

Pantheon Report

Generated at 2018-03-20 10:16:52 (UTC).

Data path: AWS India 1 Ethernet (*local*) → India 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).

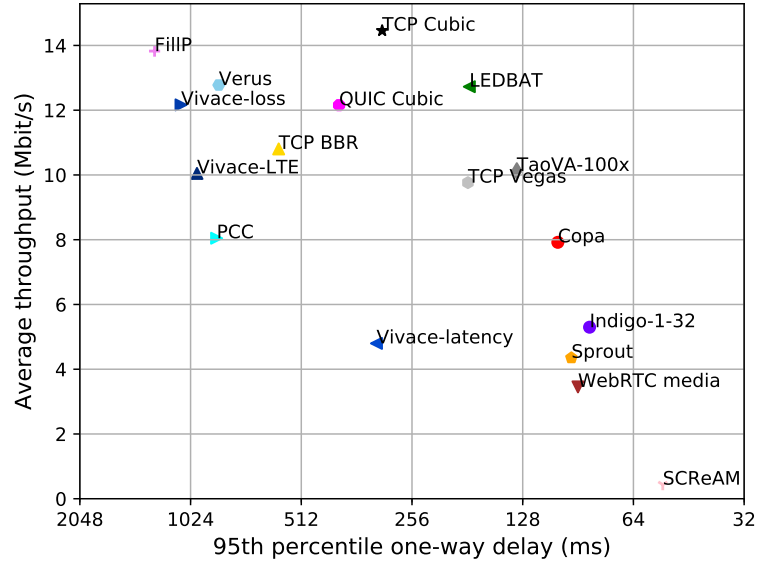
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

NTP offsets were measured against **nets.org.sg** and have been applied to correct the timestamps in logs.

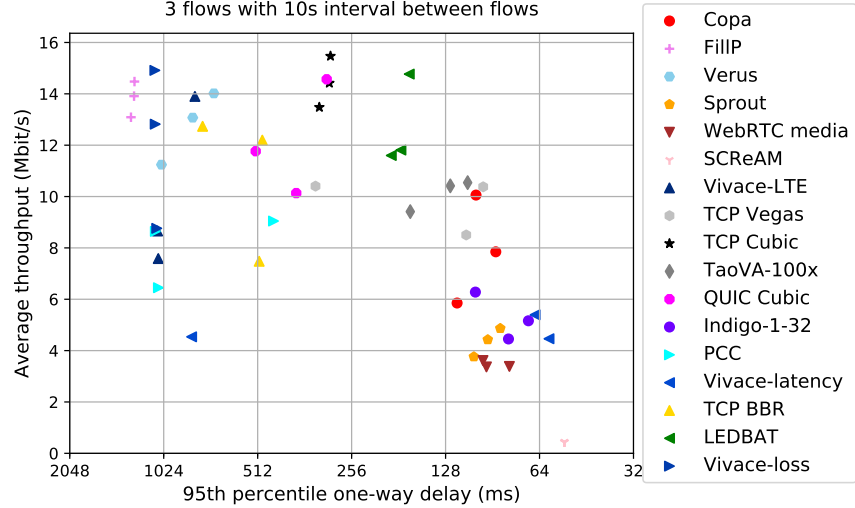
Git summary:

```
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 @ 2601c92e4aa9d58d38dc4dfe0ecd9c077e64d
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 India 1 Ethernet to India ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS India 1 Ethernet to India ppp0, 3 runs of 30s each per scheme
3 flows with 10s interval between flows



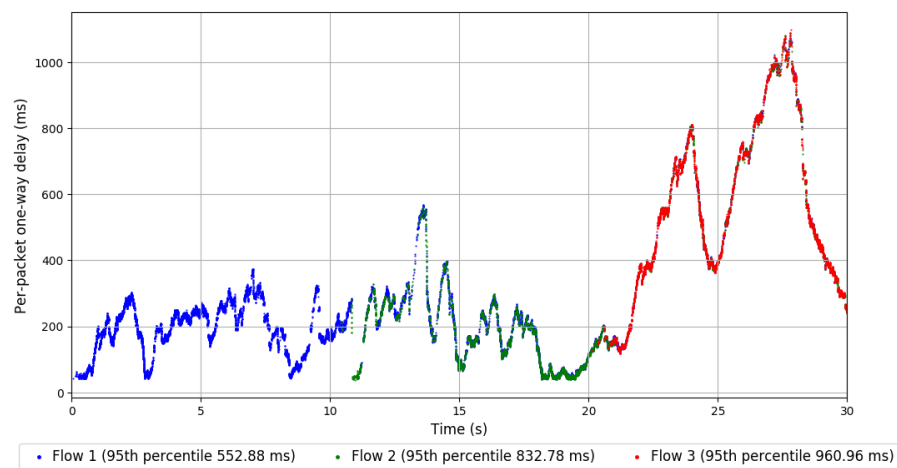
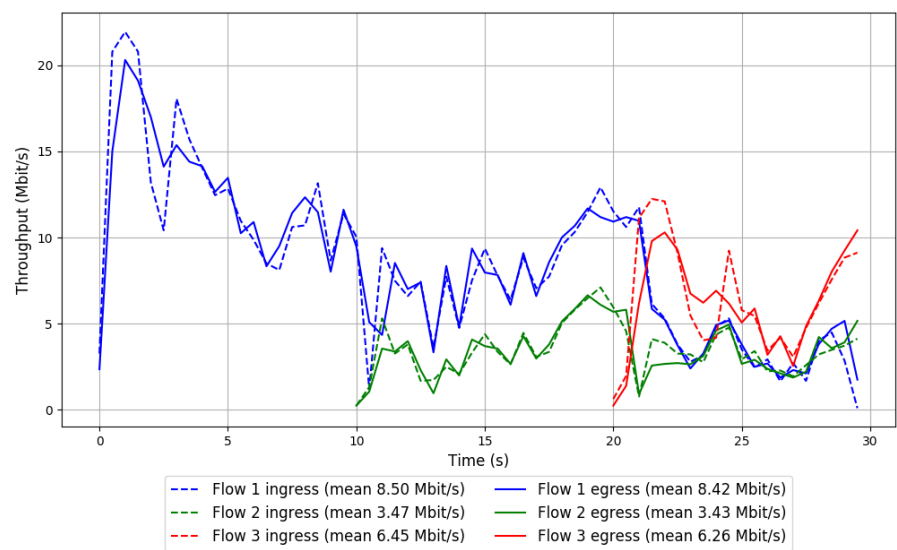
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	6.63	3.83	5.08	490.32	614.67	703.39	0.35	1.57	3.24
TCP Cubic	3	10.10	4.94	3.32	292.24	323.90	379.55	0.21	1.02	1.25
LEDBAT	3	8.60	4.95	2.54	174.20	182.05	184.68	0.26	0.76	1.68
PCC	3	3.29	5.59	3.29	836.96	860.78	959.03	8.14	12.18	40.66
QUIC Cubic	3	8.77	3.83	2.65	351.44	430.47	461.92	0.92	1.75	3.68
SCReAM	3	0.22	0.22	0.22	53.26	56.25	51.67	0.13	0.00	0.23
WebRTC media	3	1.98	1.09	0.40	85.23	95.36	106.52	0.11	0.12	0.41
Sprout	3	2.16	2.34	1.94	95.76	92.73	92.79	0.06	0.49	0.10
TaoVA-100x	3	5.25	5.04	4.60	113.23	149.66	162.06	0.12	0.16	0.41
TCP Vegas	3	3.85	5.42	6.99	135.03	187.70	191.53	0.04	0.11	0.31
Verus	3	8.78	4.58	3.18	834.21	854.46	806.33	4.72	4.41	7.50
Copa	3	4.86	3.36	2.49	97.65	110.18	107.03	0.21	0.38	0.70
FillP	3	8.11	6.27	5.99	1315.41	1268.92	1262.88	84.20	93.03	96.62
Indigo-1-32	3	2.57	2.62	3.05	80.39	87.81	93.48	0.15	0.17	0.45
Vivace-latency	3	2.37	2.57	2.18	171.12	315.39	385.46	0.26	0.38	1.26
Vivace-loss	3	8.42	4.62	2.17	1088.12	1083.41	1088.06	33.51	28.60	35.53
Vivace-LTE	3	6.72	3.93	2.41	997.39	947.90	906.63	7.02	8.84	19.14

Run 1: Statistics of TCP BBR

Start at: 2018-03-20 09:32:55
End at: 2018-03-20 09:33:25
Local clock offset: 1.351 ms
Remote clock offset: -6.109 ms

Below is generated by plot.py at 2018-03-20 10:15:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.74 Mbit/s
95th percentile per-packet one-way delay: 768.632 ms
Loss rate: 1.14%
-- Flow 1:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 552.881 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 3.43 Mbit/s
95th percentile per-packet one-way delay: 832.785 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 6.26 Mbit/s
95th percentile per-packet one-way delay: 960.961 ms
Loss rate: 4.22%

Run 1: Report of TCP BBR — Data Link

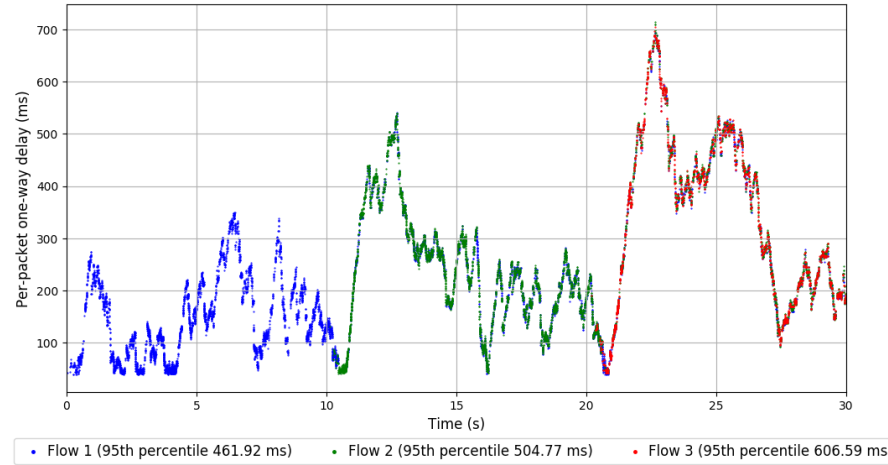
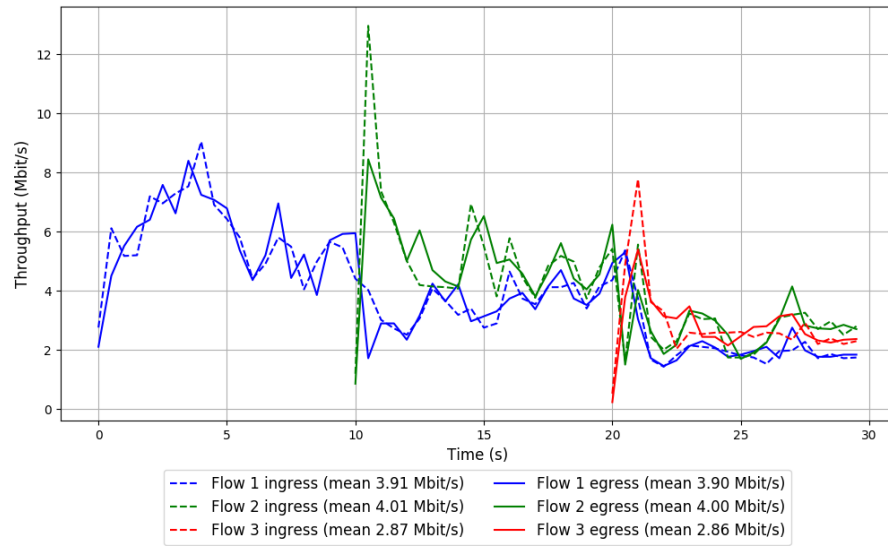


Run 2: Statistics of TCP BBR

Start at: 2018-03-20 09:52:59
End at: 2018-03-20 09:53:29
Local clock offset: -3.355 ms
Remote clock offset: -5.023 ms

Below is generated by plot.py at 2018-03-20 10:15:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.48 Mbit/s
95th percentile per-packet one-way delay: 506.295 ms
Loss rate: 0.79%
-- Flow 1:
Average throughput: 3.90 Mbit/s
95th percentile per-packet one-way delay: 461.922 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 4.00 Mbit/s
95th percentile per-packet one-way delay: 504.770 ms
Loss rate: 1.00%
-- Flow 3:
Average throughput: 2.86 Mbit/s
95th percentile per-packet one-way delay: 606.593 ms
Loss rate: 1.72%

Run 2: Report of TCP BBR — Data Link

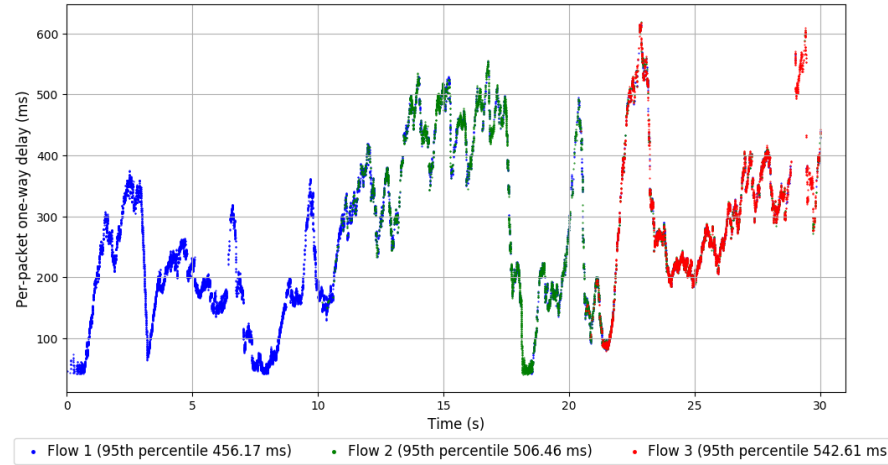
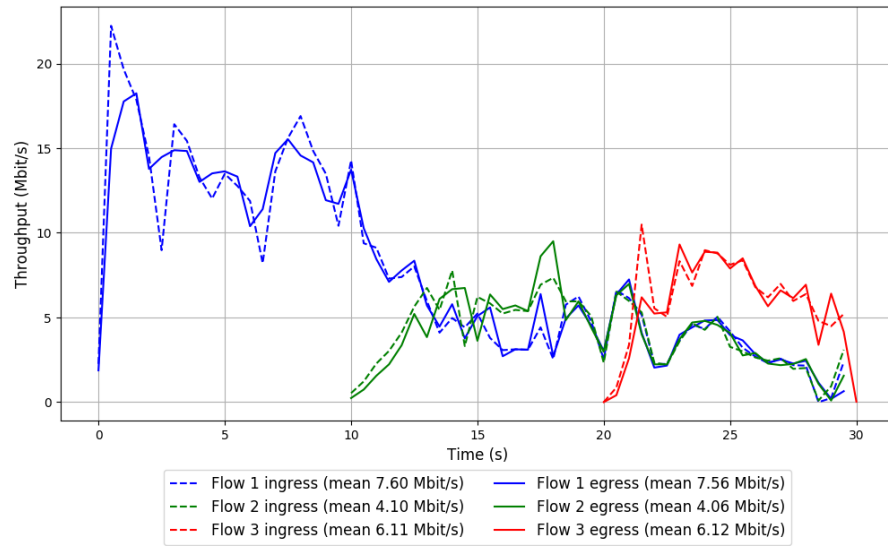


Run 3: Statistics of TCP BBR

Start at: 2018-03-20 10:13:22
End at: 2018-03-20 10:13:52
Local clock offset: -6.086 ms
Remote clock offset: -2.158 ms

Below is generated by plot.py at 2018-03-20 10:15:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.20 Mbit/s
95th percentile per-packet one-way delay: 494.726 ms
Loss rate: 1.32%
-- Flow 1:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 456.165 ms
Loss rate: 0.51%
-- Flow 2:
Average throughput: 4.06 Mbit/s
95th percentile per-packet one-way delay: 506.462 ms
Loss rate: 1.76%
-- Flow 3:
Average throughput: 6.12 Mbit/s
95th percentile per-packet one-way delay: 542.606 ms
Loss rate: 3.79%

Run 3: Report of TCP BBR — Data Link

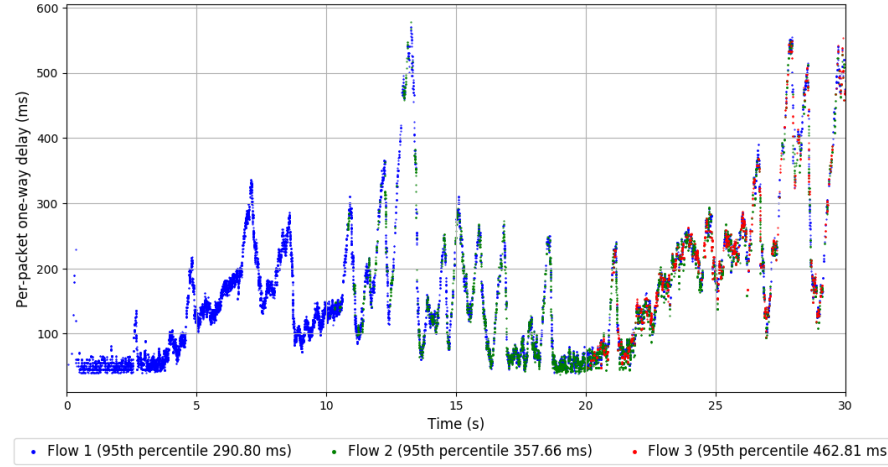
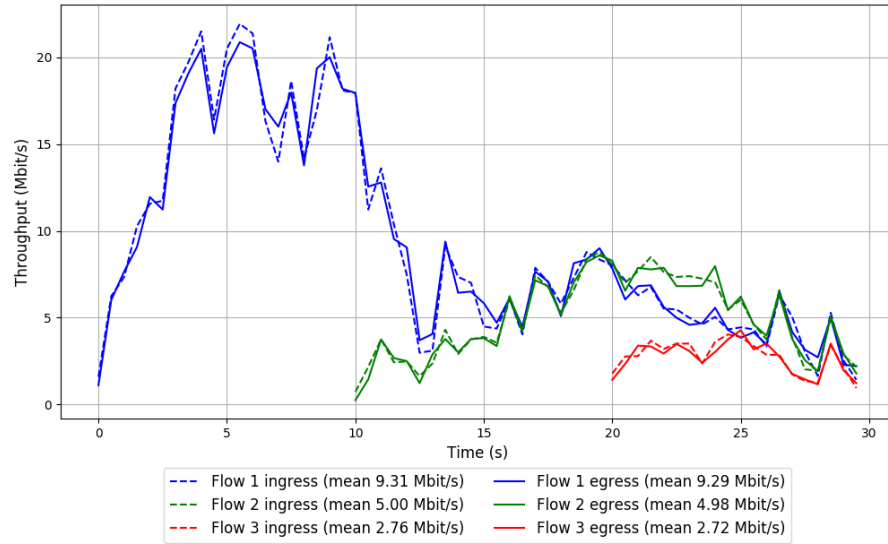


Run 1: Statistics of TCP Cubic

Start at: 2018-03-20 09:19:30
End at: 2018-03-20 09:20:00
Local clock offset: -0.316 ms
Remote clock offset: -4.321 ms

Below is generated by plot.py at 2018-03-20 10:15:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.48 Mbit/s
95th percentile per-packet one-way delay: 324.841 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 9.29 Mbit/s
95th percentile per-packet one-way delay: 290.800 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 4.98 Mbit/s
95th percentile per-packet one-way delay: 357.659 ms
Loss rate: 1.15%
-- Flow 3:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 462.806 ms
Loss rate: 1.92%

