

Pantheon Report

Generated at 2018-01-30 17:07:01 (UTC).

Data path: AWS Korea Ethernet (*local*) → China ppp0 (*remote*).

Repeated the test of 17 congestion control schemes 3 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).

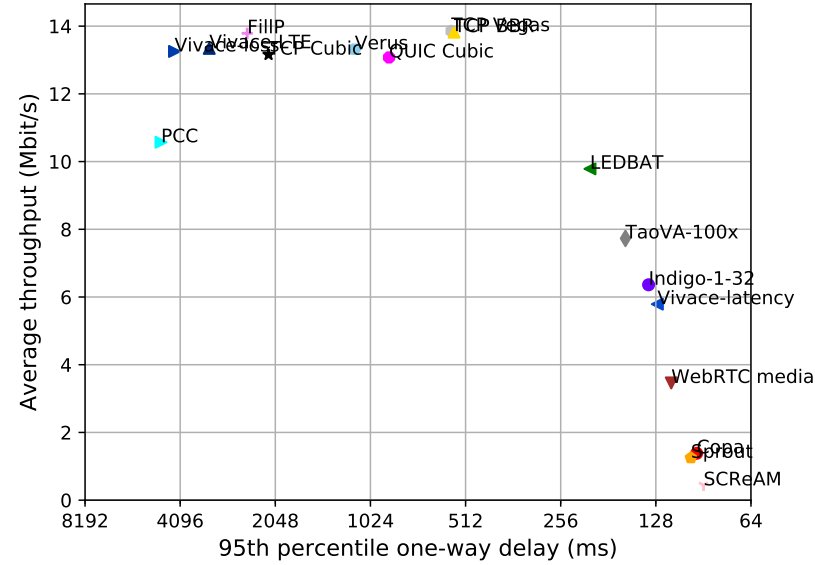
Tested BBR with qdisc of Fair Queuing (*fq*), and other schemes with the default Linux qdisc (*pfifo_fast*).

NTP offsets were measured against `ntp.nict.jp` and have been applied to correct the timestamps in logs.

