

Pantheon Report

Generated at 2018-06-29 20:48:24 (UTC).

Data path: AWS Korea Ethernet (*local*) → China ppp0 ppp0 (*remote*).

Repeated the test of 17 congestion control schemes 3 times.

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

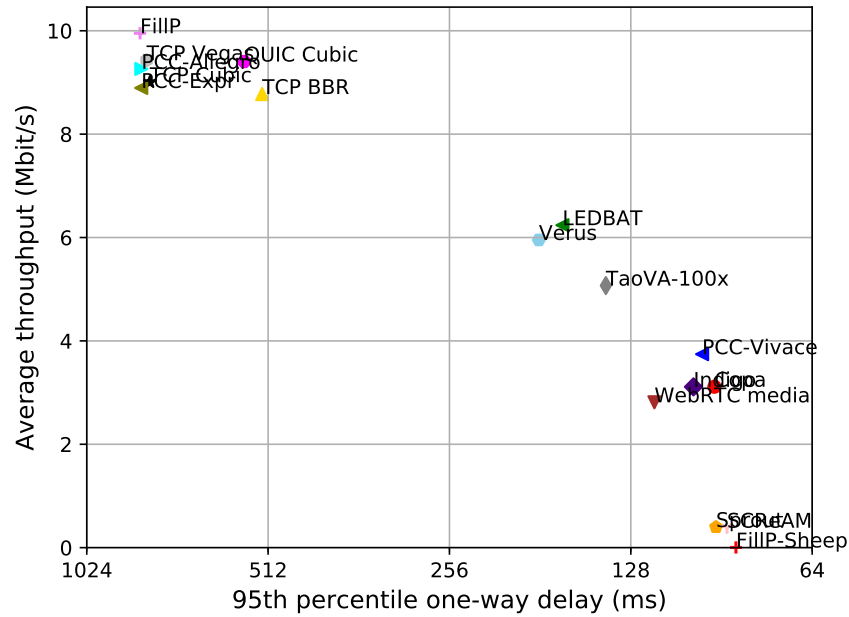
Increased UDP receive buffer to 16 MB (default) and 32 MB (max).