Run 1: Report of TCP Cubic — Data Link

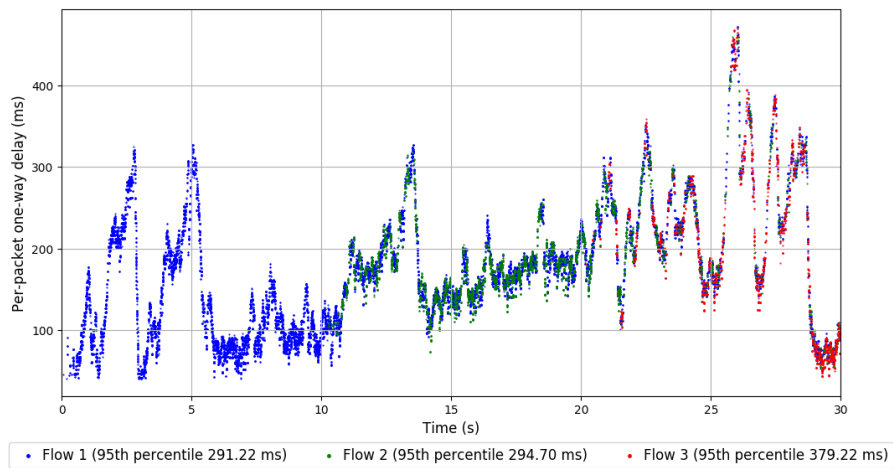
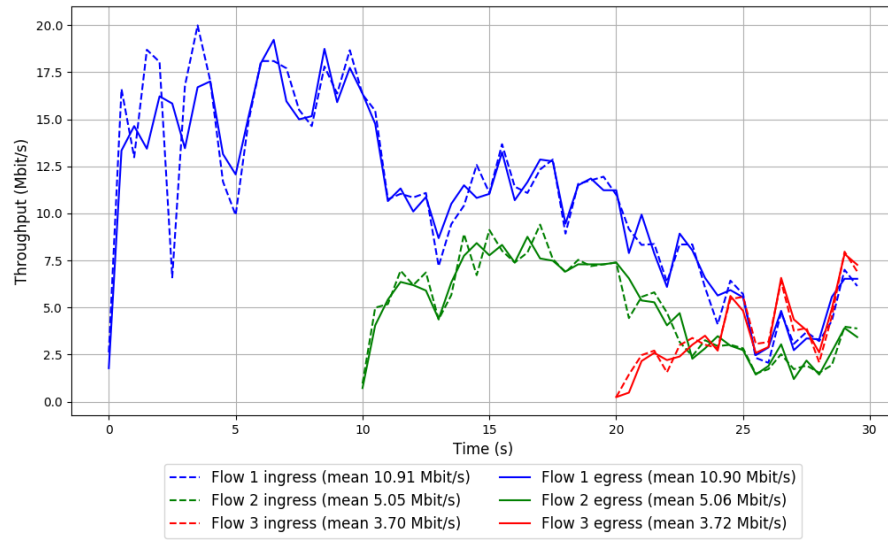


Run 2: Statistics of TCP Cubic

Start at: 2018-03-20 09:39:36
End at: 2018-03-20 09:40:06
Local clock offset: 2.94 ms
Remote clock offset: -6.107 ms

Below is generated by plot.py at 2018-03-20 10:15:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 15.47 Mbit/s
95th percentile per-packet one-way delay: 299.163 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 10.90 Mbit/s
95th percentile per-packet one-way delay: 291.219 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 294.696 ms
Loss rate: 0.44%
-- Flow 3:
Average throughput: 3.72 Mbit/s
95th percentile per-packet one-way delay: 379.224 ms
Loss rate: 1.14%

Run 2: Report of TCP Cubic — Data Link

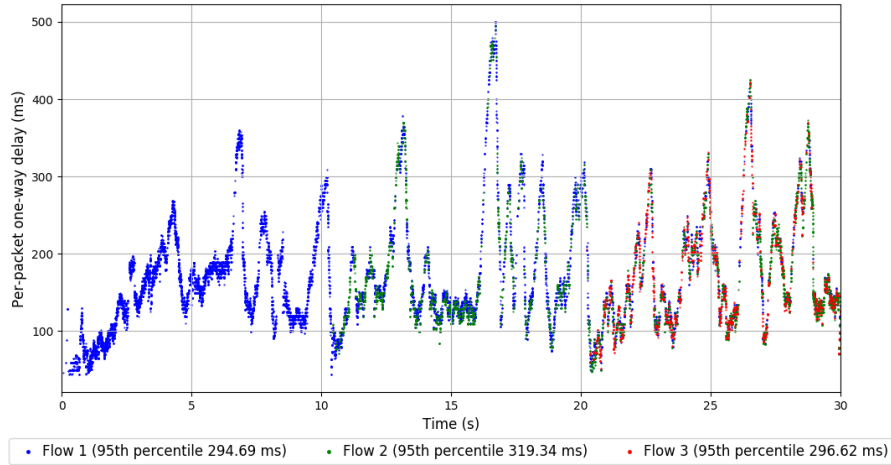
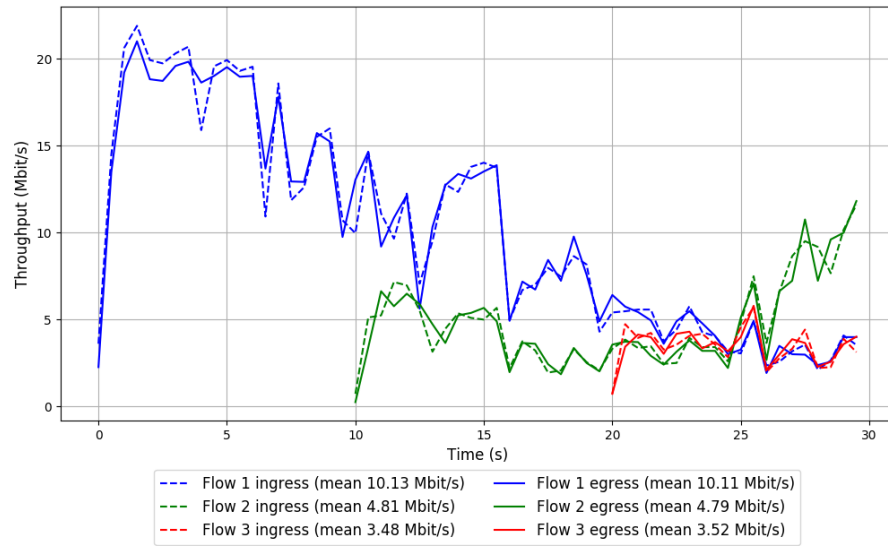


Run 3: Statistics of TCP Cubic

Start at: 2018-03-20 09:59:45
End at: 2018-03-20 10:00:15
Local clock offset: -6.235 ms
Remote clock offset: -2.947 ms

Below is generated by plot.py at 2018-03-20 10:15:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.42 Mbit/s
95th percentile per-packet one-way delay: 301.753 ms
Loss rate: 0.49%
-- Flow 1:
Average throughput: 10.11 Mbit/s
95th percentile per-packet one-way delay: 294.695 ms
Loss rate: 0.17%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 319.343 ms
Loss rate: 1.46%
-- Flow 3:
Average throughput: 3.52 Mbit/s
95th percentile per-packet one-way delay: 296.619 ms
Loss rate: 0.69%

Run 3: Report of TCP Cubic — Data Link

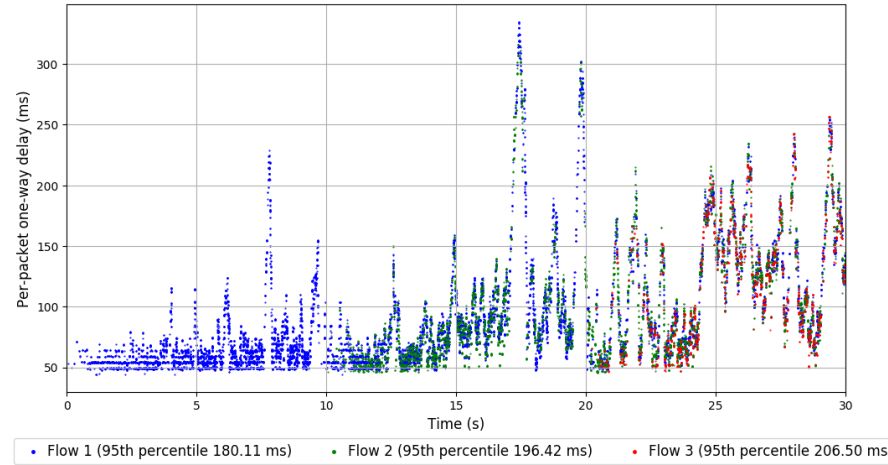
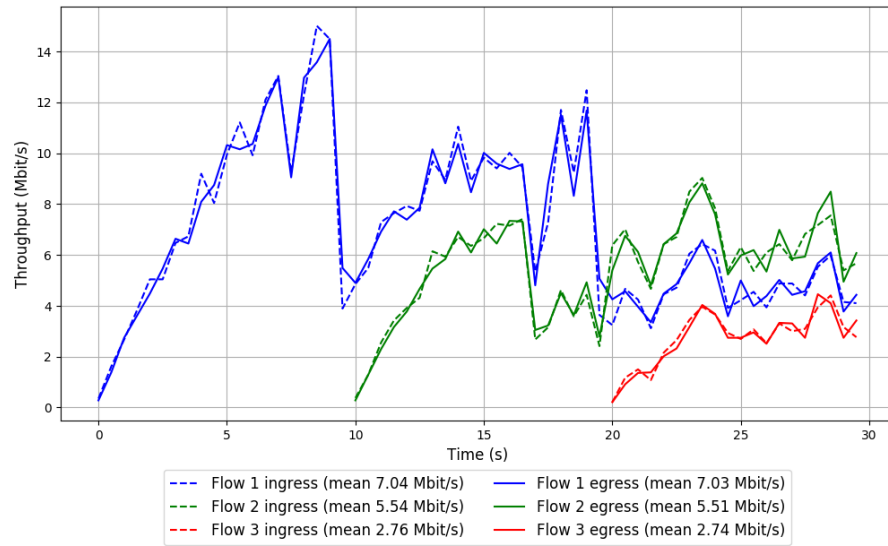


Run 1: Statistics of LEDBAT

Start at: 2018-03-20 09:14:59
End at: 2018-03-20 09:15:29
Local clock offset: -6.134 ms
Remote clock offset: -2.581 ms

Below is generated by plot.py at 2018-03-20 10:15:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.60 Mbit/s
95th percentile per-packet one-way delay: 191.103 ms
Loss rate: 0.41%
-- Flow 1:
Average throughput: 7.03 Mbit/s
95th percentile per-packet one-way delay: 180.108 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 5.51 Mbit/s
95th percentile per-packet one-way delay: 196.424 ms
Loss rate: 0.47%
-- Flow 3:
Average throughput: 2.74 Mbit/s
95th percentile per-packet one-way delay: 206.501 ms
Loss rate: 1.11%

Run 1: Report of LEDBAT — Data Link

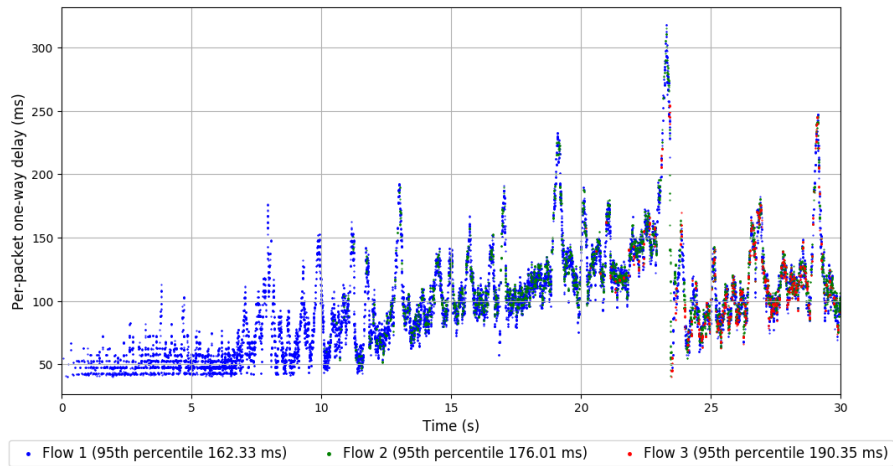
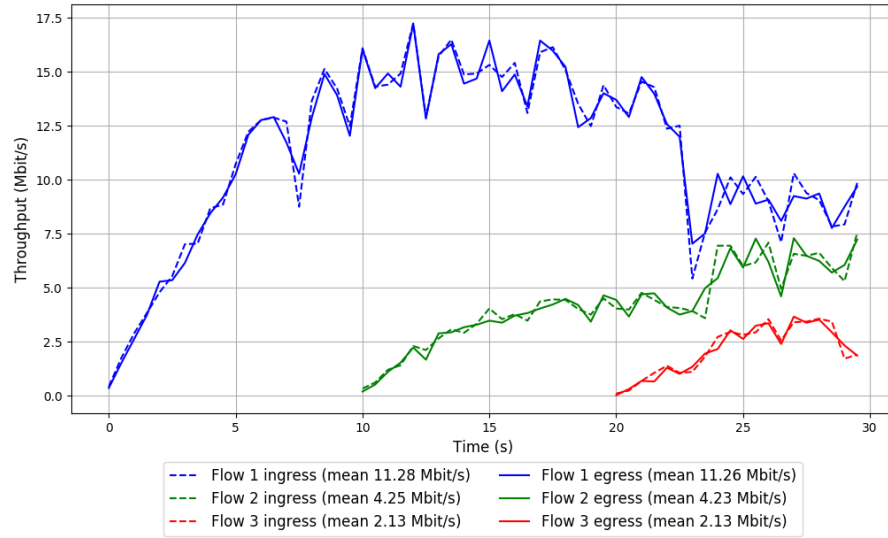


Run 2: Statistics of LEDBAT

Start at: 2018-03-20 09:35:08
End at: 2018-03-20 09:35:38
Local clock offset: 2.291 ms
Remote clock offset: -5.933 ms

Below is generated by plot.py at 2018-03-20 10:15:28
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.77 Mbit/s
95th percentile per-packet one-way delay: 167.363 ms
Loss rate: 0.44%
-- Flow 1:
Average throughput: 11.26 Mbit/s
95th percentile per-packet one-way delay: 162.330 ms
Loss rate: 0.29%
-- Flow 2:
Average throughput: 4.23 Mbit/s
95th percentile per-packet one-way delay: 176.008 ms
Loss rate: 0.76%
-- Flow 3:
Average throughput: 2.13 Mbit/s
95th percentile per-packet one-way delay: 190.350 ms
Loss rate: 1.55%

Run 2: Report of LEDBAT — Data Link

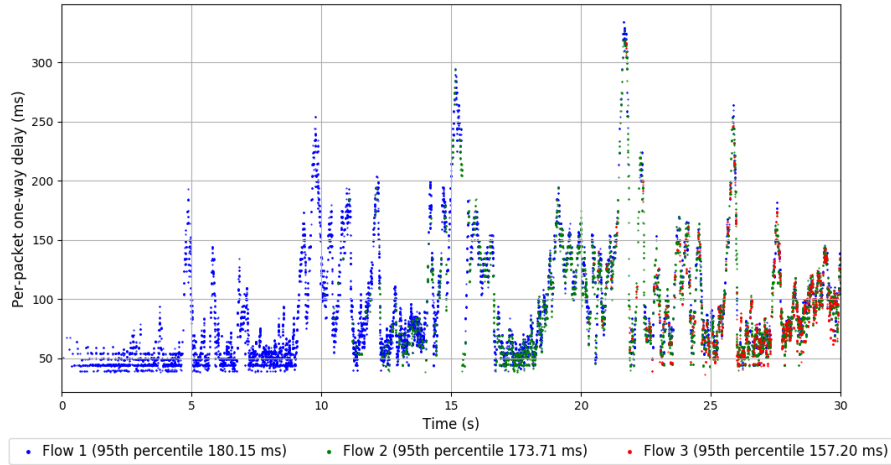
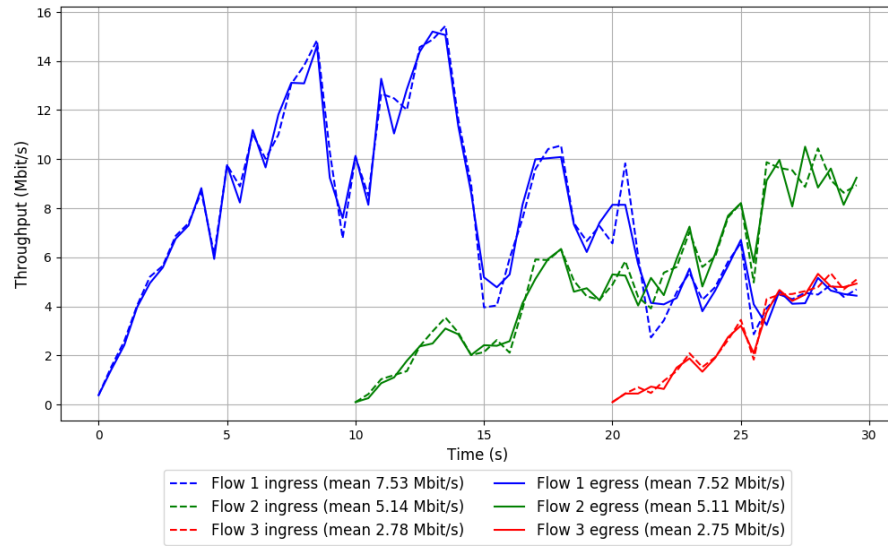


Run 3: Statistics of LEDBAT

Start at: 2018-03-20 09:55:13
End at: 2018-03-20 09:55:43
Local clock offset: -2.64 ms
Remote clock offset: -4.547 ms

Below is generated by plot.py at 2018-03-20 10:15:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.81 Mbit/s
95th percentile per-packet one-way delay: 177.978 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 7.52 Mbit/s
95th percentile per-packet one-way delay: 180.147 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 5.11 Mbit/s
95th percentile per-packet one-way delay: 173.710 ms
Loss rate: 1.05%
-- Flow 3:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 157.203 ms
Loss rate: 2.38%

Run 3: Report of LEDBAT — Data Link

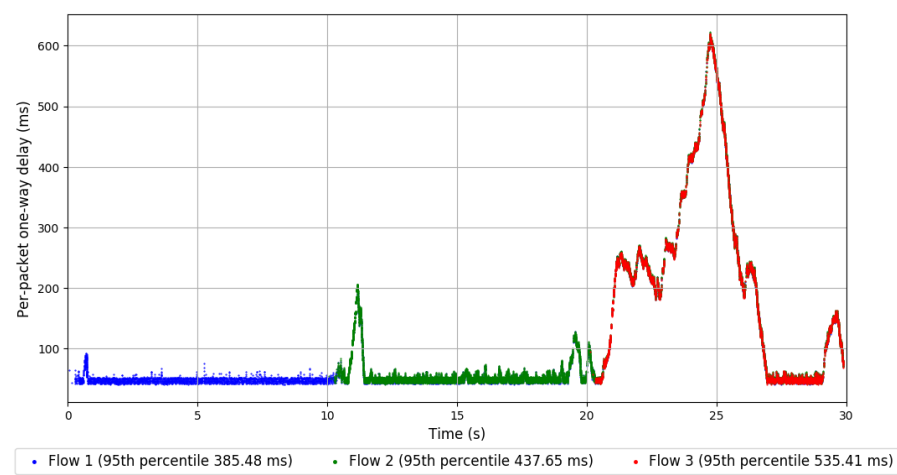
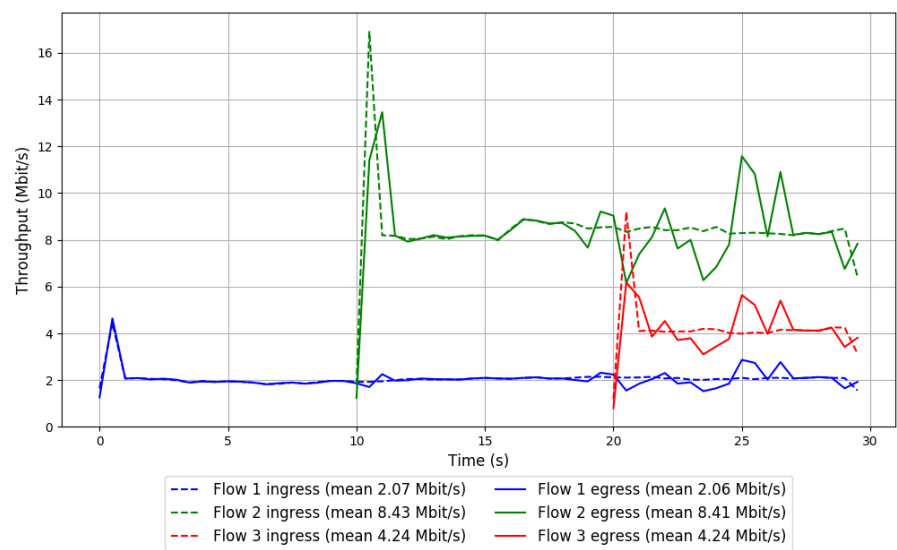


Run 1: Statistics of PCC

Start at: 2018-03-20 09:31:48
End at: 2018-03-20 09:32:18
Local clock offset: -0.621 ms
Remote clock offset: -5.921 ms

Below is generated by plot.py at 2018-03-20 10:15:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.05 Mbit/s
95th percentile per-packet one-way delay: 455.555 ms
Loss rate: 0.40%
-- Flow 1:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 385.481 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 8.41 Mbit/s
95th percentile per-packet one-way delay: 437.654 ms
Loss rate: 0.37%
-- Flow 3:
Average throughput: 4.24 Mbit/s
95th percentile per-packet one-way delay: 535.409 ms
Loss rate: 0.73%

Run 1: Report of PCC — Data Link

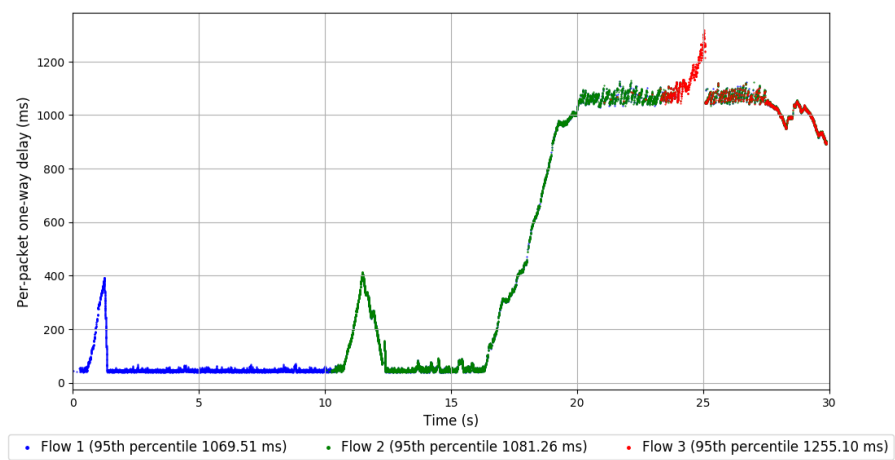
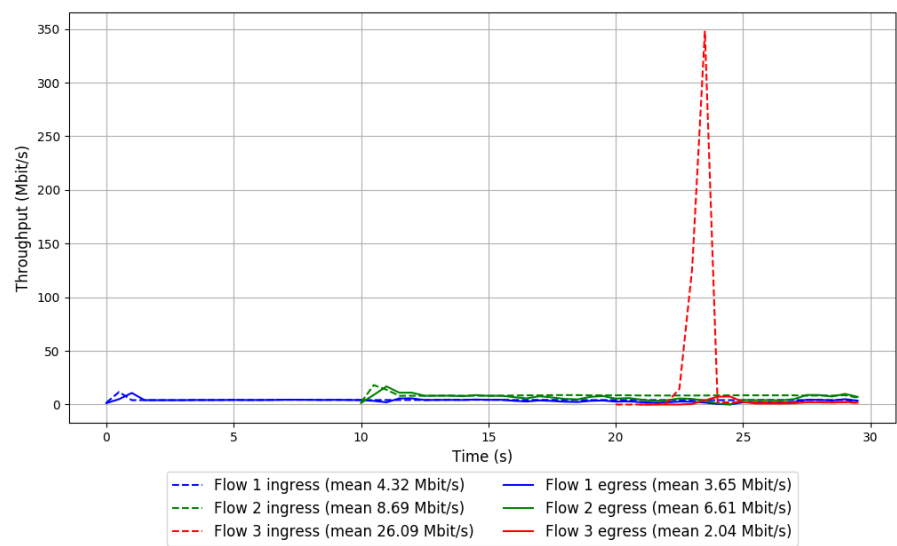


Run 2: Statistics of PCC

Start at: 2018-03-20 09:51:52
End at: 2018-03-20 09:52:22
Local clock offset: -2.351 ms
Remote clock offset: -4.684 ms