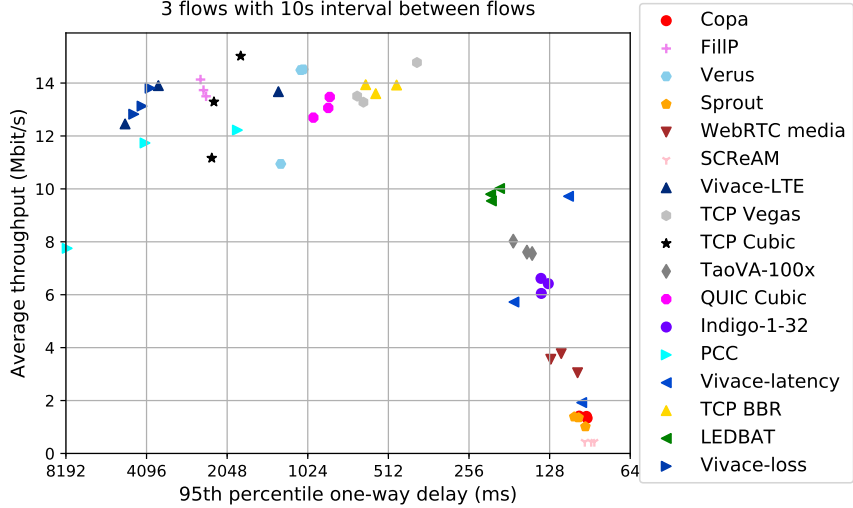
Git summary:

```
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 @ f1a14bffe749737437f61b1eae30b267cde681
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 AWS Korea Ethernet to China ppp0, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Korea Ethernet to China ppp0, 3 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	3	9.87	3.72	4.57	503.53	576.71	580.76	0.52	1.13	2.58
TCP Cubic	3	11.49	2.73	0.21	2072.80	2309.00	2086.99	5.08	25.84	33.76
LEDBAT	3	7.19	3.38	1.07	202.97	211.92	231.17	0.62	0.72	0.92
PCC	3	7.29	4.33	1.21	4649.73	4818.15	4947.82	16.84	23.97	30.34
QUIC Cubic	3	12.21	0.97	0.76	891.15	909.17	931.53	2.62	5.74	12.18
SCReAM	3	0.22	0.22	0.22	87.39	93.37	93.81	0.13	0.00	0.12
WebRTC media	3	2.06	1.06	0.37	109.35	117.91	122.67	0.10	0.24	0.49
Sprout	3	0.65	0.63	0.55	98.50	95.84	101.63	0.06	0.00	0.00
TaoVA-100x	3	3.83	4.11	3.53	140.90	157.33	183.67	0.07	0.11	0.19
TCP Vegas	3	11.36	3.01	1.62	566.64	569.38	570.29	1.32	1.65	3.22
Verus	3	11.41	2.32	1.23	1034.96	1349.06	1341.19	1.40	4.28	5.29
Copa	3	0.69	0.68	0.73	94.79	92.01	95.38	0.02	0.03	0.12
FillP	3	11.17	4.30	0.34	2514.01	2501.65	2336.97	32.54	65.56	85.12
Indigo-1-32	3	2.75	3.23	4.58	129.84	135.28	137.59	0.17	0.03	0.22
Vivace-latency	3	3.21	2.11	3.58	102.26	108.93	147.78	0.07	0.16	0.34
Vivace-loss	3	13.25	0.00	0.01	4267.83	4164.00	3784.97	60.39	59.88	1.53
Vivace-LTE	3	10.49	3.79	1.18	3244.97	3380.37	3351.51	11.15	19.22	26.70

Run 1: Statistics of TCP BBR

Start at: 2018-01-30 15:29:01

End at: 2018-01-30 15:29:31

Local clock offset: -8.32 ms

Remote clock offset: 0.544 ms

Below is generated by plot.py at 2018-01-30 17:05:39

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.60 Mbit/s

95th percentile per-packet one-way delay: 570.858 ms

Loss rate: 0.88%

-- Flow 1:

Average throughput: 9.83 Mbit/s

95th percentile per-packet one-way delay: 508.004 ms

Loss rate: 0.56%

-- Flow 2:

Average throughput: 3.25 Mbit/s

95th percentile per-packet one-way delay: 566.220 ms

Loss rate: 0.97%

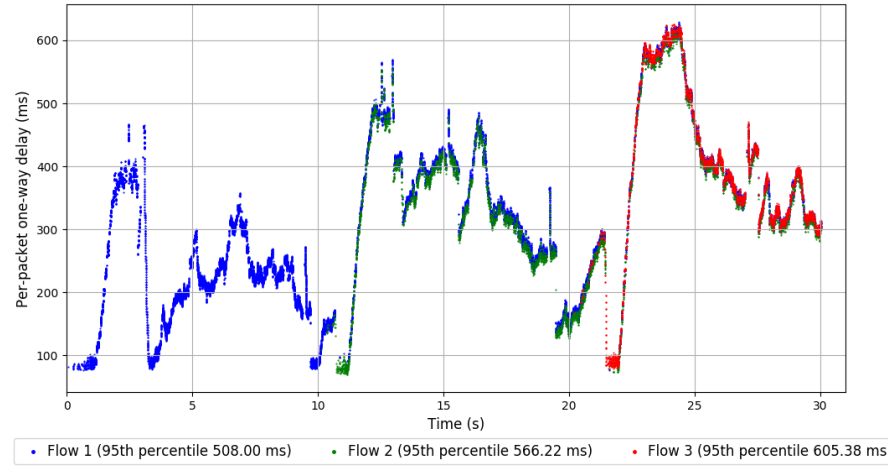
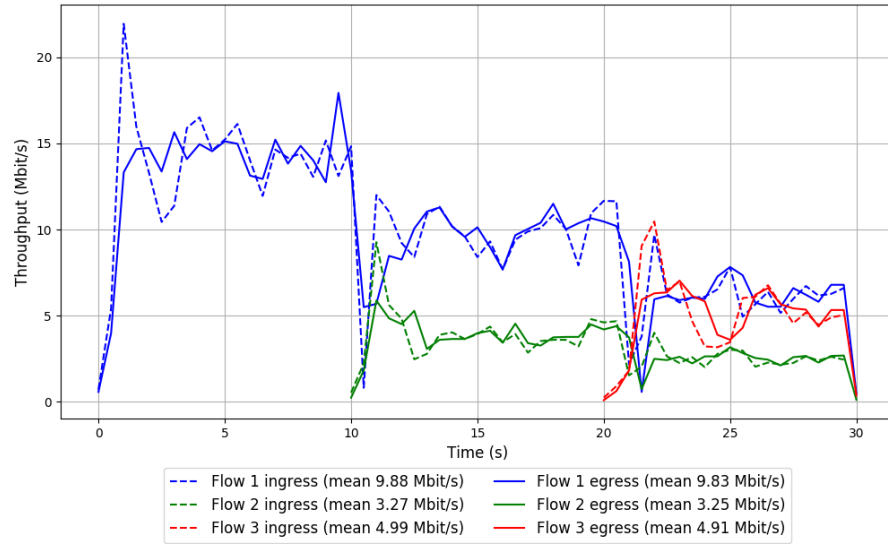
-- Flow 3:

Average throughput: 4.91 Mbit/s

95th percentile per-packet one-way delay: 605.375 ms

Loss rate: 2.64%

Run 1: Report of TCP BBR — Data Link

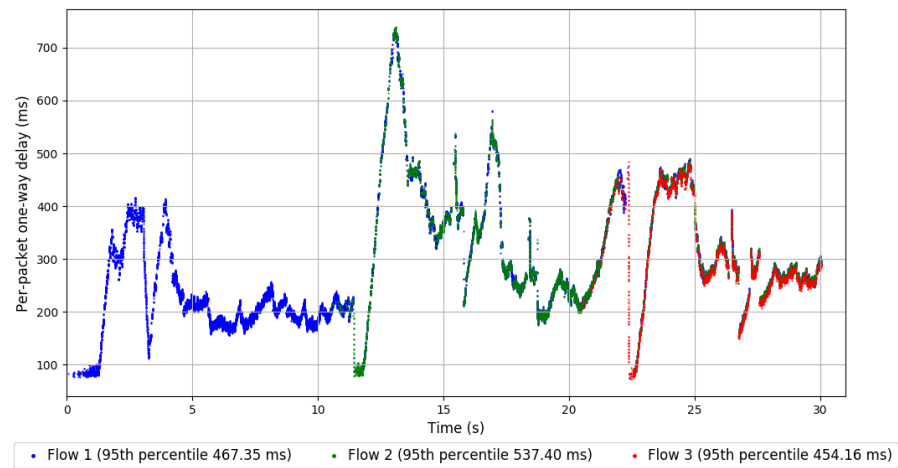
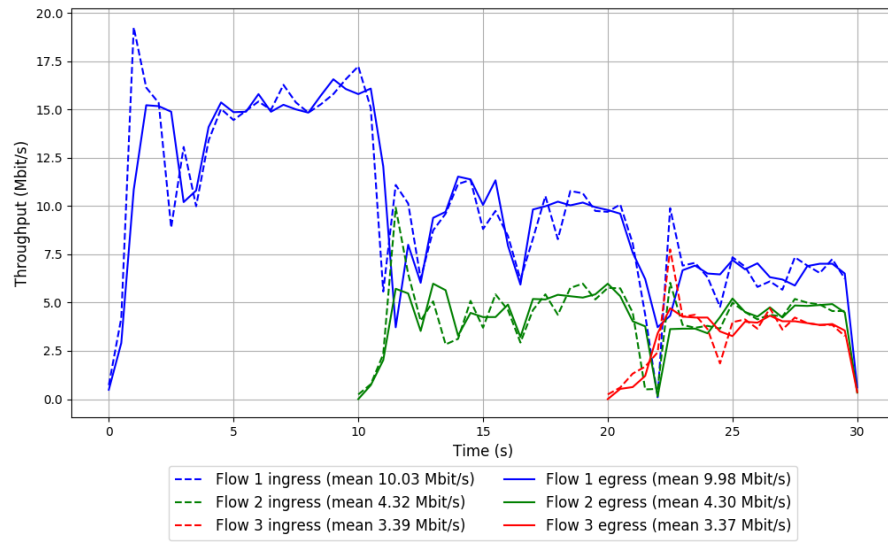


Run 2: Statistics of TCP BBR

Start at: 2018-01-30 16:03:21
End at: 2018-01-30 16:03:51
Local clock offset: -5.569 ms
Remote clock offset: -2.232 ms

Below is generated by plot.py at 2018-01-30 17:05:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.93 Mbit/s
95th percentile per-packet one-way delay: 477.162 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 9.98 Mbit/s
95th percentile per-packet one-way delay: 467.348 ms
Loss rate: 0.46%
-- Flow 2:
Average throughput: 4.30 Mbit/s
95th percentile per-packet one-way delay: 537.399 ms
Loss rate: 1.20%
-- Flow 3:
Average throughput: 3.37 Mbit/s
95th percentile per-packet one-way delay: 454.160 ms
Loss rate: 2.10%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-01-30 16:44:53

End at: 2018-01-30 16:45:23

Local clock offset: -5.157 ms

Remote clock offset: 0.12 ms

Below is generated by plot.py at 2018-01-30 17:05:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.94 Mbit/s

95th percentile per-packet one-way delay: 622.385 ms

Loss rate: 0.97%

-- Flow 1:

Average throughput: 9.80 Mbit/s

95th percentile per-packet one-way delay: 535.231 ms

Loss rate: 0.53%

-- Flow 2:

Average throughput: 3.60 Mbit/s

95th percentile per-packet one-way delay: 626.524 ms

Loss rate: 1.23%

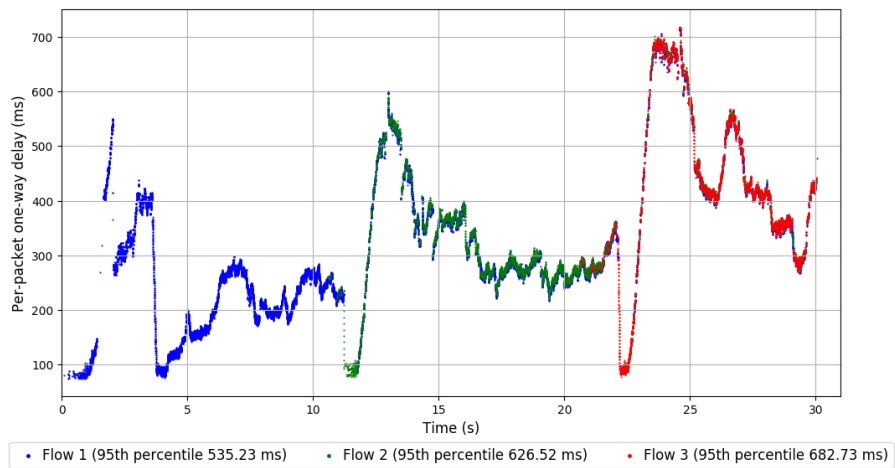
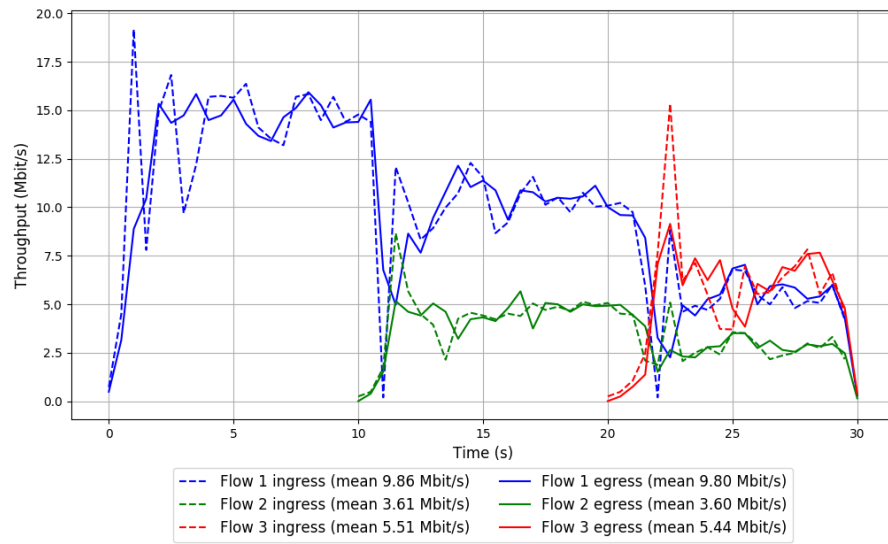
-- Flow 3:

Average throughput: 5.44 Mbit/s

95th percentile per-packet one-way delay: 682.731 ms

Loss rate: 2.99%

Run 3: Report of TCP BBR — Data Link

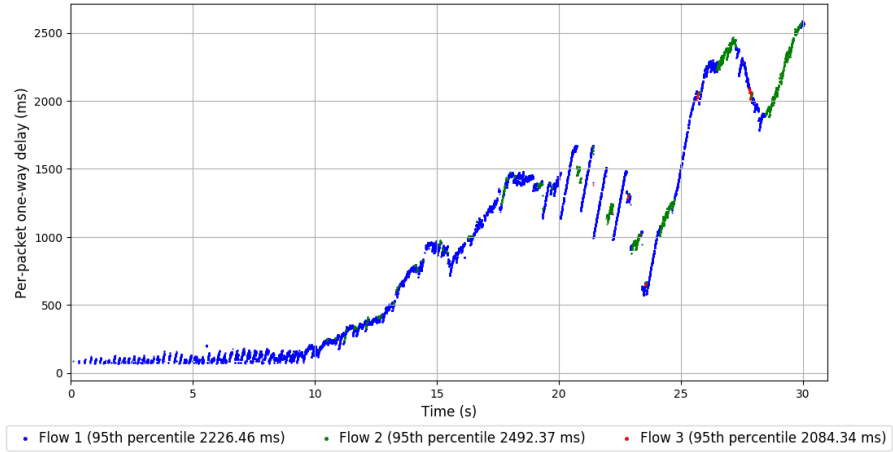
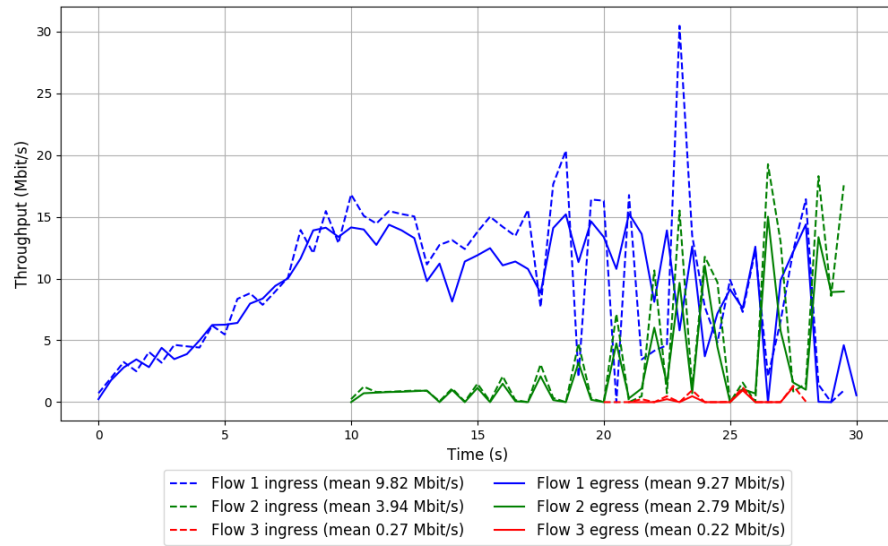


Run 1: Statistics of TCP Cubic

Start at: 2018-01-30 15:20:13
End at: 2018-01-30 15:20:43
Local clock offset: -1.803 ms
Remote clock offset: -0.137 ms

Below is generated by plot.py at 2018-01-30 17:05:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.16 Mbit/s
95th percentile per-packet one-way delay: 2337.689 ms
Loss rate: 10.76%
-- Flow 1:
Average throughput: 9.27 Mbit/s
95th percentile per-packet one-way delay: 2226.461 ms
Loss rate: 5.52%
-- Flow 2:
Average throughput: 2.79 Mbit/s
95th percentile per-packet one-way delay: 2492.373 ms
Loss rate: 29.80%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 2084.341 ms
Loss rate: 32.00%

Run 1: Report of TCP Cubic — Data Link

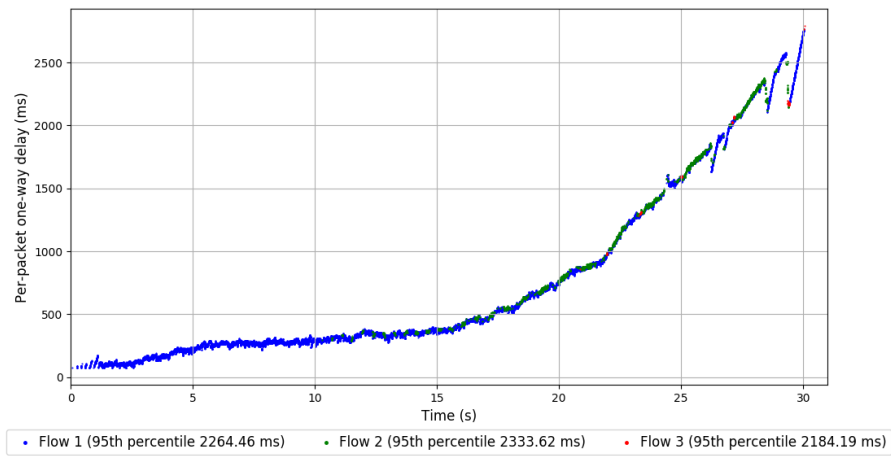
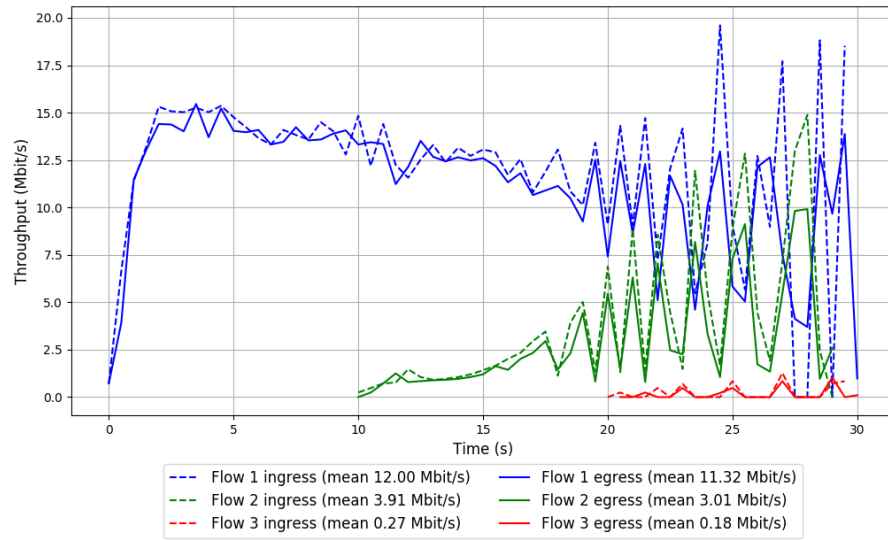


Run 2: Statistics of TCP Cubic

Start at: 2018-01-30 15:54:22
End at: 2018-01-30 15:54:52
Local clock offset: -7.429 ms
Remote clock offset: -1.621 ms

Below is generated by plot.py at 2018-01-30 17:05:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.29 Mbit/s
95th percentile per-packet one-way delay: 2294.510 ms
Loss rate: 8.81%
-- Flow 1:
Average throughput: 11.32 Mbit/s
95th percentile per-packet one-way delay: 2264.463 ms
Loss rate: 5.36%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 2333.619 ms
Loss rate: 24.26%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 2184.186 ms
Loss rate: 33.46%

Run 2: Report of TCP Cubic — Data Link

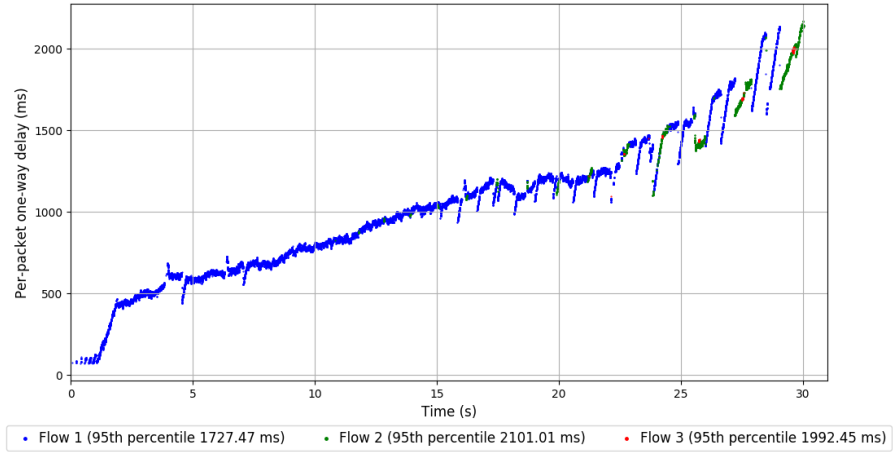
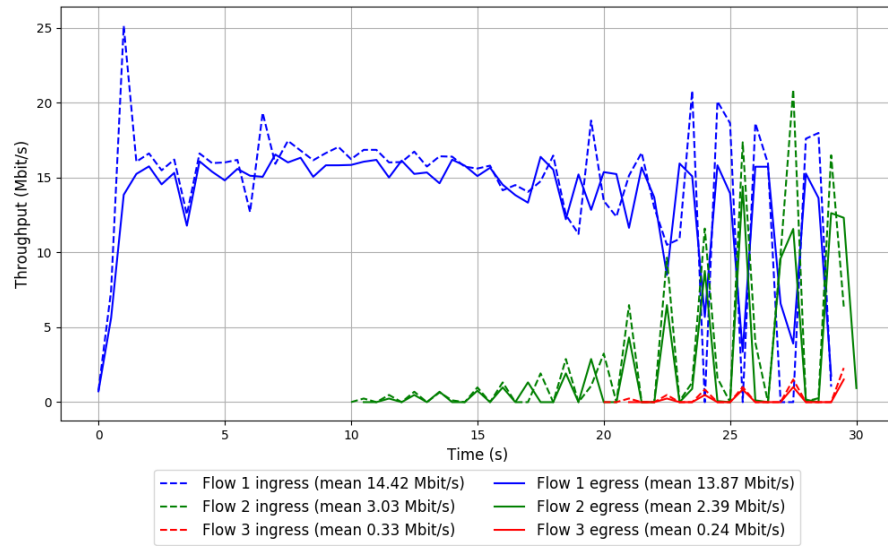


Run 3: Statistics of TCP Cubic

Start at: 2018-01-30 16:33:12
End at: 2018-01-30 16:33:42
Local clock offset: -4.822 ms
Remote clock offset: -0.206 ms

Below is generated by plot.py at 2018-01-30 17:05:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 15.02 Mbit/s
95th percentile per-packet one-way delay: 1822.992 ms
Loss rate: 6.93%
-- Flow 1:
Average throughput: 13.87 Mbit/s
95th percentile per-packet one-way delay: 1727.473 ms
Loss rate: 4.36%
-- Flow 2:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 2101.009 ms
Loss rate: 23.47%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 1992.455 ms
Loss rate: 35.81%

Run 3: Report of TCP Cubic — Data Link

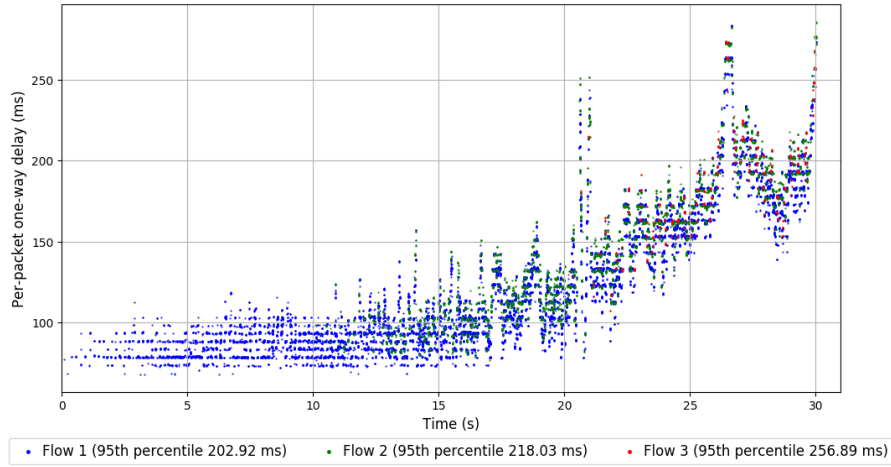
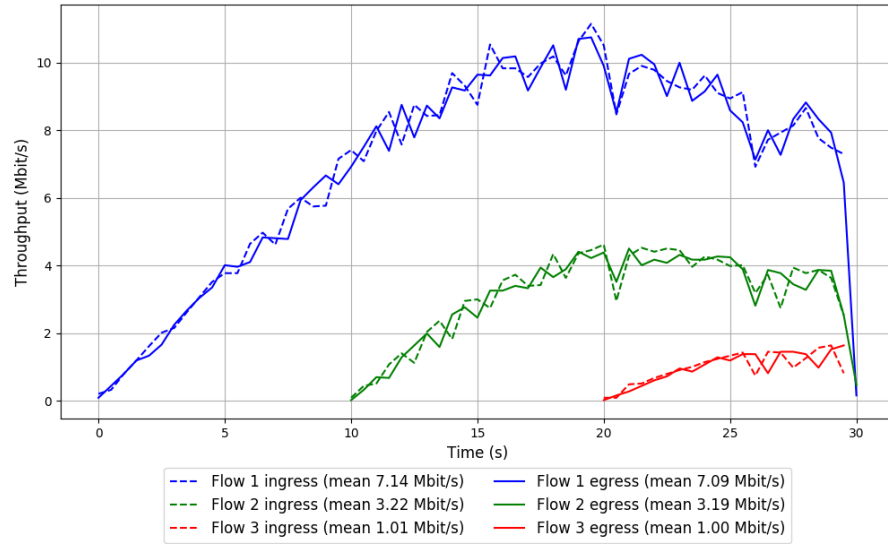


Run 1: Statistics of LEDBAT

Start at: 2018-01-30 15:18:27
End at: 2018-01-30 15:18:57
Local clock offset: 0.031 ms
Remote clock offset: -0.285 ms

Below is generated by plot.py at 2018-01-30 17:05:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.54 Mbit/s
