

Pantheon Report

Generated at 2018-05-30 15:21:56 (UTC).

Data path: AWS Brazil 2 Ethernet (*local*) → Colombia ppp0 ppp0 (*remote*).

Repeated the test of 16 congestion control schemes 3 times.

Each test lasted for 30 seconds running 3 flows with 10-second interval between two flows.

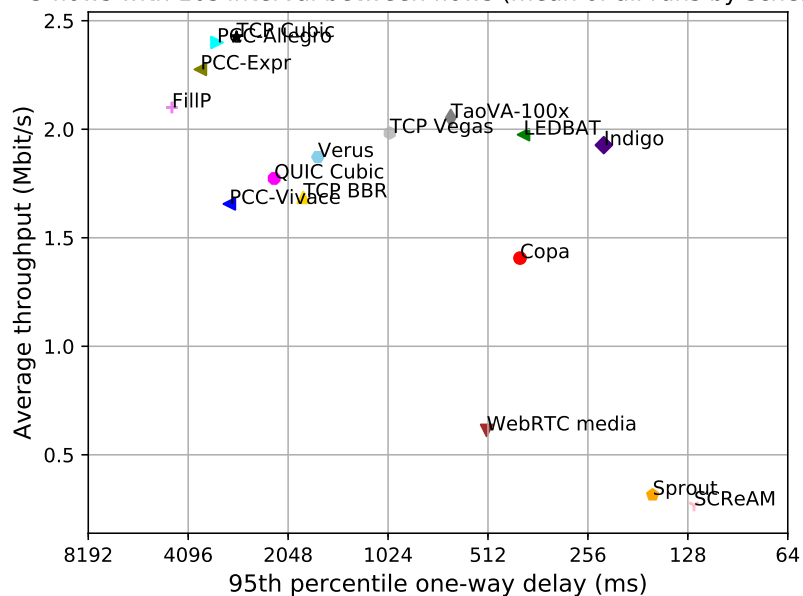
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

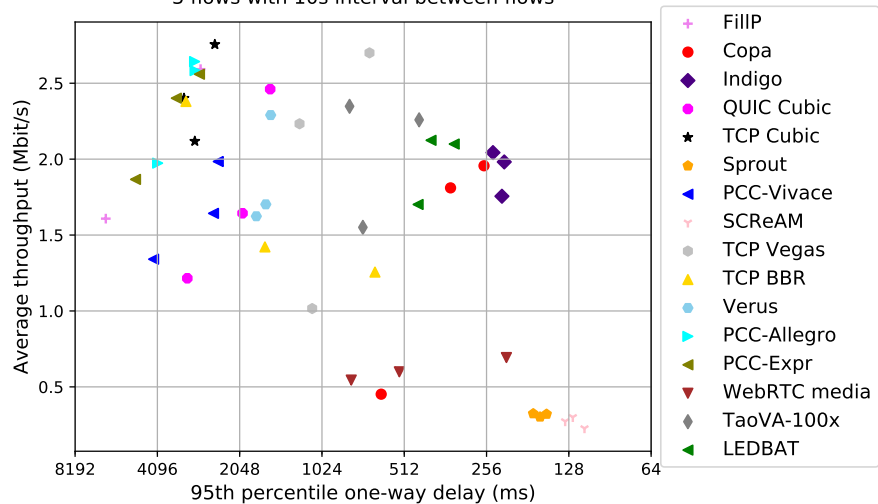
Git summary:

```
branch: master @ 227fdf9a3757f17b88537cceed5743a33037a3d2
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/genericCC @ c7966e494a929986eaa5a9c169a7f381fe1bbbe5
third_party/indigo @ 2601c92e4aa9d58d38dc4dfe0ecdbf90c077e64d
third_party/libutp @ b3465b942e2826f2b179eaab4a906ce6bb7cf3cf
third_party/pantheon-tunnel @ 6f038ed31259d366f9840f65b82cbe8f464b1b39
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/pcc-experimental @ cd43e34e3f5f5613e8acd08fab92c4eb24f974ab
third_party/proto-quirk @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ c838669682f0c19f6baf92afc9a596a406d48c1f
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 @ 2baf86211435ae071a32f96b7d8c504587f5d7f4
third_party/webRTC @ 3f0cc2a9061a41b6f9dde4735770d143a1fa2851
```

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



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



scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	0.89	0.71	0.98	1703.58	1876.58	1912.91	9.77	16.28	22.41
Copa	3	0.78	0.68	0.54	384.74	390.39	407.40	4.84	3.05	0.86
TCP Cubic	3	2.19	0.34	0.06	2895.38	2971.45	2882.49	13.37	19.47	50.43
FillP	2	1.71	0.72	0.01	4608.96	3187.20	3242.15	87.91	88.02	97.89
Indigo	3	1.01	0.90	0.96	231.23	247.78	198.63	0.00	0.20	0.21
LEDBAT	3	1.58	0.42	0.28	390.17	426.28	493.04	0.39	0.12	1.55
PCC-Allegro	3	1.62	1.03	0.36	3447.65	3026.97	2737.28	57.78	36.77	22.13
PCC-Expr	3	2.28	0.00	0.00	3764.11	3201.16	3473.07	62.61	61.63	63.63
QUIC Cubic	3	1.32	0.59	0.20	2116.47	2302.29	2392.22	5.21	12.21	35.35
SCReAM	3	0.08	0.17	0.22	119.26	116.20	127.95	0.04	0.05	0.32
Sprout	3	0.14	0.17	0.17	186.68	162.44	150.12	0.00	0.01	0.00
TaoVA-100x	3	1.21	0.92	0.72	525.30	773.63	661.29	2.95	7.25	20.68
TCP Vegas	3	1.60	0.30	0.66	951.89	1019.45	1202.02	6.41	6.41	10.23
Verus	3	1.86	0.02	0.02	1667.15	1612.82	1479.38	4.86	3.99	11.65
PCC-Vivace	3	0.38	1.68	0.46	2930.73	3080.97	3241.61	7.21	15.55	15.96
WebRTC media	3	0.30	0.26	0.06	464.67	507.73	620.94	0.03	0.05	0.29

Run 1: Statistics of TCP BBR

Start at: 2018-05-30 14:41:50

End at: 2018-05-30 14:42:20

Local clock offset: -1.123 ms

Remote clock offset: 3.678 ms

Below is generated by plot.py at 2018-05-30 15:21:18

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.42 Mbit/s

95th percentile per-packet one-way delay: 1655.513 ms

Loss rate: 9.90%

-- Flow 1:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 1319.652 ms

Loss rate: 6.68%

-- Flow 2:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 1705.696 ms

Loss rate: 8.79%

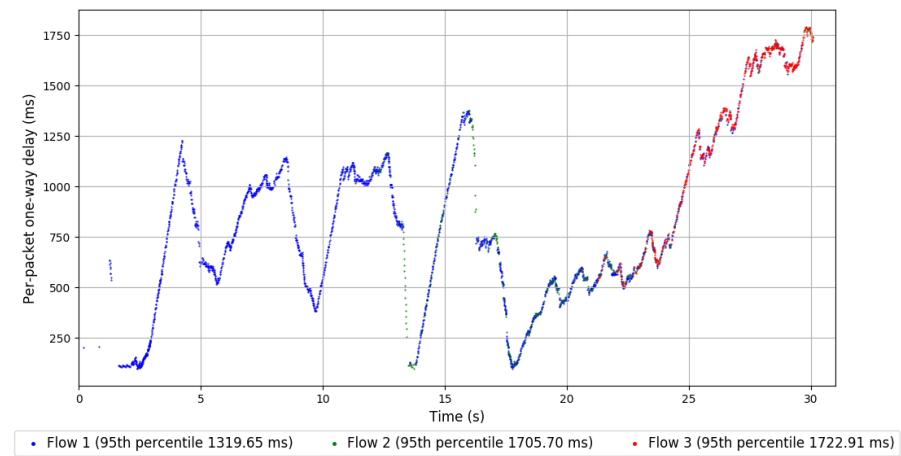
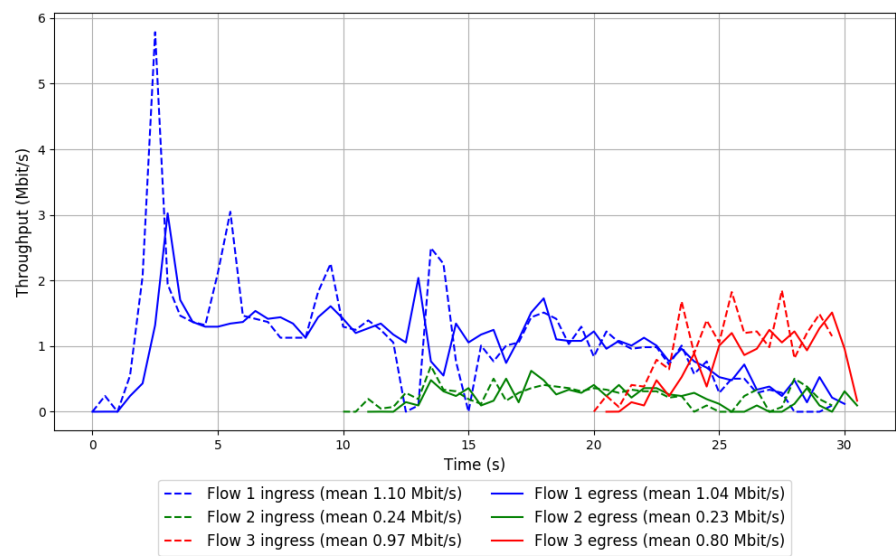
-- Flow 3:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 1722.906 ms

Loss rate: 21.39%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-05-30 15:01:09

End at: 2018-05-30 15:01:39

Local clock offset: -1.242 ms

Remote clock offset: 8.262 ms

Below is generated by plot.py at 2018-05-30 15:21:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.38 Mbit/s

95th percentile per-packet one-way delay: 3219.832 ms

Loss rate: 13.42%

-- Flow 1:

Average throughput: 1.44 Mbit/s

95th percentile per-packet one-way delay: 3175.709 ms

Loss rate: 3.10%

-- Flow 2:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 3308.426 ms

Loss rate: 24.35%

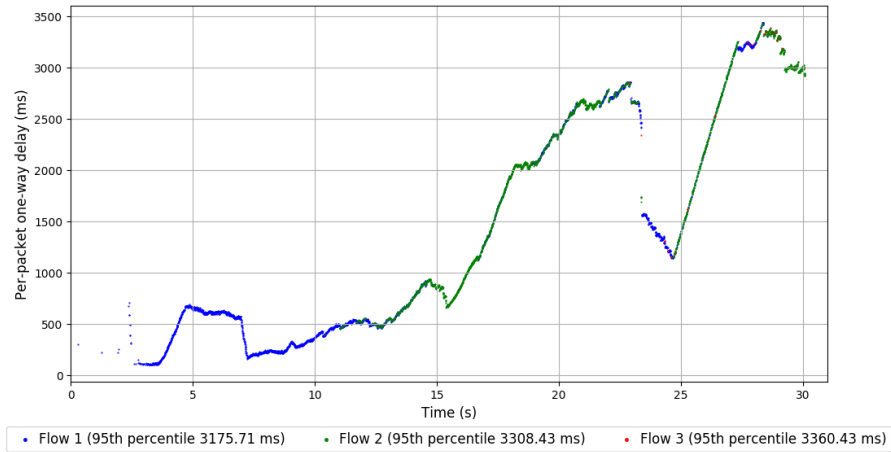
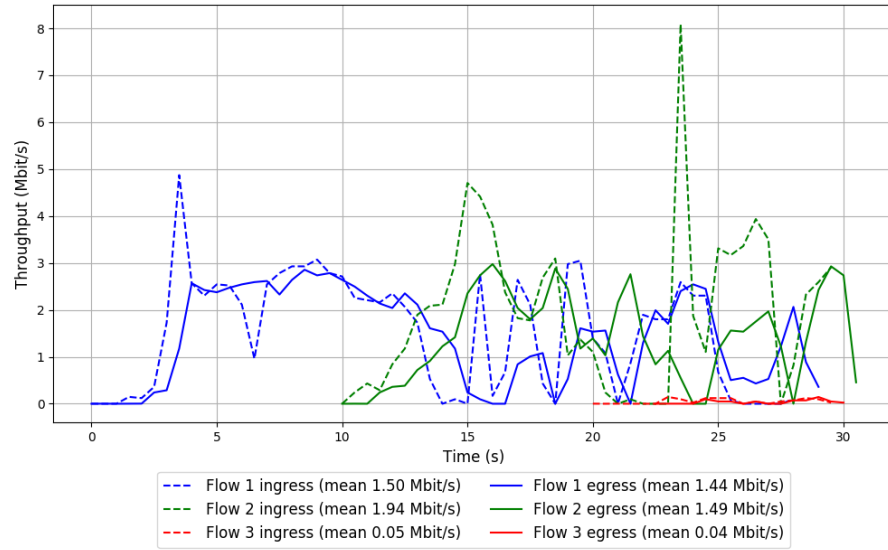
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 3360.428 ms

Loss rate: 41.62%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-05-30 15:20:28

End at: 2018-05-30 15:20:58

Local clock offset: -0.893 ms

Remote clock offset: 3.035 ms

Below is generated by plot.py at 2018-05-30 15:21:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 655.246 ms

Loss rate: 9.99%

-- Flow 1:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 615.381 ms

Loss rate: 19.53%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 615.606 ms

Loss rate: 15.71%

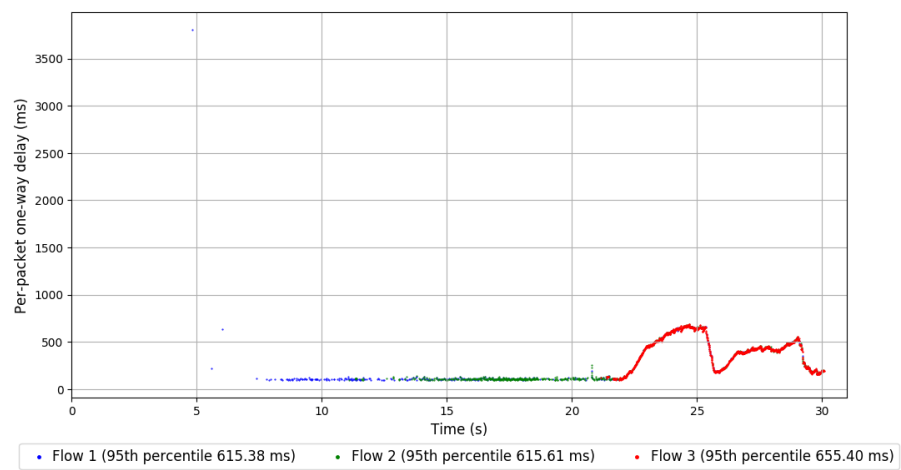
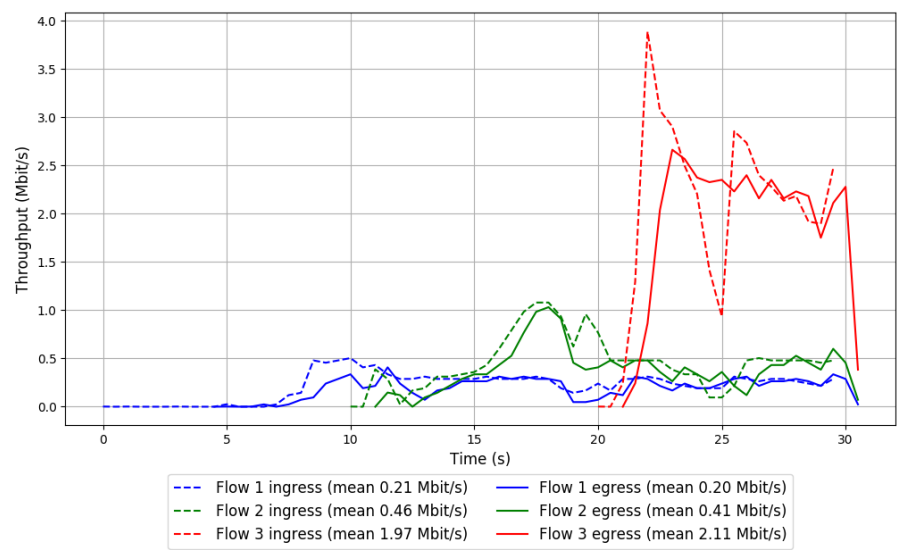
-- Flow 3:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 655.398 ms

Loss rate: 4.21%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-05-30 14:31:00

End at: 2018-05-30 14:31:30

Local clock offset: -1.613 ms

Remote clock offset: 9.18 ms

Below is generated by plot.py at 2018-05-30 15:21:20

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 621.820 ms

Loss rate: 10.30%

-- Flow 1:

Average throughput: 0.24 Mbit/s

95th percentile per-packet one-way delay: 551.574 ms

Loss rate: 14.22%

-- Flow 2:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 598.538 ms

Loss rate: 8.41%

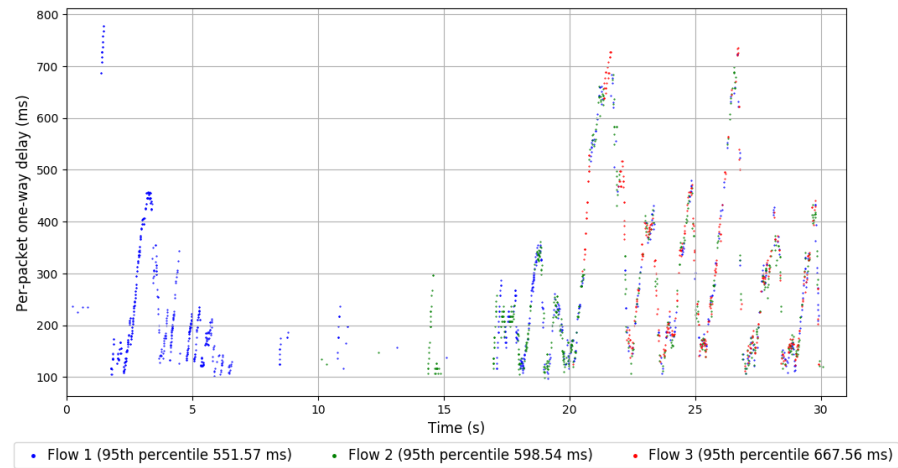
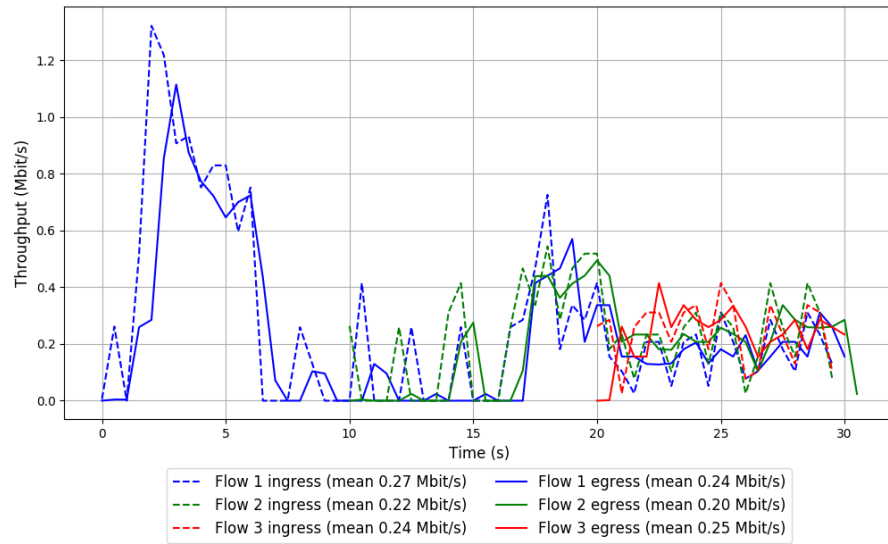
-- Flow 3:

Average throughput: 0.25 Mbit/s

95th percentile per-packet one-way delay: 667.563 ms

Loss rate: 0.53%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-05-30 14:50:17

End at: 2018-05-30 14:50:47

Local clock offset: -0.829 ms

Remote clock offset: 3.865 ms

Below is generated by plot.py at 2018-05-30 15:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.96 Mbit/s

