

Pantheon Report

Generated at 2018-02-18 05:30:31 (UTC).

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

Repeated the test of 17 congestion control schemes 10 times.

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

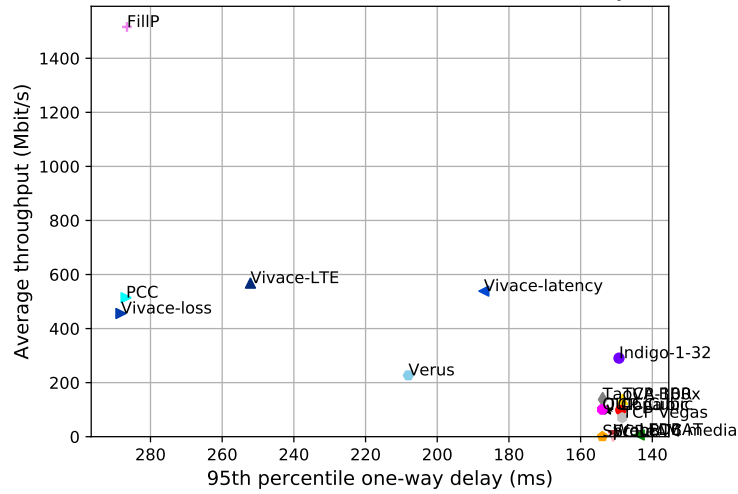
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

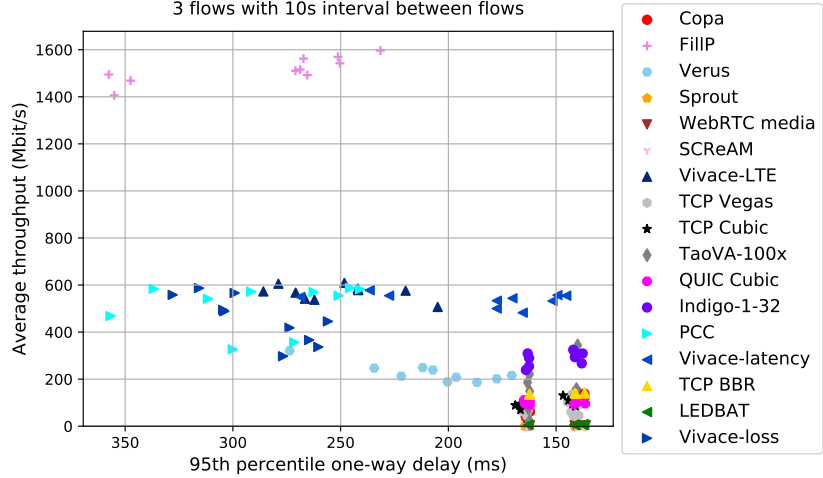
Git summary:

```
branch: master @ cccb2d77344969a7bac1df6edf6c0cfb6c77a6f8
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ 828bbf95fd4941149b5cec90f281d1c69ae1a5c6
third_party/genericCC @ 8400b8926887fc4cf8c795a1d7ce2c8ac041ec72
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quick @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webRTC @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



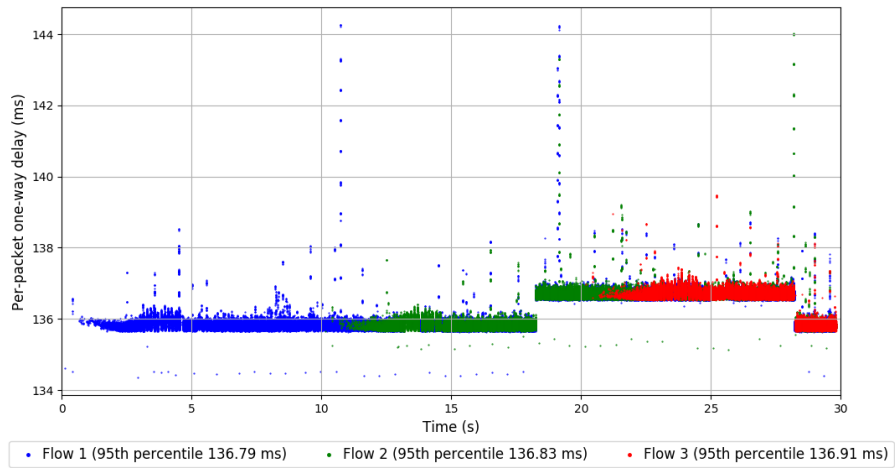
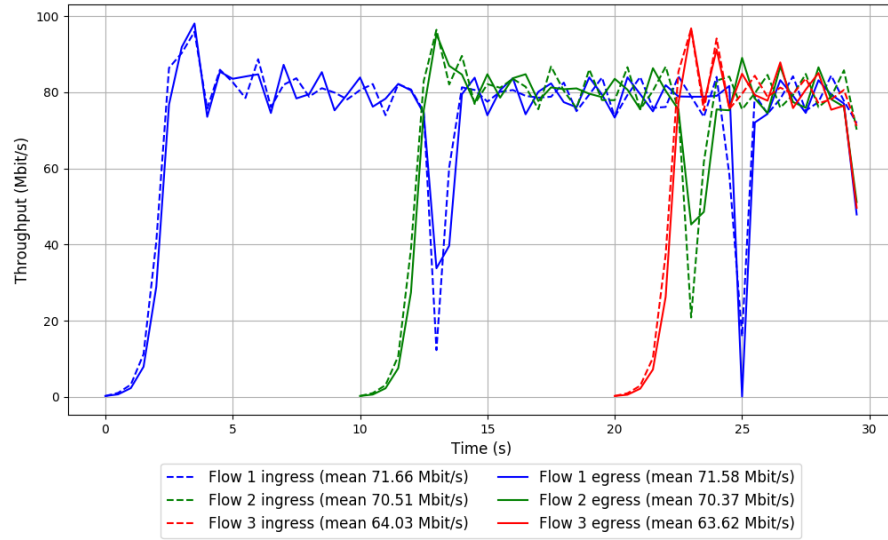
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	10	72.05	69.33	62.54	148.30	148.31	143.19	1.04	1.57	3.58
TCP Cubic	10	55.57	46.03	40.16	152.19	151.30	149.06	1.21	2.46	5.48
LEDBAT	10	3.94	2.81	1.31	143.72	143.20	142.99	2.07	2.91	5.96
PCC	10	382.78	170.63	59.46	285.56	253.93	250.99	3.43	3.90	5.60
QUIC Cubic	10	52.44	54.16	38.07	147.72	150.40	144.89	1.30	1.79	3.80
SCReAM	10	0.21	0.21	0.22	150.89	142.39	142.15	0.84	1.44	2.65
WebRTC media	10	1.91	1.25	0.42	145.10	144.28	145.37	1.13	1.94	5.52
Sprout	10	0.36	0.40	0.47	153.61	149.08	153.54	0.67	1.27	2.22
TaoVA-100x	10	51.72	83.56	112.42	153.49	153.89	148.46	0.61	0.42	2.46
TCP Vegas	10	33.57	41.42	28.63	149.76	148.61	146.75	0.94	1.50	3.22
Verus	10	130.92	120.42	51.79	194.93	198.51	233.62	1.07	1.47	3.18
Copa	10	54.54	52.08	42.65	148.31	146.16	147.80	0.94	2.13	3.09
FillP	10	818.70	743.45	630.57	244.28	289.59	310.65	6.65	9.82	15.56
Indigo-1-32	10	155.24	142.17	127.72	149.06	149.36	150.17	0.87	1.39	3.38
Vivace-latency	10	327.30	255.88	130.43	186.85	183.28	182.98	1.40	1.99	5.38
Vivace-loss	10	252.96	239.48	142.36	261.26	301.81	304.15	4.99	6.01	8.99
Vivace-LTE	10	342.78	276.76	132.88	256.56	239.85	211.52	1.88	2.35	5.37

```
Run 1: Statistics of TCP BBR

Start at: 2018-02-17 20:52:20
End at: 2018-02-17 20:52:50

# Below is generated by plot.py at 2018-02-18 03:41:11
# Datalink statistics
-- Total of 3 flows:
Average throughput: 138.78 Mbit/s
95th percentile per-packet one-way delay: 136.829 ms
Loss rate: 1.67%
-- Flow 1:
Average throughput: 71.58 Mbit/s
95th percentile per-packet one-way delay: 136.790 ms
Loss rate: 1.12%
-- Flow 2:
Average throughput: 70.37 Mbit/s
95th percentile per-packet one-way delay: 136.827 ms
Loss rate: 1.64%
-- Flow 3:
Average throughput: 63.62 Mbit/s
95th percentile per-packet one-way delay: 136.905 ms
Loss rate: 3.56%
```


Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-02-17 21:12:54

End at: 2018-02-17 21:13:24

Below is generated by plot.py at 2018-02-18 03:41:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.28 Mbit/s

95th percentile per-packet one-way delay: 162.372 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 72.25 Mbit/s

95th percentile per-packet one-way delay: 162.336 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 68.51 Mbit/s

95th percentile per-packet one-way delay: 162.367 ms

Loss rate: 1.56%

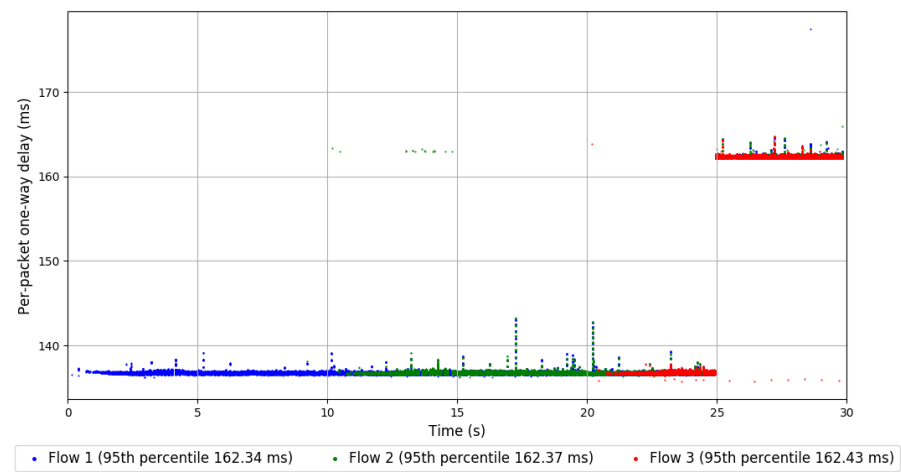
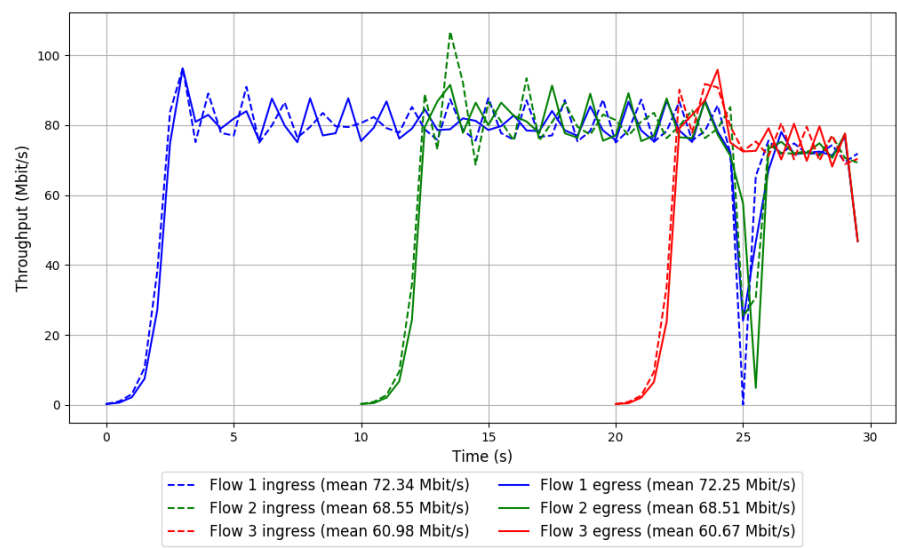
-- Flow 3:

Average throughput: 60.67 Mbit/s

95th percentile per-packet one-way delay: 162.432 ms

Loss rate: 3.53%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-02-17 21:33:30

End at: 2018-02-17 21:34:00

Below is generated by plot.py at 2018-02-18 03:41:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.47 Mbit/s

95th percentile per-packet one-way delay: 162.257 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 68.88 Mbit/s

95th percentile per-packet one-way delay: 162.274 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 67.57 Mbit/s

95th percentile per-packet one-way delay: 162.255 ms

Loss rate: 1.56%

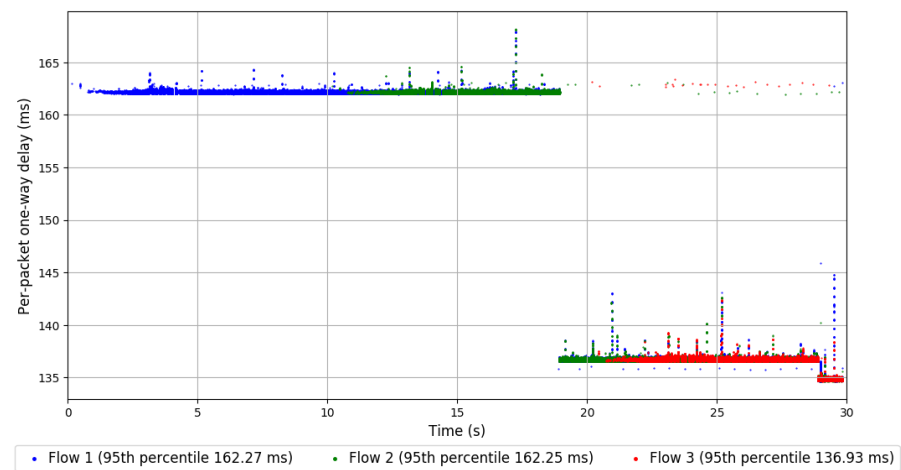
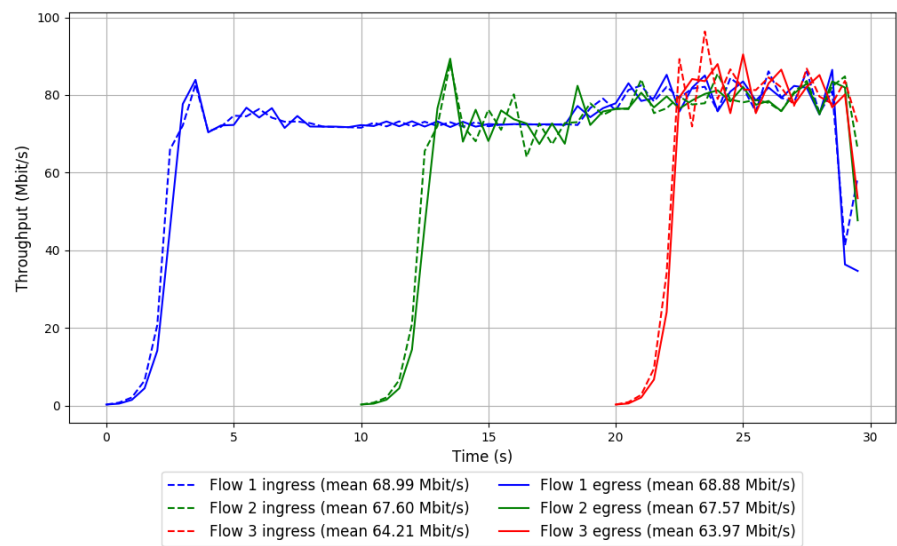
-- Flow 3:

Average throughput: 63.97 Mbit/s

95th percentile per-packet one-way delay: 136.925 ms

Loss rate: 3.37%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-02-17 21:53:35

End at: 2018-02-17 21:54:05

Below is generated by plot.py at 2018-02-18 03:41:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 137.11 Mbit/s

95th percentile per-packet one-way delay: 140.667 ms

Loss rate: 1.64%

-- Flow 1:

Average throughput: 71.90 Mbit/s

95th percentile per-packet one-way delay: 140.657 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 68.56 Mbit/s

95th percentile per-packet one-way delay: 140.683 ms

Loss rate: 1.53%

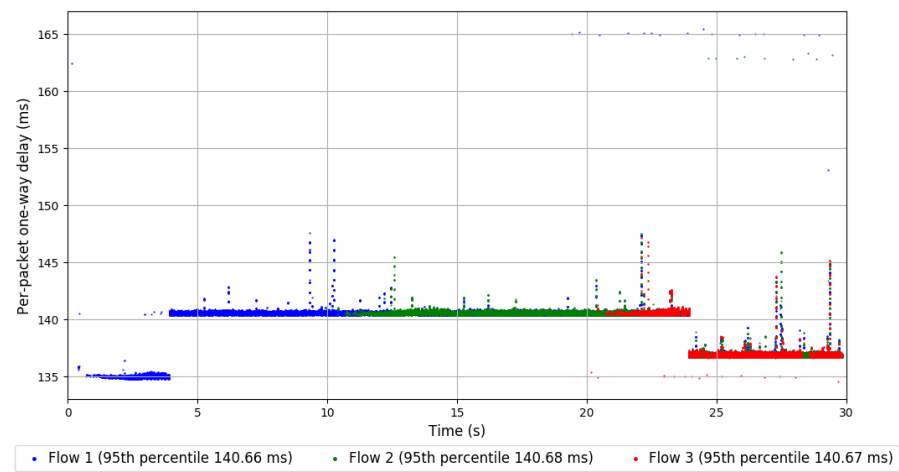
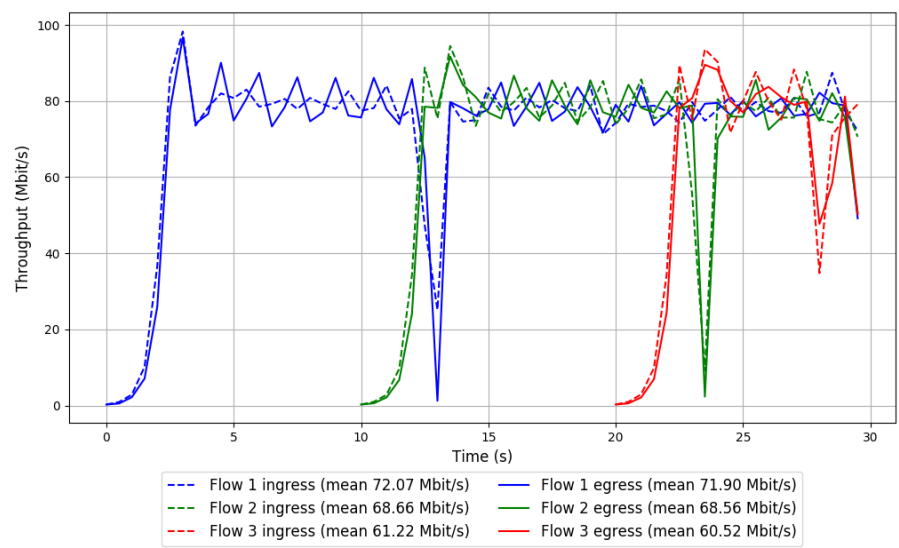
-- Flow 3:

Average throughput: 60.52 Mbit/s

95th percentile per-packet one-way delay: 140.670 ms

Loss rate: 3.86%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-02-17 22:13:56

End at: 2018-02-17 22:14:26

Below is generated by plot.py at 2018-02-18 03:41:14

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.65 Mbit/s

95th percentile per-packet one-way delay: 136.940 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 75.24 Mbit/s

95th percentile per-packet one-way delay: 136.931 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 68.81 Mbit/s

95th percentile per-packet one-way delay: 136.974 ms

Loss rate: 1.59%

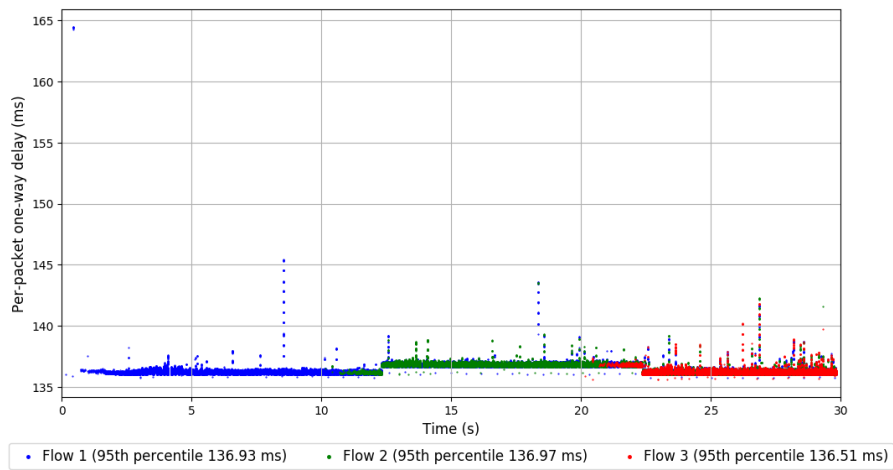
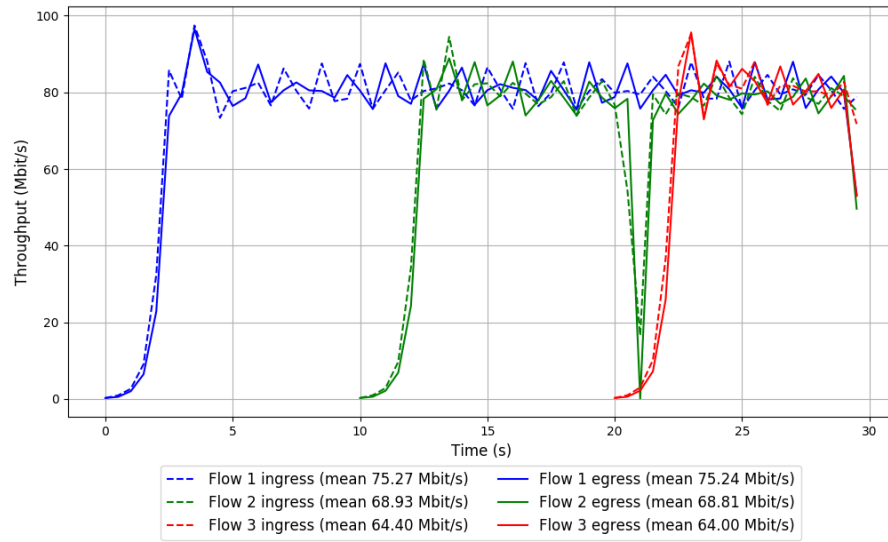
-- Flow 3:

Average throughput: 64.00 Mbit/s

95th percentile per-packet one-way delay: 136.513 ms

Loss rate: 3.35%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-02-17 22:34:32

End at: 2018-02-17 22:35:02

Below is generated by plot.py at 2018-02-18 03:41:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 142.57 Mbit/s

95th percentile per-packet one-way delay: 136.621 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 73.65 Mbit/s

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

Loss rate: 0.97%

-- Flow 2:

Average throughput: 72.66 Mbit/s

95th percentile per-packet one-way delay: 136.645 ms

Loss rate: 1.48%

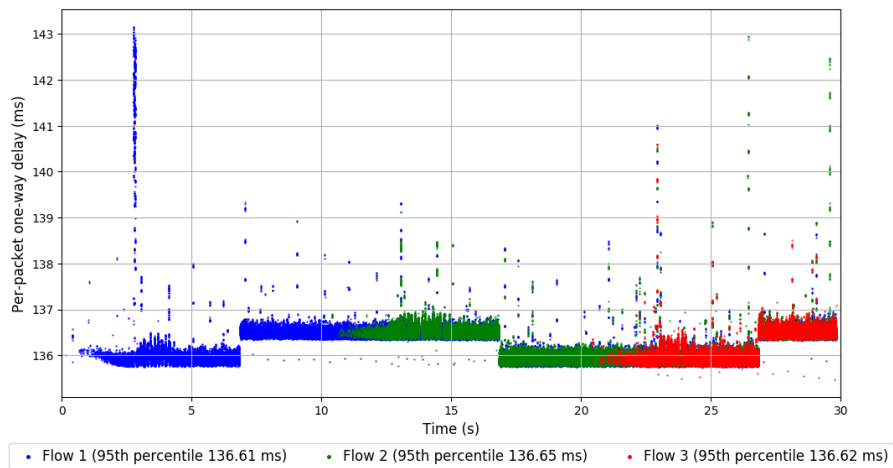
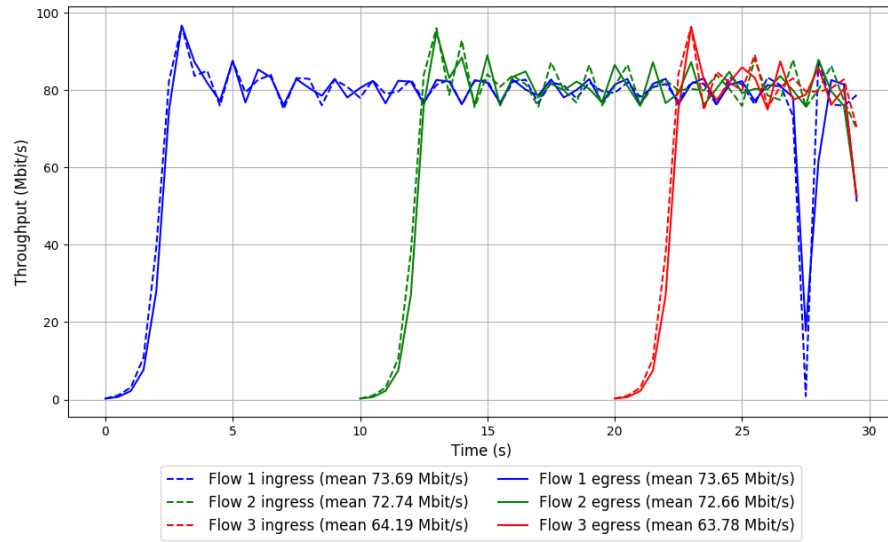
-- Flow 3:

Average throughput: 63.78 Mbit/s

95th percentile per-packet one-way delay: 136.621 ms

Loss rate: 3.37%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-02-17 22:55:14

End at: 2018-02-17 22:55:44

Below is generated by plot.py at 2018-02-18 03:41:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.54 Mbit/s

95th percentile per-packet one-way delay: 162.379 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 70.29 Mbit/s

95th percentile per-packet one-way delay: 162.382 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 68.88 Mbit/s

95th percentile per-packet one-way delay: 162.370 ms

Loss rate: 1.74%

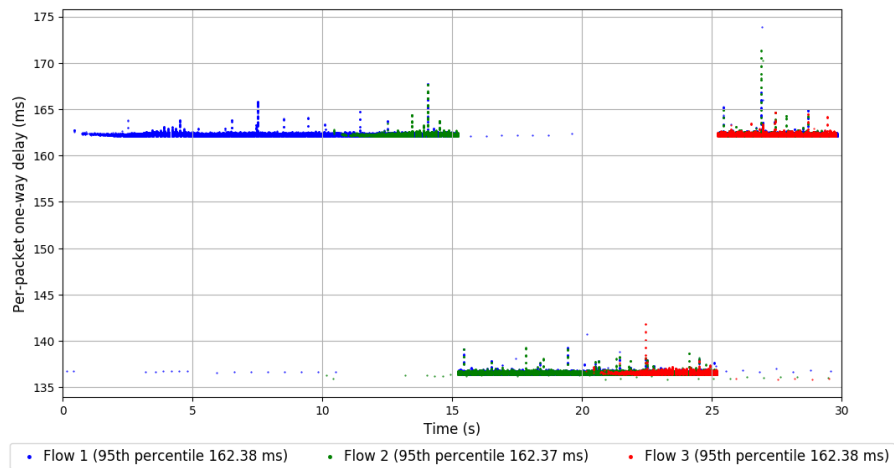
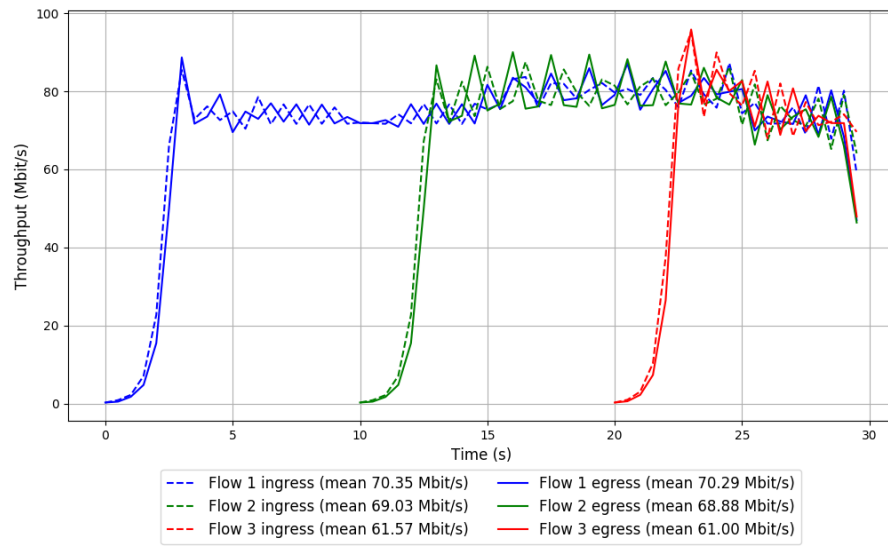
-- Flow 3:

Average throughput: 61.00 Mbit/s

95th percentile per-packet one-way delay: 162.380 ms

Loss rate: 3.92%

Run 7: Report of TCP BBR — Data Link



Run 8: Statistics of TCP BBR

Start at: 2018-02-17 23:15:20

End at: 2018-02-17 23:15:50

Below is generated by plot.py at 2018-02-18 03:41:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 134.75 Mbit/s

95th percentile per-packet one-way delay: 162.402 ms

Loss rate: 1.63%

-- Flow 1:

Average throughput: 70.55 Mbit/s

95th percentile per-packet one-way delay: 162.410 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 66.21 Mbit/s

95th percentile per-packet one-way delay: 162.421 ms

Loss rate: 1.57%

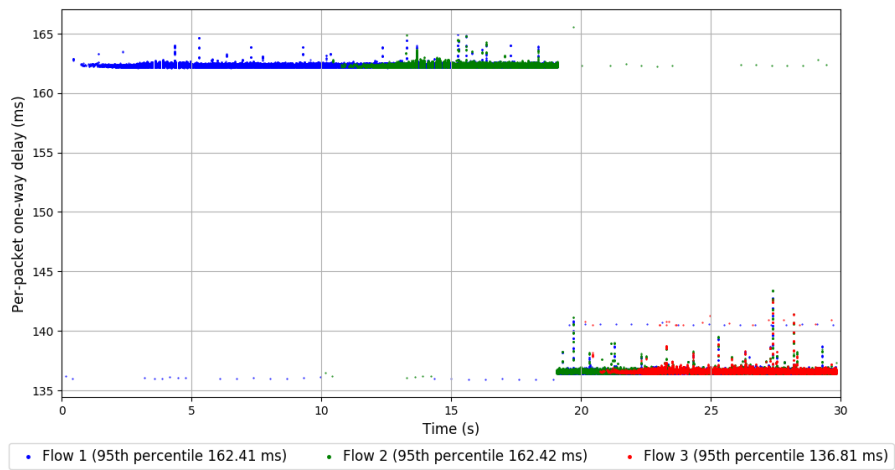
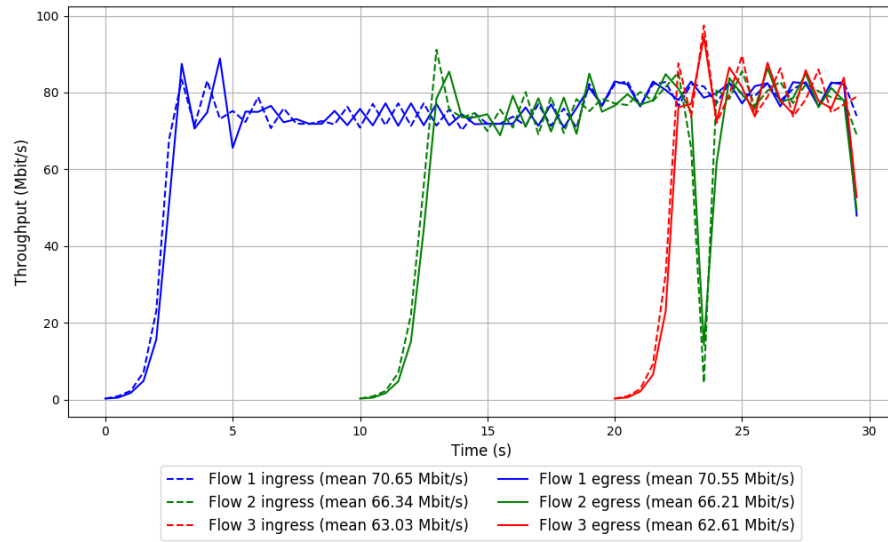
-- Flow 3:

Average throughput: 62.61 Mbit/s

95th percentile per-packet one-way delay: 136.813 ms

Loss rate: 3.45%

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-02-17 23:36:13

End at: 2018-02-17 23:36:43

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 141.53 Mbit/s

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

Loss rate: 1.58%

-- Flow 1:

Average throughput: 73.21 Mbit/s

95th percentile per-packet one-way delay: 141.421 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 72.13 Mbit/s

95th percentile per-packet one-way delay: 141.405 ms

Loss rate: 1.50%

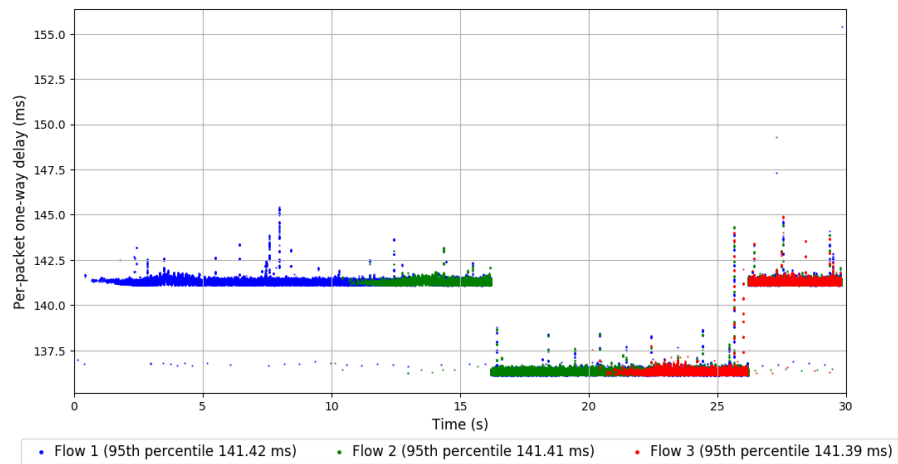
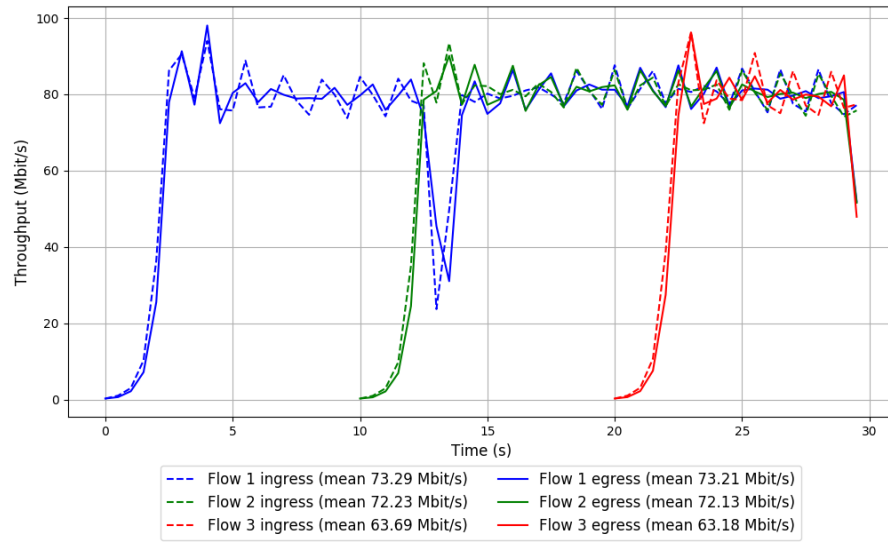
-- Flow 3:

Average throughput: 63.18 Mbit/s

95th percentile per-packet one-way delay: 141.393 ms

Loss rate: 3.78%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-02-17 23:56:37

End at: 2018-02-17 23:57:07

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.26 Mbit/s

95th percentile per-packet one-way delay: 141.204 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 72.96 Mbit/s

95th percentile per-packet one-way delay: 141.199 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 69.65 Mbit/s

95th percentile per-packet one-way delay: 141.157 ms

Loss rate: 1.54%

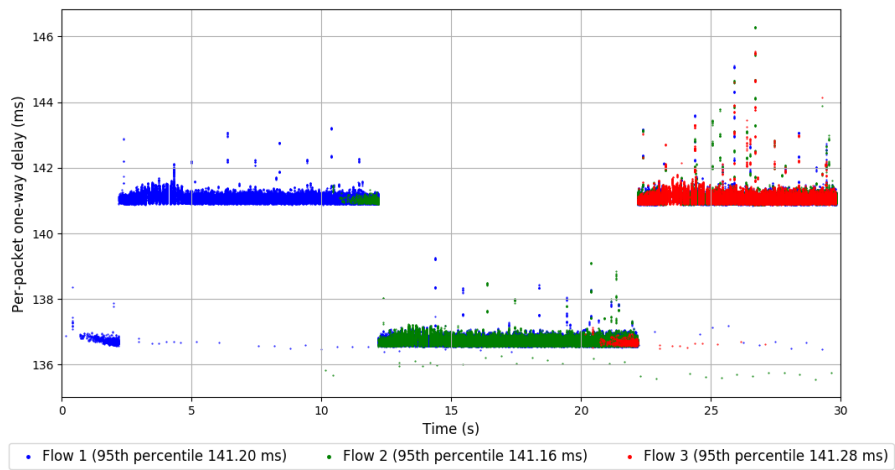
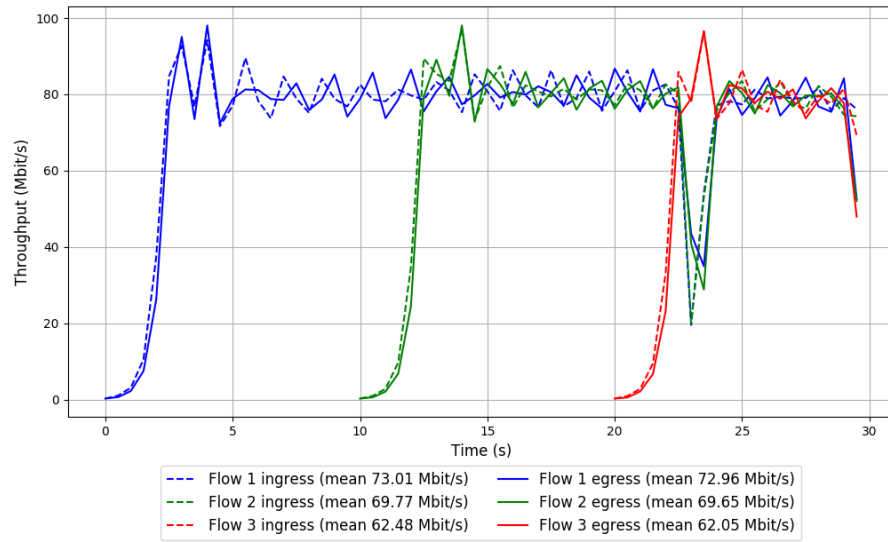
-- Flow 3:

Average throughput: 62.05 Mbit/s

95th percentile per-packet one-way delay: 141.284 ms

Loss rate: 3.59%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-02-17 20:43:14

End at: 2018-02-17 20:43:44

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.17 Mbit/s

95th percentile per-packet one-way delay: 142.330 ms

Loss rate: 1.98%

-- Flow 1:

Average throughput: 54.81 Mbit/s

95th percentile per-packet one-way delay: 142.674 ms

Loss rate: 1.45%

-- Flow 2:

Average throughput: 42.00 Mbit/s

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

Loss rate: 1.75%

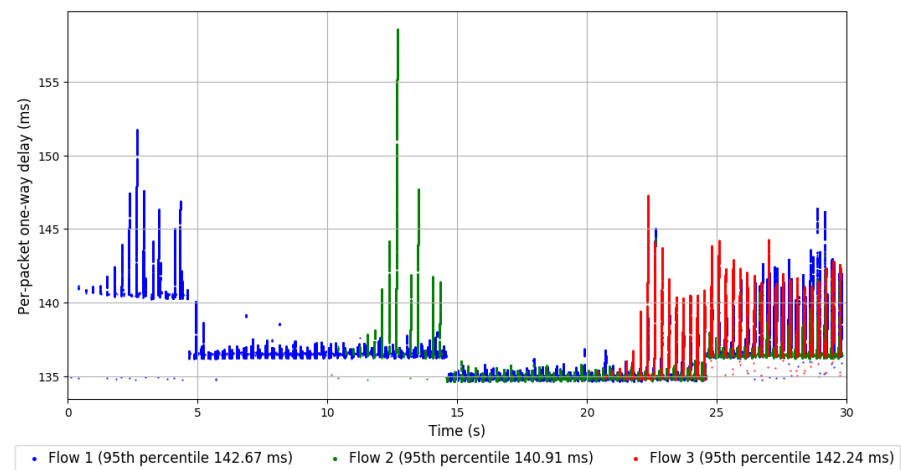
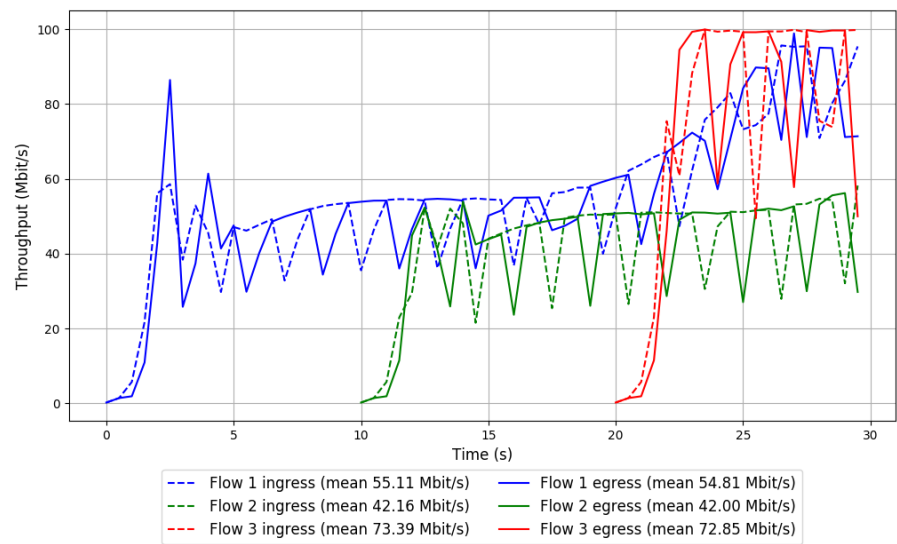
-- Flow 3:

Average throughput: 72.85 Mbit/s

95th percentile per-packet one-way delay: 142.238 ms

Loss rate: 3.44%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-17 21:03:57

End at: 2018-02-17 21:04:27

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.66 Mbit/s

95th percentile per-packet one-way delay: 166.540 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 34.26 Mbit/s

95th percentile per-packet one-way delay: 167.648 ms

Loss rate: 1.09%

-- Flow 2:

Average throughput: 31.71 Mbit/s

95th percentile per-packet one-way delay: 163.211 ms

Loss rate: 1.89%

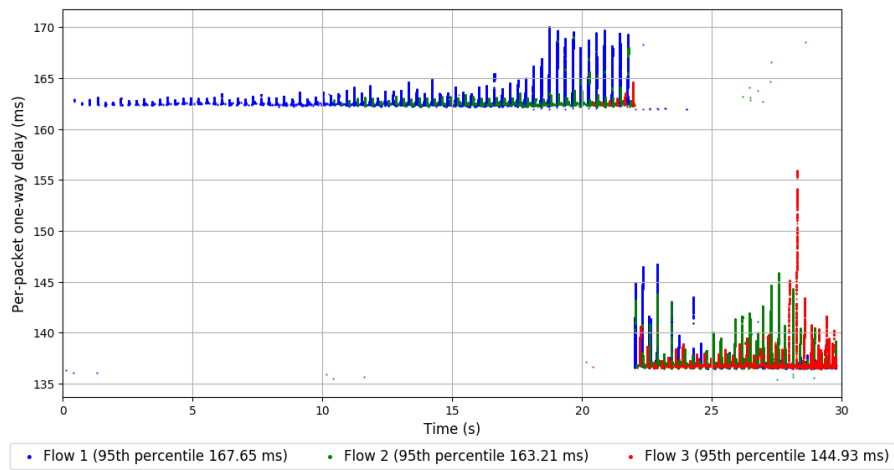
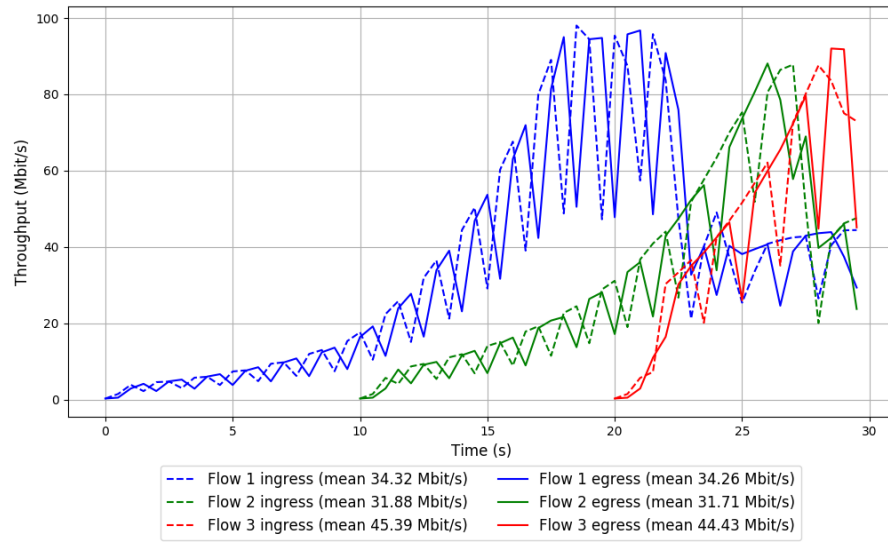
-- Flow 3:

Average throughput: 44.43 Mbit/s

95th percentile per-packet one-way delay: 144.929 ms

Loss rate: 5.20%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-02-17 21:24:32

End at: 2018-02-17 21:25:02

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 88.84 Mbit/s

95th percentile per-packet one-way delay: 168.962 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 46.74 Mbit/s

95th percentile per-packet one-way delay: 167.917 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 38.41 Mbit/s

95th percentile per-packet one-way delay: 163.901 ms

Loss rate: 1.59%

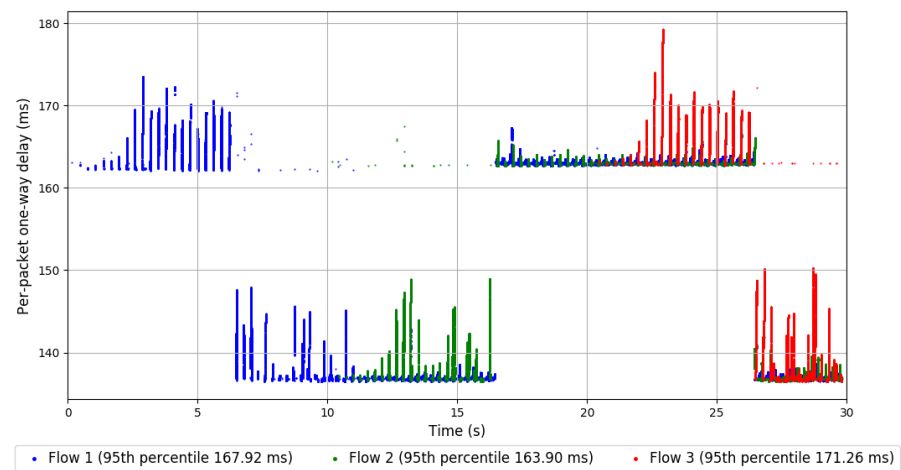
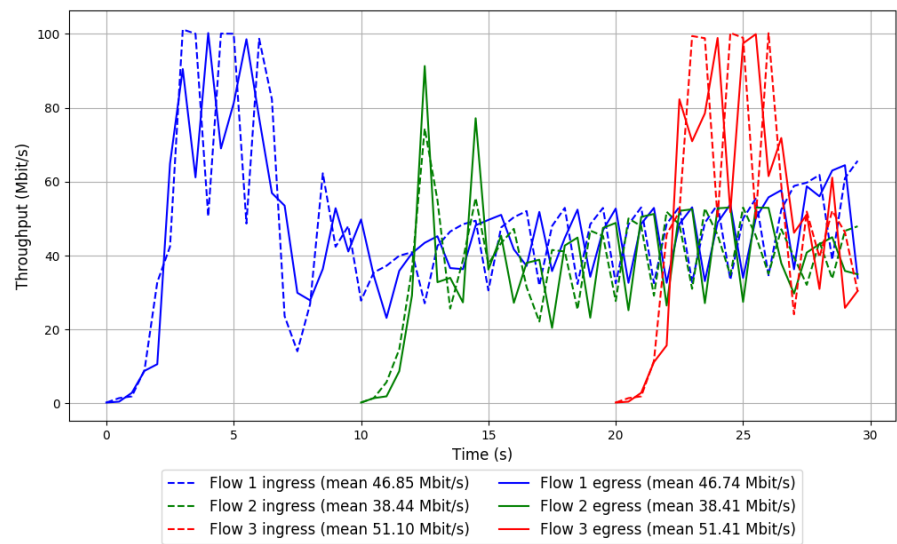
-- Flow 3:

Average throughput: 51.41 Mbit/s

95th percentile per-packet one-way delay: 171.256 ms

Loss rate: 2.42%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-02-17 21:44:33

End at: 2018-02-17 21:45:03

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.81 Mbit/s

95th percentile per-packet one-way delay: 166.749 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 48.32 Mbit/s

95th percentile per-packet one-way delay: 166.788 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 48.61 Mbit/s

95th percentile per-packet one-way delay: 165.377 ms

Loss rate: 1.88%

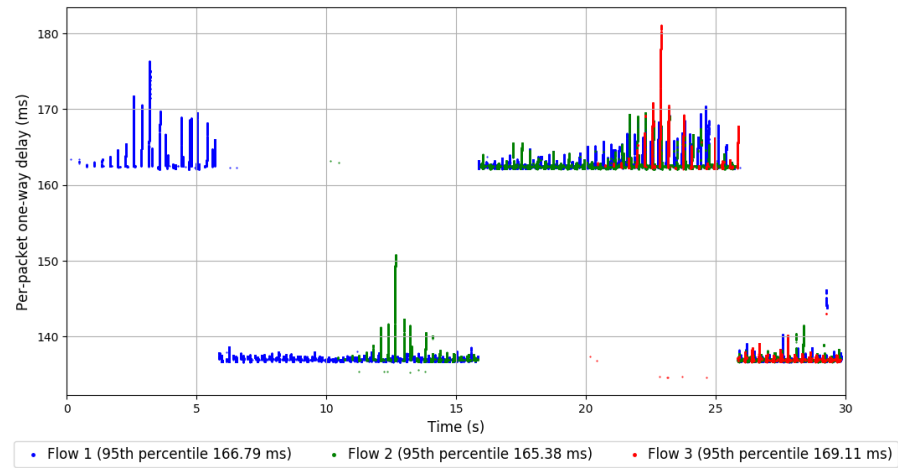
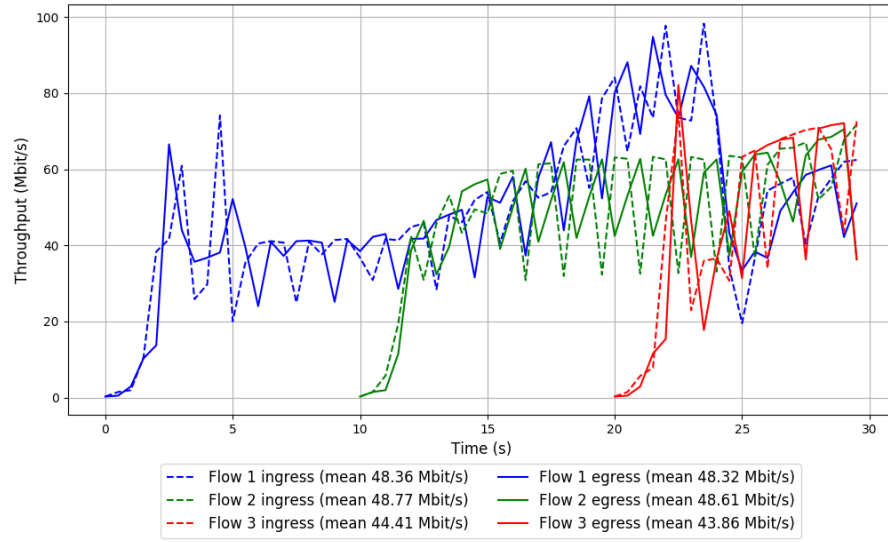
-- Flow 3:

Average throughput: 43.86 Mbit/s

95th percentile per-packet one-way delay: 169.107 ms

Loss rate: 4.12%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-02-17 22:05:05

End at: 2018-02-17 22:05:35

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 109.81 Mbit/s

95th percentile per-packet one-way delay: 144.226 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 57.35 Mbit/s

95th percentile per-packet one-way delay: 143.380 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 79.87 Mbit/s

95th percentile per-packet one-way delay: 144.615 ms

Loss rate: 1.58%

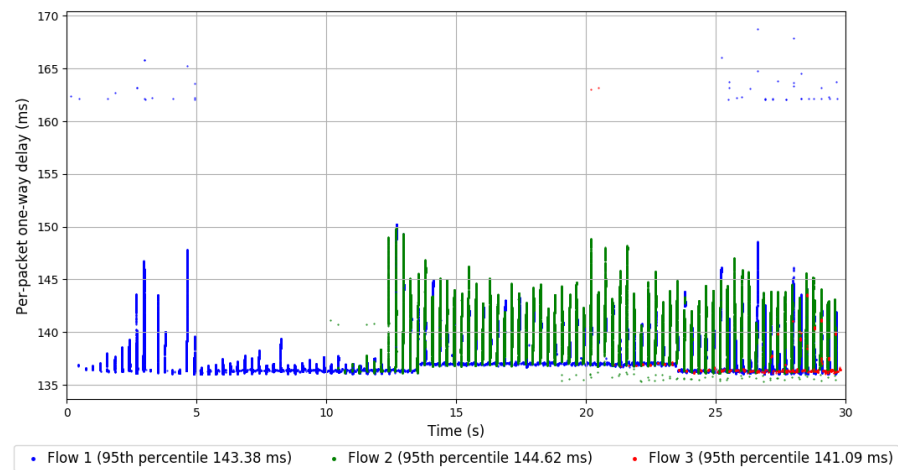
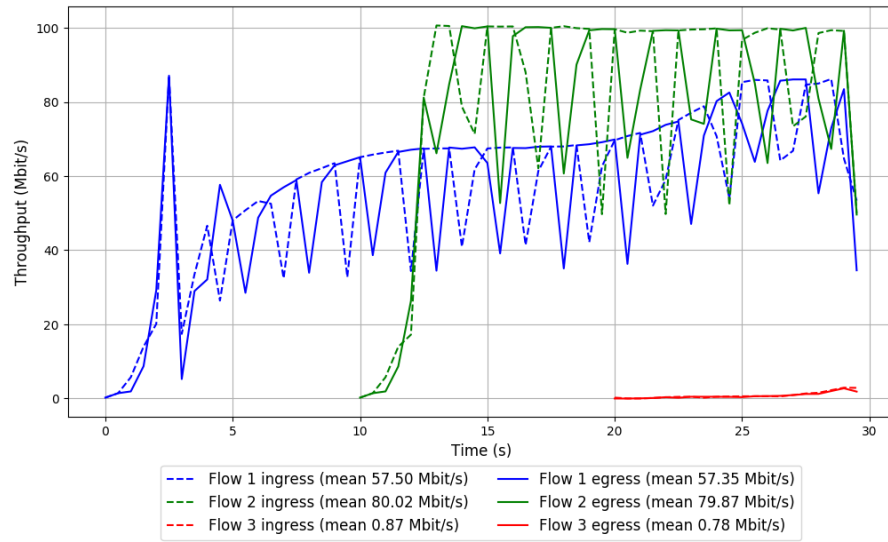
-- Flow 3:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 141.094 ms

Loss rate: 13.00%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-02-17 22:25:34

End at: 2018-02-17 22:26:04

Below is generated by plot.py at 2018-02-18 03:43:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.64 Mbit/s

95th percentile per-packet one-way delay: 142.818 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 50.65 Mbit/s

95th percentile per-packet one-way delay: 140.696 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 82.10 Mbit/s

95th percentile per-packet one-way delay: 143.462 ms

Loss rate: 1.54%

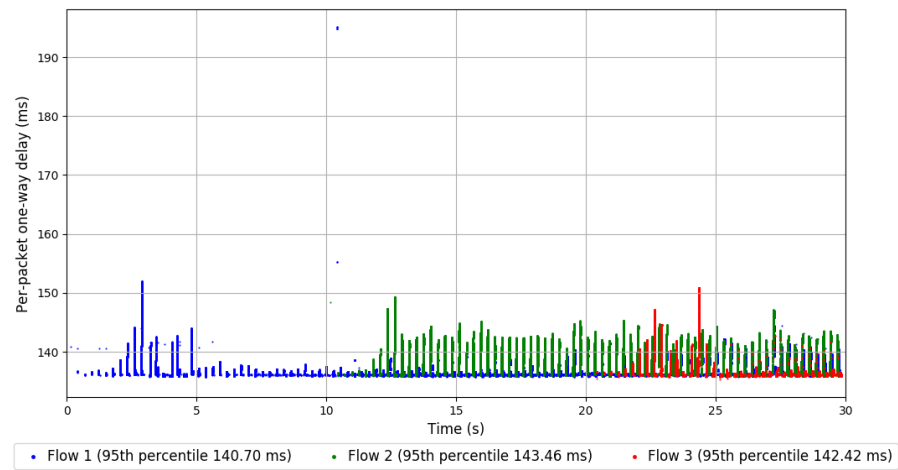
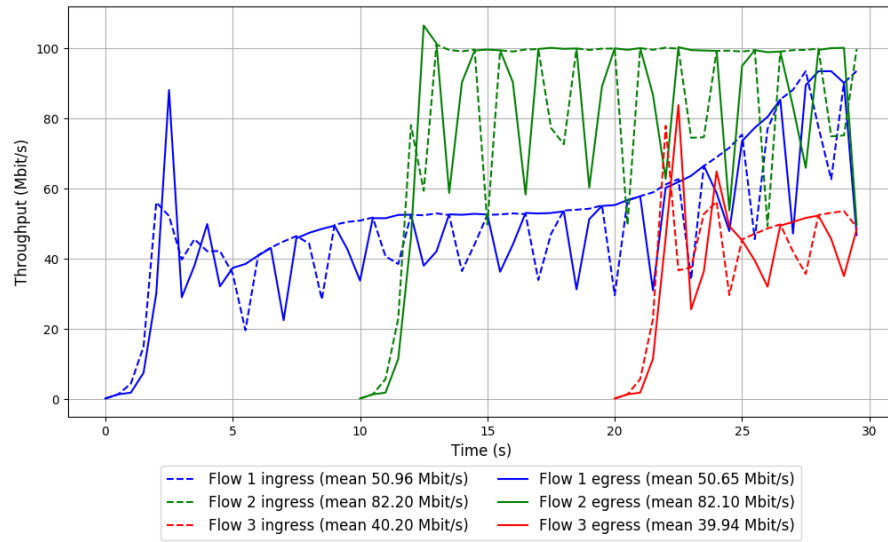
-- Flow 3:

Average throughput: 39.94 Mbit/s

95th percentile per-packet one-way delay: 142.422 ms

Loss rate: 3.38%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-02-17 22:46:04

End at: 2018-02-17 22:46:34

Below is generated by plot.py at 2018-02-18 03:44:11

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.68 Mbit/s

95th percentile per-packet one-way delay: 142.351 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 69.94 Mbit/s

95th percentile per-packet one-way delay: 142.141 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 15.99 Mbit/s

95th percentile per-packet one-way delay: 140.964 ms

Loss rate: 6.33%

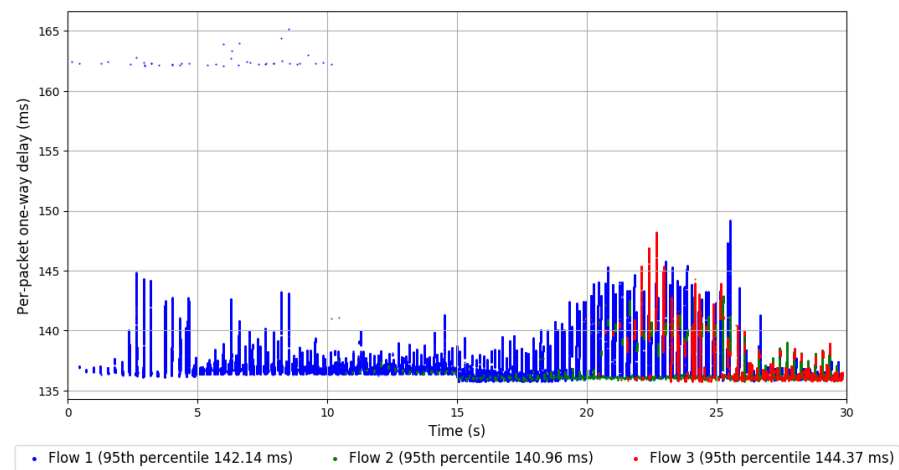
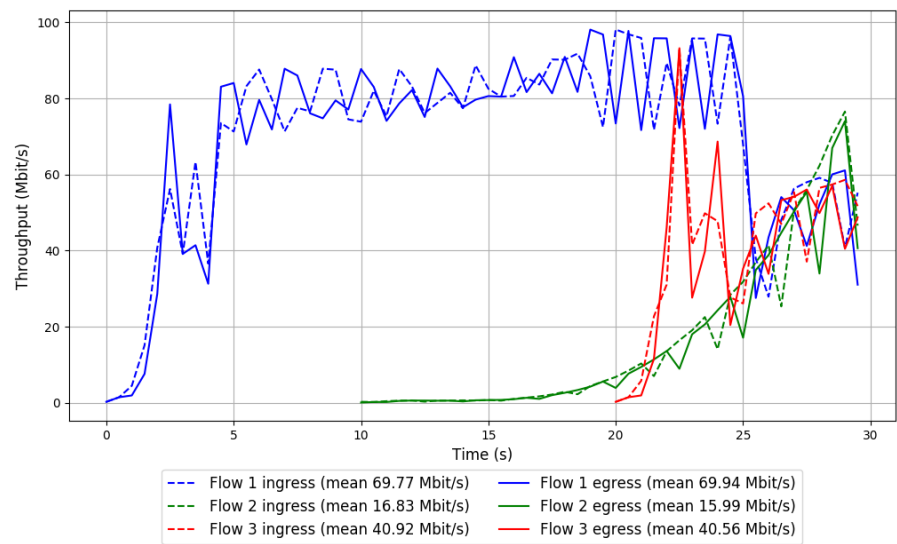
-- Flow 3:

Average throughput: 40.56 Mbit/s

95th percentile per-packet one-way delay: 144.369 ms

Loss rate: 3.65%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-02-17 23:06:22

End at: 2018-02-17 23:06:52

Below is generated by plot.py at 2018-02-18 03:44:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.23 Mbit/s

95th percentile per-packet one-way delay: 163.109 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 51.68 Mbit/s

95th percentile per-packet one-way delay: 163.473 ms

Loss rate: 1.32%

-- Flow 2:

Average throughput: 28.42 Mbit/s

95th percentile per-packet one-way delay: 162.219 ms

Loss rate: 4.07%

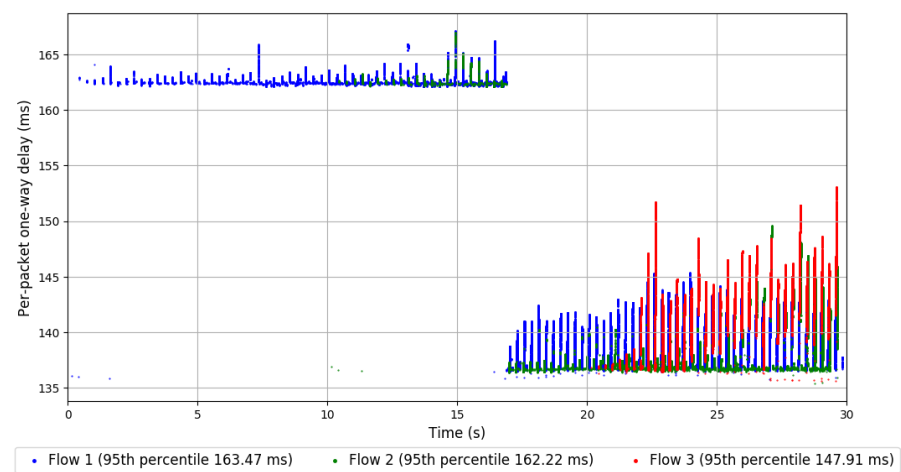
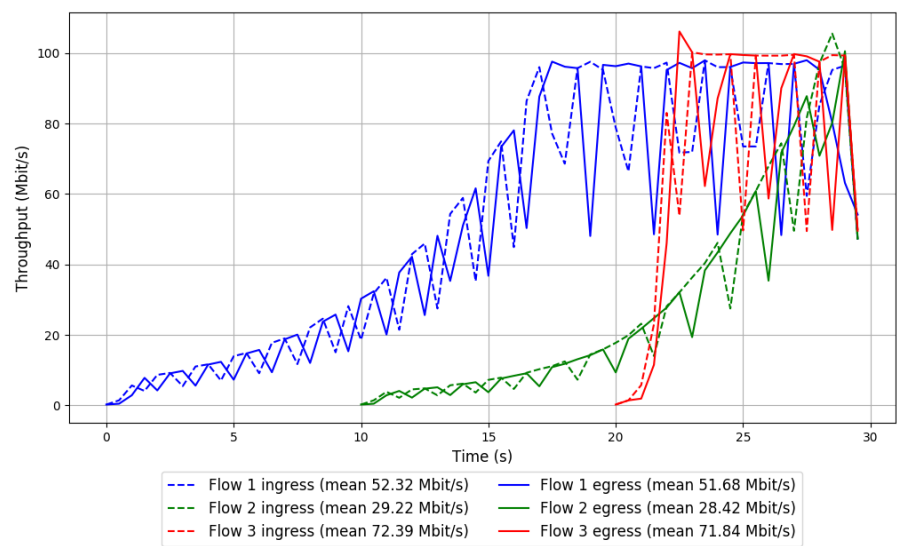
-- Flow 3:

Average throughput: 71.84 Mbit/s

95th percentile per-packet one-way delay: 147.907 ms

Loss rate: 3.53%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-02-17 23:26:42

End at: 2018-02-17 23:27:12

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 130.54 Mbit/s

95th percentile per-packet one-way delay: 146.731 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 84.26 Mbit/s

95th percentile per-packet one-way delay: 146.168 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 53.16 Mbit/s

95th percentile per-packet one-way delay: 147.336 ms

Loss rate: 2.29%

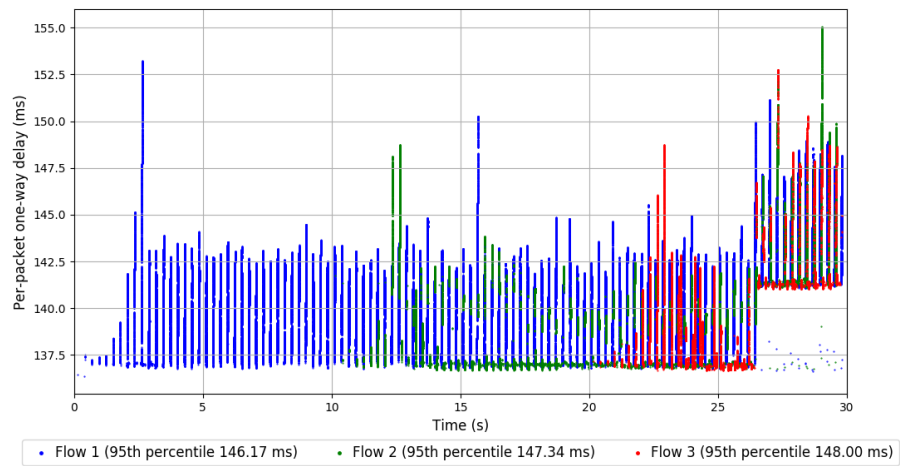
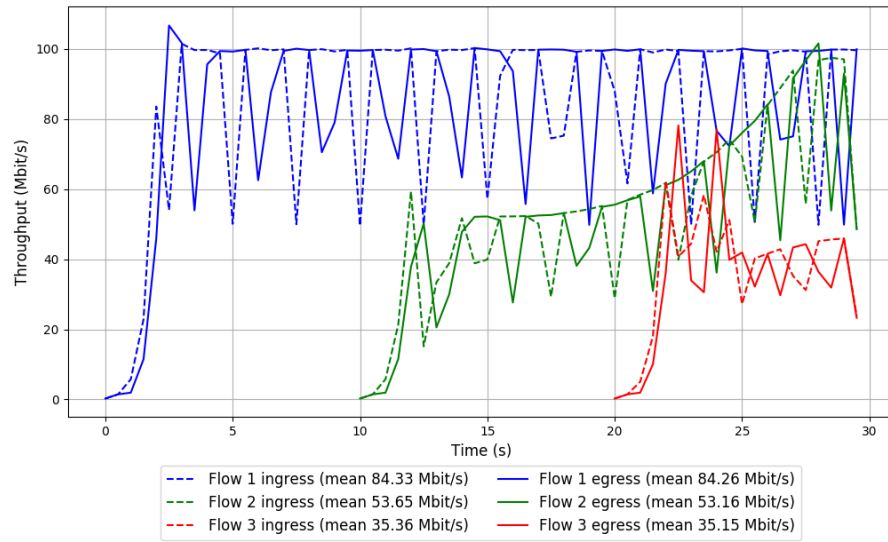
-- Flow 3:

Average throughput: 35.15 Mbit/s

95th percentile per-packet one-way delay: 148.002 ms

Loss rate: 3.31%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-02-17 23:47:38

End at: 2018-02-17 23:48:08

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 84.53 Mbit/s

95th percentile per-packet one-way delay: 141.013 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 57.71 Mbit/s

95th percentile per-packet one-way delay: 141.024 ms

Loss rate: 1.36%

-- Flow 2:

Average throughput: 40.08 Mbit/s

95th percentile per-packet one-way delay: 140.973 ms

Loss rate: 1.71%

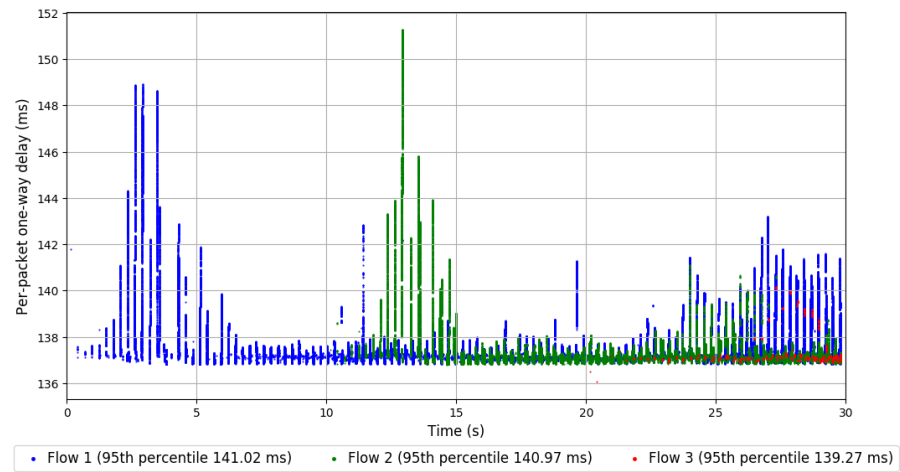
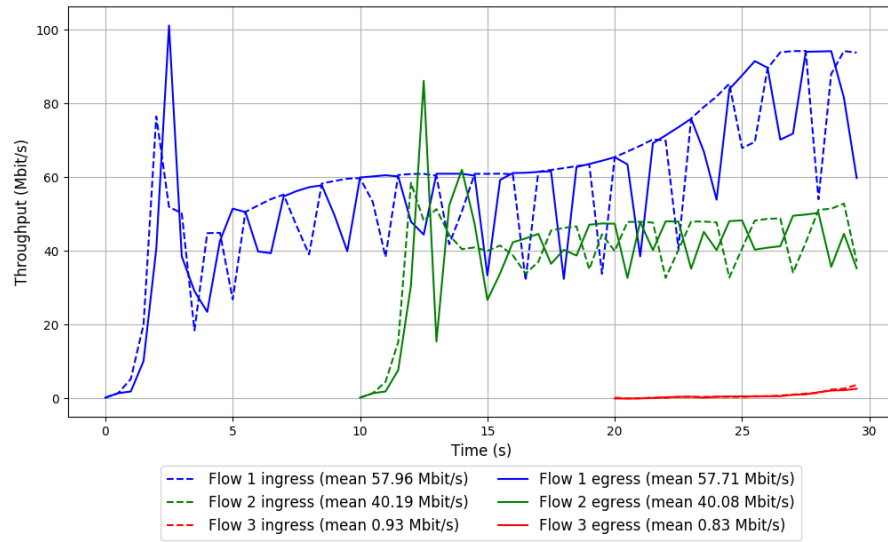
-- Flow 3:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 139.268 ms

Loss rate: 12.74%

Run 10: Report of TCP Cubic — Data Link

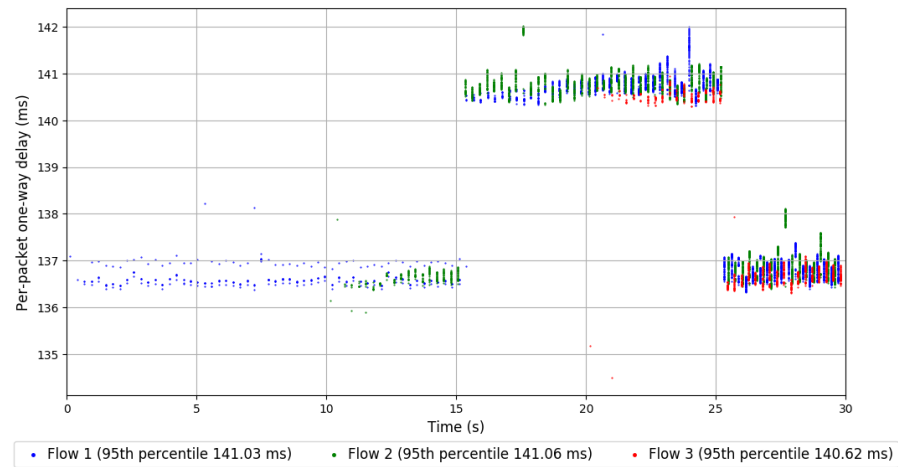
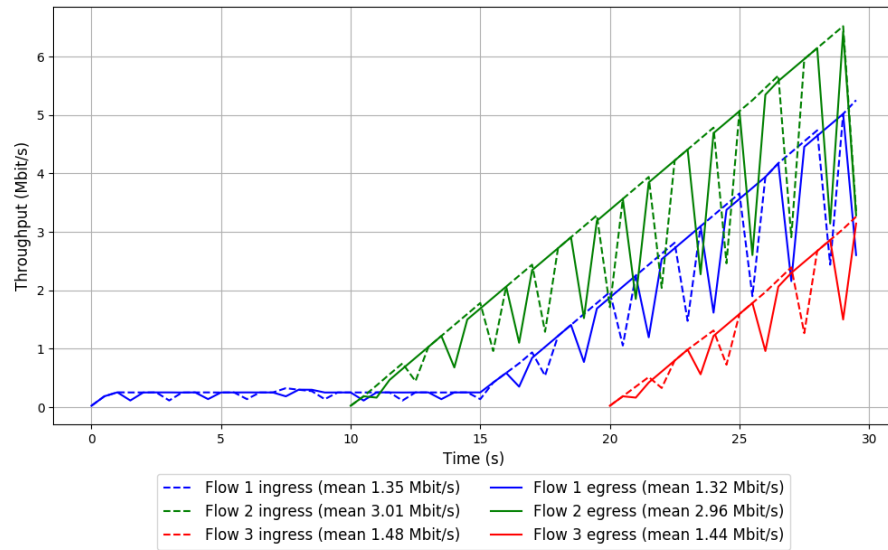


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-17 20:36:13
End at: 2018-02-17 20:36:43

# Below is generated by plot.py at 2018-02-18 03:45:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 141.025 ms
Loss rate: 3.35%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 141.032 ms
Loss rate: 3.28%
-- Flow 2:
Average throughput: 2.96 Mbit/s
95th percentile per-packet one-way delay: 141.062 ms
Loss rate: 2.83%
-- Flow 3:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 140.616 ms
Loss rate: 5.66%
```


