

Pantheon Report

Generated at 2018-02-19 20:41:37 (UTC).

Data path: India ppp0 (*remote*) → AWS India 1 Ethernet (*local*).

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).

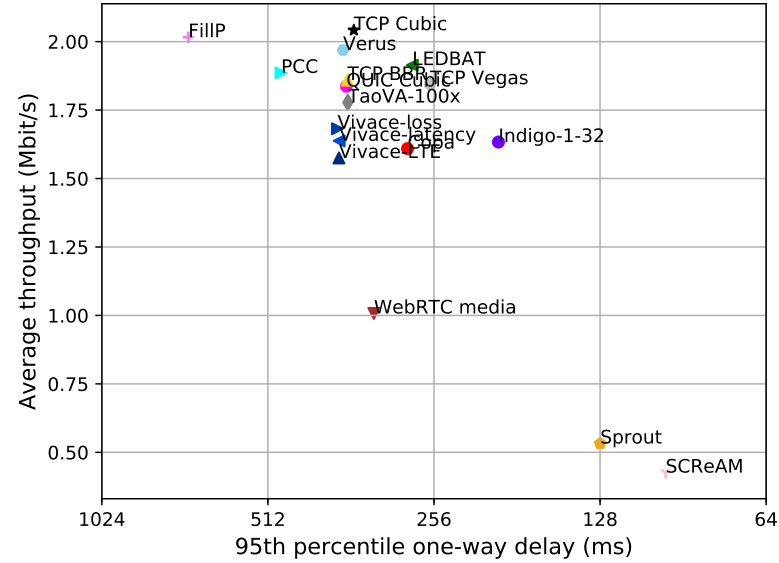
Tested BBR with qdisc of Fair Queuing (**fq**), and other schemes with the default Linux qdisc (**pfifo_fast**).

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

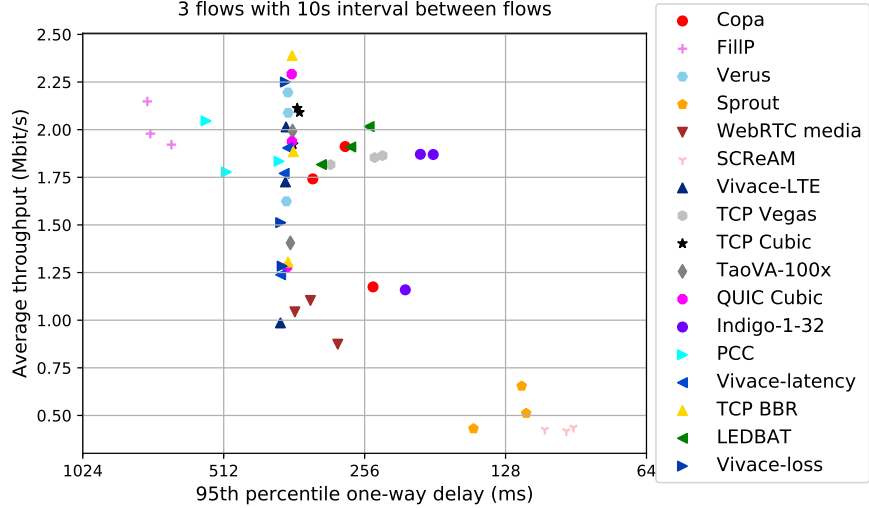
Git summary:

```
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 @ 2601c92e4aa9d58d38dc4dfe0ecd90c077e64d
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 India ppp0 to AWS India 1 Ethernet, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



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



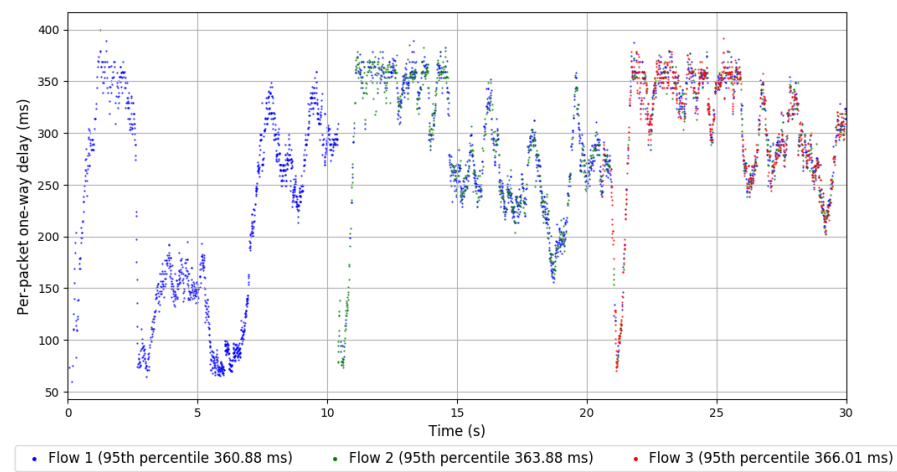
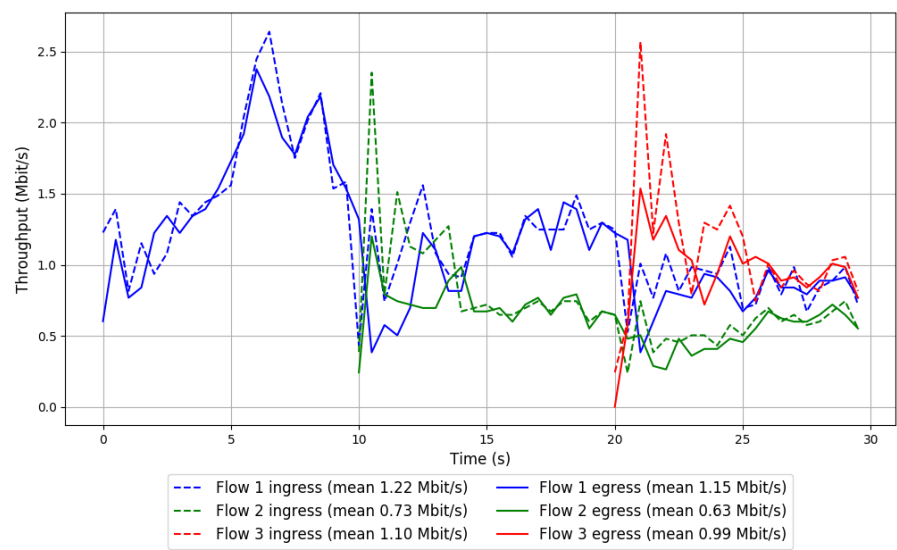
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	1.11	0.67	0.96	363.73	368.89	370.81	6.73	14.35	18.39
TCP Cubic	3	1.34	0.72	0.72	356.58	360.59	358.94	2.25	3.69	6.06
LEDBAT	3	1.01	1.03	0.71	262.11	290.15	280.32	0.06	0.67	3.15
PCC	3	1.10	0.84	0.77	379.88	585.19	741.97	51.25	77.01	91.97
QUIC Cubic	3	1.19	0.65	0.67	367.33	370.03	372.94	6.79	12.74	16.52
SCReAM	3	0.21	0.22	0.21	94.48	95.15	97.33	0.26	0.35	0.65
WebRTC media	3	0.50	0.35	0.16	323.62	332.33	330.07	2.73	4.12	8.76
Sprout	3	0.28	0.25	0.26	121.95	128.51	147.64	0.31	0.84	1.26
TaoVA-100x	3	1.21	0.75	0.25	363.25	371.01	384.70	12.02	36.42	67.39
TCP Vegas	3	1.02	0.76	0.96	243.71	265.46	265.46	0.46	0.68	1.10
Verus	3	1.70	0.34	0.21	373.11	378.47	376.18	24.08	67.85	42.25
Copa	3	0.80	0.83	0.79	221.20	280.97	315.07	1.12	3.29	6.74
FillP	3	1.21	0.92	0.69	394.60	751.68	794.61	96.24	98.15	99.32
Indigo-1-32	3	0.77	0.87	0.91	186.63	199.23	209.58	0.76	1.62	1.69
Vivace-latency	3	0.96	0.74	0.61	378.65	381.82	384.80	33.70	46.63	56.32
Vivace-loss	3	0.98	0.78	0.60	380.76	384.54	385.03	35.71	45.00	52.49
Vivace-LTE	3	0.93	0.77	0.44	378.28	382.04	373.52	34.52	45.80	62.19

Run 1: Statistics of TCP BBR

Start at: 2018-02-19 18:42:13
End at: 2018-02-19 18:42:43
Local clock offset: -7.471 ms
Remote clock offset: -22.976 ms

Below is generated by plot.py at 2018-02-19 20:40:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 363.530 ms
Loss rate: 9.31%
-- Flow 1:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 360.876 ms
Loss rate: 6.04%
-- Flow 2:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 363.877 ms
Loss rate: 14.50%
-- Flow 3:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 366.013 ms
Loss rate: 13.35%

Run 1: Report of TCP BBR — Data Link

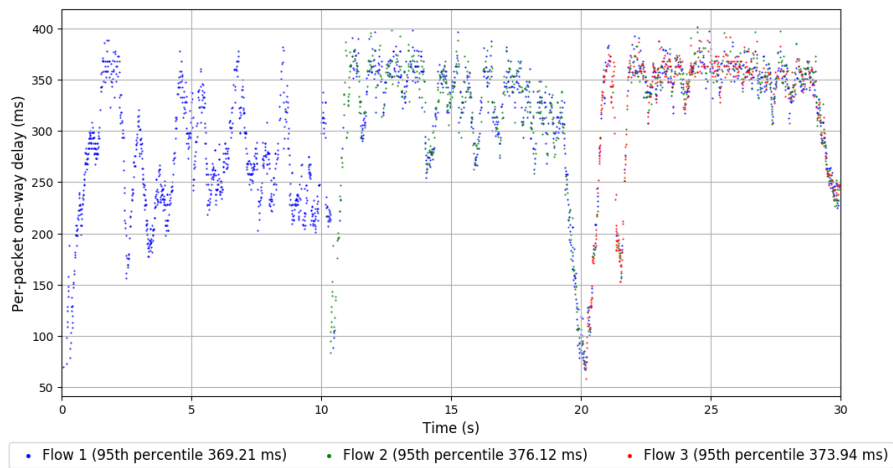
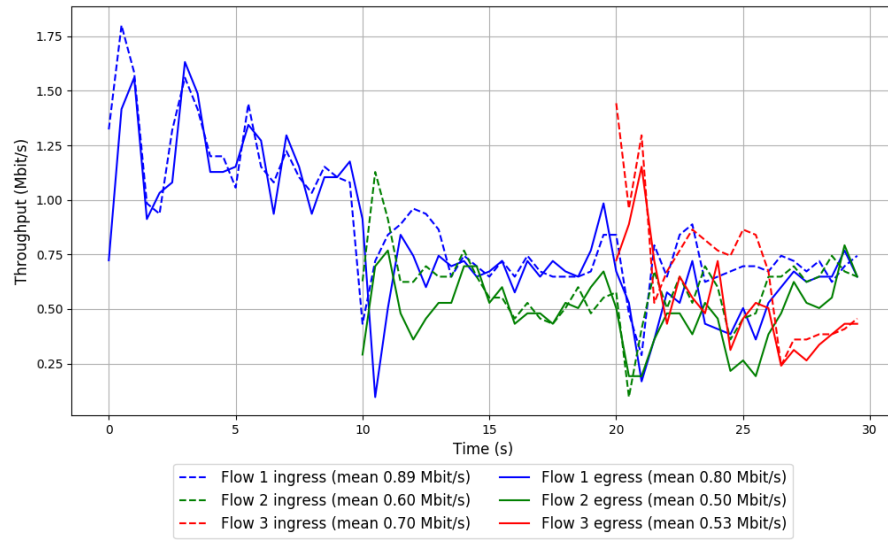


Run 2: Statistics of TCP BBR

Start at: 2018-02-19 19:02:16
End at: 2018-02-19 19:02:46
Local clock offset: -6.771 ms
Remote clock offset: -17.584 ms

Below is generated by plot.py at 2018-02-19 20:40:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 373.184 ms
Loss rate: 13.97%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 369.212 ms
Loss rate: 9.59%
-- Flow 2:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 376.121 ms
Loss rate: 17.96%
-- Flow 3:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 373.939 ms
Loss rate: 23.95%

Run 2: Report of TCP BBR — Data Link

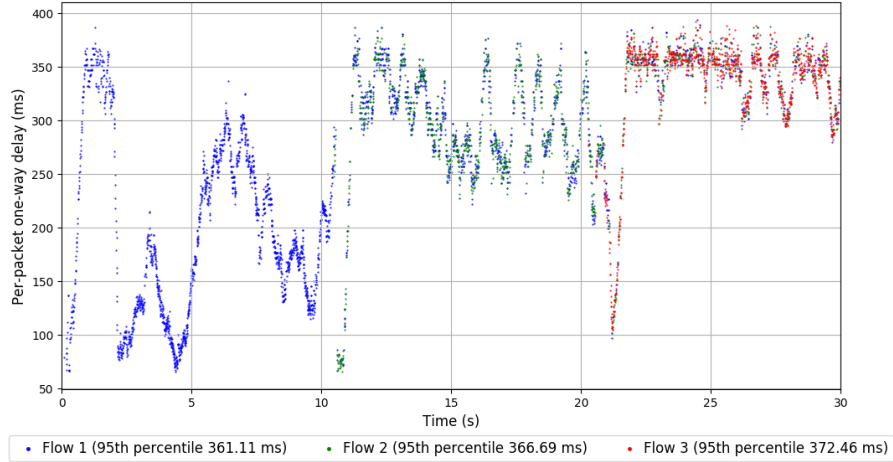
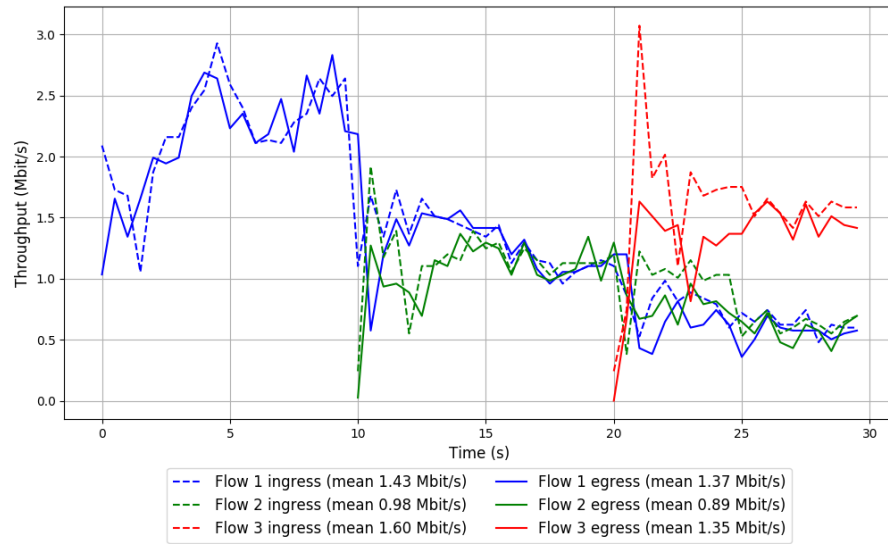


Run 3: Statistics of TCP BBR

Start at: 2018-02-19 19:22:16
End at: 2018-02-19 19:22:46
Local clock offset: -6.866 ms
Remote clock offset: -15.627 ms

Below is generated by plot.py at 2018-02-19 20:40:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 365.653 ms
Loss rate: 8.77%
-- Flow 1:
Average throughput: 1.37 Mbit/s
95th percentile per-packet one-way delay: 361.107 ms
Loss rate: 4.55%
-- Flow 2:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 366.686 ms
Loss rate: 10.60%
-- Flow 3:
Average throughput: 1.35 Mbit/s
95th percentile per-packet one-way delay: 372.464 ms
Loss rate: 17.86%

Run 3: Report of TCP BBR — Data Link

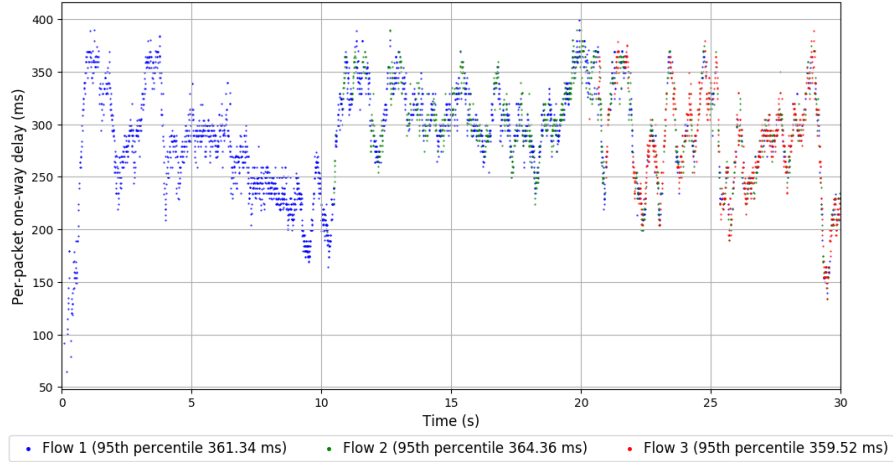
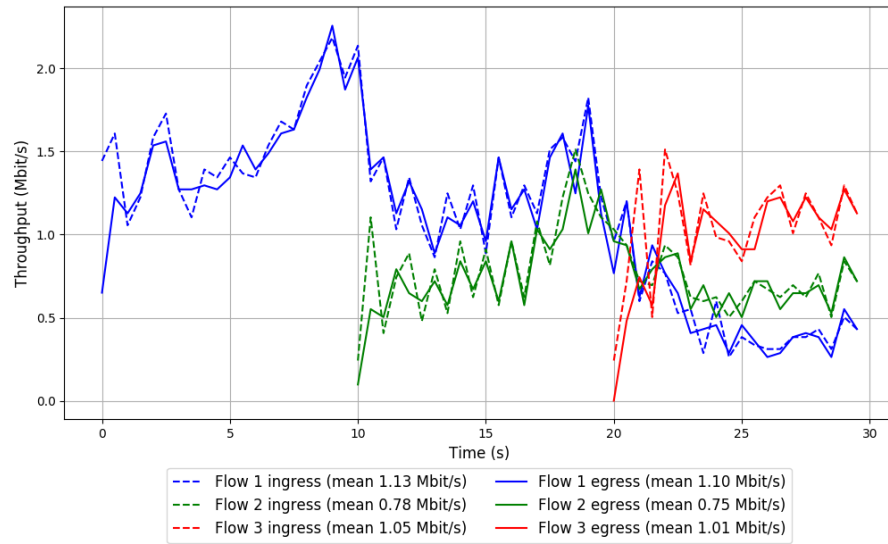


Run 1: Statistics of TCP Cubic

Start at: 2018-02-19 18:56:45
End at: 2018-02-19 18:57:15
Local clock offset: -5.718 ms
Remote clock offset: -22.257 ms

Below is generated by plot.py at 2018-02-19 20:40:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 363.884 ms
Loss rate: 3.84%
-- Flow 1:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 361.338 ms
Loss rate: 2.81%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 364.363 ms
Loss rate: 4.47%
-- Flow 3:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 359.524 ms
Loss rate: 6.23%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-02-19 19:16:44

