

Pantheon Report

Generated at 2018-03-13 00:37:41 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) → Colombia 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).

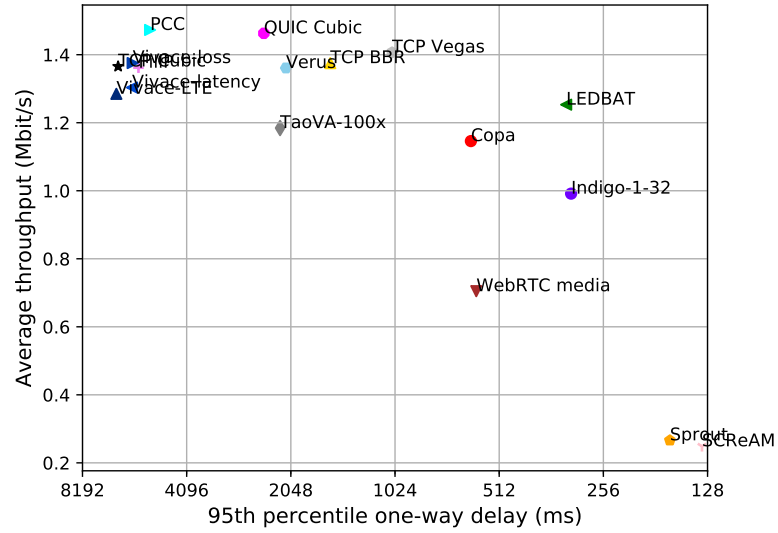
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against **gps.ntp.br** and have been applied to correct the timestamps in logs.

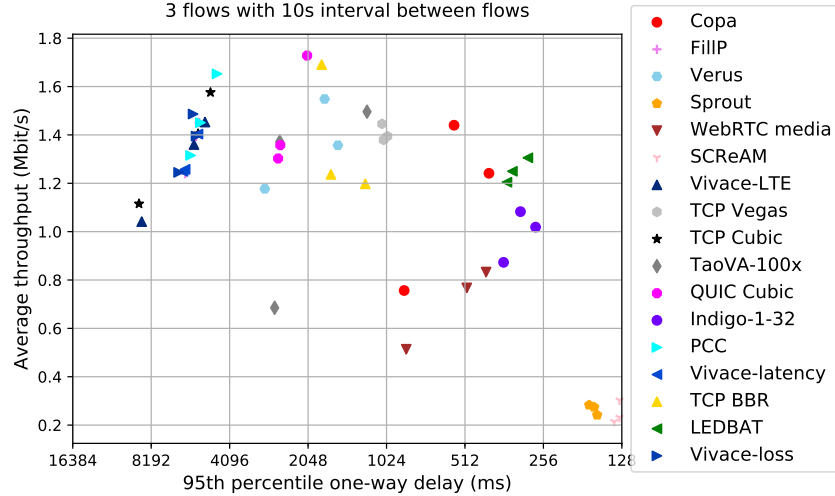
Git summary:

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

test from AWS Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Brazil 2 Ethernet to Colombia ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows



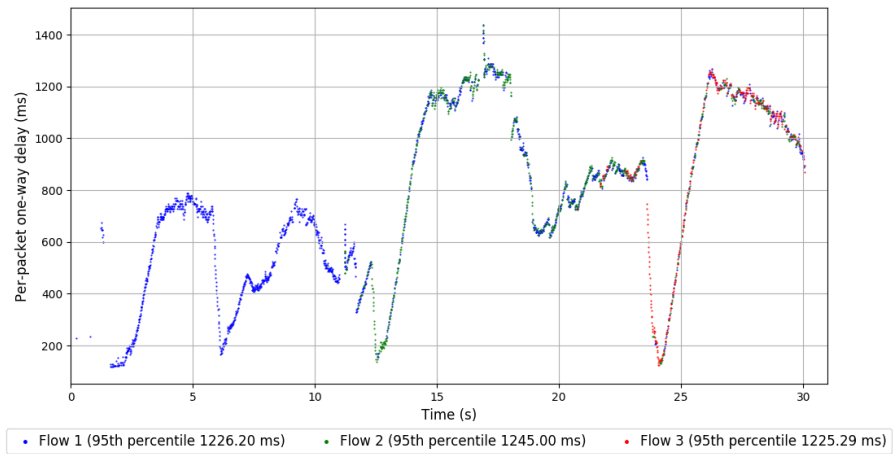
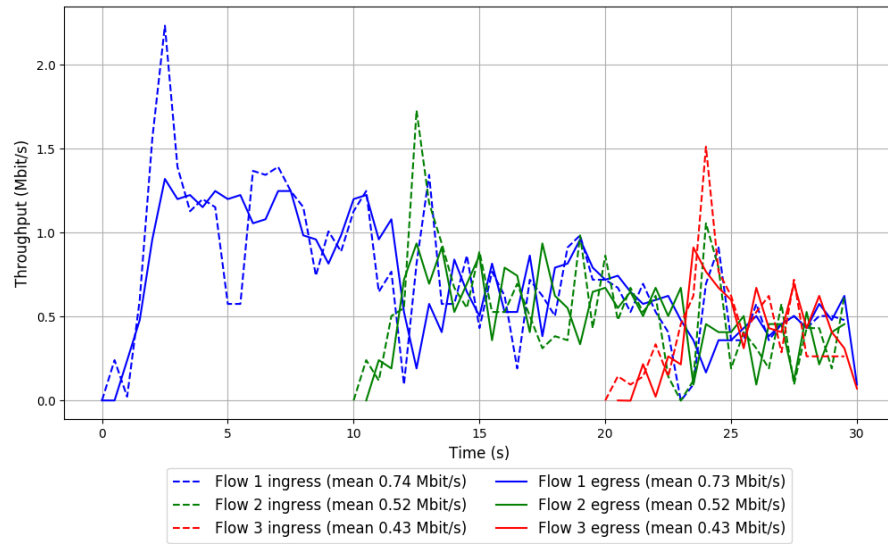
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.88	0.59	0.36	1537.62	1608.65	1436.74	1.77	3.27	9.17
TCP Cubic	3	1.33	0.06	0.00	6466.29	6109.63	6699.99	22.70	31.49	81.32
LEDBAT	3	0.87	0.39	0.39	324.45	347.13	326.67	0.30	1.30	1.61
PCC	3	1.47	0.00	0.00	5224.16	5068.90	5100.11	74.64	0.00	37.02
QUIC Cubic	3	1.18	0.39	0.10	2390.43	2525.44	2536.70	6.24	16.17	40.39
SCReAM	3	0.08	0.15	0.20	127.46	136.09	139.43	0.13	0.18	0.34
WebRTC media	3	0.47	0.19	0.05	561.98	505.63	540.59	1.01	8.54	3.94
Sprout	3	0.13	0.14	0.15	185.03	156.06	159.94	0.02	0.03	0.80
TaoVA-100x	3	0.70	0.54	0.43	2029.22	2493.30	2008.00	2.16	4.00	11.27
TCP Vegas	3	0.85	0.65	0.41	1027.64	1050.96	1066.86	1.74	2.28	11.91
Verus	3	1.35	0.01	0.02	2118.71	2036.35	1810.30	4.64	7.54	9.39
Copa	3	0.71	0.48	0.35	598.05	675.38	689.06	0.18	1.03	2.19
FillP	3	1.36	0.01	0.01	5644.58	5607.85	5426.65	95.88	12.83	74.95
Indigo-1-32	3	0.54	0.42	0.54	303.31	376.77	332.27	0.04	0.35	0.57
Vivace-latency	3	0.79	0.78	0.00	5851.87	5920.85	5803.38	40.00	56.04	50.96
Vivace-loss	3	1.37	0.00	0.00	5865.94	5874.31	5425.79	35.44	21.48	34.82
Vivace-LTE	3	0.93	0.55	0.00	6507.41	6649.27	5355.39	31.77	37.82	54.74

Run 1: Statistics of TCP BBR

Start at: 2018-03-12 23:45:18
End at: 2018-03-12 23:45:48
Local clock offset: -2.203 ms
Remote clock offset: -0.691 ms

Below is generated by plot.py at 2018-03-13 00:36:58
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 1235.365 ms
Loss rate: 2.71%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 1226.205 ms
Loss rate: 1.74%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 1244.999 ms
Loss rate: 3.92%
-- Flow 3:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 1225.285 ms
Loss rate: 4.83%

Run 1: Report of TCP BBR — Data Link

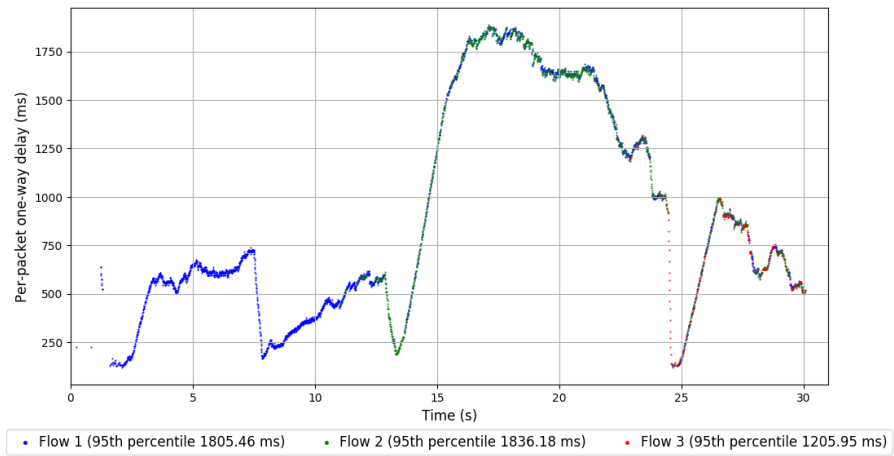
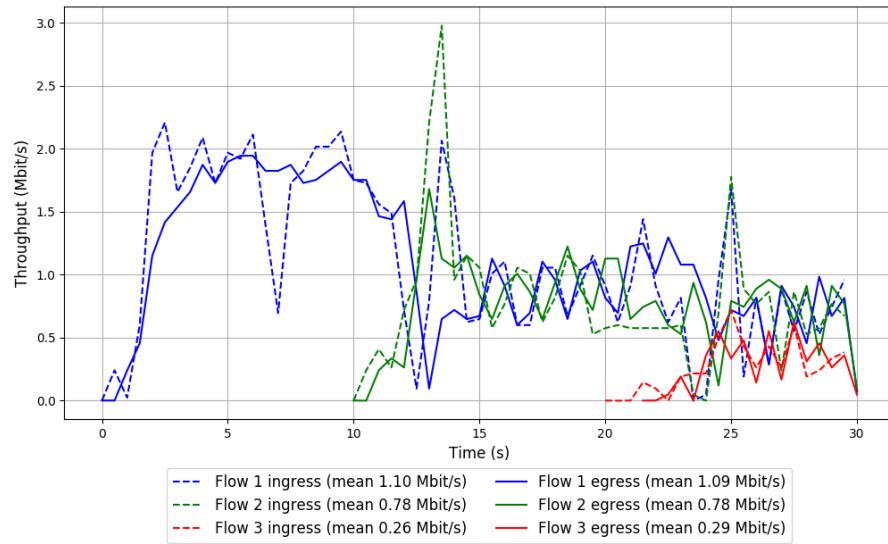


Run 2: Statistics of TCP BBR

Start at: 2018-03-13 00:07:46
End at: 2018-03-13 00:08:16
Local clock offset: -5.995 ms
Remote clock offset: -0.362 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 1816.467 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 1805.463 ms
Loss rate: 1.34%
-- Flow 2:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 1836.176 ms
Loss rate: 1.84%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 1205.954 ms
Loss rate: 6.41%

Run 2: Report of TCP BBR — Data Link

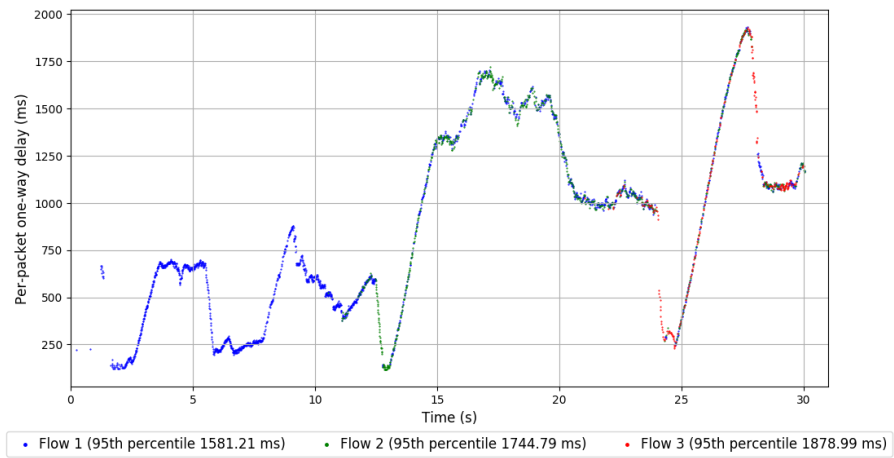
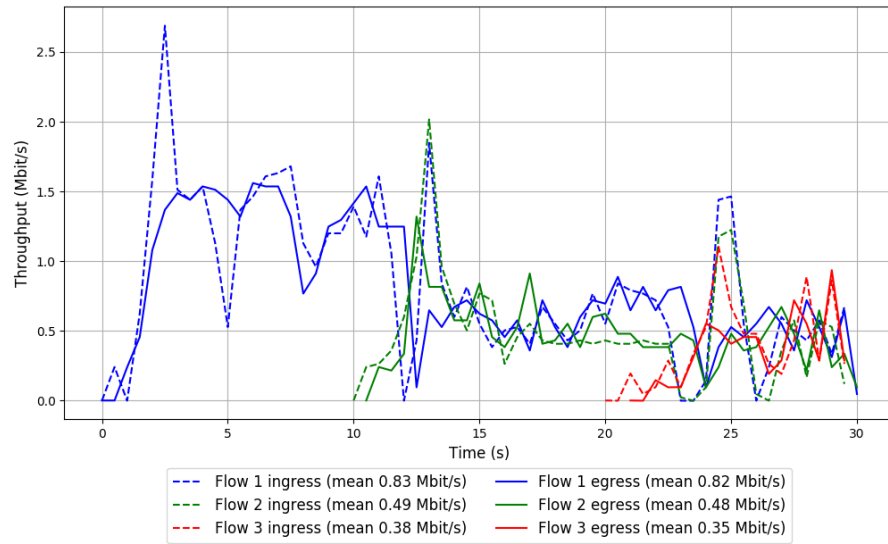


Run 3: Statistics of TCP BBR

Start at: 2018-03-13 00:30:14
End at: 2018-03-13 00:30:44
Local clock offset: -5.804 ms
Remote clock offset: -5.294 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 1673.749 ms
Loss rate: 4.06%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 1581.206 ms
Loss rate: 2.22%
-- Flow 2:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 1744.789 ms
Loss rate: 4.04%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 1878.987 ms
Loss rate: 16.28%

Run 3: Report of TCP BBR — Data Link

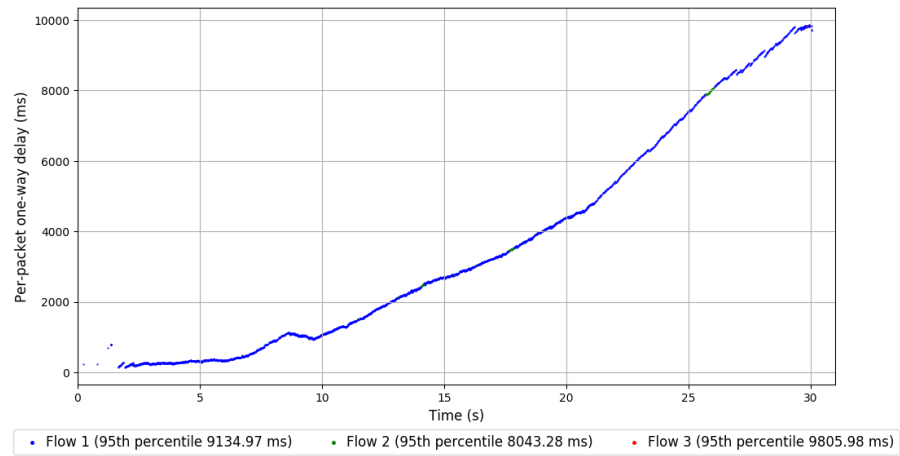
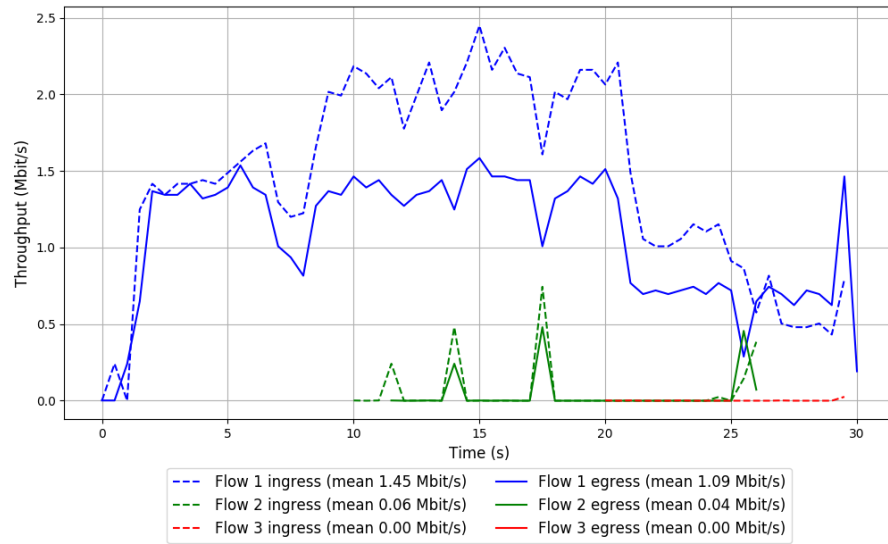


Run 1: Statistics of TCP Cubic

Start at: 2018-03-12 23:41:32
End at: 2018-03-12 23:42:02
Local clock offset: -2.337 ms
Remote clock offset: -1.504 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 9125.225 ms
Loss rate: 25.26%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 9134.972 ms
Loss rate: 24.94%
-- Flow 2:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 8043.280 ms
Loss rate: 37.96%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 9805.984 ms
Loss rate: 95.13%

Run 1: Report of TCP Cubic — Data Link

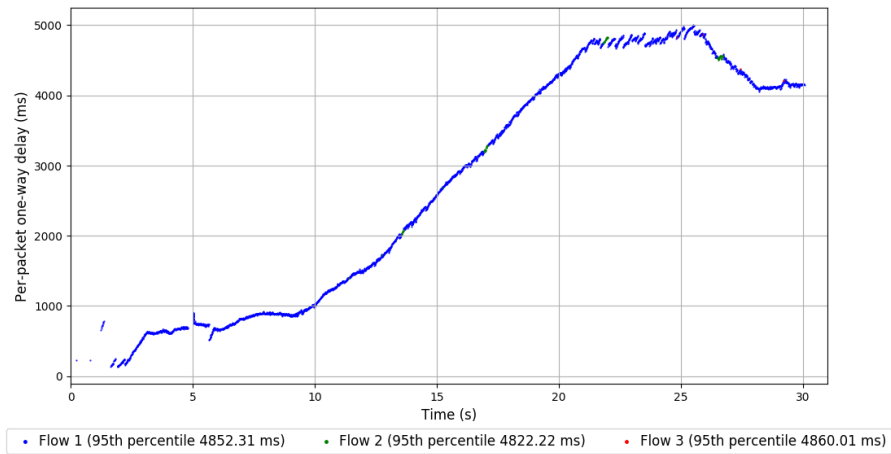
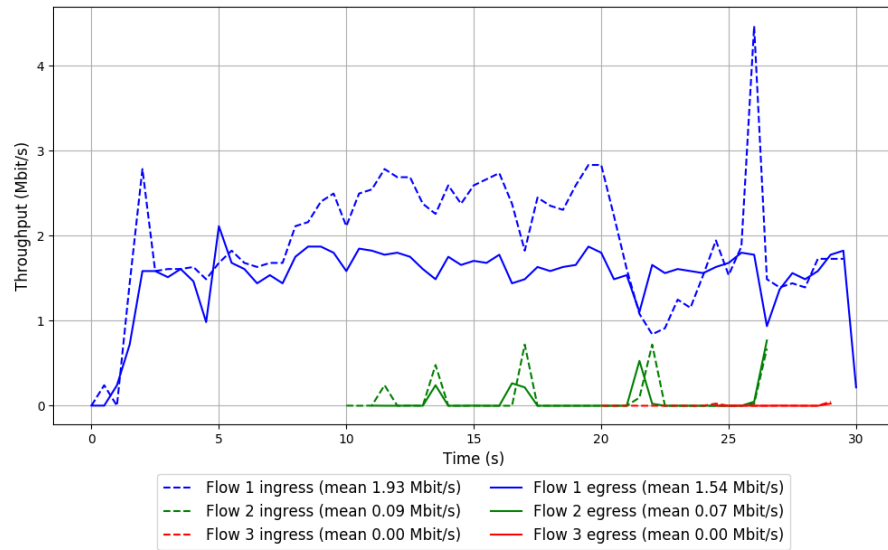


Run 2: Statistics of TCP Cubic

Start at: 2018-03-13 00:04:00
End at: 2018-03-13 00:04:30
Local clock offset: -5.503 ms
Remote clock offset: -1.474 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 4852.276 ms
Loss rate: 20.69%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 4852.308 ms
Loss rate: 20.44%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 4822.223 ms
Loss rate: 29.21%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4860.007 ms
Loss rate: 62.87%

