

Pantheon Report

Generated at 2018-01-31 14:14:41 (UTC).

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

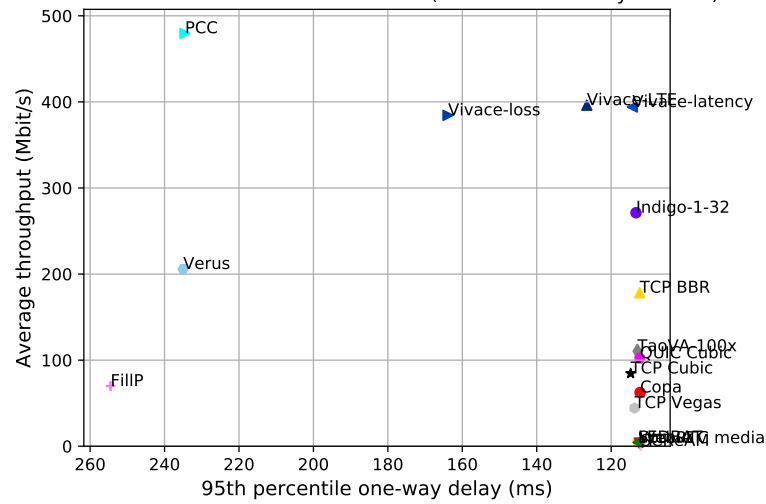
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

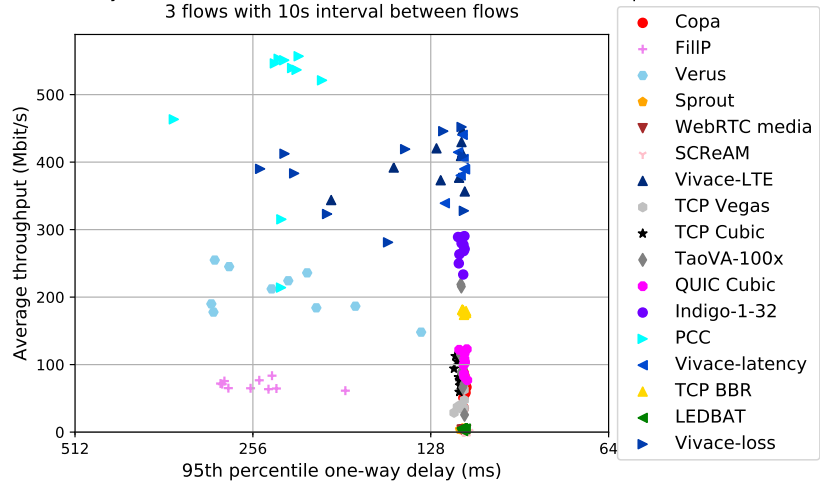
Git summary:

```
branch: master @ 70217998b3c9a7166a95460a70c0854d1326e100
third_party/calibrated_koho @ 3cb73c0d1c0322cdfae446ea37a522e53227db50
  M datagrump/sender.cc
third_party/fillp @ fb9c9ab842e5614ad52911a76fb9bd1c1b0dca86
third_party/genericCC @ 80b516c448f795fd6e9675f7177b69c622f07da8
third_party/indigo @ a9b2060d39e4da2e8987e893e3eca2a6c7cd0ab9
third_party/indigo-1-layer-128-unit @ 3ae9e4ef4230db7484501f82ce8b377695f2f66d
third_party/indigo-1-layer-32-unit @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/indigo-1-layer-32-unit-no-calib @ 1f3a7f75b41135ed5b540c0fd3505939528e2a5f
third_party/indigo-no-calib @ 7224f2202e8a044d8306fa0b983ad84360c53d89
third_party/koho_cc @ f0f2e693303aee82ea808e6928eac4f1083a6681
  M datagrump/sender.cc
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ fb1053193c2861da659ba9013db26744ccfcf993
third_party/pcc @ 1afc958fa0d66d18b623c091a55fec872b4981e1
  M receiver/src/buffer.h
  M receiver/src/core.cpp
  M sender/src/buffer.h
  M sender/src/core.cpp
third_party/proto-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream @ c3370fd7bd17265a79aeb34e4016ad23f5965885
third_party/sourdough @ f1a14bffe749737437f61b1eaeeb30b267cde681
third_party/sprout @ 6f2efe6e088d91066a9f023df375eee2665089ce
  M src/examples/cellsim.cc
  M src/examples/sproutbt2.cc
  M src/network/sproutconn.cc
third_party/verus @ d4b447ea74c6c60a261149af2629562939f9a494
  M src/verus.hpp
  M tools/plot.py
third_party/vivace @ 7a4ba531e75b4a6f66f5c4580192120401784ce3
third_party/webrtc @ a488197ddd041ace68a42849b2540ad834825f42
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	9	91.71	90.15	82.47	112.23	112.25	113.06	0.95	1.22	2.46
TCP Cubic	10	38.47	45.82	42.48	114.01	114.48	116.63	1.60	1.93	3.01
LEDBAT	10	2.30	2.44	1.42	112.92	112.70	115.02	1.94	2.41	4.36
PCC	10	430.72	47.71	53.84	235.18	215.00	202.30	3.17	1.98	3.57
QUIC Cubic	10	53.46	53.00	42.29	111.61	110.66	111.79	0.93	1.09	2.33
SCReAM	10	0.25	0.19	0.21	552.53	111.74	111.21	0.64	1.16	2.14
WebRTC media	10	2.04	1.22	0.39	112.00	111.47	112.51	0.92	1.44	4.75
Sprout	10	2.20	2.17	1.78	112.84	112.73	112.62	1.20	2.31	4.58
TaoVA-100x	10	59.03	32.92	90.30	112.56	111.98	113.42	1.43	1.40	3.25
TCP Vegas	9	20.69	23.60	24.55	113.58	113.58	113.59	1.44	2.11	2.98
Verus	10	103.91	123.74	63.47	186.16	229.10	230.85	1.53	4.52	4.80
Copa	10	32.59	27.35	35.98	112.21	111.89	112.13	0.64	0.83	3.43
FillP	10	24.29	34.79	69.37	259.26	255.22	241.63	5.95	5.78	5.35
Indigo-1-32	10	142.83	141.79	108.25	112.96	113.87	113.76	0.86	1.16	2.75
Vivace-latency	7	233.03	186.11	117.94	117.11	112.65	127.58	0.80	1.63	3.48
Vivace-loss	10	218.99	178.48	147.40	175.87	129.93	150.96	1.86	2.09	3.48
Vivace-LTE	10	224.05	199.07	124.72	118.92	128.90	128.36	0.87	1.57	3.21

Run 1: Statistics of TCP BBR

Start at: 2018-01-31 07:12:24

End at: 2018-01-31 07:12:54

Below is generated by plot.py at 2018-01-31 13:16:54

Datalink statistics

-- Total of 3 flows:

Average throughput: 173.68 Mbit/s

95th percentile per-packet one-way delay: 112.455 ms

Loss rate: 1.80%

-- Flow 1:

Average throughput: 87.64 Mbit/s

95th percentile per-packet one-way delay: 112.449 ms

Loss rate: 1.87%

-- Flow 2:

Average throughput: 89.47 Mbit/s

95th percentile per-packet one-way delay: 112.405 ms

Loss rate: 1.29%

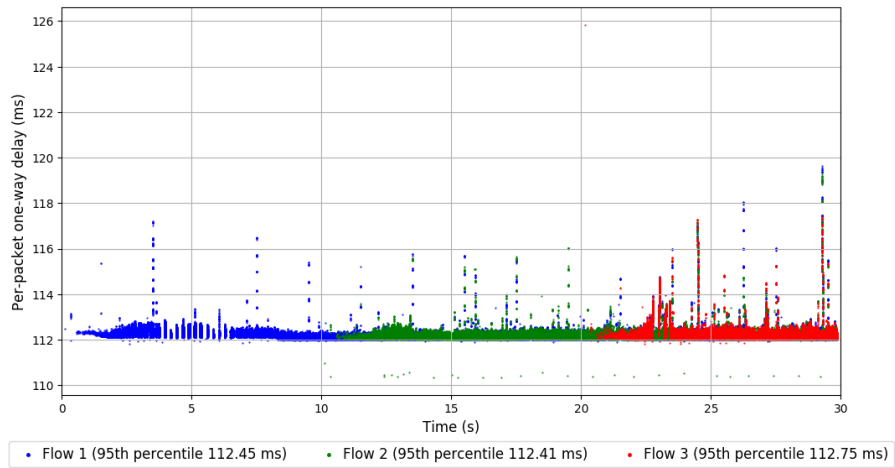
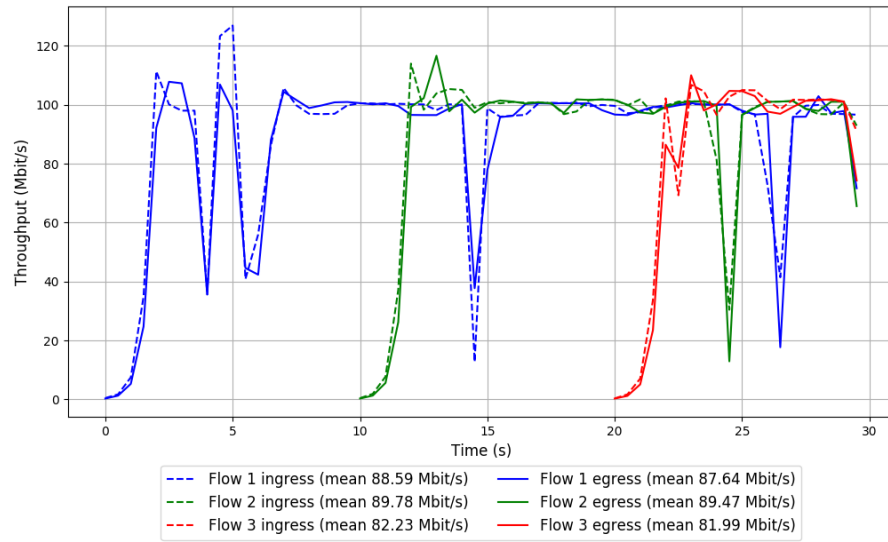
-- Flow 3:

Average throughput: 81.99 Mbit/s

95th percentile per-packet one-way delay: 112.745 ms

Loss rate: 2.69%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-01-31 07:29:44

End at: 2018-01-31 07:30:14

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.66 Mbit/s

95th percentile per-packet one-way delay: 113.197 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 93.87 Mbit/s

95th percentile per-packet one-way delay: 112.980 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 91.42 Mbit/s

95th percentile per-packet one-way delay: 113.056 ms

Loss rate: 1.21%

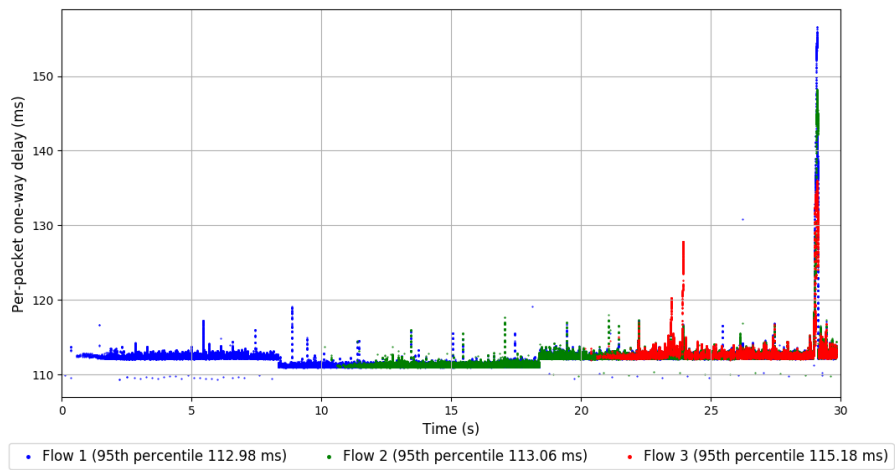
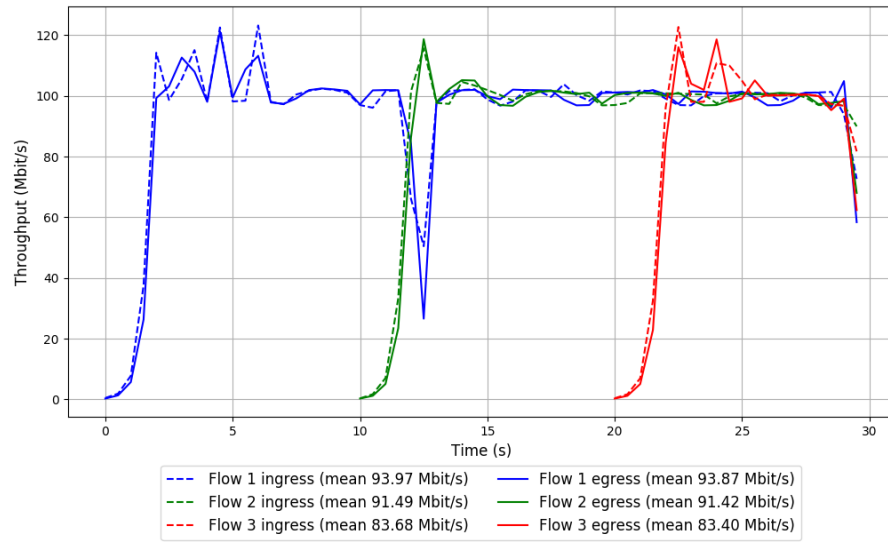
-- Flow 3:

Average throughput: 83.40 Mbit/s

95th percentile per-packet one-way delay: 115.178 ms

Loss rate: 2.62%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-31 07:47:27

End at: 2018-01-31 07:47:57

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 179.31 Mbit/s

95th percentile per-packet one-way delay: 111.539 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 93.25 Mbit/s

95th percentile per-packet one-way delay: 111.500 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 89.46 Mbit/s

95th percentile per-packet one-way delay: 111.566 ms

Loss rate: 1.21%

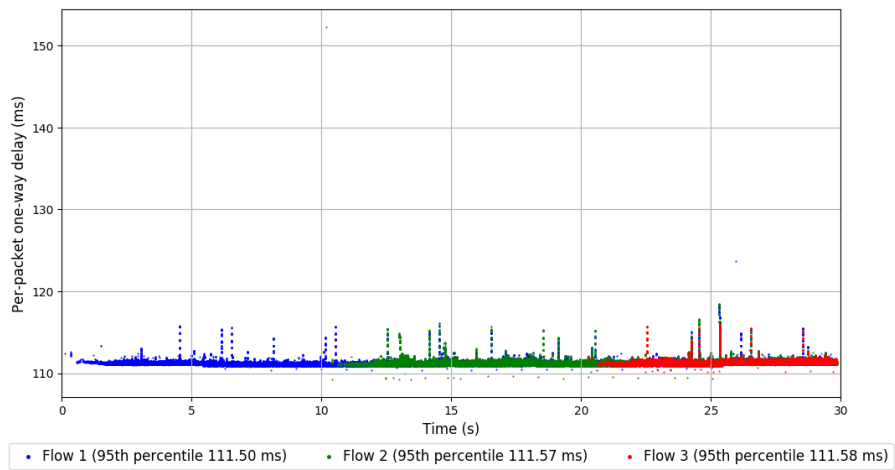
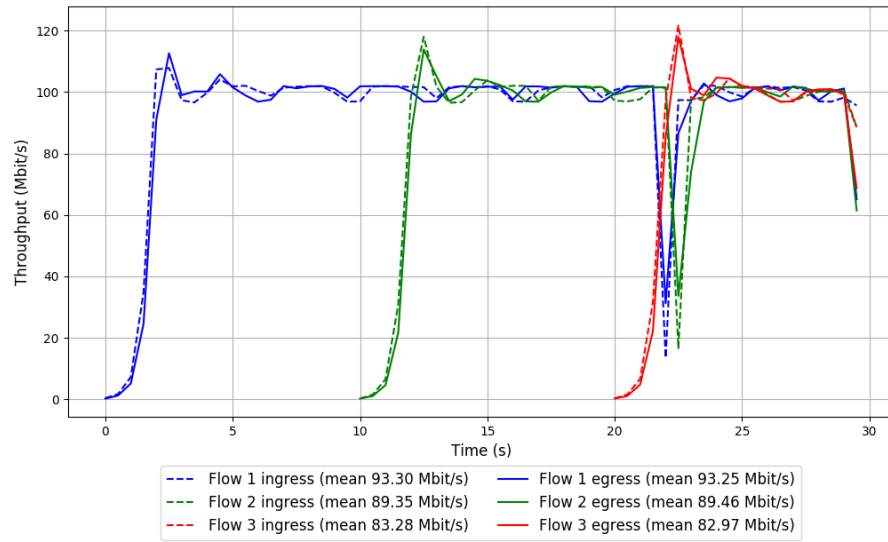
-- Flow 3:

Average throughput: 82.97 Mbit/s

95th percentile per-packet one-way delay: 111.581 ms

Loss rate: 2.62%

Run 3: Report of TCP BBR — Data Link



Run 4: Statistics of TCP BBR

Start at: 2018-01-31 08:05:13

End at: 2018-01-31 08:05:43

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.02 Mbit/s

95th percentile per-packet one-way delay: 111.561 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 89.68 Mbit/s

95th percentile per-packet one-way delay: 111.548 ms

Loss rate: 1.11%

-- Flow 2:

Average throughput: 90.53 Mbit/s

95th percentile per-packet one-way delay: 111.515 ms

Loss rate: 1.21%

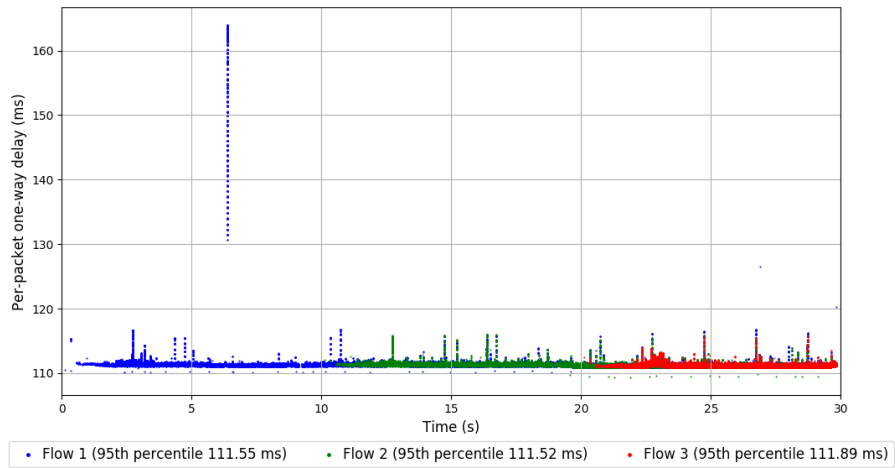
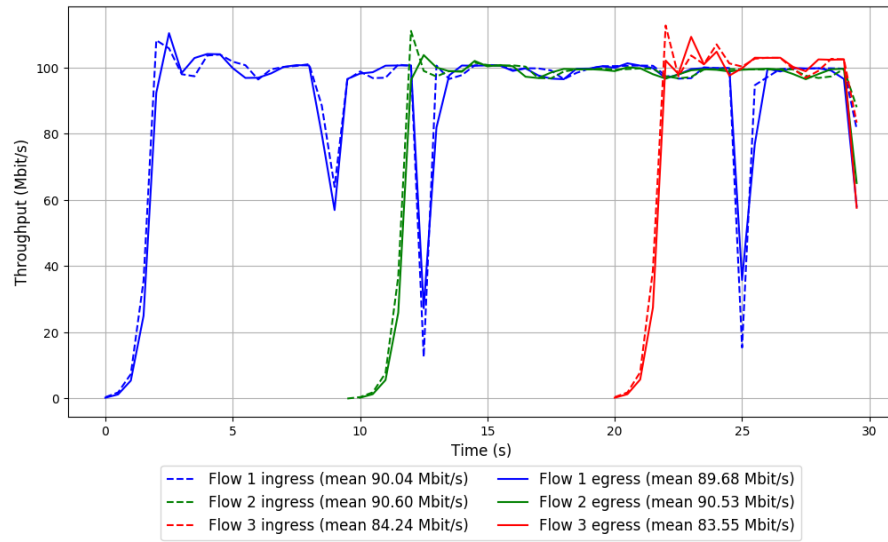
-- Flow 3:

Average throughput: 83.55 Mbit/s

95th percentile per-packet one-way delay: 111.892 ms

Loss rate: 2.69%

Run 4: Report of TCP BBR — Data Link



Run 5: Statistics of TCP BBR

Start at: 2018-01-31 08:23:00

End at: 2018-01-31 08:23:30

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 175.95 Mbit/s

95th percentile per-packet one-way delay: 111.996 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 91.18 Mbit/s

95th percentile per-packet one-way delay: 112.030 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 87.78 Mbit/s

95th percentile per-packet one-way delay: 111.913 ms

Loss rate: 1.25%

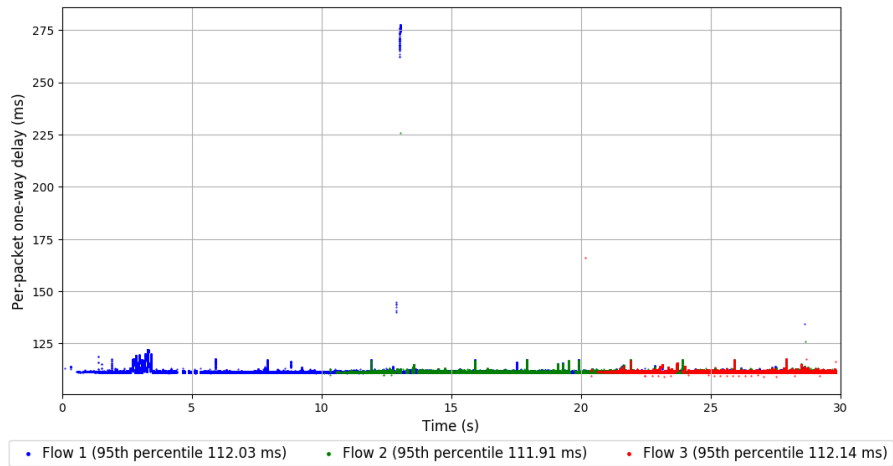
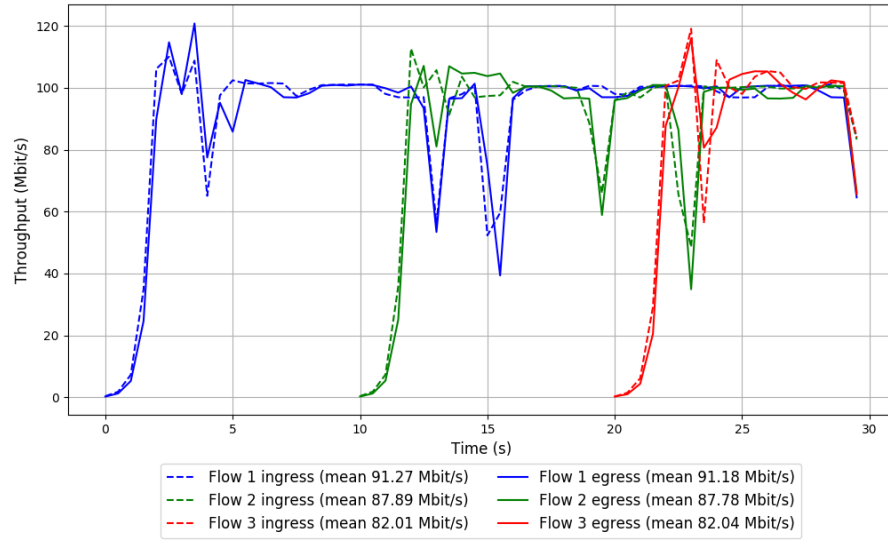
-- Flow 3:

Average throughput: 82.04 Mbit/s

95th percentile per-packet one-way delay: 112.136 ms

Loss rate: 2.73%

Run 5: Report of TCP BBR — Data Link



Run 6: Statistics of TCP BBR

Start at: 2018-01-31 08:40:46

End at: 2018-01-31 08:41:16

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 176.65 Mbit/s

95th percentile per-packet one-way delay: 111.558 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 91.62 Mbit/s

95th percentile per-packet one-way delay: 111.525 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 88.74 Mbit/s

95th percentile per-packet one-way delay: 111.580 ms

Loss rate: 1.23%

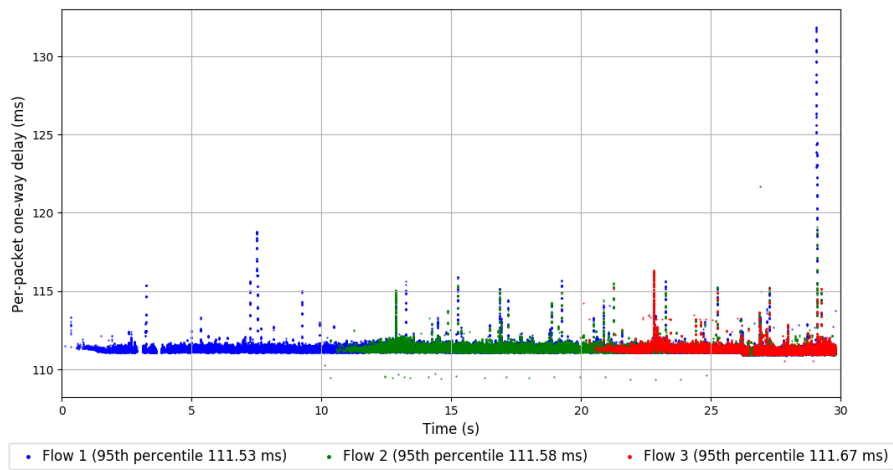
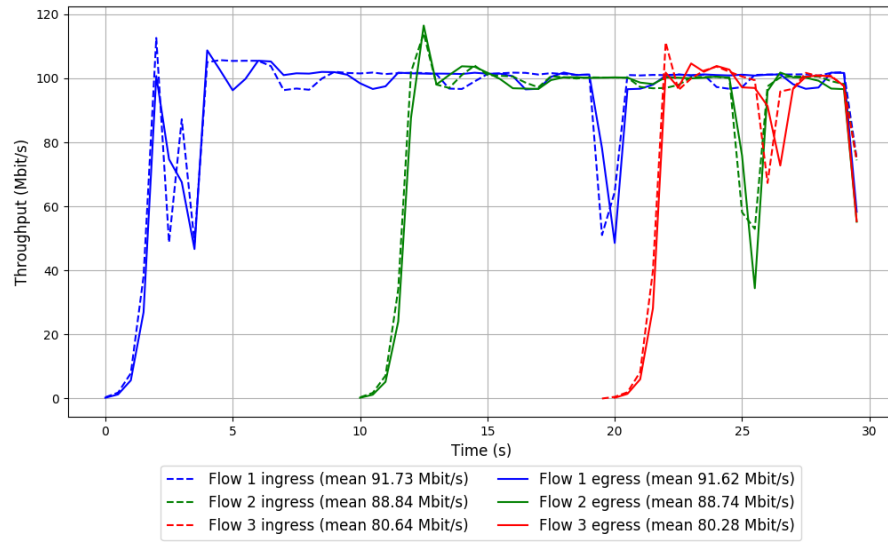
-- Flow 3:

Average throughput: 80.28 Mbit/s

95th percentile per-packet one-way delay: 111.667 ms

Loss rate: 2.72%

Run 6: Report of TCP BBR — Data Link



Run 7: Statistics of TCP BBR

Start at: 2018-01-31 08:58:04

End at: 2018-01-31 08:58:34

Below is generated by plot.py at 2018-01-31 13:17:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 181.00 Mbit/s

95th percentile per-packet one-way delay: 113.210 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 93.74 Mbit/s

95th percentile per-packet one-way delay: 112.633 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 90.52 Mbit/s

95th percentile per-packet one-way delay: 112.764 ms

Loss rate: 1.20%

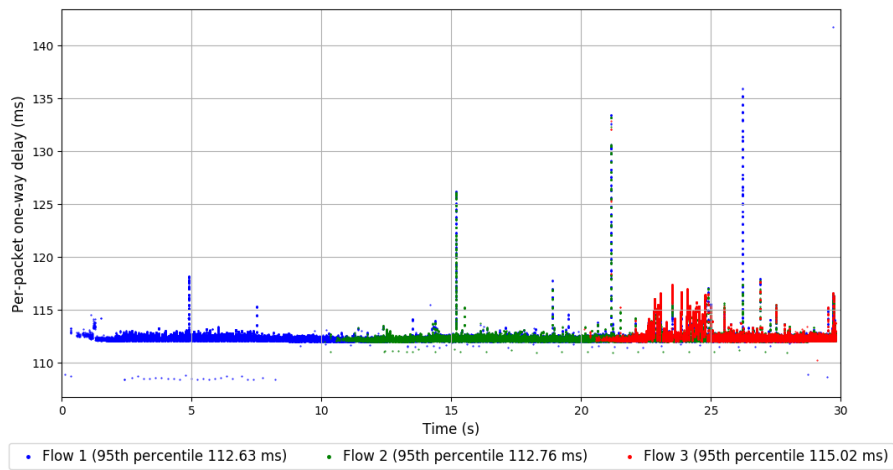
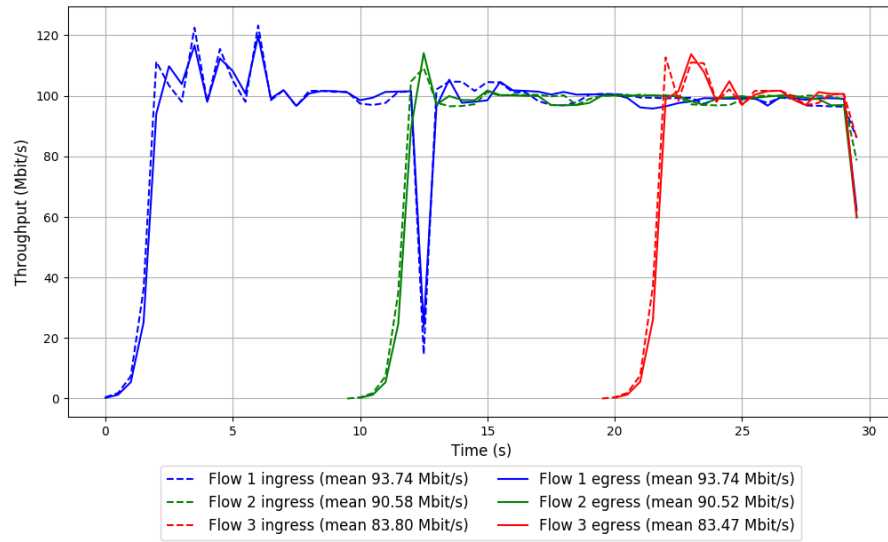
-- Flow 3:

Average throughput: 83.47 Mbit/s

95th percentile per-packet one-way delay: 115.018 ms

Loss rate: 2.78%

Run 7: Report of TCP BBR — Data Link

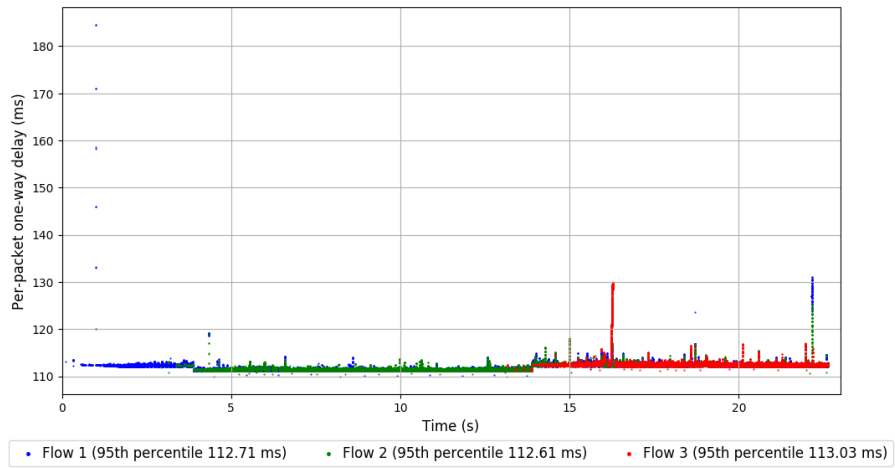
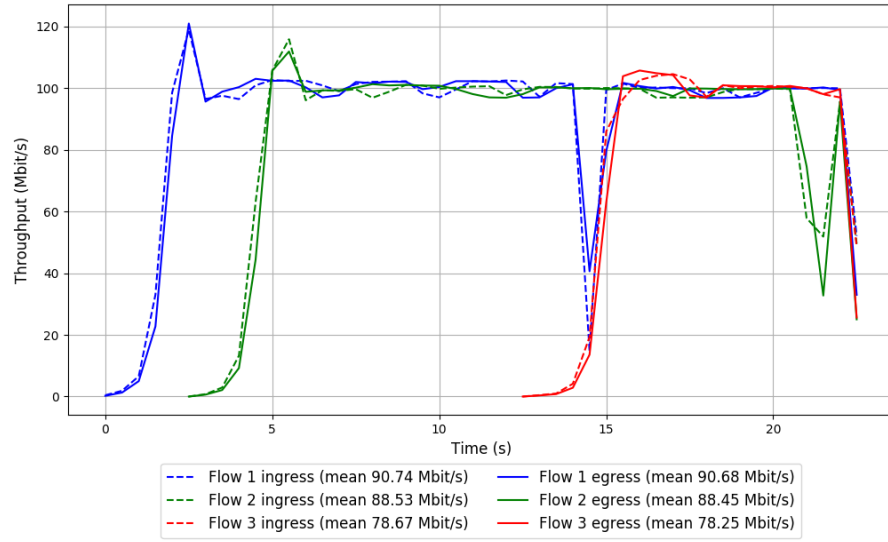


Run 8: Statistics of TCP BBR

Start at: 2018-01-31 09:15:41

End at: 2018-01-31 09:16:11

Run 8: Report of TCP BBR — Data Link



Run 9: Statistics of TCP BBR

Start at: 2018-01-31 09:33:03

End at: 2018-01-31 09:33:33

Below is generated by plot.py at 2018-01-31 13:19:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 178.85 Mbit/s

95th percentile per-packet one-way delay: 112.683 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 91.90 Mbit/s

95th percentile per-packet one-way delay: 112.611 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 91.16 Mbit/s

95th percentile per-packet one-way delay: 112.664 ms

Loss rate: 1.18%

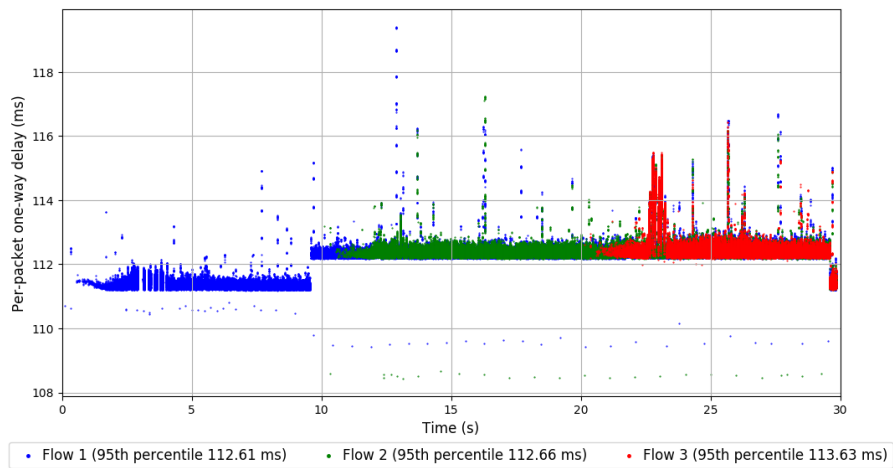
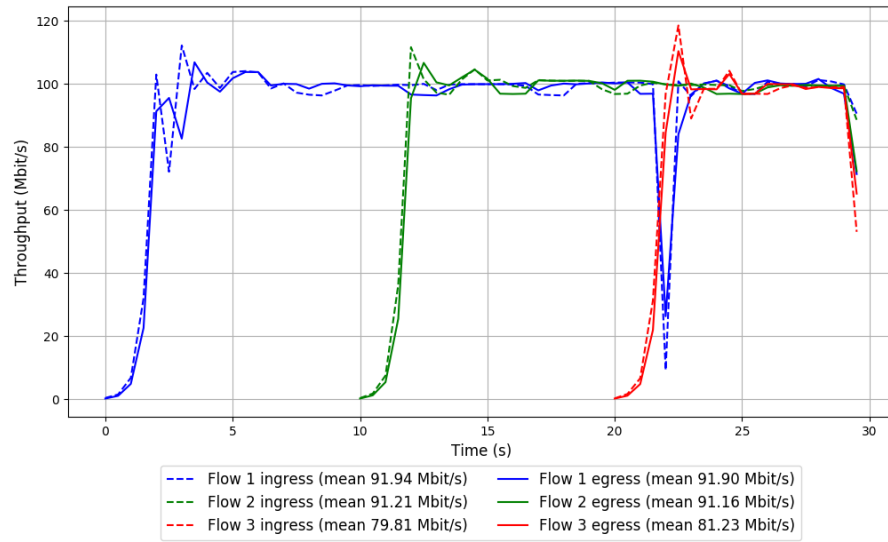
-- Flow 3:

Average throughput: 81.23 Mbit/s

95th percentile per-packet one-way delay: 113.628 ms

Loss rate: 0.52%

Run 9: Report of TCP BBR — Data Link



Run 10: Statistics of TCP BBR

Start at: 2018-01-31 09:50:51

End at: 2018-01-31 09:51:21

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 180.80 Mbit/s

95th percentile per-packet one-way delay: 112.813 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 92.49 Mbit/s

95th percentile per-packet one-way delay: 112.758 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 92.24 Mbit/s

95th percentile per-packet one-way delay: 112.769 ms

Loss rate: 1.18%

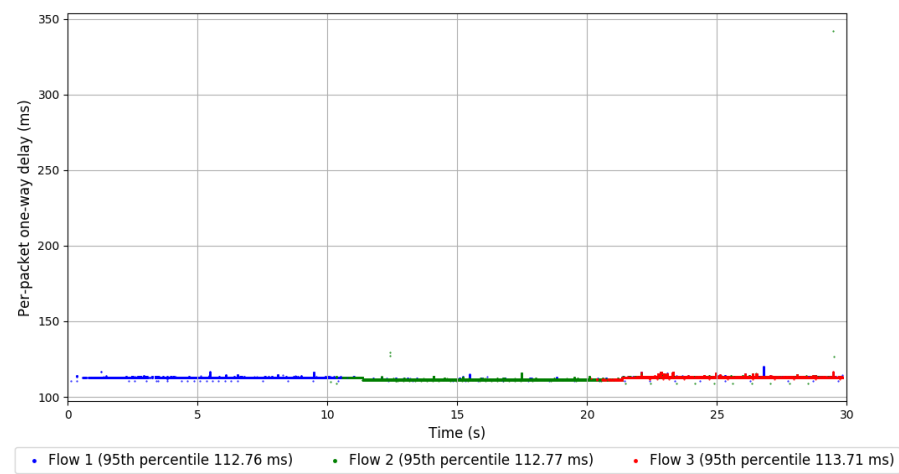
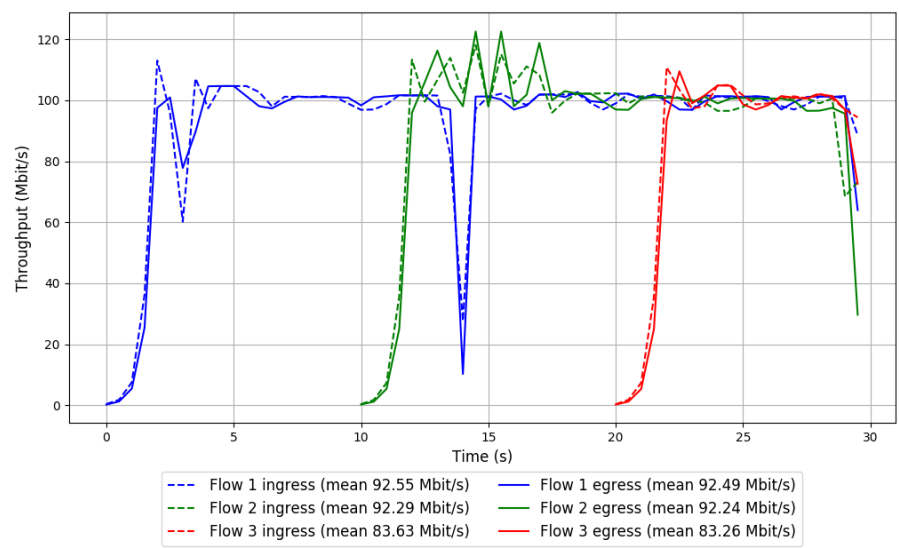
-- Flow 3:

Average throughput: 83.26 Mbit/s

95th percentile per-packet one-way delay: 113.712 ms

Loss rate: 2.77%

Run 10: Report of TCP BBR — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-01-31 07:14:52

End at: 2018-01-31 07:15:22

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 94.01 Mbit/s

95th percentile per-packet one-way delay: 116.899 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 45.04 Mbit/s

95th percentile per-packet one-way delay: 116.722 ms

Loss rate: 0.88%

-- Flow 2:

Average throughput: 45.89 Mbit/s

95th percentile per-packet one-way delay: 118.090 ms

Loss rate: 1.36%

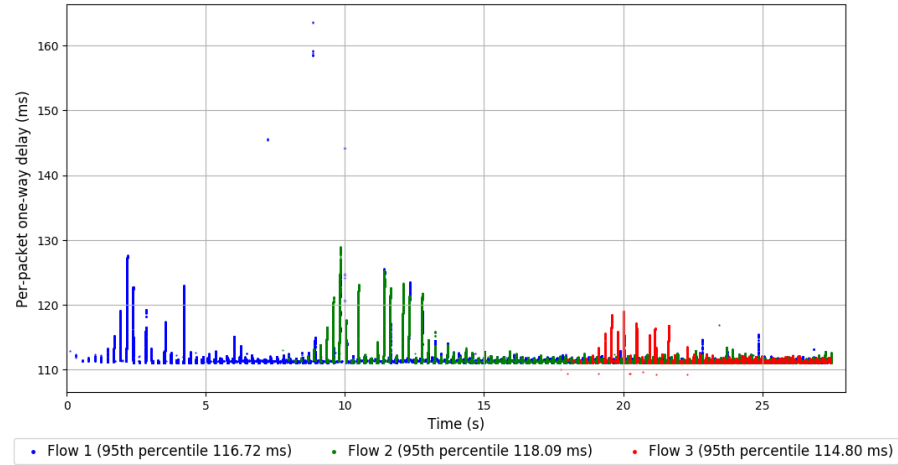
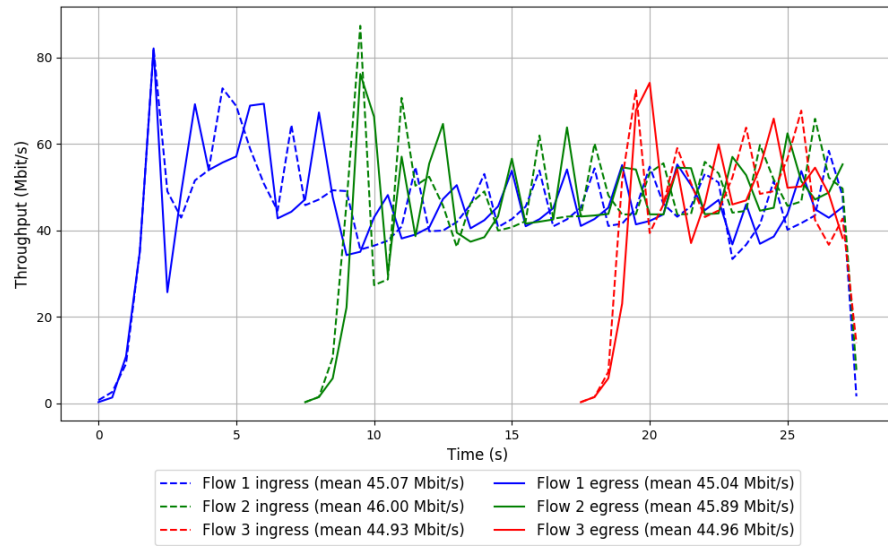
-- Flow 3:

Average throughput: 44.96 Mbit/s

95th percentile per-packet one-way delay: 114.796 ms

Loss rate: 2.17%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-01-31 07:32:14

End at: 2018-01-31 07:32:44

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.02 Mbit/s

95th percentile per-packet one-way delay: 113.698 ms

Loss rate: 2.24%

-- Flow 1:

Average throughput: 43.35 Mbit/s

95th percentile per-packet one-way delay: 113.613 ms

Loss rate: 2.92%

-- Flow 2:

Average throughput: 46.69 Mbit/s

95th percentile per-packet one-way delay: 114.003 ms

Loss rate: 1.26%

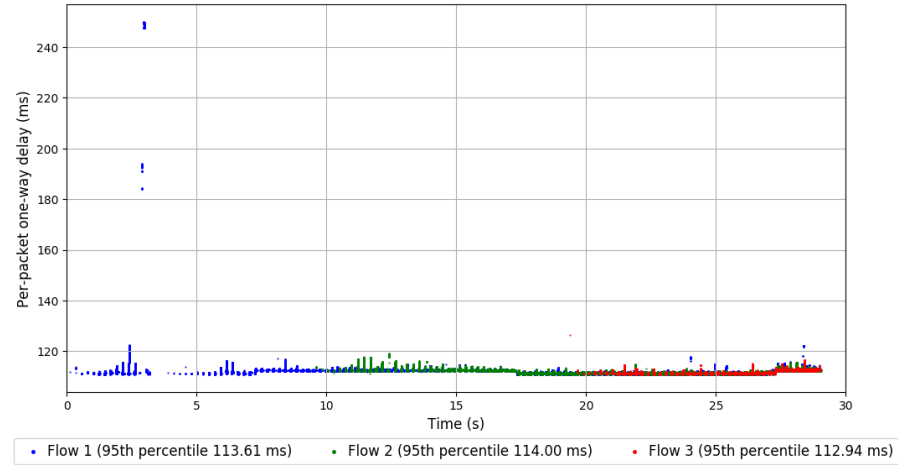
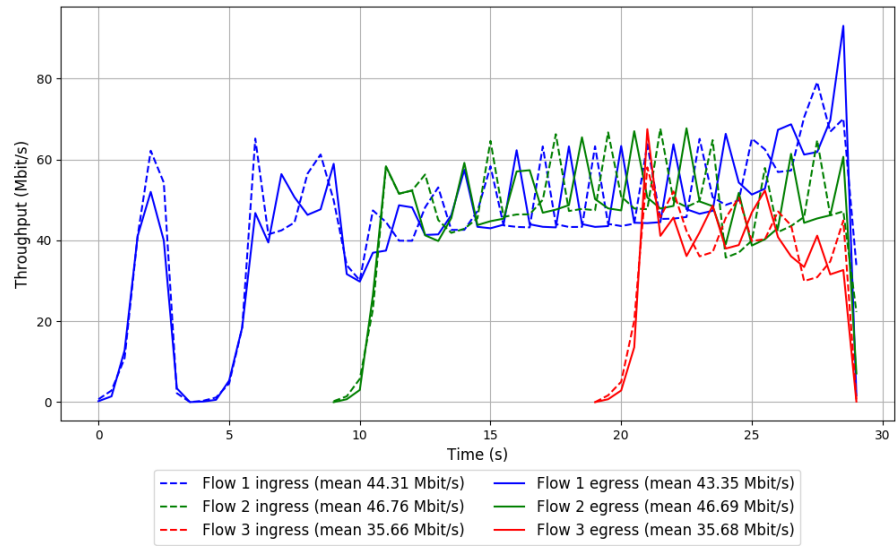
-- Flow 3:

Average throughput: 35.68 Mbit/s

95th percentile per-packet one-way delay: 112.945 ms

Loss rate: 2.34%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-01-31 07:49:57

End at: 2018-01-31 07:50:27

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.85 Mbit/s

95th percentile per-packet one-way delay: 114.415 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 35.64 Mbit/s

95th percentile per-packet one-way delay: 114.009 ms

Loss rate: 1.41%

-- Flow 2:

Average throughput: 39.30 Mbit/s

95th percentile per-packet one-way delay: 113.437 ms

Loss rate: 1.21%

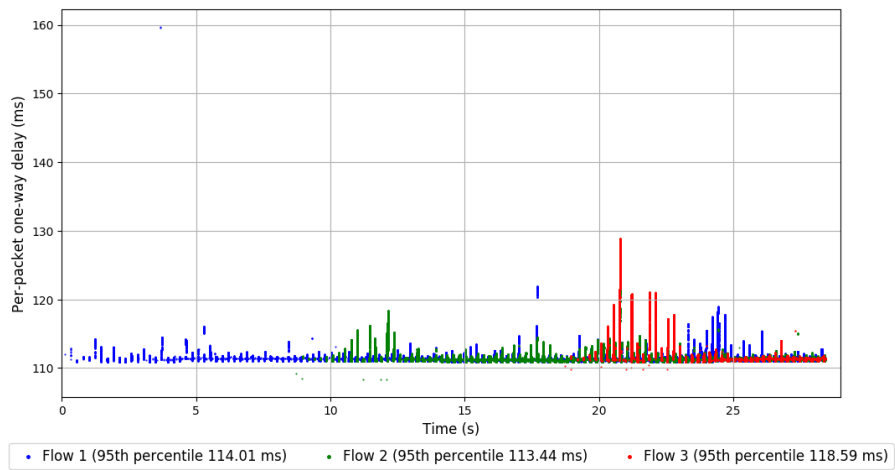
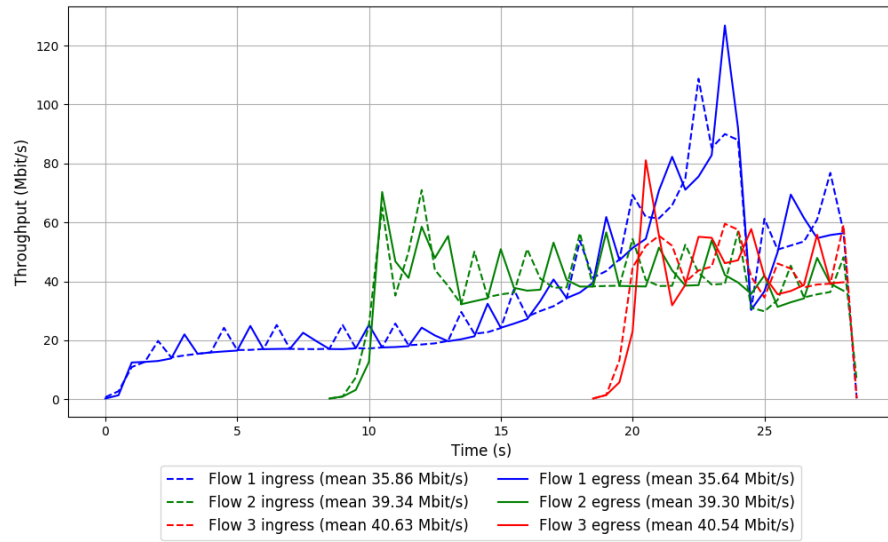
-- Flow 3:

Average throughput: 40.54 Mbit/s

95th percentile per-packet one-way delay: 118.589 ms

Loss rate: 2.49%

Run 3: Report of TCP Cubic — Data Link



Run 4: Statistics of TCP Cubic

Start at: 2018-01-31 08:07:43

End at: 2018-01-31 08:08:13

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 81.31 Mbit/s

95th percentile per-packet one-way delay: 114.799 ms

Loss rate: 2.57%

-- Flow 1:

Average throughput: 27.76 Mbit/s

95th percentile per-packet one-way delay: 113.447 ms

Loss rate: 2.14%

-- Flow 2:

Average throughput: 46.82 Mbit/s

95th percentile per-packet one-way delay: 113.986 ms

Loss rate: 2.73%

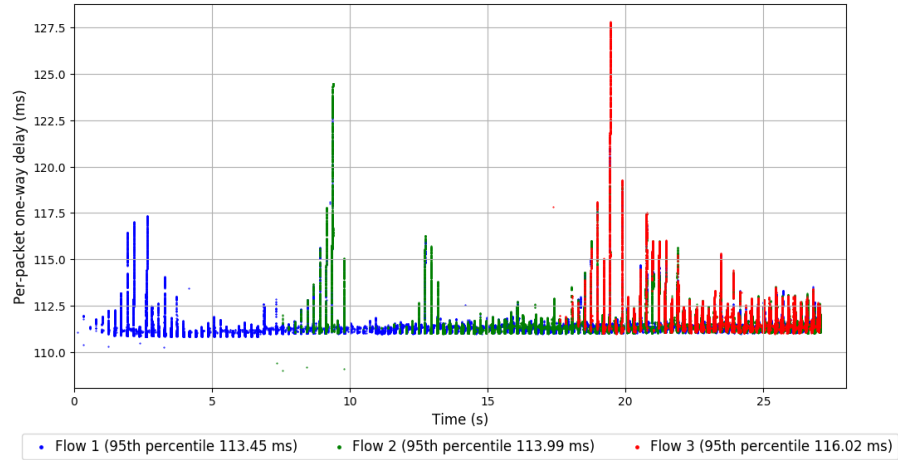
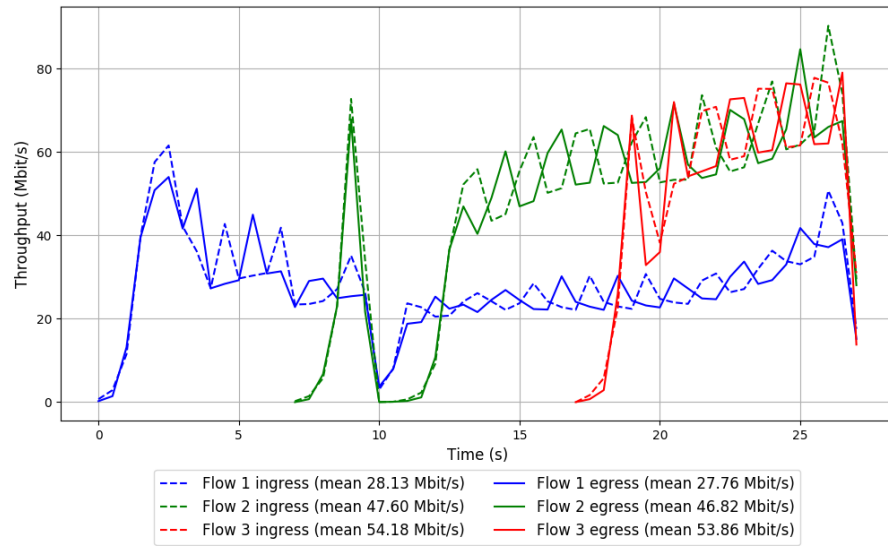
-- Flow 3:

Average throughput: 53.86 Mbit/s

95th percentile per-packet one-way delay: 116.024 ms

Loss rate: 2.89%

Run 4: Report of TCP Cubic — Data Link



Run 5: Statistics of TCP Cubic

Start at: 2018-01-31 08:25:30

End at: 2018-01-31 08:26:00

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 112.60 Mbit/s

95th percentile per-packet one-way delay: 116.286 ms

Loss rate: 1.26%

-- Flow 1:

Average throughput: 50.15 Mbit/s

95th percentile per-packet one-way delay: 113.578 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 62.86 Mbit/s

95th percentile per-packet one-way delay: 114.551 ms

Loss rate: 1.48%

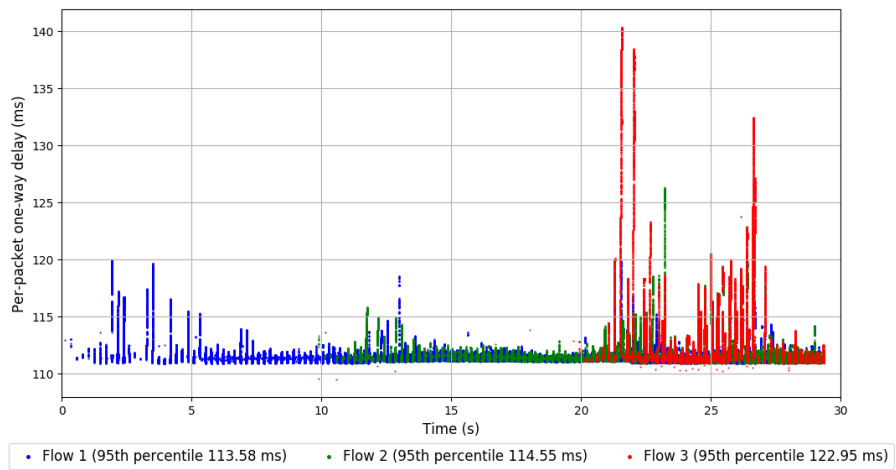
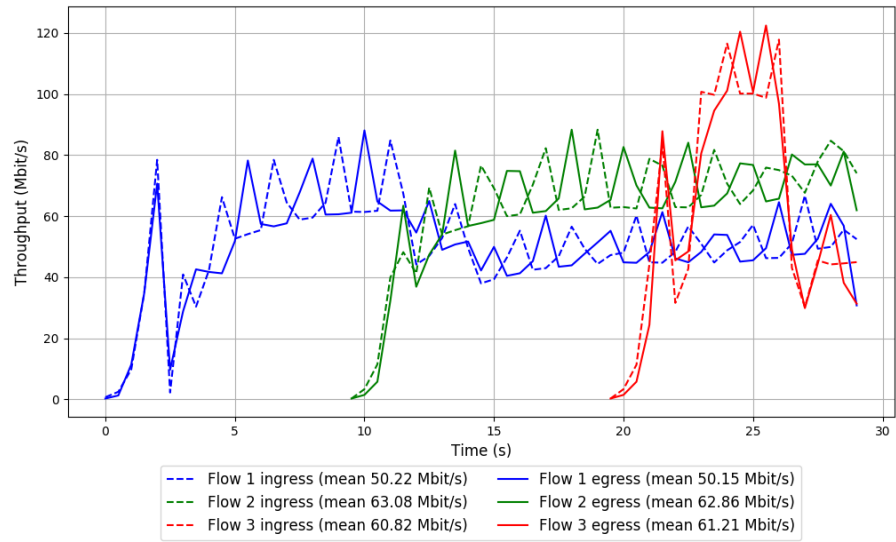
-- Flow 3:

Average throughput: 61.21 Mbit/s

95th percentile per-packet one-way delay: 122.953 ms

Loss rate: 1.66%

Run 5: Report of TCP Cubic — Data Link



Run 6: Statistics of TCP Cubic

Start at: 2018-01-31 08:43:16

End at: 2018-01-31 08:43:46

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.61 Mbit/s

95th percentile per-packet one-way delay: 115.439 ms

Loss rate: 1.68%

-- Flow 1:

Average throughput: 41.44 Mbit/s

95th percentile per-packet one-way delay: 114.443 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 67.88 Mbit/s

95th percentile per-packet one-way delay: 114.436 ms

Loss rate: 1.73%

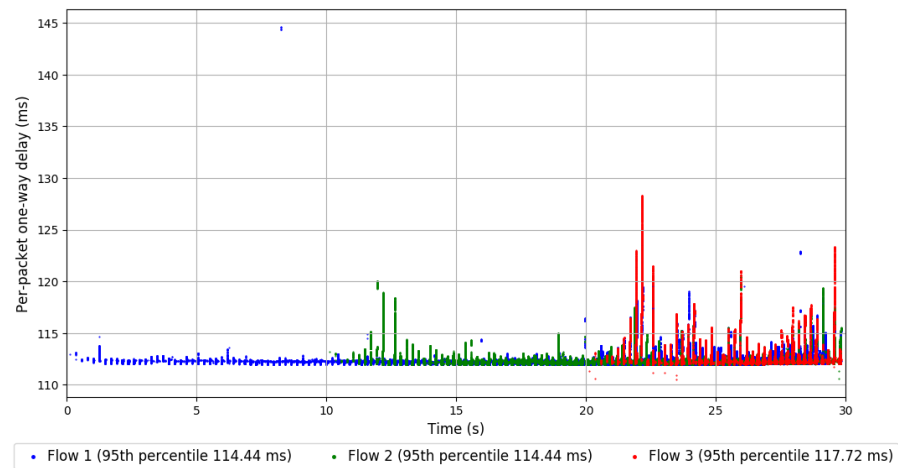
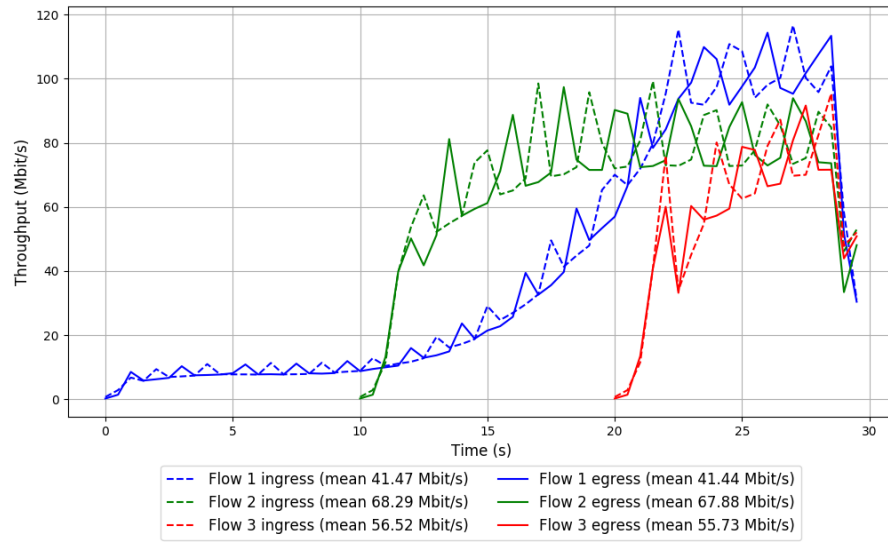
-- Flow 3:

Average throughput: 55.73 Mbit/s

95th percentile per-packet one-way delay: 117.717 ms

Loss rate: 3.60%

Run 6: Report of TCP Cubic — Data Link



Run 7: Statistics of TCP Cubic

Start at: 2018-01-31 09:00:34

End at: 2018-01-31 09:01:04

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 69.07 Mbit/s

95th percentile per-packet one-way delay: 114.283 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 41.34 Mbit/s

95th percentile per-packet one-way delay: 114.384 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 20.90 Mbit/s

95th percentile per-packet one-way delay: 113.406 ms

Loss rate: 5.18%

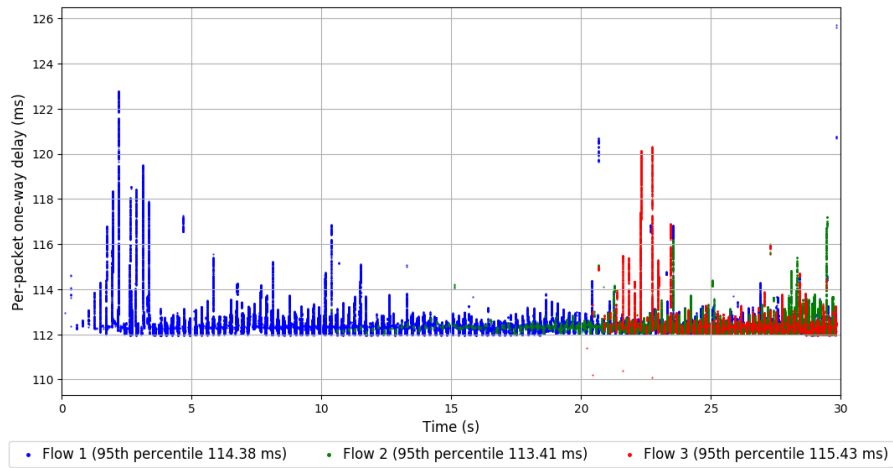
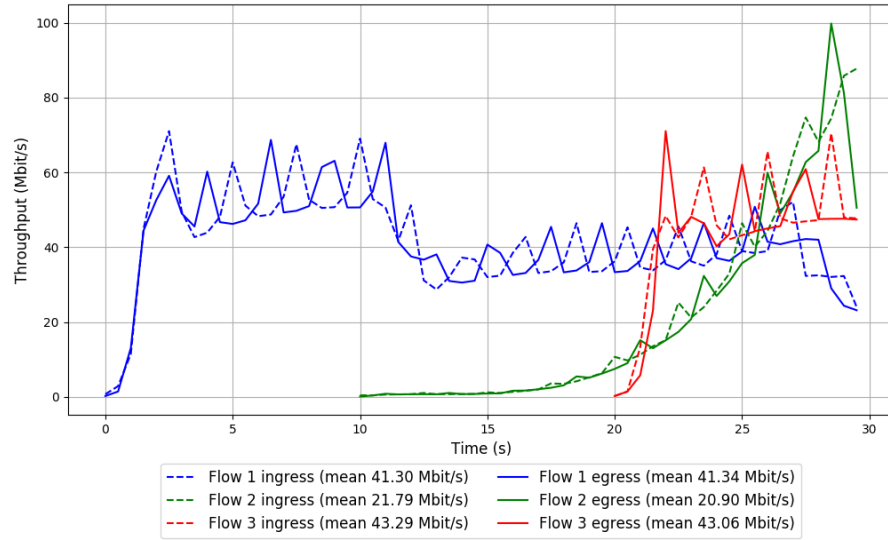
-- Flow 3:

Average throughput: 43.06 Mbit/s

95th percentile per-packet one-way delay: 115.432 ms

Loss rate: 2.80%

Run 7: Report of TCP Cubic — Data Link



Run 8: Statistics of TCP Cubic

Start at: 2018-01-31 09:18:11

End at: 2018-01-31 09:18:41

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.58 Mbit/s

95th percentile per-packet one-way delay: 113.987 ms

Loss rate: 1.18%

-- Flow 1:

Average throughput: 50.98 Mbit/s

95th percentile per-packet one-way delay: 113.404 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 39.21 Mbit/s

95th percentile per-packet one-way delay: 113.992 ms

Loss rate: 1.39%

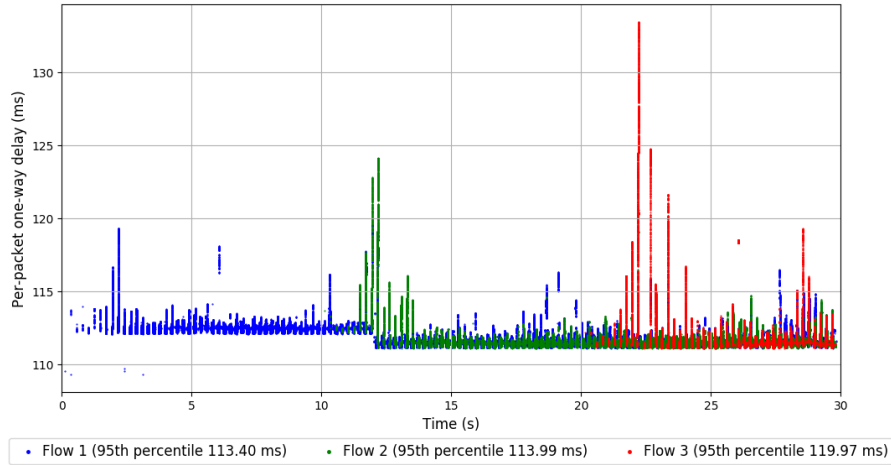
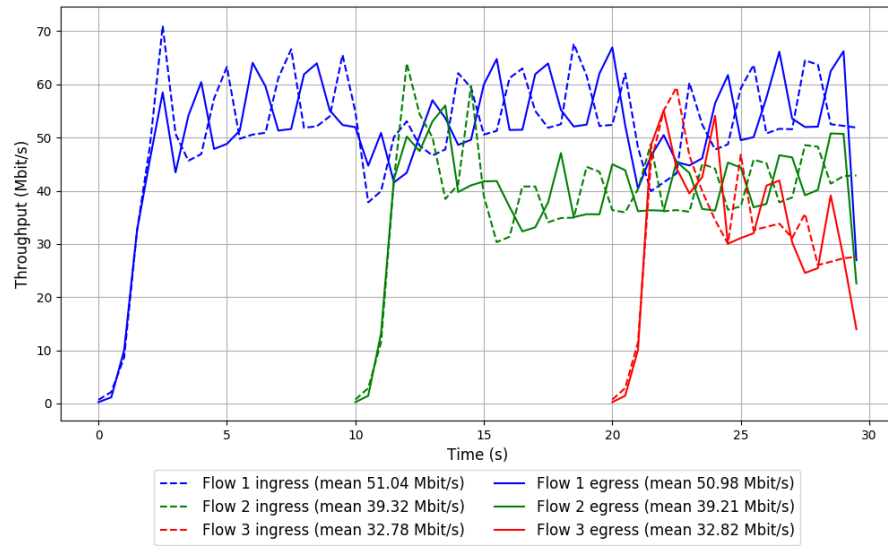
-- Flow 3:

Average throughput: 32.82 Mbit/s

95th percentile per-packet one-way delay: 119.975 ms

Loss rate: 2.16%

Run 8: Report of TCP Cubic — Data Link



Run 9: Statistics of TCP Cubic

Start at: 2018-01-31 09:35:32

End at: 2018-01-31 09:36:02

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 59.63 Mbit/s

95th percentile per-packet one-way delay: 114.517 ms

Loss rate: 2.75%

-- Flow 1:

Average throughput: 26.60 Mbit/s

95th percentile per-packet one-way delay: 113.257 ms

Loss rate: 3.24%

-- Flow 2:

Average throughput: 44.39 Mbit/s

95th percentile per-packet one-way delay: 115.773 ms

Loss rate: 1.72%

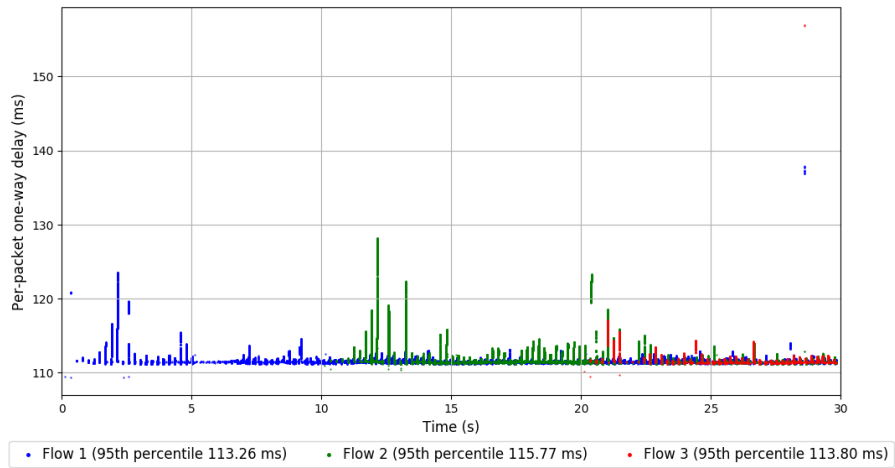
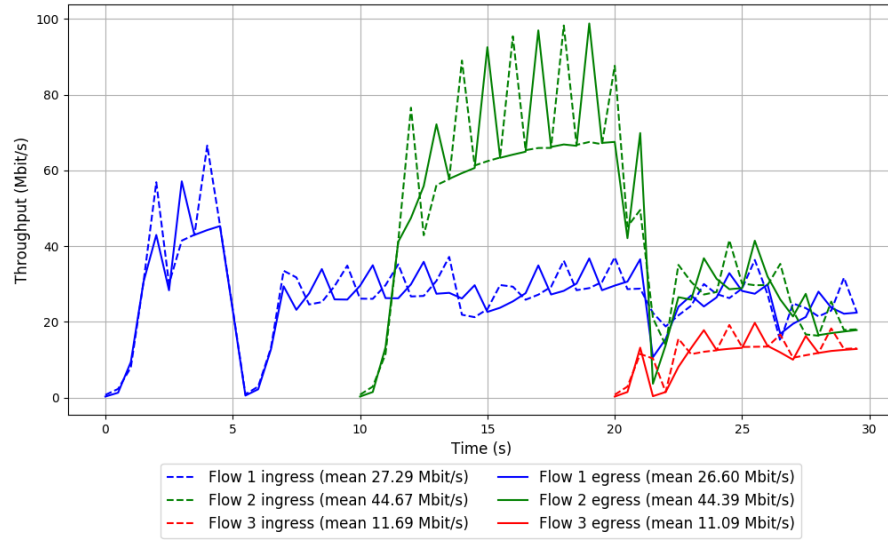
-- Flow 3:

Average throughput: 11.09 Mbit/s

95th percentile per-packet one-way delay: 113.797 ms

Loss rate: 7.25%

Run 9: Report of TCP Cubic — Data Link



Run 10: Statistics of TCP Cubic

Start at: 2018-01-31 09:53:20

End at: 2018-01-31 09:53:50

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.72 Mbit/s

95th percentile per-packet one-way delay: 113.342 ms

Loss rate: 1.92%

-- Flow 1:

Average throughput: 22.38 Mbit/s

95th percentile per-packet one-way delay: 113.285 ms

Loss rate: 2.33%

-- Flow 2:

Average throughput: 44.22 Mbit/s

95th percentile per-packet one-way delay: 113.088 ms

Loss rate: 1.23%

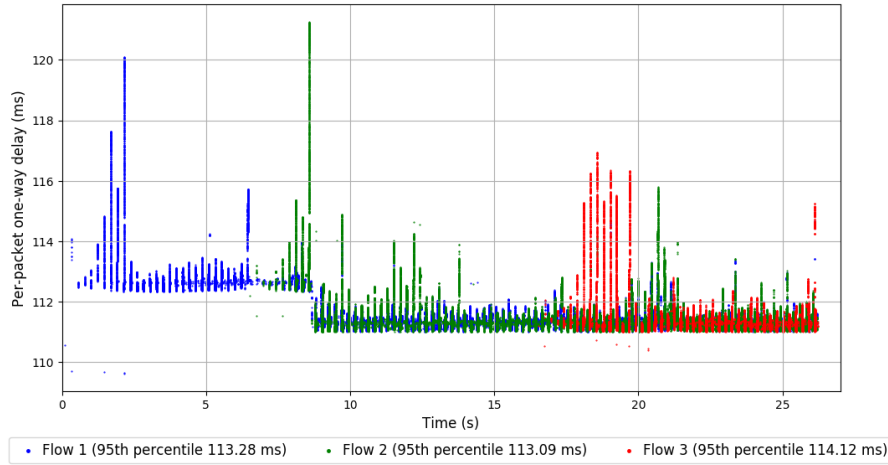
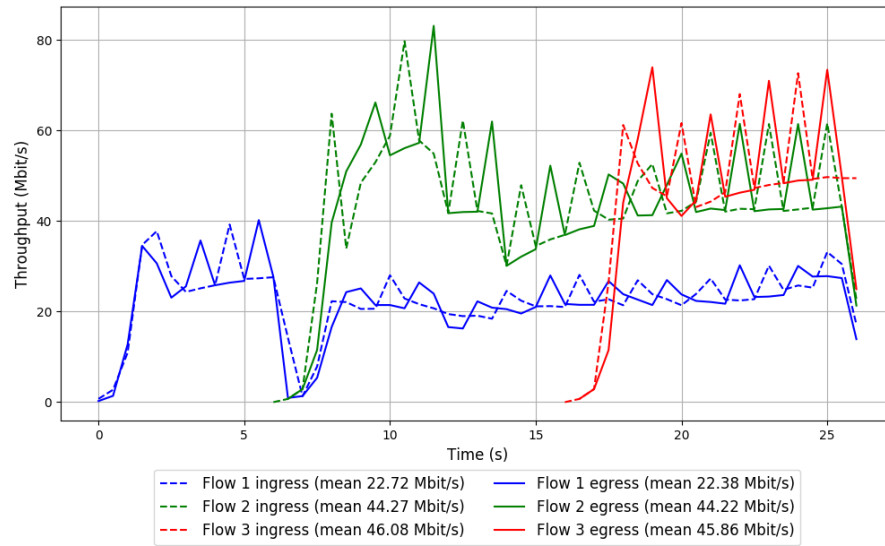
-- Flow 3:

Average throughput: 45.86 Mbit/s

95th percentile per-packet one-way delay: 114.117 ms

Loss rate: 2.71%

Run 10: Report of TCP Cubic — Data Link

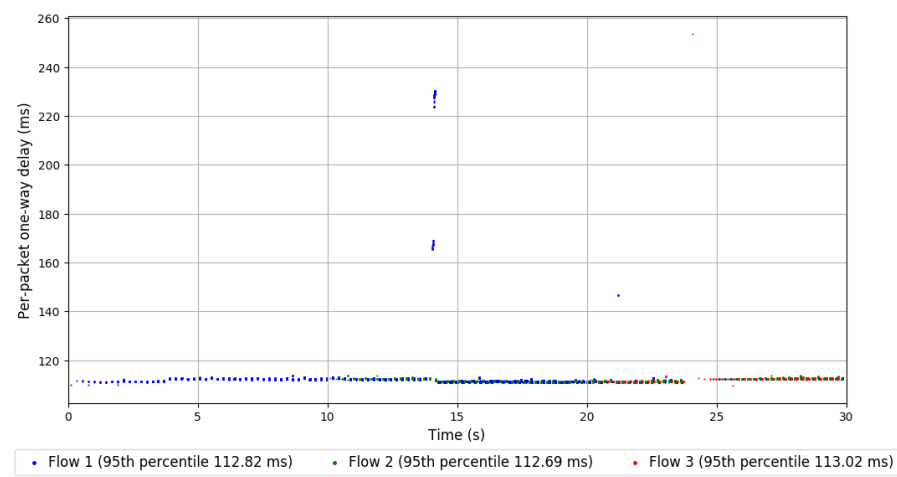
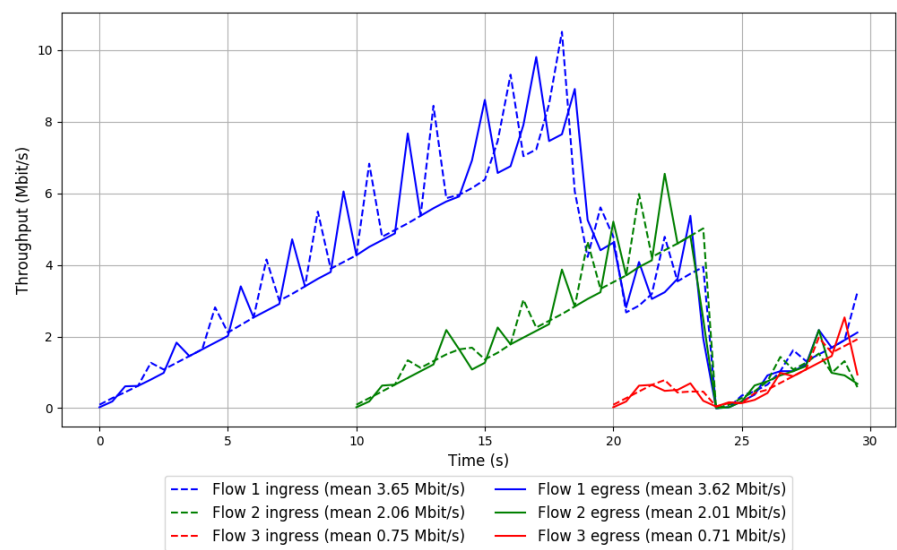