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

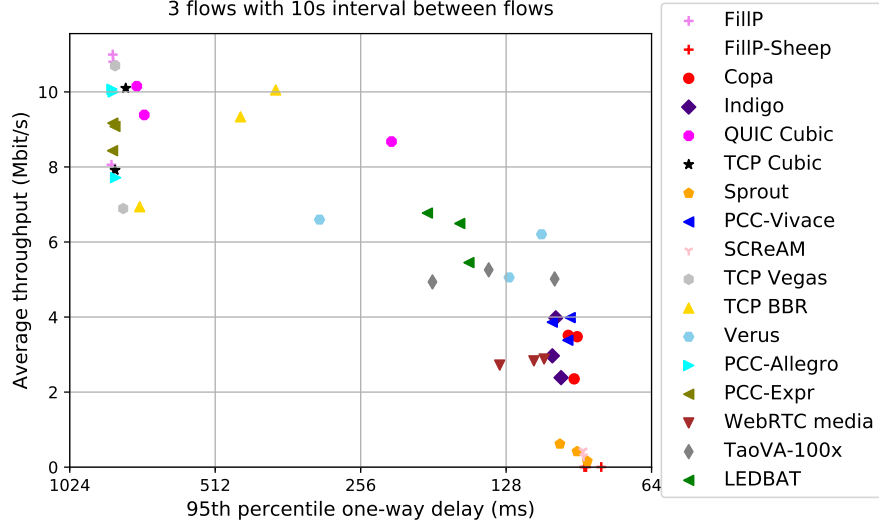
Git summary:

```
branch: master @ 715dc5f09d172e419699f6f17f1cb4c45064f212
third_party/fillp @ d47f4fa1b454a5e3c0537115c5a28436dbd4b834
third_party/fillp-sheep @ 30060ab034deb3424347f5cc3db86198eac35d2a
third_party/genericCC @ d0153f8e594aa89e93b032143cedbdf90c077e64d
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-quick @ 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 Korea to China ppp0, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows (mean of all runs by scheme)



test from AWS Korea to China ppp0, 3 runs of 30s each per scheme
 3 flows with 10s interval between flows



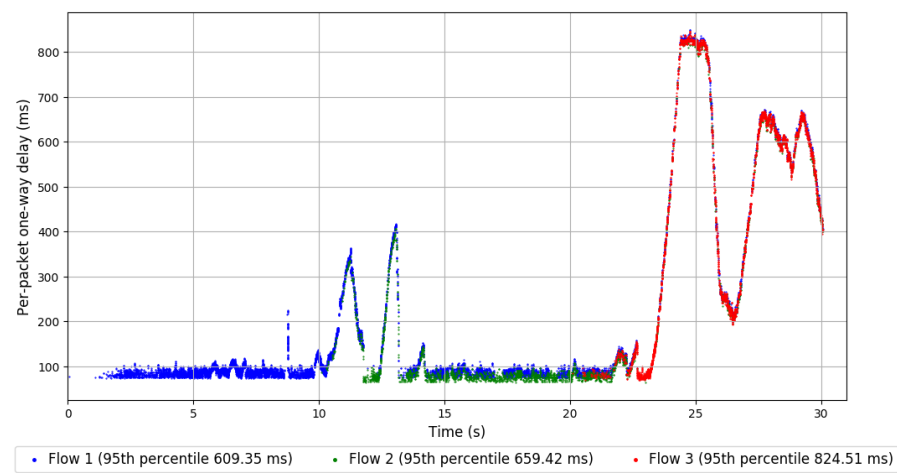
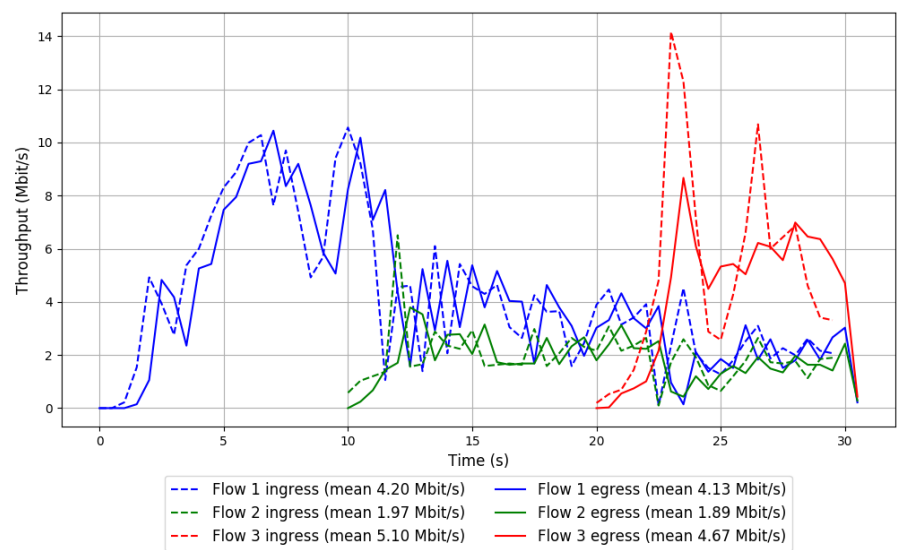
scheme	# runs	mean avg tput (Mbit/s)			mean 95th-%ile delay (ms)			mean loss rate (%)		
		flow 1	flow 2	flow 3	flow 1	flow 2	flow 3	flow 1	flow 2	flow 3
TCP BBR	3	6.54	1.78	3.19	492.23	439.87	493.28	0.72	1.52	3.68
Copa	3	1.62	1.48	1.54	92.32	92.56	92.05	0.03	0.01	0.18
TCP Cubic	2	8.42	0.67	0.48	804.88	820.21	697.54	4.14	3.96	5.46
FillP	3	5.56	5.87	1.78	851.99	834.73	838.19	66.93	40.92	46.76
FillP-Sheep	3	0.00	0.00	0.00	83.33	85.36	83.02	0.00	0.00	0.67
Indigo	3	1.43	1.63	1.93	96.10	103.70	106.54	0.02	0.10	0.17
LEDBAT	3	4.94	1.77	0.37	162.02	193.80	196.19	0.21	0.25	0.00
PCC-Allegro	3	6.18	3.08	3.19	830.07	830.01	848.96	7.81	11.65	39.38
PCC-Expr	3	5.55	4.41	1.31	830.00	830.50	836.48	13.57	18.64	30.62
QUIC Cubic	3	8.23	1.37	0.92	554.77	577.89	574.68	0.68	1.48	3.89
SCReAM	3	0.18	0.21	0.22	92.10	88.46	94.53	0.00	0.06	0.21
Sprout	3	0.20	0.18	0.24	90.22	92.76	93.99	0.00	0.00	0.00
TaoVA-100x	3	2.65	2.51	2.26	123.50	127.79	248.33	0.07	0.11	0.46
TCP Vegas	3	7.20	1.64	3.64	592.96	687.81	707.59	3.77	3.95	14.19
Verus	3	5.22	1.00	0.31	222.18	102.78	97.99	0.13	0.05	0.00
PCC-Vivace	3	2.15	1.54	1.72	96.07	98.24	98.82	0.06	0.09	0.19
WebRTC media	3	1.72	0.79	0.33	111.03	117.78	148.59	0.10	0.08	0.38

Run 1: Statistics of TCP BBR

Start at: 2018-06-29 19:46:38
End at: 2018-06-29 19:47:08
Local clock offset: 7.967 ms
Remote clock offset: -10.36 ms

Below is generated by plot.py at 2018-06-29 20:47:27
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.94 Mbit/s
95th percentile per-packet one-way delay: 733.862 ms
Loss rate: 3.64%
-- Flow 1:
Average throughput: 4.13 Mbit/s
95th percentile per-packet one-way delay: 609.349 ms
Loss rate: 1.61%
-- Flow 2:
Average throughput: 1.89 Mbit/s
95th percentile per-packet one-way delay: 659.419 ms
Loss rate: 3.52%
-- Flow 3:
Average throughput: 4.67 Mbit/s
95th percentile per-packet one-way delay: 824.513 ms
Loss rate: 8.75%

Run 1: Report of TCP BBR — Data Link

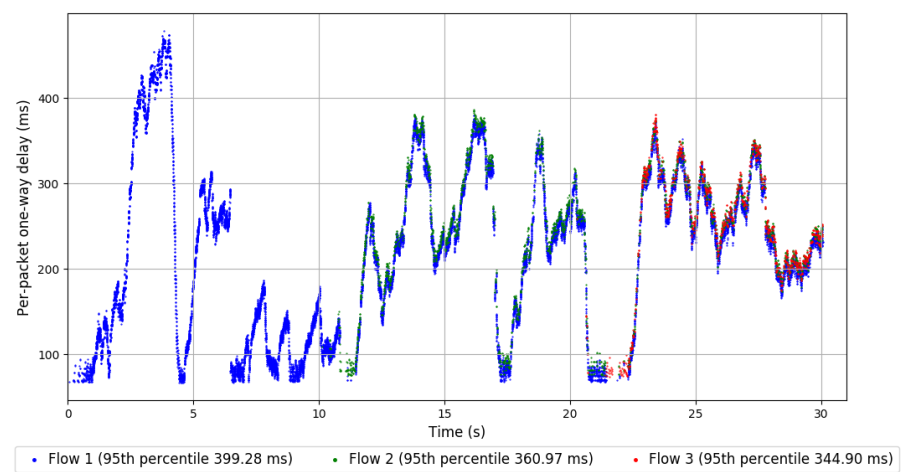
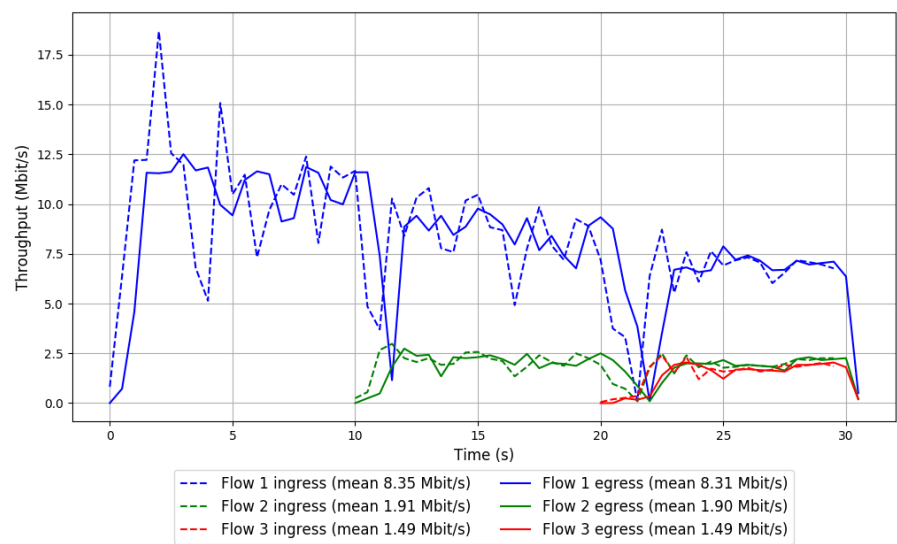


Run 2: Statistics of TCP BBR

Start at: 2018-06-29 20:13:01
End at: 2018-06-29 20:13:32
Local clock offset: -9.488 ms
Remote clock offset: -9.249 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.05 Mbit/s
95th percentile per-packet one-way delay: 383.812 ms
Loss rate: 0.66%
-- Flow 1:
Average throughput: 8.31 Mbit/s
95th percentile per-packet one-way delay: 399.276 ms
Loss rate: 0.52%
-- Flow 2:
Average throughput: 1.90 Mbit/s
95th percentile per-packet one-way delay: 360.974 ms
Loss rate: 0.97%
-- Flow 3:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 344.905 ms
Loss rate: 2.19%

Run 2: Report of TCP BBR — Data Link

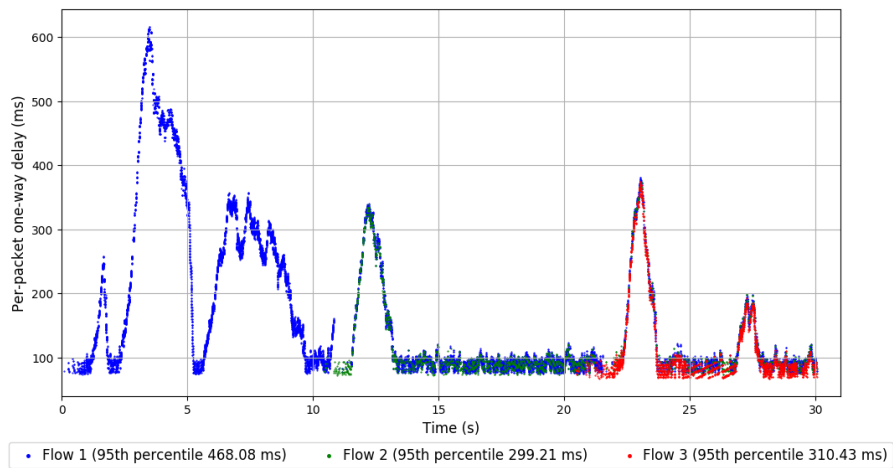
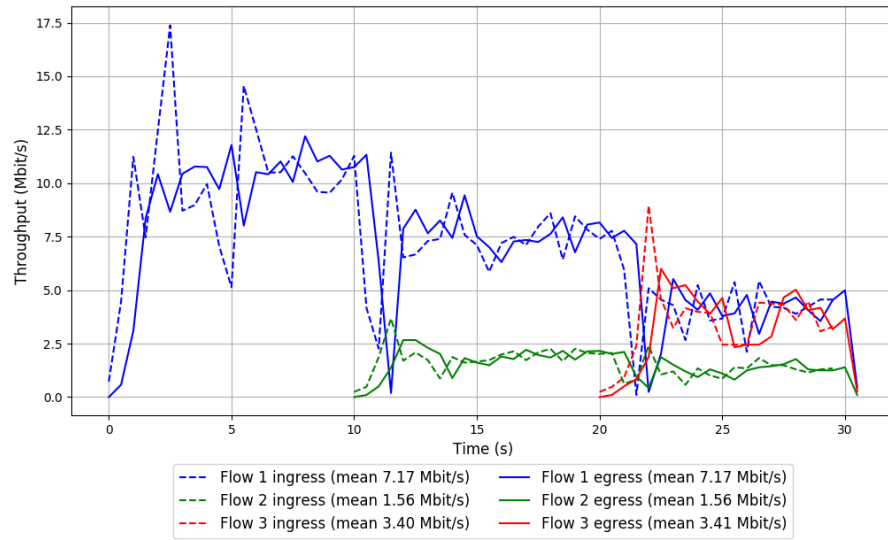


Run 3: Statistics of TCP BBR

Start at: 2018-06-29 20:39:51
End at: 2018-06-29 20:40:21
Local clock offset: 1.172 ms
Remote clock offset: -9.094 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.34 Mbit/s
95th percentile per-packet one-way delay: 453.880 ms
Loss rate: 0.04%
-- Flow 1:
Average throughput: 7.17 Mbit/s
95th percentile per-packet one-way delay: 468.078 ms
Loss rate: 0.03%
-- Flow 2:
Average throughput: 1.56 Mbit/s
95th percentile per-packet one-way delay: 299.213 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 3.41 Mbit/s
95th percentile per-packet one-way delay: 310.426 ms
Loss rate: 0.11%

Run 3: Report of TCP BBR — Data Link

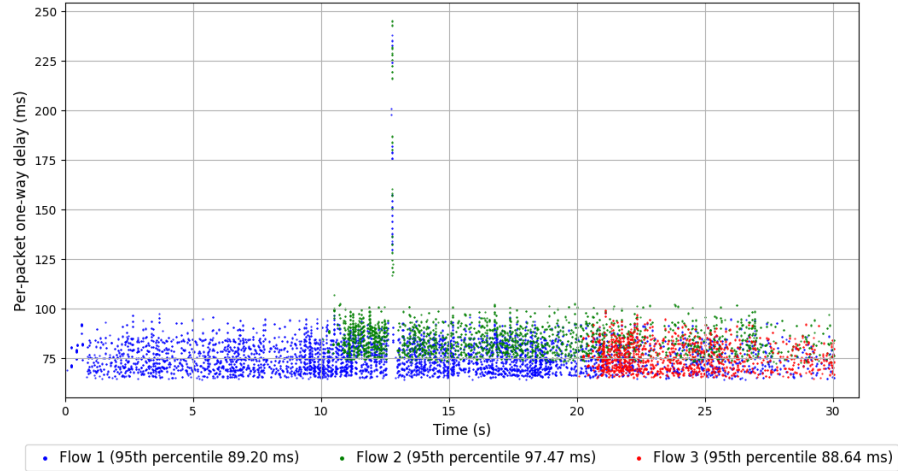
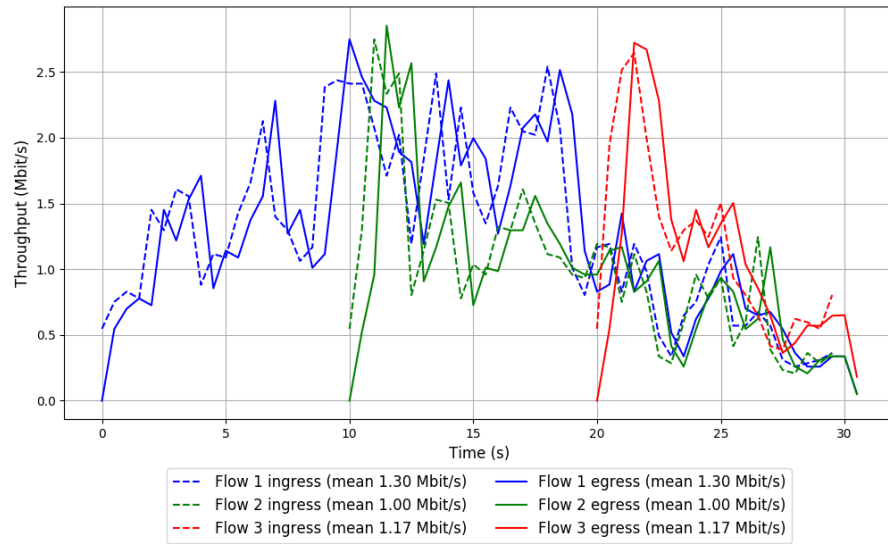


Run 1: Statistics of Copa

Start at: 2018-06-29 19:48:11
End at: 2018-06-29 19:48:41
Local clock offset: 5.471 ms
Remote clock offset: -9.547 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.35 Mbit/s
95th percentile per-packet one-way delay: 92.555 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 1.30 Mbit/s
95th percentile per-packet one-way delay: 89.197 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.00 Mbit/s
95th percentile per-packet one-way delay: 97.470 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 1.17 Mbit/s
95th percentile per-packet one-way delay: 88.635 ms
Loss rate: 0.00%

Run 1: Report of Copa — Data Link

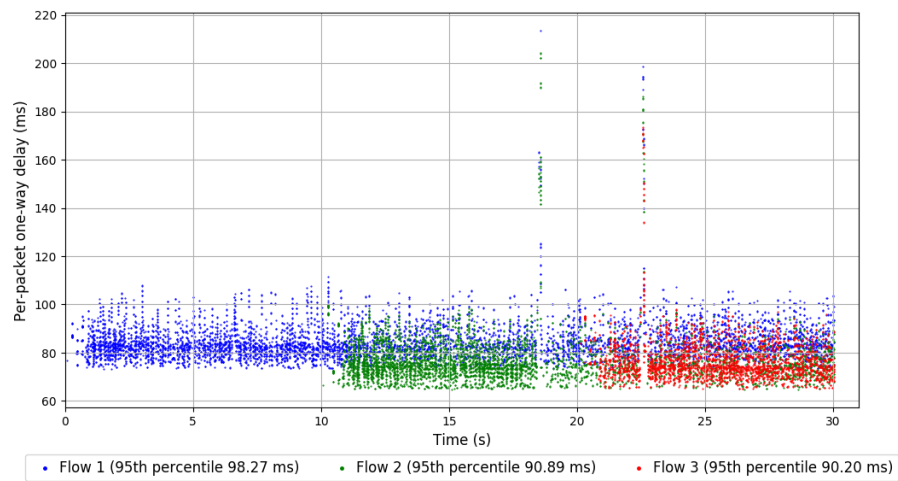
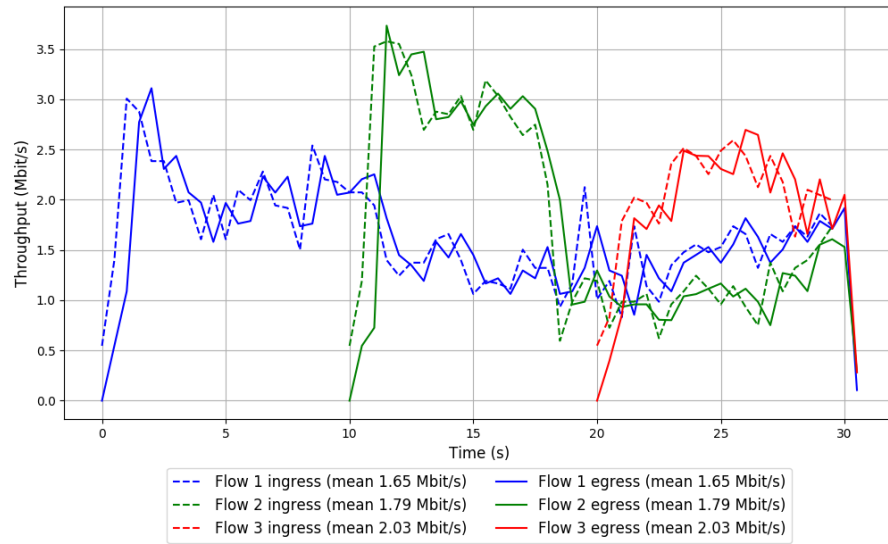


Run 2: Statistics of Copa

Start at: 2018-06-29 20:14:42
End at: 2018-06-29 20:15:12
Local clock offset: -10.008 ms
Remote clock offset: -9.155 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.51 Mbit/s
95th percentile per-packet one-way delay: 95.190 ms
Loss rate: 0.09%
-- Flow 1:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 98.272 ms
Loss rate: 0.08%
-- Flow 2:
Average throughput: 1.79 Mbit/s
95th percentile per-packet one-way delay: 90.887 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.03 Mbit/s
95th percentile per-packet one-way delay: 90.205 ms
Loss rate: 0.26%

Run 2: Report of Copa — Data Link

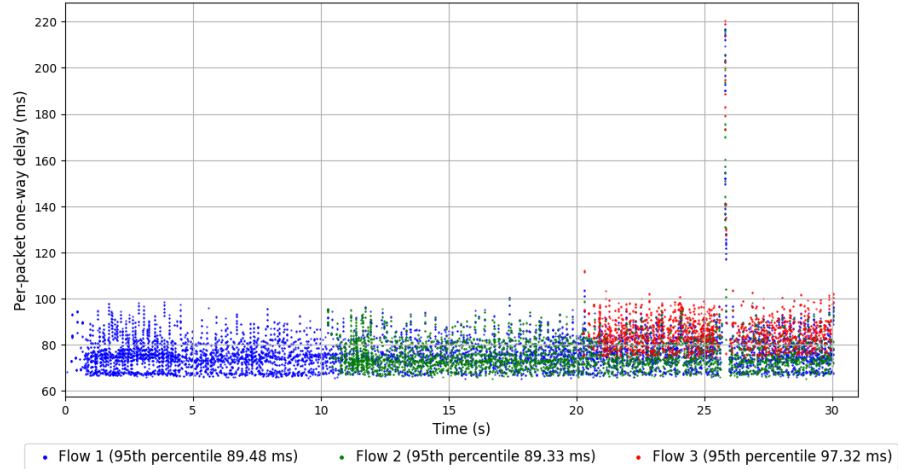
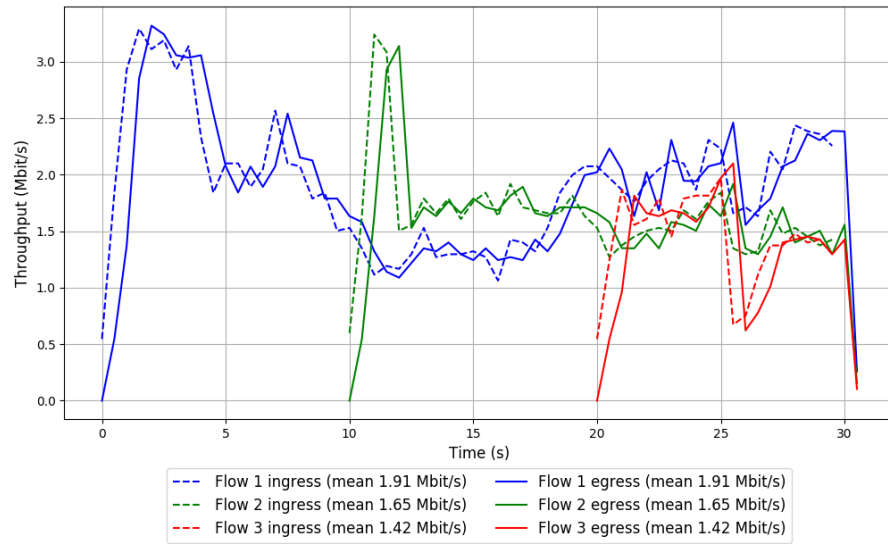


Run 3: Statistics of Copa

Start at: 2018-06-29 20:41:31
End at: 2018-06-29 20:42:01
Local clock offset: 1.06 ms
Remote clock offset: -9.138 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.48 Mbit/s
95th percentile per-packet one-way delay: 91.225 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 1.91 Mbit/s