95th percentile per-packet one-way delay: 211.215 ms
Loss rate: 0.68%
-- Flow 1:
Average throughput: 7.09 Mbit/s
95th percentile per-packet one-way delay: 202.917 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 3.19 Mbit/s
95th percentile per-packet one-way delay: 218.032 ms
Loss rate: 0.81%
-- Flow 3:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 256.895 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

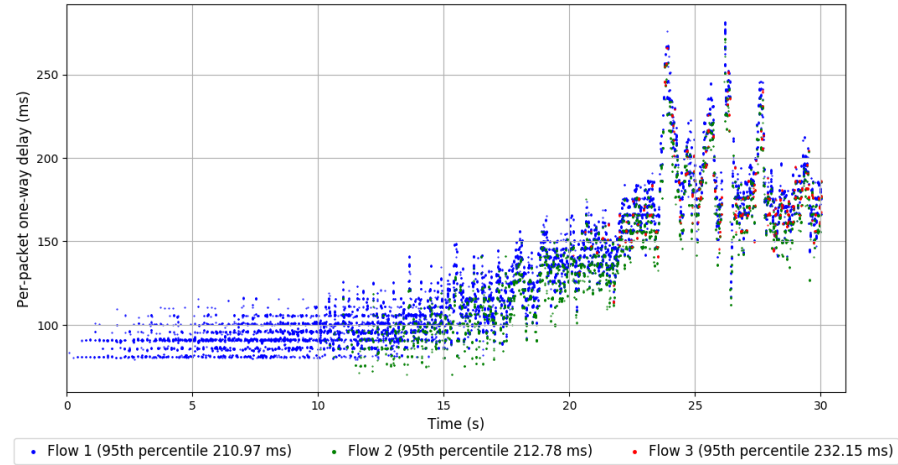
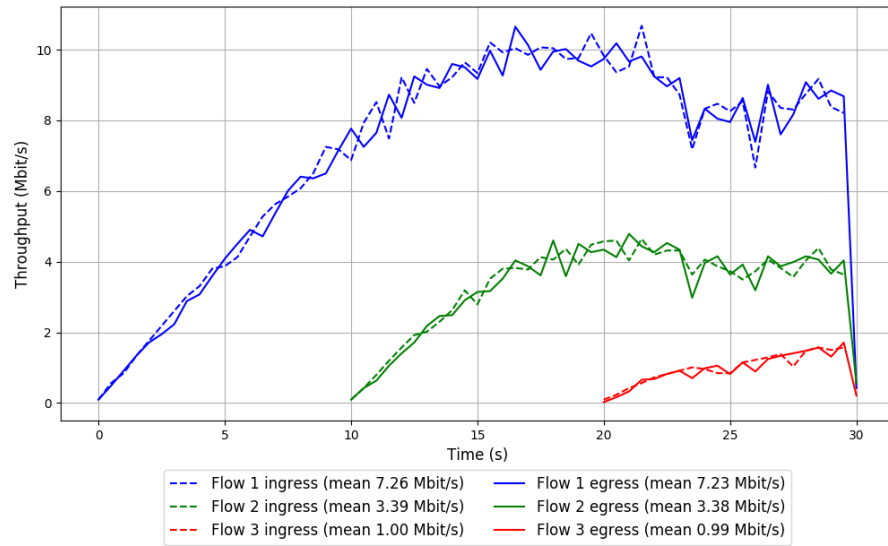


Run 2: Statistics of LEDBAT

Start at: 2018-01-30 15:52:34
End at: 2018-01-30 15:53:04
Local clock offset: -8.67 ms
Remote clock offset: -1.457 ms

Below is generated by plot.py at 2018-01-30 17:05:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.80 Mbit/s
95th percentile per-packet one-way delay: 212.554 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 7.23 Mbit/s
95th percentile per-packet one-way delay: 210.974 ms
Loss rate: 0.55%
-- Flow 2:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 212.775 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 232.152 ms
Loss rate: 0.84%

Run 2: Report of LEDBAT — Data Link

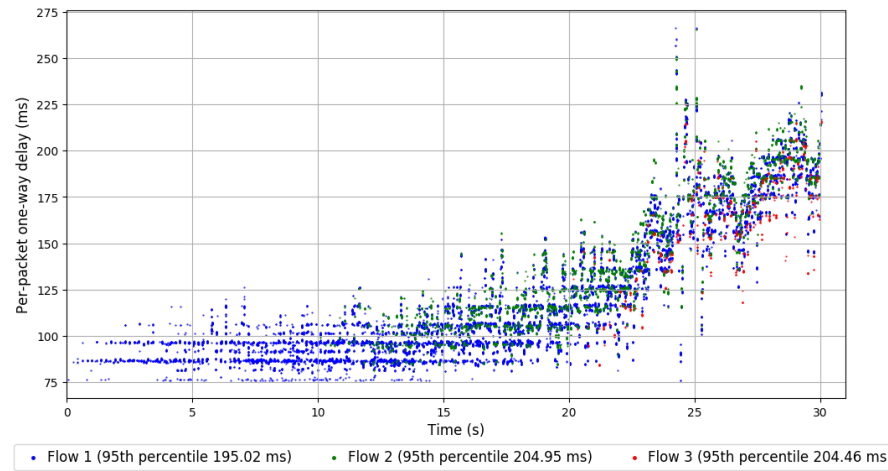
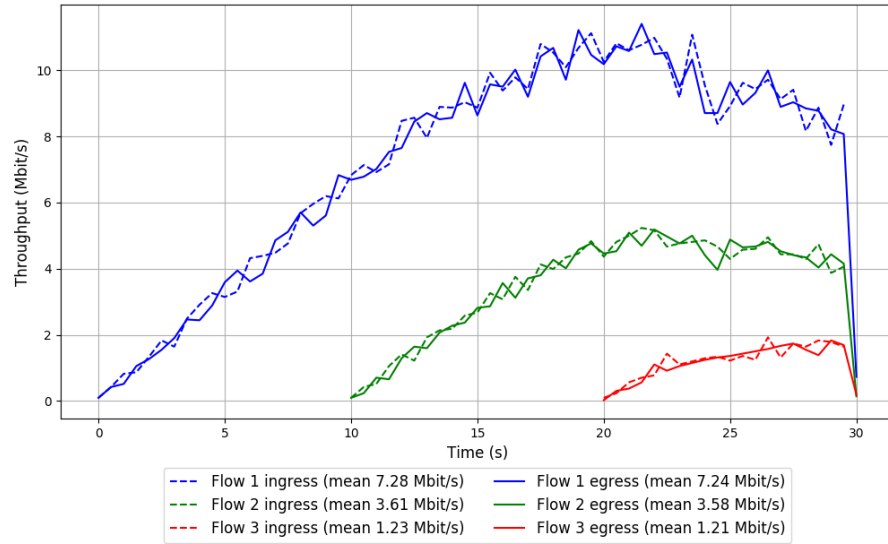


Run 3: Statistics of LEDBAT

Start at: 2018-01-30 16:30:37
End at: 2018-01-30 16:31:07
Local clock offset: -4.722 ms
Remote clock offset: -0.349 ms

Below is generated by plot.py at 2018-01-30 17:05:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.01 Mbit/s
95th percentile per-packet one-way delay: 196.847 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 7.24 Mbit/s
95th percentile per-packet one-way delay: 195.018 ms
Loss rate: 0.65%
-- Flow 2:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 204.952 ms
Loss rate: 1.01%
-- Flow 3:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 204.459 ms
Loss rate: 1.92%

Run 3: Report of LEDBAT — Data Link

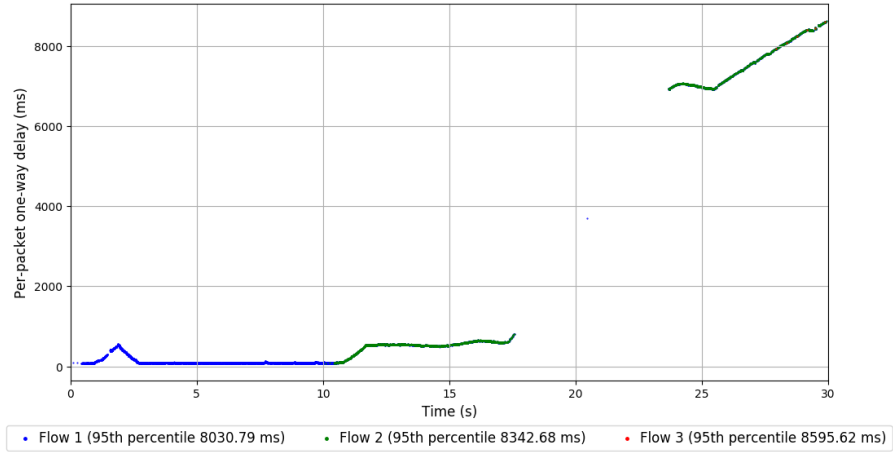
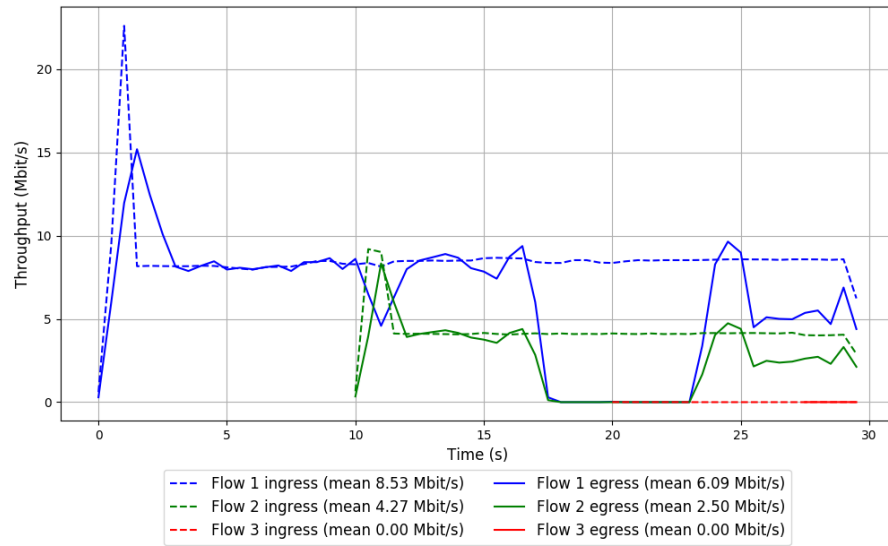


Run 1: Statistics of PCC

Start at: 2018-01-30 15:11:28
End at: 2018-01-30 15:11:58
Local clock offset: 11.854 ms
Remote clock offset: -2.248 ms

Below is generated by plot.py at 2018-01-30 17:05:48
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.75 Mbit/s
95th percentile per-packet one-way delay: 8102.781 ms
Loss rate: 31.86%
-- Flow 1:
Average throughput: 6.09 Mbit/s
95th percentile per-packet one-way delay: 8030.794 ms
Loss rate: 28.69%
-- Flow 2:
Average throughput: 2.50 Mbit/s
95th percentile per-packet one-way delay: 8342.685 ms
Loss rate: 41.36%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 8595.616 ms
Loss rate: 66.84%

Run 1: Report of PCC — Data Link

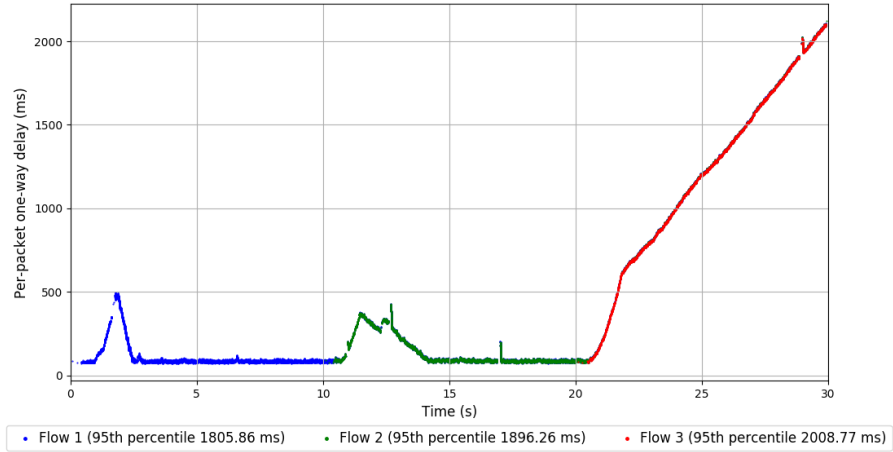
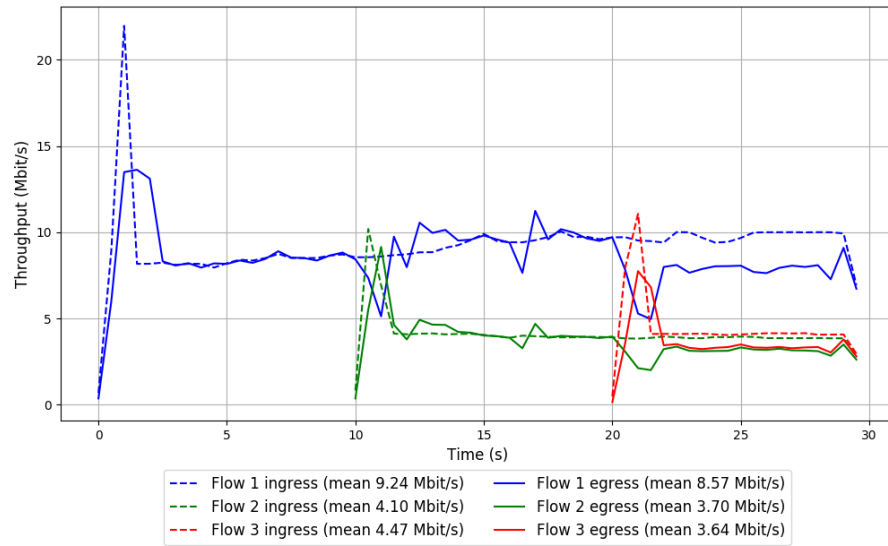


Run 2: Statistics of PCC

Start at: 2018-01-30 15:45:31
End at: 2018-01-30 15:46:01
Local clock offset: -13.882 ms
Remote clock offset: -0.549 ms

Below is generated by plot.py at 2018-01-30 17:05:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.22 Mbit/s
95th percentile per-packet one-way delay: 1875.388 ms
Loss rate: 9.09%
-- Flow 1:
Average throughput: 8.57 Mbit/s
95th percentile per-packet one-way delay: 1805.859 ms
Loss rate: 7.35%
-- Flow 2:
Average throughput: 3.70 Mbit/s
95th percentile per-packet one-way delay: 1896.256 ms
Loss rate: 9.69%
-- Flow 3:
Average throughput: 3.64 Mbit/s
95th percentile per-packet one-way delay: 2008.769 ms
Loss rate: 18.88%

Run 2: Report of PCC — Data Link

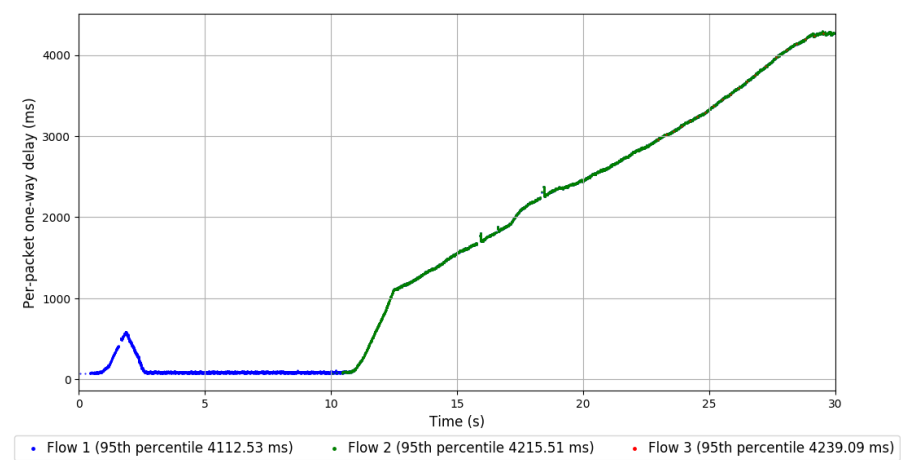
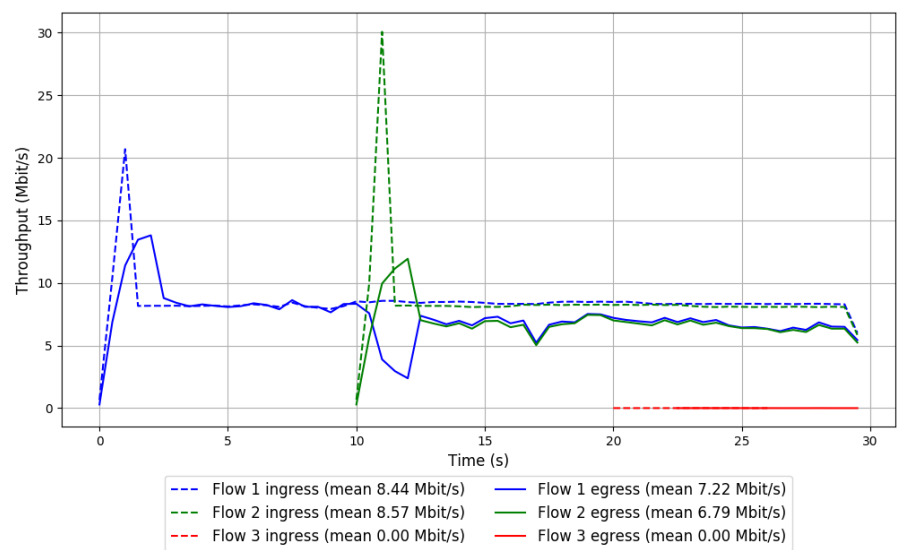


Run 3: Statistics of PCC

Start at: 2018-01-30 16:21:11
End at: 2018-01-30 16:21:41
Local clock offset: -5.587 ms
Remote clock offset: -1.204 ms

Below is generated by plot.py at 2018-01-30 17:06:01
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.74 Mbit/s
95th percentile per-packet one-way delay: 4149.340 ms
Loss rate: 17.06%
-- Flow 1:
Average throughput: 7.22 Mbit/s
95th percentile per-packet one-way delay: 4112.527 ms
Loss rate: 14.49%
-- Flow 2:
Average throughput: 6.79 Mbit/s
95th percentile per-packet one-way delay: 4215.509 ms
Loss rate: 20.86%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4239.087 ms
Loss rate: 5.31%

Run 3: Report of PCC — Data Link

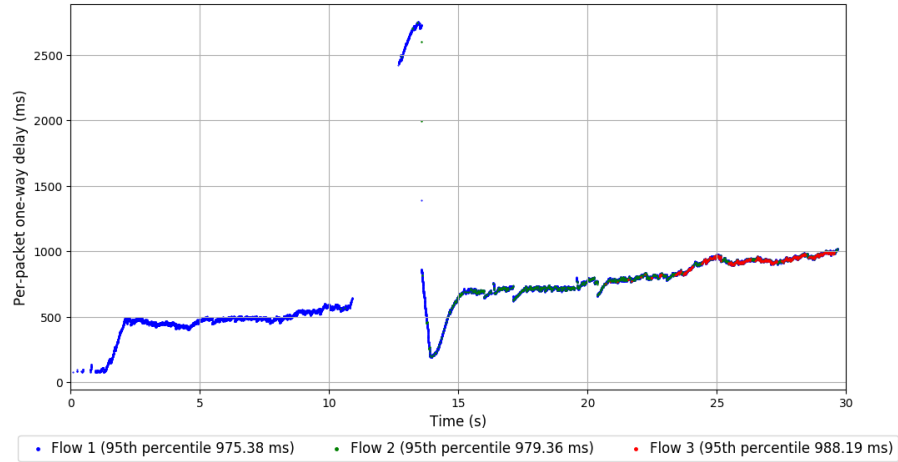
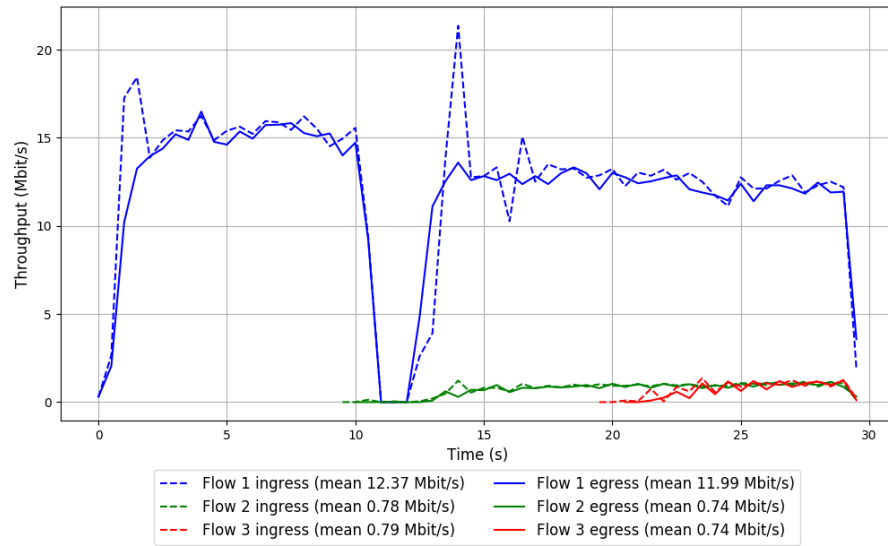


Run 1: Statistics of QUIC Cubic

Start at: 2018-01-30 15:37:01
End at: 2018-01-30 15:37:31
Local clock offset: -11.661 ms
Remote clock offset: 0.583 ms

Below is generated by plot.py at 2018-01-30 17:06:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.69 Mbit/s
95th percentile per-packet one-way delay: 976.132 ms
Loss rate: 3.46%
-- Flow 1:
Average throughput: 11.99 Mbit/s
95th percentile per-packet one-way delay: 975.378 ms
Loss rate: 3.11%
-- Flow 2:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 979.360 ms
Loss rate: 6.44%
-- Flow 3:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 988.192 ms
Loss rate: 14.42%

Run 1: Report of QUIC Cubic — Data Link

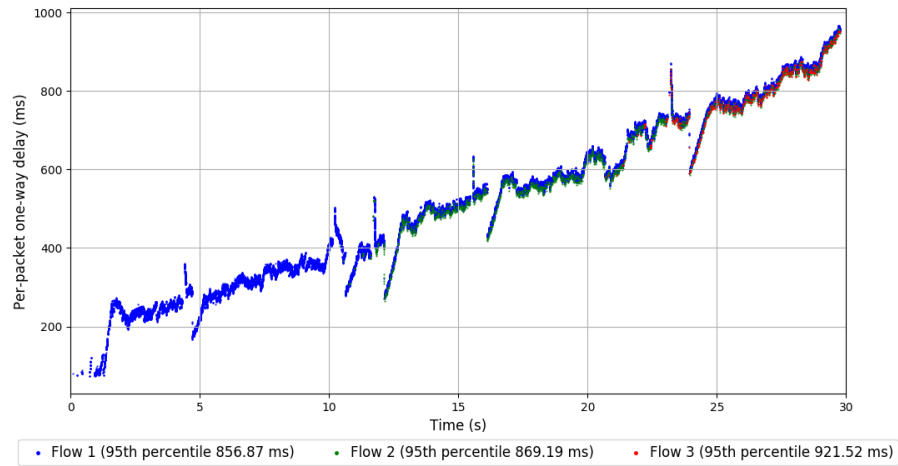
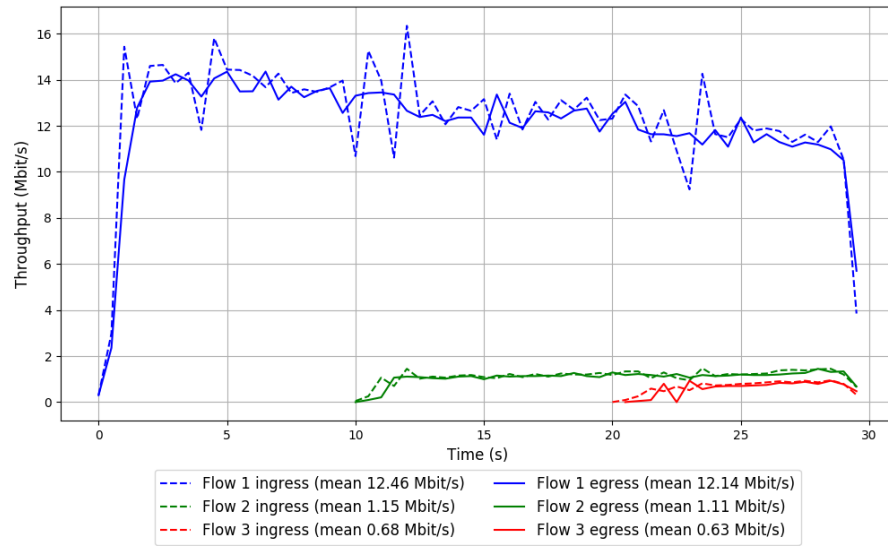


Run 2: Statistics of QUIC Cubic

Start at: 2018-01-30 16:11:04
End at: 2018-01-30 16:11:34
Local clock offset: -5.62 ms
Remote clock offset: -6.659 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.06 Mbit/s
95th percentile per-packet one-way delay: 858.545 ms
Loss rate: 2.85%
-- Flow 1:
Average throughput: 12.14 Mbit/s
95th percentile per-packet one-way delay: 856.871 ms
Loss rate: 2.55%
-- Flow 2:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 869.190 ms
Loss rate: 5.20%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 921.520 ms
Loss rate: 11.51%

Run 2: Report of QUIC Cubic — Data Link

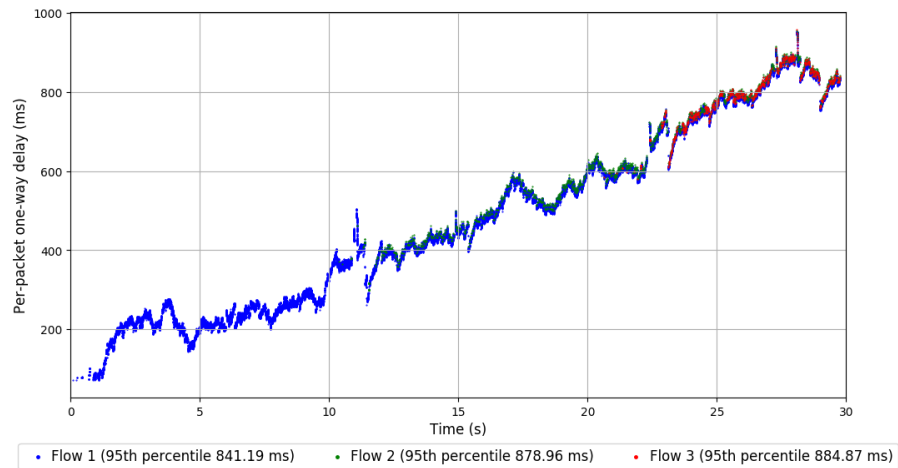
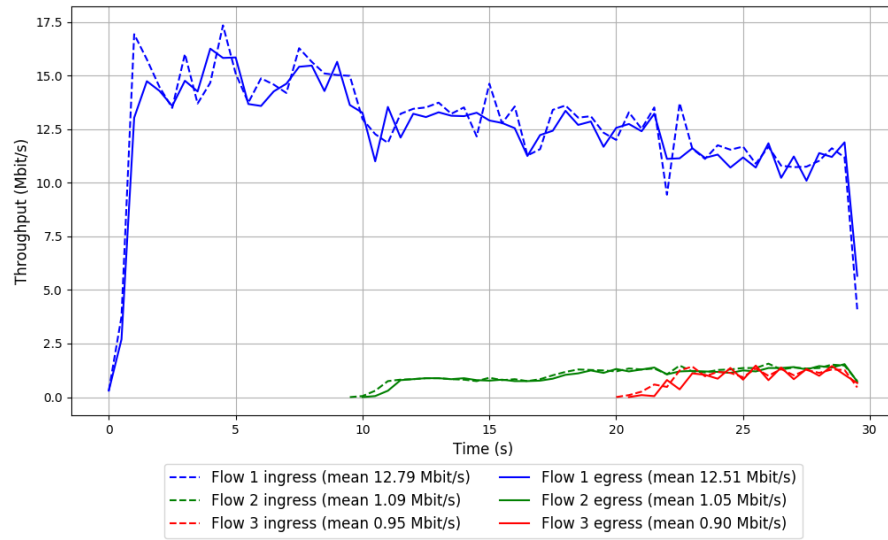


Run 3: Statistics of QUIC Cubic

Start at: 2018-01-30 16:56:56
End at: 2018-01-30 16:57:26
Local clock offset: -3.223 ms
Remote clock offset: -1.003 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.47 Mbit/s
95th percentile per-packet one-way delay: 847.682 ms
Loss rate: 2.57%
-- Flow 1:
Average throughput: 12.51 Mbit/s
95th percentile per-packet one-way delay: 841.192 ms
Loss rate: 2.21%
-- Flow 2:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 878.964 ms
Loss rate: 5.58%
-- Flow 3:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 884.870 ms
Loss rate: 10.60%

Run 3: Report of QUIC Cubic — Data Link

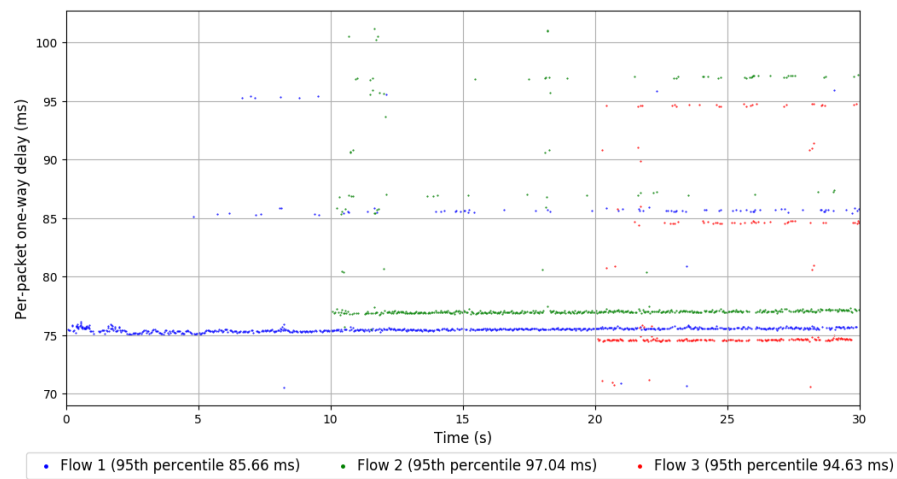
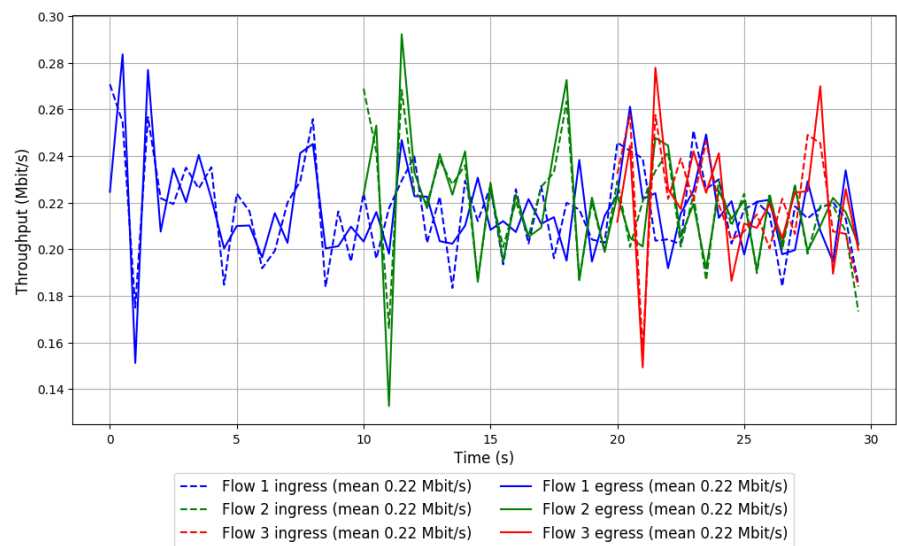