Run 2: Report of TCP Cubic — Data Link

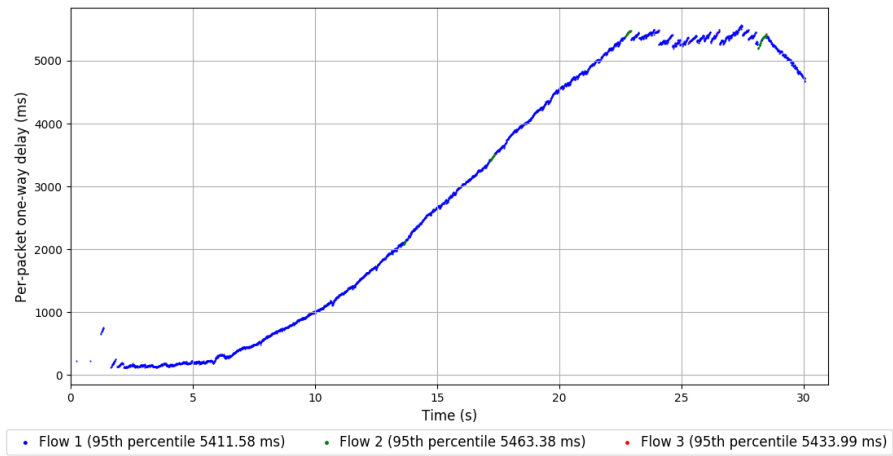
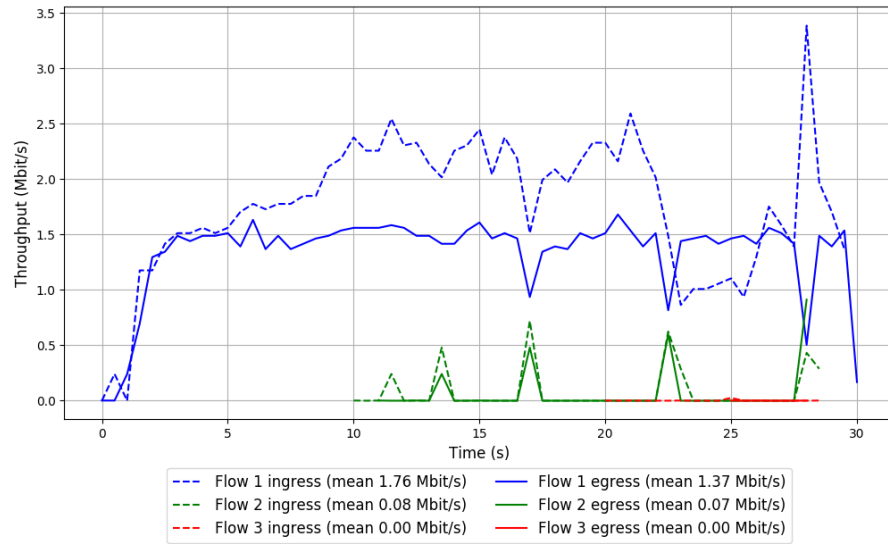


Run 3: Statistics of TCP Cubic

Start at: 2018-03-13 00:26:29
End at: 2018-03-13 00:26:59
Local clock offset: -7.003 ms
Remote clock offset: -6.031 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5412.127 ms
Loss rate: 22.86%
-- Flow 1:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 5411.581 ms
Loss rate: 22.71%
-- Flow 2:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 5463.379 ms
Loss rate: 27.29%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5433.992 ms
Loss rate: 85.96%

Run 3: Report of TCP Cubic — Data Link

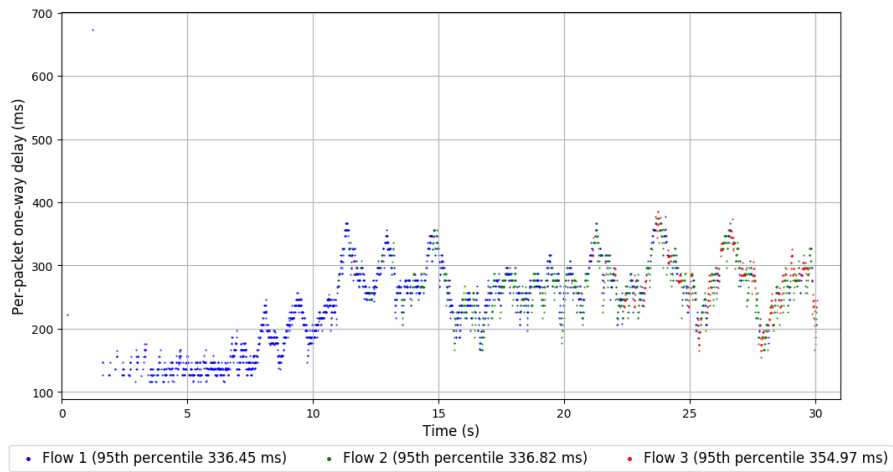
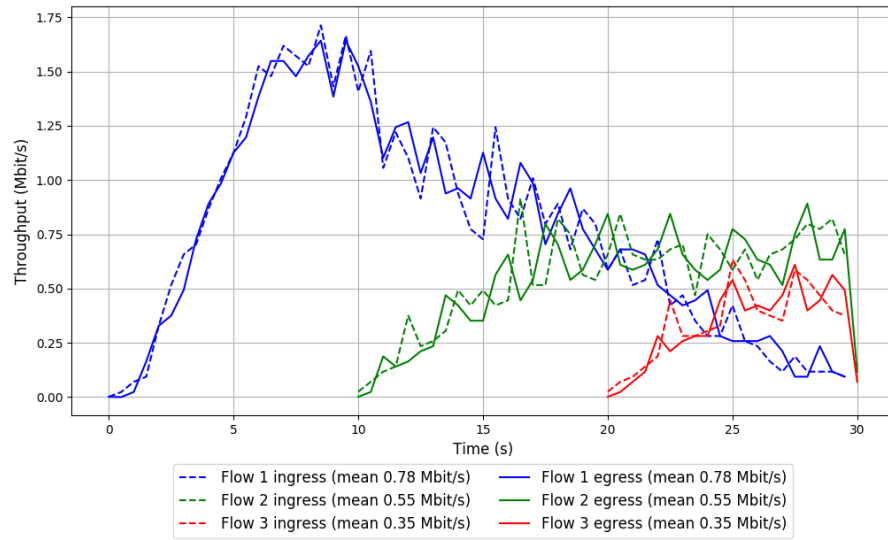


Run 1: Statistics of LEDBAT

Start at: 2018-03-12 23:34:04
End at: 2018-03-12 23:34:34
Local clock offset: -2.45 ms
Remote clock offset: -5.476 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 336.793 ms
Loss rate: 0.53%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 336.453 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 336.822 ms
Loss rate: 1.60%
-- Flow 3:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 354.974 ms
Loss rate: 0.69%

Run 1: Report of LEDBAT — Data Link

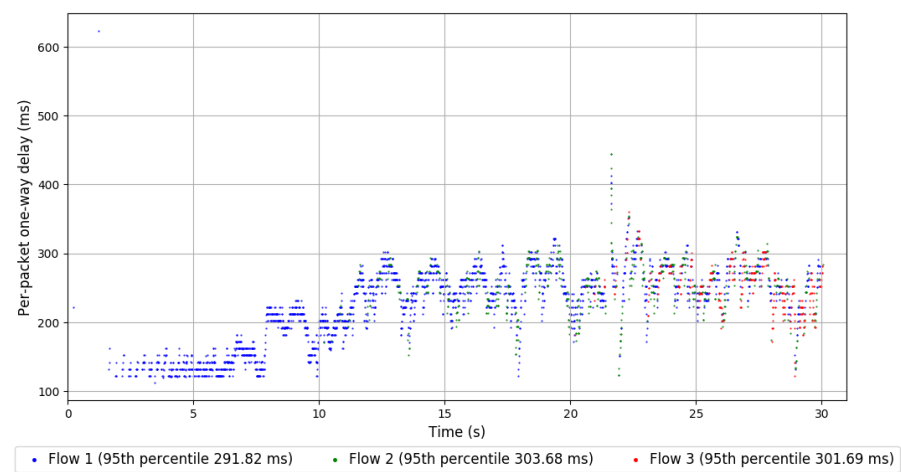
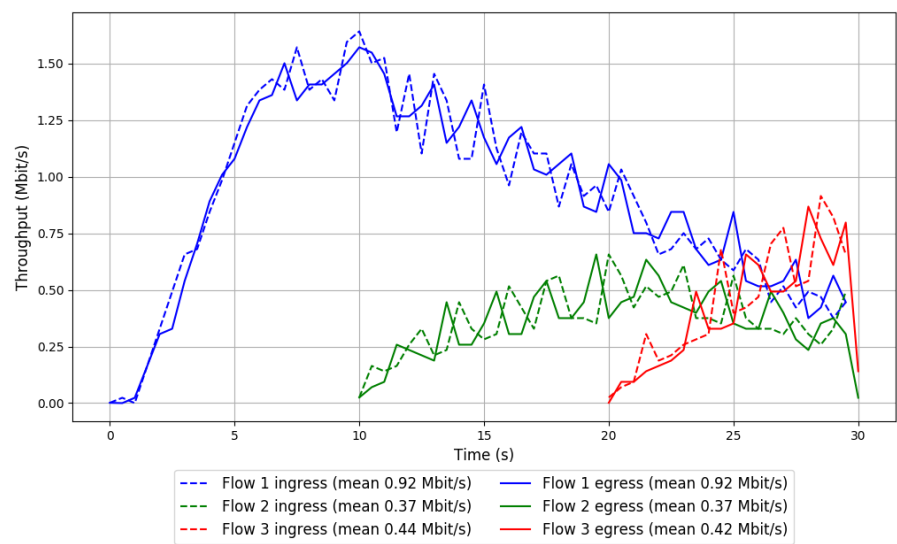


Run 2: Statistics of LEDBAT

Start at: 2018-03-12 23:56:31
End at: 2018-03-12 23:57:01
Local clock offset: -3.684 ms
Remote clock offset: -6.237 ms

Below is generated by plot.py at 2018-03-13 00:36:59
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 293.690 ms
Loss rate: 0.78%
-- Flow 1:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 291.817 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 303.682 ms
Loss rate: 1.58%
-- Flow 3:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 301.693 ms
Loss rate: 3.26%

Run 2: Report of LEDBAT — Data Link

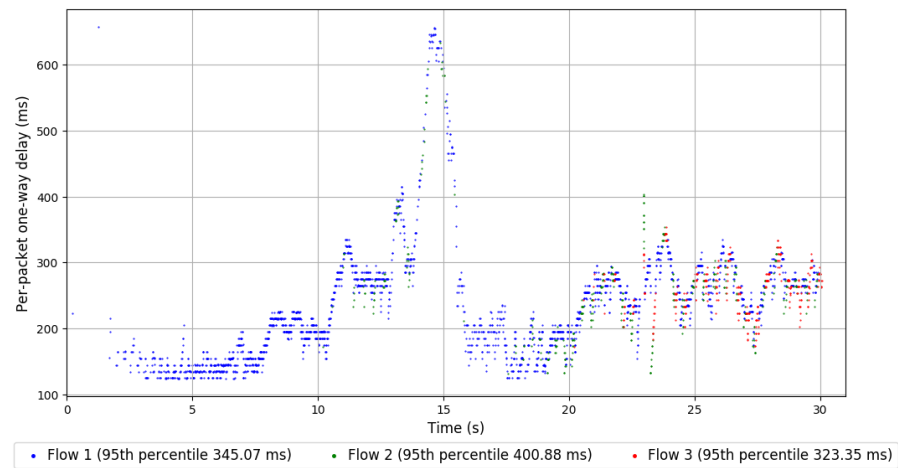
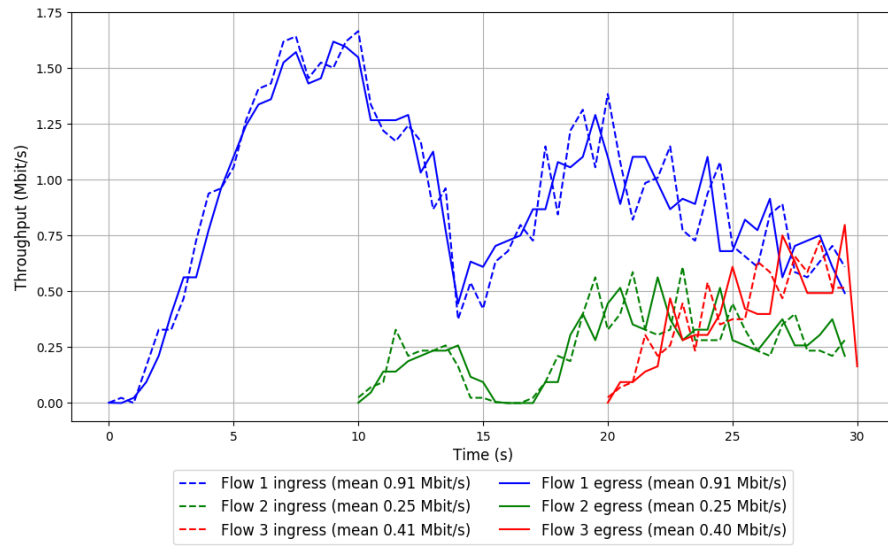


Run 3: Statistics of LEDBAT

Start at: 2018-03-13 00:19:00
End at: 2018-03-13 00:19:30
Local clock offset: -6.704 ms
Remote clock offset: -5.248 ms

Below is generated by plot.py at 2018-03-13 00:37:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.20 Mbit/s
95th percentile per-packet one-way delay: 353.375 ms
Loss rate: 0.75%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 345.066 ms
Loss rate: 0.73%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 400.878 ms
Loss rate: 0.72%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 323.345 ms
Loss rate: 0.88%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC

Start at: 2018-03-12 23:50:17

End at: 2018-03-12 23:50:47

Local clock offset: -2.092 ms

Remote clock offset: 0.307 ms

Below is generated by plot.py at 2018-03-13 00:37:07

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 5787.216 ms

Loss rate: 81.79%

-- Flow 1:

Average throughput: 1.31 Mbit/s

95th percentile per-packet one-way delay: 5787.607 ms

Loss rate: 81.80%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 5616.309 ms

Loss rate: 0.00%

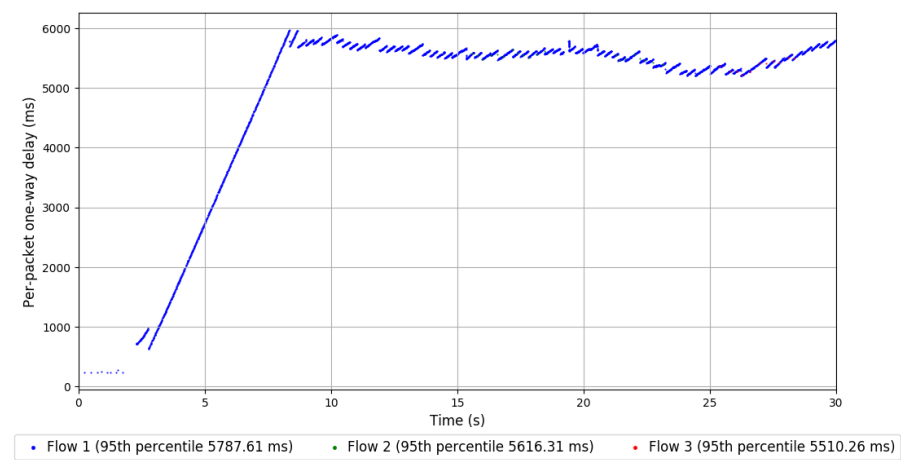
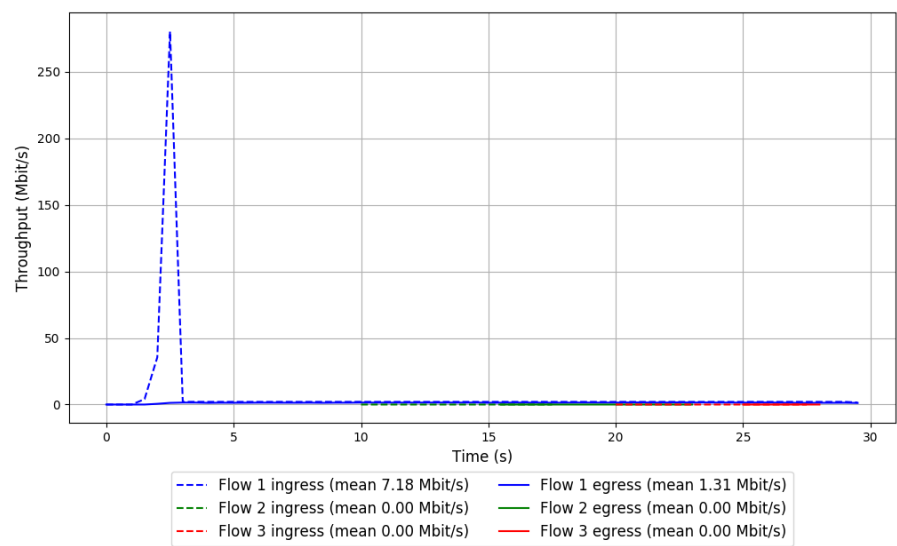
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 5510.263 ms

Loss rate: 49.43%

Run 1: Report of PCC — Data Link

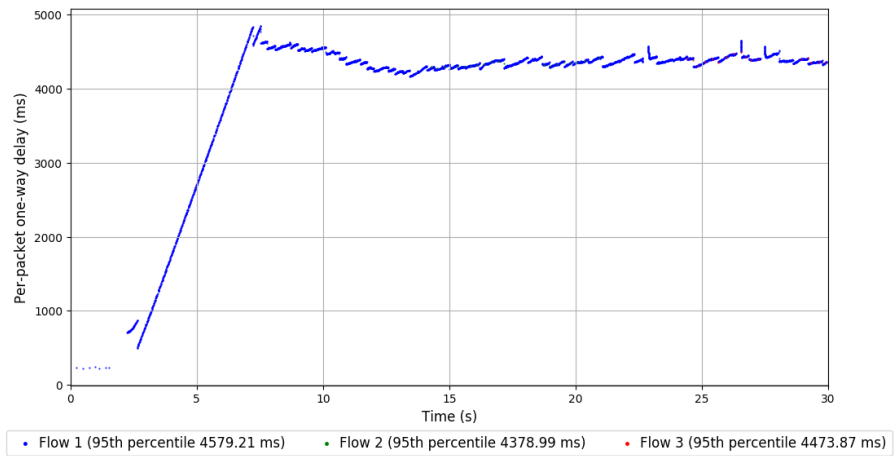
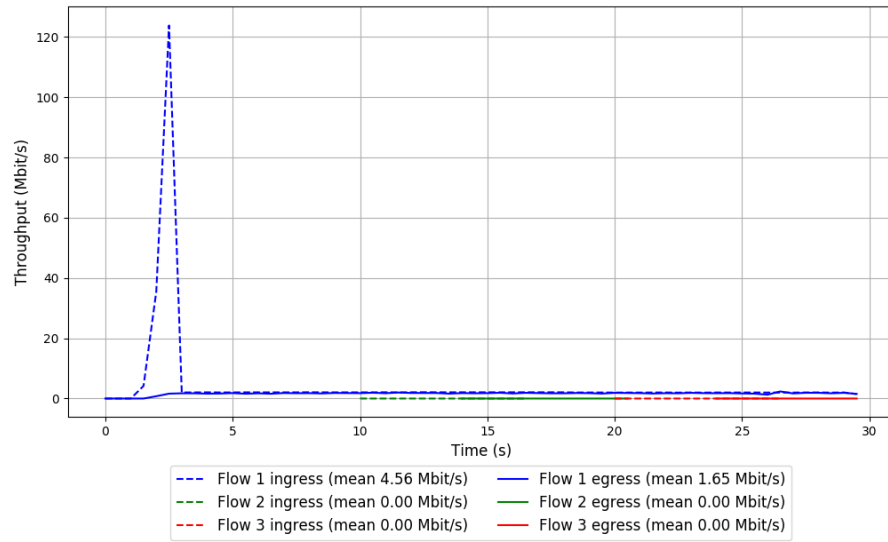


Run 2: Statistics of PCC

Start at: 2018-03-13 00:12:45
End at: 2018-03-13 00:13:15
Local clock offset: -6.368 ms
Remote clock offset: -1.391 ms

Below is generated by plot.py at 2018-03-13 00:37:07
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 4578.562 ms
Loss rate: 63.99%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 4579.213 ms
Loss rate: 64.01%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4378.991 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4473.869 ms
Loss rate: 16.81%

Run 2: Report of PCC — Data Link

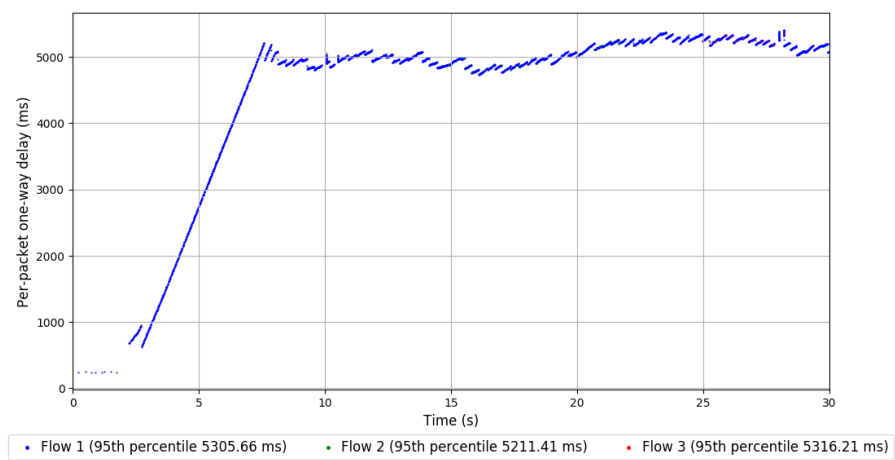
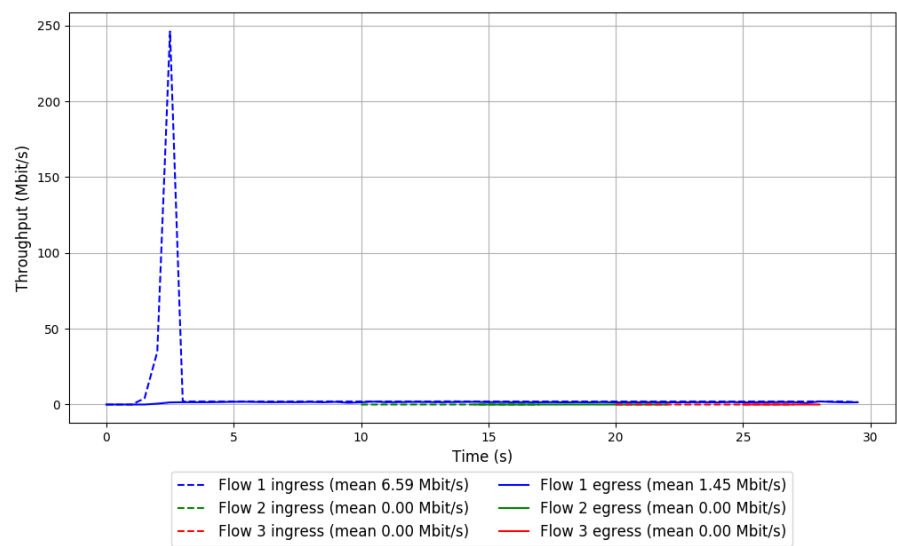


