

Pantheon Report

Generated at 2018-06-18 15:51:43 (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.

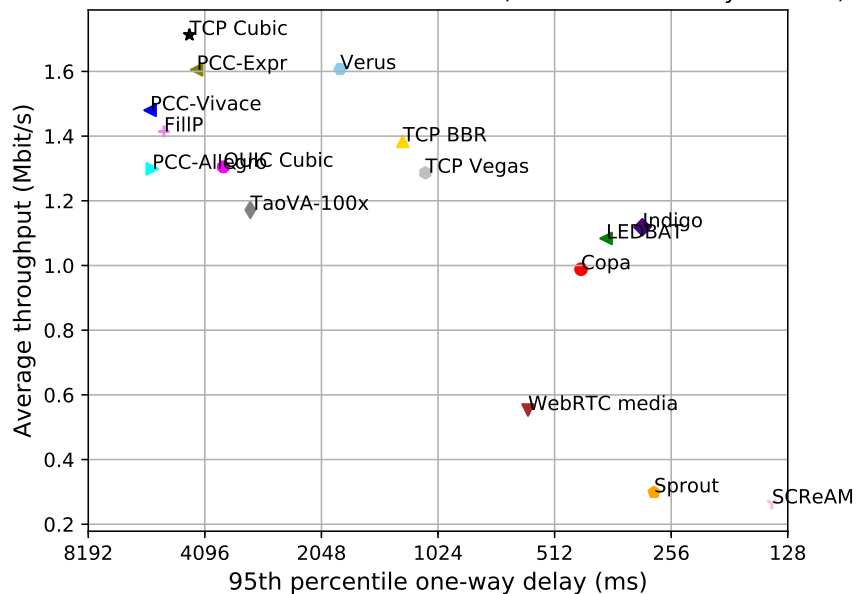
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