```
Run 1: Statistics of SReAM

Start at: 2018-01-30 15:40:33
End at: 2018-01-30 15:41:03
Local clock offset: -12.747 ms
Remote clock offset: 0.356 ms

# Below is generated by plot.py at 2018-01-30 17:06:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 94.583 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 85.660 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 97.044 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.633 ms
Loss rate: 0.00%
```

Run 1: Report of SReAM — Data Link

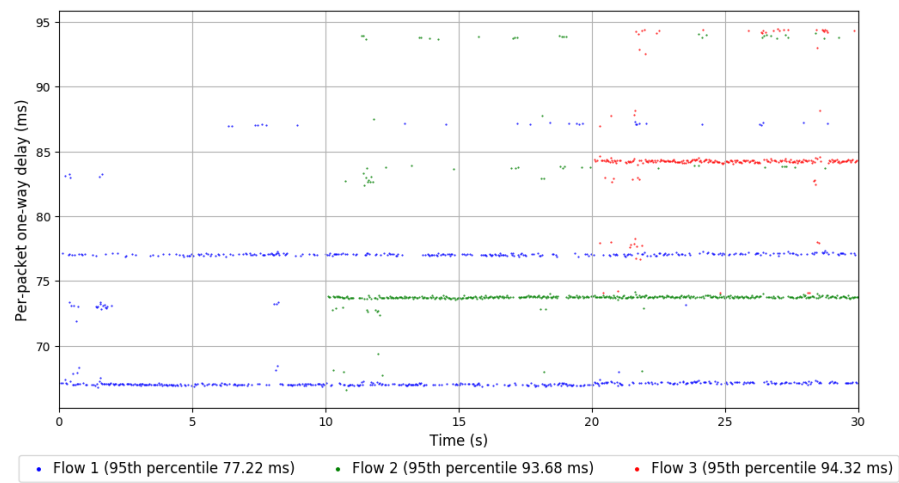
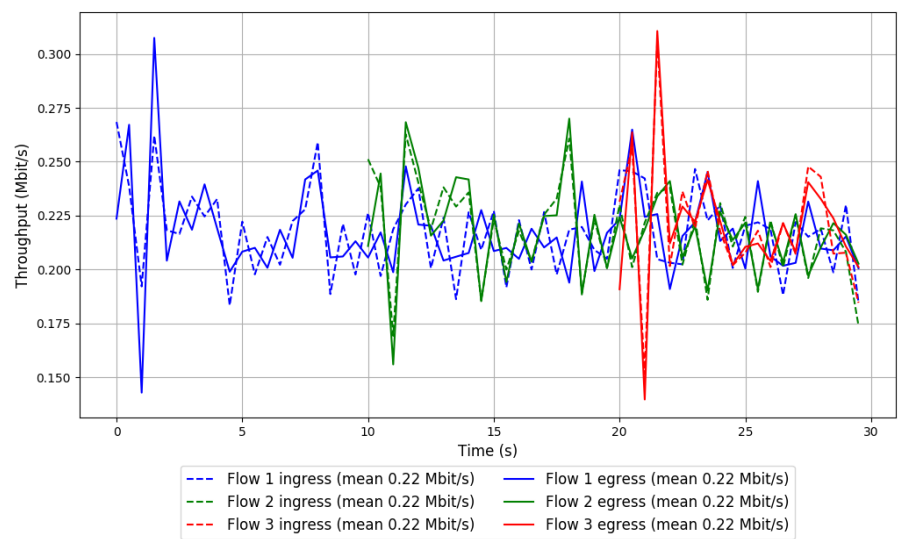


Run 2: Statistics of SReAM

Start at: 2018-01-30 16:14:37
End at: 2018-01-30 16:15:07
Local clock offset: -5.949 ms
Remote clock offset: -6.318 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 87.130 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 77.216 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 93.680 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 94.318 ms
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

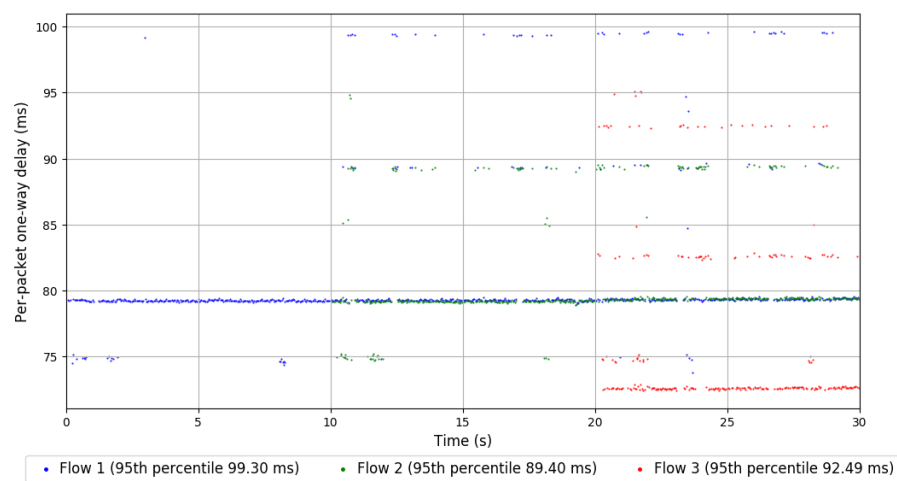
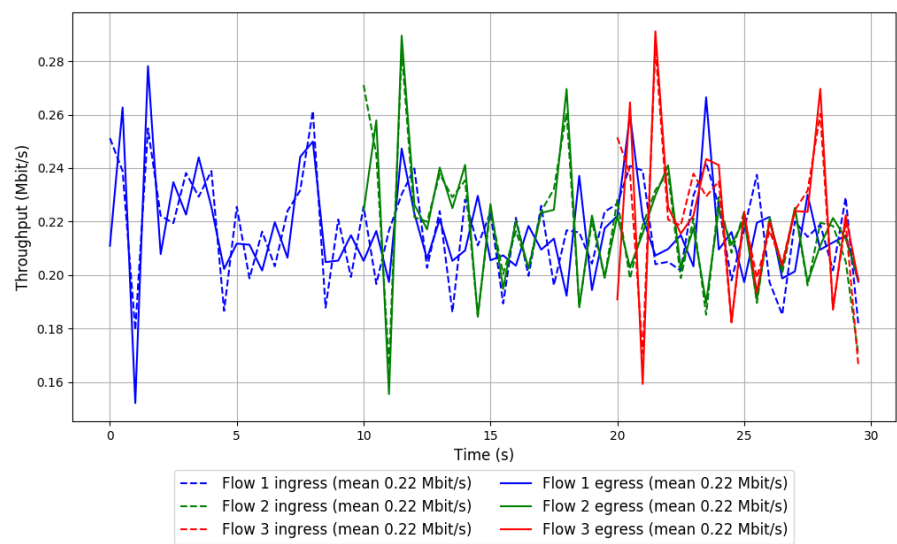


Run 3: Statistics of SReAM

Start at: 2018-01-30 17:01:18
End at: 2018-01-30 17:01:48
Local clock offset: -1.669 ms
Remote clock offset: -1.166 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 89.544 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 99.299 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 89.396 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 92.492 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

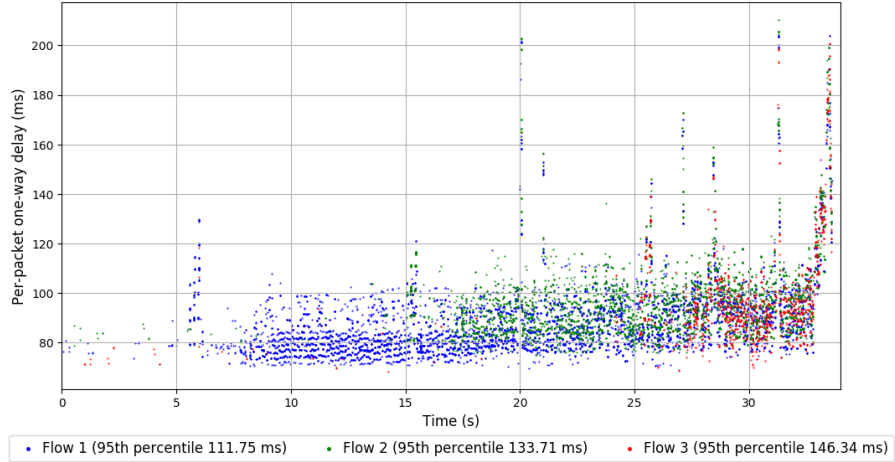
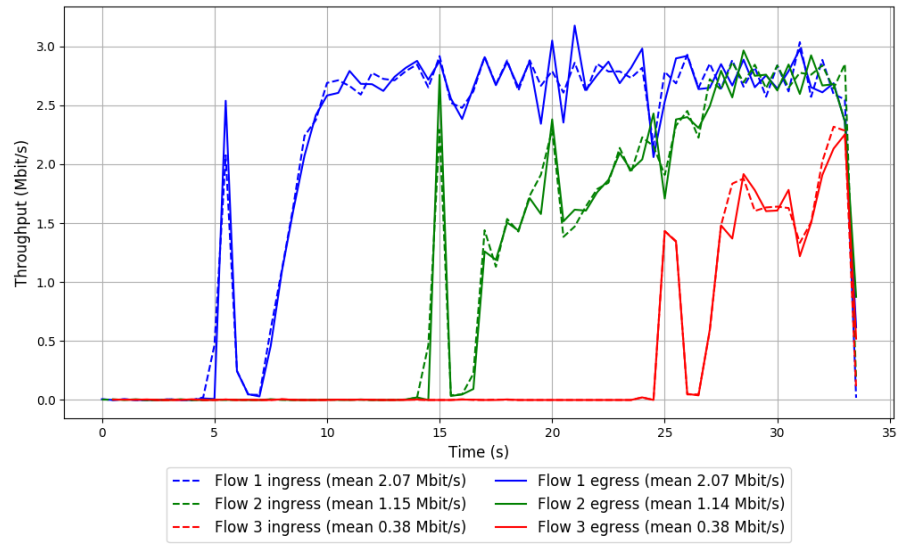


Run 1: Statistics of WebRTC media

Start at: 2018-01-30 15:38:51
End at: 2018-01-30 15:39:21
Local clock offset: -12.663 ms
Remote clock offset: 0.631 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.56 Mbit/s
95th percentile per-packet one-way delay: 126.725 ms
Loss rate: 0.33%
-- Flow 1:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 111.746 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 133.708 ms
Loss rate: 0.51%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 146.343 ms
Loss rate: 0.79%

Run 1: Report of WebRTC media — Data Link

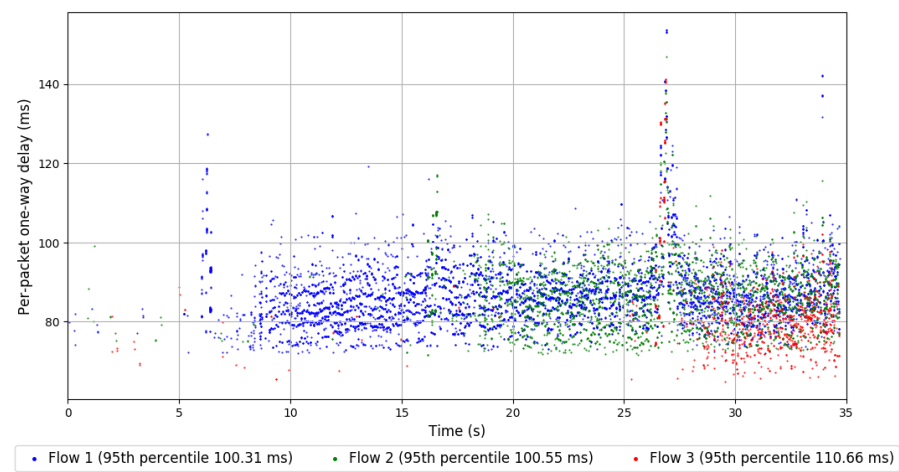
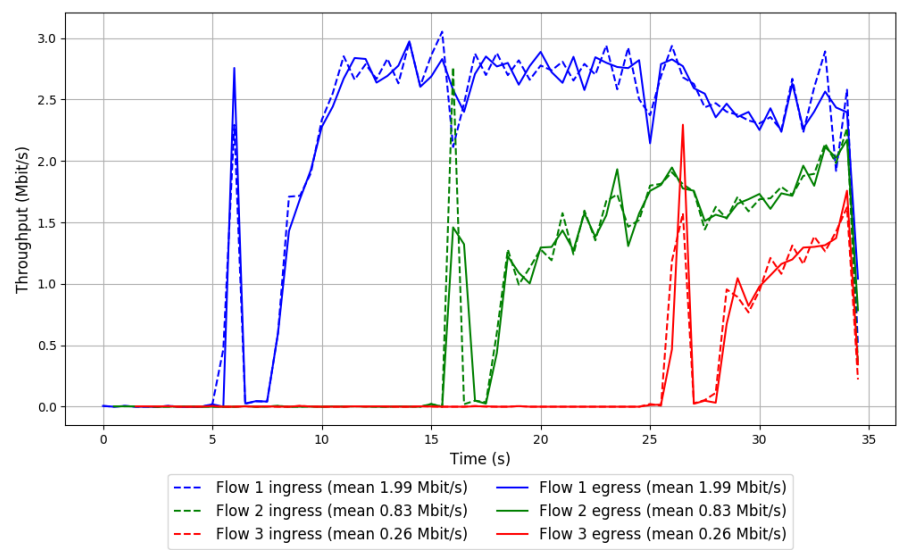


Run 2: Statistics of WebRTC media

Start at: 2018-01-30 16:13:02
End at: 2018-01-30 16:13:32
Local clock offset: -5.484 ms
Remote clock offset: -6.734 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.05 Mbit/s
95th percentile per-packet one-way delay: 100.645 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 100.315 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 100.551 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 110.663 ms
Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link

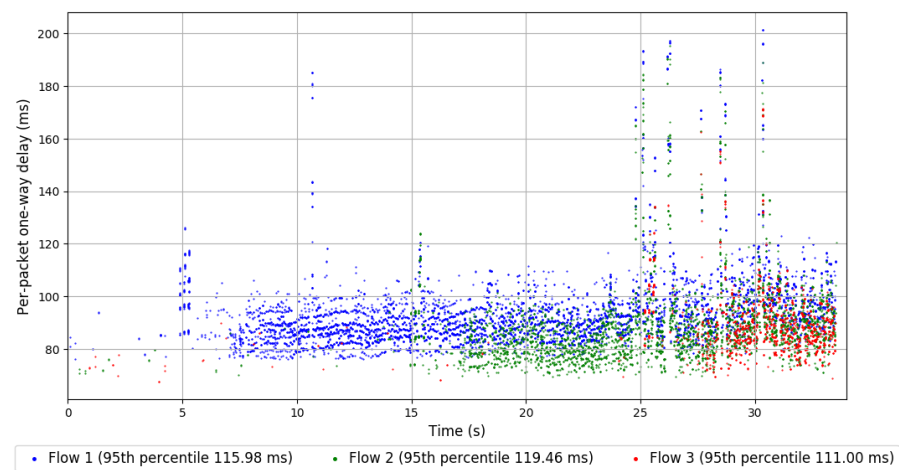
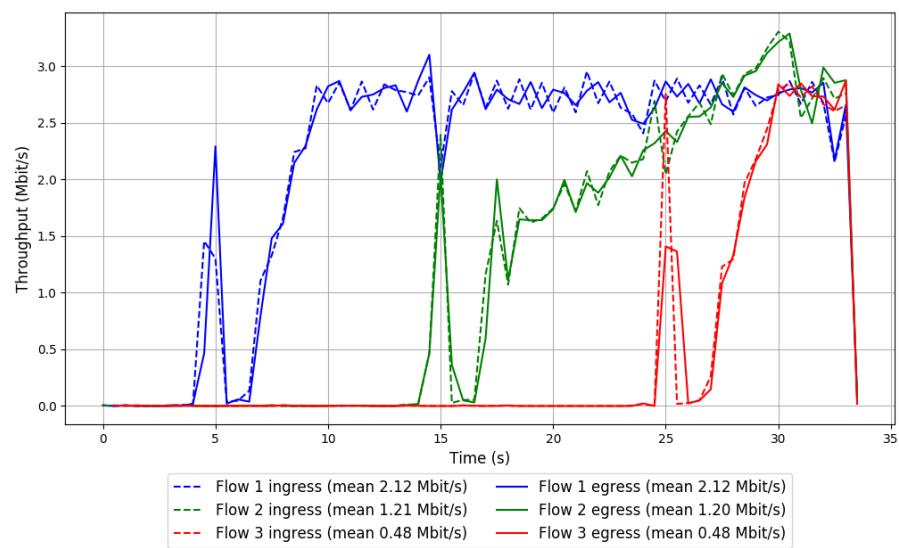


Run 3: Statistics of WebRTC media

Start at: 2018-01-30 16:59:31
End at: 2018-01-30 17:00:01
Local clock offset: -2.001 ms
Remote clock offset: -1.201 ms

Below is generated by plot.py at 2018-01-30 17:06:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.77 Mbit/s
95th percentile per-packet one-way delay: 115.825 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 115.985 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 119.459 ms
Loss rate: 0.22%
-- Flow 3:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 110.999 ms
Loss rate: 0.69%

Run 3: Report of WebRTC media — Data Link



Run 1: Statistics of Sprout

Start at: 2018-01-30 15:15:00

End at: 2018-01-30 15:15:30

Local clock offset: 5.126 ms

Remote clock offset: -0.98 ms

Below is generated by plot.py at 2018-01-30 17:06:03

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.35 Mbit/s

95th percentile per-packet one-way delay: 99.763 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 99.934 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 92.272 ms

Loss rate: 0.00%

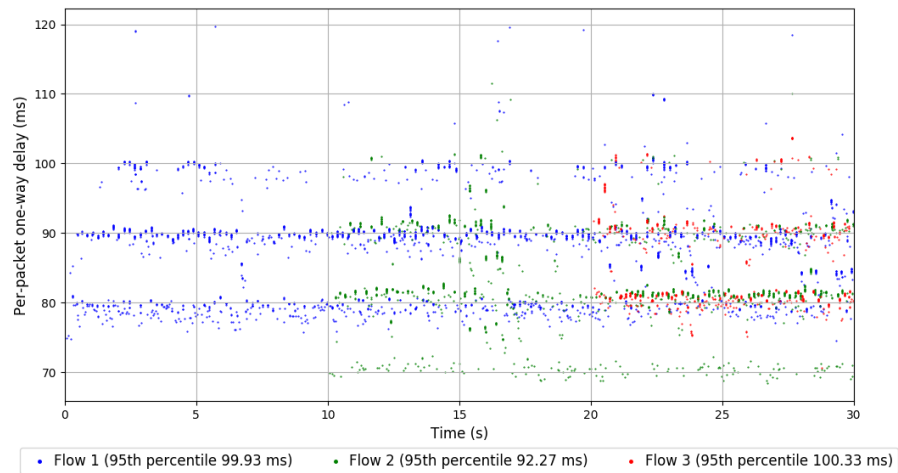
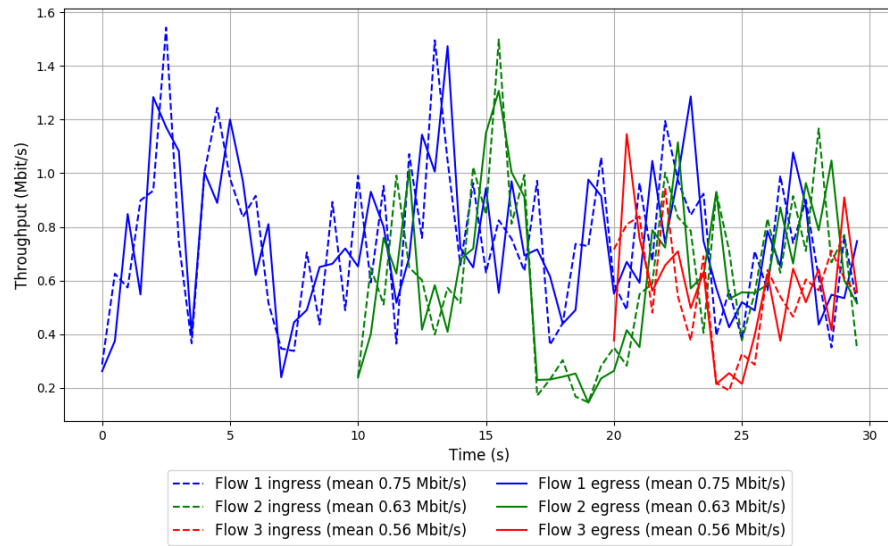
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 100.329 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

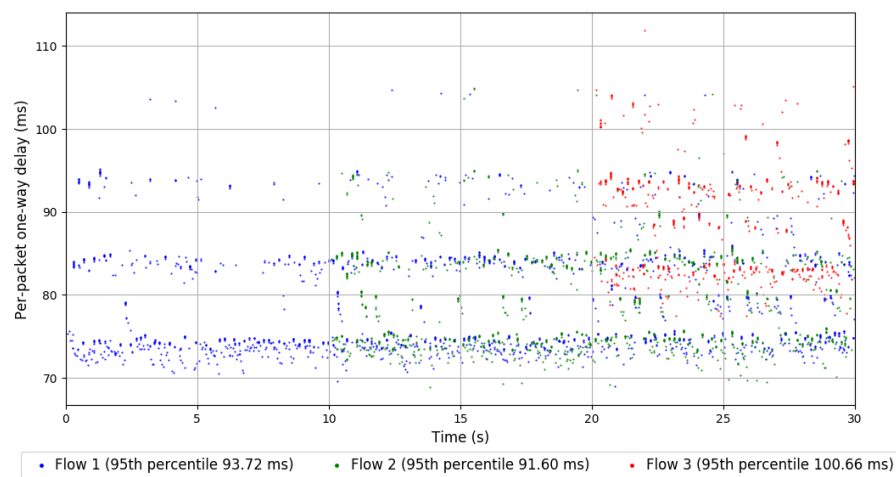
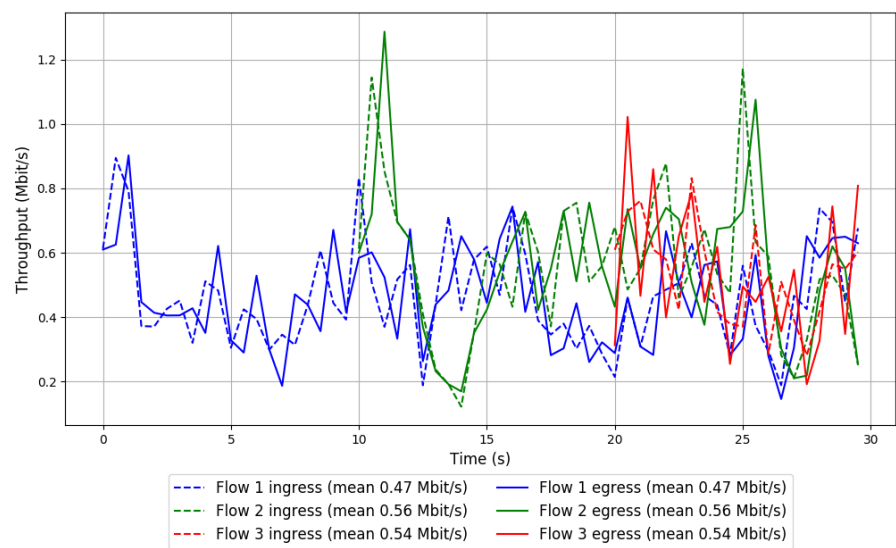


Run 2: Statistics of Sprout

Start at: 2018-01-30 15:49:12
End at: 2018-01-30 15:49:42
Local clock offset: -10.73 ms
Remote clock offset: -1.071 ms

```
# Below is generated by plot.py at 2018-01-30 17:06:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 94.092 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 93.718 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 91.603 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 100.663 ms
Loss rate: 0.00%
```

Run 2: Report of Sprout — Data Link

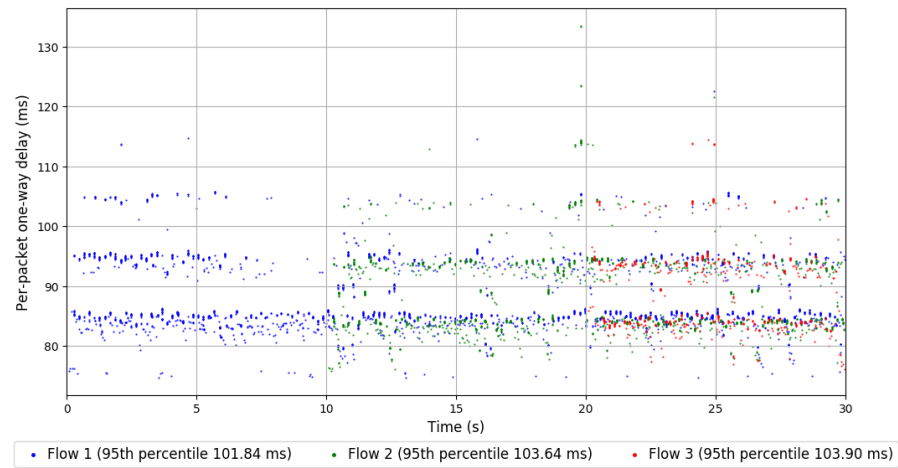
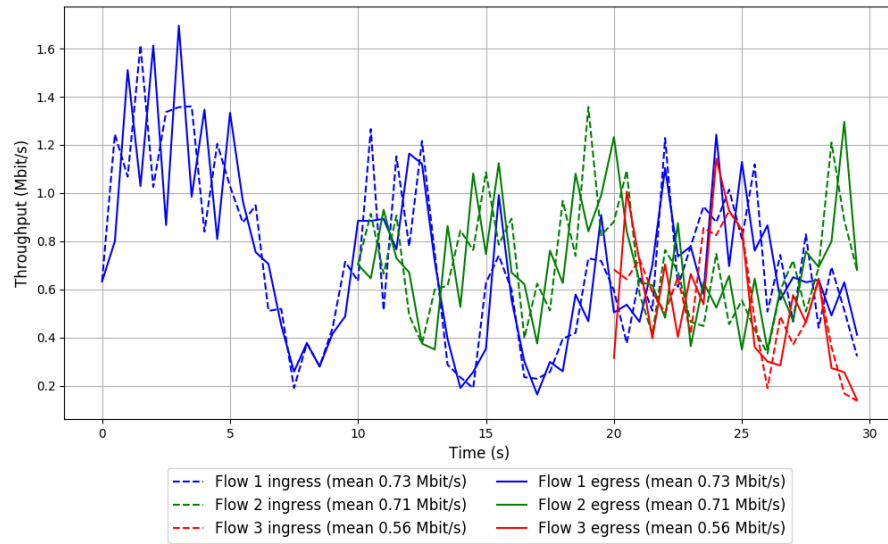


Run 3: Statistics of Sprout

Start at: 2018-01-30 16:26:21
End at: 2018-01-30 16:26:51
Local clock offset: -5.156 ms
Remote clock offset: -0.644 ms

```
# Below is generated by plot.py at 2018-01-30 17:06:03
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 103.559 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 101.842 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 103.636 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 103.901 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

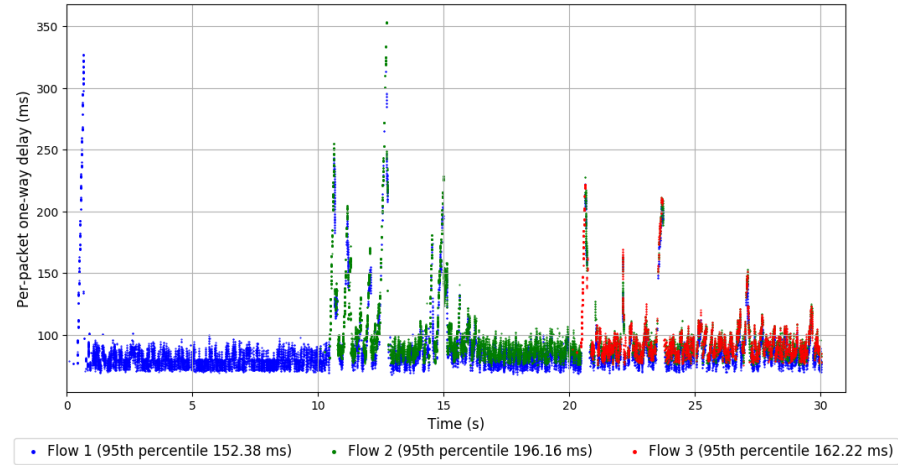
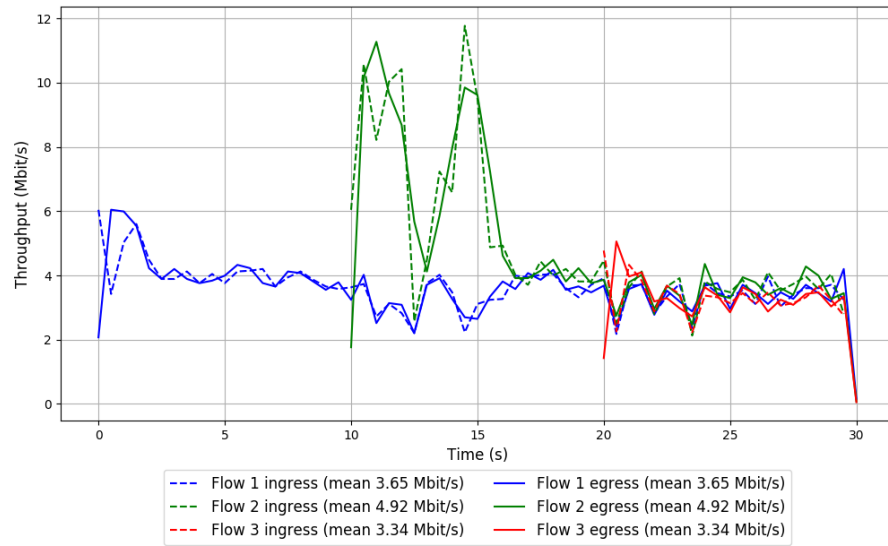


