

Pantheon Report

Generated at 2018-03-07 23:56:06 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

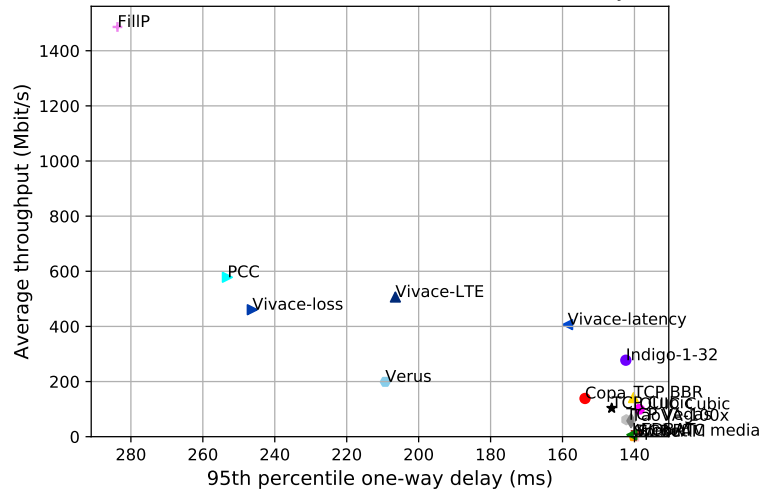
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

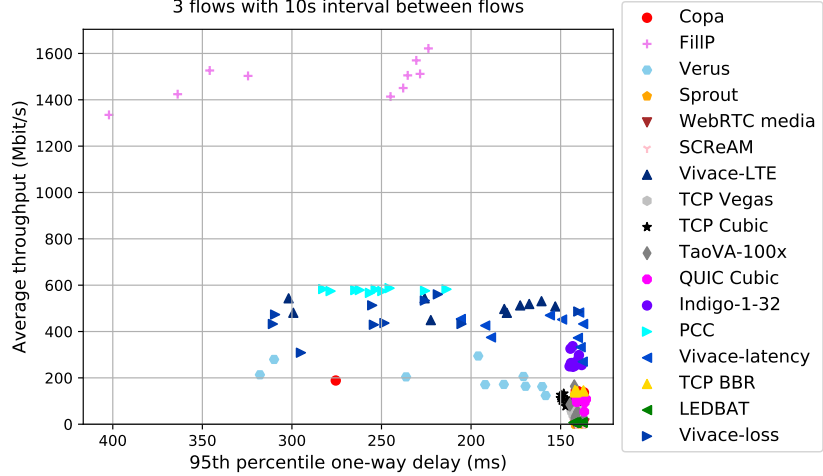
Git summary:

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

test from GCE Sydney Ethernet to GCE London 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 London 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	73.08	70.86	65.38	140.21	140.26	140.30	0.01	0.01	0.00
TCP Cubic	10	53.20	54.87	41.61	145.32	145.64	147.01	0.00	0.03	0.17
LEDBAT	10	4.57	3.02	1.48	140.73	140.76	140.52	0.09	0.00	0.00
PCC	10	491.85	113.42	33.83	254.95	245.41	239.02	1.82	1.91	1.57
QUIC Cubic	10	51.50	56.16	33.53	137.40	138.13	136.89	0.00	0.00	0.00
SCReAM	10	0.22	0.22	0.22	137.99	137.19	137.50	0.01	0.00	0.00
WebRTC media	10	2.03	1.24	0.42	138.68	139.05	140.06	0.00	0.00	0.01
Sprout	10	0.38	0.42	0.51	140.18	140.17	140.18	0.00	0.11	0.00
TaoVA-100x	10	31.11	29.07	71.34	140.43	140.51	141.00	0.00	0.02	0.00
TCP Vegas	10	26.47	41.66	22.00	141.68	142.32	144.44	0.00	0.00	0.02
Verus	10	105.09	117.88	50.52	196.81	214.44	209.93	0.53	1.39	0.52
Copa	10	69.76	80.90	45.51	140.33	154.46	143.67	0.01	2.41	0.03
FillP	10	799.15	702.66	663.16	253.86	291.80	276.56	5.52	9.60	8.91
Indigo-1-32	10	145.67	140.28	121.80	141.96	142.60	143.35	0.01	0.01	0.03
Vivace-latency	10	228.39	205.21	126.89	144.84	169.09	162.50	0.04	0.04	0.02
Vivace-loss	10	283.88	190.06	152.98	239.69	204.80	247.95	1.27	2.48	4.06
Vivace-LTE	10	305.86	237.60	131.71	201.18	168.35	233.32	0.30	0.15	1.93

Run 1: Statistics of TCP BBR

Start at: 2018-03-07 17:02:33

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

Below is generated by plot.py at 2018-03-07 22:18:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.71 Mbit/s

95th percentile per-packet one-way delay: 141.297 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 72.66 Mbit/s

95th percentile per-packet one-way delay: 141.188 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 72.36 Mbit/s

95th percentile per-packet one-way delay: 141.383 ms

Loss rate: 0.04%

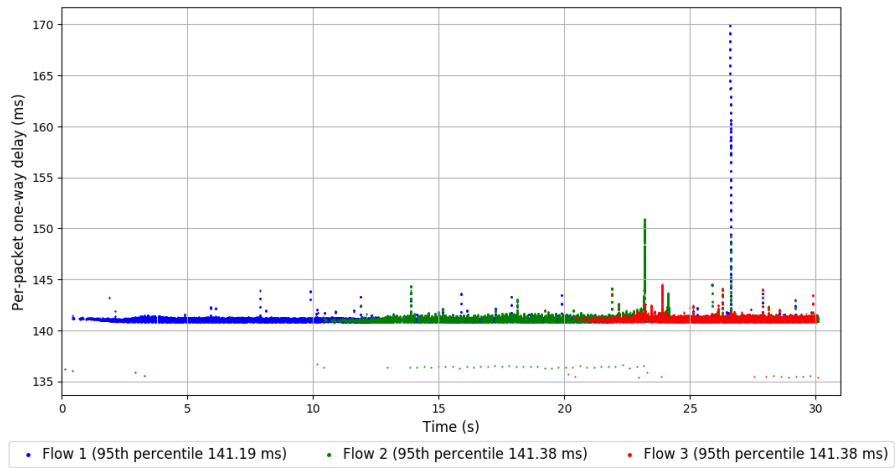
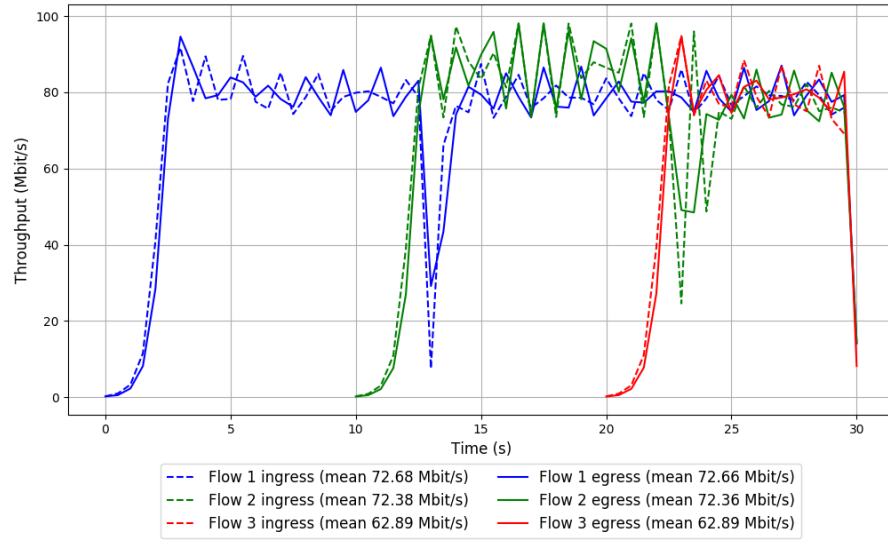
-- Flow 3:

Average throughput: 62.89 Mbit/s

95th percentile per-packet one-way delay: 141.376 ms

Loss rate: 0.00%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-03-07 17:22:06

End at: 2018-03-07 17:22:36

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 147.47 Mbit/s

95th percentile per-packet one-way delay: 141.995 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 77.11 Mbit/s

95th percentile per-packet one-way delay: 141.987 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 72.90 Mbit/s

95th percentile per-packet one-way delay: 142.028 ms

Loss rate: 0.03%

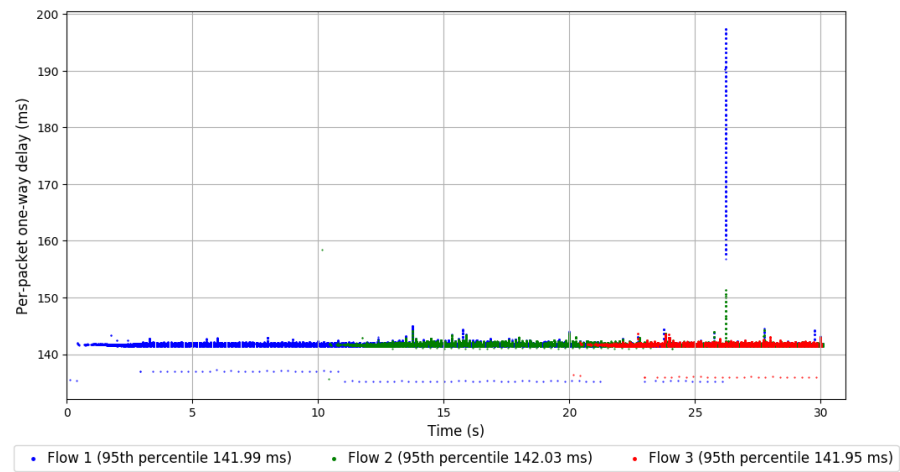
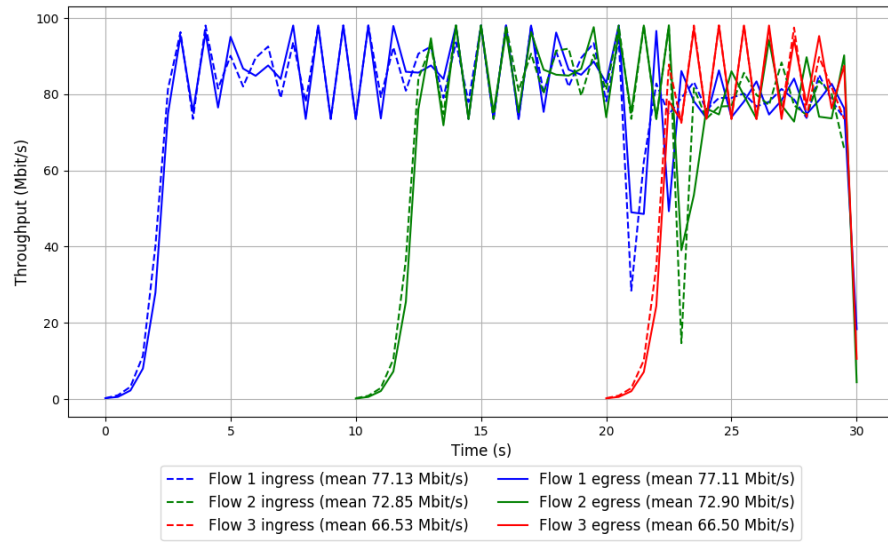
-- Flow 3:

Average throughput: 66.50 Mbit/s

95th percentile per-packet one-way delay: 141.951 ms

Loss rate: 0.00%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-03-07 17:41:55

End at: 2018-03-07 17:42:25

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.03 Mbit/s

95th percentile per-packet one-way delay: 141.942 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 72.53 Mbit/s

95th percentile per-packet one-way delay: 141.966 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 68.28 Mbit/s

95th percentile per-packet one-way delay: 141.881 ms

Loss rate: 0.00%

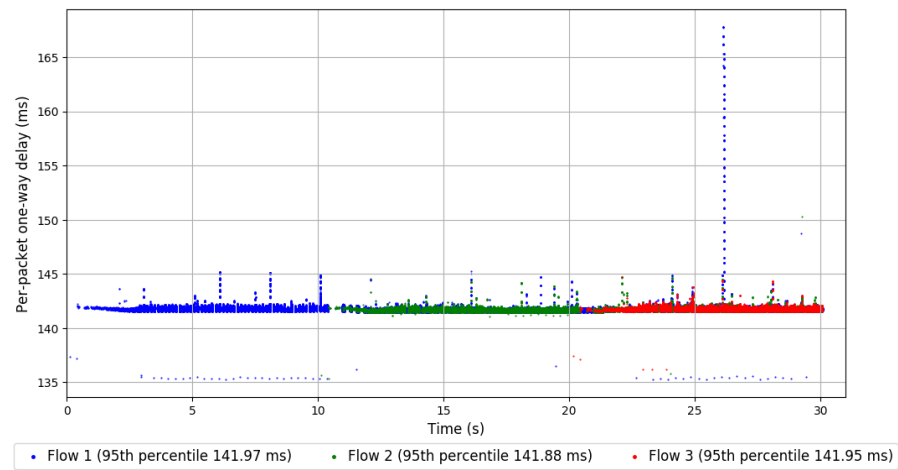
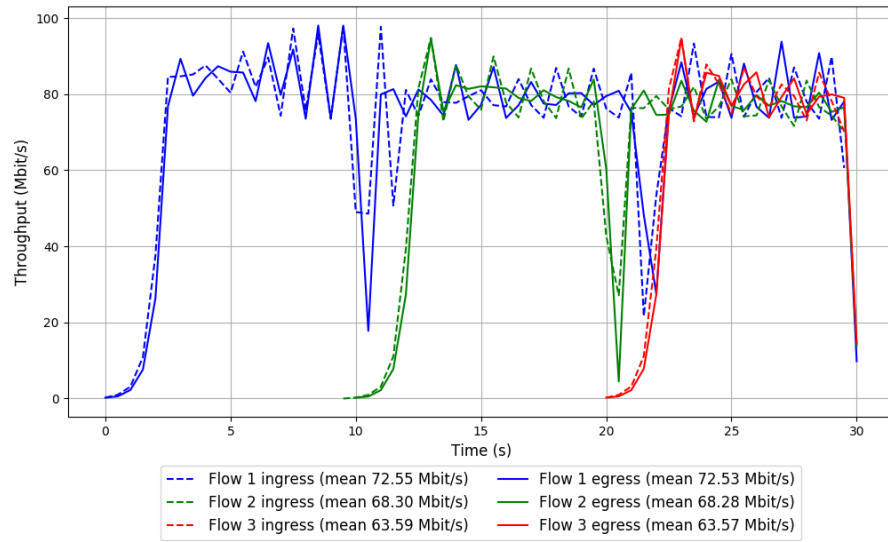
-- Flow 3:

Average throughput: 63.57 Mbit/s

95th percentile per-packet one-way delay: 141.951 ms

Loss rate: 0.00%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-03-07 18:01:56

End at: 2018-03-07 18:02:26

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.57 Mbit/s

95th percentile per-packet one-way delay: 142.022 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.17 Mbit/s

95th percentile per-packet one-way delay: 142.035 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.23 Mbit/s

95th percentile per-packet one-way delay: 142.006 ms

Loss rate: 0.00%

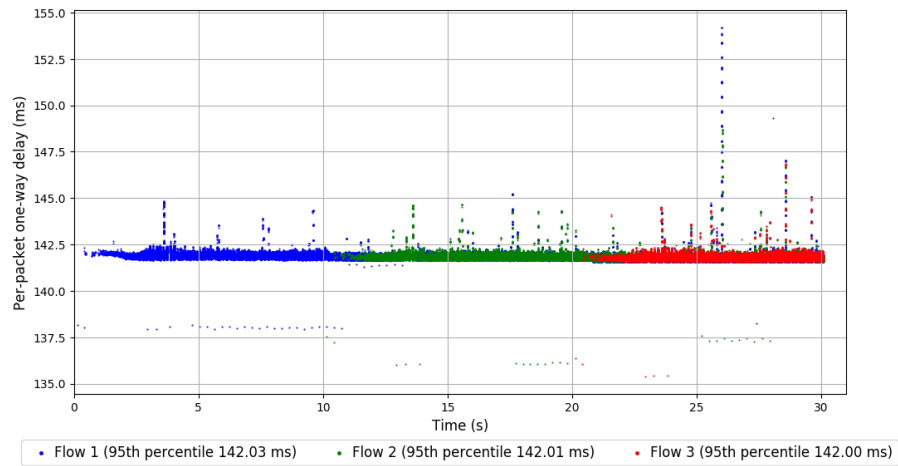
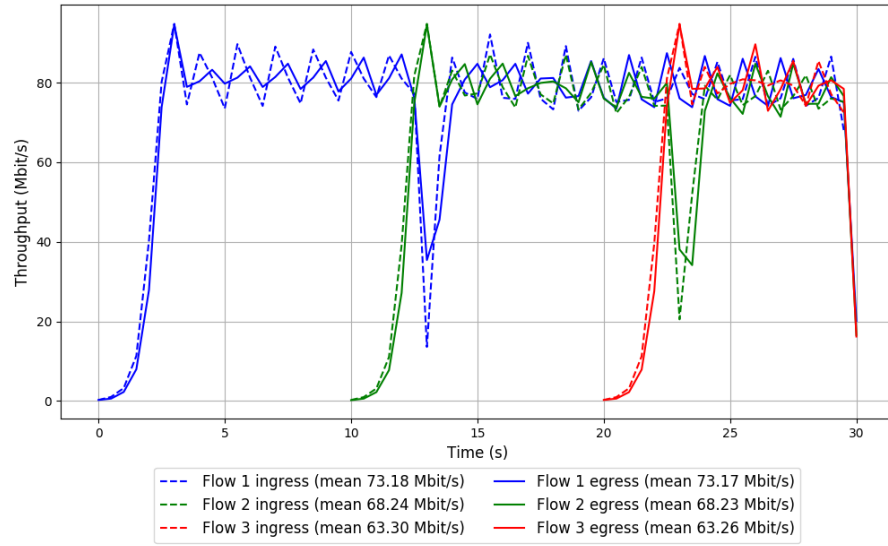
-- Flow 3:

Average throughput: 63.26 Mbit/s

95th percentile per-packet one-way delay: 142.002 ms

Loss rate: 0.00%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-03-07 18:22:23

End at: 2018-03-07 18:22:53

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 138.93 Mbit/s

95th percentile per-packet one-way delay: 141.341 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 72.29 Mbit/s

95th percentile per-packet one-way delay: 141.340 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 68.56 Mbit/s

95th percentile per-packet one-way delay: 141.343 ms

Loss rate: 0.00%

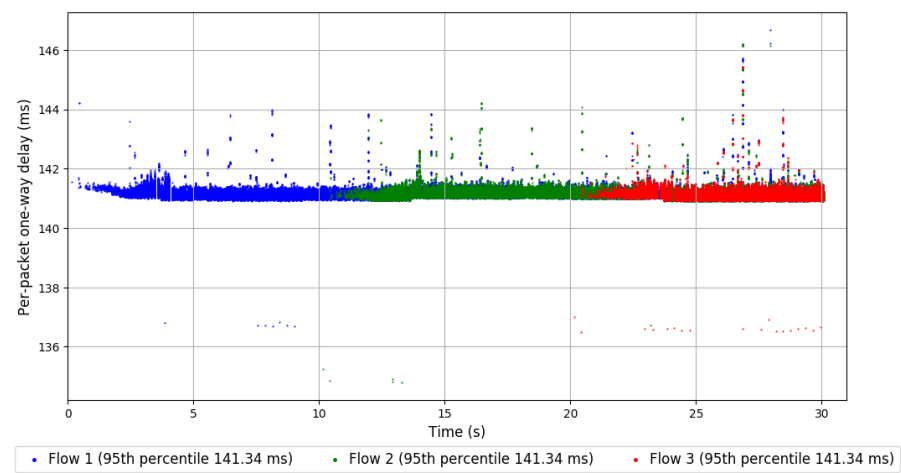
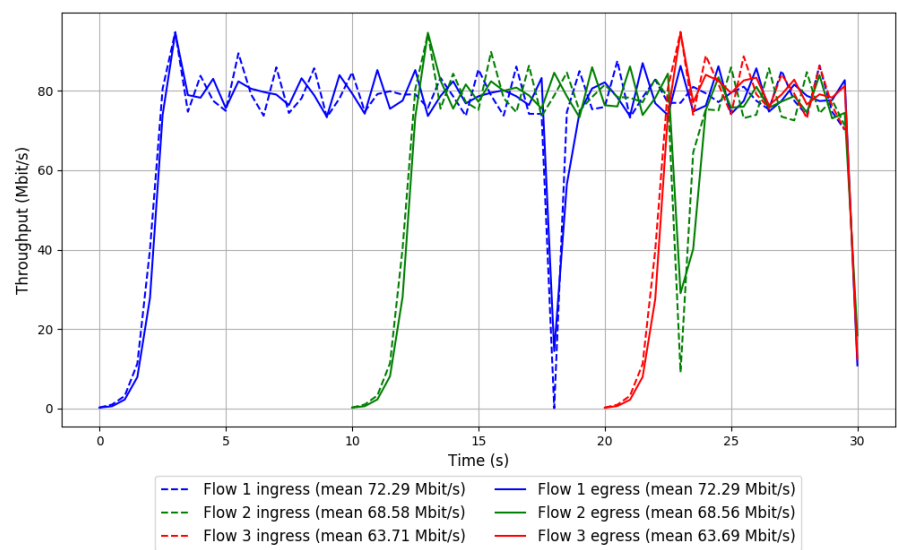
-- Flow 3:

Average throughput: 63.69 Mbit/s

95th percentile per-packet one-way delay: 141.335 ms

Loss rate: 0.00%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-03-07 18:42:31

End at: 2018-03-07 18:43:02

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.81 Mbit/s

95th percentile per-packet one-way delay: 141.252 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 70.90 Mbit/s

95th percentile per-packet one-way delay: 141.234 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 69.14 Mbit/s

95th percentile per-packet one-way delay: 141.262 ms

Loss rate: 0.00%

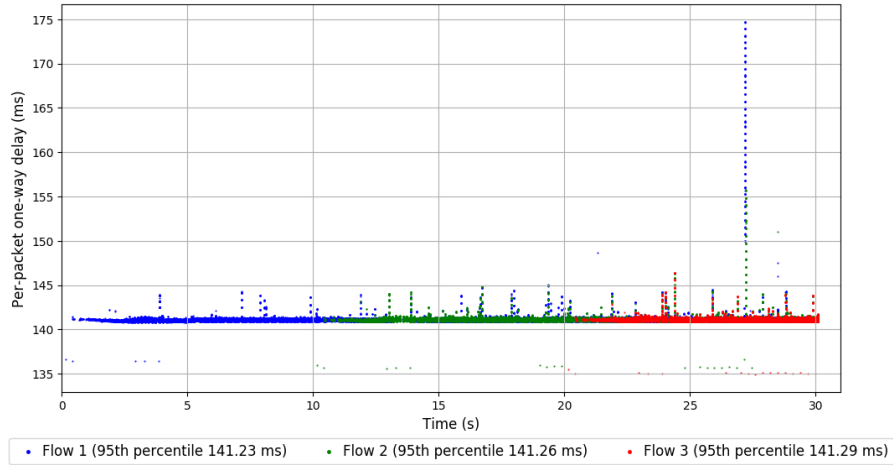
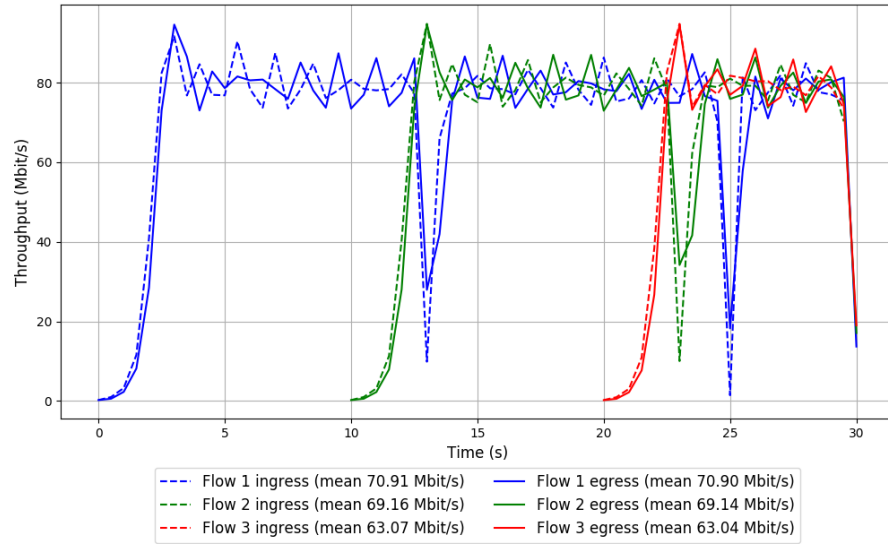
-- Flow 3:

Average throughput: 63.04 Mbit/s

95th percentile per-packet one-way delay: 141.290 ms

Loss rate: 0.00%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-03-07 19:02:40

End at: 2018-03-07 19:03:10

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 146.22 Mbit/s

95th percentile per-packet one-way delay: 137.247 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 73.60 Mbit/s

95th percentile per-packet one-way delay: 137.160 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 74.57 Mbit/s

95th percentile per-packet one-way delay: 137.289 ms

Loss rate: 0.00%

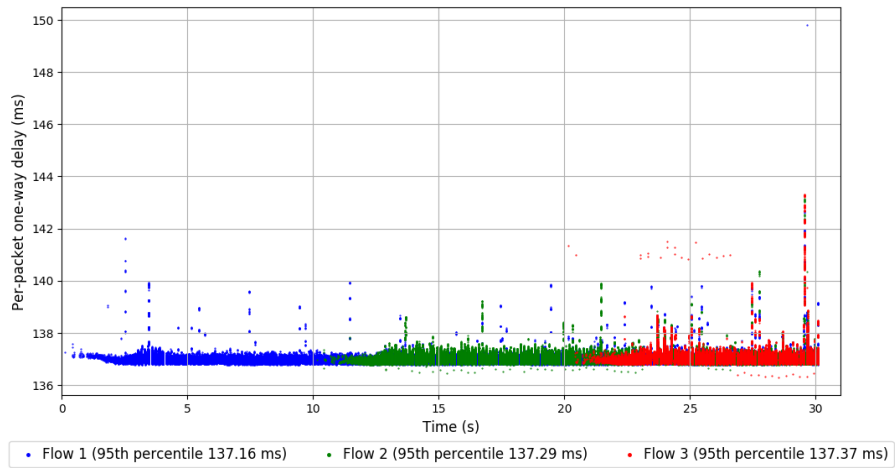
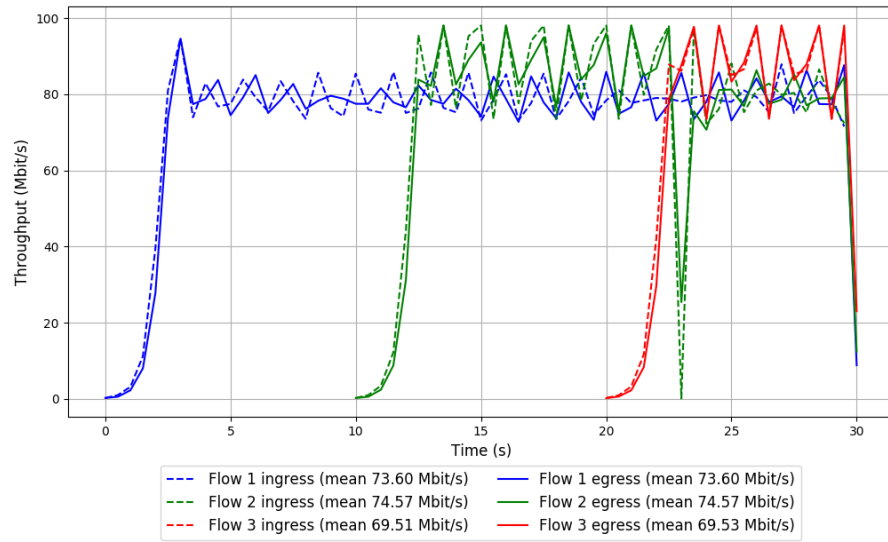
-- Flow 3:

Average throughput: 69.53 Mbit/s

95th percentile per-packet one-way delay: 137.367 ms

Loss rate: 0.03%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-03-07 19:22:35

End at: 2018-03-07 19:23:05

Below is generated by plot.py at 2018-03-07 22:18:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 143.06 Mbit/s

95th percentile per-packet one-way delay: 137.341 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 73.27 Mbit/s

95th percentile per-packet one-way delay: 137.270 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.54 Mbit/s

95th percentile per-packet one-way delay: 137.309 ms

Loss rate: 0.01%

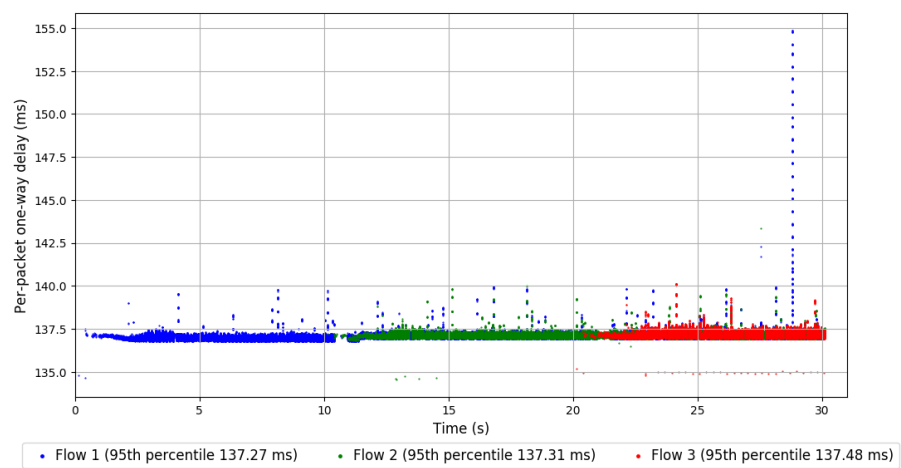
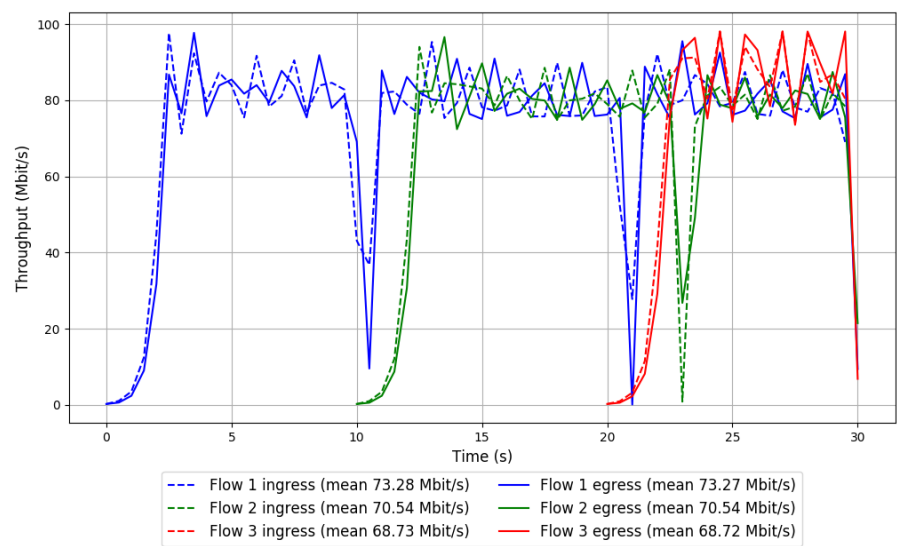
-- Flow 3:

Average throughput: 68.72 Mbit/s

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

Loss rate: 0.00%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-03-07 19:42:36

End at: 2018-03-07 19:43:06

Below is generated by plot.py at 2018-03-07 22:20:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.00 Mbit/s

95th percentile per-packet one-way delay: 137.273 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 72.71 Mbit/s

95th percentile per-packet one-way delay: 137.201 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 69.95 Mbit/s

95th percentile per-packet one-way delay: 137.225 ms

Loss rate: 0.00%

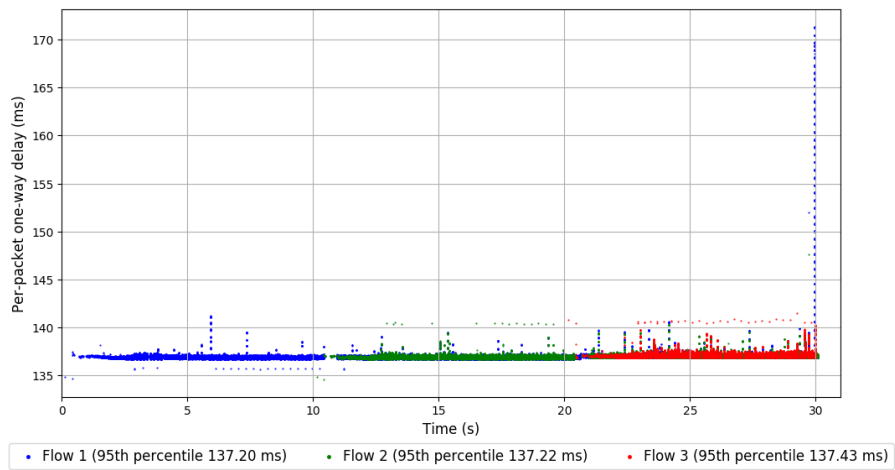
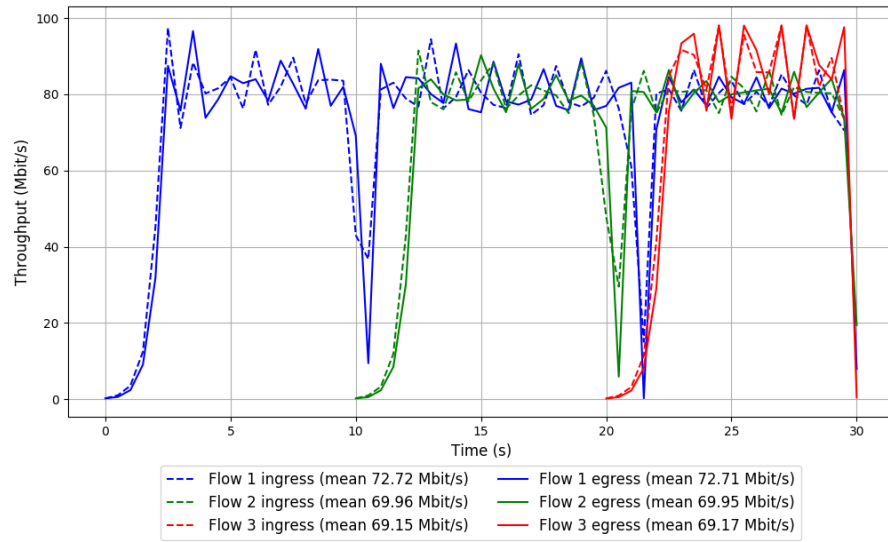
-- Flow 3:

Average throughput: 69.17 Mbit/s

95th percentile per-packet one-way delay: 137.427 ms

Loss rate: 0.00%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-03-07 20:02:30

End at: 2018-03-07 20:03:00

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.83 Mbit/s

95th percentile per-packet one-way delay: 140.817 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 72.56 Mbit/s

95th percentile per-packet one-way delay: 140.701 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 74.03 Mbit/s

95th percentile per-packet one-way delay: 140.906 ms

Loss rate: 0.02%

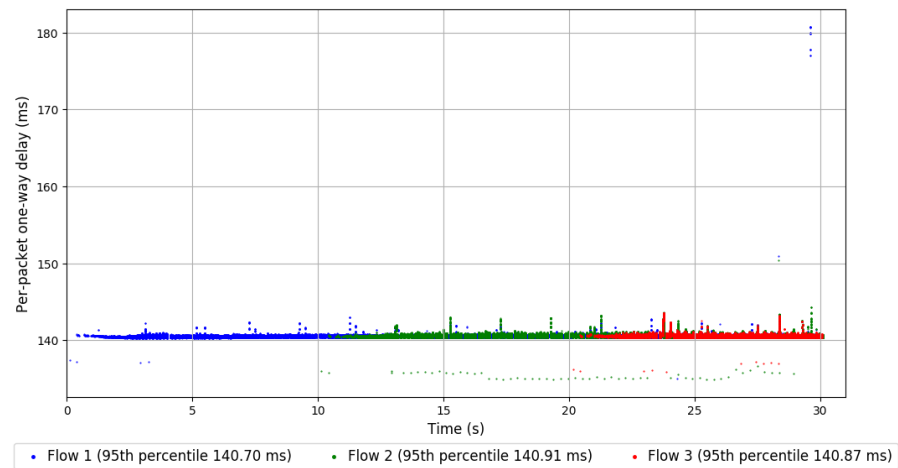
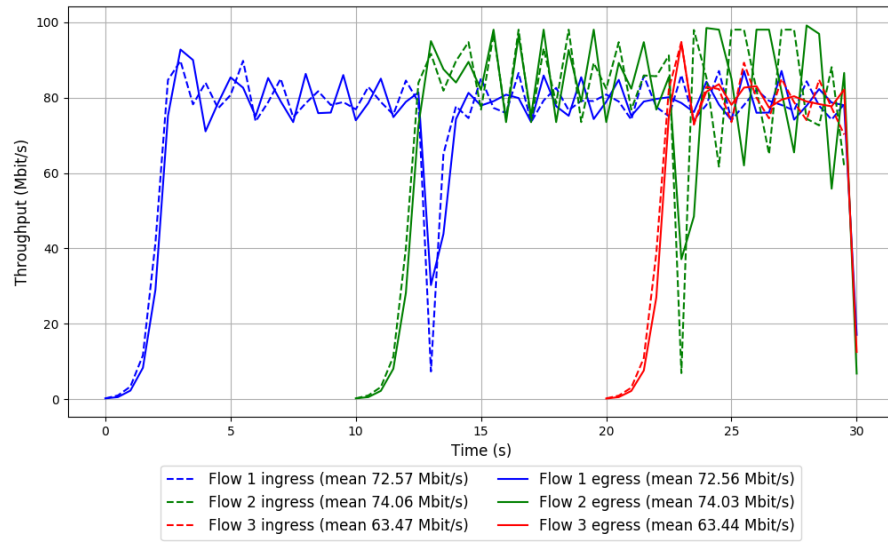
-- Flow 3:

Average throughput: 63.44 Mbit/s

95th percentile per-packet one-way delay: 140.873 ms

Loss rate: 0.00%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-03-07 16:59:37

End at: 2018-03-07 17:00:07

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.68 Mbit/s

95th percentile per-packet one-way delay: 150.007 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.40 Mbit/s

95th percentile per-packet one-way delay: 147.969 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.45 Mbit/s

95th percentile per-packet one-way delay: 150.991 ms

Loss rate: 0.00%

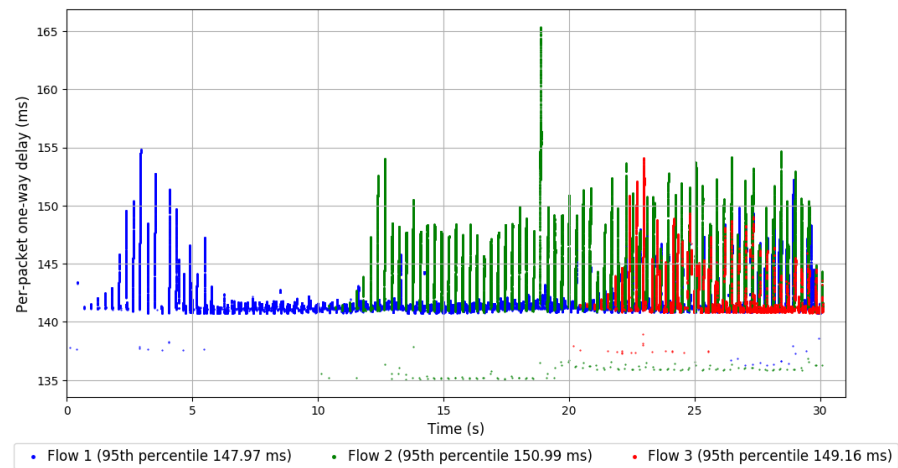
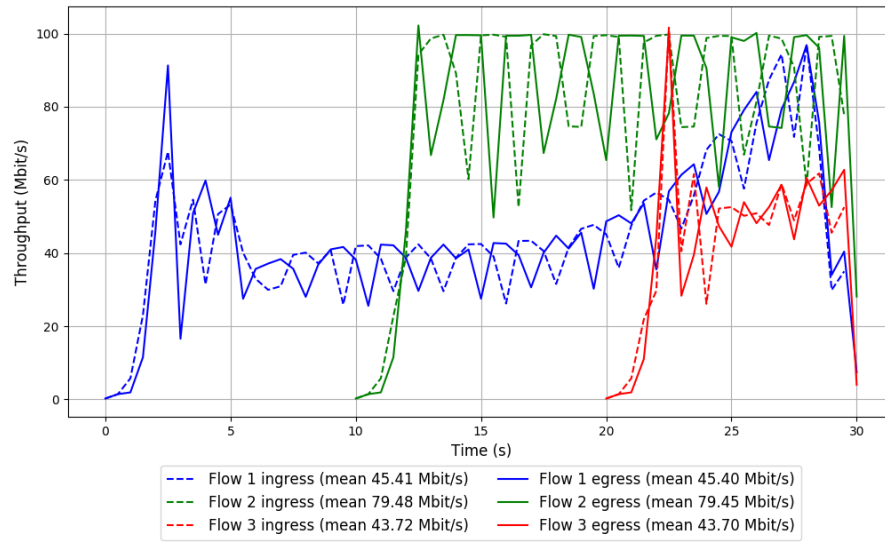
-- Flow 3:

Average throughput: 43.70 Mbit/s

95th percentile per-packet one-way delay: 149.156 ms

Loss rate: 0.00%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-03-07 17:19:09

End at: 2018-03-07 17:19:39

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.83 Mbit/s

95th percentile per-packet one-way delay: 146.447 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 57.46 Mbit/s

95th percentile per-packet one-way delay: 146.544 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.67 Mbit/s

95th percentile per-packet one-way delay: 145.186 ms

Loss rate: 0.24%

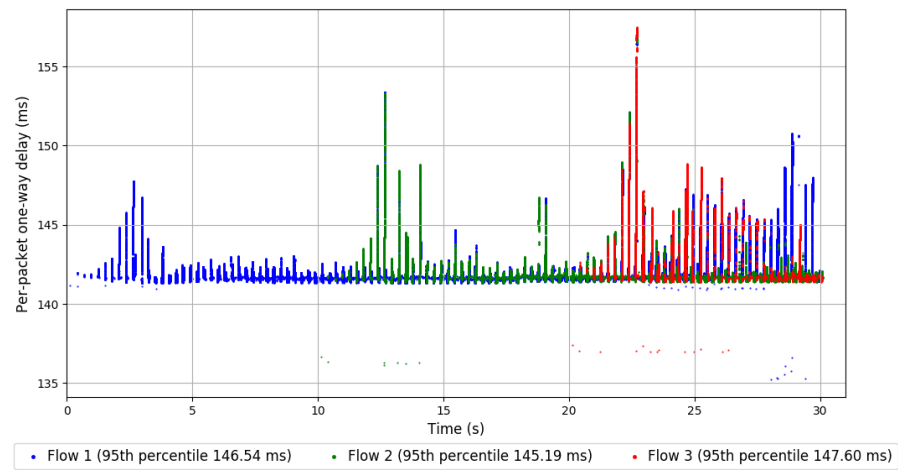
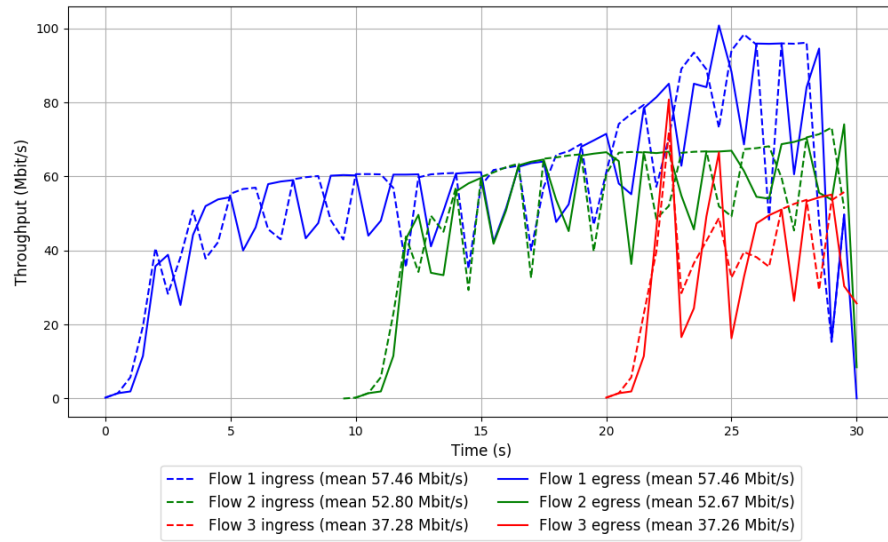
-- Flow 3:

Average throughput: 37.26 Mbit/s

95th percentile per-packet one-way delay: 147.597 ms

Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-03-07 17:38:59

End at: 2018-03-07 17:39:29

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 77.65 Mbit/s

95th percentile per-packet one-way delay: 147.221 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 52.33 Mbit/s

95th percentile per-packet one-way delay: 147.429 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 37.72 Mbit/s

95th percentile per-packet one-way delay: 143.959 ms

Loss rate: 0.00%

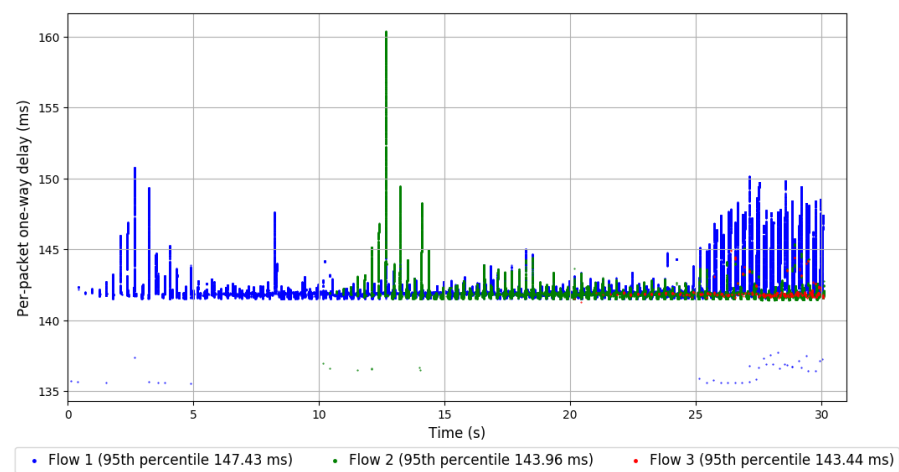
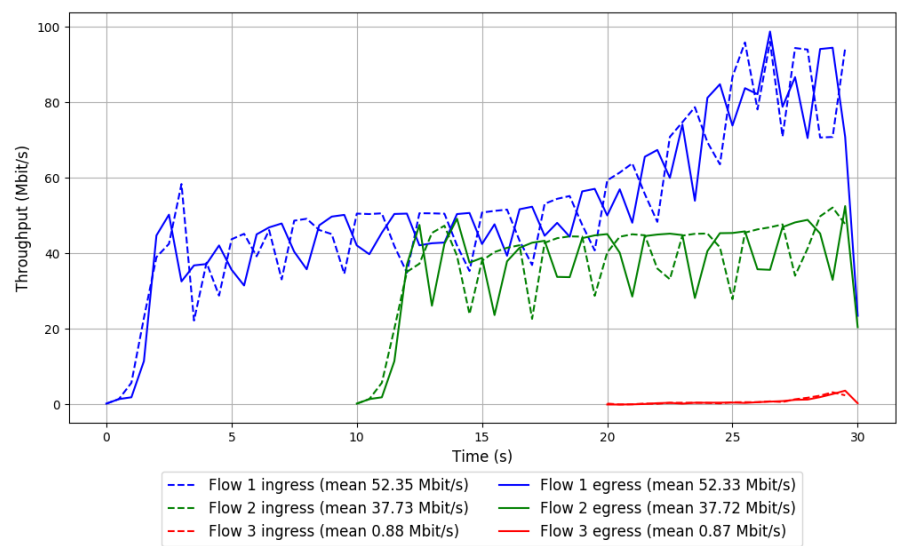
-- Flow 3:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 143.442 ms

Loss rate: 1.37%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-03-07 17:58:58

End at: 2018-03-07 17:59:28

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.16 Mbit/s

95th percentile per-packet one-way delay: 149.347 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.77 Mbit/s

95th percentile per-packet one-way delay: 148.332 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 45.21 Mbit/s

95th percentile per-packet one-way delay: 147.102 ms

Loss rate: 0.00%

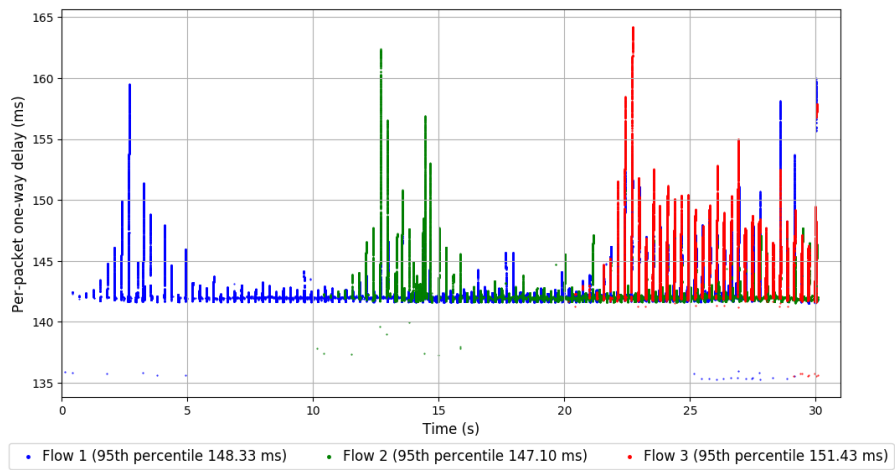
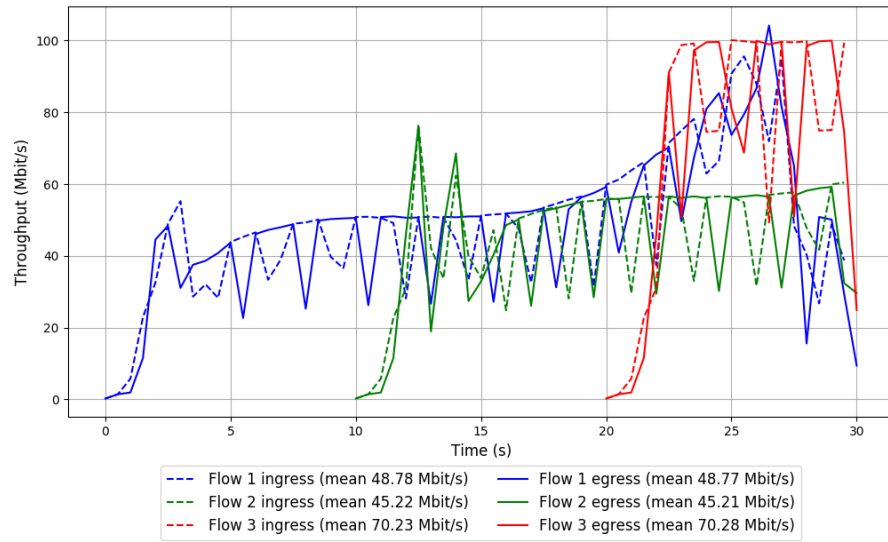
-- Flow 3:

Average throughput: 70.28 Mbit/s

95th percentile per-packet one-way delay: 151.427 ms

Loss rate: 0.00%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-03-07 18:19:26

End at: 2018-03-07 18:19:56

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.85 Mbit/s

95th percentile per-packet one-way delay: 145.472 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 48.26 Mbit/s

95th percentile per-packet one-way delay: 144.786 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 52.68 Mbit/s

95th percentile per-packet one-way delay: 146.247 ms

Loss rate: 0.00%

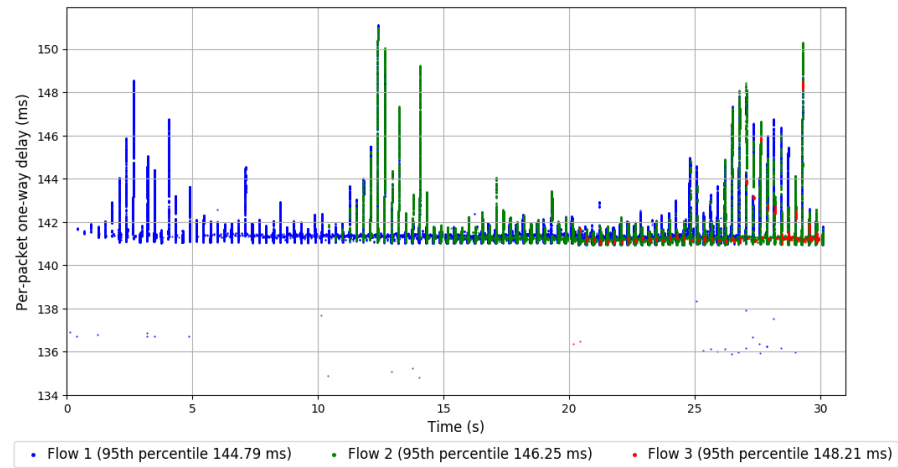
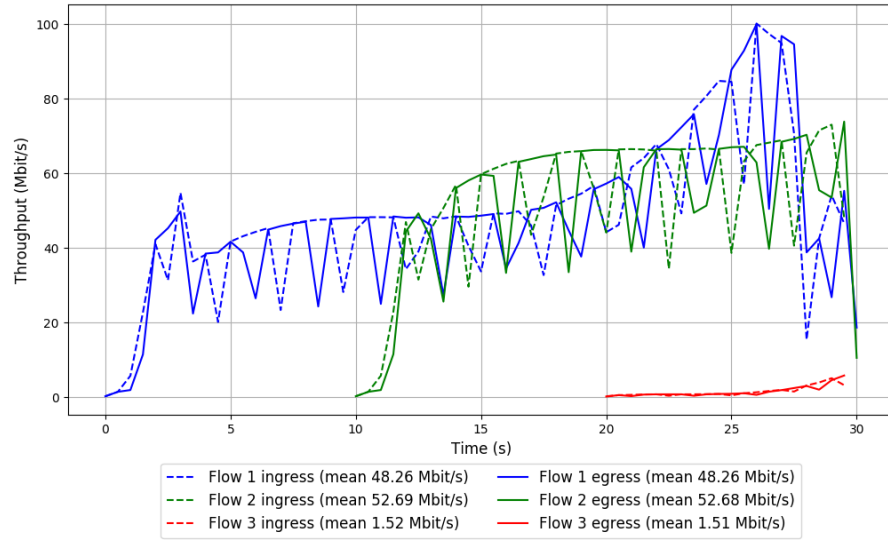
-- Flow 3:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 148.208 ms

Loss rate: 0.24%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-03-07 18:39:33

End at: 2018-03-07 18:40:03

Below is generated by plot.py at 2018-03-07 22:20:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.11 Mbit/s

95th percentile per-packet one-way delay: 148.287 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 59.46 Mbit/s

95th percentile per-packet one-way delay: 147.007 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 74.14 Mbit/s

95th percentile per-packet one-way delay: 147.644 ms

Loss rate: 0.00%

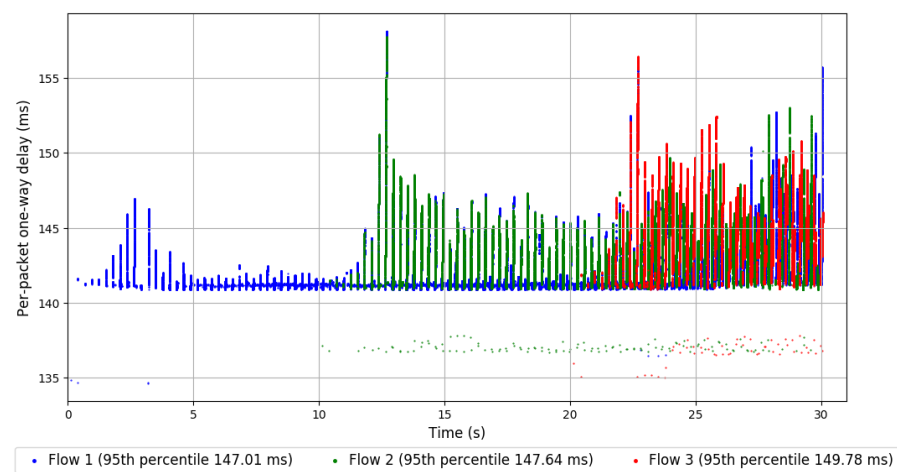
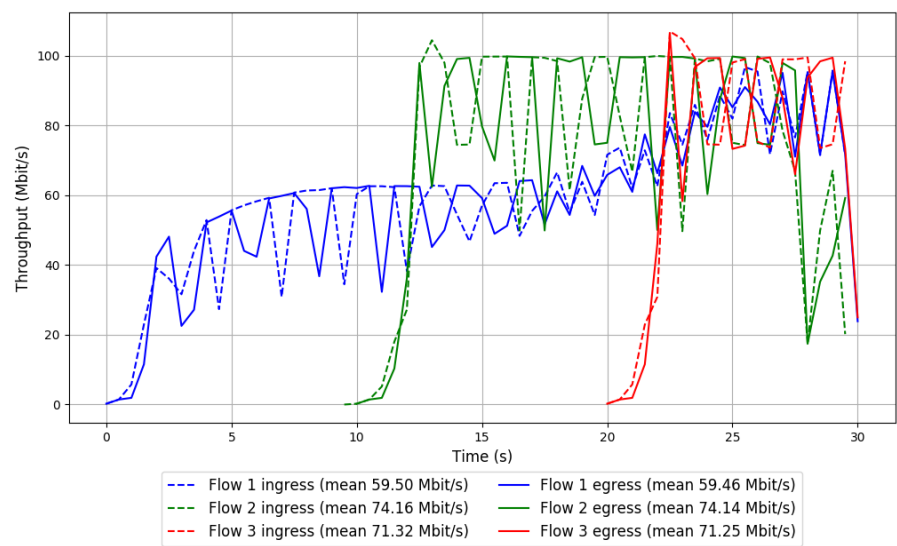
-- Flow 3:

Average throughput: 71.25 Mbit/s

95th percentile per-packet one-way delay: 149.775 ms

Loss rate: 0.00%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-03-07 18:59:42

End at: 2018-03-07 19:00:12

Below is generated by plot.py at 2018-03-07 22:21:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.45 Mbit/s

95th percentile per-packet one-way delay: 141.308 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 50.59 Mbit/s

95th percentile per-packet one-way delay: 141.937 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 46.79 Mbit/s

95th percentile per-packet one-way delay: 138.710 ms

Loss rate: 0.00%

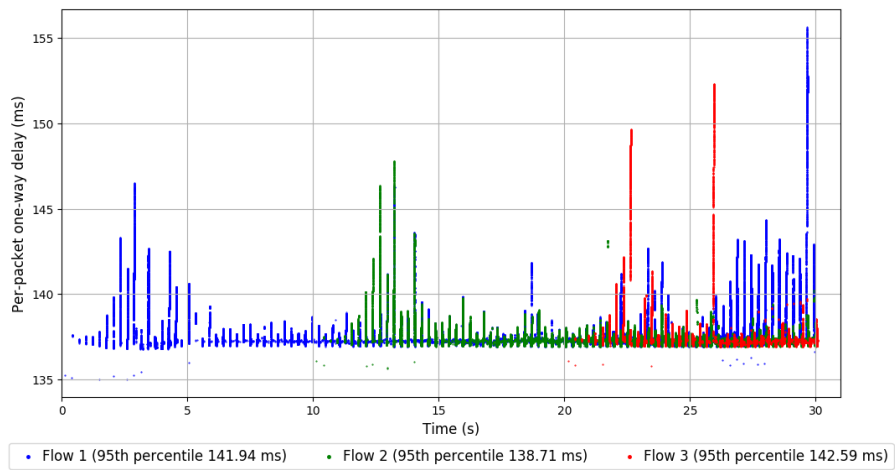
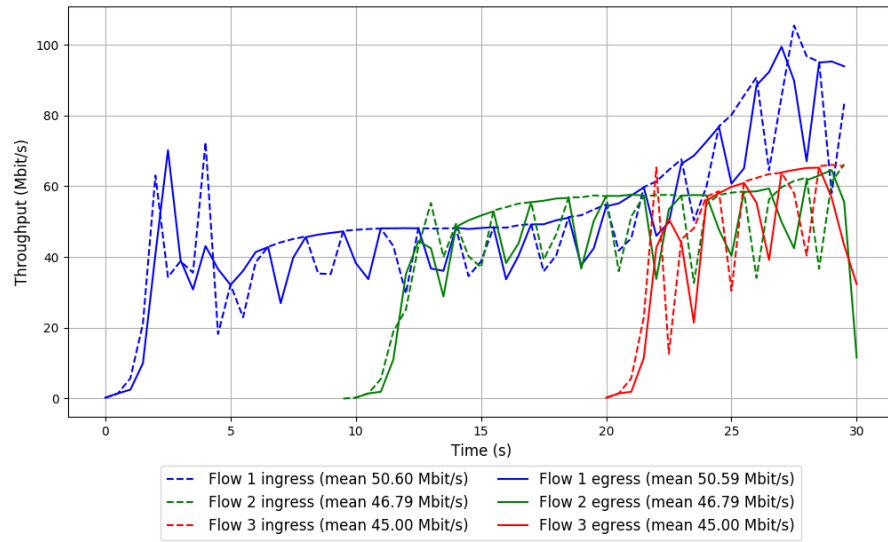
-- Flow 3:

Average throughput: 45.00 Mbit/s

95th percentile per-packet one-way delay: 142.592 ms

Loss rate: 0.00%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-03-07 19:19:39

End at: 2018-03-07 19:20:09

Below is generated by plot.py at 2018-03-07 22:21:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.77 Mbit/s

95th percentile per-packet one-way delay: 145.305 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.70 Mbit/s

95th percentile per-packet one-way delay: 145.152 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 39.18 Mbit/s

95th percentile per-packet one-way delay: 144.832 ms

Loss rate: 0.00%

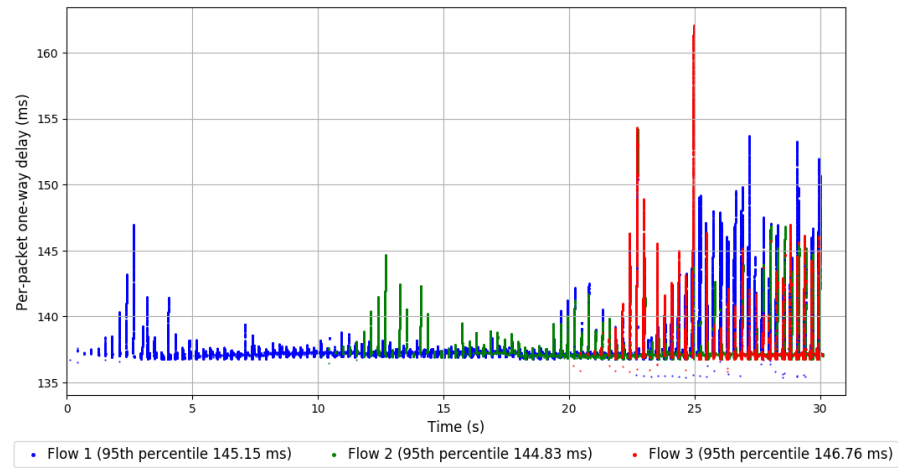
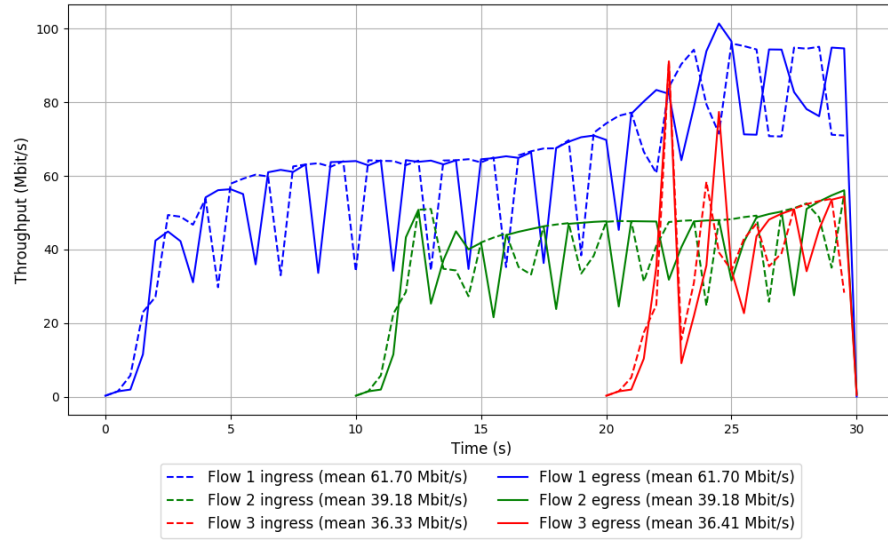
-- Flow 3:

Average throughput: 36.41 Mbit/s

95th percentile per-packet one-way delay: 146.763 ms

Loss rate: 0.00%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-03-07 19:39:39

End at: 2018-03-07 19:40:09

Below is generated by plot.py at 2018-03-07 22:21:36

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.84 Mbit/s

95th percentile per-packet one-way delay: 140.093 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 57.31 Mbit/s

95th percentile per-packet one-way delay: 139.910 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 41.11 Mbit/s

95th percentile per-packet one-way delay: 140.403 ms

Loss rate: 0.00%

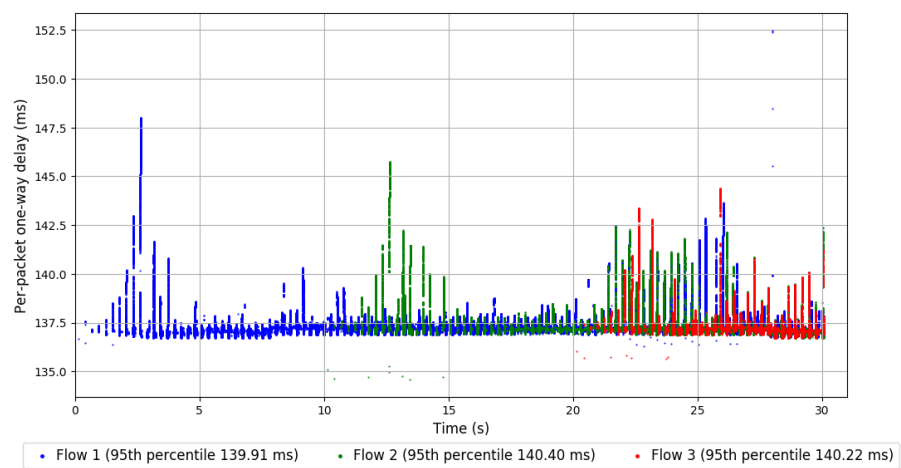
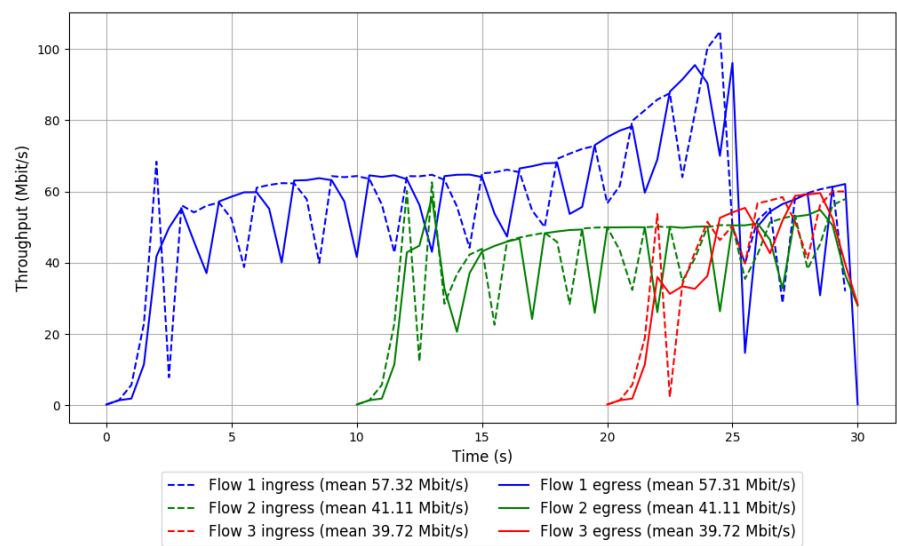
-- Flow 3:

Average throughput: 39.72 Mbit/s

95th percentile per-packet one-way delay: 140.222 ms

Loss rate: 0.00%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-03-07 19:59:32

End at: 2018-03-07 20:00:02

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 126.63 Mbit/s

95th percentile per-packet one-way delay: 149.887 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 50.69 Mbit/s

95th percentile per-packet one-way delay: 144.139 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.74 Mbit/s

95th percentile per-packet one-way delay: 151.335 ms

Loss rate: 0.09%

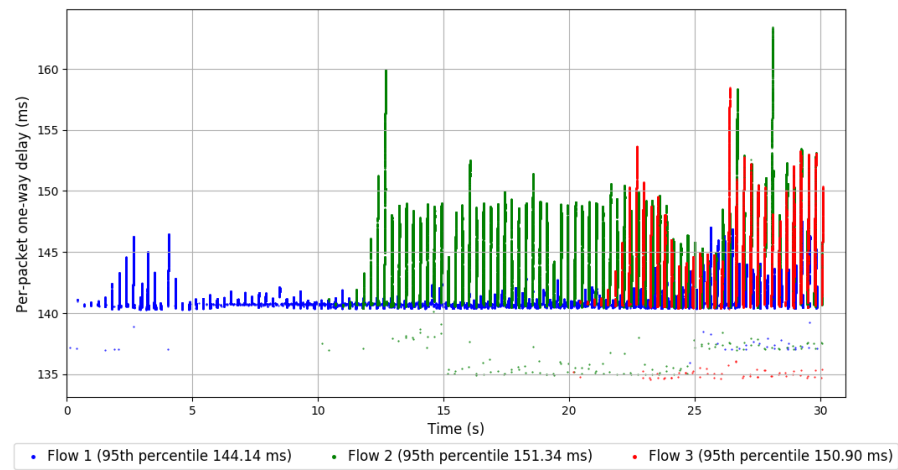
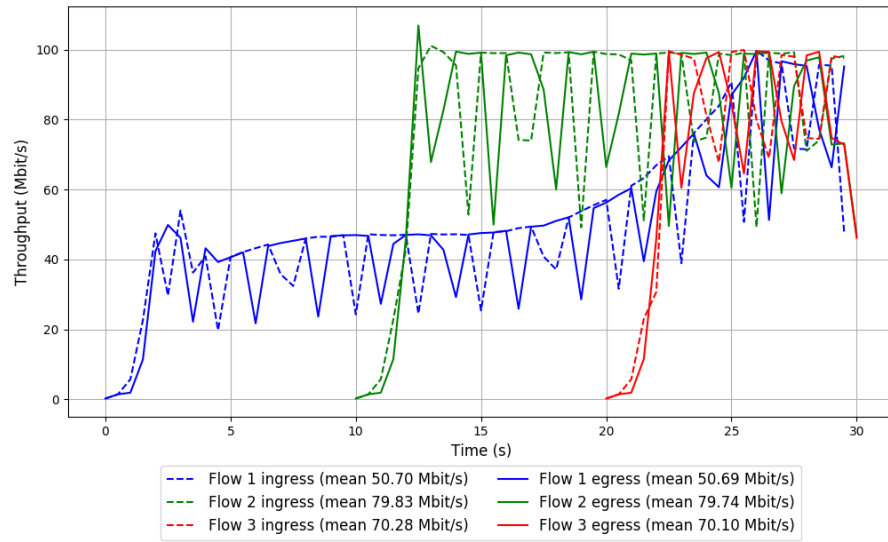
-- Flow 3:

Average throughput: 70.10 Mbit/s

95th percentile per-packet one-way delay: 150.900 ms

Loss rate: 0.14%

Run 10: Report of TCP Cubic — Data Link

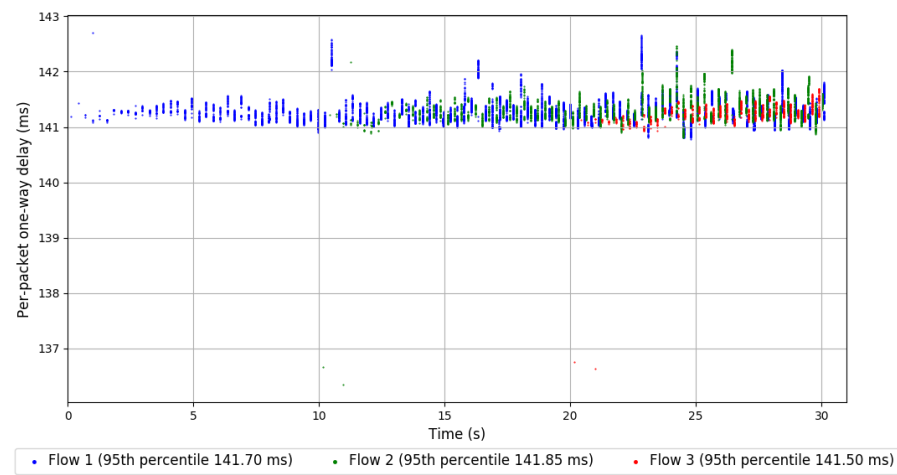
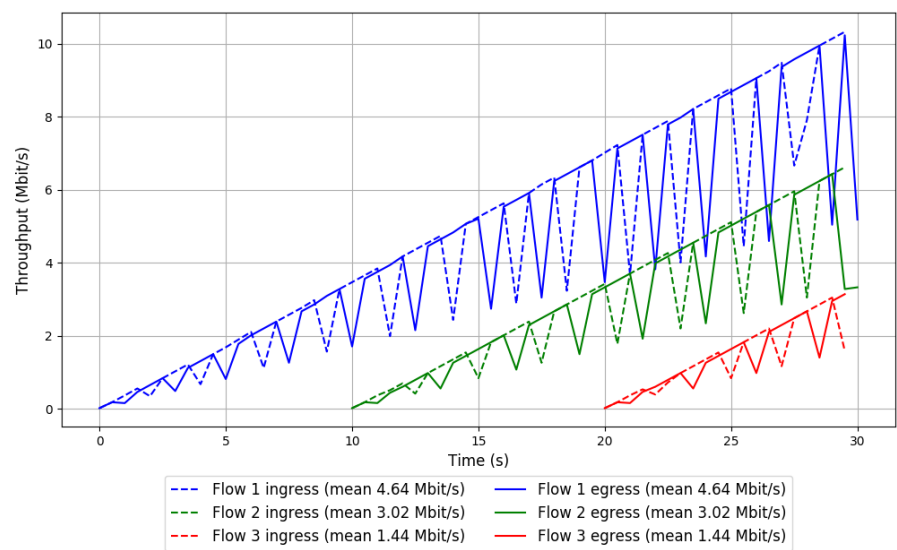


```
Run 1: Statistics of LEDBAT

Start at: 2018-03-07 17:10:10
End at: 2018-03-07 17:10:40

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.11 Mbit/s
95th percentile per-packet one-way delay: 141.707 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.64 Mbit/s
95th percentile per-packet one-way delay: 141.701 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.02 Mbit/s
95th percentile per-packet one-way delay: 141.854 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 141.498 ms
Loss rate: 0.00%
```


Run 1: Report of LEDBAT — Data Link

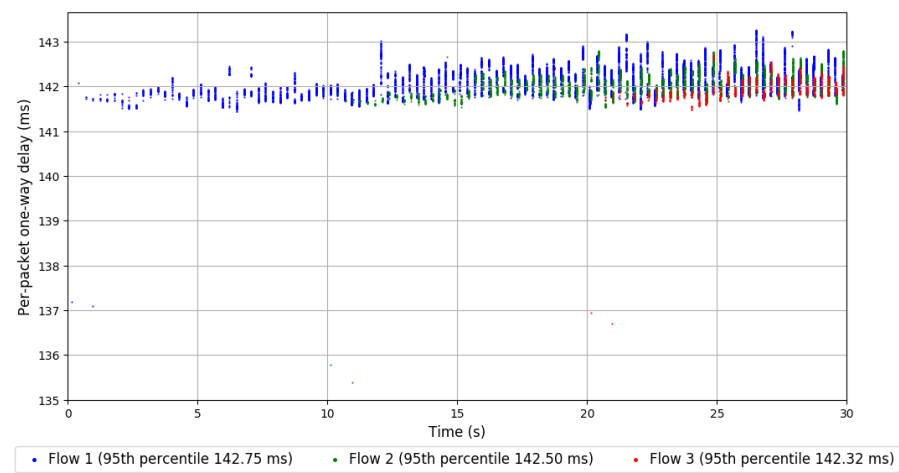
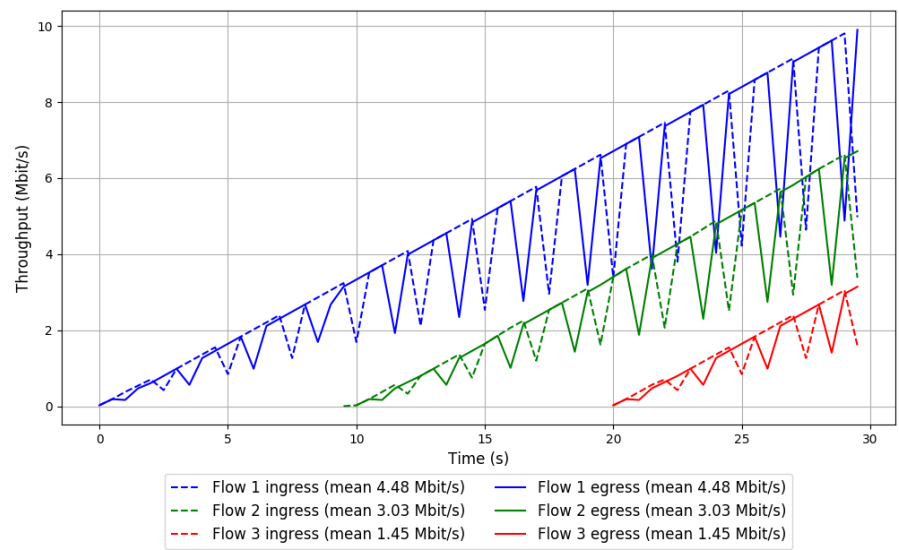


```
Run 2: Statistics of LEDBAT

Start at: 2018-03-07 17:29:54
End at: 2018-03-07 17:30:24

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 6.96 Mbit/s
95th percentile per-packet one-way delay: 142.694 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.48 Mbit/s
95th percentile per-packet one-way delay: 142.747 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 142.503 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 142.319 ms
Loss rate: 0.00%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-03-07 17:49:52

End at: 2018-03-07 17:50:22

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.90 Mbit/s

95th percentile per-packet one-way delay: 142.857 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.47 Mbit/s

95th percentile per-packet one-way delay: 142.793 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 142.949 ms

Loss rate: 0.00%

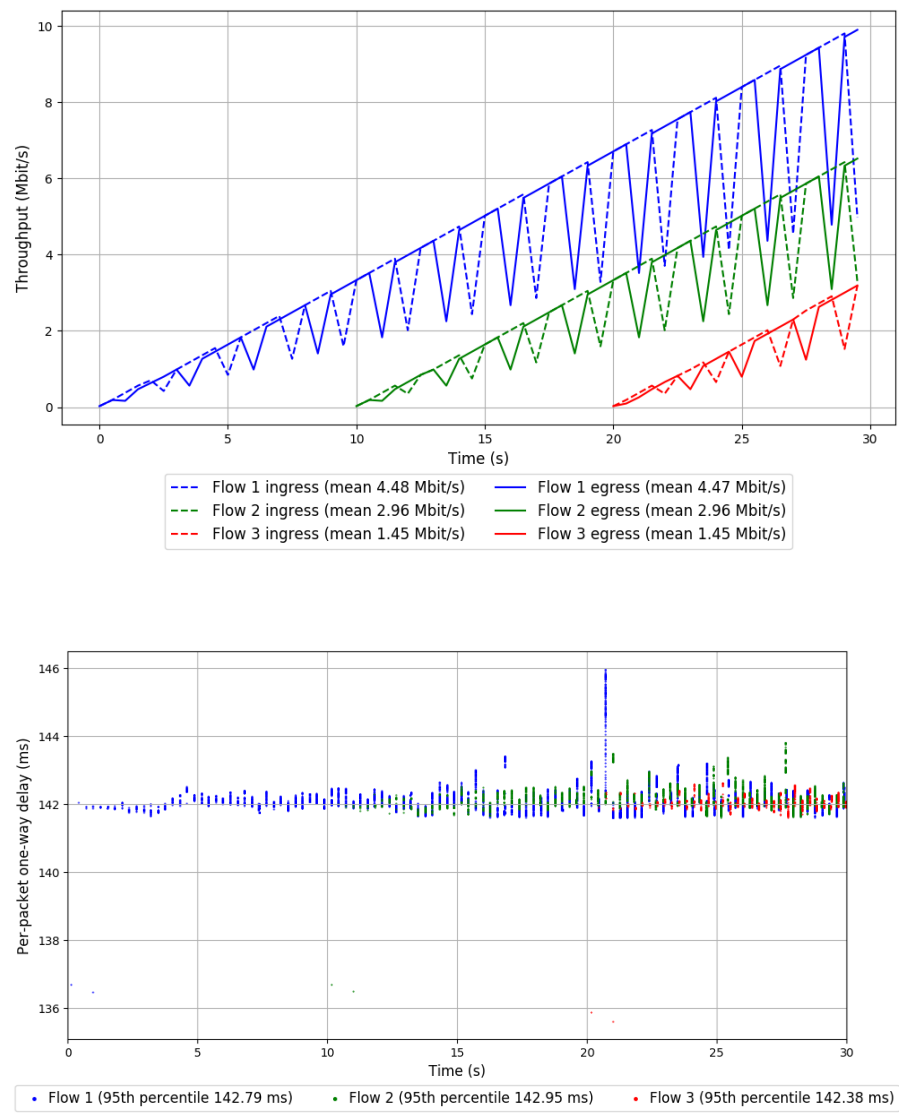
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 142.385 ms

Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-03-07 18:09:50

End at: 2018-03-07 18:10:20

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.85 Mbit/s

95th percentile per-packet one-way delay: 142.264 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.40 Mbit/s

95th percentile per-packet one-way delay: 142.192 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 142.334 ms

Loss rate: 0.00%

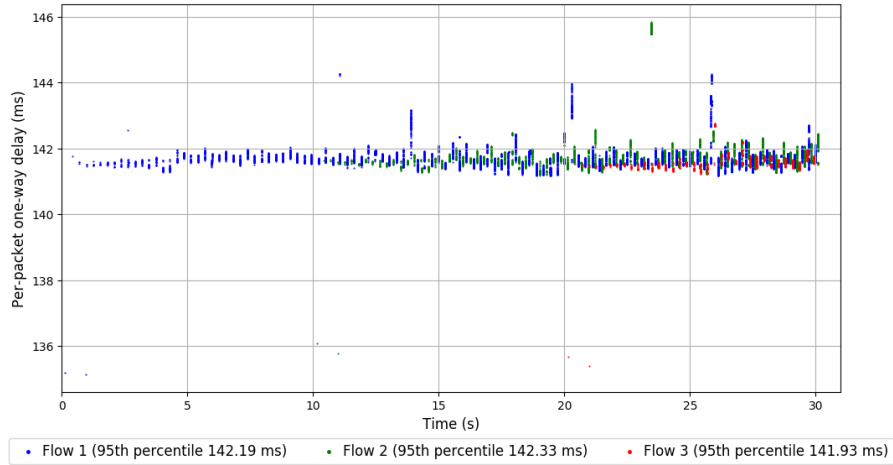
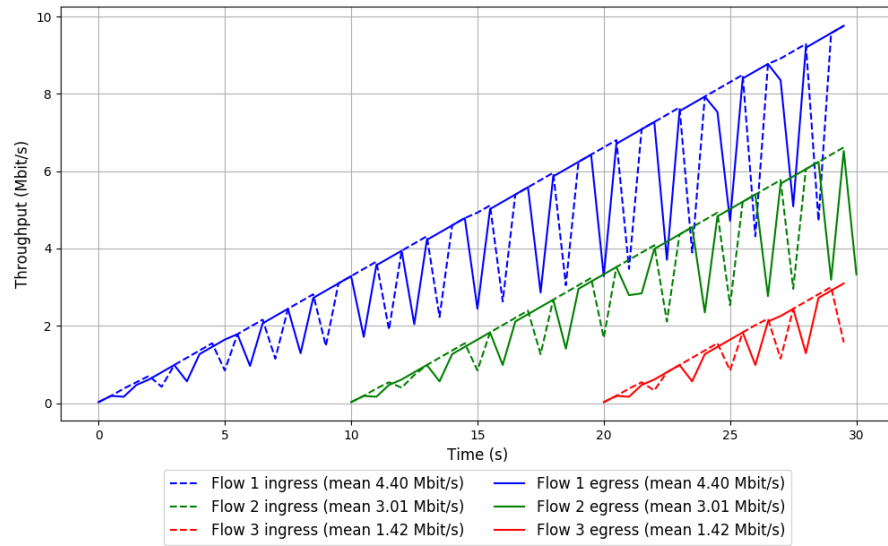
-- Flow 3:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 141.933 ms

Loss rate: 0.00%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-03-07 18:30:19

End at: 2018-03-07 18:30:49

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.89 Mbit/s

95th percentile per-packet one-way delay: 141.711 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 141.664 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 2.91 Mbit/s

95th percentile per-packet one-way delay: 141.880 ms

Loss rate: 0.00%

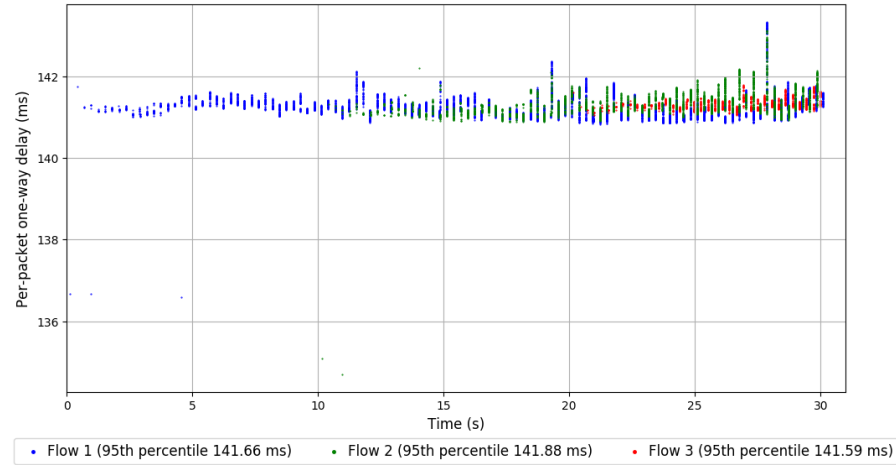
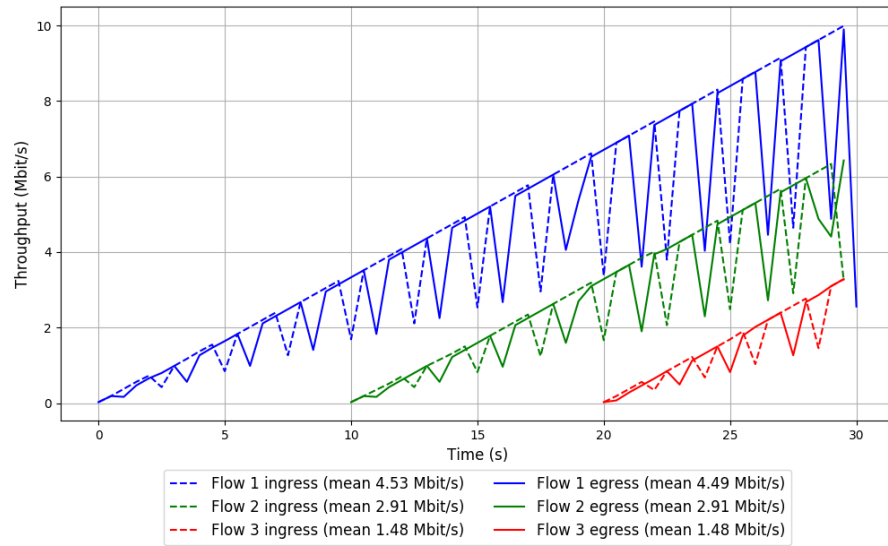
-- Flow 3:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 141.593 ms

Loss rate: 0.00%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-03-07 18:50:29

End at: 2018-03-07 18:50:59

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.30 Mbit/s

95th percentile per-packet one-way delay: 137.965 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.74 Mbit/s

95th percentile per-packet one-way delay: 138.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.14 Mbit/s

95th percentile per-packet one-way delay: 137.761 ms

Loss rate: 0.00%

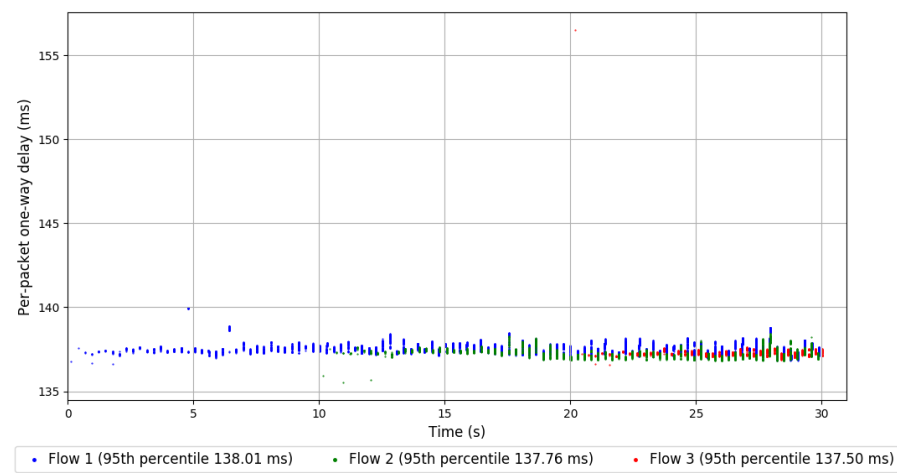
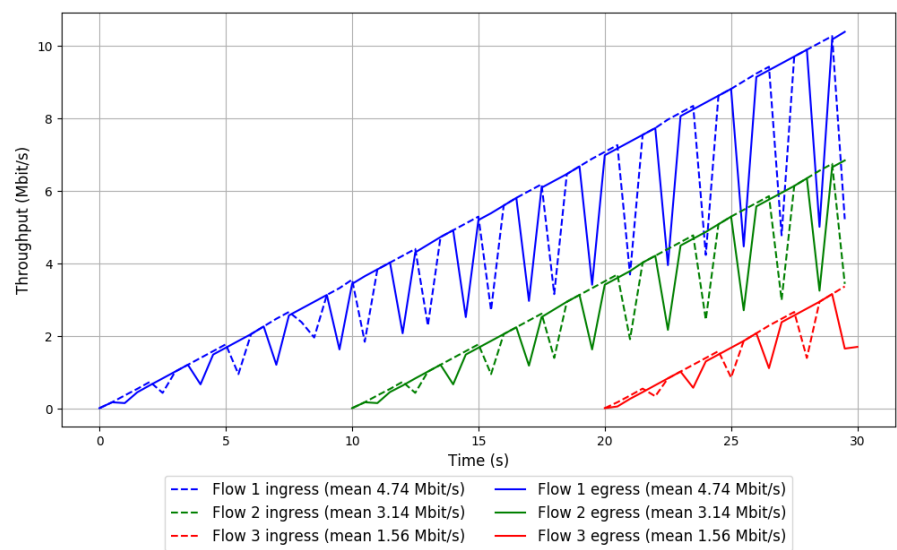
-- Flow 3:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 137.496 ms

Loss rate: 0.00%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-03-07 19:10:30

End at: 2018-03-07 19:11:00

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.23 Mbit/s

95th percentile per-packet one-way delay: 137.651 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.76 Mbit/s

95th percentile per-packet one-way delay: 137.630 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 137.814 ms

Loss rate: 0.00%

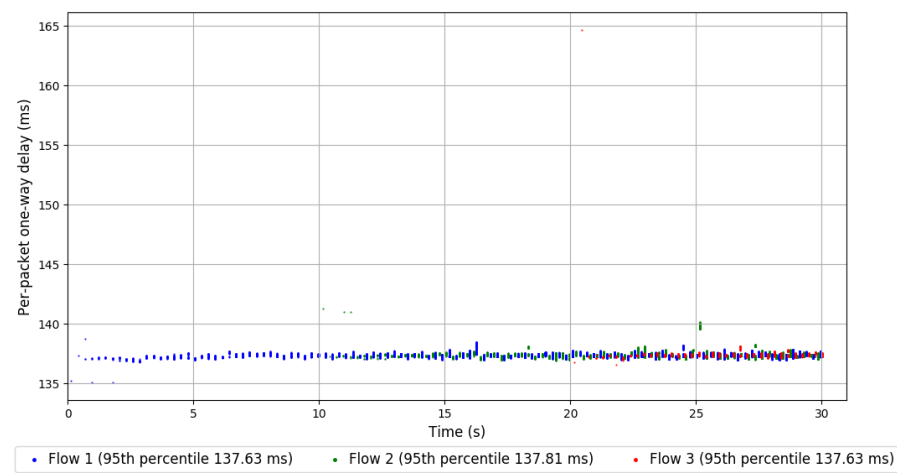
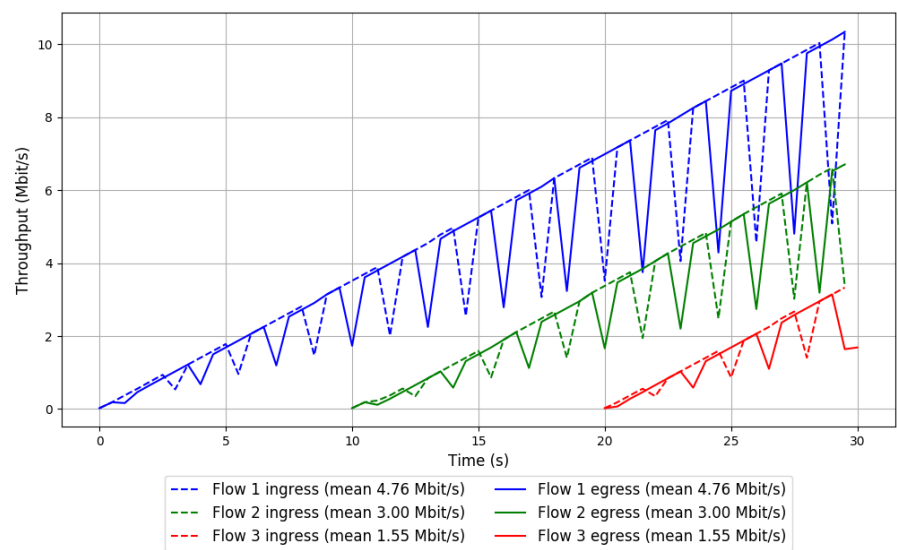
-- Flow 3:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 137.634 ms

Loss rate: 0.00%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-03-07 19:30:23

End at: 2018-03-07 19:30:53

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.28 Mbit/s

95th percentile per-packet one-way delay: 137.972 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.69 Mbit/s

95th percentile per-packet one-way delay: 137.950 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 3.17 Mbit/s

95th percentile per-packet one-way delay: 138.028 ms

Loss rate: 0.00%

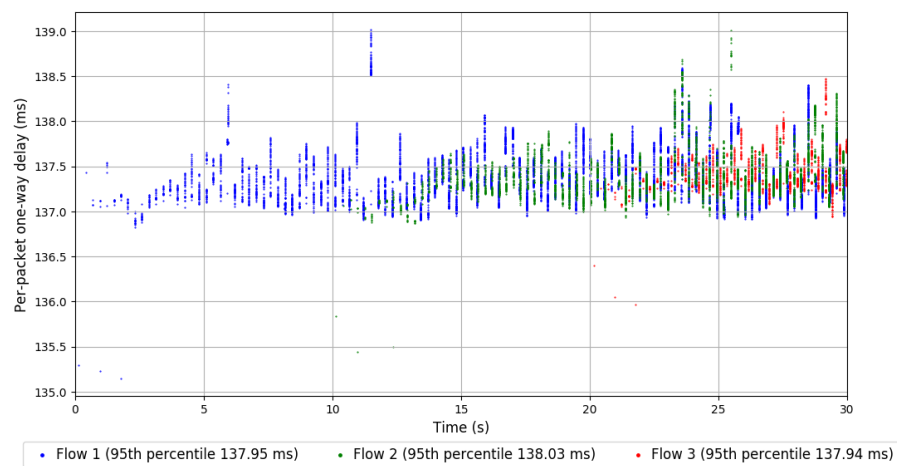
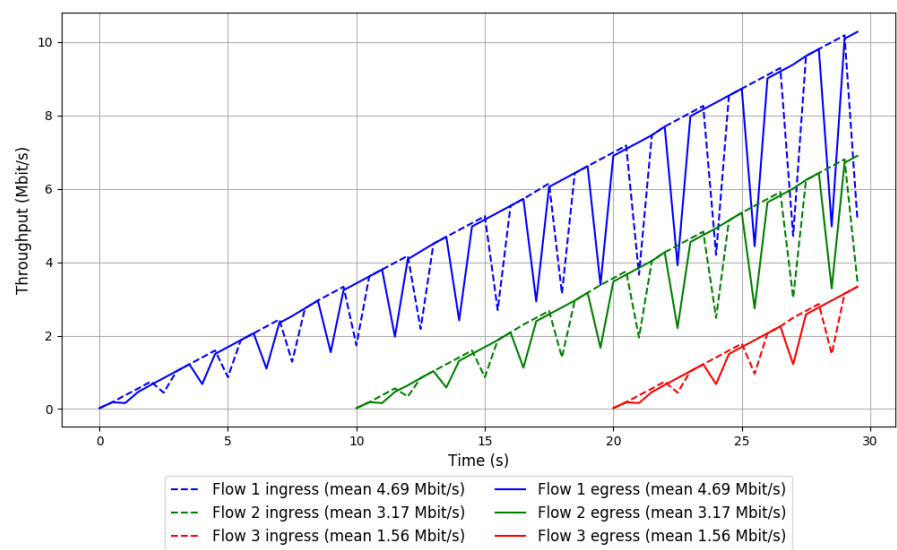
-- Flow 3:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 137.941 ms

Loss rate: 0.00%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-03-07 19:50:28

End at: 2018-03-07 19:50:58

Below is generated by plot.py at 2018-03-07 22:22:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.90 Mbit/s

95th percentile per-packet one-way delay: 141.417 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 4.48 Mbit/s

95th percentile per-packet one-way delay: 141.461 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 141.238 ms

Loss rate: 0.00%

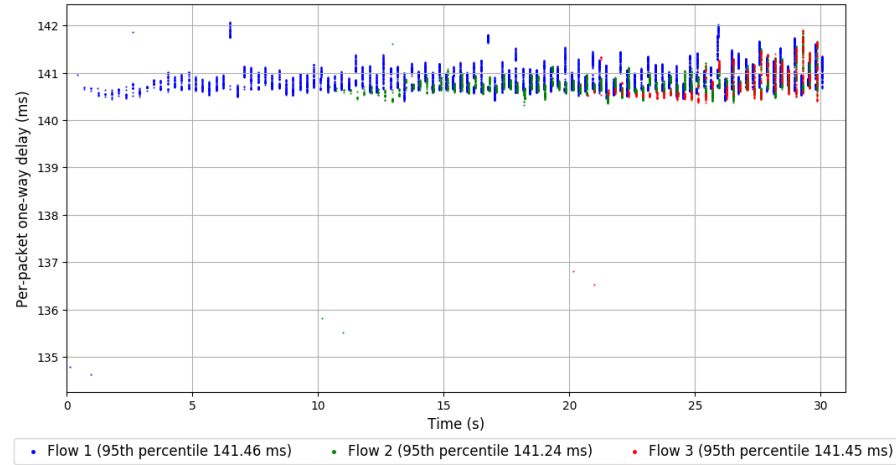
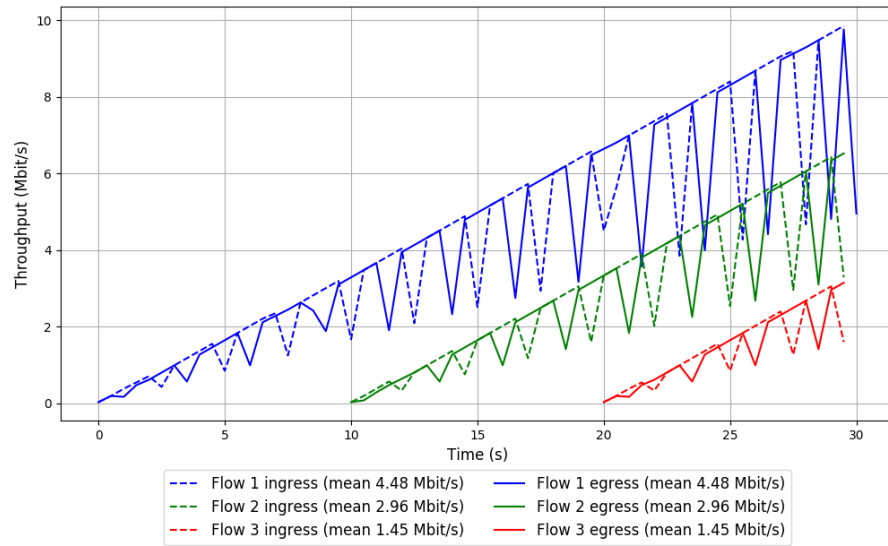
-- Flow 3:

Average throughput: 1.45 Mbit/s

95th percentile per-packet one-way delay: 141.452 ms

Loss rate: 0.00%

Run 9: Report of LEDBAT — Data Link

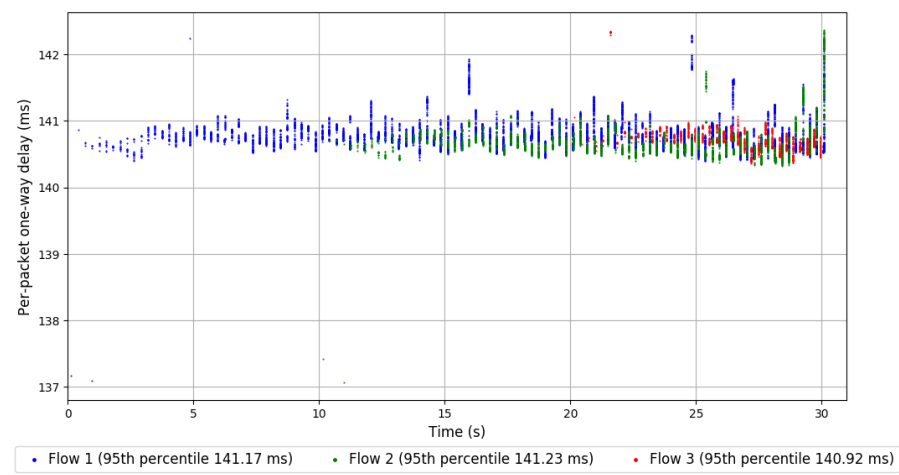
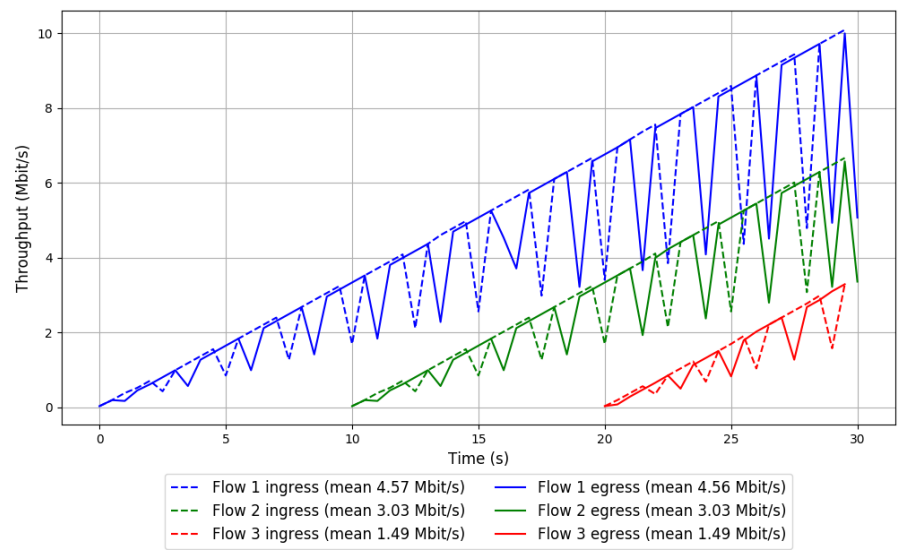


```
Run 10: Statistics of LEDBAT

Start at: 2018-03-07 20:10:30
End at: 2018-03-07 20:11:00

# Below is generated by plot.py at 2018-03-07 22:22:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.07 Mbit/s
95th percentile per-packet one-way delay: 141.161 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 4.56 Mbit/s
95th percentile per-packet one-way delay: 141.171 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 3.03 Mbit/s
95th percentile per-packet one-way delay: 141.231 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 140.917 ms
Loss rate: 0.00%
```

Run 10: Report of LEDBAT — Data Link

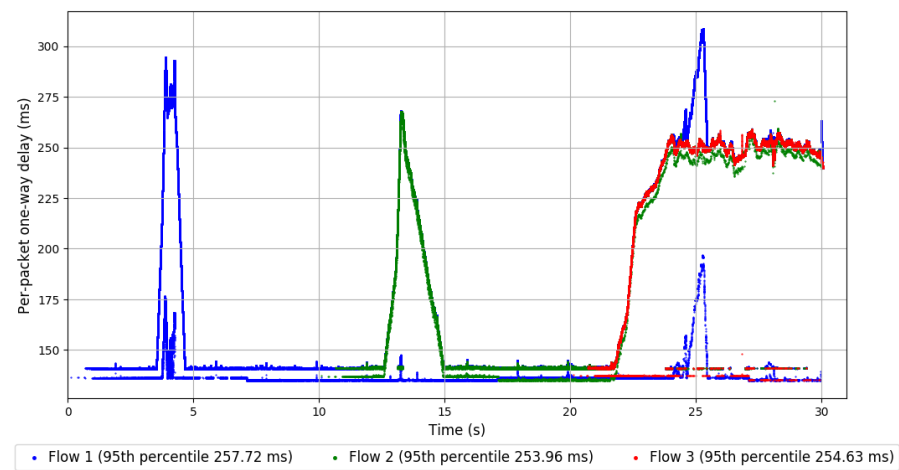
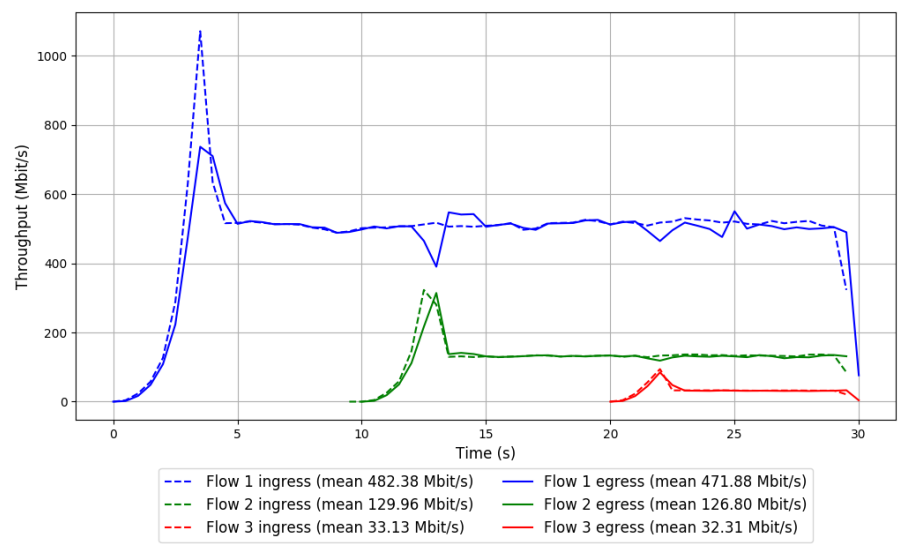


```
Run 1: Statistics of PCC

Start at: 2018-03-07 17:06:59
End at: 2018-03-07 17:07:29

# Below is generated by plot.py at 2018-03-07 22:29:42
# Datalink statistics
-- Total of 3 flows:
Average throughput: 566.81 Mbit/s
95th percentile per-packet one-way delay: 256.441 ms
Loss rate: 1.91%
-- Flow 1:
Average throughput: 471.88 Mbit/s
95th percentile per-packet one-way delay: 257.718 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 126.80 Mbit/s
95th percentile per-packet one-way delay: 253.963 ms
Loss rate: 2.27%
-- Flow 3:
Average throughput: 32.31 Mbit/s
95th percentile per-packet one-way delay: 254.629 ms
Loss rate: 1.49%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-03-07 17:26:42

End at: 2018-03-07 17:27:12

Below is generated by plot.py at 2018-03-07 22:29:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.68 Mbit/s

95th percentile per-packet one-way delay: 264.609 ms

Loss rate: 2.29%

-- Flow 1:

Average throughput: 477.95 Mbit/s

95th percentile per-packet one-way delay: 267.549 ms

Loss rate: 2.19%

-- Flow 2:

Average throughput: 120.43 Mbit/s

95th percentile per-packet one-way delay: 251.977 ms

Loss rate: 2.62%

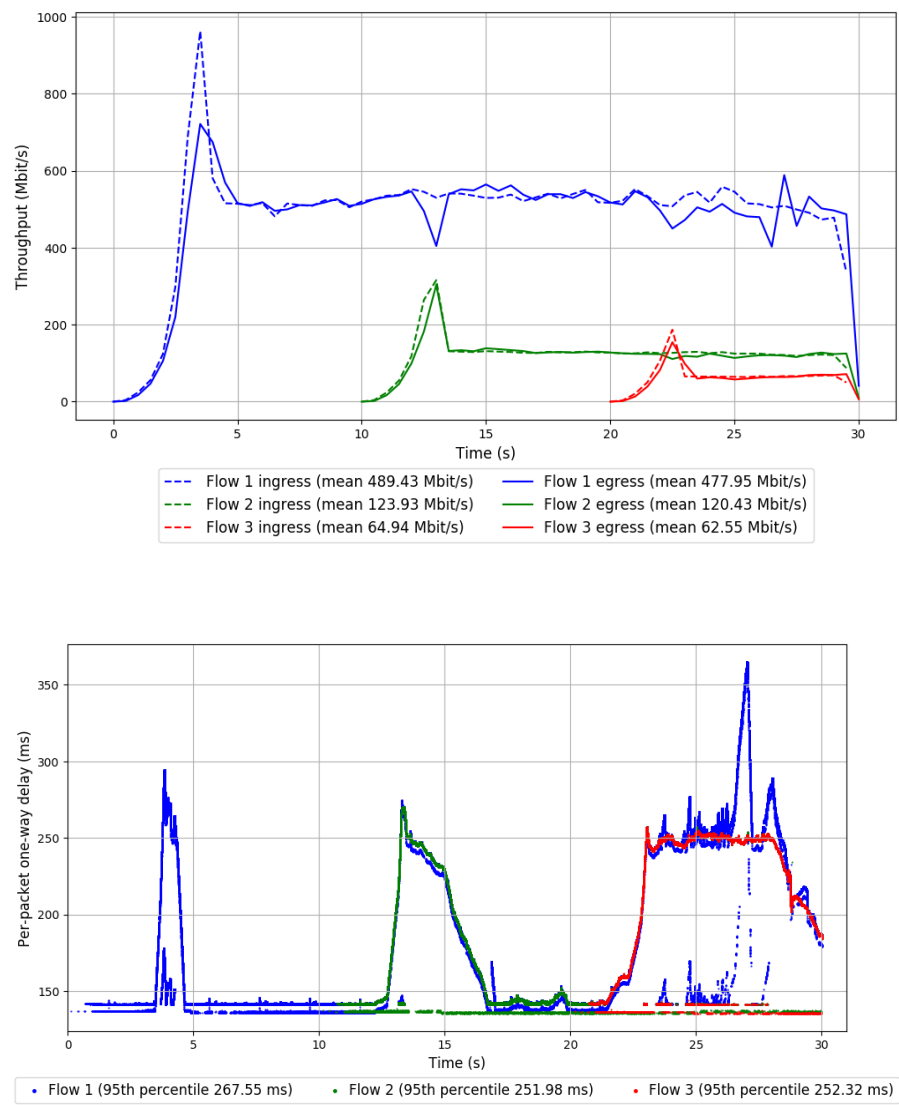
-- Flow 3:

Average throughput: 62.55 Mbit/s

95th percentile per-packet one-way delay: 252.320 ms

Loss rate: 3.22%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-03-07 17:46:40

End at: 2018-03-07 17:47:10

Below is generated by plot.py at 2018-03-07 22:29:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 583.19 Mbit/s

95th percentile per-packet one-way delay: 282.541 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 482.71 Mbit/s

95th percentile per-packet one-way delay: 286.929 ms

Loss rate: 1.68%

-- Flow 2:

Average throughput: 120.40 Mbit/s

95th percentile per-packet one-way delay: 252.651 ms

Loss rate: 1.96%

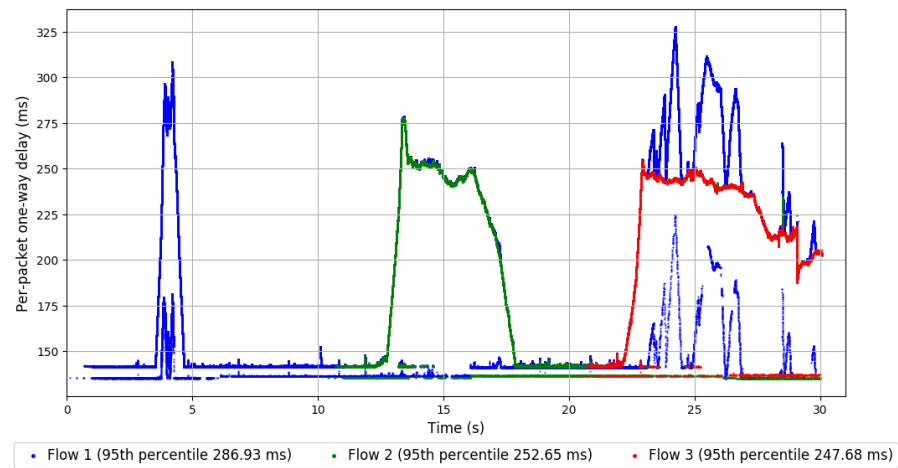
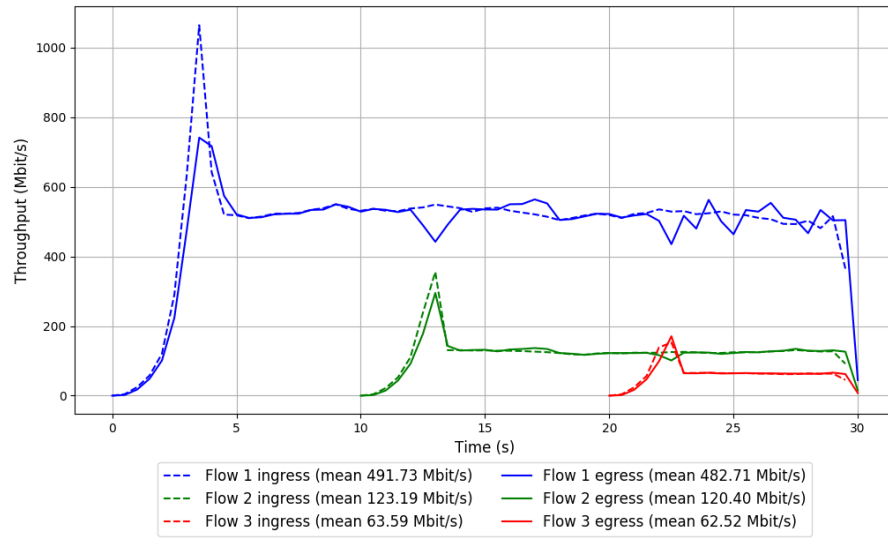
-- Flow 3:

Average throughput: 62.52 Mbit/s

95th percentile per-packet one-way delay: 247.675 ms

Loss rate: 1.05%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-03-07 18:06:40

End at: 2018-03-07 18:07:10

Below is generated by plot.py at 2018-03-07 22:29:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.92 Mbit/s

95th percentile per-packet one-way delay: 262.106 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 514.45 Mbit/s

95th percentile per-packet one-way delay: 264.075 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 66.87 Mbit/s

95th percentile per-packet one-way delay: 255.051 ms

Loss rate: 1.49%

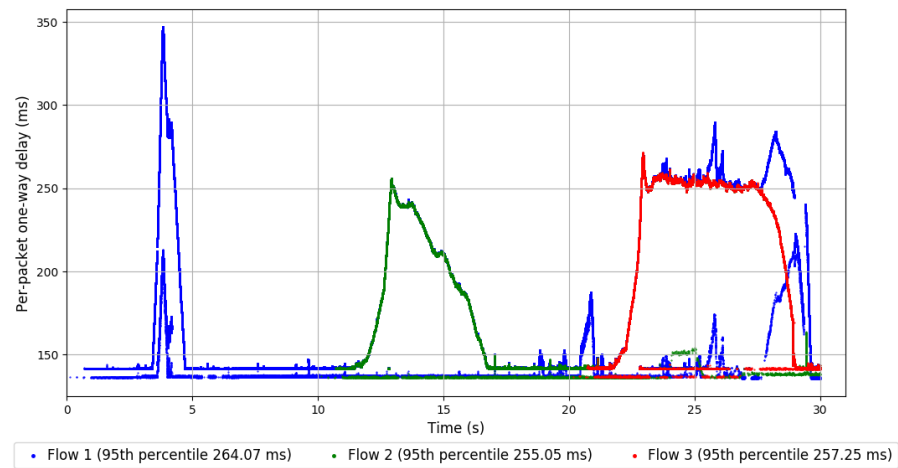
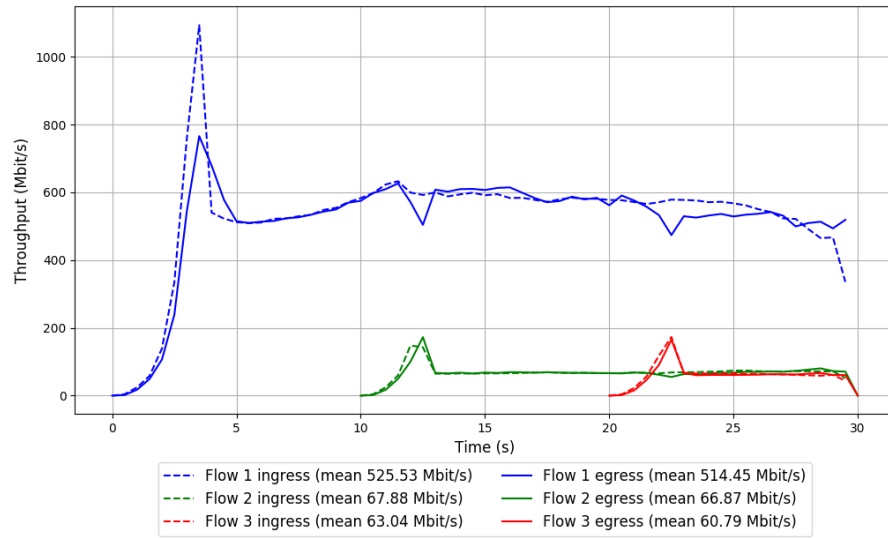
-- Flow 3:

Average throughput: 60.79 Mbit/s

95th percentile per-packet one-way delay: 257.250 ms

Loss rate: 3.55%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-03-07 18:27:06

End at: 2018-03-07 18:27:36

Below is generated by plot.py at 2018-03-07 22:30:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 582.32 Mbit/s

95th percentile per-packet one-way delay: 213.682 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 489.67 Mbit/s

95th percentile per-packet one-way delay: 213.653 ms

Loss rate: 1.16%

-- Flow 2:

Average throughput: 137.13 Mbit/s

95th percentile per-packet one-way delay: 214.342 ms

Loss rate: 0.75%

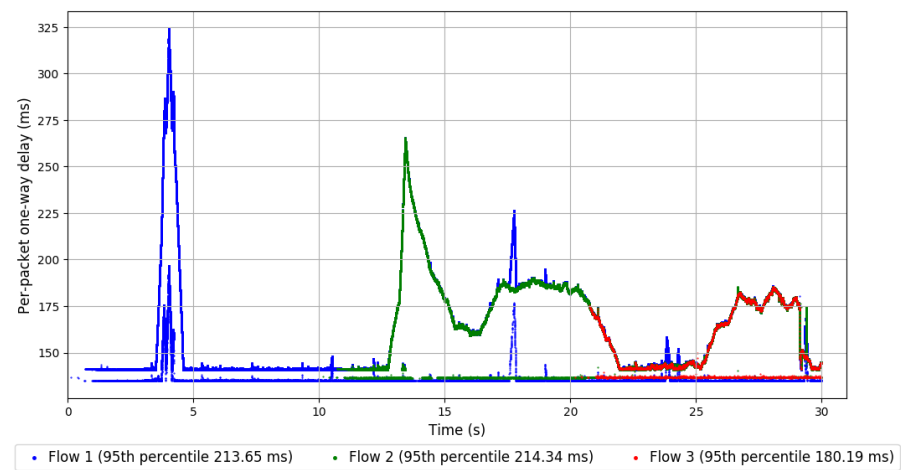
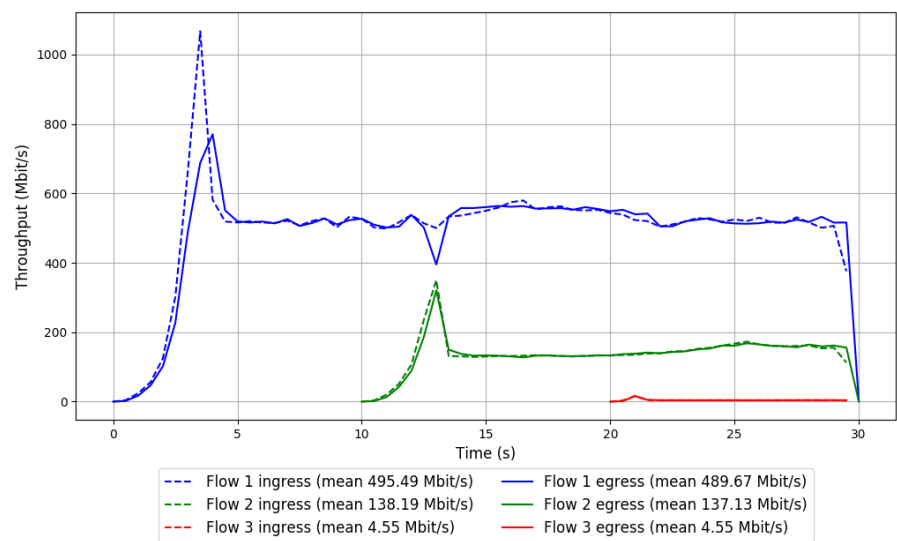
-- Flow 3:

Average throughput: 4.55 Mbit/s

95th percentile per-packet one-way delay: 180.191 ms

Loss rate: 0.05%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-03-07 18:47:19

End at: 2018-03-07 18:47:49

Below is generated by plot.py at 2018-03-07 22:30:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 587.18 Mbit/s

95th percentile per-packet one-way delay: 245.459 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 502.65 Mbit/s

95th percentile per-packet one-way delay: 246.544 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 126.69 Mbit/s

95th percentile per-packet one-way delay: 242.835 ms

Loss rate: 2.11%

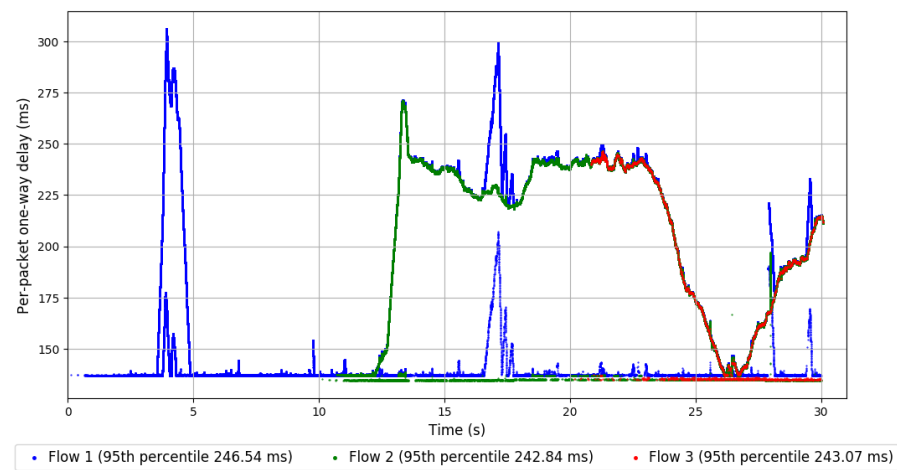
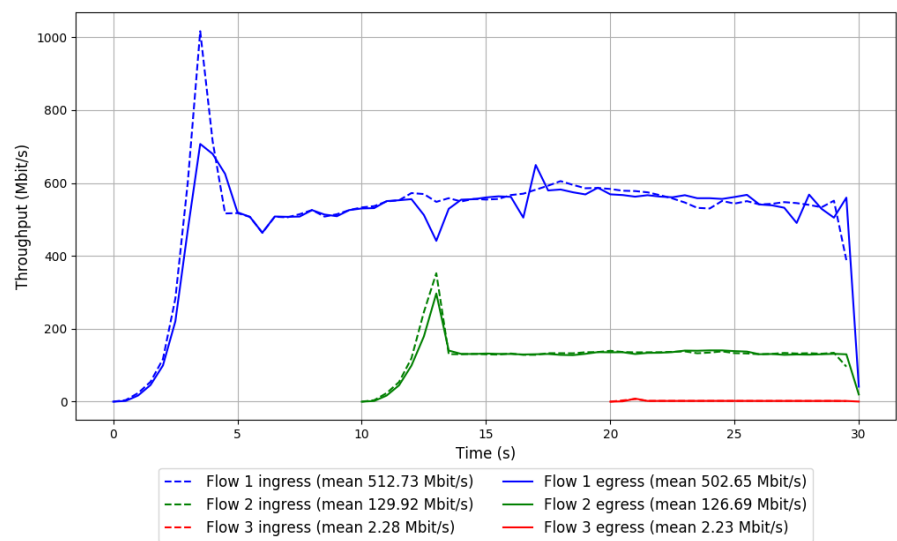
-- Flow 3:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 243.074 ms

Loss rate: 1.28%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-03-07 19:07:24

End at: 2018-03-07 19:07:54

Below is generated by plot.py at 2018-03-07 22:30:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 574.56 Mbit/s

95th percentile per-packet one-way delay: 249.526 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 531.88 Mbit/s

95th percentile per-packet one-way delay: 249.873 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 63.02 Mbit/s

95th percentile per-packet one-way delay: 248.138 ms

Loss rate: 1.08%

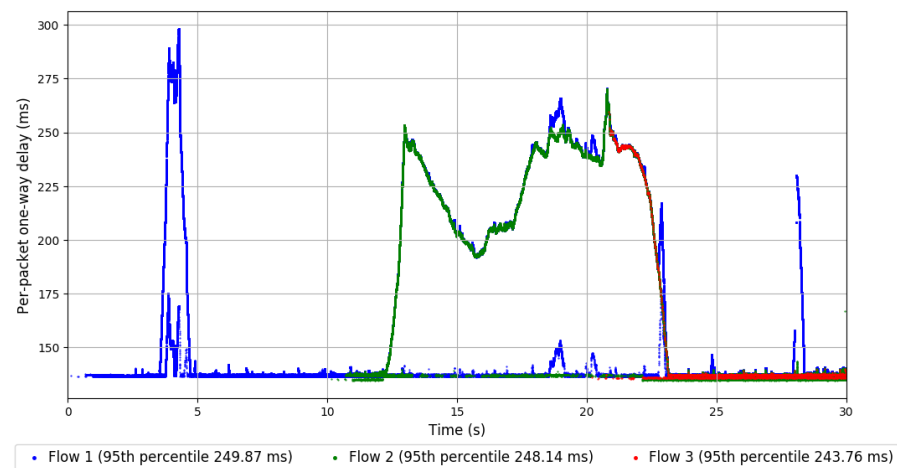
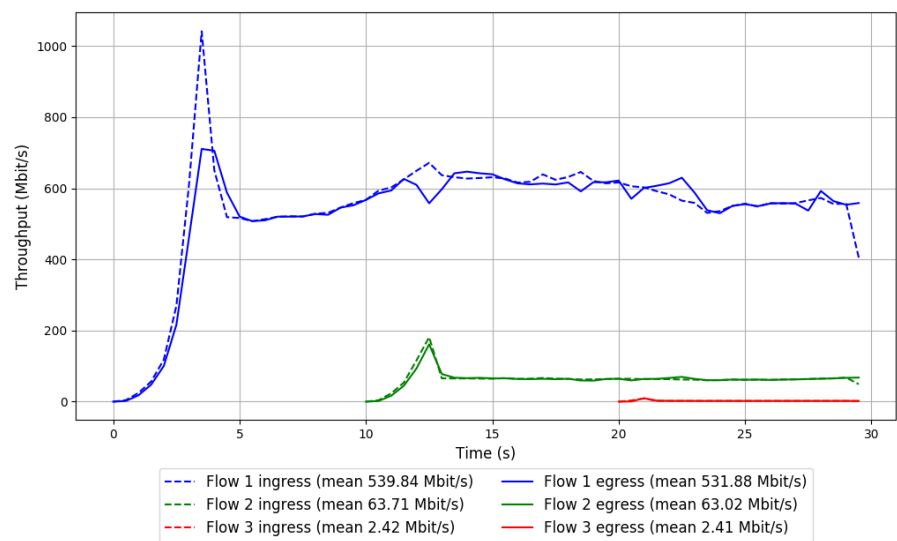
-- Flow 3:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 243.763 ms

Loss rate: 0.20%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-03-07 19:27:15

End at: 2018-03-07 19:27:45

Below is generated by plot.py at 2018-03-07 22:31:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 574.44 Mbit/s

95th percentile per-packet one-way delay: 278.390 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 479.23 Mbit/s

95th percentile per-packet one-way delay: 284.493 ms

Loss rate: 1.90%

-- Flow 2:

Average throughput: 127.74 Mbit/s

95th percentile per-packet one-way delay: 249.473 ms

Loss rate: 1.56%

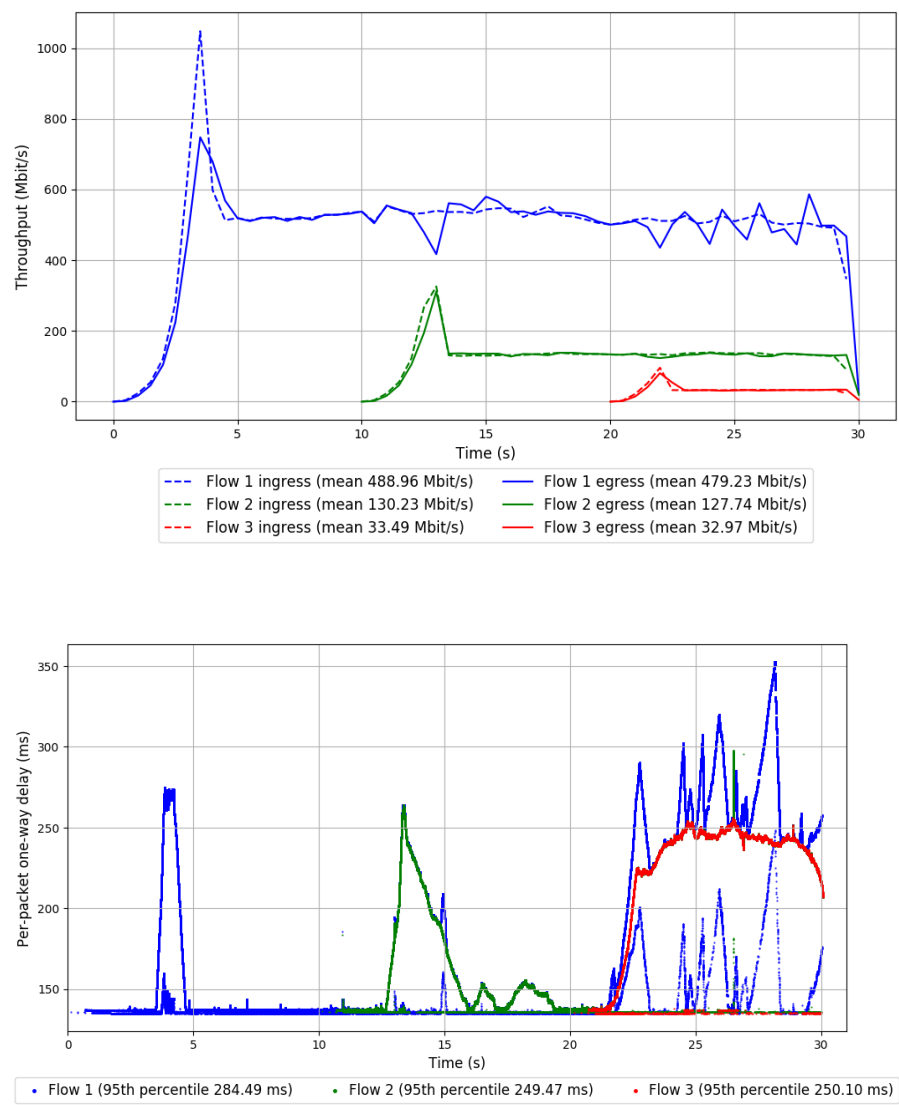
-- Flow 3:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 250.104 ms

Loss rate: 0.87%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-03-07 19:47:18

End at: 2018-03-07 19:47:48

Below is generated by plot.py at 2018-03-07 22:39:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 580.98 Mbit/s

95th percentile per-packet one-way delay: 253.248 ms

Loss rate: 2.86%

-- Flow 1:

Average throughput: 479.85 Mbit/s

95th percentile per-packet one-way delay: 253.357 ms

Loss rate: 2.69%

-- Flow 2:

Average throughput: 122.03 Mbit/s

95th percentile per-packet one-way delay: 252.668 ms

Loss rate: 3.56%

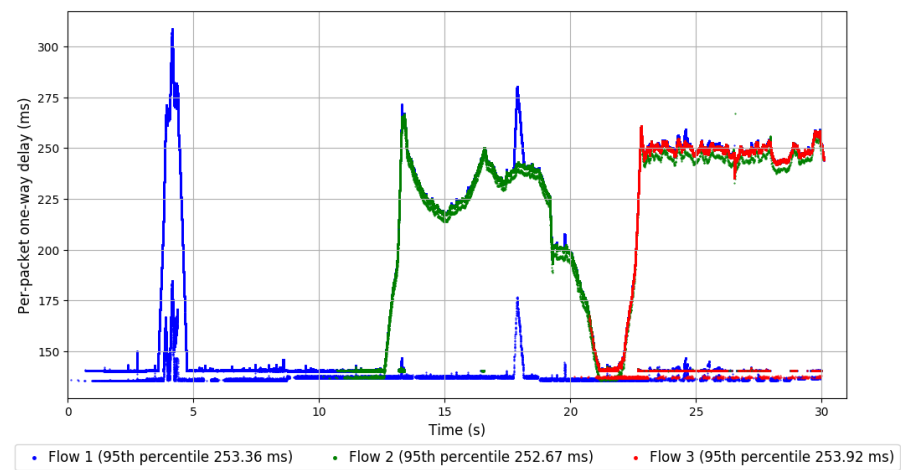
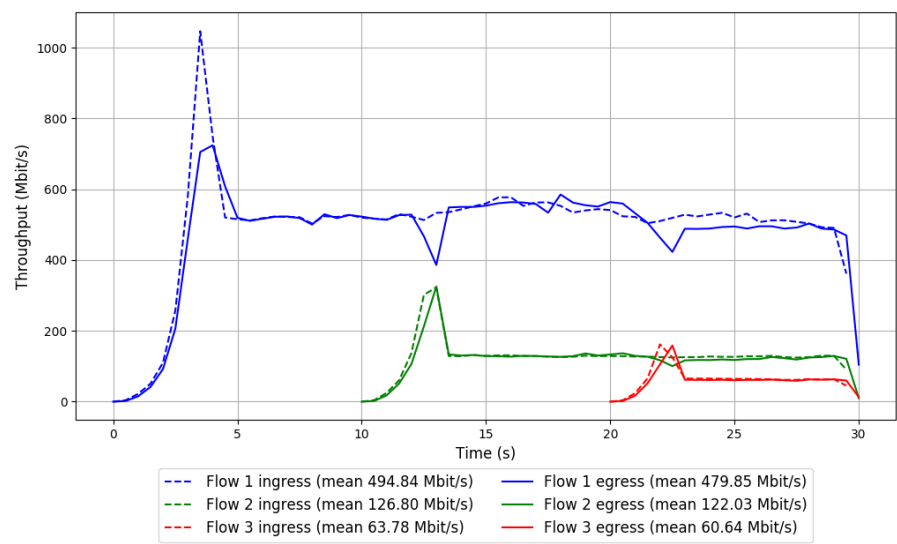
-- Flow 3:

Average throughput: 60.64 Mbit/s

95th percentile per-packet one-way delay: 253.918 ms

Loss rate: 3.92%

Run 9: Report of PCC — Data Link



Run 10: Statistics of PCC

Start at: 2018-03-07 20:07:17

End at: 2018-03-07 20:07:47

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 575.81 Mbit/s

95th percentile per-packet one-way delay: 225.680 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 488.23 Mbit/s

95th percentile per-packet one-way delay: 225.323 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 123.13 Mbit/s

95th percentile per-packet one-way delay: 233.023 ms

Loss rate: 1.67%

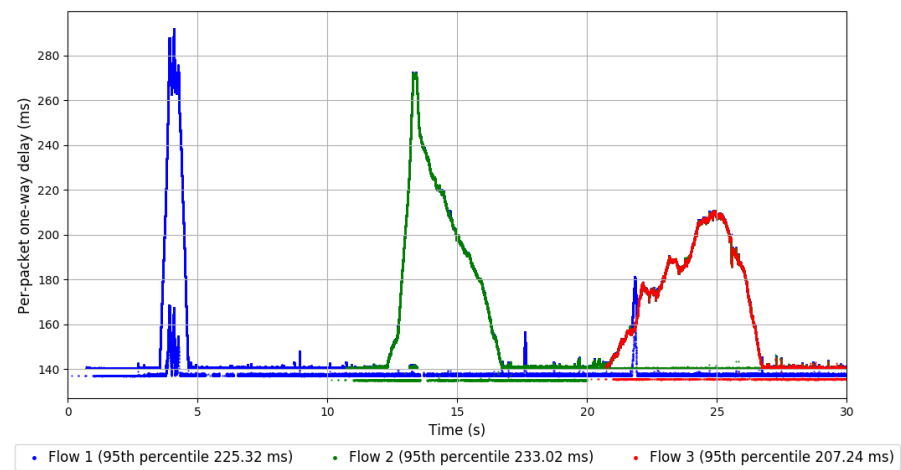
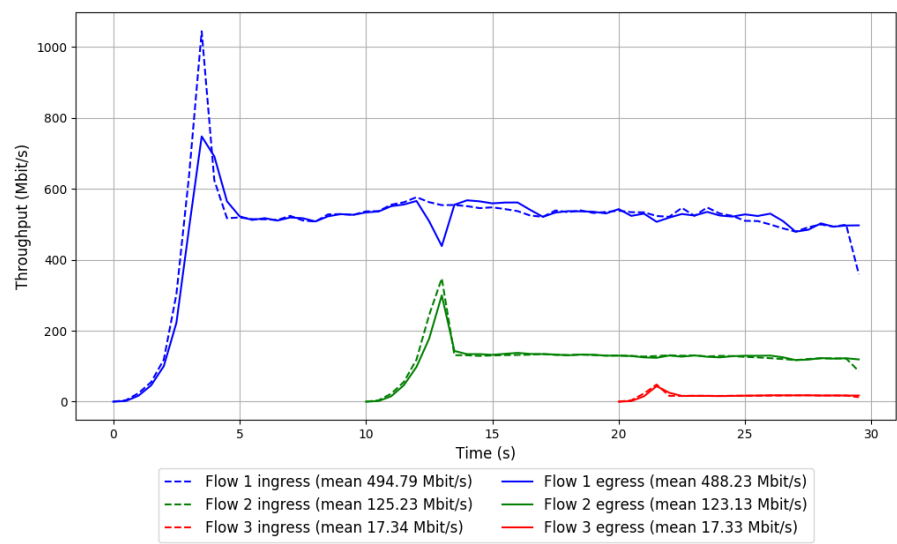
-- Flow 3:

Average throughput: 17.33 Mbit/s

95th percentile per-packet one-way delay: 207.237 ms

Loss rate: 0.04%

Run 10: Report of PCC — Data Link

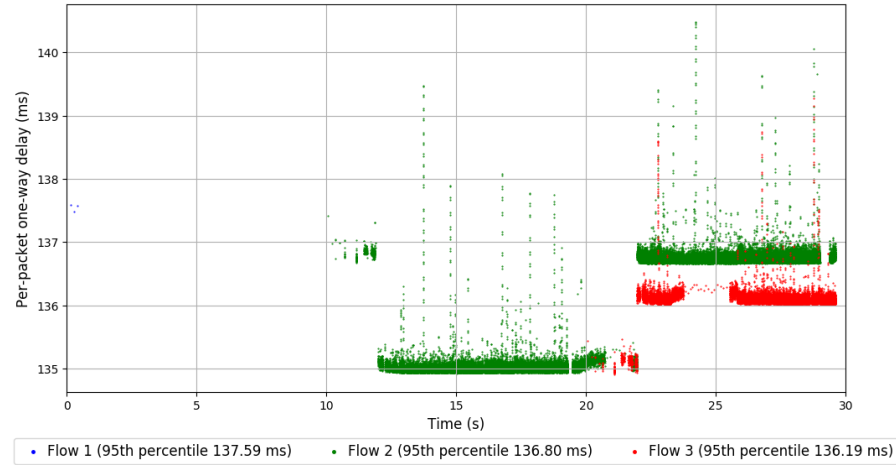
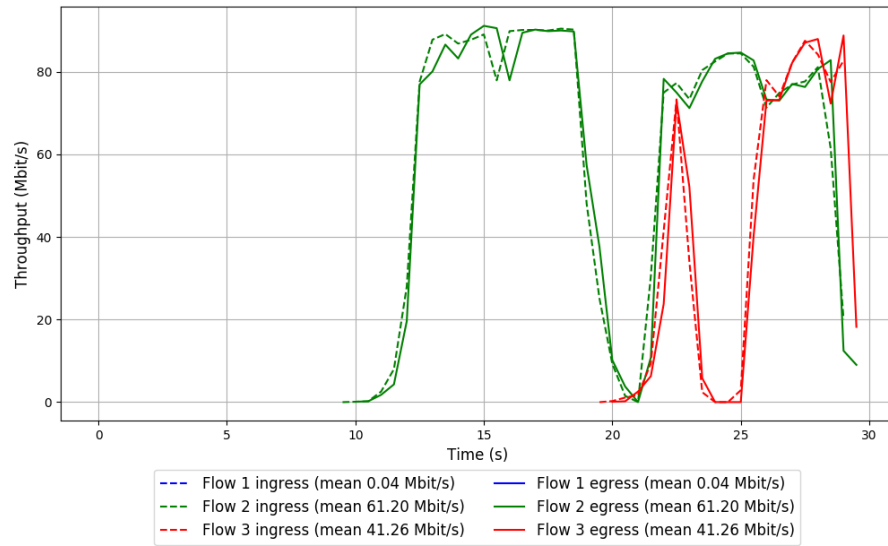


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-03-07 16:58:44
End at: 2018-03-07 16:59:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.92 Mbit/s
95th percentile per-packet one-way delay: 136.790 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 137.595 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 61.20 Mbit/s
95th percentile per-packet one-way delay: 136.803 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 41.26 Mbit/s
95th percentile per-packet one-way delay: 136.187 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-07 17:18:13

End at: 2018-03-07 17:18:43

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 95.14 Mbit/s

95th percentile per-packet one-way delay: 140.954 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 51.20 Mbit/s

95th percentile per-packet one-way delay: 140.974 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 51.74 Mbit/s