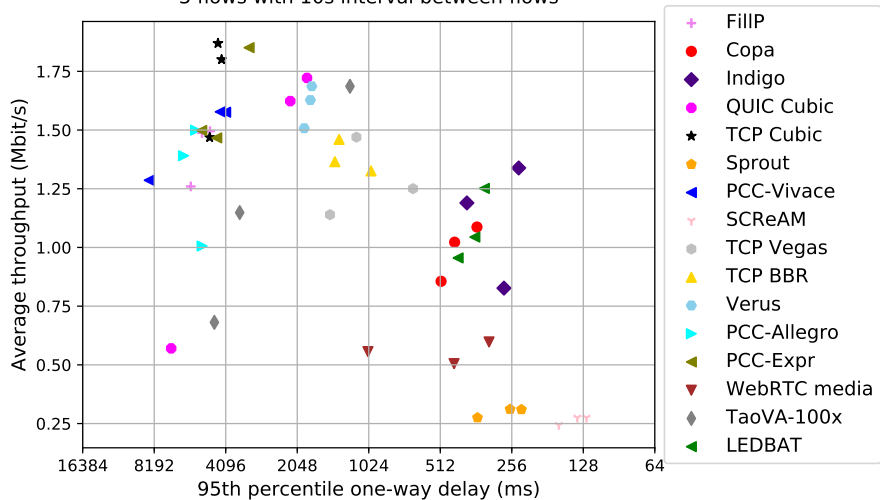
Git summary:

```
branch: master @ 9141c5f9450c85ea5ea2ea755a8e946998d3abf3
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-quic @ 77961f1a82733a86b42f1bc8143ebc978f3cff42
third_party/scream-reproduce @ f099118d1421aa3131bf11ff1964974e1da3bdb2
M src/ScreamClient
M src/ScreamServer
third_party/sprout @ 366e35c6178b01e31d4a46ad18c74f9415f19a26
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	0.86	0.62	0.37	1271.86	1243.63	1319.81	1.97	3.20	9.11
Copa	3	0.59	0.42	0.34	424.60	448.10	518.36	0.35	0.56	0.62
TCP Cubic	3	1.68	0.06	0.00	4482.20	4398.00	4668.76	18.27	37.92	61.21
FillP	3	1.41	0.01	0.01	5224.13	4885.08	4814.56	93.28	17.84	87.06
Indigo	3	0.58	0.47	0.72	293.86	283.07	379.55	0.00	0.00	0.10
LEDBAT	3	0.85	0.22	0.28	364.38	464.95	381.62	0.20	0.60	2.65
PCC-Allegro	3	0.96	0.50	0.00	5571.10	4847.95	5434.00	53.09	14.22	42.95
PCC-Expr	3	1.61	0.00	0.00	4301.52	3775.51	3643.13	72.77	87.05	66.51
QUIC Cubic	3	1.05	0.34	0.10	3648.36	3555.20	3852.07	9.14	20.32	24.74
SCReAM	3	0.08	0.18	0.17	128.17	136.18	187.25	0.04	0.08	0.36
Sprout	3	0.14	0.15	0.17	271.06	300.60	284.14	0.01	0.00	0.03
TaoVA-100x	3	0.68	0.55	0.47	2039.98	3180.78	3130.84	6.73	9.81	18.64
TCP Vegas	3	0.84	0.52	0.35	1043.77	1120.20	1232.88	1.12	2.72	12.86
Verus	3	1.59	0.01	0.01	1832.09	1828.45	1811.55	4.71	4.69	12.42
PCC-Vivace	3	0.84	0.97	0.00	5589.21	5699.90	5092.93	33.65	40.48	24.57
WebRTC media	3	0.22	0.24	0.10	624.73	579.74	521.67	0.01	0.05	0.29

Run 1: Statistics of TCP BBR

Start at: 2018-06-18 14:58:37

End at: 2018-06-18 14:59:07

Local clock offset: -2.17 ms

Remote clock offset: 7.551 ms

Below is generated by plot.py at 2018-06-18 15:51:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.46 Mbit/s

95th percentile per-packet one-way delay: 1364.723 ms

Loss rate: 4.12%

-- Flow 1:

Average throughput: 0.97 Mbit/s

95th percentile per-packet one-way delay: 1332.920 ms

Loss rate: 2.06%

-- Flow 2:

Average throughput: 0.55 Mbit/s

95th percentile per-packet one-way delay: 1286.885 ms

Loss rate: 5.05%

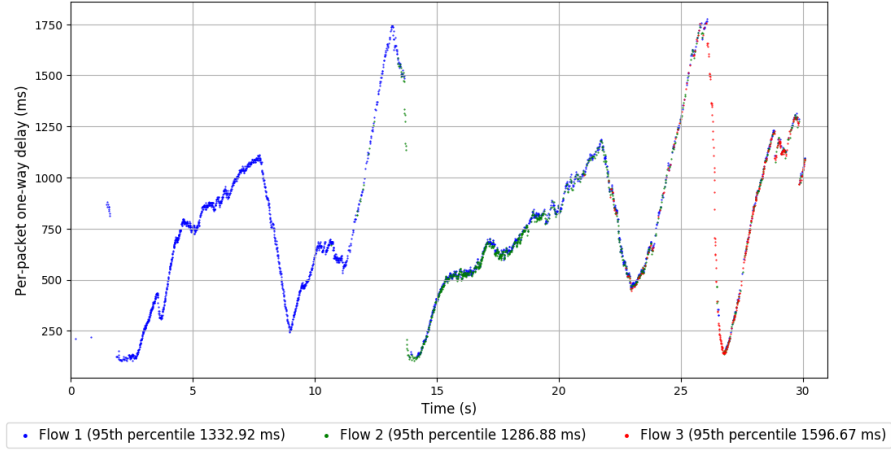
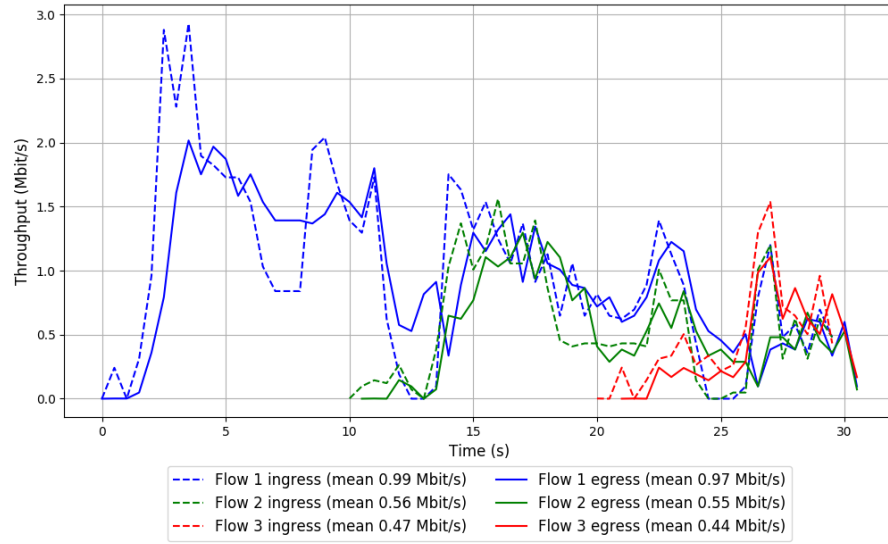
-- Flow 3:

Average throughput: 0.44 Mbit/s

95th percentile per-packet one-way delay: 1596.671 ms

Loss rate: 15.02%

Run 1: Report of TCP BBR — Data Link



Run 2: Statistics of TCP BBR

Start at: 2018-06-18 15:17:52

End at: 2018-06-18 15:18:22

Local clock offset: -1.466 ms

Remote clock offset: 6.989 ms

Below is generated by plot.py at 2018-06-18 15:51:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.33 Mbit/s

95th percentile per-packet one-way delay: 1001.245 ms

Loss rate: 2.28%

-- Flow 1:

Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 1081.300 ms

Loss rate: 2.02%

-- Flow 2:

Average throughput: 0.70 Mbit/s

95th percentile per-packet one-way delay: 980.877 ms

Loss rate: 1.87%

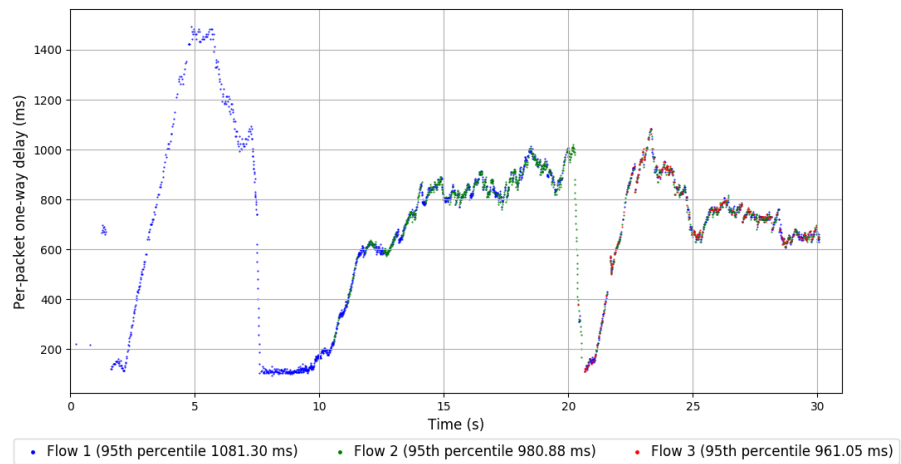
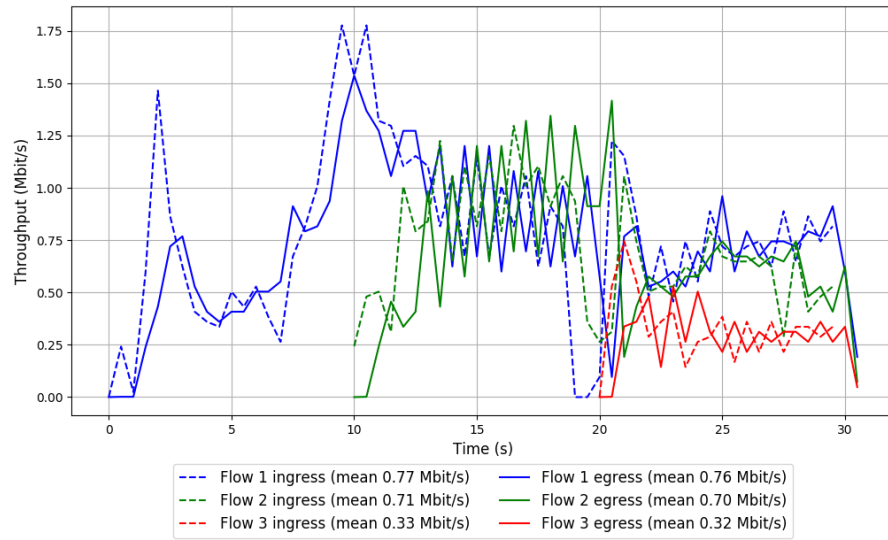
-- Flow 3:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 961.055 ms

Loss rate: 5.84%

Run 2: Report of TCP BBR — Data Link



Run 3: Statistics of TCP BBR

Start at: 2018-06-18 15:37:05

End at: 2018-06-18 15:37:35

Local clock offset: -1.498 ms

Remote clock offset: 9.391 ms

Below is generated by plot.py at 2018-06-18 15:51:08

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.37 Mbit/s

95th percentile per-packet one-way delay: 1422.112 ms

Loss rate: 2.47%

-- Flow 1:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 1401.363 ms

Loss rate: 1.83%

-- Flow 2:

Average throughput: 0.60 Mbit/s

95th percentile per-packet one-way delay: 1463.122 ms

Loss rate: 2.68%

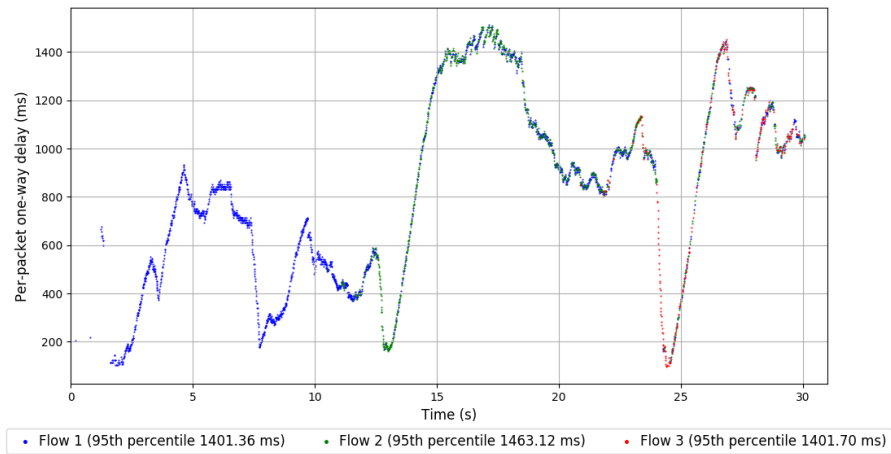
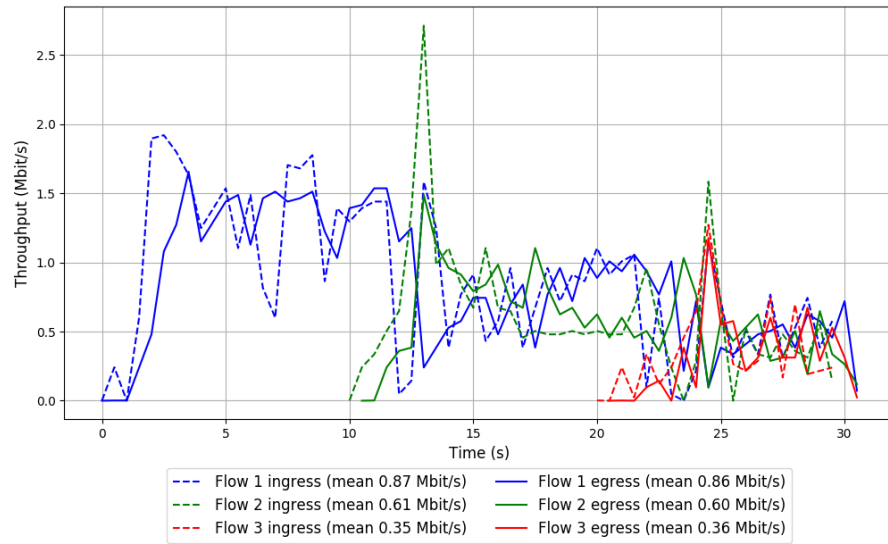
-- Flow 3:

Average throughput: 0.36 Mbit/s

95th percentile per-packet one-way delay: 1401.701 ms

Loss rate: 6.46%

Run 3: Report of TCP BBR — Data Link



Run 1: Statistics of Copa

Start at: 2018-06-18 14:57:25

End at: 2018-06-18 14:57:55

Local clock offset: -2.177 ms

Remote clock offset: 7.565 ms

Below is generated by plot.py at 2018-06-18 15:51:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.02 Mbit/s

95th percentile per-packet one-way delay: 445.547 ms

Loss rate: 0.04%

-- Flow 1:

Average throughput: 0.65 Mbit/s

95th percentile per-packet one-way delay: 426.563 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.39 Mbit/s

95th percentile per-packet one-way delay: 503.713 ms

Loss rate: 0.15%

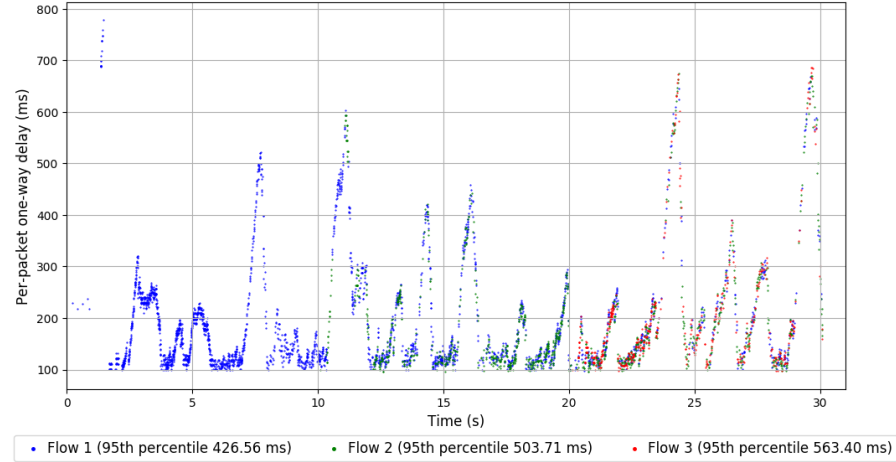
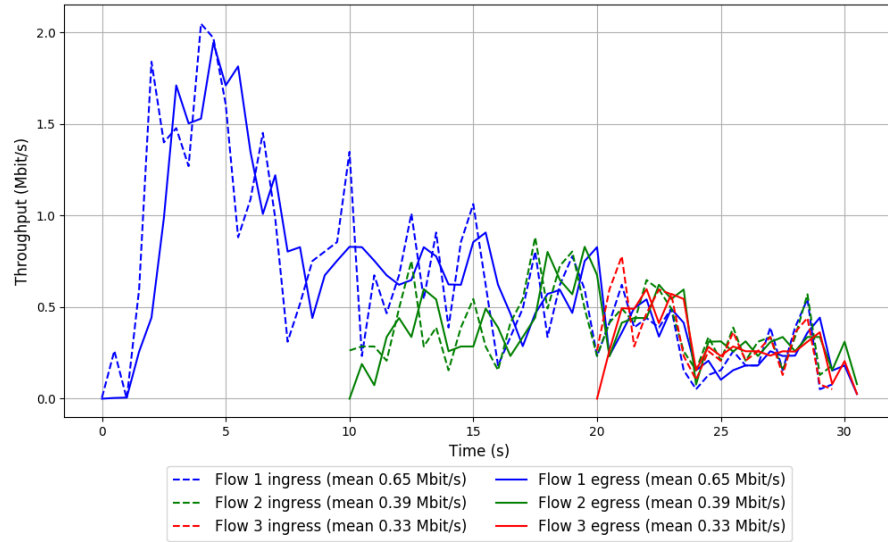
-- Flow 3:

Average throughput: 0.33 Mbit/s

95th percentile per-packet one-way delay: 563.399 ms

Loss rate: 0.00%

Run 1: Report of Copa — Data Link



Run 2: Statistics of Copa

Start at: 2018-06-18 15:16:39

End at: 2018-06-18 15:17:09

Local clock offset: -1.518 ms

Remote clock offset: 2.2 ms

Below is generated by plot.py at 2018-06-18 15:51:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.86 Mbit/s

95th percentile per-packet one-way delay: 508.082 ms

Loss rate: 1.05%

-- Flow 1:

Average throughput: 0.46 Mbit/s

95th percentile per-packet one-way delay: 491.213 ms

Loss rate: 0.93%

-- Flow 2:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 514.428 ms

Loss rate: 1.38%

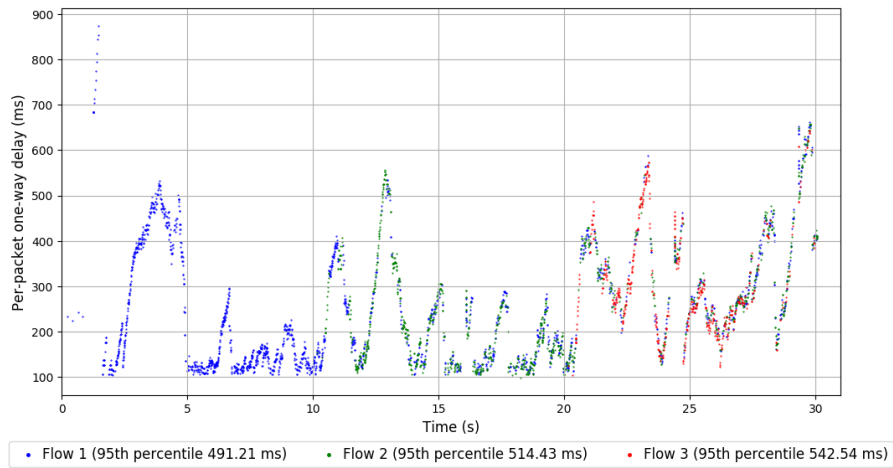
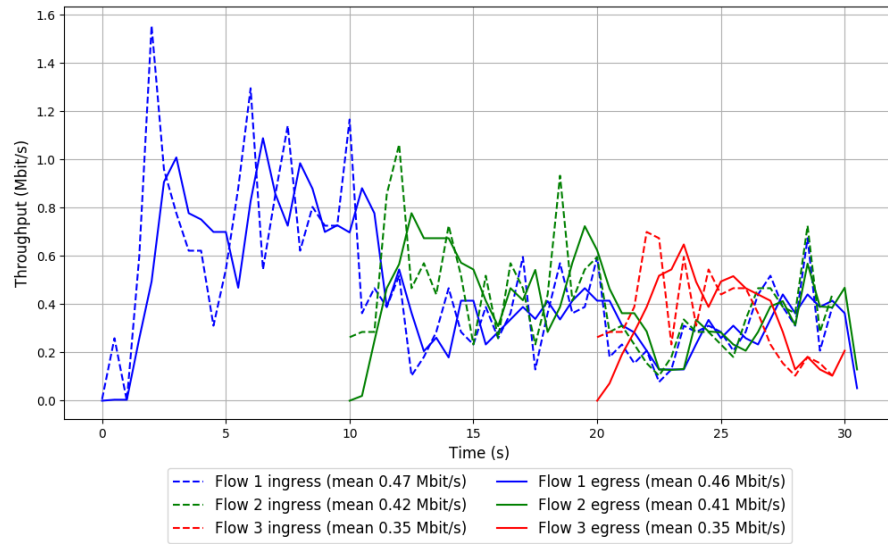
-- Flow 3:

Average throughput: 0.35 Mbit/s

95th percentile per-packet one-way delay: 542.540 ms

Loss rate: 0.75%

Run 2: Report of Copa — Data Link

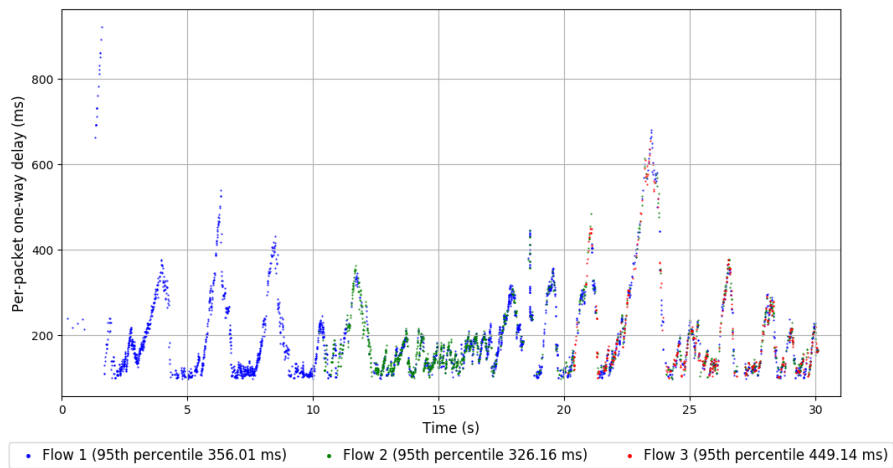
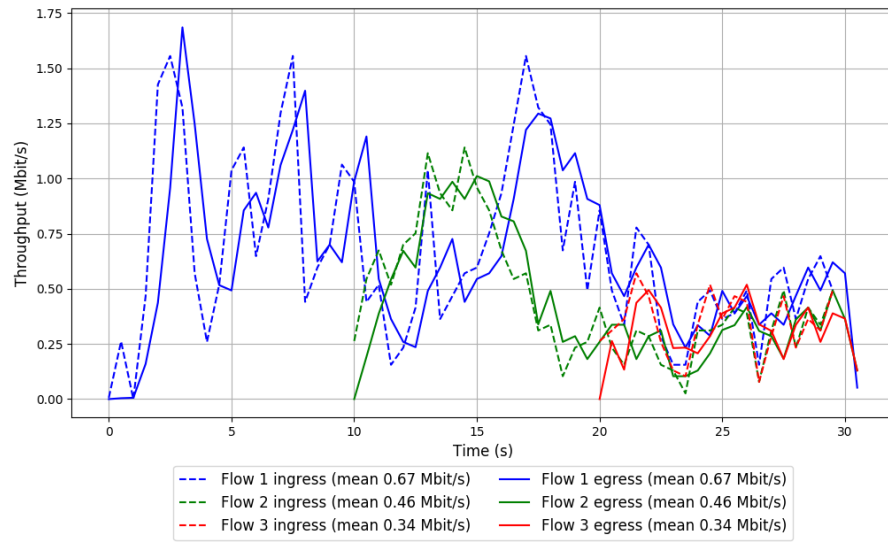


Run 3: Statistics of Copa

Start at: 2018-06-18 15:35:53
End at: 2018-06-18 15:36:23
Local clock offset: -1.321 ms
Remote clock offset: 13.251 ms

Below is generated by plot.py at 2018-06-18 15:51:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.09 Mbit/s
95th percentile per-packet one-way delay: 358.831 ms
Loss rate: 0.24%
-- Flow 1:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 356.012 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 326.157 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.34 Mbit/s
95th percentile per-packet one-way delay: 449.138 ms
Loss rate: 1.11%

Run 3: Report of Copa — Data Link



Run 1: Statistics of TCP Cubic

Start at: 2018-06-18 15:11:51

End at: 2018-06-18 15:12:21

Local clock offset: -1.68 ms