Run 3: Statistics of PCC

Start at: 2018-03-13 00:35:14
End at: 2018-03-13 00:35:44
Local clock offset: -4.796 ms
Remote clock offset: -0.455 ms

Below is generated by plot.py at 2018-03-13 00:37:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 5305.684 ms
Loss rate: 78.10%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 5305.660 ms
Loss rate: 78.12%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5211.409 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5316.206 ms
Loss rate: 44.83%

Run 3: Report of PCC — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-03-12 23:49:02

End at: 2018-03-12 23:49:32

Local clock offset: -2.149 ms

Remote clock offset: 0.396 ms

Below is generated by plot.py at 2018-03-13 00:37:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.30 Mbit/s

95th percentile per-packet one-way delay: 2669.324 ms

Loss rate: 11.17%

-- Flow 1:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 2607.912 ms

Loss rate: 7.25%

-- Flow 2:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 2734.659 ms

Loss rate: 21.42%

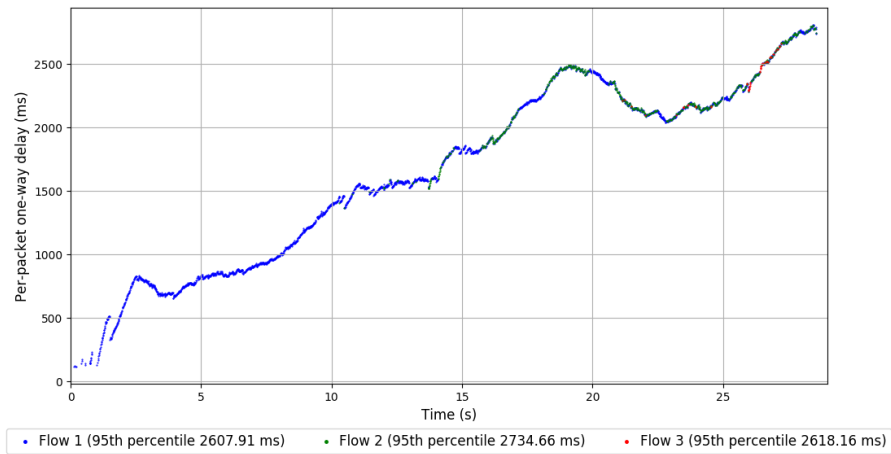
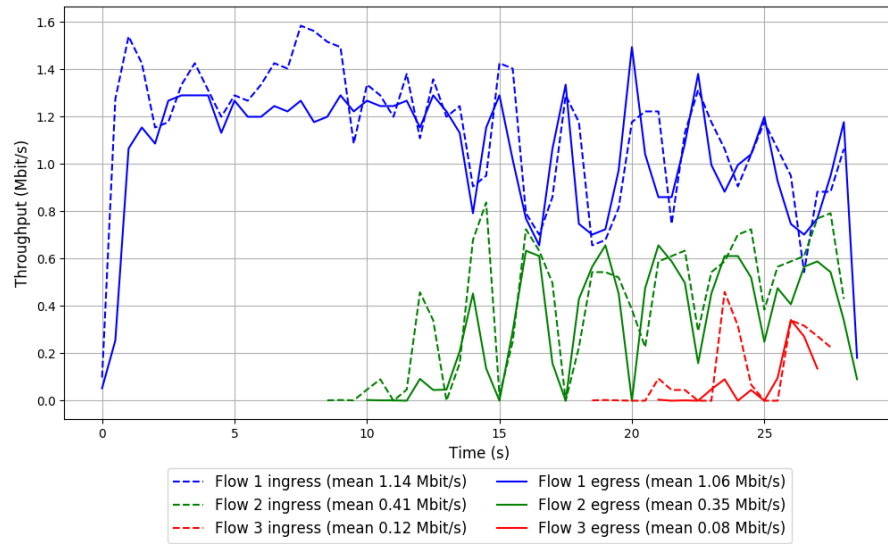
-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 2618.156 ms

Loss rate: 52.77%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-03-13 00:11:30

End at: 2018-03-13 00:12:00

Local clock offset: -6.305 ms

Remote clock offset: 0.484 ms

Below is generated by plot.py at 2018-03-13 00:37:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.73 Mbit/s

95th percentile per-packet one-way delay: 2065.611 ms

Loss rate: 7.31%

-- Flow 1:

Average throughput: 1.38 Mbit/s

95th percentile per-packet one-way delay: 1994.241 ms

Loss rate: 5.45%

-- Flow 2:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 2168.573 ms

Loss rate: 11.05%

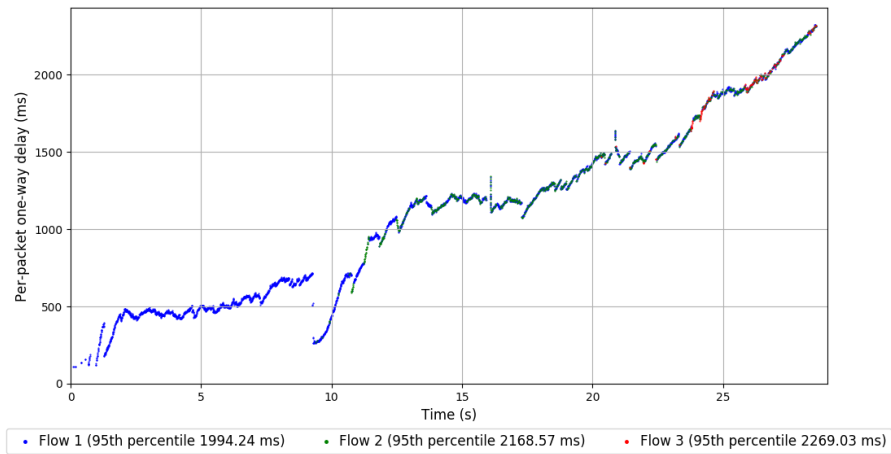
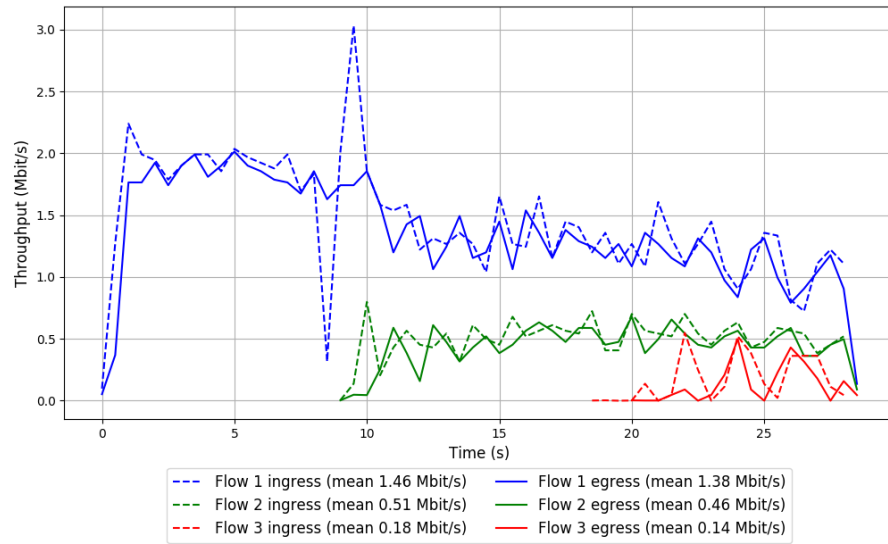
-- Flow 3:

Average throughput: 0.14 Mbit/s

95th percentile per-packet one-way delay: 2269.029 ms

Loss rate: 31.26%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-03-13 00:33:59

End at: 2018-03-13 00:34:29

Local clock offset: -5.088 ms

Remote clock offset: 0.507 ms

Below is generated by plot.py at 2018-03-13 00:37:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.36 Mbit/s

95th percentile per-packet one-way delay: 2618.168 ms

Loss rate: 8.74%

-- Flow 1:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 2569.131 ms

Loss rate: 6.01%

-- Flow 2:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 2673.099 ms

Loss rate: 16.04%

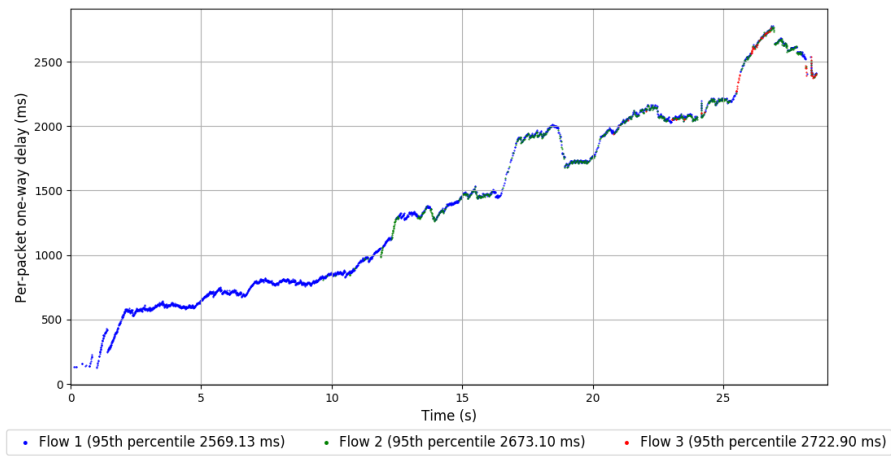
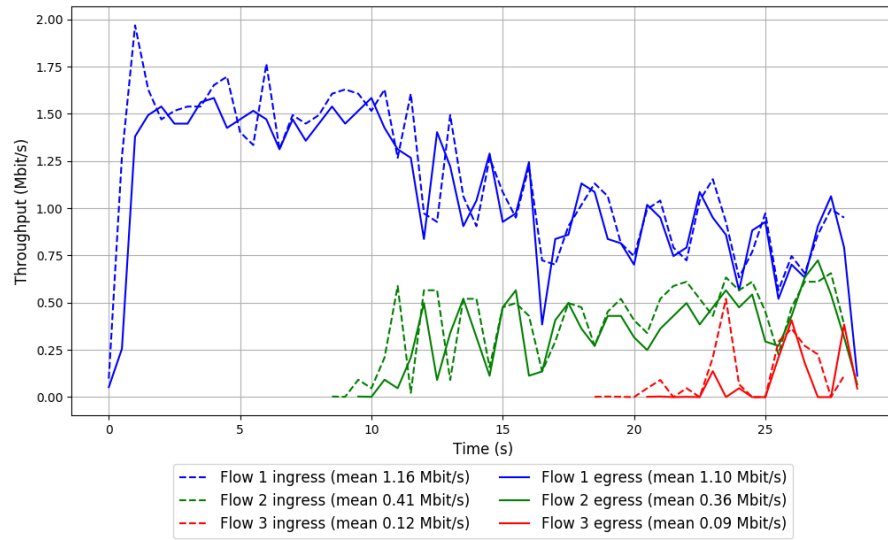
-- Flow 3:

Average throughput: 0.09 Mbit/s

95th percentile per-packet one-way delay: 2722.902 ms

Loss rate: 37.13%

Run 3: Report of QUIC Cubic — Data Link

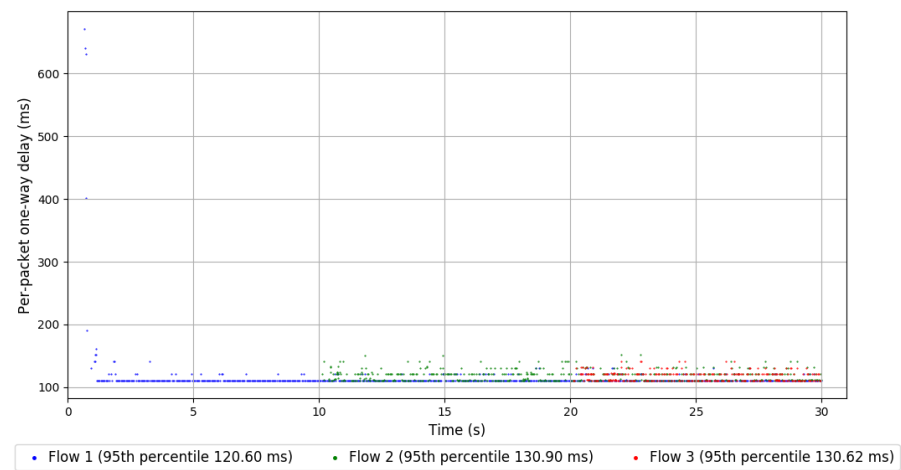
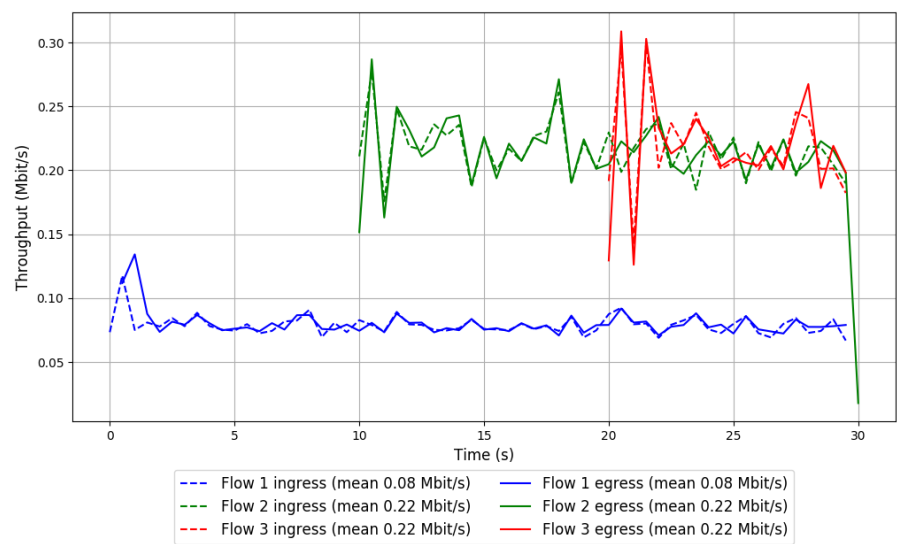


Run 1: Statistics of SCReAM

Start at: 2018-03-12 23:32:49
End at: 2018-03-12 23:33:19
Local clock offset: -2.524 ms
Remote clock offset: -6.347 ms

Below is generated by plot.py at 2018-03-13 00:37:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 130.690 ms
Loss rate: 0.21%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 120.603 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 130.904 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 130.623 ms
Loss rate: 0.35%

Run 1: Report of SReAM — Data Link

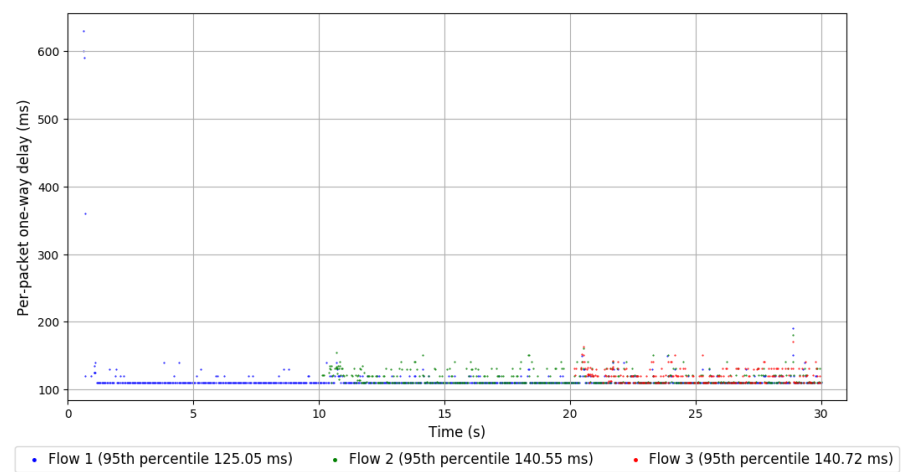
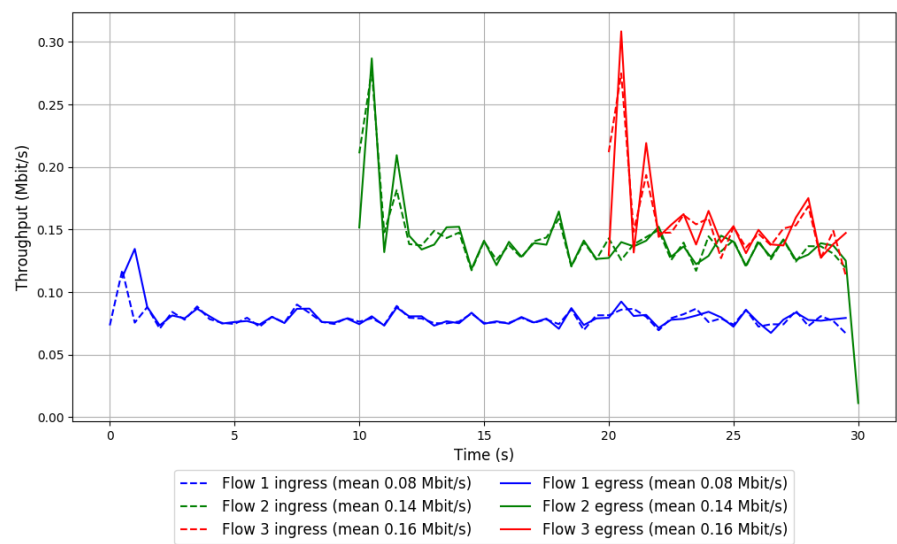


Run 2: Statistics of SReAM

Start at: 2018-03-12 23:55:17
End at: 2018-03-12 23:55:47
Local clock offset: -3.29 ms
Remote clock offset: -6.249 ms

Below is generated by plot.py at 2018-03-13 00:37:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 130.834 ms
Loss rate: 0.20%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 125.048 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 140.549 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 140.719 ms
Loss rate: 0.33%

Run 2: Report of SReAM — Data Link

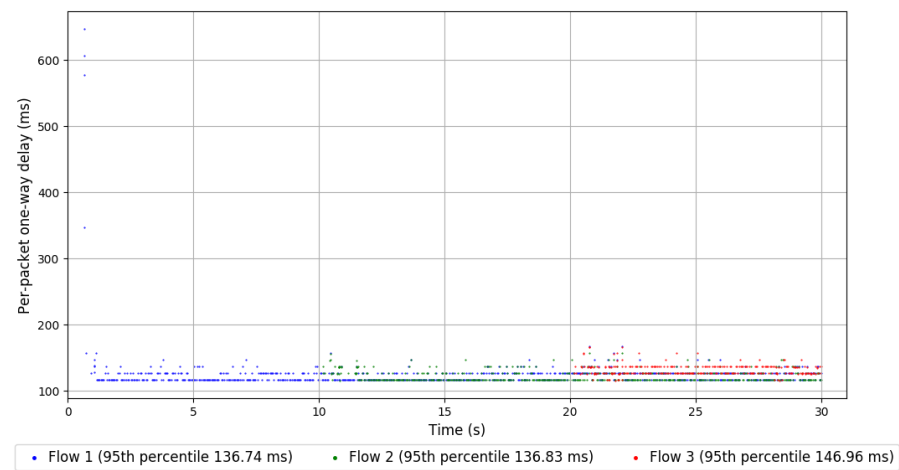
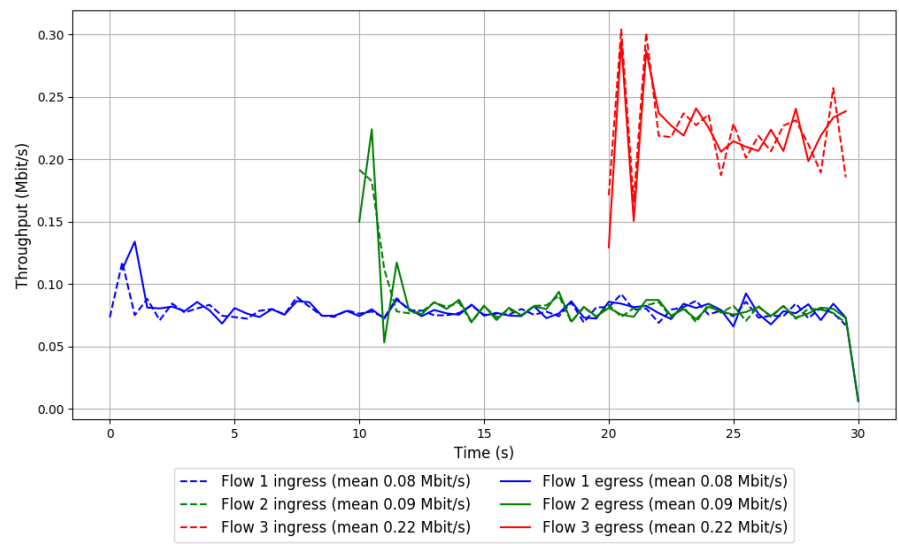


Run 3: Statistics of SReAM

Start at: 2018-03-13 00:17:45
End at: 2018-03-13 00:18:15
Local clock offset: -6.723 ms
Remote clock offset: -0.264 ms

Below is generated by plot.py at 2018-03-13 00:37:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 136.980 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 136.740 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 136.826 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 146.960 ms
Loss rate: 0.35%