Below is generated by plot.py at 2018-03-20 10:15:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.64 Mbit/s
95th percentile per-packet one-way delay: 1089.140 ms
Loss rate: 53.83%
-- Flow 1:
Average throughput: 3.65 Mbit/s
95th percentile per-packet one-way delay: 1069.506 ms
Loss rate: 15.67%
-- Flow 2:
Average throughput: 6.61 Mbit/s
95th percentile per-packet one-way delay: 1081.260 ms
Loss rate: 24.03%
-- Flow 3:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 1255.095 ms
Loss rate: 93.00%

Run 2: Report of PCC — Data Link

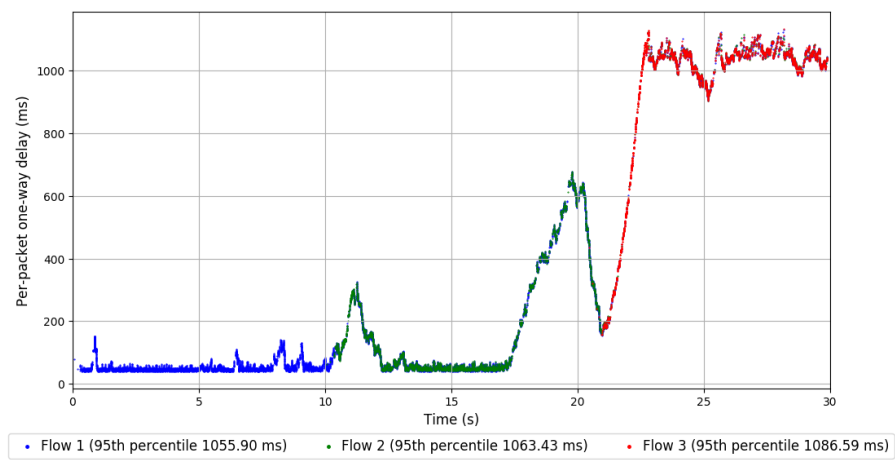
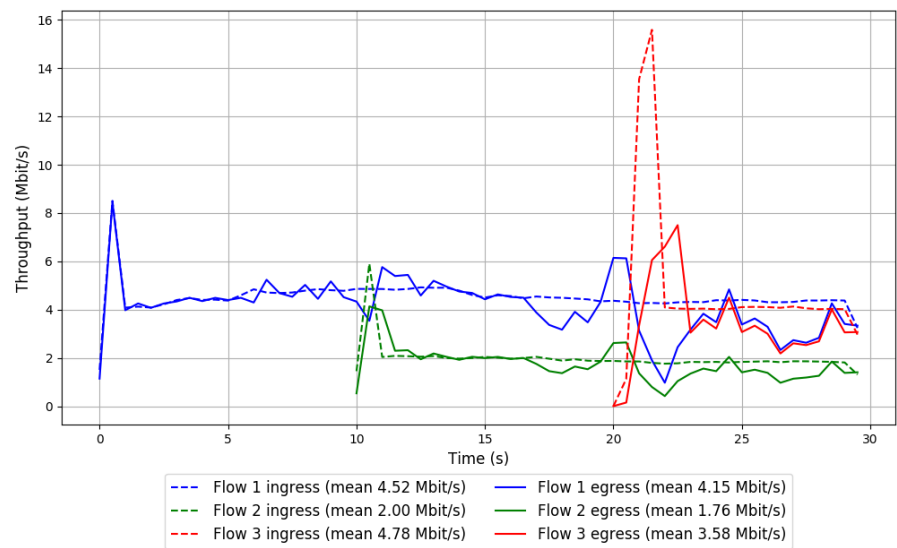


Run 3: Statistics of PCC

Start at: 2018-03-20 10:12:15
End at: 2018-03-20 10:12:45
Local clock offset: -6.1 ms
Remote clock offset: -3.016 ms

Below is generated by plot.py at 2018-03-20 10:15:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.45 Mbit/s
95th percentile per-packet one-way delay: 1064.515 ms
Loss rate: 13.34%
-- Flow 1:
Average throughput: 4.15 Mbit/s
95th percentile per-packet one-way delay: 1055.901 ms
Loss rate: 8.50%
-- Flow 2:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1063.431 ms
Loss rate: 12.13%
-- Flow 3:
Average throughput: 3.58 Mbit/s
95th percentile per-packet one-way delay: 1086.593 ms
Loss rate: 28.24%

Run 3: Report of PCC — Data Link

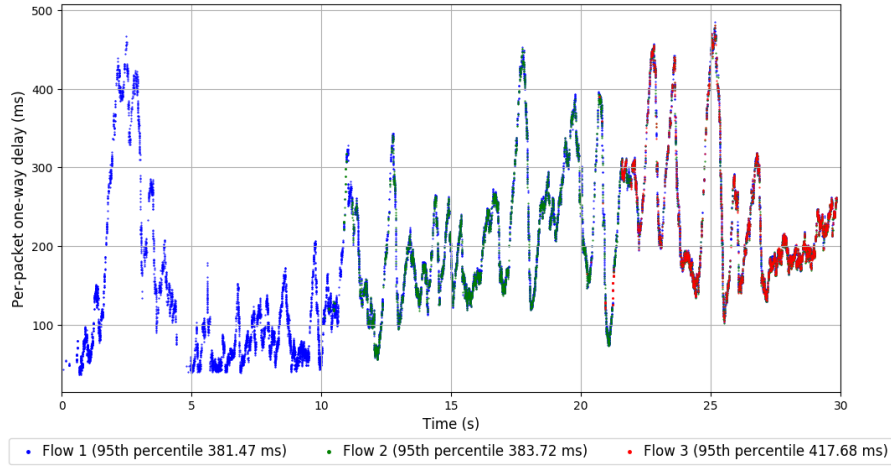
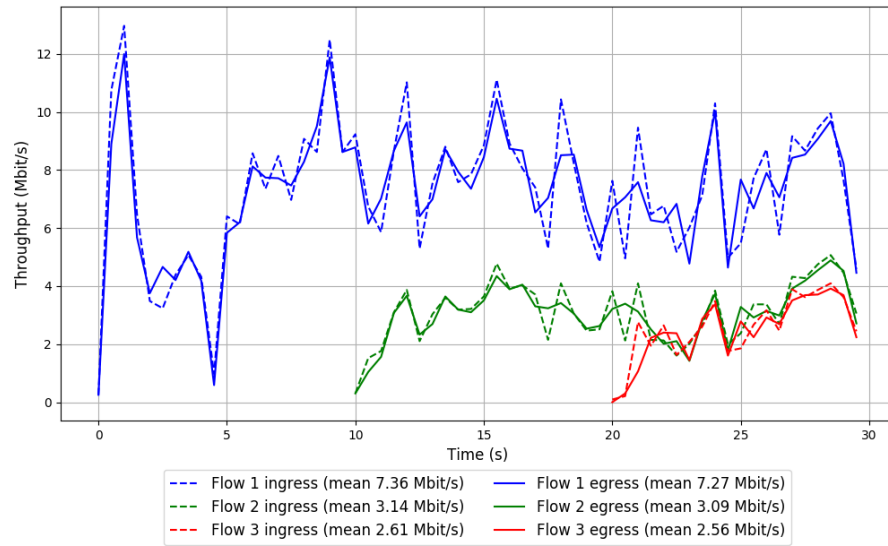


Run 1: Statistics of QUIC Cubic

Start at: 2018-03-20 09:13:51
End at: 2018-03-20 09:14:21
Local clock offset: -2.12 ms
Remote clock offset: -3.274 ms

Below is generated by plot.py at 2018-03-20 10:15:43
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.13 Mbit/s
95th percentile per-packet one-way delay: 385.219 ms
Loss rate: 1.64%
-- Flow 1:
Average throughput: 7.27 Mbit/s
95th percentile per-packet one-way delay: 381.472 ms
Loss rate: 1.31%
-- Flow 2:
Average throughput: 3.09 Mbit/s
95th percentile per-packet one-way delay: 383.718 ms
Loss rate: 1.97%
-- Flow 3:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 417.677 ms
Loss rate: 3.69%

Run 1: Report of QUIC Cubic — Data Link

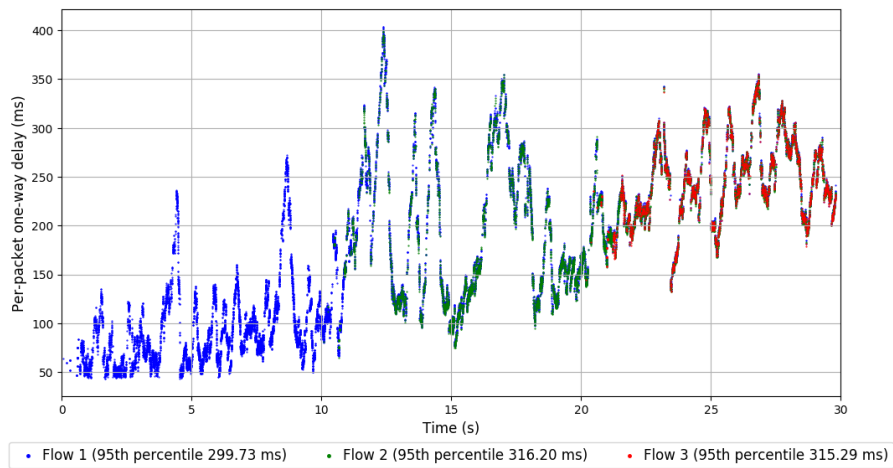
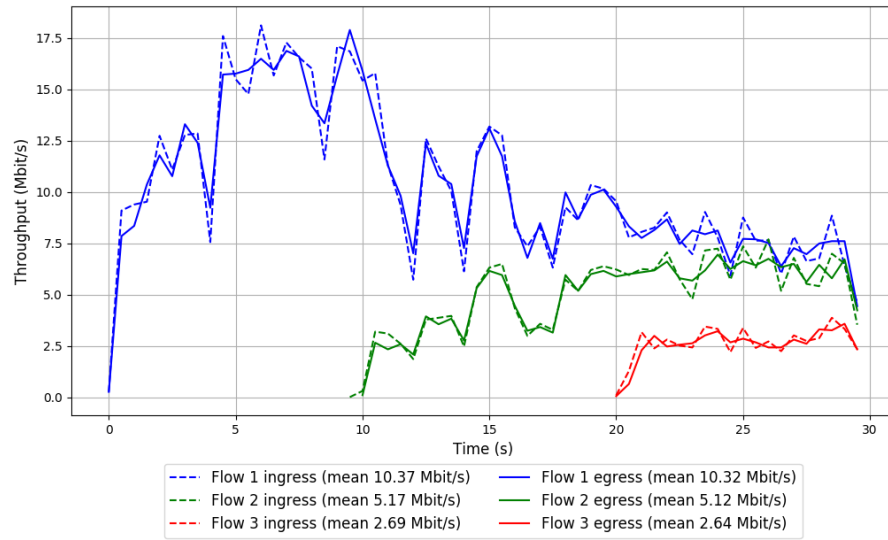


Run 2: Statistics of QUIC Cubic

Start at: 2018-03-20 09:34:02
End at: 2018-03-20 09:34:32
Local clock offset: -0.426 ms
Remote clock offset: -5.221 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.57 Mbit/s
95th percentile per-packet one-way delay: 307.677 ms
Loss rate: 0.94%
-- Flow 1:
Average throughput: 10.32 Mbit/s
95th percentile per-packet one-way delay: 299.727 ms
Loss rate: 0.60%
-- Flow 2:
Average throughput: 5.12 Mbit/s
95th percentile per-packet one-way delay: 316.197 ms
Loss rate: 1.36%
-- Flow 3:
Average throughput: 2.64 Mbit/s
95th percentile per-packet one-way delay: 315.290 ms
Loss rate: 3.32%

Run 2: Report of QUIC Cubic — Data Link

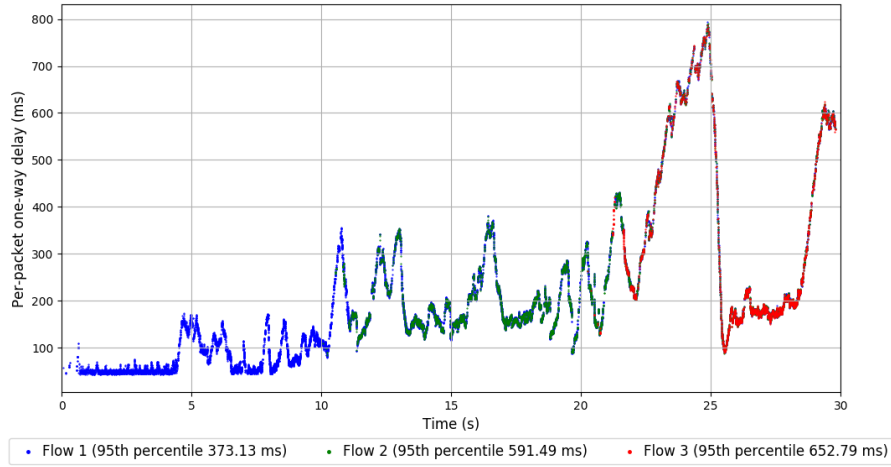
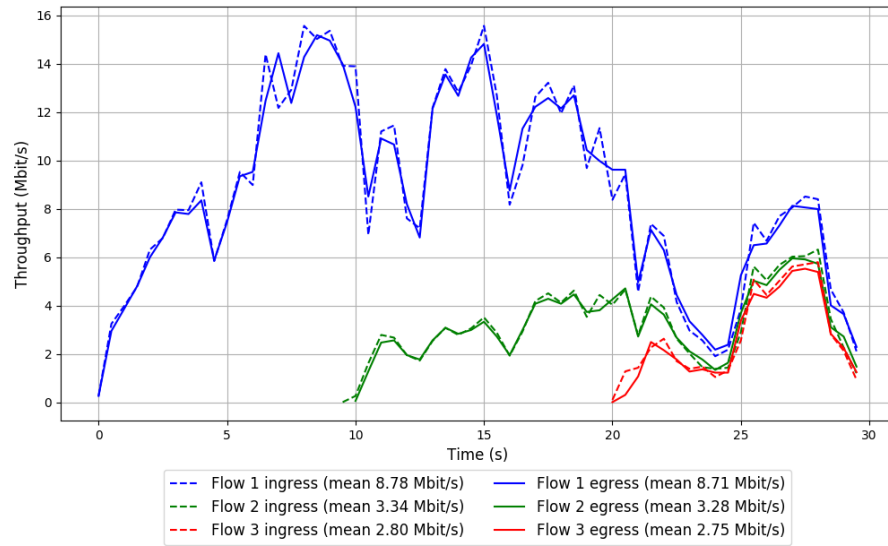


Run 3: Statistics of QUIC Cubic

Start at: 2018-03-20 09:54:06
End at: 2018-03-20 09:54:36
Local clock offset: -5.306 ms
Remote clock offset: -3.958 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 11.77 Mbit/s
95th percentile per-packet one-way delay: 519.536 ms
Loss rate: 1.30%
-- Flow 1:
Average throughput: 8.71 Mbit/s
95th percentile per-packet one-way delay: 373.131 ms
Loss rate: 0.85%
-- Flow 2:
Average throughput: 3.28 Mbit/s
95th percentile per-packet one-way delay: 591.487 ms
Loss rate: 1.92%
-- Flow 3:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 652.786 ms
Loss rate: 4.02%

Run 3: Report of QUIC Cubic — Data Link

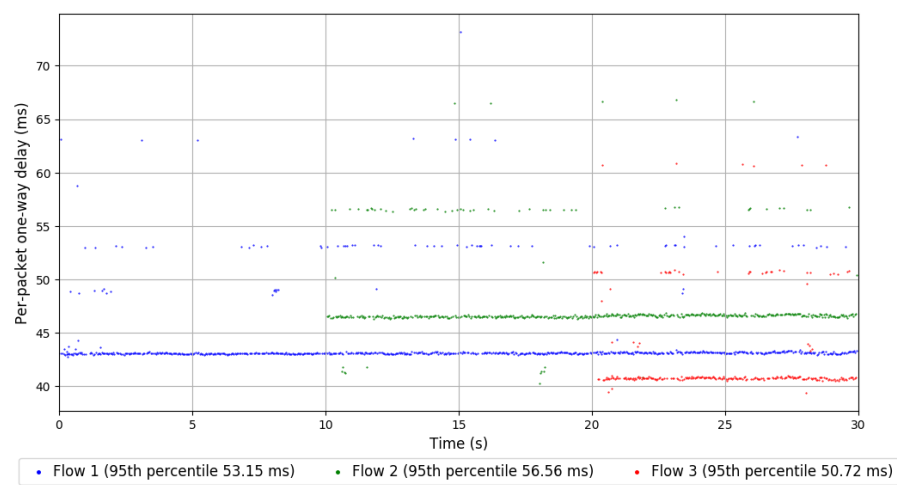
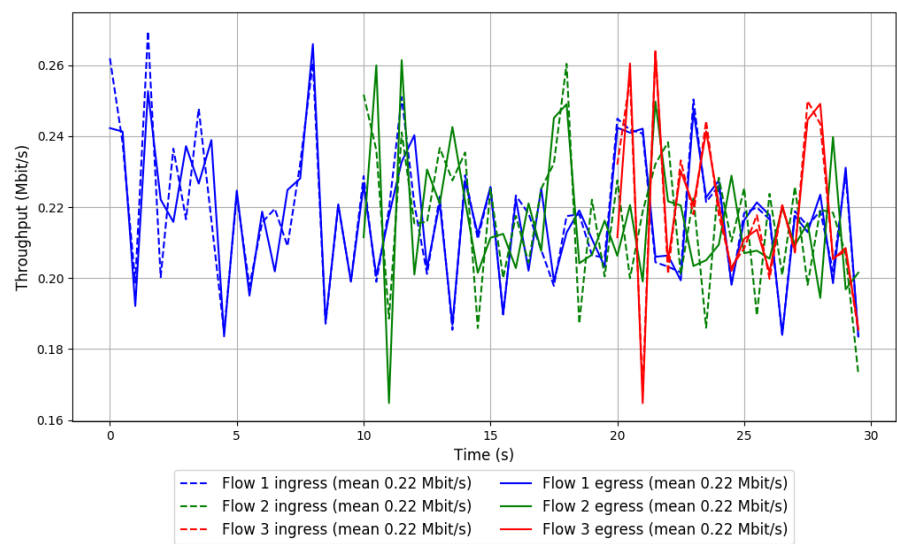


```
Run 1: Statistics of SReAM

Start at: 2018-03-20 09:27:22
End at: 2018-03-20 09:27:52
Local clock offset: -0.542 ms
Remote clock offset: -5.669 ms

# Below is generated by plot.py at 2018-03-20 10:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 53.205 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.152 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 56.559 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 50.724 ms
Loss rate: 0.35%
```

Run 1: Report of SReAM — Data Link

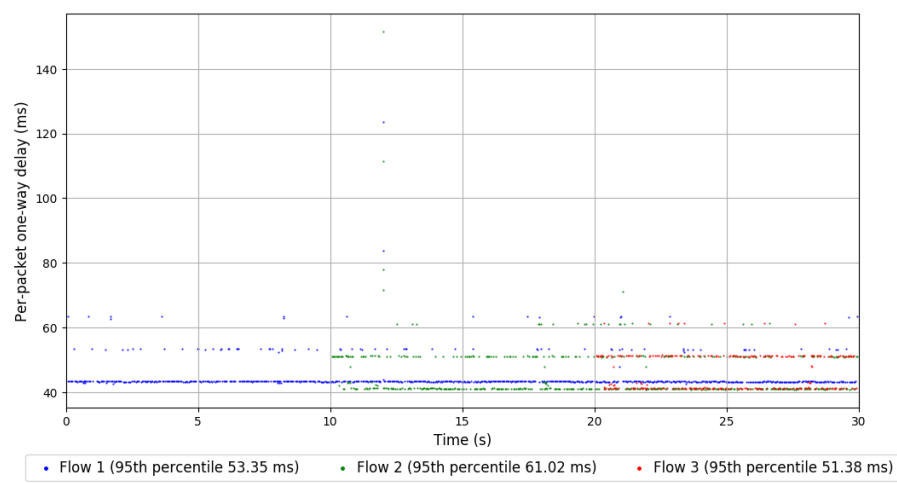
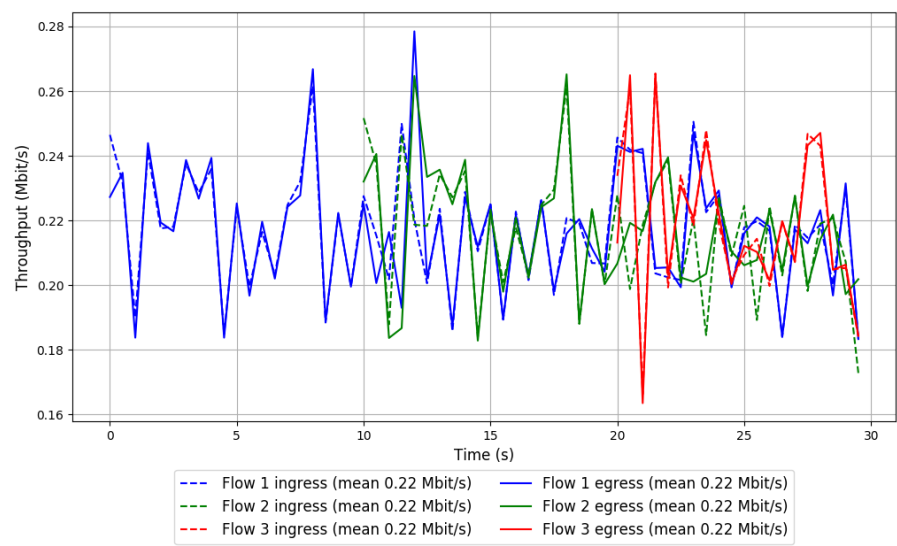


Run 2: Statistics of SReAM

Start at: 2018-03-20 09:47:27
End at: 2018-03-20 09:47:57
Local clock offset: -2.605 ms
Remote clock offset: -7.028 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 53.335 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.346 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 61.016 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.375 ms
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

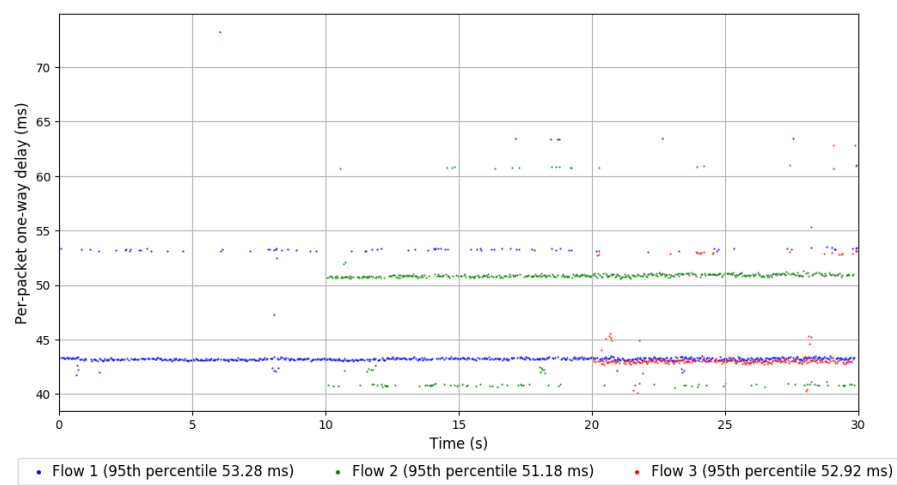
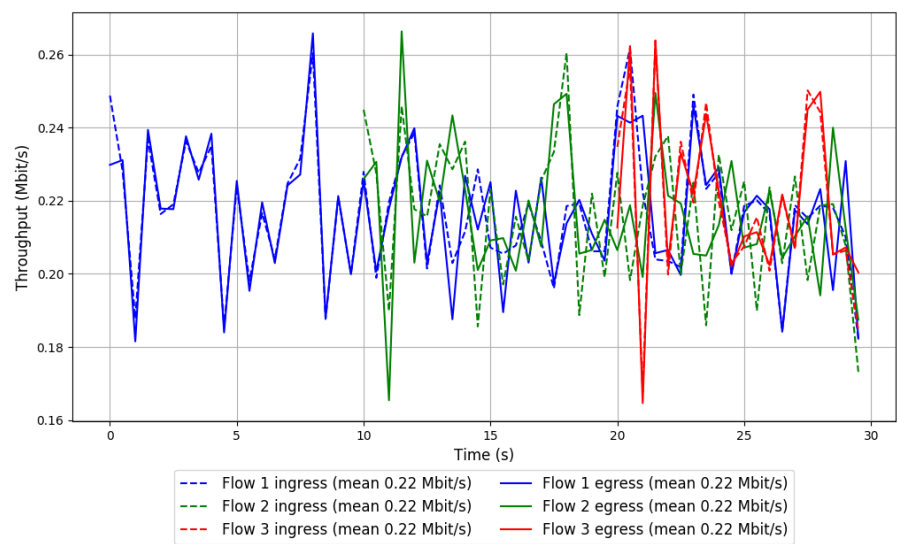


Run 3: Statistics of SReAM

Start at: 2018-03-20 10:07:47
End at: 2018-03-20 10:08:17
Local clock offset: -5.545 ms