End at: 2018-02-19 19:17:14

Local clock offset: -5.342 ms

Remote clock offset: -17.1 ms

Below is generated by plot.py at 2018-02-19 20:40:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 356.609 ms

Loss rate: 2.86%

-- Flow 1:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 355.853 ms

Loss rate: 2.09%

-- Flow 2:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 360.674 ms

Loss rate: 3.83%

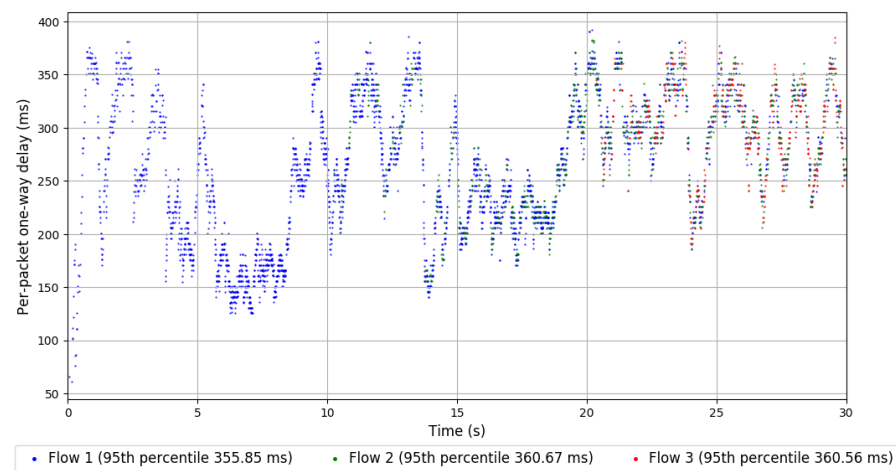
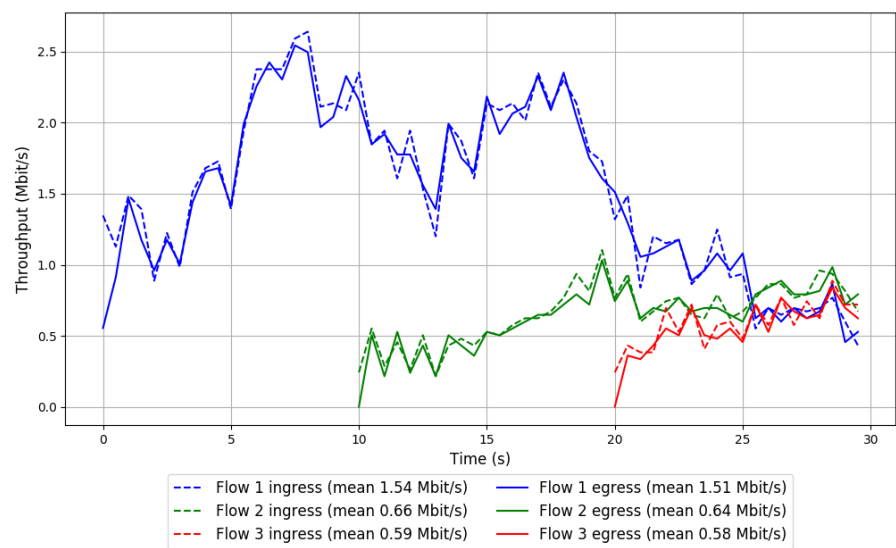
-- Flow 3:

Average throughput: 0.58 Mbit/s

95th percentile per-packet one-way delay: 360.560 ms

Loss rate: 6.72%

Run 2: Report of TCP Cubic — Data Link

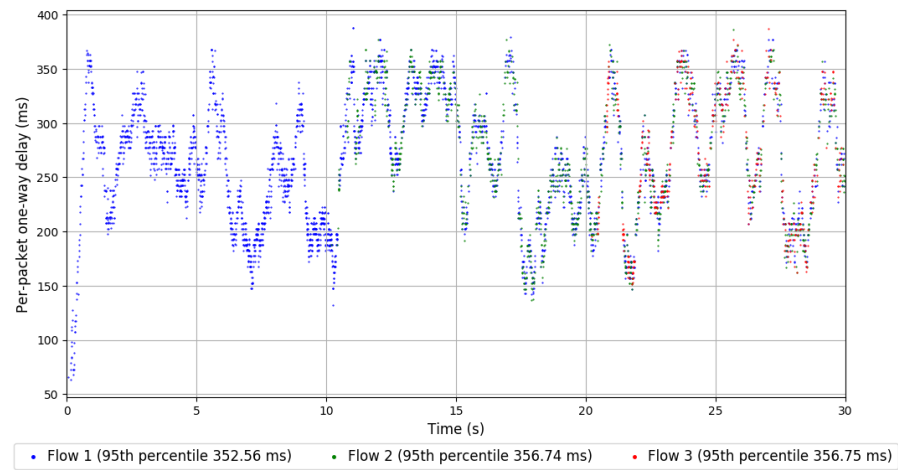
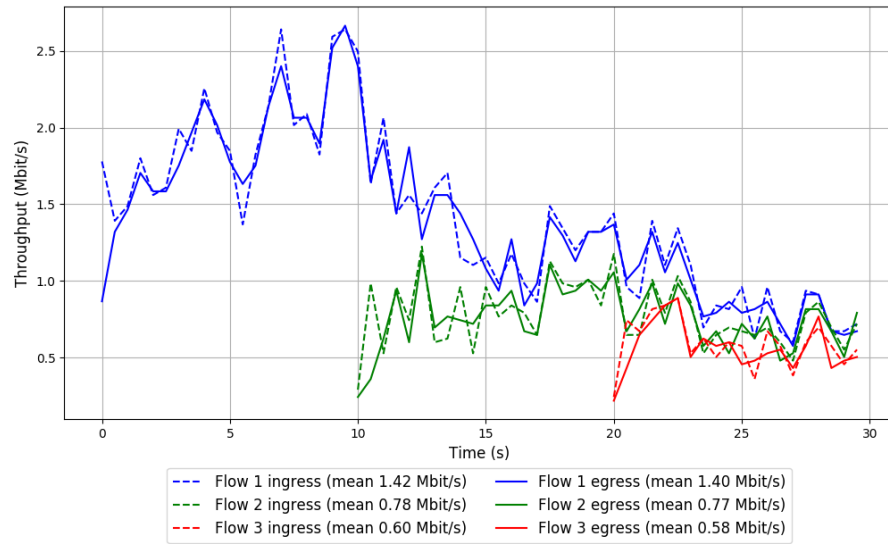


Run 3: Statistics of TCP Cubic

Start at: 2018-02-19 19:36:40
End at: 2018-02-19 19:37:10
Local clock offset: -4.448 ms
Remote clock offset: -15.104 ms

Below is generated by plot.py at 2018-02-19 20:40:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 352.745 ms
Loss rate: 2.38%
-- Flow 1:
Average throughput: 1.40 Mbit/s
95th percentile per-packet one-way delay: 352.558 ms
Loss rate: 1.84%
-- Flow 2:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 356.739 ms
Loss rate: 2.78%
-- Flow 3:
Average throughput: 0.58 Mbit/s
95th percentile per-packet one-way delay: 356.751 ms
Loss rate: 5.24%

Run 3: Report of TCP Cubic — Data Link

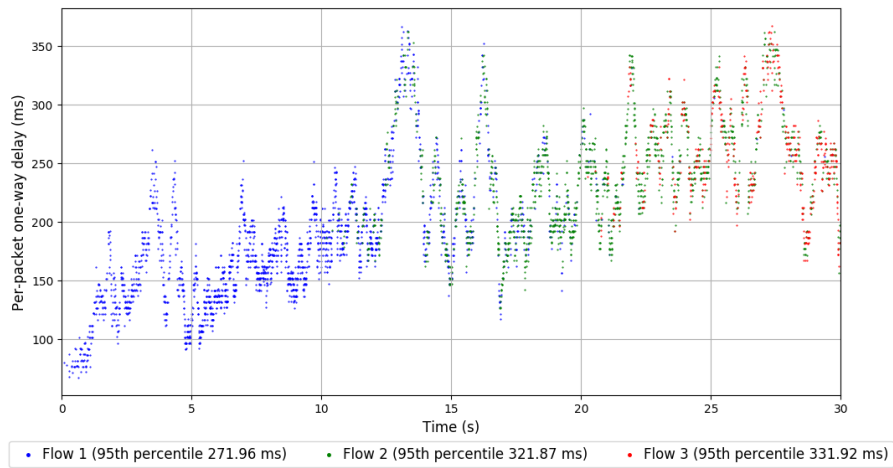
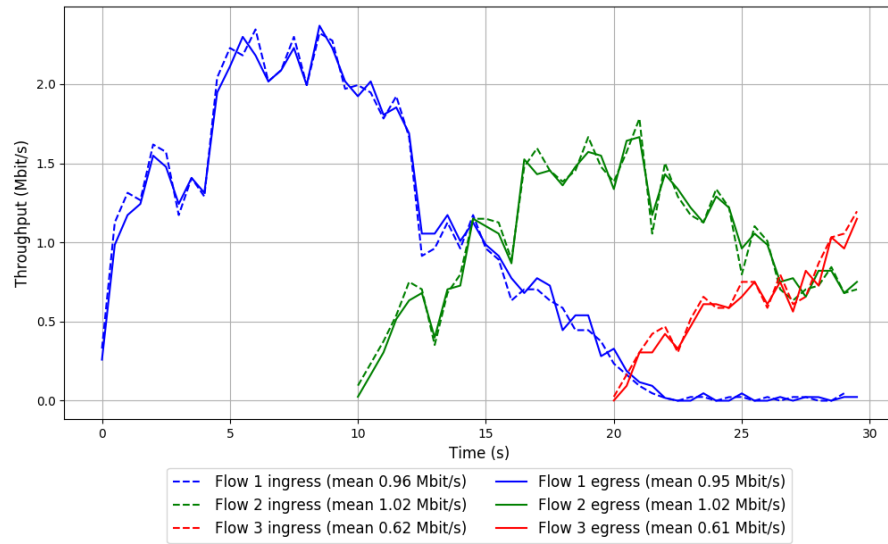


```
Run 1: Statistics of LEDBAT

Start at: 2018-02-19 18:54:33
End at: 2018-02-19 18:55:03
Local clock offset: -5.927 ms
Remote clock offset: -20.953 ms

# Below is generated by plot.py at 2018-02-19 20:40:50
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 316.556 ms
Loss rate: 0.81%
-- Flow 1:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 271.957 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 321.870 ms
Loss rate: 0.75%
-- Flow 3:
Average throughput: 0.61 Mbit/s
95th percentile per-packet one-way delay: 331.918 ms
Loss rate: 4.75%
```


Run 1: Report of LEDBAT — Data Link

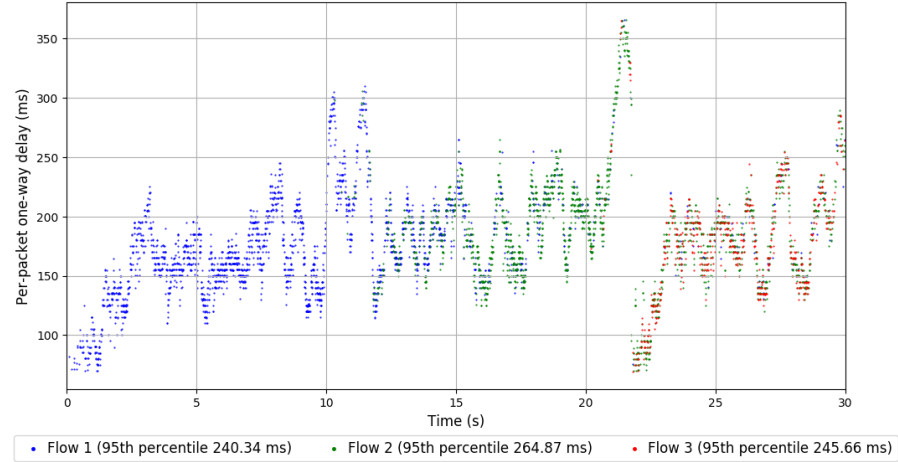
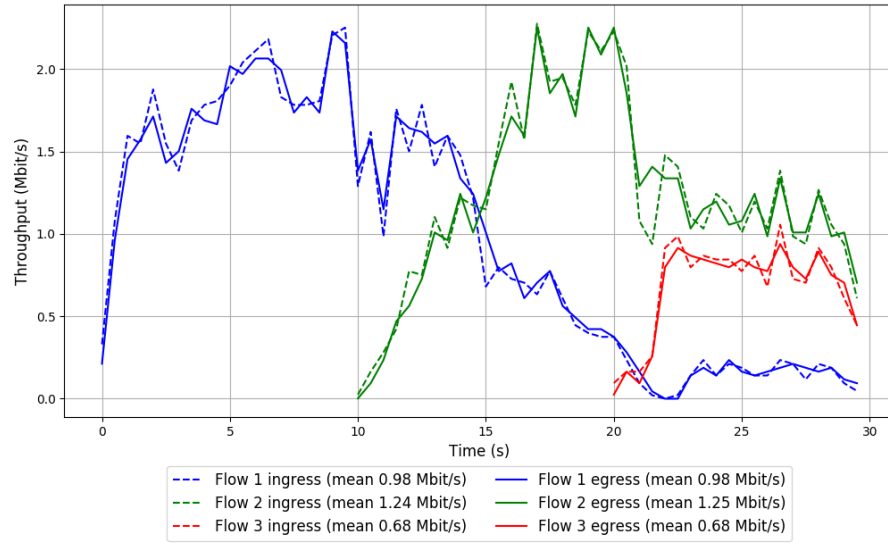


Run 2: Statistics of LEDBAT

Start at: 2018-02-19 19:14:32
End at: 2018-02-19 19:15:02
Local clock offset: -6.209 ms
Remote clock offset: -16.624 ms

Below is generated by plot.py at 2018-02-19 20:40:50
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.02 Mbit/s
95th percentile per-packet one-way delay: 250.372 ms
Loss rate: 0.60%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 240.335 ms
Loss rate: 0.04%
-- Flow 2:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 264.868 ms
Loss rate: 0.90%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 245.662 ms
Loss rate: 1.91%

Run 2: Report of LEDBAT — Data Link

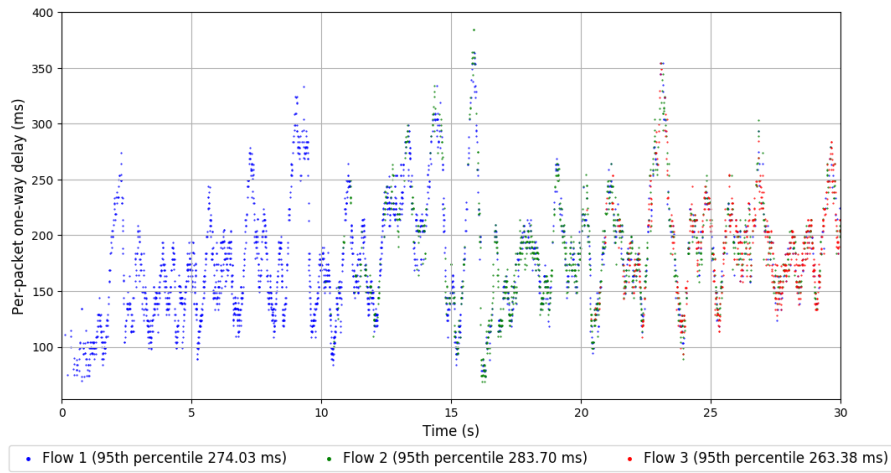
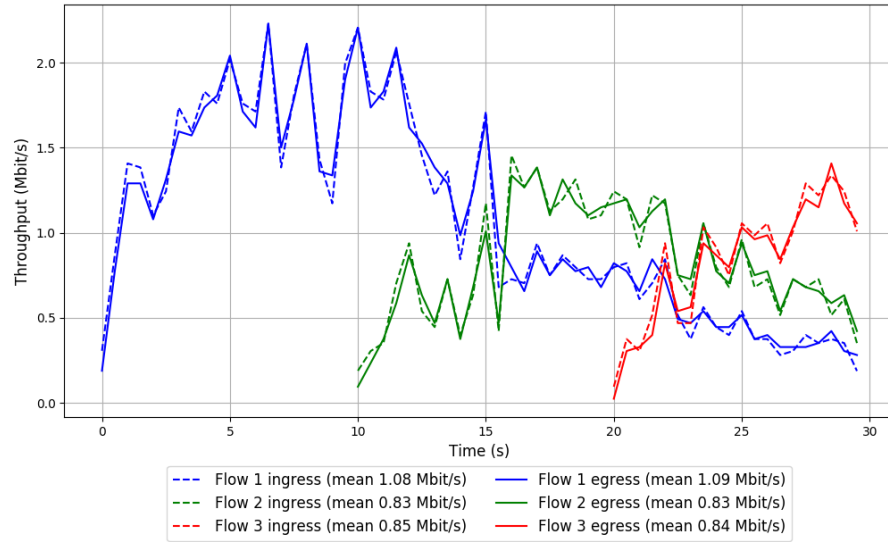


Run 3: Statistics of LEDBAT

Start at: 2018-02-19 19:34:28
End at: 2018-02-19 19:34:58
Local clock offset: -4.954 ms
Remote clock offset: -15.552 ms

Below is generated by plot.py at 2018-02-19 20:40:52
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 274.031 ms
Loss rate: 0.59%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 274.031 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 283.700 ms
Loss rate: 0.36%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 263.381 ms
Loss rate: 2.78%

Run 3: Report of LEDBAT — Data Link

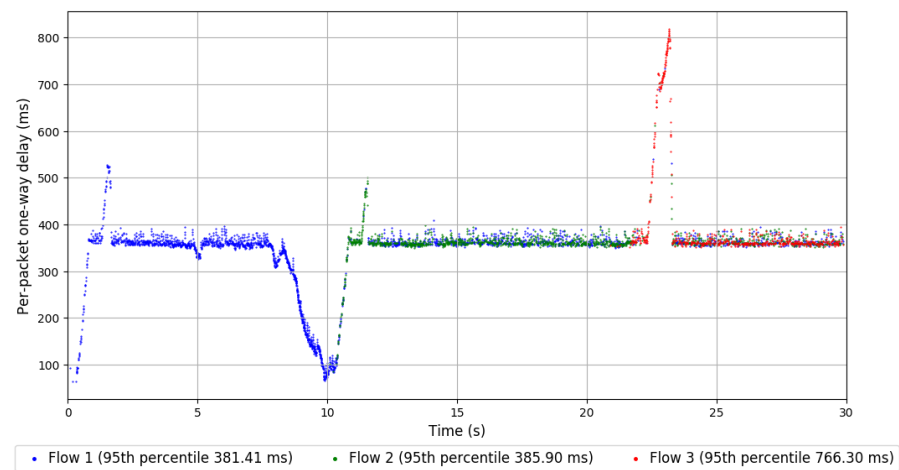
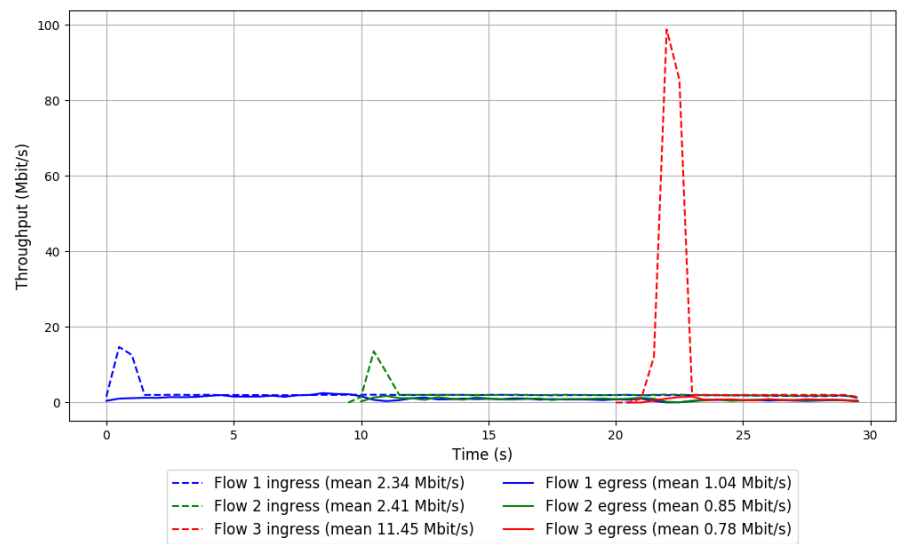


Run 1: Statistics of PCC

Start at: 2018-02-19 18:57:51
End at: 2018-02-19 18:58:21
Local clock offset: -8.399 ms
Remote clock offset: -19.712 ms

Below is generated by plot.py at 2018-02-19 20:41:00
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 390.015 ms
Loss rate: 76.29%
-- Flow 1:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 381.407 ms
Loss rate: 55.80%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 385.902 ms
Loss rate: 64.96%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 766.299 ms
Loss rate: 93.81%

Run 1: Report of PCC — Data Link

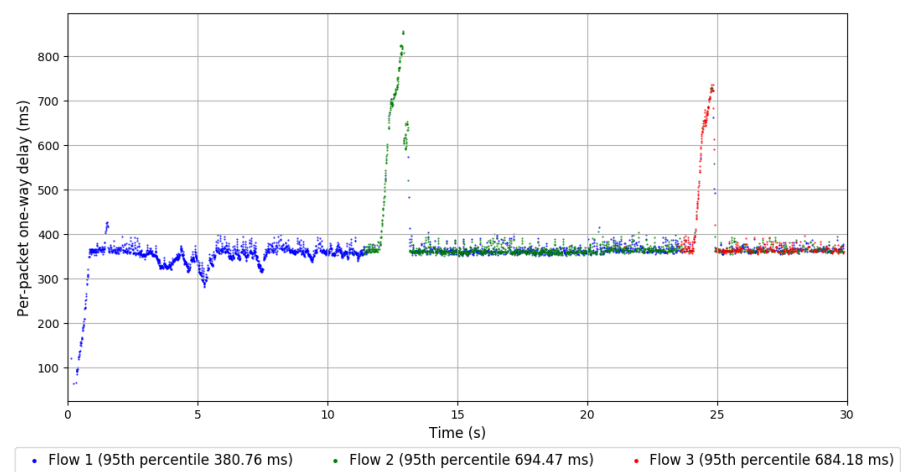
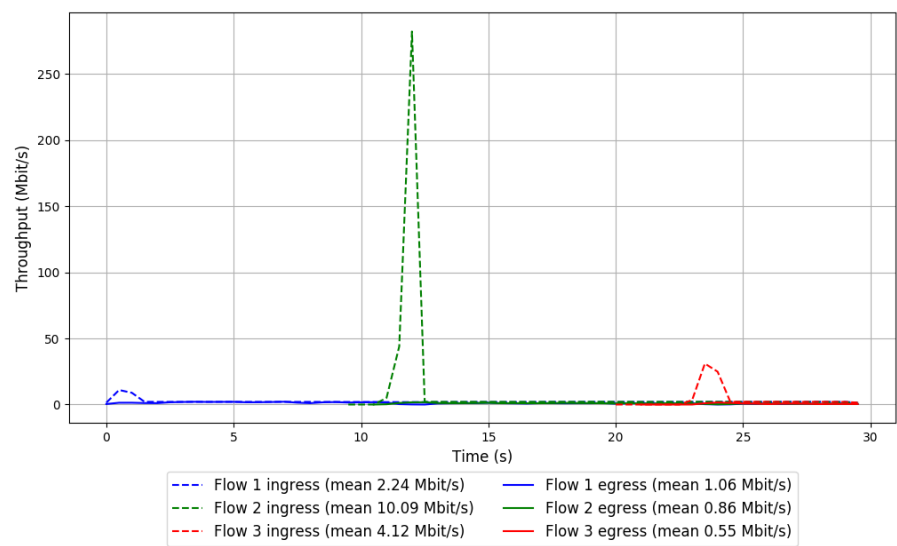


Run 2: Statistics of PCC

Start at: 2018-02-19 19:17:50
End at: 2018-02-19 19:18:20
Local clock offset: -6.083 ms
Remote clock offset: -16.242 ms

Below is generated by plot.py at 2018-02-19 20:41:02
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 505.527 ms
Loss rate: 82.82%
-- Flow 1:
Average throughput: 1.06 Mbit/s
95th percentile per-packet one-way delay: 380.761 ms
Loss rate: 52.64%
-- Flow 2:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 694.467 ms
Loss rate: 91.73%