```
Run 1: Statistics of LEDBAT

Start at: 2018-01-31 07:21:09
End at: 2018-01-31 07:21:39

# Below is generated by plot.py at 2018-01-31 13:20:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.18 Mbit/s
95th percentile per-packet one-way delay: 112.796 ms
Loss rate: 2.28%
-- Flow 1:
Average throughput: 3.62 Mbit/s
95th percentile per-packet one-way delay: 112.824 ms
Loss rate: 1.43%
-- Flow 2:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 112.690 ms
Loss rate: 3.46%
-- Flow 3:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 113.016 ms
Loss rate: 8.27%
```


Run 1: Report of LEDBAT — Data Link

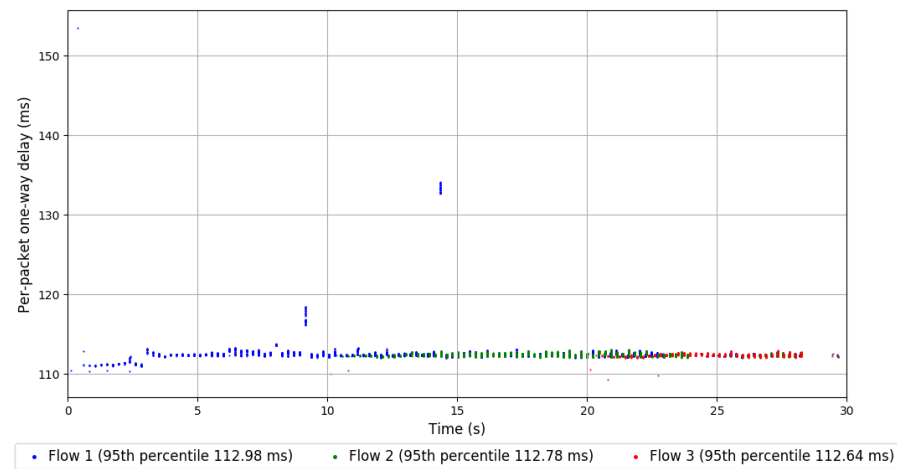
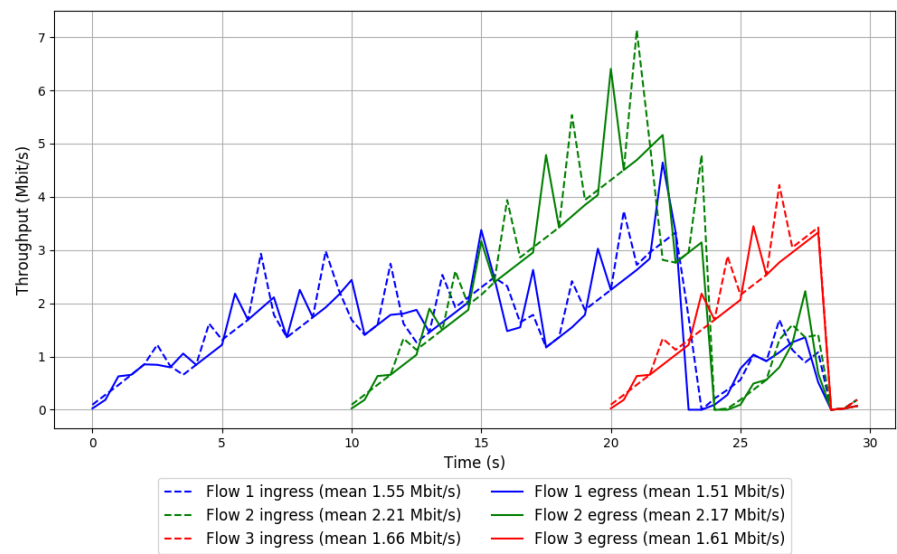


```
Run 2: Statistics of LEDBAT

Start at: 2018-01-31 07:38:50
End at: 2018-01-31 07:39:20

# Below is generated by plot.py at 2018-01-31 13:20:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.46 Mbit/s
95th percentile per-packet one-way delay: 112.847 ms
Loss rate: 3.58%
-- Flow 1:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 112.980 ms
Loss rate: 3.33%
-- Flow 2:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 112.784 ms
Loss rate: 3.06%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 112.637 ms
Loss rate: 5.70%
```

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-01-31 07:56:35

End at: 2018-01-31 07:57:05

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.33 Mbit/s

95th percentile per-packet one-way delay: 111.987 ms

Loss rate: 2.43%

-- Flow 1:

Average throughput: 2.39 Mbit/s

95th percentile per-packet one-way delay: 112.078 ms

Loss rate: 2.24%

-- Flow 2:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 111.718 ms

Loss rate: 1.74%

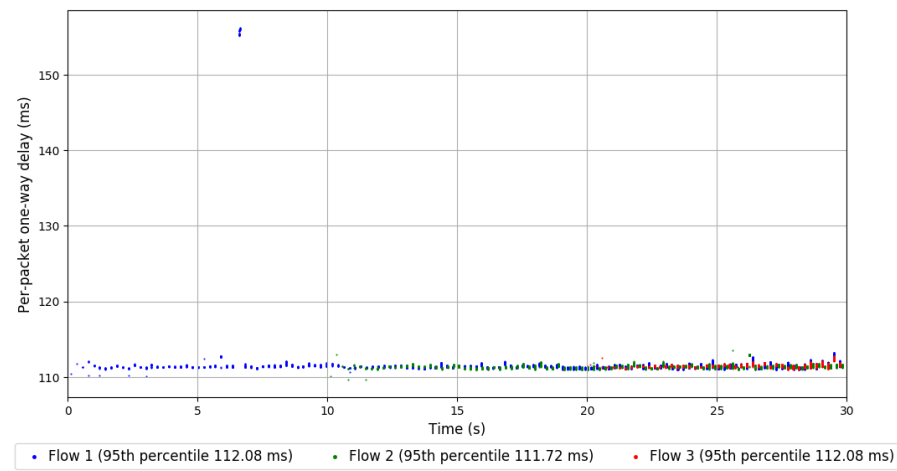
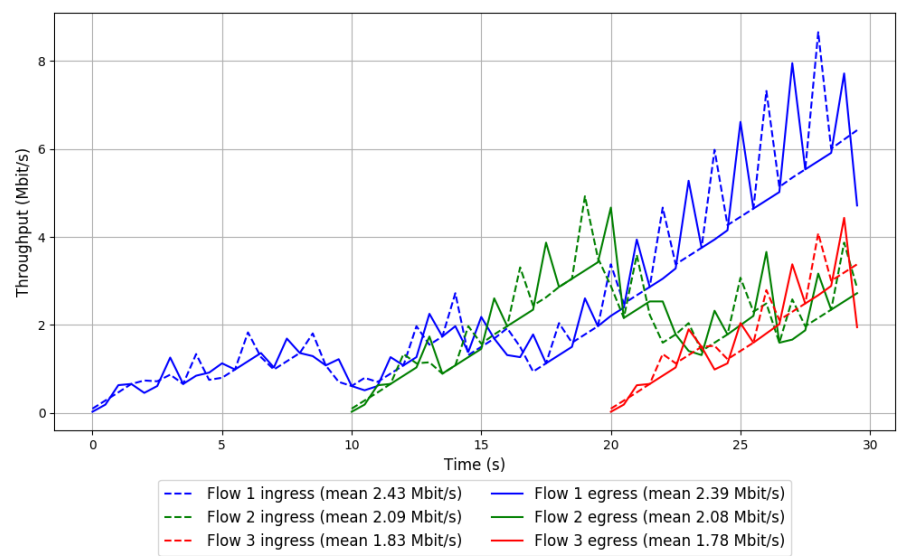
-- Flow 3:

Average throughput: 1.78 Mbit/s

95th percentile per-packet one-way delay: 112.075 ms

Loss rate: 4.78%

Run 3: Report of LEDBAT — Data Link



Run 4: Statistics of LEDBAT

Start at: 2018-01-31 08:14:11

End at: 2018-01-31 08:14:41

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 112.864 ms

Loss rate: 3.79%

-- Flow 1:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 113.014 ms

Loss rate: 3.56%

-- Flow 2:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 112.839 ms

Loss rate: 4.18%

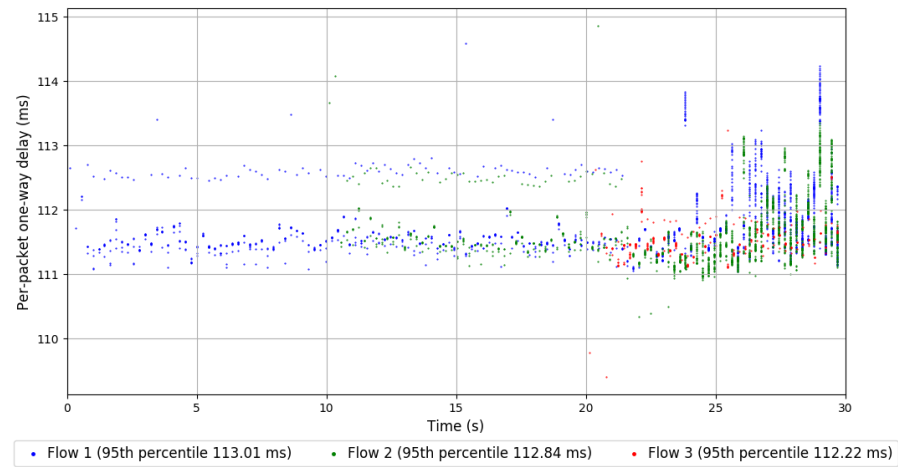
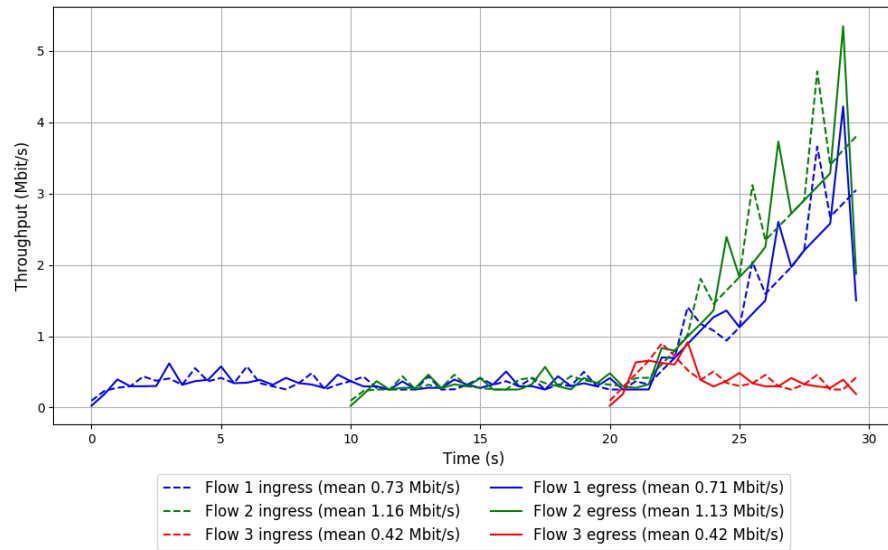
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 112.215 ms

Loss rate: 2.84%

Run 4: Report of LEDBAT — Data Link



Run 5: Statistics of LEDBAT

Start at: 2018-01-31 08:32:03

End at: 2018-01-31 08:32:33

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.28 Mbit/s

95th percentile per-packet one-way delay: 111.741 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 3.36 Mbit/s

95th percentile per-packet one-way delay: 111.636 ms

Loss rate: 0.63%

-- Flow 2:

Average throughput: 2.72 Mbit/s

95th percentile per-packet one-way delay: 111.845 ms

Loss rate: 1.91%

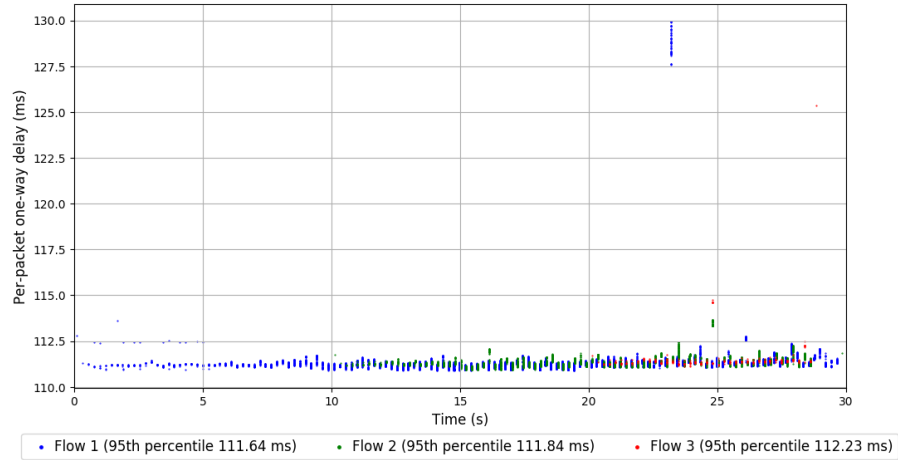
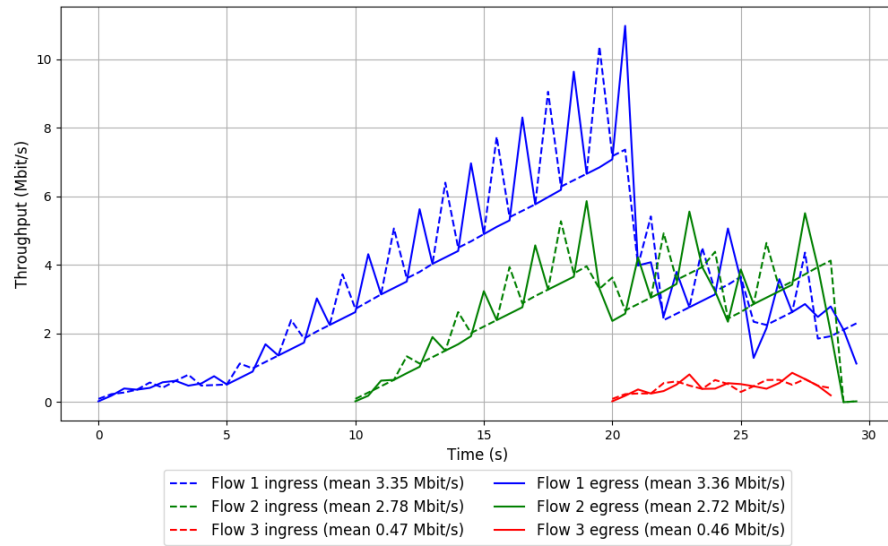
-- Flow 3:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 112.228 ms

Loss rate: 2.58%

Run 5: Report of LEDBAT — Data Link



Run 6: Statistics of LEDBAT

Start at: 2018-01-31 08:49:25

End at: 2018-01-31 08:49:55

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.33 Mbit/s

95th percentile per-packet one-way delay: 113.041 ms

Loss rate: 3.04%

-- Flow 1:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 113.084 ms

Loss rate: 3.63%

-- Flow 2:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 113.059 ms

Loss rate: 1.62%

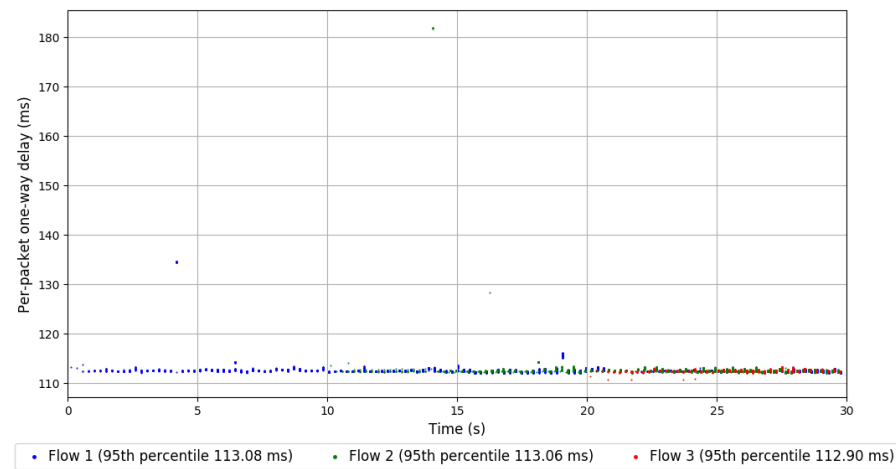
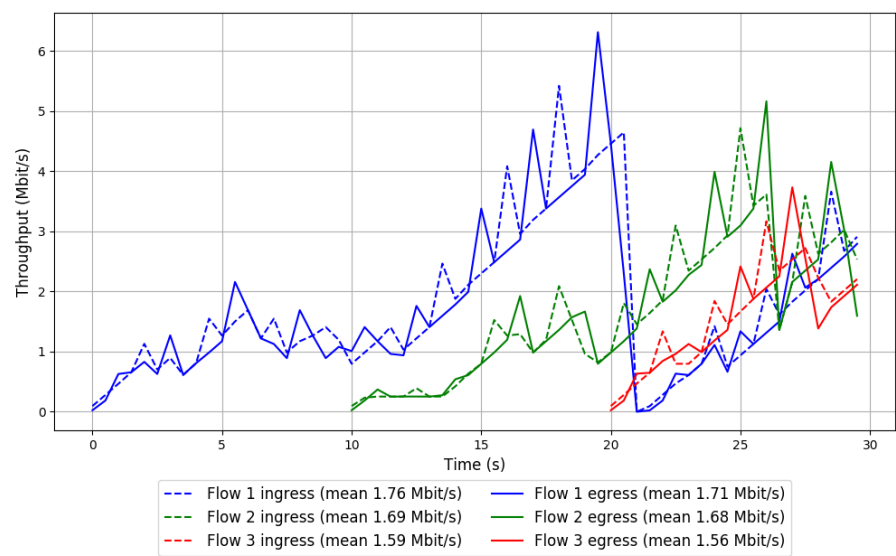
-- Flow 3:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 112.897 ms

Loss rate: 4.12%

Run 6: Report of LEDBAT — Data Link



Run 7: Statistics of LEDBAT

Start at: 2018-01-31 09:07:11

End at: 2018-01-31 09:07:41

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.58 Mbit/s

95th percentile per-packet one-way delay: 113.141 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 113.631 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 2.45 Mbit/s

95th percentile per-packet one-way delay: 112.810 ms

Loss rate: 1.12%

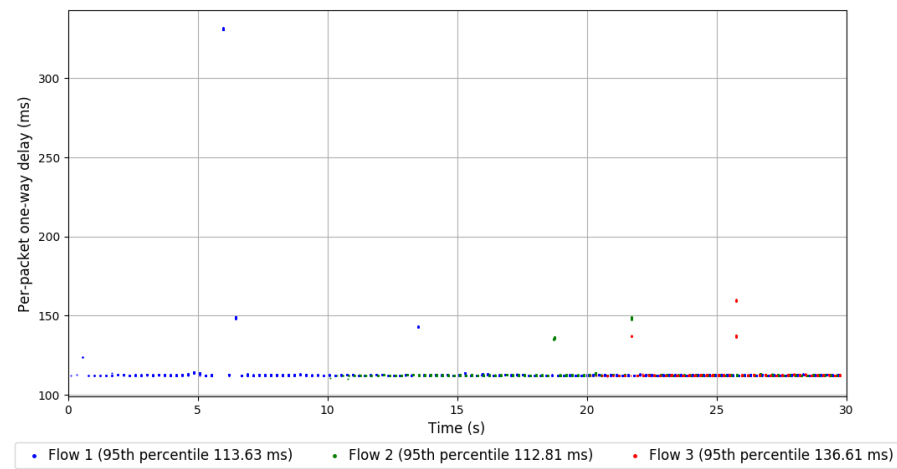
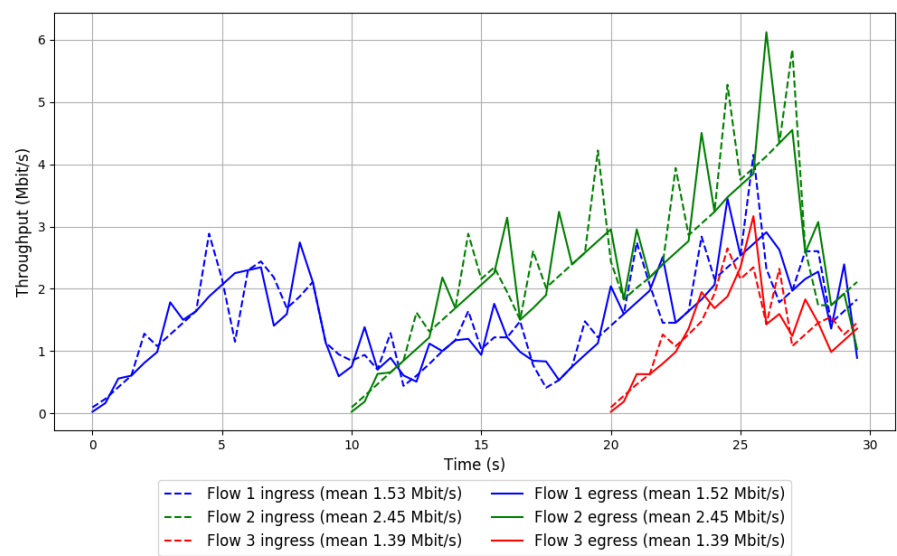
-- Flow 3:

Average throughput: 1.39 Mbit/s

95th percentile per-packet one-way delay: 136.610 ms

Loss rate: 2.73%

Run 7: Report of LEDBAT — Data Link



Run 8: Statistics of LEDBAT

Start at: 2018-01-31 09:24:10

End at: 2018-01-31 09:24:40

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.85 Mbit/s

95th percentile per-packet one-way delay: 113.510 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 3.72 Mbit/s

95th percentile per-packet one-way delay: 113.824 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 2.33 Mbit/s

95th percentile per-packet one-way delay: 113.048 ms

Loss rate: 2.54%

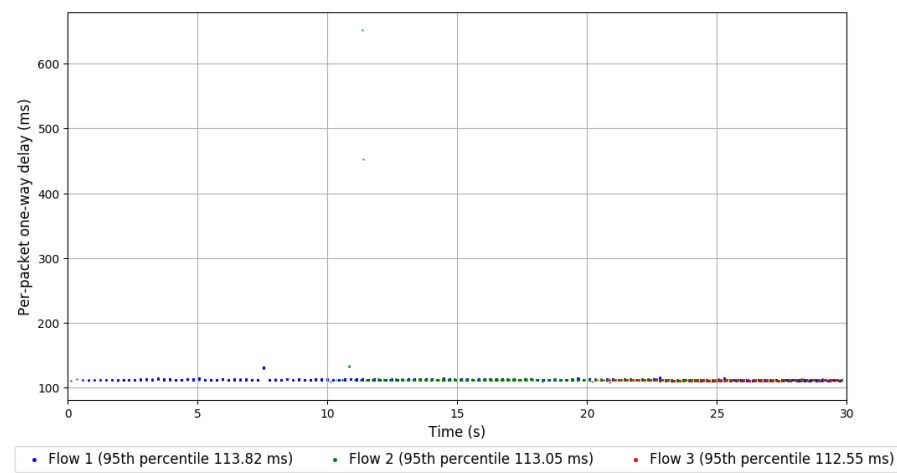
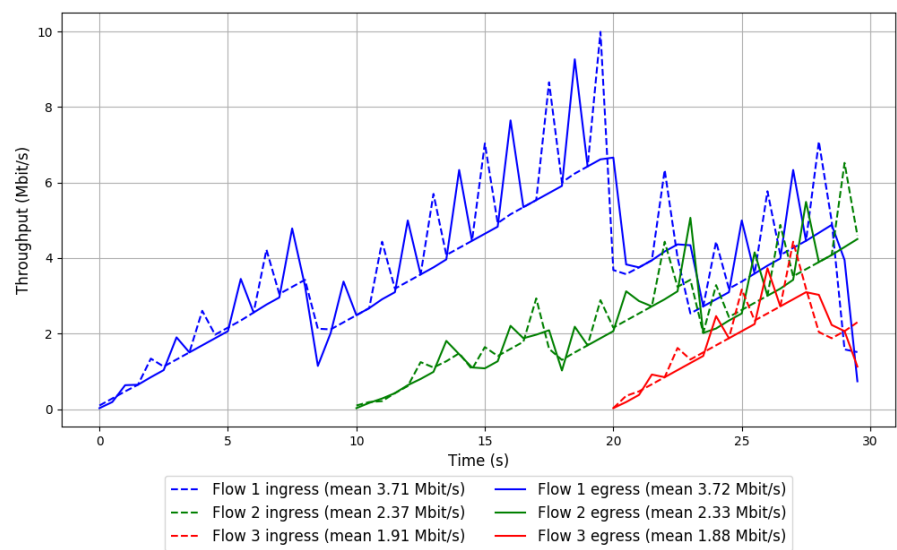
-- Flow 3:

Average throughput: 1.88 Mbit/s

95th percentile per-packet one-way delay: 112.551 ms

Loss rate: 3.93%

Run 8: Report of LEDBAT — Data Link



Run 9: Statistics of LEDBAT

Start at: 2018-01-31 09:42:10

End at: 2018-01-31 09:42:40

Below is generated by plot.py at 2018-01-31 13:20:05

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 113.206 ms

Loss rate: 2.21%

-- Flow 1:

Average throughput: 2.09 Mbit/s

95th percentile per-packet one-way delay: 113.179 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 113.214 ms

Loss rate: 2.07%

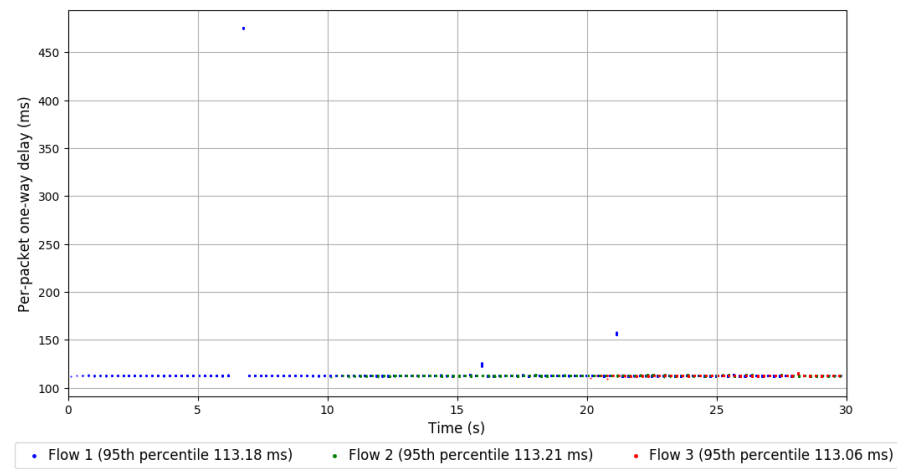
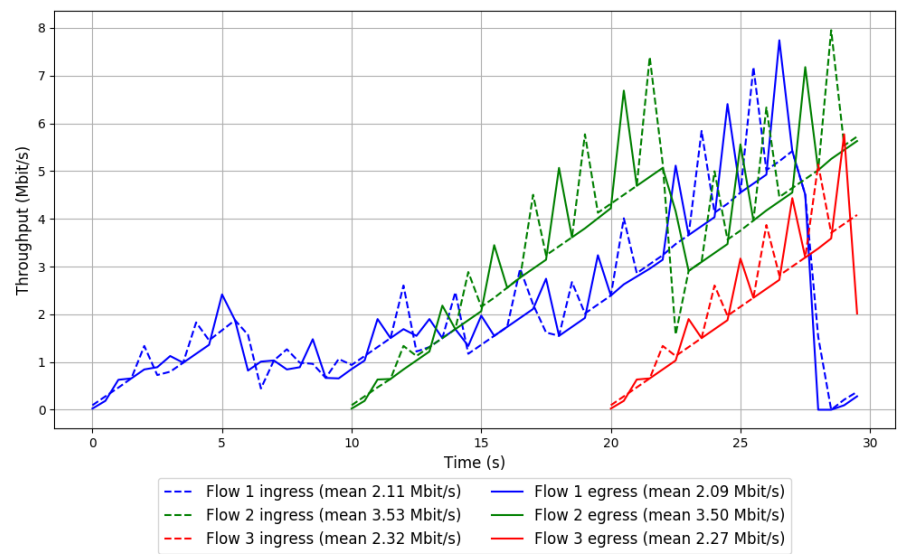
-- Flow 3:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 113.064 ms

Loss rate: 4.53%

Run 9: Report of LEDBAT — Data Link

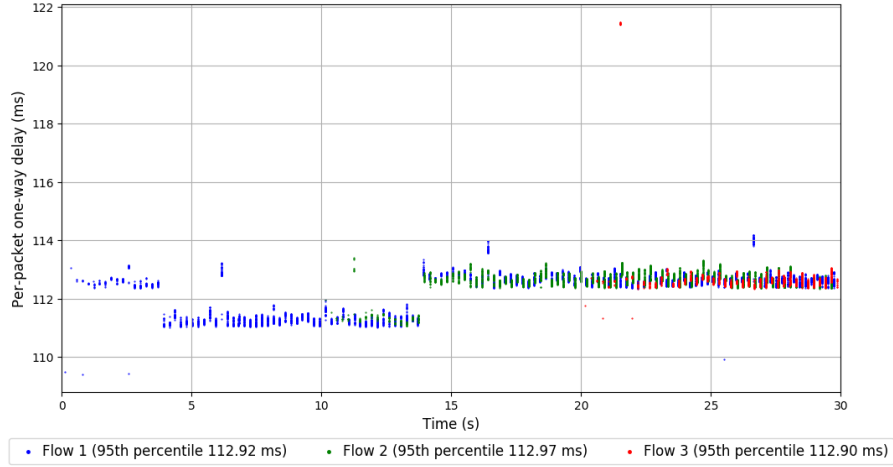
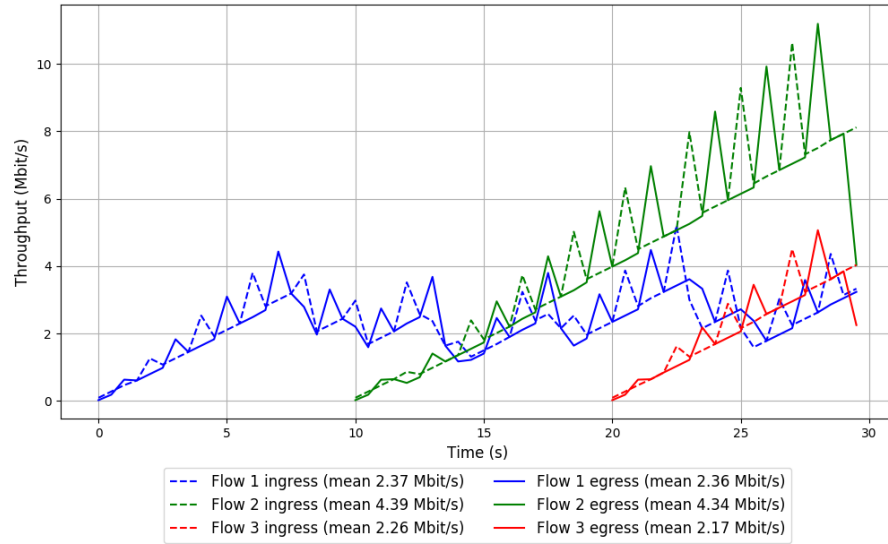


```
Run 10: Statistics of LEDBAT

Start at: 2018-01-31 09:59:49
End at: 2018-01-31 10:00:19

# Below is generated by plot.py at 2018-01-31 13:20:05
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.90 Mbit/s
95th percentile per-packet one-way delay: 112.947 ms
Loss rate: 2.11%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 112.916 ms
Loss rate: 1.20%
-- Flow 2:
Average throughput: 4.34 Mbit/s
95th percentile per-packet one-way delay: 112.969 ms
Loss rate: 2.36%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 112.901 ms
Loss rate: 4.07%
```

Run 10: Report of LEDBAT — Data Link

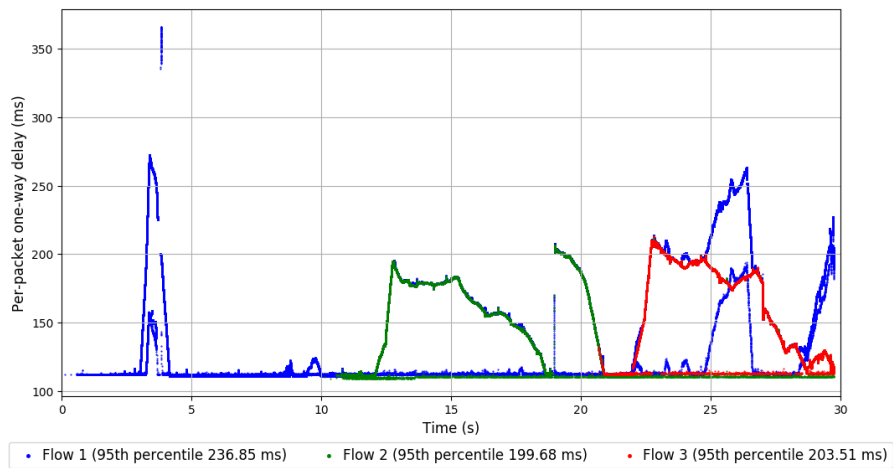
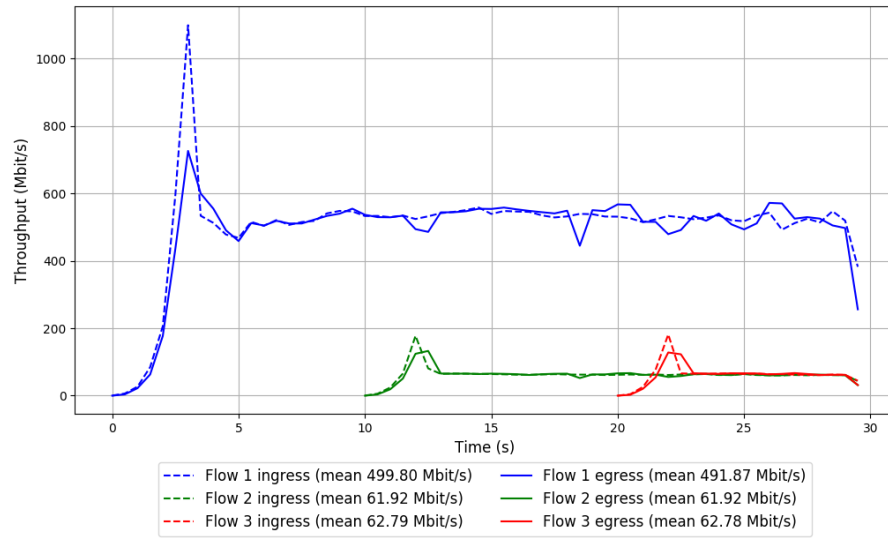


```
Run 1: Statistics of PCC

Start at: 2018-01-31 07:19:59
End at: 2018-01-31 07:20:29

# Below is generated by plot.py at 2018-01-31 13:27:57
# Datalink statistics
-- Total of 3 flows:
Average throughput: 553.08 Mbit/s
95th percentile per-packet one-way delay: 231.518 ms
Loss rate: 2.24%
-- Flow 1:
Average throughput: 491.87 Mbit/s
95th percentile per-packet one-way delay: 236.847 ms
Loss rate: 2.33%
-- Flow 2:
Average throughput: 61.92 Mbit/s
95th percentile per-packet one-way delay: 199.682 ms
Loss rate: 1.12%
-- Flow 3:
Average throughput: 62.78 Mbit/s
95th percentile per-packet one-way delay: 203.507 ms
Loss rate: 2.31%
```

Run 1: Report of PCC — Data Link



Run 2: Statistics of PCC

Start at: 2018-01-31 07:37:40

End at: 2018-01-31 07:38:10

Below is generated by plot.py at 2018-01-31 13:28:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 556.85 Mbit/s

95th percentile per-packet one-way delay: 214.145 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 514.39 Mbit/s

95th percentile per-packet one-way delay: 213.119 ms

Loss rate: 1.43%

-- Flow 2:

Average throughput: 33.43 Mbit/s

95th percentile per-packet one-way delay: 211.136 ms

Loss rate: 1.61%

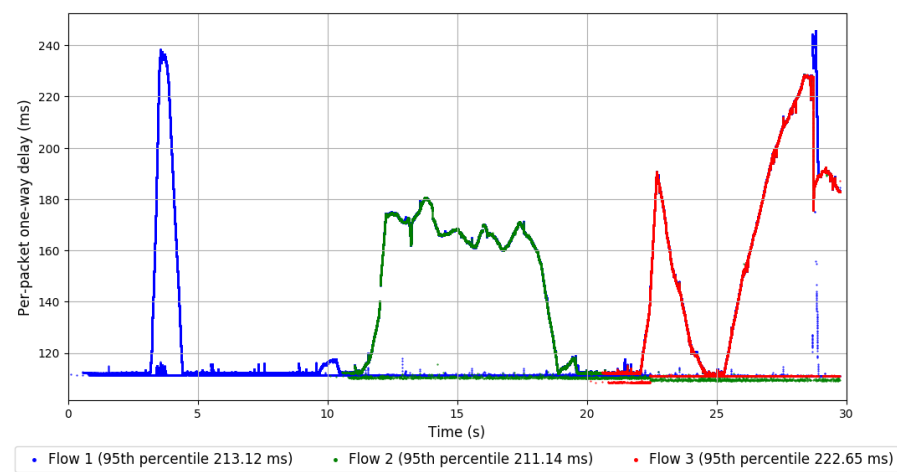
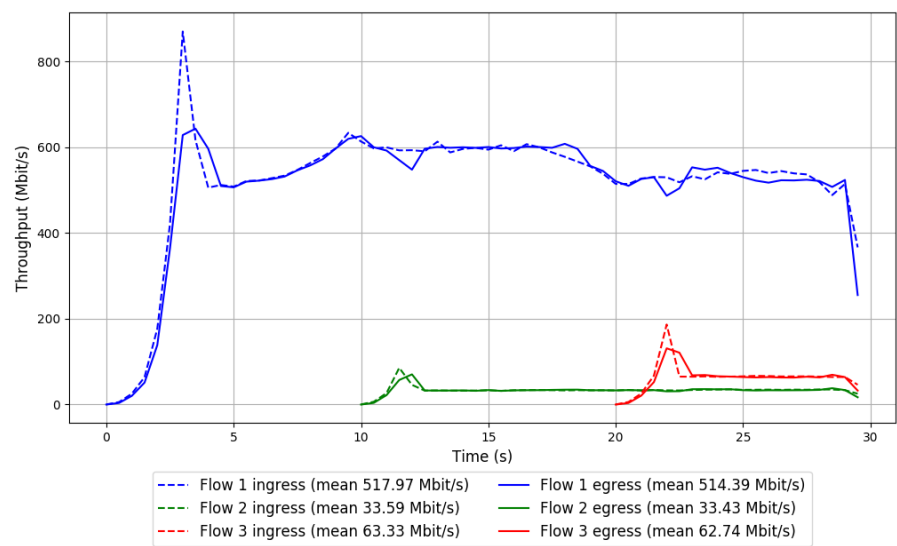
-- Flow 3:

Average throughput: 62.74 Mbit/s

95th percentile per-packet one-way delay: 222.652 ms

Loss rate: 3.12%

Run 2: Report of PCC — Data Link



Run 3: Statistics of PCC

Start at: 2018-01-31 07:55:26

End at: 2018-01-31 07:55:56

Below is generated by plot.py at 2018-01-31 13:28:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 550.94 Mbit/s

95th percentile per-packet one-way delay: 226.547 ms

Loss rate: 3.96%

-- Flow 1:

Average throughput: 511.82 Mbit/s

95th percentile per-packet one-way delay: 226.593 ms

Loss rate: 3.58%

-- Flow 2:

Average throughput: 4.23 Mbit/s

95th percentile per-packet one-way delay: 225.379 ms

Loss rate: 3.78%

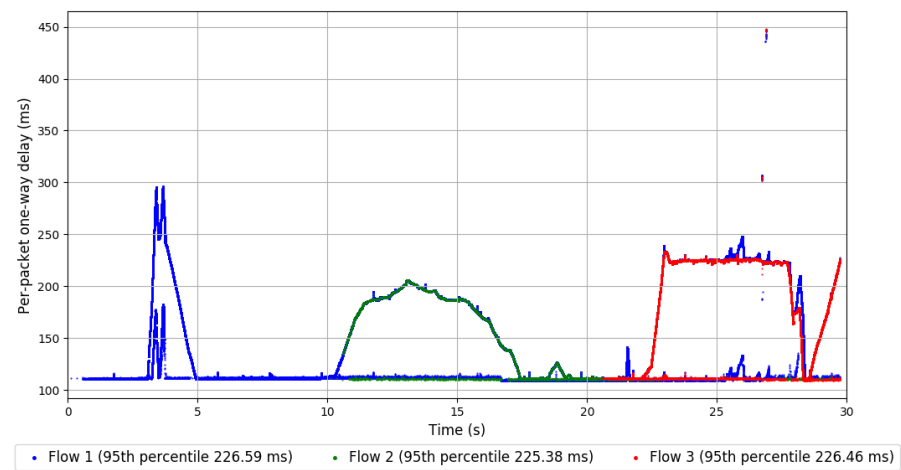
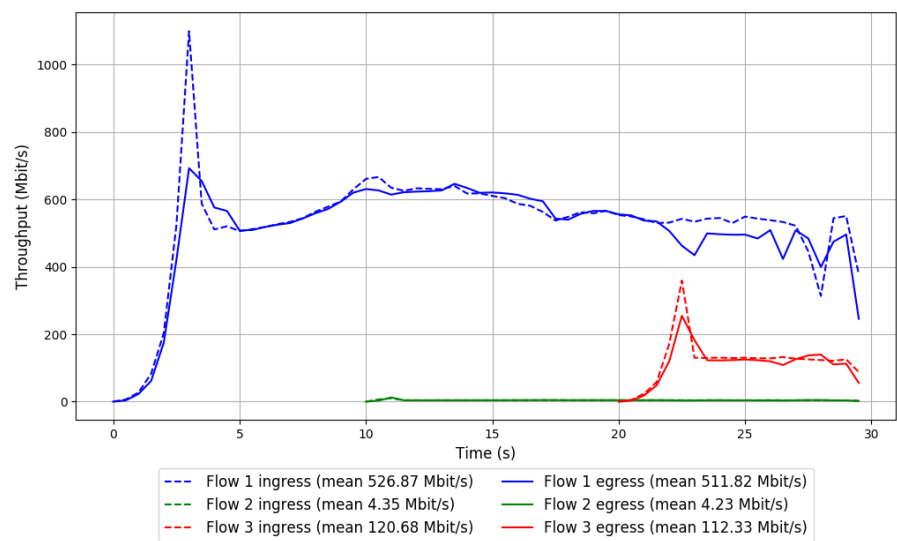
-- Flow 3:

Average throughput: 112.33 Mbit/s

95th percentile per-packet one-way delay: 226.456 ms

Loss rate: 9.05%

Run 3: Report of PCC — Data Link



Run 4: Statistics of PCC

Start at: 2018-01-31 08:13:14

End at: 2018-01-31 08:13:45

Below is generated by plot.py at 2018-01-31 13:28:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 214.07 Mbit/s

95th percentile per-packet one-way delay: 229.400 ms

Loss rate: 2.70%

-- Flow 1:

Average throughput: 118.47 Mbit/s

95th percentile per-packet one-way delay: 219.232 ms

Loss rate: 1.96%

-- Flow 2:

Average throughput: 142.47 Mbit/s

95th percentile per-packet one-way delay: 250.255 ms

Loss rate: 3.60%

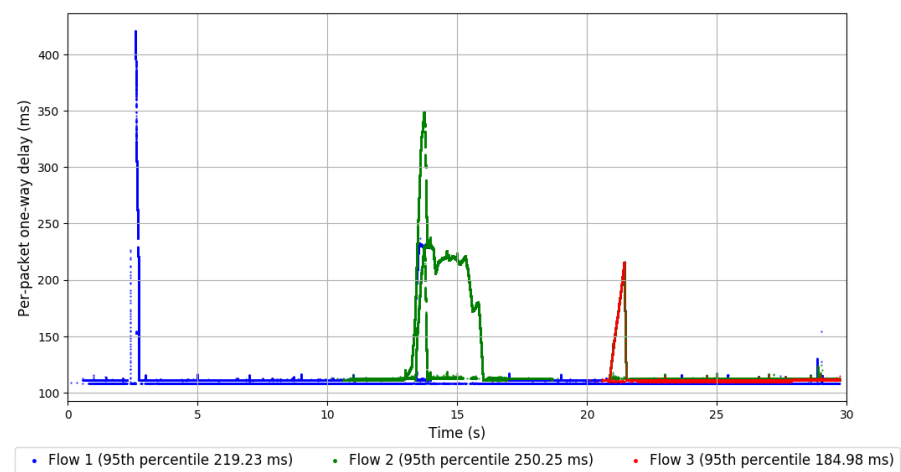
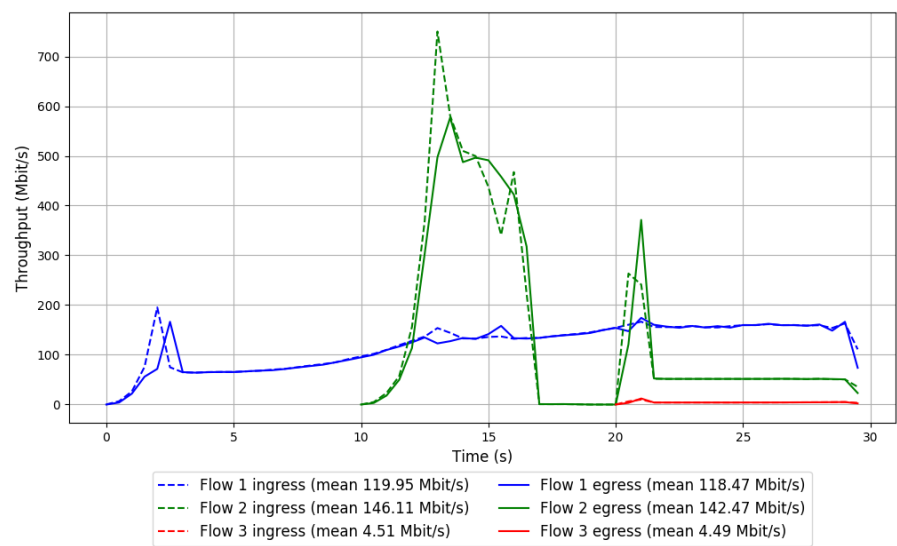
-- Flow 3:

Average throughput: 4.49 Mbit/s

95th percentile per-packet one-way delay: 184.978 ms

Loss rate: 2.56%

Run 4: Report of PCC — Data Link

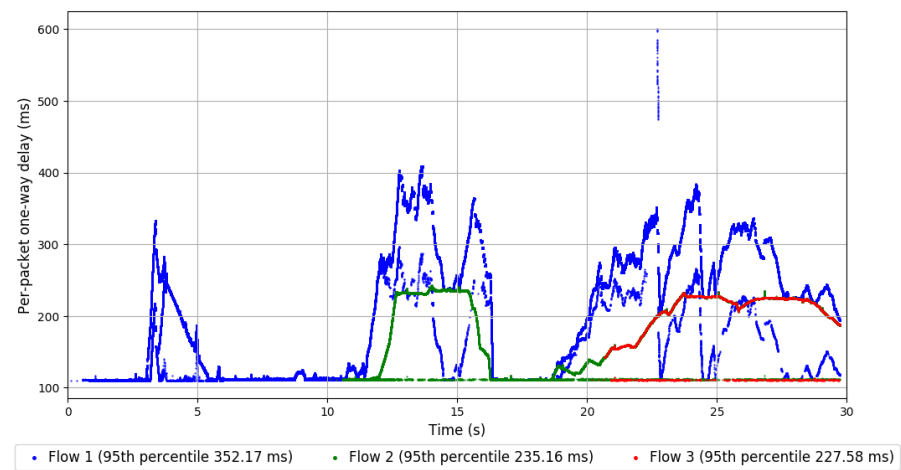
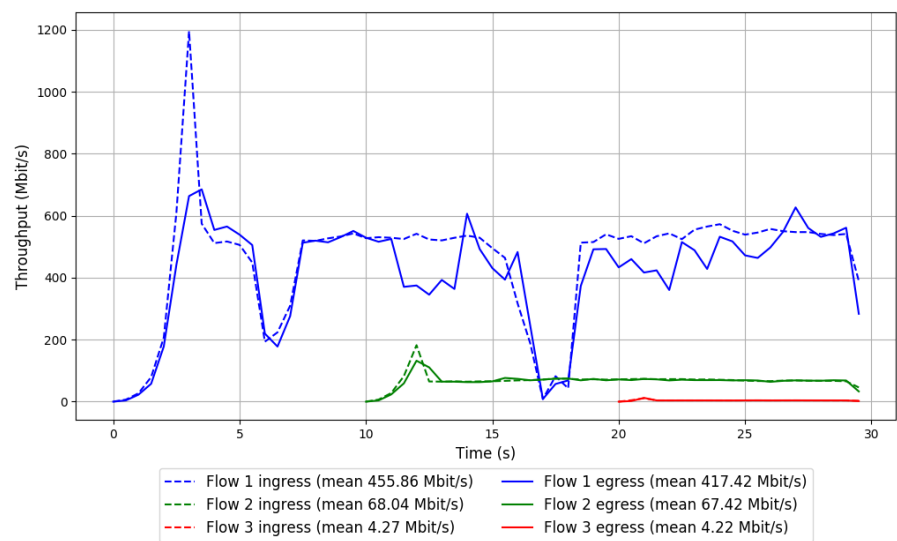


```
Run 5: Statistics of PCC

Start at: 2018-01-31 08:30:56
End at: 2018-01-31 08:31:26

# Below is generated by plot.py at 2018-01-31 13:28:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 463.37 Mbit/s
95th percentile per-packet one-way delay: 348.334 ms
Loss rate: 8.46%
-- Flow 1:
Average throughput: 417.42 Mbit/s
95th percentile per-packet one-way delay: 352.171 ms
Loss rate: 9.11%
-- Flow 2:
Average throughput: 67.42 Mbit/s
95th percentile per-packet one-way delay: 235.156 ms
Loss rate: 2.01%
-- Flow 3:
Average throughput: 4.22 Mbit/s
95th percentile per-packet one-way delay: 227.577 ms
Loss rate: 3.26%
```

Run 5: Report of PCC — Data Link



Run 6: Statistics of PCC

Start at: 2018-01-31 08:48:16

End at: 2018-01-31 08:48:46

Below is generated by plot.py at 2018-01-31 13:28:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 536.65 Mbit/s

95th percentile per-packet one-way delay: 215.885 ms

Loss rate: 2.58%

-- Flow 1:

Average throughput: 476.66 Mbit/s

95th percentile per-packet one-way delay: 222.755 ms

Loss rate: 2.67%

-- Flow 2:

Average throughput: 74.76 Mbit/s

95th percentile per-packet one-way delay: 169.537 ms

Loss rate: 1.62%

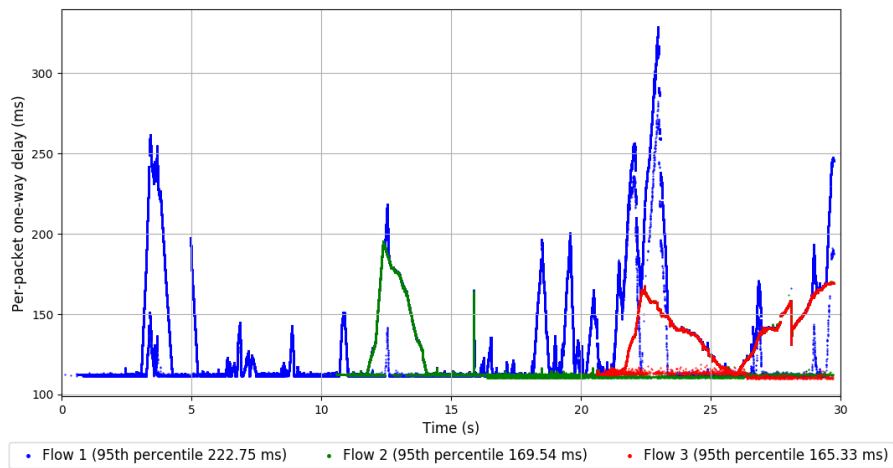
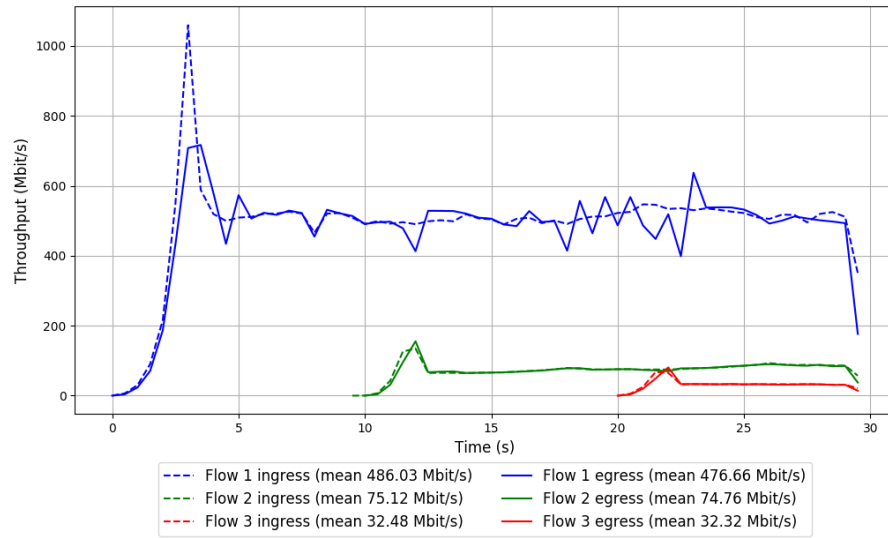
-- Flow 3:

Average throughput: 32.32 Mbit/s

95th percentile per-packet one-way delay: 165.332 ms

Loss rate: 2.81%

Run 6: Report of PCC — Data Link



Run 7: Statistics of PCC

Start at: 2018-01-31 09:06:04

End at: 2018-01-31 09:06:34

Below is generated by plot.py at 2018-01-31 13:28:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 521.18 Mbit/s

95th percentile per-packet one-way delay: 195.511 ms

Loss rate: 2.32%

-- Flow 1:

Average throughput: 512.90 Mbit/s

95th percentile per-packet one-way delay: 195.496 ms

Loss rate: 2.33%

-- Flow 2:

Average throughput: 4.31 Mbit/s

95th percentile per-packet one-way delay: 190.172 ms

Loss rate: 1.35%

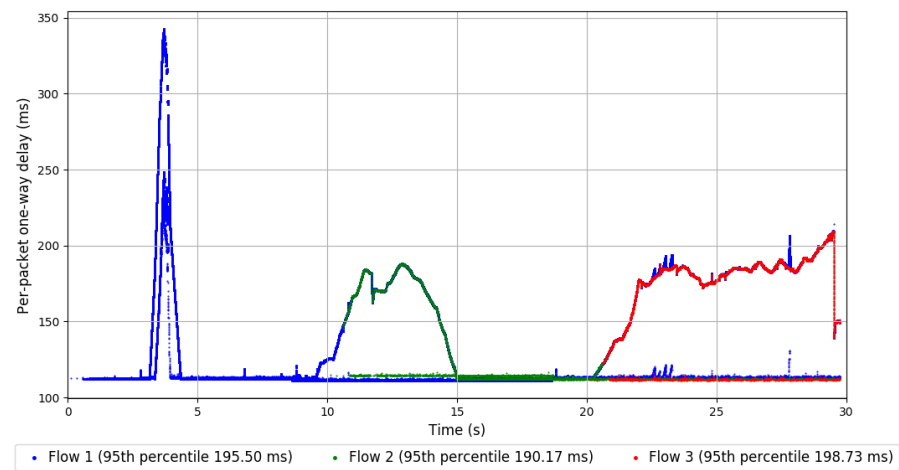
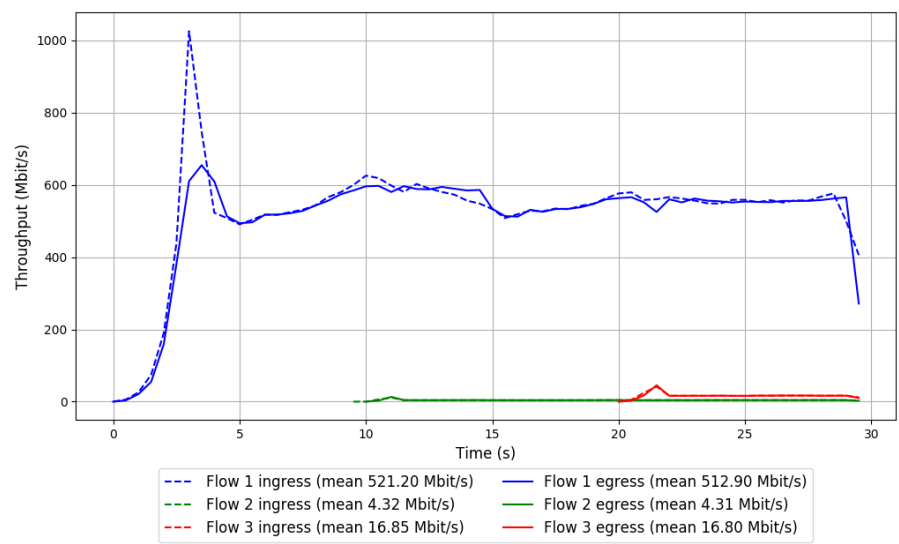
-- Flow 3:

Average throughput: 16.80 Mbit/s

95th percentile per-packet one-way delay: 198.734 ms

Loss rate: 2.57%

Run 7: Report of PCC — Data Link



Run 8: Statistics of PCC

Start at: 2018-01-31 09:23:08

End at: 2018-01-31 09:23:38

Below is generated by plot.py at 2018-01-31 13:28:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 315.24 Mbit/s

95th percentile per-packet one-way delay: 229.073 ms

Loss rate: 3.78%

-- Flow 1:

Average throughput: 263.16 Mbit/s

95th percentile per-packet one-way delay: 231.335 ms

Loss rate: 3.92%

-- Flow 2:

Average throughput: 19.73 Mbit/s

95th percentile per-packet one-way delay: 214.569 ms

Loss rate: 1.84%

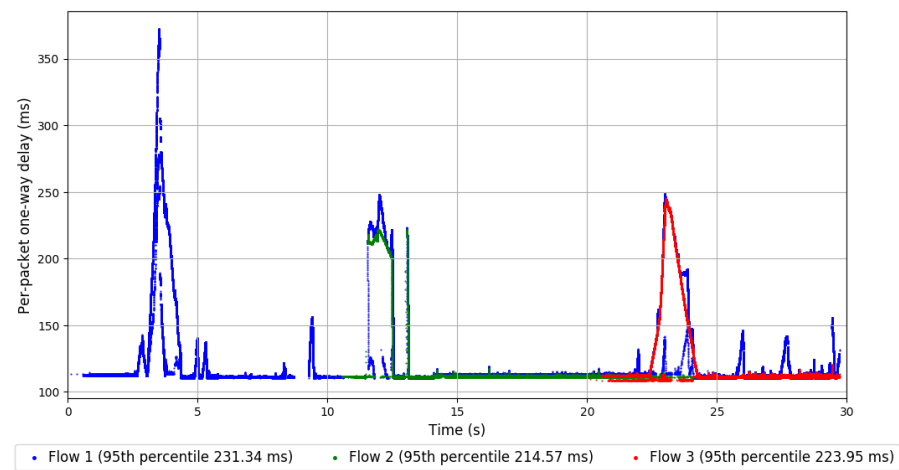
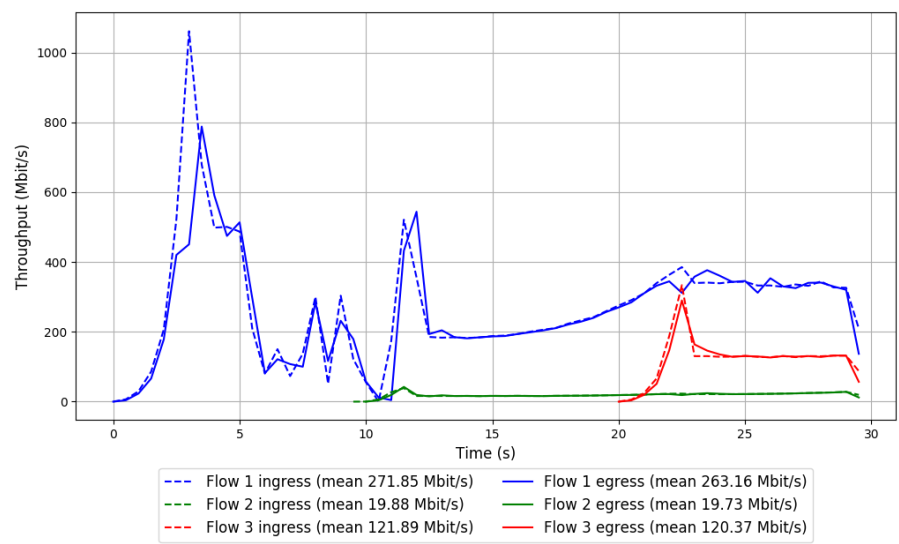
-- Flow 3:

Average throughput: 120.37 Mbit/s

95th percentile per-packet one-way delay: 223.953 ms

Loss rate: 3.48%

Run 8: Report of PCC — Data Link



Run 9: Statistics of PCC

Start at: 2018-01-31 09:41:02

End at: 2018-01-31 09:41:32

Below is generated by plot.py at 2018-01-31 13:32:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 539.32 Mbit/s

95th percentile per-packet one-way delay: 219.683 ms

Loss rate: 2.22%

-- Flow 1:

Average throughput: 497.75 Mbit/s

95th percentile per-packet one-way delay: 219.265 ms

Loss rate: 2.07%

-- Flow 2:

Average throughput: 5.14 Mbit/s

95th percentile per-packet one-way delay: 218.992 ms

Loss rate: 1.61%

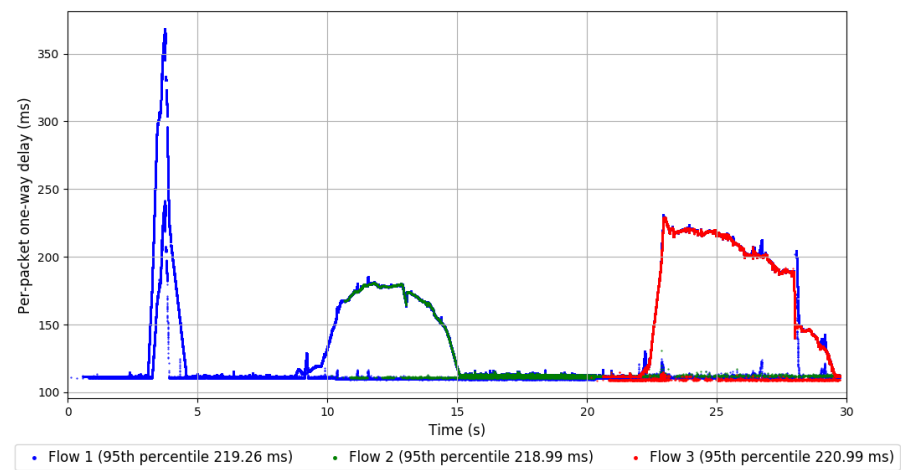
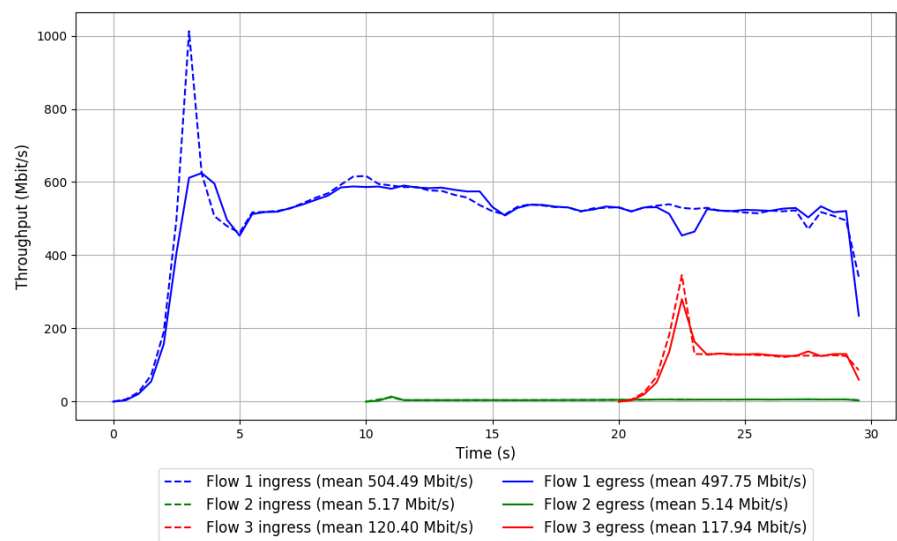
-- Flow 3:

Average throughput: 117.94 Mbit/s

95th percentile per-packet one-way delay: 220.986 ms

Loss rate: 4.25%

Run 9: Report of PCC — Data Link

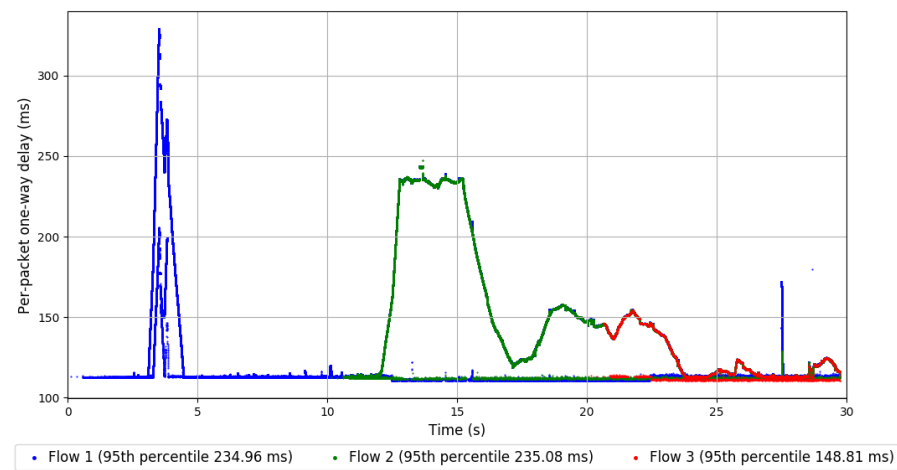
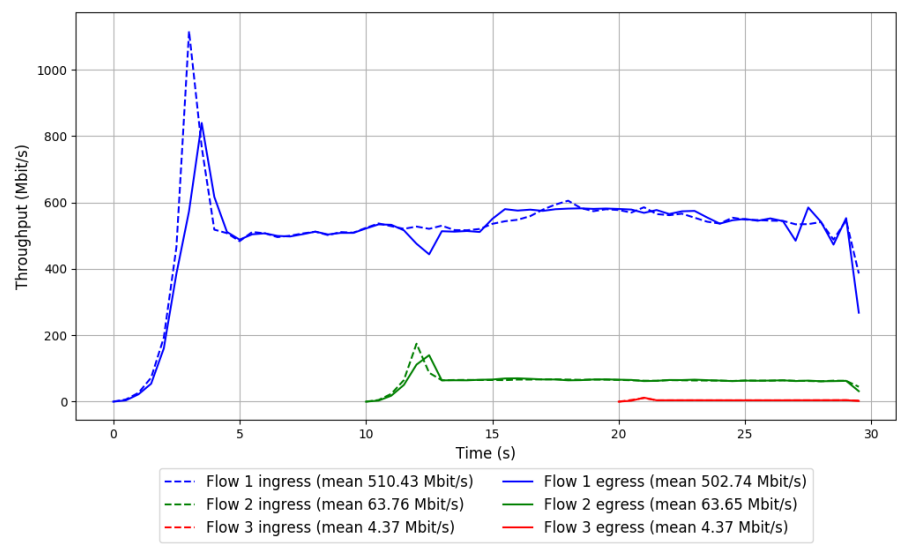


```
Run 10: Statistics of PCC

Start at: 2018-01-31 09:58:40
End at: 2018-01-31 09:59:10

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 546.24 Mbit/s
95th percentile per-packet one-way delay: 234.963 ms
Loss rate: 2.18%
-- Flow 1:
Average throughput: 502.74 Mbit/s
95th percentile per-packet one-way delay: 234.958 ms
Loss rate: 2.25%
-- Flow 2:
Average throughput: 63.65 Mbit/s
95th percentile per-packet one-way delay: 235.076 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 4.37 Mbit/s
95th percentile per-packet one-way delay: 148.812 ms
Loss rate: 2.26%
```

Run 10: Report of PCC — Data Link

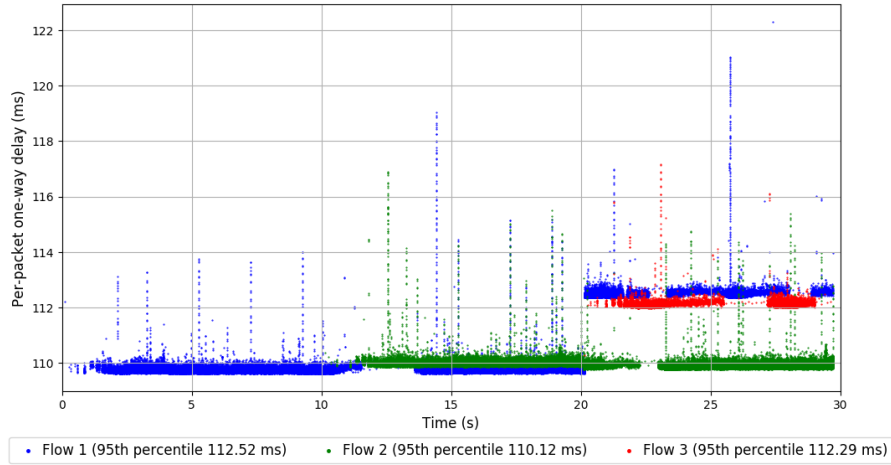
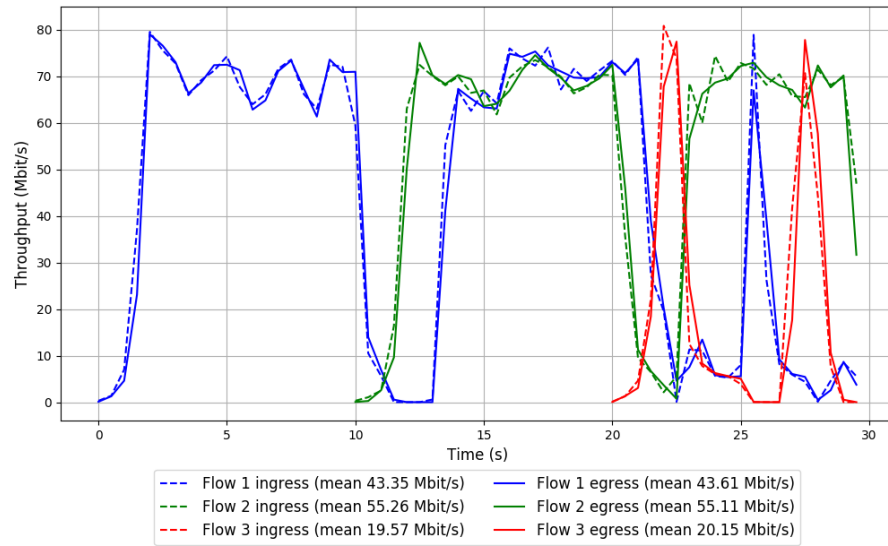