Remote clock offset: -2.617 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 53.243 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 53.277 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 51.176 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 52.920 ms
Loss rate: 0.00%

Run 3: Report of SReAM — Data Link

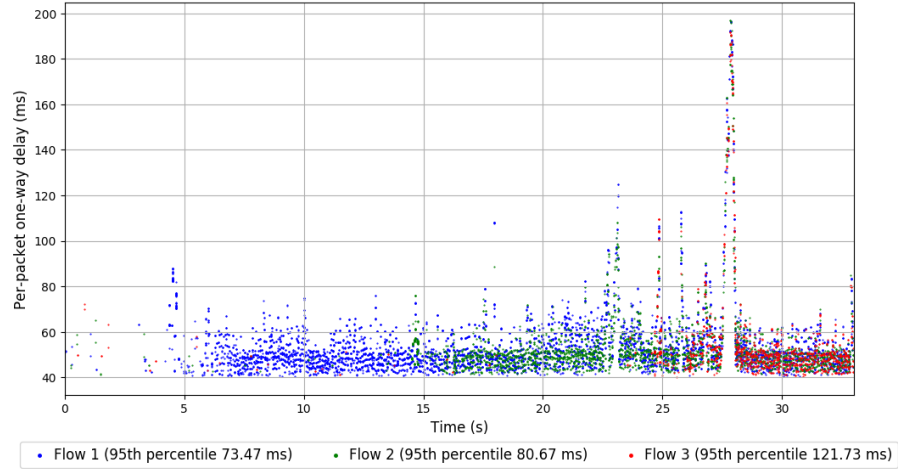
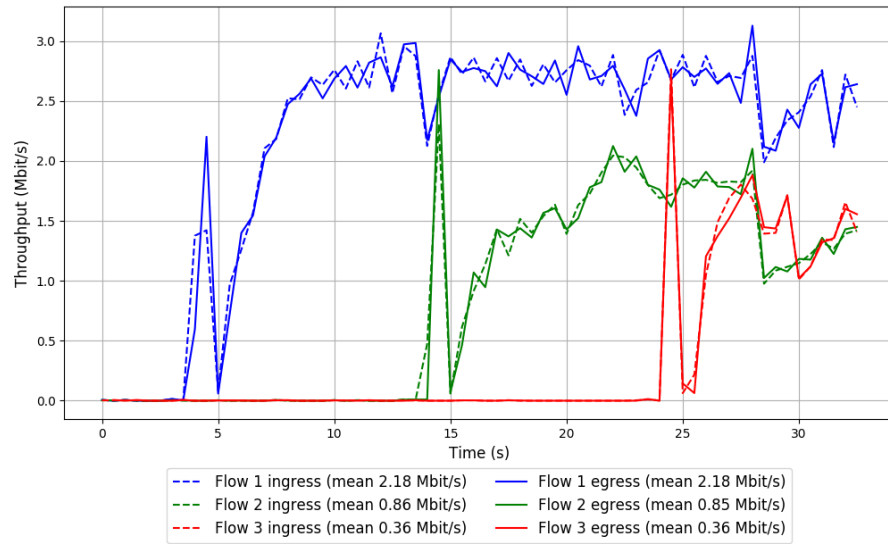


Run 1: Statistics of WebRTC media

Start at: 2018-03-20 09:28:28
End at: 2018-03-20 09:28:58
Local clock offset: -1.21 ms
Remote clock offset: -5.271 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 79.929 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 2.18 Mbit/s
95th percentile per-packet one-way delay: 73.470 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 80.671 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 121.729 ms
Loss rate: 0.08%

Run 1: Report of WebRTC media — Data Link

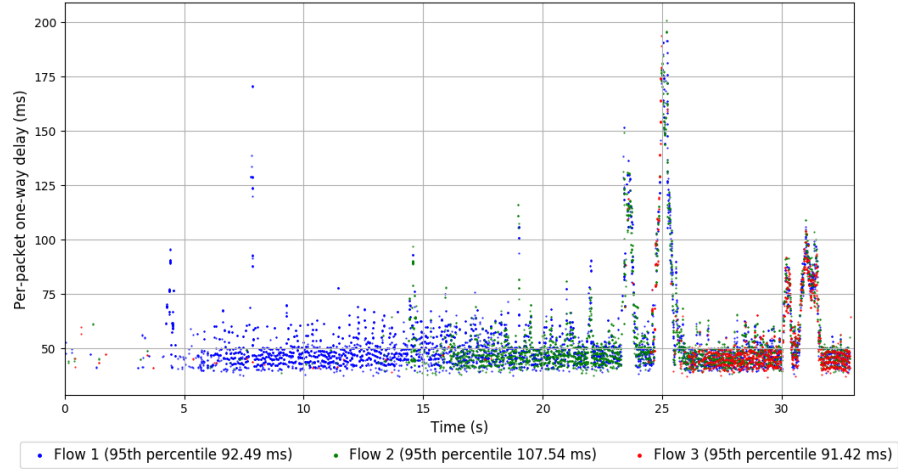
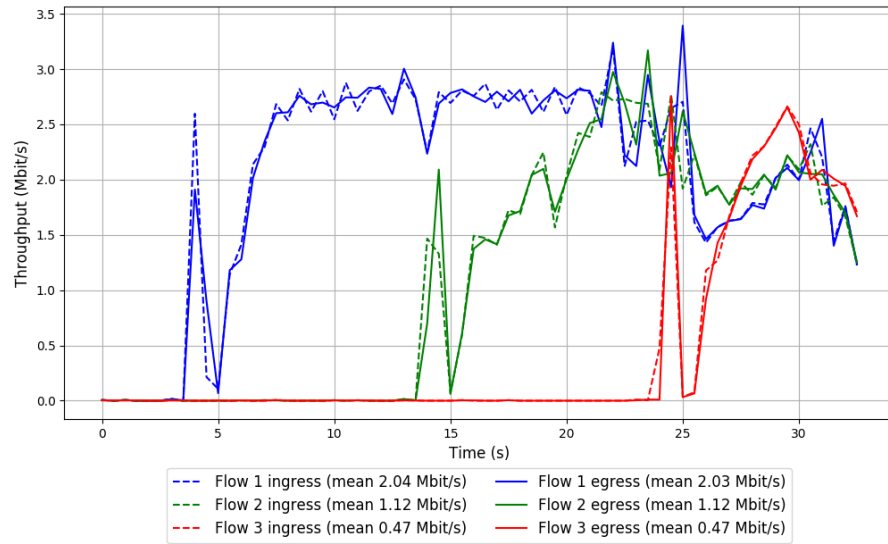


Run 2: Statistics of WebRTC media

Start at: 2018-03-20 09:48:33
End at: 2018-03-20 09:49:03
Local clock offset: -1.944 ms
Remote clock offset: -7.229 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.61 Mbit/s
95th percentile per-packet one-way delay: 97.123 ms
Loss rate: 0.19%
-- Flow 1:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 92.491 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.12 Mbit/s
95th percentile per-packet one-way delay: 107.544 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 91.421 ms
Loss rate: 0.68%

Run 2: Report of WebRTC media — Data Link

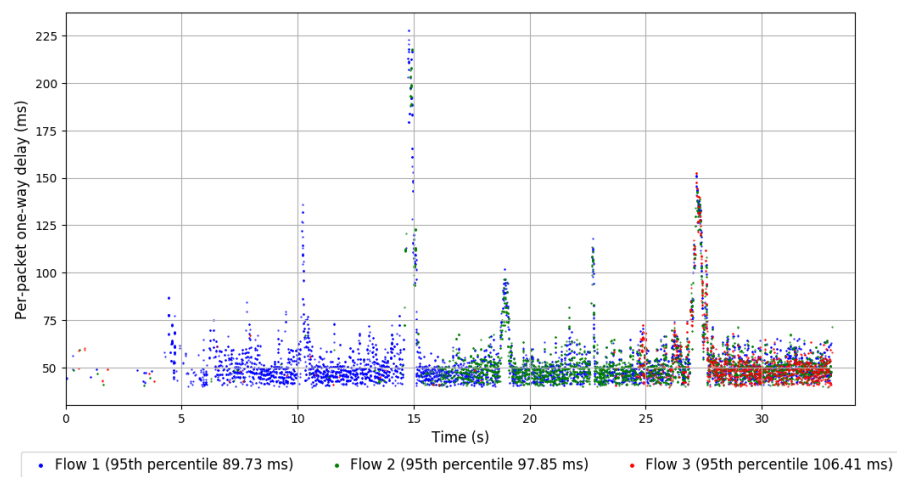
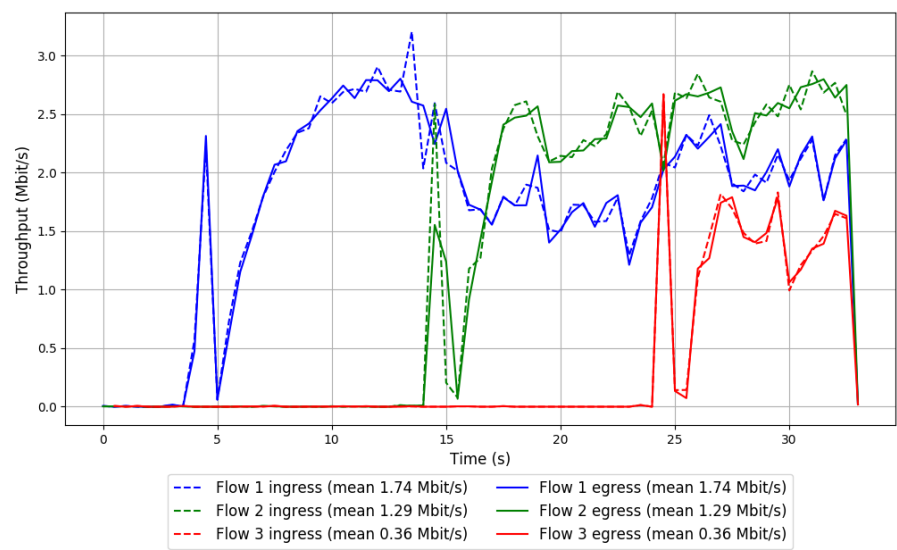


Run 3: Statistics of WebRTC media

Start at: 2018-03-20 10:08:54
End at: 2018-03-20 10:09:24
Local clock offset: -6.194 ms
Remote clock offset: -2.856 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.36 Mbit/s
95th percentile per-packet one-way delay: 94.681 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 89.734 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 97.851 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.36 Mbit/s
95th percentile per-packet one-way delay: 106.412 ms
Loss rate: 0.48%

Run 3: Report of WebRTC media — Data Link

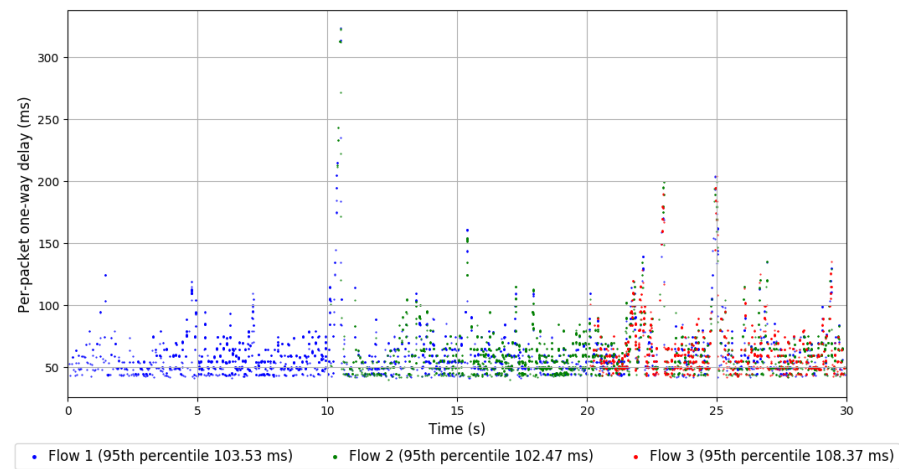
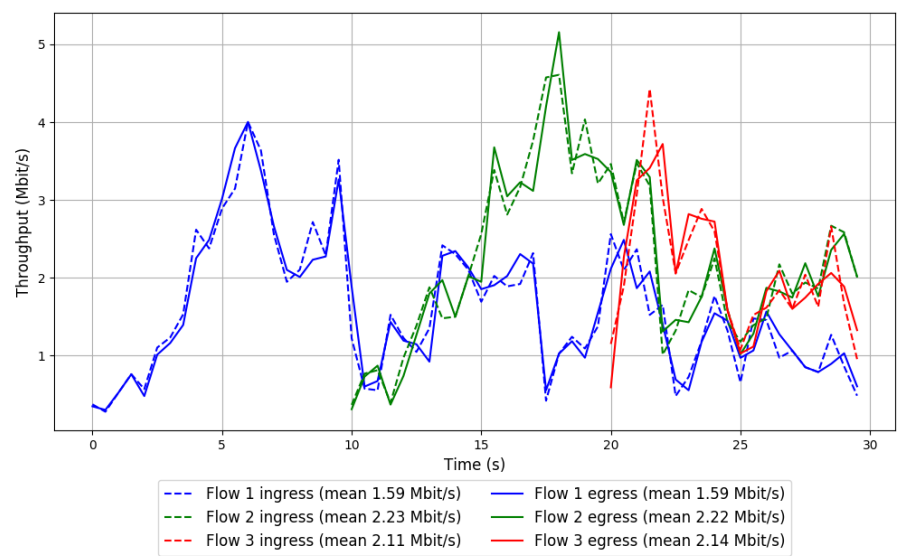


Run 1: Statistics of Sprout

Start at: 2018-03-20 09:18:23
End at: 2018-03-20 09:18:53
Local clock offset: -1.636 ms
Remote clock offset: -2.954 ms

Below is generated by plot.py at 2018-03-20 10:15:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.76 Mbit/s
95th percentile per-packet one-way delay: 103.893 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 1.59 Mbit/s
95th percentile per-packet one-way delay: 103.531 ms
Loss rate: 0.09%
-- Flow 2:
Average throughput: 2.22 Mbit/s
95th percentile per-packet one-way delay: 102.466 ms
Loss rate: 0.65%
-- Flow 3:
Average throughput: 2.14 Mbit/s
95th percentile per-packet one-way delay: 108.371 ms
Loss rate: 0.01%

Run 1: Report of Sprout — Data Link

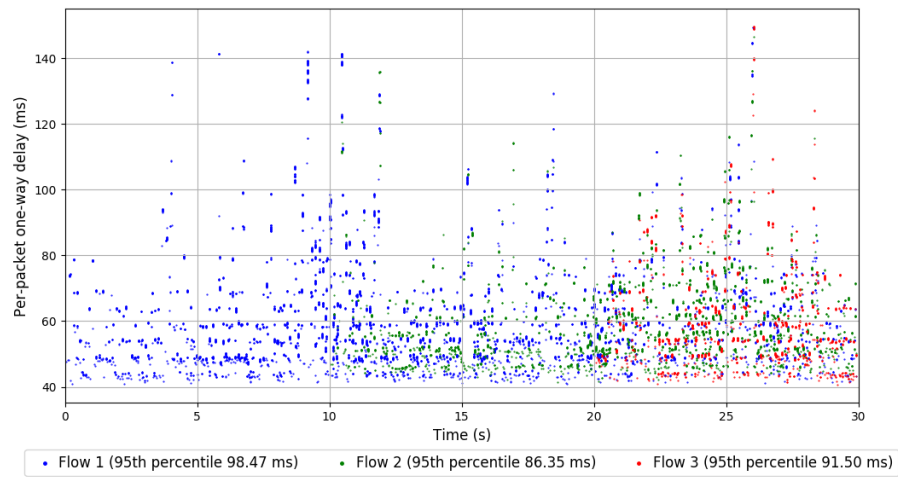
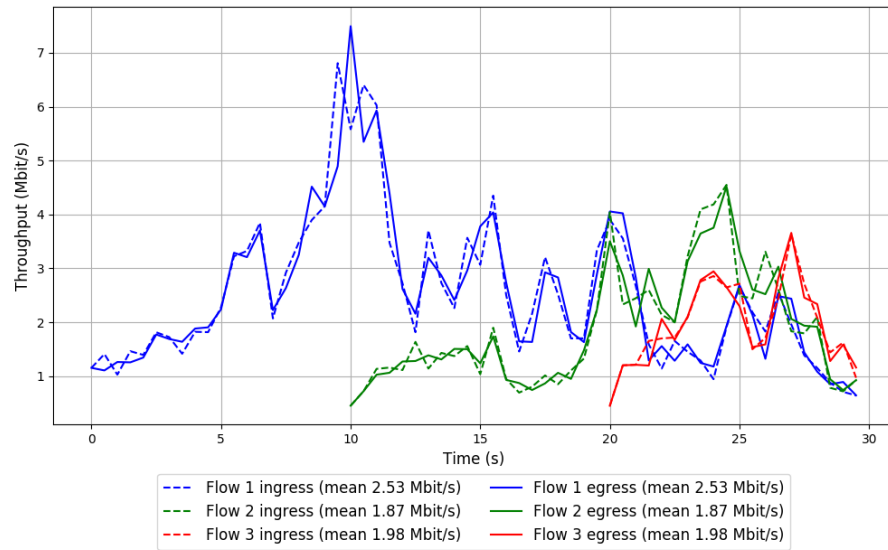


Run 2: Statistics of Sprout

Start at: 2018-03-20 09:38:30
End at: 2018-03-20 09:39:00
Local clock offset: -1.485 ms
Remote clock offset: -7.451 ms

```
# Below is generated by plot.py at 2018-03-20 10:15:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 4.43 Mbit/s
95th percentile per-packet one-way delay: 93.762 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 2.53 Mbit/s
95th percentile per-packet one-way delay: 98.471 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 86.349 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 91.502 ms
Loss rate: 0.28%
```

Run 2: Report of Sprout — Data Link



Run 3: Statistics of Sprout

Start at: 2018-03-20 09:58:38

End at: 2018-03-20 09:59:08

Local clock offset: -2.178 ms

Remote clock offset: -3.83 ms

Below is generated by plot.py at 2018-03-20 10:15:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.87 Mbit/s

95th percentile per-packet one-way delay: 85.495 ms

Loss rate: 0.37%

-- Flow 1:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 85.285 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 2.94 Mbit/s

95th percentile per-packet one-way delay: 89.379 ms

Loss rate: 0.81%

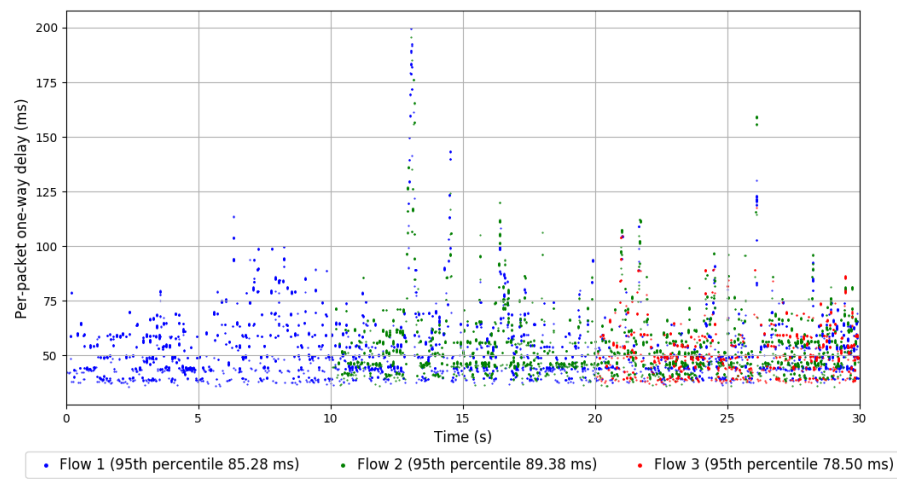
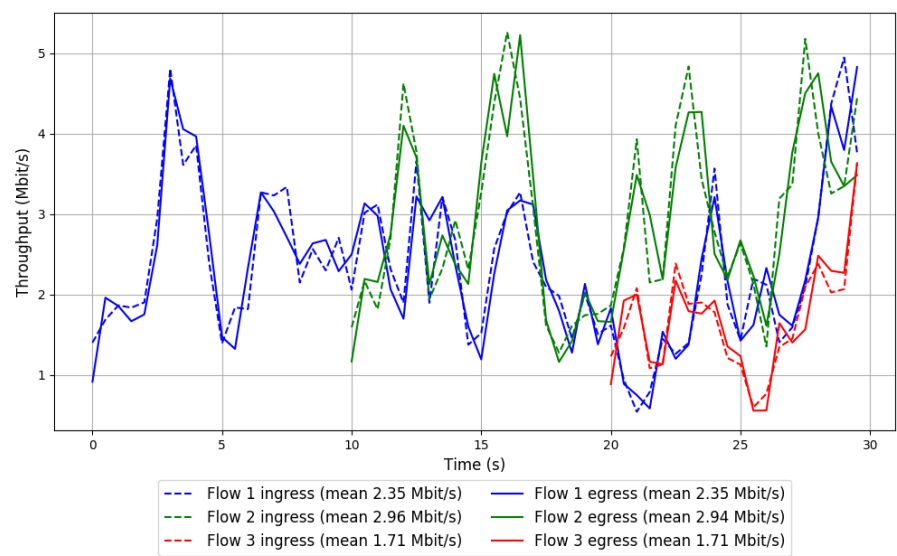
-- Flow 3:

Average throughput: 1.71 Mbit/s

95th percentile per-packet one-way delay: 78.495 ms

Loss rate: 0.00%

Run 3: Report of Sprout — Data Link

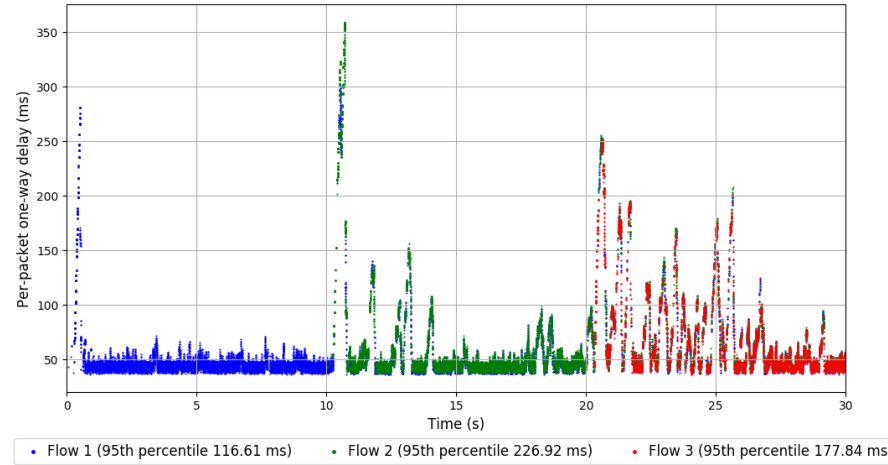
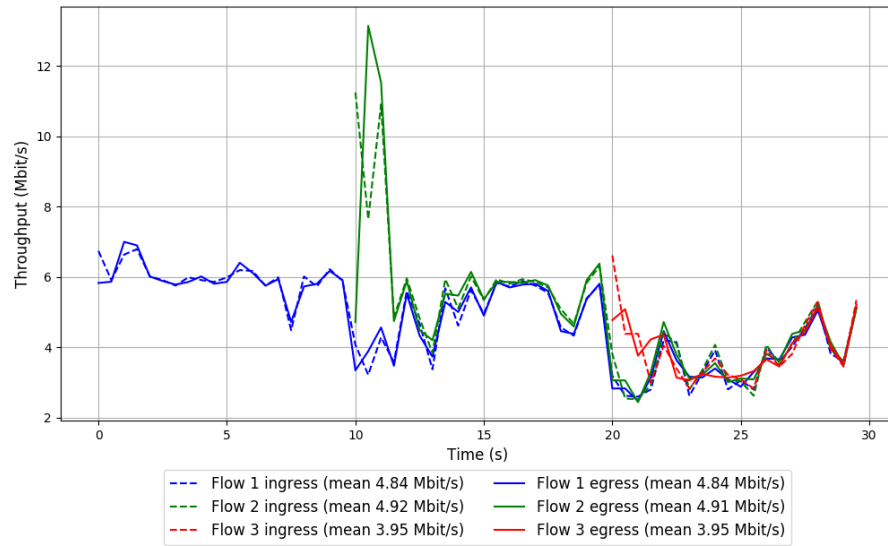


Run 1: Statistics of TaoVA-100x

Start at: 2018-03-20 09:17:15
End at: 2018-03-20 09:17:45
Local clock offset: -1.243 ms
Remote clock offset: -4.767 ms

Below is generated by plot.py at 2018-03-20 10:16:05
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.41 Mbit/s
95th percentile per-packet one-way delay: 166.084 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 4.84 Mbit/s
95th percentile per-packet one-way delay: 116.614 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 4.91 Mbit/s