Run 1: Report of LEDBAT — Data Link

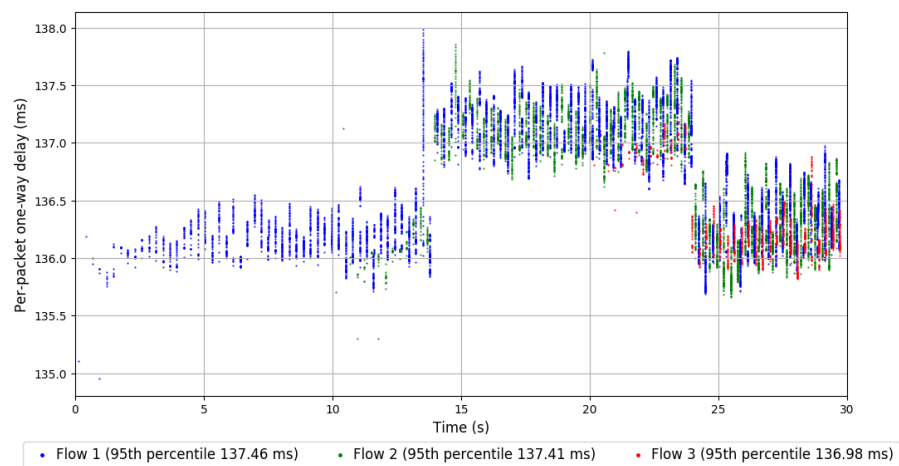
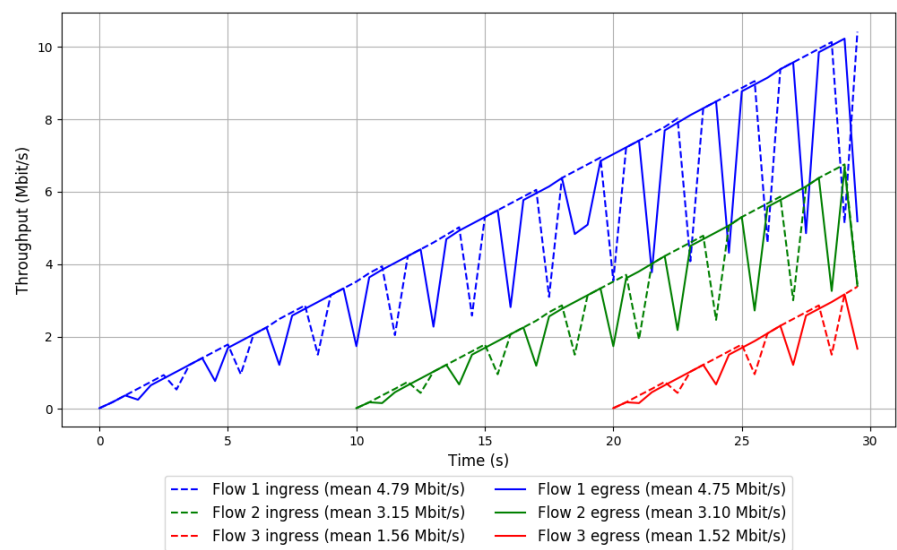


```
Run 2: Statistics of LEDBAT

Start at: 2018-02-17 20:56:45
End at: 2018-02-17 20:57:15

# Below is generated by plot.py at 2018-02-18 03:45:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 137.440 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 4.75 Mbit/s
95th percentile per-packet one-way delay: 137.464 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 137.412 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 1.52 Mbit/s
95th percentile per-packet one-way delay: 136.978 ms
Loss rate: 5.56%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-02-17 21:17:34

End at: 2018-02-17 21:18:04

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.77 Mbit/s

95th percentile per-packet one-way delay: 137.385 ms

Loss rate: 2.69%

-- Flow 1:

Average throughput: 3.41 Mbit/s

95th percentile per-packet one-way delay: 137.388 ms

Loss rate: 2.16%

-- Flow 2:

Average throughput: 2.96 Mbit/s

95th percentile per-packet one-way delay: 137.380 ms

Loss rate: 2.85%

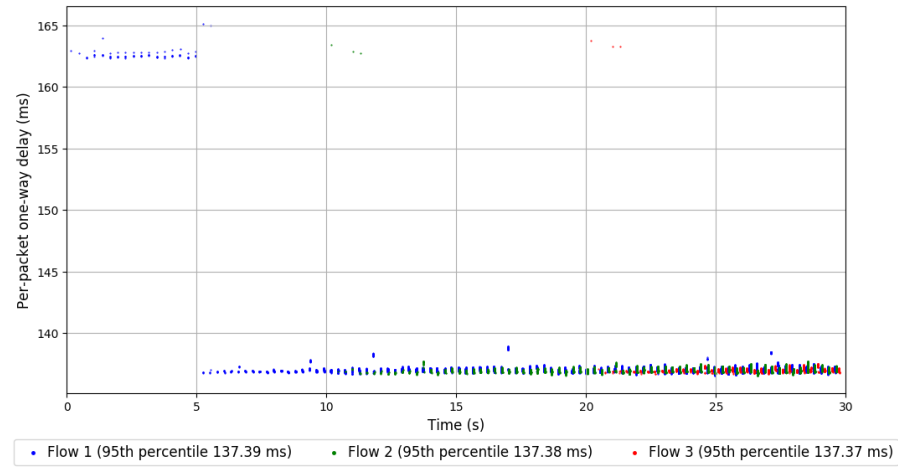
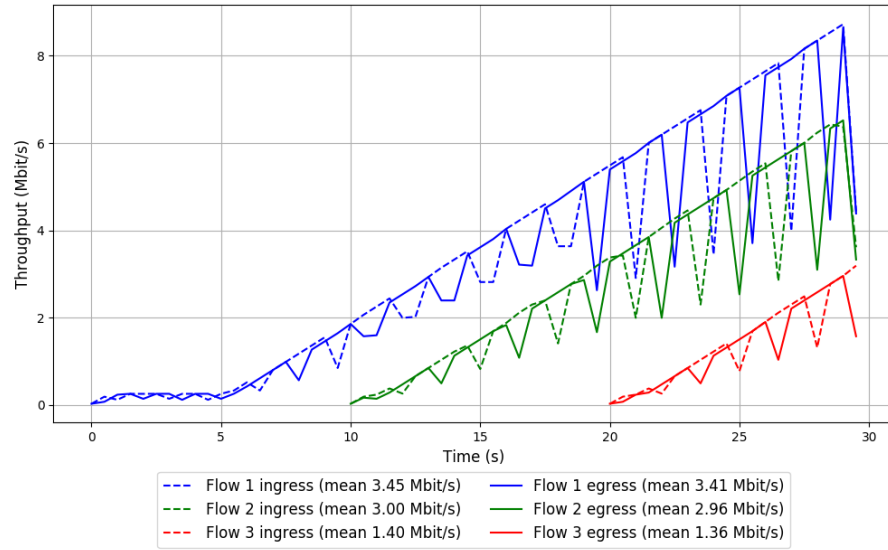
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.369 ms

Loss rate: 5.84%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-02-17 21:37:45

End at: 2018-02-17 21:38:15

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.50 Mbit/s

95th percentile per-packet one-way delay: 162.851 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 4.08 Mbit/s

95th percentile per-packet one-way delay: 162.884 ms

Loss rate: 1.89%

-- Flow 2:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 162.585 ms

Loss rate: 3.37%

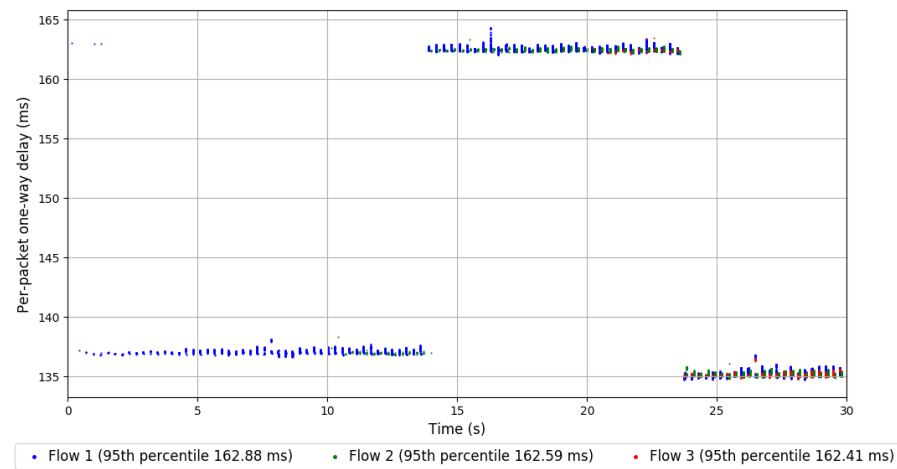
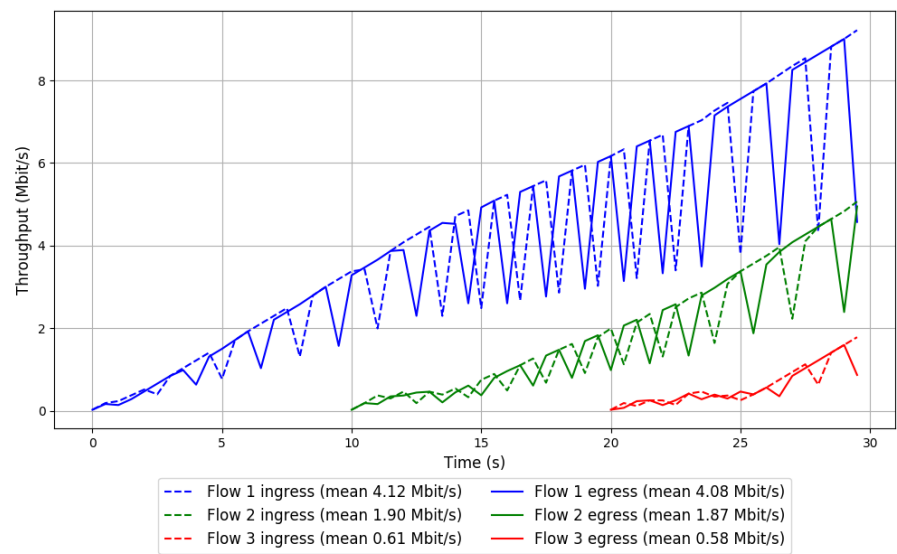
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 162.406 ms

Loss rate: 7.61%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-02-17 21:57:56

End at: 2018-02-17 21:58:26

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.52 Mbit/s

95th percentile per-packet one-way delay: 141.410 ms

Loss rate: 2.75%

-- Flow 1:

Average throughput: 3.11 Mbit/s

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

Loss rate: 2.25%

-- Flow 2:

Average throughput: 2.97 Mbit/s

95th percentile per-packet one-way delay: 141.298 ms

Loss rate: 2.84%

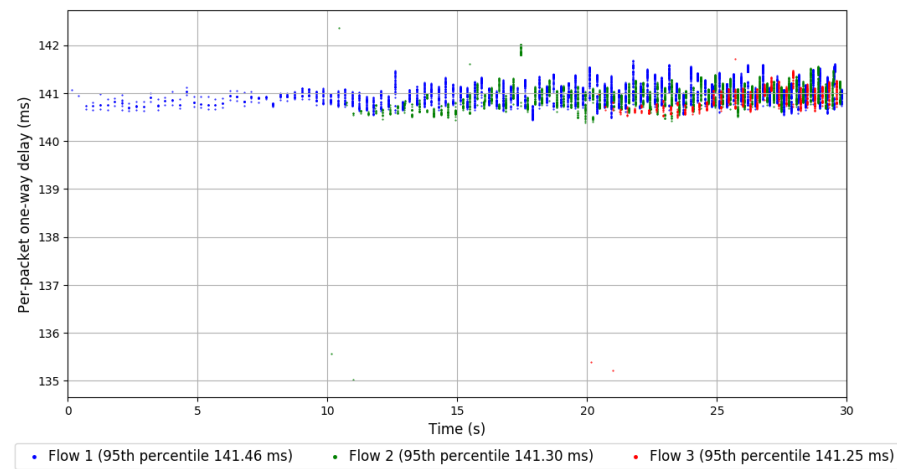
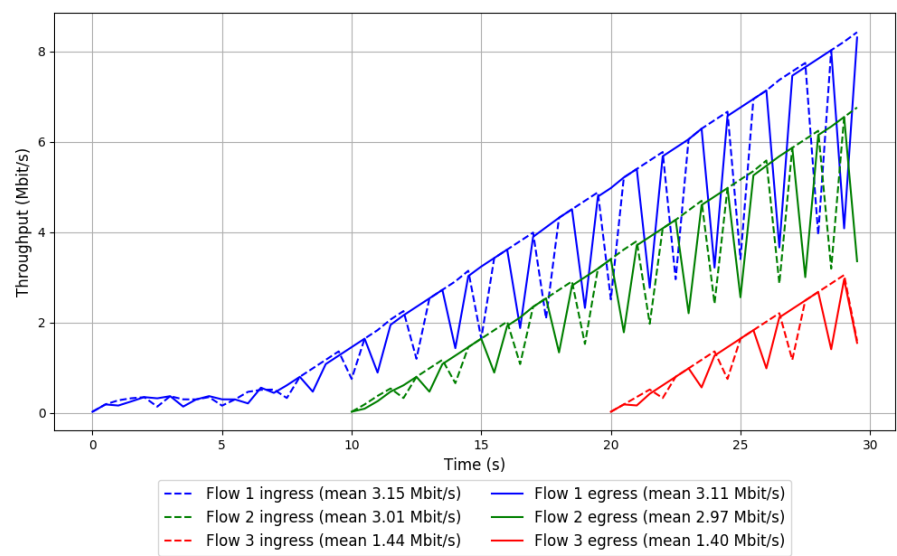
-- Flow 3:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 141.245 ms

Loss rate: 5.70%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-02-17 22:18:35

End at: 2018-02-17 22:19:05

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.95 Mbit/s

95th percentile per-packet one-way delay: 137.449 ms

Loss rate: 2.41%

-- Flow 1:

Average throughput: 4.54 Mbit/s

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

Loss rate: 1.88%

-- Flow 2:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 137.253 ms

Loss rate: 2.81%

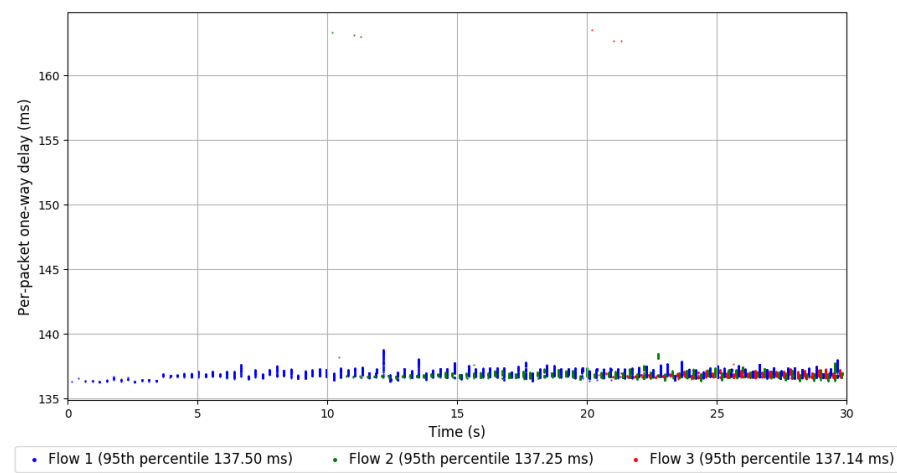
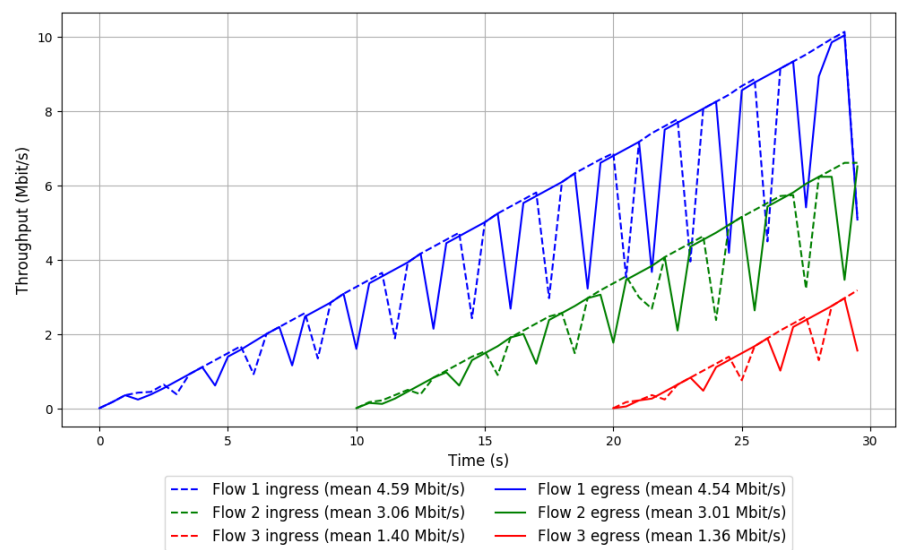
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 137.144 ms

Loss rate: 5.83%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-02-17 22:39:03

End at: 2018-02-17 22:39:33

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.03 Mbit/s

95th percentile per-packet one-way delay: 136.950 ms

Loss rate: 2.39%

-- Flow 1:

Average throughput: 4.62 Mbit/s

95th percentile per-packet one-way delay: 137.081 ms

Loss rate: 1.87%

-- Flow 2:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 136.616 ms

Loss rate: 2.81%

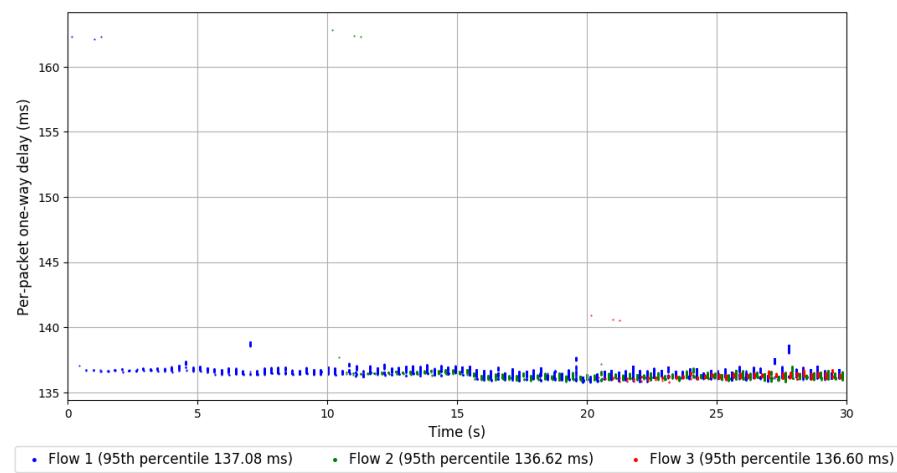
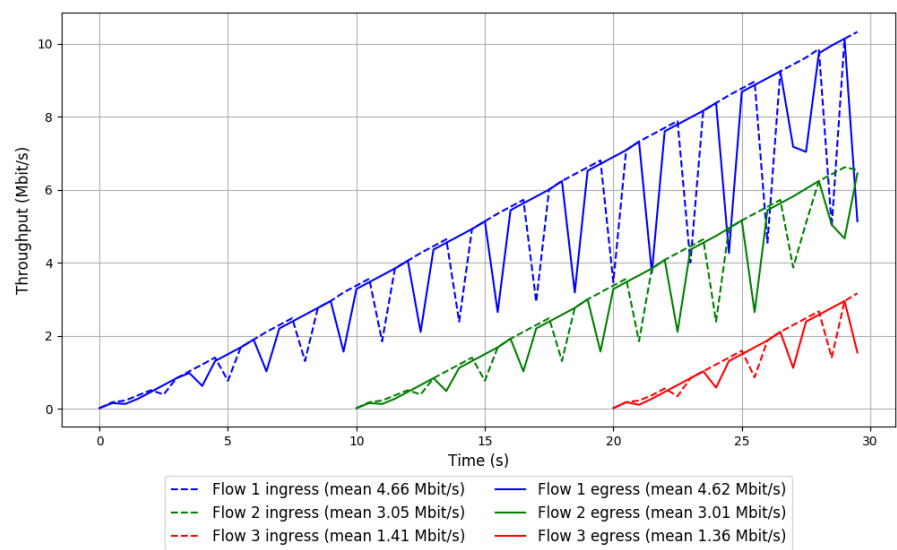
-- Flow 3:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 136.605 ms

Loss rate: 5.85%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-02-17 22:59:43

End at: 2018-02-17 23:00:13

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.72 Mbit/s

95th percentile per-packet one-way delay: 163.020 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 4.12 Mbit/s

95th percentile per-packet one-way delay: 163.077 ms

Loss rate: 1.86%

-- Flow 2:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 162.816 ms

Loss rate: 3.30%

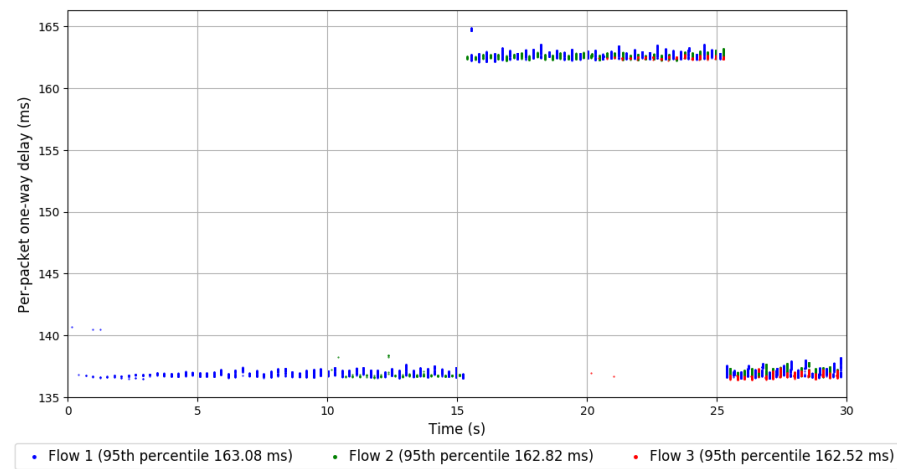
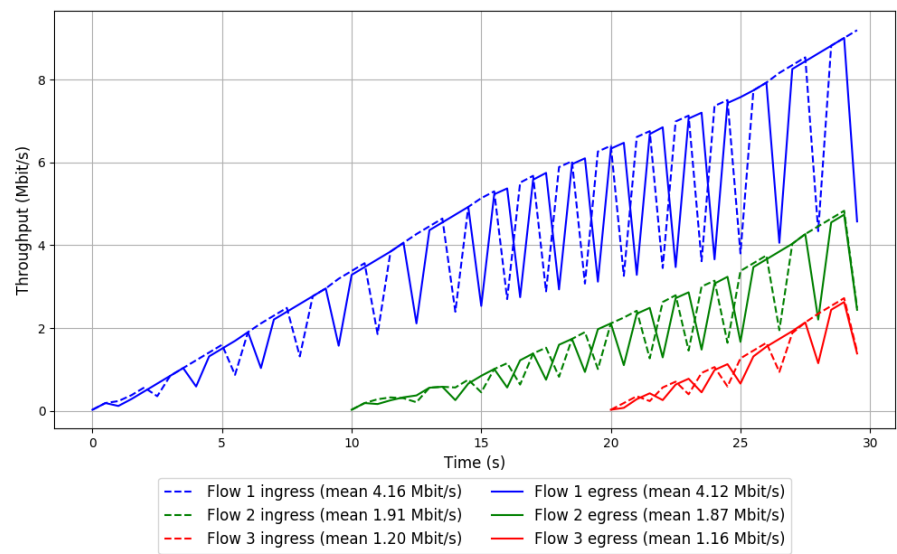
-- Flow 3:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 162.517 ms

Loss rate: 6.12%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-02-17 23:19:39

End at: 2018-02-17 23:20:09

Below is generated by plot.py at 2018-02-18 03:45:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 7.43 Mbit/s

95th percentile per-packet one-way delay: 137.605 ms

Loss rate: 2.34%

-- Flow 1:

Average throughput: 4.83 Mbit/s

95th percentile per-packet one-way delay: 137.616 ms

Loss rate: 1.82%

-- Flow 2:

Average throughput: 3.19 Mbit/s

95th percentile per-packet one-way delay: 137.590 ms

Loss rate: 2.74%

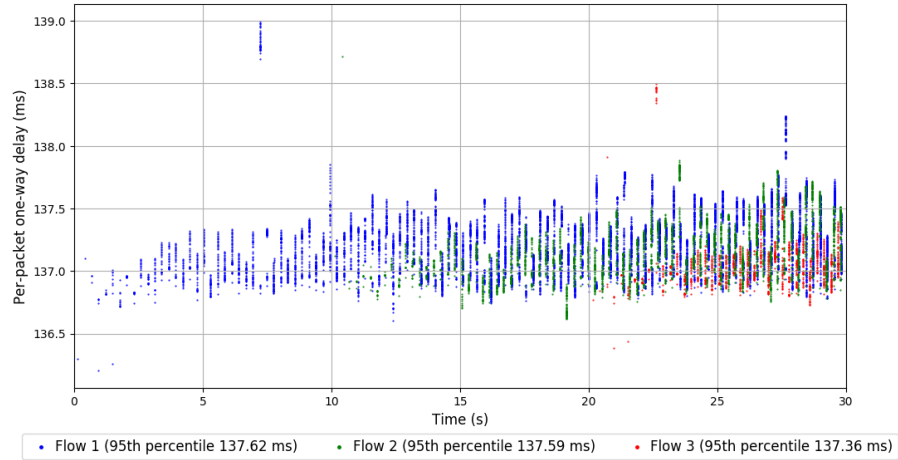
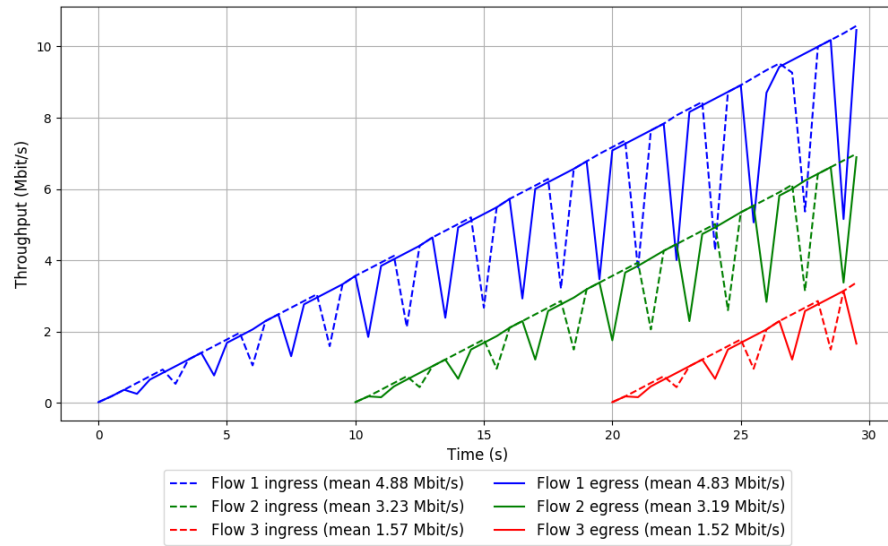
-- Flow 3:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 137.363 ms

Loss rate: 5.57%

Run 9: Report of LEDBAT — Data Link

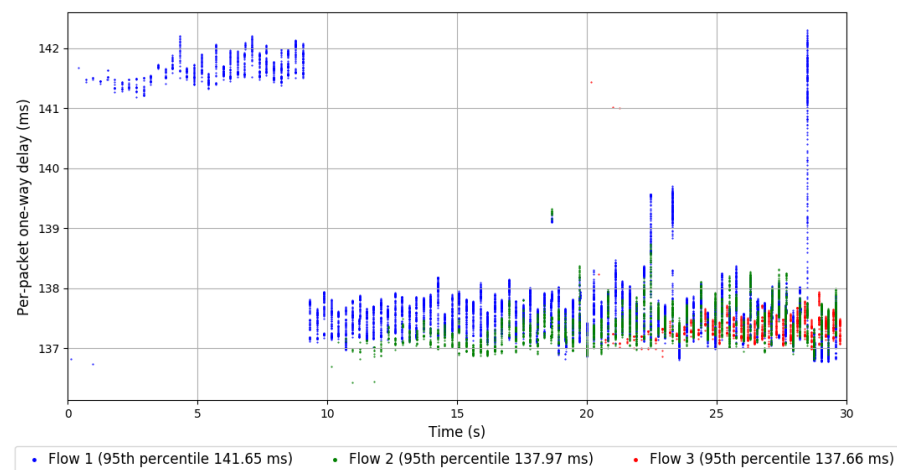
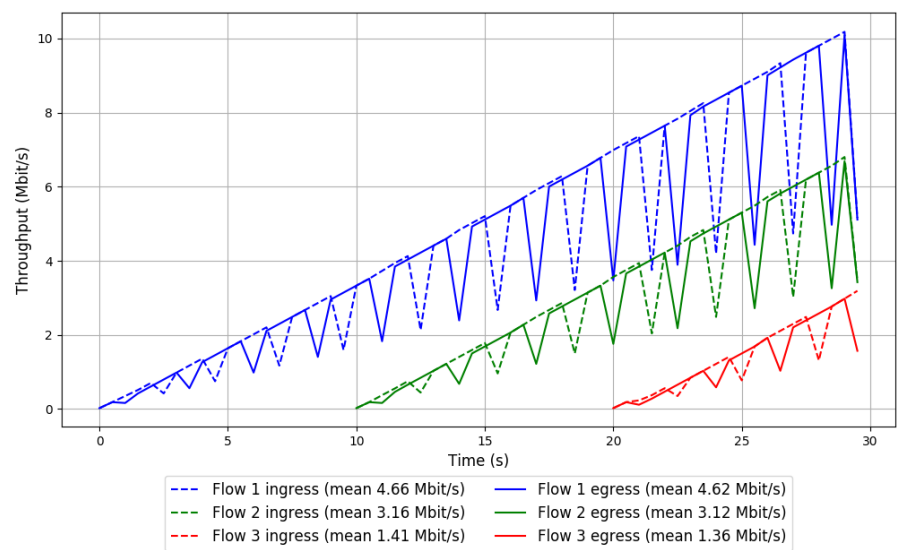


```
Run 10: Statistics of LEDBAT

Start at: 2018-02-17 23:40:40
End at: 2018-02-17 23:41:10

# Below is generated by plot.py at 2018-02-18 03:45:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 7.08 Mbit/s
95th percentile per-packet one-way delay: 141.505 ms
Loss rate: 2.39%
-- Flow 1:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 141.652 ms
Loss rate: 1.86%
-- Flow 2:
Average throughput: 3.12 Mbit/s
95th percentile per-packet one-way delay: 137.972 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 137.657 ms
Loss rate: 5.83%
```

Run 10: Report of LEDBAT — Data Link

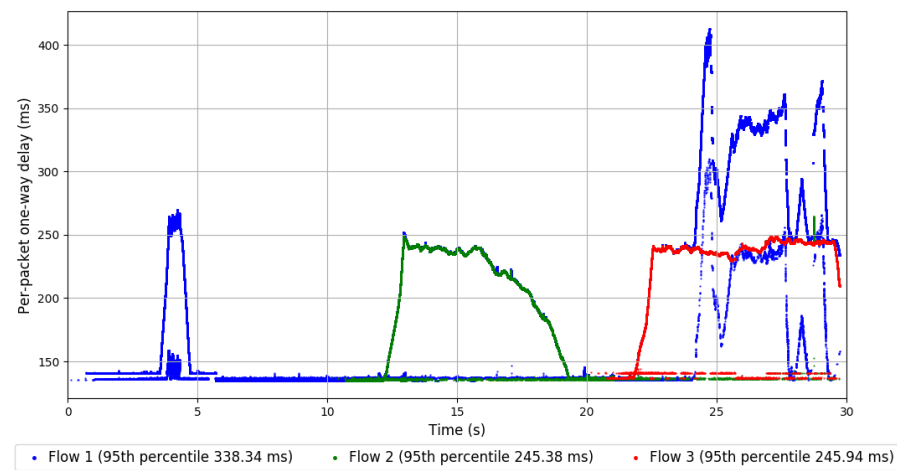
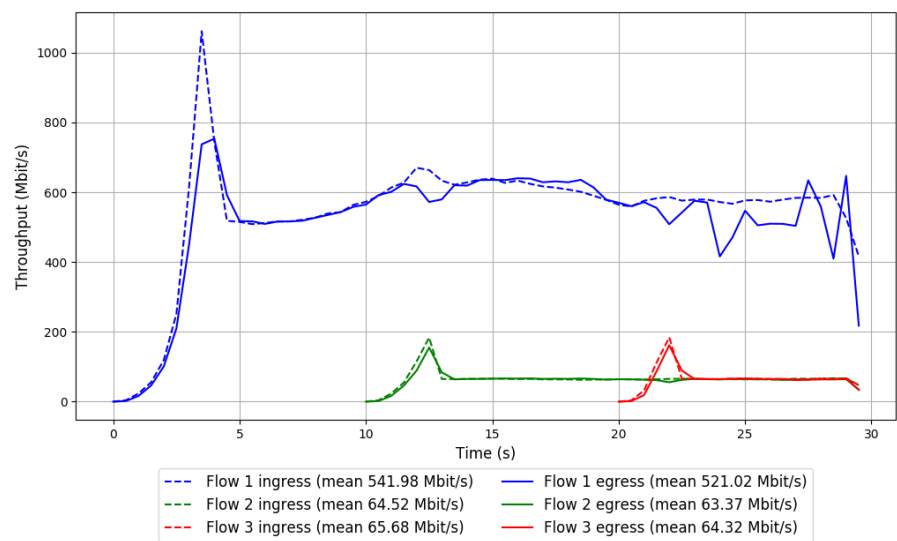


```
Run 1: Statistics of PCC

Start at: 2018-02-17 20:38:03
End at: 2018-02-17 20:38:33

# Below is generated by plot.py at 2018-02-18 03:53:13
# Datalink statistics
-- Total of 3 flows:
Average throughput: 583.63 Mbit/s
95th percentile per-packet one-way delay: 336.711 ms
Loss rate: 4.64%
-- Flow 1:
Average throughput: 521.02 Mbit/s
95th percentile per-packet one-way delay: 338.341 ms
Loss rate: 4.75%
-- Flow 2:
Average throughput: 63.37 Mbit/s
95th percentile per-packet one-way delay: 245.379 ms
Loss rate: 3.11%
-- Flow 3:
Average throughput: 64.32 Mbit/s
95th percentile per-packet one-way delay: 245.940 ms
Loss rate: 4.85%
```

Run 1: Report of PCC — Data Link

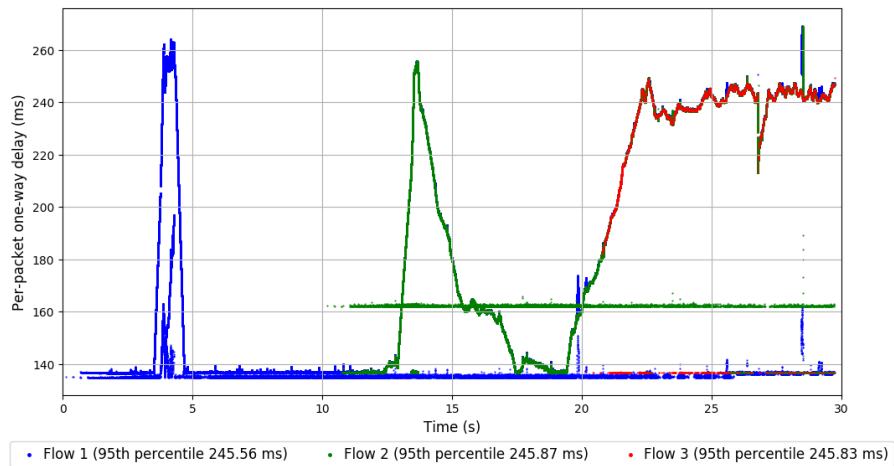
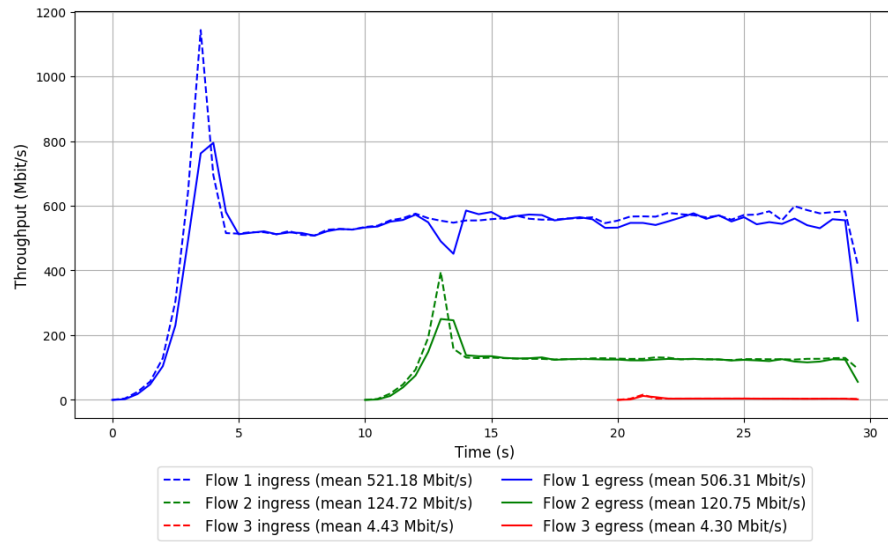


```
Run 2: Statistics of PCC

Start at: 2018-02-17 20:58:38
End at: 2018-02-17 20:59:08

# Below is generated by plot.py at 2018-02-18 03:53:19
# Datalink statistics
-- Total of 3 flows:
Average throughput: 587.41 Mbit/s
95th percentile per-packet one-way delay: 245.618 ms
Loss rate: 3.86%
-- Flow 1:
Average throughput: 506.31 Mbit/s
95th percentile per-packet one-way delay: 245.560 ms
Loss rate: 3.74%
-- Flow 2:
Average throughput: 120.75 Mbit/s
95th percentile per-packet one-way delay: 245.868 ms
Loss rate: 4.63%
-- Flow 3:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 245.831 ms
Loss rate: 5.66%
```

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-02-17 21:19:17

End at: 2018-02-17 21:19:47

Below is generated by plot.py at 2018-02-18 03:53:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.74 Mbit/s

95th percentile per-packet one-way delay: 250.961 ms

Loss rate: 2.96%

-- Flow 1:

Average throughput: 494.71 Mbit/s

95th percentile per-packet one-way delay: 251.761 ms

Loss rate: 2.80%

-- Flow 2:

Average throughput: 60.72 Mbit/s

95th percentile per-packet one-way delay: 247.248 ms

Loss rate: 3.10%

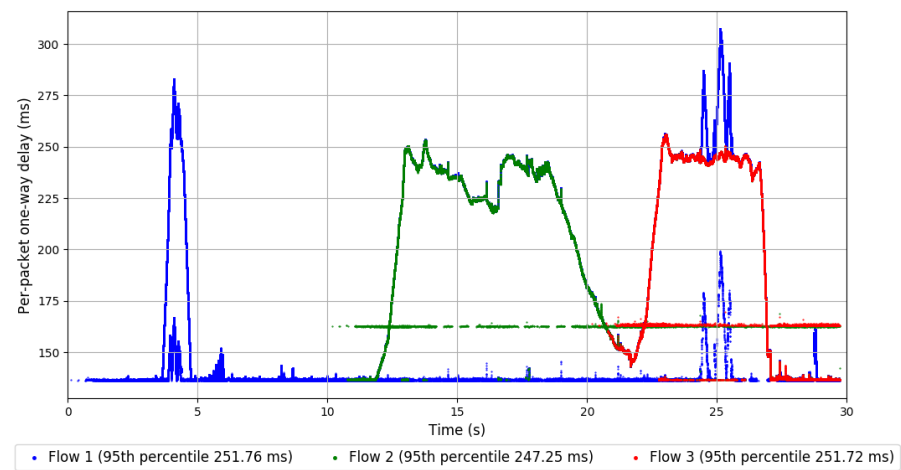
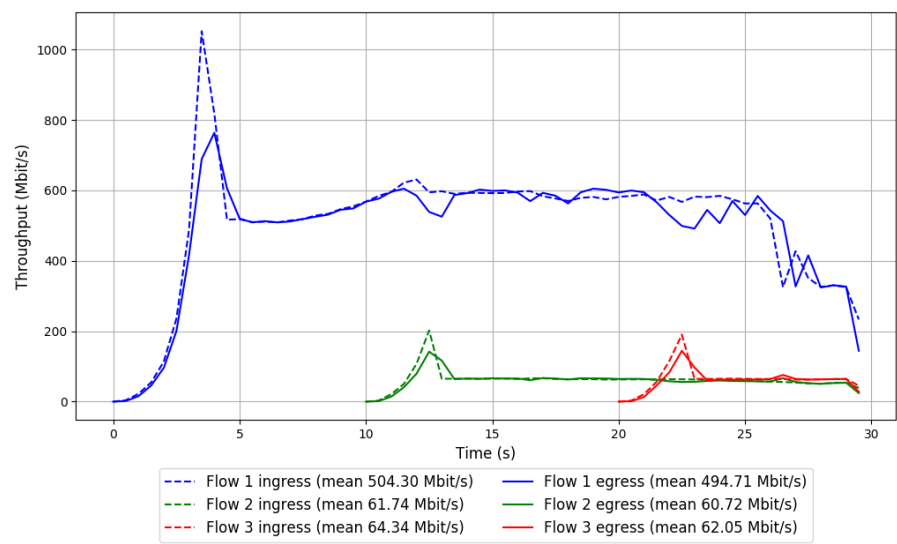
-- Flow 3:

Average throughput: 62.05 Mbit/s

95th percentile per-packet one-way delay: 251.717 ms

Loss rate: 6.52%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-02-17 21:39:30

End at: 2018-02-17 21:40:00

Below is generated by plot.py at 2018-02-18 03:53:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 356.69 Mbit/s

95th percentile per-packet one-way delay: 271.519 ms

Loss rate: 5.08%

-- Flow 1:

Average throughput: 9.61 Mbit/s

95th percentile per-packet one-way delay: 269.413 ms

Loss rate: 2.00%

-- Flow 2:

Average throughput: 467.00 Mbit/s

95th percentile per-packet one-way delay: 271.368 ms

Loss rate: 4.82%

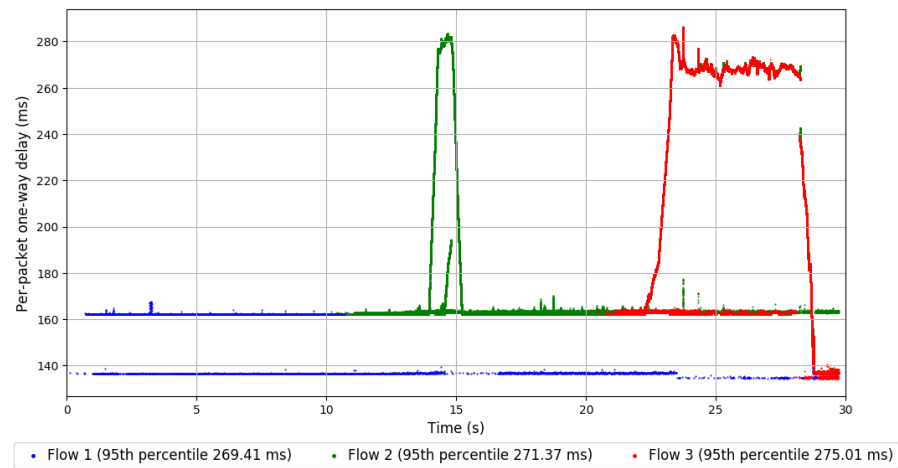
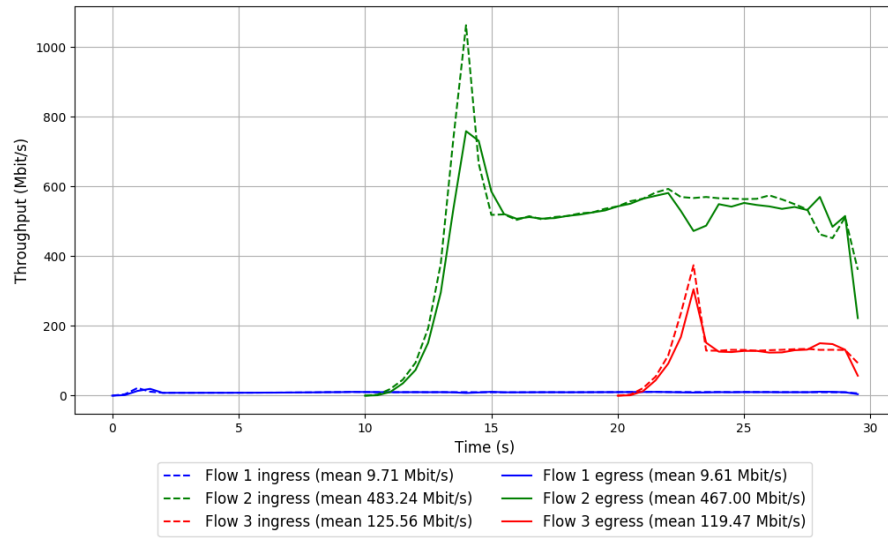
-- Flow 3:

Average throughput: 119.47 Mbit/s

95th percentile per-packet one-way delay: 275.015 ms

Loss rate: 7.75%

Run 4: Report of PCC — Data Link



Run 5: Statistics of PCC

Start at: 2018-02-17 21:59:48

End at: 2018-02-17 22:00:18

Below is generated by plot.py at 2018-02-18 03:53:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 571.94 Mbit/s

95th percentile per-packet one-way delay: 291.469 ms

Loss rate: 3.83%

-- Flow 1:

Average throughput: 468.16 Mbit/s

95th percentile per-packet one-way delay: 296.055 ms

Loss rate: 3.71%

-- Flow 2:

Average throughput: 126.01 Mbit/s

95th percentile per-packet one-way delay: 244.815 ms

Loss rate: 4.06%

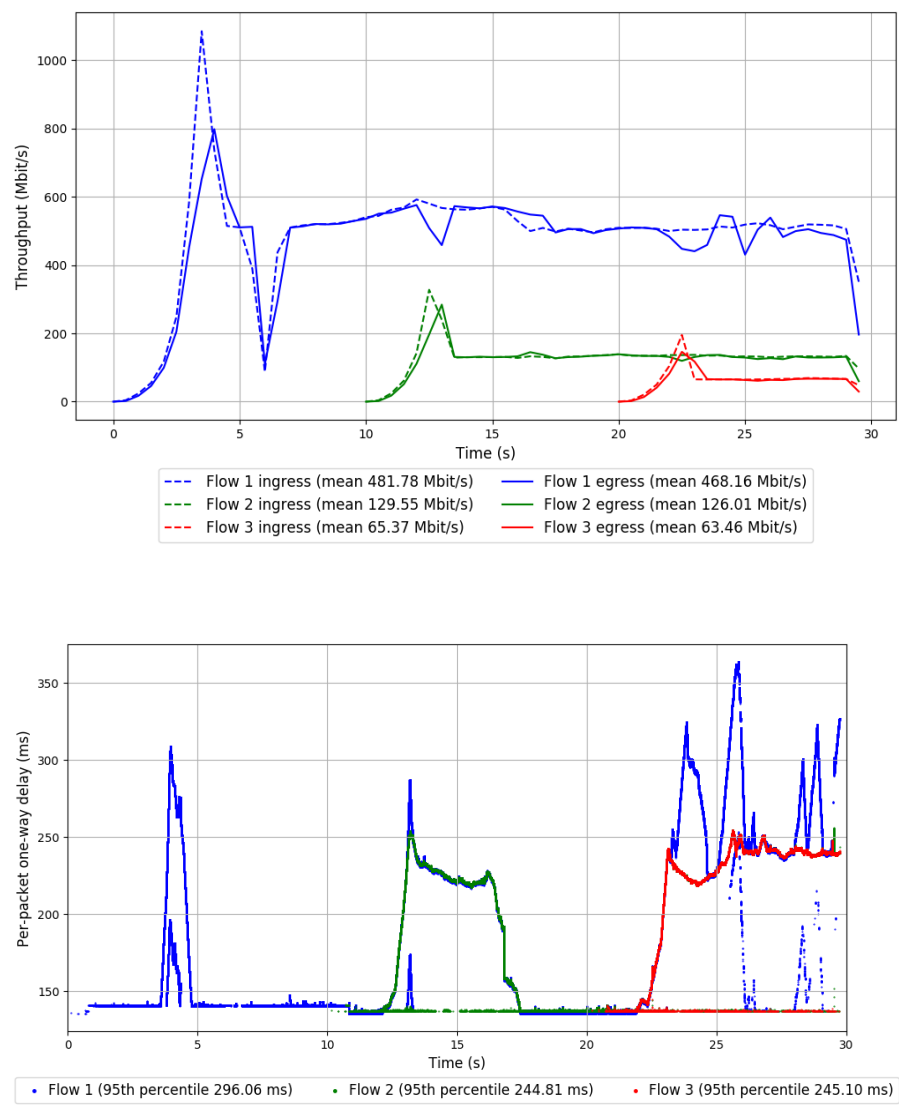
-- Flow 3:

Average throughput: 63.46 Mbit/s

95th percentile per-packet one-way delay: 245.098 ms

Loss rate: 5.62%

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-02-17 22:20:22

End at: 2018-02-17 22:20:52

Below is generated by plot.py at 2018-02-18 03:53:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 582.10 Mbit/s

95th percentile per-packet one-way delay: 240.984 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 536.27 Mbit/s

95th percentile per-packet one-way delay: 240.990 ms

Loss rate: 2.27%

-- Flow 2:

Average throughput: 68.10 Mbit/s

95th percentile per-packet one-way delay: 240.926 ms

Loss rate: 2.30%

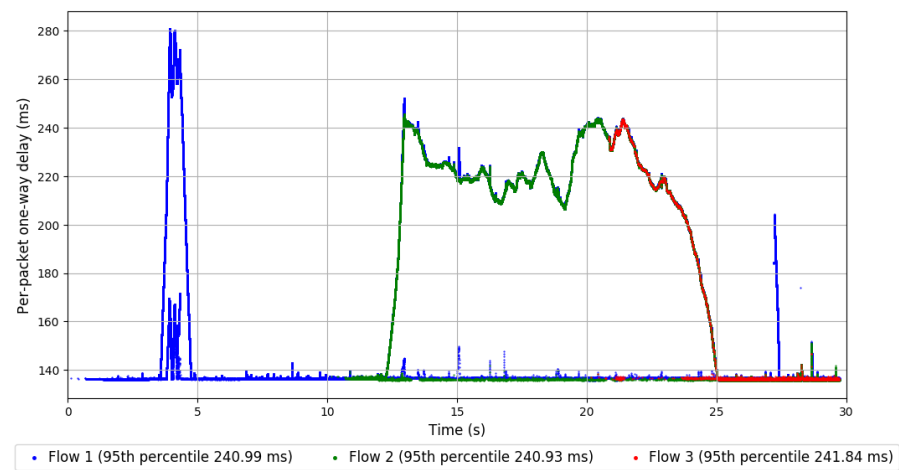
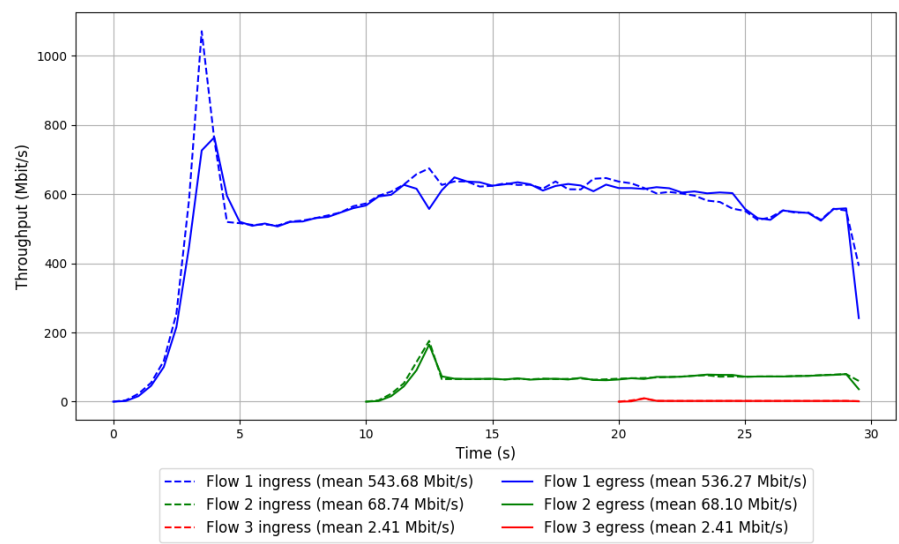
-- Flow 3:

Average throughput: 2.41 Mbit/s

95th percentile per-packet one-way delay: 241.841 ms

Loss rate: 3.01%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-02-17 22:40:59

End at: 2018-02-17 22:41:29

Below is generated by plot.py at 2018-02-18 03:53:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 570.03 Mbit/s

95th percentile per-packet one-way delay: 262.508 ms

Loss rate: 4.00%

-- Flow 1:

Average throughput: 467.72 Mbit/s

95th percentile per-packet one-way delay: 266.839 ms

Loss rate: 3.82%

-- Flow 2:

Average throughput: 124.54 Mbit/s

95th percentile per-packet one-way delay: 242.617 ms

Loss rate: 4.01%

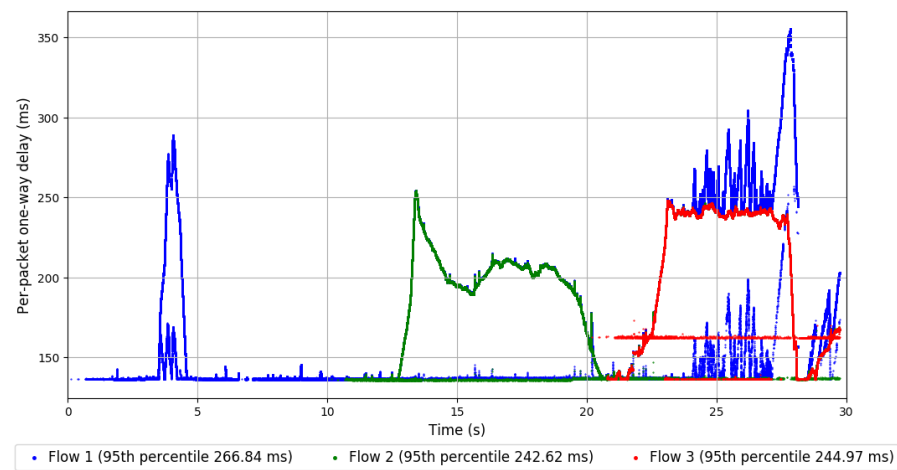
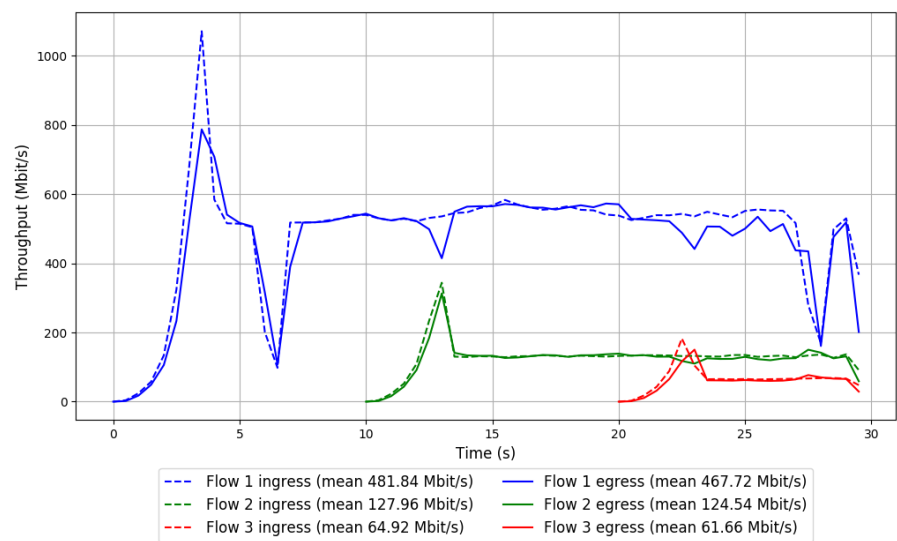
-- Flow 3:

Average throughput: 61.66 Mbit/s

95th percentile per-packet one-way delay: 244.967 ms

Loss rate: 7.92%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-02-17 23:01:29

End at: 2018-02-17 23:01:59

Below is generated by plot.py at 2018-02-18 03:53:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 326.71 Mbit/s

95th percentile per-packet one-way delay: 300.043 ms

Loss rate: 6.07%

-- Flow 1:

Average throughput: 11.31 Mbit/s

95th percentile per-packet one-way delay: 237.736 ms

Loss rate: 2.14%

-- Flow 2:

Average throughput: 418.21 Mbit/s

95th percentile per-packet one-way delay: 307.836 ms

Loss rate: 6.17%

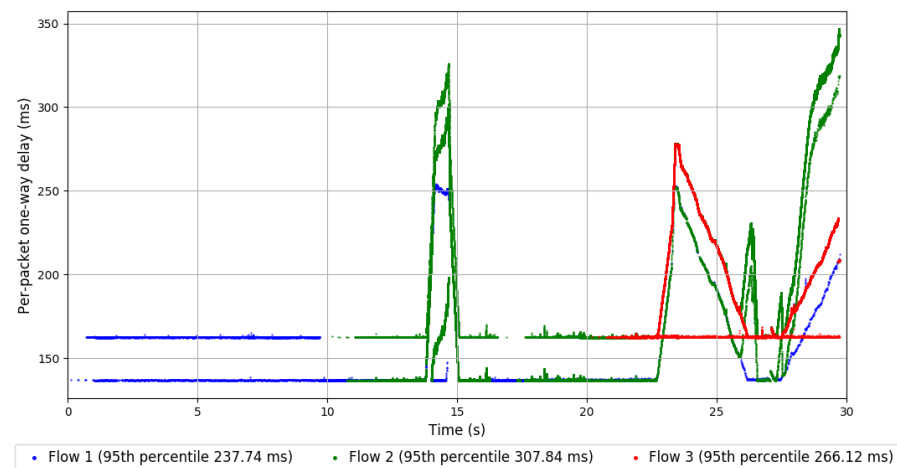
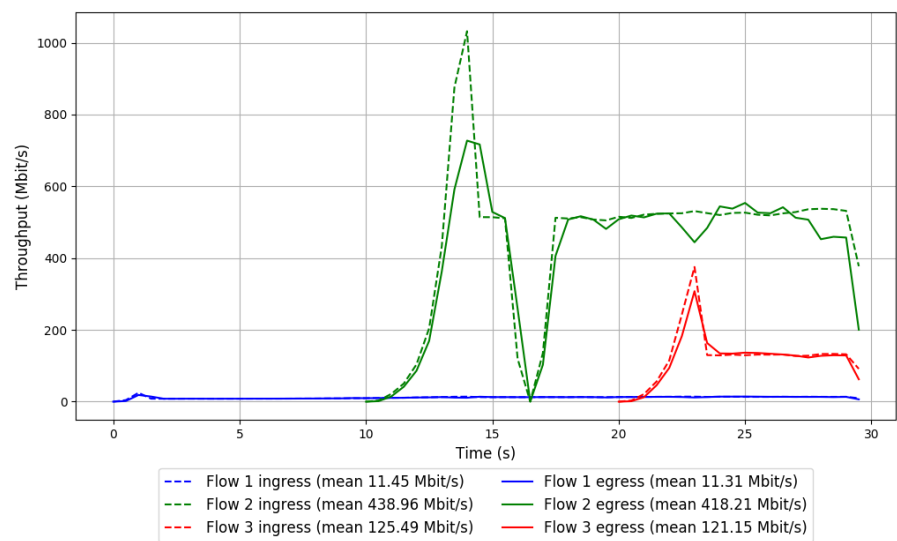
-- Flow 3:

Average throughput: 121.15 Mbit/s

95th percentile per-packet one-way delay: 266.124 ms

Loss rate: 6.41%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-02-17 23:21:32

End at: 2018-02-17 23:22:02

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.56 Mbit/s

95th percentile per-packet one-way delay: 311.563 ms

Loss rate: 4.06%

-- Flow 1:

Average throughput: 432.42 Mbit/s

95th percentile per-packet one-way delay: 347.370 ms

Loss rate: 4.22%

-- Flow 2:

Average throughput: 134.02 Mbit/s

95th percentile per-packet one-way delay: 244.589 ms

Loss rate: 3.08%

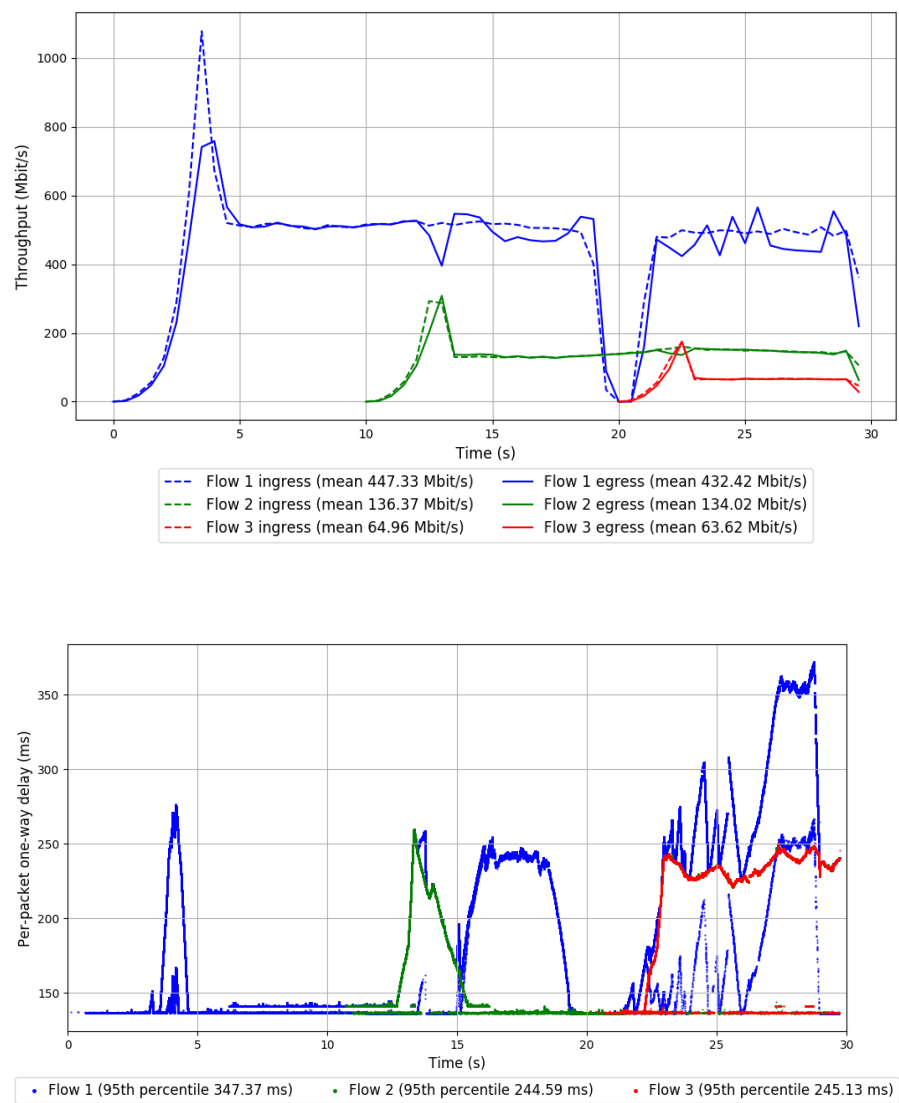
-- Flow 3:

Average throughput: 63.62 Mbit/s

95th percentile per-packet one-way delay: 245.134 ms

Loss rate: 4.74%

Run 9: Report of PCC — Data Link

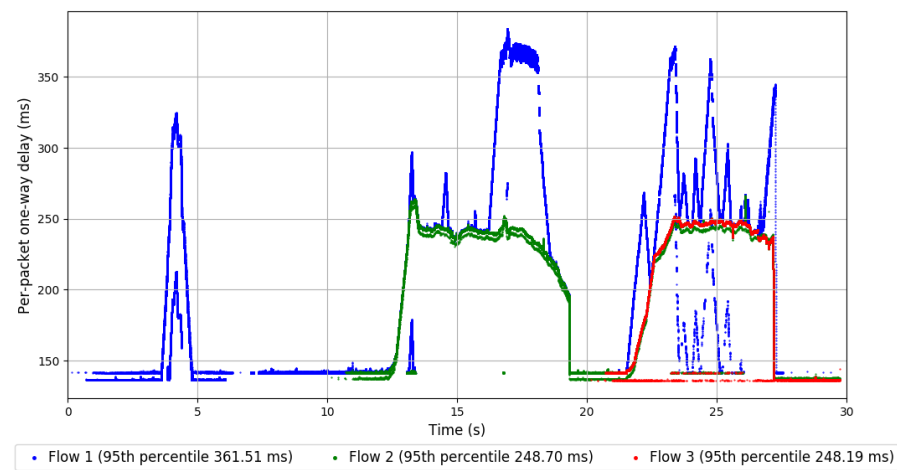
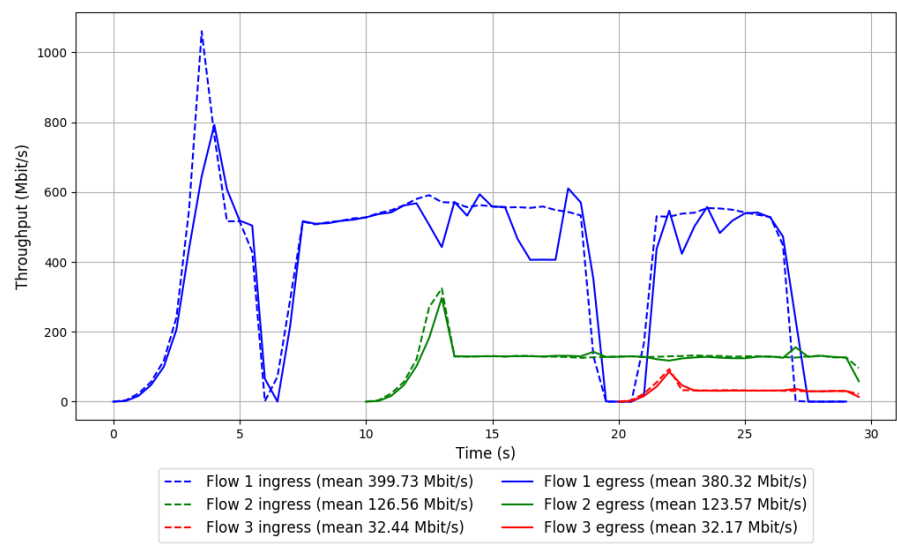