```
Run 1: Statistics of QUIC Cubic

Start at: 2018-01-31 07:22:42
End at: 2018-01-31 07:23:12

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 86.54 Mbit/s
95th percentile per-packet one-way delay: 112.455 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 43.61 Mbit/s
95th percentile per-packet one-way delay: 112.521 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 55.11 Mbit/s
95th percentile per-packet one-way delay: 110.118 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 20.15 Mbit/s
95th percentile per-packet one-way delay: 112.288 ms
Loss rate: 0.00%
```


Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-01-31 07:40:22

End at: 2018-01-31 07:40:52

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 122.83 Mbit/s

95th percentile per-packet one-way delay: 111.235 ms

Loss rate: 0.91%

-- Flow 1:

Average throughput: 62.42 Mbit/s

95th percentile per-packet one-way delay: 110.251 ms

Loss rate: 0.85%

-- Flow 2:

Average throughput: 61.19 Mbit/s

95th percentile per-packet one-way delay: 110.474 ms

Loss rate: 0.11%

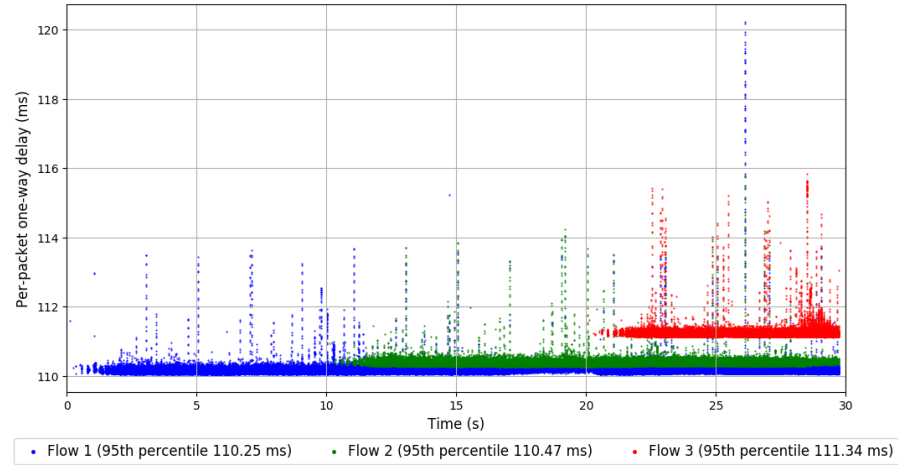
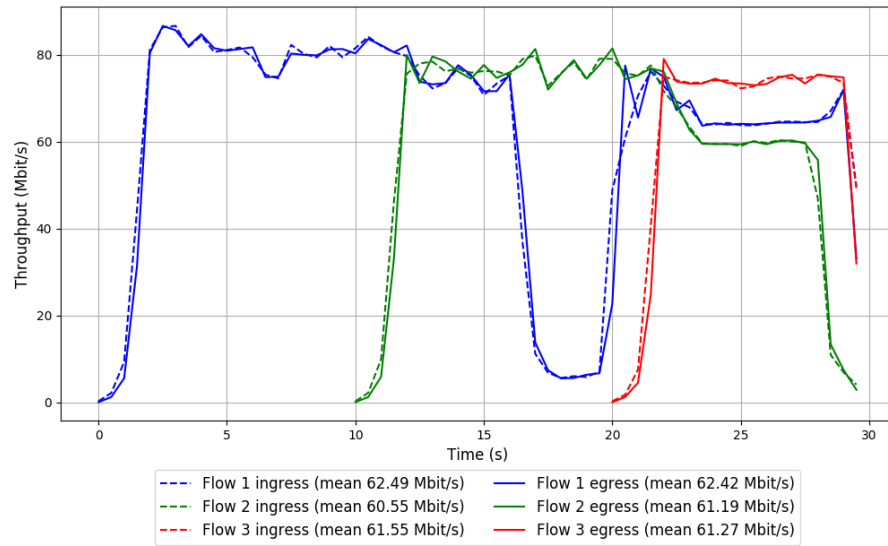
-- Flow 3:

Average throughput: 61.27 Mbit/s

95th percentile per-packet one-way delay: 111.343 ms

Loss rate: 2.69%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-01-31 07:58:08

End at: 2018-01-31 07:58:38

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 104.43 Mbit/s

95th percentile per-packet one-way delay: 112.227 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 58.98 Mbit/s

95th percentile per-packet one-way delay: 112.263 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 41.27 Mbit/s

95th percentile per-packet one-way delay: 109.190 ms

Loss rate: 1.93%

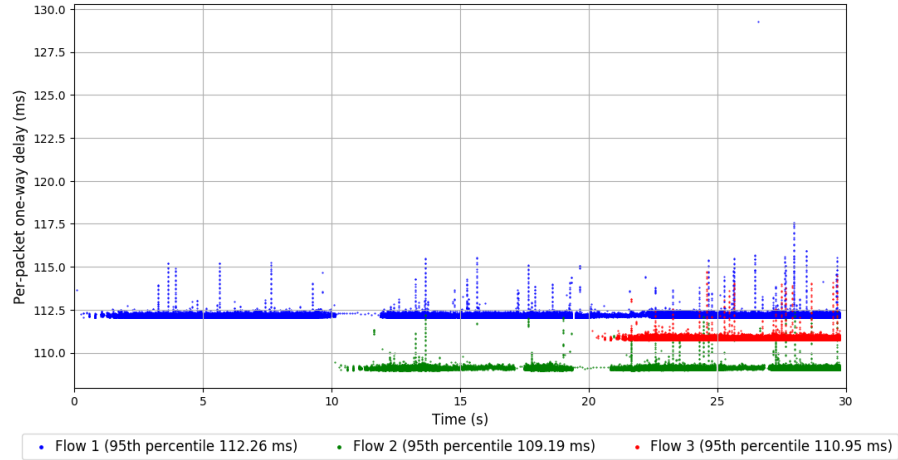
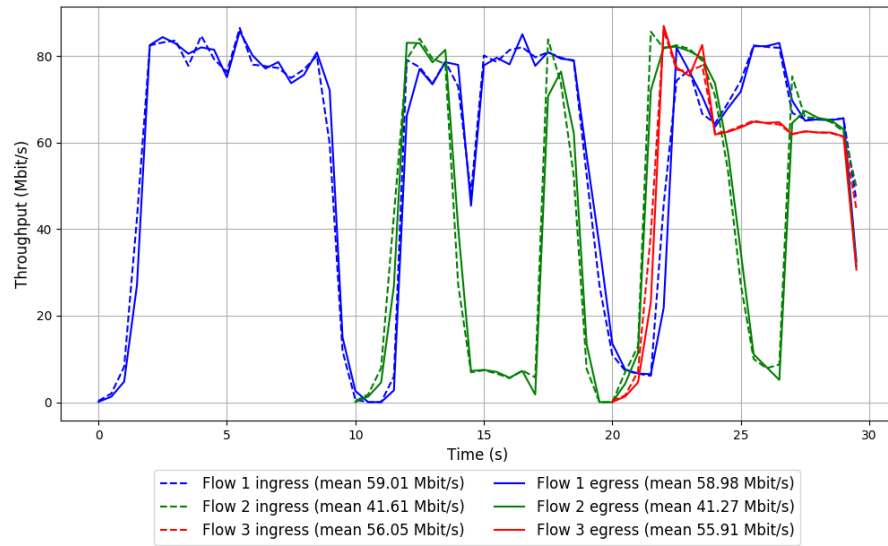
-- Flow 3:

Average throughput: 55.91 Mbit/s

95th percentile per-packet one-way delay: 110.955 ms

Loss rate: 2.51%

Run 3: Report of QUIC Cubic — Data Link



Run 4: Statistics of QUIC Cubic

Start at: 2018-01-31 08:15:44

End at: 2018-01-31 08:16:14

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 99.57 Mbit/s

95th percentile per-packet one-way delay: 112.623 ms

Loss rate: 1.55%

-- Flow 1:

Average throughput: 43.55 Mbit/s

95th percentile per-packet one-way delay: 112.697 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 57.24 Mbit/s

95th percentile per-packet one-way delay: 110.309 ms

Loss rate: 1.18%

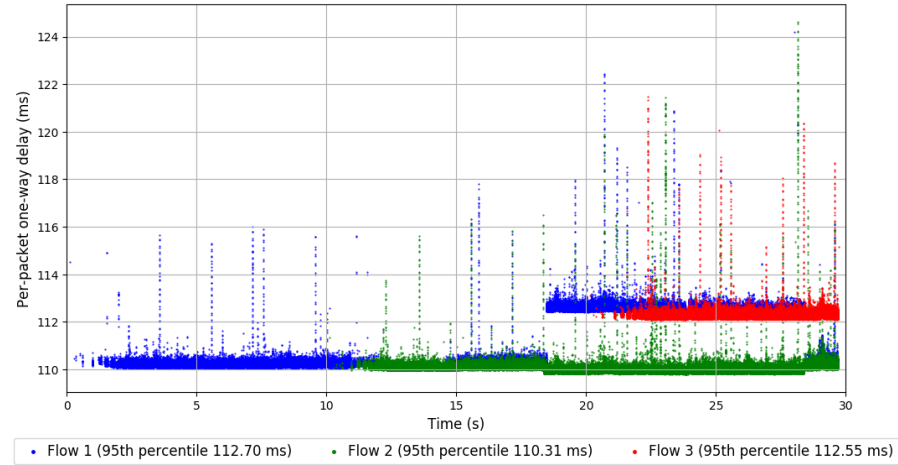
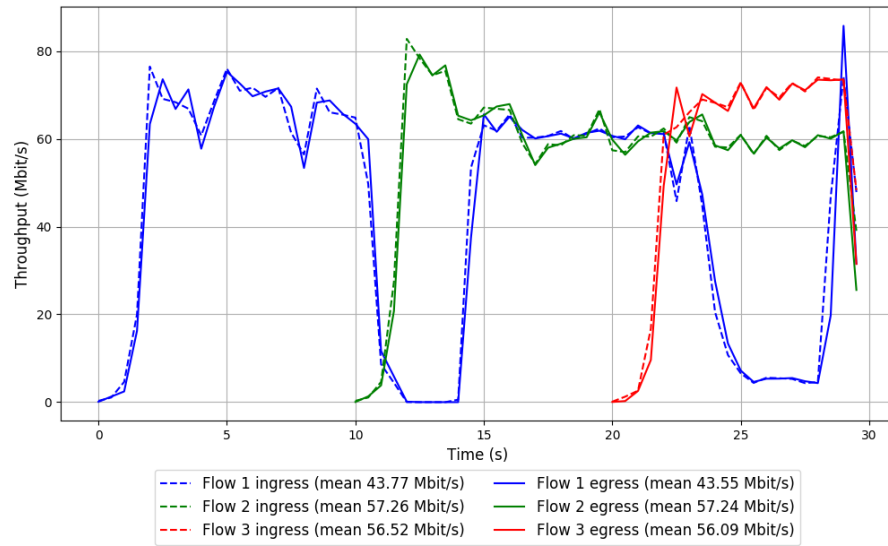
-- Flow 3:

Average throughput: 56.09 Mbit/s

95th percentile per-packet one-way delay: 112.553 ms

Loss rate: 3.02%

Run 4: Report of QUIC Cubic — Data Link



Run 5: Statistics of QUIC Cubic

Start at: 2018-01-31 08:33:36

End at: 2018-01-31 08:34:06

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 121.98 Mbit/s

95th percentile per-packet one-way delay: 114.577 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 65.03 Mbit/s

95th percentile per-packet one-way delay: 111.412 ms

Loss rate: 0.98%

-- Flow 2:

Average throughput: 60.62 Mbit/s

95th percentile per-packet one-way delay: 110.326 ms

Loss rate: 0.38%

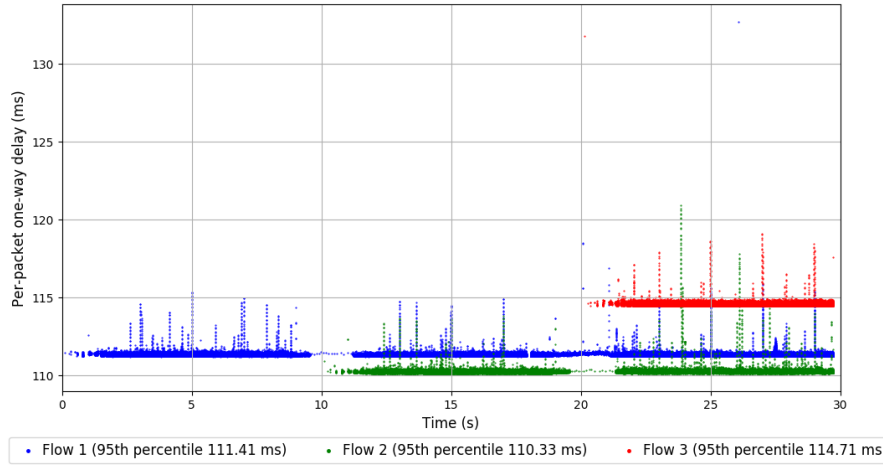
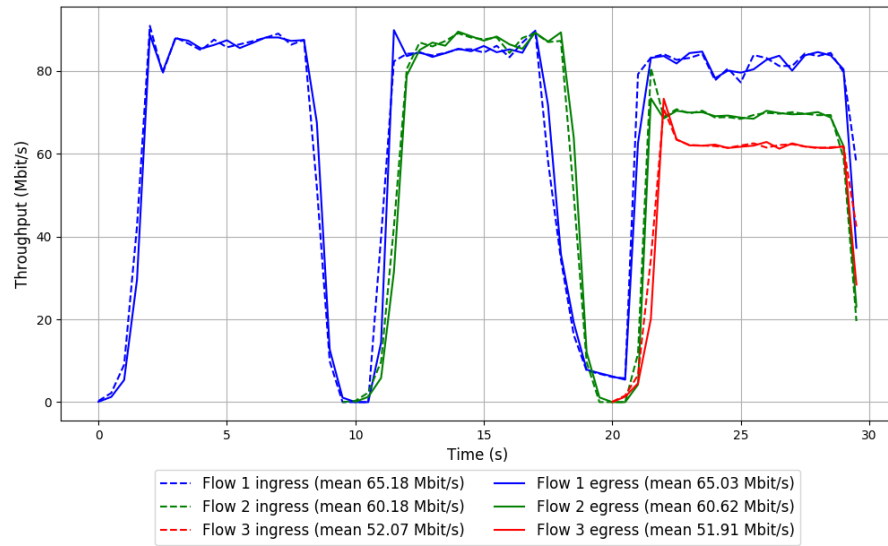
-- Flow 3:

Average throughput: 51.91 Mbit/s

95th percentile per-packet one-way delay: 114.712 ms

Loss rate: 2.75%

Run 5: Report of QUIC Cubic — Data Link



Run 6: Statistics of QUIC Cubic

Start at: 2018-01-31 08:50:58

End at: 2018-01-31 08:51:28

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.95 Mbit/s

95th percentile per-packet one-way delay: 111.017 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 41.56 Mbit/s

95th percentile per-packet one-way delay: 111.057 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 32.84 Mbit/s

95th percentile per-packet one-way delay: 110.143 ms

Loss rate: 3.41%

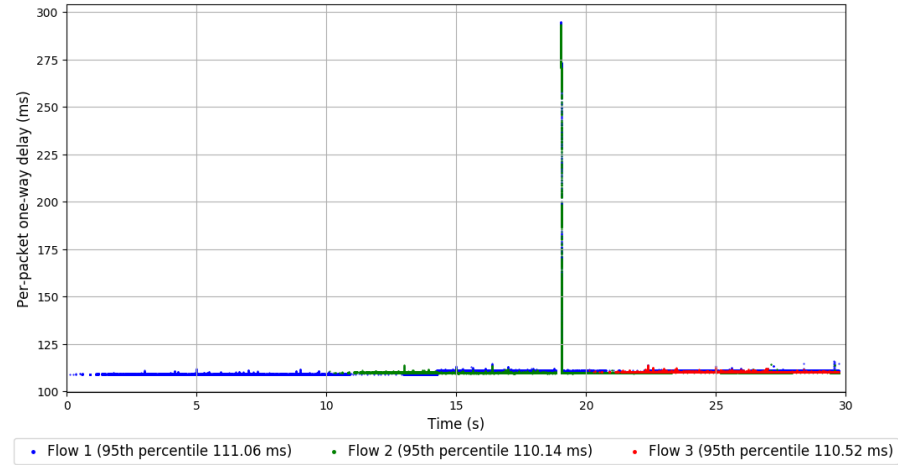
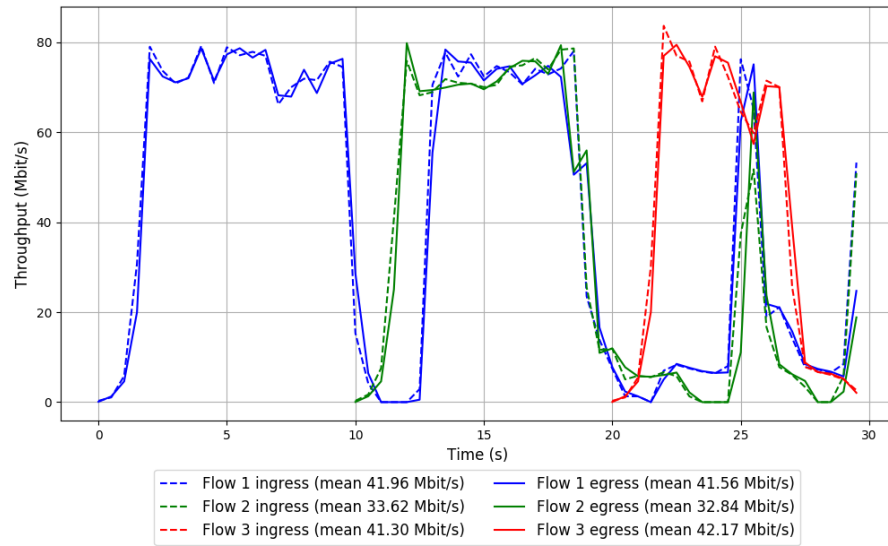
-- Flow 3:

Average throughput: 42.17 Mbit/s

95th percentile per-packet one-way delay: 110.516 ms

Loss rate: 0.21%

Run 6: Report of QUIC Cubic — Data Link



Run 7: Statistics of QUIC Cubic

Start at: 2018-01-31 09:08:44

End at: 2018-01-31 09:09:14

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 116.97 Mbit/s

95th percentile per-packet one-way delay: 112.199 ms

Loss rate: 0.80%

-- Flow 1:

Average throughput: 60.96 Mbit/s

95th percentile per-packet one-way delay: 112.231 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 60.71 Mbit/s

95th percentile per-packet one-way delay: 112.093 ms

Loss rate: 0.21%

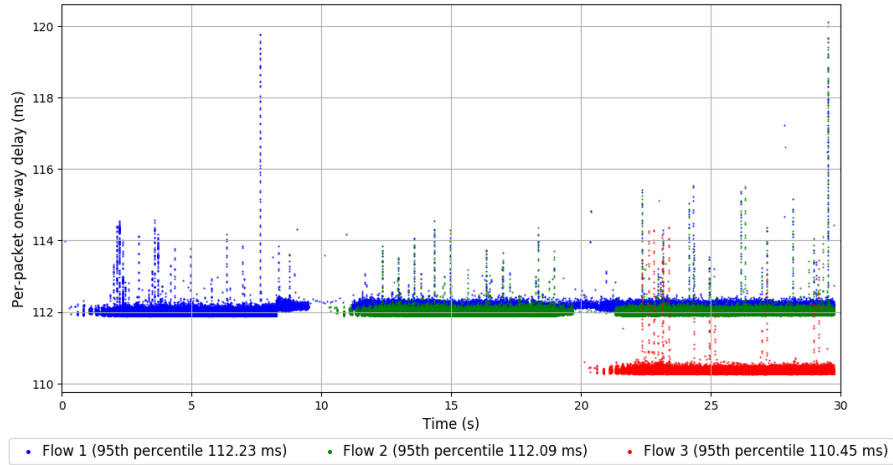
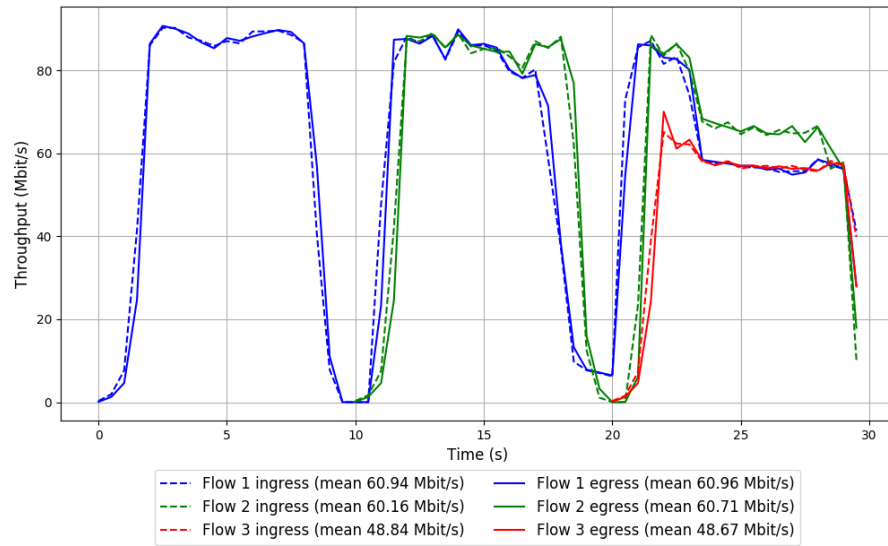
-- Flow 3:

Average throughput: 48.67 Mbit/s

95th percentile per-packet one-way delay: 110.454 ms

Loss rate: 2.58%

Run 7: Report of QUIC Cubic — Data Link



Run 8: Statistics of QUIC Cubic

Start at: 2018-01-31 09:25:43

End at: 2018-01-31 09:26:13

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 82.27 Mbit/s

95th percentile per-packet one-way delay: 112.377 ms

Loss rate: 1.78%

-- Flow 1:

Average throughput: 44.84 Mbit/s

95th percentile per-packet one-way delay: 110.085 ms

Loss rate: 0.90%

-- Flow 2:

Average throughput: 37.05 Mbit/s

95th percentile per-packet one-way delay: 112.465 ms

Loss rate: 2.05%

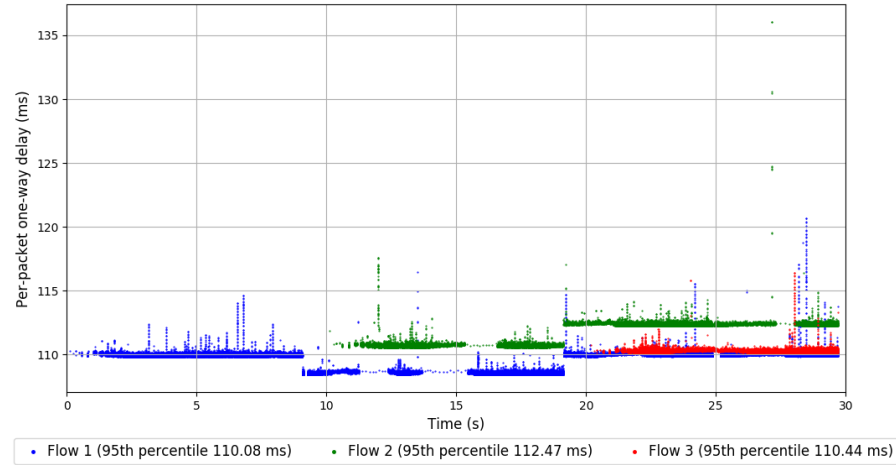
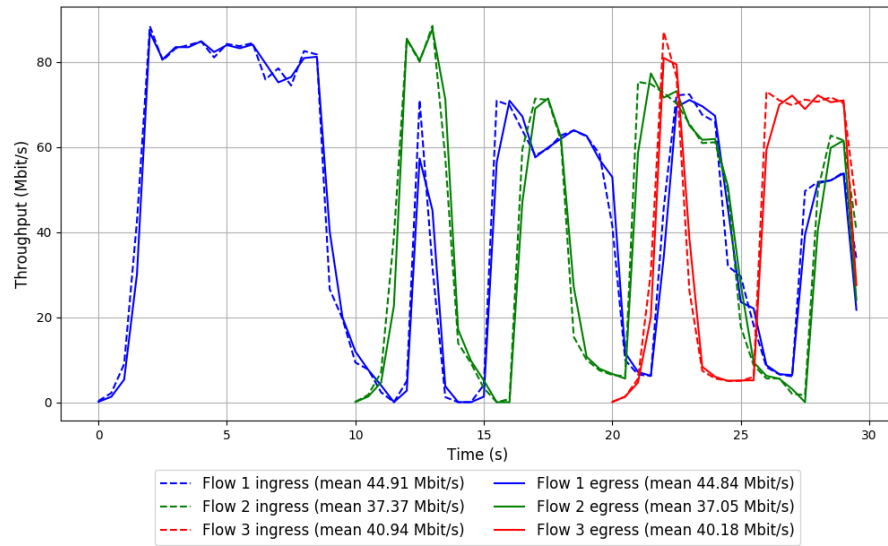
-- Flow 3:

Average throughput: 40.18 Mbit/s

95th percentile per-packet one-way delay: 110.437 ms

Loss rate: 4.24%

Run 8: Report of QUIC Cubic — Data Link



Run 9: Statistics of QUIC Cubic

Start at: 2018-01-31 09:43:44

End at: 2018-01-31 09:44:14

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 108.20 Mbit/s

95th percentile per-packet one-way delay: 112.242 ms

Loss rate: 0.60%

-- Flow 1:

Average throughput: 60.58 Mbit/s

95th percentile per-packet one-way delay: 112.030 ms

Loss rate: 0.99%

-- Flow 2:

Average throughput: 62.08 Mbit/s

95th percentile per-packet one-way delay: 109.915 ms

Loss rate: 0.12%

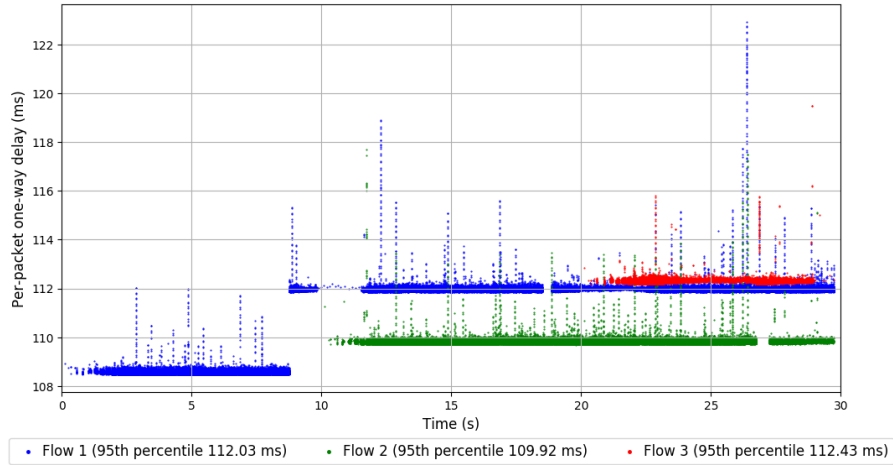
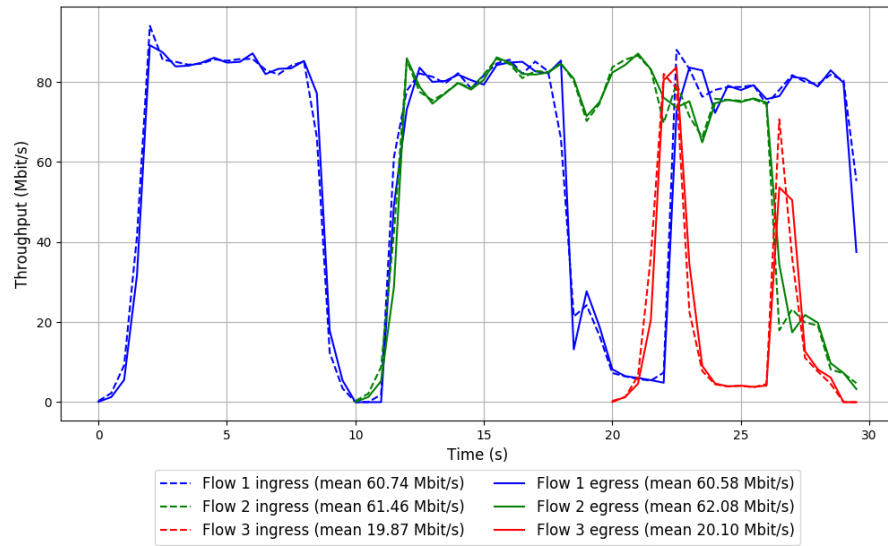
-- Flow 3:

Average throughput: 20.10 Mbit/s

95th percentile per-packet one-way delay: 112.428 ms

Loss rate: 0.00%

Run 9: Report of QUIC Cubic — Data Link



Run 10: Statistics of QUIC Cubic

Start at: 2018-01-31 10:01:22

End at: 2018-01-31 10:01:52

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 102.62 Mbit/s

95th percentile per-packet one-way delay: 112.032 ms

Loss rate: 0.98%

-- Flow 1:

Average throughput: 53.04 Mbit/s

95th percentile per-packet one-way delay: 111.517 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 61.93 Mbit/s

95th percentile per-packet one-way delay: 111.542 ms

Loss rate: 0.12%

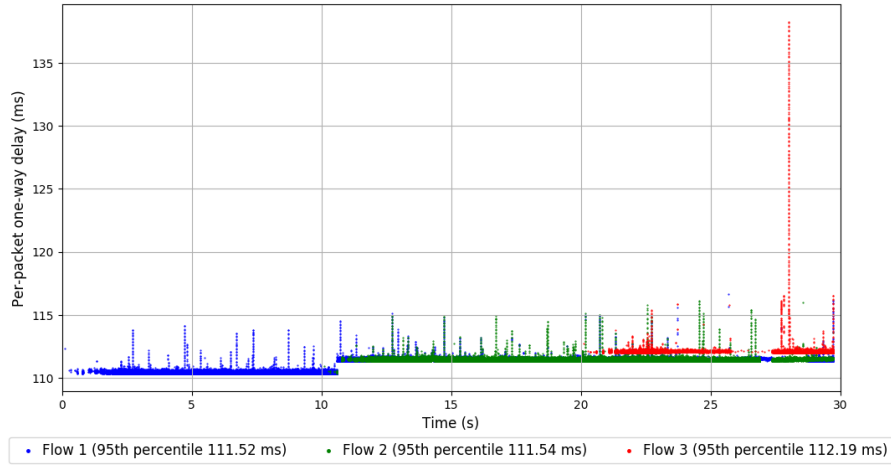
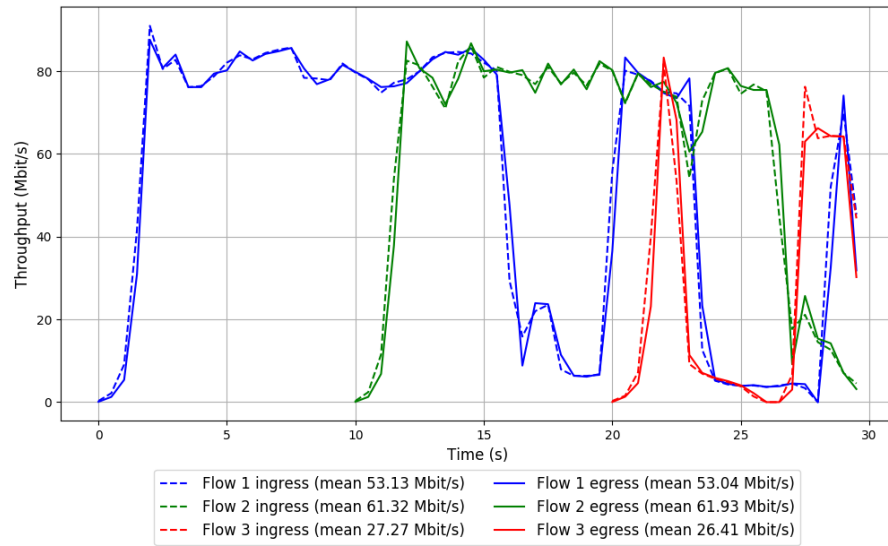
-- Flow 3:

Average throughput: 26.41 Mbit/s

95th percentile per-packet one-way delay: 112.189 ms

Loss rate: 5.35%

Run 10: Report of QUIC Cubic — Data Link

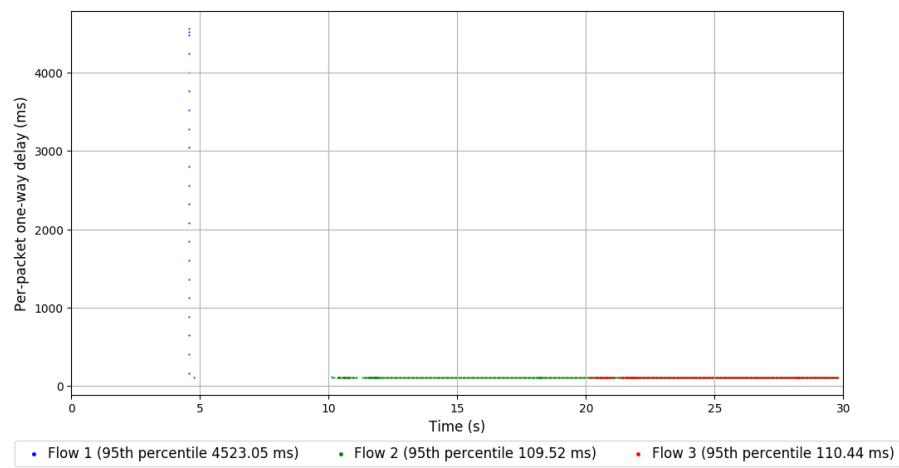
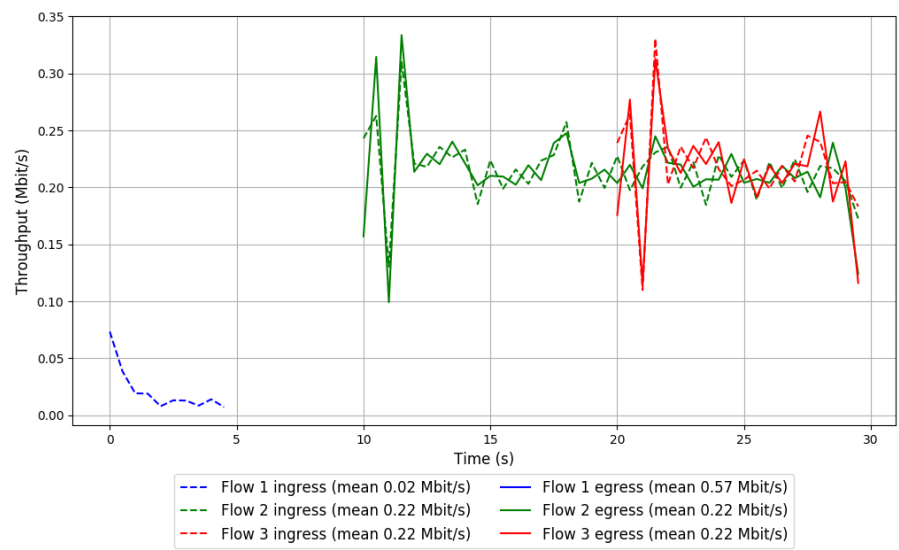


```
Run 1: Statistics of SCReAM

Start at: 2018-01-31 07:13:20
End at: 2018-01-31 07:13:50

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 110.437 ms
Loss rate: 1.44%
-- Flow 1:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 4523.053 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.517 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.443 ms
Loss rate: 2.26%
```

Run 1: Report of SReAM — Data Link

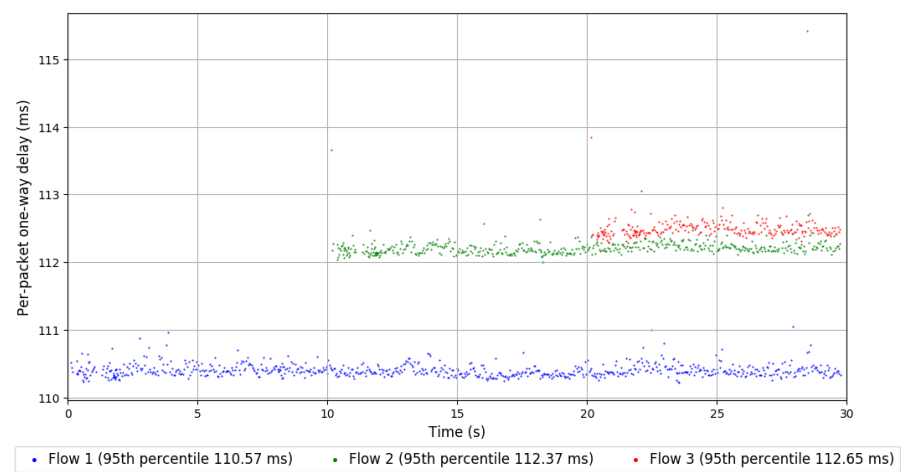
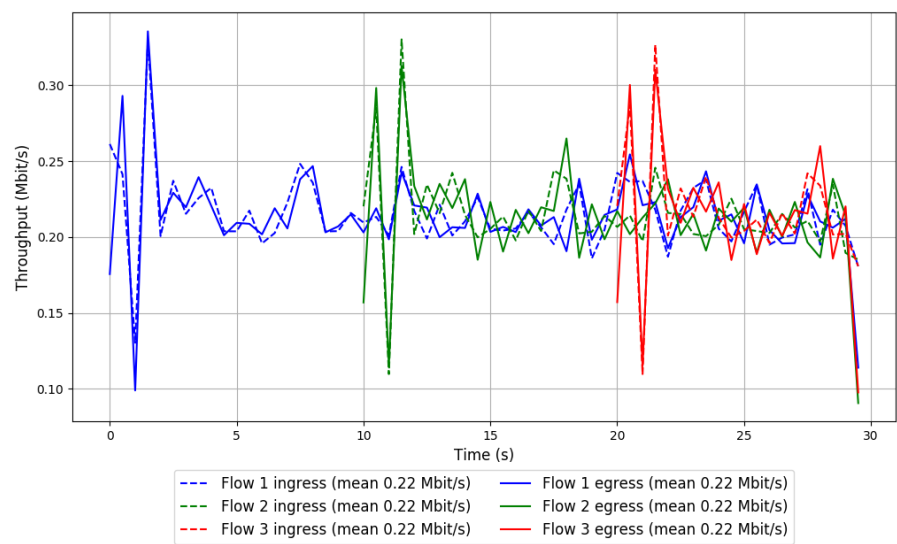


```
Run 2: Statistics of SCReAM

Start at: 2018-01-31 07:30:41
End at: 2018-01-31 07:31:11

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.535 ms
Loss rate: 1.36%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.573 ms
Loss rate: 0.89%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.366 ms
Loss rate: 1.43%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.654 ms
Loss rate: 2.64%
```

Run 2: Report of SCSReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-01-31 07:48:24

End at: 2018-01-31 07:48:54

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.284 ms

Loss rate: 1.06%

-- Flow 1:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.317 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.540 ms

Loss rate: 1.24%

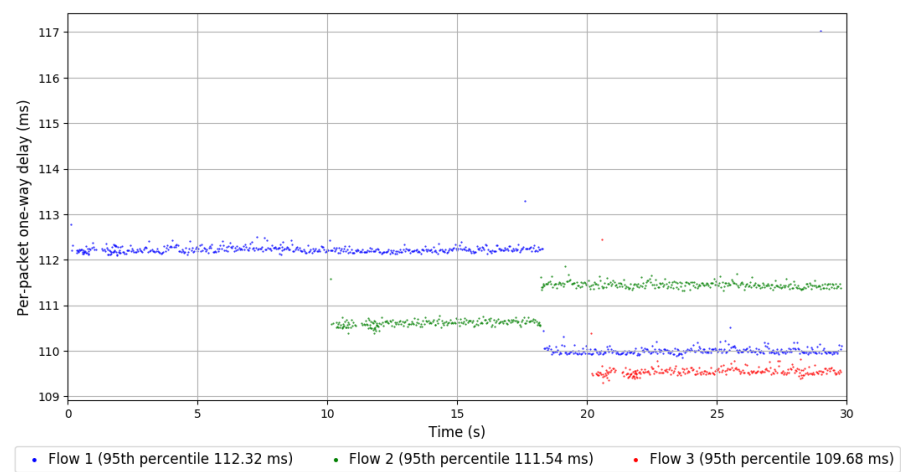
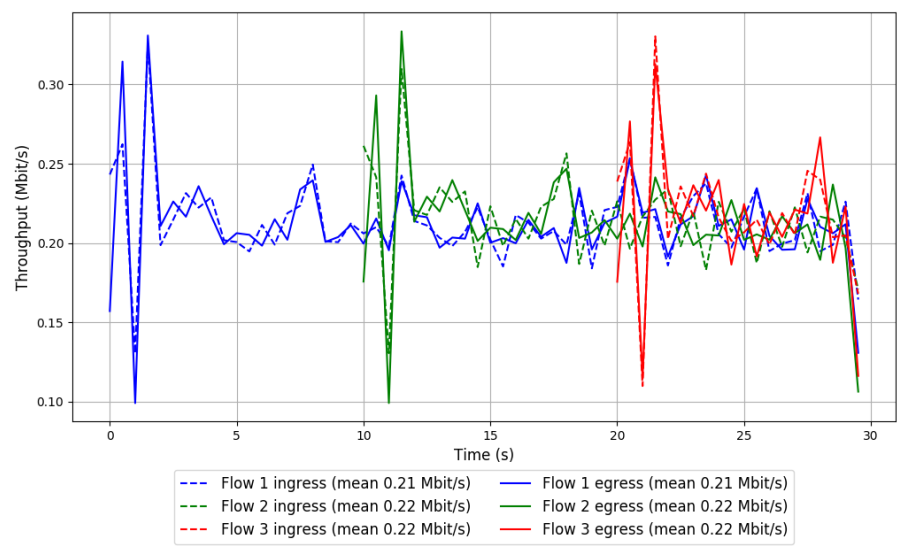
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 109.681 ms

Loss rate: 1.91%

Run 3: Report of SReAM — Data Link

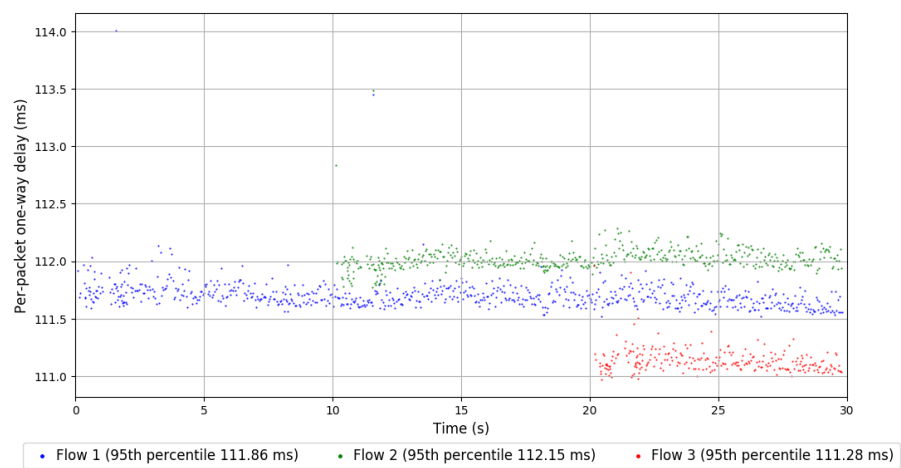
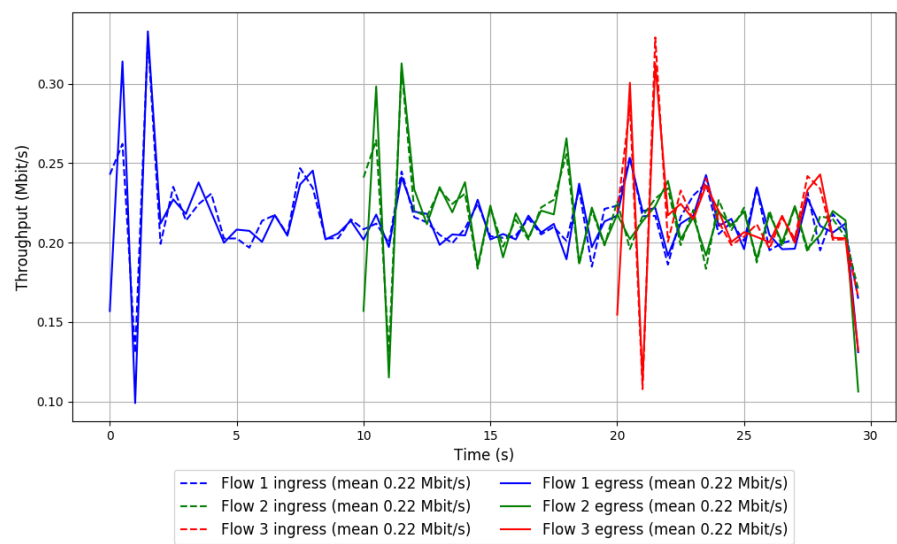


```
Run 4: Statistics of SReAM

Start at: 2018-01-31 08:06:10
End at: 2018-01-31 08:06:40

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 112.100 ms
Loss rate: 1.05%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.855 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.154 ms
Loss rate: 1.25%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.279 ms
Loss rate: 1.91%
```

Run 4: Report of SCRaM — Data Link



Run 5: Statistics of SCReAM

Start at: 2018-01-31 08:23:57

End at: 2018-01-31 08:24:27

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.812 ms

Loss rate: 1.12%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 111.749 ms

Loss rate: 0.64%

-- Flow 2:

Average throughput: 0.21 Mbit/s

95th percentile per-packet one-way delay: 112.939 ms

Loss rate: 1.25%

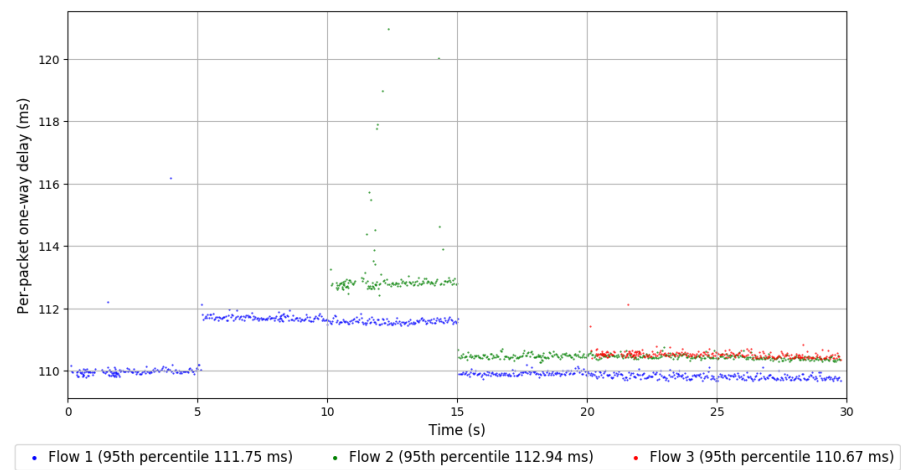
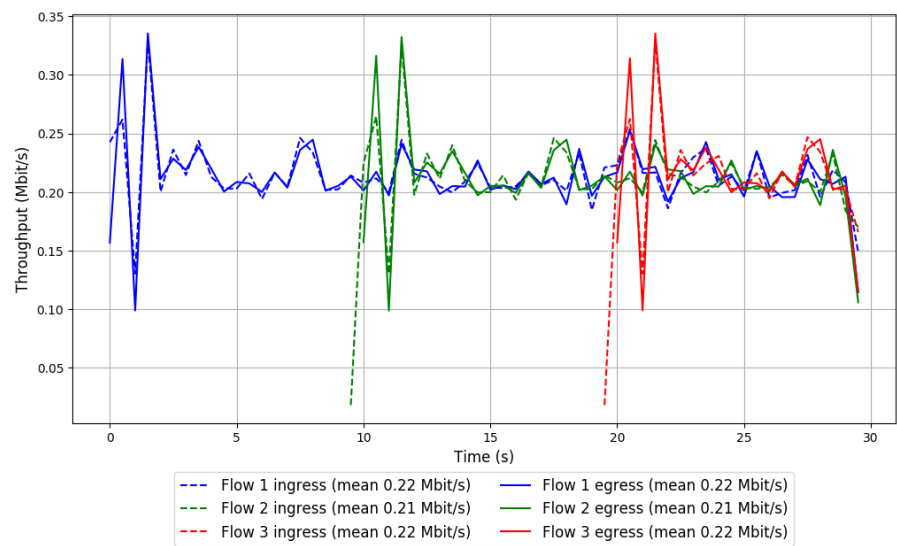
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.675 ms

Loss rate: 2.25%

Run 5: Report of SReAM — Data Link



Run 6: Statistics of SReAM

Start at: 2018-01-31 08:41:43

End at: 2018-01-31 08:42:13

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 112.933 ms

Loss rate: 1.08%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.969 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 111.578 ms

Loss rate: 1.16%

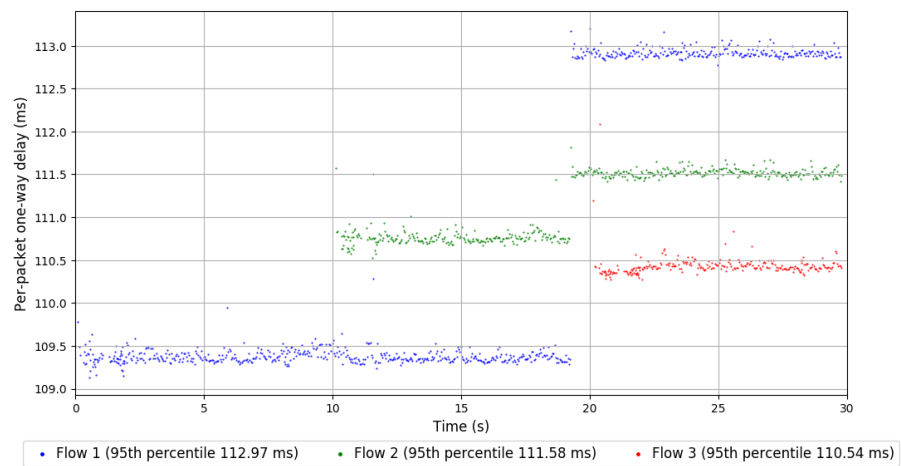
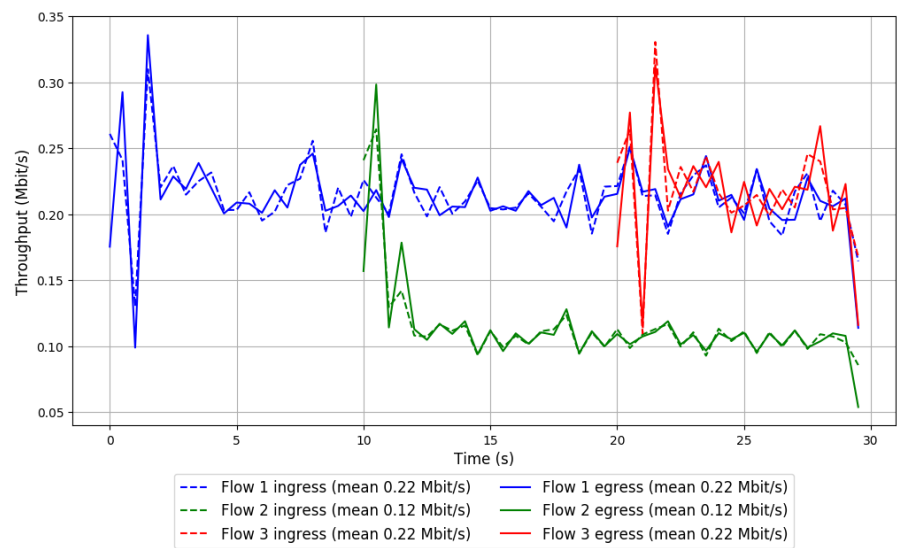
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.539 ms

Loss rate: 1.91%

Run 6: Report of SReAM — Data Link

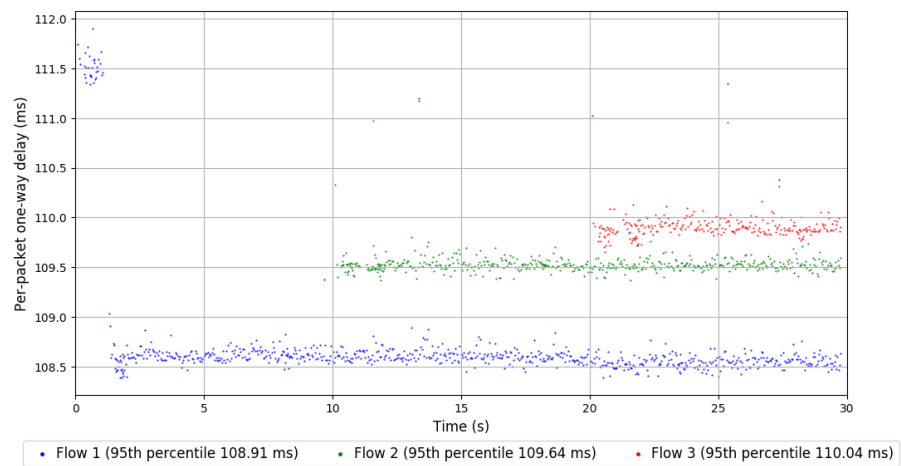
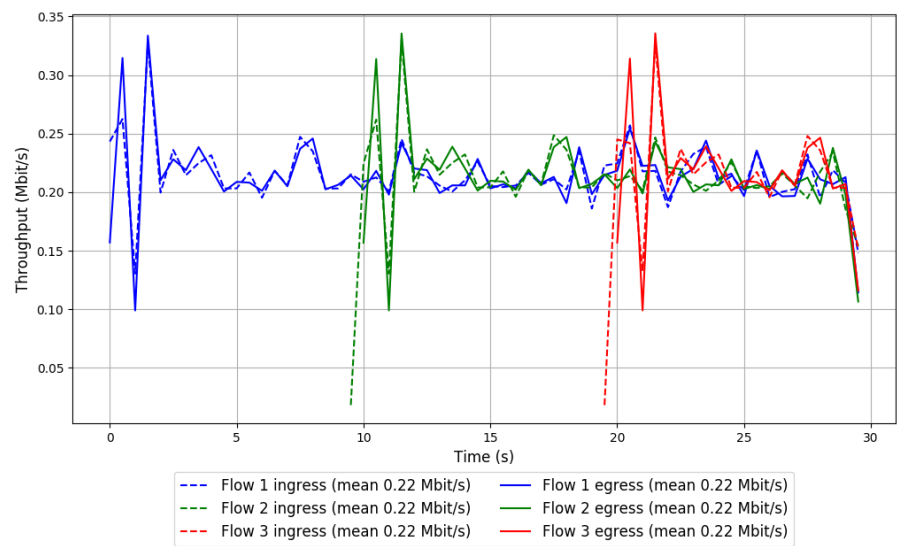


```
Run 7: Statistics of SReAM

Start at: 2018-01-31 08:59:01
End at: 2018-01-31 08:59:31

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 109.978 ms
Loss rate: 0.99%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 108.911 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.643 ms
Loss rate: 1.04%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.040 ms
Loss rate: 1.91%
```


Run 7: Report of SReAM — Data Link



Run 8: Statistics of SCReAM

Start at: 2018-01-31 09:16:37

End at: 2018-01-31 09:17:07

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 112.343 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 110.843 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 112.219 ms

Loss rate: 1.05%

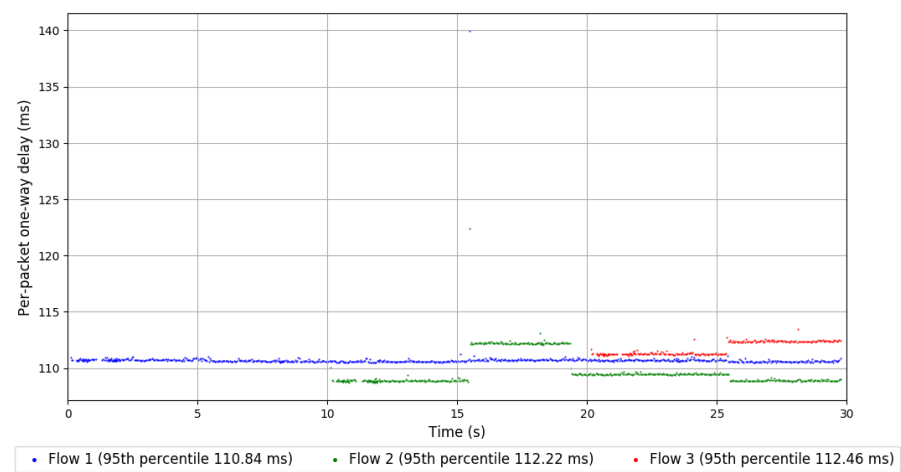
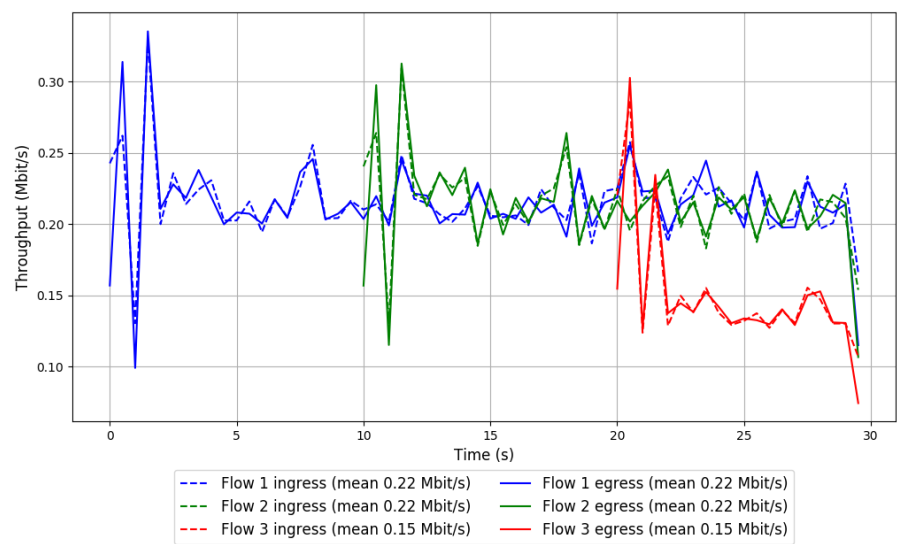
-- Flow 3:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 112.464 ms

Loss rate: 2.12%

Run 8: Report of SCSReAM — Data Link

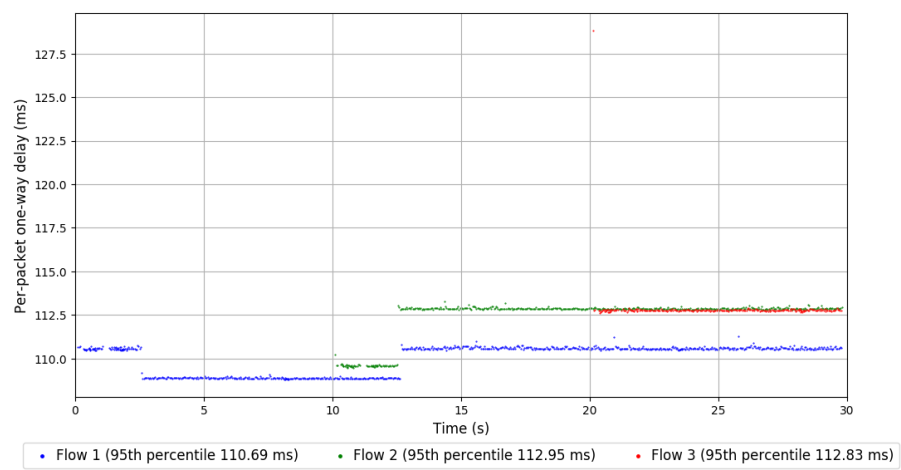
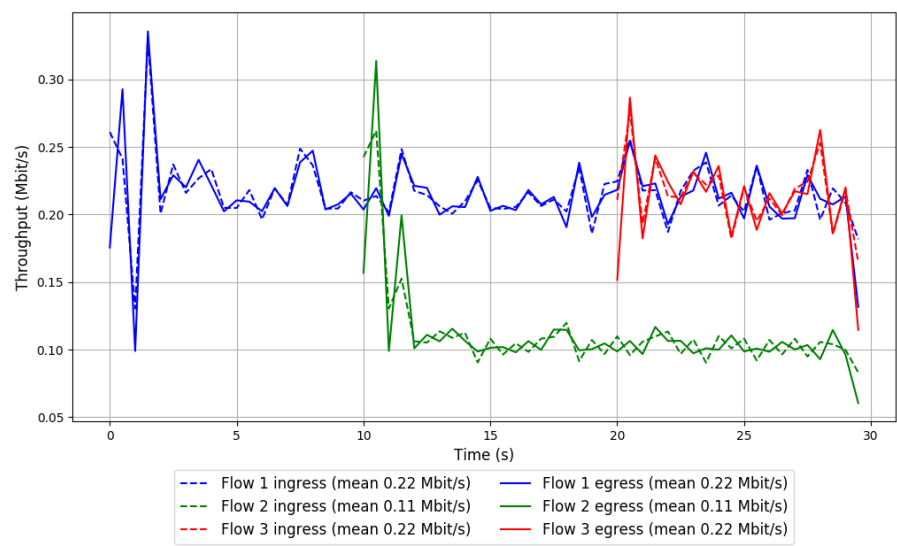


```
Run 9: Statistics of SCReAM

Start at: 2018-01-31 09:34:00
End at: 2018-01-31 09:34:30

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 112.893 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 110.687 ms
Loss rate: 0.76%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 112.955 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.829 ms
Loss rate: 2.26%
```

Run 9: Report of SCRaM — Data Link

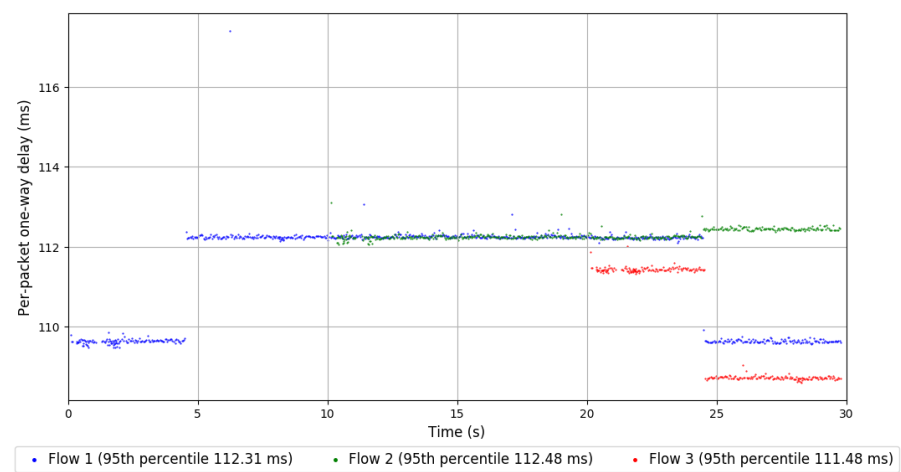
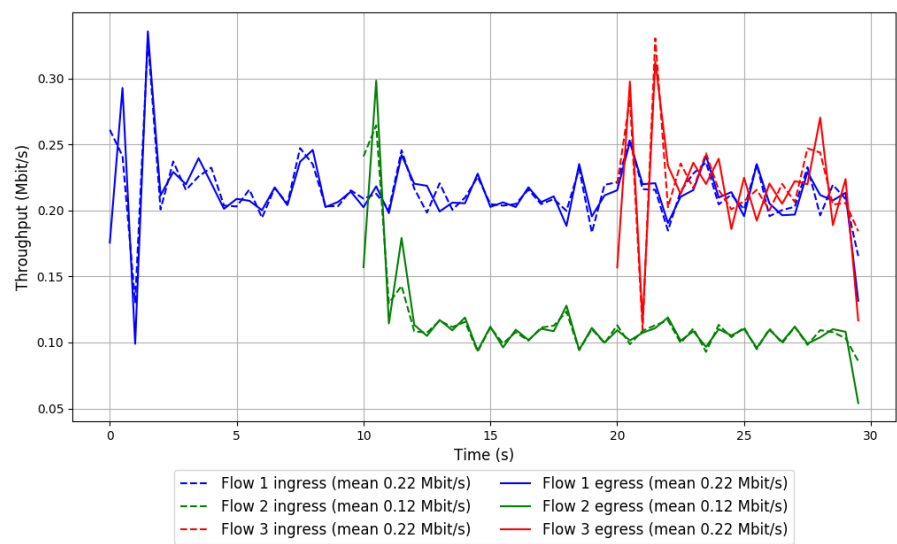


```
Run 10: Statistics of SReAM

Start at: 2018-01-31 09:51:48
End at: 2018-01-31 09:52:18

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 112.436 ms
Loss rate: 1.08%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 112.305 ms
Loss rate: 0.64%
-- Flow 2:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 112.480 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 111.480 ms
Loss rate: 2.26%
```

Run 10: Report of SReAM — Data Link

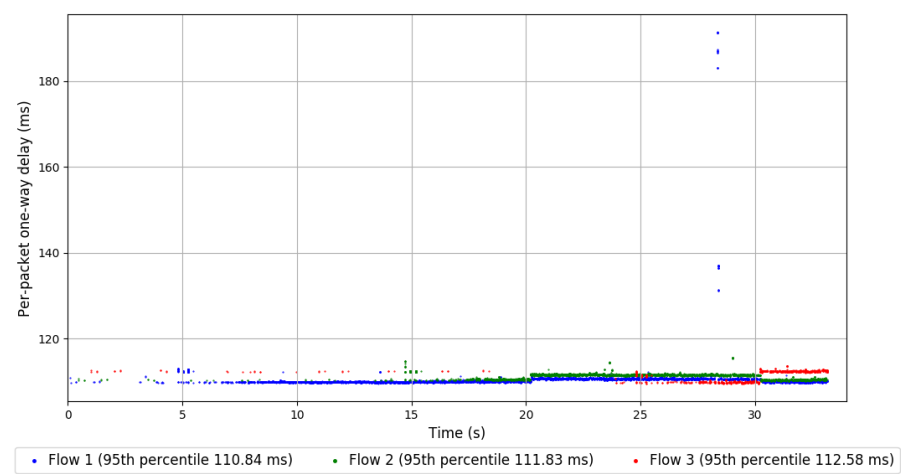
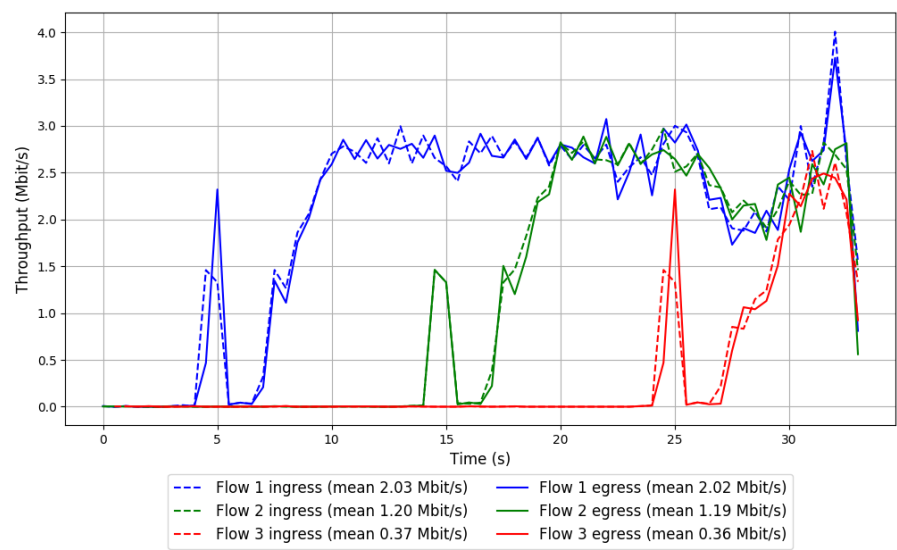