-- Flow 3:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 684.184 ms
Loss rate: 88.53%

Run 2: Report of PCC — Data Link

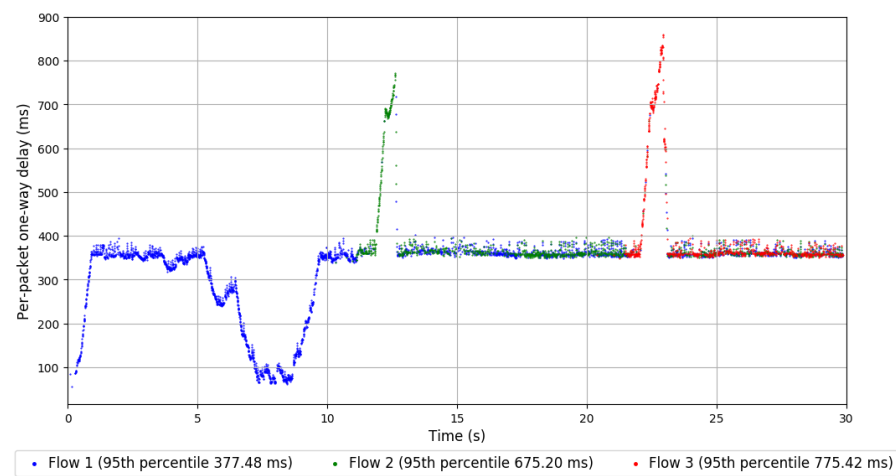
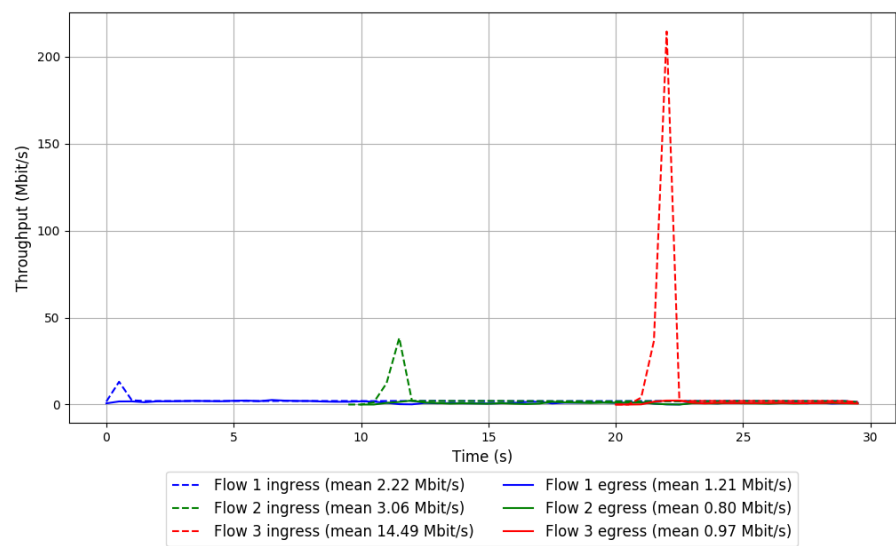


Run 3: Statistics of PCC

Start at: 2018-02-19 19:37:46
End at: 2018-02-19 19:38:16
Local clock offset: -5.656 ms
Remote clock offset: -15.577 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.05 Mbit/s
95th percentile per-packet one-way delay: 558.473 ms
Loss rate: 77.39%
-- Flow 1:
Average throughput: 1.21 Mbit/s
95th percentile per-packet one-way delay: 377.477 ms
Loss rate: 45.32%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 675.204 ms
Loss rate: 74.35%
-- Flow 3:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 775.425 ms
Loss rate: 93.56%

Run 3: Report of PCC — Data Link

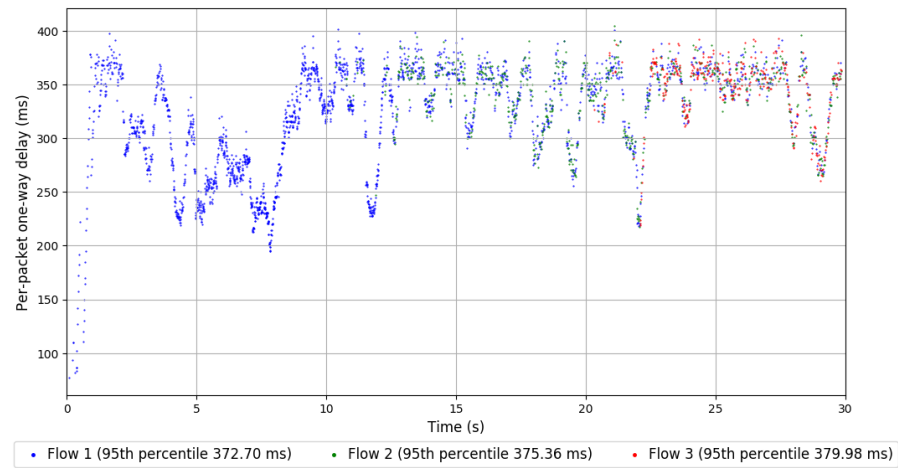
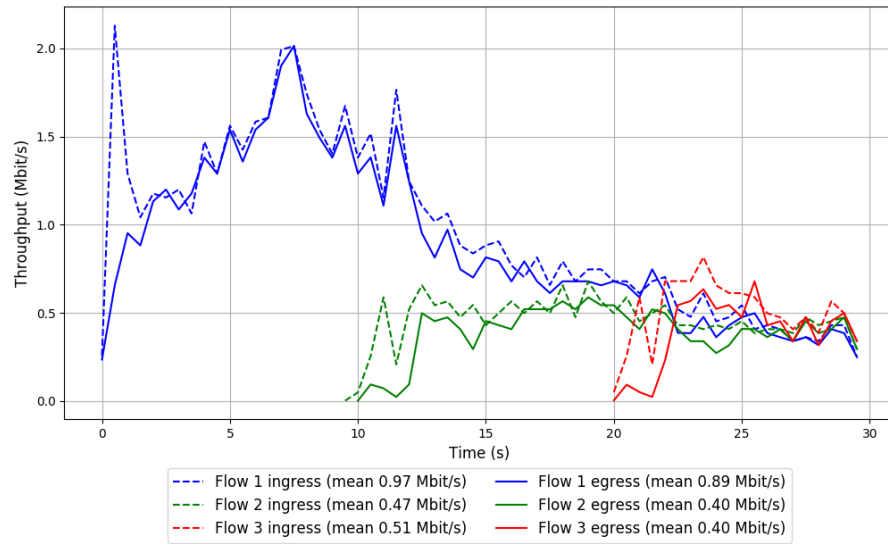


Run 1: Statistics of QUIC Cubic

Start at: 2018-02-19 18:45:35
End at: 2018-02-19 18:46:05
Local clock offset: -5.477 ms
Remote clock offset: -25.026 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 374.829 ms
Loss rate: 12.33%
-- Flow 1:
Average throughput: 0.89 Mbit/s
95th percentile per-packet one-way delay: 372.704 ms
Loss rate: 8.88%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 375.357 ms
Loss rate: 16.86%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 379.982 ms
Loss rate: 23.83%

Run 1: Report of QUIC Cubic — Data Link

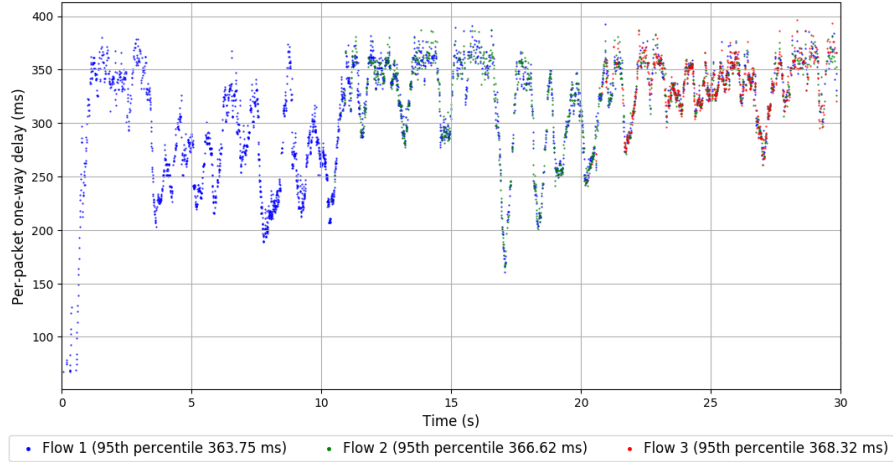
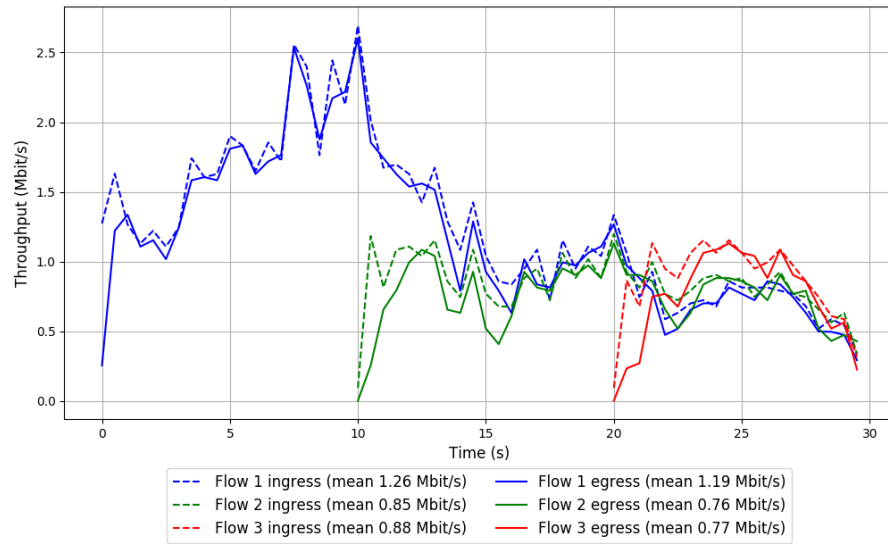


Run 2: Statistics of QUIC Cubic

Start at: 2018-02-19 19:05:35
End at: 2018-02-19 19:06:05
Local clock offset: -6.328 ms
Remote clock offset: -17.29 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 366.022 ms
Loss rate: 8.67%
-- Flow 1:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 363.755 ms
Loss rate: 5.97%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 366.622 ms
Loss rate: 11.62%
-- Flow 3:
Average throughput: 0.77 Mbit/s
95th percentile per-packet one-way delay: 368.317 ms
Loss rate: 14.70%

Run 2: Report of QUIC Cubic — Data Link

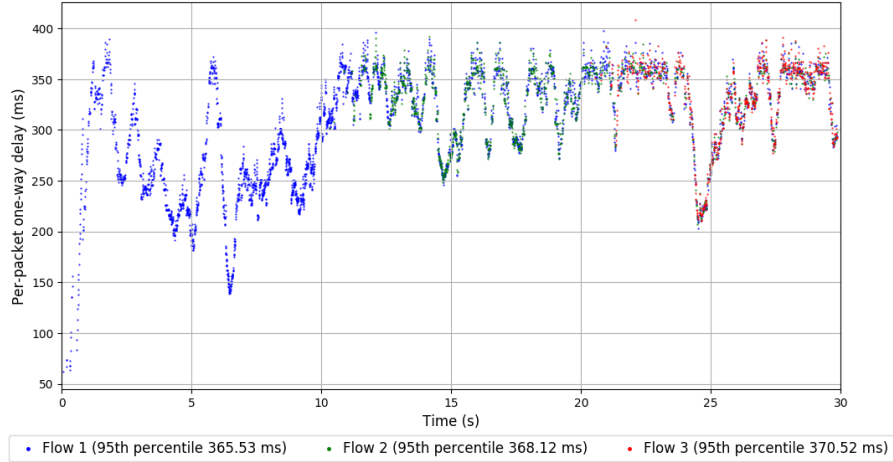
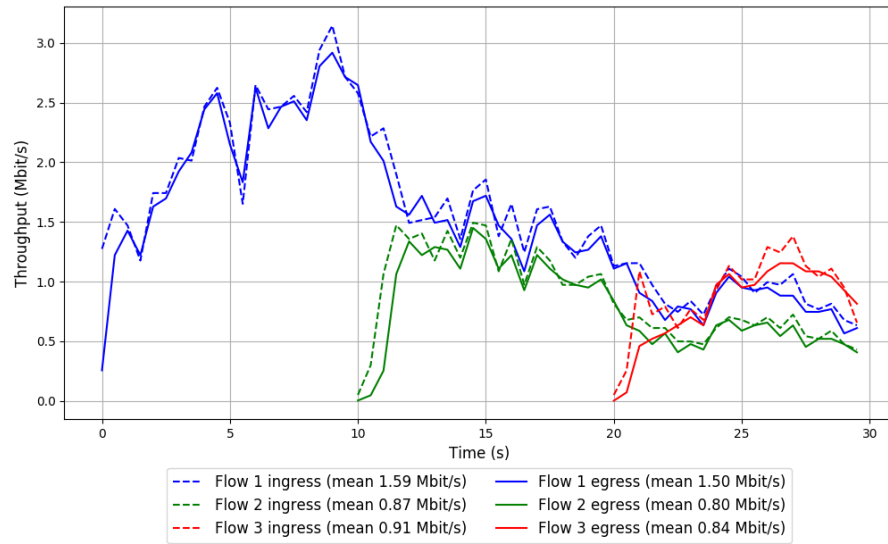


Run 3: Statistics of QUIC Cubic

Start at: 2018-02-19 19:25:34
End at: 2018-02-19 19:26:04
Local clock offset: -4.384 ms
Remote clock offset: -14.174 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.29 Mbit/s
95th percentile per-packet one-way delay: 366.495 ms
Loss rate: 7.18%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 365.533 ms
Loss rate: 5.53%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 368.122 ms
Loss rate: 9.73%
-- Flow 3:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 370.516 ms
Loss rate: 11.02%

Run 3: Report of QUIC Cubic — Data Link

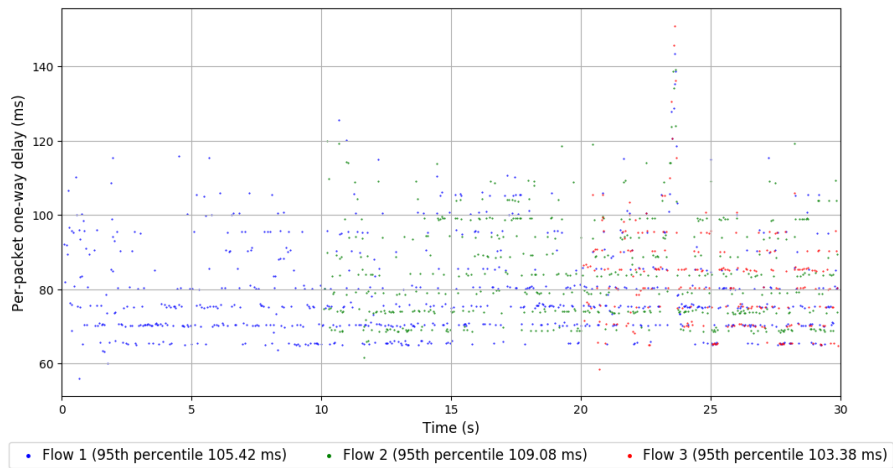
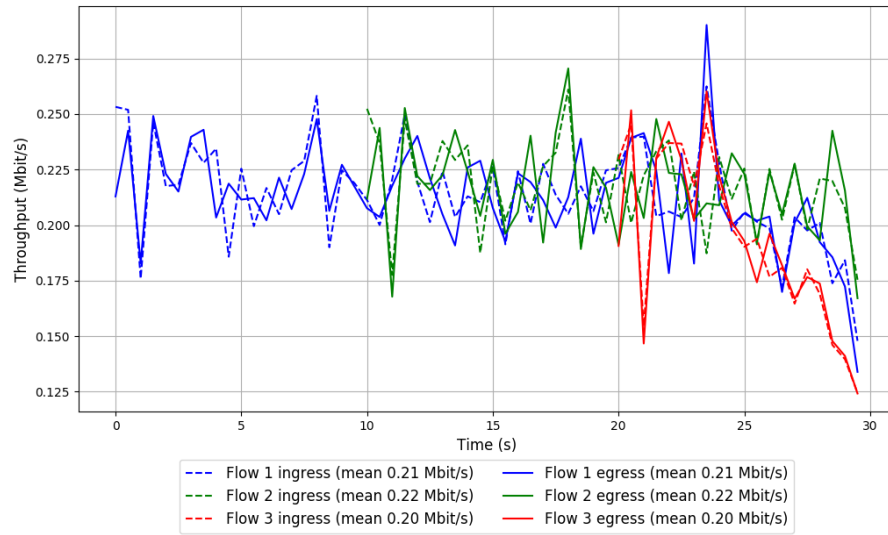


Run 1: Statistics of SReAM

Start at: 2018-02-19 18:44:29
End at: 2018-02-19 18:44:59
Local clock offset: -6.869 ms
Remote clock offset: -23.703 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 105.512 ms
Loss rate: 0.39%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 105.423 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 109.079 ms
Loss rate: 0.43%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 103.378 ms
Loss rate: 0.56%

Run 1: Report of SReAM — Data Link

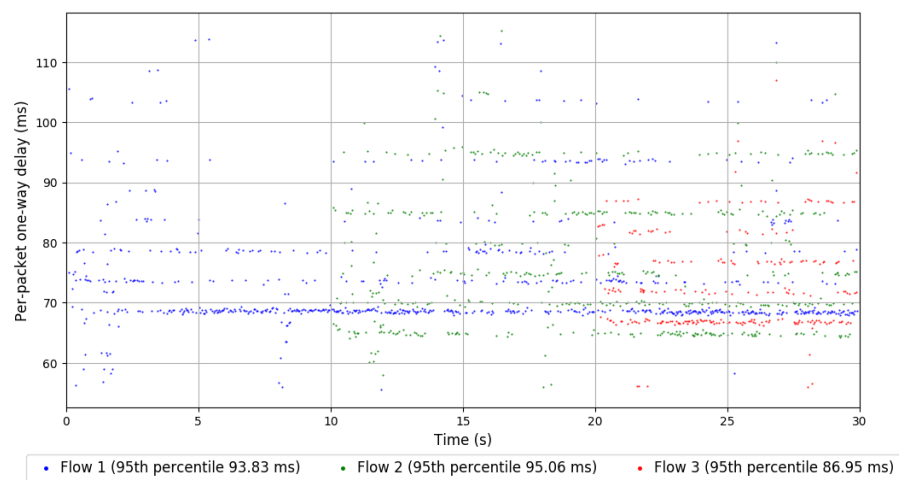
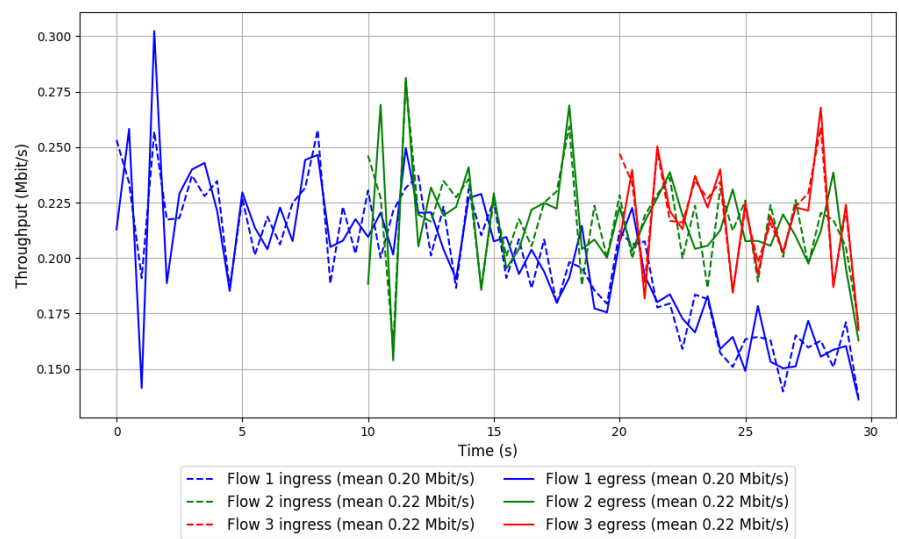


Run 2: Statistics of SReAM

Start at: 2018-02-19 19:04:29
End at: 2018-02-19 19:04:59
Local clock offset: -8.174 ms
Remote clock offset: -18.523 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 94.916 ms
Loss rate: 0.37%
-- Flow 1:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 93.827 ms
Loss rate: 0.21%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 95.064 ms
Loss rate: 0.42%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 86.954 ms
Loss rate: 0.74%

Run 2: Report of SReAM — Data Link

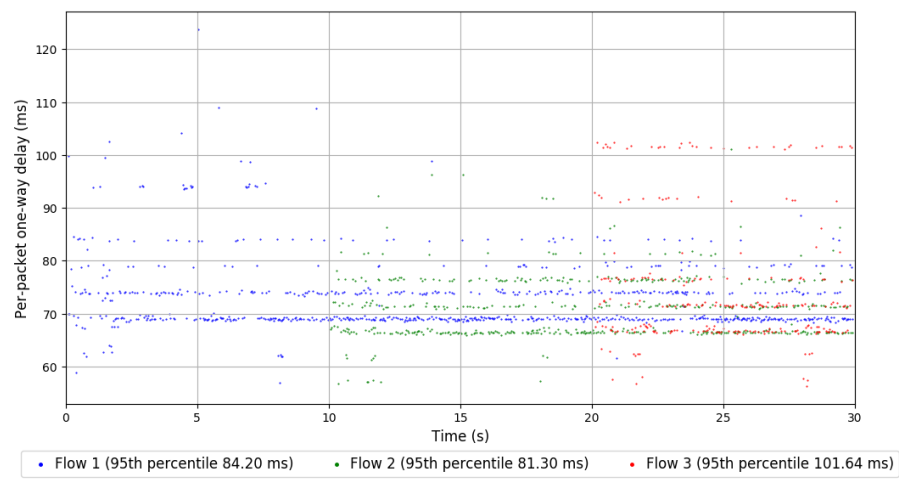
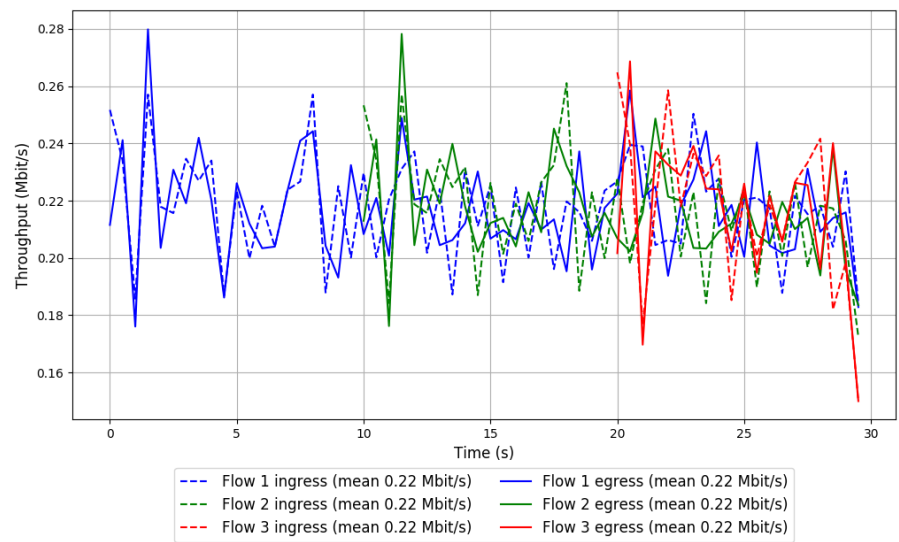


Run 3: Statistics of SReAM

Start at: 2018-02-19 19:24:28
End at: 2018-02-19 19:24:58
Local clock offset: -4.94 ms
Remote clock offset: -15.465 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 91.675 ms
Loss rate: 0.31%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 84.200 ms
Loss rate: 0.26%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 81.304 ms
Loss rate: 0.20%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 101.645 ms
Loss rate: 0.66%

Run 3: Report of SReAM — Data Link

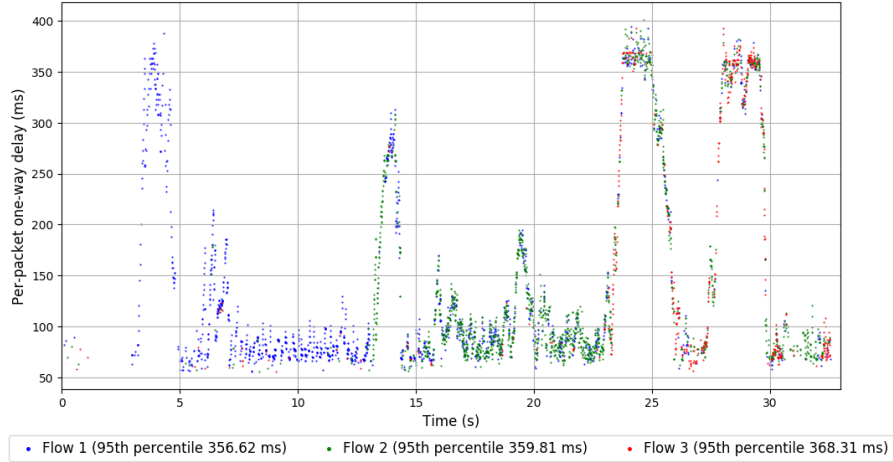
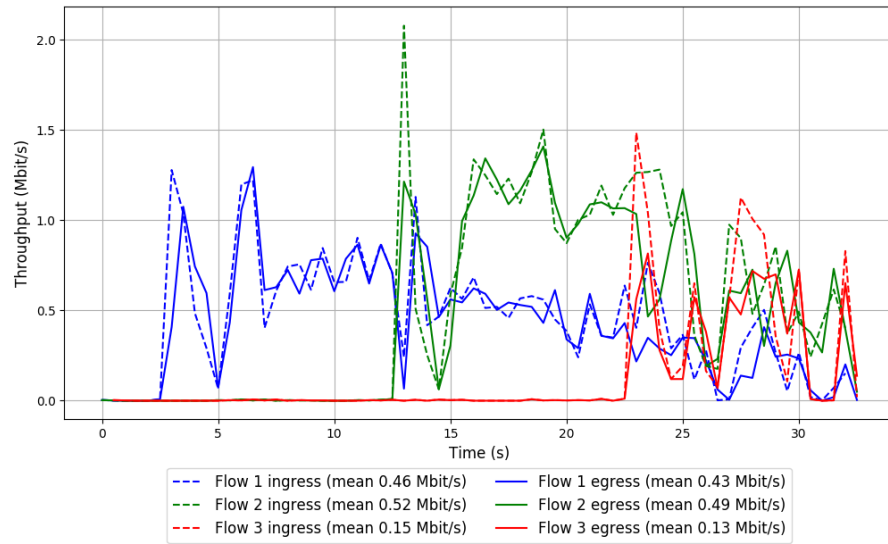


Run 1: Statistics of WebRTC media

Start at: 2018-02-19 18:52:12