Remote clock offset: 6.849 ms

Below is generated by plot.py at 2018-06-18 15:51:09

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.80 Mbit/s

95th percentile per-packet one-way delay: 4263.612 ms

Loss rate: 18.38%

-- Flow 1:

Average throughput: 1.74 Mbit/s

95th percentile per-packet one-way delay: 4244.606 ms

Loss rate: 17.70%

-- Flow 2:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 4334.685 ms

Loss rate: 33.44%

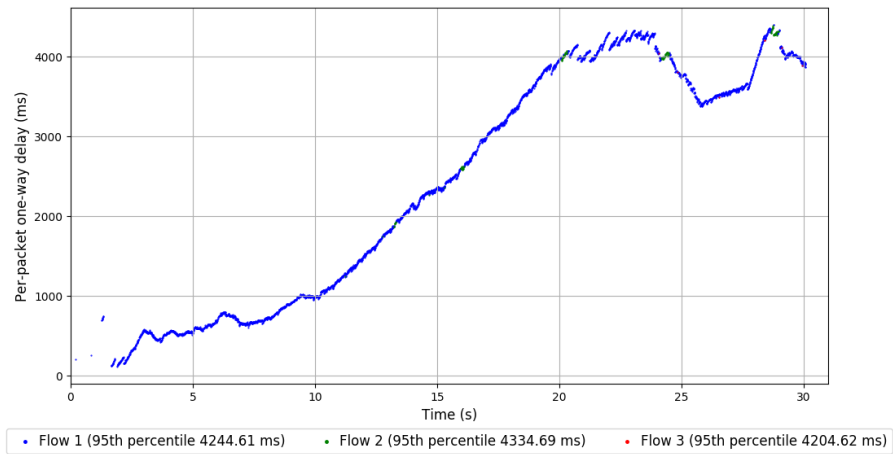
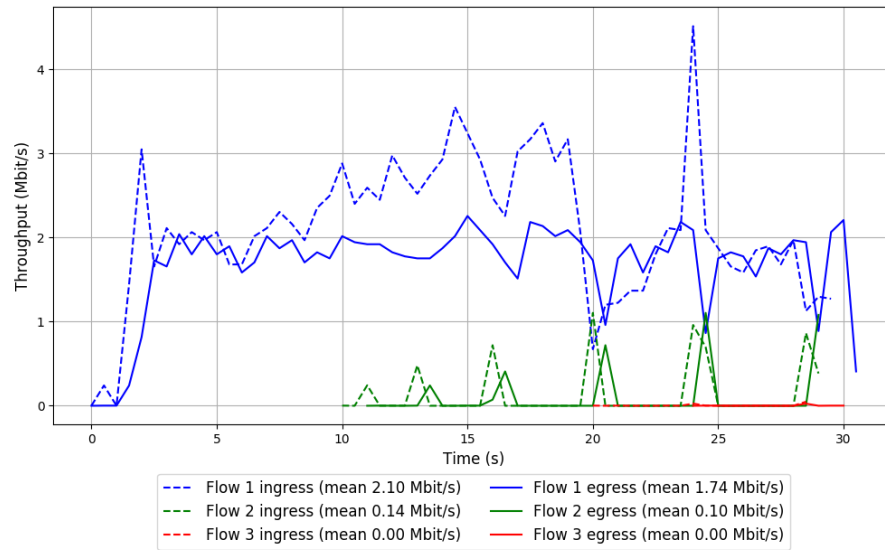
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4204.617 ms

Loss rate: 60.08%

Run 1: Report of TCP Cubic — Data Link

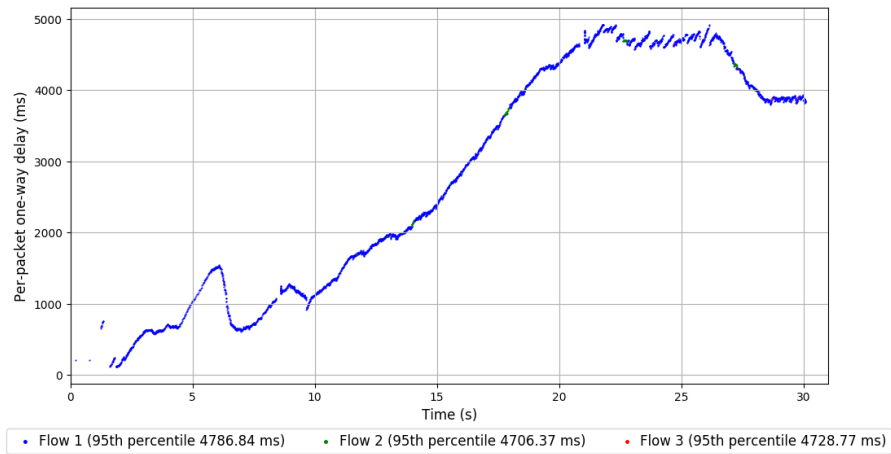
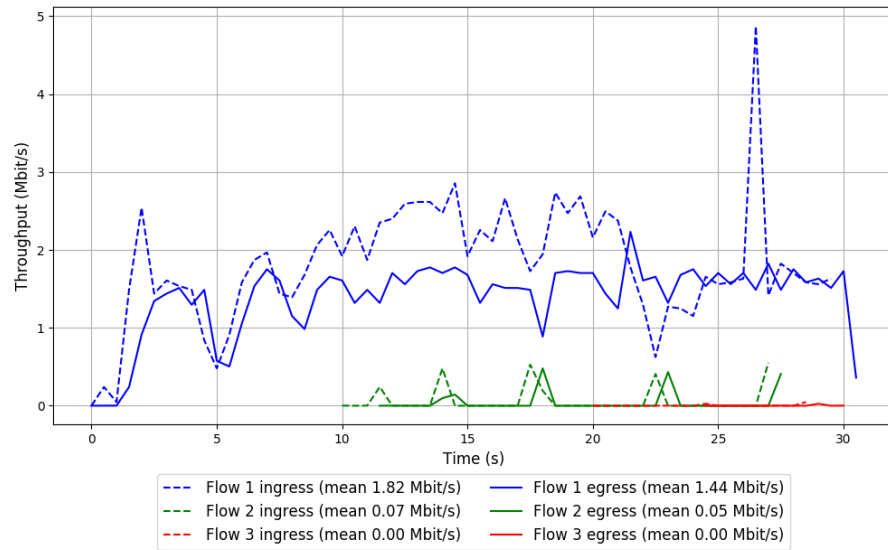


Run 2: Statistics of TCP Cubic

Start at: 2018-06-18 15:31:05
End at: 2018-06-18 15:31:35
Local clock offset: -1.187 ms
Remote clock offset: 13.445 ms

Below is generated by plot.py at 2018-06-18 15:51:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 4786.759 ms
Loss rate: 21.28%
-- Flow 1:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 4786.837 ms
Loss rate: 20.95%
-- Flow 2:
Average throughput: 0.05 Mbit/s
95th percentile per-packet one-way delay: 4706.372 ms
Loss rate: 34.91%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4728.771 ms
Loss rate: 61.12%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

Start at: 2018-06-18 15:50:24

End at: 2018-06-18 15:50:54

Local clock offset: -1.943 ms

Remote clock offset: 15.64 ms

Below is generated by plot.py at 2018-06-18 15:51:12

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.87 Mbit/s

95th percentile per-packet one-way delay: 4415.295 ms

Loss rate: 16.54%

-- Flow 1:

Average throughput: 1.85 Mbit/s

95th percentile per-packet one-way delay: 4415.164 ms

Loss rate: 16.15%

-- Flow 2:

Average throughput: 0.03 Mbit/s

95th percentile per-packet one-way delay: 4152.955 ms

Loss rate: 45.42%

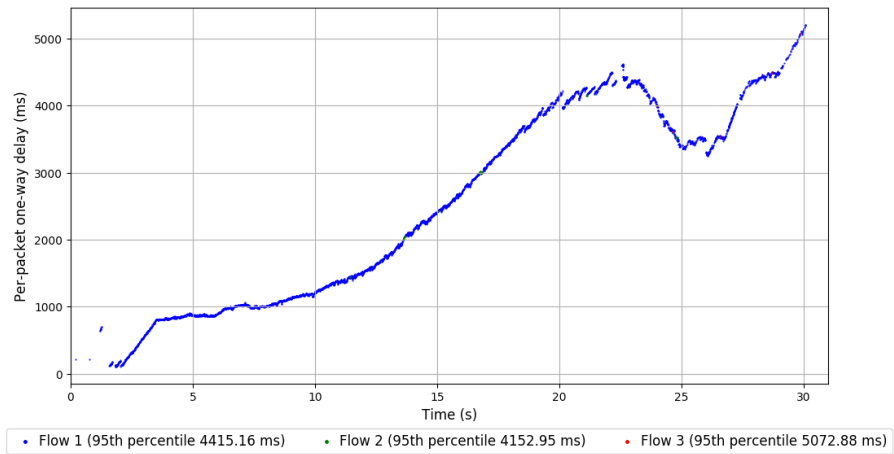
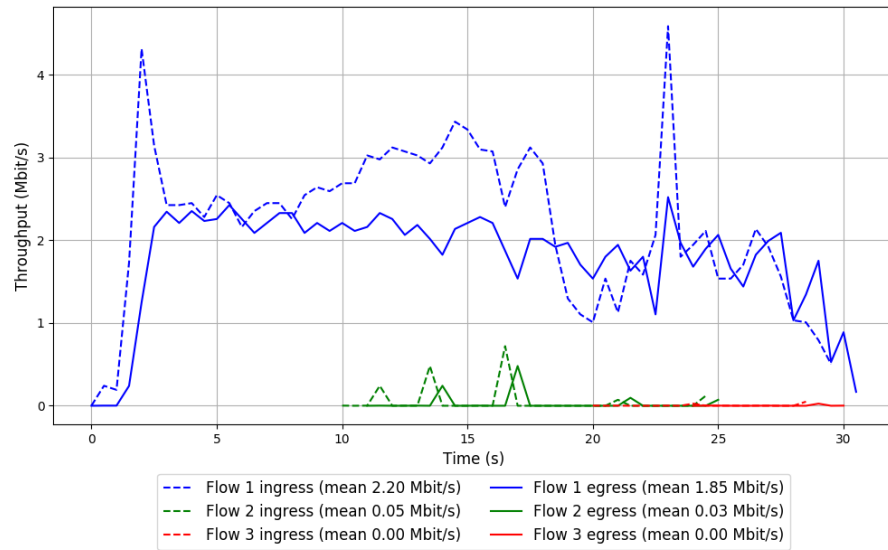
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 5072.879 ms

Loss rate: 62.43%

Run 3: Report of TCP Cubic — Data Link



Run 1: Statistics of FillP

Start at: 2018-06-18 15:07:01

End at: 2018-06-18 15:07:31

Local clock offset: -1.95 ms

Remote clock offset: 7.06 ms

Below is generated by plot.py at 2018-06-18 15:51:22

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 4769.521 ms

Loss rate: 91.80%

-- Flow 1:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 4773.630 ms

Loss rate: 91.80%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 4549.573 ms

Loss rate: 13.33%

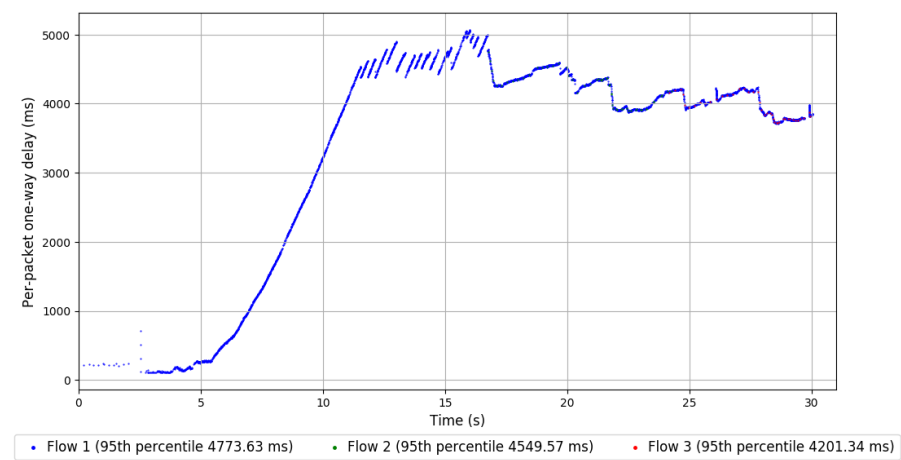
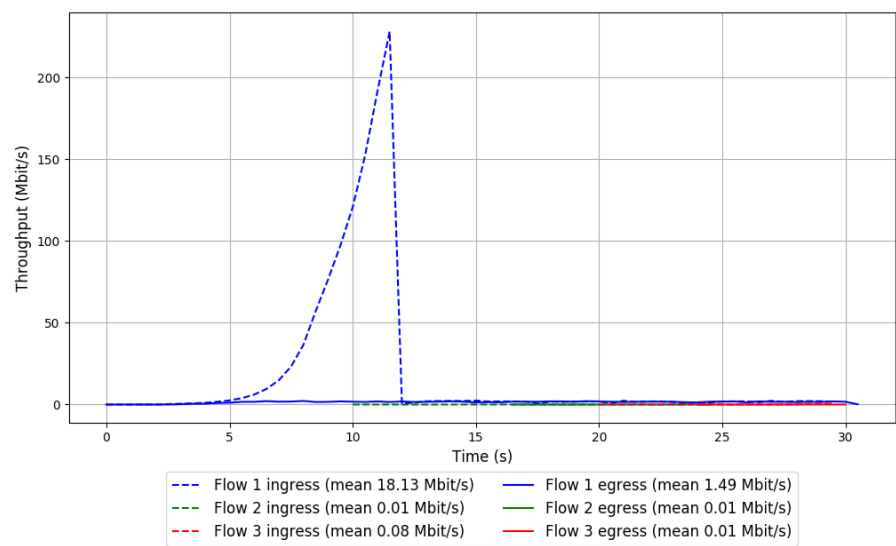
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 4201.340 ms

Loss rate: 94.61%

Run 1: Report of FillP — Data Link

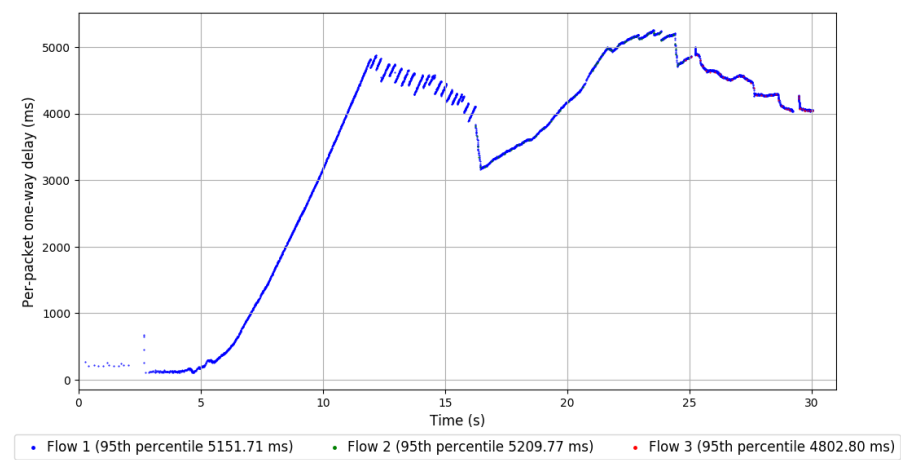
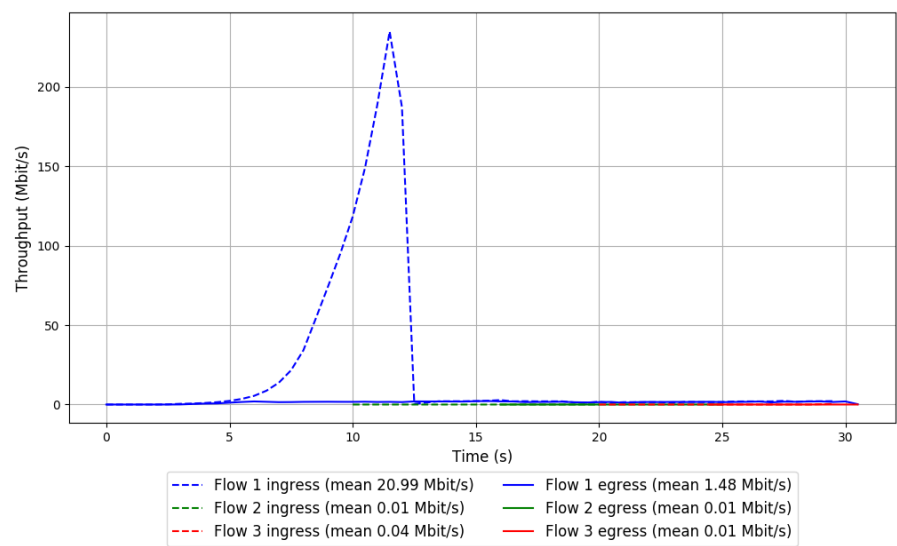


Run 2: Statistics of FillP

Start at: 2018-06-18 15:26:16
End at: 2018-06-18 15:26:46
Local clock offset: -1.253 ms
Remote clock offset: 11.149 ms

Below is generated by plot.py at 2018-06-18 15:51:25
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 5153.950 ms
Loss rate: 92.96%
-- Flow 1:
Average throughput: 1.48 Mbit/s
95th percentile per-packet one-way delay: 5151.713 ms
Loss rate: 92.97%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 5209.774 ms
Loss rate: 12.99%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4802.798 ms
Loss rate: 89.84%

Run 2: Report of FillP — Data Link

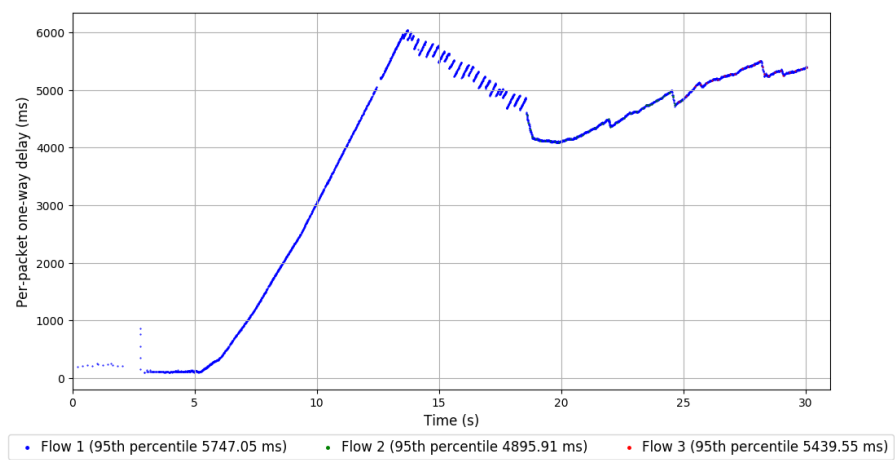
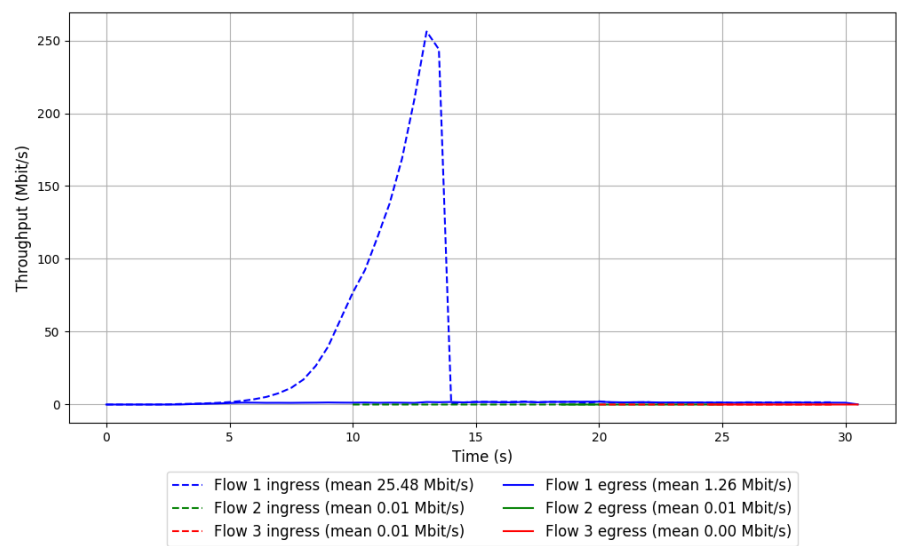


Run 3: Statistics of FillP

Start at: 2018-06-18 15:45:33
End at: 2018-06-18 15:46:03
Local clock offset: -1.846 ms
Remote clock offset: 15.377 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 5745.345 ms
Loss rate: 95.07%
-- Flow 1:
Average throughput: 1.26 Mbit/s
95th percentile per-packet one-way delay: 5747.051 ms
Loss rate: 95.08%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 4895.907 ms
Loss rate: 27.20%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5439.549 ms
Loss rate: 76.73%

Run 3: Report of FillP — Data Link



Run 1: Statistics of Indigo

Start at: 2018-06-18 14:53:49

End at: 2018-06-18 14:54:19

Local clock offset: -2.151 ms

Remote clock offset: 3.771 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.83 Mbit/s

95th percentile per-packet one-way delay: 276.243 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.41 Mbit/s

95th percentile per-packet one-way delay: 286.062 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 313.593 ms

Loss rate: 0.00%

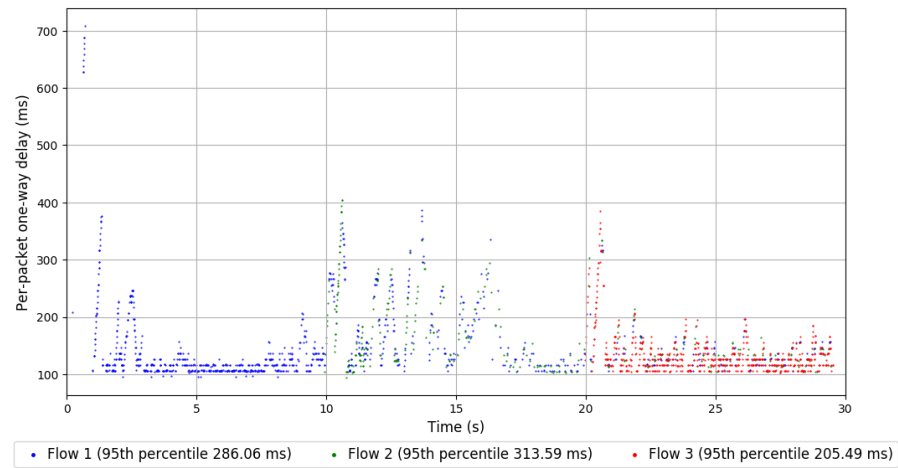
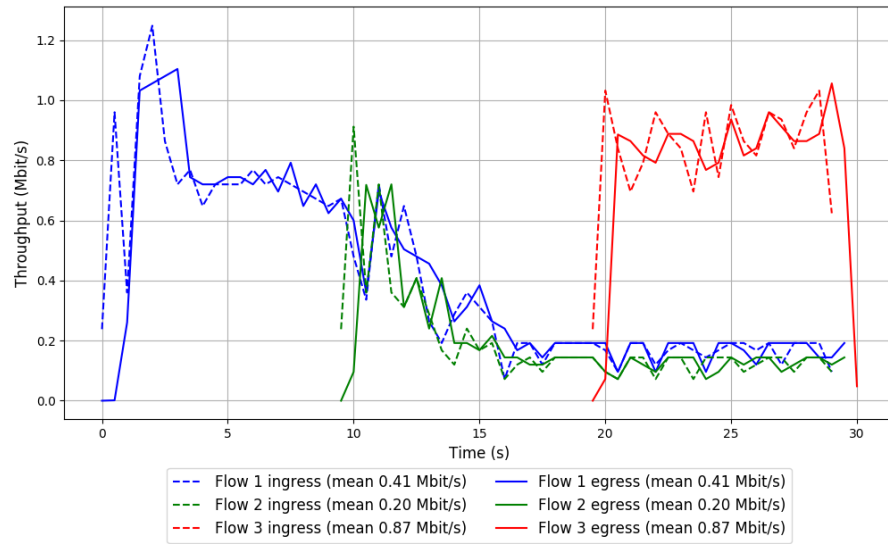
-- Flow 3:

Average throughput: 0.87 Mbit/s

95th percentile per-packet one-way delay: 205.485 ms

Loss rate: 0.29%

Run 1: Report of Indigo — Data Link



Run 2: Statistics of Indigo

Start at: 2018-06-18 15:13:03

End at: 2018-06-18 15:13:33

Local clock offset: -1.644 ms

Remote clock offset: 2.863 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.19 Mbit/s

95th percentile per-packet one-way delay: 395.610 ms

Loss rate: 0.00%

-- Flow 1:

Average throughput: 0.54 Mbit/s

95th percentile per-packet one-way delay: 375.750 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.75 Mbit/s

95th percentile per-packet one-way delay: 246.531 ms

Loss rate: 0.00%

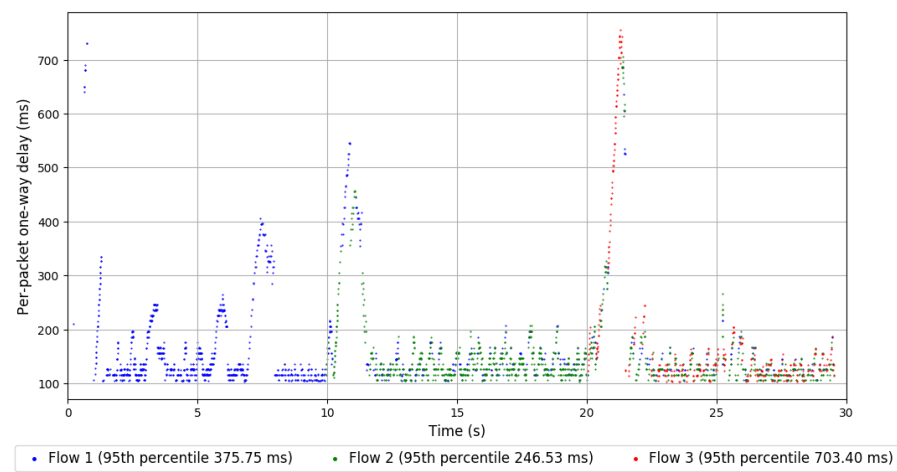
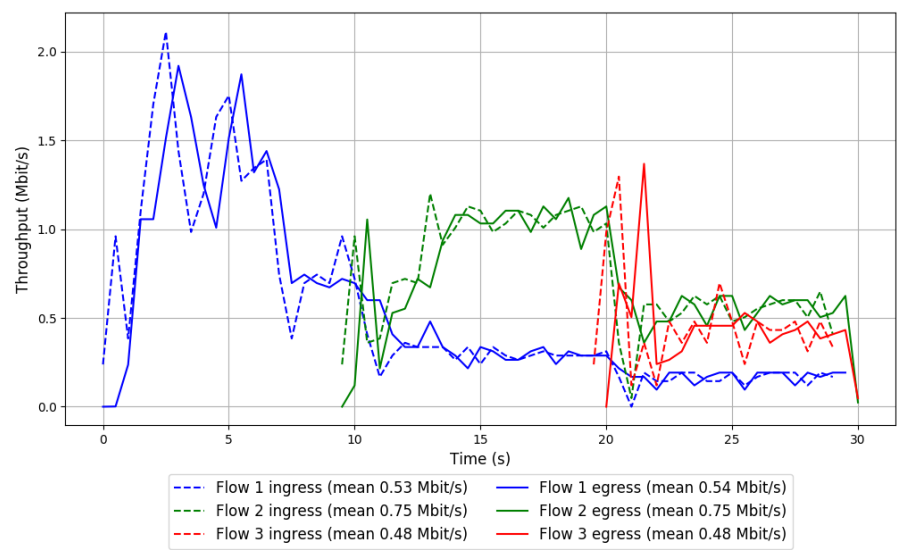
-- Flow 3:

Average throughput: 0.48 Mbit/s

95th percentile per-packet one-way delay: 703.403 ms

Loss rate: 0.00%

Run 2: Report of Indigo — Data Link

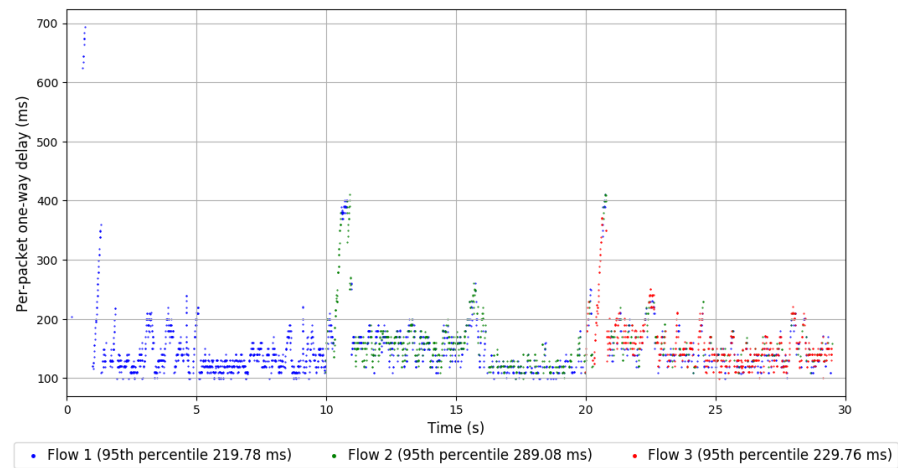
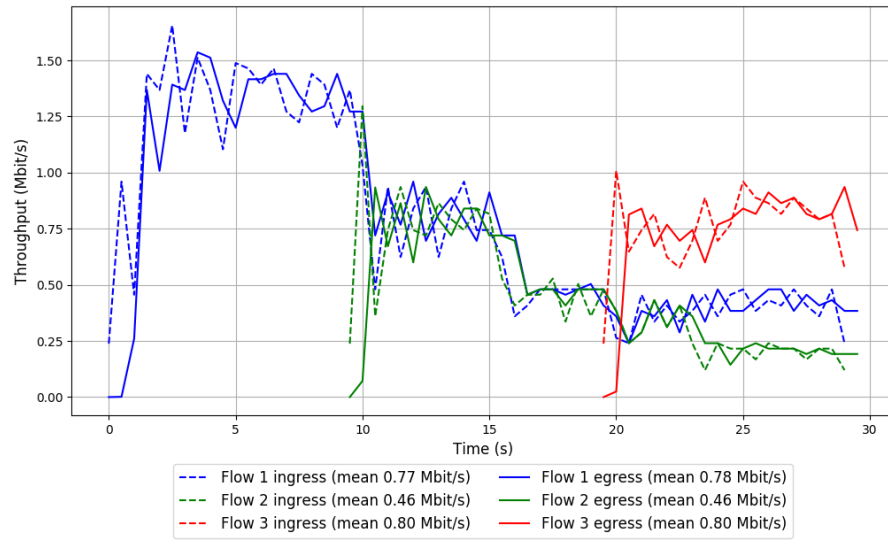


Run 3: Statistics of Indigo

Start at: 2018-06-18 15:32:17
End at: 2018-06-18 15:32:47
Local clock offset: -1.189 ms
Remote clock offset: 13.744 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 239.407 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.78 Mbit/s
95th percentile per-packet one-way delay: 219.782 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.46 Mbit/s
95th percentile per-packet one-way delay: 289.077 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 229.758 ms
Loss rate: 0.00%

Run 3: Report of Indigo — Data Link

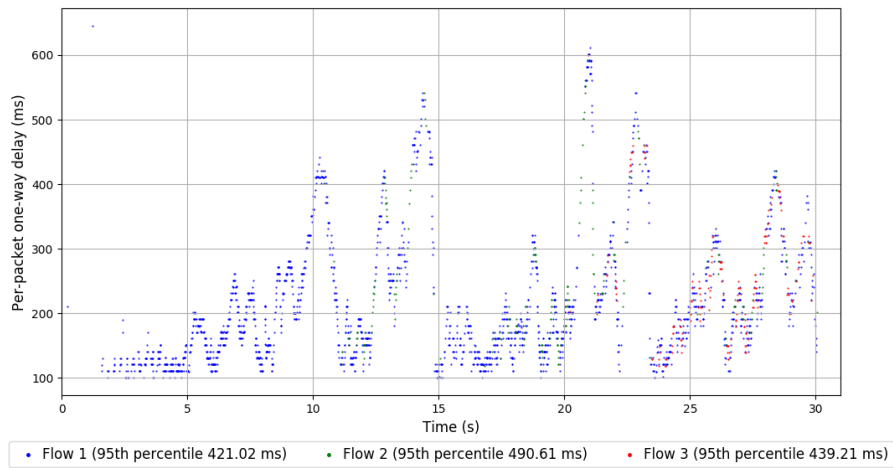
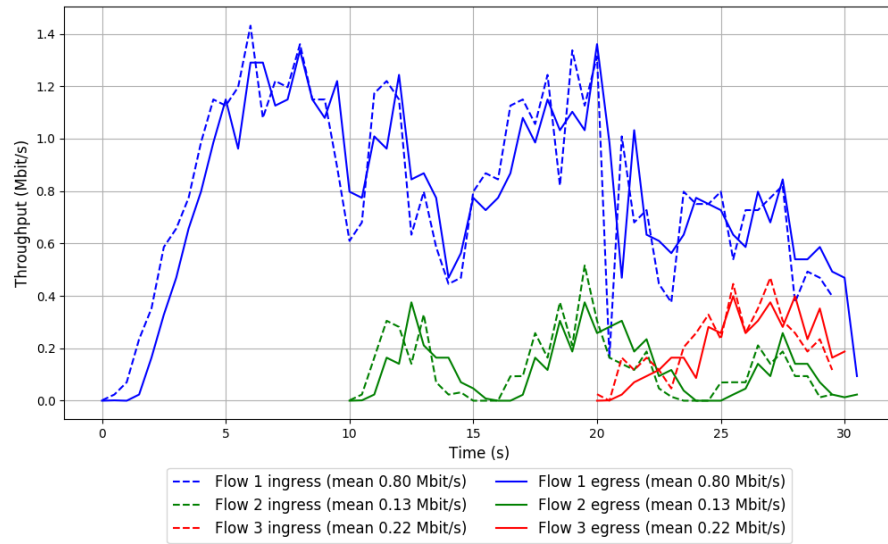