95th percentile per-packet one-way delay: 136.402 ms

Loss rate: 0.00%

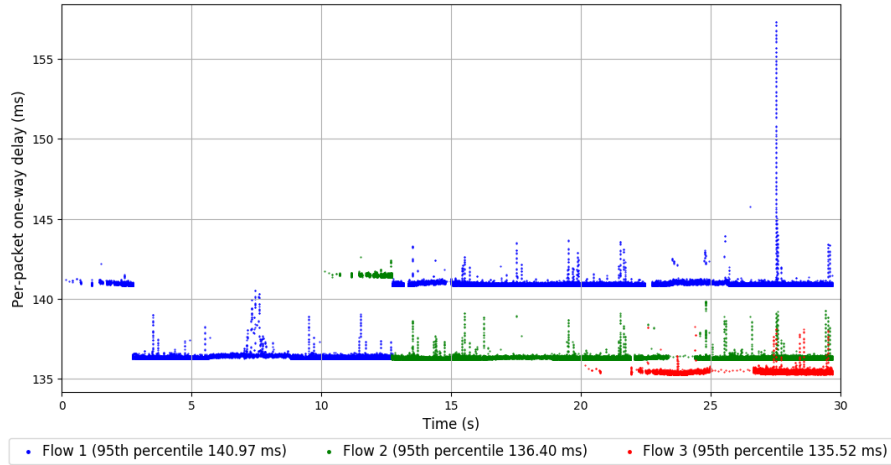
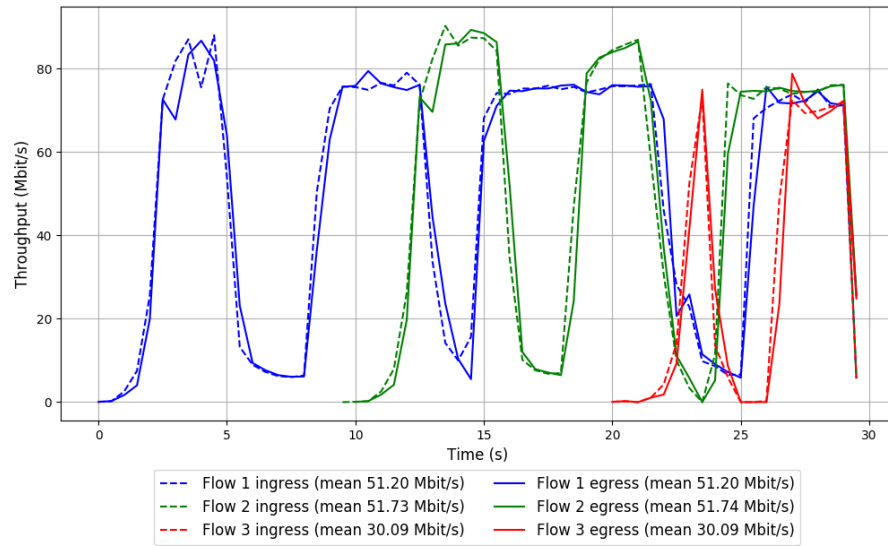
-- Flow 3:

Average throughput: 30.09 Mbit/s

95th percentile per-packet one-way delay: 135.521 ms

Loss rate: 0.00%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-07 17:38:04

End at: 2018-03-07 17:38:34

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 101.66 Mbit/s

95th percentile per-packet one-way delay: 137.107 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.06 Mbit/s

95th percentile per-packet one-way delay: 137.084 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.37 Mbit/s

95th percentile per-packet one-way delay: 137.069 ms

Loss rate: 0.00%

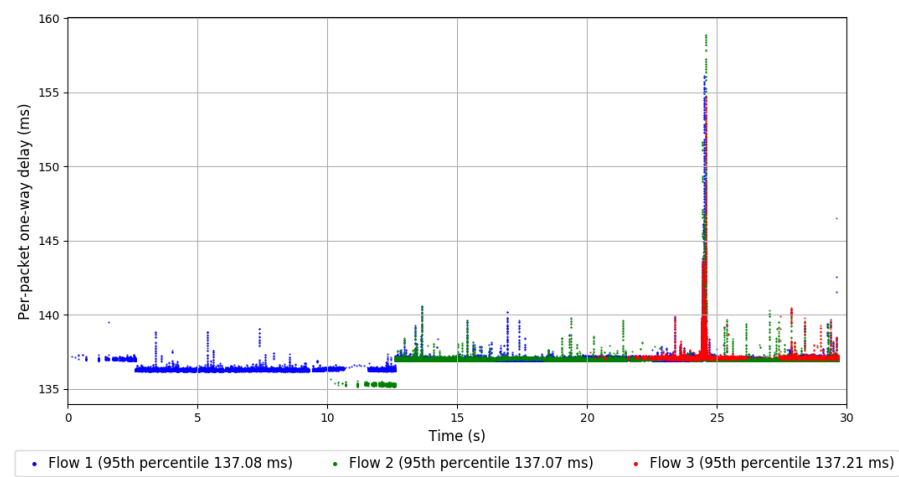
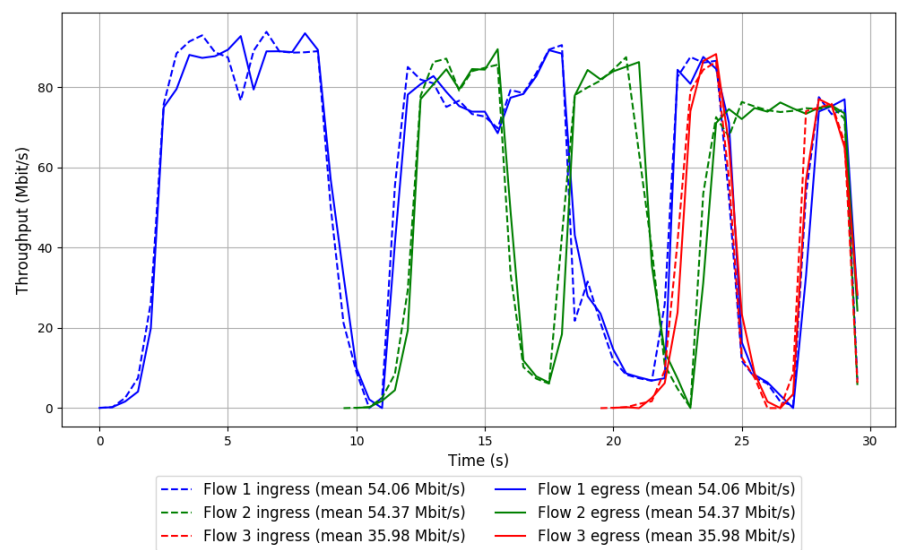
-- Flow 3:

Average throughput: 35.98 Mbit/s

95th percentile per-packet one-way delay: 137.208 ms

Loss rate: 0.00%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-03-07 17:58:02

End at: 2018-03-07 17:58:32

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.63 Mbit/s

95th percentile per-packet one-way delay: 136.541 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 54.01 Mbit/s

95th percentile per-packet one-way delay: 135.984 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.56 Mbit/s

95th percentile per-packet one-way delay: 137.664 ms

Loss rate: 0.00%

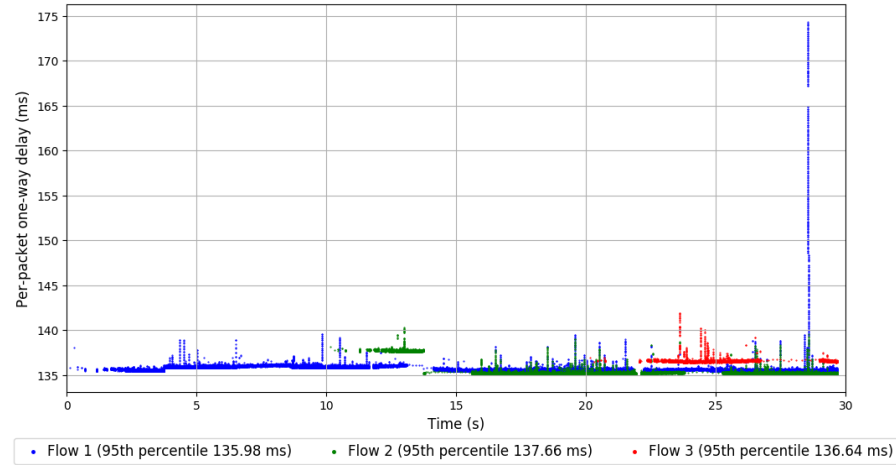
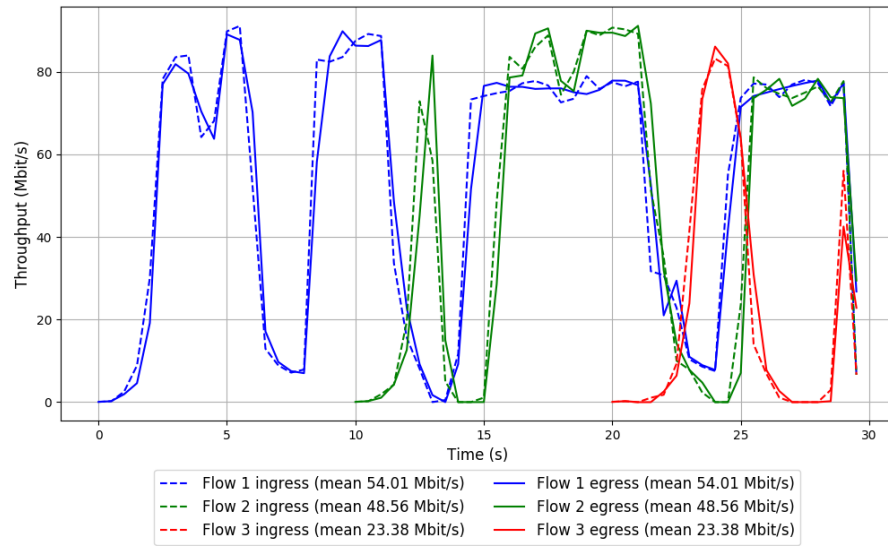
-- Flow 3:

Average throughput: 23.38 Mbit/s

95th percentile per-packet one-way delay: 136.643 ms

Loss rate: 0.01%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-03-07 18:18:30

End at: 2018-03-07 18:19:00

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 110.16 Mbit/s

95th percentile per-packet one-way delay: 141.253 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 58.86 Mbit/s

95th percentile per-packet one-way delay: 141.144 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 59.89 Mbit/s

95th percentile per-packet one-way delay: 141.314 ms

Loss rate: 0.03%

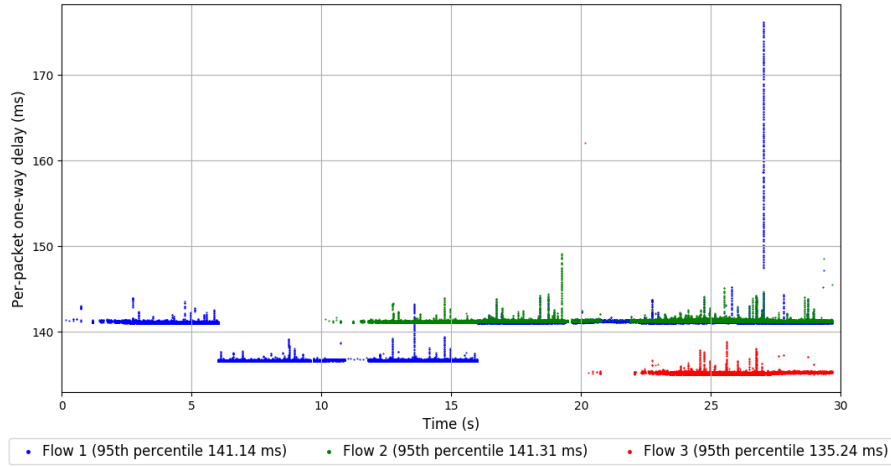
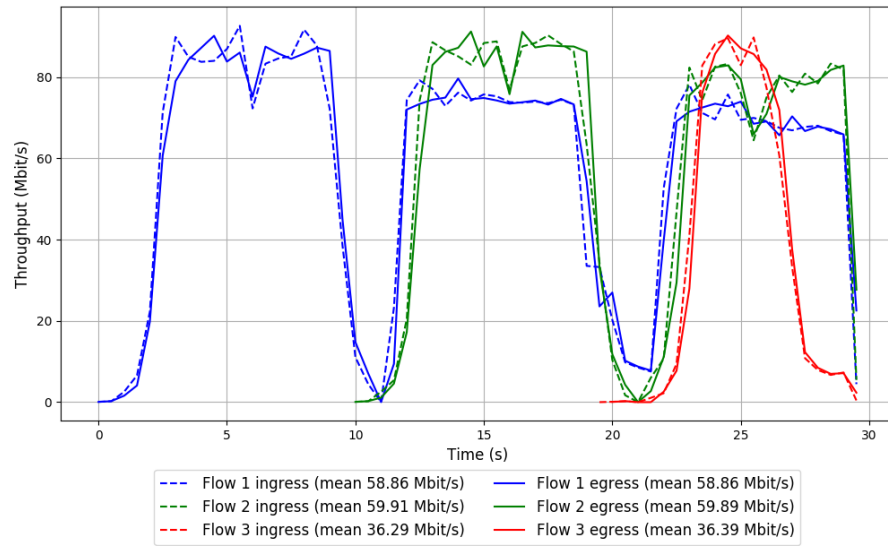
-- Flow 3:

Average throughput: 36.39 Mbit/s

95th percentile per-packet one-way delay: 135.240 ms

Loss rate: 0.00%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-03-07 18:38:36

End at: 2018-03-07 18:39:06

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.96 Mbit/s

95th percentile per-packet one-way delay: 141.063 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.83 Mbit/s

95th percentile per-packet one-way delay: 136.369 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.24 Mbit/s

95th percentile per-packet one-way delay: 141.098 ms

Loss rate: 0.01%

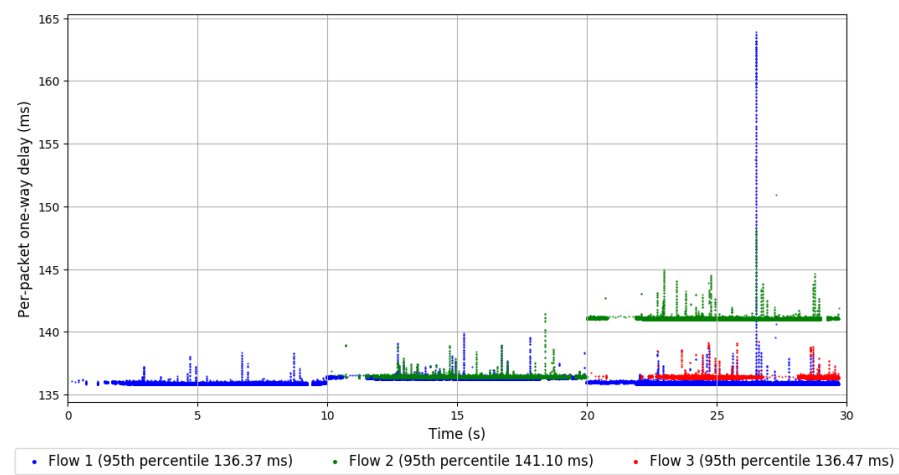
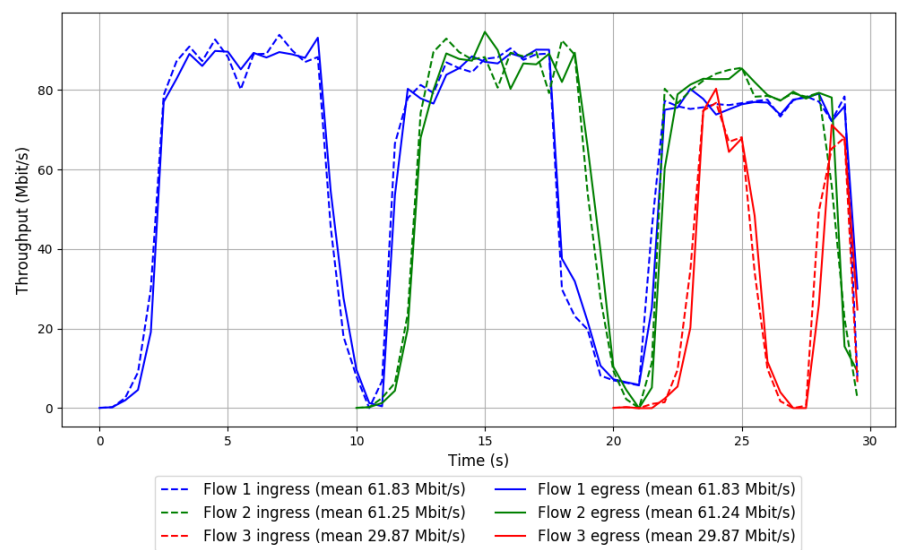
-- Flow 3:

Average throughput: 29.87 Mbit/s

95th percentile per-packet one-way delay: 136.468 ms

Loss rate: 0.00%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-03-07 18:58:46

End at: 2018-03-07 18:59:16

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.94 Mbit/s

95th percentile per-packet one-way delay: 136.325 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.25 Mbit/s

95th percentile per-packet one-way delay: 136.345 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 51.49 Mbit/s

95th percentile per-packet one-way delay: 134.636 ms

Loss rate: 0.00%

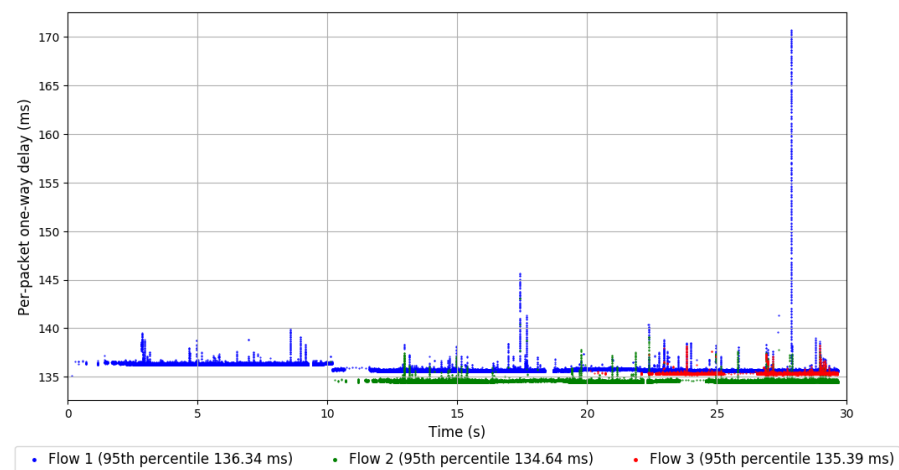
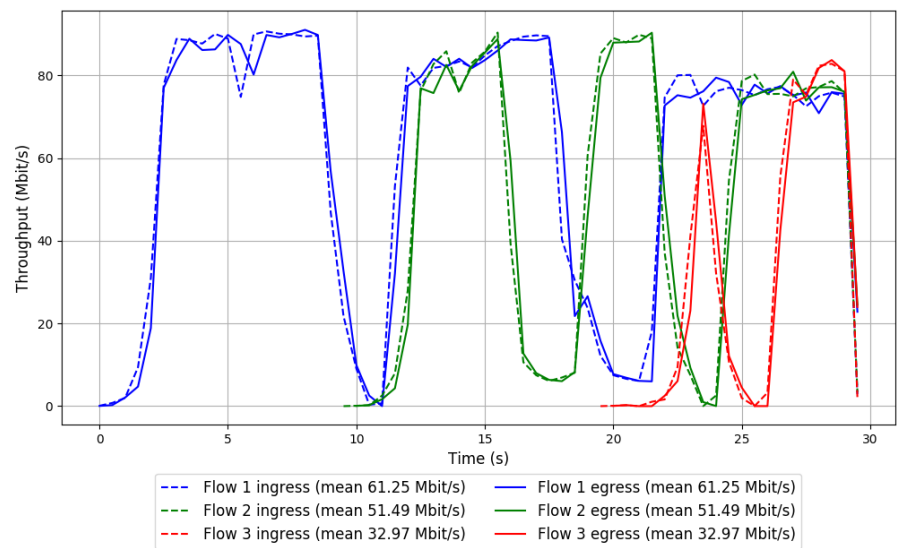
-- Flow 3:

Average throughput: 32.97 Mbit/s

95th percentile per-packet one-way delay: 135.387 ms

Loss rate: 0.00%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-03-07 19:18:43

End at: 2018-03-07 19:19:13

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.15 Mbit/s

95th percentile per-packet one-way delay: 135.745 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 56.82 Mbit/s

95th percentile per-packet one-way delay: 135.758 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 60.99 Mbit/s

95th percentile per-packet one-way delay: 135.592 ms

Loss rate: 0.00%

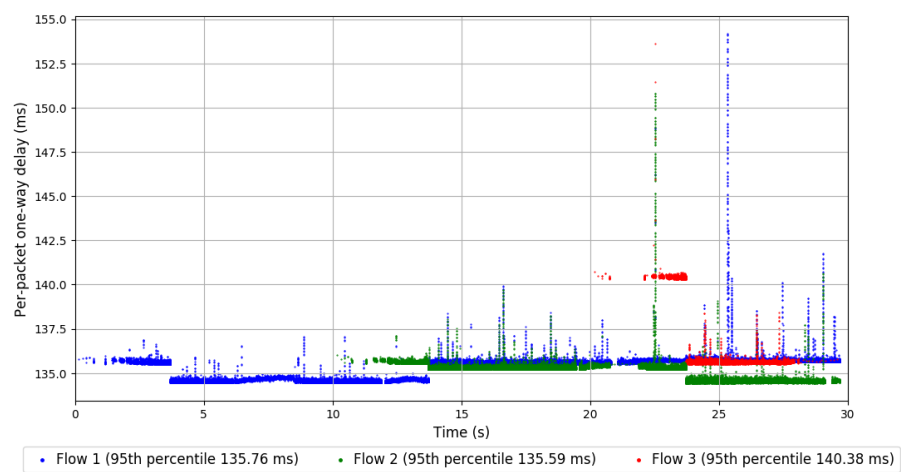
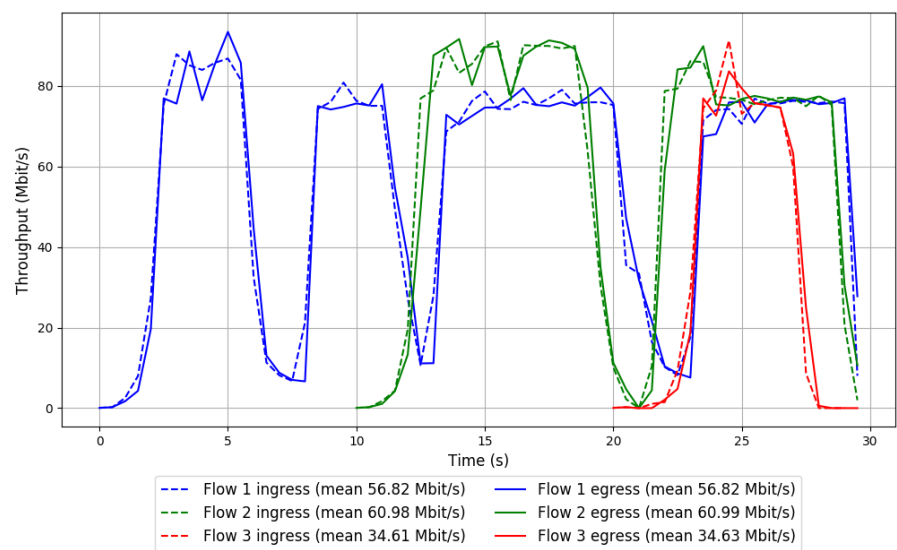
-- Flow 3:

Average throughput: 34.63 Mbit/s

95th percentile per-packet one-way delay: 140.384 ms

Loss rate: 0.00%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-03-07 19:38:43

End at: 2018-03-07 19:39:13

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.64 Mbit/s

95th percentile per-packet one-way delay: 140.356 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 61.23 Mbit/s

95th percentile per-packet one-way delay: 135.813 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.22 Mbit/s

95th percentile per-packet one-way delay: 140.281 ms

Loss rate: 0.00%

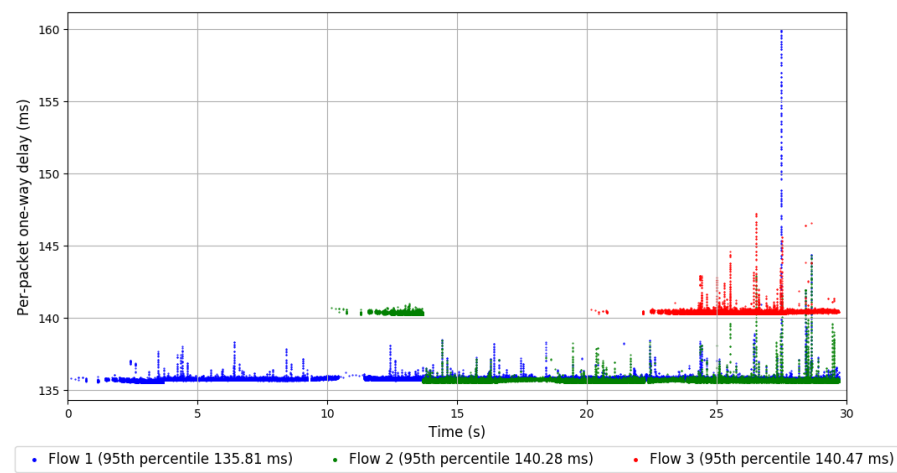
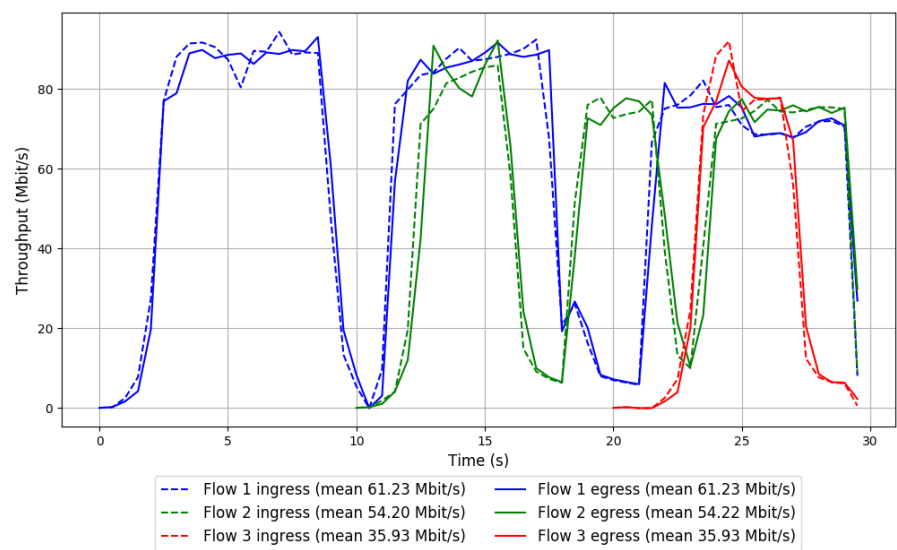
-- Flow 3:

Average throughput: 35.93 Mbit/s

95th percentile per-packet one-way delay: 140.475 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-03-07 19:58:36

End at: 2018-03-07 19:59:06

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.97 Mbit/s

95th percentile per-packet one-way delay: 140.380 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 55.66 Mbit/s

95th percentile per-packet one-way delay: 136.944 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 57.86 Mbit/s

95th percentile per-packet one-way delay: 140.419 ms

Loss rate: 0.00%

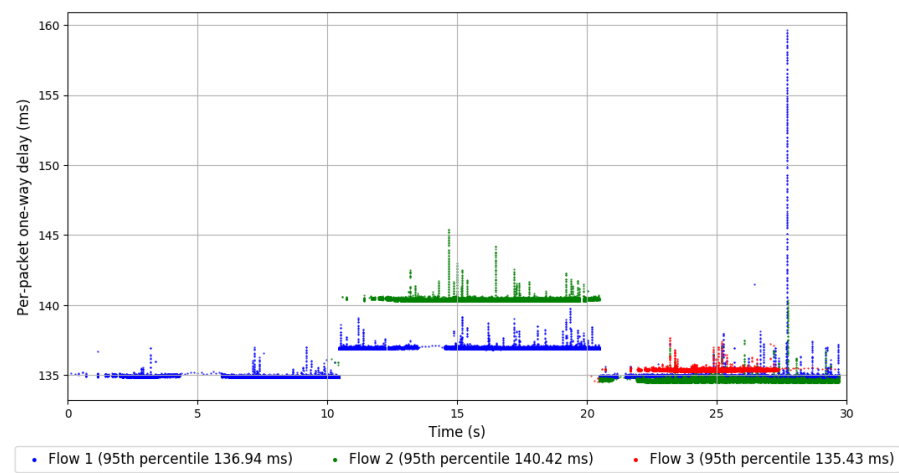
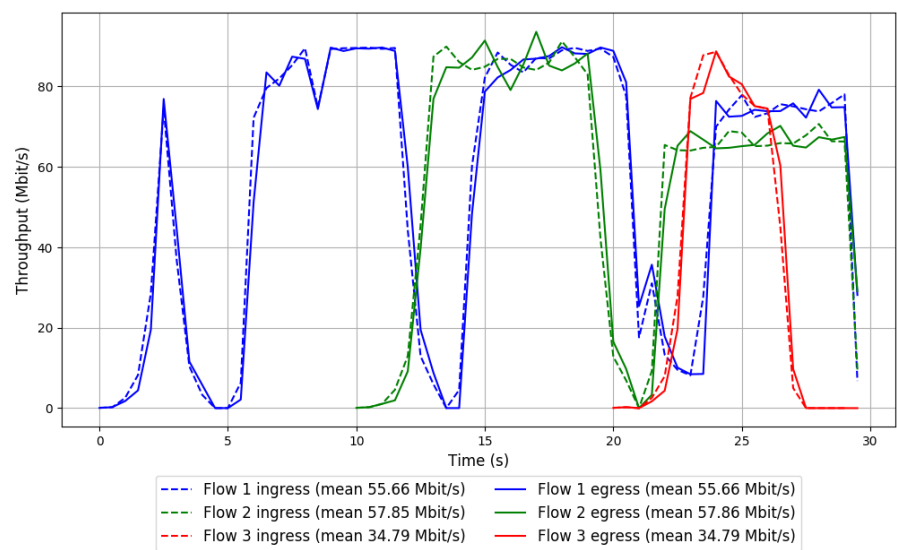
-- Flow 3:

Average throughput: 34.79 Mbit/s

95th percentile per-packet one-way delay: 135.431 ms

Loss rate: 0.00%

Run 10: Report of QUIC Cubic — Data Link

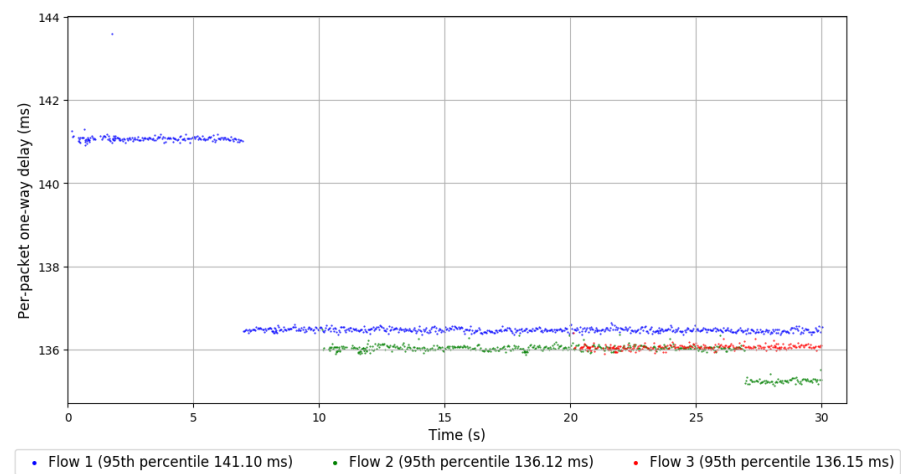
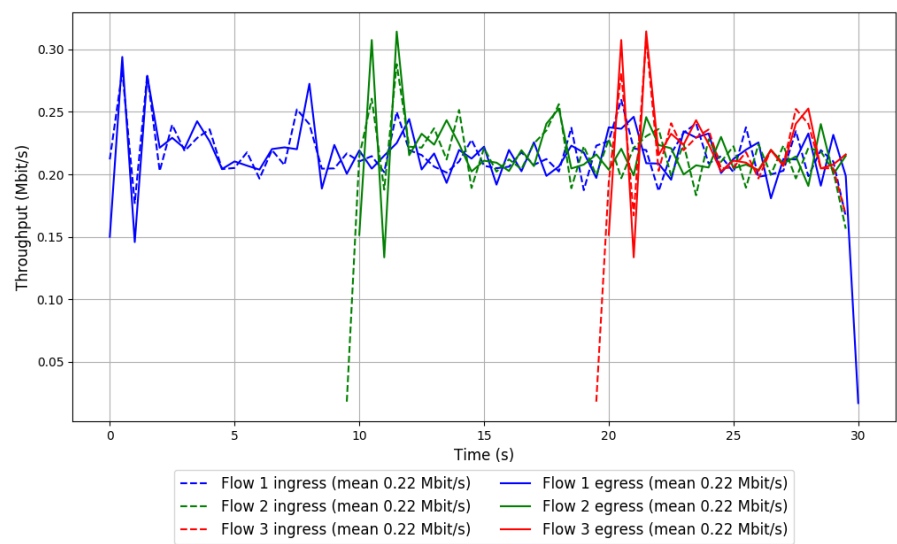


```
Run 1: Statistics of SCReAM

Start at: 2018-03-07 17:11:00
End at: 2018-03-07 17:11:30

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 141.078 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 141.101 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.122 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.153 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

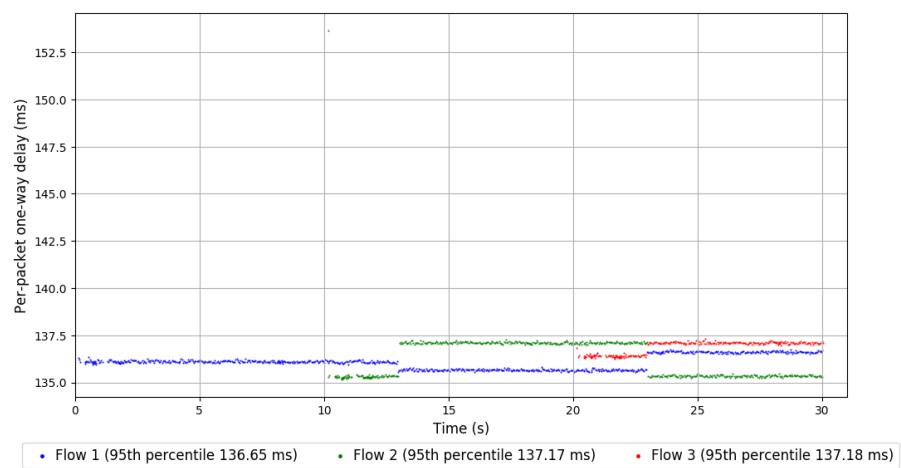
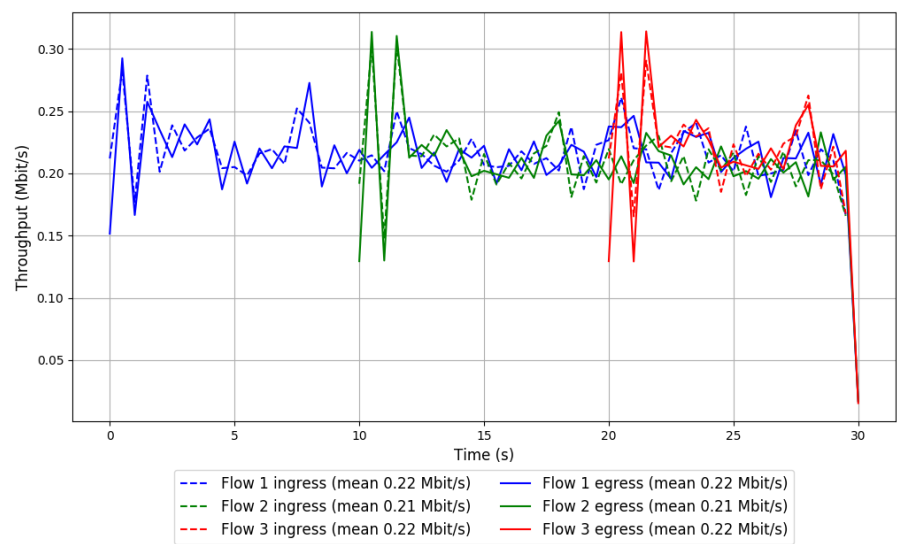


```
Run 2: Statistics of SCReAM

Start at: 2018-03-07 17:30:44
End at: 2018-03-07 17:31:14

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 137.146 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.647 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 137.166 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.178 ms
Loss rate: 0.00%
```

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-03-07 17:50:42

End at: 2018-03-07 17:51:12

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 141.331 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.822 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.391 ms

Loss rate: 0.00%

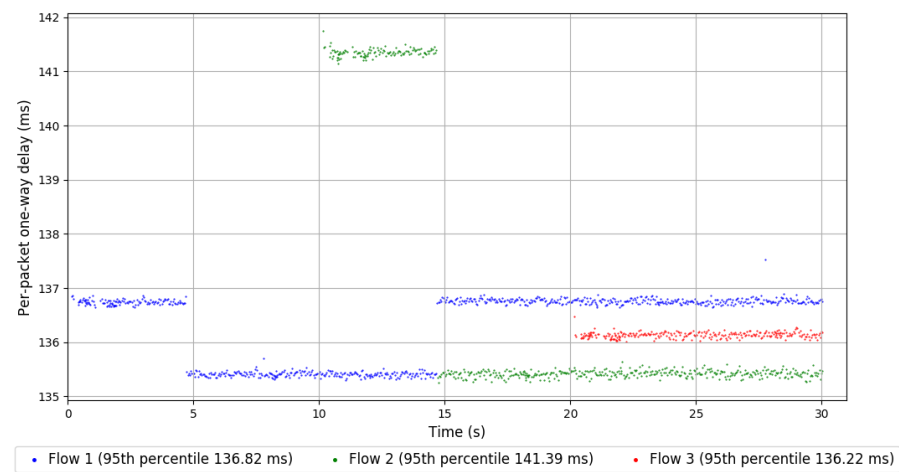
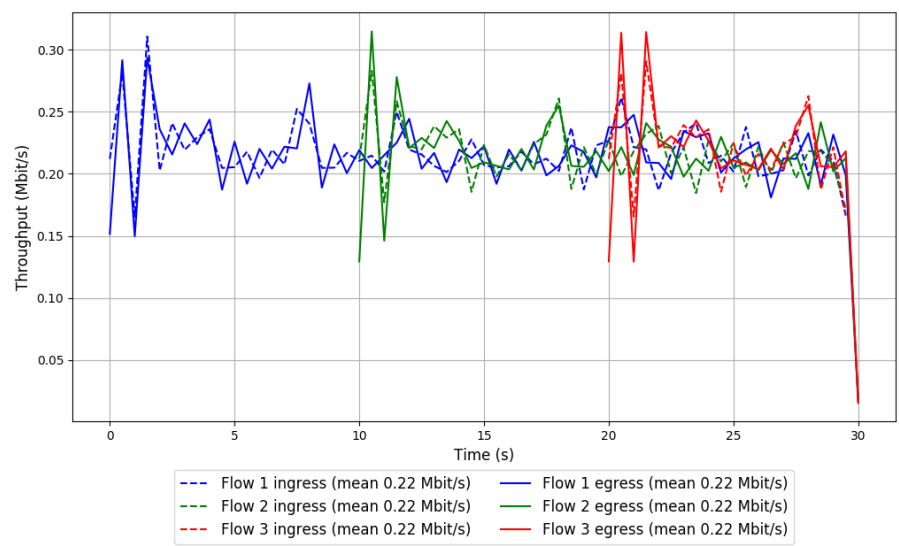
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.216 ms

Loss rate: 0.00%

Run 3: Report of SReAM — Data Link



Run 4: Statistics of SReAM

Start at: 2018-03-07 18:10:40

End at: 2018-03-07 18:11:10

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 141.615 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.390 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 134.995 ms

Loss rate: 0.00%

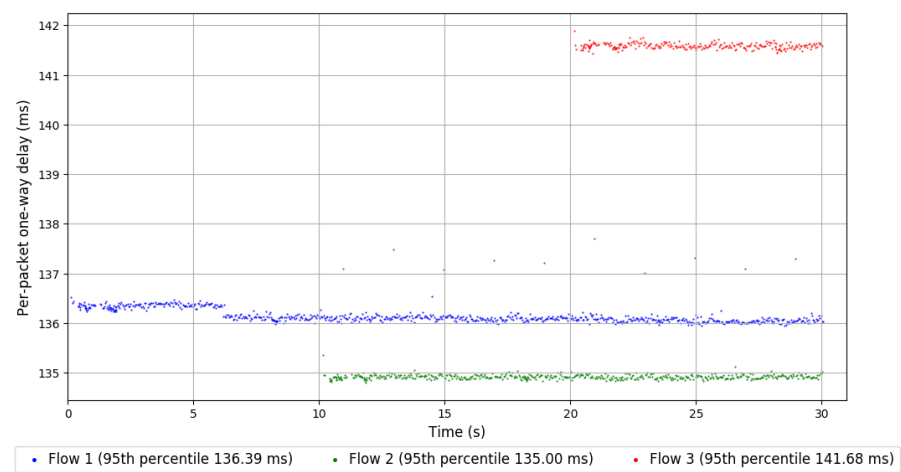
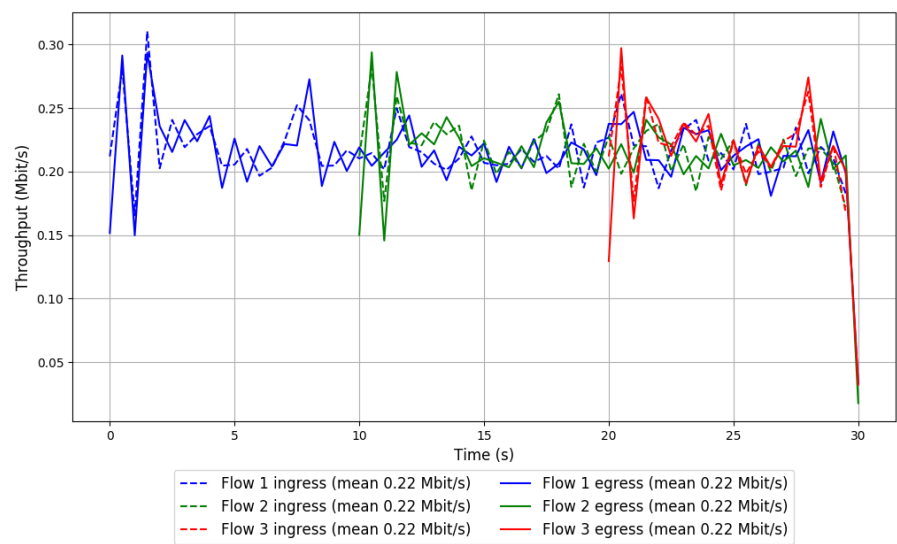
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.675 ms

Loss rate: 0.00%

Run 4: Report of SReAM — Data Link



Run 5: Statistics of SReAM

Start at: 2018-03-07 18:31:09

End at: 2018-03-07 18:31:39

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.723 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.172 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.686 ms

Loss rate: 0.00%

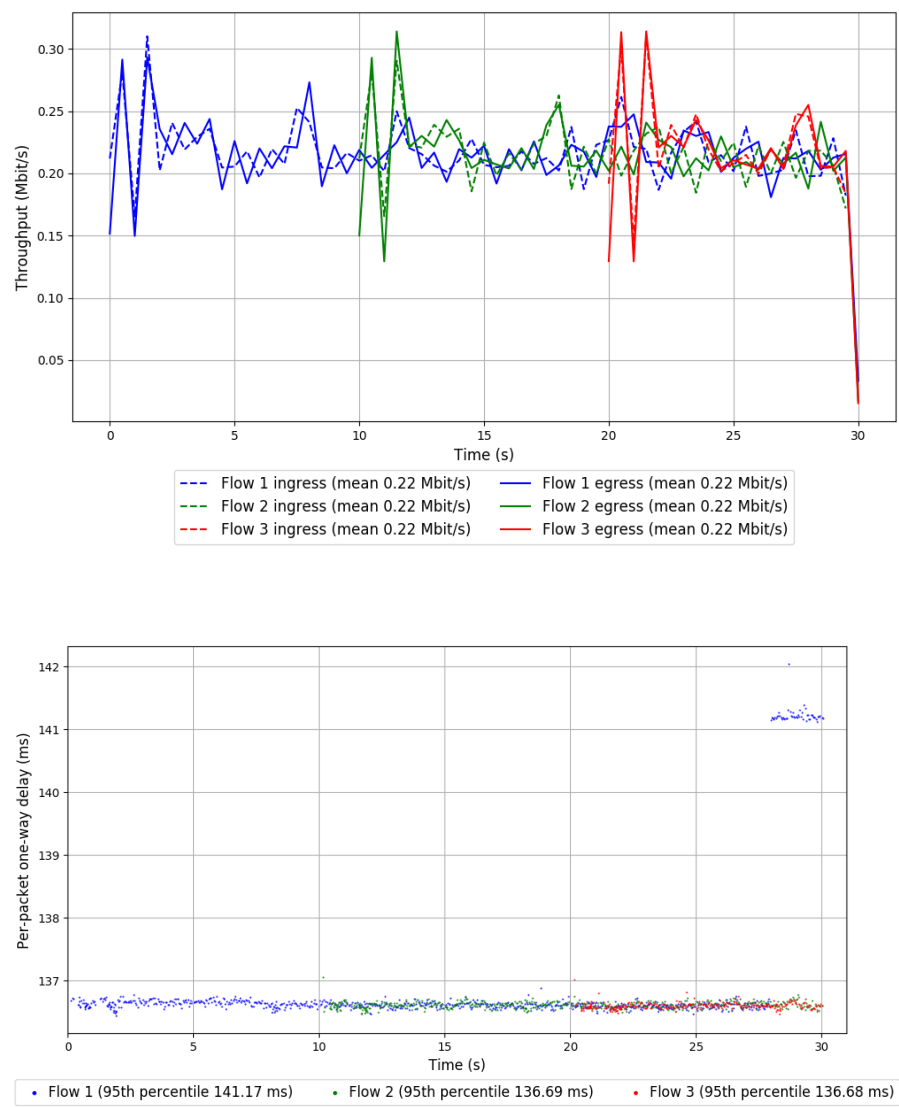
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.676 ms

Loss rate: 0.00%

Run 5: Report of SCReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-03-07 18:51:18

End at: 2018-03-07 18:51:48

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.589 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.606 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.157 ms

Loss rate: 0.00%

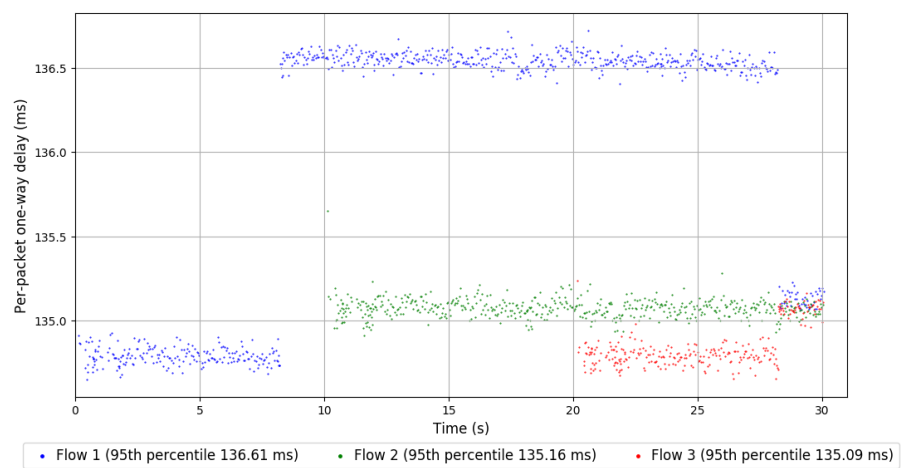
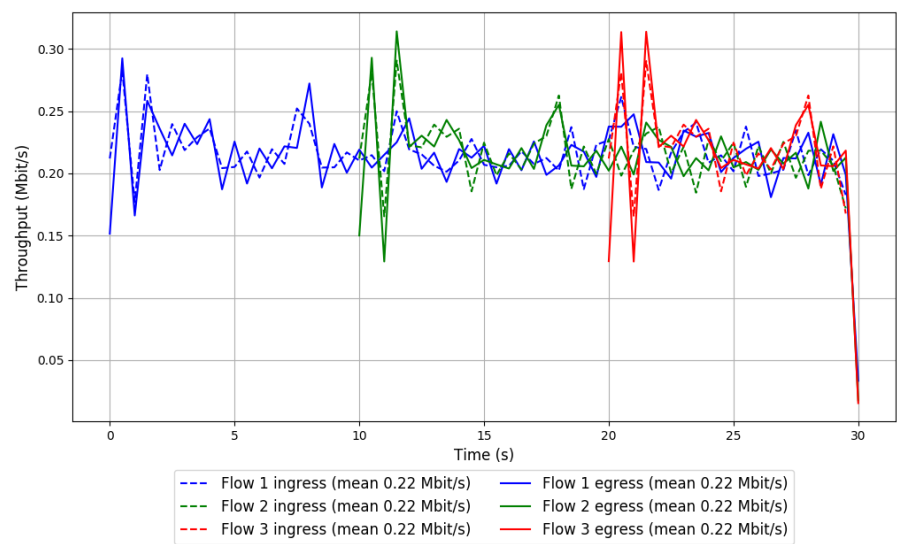
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.092 ms

Loss rate: 0.00%

Run 6: Report of SReAM — Data Link



Run 7: Statistics of SCReAM

Start at: 2018-03-07 19:11:20

End at: 2018-03-07 19:11:50

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 141.029 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.079 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.003 ms

Loss rate: 0.00%

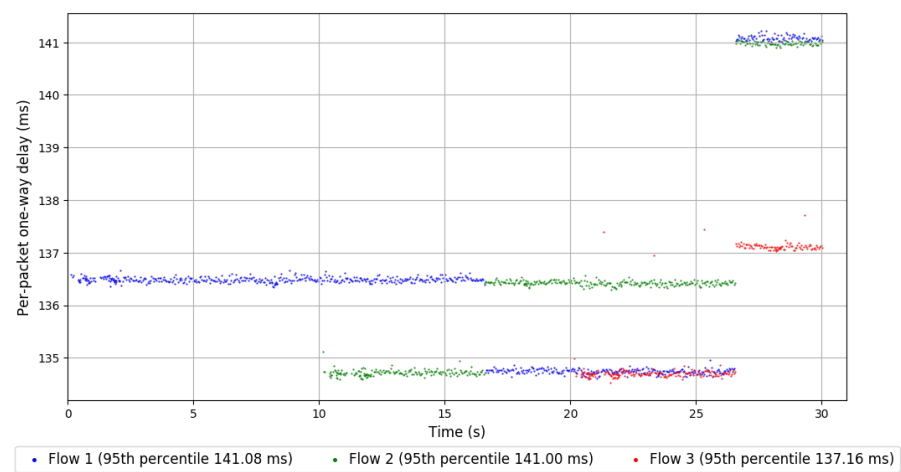
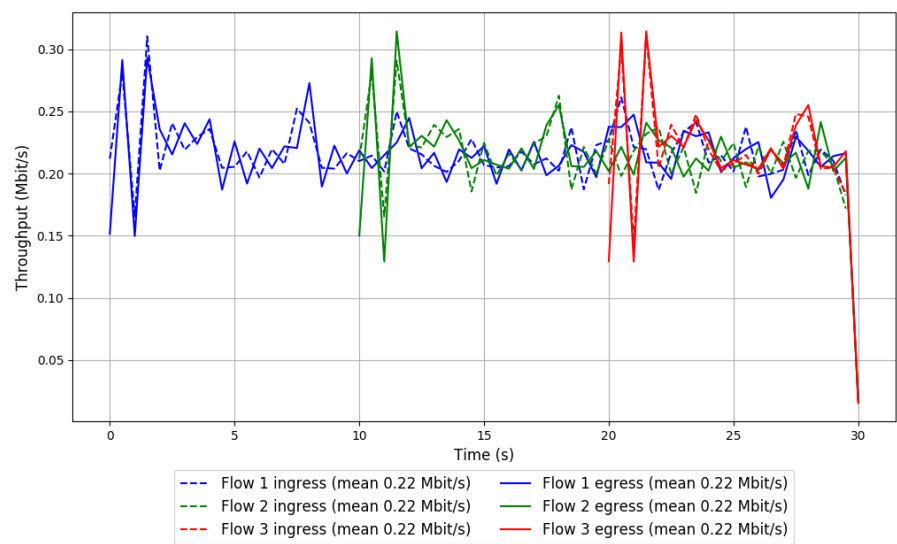
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.159 ms

Loss rate: 0.00%

Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-03-07 19:31:12

End at: 2018-03-07 19:31:42

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 137.094 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 135.834 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.103 ms

Loss rate: 0.00%

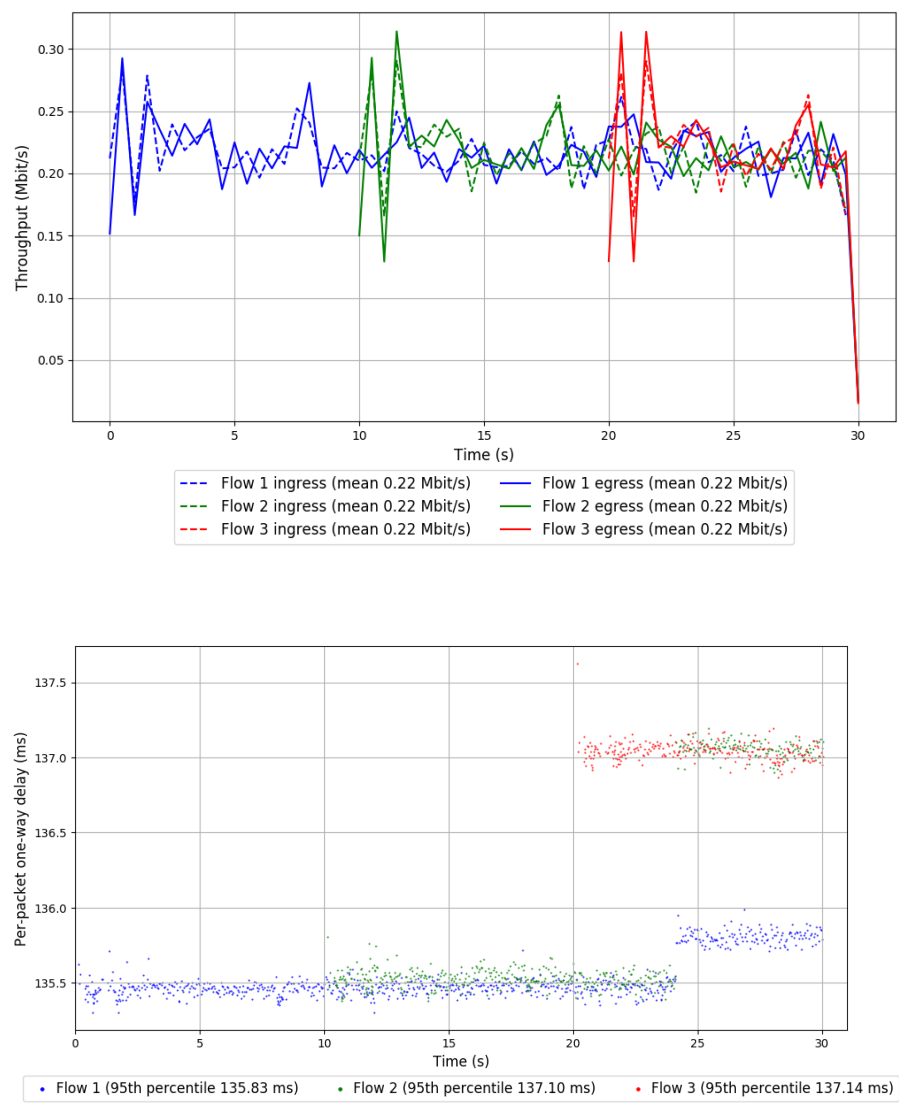
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.139 ms

Loss rate: 0.00%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-03-07 19:51:18

End at: 2018-03-07 19:51:48

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 137.089 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.033 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.111 ms

Loss rate: 0.00%

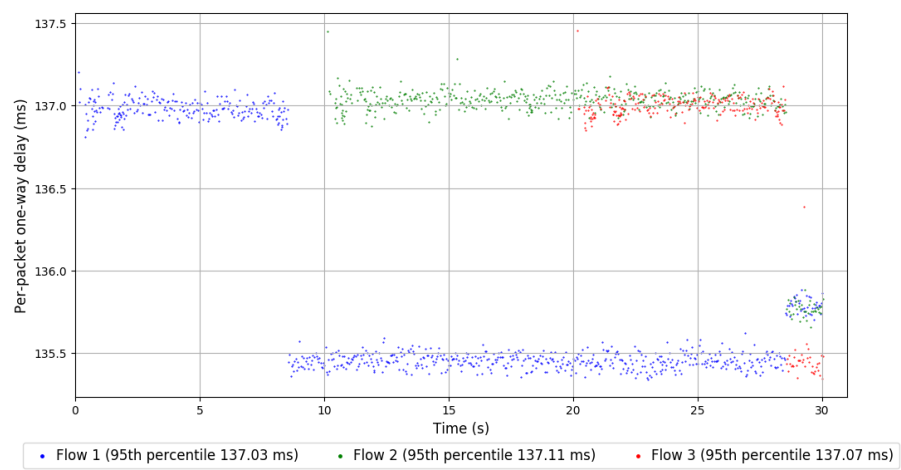
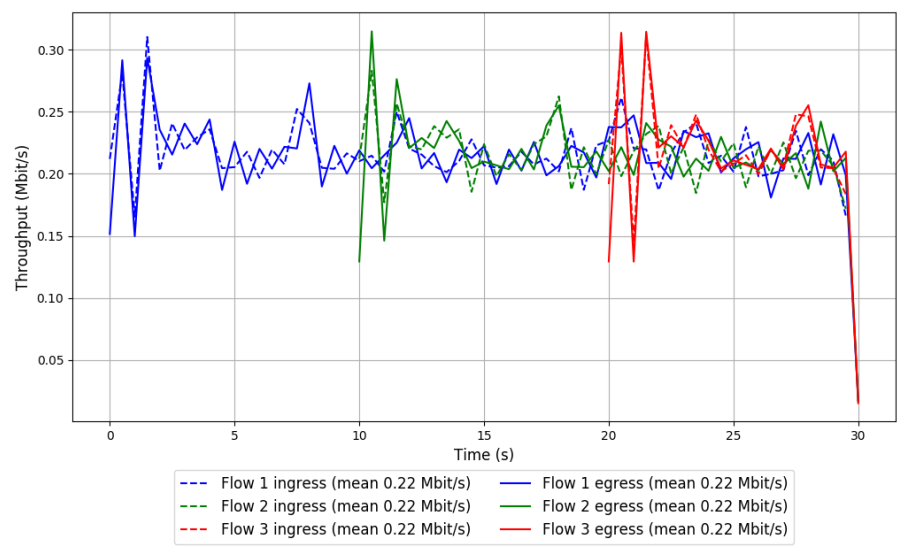
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.073 ms

Loss rate: 0.00%

Run 9: Report of SReAM — Data Link

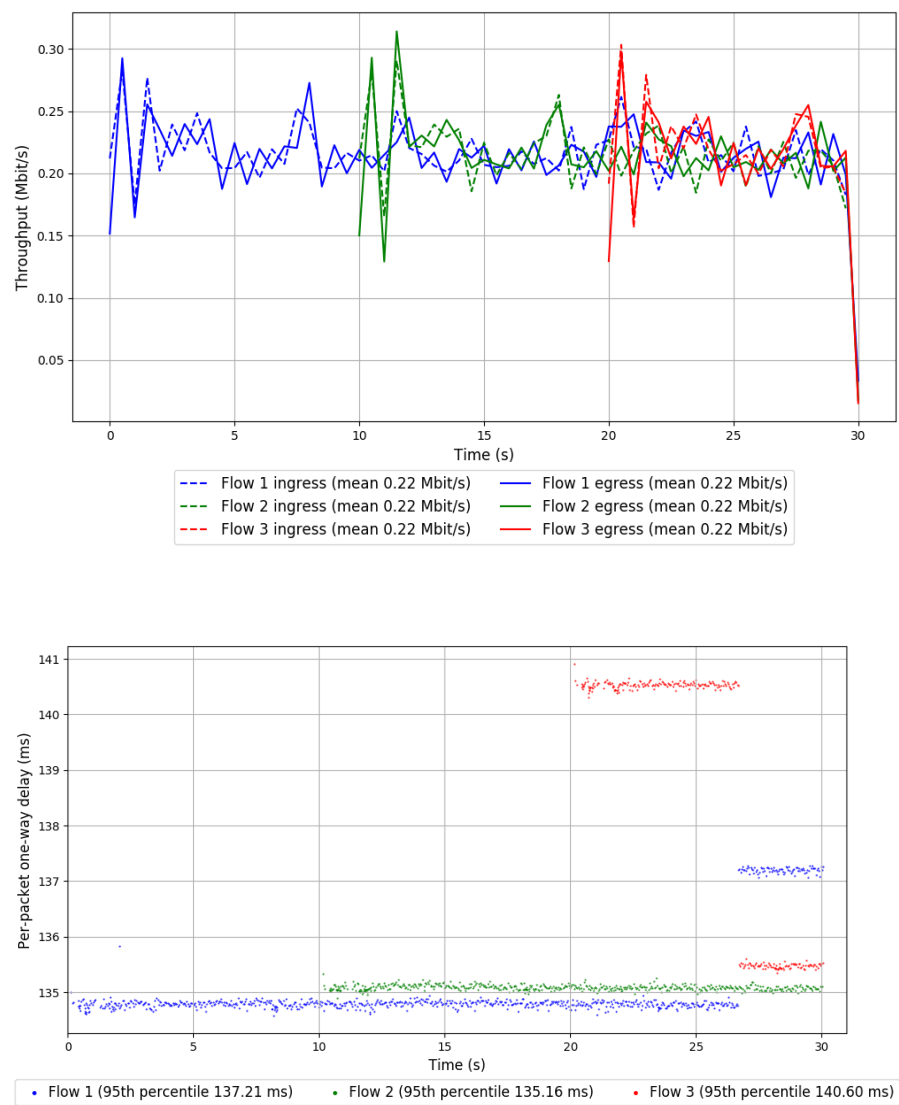


```
Run 10: Statistics of SCReAM

Start at: 2018-03-07 20:11:20
End at: 2018-03-07 20:11:50

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 140.539 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.207 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 135.162 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.602 ms
Loss rate: 0.00%
```

Run 10: Report of SReAM — Data Link

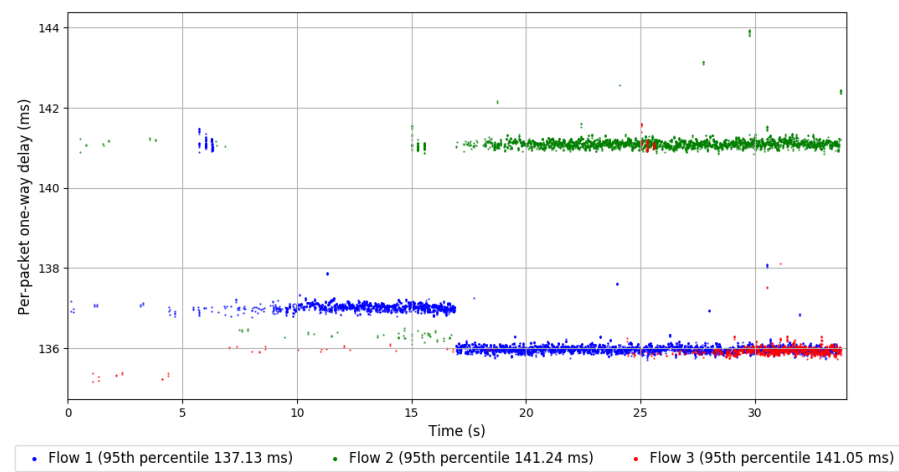
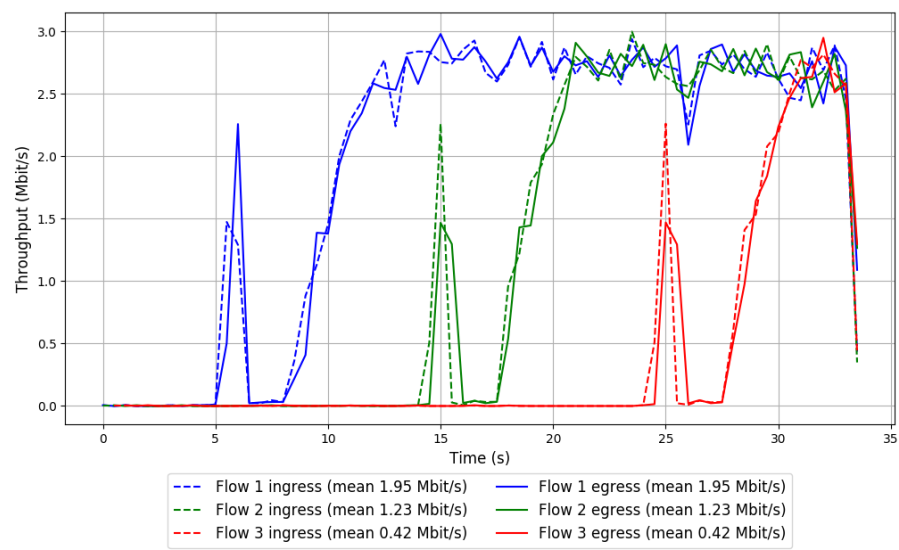


```
Run 1: Statistics of WebRTC media

Start at: 2018-03-07 17:00:33
End at: 2018-03-07 17:01:03

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.57 Mbit/s
95th percentile per-packet one-way delay: 141.190 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.95 Mbit/s
95th percentile per-packet one-way delay: 137.130 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 141.240 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 141.047 ms
Loss rate: 0.00%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-07 17:20:04

End at: 2018-03-07 17:20:34

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.79 Mbit/s

95th percentile per-packet one-way delay: 141.699 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 141.723 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 141.249 ms

Loss rate: 0.00%

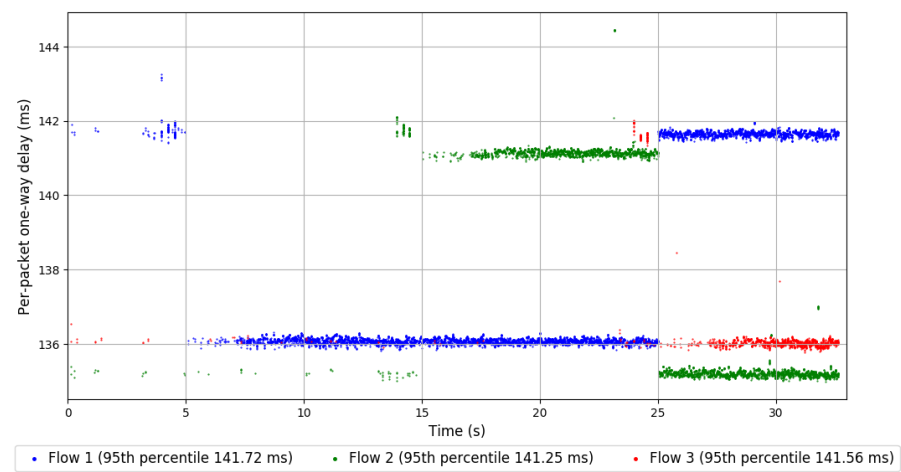
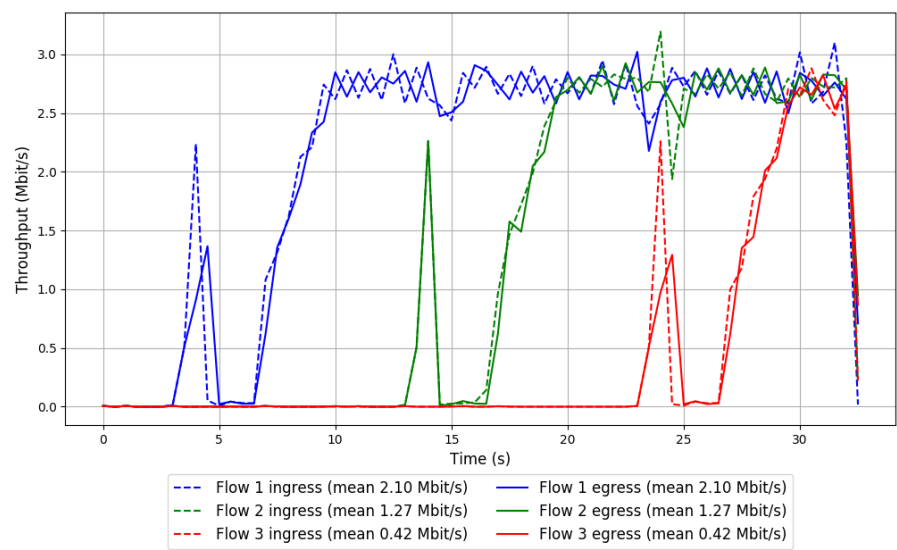
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 141.556 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-03-07 17:39:53

End at: 2018-03-07 17:40:23

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.67 Mbit/s

95th percentile per-packet one-way delay: 137.383 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 136.668 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 137.433 ms

Loss rate: 0.02%

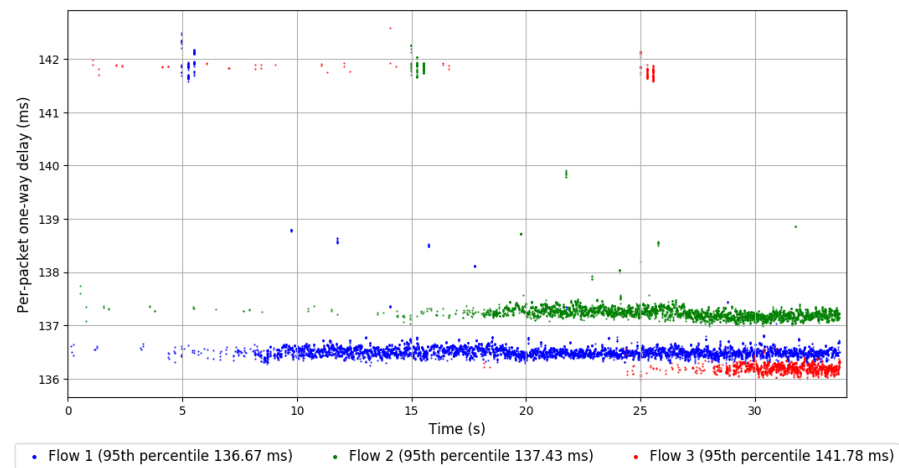
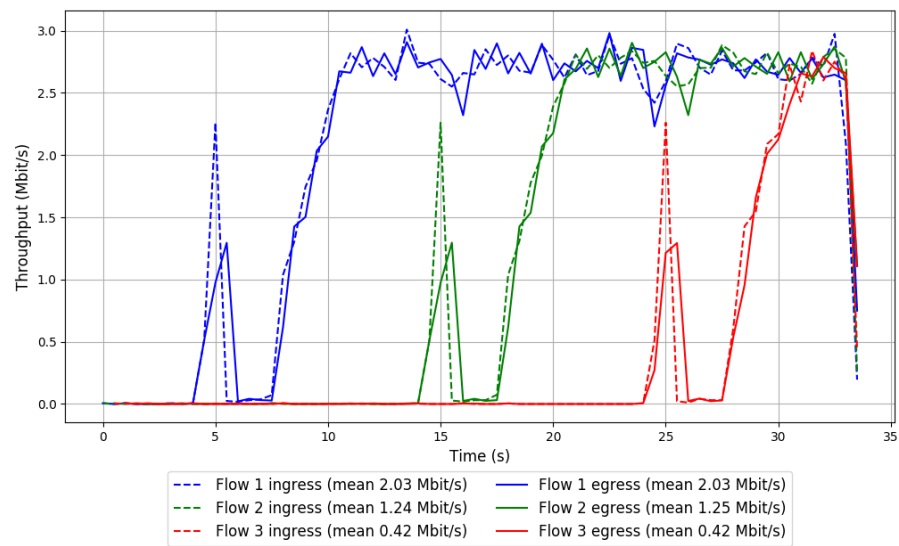
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 141.782 ms

Loss rate: 0.01%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-03-07 17:59:54

End at: 2018-03-07 18:00:24

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 142.074 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 142.109 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 137.997 ms

Loss rate: 0.00%

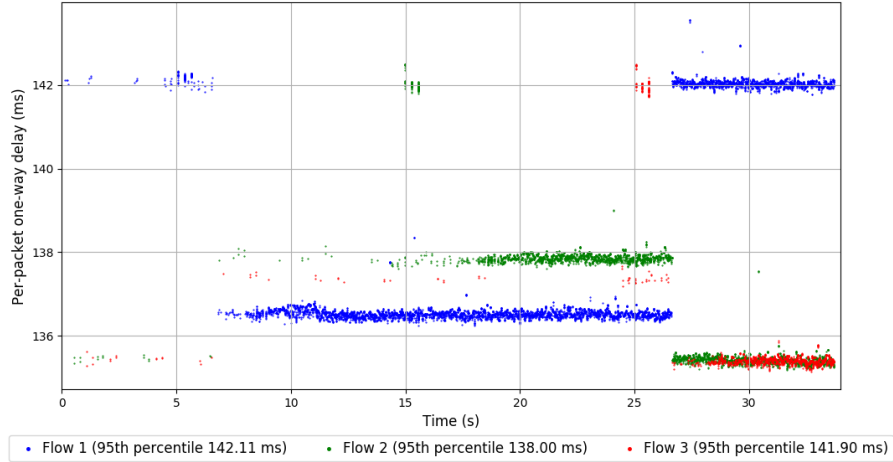
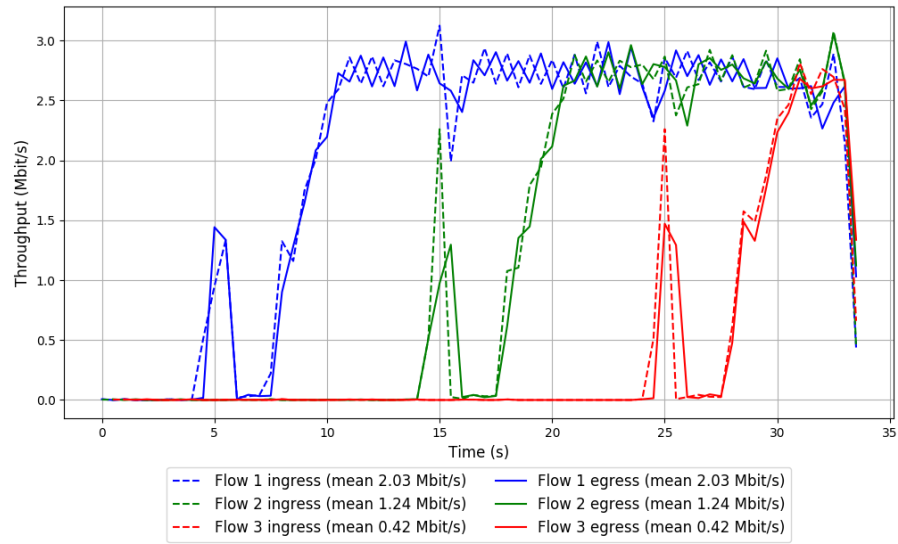
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 141.901 ms