95th percentile per-packet one-way delay: 261.531 ms

Loss rate: 0.16%

-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 271.119 ms

Loss rate: 0.04%

-- Flow 2:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 215.066 ms

Loss rate: 0.25%

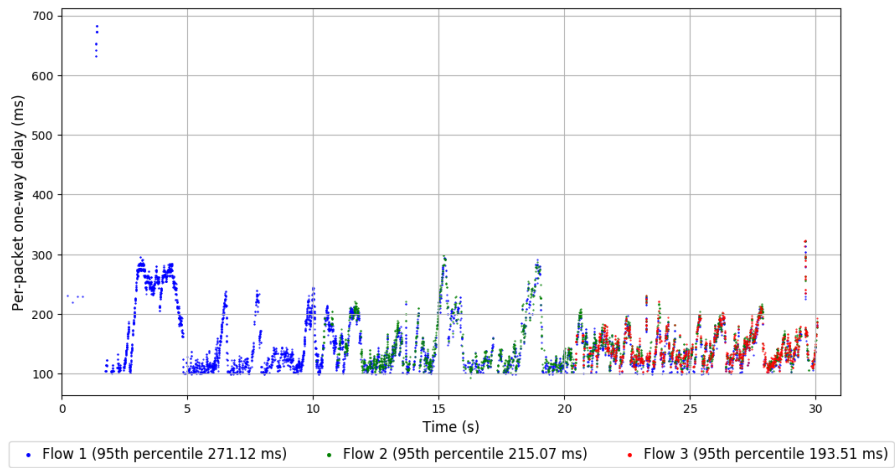
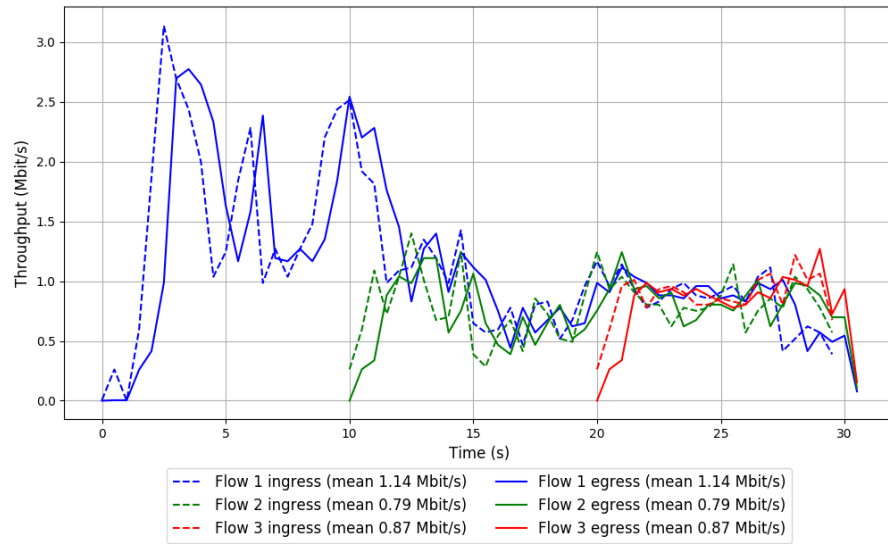
-- Flow 3:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 193.515 ms

Loss rate: 0.46%

Run 2: Report of Copa — Data Link



Run 3: Statistics of Copa

Start at: 2018-05-30 15:09:36

End at: 2018-05-30 15:10:06

Local clock offset: -1.341 ms

Remote clock offset: 3.968 ms

Below is generated by plot.py at 2018-05-30 15:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.81 Mbit/s

95th percentile per-packet one-way delay: 346.678 ms

Loss rate: 0.48%

-- Flow 1:

Average throughput: 0.96 Mbit/s

95th percentile per-packet one-way delay: 331.542 ms

Loss rate: 0.27%

-- Flow 2:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 357.568 ms

Loss rate: 0.50%

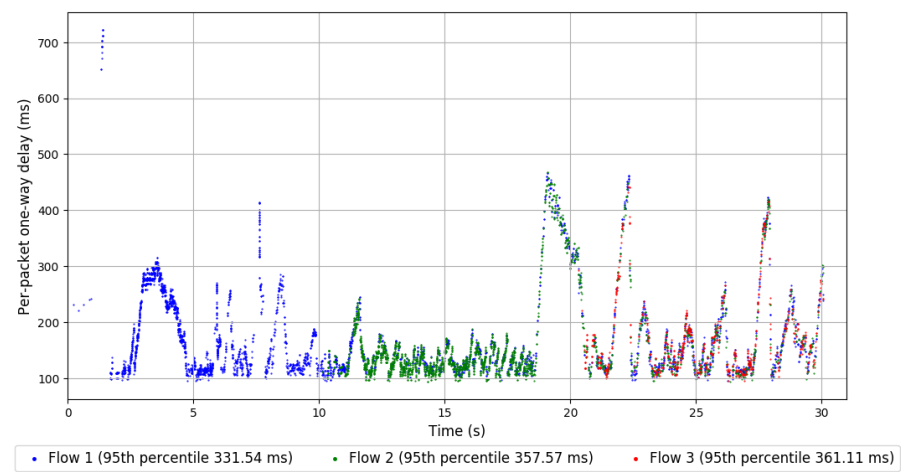
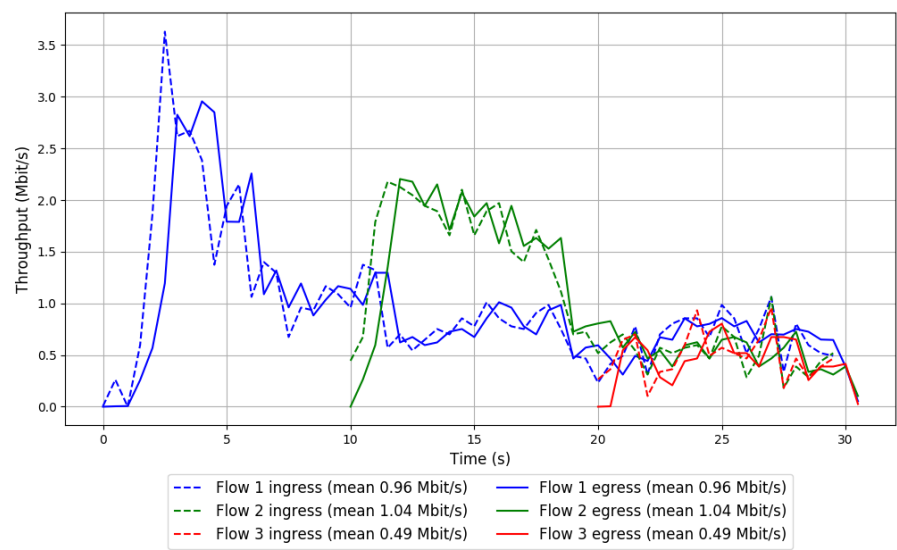
-- Flow 3:

Average throughput: 0.49 Mbit/s

95th percentile per-packet one-way delay: 361.108 ms

Loss rate: 1.59%

Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-05-30 14:24:58

End at: 2018-05-30 14:25:28

Local clock offset: -2.126 ms

Remote clock offset: 2.934 ms

Below is generated by plot.py at 2018-05-30 15:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.12 Mbit/s

95th percentile per-packet one-way delay: 2989.030 ms

Loss rate: 17.53%

-- Flow 1:

Average throughput: 1.56 Mbit/s

95th percentile per-packet one-way delay: 2888.929 ms

Loss rate: 16.68%

-- Flow 2:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 3079.221 ms

Loss rate: 18.27%

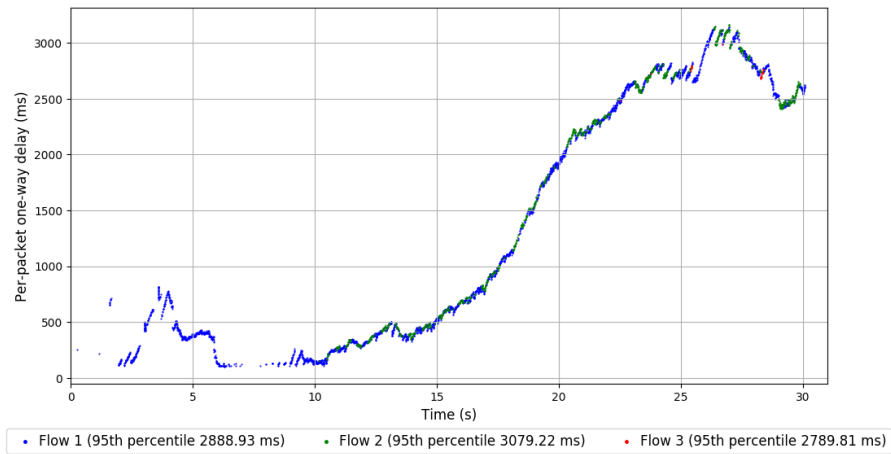
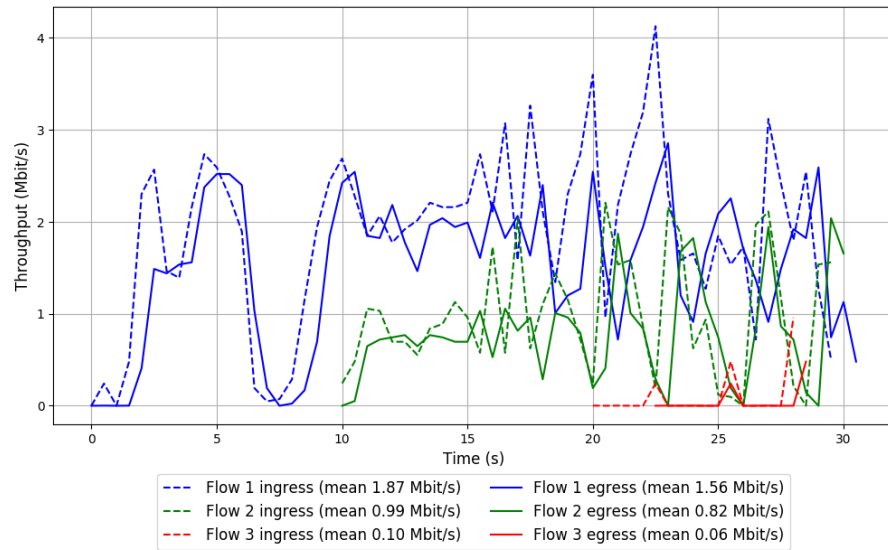
-- Flow 3:

Average throughput: 0.06 Mbit/s

95th percentile per-packet one-way delay: 2789.811 ms

Loss rate: 56.94%

Run 1: Report of TCP Cubic — Data Link



Run 2: Statistics of TCP Cubic

Start at: 2018-05-30 14:44:15

End at: 2018-05-30 14:44:45

Local clock offset: -2.642 ms

Remote clock offset: 3.794 ms

Below is generated by plot.py at 2018-05-30 15:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.76 Mbit/s

95th percentile per-packet one-way delay: 2524.697 ms

Loss rate: 12.36%

-- Flow 1:

Average throughput: 2.66 Mbit/s

95th percentile per-packet one-way delay: 2524.427 ms

Loss rate: 11.83%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 2533.290 ms

Loss rate: 15.96%

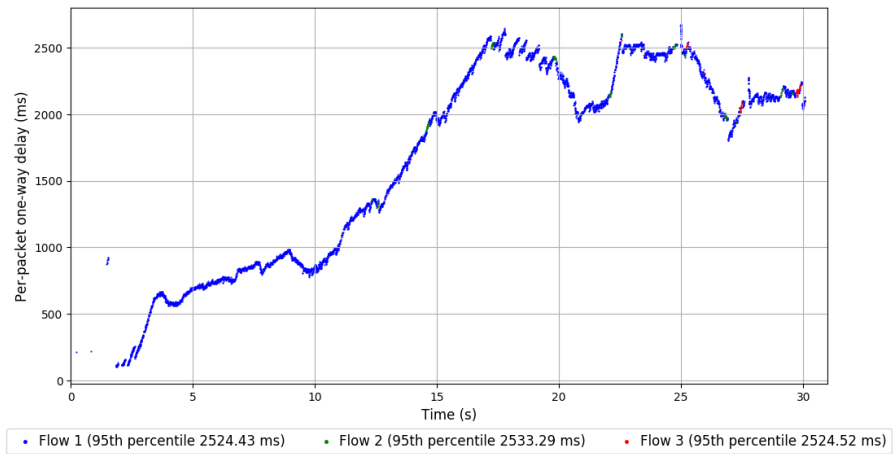
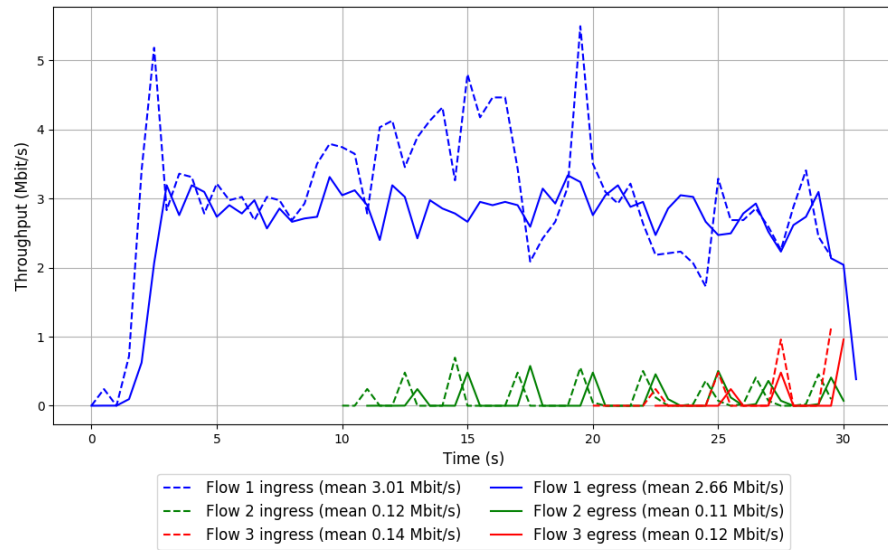
-- Flow 3:

Average throughput: 0.12 Mbit/s

95th percentile per-packet one-way delay: 2524.523 ms

Loss rate: 40.07%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-05-30 15:03:33

End at: 2018-05-30 15:04:03

Local clock offset: -1.173 ms

Remote clock offset: 3.304 ms

Below is generated by plot.py at 2018-05-30 15:21:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.40 Mbit/s

95th percentile per-packet one-way delay: 3273.089 ms

Loss rate: 12.06%

-- Flow 1:

Average throughput: 2.34 Mbit/s

95th percentile per-packet one-way delay: 3272.796 ms

Loss rate: 11.61%

-- Flow 2:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 3301.826 ms

Loss rate: 24.17%

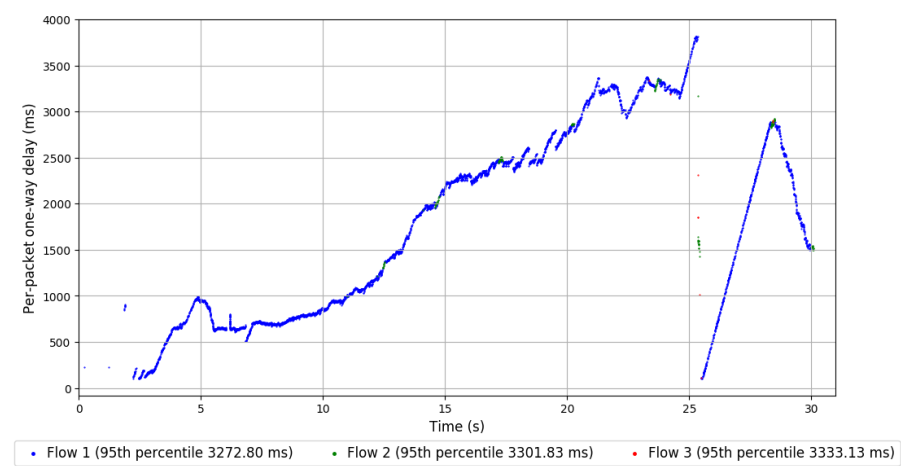
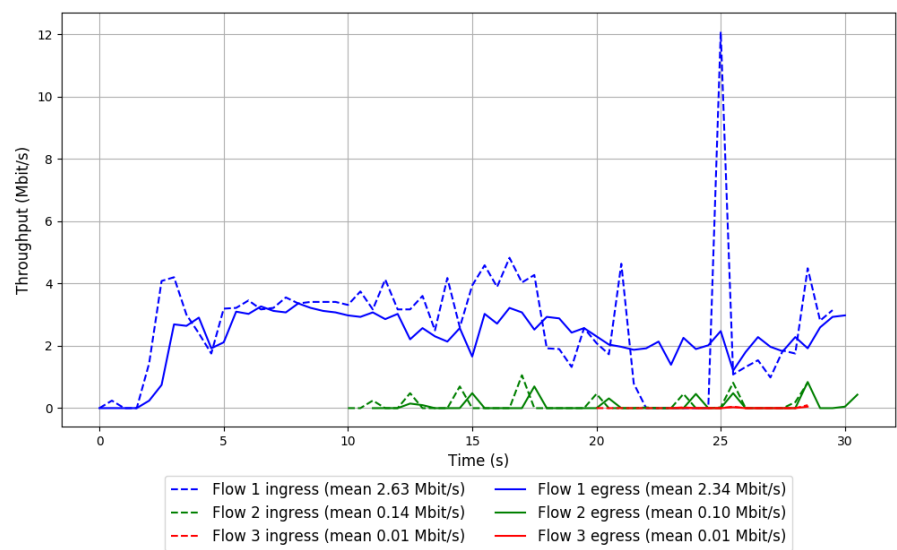
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3333.126 ms

Loss rate: 54.29%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-05-30 14:27:23

End at: 2018-05-30 14:27:53

Local clock offset: -3.378 ms

Remote clock offset: 3.183 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 6325.430 ms

Loss rate: 93.96%

-- Flow 1:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 6357.148 ms

Loss rate: 94.33%

-- Flow 2:

Average throughput: 0.63 Mbit/s

95th percentile per-packet one-way delay: 3621.162 ms

Loss rate: 91.17%

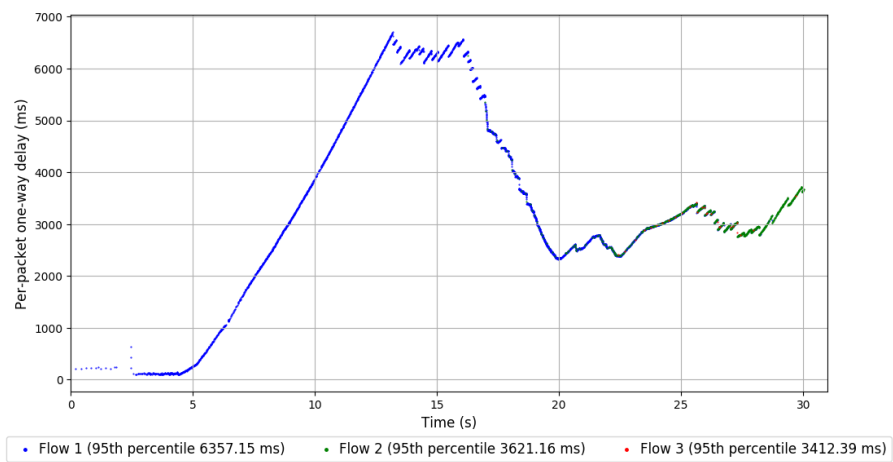
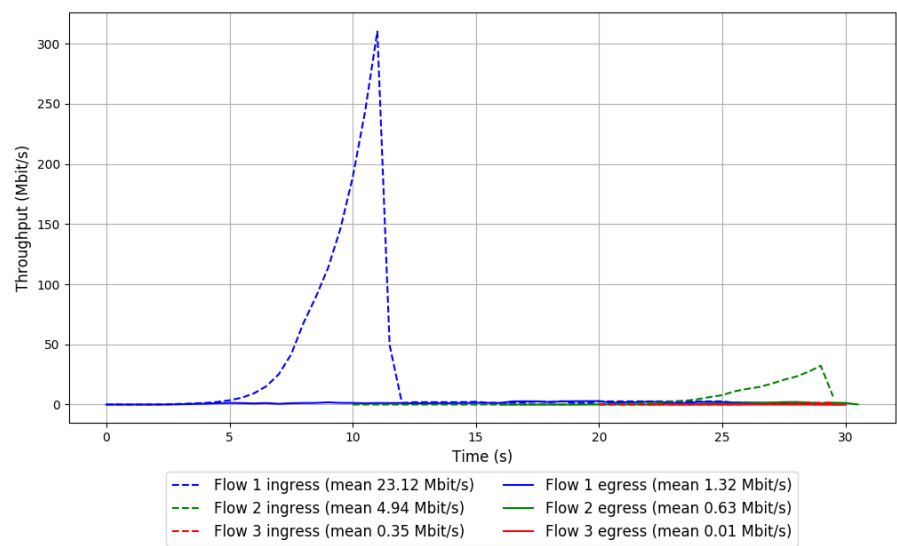
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3412.394 ms

Loss rate: 98.95%

Run 1: Report of FillP — Data Link



Run 2: Statistics of FillP

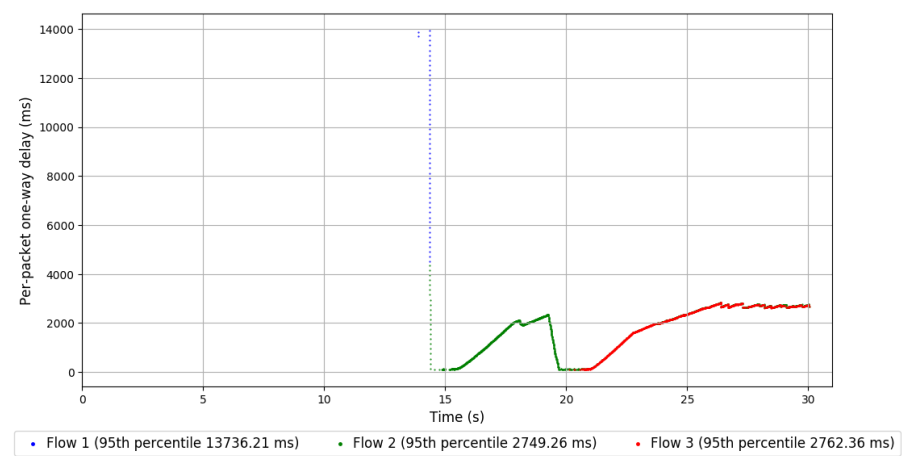
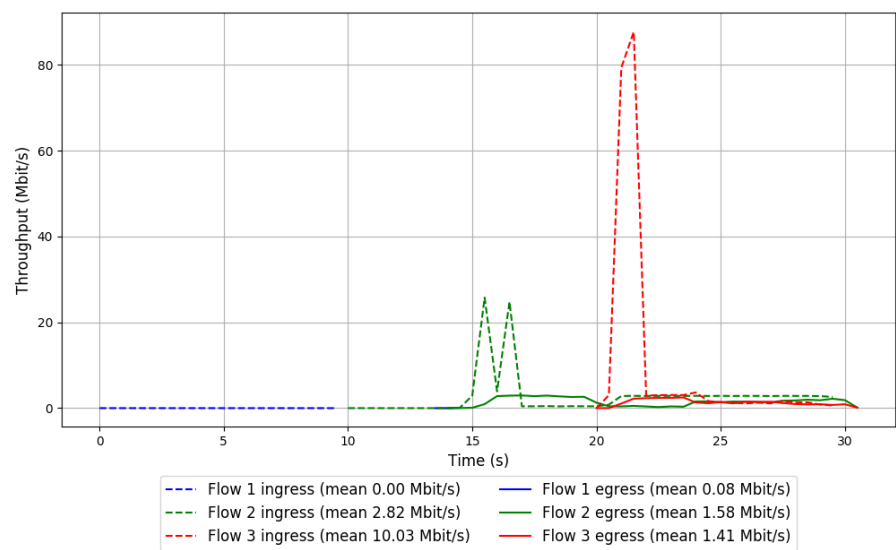
Start at: 2018-05-30 14:46:39