95th percentile per-packet one-way delay: 226.924 ms
Loss rate: 0.25%
-- Flow 3:
Average throughput: 3.95 Mbit/s
95th percentile per-packet one-way delay: 177.837 ms
Loss rate: 0.72%

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

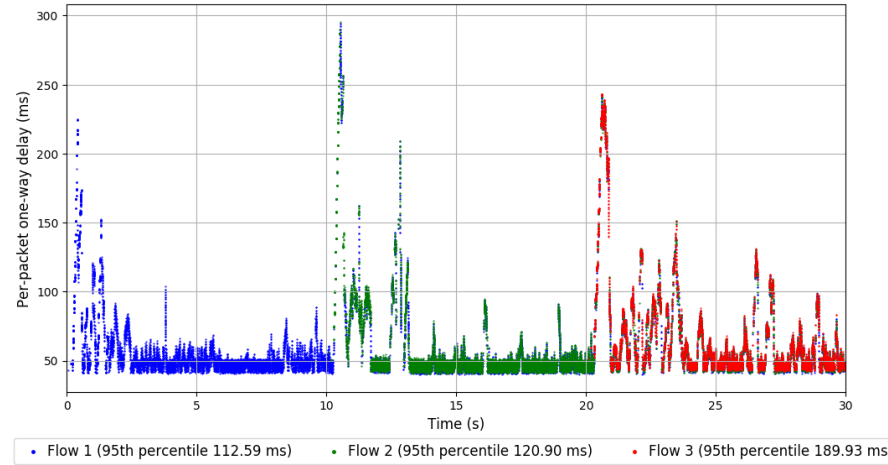
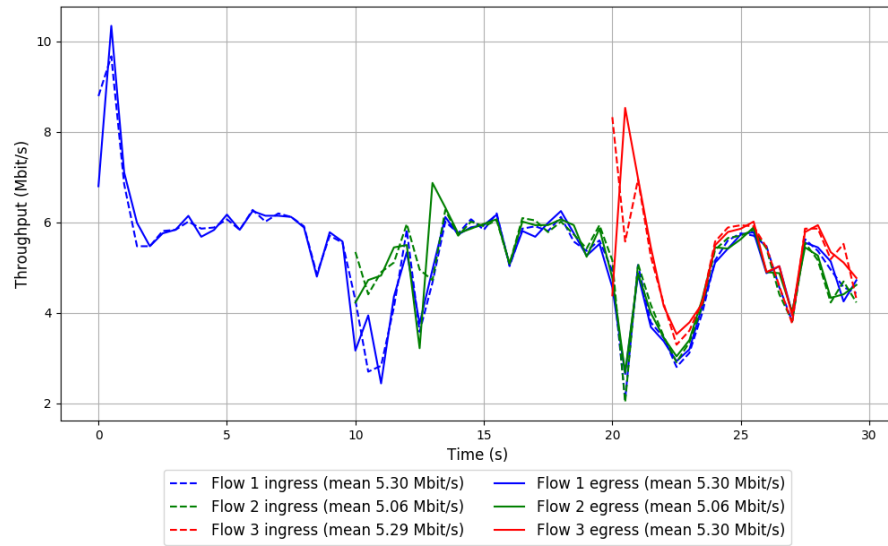


Run 2: Statistics of TaoVA-100x

Start at: 2018-03-20 09:37:22
End at: 2018-03-20 09:37:52
Local clock offset: -0.052 ms
Remote clock offset: -5.703 ms

Below is generated by plot.py at 2018-03-20 10:16:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.42 Mbit/s
95th percentile per-packet one-way delay: 123.598 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 112.587 ms
Loss rate: 0.11%
-- Flow 2:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 120.898 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 5.30 Mbit/s
95th percentile per-packet one-way delay: 189.929 ms
Loss rate: 0.30%

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

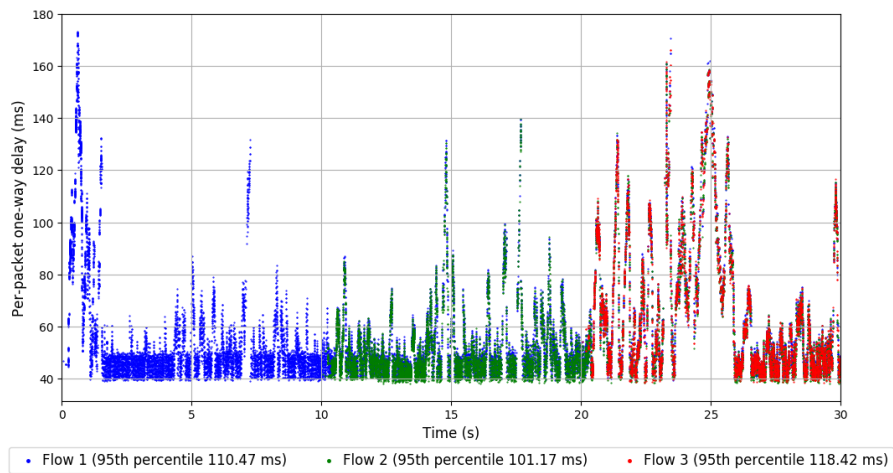
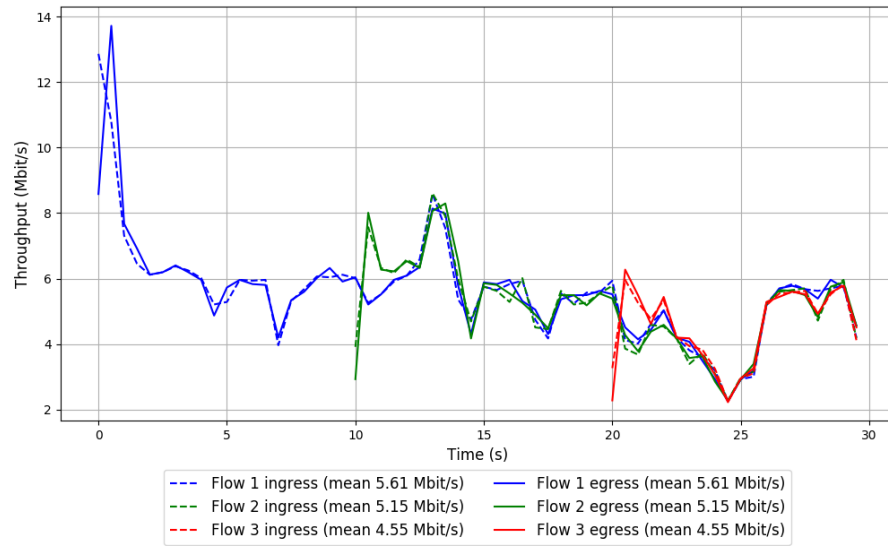


Run 3: Statistics of TaoVA-100x

Start at: 2018-03-20 09:57:29
End at: 2018-03-20 09:57:59
Local clock offset: -4.7 ms
Remote clock offset: -4.164 ms

Below is generated by plot.py at 2018-03-20 10:16:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.54 Mbit/s
95th percentile per-packet one-way delay: 108.774 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 5.61 Mbit/s
95th percentile per-packet one-way delay: 110.475 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 5.15 Mbit/s
95th percentile per-packet one-way delay: 101.166 ms
Loss rate: 0.10%
-- Flow 3:
Average throughput: 4.55 Mbit/s
95th percentile per-packet one-way delay: 118.423 ms
Loss rate: 0.20%

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

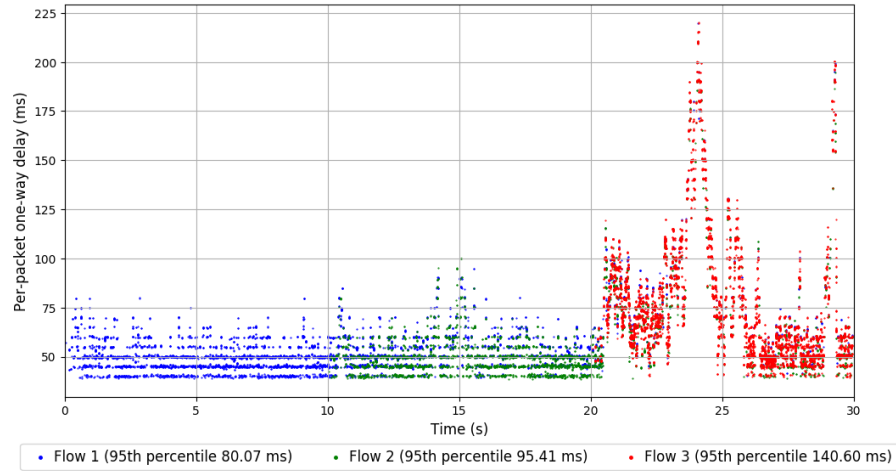
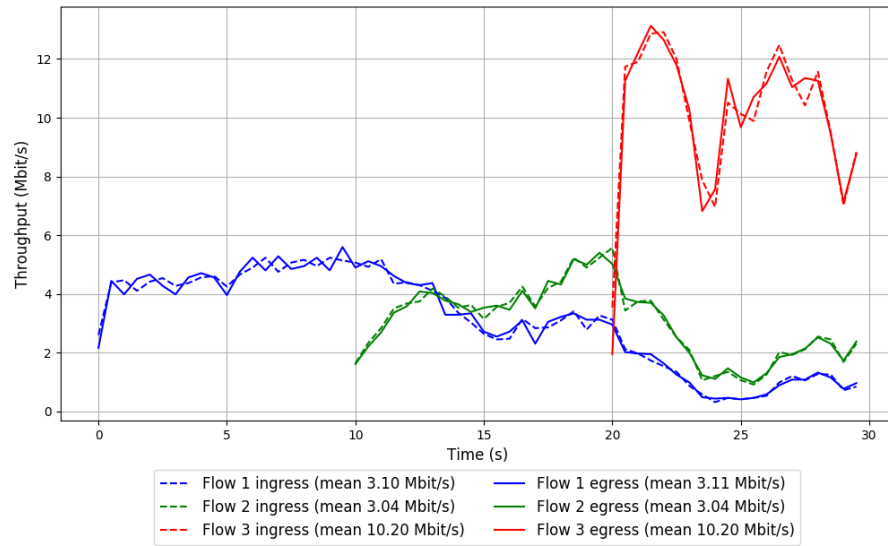


Run 1: Statistics of TCP Vegas

Start at: 2018-03-20 09:23:58
End at: 2018-03-20 09:24:28
Local clock offset: 0.573 ms
Remote clock offset: -4.277 ms

Below is generated by plot.py at 2018-03-20 10:16:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.50 Mbit/s
95th percentile per-packet one-way delay: 109.913 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 3.11 Mbit/s
95th percentile per-packet one-way delay: 80.067 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 3.04 Mbit/s
95th percentile per-packet one-way delay: 95.412 ms
Loss rate: 0.18%
-- Flow 3:
Average throughput: 10.20 Mbit/s
95th percentile per-packet one-way delay: 140.597 ms
Loss rate: 0.64%

Run 1: Report of TCP Vegas — Data Link

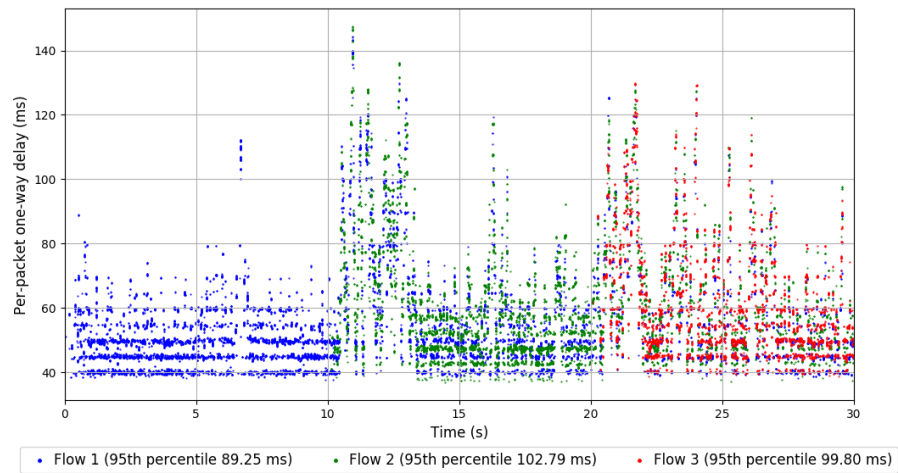
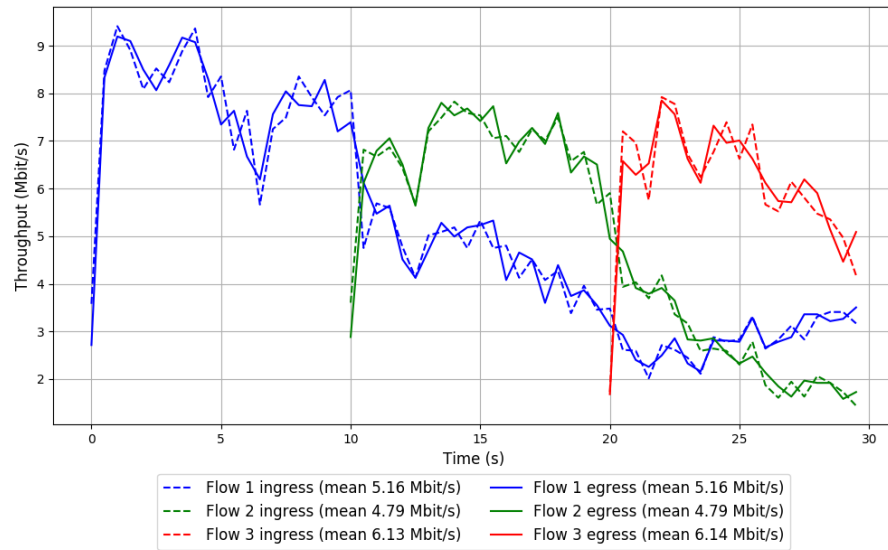


Run 2: Statistics of TCP Vegas

Start at: 2018-03-20 09:44:04
End at: 2018-03-20 09:44:34
Local clock offset: 1.111 ms
Remote clock offset: -7.945 ms

Below is generated by plot.py at 2018-03-20 10:16:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.38 Mbit/s
95th percentile per-packet one-way delay: 96.983 ms
Loss rate: 0.02%
-- Flow 1:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 89.252 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 4.79 Mbit/s
95th percentile per-packet one-way delay: 102.793 ms
Loss rate: 0.03%
-- Flow 3:
Average throughput: 6.14 Mbit/s
95th percentile per-packet one-way delay: 99.795 ms
Loss rate: 0.04%

Run 2: Report of TCP Vegas — Data Link

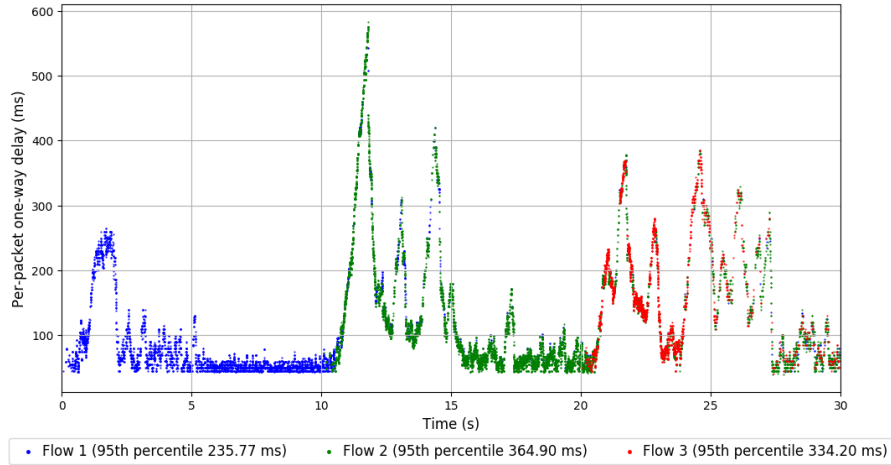
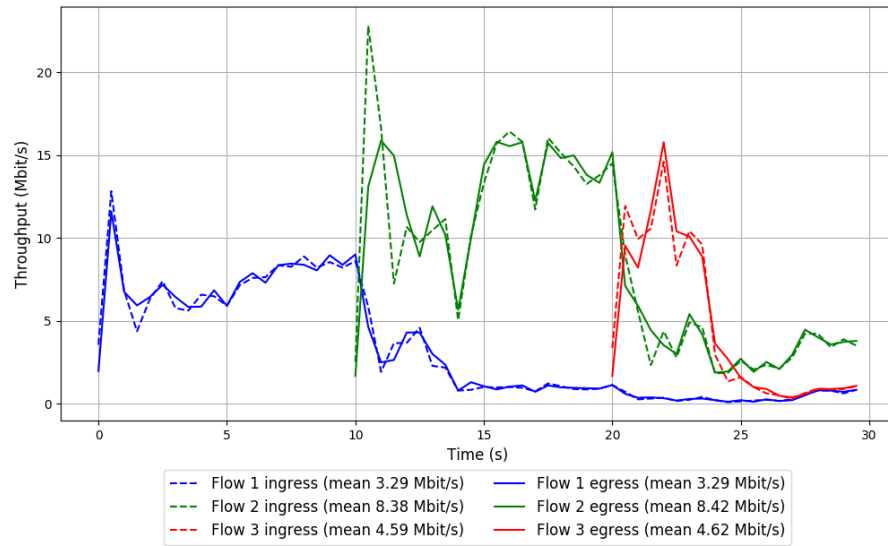


Run 3: Statistics of TCP Vegas

Start at: 2018-03-20 10:04:19
End at: 2018-03-20 10:04:49
Local clock offset: -5.691 ms
Remote clock offset: -3.018 ms

Below is generated by plot.py at 2018-03-20 10:16:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.41 Mbit/s
95th percentile per-packet one-way delay: 334.192 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 3.29 Mbit/s
95th percentile per-packet one-way delay: 235.773 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 8.42 Mbit/s
95th percentile per-packet one-way delay: 364.902 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 4.62 Mbit/s
95th percentile per-packet one-way delay: 334.197 ms
Loss rate: 0.24%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-03-20 09:21:44

End at: 2018-03-20 09:22:14

Local clock offset: -0.253 ms

Remote clock offset: -5.31 ms

Below is generated by plot.py at 2018-03-20 10:16:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 11.24 Mbit/s

95th percentile per-packet one-way delay: 1040.945 ms

Loss rate: 10.95%

-- Flow 1:

Average throughput: 8.71 Mbit/s

95th percentile per-packet one-way delay: 1058.096 ms

Loss rate: 12.09%

-- Flow 2:

Average throughput: 2.51 Mbit/s

95th percentile per-packet one-way delay: 890.831 ms

Loss rate: 3.97%

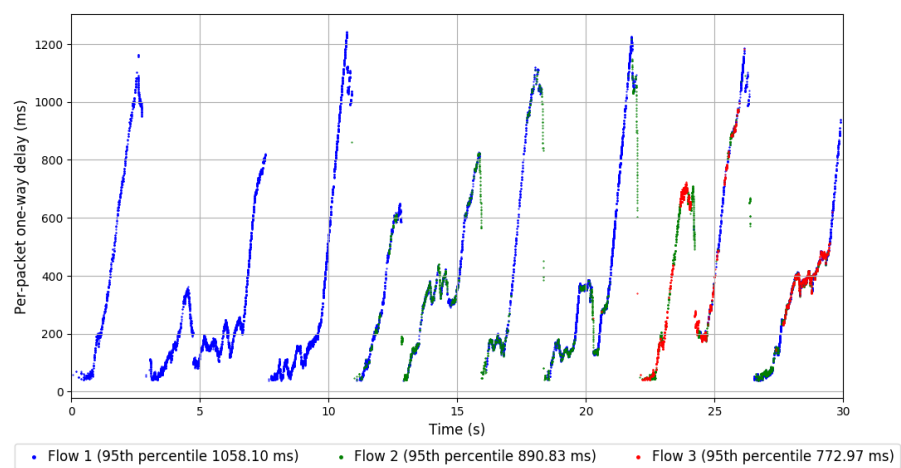
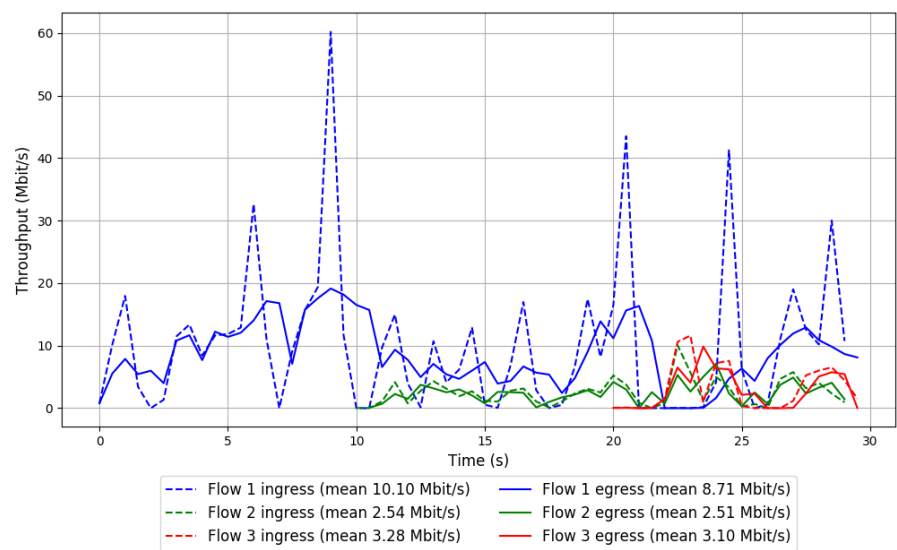
-- Flow 3:

Average throughput: 3.10 Mbit/s

95th percentile per-packet one-way delay: 772.968 ms