Run 1: Statistics of TaoVA-100x

Start at: 2018-01-30 15:13:09
End at: 2018-01-30 15:13:39
Local clock offset: 7.77 ms
Remote clock offset: -1.536 ms

Below is generated by plot.py at 2018-01-30 17:06:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.02 Mbit/s
95th percentile per-packet one-way delay: 174.925 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 152.384 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 4.92 Mbit/s
95th percentile per-packet one-way delay: 196.162 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 3.34 Mbit/s
95th percentile per-packet one-way delay: 162.225 ms
Loss rate: 0.43%

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

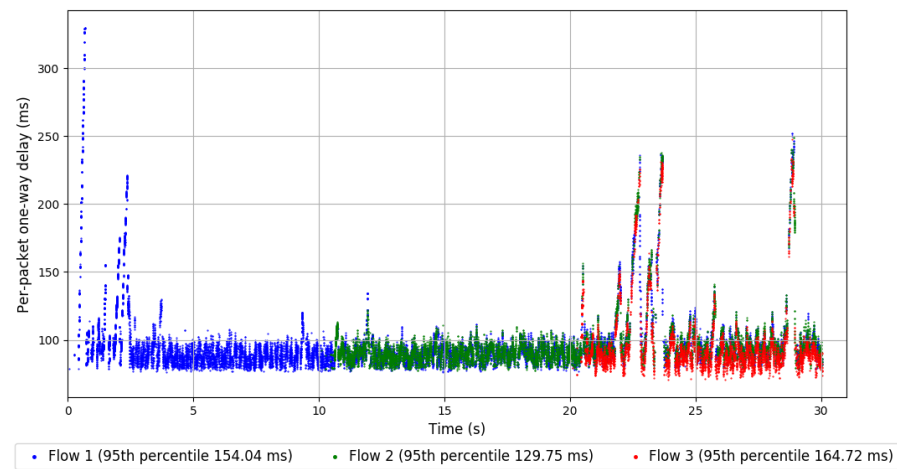
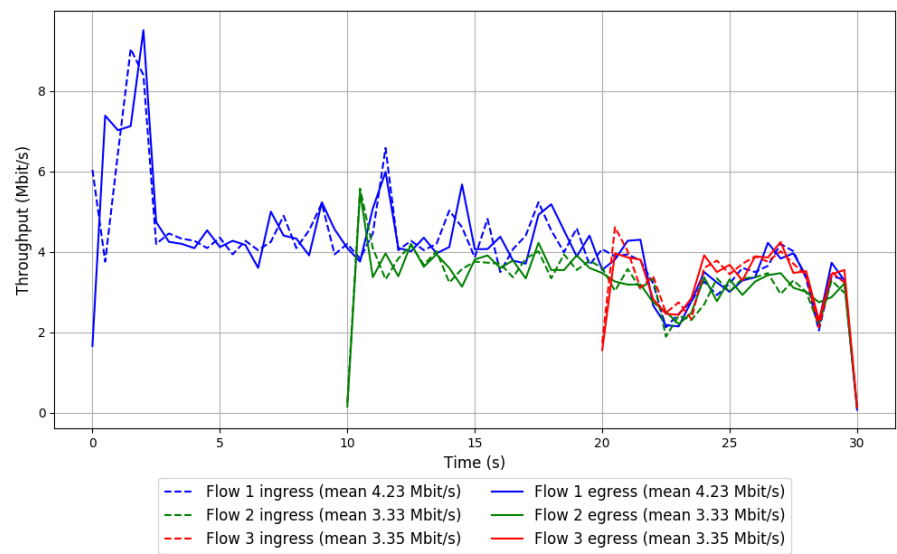


Run 2: Statistics of TaoVA-100x

Start at: 2018-01-30 15:47:16
End at: 2018-01-30 15:47:46
Local clock offset: -12.303 ms
Remote clock offset: -0.883 ms

Below is generated by plot.py at 2018-01-30 17:06:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 148.735 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 154.039 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 3.33 Mbit/s
95th percentile per-packet one-way delay: 129.745 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 3.35 Mbit/s
95th percentile per-packet one-way delay: 164.716 ms
Loss rate: 0.08%

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

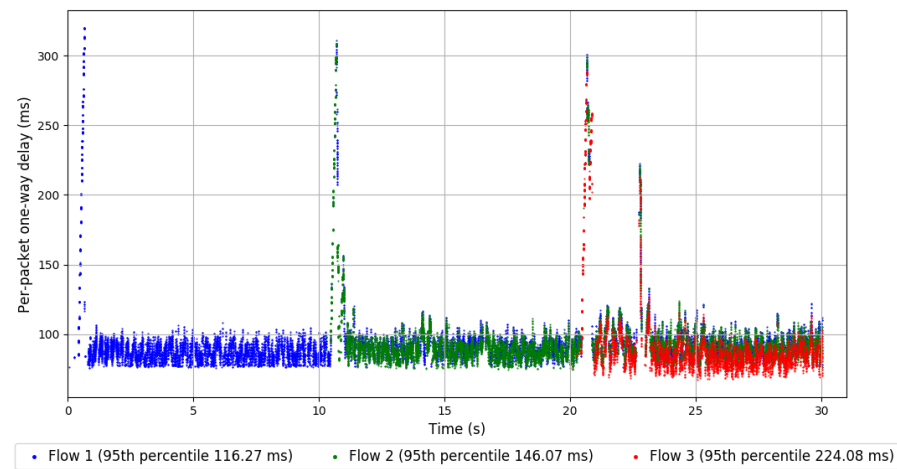
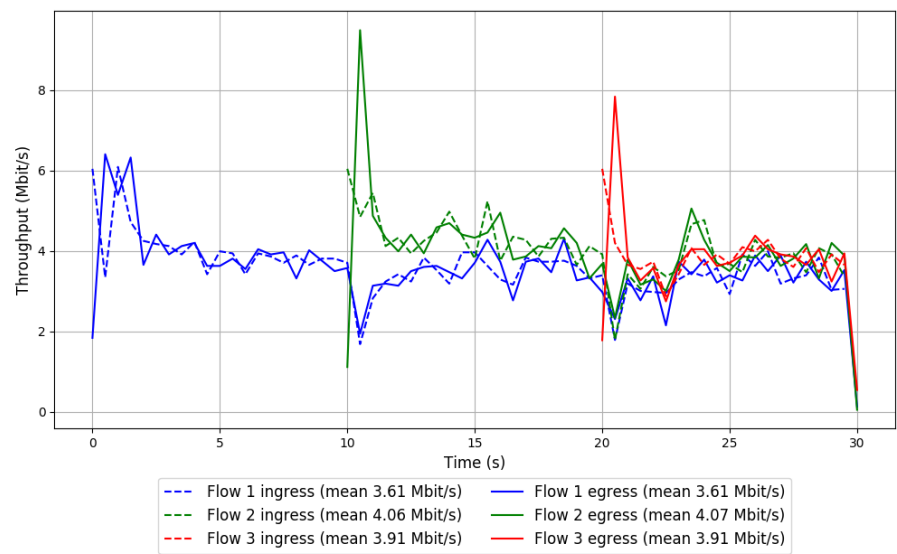


Run 3: Statistics of TaoVA-100x

Start at: 2018-01-30 16:23:38
End at: 2018-01-30 16:24:08
Local clock offset: -5.314 ms
Remote clock offset: -0.905 ms

Below is generated by plot.py at 2018-01-30 17:06:19
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.61 Mbit/s
95th percentile per-packet one-way delay: 155.576 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 116.273 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.07 Mbit/s
95th percentile per-packet one-way delay: 146.071 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 3.91 Mbit/s
95th percentile per-packet one-way delay: 224.078 ms
Loss rate: 0.07%

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

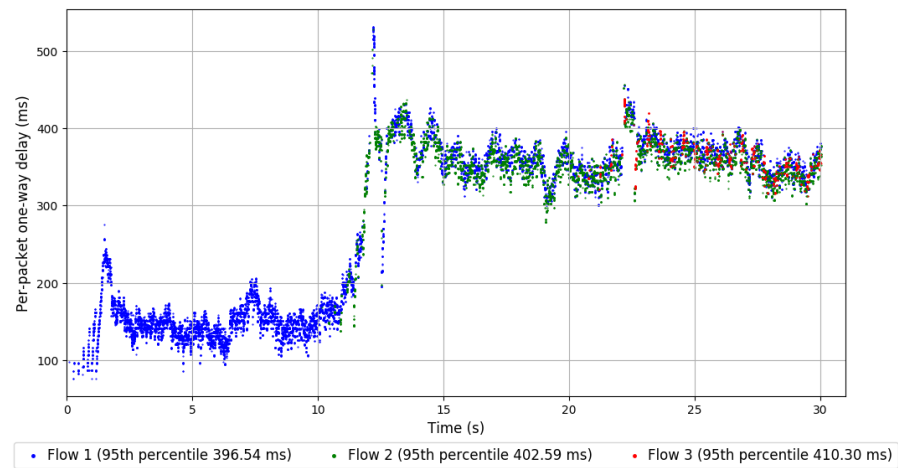
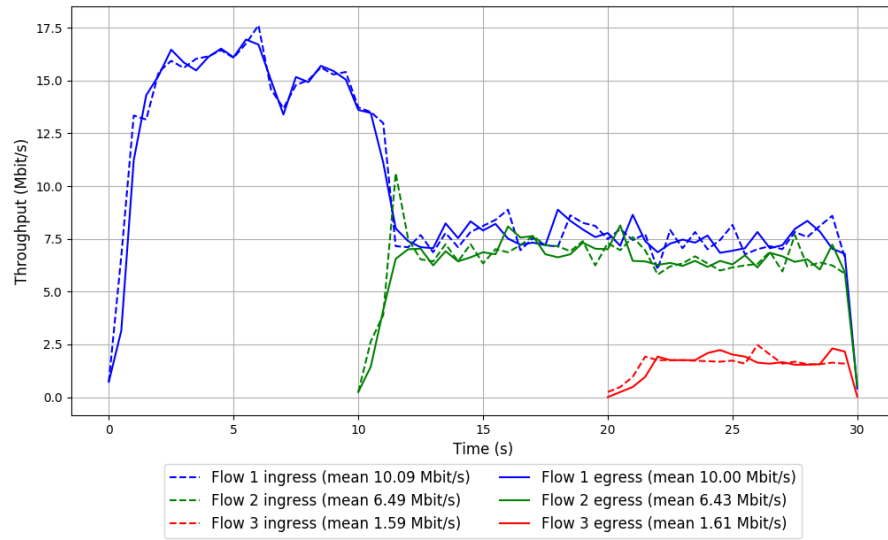


Run 1: Statistics of TCP Vegas

Start at: 2018-01-30 15:16:37
End at: 2018-01-30 15:17:07
Local clock offset: 2.402 ms
Remote clock offset: -0.684 ms

Below is generated by plot.py at 2018-01-30 17:06:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.78 Mbit/s
95th percentile per-packet one-way delay: 400.487 ms
Loss rate: 1.04%
-- Flow 1:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 396.537 ms
Loss rate: 0.93%
-- Flow 2:
Average throughput: 6.43 Mbit/s
95th percentile per-packet one-way delay: 402.592 ms
Loss rate: 1.33%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 410.304 ms
Loss rate: 0.84%

Run 1: Report of TCP Vegas — Data Link

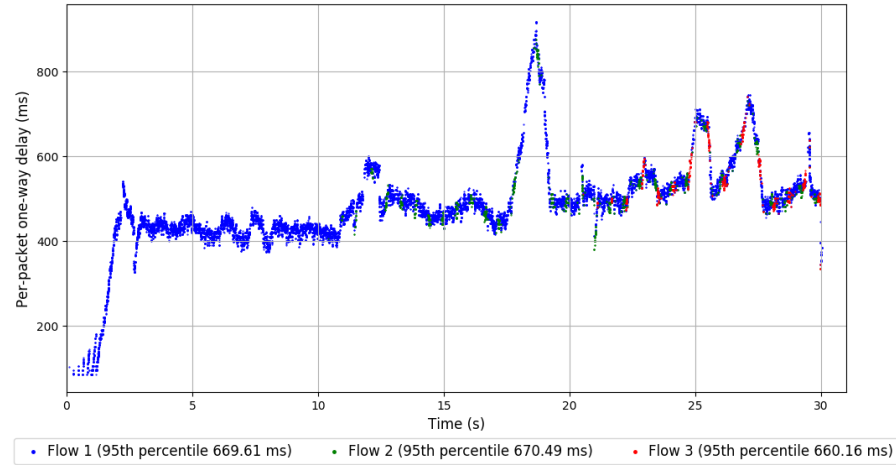
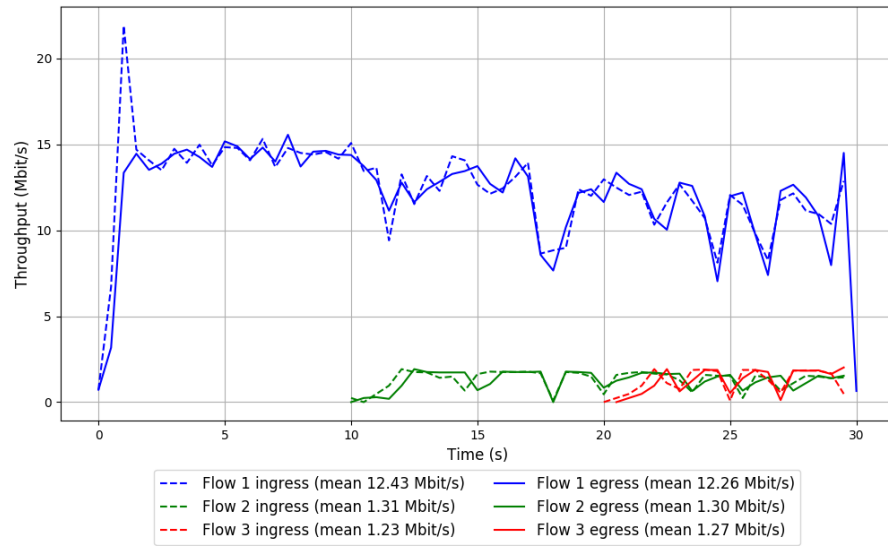


Run 2: Statistics of TCP Vegas

Start at: 2018-01-30 15:50:44
End at: 2018-01-30 15:51:14
Local clock offset: -9.489 ms
Remote clock offset: -1.256 ms

Below is generated by plot.py at 2018-01-30 17:06:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.51 Mbit/s
95th percentile per-packet one-way delay: 669.645 ms
Loss rate: 1.62%
-- Flow 1:
Average throughput: 12.26 Mbit/s
95th percentile per-packet one-way delay: 669.614 ms
Loss rate: 1.55%
-- Flow 2:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 670.486 ms
Loss rate: 2.67%
-- Flow 3:
Average throughput: 1.27 Mbit/s
95th percentile per-packet one-way delay: 660.156 ms
Loss rate: 1.38%

Run 2: Report of TCP Vegas — Data Link

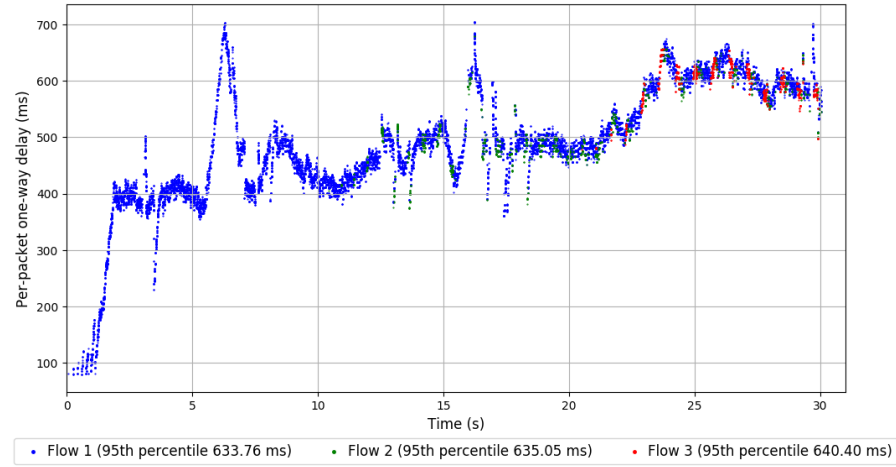
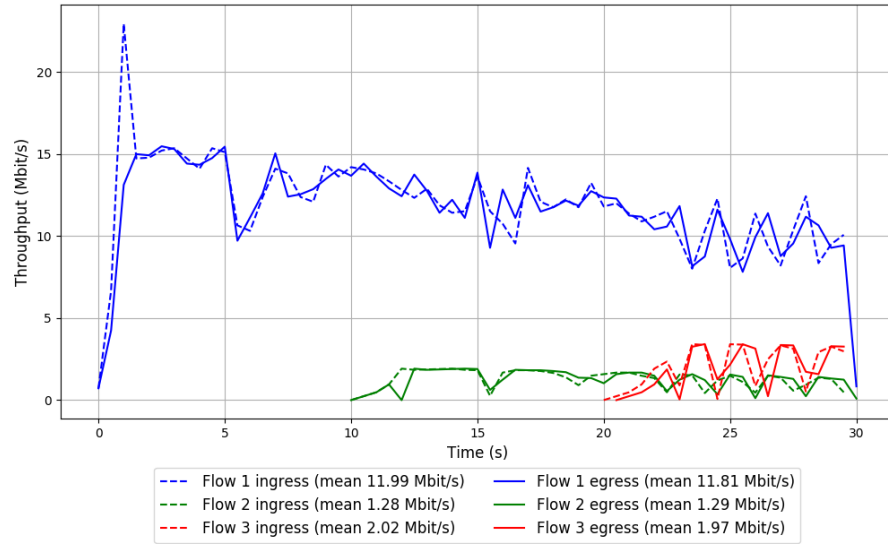


Run 3: Statistics of TCP Vegas

Start at: 2018-01-30 16:28:03
End at: 2018-01-30 16:28:33
Local clock offset: -4.825 ms
Remote clock offset: -0.512 ms

Below is generated by plot.py at 2018-01-30 17:06:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.28 Mbit/s
95th percentile per-packet one-way delay: 634.744 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 633.761 ms
Loss rate: 1.49%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 635.049 ms
Loss rate: 0.94%
-- Flow 3:
Average throughput: 1.97 Mbit/s
95th percentile per-packet one-way delay: 640.404 ms
Loss rate: 7.43%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-01-30 15:34:55

End at: 2018-01-30 15:35:25

Local clock offset: -10.73 ms

Remote clock offset: 0.632 ms

Below is generated by plot.py at 2018-01-30 17:06:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 14.49 Mbit/s

95th percentile per-packet one-way delay: 1086.865 ms

Loss rate: 1.84%

-- Flow 1:

Average throughput: 14.48 Mbit/s

95th percentile per-packet one-way delay: 1086.815 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1103.589 ms

Loss rate: 4.00%

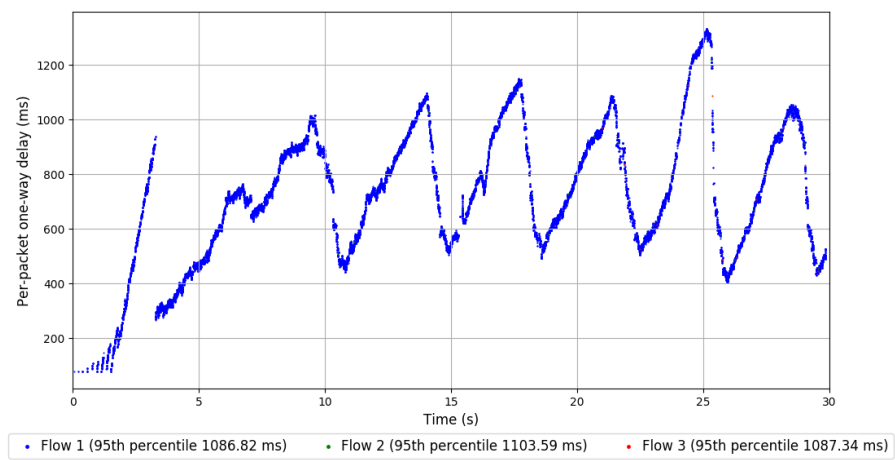
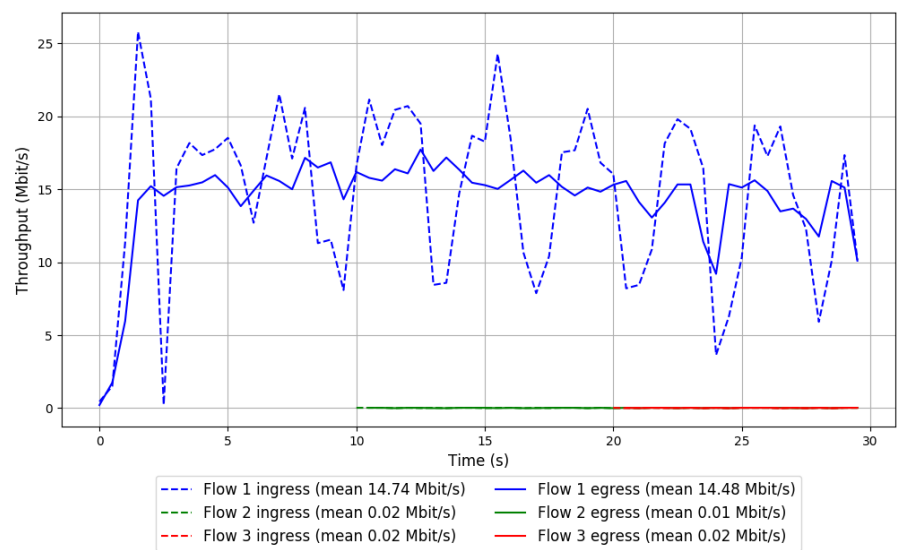
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1087.344 ms