End at: 2018-02-19 18:52:42
Local clock offset: -6.341 ms
Remote clock offset: -23.362 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.04 Mbit/s
95th percentile per-packet one-way delay: 360.716 ms
Loss rate: 7.28%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 356.619 ms
Loss rate: 5.23%
-- Flow 2:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 359.815 ms
Loss rate: 5.79%
-- Flow 3:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 368.308 ms
Loss rate: 18.47%

Run 1: Report of WebRTC media — Data Link

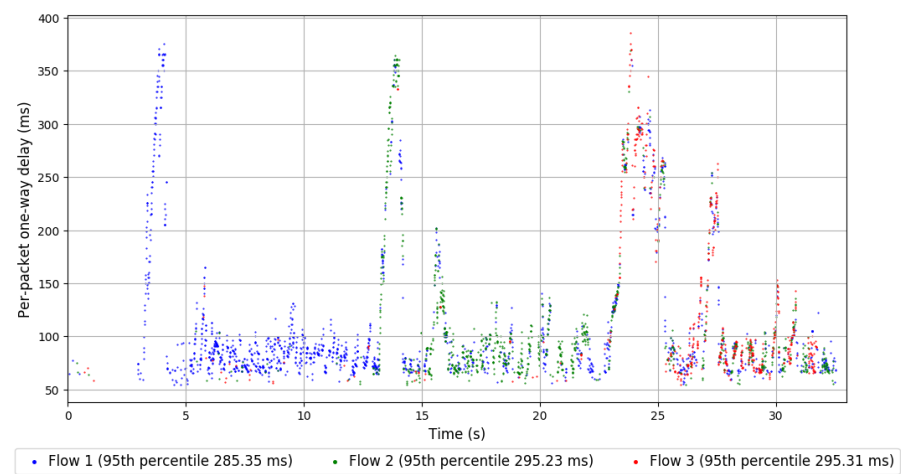
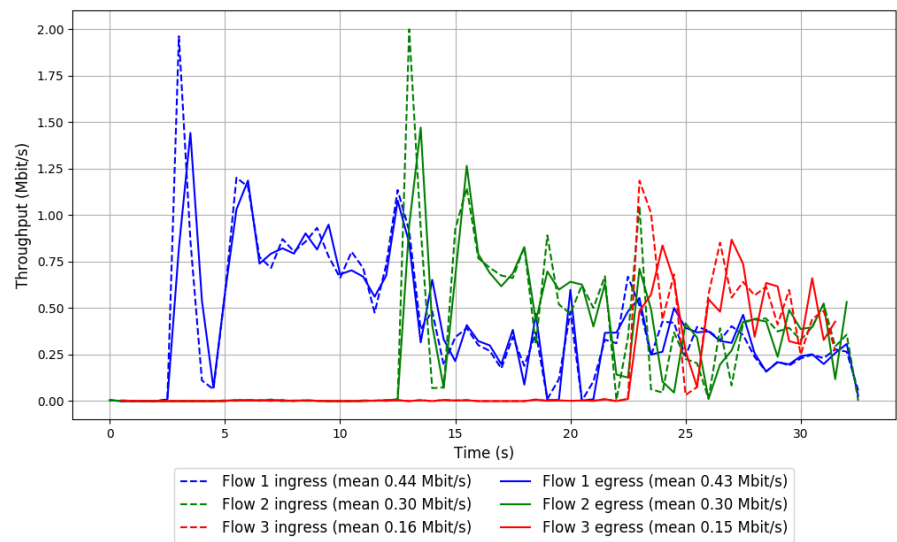


Run 2: Statistics of WebRTC media

Start at: 2018-02-19 19:12:12
End at: 2018-02-19 19:12:42
Local clock offset: -7.807 ms
Remote clock offset: -18.358 ms

Below is generated by plot.py at 2018-02-19 20:41:03
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 292.180 ms
Loss rate: 1.75%
-- Flow 1:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 285.345 ms
Loss rate: 0.90%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 295.232 ms
Loss rate: 1.17%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 295.315 ms
Loss rate: 5.39%

Run 2: Report of WebRTC media — Data Link

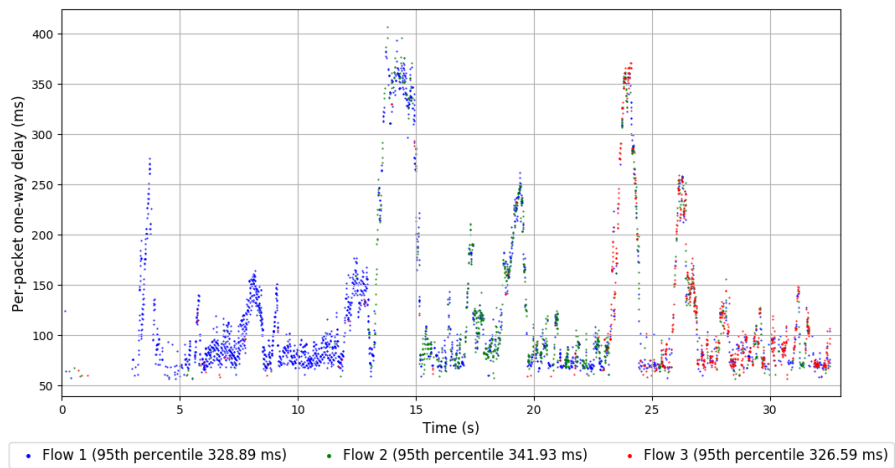
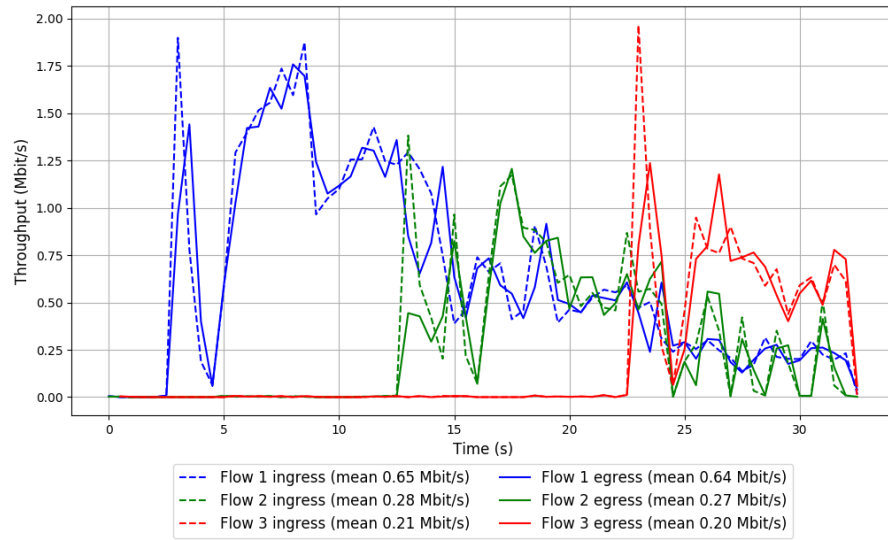


Run 3: Statistics of WebRTC media

Start at: 2018-02-19 19:32:10
End at: 2018-02-19 19:32:40
Local clock offset: -4.604 ms
Remote clock offset: -15.777 ms

Below is generated by plot.py at 2018-02-19 20:41:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 334.203 ms
Loss rate: 2.94%
-- Flow 1:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 328.891 ms
Loss rate: 2.06%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 341.930 ms
Loss rate: 5.39%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 326.589 ms
Loss rate: 2.42%

Run 3: Report of WebRTC media — Data Link

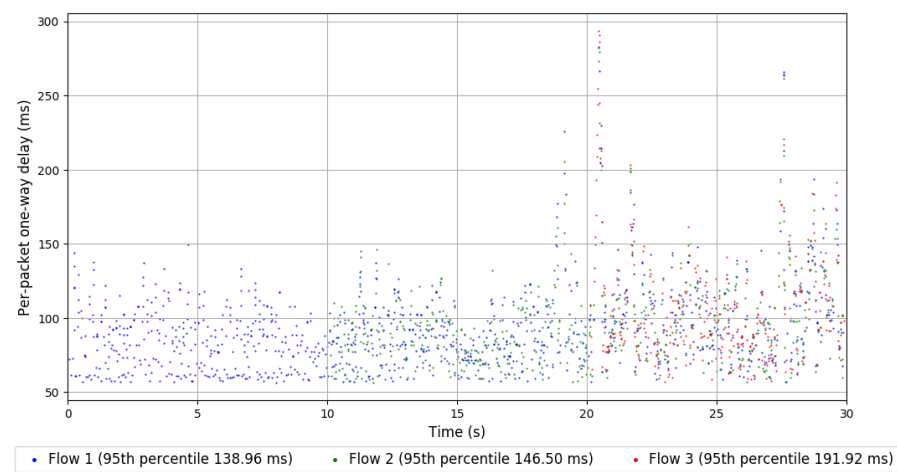
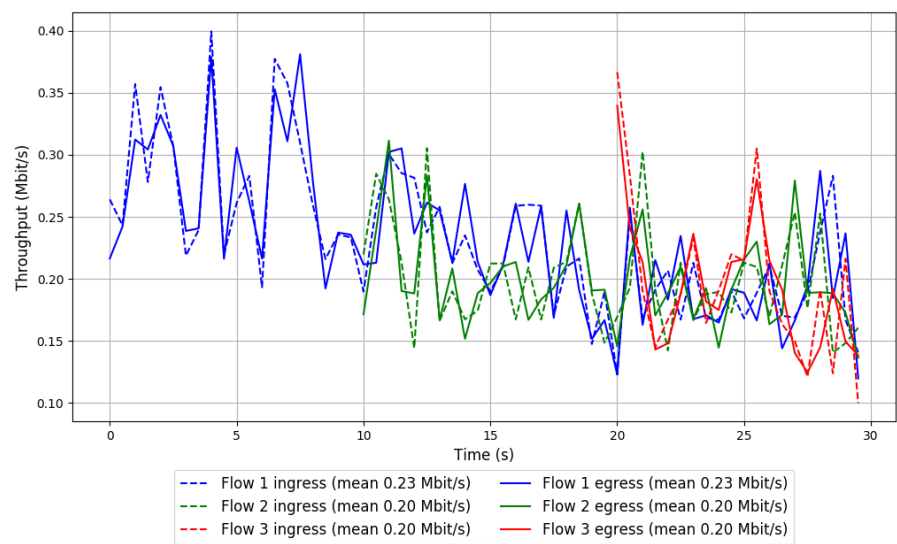


Run 1: Statistics of Sprout

Start at: 2018-02-19 18:51:06
End at: 2018-02-19 18:51:36
Local clock offset: -5.626 ms
Remote clock offset: -24.245 ms

Below is generated by plot.py at 2018-02-19 20:41:04
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 149.844 ms
Loss rate: 0.65%
-- Flow 1:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 138.960 ms
Loss rate: 0.49%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 146.495 ms
Loss rate: 0.59%
-- Flow 3:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 191.924 ms
Loss rate: 1.34%

Run 1: Report of Sprout — Data Link

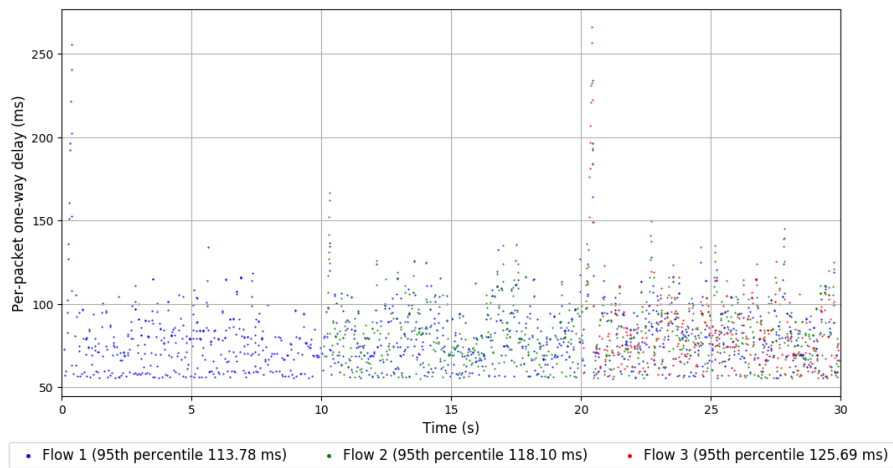
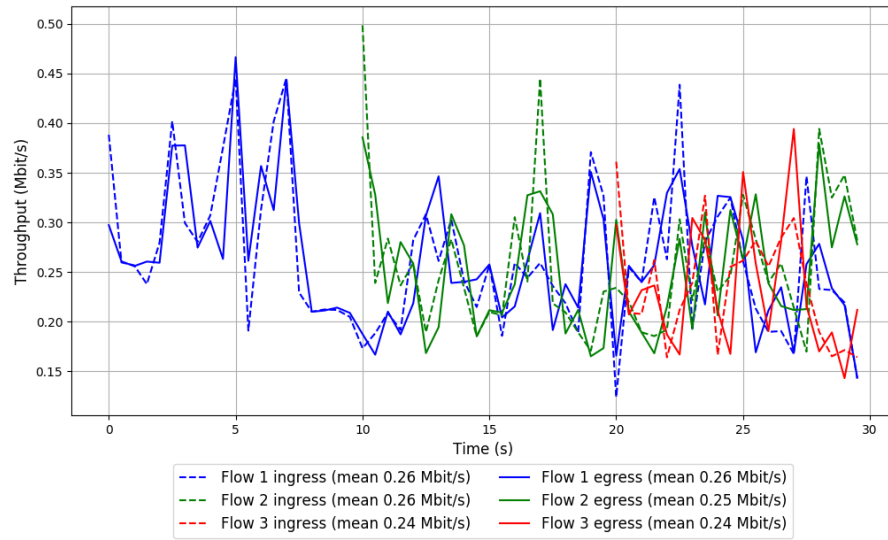


Run 2: Statistics of Sprout

Start at: 2018-02-19 19:11:06
End at: 2018-02-19 19:11:36
Local clock offset: -5.069 ms
Remote clock offset: -16.434 ms

```
# Below is generated by plot.py at 2018-02-19 20:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.51 Mbit/s
95th percentile per-packet one-way delay: 115.663 ms
Loss rate: 0.73%
-- Flow 1:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 113.781 ms
Loss rate: 0.42%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 118.096 ms
Loss rate: 1.35%
-- Flow 3:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 125.685 ms
Loss rate: 0.47%
```


Run 2: Report of Sprout — Data Link

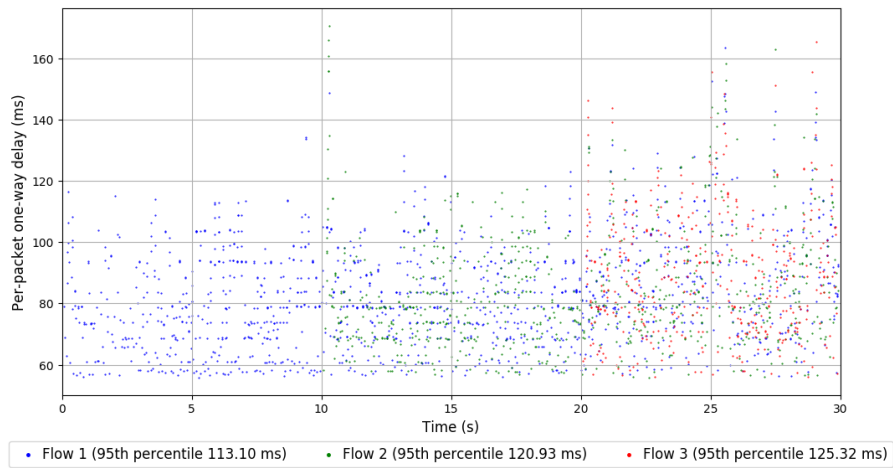
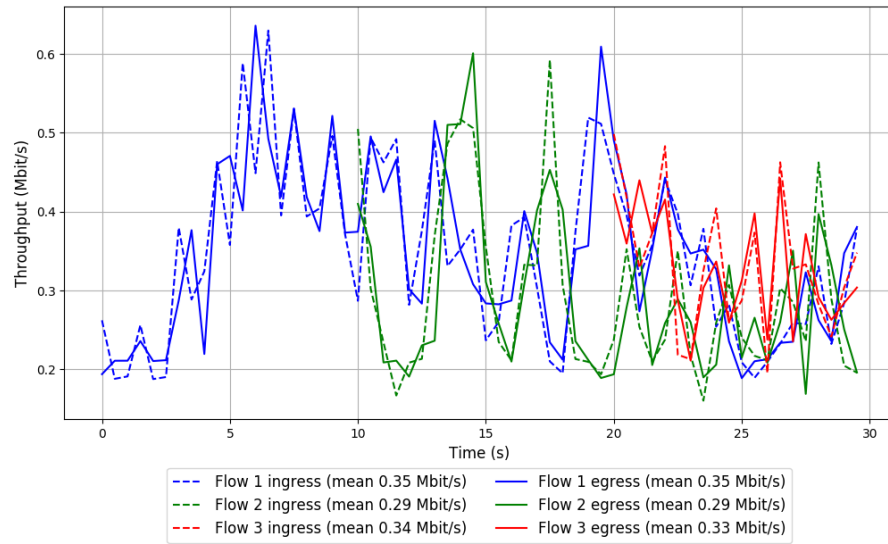


Run 3: Statistics of Sprout

Start at: 2018-02-19 19:31:04
End at: 2018-02-19 19:31:34
Local clock offset: -4.941 ms
Remote clock offset: -15.83 ms

```
# Below is generated by plot.py at 2018-02-19 20:41:04
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.65 Mbit/s
95th percentile per-packet one-way delay: 118.248 ms
Loss rate: 0.51%
-- Flow 1:
Average throughput: 0.35 Mbit/s
95th percentile per-packet one-way delay: 113.100 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 120.932 ms
Loss rate: 0.57%
-- Flow 3:
Average throughput: 0.33 Mbit/s
95th percentile per-packet one-way delay: 125.318 ms
Loss rate: 1.97%
```

Run 3: Report of Sprout — Data Link

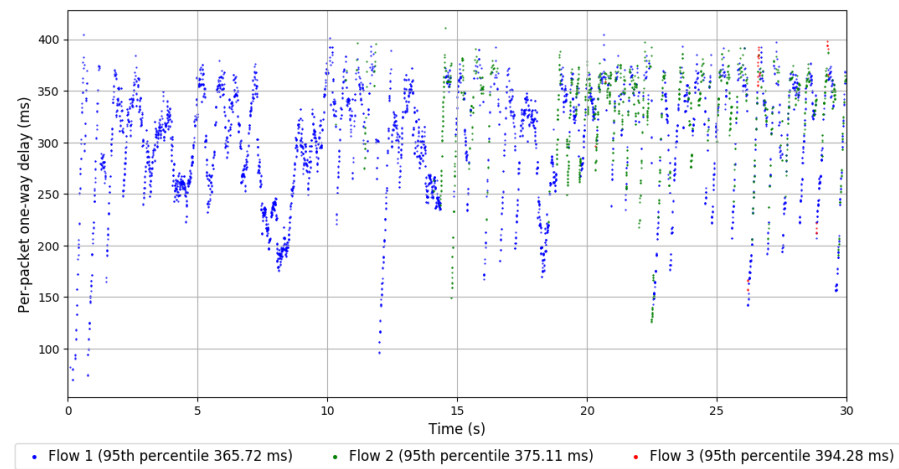
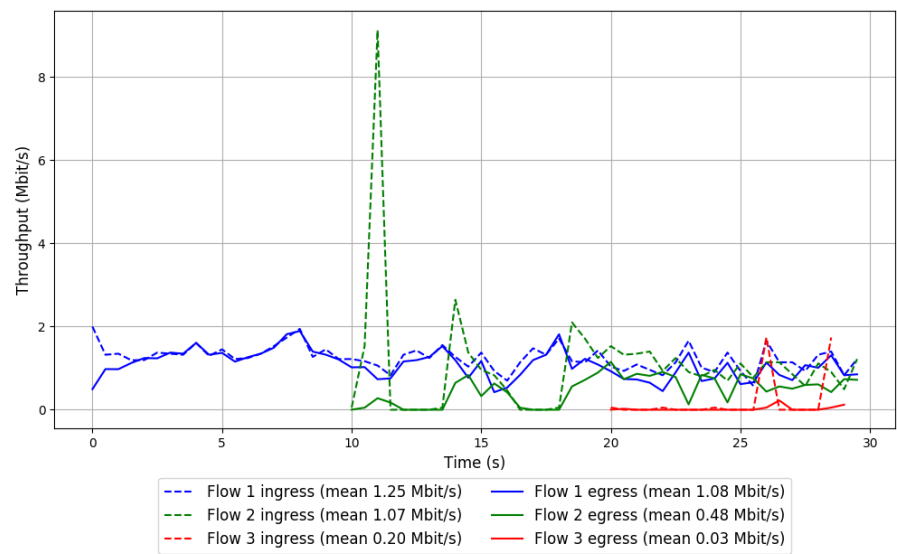


Run 1: Statistics of TaoVA-100x

Start at: 2018-02-19 18:50:00
End at: 2018-02-19 18:50:30
Local clock offset: -6.936 ms
Remote clock offset: -25.262 ms

Below is generated by plot.py at 2018-02-19 20:41:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.41 Mbit/s
95th percentile per-packet one-way delay: 368.832 ms
Loss rate: 30.75%
-- Flow 1:
Average throughput: 1.08 Mbit/s
95th percentile per-packet one-way delay: 365.721 ms
Loss rate: 13.92%
-- Flow 2:
Average throughput: 0.48 Mbit/s
95th percentile per-packet one-way delay: 375.105 ms