Run 3: Report of SReAM — Data Link

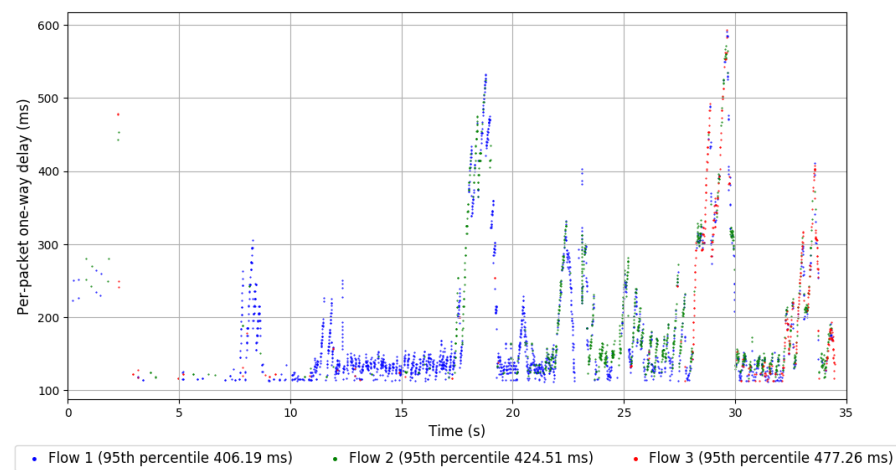
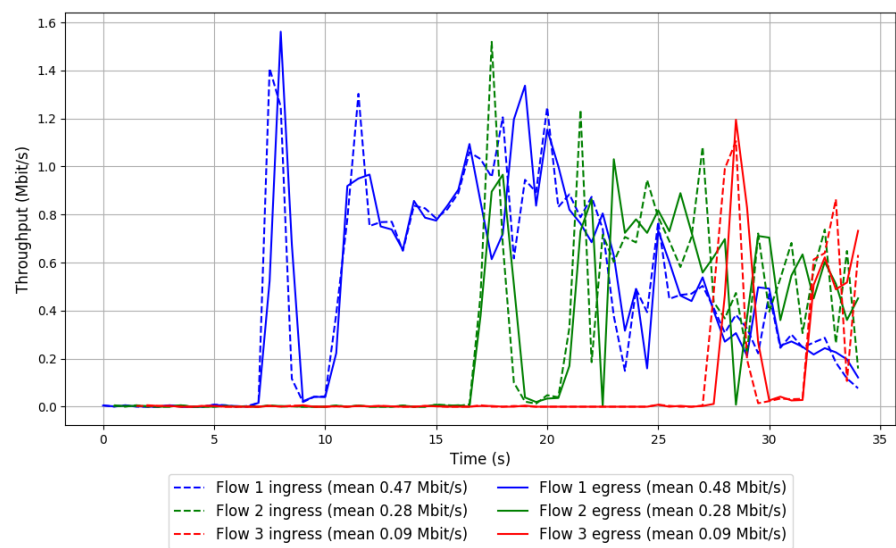


Run 1: Statistics of WebRTC media

Start at: 2018-03-12 23:31:35
End at: 2018-03-12 23:32:05
Local clock offset: -2.417 ms
Remote clock offset: -0.554 ms

Below is generated by plot.py at 2018-03-13 00:37:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 424.789 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 406.193 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 424.513 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 477.262 ms
Loss rate: 0.02%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-03-12 23:54:02

End at: 2018-03-12 23:54:32

Local clock offset: -2.8 ms

Remote clock offset: -5.47 ms

Below is generated by plot.py at 2018-03-13 00:37:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 860.327 ms

Loss rate: 4.54%

-- Flow 1:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 881.164 ms

Loss rate: 2.92%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 570.509 ms

Loss rate: 24.00%

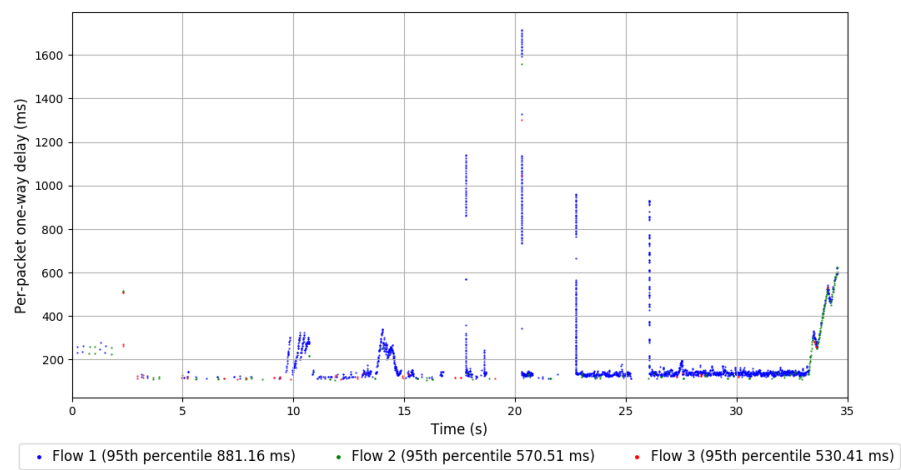
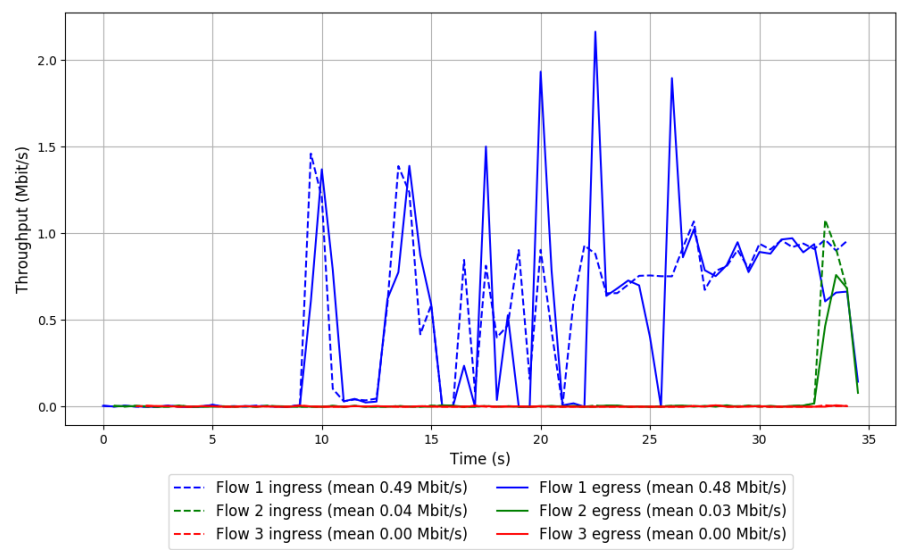
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 530.408 ms

Loss rate: 5.76%

Run 2: Report of WebRTC media — Data Link

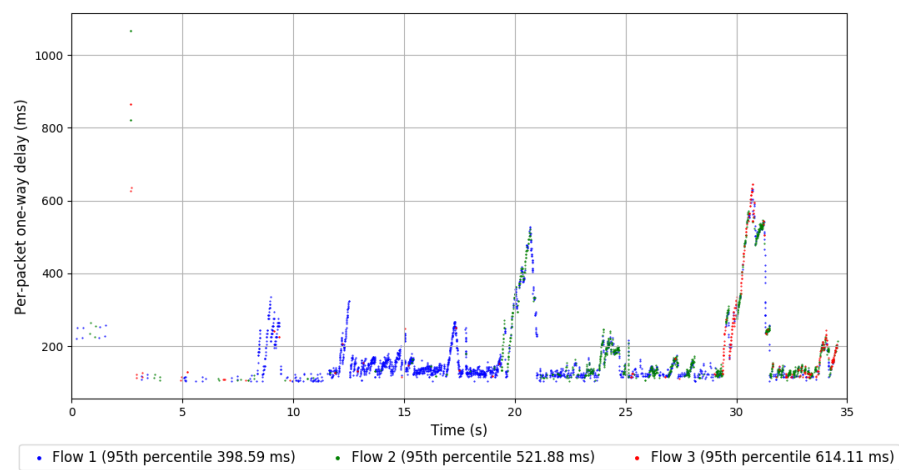
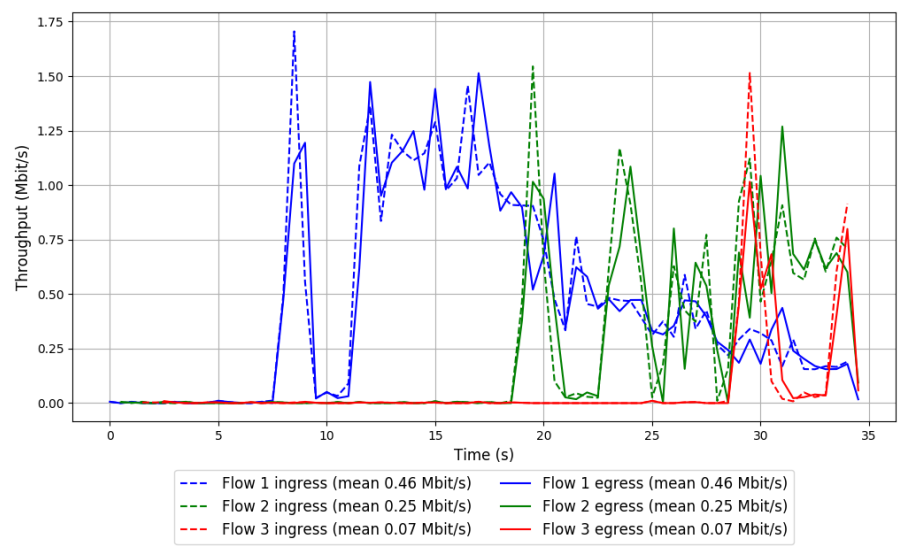


Run 3: Statistics of WebRTC media

Start at: 2018-03-13 00:16:30
End at: 2018-03-13 00:17:00
Local clock offset: -6.599 ms
Remote clock offset: -5.357 ms

Below is generated by plot.py at 2018-03-13 00:37:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 503.796 ms
Loss rate: 1.10%
-- Flow 1:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 398.591 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 521.875 ms
Loss rate: 1.63%
-- Flow 3:
Average throughput: 0.07 Mbit/s
95th percentile per-packet one-way delay: 614.106 ms
Loss rate: 6.04%

Run 3: Report of WebRTC media — Data Link

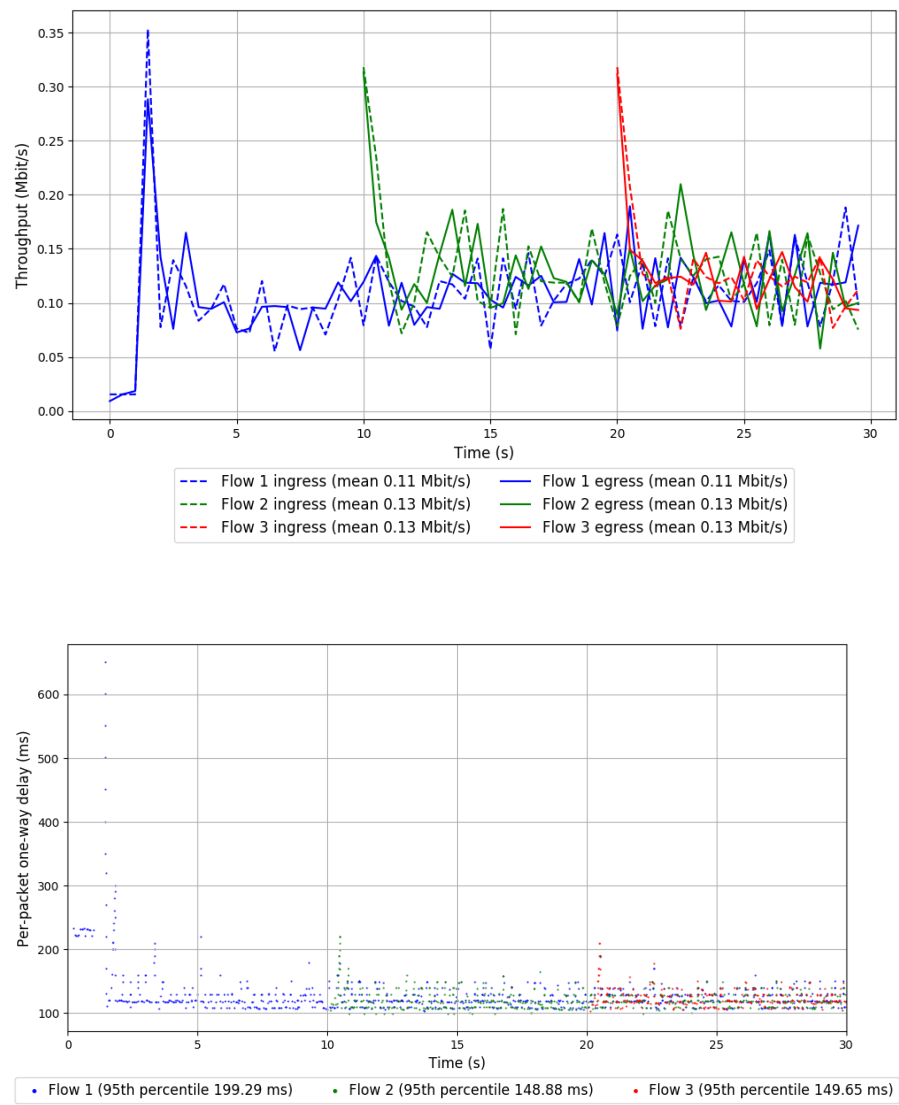


Run 1: Statistics of Sprout

Start at: 2018-03-12 23:36:33
End at: 2018-03-12 23:37:03
Local clock offset: -2.443 ms
Remote clock offset: -5.543 ms

Below is generated by plot.py at 2018-03-13 00:37:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 159.195 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 199.292 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 148.876 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 149.651 ms
Loss rate: 0.90%

Run 1: Report of Sprout — Data Link

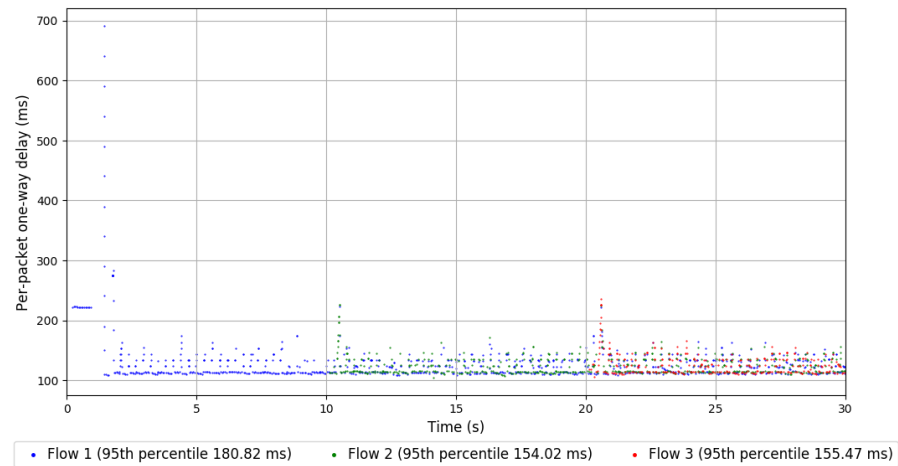
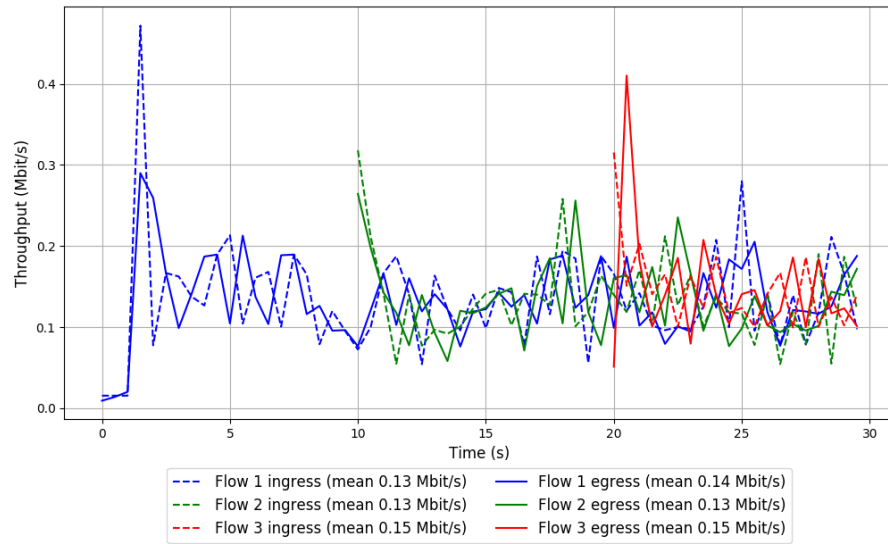


Run 2: Statistics of Sprout

Start at: 2018-03-12 23:59:01
End at: 2018-03-12 23:59:31
Local clock offset: -4.539 ms
Remote clock offset: -6.305 ms

```
# Below is generated by plot.py at 2018-03-13 00:37:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 163.386 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 180.820 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 154.017 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 155.466 ms
Loss rate: 1.45%
```

Run 2: Report of Sprout — Data Link

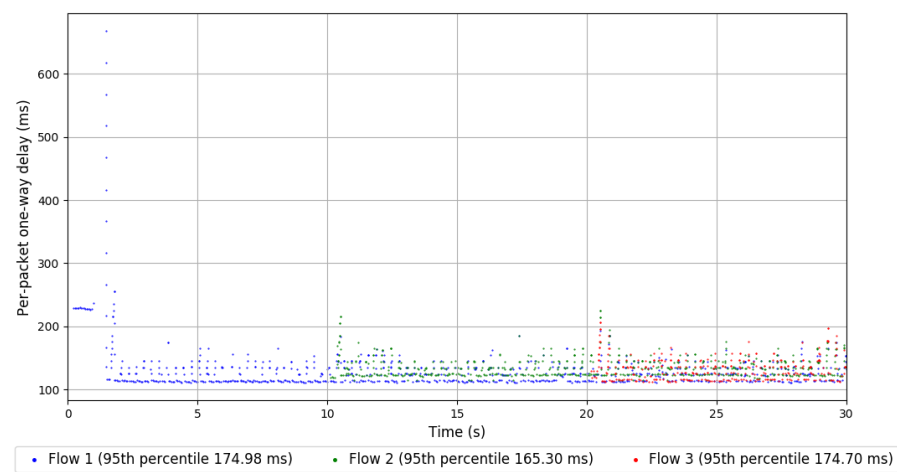
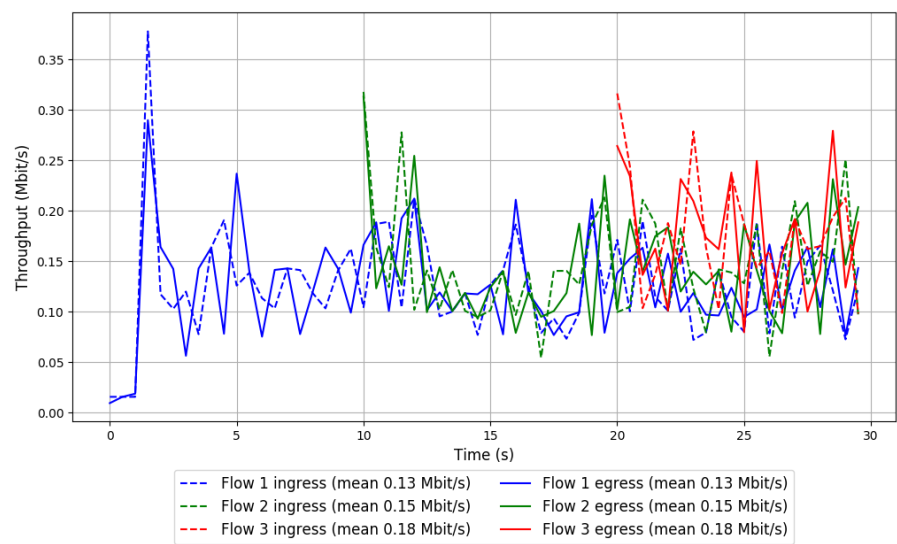


Run 3: Statistics of Sprout

Start at: 2018-03-13 00:21:29
End at: 2018-03-13 00:21:59
Local clock offset: -6.791 ms
Remote clock offset: -0.399 ms

```
# Below is generated by plot.py at 2018-03-13 00:37:14
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 170.822 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 174.978 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 165.301 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 174.702 ms
Loss rate: 0.04%
```

Run 3: Report of Sprout — Data Link

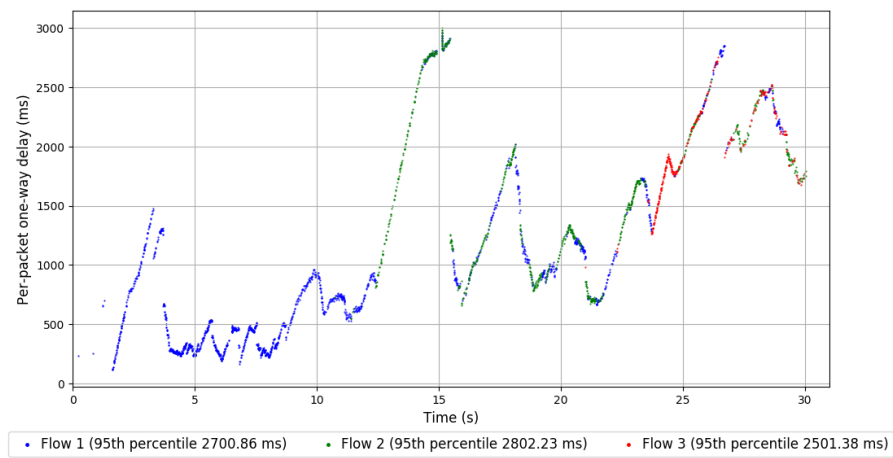
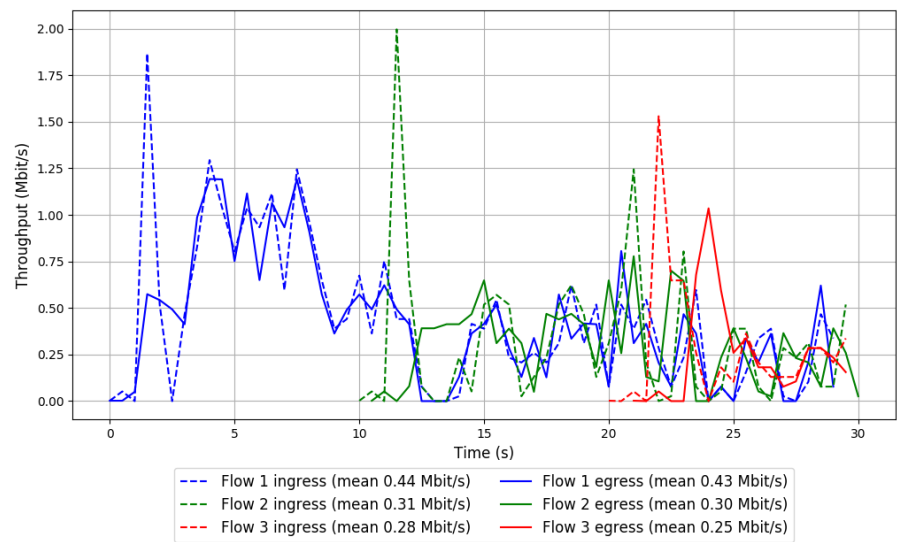