95th percentile per-packet one-way delay: 89.483 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 89.333 ms
Loss rate: 0.04%
-- Flow 3:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 97.323 ms
Loss rate: 0.27%

Run 3: Report of Copa — Data Link

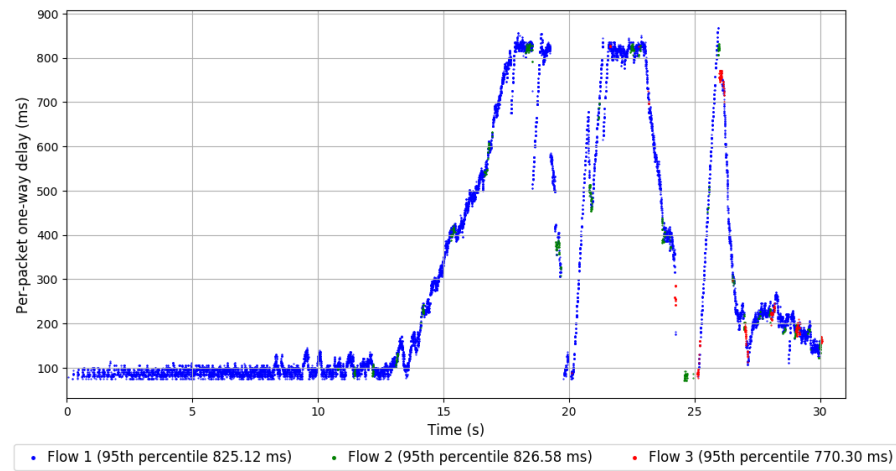
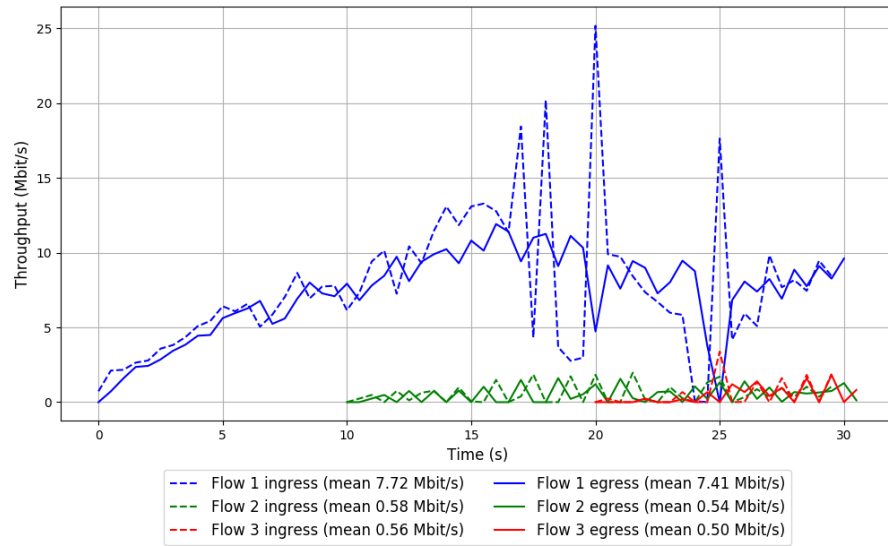


Run 1: Statistics of TCP Cubic

Start at: 2018-06-29 19:43:05
End at: 2018-06-29 19:43:35
Local clock offset: 9.27 ms
Remote clock offset: -10.454 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.92 Mbit/s
95th percentile per-packet one-way delay: 825.101 ms
Loss rate: 4.53%
-- Flow 1:
Average throughput: 7.41 Mbit/s
95th percentile per-packet one-way delay: 825.119 ms
Loss rate: 4.28%
-- Flow 2:
Average throughput: 0.54 Mbit/s
95th percentile per-packet one-way delay: 826.579 ms
Loss rate: 6.47%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 770.301 ms
Loss rate: 10.93%

Run 1: Report of TCP Cubic — Data Link

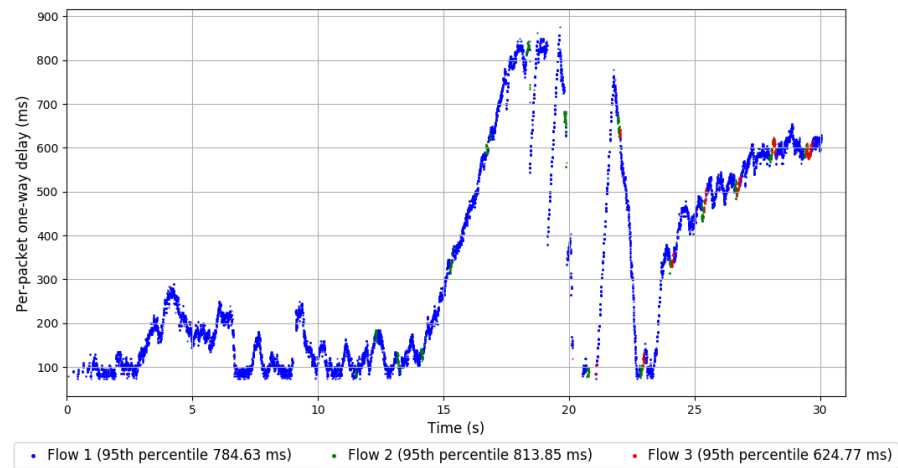
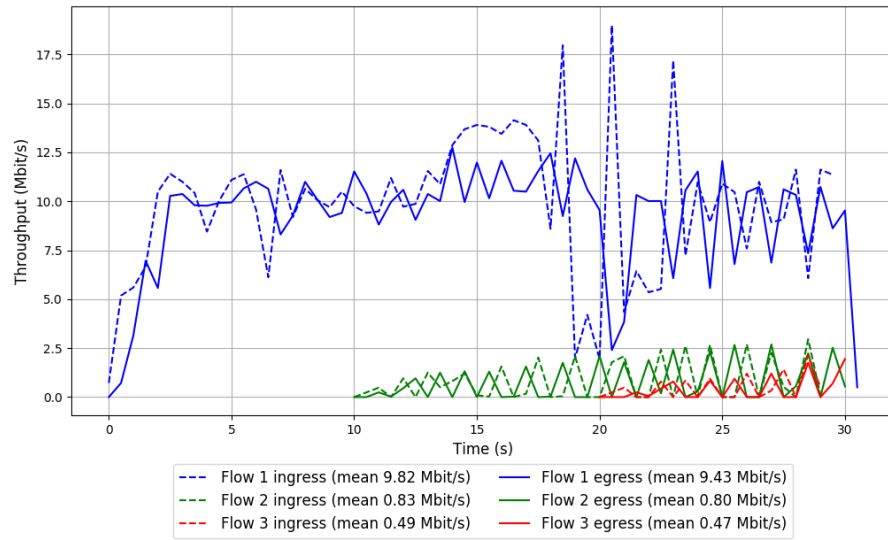


Run 2: Statistics of TCP Cubic

Start at: 2018-06-29 20:09:26
End at: 2018-06-29 20:09:56
Local clock offset: -8.684 ms
Remote clock offset: -9.382 ms

Below is generated by plot.py at 2018-06-29 20:47:32
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.10 Mbit/s
95th percentile per-packet one-way delay: 784.360 ms
Loss rate: 3.82%
-- Flow 1:
Average throughput: 9.43 Mbit/s
95th percentile per-packet one-way delay: 784.634 ms
Loss rate: 4.01%
-- Flow 2:
Average throughput: 0.80 Mbit/s
95th percentile per-packet one-way delay: 813.848 ms
Loss rate: 1.45%
-- Flow 3:
Average throughput: 0.47 Mbit/s
95th percentile per-packet one-way delay: 624.771 ms
Loss rate: 0.00%

Run 2: Report of TCP Cubic — Data Link



Run 3: Statistics of TCP Cubic

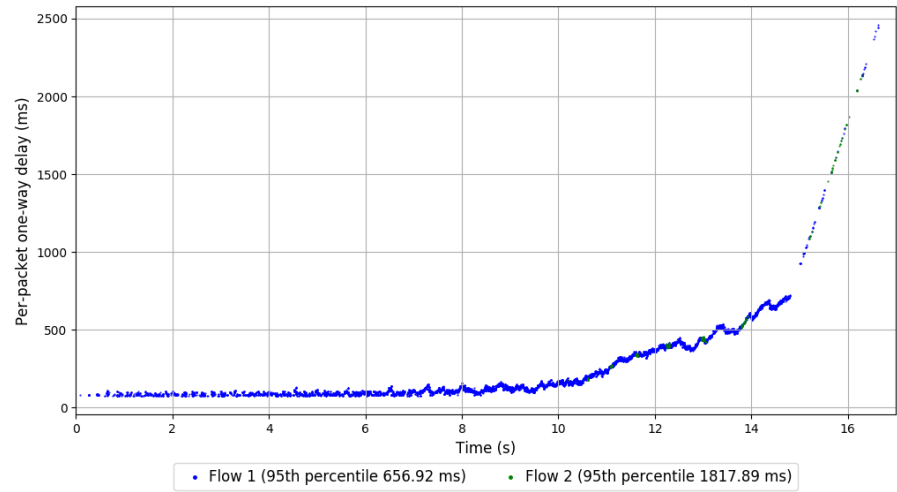
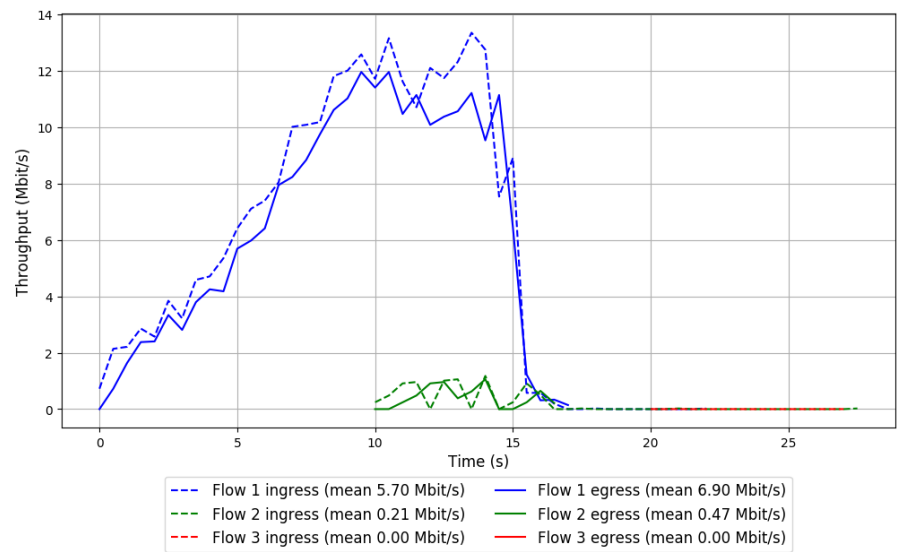
Start at: 2018-06-29 20:36:20

End at: 2018-06-29 20:36:50

Local clock offset: 0.632 ms

Remote clock offset: -8.95 ms

Run 3: Report of TCP Cubic — Data Link

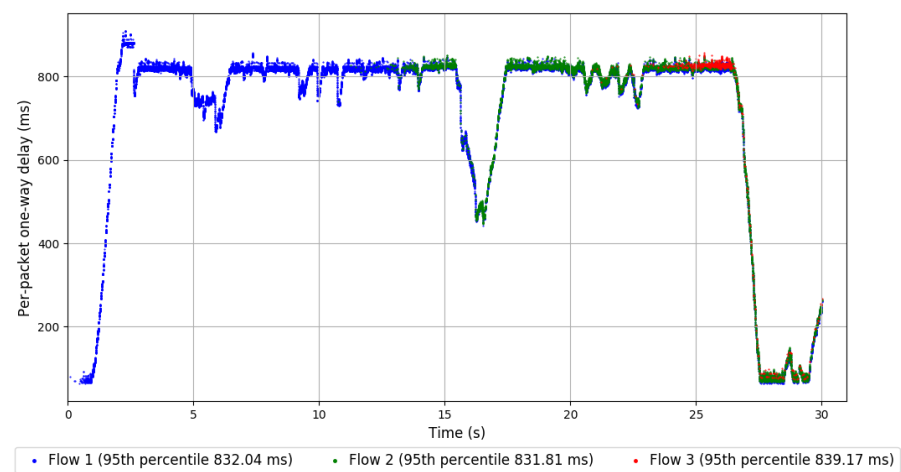
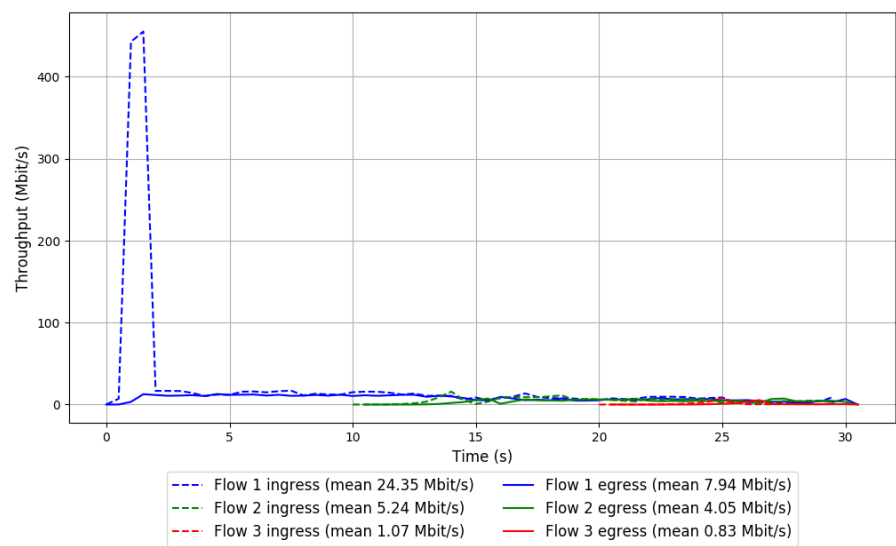


Run 1: Statistics of FillP

Start at: 2018-06-29 19:49:39
End at: 2018-06-29 19:50:09
Local clock offset: 3.381 ms
Remote clock offset: -10.23 ms

Below is generated by plot.py at 2018-06-29 20:47:49
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.80 Mbit/s
95th percentile per-packet one-way delay: 832.283 ms
Loss rate: 61.69%
-- Flow 1:
Average throughput: 7.94 Mbit/s
95th percentile per-packet one-way delay: 832.042 ms
Loss rate: 67.39%
-- Flow 2:
Average throughput: 4.05 Mbit/s
95th percentile per-packet one-way delay: 831.809 ms
Loss rate: 25.20%
-- Flow 3:
Average throughput: 0.83 Mbit/s
95th percentile per-packet one-way delay: 839.169 ms
Loss rate: 28.58%

Run 1: Report of FillP — Data Link

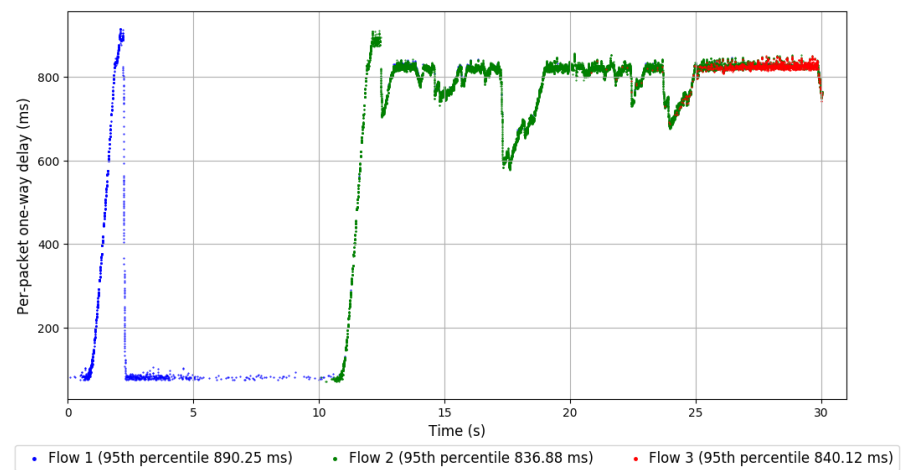
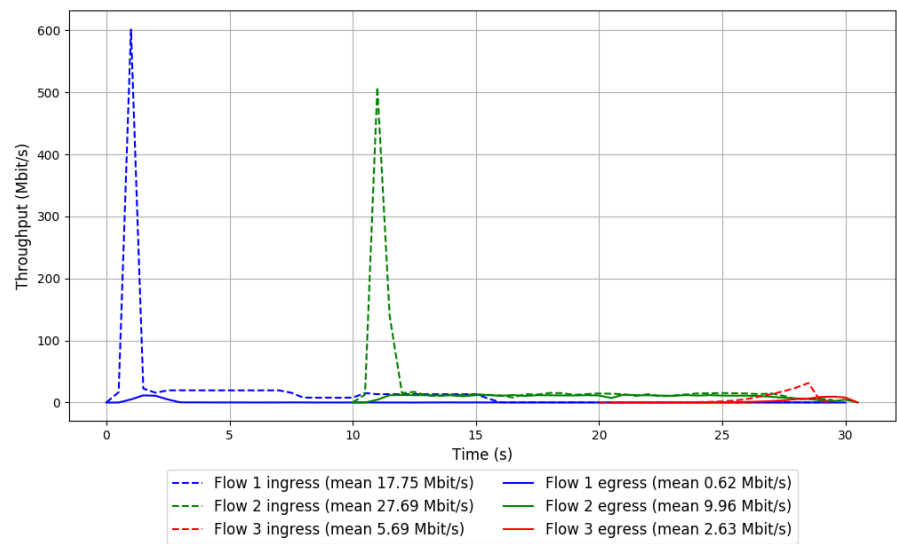


Run 2: Statistics of FillP

Start at: 2018-06-29 20:16:14
End at: 2018-06-29 20:16:44
Local clock offset: -9.483 ms
Remote clock offset: -9.102 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.06 Mbit/s
95th percentile per-packet one-way delay: 839.282 ms
Loss rate: 78.84%
-- Flow 1:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 890.248 ms
Loss rate: 96.51%
-- Flow 2:
Average throughput: 9.96 Mbit/s
95th percentile per-packet one-way delay: 836.882 ms
Loss rate: 64.06%
-- Flow 3:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 840.119 ms
Loss rate: 57.17%

Run 2: Report of FillP — Data Link

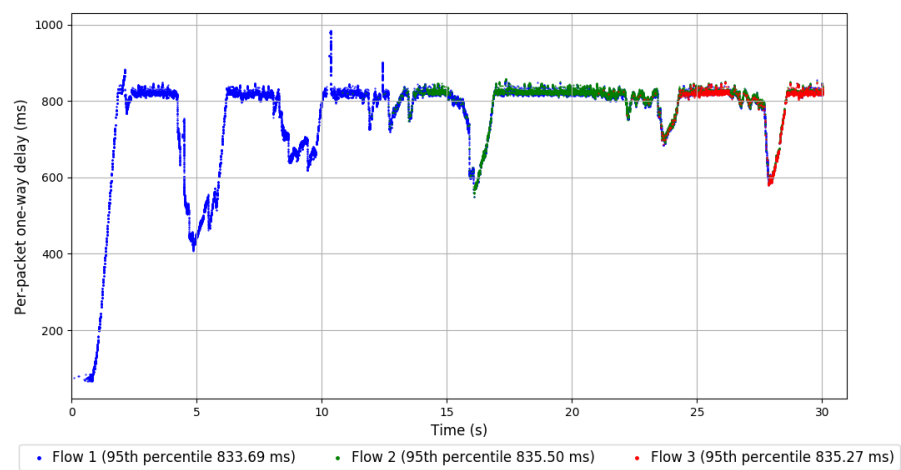
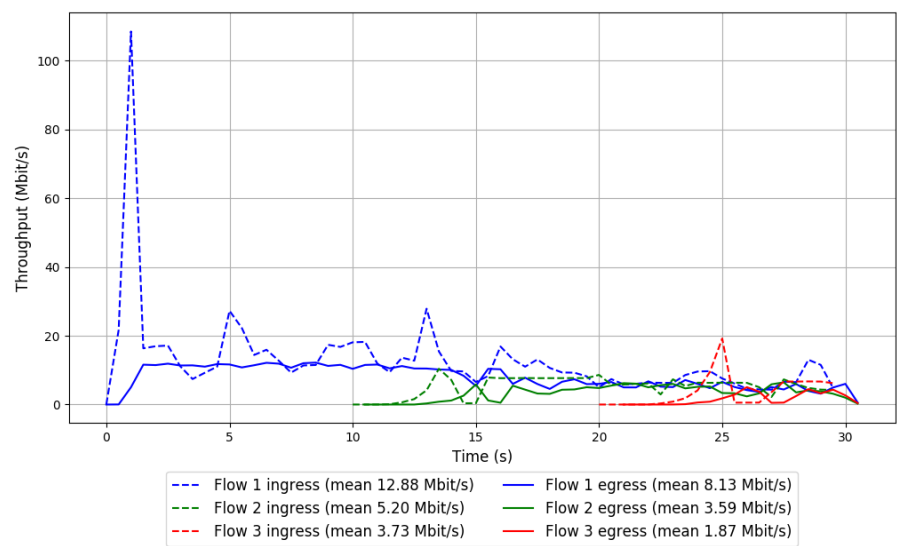


Run 3: Statistics of FillP

Start at: 2018-06-29 20:43:00
End at: 2018-06-29 20:43:30
Local clock offset: 1.155 ms
Remote clock offset: -9.212 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.99 Mbit/s
95th percentile per-packet one-way delay: 834.288 ms
Loss rate: 37.47%
-- Flow 1:
Average throughput: 8.13 Mbit/s
95th percentile per-packet one-way delay: 833.687 ms
Loss rate: 36.90%
-- Flow 2:
Average throughput: 3.59 Mbit/s
95th percentile per-packet one-way delay: 835.496 ms
Loss rate: 33.49%
-- Flow 3:
Average throughput: 1.87 Mbit/s
95th percentile per-packet one-way delay: 835.269 ms
Loss rate: 54.53%

Run 3: Report of FillP — Data Link

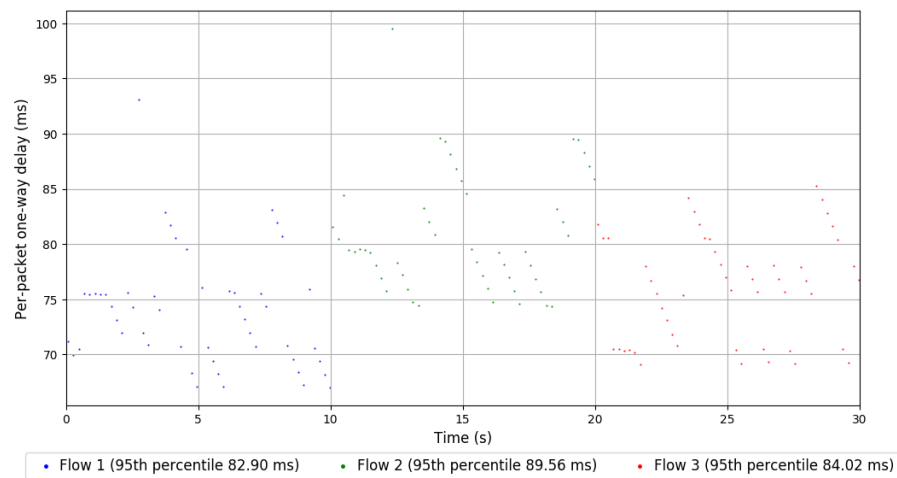
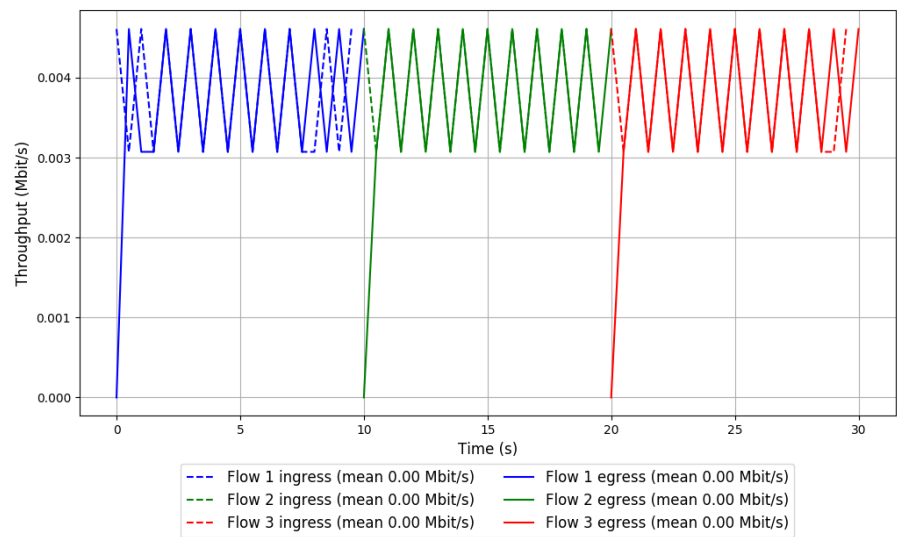


Run 1: Statistics of FillP-Sheep

Start at: 2018-06-29 19:40:04
End at: 2018-06-29 19:40:34
Local clock offset: 8.78 ms
Remote clock offset: -10.606 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 88.138 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 82.904 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 89.563 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 84.015 ms
Loss rate: 0.00%

Run 1: Report of FillP-Sheep — Data Link

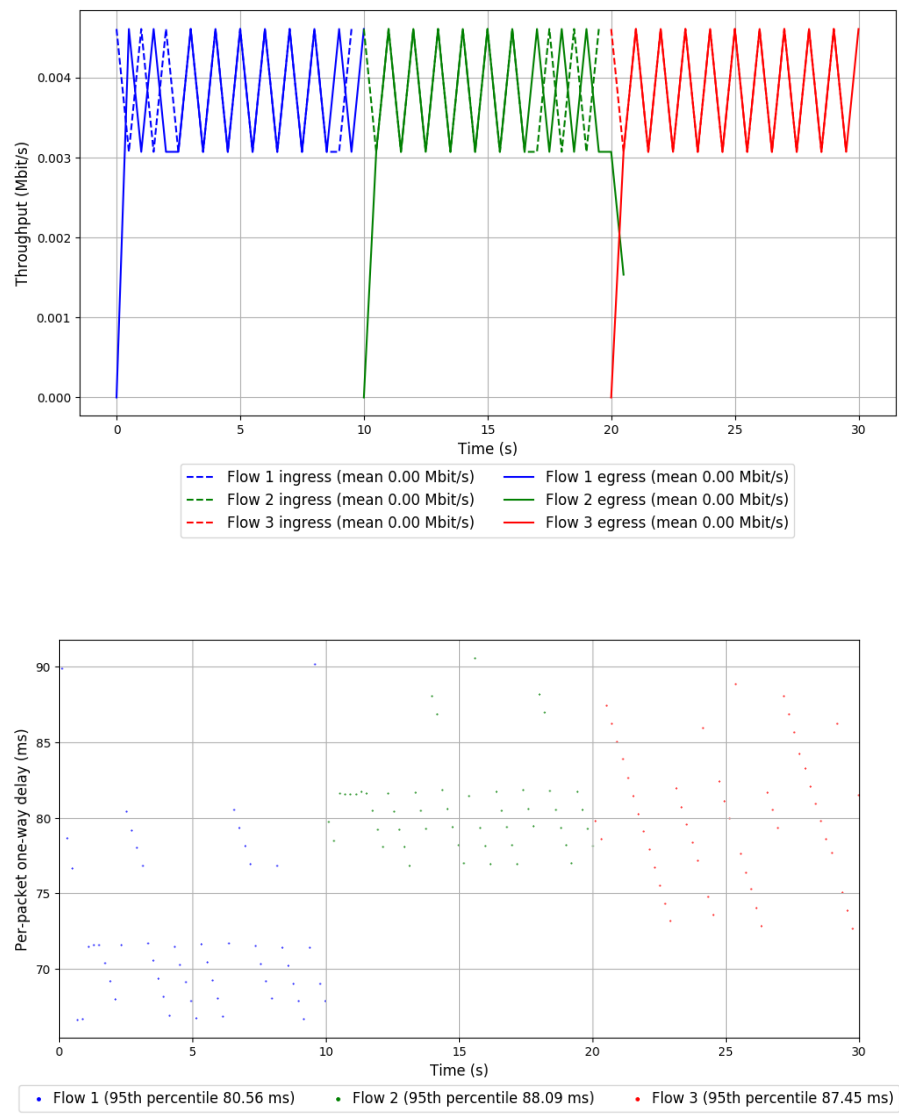


Run 2: Statistics of FillP-Sheep

Start at: 2018-06-29 20:06:26
End at: 2018-06-29 20:06:56
Local clock offset: -7.778 ms
Remote clock offset: -9.466 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.447 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 80.563 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 88.086 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 87.447 ms
Loss rate: 0.00%

Run 2: Report of FillP-Sheep — Data Link

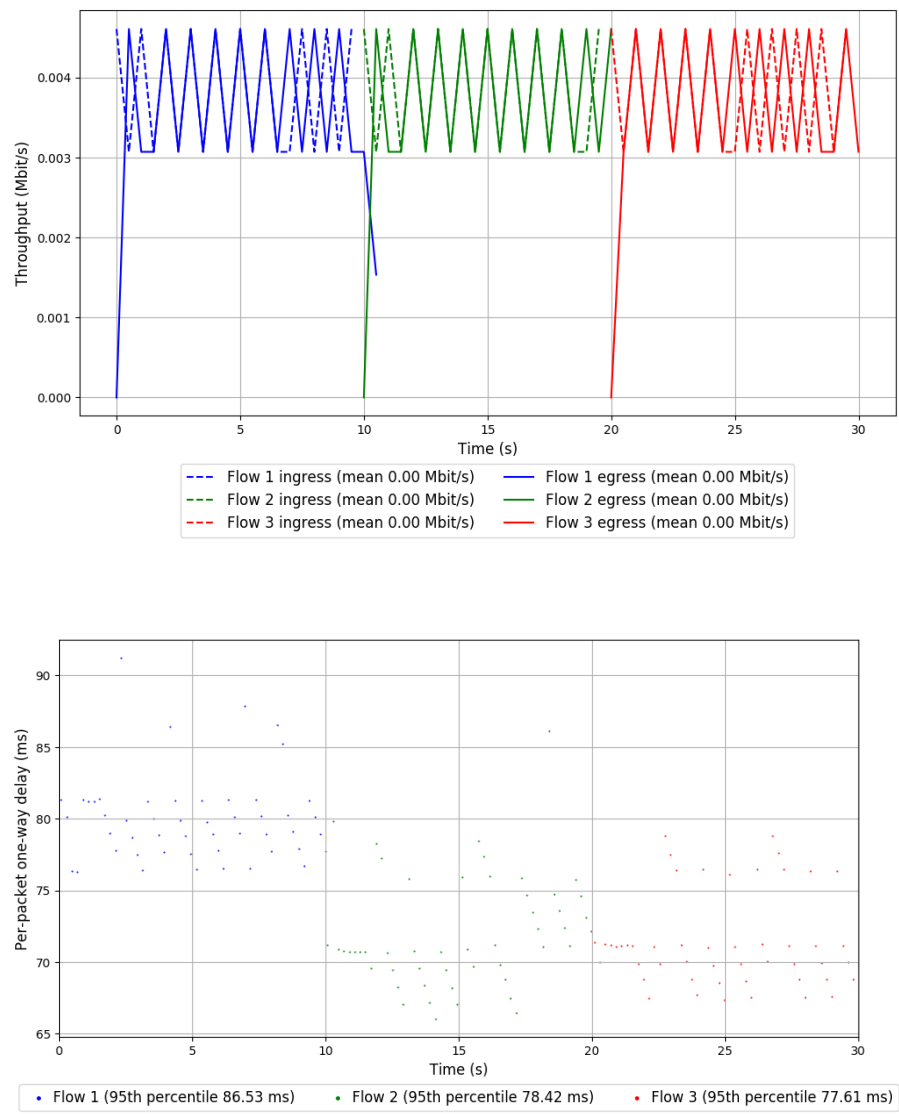


Run 3: Statistics of FillP-Sheep

Start at: 2018-06-29 20:33:04
End at: 2018-06-29 20:33:34
Local clock offset: 0.246 ms
Remote clock offset: -8.707 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 81.346 ms
Loss rate: 0.67%
-- Flow 1:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 86.530 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 78.424 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 77.607 ms
Loss rate: 2.00%

Run 3: Report of FillP-Sheep — Data Link

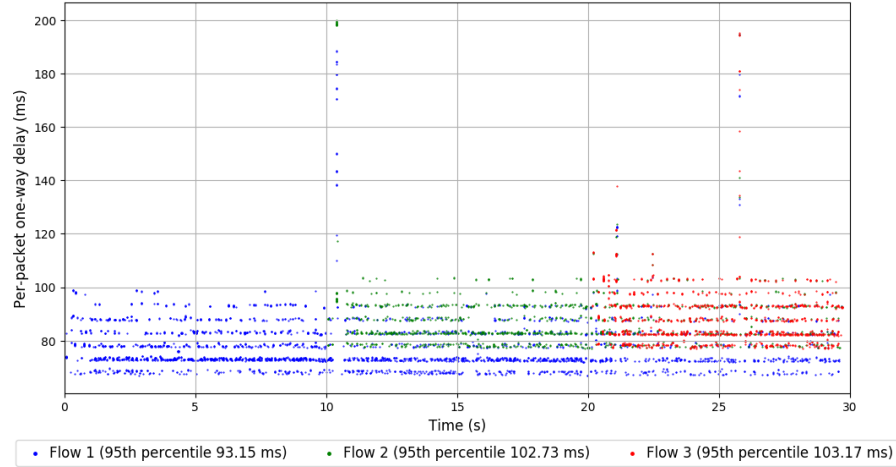
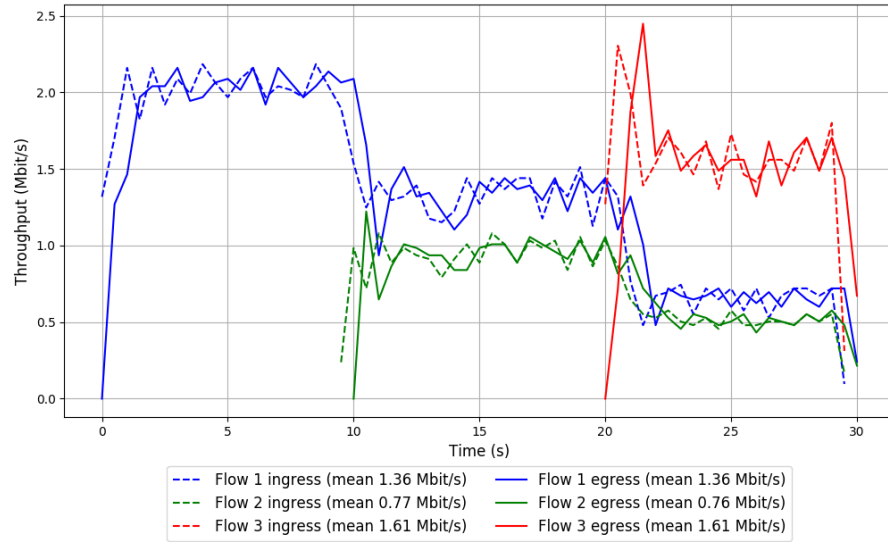