```
Run 1: Statistics of WebRTC media

Start at: 2018-01-31 07:21:56
End at: 2018-01-31 07:22:26

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 3.55 Mbit/s
95th percentile per-packet one-way delay: 112.351 ms
Loss rate: 1.53%
-- Flow 1:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 110.842 ms
Loss rate: 1.03%
-- Flow 2:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 111.834 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 112.579 ms
Loss rate: 3.36%
```


Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-01-31 07:39:36

End at: 2018-01-31 07:40:06

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 1.43%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 112.656 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 110.014 ms

Loss rate: 1.08%

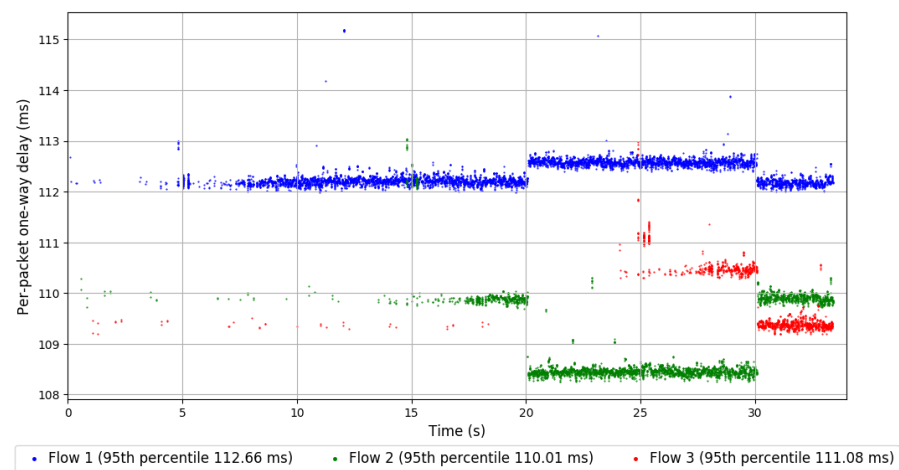
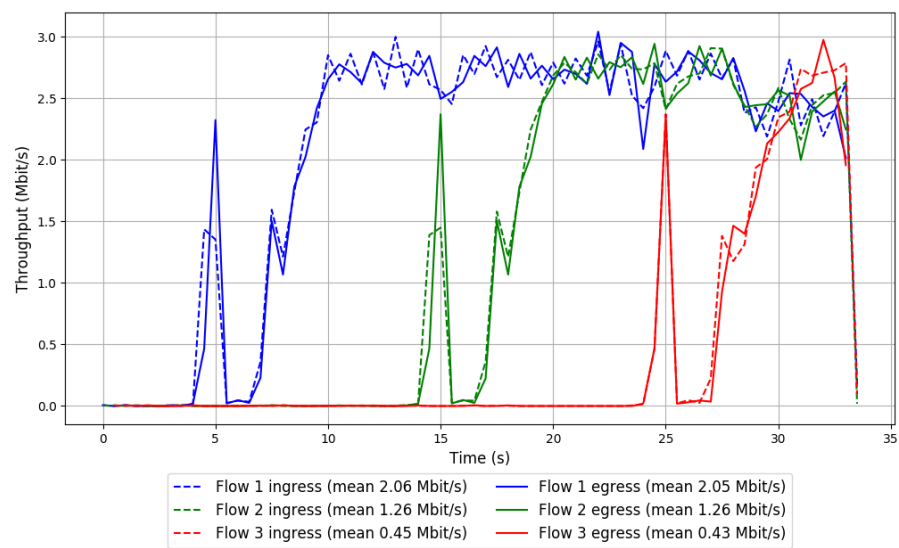
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 111.080 ms

Loss rate: 5.06%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-01-31 07:57:21

End at: 2018-01-31 07:57:51

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.66 Mbit/s

95th percentile per-packet one-way delay: 112.248 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 111.920 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 112.064 ms

Loss rate: 1.52%

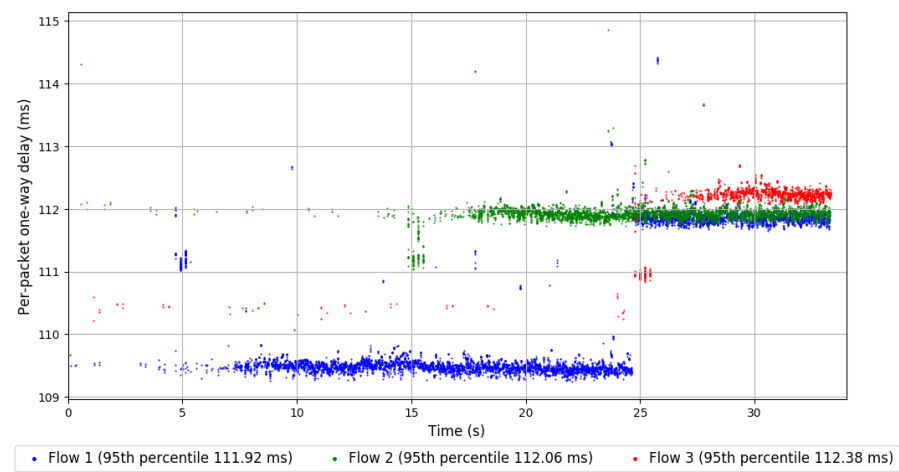
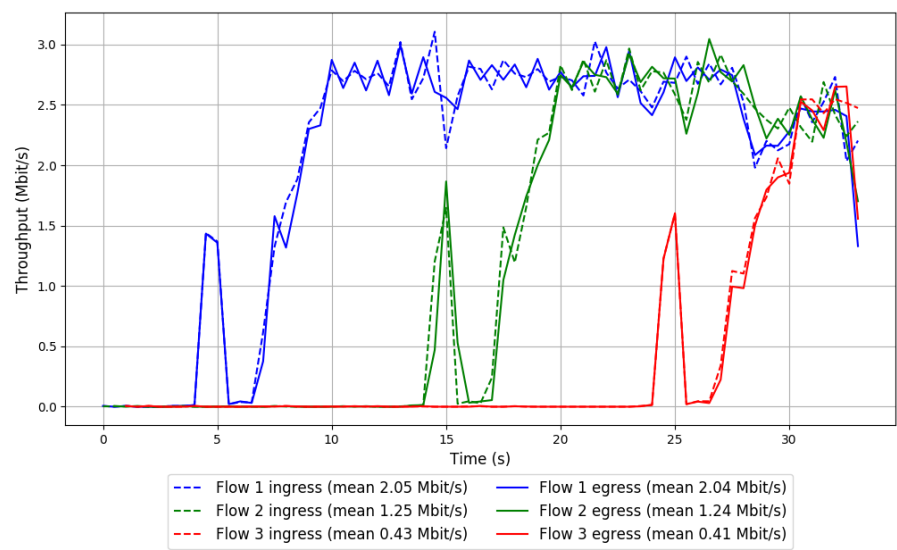
-- Flow 3:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 112.375 ms

Loss rate: 4.96%

Run 3: Report of WebRTC media — Data Link



Run 4: Statistics of WebRTC media

Start at: 2018-01-31 08:14:57

End at: 2018-01-31 08:15:27

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.49 Mbit/s

95th percentile per-packet one-way delay: 112.098 ms

Loss rate: 1.61%

-- Flow 1:

Average throughput: 2.03 Mbit/s

95th percentile per-packet one-way delay: 110.636 ms

Loss rate: 0.91%

-- Flow 2:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 112.296 ms

Loss rate: 1.42%

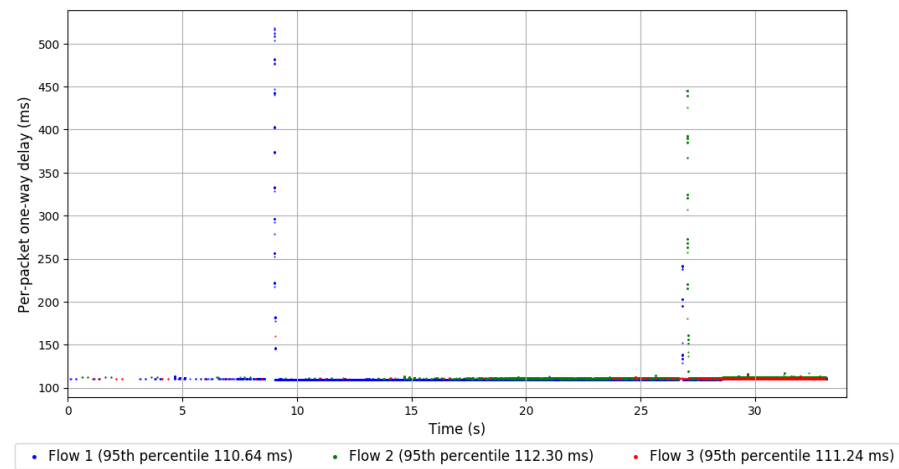
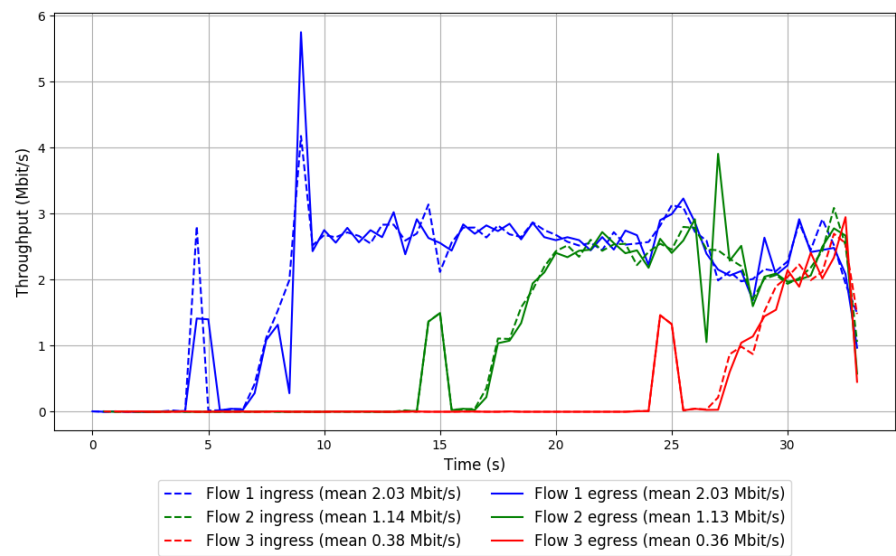
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 111.239 ms

Loss rate: 6.06%

Run 4: Report of WebRTC media — Data Link



Run 5: Statistics of WebRTC media

Start at: 2018-01-31 08:32:50

End at: 2018-01-31 08:33:20

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.61 Mbit/s

95th percentile per-packet one-way delay: 112.654 ms

Loss rate: 1.52%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 112.272 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 112.712 ms

Loss rate: 1.65%

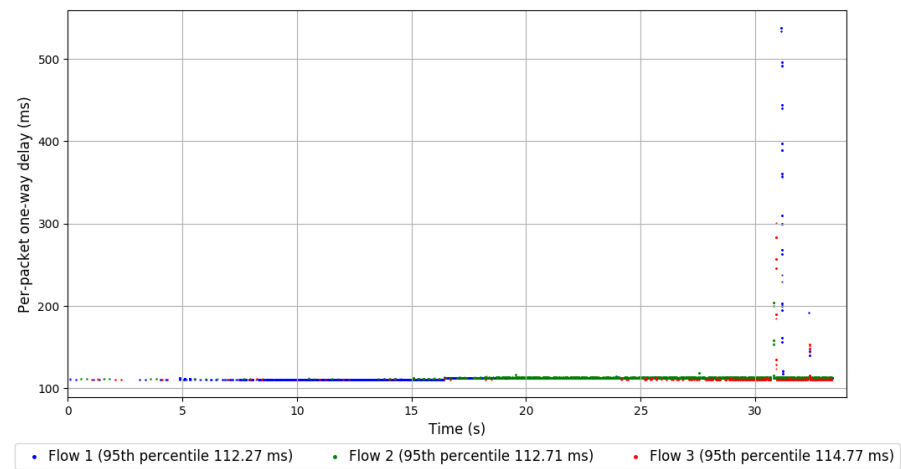
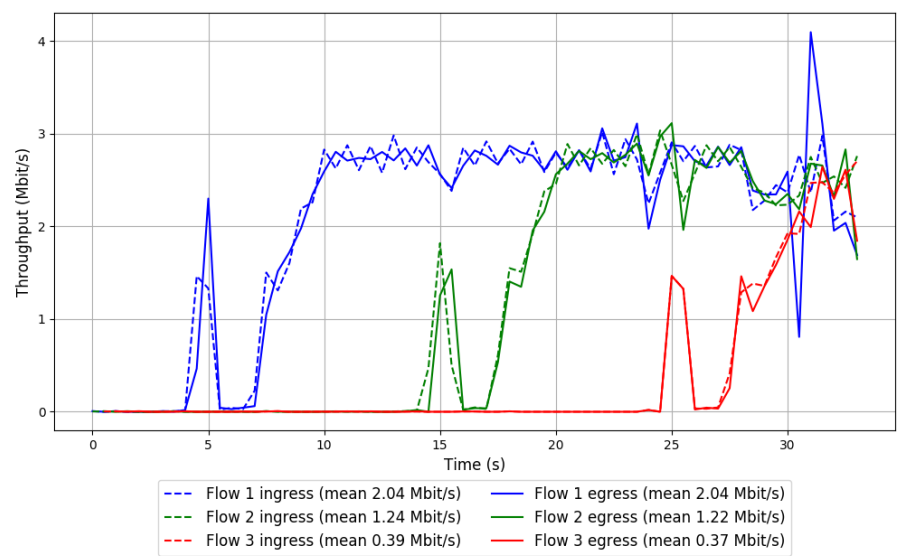
-- Flow 3:

Average throughput: 0.37 Mbit/s

95th percentile per-packet one-way delay: 114.769 ms

Loss rate: 5.44%

Run 5: Report of WebRTC media — Data Link



Run 6: Statistics of WebRTC media

Start at: 2018-01-31 08:50:12

End at: 2018-01-31 08:50:42

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.62 Mbit/s

95th percentile per-packet one-way delay: 112.303 ms

Loss rate: 1.37%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 112.314 ms

Loss rate: 1.04%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 112.158 ms

Loss rate: 1.28%

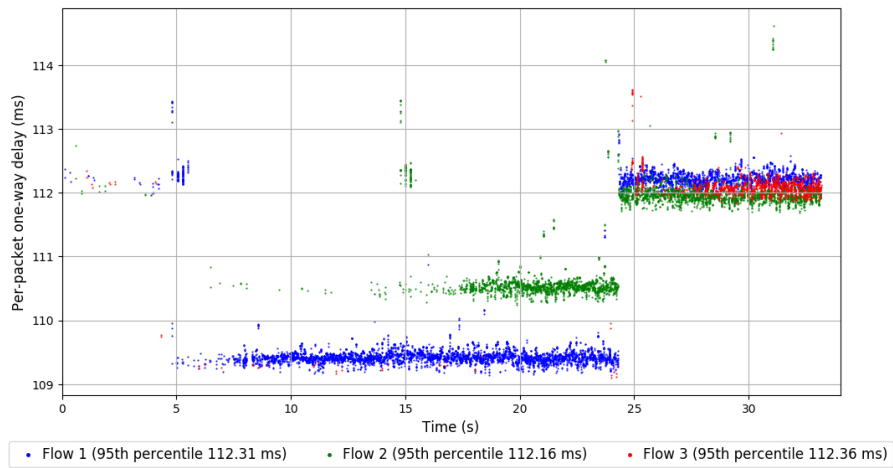
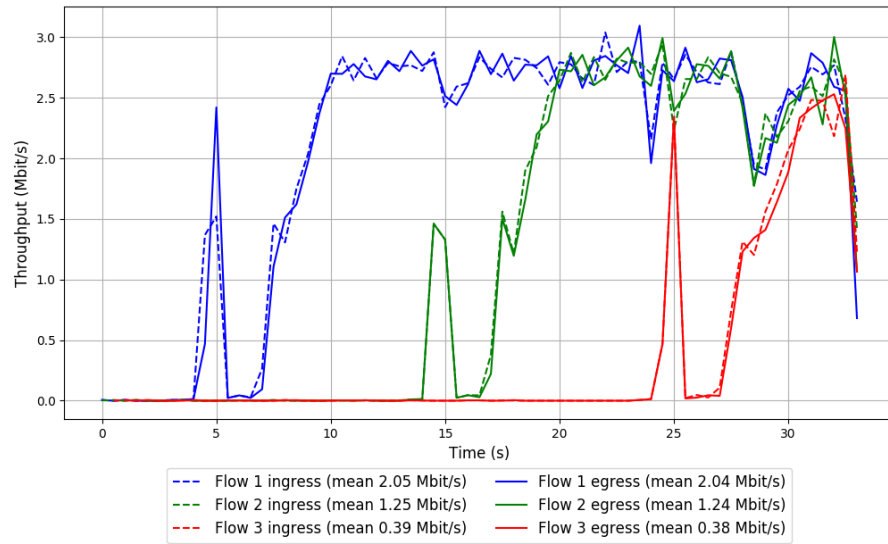
-- Flow 3:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 112.356 ms

Loss rate: 3.51%

Run 6: Report of WebRTC media — Data Link



Run 7: Statistics of WebRTC media

Start at: 2018-01-31 09:07:58

End at: 2018-01-31 09:08:28

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.70 Mbit/s

95th percentile per-packet one-way delay: 111.512 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 2.05 Mbit/s

95th percentile per-packet one-way delay: 111.513 ms

Loss rate: 1.02%

-- Flow 2:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 111.048 ms

Loss rate: 1.57%

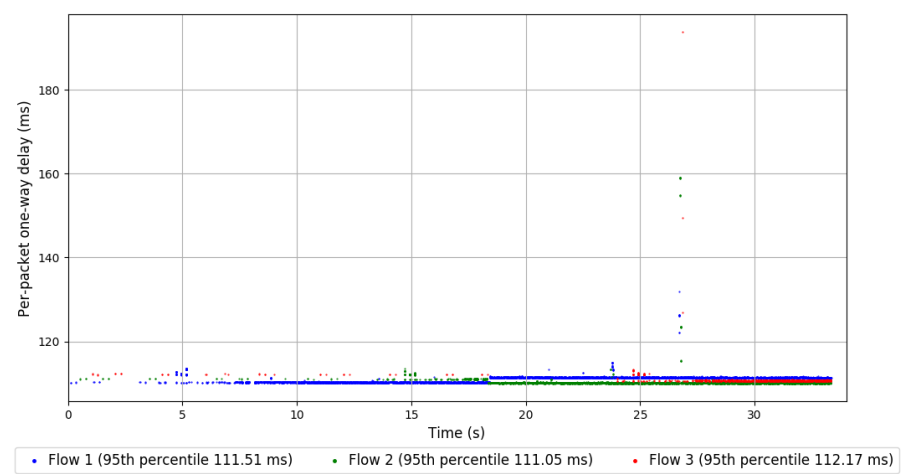
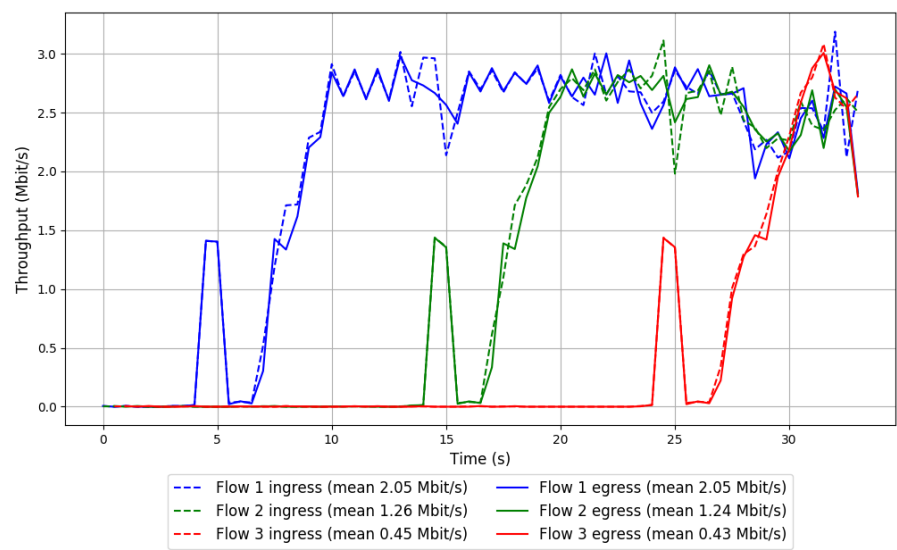
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.171 ms

Loss rate: 4.60%

Run 7: Report of WebRTC media — Data Link



Run 8: Statistics of WebRTC media

Start at: 2018-01-31 09:24:57

End at: 2018-01-31 09:25:27

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.50 Mbit/s

95th percentile per-packet one-way delay: 113.436 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 112.887 ms

Loss rate: 0.61%

-- Flow 2:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 110.982 ms

Loss rate: 1.07%

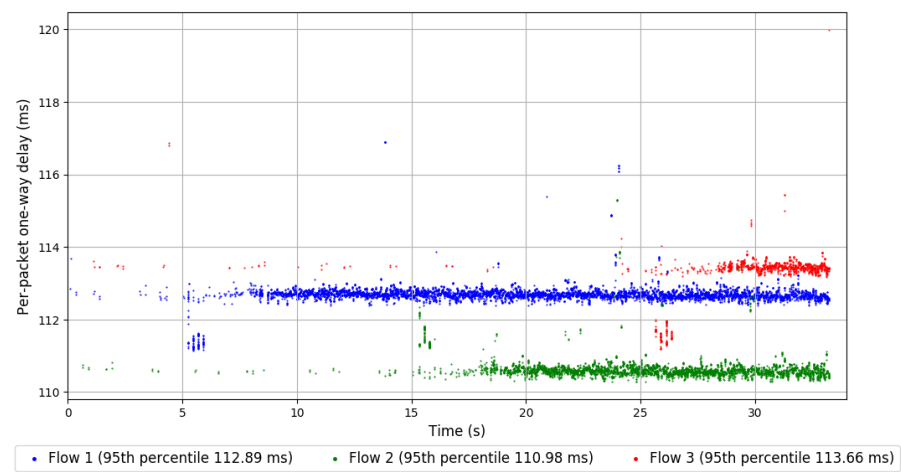
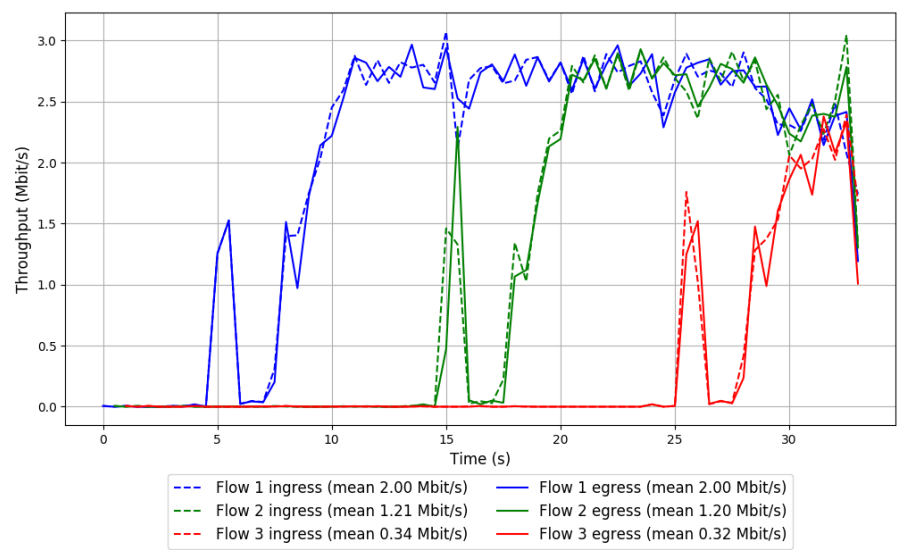
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 113.658 ms

Loss rate: 5.75%

Run 8: Report of WebRTC media — Data Link



Run 9: Statistics of WebRTC media

Start at: 2018-01-31 09:42:57

End at: 2018-01-31 09:43:27

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.69 Mbit/s

95th percentile per-packet one-way delay: 113.349 ms

Loss rate: 1.50%

-- Flow 1:

Average throughput: 2.06 Mbit/s

95th percentile per-packet one-way delay: 113.378 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 110.988 ms

Loss rate: 1.52%

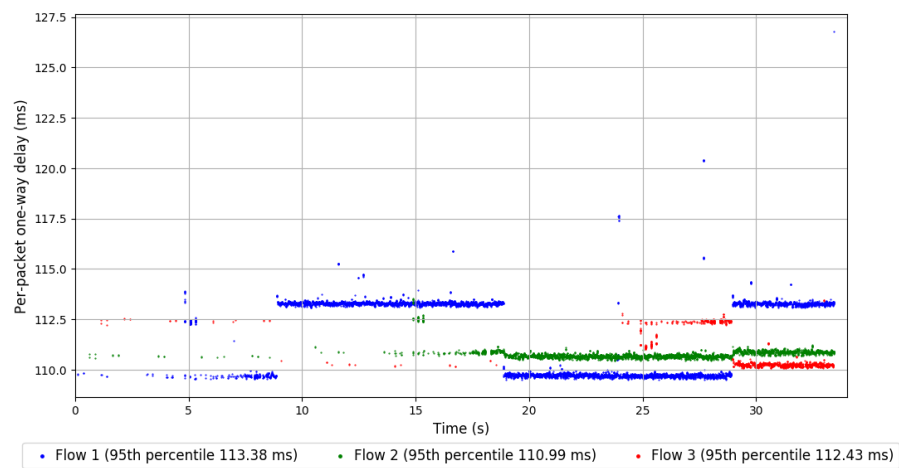
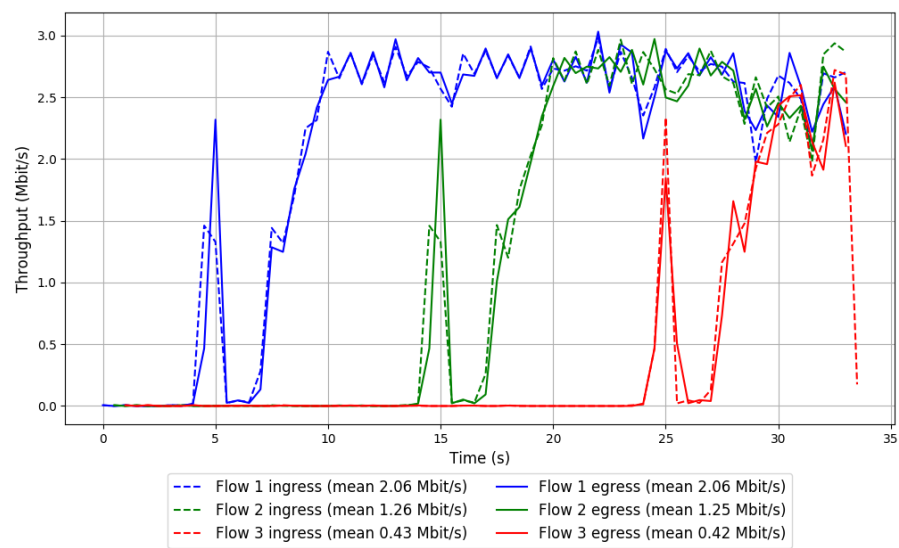
-- Flow 3:

Average throughput: 0.42 Mbit/s

95th percentile per-packet one-way delay: 112.429 ms

Loss rate: 4.81%

Run 9: Report of WebRTC media — Data Link



Run 10: Statistics of WebRTC media

Start at: 2018-01-31 10:00:35

End at: 2018-01-31 10:01:05

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.71 Mbit/s

95th percentile per-packet one-way delay: 112.163 ms

Loss rate: 1.62%

-- Flow 1:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 111.627 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 110.566 ms

Loss rate: 1.44%

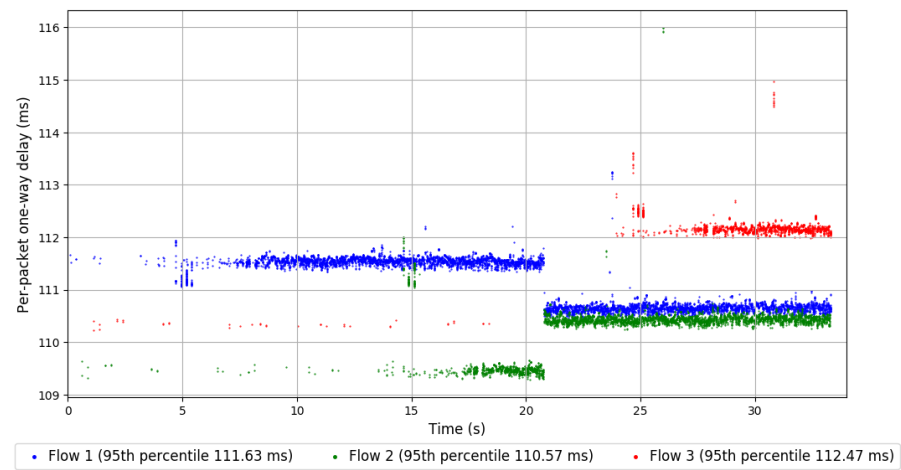
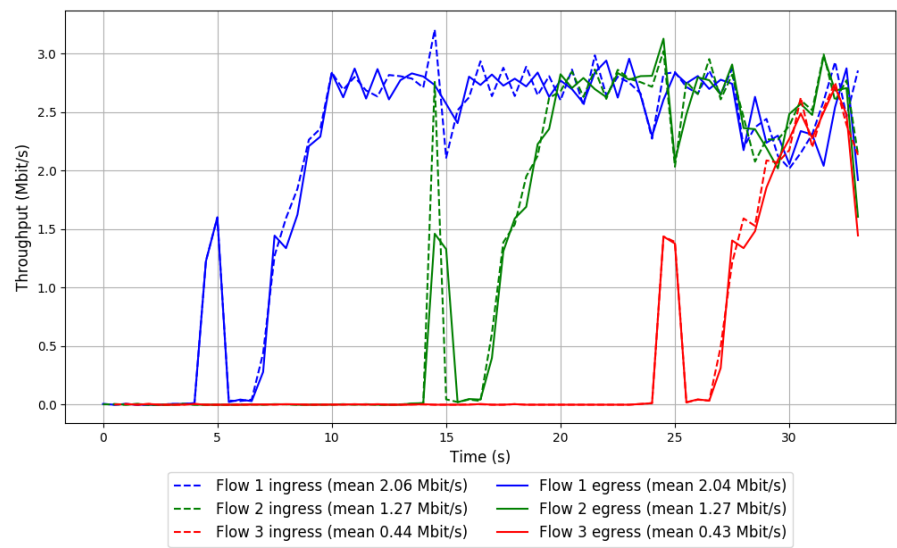
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 3.98%

Run 10: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-31 07:14:06

End at: 2018-01-31 07:14:36

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 112.072 ms

Loss rate: 1.97%

-- Flow 1:

Average throughput: 1.59 Mbit/s

95th percentile per-packet one-way delay: 111.809 ms

Loss rate: 1.23%

-- Flow 2:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 112.111 ms

Loss rate: 1.83%

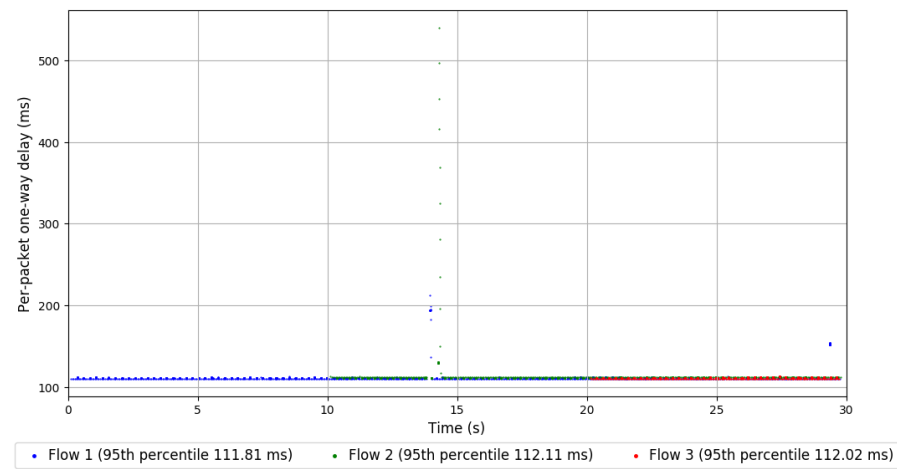
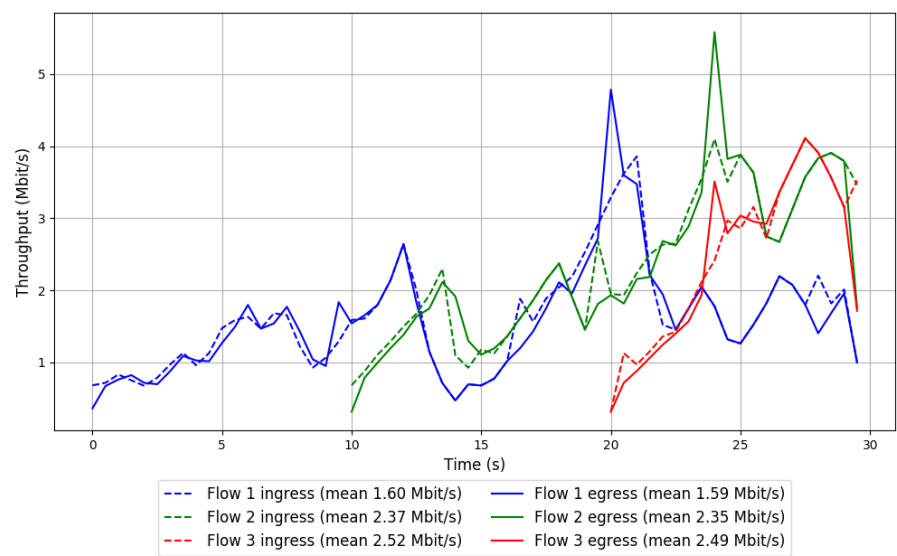
-- Flow 3:

Average throughput: 2.49 Mbit/s

95th percentile per-packet one-way delay: 112.022 ms

Loss rate: 3.64%

Run 1: Report of Sprout — Data Link



Run 2: Statistics of Sprout

Start at: 2018-01-31 07:31:28

End at: 2018-01-31 07:31:58

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.95 Mbit/s

95th percentile per-packet one-way delay: 114.274 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 114.742 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 1.83 Mbit/s

95th percentile per-packet one-way delay: 114.304 ms

Loss rate: 2.59%

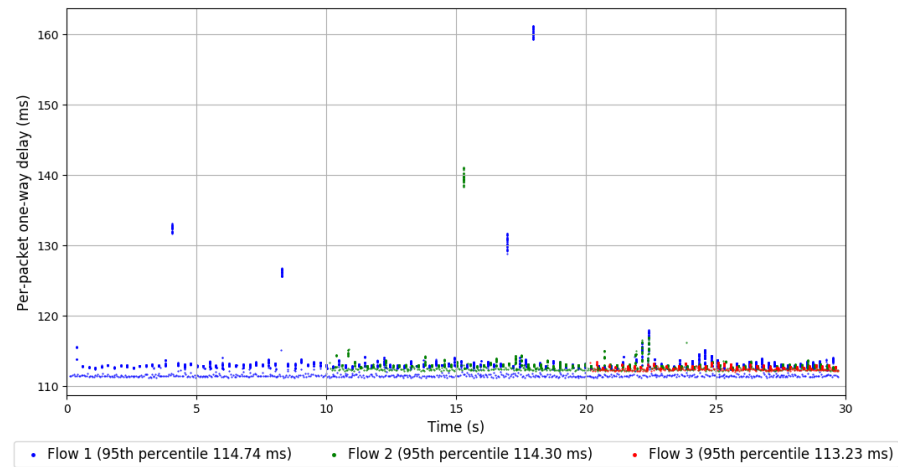
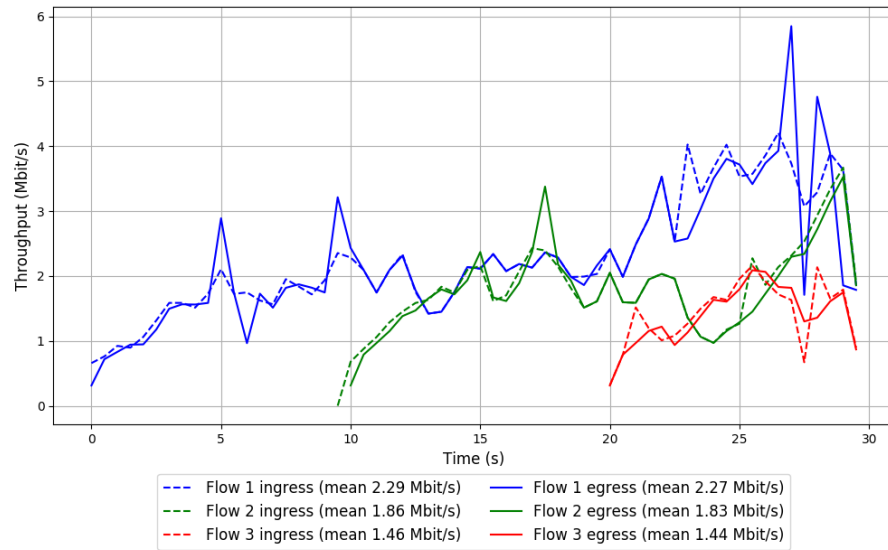
-- Flow 3:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 113.229 ms

Loss rate: 3.14%

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-01-31 07:49:10

End at: 2018-01-31 07:49:40

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.42 Mbit/s

95th percentile per-packet one-way delay: 112.193 ms

Loss rate: 1.86%

-- Flow 1:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 112.246 ms

Loss rate: 1.47%

-- Flow 2:

Average throughput: 3.00 Mbit/s

95th percentile per-packet one-way delay: 112.163 ms

Loss rate: 1.40%

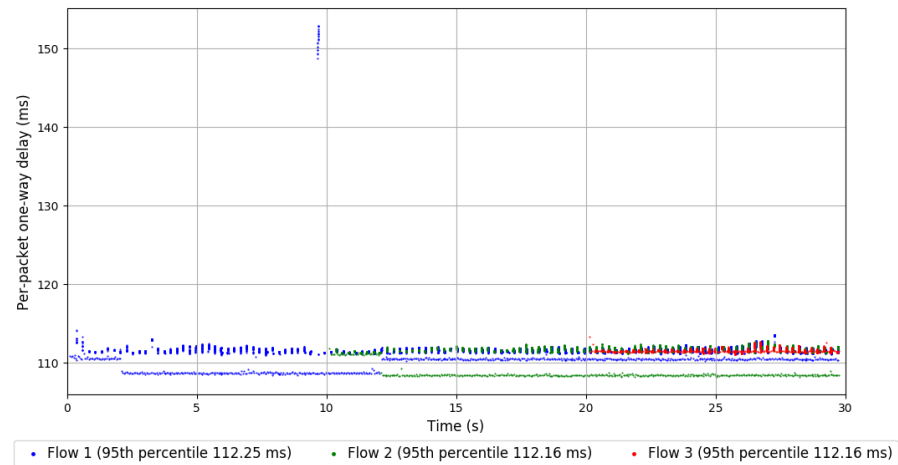
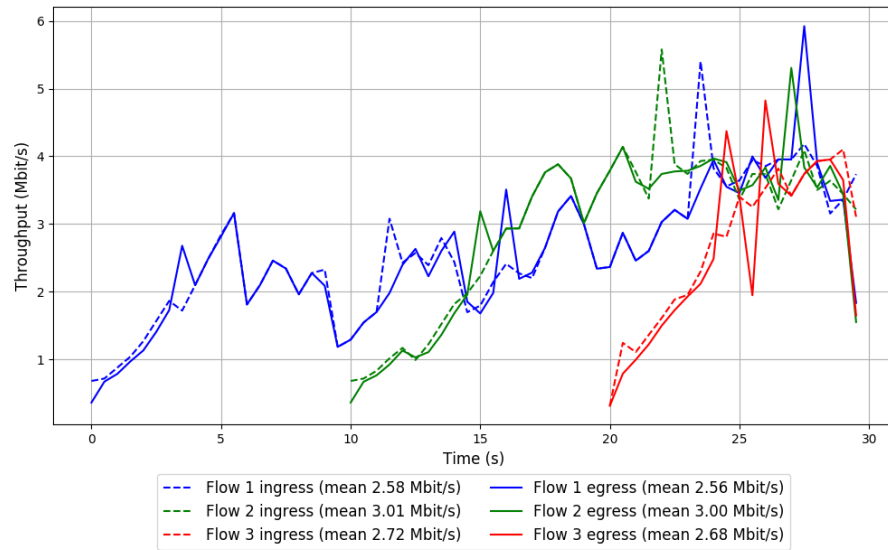
-- Flow 3:

Average throughput: 2.68 Mbit/s

95th percentile per-packet one-way delay: 112.160 ms

Loss rate: 4.01%

Run 3: Report of Sprout — Data Link



Run 4: Statistics of Sprout

Start at: 2018-01-31 08:06:56

End at: 2018-01-31 08:07:26

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.89 Mbit/s

95th percentile per-packet one-way delay: 112.306 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 112.345 ms

Loss rate: 1.25%

-- Flow 2:

Average throughput: 3.05 Mbit/s

95th percentile per-packet one-way delay: 112.082 ms

Loss rate: 1.77%

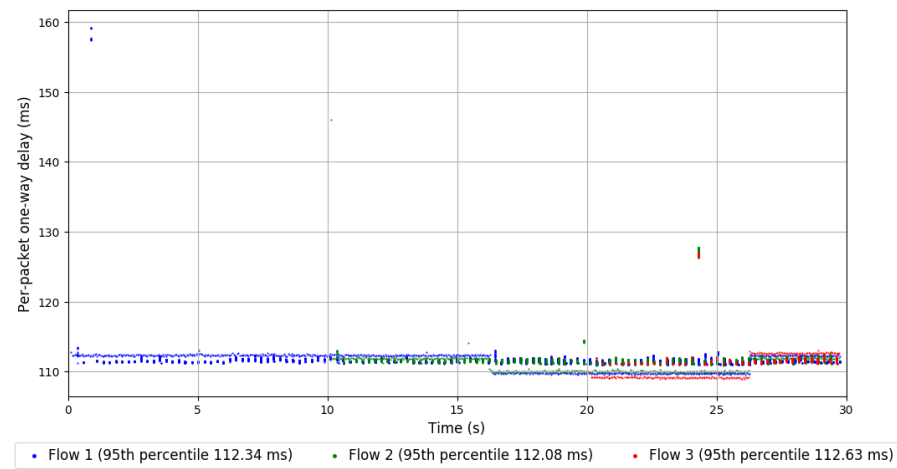
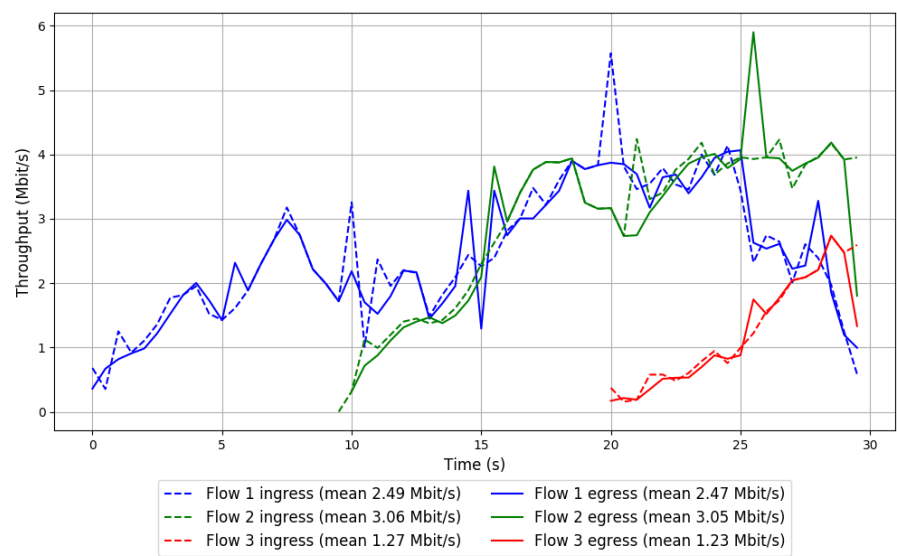
-- Flow 3:

Average throughput: 1.23 Mbit/s

95th percentile per-packet one-way delay: 112.628 ms

Loss rate: 5.60%

Run 4: Report of Sprout — Data Link



Run 5: Statistics of Sprout

Start at: 2018-01-31 08:24:43

End at: 2018-01-31 08:25:14

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.31 Mbit/s

95th percentile per-packet one-way delay: 112.704 ms

Loss rate: 3.01%

-- Flow 1:

Average throughput: 1.75 Mbit/s

95th percentile per-packet one-way delay: 112.945 ms

Loss rate: 1.72%

-- Flow 2:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 112.112 ms

Loss rate: 3.80%

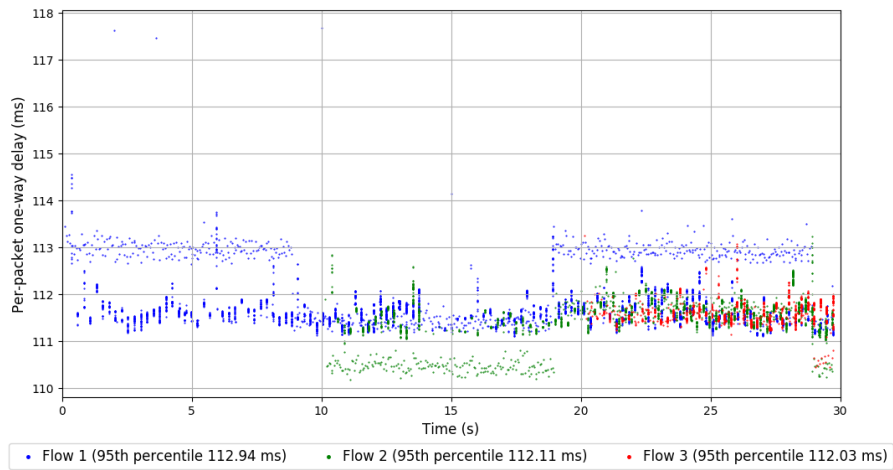
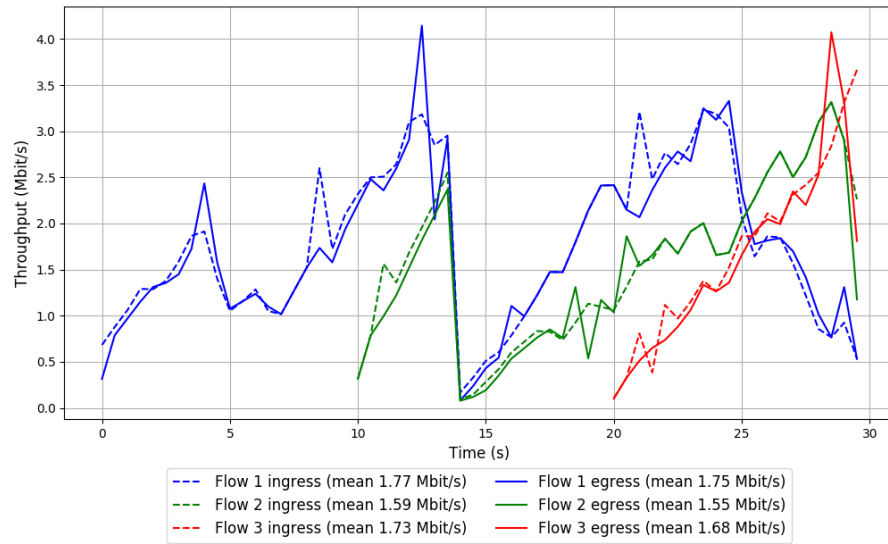
-- Flow 3:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 112.025 ms

Loss rate: 5.54%

Run 5: Report of Sprout — Data Link



Run 6: Statistics of Sprout

Start at: 2018-01-31 08:42:29

End at: 2018-01-31 08:42:59

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.38 Mbit/s

95th percentile per-packet one-way delay: 112.962 ms

Loss rate: 1.94%

-- Flow 1:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 112.998 ms

Loss rate: 1.17%

-- Flow 2:

Average throughput: 1.53 Mbit/s

95th percentile per-packet one-way delay: 112.731 ms

Loss rate: 1.81%

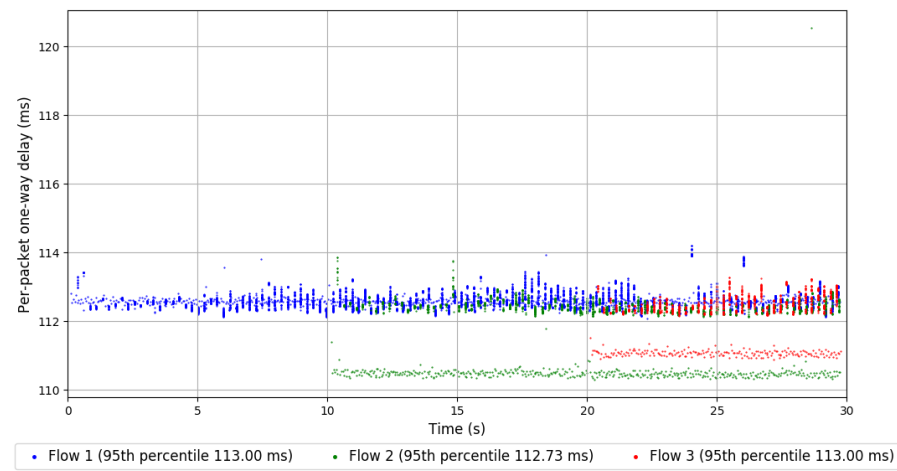
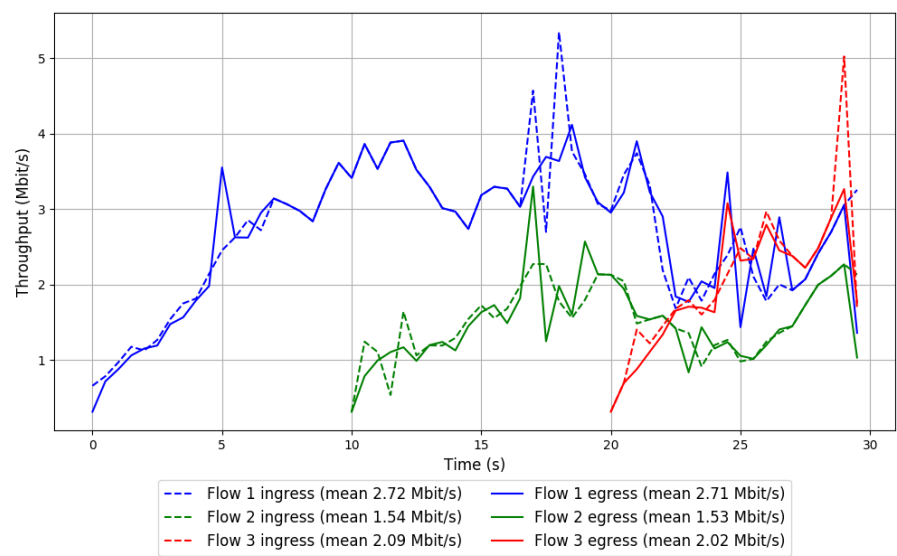
-- Flow 3:

Average throughput: 2.02 Mbit/s

95th percentile per-packet one-way delay: 113.000 ms

Loss rate: 5.20%

Run 6: Report of Sprout — Data Link



Run 7: Statistics of Sprout

Start at: 2018-01-31 08:59:47

End at: 2018-01-31 09:00:17

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.73 Mbit/s

95th percentile per-packet one-way delay: 112.927 ms

Loss rate: 1.87%

-- Flow 1:

Average throughput: 2.13 Mbit/s

95th percentile per-packet one-way delay: 112.972 ms

Loss rate: 1.13%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 112.910 ms

Loss rate: 2.19%

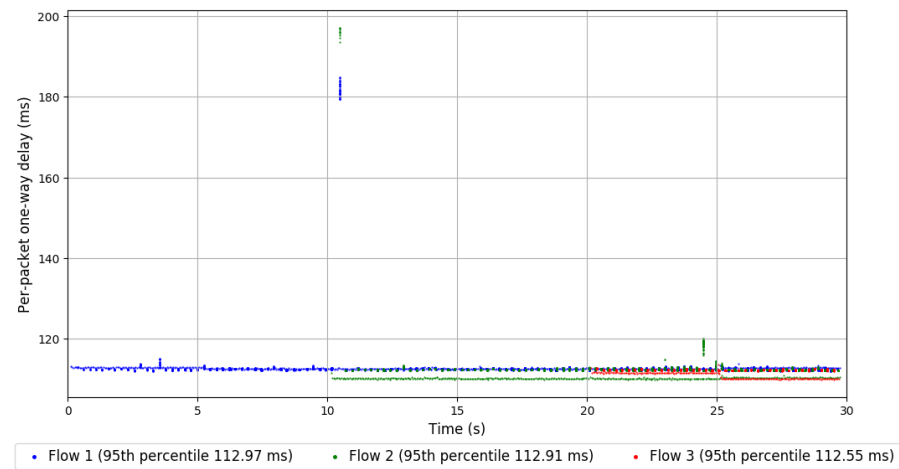
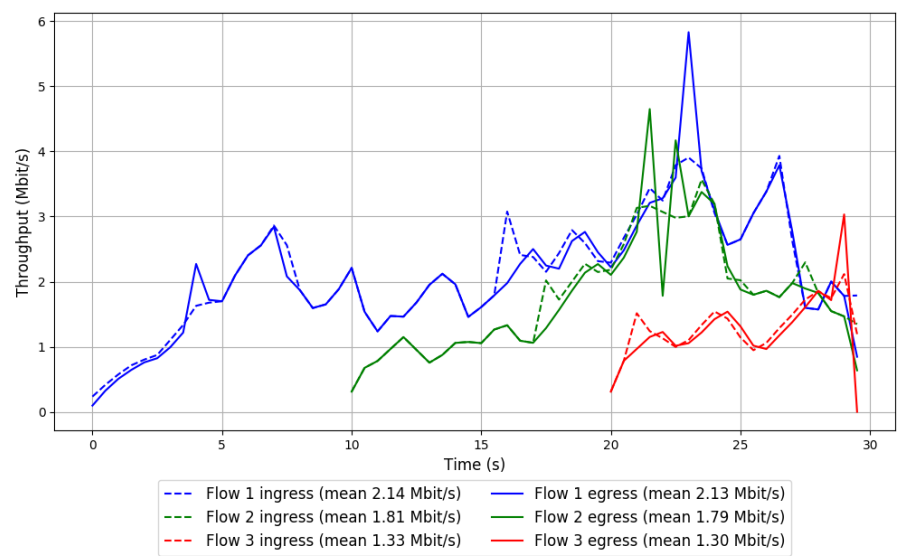
-- Flow 3:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 112.549 ms

Loss rate: 4.59%

Run 7: Report of Sprout — Data Link



Run 8: Statistics of Sprout

Start at: 2018-01-31 09:17:24

End at: 2018-01-31 09:17:54

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.30 Mbit/s

95th percentile per-packet one-way delay: 113.262 ms

Loss rate: 2.67%

-- Flow 1:

Average throughput: 1.99 Mbit/s

95th percentile per-packet one-way delay: 113.225 ms

Loss rate: 1.54%

-- Flow 2:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 113.353 ms

Loss rate: 2.82%

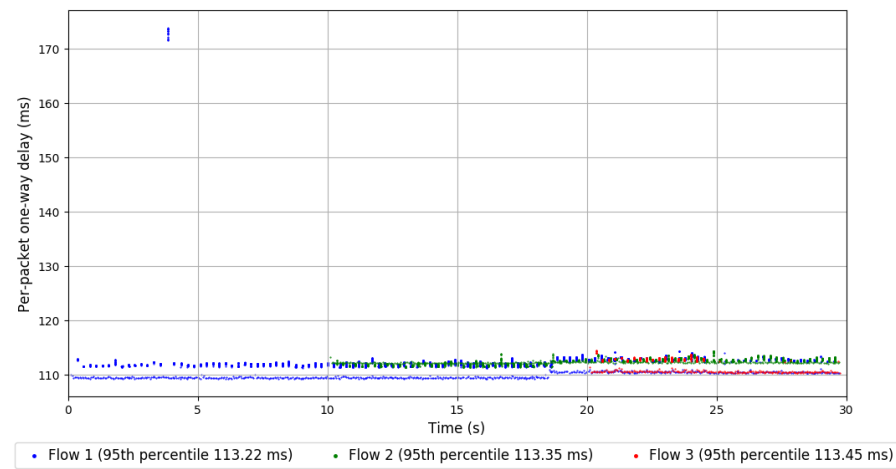
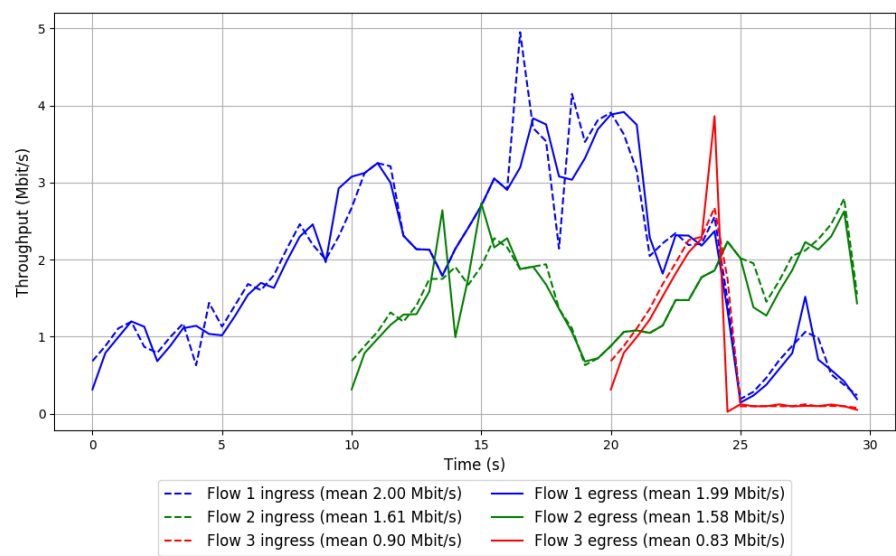
-- Flow 3:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 113.450 ms

Loss rate: 9.70%

Run 8: Report of Sprout — Data Link



Run 9: Statistics of Sprout

Start at: 2018-01-31 09:34:46

End at: 2018-01-31 09:35:16

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 3.58 Mbit/s

95th percentile per-packet one-way delay: 112.196 ms

Loss rate: 1.28%

-- Flow 1:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 111.991 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 112.264 ms

Loss rate: 2.88%

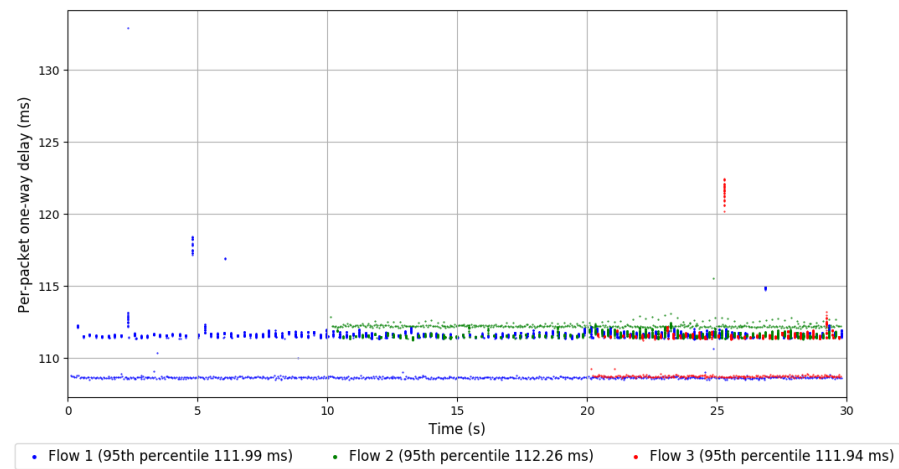
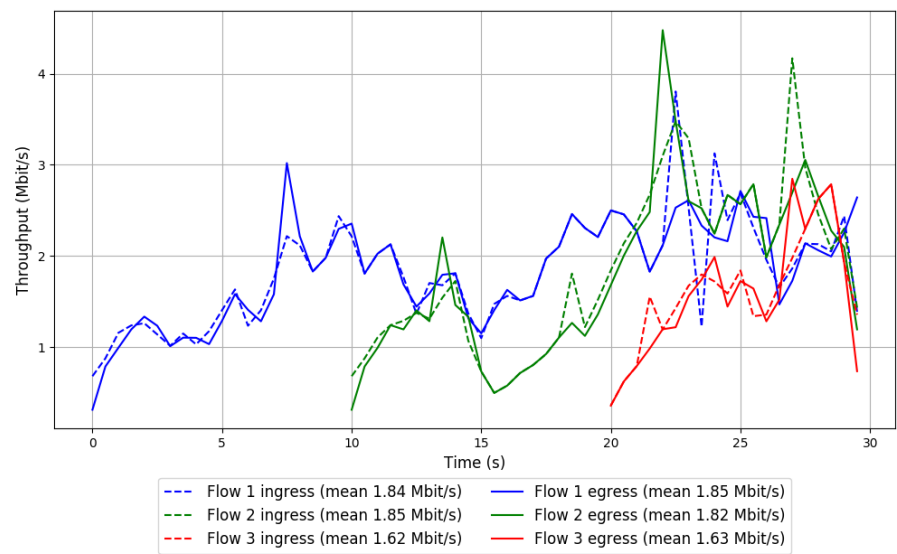
-- Flow 3:

Average throughput: 1.63 Mbit/s

95th percentile per-packet one-way delay: 111.937 ms

Loss rate: 1.95%

Run 9: Report of Sprout — Data Link



Run 10: Statistics of Sprout

Start at: 2018-01-31 09:52:34

End at: 2018-01-31 09:53:04

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 5.60 Mbit/s

95th percentile per-packet one-way delay: 113.195 ms

Loss rate: 1.60%

-- Flow 1:

Average throughput: 2.71 Mbit/s

95th percentile per-packet one-way delay: 113.124 ms

Loss rate: 1.01%

-- Flow 2:

Average throughput: 3.15 Mbit/s

95th percentile per-packet one-way delay: 113.280 ms

Loss rate: 2.05%

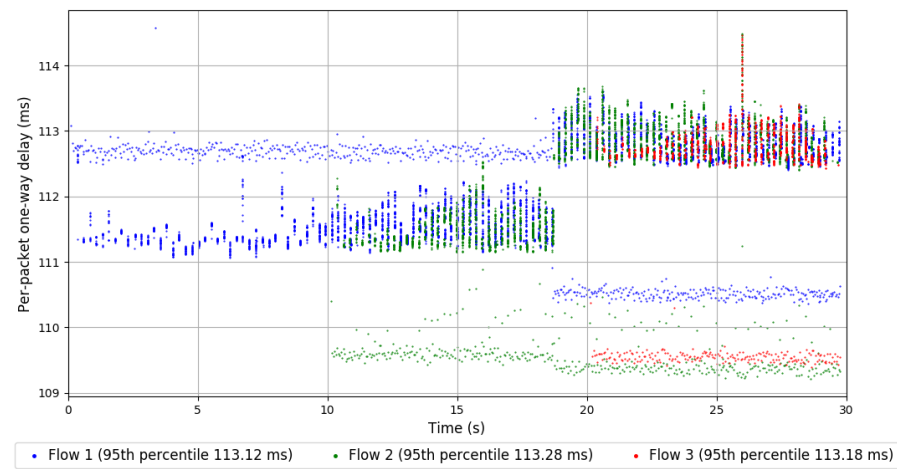
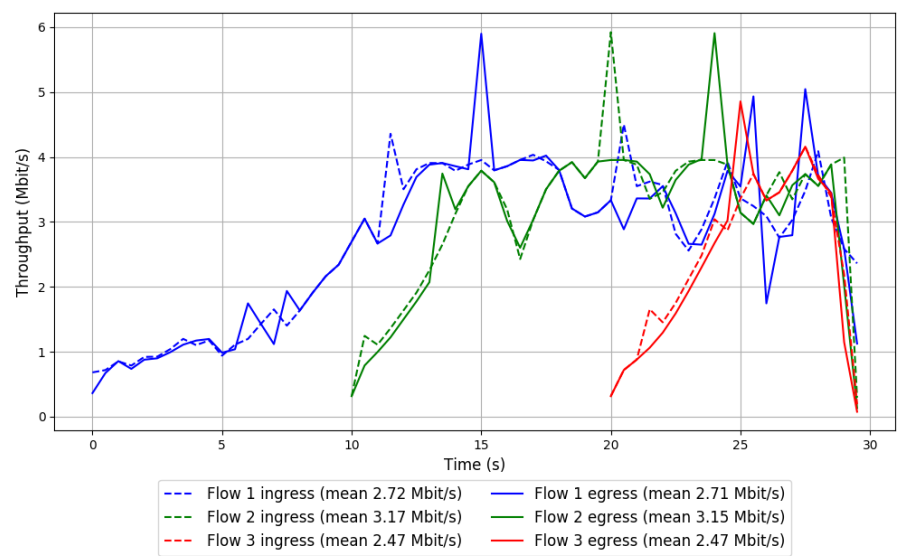
-- Flow 3:

Average throughput: 2.47 Mbit/s

95th percentile per-packet one-way delay: 113.176 ms

Loss rate: 2.39%

Run 10: Report of Sprout — Data Link

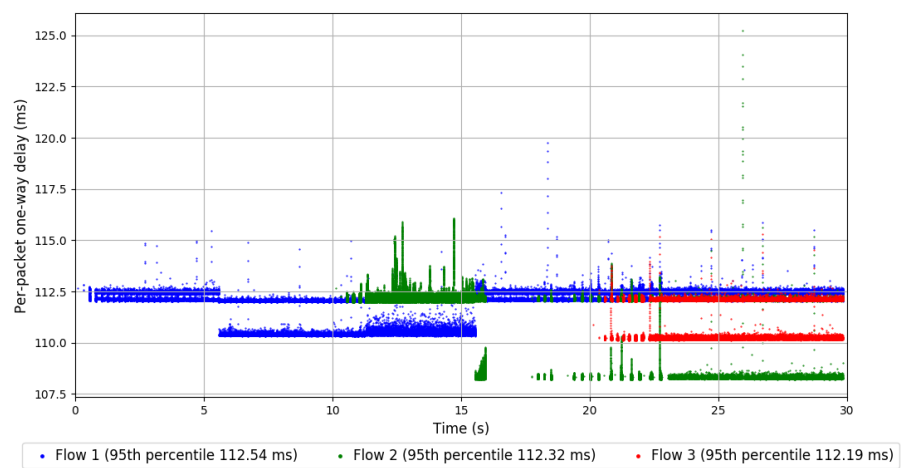
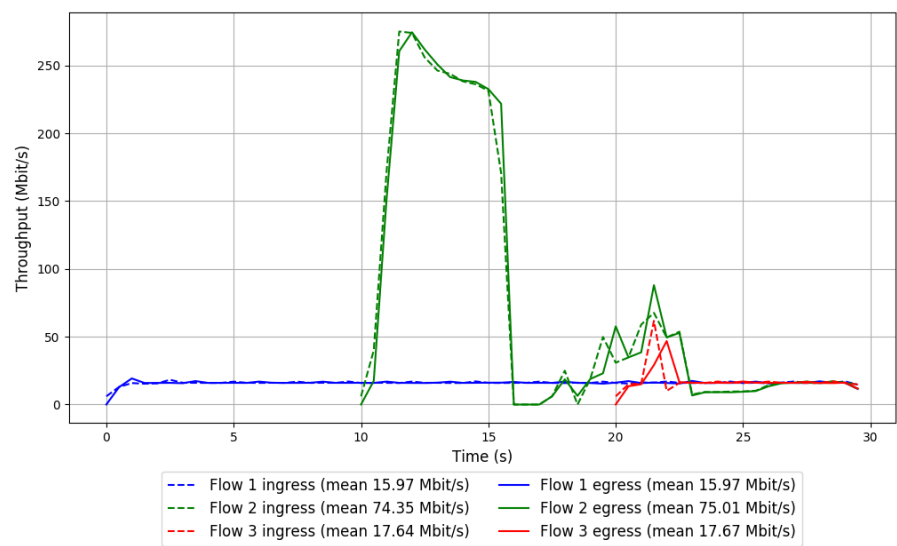


```
Run 1: Statistics of TaoVA-100x

Start at: 2018-01-31 07:10:37
End at: 2018-01-31 07:11:07

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.49 Mbit/s
95th percentile per-packet one-way delay: 112.438 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 15.97 Mbit/s
95th percentile per-packet one-way delay: 112.544 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 75.01 Mbit/s
95th percentile per-packet one-way delay: 112.320 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 17.67 Mbit/s
95th percentile per-packet one-way delay: 112.185 ms
Loss rate: 2.08%
```


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

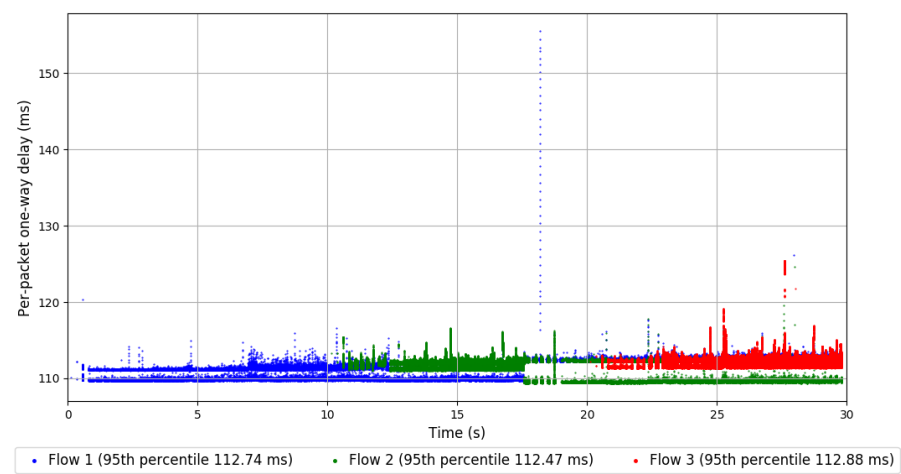
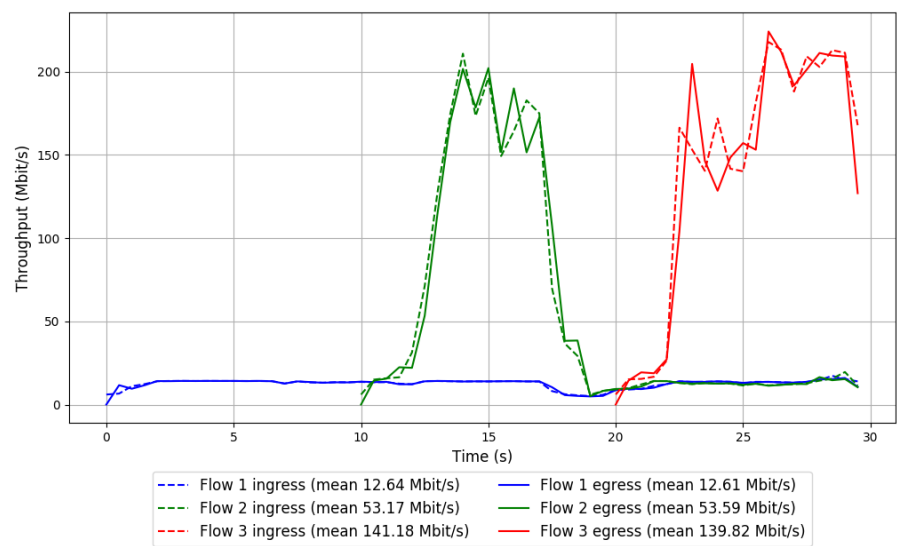


```
Run 2: Statistics of TaoVA-100x

Start at: 2018-01-31 07:27:55
End at: 2018-01-31 07:28:25

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 93.67 Mbit/s
95th percentile per-packet one-way delay: 112.756 ms
Loss rate: 1.85%
-- Flow 1:
Average throughput: 12.61 Mbit/s
95th percentile per-packet one-way delay: 112.741 ms
Loss rate: 0.97%
-- Flow 2:
Average throughput: 53.59 Mbit/s
95th percentile per-packet one-way delay: 112.475 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 139.82 Mbit/s
95th percentile per-packet one-way delay: 112.880 ms
Loss rate: 3.22%
```

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

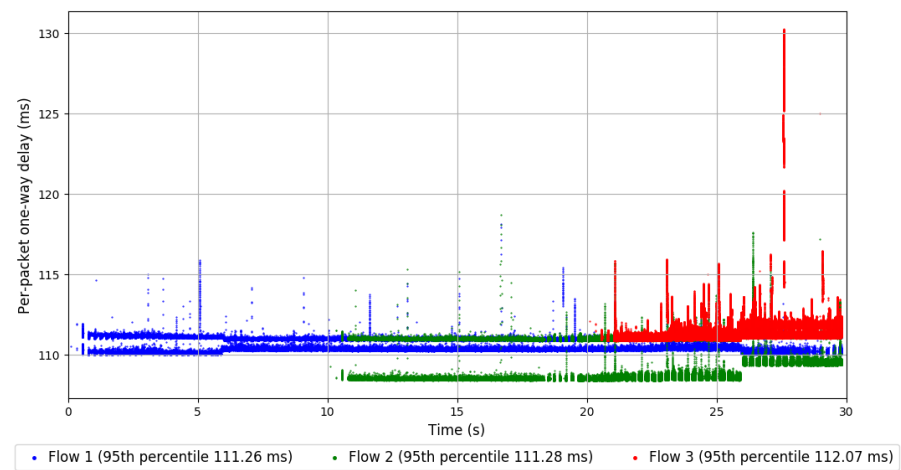
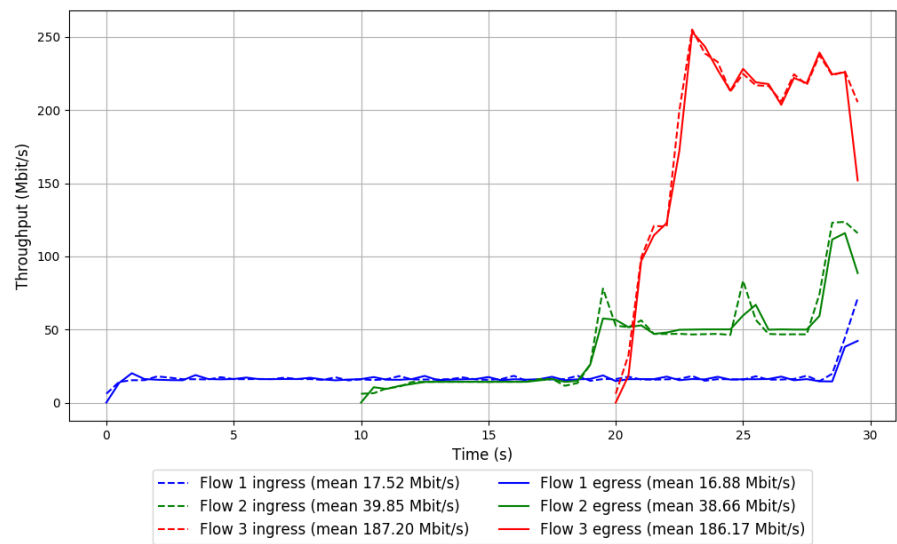