Run 1: Statistics of TaoVA-100x

Start at: 2018-03-12 23:35:19
End at: 2018-03-12 23:35:49
Local clock offset: -2.438 ms
Remote clock offset: -0.636 ms

Below is generated by plot.py at 2018-03-13 00:37:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 2752.060 ms
Loss rate: 6.36%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2700.855 ms
Loss rate: 3.54%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 2802.230 ms
Loss rate: 6.64%
-- Flow 3:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 2501.381 ms
Loss rate: 18.86%

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

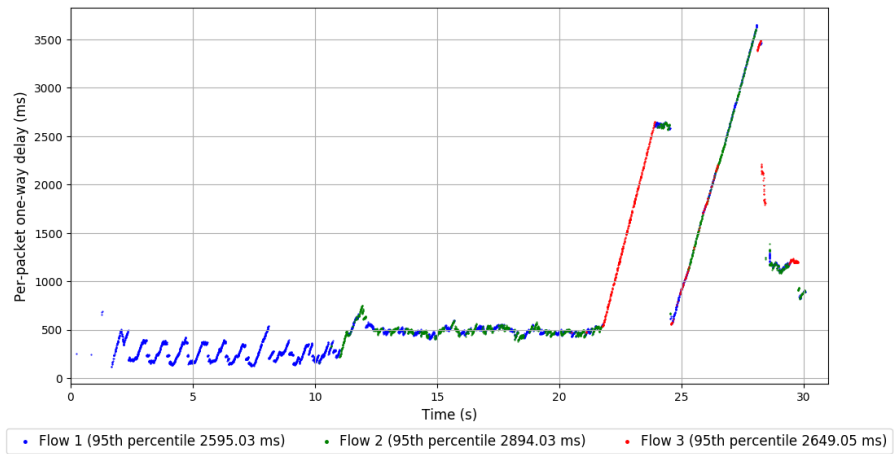
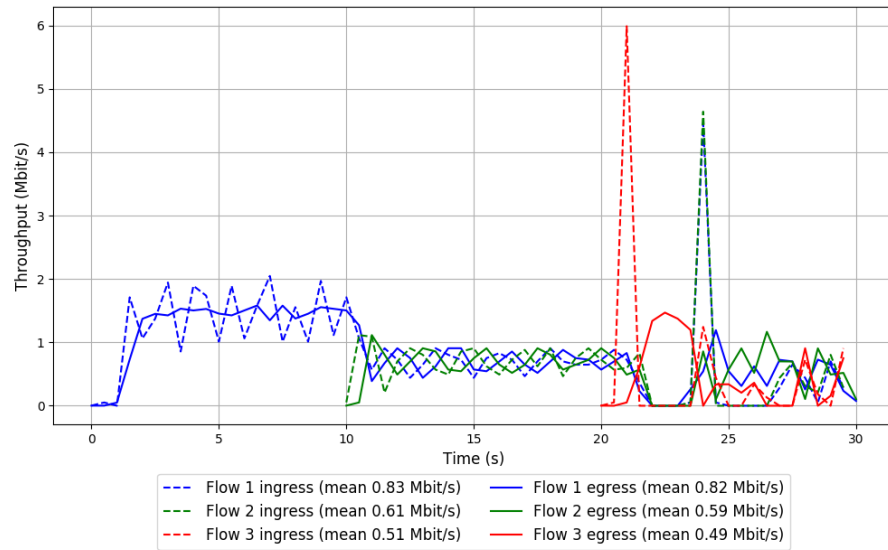


Run 2: Statistics of TaoVA-100x

Start at: 2018-03-12 23:57:46
End at: 2018-03-12 23:58:16
Local clock offset: -4.2 ms
Remote clock offset: -0.496 ms

Below is generated by plot.py at 2018-03-13 00:37:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 2631.605 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 2595.032 ms
Loss rate: 1.46%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 2894.029 ms
Loss rate: 2.79%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 2649.055 ms
Loss rate: 9.09%

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

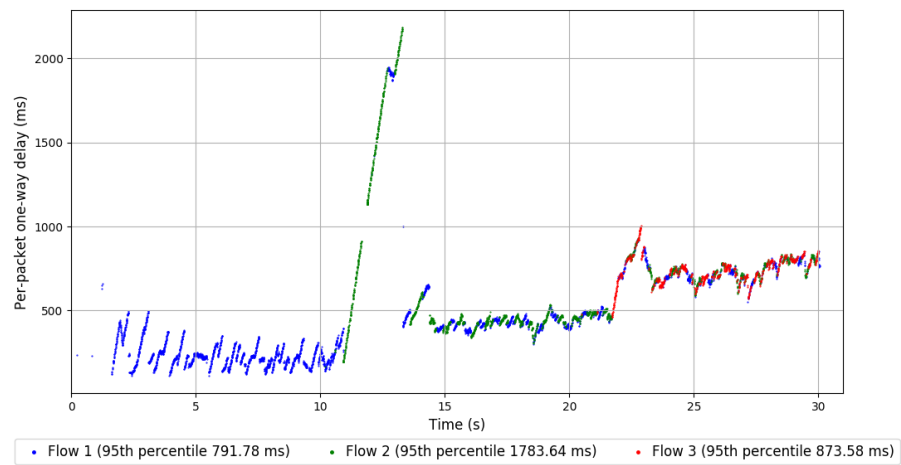
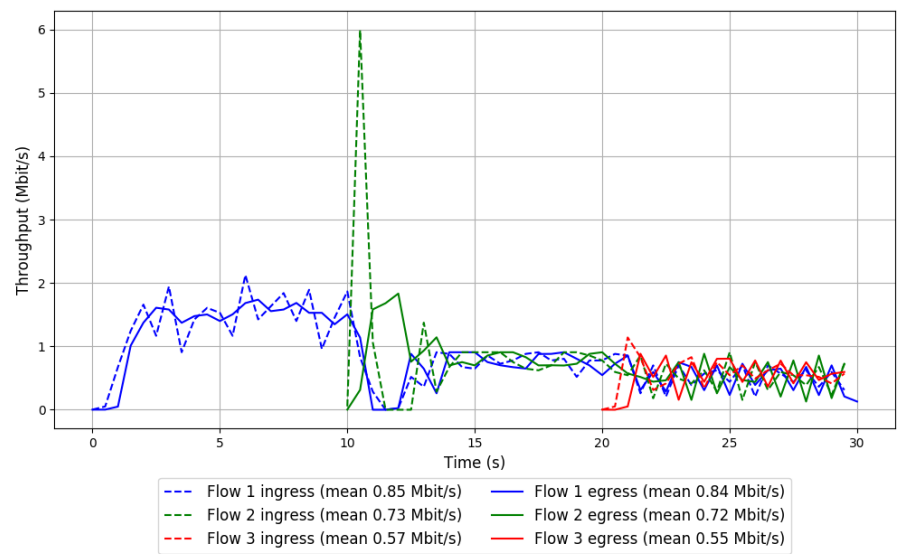


Run 3: Statistics of TaoVA-100x

Start at: 2018-03-13 00:20:15
End at: 2018-03-13 00:20:45
Local clock offset: -6.776 ms
Remote clock offset: -0.296 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 1216.641 ms
Loss rate: 2.36%
-- Flow 1:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 791.781 ms
Loss rate: 1.47%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 1783.643 ms
Loss rate: 2.58%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 873.578 ms
Loss rate: 5.85%

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

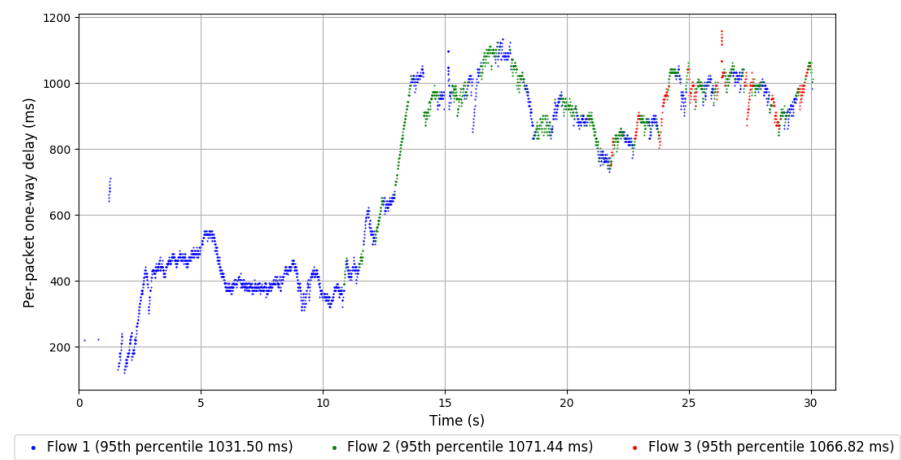
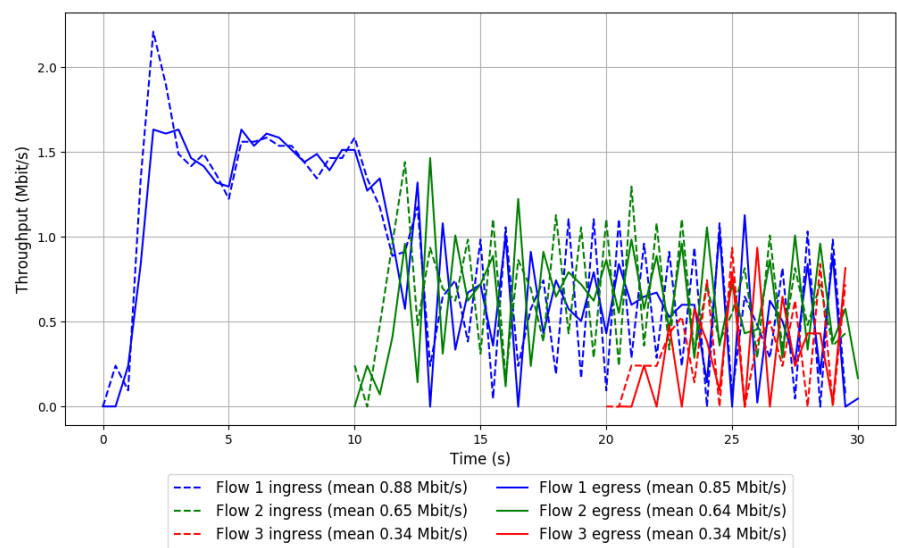


Run 1: Statistics of TCP Vegas

Start at: 2018-03-12 23:30:19
End at: 2018-03-12 23:30:49
Local clock offset: -2.48 ms
Remote clock offset: -6.321 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 1051.360 ms
Loss rate: 2.89%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 1031.504 ms
Loss rate: 1.94%
-- Flow 2:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 1071.442 ms
Loss rate: 2.77%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 1066.820 ms
Loss rate: 10.55%

Run 1: Report of TCP Vegas — Data Link

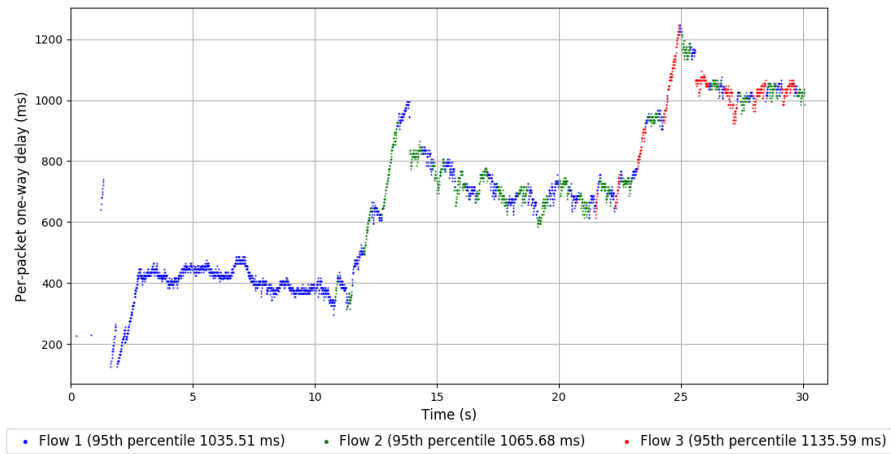
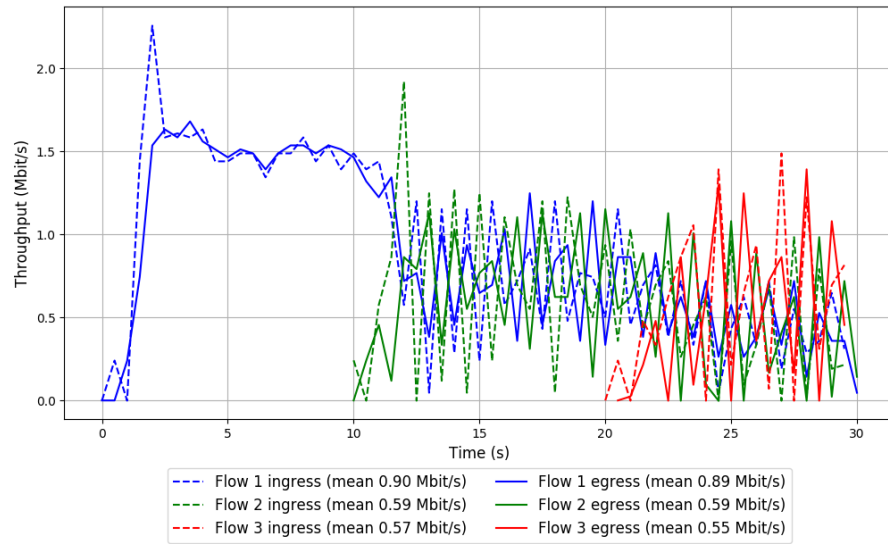


Run 2: Statistics of TCP Vegas

Start at: 2018-03-12 23:52:47
End at: 2018-03-12 23:53:17
Local clock offset: -2.058 ms
Remote clock offset: -0.586 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 1065.728 ms
Loss rate: 3.10%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 1035.512 ms
Loss rate: 1.69%
-- Flow 2:
Average throughput: 0.59 Mbit/s
95th percentile per-packet one-way delay: 1065.680 ms
Loss rate: 1.42%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 1135.589 ms
Loss rate: 13.26%

Run 2: Report of TCP Vegas — Data Link

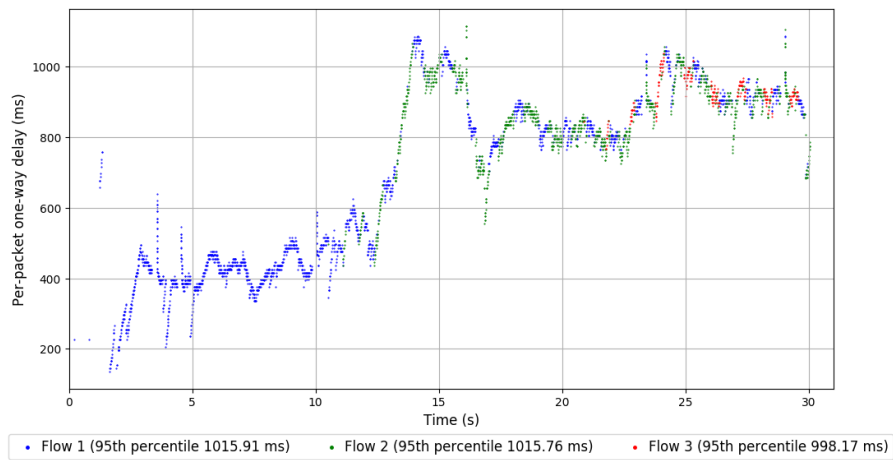
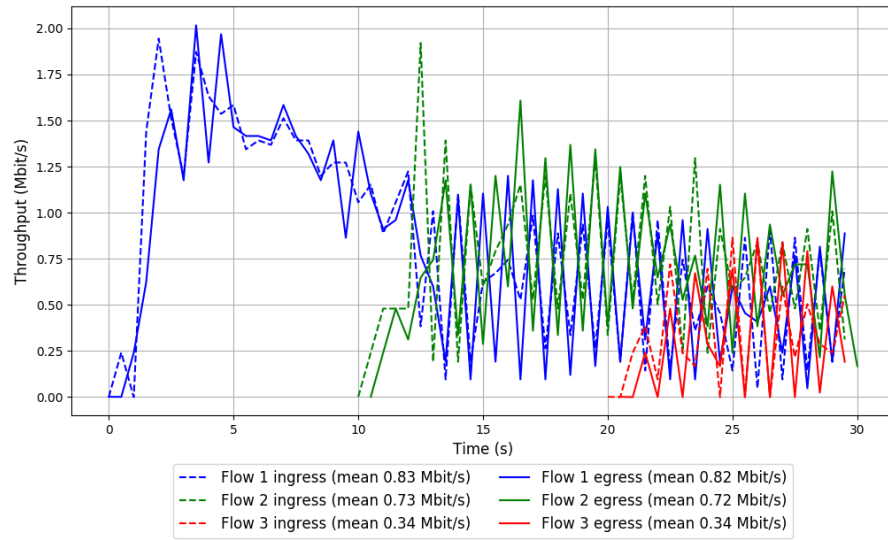


Run 3: Statistics of TCP Vegas

Start at: 2018-03-13 00:15:15
End at: 2018-03-13 00:15:45
Local clock offset: -6.55 ms
Remote clock offset: -1.341 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 1015.773 ms
Loss rate: 2.75%
-- Flow 1:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 1015.913 ms
Loss rate: 1.59%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 1015.756 ms
Loss rate: 2.64%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 998.167 ms
Loss rate: 11.91%

Run 3: Report of TCP Vegas — Data Link

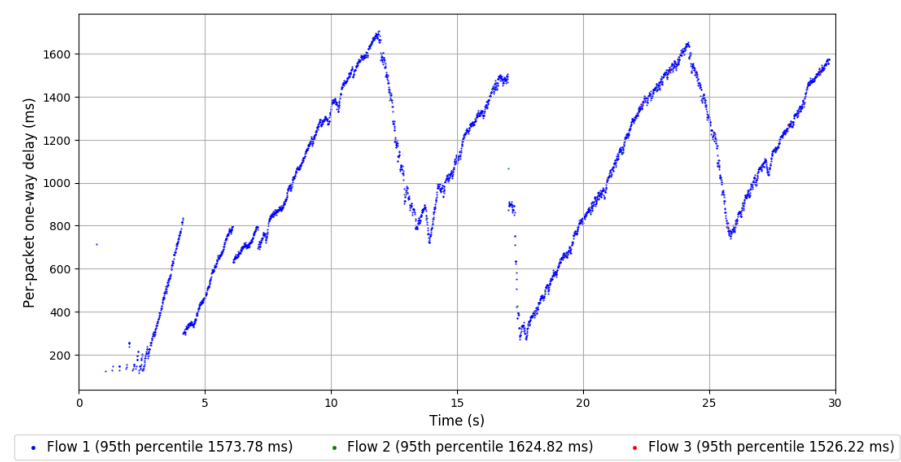
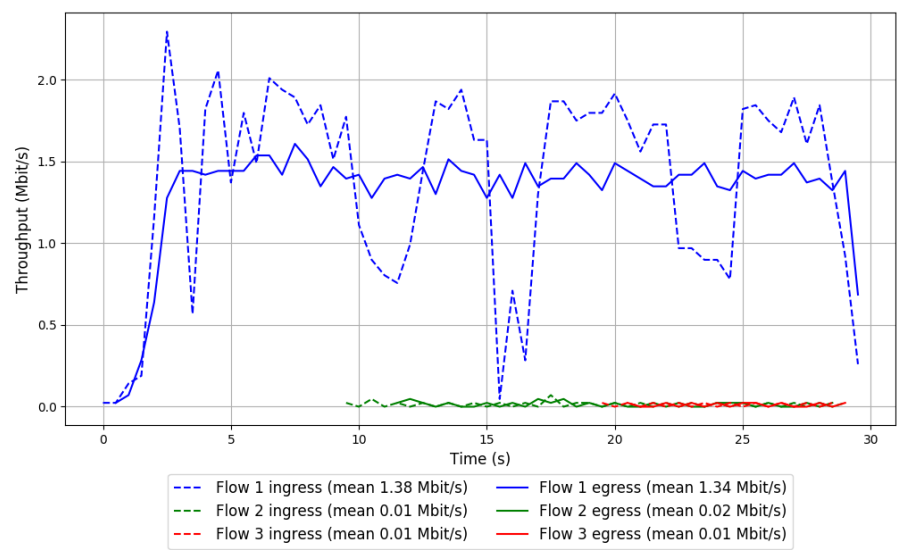


Run 1: Statistics of Verus

Start at: 2018-03-12 23:37:48
End at: 2018-03-12 23:38:18
Local clock offset: -2.441 ms
Remote clock offset: -1.504 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 1573.825 ms
Loss rate: 4.69%
-- Flow 1:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 1573.784 ms
Loss rate: 4.65%
-- Flow 2:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1624.823 ms
Loss rate: 8.33%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1526.223 ms
Loss rate: 10.00%