Loss rate: 7.69%

Run 1: Report of Verus — Data Link

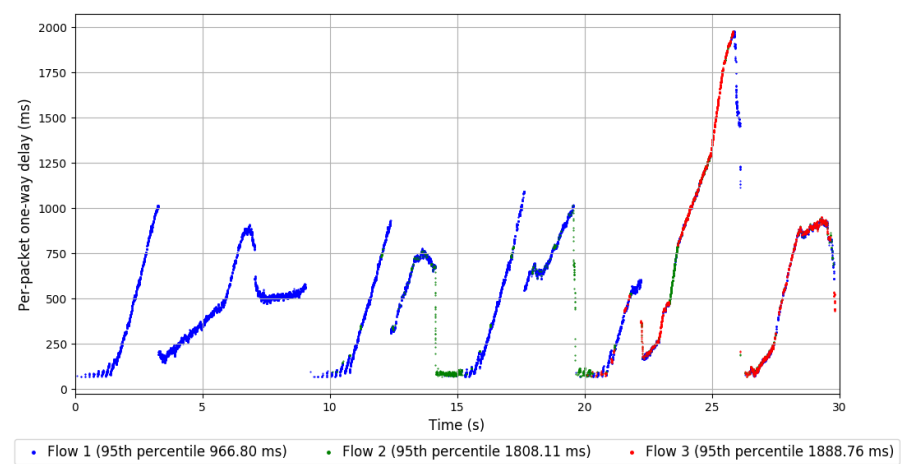
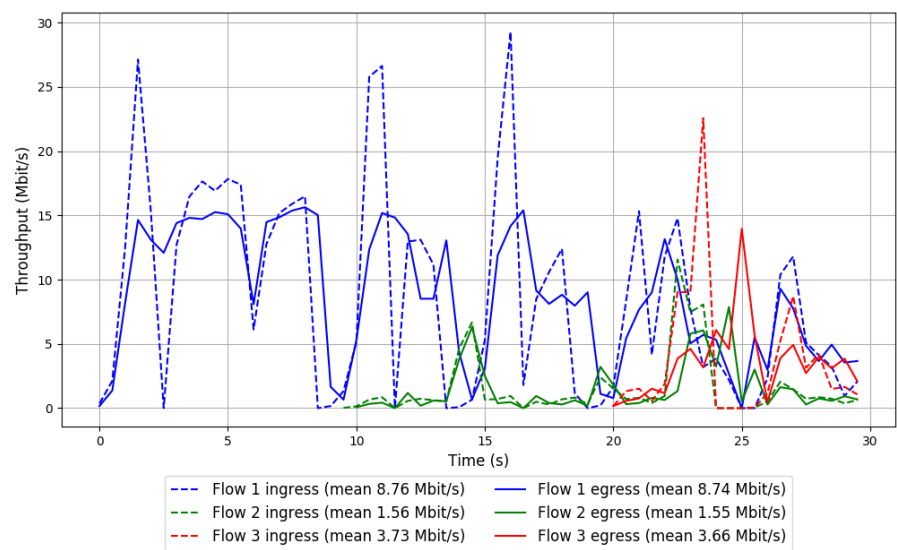


Run 2: Statistics of Verus

Start at: 2018-01-30 16:09:14
End at: 2018-01-30 16:09:44
Local clock offset: -5.875 ms
Remote clock offset: -6.553 ms

Below is generated by plot.py at 2018-01-30 17:06:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.94 Mbit/s
95th percentile per-packet one-way delay: 1291.627 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 8.74 Mbit/s
95th percentile per-packet one-way delay: 966.800 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 1808.114 ms
Loss rate: 1.34%
-- Flow 3:
Average throughput: 3.66 Mbit/s
95th percentile per-packet one-way delay: 1888.759 ms
Loss rate: 2.31%

Run 2: Report of Verus — Data Link

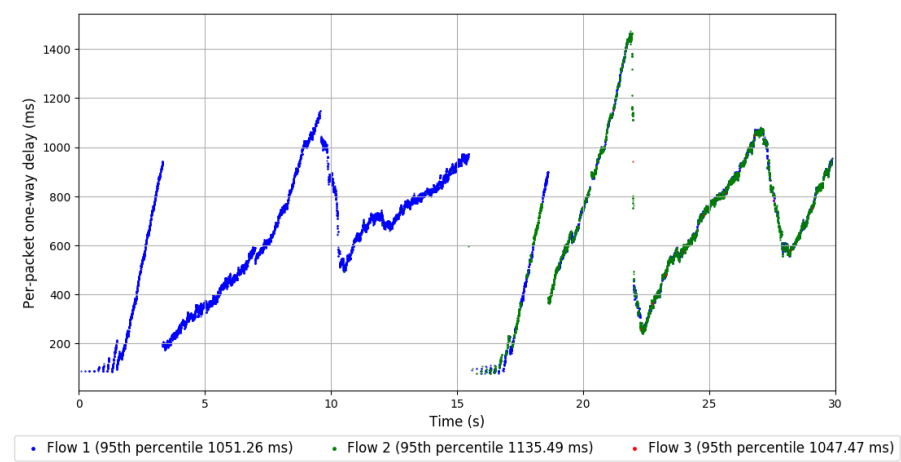
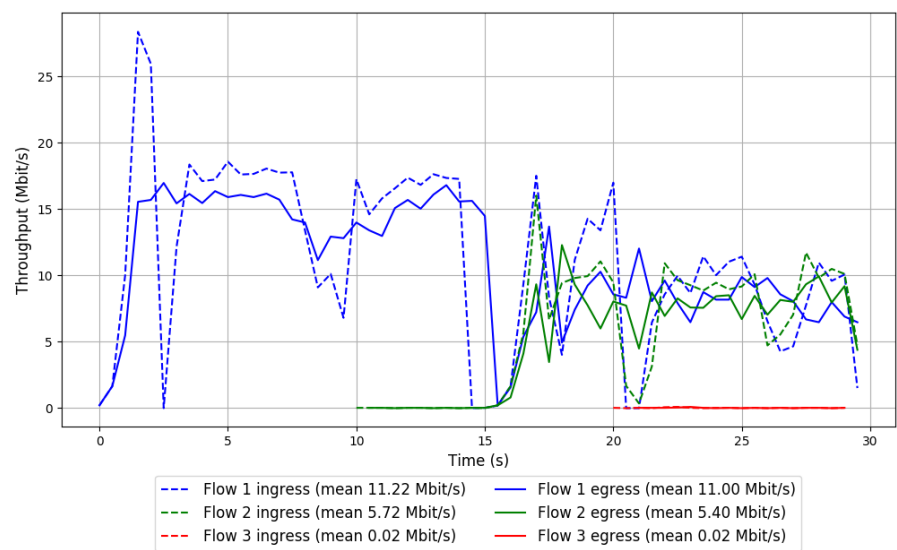


Run 3: Statistics of Verus

Start at: 2018-01-30 16:54:02
End at: 2018-01-30 16:54:32
Local clock offset: -5.002 ms
Remote clock offset: -0.782 ms

Below is generated by plot.py at 2018-01-30 17:06:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.52 Mbit/s
95th percentile per-packet one-way delay: 1064.905 ms
Loss rate: 3.37%
-- Flow 1:
Average throughput: 11.00 Mbit/s
95th percentile per-packet one-way delay: 1051.256 ms
Loss rate: 1.97%
-- Flow 2:
Average throughput: 5.40 Mbit/s
95th percentile per-packet one-way delay: 1135.492 ms
Loss rate: 7.50%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1047.473 ms
Loss rate: 5.88%

Run 3: Report of Verus — Data Link



Run 1: Statistics of Copa

Start at: 2018-01-30 15:22:04

End at: 2018-01-30 15:22:34

Local clock offset: -3.678 ms

Remote clock offset: 0.165 ms

Below is generated by plot.py at 2018-01-30 17:06:34

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.40 Mbit/s

95th percentile per-packet one-way delay: 93.242 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 0.73 Mbit/s

95th percentile per-packet one-way delay: 88.366 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.62 Mbit/s

95th percentile per-packet one-way delay: 91.924 ms

Loss rate: 0.00%

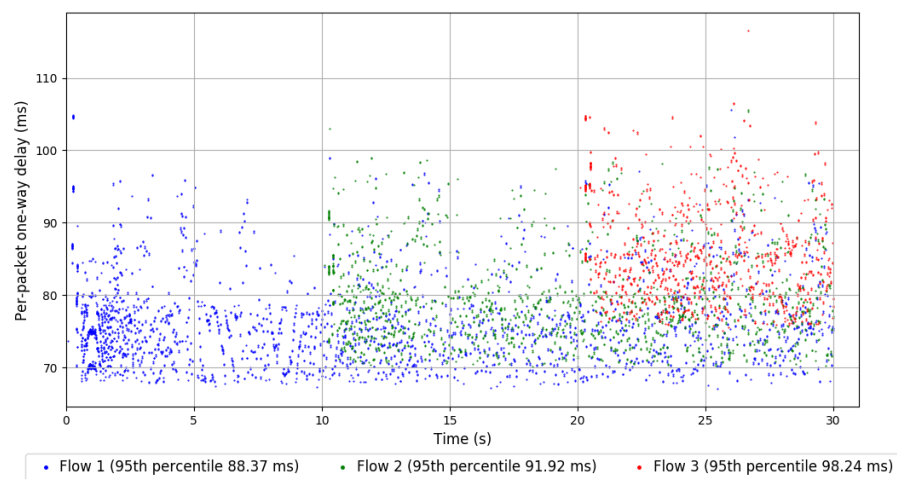
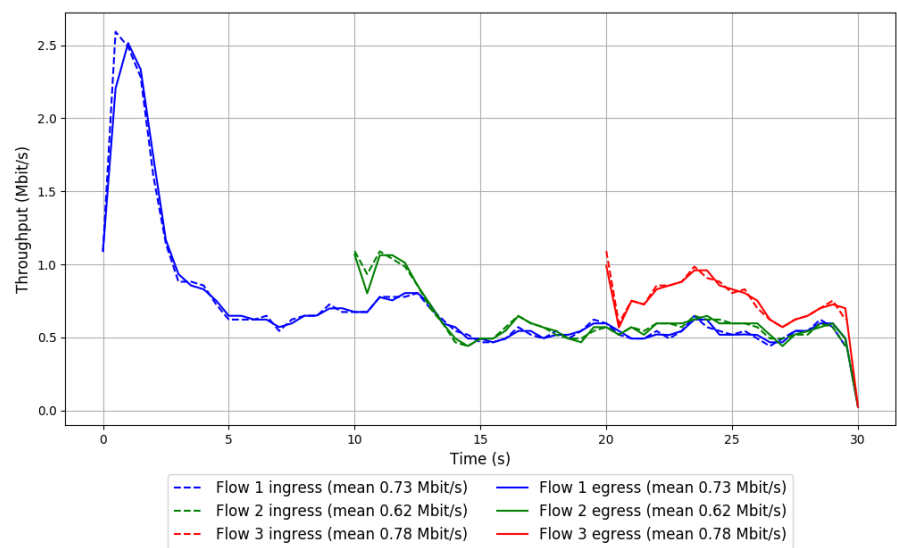
-- Flow 3:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 98.238 ms

Loss rate: 0.17%

Run 1: Report of Copa — Data Link

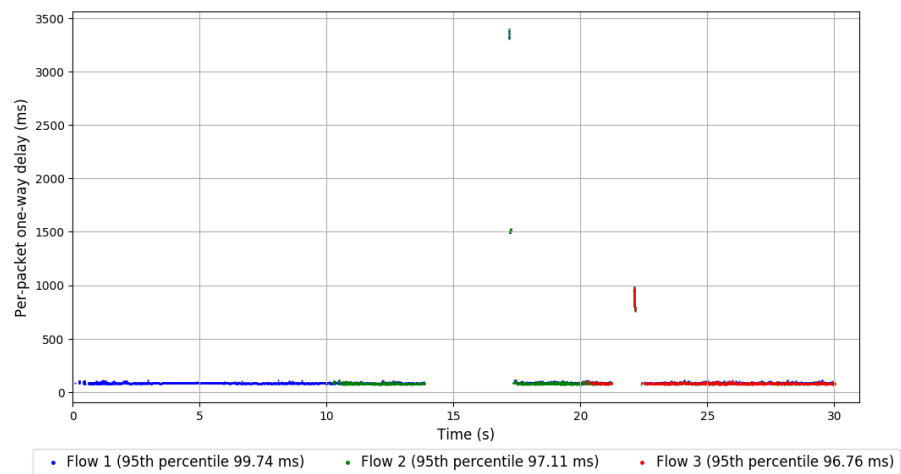
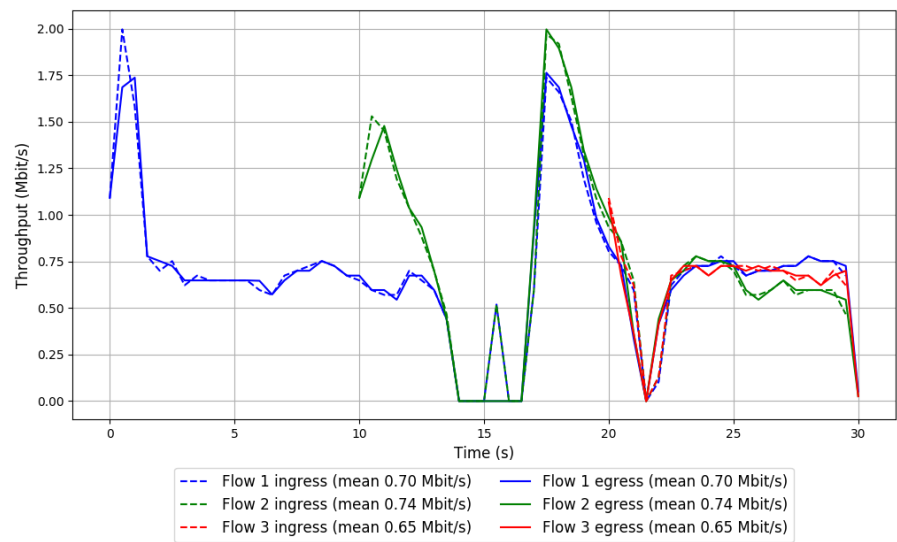


Run 2: Statistics of Copa

Start at: 2018-01-30 15:56:20
End at: 2018-01-30 15:56:50
Local clock offset: -7.482 ms
Remote clock offset: -1.832 ms

Below is generated by plot.py at 2018-01-30 17:06:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 99.255 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.70 Mbit/s
95th percentile per-packet one-way delay: 99.740 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 97.112 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 96.760 ms
Loss rate: 0.20%

Run 2: Report of Copa — Data Link

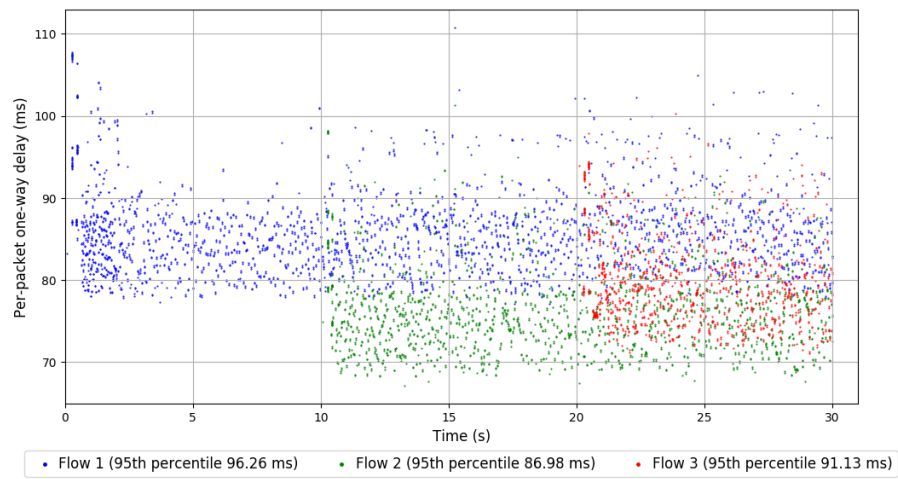
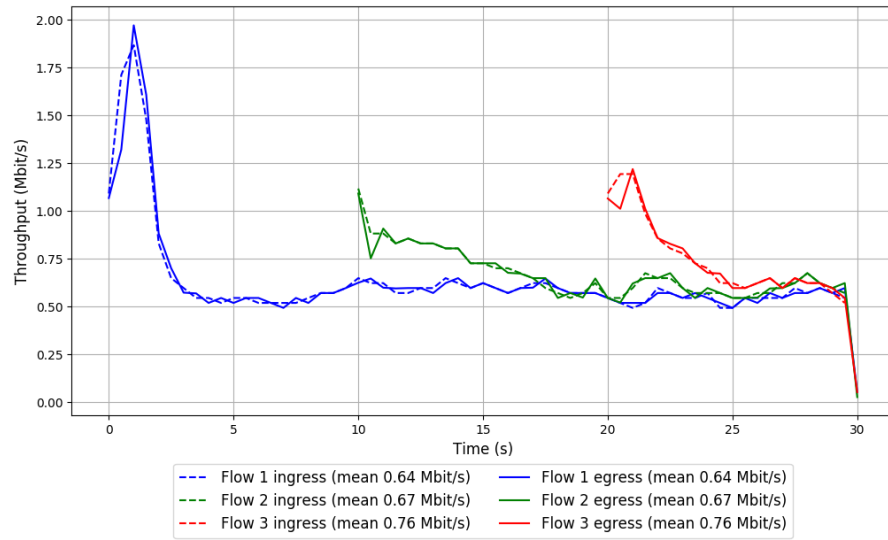


Run 3: Statistics of Copa

Start at: 2018-01-30 16:36:05
End at: 2018-01-30 16:36:35
Local clock offset: -4.807 ms
Remote clock offset: -0.083 ms

Below is generated by plot.py at 2018-01-30 17:06:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 92.702 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 96.264 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 86.984 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 91.130 ms
Loss rate: 0.00%

Run 3: Report of Copa — Data Link

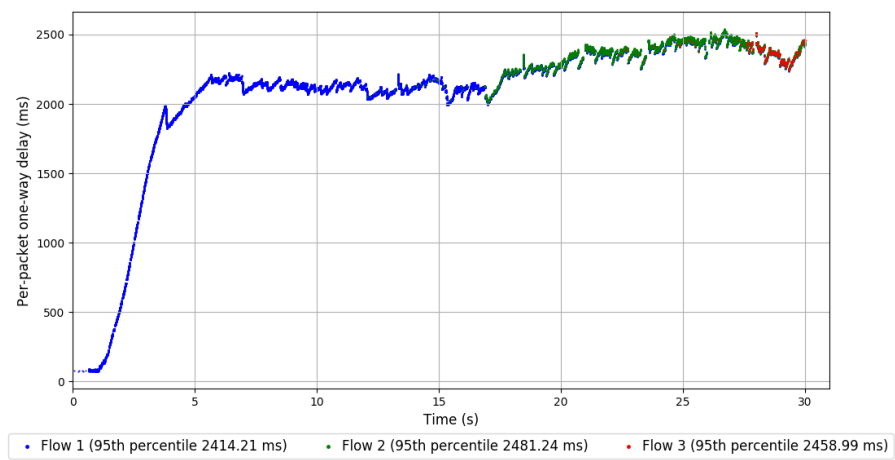
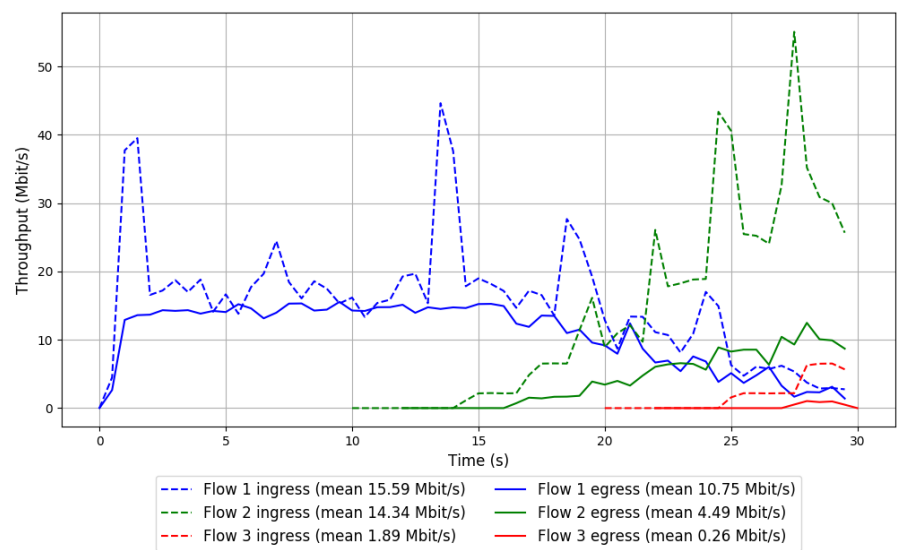


```
Run 1: Statistics of FillP

Start at: 2018-01-30 15:25:22
End at: 2018-01-30 15:25:52
Local clock offset: -6.071 ms
Remote clock offset: 0.373 ms

# Below is generated by plot.py at 2018-01-30 17:06:56
# Datalink statistics
-- Total of 3 flows:
Average throughput: 13.50 Mbit/s
95th percentile per-packet one-way delay: 2455.032 ms
Loss rate: 47.58%
-- Flow 1:
Average throughput: 10.75 Mbit/s
95th percentile per-packet one-way delay: 2414.207 ms
Loss rate: 31.04%
-- Flow 2:
Average throughput: 4.49 Mbit/s
95th percentile per-packet one-way delay: 2481.240 ms
Loss rate: 71.84%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 2458.991 ms
Loss rate: 89.41%
```

Run 1: Report of FillP — Data Link

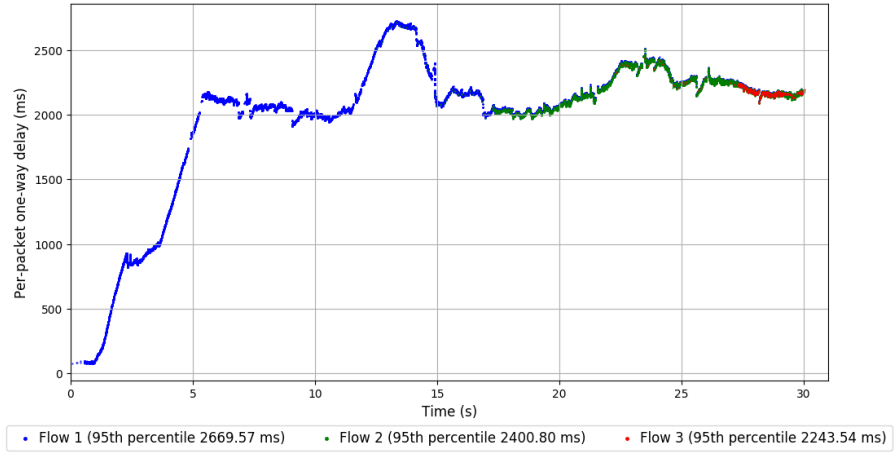
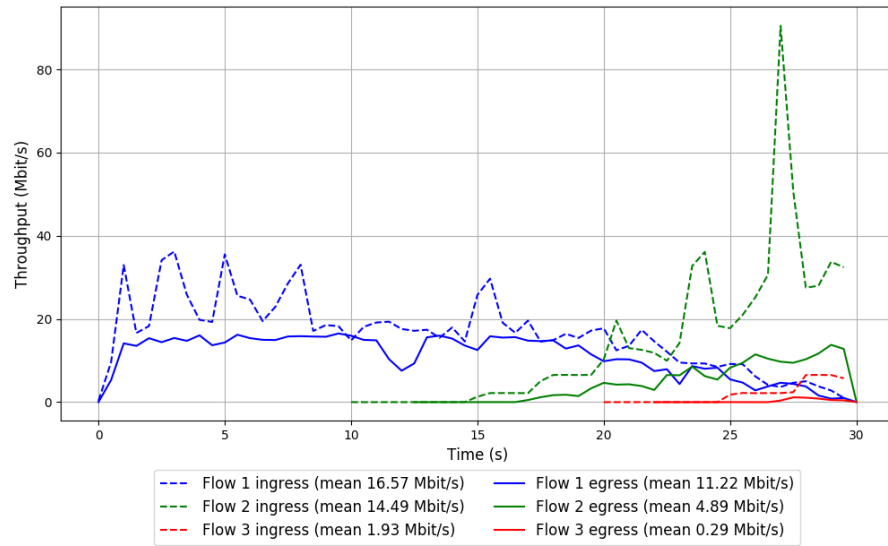