```
Run 1: Statistics of Indigo

Start at: 2018-06-29 19:51:21
End at: 2018-06-29 19:51:51
Local clock offset: 1.112 ms
Remote clock offset: -10.167 ms

# Below is generated by plot.py at 2018-06-29 20:47:51
# Datalink statistics
-- Total of 3 flows:
Average throughput: 2.39 Mbit/s
95th percentile per-packet one-way delay: 98.507 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 1.36 Mbit/s
95th percentile per-packet one-way delay: 93.146 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.76 Mbit/s
95th percentile per-packet one-way delay: 102.732 ms
Loss rate: 0.16%
-- Flow 3:
Average throughput: 1.61 Mbit/s
95th percentile per-packet one-way delay: 103.174 ms
Loss rate: 0.39%
```

Run 1: Report of Indigo — Data Link

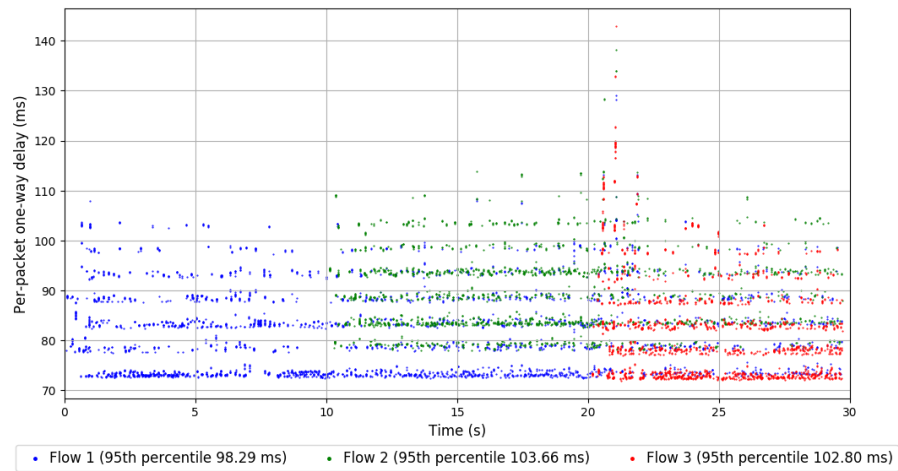
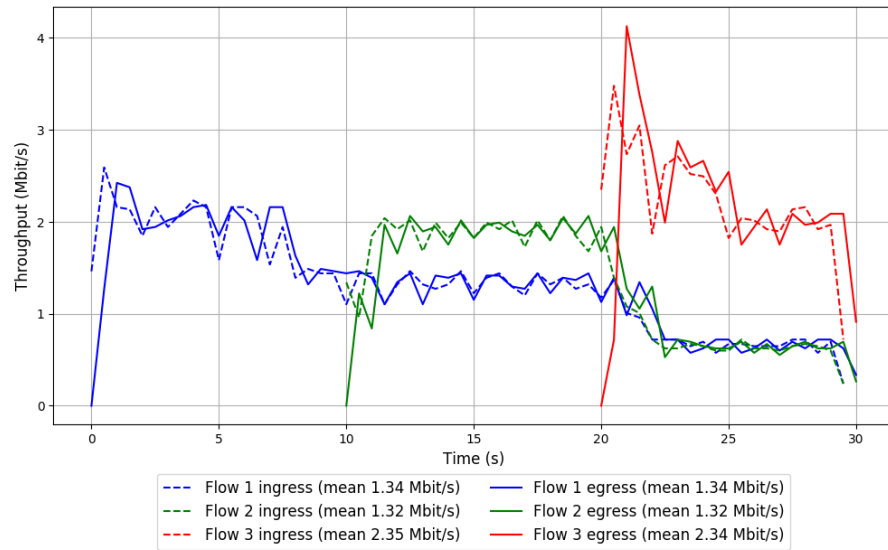


Run 2: Statistics of Indigo

Start at: 2018-06-29 20:17:54
End at: 2018-06-29 20:18:24
Local clock offset: -7.765 ms
Remote clock offset: -9.026 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.97 Mbit/s
95th percentile per-packet one-way delay: 102.689 ms
Loss rate: 0.03%
-- Flow 1:
Average throughput: 1.34 Mbit/s
95th percentile per-packet one-way delay: 98.289 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 1.32 Mbit/s
95th percentile per-packet one-way delay: 103.658 ms
Loss rate: 0.05%
-- Flow 3:
Average throughput: 2.34 Mbit/s
95th percentile per-packet one-way delay: 102.799 ms
Loss rate: 0.05%

Run 2: Report of Indigo — Data Link

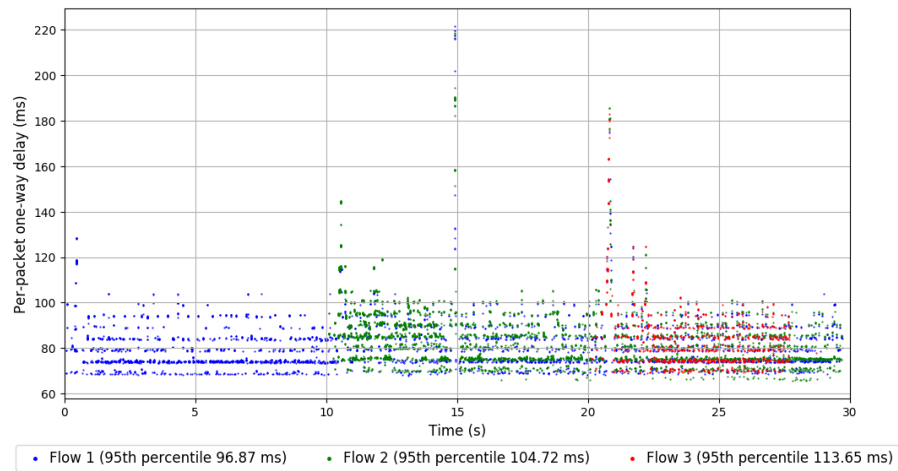
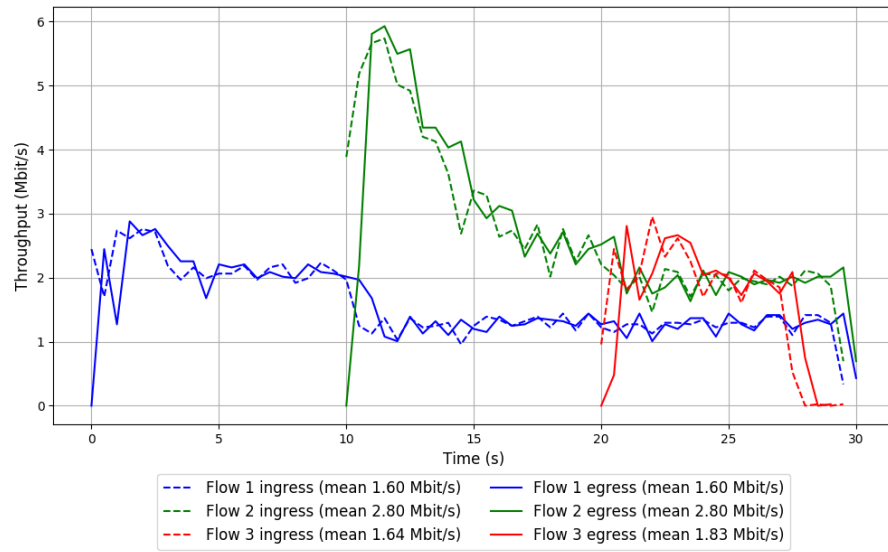


Run 3: Statistics of Indigo

Start at: 2018-06-29 20:44:50
End at: 2018-06-29 20:45:20
Local clock offset: 1.531 ms
Remote clock offset: -9.259 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 101.036 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.60 Mbit/s
95th percentile per-packet one-way delay: 96.866 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 2.80 Mbit/s
95th percentile per-packet one-way delay: 104.717 ms
Loss rate: 0.09%
-- Flow 3:
Average throughput: 1.83 Mbit/s
95th percentile per-packet one-way delay: 113.649 ms
Loss rate: 0.08%

Run 3: Report of Indigo — Data Link

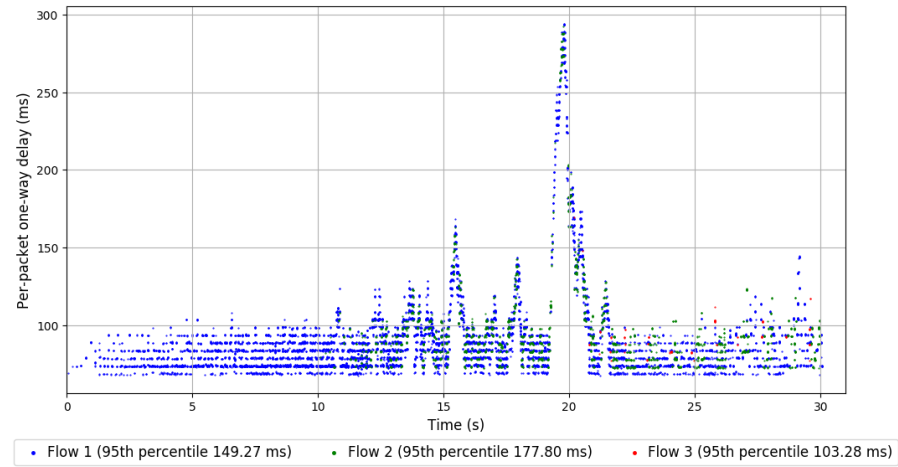
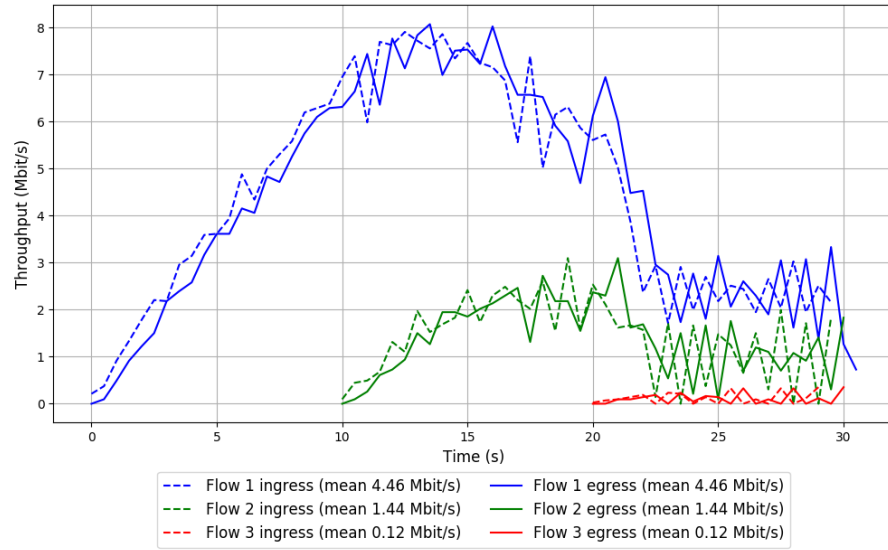


Run 1: Statistics of LEDBAT

Start at: 2018-06-29 19:32:47
End at: 2018-06-29 19:33:17
Local clock offset: 7.911 ms
Remote clock offset: -11.238 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.45 Mbit/s
95th percentile per-packet one-way delay: 152.826 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 4.46 Mbit/s
95th percentile per-packet one-way delay: 149.273 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 1.44 Mbit/s
95th percentile per-packet one-way delay: 177.798 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.12 Mbit/s
95th percentile per-packet one-way delay: 103.280 ms
Loss rate: 0.00%

Run 1: Report of LEDBAT — Data Link

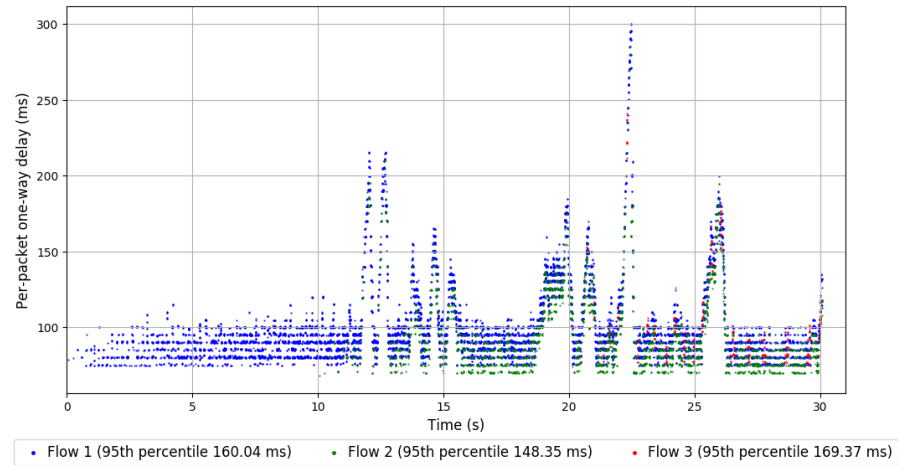
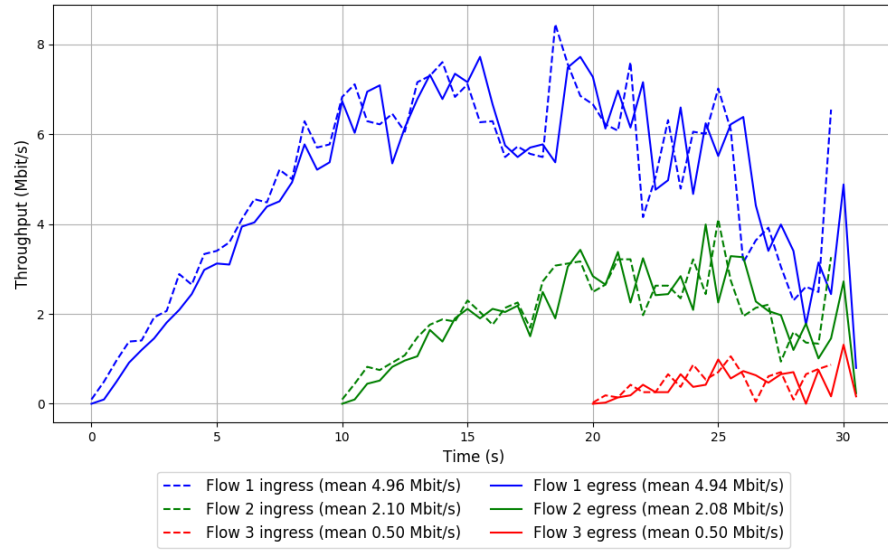


Run 2: Statistics of LEDBAT

Start at: 2018-06-29 19:58:54
End at: 2018-06-29 19:59:24
Local clock offset: -4.6 ms
Remote clock offset: -9.904 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.49 Mbit/s
95th percentile per-packet one-way delay: 159.646 ms
Loss rate: 0.45%
-- Flow 1:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 160.037 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 2.08 Mbit/s
95th percentile per-packet one-way delay: 148.351 ms
Loss rate: 0.67%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 169.370 ms
Loss rate: 0.00%

Run 2: Report of LEDBAT — Data Link

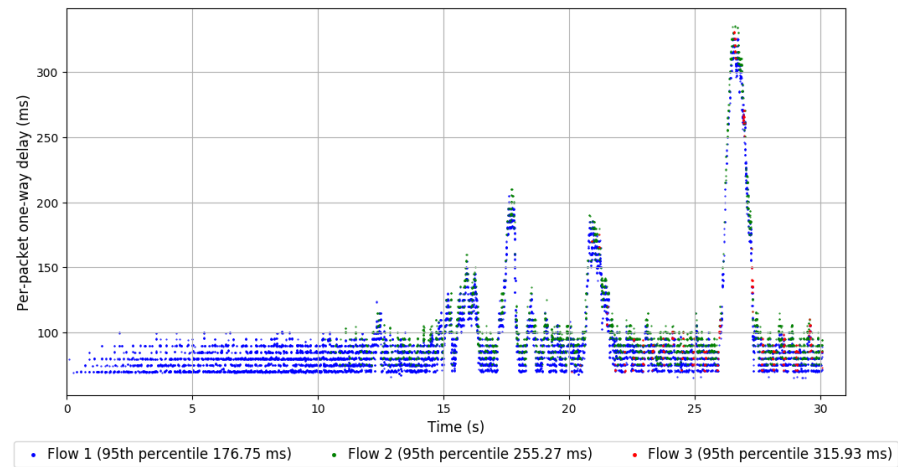
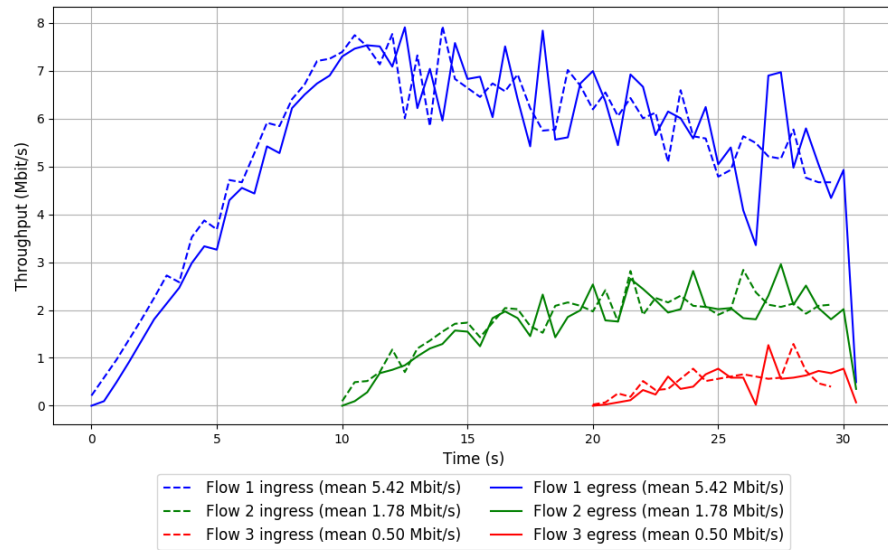


Run 3: Statistics of LEDBAT

Start at: 2018-06-29 20:25:41
End at: 2018-06-29 20:26:11
Local clock offset: -2.052 ms
Remote clock offset: -8.807 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.77 Mbit/s
95th percentile per-packet one-way delay: 186.259 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 5.42 Mbit/s
95th percentile per-packet one-way delay: 176.752 ms
Loss rate: 0.07%
-- Flow 2:
Average throughput: 1.78 Mbit/s
95th percentile per-packet one-way delay: 255.266 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 315.927 ms
Loss rate: 0.00%

Run 3: Report of LEDBAT — Data Link

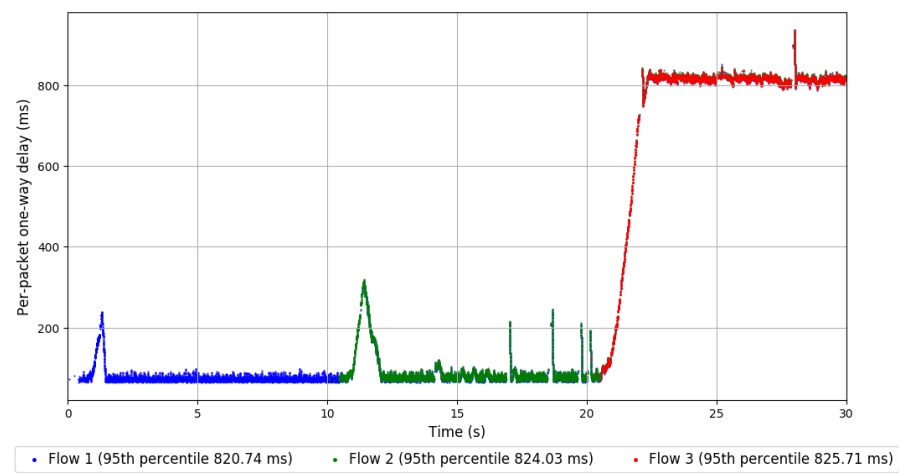
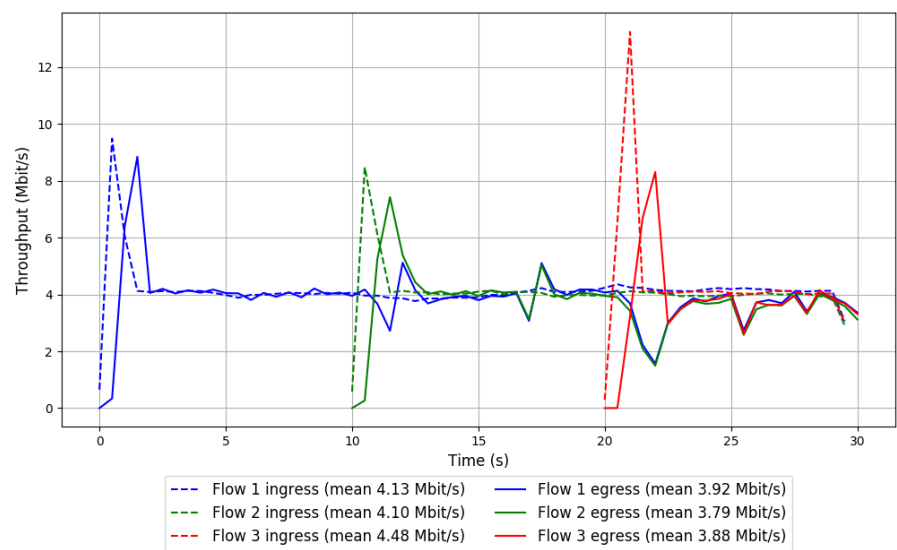


Run 1: Statistics of PCC-Allegro

Start at: 2018-06-29 19:52:47
End at: 2018-06-29 19:53:17
Local clock offset: -0.318 ms
Remote clock offset: -10.115 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 7.72 Mbit/s
95th percentile per-packet one-way delay: 822.994 ms
Loss rate: 7.44%
-- Flow 1:
Average throughput: 3.92 Mbit/s
95th percentile per-packet one-way delay: 820.737 ms
Loss rate: 5.20%
-- Flow 2:
Average throughput: 3.79 Mbit/s
95th percentile per-packet one-way delay: 824.030 ms
Loss rate: 7.38%
-- Flow 3:
Average throughput: 3.88 Mbit/s
95th percentile per-packet one-way delay: 825.707 ms
Loss rate: 13.82%

Run 1: Report of PCC-Allegro — Data Link



Run 2: Statistics of PCC-Allegro

Start at: 2018-06-29 20:19:20

End at: 2018-06-29 20:19:50

Local clock offset: -6.208 ms

Remote clock offset: -8.96 ms

Below is generated by plot.py at 2018-06-29 20:47:51

Datalink statistics

-- Total of 3 flows:

Average throughput: 10.07 Mbit/s

95th percentile per-packet one-way delay: 837.557 ms

Loss rate: 28.71%

-- Flow 1:

Average throughput: 7.07 Mbit/s

95th percentile per-packet one-way delay: 836.148 ms

Loss rate: 10.75%

-- Flow 2:

Average throughput: 3.56 Mbit/s

95th percentile per-packet one-way delay: 837.911 ms

Loss rate: 16.25%

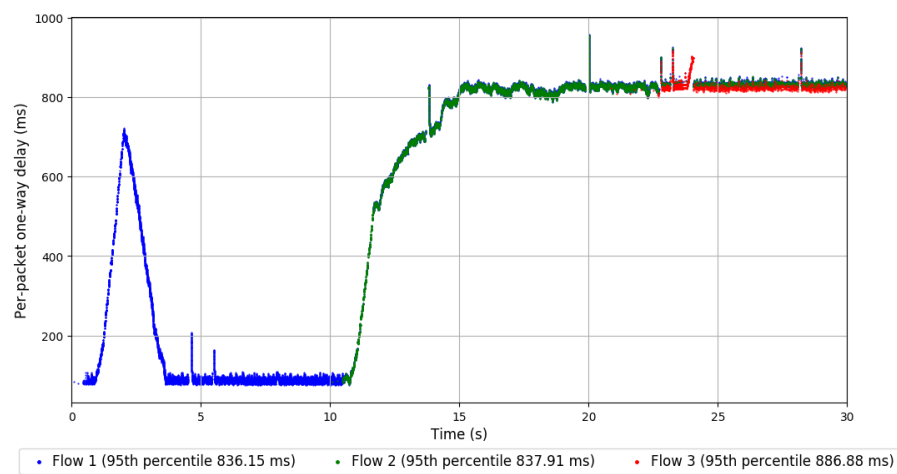
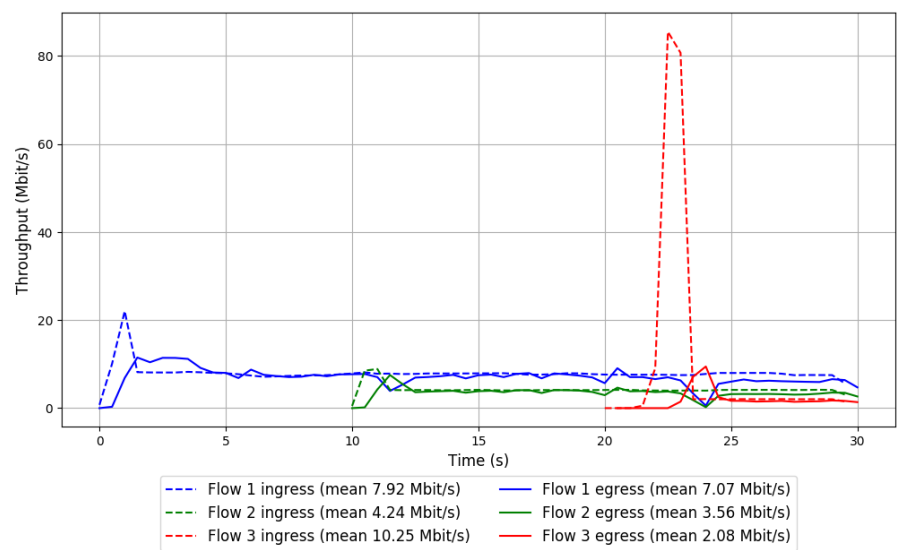
-- Flow 3:

Average throughput: 2.08 Mbit/s

95th percentile per-packet one-way delay: 886.880 ms

Loss rate: 81.23%

Run 2: Report of PCC-Allegro — Data Link

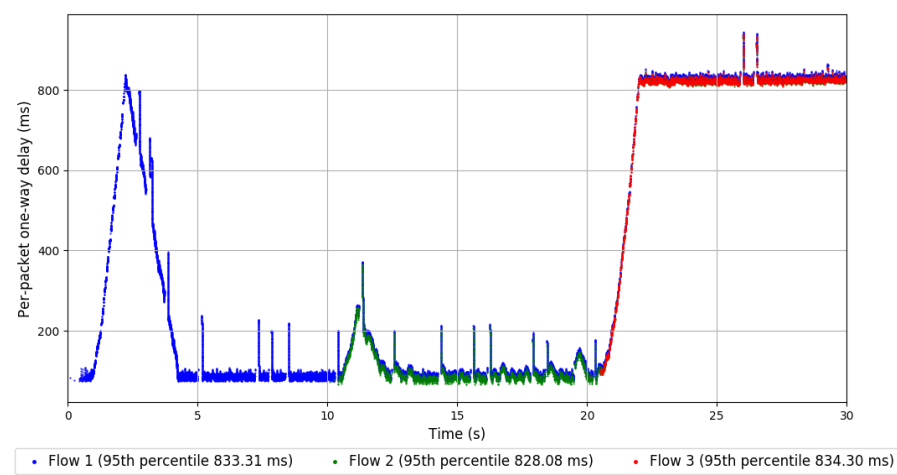
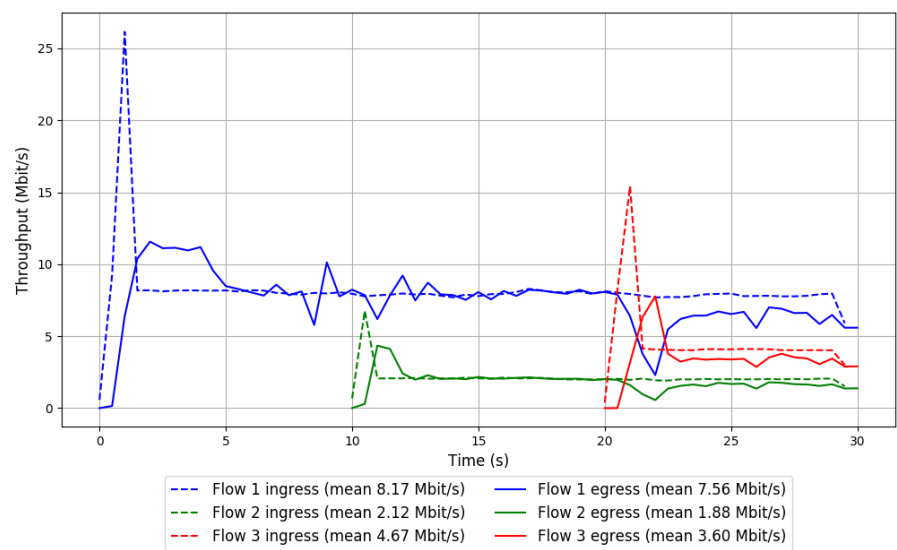


Run 3: Statistics of PCC-Allegro

Start at: 2018-06-29 20:46:19
End at: 2018-06-29 20:46:49
Local clock offset: 1.518 ms
Remote clock offset: -9.291 ms

Below is generated by plot.py at 2018-06-29 20:47:51
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.00 Mbit/s
95th percentile per-packet one-way delay: 832.746 ms
Loss rate: 10.12%
-- Flow 1:
Average throughput: 7.56 Mbit/s
95th percentile per-packet one-way delay: 833.311 ms
Loss rate: 7.47%
-- Flow 2:
Average throughput: 1.88 Mbit/s
95th percentile per-packet one-way delay: 828.079 ms
Loss rate: 11.31%
-- Flow 3:
Average throughput: 3.60 Mbit/s
95th percentile per-packet one-way delay: 834.299 ms
Loss rate: 23.08%

Run 3: Report of PCC-Allegro — Data Link

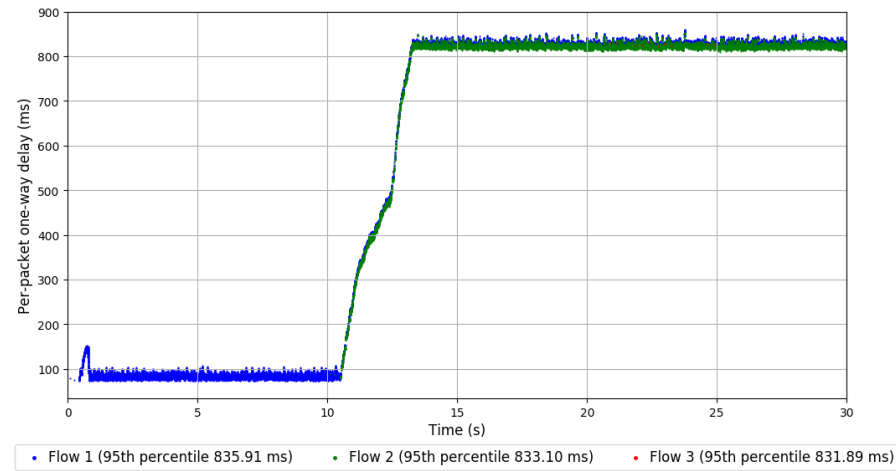
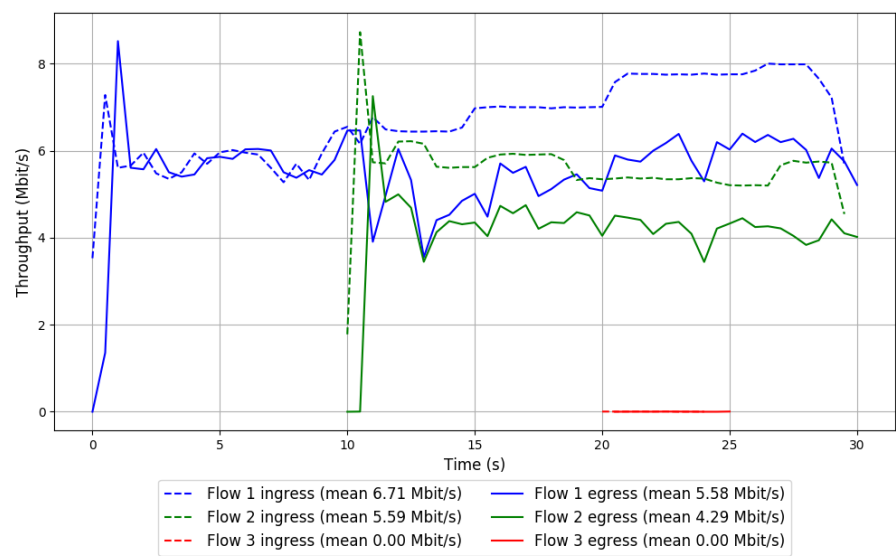


