 ms

Loss rate: 0.00%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-14 10:56:40

End at: 2018-03-14 10:57:10

Below is generated by plot.py at 2018-03-14 18:36:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 529.25 Mbit/s

95th percentile per-packet one-way delay: 214.017 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 302.57 Mbit/s

95th percentile per-packet one-way delay: 180.004 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 212.32 Mbit/s

95th percentile per-packet one-way delay: 61.216 ms

Loss rate: 0.04%

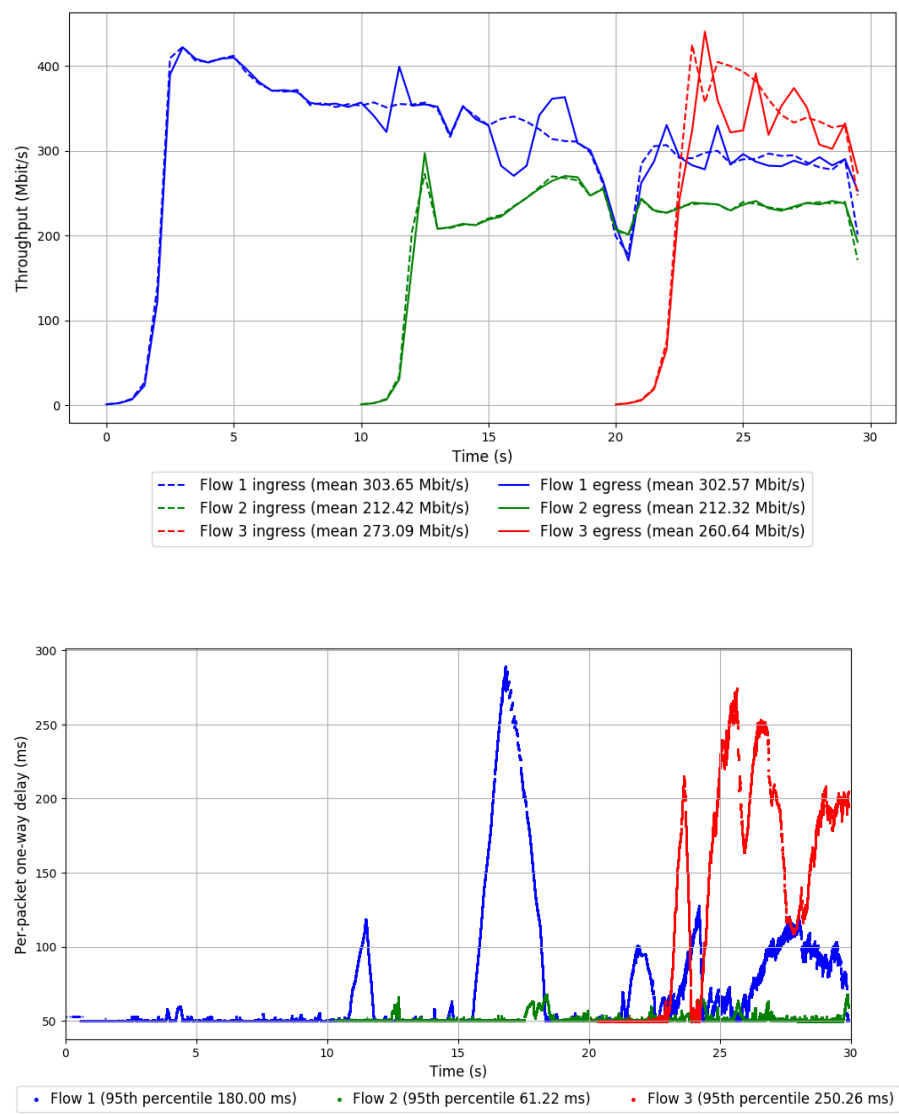
-- Flow 3:

Average throughput: 260.64 Mbit/s

95th percentile per-packet one-way delay: 250.262 ms

Loss rate: 4.54%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-14 11:14:00

End at: 2018-03-14 11:14:30

Below is generated by plot.py at 2018-03-14 18:36:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 485.61 Mbit/s

95th percentile per-packet one-way delay: 134.334 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 244.58 Mbit/s

95th percentile per-packet one-way delay: 192.097 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 282.10 Mbit/s

95th percentile per-packet one-way delay: 103.146 ms

Loss rate: 0.00%

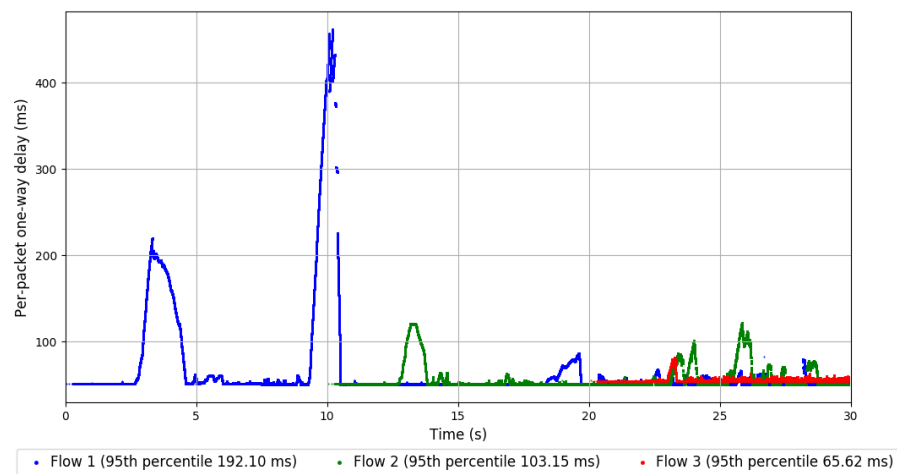
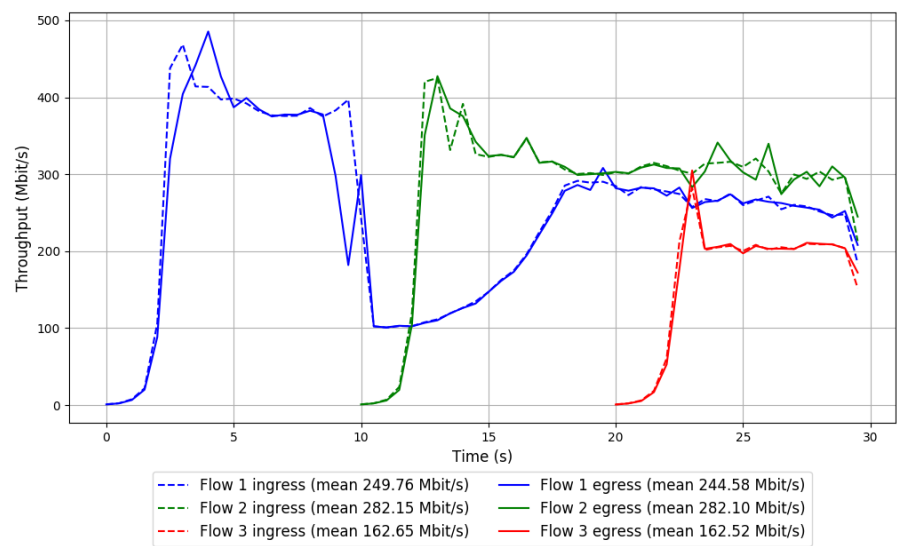
-- Flow 3:

Average throughput: 162.52 Mbit/s

95th percentile per-packet one-way delay: 65.620 ms

Loss rate: 0.07%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-14 11:31:13

End at: 2018-03-14 11:31:43

Below is generated by plot.py at 2018-03-14 18:36:31

Datalink statistics

-- Total of 3 flows:

Average throughput: 441.28 Mbit/s

95th percentile per-packet one-way delay: 292.346 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 242.17 Mbit/s

95th percentile per-packet one-way delay: 291.180 ms

Loss rate: 1.86%

-- Flow 2:

Average throughput: 217.43 Mbit/s

95th percentile per-packet one-way delay: 357.749 ms

Loss rate: 2.38%

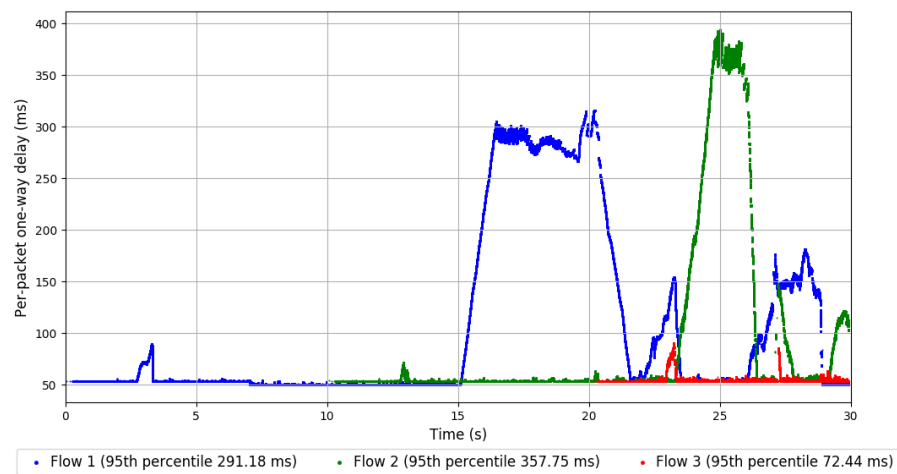
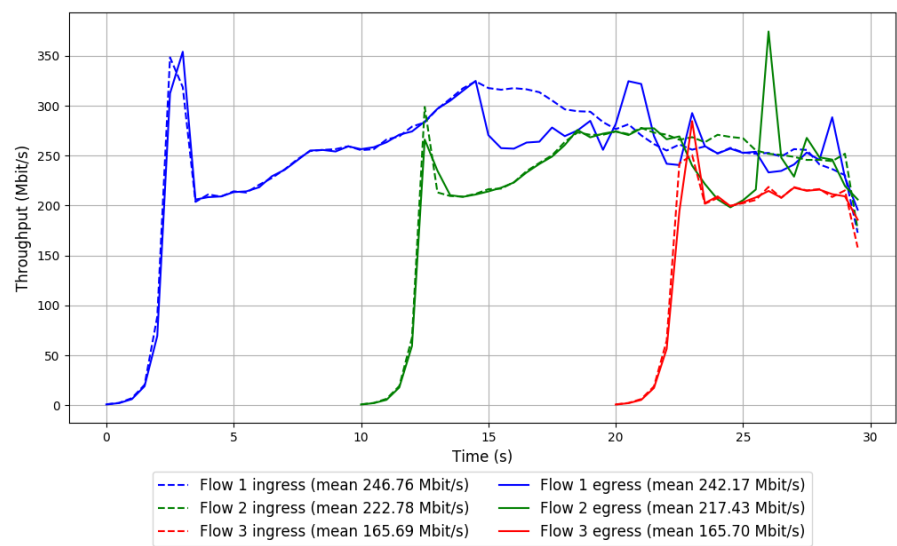
-- Flow 3:

Average throughput: 165.70 Mbit/s

95th percentile per-packet one-way delay: 72.444 ms

Loss rate: 0.00%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-14 11:48:29

End at: 2018-03-14 11:48:59

Below is generated by plot.py at 2018-03-14 18:37:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.37 Mbit/s

95th percentile per-packet one-way delay: 203.517 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 244.63 Mbit/s