Run 1: Report of Verus — Data Link

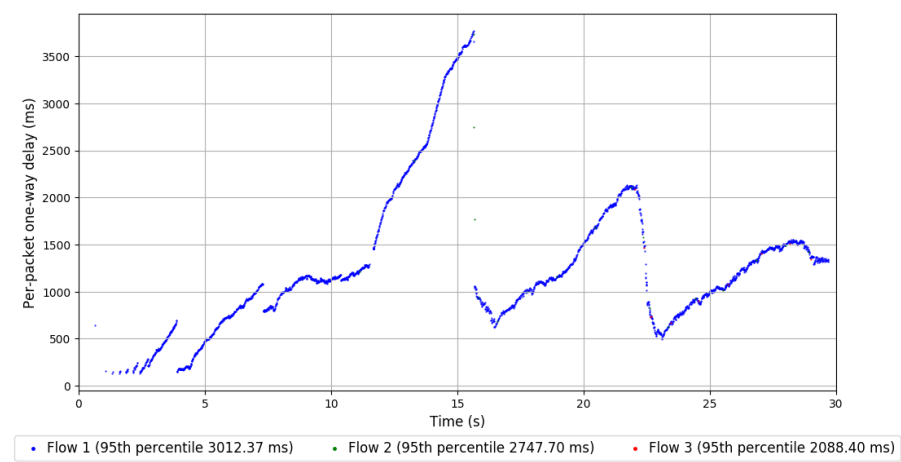
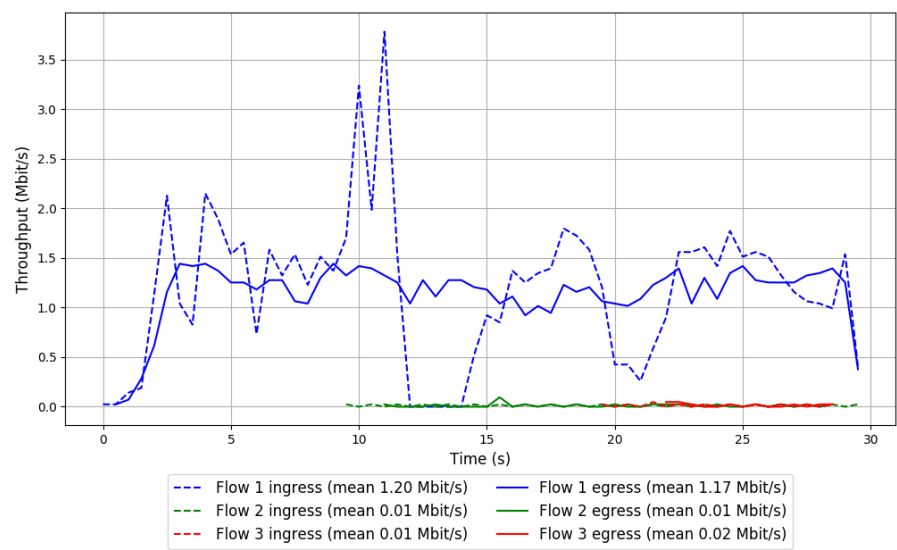


Run 2: Statistics of Verus

Start at: 2018-03-13 00:00:16
End at: 2018-03-13 00:00:46
Local clock offset: -4.823 ms
Remote clock offset: -1.474 ms

Below is generated by plot.py at 2018-03-13 00:37:20
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.18 Mbit/s
95th percentile per-packet one-way delay: 3002.372 ms
Loss rate: 4.55%
-- Flow 1:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 3012.366 ms
Loss rate: 4.50%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 2747.698 ms
Loss rate: 9.52%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 2088.397 ms
Loss rate: 9.09%

Run 2: Report of Verus — Data Link

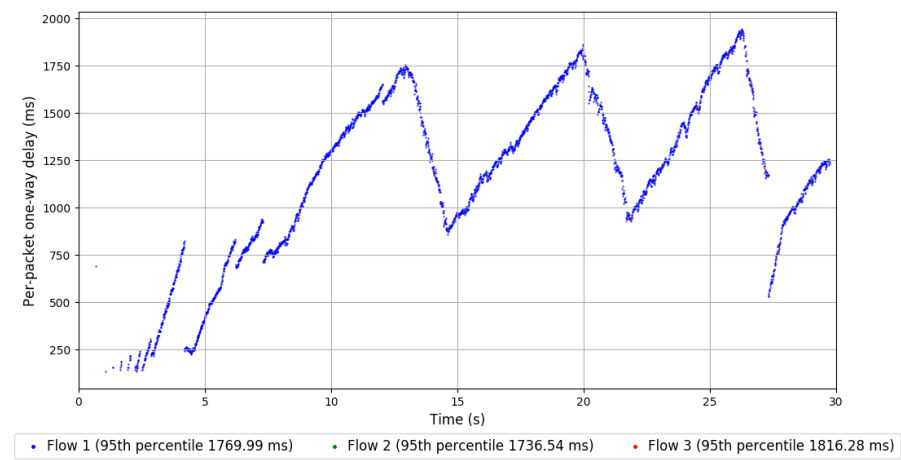
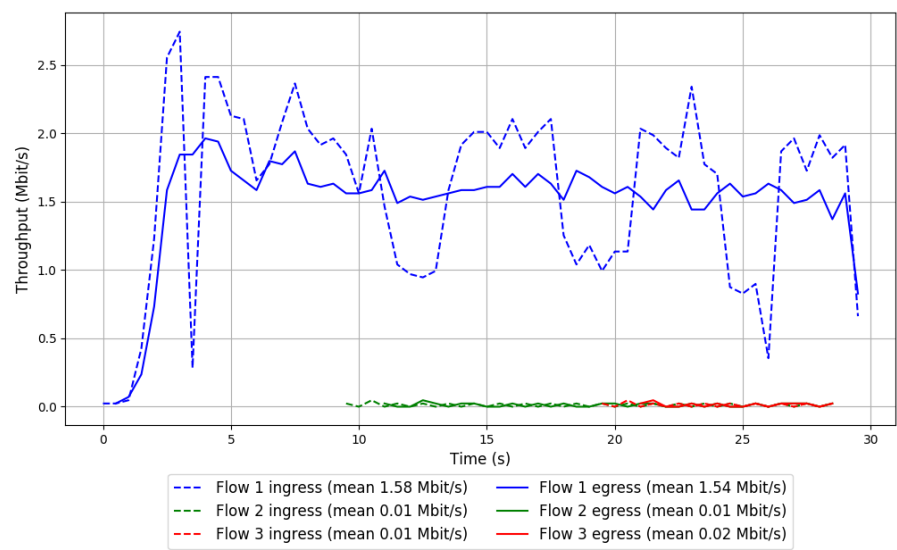


Run 3: Statistics of Verus

Start at: 2018-03-13 00:22:44
End at: 2018-03-13 00:23:14
Local clock offset: -6.915 ms
Remote clock offset: -1.271 ms

Below is generated by plot.py at 2018-03-13 00:37:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.55 Mbit/s
95th percentile per-packet one-way delay: 1770.004 ms
Loss rate: 4.78%
-- Flow 1:
Average throughput: 1.54 Mbit/s
95th percentile per-packet one-way delay: 1769.994 ms
Loss rate: 4.77%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1736.537 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1816.282 ms
Loss rate: 9.09%

Run 3: Report of Verus — Data Link

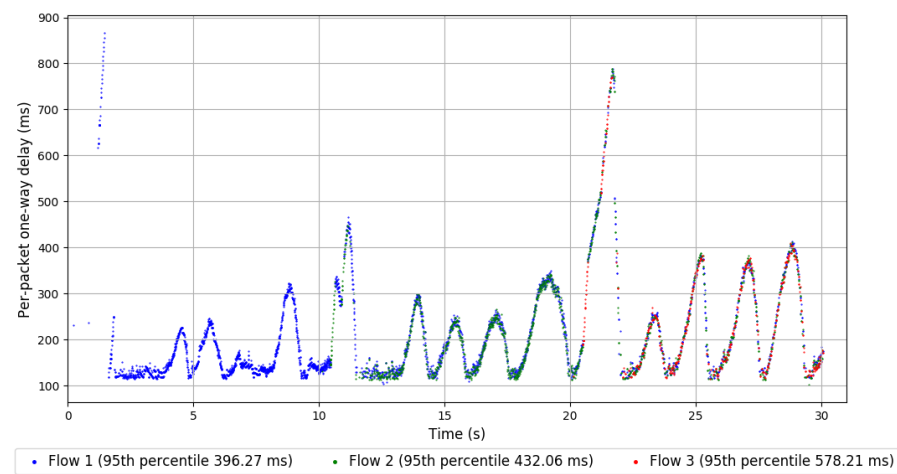
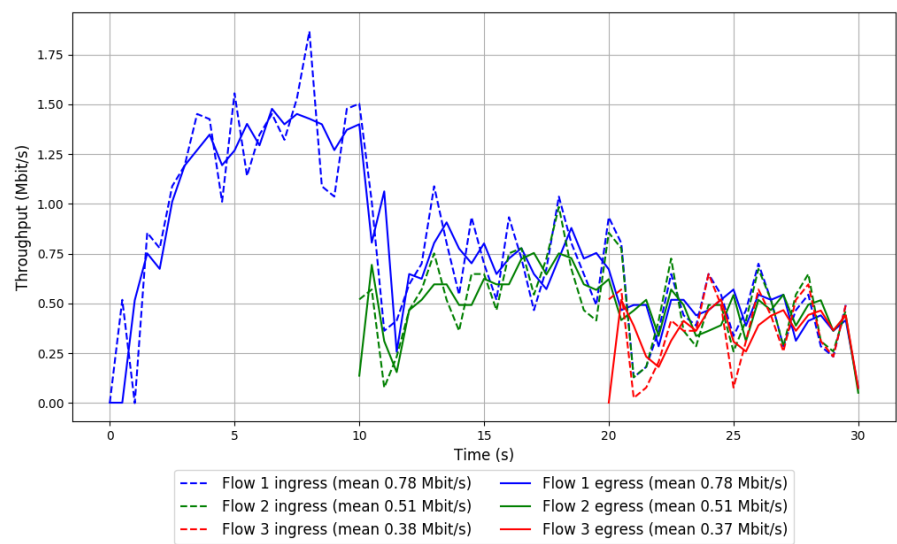


Run 1: Statistics of Copa

Start at: 2018-03-12 23:44:02
End at: 2018-03-12 23:44:32
Local clock offset: -2.323 ms
Remote clock offset: -5.483 ms

Below is generated by plot.py at 2018-03-13 00:37:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 414.198 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 396.266 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 432.060 ms
Loss rate: 0.38%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 578.205 ms
Loss rate: 1.04%

Run 1: Report of Copa — Data Link

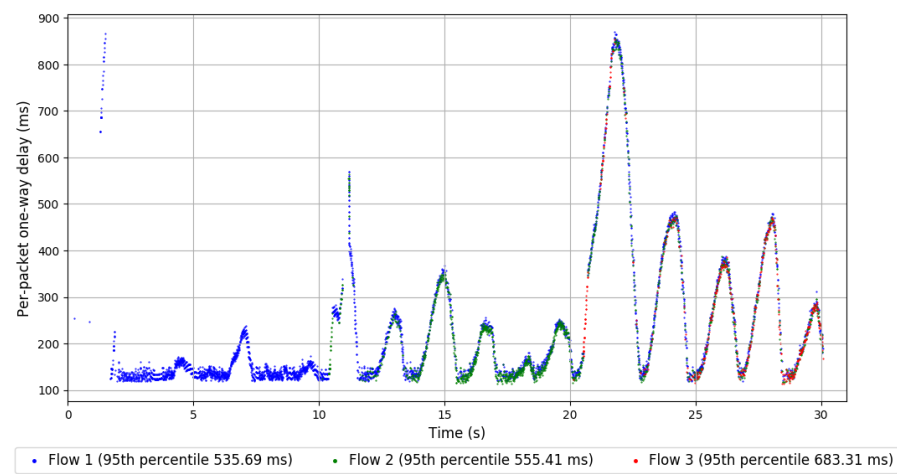
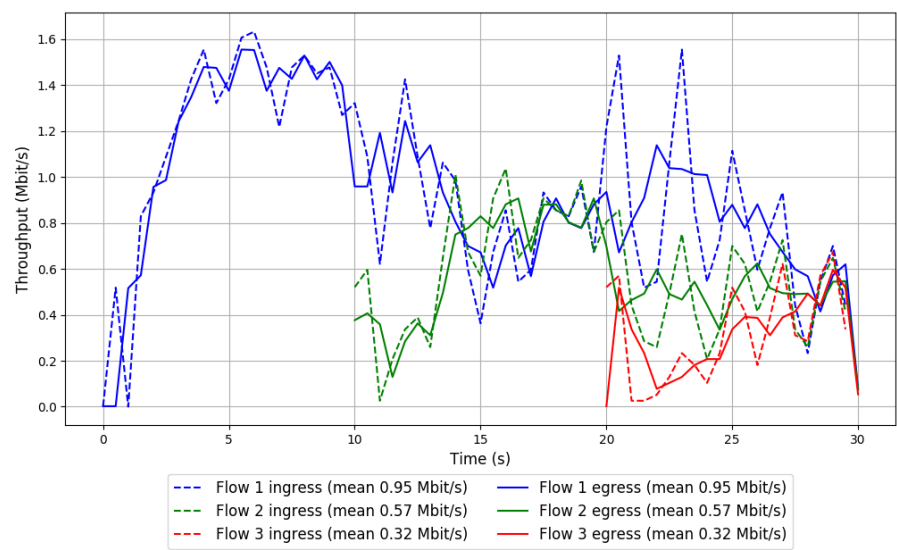


Run 2: Statistics of Copa

Start at: 2018-03-13 00:06:30
End at: 2018-03-13 00:07:00
Local clock offset: -5.851 ms
Remote clock offset: -1.419 ms

Below is generated by plot.py at 2018-03-13 00:37:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 563.818 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 535.692 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.57 Mbit/s
95th percentile per-packet one-way delay: 555.412 ms
Loss rate: 0.34%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 683.306 ms
Loss rate: 0.78%

Run 2: Report of Copa — Data Link

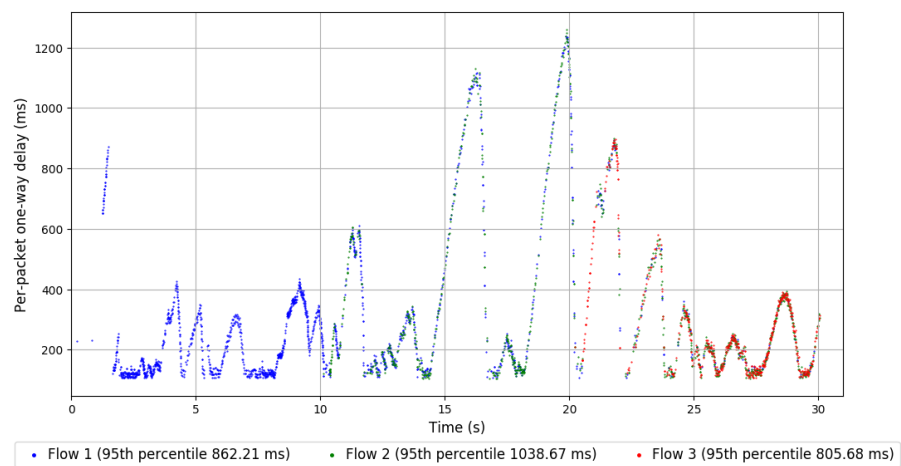
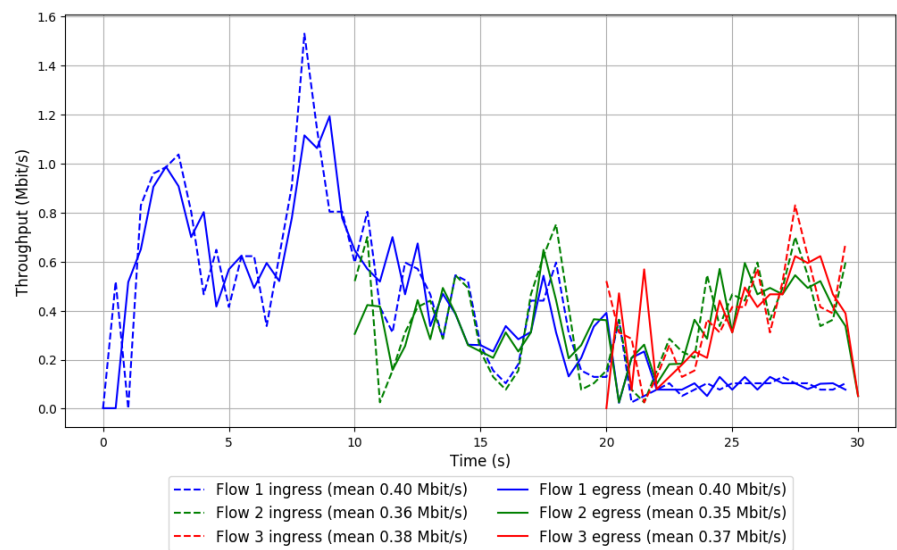


Run 3: Statistics of Copa

Start at: 2018-03-13 00:28:59
End at: 2018-03-13 00:29:29
Local clock offset: -6.118 ms
Remote clock offset: -5.328 ms

Below is generated by plot.py at 2018-03-13 00:37:26
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 876.281 ms
Loss rate: 1.63%
-- Flow 1:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 862.206 ms
Loss rate: 0.22%
-- Flow 2:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 1038.671 ms
Loss rate: 2.36%
-- Flow 3:
Average throughput: 0.37 Mbit/s
95th percentile per-packet one-way delay: 805.678 ms
Loss rate: 4.74%

Run 3: Report of Copa — Data Link

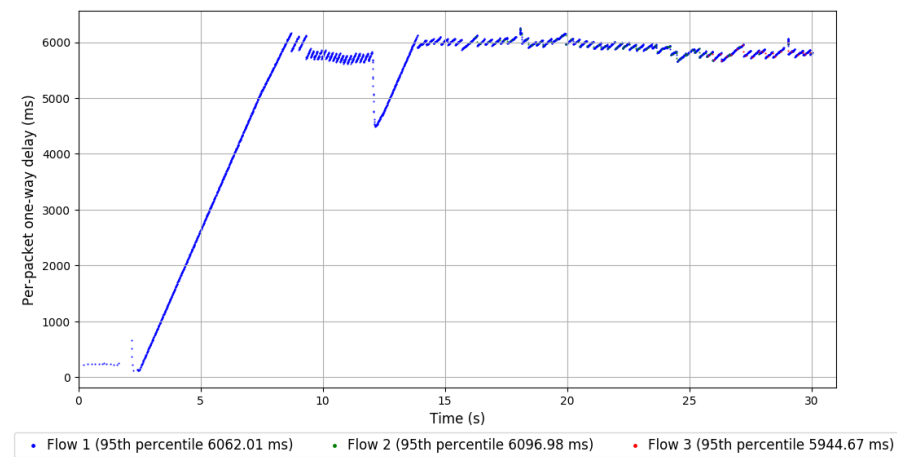
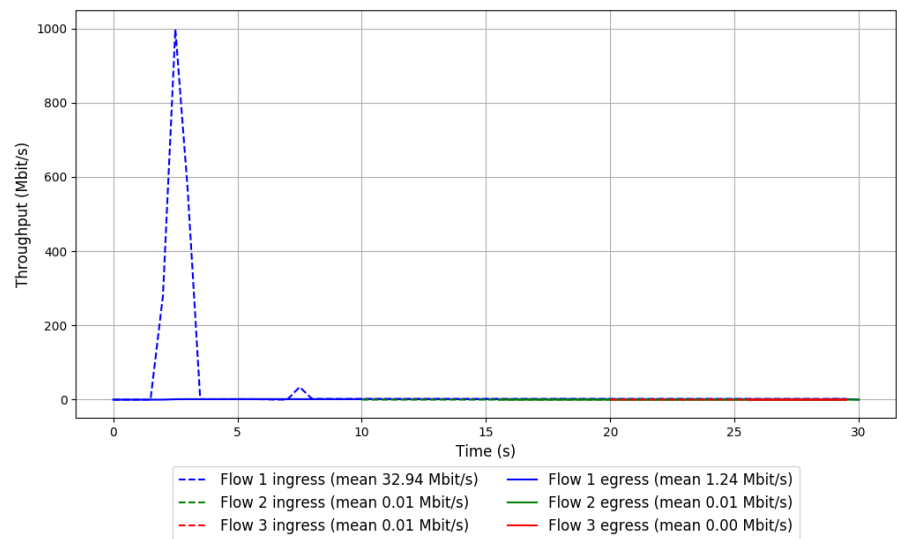


Run 1: Statistics of FillP

Start at: 2018-03-12 23:42:47
End at: 2018-03-12 23:43:17
Local clock offset: -2.309 ms
Remote clock offset: -5.448 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 6061.987 ms
Loss rate: 96.25%
-- Flow 1:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 6062.005 ms
Loss rate: 96.26%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 6096.981 ms
Loss rate: 14.89%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5944.666 ms
Loss rate: 77.79%