```
Run 3: Statistics of TaoVA-100x

Start at: 2018-01-31 07:45:37
End at: 2018-01-31 07:46:07

# Below is generated by plot.py at 2018-01-31 13:35:34
# Datalink statistics
-- Total of 3 flows:
Average throughput: 103.31 Mbit/s
95th percentile per-packet one-way delay: 111.933 ms
Loss rate: 3.38%
-- Flow 1:
Average throughput: 16.88 Mbit/s
95th percentile per-packet one-way delay: 111.257 ms
Loss rate: 4.37%
-- Flow 2:
Average throughput: 38.66 Mbit/s
95th percentile per-packet one-way delay: 111.285 ms
Loss rate: 4.08%
-- Flow 3:
Average throughput: 186.17 Mbit/s
95th percentile per-packet one-way delay: 112.069 ms
Loss rate: 2.80%
```

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



Run 4: Statistics of TaoVA-100x

Start at: 2018-01-31 08:03:21

End at: 2018-01-31 08:03:51

Below is generated by plot.py at 2018-01-31 13:35:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 105.35 Mbit/s

95th percentile per-packet one-way delay: 112.103 ms

Loss rate: 3.80%

-- Flow 1:

Average throughput: 52.00 Mbit/s

95th percentile per-packet one-way delay: 112.263 ms

Loss rate: 4.16%

-- Flow 2:

Average throughput: 14.12 Mbit/s

95th percentile per-packet one-way delay: 111.311 ms

Loss rate: 1.69%

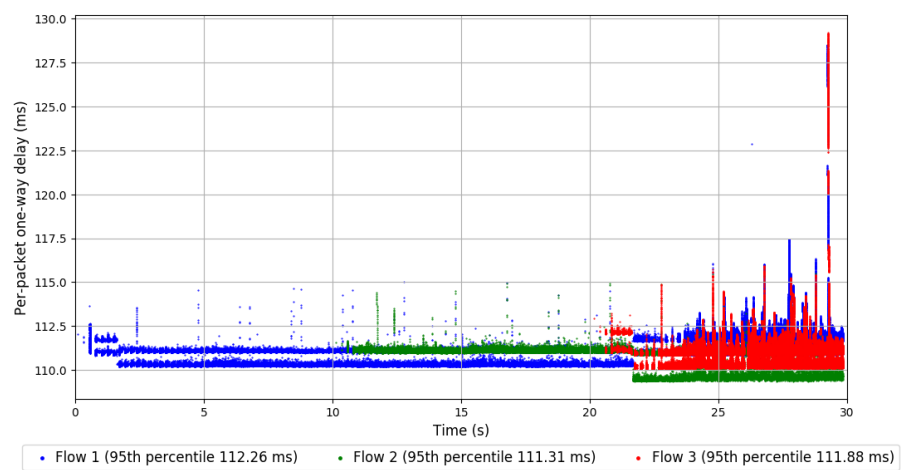
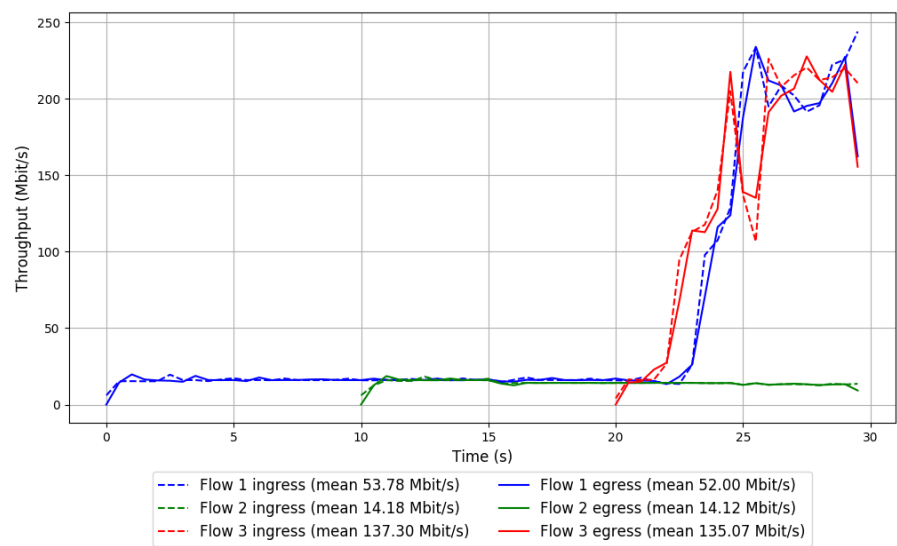
-- Flow 3:

Average throughput: 135.07 Mbit/s

95th percentile per-packet one-way delay: 111.882 ms

Loss rate: 3.82%

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



Run 5: Statistics of TaoVA-100x

Start at: 2018-01-31 08:20:57

End at: 2018-01-31 08:21:27

Below is generated by plot.py at 2018-01-31 13:39:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 218.67 Mbit/s

95th percentile per-packet one-way delay: 113.839 ms

Loss rate: 1.51%

-- Flow 1:

Average throughput: 147.67 Mbit/s

95th percentile per-packet one-way delay: 113.285 ms

Loss rate: 0.54%

-- Flow 2:

Average throughput: 73.11 Mbit/s

95th percentile per-packet one-way delay: 113.164 ms

Loss rate: 1.84%

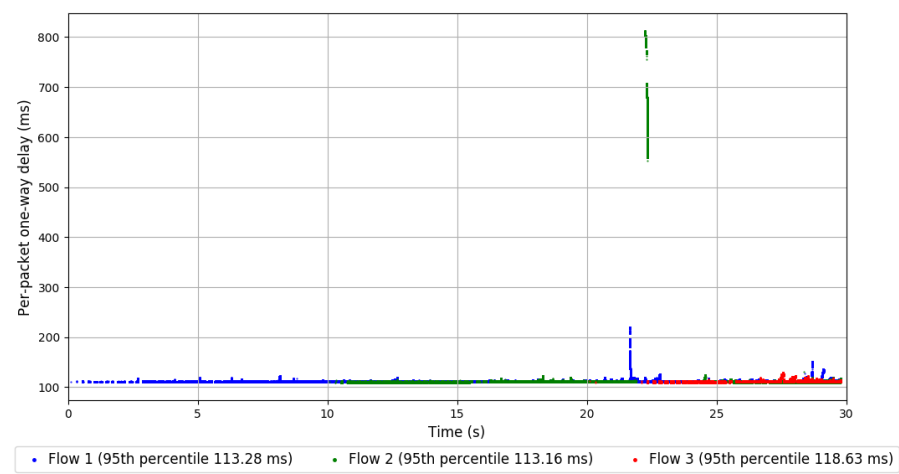
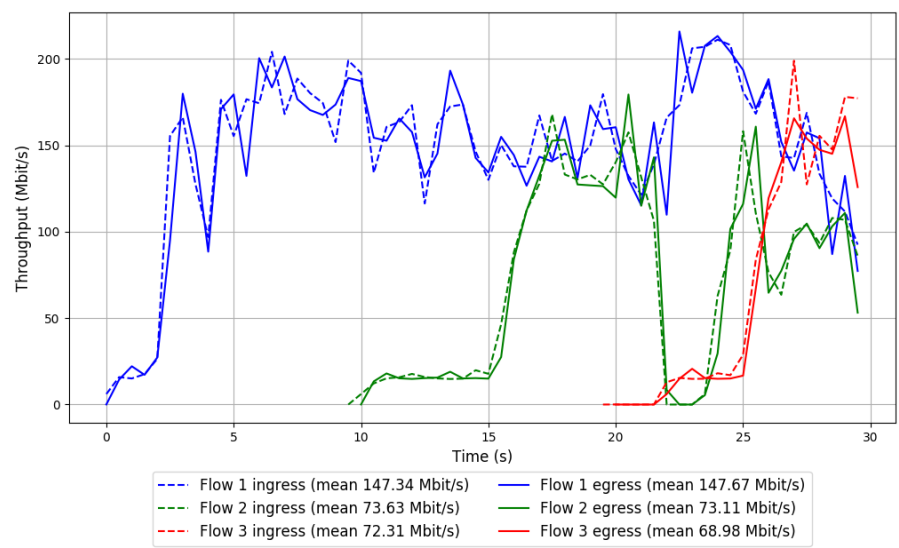
-- Flow 3:

Average throughput: 68.98 Mbit/s

95th percentile per-packet one-way delay: 118.632 ms

Loss rate: 6.78%

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



Run 6: Statistics of TaoVA-100x

Start at: 2018-01-31 08:38:58

End at: 2018-01-31 08:39:28

Below is generated by plot.py at 2018-01-31 13:39:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.20 Mbit/s

95th percentile per-packet one-way delay: 112.993 ms

Loss rate: 2.73%

-- Flow 1:

Average throughput: 15.98 Mbit/s

95th percentile per-packet one-way delay: 111.192 ms

Loss rate: 0.70%

-- Flow 2:

Average throughput: 15.91 Mbit/s

95th percentile per-packet one-way delay: 111.195 ms

Loss rate: 1.13%

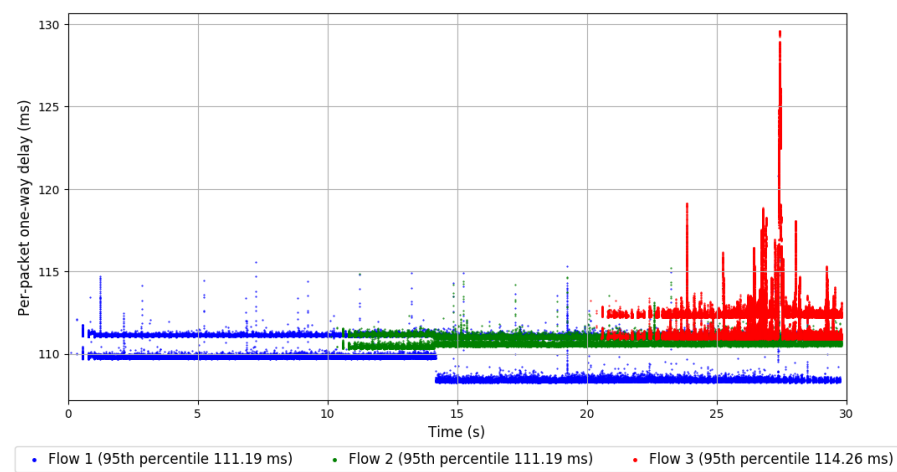
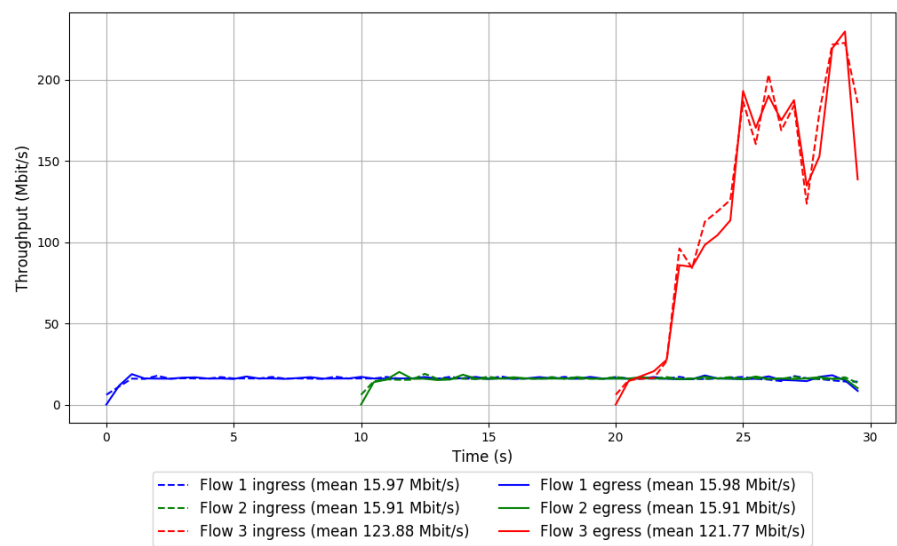
-- Flow 3:

Average throughput: 121.77 Mbit/s

95th percentile per-packet one-way delay: 114.264 ms

Loss rate: 3.93%

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



Run 7: Statistics of TaoVA-100x

Start at: 2018-01-31 08:56:11

End at: 2018-01-31 08:56:42

Below is generated by plot.py at 2018-01-31 13:39:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 114.63 Mbit/s

95th percentile per-packet one-way delay: 114.011 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 100.82 Mbit/s

95th percentile per-packet one-way delay: 114.020 ms

Loss rate: 0.95%

-- Flow 2:

Average throughput: 13.44 Mbit/s

95th percentile per-packet one-way delay: 112.225 ms

Loss rate: 1.19%

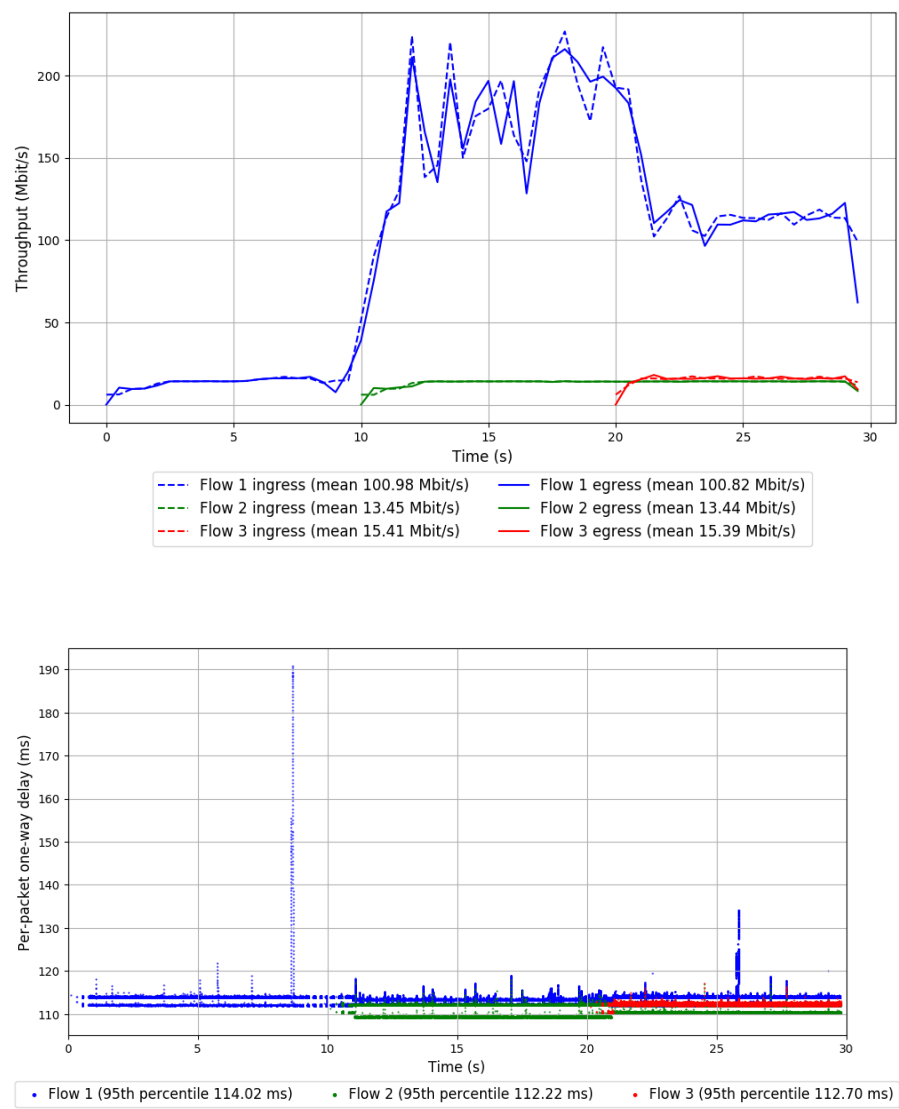
-- Flow 3:

Average throughput: 15.39 Mbit/s

95th percentile per-packet one-way delay: 112.705 ms

Loss rate: 2.37%

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



Run 8: Statistics of TaoVA-100x

Start at: 2018-01-31 09:13:58

End at: 2018-01-31 09:14:28

Below is generated by plot.py at 2018-01-31 13:39:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 25.62 Mbit/s

95th percentile per-packet one-way delay: 112.197 ms

Loss rate: 0.96%

-- Flow 1:

Average throughput: 12.37 Mbit/s

95th percentile per-packet one-way delay: 112.193 ms

Loss rate: 0.28%

-- Flow 2:

Average throughput: 13.57 Mbit/s

95th percentile per-packet one-way delay: 112.201 ms

Loss rate: 1.17%

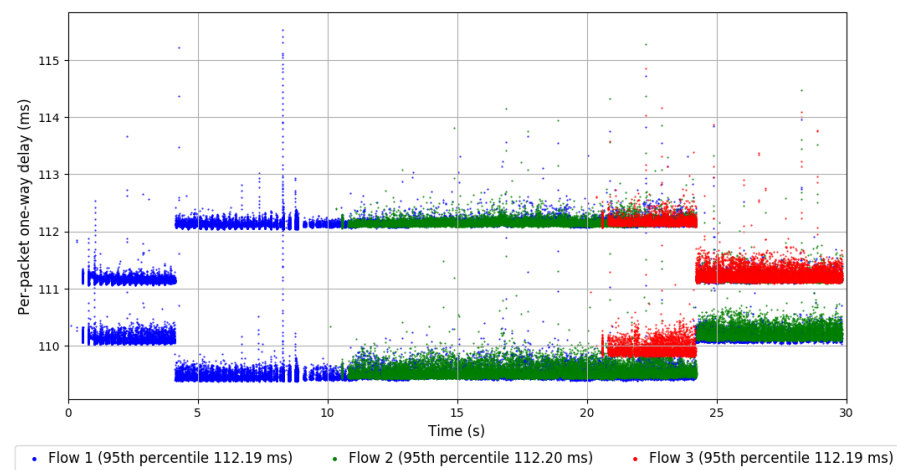
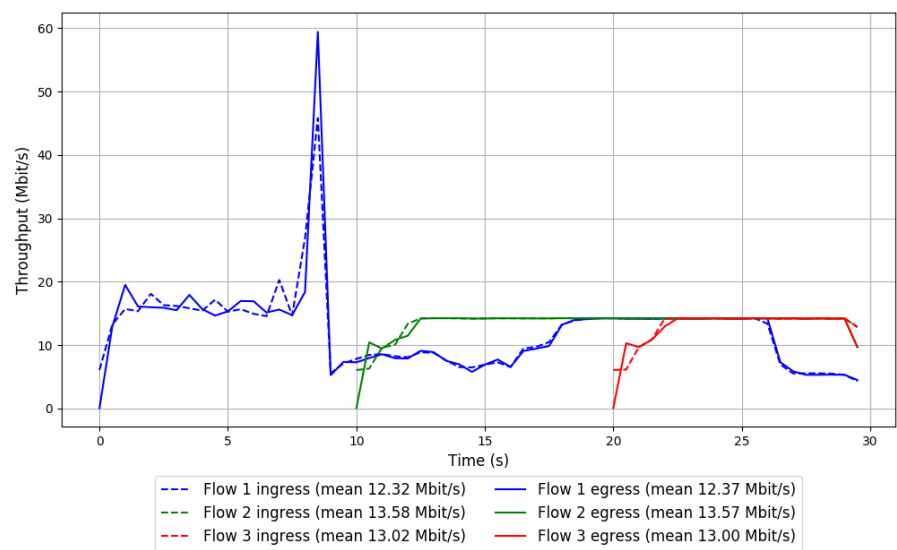
-- Flow 3:

Average throughput: 13.00 Mbit/s

95th percentile per-packet one-way delay: 112.192 ms

Loss rate: 2.45%

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

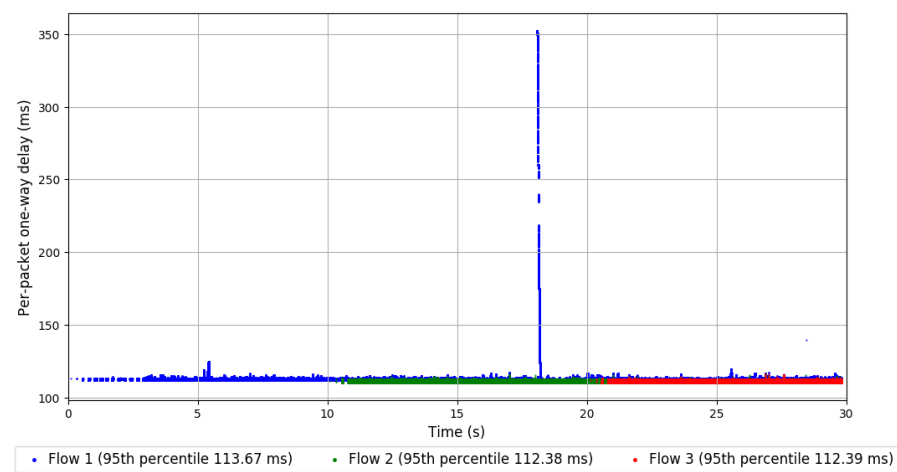
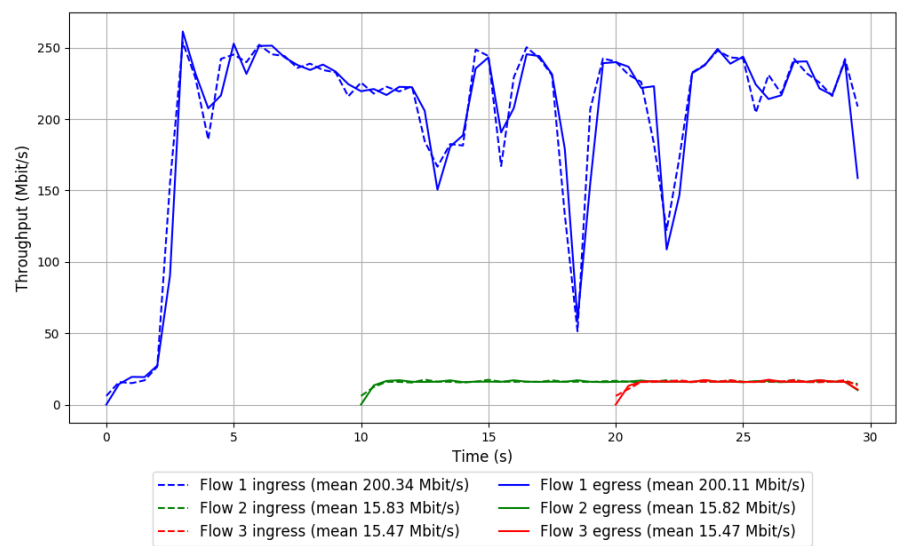


```
Run 9: Statistics of TaoVA-100x

Start at: 2018-01-31 09:31:02
End at: 2018-01-31 09:31:32

# Below is generated by plot.py at 2018-01-31 13:40:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 215.65 Mbit/s
95th percentile per-packet one-way delay: 113.605 ms
Loss rate: 0.91%
-- Flow 1:
Average throughput: 200.11 Mbit/s
95th percentile per-packet one-way delay: 113.665 ms
Loss rate: 0.86%
-- Flow 2:
Average throughput: 15.82 Mbit/s
95th percentile per-packet one-way delay: 112.381 ms
Loss rate: 1.16%
-- Flow 3:
Average throughput: 15.47 Mbit/s
95th percentile per-packet one-way delay: 112.388 ms
Loss rate: 2.25%
```


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

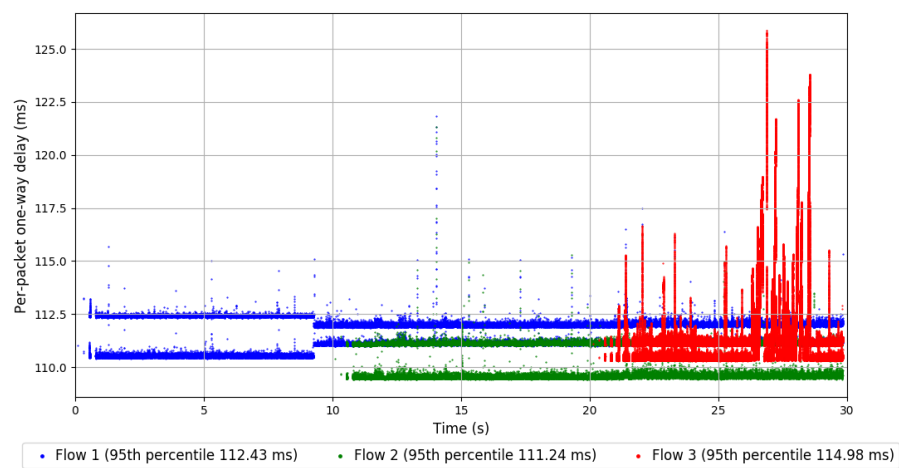
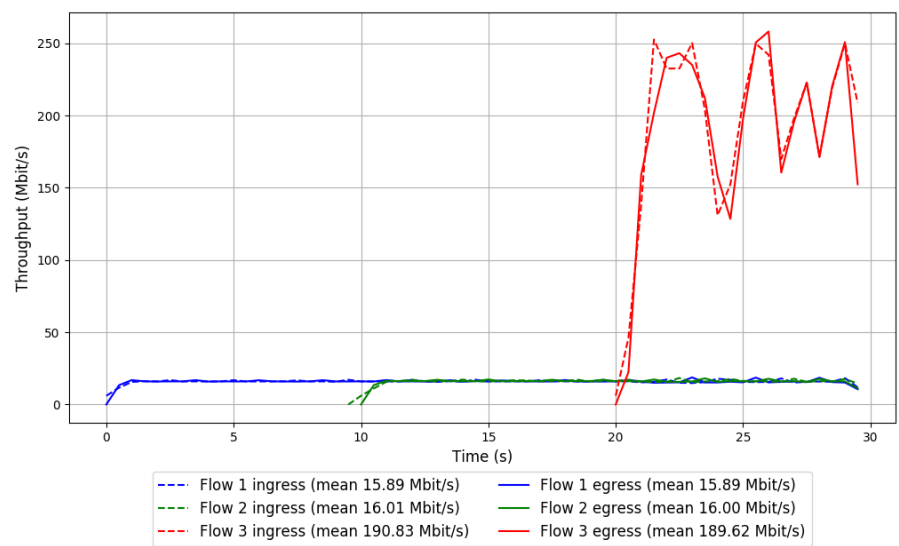


```
Run 10: Statistics of TaoVA-100x

Start at: 2018-01-31 09:49:03
End at: 2018-01-31 09:49:33

# Below is generated by plot.py at 2018-01-31 13:40:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 88.42 Mbit/s
95th percentile per-packet one-way delay: 113.737 ms
Loss rate: 2.26%
-- Flow 1:
Average throughput: 15.89 Mbit/s
95th percentile per-packet one-way delay: 112.432 ms
Loss rate: 0.69%
-- Flow 2:
Average throughput: 16.00 Mbit/s
95th percentile per-packet one-way delay: 111.243 ms
Loss rate: 1.18%
-- Flow 3:
Average throughput: 189.62 Mbit/s
95th percentile per-packet one-way delay: 114.984 ms
Loss rate: 2.84%
```

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



Run 1: Statistics of TCP Vegas

Start at: 2018-01-31 07:09:48

End at: 2018-01-31 07:10:18

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 40.06 Mbit/s

95th percentile per-packet one-way delay: 114.143 ms

Loss rate: 2.46%

-- Flow 1:

Average throughput: 10.79 Mbit/s

95th percentile per-packet one-way delay: 113.366 ms

Loss rate: 2.24%

-- Flow 2:

Average throughput: 34.82 Mbit/s

95th percentile per-packet one-way delay: 114.480 ms

Loss rate: 2.48%

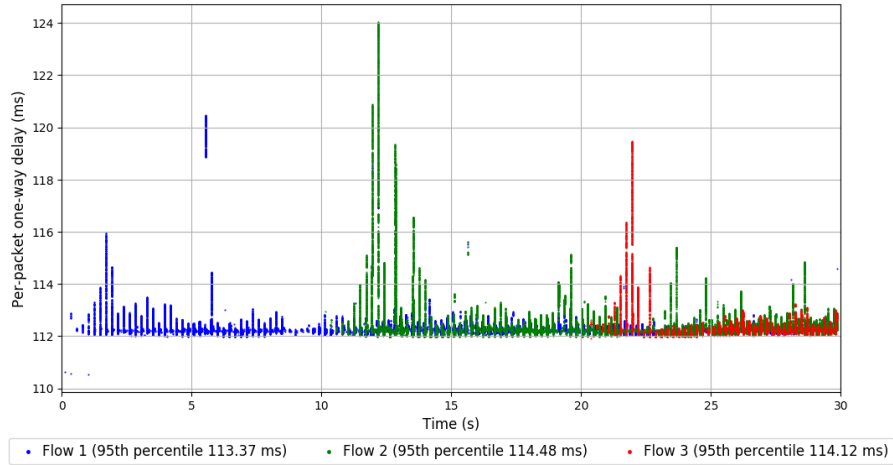
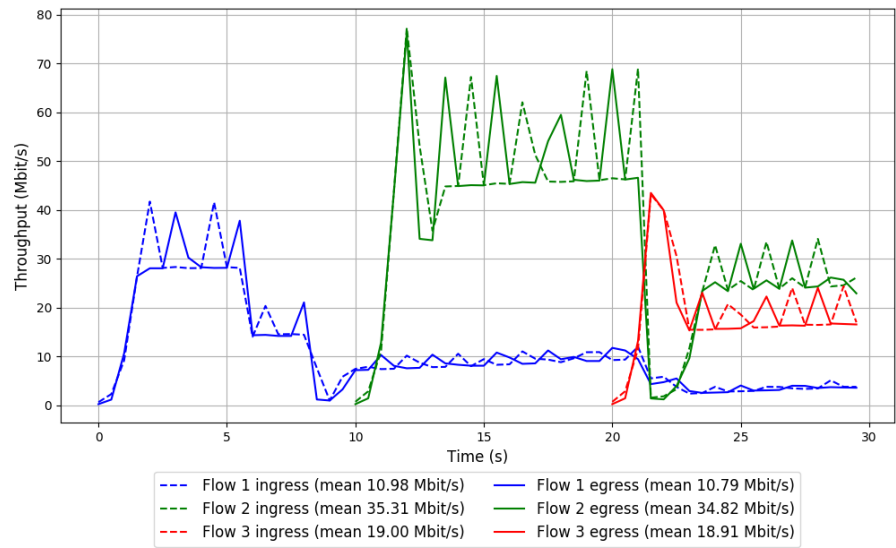
-- Flow 3:

Average throughput: 18.91 Mbit/s

95th percentile per-packet one-way delay: 114.118 ms

Loss rate: 2.73%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-01-31 07:27:06

End at: 2018-01-31 07:27:36

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.25 Mbit/s

95th percentile per-packet one-way delay: 114.078 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 15.94 Mbit/s

95th percentile per-packet one-way delay: 116.382 ms

Loss rate: 1.42%

-- Flow 2:

Average throughput: 28.47 Mbit/s

95th percentile per-packet one-way delay: 113.109 ms

Loss rate: 0.96%

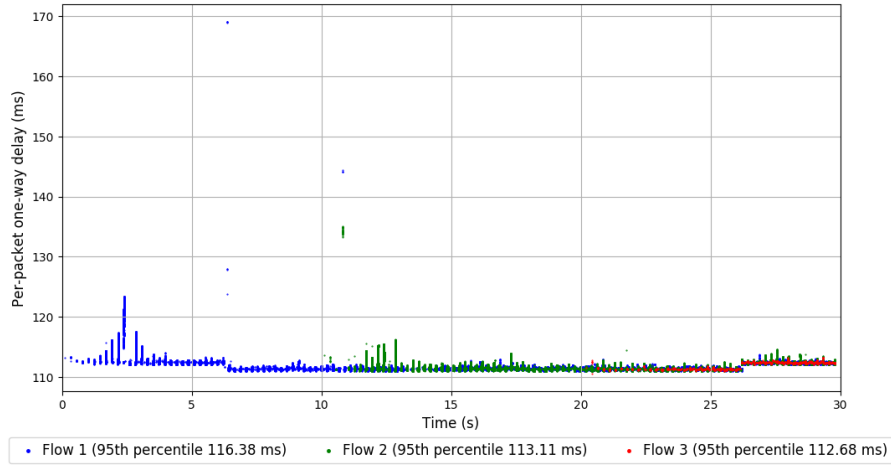
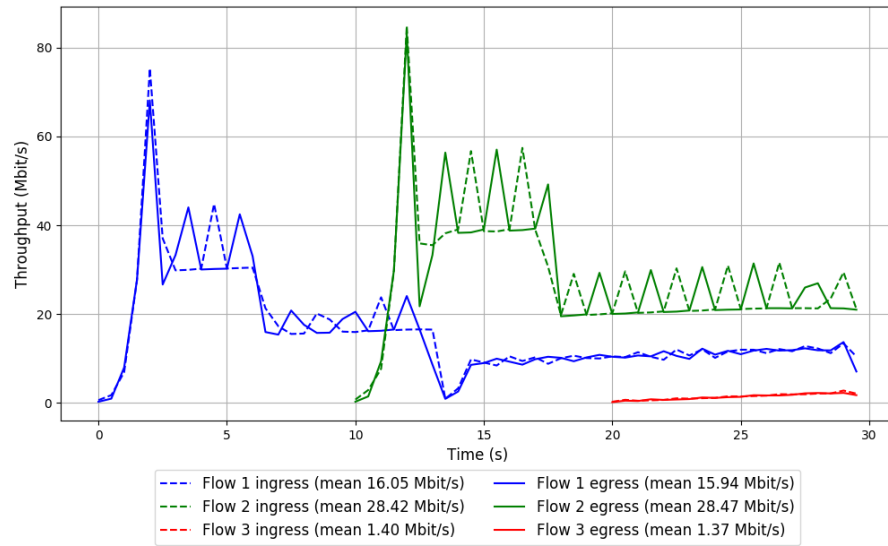
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 112.682 ms

Loss rate: 4.54%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-01-31 07:44:47

End at: 2018-01-31 07:45:17

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 47.54 Mbit/s

95th percentile per-packet one-way delay: 112.343 ms

Loss rate: 2.29%

-- Flow 1:

Average throughput: 18.73 Mbit/s

95th percentile per-packet one-way delay: 112.137 ms

Loss rate: 1.26%

-- Flow 2:

Average throughput: 18.61 Mbit/s

95th percentile per-packet one-way delay: 113.119 ms

Loss rate: 3.68%

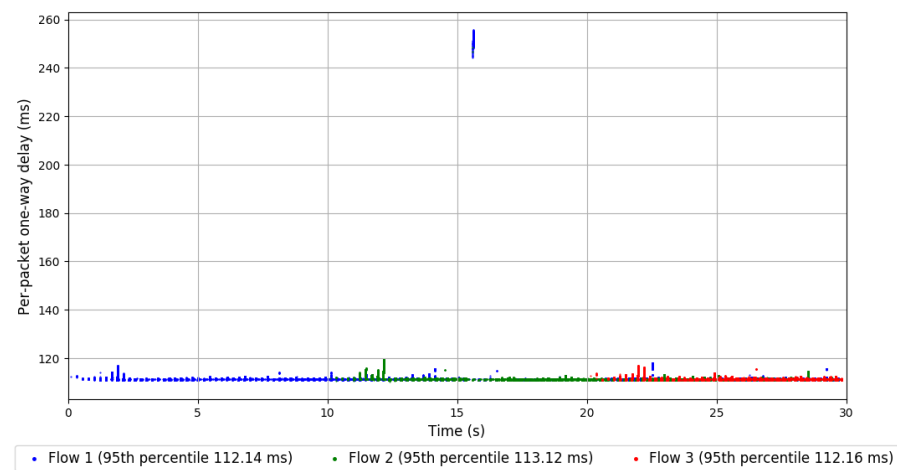
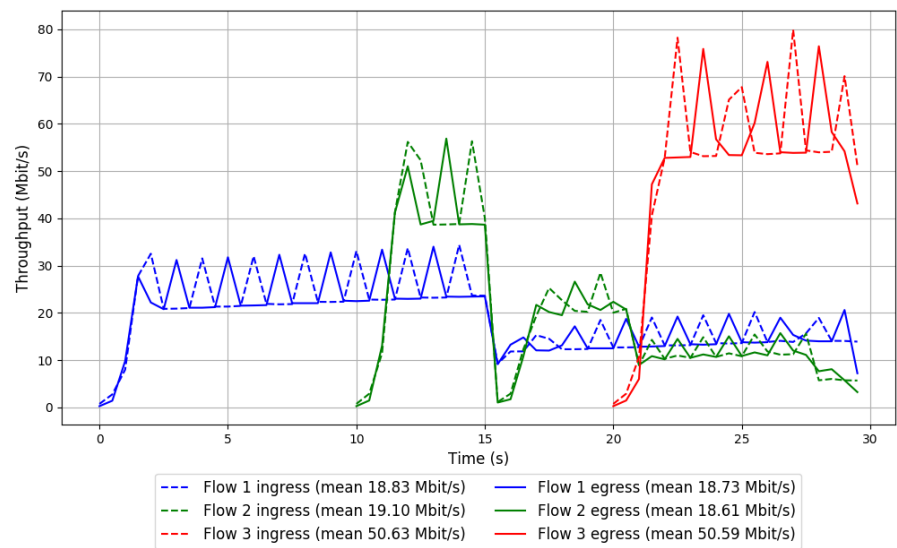
-- Flow 3:

Average throughput: 50.59 Mbit/s

95th percentile per-packet one-way delay: 112.160 ms

Loss rate: 2.39%

Run 3: Report of TCP Vegas — Data Link



Run 4: Statistics of TCP Vegas

Start at: 2018-01-31 08:02:32

End at: 2018-01-31 08:03:02

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.17 Mbit/s

95th percentile per-packet one-way delay: 112.340 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 19.91 Mbit/s

95th percentile per-packet one-way delay: 112.161 ms

Loss rate: 2.05%

-- Flow 2:

Average throughput: 7.14 Mbit/s

95th percentile per-packet one-way delay: 111.773 ms

Loss rate: 2.90%

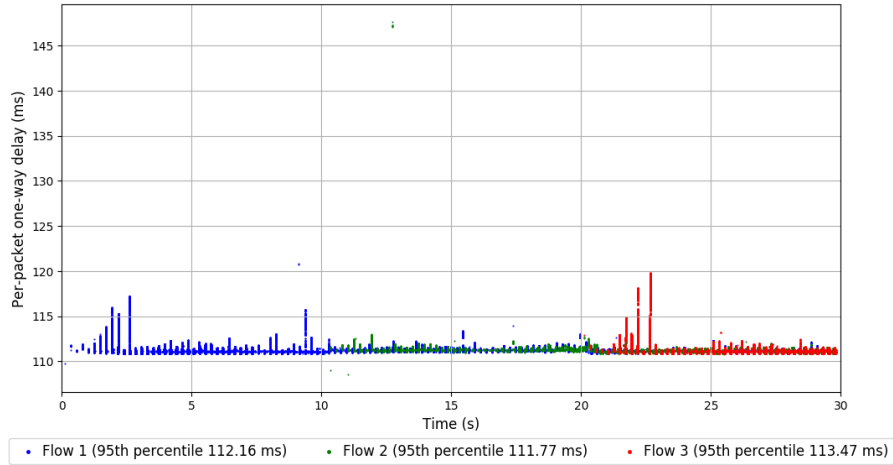
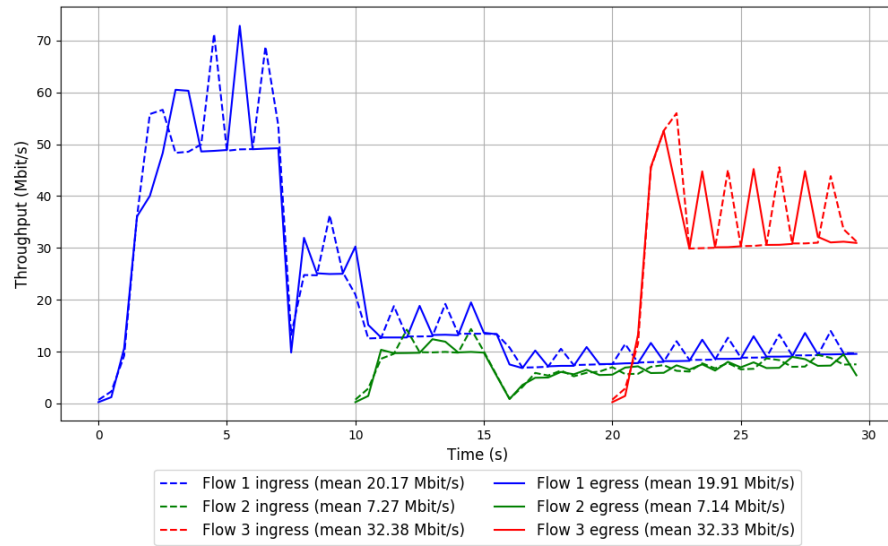
-- Flow 3:

Average throughput: 32.33 Mbit/s

95th percentile per-packet one-way delay: 113.467 ms

Loss rate: 2.44%

Run 4: Report of TCP Vegas — Data Link



Run 5: Statistics of TCP Vegas

Start at: 2018-01-31 08:20:06

End at: 2018-01-31 08:20:36

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 72.08 Mbit/s

95th percentile per-packet one-way delay: 112.607 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 33.76 Mbit/s

95th percentile per-packet one-way delay: 112.470 ms

Loss rate: 0.47%

-- Flow 2:

Average throughput: 37.23 Mbit/s

95th percentile per-packet one-way delay: 113.161 ms

Loss rate: 0.77%

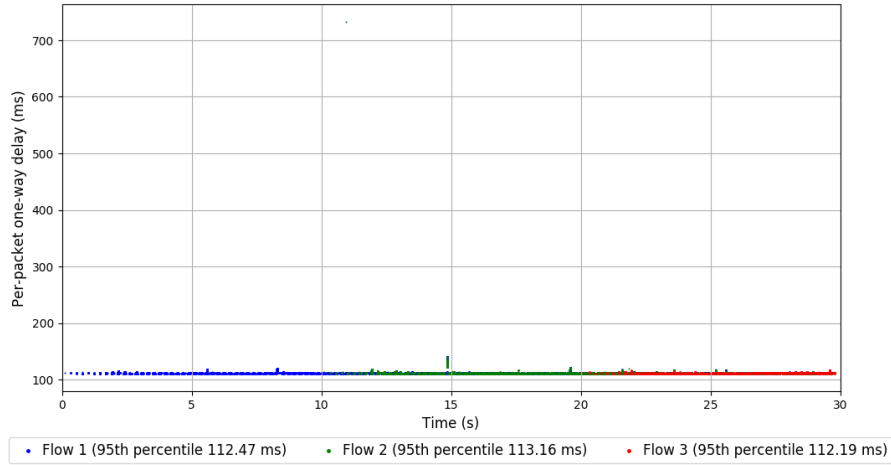
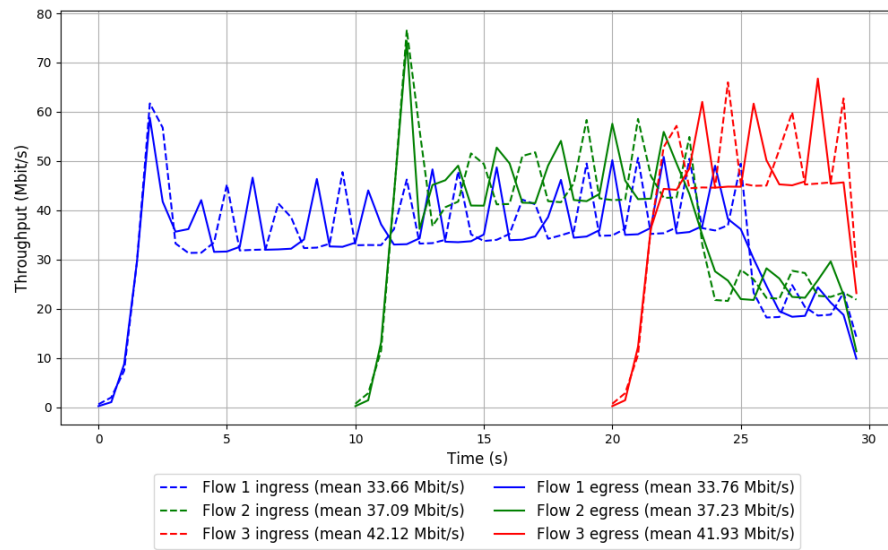
-- Flow 3:

Average throughput: 41.93 Mbit/s

95th percentile per-packet one-way delay: 112.185 ms

Loss rate: 2.72%

Run 5: Report of TCP Vegas — Data Link



Run 6: Statistics of TCP Vegas

Start at: 2018-01-31 08:38:08

End at: 2018-01-31 08:38:38

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 62.74 Mbit/s

95th percentile per-packet one-way delay: 112.387 ms

Loss rate: 0.64%

-- Flow 1:

Average throughput: 38.02 Mbit/s

95th percentile per-packet one-way delay: 112.361 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 29.06 Mbit/s

95th percentile per-packet one-way delay: 112.408 ms

Loss rate: 0.41%

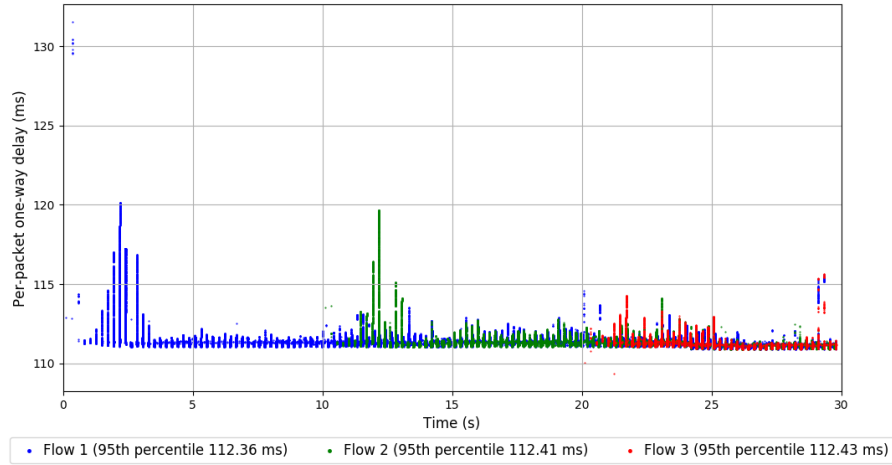
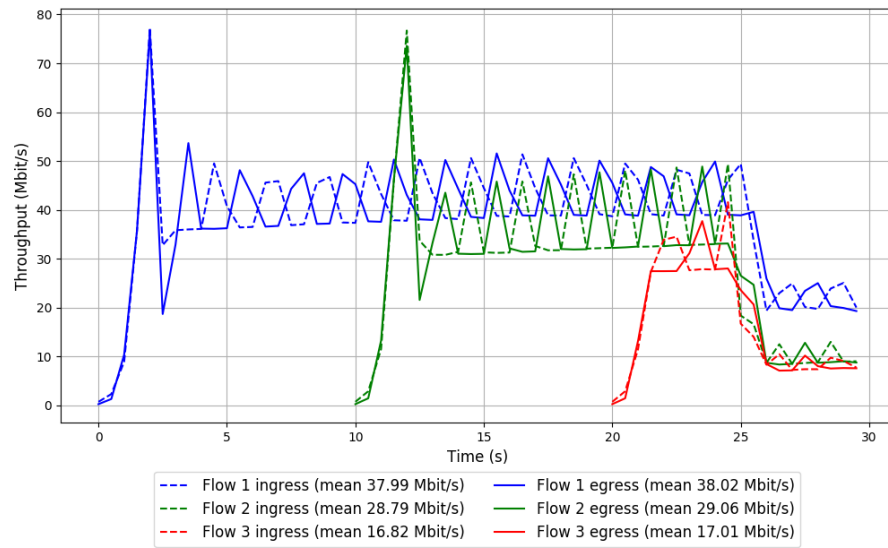
-- Flow 3:

Average throughput: 17.01 Mbit/s

95th percentile per-packet one-way delay: 112.427 ms

Loss rate: 1.19%

Run 6: Report of TCP Vegas — Data Link



Run 7: Statistics of TCP Vegas

Start at: 2018-01-31 08:55:23

End at: 2018-01-31 08:55:53

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 39.96 Mbit/s

95th percentile per-packet one-way delay: 113.219 ms

Loss rate: 2.06%

-- Flow 1:

Average throughput: 11.92 Mbit/s

95th percentile per-packet one-way delay: 112.942 ms

Loss rate: 3.93%

-- Flow 2:

Average throughput: 34.79 Mbit/s

95th percentile per-packet one-way delay: 113.138 ms

Loss rate: 0.74%

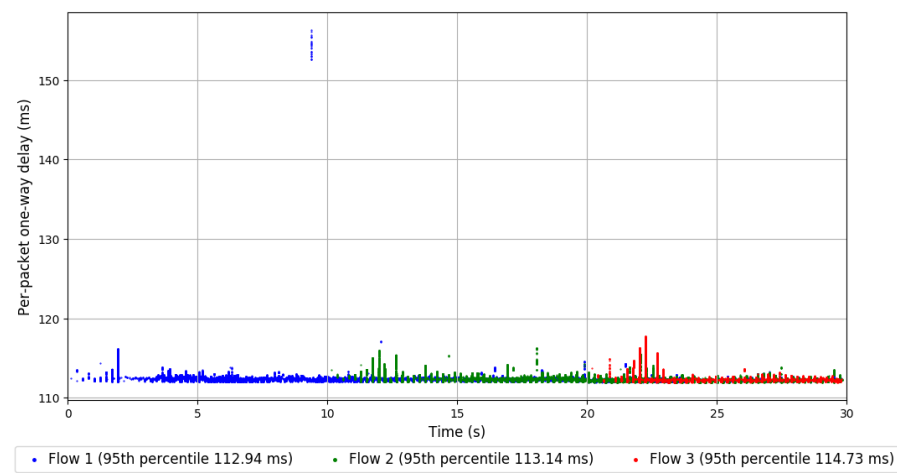
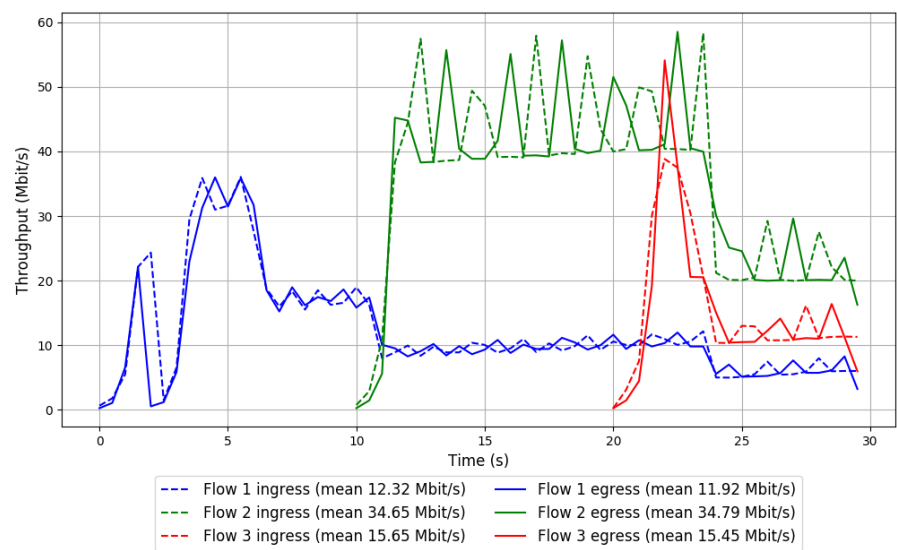
-- Flow 3:

Average throughput: 15.45 Mbit/s

95th percentile per-packet one-way delay: 114.733 ms

Loss rate: 3.53%

Run 7: Report of TCP Vegas — Data Link



Run 8: Statistics of TCP Vegas

Start at: 2018-01-31 09:13:10

End at: 2018-01-31 09:13:40

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 37.27 Mbit/s

95th percentile per-packet one-way delay: 115.391 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 18.12 Mbit/s

95th percentile per-packet one-way delay: 114.371 ms

Loss rate: 0.57%

-- Flow 2:

Average throughput: 8.14 Mbit/s

95th percentile per-packet one-way delay: 112.358 ms

Loss rate: 3.93%

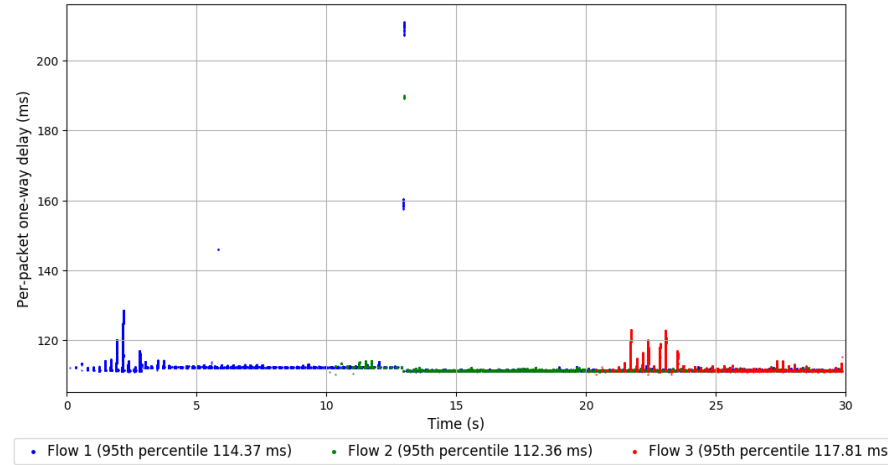
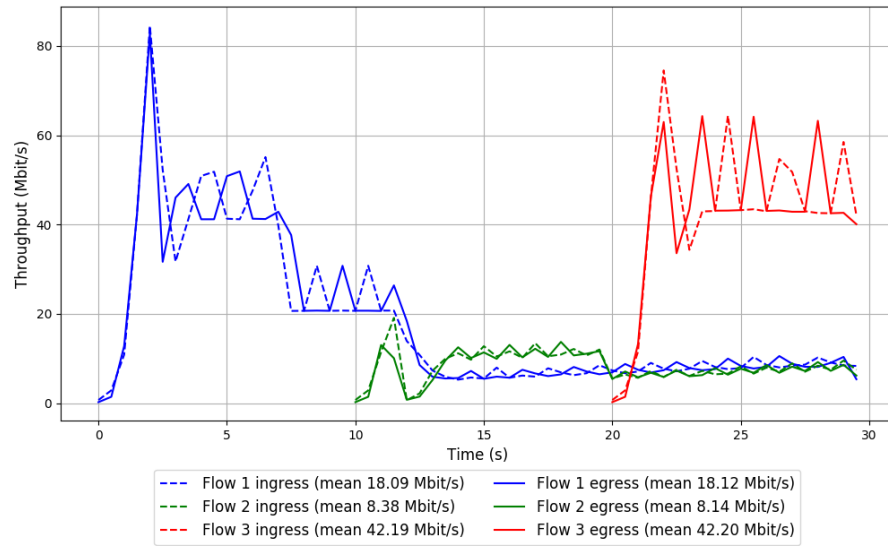
-- Flow 3:

Average throughput: 42.20 Mbit/s

95th percentile per-packet one-way delay: 117.811 ms

Loss rate: 2.17%

Run 8: Report of TCP Vegas — Data Link



Run 9: Statistics of TCP Vegas

Start at: 2018-01-31 09:30:13

End at: 2018-01-31 09:30:43

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 28.73 Mbit/s

95th percentile per-packet one-way delay: 116.888 ms

Loss rate: 1.33%

-- Flow 1:

Average throughput: 18.98 Mbit/s

95th percentile per-packet one-way delay: 116.051 ms

Loss rate: 0.36%

-- Flow 2:

Average throughput: 14.14 Mbit/s

95th percentile per-packet one-way delay: 118.711 ms

Loss rate: 3.08%

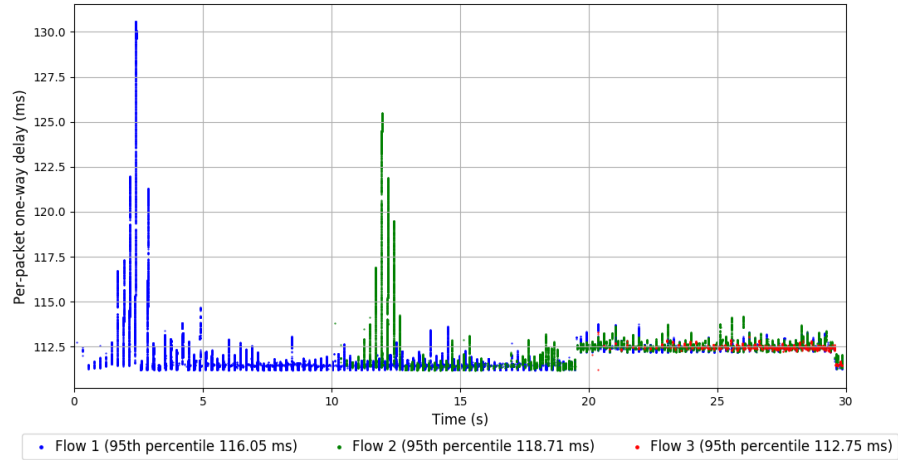
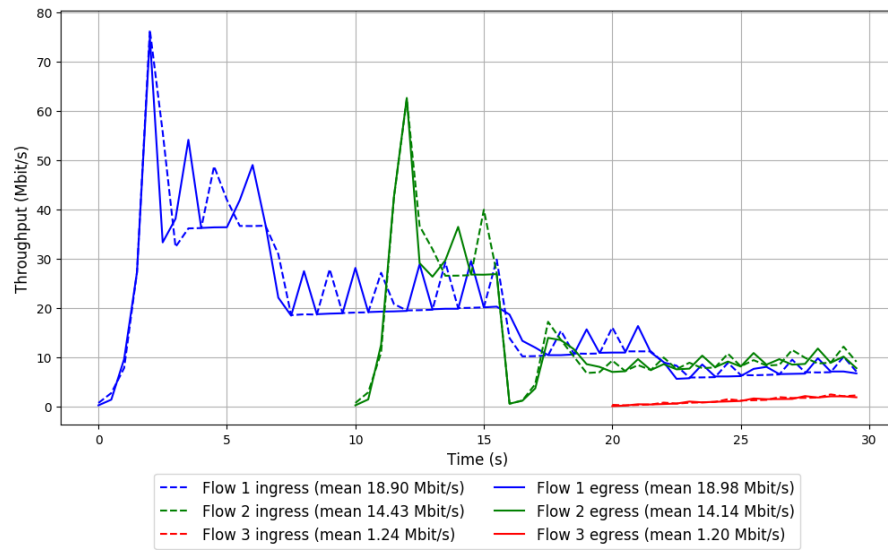
-- Flow 3:

Average throughput: 1.20 Mbit/s

95th percentile per-packet one-way delay: 112.754 ms

Loss rate: 5.08%

Run 9: Report of TCP Vegas — Data Link

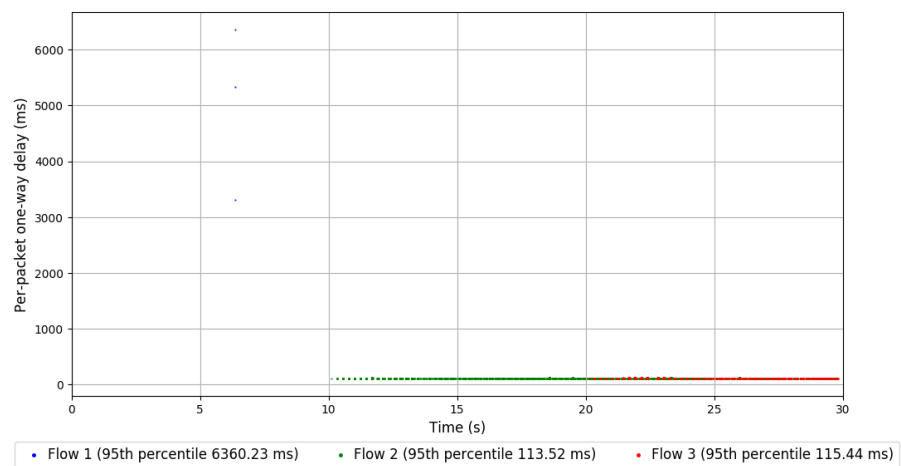
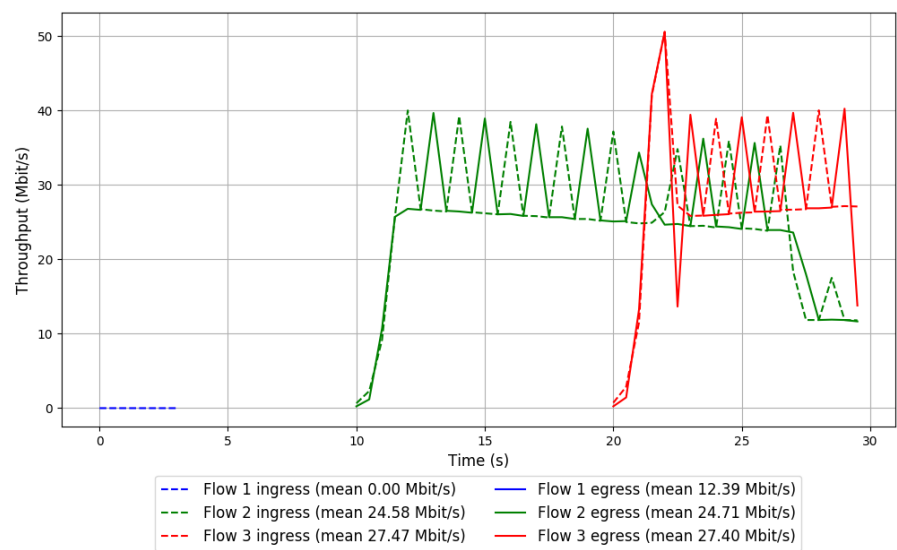


Run 10: Statistics of TCP Vegas

Start at: 2018-01-31 09:48:15

End at: 2018-01-31 09:48:45

Run 10: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-31 07:26:00

End at: 2018-01-31 07:26:30

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 245.15 Mbit/s

95th percentile per-packet one-way delay: 280.798 ms

Loss rate: 2.47%

-- Flow 1:

Average throughput: 170.52 Mbit/s

95th percentile per-packet one-way delay: 281.384 ms

Loss rate: 2.41%

-- Flow 2:

Average throughput: 46.42 Mbit/s

95th percentile per-packet one-way delay: 193.502 ms

Loss rate: 4.27%

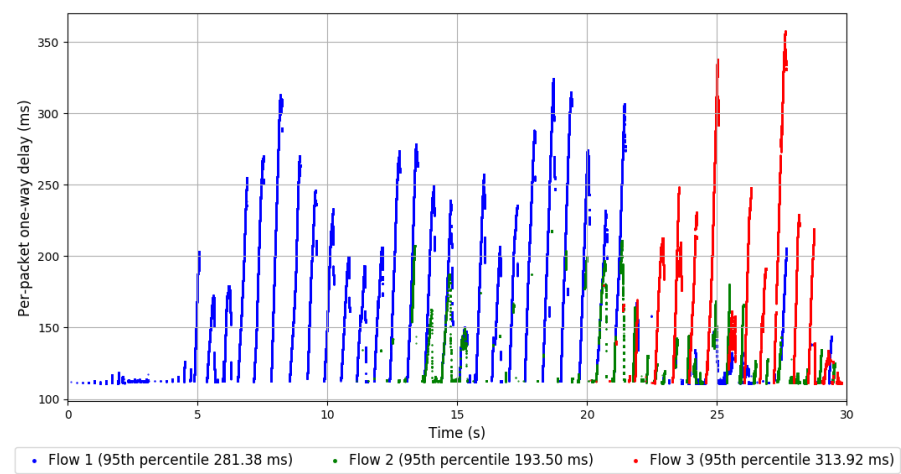
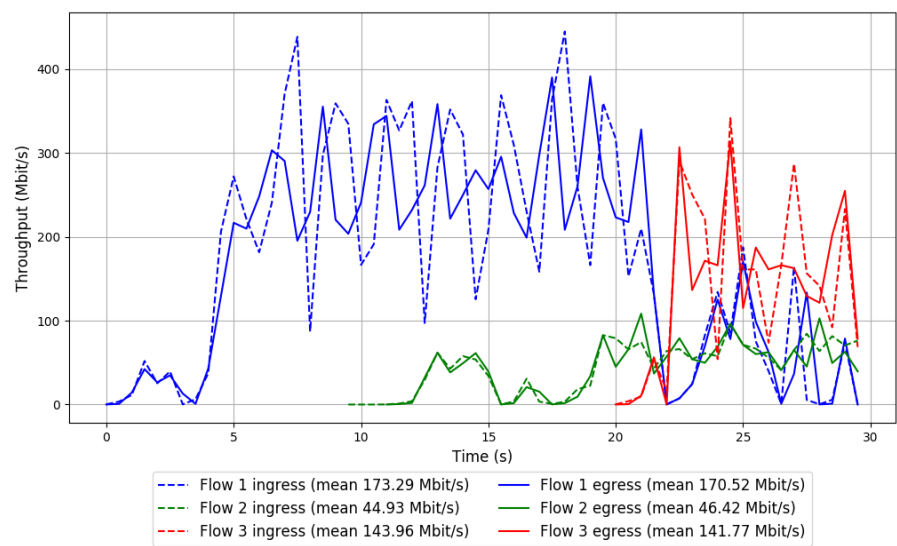
-- Flow 3:

Average throughput: 141.77 Mbit/s

95th percentile per-packet one-way delay: 313.924 ms

Loss rate: 1.54%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-01-31 07:43:45

End at: 2018-01-31 07:44:15

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 184.13 Mbit/s

95th percentile per-packet one-way delay: 199.911 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 91.26 Mbit/s

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

Loss rate: 0.11%

-- Flow 2:

Average throughput: 117.89 Mbit/s

95th percentile per-packet one-way delay: 205.730 ms

Loss rate: 3.30%

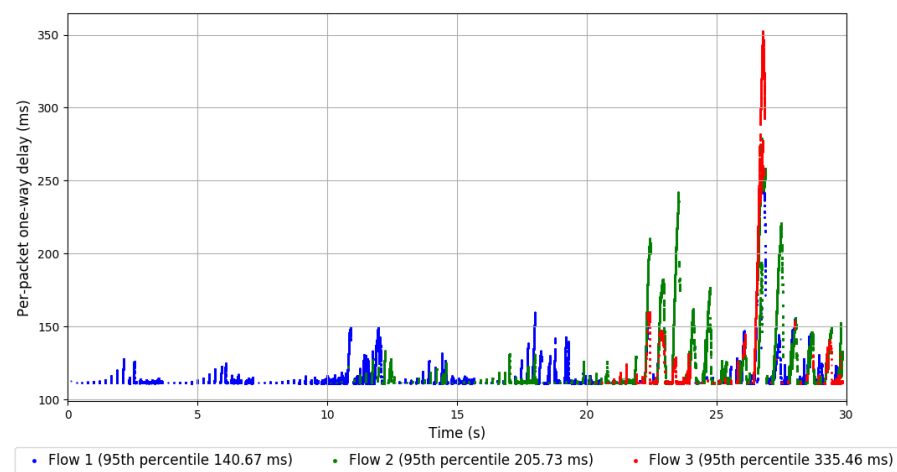
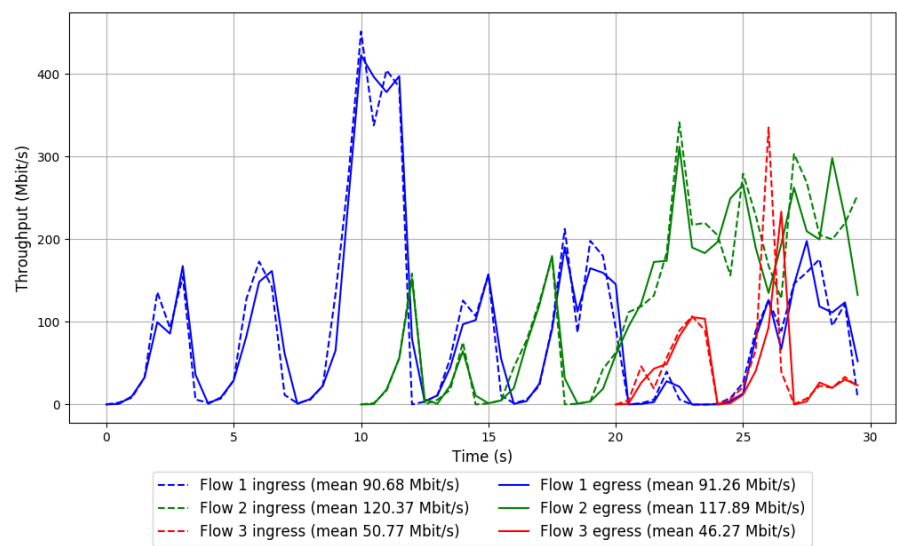
-- Flow 3:

Average throughput: 46.27 Mbit/s

95th percentile per-packet one-way delay: 335.464 ms

Loss rate: 9.10%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-01-31 08:01:27

End at: 2018-01-31 08:01:57

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 212.15 Mbit/s

95th percentile per-packet one-way delay: 237.961 ms

Loss rate: 2.62%

-- Flow 1:

Average throughput: 94.27 Mbit/s

95th percentile per-packet one-way delay: 220.775 ms

Loss rate: 1.79%

-- Flow 2:

Average throughput: 171.63 Mbit/s

95th percentile per-packet one-way delay: 255.606 ms

Loss rate: 3.38%

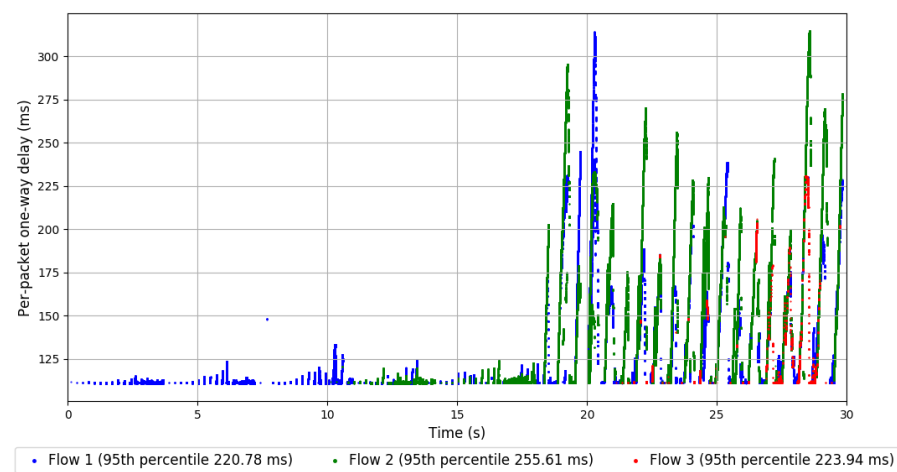
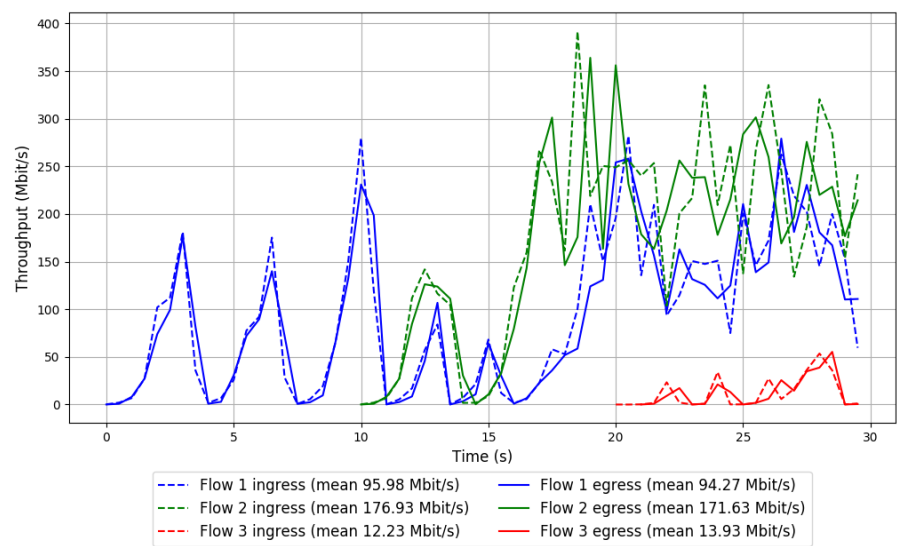
-- Flow 3:

Average throughput: 13.93 Mbit/s

95th percentile per-packet one-way delay: 223.941 ms

Loss rate: 0.29%

Run 3: Report of Verus — Data Link



Run 4: Statistics of Verus

Start at: 2018-01-31 08:18:59

End at: 2018-01-31 08:19:29

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 224.25 Mbit/s

95th percentile per-packet one-way delay: 223.019 ms

Loss rate: 1.74%

-- Flow 1:

Average throughput: 94.09 Mbit/s

95th percentile per-packet one-way delay: 125.727 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 177.06 Mbit/s

95th percentile per-packet one-way delay: 247.706 ms

Loss rate: 2.19%

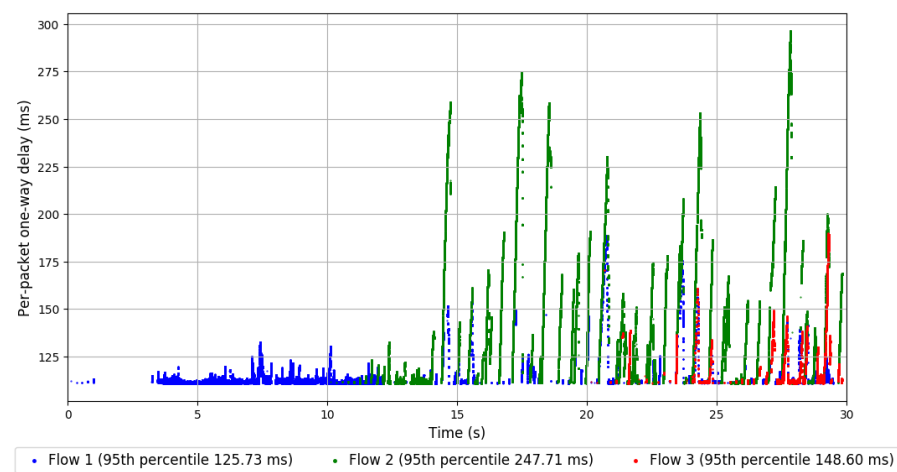
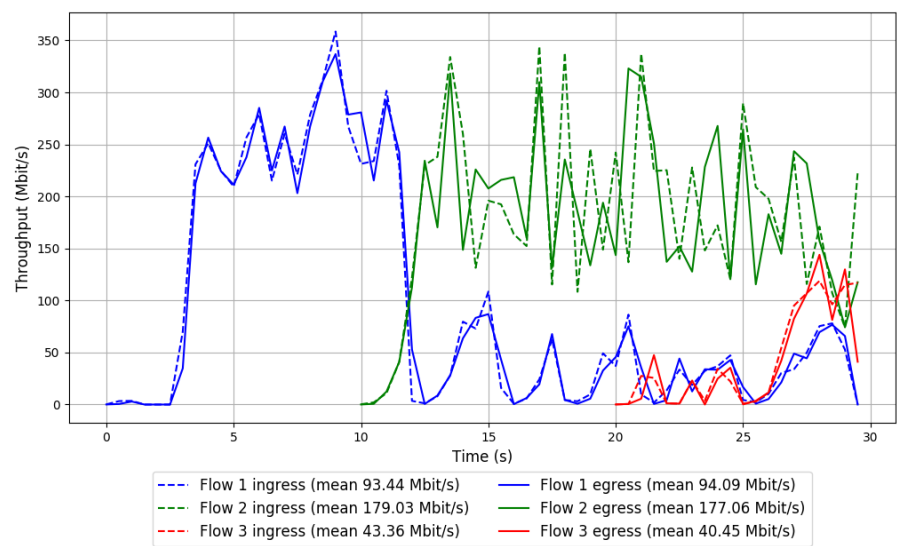
-- Flow 3:

Average throughput: 40.45 Mbit/s

95th percentile per-packet one-way delay: 148.597 ms

Loss rate: 8.86%

Run 4: Report of Verus — Data Link



Run 5: Statistics of Verus

Start at: 2018-01-31 08:37:06

End at: 2018-01-31 08:37:36

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 186.54 Mbit/s

95th percentile per-packet one-way delay: 171.688 ms

Loss rate: 2.27%

-- Flow 1:

Average throughput: 101.10 Mbit/s

95th percentile per-packet one-way delay: 156.072 ms

Loss rate: 2.05%

-- Flow 2:

Average throughput: 96.28 Mbit/s

95th percentile per-packet one-way delay: 174.490 ms

Loss rate: 1.34%

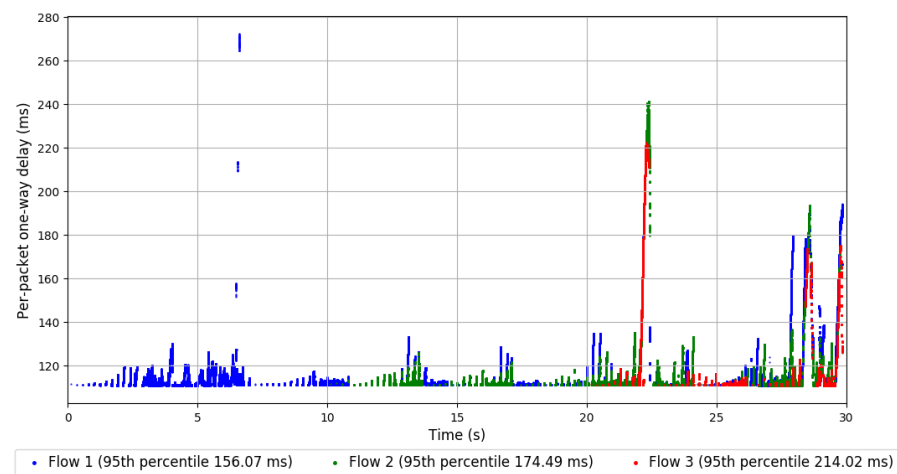
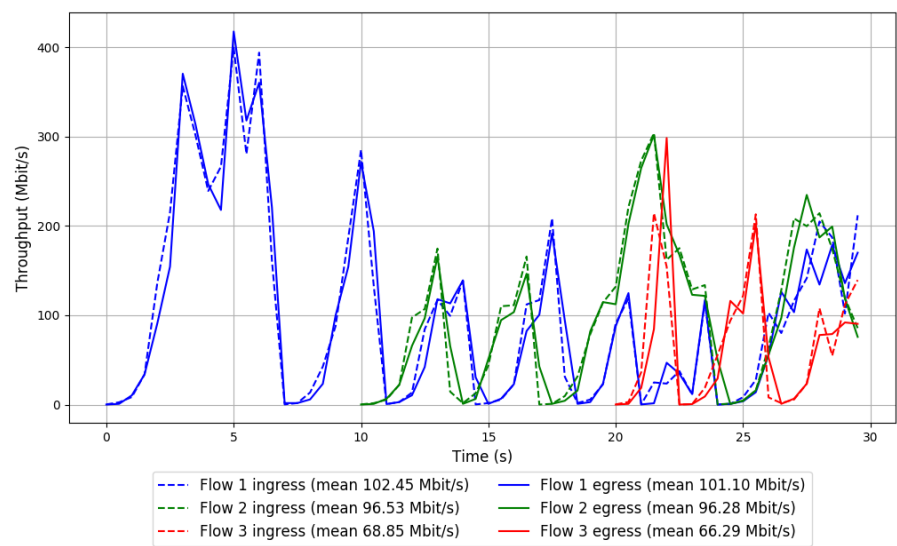
-- Flow 3:

Average throughput: 66.29 Mbit/s

95th percentile per-packet one-way delay: 214.021 ms

Loss rate: 5.89%

Run 5: Report of Verus — Data Link



Run 6: Statistics of Verus

Start at: 2018-01-31 08:54:20

End at: 2018-01-31 08:54:50

Below is generated by plot.py at 2018-01-31 13:40:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 177.77 Mbit/s

95th percentile per-packet one-way delay: 298.489 ms

Loss rate: 5.29%

-- Flow 1:

Average throughput: 68.37 Mbit/s

95th percentile per-packet one-way delay: 221.753 ms

Loss rate: 1.77%

-- Flow 2:

Average throughput: 145.59 Mbit/s

95th percentile per-packet one-way delay: 315.424 ms

Loss rate: 8.02%

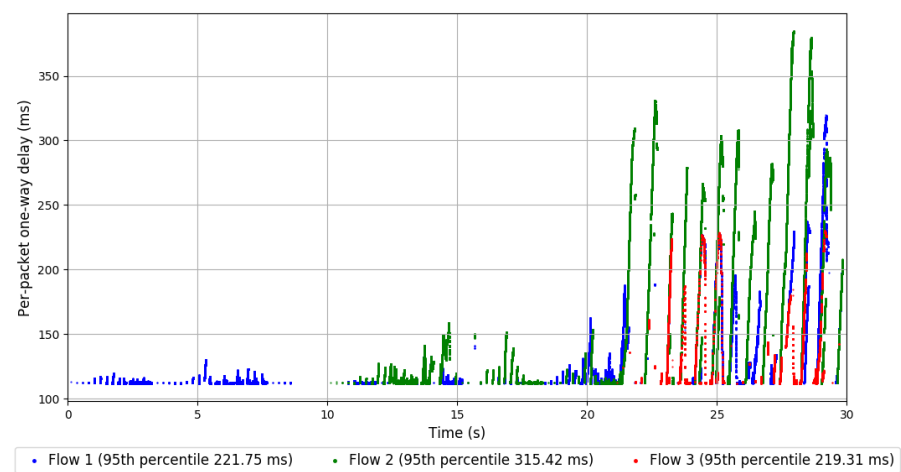
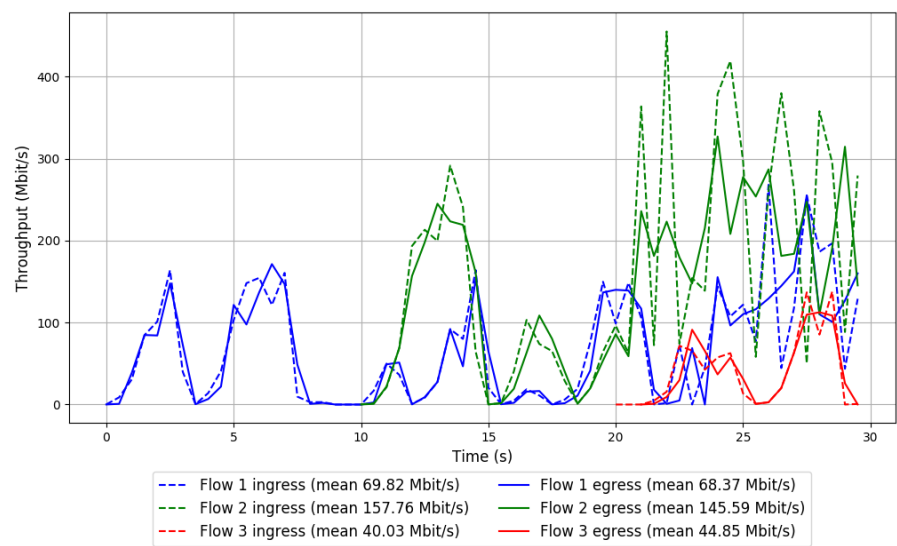
-- Flow 3:

Average throughput: 44.85 Mbit/s

95th percentile per-packet one-way delay: 219.311 ms

Loss rate: 2.03%

Run 6: Report of Verus — Data Link



Run 7: Statistics of Verus

Start at: 2018-01-31 09:12:09

End at: 2018-01-31 09:12:39

Below is generated by plot.py at 2018-01-31 13:41:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 148.07 Mbit/s

95th percentile per-packet one-way delay: 132.878 ms

Loss rate: 2.04%

-- Flow 1:

Average throughput: 68.55 Mbit/s

95th percentile per-packet one-way delay: 132.641 ms

Loss rate: 1.60%

-- Flow 2:

Average throughput: 86.96 Mbit/s

95th percentile per-packet one-way delay: 133.274 ms

Loss rate: 3.25%

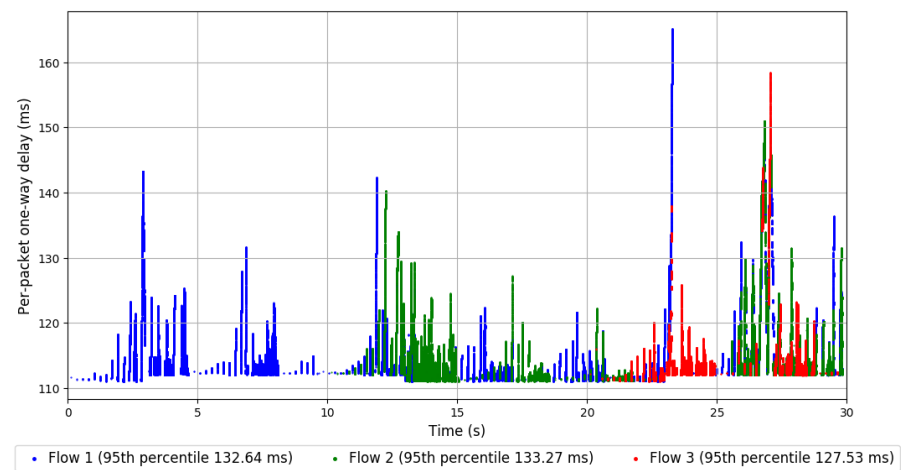
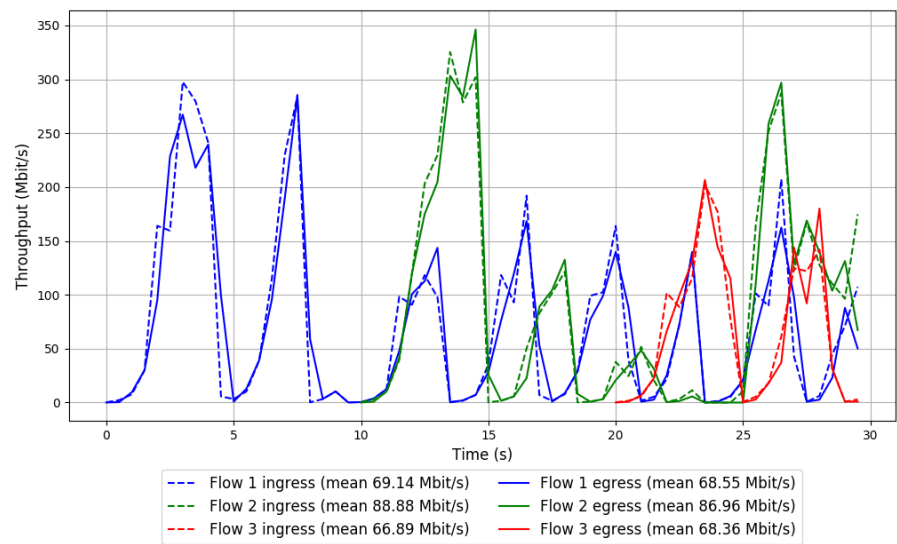
-- Flow 3:

Average throughput: 68.36 Mbit/s

95th percentile per-packet one-way delay: 127.531 ms

Loss rate: 0.16%

Run 7: Report of Verus — Data Link



Run 8: Statistics of Verus

Start at: 2018-01-31 09:29:06

End at: 2018-01-31 09:29:36

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 254.88 Mbit/s

95th percentile per-packet one-way delay: 297.014 ms

Loss rate: 6.62%

-- Flow 1:

Average throughput: 192.35 Mbit/s

95th percentile per-packet one-way delay: 299.068 ms

Loss rate: 4.37%

-- Flow 2:

Average throughput: 89.91 Mbit/s

95th percentile per-packet one-way delay: 278.958 ms

Loss rate: 13.20%

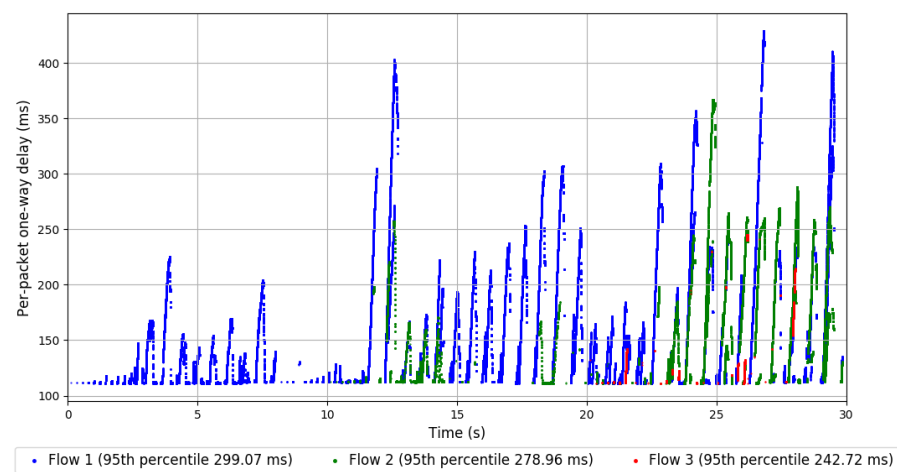
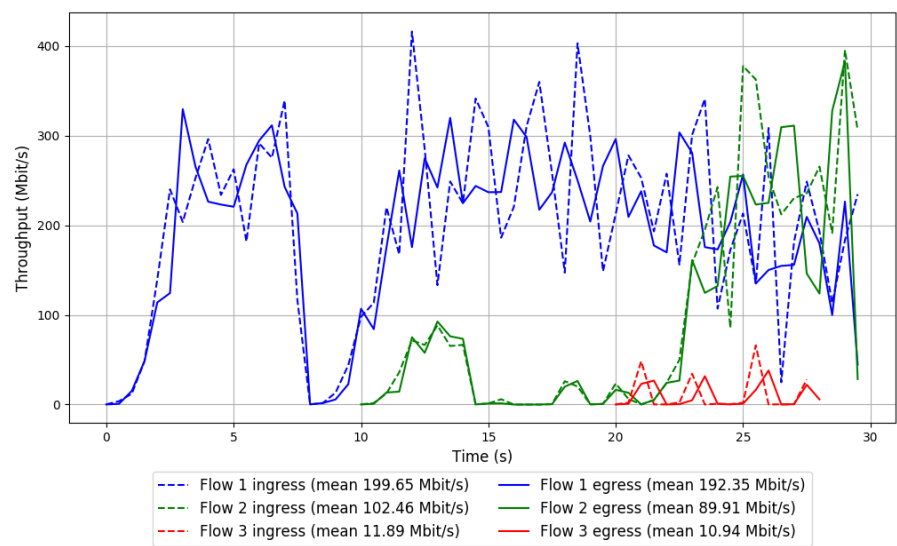
-- Flow 3:

Average throughput: 10.94 Mbit/s

95th percentile per-packet one-way delay: 242.718 ms

Loss rate: 7.03%

Run 8: Report of Verus — Data Link



Run 9: Statistics of Verus

Start at: 2018-01-31 09:47:09

End at: 2018-01-31 09:47:39

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 235.93 Mbit/s

95th percentile per-packet one-way delay: 207.183 ms

Loss rate: 2.42%

-- Flow 1:

Average throughput: 100.76 Mbit/s

95th percentile per-packet one-way delay: 152.452 ms

Loss rate: 0.60%

-- Flow 2:

Average throughput: 125.70 Mbit/s

95th percentile per-packet one-way delay: 171.794 ms

Loss rate: 1.70%

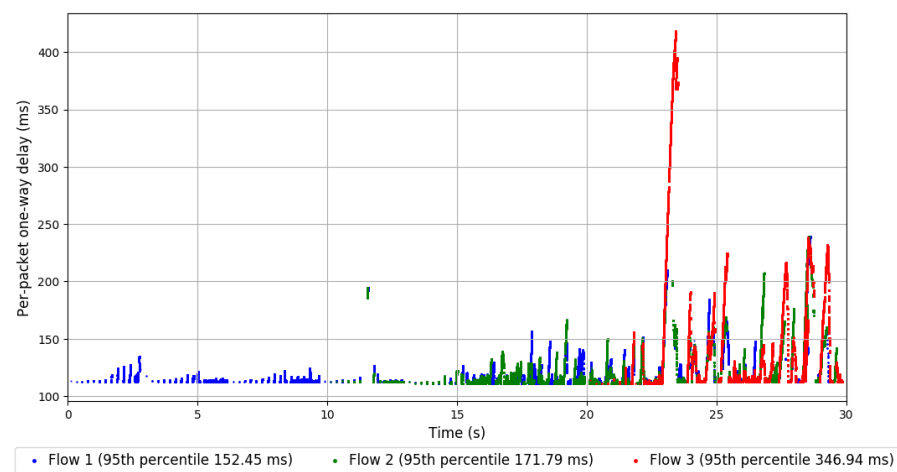
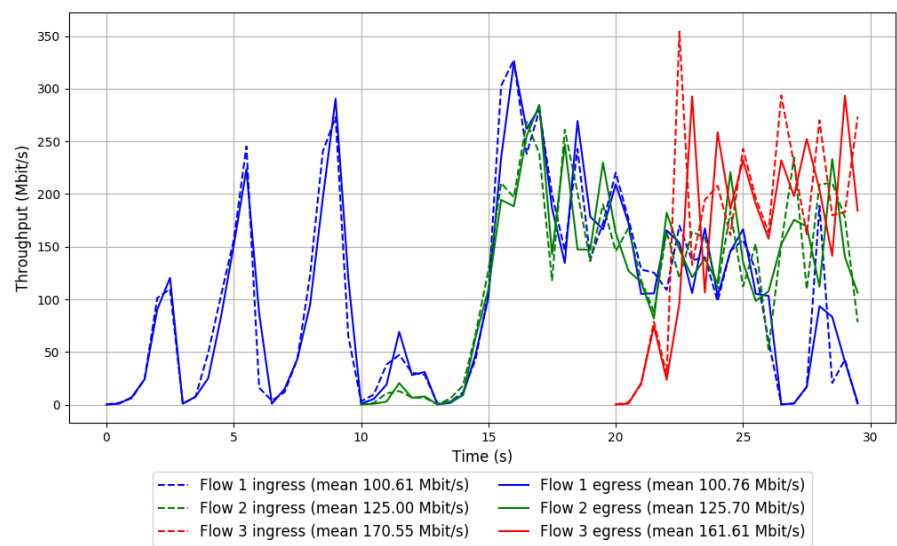
-- Flow 3:

Average throughput: 161.61 Mbit/s

95th percentile per-packet one-way delay: 346.944 ms

Loss rate: 6.73%

Run 9: Report of Verus — Data Link



Run 10: Statistics of Verus

Start at: 2018-01-31 10:04:45

End at: 2018-01-31 10:05:15

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 189.96 Mbit/s

95th percentile per-packet one-way delay: 300.990 ms

Loss rate: 3.50%

-- Flow 1:

Average throughput: 57.82 Mbit/s

95th percentile per-packet one-way delay: 131.027 ms

Loss rate: 0.52%

-- Flow 2:

Average throughput: 179.97 Mbit/s

95th percentile per-packet one-way delay: 314.484 ms

Loss rate: 4.57%

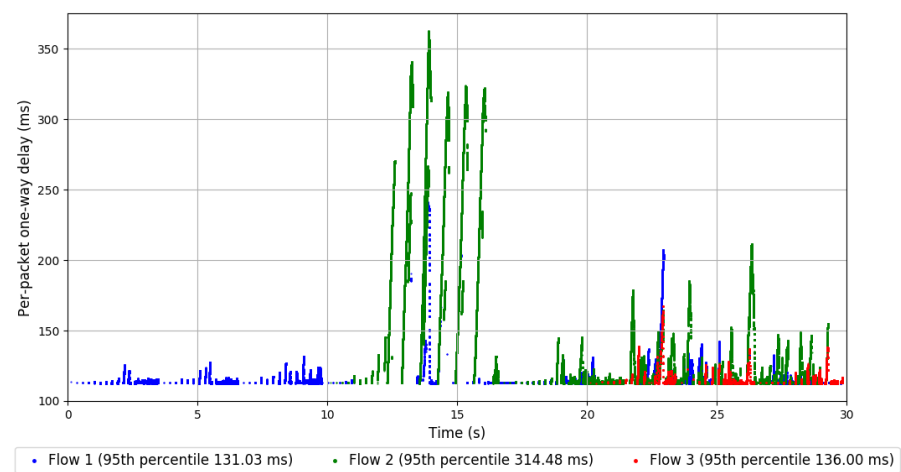
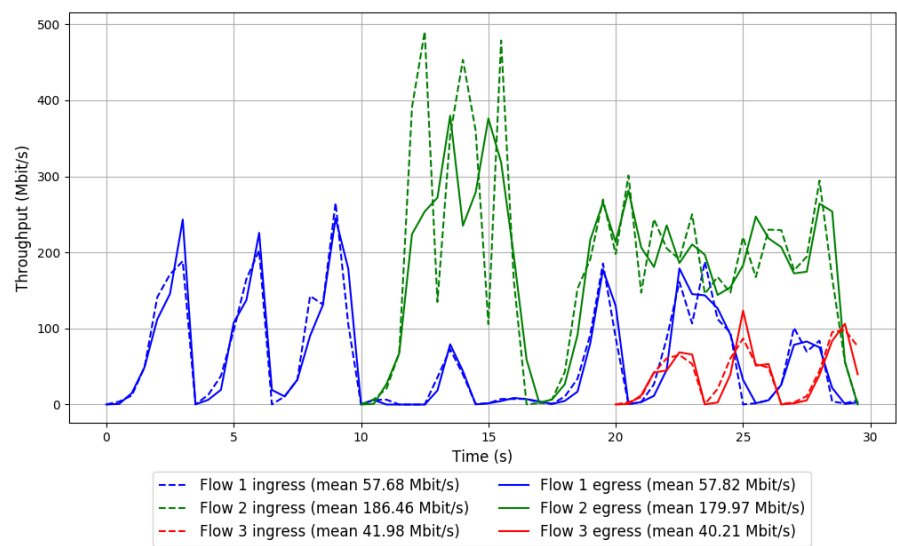
-- Flow 3:

Average throughput: 40.21 Mbit/s

95th percentile per-packet one-way delay: 136.000 ms

Loss rate: 6.33%

Run 10: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-31 07:15:44

End at: 2018-01-31 07:16:14

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.66 Mbit/s

95th percentile per-packet one-way delay: 112.254 ms

Loss rate: 0.79%

-- Flow 1:

Average throughput: 51.14 Mbit/s

95th percentile per-packet one-way delay: 112.192 ms

Loss rate: 0.15%

-- Flow 2:

Average throughput: 23.10 Mbit/s

95th percentile per-packet one-way delay: 112.211 ms

Loss rate: 0.22%

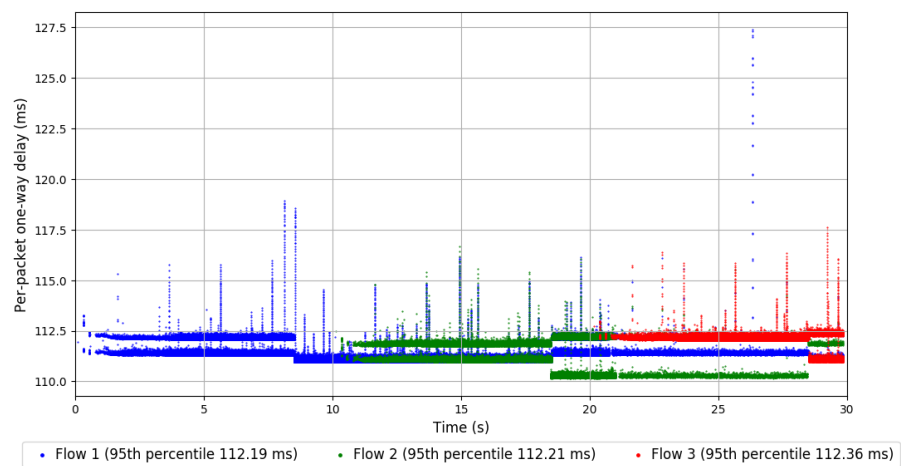
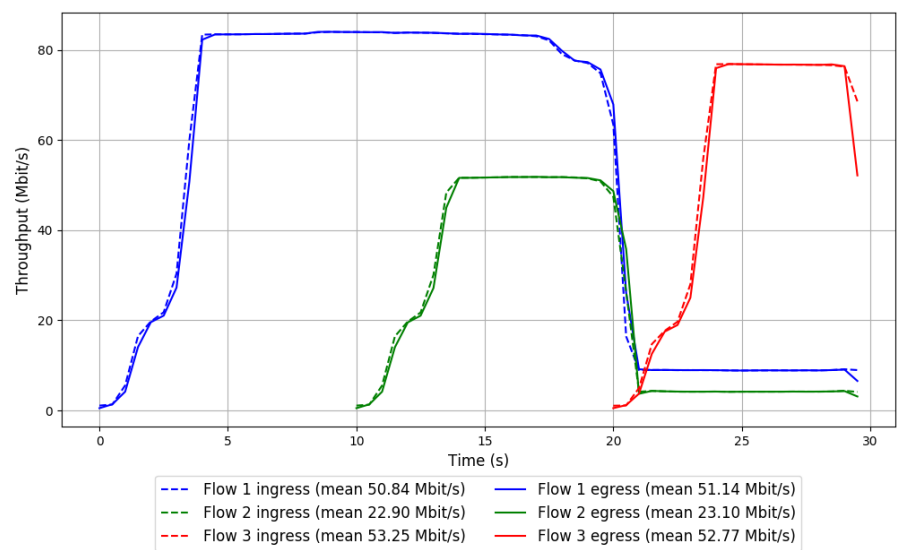
-- Flow 3:

Average throughput: 52.77 Mbit/s

95th percentile per-packet one-way delay: 112.365 ms

Loss rate: 3.16%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-01-31 07:33:06

End at: 2018-01-31 07:33:36

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 56.17 Mbit/s

95th percentile per-packet one-way delay: 112.355 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 15.46 Mbit/s

95th percentile per-packet one-way delay: 112.305 ms

Loss rate: 0.29%

-- Flow 2:

Average throughput: 49.54 Mbit/s

95th percentile per-packet one-way delay: 112.366 ms

Loss rate: 1.10%

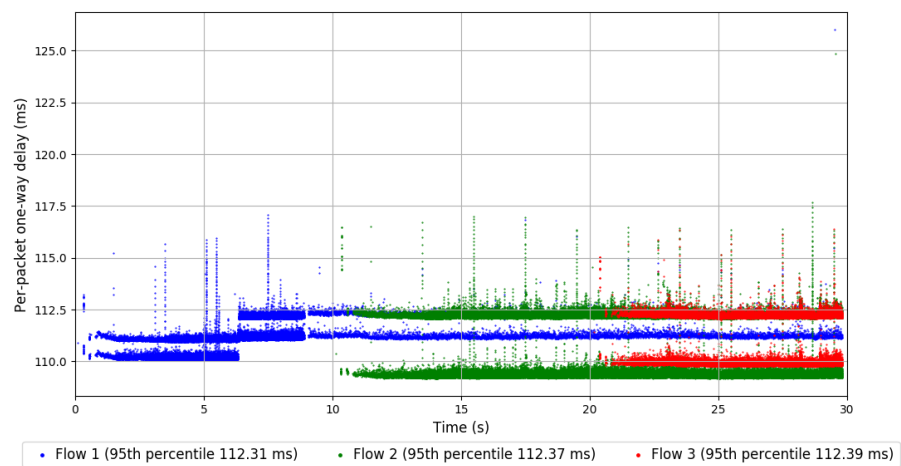
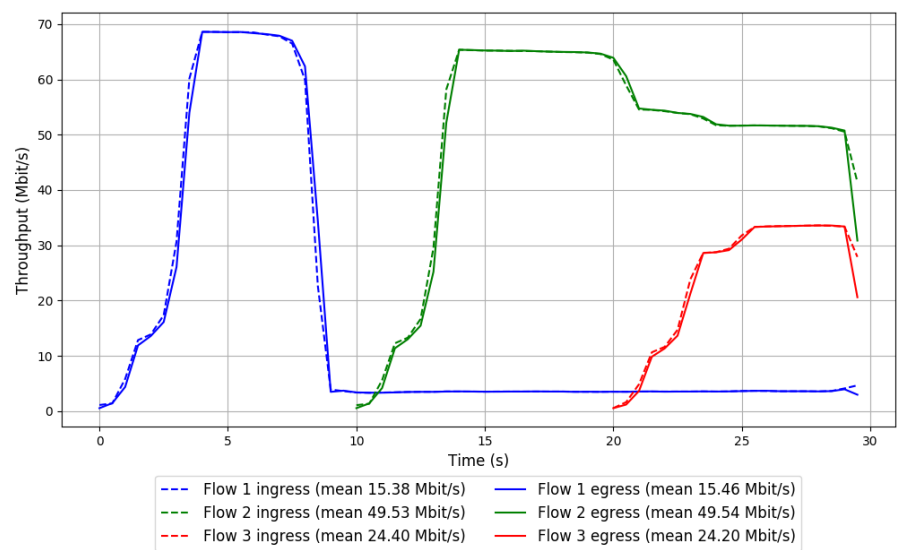
-- Flow 3:

Average throughput: 24.20 Mbit/s

95th percentile per-packet one-way delay: 112.388 ms

Loss rate: 3.06%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-01-31 07:50:48

End at: 2018-01-31 07:51:18

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 58.41 Mbit/s

95th percentile per-packet one-way delay: 111.767 ms

Loss rate: 1.38%

-- Flow 1:

Average throughput: 25.02 Mbit/s

95th percentile per-packet one-way delay: 111.840 ms

Loss rate: 0.92%

-- Flow 2:

Average throughput: 33.60 Mbit/s

95th percentile per-packet one-way delay: 111.234 ms

Loss rate: 1.03%

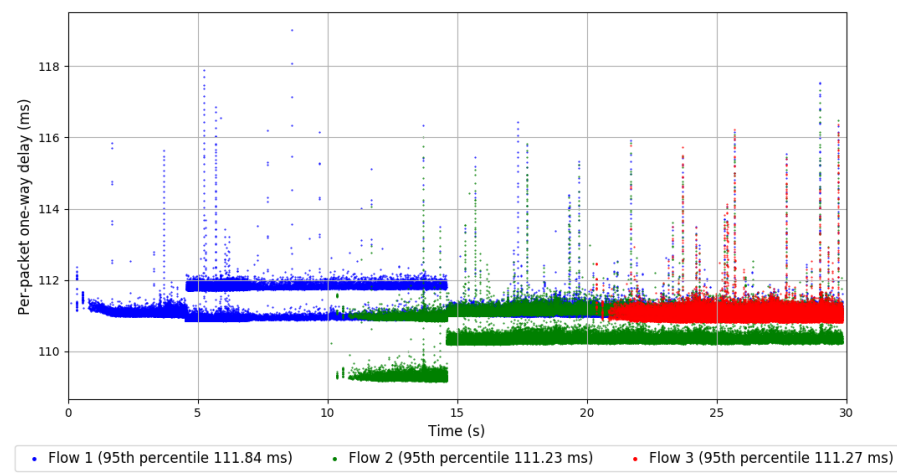
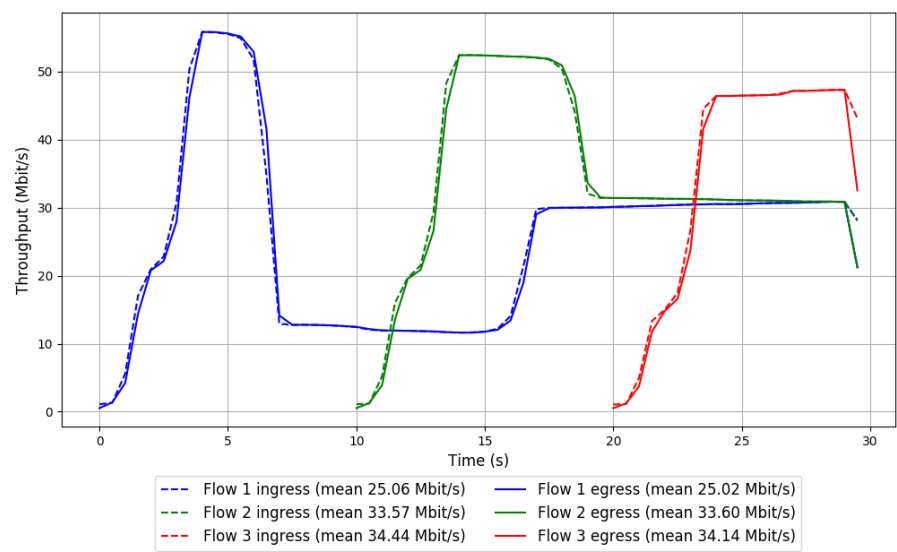
-- Flow 3:

Average throughput: 34.14 Mbit/s

95th percentile per-packet one-way delay: 111.267 ms

Loss rate: 3.09%

Run 3: Report of Copa — Data Link



Run 4: Statistics of Copa

Start at: 2018-01-31 08:08:34

End at: 2018-01-31 08:09:04

Below is generated by plot.py at 2018-01-31 13:44:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 55.54 Mbit/s

95th percentile per-packet one-way delay: 112.292 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 34.35 Mbit/s

95th percentile per-packet one-way delay: 112.263 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 21.25 Mbit/s

95th percentile per-packet one-way delay: 111.166 ms

Loss rate: 2.25%

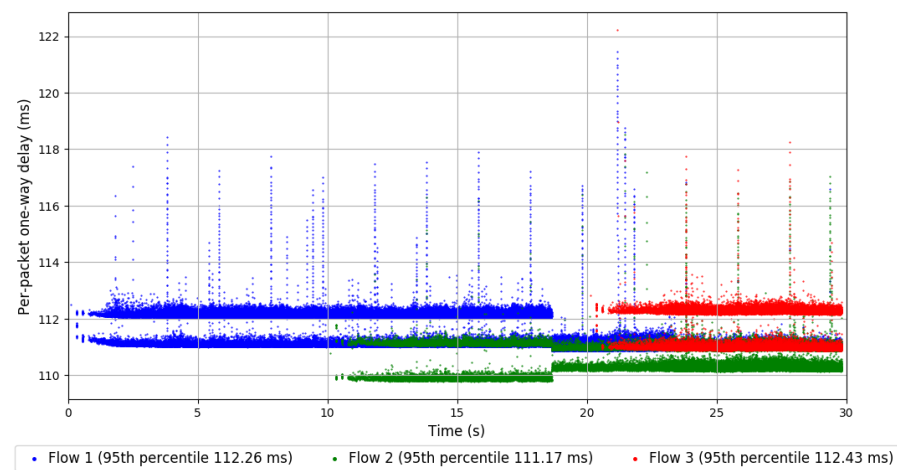
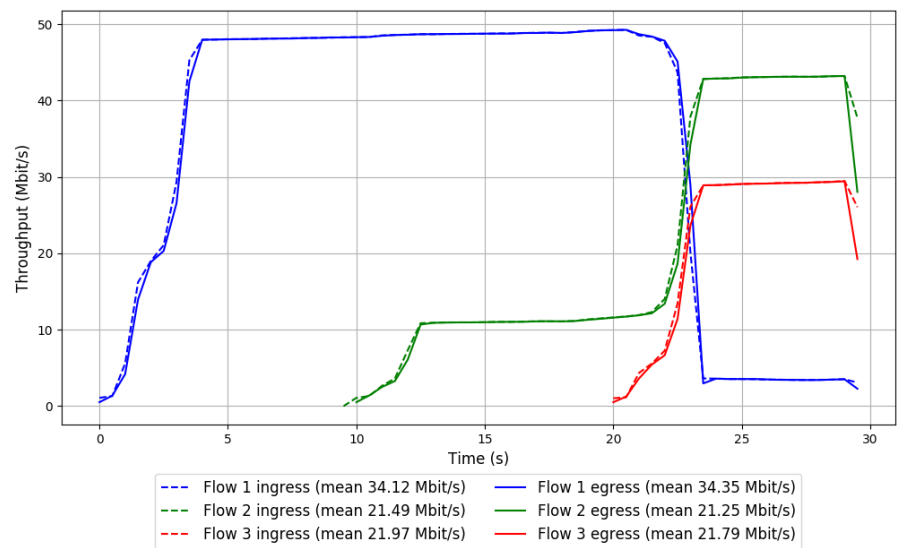
-- Flow 3:

Average throughput: 21.79 Mbit/s

95th percentile per-packet one-way delay: 112.426 ms

Loss rate: 3.07%

Run 4: Report of Copa — Data Link



Run 5: Statistics of Copa

Start at: 2018-01-31 08:26:24

End at: 2018-01-31 08:26:54

Below is generated by plot.py at 2018-01-31 13:44:04

Datalink statistics

-- Total of 3 flows:

Average throughput: 66.63 Mbit/s

95th percentile per-packet one-way delay: 111.376 ms

Loss rate: 1.01%

-- Flow 1:

Average throughput: 38.47 Mbit/s

95th percentile per-packet one-way delay: 111.423 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 27.30 Mbit/s

95th percentile per-packet one-way delay: 111.271 ms

Loss rate: 0.29%

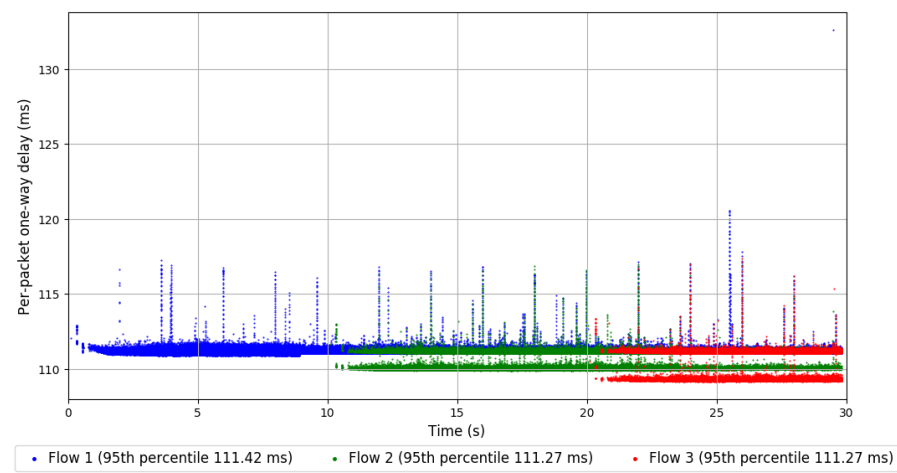
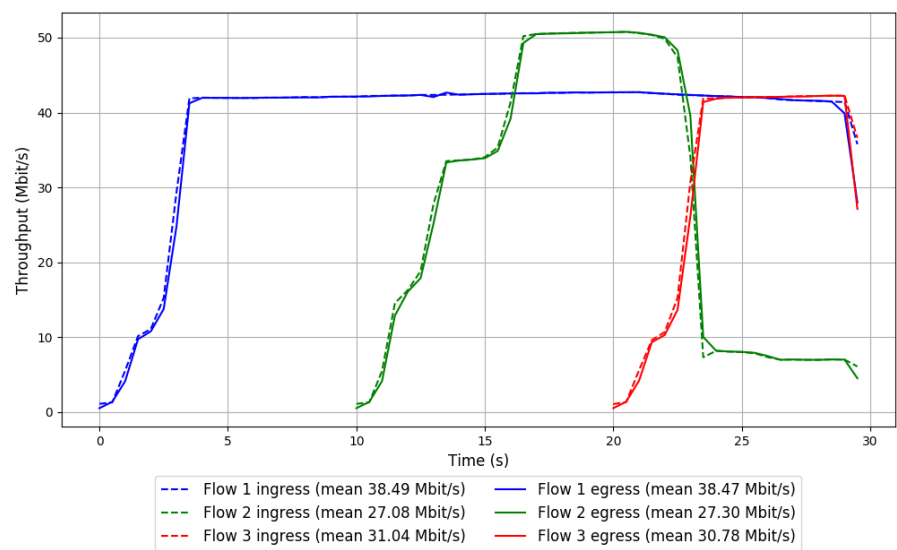
-- Flow 3:

Average throughput: 30.78 Mbit/s

95th percentile per-packet one-way delay: 111.268 ms

Loss rate: 3.07%

Run 5: Report of Copa — Data Link



Run 6: Statistics of Copa

Start at: 2018-01-31 08:44:09

End at: 2018-01-31 08:44:39

Below is generated by plot.py at 2018-01-31 13:44:29

Datalink statistics

-- Total of 3 flows:

Average throughput: 68.12 Mbit/s

95th percentile per-packet one-way delay: 112.239 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 46.48 Mbit/s

95th percentile per-packet one-way delay: 112.211 ms

Loss rate: 0.83%

-- Flow 2:

Average throughput: 17.36 Mbit/s

95th percentile per-packet one-way delay: 112.293 ms

Loss rate: 0.48%

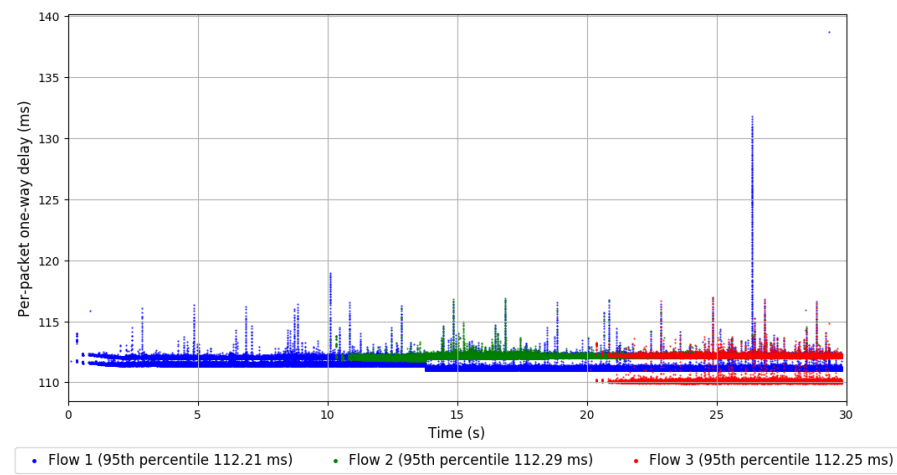
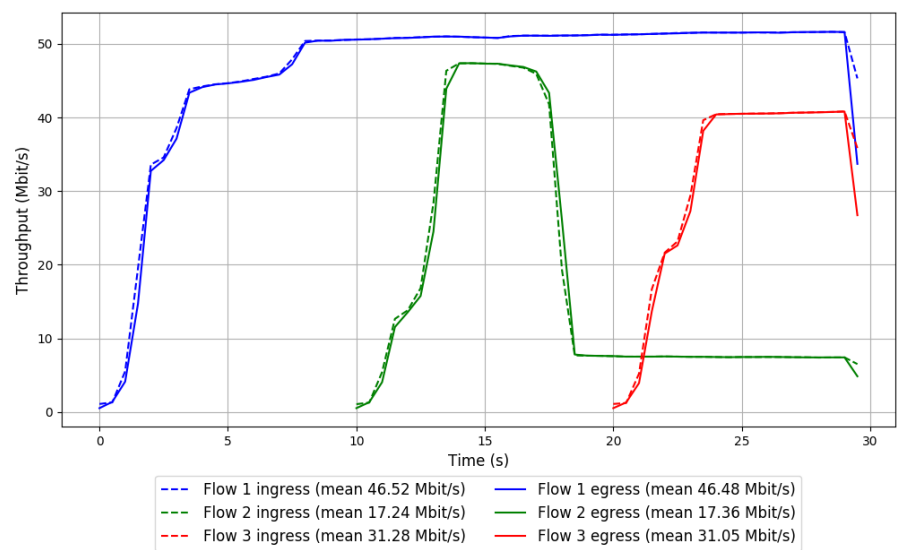
-- Flow 3:

Average throughput: 31.05 Mbit/s

95th percentile per-packet one-way delay: 112.250 ms

Loss rate: 2.95%

Run 6: Report of Copa — Data Link



Run 7: Statistics of Copa

Start at: 2018-01-31 09:01:25

End at: 2018-01-31 09:01:55

Below is generated by plot.py at 2018-01-31 13:45:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 87.92 Mbit/s

95th percentile per-packet one-way delay: 112.583 ms

Loss rate: 0.86%

-- Flow 1:

Average throughput: 45.41 Mbit/s

95th percentile per-packet one-way delay: 112.196 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 49.62 Mbit/s

95th percentile per-packet one-way delay: 112.259 ms

Loss rate: 1.28%

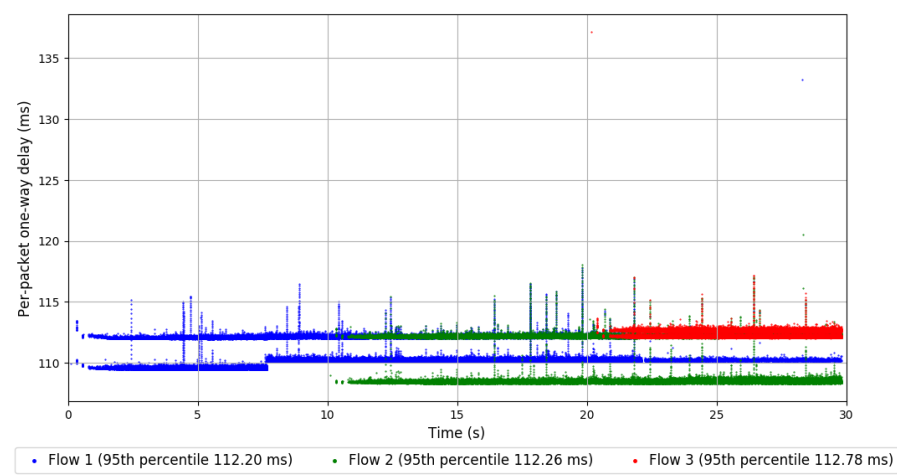
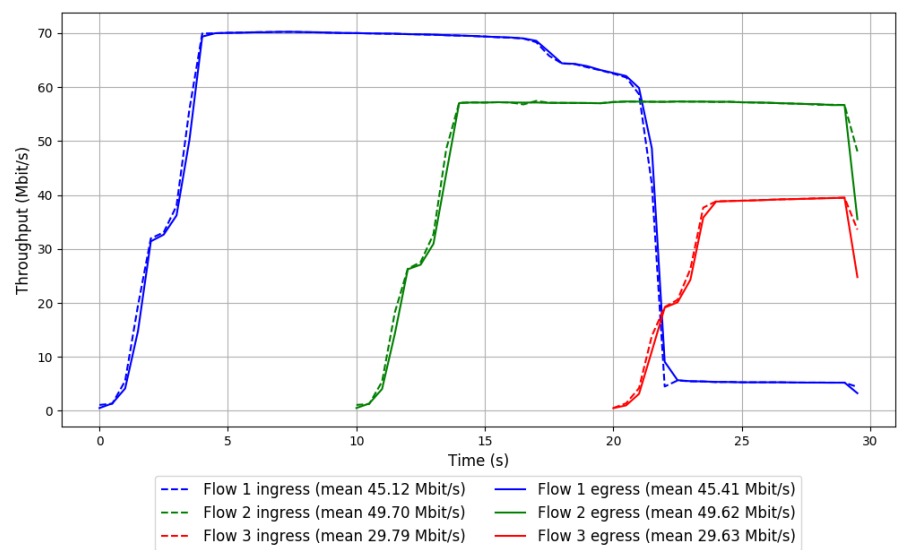
-- Flow 3:

Average throughput: 29.63 Mbit/s

95th percentile per-packet one-way delay: 112.778 ms

Loss rate: 3.01%

Run 7: Report of Copa — Data Link



Run 8: Statistics of Copa

Start at: 2018-01-31 09:19:03

End at: 2018-01-31 09:19:33

Below is generated by plot.py at 2018-01-31 13:45:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 50.90 Mbit/s

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

Loss rate: 2.46%

-- Flow 1:

Average throughput: 24.10 Mbit/s

95th percentile per-packet one-way delay: 112.788 ms

Loss rate: 2.34%

-- Flow 2:

Average throughput: 26.67 Mbit/s

95th percentile per-packet one-way delay: 112.294 ms

Loss rate: 0.73%

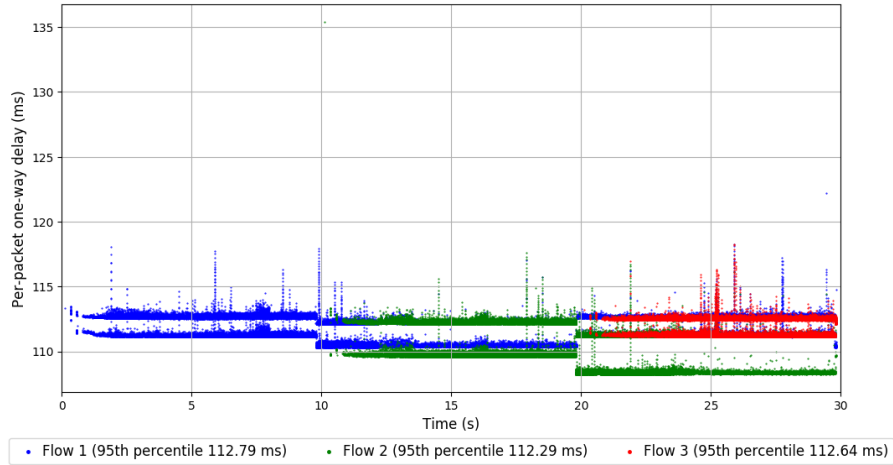
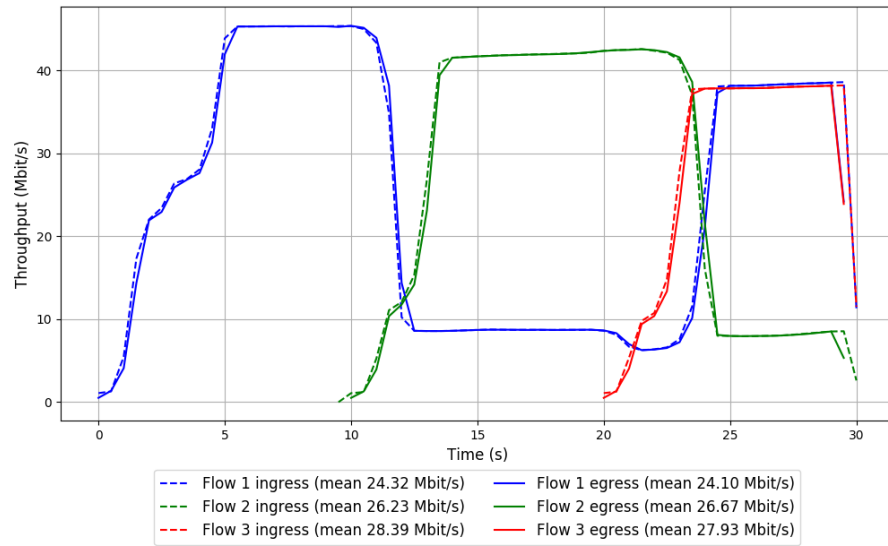
-- Flow 3:

Average throughput: 27.93 Mbit/s

95th percentile per-packet one-way delay: 112.642 ms

Loss rate: 5.95%

Run 8: Report of Copa — Data Link



Run 9: Statistics of Copa

Start at: 2018-01-31 09:36:22

End at: 2018-01-31 09:36:52

Below is generated by plot.py at 2018-01-31 13:45:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 61.69 Mbit/s

95th percentile per-packet one-way delay: 112.287 ms

Loss rate: 1.09%

-- Flow 1:

Average throughput: 38.99 Mbit/s

95th percentile per-packet one-way delay: 112.306 ms

Loss rate: 0.09%

-- Flow 2:

Average throughput: 10.16 Mbit/s

95th percentile per-packet one-way delay: 111.364 ms

Loss rate: 0.48%

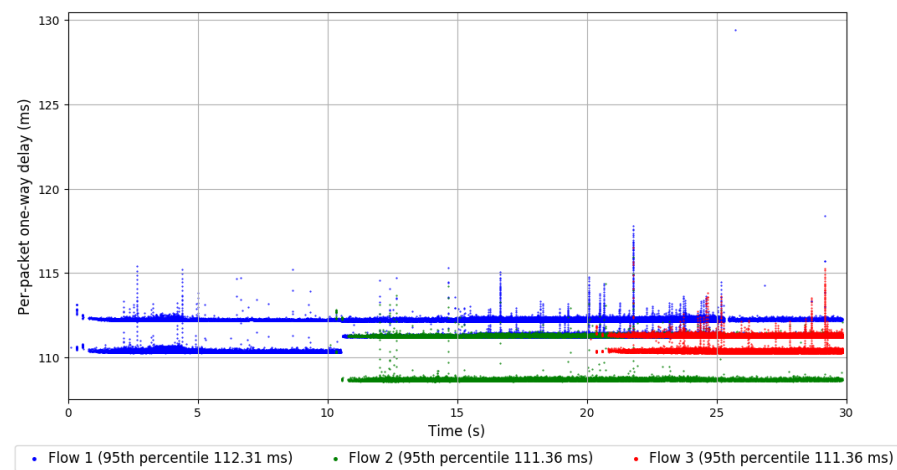
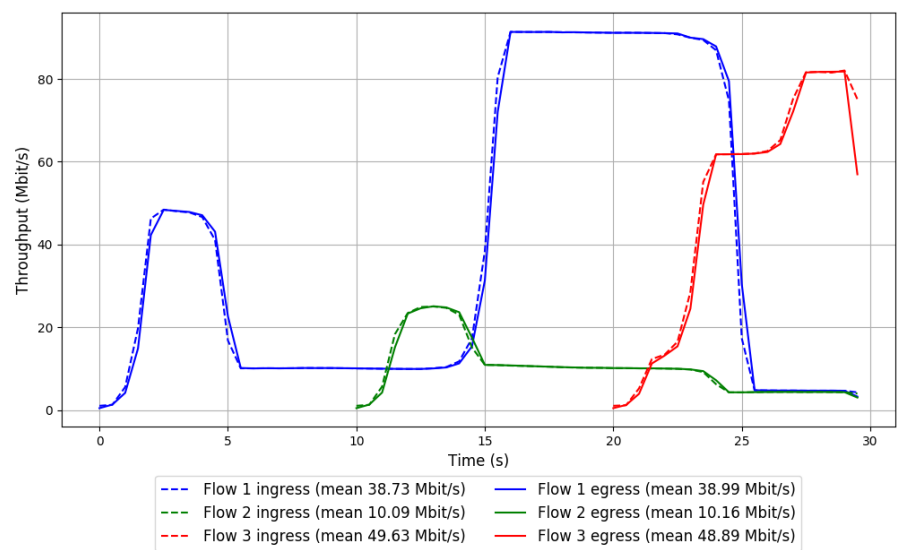
-- Flow 3:

Average throughput: 48.89 Mbit/s

95th percentile per-packet one-way delay: 111.358 ms

Loss rate: 3.68%

Run 9: Report of Copa — Data Link



Run 10: Statistics of Copa

Start at: 2018-01-31 09:54:10

End at: 2018-01-31 09:54:40

Below is generated by plot.py at 2018-01-31 13:45:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 35.50 Mbit/s

95th percentile per-packet one-way delay: 112.512 ms

Loss rate: 2.06%

-- Flow 1:

Average throughput: 6.48 Mbit/s

95th percentile per-packet one-way delay: 112.527 ms

Loss rate: 0.81%

-- Flow 2:

Average throughput: 14.92 Mbit/s

95th percentile per-packet one-way delay: 112.486 ms

Loss rate: 0.44%

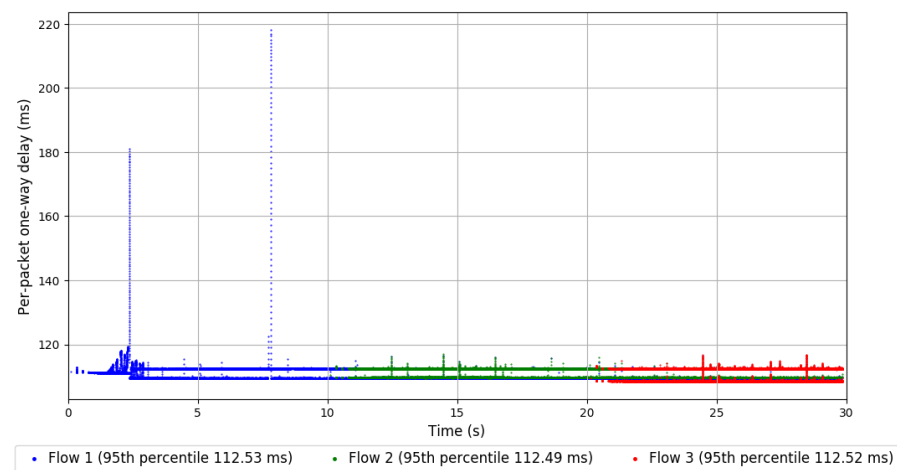
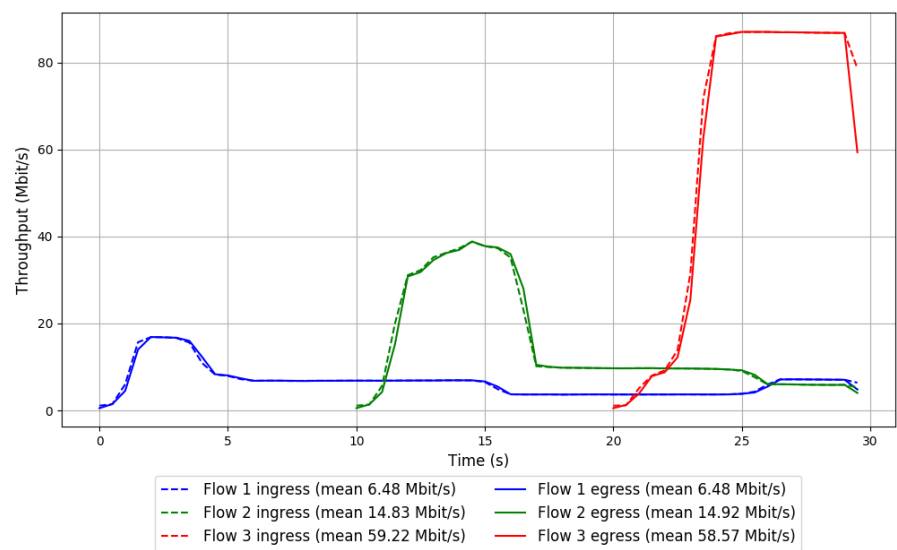
-- Flow 3:

Average throughput: 58.57 Mbit/s

95th percentile per-packet one-way delay: 112.519 ms

Loss rate: 3.29%

Run 10: Report of Copa — Data Link

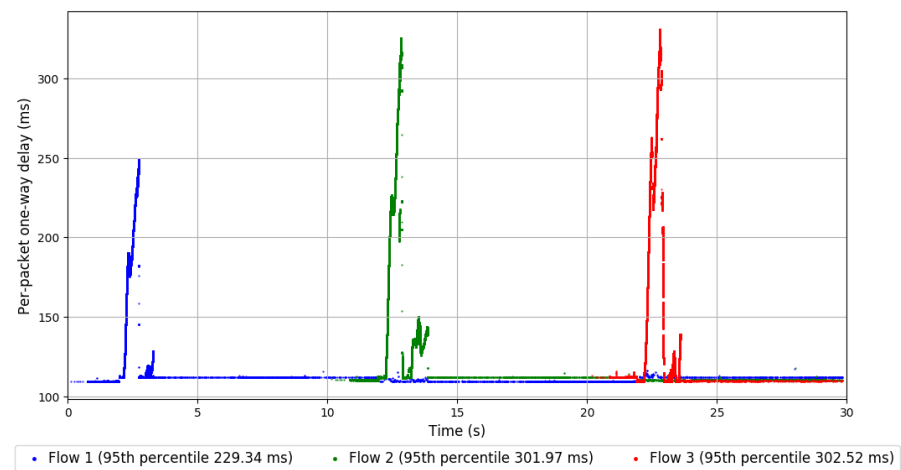
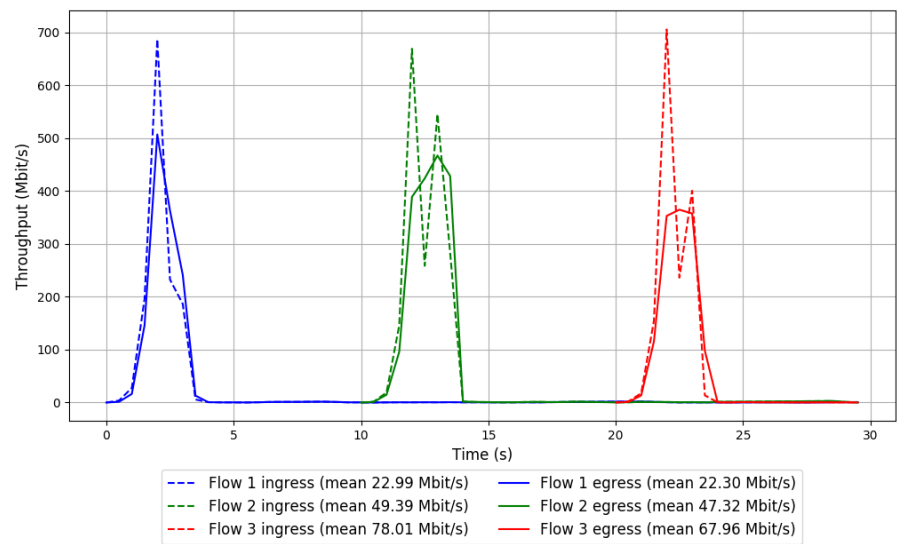