```
Run 1: Statistics of LEDBAT

Start at: 2018-06-18 15:01:01
End at: 2018-06-18 15:01:31
Local clock offset: -2.184 ms
Remote clock offset: 3.411 ms

# Below is generated by plot.py at 2018-06-18 15:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.96 Mbit/s
95th percentile per-packet one-way delay: 430.779 ms
Loss rate: 0.29%
-- Flow 1:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 421.025 ms
Loss rate: 0.20%
-- Flow 2:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 490.610 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 439.209 ms
Loss rate: 1.64%
```

Run 1: Report of LEDBAT — Data Link



Run 2: Statistics of LEDBAT

Start at: 2018-06-18 15:20:15

End at: 2018-06-18 15:20:45

Local clock offset: -1.463 ms

Remote clock offset: 4.675 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.04 Mbit/s

95th percentile per-packet one-way delay: 366.279 ms

Loss rate: 0.49%

-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 346.692 ms

Loss rate: 0.10%

-- Flow 2:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 426.074 ms

Loss rate: 1.45%

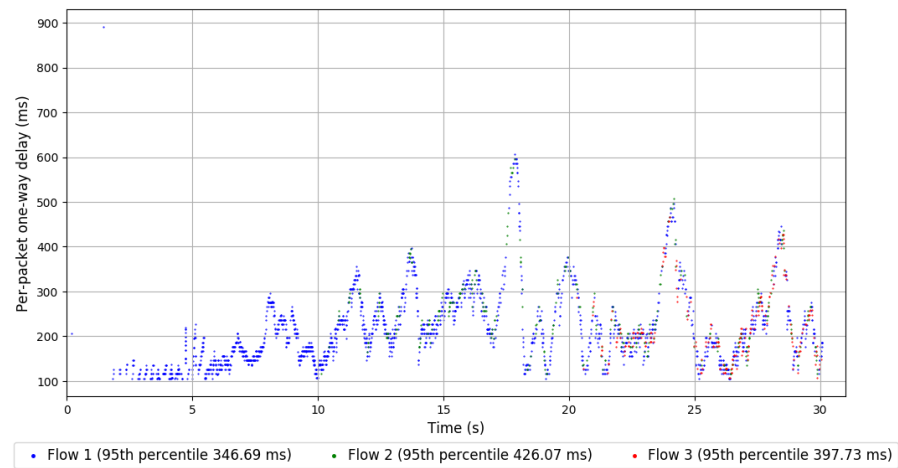
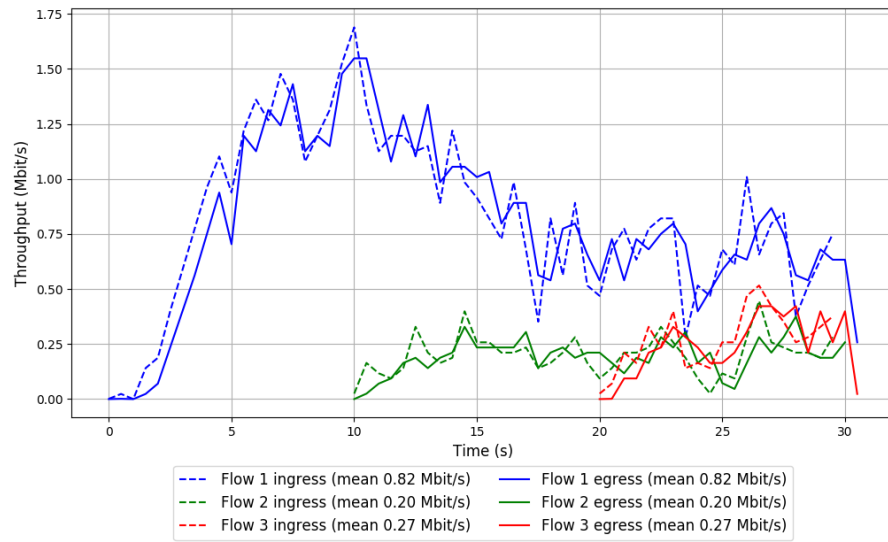
-- Flow 3:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 397.725 ms

Loss rate: 2.61%

Run 2: Report of LEDBAT — Data Link



Run 3: Statistics of LEDBAT

Start at: 2018-06-18 15:39:29

End at: 2018-06-18 15:39:59

Local clock offset: -1.592 ms

Remote clock offset: 9.632 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.25 Mbit/s

95th percentile per-packet one-way delay: 334.101 ms

Loss rate: 0.62%

-- Flow 1:

Average throughput: 0.92 Mbit/s

95th percentile per-packet one-way delay: 325.424 ms

Loss rate: 0.30%

-- Flow 2:

Average throughput: 0.32 Mbit/s

95th percentile per-packet one-way delay: 478.156 ms

Loss rate: 0.36%

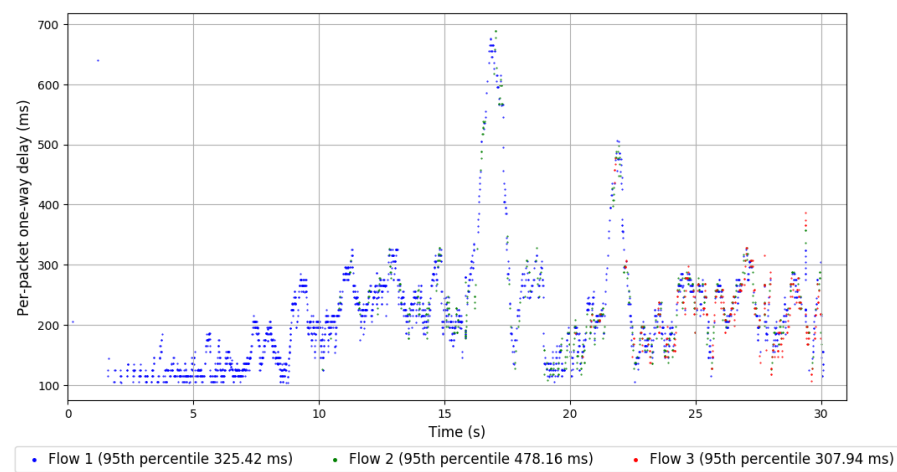
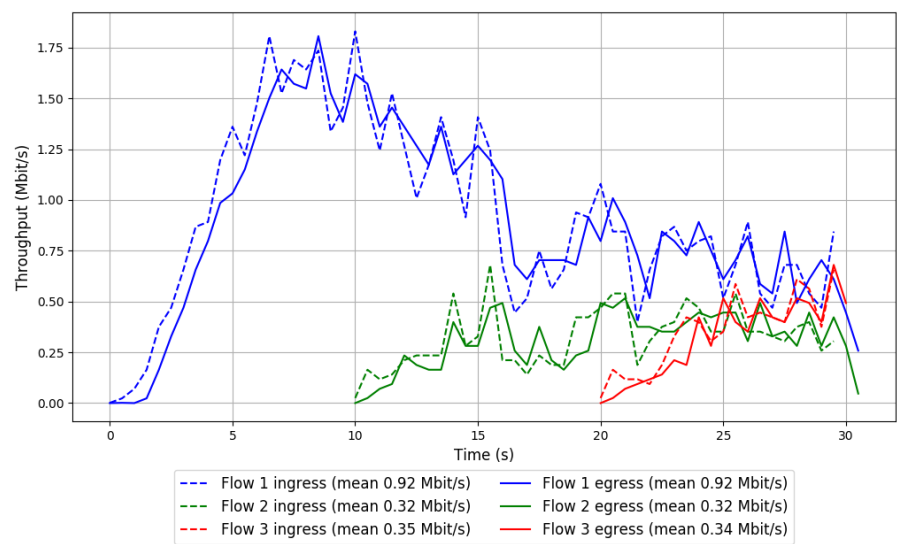
-- Flow 3:

Average throughput: 0.34 Mbit/s

95th percentile per-packet one-way delay: 307.937 ms

Loss rate: 3.69%

Run 3: Report of LEDBAT — Data Link

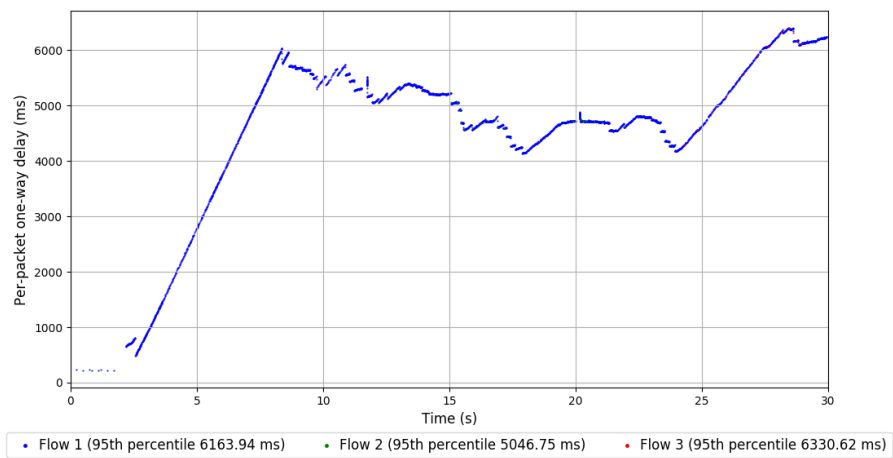
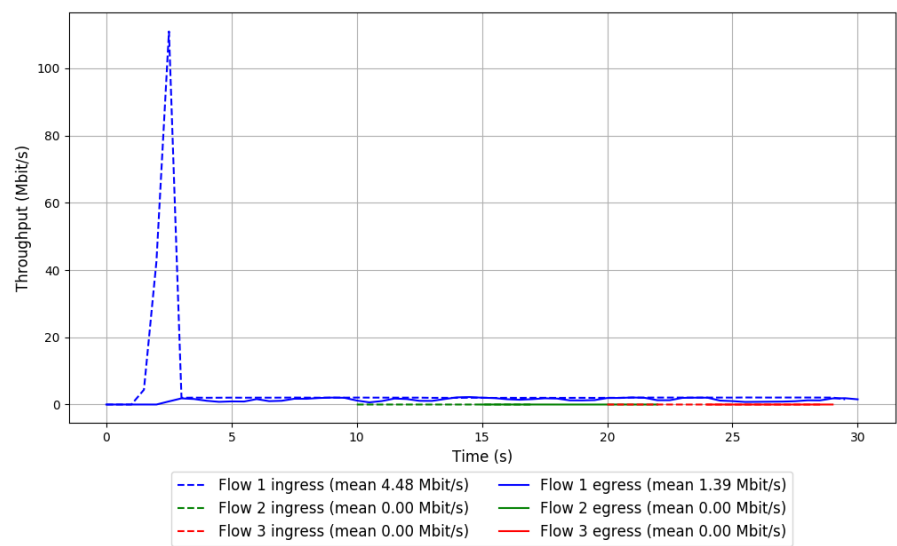


```
Run 1: Statistics of PCC-Allegro

Start at: 2018-06-18 15:02:13
End at: 2018-06-18 15:02:43
Local clock offset: -2.174 ms
Remote clock offset: 3.273 ms

# Below is generated by plot.py at 2018-06-18 15:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 6164.135 ms
Loss rate: 69.12%
-- Flow 1:
Average throughput: 1.39 Mbit/s
95th percentile per-packet one-way delay: 6163.937 ms
Loss rate: 69.13%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5046.751 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 6330.618 ms
Loss rate: 50.39%
```


Run 1: Report of PCC-Allegro — Data Link

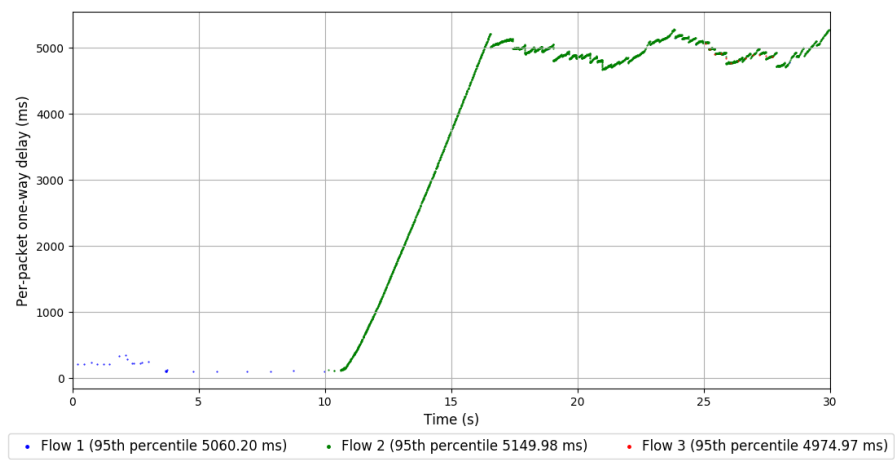
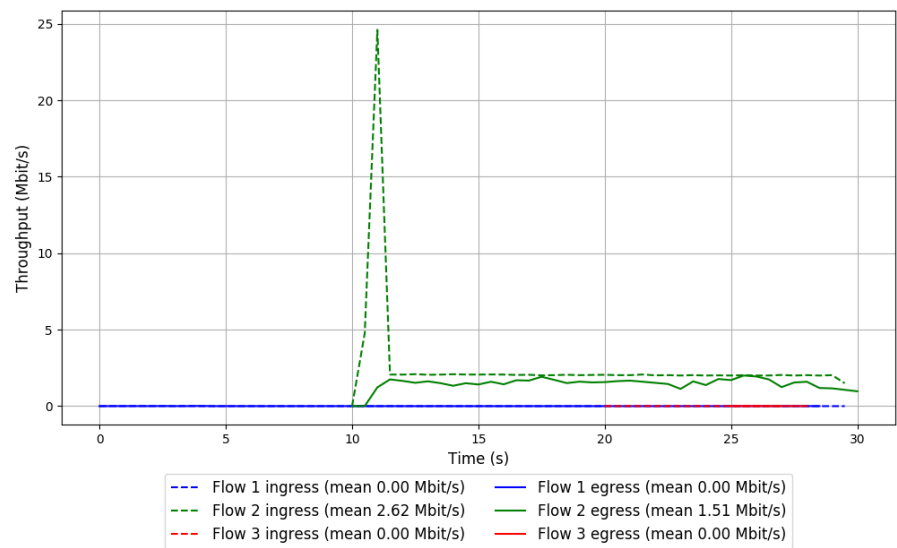


Run 2: Statistics of PCC-Allegro

Start at: 2018-06-18 15:21:27
End at: 2018-06-18 15:21:57
Local clock offset: -1.382 ms
Remote clock offset: 11.495 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.01 Mbit/s
95th percentile per-packet one-way delay: 5149.548 ms
Loss rate: 42.65%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 5060.201 ms
Loss rate: 15.33%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 5149.981 ms
Loss rate: 42.67%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4974.965 ms
Loss rate: 44.83%

Run 2: Report of PCC-Allegro — Data Link

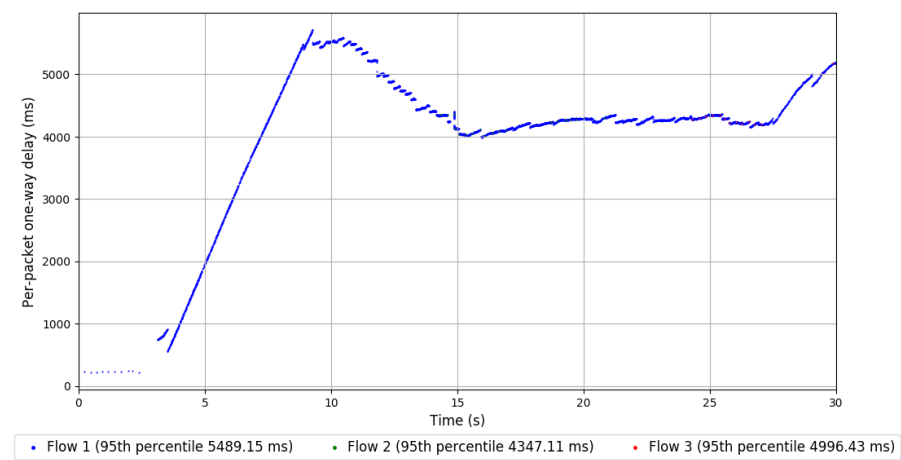
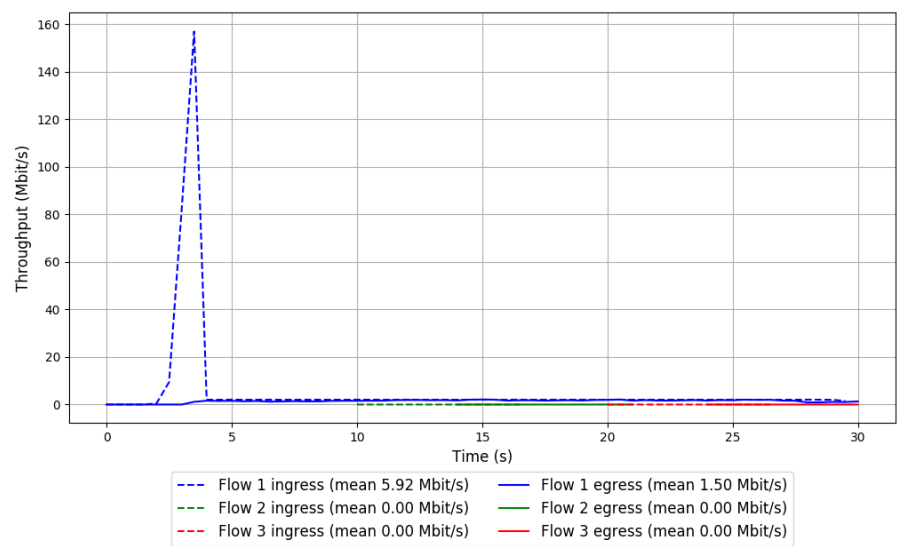


Run 3: Statistics of PCC-Allegro

Start at: 2018-06-18 15:40:41
End at: 2018-06-18 15:41:11
Local clock offset: -1.646 ms
Remote clock offset: 15.982 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 5488.429 ms
Loss rate: 74.79%
-- Flow 1:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 5489.152 ms
Loss rate: 74.80%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4347.111 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4996.430 ms
Loss rate: 33.62%

Run 3: Report of PCC-Allegro — Data Link

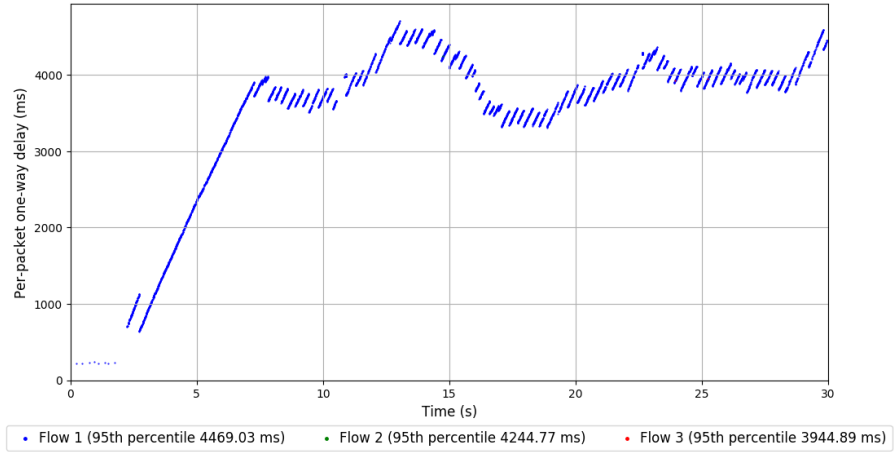
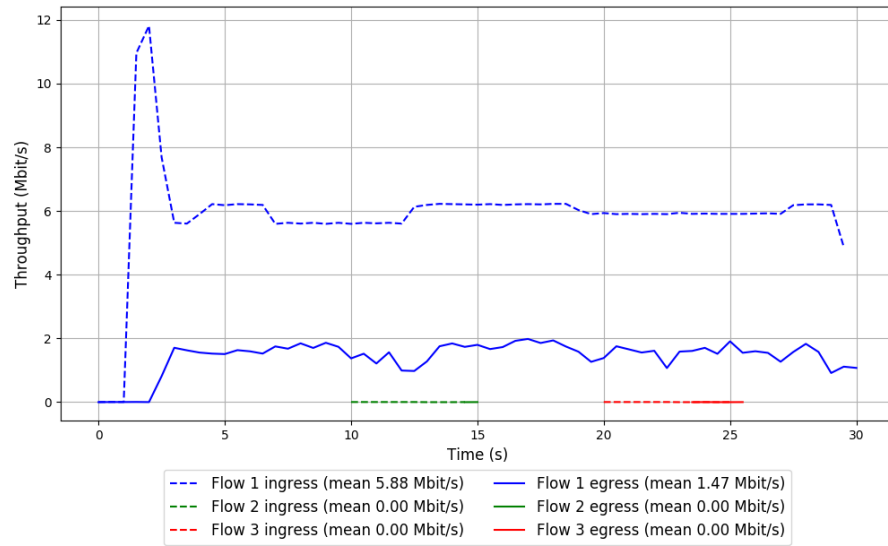


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-18 15:09:26
End at: 2018-06-18 15:09:56
Local clock offset: -1.811 ms
Remote clock offset: 7.017 ms

# Below is generated by plot.py at 2018-06-18 15:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 4469.028 ms
Loss rate: 75.17%
-- Flow 1:
Average throughput: 1.47 Mbit/s
95th percentile per-packet one-way delay: 4469.028 ms
Loss rate: 75.17%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4244.769 ms
Loss rate: 92.43%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3944.889 ms
Loss rate: 86.15%
```

Run 1: Report of PCC-Expr — Data Link



Run 2: Statistics of PCC-Expr

Start at: 2018-06-18 15:28:40

End at: 2018-06-18 15:29:10

Local clock offset: -1.239 ms

Remote clock offset: 7.778 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 5169.170 ms

Loss rate: 74.44%

-- Flow 1:

Average throughput: 1.50 Mbit/s

95th percentile per-packet one-way delay: 5169.170 ms

Loss rate: 74.44%

-- Flow 2:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3932.714 ms

Loss rate: 76.30%

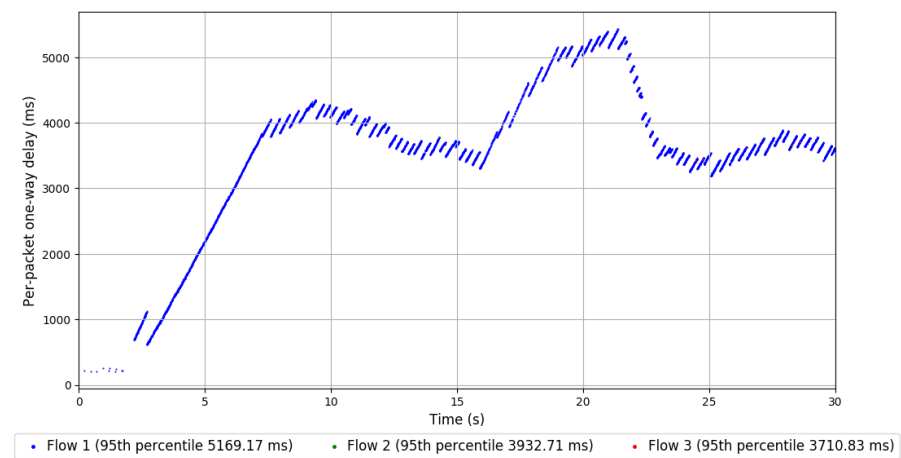
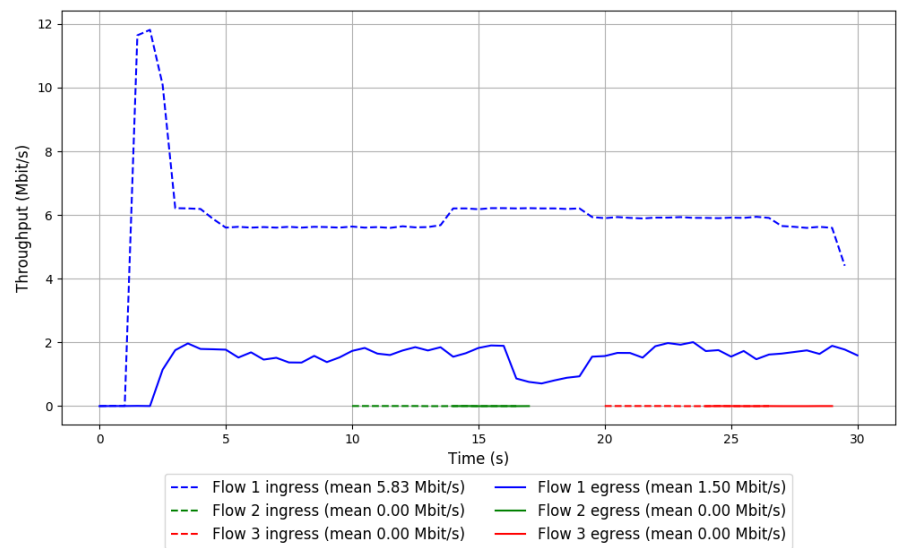
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 3710.830 ms