```
Run 10: Statistics of PCC

Start at: 2018-02-17 23:42:32
End at: 2018-02-17 23:43:02

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 468.16 Mbit/s
95th percentile per-packet one-way delay: 356.789 ms
Loss rate: 4.63%
-- Flow 1:
Average throughput: 380.32 Mbit/s
95th percentile per-packet one-way delay: 361.514 ms
Loss rate: 4.86%
-- Flow 2:
Average throughput: 123.57 Mbit/s
95th percentile per-packet one-way delay: 248.699 ms
Loss rate: 3.72%
-- Flow 3:
Average throughput: 32.17 Mbit/s
95th percentile per-packet one-way delay: 248.193 ms
Loss rate: 3.51%
```

Run 10: Report of PCC — Data Link

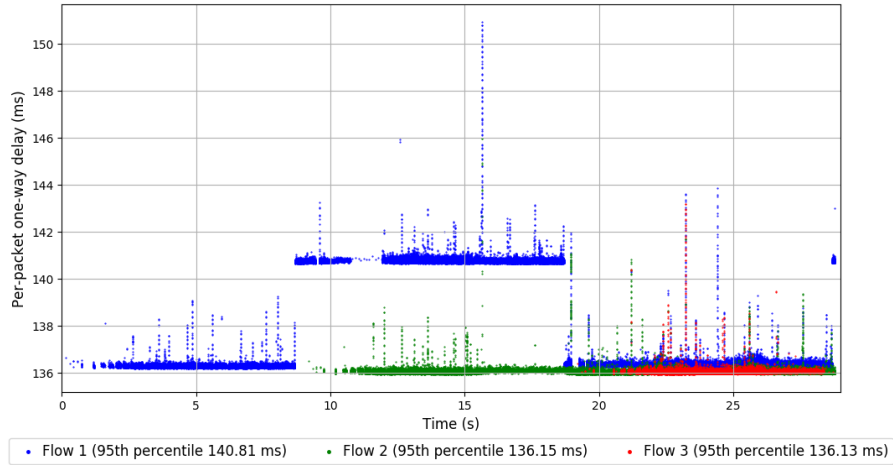
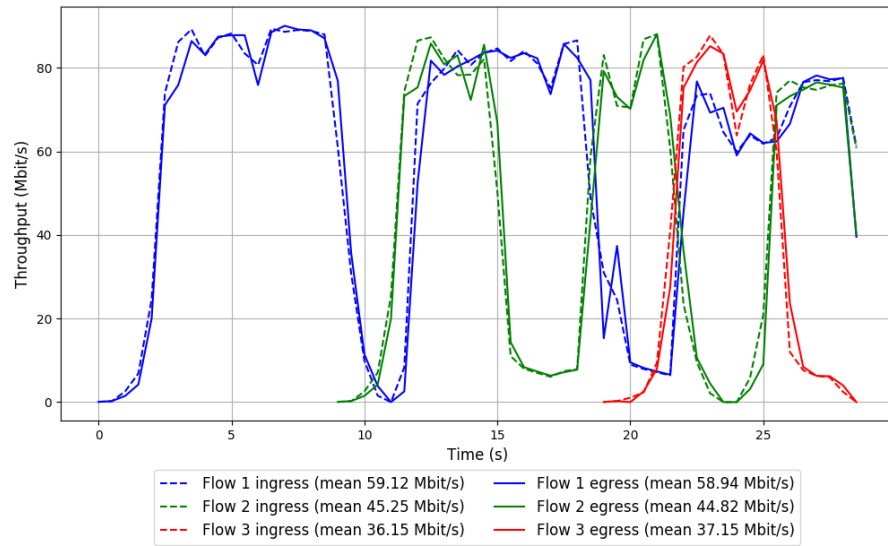


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-02-17 20:51:24
End at: 2018-02-17 20:51:54

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 101.91 Mbit/s
95th percentile per-packet one-way delay: 140.778 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 58.94 Mbit/s
95th percentile per-packet one-way delay: 140.813 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 44.82 Mbit/s
95th percentile per-packet one-way delay: 136.146 ms
Loss rate: 2.31%
-- Flow 3:
Average throughput: 37.15 Mbit/s
95th percentile per-packet one-way delay: 136.134 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-02-17 21:11:56

End at: 2018-02-17 21:12:26

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 111.76 Mbit/s

95th percentile per-packet one-way delay: 164.893 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 56.81 Mbit/s

95th percentile per-packet one-way delay: 162.889 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 56.79 Mbit/s

95th percentile per-packet one-way delay: 162.999 ms

Loss rate: 1.68%

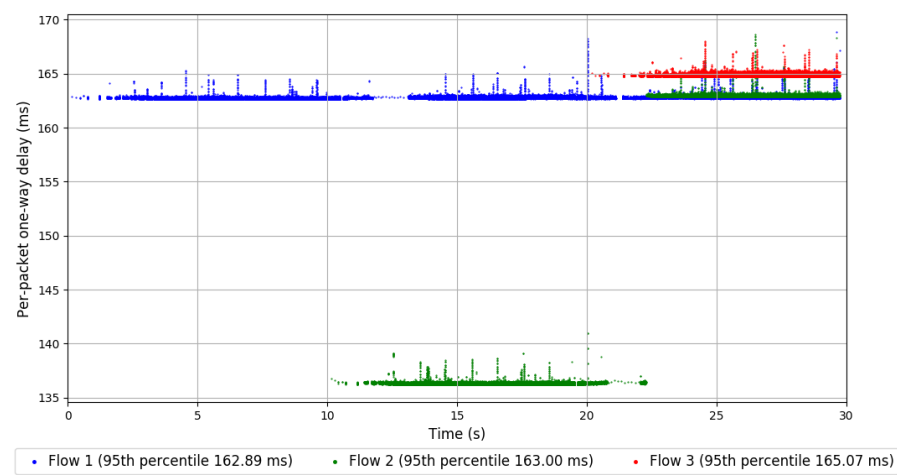
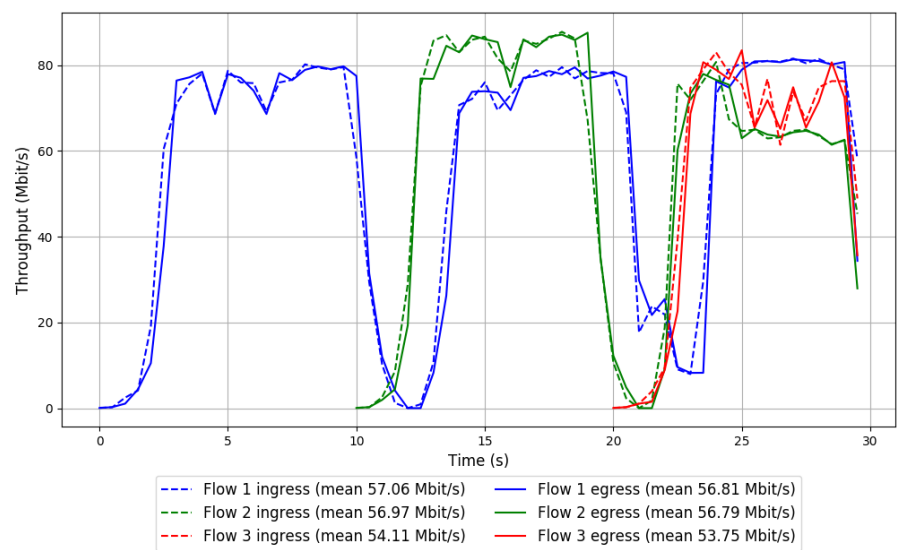
-- Flow 3:

Average throughput: 53.75 Mbit/s

95th percentile per-packet one-way delay: 165.075 ms

Loss rate: 3.71%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-02-17 21:32:33

End at: 2018-02-17 21:33:03

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.07 Mbit/s

95th percentile per-packet one-way delay: 163.164 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 57.60 Mbit/s

95th percentile per-packet one-way delay: 163.190 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 58.26 Mbit/s

95th percentile per-packet one-way delay: 162.919 ms

Loss rate: 1.97%

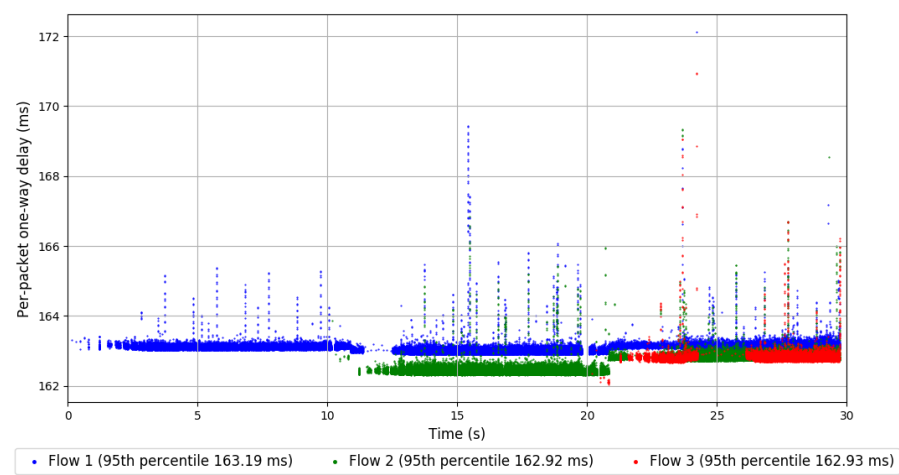
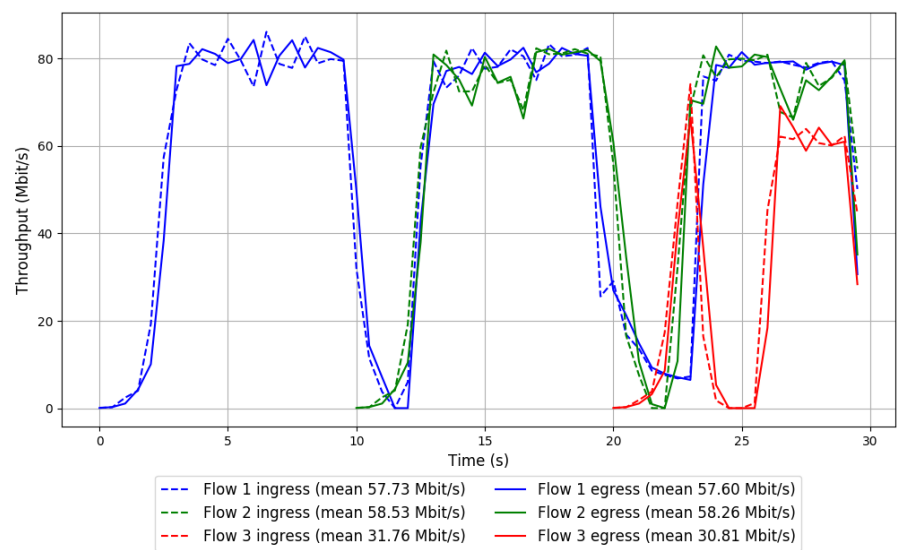
-- Flow 3:

Average throughput: 30.81 Mbit/s

95th percentile per-packet one-way delay: 162.929 ms

Loss rate: 5.95%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-02-17 21:52:39

End at: 2018-02-17 21:53:09

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 97.48 Mbit/s

95th percentile per-packet one-way delay: 164.621 ms

Loss rate: 1.81%

-- Flow 1:

Average throughput: 49.85 Mbit/s

95th percentile per-packet one-way delay: 162.088 ms

Loss rate: 1.38%

-- Flow 2:

Average throughput: 56.11 Mbit/s

95th percentile per-packet one-way delay: 164.670 ms

Loss rate: 1.79%

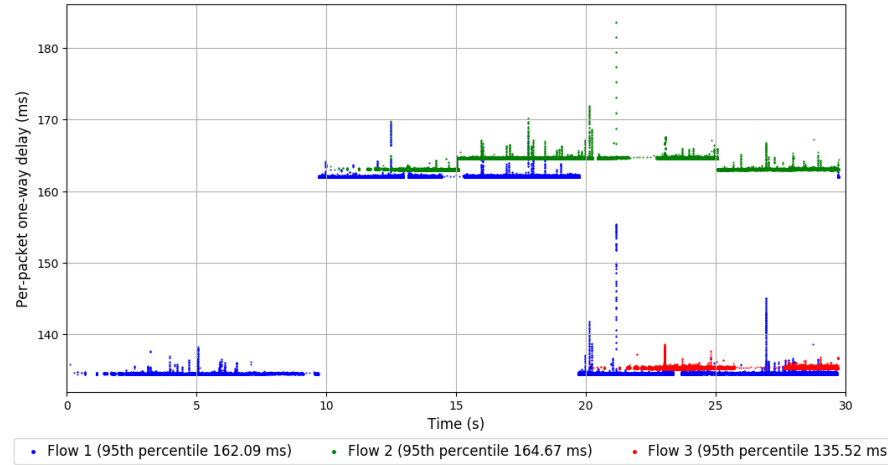
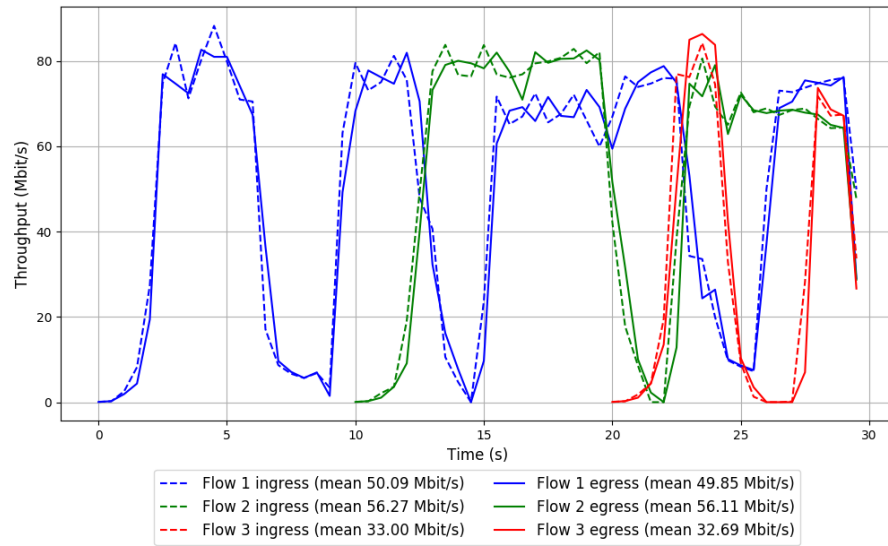
-- Flow 3:

Average throughput: 32.69 Mbit/s

95th percentile per-packet one-way delay: 135.524 ms

Loss rate: 3.90%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-02-17 22:13:00

End at: 2018-02-17 22:13:30

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 91.84 Mbit/s

95th percentile per-packet one-way delay: 162.939 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 52.21 Mbit/s

95th percentile per-packet one-way delay: 136.149 ms

Loss rate: 1.15%

-- Flow 2:

Average throughput: 46.99 Mbit/s

95th percentile per-packet one-way delay: 162.852 ms

Loss rate: 2.15%

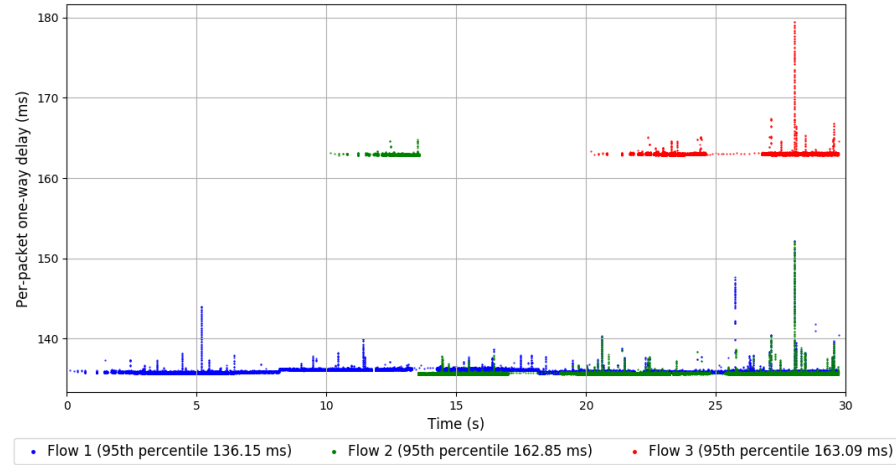
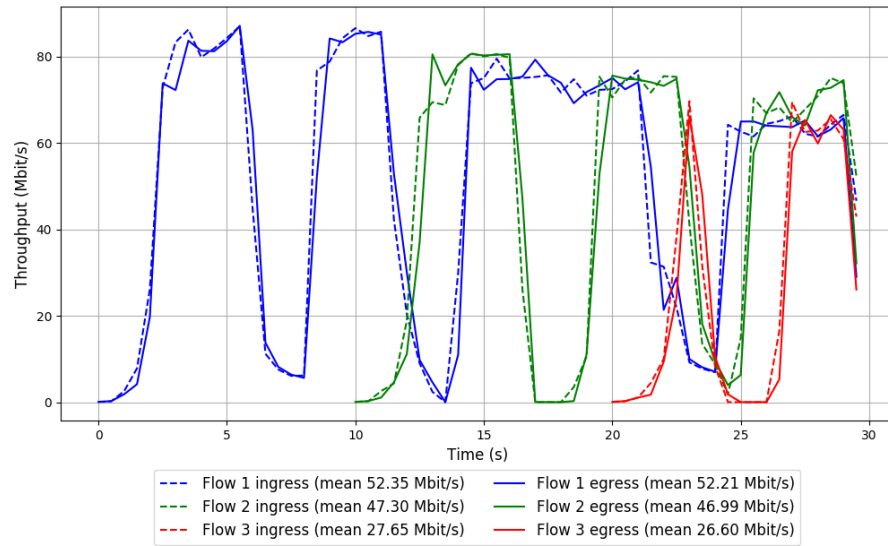
-- Flow 3:

Average throughput: 26.60 Mbit/s

95th percentile per-packet one-way delay: 163.086 ms

Loss rate: 6.73%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-02-17 22:33:36

End at: 2018-02-17 22:34:06

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 90.68 Mbit/s

95th percentile per-packet one-way delay: 162.134 ms

Loss rate: 1.70%

-- Flow 1:

Average throughput: 42.41 Mbit/s

95th percentile per-packet one-way delay: 136.293 ms

Loss rate: 1.62%

-- Flow 2:

Average throughput: 56.23 Mbit/s

95th percentile per-packet one-way delay: 162.200 ms

Loss rate: 2.06%

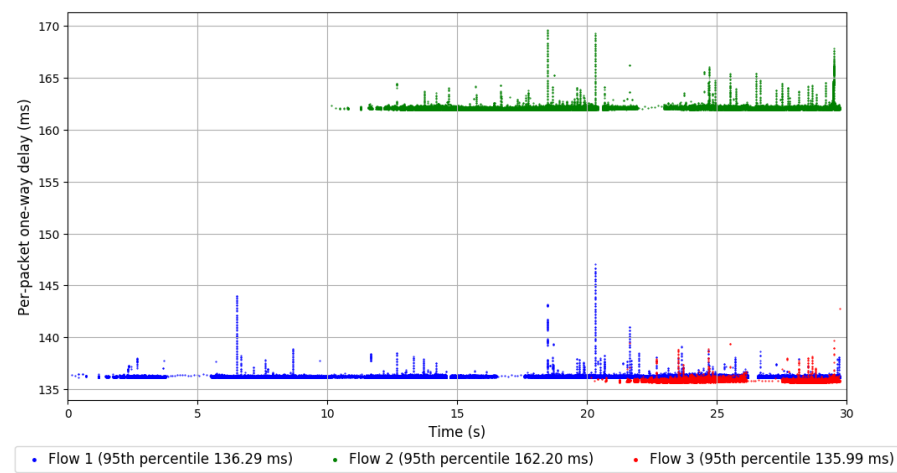
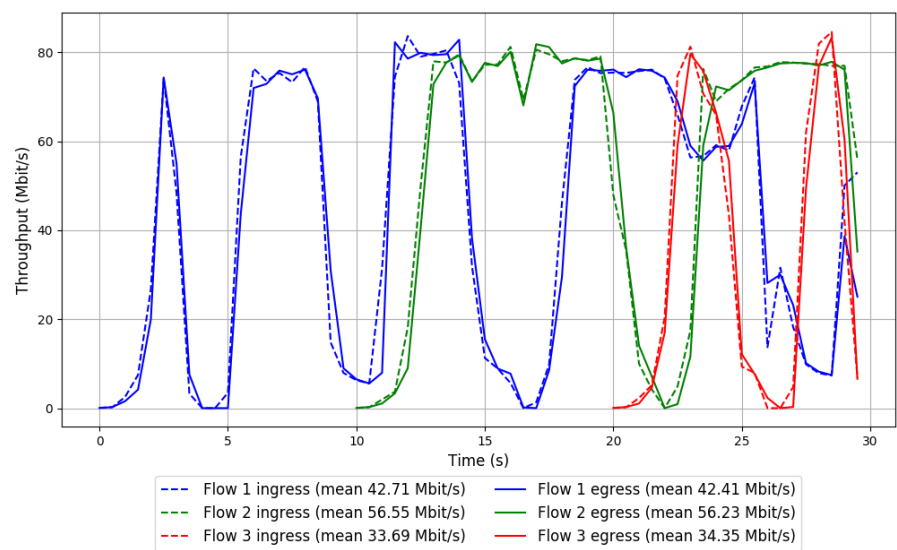
-- Flow 3:

Average throughput: 34.35 Mbit/s

95th percentile per-packet one-way delay: 135.990 ms

Loss rate: 0.76%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-02-17 22:54:17

End at: 2018-02-17 22:54:47

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.47 Mbit/s

95th percentile per-packet one-way delay: 162.139 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 52.20 Mbit/s

95th percentile per-packet one-way delay: 162.170 ms

Loss rate: 1.03%

-- Flow 2:

Average throughput: 51.27 Mbit/s

95th percentile per-packet one-way delay: 137.053 ms

Loss rate: 2.08%

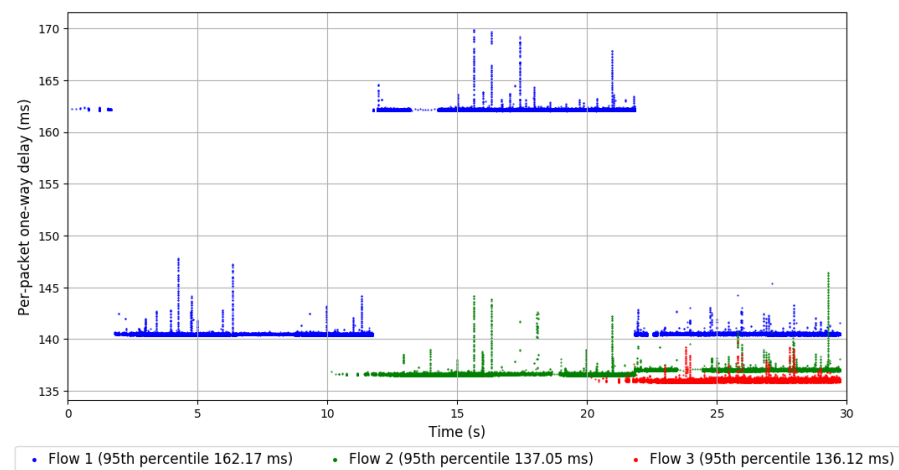
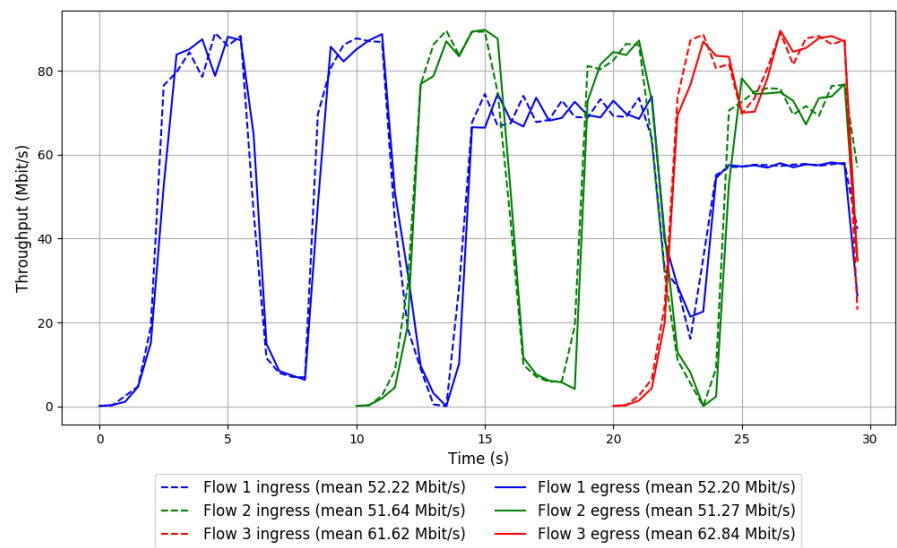
-- Flow 3:

Average throughput: 62.84 Mbit/s

95th percentile per-packet one-way delay: 136.122 ms

Loss rate: 0.87%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-02-17 23:14:24

End at: 2018-02-17 23:14:54

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 96.16 Mbit/s

95th percentile per-packet one-way delay: 136.489 ms

Loss rate: 1.45%

-- Flow 1:

Average throughput: 45.48 Mbit/s

95th percentile per-packet one-way delay: 136.010 ms

Loss rate: 1.50%

-- Flow 2:

Average throughput: 61.54 Mbit/s

95th percentile per-packet one-way delay: 136.557 ms

Loss rate: 0.42%

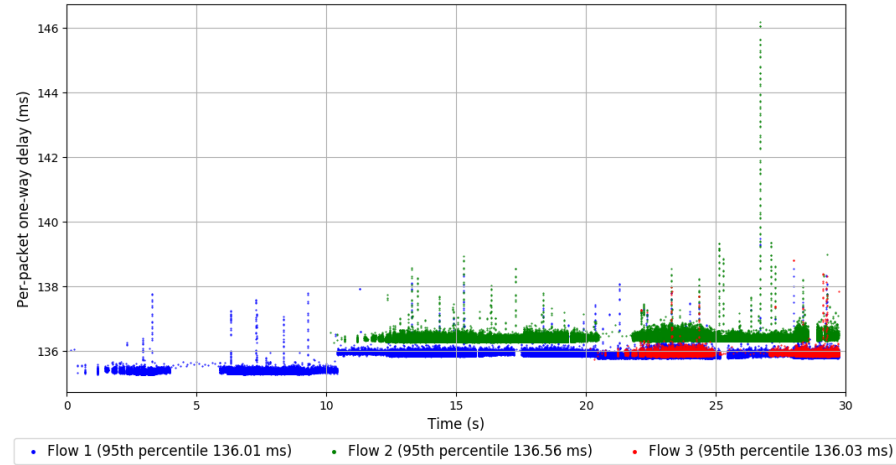
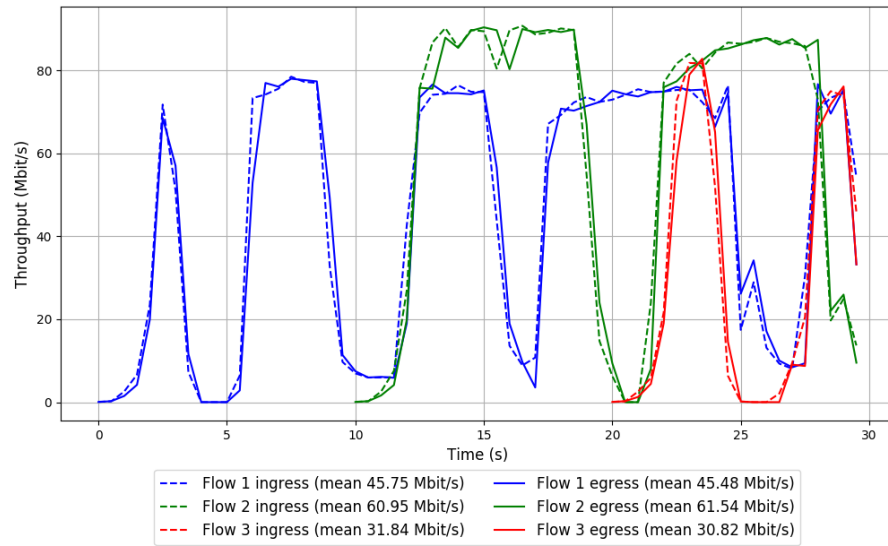
-- Flow 3:

Average throughput: 30.82 Mbit/s

95th percentile per-packet one-way delay: 136.030 ms

Loss rate: 5.27%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-02-17 23:35:16

End at: 2018-02-17 23:35:46

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.32 Mbit/s

95th percentile per-packet one-way delay: 141.661 ms

Loss rate: 2.03%

-- Flow 1:

Average throughput: 51.44 Mbit/s

95th percentile per-packet one-way delay: 136.820 ms

Loss rate: 1.40%

-- Flow 2:

Average throughput: 50.13 Mbit/s

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

Loss rate: 1.95%

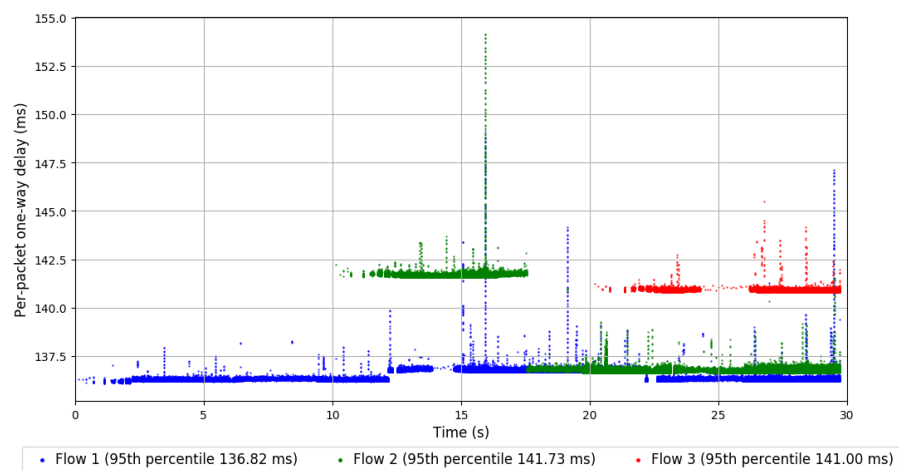
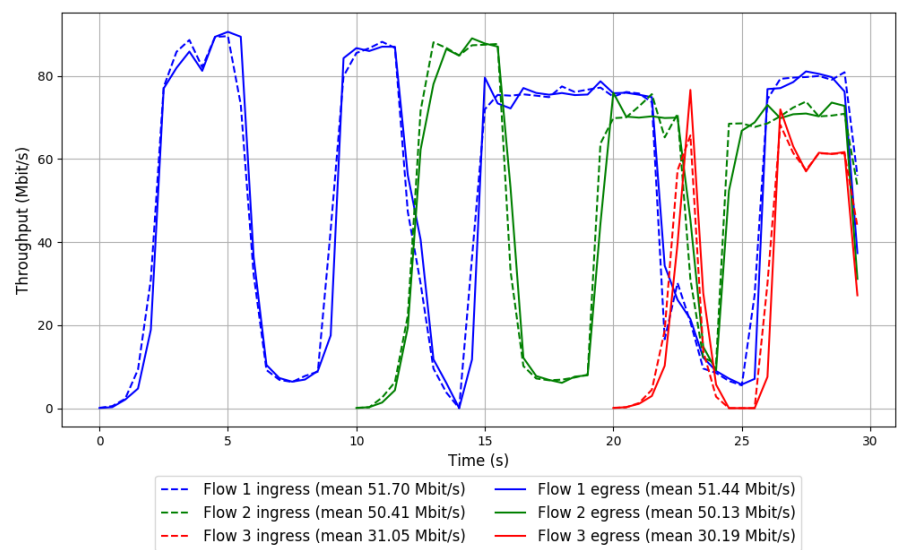
-- Flow 3:

Average throughput: 30.19 Mbit/s

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

Loss rate: 5.52%

Run 9: Report of QUIC Cubic — Data Link

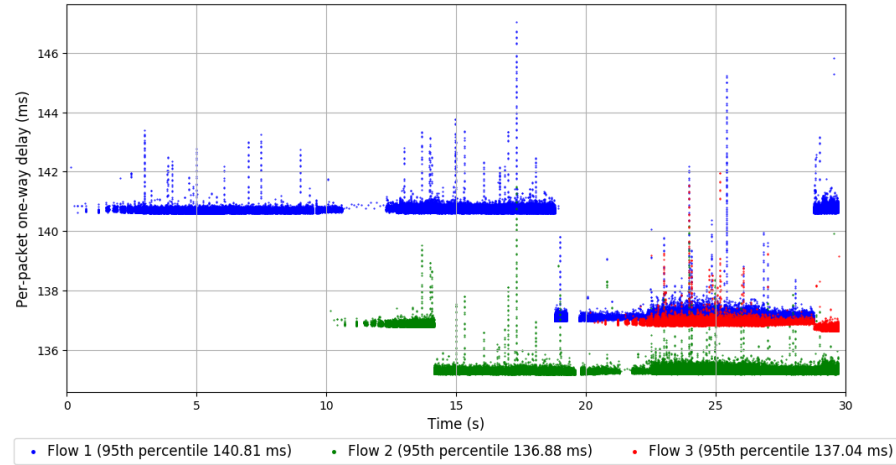
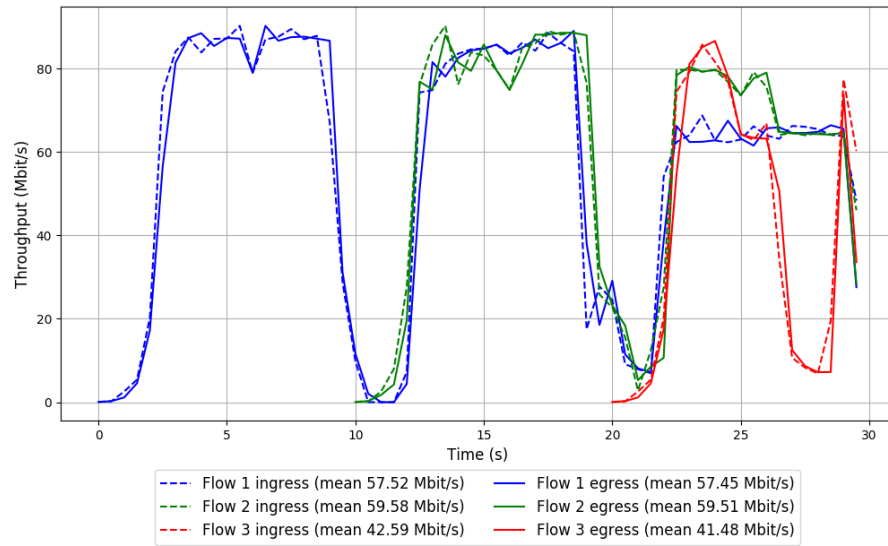


```
Run 10: Statistics of QUIC Cubic

Start at: 2018-02-17 23:55:40
End at: 2018-02-17 23:56:10

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 110.24 Mbit/s
95th percentile per-packet one-way delay: 140.770 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 57.45 Mbit/s
95th percentile per-packet one-way delay: 140.814 ms
Loss rate: 1.06%
-- Flow 2:
Average throughput: 59.51 Mbit/s
95th percentile per-packet one-way delay: 136.876 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 41.48 Mbit/s
95th percentile per-packet one-way delay: 137.040 ms
Loss rate: 5.28%
```

Run 10: Report of QUIC Cubic — Data Link

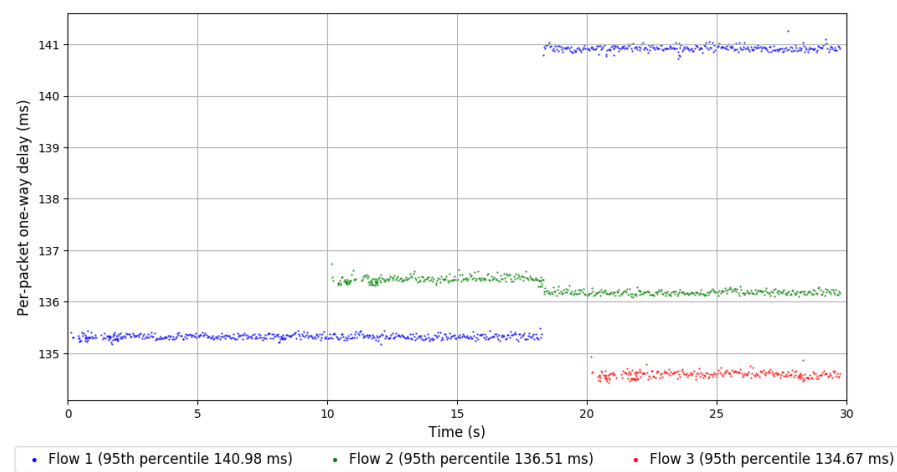
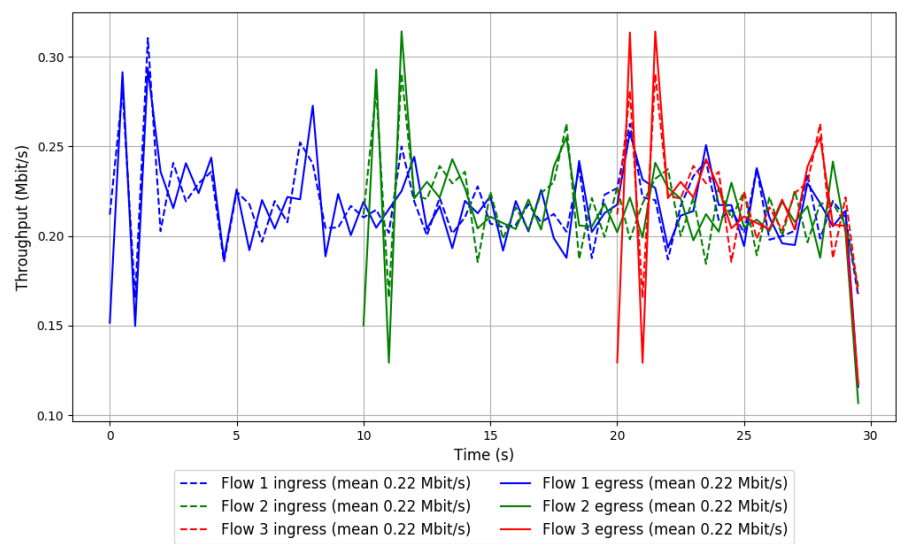


```
Run 1: Statistics of SCReAM

Start at: 2018-02-17 20:50:36
End at: 2018-02-17 20:51:06

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 140.953 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.977 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.510 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 134.672 ms
Loss rate: 2.63%
```

Run 1: Report of SReAM — Data Link

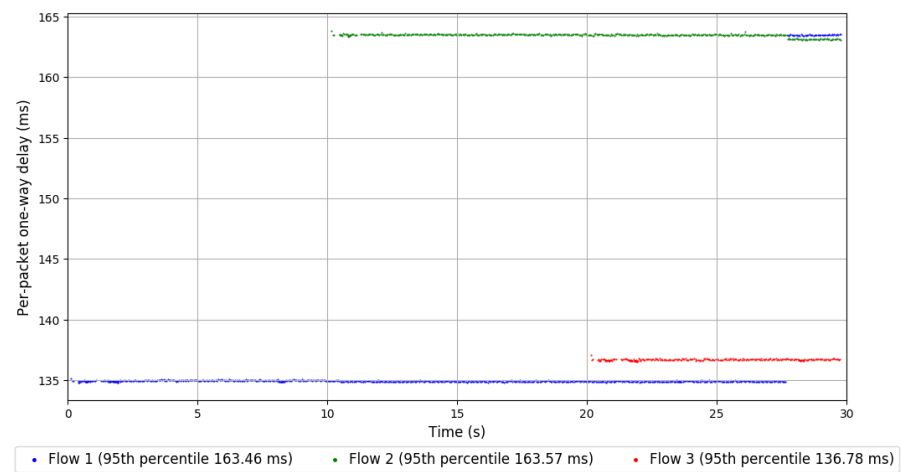
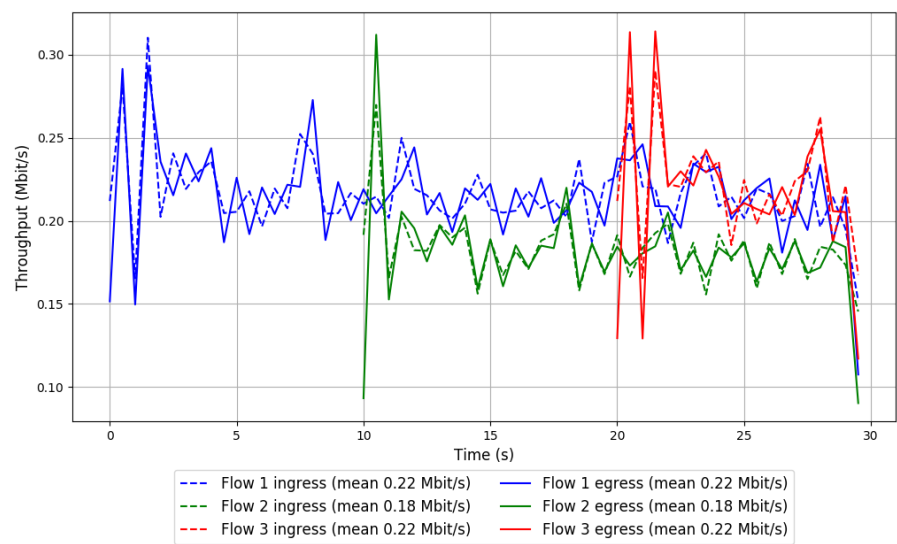


```
Run 2: Statistics of SCReAM

Start at: 2018-02-17 21:11:06
End at: 2018-02-17 21:11:36

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 163.554 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 163.456 ms
Loss rate: 0.82%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 163.575 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.785 ms
Loss rate: 2.63%
```

Run 2: Report of SReAM — Data Link

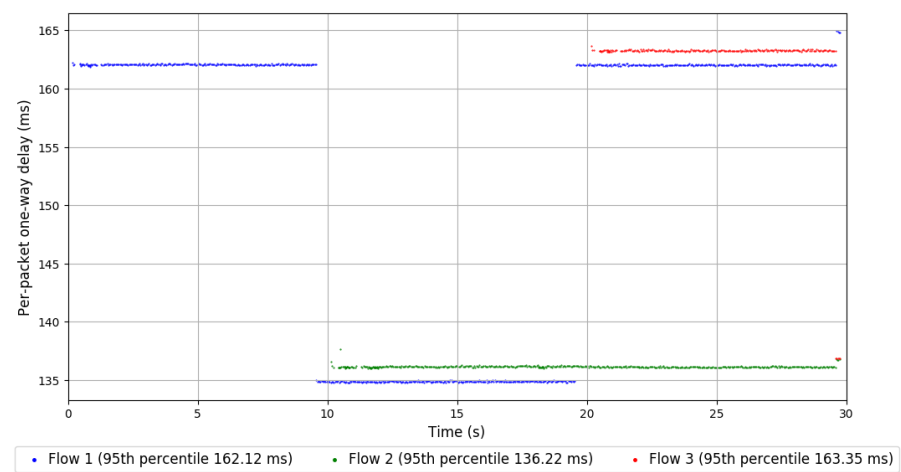
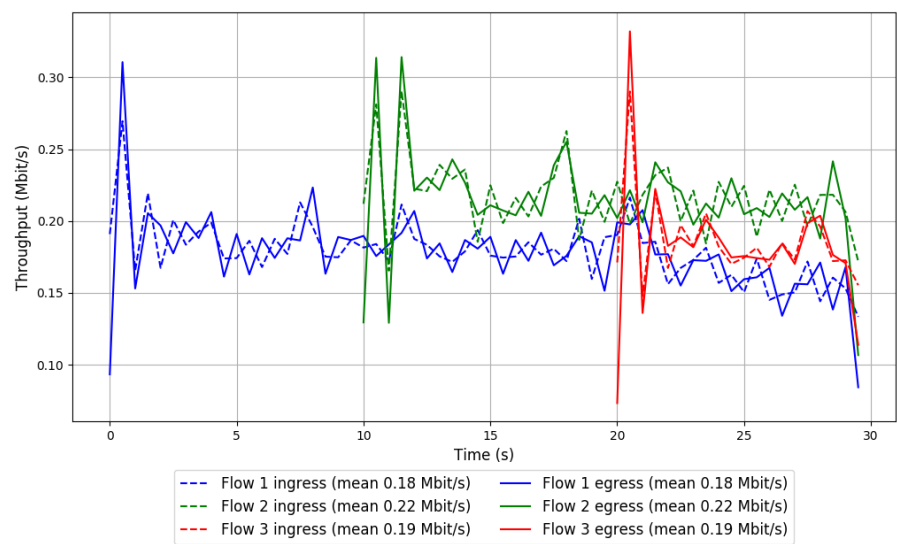


```
Run 3: Statistics of SCReAM

Start at: 2018-02-17 21:31:44
End at: 2018-02-17 21:32:14

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 163.292 ms
Loss rate: 1.38%
-- Flow 1:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 162.124 ms
Loss rate: 0.91%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.220 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 163.355 ms
Loss rate: 2.65%
```


Run 3: Report of SReAM — Data Link

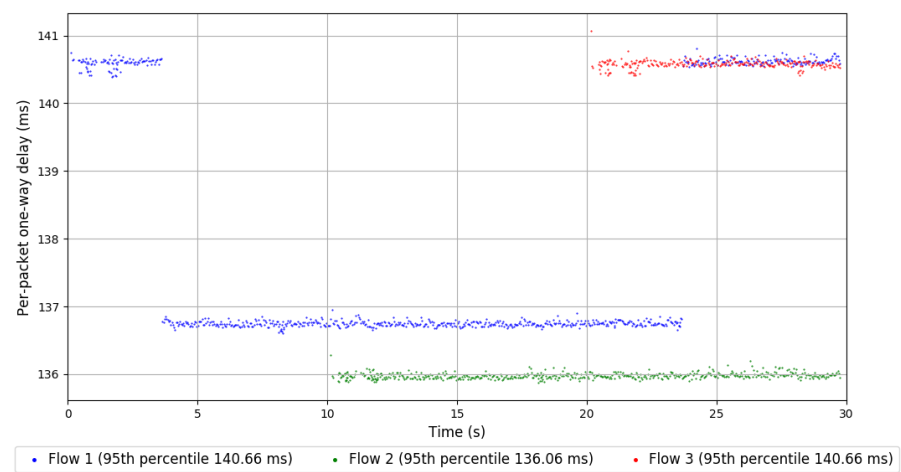
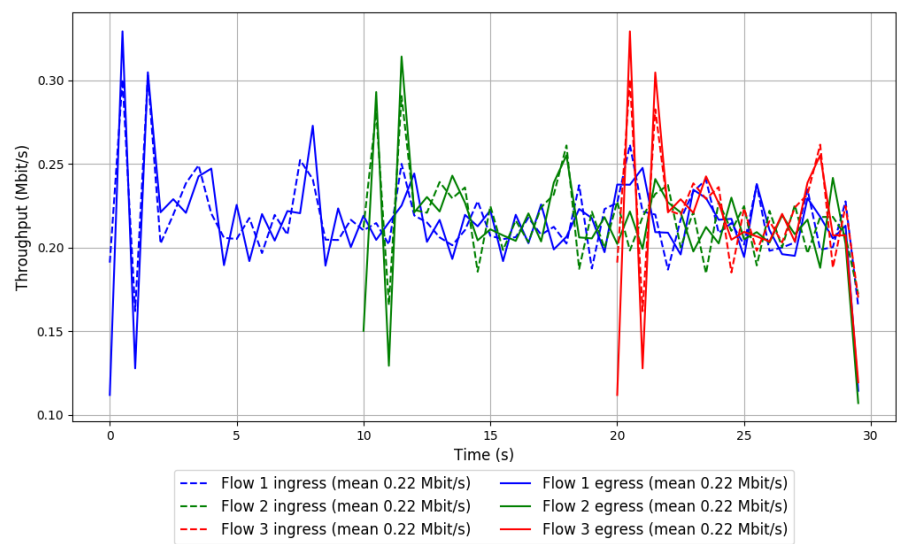


```
Run 4: Statistics of SReAM

Start at: 2018-02-17 21:51:50
End at: 2018-02-17 21:52:20

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 140.645 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.660 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.060 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.658 ms
Loss rate: 2.67%
```

Run 4: Report of SReAM — Data Link

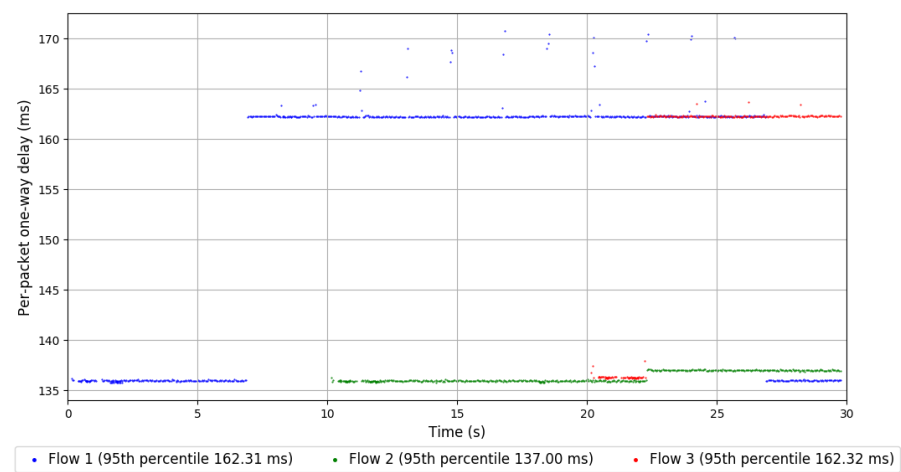
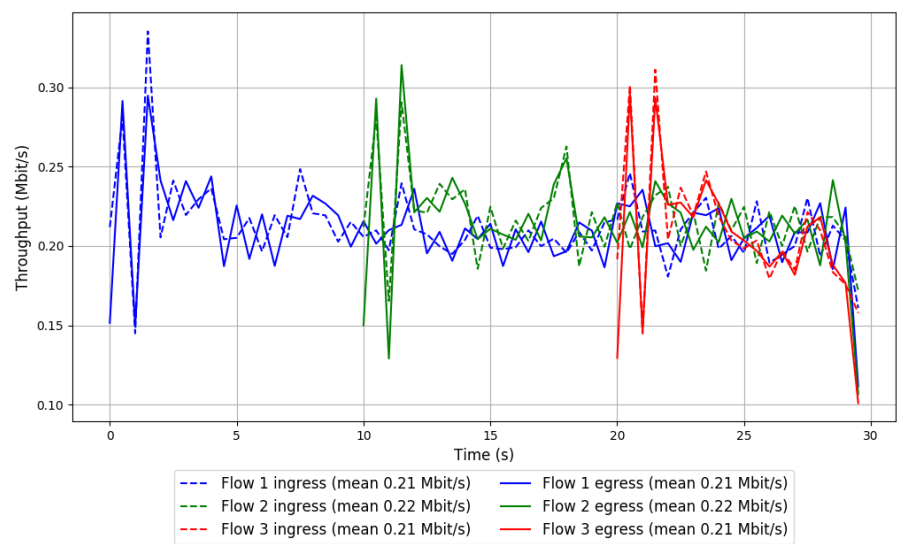


```
Run 5: Statistics of SReAM

Start at: 2018-02-17 22:12:12
End at: 2018-02-17 22:12:42

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 162.303 ms
Loss rate: 1.31%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 162.314 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 137.002 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 162.323 ms
Loss rate: 2.74%
```

Run 5: Report of SReAM — Data Link

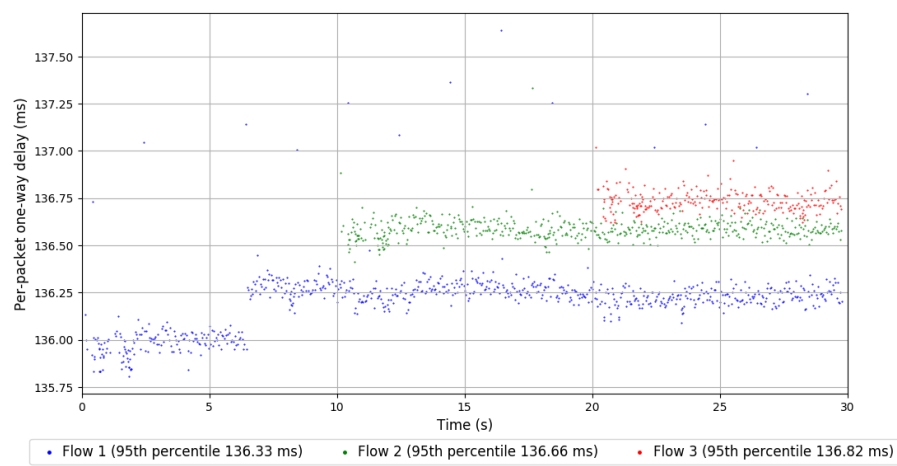
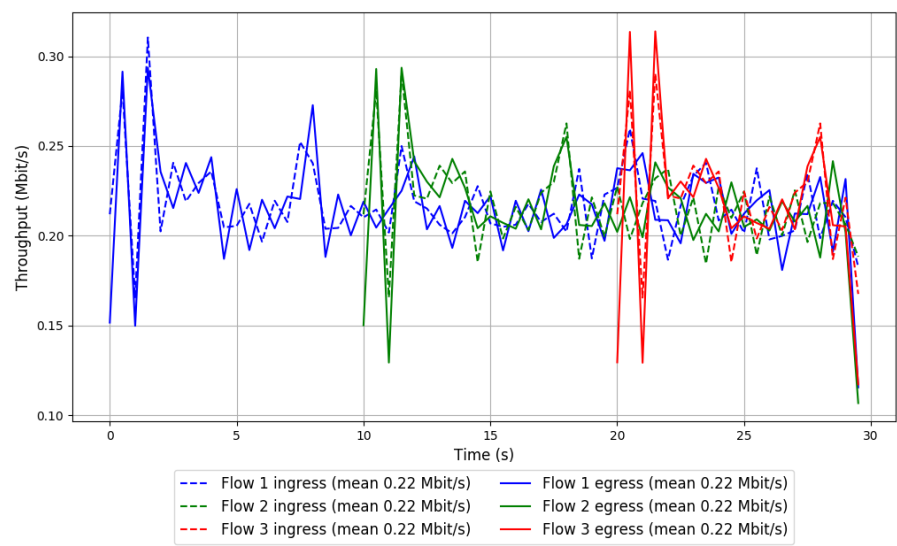


```
Run 6: Statistics of SCReAM

Start at: 2018-02-17 22:32:48
End at: 2018-02-17 22:33:18

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.766 ms
Loss rate: 1.43%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.330 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.661 ms
Loss rate: 1.61%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.819 ms
Loss rate: 2.63%
```

Run 6: Report of SReAM — Data Link

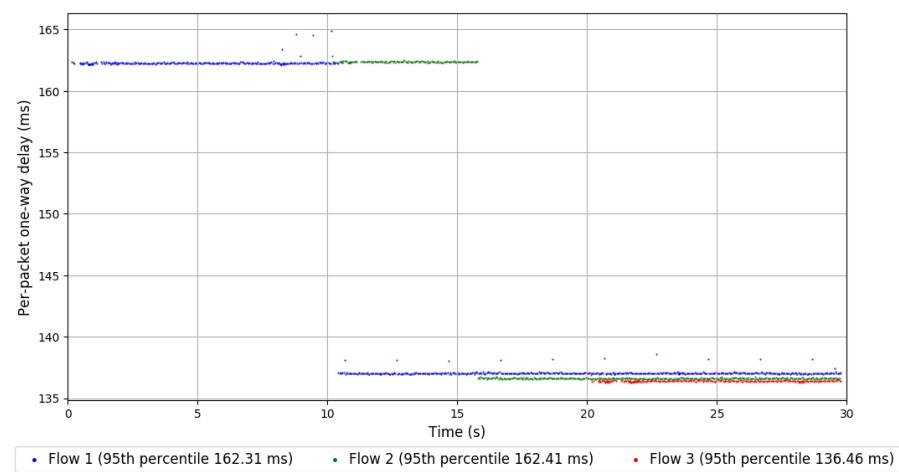
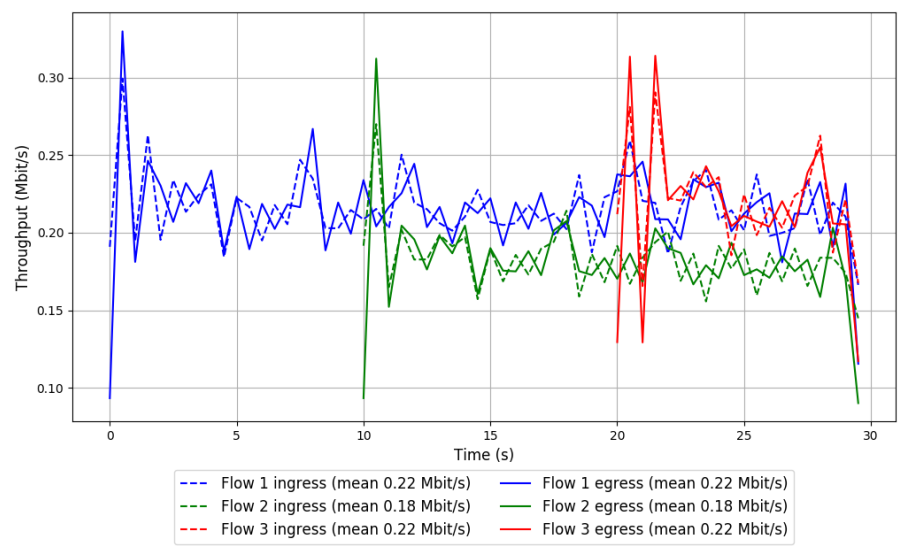


```
Run 7: Statistics of SReAM

Start at: 2018-02-17 22:53:28
End at: 2018-02-17 22:53:58

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 162.373 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 162.305 ms
Loss rate: 0.78%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 162.411 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.462 ms
Loss rate: 2.63%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-02-17 23:13:35

End at: 2018-02-17 23:14:05

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 162.457 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 162.479 ms

Loss rate: 0.78%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.978 ms

Loss rate: 1.43%

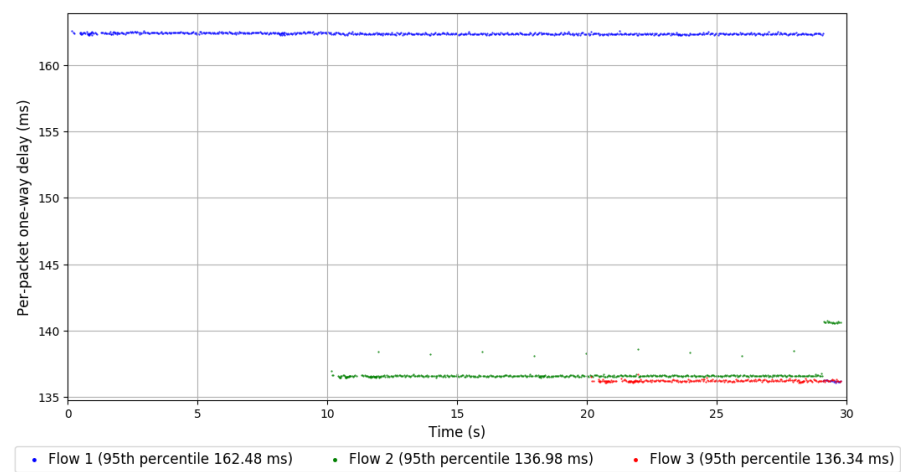
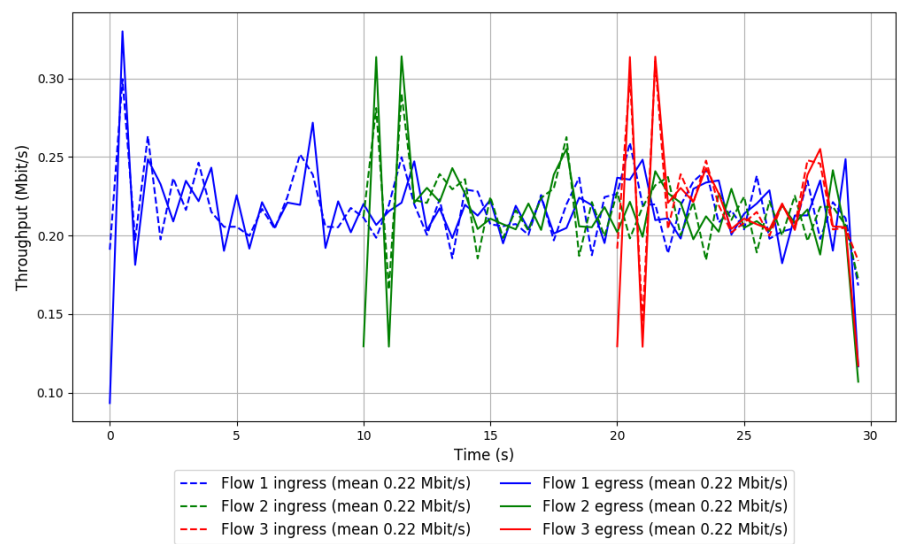
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 136.338 ms

Loss rate: 2.63%

Run 8: Report of SReAM — Data Link



Run 9: Statistics of SCReAM

Start at: 2018-02-17 23:34:28

End at: 2018-02-17 23:34:58

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.498 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.300 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.533 ms

Loss rate: 1.42%

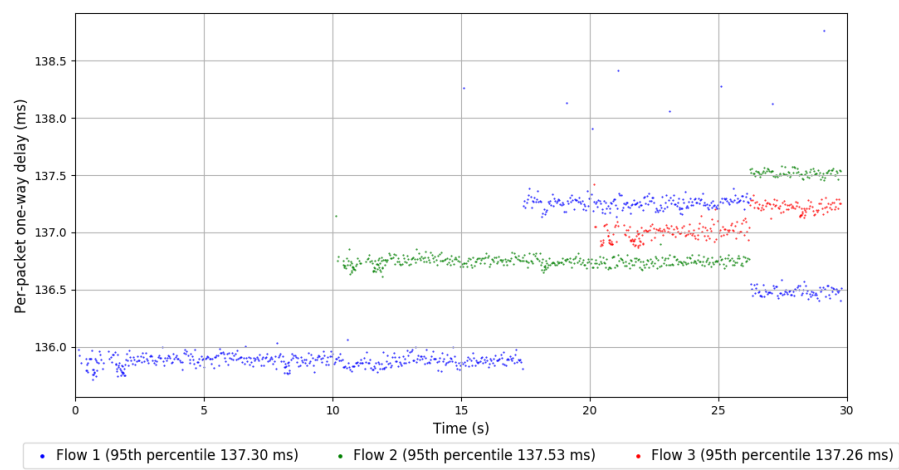
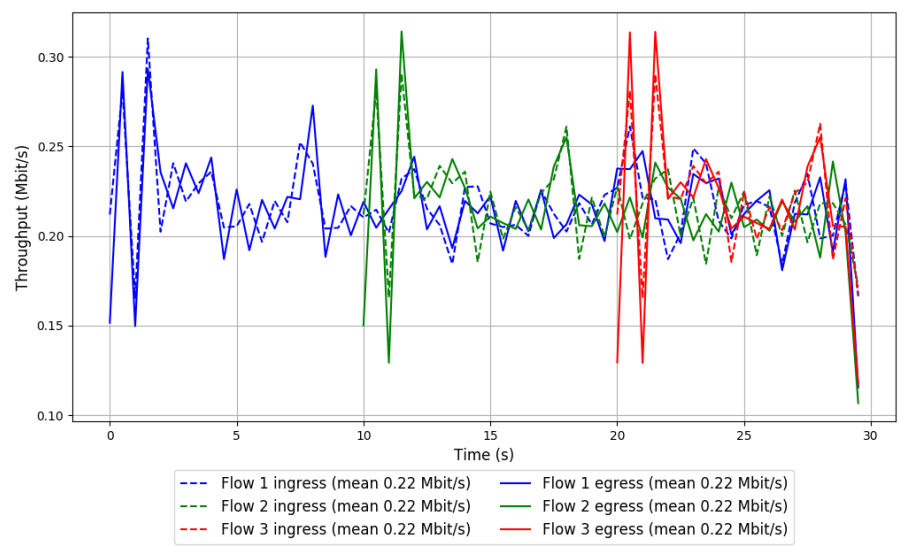
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 137.265 ms

Loss rate: 2.63%

Run 9: Report of SReAM — Data Link

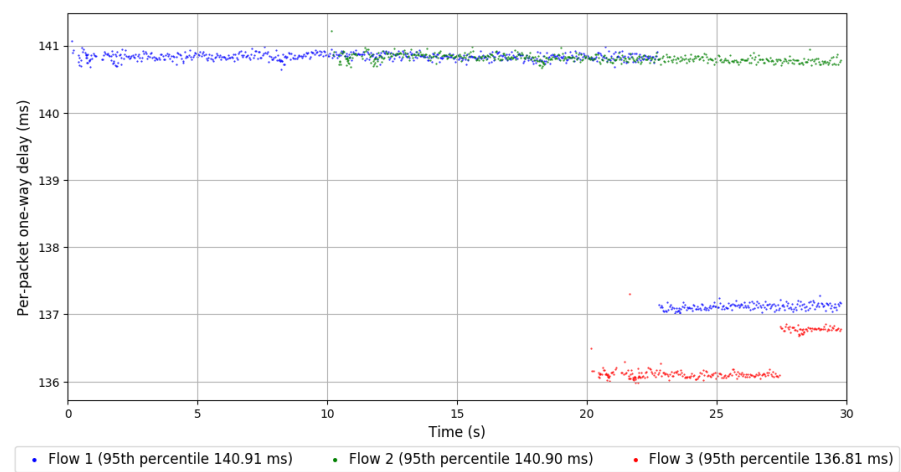
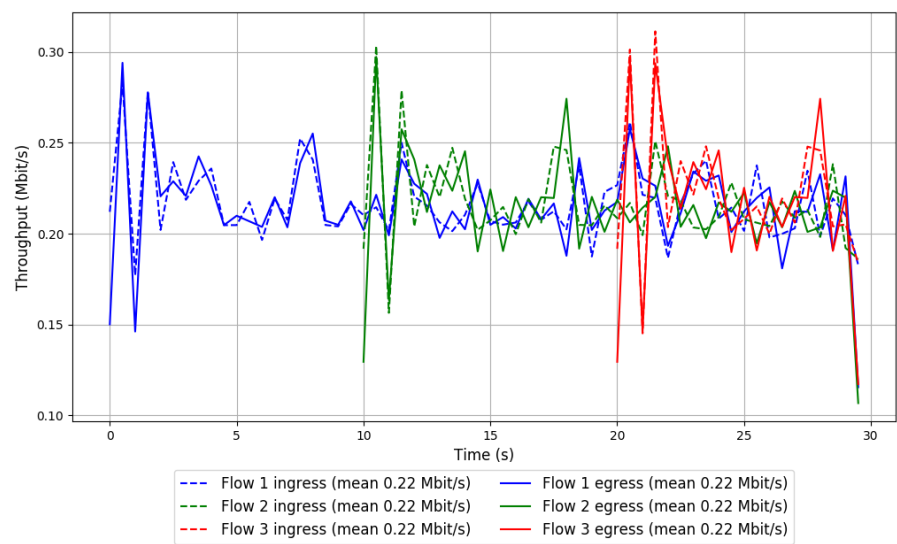


```
Run 10: Statistics of SCReAM

Start at: 2018-02-17 23:54:51
End at: 2018-02-17 23:55:21

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 140.903 ms
Loss rate: 1.37%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.912 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 140.902 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 136.810 ms
Loss rate: 2.63%
```