Loss rate: 0.00%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-03-07 18:20:21

End at: 2018-03-07 18:20:51

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 137.116 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 136.867 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 137.158 ms

Loss rate: 0.00%

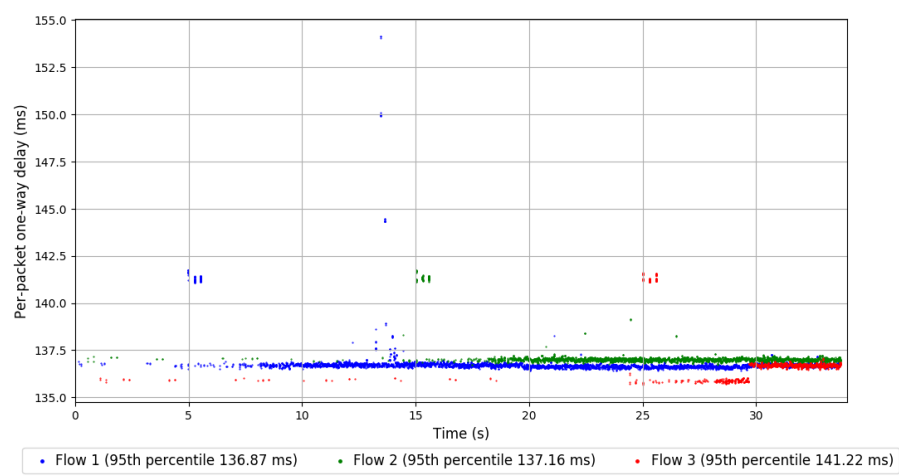
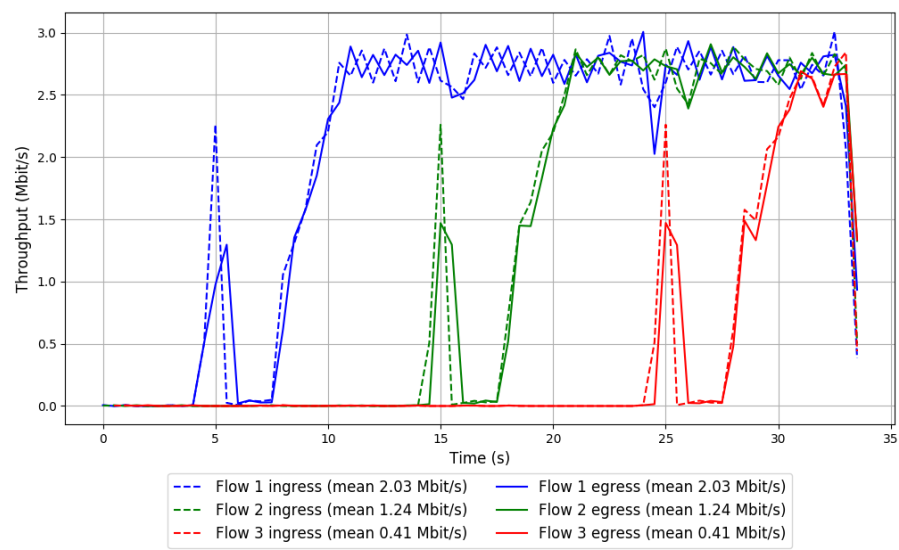
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 141.225 ms

Loss rate: 0.01%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-03-07 18:40:30

End at: 2018-03-07 18:41:00

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 136.699 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 136.688 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 136.707 ms

Loss rate: 0.00%

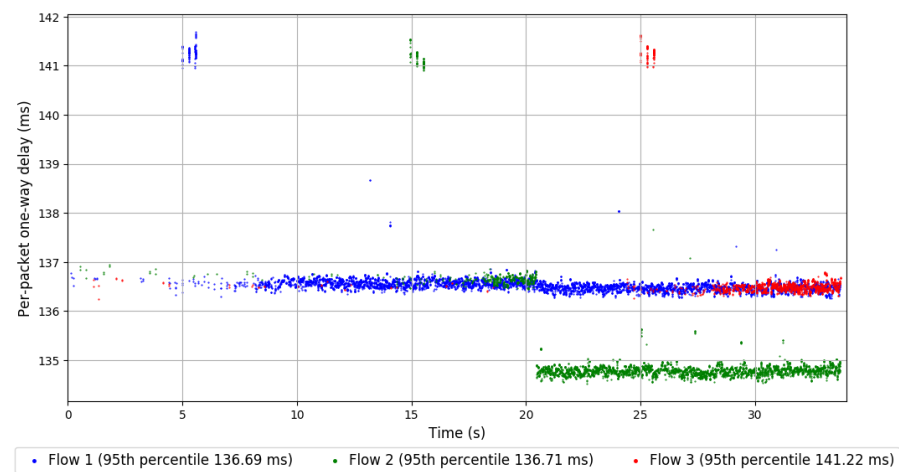
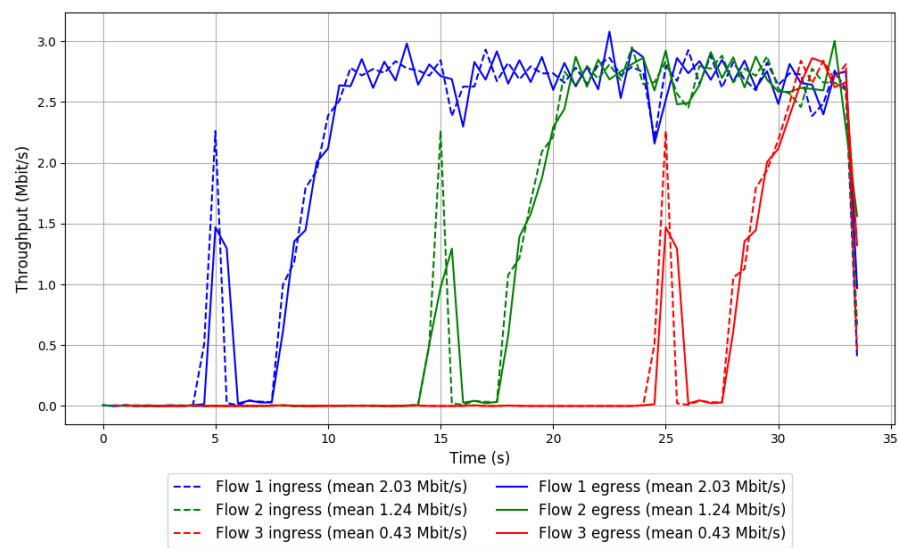
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 141.223 ms

Loss rate: 0.00%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-03-07 19:00:37

End at: 2018-03-07 19:01:07

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.67 Mbit/s

95th percentile per-packet one-way delay: 137.181 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 137.194 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 136.697 ms

Loss rate: 0.00%

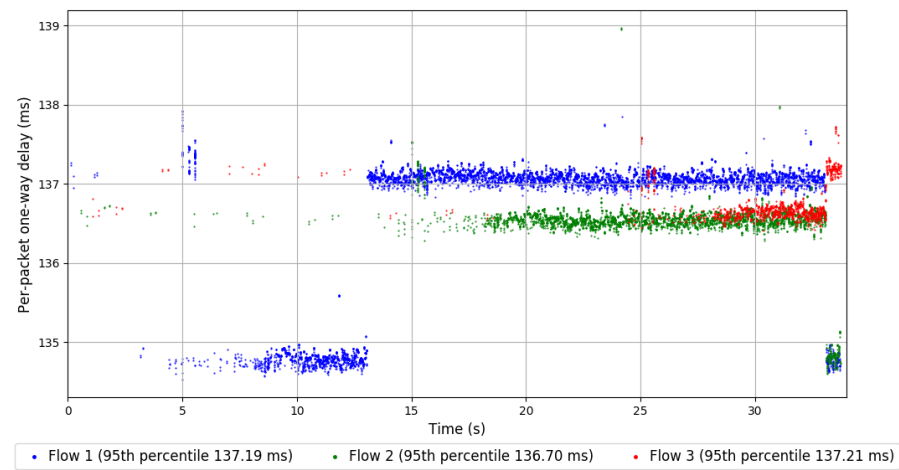
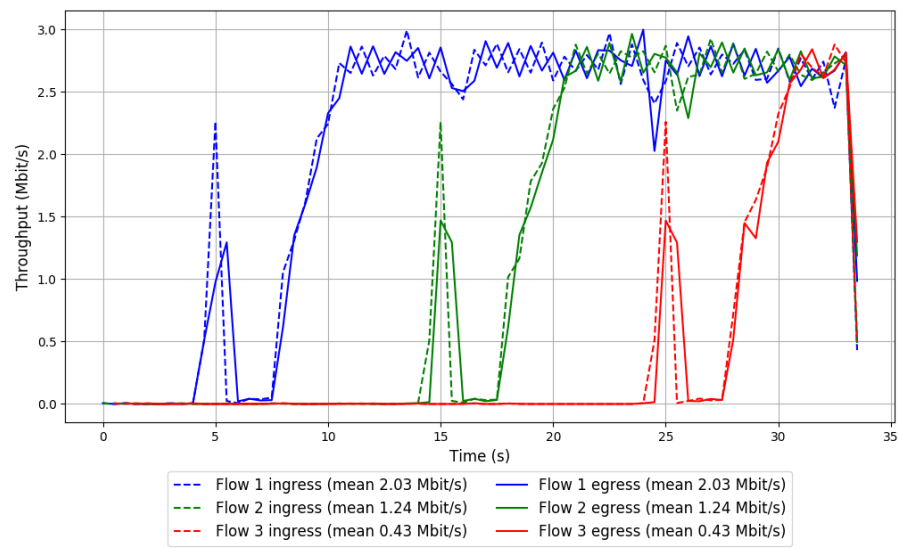
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.209 ms

Loss rate: 0.00%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-03-07 19:20:34

End at: 2018-03-07 19:21:04

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 140.648 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 140.639 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 140.668 ms

Loss rate: 0.00%

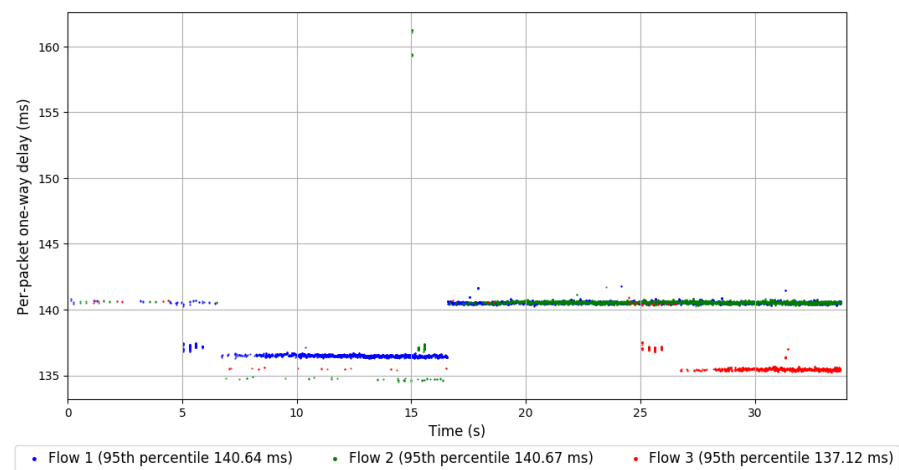
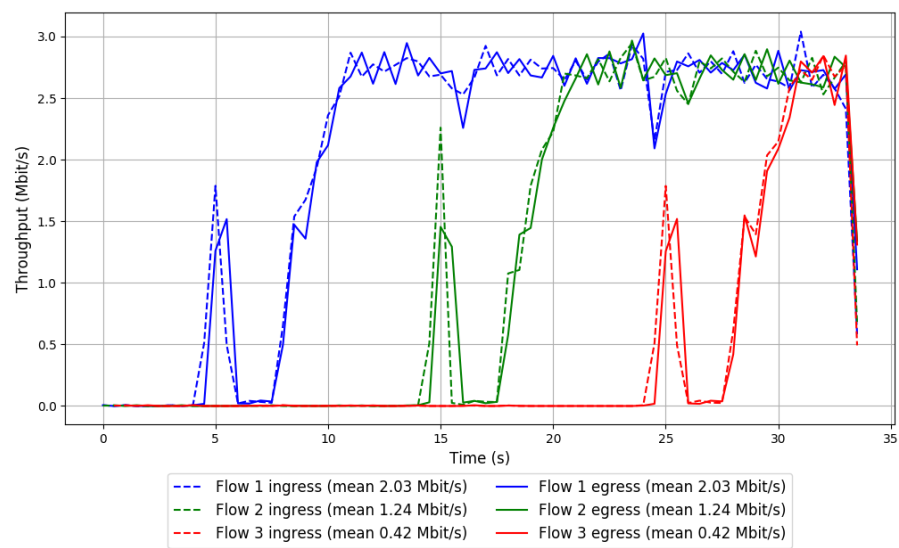
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 137.119 ms

Loss rate: 0.01%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-03-07 19:40:34

End at: 2018-03-07 19:41:04

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 140.591 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 140.584 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 140.609 ms

Loss rate: 0.00%

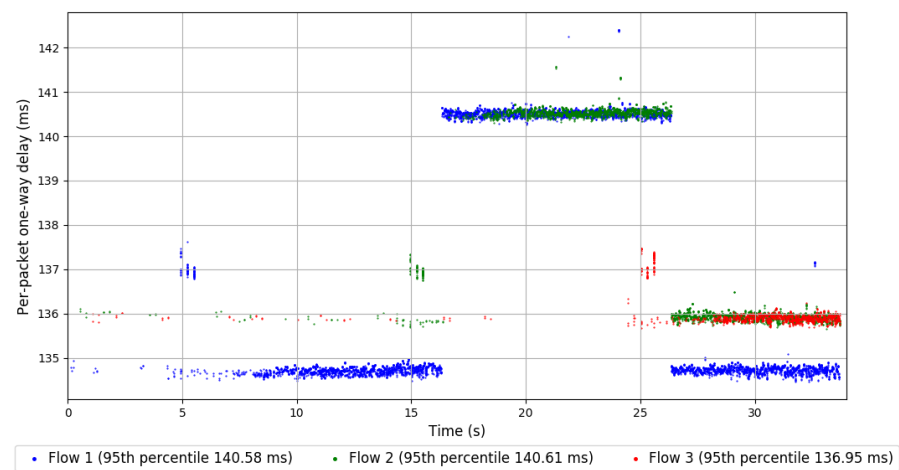
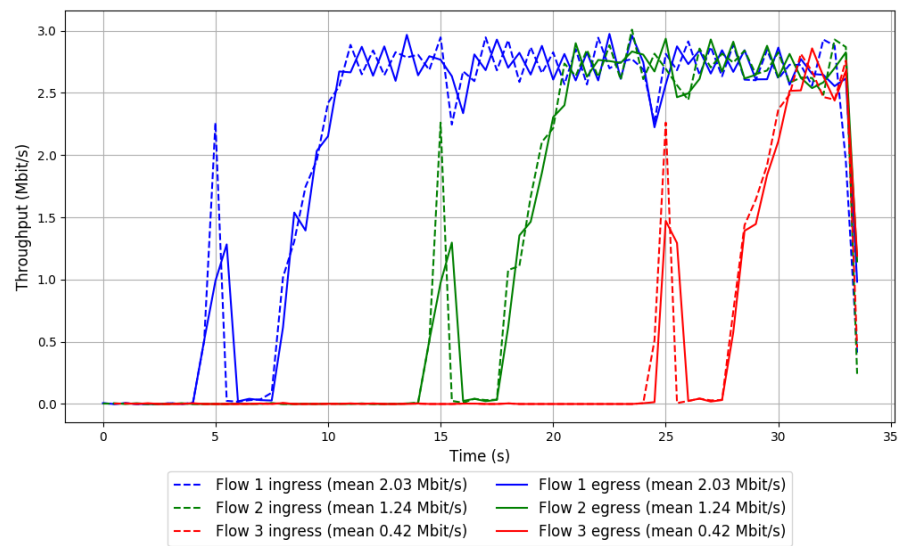
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 136.953 ms

Loss rate: 0.07%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-03-07 20:00:29

End at: 2018-03-07 20:00:59

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.67 Mbit/s

95th percentile per-packet one-way delay: 140.671 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 137.221 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 140.711 ms

Loss rate: 0.00%

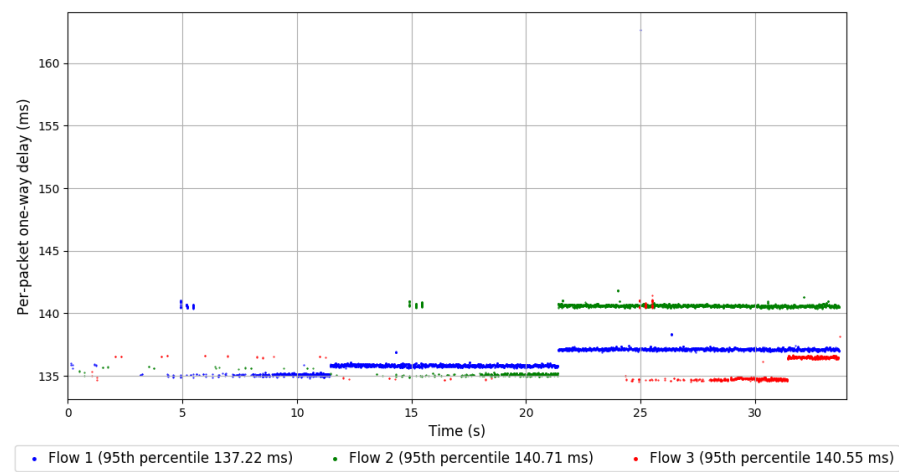
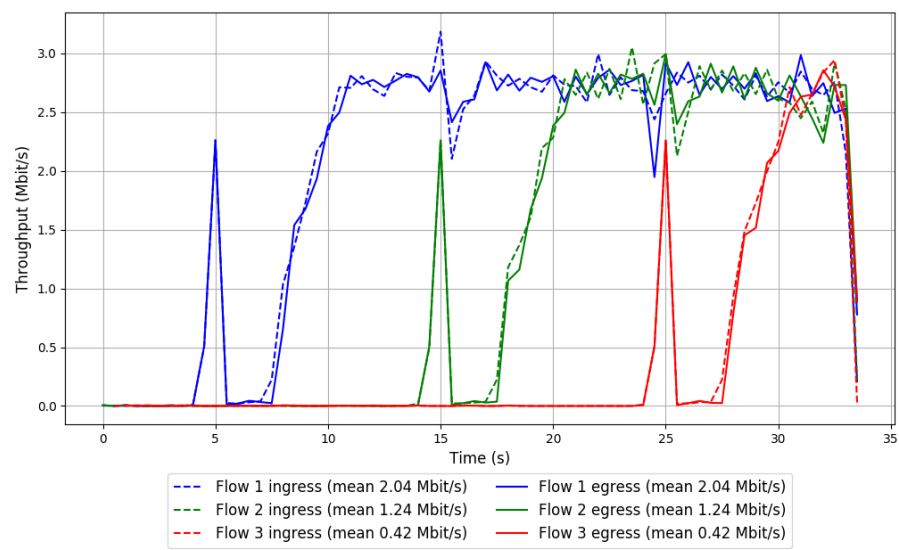
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 140.548 ms

Loss rate: 0.00%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-03-07 17:04:44

End at: 2018-03-07 17:05:14

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 141.234 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 141.237 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 141.244 ms

Loss rate: 0.00%

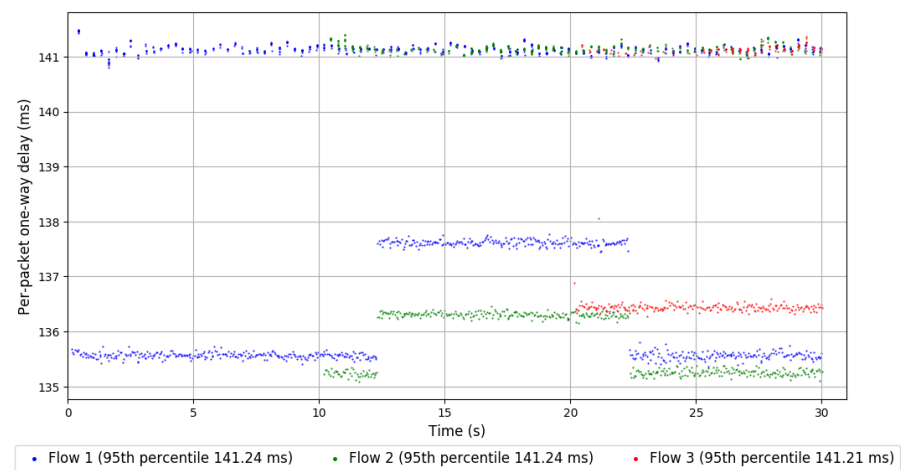
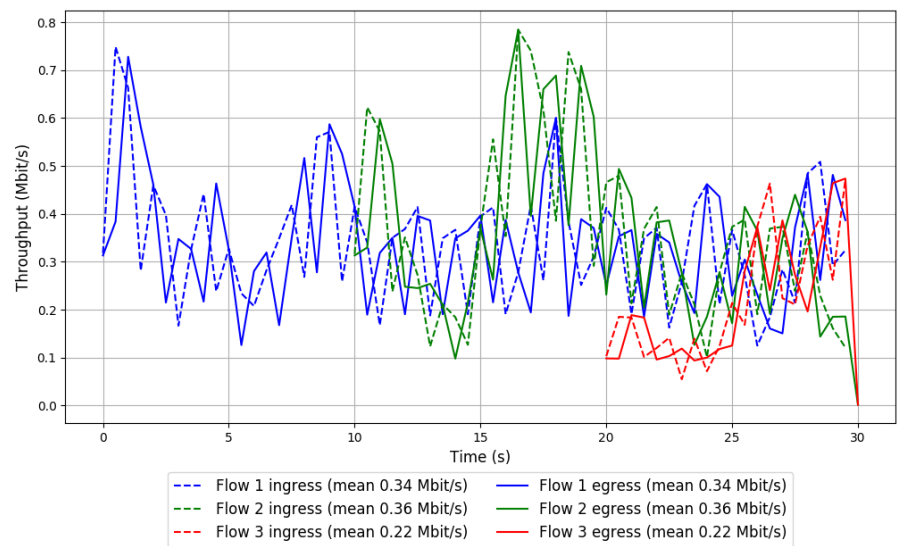
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 141.207 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-03-07 17:24:21

End at: 2018-03-07 17:24:51

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 141.779 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 141.693 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 141.766 ms

Loss rate: 0.00%

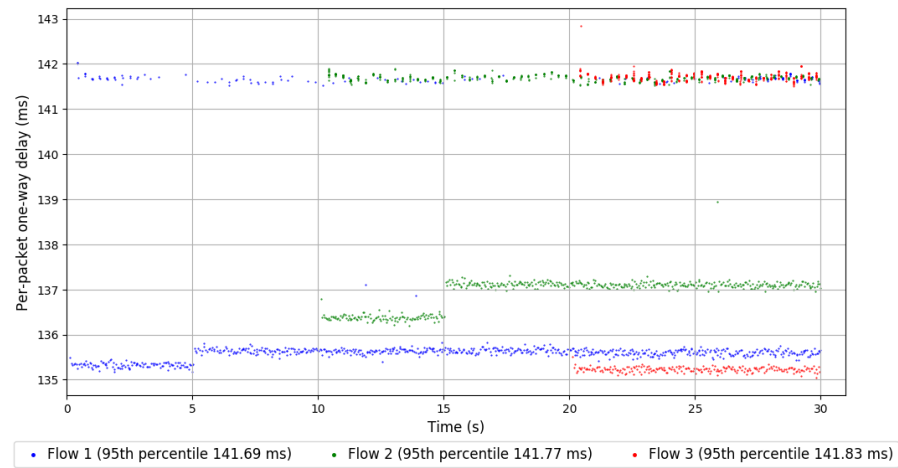
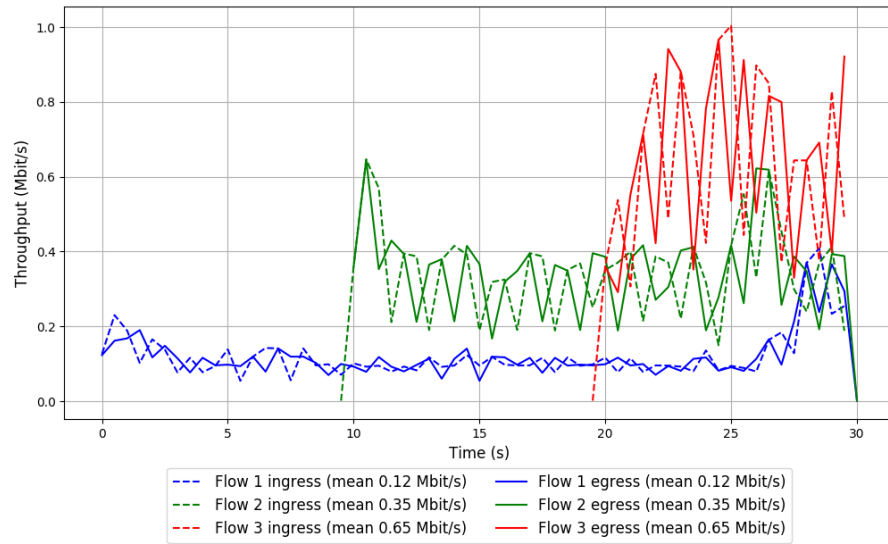
-- Flow 3:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 141.831 ms

Loss rate: 0.00%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-07 17:44:18

End at: 2018-03-07 17:44:48

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 142.006 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 142.008 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 141.993 ms

Loss rate: 1.07%

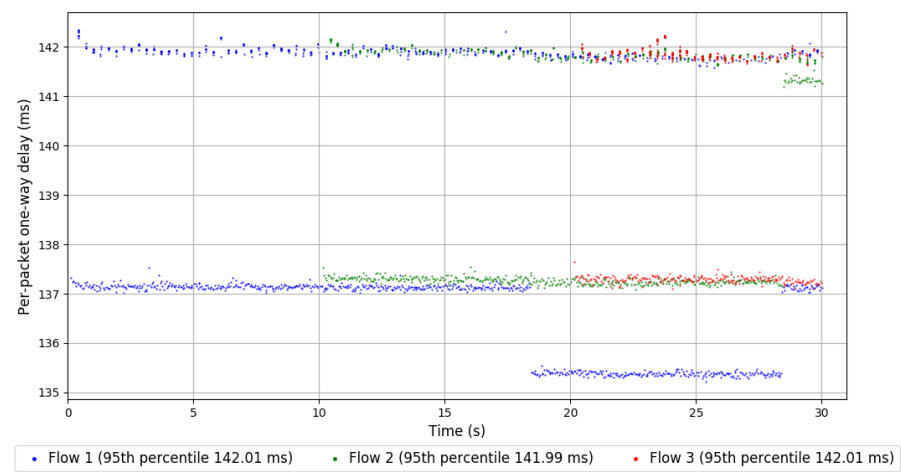
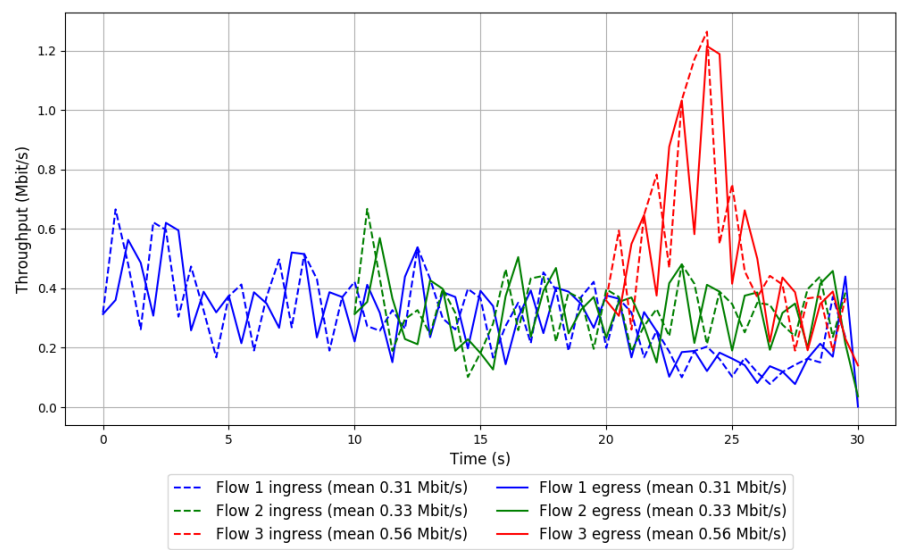
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 142.009 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-03-07 18:04:17

End at: 2018-03-07 18:04:47

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 141.924 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 141.904 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 141.891 ms

Loss rate: 0.00%

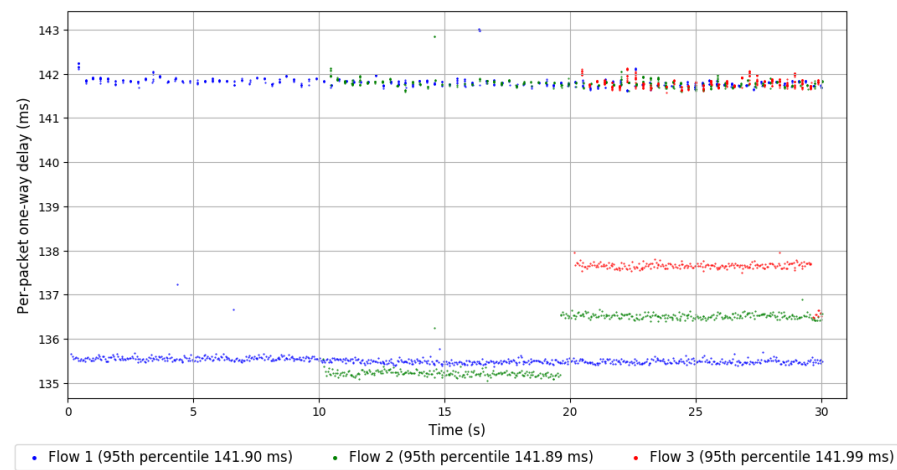
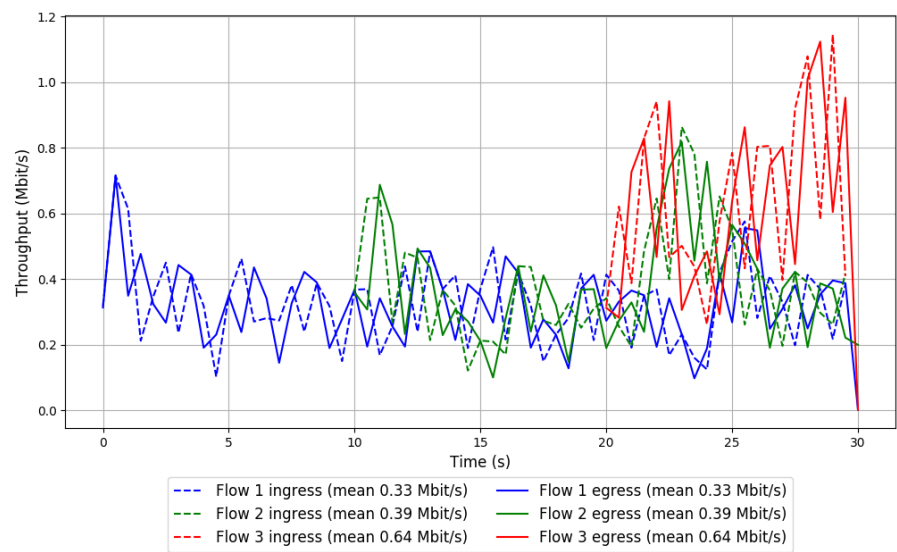
-- Flow 3:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 141.988 ms

Loss rate: 0.00%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-03-07 18:24:48

End at: 2018-03-07 18:25:18

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 141.339 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 141.334 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 141.364 ms

Loss rate: 0.00%

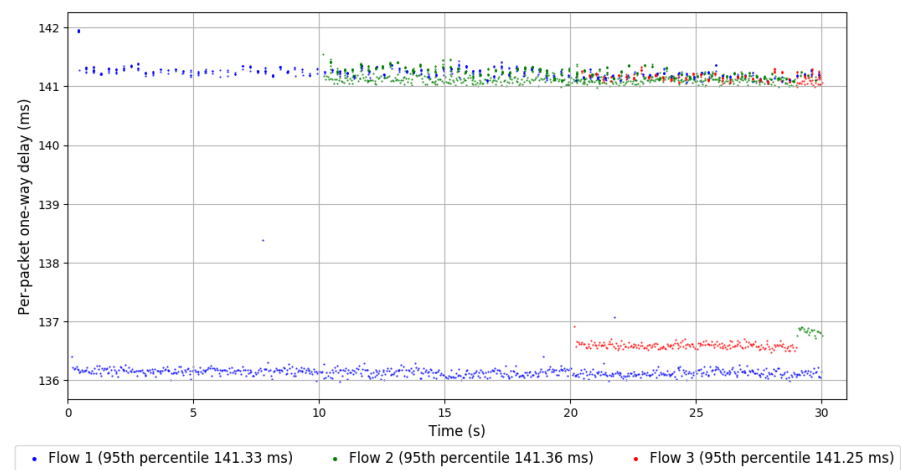
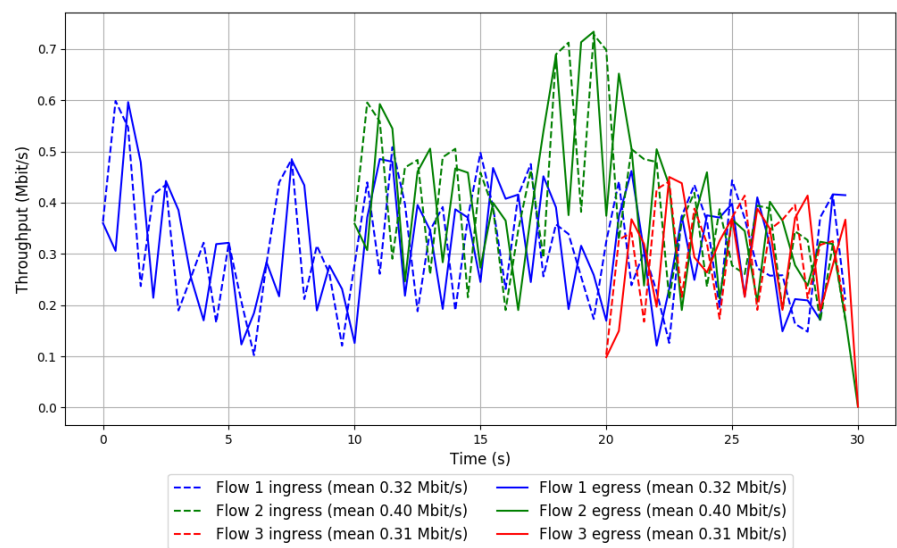
-- Flow 3:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 141.249 ms

Loss rate: 0.00%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-03-07 18:44:57

End at: 2018-03-07 18:45:27

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.81 Mbit/s

95th percentile per-packet one-way delay: 137.394 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 137.399 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 137.311 ms

Loss rate: 0.00%

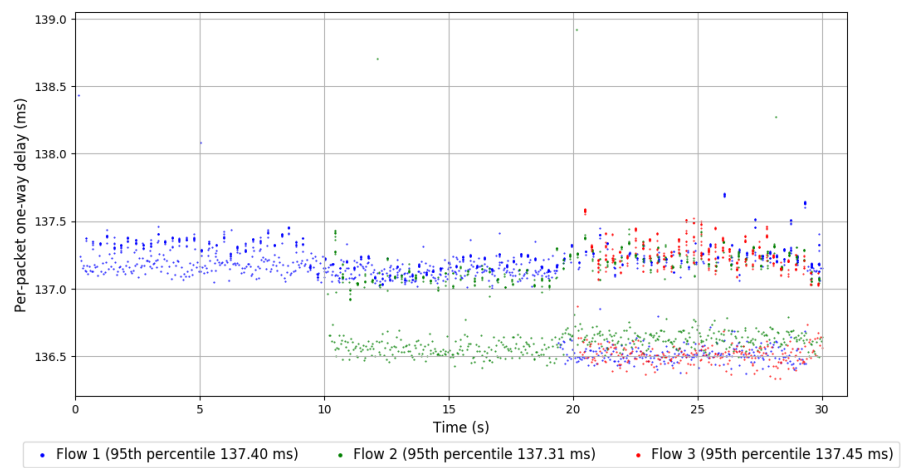
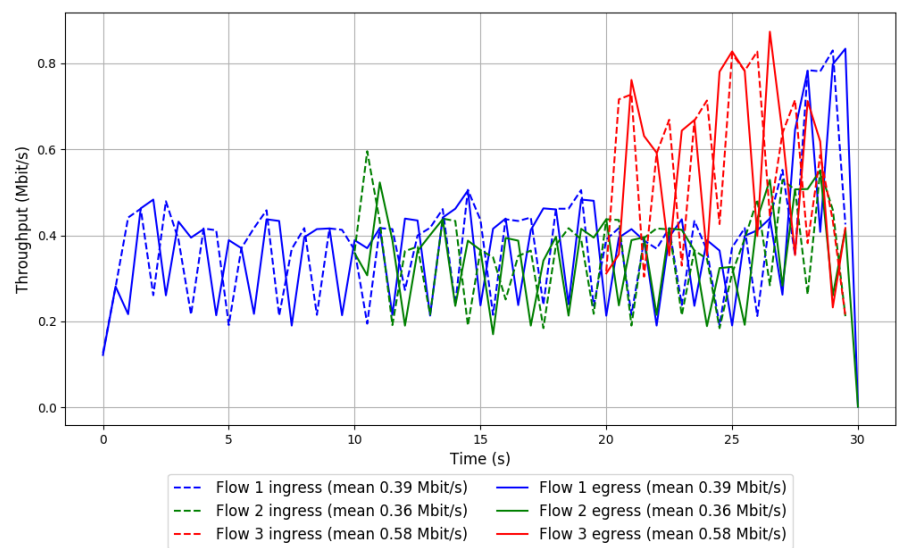
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 137.451 ms

Loss rate: 0.00%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

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

End at: 2018-03-07 19:05:35

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 137.278 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 137.304 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 137.250 ms

Loss rate: 0.00%

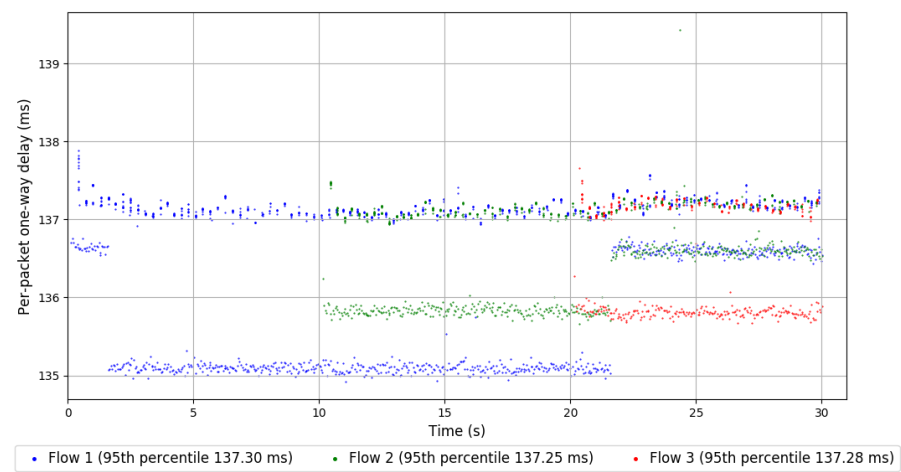
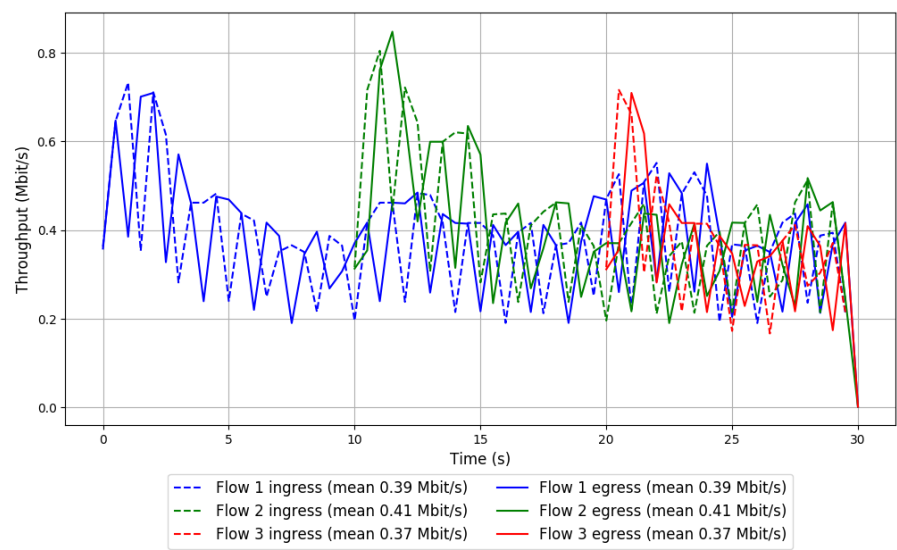
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 137.278 ms

Loss rate: 0.00%

Run 7: Report of Sprout — Data Link



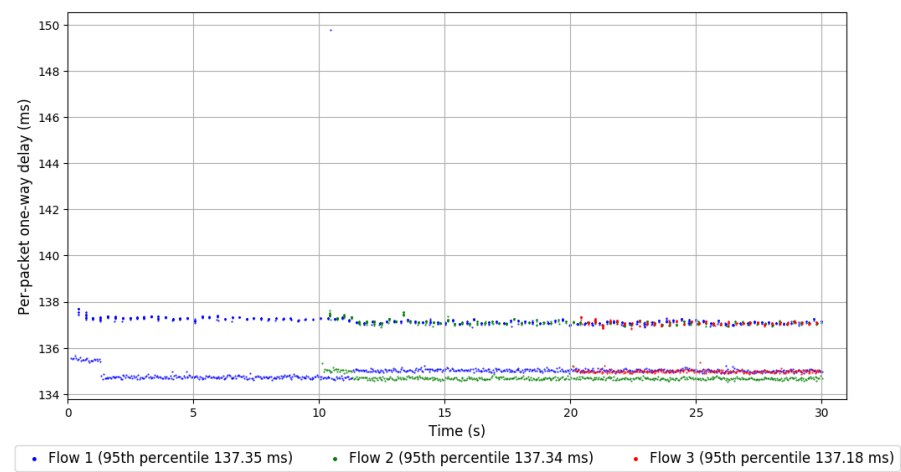
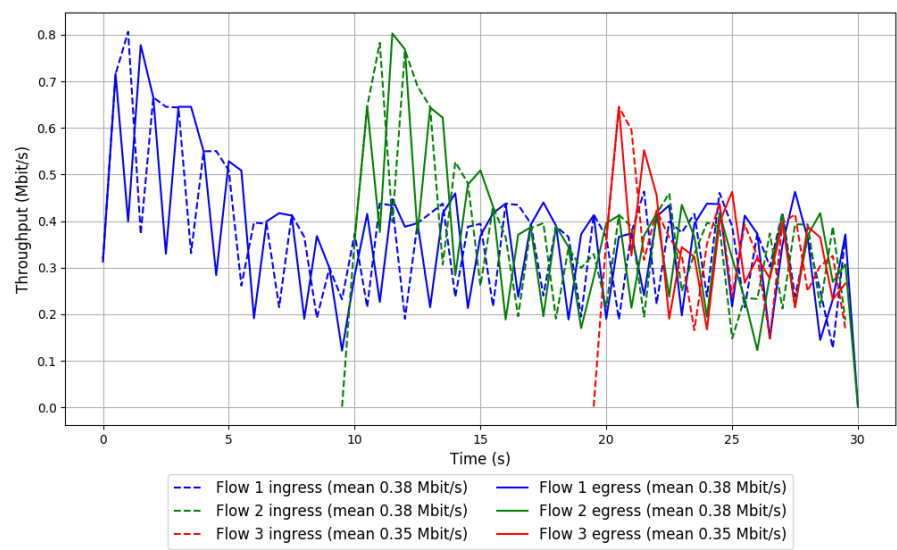
Run 8: Statistics of Sprout

Start at: 2018-03-07 19:24:55

End at: 2018-03-07 19:25:25

```
# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 137.338 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.346 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 137.341 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 137.179 ms
Loss rate: 0.00%
```

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-03-07 19:45:00

End at: 2018-03-07 19:45:30

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 140.780 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 140.704 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 140.844 ms

Loss rate: 0.00%

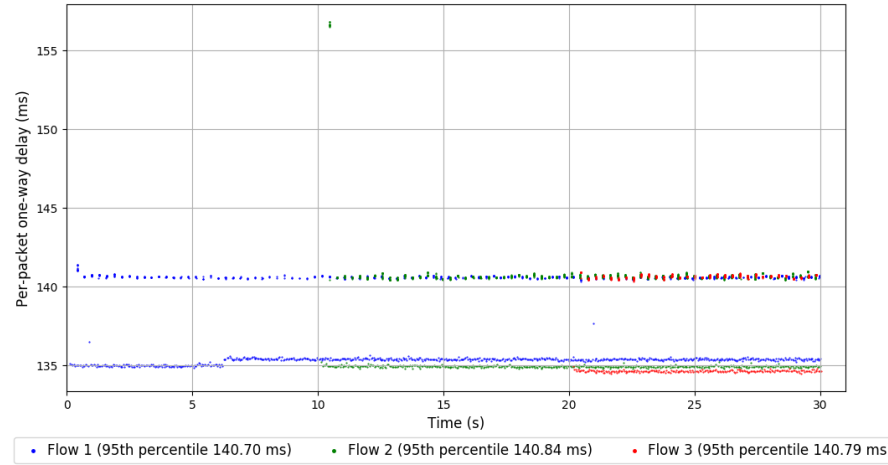
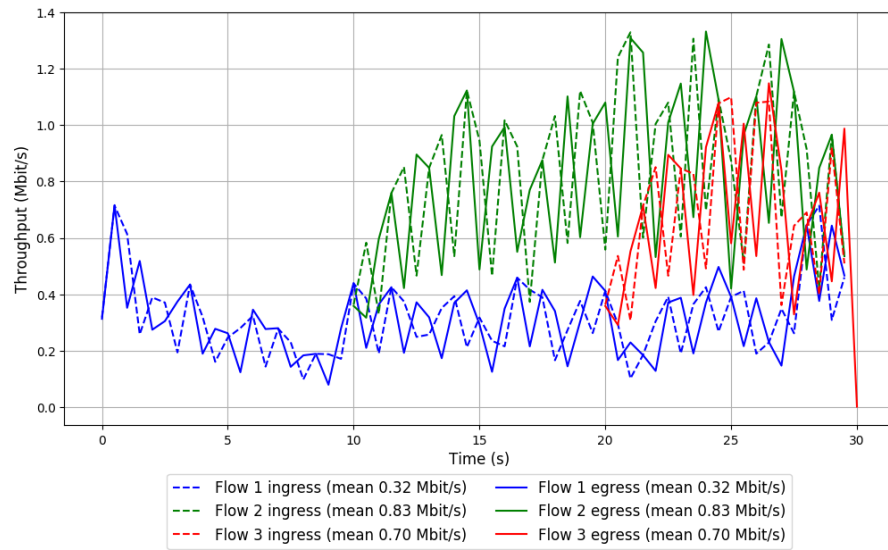
-- Flow 3:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 140.794 ms

Loss rate: 0.00%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-03-07 20:04:58

End at: 2018-03-07 20:05:28

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 140.841 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 140.888 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 140.654 ms

Loss rate: 0.00%

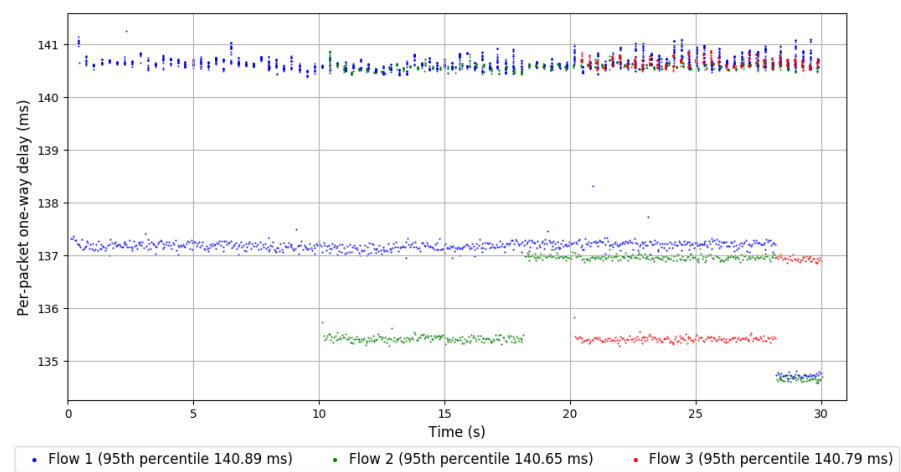
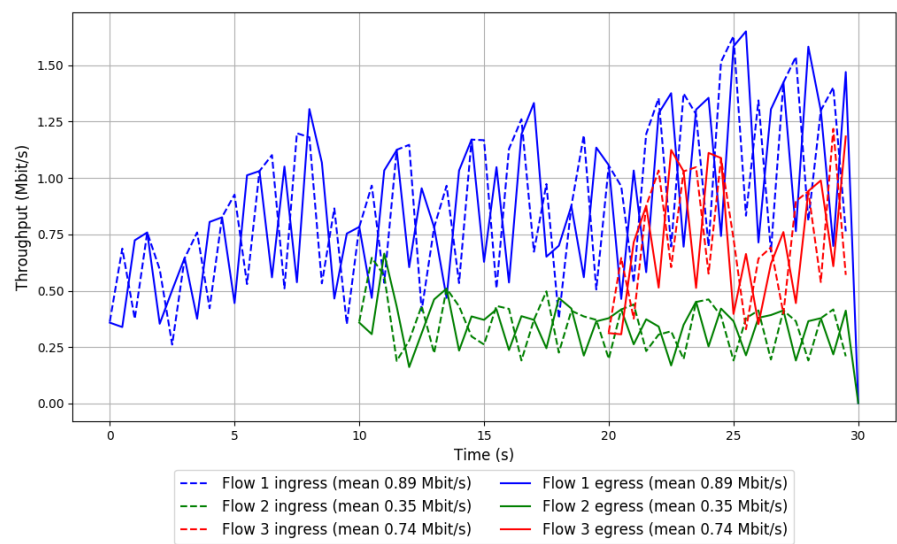
-- Flow 3:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 140.790 ms

Loss rate: 0.00%

Run 10: Report of Sprout — Data Link

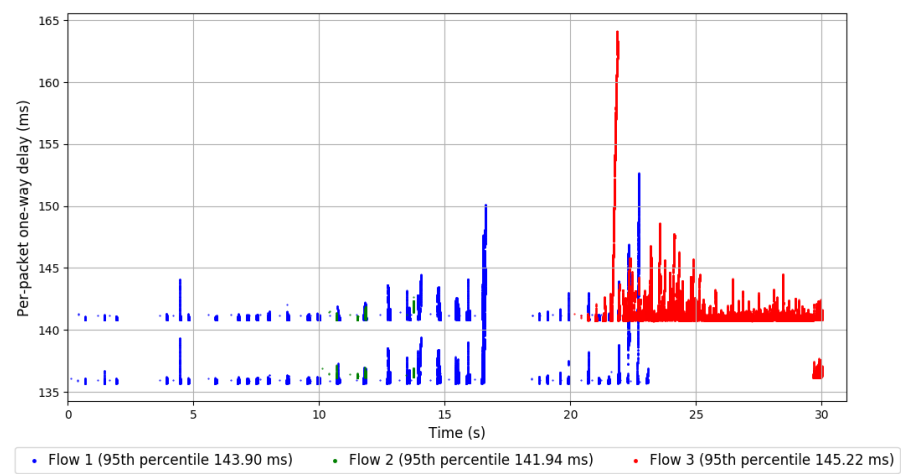
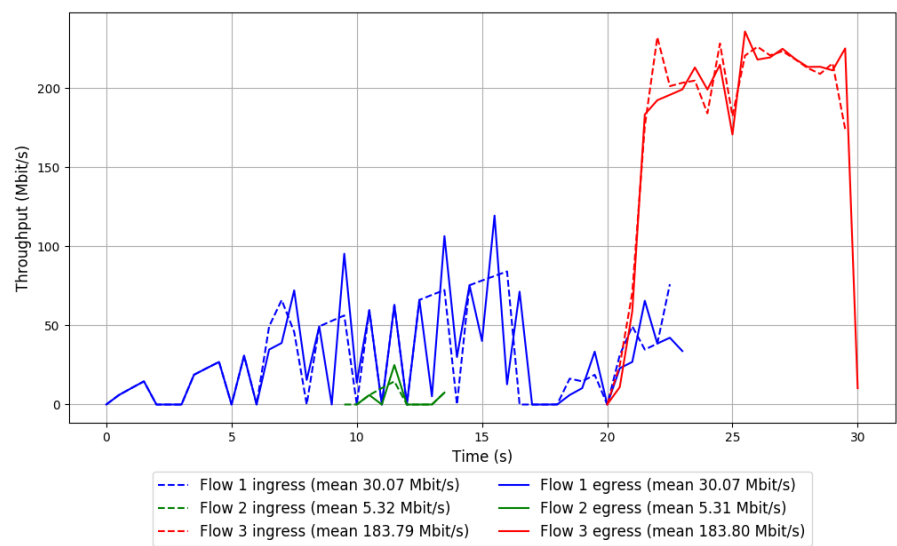


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-03-07 16:57:47
End at: 2018-03-07 16:58:17

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 84.44 Mbit/s
95th percentile per-packet one-way delay: 144.835 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 30.07 Mbit/s
95th percentile per-packet one-way delay: 143.903 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 5.31 Mbit/s
95th percentile per-packet one-way delay: 141.937 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 183.80 Mbit/s
95th percentile per-packet one-way delay: 145.222 ms
Loss rate: 0.00%
```


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

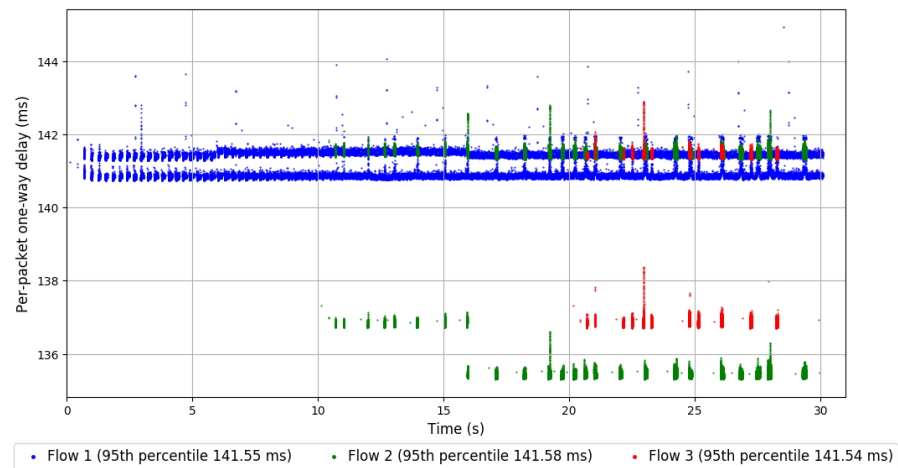
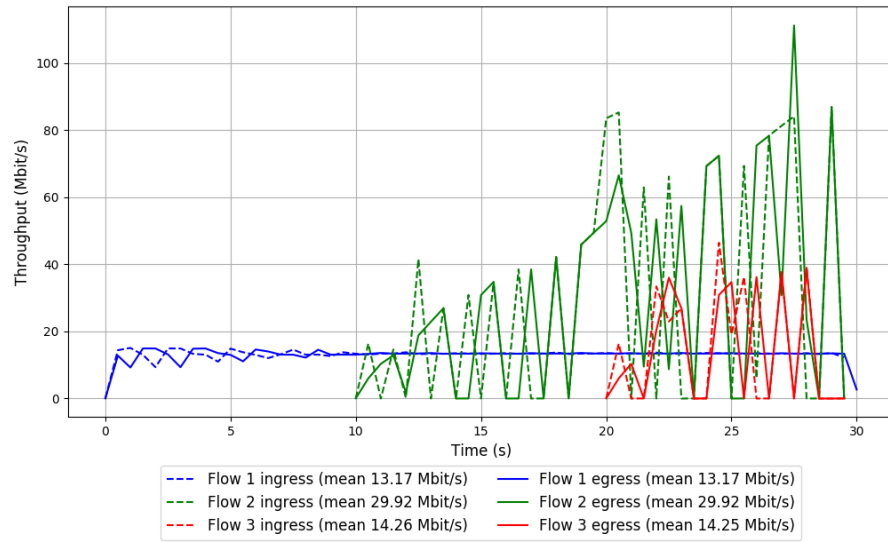


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-03-07 17:17:21
End at: 2018-03-07 17:17:51

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 37.62 Mbit/s
95th percentile per-packet one-way delay: 141.568 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 13.17 Mbit/s
95th percentile per-packet one-way delay: 141.554 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 29.92 Mbit/s
95th percentile per-packet one-way delay: 141.580 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 14.25 Mbit/s
95th percentile per-packet one-way delay: 141.542 ms
Loss rate: 0.00%
```

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

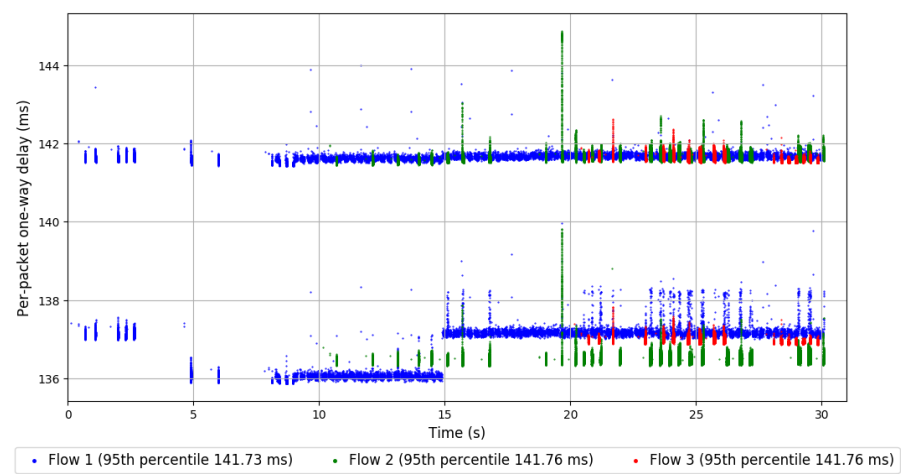
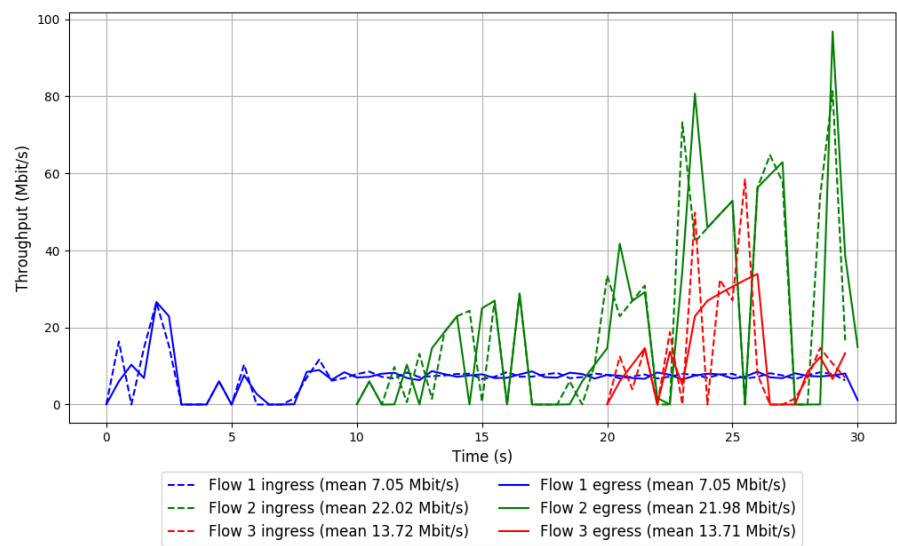


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-03-07 17:37:12
End at: 2018-03-07 17:37:42

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 26.13 Mbit/s
95th percentile per-packet one-way delay: 141.753 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 7.05 Mbit/s
95th percentile per-packet one-way delay: 141.726 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 21.98 Mbit/s
95th percentile per-packet one-way delay: 141.763 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 13.71 Mbit/s
95th percentile per-packet one-way delay: 141.765 ms
Loss rate: 0.00%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-03-07 17:57:10

End at: 2018-03-07 17:57:40

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 27.07 Mbit/s

95th percentile per-packet one-way delay: 142.067 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 21.99 Mbit/s

95th percentile per-packet one-way delay: 141.780 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 33.85 Mbit/s

95th percentile per-packet one-way delay: 142.311 ms

Loss rate: 0.00%

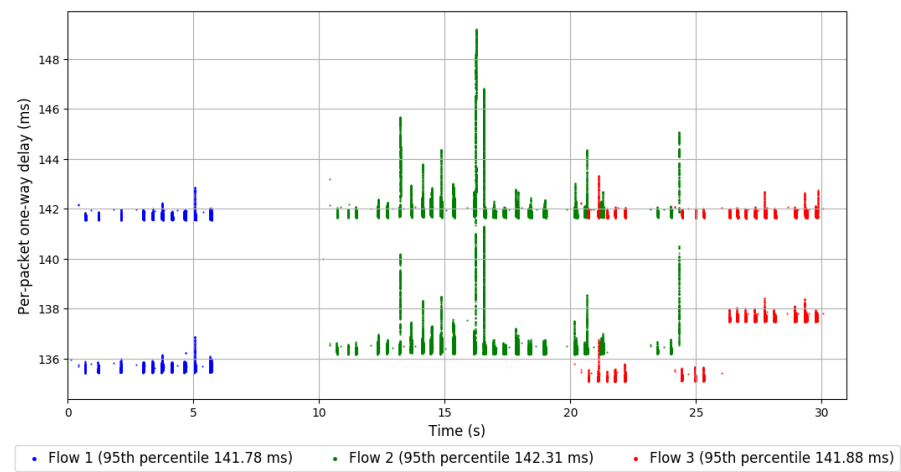
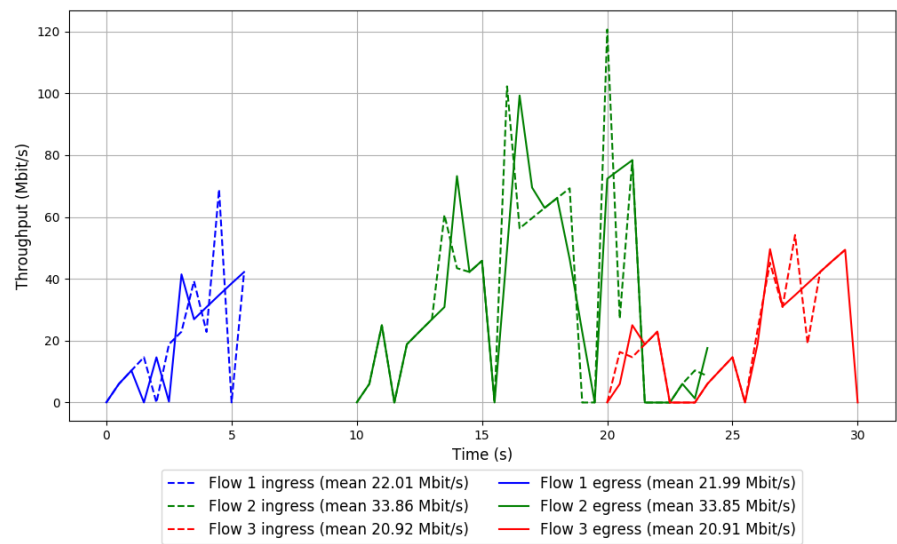
-- Flow 3:

Average throughput: 20.91 Mbit/s

95th percentile per-packet one-way delay: 141.882 ms

Loss rate: 0.00%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-03-07 18:17:24

End at: 2018-03-07 18:17:54

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.74 Mbit/s

95th percentile per-packet one-way delay: 142.370 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.67 Mbit/s

95th percentile per-packet one-way delay: 142.517 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 138.71 Mbit/s

95th percentile per-packet one-way delay: 141.414 ms

Loss rate: 0.00%

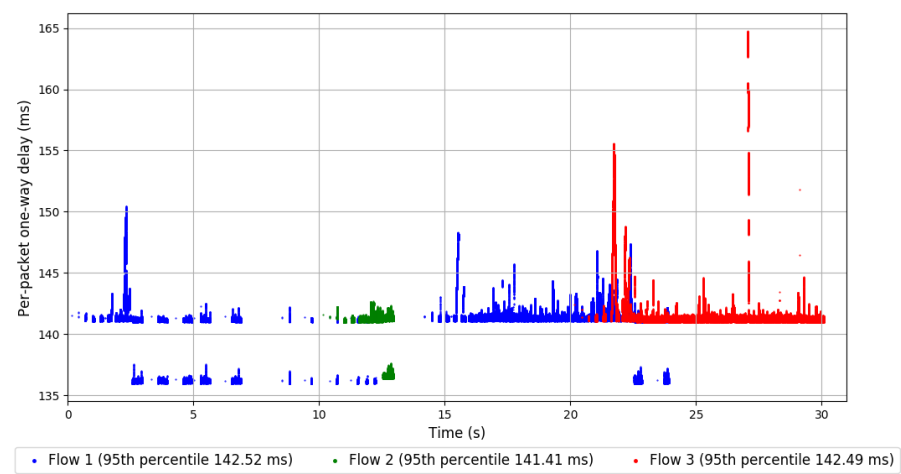
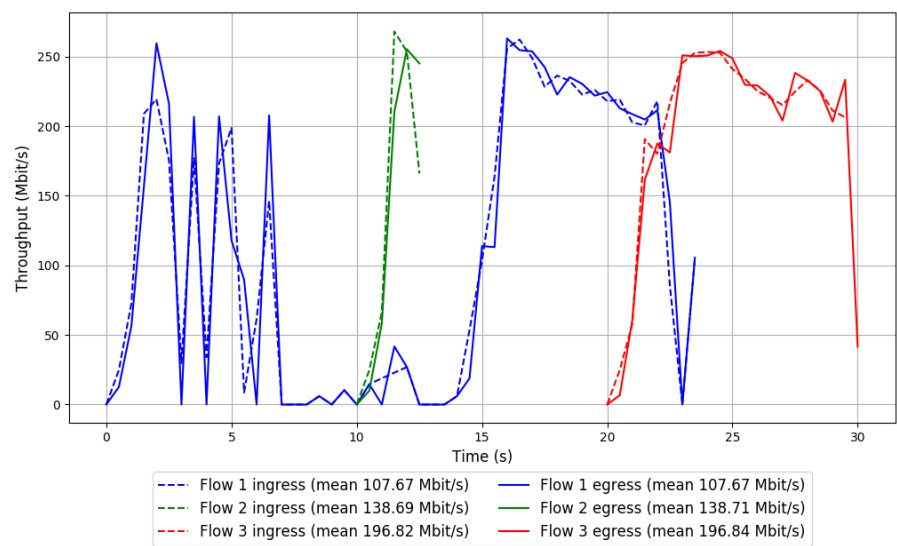
-- Flow 3:

Average throughput: 196.84 Mbit/s

95th percentile per-packet one-way delay: 142.492 ms

Loss rate: 0.00%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-03-07 18:37:44

End at: 2018-03-07 18:38:14

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 30.28 Mbit/s

95th percentile per-packet one-way delay: 141.091 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.08 Mbit/s

95th percentile per-packet one-way delay: 141.121 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.62 Mbit/s

95th percentile per-packet one-way delay: 141.022 ms

Loss rate: 0.00%

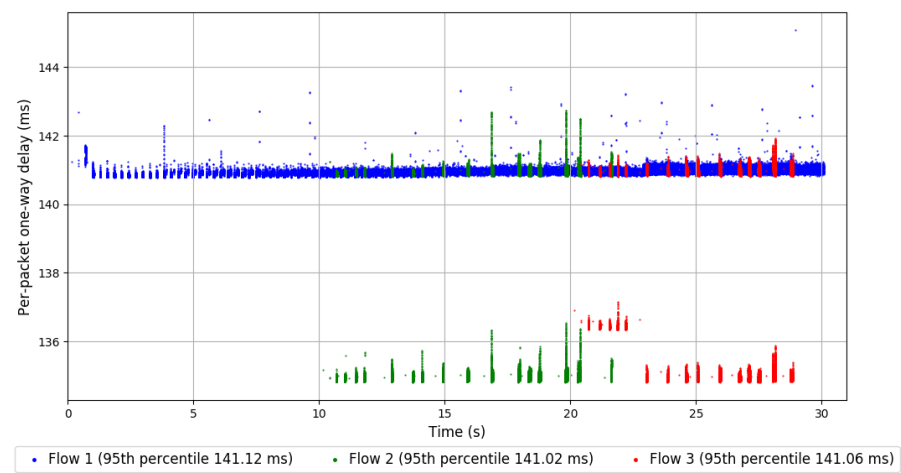
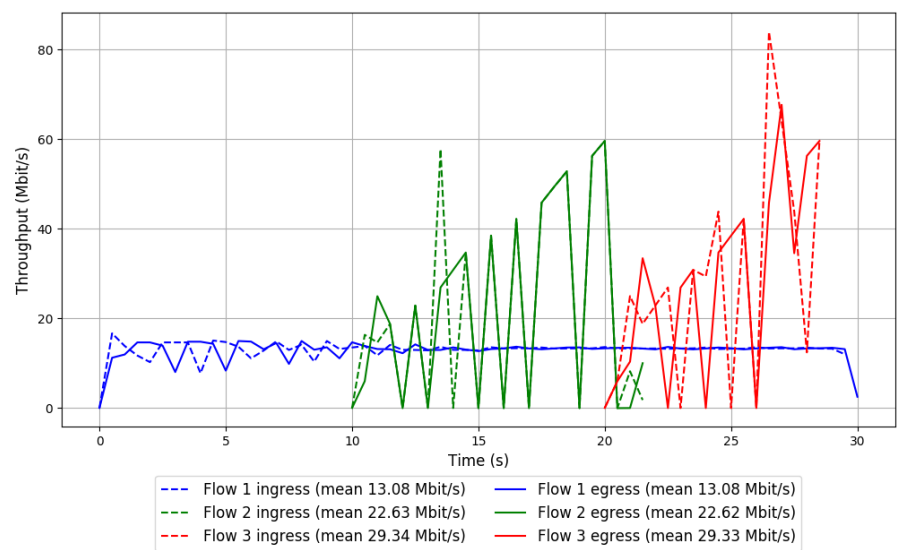
-- Flow 3:

Average throughput: 29.33 Mbit/s

95th percentile per-packet one-way delay: 141.065 ms

Loss rate: 0.00%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-03-07 18:57:54

End at: 2018-03-07 18:58:24

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 26.23 Mbit/s

95th percentile per-packet one-way delay: 137.019 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.23 Mbit/s

95th percentile per-packet one-way delay: 136.963 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 13.09 Mbit/s