95th percentile per-packet one-way delay: 185.869 ms

Loss rate: 1.66%

-- Flow 2:

Average throughput: 204.97 Mbit/s

95th percentile per-packet one-way delay: 178.826 ms

Loss rate: 0.32%

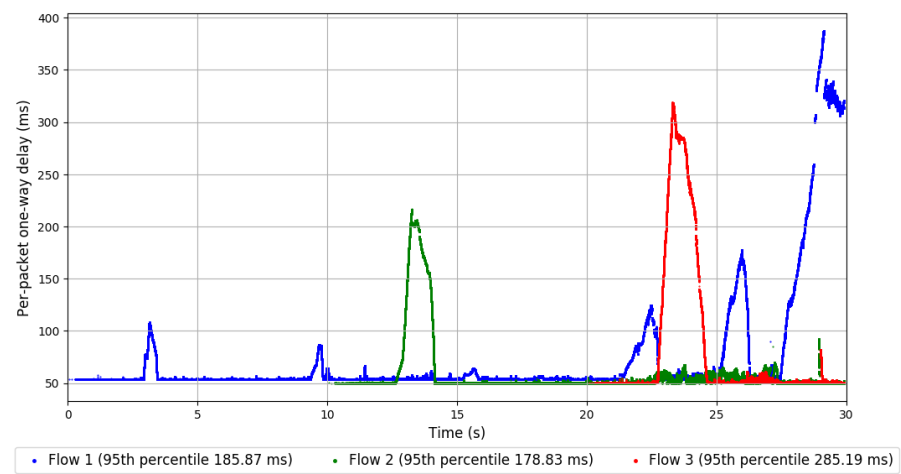
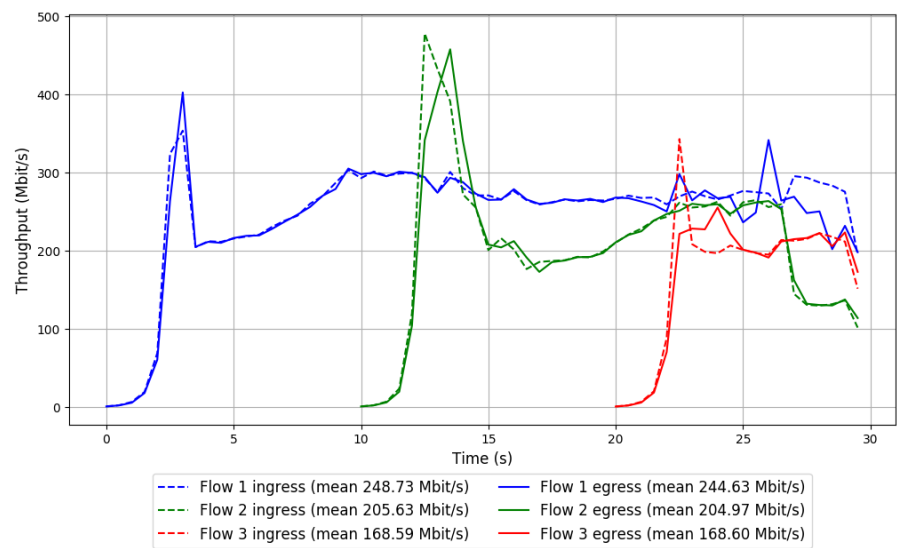
-- Flow 3:

Average throughput: 168.60 Mbit/s

95th percentile per-packet one-way delay: 285.188 ms

Loss rate: 0.00%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-14 12:05:49

End at: 2018-03-14 12:06:19

Below is generated by plot.py at 2018-03-14 18:38:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 514.93 Mbit/s

95th percentile per-packet one-way delay: 264.224 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 301.41 Mbit/s

95th percentile per-packet one-way delay: 279.102 ms

Loss rate: 2.17%

-- Flow 2:

Average throughput: 238.83 Mbit/s

95th percentile per-packet one-way delay: 123.237 ms

Loss rate: 0.05%

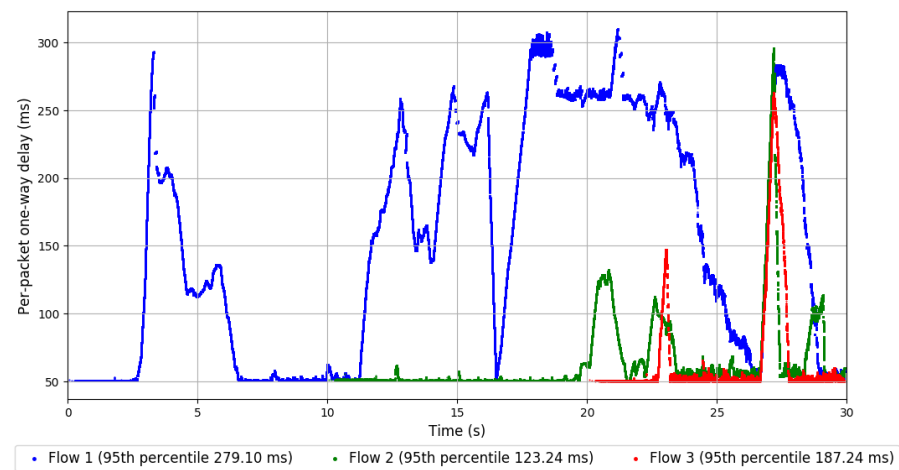
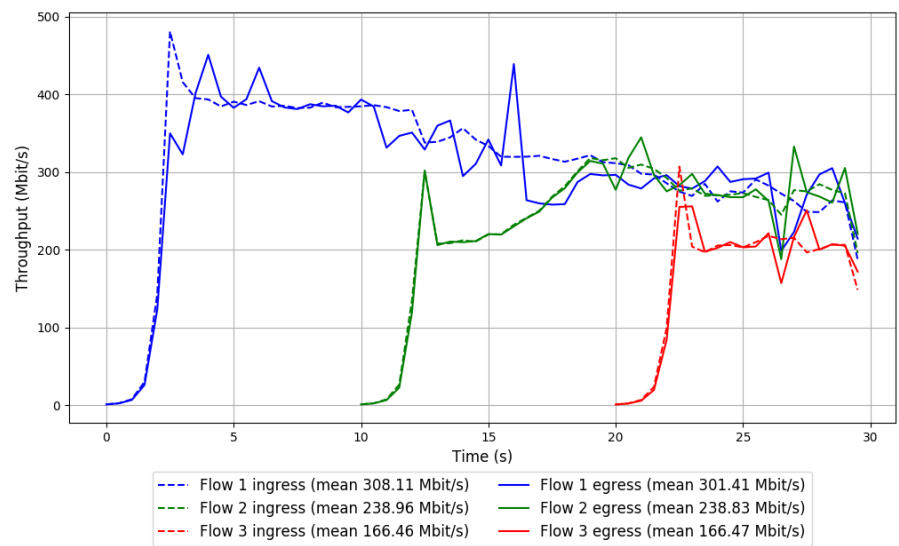
-- Flow 3:

Average throughput: 166.47 Mbit/s

95th percentile per-packet one-way delay: 187.244 ms

Loss rate: 0.00%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-14 12:23:11

End at: 2018-03-14 12:23:41

Below is generated by plot.py at 2018-03-14 18:39:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 524.19 Mbit/s

95th percentile per-packet one-way delay: 172.642 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 287.97 Mbit/s

95th percentile per-packet one-way delay: 115.820 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 232.19 Mbit/s