Loss rate: 65.27%

Run 2: Report of PCC-Expr — Data Link

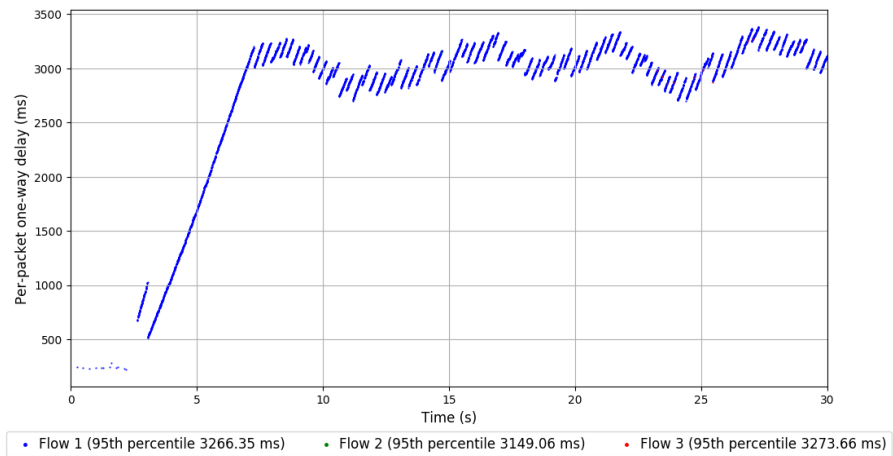
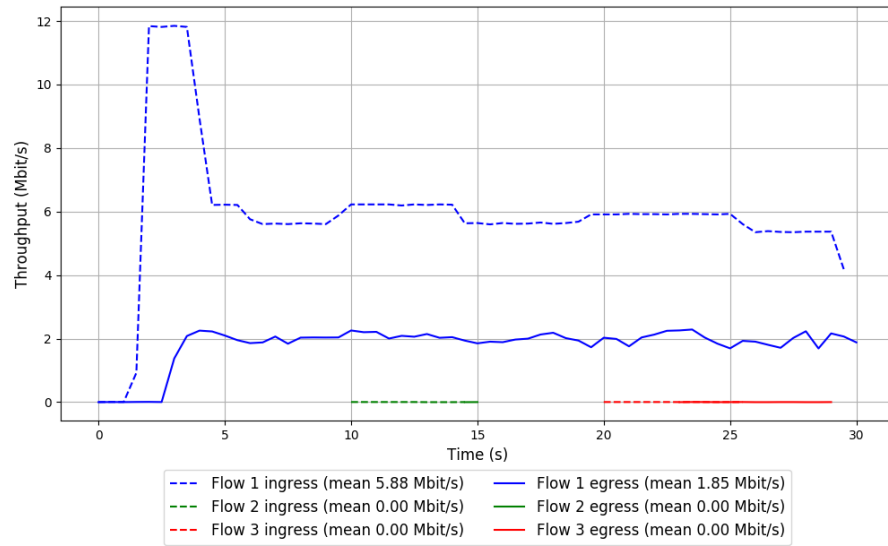


Run 3: Statistics of PCC-Expr

Start at: 2018-06-18 15:47:57
End at: 2018-06-18 15:48:27
Local clock offset: -1.958 ms
Remote clock offset: 15.637 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 3266.354 ms
Loss rate: 68.71%
-- Flow 1:
Average throughput: 1.85 Mbit/s
95th percentile per-packet one-way delay: 3266.354 ms
Loss rate: 68.71%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3149.057 ms
Loss rate: 92.43%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 3273.659 ms
Loss rate: 48.10%

Run 3: Report of PCC-Expr — Data Link



Run 1: Statistics of QUIC Cubic

Start at: 2018-06-18 14:56:12

End at: 2018-06-18 14:56:43

Local clock offset: -2.244 ms

Remote clock offset: 2.493 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.72 Mbit/s

95th percentile per-packet one-way delay: 1863.067 ms

Loss rate: 7.59%

-- Flow 1:

Average throughput: 1.32 Mbit/s

95th percentile per-packet one-way delay: 1850.253 ms

Loss rate: 5.69%

-- Flow 2:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 1871.470 ms

Loss rate: 11.04%

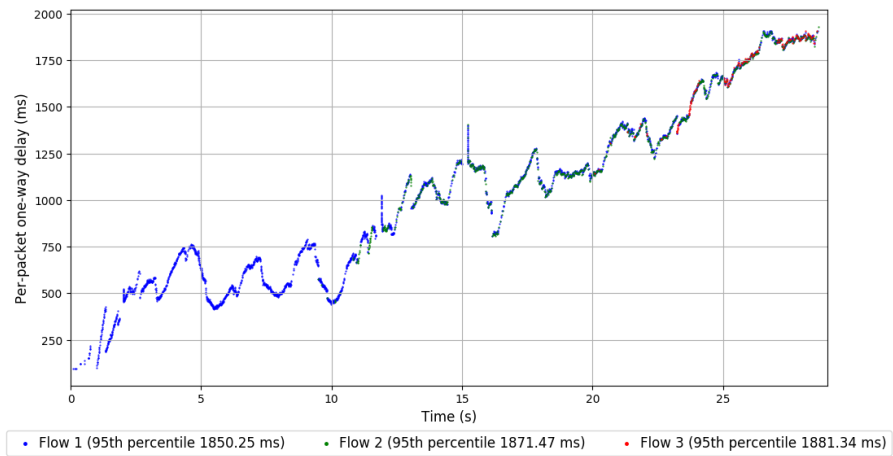
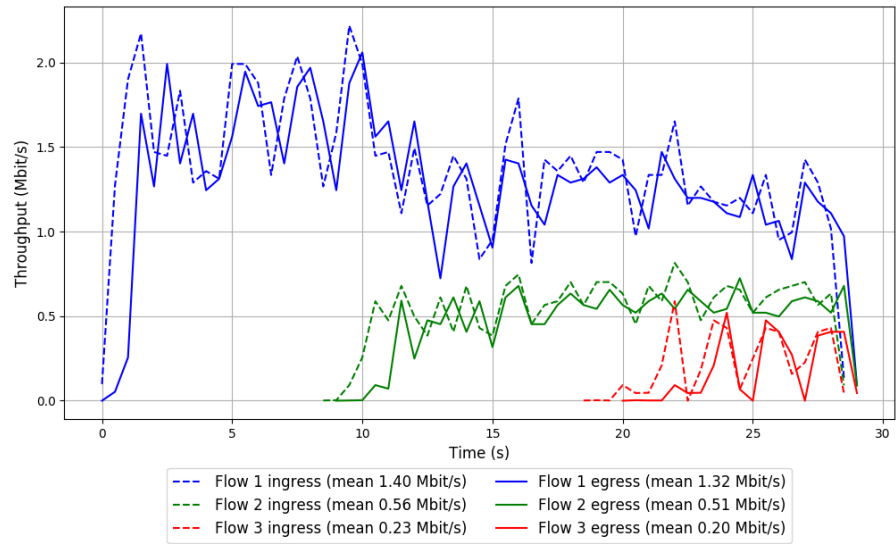
-- Flow 3:

Average throughput: 0.20 Mbit/s

95th percentile per-packet one-way delay: 1881.344 ms

Loss rate: 24.67%

Run 1: Report of QUIC Cubic — Data Link



Run 2: Statistics of QUIC Cubic

Start at: 2018-06-18 15:15:27

End at: 2018-06-18 15:15:57

Local clock offset: -1.517 ms

Remote clock offset: 1.647 ms

Below is generated by plot.py at 2018-06-18 15:51:30

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.57 Mbit/s

95th percentile per-packet one-way delay: 6949.795 ms

Loss rate: 18.32%

-- Flow 1:

Average throughput: 0.53 Mbit/s

95th percentile per-packet one-way delay: 6982.200 ms

Loss rate: 16.62%

-- Flow 2:

Average throughput: 0.07 Mbit/s

95th percentile per-packet one-way delay: 6392.321 ms

Loss rate: 36.31%

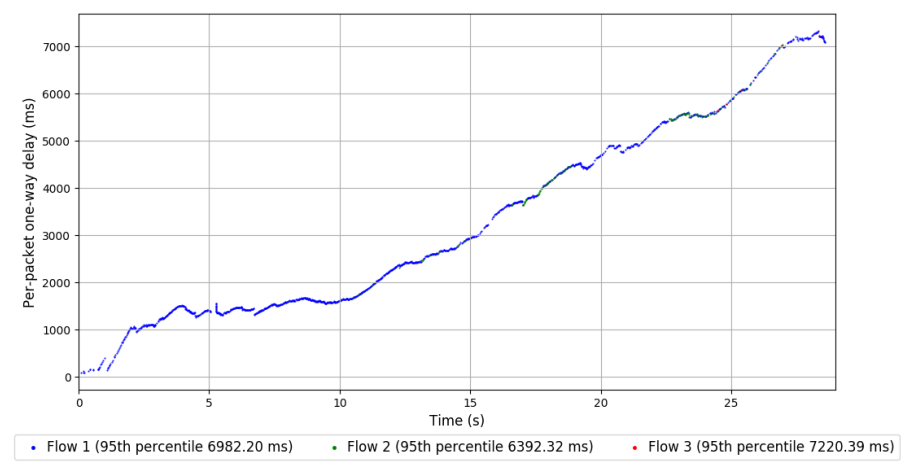
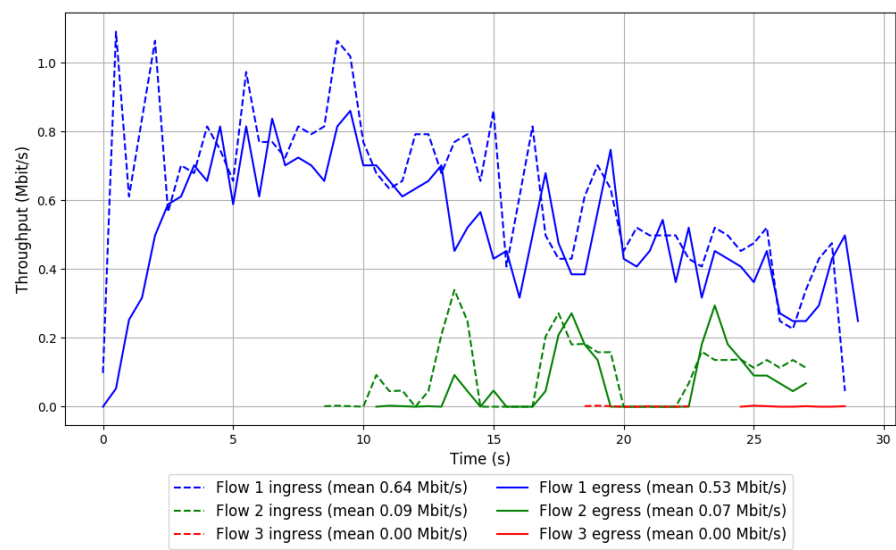
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 7220.391 ms

Loss rate: 16.67%

Run 2: Report of QUIC Cubic — Data Link

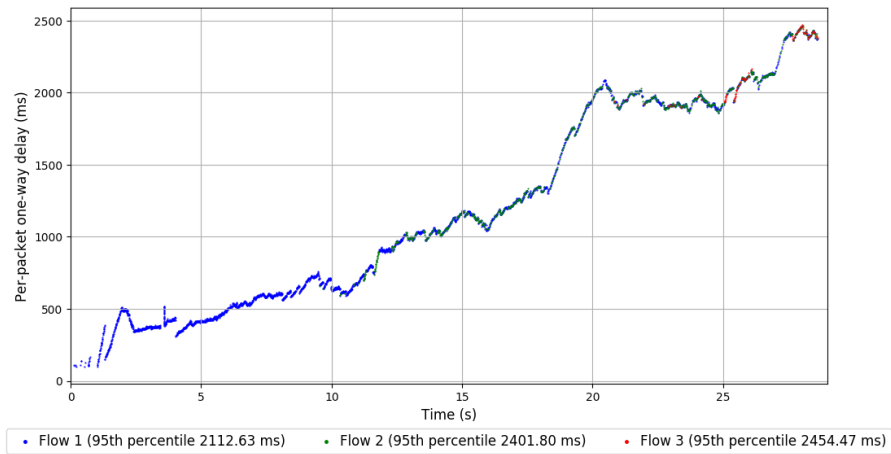
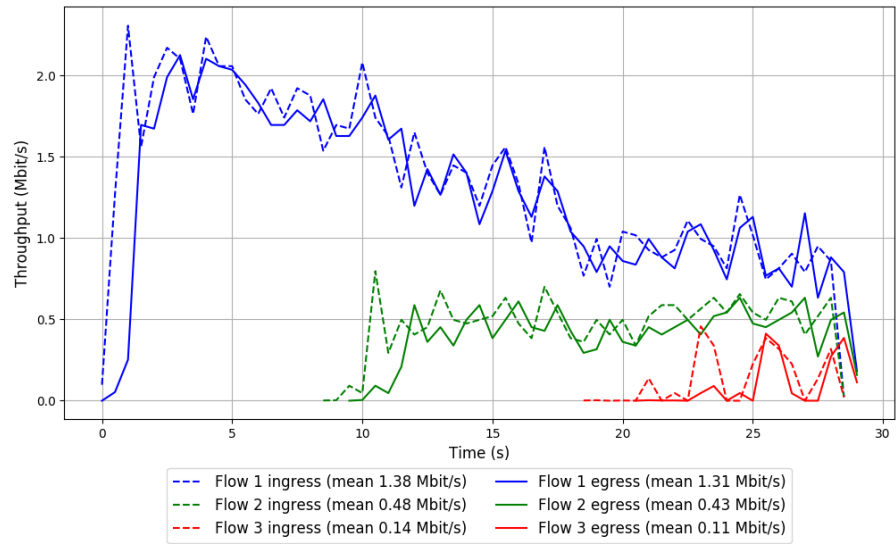


Run 3: Statistics of QUIC Cubic

Start at: 2018-06-18 15:34:41
End at: 2018-06-18 15:35:11
Local clock offset: -1.223 ms
Remote clock offset: 10.178 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 2191.159 ms
Loss rate: 7.45%
-- Flow 1:
Average throughput: 1.31 Mbit/s
95th percentile per-packet one-way delay: 2112.626 ms
Loss rate: 5.11%
-- Flow 2:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 2401.805 ms
Loss rate: 13.61%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 2454.466 ms
Loss rate: 32.88%

Run 3: Report of QUIC Cubic — Data Link

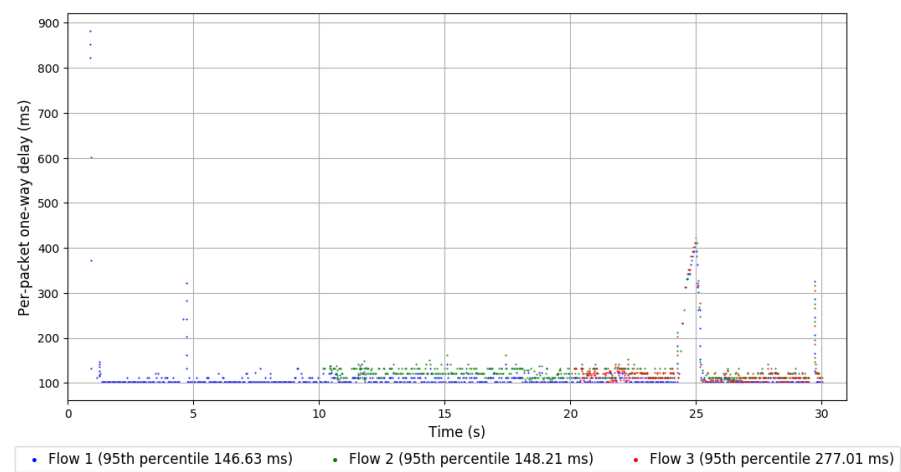
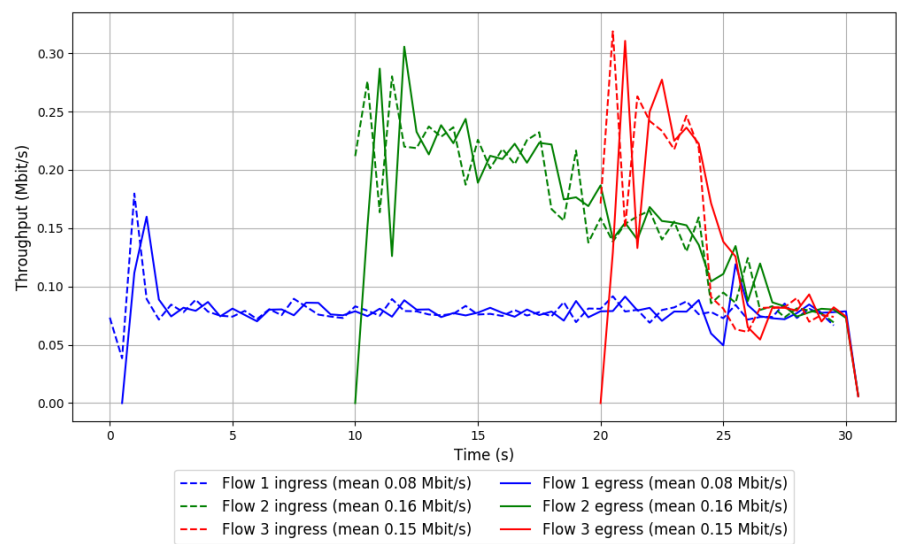


```
Run 1: Statistics of SCReAM

Start at: 2018-06-18 14:55:01
End at: 2018-06-18 14:55:31
Local clock offset: -2.238 ms
Remote clock offset: 8.781 ms

# Below is generated by plot.py at 2018-06-18 15:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.24 Mbit/s
95th percentile per-packet one-way delay: 162.176 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 146.634 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 148.208 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 277.014 ms
Loss rate: 0.20%
```

Run 1: Report of SReAM — Data Link

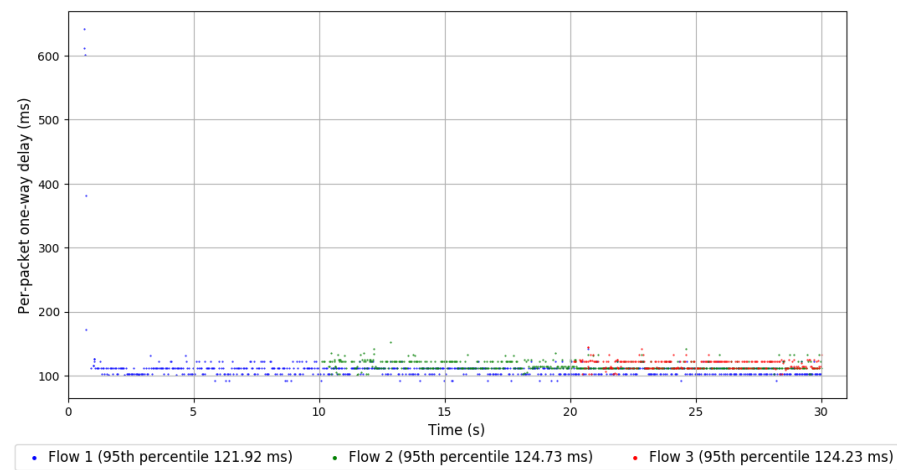
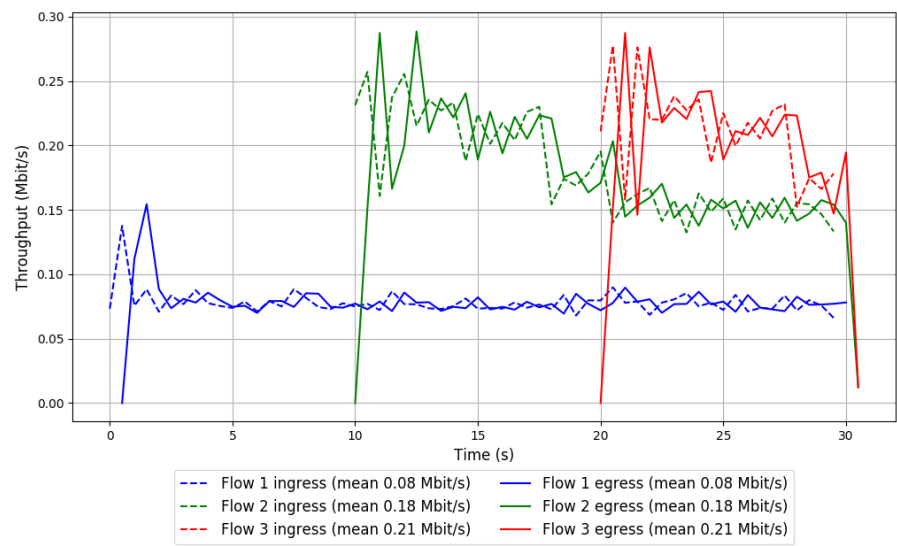


Run 2: Statistics of SCReAM

Start at: 2018-06-18 15:14:15
End at: 2018-06-18 15:14:45
Local clock offset: -1.643 ms
Remote clock offset: 7.812 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 124.144 ms
Loss rate: 0.26%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 121.920 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 124.730 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 124.226 ms
Loss rate: 0.59%