Run 2: Statistics of FillP

Start at: 2018-01-30 15:59:44
End at: 2018-01-30 16:00:14
Local clock offset: -6.019 ms
Remote clock offset: -1.998 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.13 Mbit/s
95th percentile per-packet one-way delay: 2574.895 ms
Loss rate: 47.35%
-- Flow 1:
Average throughput: 11.22 Mbit/s
95th percentile per-packet one-way delay: 2669.570 ms
Loss rate: 32.32%
-- Flow 2:
Average throughput: 4.89 Mbit/s
95th percentile per-packet one-way delay: 2400.800 ms
Loss rate: 70.43%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 2243.541 ms
Loss rate: 88.33%

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-01-30 16:39:58

End at: 2018-01-30 16:40:28

Local clock offset: -5.393 ms

Remote clock offset: 0.029 ms

Below is generated by plot.py at 2018-01-30 17:06:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.73 Mbit/s

95th percentile per-packet one-way delay: 2509.697 ms

Loss rate: 39.34%

-- Flow 1:

Average throughput: 11.53 Mbit/s

95th percentile per-packet one-way delay: 2458.253 ms

Loss rate: 34.27%

-- Flow 2:

Average throughput: 3.52 Mbit/s

95th percentile per-packet one-way delay: 2622.903 ms

Loss rate: 54.40%

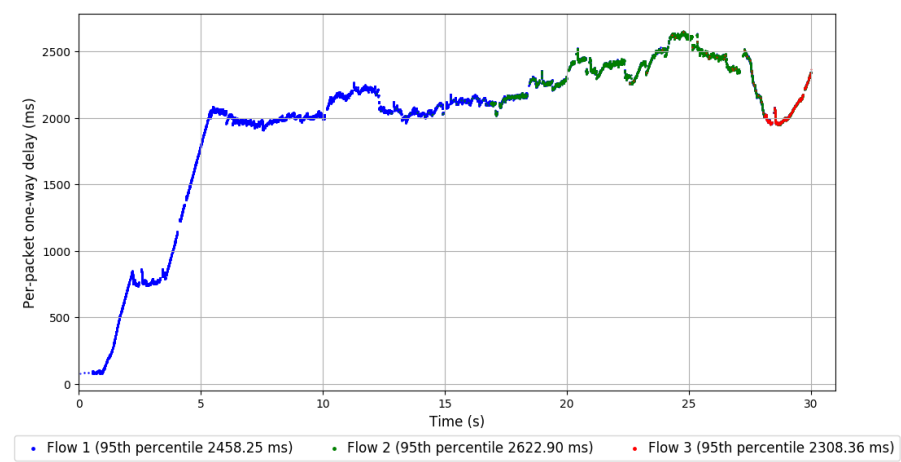
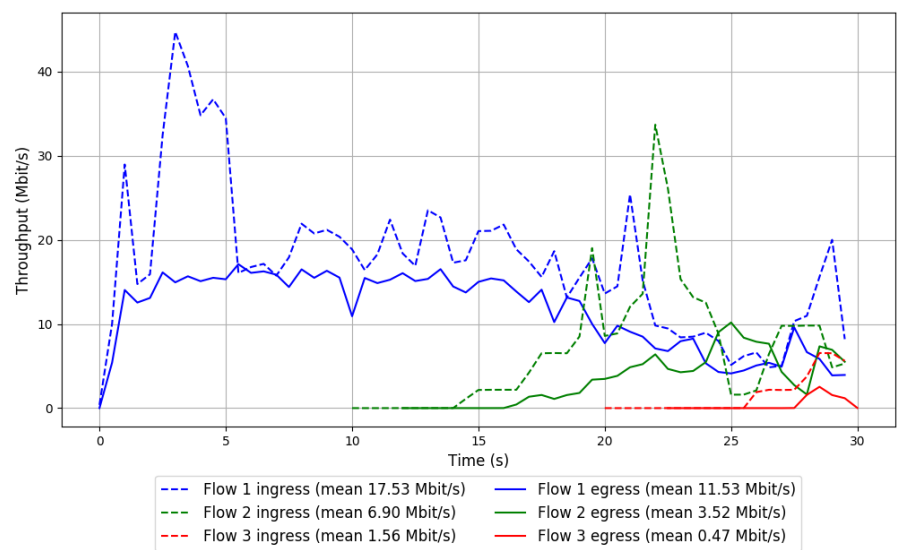
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 2308.364 ms

Loss rate: 77.63%

Run 3: Report of FillP — Data Link

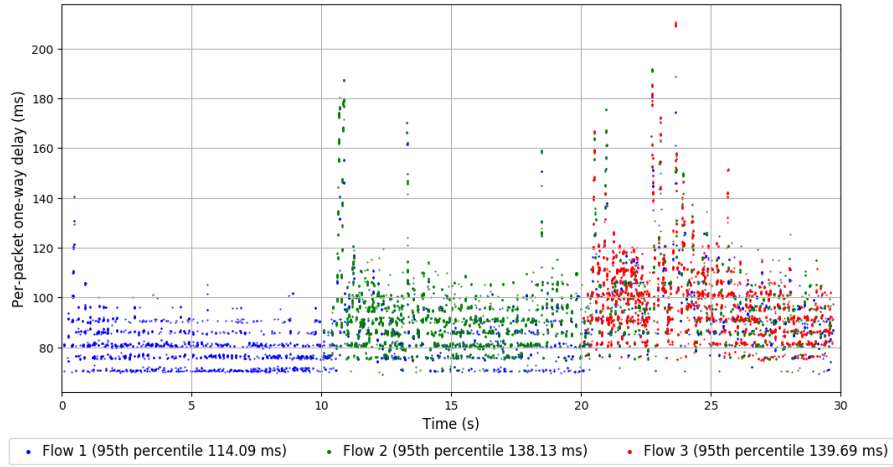
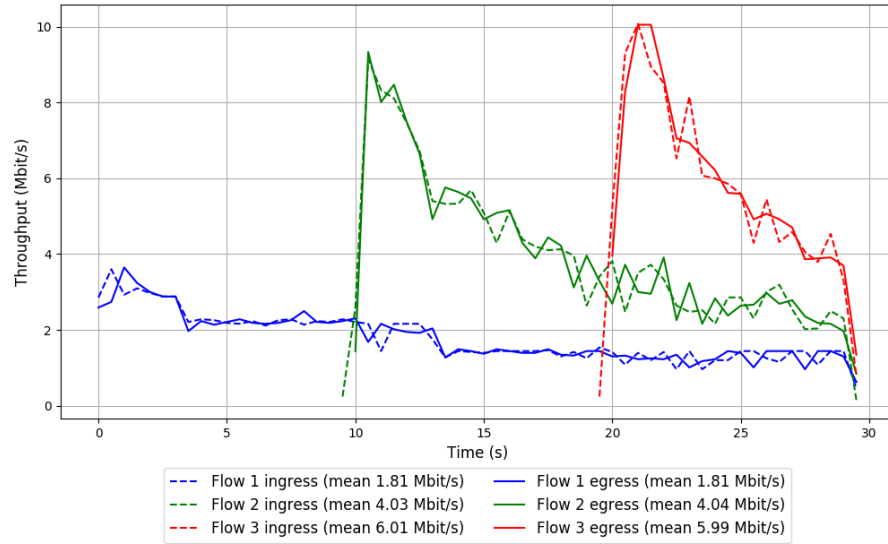


Run 1: Statistics of Indigo-1-32

Start at: 2018-01-30 15:42:03
End at: 2018-01-30 15:42:33
Local clock offset: -13.218 ms
Remote clock offset: -0.005 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.42 Mbit/s
95th percentile per-packet one-way delay: 129.466 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 1.81 Mbit/s
95th percentile per-packet one-way delay: 114.086 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 4.04 Mbit/s
95th percentile per-packet one-way delay: 138.129 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 5.99 Mbit/s
95th percentile per-packet one-way delay: 139.694 ms
Loss rate: 0.31%

Run 1: Report of Indigo-1-32 — Data Link

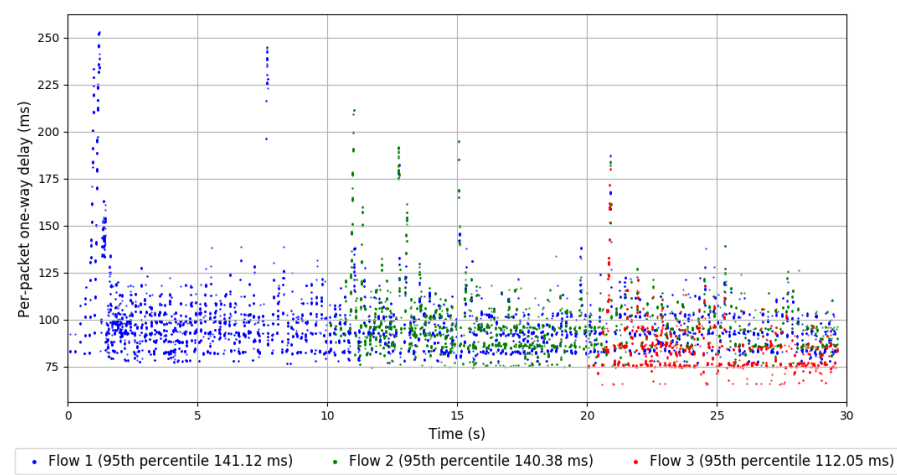
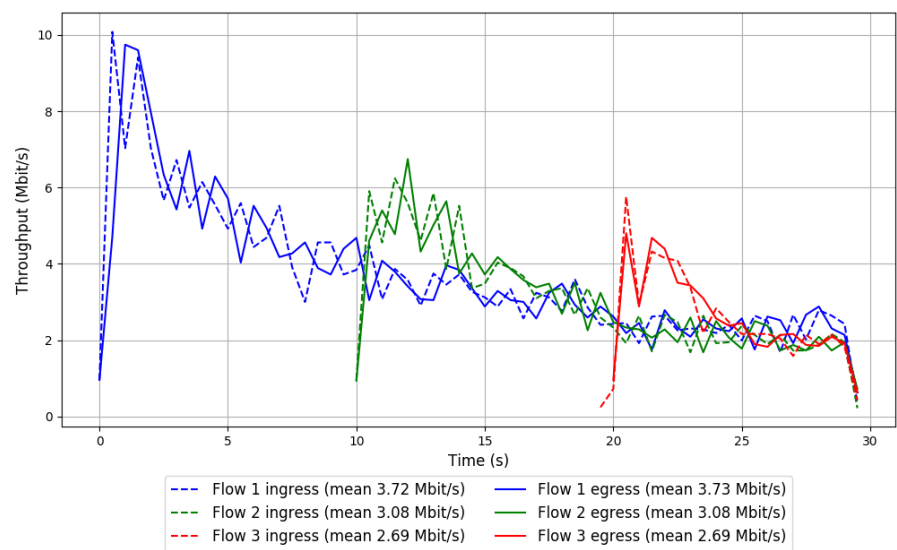


Run 2: Statistics of Indigo-1-32

Start at: 2018-01-30 16:16:16
End at: 2018-01-30 16:16:46
Local clock offset: -5.734 ms
Remote clock offset: -5.922 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.62 Mbit/s
95th percentile per-packet one-way delay: 137.880 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 3.73 Mbit/s
95th percentile per-packet one-way delay: 141.117 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 3.08 Mbit/s
95th percentile per-packet one-way delay: 140.384 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.69 Mbit/s
95th percentile per-packet one-way delay: 112.053 ms
Loss rate: 0.19%

Run 2: Report of Indigo-1-32 — Data Link

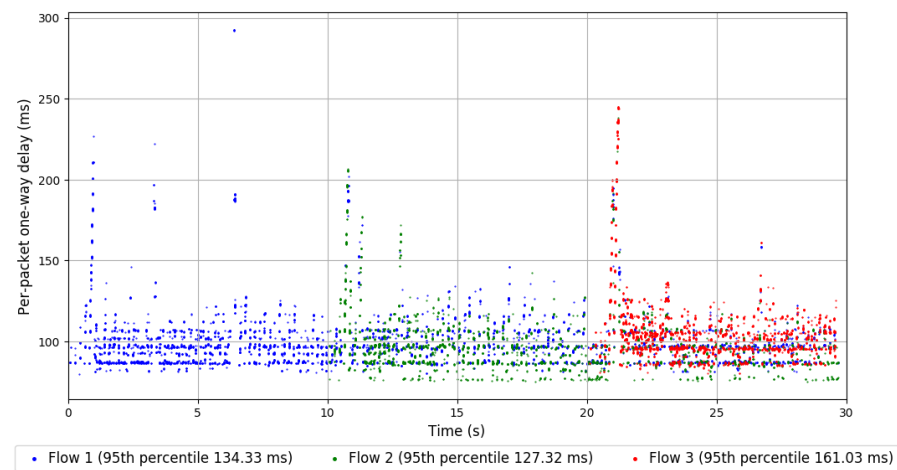
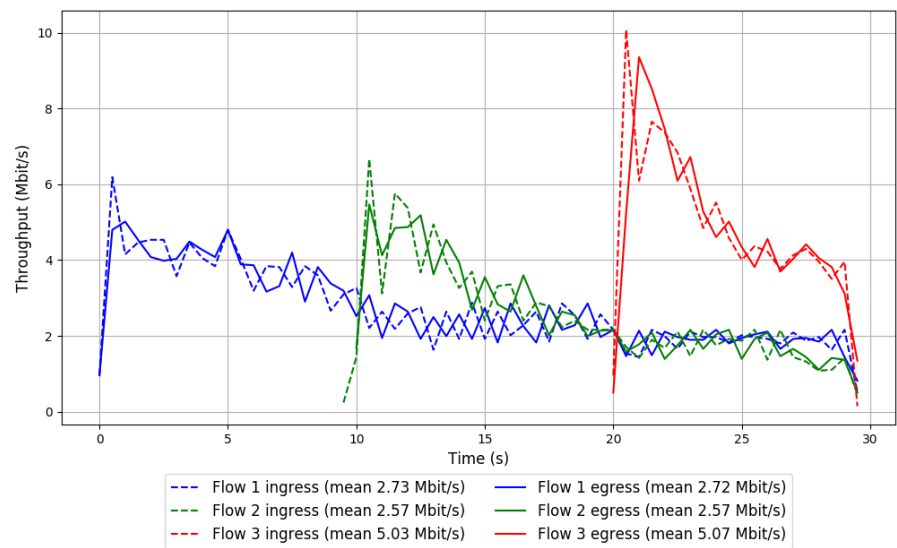


Run 3: Statistics of Indigo-1-32

Start at: 2018-01-30 17:02:50
End at: 2018-01-30 17:03:20
Local clock offset: -1.473 ms
Remote clock offset: -1.236 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.05 Mbit/s
95th percentile per-packet one-way delay: 137.470 ms
Loss rate: 0.17%
-- Flow 1:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 134.328 ms
Loss rate: 0.27%
-- Flow 2:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 127.317 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 5.07 Mbit/s
95th percentile per-packet one-way delay: 161.033 ms
Loss rate: 0.17%

Run 3: Report of Indigo-1-32 — Data Link



Run 1: Statistics of Vivace-latency

Start at: 2018-01-30 15:23:41

End at: 2018-01-30 15:24:11

Local clock offset: -5.267 ms

Remote clock offset: 0.28 ms

Below is generated by plot.py at 2018-01-30 17:06:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.92 Mbit/s

95th percentile per-packet one-way delay: 97.132 ms

Loss rate: 0.18%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 95.803 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.54 Mbit/s

95th percentile per-packet one-way delay: 90.998 ms

Loss rate: 0.08%

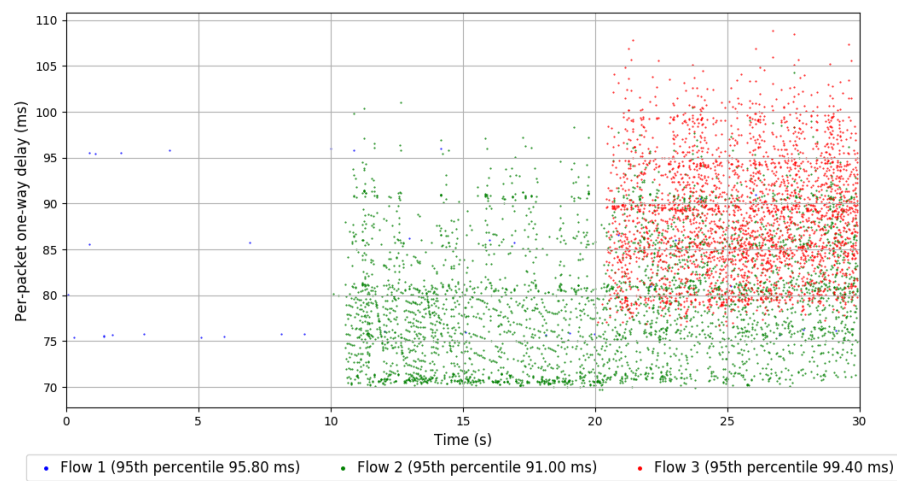
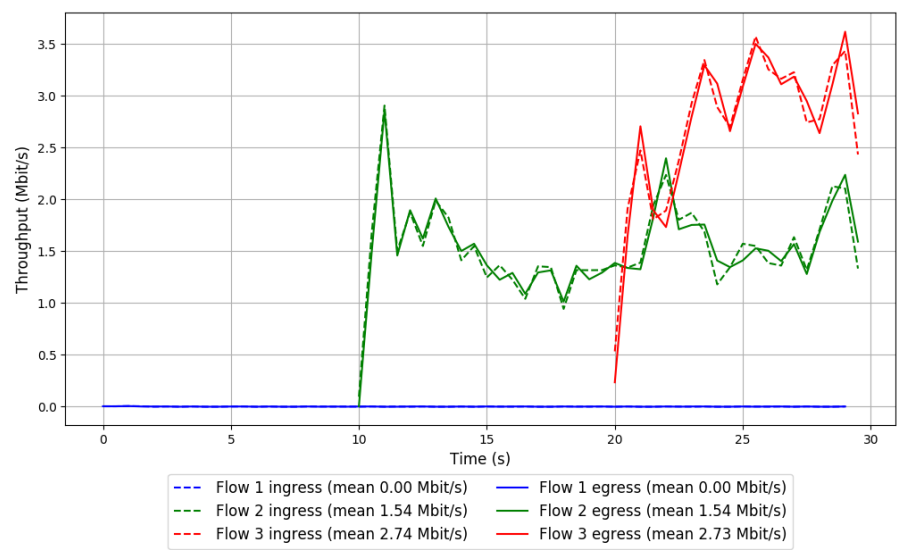
-- Flow 3:

Average throughput: 2.73 Mbit/s

95th percentile per-packet one-way delay: 99.396 ms

Loss rate: 0.30%

Run 1: Report of Vivace-latency — Data Link

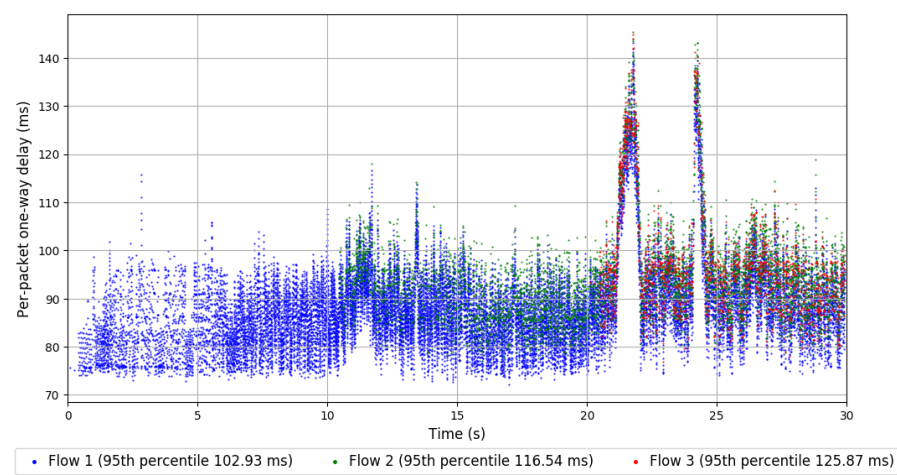
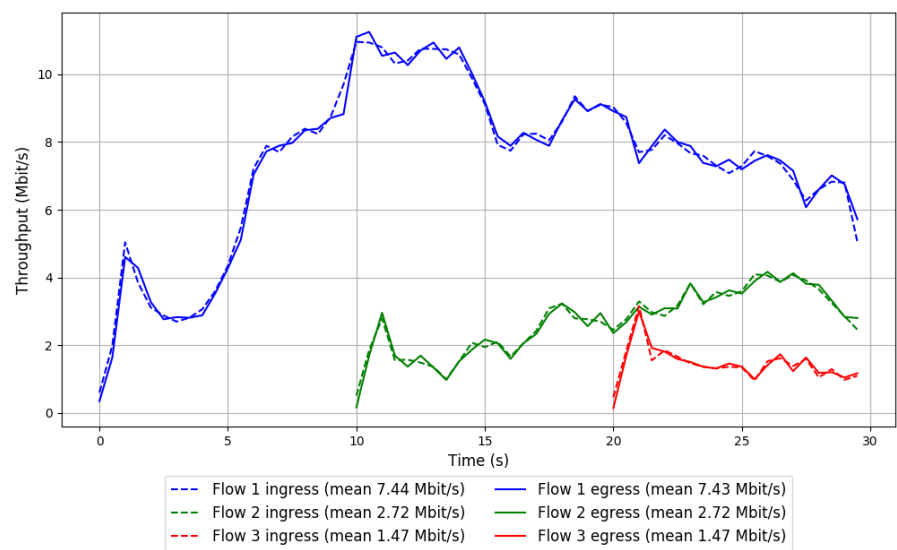