```
Run 1: Statistics of FillP

Start at: 2018-01-31 07:11:30
End at: 2018-01-31 07:12:00

# Below is generated by plot.py at 2018-01-31 13:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 75.61 Mbit/s
95th percentile per-packet one-way delay: 286.032 ms
Loss rate: 7.82%
-- Flow 1:
Average throughput: 22.30 Mbit/s
95th percentile per-packet one-way delay: 229.336 ms
Loss rate: 3.75%
-- Flow 2:
Average throughput: 47.32 Mbit/s
95th percentile per-packet one-way delay: 301.973 ms
Loss rate: 5.22%
-- Flow 3:
Average throughput: 67.96 Mbit/s
95th percentile per-packet one-way delay: 302.520 ms
Loss rate: 14.80%
```


Run 1: Report of FillP — Data Link

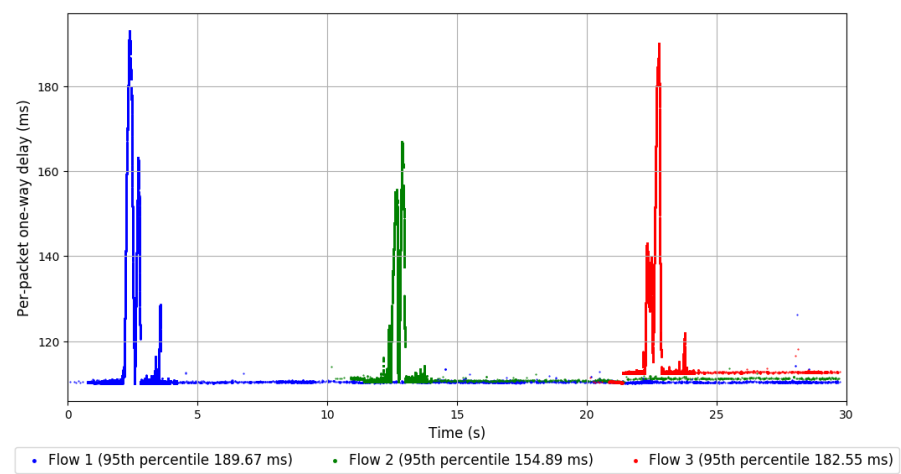
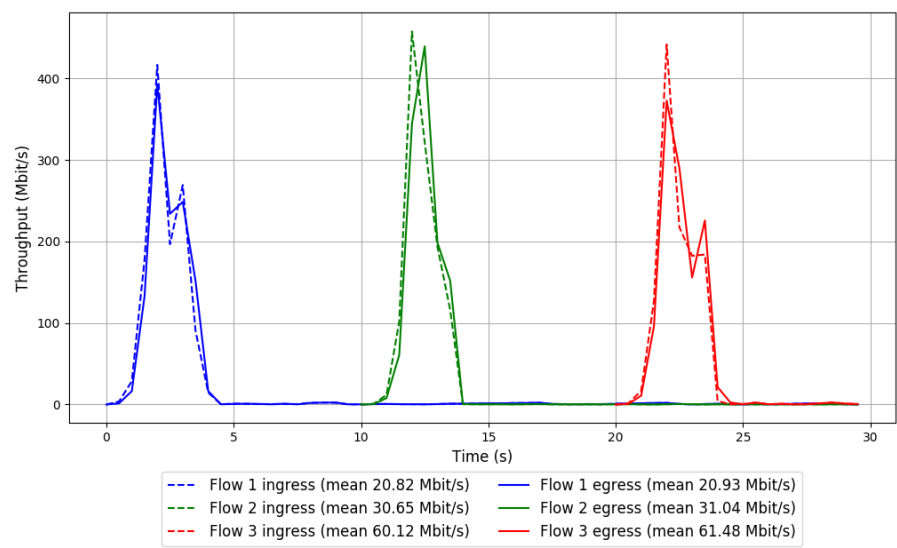


```
Run 2: Statistics of FillP

Start at: 2018-01-31 07:28:51
End at: 2018-01-31 07:29:21

# Below is generated by plot.py at 2018-01-31 13:46:25
# Datalink statistics
-- Total of 3 flows:
Average throughput: 61.37 Mbit/s
95th percentile per-packet one-way delay: 178.539 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 20.93 Mbit/s
95th percentile per-packet one-way delay: 189.669 ms
Loss rate: 0.35%
-- Flow 2:
Average throughput: 31.04 Mbit/s
95th percentile per-packet one-way delay: 154.887 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 61.48 Mbit/s
95th percentile per-packet one-way delay: 182.550 ms
Loss rate: 0.03%
```

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-31 07:46:34

End at: 2018-01-31 07:47:04

Below is generated by plot.py at 2018-01-31 13:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 71.12 Mbit/s

95th percentile per-packet one-way delay: 288.502 ms

Loss rate: 6.55%

-- Flow 1:

Average throughput: 28.28 Mbit/s

95th percentile per-packet one-way delay: 314.268 ms

Loss rate: 4.04%

-- Flow 2:

Average throughput: 32.63 Mbit/s

95th percentile per-packet one-way delay: 243.771 ms

Loss rate: 8.83%

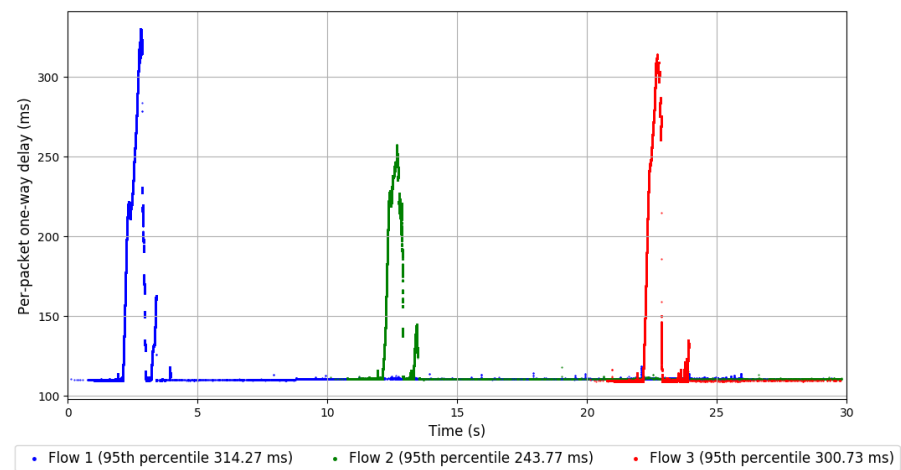
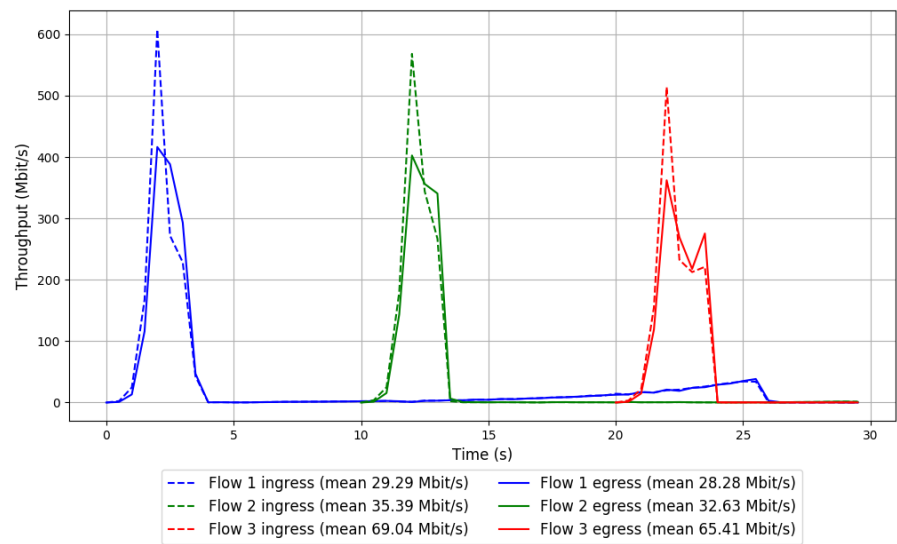
-- Flow 3:

Average throughput: 65.41 Mbit/s

95th percentile per-packet one-way delay: 300.729 ms

Loss rate: 7.40%

Run 3: Report of FillP — Data Link



Run 4: Statistics of FillP

Start at: 2018-01-31 08:04:19

End at: 2018-01-31 08:04:49

Below is generated by plot.py at 2018-01-31 13:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 65.14 Mbit/s

95th percentile per-packet one-way delay: 281.650 ms

Loss rate: 10.87%

-- Flow 1:

Average throughput: 22.41 Mbit/s

95th percentile per-packet one-way delay: 314.426 ms

Loss rate: 11.22%

-- Flow 2:

Average throughput: 32.92 Mbit/s

95th percentile per-packet one-way delay: 214.918 ms

Loss rate: 13.26%

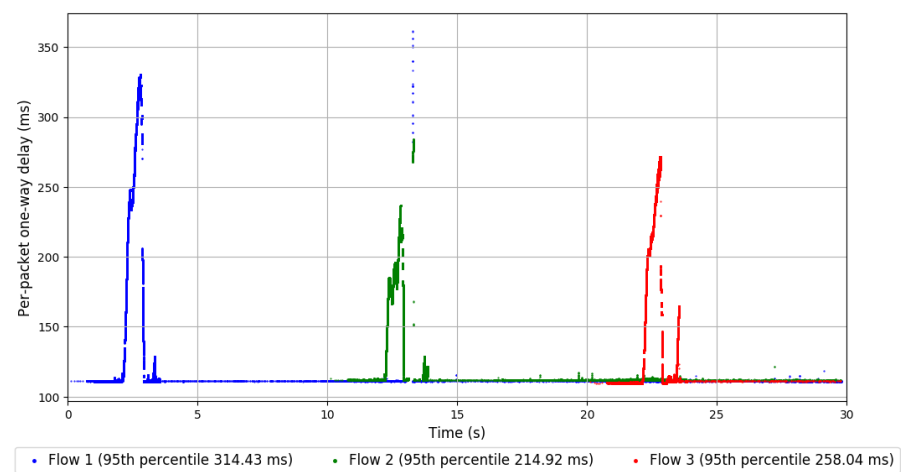
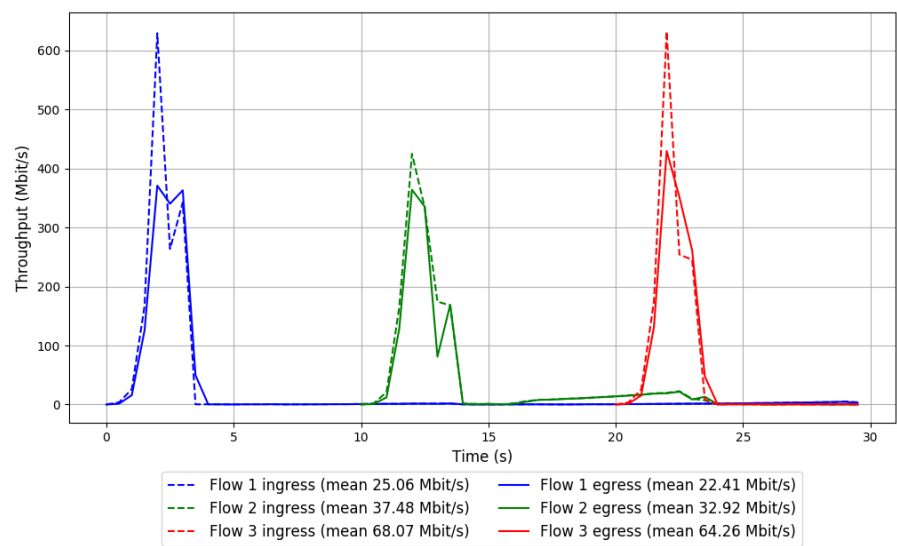
-- Flow 3:

Average throughput: 64.26 Mbit/s

95th percentile per-packet one-way delay: 258.035 ms

Loss rate: 7.83%

Run 4: Report of FillP — Data Link



Run 5: Statistics of FillP

Start at: 2018-01-31 08:22:06

End at: 2018-01-31 08:22:36

Below is generated by plot.py at 2018-01-31 13:46:25

Datalink statistics

-- Total of 3 flows:

Average throughput: 63.60 Mbit/s

95th percentile per-packet one-way delay: 240.884 ms

Loss rate: 5.80%

-- Flow 1:

Average throughput: 20.60 Mbit/s

95th percentile per-packet one-way delay: 204.002 ms

Loss rate: 4.53%

-- Flow 2:

Average throughput: 32.81 Mbit/s

95th percentile per-packet one-way delay: 268.233 ms

Loss rate: 11.14%

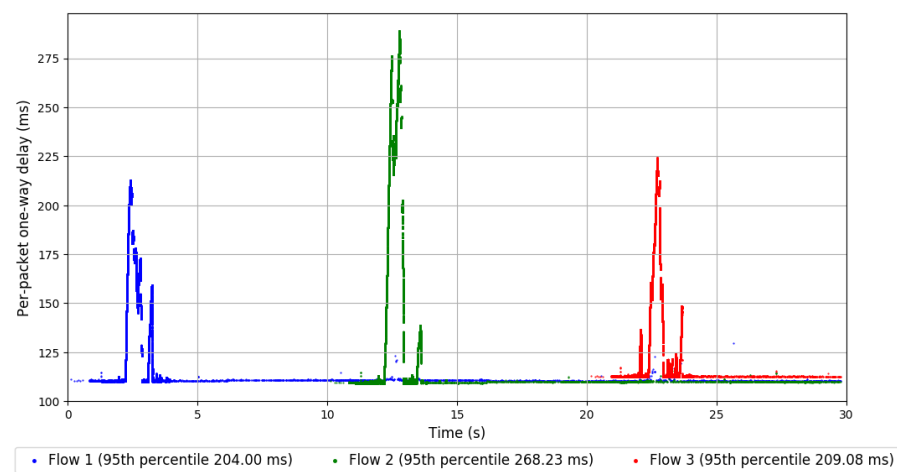
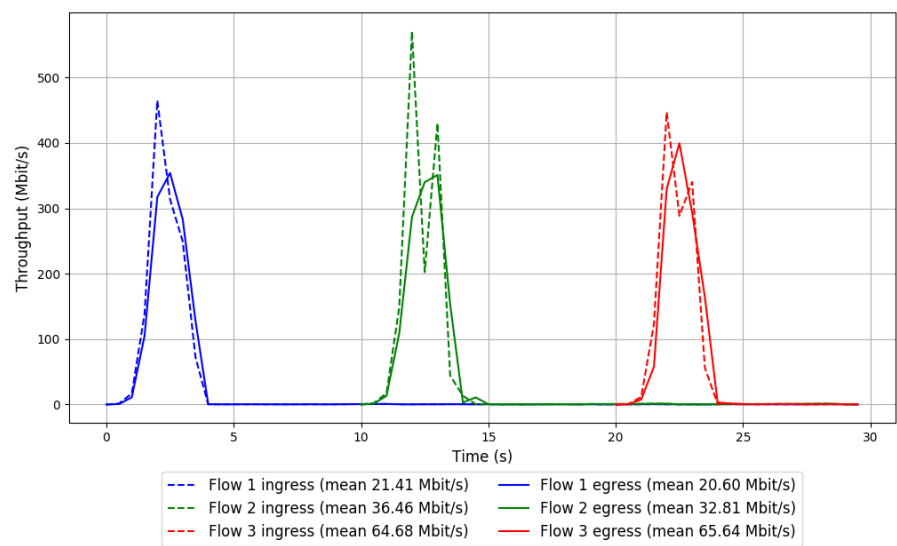
-- Flow 3:

Average throughput: 65.64 Mbit/s

95th percentile per-packet one-way delay: 209.077 ms

Loss rate: 1.01%

Run 5: Report of FillP — Data Link



Run 6: Statistics of FillP

Start at: 2018-01-31 08:39:51

End at: 2018-01-31 08:40:21

Below is generated by plot.py at 2018-01-31 13:47:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 83.58 Mbit/s

95th percentile per-packet one-way delay: 237.607 ms

Loss rate: 6.94%

-- Flow 1:

Average throughput: 27.58 Mbit/s

95th percentile per-packet one-way delay: 240.633 ms

Loss rate: 6.76%

-- Flow 2:

Average throughput: 42.12 Mbit/s

95th percentile per-packet one-way delay: 260.071 ms

Loss rate: 1.48%

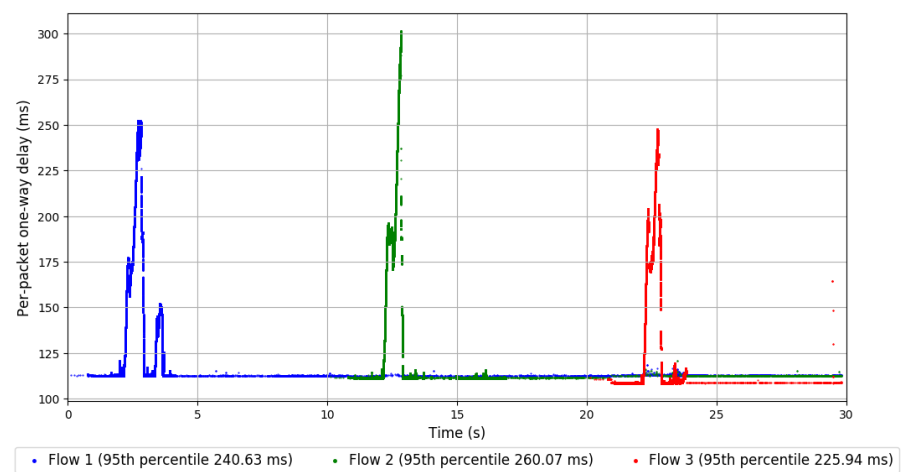
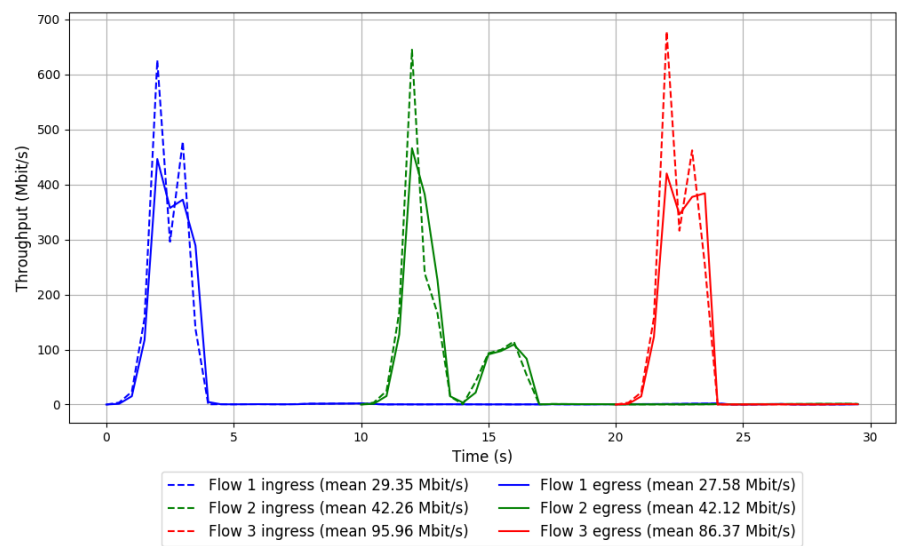
-- Flow 3:

Average throughput: 86.37 Mbit/s

95th percentile per-packet one-way delay: 225.940 ms

Loss rate: 11.95%

Run 6: Report of FillP — Data Link



Run 7: Statistics of FillP

Start at: 2018-01-31 08:57:10

End at: 2018-01-31 08:57:40

Below is generated by plot.py at 2018-01-31 13:47:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 64.57 Mbit/s

95th percentile per-packet one-way delay: 233.559 ms

Loss rate: 5.05%

-- Flow 1:

Average throughput: 21.78 Mbit/s

95th percentile per-packet one-way delay: 242.167 ms

Loss rate: 5.66%

-- Flow 2:

Average throughput: 32.28 Mbit/s

95th percentile per-packet one-way delay: 255.228 ms

Loss rate: 6.49%

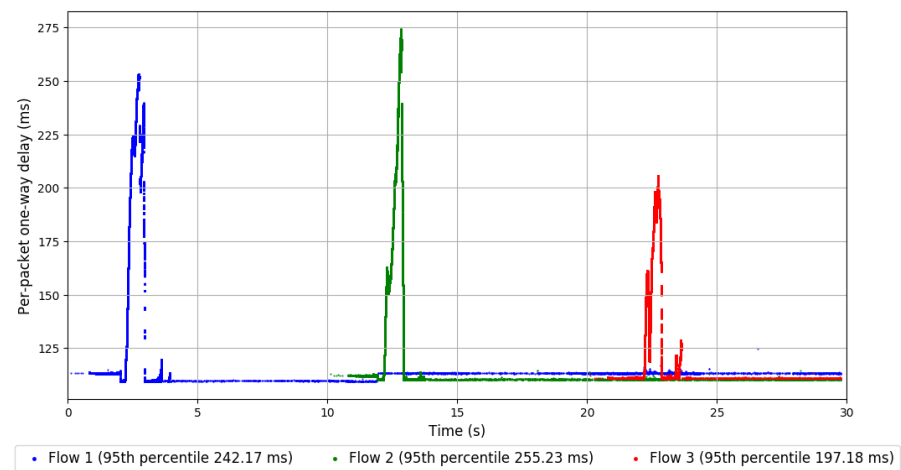
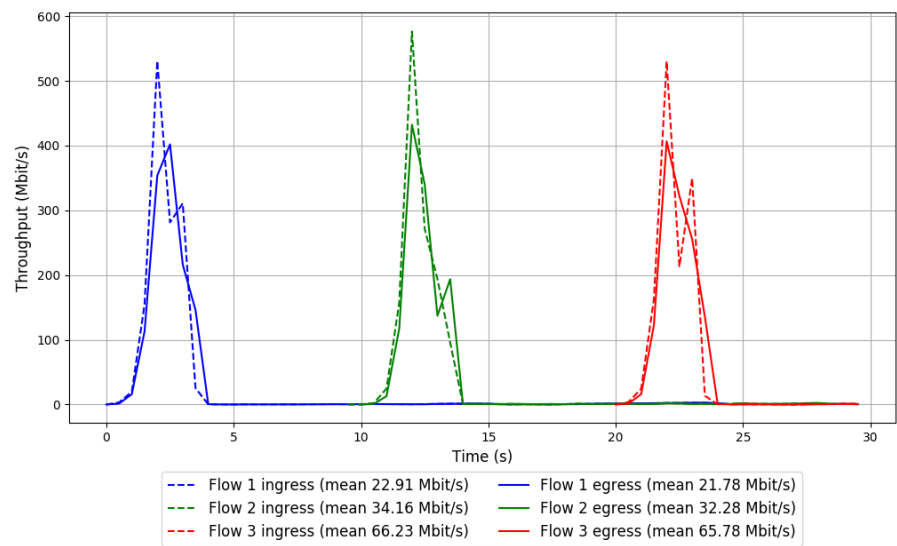
-- Flow 3:

Average throughput: 65.78 Mbit/s

95th percentile per-packet one-way delay: 197.175 ms

Loss rate: 2.92%

Run 7: Report of FillP — Data Link



Run 8: Statistics of FillP

Start at: 2018-01-31 09:14:48

End at: 2018-01-31 09:15:18

Below is generated by plot.py at 2018-01-31 13:47:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 76.77 Mbit/s

95th percentile per-packet one-way delay: 249.711 ms

Loss rate: 3.80%

-- Flow 1:

Average throughput: 30.88 Mbit/s

95th percentile per-packet one-way delay: 315.540 ms

Loss rate: 4.63%

-- Flow 2:

Average throughput: 32.88 Mbit/s

95th percentile per-packet one-way delay: 246.676 ms

Loss rate: 6.57%

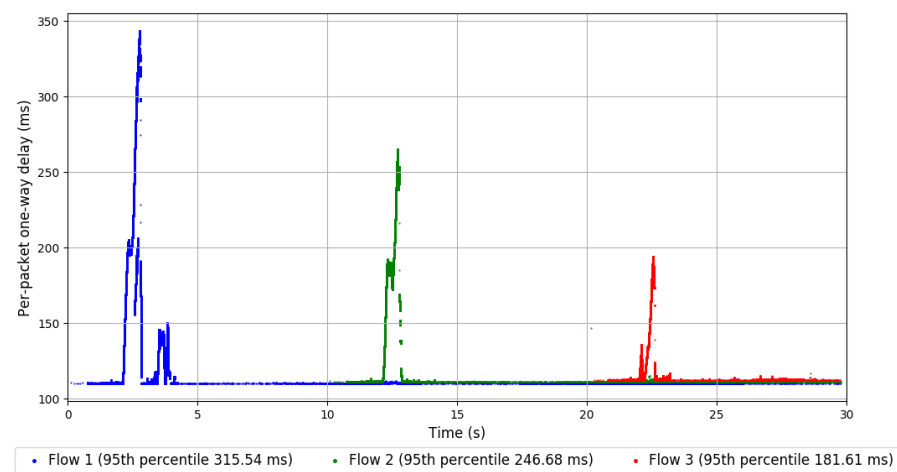
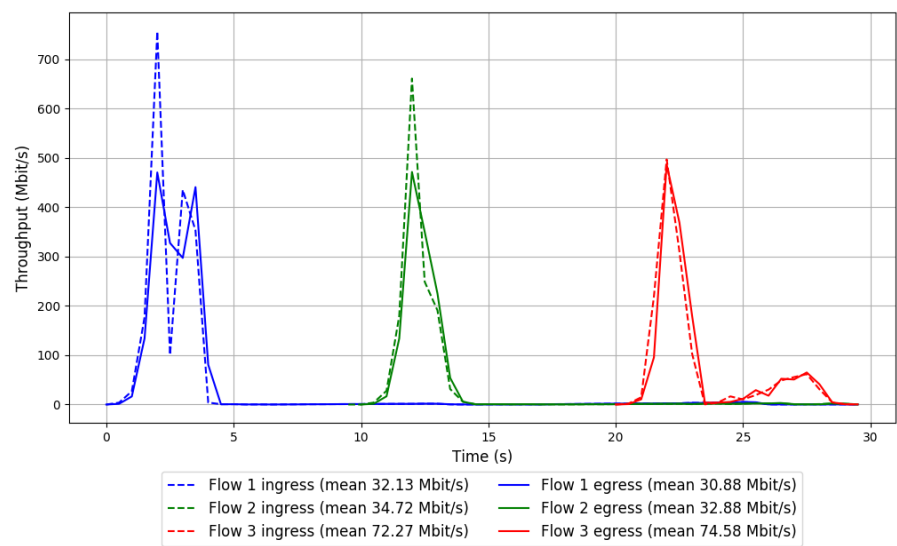
-- Flow 3:

Average throughput: 74.58 Mbit/s

95th percentile per-packet one-way delay: 181.614 ms

Loss rate: 0.01%

Run 8: Report of FillP — Data Link

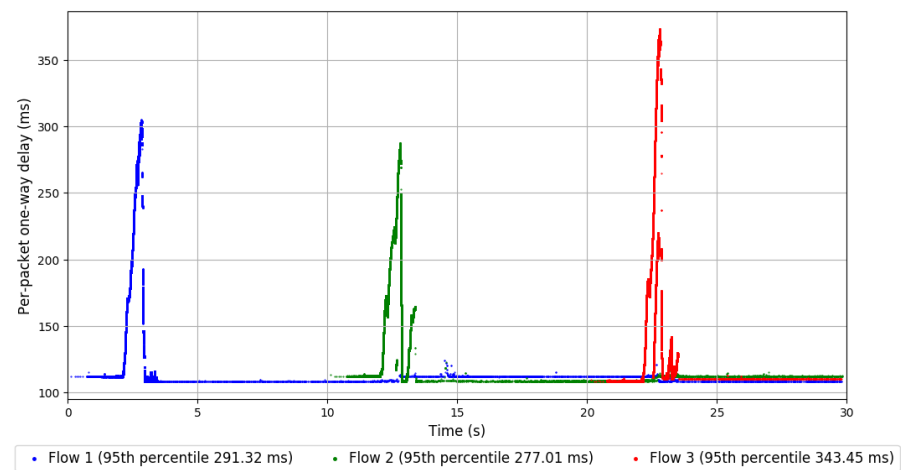
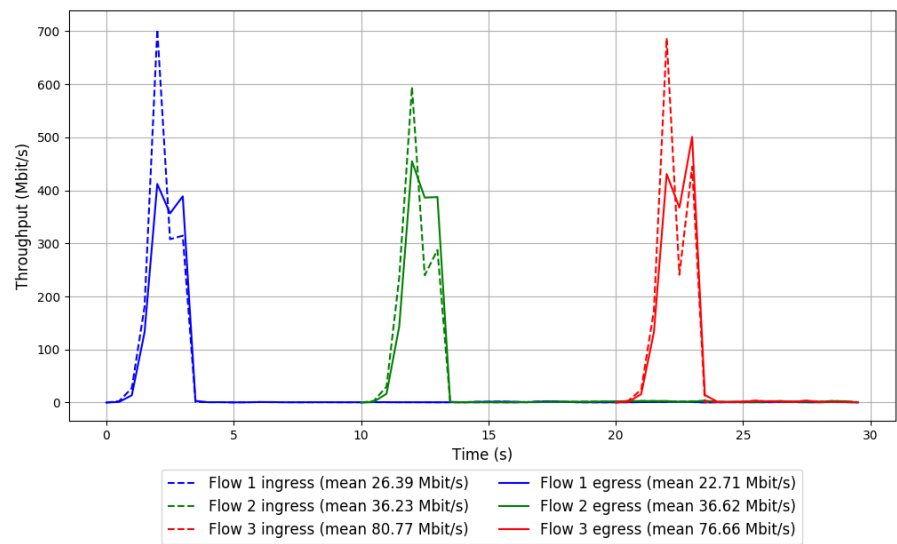