```
Run 1: Statistics of PCC-Expr

Start at: 2018-06-29 19:44:43
End at: 2018-06-29 19:45:13
Local clock offset: 9.469 ms
Remote clock offset: -10.418 ms

# Below is generated by plot.py at 2018-06-29 20:48:02
# Datalink statistics
-- Total of 3 flows:
Average throughput: 8.43 Mbit/s
95th percentile per-packet one-way delay: 835.114 ms
Loss rate: 19.20%
-- Flow 1:
Average throughput: 5.58 Mbit/s
95th percentile per-packet one-way delay: 835.910 ms
Loss rate: 16.84%
-- Flow 2:
Average throughput: 4.29 Mbit/s
95th percentile per-packet one-way delay: 833.100 ms
Loss rate: 23.45%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 831.888 ms
Loss rate: 36.50%
```

Run 1: Report of PCC-Expr — Data Link

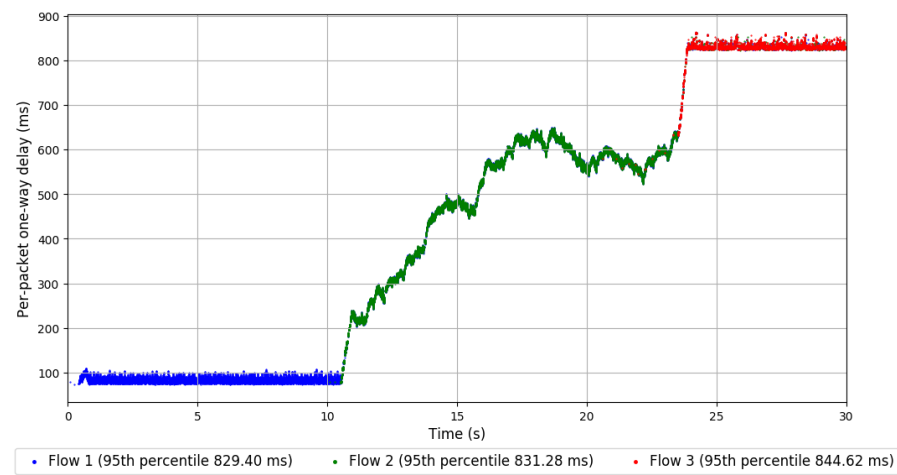
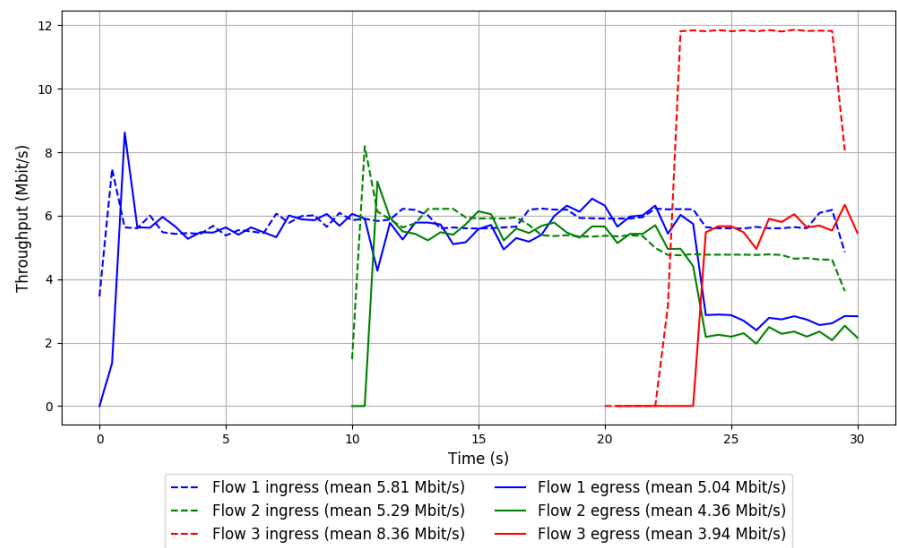


Run 2: Statistics of PCC-Expr

Start at: 2018-06-29 20:11:09
End at: 2018-06-29 20:11:39
Local clock offset: -9.046 ms
Remote clock offset: -9.292 ms

Below is generated by plot.py at 2018-06-29 20:48:06
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.17 Mbit/s
95th percentile per-packet one-way delay: 833.980 ms
Loss rate: 24.16%
-- Flow 1:
Average throughput: 5.04 Mbit/s
95th percentile per-packet one-way delay: 829.397 ms
Loss rate: 13.29%
-- Flow 2:
Average throughput: 4.36 Mbit/s
95th percentile per-packet one-way delay: 831.280 ms
Loss rate: 17.64%
-- Flow 3:
Average throughput: 3.94 Mbit/s
95th percentile per-packet one-way delay: 844.619 ms
Loss rate: 55.35%

Run 2: Report of PCC-Expr — Data Link

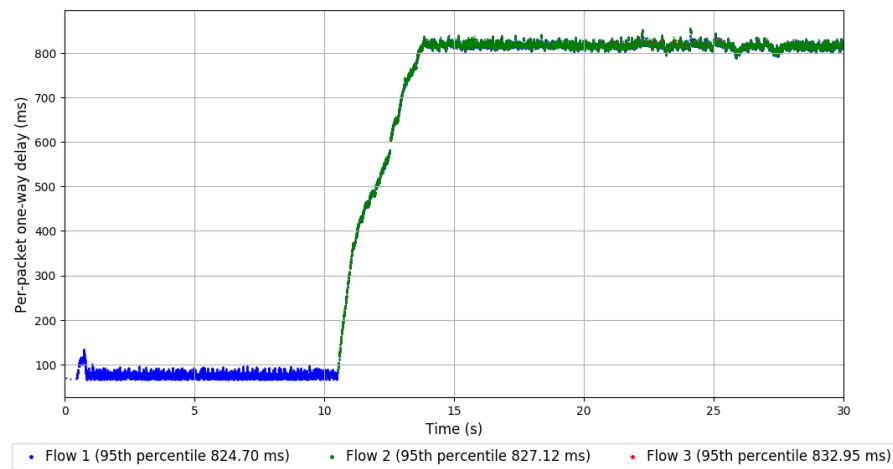
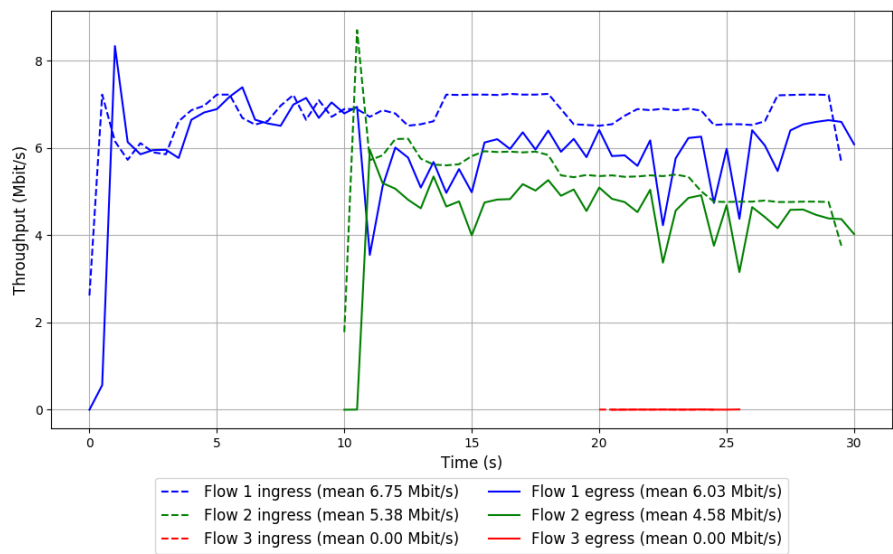


Run 3: Statistics of PCC-Expr

Start at: 2018-06-29 20:38:00
End at: 2018-06-29 20:38:30
Local clock offset: 0.858 ms
Remote clock offset: -9.002 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.08 Mbit/s
95th percentile per-packet one-way delay: 825.697 ms
Loss rate: 12.05%
-- Flow 1:
Average throughput: 6.03 Mbit/s
95th percentile per-packet one-way delay: 824.700 ms
Loss rate: 10.59%
-- Flow 2:
Average throughput: 4.58 Mbit/s
95th percentile per-packet one-way delay: 827.122 ms
Loss rate: 14.82%
-- Flow 3:
Average throughput: 0.00 Mbit/s
95th percentile per-packet one-way delay: 832.947 ms
Loss rate: 0.00%

Run 3: Report of PCC-Expr — Data Link

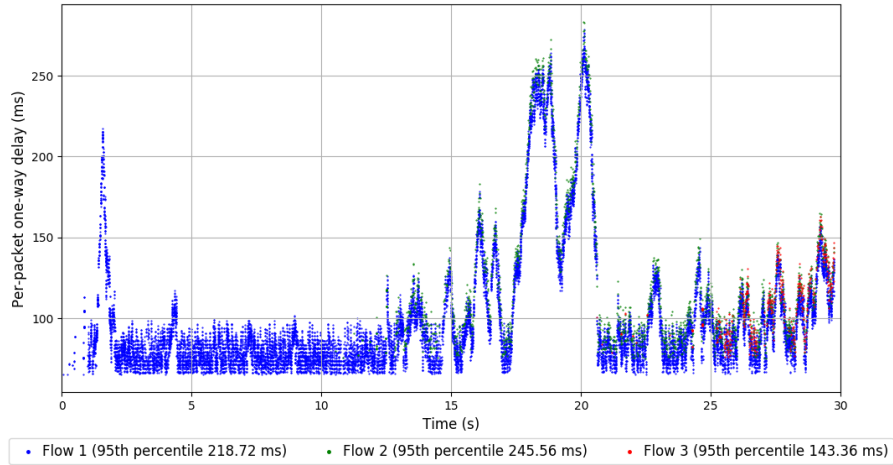
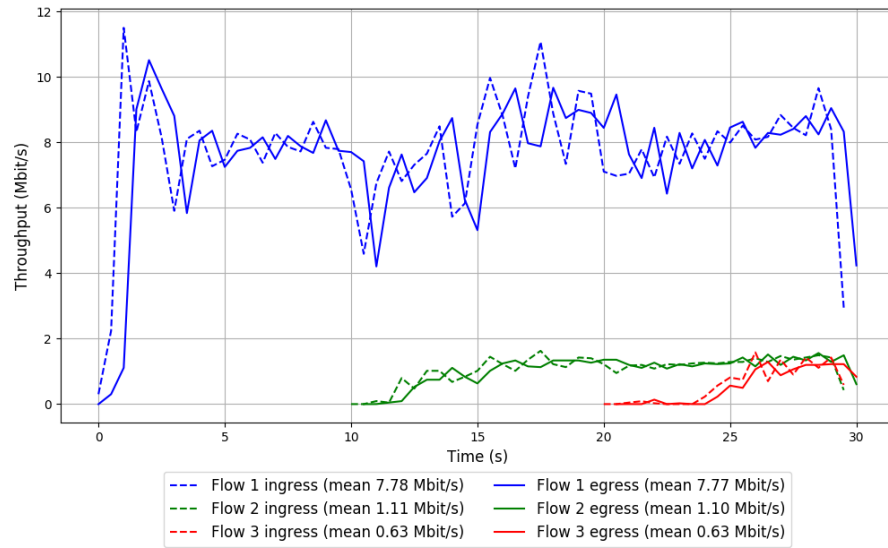


Run 1: Statistics of QUIC Cubic

Start at: 2018-06-29 19:41:23
End at: 2018-06-29 19:41:53
Local clock offset: 9.012 ms
Remote clock offset: -10.602 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 8.68 Mbit/s
95th percentile per-packet one-way delay: 220.998 ms
Loss rate: 0.22%
-- Flow 1:
Average throughput: 7.77 Mbit/s
95th percentile per-packet one-way delay: 218.723 ms
Loss rate: 0.18%
-- Flow 2:
Average throughput: 1.10 Mbit/s
95th percentile per-packet one-way delay: 245.564 ms
Loss rate: 0.32%
-- Flow 3:
Average throughput: 0.63 Mbit/s
95th percentile per-packet one-way delay: 143.357 ms
Loss rate: 1.56%

Run 1: Report of QUIC Cubic — Data Link

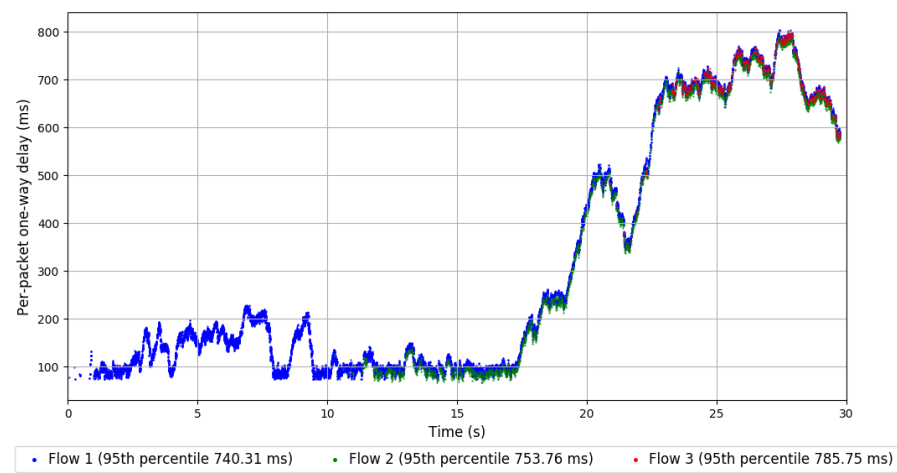
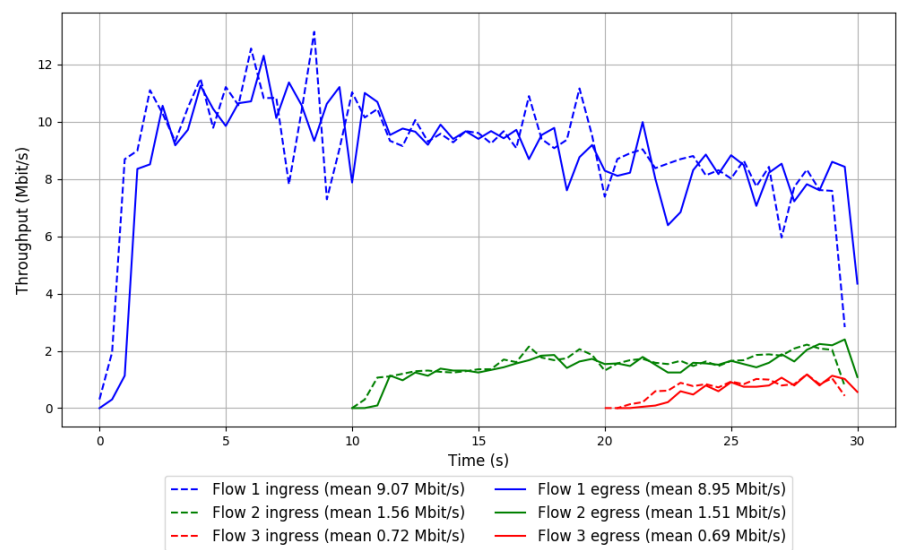


Run 2: Statistics of QUIC Cubic

Start at: 2018-06-29 20:07:44
End at: 2018-06-29 20:08:14
Local clock offset: -8.301 ms
Remote clock offset: -9.401 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.15 Mbit/s
95th percentile per-packet one-way delay: 744.066 ms
Loss rate: 1.80%
-- Flow 1:
Average throughput: 8.95 Mbit/s
95th percentile per-packet one-way delay: 740.308 ms
Loss rate: 1.45%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 753.761 ms
Loss rate: 3.41%
-- Flow 3:
Average throughput: 0.69 Mbit/s
95th percentile per-packet one-way delay: 785.755 ms
Loss rate: 8.28%

Run 2: Report of QUIC Cubic — Data Link

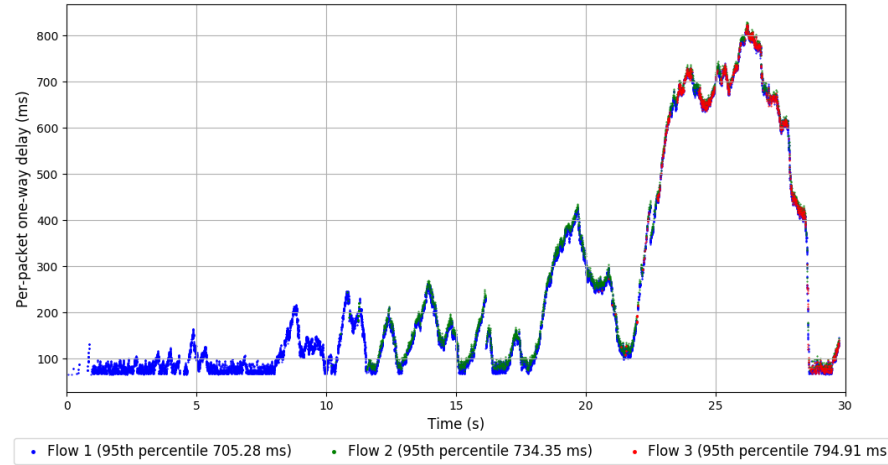
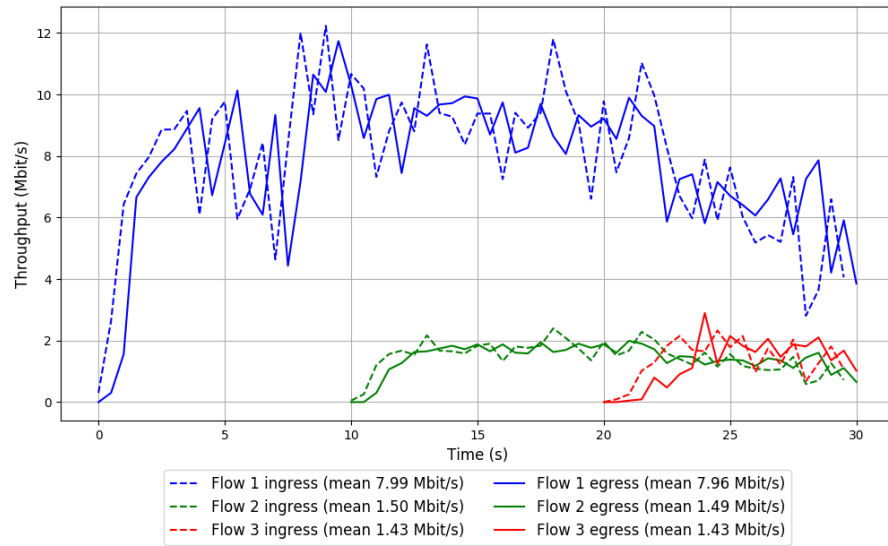


Run 3: Statistics of QUIC Cubic

Start at: 2018-06-29 20:34:39
End at: 2018-06-29 20:35:09
Local clock offset: 0.444 ms
Remote clock offset: -8.879 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 9.39 Mbit/s