Run 2: Statistics of Vivace-latency

Start at: 2018-01-30 15:57:53
End at: 2018-01-30 15:58:23
Local clock offset: -6.558 ms
Remote clock offset: -1.902 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.72 Mbit/s
95th percentile per-packet one-way delay: 108.794 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 7.43 Mbit/s
95th percentile per-packet one-way delay: 102.932 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 116.538 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 125.873 ms
Loss rate: 0.33%

Run 2: Report of Vivace-latency — Data Link

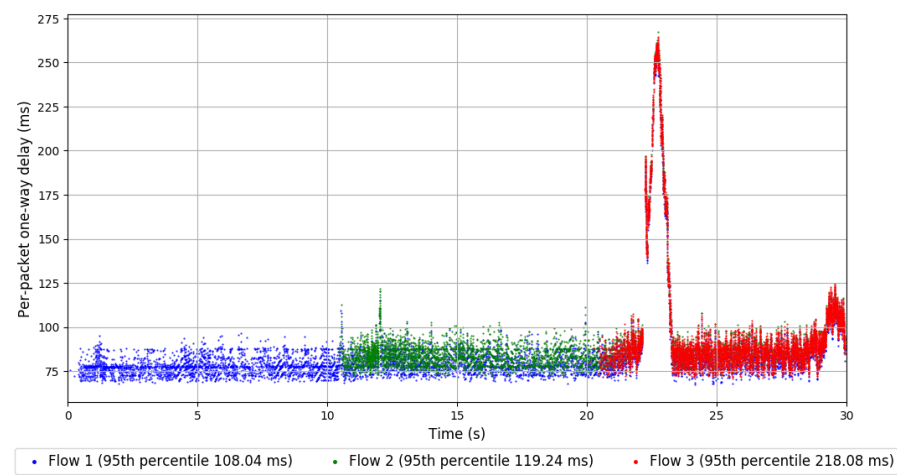
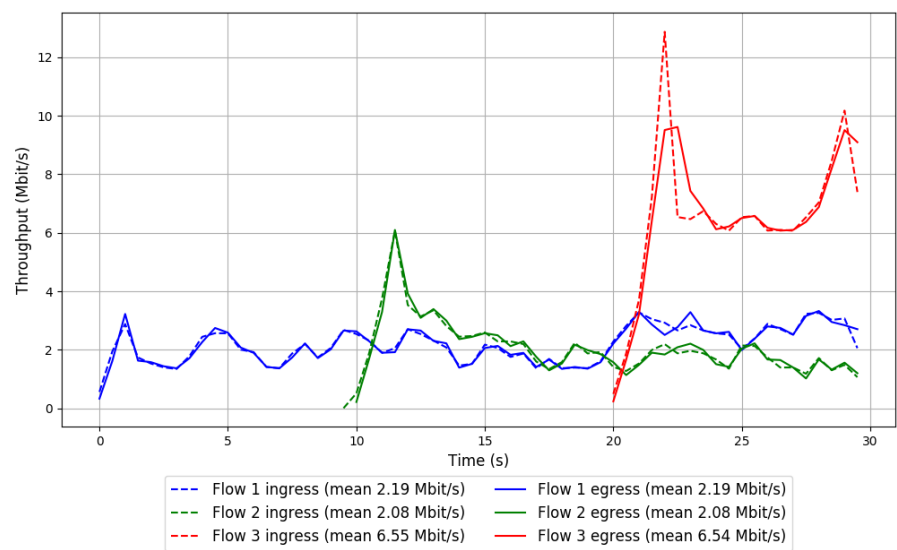


Run 3: Statistics of Vivace-latency

Start at: 2018-01-30 16:37:49
End at: 2018-01-30 16:38:19
Local clock offset: -4.779 ms
Remote clock offset: -0.106 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.72 Mbit/s
95th percentile per-packet one-way delay: 173.949 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 2.19 Mbit/s
95th percentile per-packet one-way delay: 108.044 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 119.243 ms
Loss rate: 0.15%
-- Flow 3:
Average throughput: 6.54 Mbit/s
95th percentile per-packet one-way delay: 218.082 ms
Loss rate: 0.39%

Run 3: Report of Vivace-latency — Data Link

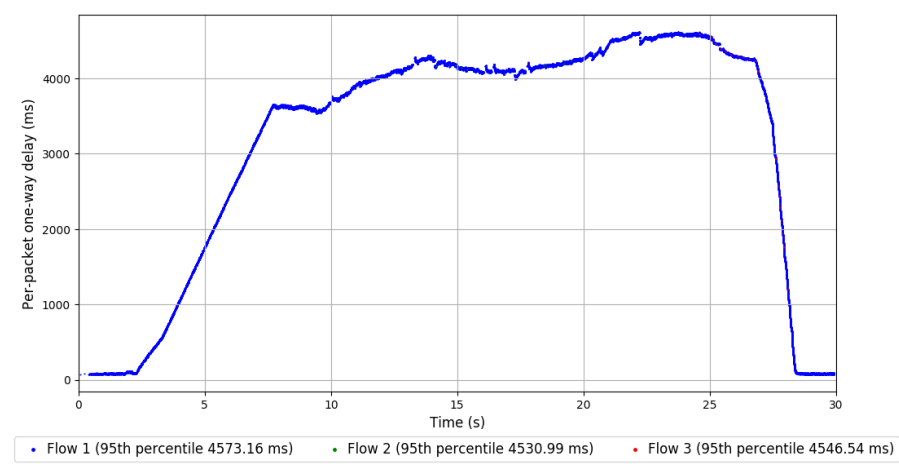
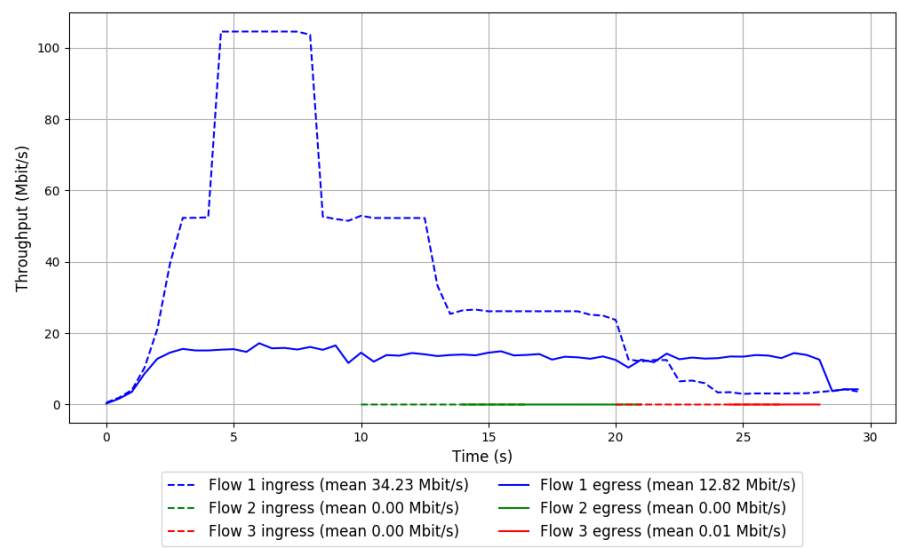


Run 1: Statistics of Vivace-loss

Start at: 2018-01-30 15:32:55
End at: 2018-01-30 15:33:25
Local clock offset: -12.462 ms
Remote clock offset: 0.579 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 4573.158 ms
Loss rate: 62.55%
-- Flow 1:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 4573.164 ms
Loss rate: 62.55%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4530.991 ms
Loss rate: 45.42%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4546.543 ms
Loss rate: 4.60%

Run 1: Report of Vivace-loss — Data Link

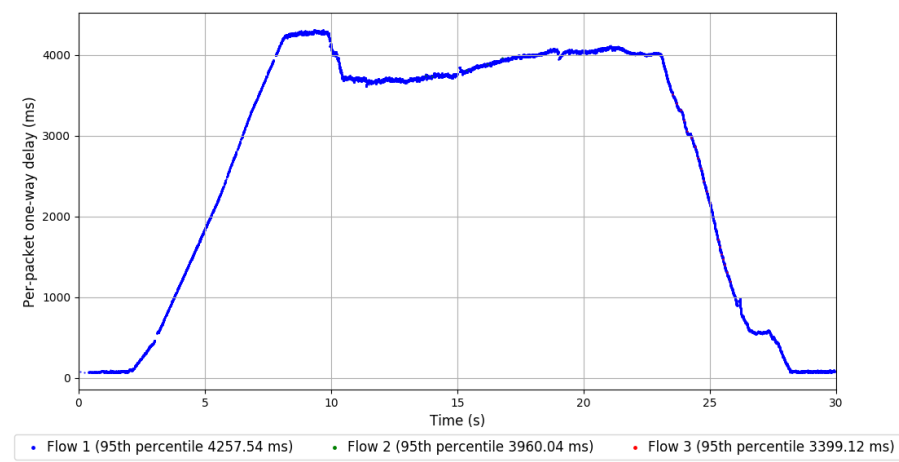
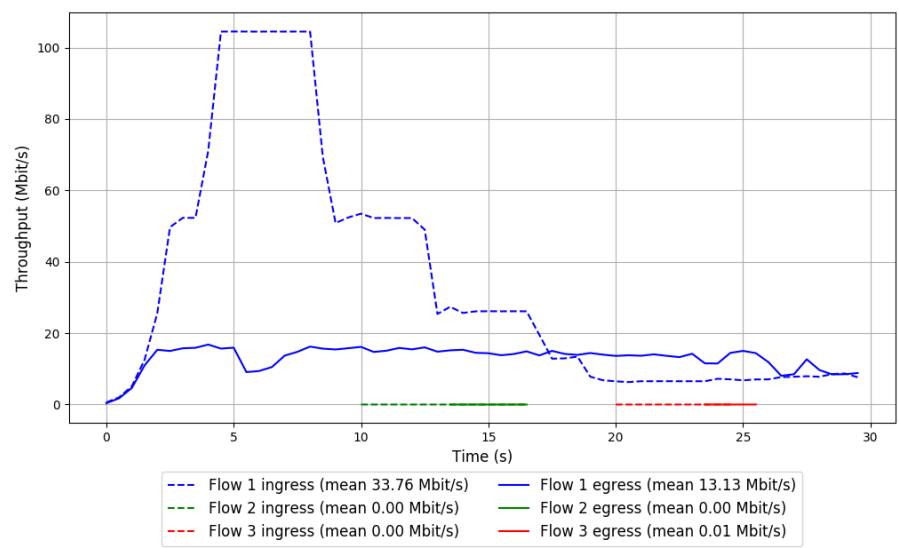


Run 2: Statistics of Vivace-loss

Start at: 2018-01-30 16:07:17
End at: 2018-01-30 16:07:47
Local clock offset: -5.87 ms
Remote clock offset: -6.461 ms

Below is generated by plot.py at 2018-01-30 17:06:57
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 4257.530 ms
Loss rate: 61.12%
-- Flow 1:
Average throughput: 13.13 Mbit/s
95th percentile per-packet one-way delay: 4257.541 ms
Loss rate: 61.12%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3960.043 ms
Loss rate: 72.37%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 3399.118 ms
Loss rate: 0.00%

Run 2: Report of Vivace-loss — Data Link



Run 3: Statistics of Vivace-loss

Start at: 2018-01-30 16:51:06

End at: 2018-01-30 16:51:36

Local clock offset: -5.053 ms

Remote clock offset: -0.4 ms

Below is generated by plot.py at 2018-01-30 17:06:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.81 Mbit/s

95th percentile per-packet one-way delay: 3972.798 ms

Loss rate: 57.50%

-- Flow 1:

Average throughput: 13.81 Mbit/s

95th percentile per-packet one-way delay: 3972.799 ms

Loss rate: 57.50%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4000.964 ms

Loss rate: 61.85%

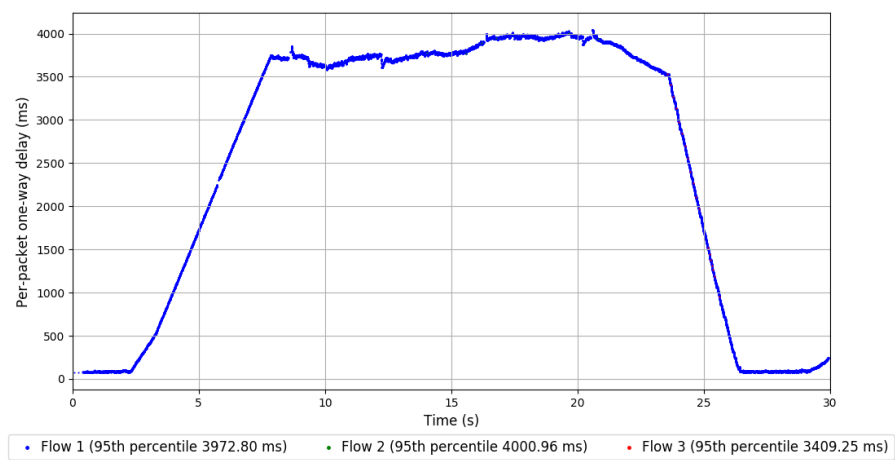
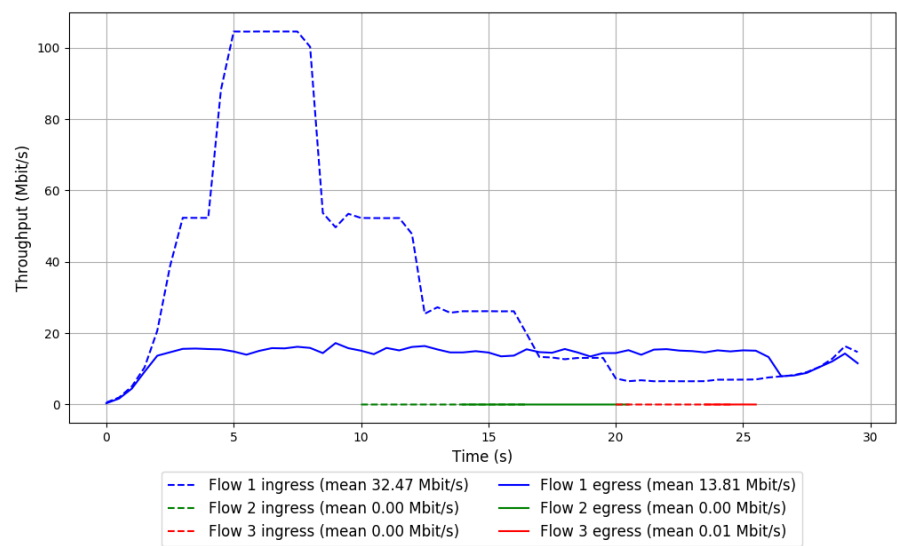
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3409.247 ms

Loss rate: 0.00%

Run 3: Report of Vivace-loss — Data Link



Run 1: Statistics of Vivace-LTE

Start at: 2018-01-30 15:30:55

End at: 2018-01-30 15:31:25

Local clock offset: -9.569 ms

Remote clock offset: 0.617 ms

Below is generated by plot.py at 2018-01-30 17:06:57

Datalink statistics

-- Total of 3 flows:

Average throughput: 12.46 Mbit/s

95th percentile per-packet one-way delay: 4925.777 ms

Loss rate: 19.66%

-- Flow 1:

Average throughput: 9.28 Mbit/s

95th percentile per-packet one-way delay: 4735.807 ms

Loss rate: 16.81%

-- Flow 2:

Average throughput: 4.77 Mbit/s

95th percentile per-packet one-way delay: 5088.112 ms

Loss rate: 26.99%

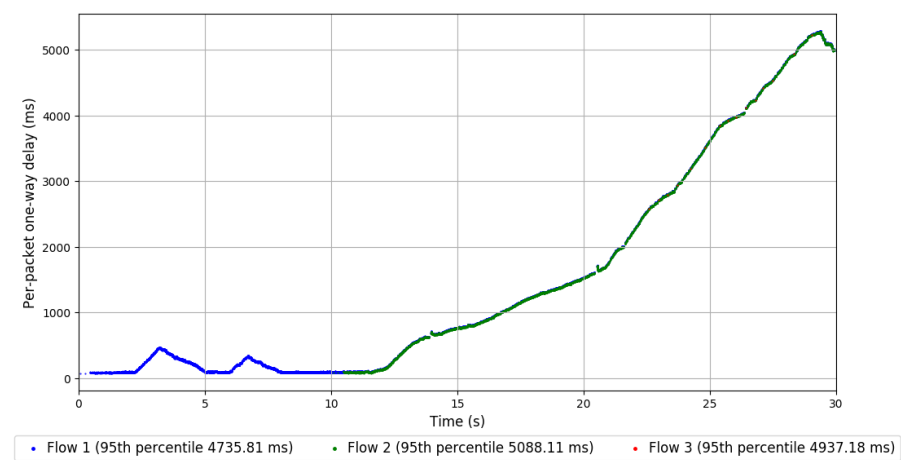
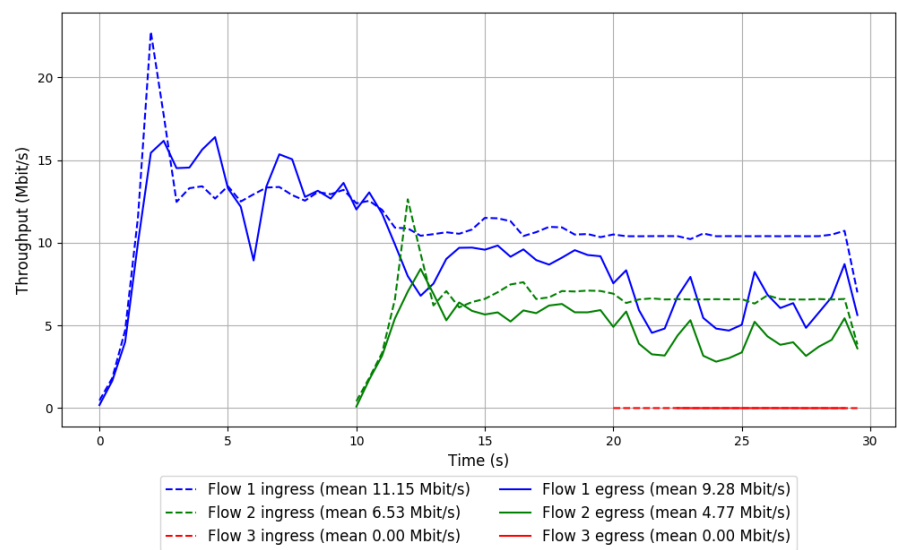
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4937.178 ms

Loss rate: 42.62%

Run 1: Report of Vivace-LTE — Data Link

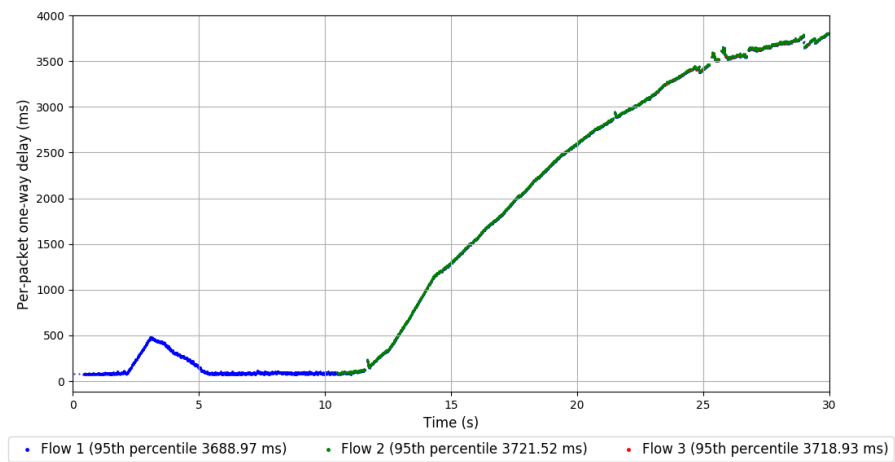
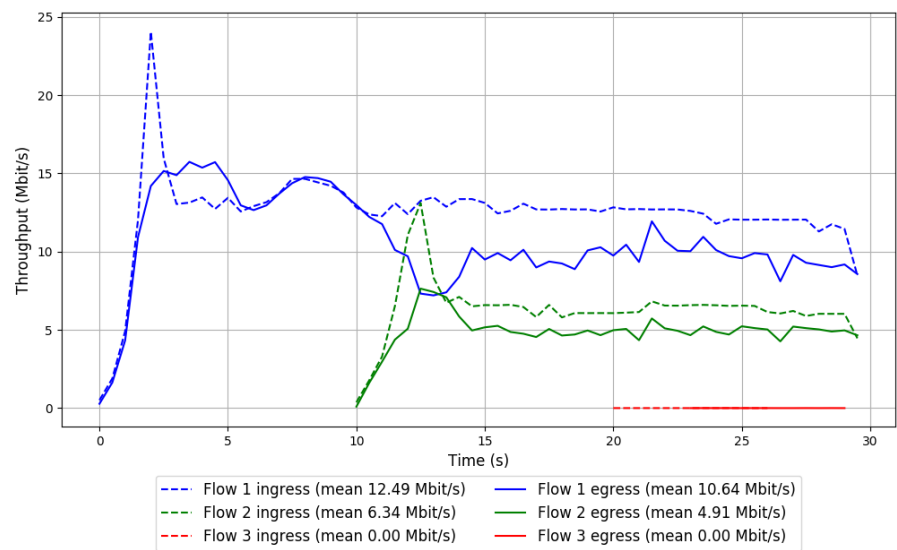


Run 2: Statistics of Vivace-LTE

Start at: 2018-01-30 16:05:16
End at: 2018-01-30 16:05:46
Local clock offset: -5.768 ms
Remote clock offset: -6.348 ms

Below is generated by plot.py at 2018-01-30 17:06:58
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.90 Mbit/s
95th percentile per-packet one-way delay: 3699.581 ms
Loss rate: 16.81%
-- Flow 1:
Average throughput: 10.64 Mbit/s
95th percentile per-packet one-way delay: 3688.971 ms
Loss rate: 14.83%
-- Flow 2:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 3721.520 ms
Loss rate: 22.66%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3718.933 ms
Loss rate: 5.31%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-01-30 16:47:53

End at: 2018-01-30 16:48:23

Local clock offset: -5.187 ms

Remote clock offset: 0.108 ms

Below is generated by plot.py at 2018-01-30 17:06:59

Datalink statistics

-- Total of 3 flows:

Average throughput: 13.68 Mbit/s

95th percentile per-packet one-way delay: 1317.931 ms

Loss rate: 5.47%

-- Flow 1:

Average throughput: 11.54 Mbit/s

95th percentile per-packet one-way delay: 1310.135 ms

Loss rate: 1.80%

-- Flow 2:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 1331.481 ms

Loss rate: 8.02%

-- Flow 3:

Average throughput: 3.53 Mbit/s

95th percentile per-packet one-way delay: 1398.430 ms

Loss rate: 32.18%

Run 3: Report of Vivace-LTE — Data Link