Loss rate: 11.01%

Run 1: Report of Verus — Data Link

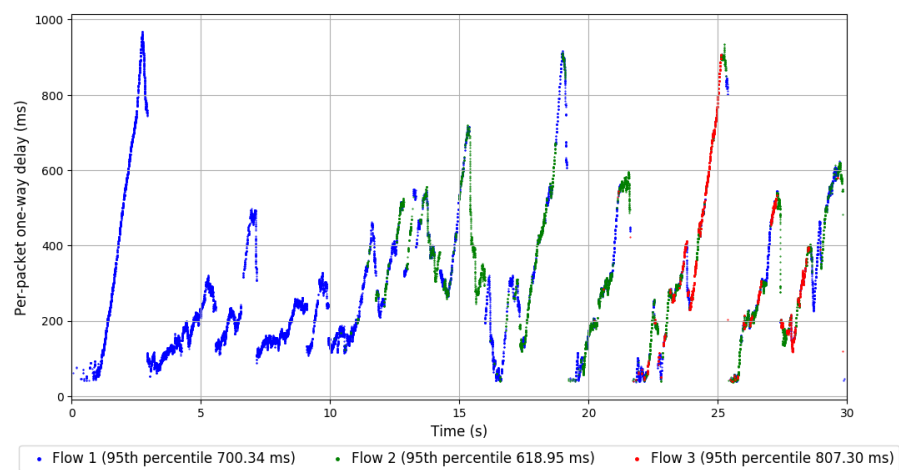
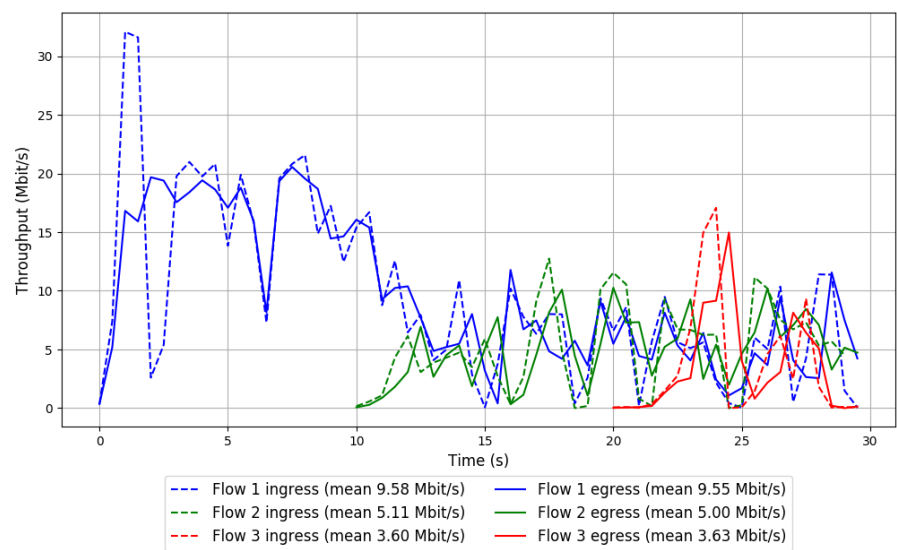


Run 2: Statistics of Verus

Start at: 2018-03-20 09:41:49
End at: 2018-03-20 09:42:19
Local clock offset: 2.163 ms
Remote clock offset: -7.236 ms

Below is generated by plot.py at 2018-03-20 10:16:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.02 Mbit/s
95th percentile per-packet one-way delay: 707.265 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 9.55 Mbit/s
95th percentile per-packet one-way delay: 700.342 ms
Loss rate: 0.30%
-- Flow 2:
Average throughput: 5.00 Mbit/s
95th percentile per-packet one-way delay: 618.947 ms
Loss rate: 0.35%
-- Flow 3:
Average throughput: 3.63 Mbit/s
95th percentile per-packet one-way delay: 807.303 ms
Loss rate: 0.10%

Run 2: Report of Verus — Data Link

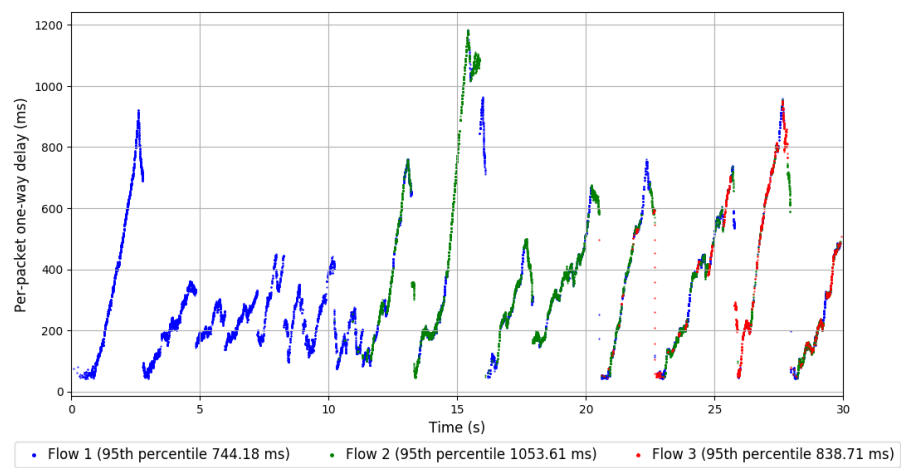
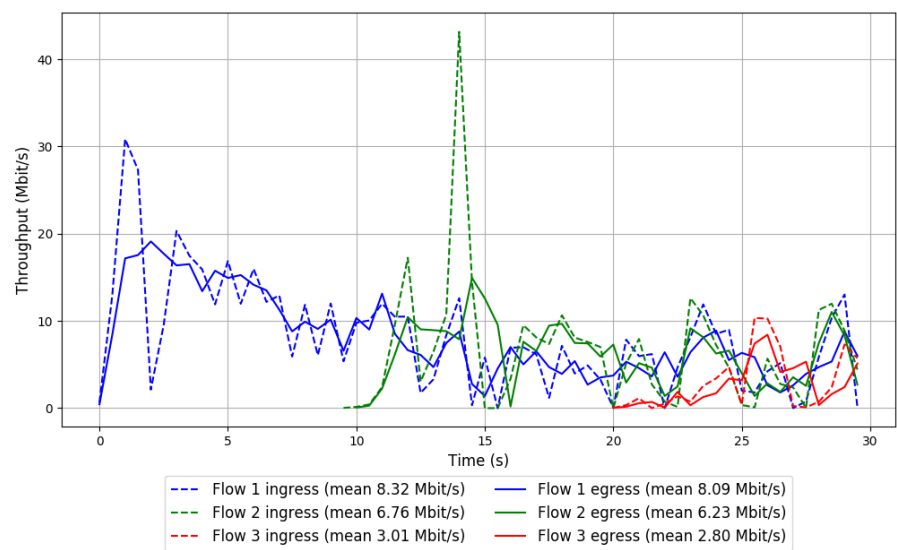


Run 3: Statistics of Verus

Start at: 2018-03-20 10:02:03
End at: 2018-03-20 10:02:33
Local clock offset: -6.613 ms
Remote clock offset: -2.721 ms

Below is generated by plot.py at 2018-03-20 10:16:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.07 Mbit/s
95th percentile per-packet one-way delay: 826.572 ms
Loss rate: 4.82%
-- Flow 1:
Average throughput: 8.09 Mbit/s
95th percentile per-packet one-way delay: 744.181 ms
Loss rate: 1.78%
-- Flow 2:
Average throughput: 6.23 Mbit/s
95th percentile per-packet one-way delay: 1053.606 ms
Loss rate: 8.92%
-- Flow 3:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 838.709 ms
Loss rate: 11.39%

Run 3: Report of Verus — Data Link

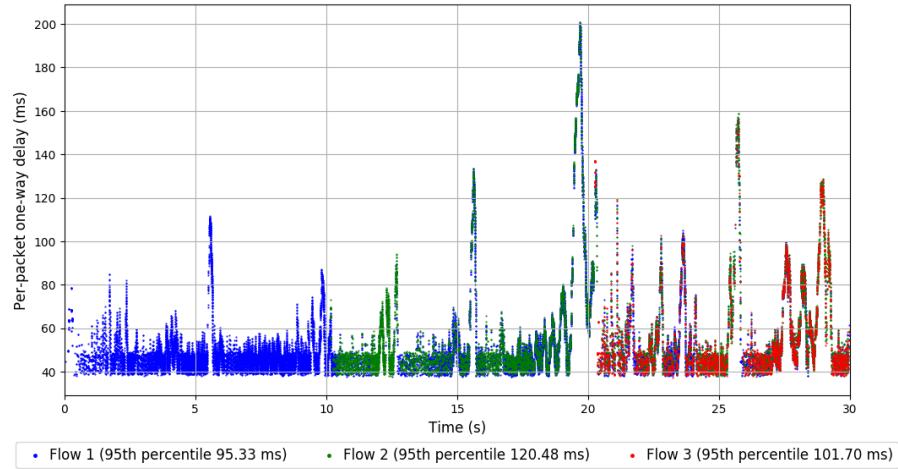
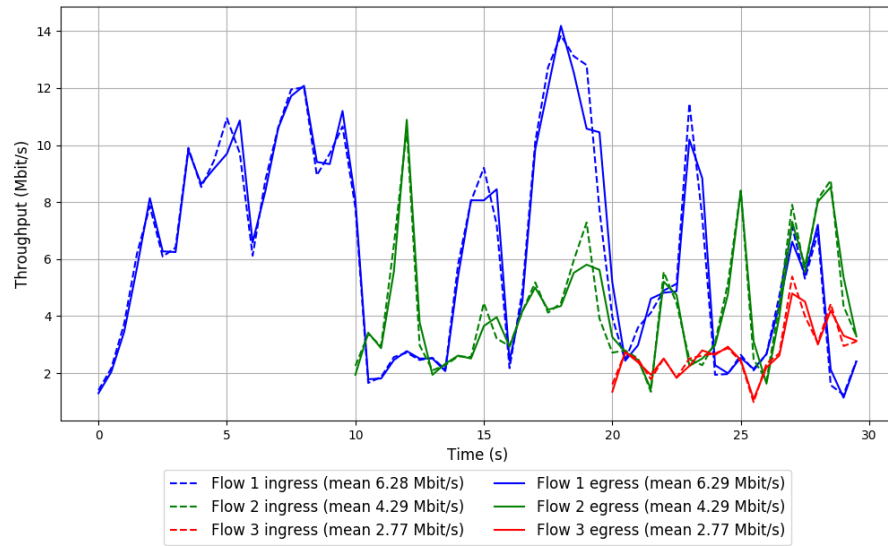


Run 1: Statistics of Copa

Start at: 2018-03-20 09:22:51
End at: 2018-03-20 09:23:21
Local clock offset: 1.375 ms
Remote clock offset: -4.223 ms

Below is generated by plot.py at 2018-03-20 10:16:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.06 Mbit/s
95th percentile per-packet one-way delay: 102.261 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 6.29 Mbit/s
95th percentile per-packet one-way delay: 95.327 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 120.477 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 2.77 Mbit/s
95th percentile per-packet one-way delay: 101.700 ms
Loss rate: 0.52%

Run 1: Report of Copa — Data Link

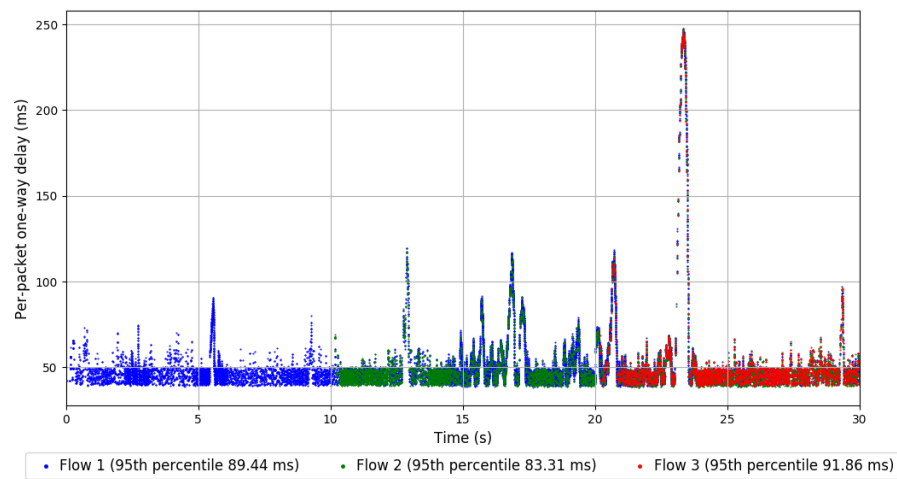
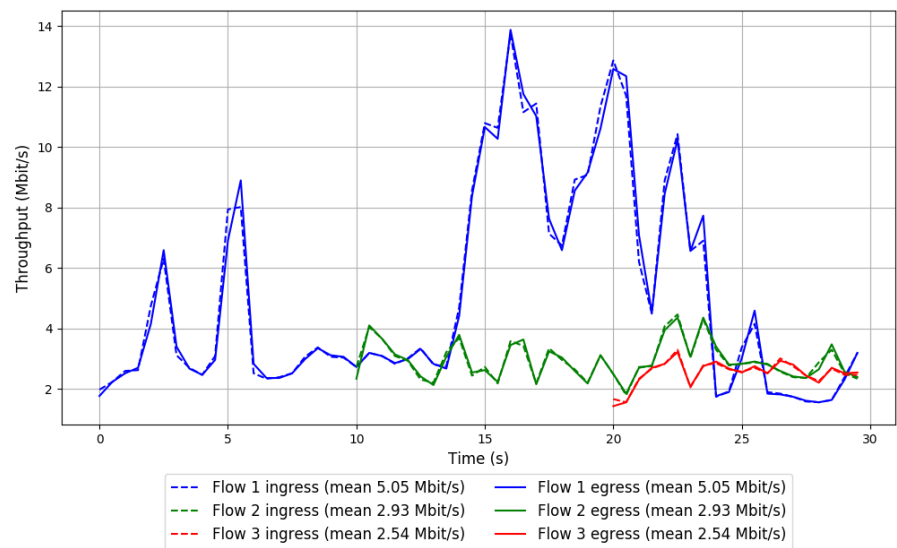


Run 2: Statistics of Copa

Start at: 2018-03-20 09:42:57
End at: 2018-03-20 09:43:27
Local clock offset: 0.821 ms
Remote clock offset: -6.587 ms

Below is generated by plot.py at 2018-03-20 10:16:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 88.375 ms
Loss rate: 0.11%
-- Flow 1:
Average throughput: 5.05 Mbit/s
95th percentile per-packet one-way delay: 89.436 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 2.93 Mbit/s
95th percentile per-packet one-way delay: 83.311 ms
Loss rate: 0.13%
-- Flow 3:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 91.858 ms
Loss rate: 0.26%

Run 2: Report of Copa — Data Link

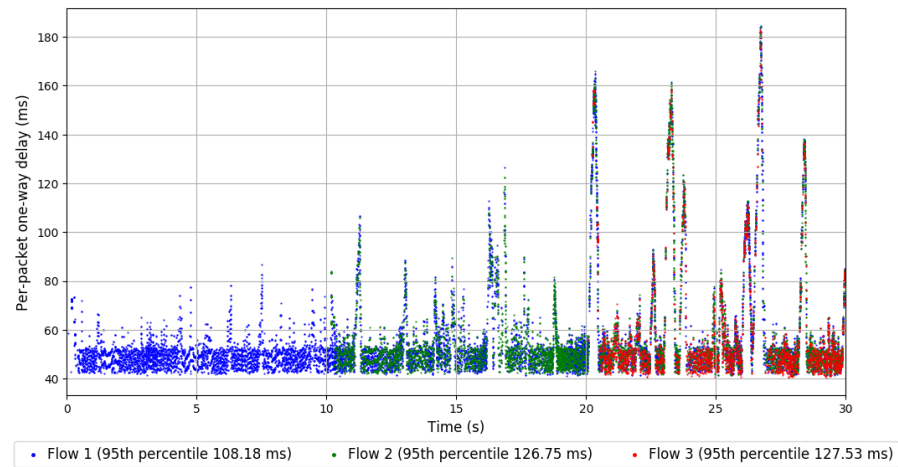
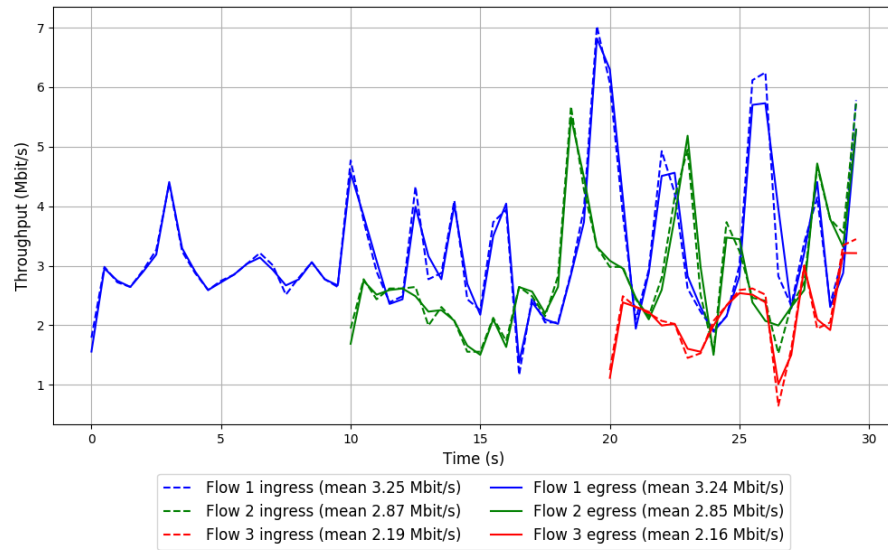


Run 3: Statistics of Copa

Start at: 2018-03-20 10:03:12
End at: 2018-03-20 10:03:42
Local clock offset: -6.351 ms
Remote clock offset: -3.301 ms

```
# Below is generated by plot.py at 2018-03-20 10:16:22
# Datalink statistics
-- Total of 3 flows:
Average throughput: 5.85 Mbit/s
95th percentile per-packet one-way delay: 117.574 ms
Loss rate: 0.70%
-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 108.183 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 2.85 Mbit/s
95th percentile per-packet one-way delay: 126.755 ms
Loss rate: 0.82%
-- Flow 3:
Average throughput: 2.16 Mbit/s
95th percentile per-packet one-way delay: 127.534 ms
Loss rate: 1.31%
```

Run 3: Report of Copa — Data Link

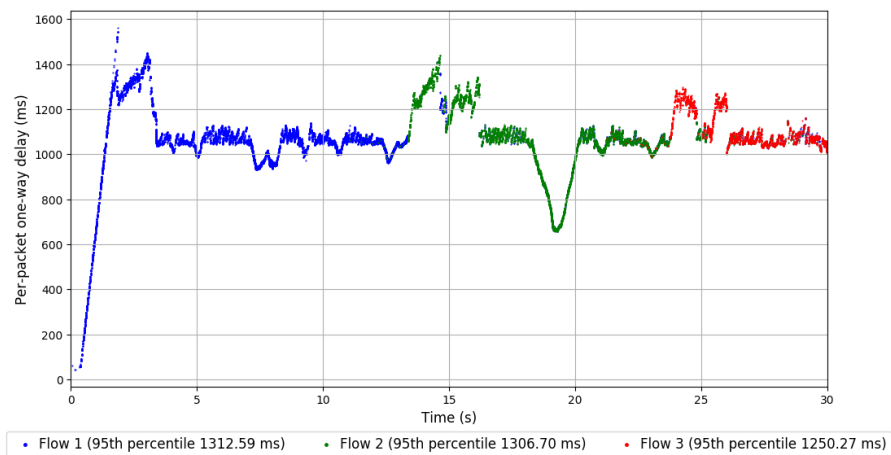
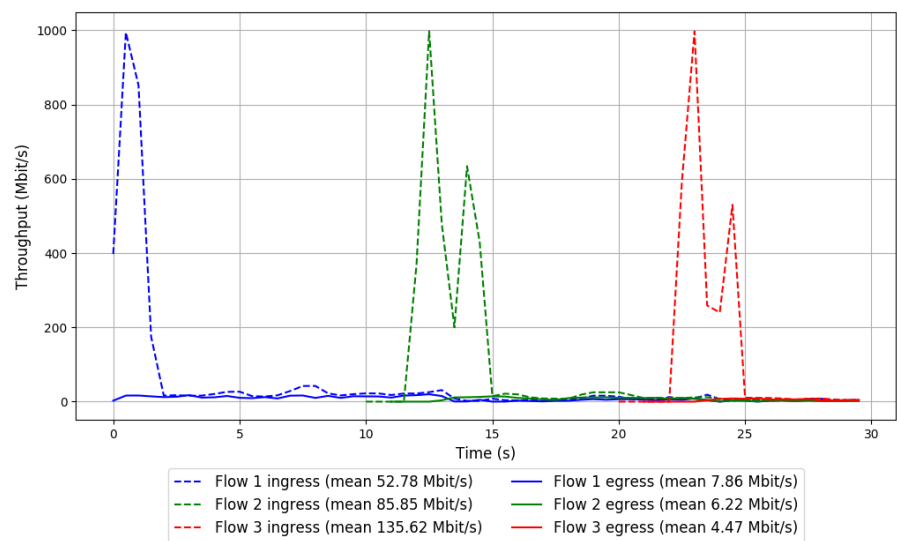


Run 1: Statistics of FillP

Start at: 2018-03-20 09:25:04
End at: 2018-03-20 09:25:34
Local clock offset: -3.321 ms
Remote clock offset: -6.116 ms

Below is generated by plot.py at 2018-03-20 10:16:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.09 Mbit/s
95th percentile per-packet one-way delay: 1303.735 ms
Loss rate: 91.56%
-- Flow 1:
Average throughput: 7.86 Mbit/s
95th percentile per-packet one-way delay: 1312.590 ms
Loss rate: 85.13%
-- Flow 2:
Average throughput: 6.22 Mbit/s
95th percentile per-packet one-way delay: 1306.704 ms
Loss rate: 93.14%
-- Flow 3:
Average throughput: 4.47 Mbit/s
95th percentile per-packet one-way delay: 1250.273 ms
Loss rate: 97.11%

Run 1: Report of FillP — Data Link

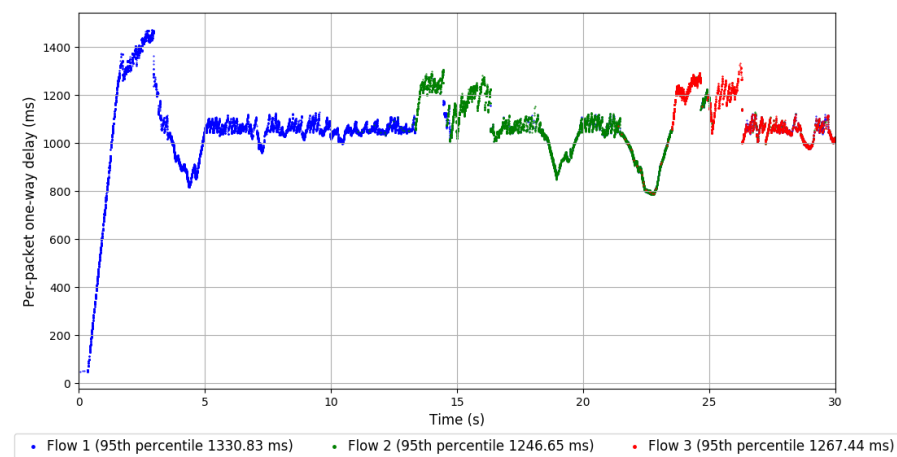
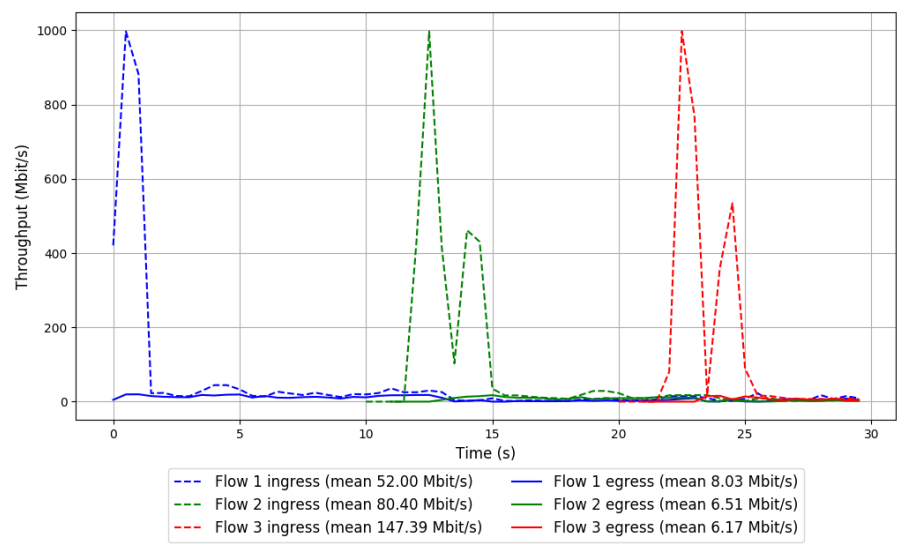


Run 2: Statistics of FillP

Start at: 2018-03-20 09:45:11
End at: 2018-03-20 09:45:41
Local clock offset: -0.733 ms
Remote clock offset: -8.178 ms