End at: 2018-05-30 14:47:09

Local clock offset: -1.72 ms

Remote clock offset: 8.58 ms

Run 2: Report of FillP — Data Link



Run 3: Statistics of FillP

Start at: 2018-05-30 15:05:58

End at: 2018-05-30 15:06:28

Local clock offset: -1.866 ms

Remote clock offset: 3.237 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.59 Mbit/s

95th percentile per-packet one-way delay: 2846.318 ms

Loss rate: 82.24%

-- Flow 1:

Average throughput: 2.11 Mbit/s

95th percentile per-packet one-way delay: 2860.774 ms

Loss rate: 81.48%

-- Flow 2:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 2753.237 ms

Loss rate: 84.86%

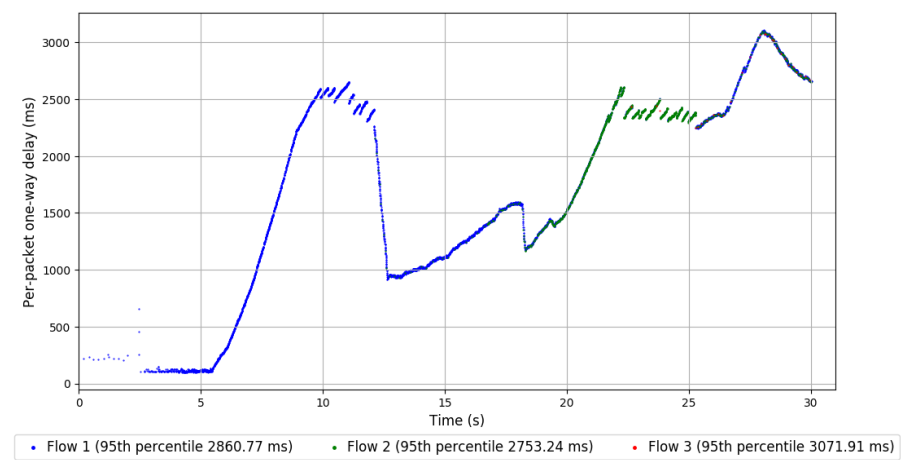
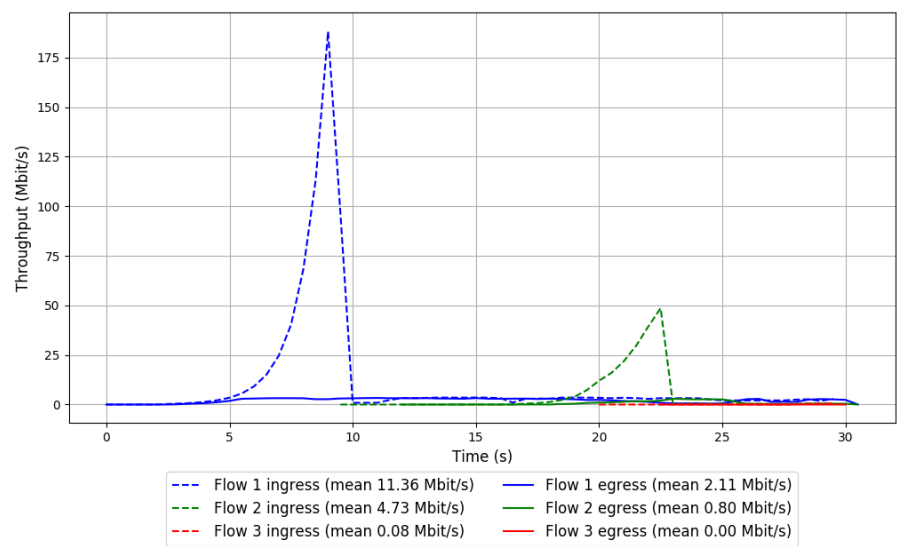
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3071.907 ms

Loss rate: 96.83%

Run 3: Report of FillP — Data Link



Run 1: Statistics of Indigo

Start at: 2018-05-30 14:23:46

End at: 2018-05-30 14:24:16

Local clock offset: -3.77 ms

Remote clock offset: 7.853 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 220.493 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 1.10 Mbit/s

95th percentile per-packet one-way delay: 220.879 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 230.325 ms

Loss rate: 0.00%

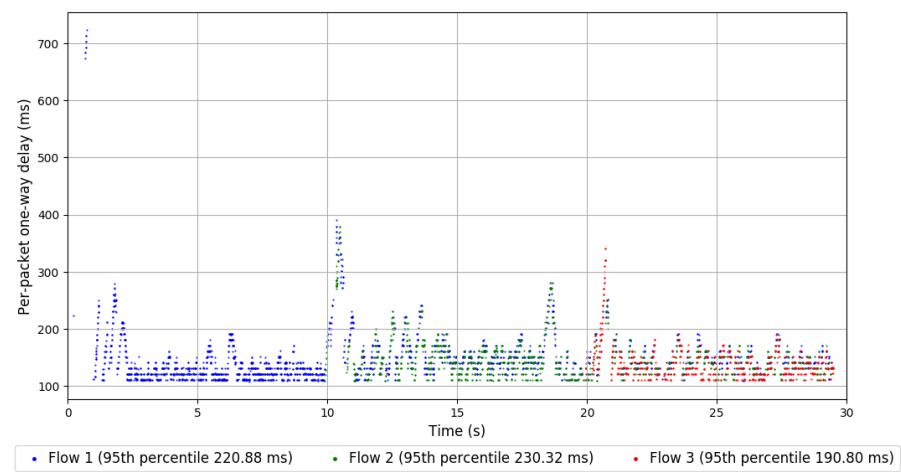
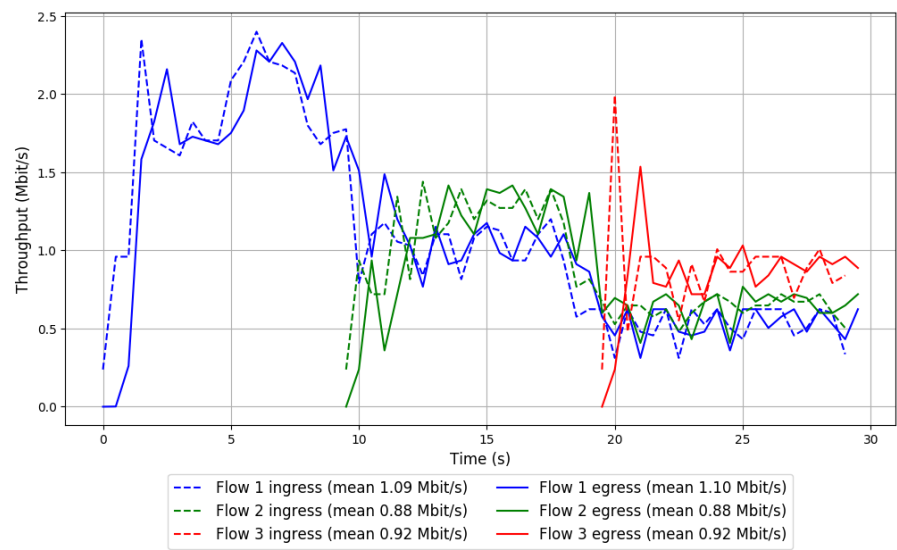
-- Flow 3:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 190.803 ms

Loss rate: 0.00%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-05-30 14:43:02

End at: 2018-05-30 14:43:32

Local clock offset: -1.846 ms

Remote clock offset: 4.566 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.76 Mbit/s

95th percentile per-packet one-way delay: 224.879 ms

Loss rate: 0.19%

-- Flow 1:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 234.497 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 234.193 ms

Loss rate: 0.29%

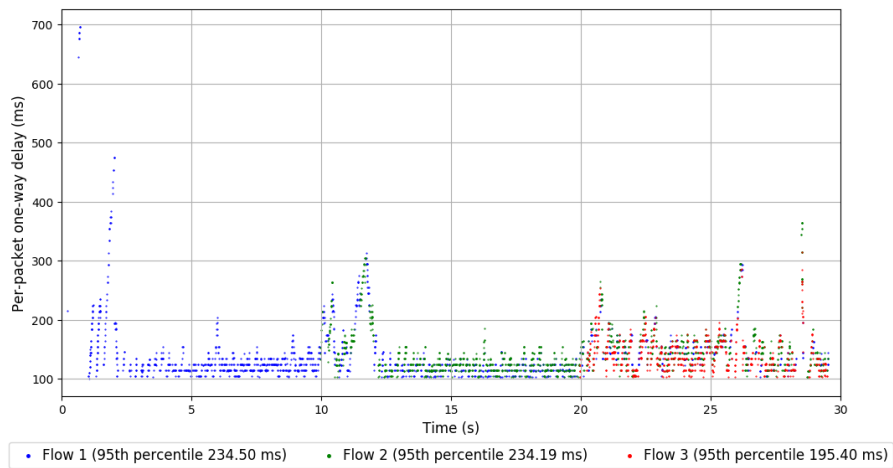
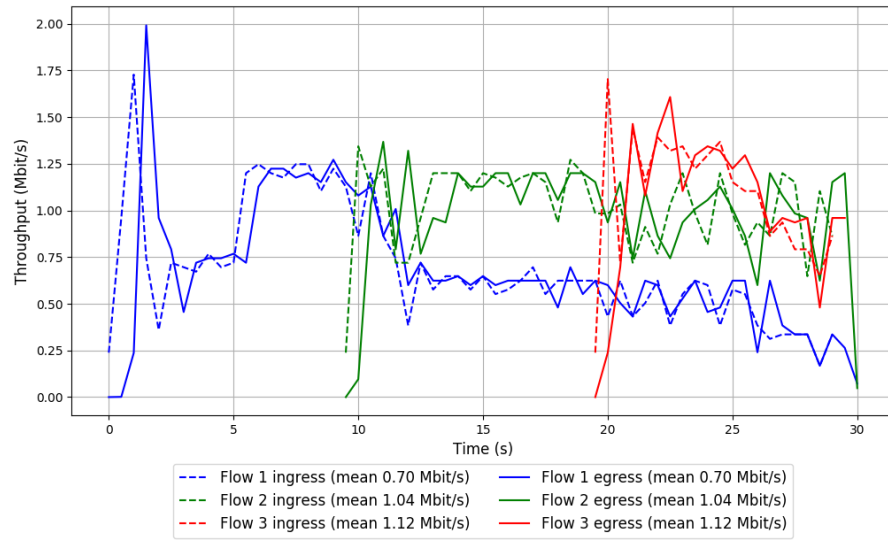
-- Flow 3:

Average throughput: 1.12 Mbit/s

95th percentile per-packet one-way delay: 195.399 ms

Loss rate: 0.34%

Run 2: Report of Indigo — Data Link



Run 3: Statistics of Indigo

Start at: 2018-05-30 15:02:21

End at: 2018-05-30 15:02:51

Local clock offset: -2.006 ms

Remote clock offset: 8.26 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.04 Mbit/s

95th percentile per-packet one-way delay: 242.495 ms

Loss rate: 0.12%

-- Flow 1:

Average throughput: 1.24 Mbit/s

95th percentile per-packet one-way delay: 238.324 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.79 Mbit/s

95th percentile per-packet one-way delay: 278.826 ms

Loss rate: 0.31%

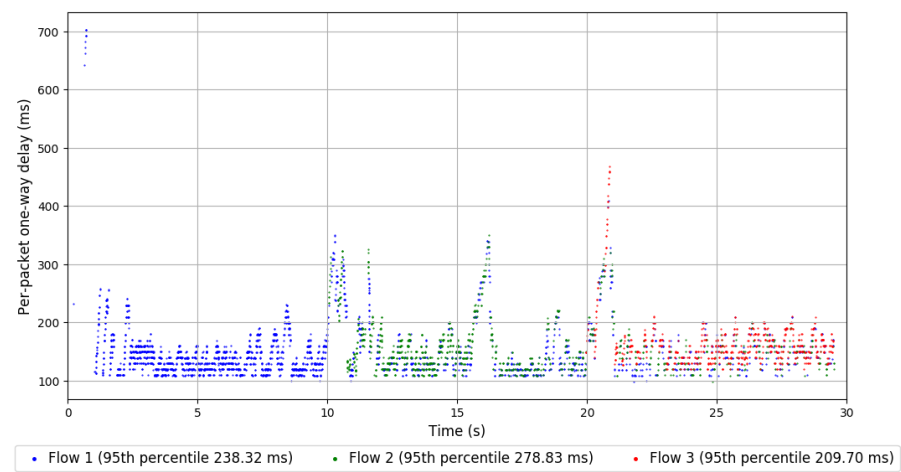
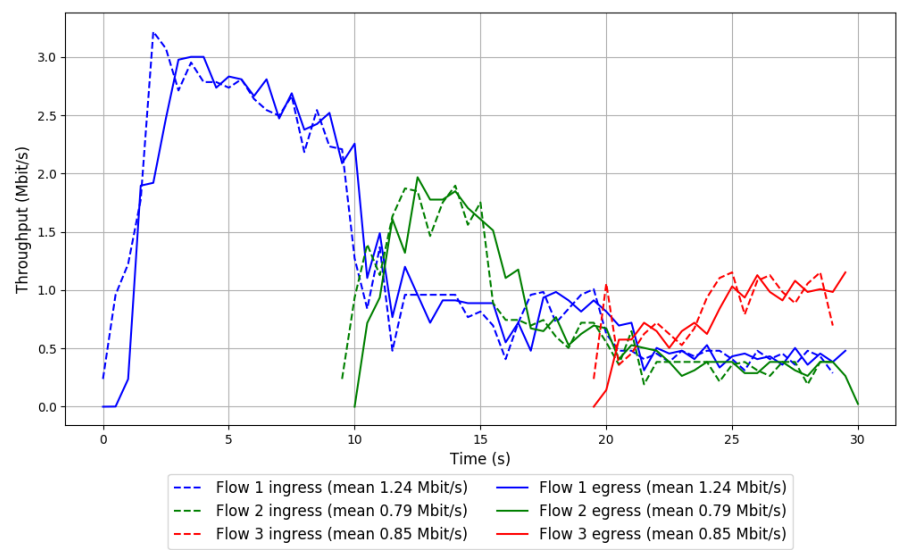
-- Flow 3:

Average throughput: 0.85 Mbit/s

95th percentile per-packet one-way delay: 209.703 ms

Loss rate: 0.30%

Run 3: Report of Indigo — Data Link

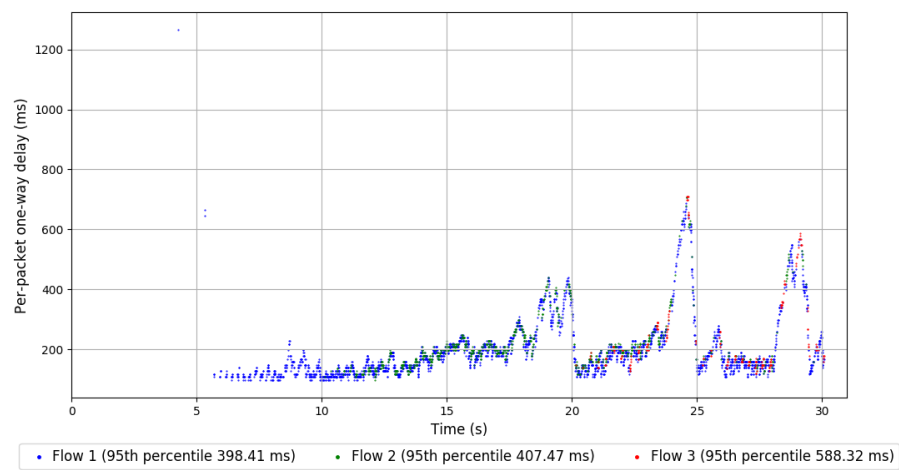
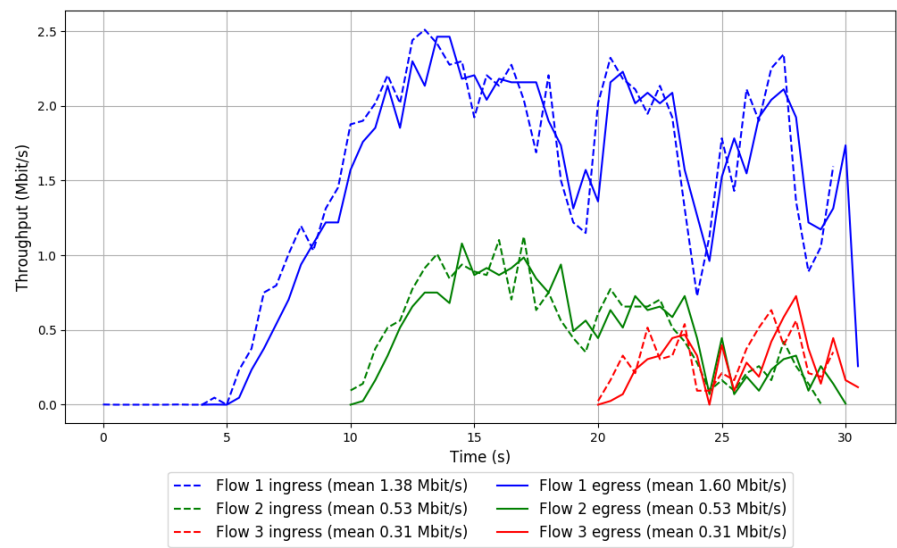


```
Run 1: Statistics of LEDBAT

Start at: 2018-05-30 14:34:36
End at: 2018-05-30 14:35:06
Local clock offset: -2.195 ms
Remote clock offset: 8.375 ms

# Below is generated by plot.py at 2018-05-30 15:21:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.12 Mbit/s
95th percentile per-packet one-way delay: 408.656 ms
Loss rate: 0.28%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 398.411 ms
Loss rate: 0.28%
-- Flow 2:
Average throughput: 0.53 Mbit/s
95th percentile per-packet one-way delay: 407.468 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 588.317 ms
Loss rate: 1.13%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-05-30 14:53:54

End at: 2018-05-30 14:54:24

Local clock offset: -1.468 ms

Remote clock offset: 8.61 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.10 Mbit/s

95th percentile per-packet one-way delay: 336.223 ms

Loss rate: 0.34%

-- Flow 1:

Average throughput: 1.68 Mbit/s

95th percentile per-packet one-way delay: 316.873 ms

Loss rate: 0.21%

-- Flow 2:

Average throughput: 0.50 Mbit/s

95th percentile per-packet one-way delay: 396.160 ms

Loss rate: 0.36%

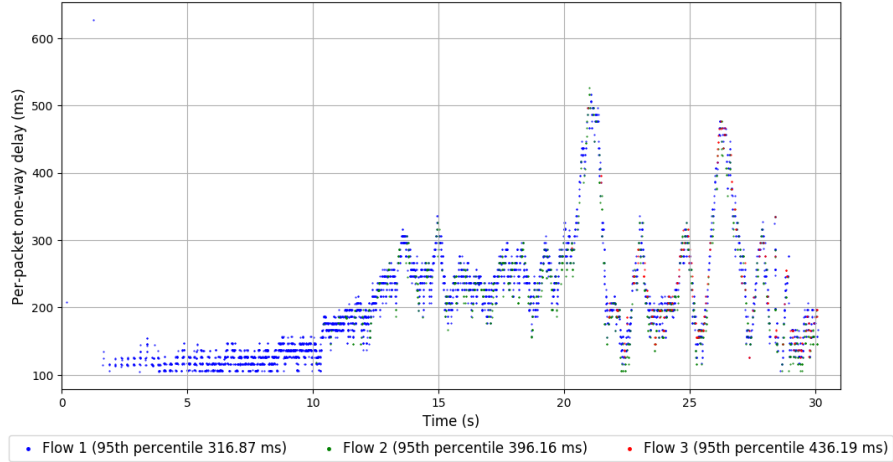
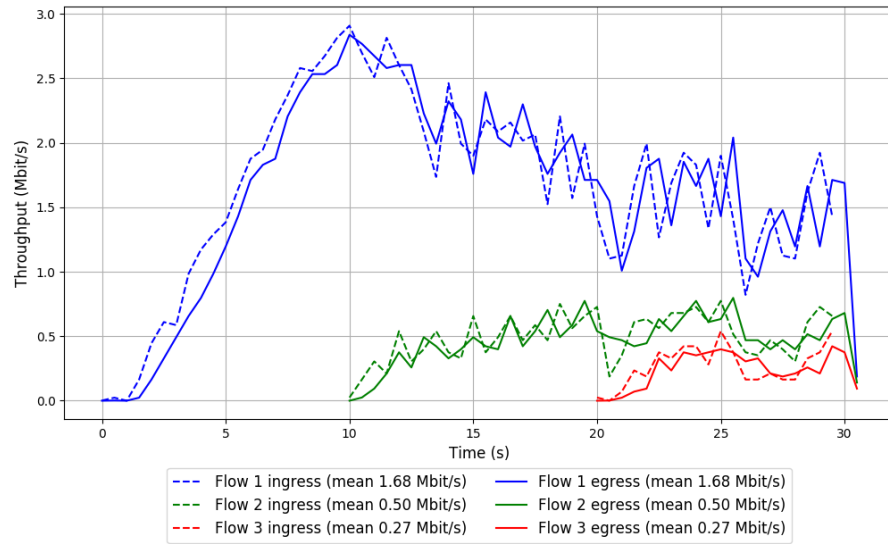
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 436.188 ms

Loss rate: 2.62%

Run 2: Report of LEDBAT — Data Link

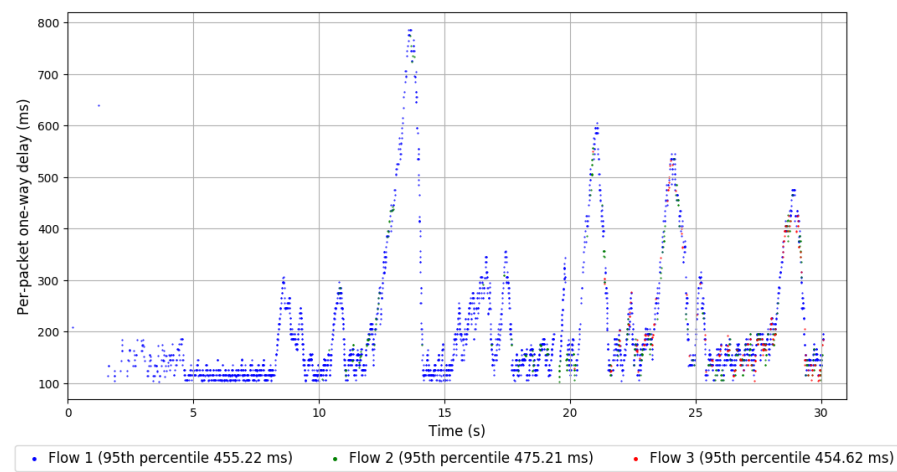
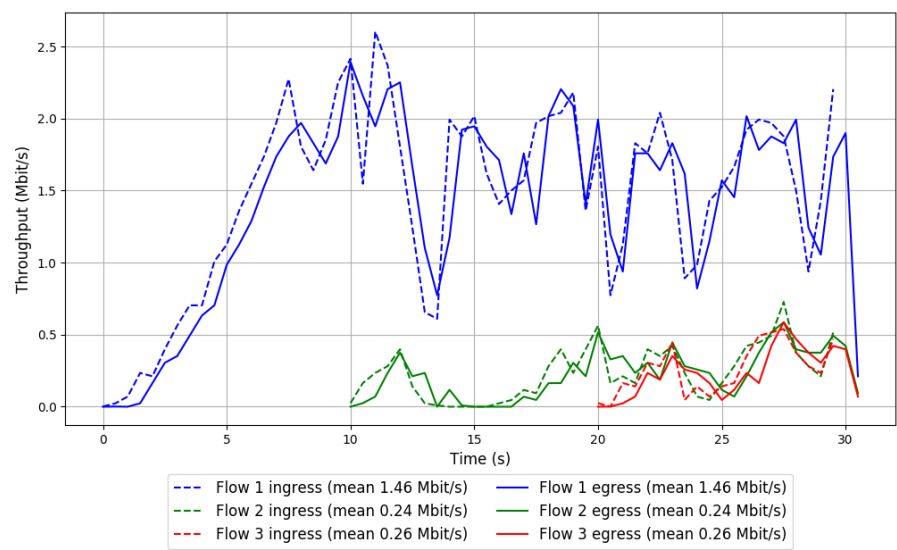


Run 3: Statistics of LEDBAT

Start at: 2018-05-30 15:13:14
End at: 2018-05-30 15:13:44
Local clock offset: -0.805 ms
Remote clock offset: 7.955 ms

Below is generated by plot.py at 2018-05-30 15:21:40
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 455.714 ms
Loss rate: 0.62%
-- Flow 1:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 455.216 ms
Loss rate: 0.67%
-- Flow 2:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 475.214 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.26 Mbit/s
95th percentile per-packet one-way delay: 454.620 ms
Loss rate: 0.90%

Run 3: Report of LEDBAT — Data Link



Run 1: Statistics of PCC-Allegro

Start at: 2018-05-30 14:26:11

End at: 2018-05-30 14:26:41

Local clock offset: -2.717 ms

Remote clock offset: 3.114 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.58 Mbit/s

95th percentile per-packet one-way delay: 2981.626 ms

Loss rate: 74.21%

-- Flow 1:

Average throughput: 1.27 Mbit/s

95th percentile per-packet one-way delay: 3274.408 ms

Loss rate: 77.47%

-- Flow 2:

Average throughput: 1.57 Mbit/s

95th percentile per-packet one-way delay: 2379.089 ms

Loss rate: 72.70%

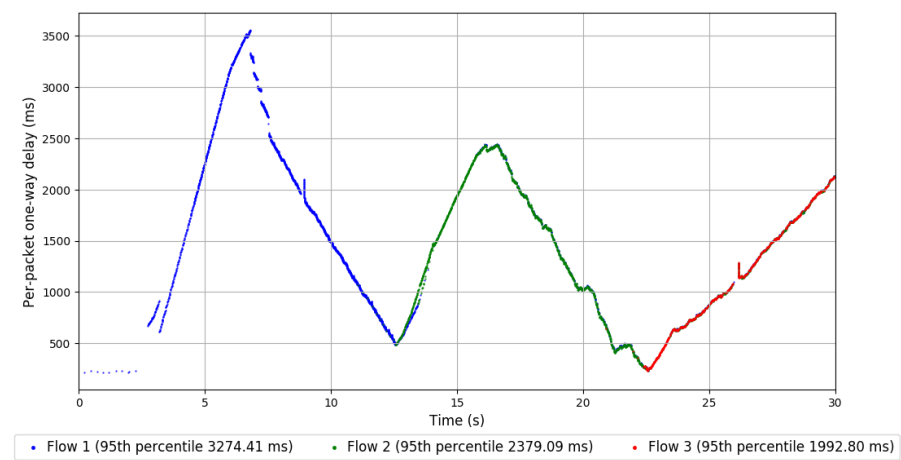
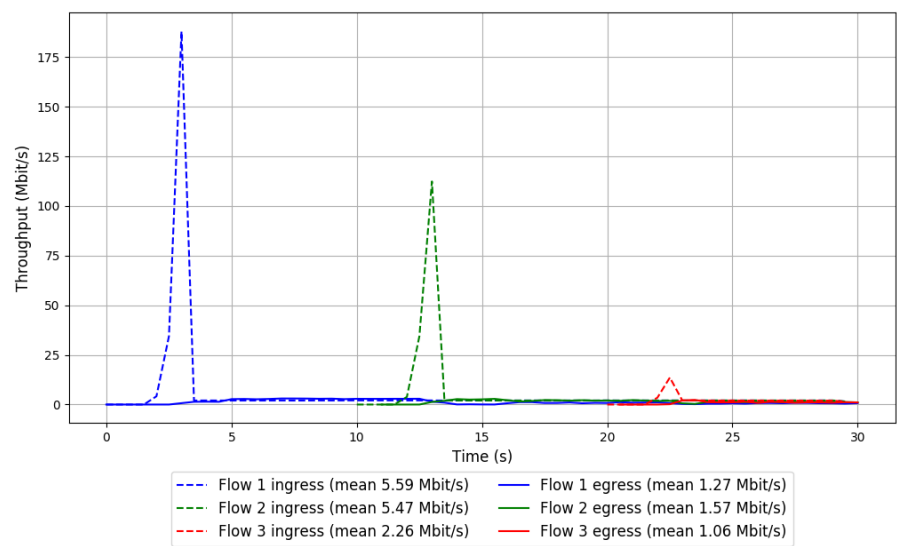
-- Flow 3:

Average throughput: 1.06 Mbit/s

95th percentile per-packet one-way delay: 1992.802 ms

Loss rate: 57.20%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-05-30 14:45:27

End at: 2018-05-30 14:45:57

Local clock offset: -0.974 ms

Remote clock offset: 8.546 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 4086.737 ms

Loss rate: 51.97%

-- Flow 1:

Average throughput: 1.97 Mbit/s

95th percentile per-packet one-way delay: 4092.893 ms

Loss rate: 51.99%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3687.716 ms

Loss rate: 0.00%

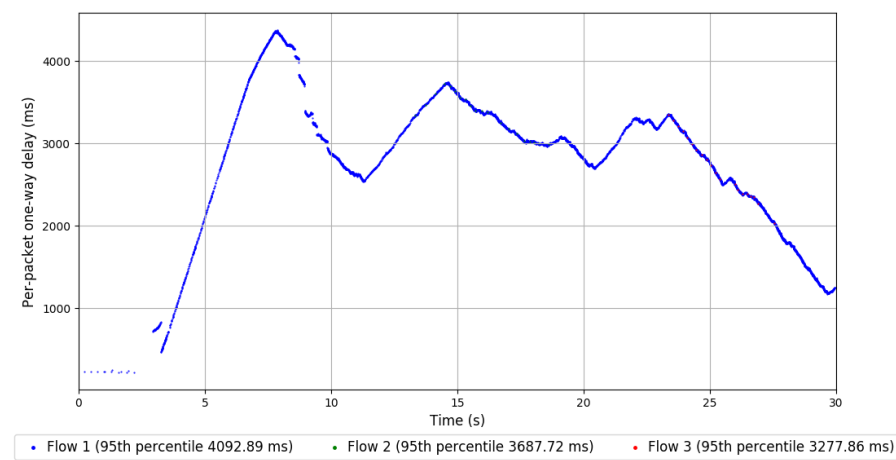
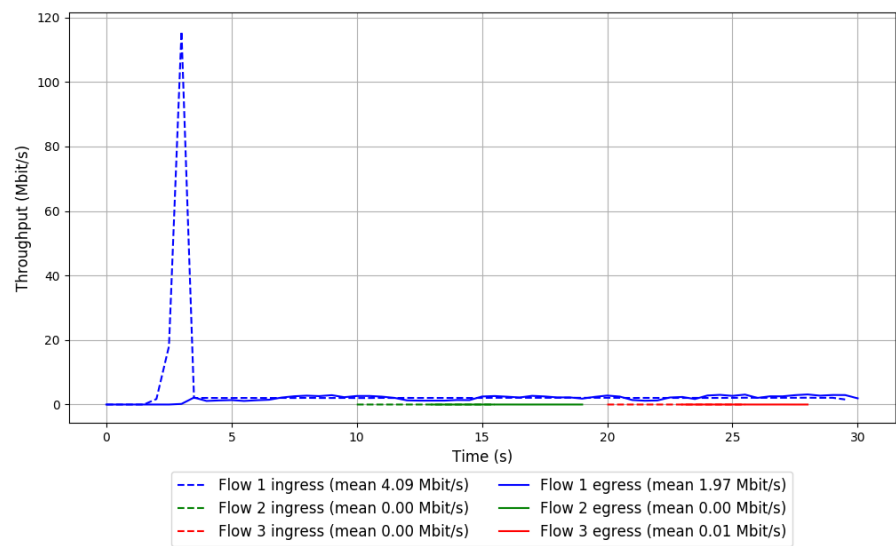
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 3277.864 ms

Loss rate: 0.00%

Run 2: Report of PCC-Allegro — Data Link



Run 3: Statistics of PCC-Allegro

Start at: 2018-05-30 15:04:45

End at: 2018-05-30 15:05:15

Local clock offset: -1.962 ms

Remote clock offset: 8.125 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.64 Mbit/s

95th percentile per-packet one-way delay: 2993.631 ms

Loss rate: 41.61%

-- Flow 1:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 2975.653 ms

Loss rate: 43.87%

-- Flow 2:

Average throughput: 1.52 Mbit/s

95th percentile per-packet one-way delay: 3014.092 ms

Loss rate: 37.62%

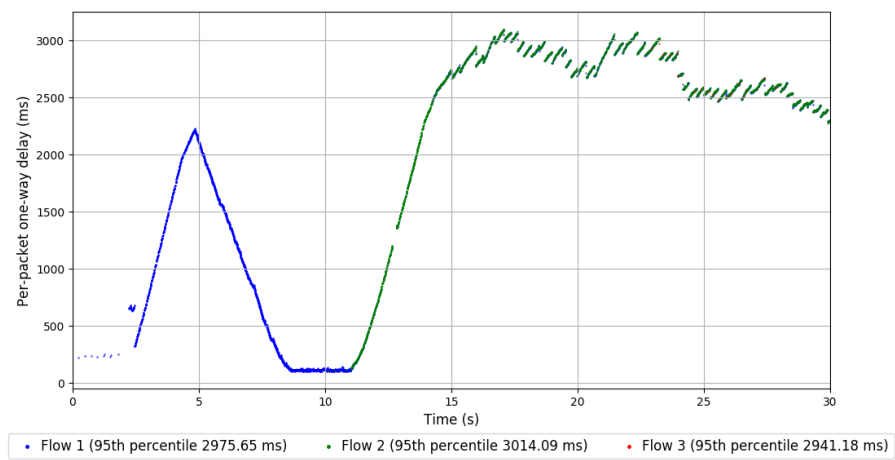
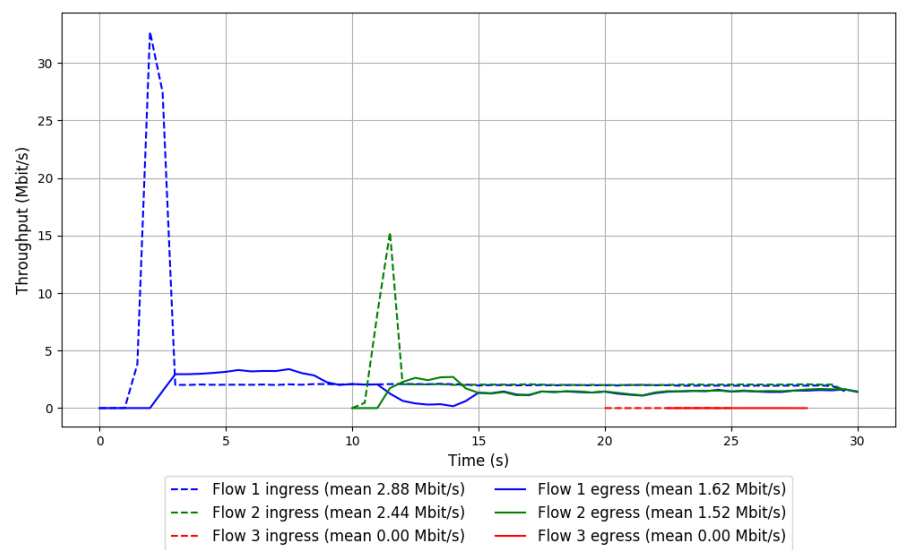
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2941.184 ms

Loss rate: 9.20%

Run 3: Report of PCC-Allegro — Data Link

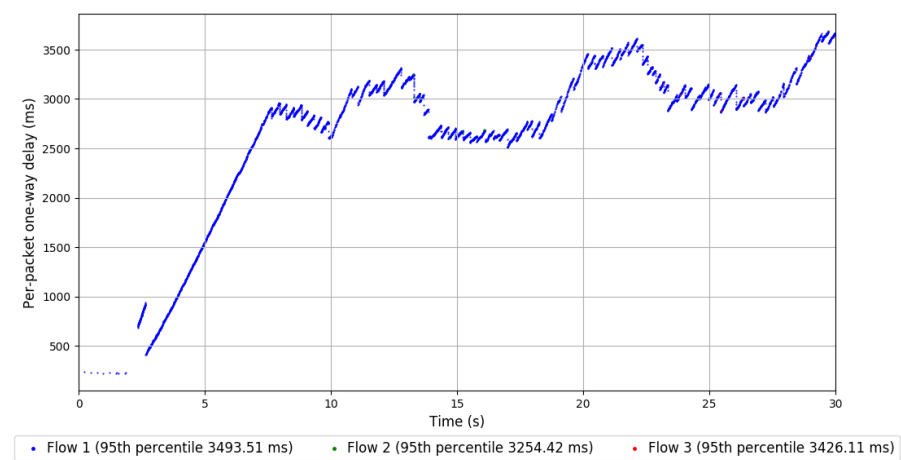
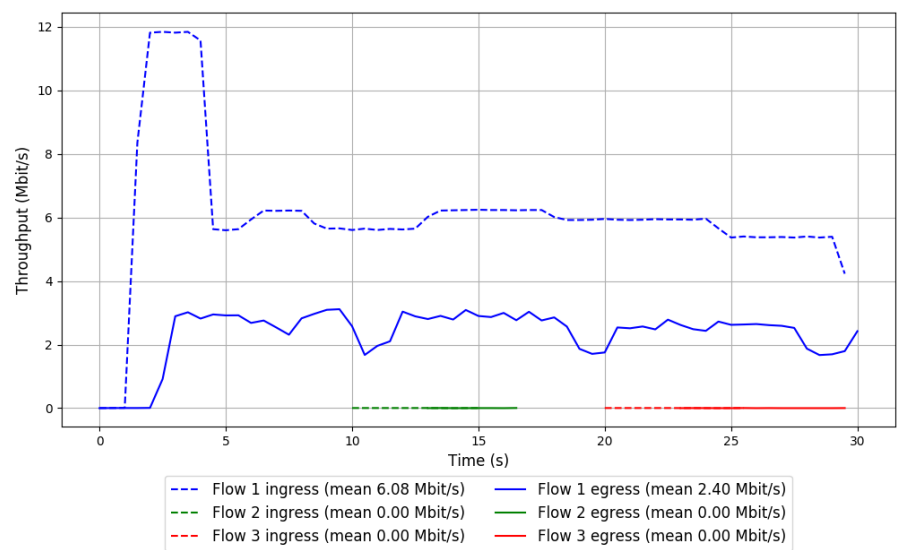


```
Run 1: Statistics of PCC-Expr

Start at: 2018-05-30 14:37:01
End at: 2018-05-30 14:37:31
Local clock offset: -1.319 ms
Remote clock offset: 4.28 ms

# Below is generated by plot.py at 2018-05-30 15:21:40
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 3492.882 ms
Loss rate: 60.69%
-- Flow 1:
Average throughput: 2.40 Mbit/s
95th percentile per-packet one-way delay: 3493.513 ms
Loss rate: 60.69%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3254.424 ms
Loss rate: 61.85%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3426.112 ms
Loss rate: 61.85%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-05-30 14:56:18

End at: 2018-05-30 14:56:48

Local clock offset: -2.233 ms

Remote clock offset: 9.442 ms

Below is generated by plot.py at 2018-05-30 15:21:40

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 2874.039 ms

Loss rate: 58.34%

-- Flow 1:

Average throughput: 2.56 Mbit/s

95th percentile per-packet one-way delay: 2873.540 ms

Loss rate: 58.34%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2897.029 ms

Loss rate: 73.05%

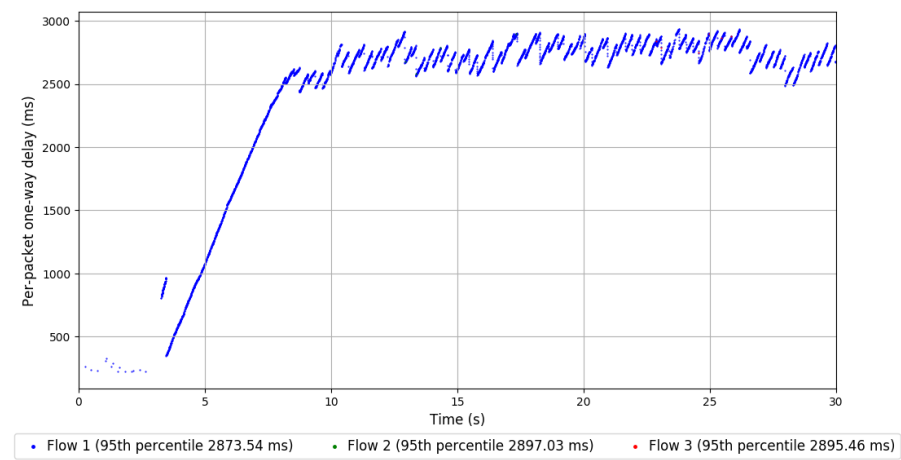
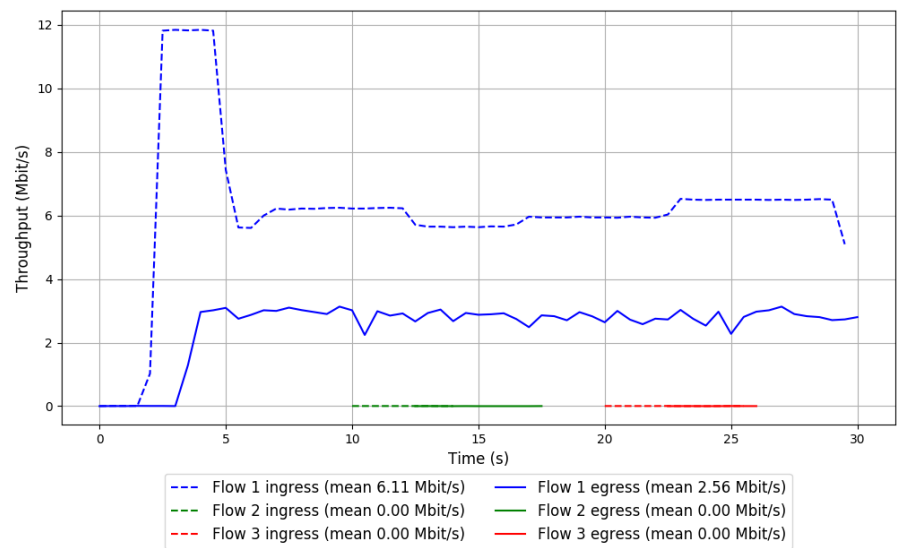
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2895.463 ms