Run 2: Report of SReAM — Data Link

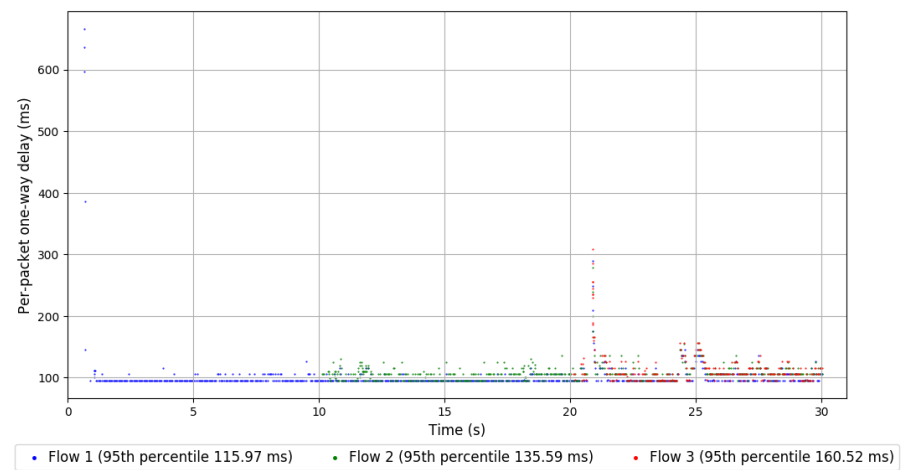
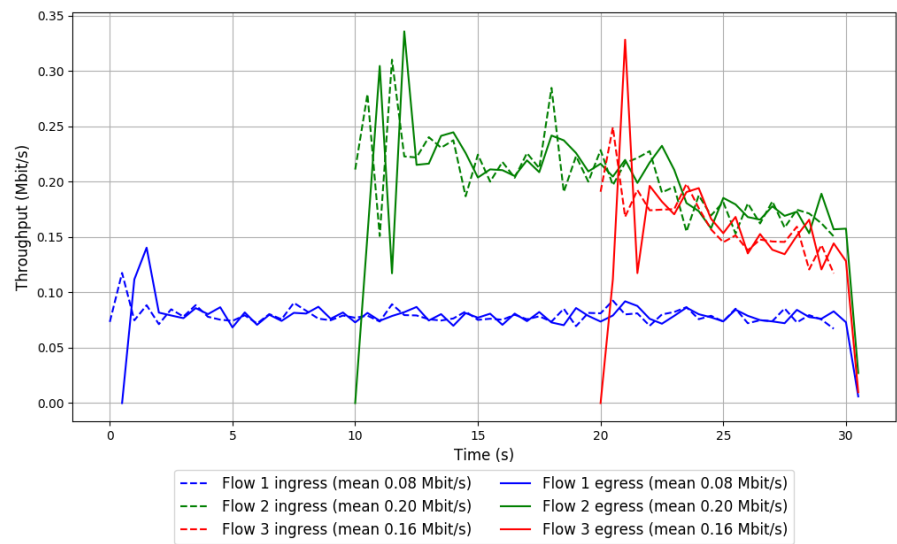


Run 3: Statistics of SReAM

Start at: 2018-06-18 15:33:29
End at: 2018-06-18 15:33:59
Local clock offset: -1.171 ms
Remote clock offset: 8.891 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 135.668 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 0.08 Mbit/s
95th percentile per-packet one-way delay: 115.969 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.20 Mbit/s
95th percentile per-packet one-way delay: 135.592 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 160.524 ms
Loss rate: 0.30%

Run 3: Report of SReAM — Data Link

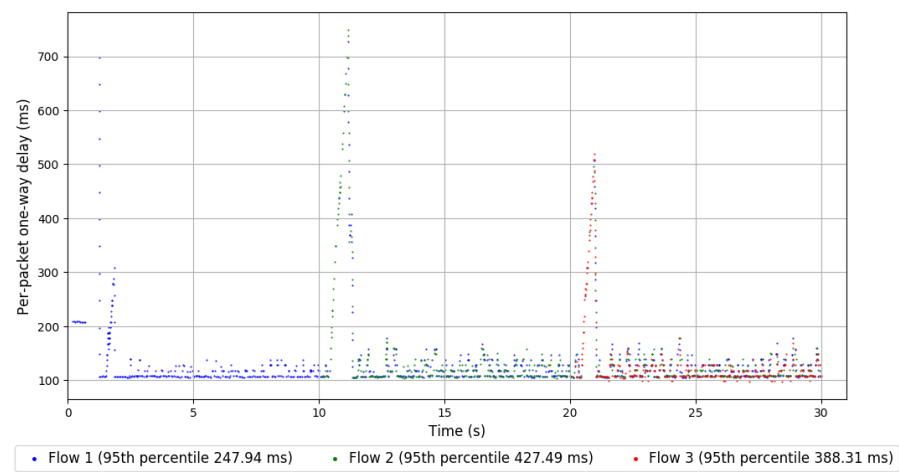
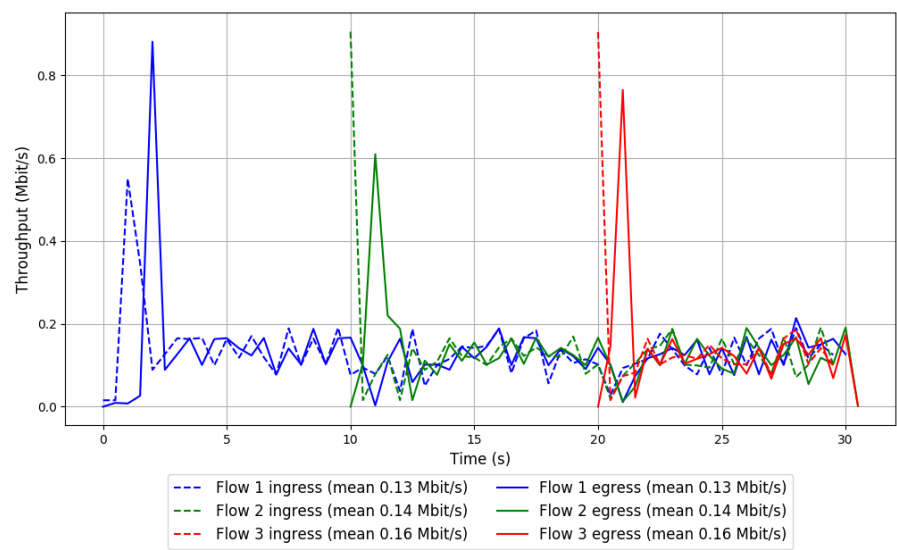


Run 1: Statistics of Sprout

Start at: 2018-06-18 14:59:49
End at: 2018-06-18 15:00:19
Local clock offset: -2.236 ms
Remote clock offset: 8.508 ms

Below is generated by plot.py at 2018-06-18 15:51:30
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 356.966 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.13 Mbit/s
95th percentile per-packet one-way delay: 247.943 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 427.485 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 388.312 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

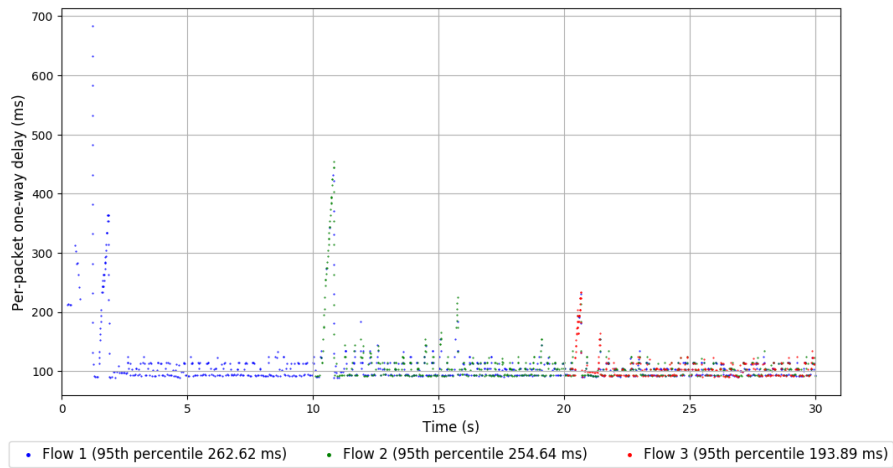
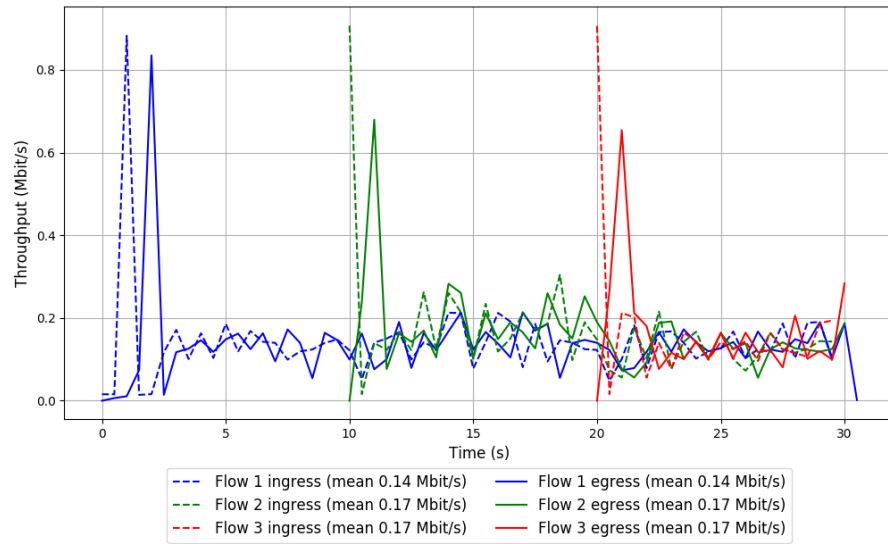


Run 2: Statistics of Sprout

Start at: 2018-06-18 15:19:03
End at: 2018-06-18 15:19:33
Local clock offset: -1.437 ms
Remote clock offset: 5.142 ms

```
# Below is generated by plot.py at 2018-06-18 15:51:30
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 233.221 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.14 Mbit/s
95th percentile per-packet one-way delay: 262.622 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 254.642 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 193.887 ms
Loss rate: 0.05%
```

Run 2: Report of Sprout — Data Link

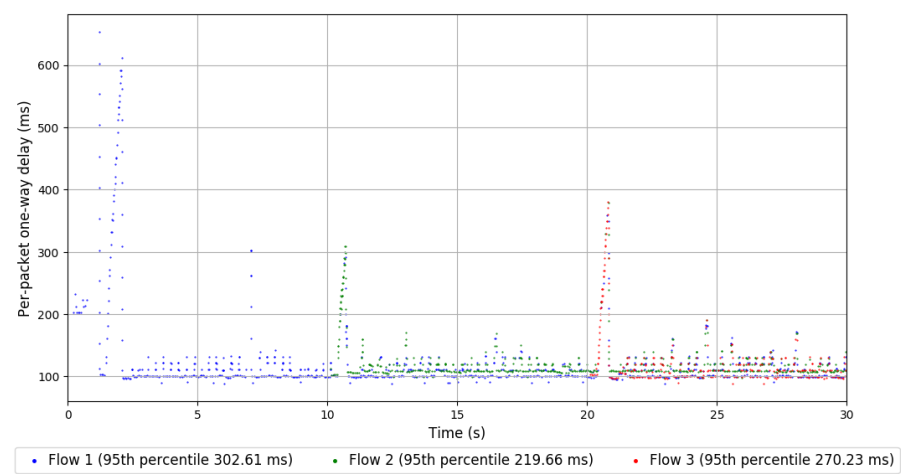
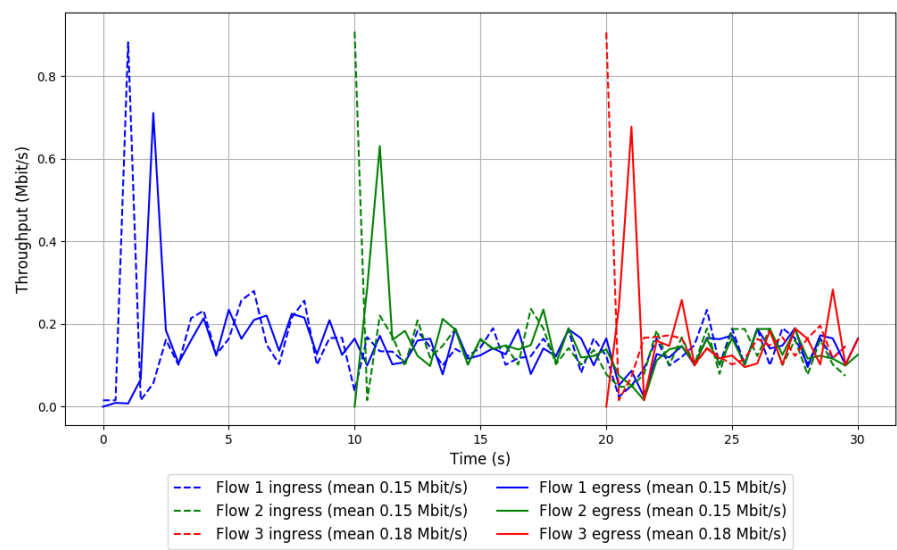


Run 3: Statistics of Sprout

Start at: 2018-06-18 15:38:17
End at: 2018-06-18 15:38:47
Local clock offset: -1.593 ms
Remote clock offset: 10.702 ms

```
# Below is generated by plot.py at 2018-06-18 15:51:31
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.31 Mbit/s
95th percentile per-packet one-way delay: 260.230 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 302.606 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.15 Mbit/s
95th percentile per-packet one-way delay: 219.665 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.18 Mbit/s
95th percentile per-packet one-way delay: 270.225 ms
Loss rate: 0.05%
```

Run 3: Report of Sprout — Data Link



Run 1: Statistics of TaoVA-100x

Start at: 2018-06-18 15:05:49

End at: 2018-06-18 15:06:19

Local clock offset: -2.05 ms

Remote clock offset: 2.038 ms

Below is generated by plot.py at 2018-06-18 15:51:32

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.68 Mbit/s

95th percentile per-packet one-way delay: 4571.905 ms

Loss rate: 17.90%

-- Flow 1:

Average throughput: 0.38 Mbit/s

95th percentile per-packet one-way delay: 1766.729 ms

Loss rate: 16.01%

-- Flow 2:

Average throughput: 0.30 Mbit/s

95th percentile per-packet one-way delay: 4819.889 ms

Loss rate: 22.65%

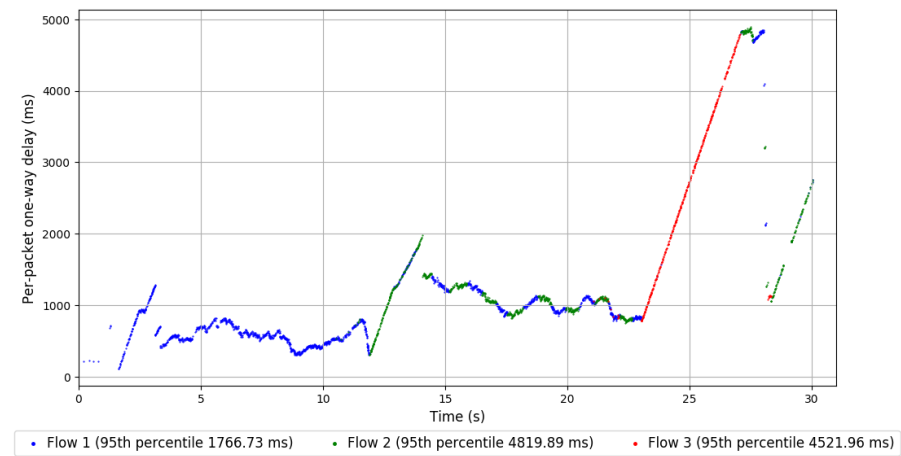
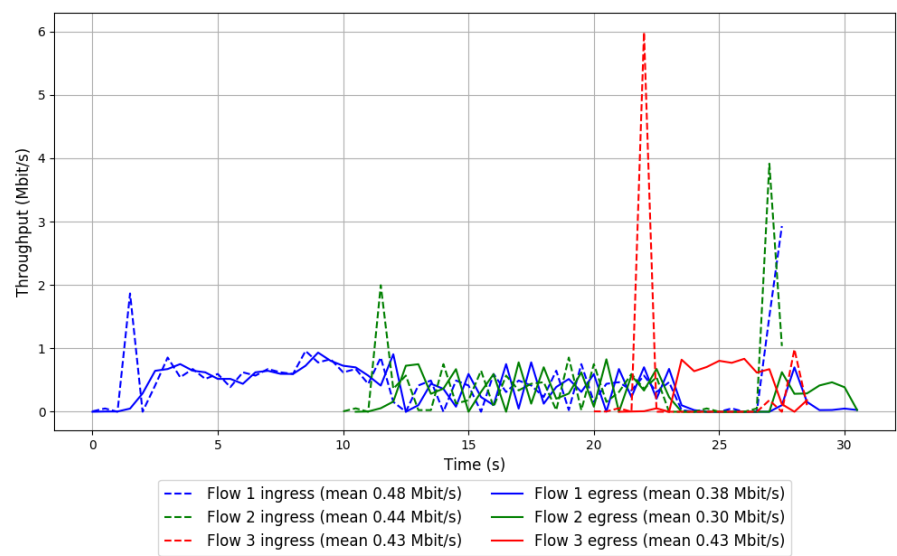
-- Flow 3:

Average throughput: 0.43 Mbit/s

95th percentile per-packet one-way delay: 4521.958 ms

Loss rate: 14.86%

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

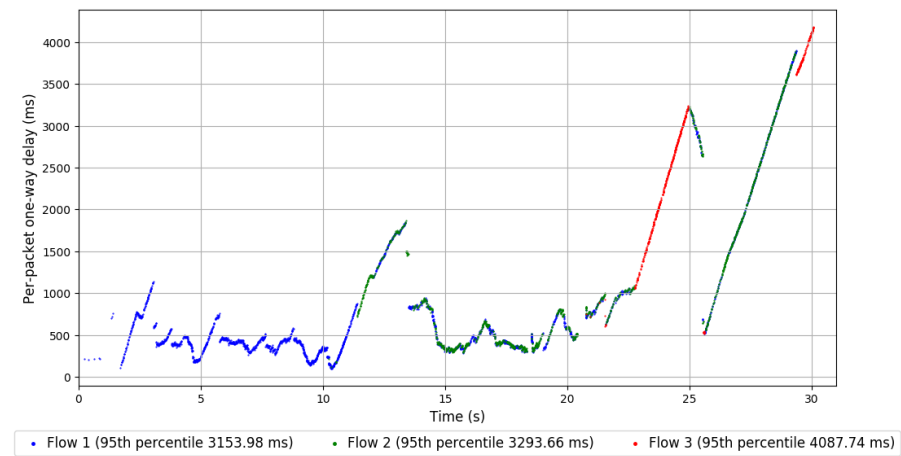
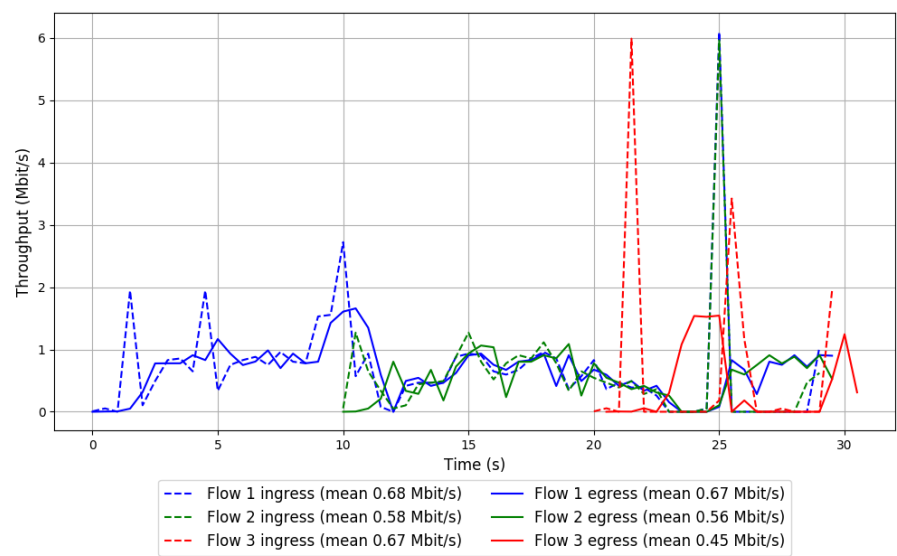


Run 2: Statistics of TaoVA-100x

Start at: 2018-06-18 15:25:04
End at: 2018-06-18 15:25:34
Local clock offset: -1.297 ms
Remote clock offset: 11.828 ms

Below is generated by plot.py at 2018-06-18 15:51:34
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.15 Mbit/s
95th percentile per-packet one-way delay: 3577.003 ms
Loss rate: 9.16%
-- Flow 1:
Average throughput: 0.67 Mbit/s
95th percentile per-packet one-way delay: 3153.984 ms
Loss rate: 3.04%
-- Flow 2:
Average throughput: 0.56 Mbit/s
95th percentile per-packet one-way delay: 3293.664 ms
Loss rate: 5.26%
-- Flow 3:
Average throughput: 0.45 Mbit/s
95th percentile per-packet one-way delay: 4087.740 ms
Loss rate: 35.19%

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

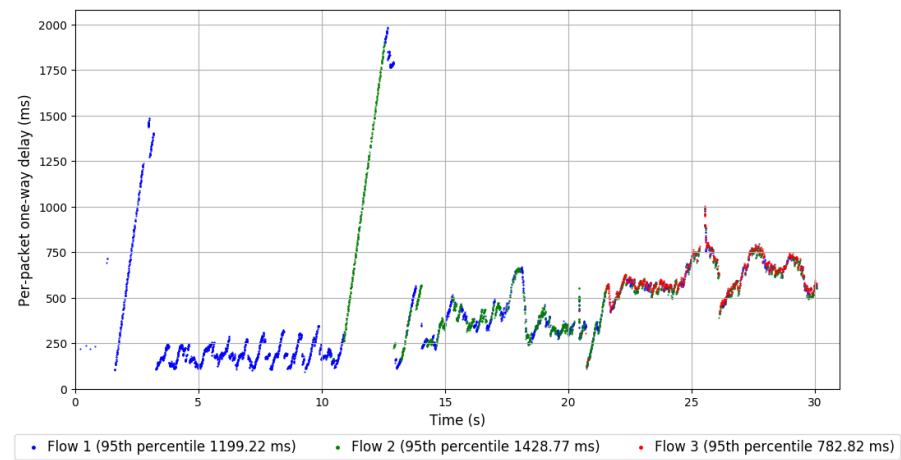
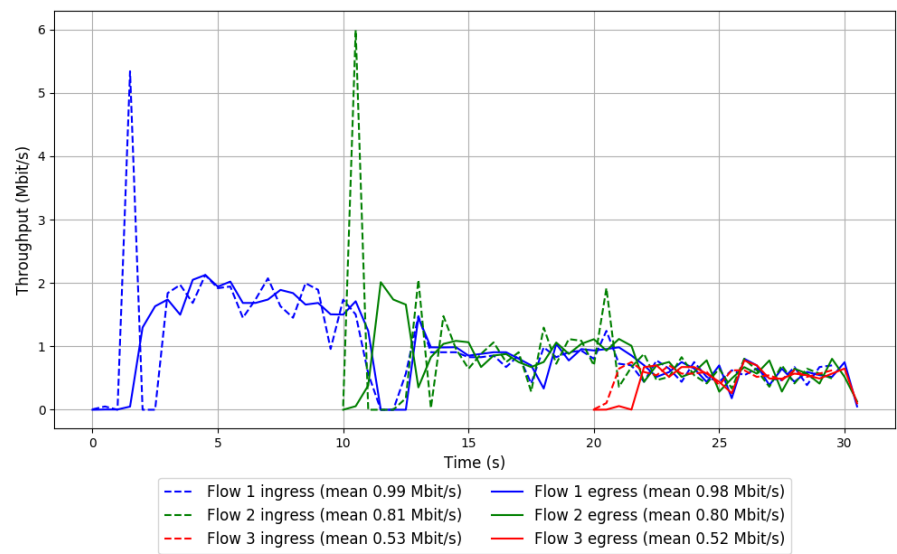