Run 10: Report of SCRaM — Data Link

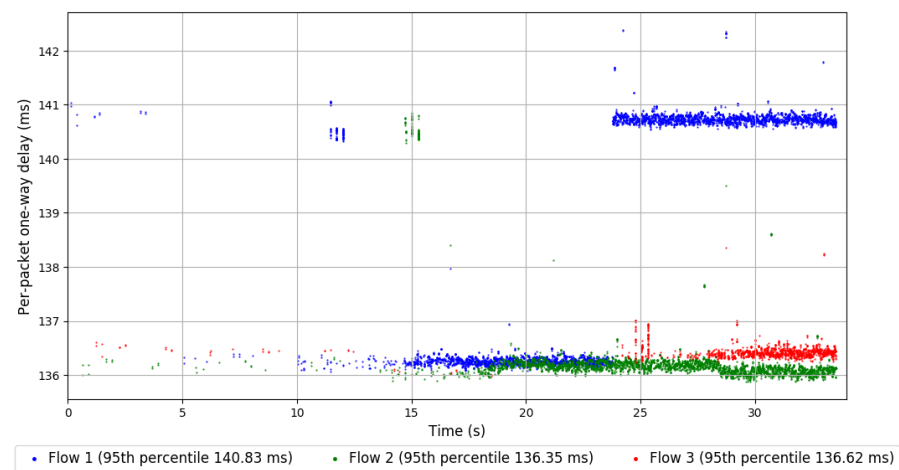
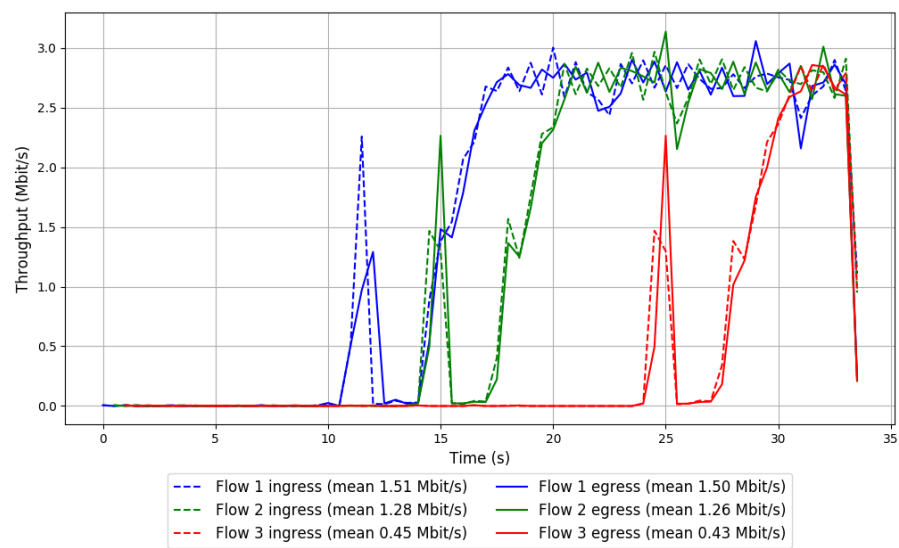


```
Run 1: Statistics of WebRTC media

Start at: 2018-02-17 20:35:24
End at: 2018-02-17 20:35:54

# Below is generated by plot.py at 2018-02-18 04:00:21
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.16 Mbit/s
95th percentile per-packet one-way delay: 140.796 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 140.827 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 136.353 ms
Loss rate: 1.99%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 136.620 ms
Loss rate: 5.40%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-02-17 20:55:55

End at: 2018-02-17 20:56:25

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 136.494 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 136.499 ms

Loss rate: 1.00%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 135.453 ms

Loss rate: 1.68%

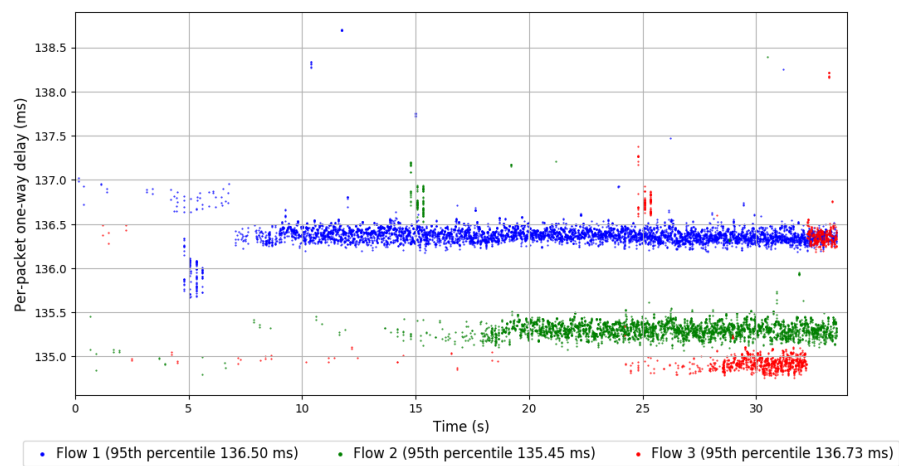
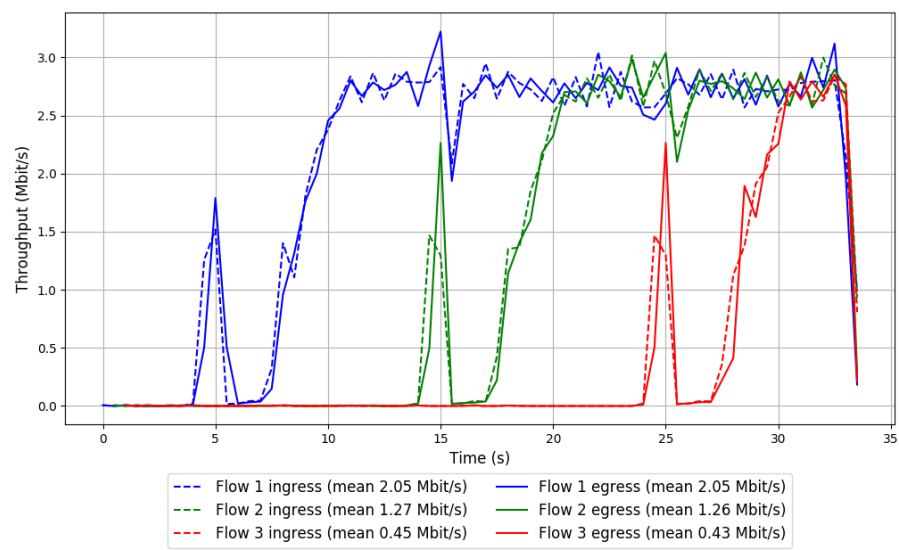
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.730 ms

Loss rate: 4.86%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-02-17 21:16:44

End at: 2018-02-17 21:17:14

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 162.995 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 2.01 Mbit/s

95th percentile per-packet one-way delay: 162.997 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 162.692 ms

Loss rate: 1.89%

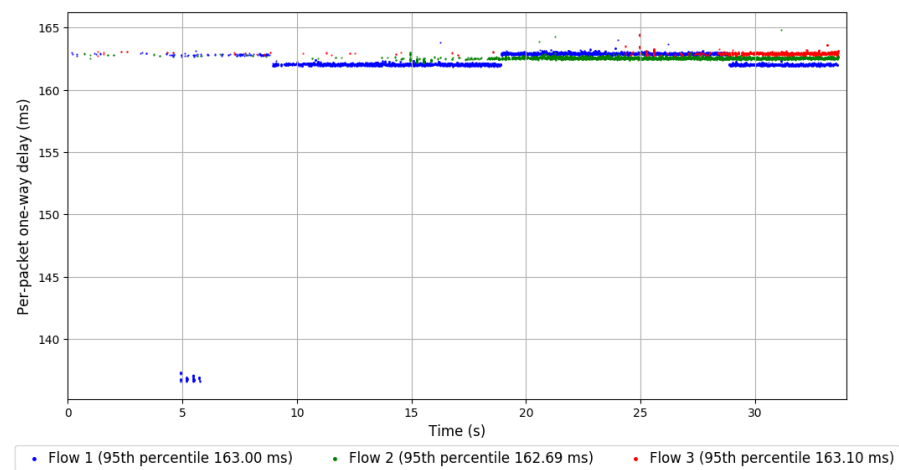
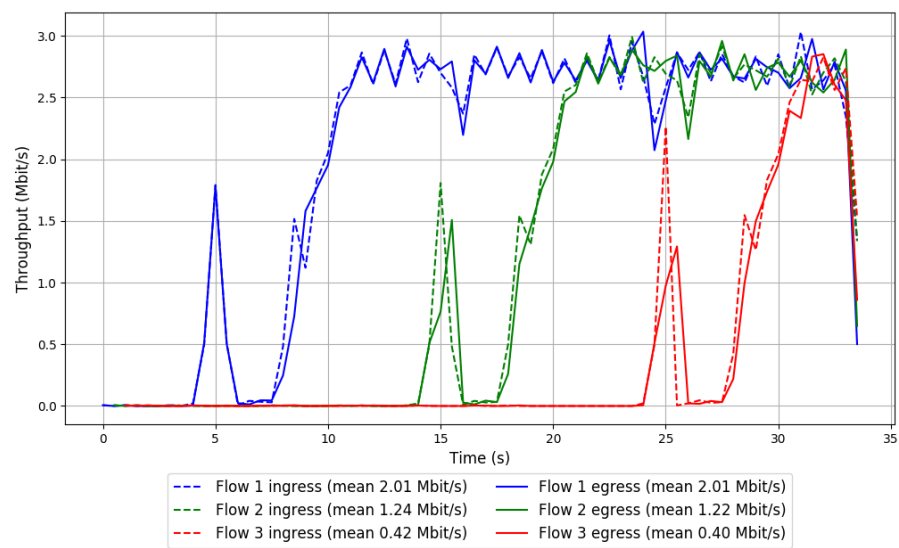
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 163.098 ms

Loss rate: 6.35%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-02-17 21:36:56

End at: 2018-02-17 21:37:26

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.64 Mbit/s

95th percentile per-packet one-way delay: 163.102 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 135.116 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 163.153 ms

Loss rate: 2.13%

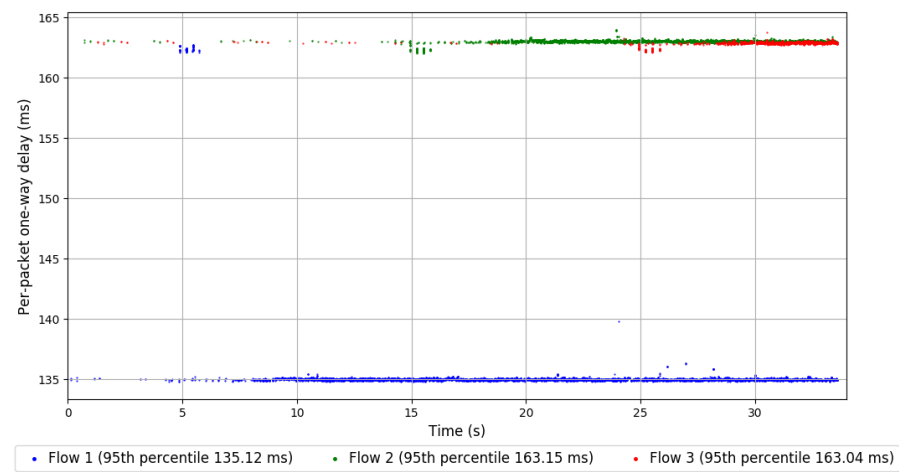
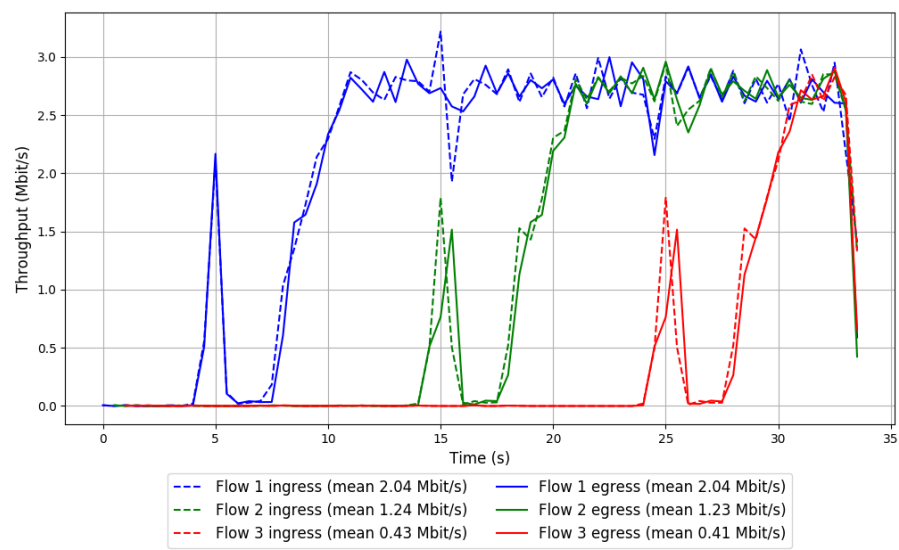
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 163.037 ms

Loss rate: 5.58%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-02-17 21:57:06

End at: 2018-02-17 21:57:36

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.65 Mbit/s

95th percentile per-packet one-way delay: 162.769 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 162.791 ms

Loss rate: 1.10%

-- Flow 2:

Average throughput: 1.26 Mbit/s

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

Loss rate: 2.02%

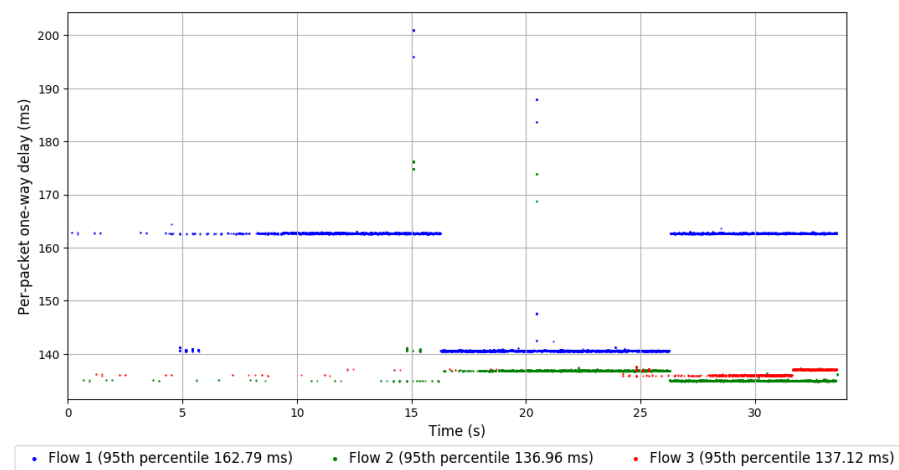
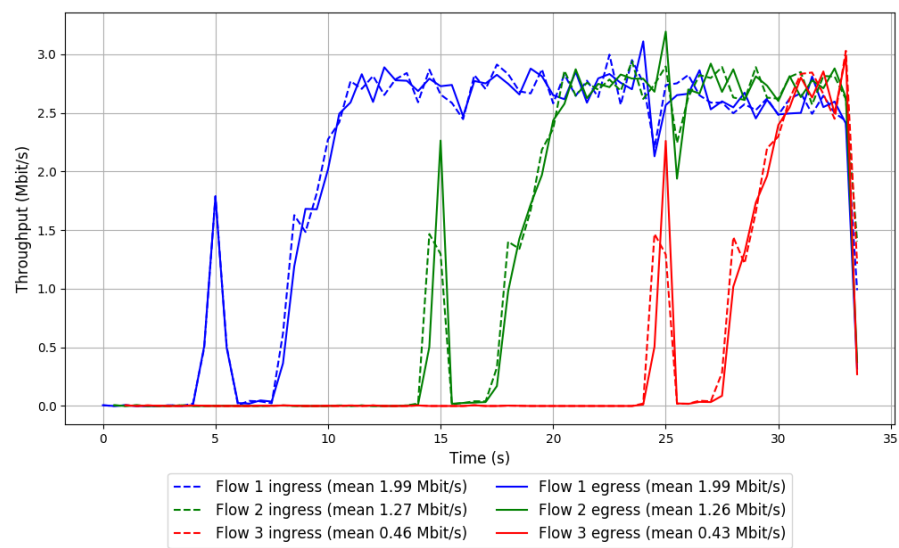
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 137.125 ms

Loss rate: 5.62%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-02-17 22:17:46

End at: 2018-02-17 22:18:16

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 162.113 ms

Loss rate: 1.72%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 136.623 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 136.655 ms

Loss rate: 1.94%

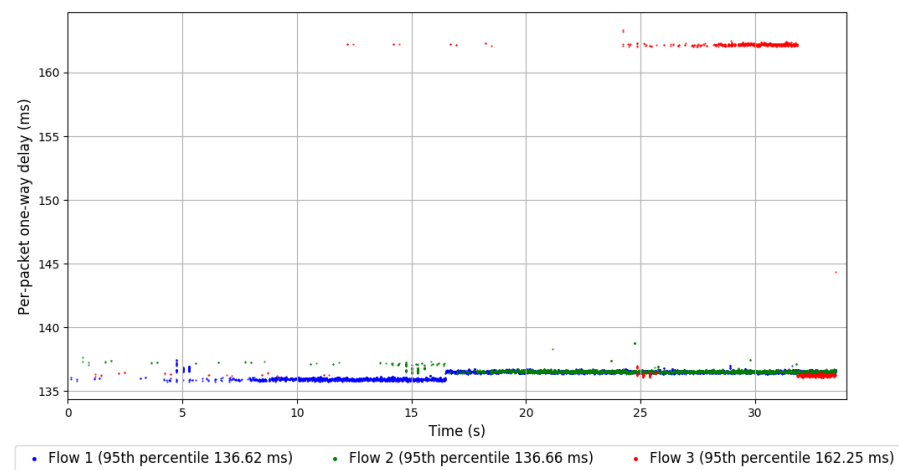
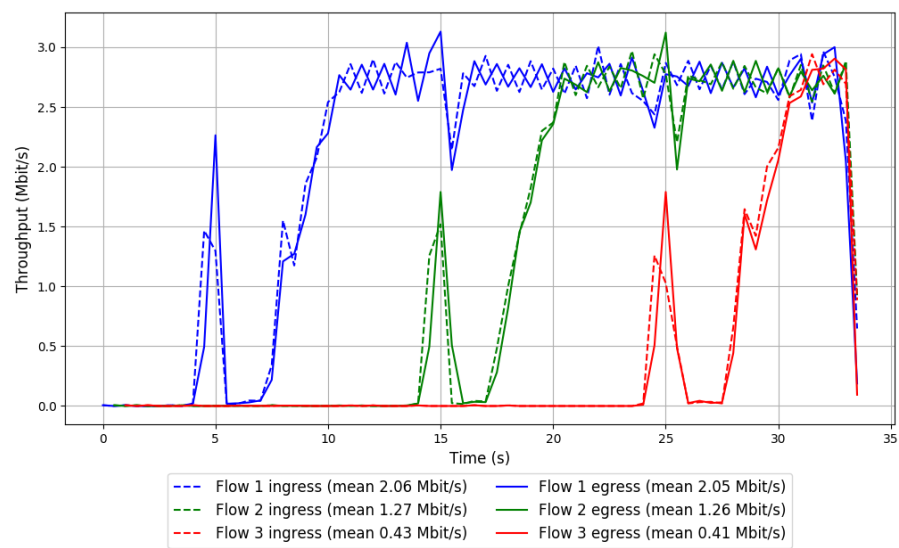
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 162.255 ms

Loss rate: 5.16%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-02-17 22:38:14

End at: 2018-02-17 22:38:44

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.89 Mbit/s

95th percentile per-packet one-way delay: 162.315 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 162.346 ms

Loss rate: 1.48%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 162.187 ms

Loss rate: 2.00%

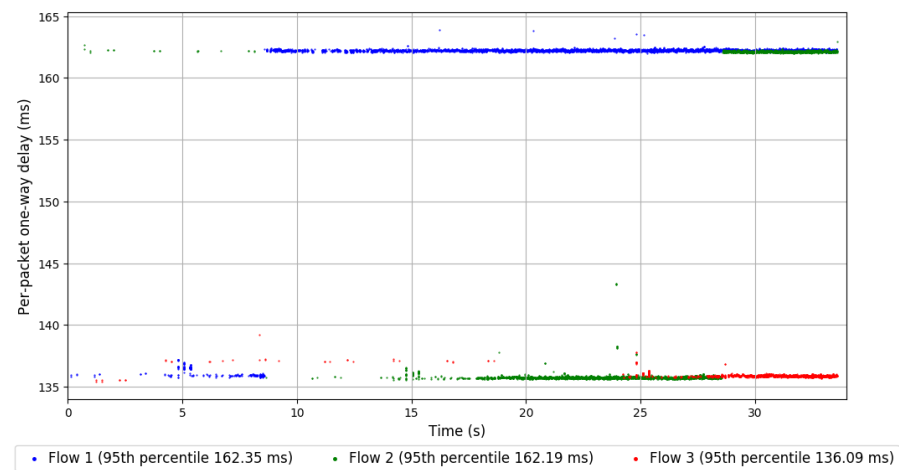
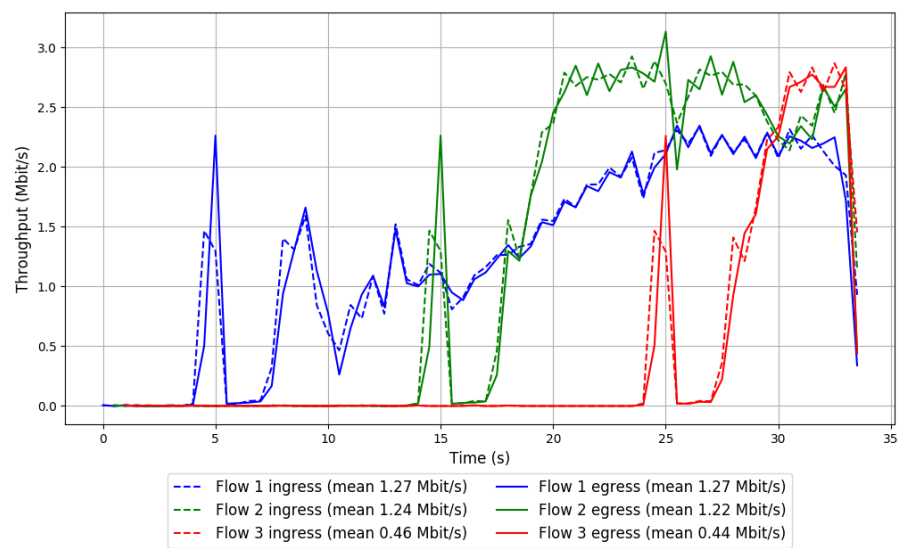
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 136.091 ms

Loss rate: 5.61%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-02-17 22:58:54

End at: 2018-02-17 22:59:24

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 136.159 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 136.059 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 136.195 ms

Loss rate: 1.94%

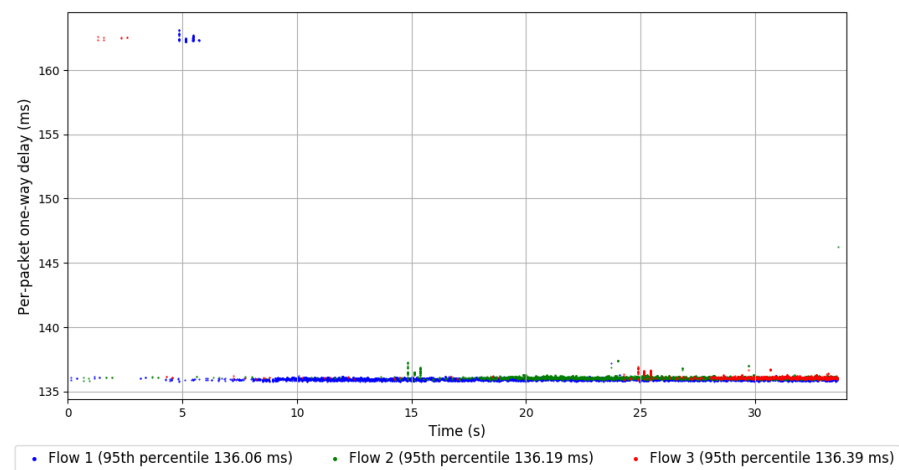
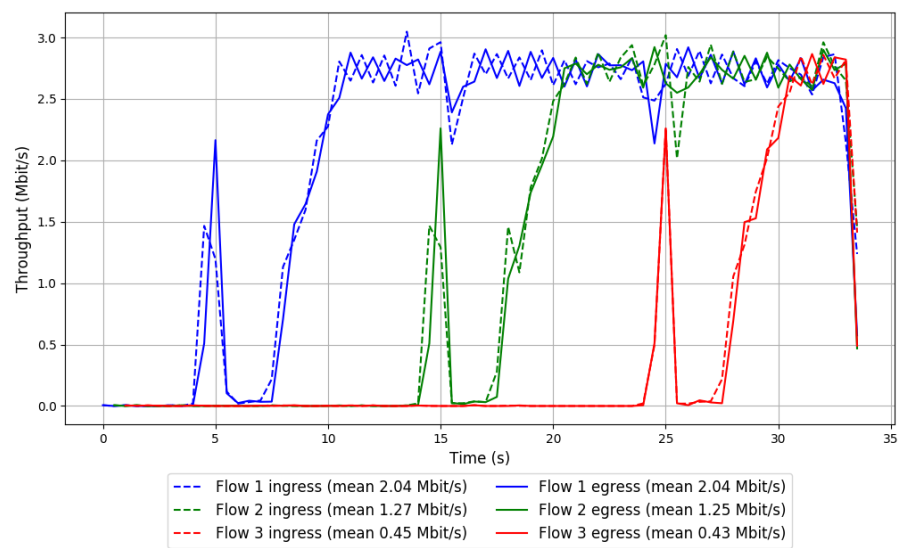
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 136.393 ms

Loss rate: 5.50%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-02-17 23:18:50

End at: 2018-02-17 23:19:20

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 140.729 ms

Loss rate: 1.88%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 136.590 ms

Loss rate: 1.07%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 136.499 ms

Loss rate: 1.92%

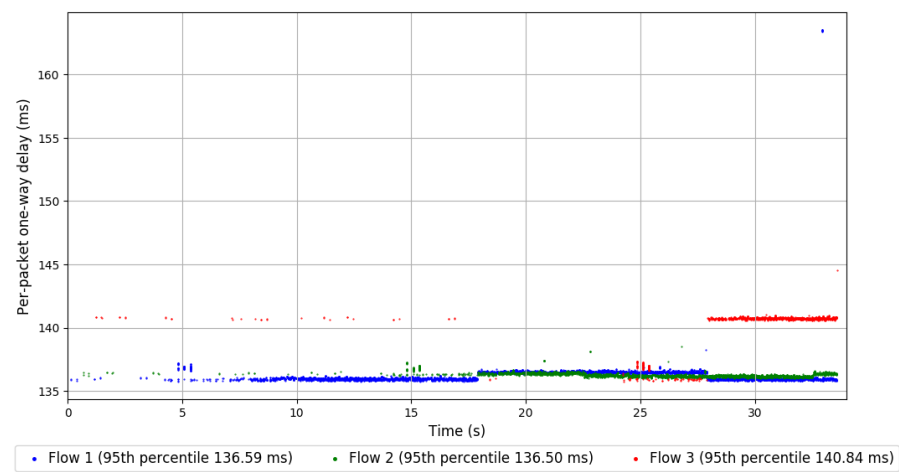
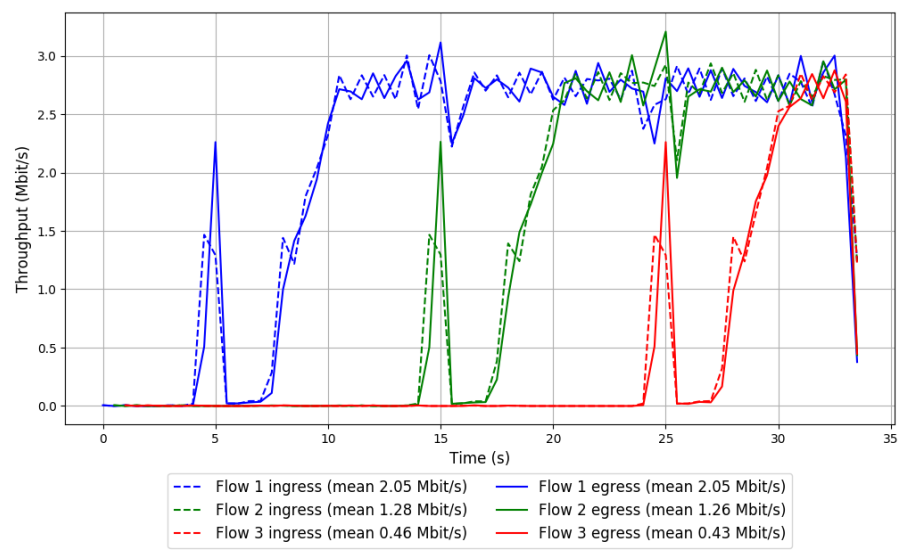
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 140.835 ms

Loss rate: 5.55%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-02-17 23:39:50

End at: 2018-02-17 23:40:20

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 141.445 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 141.149 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 136.611 ms

Loss rate: 1.85%

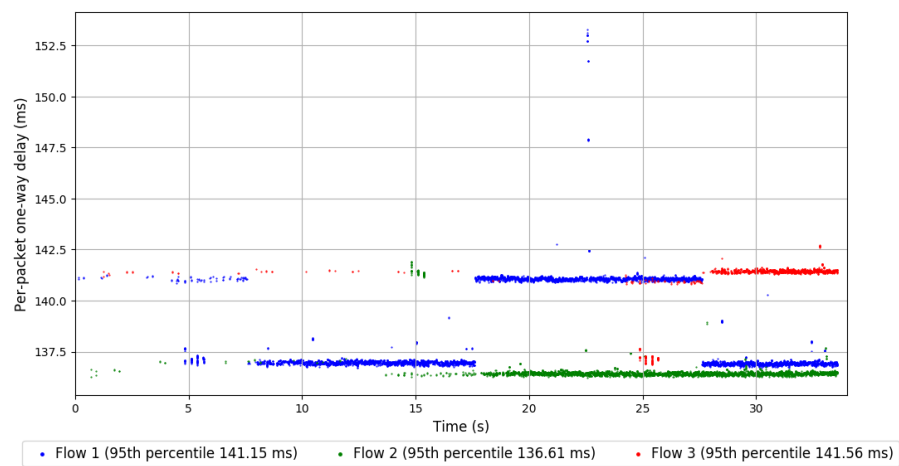
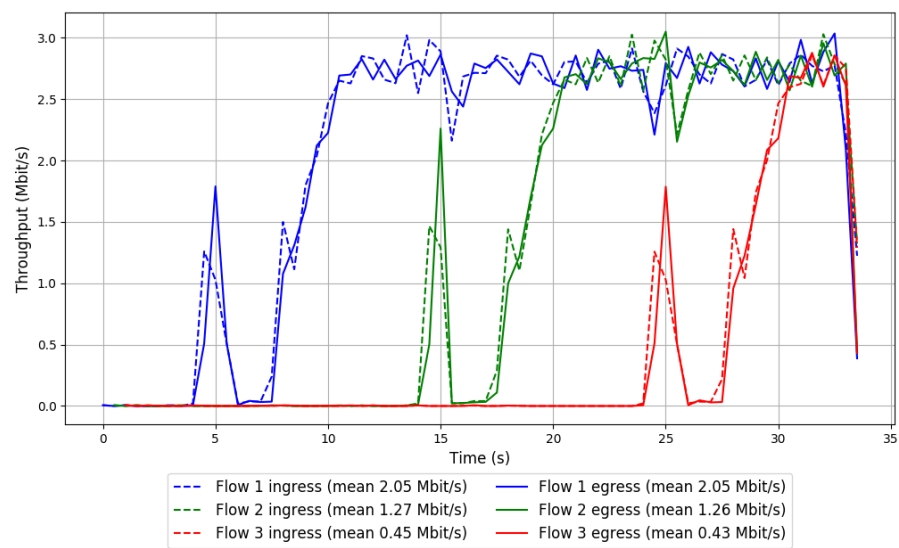
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 141.555 ms

Loss rate: 5.61%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-02-17 20:48:50

End at: 2018-02-17 20:49:20

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 140.759 ms

Loss rate: 1.96%

-- Flow 1:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 140.653 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 140.700 ms

Loss rate: 1.72%

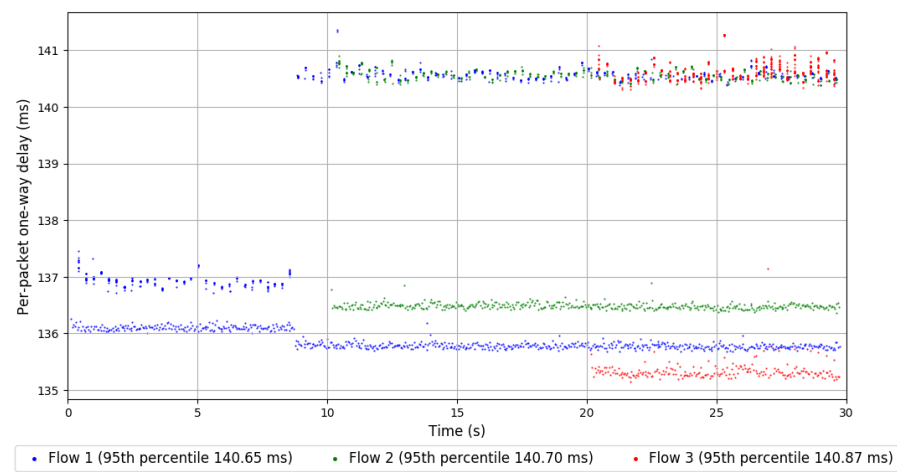
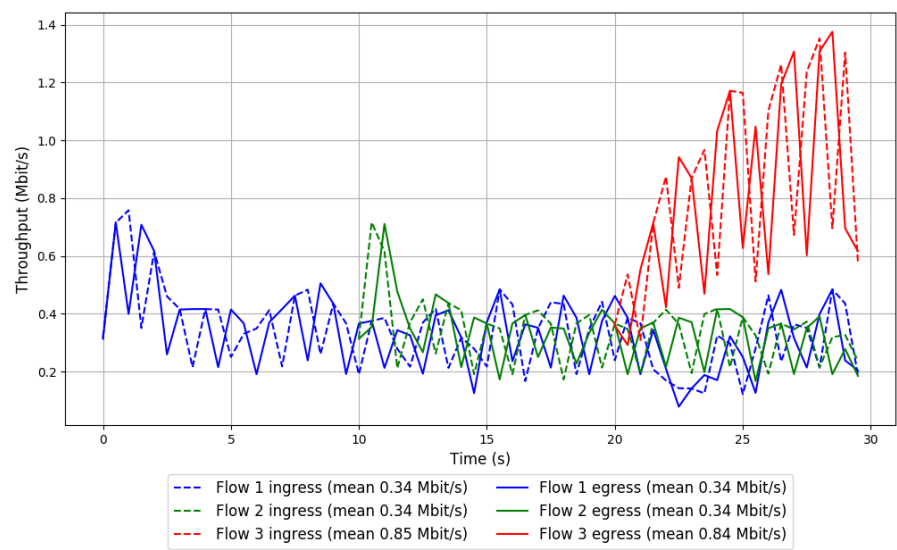
-- Flow 3:

Average throughput: 0.84 Mbit/s

95th percentile per-packet one-way delay: 140.872 ms

Loss rate: 3.43%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-02-17 21:09:22

End at: 2018-02-17 21:09:52

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 163.135 ms

Loss rate: 1.30%

-- Flow 1:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 162.504 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 162.982 ms

Loss rate: 1.87%

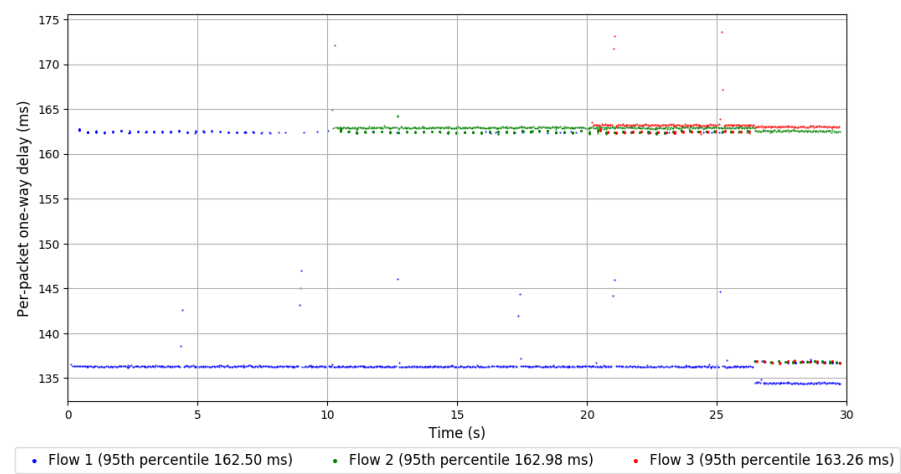
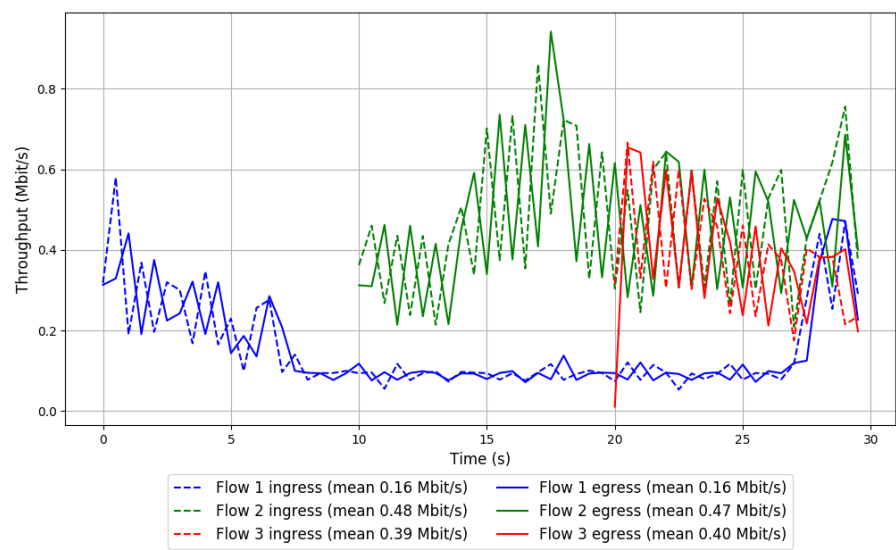
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 163.260 ms

Loss rate: 0.57%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-02-17 21:30:01

End at: 2018-02-17 21:30:31

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 164.600 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 163.342 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 164.649 ms

Loss rate: 0.65%

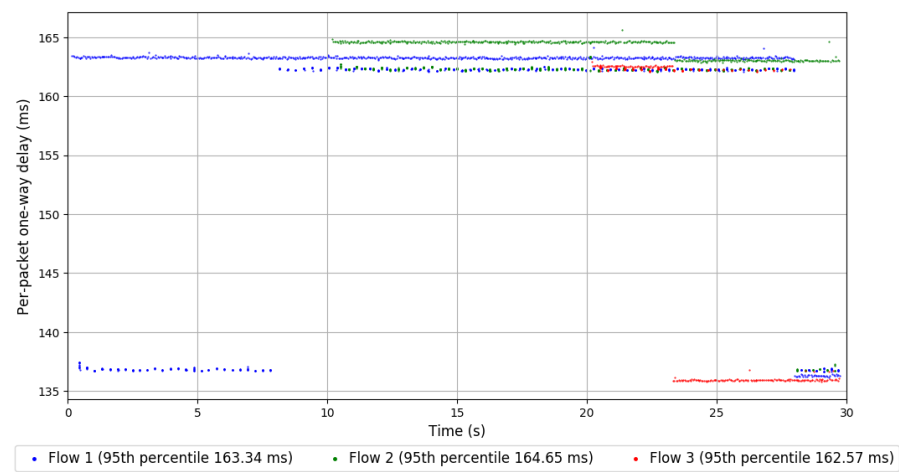
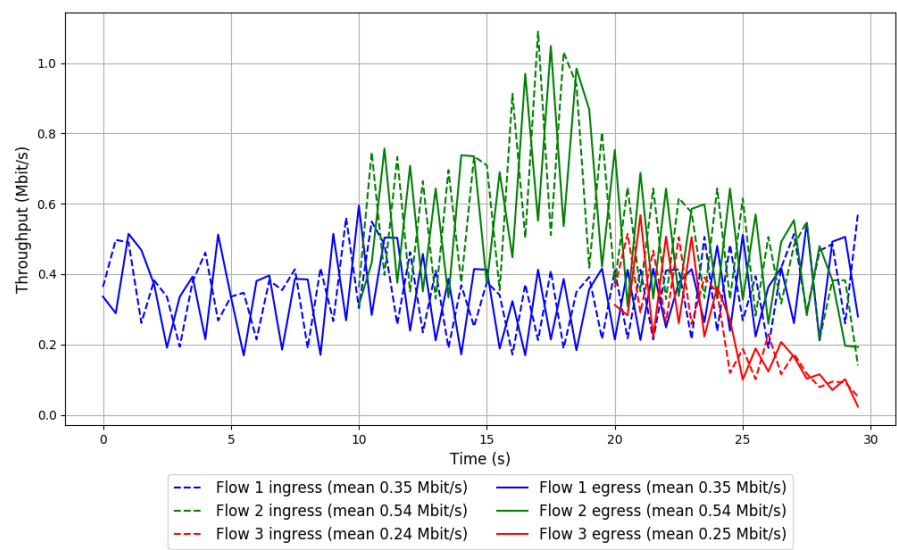
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 162.566 ms

Loss rate: 1.02%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-02-17 21:50:10

End at: 2018-02-17 21:50:40

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 163.032 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 162.136 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 140.706 ms

Loss rate: 1.32%

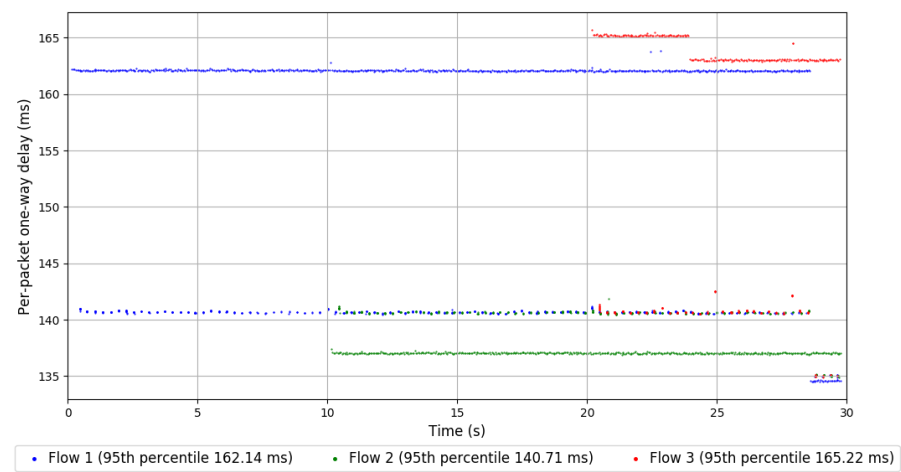
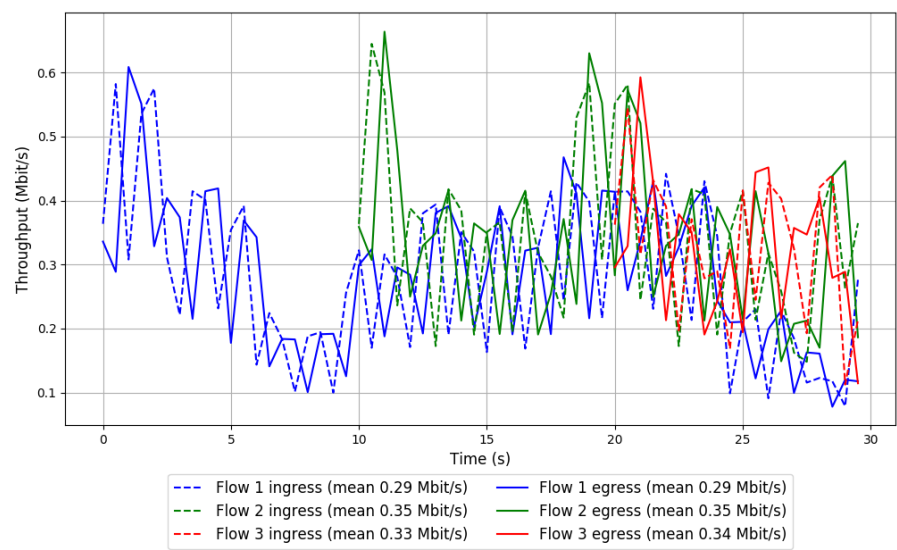
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 165.219 ms

Loss rate: 1.59%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-02-17 22:10:28

End at: 2018-02-17 22:10:58

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 137.215 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 137.223 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 137.060 ms

Loss rate: 1.14%

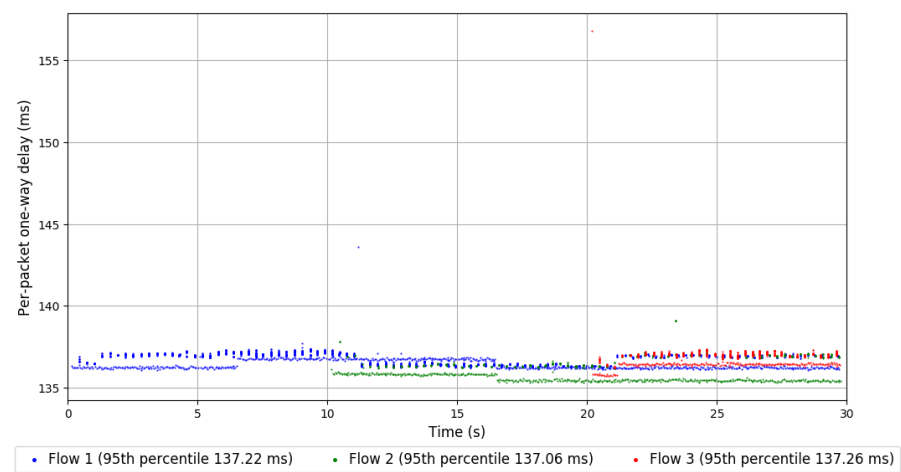
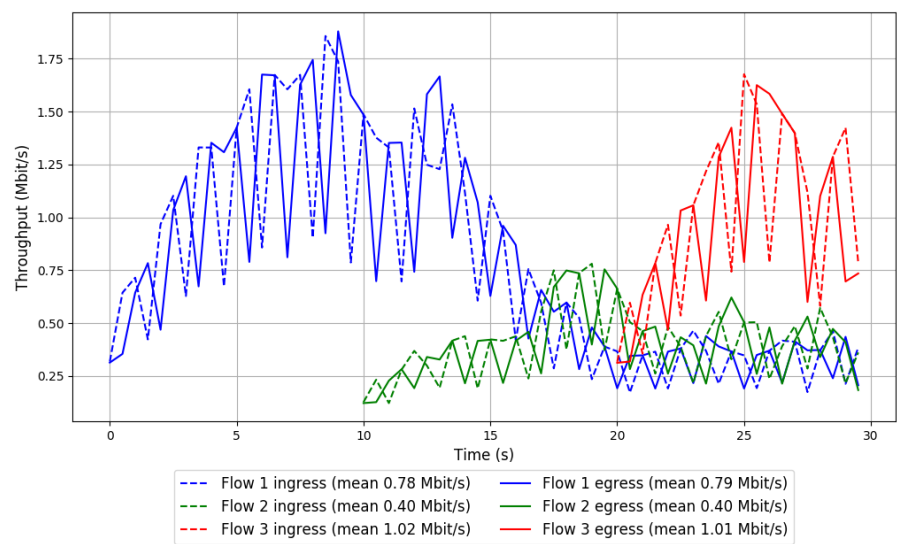
-- Flow 3:

Average throughput: 1.01 Mbit/s

95th percentile per-packet one-way delay: 137.257 ms

Loss rate: 3.90%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-02-17 22:31:06

End at: 2018-02-17 22:31:36

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 162.605 ms

Loss rate: 1.58%

-- Flow 1:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 162.384 ms

Loss rate: 0.12%

-- Flow 2:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 137.043 ms

Loss rate: 1.68%

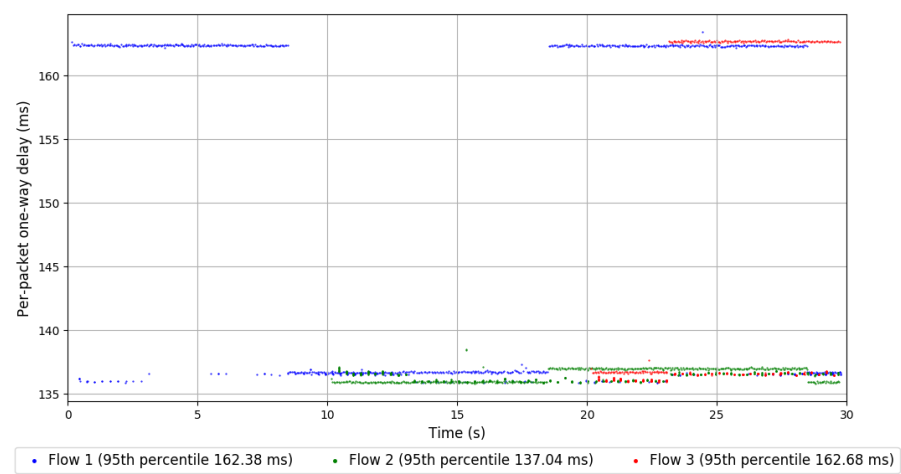
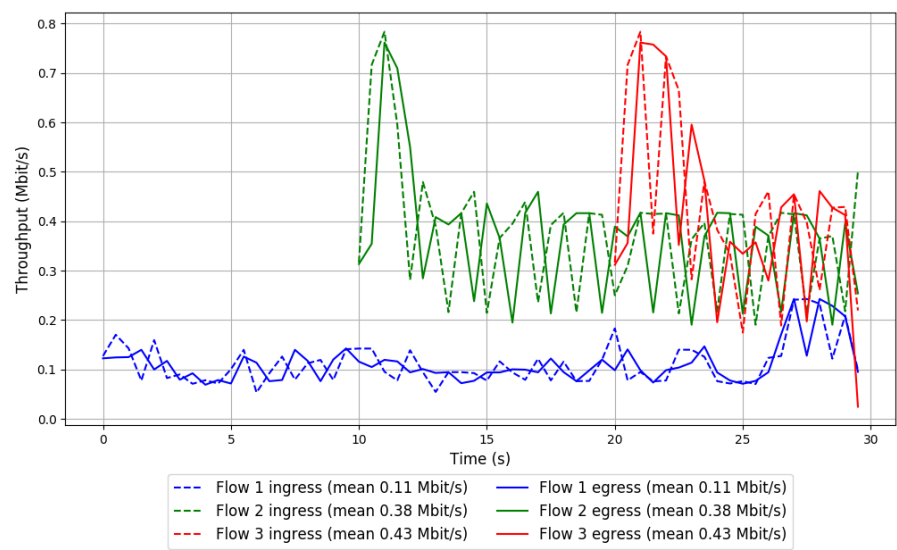
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 162.679 ms

Loss rate: 2.54%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-02-17 22:51:47

End at: 2018-02-17 22:52:17

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.66 Mbit/s

95th percentile per-packet one-way delay: 162.374 ms

Loss rate: 0.83%

-- Flow 1:

Average throughput: 0.31 Mbit/s

95th percentile per-packet one-way delay: 162.359 ms

Loss rate: 0.38%

-- Flow 2:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 162.399 ms

Loss rate: 1.26%

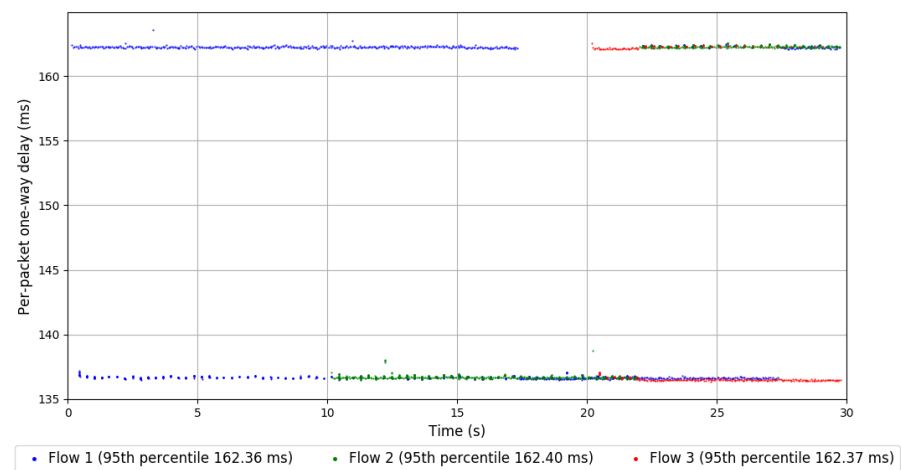
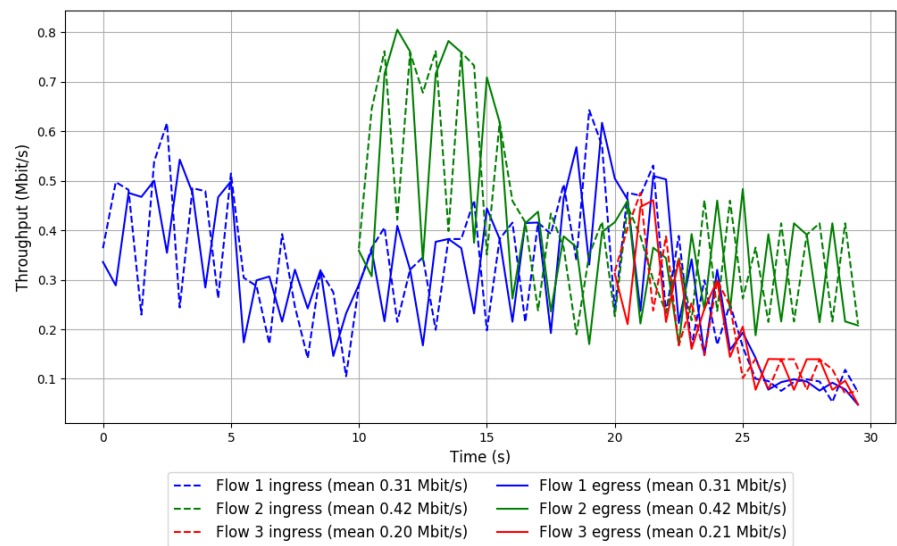
-- Flow 3:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 162.365 ms

Loss rate: 1.17%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-02-17 23:11:55

End at: 2018-02-17 23:12:25

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 162.542 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 162.517 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 162.541 ms

Loss rate: 1.12%

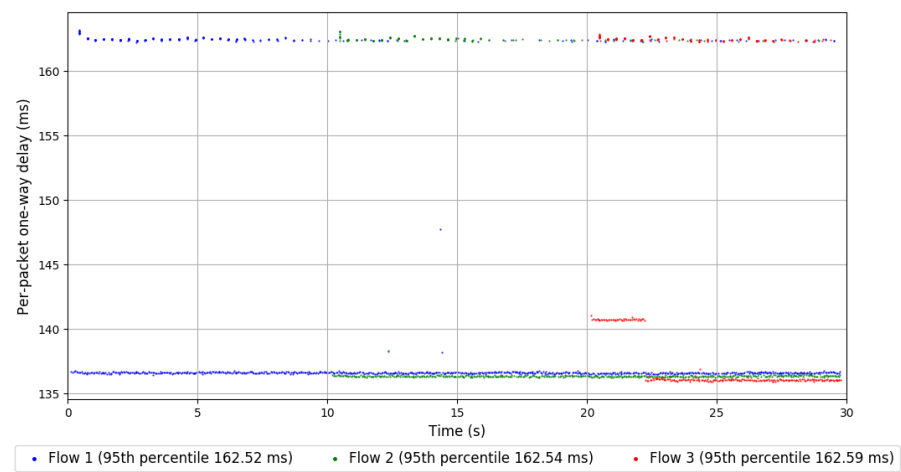
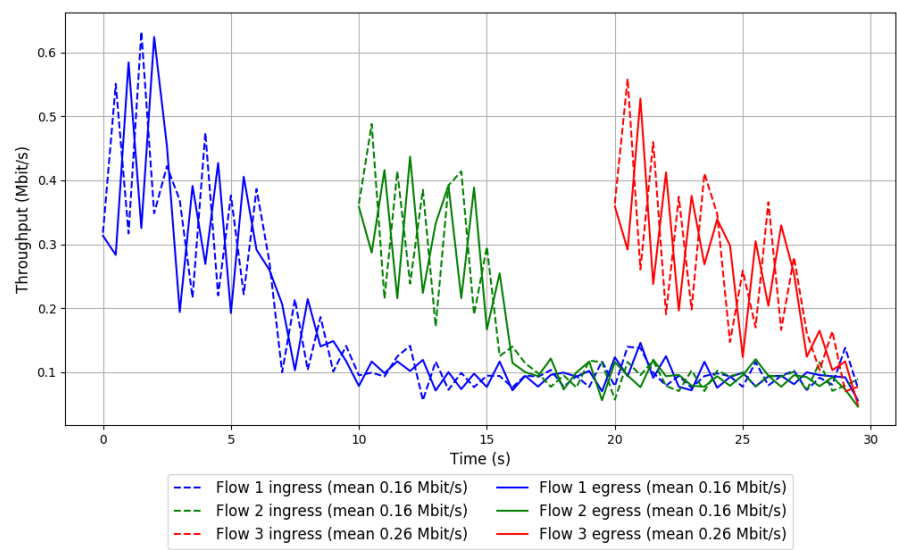
-- Flow 3:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 162.590 ms

Loss rate: 0.91%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-02-17 23:32:47

End at: 2018-02-17 23:33:17

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 141.459 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 141.418 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 141.479 ms

Loss rate: 1.68%

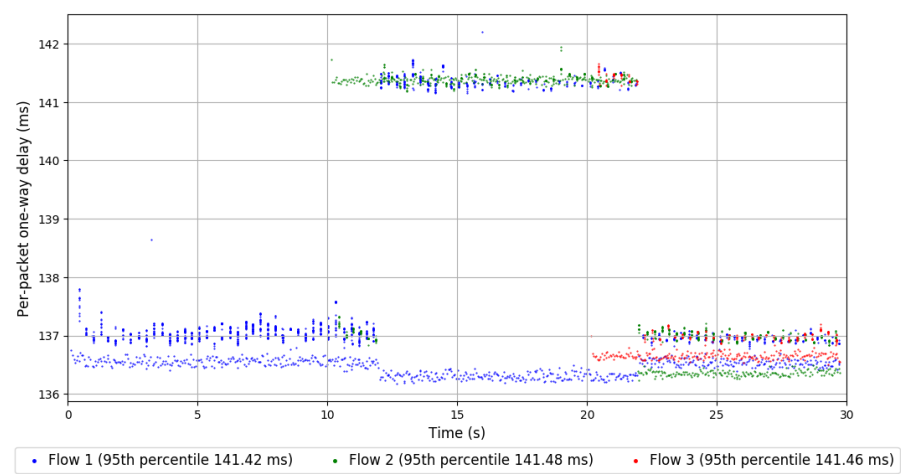
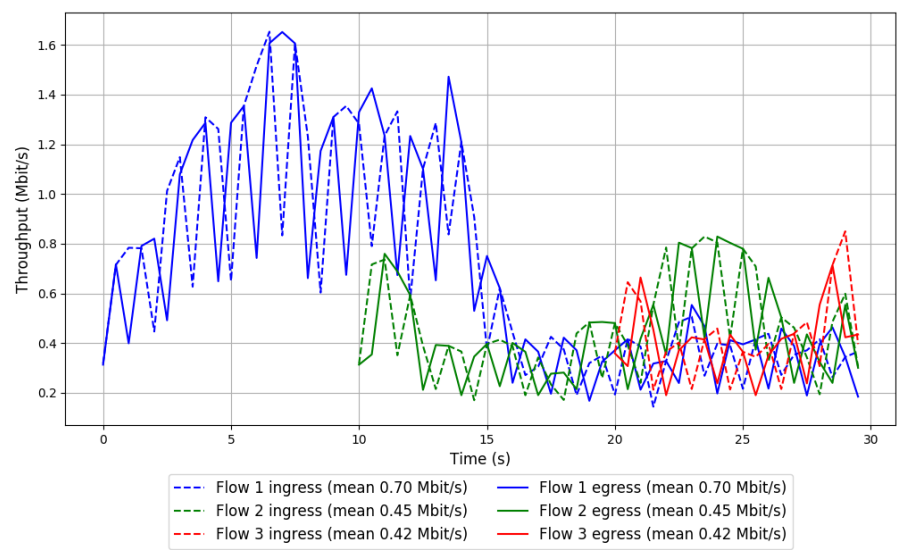
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 141.463 ms

Loss rate: 4.68%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-02-17 23:53:08

End at: 2018-02-17 23:53:38

Below is generated by plot.py at 2018-02-18 04:00:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 141.494 ms

Loss rate: 0.89%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 141.540 ms

Loss rate: 0.62%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 141.254 ms

Loss rate: 0.24%

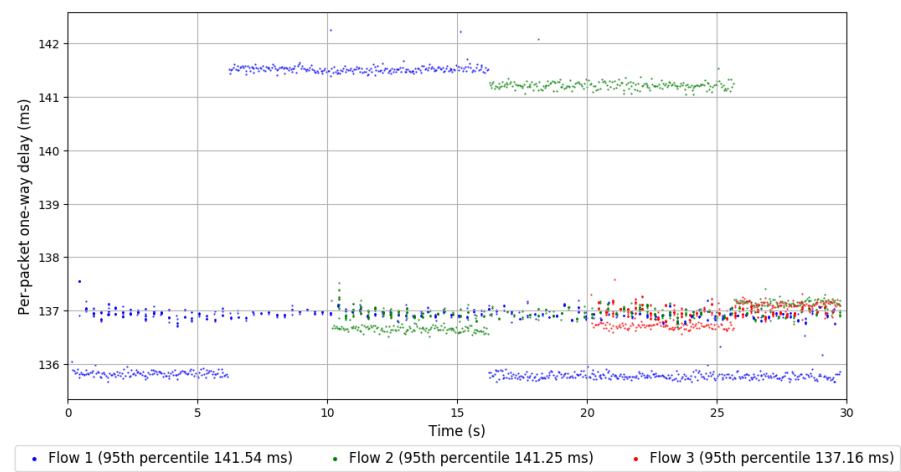
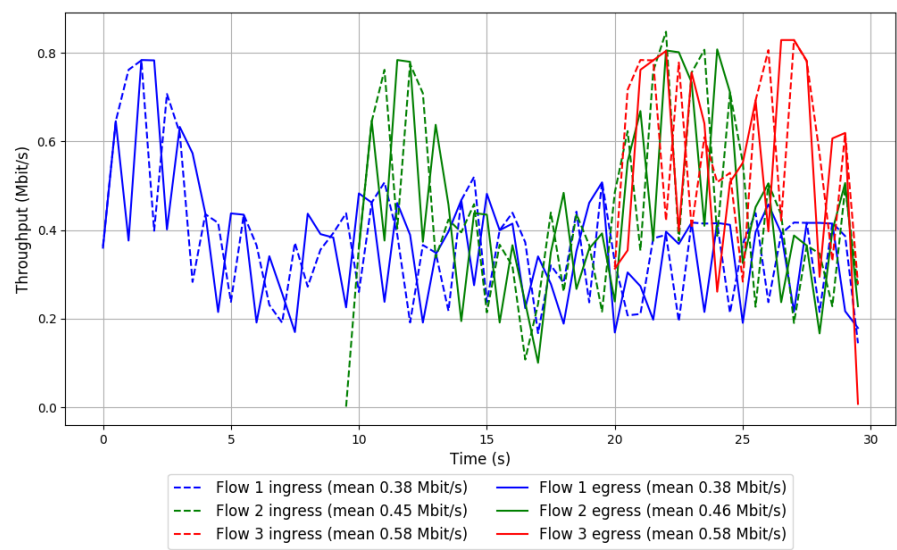
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 137.163 ms

Loss rate: 2.40%

Run 10: Report of Sprout — Data Link

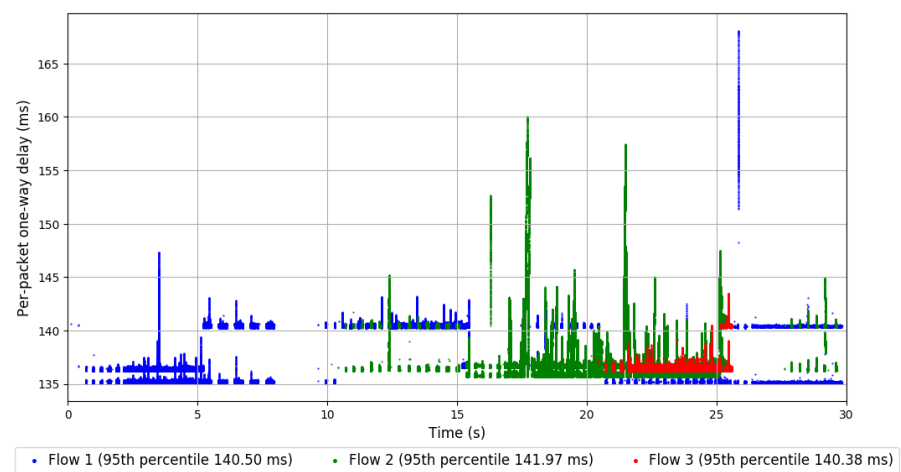
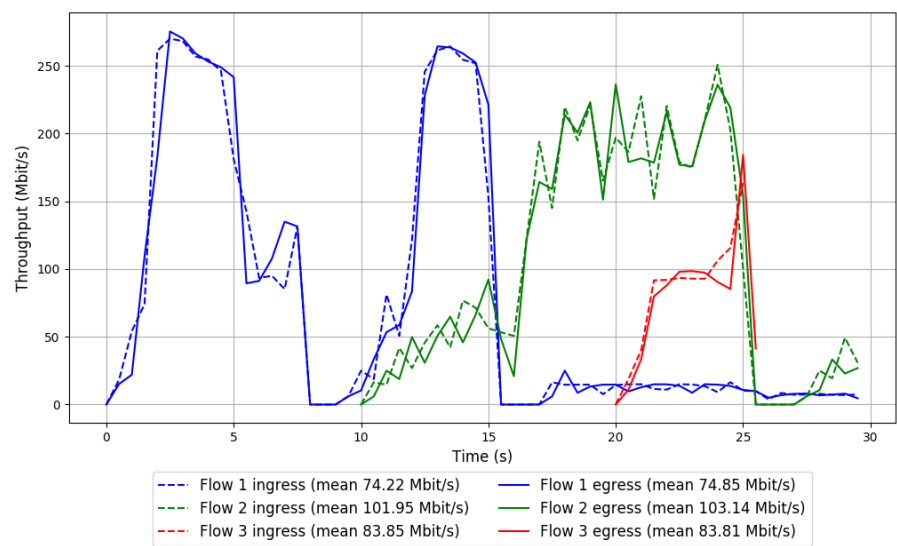


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-02-17 20:47:44
End at: 2018-02-17 20:48:14

# Below is generated by plot.py at 2018-02-18 04:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 157.81 Mbit/s
95th percentile per-packet one-way delay: 140.542 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 74.85 Mbit/s
95th percentile per-packet one-way delay: 140.505 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 103.14 Mbit/s
95th percentile per-packet one-way delay: 141.966 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 83.81 Mbit/s
95th percentile per-packet one-way delay: 140.383 ms
Loss rate: 0.00%
```


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

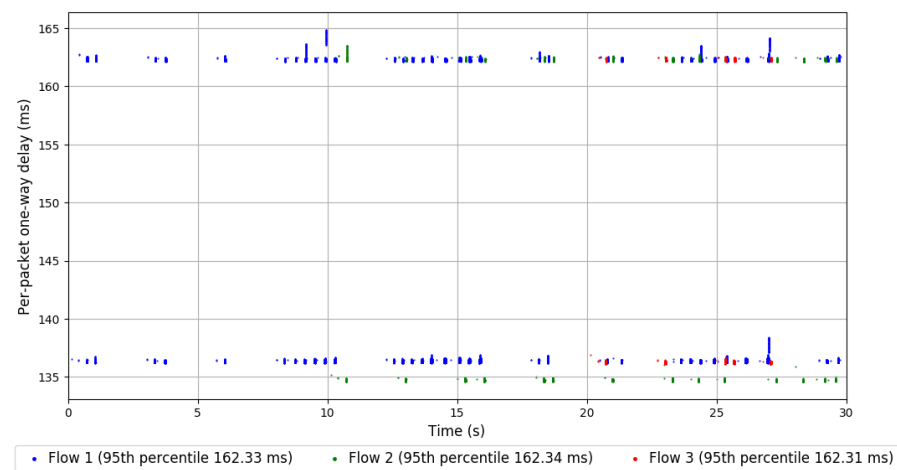
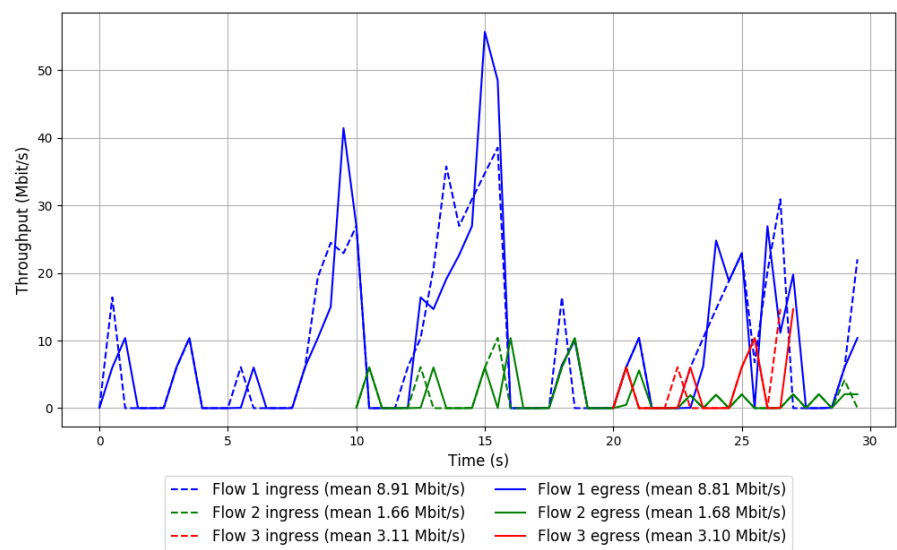


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-02-17 21:08:31
End at: 2018-02-17 21:09:01

# Below is generated by plot.py at 2018-02-18 04:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 10.64 Mbit/s
95th percentile per-packet one-way delay: 162.333 ms
Loss rate: 1.82%
-- Flow 1:
Average throughput: 8.81 Mbit/s
95th percentile per-packet one-way delay: 162.334 ms
Loss rate: 2.18%
-- Flow 2:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 162.339 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 3.10 Mbit/s
95th percentile per-packet one-way delay: 162.305 ms
Loss rate: 0.00%
```

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

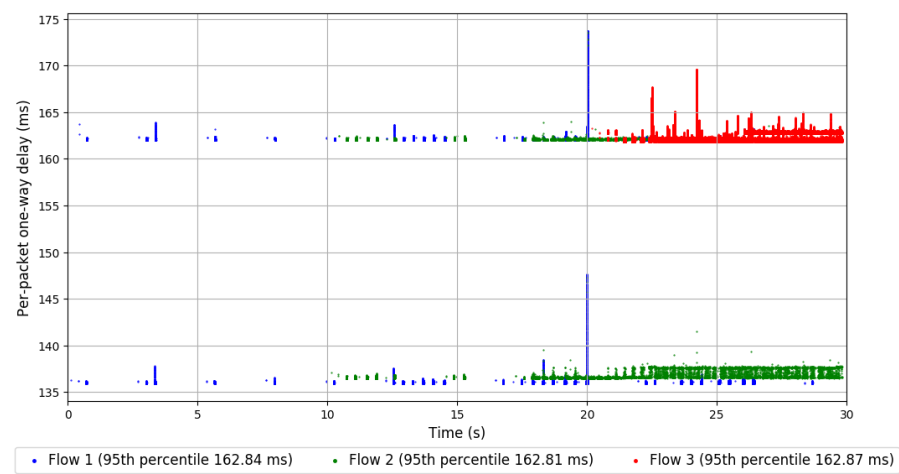
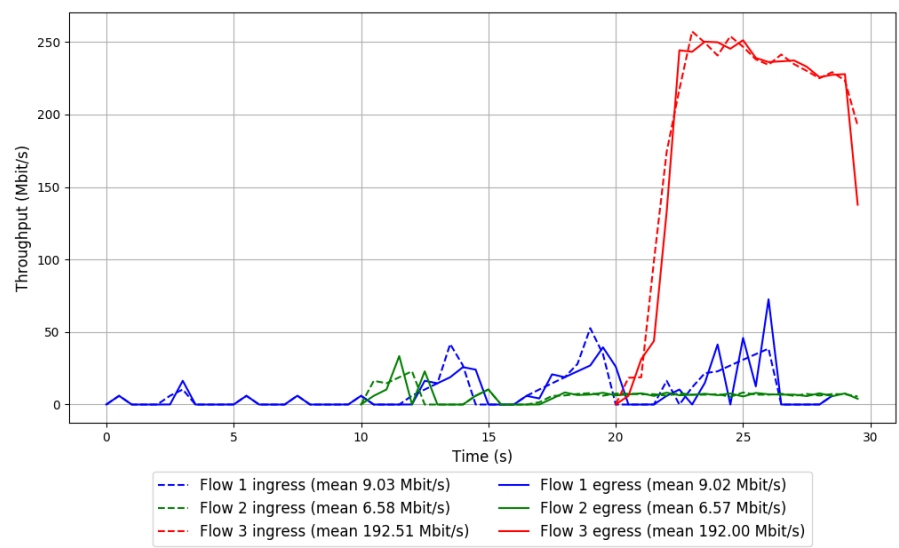


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-02-17 21:29:03
End at: 2018-02-17 21:29:33

# Below is generated by plot.py at 2018-02-18 04:01:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.34 Mbit/s
95th percentile per-packet one-way delay: 162.867 ms
Loss rate: 2.81%
-- Flow 1:
Average throughput: 9.02 Mbit/s
95th percentile per-packet one-way delay: 162.835 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 6.57 Mbit/s
95th percentile per-packet one-way delay: 162.813 ms
Loss rate: 1.49%
-- Flow 3:
Average throughput: 192.00 Mbit/s
95th percentile per-packet one-way delay: 162.871 ms
Loss rate: 3.28%
```

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

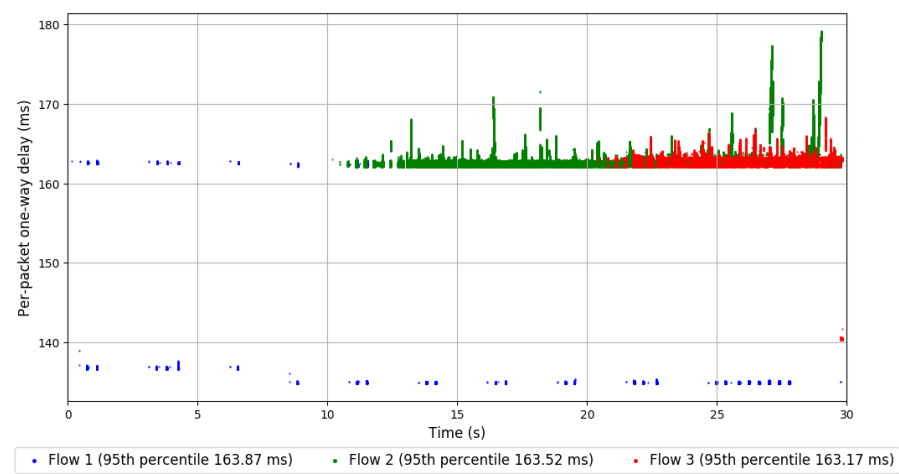
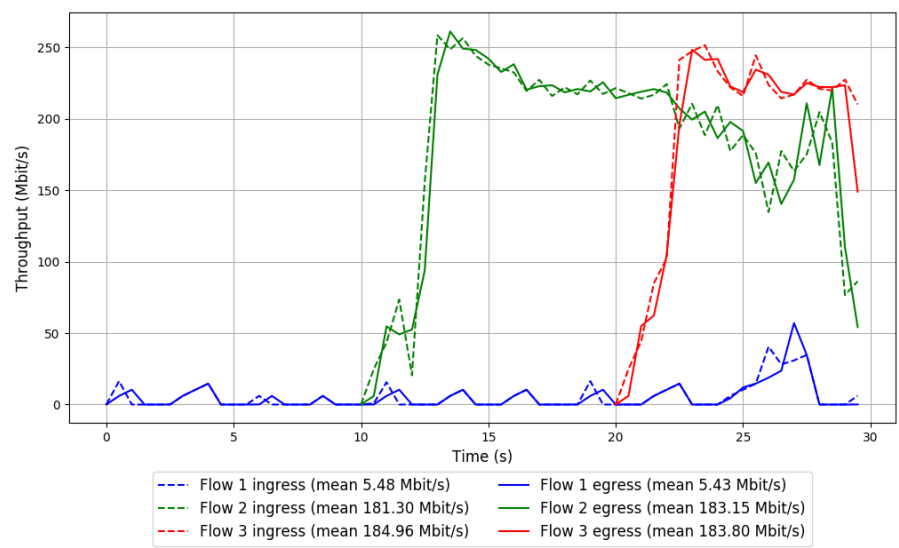


```
Run 4: Statistics of TaoVA-100x

Start at: 2018-02-17 21:49:01
End at: 2018-02-17 21:49:31

# Below is generated by plot.py at 2018-02-18 04:03:20
# Datalink statistics
-- Total of 3 flows:
Average throughput: 186.07 Mbit/s
95th percentile per-packet one-way delay: 163.268 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 5.43 Mbit/s
95th percentile per-packet one-way delay: 163.865 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 183.15 Mbit/s
95th percentile per-packet one-way delay: 163.523 ms
Loss rate: 0.61%
-- Flow 3:
Average throughput: 183.80 Mbit/s
95th percentile per-packet one-way delay: 163.167 ms
Loss rate: 3.61%
```

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-02-17 22:09:36

End at: 2018-02-17 22:10:06

Below is generated by plot.py at 2018-02-18 04:03:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 21.30 Mbit/s

95th percentile per-packet one-way delay: 162.313 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 13.29 Mbit/s

95th percentile per-packet one-way delay: 136.846 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 5.79 Mbit/s

95th percentile per-packet one-way delay: 162.608 ms

Loss rate: 0.68%

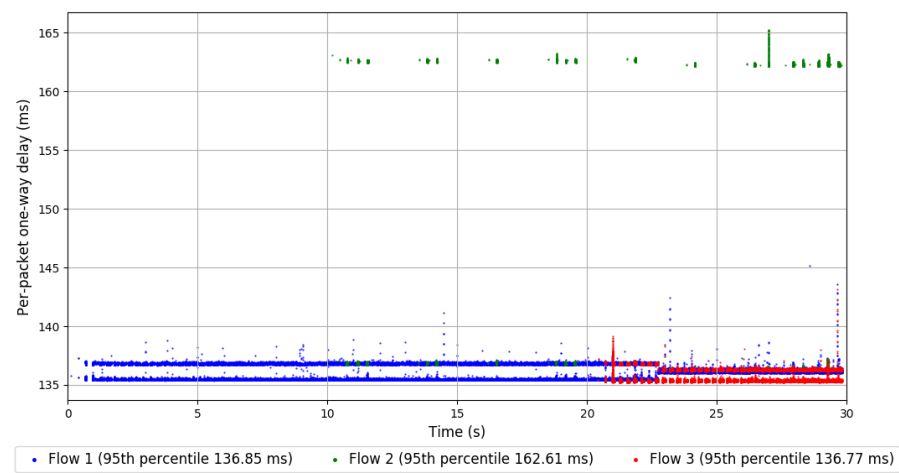
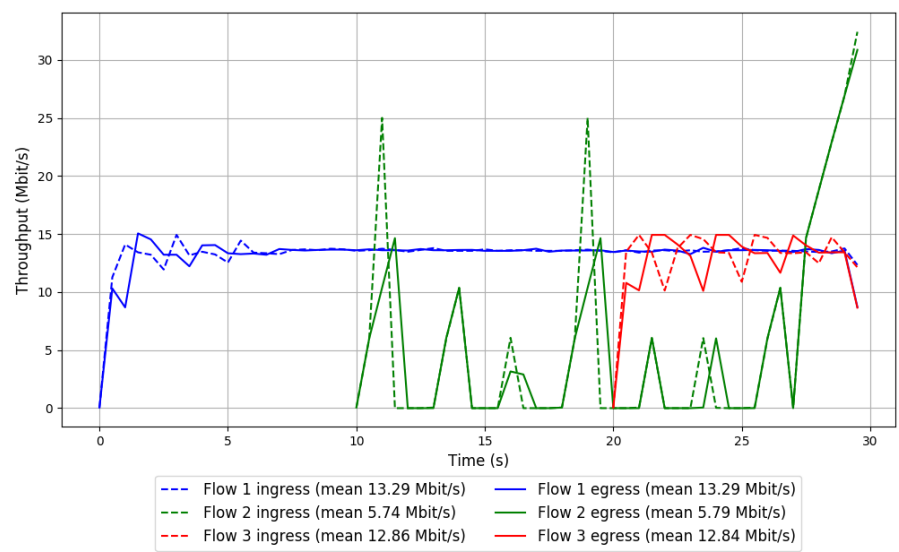
-- Flow 3:

Average throughput: 12.84 Mbit/s

95th percentile per-packet one-way delay: 136.773 ms

Loss rate: 2.87%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-02-17 22:30:00

End at: 2018-02-17 22:30:31

Below is generated by plot.py at 2018-02-18 04:03:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.28 Mbit/s

95th percentile per-packet one-way delay: 162.285 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 78.63 Mbit/s

95th percentile per-packet one-way delay: 162.323 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 49.34 Mbit/s

95th percentile per-packet one-way delay: 162.834 ms

Loss rate: 0.00%

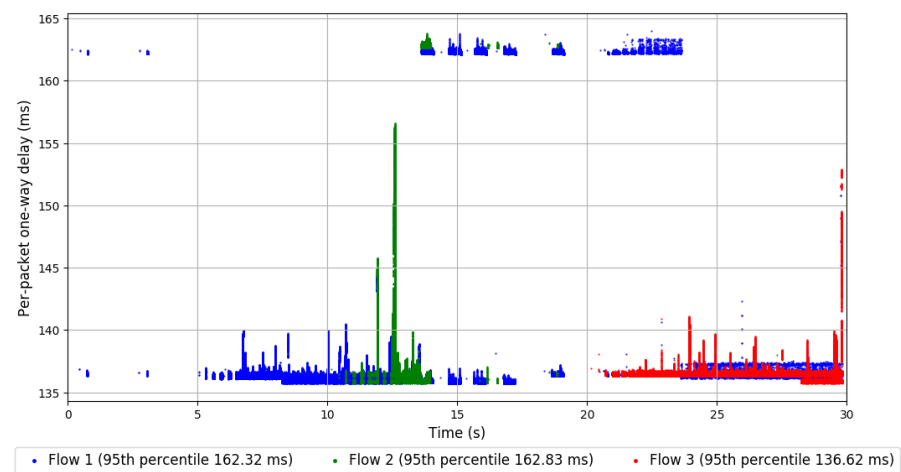
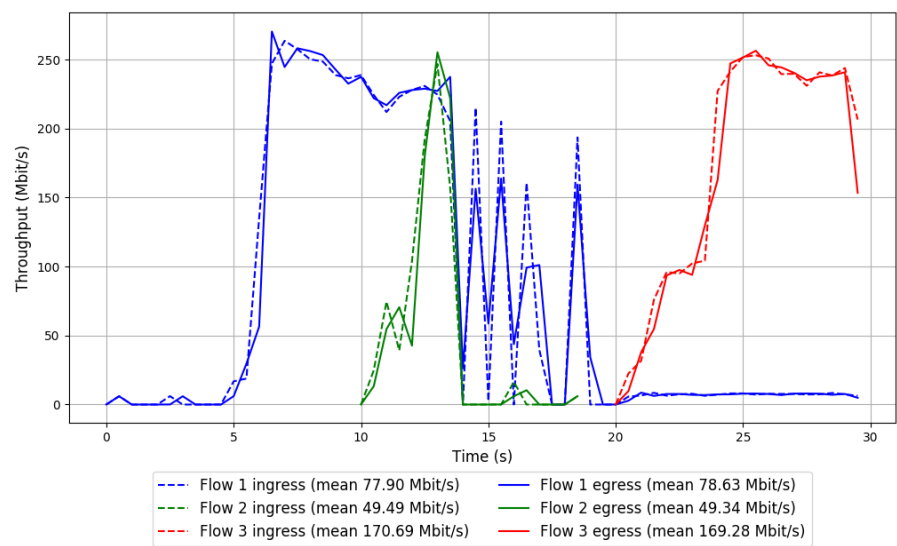
-- Flow 3:

Average throughput: 169.28 Mbit/s

95th percentile per-packet one-way delay: 136.615 ms

Loss rate: 3.55%

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

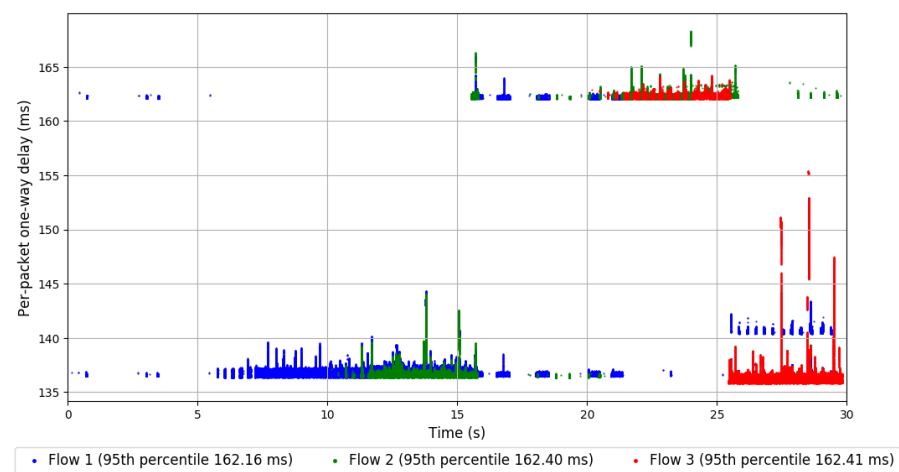
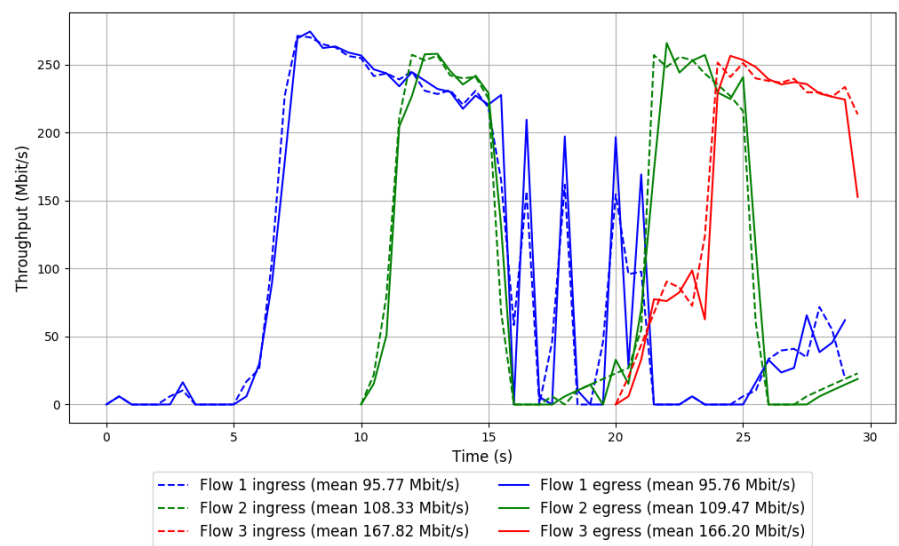


```
Run 7: Statistics of TaoVA-100x

Start at: 2018-02-17 22:50:33
End at: 2018-02-17 22:51:03

# Below is generated by plot.py at 2018-02-18 04:05:01
# Datalink statistics
-- Total of 3 flows:
Average throughput: 220.71 Mbit/s
95th percentile per-packet one-way delay: 162.364 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 95.76 Mbit/s
95th percentile per-packet one-way delay: 162.164 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 109.47 Mbit/s
95th percentile per-packet one-way delay: 162.404 ms
Loss rate: 0.53%
-- Flow 3:
Average throughput: 166.20 Mbit/s
95th percentile per-packet one-way delay: 162.406 ms
Loss rate: 3.96%
```

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-02-17 23:10:52

End at: 2018-02-17 23:11:22

Below is generated by plot.py at 2018-02-18 04:05:01

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.25 Mbit/s

95th percentile per-packet one-way delay: 141.214 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 5.02 Mbit/s

95th percentile per-packet one-way delay: 162.260 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 107.18 Mbit/s

95th percentile per-packet one-way delay: 140.967 ms

Loss rate: 0.00%

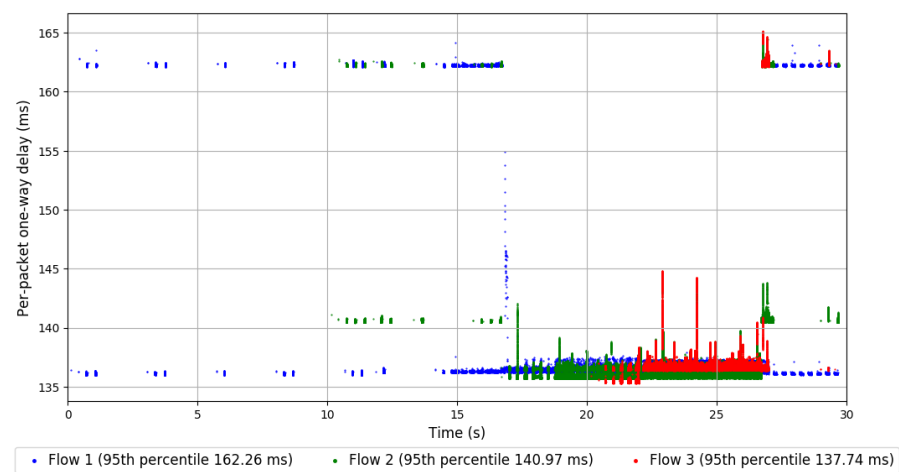
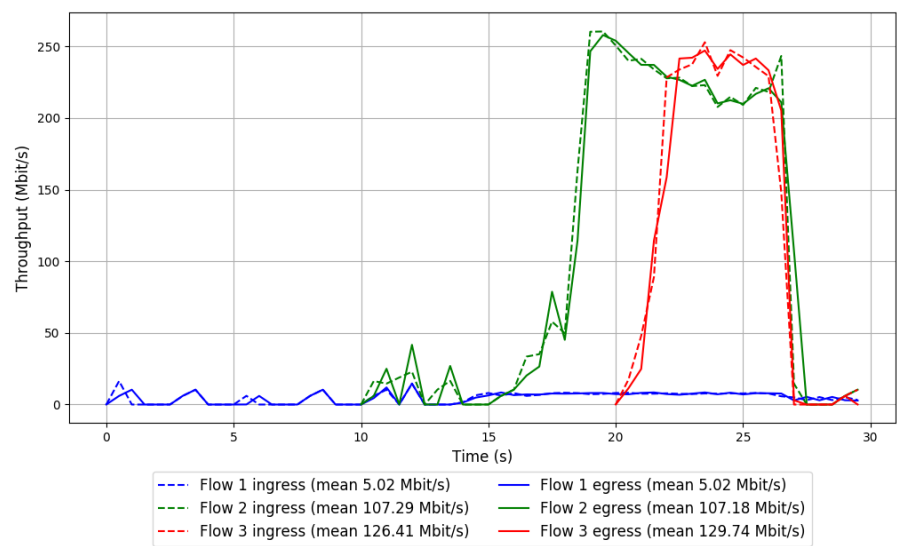
-- Flow 3:

Average throughput: 129.74 Mbit/s

95th percentile per-packet one-way delay: 137.736 ms

Loss rate: 0.42%

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

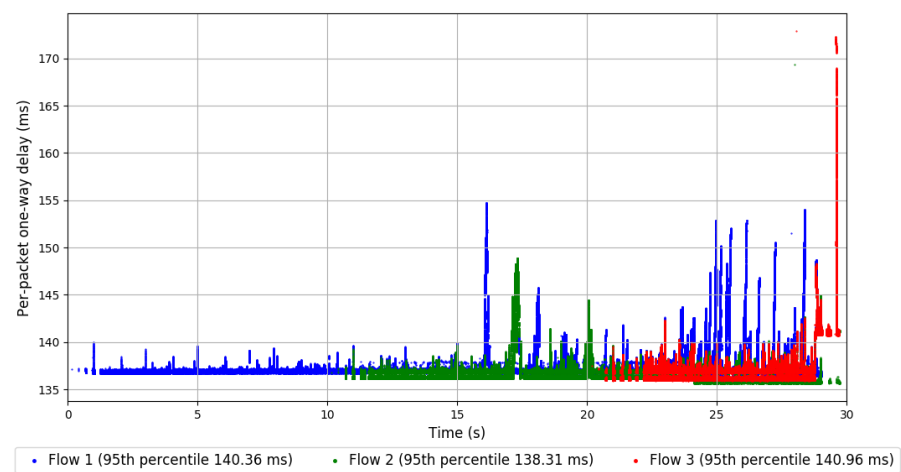
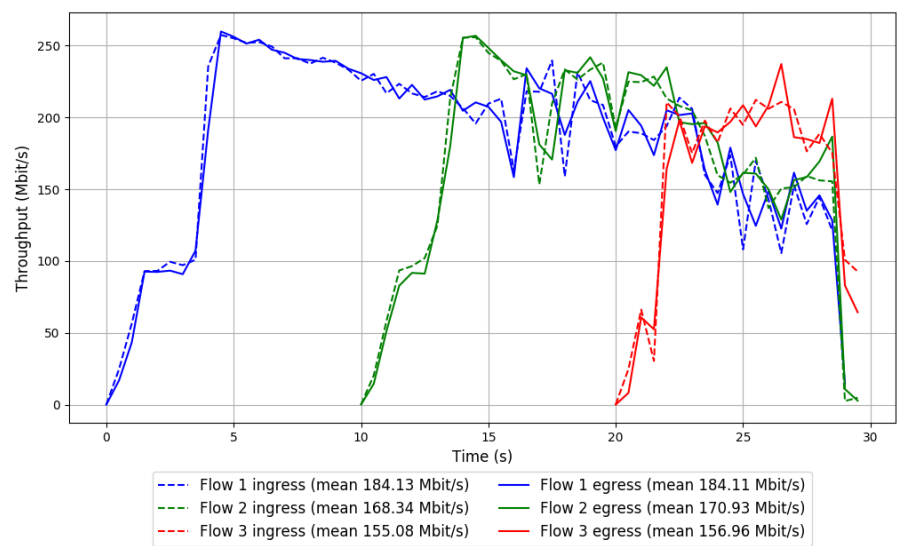


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-02-17 23:31:20
End at: 2018-02-17 23:31:50

# Below is generated by plot.py at 2018-02-18 04:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 343.42 Mbit/s
95th percentile per-packet one-way delay: 140.014 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 184.11 Mbit/s
95th percentile per-packet one-way delay: 140.357 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 170.93 Mbit/s
95th percentile per-packet one-way delay: 138.308 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 156.96 Mbit/s
95th percentile per-packet one-way delay: 140.957 ms
Loss rate: 2.10%
```


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

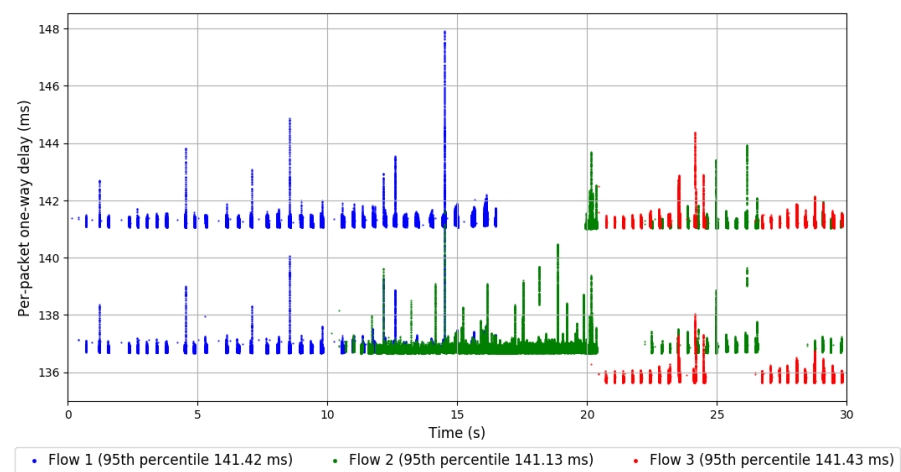
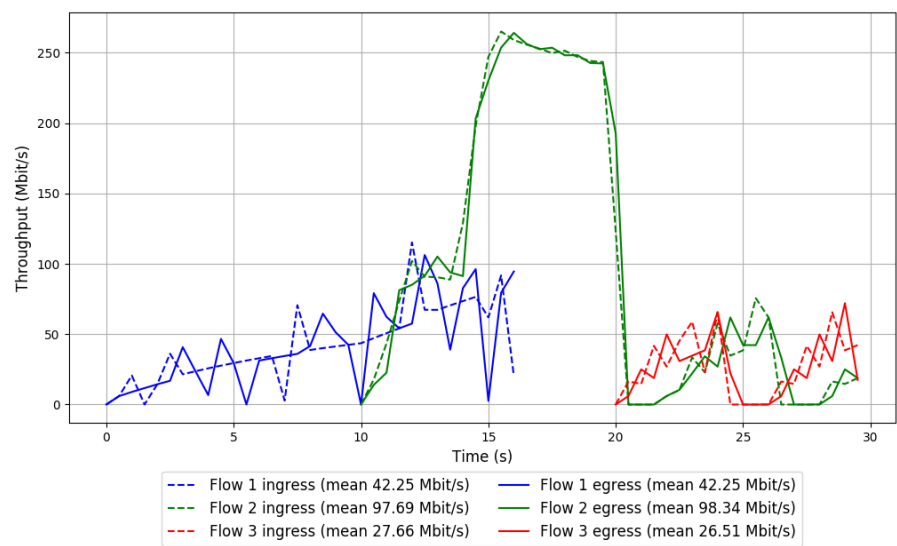


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-02-17 23:52:09
End at: 2018-02-17 23:52:39

# Below is generated by plot.py at 2018-02-18 04:10:48
# Datalink statistics
-- Total of 3 flows:
Average throughput: 96.98 Mbit/s
95th percentile per-packet one-way delay: 141.319 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 42.25 Mbit/s
95th percentile per-packet one-way delay: 141.423 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 98.34 Mbit/s
95th percentile per-packet one-way delay: 141.127 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 26.51 Mbit/s
95th percentile per-packet one-way delay: 141.431 ms
Loss rate: 4.82%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-02-17 20:49:38

End at: 2018-02-17 20:50:09

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 135.34 Mbit/s

95th percentile per-packet one-way delay: 142.669 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 58.85 Mbit/s

95th percentile per-packet one-way delay: 141.356 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 81.52 Mbit/s

95th percentile per-packet one-way delay: 142.984 ms

Loss rate: 1.55%

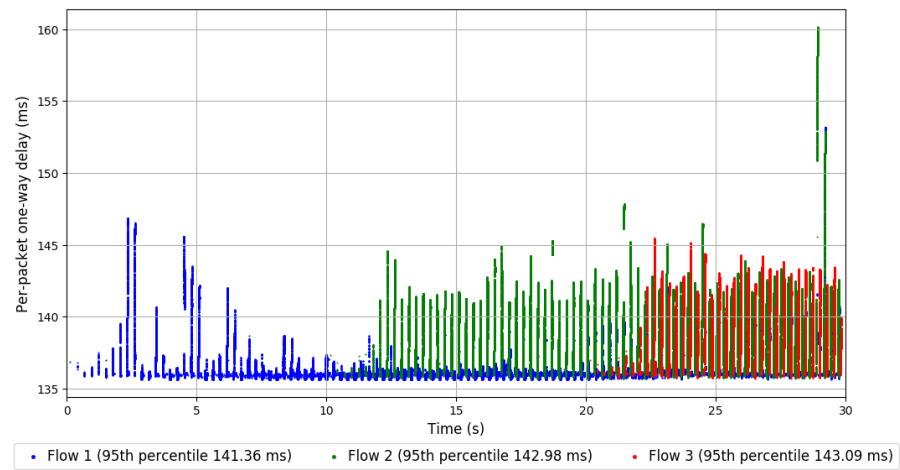
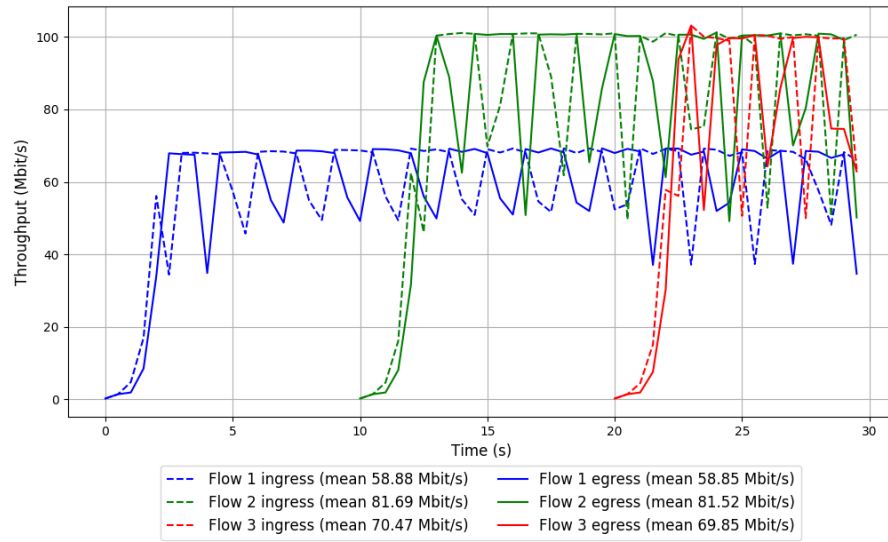
-- Flow 3:

Average throughput: 69.85 Mbit/s

95th percentile per-packet one-way delay: 143.094 ms

Loss rate: 3.60%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-17 21:10:12

End at: 2018-02-17 21:10:42

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.32 Mbit/s

95th percentile per-packet one-way delay: 165.694 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 31.14 Mbit/s

95th percentile per-packet one-way delay: 162.871 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 36.44 Mbit/s

95th percentile per-packet one-way delay: 164.381 ms

Loss rate: 1.57%

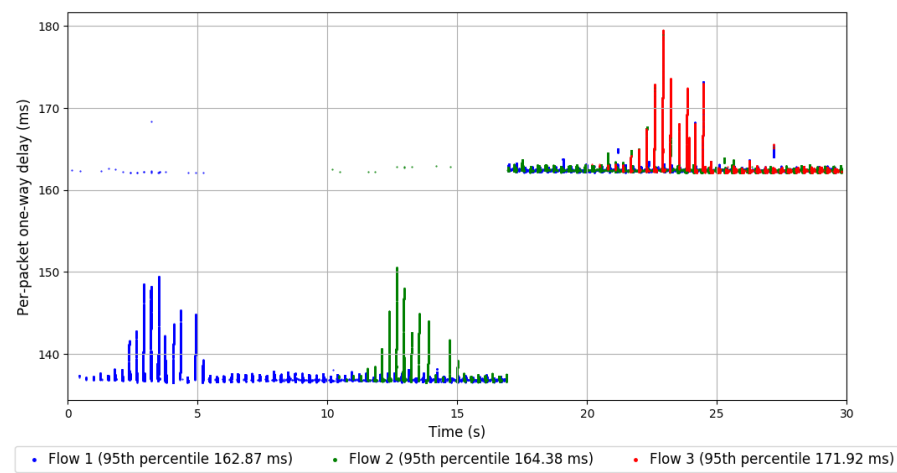
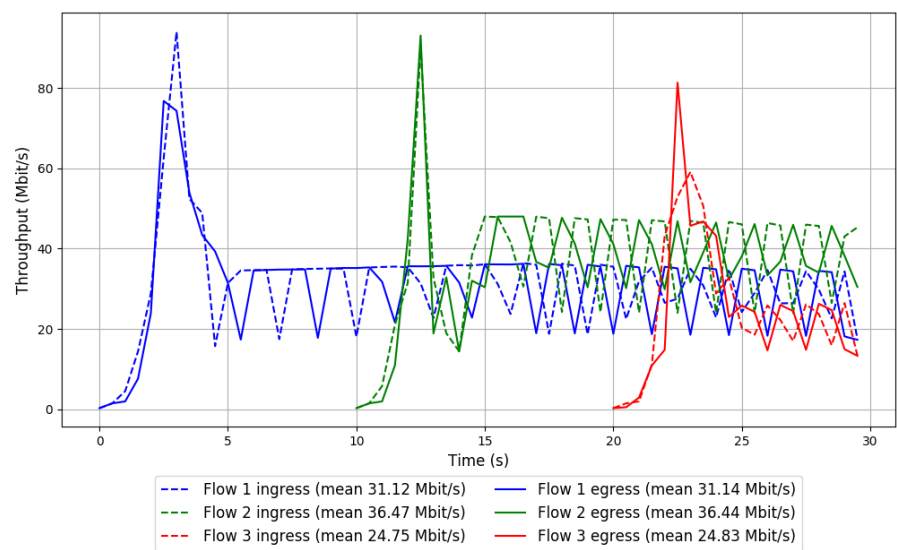
-- Flow 3:

Average throughput: 24.83 Mbit/s

95th percentile per-packet one-way delay: 171.916 ms

Loss rate: 2.70%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-02-17 21:30:50

End at: 2018-02-17 21:31:20

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.78 Mbit/s

95th percentile per-packet one-way delay: 162.707 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 54.38 Mbit/s

95th percentile per-packet one-way delay: 162.707 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 13.71 Mbit/s

95th percentile per-packet one-way delay: 162.875 ms

Loss rate: 1.63%

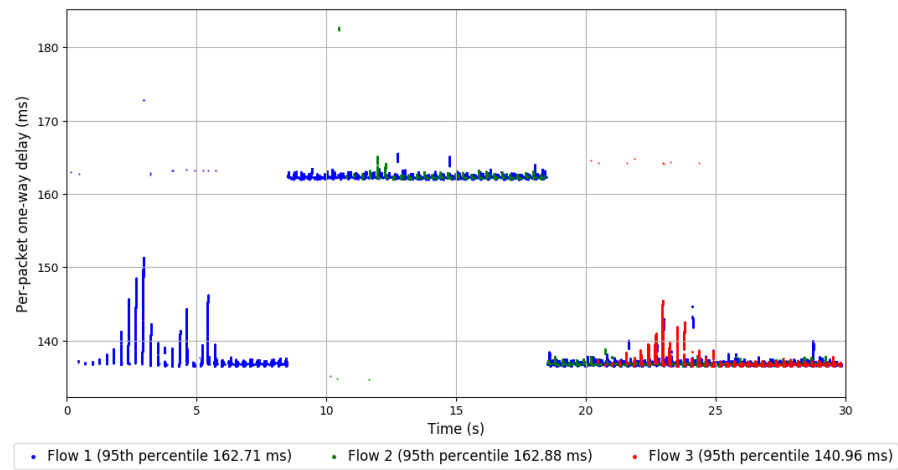
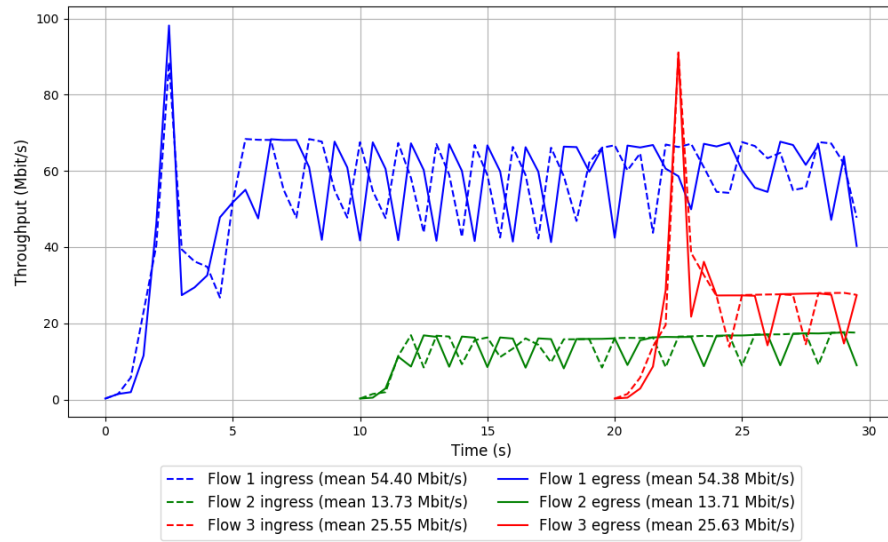
-- Flow 3:

Average throughput: 25.63 Mbit/s

95th percentile per-packet one-way delay: 140.963 ms

Loss rate: 2.76%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-02-17 21:50:59

End at: 2018-02-17 21:51:29

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 42.22 Mbit/s

95th percentile per-packet one-way delay: 141.196 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 32.28 Mbit/s

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

Loss rate: 0.93%

-- Flow 2:

Average throughput: 8.08 Mbit/s

95th percentile per-packet one-way delay: 141.311 ms

Loss rate: 1.48%

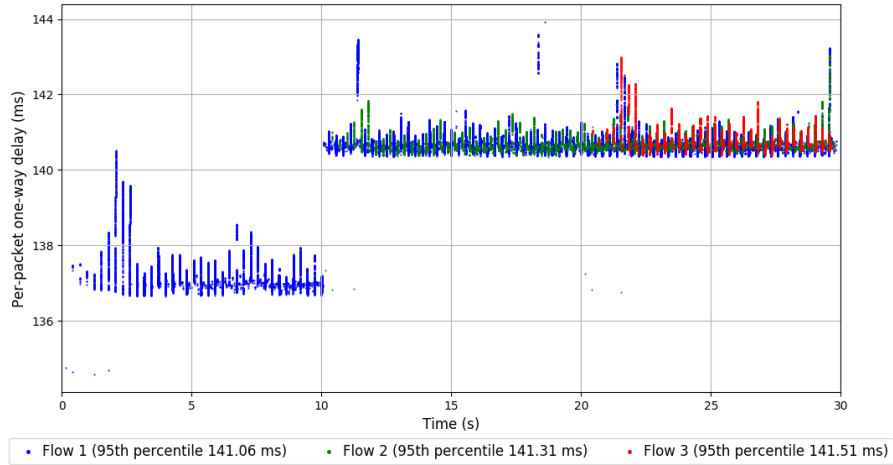
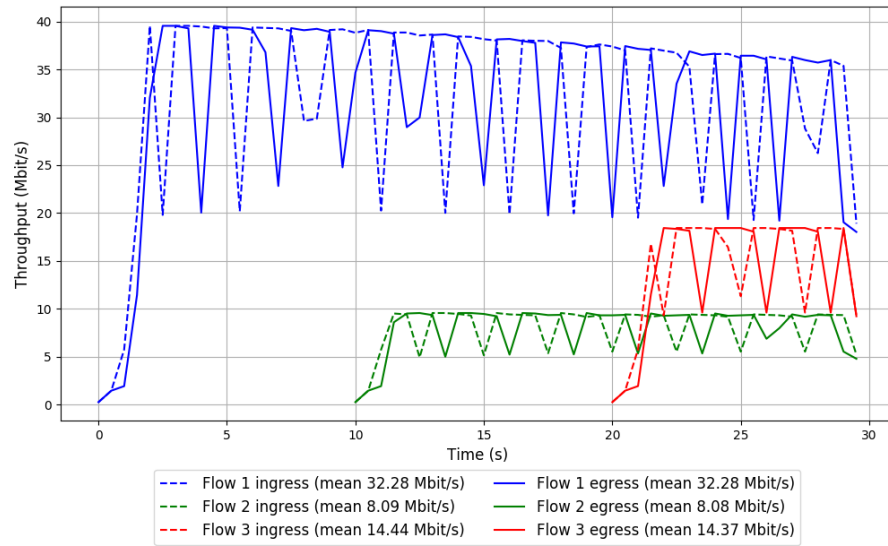
-- Flow 3:

Average throughput: 14.37 Mbit/s

95th percentile per-packet one-way delay: 141.510 ms

Loss rate: 3.26%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-02-17 22:11:17

End at: 2018-02-17 22:11:47

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.57 Mbit/s

95th percentile per-packet one-way delay: 144.674 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 40.43 Mbit/s

95th percentile per-packet one-way delay: 143.916 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 78.63 Mbit/s

95th percentile per-packet one-way delay: 144.730 ms

Loss rate: 1.56%

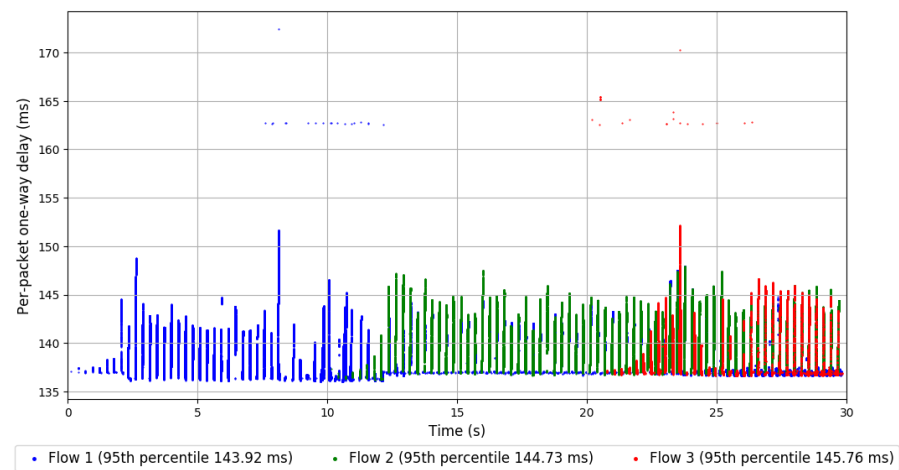
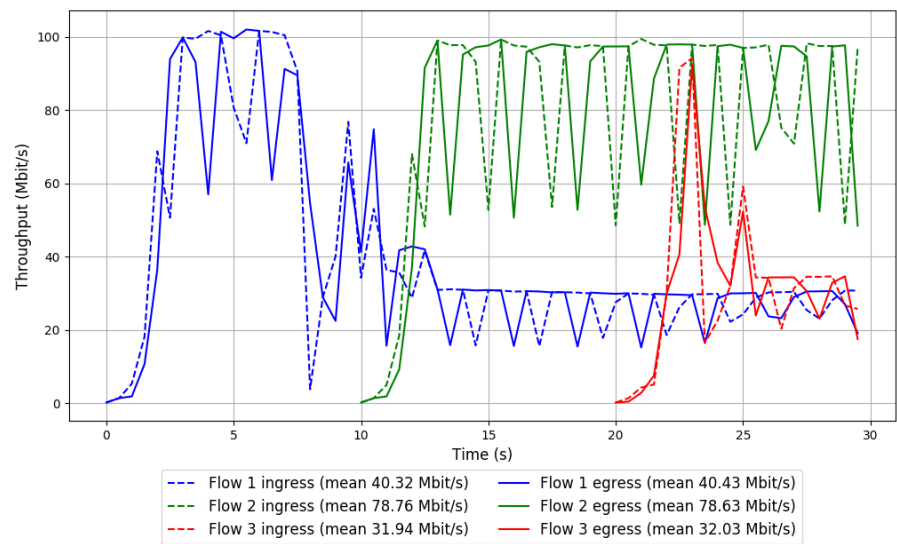
-- Flow 3:

Average throughput: 32.03 Mbit/s

95th percentile per-packet one-way delay: 145.759 ms

Loss rate: 2.75%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-02-17 22:31:54

End at: 2018-02-17 22:32:24

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 60.68 Mbit/s

95th percentile per-packet one-way delay: 143.006 ms

Loss rate: 1.19%

-- Flow 1:

Average throughput: 23.77 Mbit/s

95th percentile per-packet one-way delay: 138.176 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 27.48 Mbit/s

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

Loss rate: 1.17%

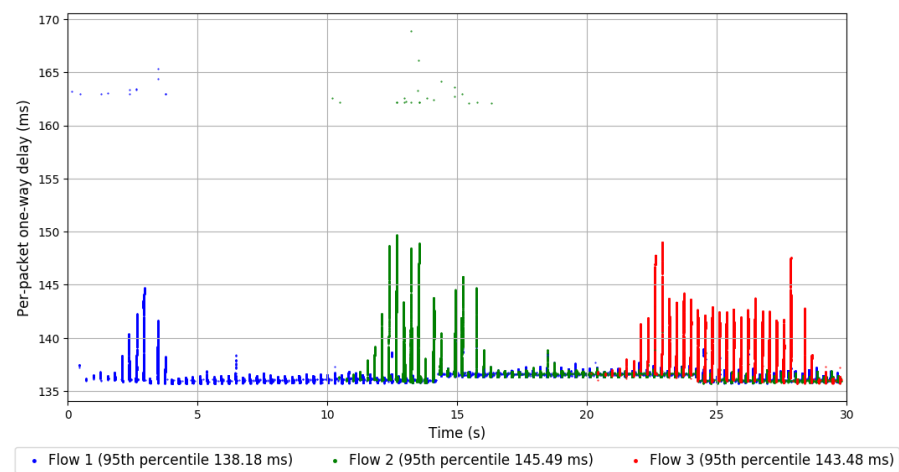
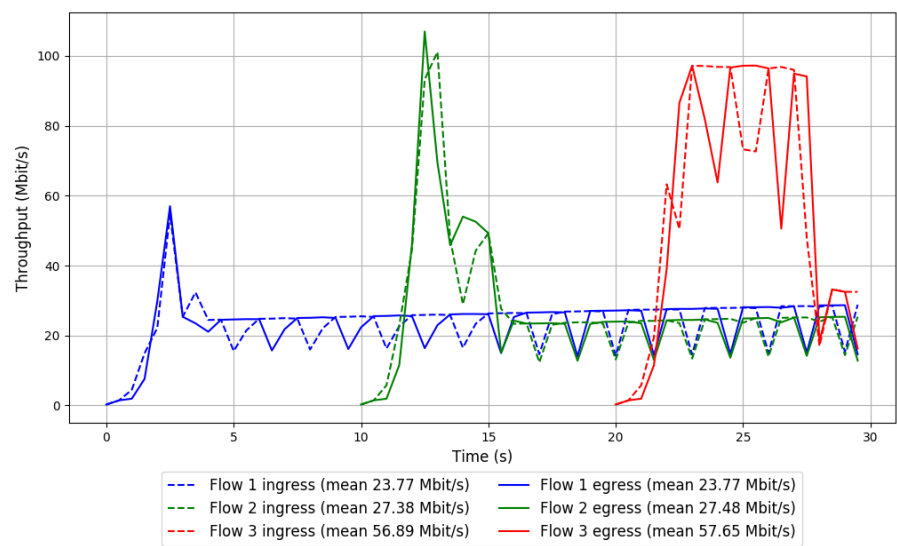
-- Flow 3:

Average throughput: 57.65 Mbit/s

95th percentile per-packet one-way delay: 143.480 ms

Loss rate: 1.44%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-02-17 22:52:35

End at: 2018-02-17 22:53:05

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 45.40 Mbit/s

95th percentile per-packet one-way delay: 139.529 ms

Loss rate: 1.34%

-- Flow 1:

Average throughput: 16.13 Mbit/s

95th percentile per-packet one-way delay: 162.226 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 43.94 Mbit/s

95th percentile per-packet one-way delay: 139.523 ms

Loss rate: 1.48%

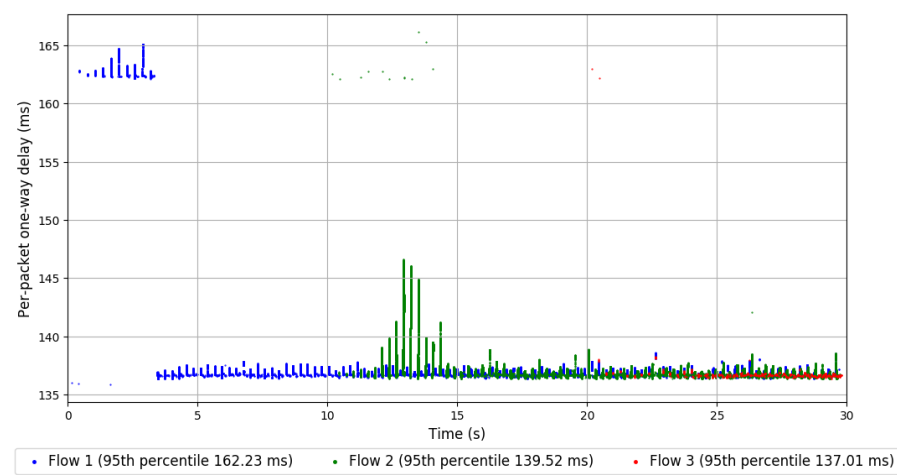
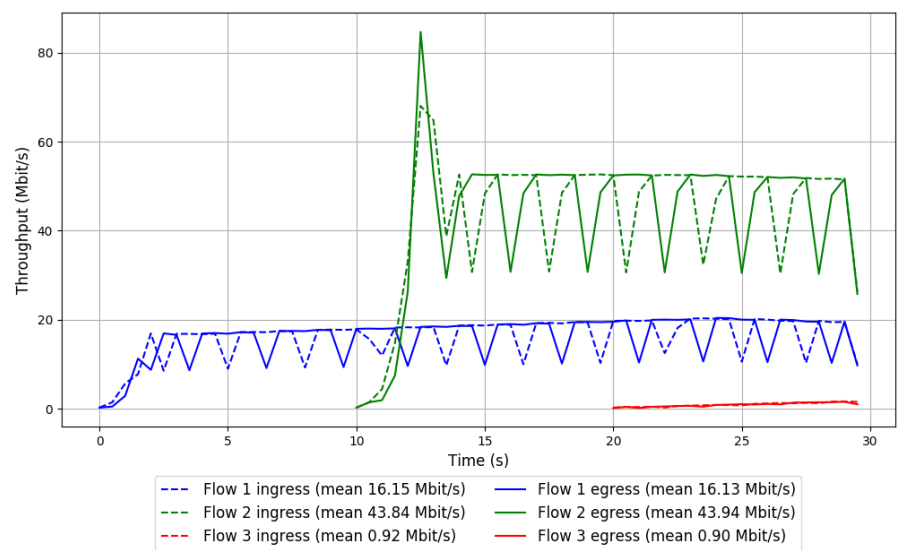
-- Flow 3:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 137.012 ms

Loss rate: 5.64%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-02-17 23:12:43

End at: 2018-02-17 23:13:13

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 43.26 Mbit/s

95th percentile per-packet one-way delay: 163.516 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 12.06 Mbit/s

95th percentile per-packet one-way delay: 163.351 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 43.80 Mbit/s

95th percentile per-packet one-way delay: 163.713 ms

Loss rate: 1.59%

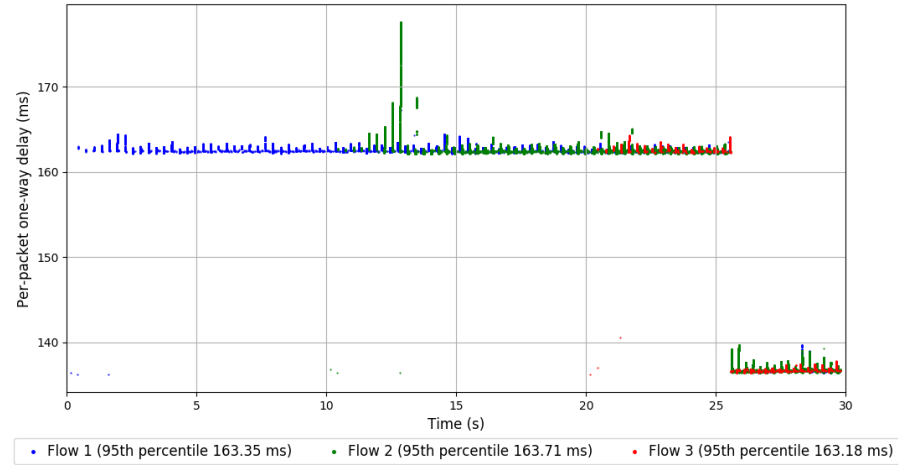
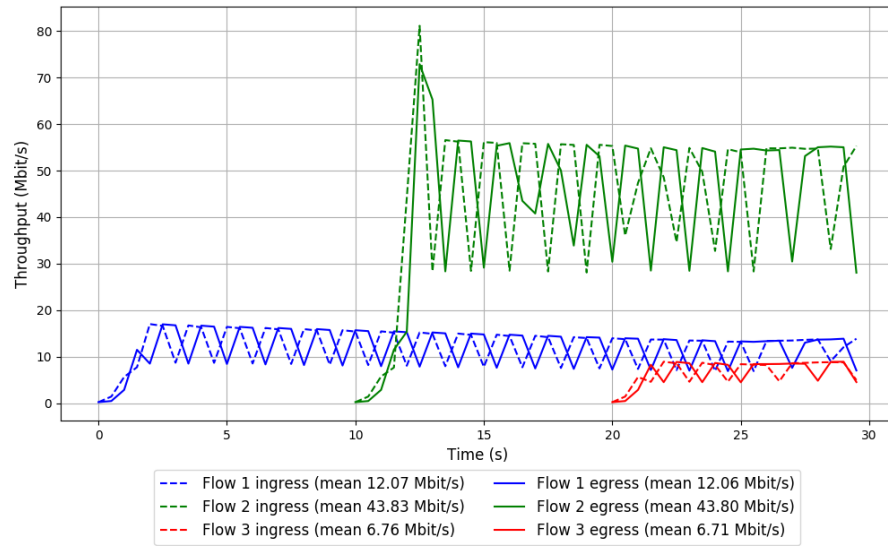
-- Flow 3:

Average throughput: 6.71 Mbit/s

95th percentile per-packet one-way delay: 163.179 ms

Loss rate: 3.40%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-02-17 23:33:36

End at: 2018-02-17 23:34:06

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 44.67 Mbit/s

95th percentile per-packet one-way delay: 142.053 ms

Loss rate: 1.36%

-- Flow 1:

Average throughput: 20.36 Mbit/s

95th percentile per-packet one-way delay: 141.897 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 32.69 Mbit/s

95th percentile per-packet one-way delay: 142.508 ms

Loss rate: 1.50%

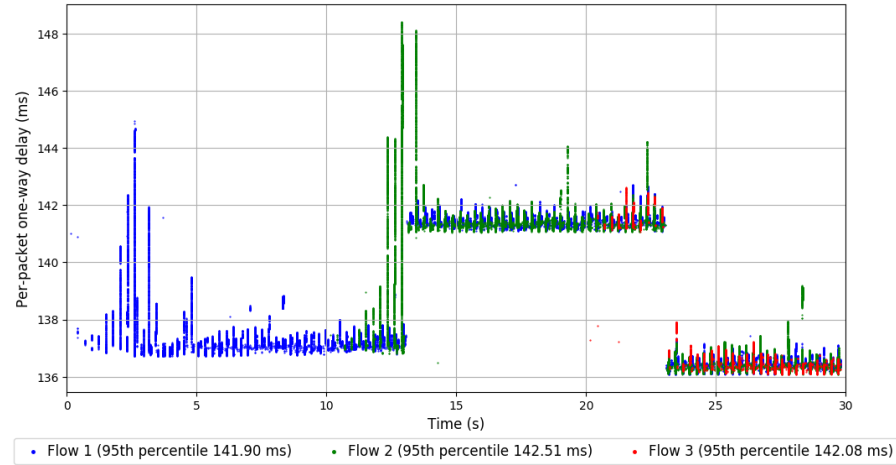
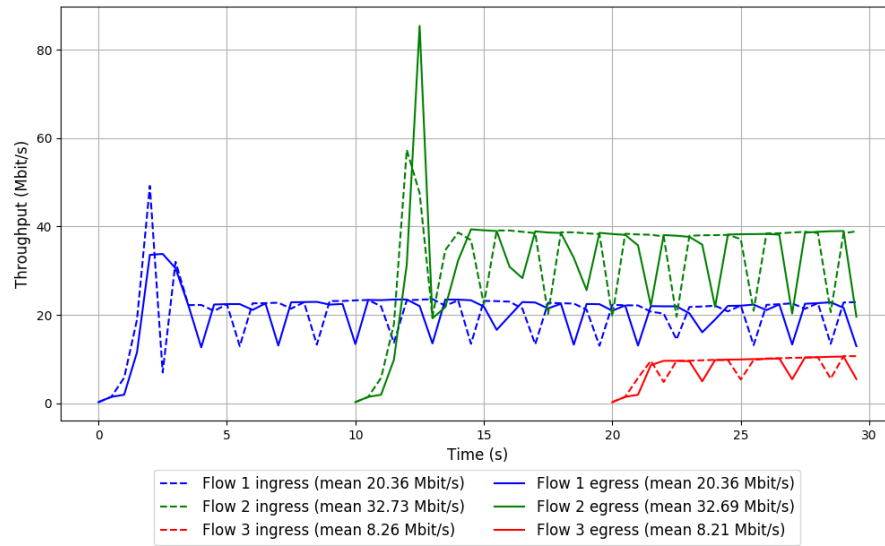
-- Flow 3:

Average throughput: 8.21 Mbit/s

95th percentile per-packet one-way delay: 142.080 ms

Loss rate: 3.28%

Run 9: Report of TCP Vegas — Data Link



Run 10: Statistics of TCP Vegas

Start at: 2018-02-17 23:53:56

End at: 2018-02-17 23:54:26

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 93.02 Mbit/s

95th percentile per-packet one-way delay: 138.848 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 46.32 Mbit/s

95th percentile per-packet one-way delay: 140.029 ms

Loss rate: 0.94%

-- Flow 2:

Average throughput: 47.87 Mbit/s

95th percentile per-packet one-way delay: 138.634 ms

Loss rate: 1.49%

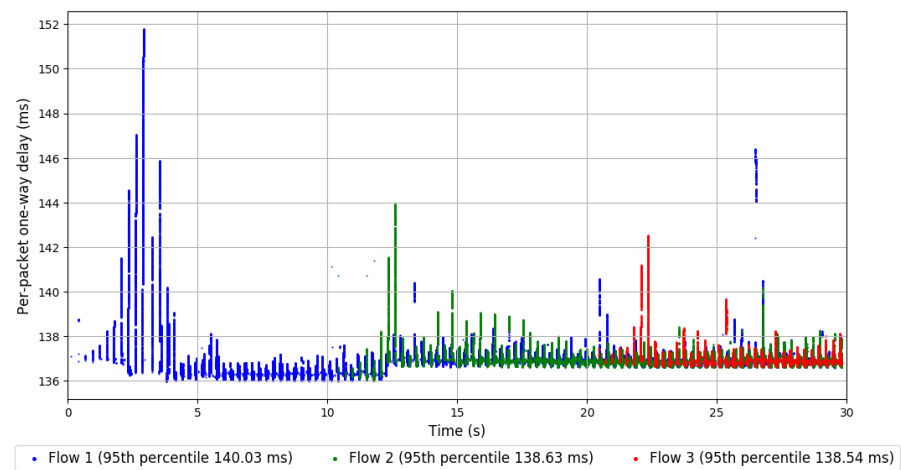
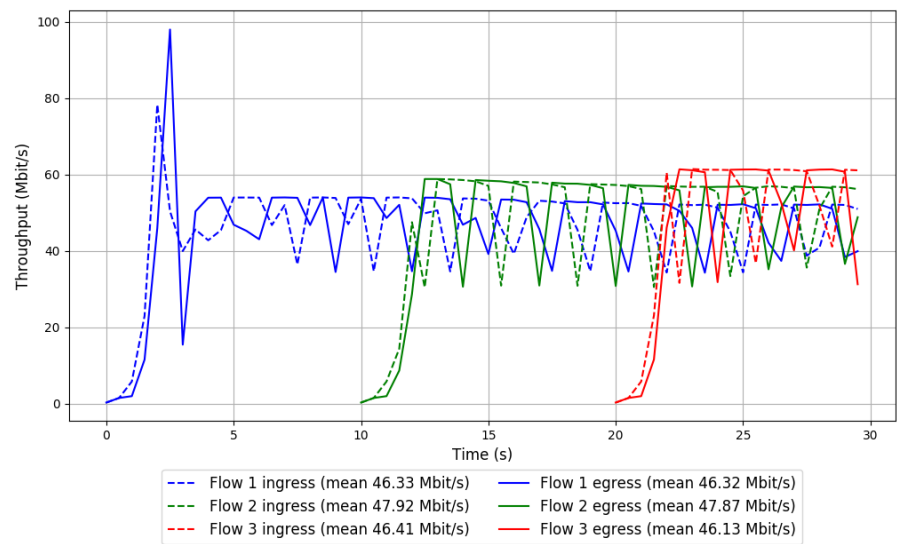
-- Flow 3:

Average throughput: 46.13 Mbit/s

95th percentile per-packet one-way delay: 138.536 ms

Loss rate: 3.33%

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-02-17 20:40:31

End at: 2018-02-17 20:41:01

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 246.83 Mbit/s

95th percentile per-packet one-way delay: 234.433 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 102.37 Mbit/s

95th percentile per-packet one-way delay: 180.955 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 186.94 Mbit/s

95th percentile per-packet one-way delay: 226.452 ms

Loss rate: 2.40%

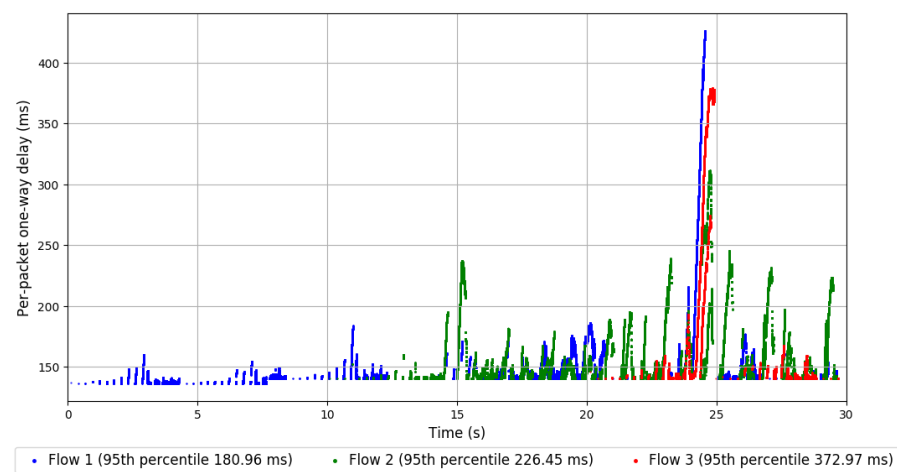
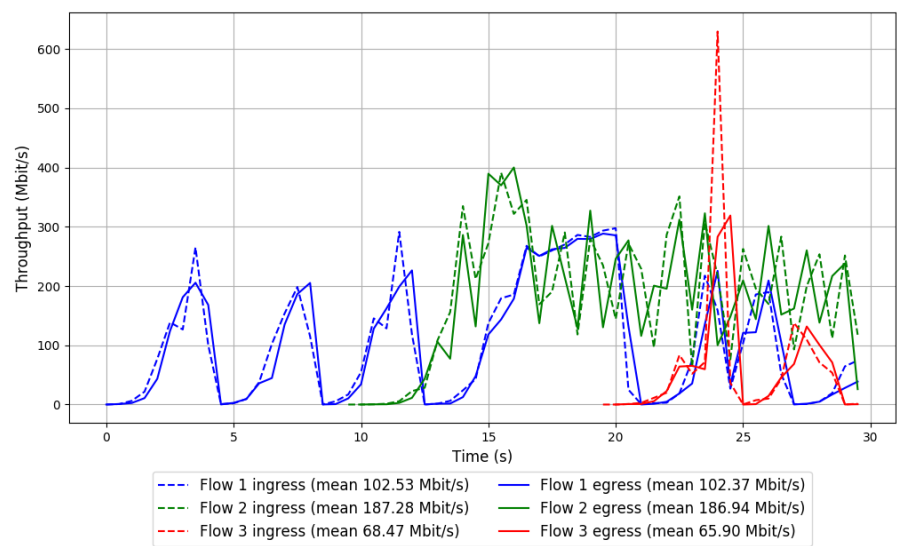
-- Flow 3:

Average throughput: 65.90 Mbit/s

95th percentile per-packet one-way delay: 372.970 ms

Loss rate: 6.54%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-02-17 21:01:06

End at: 2018-02-17 21:01:36

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.04 Mbit/s

95th percentile per-packet one-way delay: 211.911 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 102.62 Mbit/s

95th percentile per-packet one-way delay: 171.937 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 209.97 Mbit/s

95th percentile per-packet one-way delay: 227.677 ms

Loss rate: 2.24%

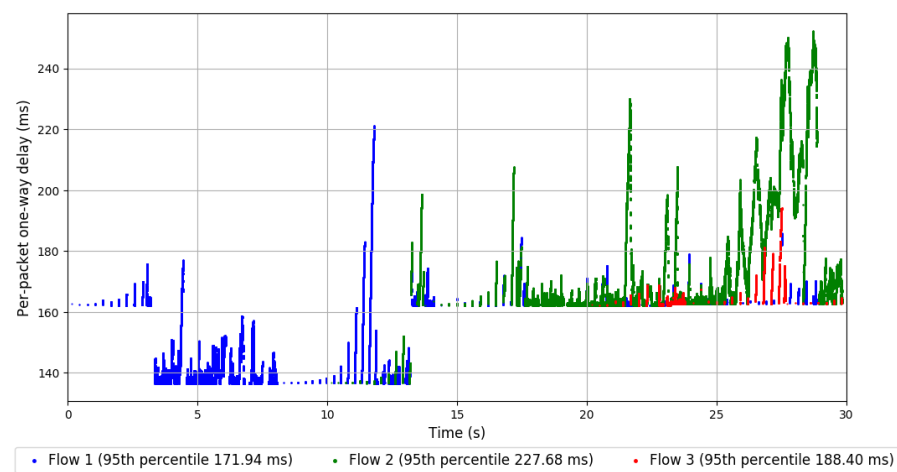
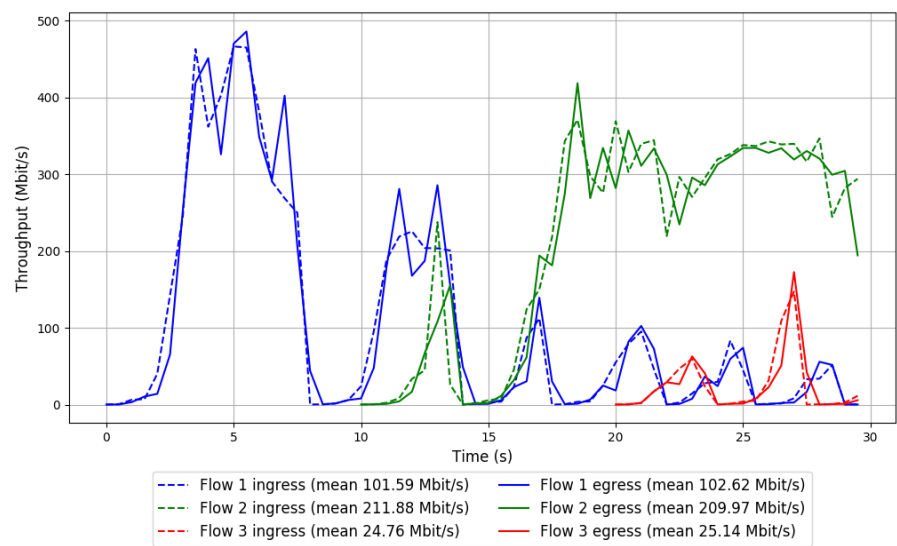
-- Flow 3:

Average throughput: 25.14 Mbit/s

95th percentile per-packet one-way delay: 188.401 ms

Loss rate: 1.54%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-02-17 21:21:49

End at: 2018-02-17 21:22:19

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 208.49 Mbit/s

95th percentile per-packet one-way delay: 196.353 ms

Loss rate: 1.57%

-- Flow 1:

Average throughput: 136.14 Mbit/s

95th percentile per-packet one-way delay: 200.558 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 91.65 Mbit/s

95th percentile per-packet one-way delay: 180.540 ms

Loss rate: 3.05%

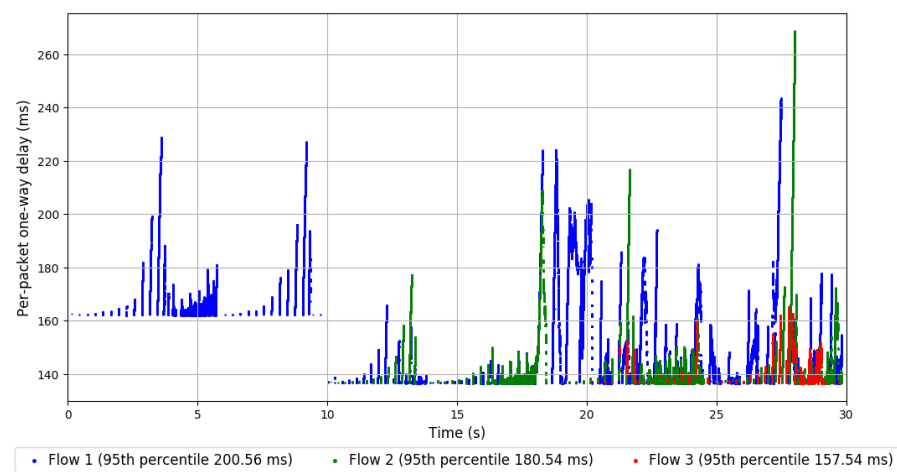
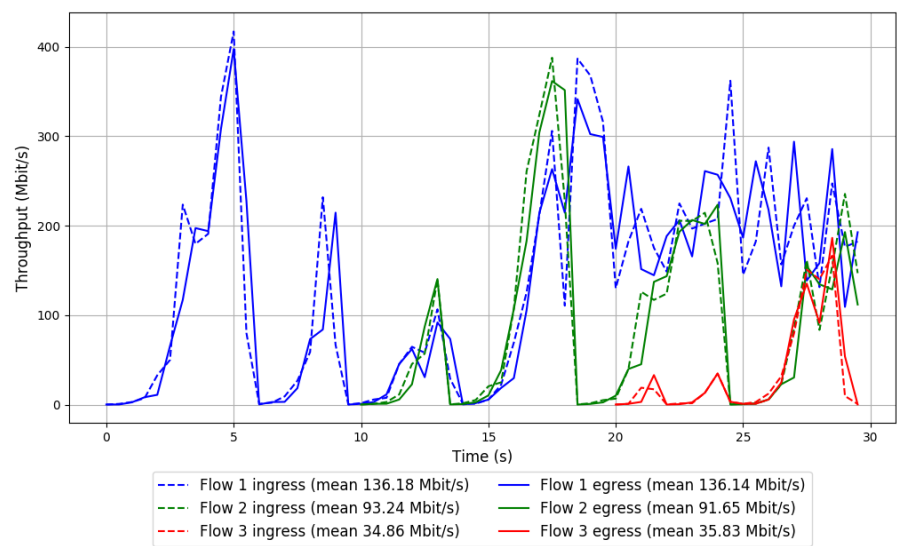
-- Flow 3:

Average throughput: 35.83 Mbit/s

95th percentile per-packet one-way delay: 157.542 ms

Loss rate: 0.07%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-02-17 21:41:47

End at: 2018-02-17 21:42:17

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 238.93 Mbit/s

95th percentile per-packet one-way delay: 207.197 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 152.45 Mbit/s

95th percentile per-packet one-way delay: 217.901 ms

Loss rate: 2.05%

-- Flow 2:

Average throughput: 119.06 Mbit/s

95th percentile per-packet one-way delay: 195.317 ms

Loss rate: 3.81%

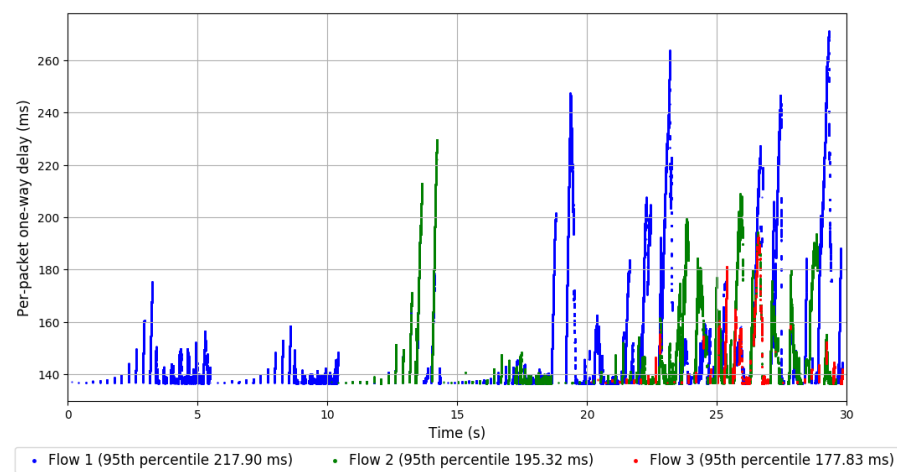
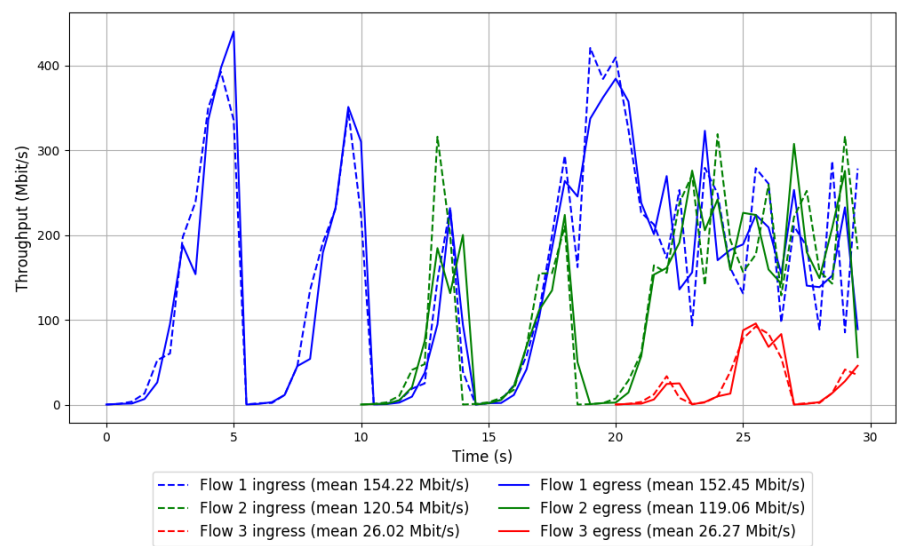
-- Flow 3:

Average throughput: 26.27 Mbit/s

95th percentile per-packet one-way delay: 177.829 ms

Loss rate: 0.55%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-02-17 22:02:15

End at: 2018-02-17 22:02:45

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 320.68 Mbit/s

95th percentile per-packet one-way delay: 273.628 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 240.24 Mbit/s

95th percentile per-packet one-way delay: 240.425 ms

Loss rate: 1.06%

-- Flow 2:

Average throughput: 45.14 Mbit/s

95th percentile per-packet one-way delay: 161.595 ms

Loss rate: 0.56%

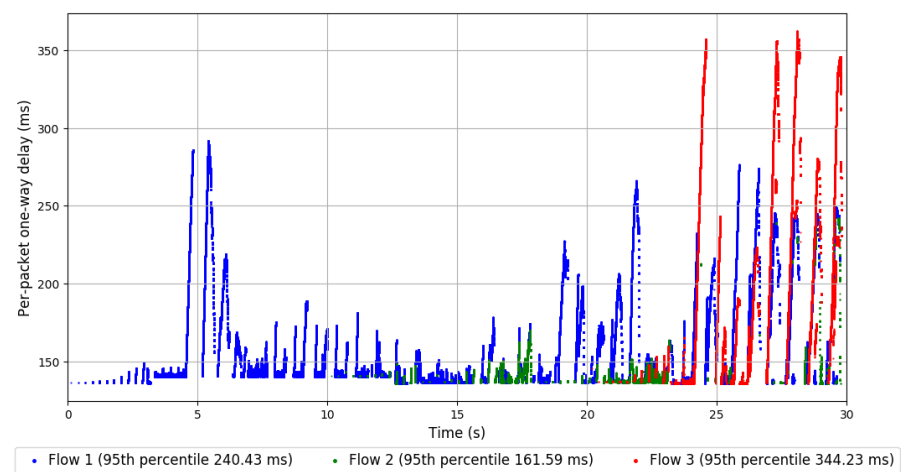
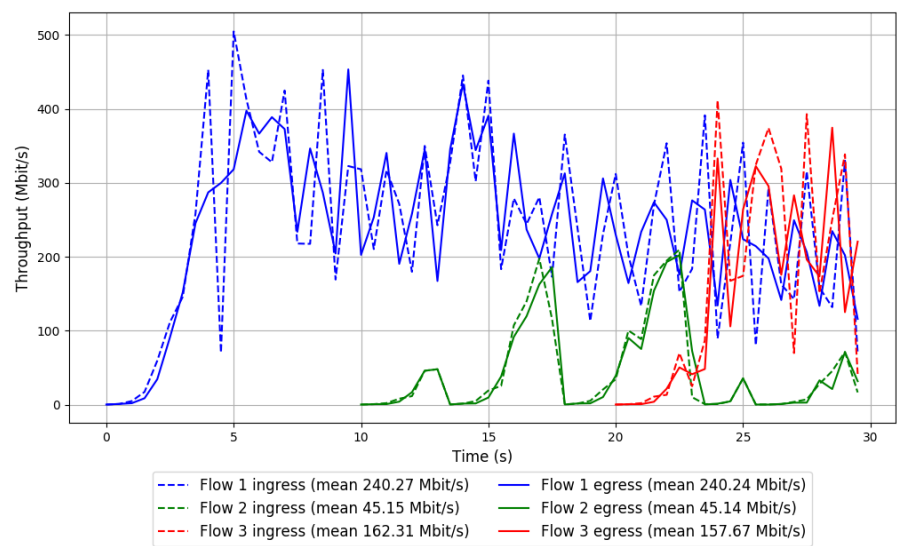
-- Flow 3:

Average throughput: 157.67 Mbit/s

95th percentile per-packet one-way delay: 344.229 ms

Loss rate: 5.80%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-02-17 22:22:52

End at: 2018-02-17 22:23:22

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 215.72 Mbit/s

95th percentile per-packet one-way delay: 170.595 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 103.97 Mbit/s

95th percentile per-packet one-way delay: 159.286 ms

Loss rate: 1.69%

-- Flow 2:

Average throughput: 147.59 Mbit/s

95th percentile per-packet one-way delay: 172.919 ms

Loss rate: 0.55%

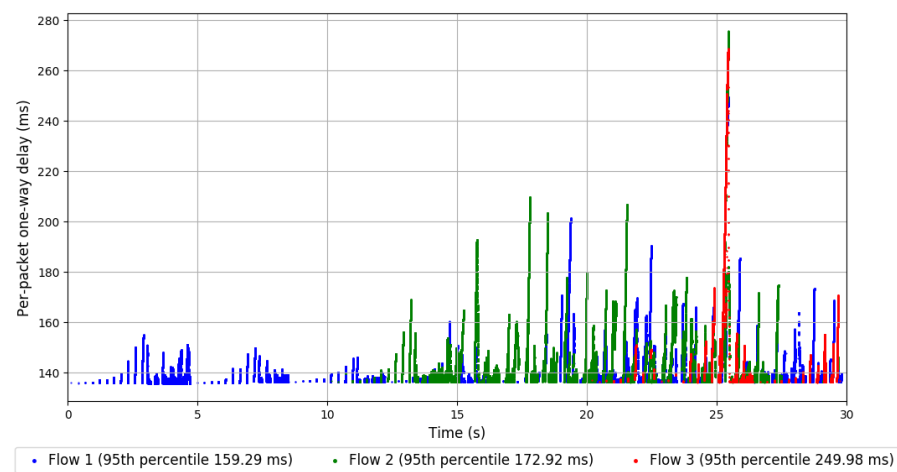
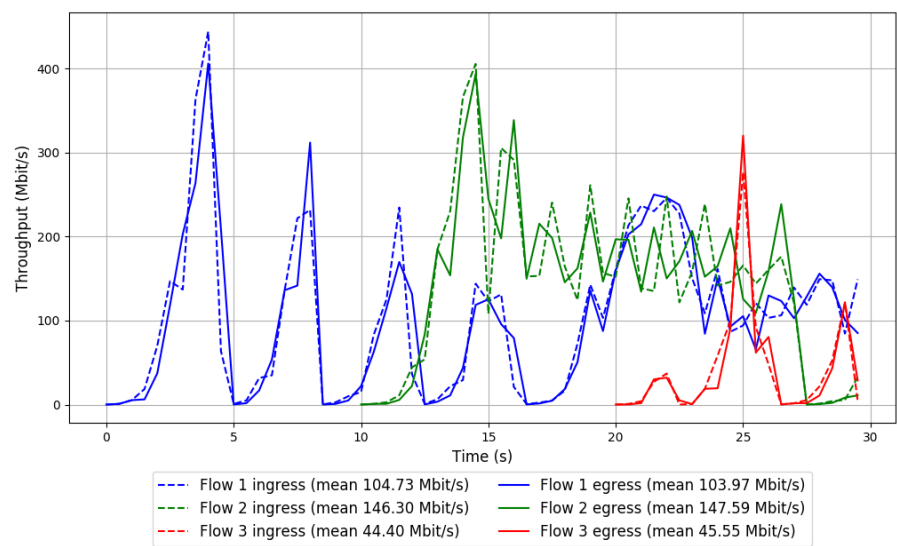
-- Flow 3:

Average throughput: 45.55 Mbit/s

95th percentile per-packet one-way delay: 249.976 ms

Loss rate: 0.26%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-02-17 22:43:26

End at: 2018-02-17 22:43:56

Below is generated by plot.py at 2018-02-18 04:10:48

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.66 Mbit/s

95th percentile per-packet one-way delay: 221.847 ms

Loss rate: 1.82%

-- Flow 1:

Average throughput: 126.33 Mbit/s

95th percentile per-packet one-way delay: 208.705 ms

Loss rate: 1.74%

-- Flow 2:

Average throughput: 119.83 Mbit/s

95th percentile per-packet one-way delay: 251.135 ms

Loss rate: 1.26%

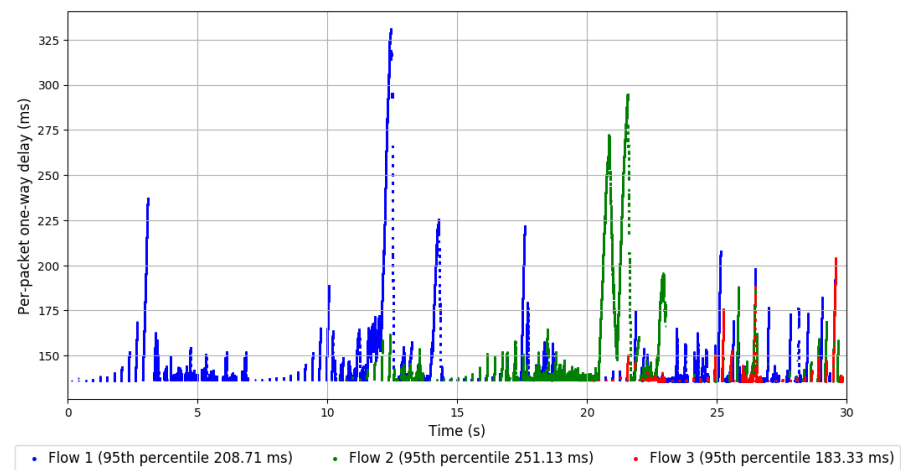
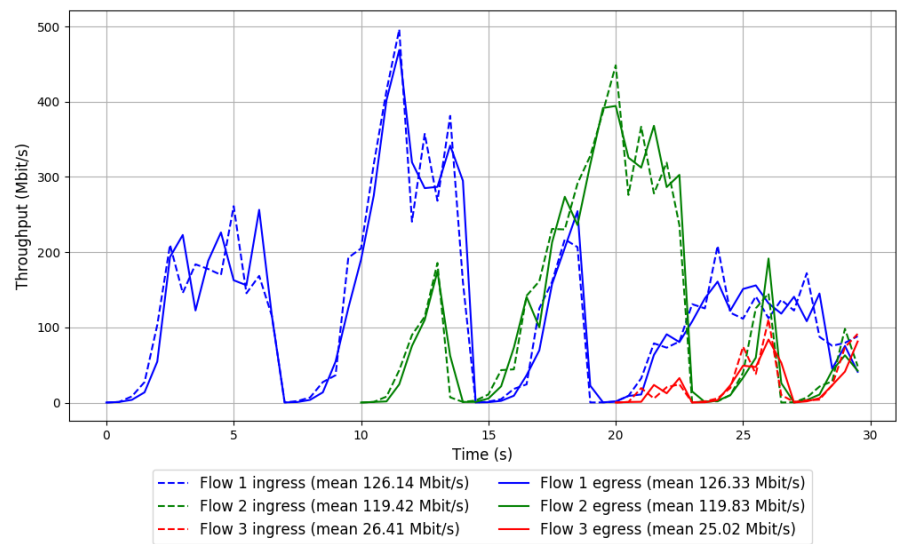
-- Flow 3:

Average throughput: 25.02 Mbit/s

95th percentile per-packet one-way delay: 183.333 ms

Loss rate: 8.08%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-02-17 23:03:43

End at: 2018-02-17 23:04:13

Below is generated by plot.py at 2018-02-18 04:11:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 188.42 Mbit/s

95th percentile per-packet one-way delay: 200.417 ms

Loss rate: 0.30%

-- Flow 1:

Average throughput: 101.21 Mbit/s

95th percentile per-packet one-way delay: 200.912 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 101.85 Mbit/s

95th percentile per-packet one-way delay: 184.906 ms

Loss rate: 0.27%

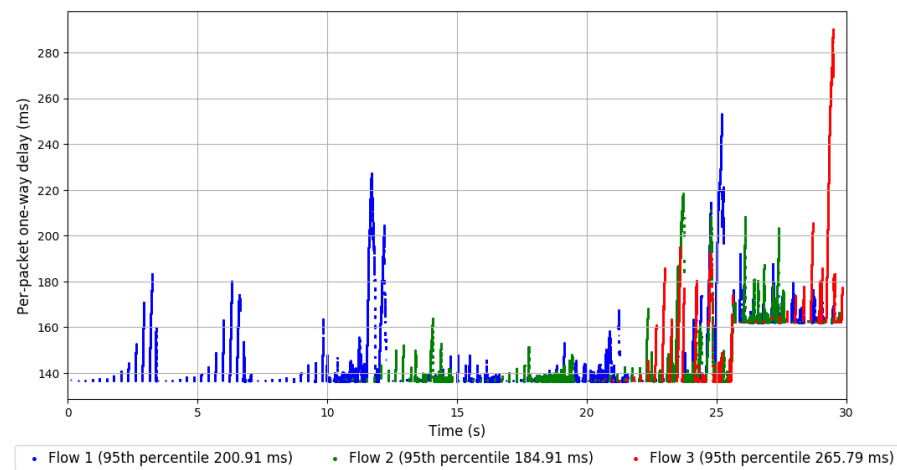
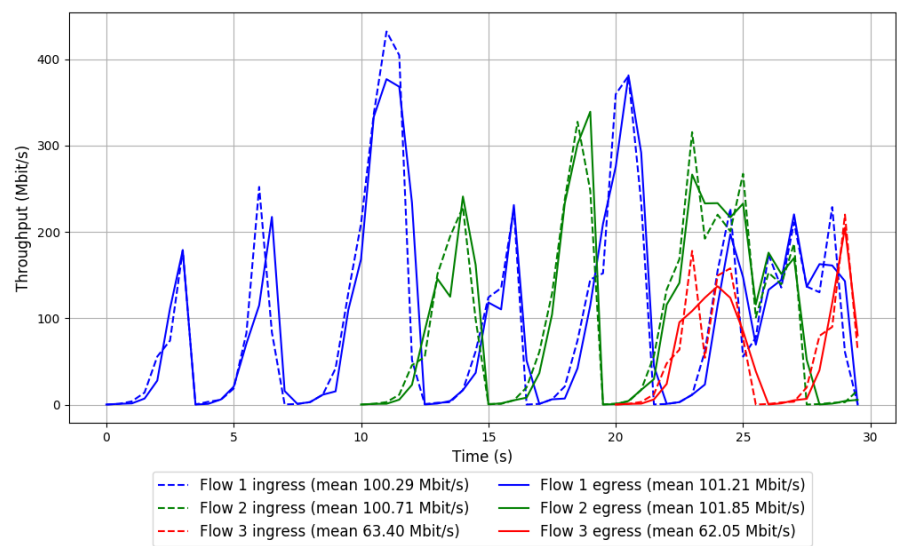
-- Flow 3:

Average throughput: 62.05 Mbit/s

95th percentile per-packet one-way delay: 265.793 ms

Loss rate: 1.88%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-02-17 23:24:01

End at: 2018-02-17 23:24:31

Below is generated by plot.py at 2018-02-18 04:11:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 201.30 Mbit/s

95th percentile per-packet one-way delay: 177.537 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 145.57 Mbit/s

95th percentile per-packet one-way delay: 188.330 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 73.95 Mbit/s

95th percentile per-packet one-way delay: 153.914 ms

Loss rate: 0.53%

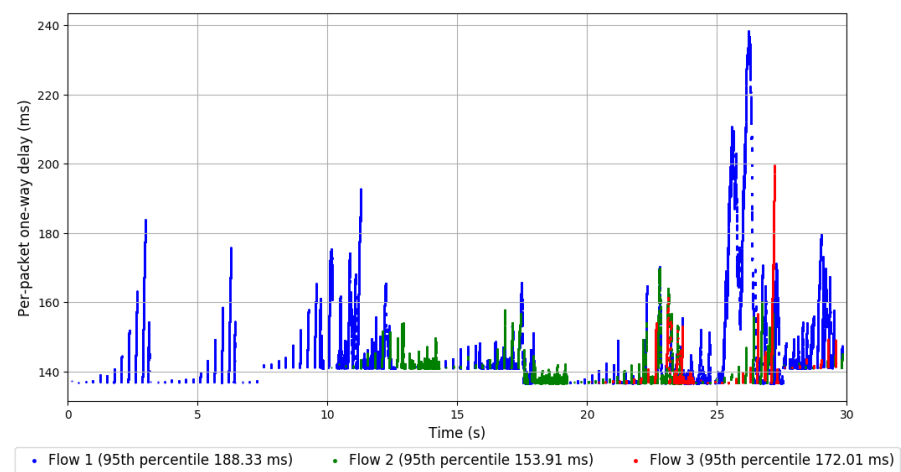
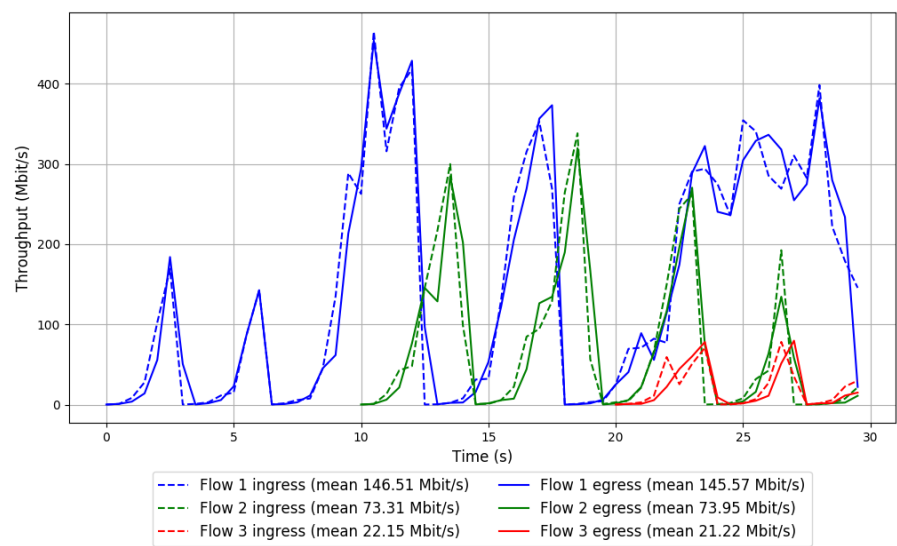
-- Flow 3:

Average throughput: 21.22 Mbit/s

95th percentile per-packet one-way delay: 172.008 ms

Loss rate: 6.96%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-02-17 23:44:59

End at: 2018-02-17 23:45:29

Below is generated by plot.py at 2018-02-18 04:11:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.49 Mbit/s

95th percentile per-packet one-way delay: 186.684 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 98.29 Mbit/s

95th percentile per-packet one-way delay: 180.293 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 108.27 Mbit/s

95th percentile per-packet one-way delay: 230.694 ms

Loss rate: 0.01%

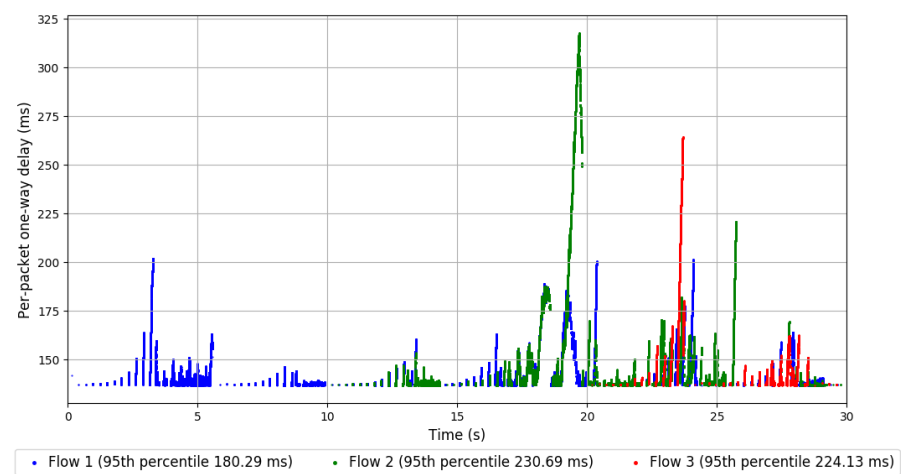
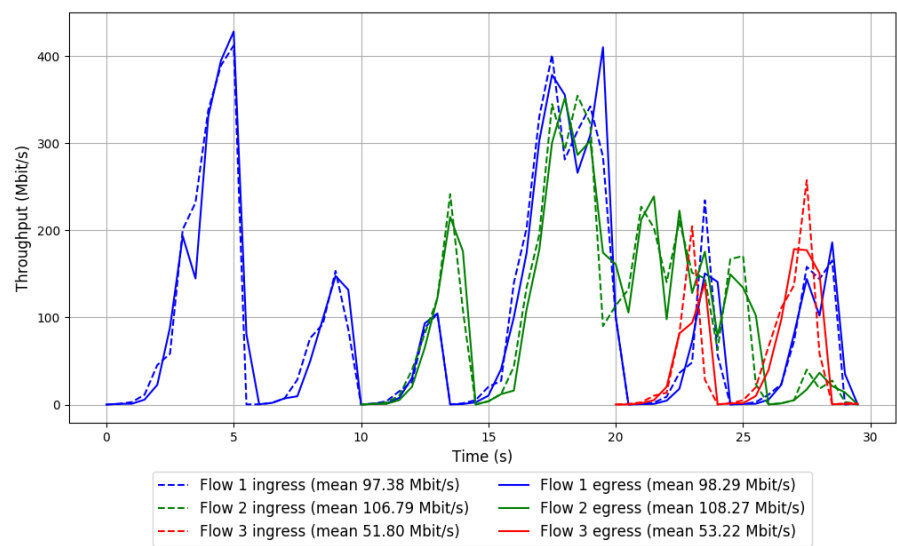
-- Flow 3:

Average throughput: 53.22 Mbit/s

95th percentile per-packet one-way delay: 224.133 ms

Loss rate: 0.16%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-02-17 20:37:02

End at: 2018-02-17 20:37:32

Below is generated by plot.py at 2018-02-18 04:11:52

Datalink statistics

-- Total of 3 flows:

Average throughput: 106.39 Mbit/s

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

Loss rate: 1.08%

-- Flow 1:

Average throughput: 75.55 Mbit/s

95th percentile per-packet one-way delay: 140.399 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 71.18 Mbit/s

95th percentile per-packet one-way delay: 140.302 ms

Loss rate: 1.77%

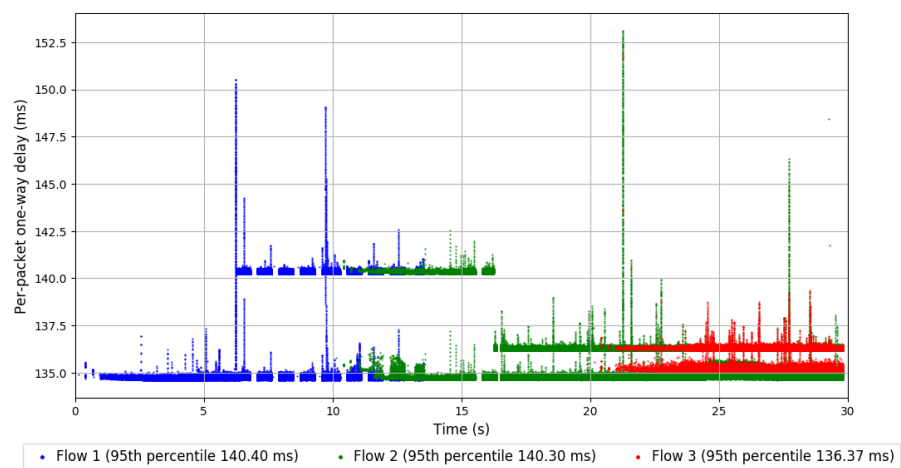
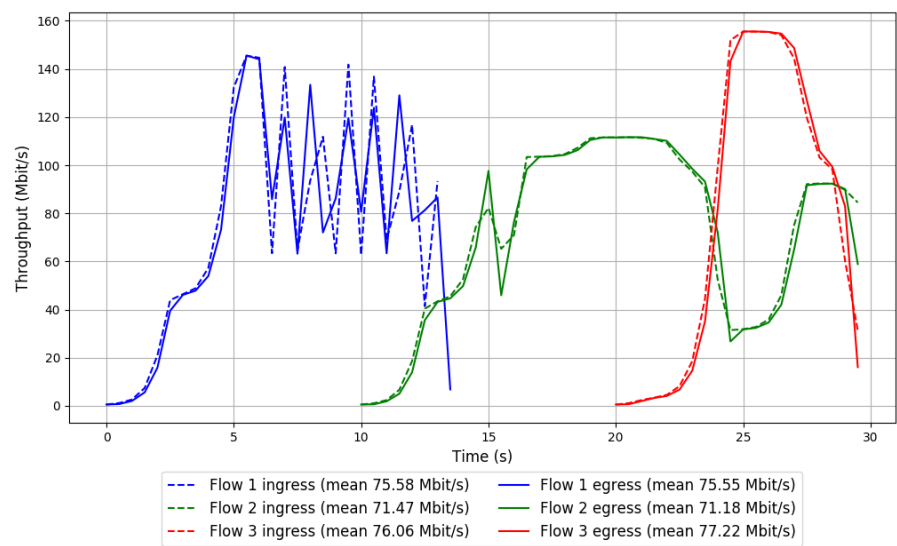
-- Flow 3:

Average throughput: 77.22 Mbit/s

95th percentile per-packet one-way delay: 136.370 ms

Loss rate: 1.25%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-02-17 20:57:34

End at: 2018-02-17 20:58:04

Below is generated by plot.py at 2018-02-18 04:12:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 124.50 Mbit/s

95th percentile per-packet one-way delay: 136.661 ms

Loss rate: 1.07%

-- Flow 1:

Average throughput: 78.03 Mbit/s

95th percentile per-packet one-way delay: 136.632 ms

Loss rate: 0.97%

-- Flow 2:

Average throughput: 50.05 Mbit/s

95th percentile per-packet one-way delay: 136.698 ms

Loss rate: 0.50%

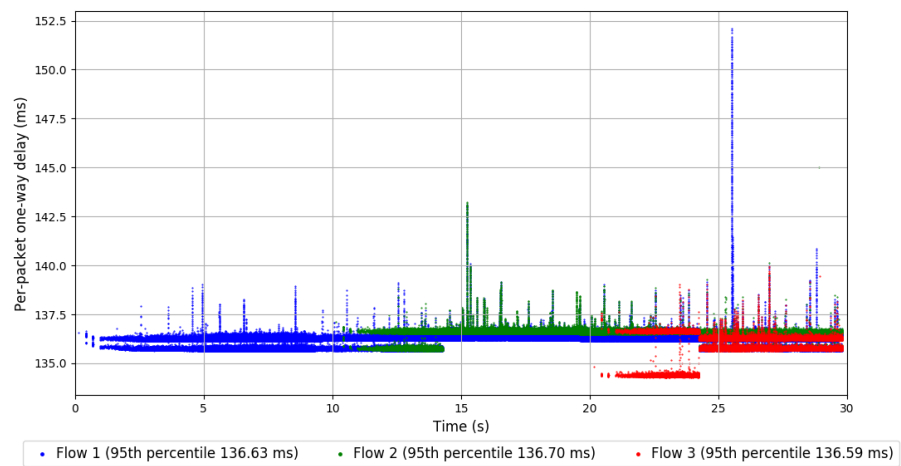
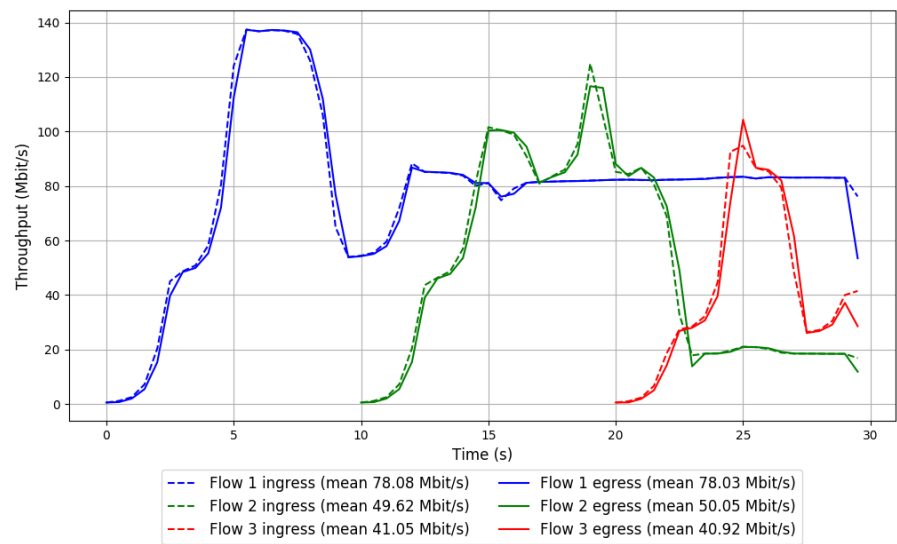
-- Flow 3:

Average throughput: 40.92 Mbit/s

95th percentile per-packet one-way delay: 136.595 ms

Loss rate: 3.04%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-02-17 21:18:23

End at: 2018-02-17 21:18:54

Below is generated by plot.py at 2018-02-18 04:12:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 39.45 Mbit/s

95th percentile per-packet one-way delay: 164.078 ms

Loss rate: 2.76%

-- Flow 1:

Average throughput: 18.26 Mbit/s

95th percentile per-packet one-way delay: 162.773 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 21.78 Mbit/s

95th percentile per-packet one-way delay: 164.138 ms

Loss rate: 6.22%

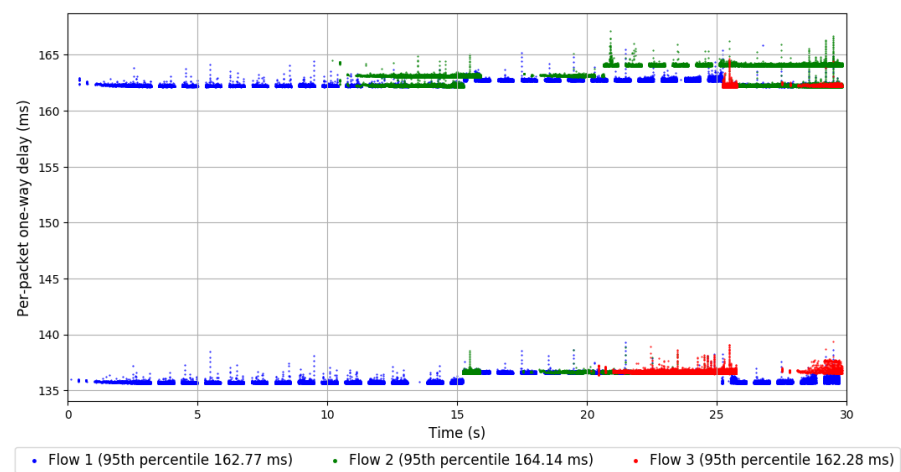
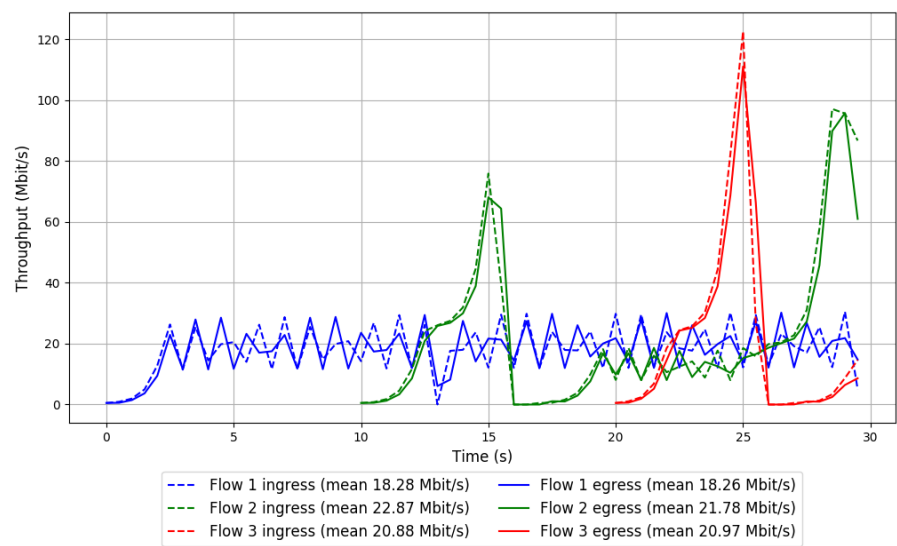
-- Flow 3:

Average throughput: 20.97 Mbit/s

95th percentile per-packet one-way delay: 162.278 ms

Loss rate: 2.36%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-02-17 21:38:34

End at: 2018-02-17 21:39:04

Below is generated by plot.py at 2018-02-18 04:12:53

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.90 Mbit/s

95th percentile per-packet one-way delay: 162.148 ms

Loss rate: 4.66%

-- Flow 1:

Average throughput: 24.54 Mbit/s

95th percentile per-packet one-way delay: 162.166 ms

Loss rate: 4.32%

-- Flow 2:

Average throughput: 27.01 Mbit/s

95th percentile per-packet one-way delay: 162.168 ms

Loss rate: 5.57%

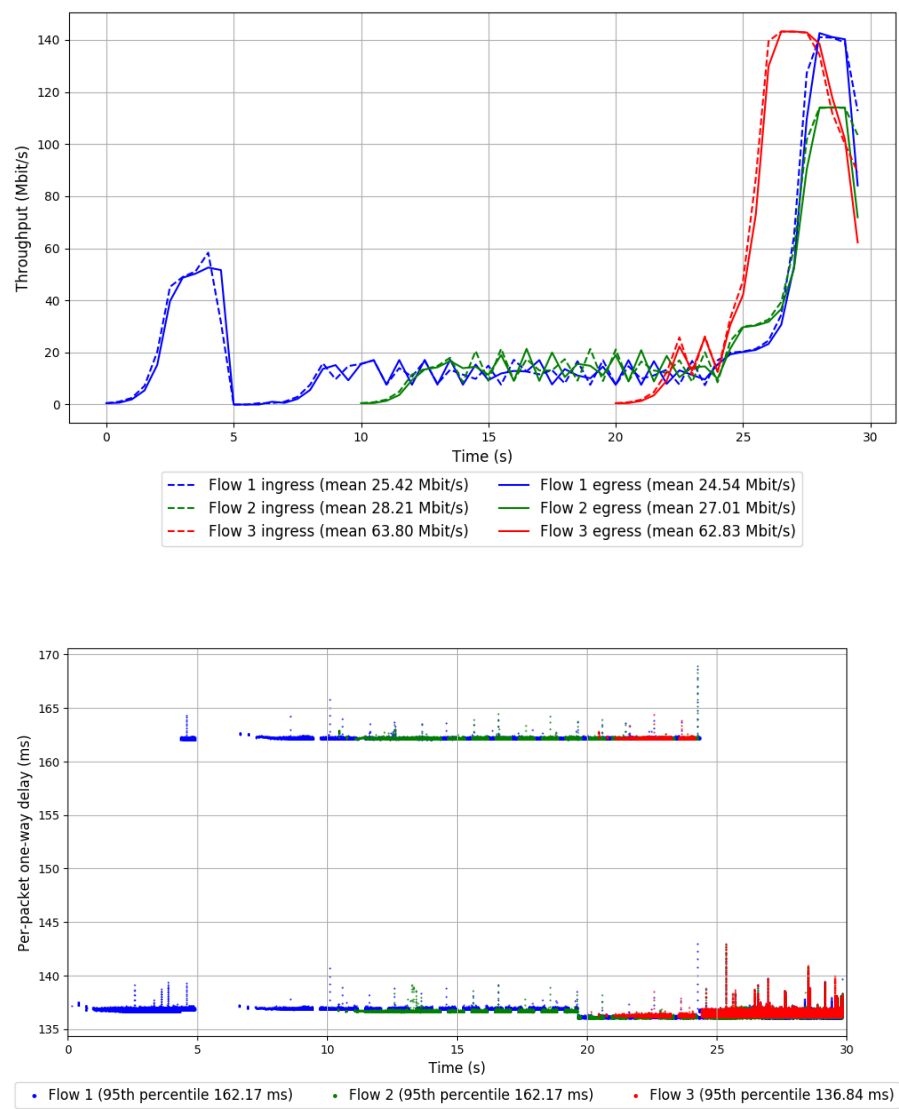
-- Flow 3:

Average throughput: 62.83 Mbit/s

95th percentile per-packet one-way delay: 136.845 ms

Loss rate: 4.25%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-02-17 21:58:45

End at: 2018-02-17 21:59:15

Below is generated by plot.py at 2018-02-18 04:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 149.23 Mbit/s

95th percentile per-packet one-way delay: 140.545 ms

Loss rate: 0.59%

-- Flow 1:

Average throughput: 96.08 Mbit/s

95th percentile per-packet one-way delay: 140.538 ms

Loss rate: 0.59%

-- Flow 2:

Average throughput: 75.73 Mbit/s

95th percentile per-packet one-way delay: 140.527 ms

Loss rate: 0.38%

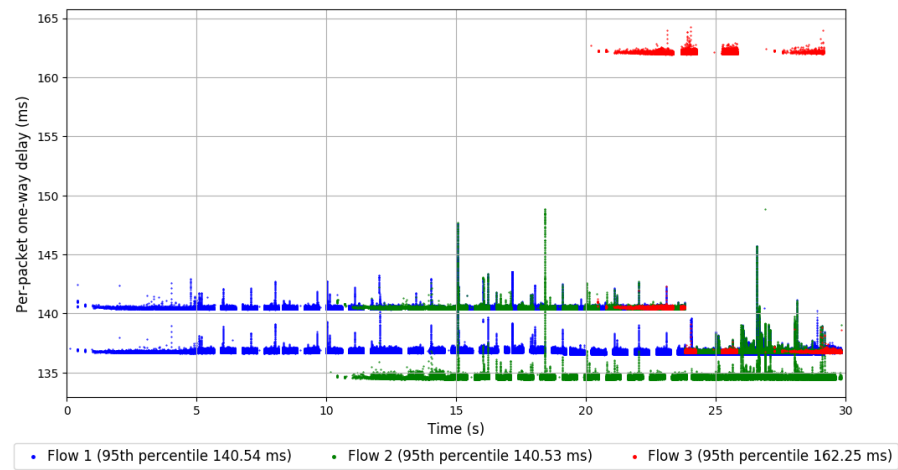
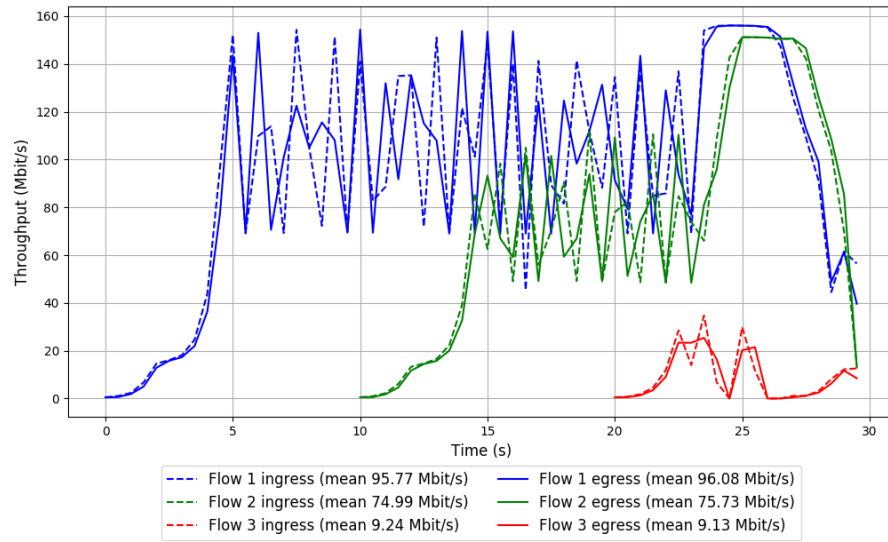
-- Flow 3:

Average throughput: 9.13 Mbit/s

95th percentile per-packet one-way delay: 162.255 ms

Loss rate: 4.19%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-02-17 22:19:25

End at: 2018-02-17 22:19:55

Below is generated by plot.py at 2018-02-18 04:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 67.56 Mbit/s

95th percentile per-packet one-way delay: 162.891 ms

Loss rate: 2.08%

-- Flow 1:

Average throughput: 15.90 Mbit/s

95th percentile per-packet one-way delay: 162.976 ms

Loss rate: 1.37%

-- Flow 2:

Average throughput: 70.10 Mbit/s

95th percentile per-packet one-way delay: 136.492 ms

Loss rate: 1.95%

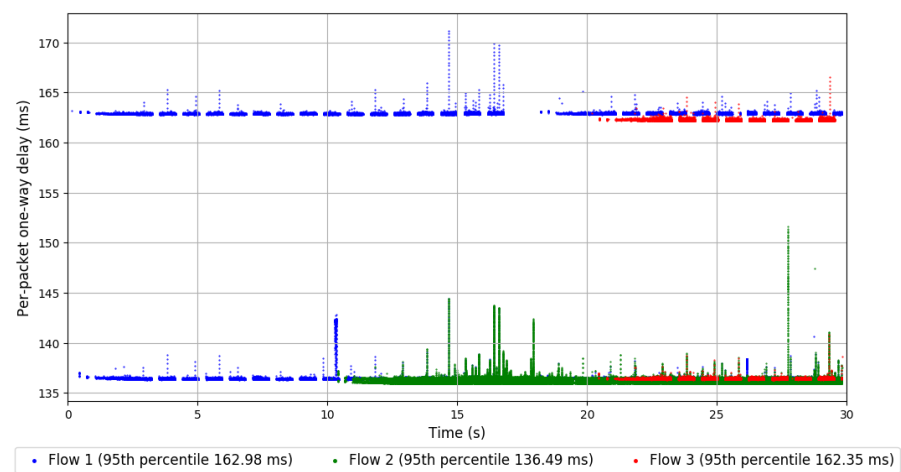
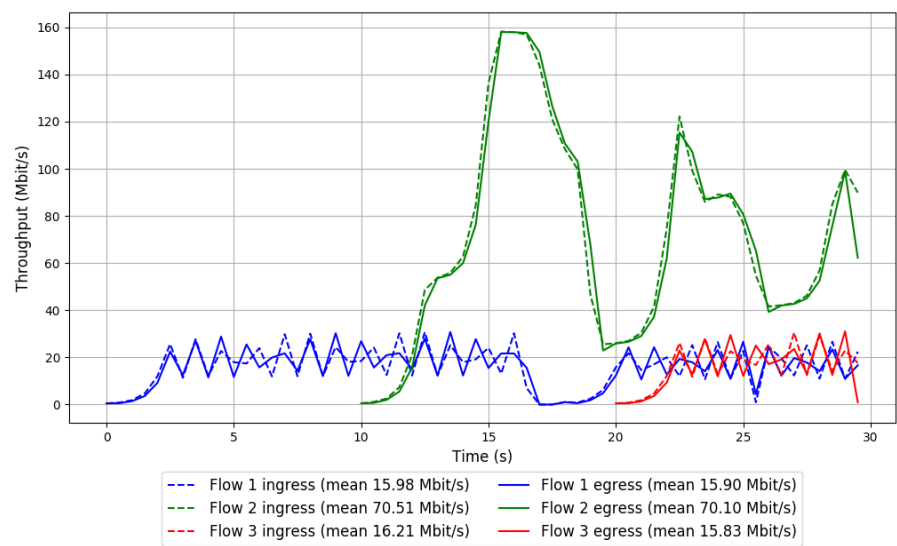
-- Flow 3:

Average throughput: 15.83 Mbit/s

95th percentile per-packet one-way delay: 162.355 ms

Loss rate: 5.32%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-02-17 22:39:53

End at: 2018-02-17 22:40:23

Below is generated by plot.py at 2018-02-18 04:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 139.05 Mbit/s

95th percentile per-packet one-way delay: 136.918 ms

Loss rate: 1.49%

-- Flow 1:

Average throughput: 75.58 Mbit/s

95th percentile per-packet one-way delay: 136.966 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 66.16 Mbit/s

95th percentile per-packet one-way delay: 136.754 ms

Loss rate: 1.16%

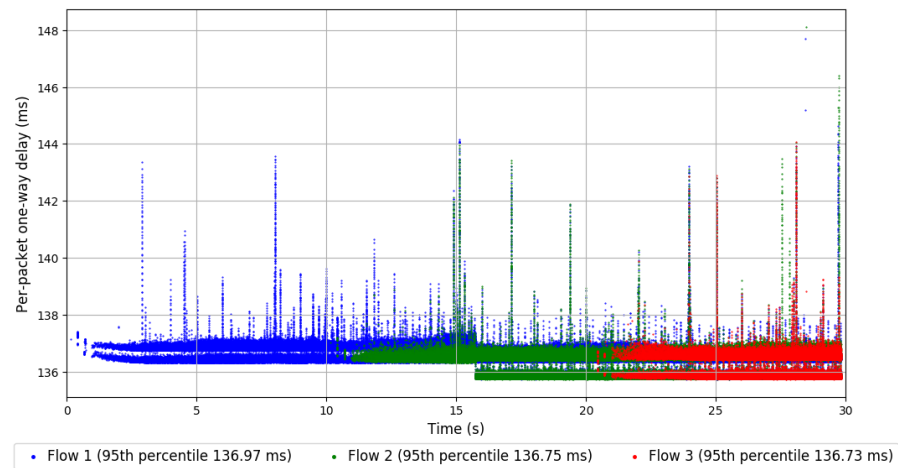
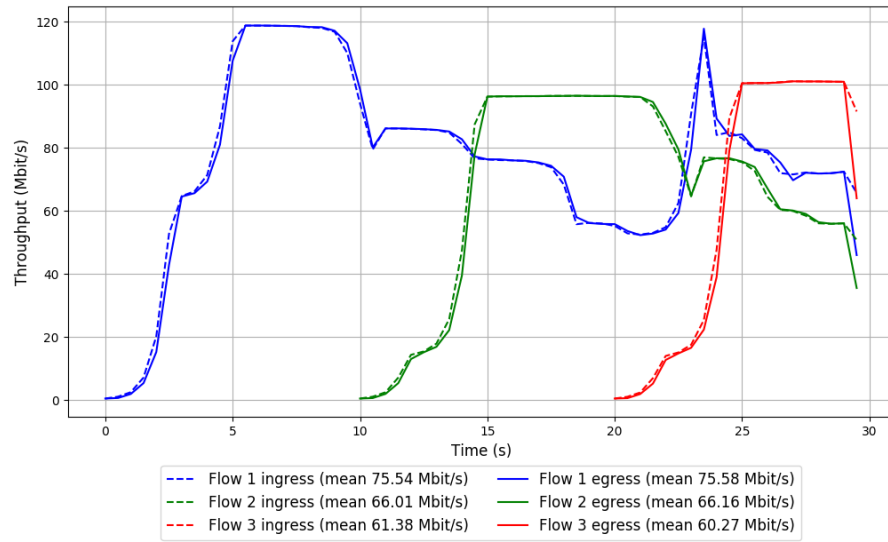
-- Flow 3:

Average throughput: 60.27 Mbit/s

95th percentile per-packet one-way delay: 136.729 ms

Loss rate: 4.50%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-02-17 23:00:33

End at: 2018-02-17 23:01:03

Below is generated by plot.py at 2018-02-18 04:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.64 Mbit/s

95th percentile per-packet one-way delay: 162.171 ms

Loss rate: 0.31%

-- Flow 1:

Average throughput: 25.60 Mbit/s

95th percentile per-packet one-way delay: 162.186 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 43.00 Mbit/s

95th percentile per-packet one-way delay: 162.100 ms

Loss rate: 0.23%

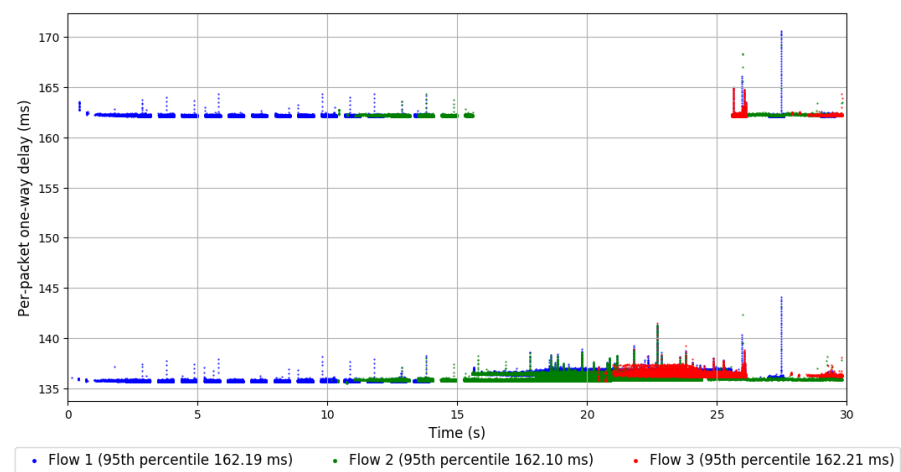
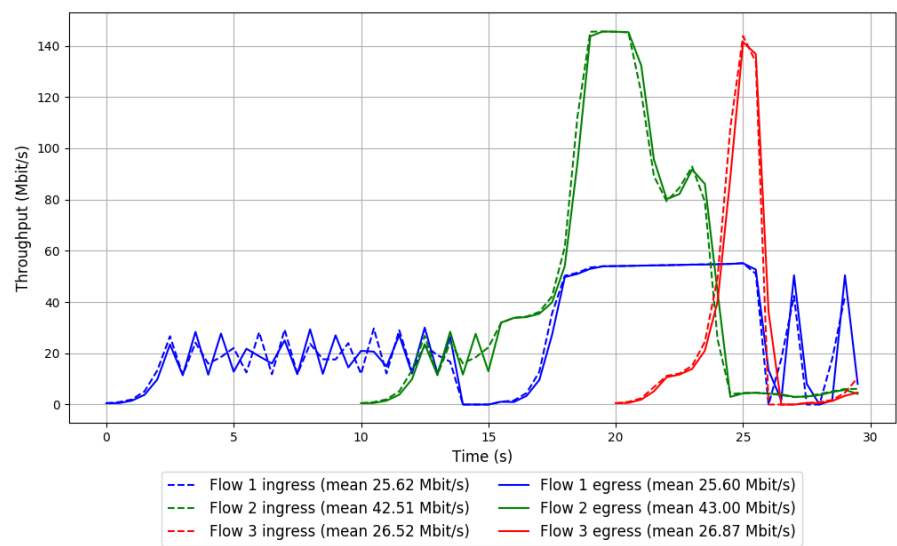
-- Flow 3:

Average throughput: 26.87 Mbit/s

95th percentile per-packet one-way delay: 162.214 ms

Loss rate: 1.46%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-02-17 23:20:29

End at: 2018-02-17 23:20:59

Below is generated by plot.py at 2018-02-18 04:15:17

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.67 Mbit/s

95th percentile per-packet one-way delay: 141.021 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 65.34 Mbit/s

95th percentile per-packet one-way delay: 140.984 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 51.13 Mbit/s

95th percentile per-packet one-way delay: 141.016 ms

Loss rate: 1.88%

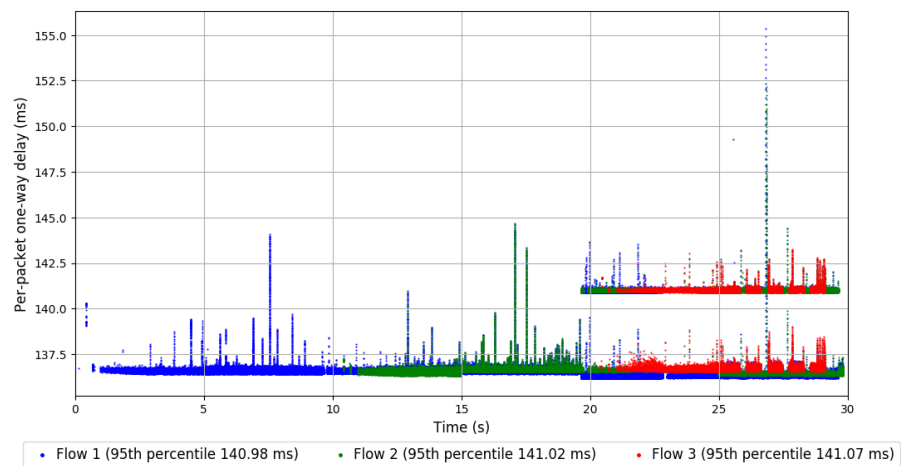
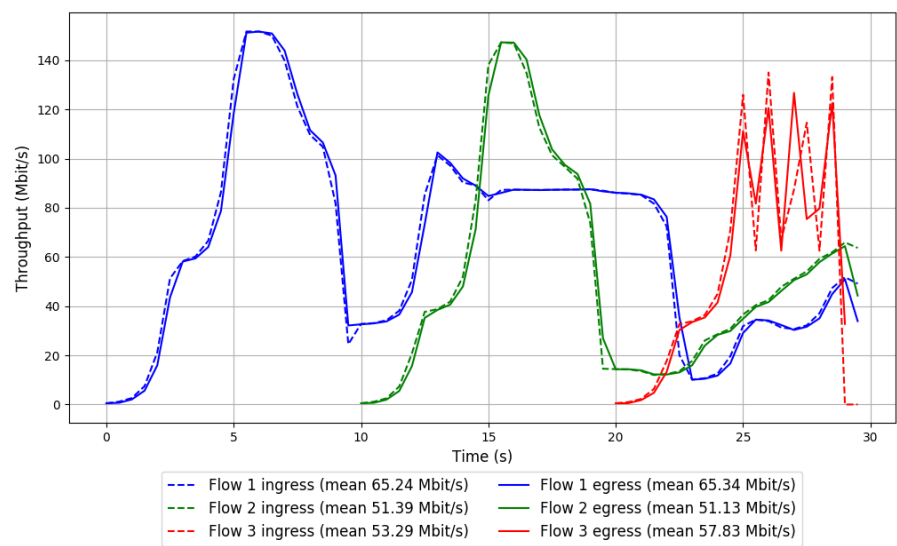
-- Flow 3:

Average throughput: 57.83 Mbit/s

95th percentile per-packet one-way delay: 141.072 ms

Loss rate: 0.00%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-02-17 23:41:29

End at: 2018-02-17 23:41:59

Below is generated by plot.py at 2018-02-18 04:15:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 117.89 Mbit/s

95th percentile per-packet one-way delay: 141.167 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 70.55 Mbit/s

95th percentile per-packet one-way delay: 137.469 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 44.62 Mbit/s

95th percentile per-packet one-way delay: 141.356 ms

Loss rate: 1.61%

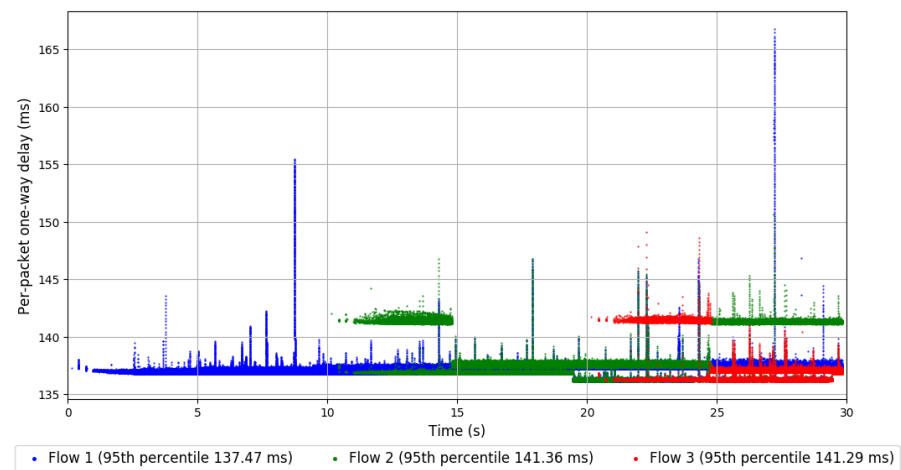
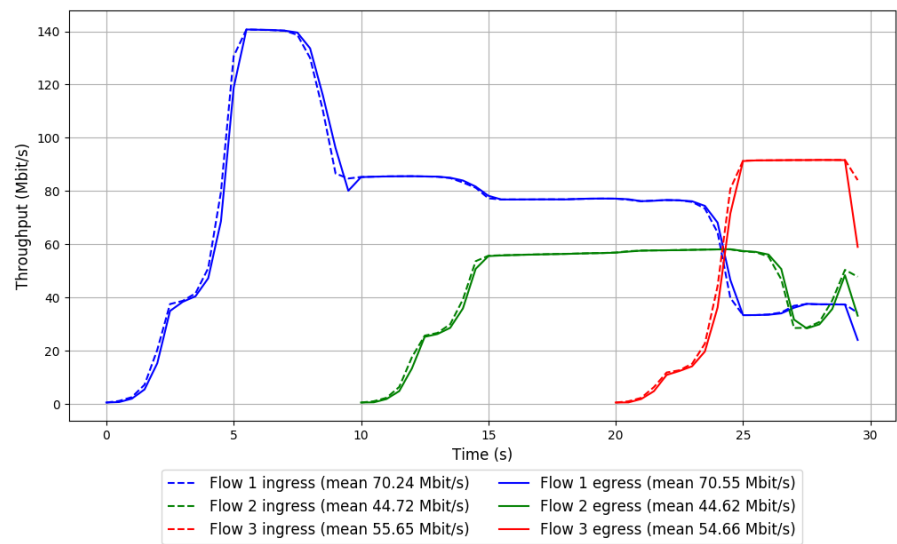
-- Flow 3:

Average throughput: 54.66 Mbit/s

95th percentile per-packet one-way delay: 141.293 ms

Loss rate: 4.54%

Run 10: Report of Copa — Data Link

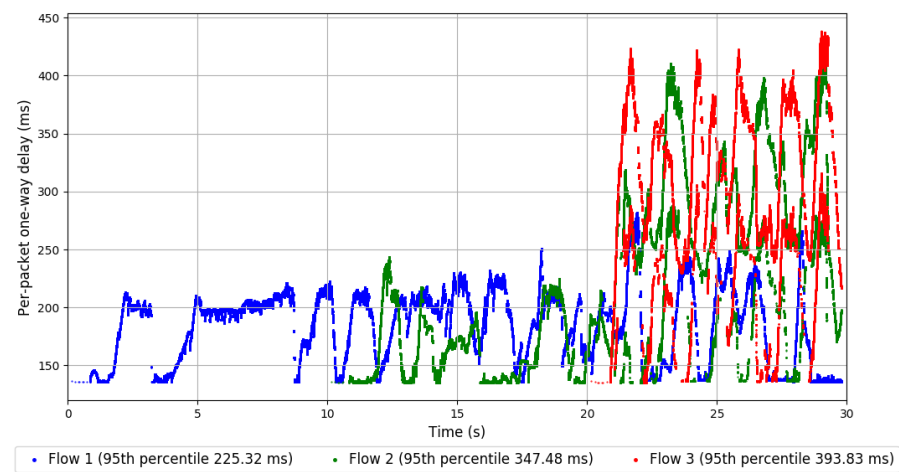
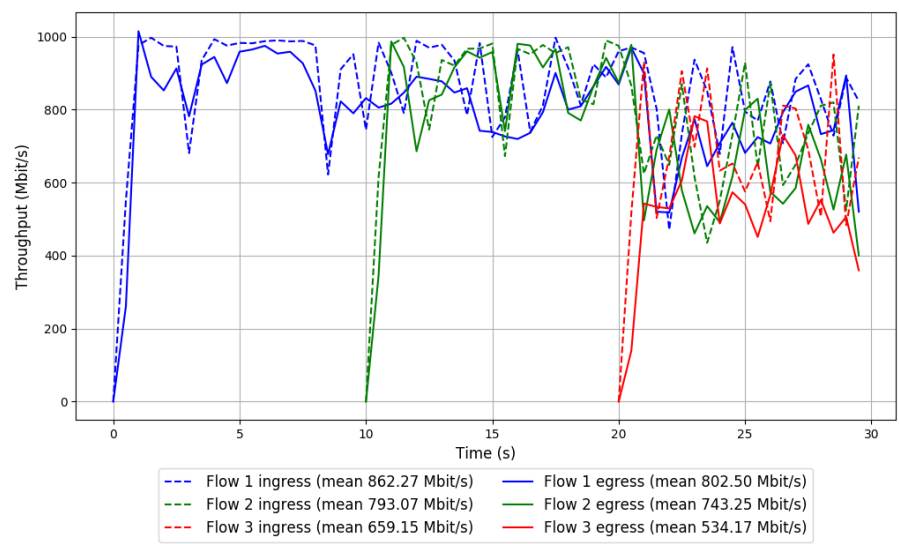