Loss rate: 66.43%

Run 2: Report of PCC-Expr — Data Link



Run 3: Statistics of PCC-Expr

Start at: 2018-05-30 15:15:38

End at: 2018-05-30 15:16:08

Local clock offset: -1.594 ms

Remote clock offset: 7.882 ms

Below is generated by plot.py at 2018-05-30 15:21:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 4925.152 ms

Loss rate: 68.79%

-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 4925.280 ms

Loss rate: 68.79%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3452.023 ms

Loss rate: 50.00%

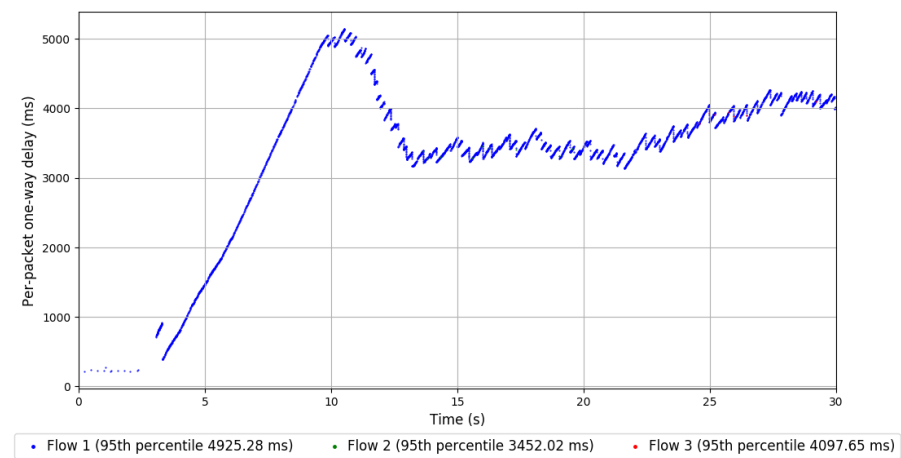
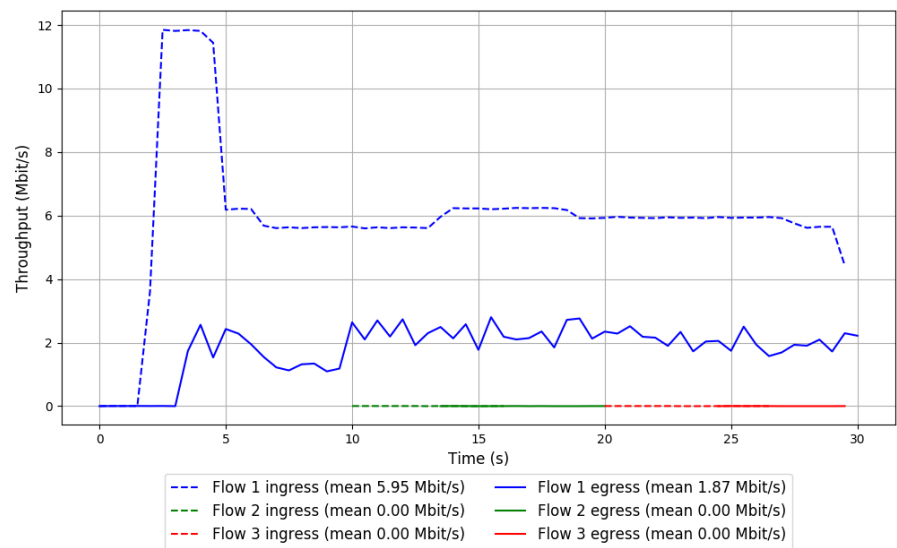
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4097.647 ms

Loss rate: 62.62%

Run 3: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-05-30 14:39:26

End at: 2018-05-30 14:39:56

Local clock offset: -1.985 ms

Remote clock offset: 8.375 ms

Below is generated by plot.py at 2018-05-30 15:21:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 1999.349 ms

Loss rate: 6.38%

-- Flow 1:

Average throughput: 1.16 Mbit/s

95th percentile per-packet one-way delay: 1939.301 ms

Loss rate: 3.63%

-- Flow 2:

Average throughput: 0.64 Mbit/s

95th percentile per-packet one-way delay: 2039.887 ms

Loss rate: 9.32%

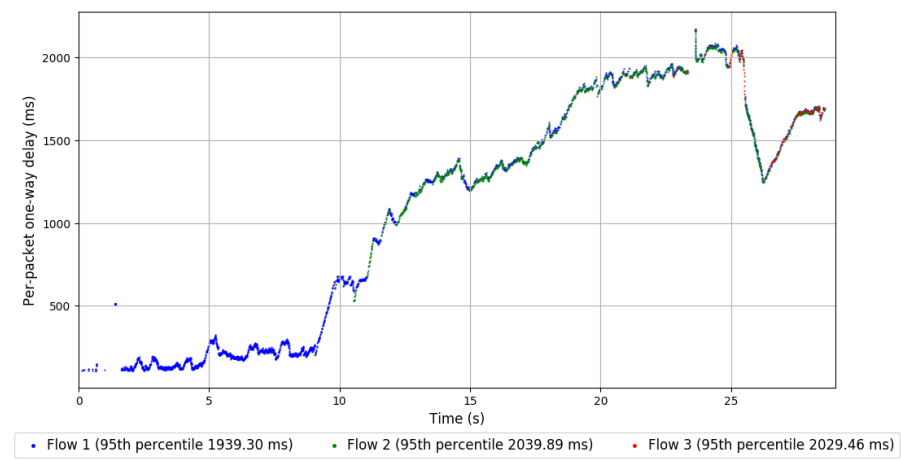
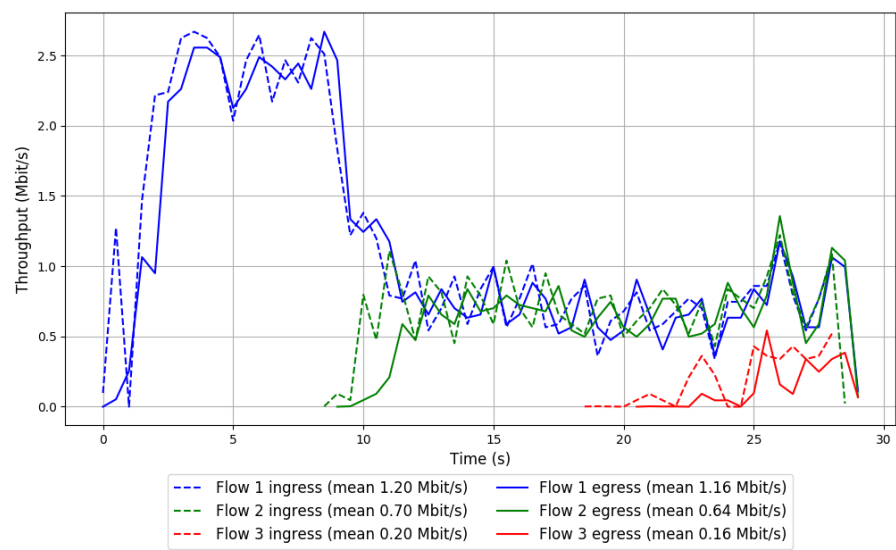
-- Flow 3:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 2029.460 ms

Loss rate: 34.81%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-05-30 14:58:44

End at: 2018-05-30 14:59:14

Local clock offset: -1.318 ms

Remote clock offset: 8.454 ms

Below is generated by plot.py at 2018-05-30 15:21:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.46 Mbit/s

95th percentile per-packet one-way delay: 1584.043 ms

Loss rate: 6.69%

-- Flow 1:

Average throughput: 1.89 Mbit/s

95th percentile per-packet one-way delay: 1526.619 ms

Loss rate: 5.05%

-- Flow 2:

Average throughput: 0.67 Mbit/s

95th percentile per-packet one-way delay: 1588.637 ms

Loss rate: 8.50%

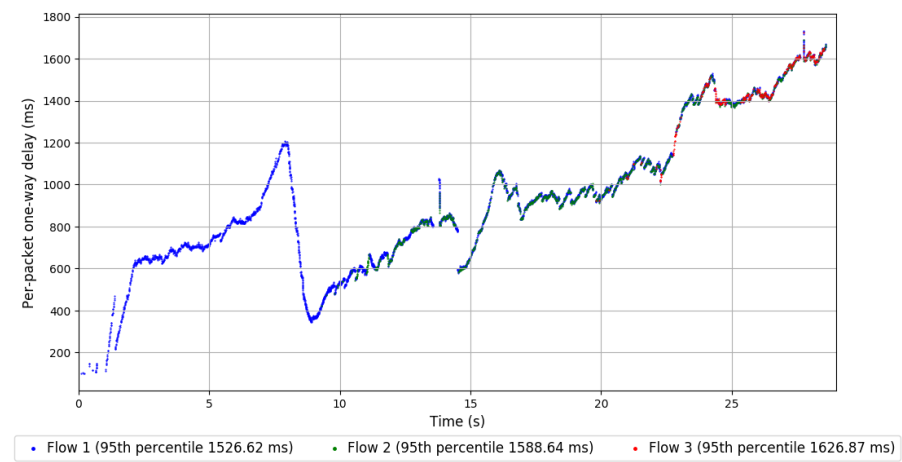
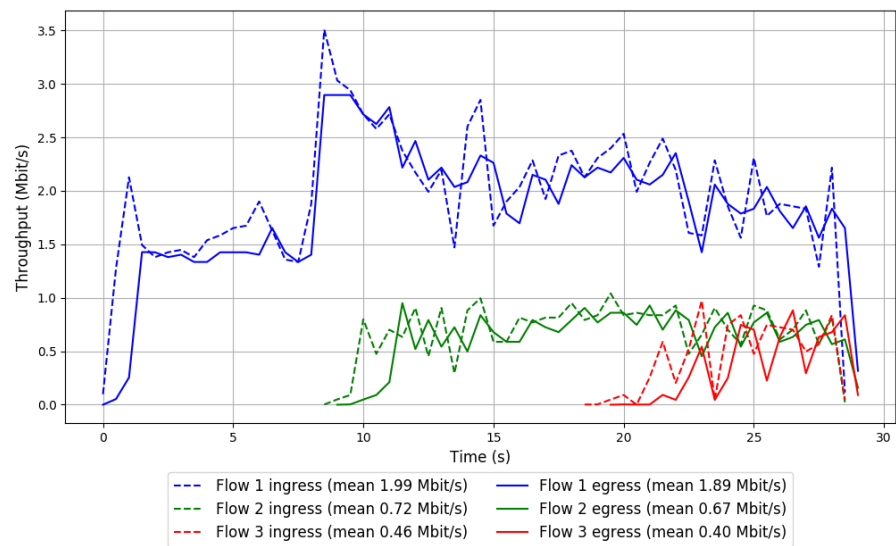
-- Flow 3:

Average throughput: 0.40 Mbit/s

95th percentile per-packet one-way delay: 1626.874 ms

Loss rate: 21.85%

Run 2: Report of QUIC Cubic — Data Link



Run 3: Statistics of QUIC Cubic

Start at: 2018-05-30 15:18:03

End at: 2018-05-30 15:18:33

Local clock offset: -2.403 ms

Remote clock offset: 8.695 ms

Below is generated by plot.py at 2018-05-30 15:21:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.22 Mbit/s

95th percentile per-packet one-way delay: 3183.581 ms

Loss rate: 10.85%

-- Flow 1:

Average throughput: 0.90 Mbit/s

95th percentile per-packet one-way delay: 2883.499 ms

Loss rate: 6.94%

-- Flow 2:

Average throughput: 0.45 Mbit/s

95th percentile per-packet one-way delay: 3278.332 ms

Loss rate: 18.82%

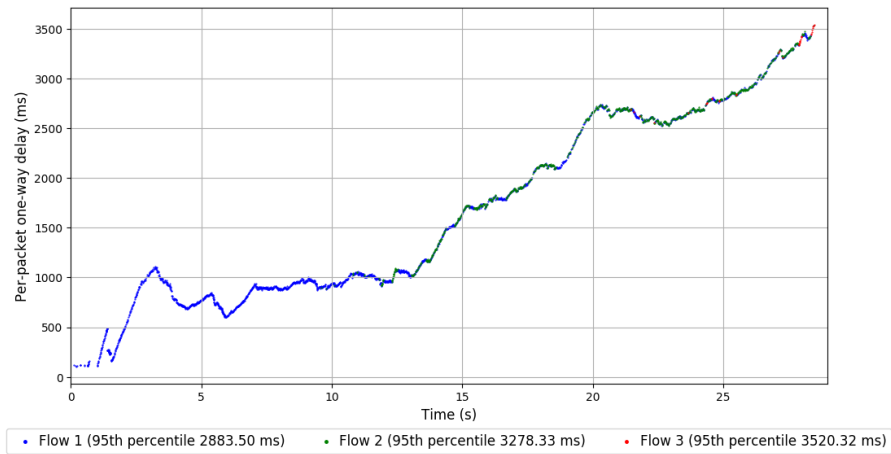
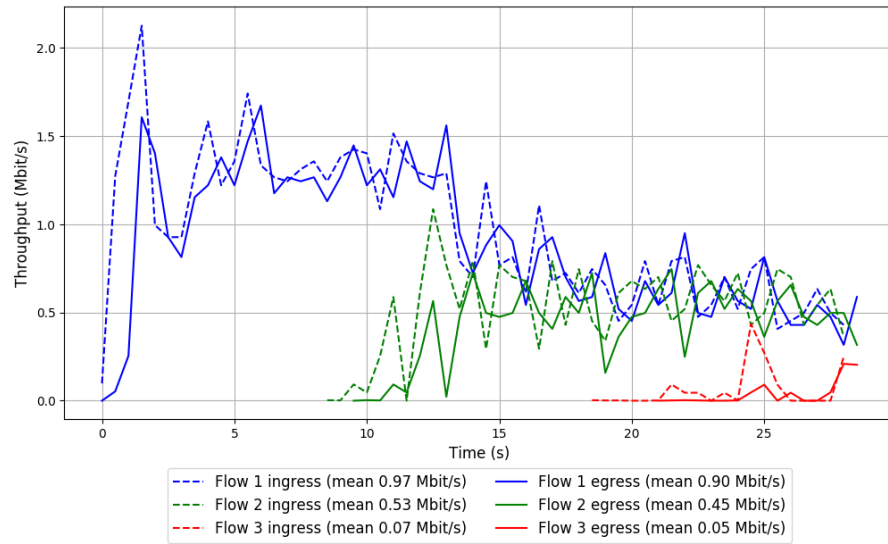
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 3520.323 ms

Loss rate: 49.38%

Run 3: Report of QUIC Cubic — Data Link

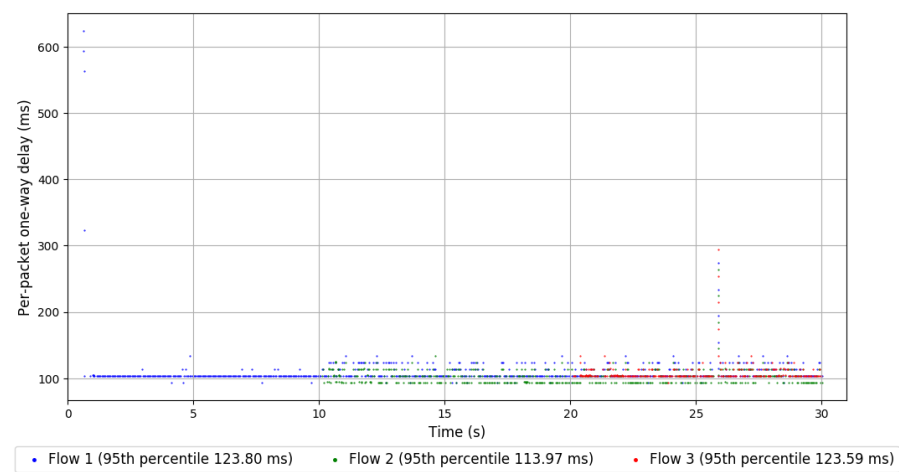
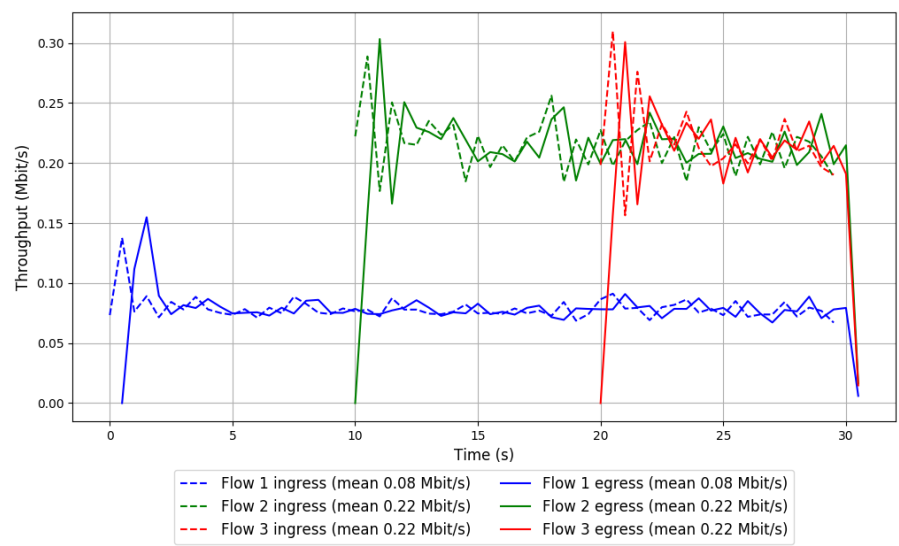


```
Run 1: Statistics of SReAM

Start at: 2018-05-30 14:35:49
End at: 2018-05-30 14:36:19
Local clock offset: -2.148 ms
Remote clock offset: 4.398 ms

# Below is generated by plot.py at 2018-05-30 15:21:41
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 123.775 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 123.799 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 113.969 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 123.589 ms
Loss rate: 0.34%
```

Run 1: Report of SReAM — Data Link

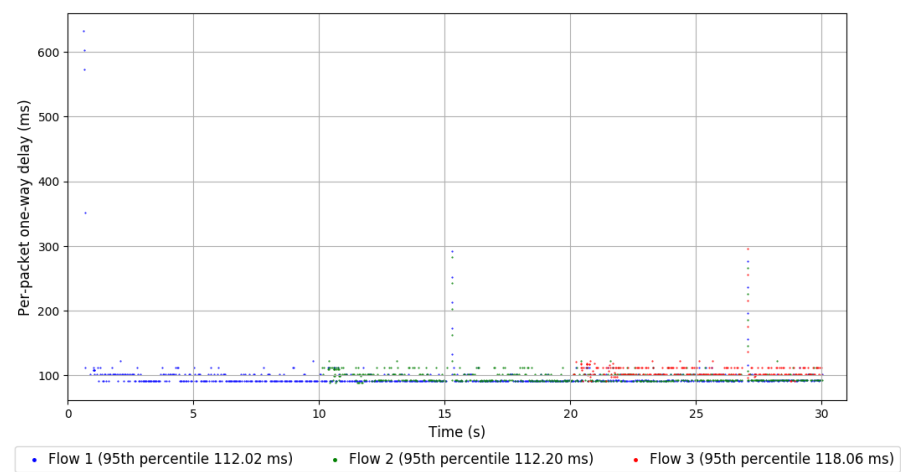
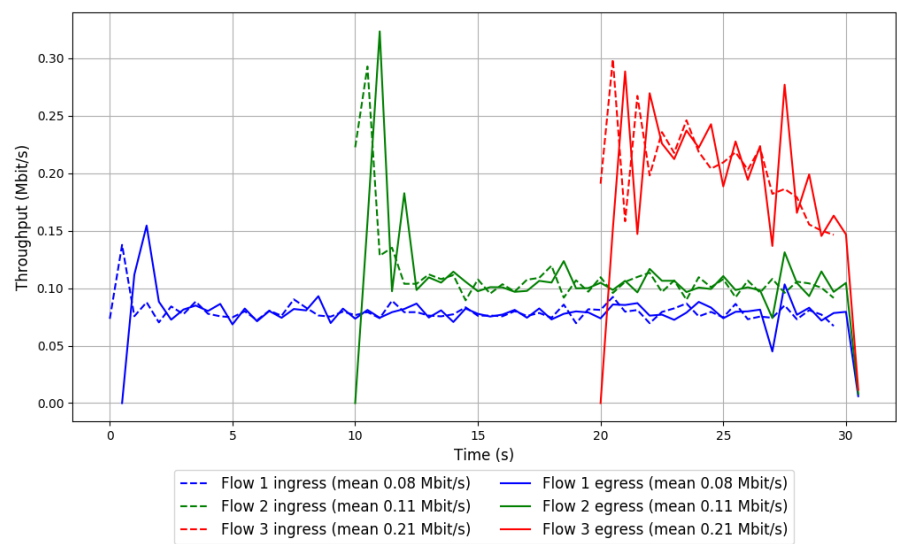