Loss rate: 55.58%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 394.278 ms
Loss rate: 86.93%

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

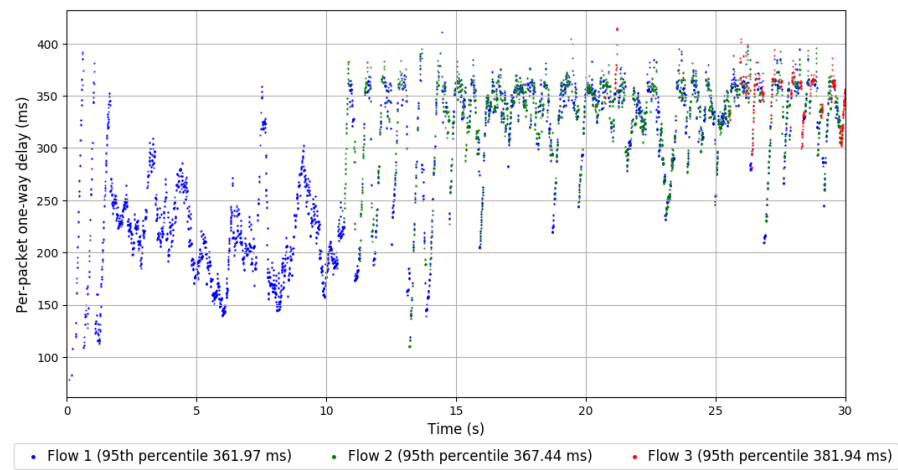
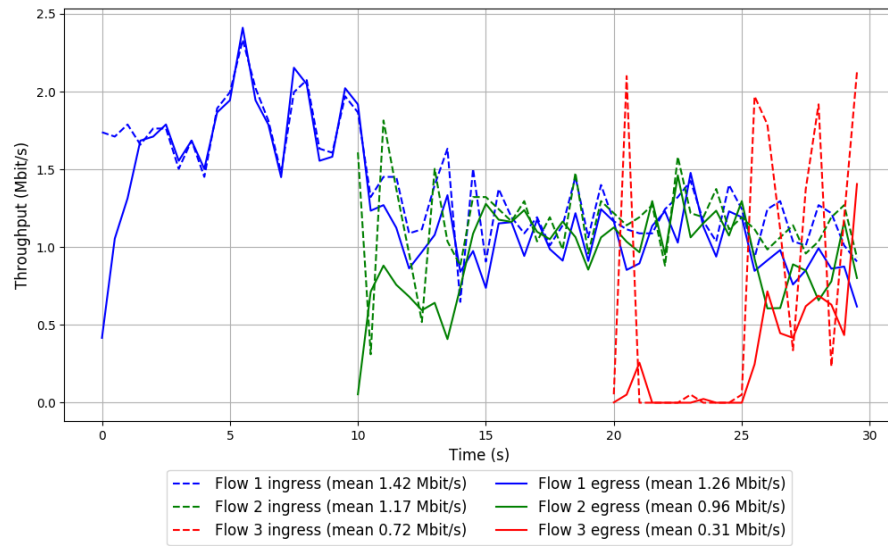


Run 2: Statistics of TaoVA-100x

Start at: 2018-02-19 19:10:00
End at: 2018-02-19 19:10:30
Local clock offset: -5.006 ms
Remote clock offset: -16.753 ms

Below is generated by plot.py at 2018-02-19 20:41:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.99 Mbit/s
95th percentile per-packet one-way delay: 364.923 ms
Loss rate: 17.90%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 361.971 ms
Loss rate: 10.53%
-- Flow 2:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 367.437 ms
Loss rate: 18.80%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 381.943 ms
Loss rate: 58.49%

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

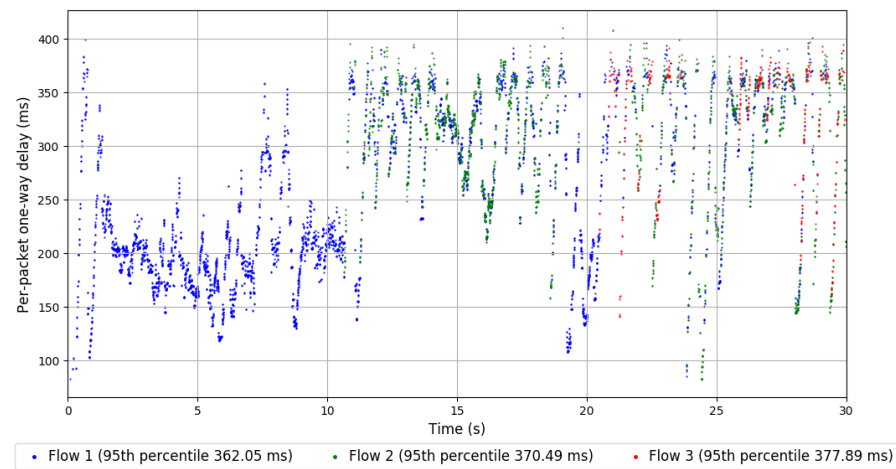
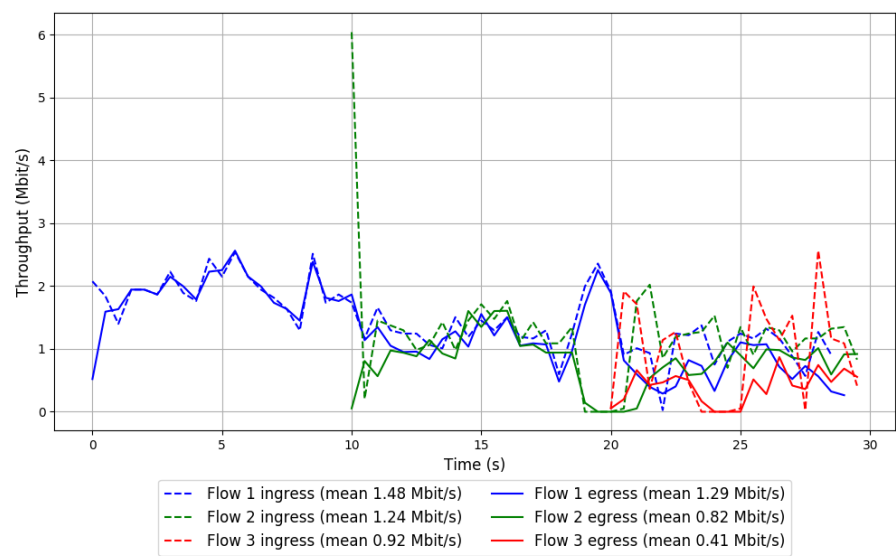


Run 3: Statistics of TaoVA-100x

Start at: 2018-02-19 19:29:58
End at: 2018-02-19 19:30:28
Local clock offset: -4.786 ms
Remote clock offset: -15.762 ms

Below is generated by plot.py at 2018-02-19 20:41:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.93 Mbit/s
95th percentile per-packet one-way delay: 366.728 ms
Loss rate: 24.56%
-- Flow 1:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 362.049 ms
Loss rate: 11.62%
-- Flow 2:
Average throughput: 0.82 Mbit/s
95th percentile per-packet one-way delay: 370.487 ms
Loss rate: 34.87%
-- Flow 3:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 377.890 ms
Loss rate: 56.74%

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

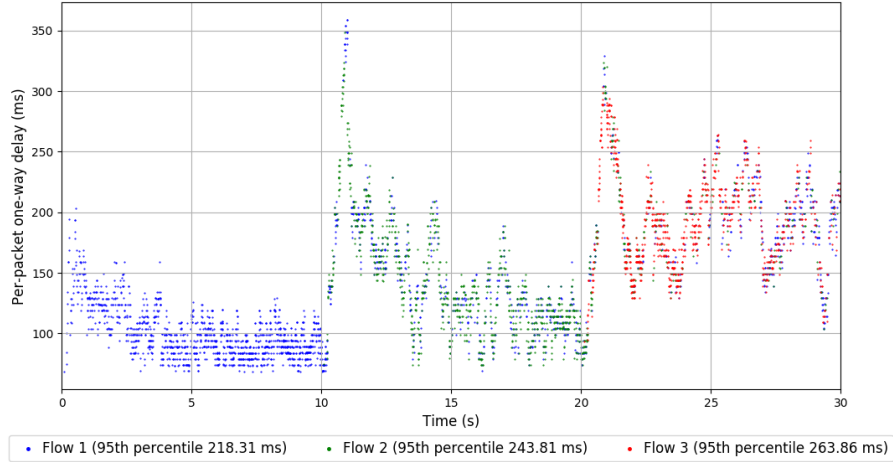
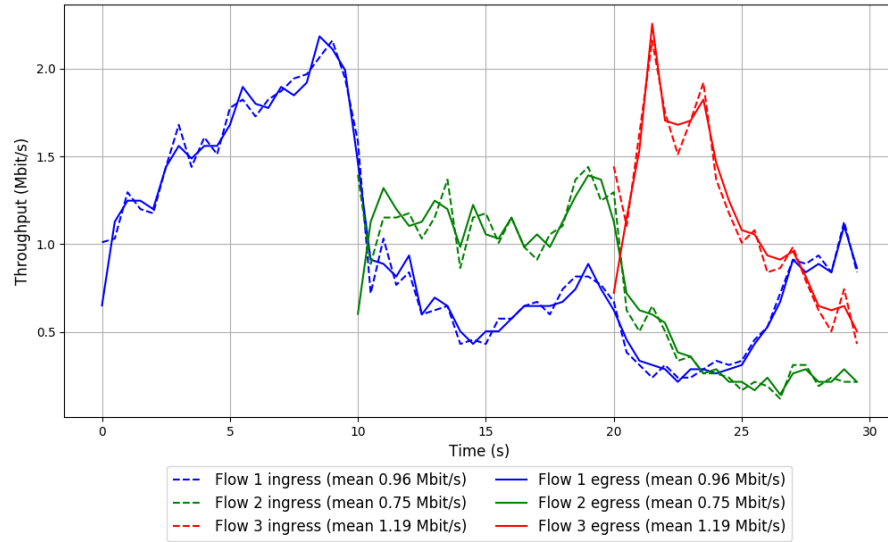


Run 1: Statistics of TCP Vegas

Start at: 2018-02-19 18:55:39
End at: 2018-02-19 18:56:09
Local clock offset: -6.084 ms
Remote clock offset: -22.301 ms

Below is generated by plot.py at 2018-02-19 20:41:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 243.719 ms
Loss rate: 0.52%
-- Flow 1:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 218.306 ms
Loss rate: 0.62%
-- Flow 2:
Average throughput: 0.75 Mbit/s
95th percentile per-packet one-way delay: 243.805 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 1.19 Mbit/s
95th percentile per-packet one-way delay: 263.861 ms
Loss rate: 0.71%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-02-19 19:15:38

End at: 2018-02-19 19:16:08

Local clock offset: -7.596 ms

Remote clock offset: -16.5 ms

Below is generated by plot.py at 2018-02-19 20:41:13

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.82 Mbit/s

95th percentile per-packet one-way delay: 302.845 ms

Loss rate: 0.77%

-- Flow 1:

Average throughput: 1.08 Mbit/s

95th percentile per-packet one-way delay: 278.400 ms

Loss rate: 0.44%

-- Flow 2:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 293.209 ms

Loss rate: 1.24%

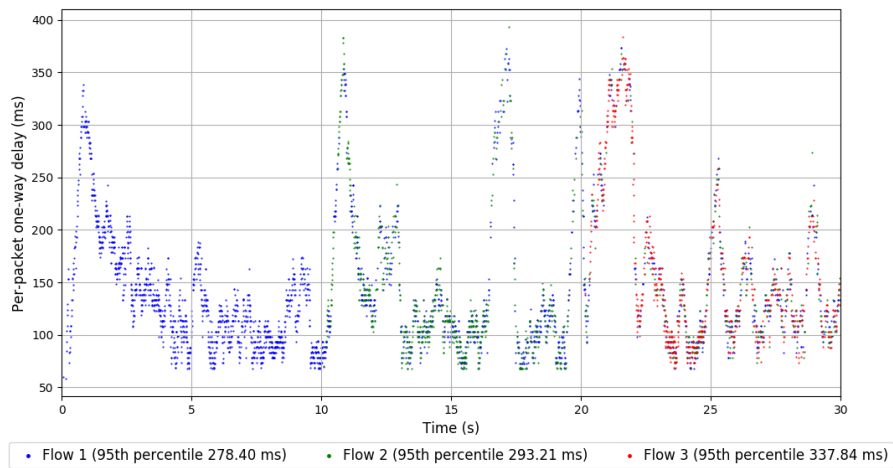
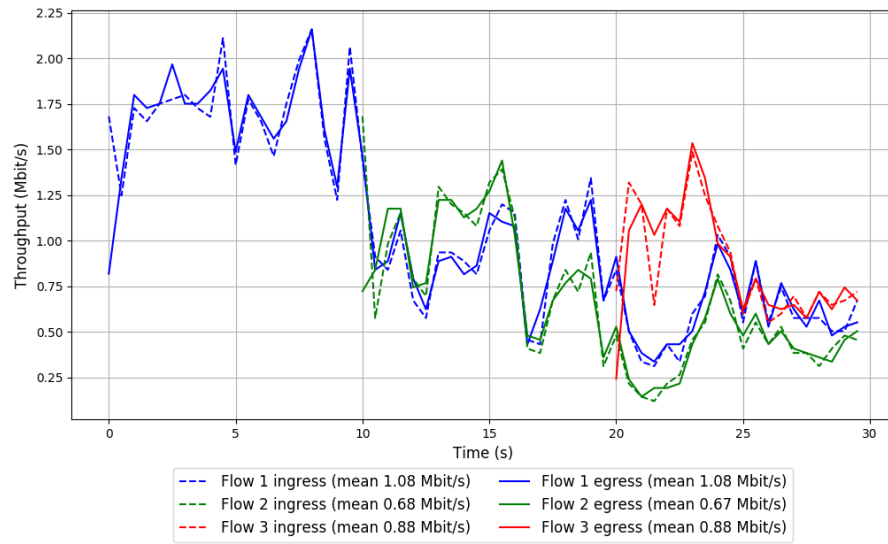
-- Flow 3:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 337.842 ms

Loss rate: 1.24%

Run 2: Report of TCP Vegas — Data Link

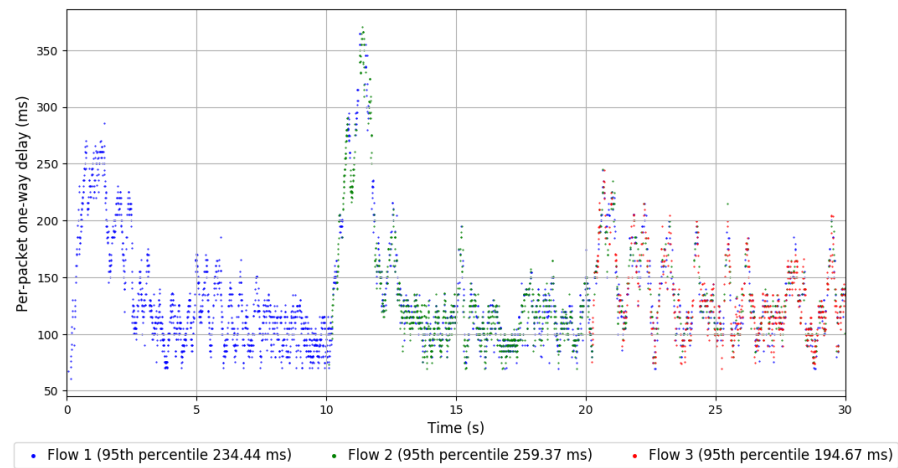
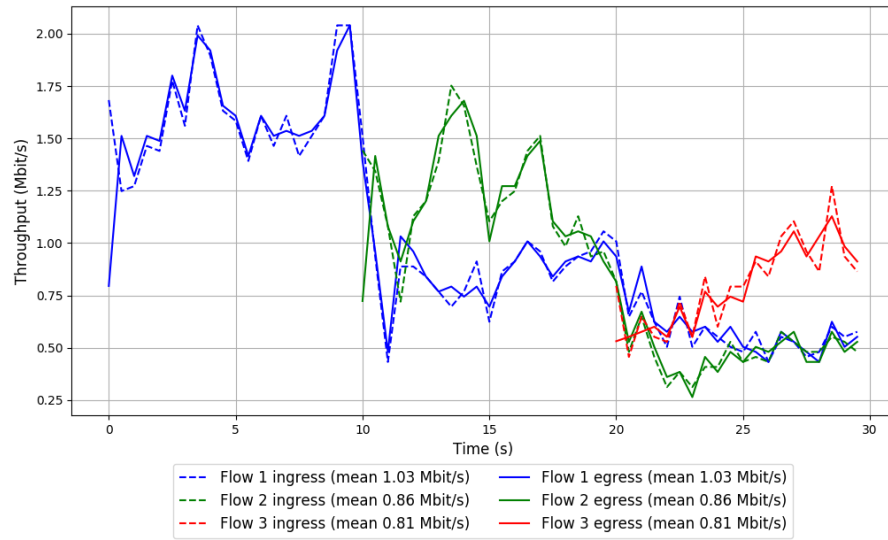


Run 3: Statistics of TCP Vegas

Start at: 2018-02-19 19:35:34
End at: 2018-02-19 19:36:04
Local clock offset: -3.498 ms
Remote clock offset: -15.884 ms

Below is generated by plot.py at 2018-02-19 20:41:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.86 Mbit/s
95th percentile per-packet one-way delay: 234.420 ms
Loss rate: 0.56%
-- Flow 1:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 234.438 ms
Loss rate: 0.31%
-- Flow 2:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 259.372 ms
Loss rate: 0.63%
-- Flow 3:
Average throughput: 0.81 Mbit/s
95th percentile per-packet one-way delay: 194.667 ms
Loss rate: 1.35%

Run 3: Report of TCP Vegas — Data Link

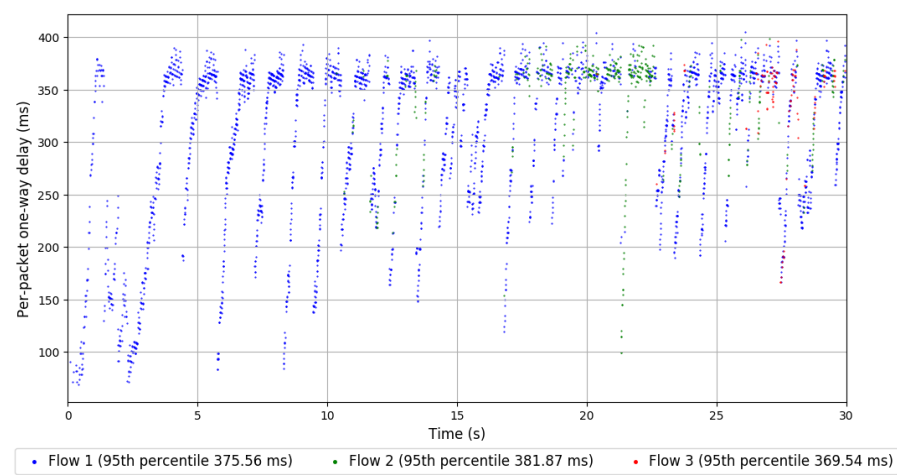
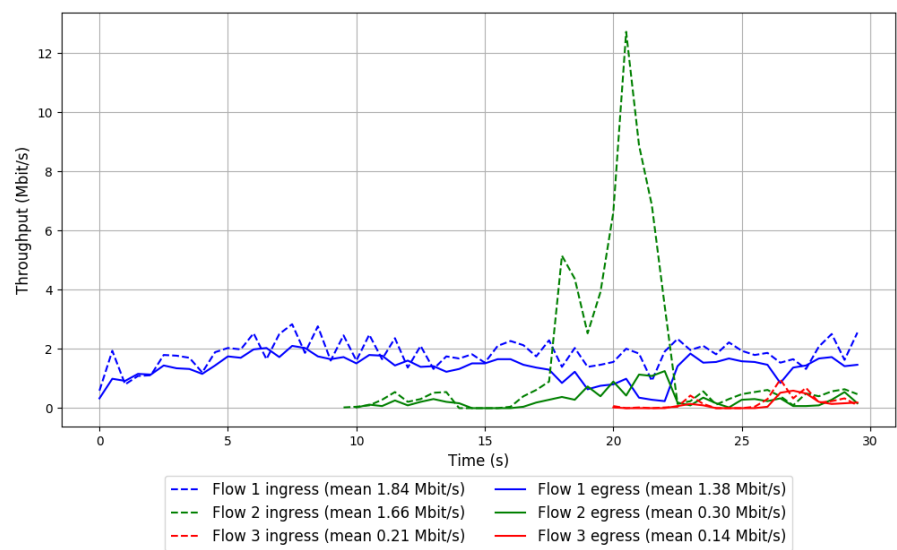


Run 1: Statistics of Verus

Start at: 2018-02-19 18:40:01
End at: 2018-02-19 18:40:31
Local clock offset: -6.027 ms
Remote clock offset: -25.444 ms

Below is generated by plot.py at 2018-02-19 20:41:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 376.205 ms
Loss rate: 45.95%
-- Flow 1:
Average throughput: 1.38 Mbit/s
95th percentile per-packet one-way delay: 375.558 ms
Loss rate: 25.24%
-- Flow 2:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 381.874 ms
Loss rate: 81.89%
-- Flow 3:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 369.542 ms
Loss rate: 31.33%

Run 1: Report of Verus — Data Link

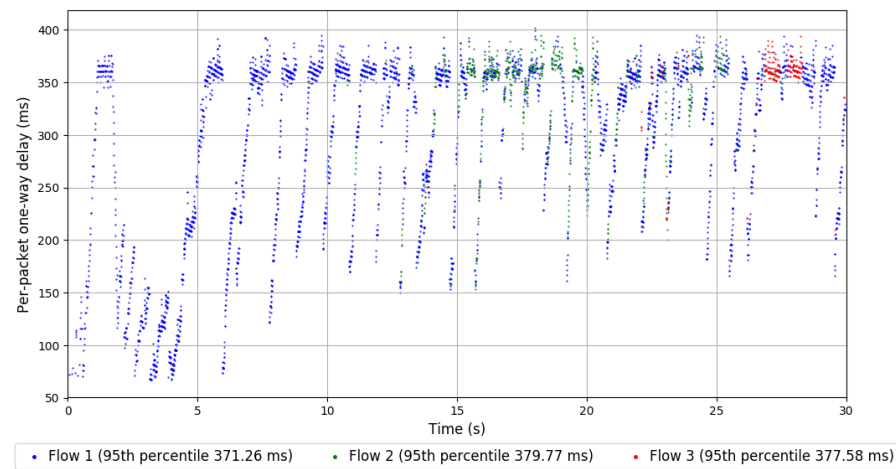