95th percentile per-packet one-way delay: 717.927 ms
Loss rate: 0.50%
-- Flow 1:
Average throughput: 7.96 Mbit/s
95th percentile per-packet one-way delay: 705.276 ms
Loss rate: 0.40%
-- Flow 2:
Average throughput: 1.49 Mbit/s
95th percentile per-packet one-way delay: 734.346 ms
Loss rate: 0.70%
-- Flow 3:
Average throughput: 1.43 Mbit/s
95th percentile per-packet one-way delay: 794.915 ms
Loss rate: 1.84%

Run 3: Report of QUIC Cubic — Data Link

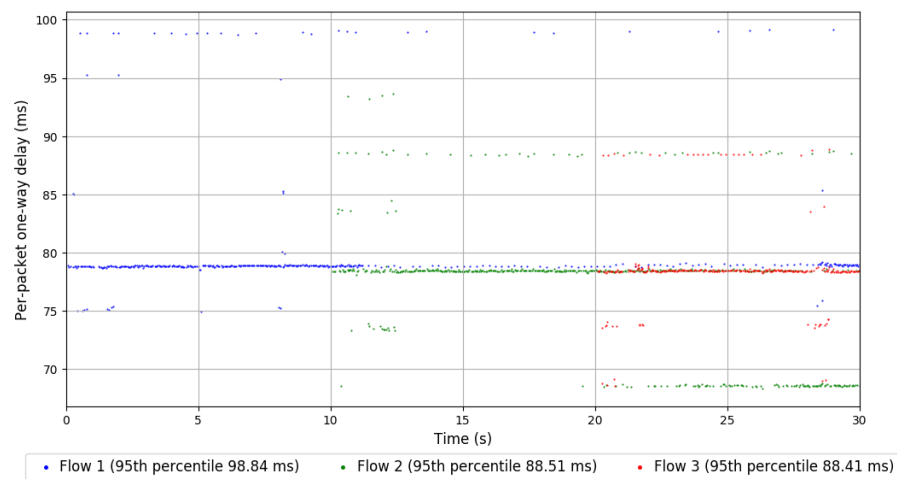
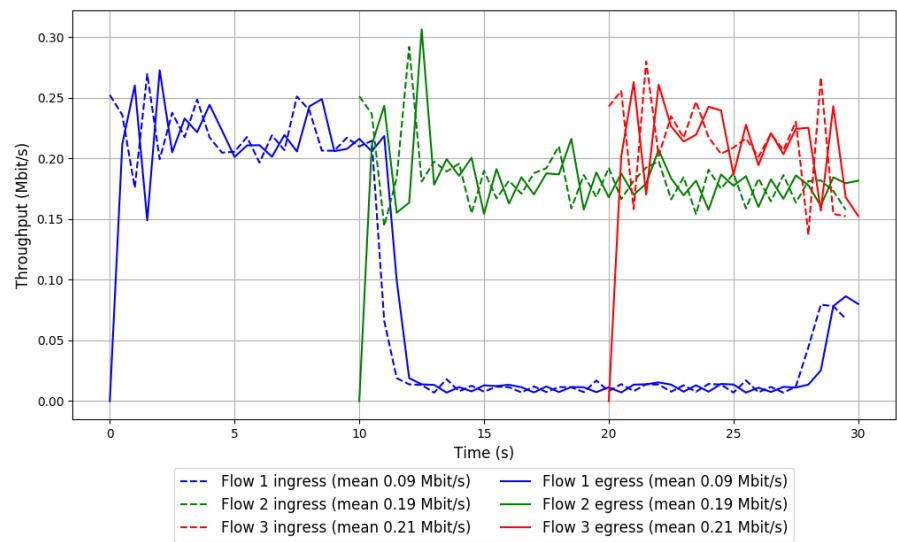


Run 1: Statistics of SCReAM

Start at: 2018-06-29 19:37:25
End at: 2018-06-29 19:37:55
Local clock offset: 8.523 ms
Remote clock offset: -10.818 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 88.481 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 98.840 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.19 Mbit/s
95th percentile per-packet one-way delay: 88.508 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 88.413 ms
Loss rate: 0.28%

Run 1: Report of SReAM — Data Link

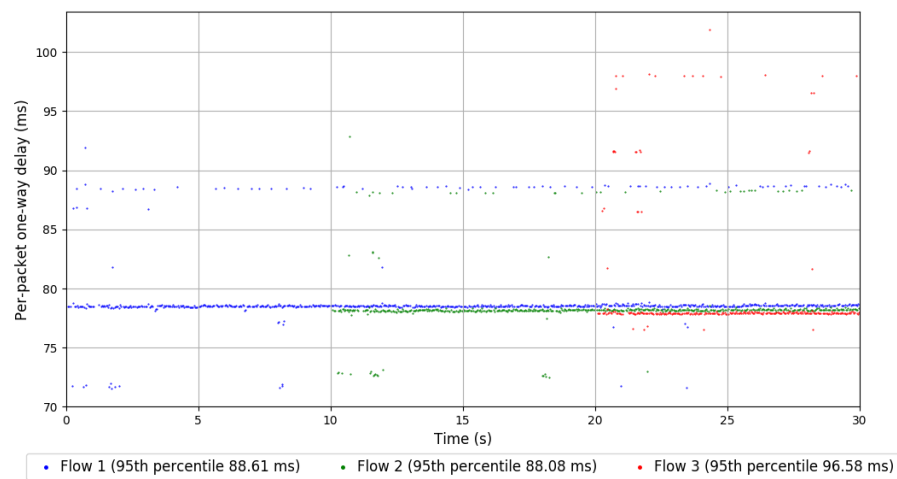
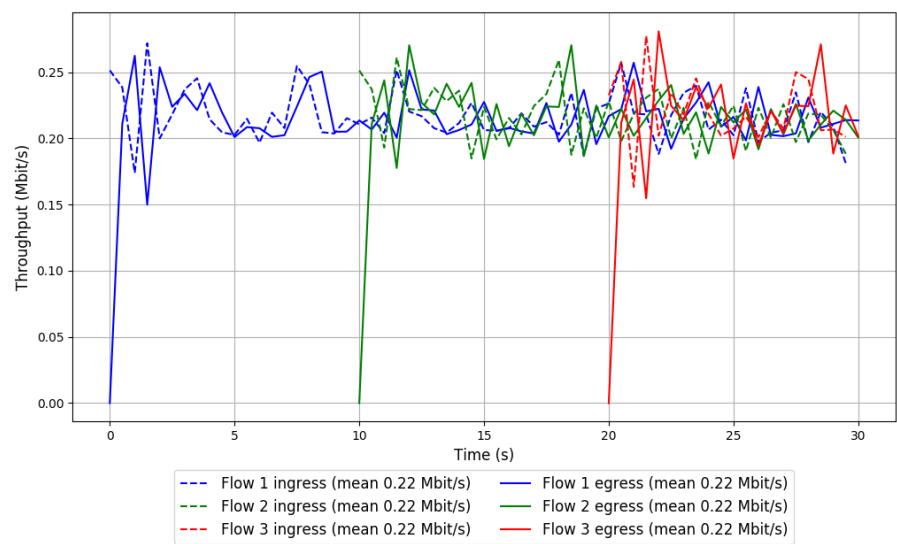


Run 2: Statistics of SReAM

Start at: 2018-06-29 20:03:38
End at: 2018-06-29 20:04:08
Local clock offset: -6.862 ms
Remote clock offset: -9.569 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.44 Mbit/s
95th percentile per-packet one-way delay: 88.578 ms
Loss rate: 0.12%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.608 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.081 ms
Loss rate: 0.19%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 96.580 ms
Loss rate: 0.35%

Run 2: Report of SReAM — Data Link

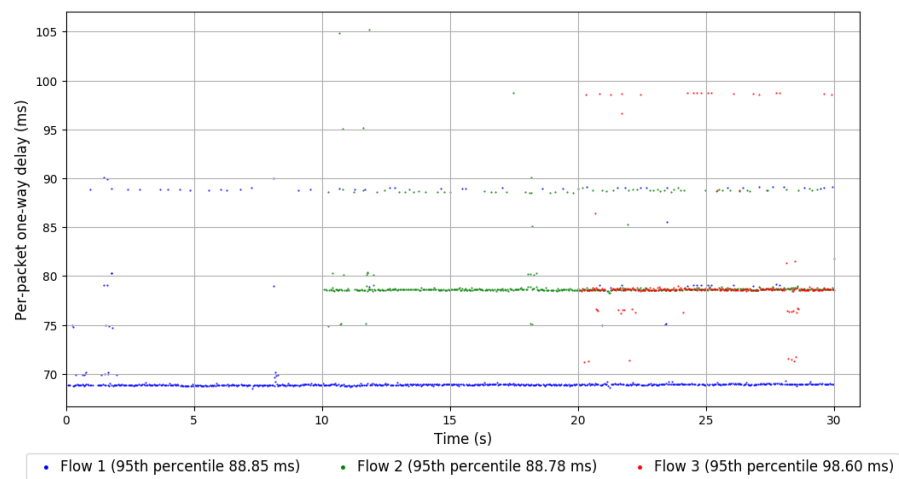
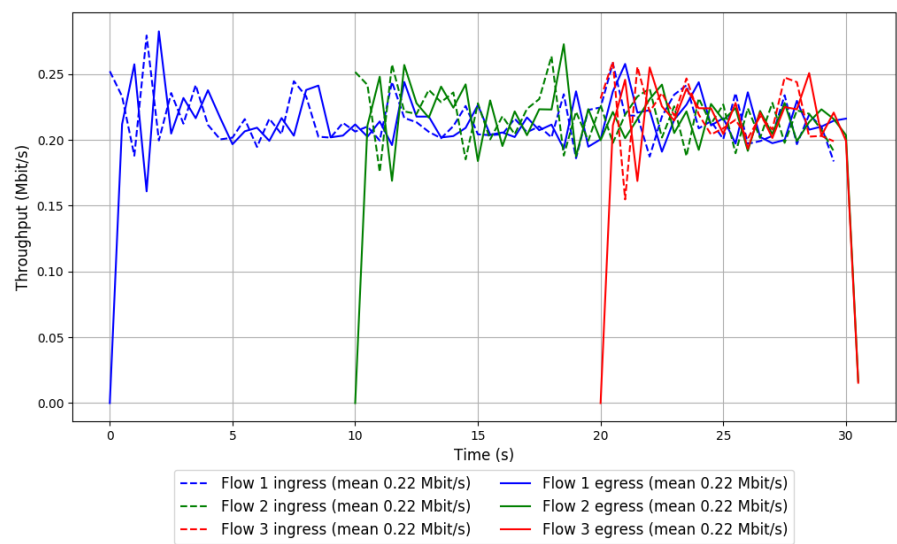


Run 3: Statistics of SReAM

Start at: 2018-06-29 20:30:21
End at: 2018-06-29 20:30:51
Local clock offset: -0.529 ms
Remote clock offset: -8.647 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.43 Mbit/s
95th percentile per-packet one-way delay: 88.825 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.852 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 88.779 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.22 Mbit/s
95th percentile per-packet one-way delay: 98.600 ms
Loss rate: 0.00%

Run 3: Report of SCReAM — Data Link

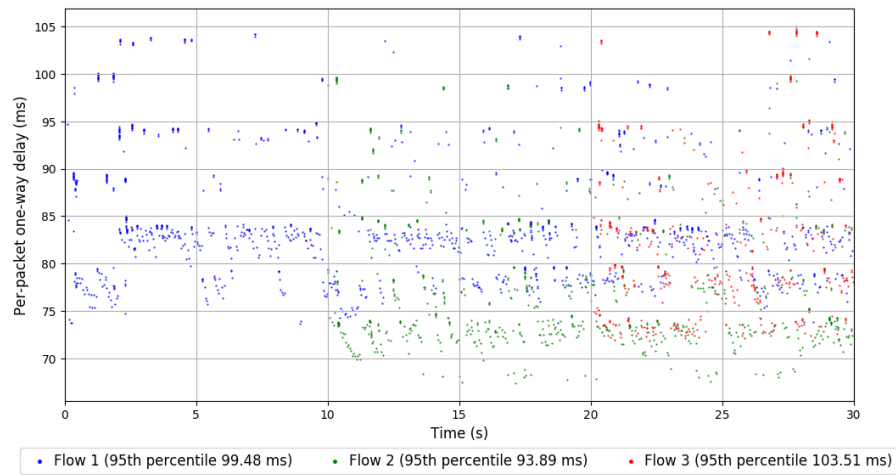
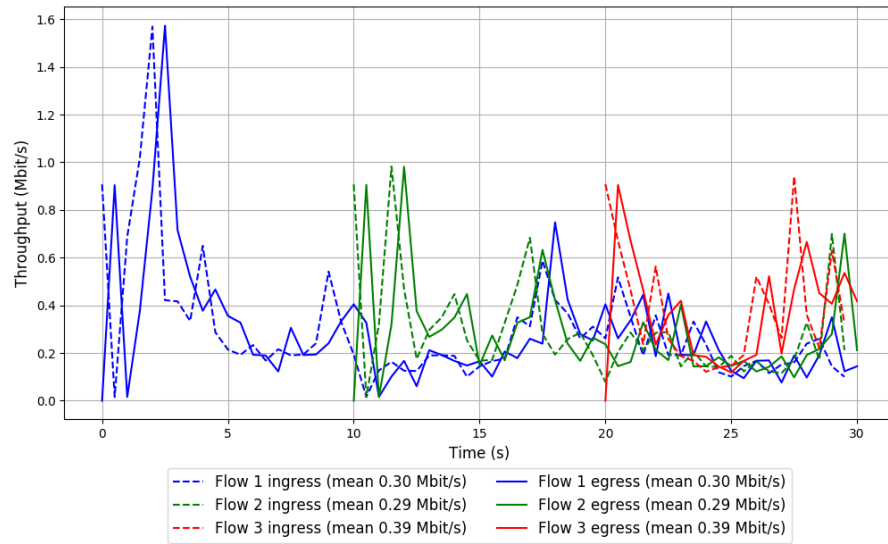


Run 1: Statistics of Sprout

Start at: 2018-06-29 19:38:45
End at: 2018-06-29 19:39:15
Local clock offset: 8.87 ms
Remote clock offset: -10.737 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.62 Mbit/s
95th percentile per-packet one-way delay: 99.058 ms
Loss rate: 0.01%
-- Flow 1:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 99.481 ms
Loss rate: 0.01%
-- Flow 2:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 93.888 ms
Loss rate: 0.01%
-- Flow 3:
Average throughput: 0.39 Mbit/s
95th percentile per-packet one-way delay: 103.507 ms
Loss rate: 0.00%

Run 1: Report of Sprout — Data Link

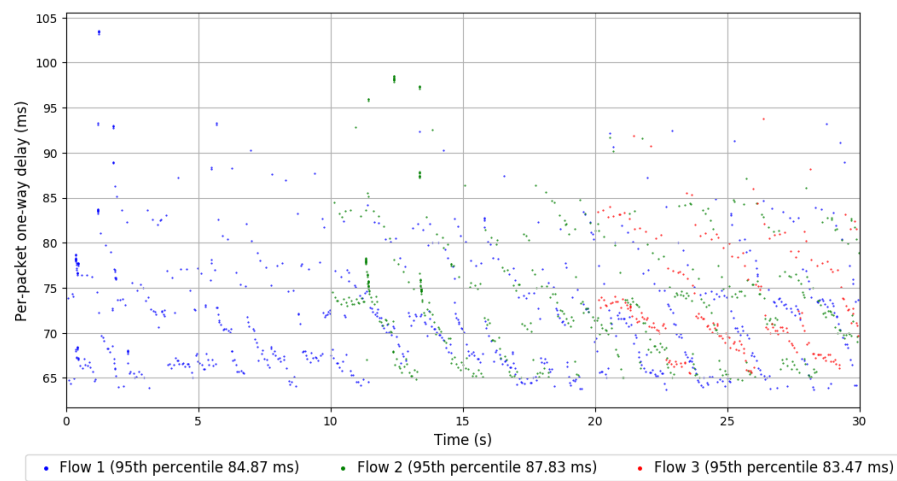
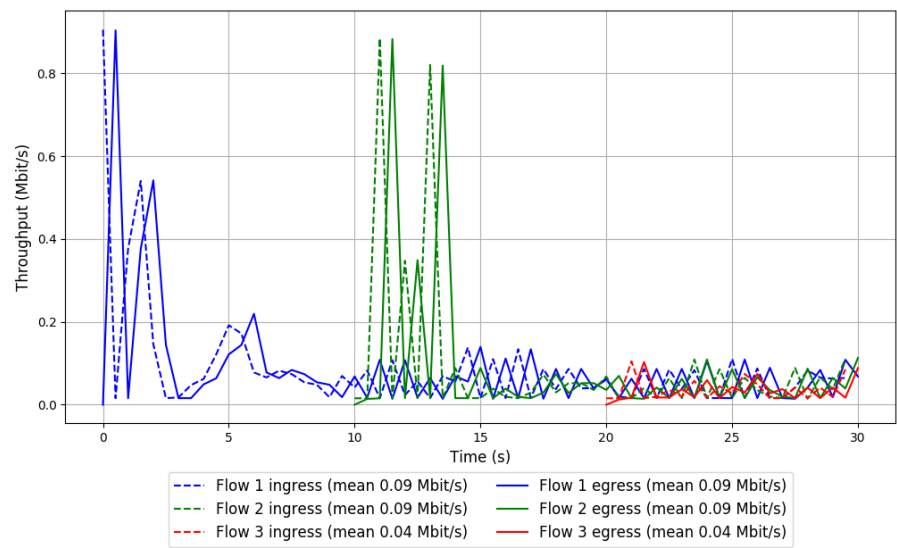


Run 2: Statistics of Sprout

Start at: 2018-06-29 20:05:07
End at: 2018-06-29 20:05:37
Local clock offset: -7.374 ms
Remote clock offset: -9.576 ms

Below is generated by plot.py at 2018-06-29 20:48:08
Datalink statistics
-- Total of 3 flows:
Average throughput: 0.16 Mbit/s
95th percentile per-packet one-way delay: 86.960 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 84.873 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.09 Mbit/s
95th percentile per-packet one-way delay: 87.834 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.04 Mbit/s
95th percentile per-packet one-way delay: 83.468 ms
Loss rate: 0.00%

Run 2: Report of Sprout — Data Link

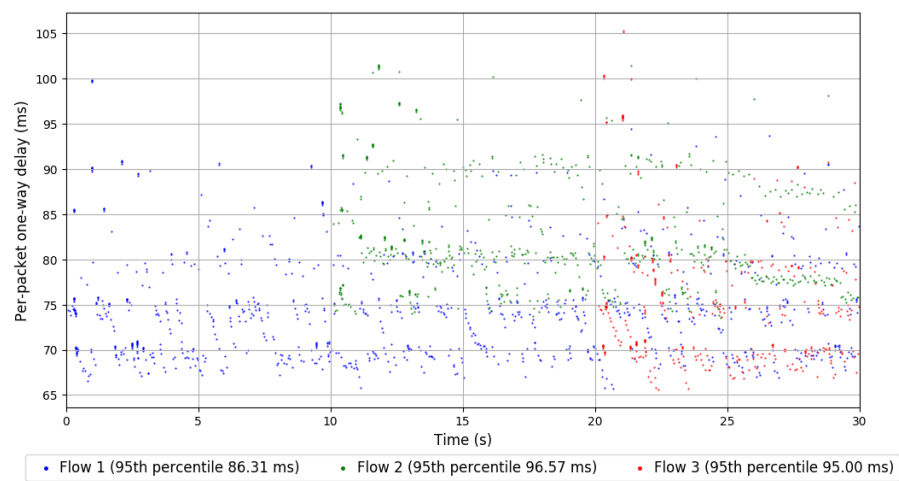
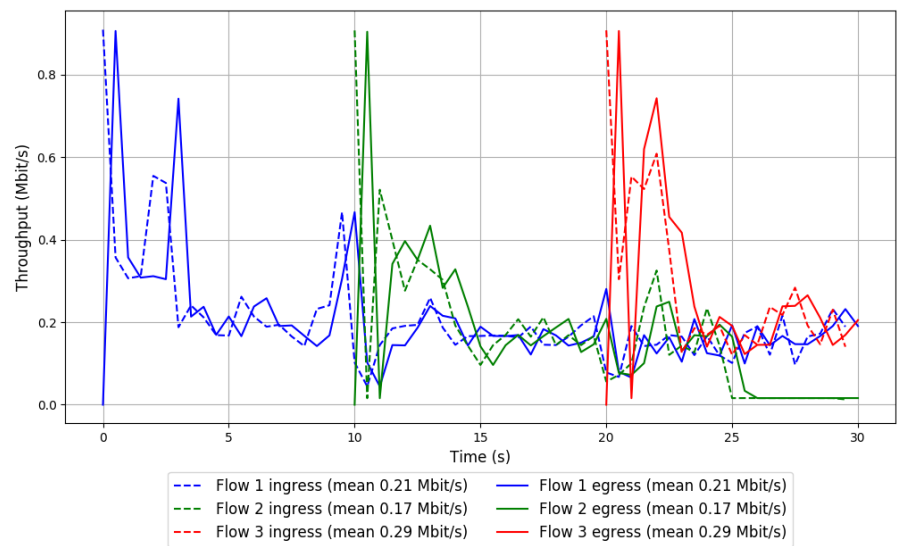


Run 3: Statistics of Sprout

Start at: 2018-06-29 20:31:44
End at: 2018-06-29 20:32:14
Local clock offset: -0.115 ms
Remote clock offset: -8.606 ms