Run 2: Statistics of SCReAM

Start at: 2018-05-30 14:55:07
End at: 2018-05-30 14:55:37
Local clock offset: -0.678 ms
Remote clock offset: 3.895 ms

Below is generated by plot.py at 2018-05-30 15:21:41
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.23 Mbit/s
95th percentile per-packet one-way delay: 112.175 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 112.019 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 112.197 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 118.064 ms
Loss rate: 0.28%

Run 2: Report of SReAM — Data Link



Run 3: Statistics of SCReAM

Start at: 2018-05-30 15:14:27

End at: 2018-05-30 15:14:57

Local clock offset: -0.792 ms

Remote clock offset: 3.165 ms

Below is generated by plot.py at 2018-05-30 15:21:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 132.025 ms

Loss rate: 0.20%

-- Flow 1:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 121.953 ms

Loss rate: 0.13%

-- Flow 2:

Average throughput: 0.18 Mbit/s

95th percentile per-packet one-way delay: 122.428 ms

Loss rate: 0.16%

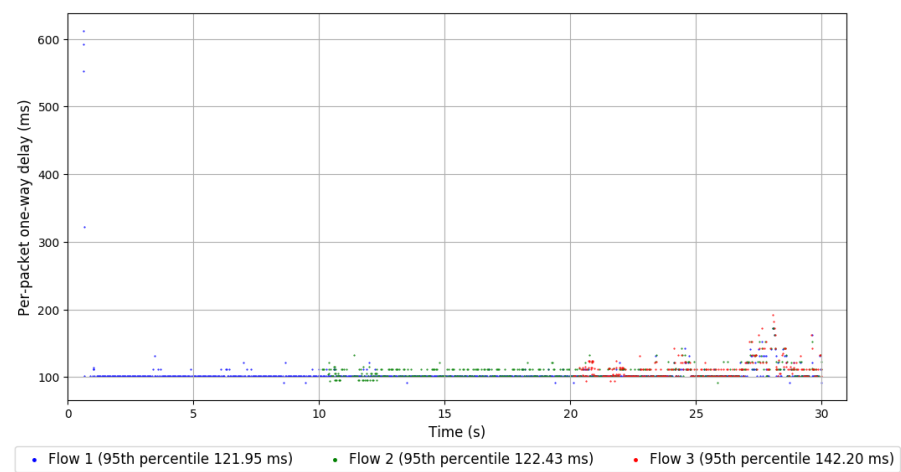
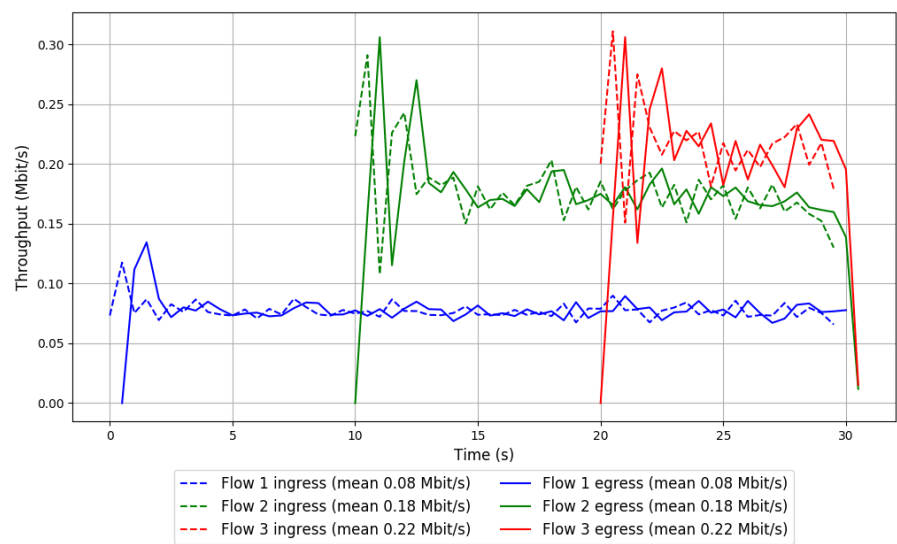
-- Flow 3:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 142.196 ms

Loss rate: 0.35%

Run 3: Report of SReAM — Data Link



Run 1: Statistics of Sprout

Start at: 2018-05-30 14:29:48

End at: 2018-05-30 14:30:18

Local clock offset: -1.697 ms

Remote clock offset: 3.261 ms

Below is generated by plot.py at 2018-05-30 15:21:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 154.424 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.15 Mbit/s

95th percentile per-packet one-way delay: 154.281 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.16 Mbit/s

95th percentile per-packet one-way delay: 161.885 ms

Loss rate: 0.00%

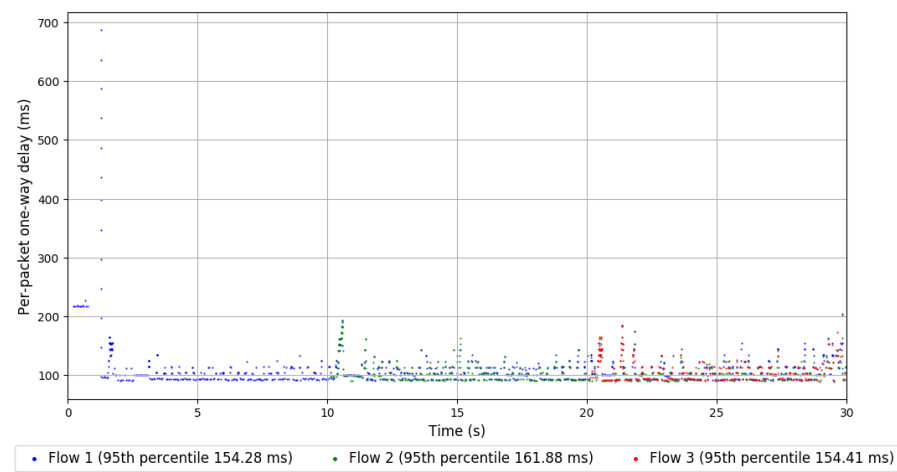
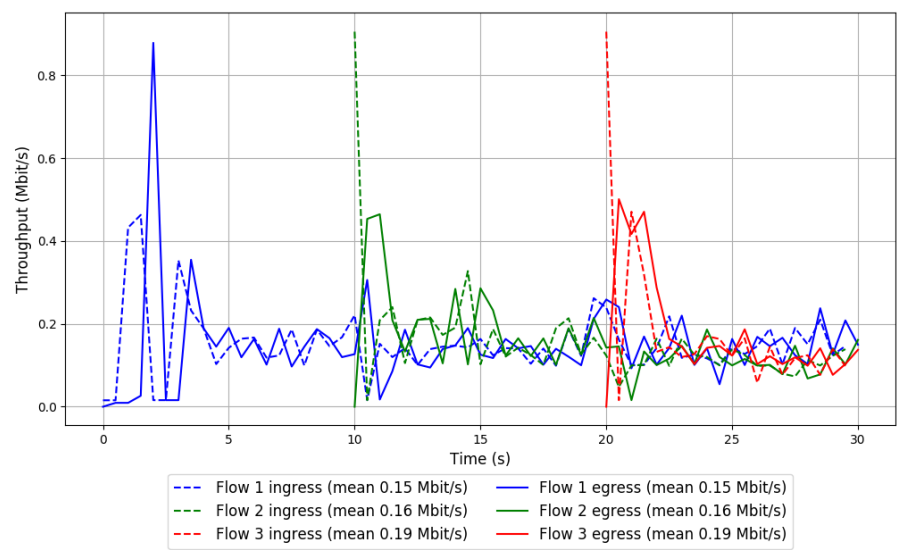
-- Flow 3:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 154.409 ms

Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

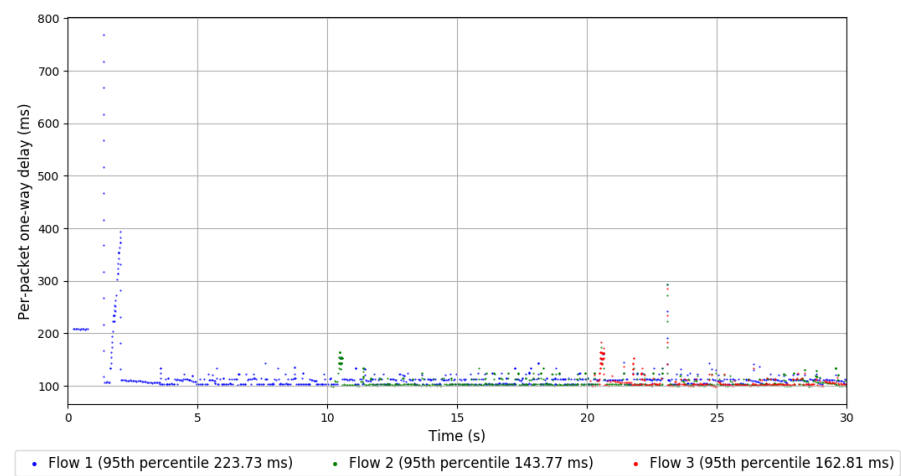
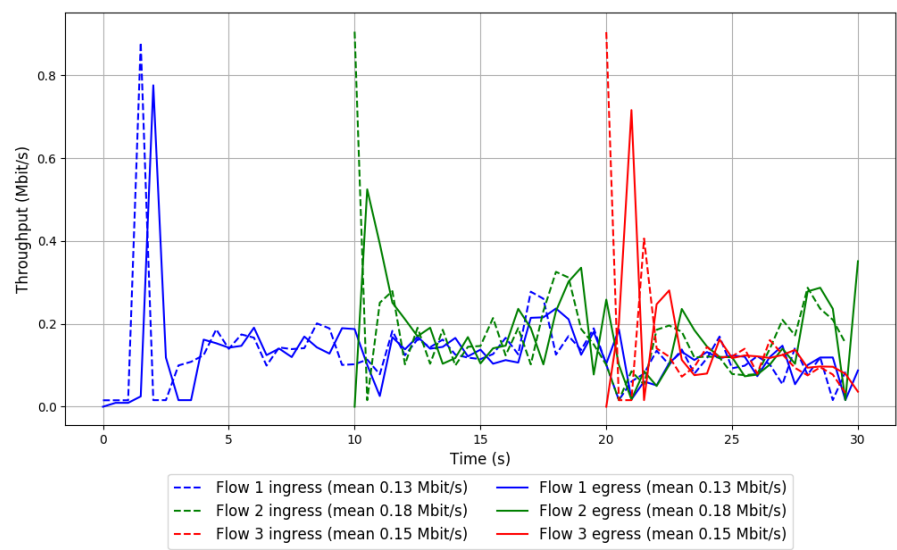


Run 2: Statistics of Sprout

Start at: 2018-05-30 14:49:05
End at: 2018-05-30 14:49:35
Local clock offset: -1.698 ms
Remote clock offset: 4.644 ms

Below is generated by plot.py at 2018-05-30 15:21:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 163.101 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 223.731 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 143.771 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 162.813 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

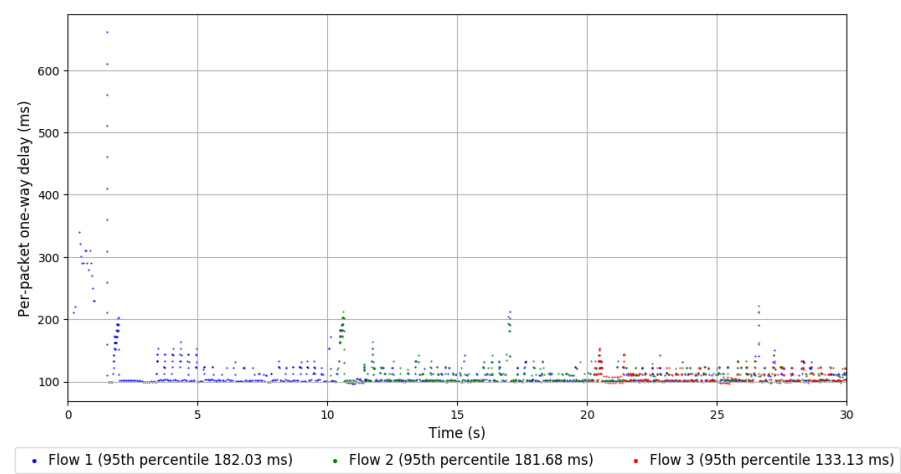
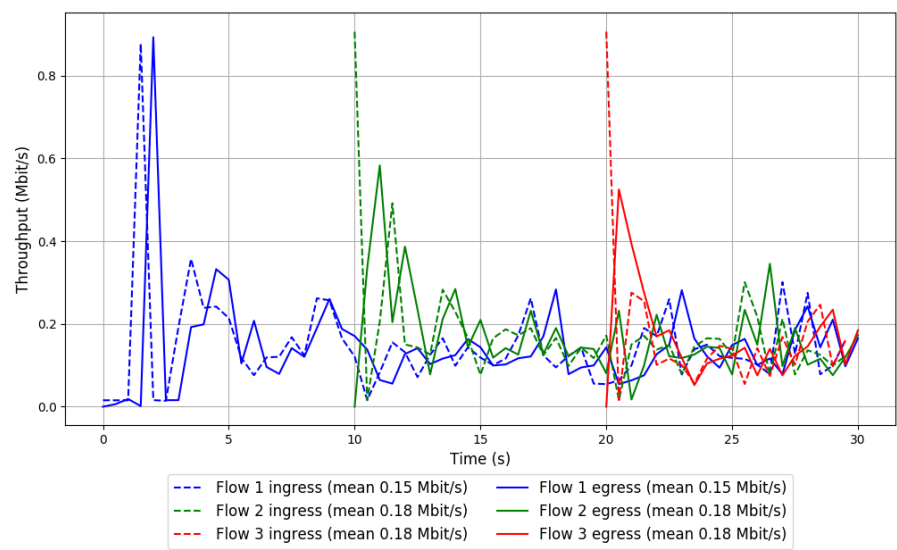