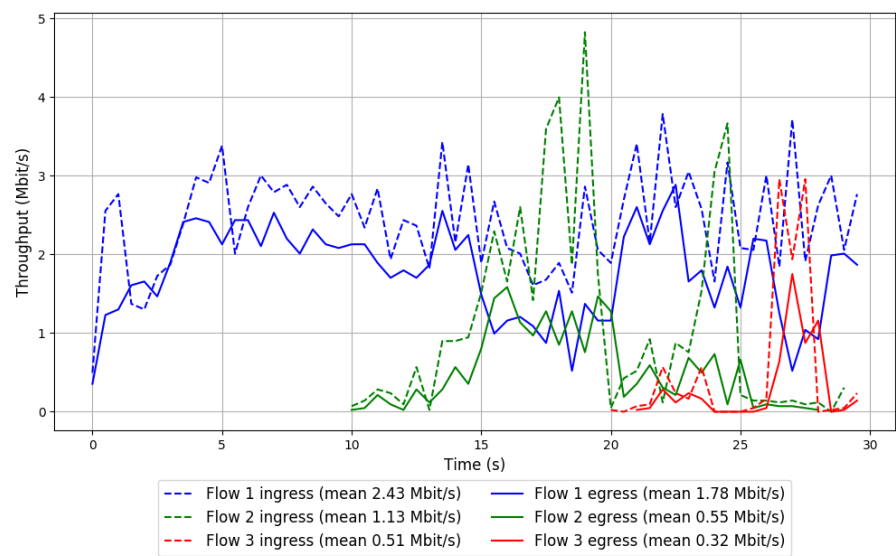


Run 2: Statistics of Verus

Start at: 2018-02-19 19:00:05
End at: 2018-02-19 19:00:35
Local clock offset: -6.365 ms
Remote clock offset: -18.588 ms

Below is generated by plot.py at 2018-02-19 20:41:13
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.20 Mbit/s
95th percentile per-packet one-way delay: 373.379 ms
Loss rate: 33.81%
-- Flow 1:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 371.259 ms
Loss rate: 26.91%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 379.771 ms
Loss rate: 54.44%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 377.580 ms
Loss rate: 45.43%

Run 2: Report of Verus — Data Link

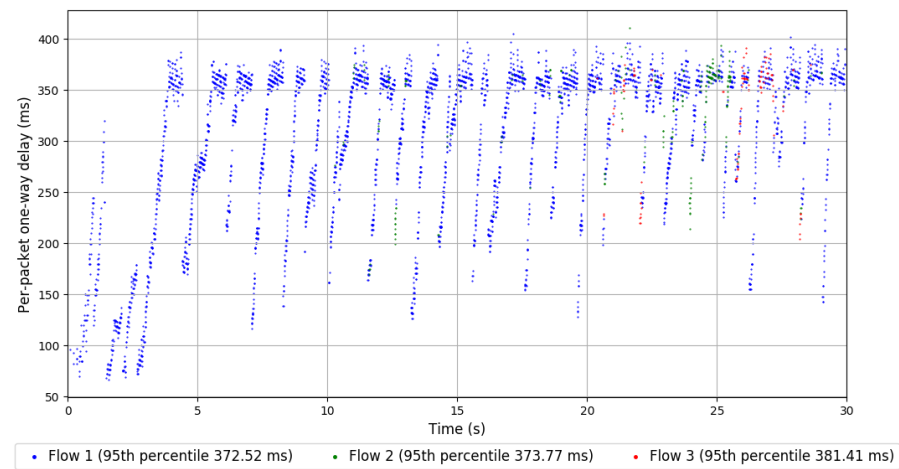
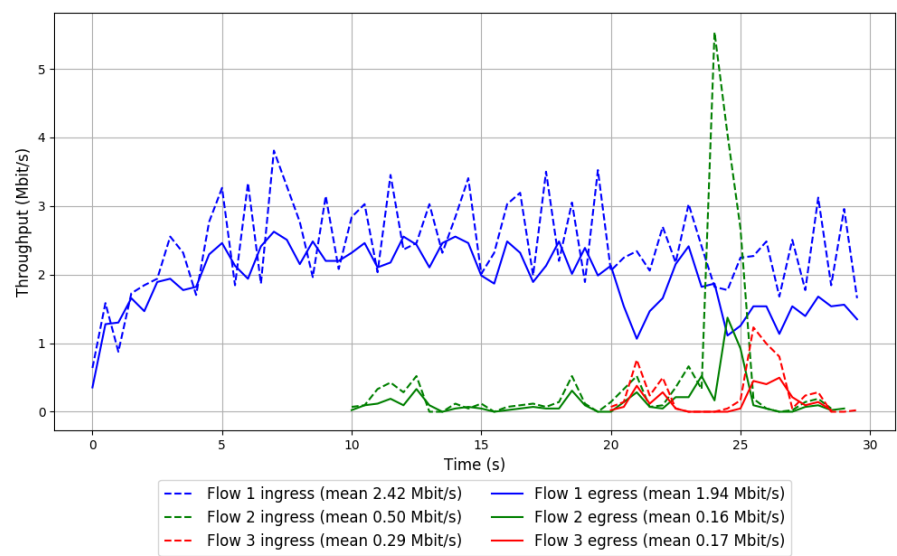


Run 3: Statistics of Verus

Start at: 2018-02-19 19:20:03
End at: 2018-02-19 19:20:33
Local clock offset: -4.703 ms
Remote clock offset: -15.532 ms

Below is generated by plot.py at 2018-02-19 20:41:14
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.09 Mbit/s
95th percentile per-packet one-way delay: 372.983 ms
Loss rate: 26.26%
-- Flow 1:
Average throughput: 1.94 Mbit/s
95th percentile per-packet one-way delay: 372.518 ms
Loss rate: 20.10%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 373.766 ms
Loss rate: 67.22%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 381.414 ms
Loss rate: 50.00%

Run 3: Report of Verus — Data Link

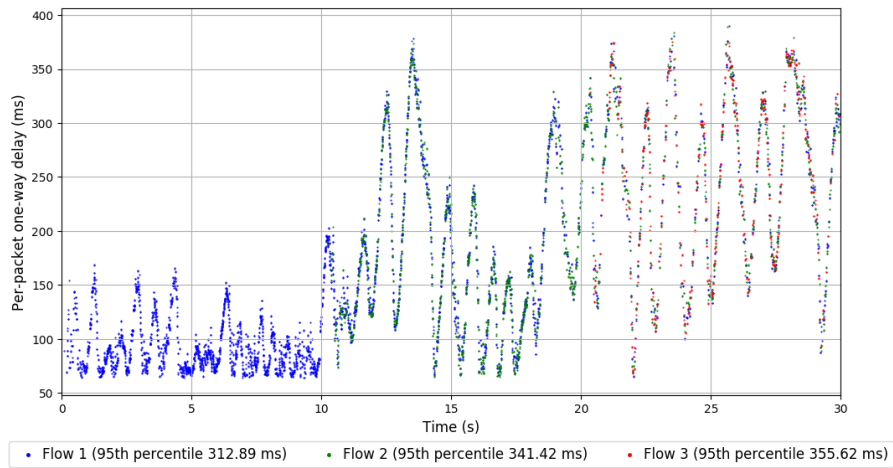
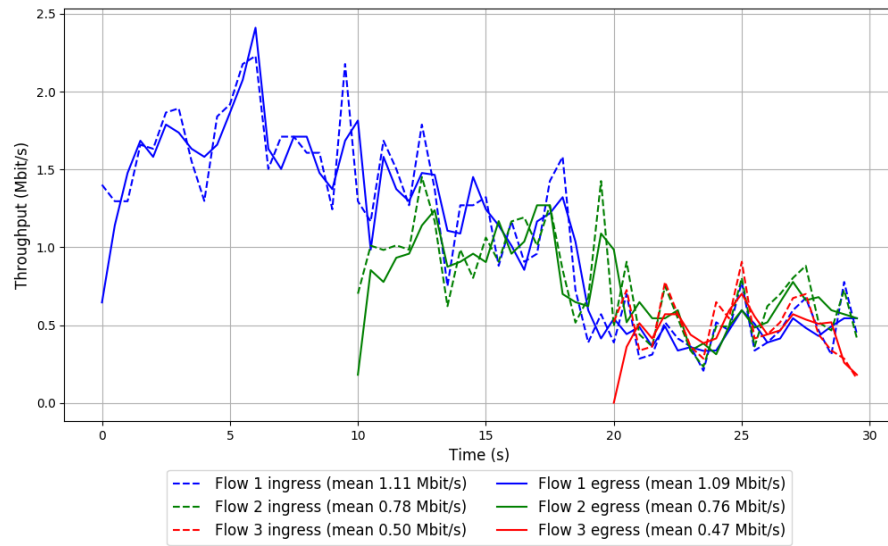


Run 1: Statistics of Copa

Start at: 2018-02-19 18:58:57
End at: 2018-02-19 18:59:27
Local clock offset: -8.797 ms
Remote clock offset: -19.234 ms

Below is generated by plot.py at 2018-02-19 20:41:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 330.333 ms
Loss rate: 3.20%
-- Flow 1:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 312.893 ms
Loss rate: 1.82%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 341.423 ms
Loss rate: 3.94%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 355.621 ms
Loss rate: 10.04%

Run 1: Report of Copa — Data Link

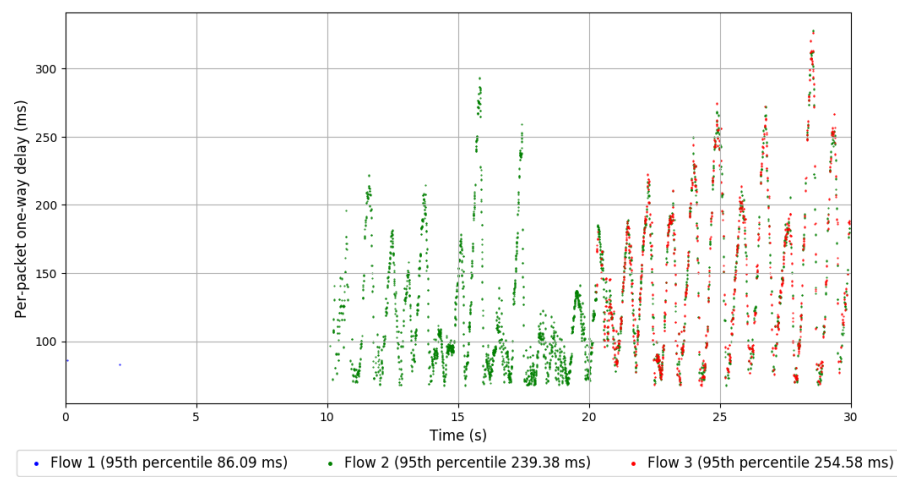
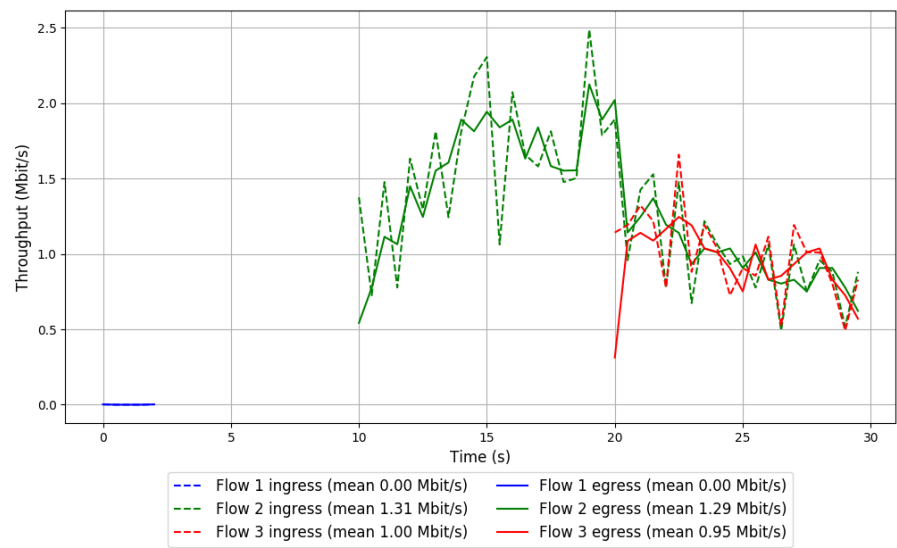


Run 2: Statistics of Copa

Start at: 2018-02-19 19:18:57
End at: 2018-02-19 19:19:27
Local clock offset: -5.77 ms
Remote clock offset: -17.654 ms

Below is generated by plot.py at 2018-02-19 20:41:17
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 245.624 ms
Loss rate: 2.91%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.095 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.29 Mbit/s
95th percentile per-packet one-way delay: 239.379 ms
Loss rate: 1.94%
-- Flow 3:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 254.578 ms
Loss rate: 5.49%

Run 2: Report of Copa — Data Link

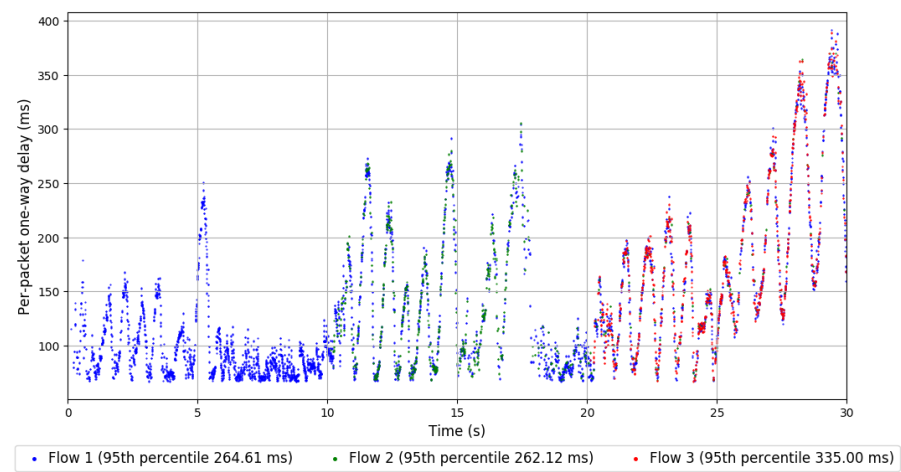
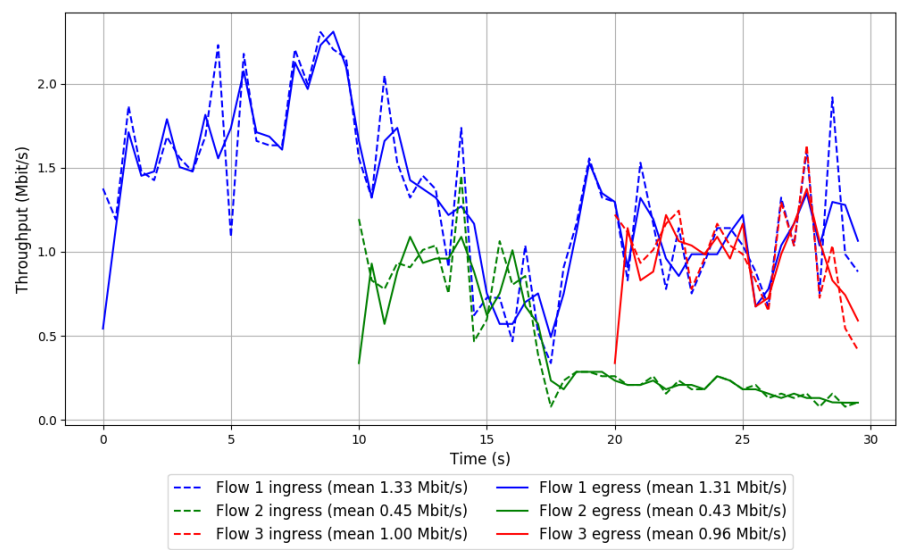


Run 3: Statistics of Copa

Start at: 2018-02-19 19:38:52
End at: 2018-02-19 19:39:22
Local clock offset: -2.469 ms
Remote clock offset: -16.454 ms

Below is generated by plot.py at 2018-02-19 20:41:18
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 281.741 ms
Loss rate: 2.44%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 264.609 ms
Loss rate: 1.53%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 262.115 ms
Loss rate: 4.00%
-- Flow 3:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 335.002 ms
Loss rate: 4.68%

Run 3: Report of Copa — Data Link

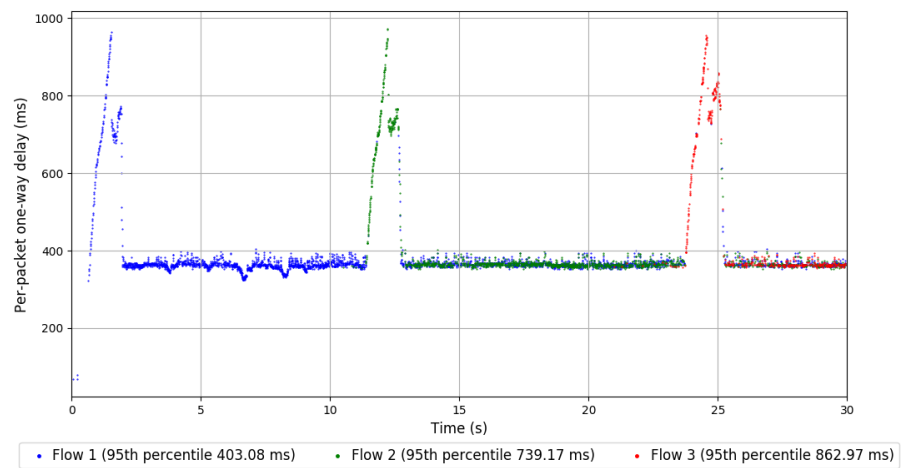
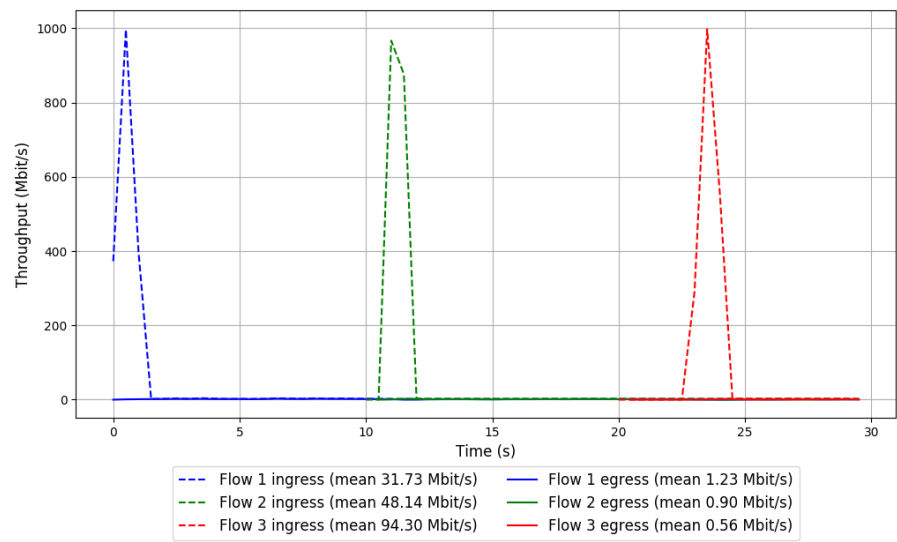


Run 1: Statistics of FillP

Start at: 2018-02-19 18:53:21
End at: 2018-02-19 18:53:51
Local clock offset: -5.833 ms
Remote clock offset: -22.787 ms

Below is generated by plot.py at 2018-02-19 20:41:33
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.98 Mbit/s
95th percentile per-packet one-way delay: 734.341 ms
Loss rate: 97.92%
-- Flow 1:
Average throughput: 1.23 Mbit/s
95th percentile per-packet one-way delay: 403.080 ms
Loss rate: 96.14%
-- Flow 2:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 739.175 ms
Loss rate: 98.18%
-- Flow 3:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 862.973 ms
Loss rate: 99.46%

Run 1: Report of FillP — Data Link

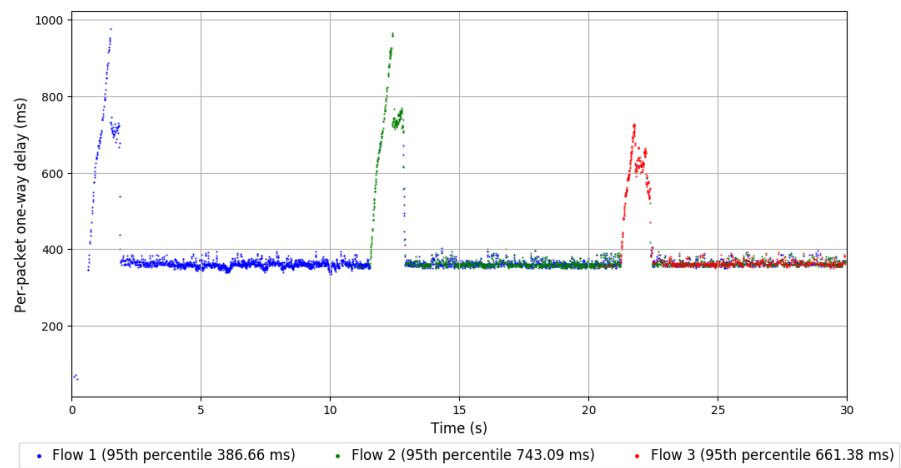
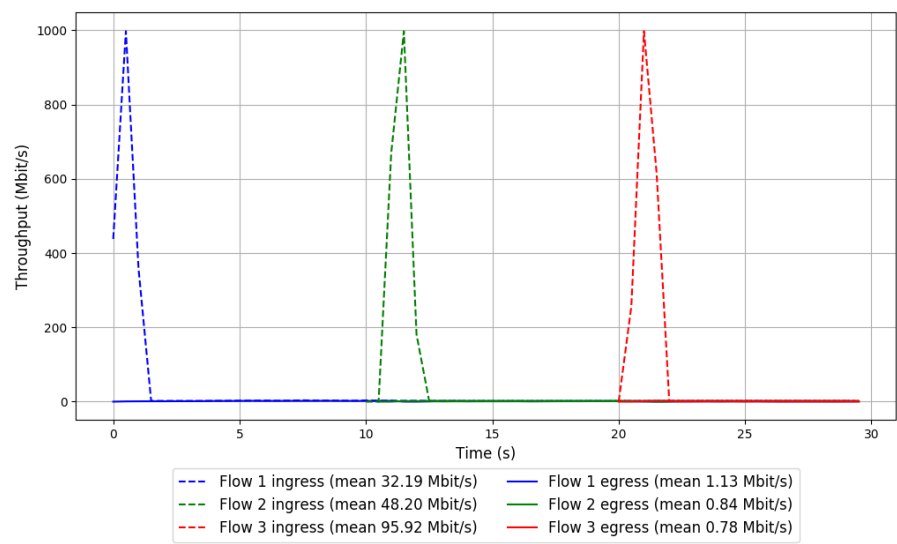


Run 2: Statistics of FillP

Start at: 2018-02-19 19:13:19
End at: 2018-02-19 19:13:49
Local clock offset: -3.785 ms
Remote clock offset: -16.053 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.92 Mbit/s
95th percentile per-packet one-way delay: 662.122 ms
Loss rate: 98.00%
-- Flow 1:
Average throughput: 1.13 Mbit/s
95th percentile per-packet one-way delay: 386.660 ms