```
Run 1: Statistics of FillP

Start at: 2018-02-17 20:45:46
End at: 2018-02-17 20:46:16

# Below is generated by plot.py at 2018-02-18 04:38:52
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1468.59 Mbit/s
95th percentile per-packet one-way delay: 347.450 ms
Loss rate: 9.53%
-- Flow 1:
Average throughput: 802.50 Mbit/s
95th percentile per-packet one-way delay: 225.324 ms
Loss rate: 7.78%
-- Flow 2:
Average throughput: 743.25 Mbit/s
95th percentile per-packet one-way delay: 347.475 ms
Loss rate: 7.57%
-- Flow 3:
Average throughput: 534.17 Mbit/s
95th percentile per-packet one-way delay: 393.827 ms
Loss rate: 21.21%
```


Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

Start at: 2018-02-17 21:06:31

End at: 2018-02-17 21:07:01

Below is generated by plot.py at 2018-02-18 04:40:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 1510.60 Mbit/s

95th percentile per-packet one-way delay: 270.975 ms

Loss rate: 9.63%

-- Flow 1:

Average throughput: 836.80 Mbit/s

95th percentile per-packet one-way delay: 263.876 ms

Loss rate: 5.56%

-- Flow 2:

Average throughput: 707.56 Mbit/s

95th percentile per-packet one-way delay: 278.952 ms

Loss rate: 13.66%

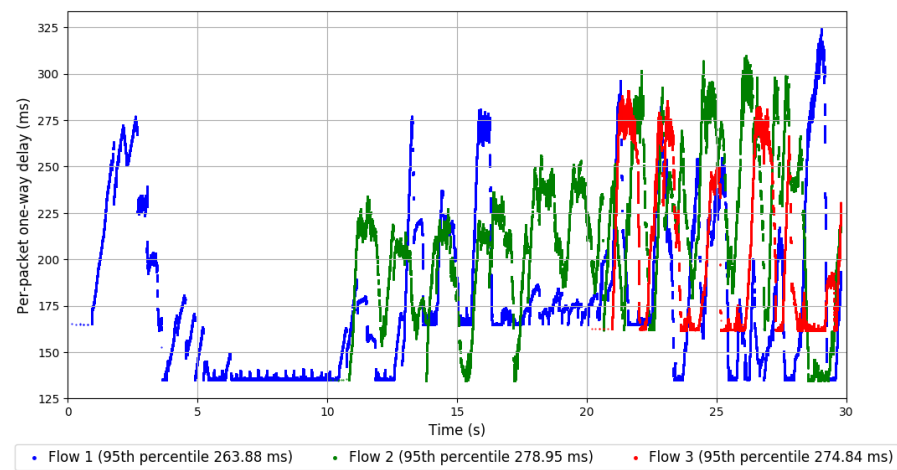
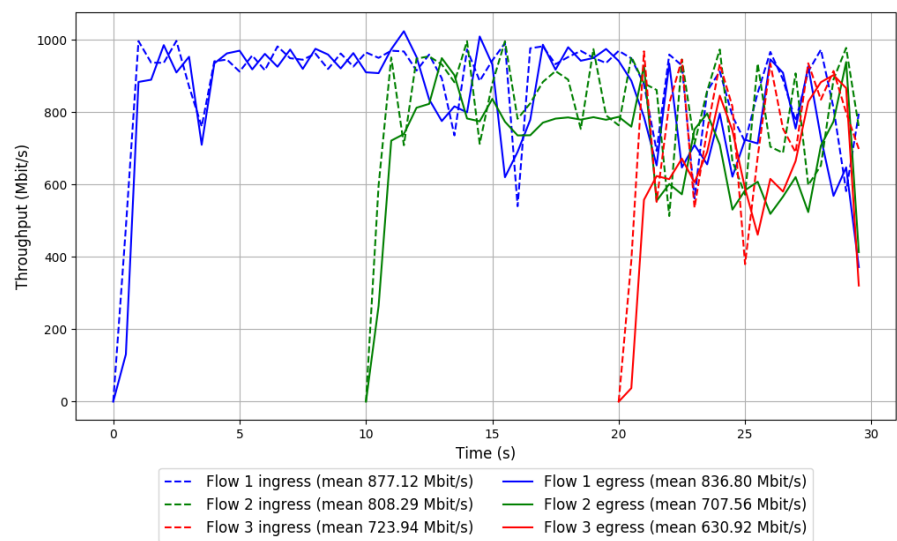
-- Flow 3:

Average throughput: 630.92 Mbit/s

95th percentile per-packet one-way delay: 274.840 ms

Loss rate: 15.49%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-02-17 21:27:03

End at: 2018-02-17 21:27:33

Below is generated by plot.py at 2018-02-18 04:40:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 1515.84 Mbit/s

95th percentile per-packet one-way delay: 268.795 ms

Loss rate: 8.75%

-- Flow 1:

Average throughput: 774.21 Mbit/s

95th percentile per-packet one-way delay: 227.620 ms

Loss rate: 9.12%

-- Flow 2:

Average throughput: 785.90 Mbit/s

95th percentile per-packet one-way delay: 263.502 ms

Loss rate: 6.79%

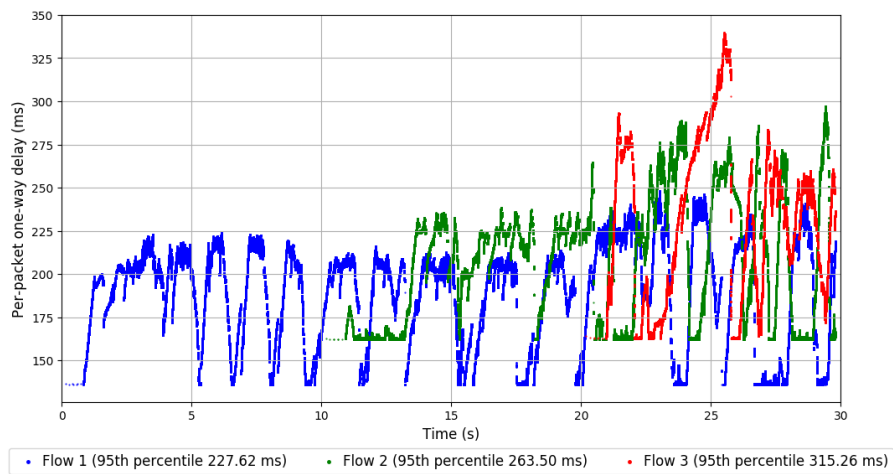
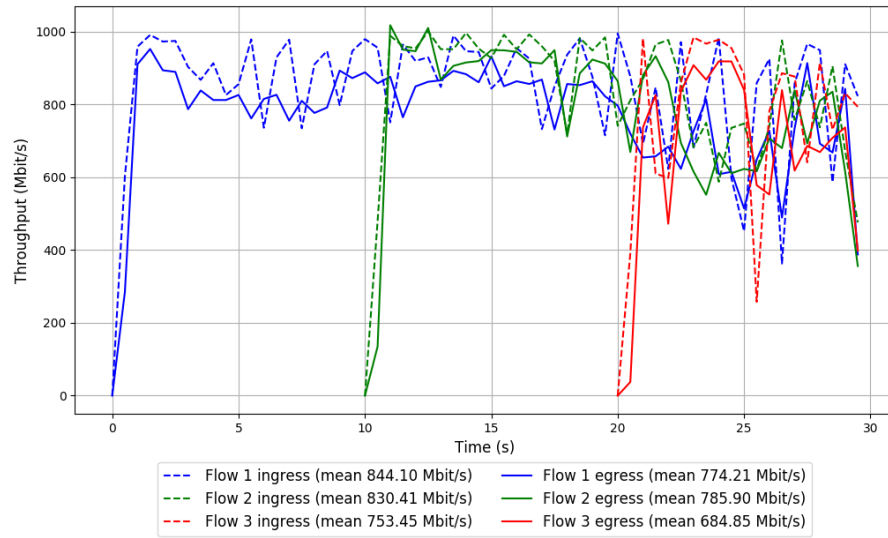
-- Flow 3:

Average throughput: 684.85 Mbit/s

95th percentile per-packet one-way delay: 315.259 ms

Loss rate: 11.88%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-02-17 21:47:02

End at: 2018-02-17 21:47:32

Below is generated by plot.py at 2018-02-18 04:40:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 1405.93 Mbit/s

95th percentile per-packet one-way delay: 355.106 ms

Loss rate: 10.03%

-- Flow 1:

Average throughput: 765.82 Mbit/s

95th percentile per-packet one-way delay: 265.495 ms

Loss rate: 8.03%

-- Flow 2:

Average throughput: 688.90 Mbit/s

95th percentile per-packet one-way delay: 387.208 ms

Loss rate: 10.22%

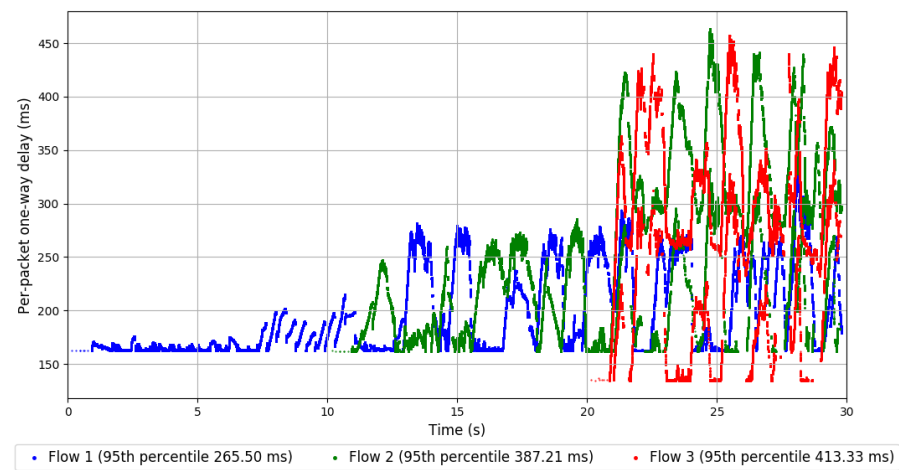
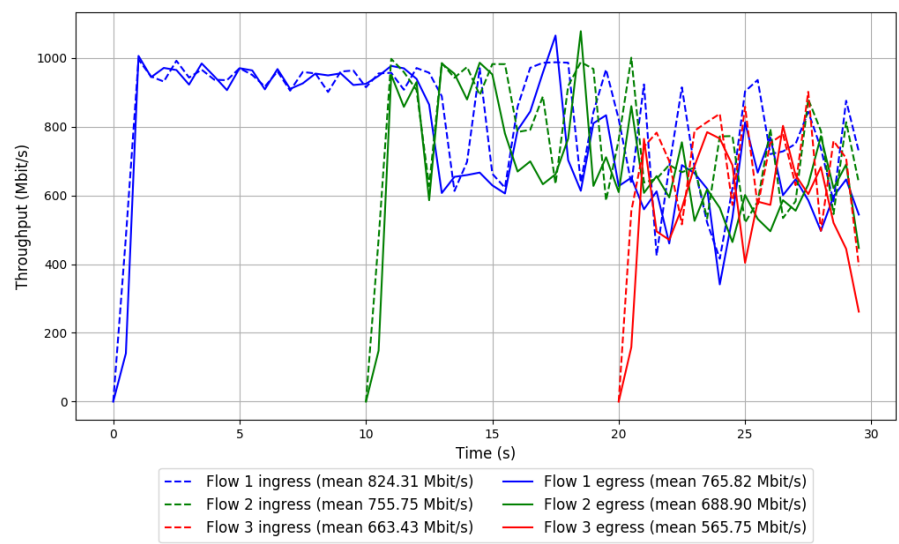
-- Flow 3:

Average throughput: 565.75 Mbit/s

95th percentile per-packet one-way delay: 413.335 ms

Loss rate: 17.07%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-02-17 22:07:37

End at: 2018-02-17 22:08:07

Below is generated by plot.py at 2018-02-18 04:43:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 1542.22 Mbit/s

95th percentile per-packet one-way delay: 250.325 ms

Loss rate: 8.88%

-- Flow 1:

Average throughput: 856.56 Mbit/s

95th percentile per-packet one-way delay: 256.633 ms

Loss rate: 4.79%

-- Flow 2:

Average throughput: 695.84 Mbit/s

95th percentile per-packet one-way delay: 246.829 ms

Loss rate: 12.89%

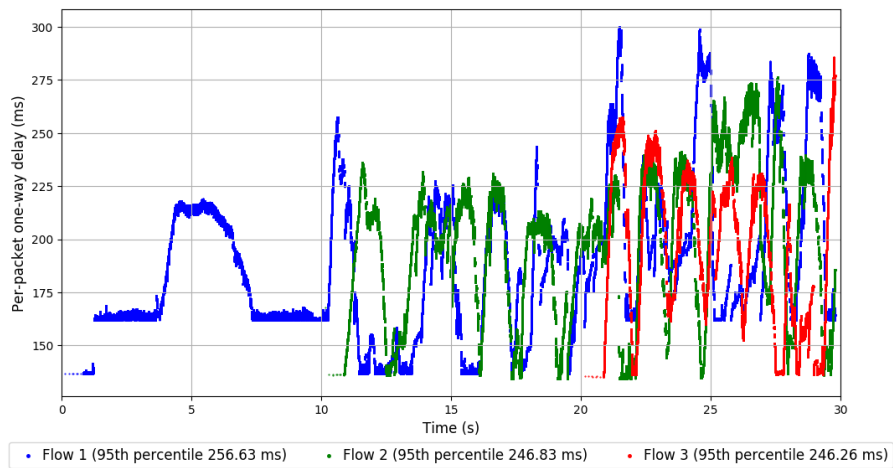
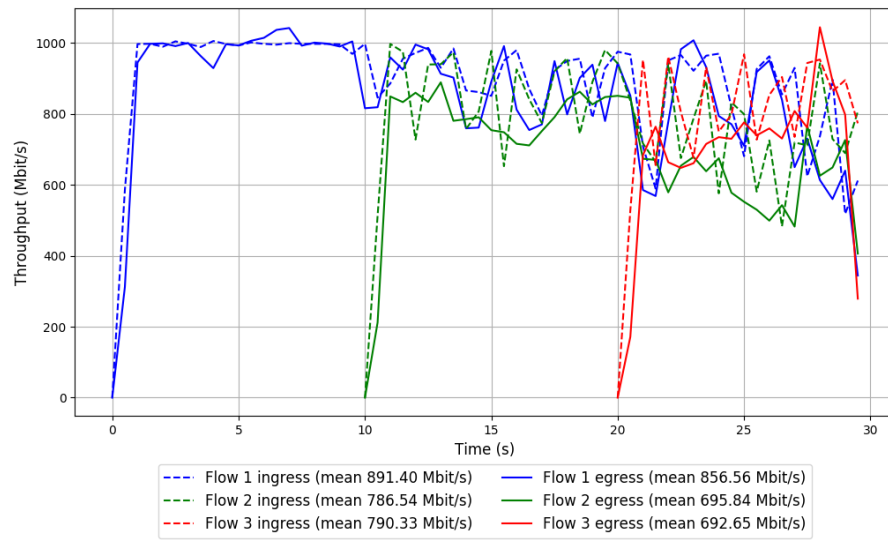
-- Flow 3:

Average throughput: 692.65 Mbit/s

95th percentile per-packet one-way delay: 246.259 ms

Loss rate: 14.78%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-02-17 22:28:02

End at: 2018-02-17 22:28:32

Below is generated by plot.py at 2018-02-18 04:44:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1562.22 Mbit/s

95th percentile per-packet one-way delay: 267.220 ms

Loss rate: 7.85%

-- Flow 1:

Average throughput: 855.02 Mbit/s

95th percentile per-packet one-way delay: 268.001 ms

Loss rate: 4.12%

-- Flow 2:

Average throughput: 747.17 Mbit/s

95th percentile per-packet one-way delay: 234.594 ms

Loss rate: 10.89%

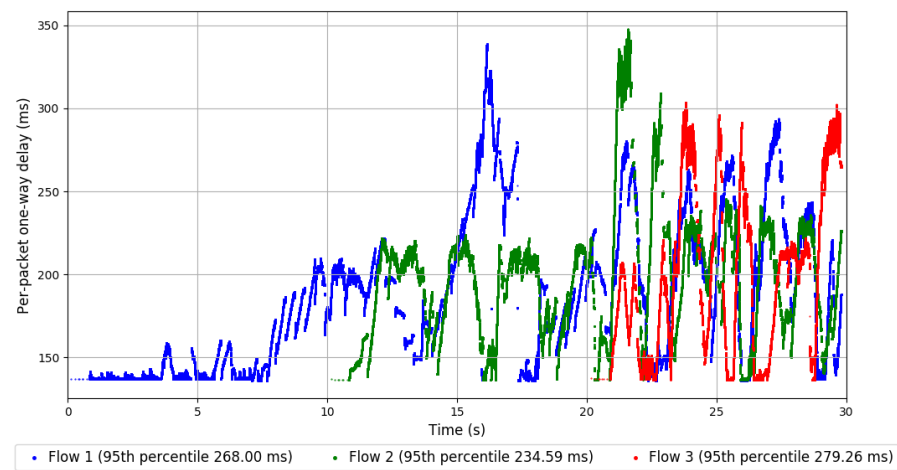
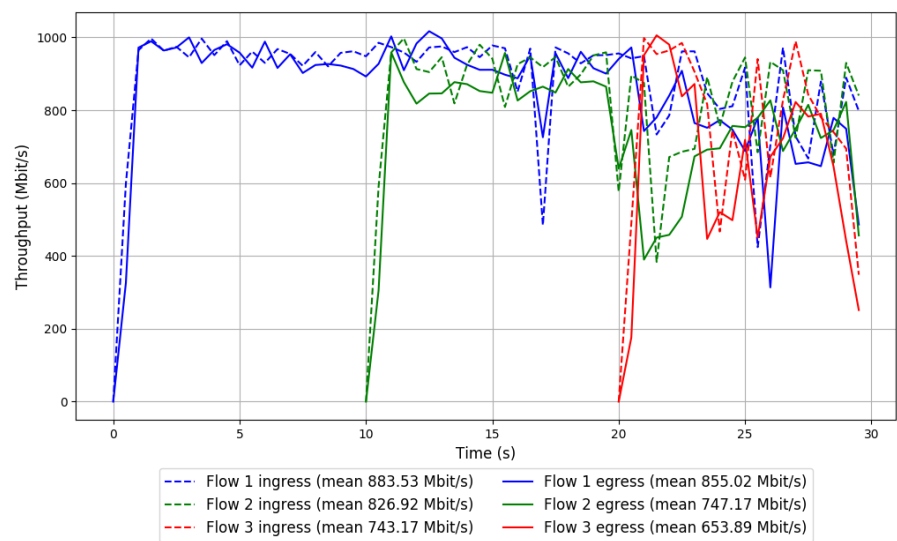
-- Flow 3:

Average throughput: 653.89 Mbit/s

95th percentile per-packet one-way delay: 279.259 ms

Loss rate: 14.46%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-02-17 22:48:37

End at: 2018-02-17 22:49:07

Below is generated by plot.py at 2018-02-18 04:44:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1492.07 Mbit/s

95th percentile per-packet one-way delay: 265.490 ms

Loss rate: 9.68%

-- Flow 1:

Average throughput: 777.04 Mbit/s

95th percentile per-packet one-way delay: 239.604 ms

Loss rate: 8.76%

-- Flow 2:

Average throughput: 776.40 Mbit/s

95th percentile per-packet one-way delay: 266.853 ms

Loss rate: 7.88%

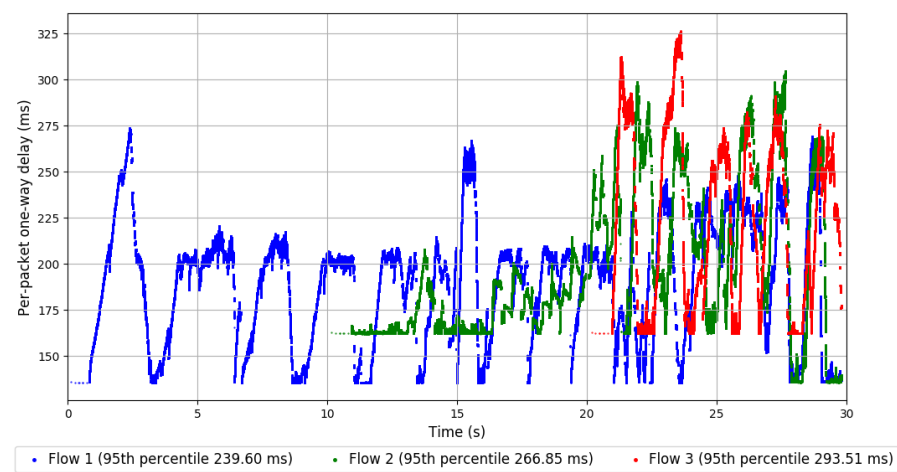
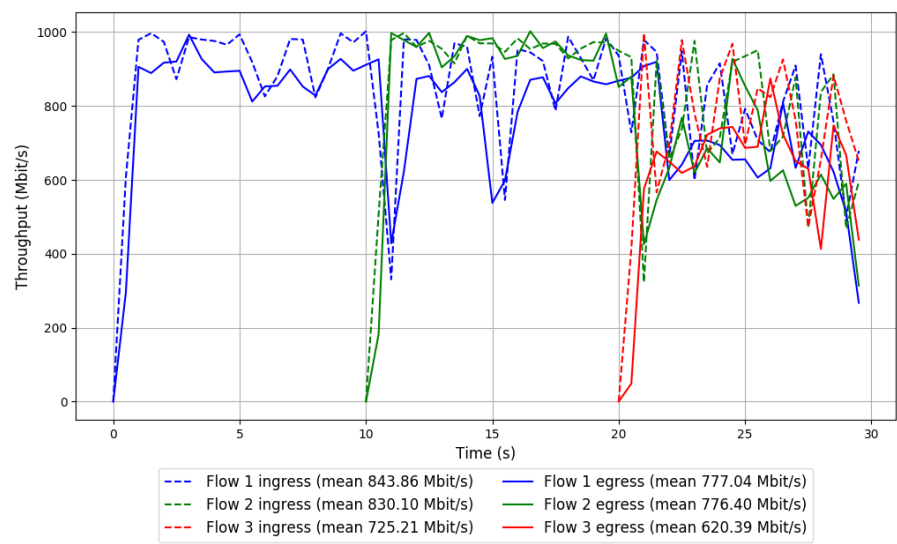
-- Flow 3:

Average throughput: 620.39 Mbit/s

95th percentile per-packet one-way delay: 293.514 ms

Loss rate: 17.04%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-02-17 23:08:53

End at: 2018-02-17 23:09:23

Below is generated by plot.py at 2018-02-18 04:44:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 1494.64 Mbit/s

95th percentile per-packet one-way delay: 357.599 ms

Loss rate: 8.67%

-- Flow 1:

Average throughput: 863.74 Mbit/s

95th percentile per-packet one-way delay: 223.448 ms

Loss rate: 5.09%

-- Flow 2:

Average throughput: 638.40 Mbit/s

95th percentile per-packet one-way delay: 411.346 ms

Loss rate: 14.62%

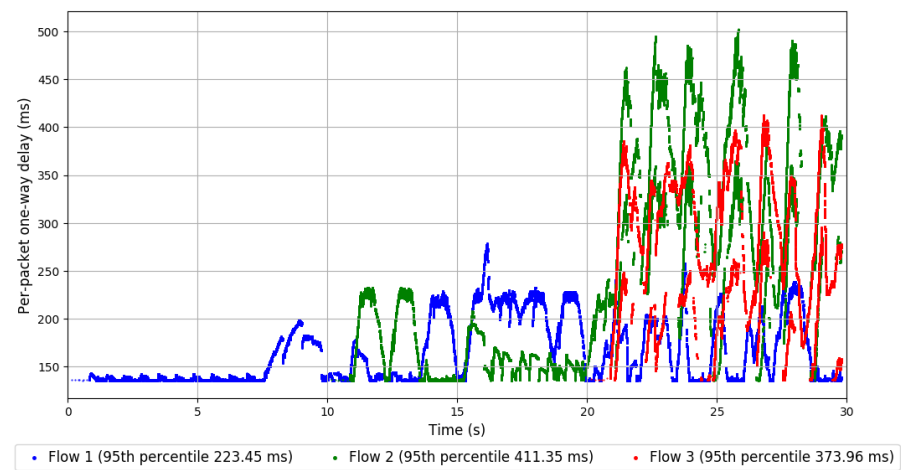
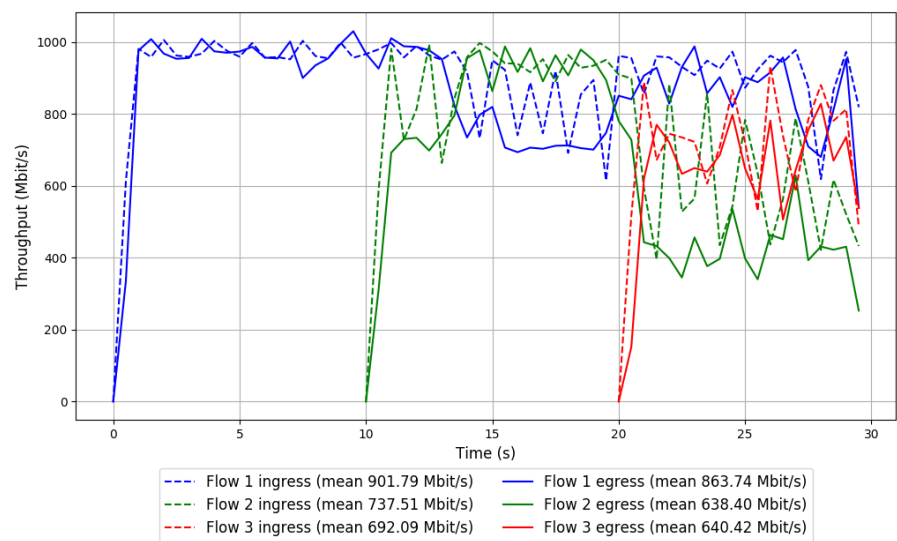
-- Flow 3:

Average throughput: 640.42 Mbit/s

95th percentile per-packet one-way delay: 373.961 ms

Loss rate: 10.02%

Run 8: Report of FillP — Data Link



Run 9: Statistics of FillP

Start at: 2018-02-17 23:29:19

End at: 2018-02-17 23:29:49

Below is generated by plot.py at 2018-02-18 05:09:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1569.65 Mbit/s

95th percentile per-packet one-way delay: 251.242 ms

Loss rate: 8.43%

-- Flow 1:

Average throughput: 824.38 Mbit/s

95th percentile per-packet one-way delay: 245.939 ms

Loss rate: 6.53%

-- Flow 2:

Average throughput: 832.87 Mbit/s

95th percentile per-packet one-way delay: 229.468 ms

Loss rate: 6.45%

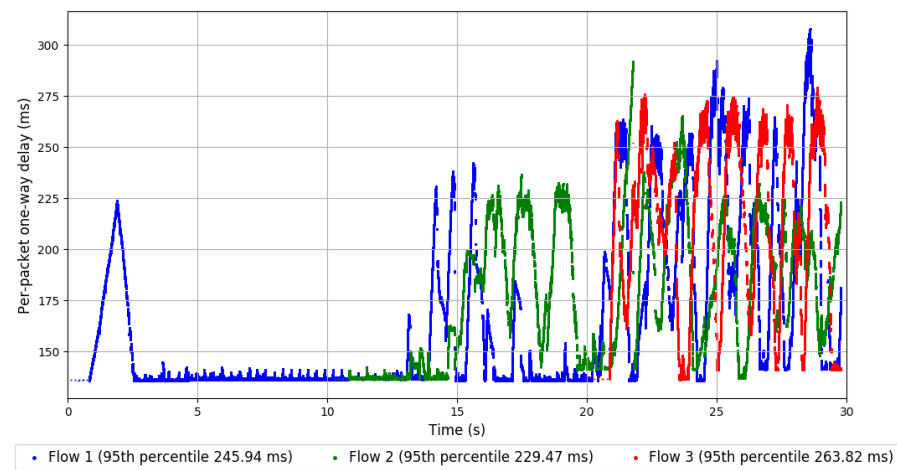
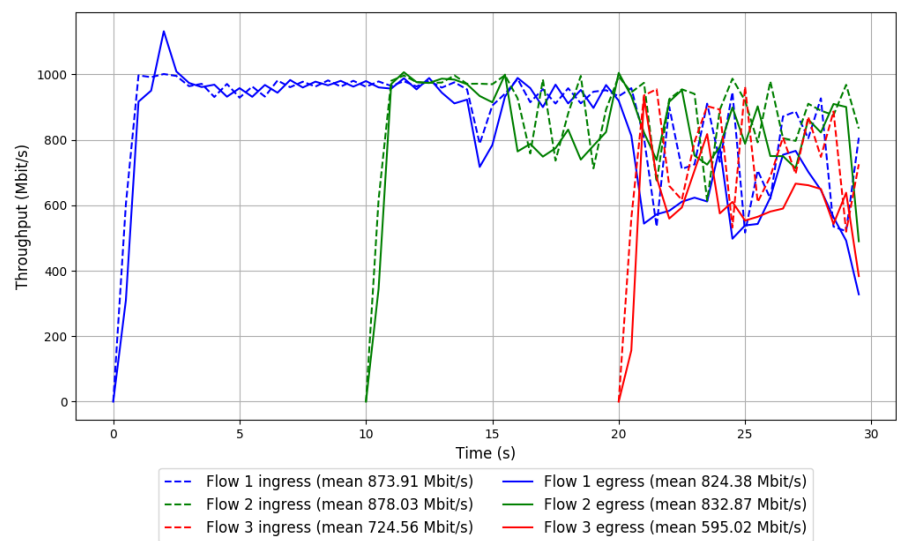
-- Flow 3:

Average throughput: 595.02 Mbit/s

95th percentile per-packet one-way delay: 263.817 ms

Loss rate: 20.16%

Run 9: Report of FillP — Data Link



Run 10: Statistics of FillP

Start at: 2018-02-17 23:50:08

End at: 2018-02-17 23:50:38

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 1596.70 Mbit/s

95th percentile per-packet one-way delay: 231.502 ms

Loss rate: 7.90%

-- Flow 1:

Average throughput: 830.90 Mbit/s

95th percentile per-packet one-way delay: 226.835 ms

Loss rate: 6.72%

-- Flow 2:

Average throughput: 818.25 Mbit/s

95th percentile per-packet one-way delay: 229.641 ms

Loss rate: 7.20%

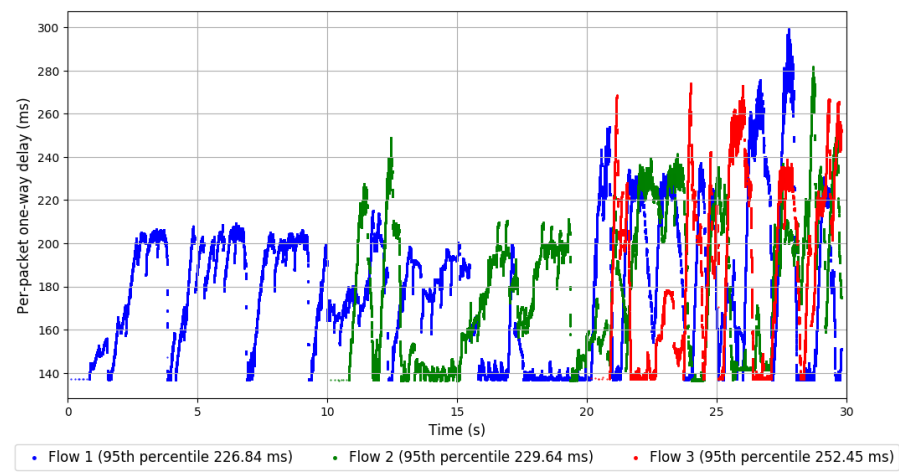
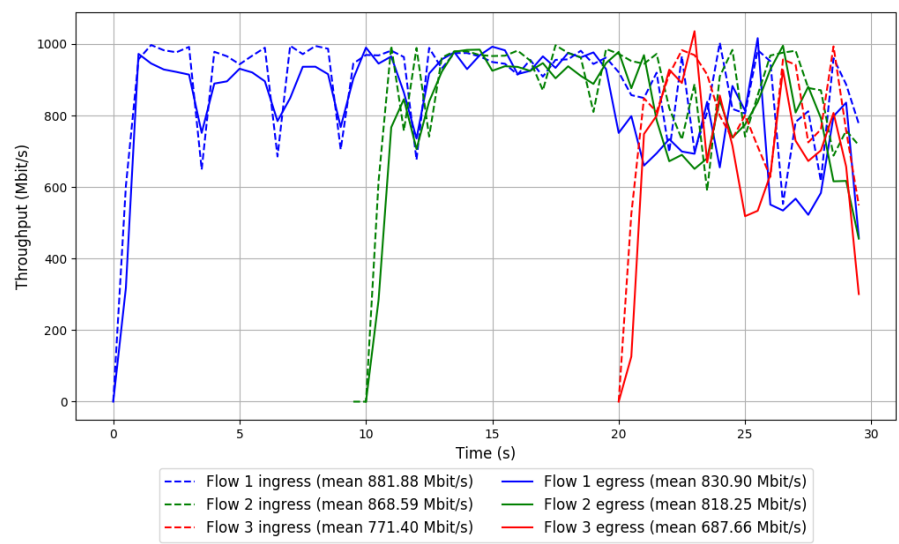
-- Flow 3:

Average throughput: 687.66 Mbit/s

95th percentile per-packet one-way delay: 252.453 ms

Loss rate: 13.53%

Run 10: Report of FillP — Data Link

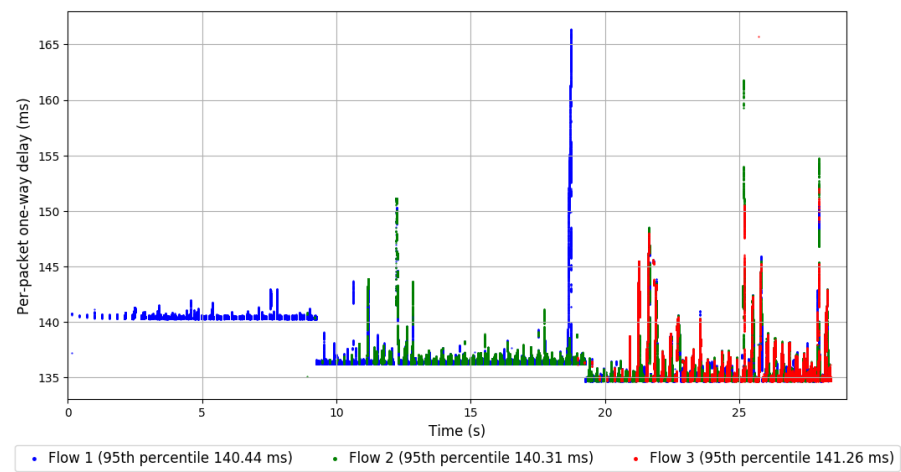
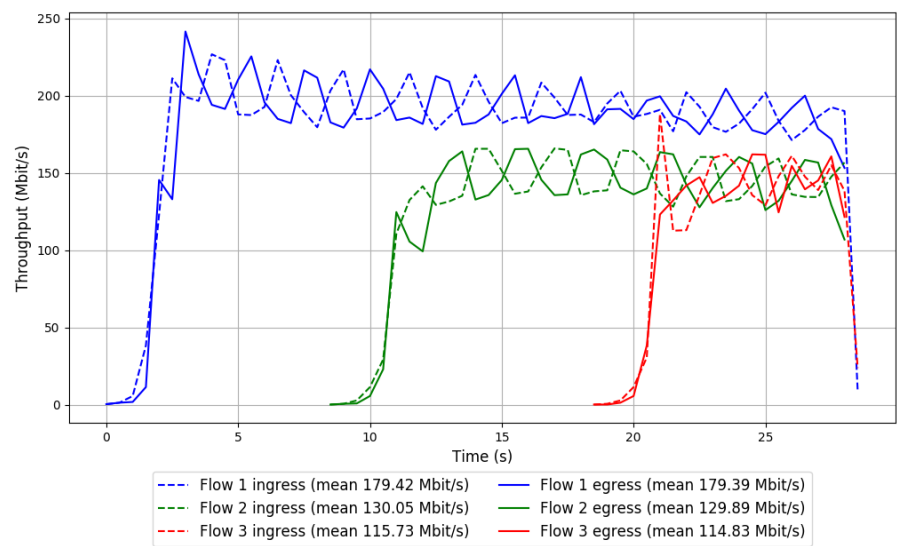


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-02-17 20:39:18
End at: 2018-02-17 20:39:48

# Below is generated by plot.py at 2018-02-18 05:09:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 306.78 Mbit/s
95th percentile per-packet one-way delay: 140.452 ms
Loss rate: 1.47%
-- Flow 1:
Average throughput: 179.39 Mbit/s
95th percentile per-packet one-way delay: 140.445 ms
Loss rate: 0.98%
-- Flow 2:
Average throughput: 129.89 Mbit/s
95th percentile per-packet one-way delay: 140.314 ms
Loss rate: 1.54%
-- Flow 3:
Average throughput: 114.83 Mbit/s
95th percentile per-packet one-way delay: 141.264 ms
Loss rate: 3.55%
```