95th percentile per-packet one-way delay: 136.955 ms

Loss rate: 0.00%

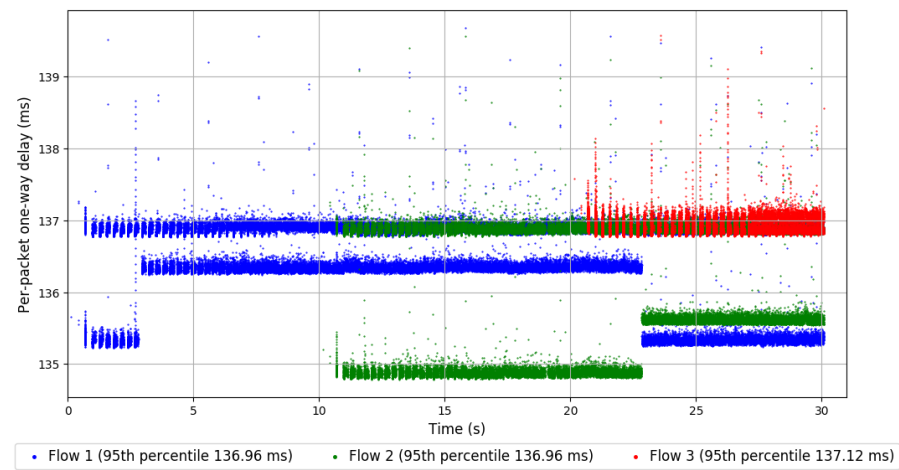
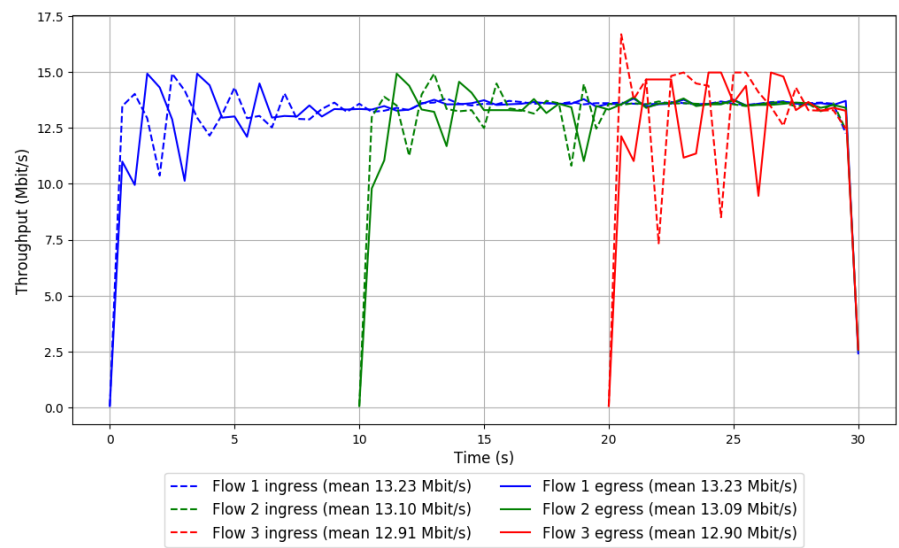
-- Flow 3:

Average throughput: 12.90 Mbit/s

95th percentile per-packet one-way delay: 137.119 ms

Loss rate: 0.01%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-03-07 19:17:52

End at: 2018-03-07 19:18:22

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 15.41 Mbit/s

95th percentile per-packet one-way delay: 140.413 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 7.56 Mbit/s

95th percentile per-packet one-way delay: 137.122 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 7.35 Mbit/s

95th percentile per-packet one-way delay: 137.097 ms

Loss rate: 0.00%

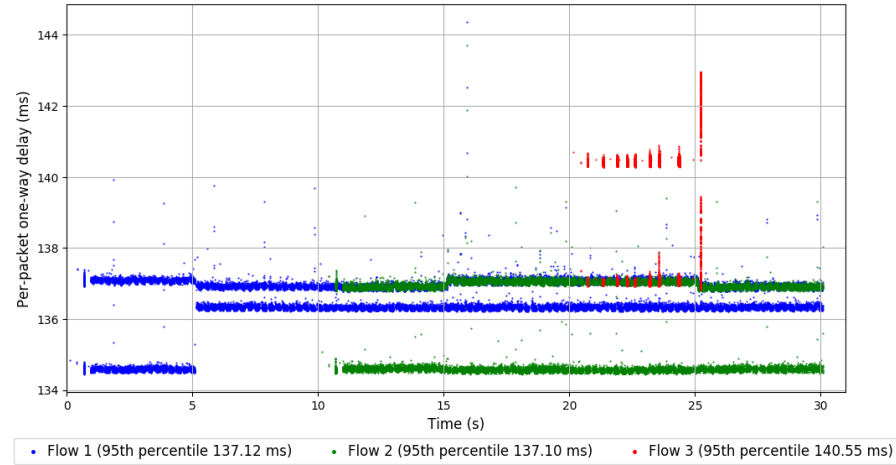
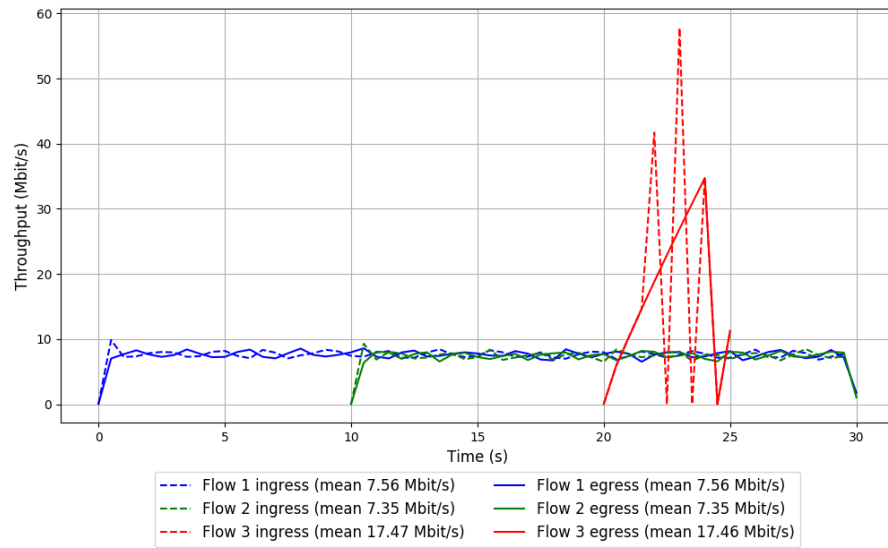
-- Flow 3:

Average throughput: 17.46 Mbit/s

95th percentile per-packet one-way delay: 140.554 ms

Loss rate: 0.00%

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



Run 9: Statistics of TaoVA-100x

Start at: 2018-03-07 19:37:41

End at: 2018-03-07 19:38:11

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 113.89 Mbit/s

95th percentile per-packet one-way delay: 137.713 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 41.84 Mbit/s

95th percentile per-packet one-way delay: 137.069 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 10.46 Mbit/s

95th percentile per-packet one-way delay: 140.455 ms

Loss rate: 0.00%

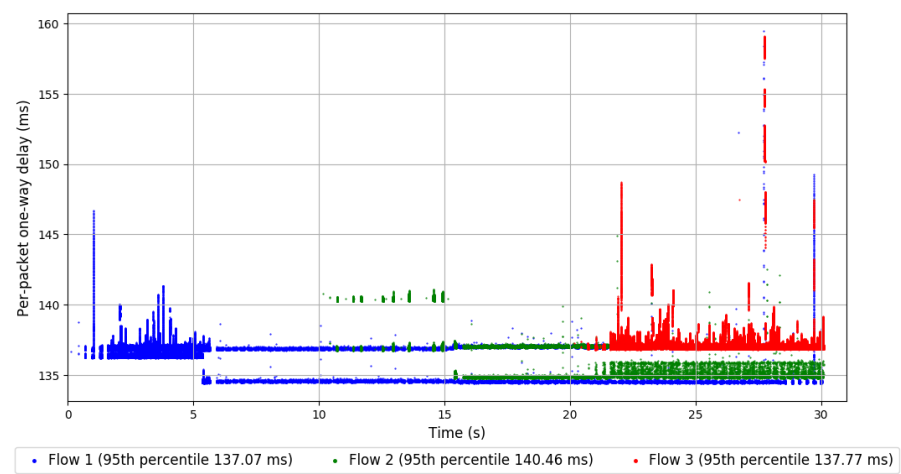
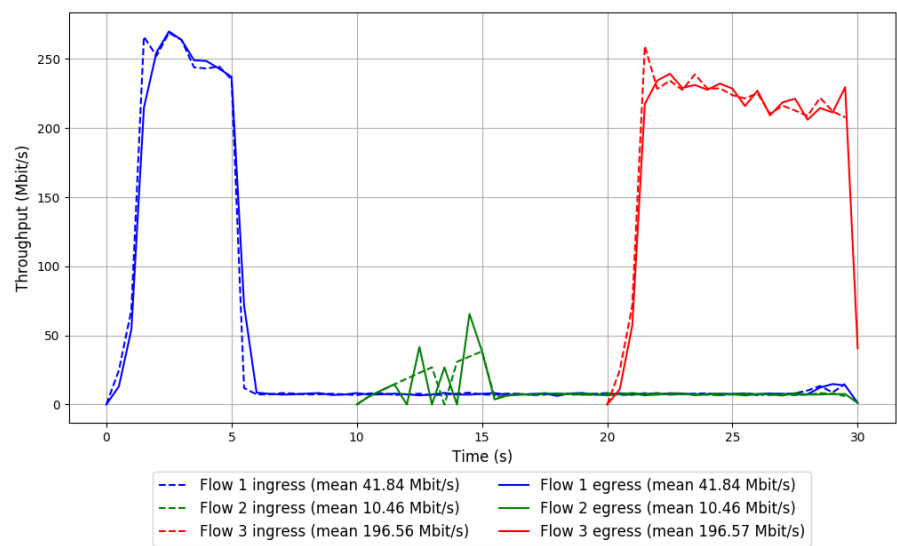
-- Flow 3:

Average throughput: 196.57 Mbit/s

95th percentile per-packet one-way delay: 137.773 ms

Loss rate: 0.00%

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

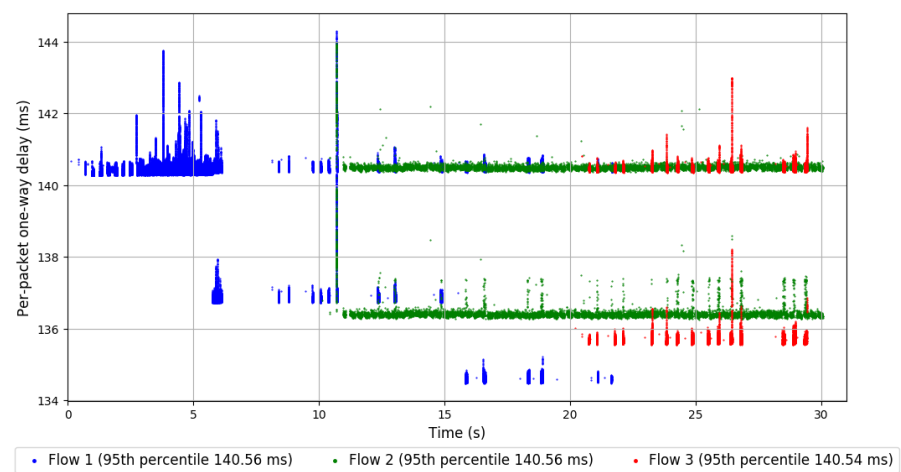
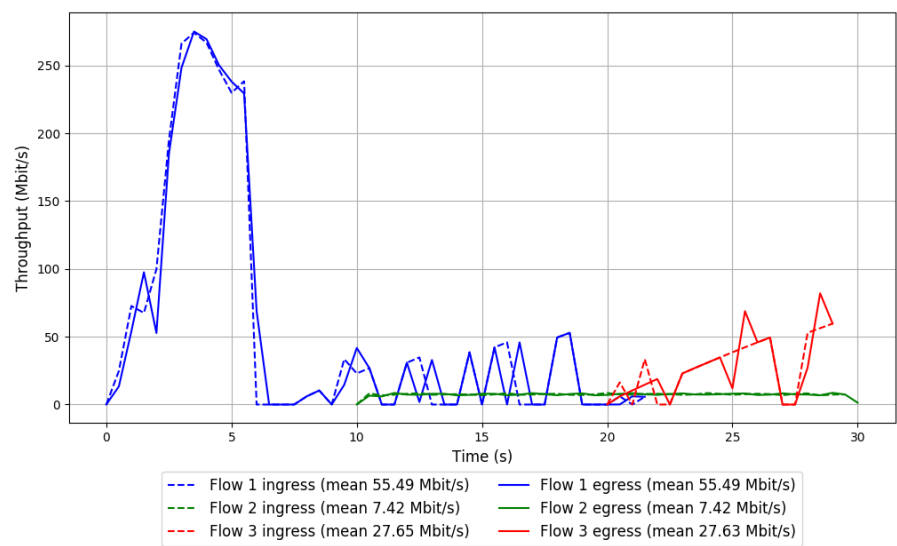


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-03-07 19:57:41
End at: 2018-03-07 19:58:11

# Below is generated by plot.py at 2018-03-07 22:39:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 53.38 Mbit/s
95th percentile per-packet one-way delay: 140.557 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 55.49 Mbit/s
95th percentile per-packet one-way delay: 140.560 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 7.42 Mbit/s
95th percentile per-packet one-way delay: 140.562 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 27.63 Mbit/s
95th percentile per-packet one-way delay: 140.542 ms
Loss rate: 0.00%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-03-07 17:11:48

End at: 2018-03-07 17:12:18

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 53.61 Mbit/s

95th percentile per-packet one-way delay: 143.811 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 26.28 Mbit/s

95th percentile per-packet one-way delay: 142.655 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 23.29 Mbit/s

95th percentile per-packet one-way delay: 141.962 ms

Loss rate: 0.00%

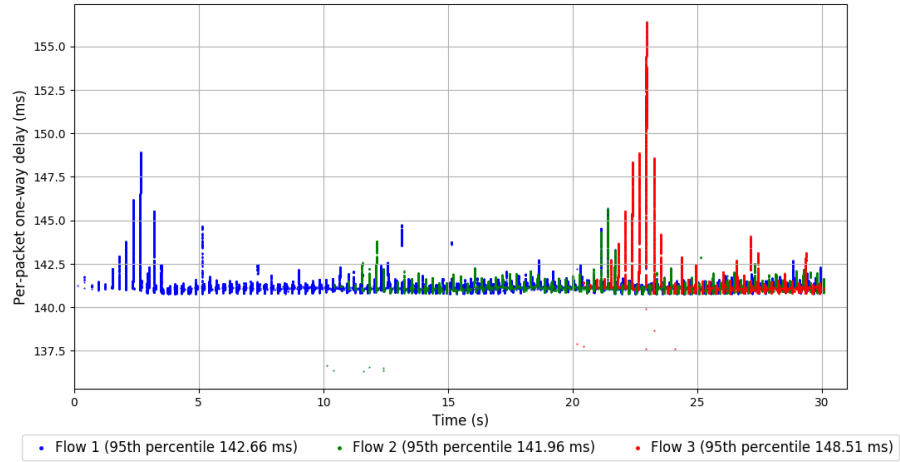
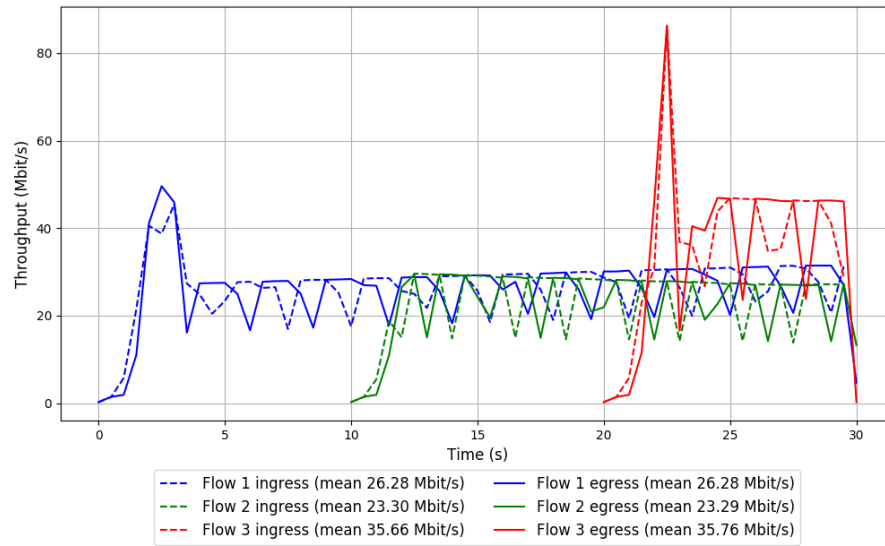
-- Flow 3:

Average throughput: 35.76 Mbit/s

95th percentile per-packet one-way delay: 148.512 ms

Loss rate: 0.00%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-03-07 17:31:32

End at: 2018-03-07 17:32:02

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 40.58 Mbit/s

95th percentile per-packet one-way delay: 143.090 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.73 Mbit/s

95th percentile per-packet one-way delay: 142.583 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 20.33 Mbit/s

95th percentile per-packet one-way delay: 144.314 ms

Loss rate: 0.00%

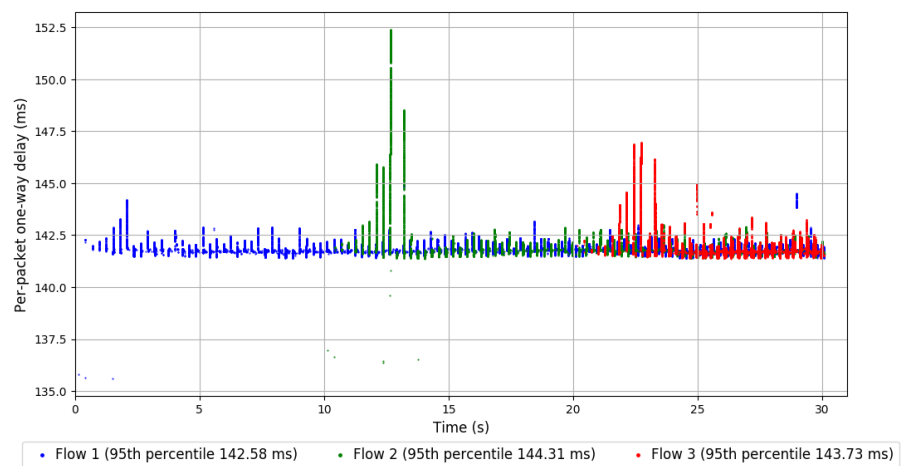
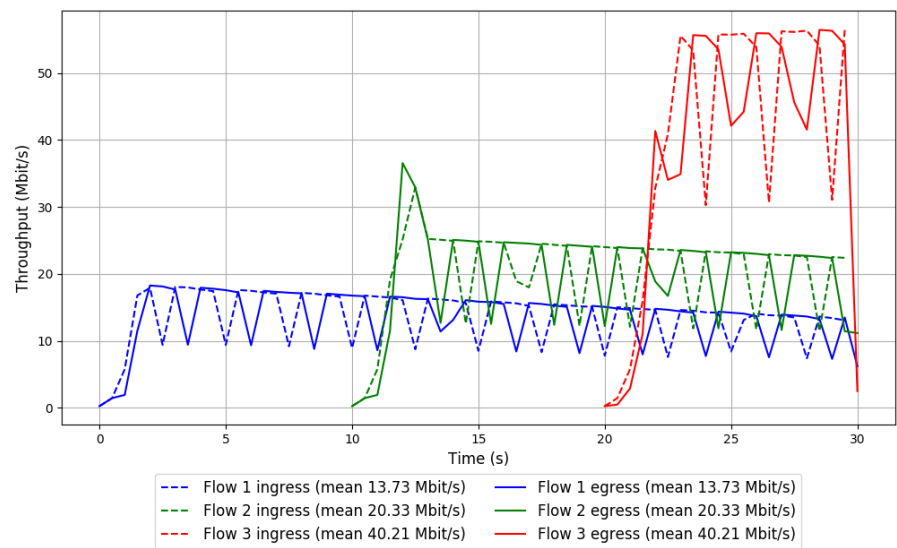
-- Flow 3:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 143.734 ms

Loss rate: 0.00%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-03-07 17:51:31

End at: 2018-03-07 17:52:01

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.97 Mbit/s

95th percentile per-packet one-way delay: 144.175 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 21.02 Mbit/s

95th percentile per-packet one-way delay: 143.956 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.07 Mbit/s

95th percentile per-packet one-way delay: 144.439 ms

Loss rate: 0.00%

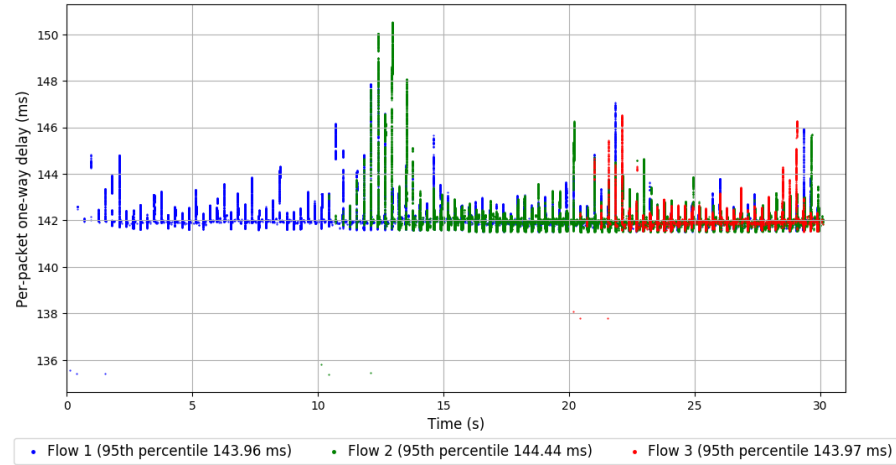
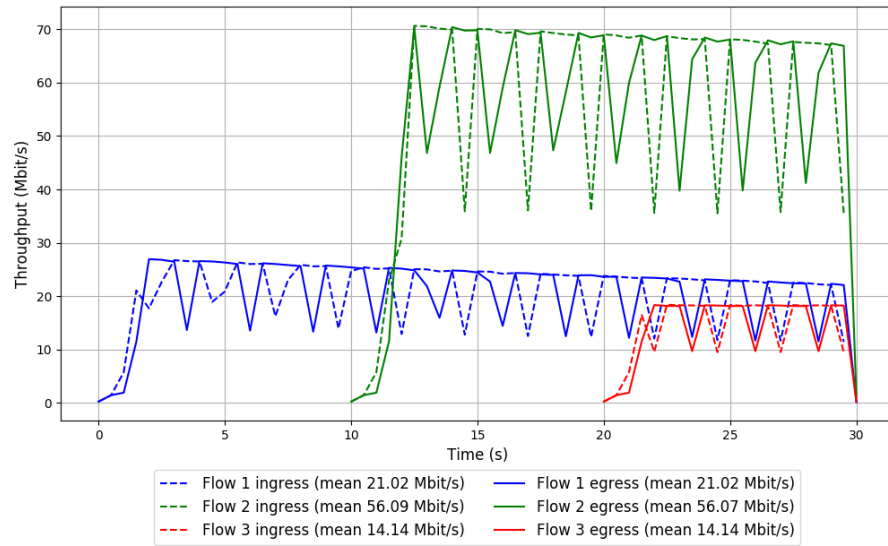
-- Flow 3:

Average throughput: 14.14 Mbit/s

95th percentile per-packet one-way delay: 143.975 ms

Loss rate: 0.00%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-03-07 18:11:29

End at: 2018-03-07 18:11:59

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 51.21 Mbit/s

95th percentile per-packet one-way delay: 142.809 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.64 Mbit/s

95th percentile per-packet one-way delay: 142.198 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 44.51 Mbit/s

95th percentile per-packet one-way delay: 142.842 ms

Loss rate: 0.00%

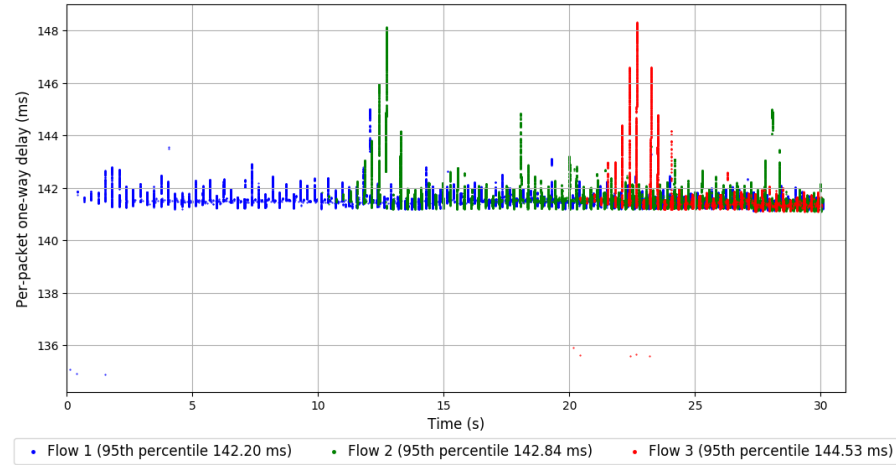
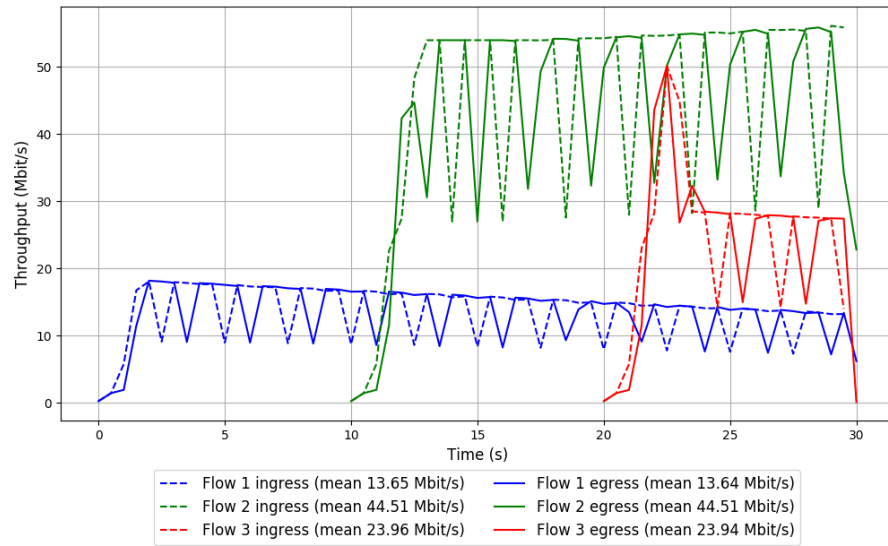
-- Flow 3:

Average throughput: 23.94 Mbit/s

95th percentile per-packet one-way delay: 144.534 ms

Loss rate: 0.00%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-03-07 18:31:58

End at: 2018-03-07 18:32:28

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.02 Mbit/s

95th percentile per-packet one-way delay: 148.001 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.20 Mbit/s

95th percentile per-packet one-way delay: 146.723 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 79.07 Mbit/s

95th percentile per-packet one-way delay: 148.578 ms

Loss rate: 0.00%

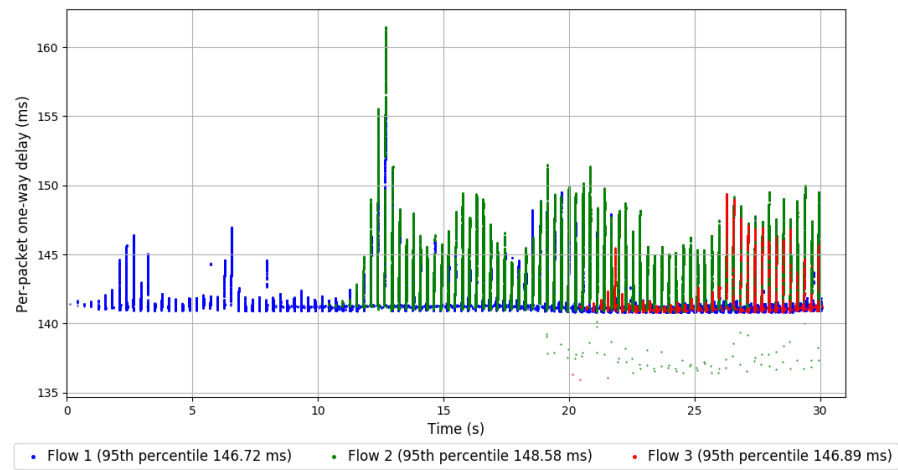
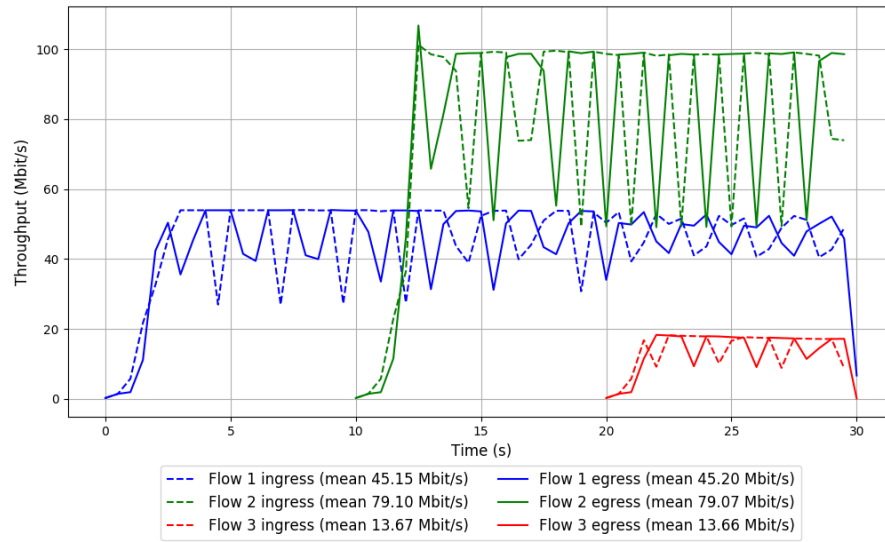
-- Flow 3:

Average throughput: 13.66 Mbit/s

95th percentile per-packet one-way delay: 146.894 ms

Loss rate: 0.00%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-03-07 18:52:07

End at: 2018-03-07 18:52:37

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.56 Mbit/s

95th percentile per-packet one-way delay: 139.756 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 32.12 Mbit/s

95th percentile per-packet one-way delay: 139.007 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.81 Mbit/s

95th percentile per-packet one-way delay: 139.127 ms

Loss rate: 0.00%

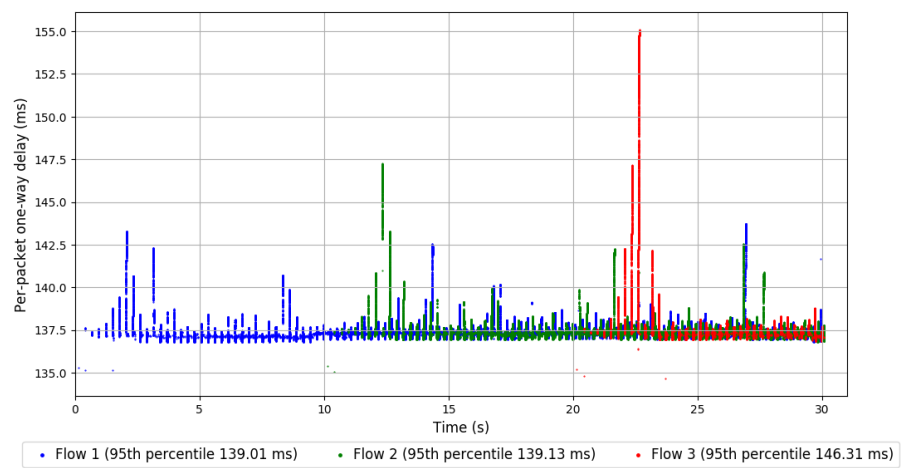
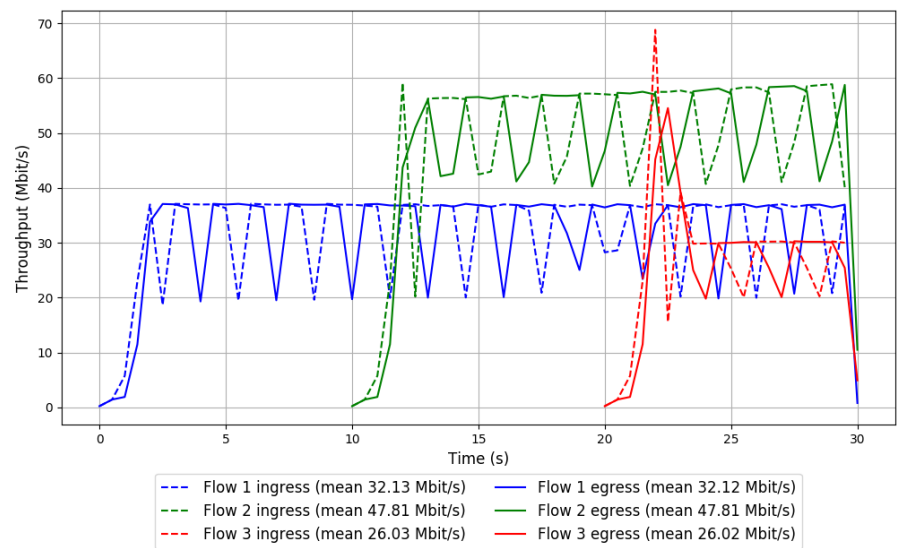
-- Flow 3:

Average throughput: 26.02 Mbit/s

95th percentile per-packet one-way delay: 146.311 ms

Loss rate: 0.00%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-03-07 19:12:09

End at: 2018-03-07 19:12:39

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 86.33 Mbit/s

95th percentile per-packet one-way delay: 138.905 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 45.96 Mbit/s

95th percentile per-packet one-way delay: 138.420 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 48.87 Mbit/s

95th percentile per-packet one-way delay: 139.095 ms

Loss rate: 0.00%

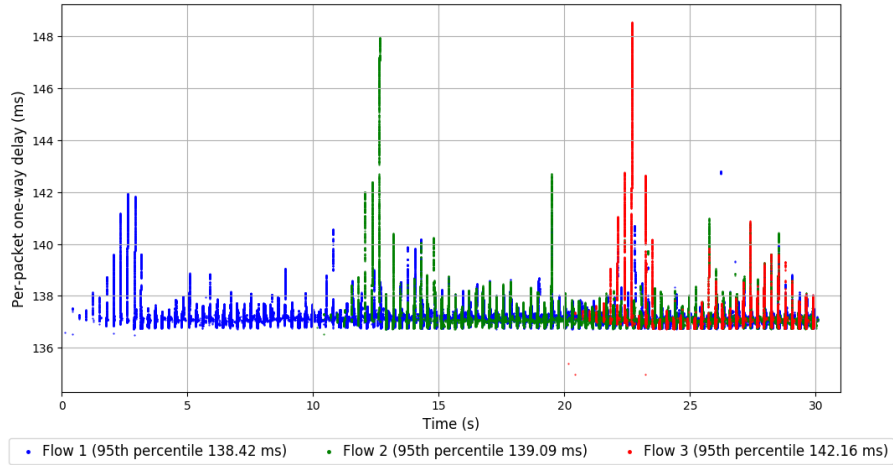
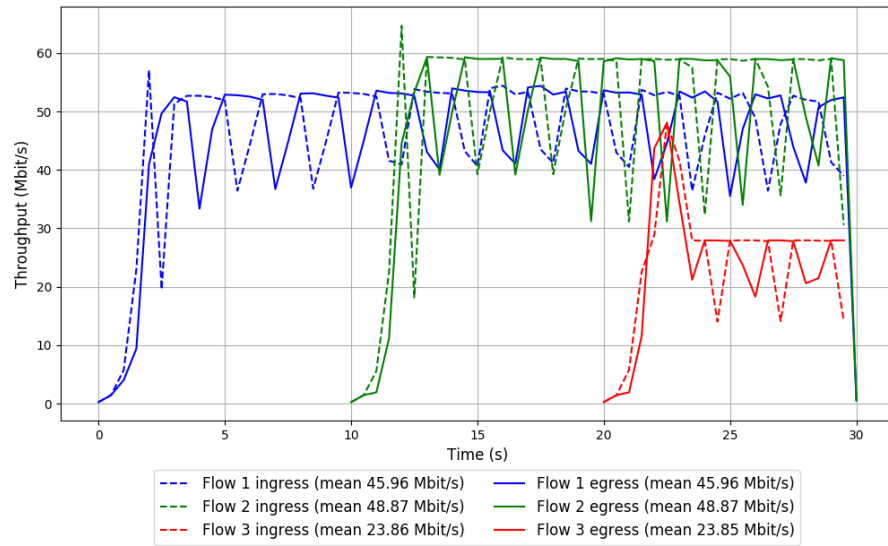
-- Flow 3:

Average throughput: 23.85 Mbit/s

95th percentile per-packet one-way delay: 142.164 ms

Loss rate: 0.00%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-03-07 19:32:01

End at: 2018-03-07 19:32:31

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.42 Mbit/s

95th percentile per-packet one-way delay: 138.280 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 31.72 Mbit/s

95th percentile per-packet one-way delay: 138.052 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 47.42 Mbit/s

95th percentile per-packet one-way delay: 137.958 ms

Loss rate: 0.00%

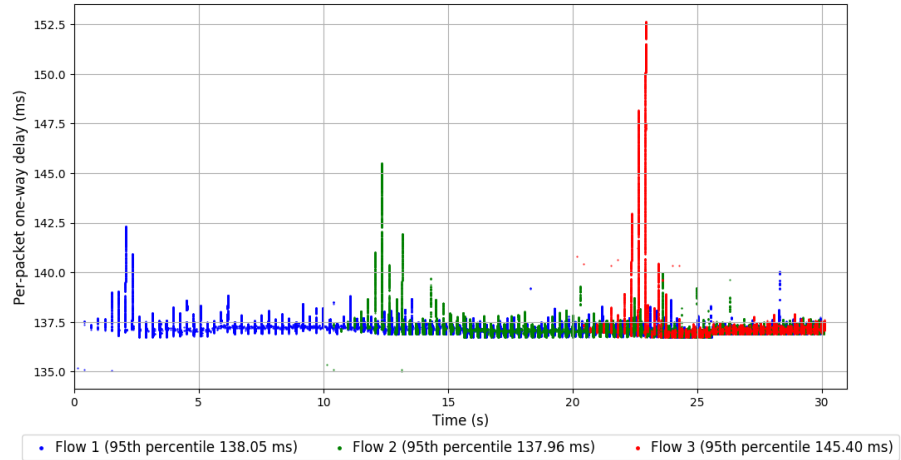
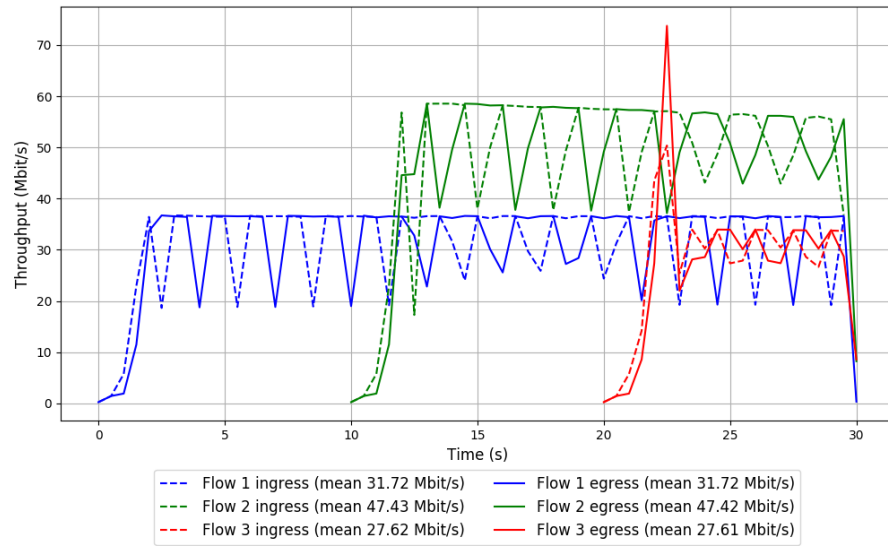
-- Flow 3:

Average throughput: 27.61 Mbit/s

95th percentile per-packet one-way delay: 145.400 ms

Loss rate: 0.09%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-03-07 19:52:07

End at: 2018-03-07 19:52:37

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 31.73 Mbit/s

95th percentile per-packet one-way delay: 142.260 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 13.79 Mbit/s

95th percentile per-packet one-way delay: 141.665 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 26.50 Mbit/s

95th percentile per-packet one-way delay: 143.489 ms

Loss rate: 0.00%

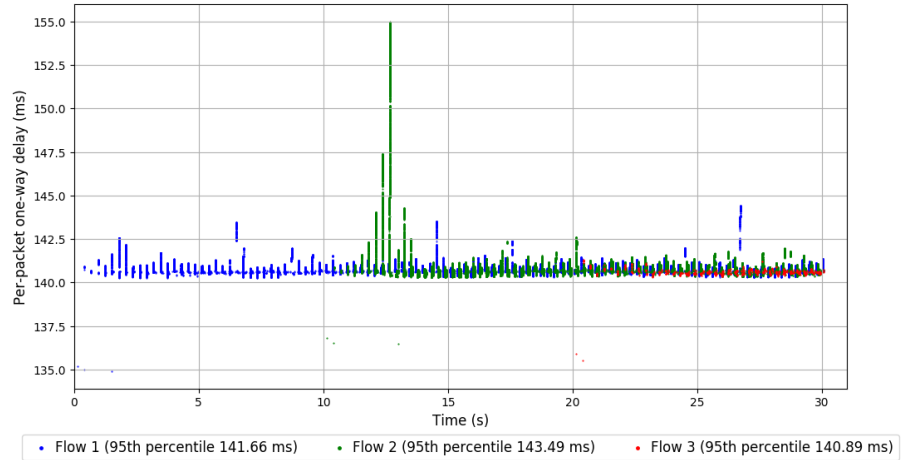
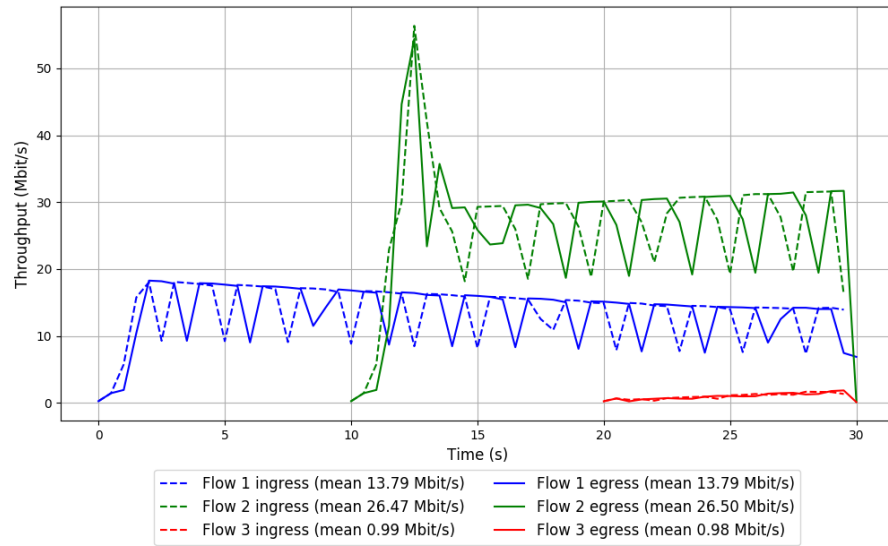
-- Flow 3:

Average throughput: 0.98 Mbit/s

95th percentile per-packet one-way delay: 140.891 ms

Loss rate: 0.12%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-03-07 20:12:09

End at: 2018-03-07 20:12:39

Below is generated by plot.py at 2018-03-07 22:39:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 40.90 Mbit/s

95th percentile per-packet one-way delay: 141.539 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 21.25 Mbit/s

95th percentile per-packet one-way delay: 141.564 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 22.68 Mbit/s

95th percentile per-packet one-way delay: 141.389 ms

Loss rate: 0.01%

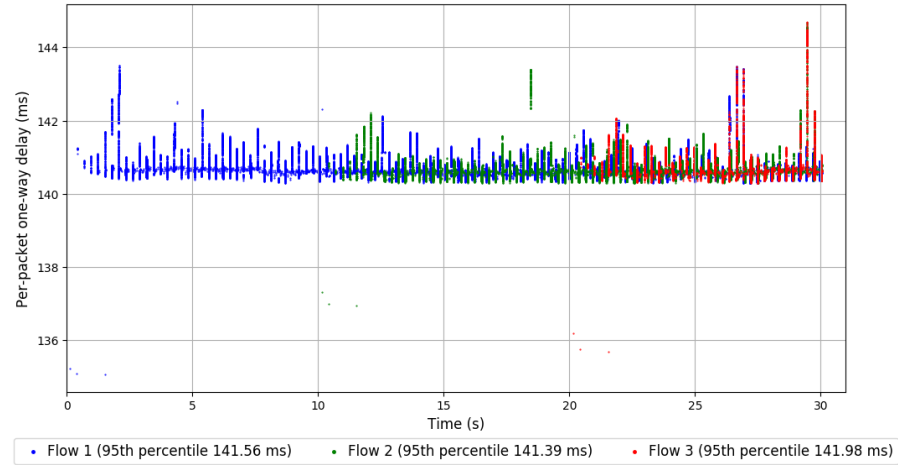
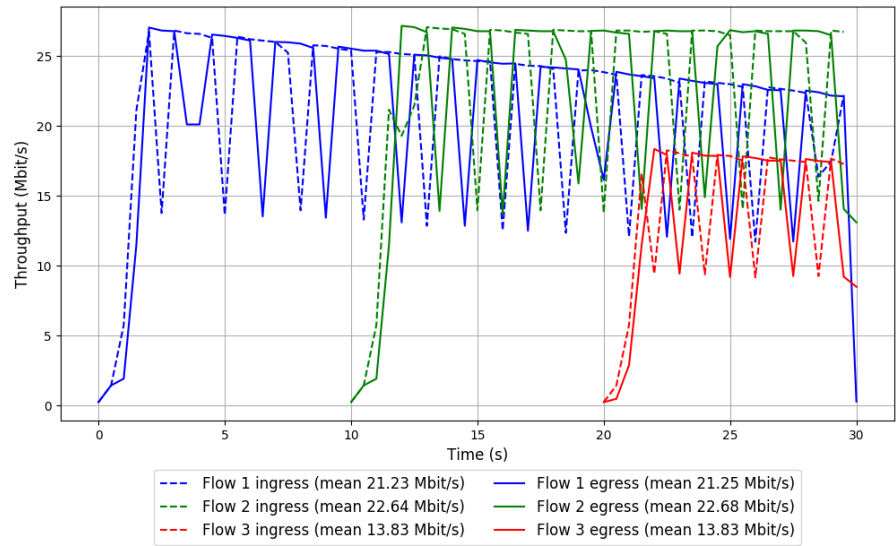
-- Flow 3:

Average throughput: 13.83 Mbit/s

95th percentile per-packet one-way delay: 141.983 ms

Loss rate: 0.00%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-07 16:56:35

End at: 2018-03-07 16:57:05

Below is generated by plot.py at 2018-03-07 22:42:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 279.57 Mbit/s

95th percentile per-packet one-way delay: 309.947 ms

Loss rate: 3.18%

-- Flow 1:

Average throughput: 157.84 Mbit/s

95th percentile per-packet one-way delay: 326.932 ms

Loss rate: 3.53%

-- Flow 2:

Average throughput: 177.20 Mbit/s

95th percentile per-packet one-way delay: 266.262 ms

Loss rate: 2.74%

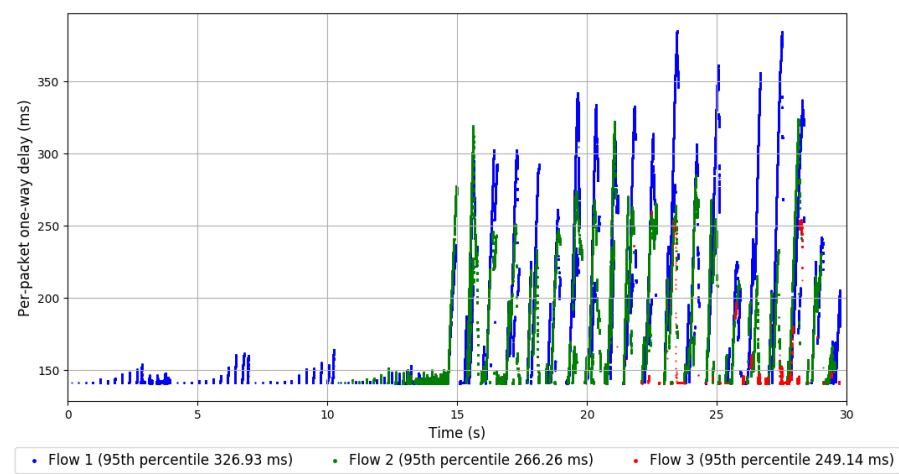
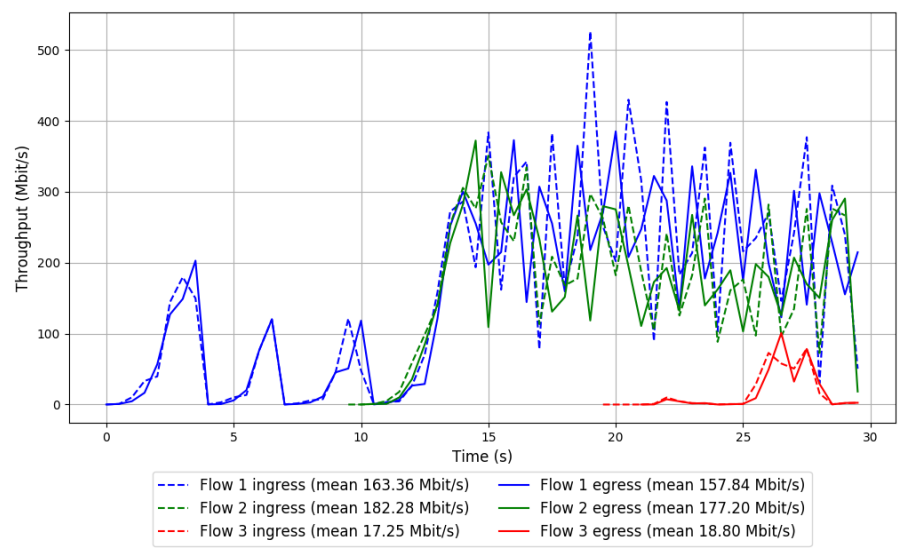
-- Flow 3:

Average throughput: 18.80 Mbit/s

95th percentile per-packet one-way delay: 249.144 ms

Loss rate: 2.67%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-03-07 17:16:18

End at: 2018-03-07 17:16:48

Below is generated by plot.py at 2018-03-07 22:42:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 170.80 Mbit/s

95th percentile per-packet one-way delay: 192.121 ms

Loss rate: 0.43%

-- Flow 1:

Average throughput: 50.67 Mbit/s

95th percentile per-packet one-way delay: 288.832 ms

Loss rate: 1.44%

-- Flow 2:

Average throughput: 165.79 Mbit/s

95th percentile per-packet one-way delay: 186.415 ms

Loss rate: 0.00%

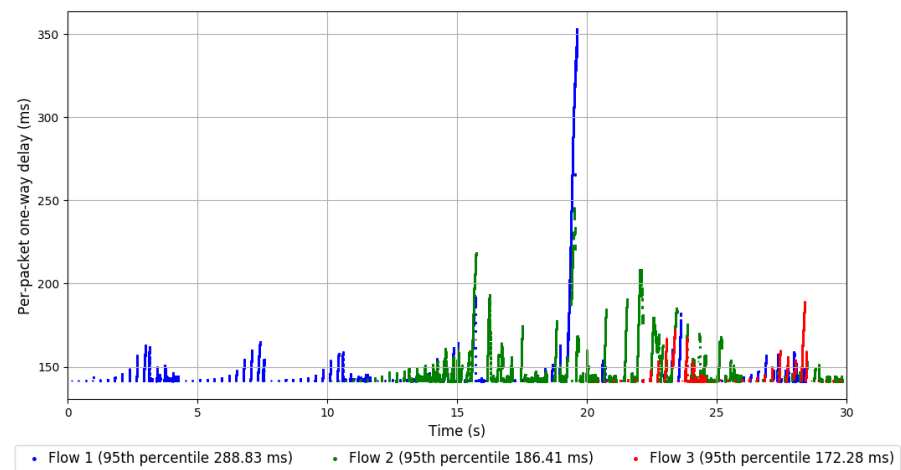
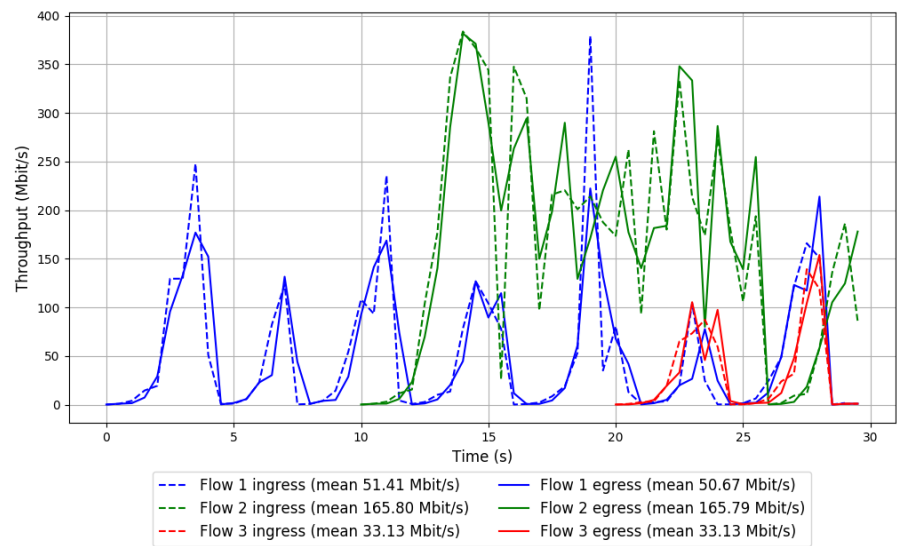
-- Flow 3:

Average throughput: 33.13 Mbit/s

95th percentile per-packet one-way delay: 172.280 ms

Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-03-07 17:36:05

End at: 2018-03-07 17:36:35

Below is generated by plot.py at 2018-03-07 22:42:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 206.00 Mbit/s

95th percentile per-packet one-way delay: 170.736 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 111.83 Mbit/s

95th percentile per-packet one-way delay: 175.280 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 132.69 Mbit/s

95th percentile per-packet one-way delay: 168.226 ms

Loss rate: 0.01%

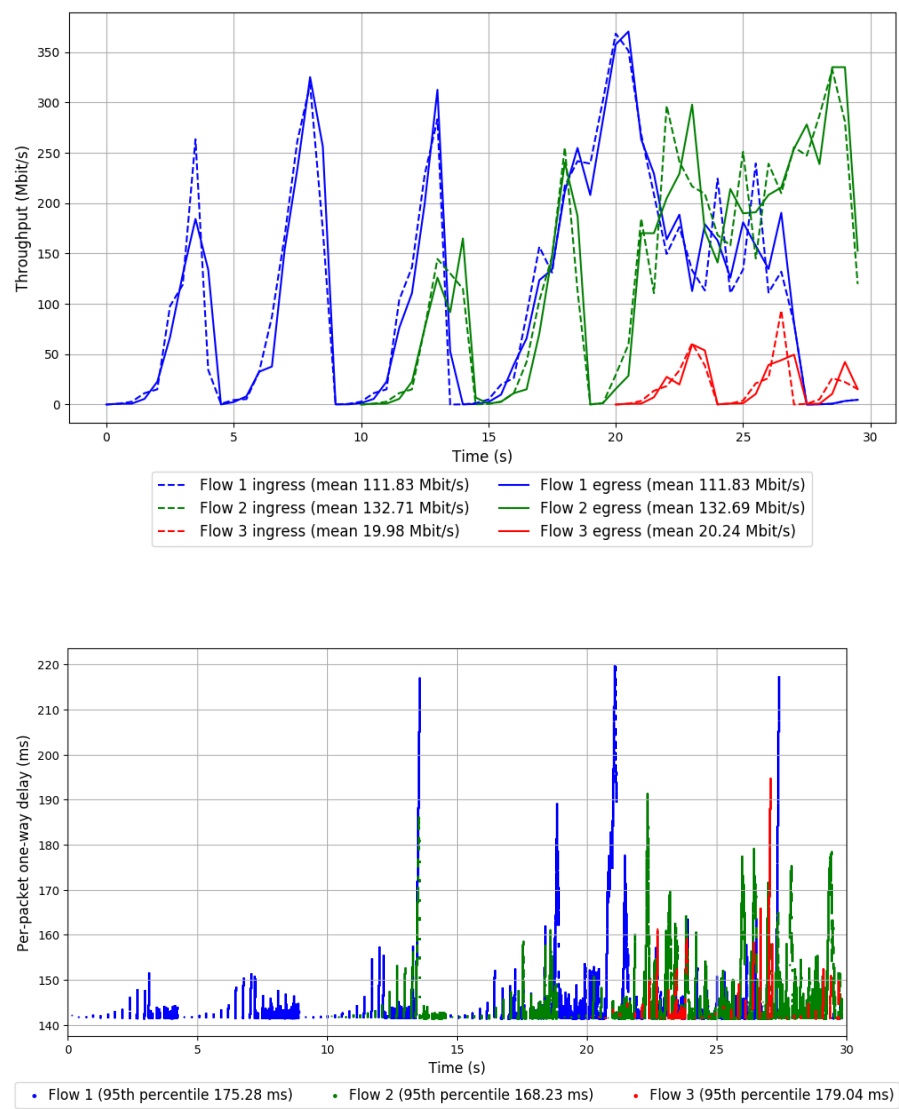
-- Flow 3:

Average throughput: 20.24 Mbit/s

95th percentile per-packet one-way delay: 179.044 ms

Loss rate: 0.01%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

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

End at: 2018-03-07 17:56:33

Below is generated by plot.py at 2018-03-07 22:42:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 213.34 Mbit/s

95th percentile per-packet one-way delay: 317.870 ms

Loss rate: 5.19%

-- Flow 1:

Average throughput: 58.00 Mbit/s

95th percentile per-packet one-way delay: 181.119 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 210.96 Mbit/s

95th percentile per-packet one-way delay: 329.116 ms

Loss rate: 7.79%

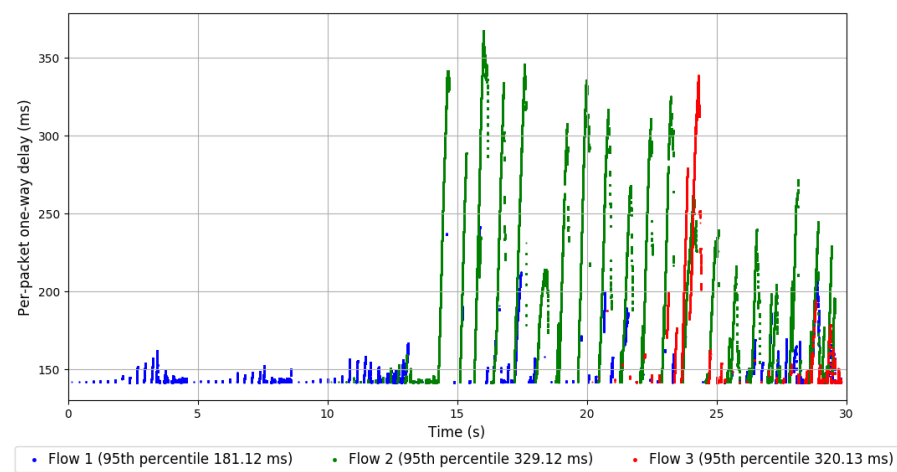
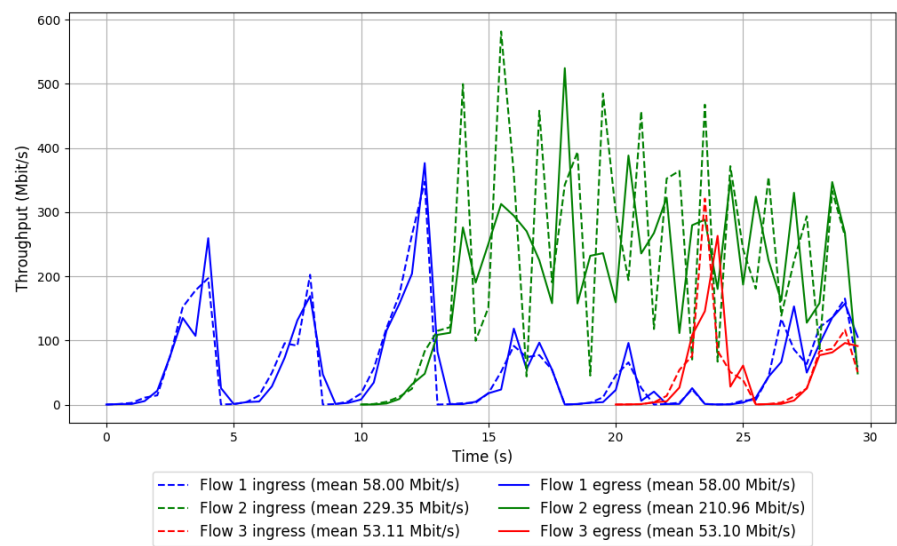
-- Flow 3:

Average throughput: 53.10 Mbit/s

95th percentile per-packet one-way delay: 320.135 ms

Loss rate: 0.00%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-03-07 18:16:10

End at: 2018-03-07 18:16:40

Below is generated by plot.py at 2018-03-07 22:43:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 294.40 Mbit/s

95th percentile per-packet one-way delay: 195.991 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 195.26 Mbit/s

95th percentile per-packet one-way delay: 179.451 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 134.93 Mbit/s

95th percentile per-packet one-way delay: 206.093 ms

Loss rate: 0.00%

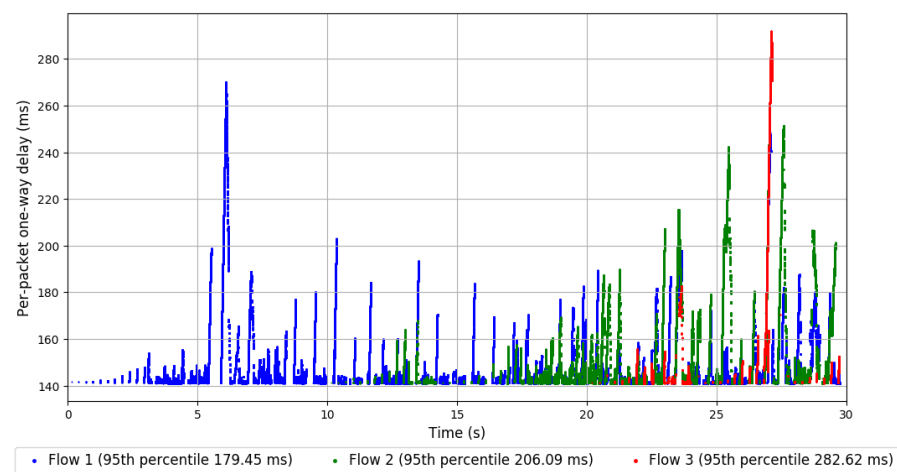
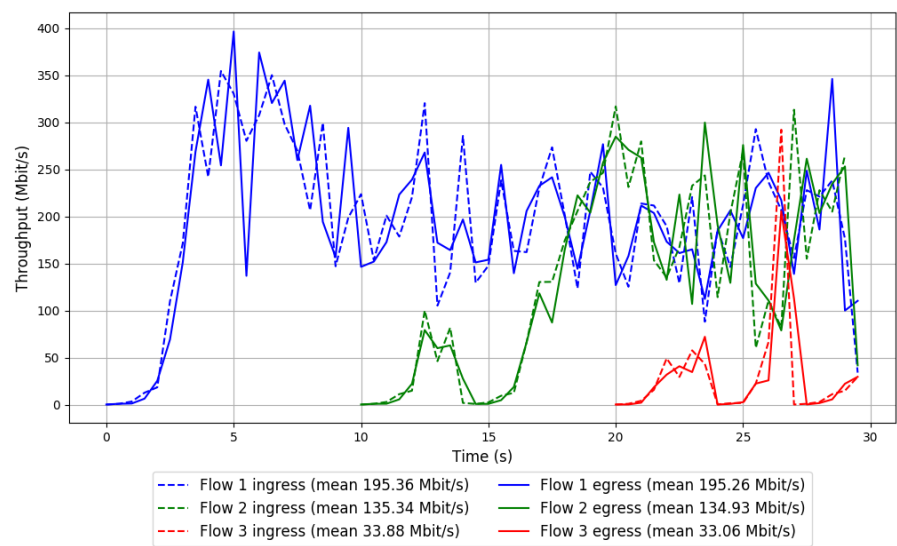
-- Flow 3:

Average throughput: 33.06 Mbit/s

95th percentile per-packet one-way delay: 282.616 ms

Loss rate: 2.31%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-03-07 18:36:44

End at: 2018-03-07 18:37:14

Below is generated by plot.py at 2018-03-07 22:43:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 123.73 Mbit/s

95th percentile per-packet one-way delay: 158.343 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 79.26 Mbit/s

95th percentile per-packet one-way delay: 156.056 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 53.82 Mbit/s

95th percentile per-packet one-way delay: 158.043 ms

Loss rate: 0.20%

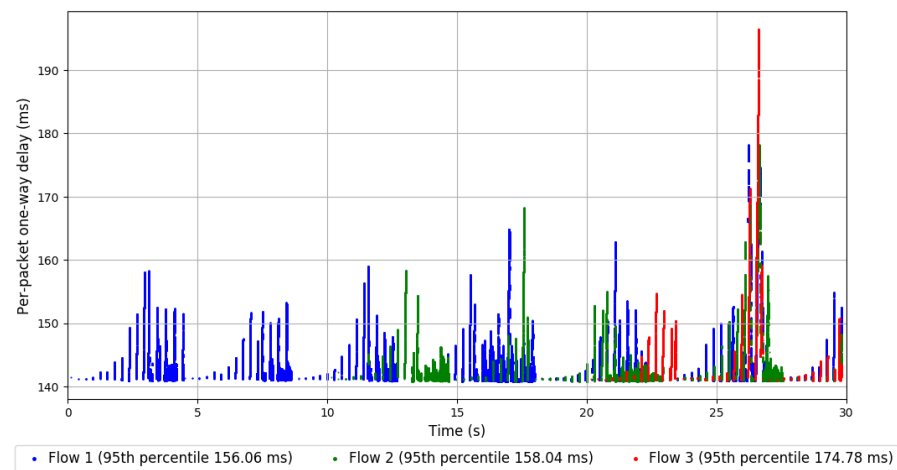
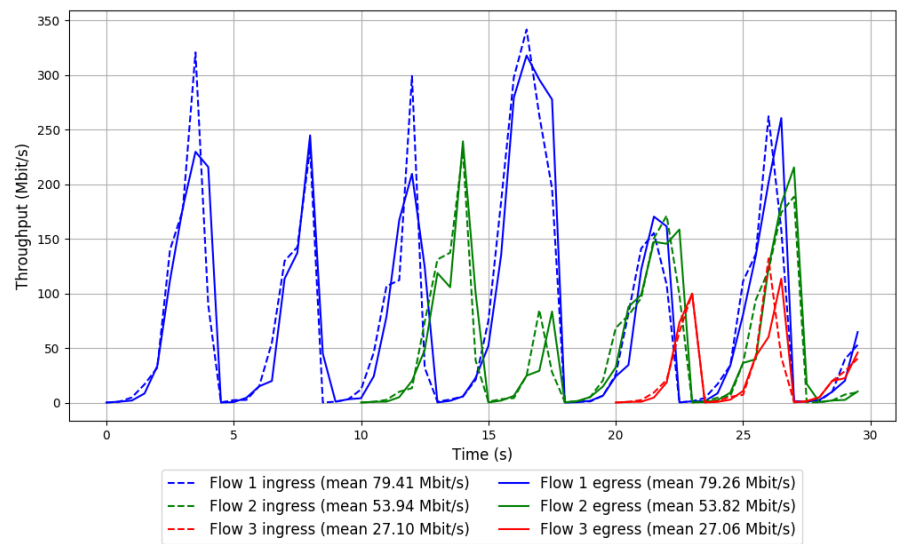
-- Flow 3:

Average throughput: 27.06 Mbit/s

95th percentile per-packet one-way delay: 174.780 ms

Loss rate: 0.19%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-03-07 18:56:51

End at: 2018-03-07 18:57:21

Below is generated by plot.py at 2018-03-07 22:43:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 162.22 Mbit/s

95th percentile per-packet one-way delay: 160.311 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 92.55 Mbit/s

95th percentile per-packet one-way delay: 154.404 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 59.52 Mbit/s

95th percentile per-packet one-way delay: 168.366 ms

Loss rate: 0.00%

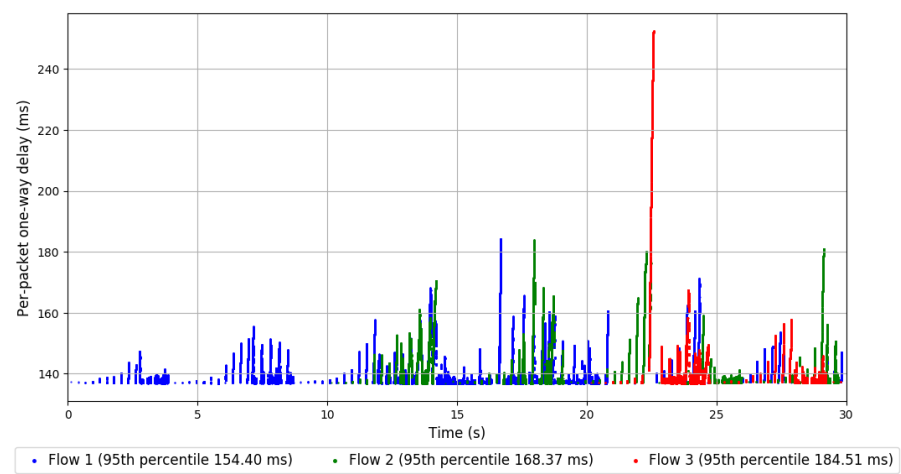
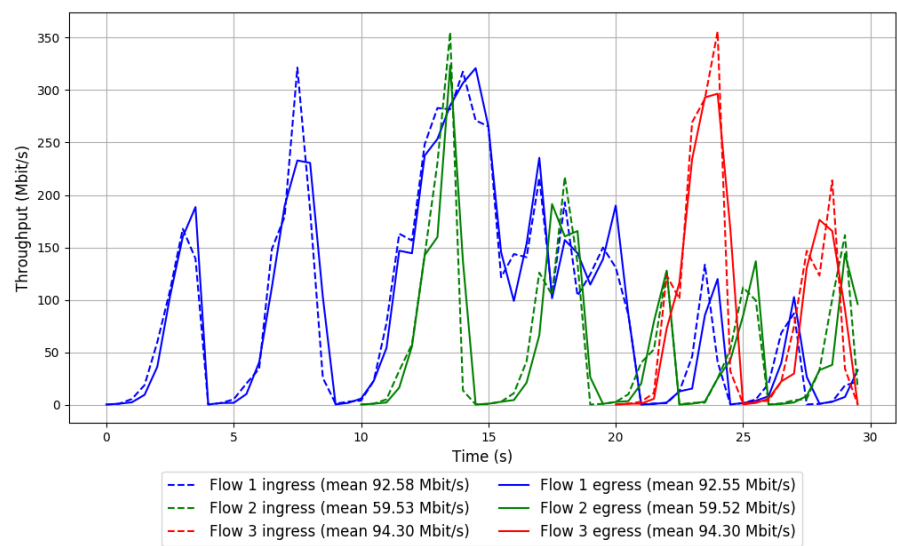
-- Flow 3:

Average throughput: 94.30 Mbit/s

95th percentile per-packet one-way delay: 184.513 ms

Loss rate: 0.00%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-03-07 19:16:48

End at: 2018-03-07 19:17:18

Below is generated by plot.py at 2018-03-07 22:43:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 163.73 Mbit/s

95th percentile per-packet one-way delay: 169.569 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 107.04 Mbit/s

95th percentile per-packet one-way delay: 164.957 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 56.59 Mbit/s