Loss rate: 96.50%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 743.093 ms
Loss rate: 98.32%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 661.380 ms
Loss rate: 99.22%

Run 2: Report of FillP — Data Link

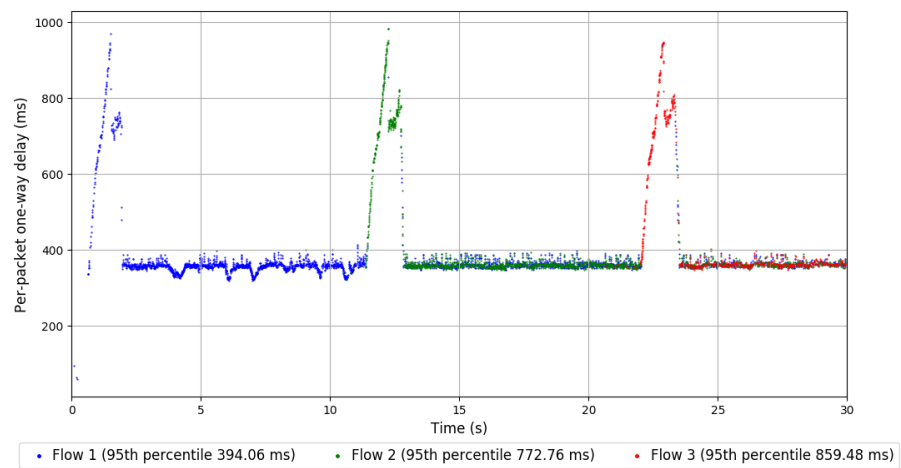
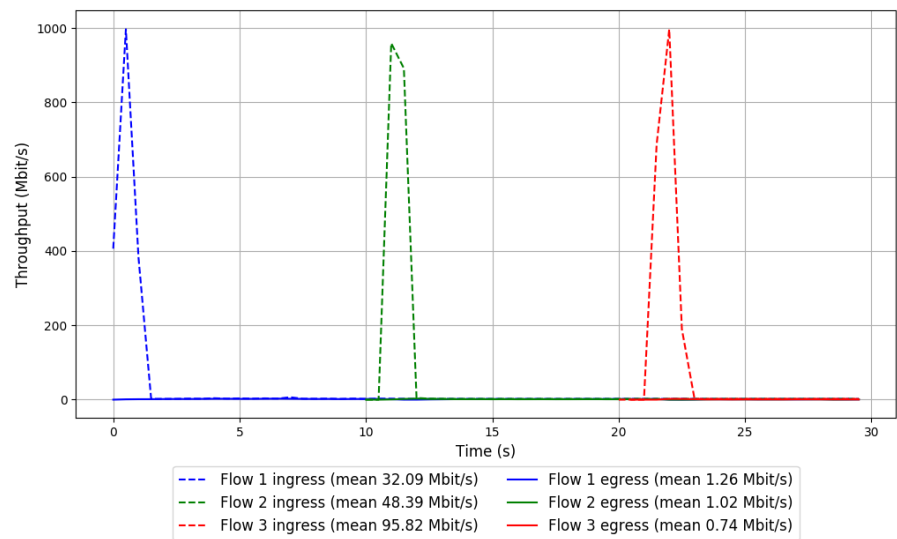


Run 3: Statistics of FillP

Start at: 2018-02-19 19:33:16
End at: 2018-02-19 19:33:46
Local clock offset: -7.505 ms
Remote clock offset: -15.973 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.15 Mbit/s
95th percentile per-packet one-way delay: 745.431 ms
Loss rate: 97.77%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 394.056 ms
Loss rate: 96.09%
-- Flow 2:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 772.763 ms
Loss rate: 97.95%
-- Flow 3:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 859.480 ms
Loss rate: 99.28%

Run 3: Report of FillP — Data Link

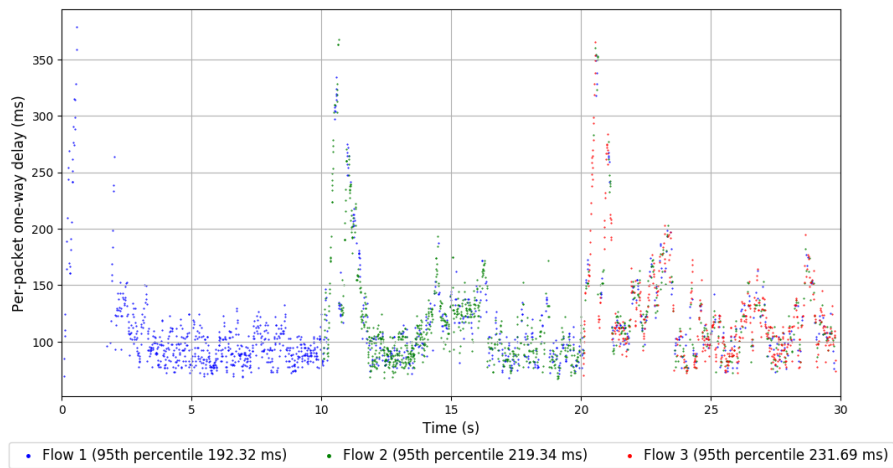
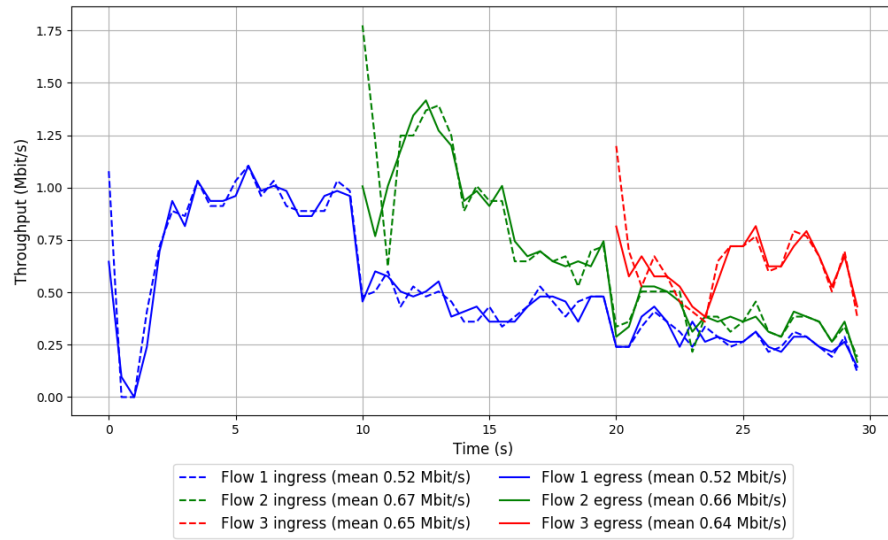


Run 1: Statistics of Indigo-1-32

Start at: 2018-02-19 18:48:54
End at: 2018-02-19 18:49:24
Local clock offset: -4.916 ms
Remote clock offset: -23.488 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.16 Mbit/s
95th percentile per-packet one-way delay: 209.588 ms
Loss rate: 2.05%
-- Flow 1:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 192.318 ms
Loss rate: 1.24%
-- Flow 2:
Average throughput: 0.66 Mbit/s
95th percentile per-packet one-way delay: 219.338 ms
Loss rate: 2.63%
-- Flow 3:
Average throughput: 0.64 Mbit/s
95th percentile per-packet one-way delay: 231.695 ms
Loss rate: 2.81%

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



Run 2: Statistics of Indigo-1-32

Start at: 2018-02-19 19:08:54

End at: 2018-02-19 19:09:24

Local clock offset: -4.07 ms

Remote clock offset: -18.8 ms

Below is generated by plot.py at 2018-02-19 20:41:35

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 182.705 ms

Loss rate: 0.73%

-- Flow 1:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 175.281 ms

Loss rate: 0.39%

-- Flow 2:

Average throughput: 0.99 Mbit/s

95th percentile per-packet one-way delay: 177.900 ms

Loss rate: 1.15%

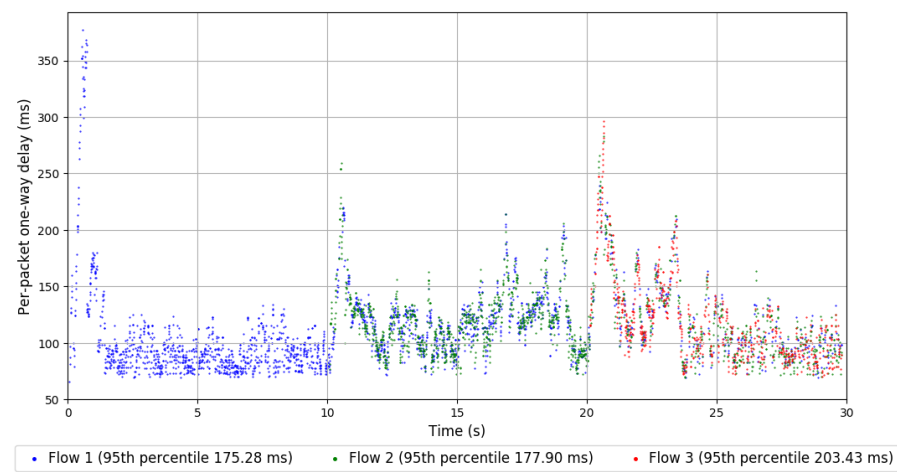
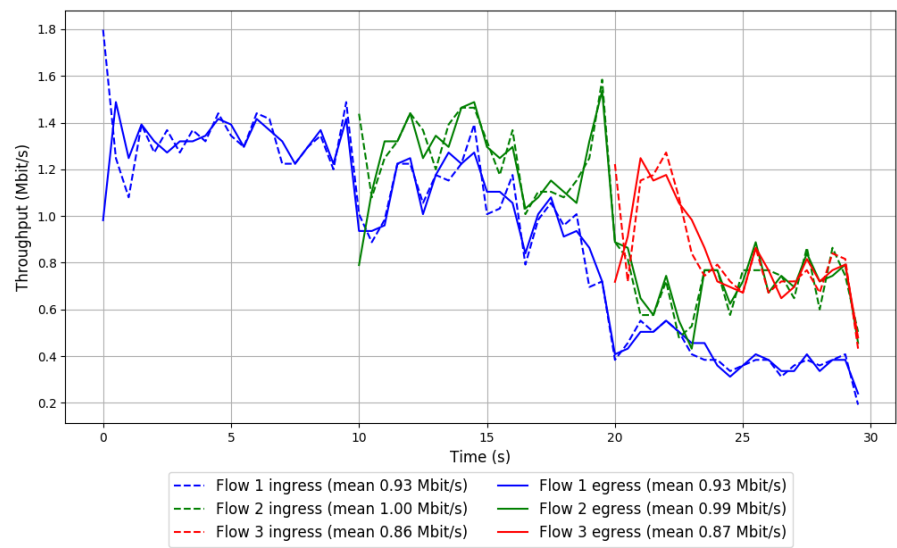
-- Flow 3:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 203.432 ms

Loss rate: 0.85%

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

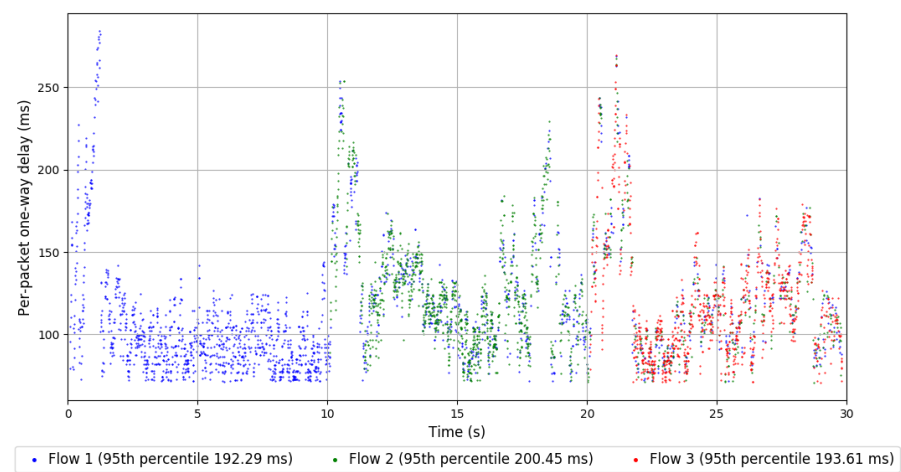
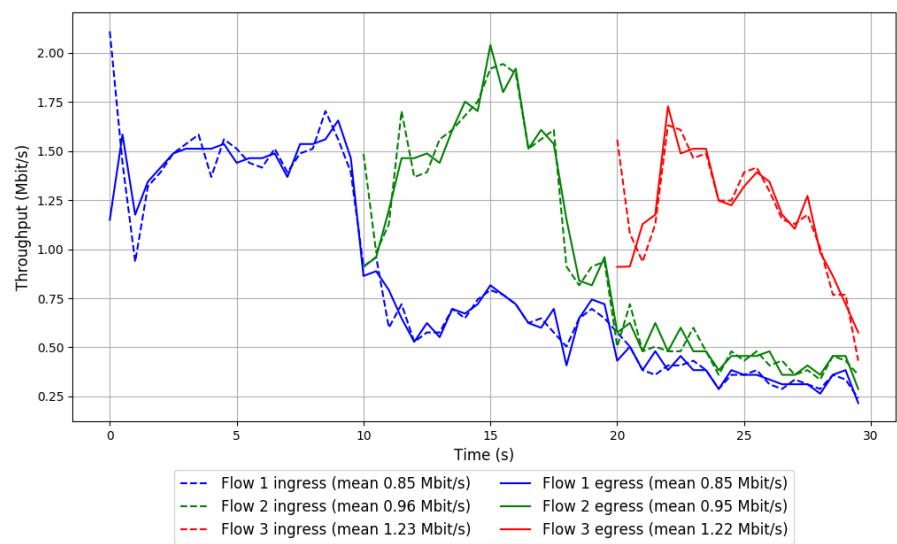


Run 3: Statistics of Indigo-1-32

Start at: 2018-02-19 19:28:52
End at: 2018-02-19 19:29:22
Local clock offset: -5.511 ms
Remote clock offset: -18.602 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 194.611 ms
Loss rate: 0.96%
-- Flow 1:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 192.290 ms
Loss rate: 0.66%
-- Flow 2:
Average throughput: 0.95 Mbit/s
95th percentile per-packet one-way delay: 200.448 ms
Loss rate: 1.08%
-- Flow 3:
Average throughput: 1.22 Mbit/s
95th percentile per-packet one-way delay: 193.607 ms
Loss rate: 1.40%

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

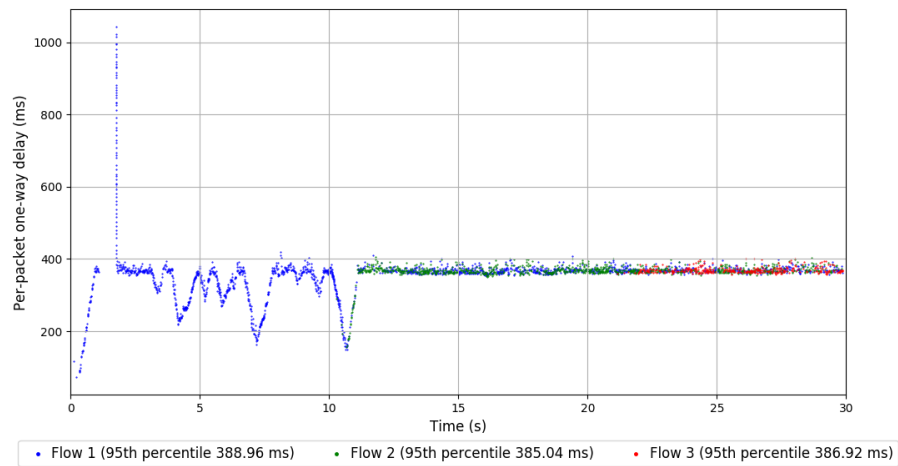
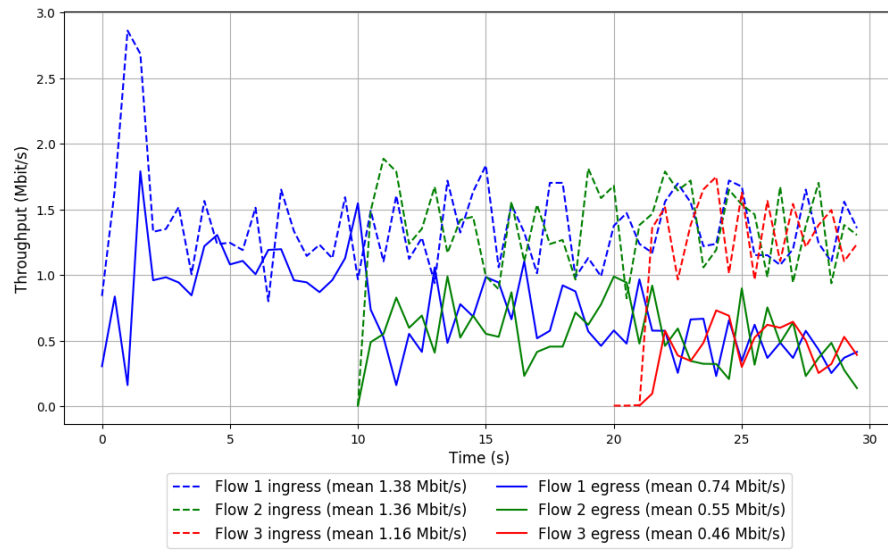


Run 1: Statistics of Vivace-latency

Start at: 2018-02-19 18:46:42
End at: 2018-02-19 18:47:12
Local clock offset: -4.957 ms
Remote clock offset: -24.103 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.24 Mbit/s
95th percentile per-packet one-way delay: 386.987 ms
Loss rate: 53.84%
-- Flow 1:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 388.962 ms
Loss rate: 46.57%
-- Flow 2:
Average throughput: 0.55 Mbit/s
95th percentile per-packet one-way delay: 385.037 ms
Loss rate: 60.19%
-- Flow 3:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 386.919 ms
Loss rate: 65.10%

Run 1: Report of Vivace-latency — Data Link

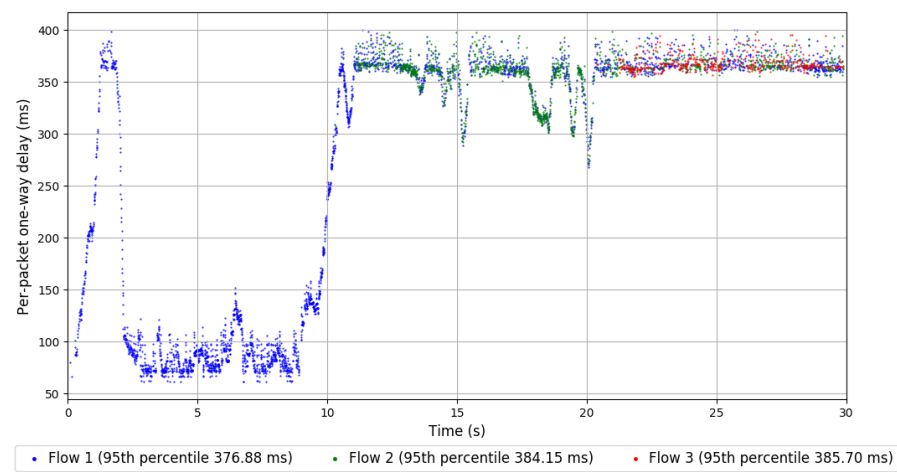
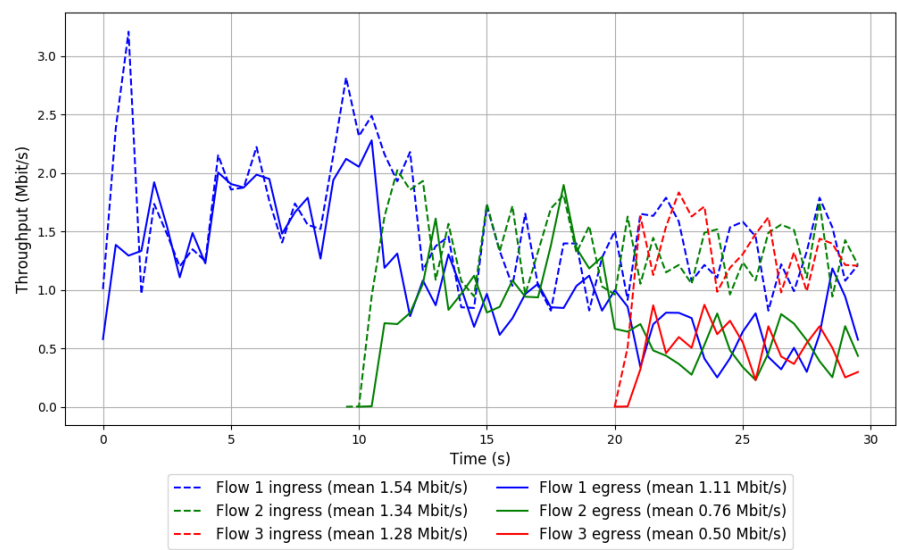


Run 2: Statistics of Vivace-latency

Start at: 2018-02-19 19:06:41
End at: 2018-02-19 19:07:11
Local clock offset: -4.537 ms
Remote clock offset: -19.357 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.77 Mbit/s
95th percentile per-packet one-way delay: 380.239 ms
Loss rate: 38.07%
-- Flow 1:
Average throughput: 1.11 Mbit/s
95th percentile per-packet one-way delay: 376.880 ms
Loss rate: 28.05%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 384.149 ms
Loss rate: 44.09%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 385.702 ms
Loss rate: 61.96%

Run 2: Report of Vivace-latency — Data Link

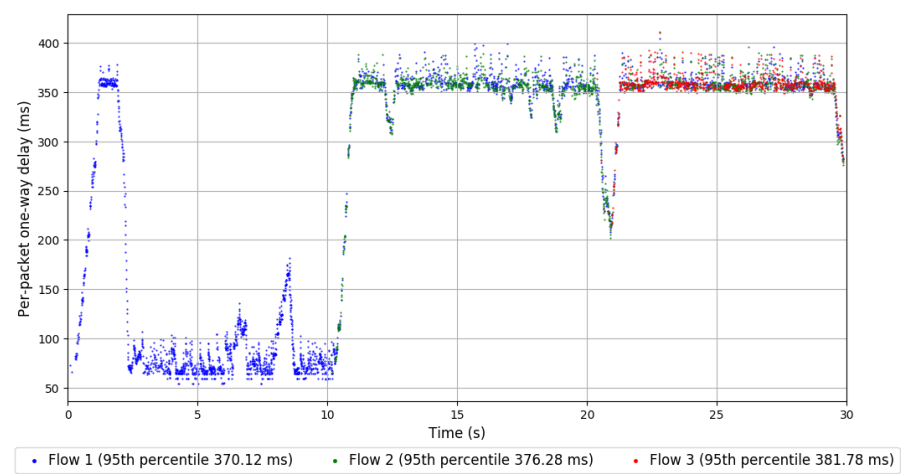
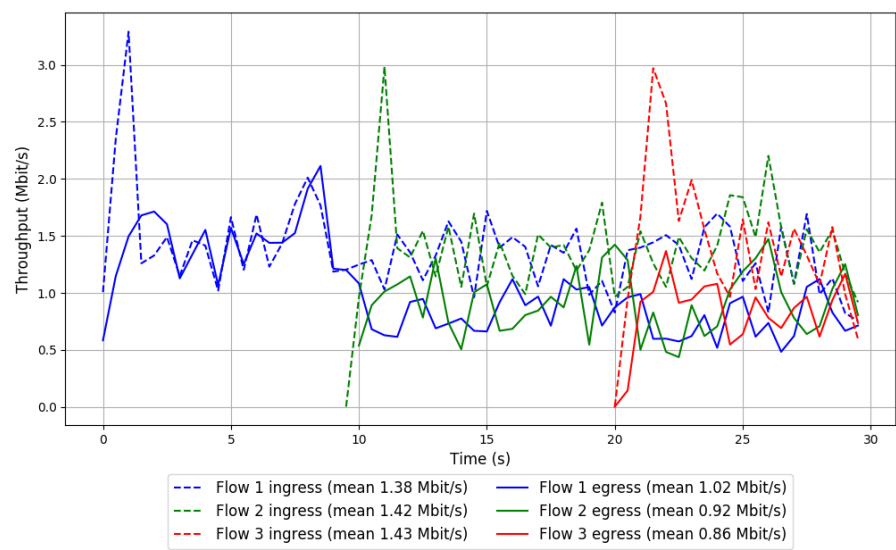


Run 3: Statistics of Vivace-latency

Start at: 2018-02-19 19:26:39
End at: 2018-02-19 19:27:09