Run 1: Report of FillP — Data Link

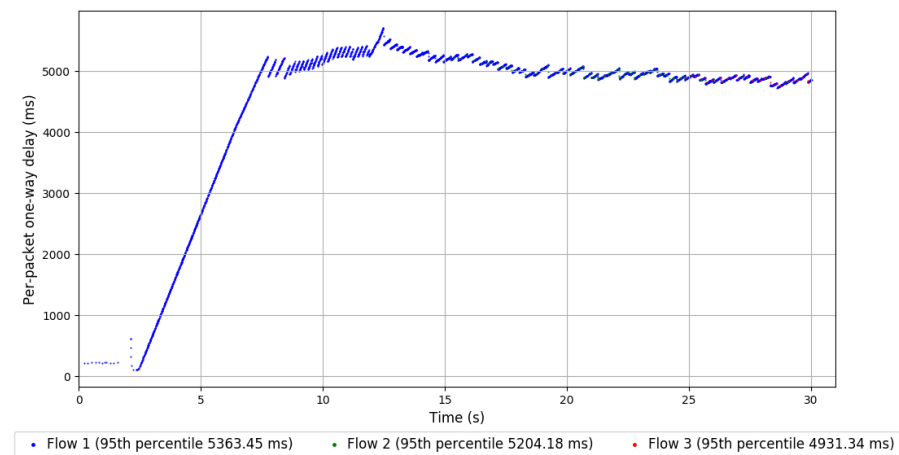
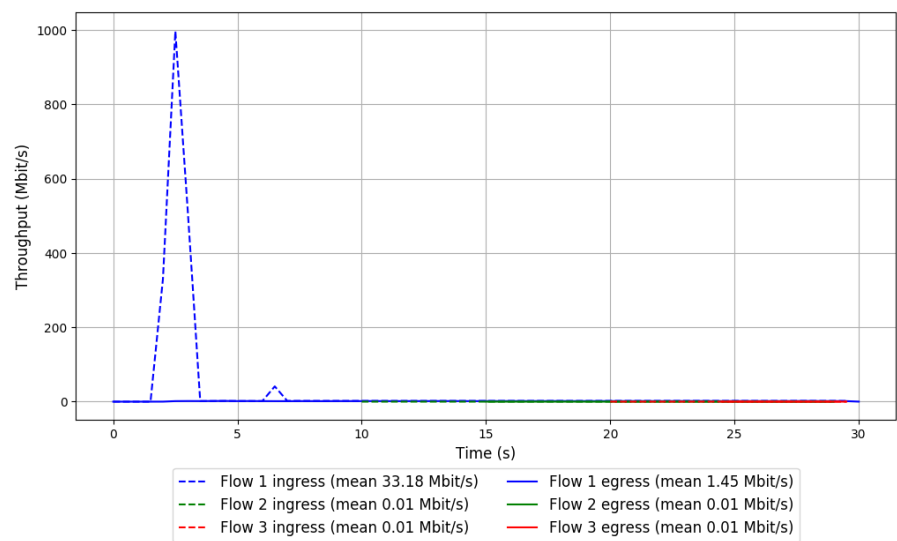


Run 2: Statistics of FillP

Start at: 2018-03-13 00:05:15
End at: 2018-03-13 00:05:45
Local clock offset: -5.706 ms
Remote clock offset: -5.375 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 5363.054 ms
Loss rate: 95.65%
-- Flow 1:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 5363.453 ms
Loss rate: 95.66%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5204.175 ms
Loss rate: 11.46%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4931.341 ms
Loss rate: 72.72%

Run 2: Report of FillP — Data Link

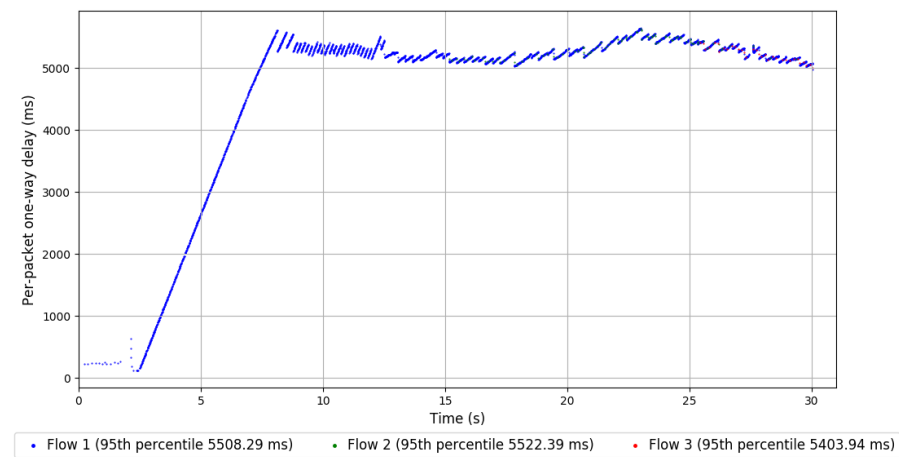
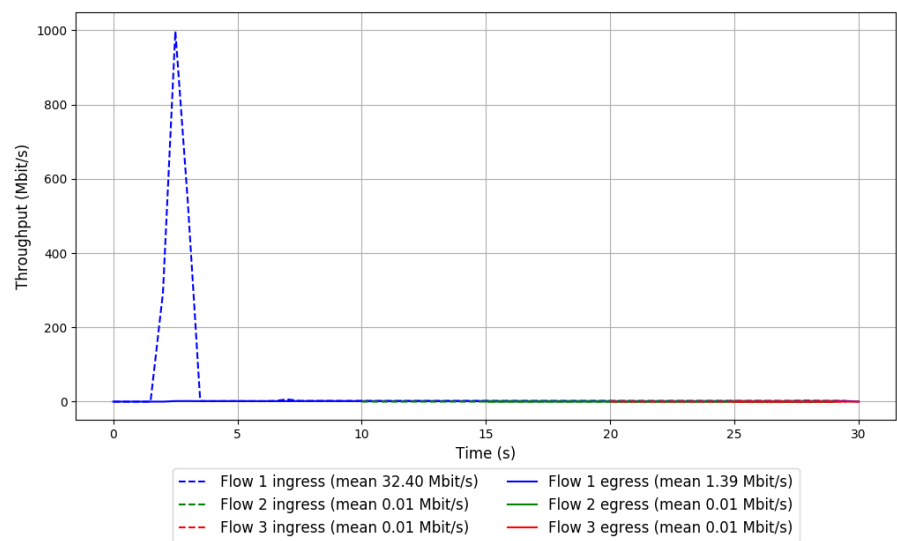


Run 3: Statistics of FillP

Start at: 2018-03-13 00:27:44
End at: 2018-03-13 00:28:14
Local clock offset: -6.536 ms
Remote clock offset: -0.331 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 5508.825 ms
Loss rate: 95.72%
-- Flow 1:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 5508.288 ms
Loss rate: 95.73%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5522.388 ms
Loss rate: 12.13%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5403.935 ms
Loss rate: 74.34%

Run 3: Report of FillP — Data Link

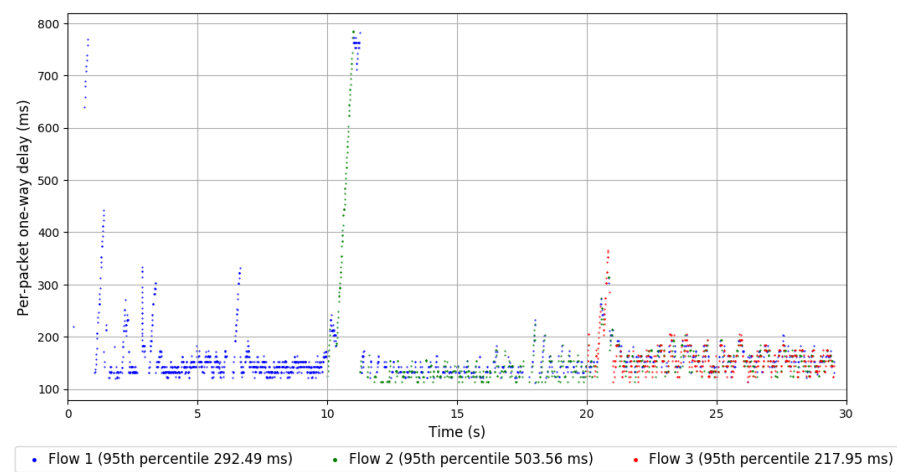
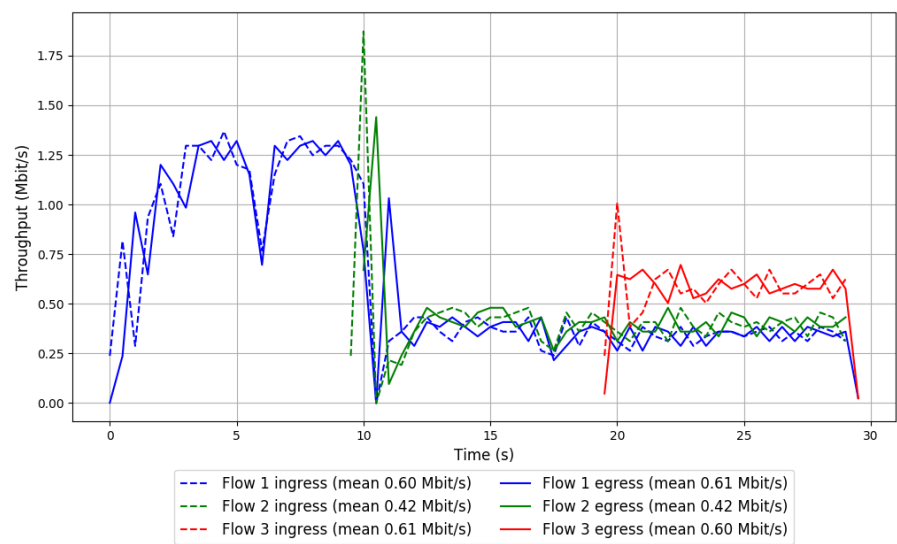


Run 1: Statistics of Indigo-1-32

Start at: 2018-03-12 23:40:18
End at: 2018-03-12 23:40:48
Local clock offset: -2.347 ms
Remote clock offset: -5.429 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 313.544 ms
Loss rate: 0.38%
-- Flow 1:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 292.487 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 503.562 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 217.954 ms
Loss rate: 1.04%

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

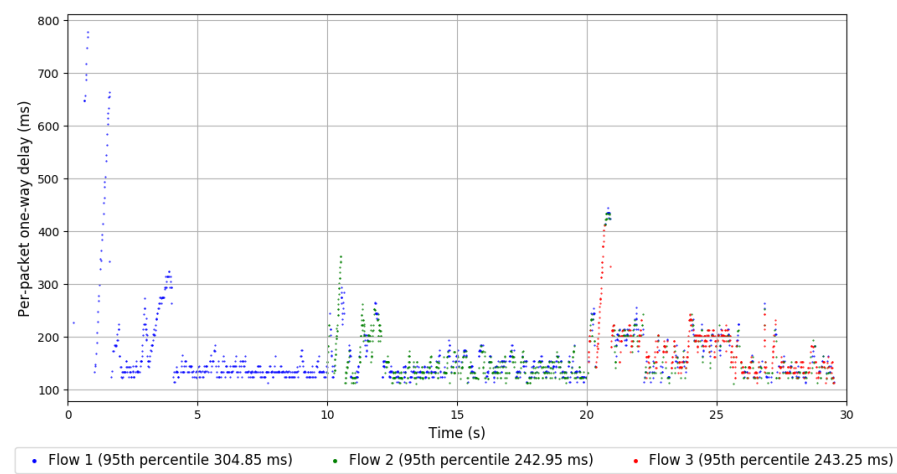
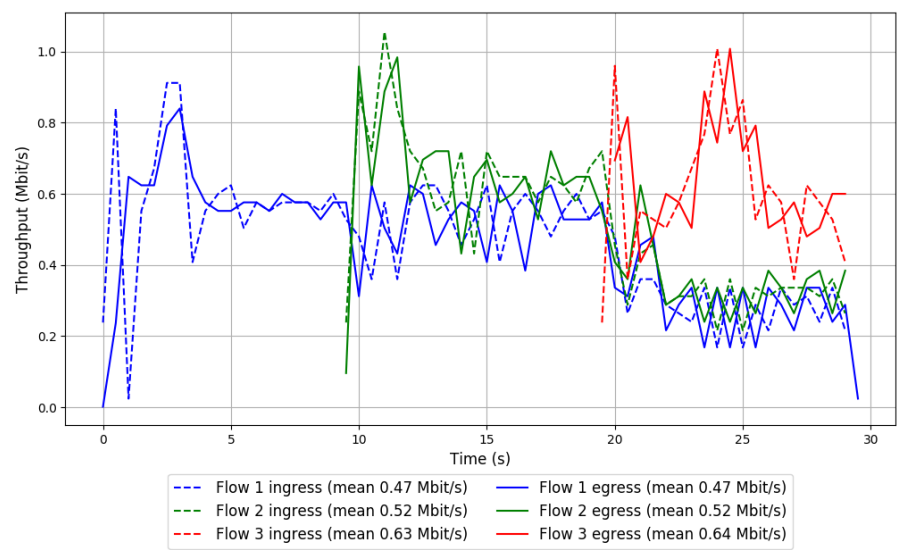


Run 2: Statistics of Indigo-1-32

Start at: 2018-03-13 00:02:45
End at: 2018-03-13 00:03:15
Local clock offset: -5.277 ms
Remote clock offset: -6.249 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 274.342 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 304.852 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 242.949 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 243.255 ms
Loss rate: 0.00%

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

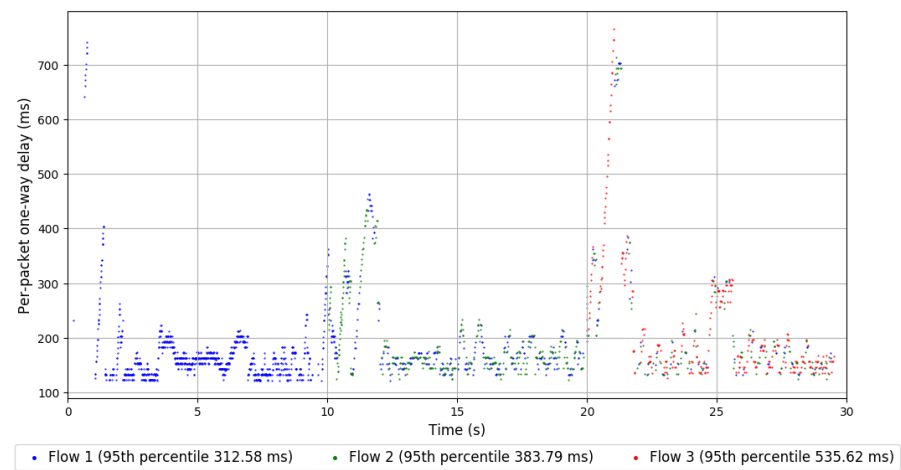
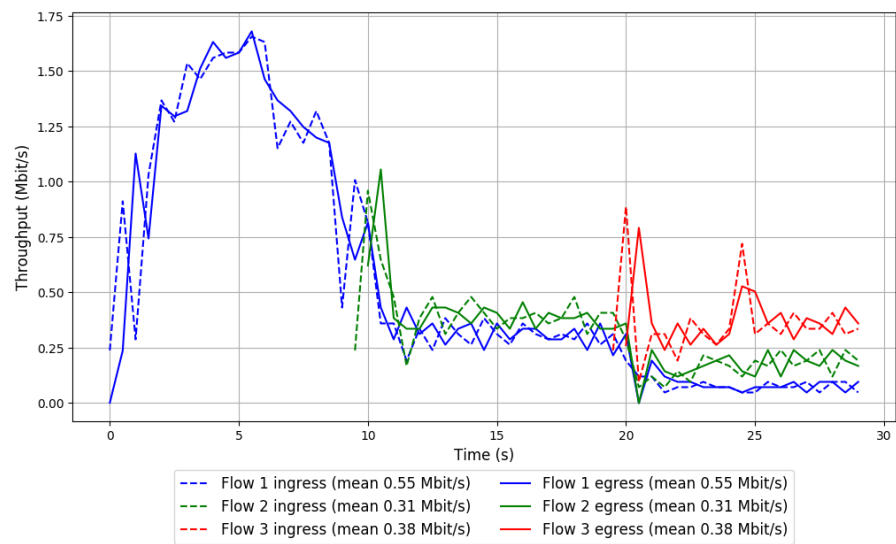


Run 3: Statistics of Indigo-1-32

Start at: 2018-03-13 00:25:14
End at: 2018-03-13 00:25:44
Local clock offset: -6.901 ms
Remote clock offset: -5.318 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 364.026 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 312.578 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 383.790 ms
Loss rate: 0.60%
-- Flow 3:
Average throughput: 0.38 Mbit/s
95th percentile per-packet one-way delay: 535.615 ms
Loss rate: 0.67%

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

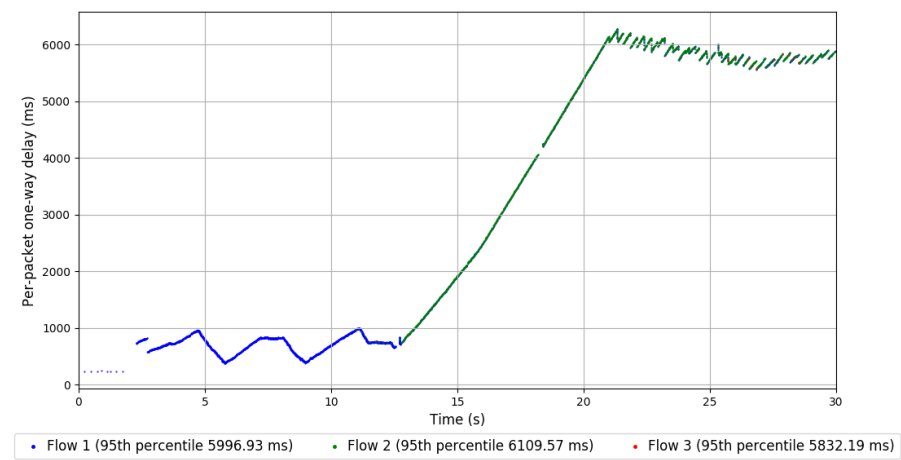
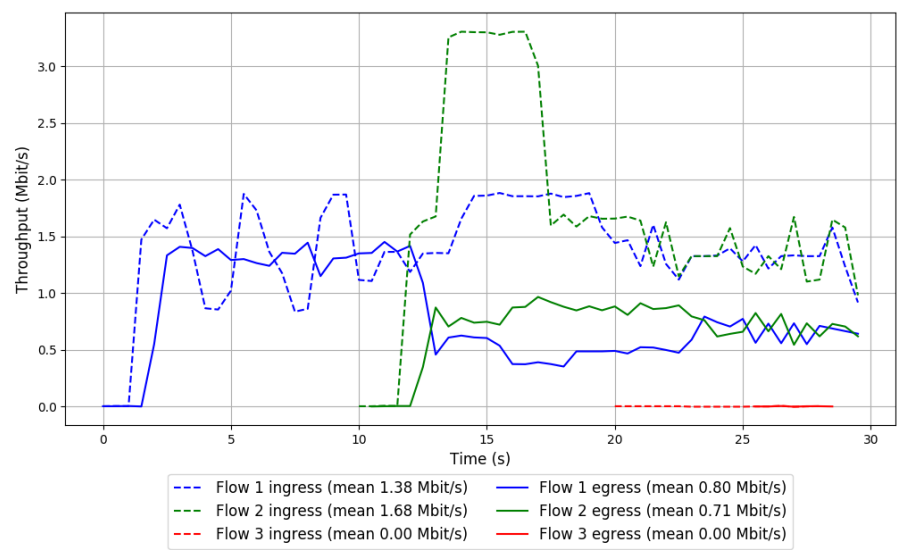


Run 1: Statistics of Vivace-latency

Start at: 2018-03-12 23:39:03
End at: 2018-03-12 23:39:33
Local clock offset: -2.458 ms
Remote clock offset: -0.502 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 6071.655 ms
Loss rate: 49.88%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 5996.934 ms
Loss rate: 42.11%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 6109.572 ms
Loss rate: 59.49%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5832.188 ms
Loss rate: 54.02%

Run 1: Report of Vivace-latency — Data Link

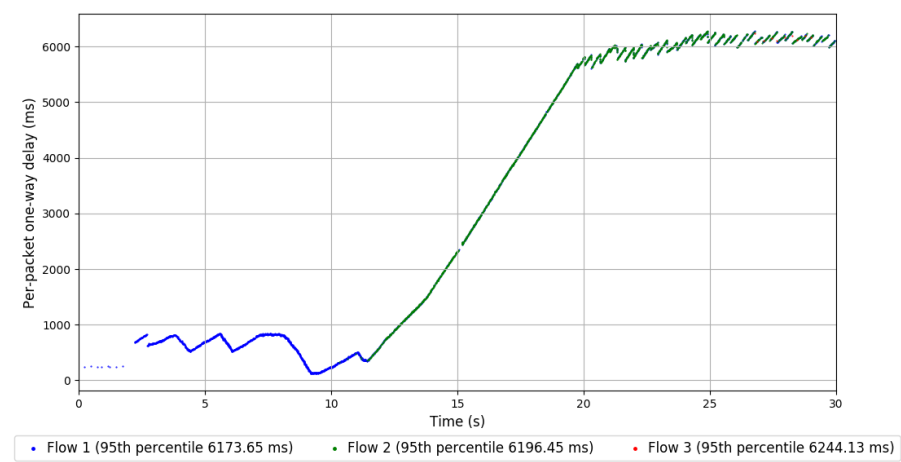
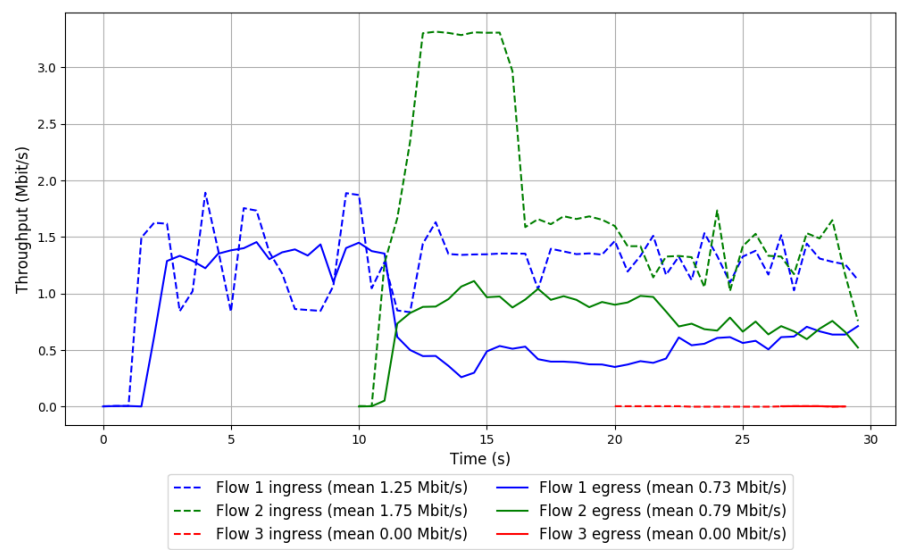