Run 3: Statistics of Sprout

Start at: 2018-05-30 15:08:24
End at: 2018-05-30 15:08:54
Local clock offset: -2.106 ms
Remote clock offset: 4.073 ms

```
# Below is generated by plot.py at 2018-05-30 15:21:43
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 172.714 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 182.034 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 181.678 ms
Loss rate: 0.02%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 133.135 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-05-30 14:38:13

End at: 2018-05-30 14:38:43

Local clock offset: -2.796 ms

Remote clock offset: 3.543 ms

Below is generated by plot.py at 2018-05-30 15:21:50

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.26 Mbit/s

95th percentile per-packet one-way delay: 451.679 ms

Loss rate: 17.25%

-- Flow 1:

Average throughput: 1.48 Mbit/s

95th percentile per-packet one-way delay: 399.622 ms

Loss rate: 6.50%

-- Flow 2:

Average throughput: 0.93 Mbit/s

95th percentile per-packet one-way delay: 455.389 ms

Loss rate: 18.80%

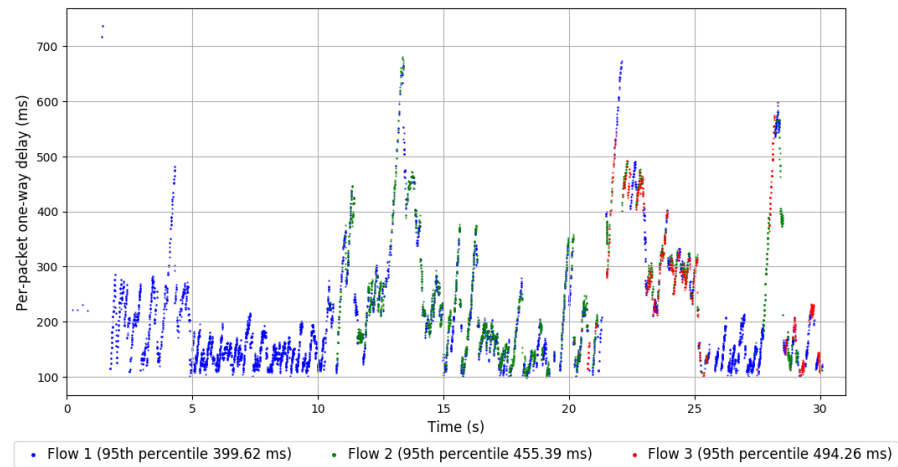
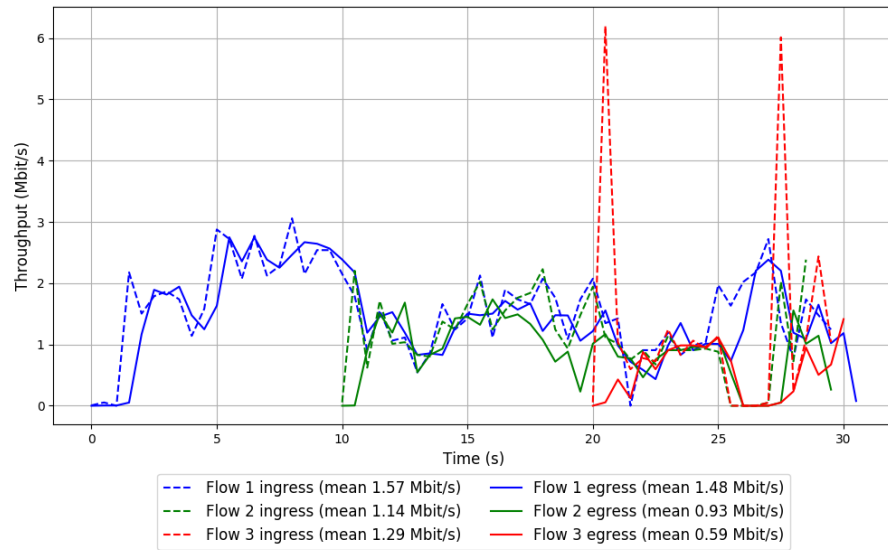
-- Flow 3:

Average throughput: 0.59 Mbit/s

95th percentile per-packet one-way delay: 494.263 ms

Loss rate: 54.43%

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



Run 2: Statistics of TaoVA-100x

Start at: 2018-05-30 14:57:31

End at: 2018-05-30 14:58:01

Local clock offset: -1.354 ms

Remote clock offset: 8.359 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.35 Mbit/s

95th percentile per-packet one-way delay: 811.589 ms

Loss rate: 1.32%

-- Flow 1:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 473.430 ms

Loss rate: 0.79%

-- Flow 2:

Average throughput: 1.13 Mbit/s

95th percentile per-packet one-way delay: 927.653 ms

Loss rate: 1.42%

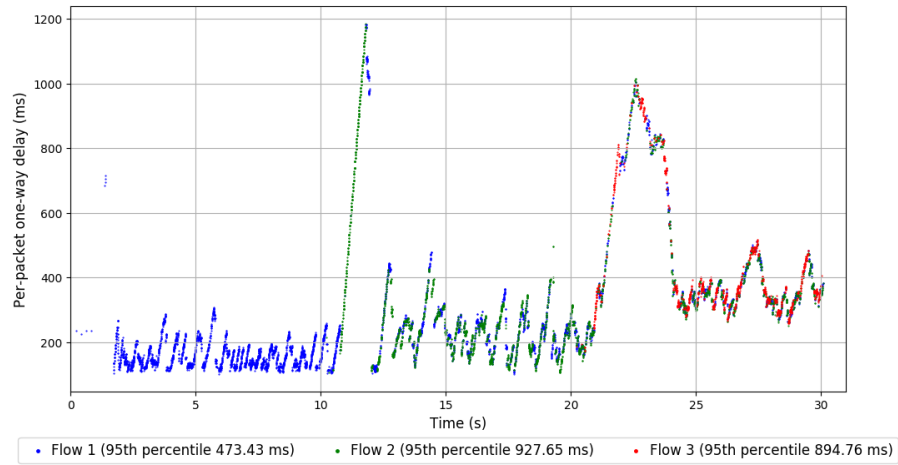
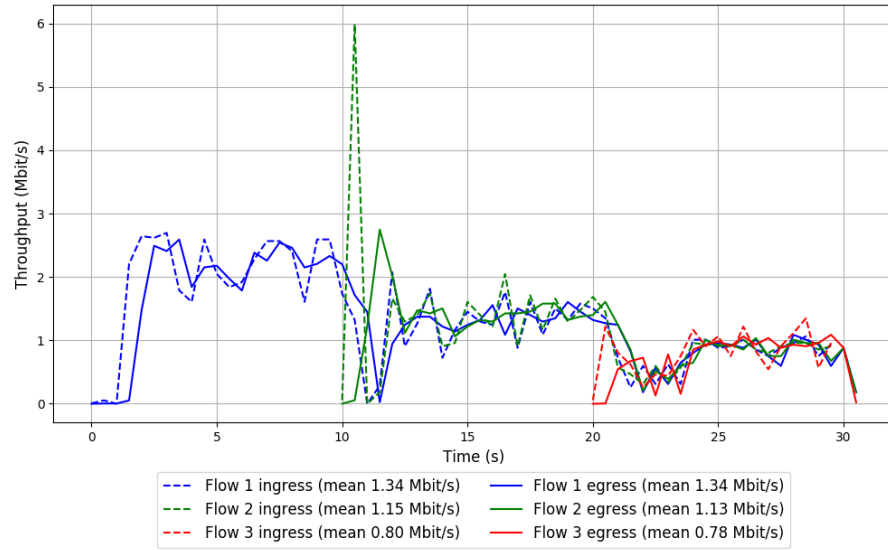
-- Flow 3:

Average throughput: 0.78 Mbit/s

95th percentile per-packet one-way delay: 894.758 ms

Loss rate: 3.73%

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



Run 3: Statistics of TaoVA-100x

Start at: 2018-05-30 15:16:51

End at: 2018-05-30 15:17:21

Local clock offset: -1.606 ms

Remote clock offset: 7.777 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.55 Mbit/s

95th percentile per-packet one-way delay: 725.483 ms

Loss rate: 1.95%

-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 702.846 ms

Loss rate: 1.56%

-- Flow 2:

Average throughput: 0.71 Mbit/s

95th percentile per-packet one-way delay: 937.839 ms

Loss rate: 1.54%

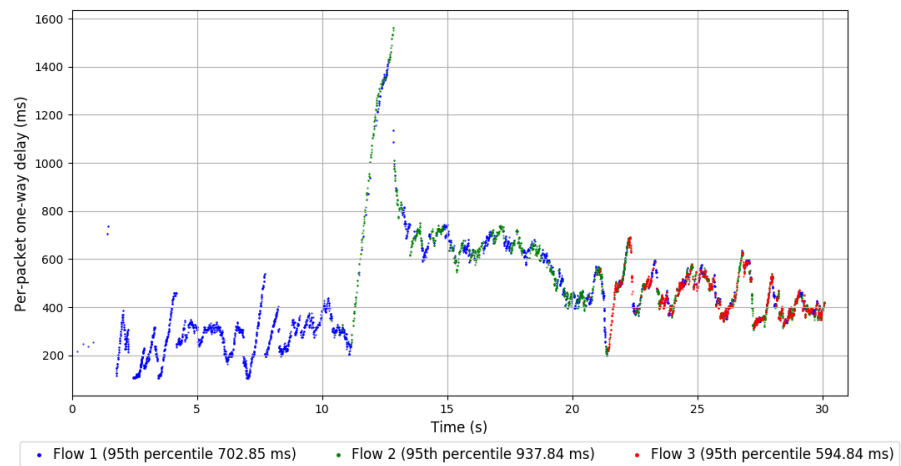
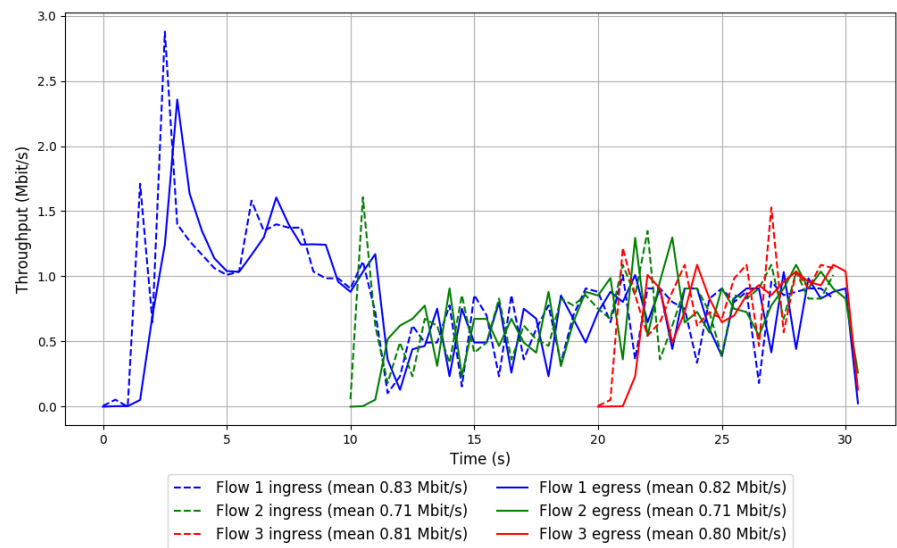
-- Flow 3:

Average throughput: 0.80 Mbit/s

95th percentile per-packet one-way delay: 594.836 ms

Loss rate: 3.88%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-05-30 14:28:36

End at: 2018-05-30 14:29:06

Local clock offset: -1.788 ms

Remote clock offset: 8.004 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 1112.007 ms

Loss rate: 14.63%

-- Flow 1:

Average throughput: 0.72 Mbit/s

95th percentile per-packet one-way delay: 952.014 ms

Loss rate: 16.50%

-- Flow 2:

Average throughput: 0.11 Mbit/s

95th percentile per-packet one-way delay: 1115.215 ms

Loss rate: 15.91%

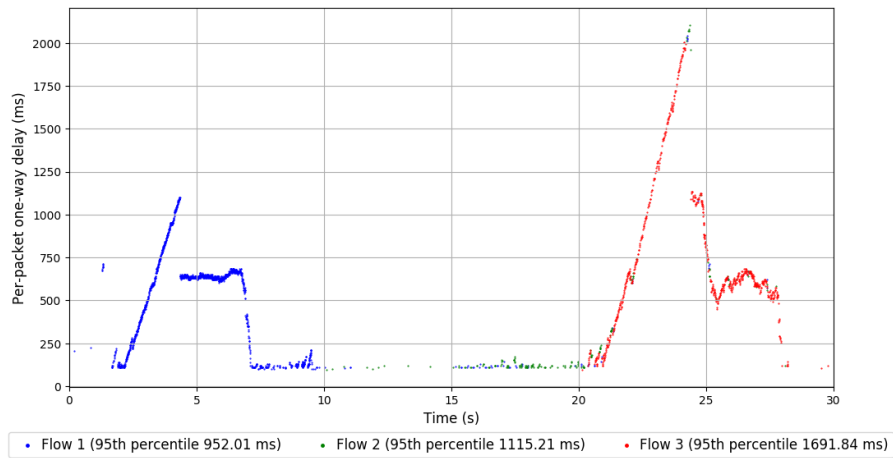
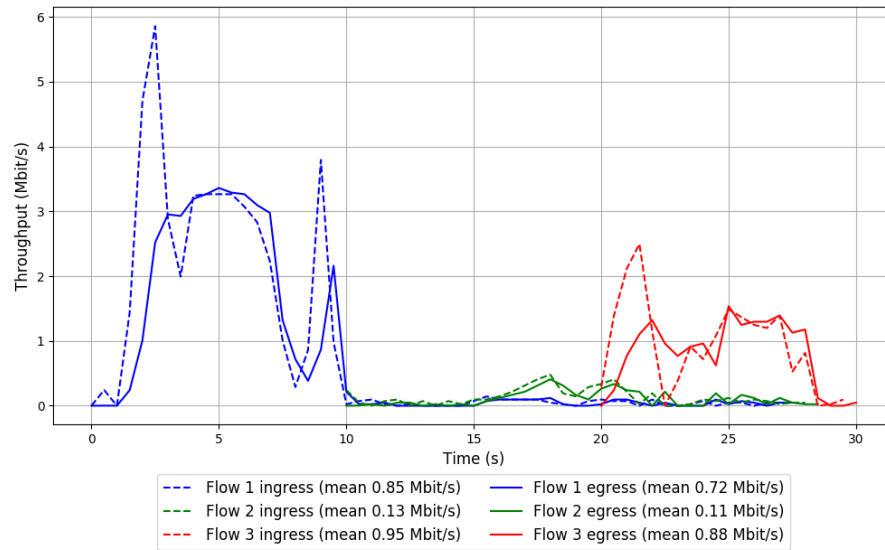
-- Flow 3:

Average throughput: 0.88 Mbit/s

95th percentile per-packet one-way delay: 1691.840 ms

Loss rate: 9.63%

Run 1: Report of TCP Vegas — Data Link



Run 2: Statistics of TCP Vegas

Start at: 2018-05-30 14:47:52

End at: 2018-05-30 14:48:22

Local clock offset: -2.511 ms

Remote clock offset: 9.444 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.70 Mbit/s

95th percentile per-packet one-way delay: 686.258 ms

Loss rate: 1.54%

-- Flow 1:

Average throughput: 2.22 Mbit/s

95th percentile per-packet one-way delay: 686.511 ms

Loss rate: 1.22%

-- Flow 2:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 705.960 ms

Loss rate: 0.26%

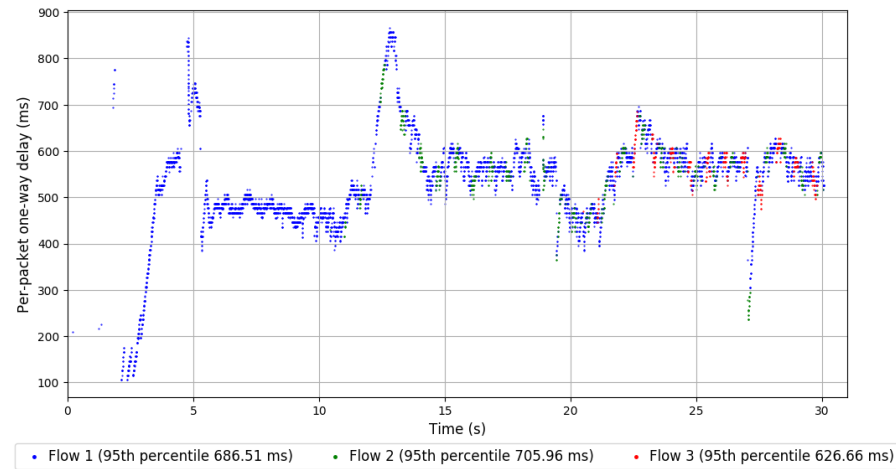
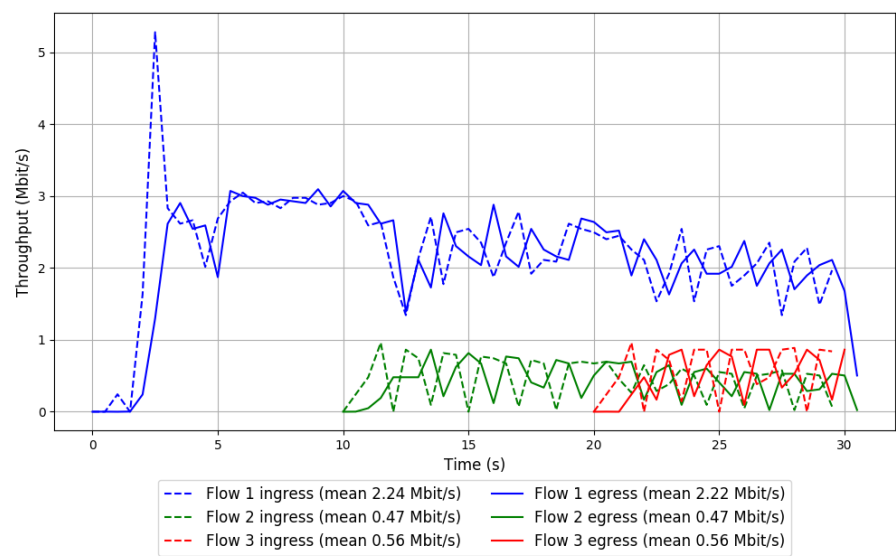
-- Flow 3:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 626.662 ms

Loss rate: 7.51%

Run 2: Report of TCP Vegas — Data Link



Run 3: Statistics of TCP Vegas

Start at: 2018-05-30 15:07:11

End at: 2018-05-30 15:07:41

Local clock offset: -1.935 ms

Remote clock offset: 7.956 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.23 Mbit/s

95th percentile per-packet one-way delay: 1236.947 ms

Loss rate: 2.63%

-- Flow 1:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 1217.138 ms

Loss rate: 1.52%

-- Flow 2:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 1237.172 ms

Loss rate: 3.05%

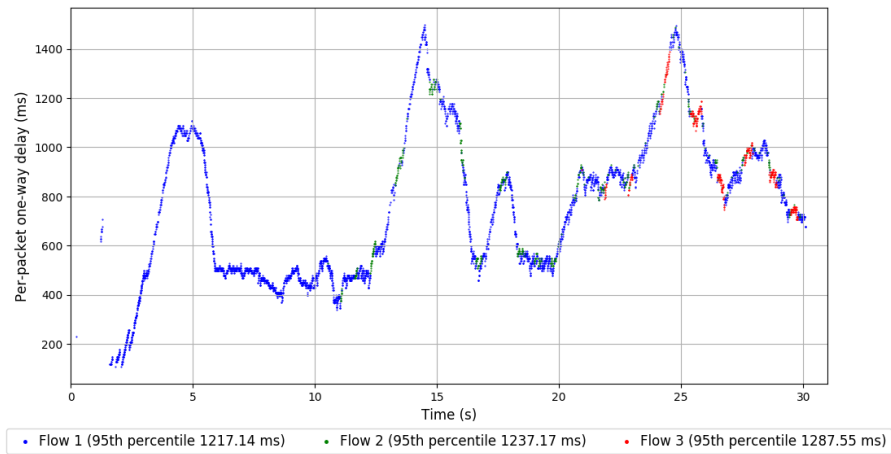
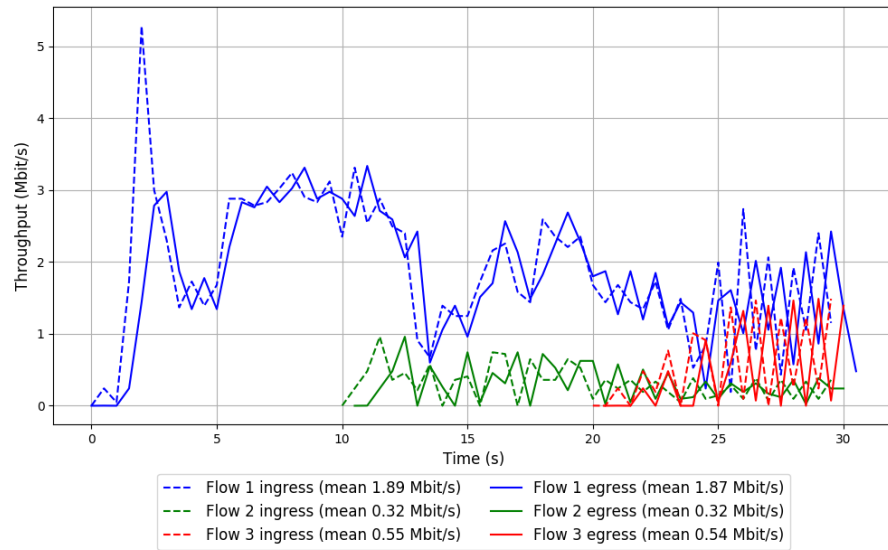
-- Flow 3:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 1287.547 ms

Loss rate: 13.56%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-05-30 14:32:12

End at: 2018-05-30 14:32:42

Local clock offset: -2.382 ms

Remote clock offset: 3.331 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 2.29 Mbit/s

95th percentile per-packet one-way delay: 1577.315 ms

Loss rate: 6.09%

-- Flow 1:

Average throughput: 2.27 Mbit/s

95th percentile per-packet one-way delay: 1577.968 ms

Loss rate: 6.08%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1477.447 ms

Loss rate: 3.03%

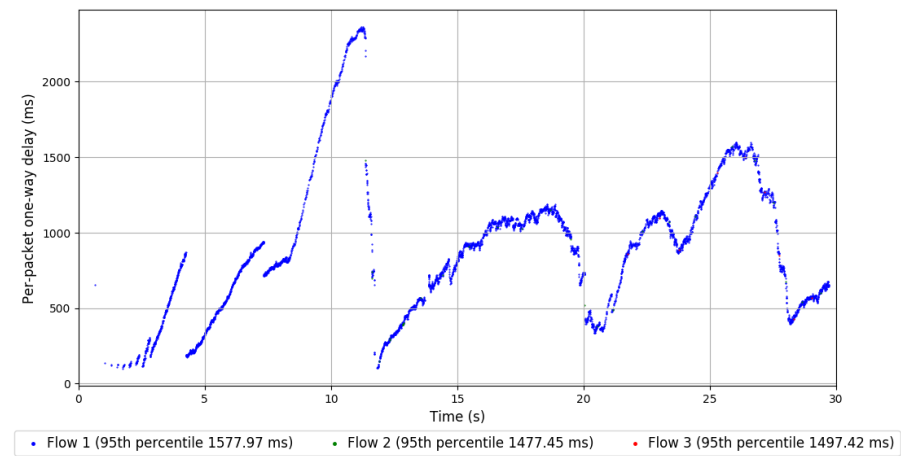
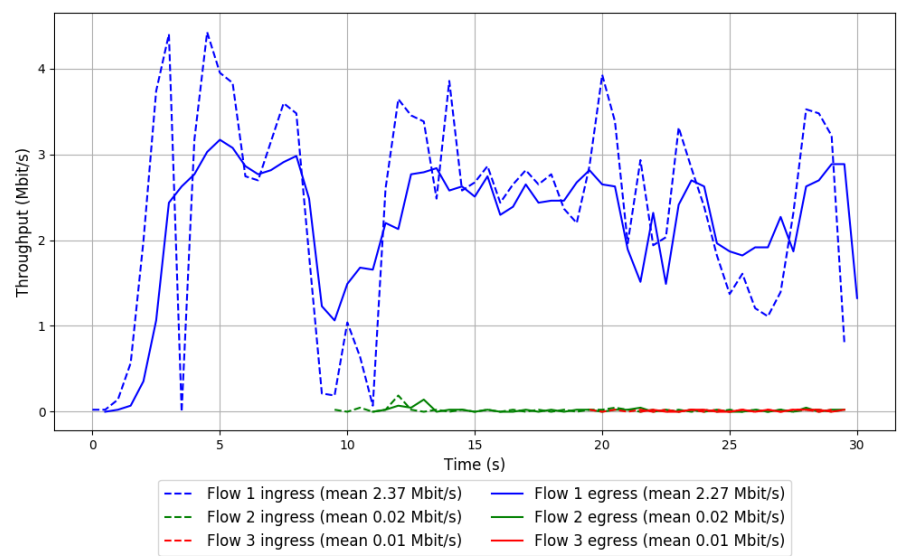
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1497.418 ms

Loss rate: 18.18%

Run 1: Report of Verus — Data Link