Run 3: Statistics of TaoVA-100x

Start at: 2018-06-18 15:44:20
End at: 2018-06-18 15:44:50
Local clock offset: -1.806 ms
Remote clock offset: 15.226 ms

Below is generated by plot.py at 2018-06-18 15:51:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.69 Mbit/s
95th percentile per-packet one-way delay: 1228.532 ms
Loss rate: 1.74%
-- Flow 1:
Average throughput: 0.98 Mbit/s
95th percentile per-packet one-way delay: 1199.218 ms
Loss rate: 1.13%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 1428.774 ms
Loss rate: 1.51%
-- Flow 3:
Average throughput: 0.52 Mbit/s
95th percentile per-packet one-way delay: 782.817 ms
Loss rate: 5.88%

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



Run 1: Statistics of TCP Vegas

Start at: 2018-06-18 15:03:25

End at: 2018-06-18 15:03:55

Local clock offset: -2.246 ms

Remote clock offset: 7.327 ms

Below is generated by plot.py at 2018-06-18 15:51:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.47 Mbit/s

95th percentile per-packet one-way delay: 1154.165 ms

Loss rate: 1.83%

-- Flow 1:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 1083.968 ms

Loss rate: 1.12%

-- Flow 2:

Average throughput: 0.76 Mbit/s

95th percentile per-packet one-way delay: 1243.758 ms

Loss rate: 2.35%

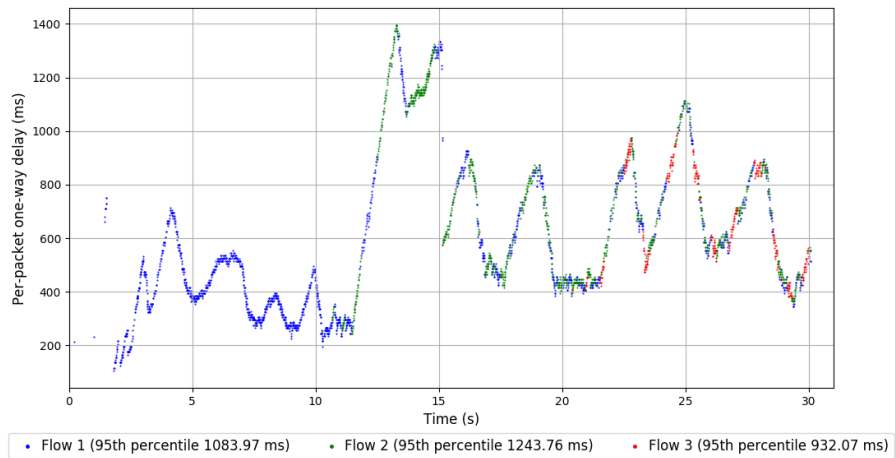
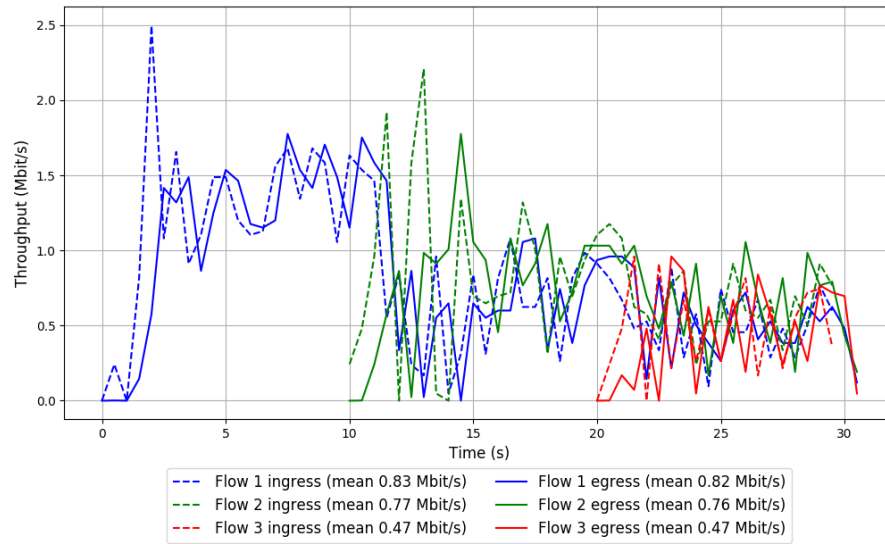
-- Flow 3:

Average throughput: 0.47 Mbit/s

95th percentile per-packet one-way delay: 932.067 ms

Loss rate: 3.84%

Run 1: Report of TCP Vegas — Data Link

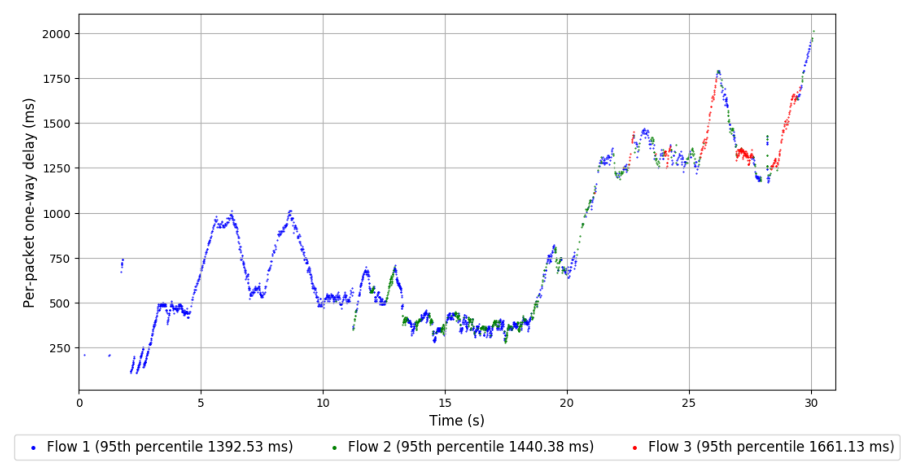
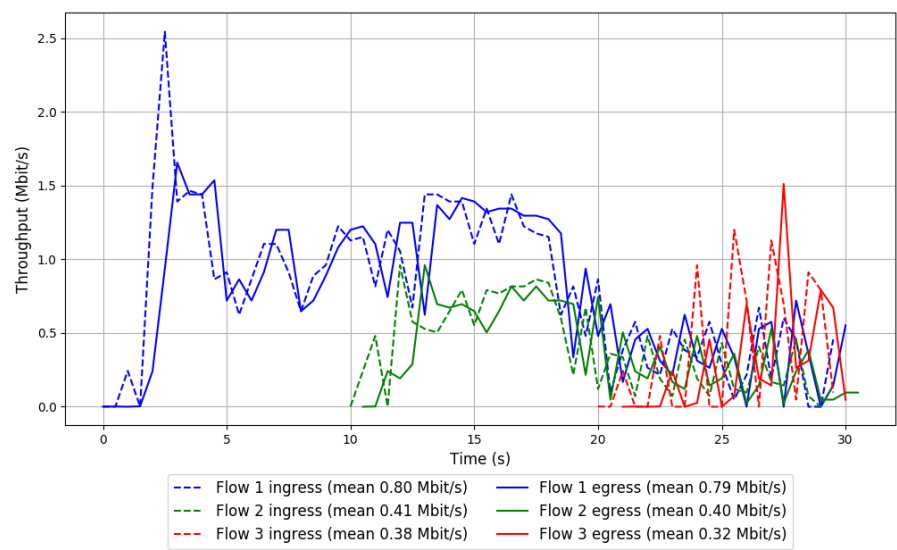


Run 2: Statistics of TCP Vegas

Start at: 2018-06-18 15:22:40
End at: 2018-06-18 15:23:10
Local clock offset: -1.399 ms
Remote clock offset: 10.919 ms

Below is generated by plot.py at 2018-06-18 15:51:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.14 Mbit/s
95th percentile per-packet one-way delay: 1491.134 ms
Loss rate: 4.54%
-- Flow 1:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 1392.528 ms
Loss rate: 1.70%
-- Flow 2:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 1440.382 ms
Loss rate: 3.59%
-- Flow 3:
Average throughput: 0.32 Mbit/s
95th percentile per-packet one-way delay: 1661.134 ms
Loss rate: 25.39%

Run 2: Report of TCP Vegas — Data Link

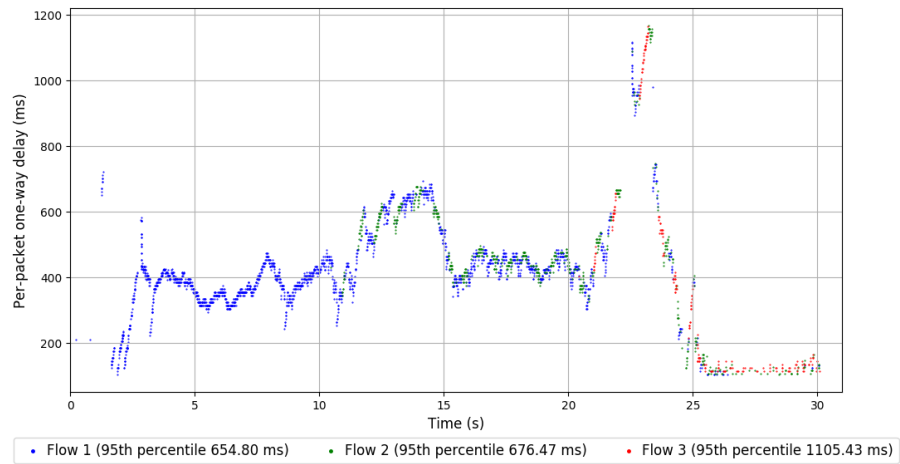
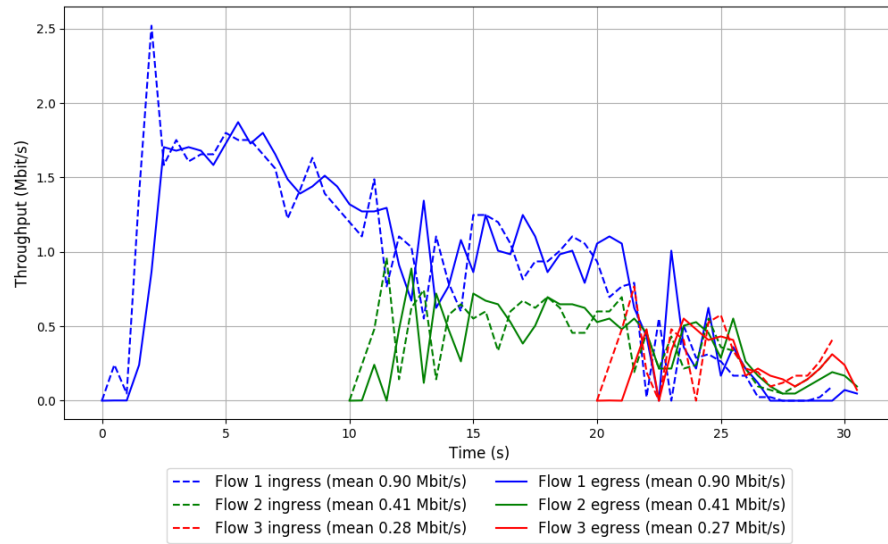


Run 3: Statistics of TCP Vegas

Start at: 2018-06-18 15:41:54
End at: 2018-06-18 15:42:24
Local clock offset: -1.7 ms
Remote clock offset: 16.124 ms

Below is generated by plot.py at 2018-06-18 15:51:37
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.25 Mbit/s
95th percentile per-packet one-way delay: 666.755 ms
Loss rate: 1.55%
-- Flow 1:
Average throughput: 0.90 Mbit/s
95th percentile per-packet one-way delay: 654.805 ms
Loss rate: 0.53%
-- Flow 2:
Average throughput: 0.41 Mbit/s
95th percentile per-packet one-way delay: 676.468 ms
Loss rate: 2.21%
-- Flow 3:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 1105.432 ms
Loss rate: 9.36%

Run 3: Report of TCP Vegas — Data Link



Run 1: Statistics of Verus

Start at: 2018-06-18 15:04:37

End at: 2018-06-18 15:05:07

Local clock offset: -2.173 ms

Remote clock offset: 3.211 ms

Below is generated by plot.py at 2018-06-18 15:51:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.51 Mbit/s

95th percentile per-packet one-way delay: 1914.836 ms

Loss rate: 5.82%

-- Flow 1:

Average throughput: 1.49 Mbit/s

95th percentile per-packet one-way delay: 1914.764 ms

Loss rate: 5.81%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1926.045 ms

Loss rate: 4.55%

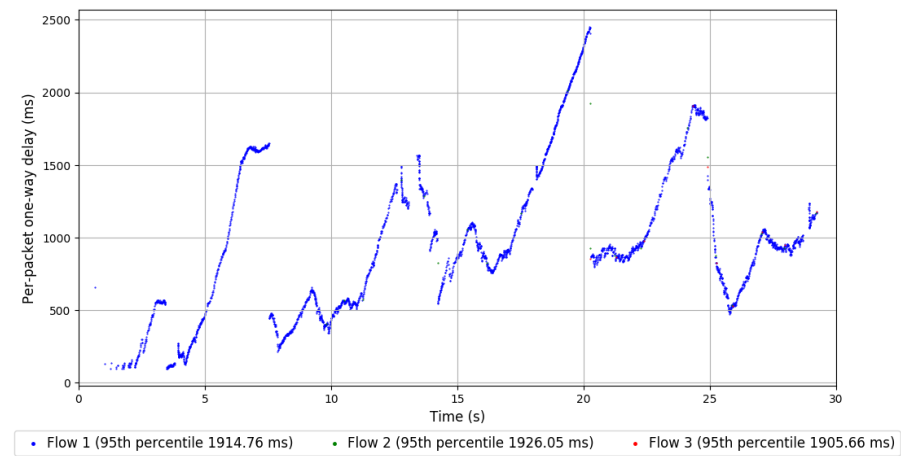
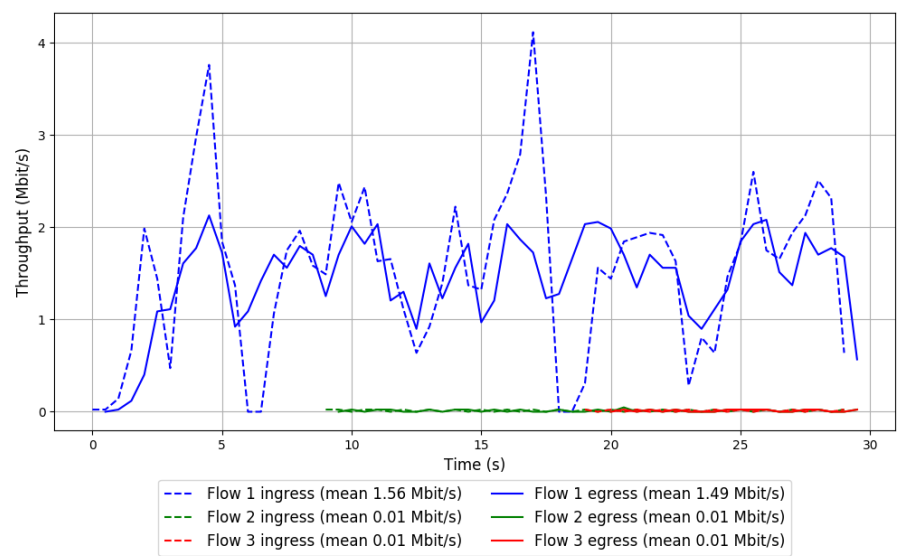
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1905.658 ms

Loss rate: 9.09%

Run 1: Report of Verus — Data Link



Run 2: Statistics of Verus

Start at: 2018-06-18 15:23:52

End at: 2018-06-18 15:24:22

Local clock offset: -1.321 ms

Remote clock offset: 7.446 ms

Below is generated by plot.py at 2018-06-18 15:51:37

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.69 Mbit/s

95th percentile per-packet one-way delay: 1778.731 ms

Loss rate: 2.91%

-- Flow 1:

Average throughput: 1.67 Mbit/s

95th percentile per-packet one-way delay: 1778.155 ms

Loss rate: 2.88%

-- Flow 2:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1763.331 ms

Loss rate: 4.76%

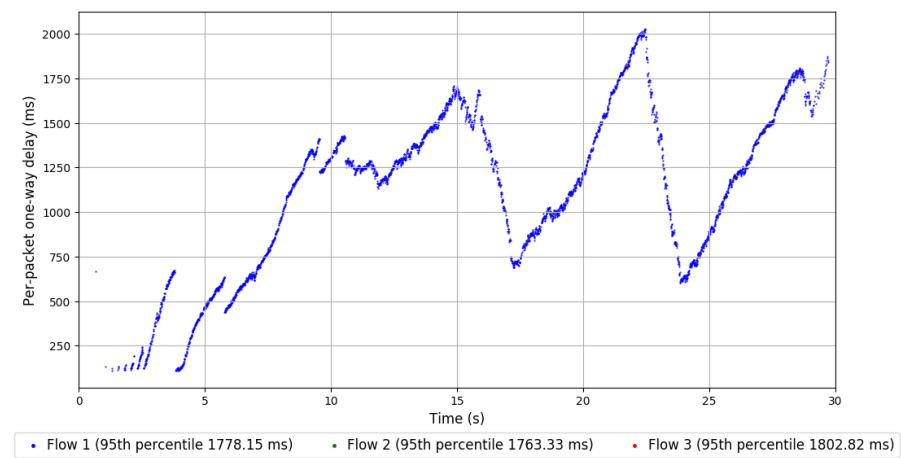
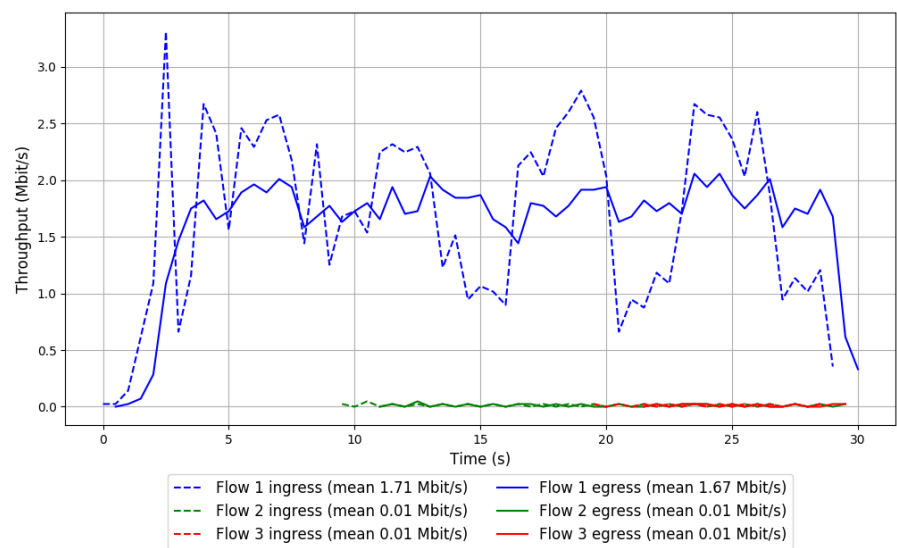
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 1802.822 ms

Loss rate: 10.00%

Run 2: Report of Verus — Data Link

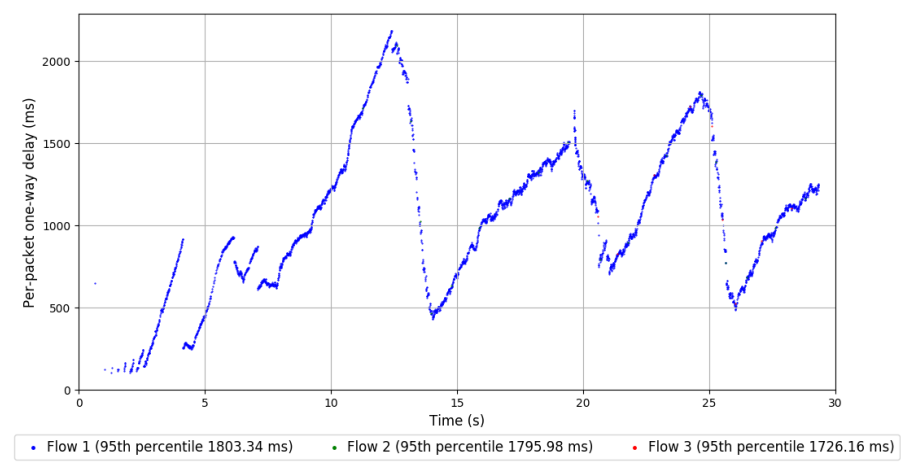
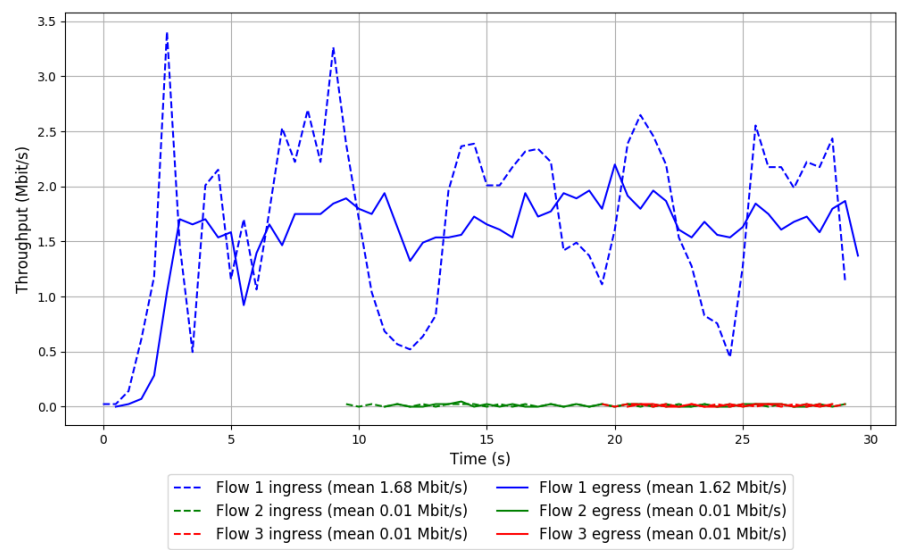