Run 2: Statistics of Vivace-latency

Start at: 2018-03-13 00:01:31
End at: 2018-03-13 00:02:01
Local clock offset: -5.047 ms
Remote clock offset: -6.254 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 6186.543 ms
Loss rate: 48.50%
-- Flow 1:
Average throughput: 0.73 Mbit/s
95th percentile per-packet one-way delay: 6173.653 ms
Loss rate: 41.76%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 6196.452 ms
Loss rate: 55.70%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 6244.131 ms
Loss rate: 54.02%

Run 2: Report of Vivace-latency — Data Link

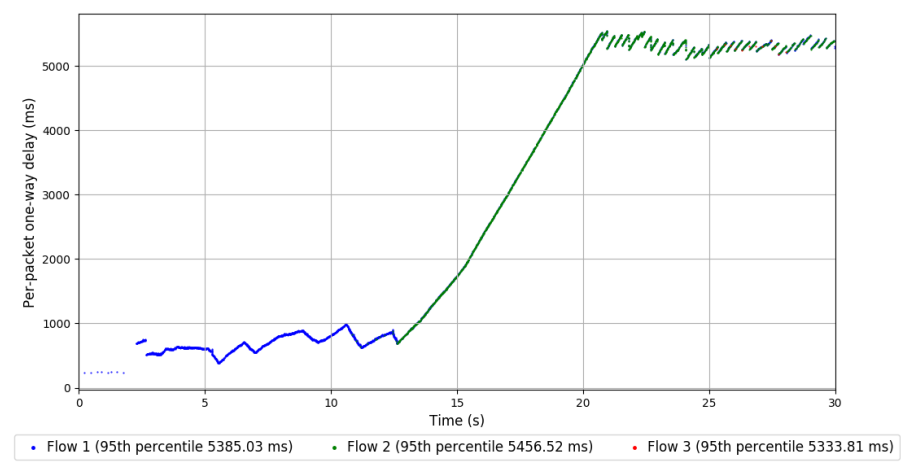
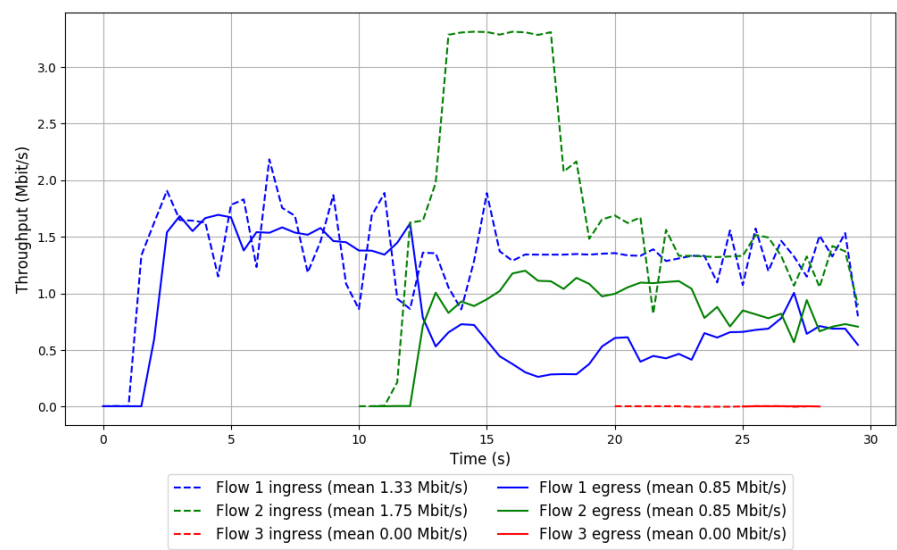


Run 3: Statistics of Vivace-latency

Start at: 2018-03-13 00:23:59
End at: 2018-03-13 00:24:29
Local clock offset: -6.925 ms
Remote clock offset: -1.335 ms

```
# Below is generated by plot.py at 2018-03-13 00:37:38
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5419.198 ms
Loss rate: 43.97%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 5385.032 ms
Loss rate: 36.14%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 5456.525 ms
Loss rate: 52.94%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5333.809 ms
Loss rate: 44.83%
```

Run 3: Report of Vivace-latency — Data Link



Run 1: Statistics of Vivace-loss

Start at: 2018-03-12 23:47:47

End at: 2018-03-12 23:48:17

Local clock offset: -2.126 ms

Remote clock offset: -0.6 ms

Below is generated by plot.py at 2018-03-13 00:37:38

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 6429.814 ms

Loss rate: 38.28%

-- Flow 1:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 6430.180 ms

Loss rate: 38.29%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 6304.474 ms

Loss rate: 19.97%

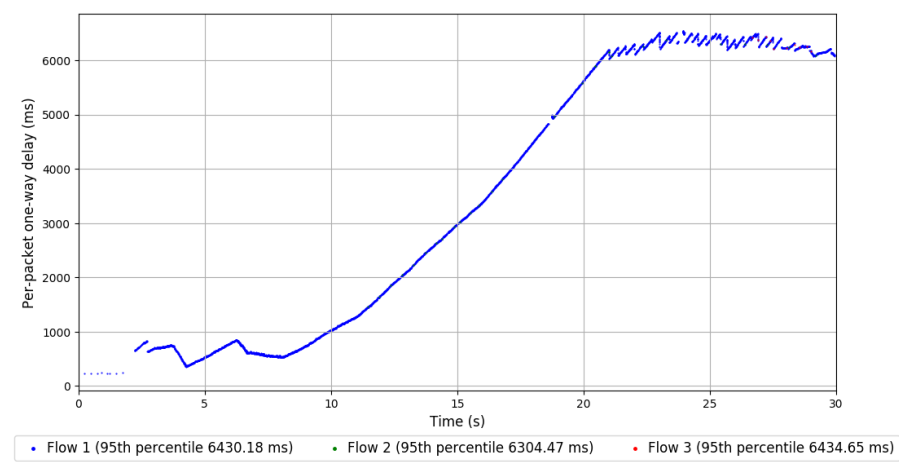
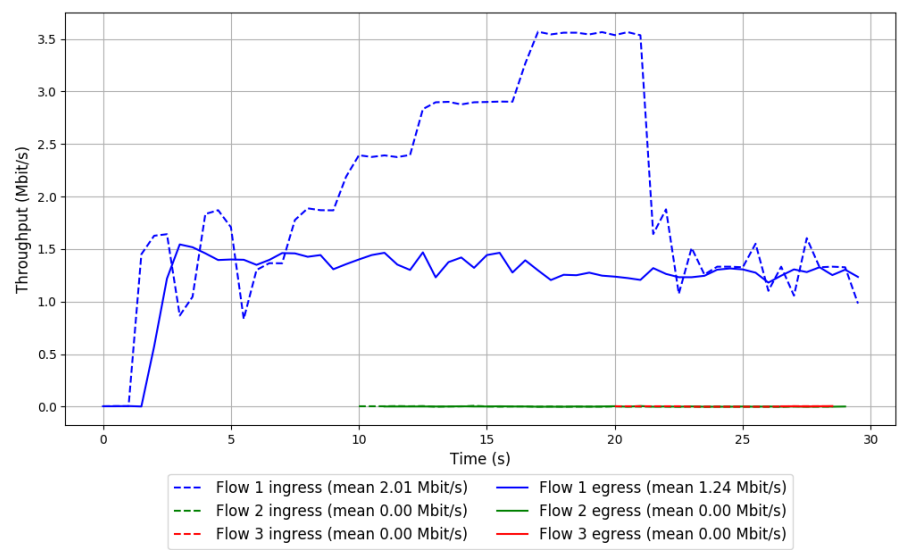
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 6434.646 ms

Loss rate: 54.02%

Run 1: Report of Vivace-loss — Data Link

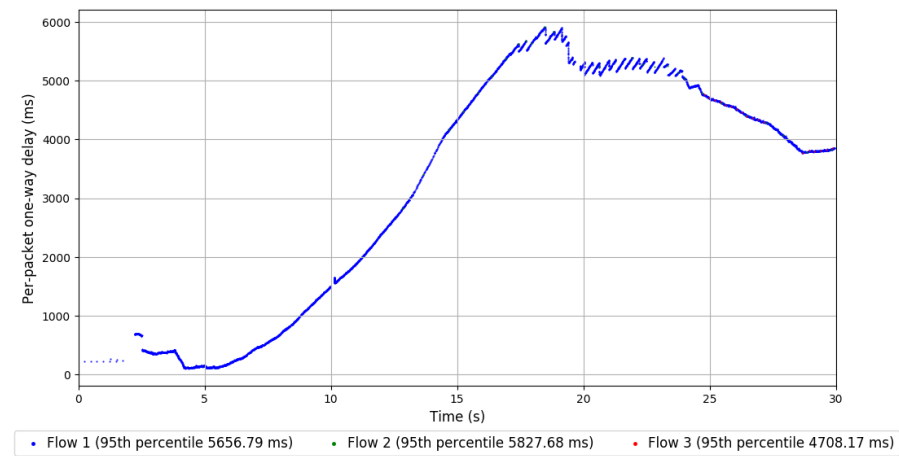
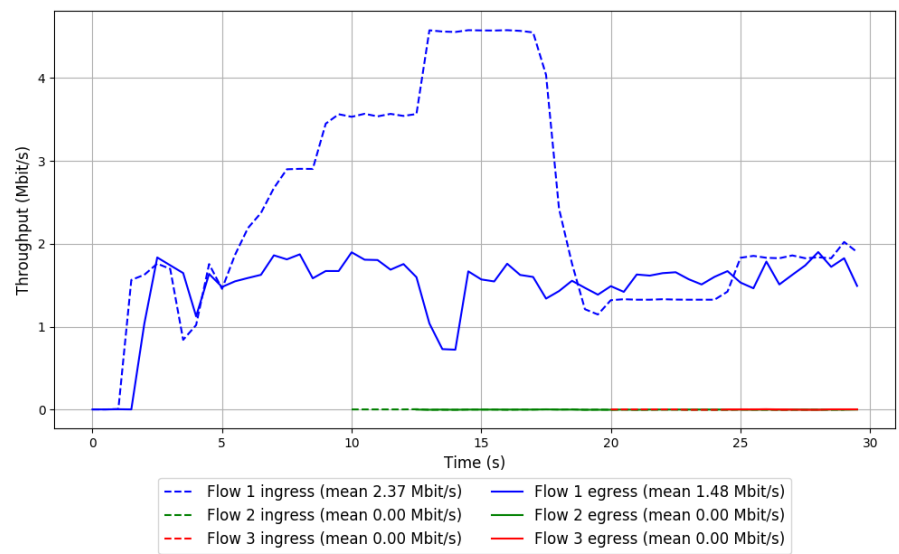


Run 2: Statistics of Vivace-loss

Start at: 2018-03-13 00:10:15
End at: 2018-03-13 00:10:45
Local clock offset: -6.215 ms
Remote clock offset: -6.165 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 5658.094 ms
Loss rate: 37.68%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 5656.791 ms
Loss rate: 37.69%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5827.678 ms
Loss rate: 21.83%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4708.170 ms
Loss rate: 11.21%

Run 2: Report of Vivace-loss — Data Link

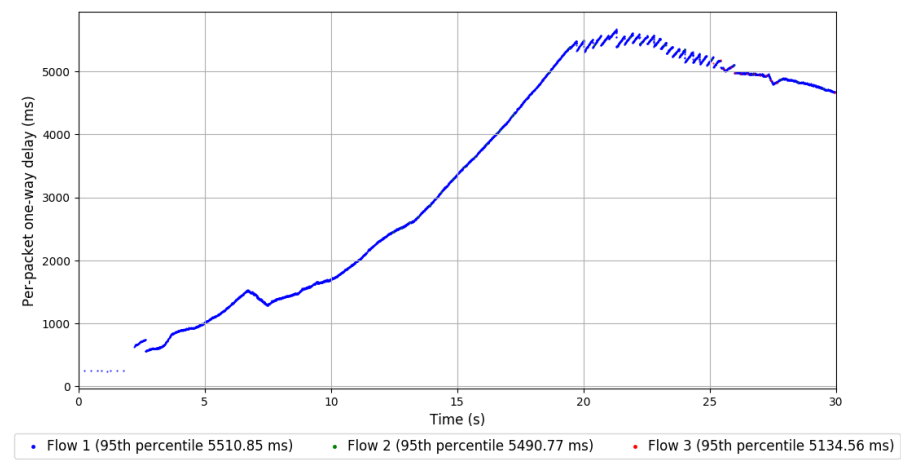
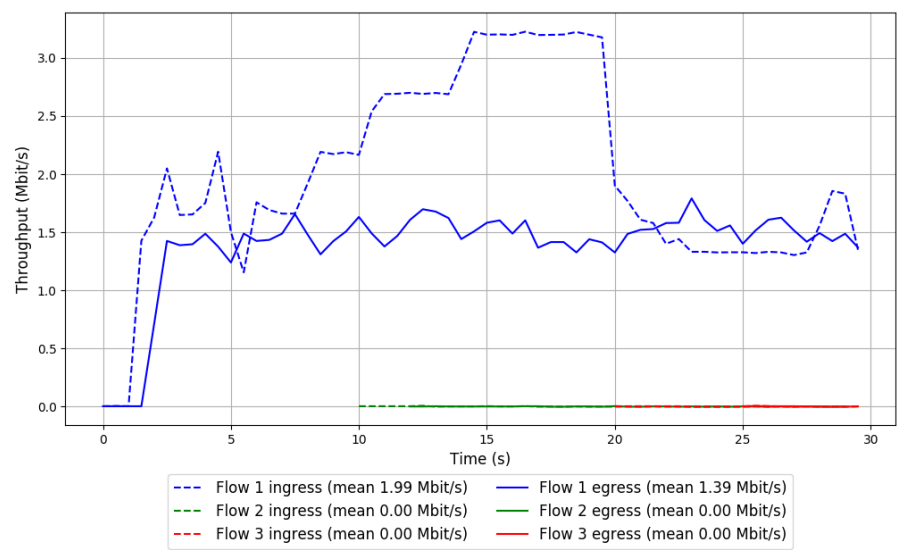


Run 3: Statistics of Vivace-loss

Start at: 2018-03-13 00:32:43
End at: 2018-03-13 00:33:13
Local clock offset: -5.259 ms
Remote clock offset: -0.311 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 5510.716 ms
Loss rate: 30.35%
-- Flow 1:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 5510.853 ms
Loss rate: 30.35%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5490.765 ms
Loss rate: 22.65%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5134.555 ms
Loss rate: 39.22%

Run 3: Report of Vivace-loss — Data Link

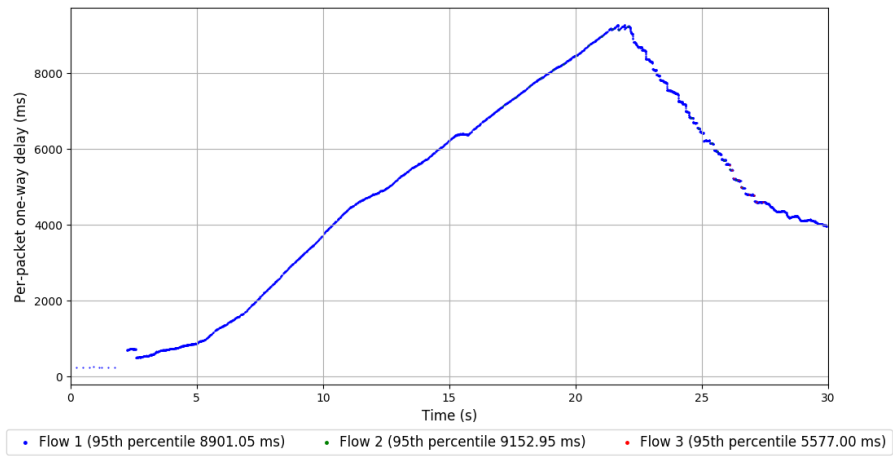
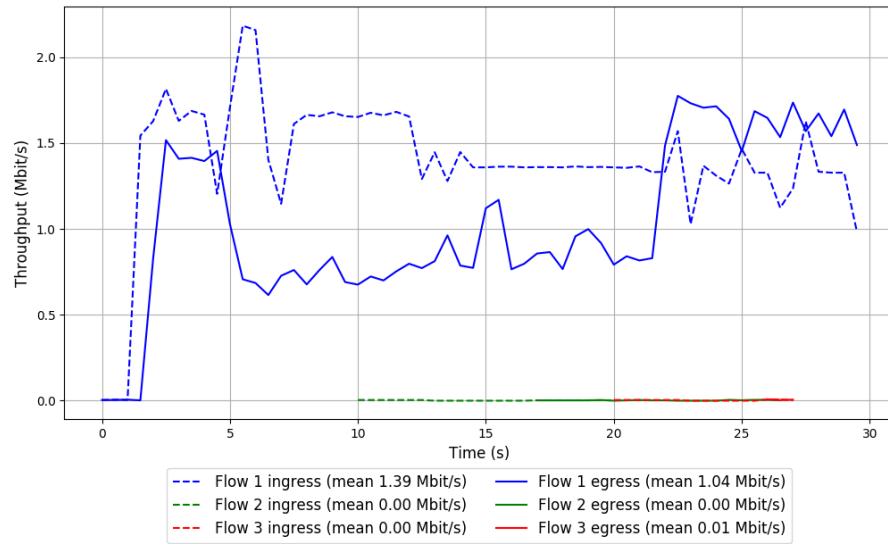


Run 1: Statistics of Vivace-LTE

Start at: 2018-03-12 23:29:04
End at: 2018-03-12 23:29:34
Local clock offset: -2.371 ms
Remote clock offset: -0.662 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 8909.180 ms
Loss rate: 25.63%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 8901.054 ms
Loss rate: 25.63%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 9152.947 ms
Loss rate: 10.08%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5577.003 ms
Loss rate: 56.16%

Run 1: Report of Vivace-LTE — Data Link

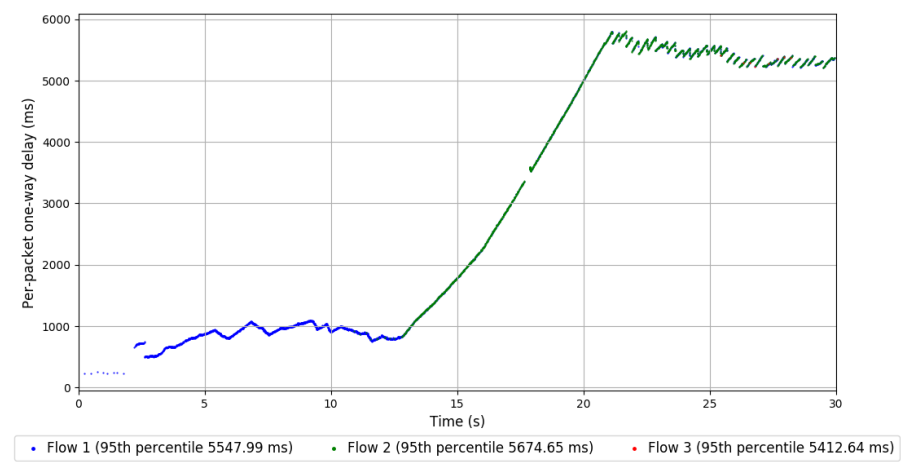
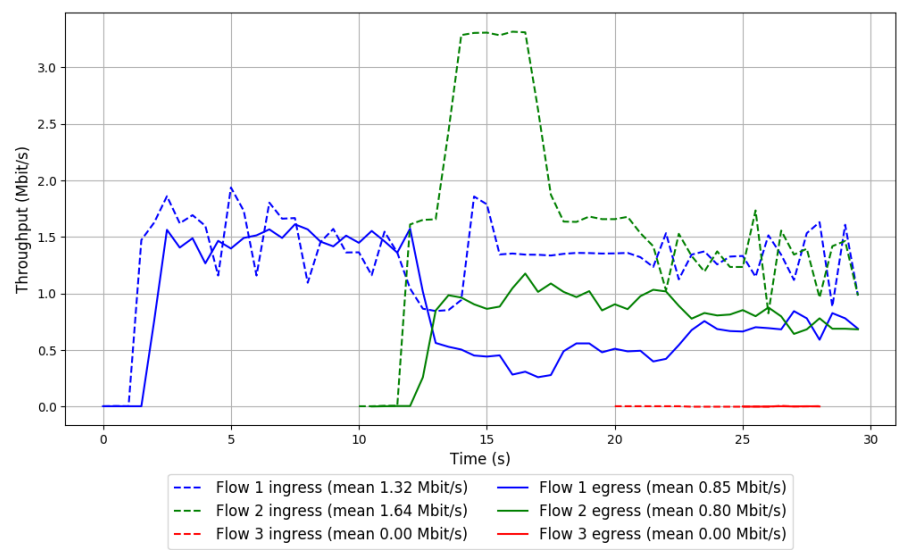


Run 2: Statistics of Vivace-LTE

Start at: 2018-03-12 23:51:32
End at: 2018-03-12 23:52:02
Local clock offset: -1.964 ms
Remote clock offset: -5.469 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 5614.149 ms
Loss rate: 43.79%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 5547.988 ms
Loss rate: 35.76%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 5674.650 ms
Loss rate: 53.47%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5412.637 ms
Loss rate: 63.22%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-13 00:14:00
End at: 2018-03-13 00:14:30
Local clock offset: -6.479 ms
Remote clock offset: -5.267 ms

Below is generated by plot.py at 2018-03-13 00:37:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.45 Mbit/s
95th percentile per-packet one-way delay: 5093.530 ms
Loss rate: 40.99%
-- Flow 1:
Average throughput: 0.91 Mbit/s
95th percentile per-packet one-way delay: 5073.195 ms
Loss rate: 33.92%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 5120.209 ms
Loss rate: 49.91%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5076.531 ms
Loss rate: 44.83%

Run 3: Report of Vivace-LTE — Data Link