```
Run 9: Statistics of FillP

Start at: 2018-01-31 09:32:10
End at: 2018-01-31 09:32:40

# Below is generated by plot.py at 2018-01-31 13:48:06
# Datalink statistics
-- Total of 3 flows:
Average throughput: 71.94 Mbit/s
95th percentile per-packet one-way delay: 290.372 ms
Loss rate: 7.40%
-- Flow 1:
Average throughput: 22.71 Mbit/s
95th percentile per-packet one-way delay: 291.320 ms
Loss rate: 14.54%
-- Flow 2:
Average throughput: 36.62 Mbit/s
95th percentile per-packet one-way delay: 277.014 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 76.66 Mbit/s
95th percentile per-packet one-way delay: 343.447 ms
Loss rate: 7.00%
```


Run 9: Report of FillP — Data Link

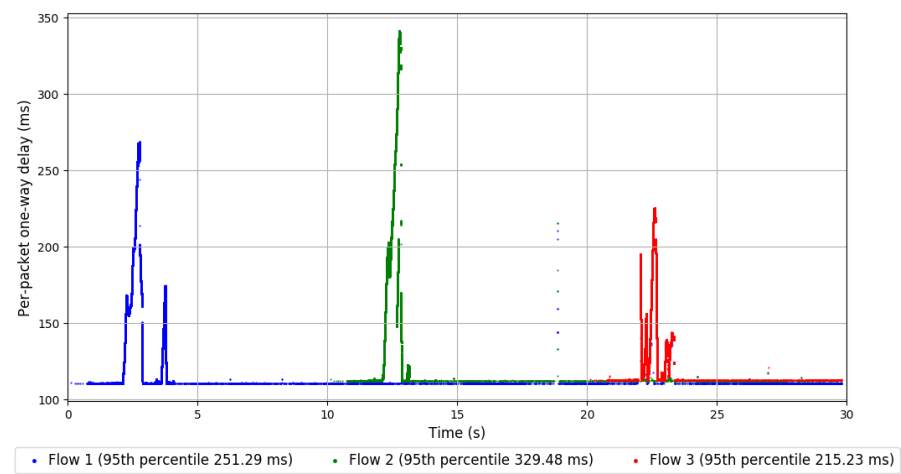
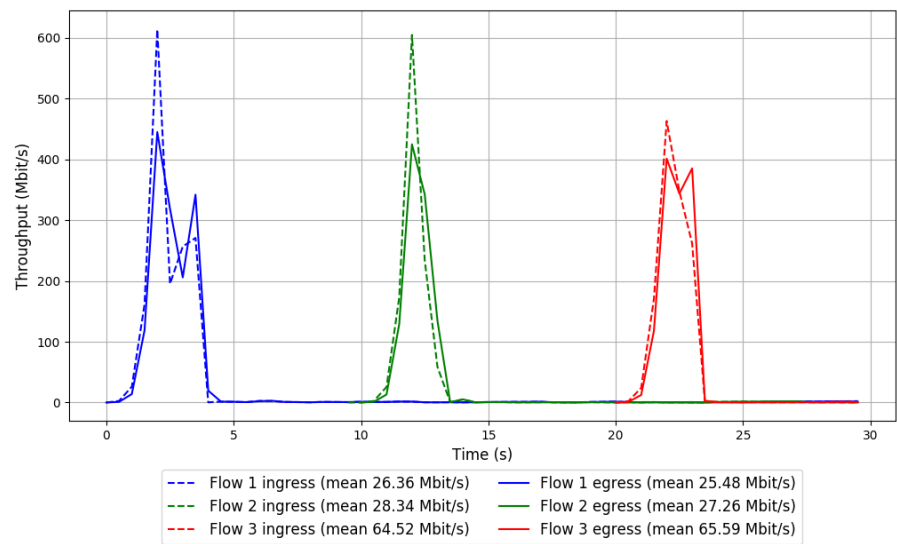


```
Run 10: Statistics of FillP

Start at: 2018-01-31 09:49:58
End at: 2018-01-31 09:50:28

# Below is generated by plot.py at 2018-01-31 13:48:07
# Datalink statistics
-- Total of 3 flows:
Average throughput: 64.95 Mbit/s
95th percentile per-packet one-way delay: 258.316 ms
Loss rate: 3.12%
-- Flow 1:
Average throughput: 25.48 Mbit/s
95th percentile per-packet one-way delay: 251.286 ms
Loss rate: 4.04%
-- Flow 2:
Average throughput: 27.26 Mbit/s
95th percentile per-packet one-way delay: 329.479 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 65.59 Mbit/s
95th percentile per-packet one-way delay: 215.229 ms
Loss rate: 0.55%
```

Run 10: Report of FillP — Data Link

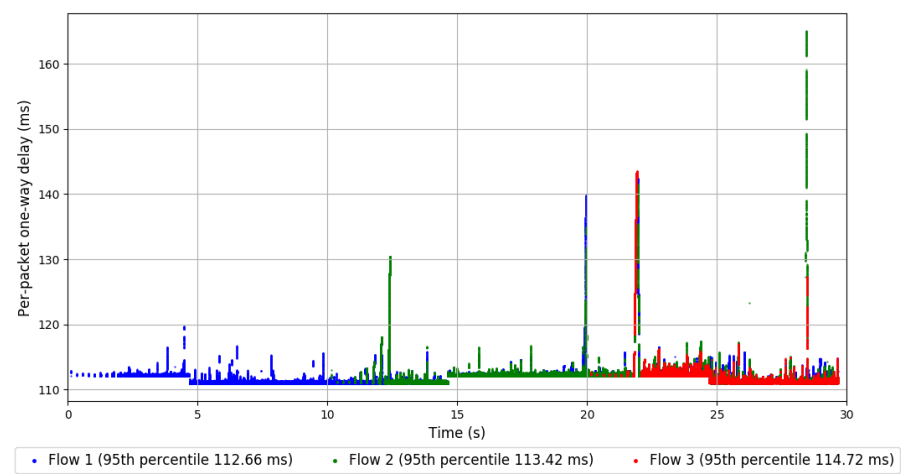
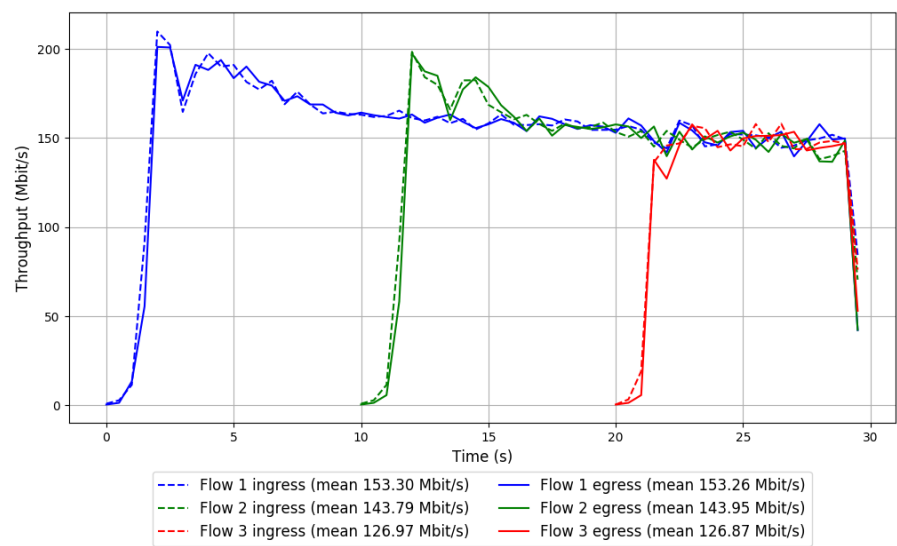


```
Run 1: Statistics of Indigo-1-32

Start at: 2018-01-31 07:18:48
End at: 2018-01-31 07:19:18

# Below is generated by plot.py at 2018-01-31 13:50:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 289.16 Mbit/s
95th percentile per-packet one-way delay: 113.074 ms
Loss rate: 1.09%
-- Flow 1:
Average throughput: 153.26 Mbit/s
95th percentile per-packet one-way delay: 112.660 ms
Loss rate: 0.77%
-- Flow 2:
Average throughput: 143.95 Mbit/s
95th percentile per-packet one-way delay: 113.415 ms
Loss rate: 1.03%
-- Flow 3:
Average throughput: 126.87 Mbit/s
95th percentile per-packet one-way delay: 114.715 ms
Loss rate: 2.38%
```

Run 1: Report of Indigo-1-32 — Data Link

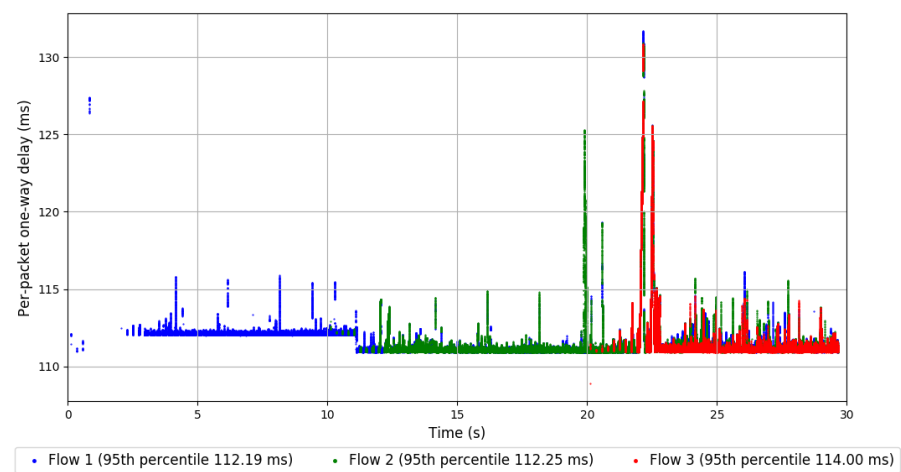
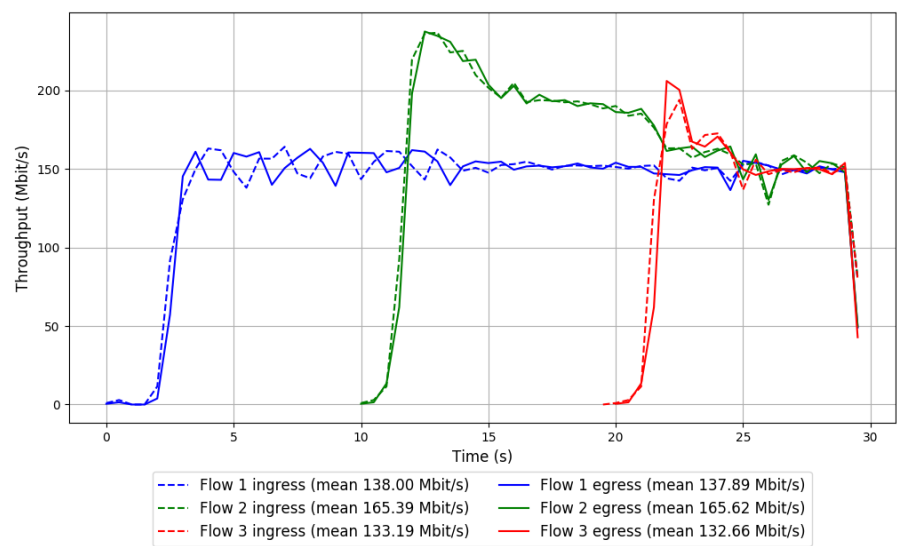


```
Run 2: Statistics of Indigo-1-32

Start at: 2018-01-31 07:36:31
End at: 2018-01-31 07:37:01

# Below is generated by plot.py at 2018-01-31 13:50:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 290.32 Mbit/s
95th percentile per-packet one-way delay: 112.253 ms
Loss rate: 1.17%
-- Flow 1:
Average throughput: 137.89 Mbit/s
95th percentile per-packet one-way delay: 112.195 ms
Loss rate: 0.83%
-- Flow 2:
Average throughput: 165.62 Mbit/s
95th percentile per-packet one-way delay: 112.245 ms
Loss rate: 1.02%
-- Flow 3:
Average throughput: 132.66 Mbit/s
95th percentile per-packet one-way delay: 113.999 ms
Loss rate: 2.63%
```

Run 2: Report of Indigo-1-32 — Data Link



Run 3: Statistics of Indigo-1-32

Start at: 2018-01-31 07:54:18

End at: 2018-01-31 07:54:48

Below is generated by plot.py at 2018-01-31 13:50:43

Datalink statistics

-- Total of 3 flows:

Average throughput: 271.29 Mbit/s

95th percentile per-packet one-way delay: 112.161 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 143.39 Mbit/s

95th percentile per-packet one-way delay: 111.925 ms

Loss rate: 0.80%

-- Flow 2:

Average throughput: 133.88 Mbit/s

95th percentile per-packet one-way delay: 112.031 ms

Loss rate: 1.16%

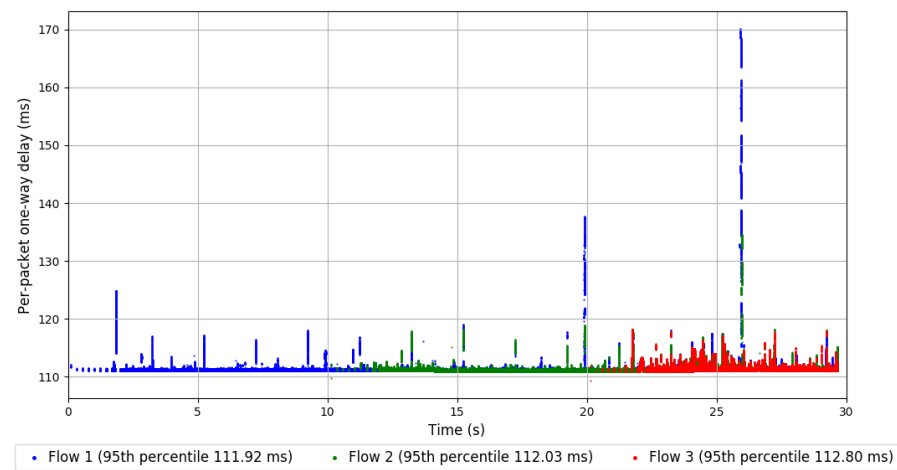
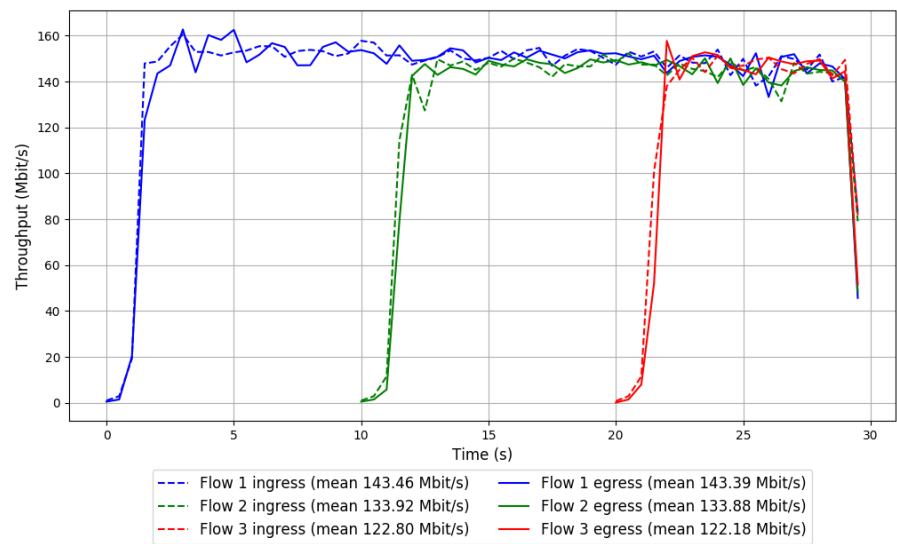
-- Flow 3:

Average throughput: 122.18 Mbit/s

95th percentile per-packet one-way delay: 112.803 ms

Loss rate: 2.78%

Run 3: Report of Indigo-1-32 — Data Link



Run 4: Statistics of Indigo-1-32

Start at: 2018-01-31 08:12:06

End at: 2018-01-31 08:12:36

Below is generated by plot.py at 2018-01-31 13:51:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 268.25 Mbit/s

95th percentile per-packet one-way delay: 112.552 ms

Loss rate: 1.23%

-- Flow 1:

Average throughput: 140.38 Mbit/s

95th percentile per-packet one-way delay: 112.070 ms

Loss rate: 0.82%

-- Flow 2:

Average throughput: 137.17 Mbit/s

95th percentile per-packet one-way delay: 113.707 ms

Loss rate: 1.20%

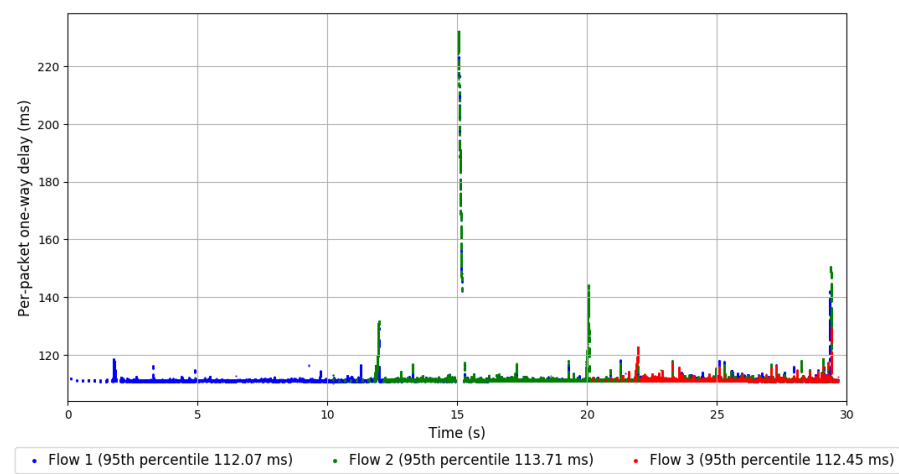
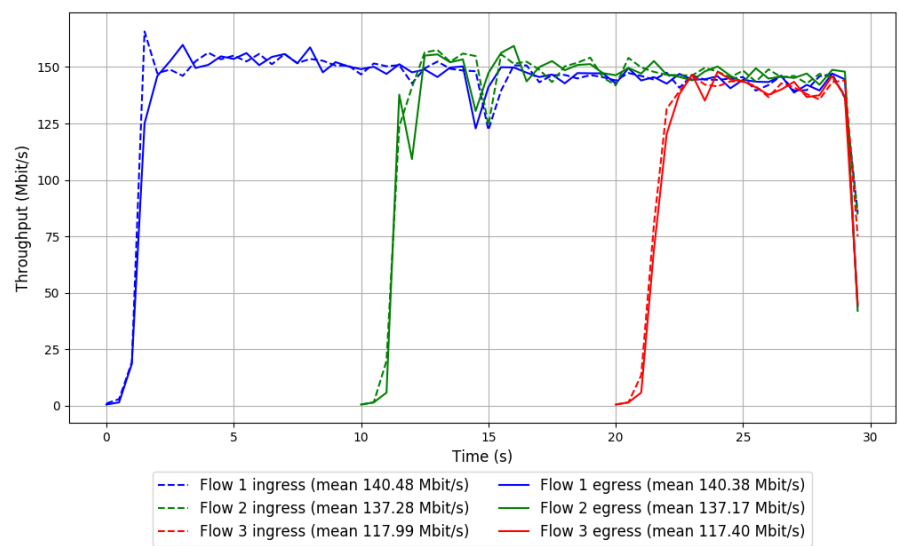
-- Flow 3:

Average throughput: 117.40 Mbit/s

95th percentile per-packet one-way delay: 112.451 ms

Loss rate: 2.81%

Run 4: Report of Indigo-1-32 — Data Link



Run 5: Statistics of Indigo-1-32

Start at: 2018-01-31 08:29:47

End at: 2018-01-31 08:30:17

Below is generated by plot.py at 2018-01-31 13:51:23

Datalink statistics

-- Total of 3 flows:

Average throughput: 263.45 Mbit/s

95th percentile per-packet one-way delay: 114.485 ms

Loss rate: 1.27%

-- Flow 1:

Average throughput: 137.88 Mbit/s

95th percentile per-packet one-way delay: 114.281 ms

Loss rate: 0.77%

-- Flow 2:

Average throughput: 138.55 Mbit/s

95th percentile per-packet one-way delay: 114.975 ms

Loss rate: 1.25%

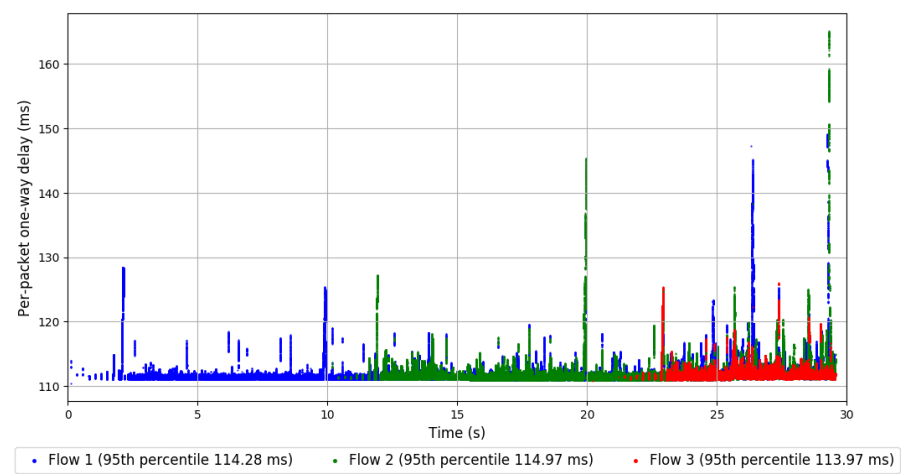
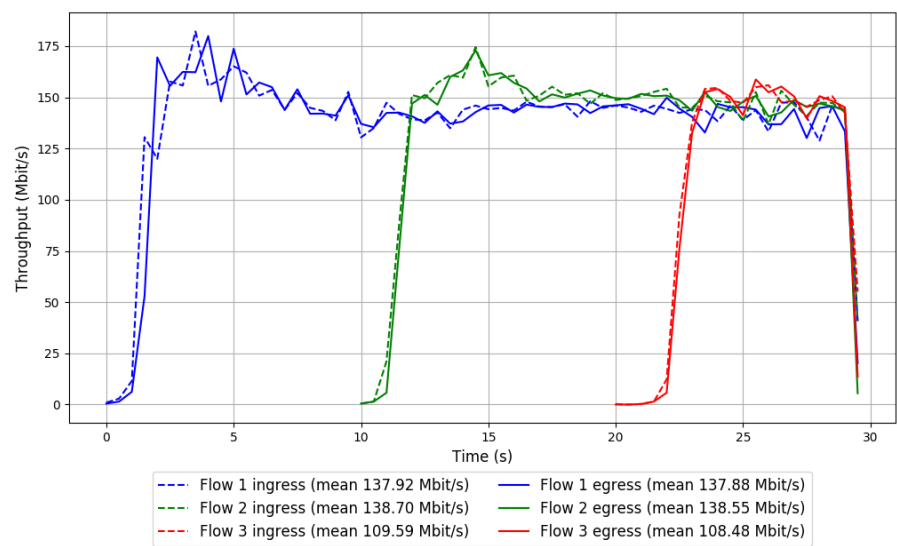
-- Flow 3:

Average throughput: 108.48 Mbit/s

95th percentile per-packet one-way delay: 113.972 ms

Loss rate: 3.30%

Run 5: Report of Indigo-1-32 — Data Link



Run 6: Statistics of Indigo-1-32

Start at: 2018-01-31 08:47:07

End at: 2018-01-31 08:47:37

Below is generated by plot.py at 2018-01-31 13:52:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 289.03 Mbit/s

95th percentile per-packet one-way delay: 115.076 ms

Loss rate: 1.14%

-- Flow 1:

Average throughput: 147.89 Mbit/s

95th percentile per-packet one-way delay: 114.073 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 150.12 Mbit/s

95th percentile per-packet one-way delay: 116.753 ms

Loss rate: 1.16%

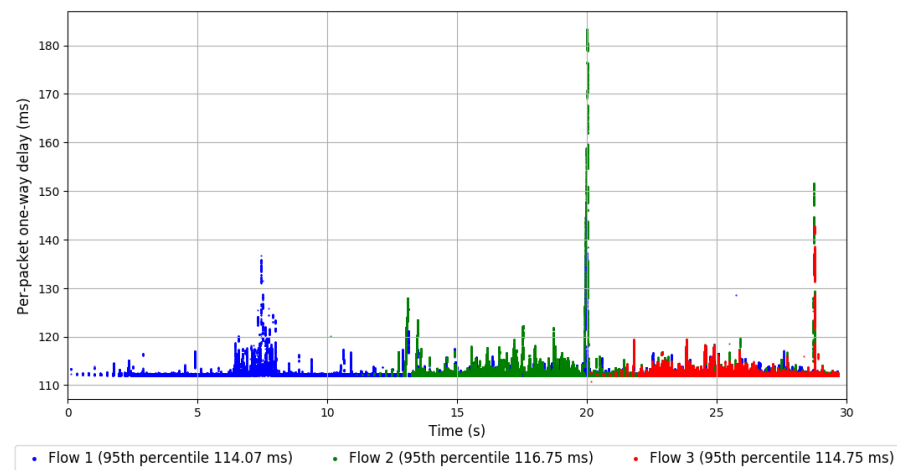
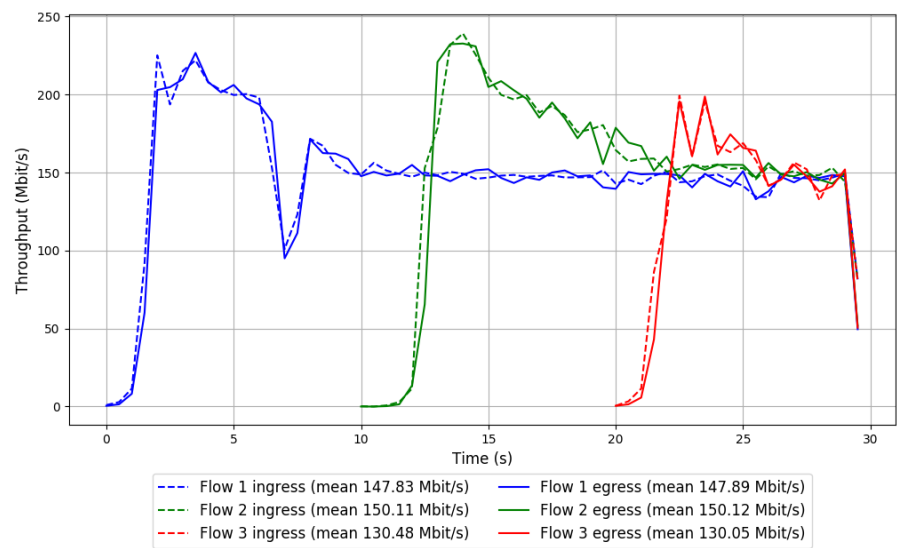
-- Flow 3:

Average throughput: 130.05 Mbit/s

95th percentile per-packet one-way delay: 114.751 ms

Loss rate: 2.61%

Run 6: Report of Indigo-1-32 — Data Link



Run 7: Statistics of Indigo-1-32

Start at: 2018-01-31 09:04:59

End at: 2018-01-31 09:05:29

Below is generated by plot.py at 2018-01-31 13:52:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 233.47 Mbit/s

95th percentile per-packet one-way delay: 112.783 ms

Loss rate: 1.02%

-- Flow 1:

Average throughput: 137.17 Mbit/s

95th percentile per-packet one-way delay: 112.684 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 132.96 Mbit/s

95th percentile per-packet one-way delay: 112.862 ms

Loss rate: 1.17%

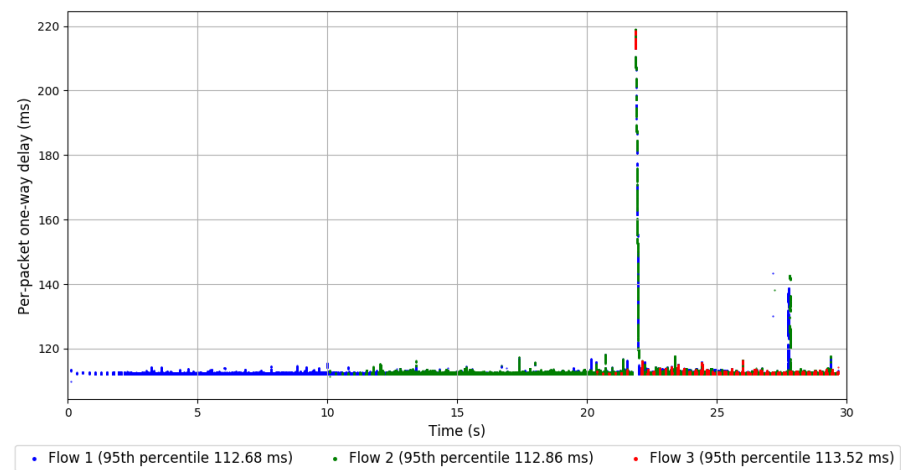
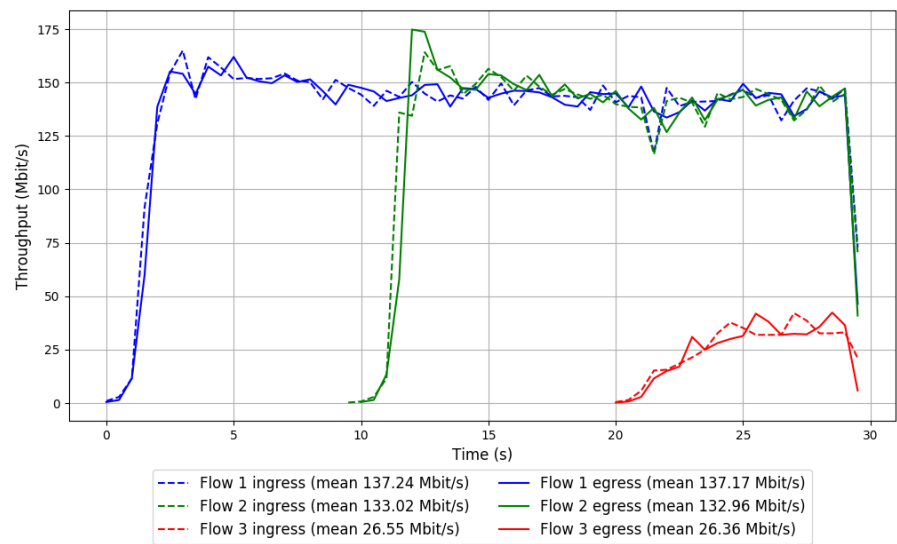
-- Flow 3:

Average throughput: 26.36 Mbit/s

95th percentile per-packet one-way delay: 113.524 ms

Loss rate: 3.01%

Run 7: Report of Indigo-1-32 — Data Link



Run 8: Statistics of Indigo-1-32

Start at: 2018-01-31 09:22:00

End at: 2018-01-31 09:22:30

Below is generated by plot.py at 2018-01-31 13:52:19

Datalink statistics

-- Total of 3 flows:

Average throughput: 249.96 Mbit/s

95th percentile per-packet one-way delay: 114.740 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 140.76 Mbit/s

95th percentile per-packet one-way delay: 114.160 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 137.33 Mbit/s

95th percentile per-packet one-way delay: 116.422 ms

Loss rate: 1.24%

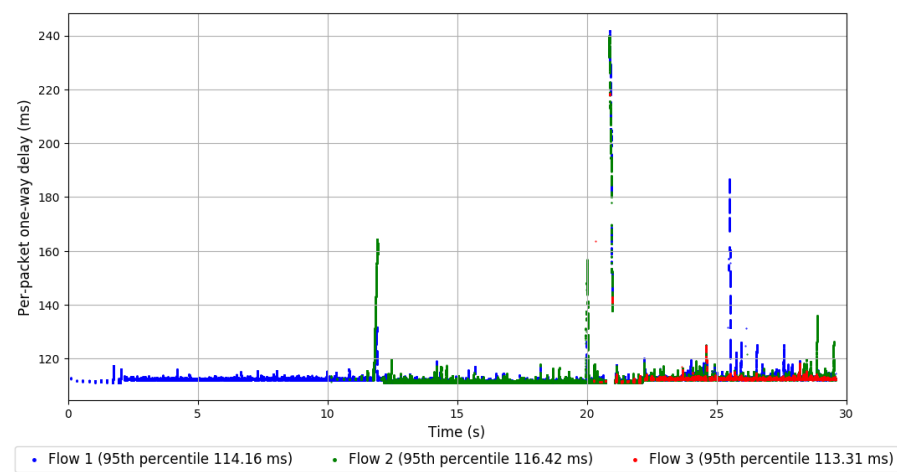
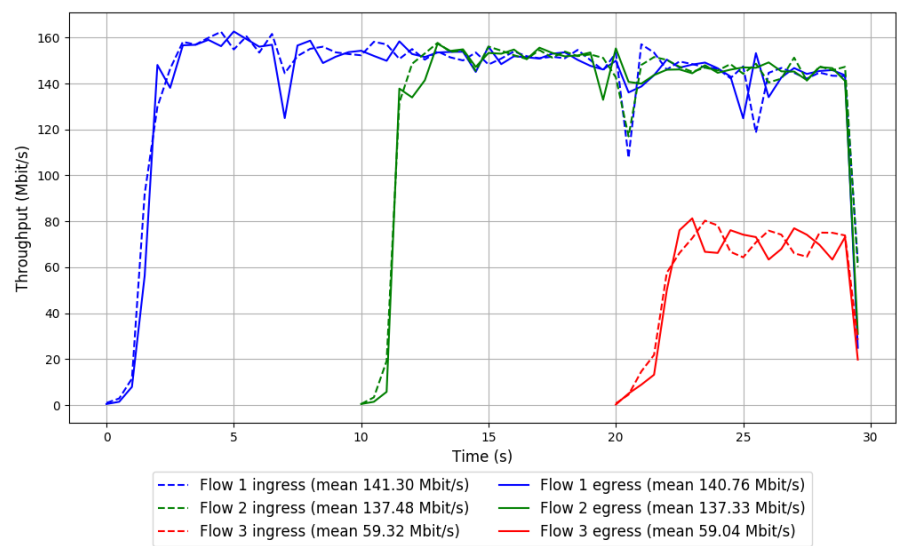
-- Flow 3:

Average throughput: 59.04 Mbit/s

95th percentile per-packet one-way delay: 113.314 ms

Loss rate: 2.84%

Run 8: Report of Indigo-1-32 — Data Link



Run 9: Statistics of Indigo-1-32

Start at: 2018-01-31 09:39:54

End at: 2018-01-31 09:40:24

Below is generated by plot.py at 2018-01-31 13:54:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 277.56 Mbit/s

95th percentile per-packet one-way delay: 112.675 ms

Loss rate: 1.41%

-- Flow 1:

Average throughput: 142.88 Mbit/s

95th percentile per-packet one-way delay: 112.407 ms

Loss rate: 1.21%

-- Flow 2:

Average throughput: 141.54 Mbit/s

95th percentile per-packet one-way delay: 112.667 ms

Loss rate: 1.13%

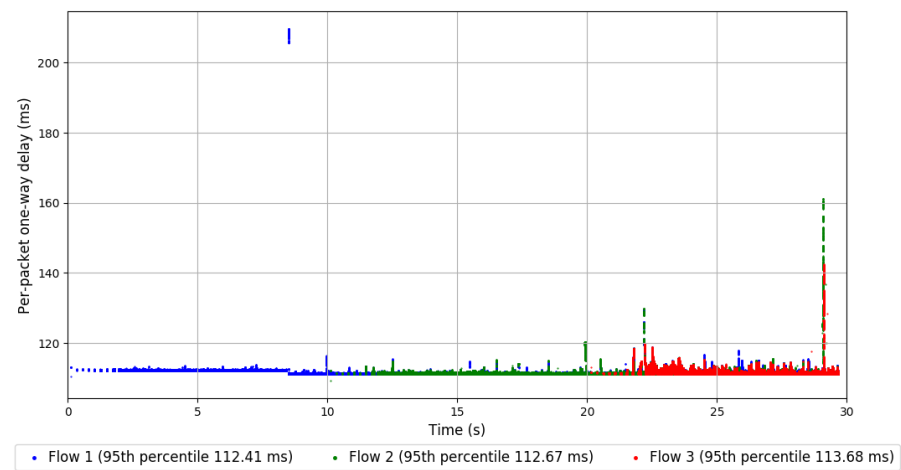
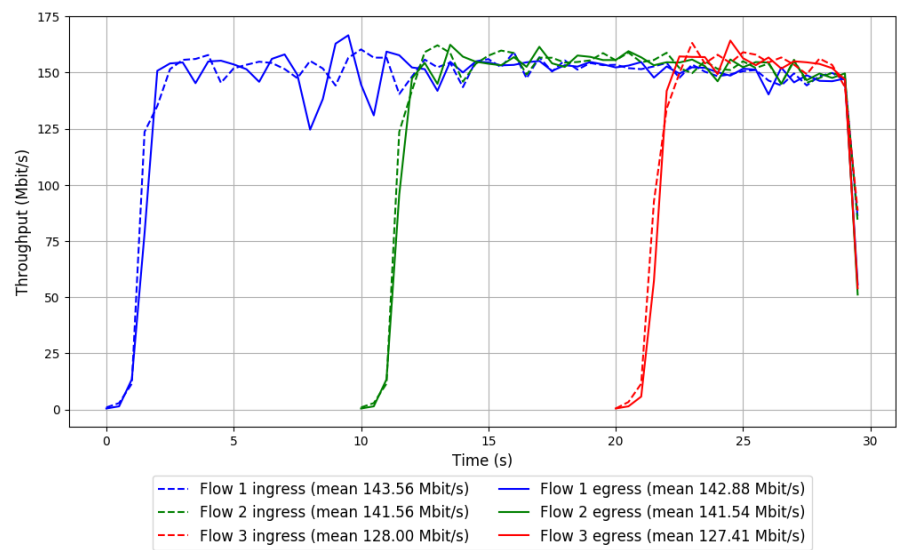
-- Flow 3:

Average throughput: 127.41 Mbit/s

95th percentile per-packet one-way delay: 113.679 ms

Loss rate: 2.73%

Run 9: Report of Indigo-1-32 — Data Link



Run 10: Statistics of Indigo-1-32

Start at: 2018-01-31 09:57:32

End at: 2018-01-31 09:58:02

Below is generated by plot.py at 2018-01-31 13:54:46

Datalink statistics

-- Total of 3 flows:

Average throughput: 279.71 Mbit/s

95th percentile per-packet one-way delay: 113.512 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 146.77 Mbit/s

95th percentile per-packet one-way delay: 113.113 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 136.80 Mbit/s

95th percentile per-packet one-way delay: 113.637 ms

Loss rate: 1.21%

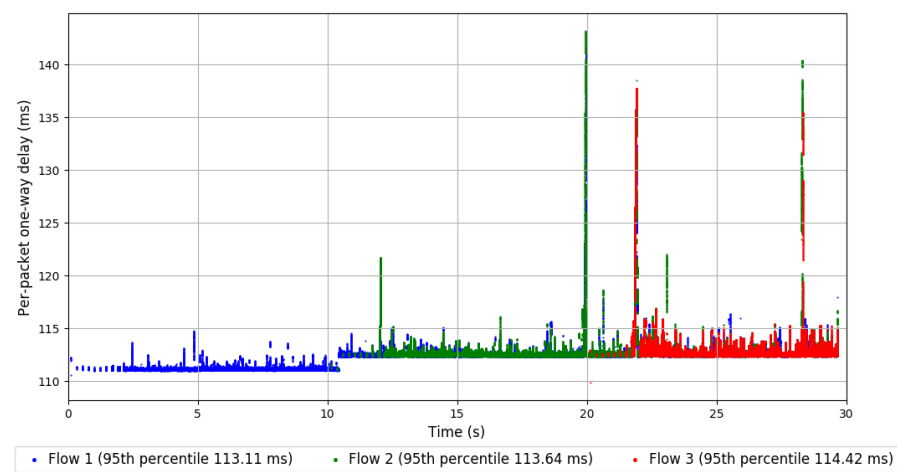
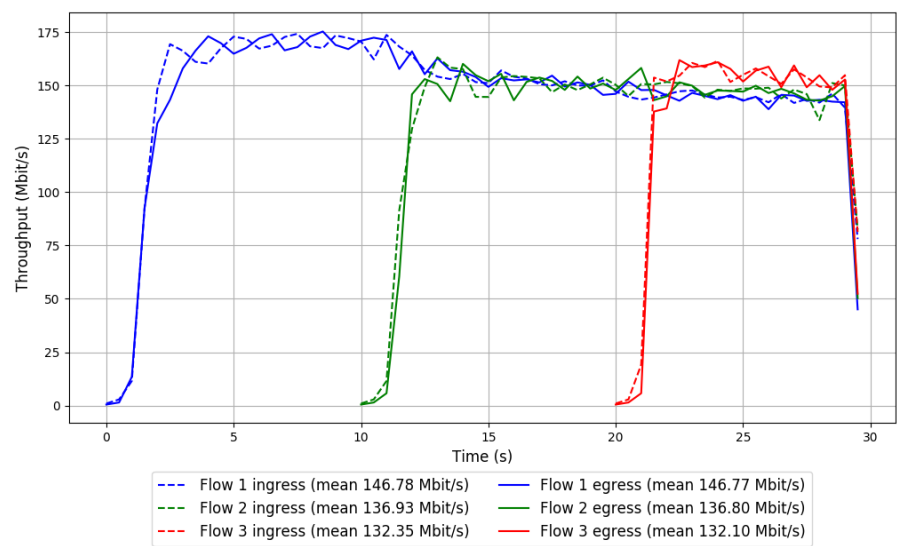
-- Flow 3:

Average throughput: 132.10 Mbit/s

95th percentile per-packet one-way delay: 114.419 ms

Loss rate: 2.45%

Run 10: Report of Indigo-1-32 — Data Link

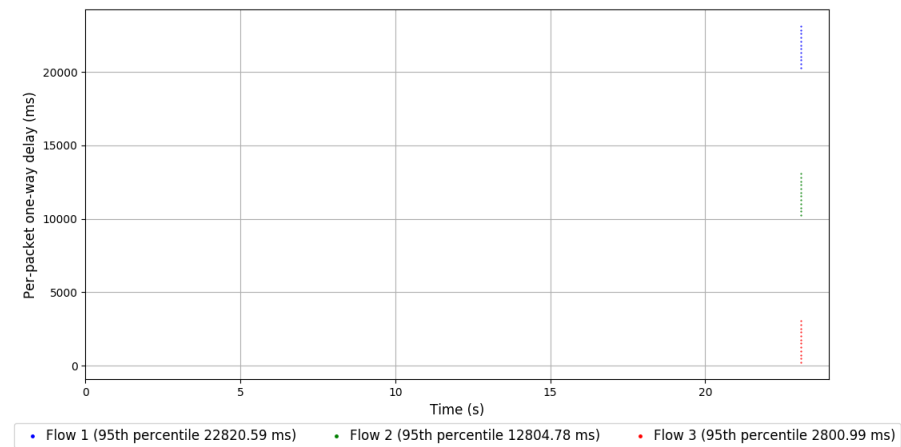
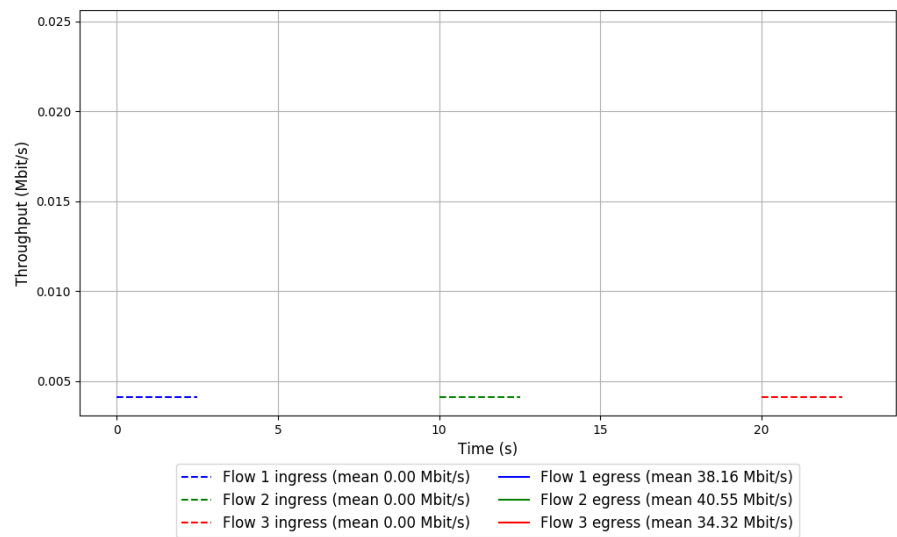


Run 1: Statistics of Vivace-latency

Start at: 2018-01-31 07:18:02

End at: 2018-01-31 07:18:32

Run 1: Report of Vivace-latency — Data Link



Run 2: Statistics of Vivace-latency

Start at: 2018-01-31 07:35:12

End at: 2018-01-31 07:35:42

Below is generated by plot.py at 2018-01-31 13:57:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 414.64 Mbit/s

95th percentile per-packet one-way delay: 115.073 ms

Loss rate: 1.65%

-- Flow 1:

Average throughput: 242.44 Mbit/s

95th percentile per-packet one-way delay: 111.858 ms

Loss rate: 1.05%

-- Flow 2:

Average throughput: 202.68 Mbit/s

95th percentile per-packet one-way delay: 119.171 ms

Loss rate: 2.18%

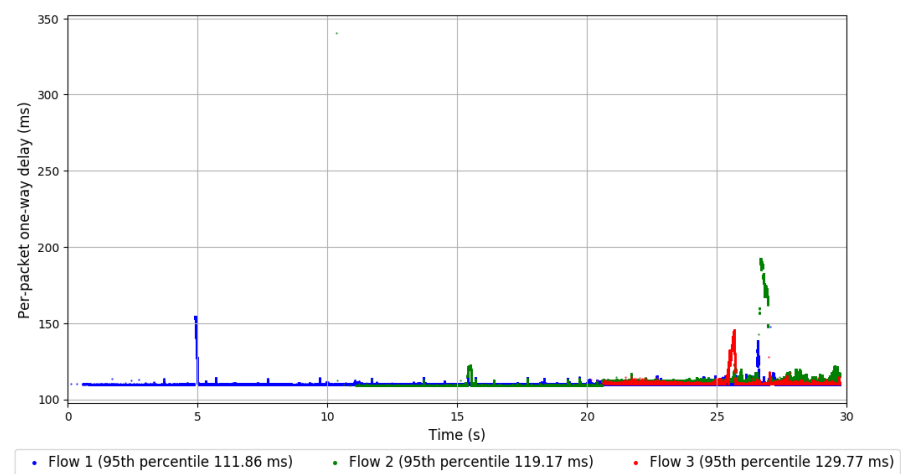
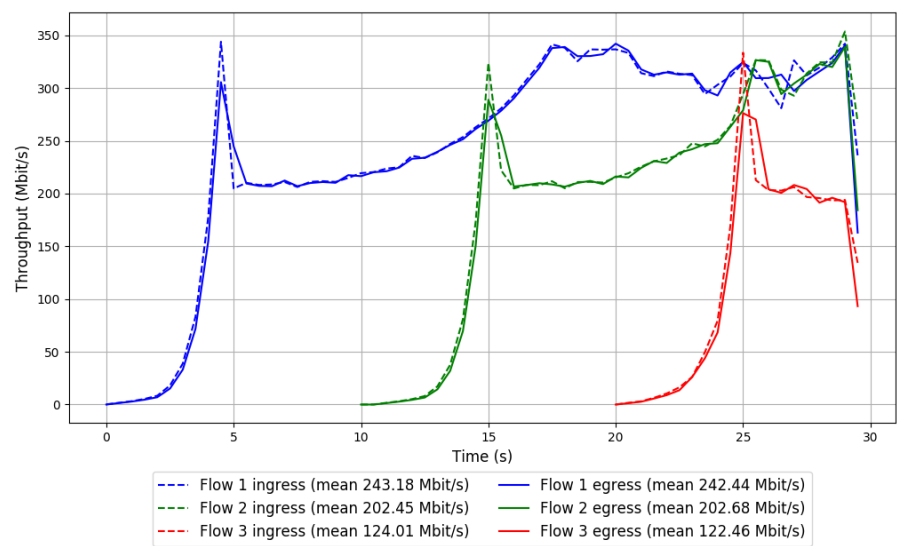
-- Flow 3:

Average throughput: 122.46 Mbit/s

95th percentile per-packet one-way delay: 129.771 ms

Loss rate: 3.49%

Run 2: Report of Vivace-latency — Data Link



Run 3: Statistics of Vivace-latency

Start at: 2018-01-31 07:53:01

End at: 2018-01-31 07:53:31

Below is generated by plot.py at 2018-01-31 13:57:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 380.23 Mbit/s

95th percentile per-packet one-way delay: 113.933 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 217.37 Mbit/s

95th percentile per-packet one-way delay: 121.641 ms

Loss rate: 0.72%

-- Flow 2:

Average throughput: 183.81 Mbit/s

95th percentile per-packet one-way delay: 112.194 ms

Loss rate: 1.50%

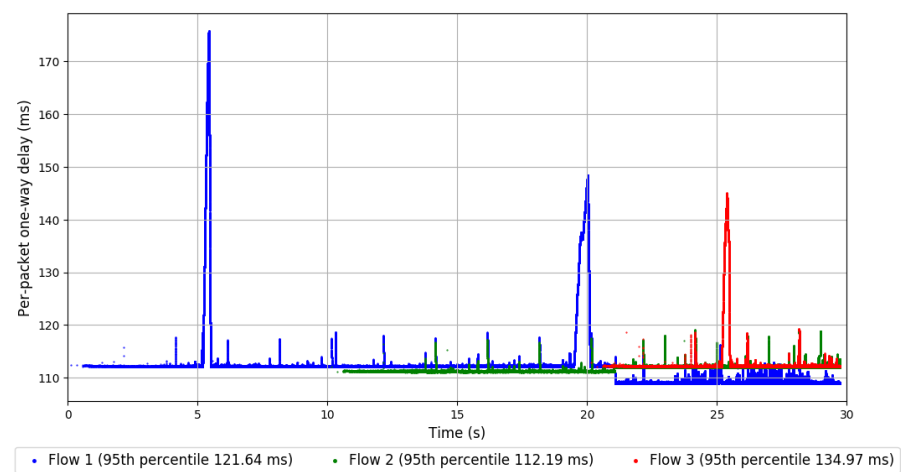
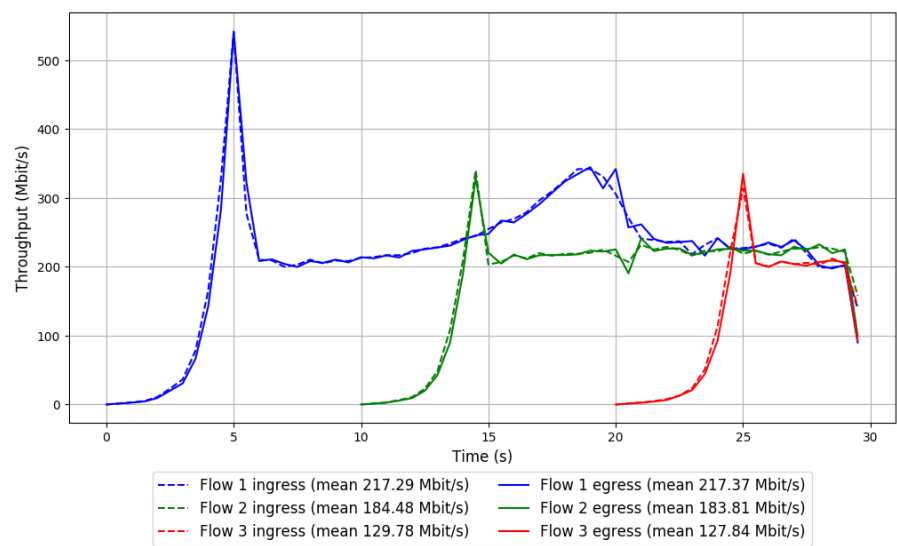
-- Flow 3:

Average throughput: 127.84 Mbit/s

95th percentile per-packet one-way delay: 134.971 ms

Loss rate: 3.77%

Run 3: Report of Vivace-latency — Data Link



Run 4: Statistics of Vivace-latency

Start at: 2018-01-31 08:10:49

End at: 2018-01-31 08:11:19

Below is generated by plot.py at 2018-01-31 13:57:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.84 Mbit/s

95th percentile per-packet one-way delay: 112.345 ms

Loss rate: 1.46%

-- Flow 1:

Average throughput: 228.73 Mbit/s

95th percentile per-packet one-way delay: 133.587 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 209.69 Mbit/s

95th percentile per-packet one-way delay: 109.099 ms

Loss rate: 1.56%

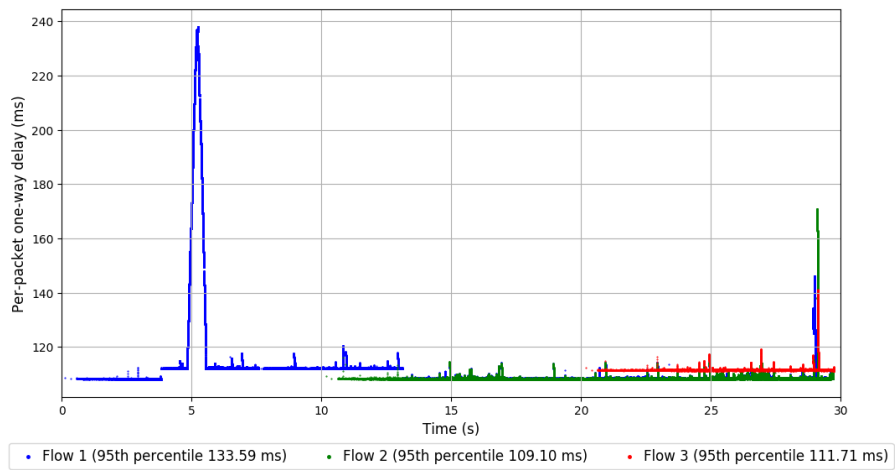
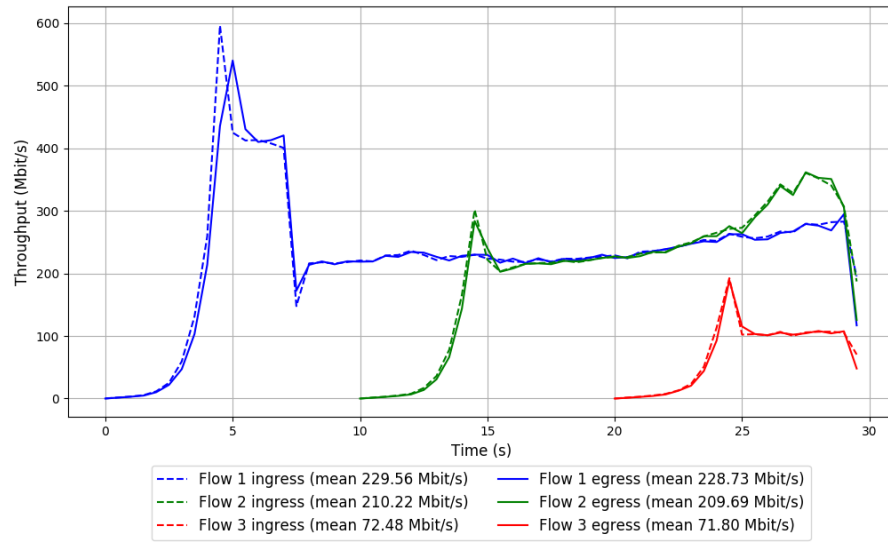
-- Flow 3:

Average throughput: 71.80 Mbit/s

95th percentile per-packet one-way delay: 111.709 ms

Loss rate: 3.21%

Run 4: Report of Vivace-latency — Data Link



Run 5: Statistics of Vivace-latency

Start at: 2018-01-31 08:28:31

End at: 2018-01-31 08:29:01

Below is generated by plot.py at 2018-01-31 13:57:47

Datalink statistics

-- Total of 3 flows:

Average throughput: 339.06 Mbit/s

95th percentile per-packet one-way delay: 121.175 ms

Loss rate: 1.25%

-- Flow 1:

Average throughput: 192.01 Mbit/s

95th percentile per-packet one-way delay: 116.709 ms

Loss rate: 0.76%

-- Flow 2:

Average throughput: 159.07 Mbit/s

95th percentile per-packet one-way delay: 113.644 ms

Loss rate: 1.32%

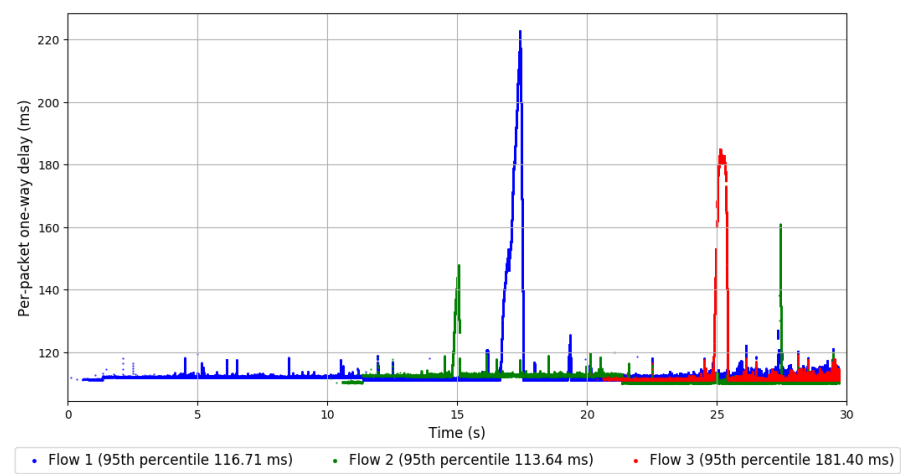
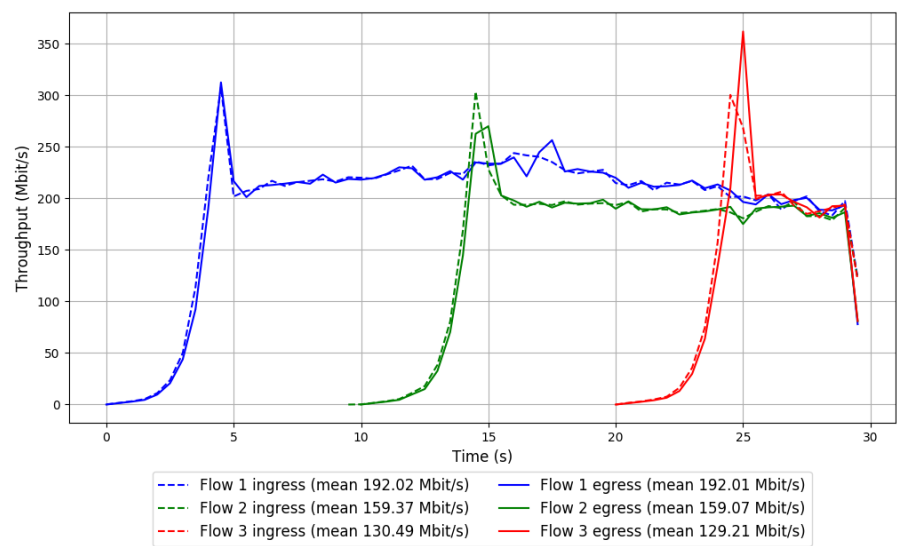
-- Flow 3:

Average throughput: 129.21 Mbit/s

95th percentile per-packet one-way delay: 181.400 ms

Loss rate: 3.25%

Run 5: Report of Vivace-latency — Data Link

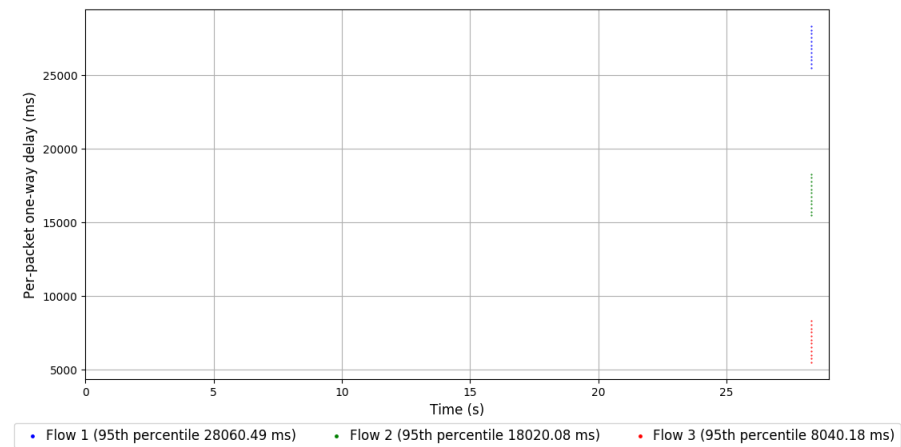
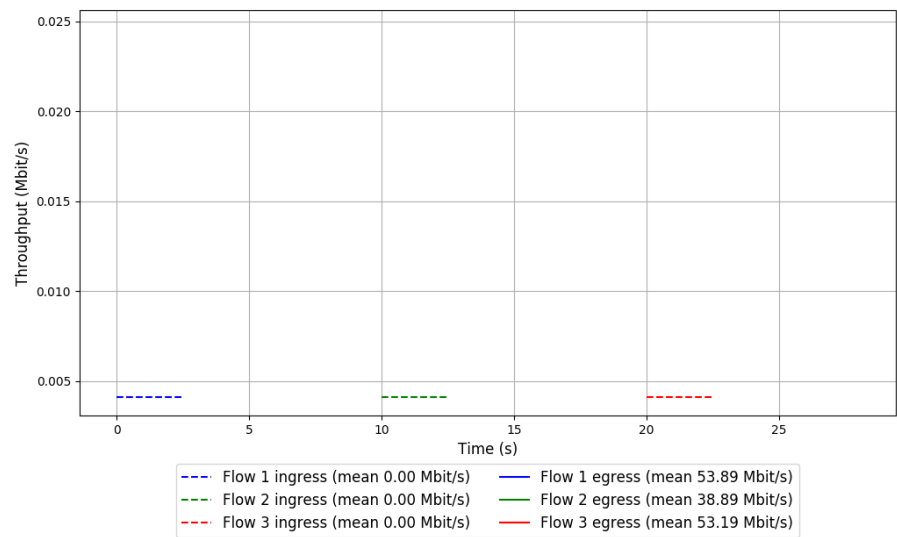


Run 6: Statistics of Vivace-latency

Start at: 2018-01-31 08:46:21

End at: 2018-01-31 08:46:51

Run 6: Report of Vivace-latency — Data Link



Run 7: Statistics of Vivace-latency

Start at: 2018-01-31 09:03:41

End at: 2018-01-31 09:04:11

Below is generated by plot.py at 2018-01-31 13:58:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 389.26 Mbit/s

95th percentile per-packet one-way delay: 111.986 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 225.68 Mbit/s

95th percentile per-packet one-way delay: 112.071 ms

Loss rate: 0.71%

-- Flow 2:

Average throughput: 186.35 Mbit/s

95th percentile per-packet one-way delay: 110.117 ms

Loss rate: 1.32%

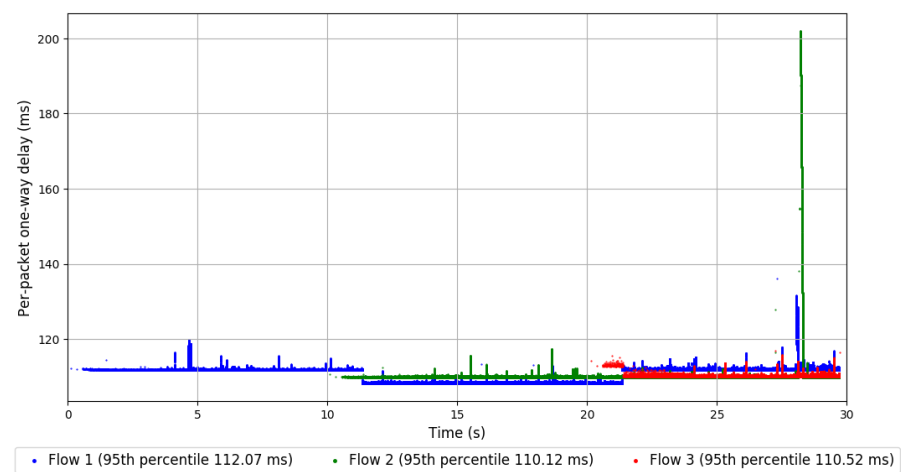
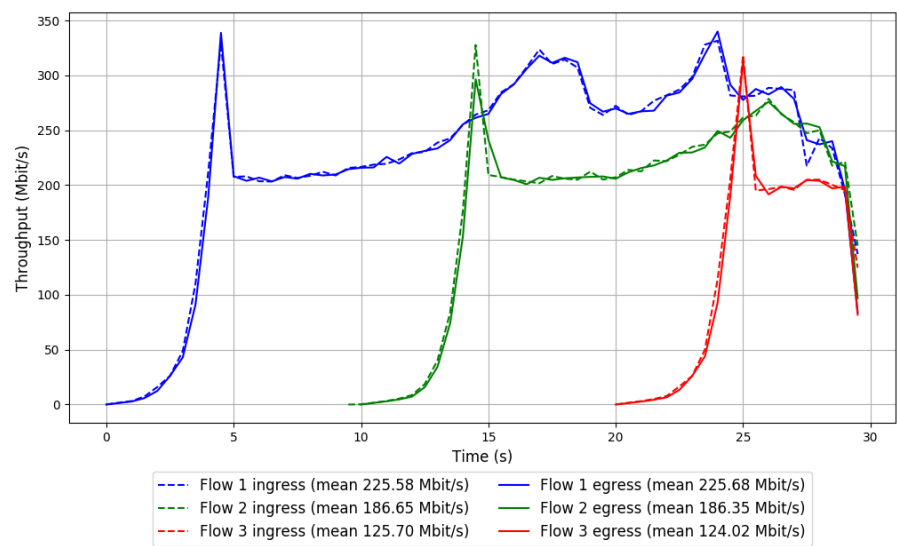
-- Flow 3:

Average throughput: 124.02 Mbit/s

95th percentile per-packet one-way delay: 110.521 ms

Loss rate: 3.55%

Run 7: Report of Vivace-latency — Data Link

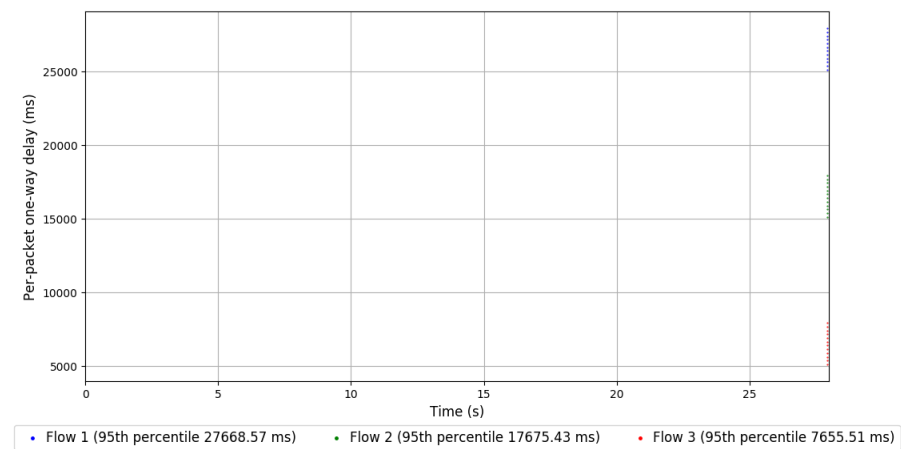
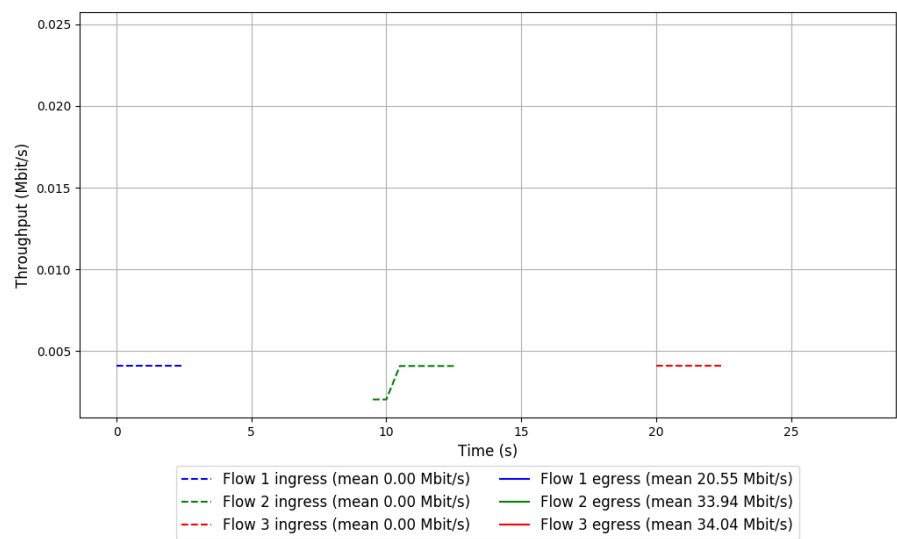


Run 8: Statistics of Vivace-latency

Start at: 2018-01-31 09:21:14

End at: 2018-01-31 09:21:44

Run 8: Report of Vivace-latency — Data Link



Run 9: Statistics of Vivace-latency

Start at: 2018-01-31 09:38:35

End at: 2018-01-31 09:39:05

Below is generated by plot.py at 2018-01-31 13:59:02

Datalink statistics

-- Total of 3 flows:

Average throughput: 404.59 Mbit/s

95th percentile per-packet one-way delay: 112.635 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 243.86 Mbit/s

95th percentile per-packet one-way delay: 110.632 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 182.60 Mbit/s

95th percentile per-packet one-way delay: 111.348 ms

Loss rate: 1.91%

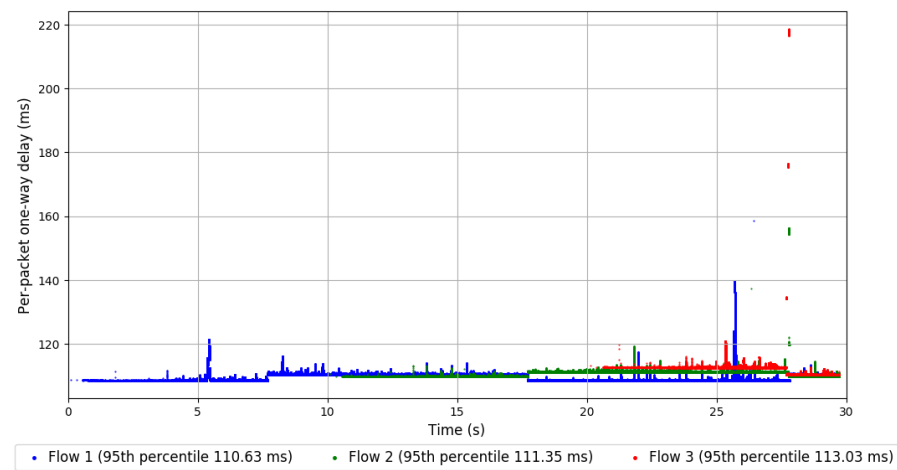
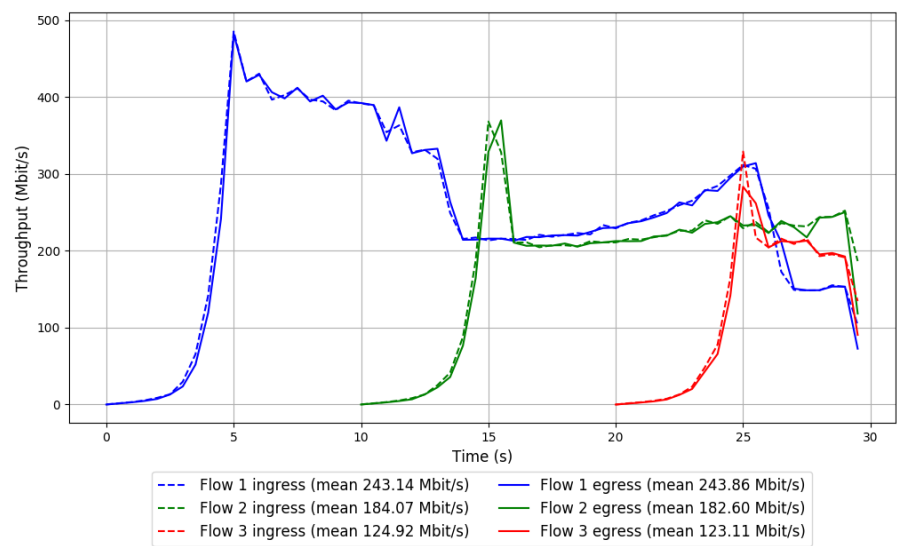
-- Flow 3:

Average throughput: 123.11 Mbit/s

95th percentile per-packet one-way delay: 113.034 ms

Loss rate: 3.69%

Run 9: Report of Vivace-latency — Data Link



Run 10: Statistics of Vivace-latency

Start at: 2018-01-31 09:56:11

End at: 2018-01-31 09:56:41

Below is generated by plot.py at 2018-01-31 14:02:26

Datalink statistics

-- Total of 3 flows:

Average throughput: 440.40 Mbit/s

95th percentile per-packet one-way delay: 113.042 ms

Loss rate: 1.20%

-- Flow 1:

Average throughput: 281.15 Mbit/s

95th percentile per-packet one-way delay: 113.267 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 178.54 Mbit/s

95th percentile per-packet one-way delay: 112.984 ms

Loss rate: 1.64%

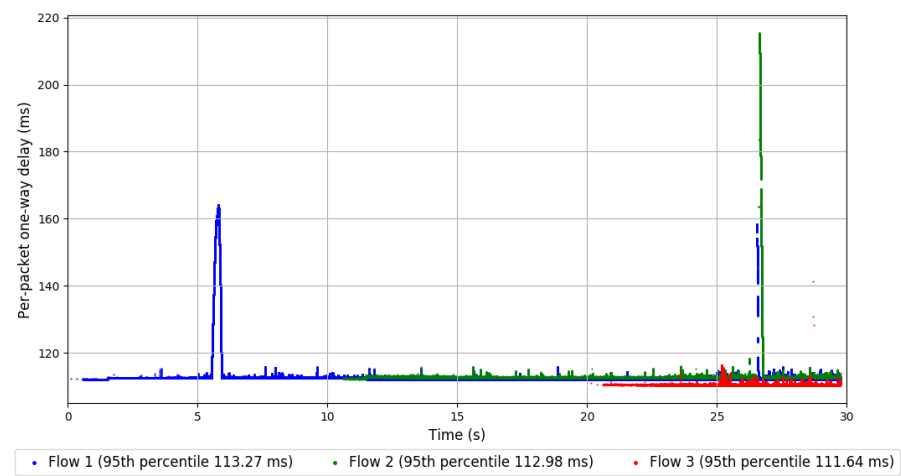
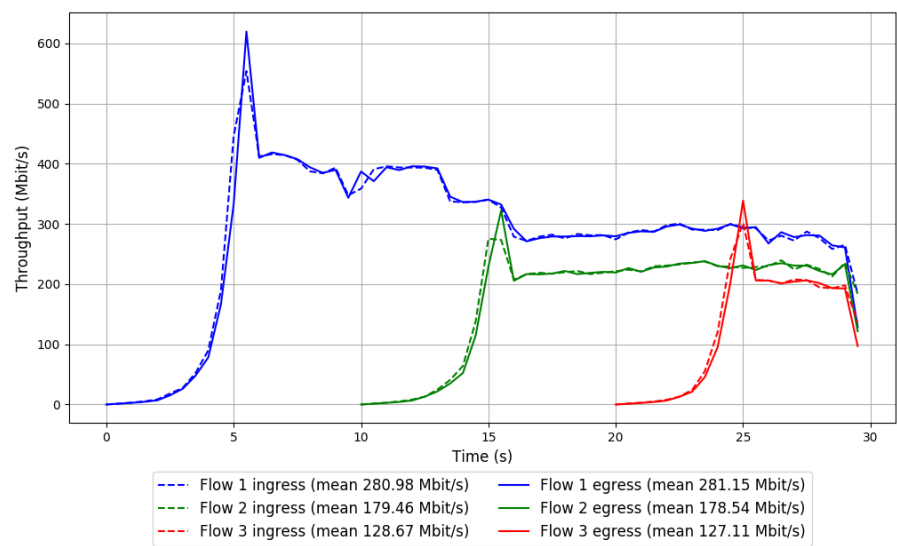
-- Flow 3:

Average throughput: 127.11 Mbit/s

95th percentile per-packet one-way delay: 111.636 ms

Loss rate: 3.40%

Run 10: Report of Vivace-latency — Data Link

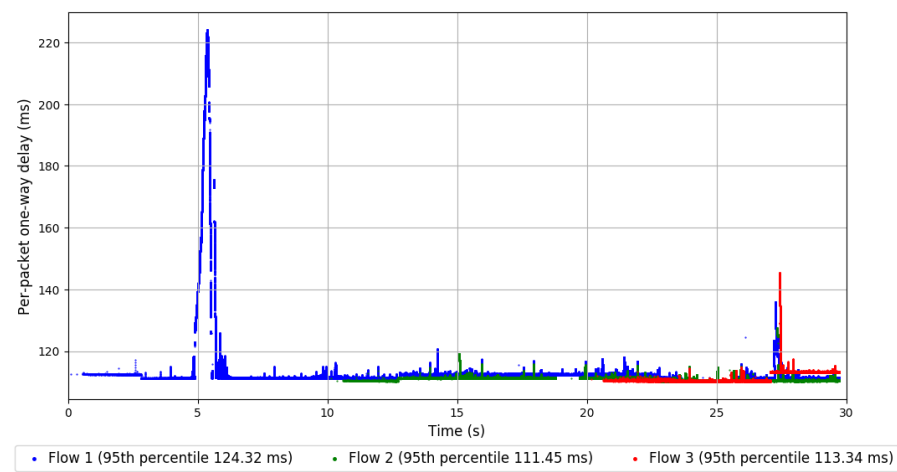
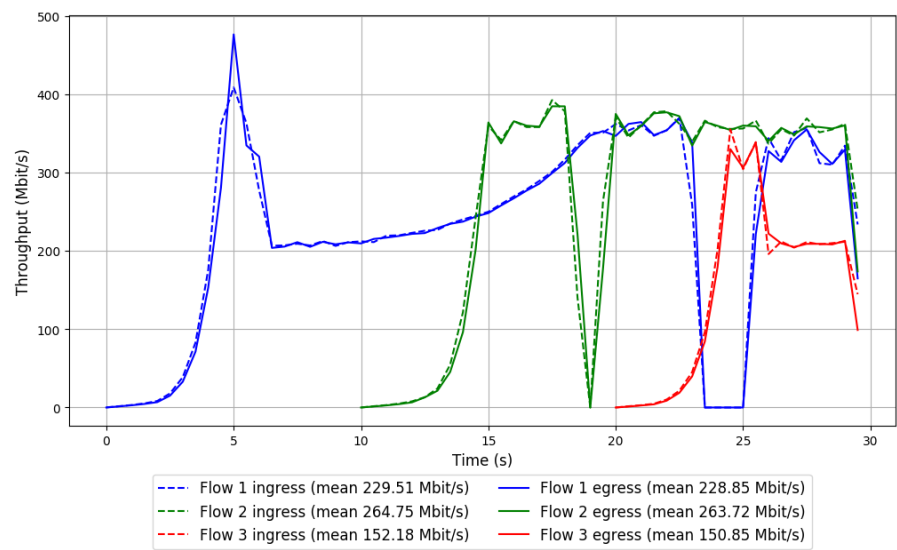