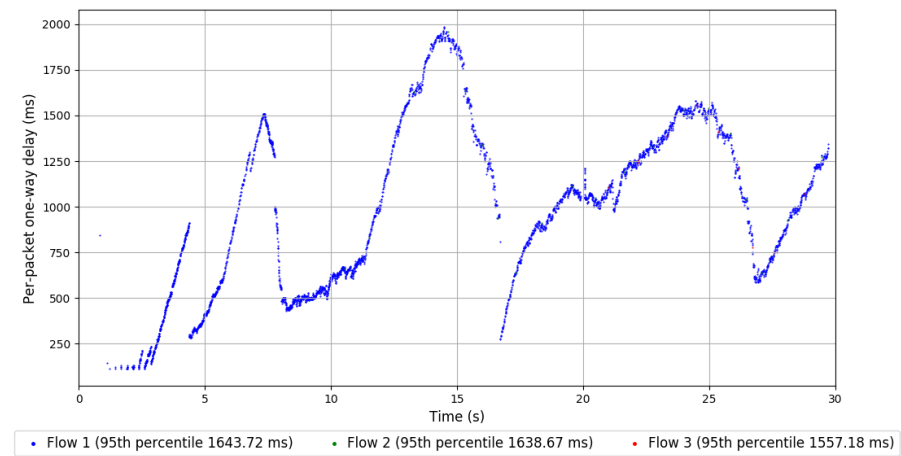
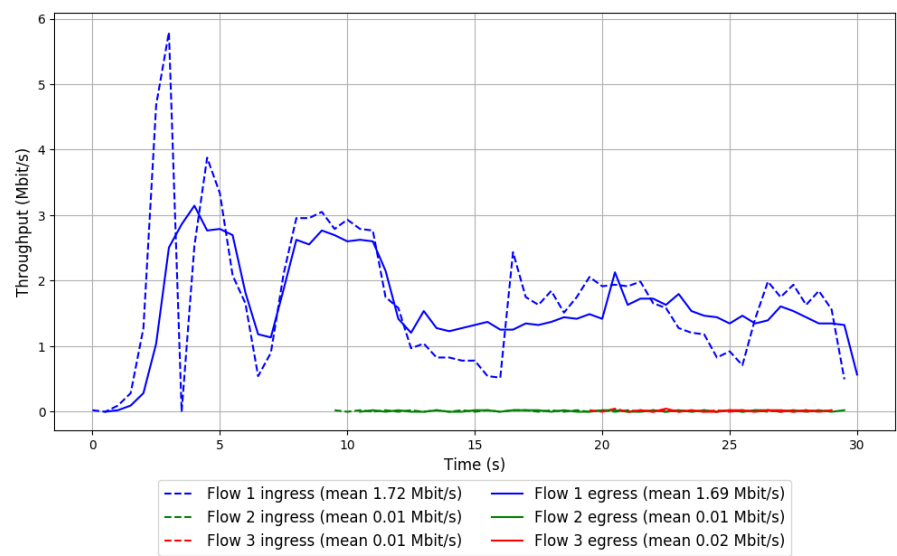


Run 2: Statistics of Verus

Start at: 2018-05-30 14:51:30
End at: 2018-05-30 14:52:00
Local clock offset: -1.553 ms
Remote clock offset: 8.572 ms

Below is generated by plot.py at 2018-05-30 15:21:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.70 Mbit/s
95th percentile per-packet one-way delay: 1643.248 ms
Loss rate: 4.11%
-- Flow 1:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 1643.723 ms
Loss rate: 4.09%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1638.667 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.02 Mbit/s
95th percentile per-packet one-way delay: 1557.177 ms
Loss rate: 9.09%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-05-30 15:10:50

End at: 2018-05-30 15:11:20

Local clock offset: -1.427 ms

Remote clock offset: 4.021 ms

Below is generated by plot.py at 2018-05-30 15:21:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.62 Mbit/s

95th percentile per-packet one-way delay: 1779.763 ms

Loss rate: 4.43%

-- Flow 1:

Average throughput: 1.61 Mbit/s

95th percentile per-packet one-way delay: 1779.763 ms

Loss rate: 4.42%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1722.339 ms

Loss rate: 4.17%

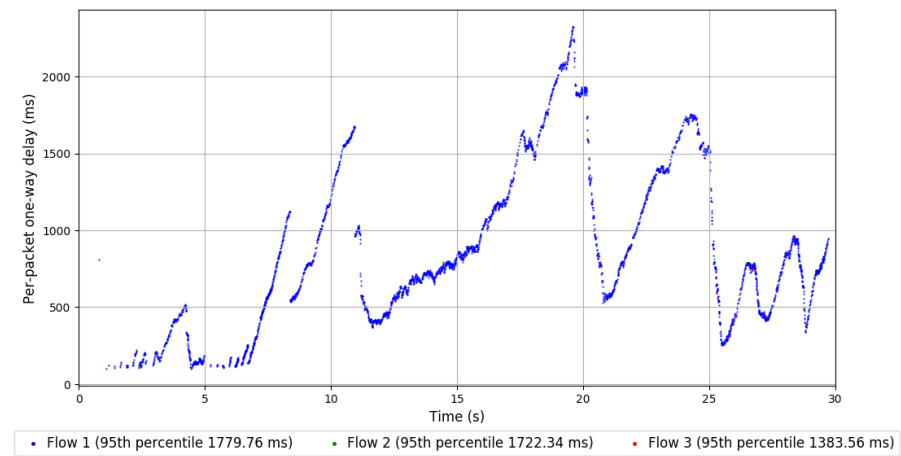
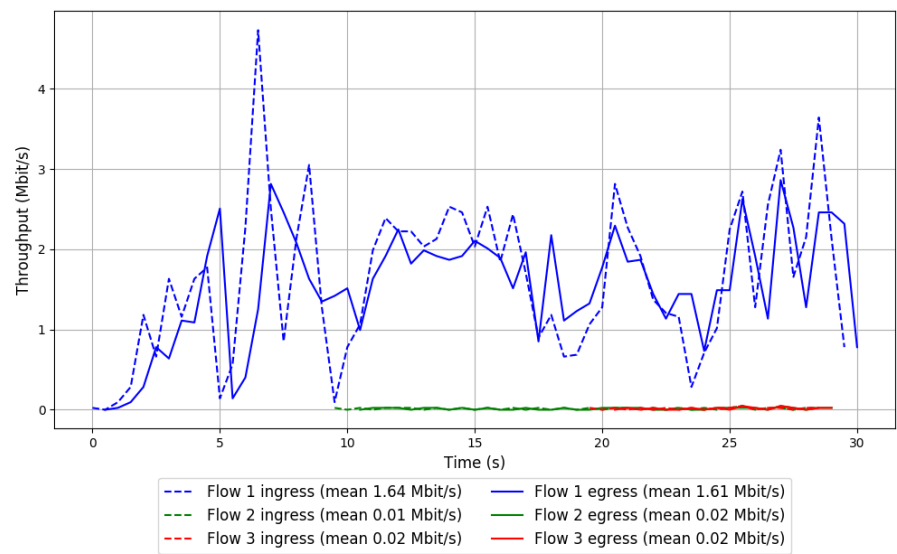
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 1383.555 ms

Loss rate: 7.69%

Run 3: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-05-30 14:33:24

End at: 2018-05-30 14:33:54

Local clock offset: -2.338 ms

Remote clock offset: 8.425 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.98 Mbit/s

95th percentile per-packet one-way delay: 2453.572 ms

Loss rate: 14.83%

-- Flow 1:

Average throughput: 1.14 Mbit/s

95th percentile per-packet one-way delay: 2437.313 ms

Loss rate: 13.12%

-- Flow 2:

Average throughput: 1.26 Mbit/s

95th percentile per-packet one-way delay: 2495.403 ms

Loss rate: 17.05%

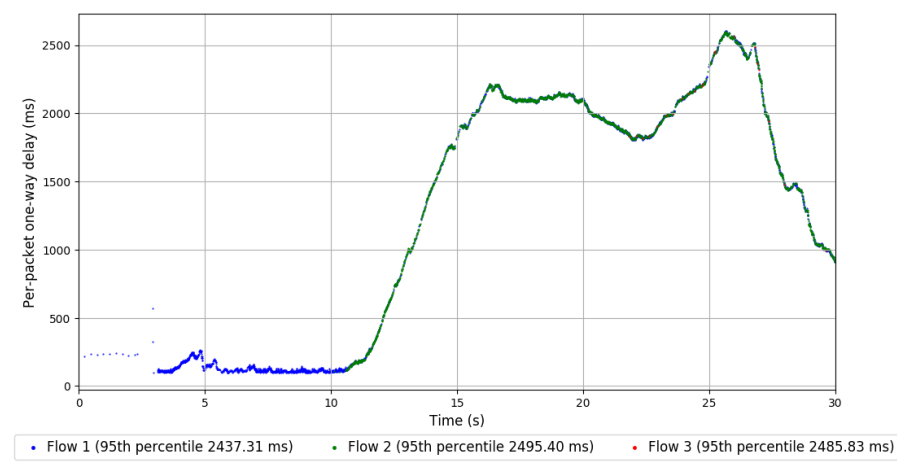
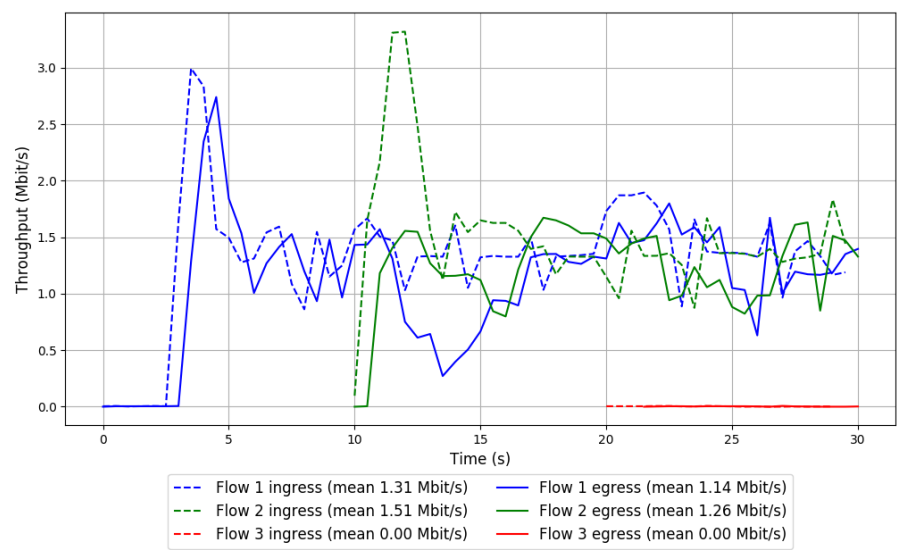
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2485.830 ms

Loss rate: 20.11%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-05-30 14:52:42

End at: 2018-05-30 14:53:12

Local clock offset: -0.745 ms

Remote clock offset: 9.415 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.64 Mbit/s

95th percentile per-packet one-way delay: 2553.559 ms

Loss rate: 17.82%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 2454.986 ms

Loss rate: 4.30%

-- Flow 2:

Average throughput: 1.79 Mbit/s

95th percentile per-packet one-way delay: 2525.963 ms

Loss rate: 13.32%

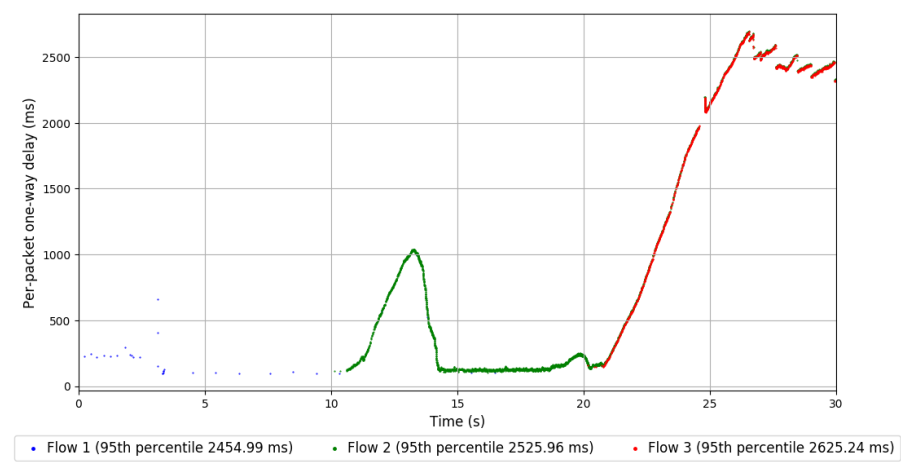
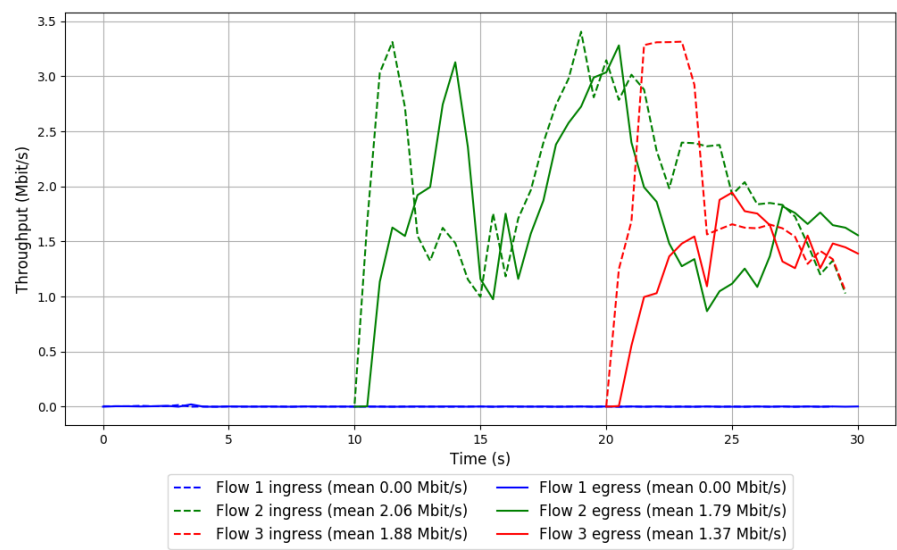
-- Flow 3:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 2625.238 ms

Loss rate: 27.77%

Run 2: Report of PCC-Vivace — Data Link



Run 3: Statistics of PCC-Vivace

Start at: 2018-05-30 15:12:02

End at: 2018-05-30 15:12:32

Local clock offset: -2.287 ms

Remote clock offset: 4.052 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.34 Mbit/s

95th percentile per-packet one-way delay: 4229.527 ms

Loss rate: 16.27%

-- Flow 1:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3899.903 ms

Loss rate: 4.20%

-- Flow 2:

Average throughput: 2.00 Mbit/s

95th percentile per-packet one-way delay: 4221.553 ms

Loss rate: 16.29%

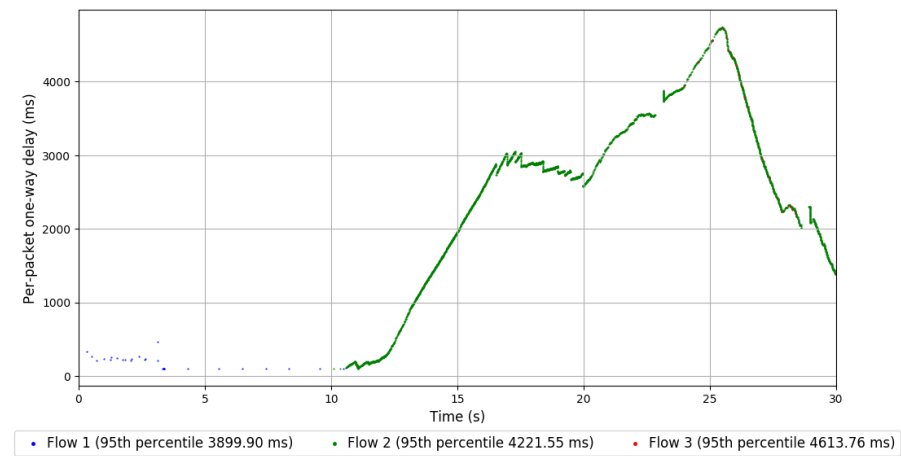
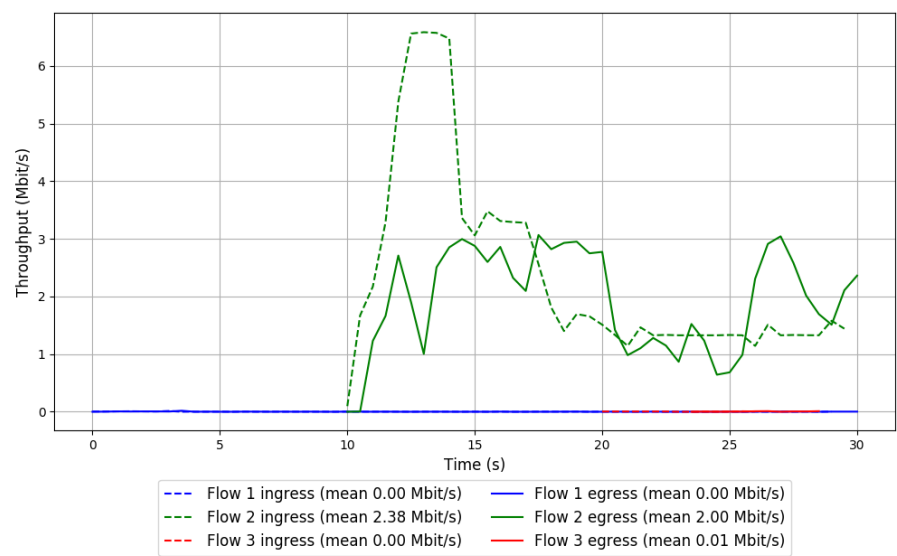
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 4613.757 ms

Loss rate: 0.00%

Run 3: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-05-30 14:40:39

End at: 2018-05-30 14:41:09

Local clock offset: -1.93 ms

Remote clock offset: 4.555 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 533.616 ms

Loss rate: 0.03%

-- Flow 1:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 506.382 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.26 Mbit/s

95th percentile per-packet one-way delay: 516.381 ms

Loss rate: 0.06%

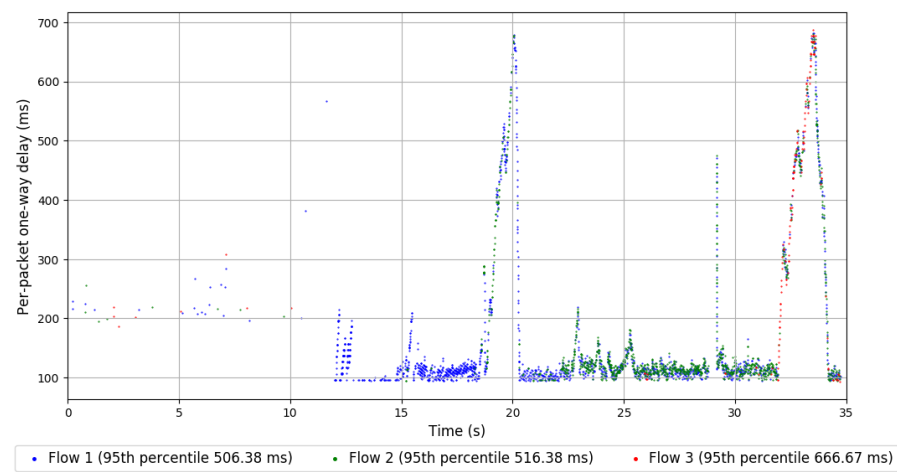
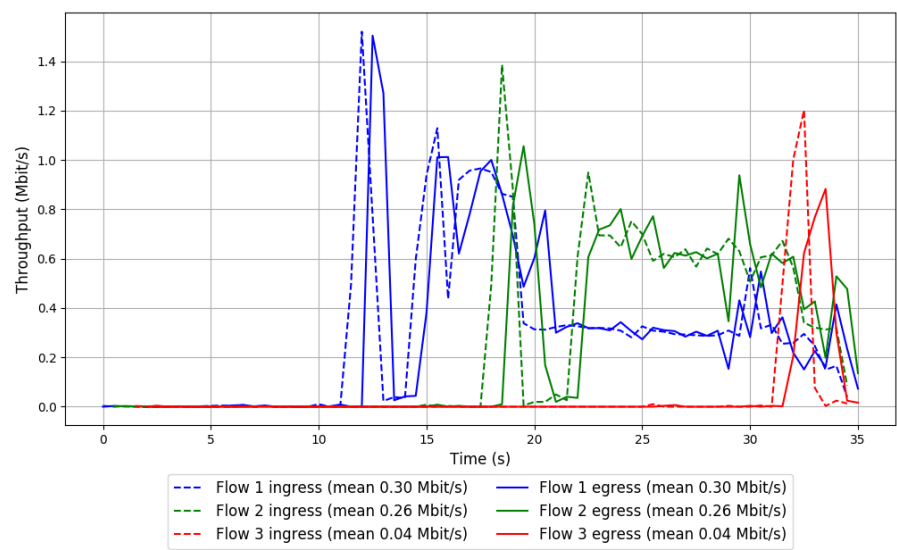
-- Flow 3:

Average throughput: 0.04 Mbit/s

95th percentile per-packet one-way delay: 666.666 ms

Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-05-30 14:59:57

End at: 2018-05-30 15:00:27

Local clock offset: -1.27 ms

Remote clock offset: 4.439 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 800.118 ms

Loss rate: 0.06%

-- Flow 1:

Average throughput: 0.28 Mbit/s

95th percentile per-packet one-way delay: 656.365 ms

Loss rate: 0.07%

-- Flow 2:

Average throughput: 0.22 Mbit/s

95th percentile per-packet one-way delay: 819.890 ms

Loss rate: 0.07%

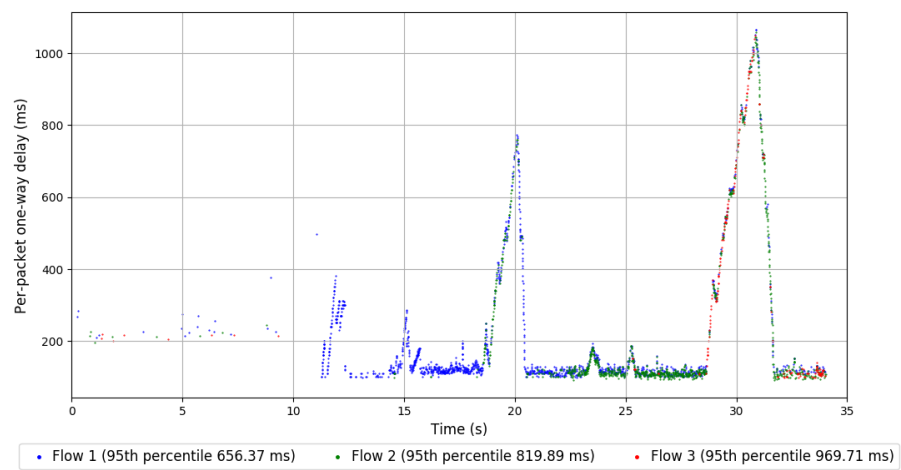
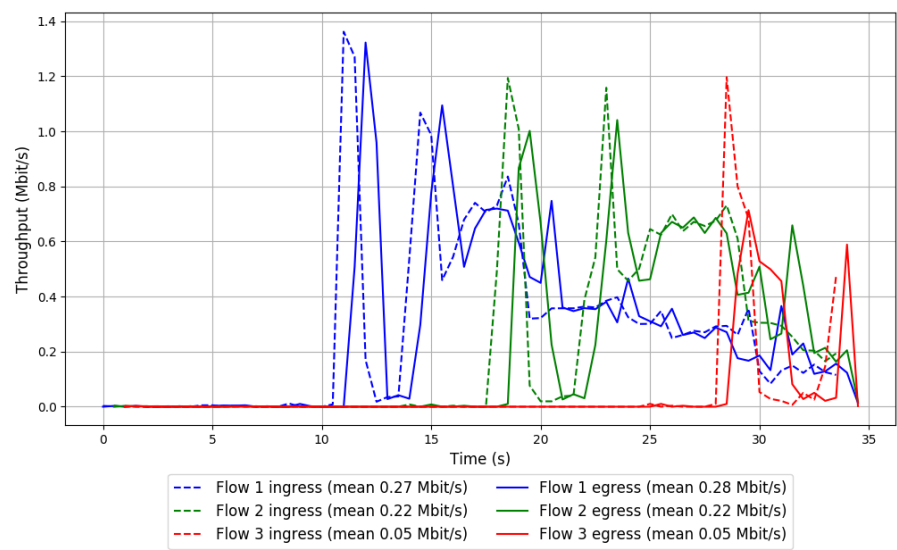
-- Flow 3:

Average throughput: 0.05 Mbit/s

95th percentile per-packet one-way delay: 969.713 ms

Loss rate: 0.00%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-05-30 15:19:15

End at: 2018-05-30 15:19:45

Local clock offset: -0.949 ms

Remote clock offset: 8.728 ms

Below is generated by plot.py at 2018-05-30 15:21:55

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.69 Mbit/s

95th percentile per-packet one-way delay: 216.525 ms

Loss rate: 0.11%

-- Flow 1:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 231.253 ms

Loss rate: 0.01%

-- Flow 2:

Average throughput: 0.29 Mbit/s

95th percentile per-packet one-way delay: 186.929 ms

Loss rate: 0.01%

-- Flow 3:

Average throughput: 0.08 Mbit/s

95th percentile per-packet one-way delay: 226.444 ms

Loss rate: 0.88%

Run 3: Report of WebRTC media — Data Link