```
# Below is generated by plot.py at 2018-06-29 20:48:08
# Datalink statistics
-- Total of 3 flows:
Average throughput: 0.42 Mbit/s
95th percentile per-packet one-way delay: 91.281 ms
Loss rate: 0.00%
-- Flow 1:
Average throughput: 0.21 Mbit/s
95th percentile per-packet one-way delay: 86.307 ms
Loss rate: 0.00%
-- Flow 2:
Average throughput: 0.17 Mbit/s
95th percentile per-packet one-way delay: 96.567 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.29 Mbit/s
95th percentile per-packet one-way delay: 94.996 ms
Loss rate: 0.00%
```

Run 3: Report of Sprout — Data Link

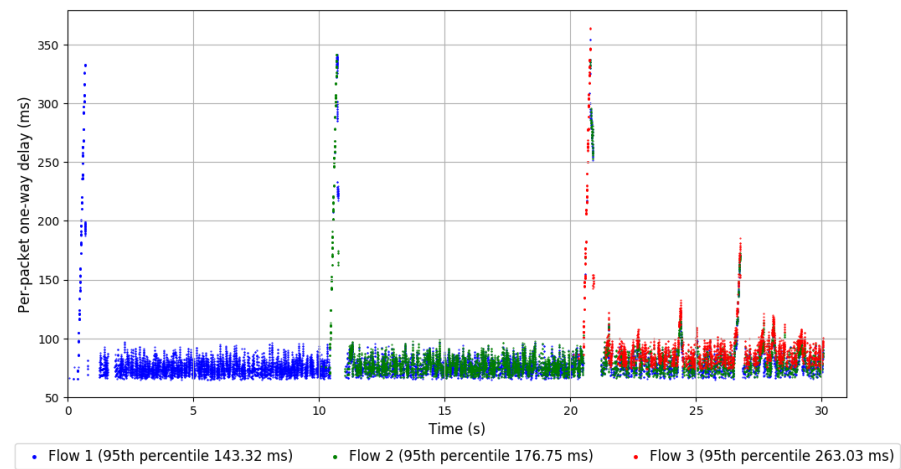
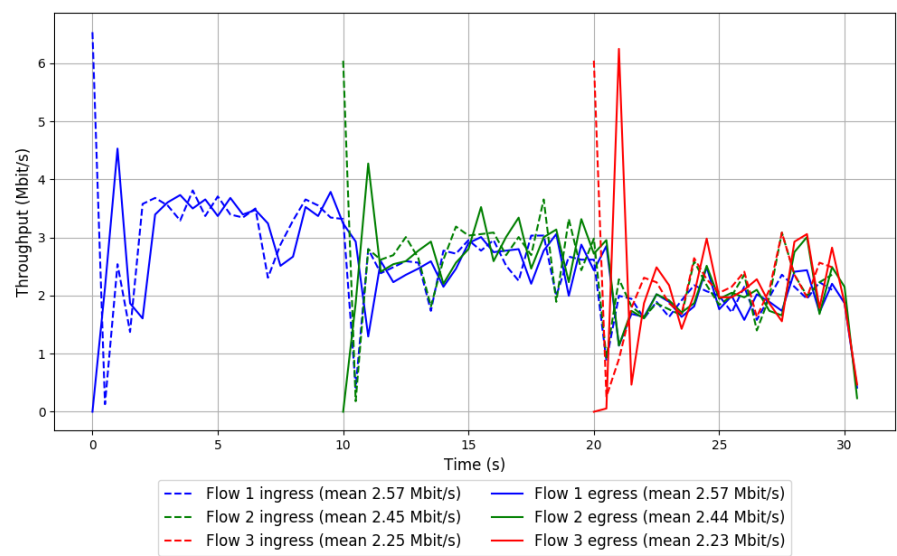


Run 1: Statistics of TaoVA-100x

Start at: 2018-06-29 19:27:54
End at: 2018-06-29 19:28:24
Local clock offset: 6.637 ms
Remote clock offset: -11.827 ms

Below is generated by plot.py at 2018-06-29 20:48:09
Datalink statistics
-- Total of 3 flows:
Average throughput: 4.94 Mbit/s
95th percentile per-packet one-way delay: 181.816 ms
Loss rate: 0.30%
-- Flow 1:
Average throughput: 2.57 Mbit/s
95th percentile per-packet one-way delay: 143.319 ms
Loss rate: 0.15%
-- Flow 2:
Average throughput: 2.44 Mbit/s
95th percentile per-packet one-way delay: 176.754 ms
Loss rate: 0.24%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 263.029 ms
Loss rate: 0.92%

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

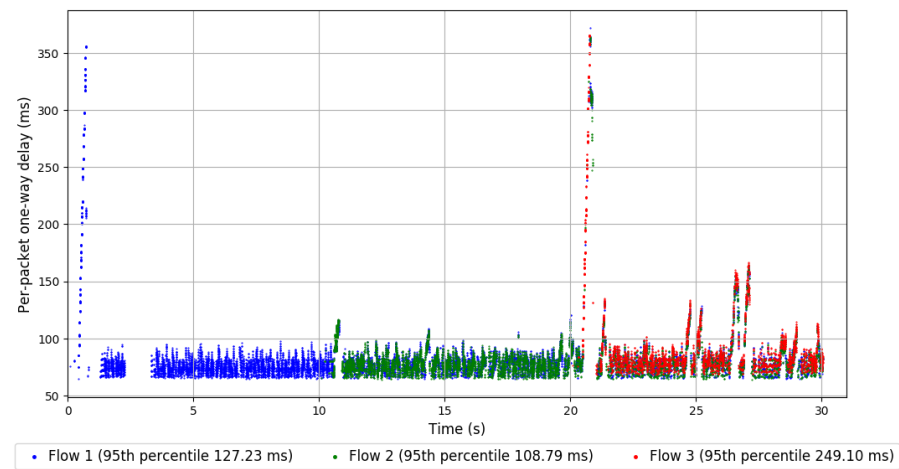
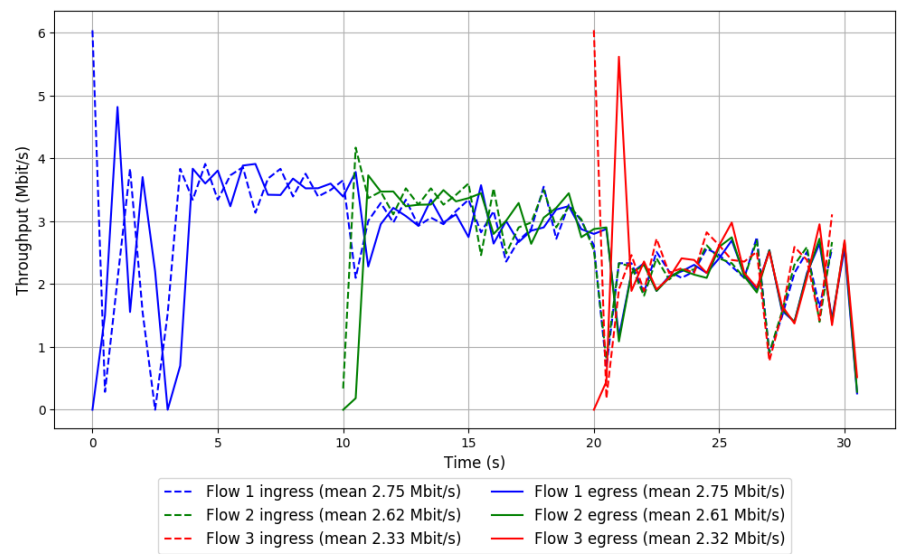


Run 2: Statistics of TaoVA-100x

Start at: 2018-06-29 19:54:14
End at: 2018-06-29 19:54:44
Local clock offset: -1.605 ms
Remote clock offset: -10.083 ms

Below is generated by plot.py at 2018-06-29 20:48:11
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.26 Mbit/s
95th percentile per-packet one-way delay: 139.068 ms
Loss rate: 0.06%
-- Flow 1:
Average throughput: 2.75 Mbit/s
95th percentile per-packet one-way delay: 127.234 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 2.61 Mbit/s
95th percentile per-packet one-way delay: 108.794 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 2.32 Mbit/s
95th percentile per-packet one-way delay: 249.103 ms
Loss rate: 0.34%

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

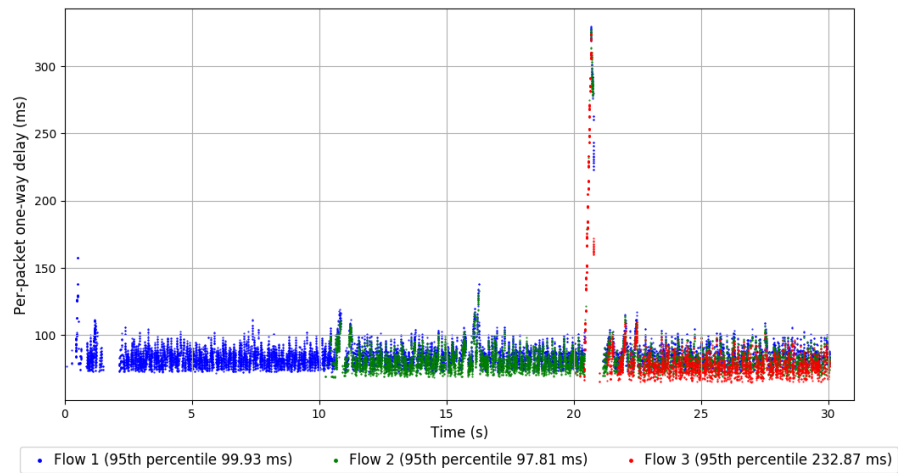
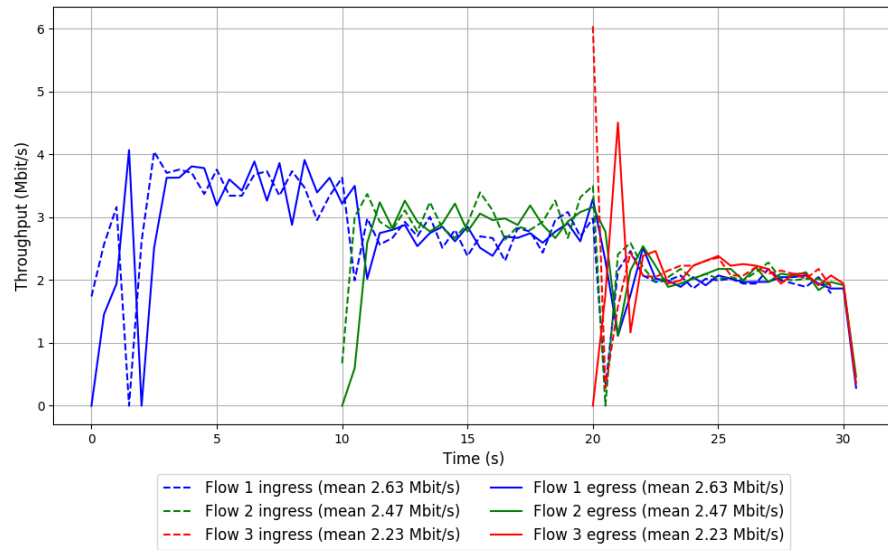


Run 3: Statistics of TaoVA-100x

Start at: 2018-06-29 20:20:52
End at: 2018-06-29 20:21:22
Local clock offset: -4.907 ms
Remote clock offset: -8.967 ms

Below is generated by plot.py at 2018-06-29 20:48:12
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.02 Mbit/s
95th percentile per-packet one-way delay: 101.568 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 2.63 Mbit/s
95th percentile per-packet one-way delay: 99.934 ms
Loss rate: 0.05%
-- Flow 2:
Average throughput: 2.47 Mbit/s
95th percentile per-packet one-way delay: 97.809 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 2.23 Mbit/s
95th percentile per-packet one-way delay: 232.872 ms
Loss rate: 0.12%

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

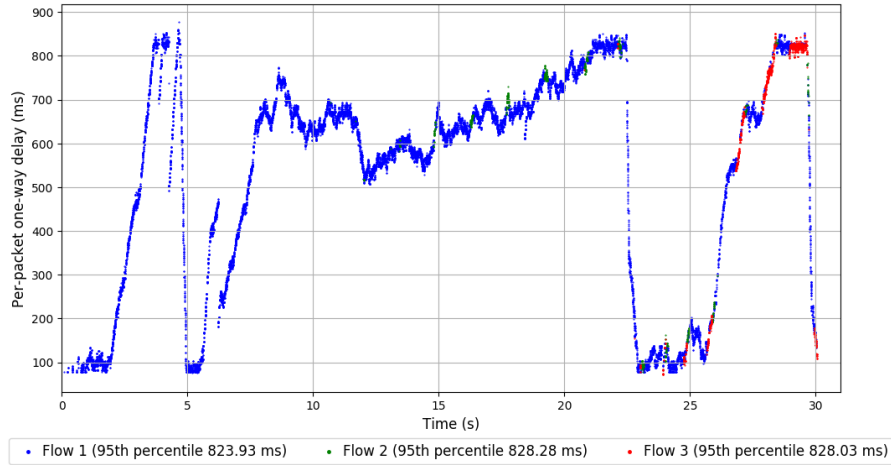
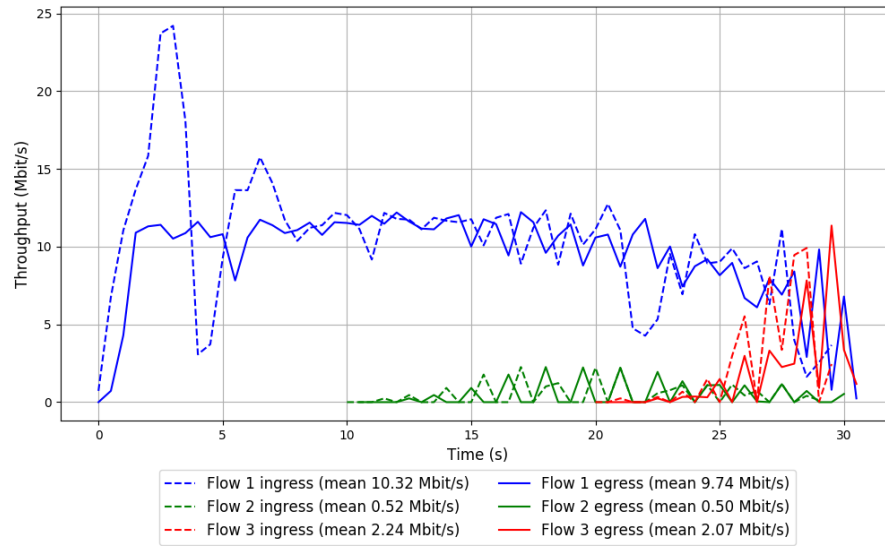


Run 1: Statistics of TCP Vegas

Start at: 2018-06-29 19:29:33
End at: 2018-06-29 19:30:03
Local clock offset: 7.084 ms
Remote clock offset: -11.591 ms

Below is generated by plot.py at 2018-06-29 20:48:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 824.748 ms
Loss rate: 6.14%
-- Flow 1:
Average throughput: 9.74 Mbit/s
95th percentile per-packet one-way delay: 823.926 ms
Loss rate: 5.65%
-- Flow 2:
Average throughput: 0.50 Mbit/s
95th percentile per-packet one-way delay: 828.282 ms
Loss rate: 3.64%
-- Flow 3:
Average throughput: 2.07 Mbit/s
95th percentile per-packet one-way delay: 828.032 ms
Loss rate: 13.94%

Run 1: Report of TCP Vegas — Data Link

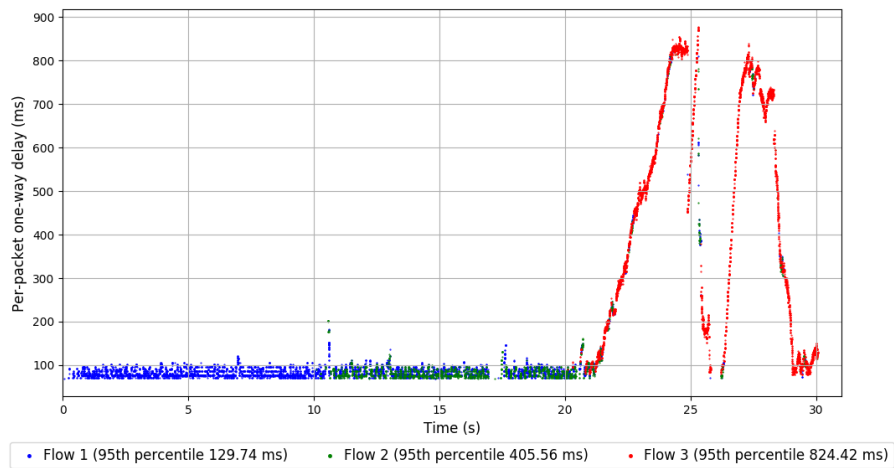
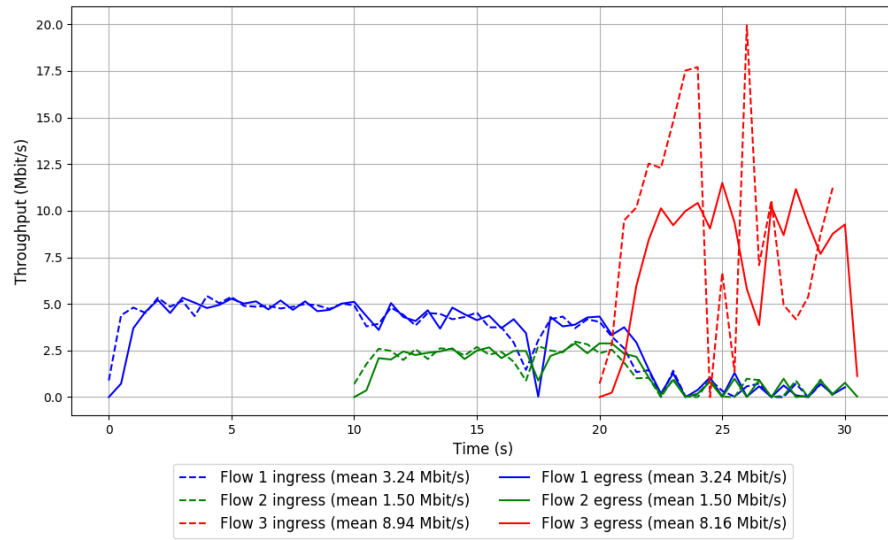


Run 2: Statistics of TCP Vegas

Start at: 2018-06-29 19:55:55
End at: 2018-06-29 19:56:25
Local clock offset: -2.847 ms
Remote clock offset: -10.037 ms

Below is generated by plot.py at 2018-06-29 20:48:16
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.89 Mbit/s
95th percentile per-packet one-way delay: 793.874 ms
Loss rate: 3.75%
-- Flow 1:
Average throughput: 3.24 Mbit/s
95th percentile per-packet one-way delay: 129.741 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 1.50 Mbit/s
95th percentile per-packet one-way delay: 405.563 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 8.16 Mbit/s
95th percentile per-packet one-way delay: 824.422 ms
Loss rate: 8.93%

Run 2: Report of TCP Vegas — Data Link

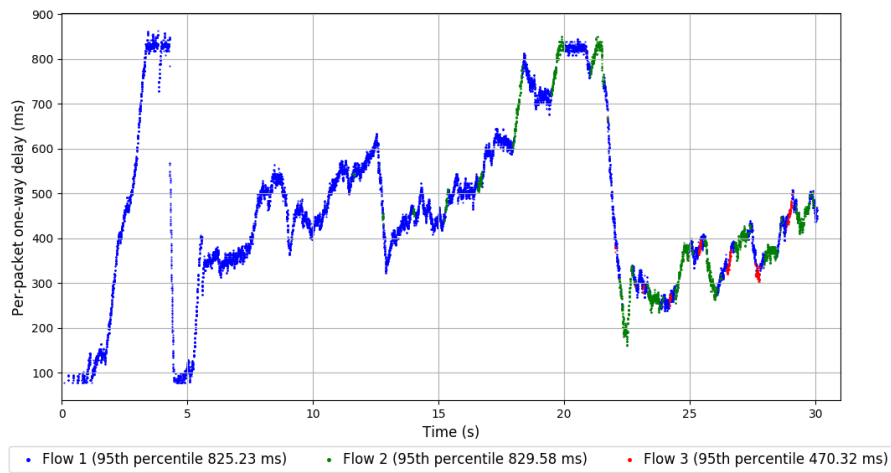
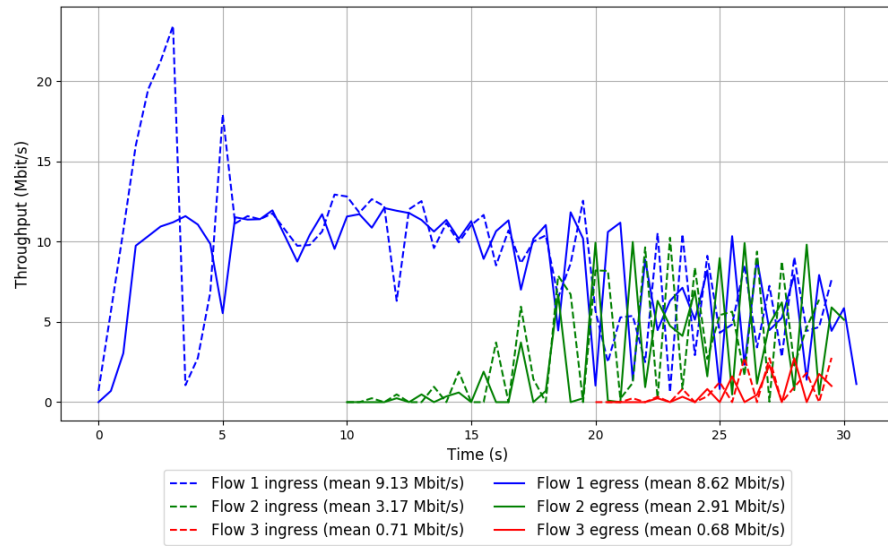


Run 3: Statistics of TCP Vegas

Start at: 2018-06-29 20:22:28
End at: 2018-06-29 20:22:58
Local clock offset: -3.582 ms
Remote clock offset: -8.946 ms

Below is generated by plot.py at 2018-06-29 20:48:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 10.70 Mbit/s
95th percentile per-packet one-way delay: 825.587 ms
Loss rate: 6.34%
-- Flow 1:
Average throughput: 8.62 Mbit/s
95th percentile per-packet one-way delay: 825.227 ms
Loss rate: 5.60%
-- Flow 2:
Average throughput: 2.91 Mbit/s
95th percentile per-packet one-way delay: 829.581 ms
Loss rate: 8.12%
-- Flow 3:
Average throughput: 0.68 Mbit/s
95th percentile per-packet one-way delay: 470.318 ms
Loss rate: 19.69%

Run 3: Report of TCP Vegas — Data Link

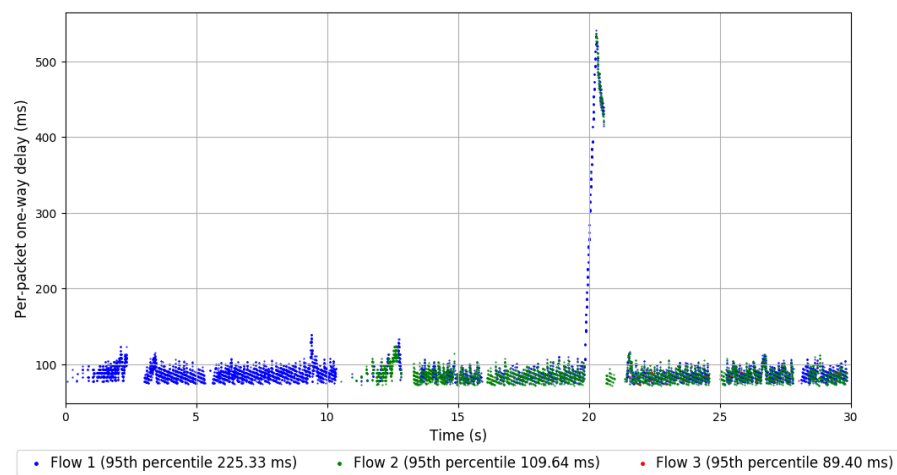
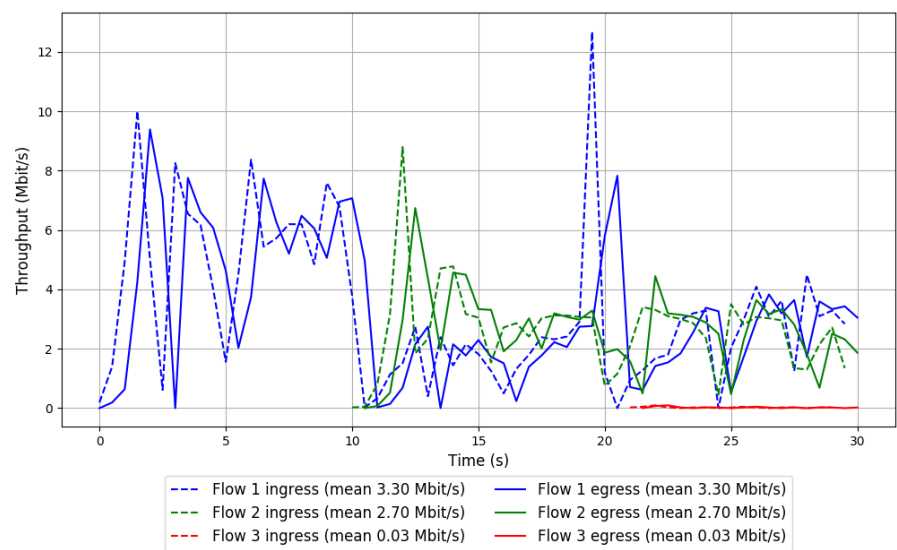


Run 1: Statistics of Verus

Start at: 2018-06-29 19:35:53
End at: 2018-06-29 19:36:23
Local clock offset: 8.311 ms
Remote clock offset: -10.892 ms

Below is generated by plot.py at 2018-06-29 20:48:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 5.06 Mbit/s
95th percentile per-packet one-way delay: 126.197 ms
Loss rate: 0.15%
-- Flow 1:
Average throughput: 3.30 Mbit/s
95th percentile per-packet one-way delay: 225.334 ms
Loss rate: 0.16%
-- Flow 2:
Average throughput: 2.70 Mbit/s
95th percentile per-packet one-way delay: 109.645 ms
Loss rate: 0.14%
-- Flow 3:
Average throughput: 0.03 Mbit/s
95th percentile per-packet one-way delay: 89.396 ms
Loss rate: 0.00%

Run 1: Report of Verus — Data Link

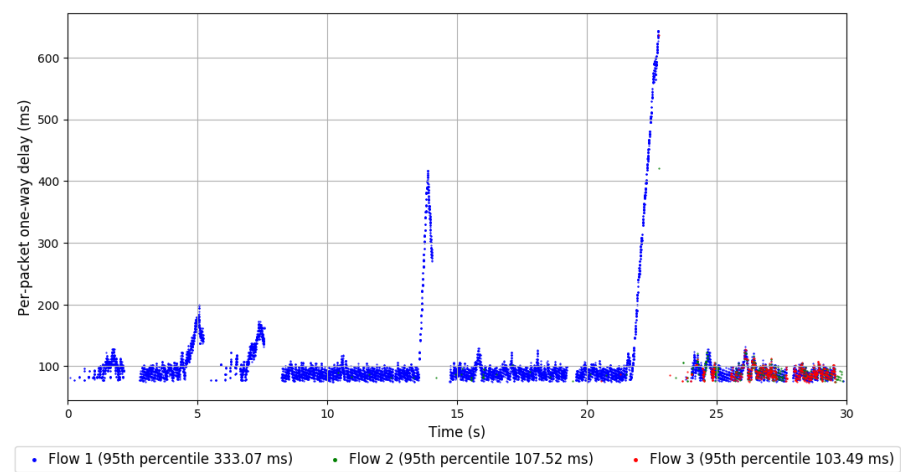
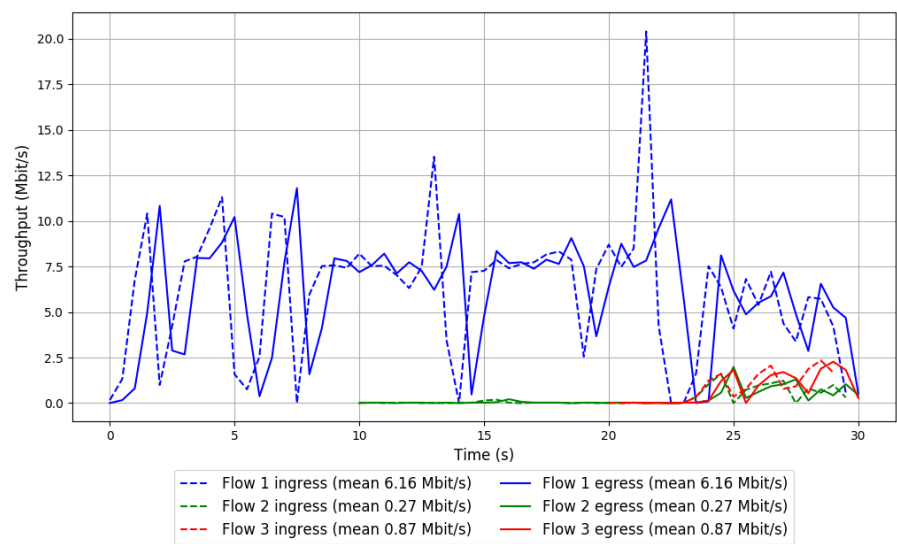