95th percentile per-packet one-way delay: 229.638 ms

Loss rate: 0.38%

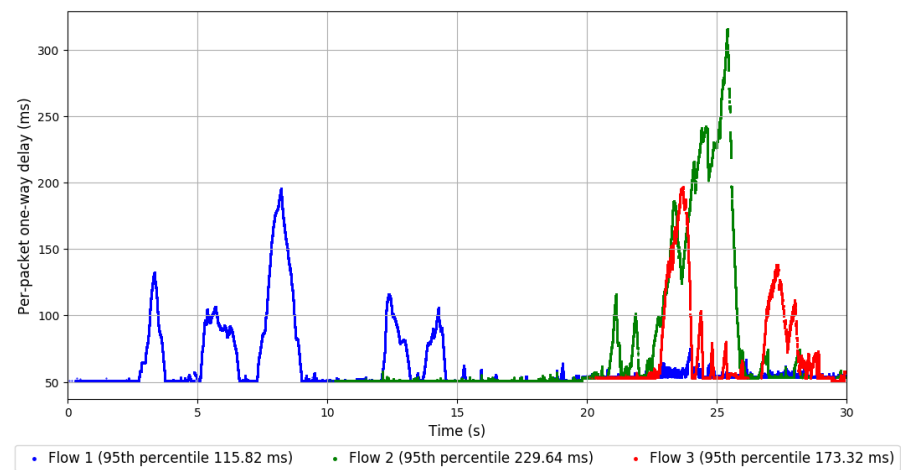
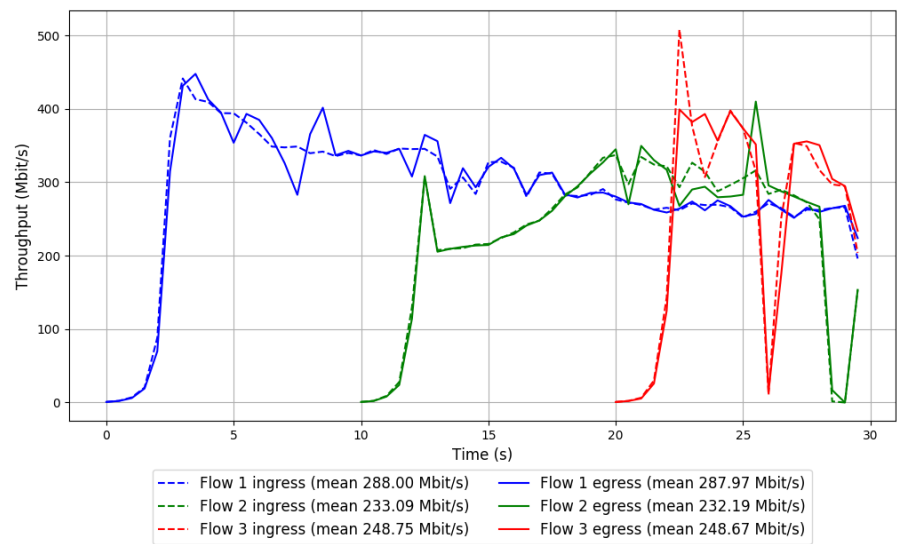
-- Flow 3:

Average throughput: 248.67 Mbit/s

95th percentile per-packet one-way delay: 173.322 ms

Loss rate: 0.00%

Run 9: Report of Vivace-LTE — Data Link



```
Run 10: Statistics of Vivace-LTE

Start at: 2018-03-14 12:40:22
End at: 2018-03-14 12:40:52

# Below is generated by plot.py at 2018-03-14 18:39:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 461.12 Mbit/s
95th percentile per-packet one-way delay: 141.748 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 221.39 Mbit/s
95th percentile per-packet one-way delay: 118.227 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 280.98 Mbit/s
95th percentile per-packet one-way delay: 213.612 ms
Loss rate: 0.33%
-- Flow 3:
Average throughput: 160.82 Mbit/s
95th percentile per-packet one-way delay: 70.217 ms
Loss rate: 0.06%
```

Run 10: Report of Vivace-LTE — Data Link