95th percentile per-packet one-way delay: 184.196 ms

Loss rate: 0.00%

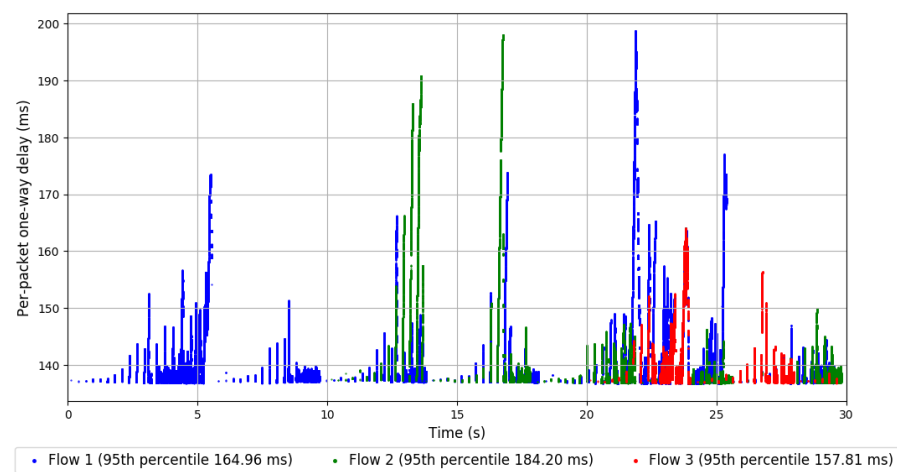
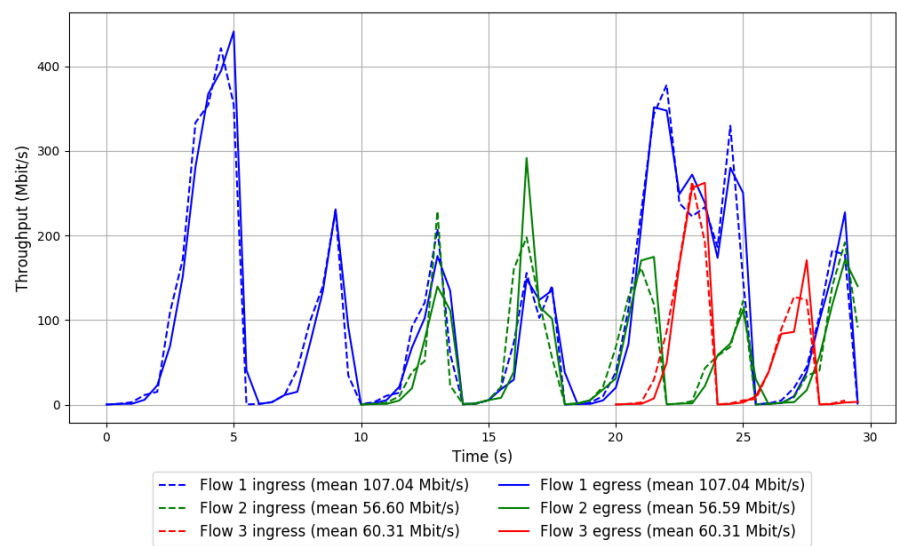
-- Flow 3:

Average throughput: 60.31 Mbit/s

95th percentile per-packet one-way delay: 157.814 ms

Loss rate: 0.00%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-03-07 19:36:36

End at: 2018-03-07 19:37:06

Below is generated by plot.py at 2018-03-07 22:44:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 204.31 Mbit/s

95th percentile per-packet one-way delay: 236.258 ms

Loss rate: 0.85%

-- Flow 1:

Average throughput: 126.56 Mbit/s

95th percentile per-packet one-way delay: 162.240 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 76.16 Mbit/s

95th percentile per-packet one-way delay: 299.646 ms

Loss rate: 3.18%

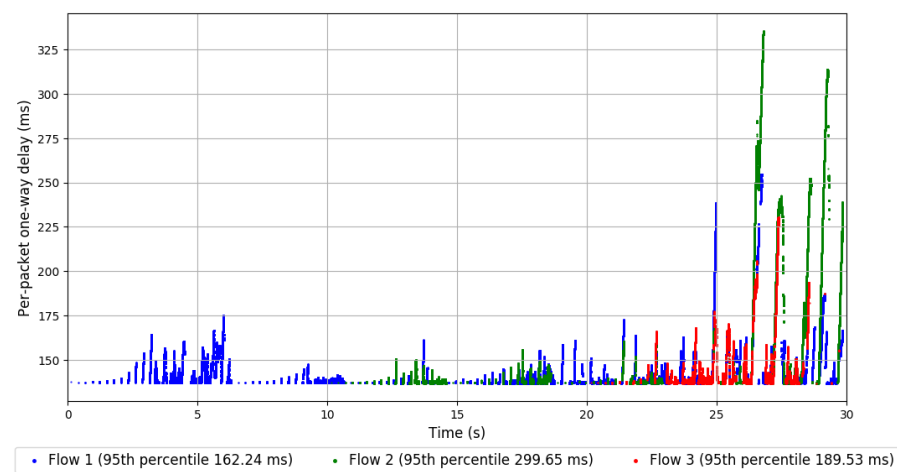
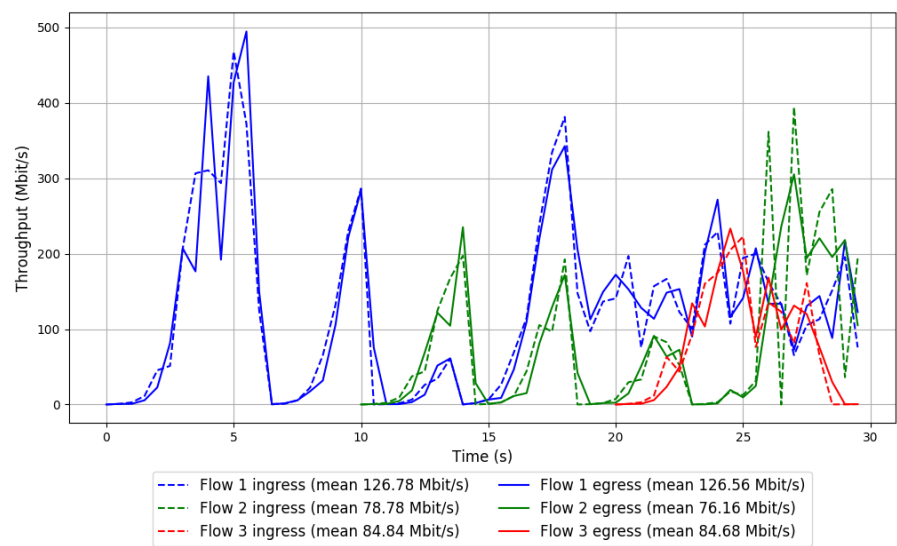
-- Flow 3:

Average throughput: 84.68 Mbit/s

95th percentile per-packet one-way delay: 189.525 ms

Loss rate: 0.00%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-03-07 19:56:38

End at: 2018-03-07 19:57:08

Below is generated by plot.py at 2018-03-07 22:44:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 171.64 Mbit/s

95th percentile per-packet one-way delay: 181.690 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 71.86 Mbit/s

95th percentile per-packet one-way delay: 178.877 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 111.14 Mbit/s

95th percentile per-packet one-way delay: 178.073 ms

Loss rate: 0.03%

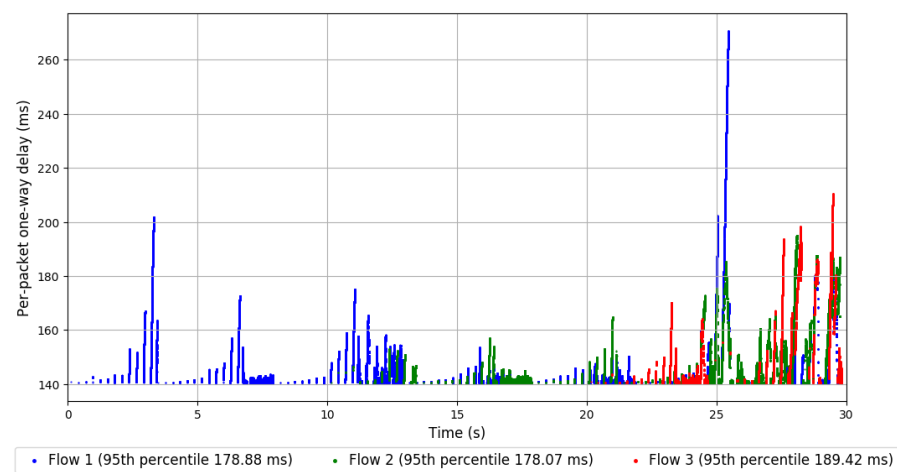
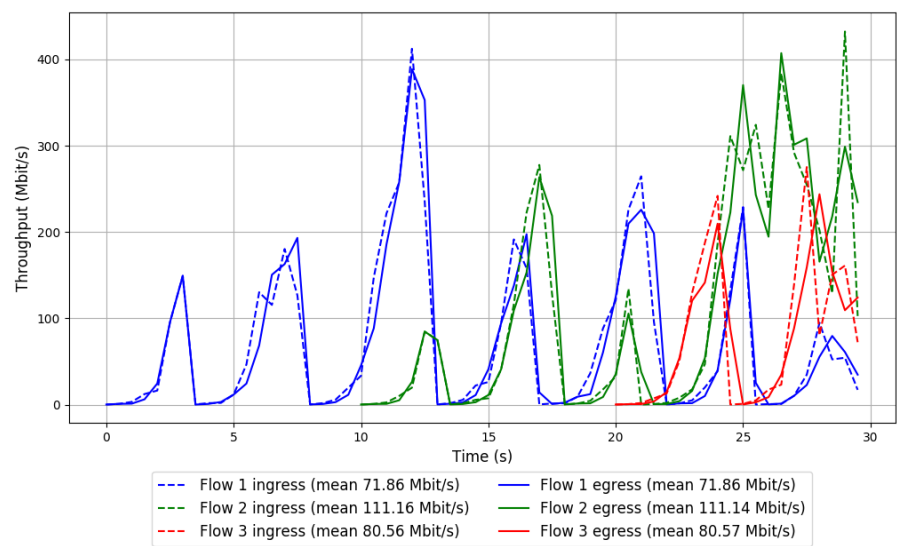
-- Flow 3:

Average throughput: 80.57 Mbit/s

95th percentile per-packet one-way delay: 189.421 ms

Loss rate: 0.00%

Run 10: Report of Verus — Data Link

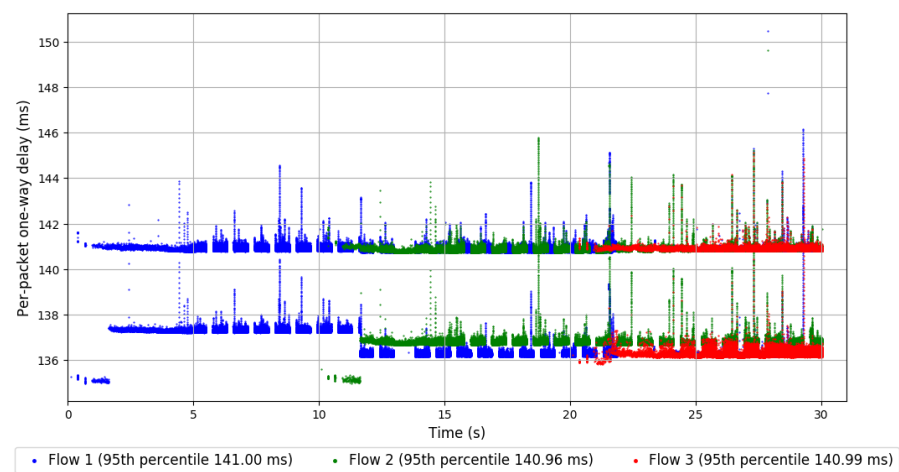
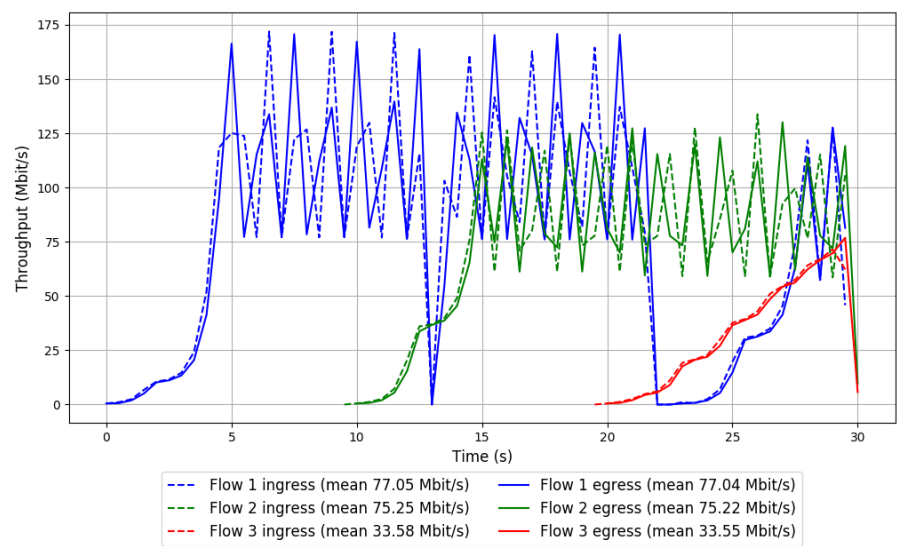


```
Run 1: Statistics of Copa

Start at: 2018-03-07 16:55:35
End at: 2018-03-07 16:56:05

# Below is generated by plot.py at 2018-03-07 22:45:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 137.81 Mbit/s
95th percentile per-packet one-way delay: 140.986 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 77.04 Mbit/s
95th percentile per-packet one-way delay: 140.997 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 75.22 Mbit/s
95th percentile per-packet one-way delay: 140.962 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 33.55 Mbit/s
95th percentile per-packet one-way delay: 140.985 ms
Loss rate: 0.08%
```

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-03-07 17:15:17

End at: 2018-03-07 17:15:47

Below is generated by plot.py at 2018-03-07 22:46:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 145.31 Mbit/s

95th percentile per-packet one-way delay: 141.539 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 82.07 Mbit/s

95th percentile per-packet one-way delay: 141.533 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 60.38 Mbit/s

95th percentile per-packet one-way delay: 141.550 ms

Loss rate: 0.04%

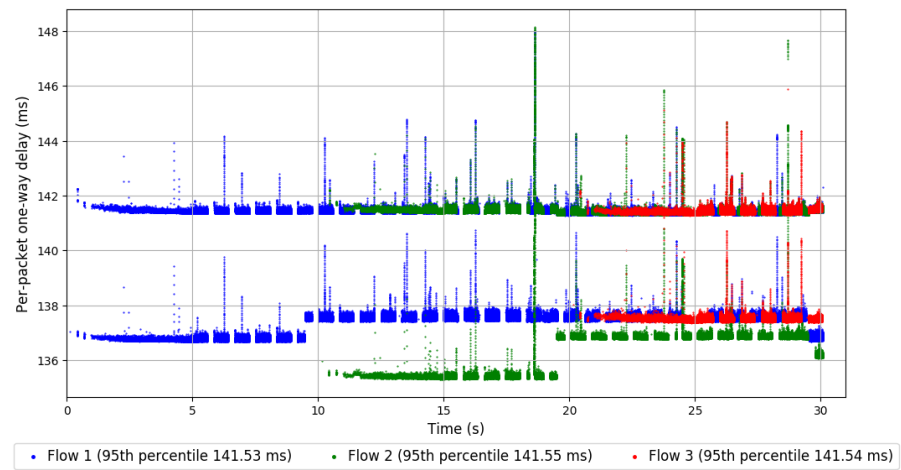
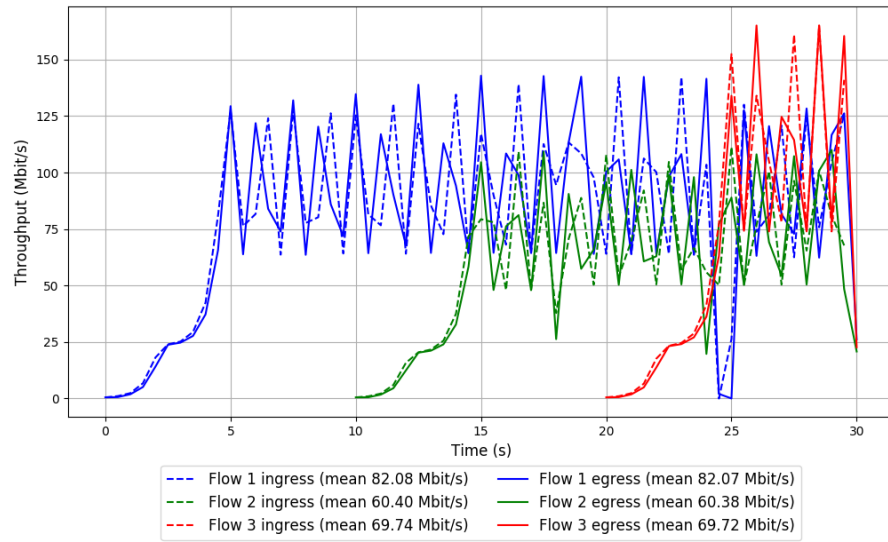
-- Flow 3:

Average throughput: 69.72 Mbit/s

95th percentile per-packet one-way delay: 141.536 ms

Loss rate: 0.00%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-03-07 17:35:05

End at: 2018-03-07 17:35:35

Below is generated by plot.py at 2018-03-07 22:46:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.48 Mbit/s

95th percentile per-packet one-way delay: 141.679 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.64 Mbit/s

95th percentile per-packet one-way delay: 141.619 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 54.60 Mbit/s

95th percentile per-packet one-way delay: 141.730 ms

Loss rate: 0.00%

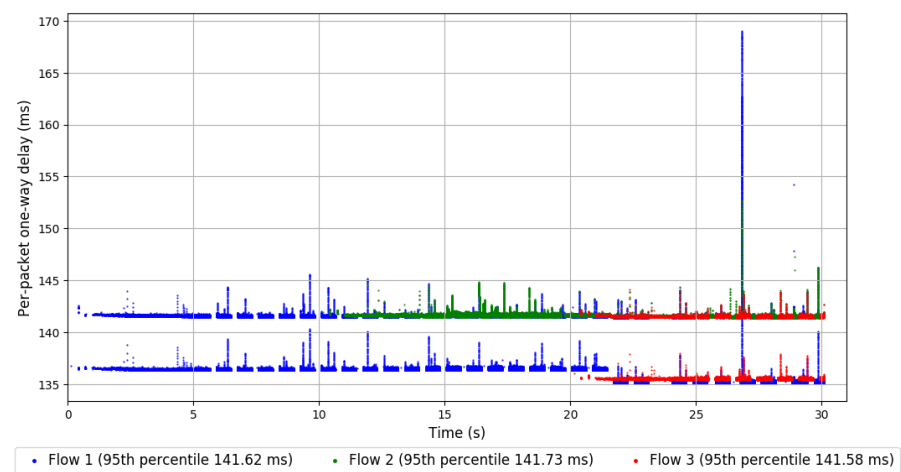
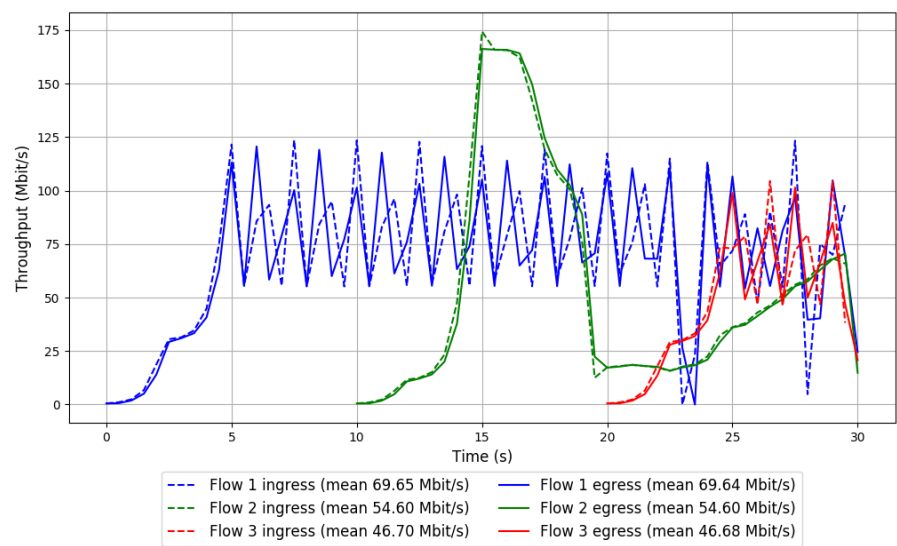
-- Flow 3:

Average throughput: 46.68 Mbit/s

95th percentile per-packet one-way delay: 141.580 ms

Loss rate: 0.00%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-03-07 17:55:02

End at: 2018-03-07 17:55:32

Below is generated by plot.py at 2018-03-07 22:46:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 127.24 Mbit/s

95th percentile per-packet one-way delay: 141.800 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 61.17 Mbit/s

95th percentile per-packet one-way delay: 141.776 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 72.78 Mbit/s

95th percentile per-packet one-way delay: 141.802 ms

Loss rate: 0.00%

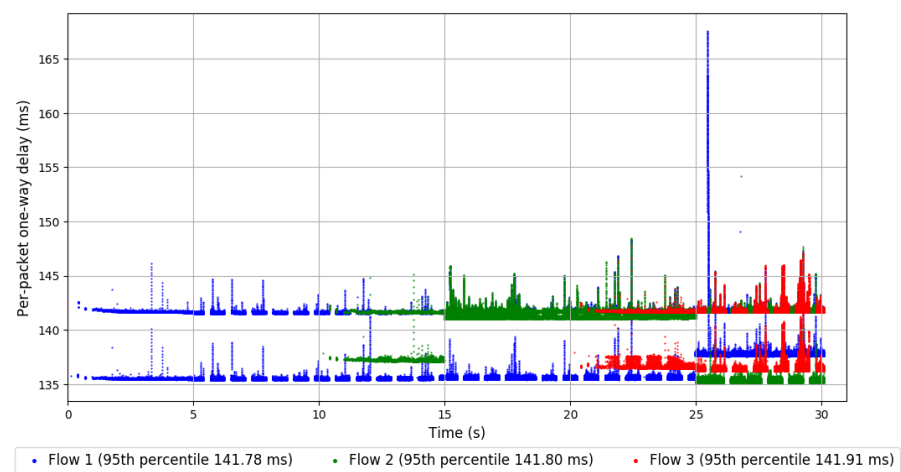
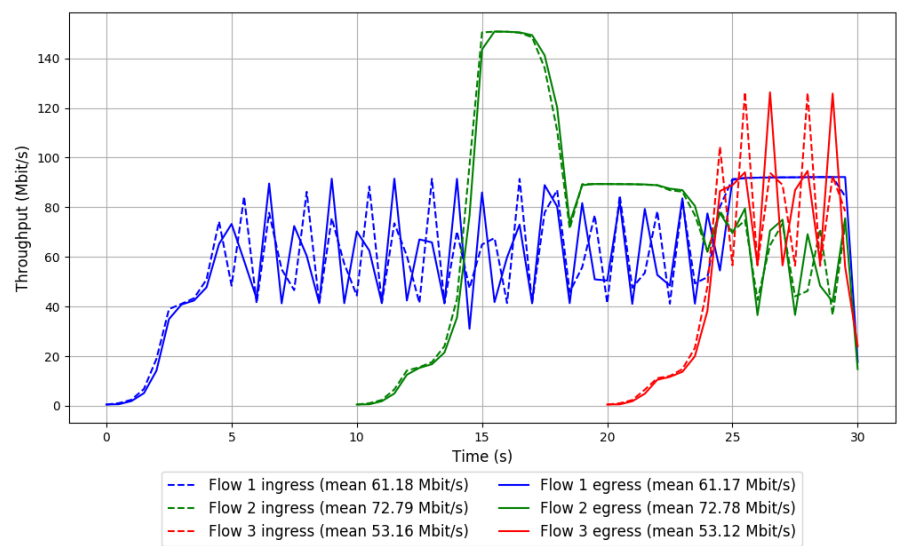
-- Flow 3:

Average throughput: 53.12 Mbit/s

95th percentile per-packet one-way delay: 141.913 ms

Loss rate: 0.08%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-03-07 18:15:04

End at: 2018-03-07 18:15:34

Below is generated by plot.py at 2018-03-07 22:48:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 188.58 Mbit/s

95th percentile per-packet one-way delay: 275.531 ms

Loss rate: 18.16%

-- Flow 1:

Average throughput: 50.19 Mbit/s

95th percentile per-packet one-way delay: 141.413 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 198.54 Mbit/s

95th percentile per-packet one-way delay: 285.975 ms

Loss rate: 24.01%

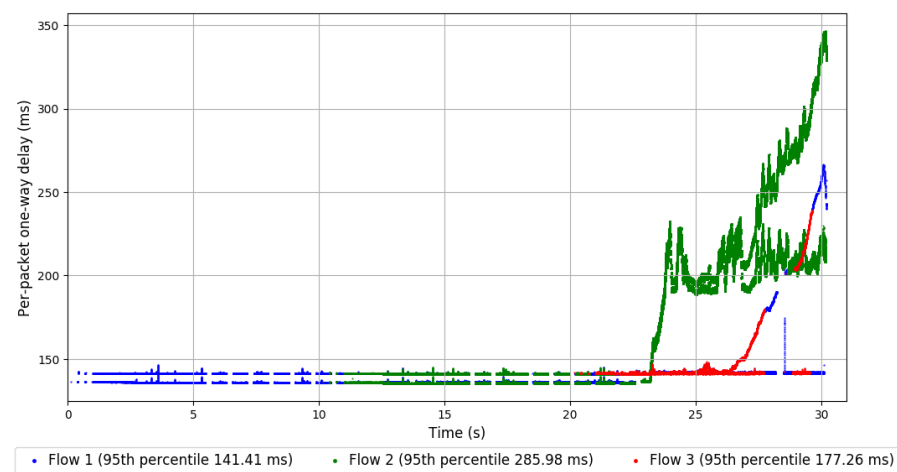
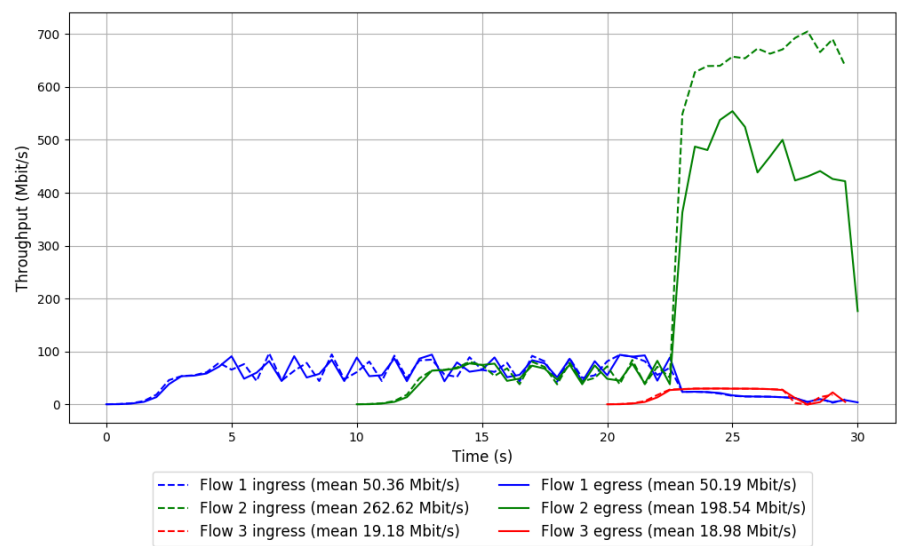
-- Flow 3:

Average throughput: 18.98 Mbit/s

95th percentile per-packet one-way delay: 177.265 ms

Loss rate: 0.00%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-03-07 18:35:45

End at: 2018-03-07 18:36:15

Below is generated by plot.py at 2018-03-07 22:48:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.64 Mbit/s

95th percentile per-packet one-way delay: 141.059 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 60.26 Mbit/s

95th percentile per-packet one-way delay: 141.022 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 60.39 Mbit/s

95th percentile per-packet one-way delay: 141.042 ms

Loss rate: 0.03%

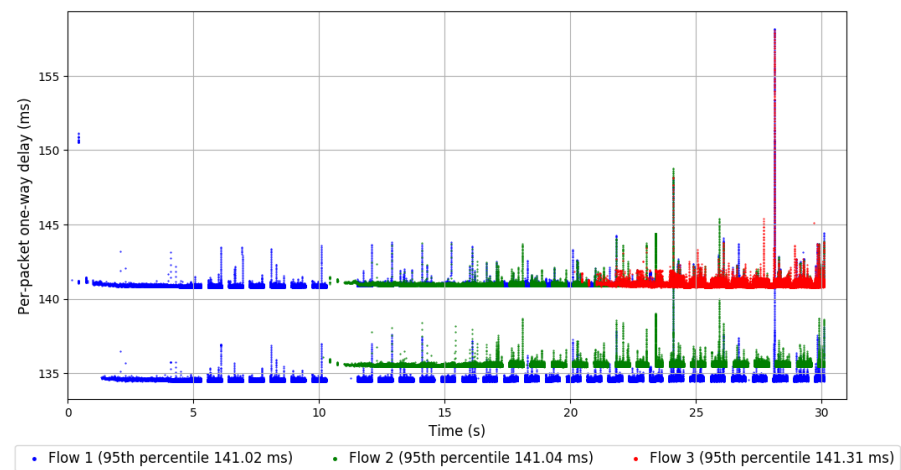
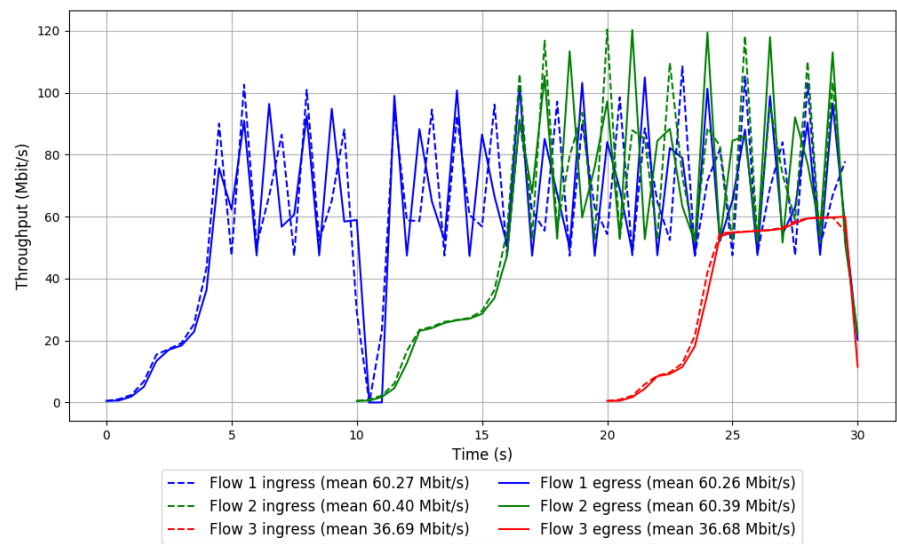
-- Flow 3:

Average throughput: 36.68 Mbit/s

95th percentile per-packet one-way delay: 141.313 ms

Loss rate: 0.09%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-03-07 18:55:46

End at: 2018-03-07 18:56:16

Below is generated by plot.py at 2018-03-07 22:48:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.33 Mbit/s

95th percentile per-packet one-way delay: 136.992 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 77.04 Mbit/s

95th percentile per-packet one-way delay: 136.957 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 78.02 Mbit/s

95th percentile per-packet one-way delay: 136.970 ms

Loss rate: 0.00%

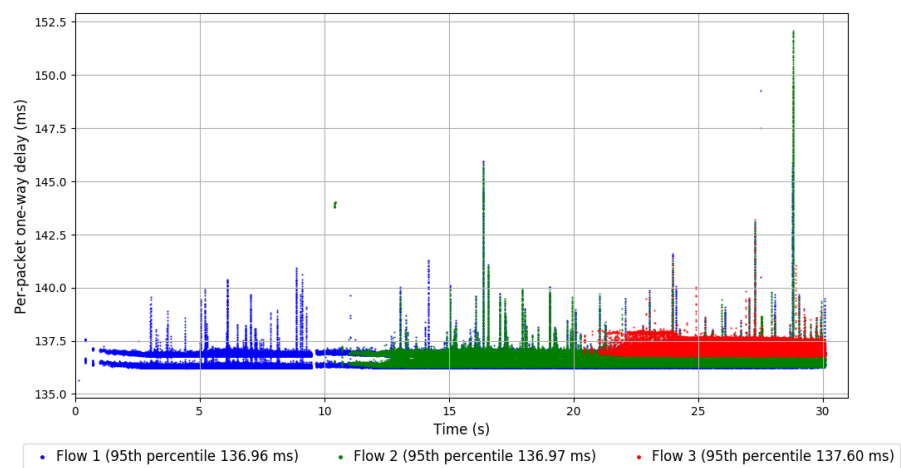
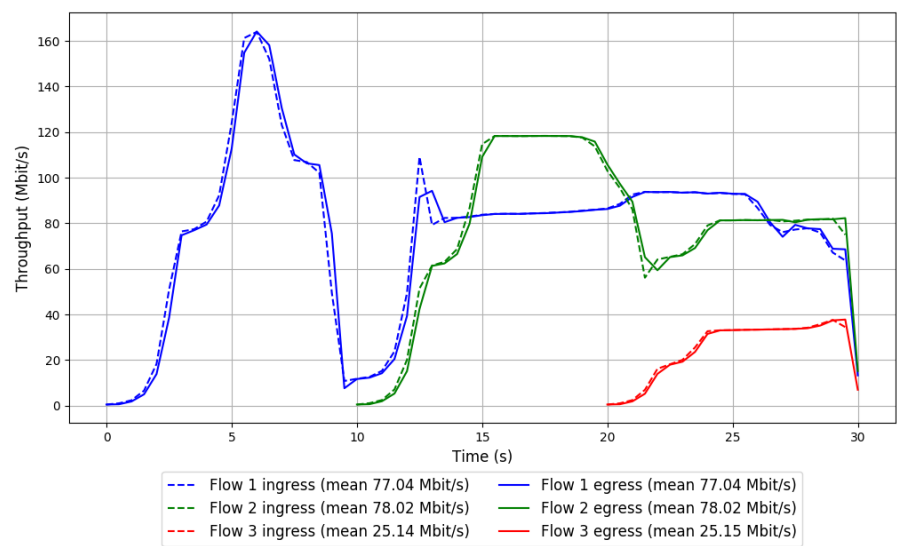
-- Flow 3:

Average throughput: 25.15 Mbit/s

95th percentile per-packet one-way delay: 137.599 ms

Loss rate: 0.00%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-03-07 19:15:44

End at: 2018-03-07 19:16:14

Below is generated by plot.py at 2018-03-07 22:48:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 132.74 Mbit/s

95th percentile per-packet one-way delay: 137.130 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 69.28 Mbit/s

95th percentile per-packet one-way delay: 137.164 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 70.65 Mbit/s

95th percentile per-packet one-way delay: 137.092 ms

Loss rate: 0.00%

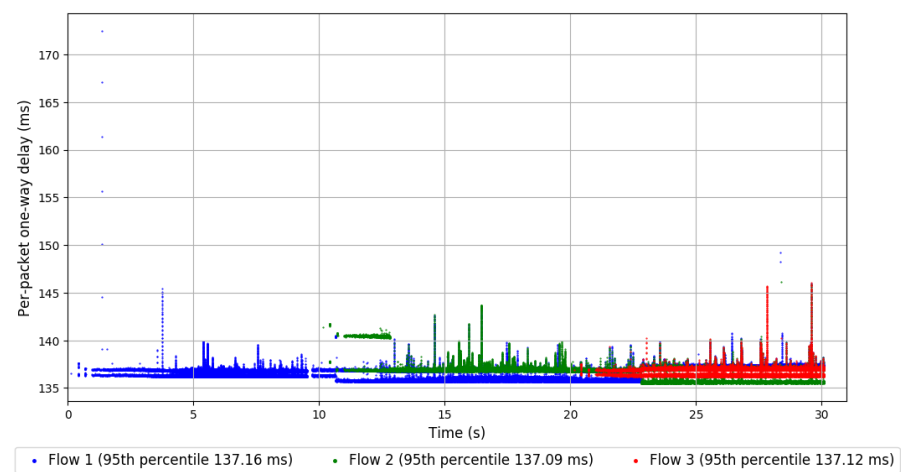
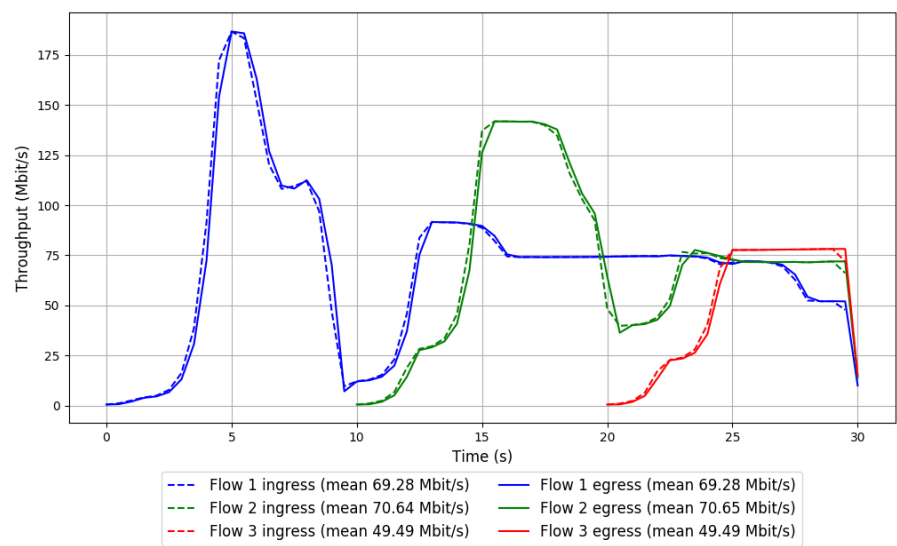
-- Flow 3:

Average throughput: 49.49 Mbit/s

95th percentile per-packet one-way delay: 137.115 ms

Loss rate: 0.00%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-03-07 19:35:30

End at: 2018-03-07 19:36:00

Below is generated by plot.py at 2018-03-07 22:49:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.62 Mbit/s

95th percentile per-packet one-way delay: 140.291 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 78.39 Mbit/s

95th percentile per-packet one-way delay: 140.350 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 61.05 Mbit/s

95th percentile per-packet one-way delay: 136.998 ms

Loss rate: 0.00%

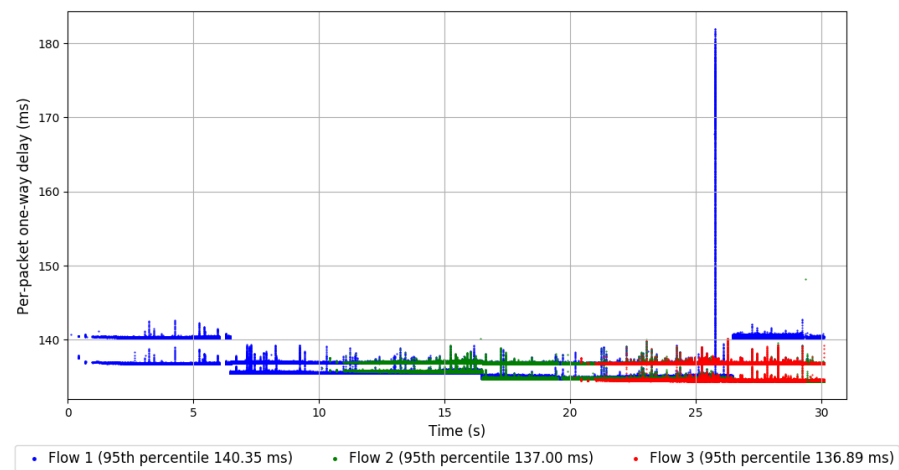
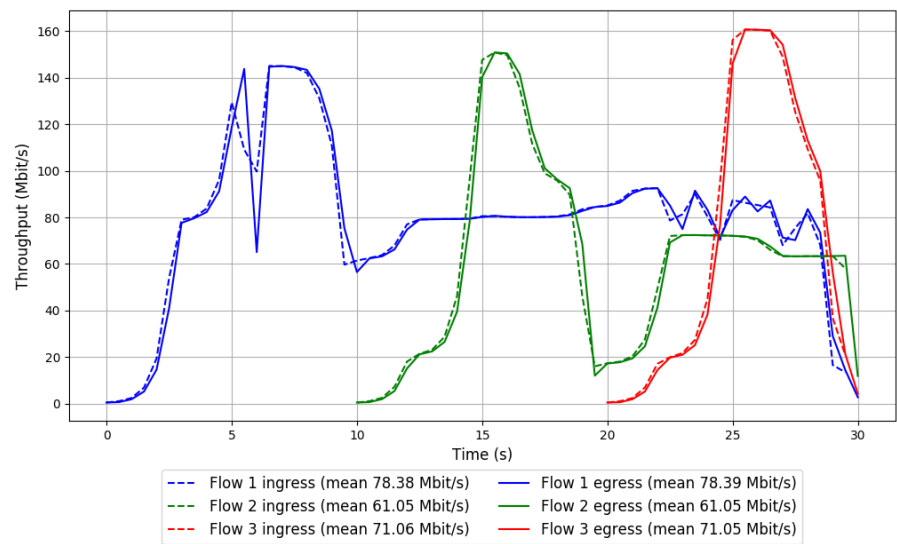
-- Flow 3:

Average throughput: 71.05 Mbit/s

95th percentile per-packet one-way delay: 136.891 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-03-07 19:55:37

End at: 2018-03-07 19:56:07

Below is generated by plot.py at 2018-03-07 22:49:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 140.74 Mbit/s

95th percentile per-packet one-way delay: 140.452 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 72.47 Mbit/s

95th percentile per-packet one-way delay: 140.449 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 77.40 Mbit/s

95th percentile per-packet one-way delay: 140.445 ms

Loss rate: 0.03%

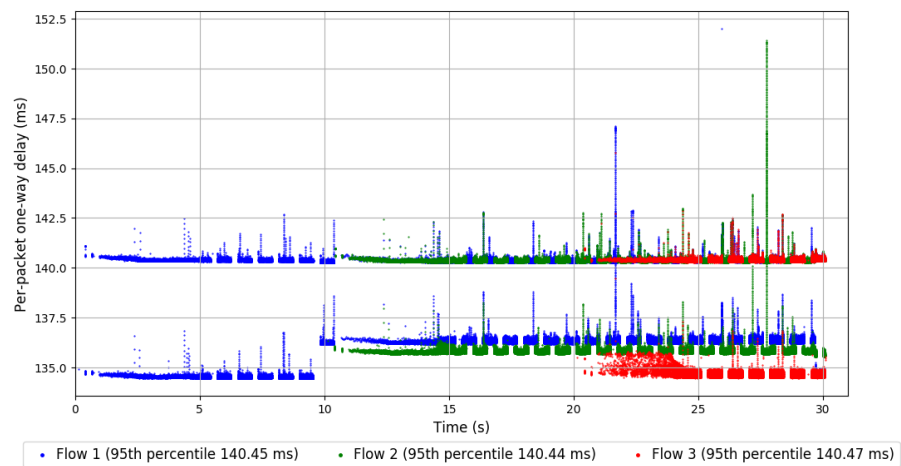
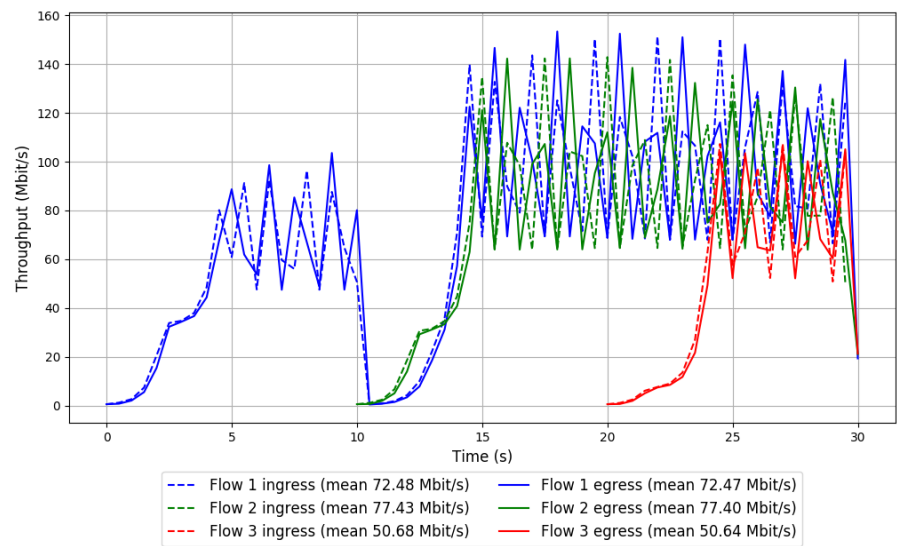
-- Flow 3:

Average throughput: 50.64 Mbit/s

95th percentile per-packet one-way delay: 140.474 ms

Loss rate: 0.07%

Run 10: Report of Copa — Data Link

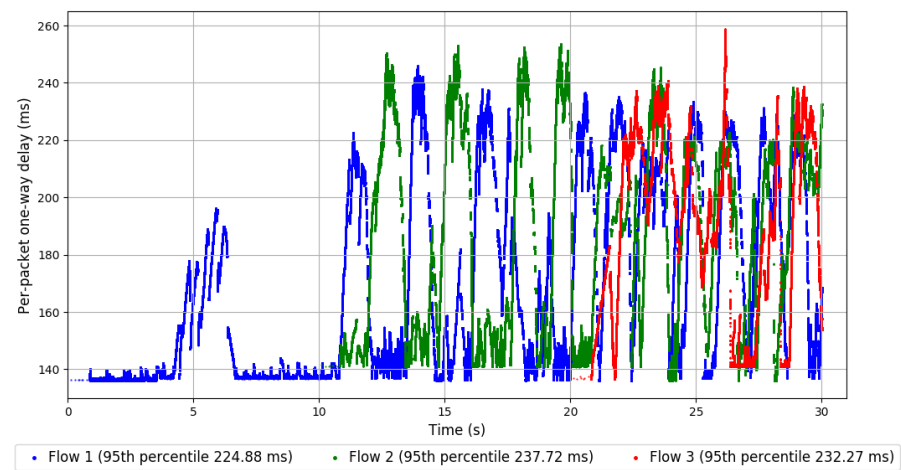
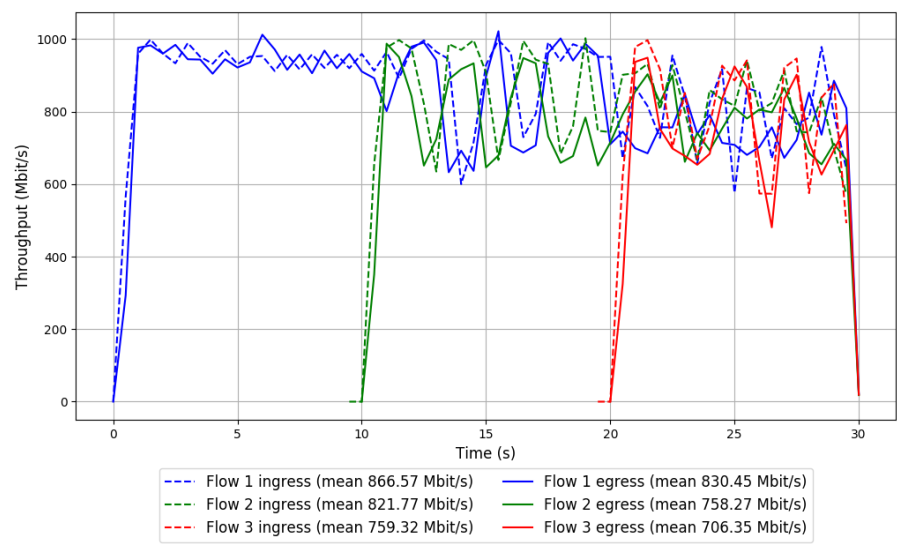


```
Run 1: Statistics of FillP

Start at: 2018-03-07 17:08:13
End at: 2018-03-07 17:08:43

# Below is generated by plot.py at 2018-03-07 23:13:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1570.09 Mbit/s
95th percentile per-packet one-way delay: 230.572 ms
Loss rate: 5.75%
-- Flow 1:
Average throughput: 830.45 Mbit/s
95th percentile per-packet one-way delay: 224.875 ms
Loss rate: 4.12%
-- Flow 2:
Average throughput: 758.27 Mbit/s
95th percentile per-packet one-way delay: 237.716 ms
Loss rate: 7.75%
-- Flow 3:
Average throughput: 706.35 Mbit/s
95th percentile per-packet one-way delay: 232.269 ms
Loss rate: 6.98%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-03-07 17:27:56

End at: 2018-03-07 17:28:26

Below is generated by plot.py at 2018-03-07 23:13:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 1526.47 Mbit/s

95th percentile per-packet one-way delay: 345.897 ms

Loss rate: 6.18%

-- Flow 1:

Average throughput: 866.25 Mbit/s

95th percentile per-packet one-way delay: 208.647 ms

Loss rate: 2.76%

-- Flow 2:

Average throughput: 718.57 Mbit/s

95th percentile per-packet one-way delay: 351.020 ms

Loss rate: 8.84%

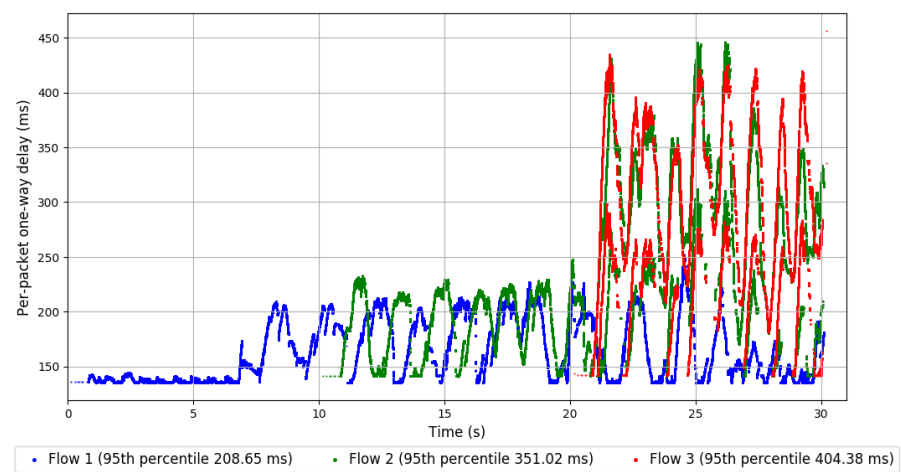
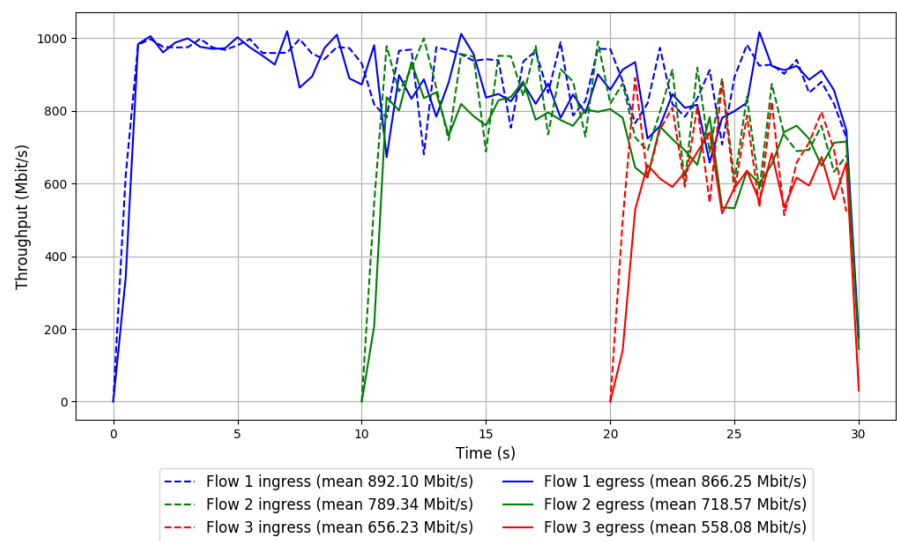
-- Flow 3:

Average throughput: 558.08 Mbit/s

95th percentile per-packet one-way delay: 404.380 ms

Loss rate: 13.81%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-03-07 17:47:56

End at: 2018-03-07 17:48:26

Below is generated by plot.py at 2018-03-07 23:13:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 1334.92 Mbit/s

95th percentile per-packet one-way delay: 402.130 ms

Loss rate: 7.66%

-- Flow 1:

Average throughput: 753.24 Mbit/s

95th percentile per-packet one-way delay: 381.623 ms

Loss rate: 4.55%

-- Flow 2:

Average throughput: 556.44 Mbit/s

95th percentile per-packet one-way delay: 429.271 ms

Loss rate: 12.97%

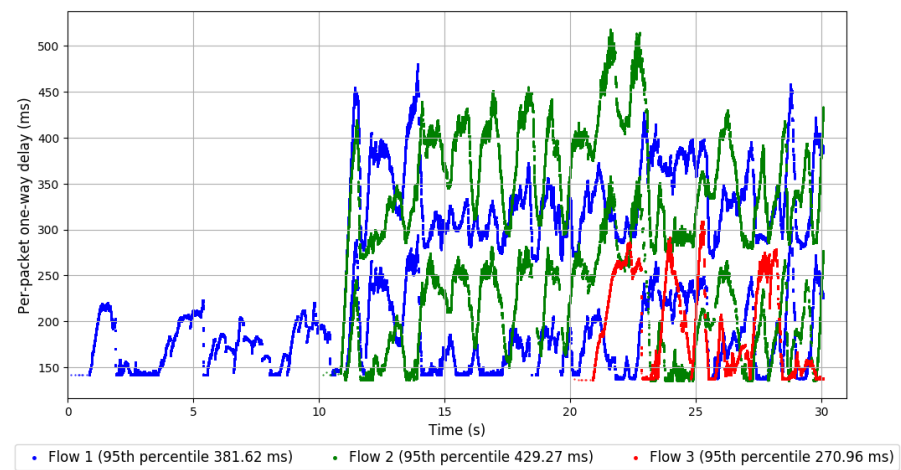
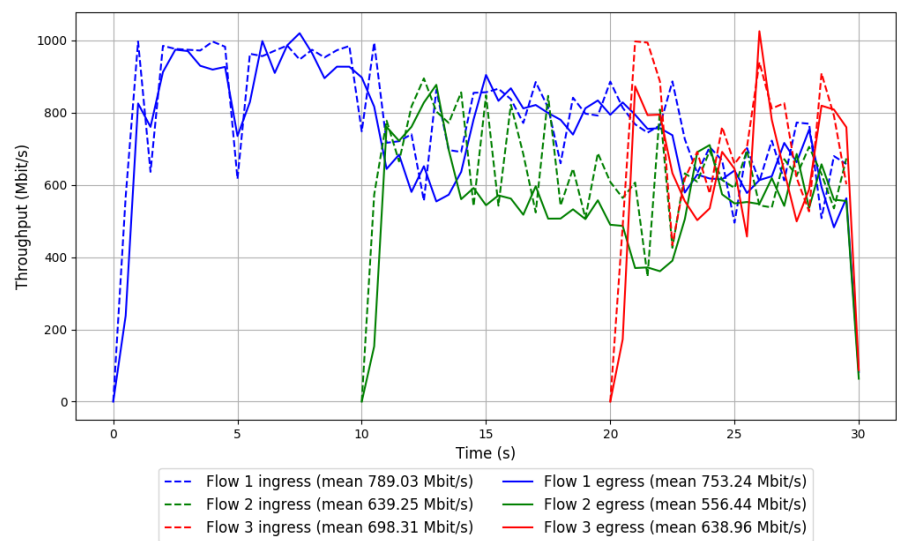
-- Flow 3:

Average throughput: 638.96 Mbit/s

95th percentile per-packet one-way delay: 270.964 ms

Loss rate: 8.49%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-03-07 18:07:54

End at: 2018-03-07 18:08:24

Below is generated by plot.py at 2018-03-07 23:14:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1511.83 Mbit/s

95th percentile per-packet one-way delay: 228.469 ms

Loss rate: 6.97%

-- Flow 1:

Average throughput: 801.90 Mbit/s

95th percentile per-packet one-way delay: 222.777 ms

Loss rate: 5.15%

-- Flow 2:

Average throughput: 751.41 Mbit/s

95th percentile per-packet one-way delay: 223.257 ms

Loss rate: 6.53%

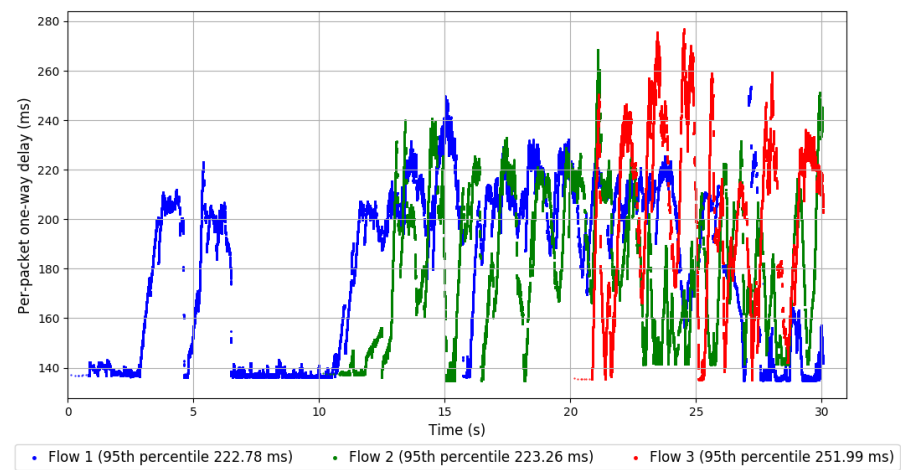
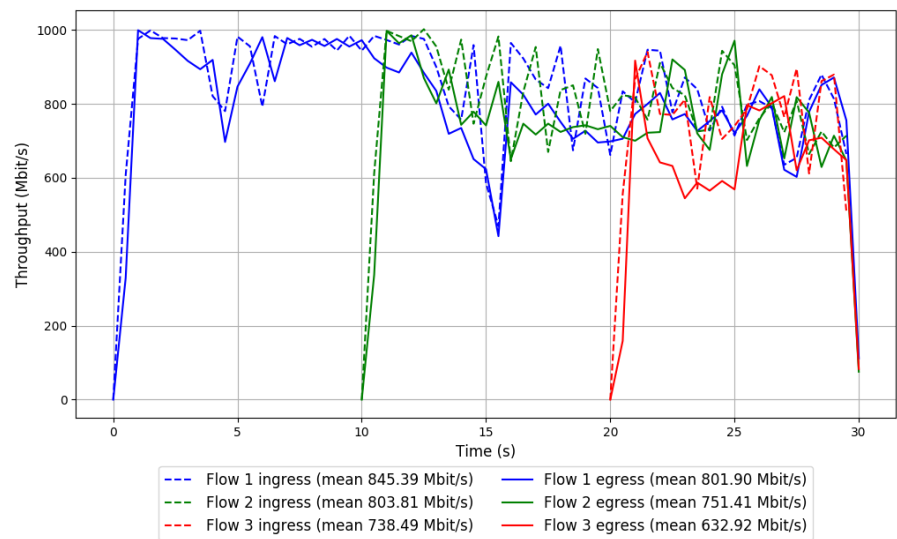
-- Flow 3:

Average throughput: 632.92 Mbit/s

95th percentile per-packet one-way delay: 251.987 ms

Loss rate: 14.24%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-03-07 18:28:20

End at: 2018-03-07 18:28:50

Below is generated by plot.py at 2018-03-07 23:14:28

Datalink statistics

-- Total of 3 flows:

Average throughput: 1424.19 Mbit/s

95th percentile per-packet one-way delay: 363.789 ms

Loss rate: 6.64%

-- Flow 1:

Average throughput: 743.52 Mbit/s

95th percentile per-packet one-way delay: 367.620 ms

Loss rate: 6.24%

-- Flow 2:

Average throughput: 674.23 Mbit/s

95th percentile per-packet one-way delay: 366.109 ms

Loss rate: 6.80%

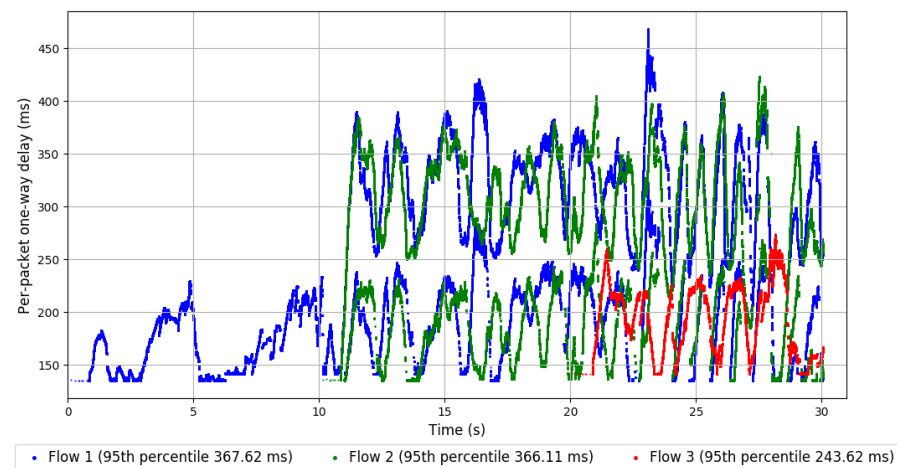
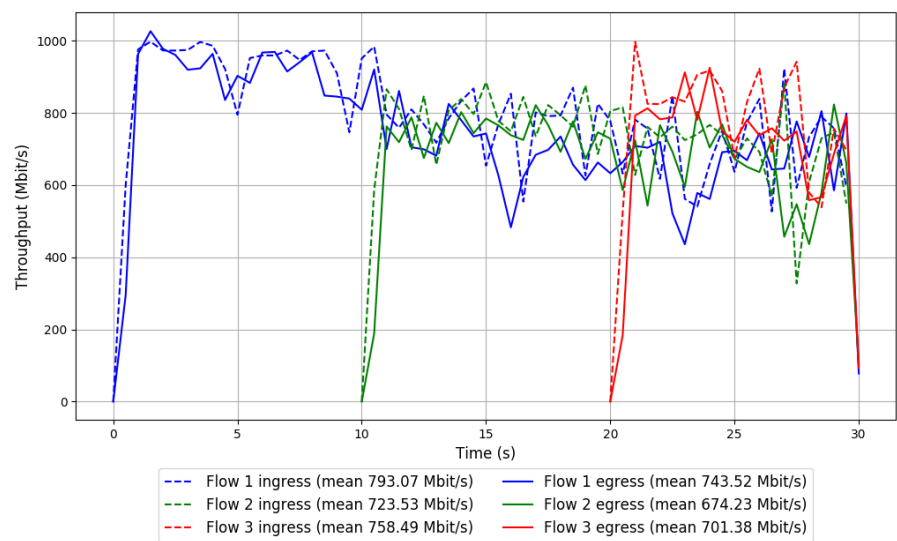
-- Flow 3:

Average throughput: 701.38 Mbit/s

95th percentile per-packet one-way delay: 243.621 ms

Loss rate: 7.57%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-03-07 18:48:33

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

Below is generated by plot.py at 2018-03-07 23:15:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 1505.42 Mbit/s

95th percentile per-packet one-way delay: 235.359 ms

Loss rate: 7.90%

-- Flow 1:

Average throughput: 843.19 Mbit/s

95th percentile per-packet one-way delay: 217.584 ms

Loss rate: 4.01%

-- Flow 2:

Average throughput: 639.46 Mbit/s

95th percentile per-packet one-way delay: 253.677 ms

Loss rate: 15.51%

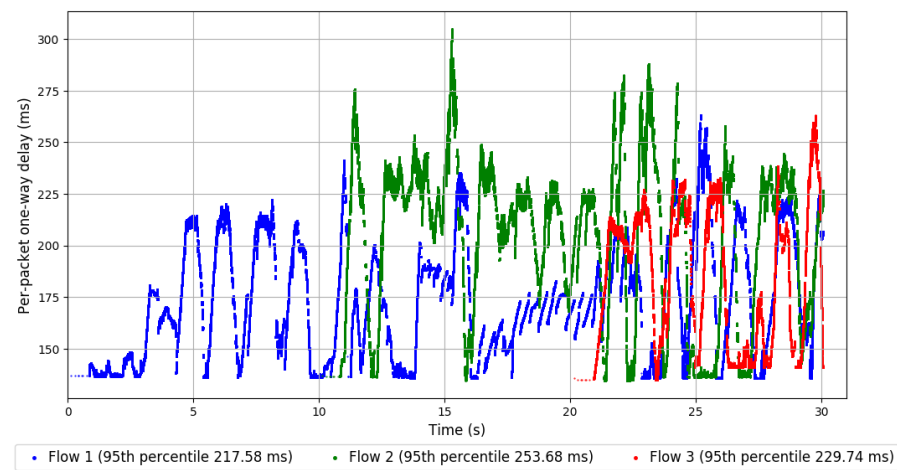
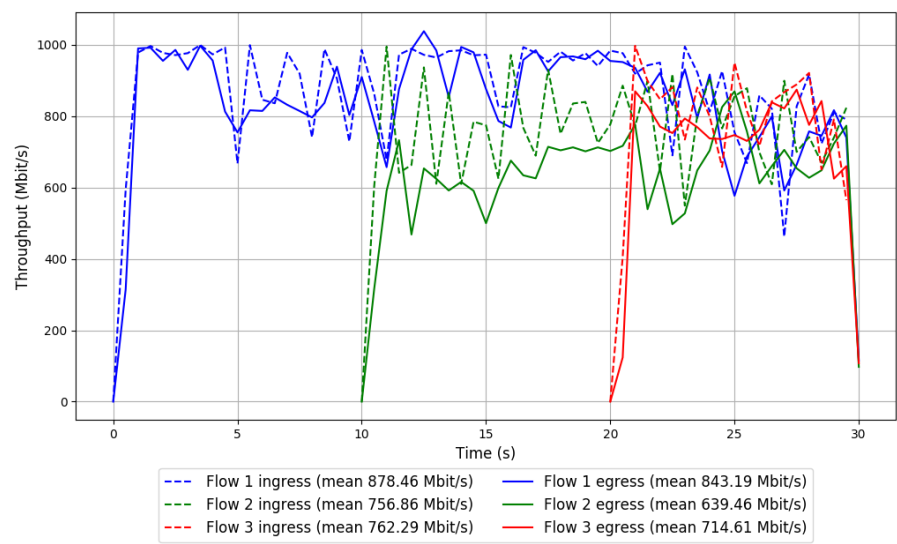
-- Flow 3:

Average throughput: 714.61 Mbit/s

95th percentile per-packet one-way delay: 229.740 ms

Loss rate: 6.23%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-03-07 19:08:38

End at: 2018-03-07 19:09:08

Below is generated by plot.py at 2018-03-07 23:15:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 1413.82 Mbit/s

95th percentile per-packet one-way delay: 244.955 ms

Loss rate: 10.88%

-- Flow 1:

Average throughput: 755.14 Mbit/s

95th percentile per-packet one-way delay: 238.290 ms

Loss rate: 10.16%

-- Flow 2:

Average throughput: 681.34 Mbit/s

95th percentile per-packet one-way delay: 240.547 ms

Loss rate: 11.68%

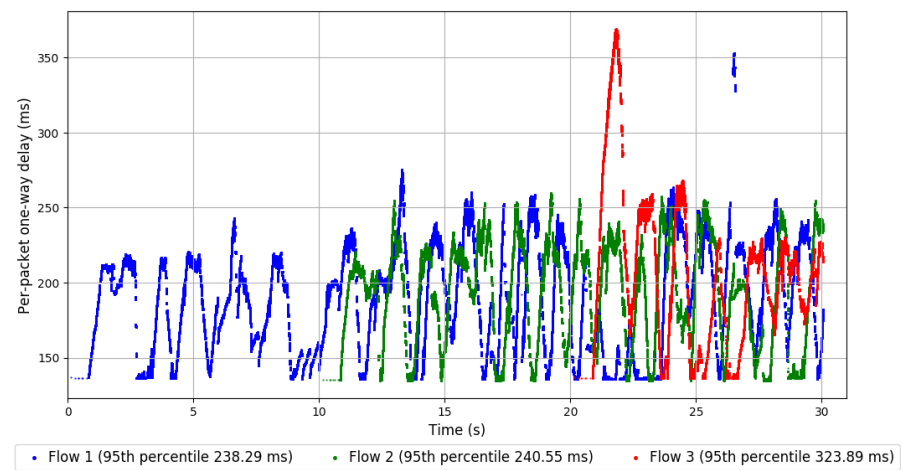
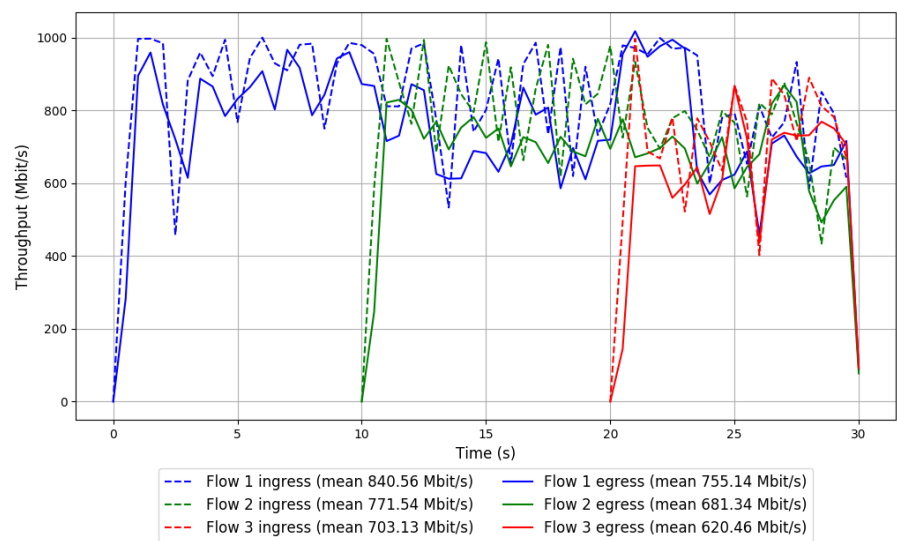
-- Flow 3:

Average throughput: 620.46 Mbit/s

95th percentile per-packet one-way delay: 323.887 ms

Loss rate: 11.75%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-03-07 19:28:28

End at: 2018-03-07 19:28:58

Below is generated by plot.py at 2018-03-07 23:15:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 1450.80 Mbit/s

95th percentile per-packet one-way delay: 237.886 ms

Loss rate: 10.05%

-- Flow 1:

Average throughput: 770.29 Mbit/s

95th percentile per-packet one-way delay: 234.503 ms

Loss rate: 8.12%

-- Flow 2:

Average throughput: 704.40 Mbit/s

95th percentile per-packet one-way delay: 239.251 ms

Loss rate: 12.98%

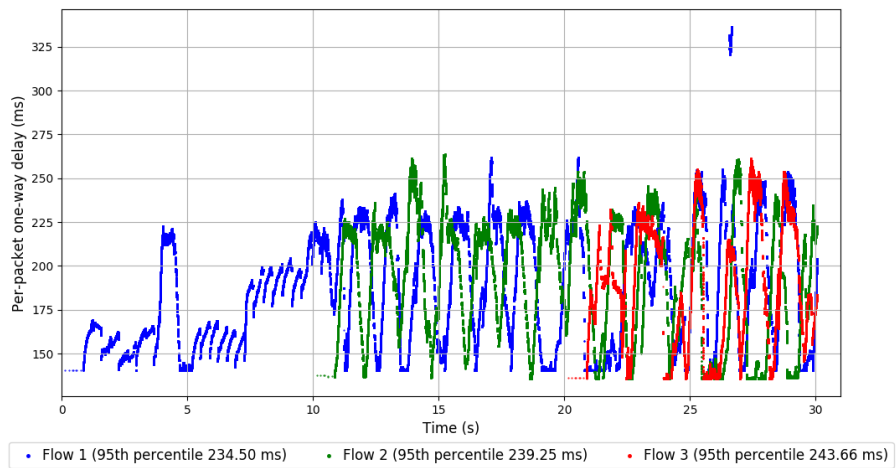
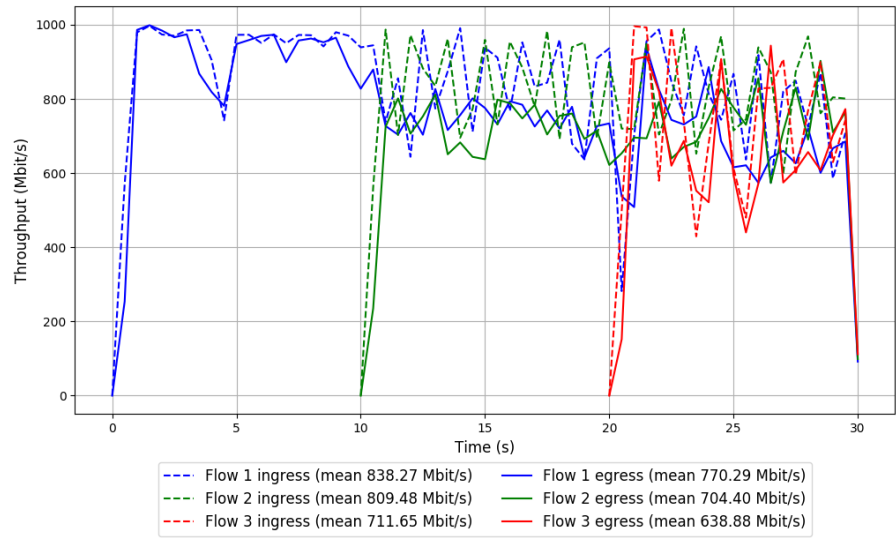
-- Flow 3:

Average throughput: 638.88 Mbit/s

95th percentile per-packet one-way delay: 243.658 ms

Loss rate: 10.22%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-03-07 19:48:32

End at: 2018-03-07 19:49:02

Below is generated by plot.py at 2018-03-07 23:38:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 1503.04 Mbit/s

95th percentile per-packet one-way delay: 324.498 ms

Loss rate: 5.68%

-- Flow 1:

Average throughput: 798.16 Mbit/s

95th percentile per-packet one-way delay: 217.136 ms

Loss rate: 4.84%

-- Flow 2:

Average throughput: 722.92 Mbit/s

95th percentile per-packet one-way delay: 358.987 ms

Loss rate: 8.55%

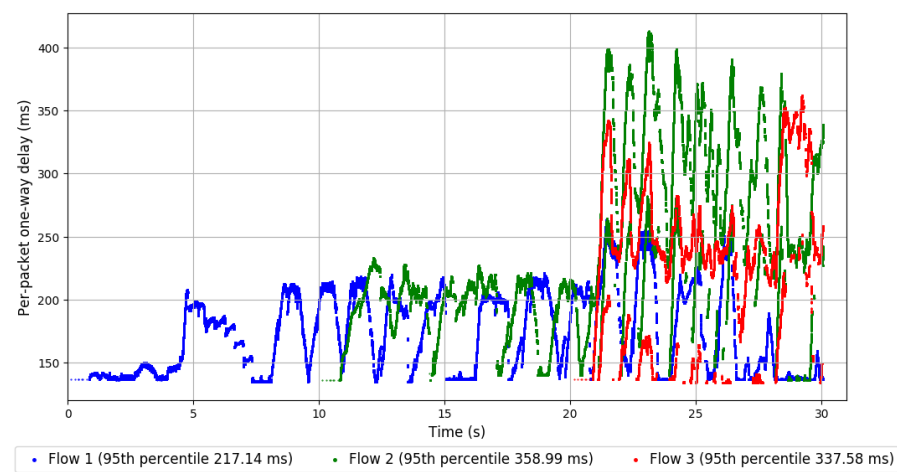
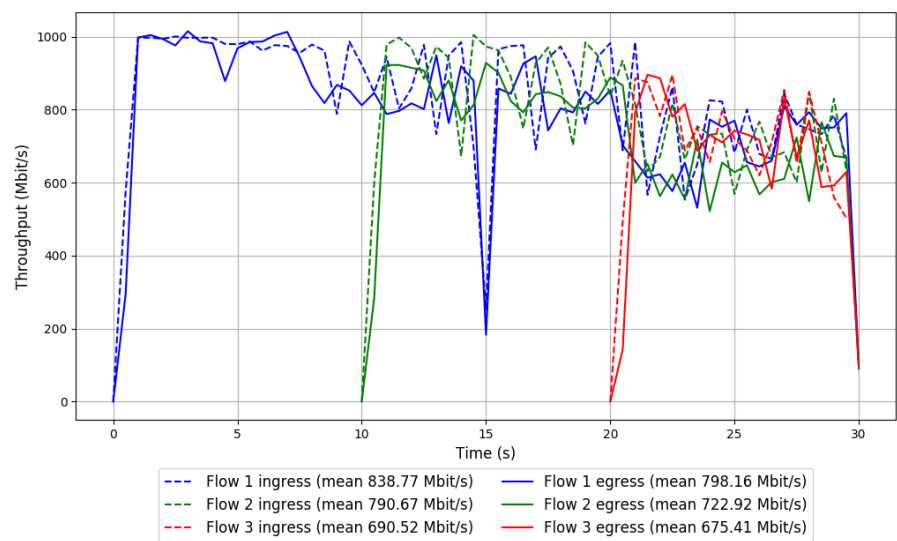
-- Flow 3:

Average throughput: 675.41 Mbit/s

95th percentile per-packet one-way delay: 337.579 ms

Loss rate: 2.15%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-03-07 20:08:30

End at: 2018-03-07 20:09:00

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 1621.69 Mbit/s

95th percentile per-packet one-way delay: 223.809 ms

Loss rate: 5.35%

-- Flow 1:

Average throughput: 829.40 Mbit/s

95th percentile per-packet one-way delay: 225.519 ms

Loss rate: 5.29%

-- Flow 2:

Average throughput: 819.59 Mbit/s

95th percentile per-packet one-way delay: 218.181 ms

Loss rate: 4.37%

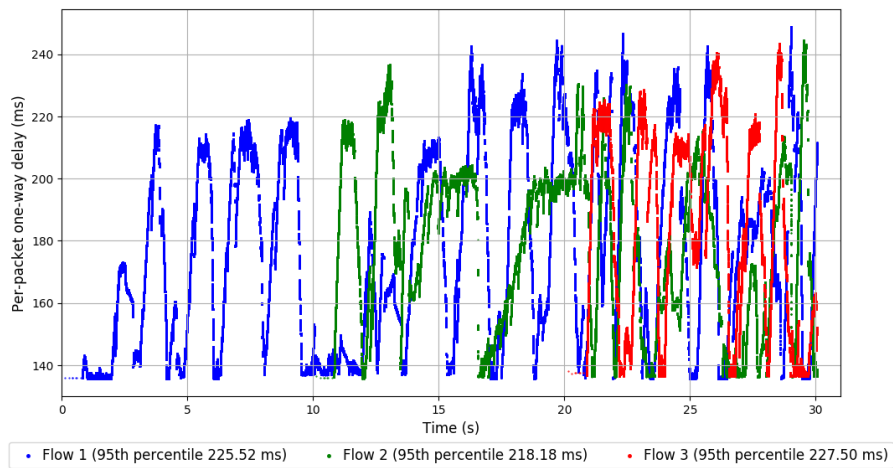
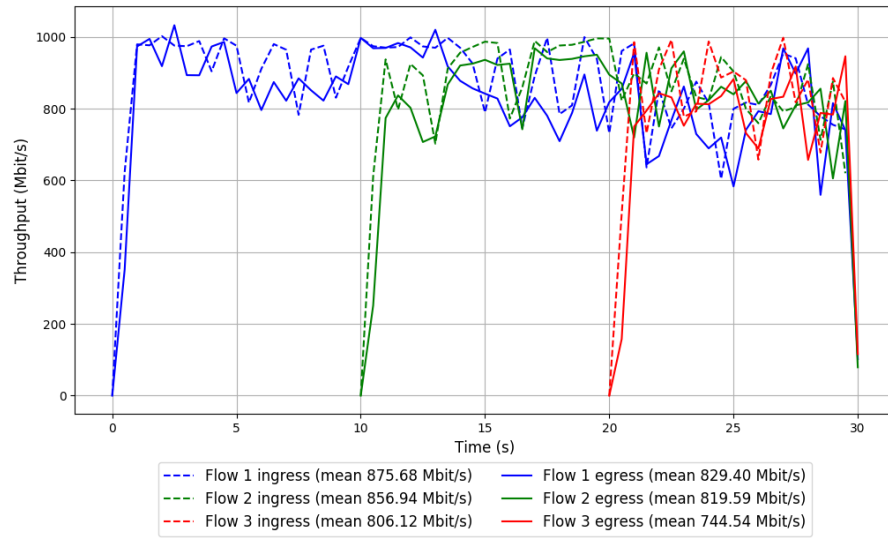
-- Flow 3:

Average throughput: 744.54 Mbit/s

95th percentile per-packet one-way delay: 227.502 ms

Loss rate: 7.66%

Run 10: Report of FillP — Data Link

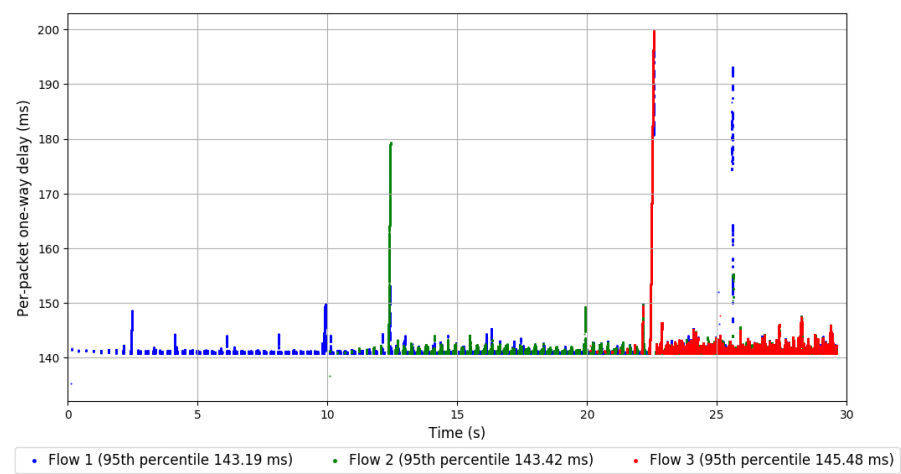
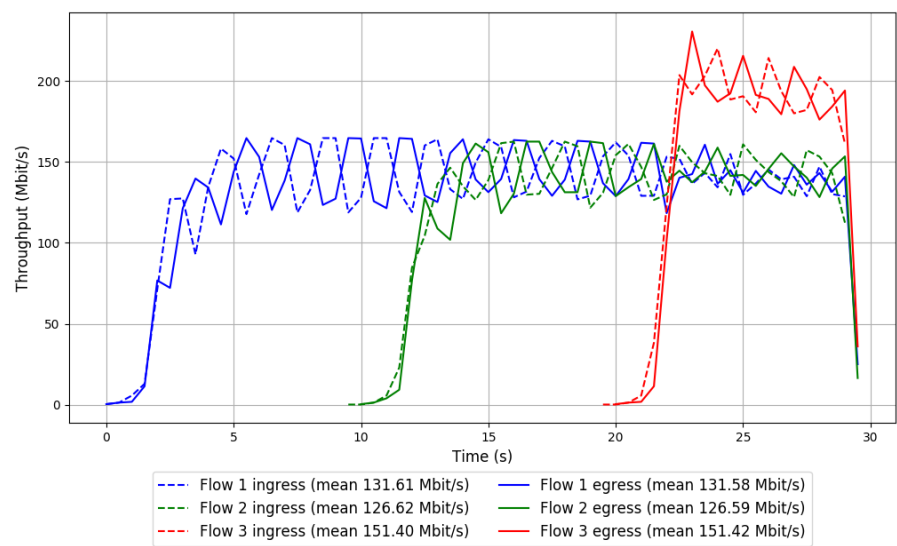


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-03-07 17:12:41
End at: 2018-03-07 17:13:11

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 264.06 Mbit/s
95th percentile per-packet one-way delay: 143.589 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 131.58 Mbit/s
95th percentile per-packet one-way delay: 143.188 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 126.59 Mbit/s
95th percentile per-packet one-way delay: 143.417 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 151.42 Mbit/s
95th percentile per-packet one-way delay: 145.483 ms
Loss rate: 0.00%
```