Local clock offset: -7.696 ms
Remote clock offset: -14.772 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 373.828 ms
Loss rate: 32.16%
-- Flow 1:
Average throughput: 1.02 Mbit/s
95th percentile per-packet one-way delay: 370.116 ms
Loss rate: 26.47%
-- Flow 2:
Average throughput: 0.92 Mbit/s
95th percentile per-packet one-way delay: 376.282 ms
Loss rate: 35.62%
-- Flow 3:
Average throughput: 0.86 Mbit/s
95th percentile per-packet one-way delay: 381.782 ms
Loss rate: 41.91%

Run 3: Report of Vivace-latency — Data Link

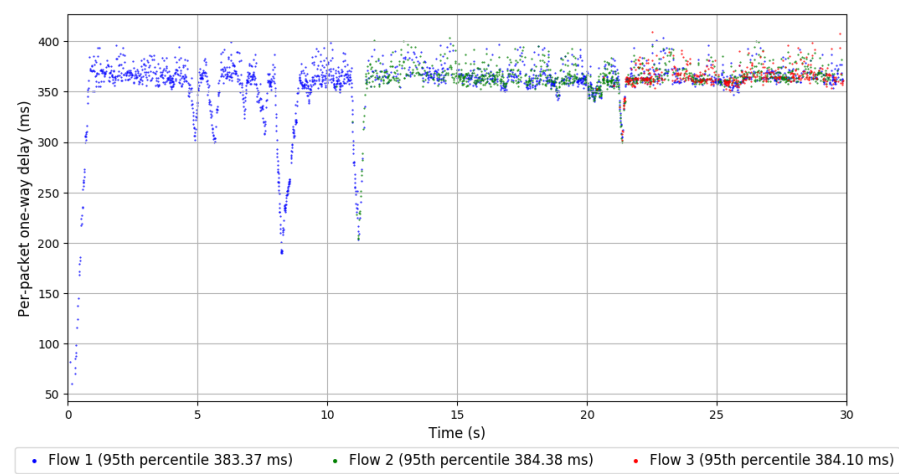
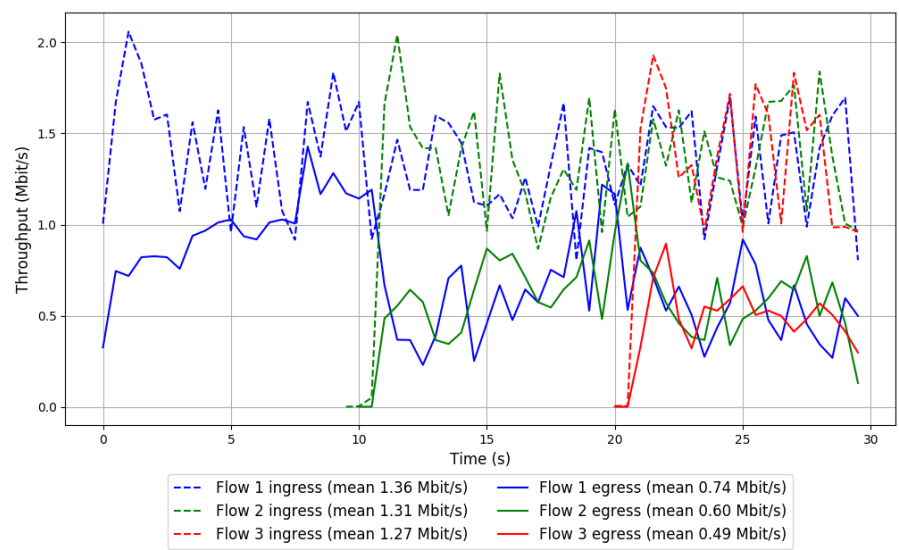


Run 1: Statistics of Vivace-loss

Start at: 2018-02-19 18:43:19
End at: 2018-02-19 18:43:49
Local clock offset: -4.739 ms
Remote clock offset: -22.242 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.28 Mbit/s
95th percentile per-packet one-way delay: 384.034 ms
Loss rate: 51.73%
-- Flow 1:
Average throughput: 0.74 Mbit/s
95th percentile per-packet one-way delay: 383.368 ms
Loss rate: 46.21%
-- Flow 2:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 384.380 ms
Loss rate: 54.97%
-- Flow 3:
Average throughput: 0.49 Mbit/s
95th percentile per-packet one-way delay: 384.100 ms
Loss rate: 62.94%

Run 1: Report of Vivace-loss — Data Link

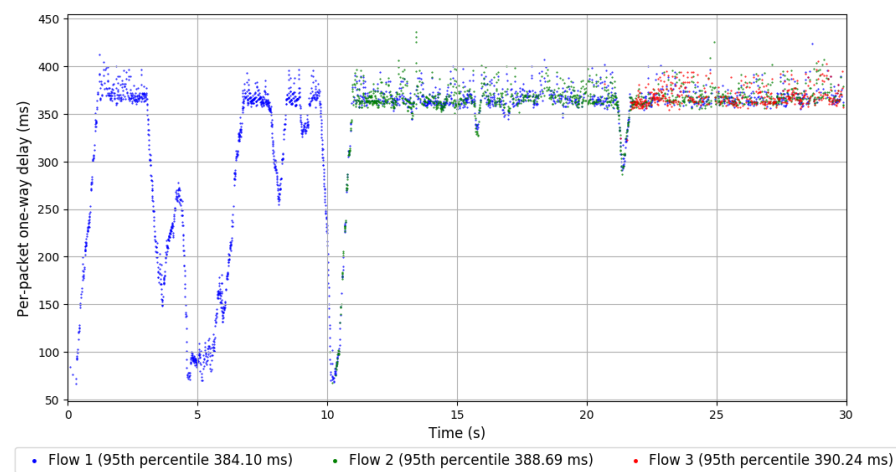
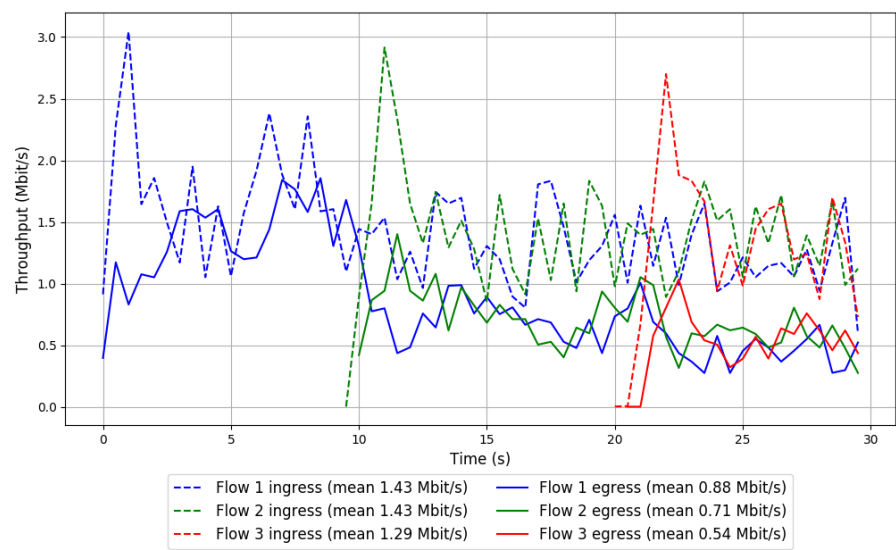


Run 2: Statistics of Vivace-loss

Start at: 2018-02-19 19:03:23
End at: 2018-02-19 19:03:53
Local clock offset: -6.534 ms
Remote clock offset: -20.853 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 386.847 ms
Loss rate: 46.13%
-- Flow 1:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 384.104 ms
Loss rate: 38.62%
-- Flow 2:
Average throughput: 0.71 Mbit/s
95th percentile per-packet one-way delay: 388.686 ms
Loss rate: 50.82%
-- Flow 3:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 390.241 ms
Loss rate: 60.84%

Run 2: Report of Vivace-loss — Data Link

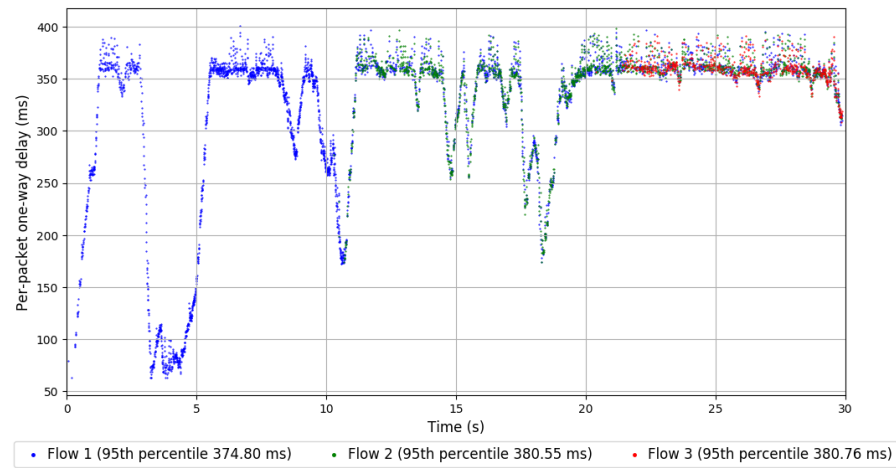
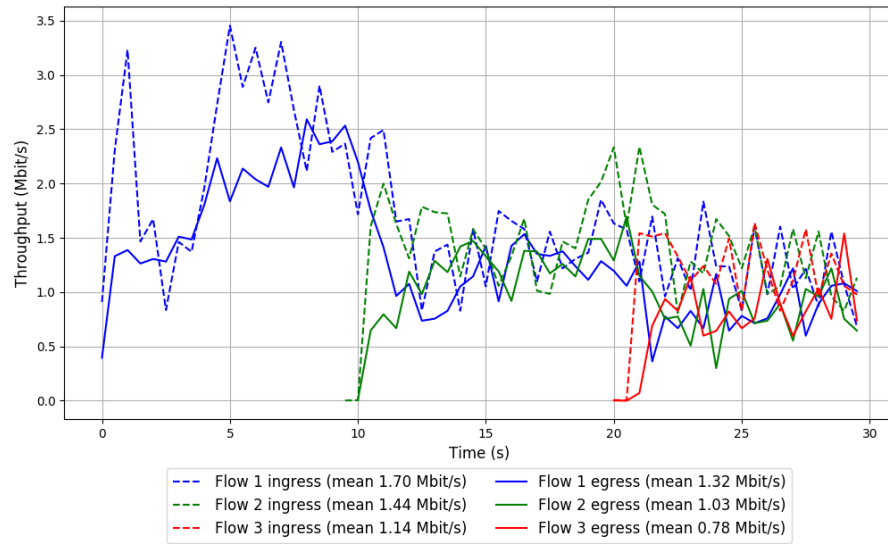


Run 3: Statistics of Vivace-loss

Start at: 2018-02-19 19:23:22
End at: 2018-02-19 19:23:52
Local clock offset: -5.115 ms
Remote clock offset: -15.531 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.25 Mbit/s
95th percentile per-packet one-way delay: 378.012 ms
Loss rate: 25.89%
-- Flow 1:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 374.795 ms
Loss rate: 22.29%
-- Flow 2:
Average throughput: 1.03 Mbit/s
95th percentile per-packet one-way delay: 380.550 ms
Loss rate: 29.22%
-- Flow 3:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 380.762 ms
Loss rate: 33.70%

Run 3: Report of Vivace-loss — Data Link

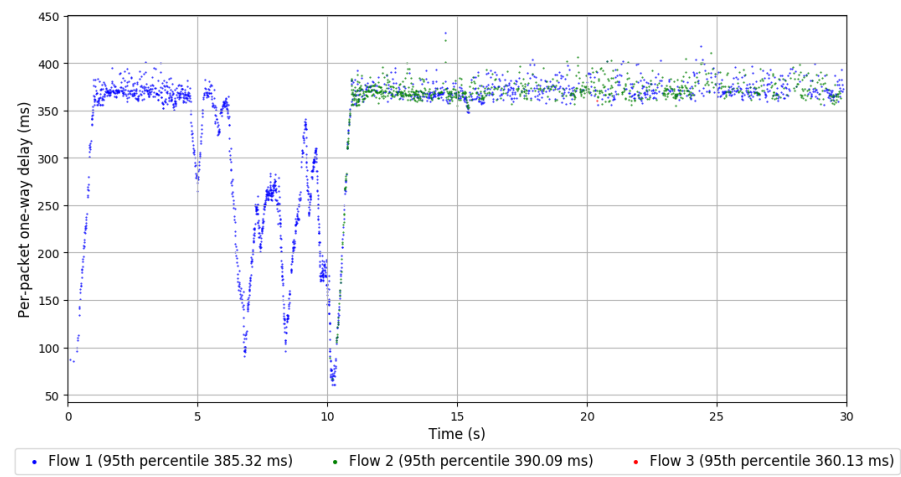
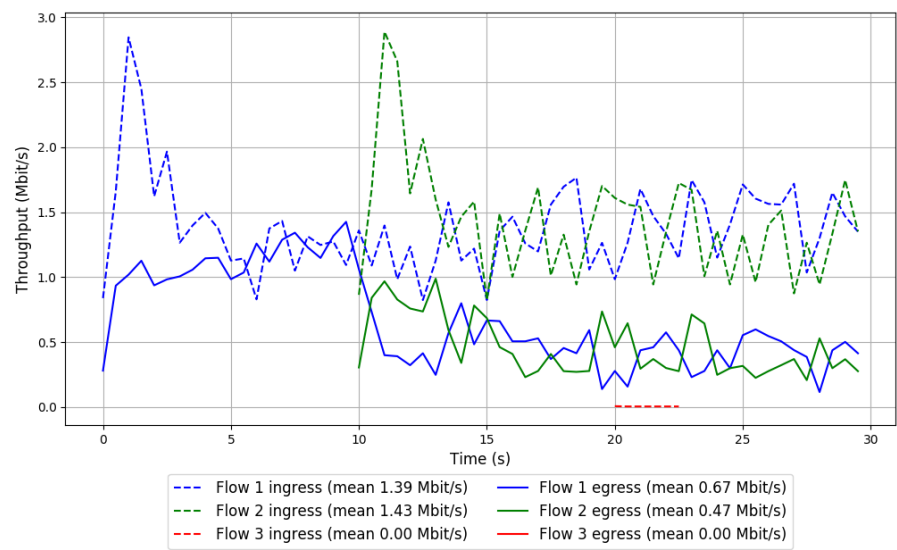


Run 1: Statistics of Vivace-LTE

Start at: 2018-02-19 18:47:48
End at: 2018-02-19 18:48:18
Local clock offset: -5.441 ms
Remote clock offset: -24.694 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 387.351 ms
Loss rate: 57.99%
-- Flow 1:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 385.325 ms
Loss rate: 51.63%
-- Flow 2:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 390.092 ms
Loss rate: 67.27%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 360.126 ms
Loss rate: 92.31%

Run 1: Report of Vivace-LTE — Data Link

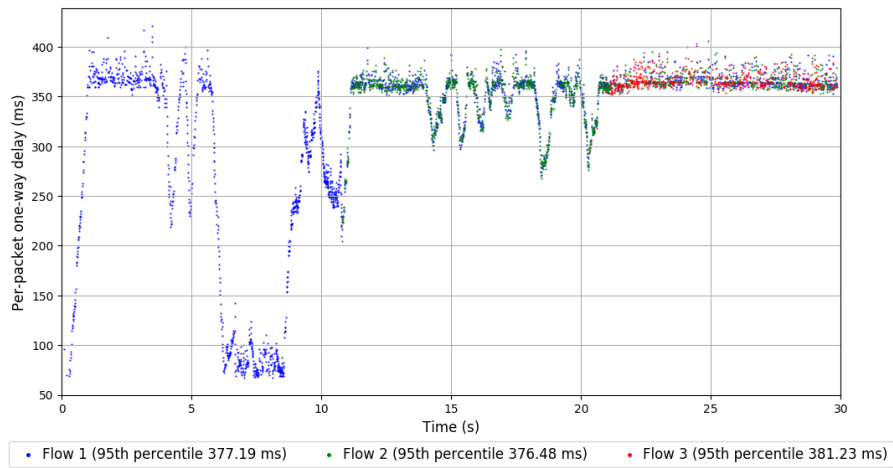
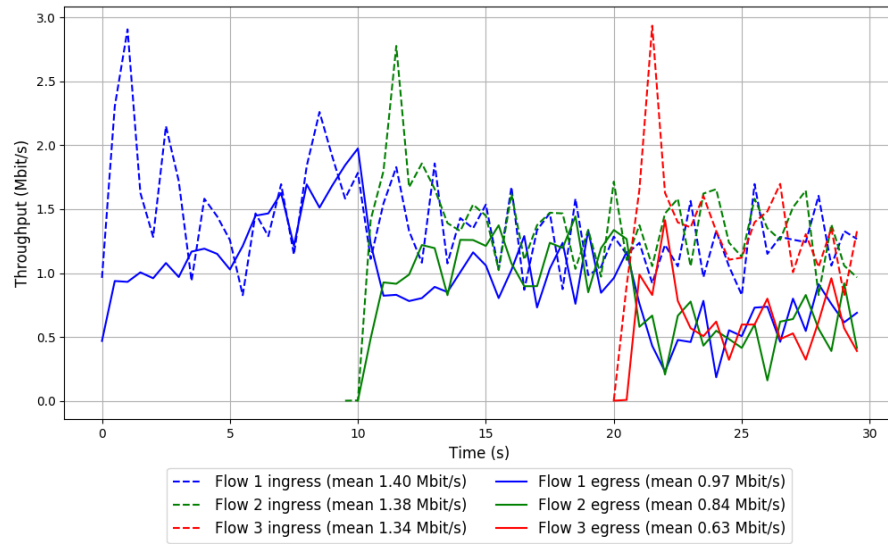


Run 2: Statistics of Vivace-LTE

Start at: 2018-02-19 19:07:47
End at: 2018-02-19 19:08:17
Local clock offset: -5.017 ms
Remote clock offset: -18.001 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.73 Mbit/s
95th percentile per-packet one-way delay: 377.917 ms
Loss rate: 37.67%
-- Flow 1:
Average throughput: 0.97 Mbit/s
95th percentile per-packet one-way delay: 377.192 ms
Loss rate: 30.72%
-- Flow 2:
Average throughput: 0.84 Mbit/s
95th percentile per-packet one-way delay: 376.476 ms
Loss rate: 39.89%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 381.230 ms
Loss rate: 55.00%

Run 2: Report of Vivace-LTE — Data Link



Run 3: Statistics of Vivace-LTE

Start at: 2018-02-19 19:27:45
End at: 2018-02-19 19:28:15
Local clock offset: -5.172 ms
Remote clock offset: -15.917 ms

Below is generated by plot.py at 2018-02-19 20:41:35
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.01 Mbit/s
95th percentile per-packet one-way delay: 376.792 ms
Loss rate: 26.69%
-- Flow 1:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 372.322 ms
Loss rate: 21.22%
-- Flow 2:
Average throughput: 0.99 Mbit/s
95th percentile per-packet one-way delay: 379.540 ms
Loss rate: 30.23%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 379.199 ms
Loss rate: 39.27%

Run 3: Report of Vivace-LTE — Data Link