Run 3: Statistics of Verus

Start at: 2018-06-18 15:43:06
End at: 2018-06-18 15:43:36
Local clock offset: -1.818 ms
Remote clock offset: 16.159 ms

Below is generated by plot.py at 2018-06-18 15:51:38
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.63 Mbit/s
95th percentile per-packet one-way delay: 1803.336 ms
Loss rate: 5.46%
-- Flow 1:
Average throughput: 1.62 Mbit/s
95th percentile per-packet one-way delay: 1803.336 ms
Loss rate: 5.43%
-- Flow 2:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1795.984 ms
Loss rate: 4.76%
-- Flow 3:
Average throughput: 0.01 Mbit/s
95th percentile per-packet one-way delay: 1726.164 ms
Loss rate: 18.18%

Run 3: Report of Verus — Data Link



Run 1: Statistics of PCC-Vivace

Start at: 2018-06-18 15:08:13

End at: 2018-06-18 15:08:43

Local clock offset: -1.893 ms

Remote clock offset: 1.948 ms

Below is generated by plot.py at 2018-06-18 15:51:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.58 Mbit/s

95th percentile per-packet one-way delay: 4099.763 ms

Loss rate: 31.59%

-- Flow 1:

Average throughput: 0.89 Mbit/s

95th percentile per-packet one-way delay: 4064.416 ms

Loss rate: 28.66%

-- Flow 2:

Average throughput: 1.05 Mbit/s

95th percentile per-packet one-way delay: 4131.581 ms

Loss rate: 35.08%

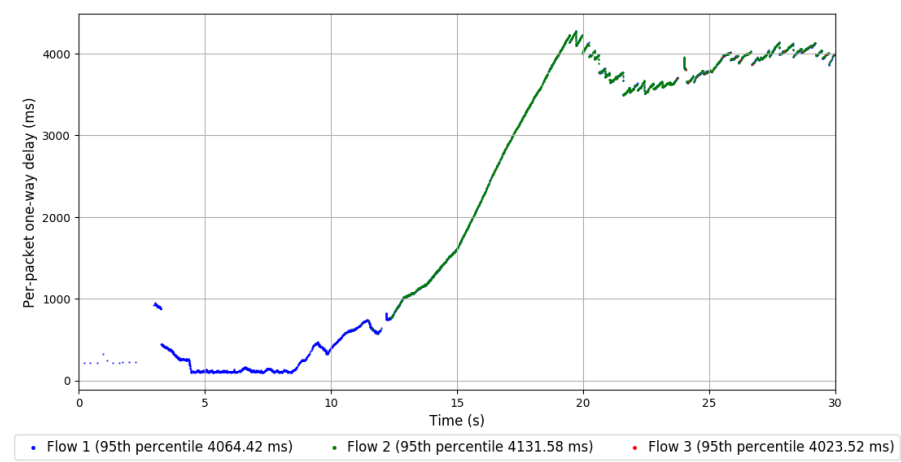
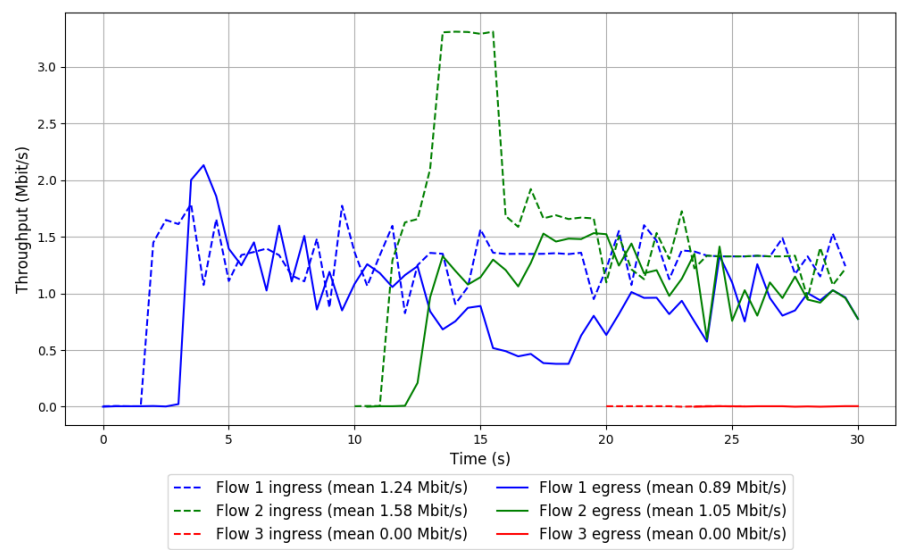
-- Flow 3:

Average throughput: 0.00 Mbit/s

95th percentile per-packet one-way delay: 4023.522 ms

Loss rate: 11.21%

Run 1: Report of PCC-Vivace — Data Link



Run 2: Statistics of PCC-Vivace

Start at: 2018-06-18 15:27:28

End at: 2018-06-18 15:27:58

Local clock offset: -1.242 ms

Remote clock offset: 7.503 ms

Below is generated by plot.py at 2018-06-18 15:51:41

Datalink statistics

-- Total of 3 flows:

Average throughput: 1.29 Mbit/s

95th percentile per-packet one-way delay: 8600.791 ms

Loss rate: 46.17%

-- Flow 1:

Average throughput: 0.74 Mbit/s

95th percentile per-packet one-way delay: 8402.601 ms

Loss rate: 41.97%

-- Flow 2:

Average throughput: 0.82 Mbit/s

95th percentile per-packet one-way delay: 8636.606 ms

Loss rate: 50.97%

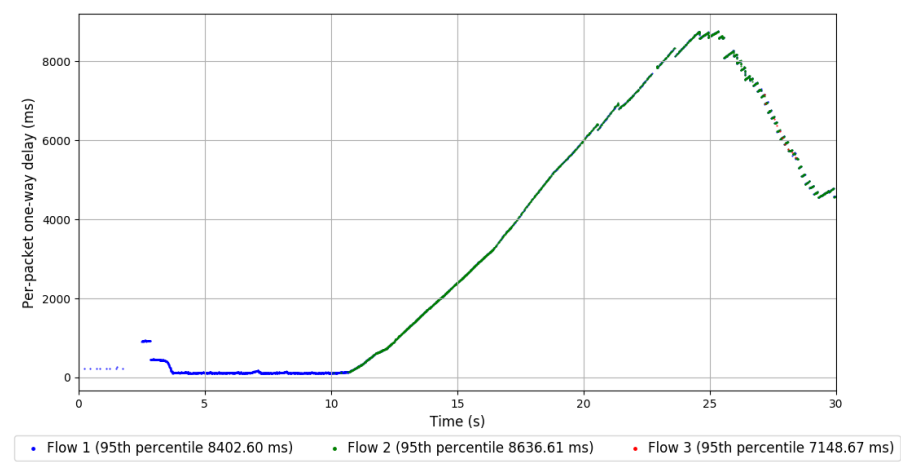
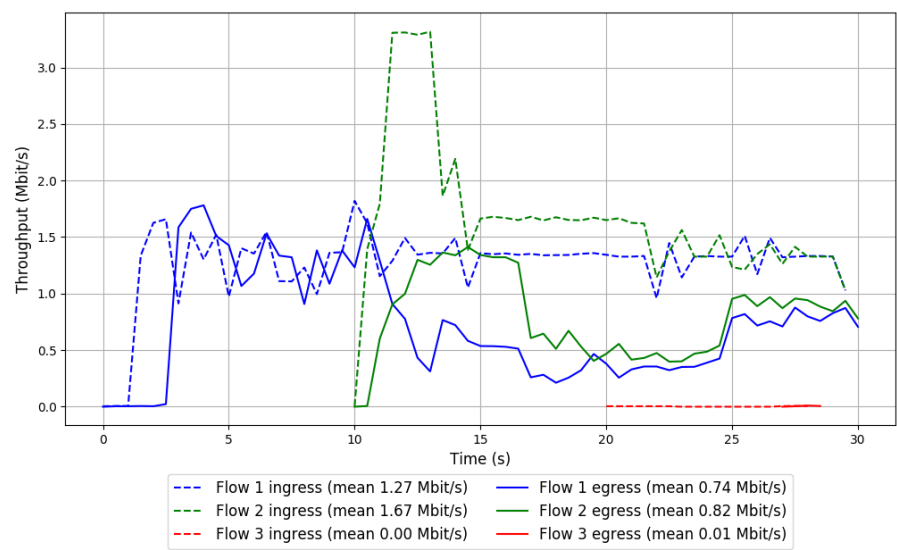
-- Flow 3:

Average throughput: 0.01 Mbit/s

95th percentile per-packet one-way delay: 7148.673 ms

Loss rate: 51.29%

Run 2: Report of PCC-Vivace — Data Link

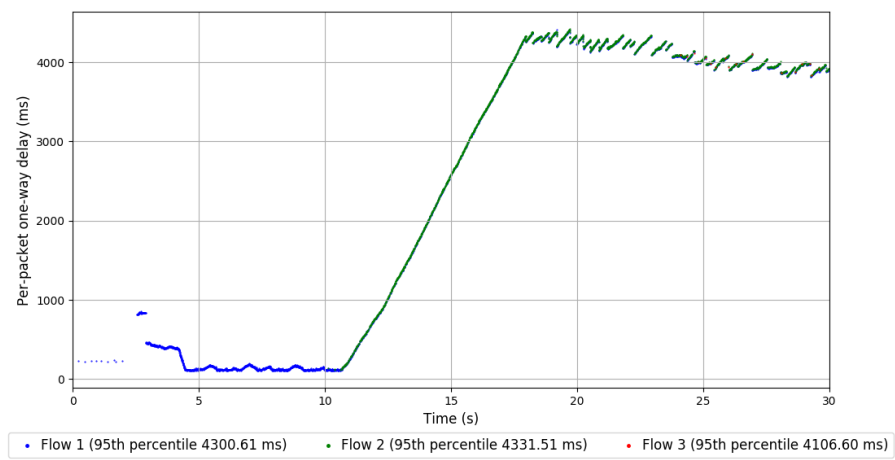
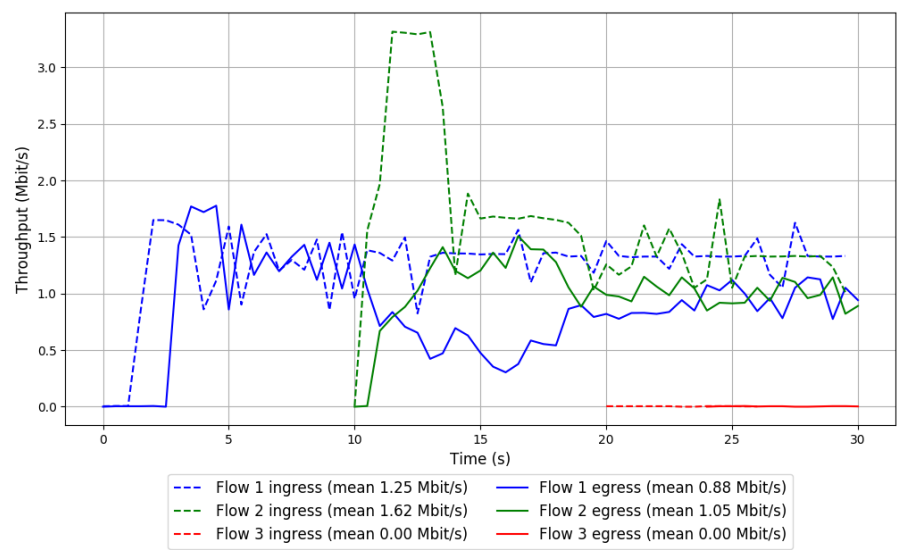


Run 3: Statistics of PCC-Vivace

Start at: 2018-06-18 15:46:45
End at: 2018-06-18 15:47:15
Local clock offset: -1.927 ms
Remote clock offset: 15.485 ms

Below is generated by plot.py at 2018-06-18 15:51:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 1.58 Mbit/s
95th percentile per-packet one-way delay: 4319.767 ms
Loss rate: 32.66%
-- Flow 1:
Average throughput: 0.88 Mbit/s
95th percentile per-packet one-way delay: 4300.613 ms
Loss rate: 30.31%
-- Flow 2:
Average throughput: 1.05 Mbit/s
95th percentile per-packet one-way delay: 4331.508 ms
Loss rate: 35.40%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 4106.599 ms
Loss rate: 11.21%

Run 3: Report of PCC-Vivace — Data Link



Run 1: Statistics of WebRTC media

Start at: 2018-06-18 15:10:38

End at: 2018-06-18 15:11:08

Local clock offset: -1.808 ms

Remote clock offset: 1.957 ms

Below is generated by plot.py at 2018-06-18 15:51:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.56 Mbit/s

95th percentile per-packet one-way delay: 1031.896 ms

Loss rate: 0.10%

-- Flow 1:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 1186.085 ms

Loss rate: 0.03%

-- Flow 2:

Average throughput: 0.27 Mbit/s

95th percentile per-packet one-way delay: 984.775 ms

Loss rate: 0.05%

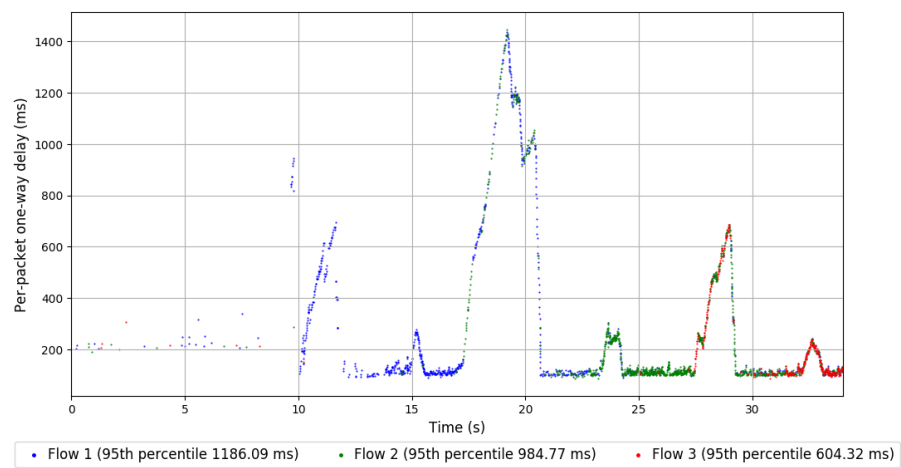
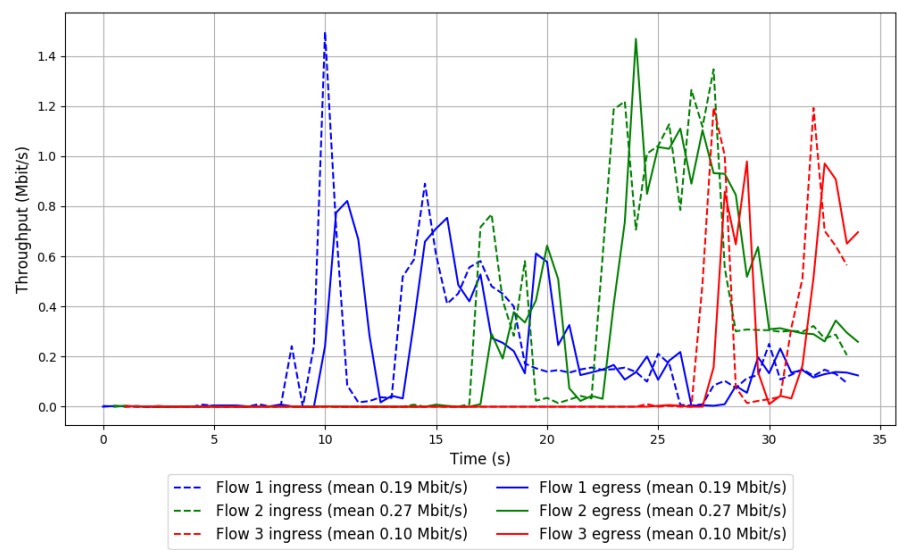
-- Flow 3:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 604.320 ms

Loss rate: 0.38%

Run 1: Report of WebRTC media — Data Link



Run 2: Statistics of WebRTC media

Start at: 2018-06-18 15:29:53

End at: 2018-06-18 15:30:23

Local clock offset: -1.265 ms

Remote clock offset: 8.202 ms

Below is generated by plot.py at 2018-06-18 15:51:42

Datalink statistics

-- Total of 3 flows:

Average throughput: 0.51 Mbit/s

95th percentile per-packet one-way delay: 447.848 ms

Loss rate: 0.05%

-- Flow 1:

Average throughput: 0.23 Mbit/s

95th percentile per-packet one-way delay: 397.227 ms

Loss rate: 0.00%

-- Flow 2:

Average throughput: 0.19 Mbit/s

95th percentile per-packet one-way delay: 435.638 ms

Loss rate: 0.00%

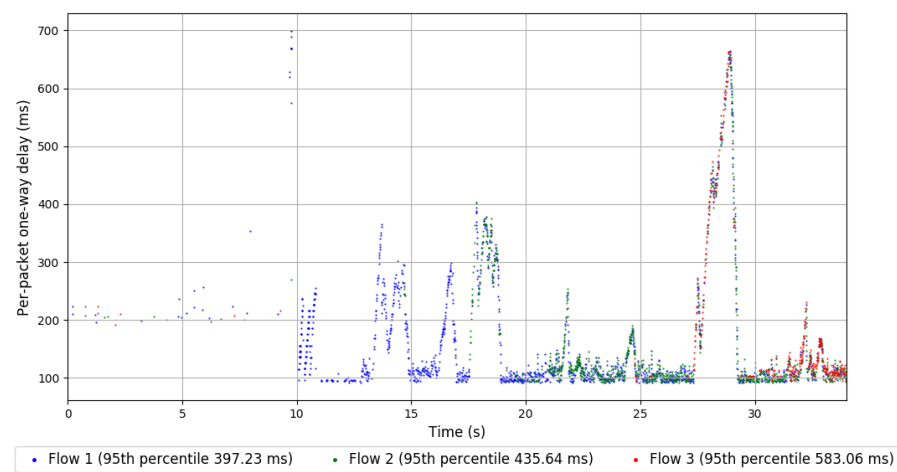
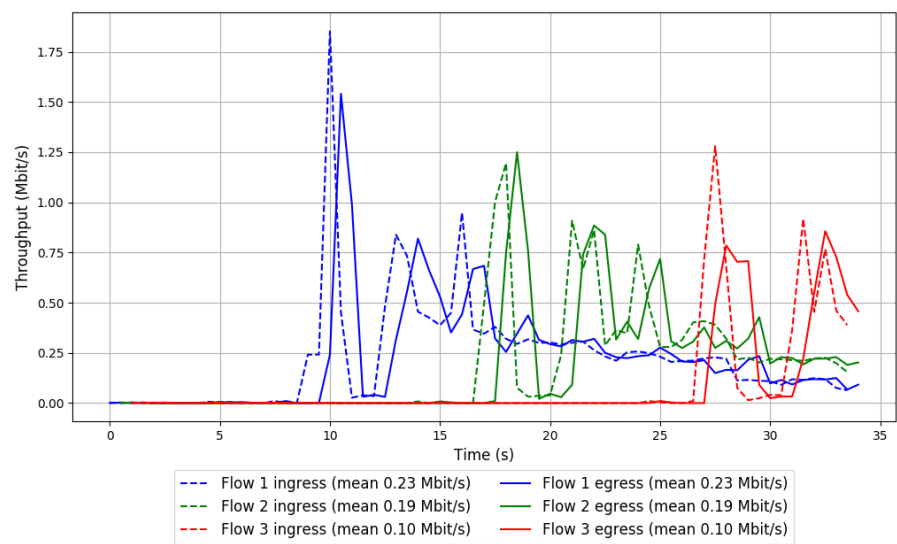
-- Flow 3:

Average throughput: 0.10 Mbit/s

95th percentile per-packet one-way delay: 583.064 ms

Loss rate: 0.29%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-18 15:49:11
End at: 2018-06-18 15:49:41
Local clock offset: -1.93 ms
Remote clock offset: 10.545 ms

Below is generated by plot.py at 2018-06-18 15:51:42
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.60 Mbit/s
95th percentile per-packet one-way delay: 319.137 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 290.891 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.25 Mbit/s
95th percentile per-packet one-way delay: 318.817 ms
Loss rate: 0.11%
-- Flow 3:
Average throughput: 0.11 Mbit/s
95th percentile per-packet one-way delay: 377.621 ms
Loss rate: 0.19%

Run 3: Report of WebRTC media — Data Link