```
Run 1: Statistics of Vivace-loss

Start at: 2018-01-31 07:16:40
End at: 2018-01-31 07:17:10

# Below is generated by plot.py at 2018-01-31 14:02:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 452.04 Mbit/s
95th percentile per-packet one-way delay: 113.493 ms
Loss rate: 1.45%
-- Flow 1:
Average throughput: 228.85 Mbit/s
95th percentile per-packet one-way delay: 124.319 ms
Loss rate: 1.04%
-- Flow 2:
Average throughput: 263.72 Mbit/s
95th percentile per-packet one-way delay: 111.452 ms
Loss rate: 1.52%
-- Flow 3:
Average throughput: 150.85 Mbit/s
95th percentile per-packet one-way delay: 113.338 ms
Loss rate: 3.14%
```

Run 1: Report of Vivace-loss — Data Link



Run 2: Statistics of Vivace-loss

Start at: 2018-01-31 07:33:59

End at: 2018-01-31 07:34:29

Below is generated by plot.py at 2018-01-31 14:02:56

Datalink statistics

-- Total of 3 flows:

Average throughput: 323.11 Mbit/s

95th percentile per-packet one-way delay: 191.714 ms

Loss rate: 1.03%

-- Flow 1:

Average throughput: 157.29 Mbit/s

95th percentile per-packet one-way delay: 231.248 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 191.42 Mbit/s

95th percentile per-packet one-way delay: 139.599 ms

Loss rate: 1.52%

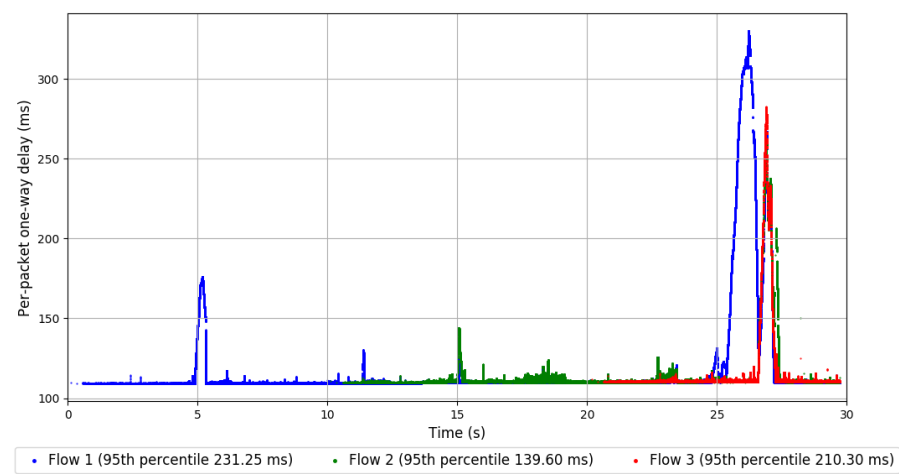
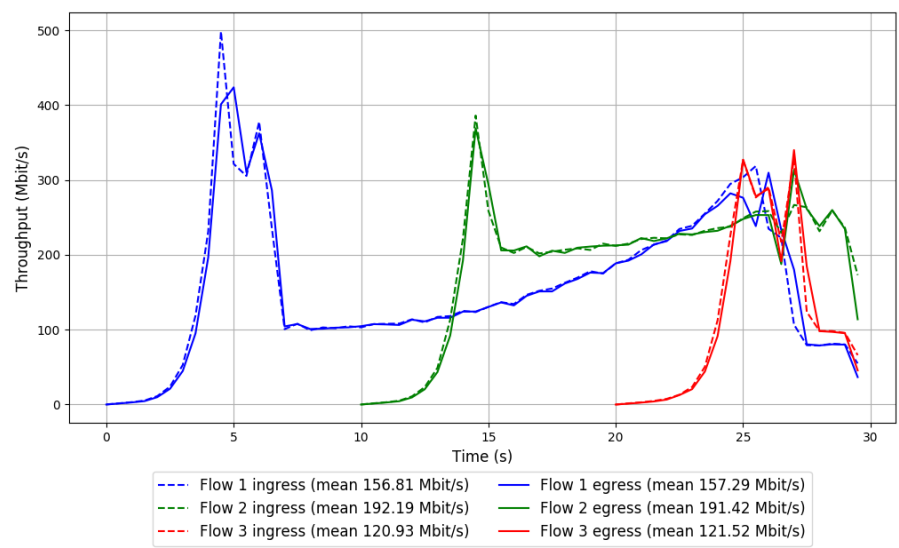
-- Flow 3:

Average throughput: 121.52 Mbit/s

95th percentile per-packet one-way delay: 210.299 ms

Loss rate: 1.84%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-31 07:51:41

End at: 2018-01-31 07:52:11

Below is generated by plot.py at 2018-01-31 14:04:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 419.16 Mbit/s

95th percentile per-packet one-way delay: 141.411 ms

Loss rate: 1.10%

-- Flow 1:

Average throughput: 247.12 Mbit/s

95th percentile per-packet one-way delay: 128.347 ms

Loss rate: 0.49%

-- Flow 2:

Average throughput: 195.05 Mbit/s

95th percentile per-packet one-way delay: 209.109 ms

Loss rate: 1.42%

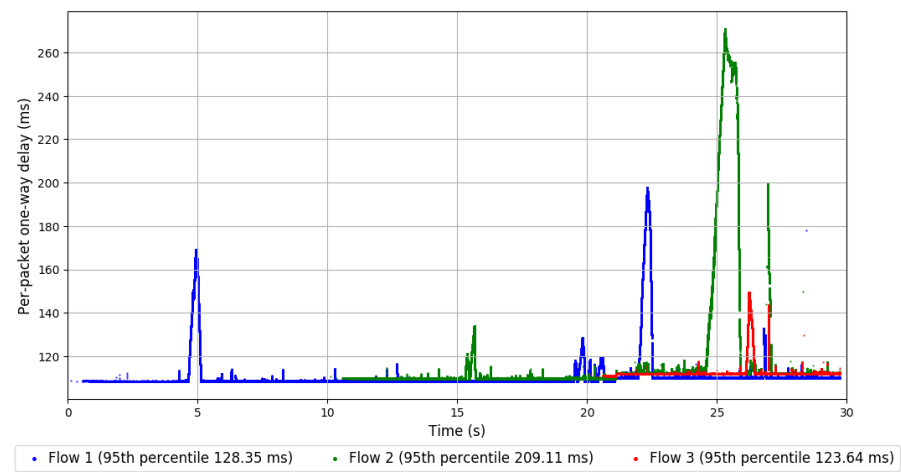
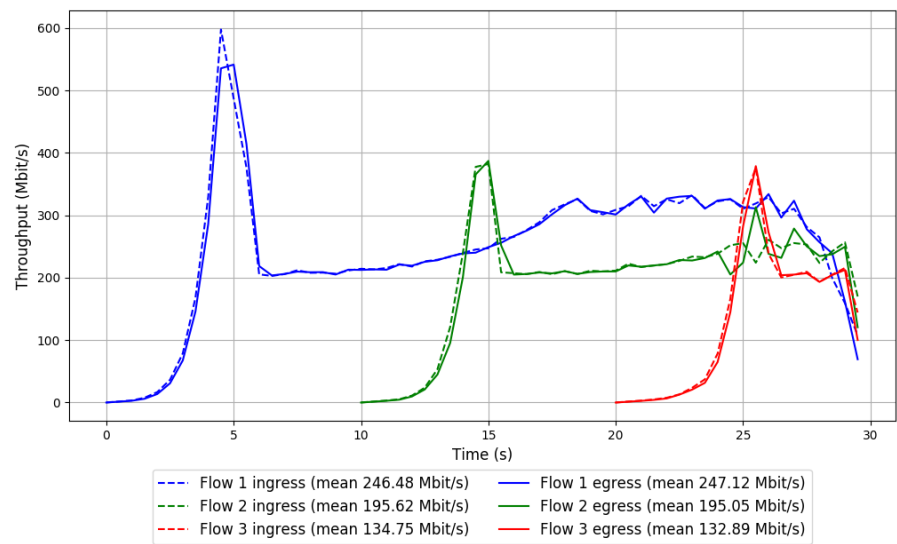
-- Flow 3:

Average throughput: 132.89 Mbit/s

95th percentile per-packet one-way delay: 123.636 ms

Loss rate: 3.57%

Run 3: Report of Vivace-loss — Data Link



Run 4: Statistics of Vivace-loss

Start at: 2018-01-31 08:09:26

End at: 2018-01-31 08:09:56

Below is generated by plot.py at 2018-01-31 14:05:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 445.82 Mbit/s

95th percentile per-packet one-way delay: 121.896 ms

Loss rate: 1.24%

-- Flow 1:

Average throughput: 260.73 Mbit/s

95th percentile per-packet one-way delay: 118.025 ms

Loss rate: 0.87%

-- Flow 2:

Average throughput: 194.51 Mbit/s

95th percentile per-packet one-way delay: 111.702 ms

Loss rate: 1.79%

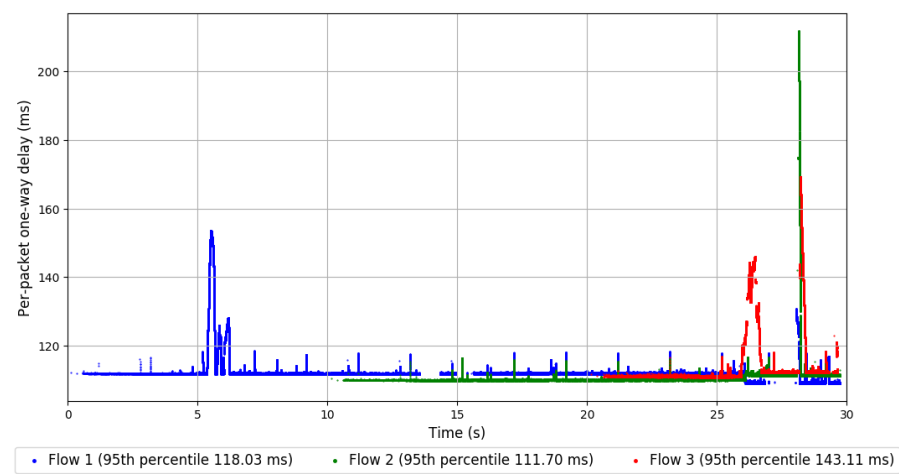
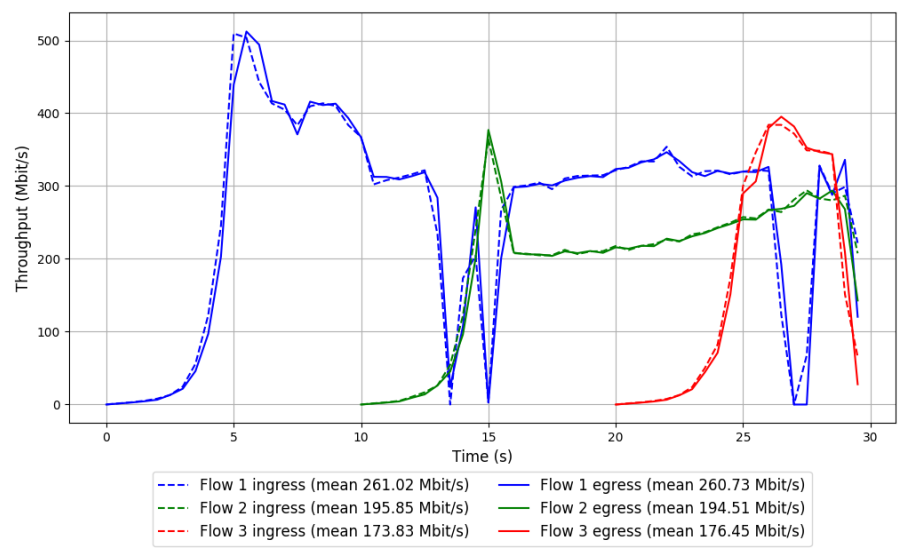
-- Flow 3:

Average throughput: 176.45 Mbit/s

95th percentile per-packet one-way delay: 143.113 ms

Loss rate: 1.68%

Run 4: Report of Vivace-loss — Data Link



Run 5: Statistics of Vivace-loss

Start at: 2018-01-31 08:27:18

End at: 2018-01-31 08:27:48

Below is generated by plot.py at 2018-01-31 14:05:06

Datalink statistics

-- Total of 3 flows:

Average throughput: 327.84 Mbit/s

95th percentile per-packet one-way delay: 112.493 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 230.05 Mbit/s

95th percentile per-packet one-way delay: 112.155 ms

Loss rate: 0.68%

-- Flow 2:

Average throughput: 77.23 Mbit/s

95th percentile per-packet one-way delay: 111.174 ms

Loss rate: 1.29%

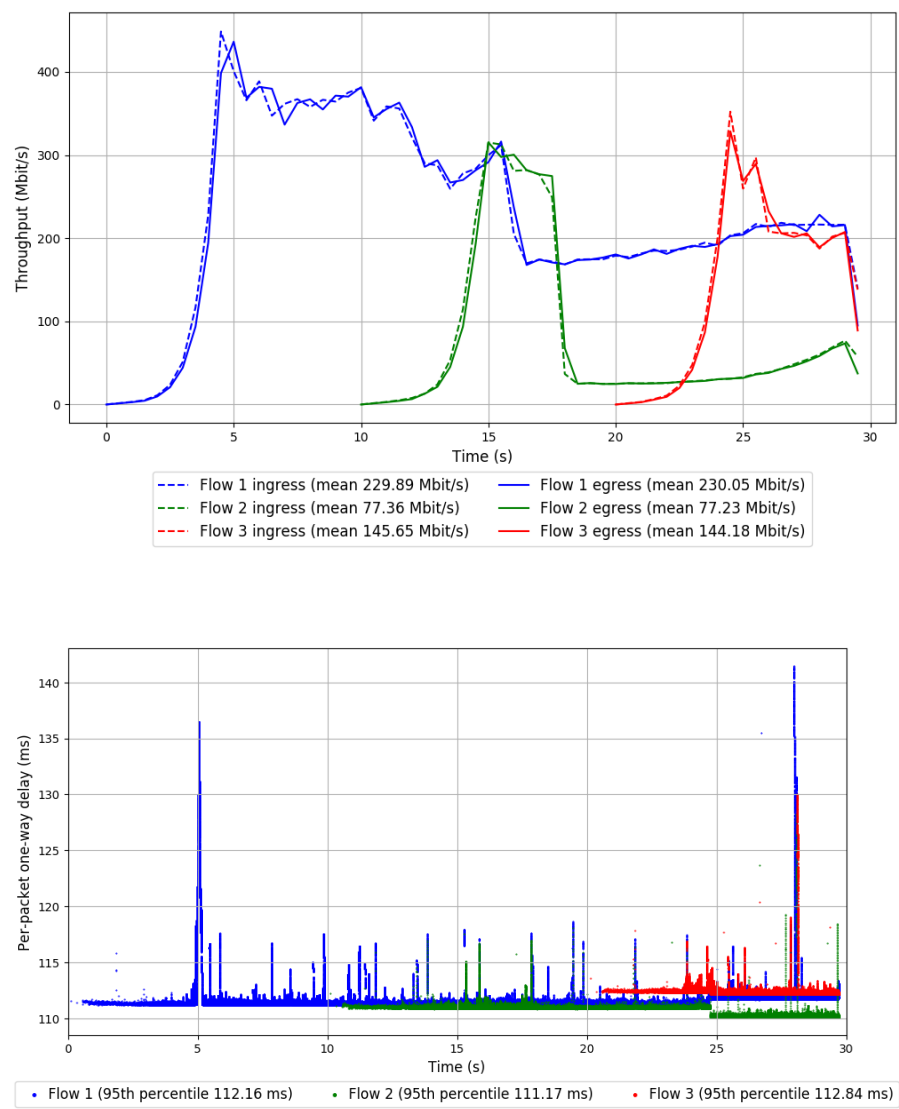
-- Flow 3:

Average throughput: 144.18 Mbit/s

95th percentile per-packet one-way delay: 112.836 ms

Loss rate: 3.30%

Run 5: Report of Vivace-loss — Data Link



Run 6: Statistics of Vivace-loss

Start at: 2018-01-31 08:45:03

End at: 2018-01-31 08:45:33

Below is generated by plot.py at 2018-01-31 14:05:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 383.28 Mbit/s

95th percentile per-packet one-way delay: 217.937 ms

Loss rate: 4.61%

-- Flow 1:

Average throughput: 214.75 Mbit/s

95th percentile per-packet one-way delay: 292.602 ms

Loss rate: 3.03%

-- Flow 2:

Average throughput: 197.92 Mbit/s

95th percentile per-packet one-way delay: 112.736 ms

Loss rate: 6.52%

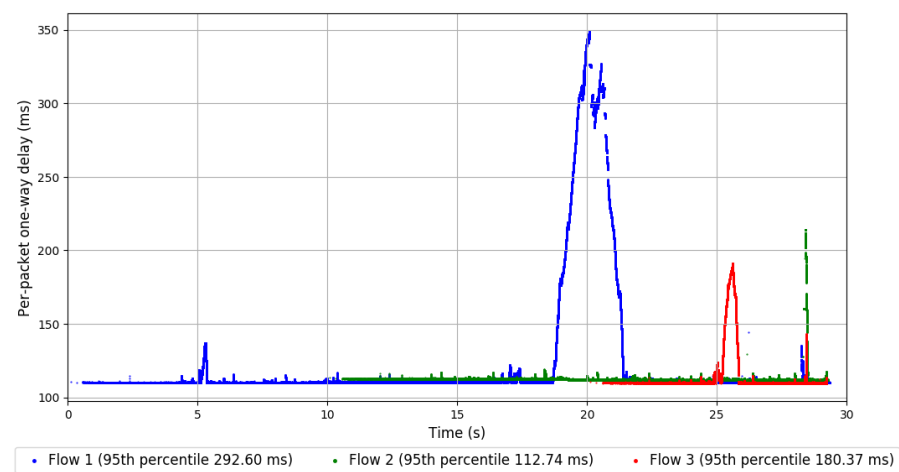
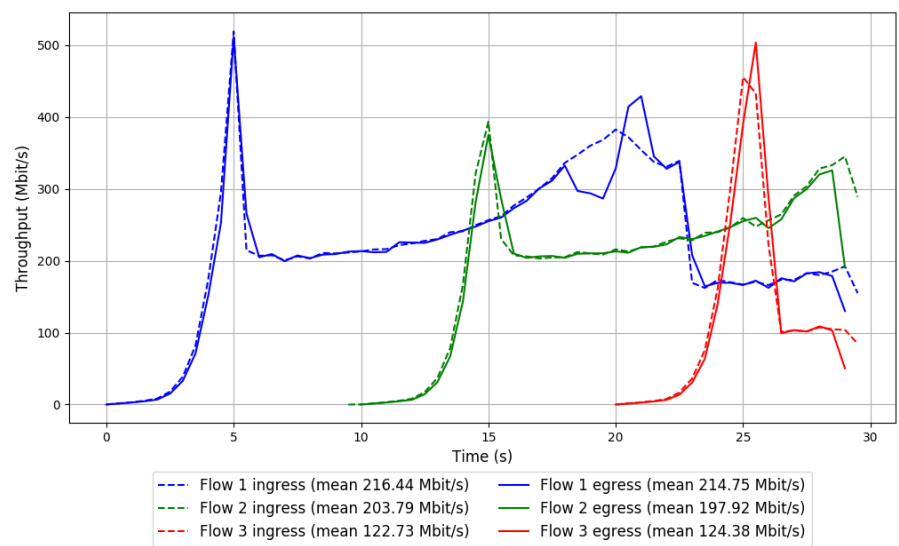
-- Flow 3:

Average throughput: 124.38 Mbit/s

95th percentile per-packet one-way delay: 180.370 ms

Loss rate: 6.68%

Run 6: Report of Vivace-loss — Data Link



Run 7: Statistics of Vivace-loss

Start at: 2018-01-31 09:02:22

End at: 2018-01-31 09:02:52

Below is generated by plot.py at 2018-01-31 14:06:10

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.15 Mbit/s

95th percentile per-packet one-way delay: 112.951 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 233.99 Mbit/s

95th percentile per-packet one-way delay: 114.656 ms

Loss rate: 0.74%

-- Flow 2:

Average throughput: 194.46 Mbit/s

95th percentile per-packet one-way delay: 110.475 ms

Loss rate: 1.72%

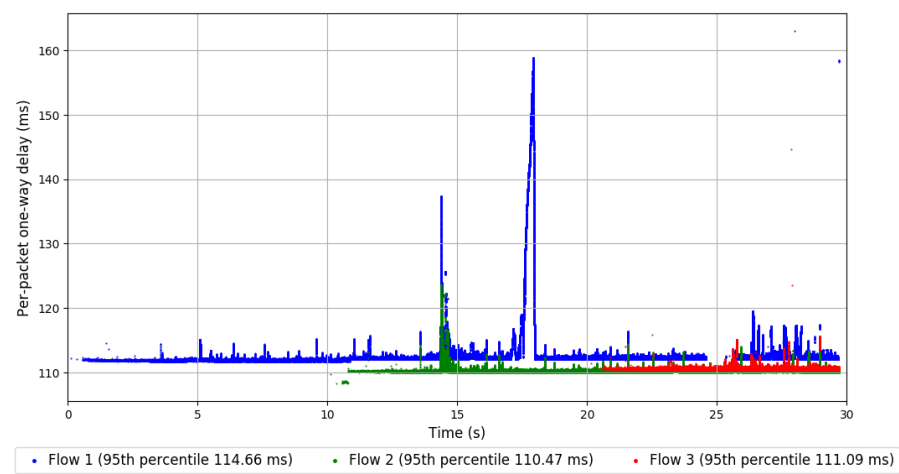
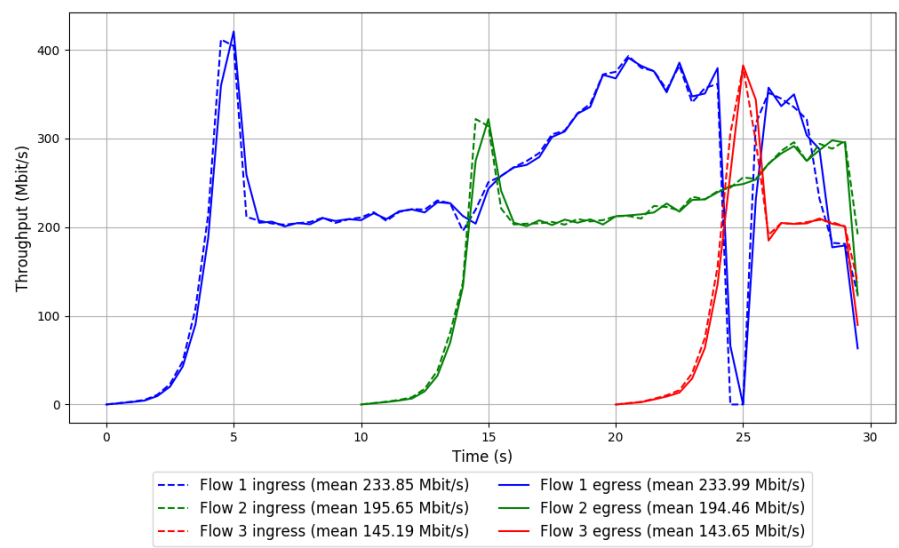
-- Flow 3:

Average throughput: 143.65 Mbit/s

95th percentile per-packet one-way delay: 111.086 ms

Loss rate: 3.34%

Run 7: Report of Vivace-loss — Data Link



Run 8: Statistics of Vivace-loss

Start at: 2018-01-31 09:19:56

End at: 2018-01-31 09:20:26

Below is generated by plot.py at 2018-01-31 14:09:00

Datalink statistics

-- Total of 3 flows:

Average throughput: 390.01 Mbit/s

95th percentile per-packet one-way delay: 248.874 ms

Loss rate: 2.92%

-- Flow 1:

Average throughput: 212.49 Mbit/s

95th percentile per-packet one-way delay: 253.095 ms

Loss rate: 2.39%

-- Flow 2:

Average throughput: 175.78 Mbit/s

95th percentile per-packet one-way delay: 118.622 ms

Loss rate: 2.55%

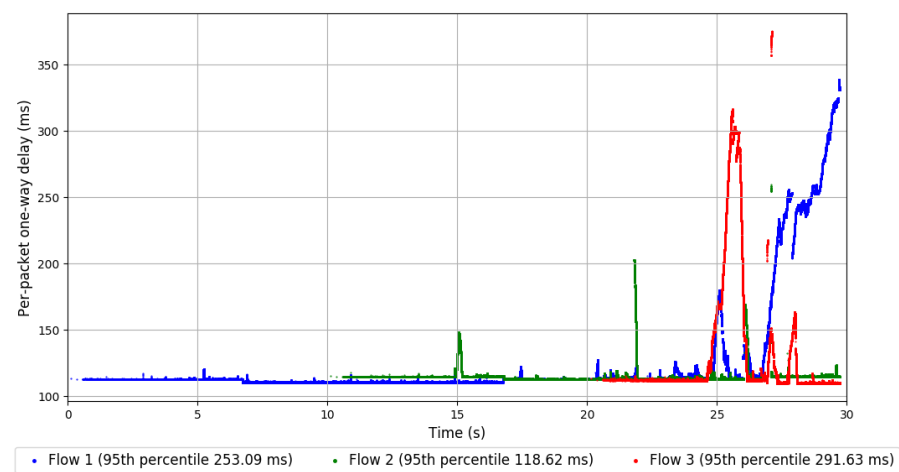
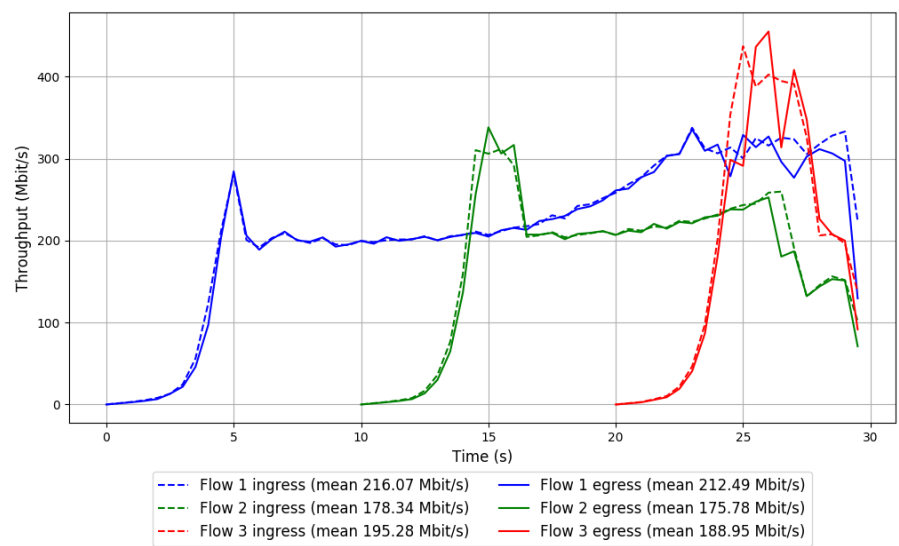
-- Flow 3:

Average throughput: 188.95 Mbit/s

95th percentile per-packet one-way delay: 291.634 ms

Loss rate: 5.43%

Run 8: Report of Vivace-loss — Data Link



Run 9: Statistics of Vivace-loss

Start at: 2018-01-31 09:37:15

End at: 2018-01-31 09:37:45

Below is generated by plot.py at 2018-01-31 14:09:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 412.42 Mbit/s

95th percentile per-packet one-way delay: 226.291 ms

Loss rate: 4.81%

-- Flow 1:

Average throughput: 233.67 Mbit/s

95th percentile per-packet one-way delay: 230.743 ms

Loss rate: 7.33%

-- Flow 2:

Average throughput: 195.25 Mbit/s

95th percentile per-packet one-way delay: 112.249 ms

Loss rate: 1.00%

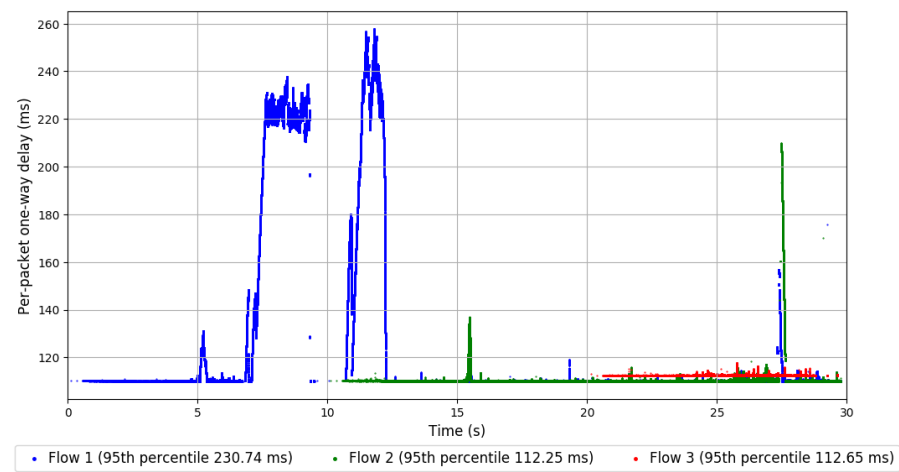
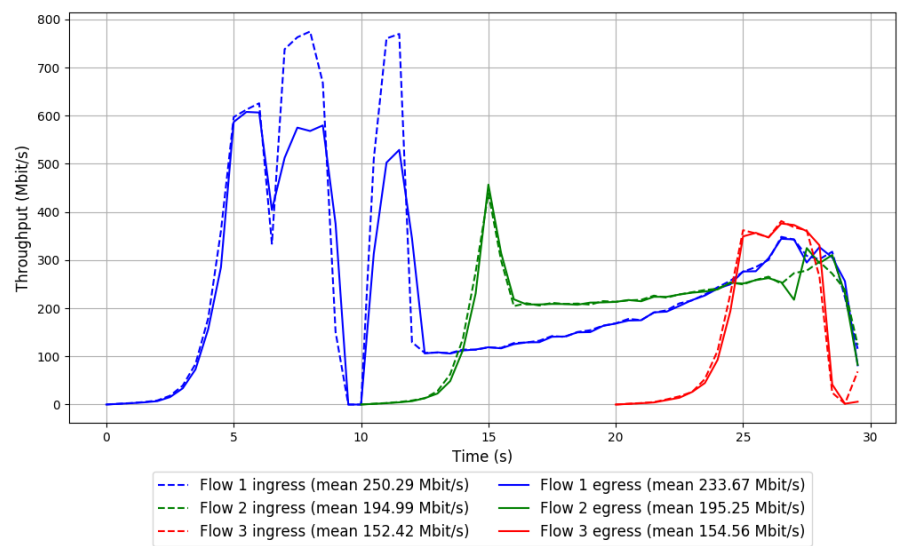
-- Flow 3:

Average throughput: 154.56 Mbit/s

95th percentile per-packet one-way delay: 112.650 ms

Loss rate: 2.10%

Run 9: Report of Vivace-loss — Data Link



Run 10: Statistics of Vivace-loss

Start at: 2018-01-31 09:55:00

End at: 2018-01-31 09:55:30

Below is generated by plot.py at 2018-01-31 14:09:44

Datalink statistics

-- Total of 3 flows:

Average throughput: 281.11 Mbit/s

95th percentile per-packet one-way delay: 151.150 ms

Loss rate: 1.90%

-- Flow 1:

Average throughput: 170.96 Mbit/s

95th percentile per-packet one-way delay: 153.464 ms

Loss rate: 1.55%

-- Flow 2:

Average throughput: 99.43 Mbit/s

95th percentile per-packet one-way delay: 162.220 ms

Loss rate: 1.53%

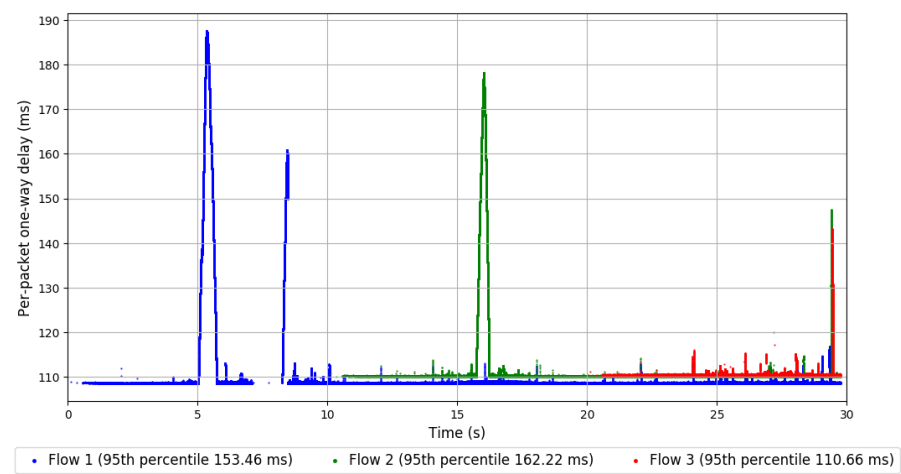
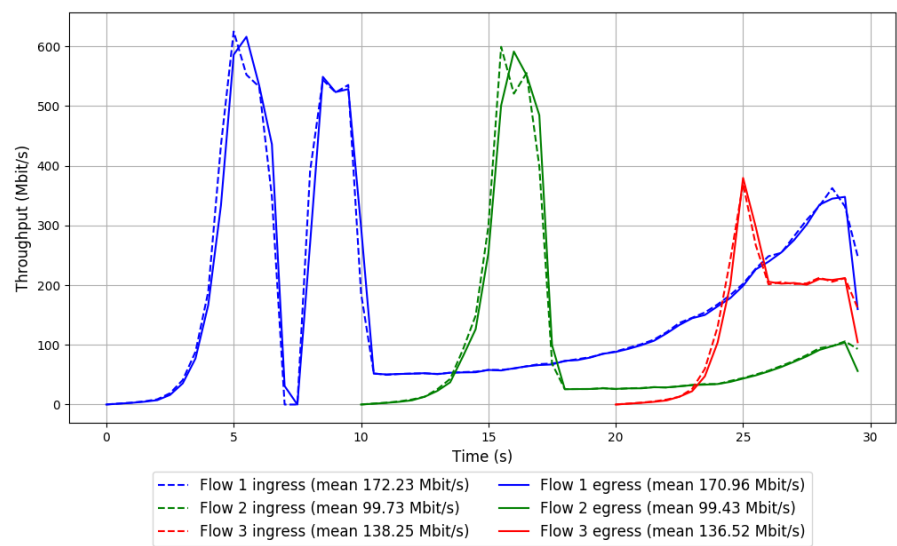
-- Flow 3:

Average throughput: 136.52 Mbit/s

95th percentile per-packet one-way delay: 110.658 ms

Loss rate: 3.74%

Run 10: Report of Vivace-loss — Data Link

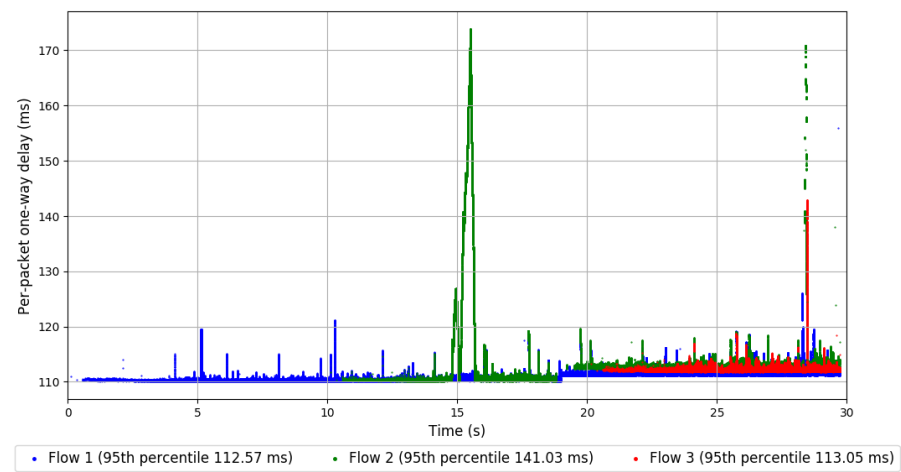
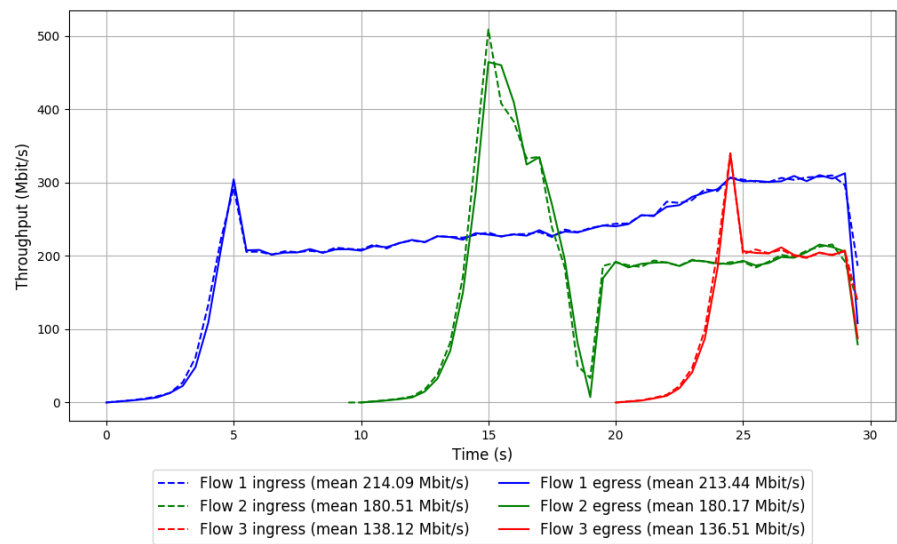


```
Run 1: Statistics of Vivace-LTE

Start at: 2018-01-31 07:24:43
End at: 2018-01-31 07:25:13

# Below is generated by plot.py at 2018-01-31 14:09:44
# Datalink statistics
-- Total of 3 flows:
Average throughput: 376.89 Mbit/s
95th percentile per-packet one-way delay: 114.606 ms
Loss rate: 1.42%
-- Flow 1:
Average throughput: 213.44 Mbit/s
95th percentile per-packet one-way delay: 112.574 ms
Loss rate: 1.05%
-- Flow 2:
Average throughput: 180.17 Mbit/s
95th percentile per-packet one-way delay: 141.029 ms
Loss rate: 1.30%
-- Flow 3:
Average throughput: 136.51 Mbit/s
95th percentile per-packet one-way delay: 113.051 ms
Loss rate: 3.44%
```


Run 1: Report of Vivace-LTE — Data Link



Run 2: Statistics of Vivace-LTE

Start at: 2018-01-31 07:42:27

End at: 2018-01-31 07:42:57

Below is generated by plot.py at 2018-01-31 14:11:15

Datalink statistics

-- Total of 3 flows:

Average throughput: 392.01 Mbit/s

95th percentile per-packet one-way delay: 147.861 ms

Loss rate: 1.39%

-- Flow 1:

Average throughput: 185.30 Mbit/s

95th percentile per-packet one-way delay: 136.410 ms

Loss rate: 0.73%

-- Flow 2:

Average throughput: 247.76 Mbit/s

95th percentile per-packet one-way delay: 168.894 ms

Loss rate: 1.59%

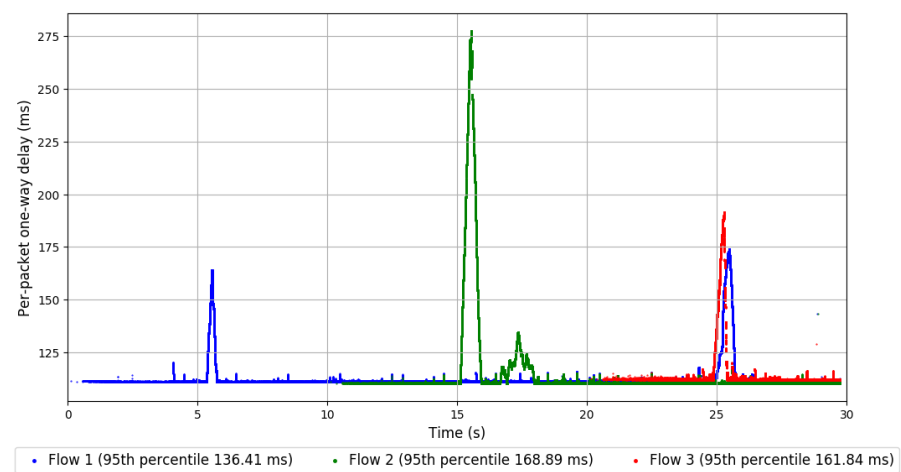
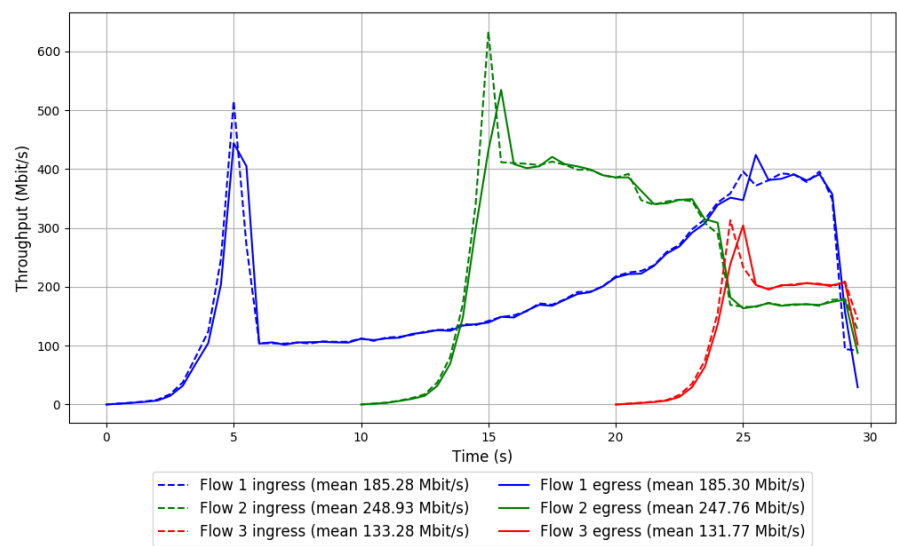
-- Flow 3:

Average throughput: 131.77 Mbit/s

95th percentile per-packet one-way delay: 161.843 ms

Loss rate: 3.40%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-31 08:00:12

End at: 2018-01-31 08:00:42

Below is generated by plot.py at 2018-01-31 14:11:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 356.56 Mbit/s

95th percentile per-packet one-way delay: 112.108 ms

Loss rate: 1.66%

-- Flow 1:

Average throughput: 185.30 Mbit/s

95th percentile per-packet one-way delay: 113.203 ms

Loss rate: 1.35%

-- Flow 2:

Average throughput: 191.22 Mbit/s

95th percentile per-packet one-way delay: 109.494 ms

Loss rate: 1.52%

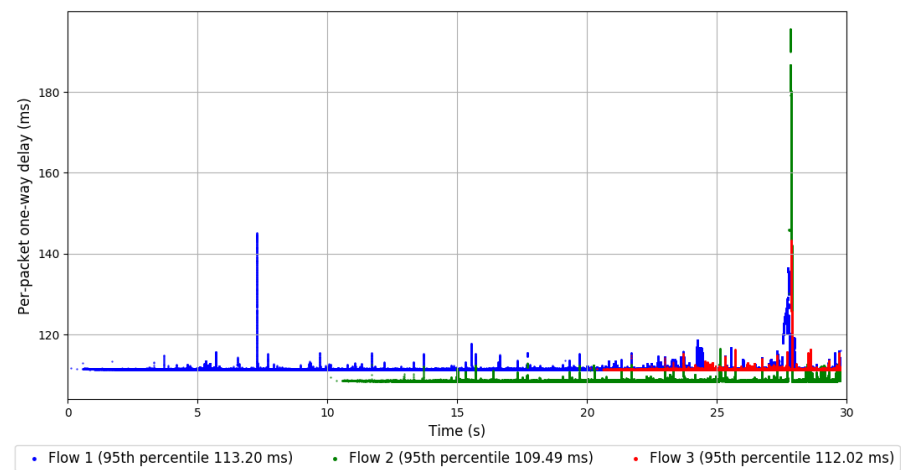
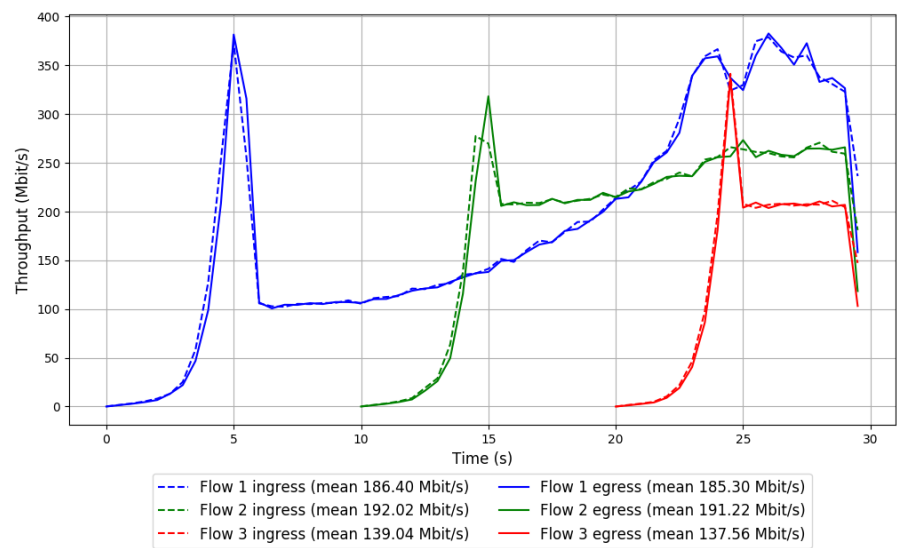
-- Flow 3:

Average throughput: 137.56 Mbit/s

95th percentile per-packet one-way delay: 112.020 ms

Loss rate: 3.32%

Run 3: Report of Vivace-LTE — Data Link



Run 4: Statistics of Vivace-LTE

Start at: 2018-01-31 08:17:44

End at: 2018-01-31 08:18:14

Below is generated by plot.py at 2018-01-31 14:11:16

Datalink statistics

-- Total of 3 flows:

Average throughput: 343.81 Mbit/s

95th percentile per-packet one-way delay: 188.685 ms

Loss rate: 1.29%

-- Flow 1:

Average throughput: 178.18 Mbit/s

95th percentile per-packet one-way delay: 112.799 ms

Loss rate: 0.55%

-- Flow 2:

Average throughput: 186.69 Mbit/s

95th percentile per-packet one-way delay: 197.700 ms

Loss rate: 1.49%

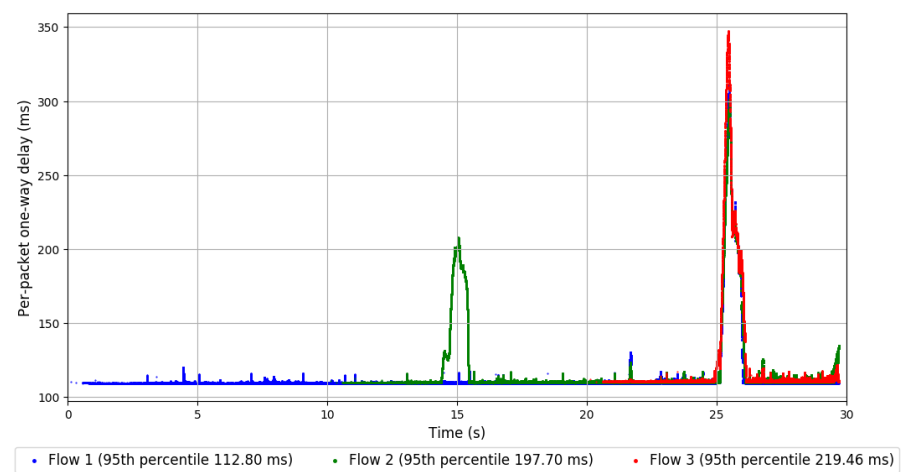
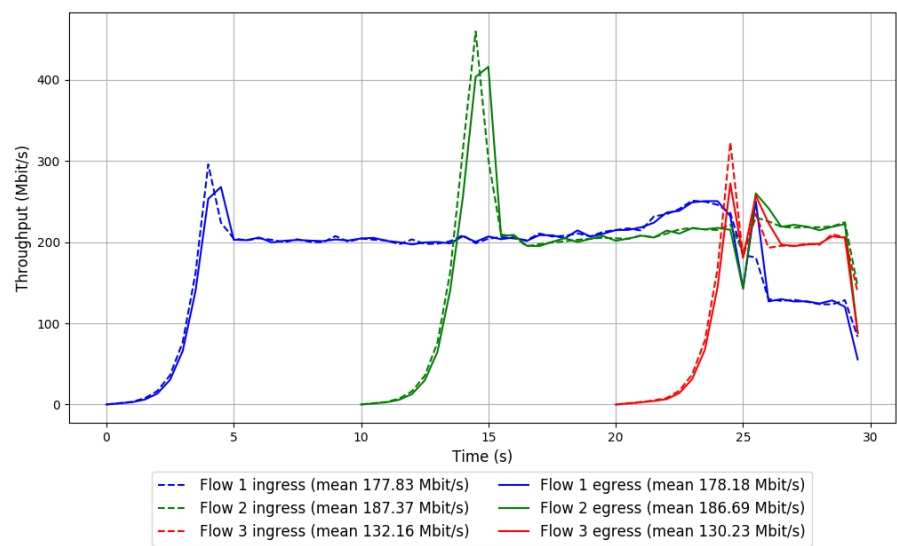
-- Flow 3:

Average throughput: 130.23 Mbit/s

95th percentile per-packet one-way delay: 219.464 ms

Loss rate: 3.72%

Run 4: Report of Vivace-LTE — Data Link



Run 5: Statistics of Vivace-LTE

Start at: 2018-01-31 08:35:42

End at: 2018-01-31 08:36:12

Below is generated by plot.py at 2018-01-31 14:12:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 413.57 Mbit/s

95th percentile per-packet one-way delay: 113.292 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 247.31 Mbit/s

95th percentile per-packet one-way delay: 113.999 ms

Loss rate: 1.08%

-- Flow 2:

Average throughput: 186.04 Mbit/s

95th percentile per-packet one-way delay: 110.886 ms

Loss rate: 1.39%

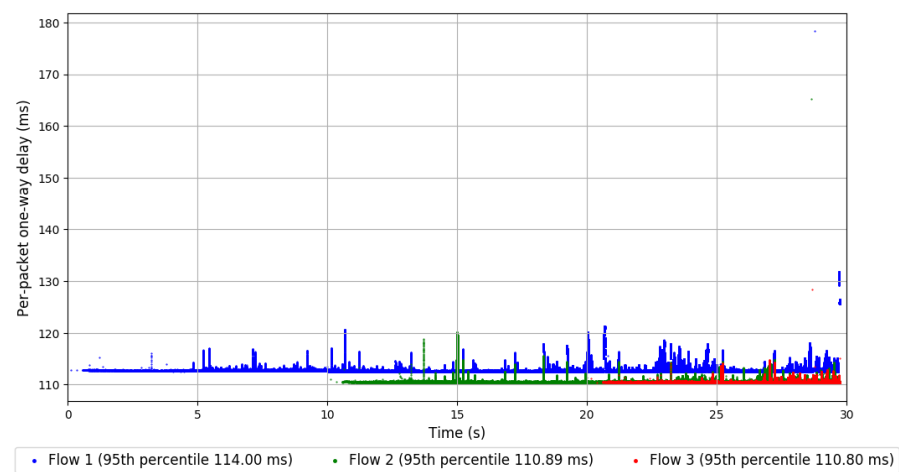
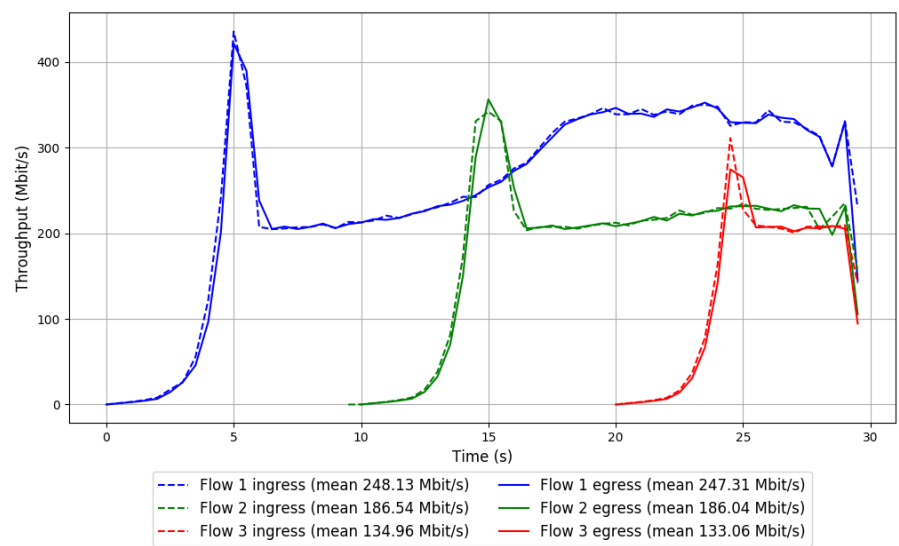
-- Flow 3:

Average throughput: 133.06 Mbit/s

95th percentile per-packet one-way delay: 110.800 ms

Loss rate: 3.61%

Run 5: Report of Vivace-LTE — Data Link



Run 6: Statistics of Vivace-LTE

Start at: 2018-01-31 08:53:00

End at: 2018-01-31 08:53:30

Below is generated by plot.py at 2018-01-31 14:13:27

Datalink statistics

-- Total of 3 flows:

Average throughput: 420.46 Mbit/s

95th percentile per-packet one-way delay: 125.178 ms

Loss rate: 1.35%

-- Flow 1:

Average throughput: 248.54 Mbit/s

95th percentile per-packet one-way delay: 133.718 ms

Loss rate: 0.86%

-- Flow 2:

Average throughput: 196.55 Mbit/s

95th percentile per-packet one-way delay: 111.109 ms

Loss rate: 1.55%

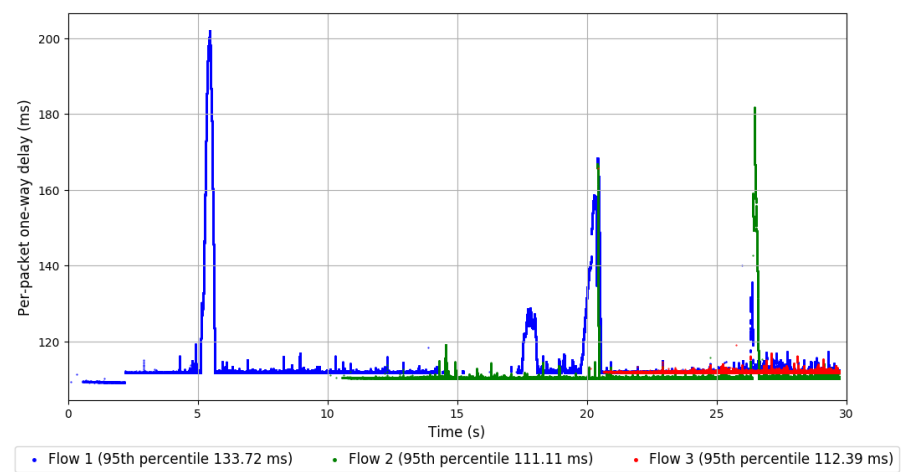
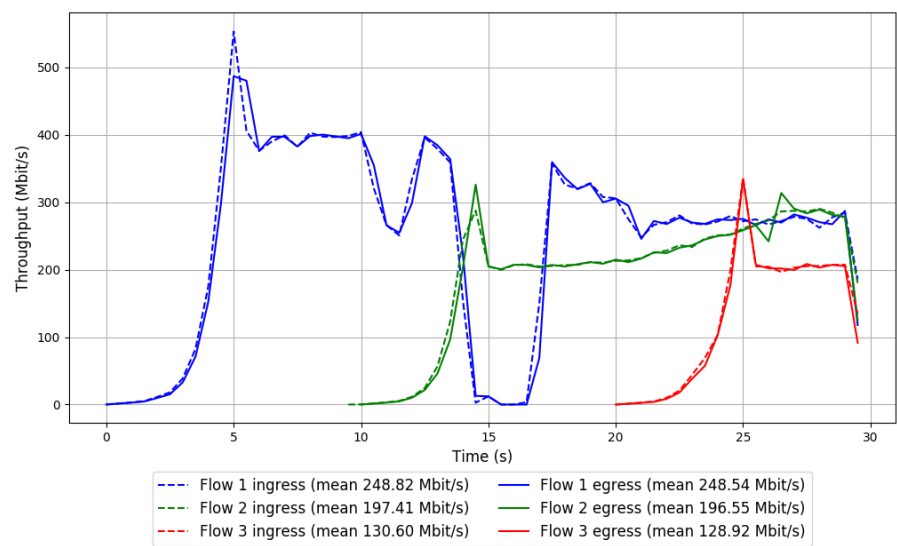
-- Flow 3:

Average throughput: 128.92 Mbit/s

95th percentile per-packet one-way delay: 112.395 ms

Loss rate: 3.55%

Run 6: Report of Vivace-LTE — Data Link



Run 7: Statistics of Vivace-LTE

Start at: 2018-01-31 09:10:48

End at: 2018-01-31 09:11:18

Below is generated by plot.py at 2018-01-31 14:14:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 429.72 Mbit/s

95th percentile per-packet one-way delay: 113.550 ms

Loss rate: 1.16%

-- Flow 1:

Average throughput: 237.32 Mbit/s

95th percentile per-packet one-way delay: 113.882 ms

Loss rate: 0.51%

-- Flow 2:

Average throughput: 219.38 Mbit/s

95th percentile per-packet one-way delay: 113.756 ms

Loss rate: 1.46%

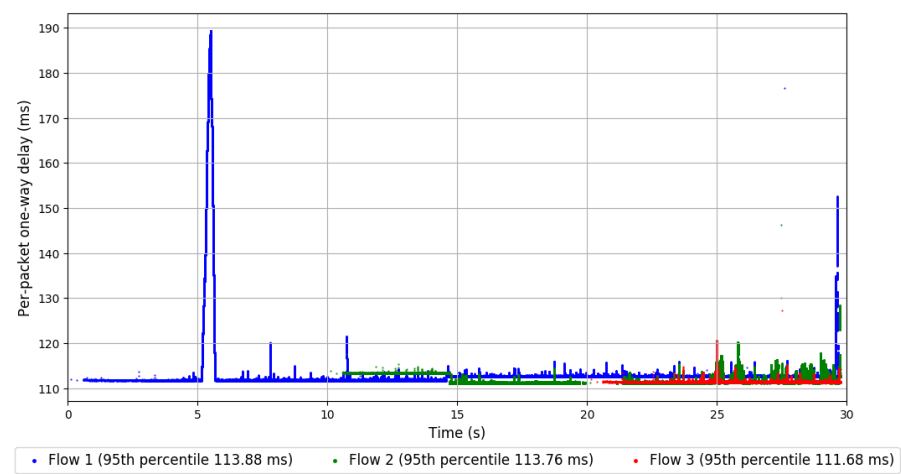
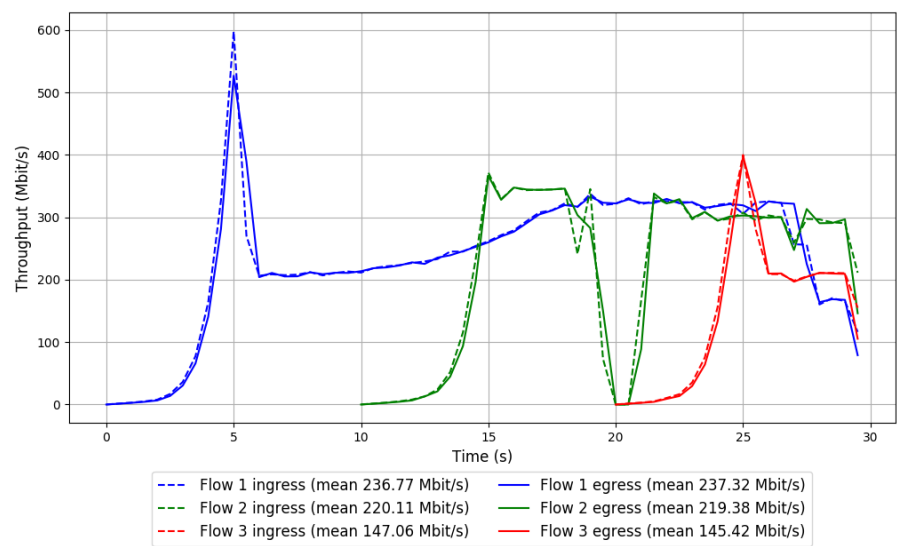
-- Flow 3:

Average throughput: 145.42 Mbit/s

95th percentile per-packet one-way delay: 111.683 ms

Loss rate: 3.37%

Run 7: Report of Vivace-LTE — Data Link



Run 8: Statistics of Vivace-LTE

Start at: 2018-01-31 09:27:49

End at: 2018-01-31 09:28:19

Below is generated by plot.py at 2018-01-31 14:14:24

Datalink statistics

-- Total of 3 flows:

Average throughput: 373.18 Mbit/s

95th percentile per-packet one-way delay: 123.132 ms

Loss rate: 1.44%

-- Flow 1:

Average throughput: 205.52 Mbit/s

95th percentile per-packet one-way delay: 126.071 ms

Loss rate: 0.89%

-- Flow 2:

Average throughput: 190.44 Mbit/s

95th percentile per-packet one-way delay: 110.354 ms

Loss rate: 1.54%

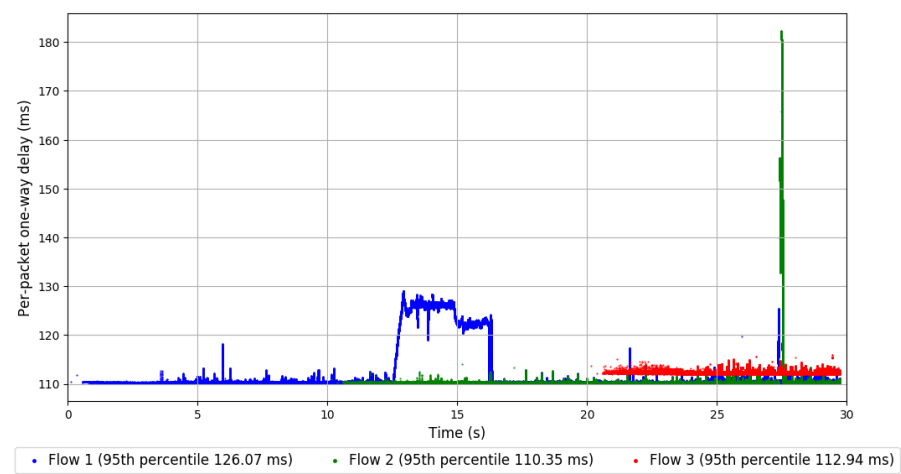
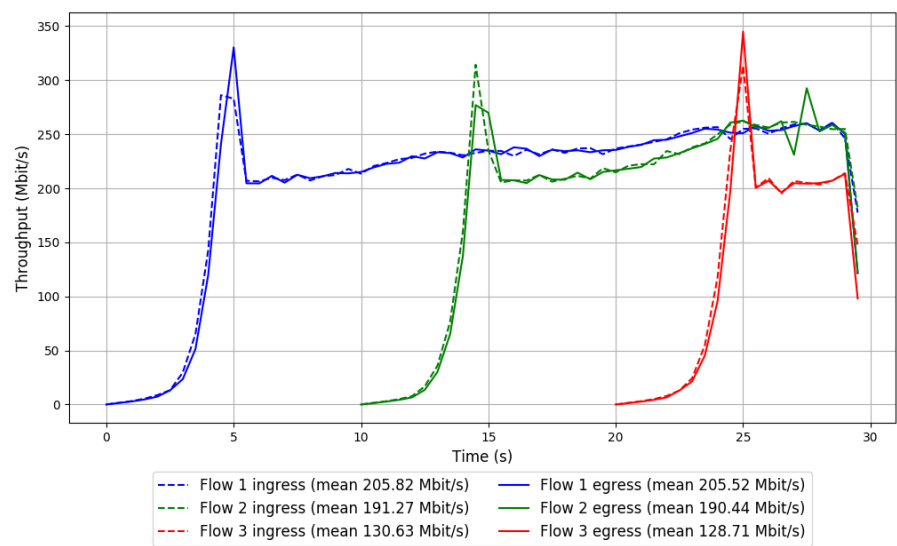
-- Flow 3:

Average throughput: 128.71 Mbit/s

95th percentile per-packet one-way delay: 112.942 ms

Loss rate: 3.76%

Run 8: Report of Vivace-LTE — Data Link



Run 9: Statistics of Vivace-LTE

Start at: 2018-01-31 09:45:47

End at: 2018-01-31 09:46:17

Below is generated by plot.py at 2018-01-31 14:14:33

Datalink statistics

-- Total of 3 flows:

Average throughput: 446.98 Mbit/s

95th percentile per-packet one-way delay: 113.153 ms

Loss rate: 1.21%

-- Flow 1:

Average throughput: 288.72 Mbit/s

95th percentile per-packet one-way delay: 113.245 ms

Loss rate: 0.75%

-- Flow 2:

Average throughput: 200.53 Mbit/s

95th percentile per-packet one-way delay: 113.737 ms

Loss rate: 2.14%

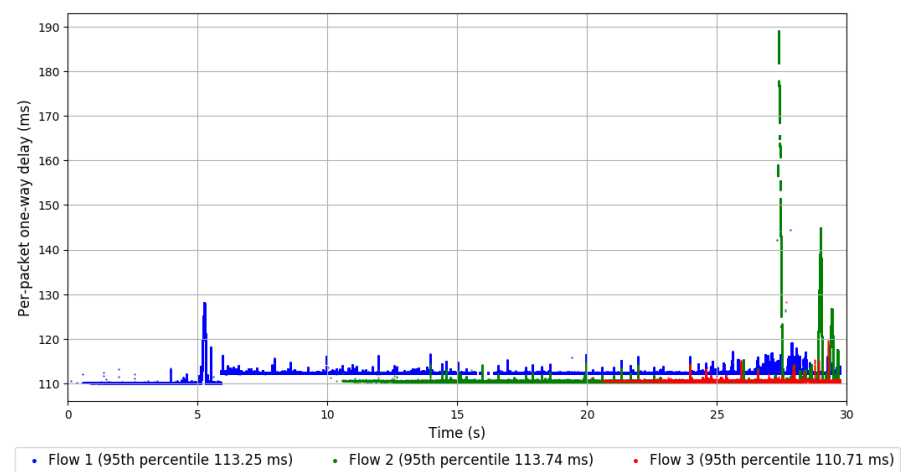
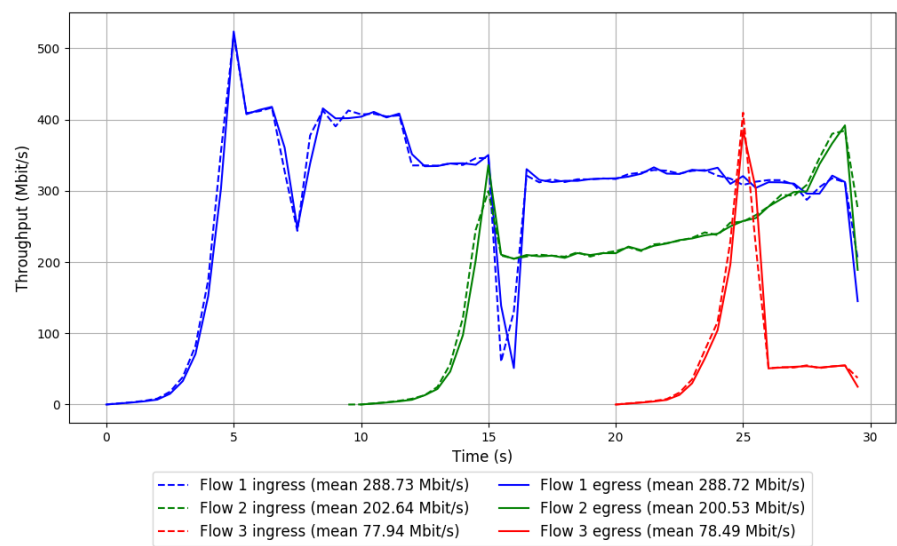
-- Flow 3:

Average throughput: 78.49 Mbit/s

95th percentile per-packet one-way delay: 110.709 ms

Loss rate: 1.56%

Run 9: Report of Vivace-LTE — Data Link



Run 10: Statistics of Vivace-LTE

Start at: 2018-01-31 10:03:25

End at: 2018-01-31 10:03:55

Below is generated by plot.py at 2018-01-31 14:14:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 409.01 Mbit/s

95th percentile per-packet one-way delay: 113.758 ms

Loss rate: 1.31%

-- Flow 1:

Average throughput: 250.88 Mbit/s

95th percentile per-packet one-way delay: 113.269 ms

Loss rate: 0.96%

-- Flow 2:

Average throughput: 191.94 Mbit/s

95th percentile per-packet one-way delay: 112.001 ms

Loss rate: 1.72%

-- Flow 3:

Average throughput: 96.55 Mbit/s

95th percentile per-packet one-way delay: 118.703 ms

Loss rate: 2.40%

Run 10: Report of Vivace-LTE — Data Link