Below is generated by plot.py at 2018-03-20 10:16:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.91 Mbit/s
95th percentile per-packet one-way delay: 1274.418 ms
Loss rate: 91.00%
-- Flow 1:
Average throughput: 8.03 Mbit/s
95th percentile per-packet one-way delay: 1330.825 ms
Loss rate: 84.57%
-- Flow 2:
Average throughput: 6.51 Mbit/s
95th percentile per-packet one-way delay: 1246.652 ms
Loss rate: 92.32%
-- Flow 3:
Average throughput: 6.17 Mbit/s
95th percentile per-packet one-way delay: 1267.440 ms
Loss rate: 96.38%

Run 2: Report of FillP — Data Link

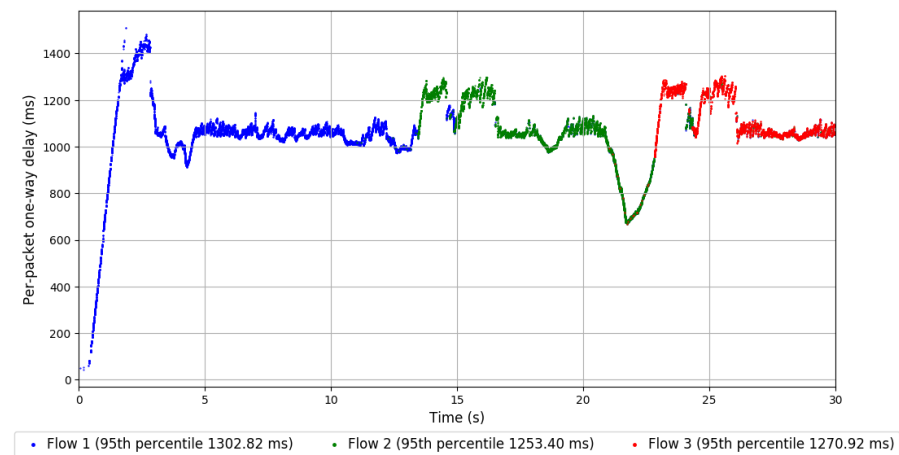
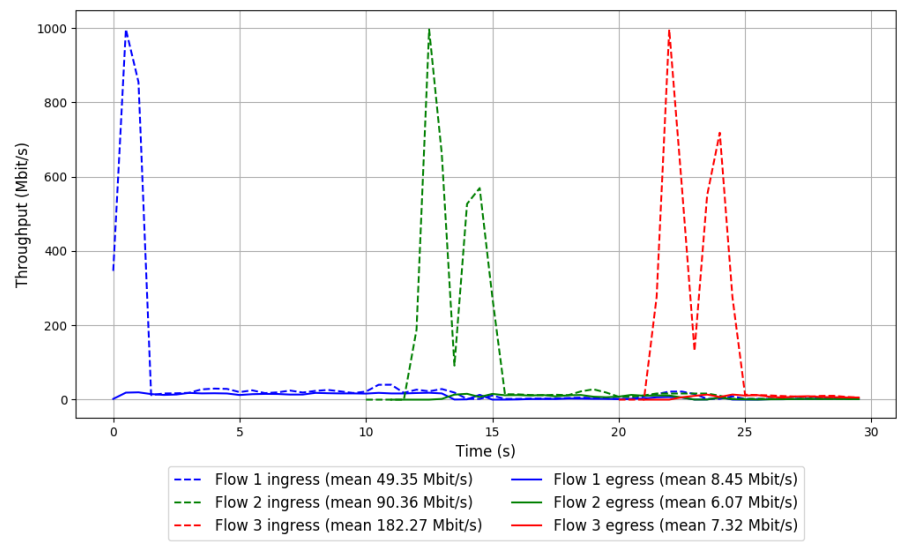


Run 3: Statistics of FillP

Start at: 2018-03-20 10:05:28
End at: 2018-03-20 10:05:58
Local clock offset: -6.4 ms
Remote clock offset: -2.441 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.48 Mbit/s
95th percentile per-packet one-way delay: 1270.424 ms
Loss rate: 91.49%
-- Flow 1:
Average throughput: 8.45 Mbit/s
95th percentile per-packet one-way delay: 1302.819 ms
Loss rate: 82.90%
-- Flow 2:
Average throughput: 6.07 Mbit/s
95th percentile per-packet one-way delay: 1253.399 ms
Loss rate: 93.62%
-- Flow 3:
Average throughput: 7.32 Mbit/s
95th percentile per-packet one-way delay: 1270.923 ms
Loss rate: 96.38%

Run 3: Report of FillP — Data Link



Run 1: Statistics of Indigo-1-32

Start at: 2018-03-20 09:16:08

End at: 2018-03-20 09:16:38

Local clock offset: -2.732 ms

Remote clock offset: -4.18 ms

Below is generated by plot.py at 2018-03-20 10:16:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 4.45 Mbit/s

95th percentile per-packet one-way delay: 80.480 ms

Loss rate: 0.13%

-- Flow 1:

Average throughput: 1.90 Mbit/s

95th percentile per-packet one-way delay: 74.234 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 3.01 Mbit/s

95th percentile per-packet one-way delay: 88.691 ms

Loss rate: 0.04%

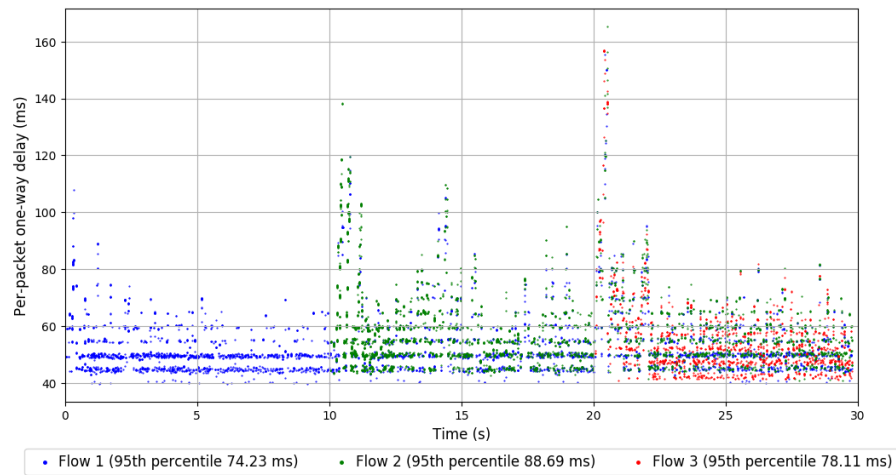
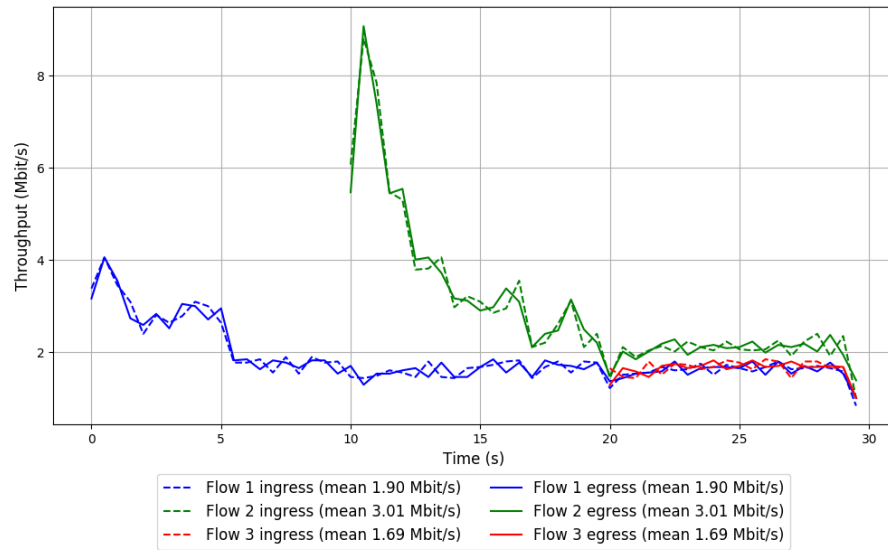
-- Flow 3:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 78.114 ms

Loss rate: 0.58%

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

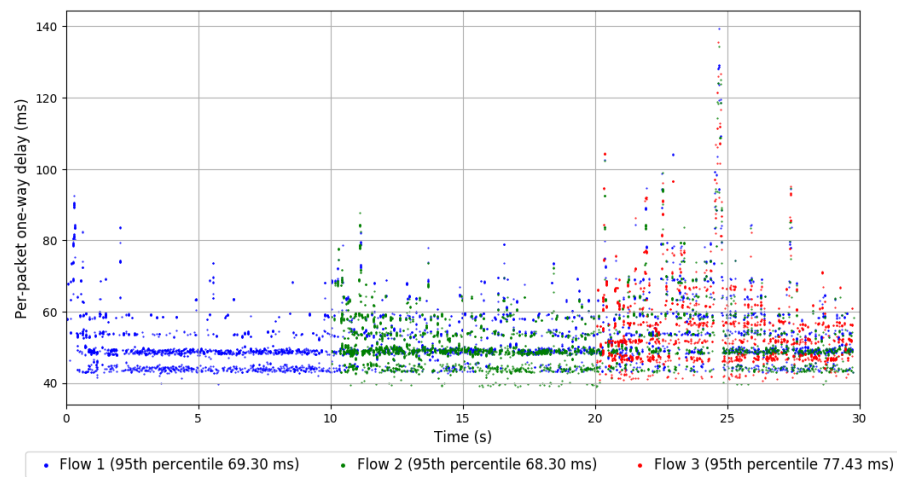
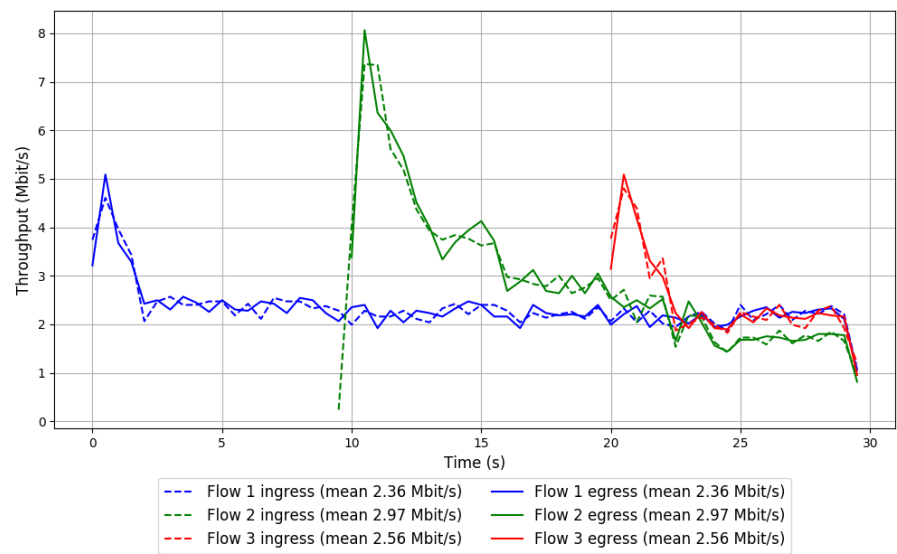


Run 2: Statistics of Indigo-1-32

Start at: 2018-03-20 09:36:16
End at: 2018-03-20 09:36:46
Local clock offset: -0.254 ms
Remote clock offset: -7.373 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.16 Mbit/s
95th percentile per-packet one-way delay: 69.475 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 69.297 ms
Loss rate: 0.19%
-- Flow 2:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 68.297 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 2.56 Mbit/s
95th percentile per-packet one-way delay: 77.430 ms
Loss rate: 0.48%

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



Run 3: Statistics of Indigo-1-32

Start at: 2018-03-20 09:56:21

End at: 2018-03-20 09:56:51

Local clock offset: -6.749 ms

Remote clock offset: -2.65 ms

Below is generated by plot.py at 2018-03-20 10:16:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.28 Mbit/s

95th percentile per-packet one-way delay: 102.724 ms

Loss rate: 0.24%

-- Flow 1:

Average throughput: 3.44 Mbit/s

95th percentile per-packet one-way delay: 97.651 ms

Loss rate: 0.18%

-- Flow 2:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 106.435 ms

Loss rate: 0.32%

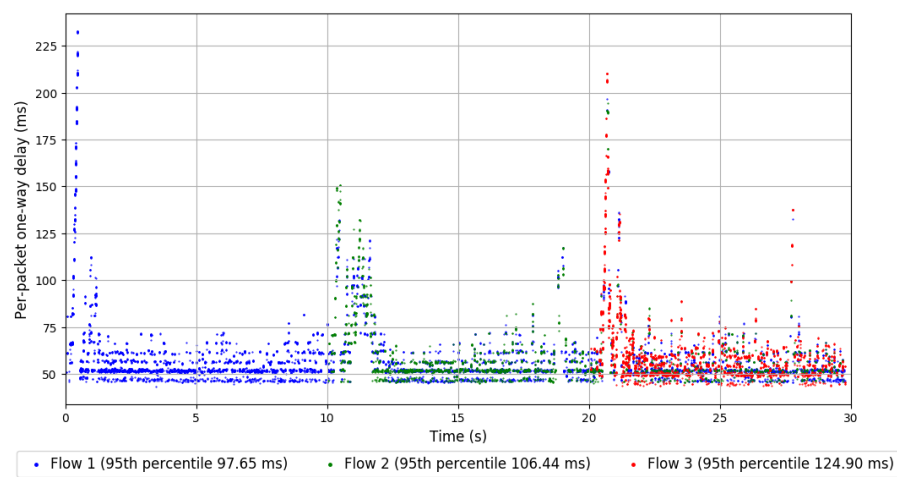
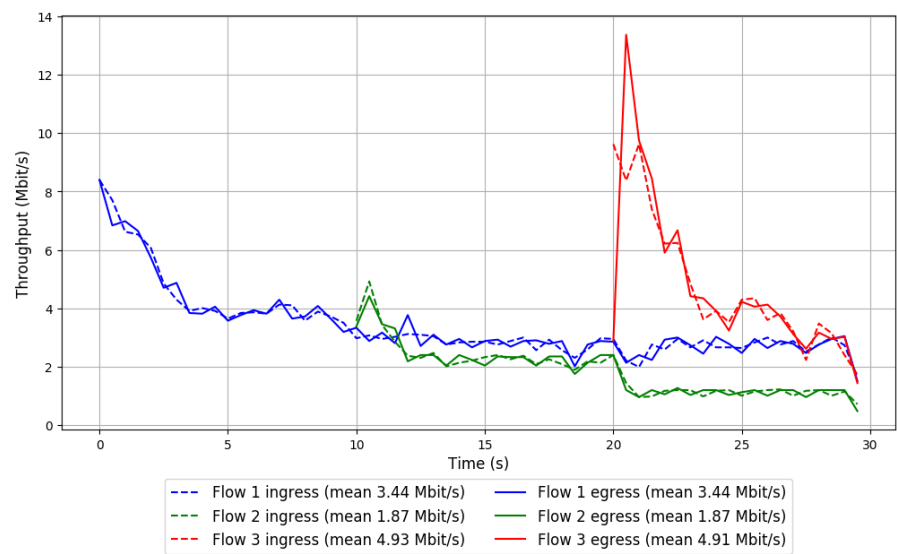
-- Flow 3:

Average throughput: 4.91 Mbit/s

95th percentile per-packet one-way delay: 124.904 ms

Loss rate: 0.30%

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

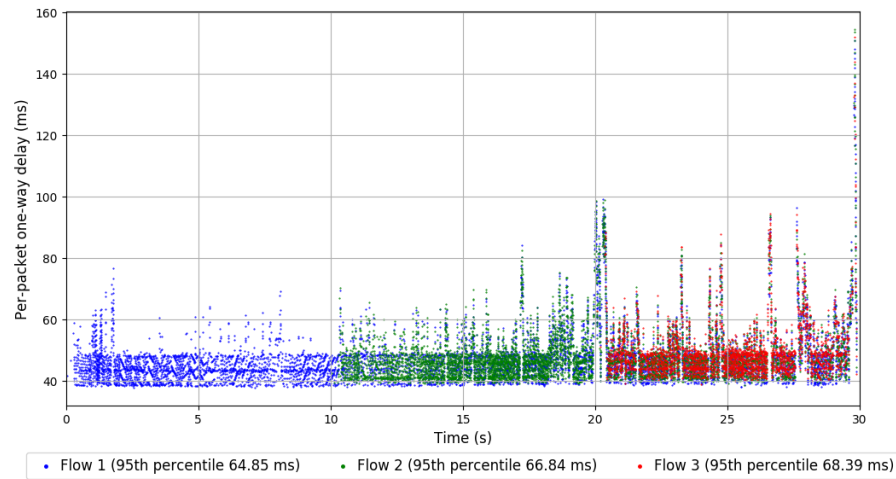
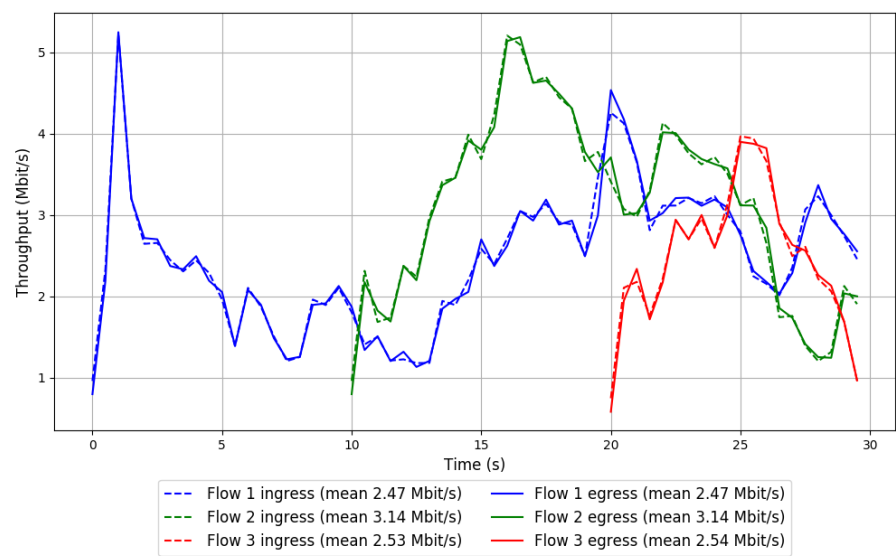


Run 1: Statistics of Vivace-latency

Start at: 2018-03-20 09:29:34
End at: 2018-03-20 09:30:04
Local clock offset: 1.045 ms
Remote clock offset: -6.039 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.39 Mbit/s
95th percentile per-packet one-way delay: 66.139 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 64.849 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 3.14 Mbit/s
95th percentile per-packet one-way delay: 66.836 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 2.54 Mbit/s
95th percentile per-packet one-way delay: 68.389 ms
Loss rate: 0.28%

Run 1: Report of Vivace-latency — Data Link

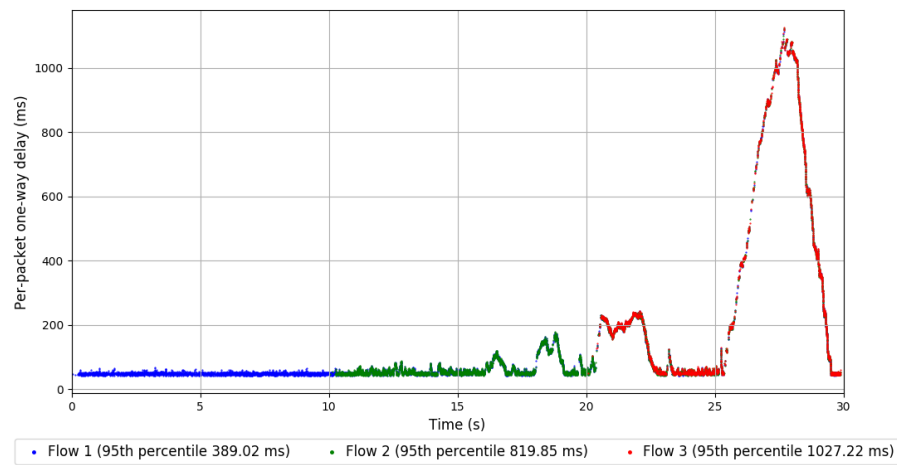
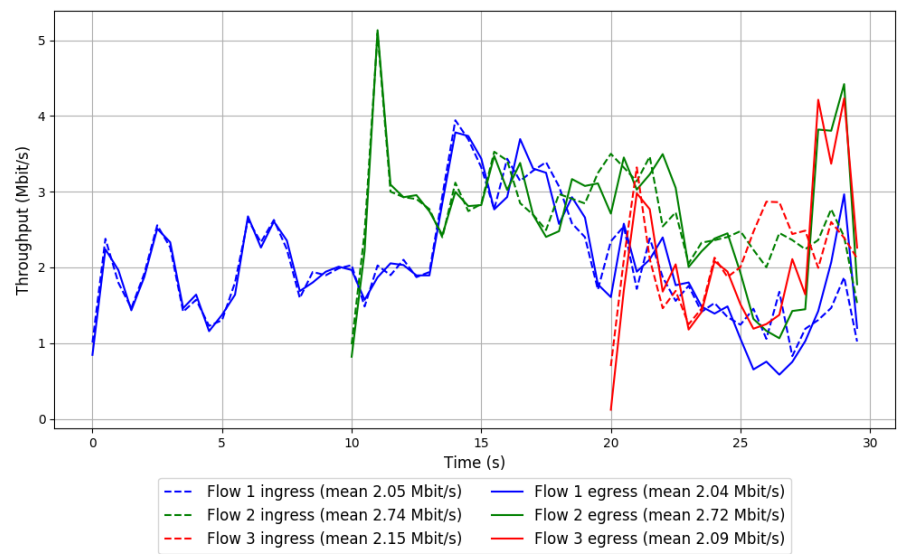


Run 2: Statistics of Vivace-latency

Start at: 2018-03-20 09:49:39
End at: 2018-03-20 09:50:09
Local clock offset: -10.367 ms
Remote clock offset: -10.563 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.54 Mbit/s
95th percentile per-packet one-way delay: 833.671 ms
Loss rate: 1.06%
-- Flow 1:
Average throughput: 2.04 Mbit/s
95th percentile per-packet one-way delay: 389.024 ms
Loss rate: 0.59%
-- Flow 2:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 819.847 ms
Loss rate: 0.85%
-- Flow 3:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 1027.224 ms
Loss rate: 2.99%