Run 1: Report of Indigo-1-32 — Data Link

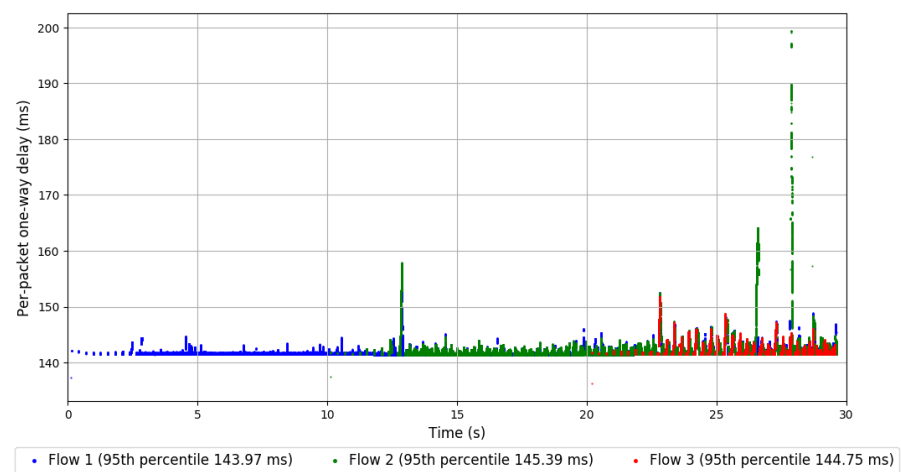
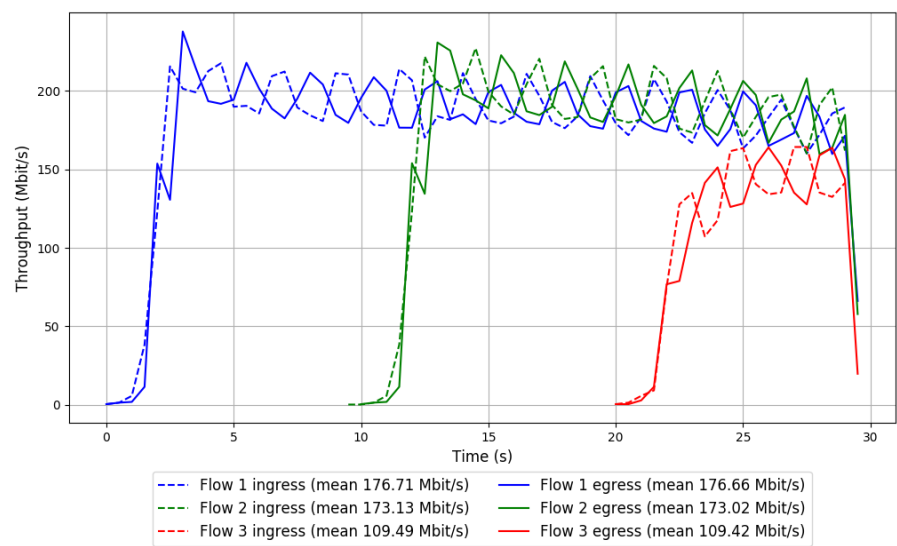


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-03-07 17:32:24
End at: 2018-03-07 17:32:54

# Below is generated by plot.py at 2018-03-07 23:41:54
# Datalink statistics
-- Total of 3 flows:
Average throughput: 325.91 Mbit/s
95th percentile per-packet one-way delay: 144.510 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 176.66 Mbit/s
95th percentile per-packet one-way delay: 143.970 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 173.02 Mbit/s
95th percentile per-packet one-way delay: 145.391 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 109.42 Mbit/s
95th percentile per-packet one-way delay: 144.745 ms
Loss rate: 0.00%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-07 17:52:24

End at: 2018-03-07 17:52:54

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.78 Mbit/s

95th percentile per-packet one-way delay: 144.275 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 131.27 Mbit/s

95th percentile per-packet one-way delay: 143.310 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 127.77 Mbit/s

95th percentile per-packet one-way delay: 144.468 ms

Loss rate: 0.00%

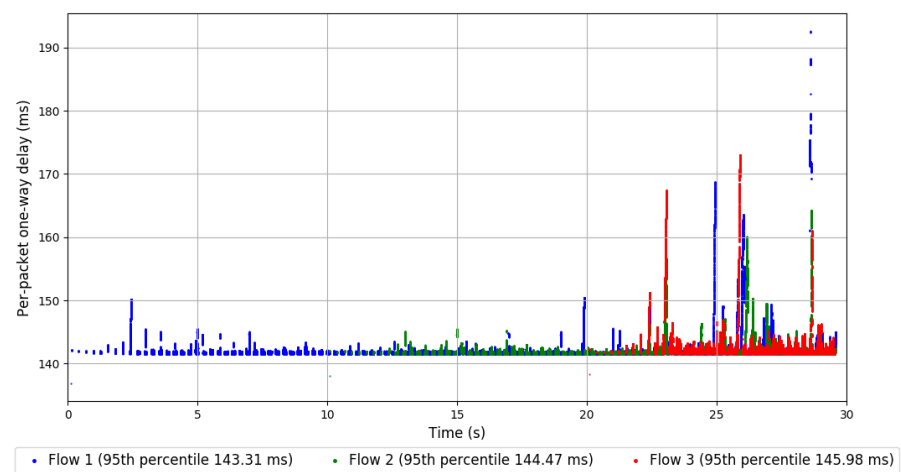
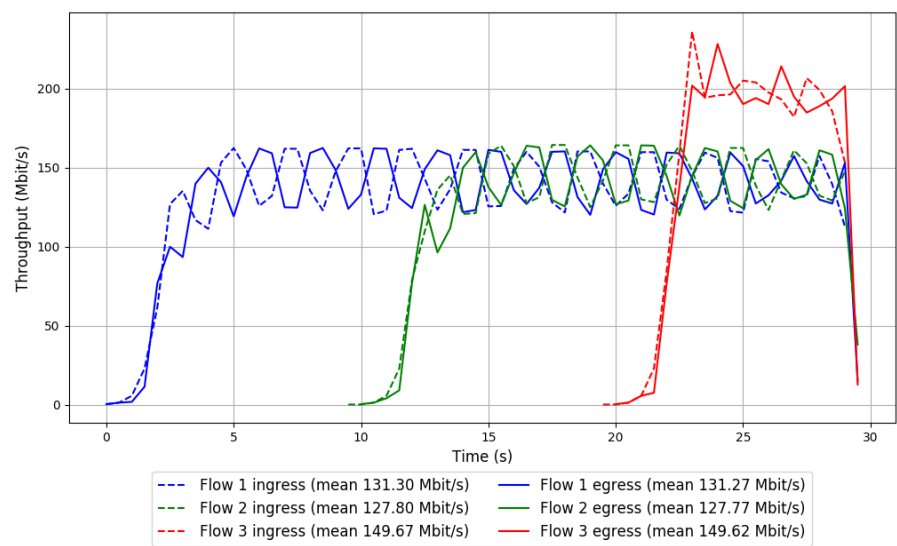
-- Flow 3:

Average throughput: 149.62 Mbit/s

95th percentile per-packet one-way delay: 145.980 ms

Loss rate: 0.00%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-03-07 18:12:22

End at: 2018-03-07 18:12:52

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.72 Mbit/s

95th percentile per-packet one-way delay: 145.009 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 131.93 Mbit/s

95th percentile per-packet one-way delay: 144.841 ms

Loss rate: 0.05%

-- Flow 2:

Average throughput: 126.89 Mbit/s

95th percentile per-packet one-way delay: 145.046 ms

Loss rate: 0.00%

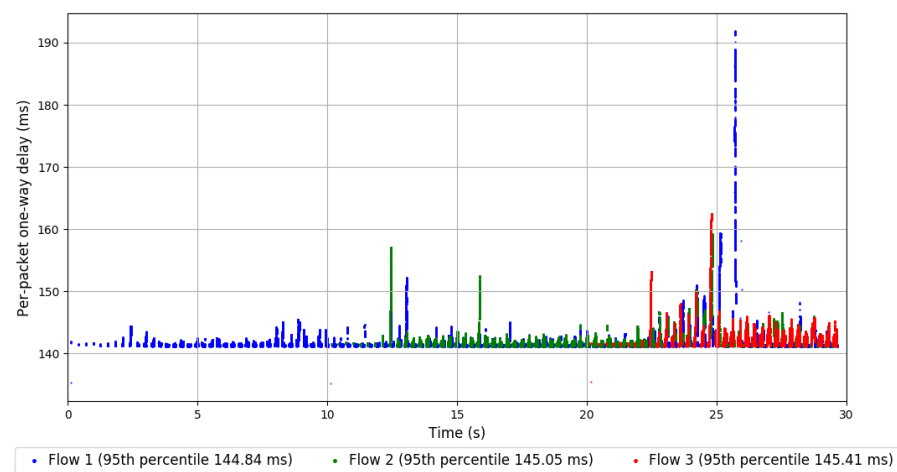
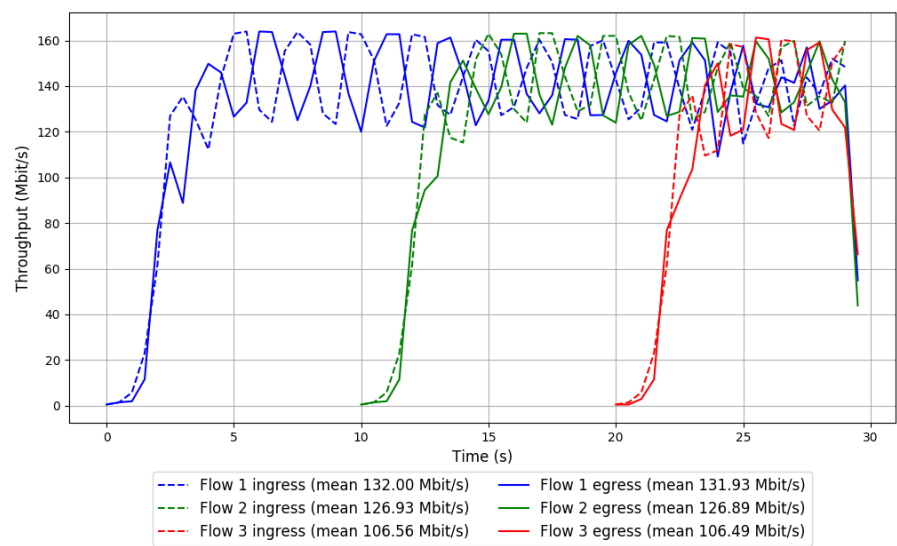
-- Flow 3:

Average throughput: 106.49 Mbit/s

95th percentile per-packet one-way delay: 145.408 ms

Loss rate: 0.00%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-03-07 18:32:53

End at: 2018-03-07 18:33:23

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.68 Mbit/s

95th percentile per-packet one-way delay: 143.272 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 176.28 Mbit/s

95th percentile per-packet one-way delay: 143.037 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 169.02 Mbit/s

95th percentile per-packet one-way delay: 143.466 ms

Loss rate: 0.02%

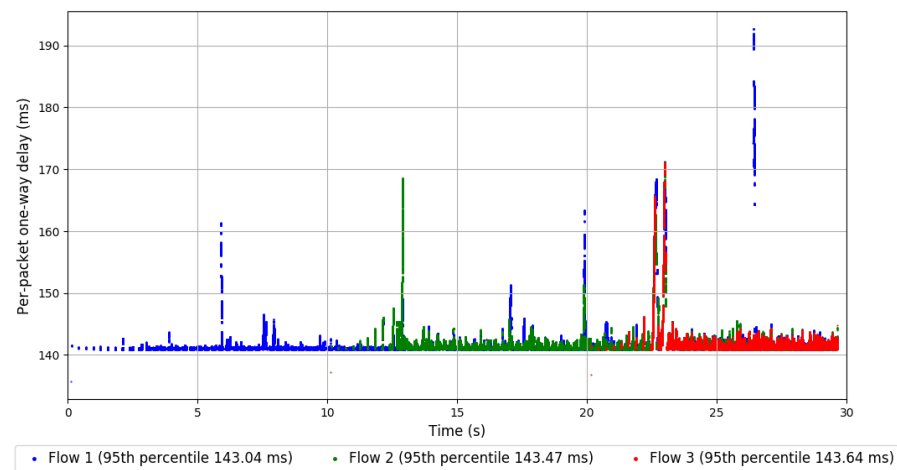
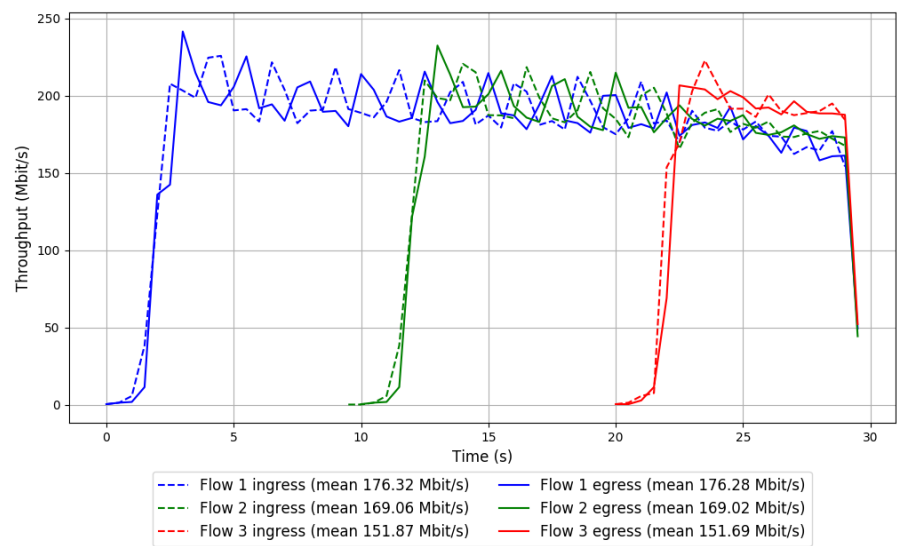
-- Flow 3:

Average throughput: 151.69 Mbit/s

95th percentile per-packet one-way delay: 143.636 ms

Loss rate: 0.07%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-03-07 18:53:01

End at: 2018-03-07 18:53:31

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 280.24 Mbit/s

95th percentile per-packet one-way delay: 140.230 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 133.74 Mbit/s

95th percentile per-packet one-way delay: 139.948 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 168.10 Mbit/s

95th percentile per-packet one-way delay: 140.081 ms

Loss rate: 0.00%

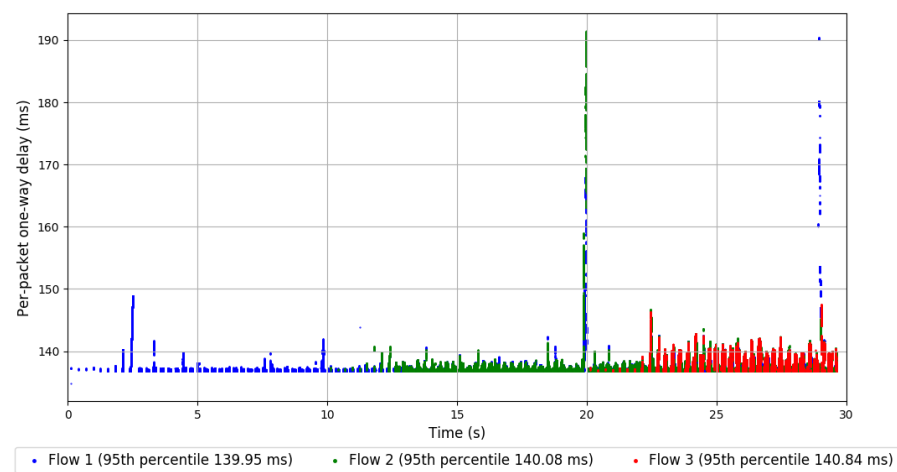
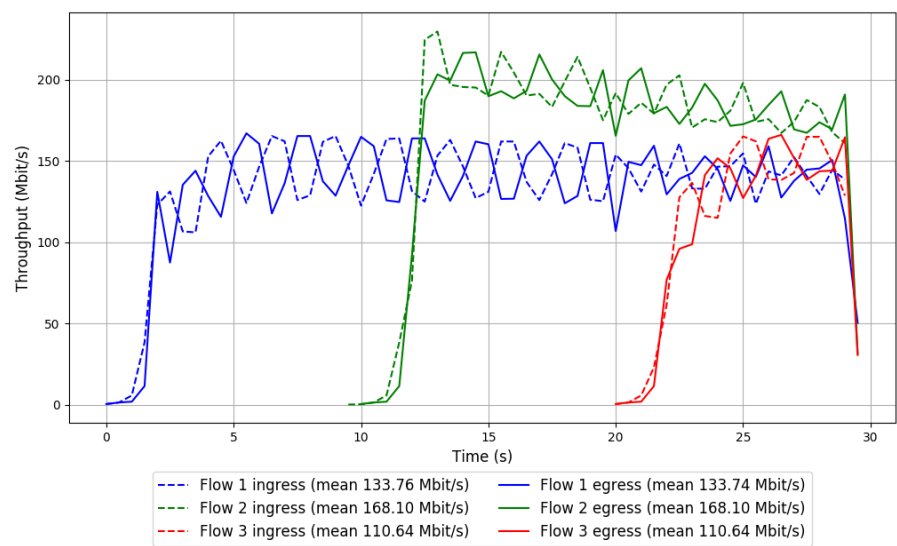
-- Flow 3:

Average throughput: 110.64 Mbit/s

95th percentile per-packet one-way delay: 140.845 ms

Loss rate: 0.00%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-03-07 19:13:03

End at: 2018-03-07 19:13:33

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 298.27 Mbit/s

95th percentile per-packet one-way delay: 139.776 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 179.61 Mbit/s

95th percentile per-packet one-way delay: 139.065 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 126.45 Mbit/s

95th percentile per-packet one-way delay: 140.283 ms

Loss rate: 0.01%

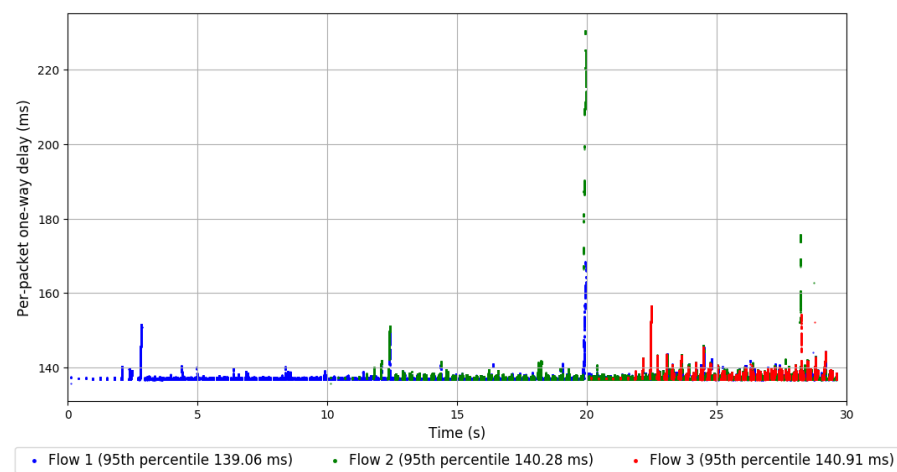
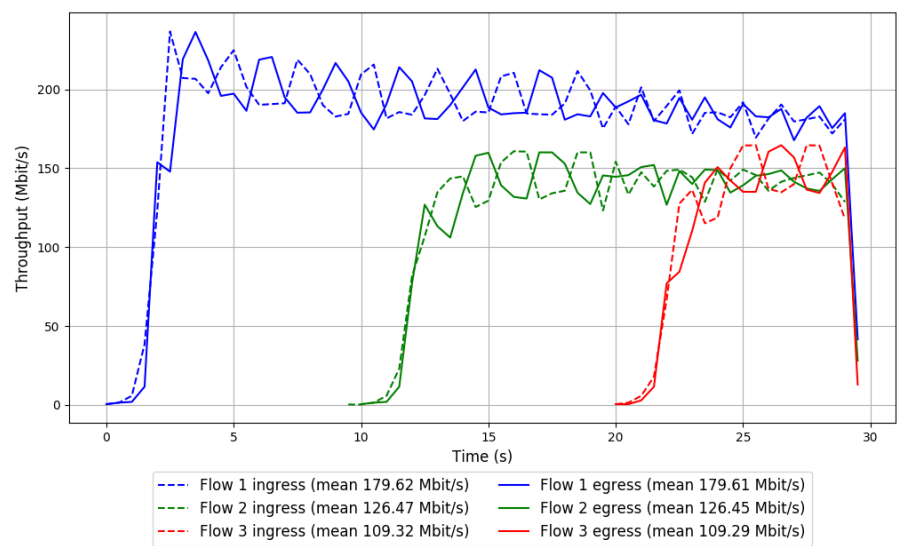
-- Flow 3:

Average throughput: 109.29 Mbit/s

95th percentile per-packet one-way delay: 140.905 ms

Loss rate: 0.03%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-03-07 19:32:55

End at: 2018-03-07 19:33:25

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 255.32 Mbit/s

95th percentile per-packet one-way delay: 138.220 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 134.14 Mbit/s

95th percentile per-packet one-way delay: 138.088 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 129.50 Mbit/s

95th percentile per-packet one-way delay: 138.227 ms

Loss rate: 0.00%

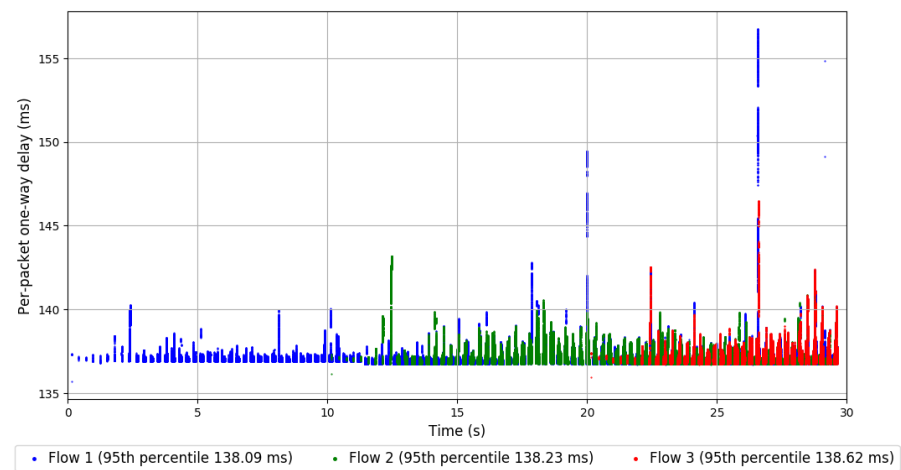
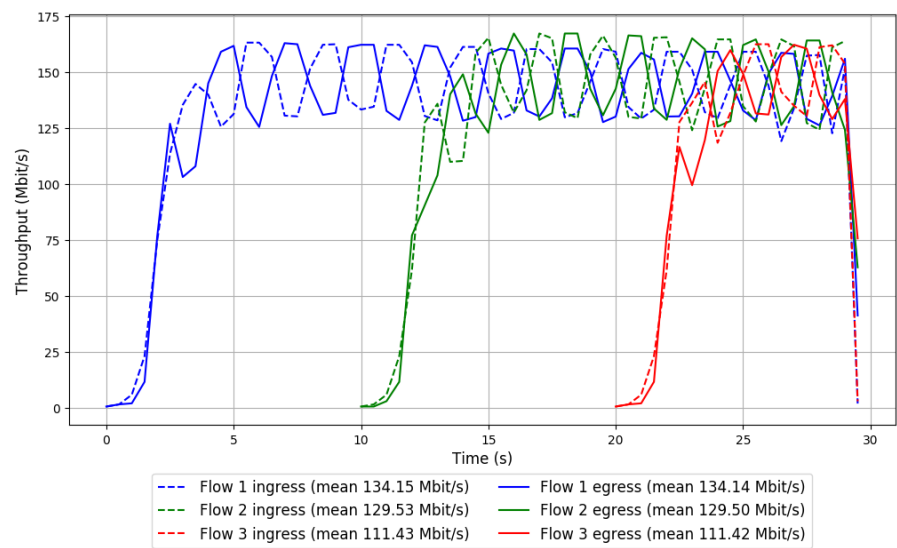
-- Flow 3:

Average throughput: 111.42 Mbit/s

95th percentile per-packet one-way delay: 138.622 ms

Loss rate: 0.00%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-03-07 19:52:58

End at: 2018-03-07 19:53:28

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 247.82 Mbit/s

95th percentile per-packet one-way delay: 143.088 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 130.59 Mbit/s

95th percentile per-packet one-way delay: 142.403 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 125.56 Mbit/s

95th percentile per-packet one-way delay: 143.116 ms

Loss rate: 0.04%

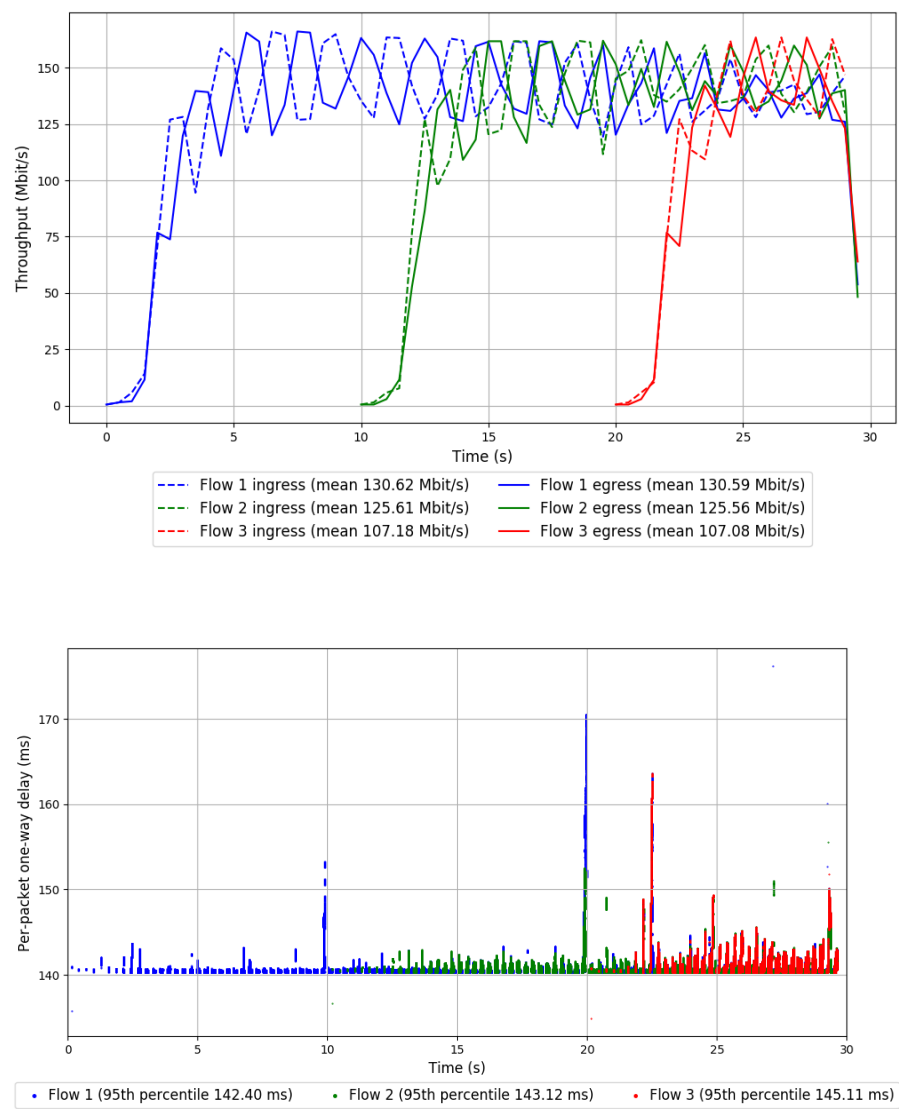
-- Flow 3:

Average throughput: 107.08 Mbit/s

95th percentile per-packet one-way delay: 145.114 ms

Loss rate: 0.07%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-03-07 20:13:01

End at: 2018-03-07 20:13:31

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 252.05 Mbit/s

95th percentile per-packet one-way delay: 142.076 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 130.94 Mbit/s

95th percentile per-packet one-way delay: 141.772 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 129.90 Mbit/s

95th percentile per-packet one-way delay: 142.528 ms

Loss rate: 0.00%

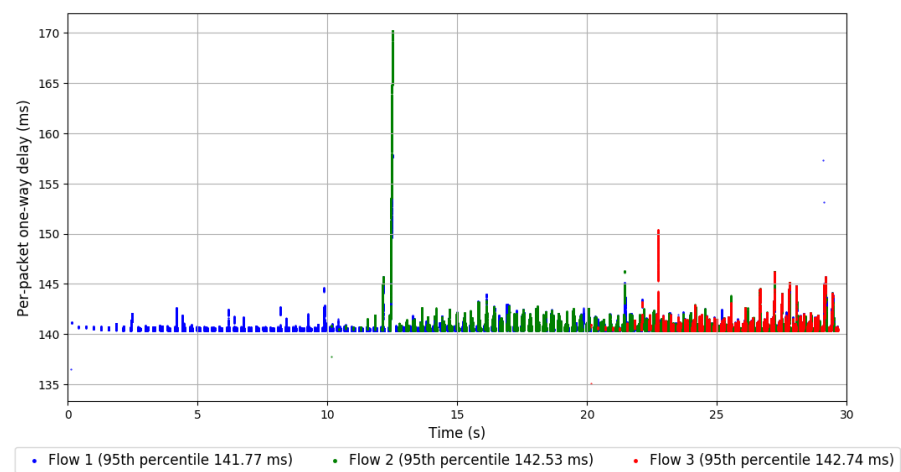
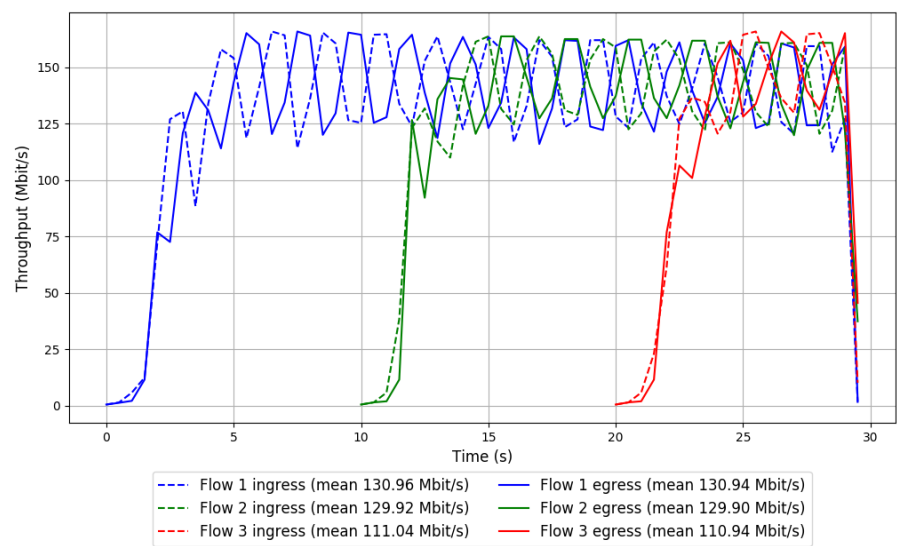
-- Flow 3:

Average throughput: 110.94 Mbit/s

95th percentile per-packet one-way delay: 142.737 ms

Loss rate: 0.08%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-03-07 17:03:31

End at: 2018-03-07 17:04:01

Below is generated by plot.py at 2018-03-07 23:41:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 270.01 Mbit/s

95th percentile per-packet one-way delay: 137.670 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 112.71 Mbit/s

95th percentile per-packet one-way delay: 137.744 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 171.90 Mbit/s

95th percentile per-packet one-way delay: 137.359 ms

Loss rate: 0.00%

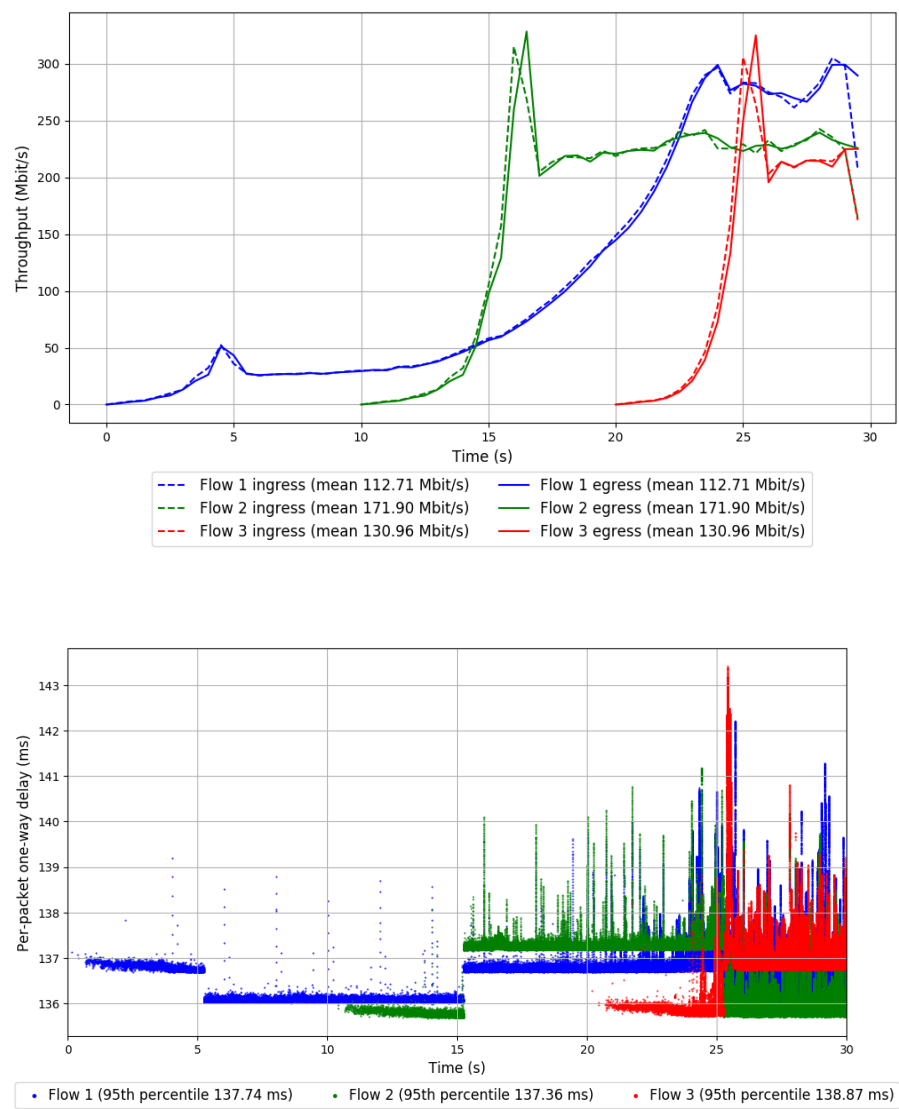
-- Flow 3:

Average throughput: 130.96 Mbit/s

95th percentile per-packet one-way delay: 138.867 ms

Loss rate: 0.00%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-03-07 17:23:04

End at: 2018-03-07 17:23:34

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 332.32 Mbit/s

95th percentile per-packet one-way delay: 138.840 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 154.43 Mbit/s

95th percentile per-packet one-way delay: 139.914 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 183.28 Mbit/s

95th percentile per-packet one-way delay: 138.061 ms

Loss rate: 0.00%

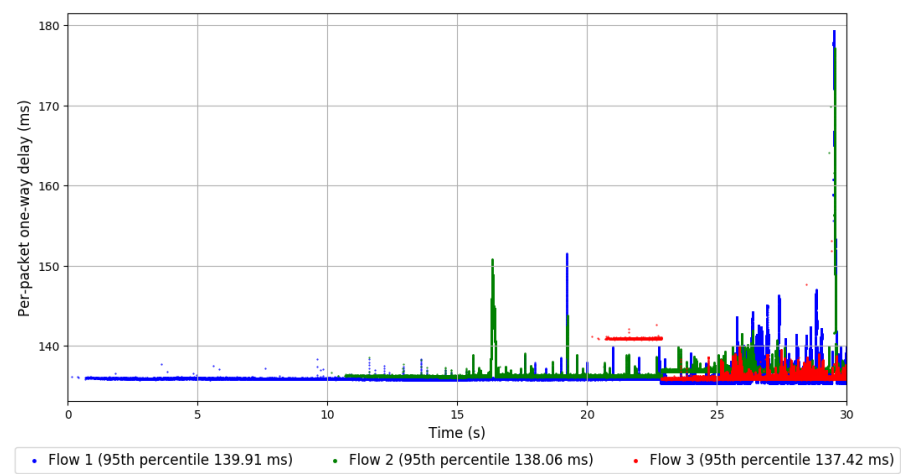
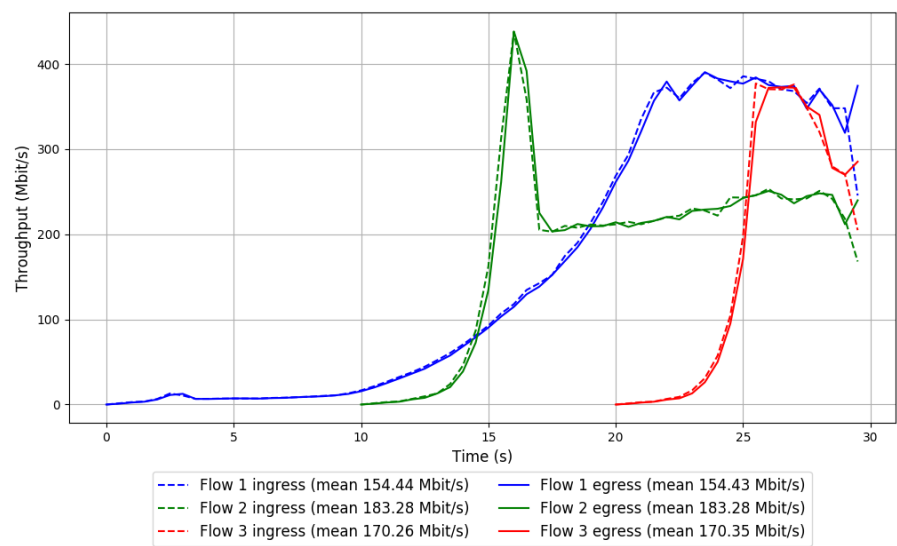
-- Flow 3:

Average throughput: 170.35 Mbit/s

95th percentile per-packet one-way delay: 137.421 ms

Loss rate: 0.00%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-03-07 17:42:53

End at: 2018-03-07 17:43:23

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 425.74 Mbit/s

95th percentile per-packet one-way delay: 192.103 ms

Loss rate: 0.22%

-- Flow 1:

Average throughput: 290.84 Mbit/s

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

Loss rate: 0.33%

-- Flow 2:

Average throughput: 199.42 Mbit/s

95th percentile per-packet one-way delay: 217.532 ms

Loss rate: 0.00%

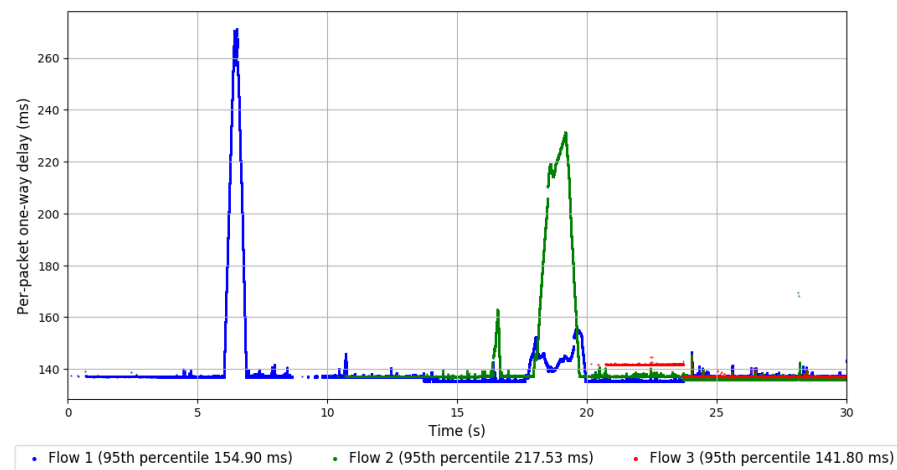
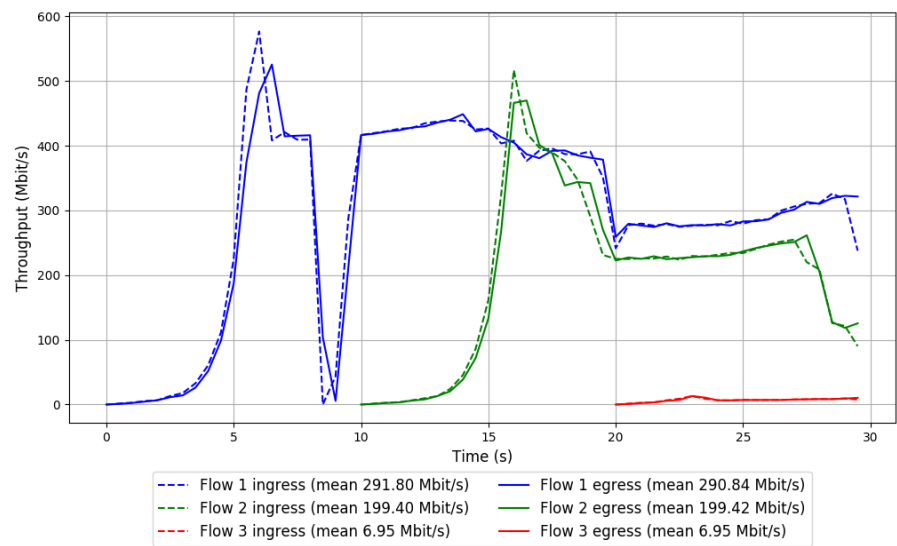
-- Flow 3:

Average throughput: 6.95 Mbit/s

95th percentile per-packet one-way delay: 141.800 ms

Loss rate: 0.00%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-03-07 18:02:54

End at: 2018-03-07 18:03:24

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 374.55 Mbit/s

95th percentile per-packet one-way delay: 188.886 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 134.69 Mbit/s

95th percentile per-packet one-way delay: 136.368 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 273.74 Mbit/s

95th percentile per-packet one-way delay: 212.429 ms

Loss rate: 0.08%

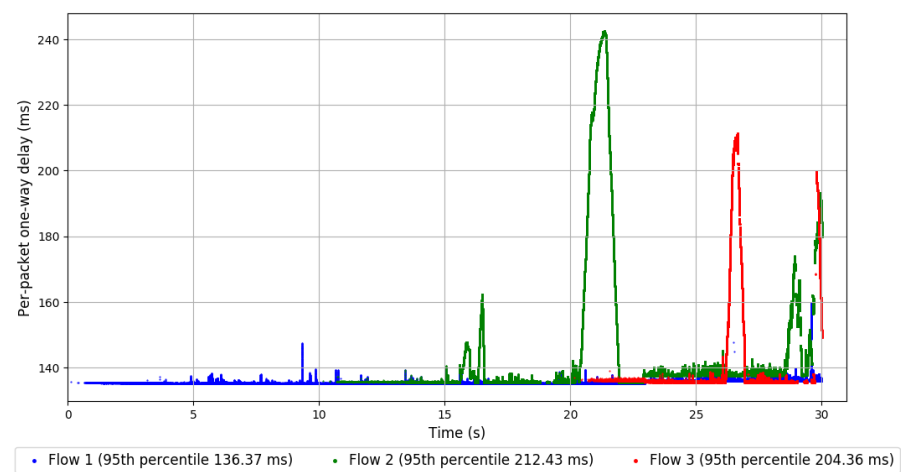
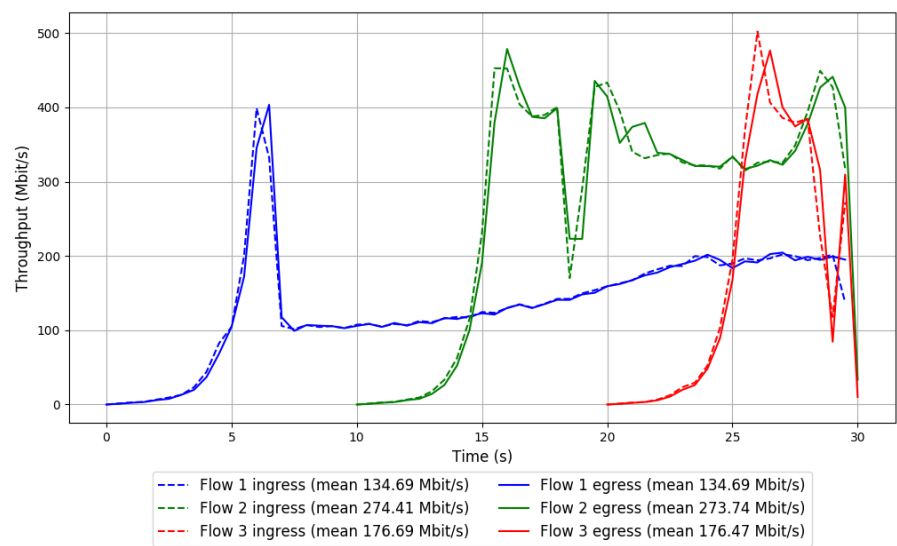
-- Flow 3:

Average throughput: 176.47 Mbit/s

95th percentile per-packet one-way delay: 204.364 ms

Loss rate: 0.00%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-03-07 18:23:21

End at: 2018-03-07 18:23:51

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 451.70 Mbit/s

95th percentile per-packet one-way delay: 149.190 ms

Loss rate: 0.01%

-- Flow 1:

Average throughput: 290.97 Mbit/s

95th percentile per-packet one-way delay: 169.857 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 181.58 Mbit/s

95th percentile per-packet one-way delay: 141.150 ms

Loss rate: 0.00%

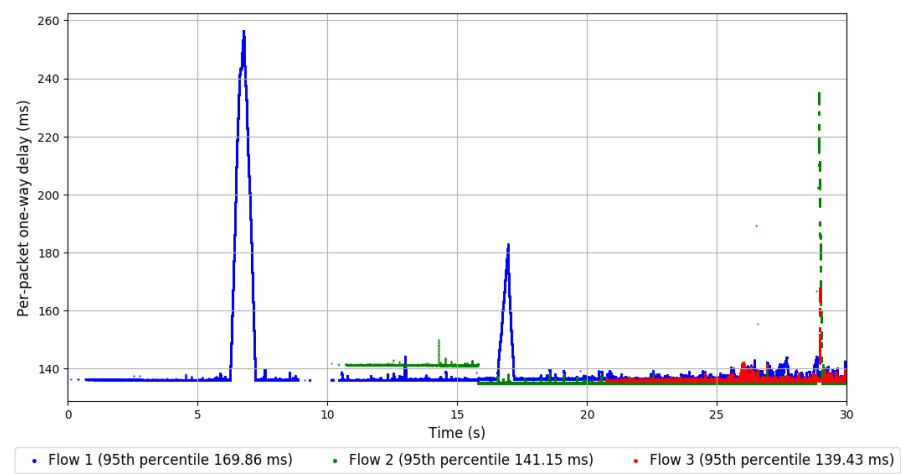
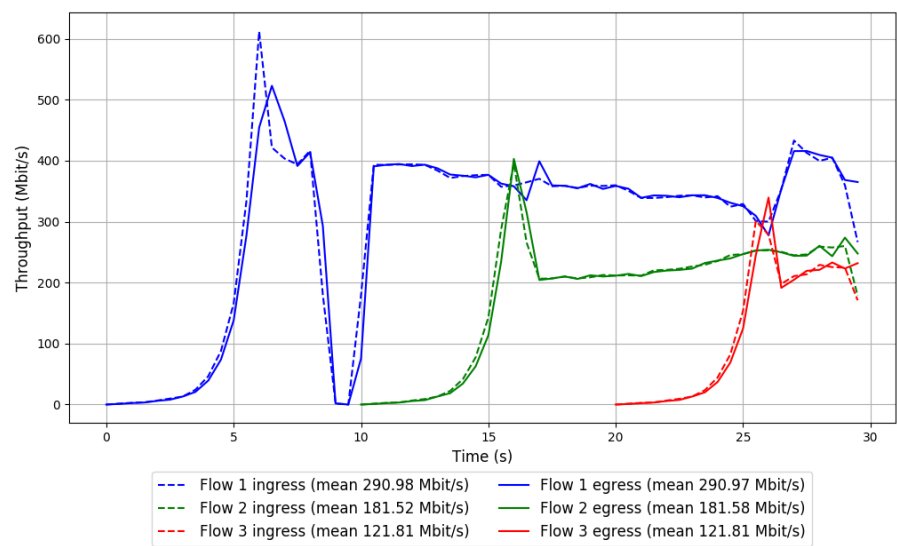
-- Flow 3:

Average throughput: 121.81 Mbit/s

95th percentile per-packet one-way delay: 139.425 ms

Loss rate: 0.01%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-03-07 18:43:29

End at: 2018-03-07 18:43:59

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 469.84 Mbit/s

95th percentile per-packet one-way delay: 155.997 ms

Loss rate: 0.02%

-- Flow 1:

Average throughput: 296.48 Mbit/s

95th percentile per-packet one-way delay: 142.609 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 178.43 Mbit/s

95th percentile per-packet one-way delay: 137.133 ms

Loss rate: 0.00%

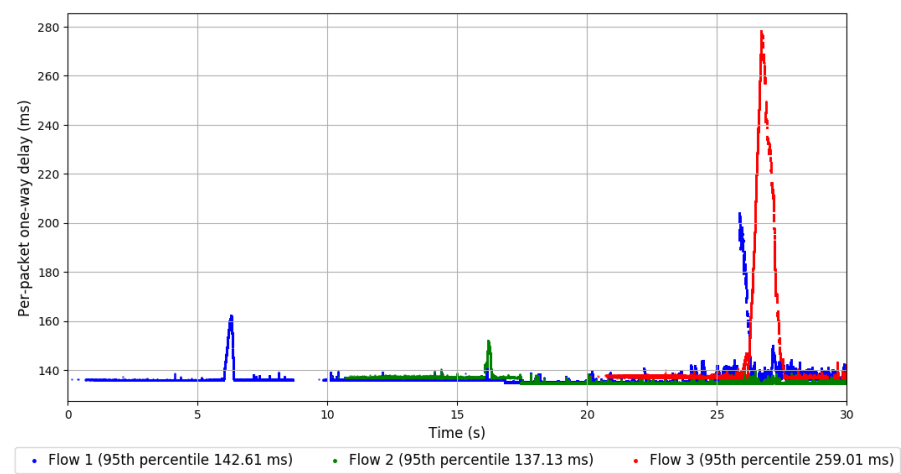
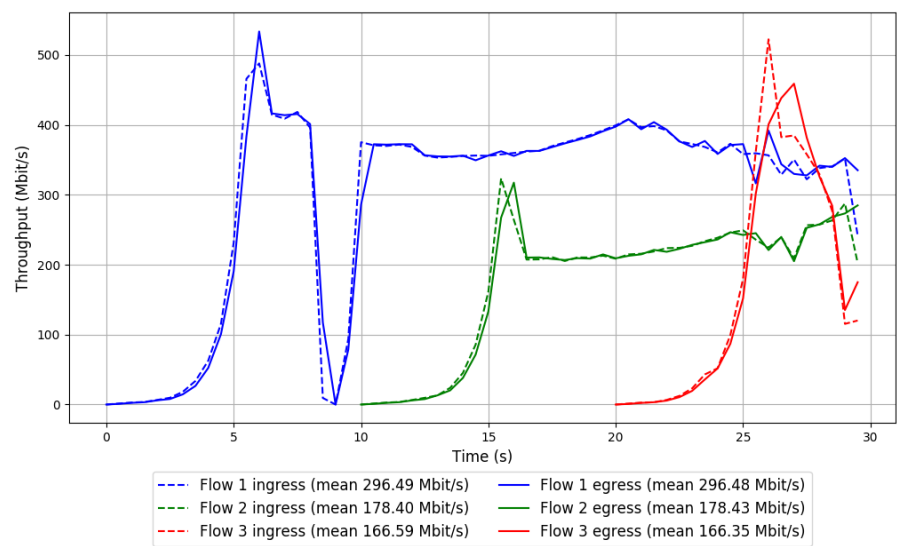
-- Flow 3:

Average throughput: 166.35 Mbit/s

95th percentile per-packet one-way delay: 259.008 ms

Loss rate: 0.14%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-03-07 19:03:38

End at: 2018-03-07 19:04:08

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 454.11 Mbit/s

95th percentile per-packet one-way delay: 205.721 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 277.07 Mbit/s

95th percentile per-packet one-way delay: 152.379 ms

Loss rate: 0.02%

-- Flow 2:

Average throughput: 208.34 Mbit/s

95th percentile per-packet one-way delay: 286.609 ms

Loss rate: 0.36%

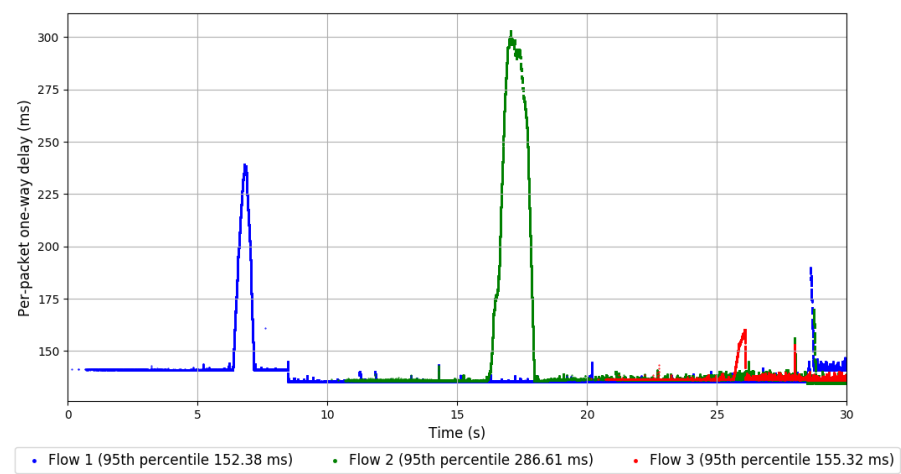
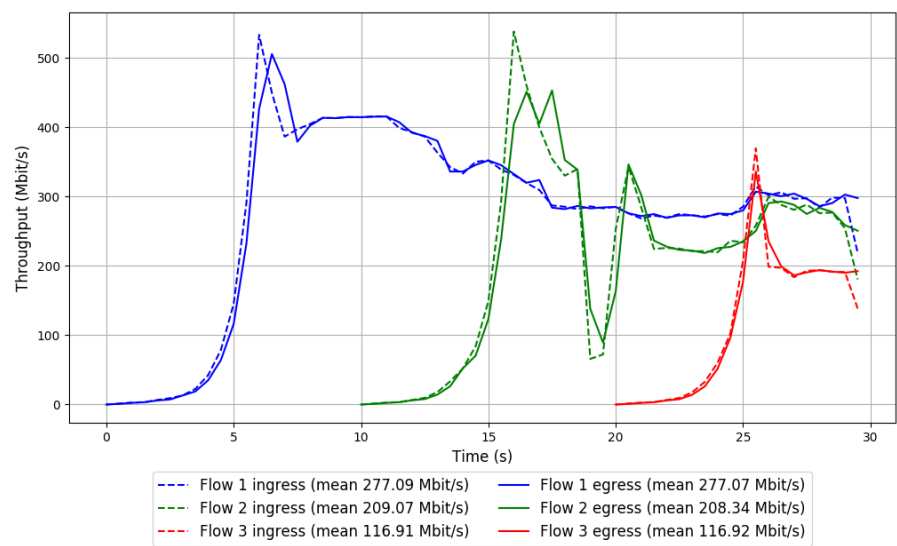
-- Flow 3:

Average throughput: 116.92 Mbit/s

95th percentile per-packet one-way delay: 155.322 ms

Loss rate: 0.00%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-03-07 19:23:33

End at: 2018-03-07 19:24:03

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 372.68 Mbit/s

95th percentile per-packet one-way delay: 140.371 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 207.39 Mbit/s

95th percentile per-packet one-way delay: 140.374 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 183.36 Mbit/s

95th percentile per-packet one-way delay: 135.600 ms

Loss rate: 0.00%

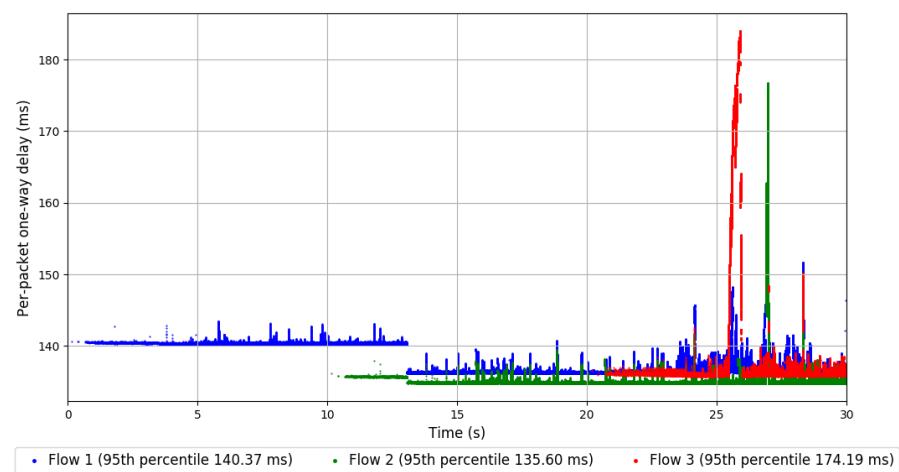
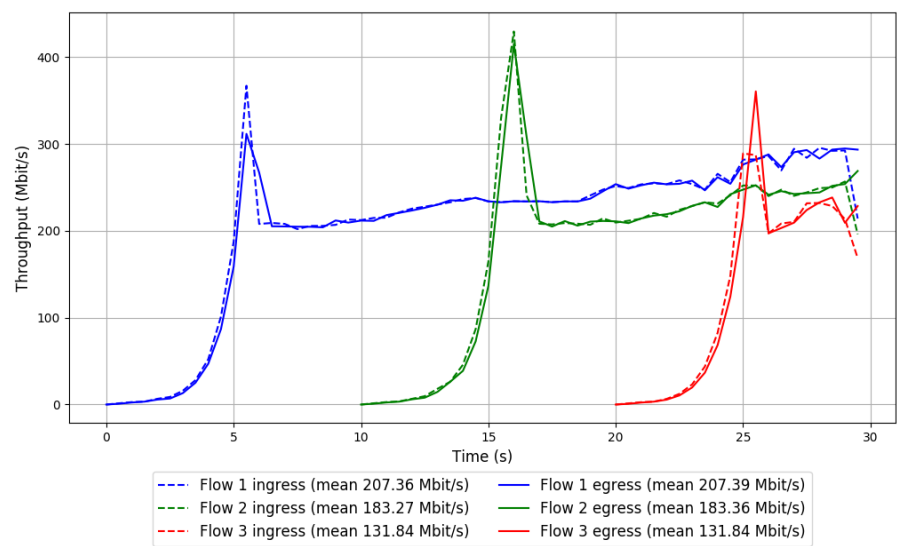
-- Flow 3:

Average throughput: 131.84 Mbit/s

95th percentile per-packet one-way delay: 174.185 ms

Loss rate: 0.00%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-03-07 19:43:34

End at: 2018-03-07 19:44:04

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 432.69 Mbit/s

95th percentile per-packet one-way delay: 137.448 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 275.23 Mbit/s

95th percentile per-packet one-way delay: 138.113 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 177.77 Mbit/s

95th percentile per-packet one-way delay: 136.411 ms

Loss rate: 0.00%

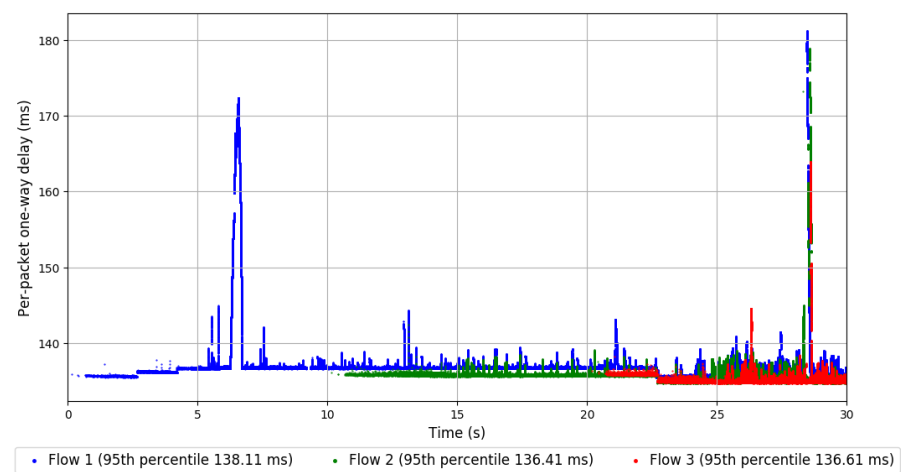
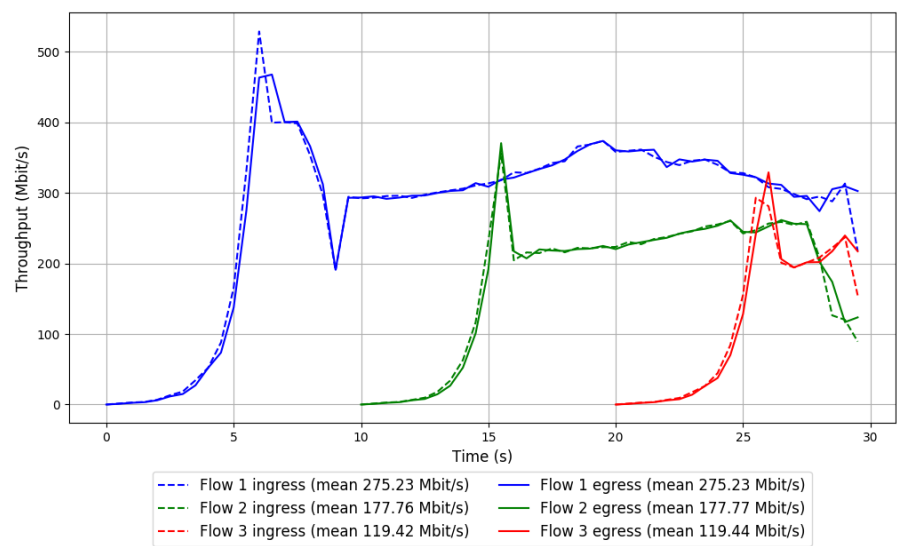
-- Flow 3:

Average throughput: 119.44 Mbit/s

95th percentile per-packet one-way delay: 136.609 ms

Loss rate: 0.00%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-03-07 20:03:28

End at: 2018-03-07 20:03:58

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.83 Mbit/s

95th percentile per-packet one-way delay: 139.652 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 244.12 Mbit/s

95th percentile per-packet one-way delay: 136.150 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 294.32 Mbit/s

95th percentile per-packet one-way delay: 148.598 ms

Loss rate: 0.00%

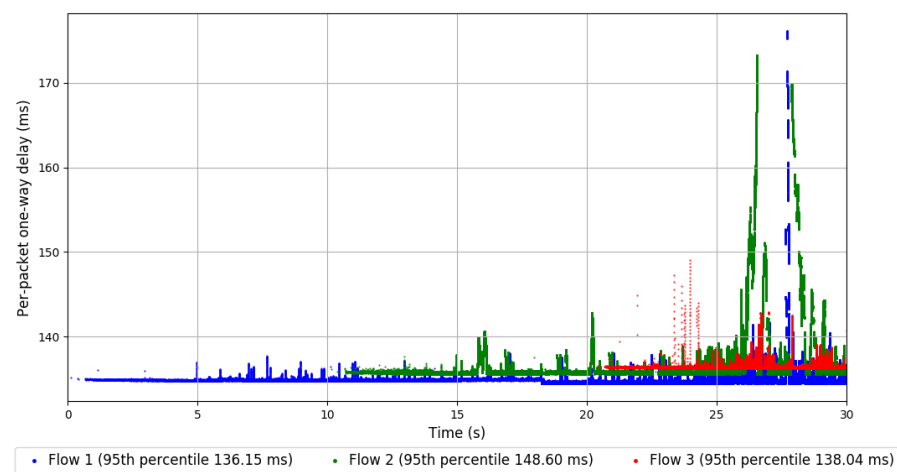
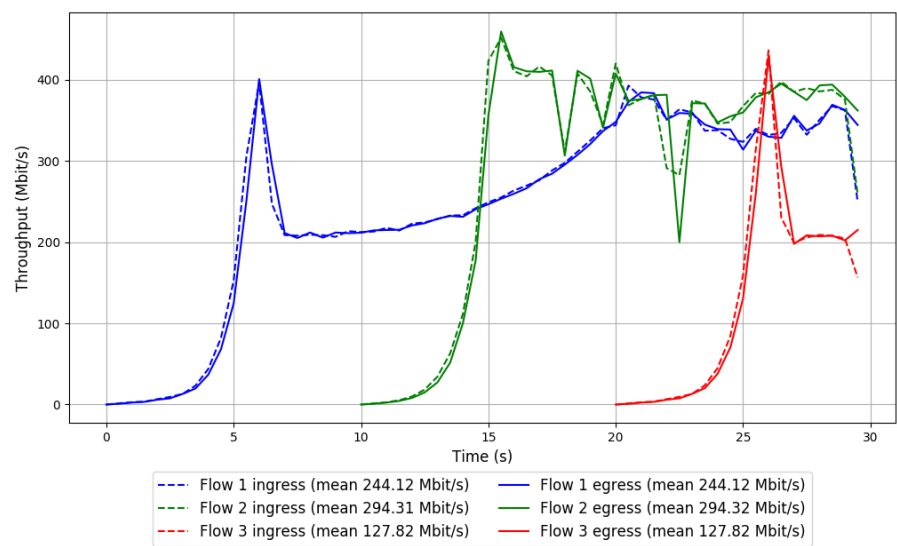
-- Flow 3:

Average throughput: 127.82 Mbit/s

95th percentile per-packet one-way delay: 138.039 ms

Loss rate: 0.00%

Run 10: Report of Vivace-latency — Data Link

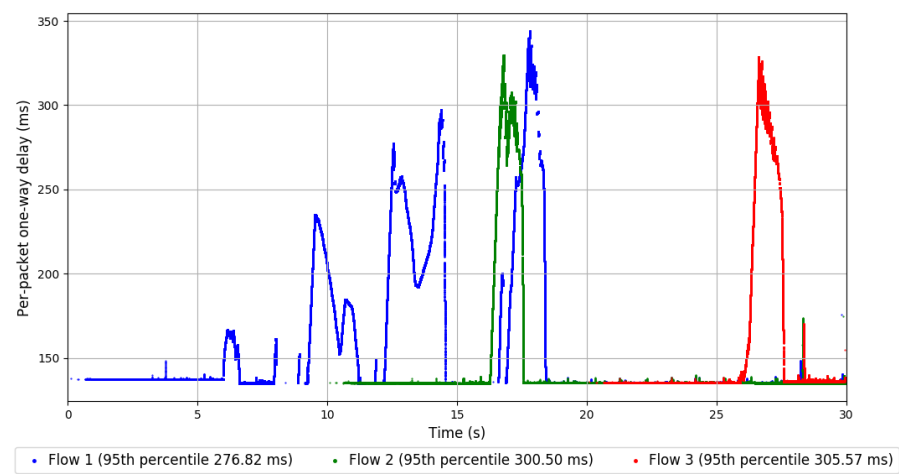
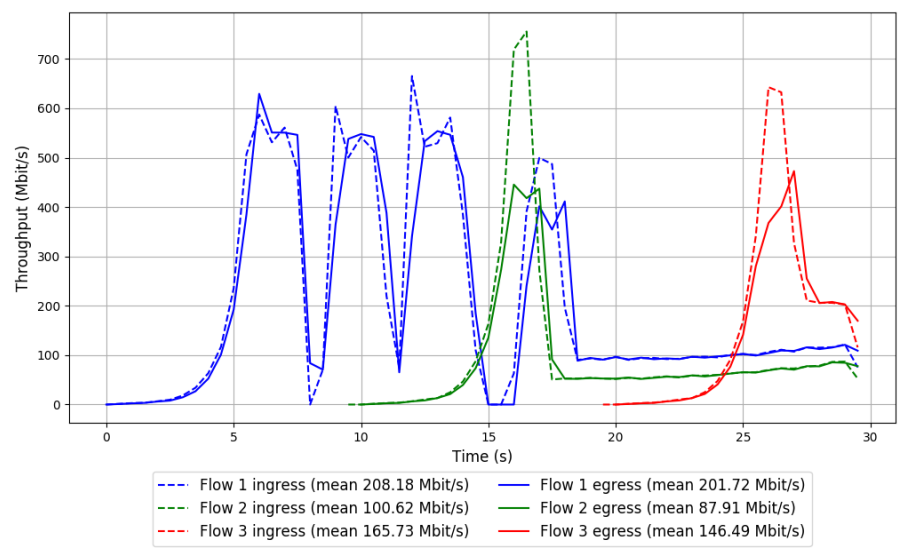


```
Run 1: Statistics of Vivace-loss

Start at: 2018-03-07 16:54:20
End at: 2018-03-07 16:54:50

# Below is generated by plot.py at 2018-03-07 23:41:55
# Datalink statistics
-- Total of 3 flows:
Average throughput: 308.57 Mbit/s
95th percentile per-packet one-way delay: 294.978 ms
Loss rate: 6.45%
-- Flow 1:
Average throughput: 201.72 Mbit/s
95th percentile per-packet one-way delay: 276.820 ms
Loss rate: 3.11%
-- Flow 2:
Average throughput: 87.91 Mbit/s
95th percentile per-packet one-way delay: 300.501 ms
Loss rate: 12.63%
-- Flow 3:
Average throughput: 146.49 Mbit/s
95th percentile per-packet one-way delay: 305.572 ms
Loss rate: 11.60%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-03-07 17:13:52

End at: 2018-03-07 17:14:22

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 436.43 Mbit/s

95th percentile per-packet one-way delay: 248.329 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 236.69 Mbit/s

95th percentile per-packet one-way delay: 250.431 ms

Loss rate: 0.48%

-- Flow 2:

Average throughput: 195.38 Mbit/s

95th percentile per-packet one-way delay: 143.309 ms

Loss rate: 0.00%

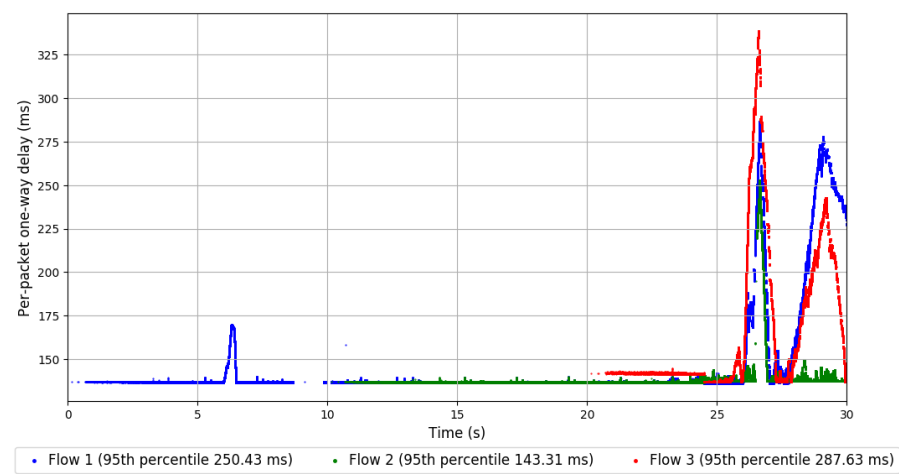
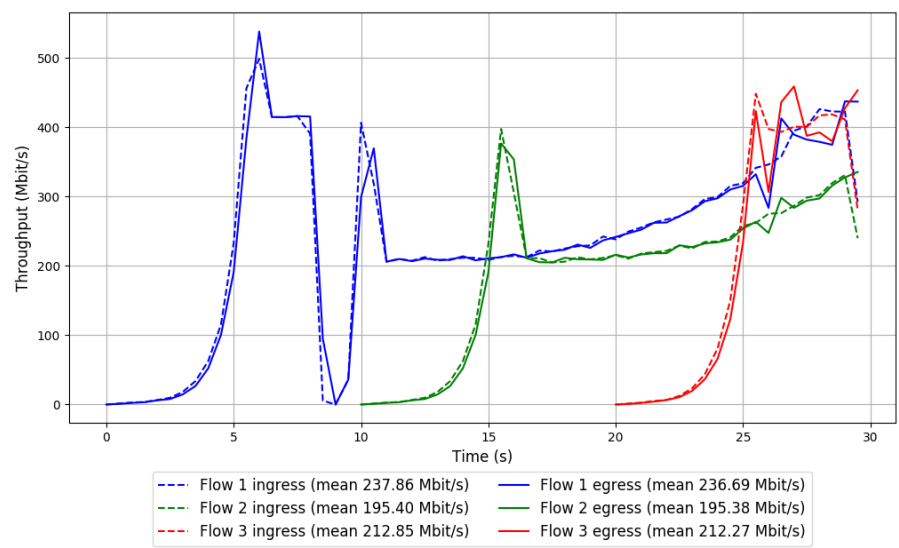
-- Flow 3:

Average throughput: 212.27 Mbit/s

95th percentile per-packet one-way delay: 287.635 ms

Loss rate: 0.32%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-03-07 17:33:40

End at: 2018-03-07 17:34:10

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.28 Mbit/s

95th percentile per-packet one-way delay: 254.254 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 255.14 Mbit/s

95th percentile per-packet one-way delay: 271.068 ms

Loss rate: 2.11%

-- Flow 2:

Average throughput: 191.41 Mbit/s

95th percentile per-packet one-way delay: 139.742 ms

Loss rate: 0.45%

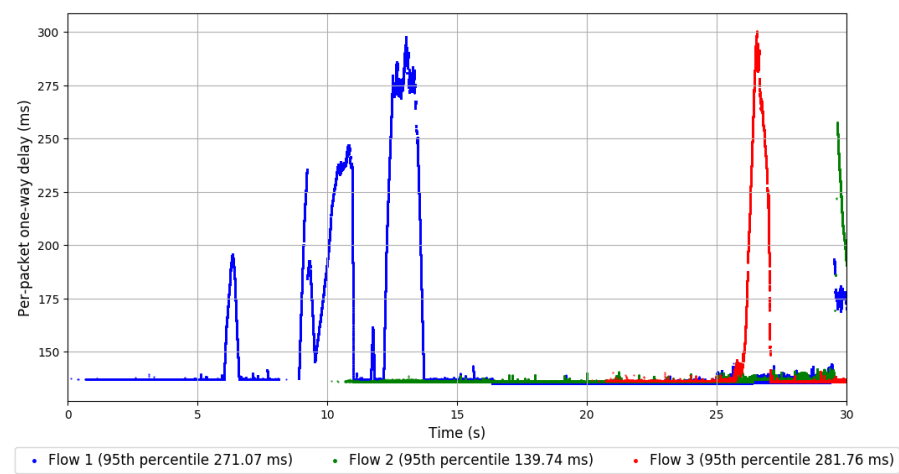
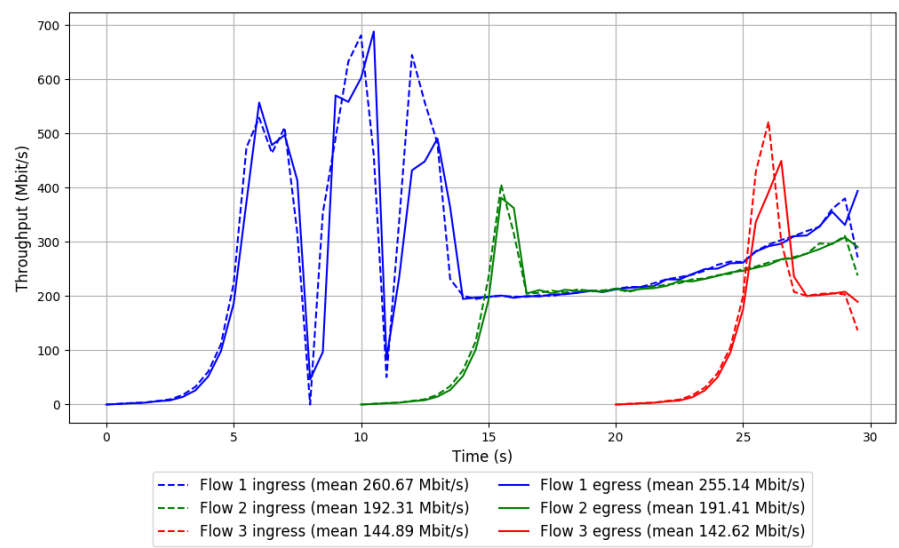
-- Flow 3:

Average throughput: 142.62 Mbit/s

95th percentile per-packet one-way delay: 281.762 ms

Loss rate: 1.58%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-03-07 17:53:36

End at: 2018-03-07 17:54:06

Below is generated by plot.py at 2018-03-07 23:41:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 432.46 Mbit/s

95th percentile per-packet one-way delay: 310.624 ms

Loss rate: 2.42%

-- Flow 1:

Average throughput: 271.71 Mbit/s

95th percentile per-packet one-way delay: 312.590 ms

Loss rate: 2.70%

-- Flow 2:

Average throughput: 188.89 Mbit/s

95th percentile per-packet one-way delay: 148.887 ms

Loss rate: 0.01%

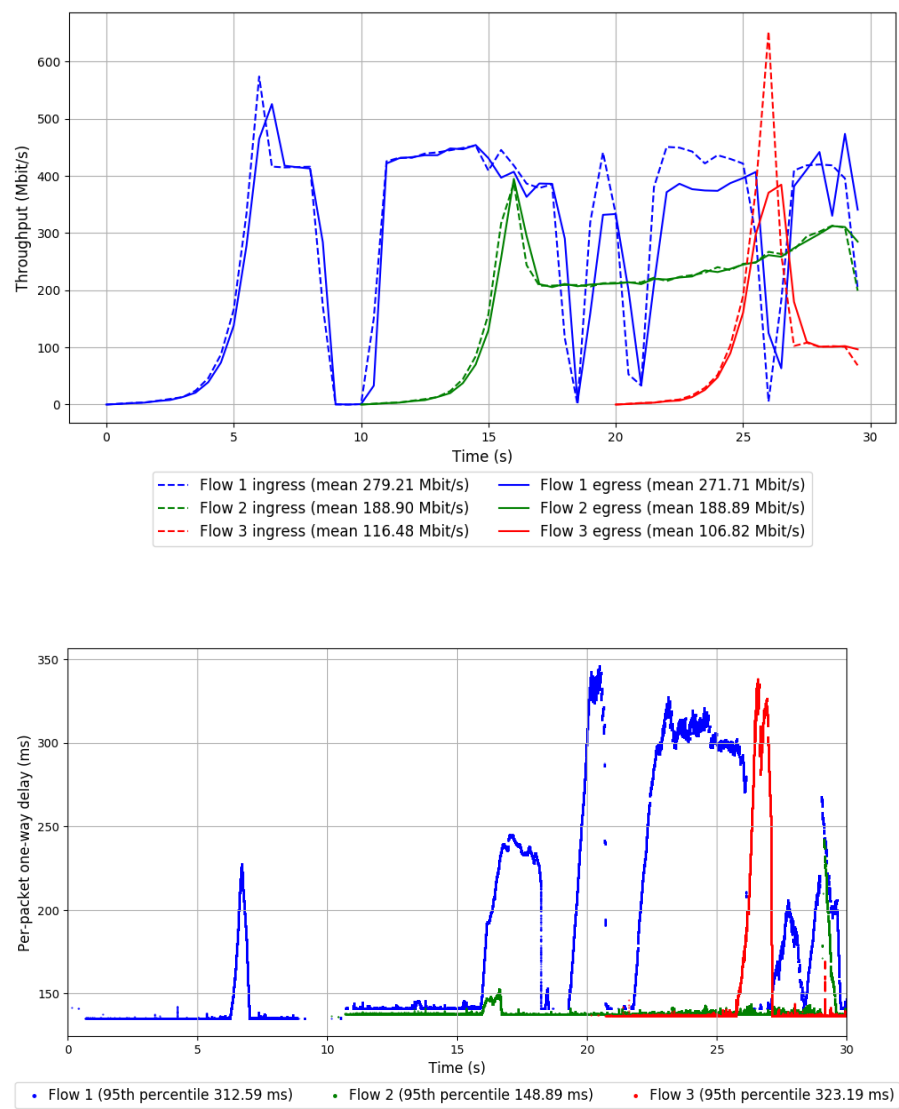
-- Flow 3:

Average throughput: 106.82 Mbit/s

95th percentile per-packet one-way delay: 323.185 ms

Loss rate: 8.30%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-03-07 18:13:33

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

Below is generated by plot.py at 2018-03-07 23:44:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 513.02 Mbit/s

95th percentile per-packet one-way delay: 255.171 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 286.80 Mbit/s

95th percentile per-packet one-way delay: 230.185 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 285.27 Mbit/s

95th percentile per-packet one-way delay: 275.839 ms

Loss rate: 1.85%

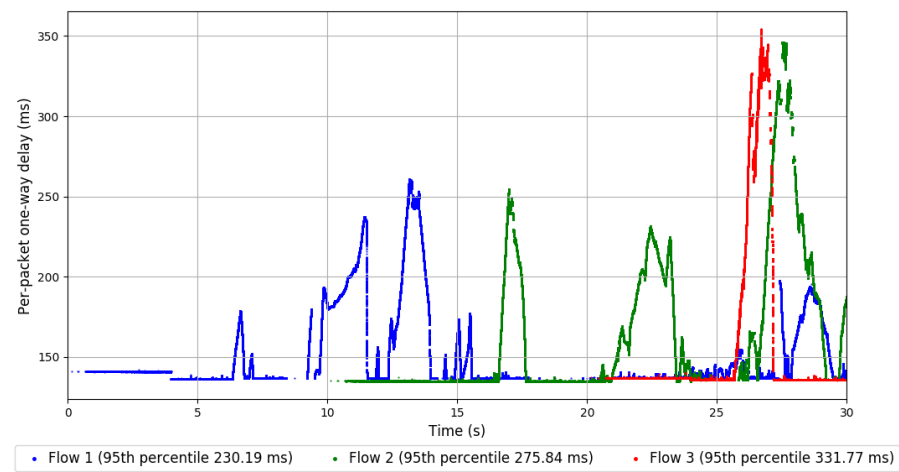
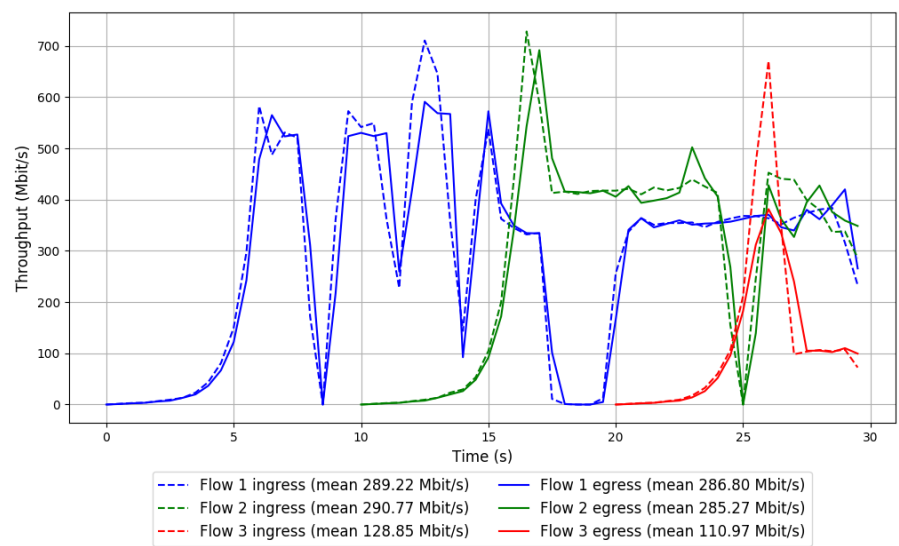
-- Flow 3:

Average throughput: 110.97 Mbit/s

95th percentile per-packet one-way delay: 331.771 ms

Loss rate: 13.89%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-03-07 18:34:11

End at: 2018-03-07 18:34:41

Below is generated by plot.py at 2018-03-07 23:45:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 560.39 Mbit/s

95th percentile per-packet one-way delay: 218.537 ms

Loss rate: 0.42%

-- Flow 1:

Average throughput: 318.73 Mbit/s

95th percentile per-packet one-way delay: 183.732 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 292.48 Mbit/s

95th percentile per-packet one-way delay: 255.664 ms

Loss rate: 0.19%

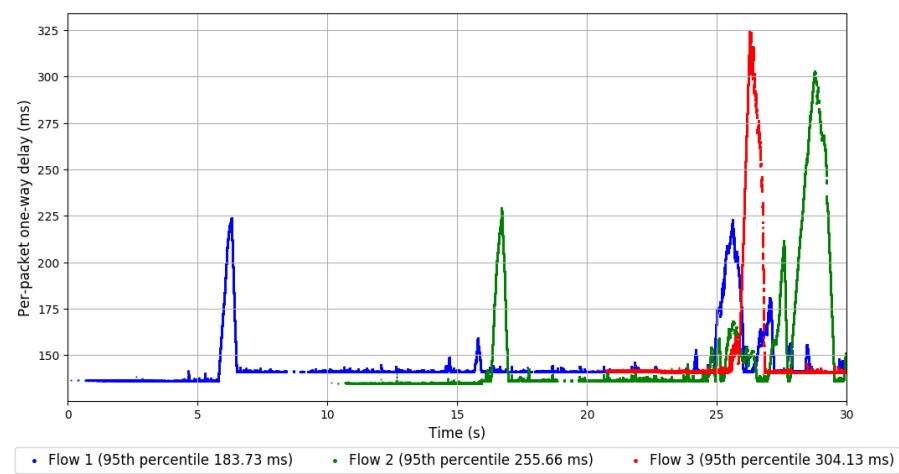
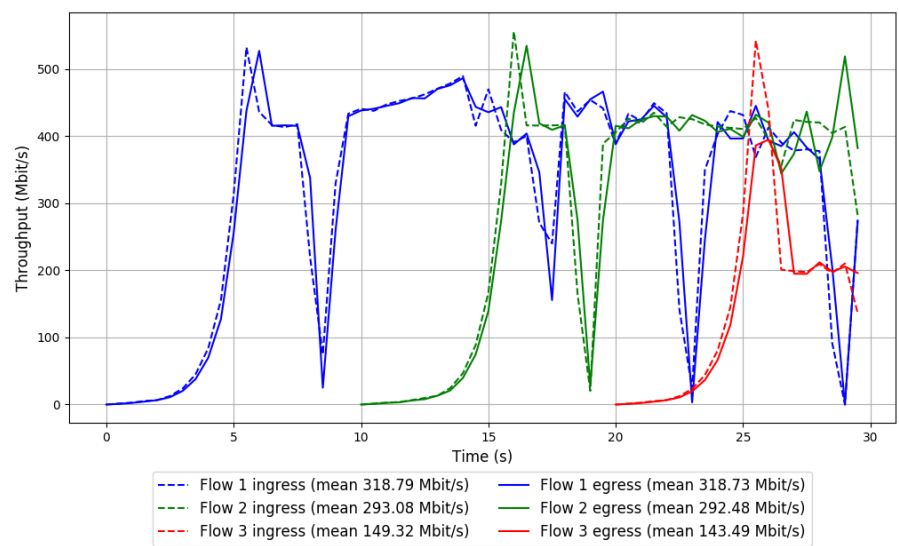
-- Flow 3:

Average throughput: 143.49 Mbit/s

95th percentile per-packet one-way delay: 304.133 ms

Loss rate: 3.94%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-03-07 18:54:14

End at: 2018-03-07 18:54:44

Below is generated by plot.py at 2018-03-07 23:46:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 533.57 Mbit/s

95th percentile per-packet one-way delay: 225.786 ms

Loss rate: 0.50%

-- Flow 1:

Average throughput: 332.03 Mbit/s

95th percentile per-packet one-way delay: 223.421 ms

Loss rate: 0.17%

-- Flow 2:

Average throughput: 233.81 Mbit/s

95th percentile per-packet one-way delay: 234.431 ms

Loss rate: 1.32%

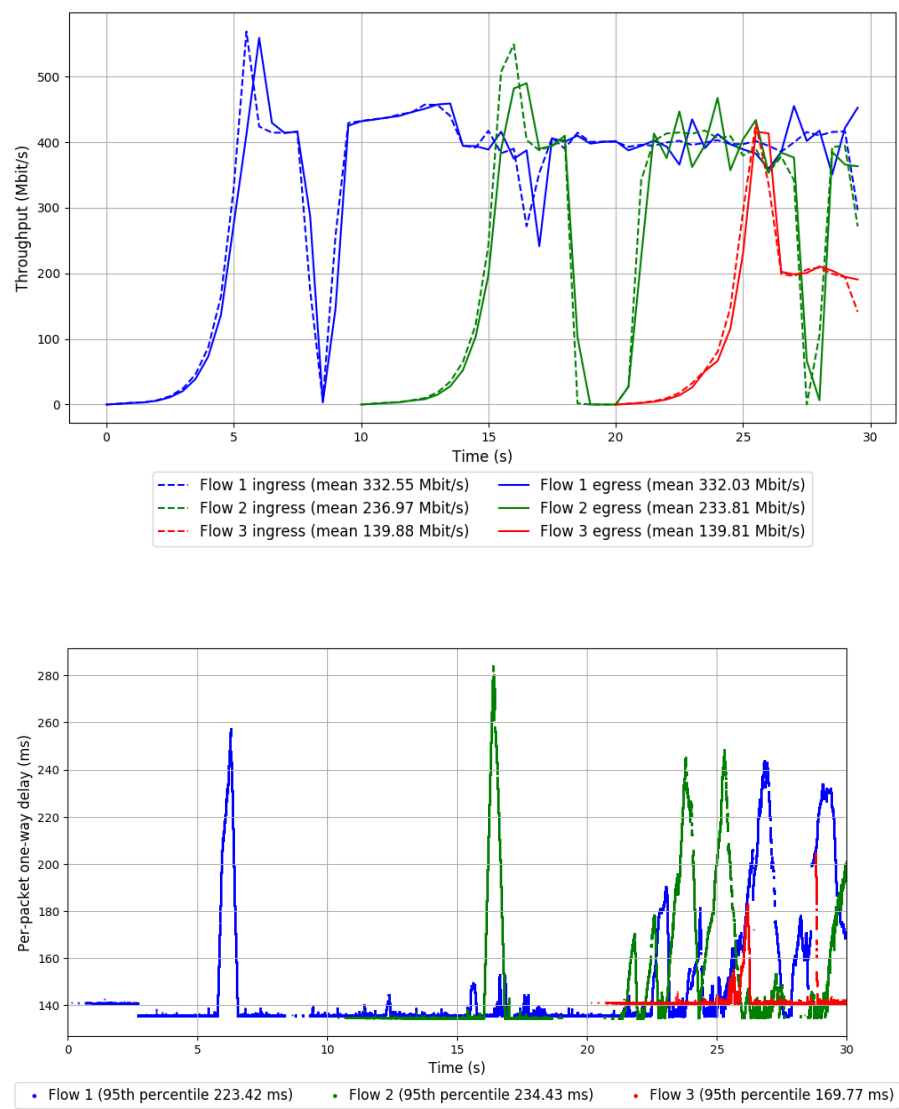
-- Flow 3:

Average throughput: 139.81 Mbit/s

95th percentile per-packet one-way delay: 169.766 ms

Loss rate: 0.09%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-03-07 19:14:16

End at: 2018-03-07 19:14:46

Below is generated by plot.py at 2018-03-07 23:46:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 473.21 Mbit/s

95th percentile per-packet one-way delay: 309.381 ms

Loss rate: 2.11%

-- Flow 1:

Average throughput: 288.17 Mbit/s

95th percentile per-packet one-way delay: 312.748 ms

Loss rate: 3.24%

-- Flow 2:

Average throughput: 191.03 Mbit/s

95th percentile per-packet one-way delay: 140.995 ms

Loss rate: 0.00%

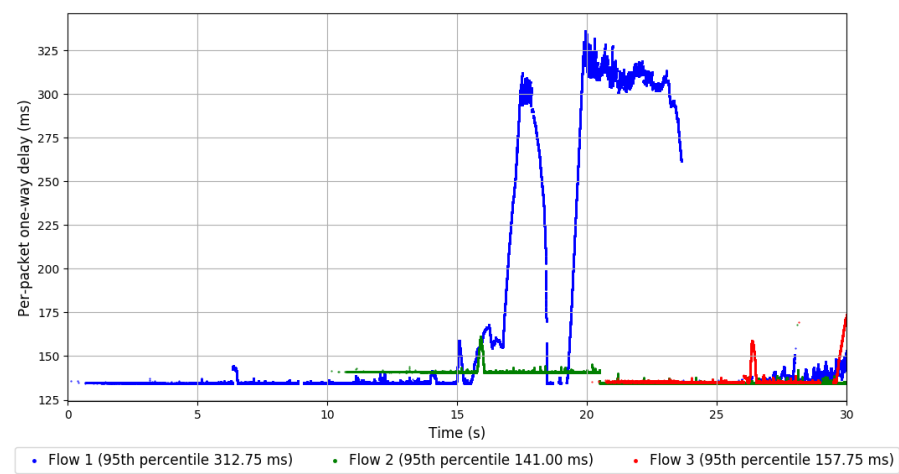
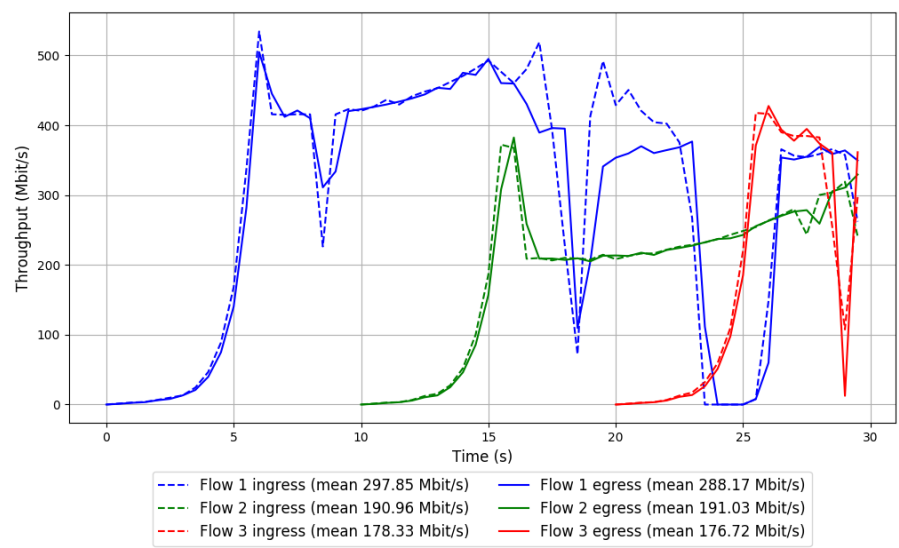
-- Flow 3:

Average throughput: 176.72 Mbit/s

95th percentile per-packet one-way delay: 157.747 ms

Loss rate: 0.88%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-03-07 19:34:05

End at: 2018-03-07 19:34:35

Below is generated by plot.py at 2018-03-07 23:46:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 432.56 Mbit/s

95th percentile per-packet one-way delay: 205.311 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 305.66 Mbit/s

95th percentile per-packet one-way delay: 196.383 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 125.05 Mbit/s

95th percentile per-packet one-way delay: 271.652 ms

Loss rate: 8.32%

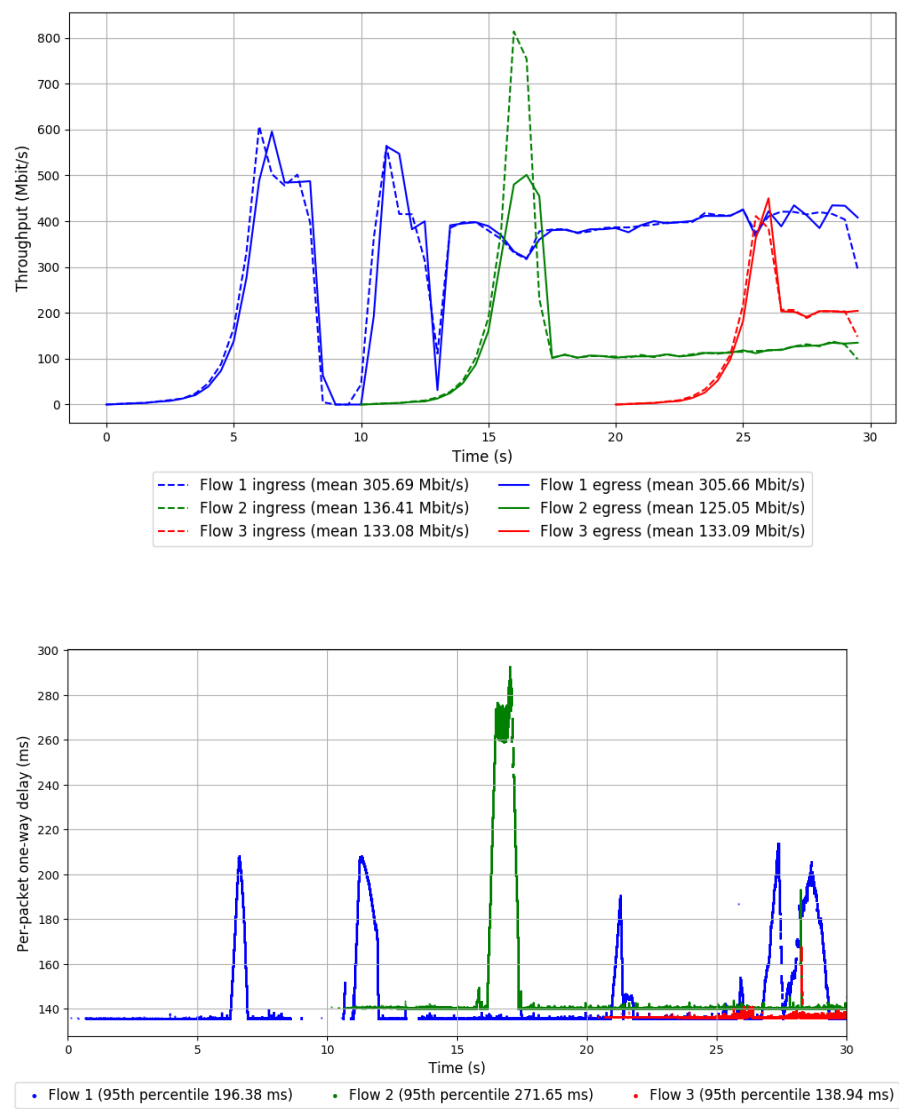
-- Flow 3:

Average throughput: 133.09 Mbit/s

95th percentile per-packet one-way delay: 138.938 ms

Loss rate: 0.00%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-03-07 19:54:08

End at: 2018-03-07 19:54:38

Below is generated by plot.py at 2018-03-07 23:48:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 486.36 Mbit/s

95th percentile per-packet one-way delay: 140.115 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 342.17 Mbit/s

95th percentile per-packet one-way delay: 139.477 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 109.40 Mbit/s

95th percentile per-packet one-way delay: 136.948 ms

Loss rate: 0.01%

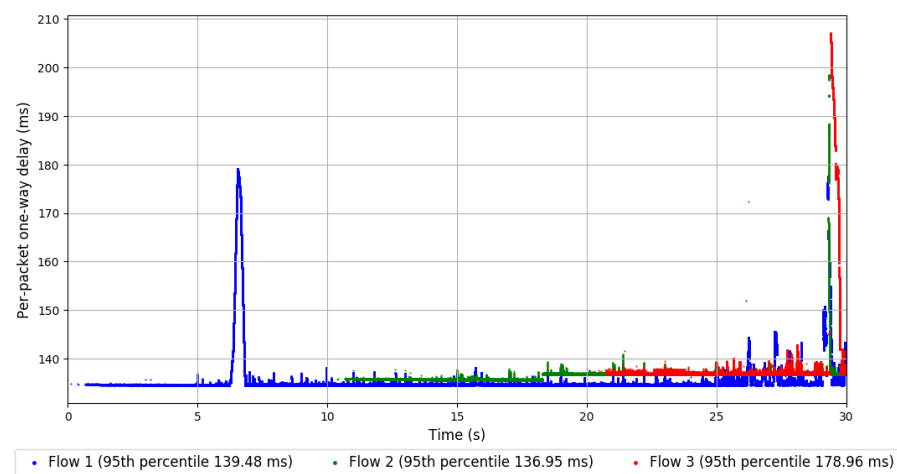
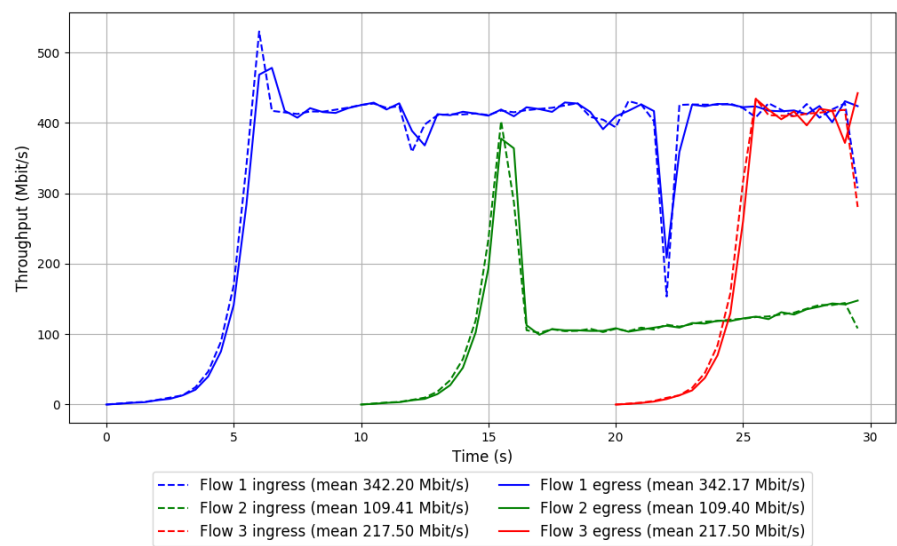
-- Flow 3:

Average throughput: 217.50 Mbit/s

95th percentile per-packet one-way delay: 178.958 ms

Loss rate: 0.01%

Run 10: Report of Vivace-loss — Data Link

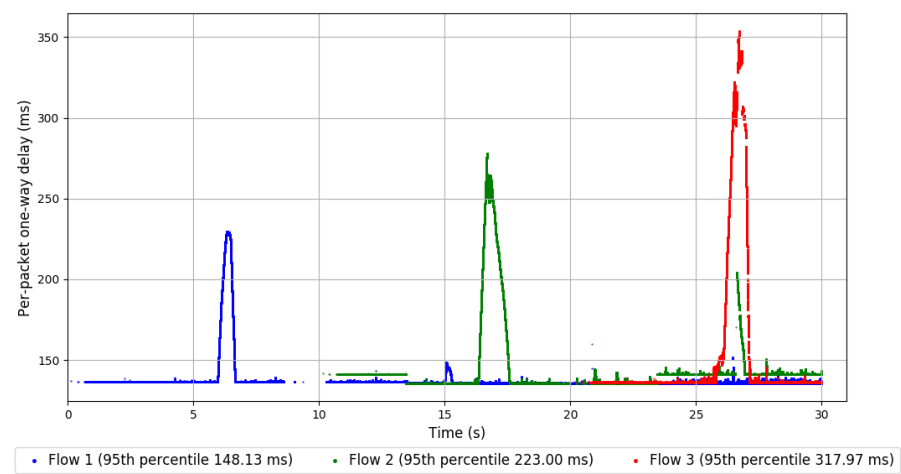
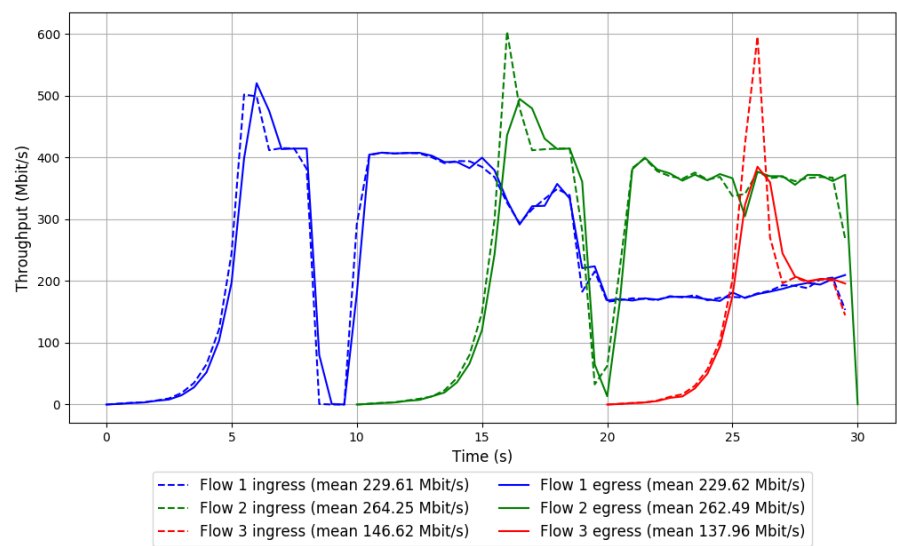


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-03-07 17:05:33
End at: 2018-03-07 17:06:03

# Below is generated by plot.py at 2018-03-07 23:48:46
# Datalink statistics
-- Total of 3 flows:
Average throughput: 449.39 Mbit/s
95th percentile per-packet one-way delay: 222.466 ms
Loss rate: 0.89%
-- Flow 1:
Average throughput: 229.62 Mbit/s
95th percentile per-packet one-way delay: 148.134 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 262.49 Mbit/s
95th percentile per-packet one-way delay: 222.995 ms
Loss rate: 0.69%
-- Flow 3:
Average throughput: 137.96 Mbit/s
95th percentile per-packet one-way delay: 317.972 ms
Loss rate: 5.91%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-03-07 17:25:10

End at: 2018-03-07 17:25:40

Below is generated by plot.py at 2018-03-07 23:50:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 508.29 Mbit/s

95th percentile per-packet one-way delay: 152.979 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 330.81 Mbit/s

95th percentile per-packet one-way delay: 145.149 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 193.58 Mbit/s

95th percentile per-packet one-way delay: 141.556 ms

Loss rate: 0.00%

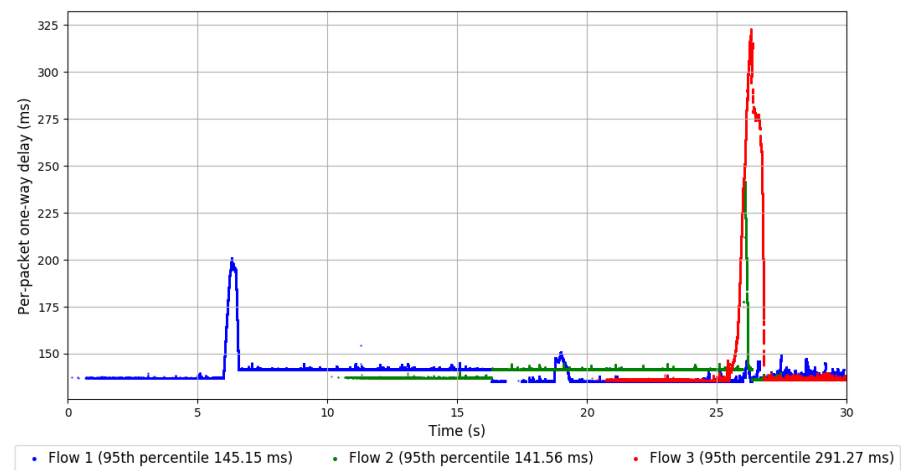
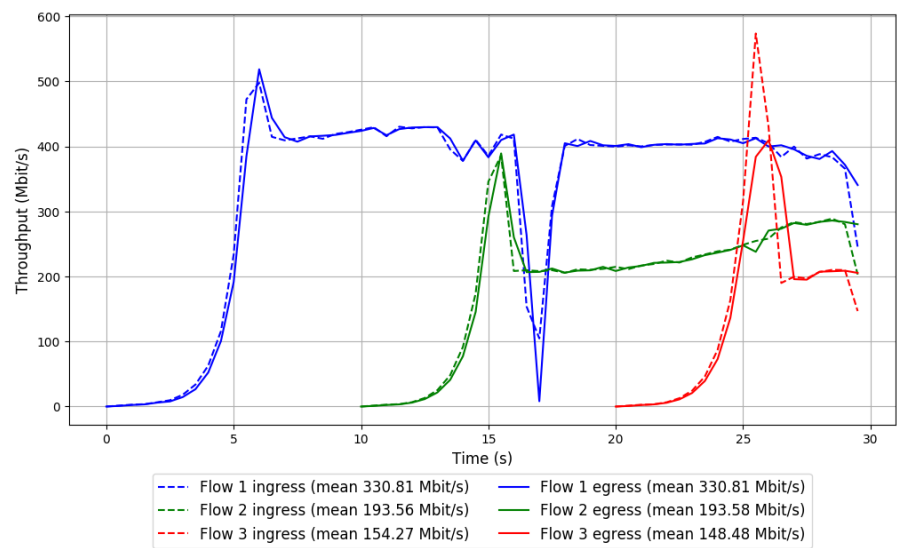
-- Flow 3:

Average throughput: 148.48 Mbit/s

95th percentile per-packet one-way delay: 291.273 ms

Loss rate: 3.76%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-07 17:45:07

End at: 2018-03-07 17:45:37

Below is generated by plot.py at 2018-03-07 23:53:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 531.06 Mbit/s

95th percentile per-packet one-way delay: 160.676 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 306.73 Mbit/s

95th percentile per-packet one-way delay: 150.043 ms

Loss rate: 0.06%

-- Flow 2:

Average throughput: 290.20 Mbit/s

95th percentile per-packet one-way delay: 164.481 ms

Loss rate: 0.02%

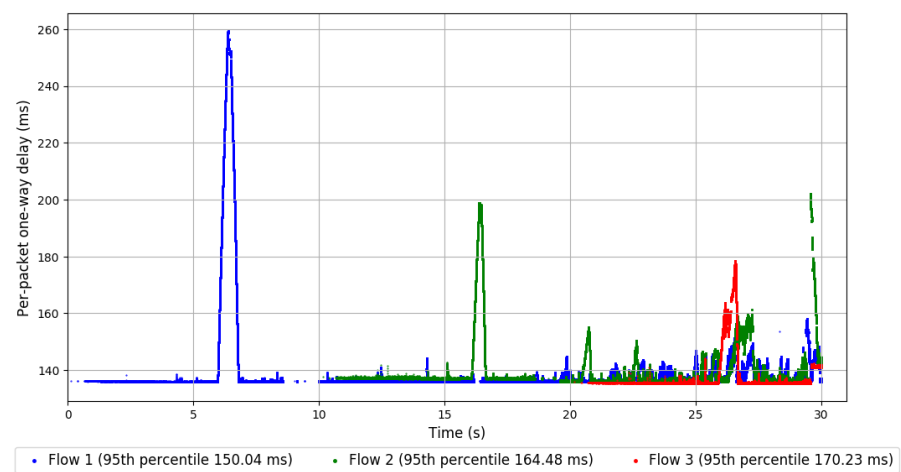
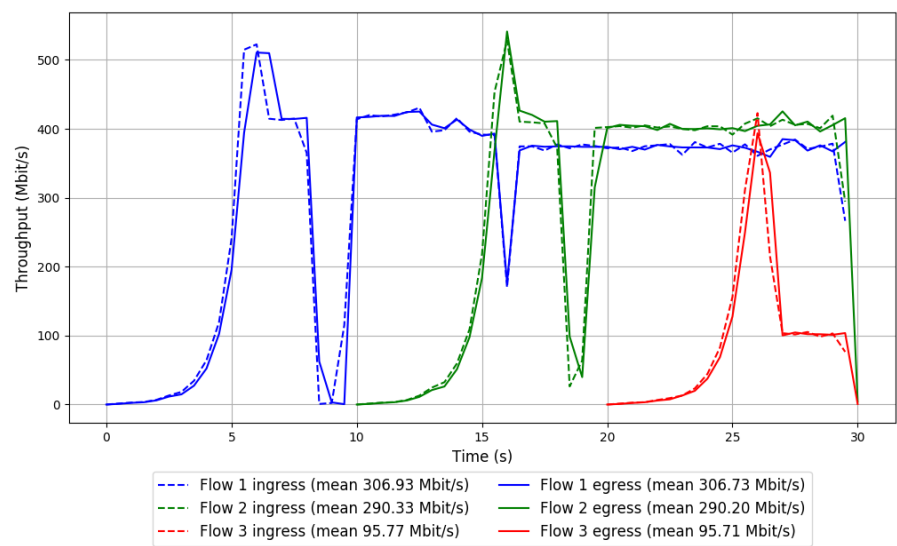
-- Flow 3:

Average throughput: 95.71 Mbit/s

95th percentile per-packet one-way delay: 170.230 ms

Loss rate: 0.00%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-03-07 18:05:06

End at: 2018-03-07 18:05:36

Below is generated by plot.py at 2018-03-07 23:54:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.57 Mbit/s

95th percentile per-packet one-way delay: 225.918 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 311.94 Mbit/s

95th percentile per-packet one-way delay: 242.015 ms

Loss rate: 0.11%

-- Flow 2:

Average throughput: 296.28 Mbit/s

95th percentile per-packet one-way delay: 167.491 ms

Loss rate: 0.04%

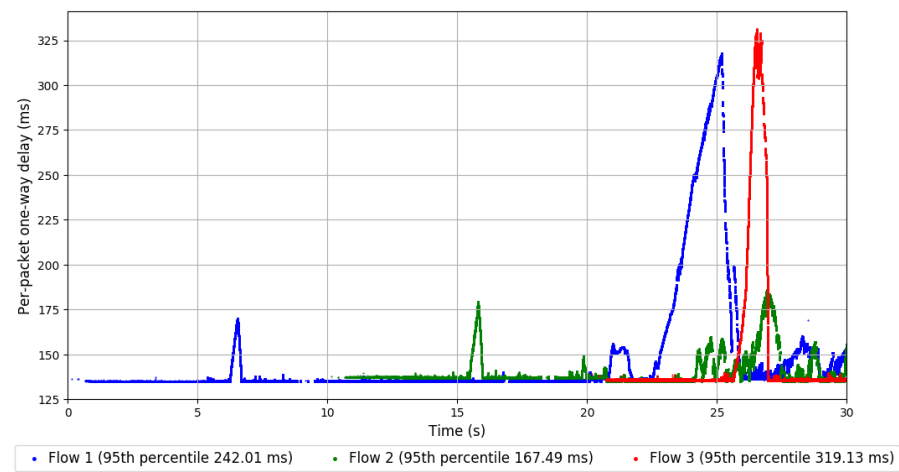
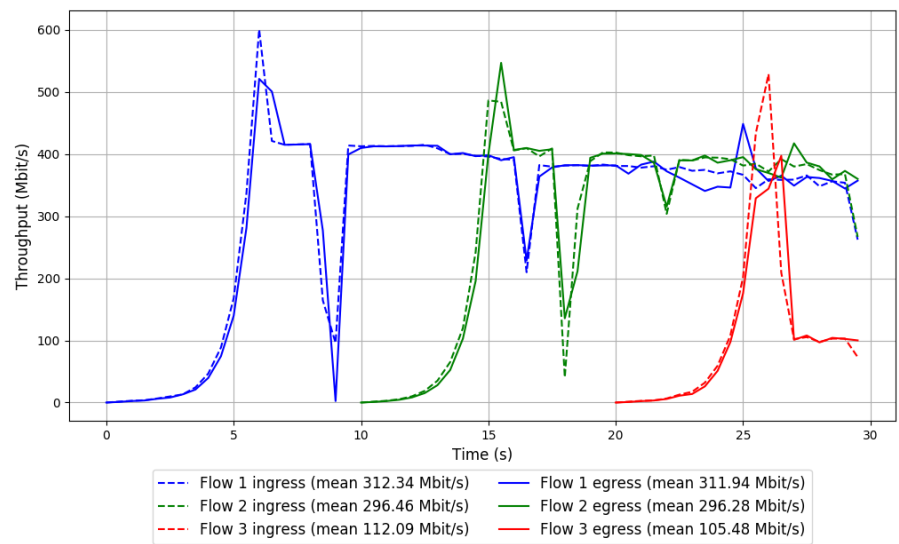
-- Flow 3:

Average throughput: 105.48 Mbit/s

95th percentile per-packet one-way delay: 319.127 ms

Loss rate: 5.94%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-03-07 18:25:36

End at: 2018-03-07 18:26:06

Below is generated by plot.py at 2018-03-07 23:54:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 497.38 Mbit/s

95th percentile per-packet one-way delay: 181.452 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 322.72 Mbit/s

95th percentile per-packet one-way delay: 185.057 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 195.10 Mbit/s

95th percentile per-packet one-way delay: 137.618 ms

Loss rate: 0.00%

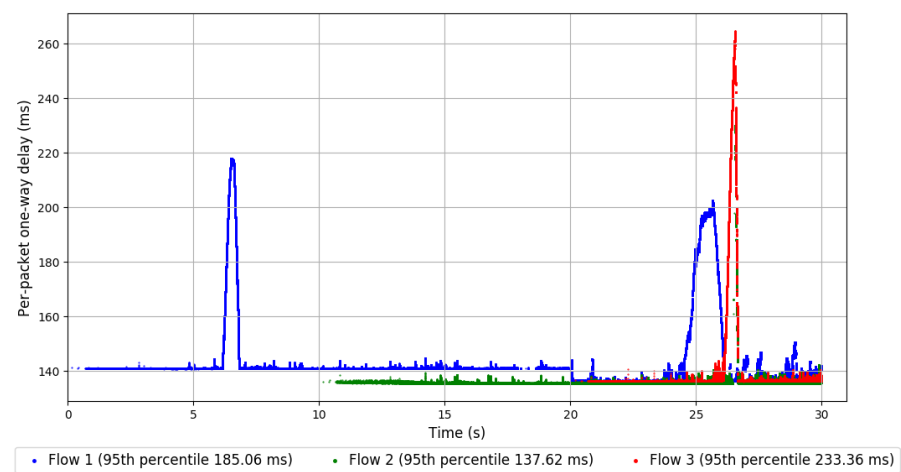
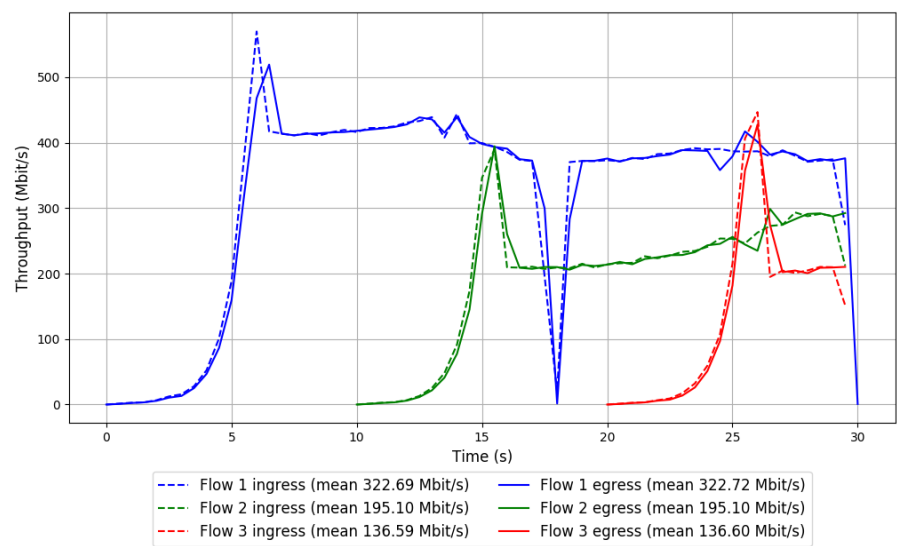
-- Flow 3:

Average throughput: 136.60 Mbit/s

95th percentile per-packet one-way delay: 233.362 ms

Loss rate: 0.00%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-03-07 18:45:46

End at: 2018-03-07 18:46:16

Below is generated by plot.py at 2018-03-07 23:55:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.46 Mbit/s

95th percentile per-packet one-way delay: 301.854 ms

Loss rate: 1.00%

-- Flow 1:

Average throughput: 313.57 Mbit/s

95th percentile per-packet one-way delay: 304.407 ms

Loss rate: 1.29%

-- Flow 2:

Average throughput: 268.01 Mbit/s

95th percentile per-packet one-way delay: 291.364 ms

Loss rate: 0.77%

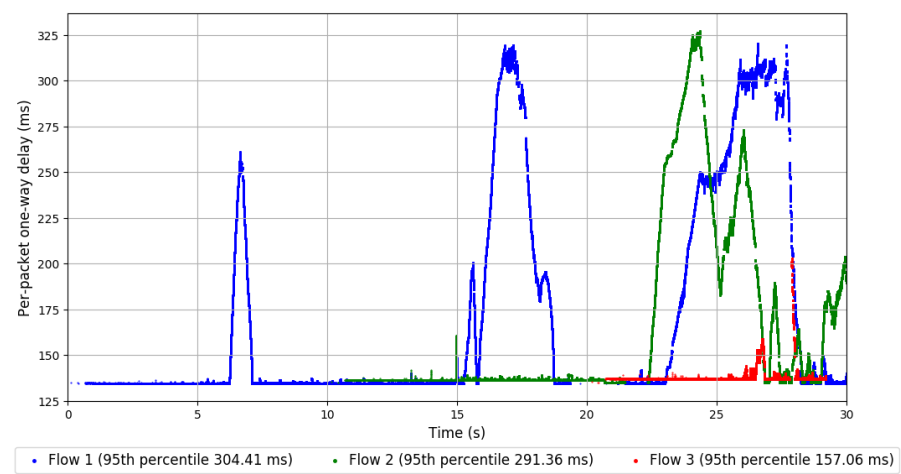
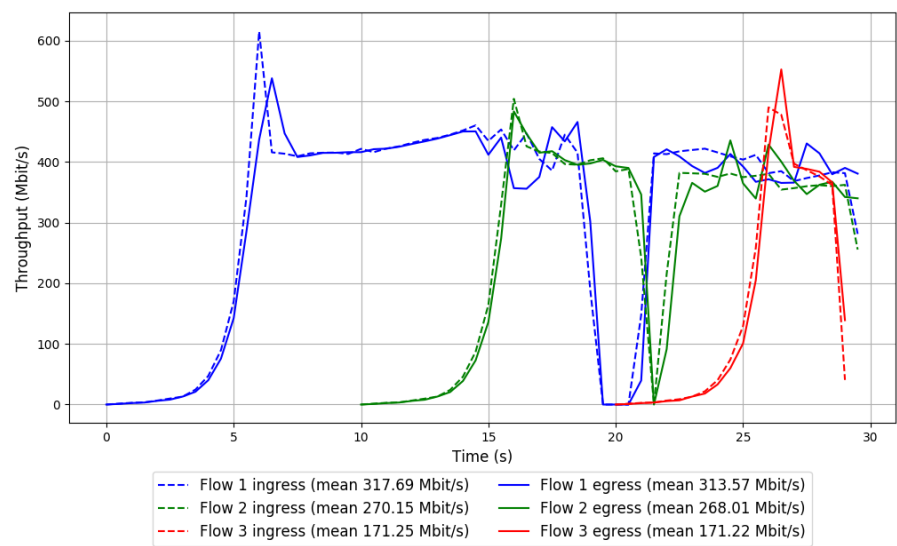
-- Flow 3:

Average throughput: 171.22 Mbit/s

95th percentile per-packet one-way delay: 157.063 ms

Loss rate: 0.00%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-03-07 19:05:54

End at: 2018-03-07 19:06:24

Below is generated by plot.py at 2018-03-07 23:55:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 512.79 Mbit/s

95th percentile per-packet one-way delay: 172.573 ms

Loss rate: 0.33%

-- Flow 1:

Average throughput: 306.67 Mbit/s

95th percentile per-packet one-way delay: 165.962 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 243.17 Mbit/s

95th percentile per-packet one-way delay: 142.734 ms

Loss rate: 0.00%

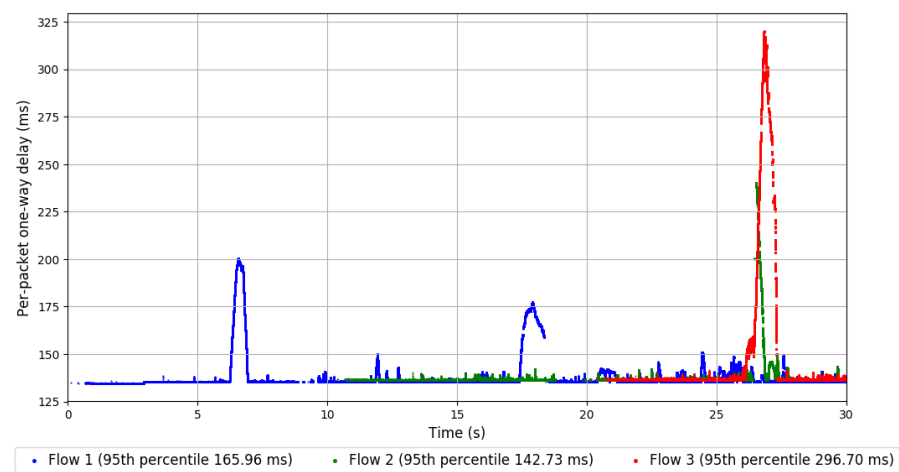
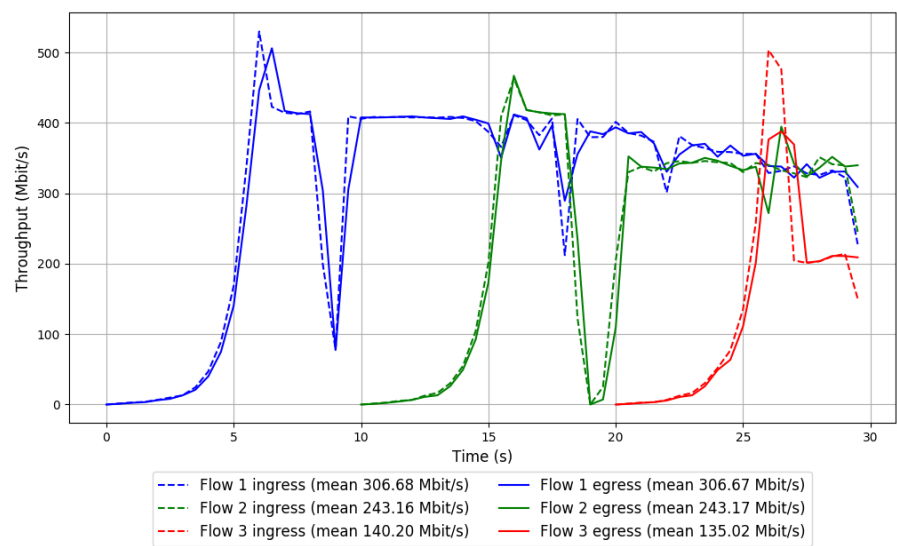
-- Flow 3:

Average throughput: 135.02 Mbit/s

95th percentile per-packet one-way delay: 296.701 ms

Loss rate: 3.70%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-03-07 19:25:44

End at: 2018-03-07 19:26:14

Below is generated by plot.py at 2018-03-07 23:55:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 518.91 Mbit/s

95th percentile per-packet one-way delay: 167.525 ms

Loss rate: 0.15%

-- Flow 1:

Average throughput: 303.86 Mbit/s

95th percentile per-packet one-way delay: 182.166 ms

Loss rate: 0.26%

-- Flow 2:

Average throughput: 257.26 Mbit/s

95th percentile per-packet one-way delay: 138.063 ms

Loss rate: 0.00%

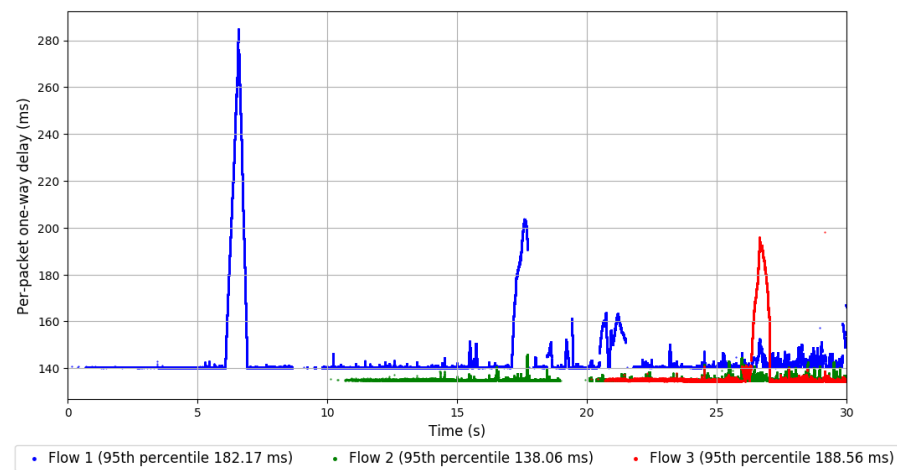
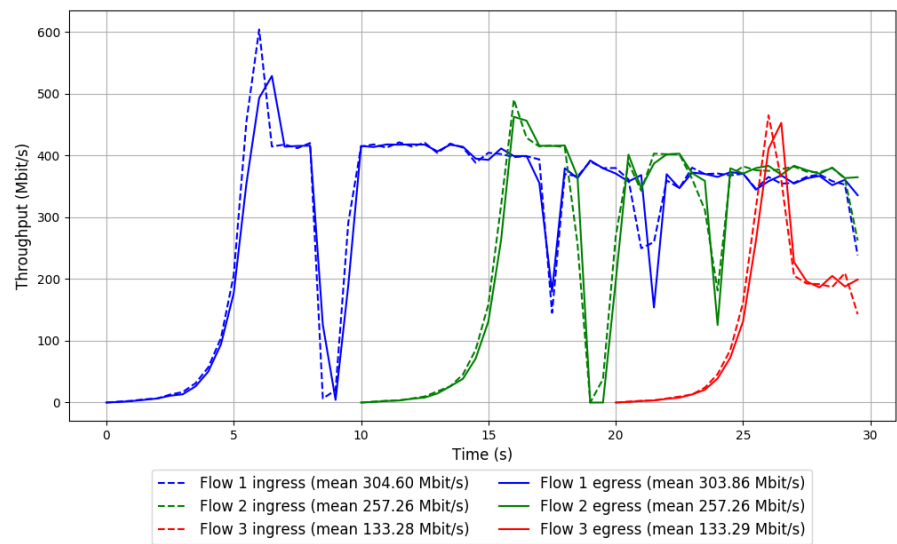
-- Flow 3:

Average throughput: 133.29 Mbit/s

95th percentile per-packet one-way delay: 188.565 ms

Loss rate: 0.00%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-03-07 19:45:49

End at: 2018-03-07 19:46:19

Below is generated by plot.py at 2018-03-07 23:55:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 481.02 Mbit/s

95th percentile per-packet one-way delay: 299.217 ms

Loss rate: 0.78%

-- Flow 1:

Average throughput: 317.84 Mbit/s

95th percentile per-packet one-way delay: 303.058 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 177.60 Mbit/s

95th percentile per-packet one-way delay: 140.419 ms

Loss rate: 0.00%

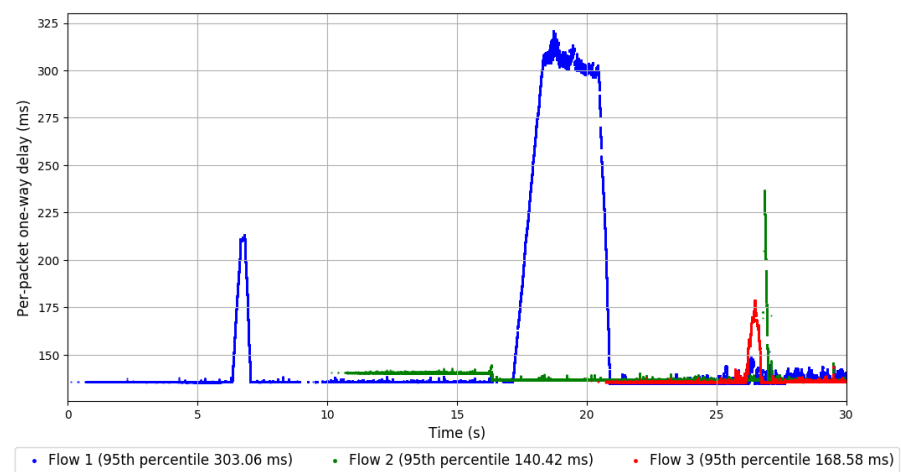
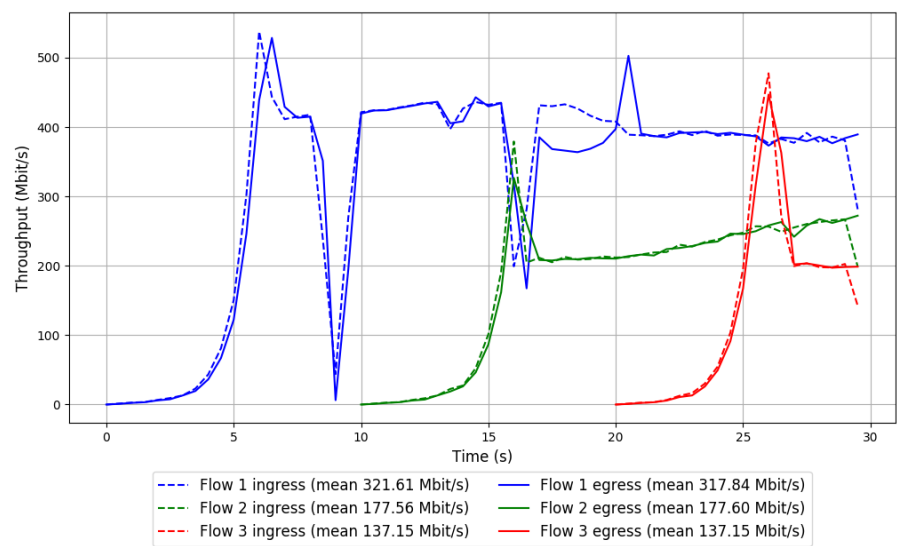
-- Flow 3:

Average throughput: 137.15 Mbit/s

95th percentile per-packet one-way delay: 168.582 ms

Loss rate: 0.00%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-03-07 20:05:48

End at: 2018-03-07 20:06:18

Below is generated by plot.py at 2018-03-07 23:56:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 480.81 Mbit/s

95th percentile per-packet one-way delay: 180.023 ms

Loss rate: 0.09%

-- Flow 1:

Average throughput: 314.82 Mbit/s

95th percentile per-packet one-way delay: 185.848 ms

Loss rate: 0.14%

-- Flow 2:

Average throughput: 192.33 Mbit/s

95th percentile per-packet one-way delay: 136.827 ms

Loss rate: 0.00%

-- Flow 3:

Average throughput: 116.22 Mbit/s

95th percentile per-packet one-way delay: 190.321 ms

Loss rate: 0.00%

Run 10: Report of Vivace-LTE — Data Link