Run 1: Report of Indigo-1-32 — Data Link



Run 2: Statistics of Indigo-1-32

Start at: 2018-02-17 20:59:53

End at: 2018-02-17 21:00:23

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.81 Mbit/s

95th percentile per-packet one-way delay: 162.524 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 135.62 Mbit/s

95th percentile per-packet one-way delay: 162.441 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 166.87 Mbit/s

95th percentile per-packet one-way delay: 162.478 ms

Loss rate: 1.21%

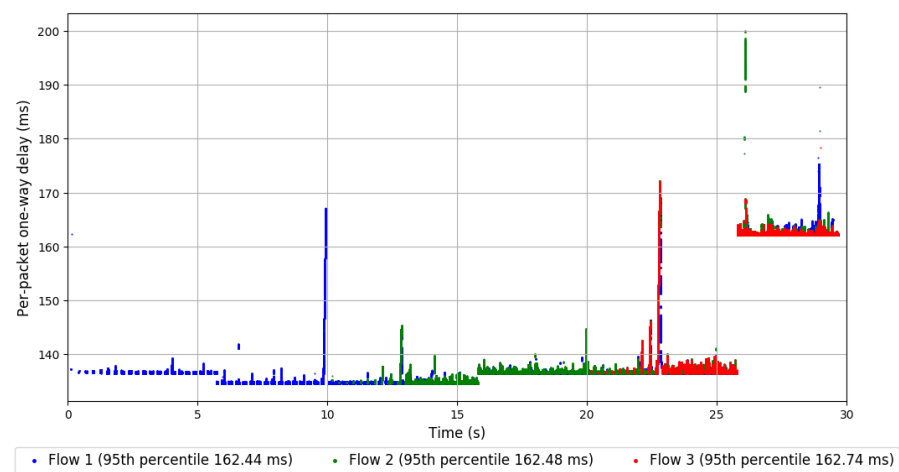
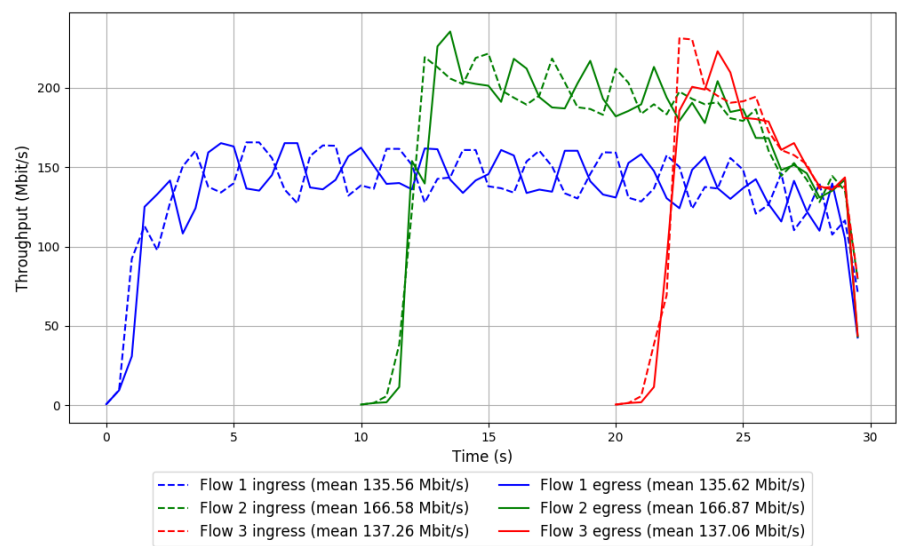
-- Flow 3:

Average throughput: 137.06 Mbit/s

95th percentile per-packet one-way delay: 162.743 ms

Loss rate: 2.98%

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-02-17 21:20:31

End at: 2018-02-17 21:21:01

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.16 Mbit/s

95th percentile per-packet one-way delay: 163.180 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 156.99 Mbit/s

95th percentile per-packet one-way delay: 163.039 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 162.55 Mbit/s

95th percentile per-packet one-way delay: 163.544 ms

Loss rate: 1.28%

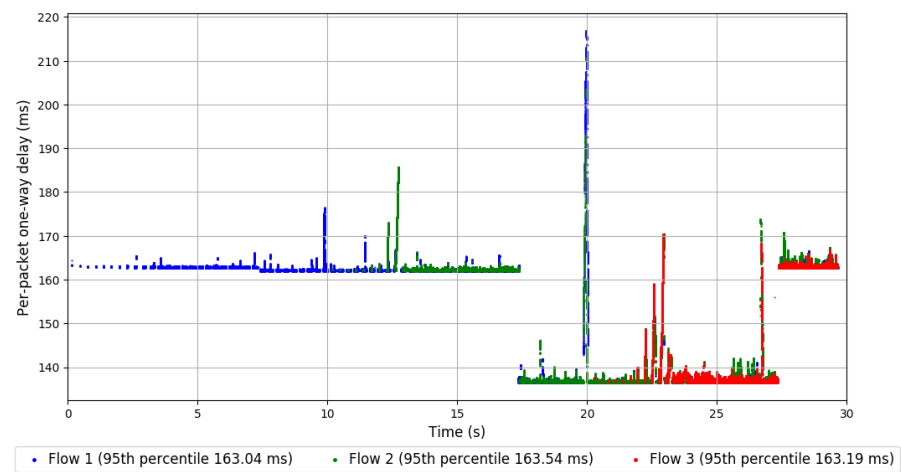
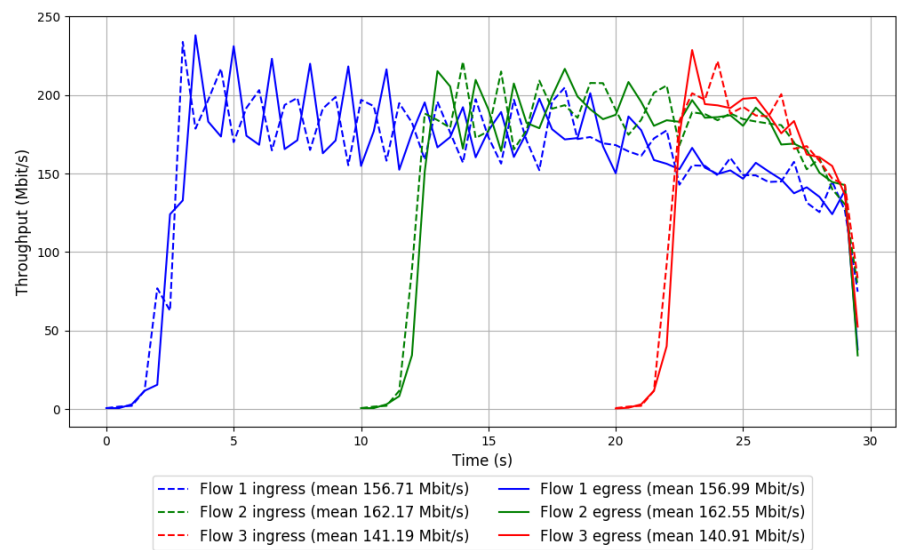
-- Flow 3:

Average throughput: 140.91 Mbit/s

95th percentile per-packet one-way delay: 163.187 ms

Loss rate: 3.04%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-02-17 21:40:36

End at: 2018-02-17 21:41:06

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 254.46 Mbit/s

95th percentile per-packet one-way delay: 162.583 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 126.46 Mbit/s

95th percentile per-packet one-way delay: 162.440 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 127.49 Mbit/s

95th percentile per-packet one-way delay: 162.476 ms

Loss rate: 1.38%

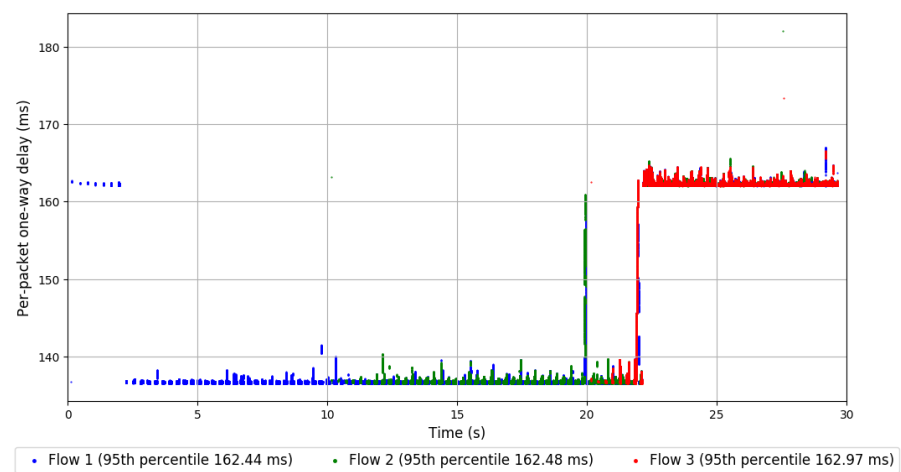
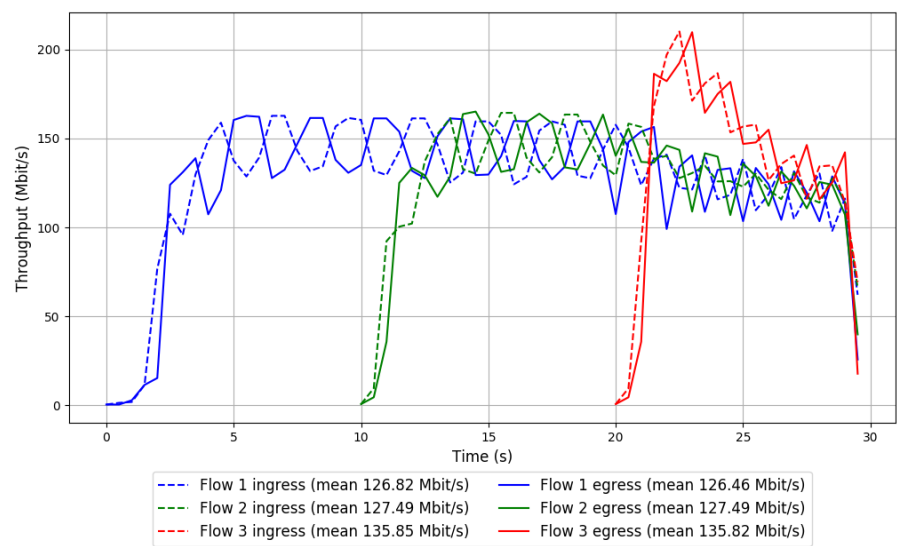
-- Flow 3:

Average throughput: 135.82 Mbit/s

95th percentile per-packet one-way delay: 162.969 ms

Loss rate: 2.81%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-02-17 22:01:03

End at: 2018-02-17 22:01:33

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 293.55 Mbit/s

95th percentile per-packet one-way delay: 141.277 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 172.68 Mbit/s

95th percentile per-packet one-way delay: 140.953 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 132.57 Mbit/s

95th percentile per-packet one-way delay: 141.416 ms

Loss rate: 1.40%

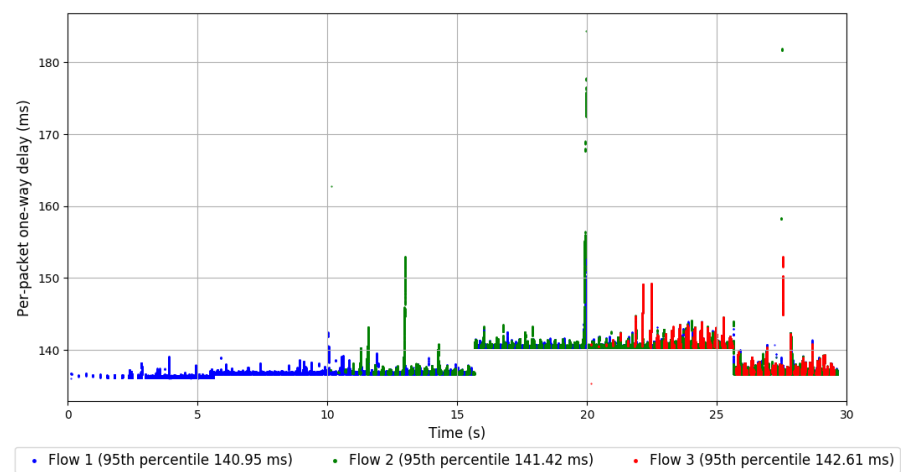
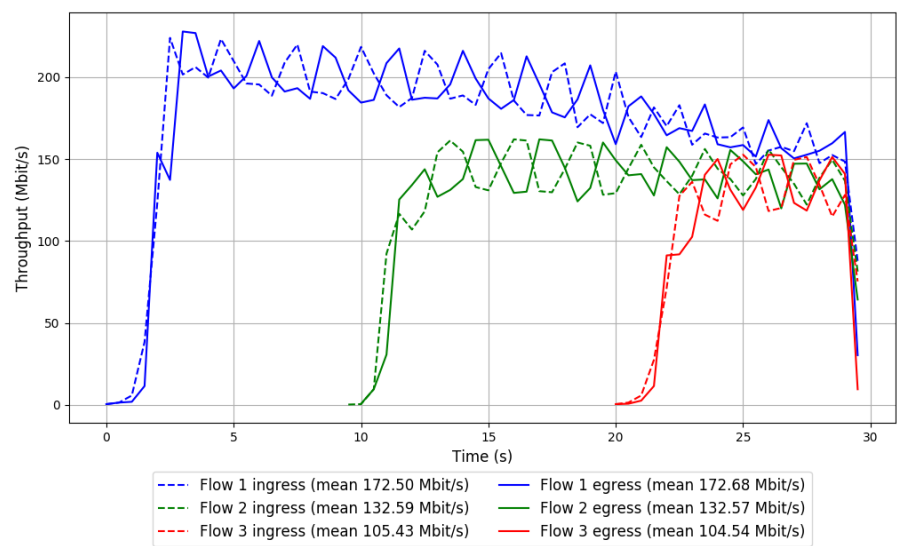
-- Flow 3:

Average throughput: 104.54 Mbit/s

95th percentile per-packet one-way delay: 142.607 ms

Loss rate: 3.70%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-02-17 22:21:37

End at: 2018-02-17 22:22:07

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 309.01 Mbit/s

95th percentile per-packet one-way delay: 137.671 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 178.85 Mbit/s

95th percentile per-packet one-way delay: 137.346 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 136.44 Mbit/s

95th percentile per-packet one-way delay: 137.748 ms

Loss rate: 1.46%

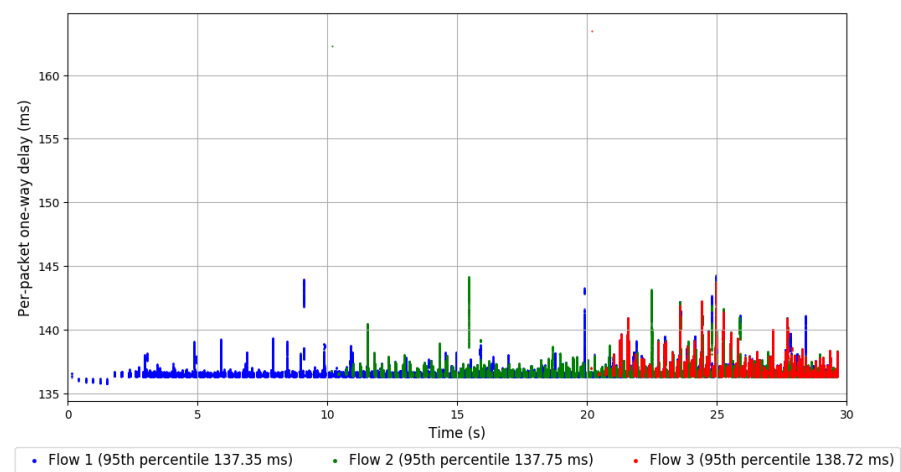
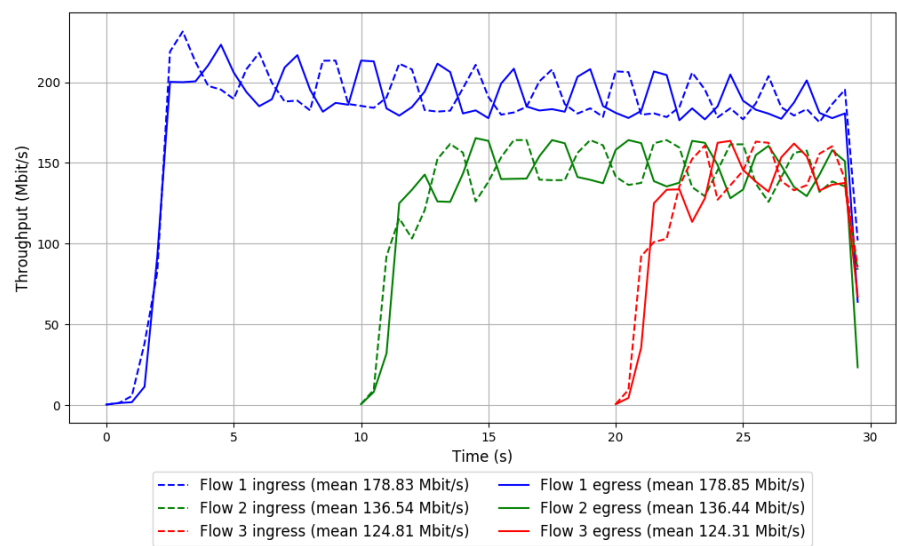
-- Flow 3:

Average throughput: 124.31 Mbit/s

95th percentile per-packet one-way delay: 138.721 ms

Loss rate: 3.19%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-02-17 22:42:15

End at: 2018-02-17 22:42:45

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 267.14 Mbit/s

95th percentile per-packet one-way delay: 138.098 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 133.15 Mbit/s

95th percentile per-packet one-way delay: 137.607 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 128.61 Mbit/s

95th percentile per-packet one-way delay: 138.096 ms

Loss rate: 1.55%

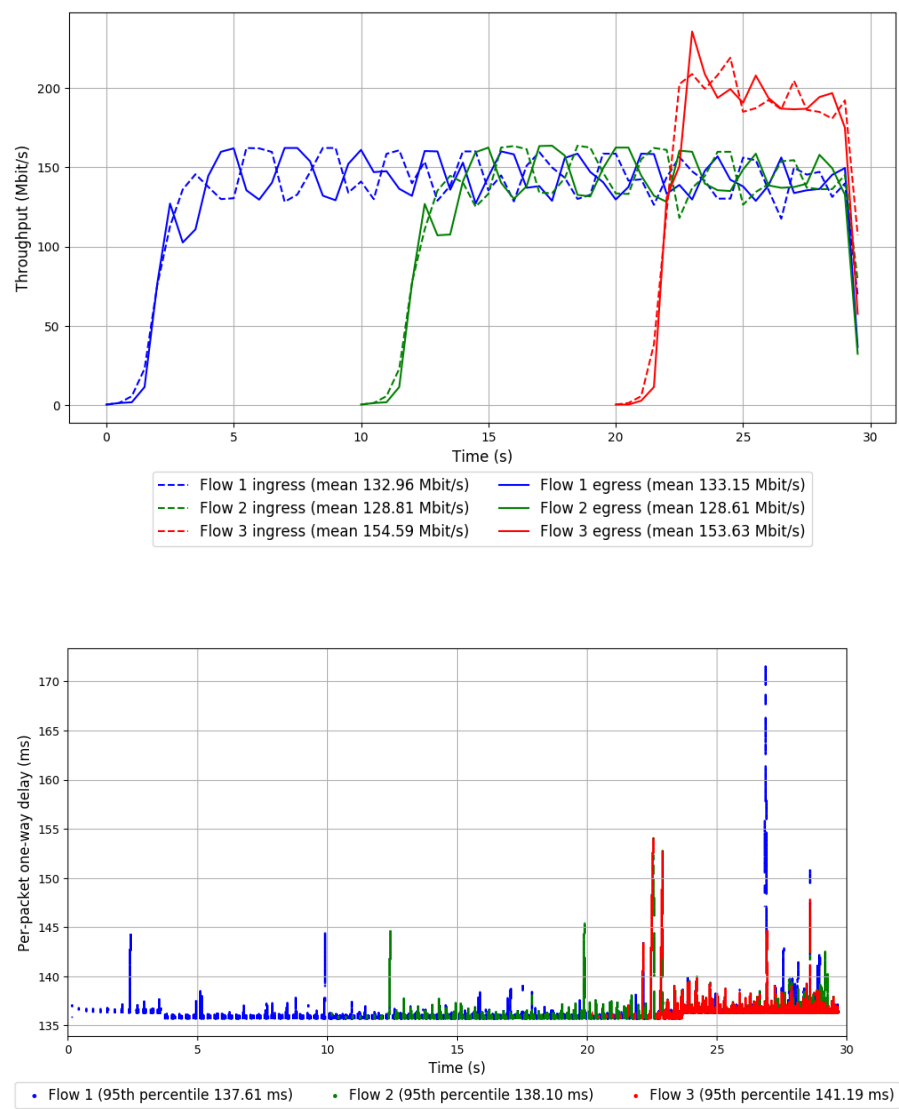
-- Flow 3:

Average throughput: 153.63 Mbit/s

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

Loss rate: 3.41%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-02-17 23:02:34

End at: 2018-02-17 23:03:04

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 239.22 Mbit/s

95th percentile per-packet one-way delay: 163.991 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 121.95 Mbit/s

95th percentile per-packet one-way delay: 163.295 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 108.73 Mbit/s

95th percentile per-packet one-way delay: 164.282 ms

Loss rate: 1.39%

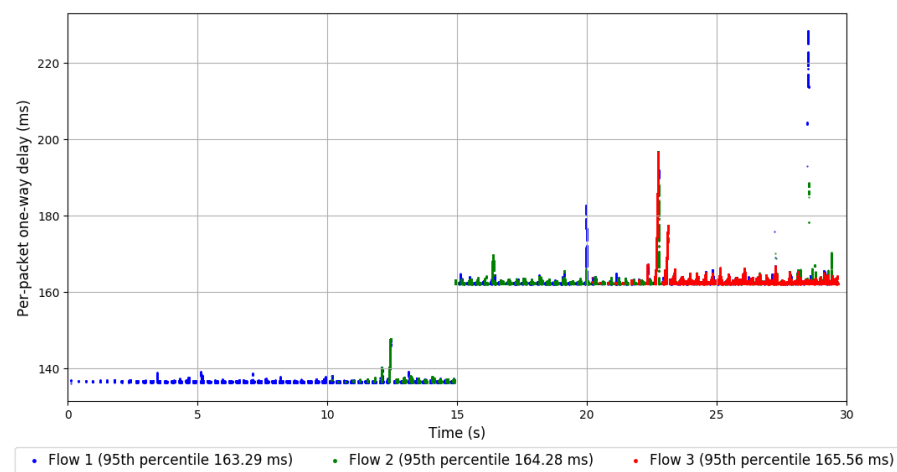
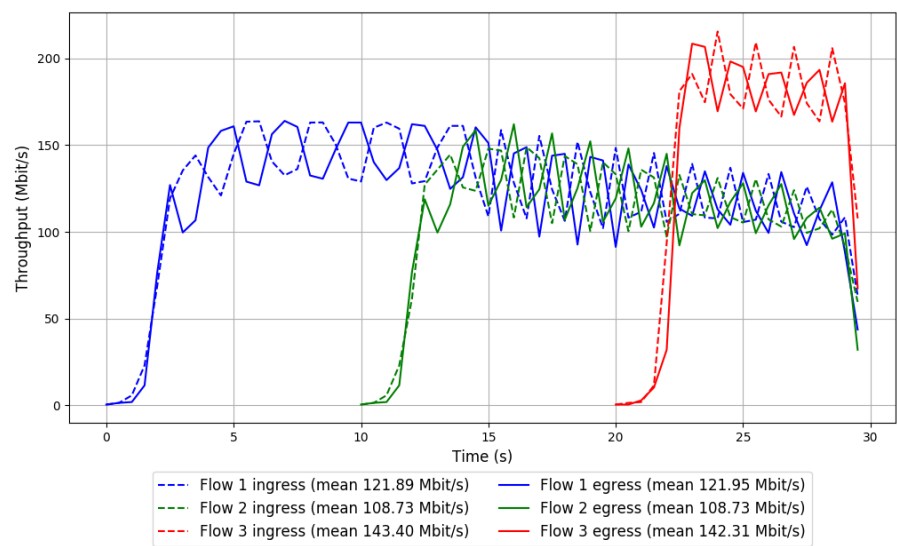
-- Flow 3:

Average throughput: 142.31 Mbit/s

95th percentile per-packet one-way delay: 165.561 ms

Loss rate: 3.79%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-02-17 23:22:46

End at: 2018-02-17 23:23:16

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 311.73 Mbit/s

95th percentile per-packet one-way delay: 141.139 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 171.38 Mbit/s

95th percentile per-packet one-way delay: 141.140 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 156.82 Mbit/s

95th percentile per-packet one-way delay: 141.111 ms

Loss rate: 1.30%

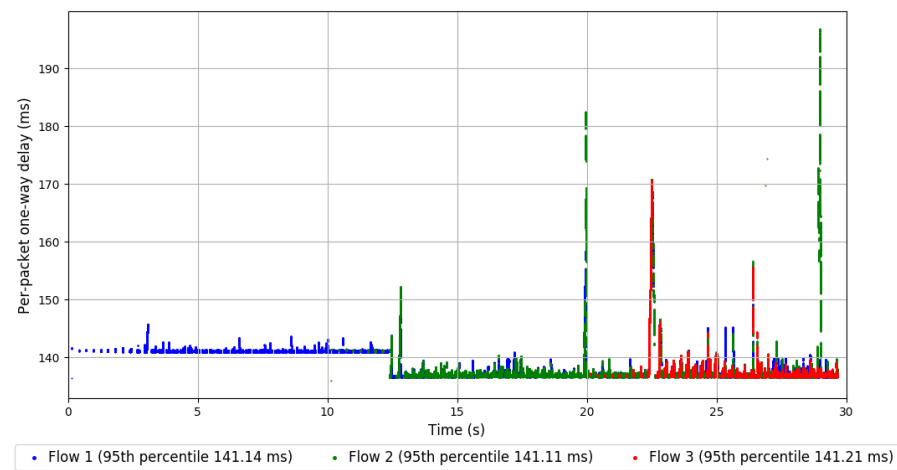
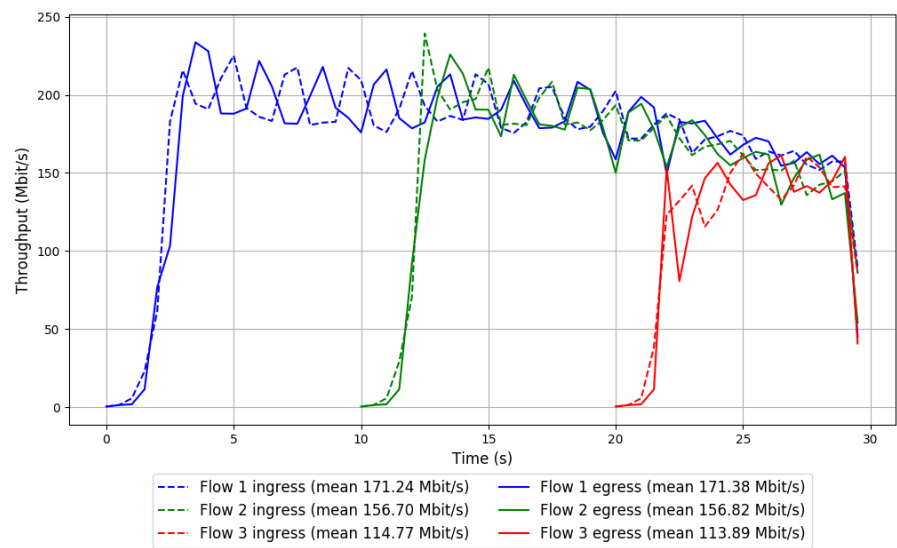
-- Flow 3:

Average throughput: 113.89 Mbit/s

95th percentile per-packet one-way delay: 141.205 ms

Loss rate: 3.55%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-02-17 23:43:42

End at: 2018-02-17 23:44:12

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 324.64 Mbit/s

95th percentile per-packet one-way delay: 142.039 ms

Loss rate: 1.40%

-- Flow 1:

Average throughput: 175.91 Mbit/s

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

Loss rate: 0.90%

-- Flow 2:

Average throughput: 171.69 Mbit/s

95th percentile per-packet one-way delay: 142.128 ms

Loss rate: 1.41%

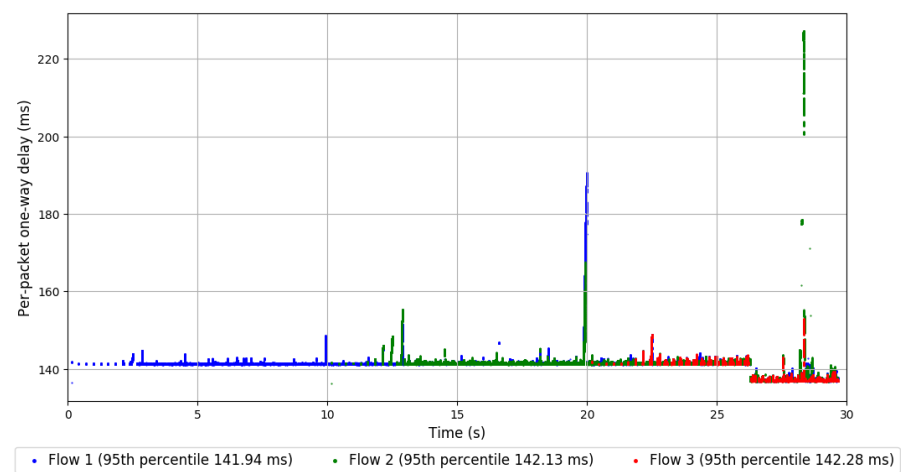
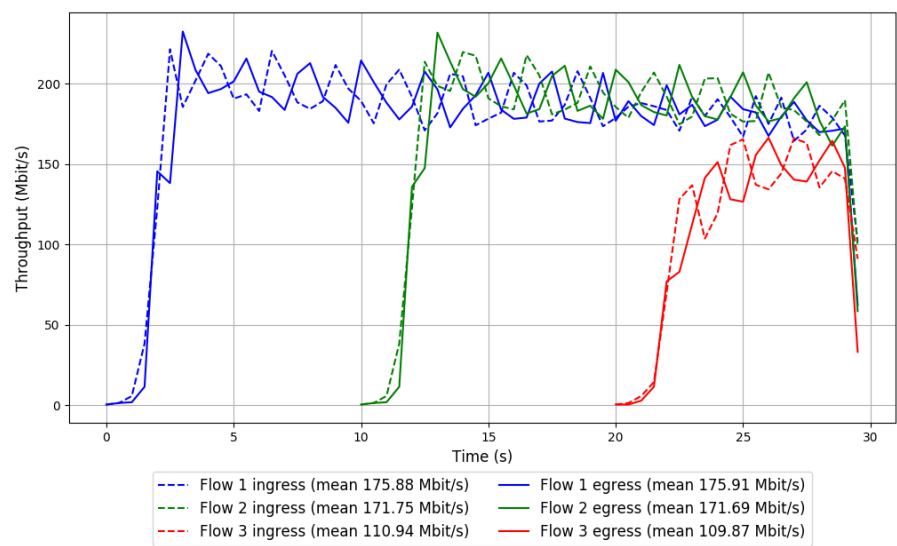
-- Flow 3:

Average throughput: 109.87 Mbit/s

95th percentile per-packet one-way delay: 142.282 ms

Loss rate: 3.78%

Run 10: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-02-17 20:41:41

End at: 2018-02-17 20:42:11

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 532.22 Mbit/s

95th percentile per-packet one-way delay: 151.709 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 305.30 Mbit/s

95th percentile per-packet one-way delay: 156.063 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 286.67 Mbit/s

95th percentile per-packet one-way delay: 150.563 ms

Loss rate: 1.96%

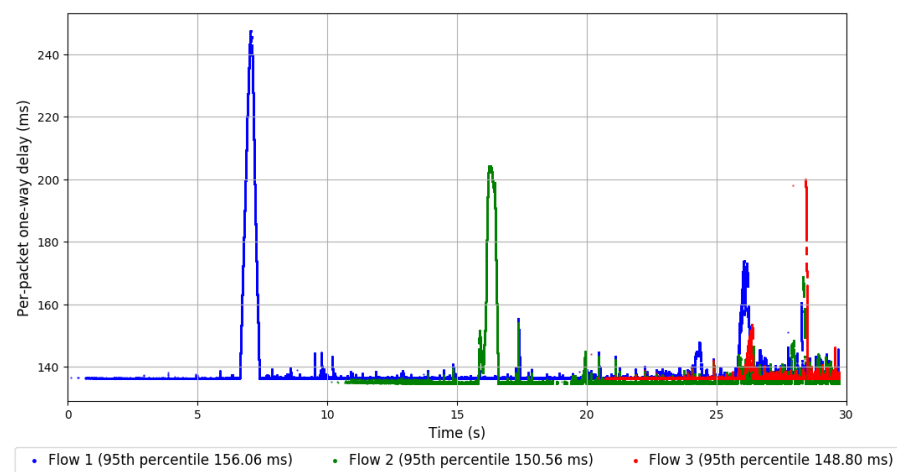
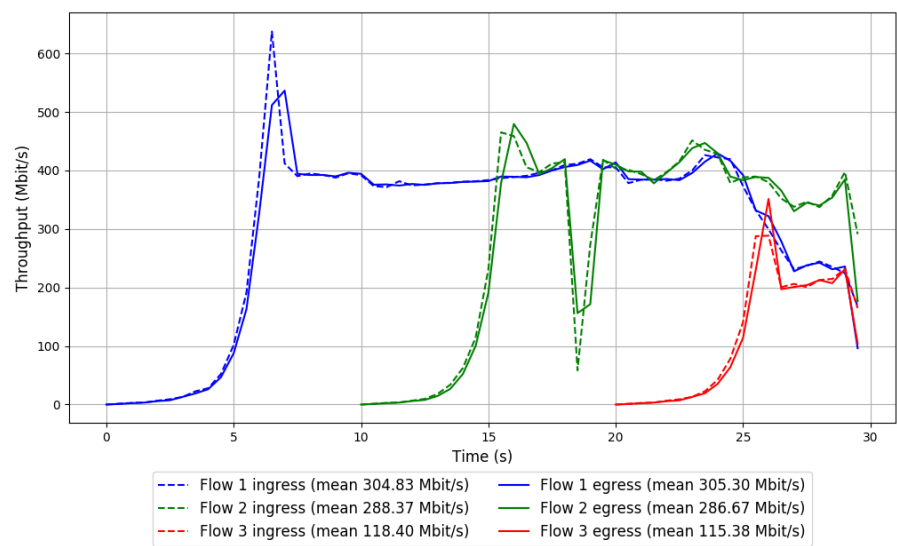
-- Flow 3:

Average throughput: 115.38 Mbit/s

95th percentile per-packet one-way delay: 148.803 ms

Loss rate: 5.32%

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-02-17 21:02:24

End at: 2018-02-17 21:02:54

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 482.49 Mbit/s

95th percentile per-packet one-way delay: 165.501 ms

Loss rate: 2.01%

-- Flow 1:

Average throughput: 327.29 Mbit/s

95th percentile per-packet one-way delay: 165.618 ms

Loss rate: 1.61%

-- Flow 2:

Average throughput: 180.51 Mbit/s

95th percentile per-packet one-way delay: 163.446 ms

Loss rate: 1.95%

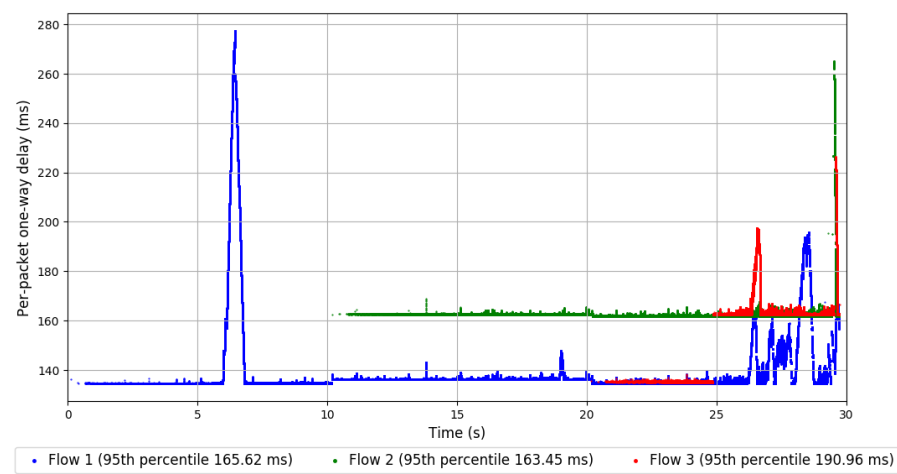
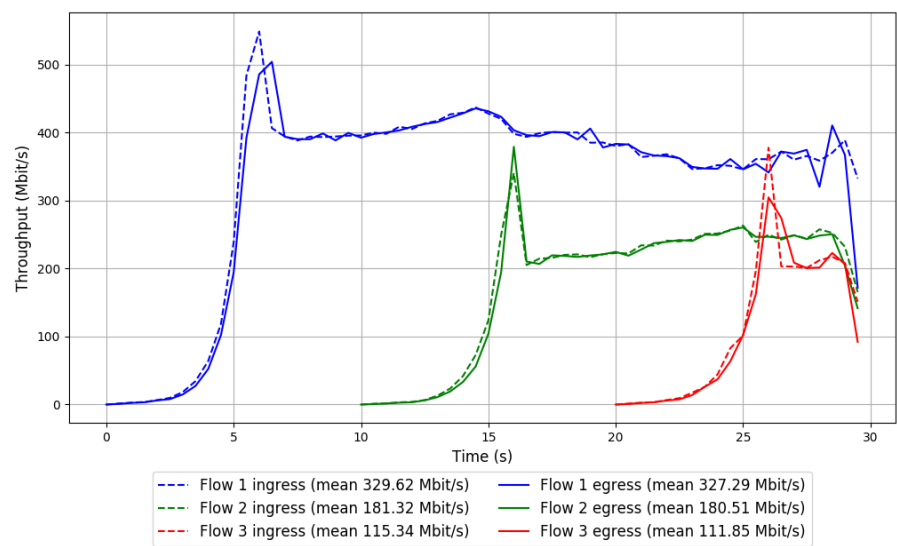
-- Flow 3:

Average throughput: 111.85 Mbit/s

95th percentile per-packet one-way delay: 190.963 ms

Loss rate: 5.68%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-02-17 21:22:56

End at: 2018-02-17 21:23:26

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 549.31 Mbit/s

95th percentile per-packet one-way delay: 268.711 ms

Loss rate: 3.73%

-- Flow 1:

Average throughput: 326.87 Mbit/s

95th percentile per-packet one-way delay: 278.860 ms

Loss rate: 3.51%

-- Flow 2:

Average throughput: 288.26 Mbit/s

95th percentile per-packet one-way delay: 259.590 ms

Loss rate: 3.71%

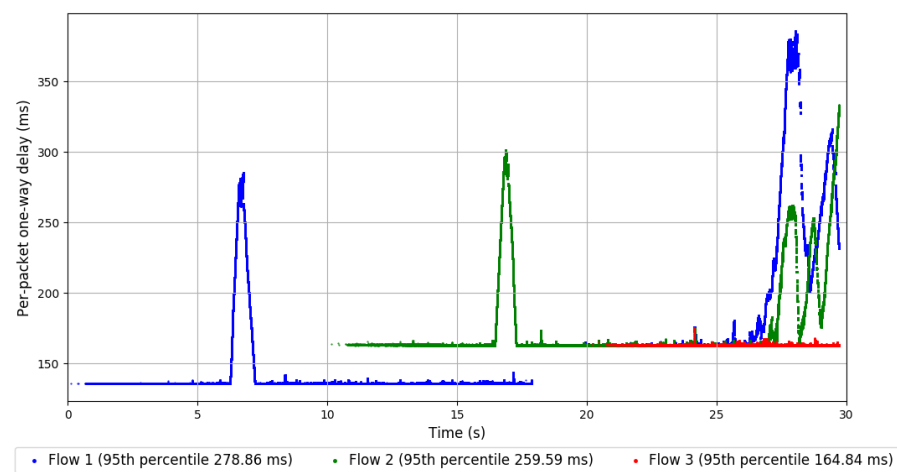
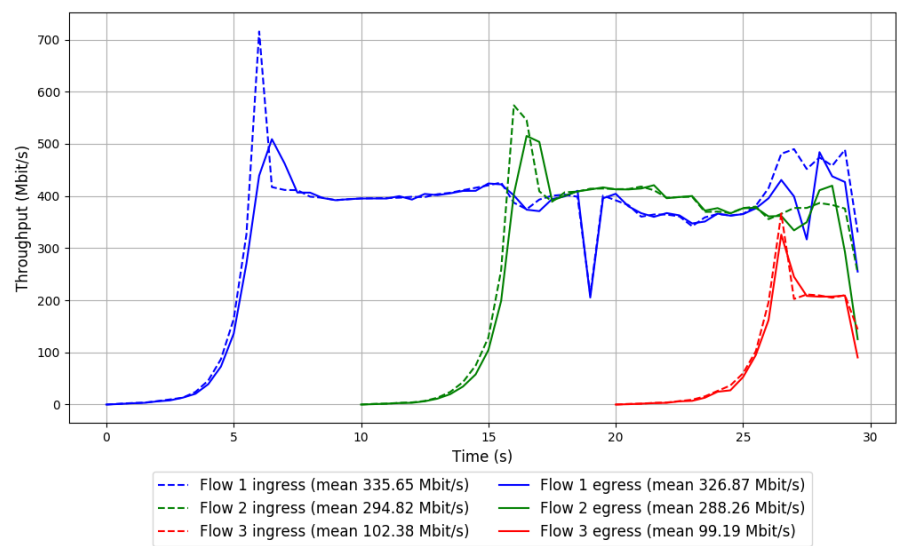
-- Flow 3:

Average throughput: 99.19 Mbit/s

95th percentile per-packet one-way delay: 164.842 ms

Loss rate: 6.08%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-02-17 21:42:56

End at: 2018-02-17 21:43:26

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 577.85 Mbit/s

95th percentile per-packet one-way delay: 236.528 ms

Loss rate: 2.88%

-- Flow 1:

Average throughput: 343.16 Mbit/s

95th percentile per-packet one-way delay: 237.391 ms

Loss rate: 2.14%

-- Flow 2:

Average throughput: 261.65 Mbit/s

95th percentile per-packet one-way delay: 252.034 ms

Loss rate: 3.19%

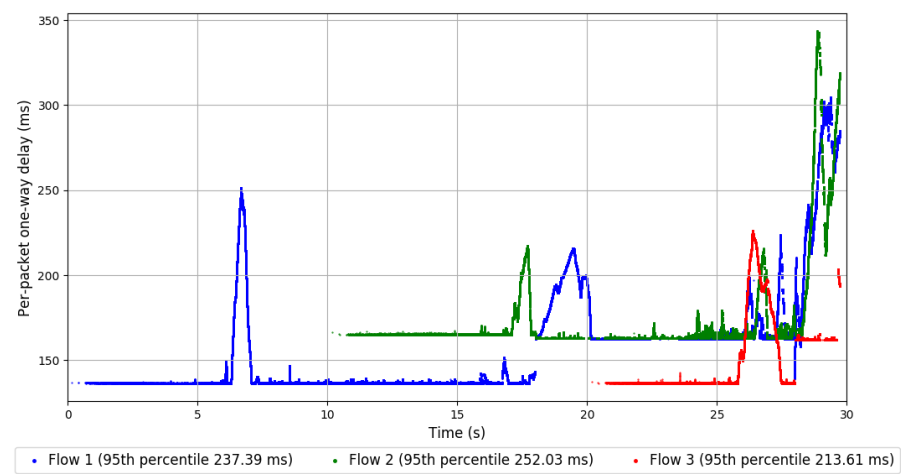
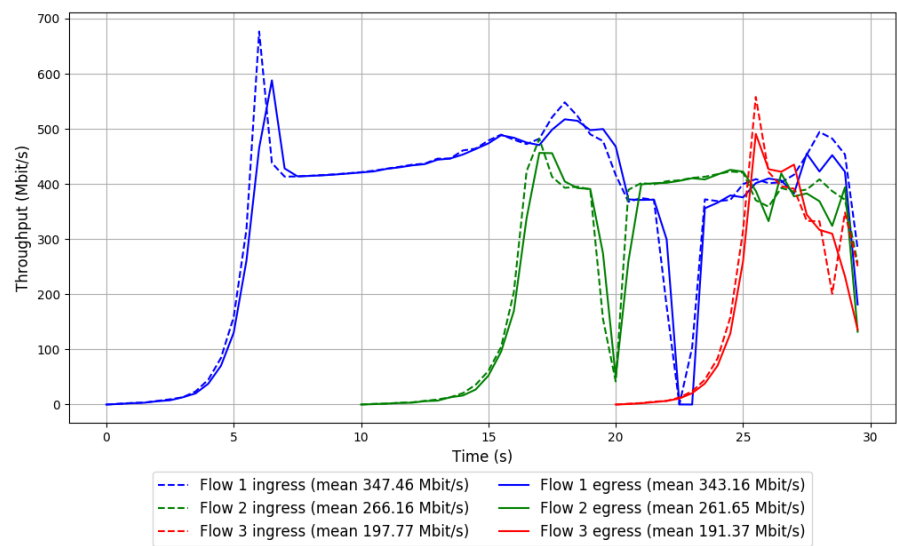
-- Flow 3:

Average throughput: 191.37 Mbit/s

95th percentile per-packet one-way delay: 213.612 ms

Loss rate: 5.93%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-02-17 22:03:31

End at: 2018-02-17 22:04:01

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.85 Mbit/s

95th percentile per-packet one-way delay: 227.527 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 322.23 Mbit/s

95th percentile per-packet one-way delay: 238.256 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 292.68 Mbit/s

95th percentile per-packet one-way delay: 219.772 ms

Loss rate: 1.17%

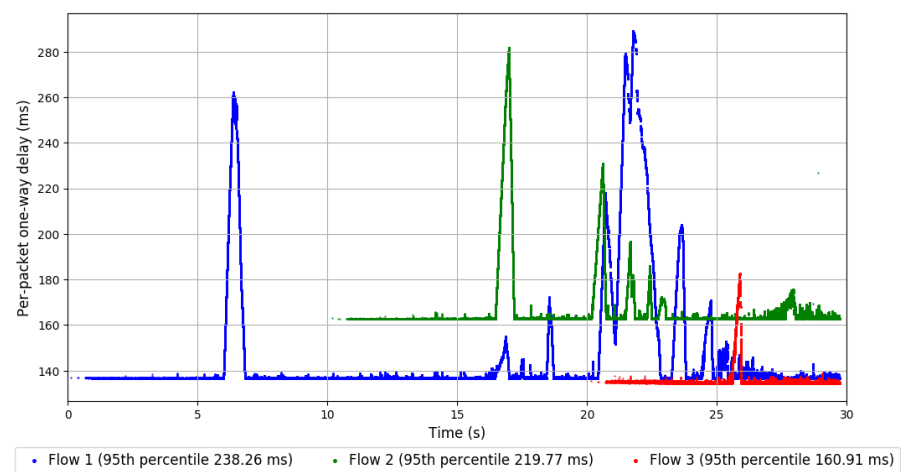
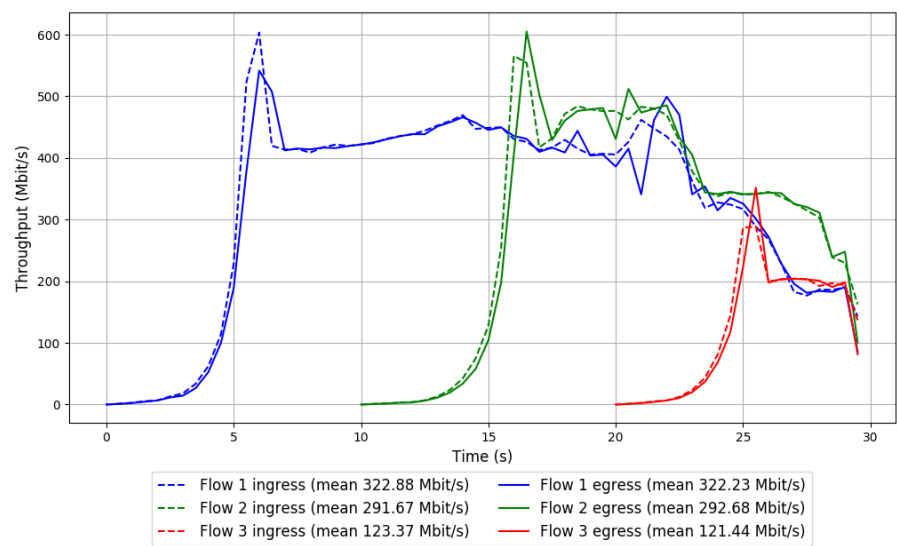
-- Flow 3:

Average throughput: 121.44 Mbit/s

95th percentile per-packet one-way delay: 160.912 ms

Loss rate: 4.29%

Run 5: Report of Vivace-latency — Data Link



Run 6: Statistics of Vivace-latency

Start at: 2018-02-17 22:24:00

End at: 2018-02-17 22:24:30

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 543.67 Mbit/s

95th percentile per-packet one-way delay: 170.251 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 354.23 Mbit/s

95th percentile per-packet one-way delay: 178.769 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 232.40 Mbit/s

95th percentile per-packet one-way delay: 163.418 ms

Loss rate: 1.20%

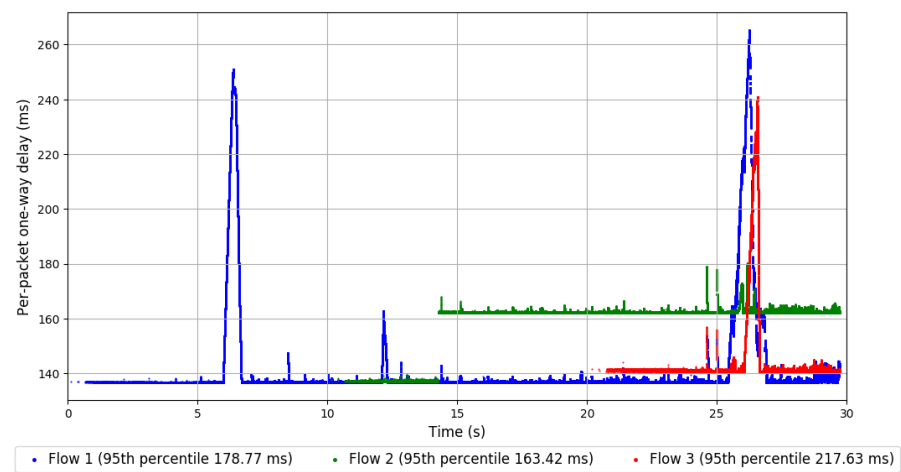
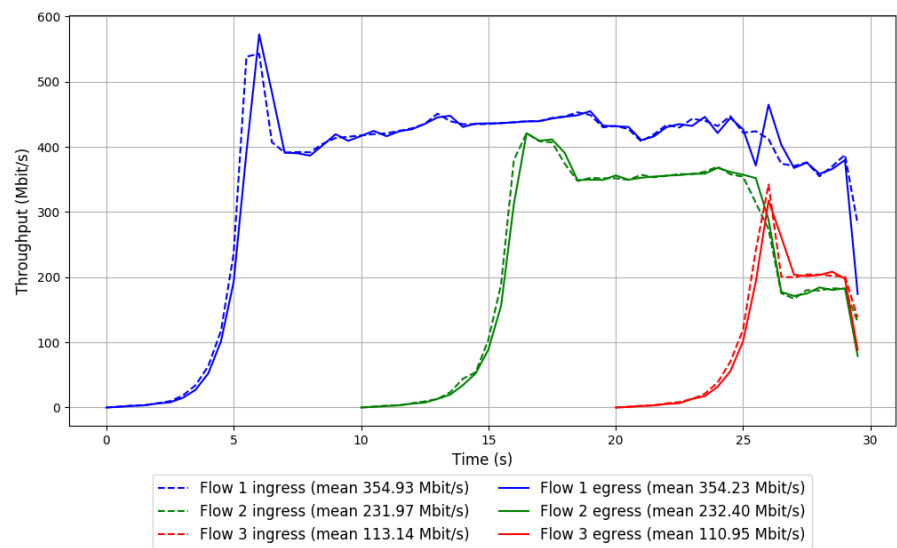
-- Flow 3:

Average throughput: 110.95 Mbit/s

95th percentile per-packet one-way delay: 217.635 ms

Loss rate: 4.72%

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-02-17 22:44:33

End at: 2018-02-17 22:45:03

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 500.04 Mbit/s

95th percentile per-packet one-way delay: 177.575 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 321.17 Mbit/s

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

Loss rate: 0.84%

-- Flow 2:

Average throughput: 172.50 Mbit/s

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

Loss rate: 1.81%

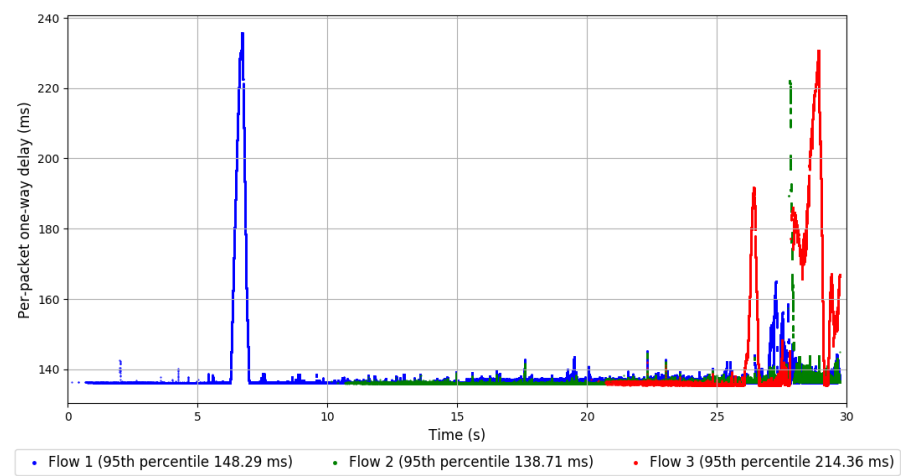
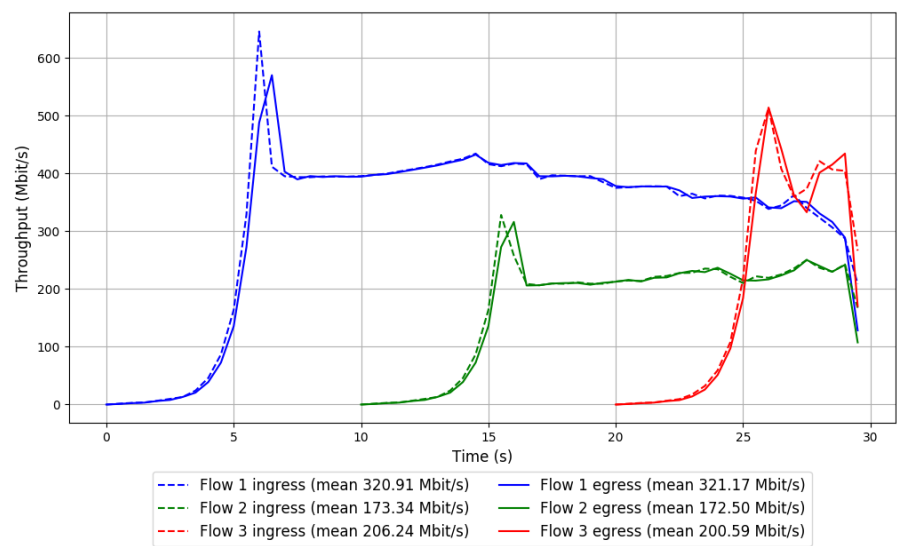
-- Flow 3:

Average throughput: 200.59 Mbit/s

95th percentile per-packet one-way delay: 214.364 ms

Loss rate: 5.46%

Run 7: Report of Vivace-latency — Data Link



Run 8: Statistics of Vivace-latency

Start at: 2018-02-17 23:04:49

End at: 2018-02-17 23:05:19

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 533.58 Mbit/s

95th percentile per-packet one-way delay: 177.512 ms

Loss rate: 1.53%

-- Flow 1:

Average throughput: 310.12 Mbit/s

95th percentile per-packet one-way delay: 177.494 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 285.41 Mbit/s

95th percentile per-packet one-way delay: 194.954 ms

Loss rate: 1.90%

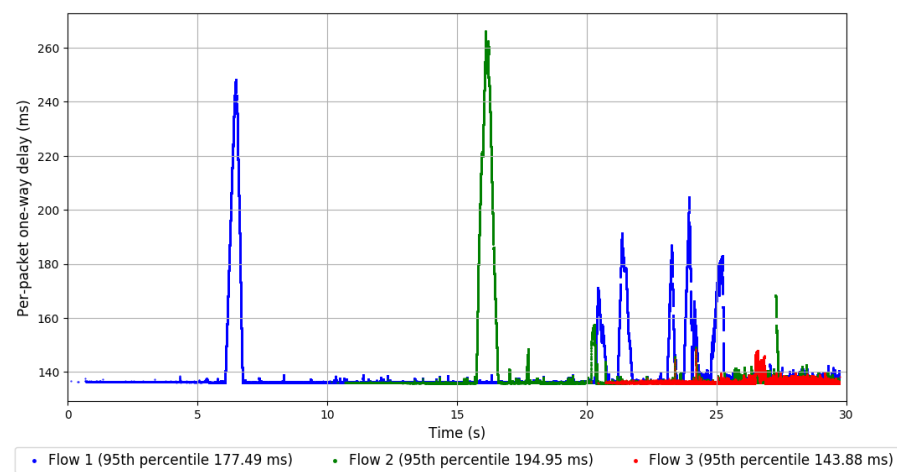
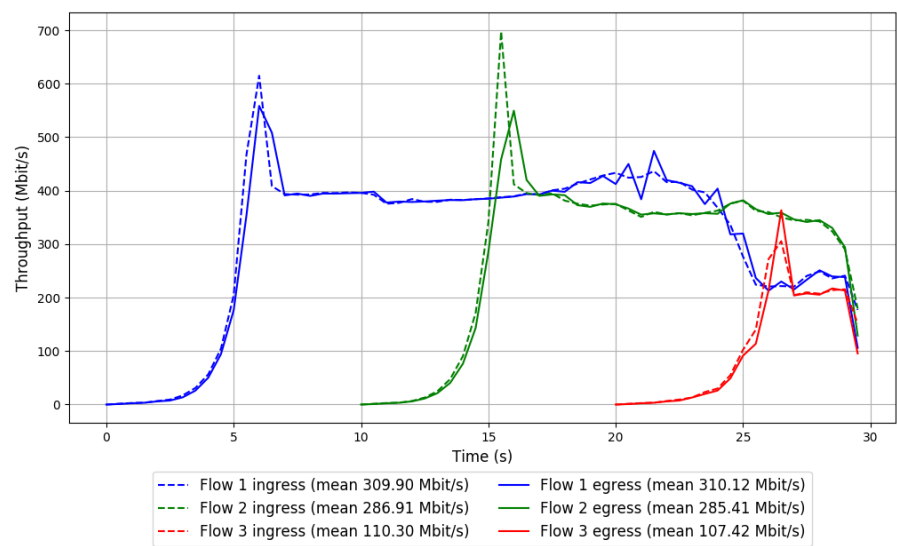
-- Flow 3:

Average throughput: 107.42 Mbit/s

95th percentile per-packet one-way delay: 143.885 ms

Loss rate: 5.29%

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-02-17 23:25:07

End at: 2018-02-17 23:25:37

Below is generated by plot.py at 2018-02-18 05:09:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 554.70 Mbit/s

95th percentile per-packet one-way delay: 145.292 ms

Loss rate: 1.42%

-- Flow 1:

Average throughput: 332.90 Mbit/s

95th percentile per-packet one-way delay: 140.940 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 281.65 Mbit/s

95th percentile per-packet one-way delay: 144.896 ms

Loss rate: 1.29%

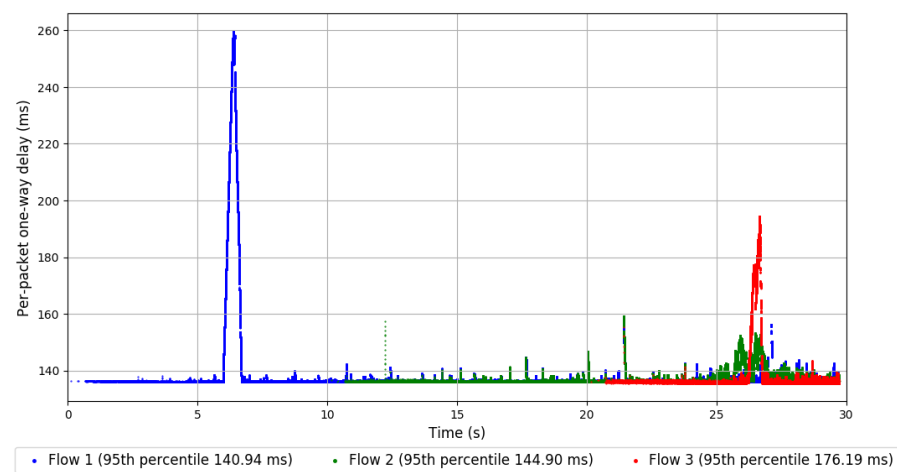
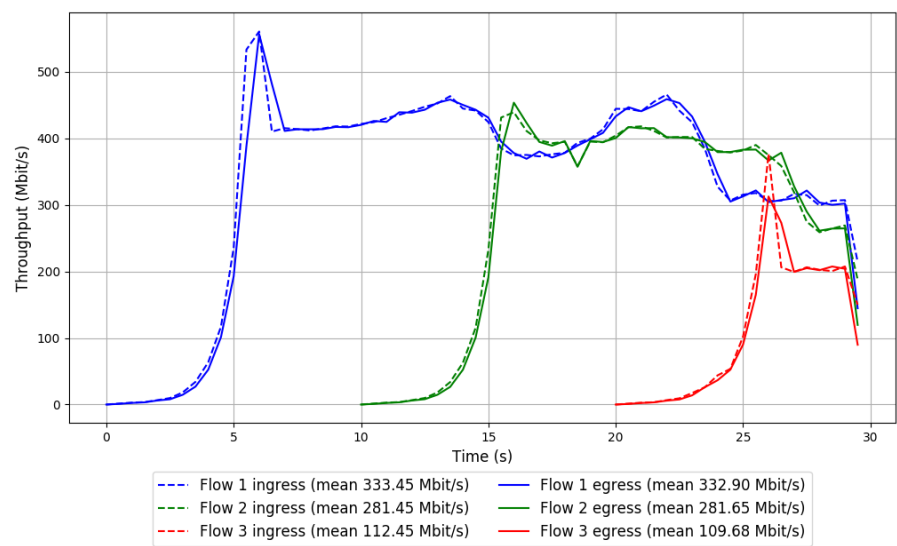
-- Flow 3:

Average throughput: 109.68 Mbit/s

95th percentile per-packet one-way delay: 176.195 ms

Loss rate: 5.17%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-02-17 23:46:04

End at: 2018-02-17 23:46:34

Below is generated by plot.py at 2018-02-18 05:11:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 557.04 Mbit/s

95th percentile per-packet one-way delay: 149.401 ms

Loss rate: 1.59%

-- Flow 1:

Average throughput: 329.73 Mbit/s

95th percentile per-packet one-way delay: 146.801 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 277.03 Mbit/s

95th percentile per-packet one-way delay: 145.451 ms

Loss rate: 1.72%

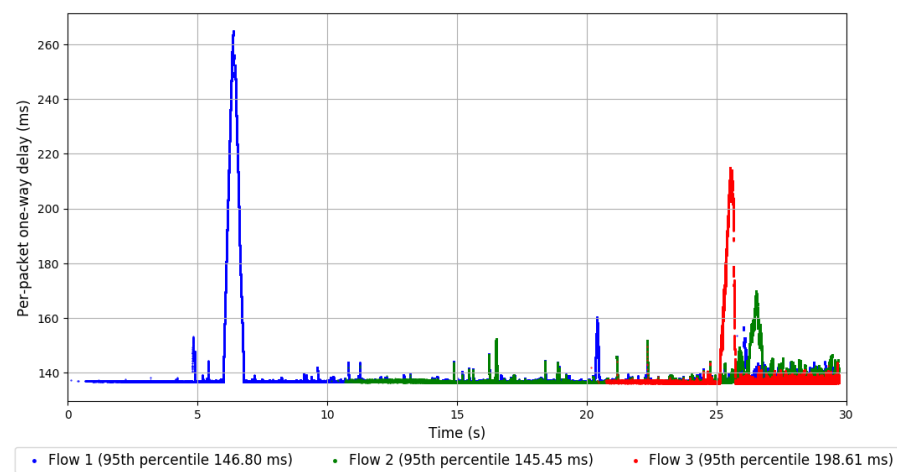
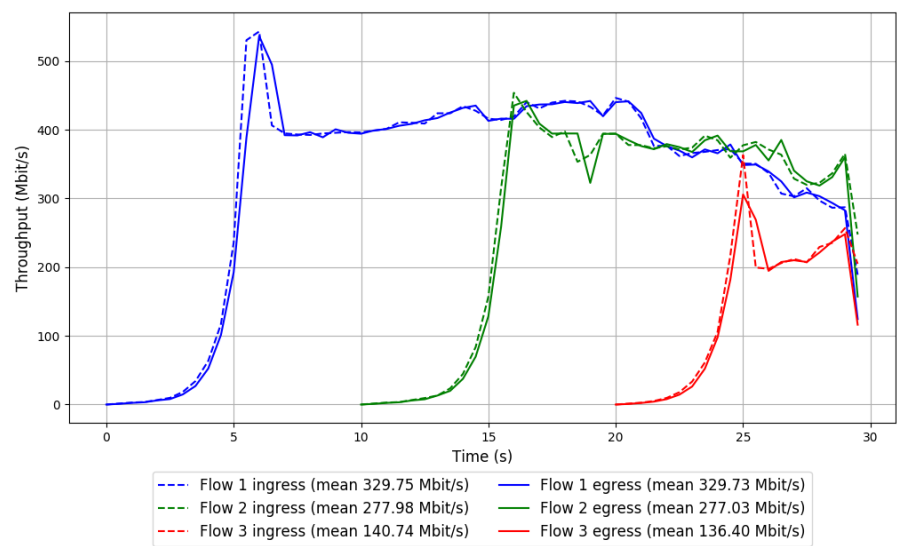
-- Flow 3:

Average throughput: 136.40 Mbit/s

95th percentile per-packet one-way delay: 198.606 ms

Loss rate: 5.82%

Run 10: Report of Vivace-latency — Data Link

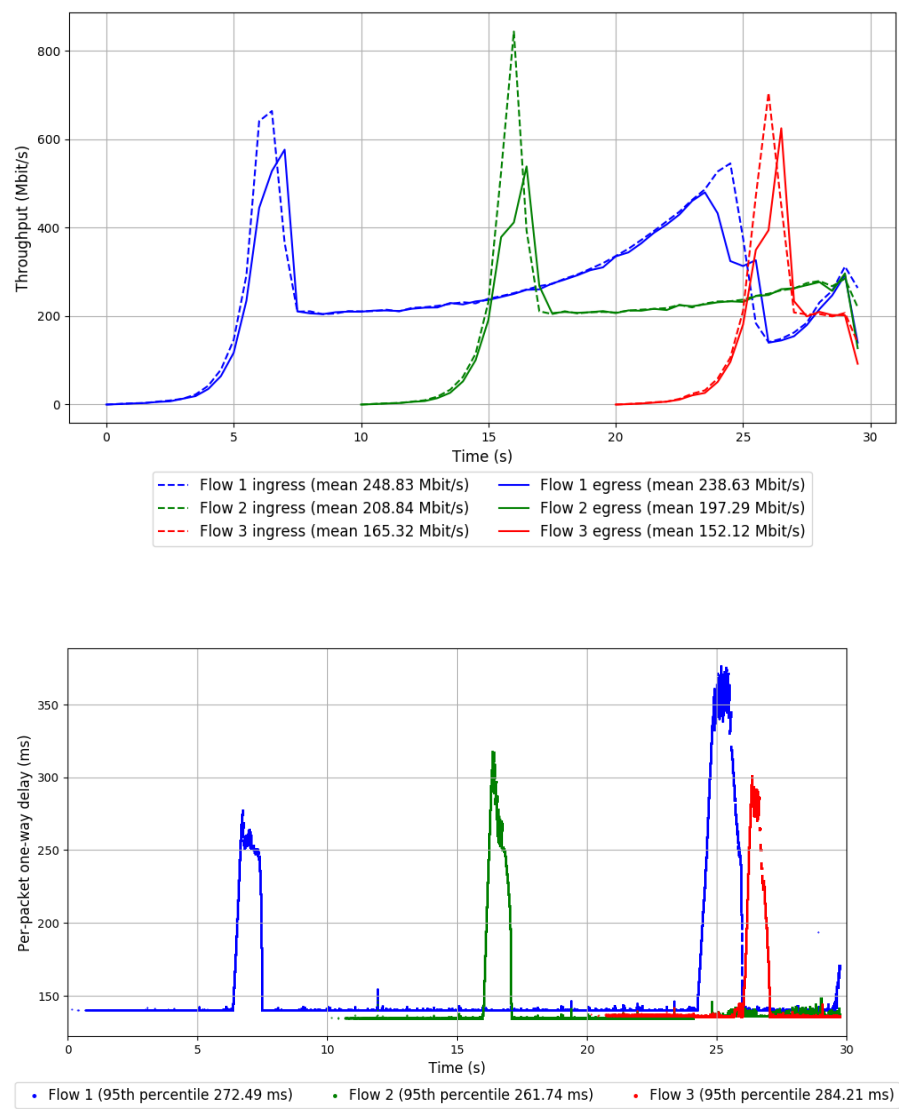


```
Run 1: Statistics of Vivace-loss

Start at: 2018-02-17 20:54:30
End at: 2018-02-17 20:55:00

# Below is generated by plot.py at 2018-02-18 05:11:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 418.34 Mbit/s
95th percentile per-packet one-way delay: 273.717 ms
Loss rate: 6.25%
-- Flow 1:
Average throughput: 238.63 Mbit/s
95th percentile per-packet one-way delay: 272.488 ms
Loss rate: 4.99%
-- Flow 2:
Average throughput: 197.29 Mbit/s
95th percentile per-packet one-way delay: 261.739 ms
Loss rate: 6.83%
-- Flow 3:
Average throughput: 152.12 Mbit/s
95th percentile per-packet one-way delay: 284.207 ms
Loss rate: 10.54%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-02-17 21:15:04

End at: 2018-02-17 21:15:34

Below is generated by plot.py at 2018-02-18 05:14:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 558.23 Mbit/s

95th percentile per-packet one-way delay: 327.925 ms

Loss rate: 7.31%

-- Flow 1:

Average throughput: 339.01 Mbit/s

95th percentile per-packet one-way delay: 260.316 ms

Loss rate: 6.64%

-- Flow 2:

Average throughput: 266.60 Mbit/s

95th percentile per-packet one-way delay: 337.324 ms

Loss rate: 6.22%

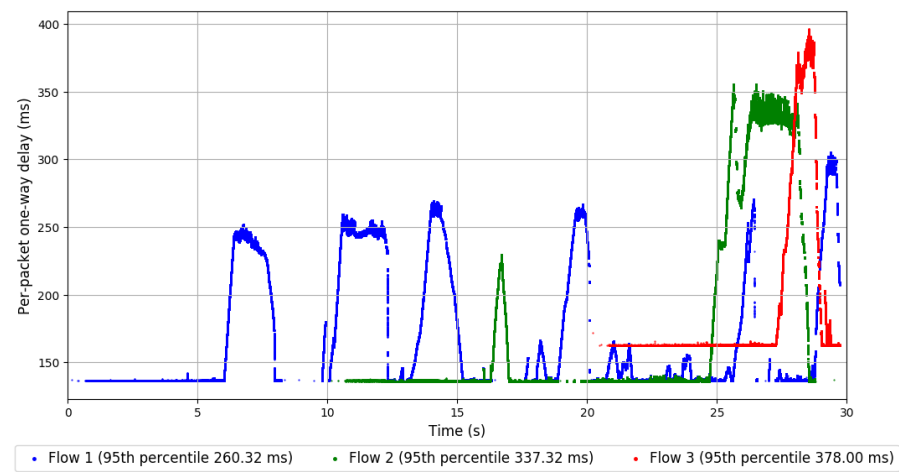
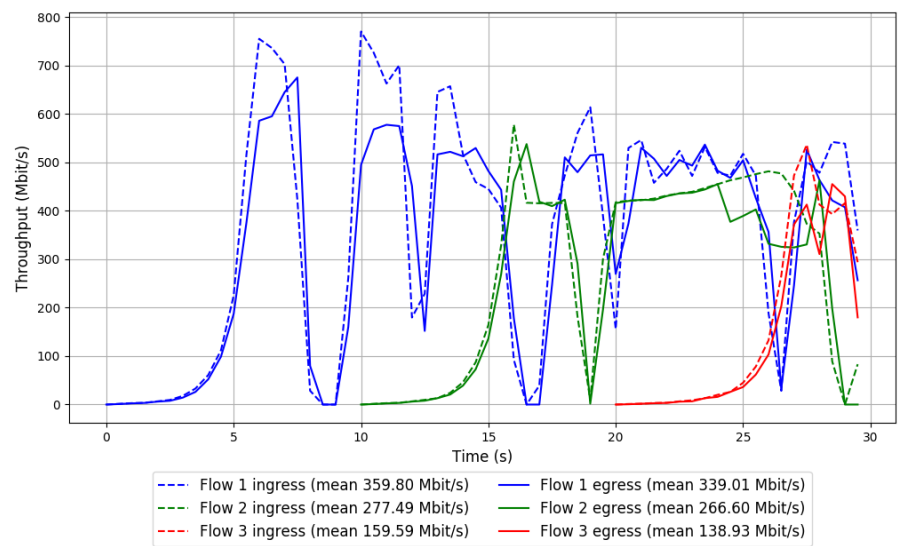
-- Flow 3:

Average throughput: 138.93 Mbit/s

95th percentile per-packet one-way delay: 378.002 ms

Loss rate: 15.69%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-02-17 21:35:39

End at: 2018-02-17 21:36:09

Below is generated by plot.py at 2018-02-18 05:14:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 297.39 Mbit/s

95th percentile per-packet one-way delay: 276.702 ms

Loss rate: 4.25%

-- Flow 1:

Average throughput: 136.98 Mbit/s

95th percentile per-packet one-way delay: 165.158 ms

Loss rate: 3.25%

-- Flow 2:

Average throughput: 191.78 Mbit/s

95th percentile per-packet one-way delay: 276.230 ms

Loss rate: 3.92%

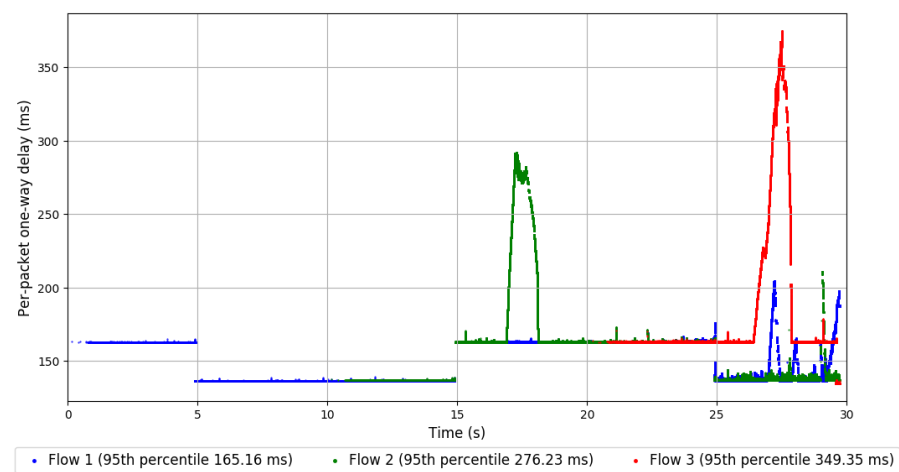
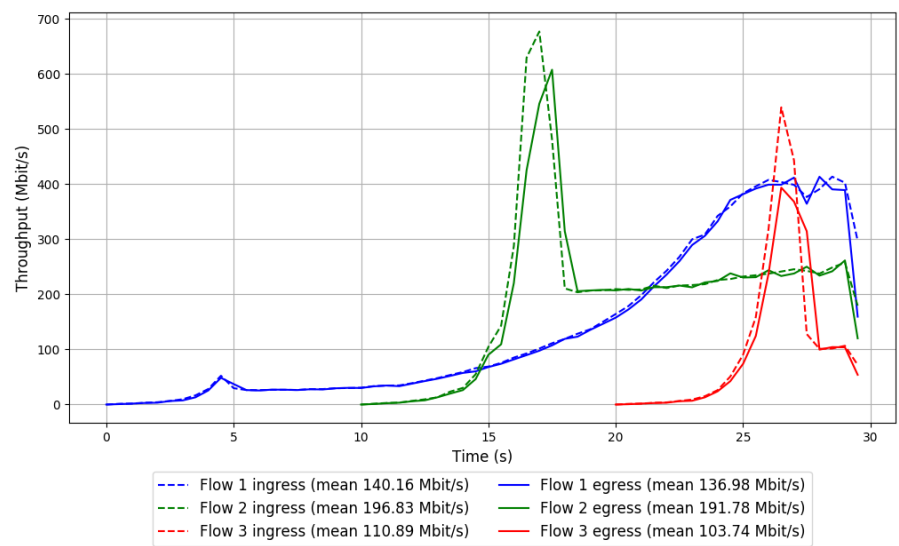
-- Flow 3:

Average throughput: 103.74 Mbit/s

95th percentile per-packet one-way delay: 349.354 ms

Loss rate: 9.30%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-02-17 21:55:45

End at: 2018-02-17 21:56:15

Below is generated by plot.py at 2018-02-18 05:14:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 366.21 Mbit/s

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

Loss rate: 2.73%

-- Flow 1:

Average throughput: 153.66 Mbit/s

95th percentile per-packet one-way delay: 253.256 ms

Loss rate: 3.31%

-- Flow 2:

Average throughput: 260.90 Mbit/s

95th percentile per-packet one-way delay: 269.104 ms

Loss rate: 1.27%

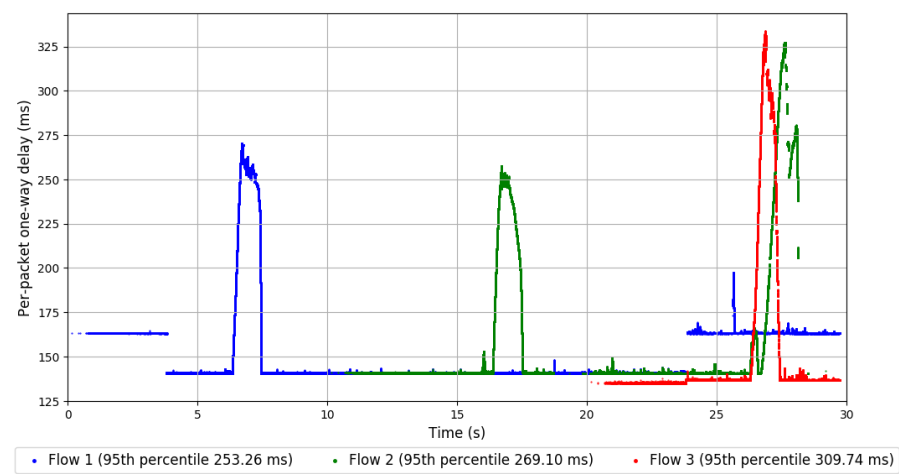
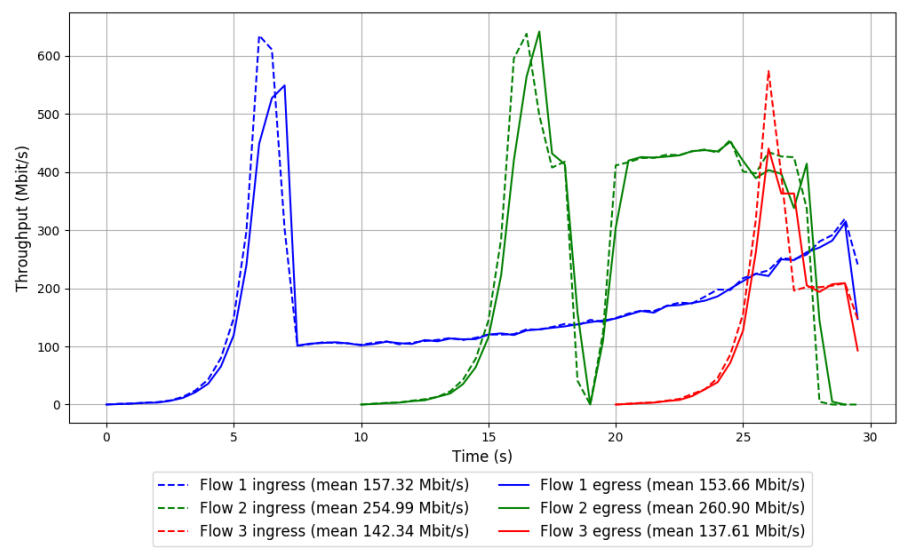
-- Flow 3:

Average throughput: 137.61 Mbit/s

95th percentile per-packet one-way delay: 309.738 ms

Loss rate: 5.99%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-02-17 22:16:08

End at: 2018-02-17 22:16:38

Below is generated by plot.py at 2018-02-18 05:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 586.78 Mbit/s

95th percentile per-packet one-way delay: 315.723 ms

Loss rate: 3.66%

-- Flow 1:

Average throughput: 342.55 Mbit/s

95th percentile per-packet one-way delay: 287.894 ms

Loss rate: 2.27%

-- Flow 2:

Average throughput: 301.01 Mbit/s

95th percentile per-packet one-way delay: 340.966 ms

Loss rate: 4.83%

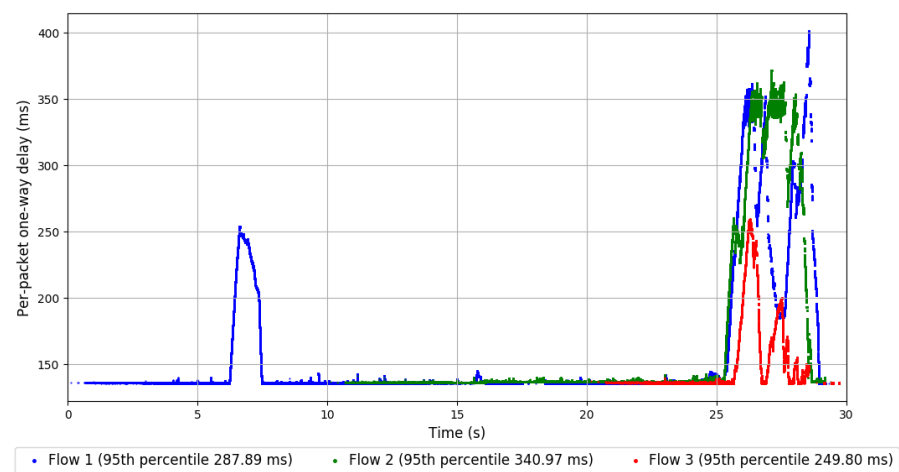
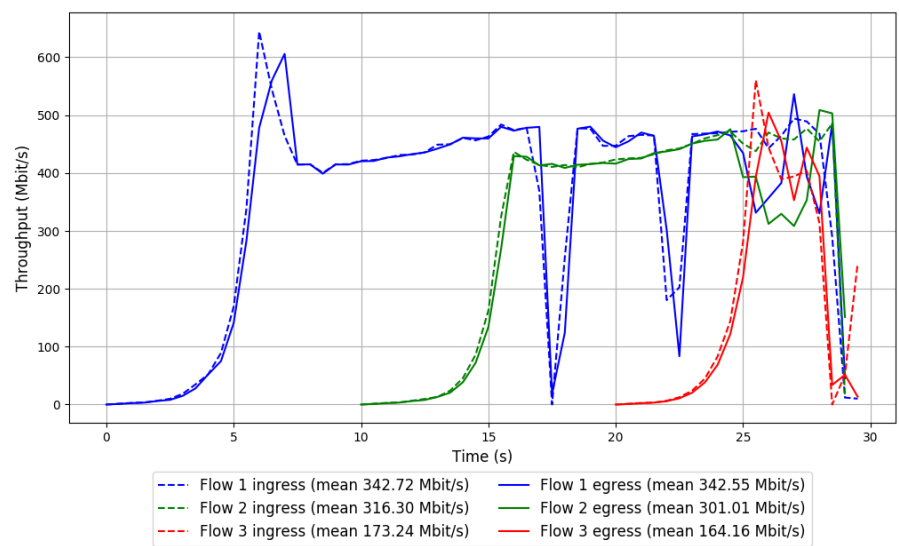
-- Flow 3:

Average throughput: 164.16 Mbit/s

95th percentile per-packet one-way delay: 249.797 ms

Loss rate: 7.89%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-02-17 22:36:43

End at: 2018-02-17 22:37:13

Below is generated by plot.py at 2018-02-18 05:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 488.43 Mbit/s

95th percentile per-packet one-way delay: 303.927 ms

Loss rate: 6.40%

-- Flow 1:

Average throughput: 244.67 Mbit/s

95th percentile per-packet one-way delay: 292.740 ms

Loss rate: 6.68%

-- Flow 2:

Average throughput: 297.22 Mbit/s

95th percentile per-packet one-way delay: 351.354 ms

Loss rate: 4.78%

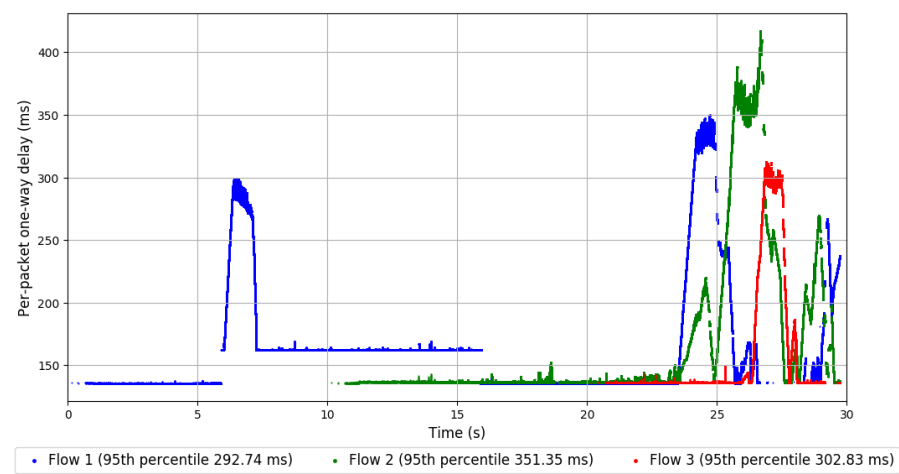
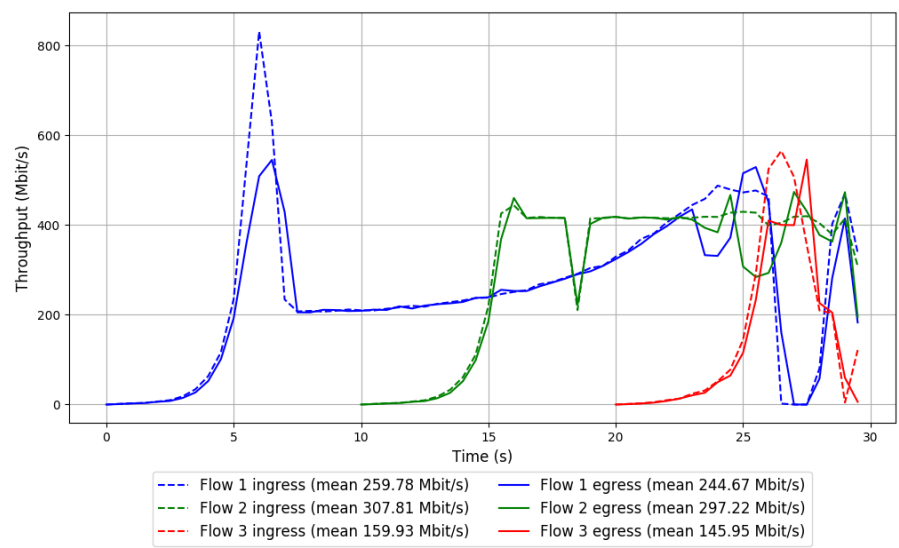
-- Flow 3:

Average throughput: 145.95 Mbit/s

95th percentile per-packet one-way delay: 302.829 ms

Loss rate: 11.29%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-02-17 22:57:22

End at: 2018-02-17 22:57:52

Below is generated by plot.py at 2018-02-18 05:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 494.45 Mbit/s

95th percentile per-packet one-way delay: 304.499 ms

Loss rate: 6.54%

-- Flow 1:

Average throughput: 259.84 Mbit/s

95th percentile per-packet one-way delay: 261.977 ms

Loss rate: 3.15%

-- Flow 2:

Average throughput: 272.47 Mbit/s

95th percentile per-packet one-way delay: 319.027 ms

Loss rate: 11.26%

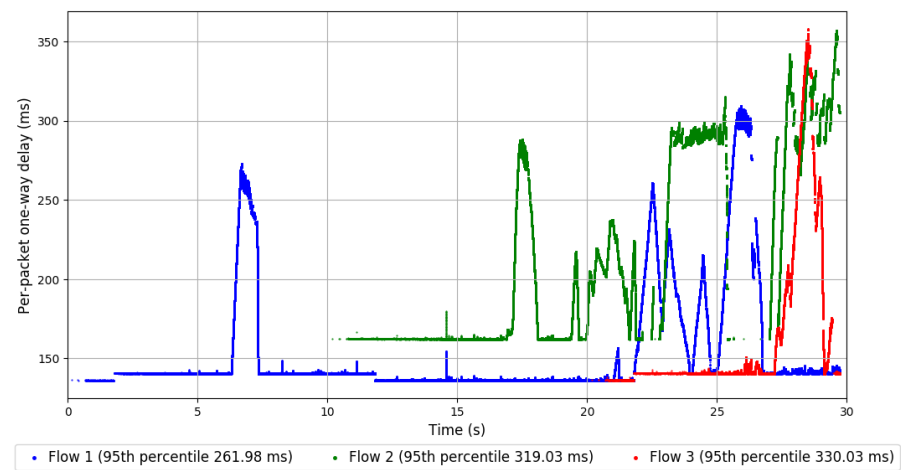
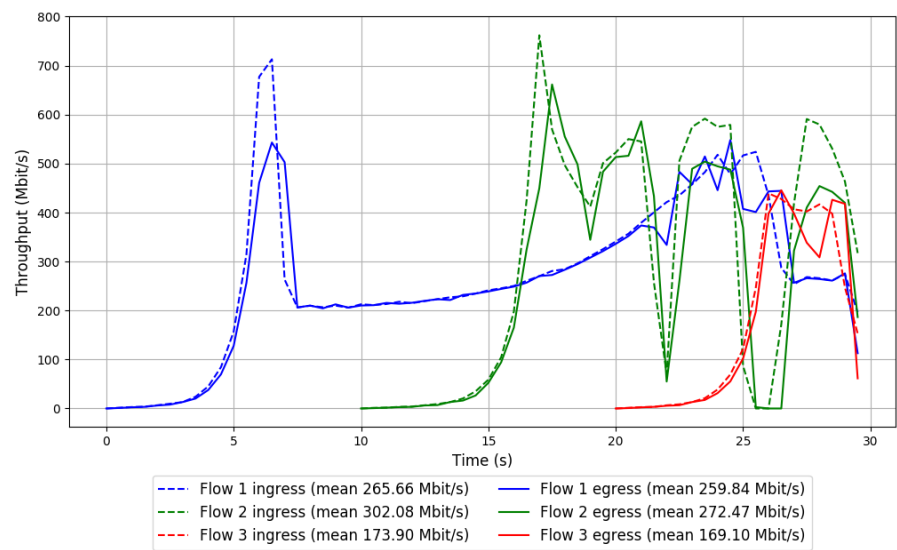
-- Flow 3:

Average throughput: 169.10 Mbit/s

95th percentile per-packet one-way delay: 330.030 ms

Loss rate: 5.67%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-02-17 23:17:30

End at: 2018-02-17 23:18:00

Below is generated by plot.py at 2018-02-18 05:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 336.70 Mbit/s

95th percentile per-packet one-way delay: 260.335 ms

Loss rate: 6.38%

-- Flow 1:

Average throughput: 167.86 Mbit/s

95th percentile per-packet one-way delay: 258.064 ms

Loss rate: 6.18%

-- Flow 2:

Average throughput: 199.25 Mbit/s

95th percentile per-packet one-way delay: 253.332 ms

Loss rate: 5.28%

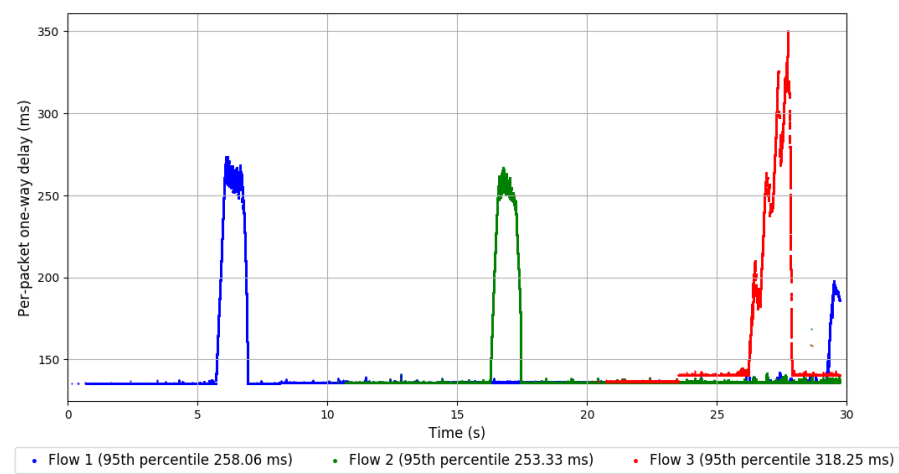
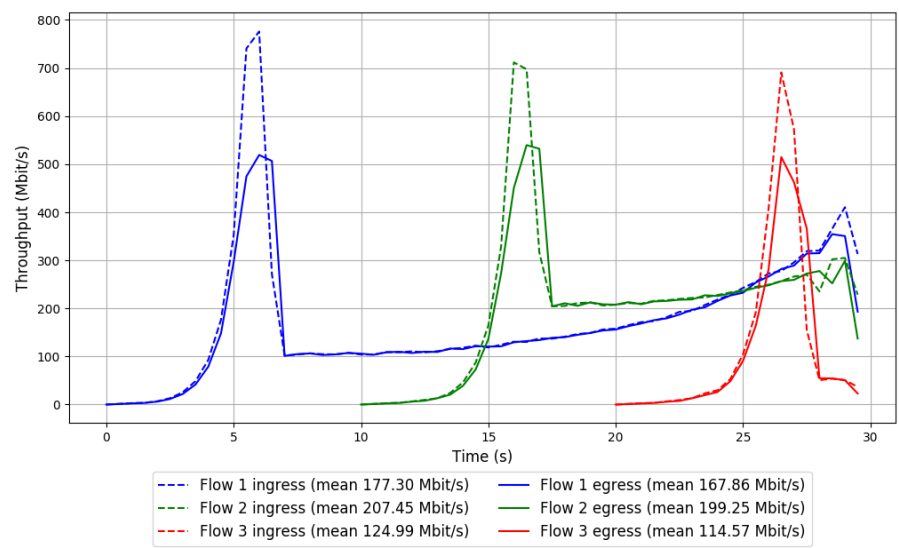
-- Flow 3:

Average throughput: 114.57 Mbit/s

95th percentile per-packet one-way delay: 318.251 ms

Loss rate: 10.89%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-02-17 23:38:23

End at: 2018-02-17 23:38:53

Below is generated by plot.py at 2018-02-18 05:19:49

Datalink statistics

-- Total of 3 flows:

Average throughput: 445.56 Mbit/s

95th percentile per-packet one-way delay: 255.898 ms

Loss rate: 7.31%

-- Flow 1:

Average throughput: 324.13 Mbit/s

95th percentile per-packet one-way delay: 254.185 ms

Loss rate: 6.18%

-- Flow 2:

Average throughput: 102.57 Mbit/s

95th percentile per-packet one-way delay: 373.780 ms

Loss rate: 13.07%

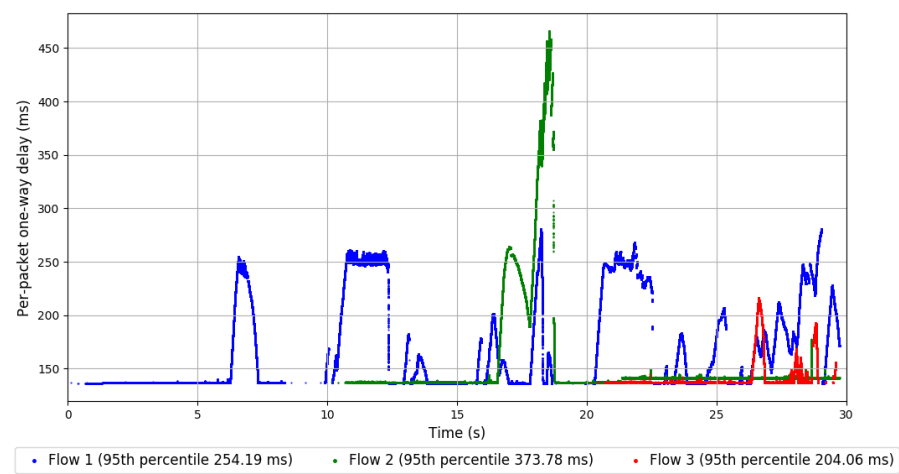
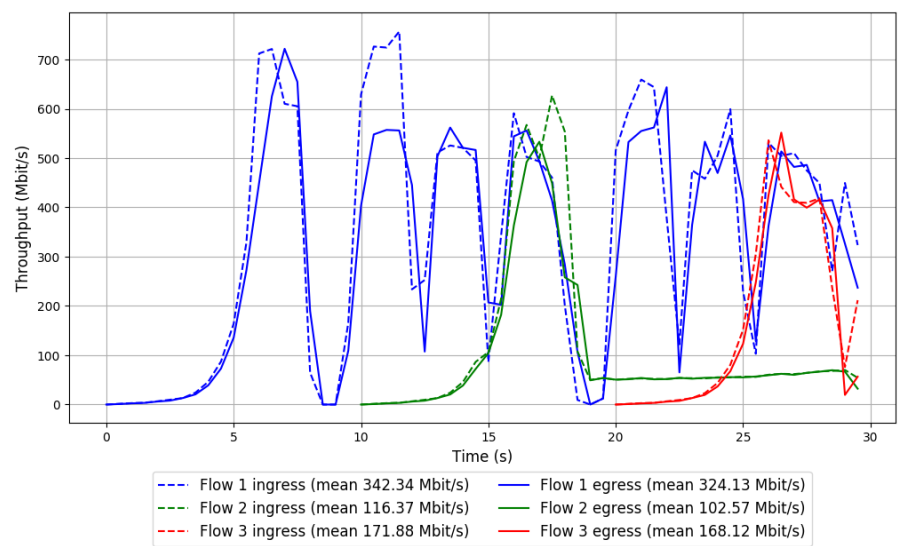
-- Flow 3:

Average throughput: 168.12 Mbit/s

95th percentile per-packet one-way delay: 204.057 ms

Loss rate: 6.26%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-02-17 23:58:46

End at: 2018-02-17 23:59:16

Below is generated by plot.py at 2018-02-18 05:22:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 566.17 Mbit/s

95th percentile per-packet one-way delay: 299.168 ms

Loss rate: 5.57%

-- Flow 1:

Average throughput: 322.22 Mbit/s

95th percentile per-packet one-way delay: 306.502 ms

Loss rate: 7.22%

-- Flow 2:

Average throughput: 305.73 Mbit/s

95th percentile per-packet one-way delay: 235.287 ms

Loss rate: 2.63%

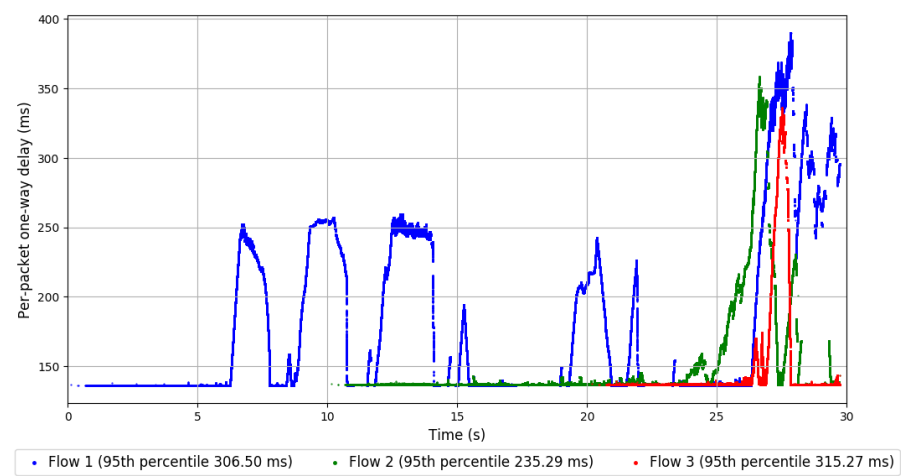
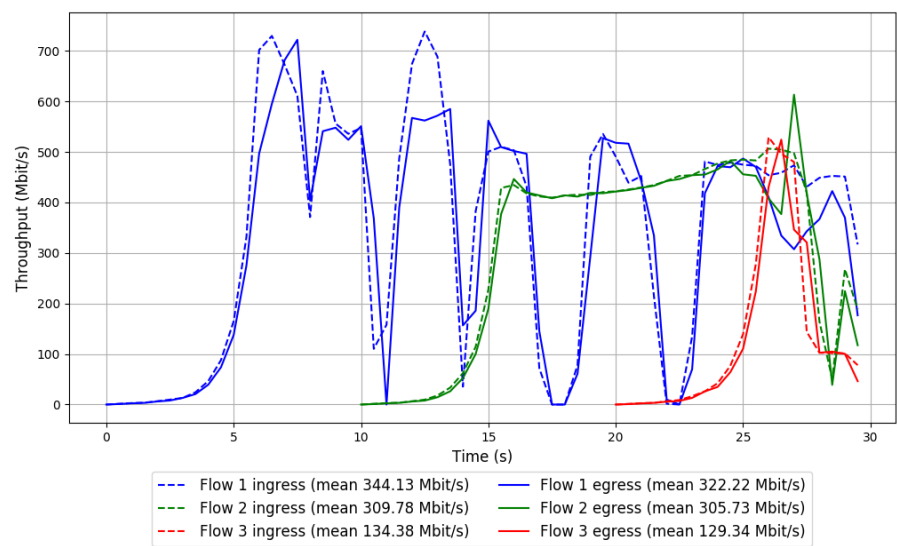
-- Flow 3:

Average throughput: 129.34 Mbit/s

95th percentile per-packet one-way delay: 315.271 ms

Loss rate: 6.37%

Run 10: Report of Vivace-loss — Data Link

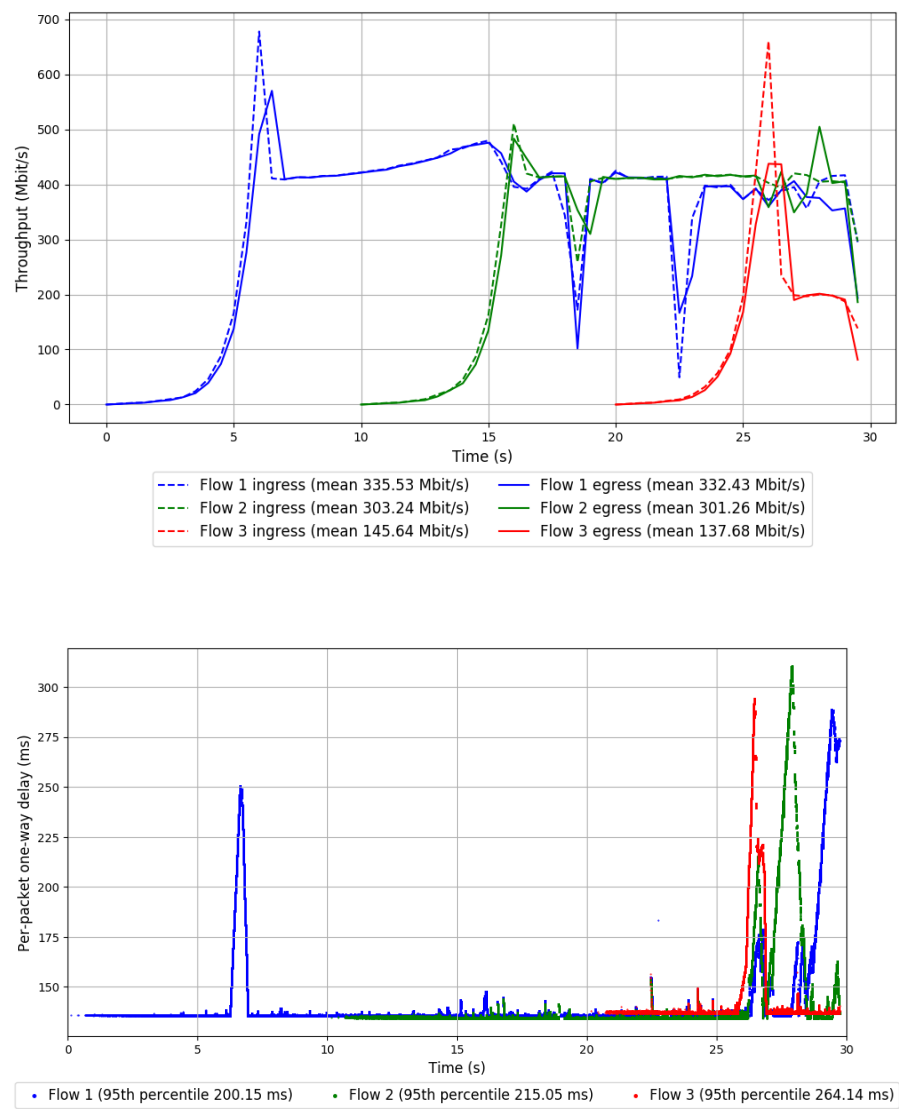


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-02-17 20:44:10
End at: 2018-02-17 20:44:40

# Below is generated by plot.py at 2018-02-18 05:24:26
# Datalink statistics
-- Total of 3 flows:
Average throughput: 576.16 Mbit/s
95th percentile per-packet one-way delay: 219.834 ms
Loss rate: 2.40%
-- Flow 1:
Average throughput: 332.43 Mbit/s
95th percentile per-packet one-way delay: 200.148 ms
Loss rate: 1.83%
-- Flow 2:
Average throughput: 301.26 Mbit/s
95th percentile per-packet one-way delay: 215.049 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 137.68 Mbit/s
95th percentile per-packet one-way delay: 264.139 ms
Loss rate: 8.07%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-02-17 21:04:52

End at: 2018-02-17 21:05:22

Below is generated by plot.py at 2018-02-18 05:25:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 605.68 Mbit/s

95th percentile per-packet one-way delay: 278.882 ms

Loss rate: 2.33%

-- Flow 1:

Average throughput: 348.24 Mbit/s

95th percentile per-packet one-way delay: 262.230 ms

Loss rate: 2.17%

-- Flow 2:

Average throughput: 307.58 Mbit/s

95th percentile per-packet one-way delay: 285.371 ms

Loss rate: 2.37%

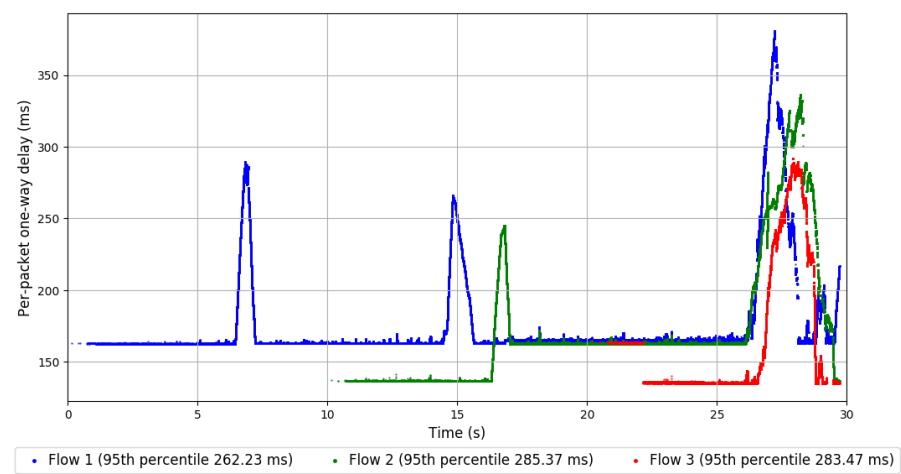
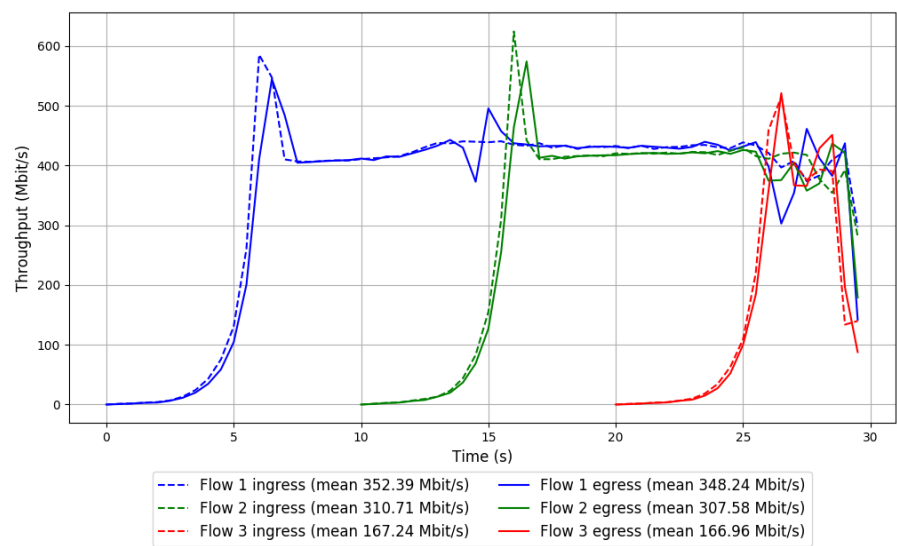
-- Flow 3:

Average throughput: 166.96 Mbit/s

95th percentile per-packet one-way delay: 283.471 ms

Loss rate: 3.23%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-17 21:25:27

End at: 2018-02-17 21:25:57

Below is generated by plot.py at 2018-02-18 05:26:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 537.50 Mbit/s

95th percentile per-packet one-way delay: 262.157 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 320.85 Mbit/s

95th percentile per-packet one-way delay: 293.912 ms

Loss rate: 1.88%

-- Flow 2:

Average throughput: 269.75 Mbit/s

95th percentile per-packet one-way delay: 260.214 ms

Loss rate: 1.06%

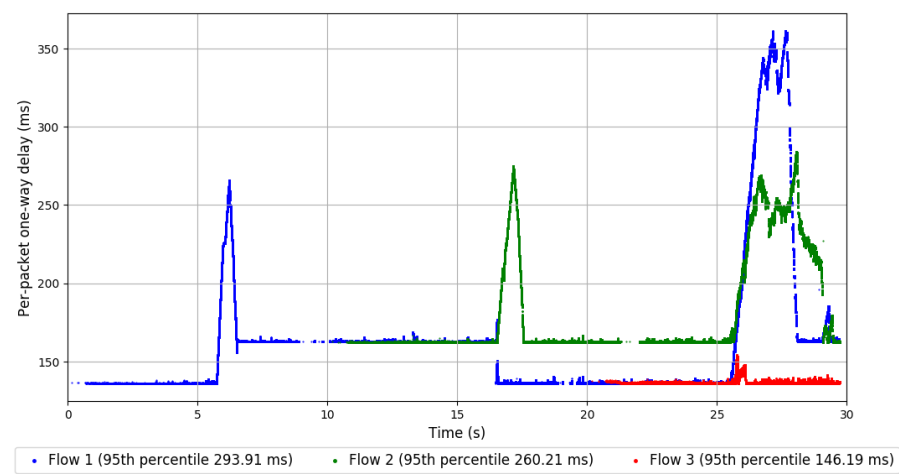
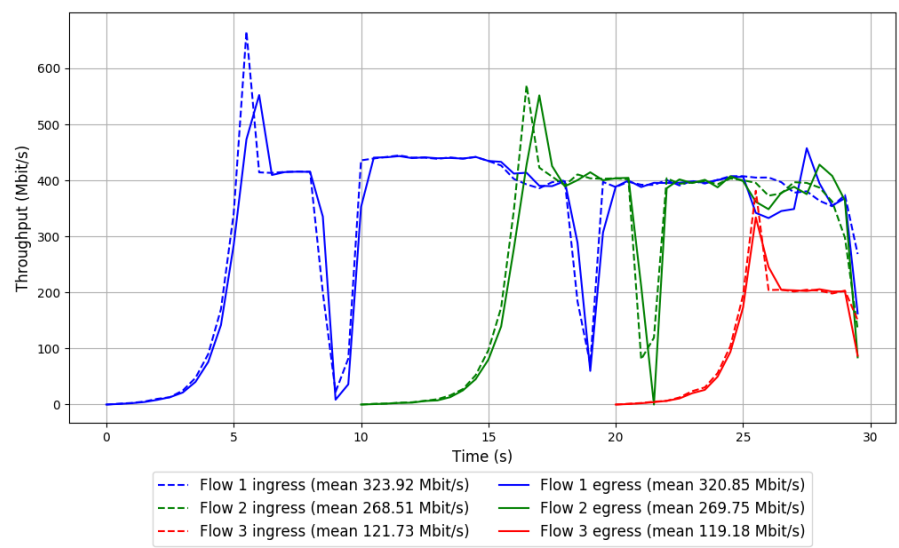
-- Flow 3:

Average throughput: 119.18 Mbit/s

95th percentile per-packet one-way delay: 146.195 ms

Loss rate: 4.84%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-02-17 21:45:28

End at: 2018-02-17 21:45:58

Below is generated by plot.py at 2018-02-18 05:27:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 541.91 Mbit/s

95th percentile per-packet one-way delay: 266.539 ms

Loss rate: 2.05%

-- Flow 1:

Average throughput: 338.78 Mbit/s

95th percentile per-packet one-way delay: 277.720 ms

Loss rate: 2.13%

-- Flow 2:

Average throughput: 256.02 Mbit/s

95th percentile per-packet one-way delay: 202.643 ms

Loss rate: 1.18%

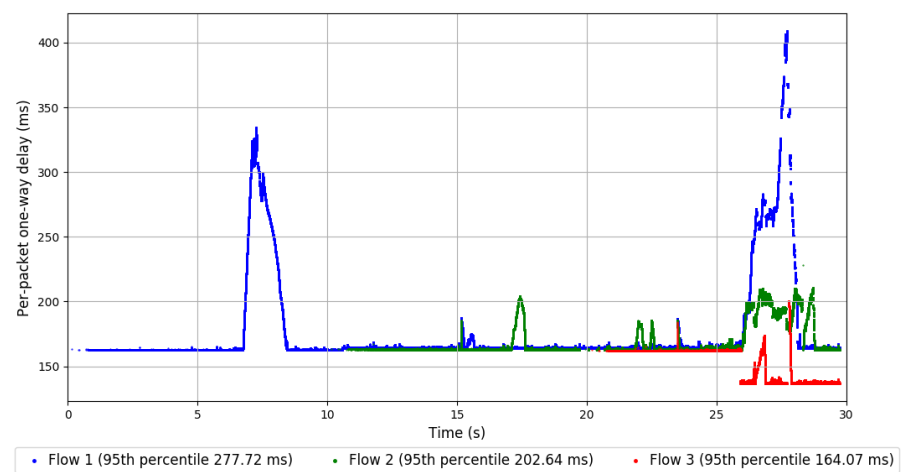
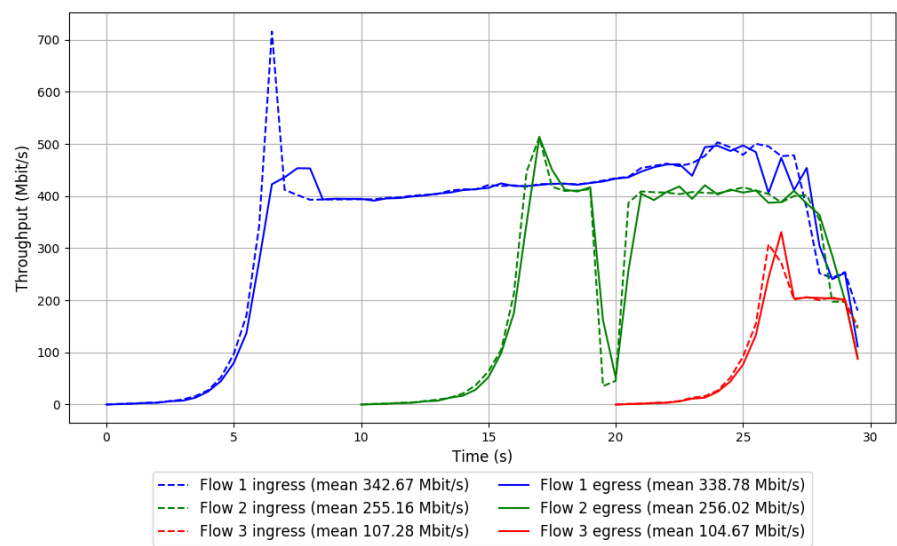
-- Flow 3:

Average throughput: 104.67 Mbit/s

95th percentile per-packet one-way delay: 164.068 ms

Loss rate: 5.40%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-02-17 22:06:01

End at: 2018-02-17 22:06:31

Below is generated by plot.py at 2018-02-18 05:28:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 567.75 Mbit/s

95th percentile per-packet one-way delay: 270.876 ms

Loss rate: 2.89%

-- Flow 1:

Average throughput: 325.70 Mbit/s

95th percentile per-packet one-way delay: 291.534 ms

Loss rate: 1.75%

-- Flow 2:

Average throughput: 309.04 Mbit/s

95th percentile per-packet one-way delay: 265.770 ms

Loss rate: 4.32%

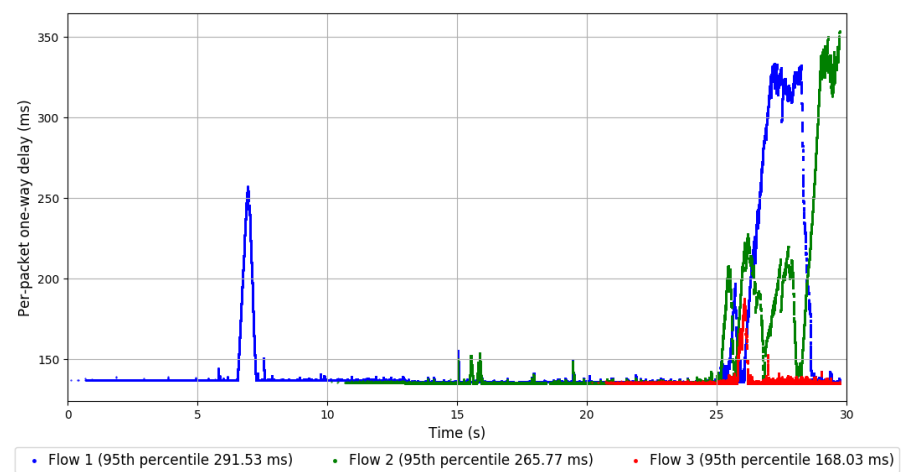
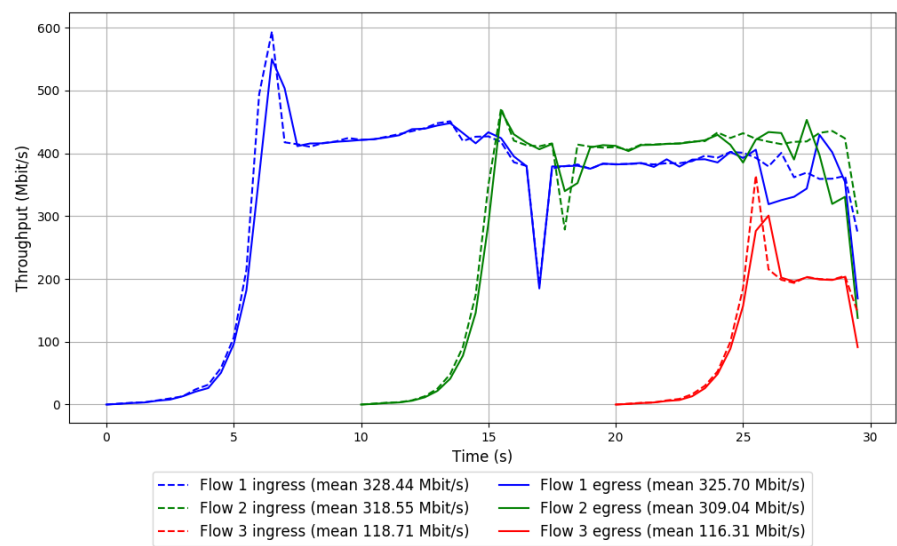
-- Flow 3:

Average throughput: 116.31 Mbit/s

95th percentile per-packet one-way delay: 168.025 ms

Loss rate: 4.73%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-02-17 22:26:30

End at: 2018-02-17 22:27:00

Below is generated by plot.py at 2018-02-18 05:28:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 506.90 Mbit/s

95th percentile per-packet one-way delay: 204.944 ms

Loss rate: 2.38%

-- Flow 1:

Average throughput: 325.66 Mbit/s

95th percentile per-packet one-way delay: 218.461 ms

Loss rate: 1.80%

-- Flow 2:

Average throughput: 188.28 Mbit/s

95th percentile per-packet one-way delay: 164.157 ms

Loss rate: 2.12%

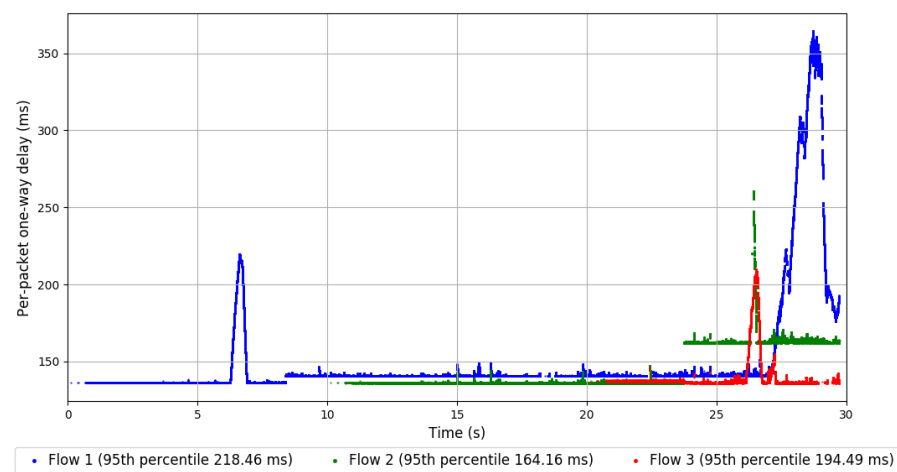
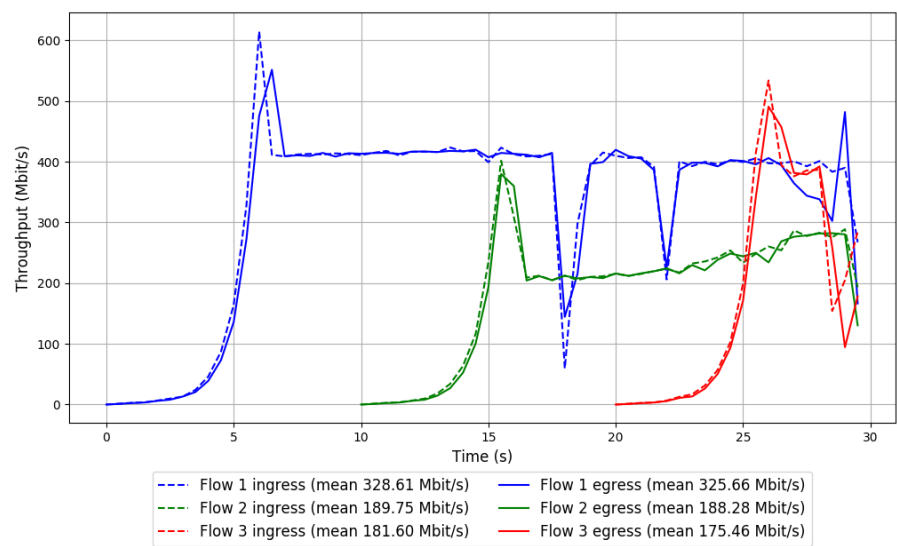
-- Flow 3:

Average throughput: 175.46 Mbit/s

95th percentile per-packet one-way delay: 194.486 ms

Loss rate: 6.08%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-02-17 22:46:59

End at: 2018-02-17 22:47:29

Below is generated by plot.py at 2018-02-18 05:29:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 584.75 Mbit/s

95th percentile per-packet one-way delay: 242.039 ms

Loss rate: 2.59%

-- Flow 1:

Average throughput: 347.82 Mbit/s

95th percentile per-packet one-way delay: 254.466 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 298.69 Mbit/s

95th percentile per-packet one-way delay: 229.297 ms

Loss rate: 3.11%

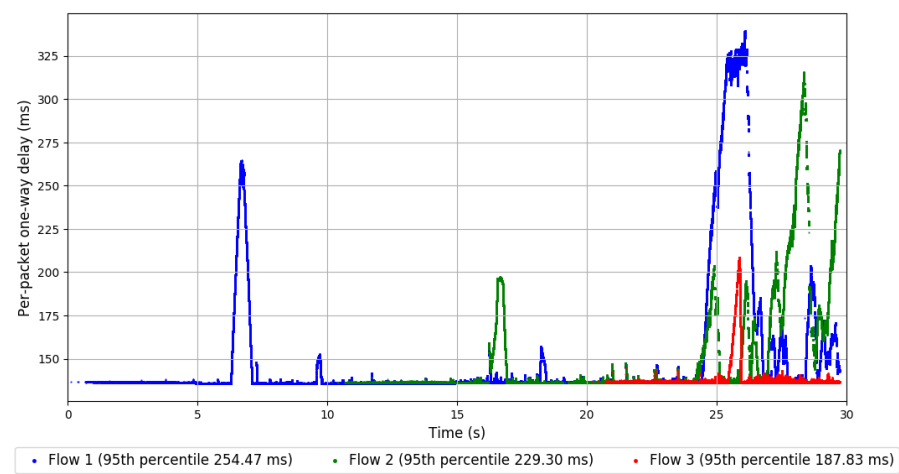
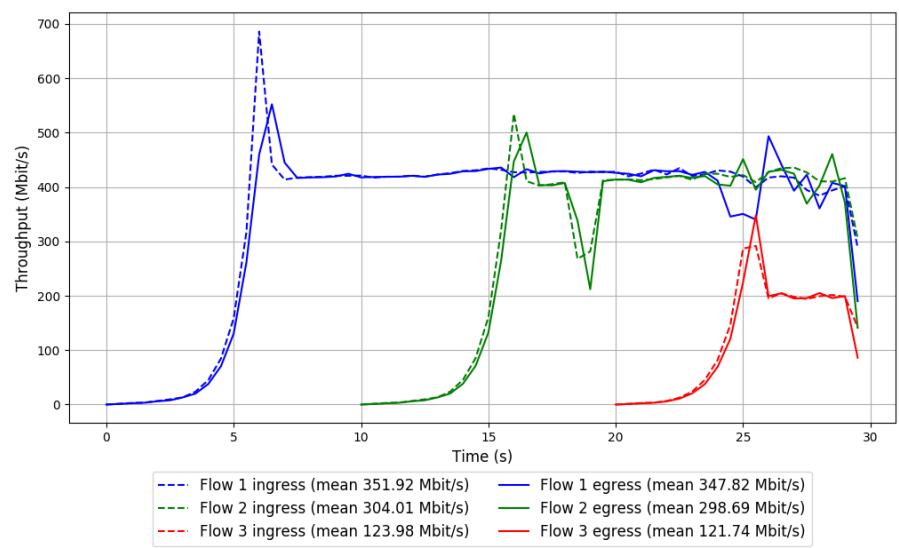
-- Flow 3:

Average throughput: 121.74 Mbit/s

95th percentile per-packet one-way delay: 187.833 ms

Loss rate: 4.55%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-02-17 23:07:17

End at: 2018-02-17 23:07:47

Below is generated by plot.py at 2018-02-18 05:30:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 578.43 Mbit/s

95th percentile per-packet one-way delay: 241.797 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 356.85 Mbit/s

95th percentile per-packet one-way delay: 250.453 ms

Loss rate: 0.69%

-- Flow 2:

Average throughput: 288.01 Mbit/s

95th percentile per-packet one-way delay: 239.405 ms

Loss rate: 2.08%

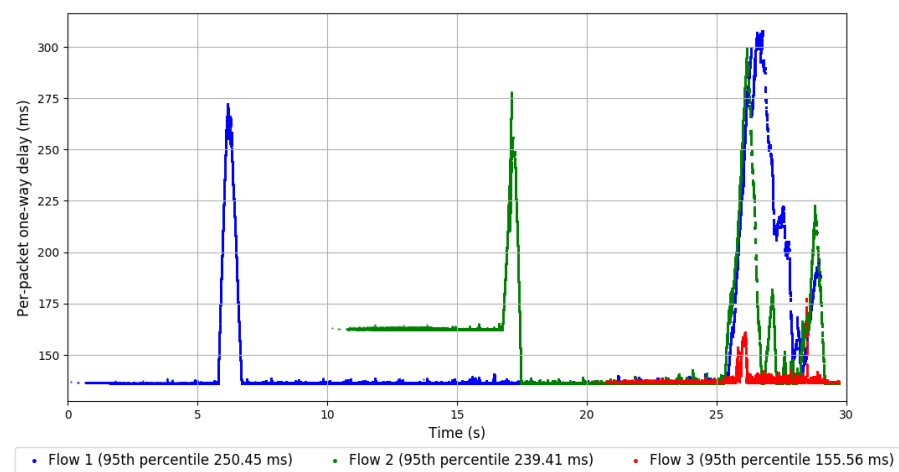
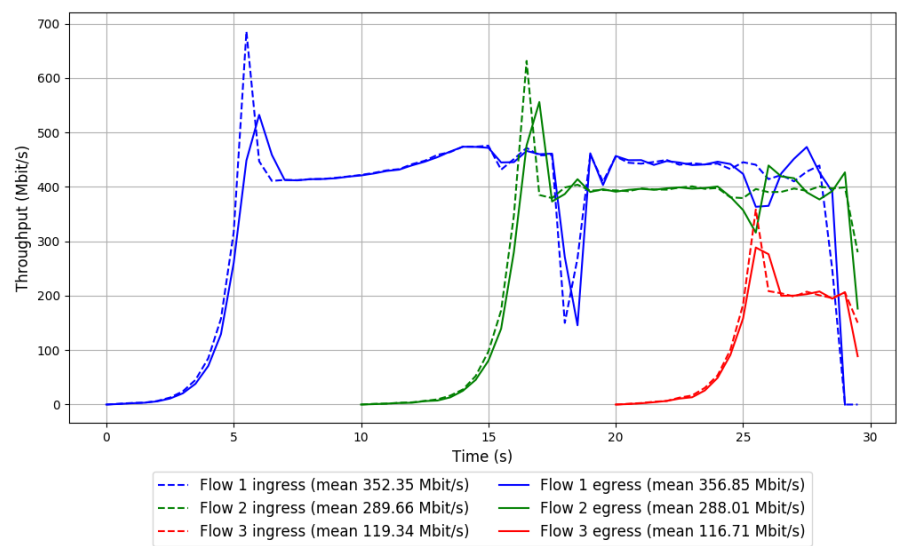
-- Flow 3:

Average throughput: 116.71 Mbit/s

95th percentile per-packet one-way delay: 155.562 ms

Loss rate: 4.94%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-02-17 23:27:40

End at: 2018-02-17 23:28:10

Below is generated by plot.py at 2018-02-18 05:30:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 609.14 Mbit/s

95th percentile per-packet one-way delay: 248.252 ms

Loss rate: 2.53%

-- Flow 1:

Average throughput: 362.50 Mbit/s

95th percentile per-packet one-way delay: 251.030 ms

Loss rate: 2.26%

-- Flow 2:

Average throughput: 308.97 Mbit/s

95th percentile per-packet one-way delay: 228.557 ms

Loss rate: 2.34%

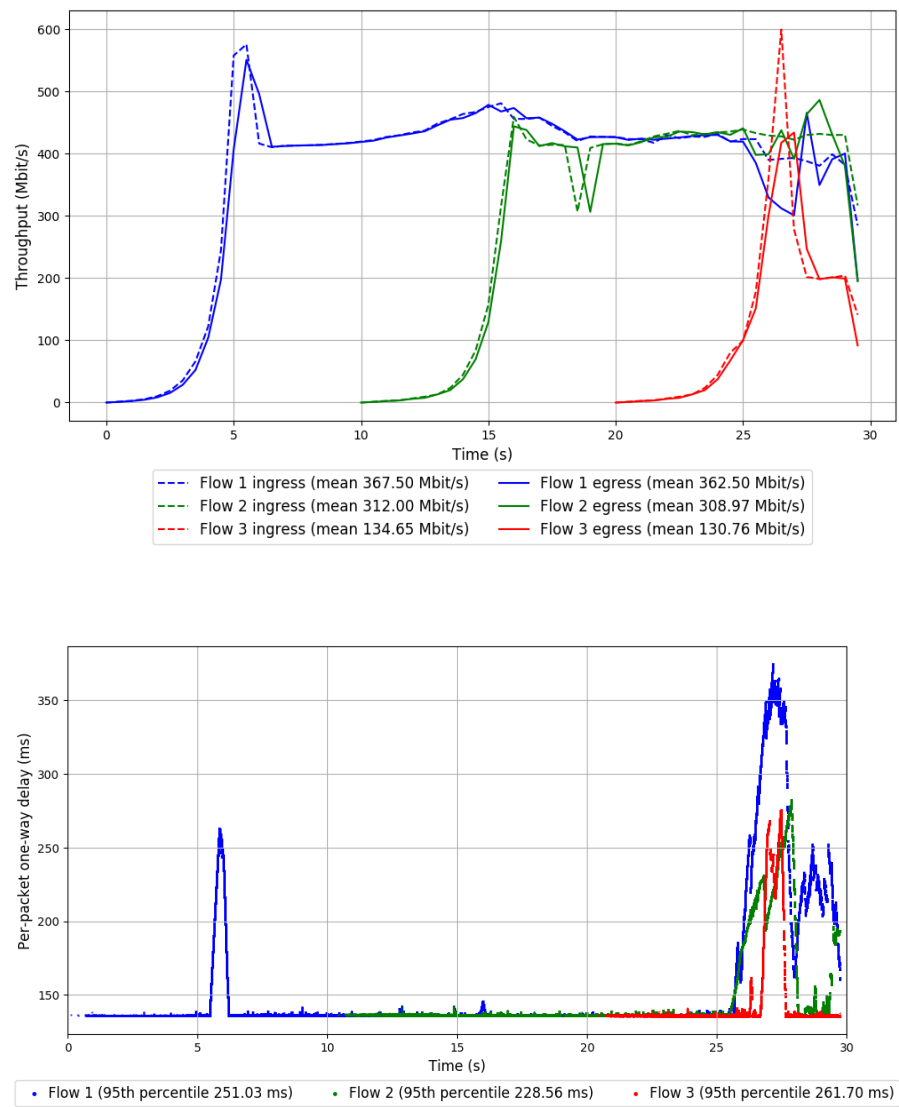
-- Flow 3:

Average throughput: 130.76 Mbit/s

95th percentile per-packet one-way delay: 261.697 ms

Loss rate: 5.58%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-02-17 23:48:33

End at: 2018-02-17 23:49:03

Below is generated by plot.py at 2018-02-18 05:30:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 572.74 Mbit/s

95th percentile per-packet one-way delay: 285.855 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 368.96 Mbit/s

95th percentile per-packet one-way delay: 265.668 ms

Loss rate: 2.21%

-- Flow 2:

Average throughput: 240.03 Mbit/s

95th percentile per-packet one-way delay: 308.048 ms

Loss rate: 2.90%

-- Flow 3:

Average throughput: 139.34 Mbit/s

95th percentile per-packet one-way delay: 289.681 ms

Loss rate: 6.23%

Run 10: Report of Vivace-LTE — Data Link