Run 2: Report of Vivace-latency — Data Link

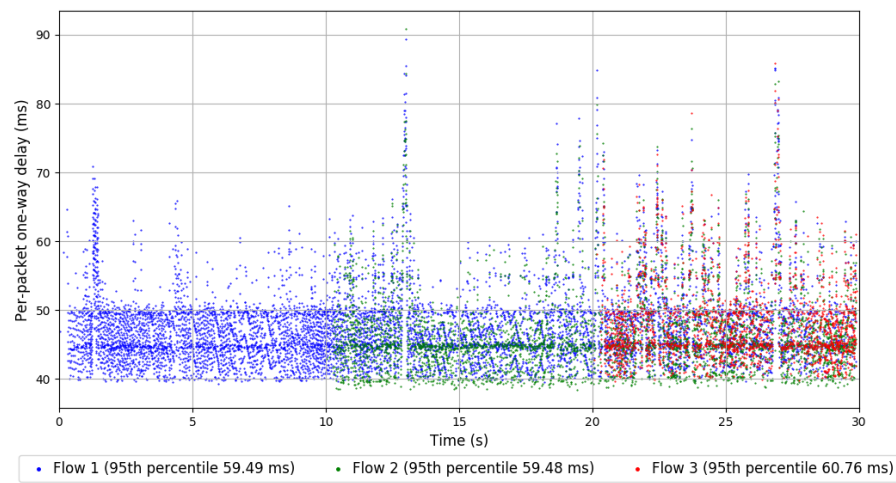
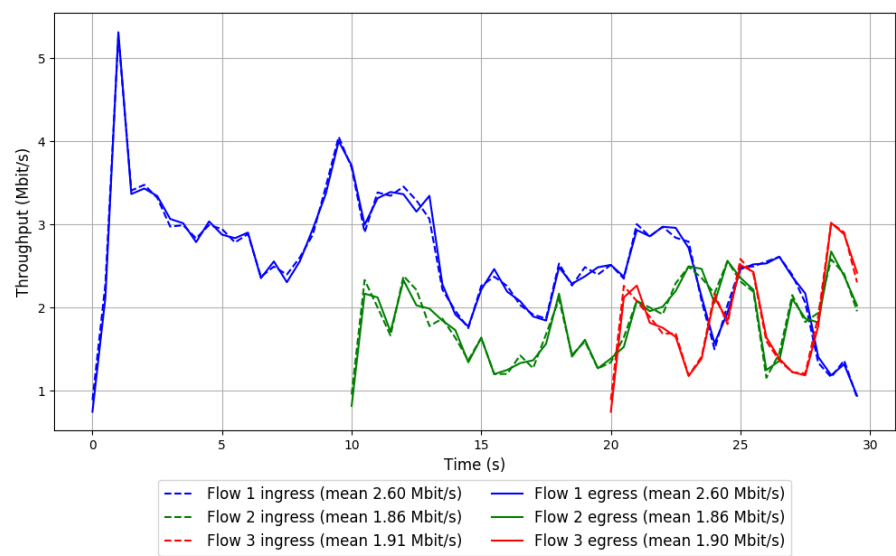


Run 3: Statistics of Vivace-latency

Start at: 2018-03-20 10:10:00
End at: 2018-03-20 10:10:30
Local clock offset: -4.64 ms
Remote clock offset: -2.9 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 59.696 ms
Loss rate: 0.16%
-- Flow 1:
Average throughput: 2.60 Mbit/s
95th percentile per-packet one-way delay: 59.490 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 59.485 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 60.763 ms
Loss rate: 0.50%

Run 3: Report of Vivace-latency — Data Link

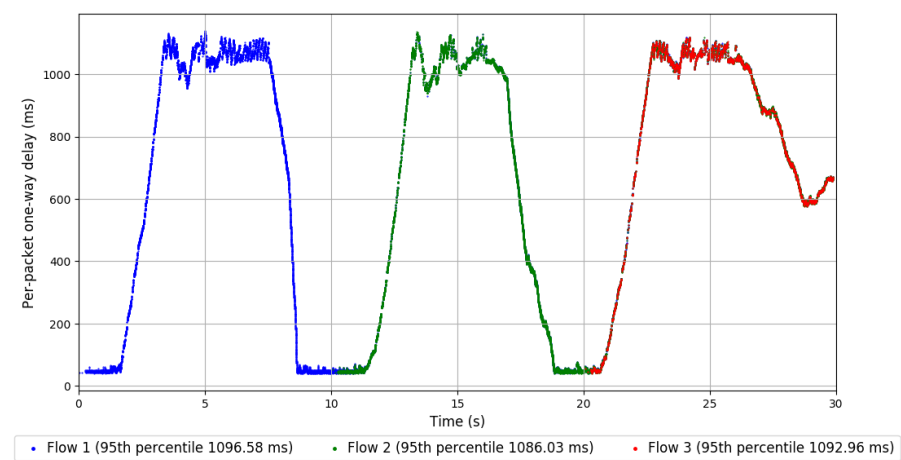
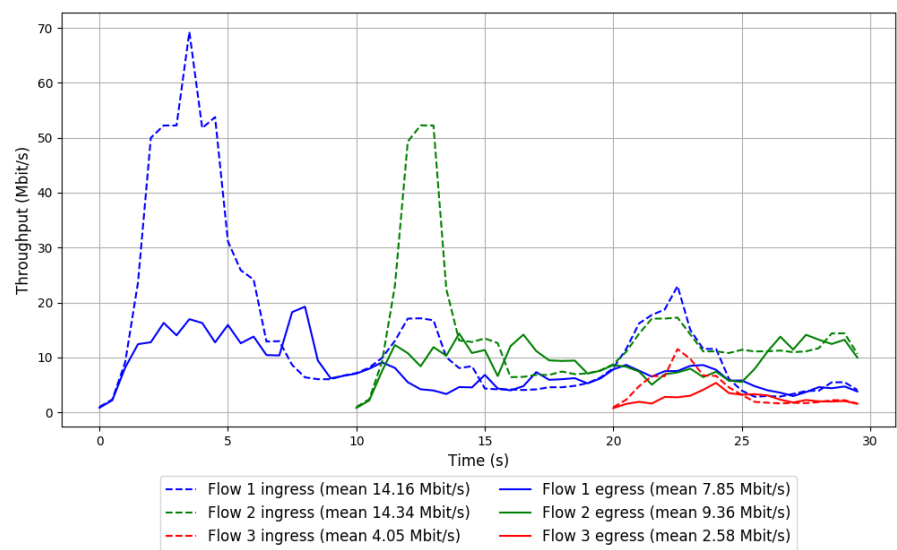


Run 1: Statistics of Vivace-loss

Start at: 2018-03-20 09:26:14
End at: 2018-03-20 09:26:44
Local clock offset: -0.552 ms
Remote clock offset: -5.067 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 14.91 Mbit/s
95th percentile per-packet one-way delay: 1092.861 ms
Loss rate: 40.49%
-- Flow 1:
Average throughput: 7.85 Mbit/s
95th percentile per-packet one-way delay: 1096.579 ms
Loss rate: 44.62%
-- Flow 2:
Average throughput: 9.36 Mbit/s
95th percentile per-packet one-way delay: 1086.033 ms
Loss rate: 34.90%
-- Flow 3:
Average throughput: 2.58 Mbit/s
95th percentile per-packet one-way delay: 1092.964 ms
Loss rate: 36.53%

Run 1: Report of Vivace-loss — Data Link

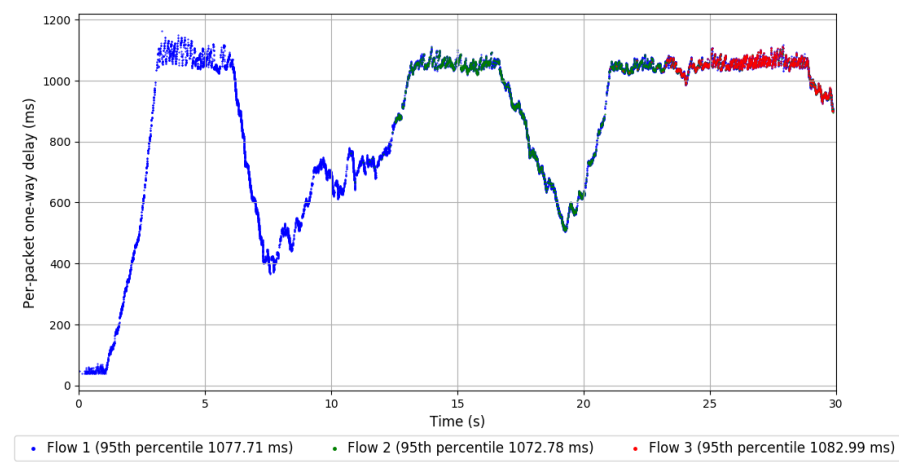
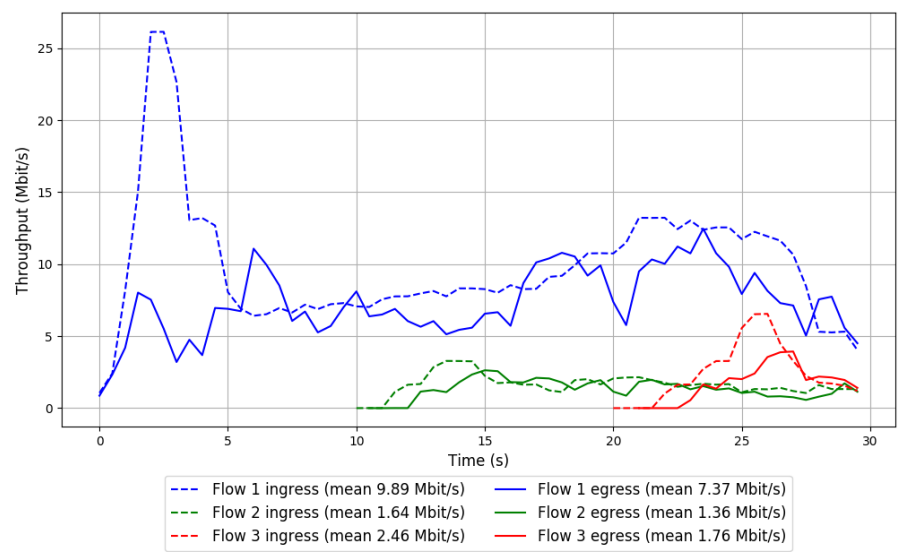


Run 2: Statistics of Vivace-loss

Start at: 2018-03-20 09:46:21
End at: 2018-03-20 09:46:51
Local clock offset: 0.842 ms
Remote clock offset: -7.239 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.76 Mbit/s
95th percentile per-packet one-way delay: 1077.869 ms
Loss rate: 25.82%
-- Flow 1:
Average throughput: 7.37 Mbit/s
95th percentile per-packet one-way delay: 1077.713 ms
Loss rate: 25.58%
-- Flow 2:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 1072.780 ms
Loss rate: 20.54%
-- Flow 3:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 1082.992 ms
Loss rate: 35.80%

Run 2: Report of Vivace-loss — Data Link

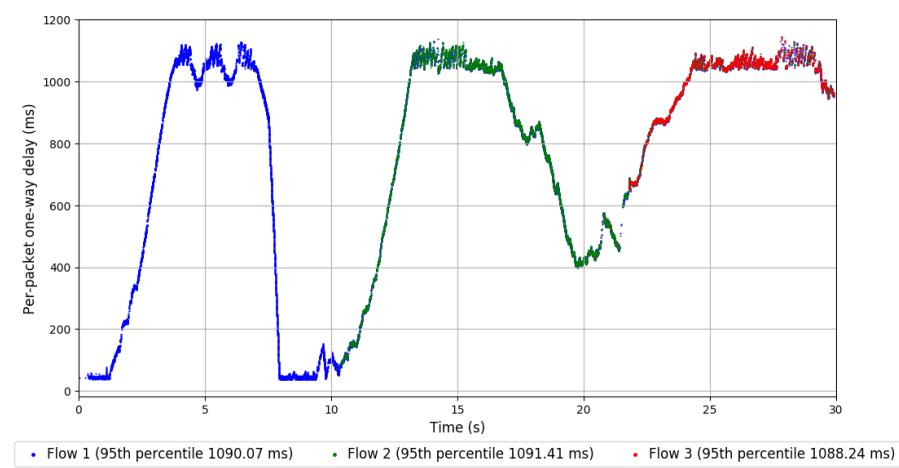
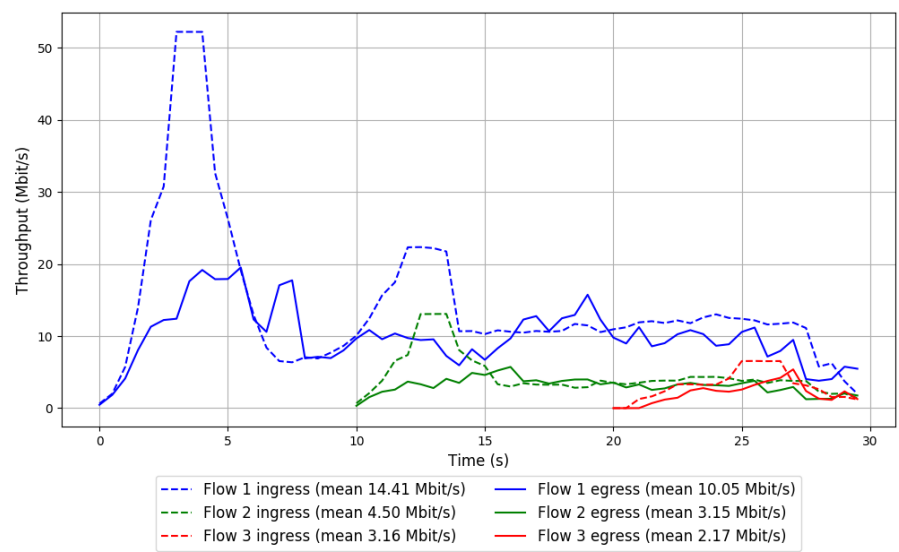


Run 3: Statistics of Vivace-loss

Start at: 2018-03-20 10:06:39
End at: 2018-03-20 10:07:09
Local clock offset: -4.281 ms
Remote clock offset: -3.189 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 12.82 Mbit/s
95th percentile per-packet one-way delay: 1090.254 ms
Loss rate: 30.55%
-- Flow 1:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 1090.071 ms
Loss rate: 30.32%
-- Flow 2:
Average throughput: 3.15 Mbit/s
95th percentile per-packet one-way delay: 1091.410 ms
Loss rate: 30.37%
-- Flow 3:
Average throughput: 2.17 Mbit/s
95th percentile per-packet one-way delay: 1088.237 ms
Loss rate: 34.26%

Run 3: Report of Vivace-loss — Data Link

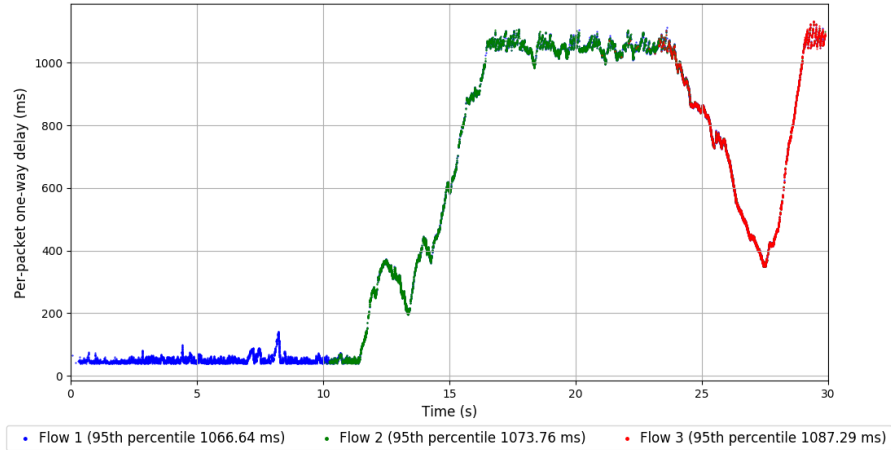
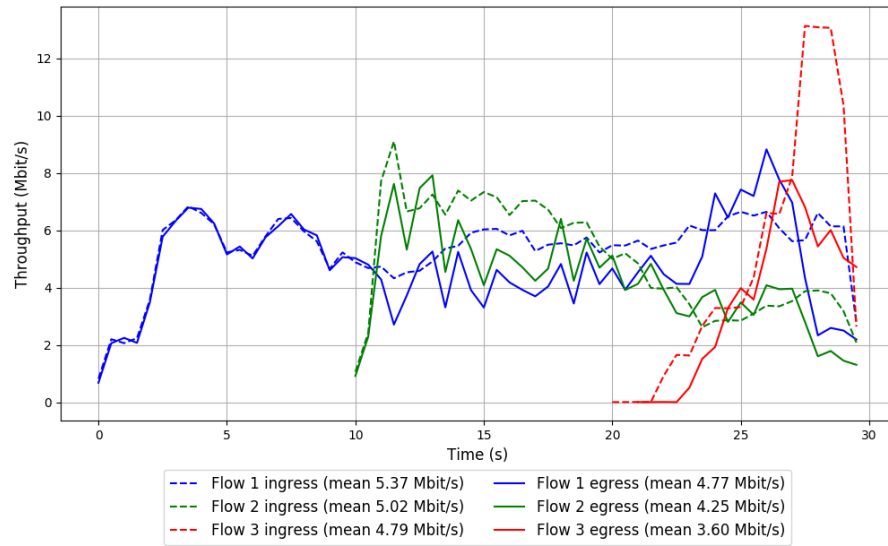


Run 1: Statistics of Vivace-LTE

Start at: 2018-03-20 09:30:41
End at: 2018-03-20 09:31:11
Local clock offset: 0.702 ms
Remote clock offset: -5.884 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.66 Mbit/s
95th percentile per-packet one-way delay: 1071.721 ms
Loss rate: 16.00%
-- Flow 1:
Average throughput: 4.77 Mbit/s
95th percentile per-packet one-way delay: 1066.645 ms
Loss rate: 11.43%
-- Flow 2:
Average throughput: 4.25 Mbit/s
95th percentile per-packet one-way delay: 1073.755 ms
Loss rate: 15.49%
-- Flow 3:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 1087.290 ms
Loss rate: 32.63%

Run 1: Report of Vivace-LTE — Data Link

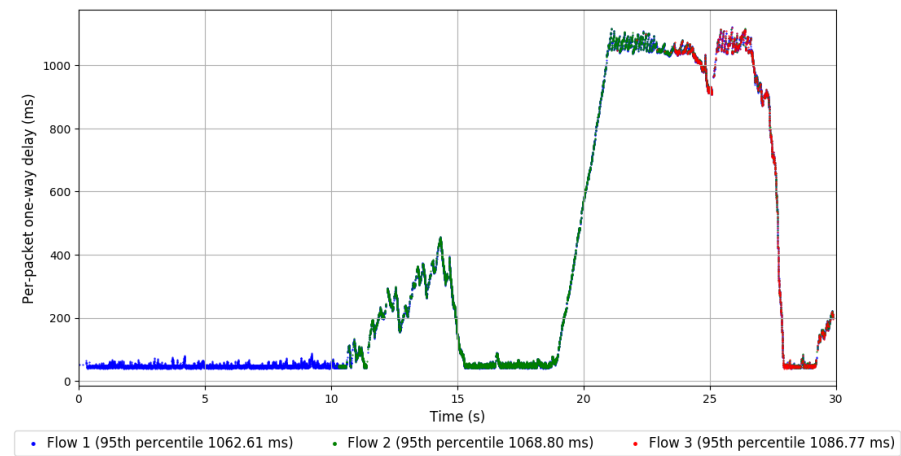
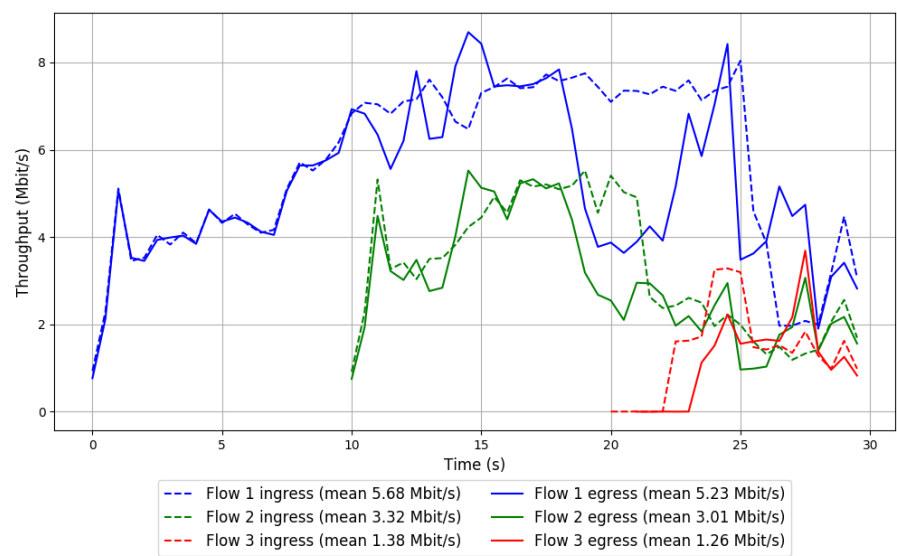


Run 2: Statistics of Vivace-LTE

Start at: 2018-03-20 09:50:45
End at: 2018-03-20 09:51:15
Local clock offset: -3.57 ms
Remote clock offset: -5.681 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.59 Mbit/s
95th percentile per-packet one-way delay: 1065.925 ms
Loss rate: 9.23%
-- Flow 1:
Average throughput: 5.23 Mbit/s
95th percentile per-packet one-way delay: 1062.605 ms
Loss rate: 8.17%
-- Flow 2:
Average throughput: 3.01 Mbit/s
95th percentile per-packet one-way delay: 1068.797 ms
Loss rate: 9.64%
-- Flow 3:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 1086.772 ms
Loss rate: 20.58%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-03-20 10:11:07
End at: 2018-03-20 10:11:37
Local clock offset: -5.623 ms
Remote clock offset: -2.992 ms

Below is generated by plot.py at 2018-03-20 10:16:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 13.90 Mbit/s
95th percentile per-packet one-way delay: 813.470 ms
Loss rate: 1.59%
-- Flow 1:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 862.932 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 4.52 Mbit/s
95th percentile per-packet one-way delay: 701.141 ms
Loss rate: 1.40%
-- Flow 3:
Average throughput: 2.36 Mbit/s
95th percentile per-packet one-way delay: 545.833 ms
Loss rate: 4.21%

Run 3: Report of Vivace-LTE — Data Link