Run 2: Statistics of Verus

Start at: 2018-06-29 20:02:02
End at: 2018-06-29 20:02:32
Local clock offset: -6.184 ms
Remote clock offset: -9.694 ms

Below is generated by plot.py at 2018-06-29 20:48:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 6.60 Mbit/s
95th percentile per-packet one-way delay: 311.449 ms
Loss rate: 0.13%
-- Flow 1:
Average throughput: 6.16 Mbit/s
95th percentile per-packet one-way delay: 333.070 ms
Loss rate: 0.14%
-- Flow 2:
Average throughput: 0.27 Mbit/s
95th percentile per-packet one-way delay: 107.524 ms
Loss rate: 0.00%
-- Flow 3:
Average throughput: 0.87 Mbit/s
95th percentile per-packet one-way delay: 103.487 ms
Loss rate: 0.00%

Run 2: Report of Verus — Data Link



Run 3: Statistics of Verus

Start at: 2018-06-29 20:28:46

End at: 2018-06-29 20:29:16

Local clock offset: -1.114 ms

Remote clock offset: -8.69 ms

Below is generated by plot.py at 2018-06-29 20:48:21

Datalink statistics

-- Total of 3 flows:

Average throughput: 6.21 Mbit/s

95th percentile per-packet one-way delay: 108.111 ms

Loss rate: 0.08%

-- Flow 1:

Average throughput: 6.19 Mbit/s

95th percentile per-packet one-way delay: 108.131 ms

Loss rate: 0.08%

-- Flow 2:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 91.179 ms

Loss rate: 0.00%

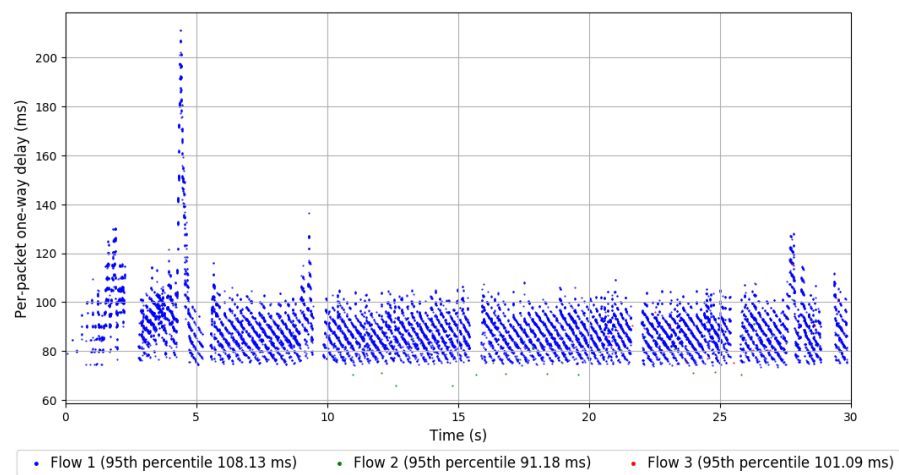
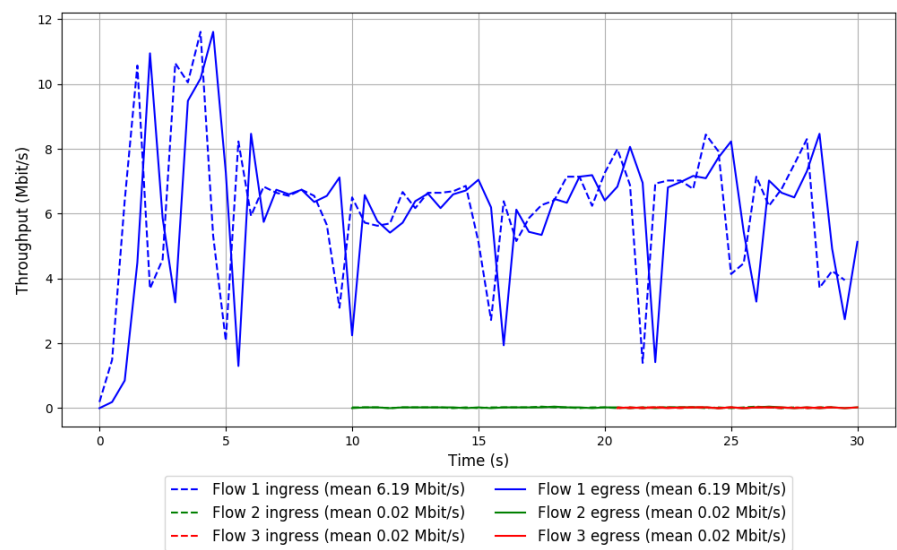
-- Flow 3:

Average throughput: 0.02 Mbit/s

95th percentile per-packet one-way delay: 101.094 ms

Loss rate: 0.00%

Run 3: Report of Verus — Data Link

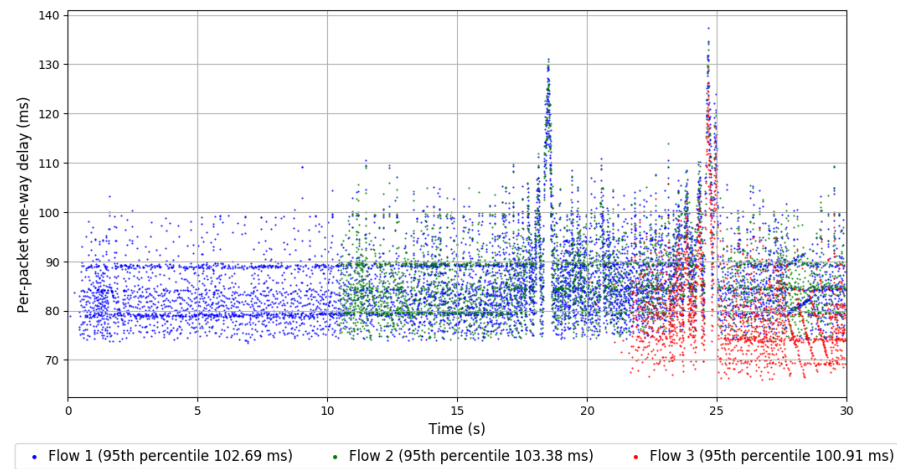
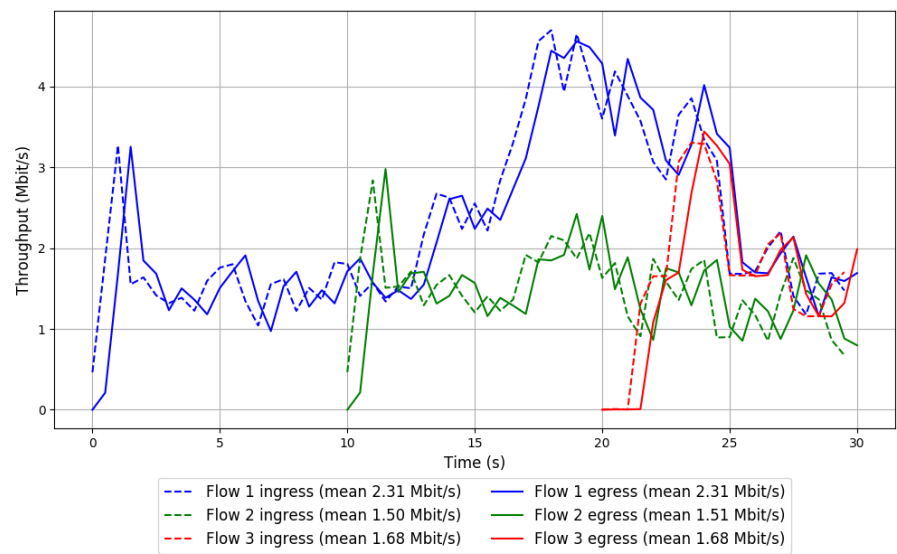


Run 1: Statistics of PCC-Vivace

Start at: 2018-06-29 19:34:23
End at: 2018-06-29 19:34:53
Local clock offset: 8.061 ms
Remote clock offset: -10.998 ms

Below is generated by plot.py at 2018-06-29 20:48:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.86 Mbit/s
95th percentile per-packet one-way delay: 102.715 ms
Loss rate: 0.14%
-- Flow 1:
Average throughput: 2.31 Mbit/s
95th percentile per-packet one-way delay: 102.690 ms
Loss rate: 0.10%
-- Flow 2:
Average throughput: 1.51 Mbit/s
95th percentile per-packet one-way delay: 103.378 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 1.68 Mbit/s
95th percentile per-packet one-way delay: 100.907 ms
Loss rate: 0.35%

Run 1: Report of PCC-Vivace — Data Link

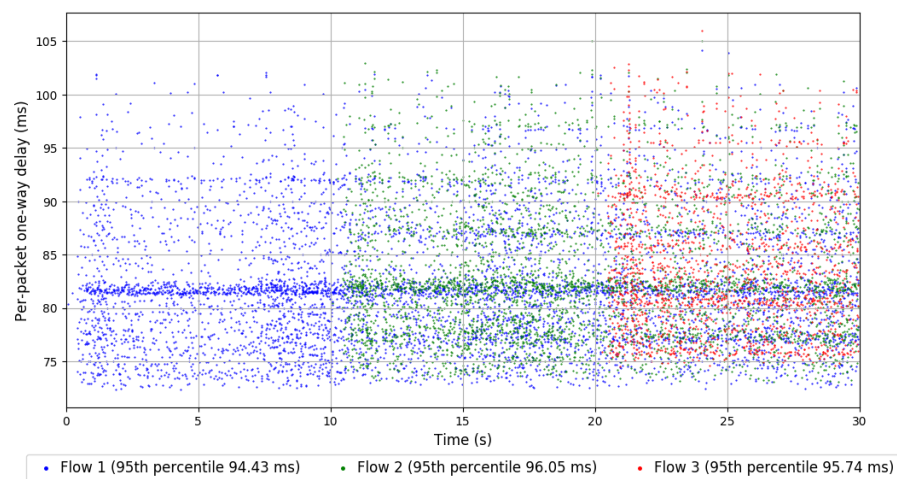
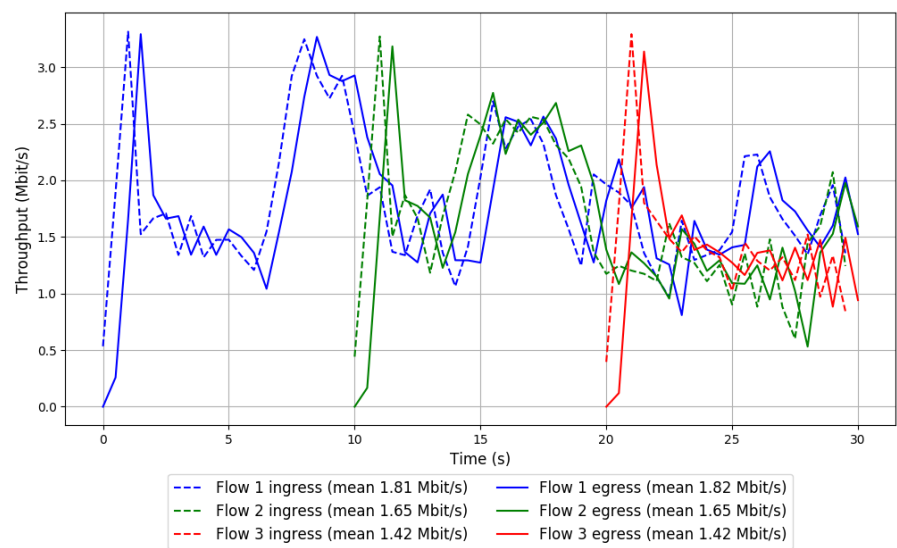


Run 2: Statistics of PCC-Vivace

Start at: 2018-06-29 20:00:32
End at: 2018-06-29 20:01:02
Local clock offset: -5.521 ms
Remote clock offset: -9.768 ms

Below is generated by plot.py at 2018-06-29 20:48:21
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.38 Mbit/s
95th percentile per-packet one-way delay: 95.376 ms
Loss rate: 0.07%
-- Flow 1:
Average throughput: 1.82 Mbit/s
95th percentile per-packet one-way delay: 94.428 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 1.65 Mbit/s
95th percentile per-packet one-way delay: 96.050 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 1.42 Mbit/s
95th percentile per-packet one-way delay: 95.740 ms
Loss rate: 0.09%

Run 2: Report of PCC-Vivace — Data Link

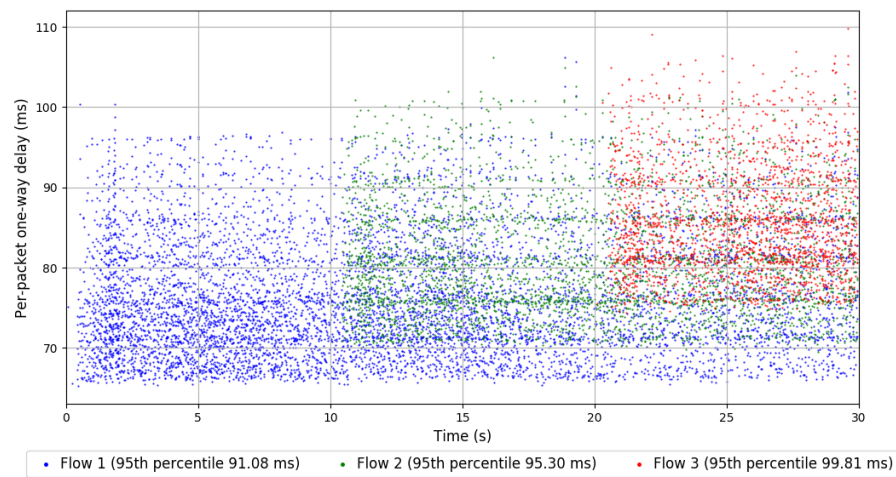
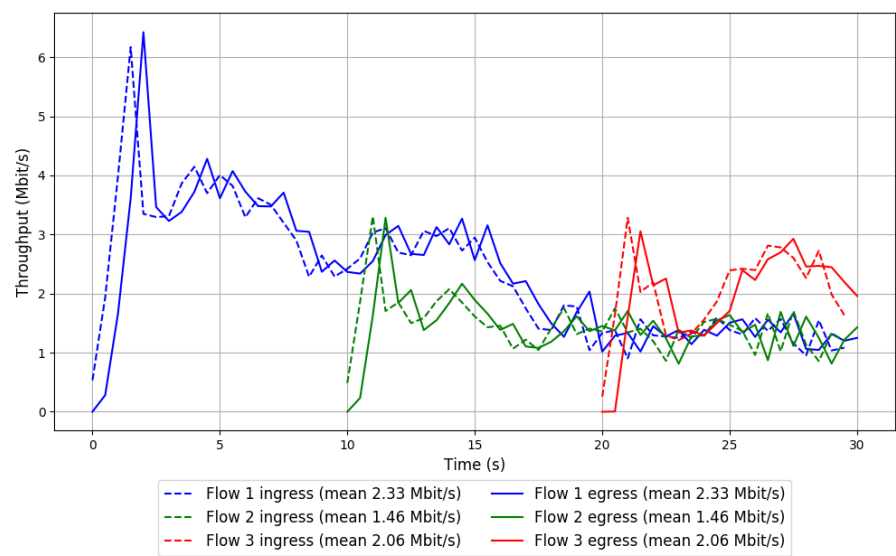


Run 3: Statistics of PCC-Vivace

Start at: 2018-06-29 20:27:13
End at: 2018-06-29 20:27:43
Local clock offset: -1.626 ms
Remote clock offset: -8.715 ms

Below is generated by plot.py at 2018-06-29 20:48:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 3.98 Mbit/s
95th percentile per-packet one-way delay: 94.334 ms
Loss rate: 0.05%
-- Flow 1:
Average throughput: 2.33 Mbit/s
95th percentile per-packet one-way delay: 91.078 ms
Loss rate: 0.02%
-- Flow 2:
Average throughput: 1.46 Mbit/s
95th percentile per-packet one-way delay: 95.303 ms
Loss rate: 0.08%
-- Flow 3:
Average throughput: 2.06 Mbit/s
95th percentile per-packet one-way delay: 99.808 ms
Loss rate: 0.12%

Run 3: Report of PCC-Vivace — Data Link

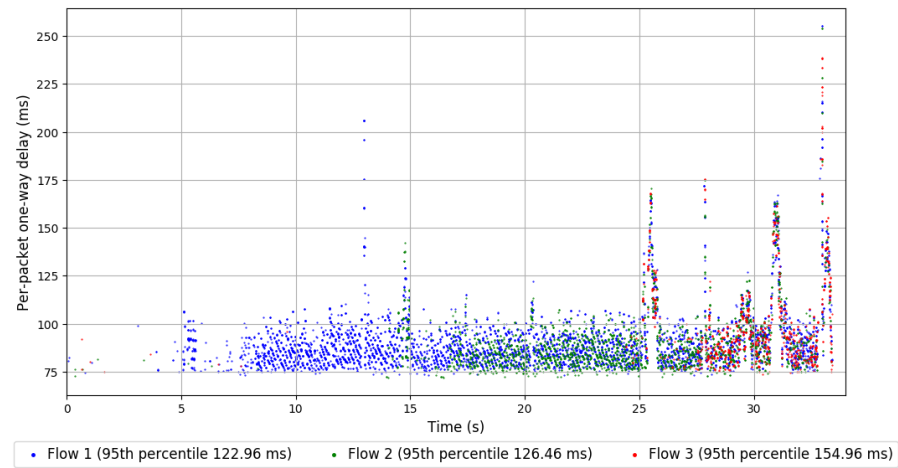
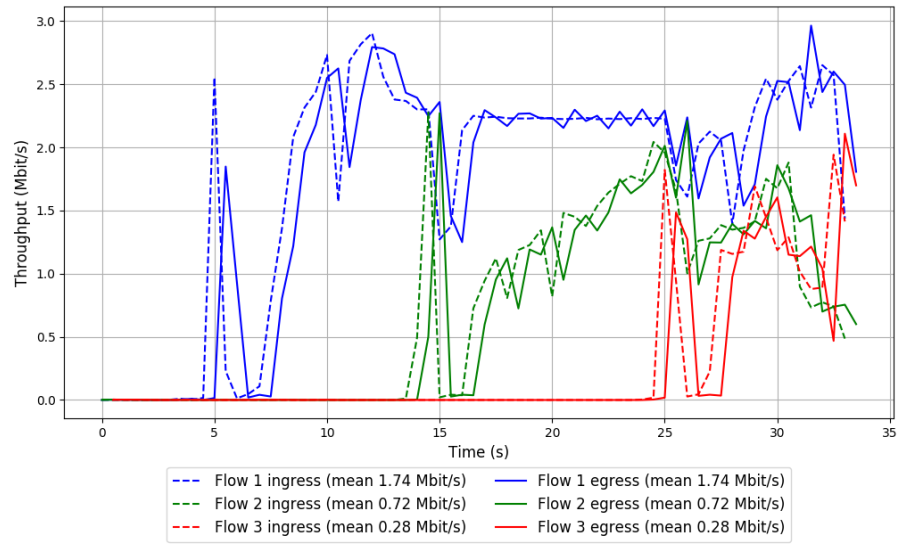


Run 1: Statistics of WebRTC media

Start at: 2018-06-29 19:31:21
End at: 2018-06-29 19:31:51
Local clock offset: 7.499 ms
Remote clock offset: -11.419 ms

Below is generated by plot.py at 2018-06-29 20:48:22
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.72 Mbit/s
95th percentile per-packet one-way delay: 131.982 ms
Loss rate: 0.10%
-- Flow 1:
Average throughput: 1.74 Mbit/s
95th percentile per-packet one-way delay: 122.960 ms
Loss rate: 0.12%
-- Flow 2:
Average throughput: 0.72 Mbit/s
95th percentile per-packet one-way delay: 126.463 ms
Loss rate: 0.06%
-- Flow 3:
Average throughput: 0.28 Mbit/s
95th percentile per-packet one-way delay: 154.956 ms
Loss rate: 0.00%

Run 1: Report of WebRTC media — Data Link

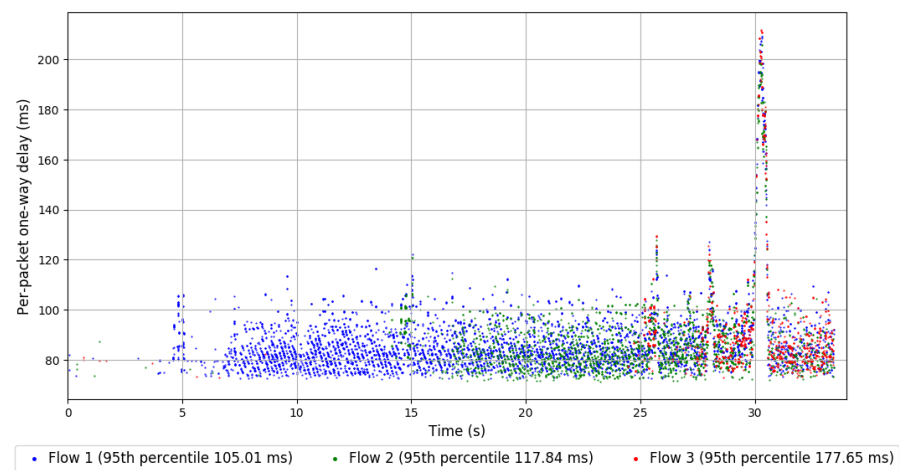
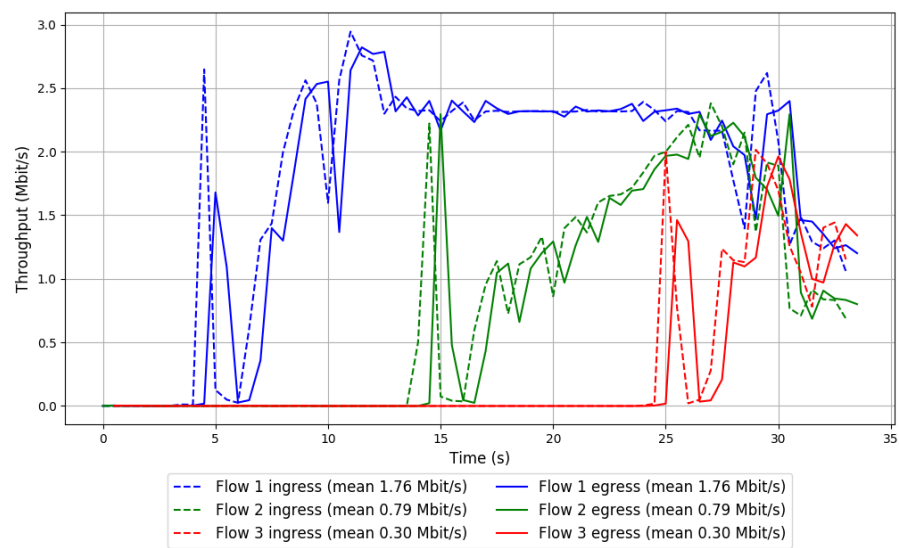


Run 2: Statistics of WebRTC media

Start at: 2018-06-29 19:57:28
End at: 2018-06-29 19:57:58
Local clock offset: -3.818 ms
Remote clock offset: -10.01 ms

Below is generated by plot.py at 2018-06-29 20:48:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.83 Mbit/s
95th percentile per-packet one-way delay: 112.135 ms
Loss rate: 0.08%
-- Flow 1:
Average throughput: 1.76 Mbit/s
95th percentile per-packet one-way delay: 105.014 ms
Loss rate: 0.06%
-- Flow 2:
Average throughput: 0.79 Mbit/s
95th percentile per-packet one-way delay: 117.842 ms
Loss rate: 0.07%
-- Flow 3:
Average throughput: 0.30 Mbit/s
95th percentile per-packet one-way delay: 177.650 ms
Loss rate: 0.26%

Run 2: Report of WebRTC media — Data Link



Run 3: Statistics of WebRTC media

Start at: 2018-06-29 20:24:13
End at: 2018-06-29 20:24:43
Local clock offset: -2.82 ms
Remote clock offset: -8.809 ms

Below is generated by plot.py at 2018-06-29 20:48:23
Datalink statistics
-- Total of 3 flows:
Average throughput: 2.88 Mbit/s
95th percentile per-packet one-way delay: 106.794 ms
Loss rate: 0.23%
-- Flow 1:
Average throughput: 1.66 Mbit/s
95th percentile per-packet one-way delay: 105.126 ms
Loss rate: 0.13%
-- Flow 2:
Average throughput: 0.85 Mbit/s
95th percentile per-packet one-way delay: 109.041 ms
Loss rate: 0.12%
-- Flow 3:
Average throughput: 0.40 Mbit/s
95th percentile per-packet one-way delay: 113.157 ms
Loss rate: 0.87%

Run 3: Report of WebRTC media — Data Link

